

SCPI Command Reference, Volume 2

Agilent Technologies ESG Vector Signal Generator

This guide applies to the signal generator models listed below. Due to our continuing efforts to improve our products through firmware and hardware revisions, signal generator design and operation may vary from descriptions in this guide. We recommend that you use the latest revision of this guide to ensure you have up-to-date product information. Compare the print date of this guide (see bottom of this page) with the latest revision, which can be downloaded from the website shown below.

E4438C Vector Signal Generator

www.agilent.com/find/signalgenerators



Agilent Technologies

Part Number: E4400-90535

Printed in USA

March 2003

© Copyright 2001–2003 Agilent Technologies, Inc.

Notice

The material contained in this document is provided “as is”, and is subject to being changed, without notice, in future editions.

Further, to the maximum extent permitted by applicable law, Agilent disclaims all warranties, either express or implied with regard to this manual and to any of the Agilent products to which it pertains, including but not limited to the implied warranties of merchantability and fitness for a particular purpose. Agilent shall not be liable for errors or for incidental or consequential damages in connection with the furnishing, use, or performance of this document or any of the Agilent products to which it pertains. Should Agilent have a written contract with the User and should any of the contract terms conflict with these terms, the contract terms shall control.

Questions or Comments about our Documentation?

We welcome any questions or comments you may have about our documentation. Please send us an E-mail at sources_manuals@am.exch.agilent.com.

SCPI Command Reference, Volume 1

SCPI Basics	1
Command Reference Information	2
SCPI Command Listings	2
Key and Data Field Cross Reference	2
Supported Field	2
SCPI Basics	3
Common Terms	3
Command Syntax	4
Command Types	6
Command Tree	7
Command Parameters and Responses	8
Program Messages	13
File Name Variables	14
MSUS (Mass Storage Unit Specifier) Variable	15
Quote Usage with SCPI Commands	16
Binary, Decimal, Hexadecimal, and Octal Formats	17
Basic Function Commands	19
Correction Subsystem ([:SOURce]:CORRection)	20
:FLATness:LOAD	20
:FLATness:PAIR	20
:FLATness:POINts	21
:FLATness:PRESet	21
:FLATness:STORE	21
[:STATe]	22
Digital Modulation Subsystem ([:SOURce])	23
:BURSt:SOURce	23
:BURSt:STATe	23
:DM:EXTernal:ALC:BANDwidth BWIDth	23
:DM:EXTernal:HICRest[:STATe]	24
:DM:EXTernal:FILTer	24
:DM:EXTernal:FILTer:AUTO	25
:DM:EXTernal:POLarity	25
:DM:EXTernal:SOURce	26
:DM:IQADjustment:EXTernal:COFFset	26
:DM:IQADjustment:EXTernal:DIOFFset	27

Contents

:DM:IQADjustment:EXTErnal:DQOFFset	27
:DM:IQADjustment:EXTErnal:GAIN	28
:DM:IQADjustment:EXTErnal:IOFFset	28
:DM:IQADjustment:EXTErnal:IQATten	29
:DM:IQADjustment:EXTErnal:QOFFset	29
:DM:IQADjustment:GAIN	29
:DM:IQADjustment:IOFFset	30
:DM:IQADjustment:QOFFset	30
:DM:IQADjustment:QSKew	31
:DM:IQADjustment:SKEW	32
:DM:IQADjustment[:STATe]	32
:DM:MODulation:FILTer	33
:DM:MODulation:FILTer:AUTO	33
:DM:MODulation:ATTen	34
:DM:MODulation:ATTen:AUTO	34
:DM:MODulation:ATTen:EXTErnal	34
:DM:MODulation:ATTen:EXTErnal:LEVel	35
:DM:MODulation:ATTen:EXTErnal:LEVel:MEASurement	35
:DM:MODulation:ATTen:OPTimize:BANDwidth	36
:DM:POLarity[:ALL]	36
:DM:SKEW:PATH	37
:DM:SKEW[:STATe]	37
:DM:SOURce	38
:DM:STATe	38
Frequency Subsystem ([:SOURce])	40
:FREQuency:CHANnels:BAND	40
:FREQuency:CHANnels:NUMBer	42
:FREQuency:CHANnels[:STATe]	43
:FREQuency:FIXed	43
:FREQuency:MODE	44
:FREQuency:MULTIplier	44
:FREQuency:OFFSet	45
:FREQuency:OFFSet:STATe	45
:FREQuency:REFerence	45
:FREQuency:REFerence:STATe	46
:FREQuency:STARt	46
:FREQuency:STOP	47
:FREQuency:SYNThesis	47

:FREQuency[:CW]	48
:PHASe:REFeRence	48
:PHASe[:ADJust]	49
:ROSCillator:SOURce	49
:ROSCillator:SOURce:AUTO	49
List/Sweep Subsystem ([:SOURce])	51
:LIST:DIRection	51
:LIST:DWELL	51
:LIST:DWELL:POINts	52
:LIST:DWELL:TYPE	52
:LIST:FREQuency	53
:LIST:FREQuency:POINts	53
:LIST:MANual	53
:LIST:MODE	54
:LIST:POWer	54
:LIST:POWer:POINts	55
:LIST:TRIGger:SOURce	55
:LIST:TYPE	56
:LIST:TYPE:LIST:INITialize:FSTep	56
:LIST:TYPE:LIST:INITialize:PRESet	57
:SWEep:DWELL	57
:SWEep:POINts	58
Power Subsystem ([:SOURce]:POWer)	59
:ALC:BAWdwidth	59
:ALC:SEARCh	59
:ALC:SEARCh:REFeRence	60
:ALC[:STATe]	60
:ALternate:AMPLitude	60
:ALternate:MANual	61
:ALternate:STATe	61
:ALternate:TRIGger[:SOURce]	62
:ATTenuation:AUTO	62
:MODE	63
:REFeRence	63
:REFeRence:STATe	63
:STARt	64
:STOP	64
[:LEVel][:IMMediate]:OFFSet	65

Contents

[:LEVel][:IMMediate][:AMPLitude]	65
Pulse Subsystem ([:SOURce]:PULSe)	66
:FREQuency:STEP	66
System Commands	67
Calibration Subsystem (:CALibration)	68
:DCFM	68
:IQ	68
:IQ:DEFault	69
:IQ:FULL	69
:IQ:DC	69
:IQ:START	70
:IQ:STOP	71
Communication Subsystem (:SYSTem:COMMunicate)	72
:GPIB:ADDRes	72
:LAN:GATEway	72
:LAN:HOSTname	73
:LAN:IP	73
:LAN:SUBNet	73
:PMETer:ADDRes	74
:PMETer:CHANnel	74
:PMETer:IDN	75
:PMETer:TIMEout	75
:SERial:BAUD	76
:SERial:ECHO	76
:SERial:RESet	76
:SERial:TOUT	77
Diagnostic Subsystem (:DIAGnostic[:CPU]:INFORmation)	78
:BOARDs	78
:CCOunt:ATTenuator	78
:CCOunt:PON	79
:CCOunt:PROTection	79
:DISPlay:OTIME	79
:OPTions	80
:OPTions:DETail	80
:OTIME	80
:REVision	81
:SDATE	81

Display Subsystem (:DISPlay)	82
:ANNotation:AMPLitude:UNIT	82
:ANNotation:CLOCK:DATE:FORMat	82
:ANNotation:CLOCK[:STATe]	83
:BRIGhtness	83
:CAPTure.	83
:CONTrast.	84
:INVerse	84
:REMote	85
[:WINDow][:STATe]	85
IEEE 488.2 Common Commands	86
*CLS	86
*ESE	86
*ESE?	87
*ESR?	87
*IDN?	87
*OPC	88
*OPC?	88
*PSC	88
*PSC?	89
*RCL	89
*RST	90
*SAV	90
*SRE	90
*SRE?	91
*STB?	91
*TRG	91
*TST?	92
*WAI	92
Memory Subsystem (:MEMory)	93
:CATalog:BINary	93
:CATalog:BIT	93
:CATalog:CDMa	94
:CATalog:DMOD	94
:CATalog:DWCDma	95
:CATalog:FCDMa	95
:CATalog:FIR	96
:CATalog:FSK	96

Contents

:CATalog:IQ	97
:CATalog:LIST	97
:CATalog:MCDMa	98
:CATalog:MDMod	98
:CATalog:MDWCdma	99
:CATalog:MFCdma	99
:CATalog:MTONE	100
:CATalog:RCDMa	100
:CATalog:SEQ	101
:CATalog:SHAPE	101
:CATalog:STATE	102
:CATalog:UFLT	103
:CATalog:UWCDma	103
:CATalog[:ALL]	104
:COPY[:NAME]	104
:DATA	105
:DATA:BIT	105
:DATA:FIR	106
:DATA:FSK	107
:DATA:IQ	108
:DATA:PRAM[1] 2 3 4	109
:DATA:PRAM[1] 2 3 4:BLOCK	109
:DATA:PRAM[1] 2 3 4:LIST	110
:DATA:SHAPE	110
:DElete:ALL	111
:DElete:BINary	111
:DElete:BIT	112
:DElete:CDMa	112
:DElete:DMOD	112
:DElete:DWCDma	113
:DElete:FCDMa	113
:DElete:FIR	113
:DElete:FSK	114
:DElete:IQ	114
:DElete:LIST	114
:DElete:MCDMa	115
:DElete:MDMod	115
:DElete:MDWCdma	115

:DELeTe:MFCdma	116
:DELeTe:MTONe	116
:DELeTe:RCDMa	116
:DELeTe:SEQ	117
:DELeTe:SHAPE	117
:DELeTe:STATE	117
:DELeTe:UFLT	118
:DELeTe:UWCDma	118
:DELeTe[:NAME]	118
:FREE[:ALL]	119
:LOAD:LIST	119
:MOVE	119
:STATe:COMMeNT	120
:STORe:LIST	120
Mass Memory Subsystem (:MMEMory)	121
:CATalog	121
:COpy	123
:DATA	123
:DELeTe:NVWFm	123
:DELeTe:WFM	124
:DELeTe:WFM1	124
:DELeTe[:NAME]	124
:HEADer:CLEAr	125
:HEADer:DESCRiption	125
:LOAD:LIST	125
:MOVE	126
:STORe:LIST	126
Output Subsystem (:OUTPut)	127
:BLANking:AUTO	127
:BLANking:STATe	127
:MODulation[:STATe]	127
[:STATe]	128
Route Subsystem (:ROUte:HARDware:DGENerator)	129
:INPut:BPOLarity	129
:INPut:CPOLarity	129
:INPut:DPOLarity	129
:INPut:SPOLarity	130
:INPut:TPOLarity	130

Contents

:IPOLarity:BGATe	131
:IPOLarity:CLOCK	131
:IPOLarity:DATA	131
:IPOLarity:SSYNc	132
:IPOLarity:TRIGger	132
:OPOLarity:CLOCK	132
:OPOLarity:DATA	133
:OPOLarity:EVENT[1] 2 3 4	133
:OPOLarity:SSYNc	134
:OUTPut:CPOLarity	134
:OUTPut:DCS[:STATe]	134
:OUTPut:DPOLarity	135
:OUTPut:EPOL[1] 2 3 4	135
:OUTPut:SPOLarity	136
Status Subsystem (:STATus)	137
:OPERation:BASEband:CONDition	137
:OPERation:BASEband:ENABLE	137
:OPERation:BASEband:NTRansition	138
:OPERation:BASEband:PTRansition	138
:OPERation:BASEband[:EVENT]	139
:OPERation:CONDition	139
:OPERation:ENABLE	140
:OPERation:NTRansition	140
:OPERation:PTRansition	140
:OPERation[:EVENT]	141
:PRESet	141
:QUESTionable:BERT:CONDition	142
:QUESTionable:BERT:ENABLE	142
:QUESTionable:BERT:NTRansition	143
:QUESTionable:BERT:PTRansition	143
:QUESTionable:BERT[:EVENT]	144
:QUESTionable:CALibration:CONDition	144
:QUESTionable:CALibration:ENABLE	145
:QUESTionable:CALibration:NTRansition	145
:QUESTionable:CALibration:PTRansition	145
:QUESTionable:CALibration[:EVENT]	146
:QUESTionable:CONDition	146
:QUESTionable:ENABLE	147

:QUESTionable:FREQuency:CONDition	147
:QUESTionable:FREQuency:ENABle	148
:QUESTionable:FREQuency:NTRansition	148
:QUESTionable:FREQuency:PTRansition	148
:QUESTionable:FREQuency[:EVENT]	149
:QUESTionable:MODulation:CONDition	149
:QUESTionable:MODulation:ENABle	150
:QUESTionable:MODulation:NTRansition	150
:QUESTionable:MODulation:PTRansition	151
:QUESTionable:MODulation[:EVENT]	151
:QUESTionable:NTRansition	152
:QUESTionable:POWEr:CONDition	152
:QUESTionable:POWEr:ENABle	152
:QUESTionable:POWEr:NTRansition	153
:QUESTionable:POWEr:PTRansition	153
:QUESTionable:POWEr[:EVENT]	154
:QUESTionable:PTRansition	154
:QUESTionable[:EVENT]	155
System Subsystem (:SYSTEM)	156
:CAPability	156
:DATE	156
:ERRor[:NEXT]	157
:ERRor:SCPI[:SYNTAX]	157
:HELP:MODE	157
:IDN	158
:LANGUage	158
:PON:TYPE	159
:PRESet	160
:PRESet:ALL	160
:PRESet:LANGUage	160
:PRESet:PERsistent	161
:PRESet:PN9	161
:PRESet:TYPE	162
:PRESet[:USER]:SAVE	162
:SSAVer:DELay	163
:SSAVer:MODE	163
:SSAVer:STATe	164
:TIME	164

Contents

:VERsion	164
Trigger Subsystem	165
:ABORt.	165
:INITiate:CONTInuous[:ALL]	165
:INITiate[:IMMEDIATE][:ALL]	166
:TRIGger:OUTPut:POLarity	166
:TRIGger[:SEQuence]:SLOPe.	167
:TRIGger[:SEQuence]:SOURce	167
:TRIGger[:SEQuence][:IMMEDIATE]	168
Unit Subsystem (:UNIT)	169
:POWer.	169

Analog Commands. 171

Amplitude Modulation Subsystem ([:SOURce])	172
:AM[1] 2.....	172
:AM:INTernal:FREQuency:STEP[:INCReMENT]	172
:AM:WIDeband:STATe	173
:AM[1] 2:EXTernal[1] 2:COUPLing	173
:AM[1] 2:INTernal[1]:FREQuency	174
:AM[1] 2:INTernal[1]:FREQuency:ALTErNate	174
:AM[1] 2:INTernal[1]:FREQuency:ALTErNate:AMPLitude:PERCent.	175
:AM[1] 2:INTernal[1]:FUNCTion:SHAPE	175
:AM[1] 2:INTernal[1]:SWEep:TIME	175
:AM[1] 2:INTernal[1]:SWEep:TRIGger.	176
:AM[1] 2:SOURce	176
:AM[1] 2:STATe	177
:AM[1] 2[:DEPTh]	177
:AM[1] 2[:DEPTh]:TRACk.	178
:AM[:DEPTh]:STEP[:INCReMENT]	178
Frequency Modulation Subsystem ([:SOURce])	180
:FM[1] 2.....	180
:FM:INTernal:FREQuency:STEP[:INCReMENT]	180
:FM[1] 2:EXTernal[1] 2:COUPLing	181
:FM[1] 2:INTernal[1]:FREQuency.	181
:FM[1] 2:INTernal[1]:FREQuency:ALTErNate	182
:FM[1] 2:INTernal[1]:FREQuency:ALTErNate:AMPLitude:PERCent.	182
:FM[1] 2:INTernal[1]:FUNCTion:SHAPE	183
:FM[1] 2:INTernal[1]:SWEep:TIME	183

:FM[1] 2:INTernal[1]:SWEep:TRIGger	183
:FM[1] 2:SOURce	184
:FM[1] 2:STATe	184
:FM[1] 2[:DEVIation]	185
:FM[1] 2[:DEVIation]:TRACk	185
Low Frequency Output Subsystem ([:SOURce]:LFOutput)	187
:AMPLitude	187
:FUNCTion[1]:FREQuency	187
:FUNCTion[1]:FREQuency:ALTErnate	188
:FUNCTion[1]:FREQuency:ALTErnate:AMPLitude:PERCent	188
:FUNCTion[1]:PERiod	189
:FUNCTion[1]:PWIDth	189
:FUNCTion[1]:SHAPE	190
:FUNCTion[1]:SWEep:TIME	190
:FUNCTion[1]:SWEep:TRIGger	190
:SOURce	191
:STATe	191
Phase Modulation Subsystem ([:SOURce])	193
:PM[1] 2:...	193
:PM:INTernal:FREQuency:STEP[:INCRement]	193
:PM[1] 2:BANDwidth BWIDth	194
:PM[1] 2:EXTernal[1]:COUPLing	194
:PM[1] 2:INTernal[1]:FREQuency	195
:PM[1] 2:INTernal[1]:FREQuency:ALTErnate	195
:PM[1] 2:INTernal[1]:FREQuency:ALTErnate:AMPLitude:PERCent	196
:PM[1] 2:INTernal[1]:FUNCTion:SHAPE	196
:PM[1] 2:INTernal[1]:SWEep:TIME	196
:PM[1] 2:INTernal[1]:SWEep:TRIGger	197
:PM[1] 2:SOURce	197
:PM[1] 2:STATe	198
:PM[1] 2[:DEVIation]	198
:PM[1] 2[:DEVIation]:TRACk	199
:PM[:DEVIation]:STEP[:INCRement]	199
Pulse Modulation Subsystem ([:SOURce]:PULM)	201
:INTernal[1]:FREQuency	201
:INTernal[1]:FUNCTion:SHAPE	201
:INTernal[1]:PERiod	201
:INTernal[1]:PERiod:STEP[:INCRement]	202

Contents

:INternal[1]:PWIDth	202
:INternal[1]:PWIDth:STEP	203
:SOURce	203
:STATe	204

Component Test Digital Commands **205**

All Subsystem–Option 001 or 002 ([:SOURce])	206
:RADio:ALL:OFF	206
AWGN ARB Subsystem–Option 403 ([:SOURce]:RADio:AWGN:ARB)	207
:BWIDth	207
:IQ:EXternal:FILTer	207
:IQ:EXternal:FILTer:AUTO	208
:HEADer:CLEar	208
:HEADer:SAVE	208
:IQ:MODulation:ATTen	209
:IQ:MODulation:ATTen:AUTO	209
:IQ:MODulation:FILTer	210
:IQ:MODulation:FILTer:AUTO	210
:MDEStination:PULSe	211
:MDEStination:AAMPLitude	211
:MDEStination:ALCHold	211
:MPOLarity:MARKer1	212
:MPOLarity:MARKer2	212
:MPOLarity:MARKer3	212
:MPOLarity:MARKer4	213
:LENgth	213
:REFerence:EXternal:FREQuency	213
:REFerence[:SOURce]	214
:SCLock:RATE	214
:SEED	215
[:STATe]	215
CDMA ARB Subsystem–Option 401 ([:SOURce]:RADio:CDMA:ARB)	216
:CLIPping:I	216
:CLIPping:POSition	216
:CLIPping:Q	217
:CLIPping:TYPE	217
:CLIPping[:IJQ]	217
:CRATe	218

:IQ:EXtErnal:FILTer	218
:IQ:EXtErnal:FILTer:AUTO	219
:FILTer	219
:FILTer:ALPHa	220
:FILTer:BBT	221
:FILTer:CHANnel	221
:HEADer:CLEar	221
:HEADer:SAVE	222
:IQMap	222
:IQ:MODulation:ATTen	222
:IQ:MODulation:ATTen:AUTO	223
:IQ:MODulation:FILTer	223
:IQ:MODulation:FILTer:AUTO	224
:MDEStination:PULSe	224
:MDEStination:AAMPLitude	225
:MDEStination:ALCHold	225
:MPOLarity:MARKer1	225
:MPOLarity:MARKer2	226
:MPOLarity:MARKer3	226
:MPOLarity:MARKer4	226
:OSAMple	227
:REFerence:EXtErnal:FREQuency	227
:REFerence[:SOURce]	228
:RETRigger	228
:SCLock:RATE	229
:SETup	229
:SETup:CHANnel	230
:SETup:MCARrier	231
:SETup:MCARrier:STORE	232
:SETup:MCARrier:TABLE	232
:SETup:STORE	233
:TRIGger:TYPE	234
:TRIGger:TYPE:CONTInuous[:TYPE]	234
:TRIGger:TYPE:GATE:ACTive	235
:TRIGger[:SOURce]	235
:TRIGger[:SOURce]:EXtErnal[:SOURce]	236
:TRIGger[:SOURce]:EXtErnal:DELay	237
:TRIGger[:SOURce]:EXtErnal:DELay:STATe	237

Contents

:TRIGger[:SOURce]:EXTernal:SLOPe	237
:WLENgth	238
[:STATe]	238
CDMA2000 ARB Subsystem–Option 401 ([:SOURce]:RADio:CDMA2000:ARB)	240
:CLIPping:I	240
:CLIPping:POSition	240
:CLIPping:Q.	241
:CLIPping:TYPE	241
:CLIPping[:IJQ].	241
:IQ:EXTernal:FILTer.	242
:IQ:EXTernal:FILTer:AUTO	242
:FILTer	243
:FILTer:ALPHa	244
:FILTer:BBT.	244
:FILTer:CHANnel	245
:HEADer:CLEar	245
:HEADer:SAVE	245
:IQ:MODulation:ATTen	246
:IQ:MODulation:ATTen:AUTO.	246
:IQ:MODulation:FILTer	246
:IQ:MODulation:FILTer:AUTO	247
:IQMap.	247
:LINK	248
:LINK:FORWard:SETup.	248
:LINK:FORWard:SETup:MCARrier.	249
:LINK:FORWard:SETup:MCARrier:STORE	250
:LINK:FORWard:SETup:MCARrier:TABLE	250
:LINK:FORWard:SETup:MCARrier:TABLE:NCARriers	251
:LINK:FORWard:SETup:STORE	252
:LINK:FORWard:SETup:TABLE:APPLY	253
:LINK:FORWard:SETup:TABLE:CHANnel.	253
:LINK:FORWard:SETup:TABLE:NCHannels	254
:LINK:FORWard:SETup:TABLE:PADJust	254
:LINK:REVerse:RCONfig	255
:LINK:REVerse:SETup.	255
:LINK:REVerse:SETup:STORE	256
:LINK:REVerse:SETup:TABLE:APPLY	257
:LINK:REVerse:SETup:TABLE:CHANnel.	257

:LINK:REVerse:SETup:TABLE:NCHannels	258
:LINK:REVerse:SETup:TABLE:PADJust	258
:MDEStination:PULSe	259
:MDEStination:AAMPLitude	259
:MDEStination:ALCHold	259
:MPOLarity:MARKer1	260
:MPOLarity:MARKer2	260
:MPOLarity:MARKer3	260
:MPOLarity:MARKer4	261
:REFerence:EXTernal:FREQuency	261
:REFerence[:SOURce]	261
:RETRigger	262
:REVision	262
:SCLock:RATE	263
:SPReading:RATE	263
:SPReading:TYPE	264
:SPReading:TYPE:MCARrier:SPACing	264
:TRIGger:TYPE	264
:TRIGger:TYPE:CONTInuous[:TYPE]	265
:TRIGger:TYPE:GATE:ACTive	265
:TRIGger[:SOURce]	266
:TRIGger[:SOURce]:EXTernal[:SOURce]	266
:TRIGger[:SOURce]:EXTernal:DELay	267
:TRIGger[:SOURce]:EXTernal:DELay:STATE	267
:TRIGger[:SOURce]:EXTernal:SLOPe	268
[:STATE]	268
Dmodulation Subsystem—Option 001 or 002 (:SOURce):RADio:DMODulation:ARB	269
:IQ:EXTernal:FILTer	269
:IQ:EXTernal:FILTer:AUTO	269
:FILTer	270
:FILTer:ALPHA	271
:FILTer:BBT	271
:FILTer:CHANnel	272
:HEADer:CLEar	272
:HEADer:SAVE	272
:IQ:MODulation:ATTen	273
:IQ:MODulation:ATTen:AUTO	273
:IQ:MODulation:FILTer	273

Contents

:IQ:MODulation:FILTer:AUTO	274
:MDEStination:PULSe	274
:MDEStination:AAMPLitude	275
:MDEStination:ALCHold	275
:MODulation:FSK[:DEVIation]	275
:MODulation[:TYPE]	276
:MPOLarity:MARKer1	276
:MPOLarity:MARKer2	277
:MPOLarity:MARKer3	277
:MPOLarity:MARKer4	277
:REFerence:EXTernal:FREQuency	278
:REFerence[:SOURce]	278
:RETRigger	279
:SCLock:RATE	279
:SETup	280
:SETup:MCARrier	280
:SETup:MCARrier:PHASe	281
:SETup:MCARrier:STORE	281
:SETup:MCARrier:TABLE	282
:SETup:MCARrier:TABLE:NCARriers	283
:SETup:STORE	283
:SRATE	283
:TRIGger:TYPE	285
:TRIGger:TYPE:CONTInuous[:TYPE]	285
:TYPE:GATE:ACTive	286
:TRIGger[:SOURce]	286
:TRIGger[:SOURce]:EXTernal:DELay	287
:TRIGger[:SOURce]:EXTernal:DELay:STATe	287
:TRIGger[:SOURce]:EXTernal:SLOPe	288
:TRIGger[:SOURce]:EXTernal[:SOURce]	288
[:STATe]	289
Dual ARB Subsystem–Option 001 or 002 ([:SOURce]:RADio:ARB)	290
:CLIPping	290
:IQ:EXTernal:FILTer	290
:GENerate:SINE	291
:HEADer:CLEar	291
:HEADer:SAVE	292
:HCRest[:STATe]	292

:IQ:EXtErnal:FiLTeR:AUTO	293
:IQ:MODulation:ATTen	294
:IQ:MODulation:ATTen:AUTO	294
:IQ:MODulation:FiLTeR	294
:IQ:MODulation:FiLTeR:AUTO	295
:MARKer:CLear	295
:MARKer:CLear:ALL	296
:MARKer:ROtate	296
:MARKer:[SET].	297
:MDEStination:PULSe	298
:MDEStination:AAMPlitude	298
:MDEStination:ALCHold	298
:MPOLarity:MARKer1	299
:MPOLarity:MARKer2	299
:MPOLarity:MARKer3	299
:MPOLarity:MARKer4	300
:REFeRence:EXtErnal:FREQuency	300
:REFeRence[:SOURce].	300
:RETRigger	301
:RSCALing	301
:SCALing	302
:SCLock:RATE	302
:SEQuence	302
:TRIGger:TYPE	303
:TRIGger:TYPE:CONTinuous[:TYPE]	304
:TRIGger:TYPE:GATE:ACTive	304
:TRIGger:TYPE:SADVance[:TYPE].	305
:TRIGger[:SOURce]	305
:TRIGger[:SOURce]:EXtErnal[:SOURce]	306
:TRIGger[SOURce]:EXtErnal:DELay	306
:TRIGger[:SOURce]:EXtErnal:DELay:STATe	307
:TRIGger[:SOURce]:EXtErnal:SLOPe	307
:WAVeform	307
[:STATe].	308
Multitone Subsystem–Option 001 or 002 ([:SOURce]:RADio:MTONe:ARB)	309
Creating a Multitone Waveform	309
:IQ:EXtErnal:FiLTeR	309
:IQ:EXtErnal:FiLTeR:AUTO	310

Contents

:HEADer:CLEar	310
:HEADer:SAVE	310
:IQ:MODulation:ATTen	311
:IQ:MODulation:ATTen:AUTO	311
:IQ:MODulation:FILTer	312
:IQ:MODulation:FILTer:AUTO	312
:MDEStination:PULSe	313
:MDEStination:AAMPlitude	313
:MDEStination:ALCHold	313
:MPOLarity:MARKer1	314
:MPOLarity:MARKer2	314
:MPOLarity:MARKer3	314
:MPOLarity:MARKer4	315
:REFerence:EXTernal:FREQuency	315
:REFerence[:SOURce]	315
:ROW	316
:SCLock:RATE	317
:SETup	317
:SETup:STORe	318
:SETup:TABLE	318
:SETup:TABLE:FSPacing	319
:SETup:TABLE:NTONes	319
:SETup:TABLE:PHASe:INITialize	320
:SETup:TABLE:PHASe:INITialize:SEED	320
[:STATe]	321
Wideband CDMA ARB Subsystem—Option 400 ([:SOURce]:RADio:WCDMa:TGPP:ARB)	322
:CLIPping:I	322
:CLIPping:POSition	322
:CLIPping:Q	323
:CLIPping:TYPE	323
:CLIPping[:IJQ]	323
:CRATe	324
:FILTer	324
:FILTer:ALPHa	325
:FILTer:BBT	325
:FILTer:CHANnel	326
:HEADer:CLEar	326
:HEADer:SAVE	326

:IQ:EXtErnal:FILTer	327
:IQ:EXtErnal:FILTer:AUTO	327
:IQMap	328
:IQ:MODulation:ATTen	328
:IQ:MODulation:ATTen:AUTO	328
:IQ:MODulation:FILTer	329
:IQ:MODulation:FILTer:AUTO	329
:LINK	330
:LINK:DOWN:OACP	330
:LINK:DOWN:SETup	331
:LINK:DOWN:SETup:MCARrier	332
:LINK:DOWN:SETup:MCARrier:CLIPping:I	333
:LINK:DOWN:SETup:MCARrier:CLIPping:Q	333
:LINK:DOWN:SETup:MCARrier:CLIPping:TYPE	334
:LINK:DOWN:SETup:MCARrier:CLIPping[:IJQ]	334
:LINK:DOWN:SETup:MCARrier:SCODE:AINCrement	335
:LINK:DOWN:SETup:MCARrier:STORE	335
:LINK:DOWN:SETup:MCARrier:TABLE	336
:LINK:DOWN:SETup:MCARrier:TABLE:NCARriers	338
:LINK:DOWN:SETup:MCARrier:TOFFset:AINCrement	338
:LINK:DOWN:SETup:STORE	338
:LINK:DOWN:SETup:TABLE:APPLY	339
:LINK:DOWN:SETup:TABLE:CHANnel	340
:LINK:DOWN:SETup:TABLE:NCHannels?	344
:LINK:DOWN:SETup:TABLE:PADJust	344
:LINK:DOWN:TFCI	345
:LINK:UP:OACP	345
:LINK:UP:SCRAMBLE	346
:LINK:UP:SDPDch	346
:LINK:UP:SETup	346
:LINK:UP:SETup:STORE	347
:LINK:UP:SETup:TABLE:APPLY	348
:LINK:UP:SETup:TABLE:CHANnel	348
:LINK:UP:SETup:TABLE:GUNit	349
:LINK:UP:SETup:TABLE:NCHannel	350
:LINK:UP:TFCI	350
:MDEStination:PULSe	350
:MDEStination:AAMPLitude	351

Contents

:MDEStination:ALCHold	351
:MPOLarity:MARKer1	351
:MPOLarity:MARKer2	352
:MPOLarity:MARKer3	352
:MPOLarity:MARKer4	352
:REFerence:EXTernal:FREQuency	353
:REFerence[:SOURce]	353
:RETRigger	354
:REVision	354
:SCLock:RATE	354
:TRIGger:TYPE:CONTInuous[:TYPE]	355
:TRIGger:TYPE	356
:TRIGger:TYPE:GATE:ACTive	356
:TRIGger[:SOURce]	357
:TRIGger[:SOURce]:EXTernal:DELay	357
:TRIGger[:SOURce]:EXTernal:DELay:STATe	358
:TRIGger[:SOURce]:EXTernal:SLOPe	358
:TRIGger[:SOURce]:EXTernal[:SOURce]	358
[:STATe]	359

SCPI Command Reference, Volume 2

Bit Error Rate Test (BERT) Commands 361

Calculate Subsystem–Option UN7 and 300 (:CALCulate:BERT)	362
:BTS:LOOPback:EDGE:ETCH:F43:COMParator:CRITeria:ERATe	362
:BTS:LOOPback:EDGE:ETCH:F43:COMParator:CRITeria[:SElect]	362
:BTS:LOOPback:EDGE:MCS5:COMParator:CRITeria:ERATe	363
:BTS:LOOPback:EDGE:MCS5:COMParator:CRITeria[:SElect]	363
:BTS:LOOPback:EDGE:MCS9:COMParator:CRITeria:ERATe	363
:BTS:LOOPback:EDGE:MCS9:COMParator:CRITeria[:SElect]	364
:BTS:LOOPback:EDGE:UNCoded:COMParator:CRITeria:ERATe	364
:BTS:LOOPback:EDGE:UNCoded:COMParator:CRITeria[:SElect]	365
:BTS:LOOPback:GSM:CS1:COMParator:CRITeria:ERATe	365
:BTS:LOOPback:GSM:CS1:COMParator:CRITeria[:SElect]	366
:BTS:LOOPback:GSM:CS4:COMParator:CRITeria:ERATe	366
:BTS:LOOPback:GSM:CS4:COMParator:CRITeria[:SElect]	367
:BTS:LOOPback:GSM:MCS1:COMParator:CRITeria:ERATe	367
:BTS:LOOPback:GSM:MCS1:COMParator:CRITeria[:SElect]	368

:BTS:LOOPback:GSM:COMParator:CRITeria:CIB	368
:BTS:LOOPback:GSM:COMParator:CRITeria:CII	368
:BTS:LOOPback:GSM:COMParator:CRITeria:FERasure	369
:BTS:LOOPback:GSM:COMParator:CRITeria[:SElect]	369
[:BASEband]:COMParator:MODE	370
[:BASEband]:COMParator:THReshold	370
[:BASEband]:COMParator[:STATe]	371
[:BASEband]:DISPlay:MODE:	371
[:BASEband]:DISPlay:UPDate:	372
Data Subsystem–Option UN7 and 300 (:DATA)	373
:BERT:BTS:LOOPback:EDGE:ETCH:F43[:DATA]	373
:BERT:BTS:LOOPback:EDGE:MCS5[:DATA]	374
:BERT:BTS:LOOPback:EDGE:MCS9[:DATA]	375
:BERT:BTS:LOOPback:EDGE:UNCoded[:DATA]	375
:BERT:BTS:LOOPback:GSM[:DATA]	376
:BERT:BTS:LOOPback:GSM:CS1[:DATA]	378
:BERT:BTS:LOOPback:GSM:CS4[:DATA]	378
:BERT:BTS:LOOPback:GSM:MCS1[:DATA]	379
:BERT:AUXout	380
[:DATA]	381
Input Subsystem–Option UN7 (:INPut:BERT[: BASEband])	383
:CGATe:DELay:CLOCK	383
:CGATe:DELay:MODE	383
:CGATe:DELay:TIME	384
:CGATe:DELay[:STATe]	384
:CGATe:POLarity	385
:CGATe[:STATe]	385
:CLOCK:DELay:RESolution	385
:CLOCK:DELay:TIME	386
:CLOCK:DELay[:STATe]	386
:CLOCK:POLarity	387
:DATA:POLarity	387
:IMPedance	388
:THReshold	388
Measure Subsystem–Option 300 (:MEASure[:SCALar]:BERT:BTS:LOOPback)	389
:EDGE:MCS5[:SENSitivity]	389
:EDGE:MCS9[:SENSitivity]	390
:EDGE:UNCoded[:SENSitivity]	390

Contents

:GSM[:SENSitivity]	391
Sense Subsystem–Options UN7 and 300 ([:SOURce];SENSe:BERT)	393
:BTS:LOOPback:EDGE:ETCH:F43:BLOCK:COUNT	393
:BTS:LOOPback:EDGE:ETCH:F43:CONTain	393
:BTS:LOOPback:EDGE:ETCH:F43:STOP:CRITeria:EBLOCK	394
:BTS:LOOPback:EDGE:ETCH:F43:STOP:CRITeria[:SElect]	394
:BTS:LOOPback:EDGE:FTRigger:EXTernal:DELay	394
:BTS:LOOPback:EDGE:FTRigger:EXTernal:POLarity	395
:BTS:LOOPback:EDGE:FTRigger[SElect]	395
:BTS:LOOPback:EDGE:MCS5:BLOCK:COUNT	396
:BTS:LOOPback:EDGE:MCS5:CONTain	396
:BTS:LOOPback:EDGE:MCS5:ESENSitivity	396
:BTS:LOOPback:EDGE:MCS5:HAMPLitude	397
:BTS:LOOPback:EDGE:MCS5:LAMPLitude	397
:BTS:LOOPback:EDGE:MCS5:PAMPLitude	398
:BTS:LOOPback:EDGE:MCS5:SBLock:COUNT	398
:BTS:LOOPback:EDGE:MCS5:SBLock:INITial	398
:BTS:LOOPback:EDGE:MCS5:STOP:CRITeria:EBLOCK	399
:BTS:LOOPback:EDGE:MCS5:STOP:CRITeria[:SElect]	399
:BTS:LOOPback:EDGE:MCS9:BLOCK:COUNT	400
:BTS:LOOPback:EDGE:MCS9:CONTain	400
:BTS:LOOPback:EDGE:MCS9:ESENSitivity	400
:BTS:LOOPback:EDGE:MCS9:HAMPLitude	401
:BTS:LOOPback:EDGE:MCS9:LAMPLitude	401
:BTS:LOOPback:EDGE:MCS9:PAMPLitude	402
:BTS:LOOPback:EDGE:MCS9:SBLock:COUNT	402
:BTS:LOOPback:EDGE:MCS9:SBLock:INITial	402
:BTS:LOOPback:EDGE:MCS9:STOP:CRITeria:EBLOCK	403
:BTS:LOOPback:EDGE:MCS9:STOP:CRITeria[:SElect]	403
:BTS:LOOPback:EDGE:MEASurement:STOP	404
:BTS:LOOPback:EDGE:MEASurement:TSLot	404
:BTS:LOOPback:EDGE:MEASurement[:MODE]	405
:BTS:LOOPback:EDGE:SINVert	405
:BTS:LOOPback:EDGE:SYNC:AGain	405
:BTS:LOOPback:EDGE:SYNC:RF	406
:BTS:LOOPback:EDGE:SYNC[:SOURce]	406
:BTS:LOOPback:EDGE:TRIGger[:SOURce]	407
:BTS:LOOPback:EDGE:ULINK:OFFSet	407

:BTS:LOOPback:EDGE:UNCoded:BIT:COUNT	408
:BTS:LOOPback:EDGE:UNCoded:ESEnsitivity	408
:BTS:LOOPback:EDGE:UNCoded:HAmplitude	408
:BTS:LOOPback:EDGE:UNCoded:LAmplitude	409
:BTS:LOOPback:EDGE:UNCoded:PAmplitude	409
:BTS:LOOPback:EDGE:UNCoded:SBIT:COUNT	410
:BTS:LOOPback:EDGE:UNCoded:SBIT:INITial	410
:BTS:LOOPback:EDGE:UNCoded:STOP:CRITeria:EBIT	410
:BTS:LOOPback:EDGE:UNCoded:STOP:CRITeria[:SElect]	411
:BTS:LOOPback:EDGE[:STATe]	411
:BTS:LOOPback:GSM:CS1:BLOCK:COUNT	412
:BTS:LOOPback:GSM:CS1:CONTain	412
:BTS:LOOPback:GSM:CS1:STOP:CRITeria:EBLock	412
:BTS:LOOPback:GSM:CS1:STOP:CRITeria[:SElect]	413
:BTS:LOOPback:GSM:CS4:BLOCK:COUNT	413
:BTS:LOOPback:GSM:CS4:CONTain	413
:BTS:LOOPback:GSM:CS4:STOP:CRITeria:EBLock	414
:BTS:LOOPback:GSM:CS4:STOP:CRITeria[:SElect]	414
:BTS:LOOPback:GSM:ESEnsitivity	415
:BTS:LOOPback:GSM:FRAMe:CIB	415
:BTS:LOOPback:GSM:FRAMe:CII	415
:BTS:LOOPback:GSM:FRAMe:COUNT	416
:BTS:LOOPback:GSM:HAmplitude	416
:BTS:LOOPback:GSM:LAmplitude	416
:BTS:LOOPback:GSM:MCS1:BLOCK:COUNT	417
:BTS:LOOPback:GSM:MCS1:CONTain	417
:BTS:LOOPback:GSM:MCS1:STOP:CRITeria:EBLock	418
:BTS:LOOPback:GSM:MCS1:STOP:CRITeria[:SElect]	418
:BTS:LOOPback:GSM:MEASurement:STOP	418
:BTS:LOOPback:GSM:MEASurement:TSLot	419
:BTS:LOOPback:GSM:MEASurement[:MODE]	419
:BTS:LOOPback:GSM:PAmplitude	420
:BTS:LOOPback:GSM:SFRame:COUNT	420
:BTS:LOOPback:GSM:SFRame:INITial	420
:BTS:LOOPback:GSM:SINVert	421
:BTS:LOOPback:GSM:STOP:CRITeria:CIB	421
:BTS:LOOPback:GSM:STOP:CRITeria:CII	422
:BTS:LOOPback:GSM:STOP:CRITeria:FERasure	422

Contents

:BTS:LOOPback:GSM:STOP:CRITeria[:SElect]	422
:BTS:LOOPback:GSM:SYNC:RF	423
:BTS:LOOPback:GSM:SYNC[:SOURce]	424
:BTS:LOOPback:GSM:TRIGger[:SOURce]	424
:BTS:LOOPback:GSM:ULINK:OFFSet	425
:BTS:LOOPback:GSM[:STATe]	425
[:BASEband]:PRBS:FUNCTion:SPIgnore:DATA	426
[:BASEband]:PRBS:FUNCTion:SPIgnore[:STATe]	426
[:BASEband]:PRBS[:DATA]	427
[:BASEband]:RSYNc:THReshold	427
[:BASEband]:RSYNc[:STATe]	427
[:BASEband]:STATe	428
[:BASEband]:STOP:CRITeria:EBIT	428
[:BASEband]:STOP:CRITeria[:SElect]	429
[:BASEband]:TBITs	429
[:BASEband]:TRIGger:BDELay	429
[:BASEband]:TRIGger:BDELay:STATe	430
[:BASEband]:TRIGger:COUNt	430
[:BASEband]:TRIGger:POLarity	431
[:BASEband]:TRIGger[:SOURce]	431
Receiver Test Digital Commands	433
All Subsystem–Option 001 or 002 ([:SOURce])	434
:RADio:ALL:OFF	434
AWGN Real-Time Subsystem–Option 403 ([:SOURce]:RADio:AWGN:RT)	435
:BWIDth	435
[:STATe]	435
Bluetooth Subsystem–Option 406 ([:SOURce]:RADio:BLUETOOTH:ARB)	436
:AMADdr	436
:BDADdr	436
:BURSt[:STATe]	437
:CGDelay	437
:DATA	438
:IQ:EXTErnal:FILTer	438
:IQ:EXTErnal:FILTer:AUTO	439
:HEADer:CLEar	439
:HEADer:SAVE	439
:IMPairments	440

:IMPairments:AWGN	440
:IMPairments:AWGN:CNR	440
:IMPairments:AWGN:NSEed	441
:IMPairments:DDEVIation	441
:IMPairments:FDType	442
:IMPairments:FOFFset	443
:IMPairments:MINDEX	443
:IMPairments:STERror	444
:IQ:MODulation:ATTen	444
:IQ:MODulation:ATTen:AUTO	445
:IQ:MODulation:FILTer	445
:IQ:MODulation:FILTer:AUTO	446
:MDEStination:PULSe	446
:MDEStination:AAMPLitude	446
:MDEStination:ALCHold	447
:MPOLarity:MARKer1	447
:MPOLarity:MARKer2	447
:MPOLarity:MARKer3	448
:MPOLarity:MARKer4	448
:PACKet	448
:REFernce:EXTernal:FREQuency	449
:REFerence[:SOURce]	449
:RSYMBOLs	450
:SCLock:RATE	450
[:STATe]	450
CDMA2000 BBG Subsystem–Option 401 ([:SOURce]:RADio:CDMA2000[:BBG])	451
:LMODE	451
[:FORWard]:BBCLock	451
[:FORWard]:CHIPrate	452
[:FORWard]:ESDelay	452
[:FORWard]:FILTer	453
[:FORWard]:FILTer:ALPHa	454
[:FORWard]:FILTer:BBT	454
[:FORWard]:FILTer:CHANnel	455
[:FORWard]:LCState	455
[:FORWard]:FFCH:DATA	455
[:FORWard]:FFCH:DATA:FIX4	456
[:FORWard]:FFCH:EBNO	456

Contents

[:FORWard]:FFCH:FOFFset	457
[:FORWard]:FFCH:LCMask	458
[:FORWard]:FFCH:LCMask:ESN	458
[:FORWard]:FFCH:LCMask:HEADer	459
[:FORWard]:FFCH:POWer	459
[:FORWard]:FFCH:PRAMp	459
[:FORWard]:FFCH:PRTime	460
[:FORWard]:FFCH:QOF	460
[:FORWard]:FFCH:RATE	461
[:FORWard]:FFCH:RCONfig	461
[:FORWard]:FFCH:WALSh	461
[:FORWard]:FFCH[:STATe]	462
[:FORWard]:FPCH:DATA	462
[:FORWard]:FPCH:EBNO	462
[:FORWard]:FPCH:LCMask	463
[:FORWard]:FPCH:LCMask:F1	463
[:FORWard]:FPCH:LCMask:F2	464
[:FORWard]:FPCH:LCMask:F3	464
[:FORWard]:FPCH:MESSAge	464
[:FORWard]:FPCH:POWer	465
[:FORWard]:FPCH:RATE	465
[:FORWard]:FPCH:WALSh	465
[:FORWard]:FPCH[:STATe]	466
[:FORWard]:FPICH:ECNO	466
[:FORWard]:FPICH:POWer	467
[:FORWard]:FPICH[:STATe]	467
[:FORWard]:FSCH[1] 2:DATA	467
[:FORWard]:FSCH[1] 2:DATA:FIX4	468
[:FORWard]:FSCH[1] 2:EBNO	468
[:FORWard]:FSCH[1] 2:FOFFset	469
[:FORWard]:FSCH[1] 2:LCMask	469
[:FORWard]:FSCH[1] 2:LCMask:ESN	469
[:FORWard]:FSCH[1] 2:LCMask:HEADer	470
[:FORWard]:FSCH[1] 2:POWer	470
[:FORWard]:FSCH[1] 2:QOF	470
[:FORWard]:FSCH[1] 2:RATE	471
[:FORWard]:FSCH[1] 2:RCONfig	471
[:FORWard]:FSCH[1] 2:TCODE	472

[FORWARD]:FSCH[1] 2:WALSh	472
[FORWARD]:FSCH[1] 2[:STATe]	473
[FORWARD]:FSYNc:CFRequency	473
[FORWARD]:FSYNc:DAYLt	473
[FORWARD]:FSYNc:EBNO	474
[FORWARD]:FSYNc:ECFRequency	474
[FORWARD]:FSYNc:LPSec	475
[FORWARD]:FSYNc:LTMoff	475
[FORWARD]:FSYNc:MPREv	475
[FORWARD]:FSYNc:MSGType	476
[FORWARD]:FSYNc:NID	476
[FORWARD]:FSYNc:POWEr	476
[FORWARD]:FSYNc:PRATe	477
[FORWARD]:FSYNc:PREV	477
[FORWARD]:FSYNc:RESErved	477
[FORWARD]:FSYNc:SID	478
[FORWARD]:FSYNc:STYPe	478
[FORWARD]:FSYNc:SYSTime	479
[FORWARD]:FSYNc:WALSh	479
[FORWARD]:FSYNc[:STATe]	479
[FORWARD]:NOISe:CN	480
[FORWARD]:NOISe[:STATe]	480
[FORWARD]:OCNS:POWEr	481
[FORWARD]:OCNS:WALSh	481
[FORWARD]:OCNS[:STATe]	481
[FORWARD]:PADJust	482
[FORWARD]:POLarity	482
[FORWARD]:QPCH:CCI	482
[FORWARD]:QPCH:EBNO	483
[FORWARD]:QPCH:PI	483
[FORWARD]:QPCH:POWEr	484
[FORWARD]:QPCH:RATE	484
[FORWARD]:QPCH:WALSh	485
[FORWARD]:QPCH[:STATe]	485
[FORWARD]:SRATe	485
:PNOFfset	486
:REVerse:BBCLock	486
:REVerse:CHIPrate	486

Contents

:REVerse:ESDDelay	487
:REVerse:FILTer	487
:REVerse:FILTer:ALPHa	488
:REVerse:FILTer:BBT	489
:REVerse:FILTer:CHANnel	489
:REVerse:LCMask	490
:REVerse:LCState.	490
:REVerse:PADJust.	490
:REVerse:POLarity[:ALL].	491
:REVerse:NOISe:CN	491
:REVerse:NOISe[:STATe]	492
:REVerse:RC12:ACCess:RACH:DATA	492
:REVerse:RC12:ACCess:RACH:DATA:FIX4	493
:REVerse:RC12:ACCess:RACH:EBNO	493
:REVerse:RC12:ACCess:RACH:FLENgth	494
:REVerse:RC12:ACCess:RACH:FOFFset.	494
:REVerse:RC12:ACCess:RACH:POWer	494
:REVerse:RC12:ACCess:RACH:RCONfig	495
:REVerse:RC12:ACCess:RACH:RATE	495
:REVerse:RC12:ACCess:RACH[:STATe]	495
:REVerse:RC12:TRAFfic:RSCH:DATA	496
:REVerse:RC12:TRAFfic:RSCH:DATA:FIX4	496
:REVerse:RC12:TRAFfic:RSCH:FLENgth.	496
:REVerse:RC12:TRAFfic:RSCH:FOFFset	497
:REVerse:RC12:TRAFfic:RSCH:POWer.	497
:REVerse:RC12:TRAFfic:RSCH:RATE.	497
:REVerse:RC12:TRAFfic:RSCH:RCONfig	498
:REVerse:RC12:TRAFfic:RSCH[:STATe]	498
:REVerse:RC34:CCONtrol:RCCCh:DATA	498
:REVerse:RC34:CCONtrol:RCCCh:DATA:FIX4	499
:REVerse:RC34:CCONtrol:RCCCh:EBNO.	499
:REVerse:RC34:CCONtrol:RCCCh:FLENgth	500
:REVerse:RC34:CCONtrol:RCCCh:FOFFset.	500
:REVerse:RC34:CCONtrol:RCCCh:POWer	500
:REVerse:RC34:CCONtrol:RCCCh:RCONfig.	501
:REVerse:RC34:CCONtrol:RCCCh:RATE	501
:REVerse:RC34:CCONtrol:RCCCh:WALSh.	501
:REVerse:RC34:CCONtrol:RCCCh[:STATe]	502

:REVerse:RC34:CCONtrol:RPICH:ECNO	502
:REVerse:RC34:CCONtrol:RPICH:GRATe	503
:REVerse:RC34:CCONtrol:RPICH:POWer	503
:REVerse:RC34:CCONtrol:RPICH:WALSh	503
:REVerse:RC34:CCONtrol:RPICH[:STATe]	504
:REVerse:RC34:EACCess:REACH:DATA	504
:REVerse:RC34:EACCess:REACH:DATA:FIX4	504
:REVerse:RC34:EACCess:REACH:EBNO	505
:REVerse:RC34:EACCess:REACH:FOFFset	505
:REVerse:RC34:EACCess:REACH:POWer	506
:REVerse:RC34:EACCess:REACH:RCONfig	506
:REVerse:RC34:EACCess:REACH:RATE	506
:REVerse:RC34:EACCess:REACH:WALSh	507
:REVerse:RC34:EACCess:REACH[:STATe]	507
:REVerse:RC34:EACCess:RPICH:ECNO	507
:REVerse:RC34:EACCess:RPICH:GRATe	508
:REVerse:RC34:EACCess:RPICH:POWer	508
:REVerse:RC34:EACCess:RPICH:WALSh	509
:REVerse:RC34:EACCess:RPICH[:STATe]	509
:REVerse:RC34:TRAFfic:RDCCh:DATA	509
:REVerse:RC34:TRAFfic:RDCCh:DATA:FIX4	510
:REVerse:RC34:TRAFfic:RDCCh:EBNO	510
:REVerse:RC34:TRAFfic:RDCCh:FLENgth	511
:REVerse:RC34:TRAFfic:RDCCh:FOFFset	511
:REVerse:RC34:TRAFfic:RDCCh:POWer	511
:REVerse:RC34:TRAFfic:RDCCh:RATE	512
:REVerse:RC34:TRAFfic:RDDCh:RCONfig	512
:REVerse:RC34:TRAFfic:RDCCh:WALSh	512
:REVerse:RC34:TRAFfic:RDCCh[:STATe]	513
:REVerse:RC34:TRAFfic:RFCH:DATA	513
:REVerse:RC34:TRAFfic:RFCH:DATA:FIX4	513
:REVerse:RC34:TRAFfic:RFCH:EBNO	514
:REVerse:RC34:TRAFfic:RFCH:FLENgth	514
:REVerse:RC34:TRAFfic:RFCH:FOFFset	515
:REVerse:RC34:TRAFfic:RFCH:POWer	515
:REVerse:RC34:TRAFfic:RFCH:RCONfig	515
:REVerse:RC34:TRAFfic:RFCH:RATE	516
:REVerse:RC34:TRAFfic:RFCH:WALSh	516

Contents

:REVerse:RC34:TRAFfic:RFCH[:STATe]	516
:REVerse:RC34:TRAFfic:RSCH[1] 2:DATA	517
:REVerse:RC34:TRAFfic:RSCH[1] 2:DATA:FIX4	517
:REVerse:RC34:TRAFfic:RSCH[1] 2:DATA:EBNO	517
:REVerse:RC34:TRAFfic:RSCH[1] 2:FLENgth	518
:REVerse:RC34:TRAFfic:RSCH[1] 2:FOFFset	518
:REVerse:RC34:TRAFfic:RSCH[1] 2:POWer	519
:REVerse:RC34:TRAFfic:RSCH[1] 2:RCONfig	519
:REVerse:RC34:TRAFfic:RSCH[1] 2:RATE	520
:REVerse:RC34:TRAFfic:RSCH[1] 2:TCODE	520
:REVerse:RC34:TRAFfic:RSCH[1] 2:WALSh	520
:REVerse:RC34:TRAFfic:RSCH[1] 2[:STATe]	521
:REVerse:REFeRence:EXTeRnal:FREQUency	521
:REVerse:REFeRence[:SOURce]	521
:REVerse:TADVance	522
:REVerse:TEDGE	522
:REVerse:SRATe	523
[:STATe]	523
Custom Subsystem—Option 001 or 002 ([:SOURce]:RADio:CUSTom)	524
:ALPha	524
:BBCLock	524
:BBT	525
:BRATe	525
:BURSt:SHAPe:FALL:DELay	527
:BURSt:SHAPe:FALL:TIME	527
:BURSt:SHAPe:FDELay	528
:BURSt:SHAPe:FTIME	528
:BURSt:SHAPe:RDELay	529
:BURSt:SHAPe:RISE:DELay	529
:BURSt:SHAPe:RISE:TIME	530
:BURSt:SHAPe:RTIME	530
:BURSt:SHAPe[:TYPE]	531
:CHANnel	531
:DATA	532
:DATA:FIX4	532
:DENCode	532
:EDATa:DELay	533
:EDCLock	533

:EREFerence	534
:EREFerence:VALue	534
:FILTer	535
:IQ:SCALe	536
:MODulation:FSK[:DEViation]	536
:MODulation:MSK[:PHASe]	537
:MODulation:UFSK	537
:MODulation:UIQ	538
:MODulation[:TYPE]	538
:POLarity[:ALL]	539
:SRATe	539
:STANdard:SElect	541
:TRIGger:TYPE	541
:TRIGger:TYPE:CONTinuous[:TYPE]	542
:TRIGger:TYPE:GATE:ACTive	542
:TRIGger[:SOURce]	543
:TRIGger[:SOURce]:EXTernal[:SOURce]	543
:TRIGger[:SOURce]:EXTernal:DELay	544
:TRIGger[:SOURce]:EXTernal:DELay:STATe	544
:TRIGger[:SOURce]:EXTernal:SLOPe	545
[:STATe]	545
DECT Subsystem–Option 402 ([:SOURce]:RADio:DECT)	546
:ALPha	546
:BBCLock	546
:BBT	547
:BRATe	547
:BURSt:PN9	548
:BURSt:SHAPE:FALL:DELay	549
:BURSt:SHAPE:FALL:TIME	549
:BURSt:SHAPE:FDELay	550
:BURSt:SHAPE:FTIME	550
:BURSt:SHAPE:RDELay	551
:BURSt:SHAPE:RISE:DELay	552
:BURSt:SHAPE:RISE:TIME	552
:BURSt:SHAPE:RTIME	553
:BURSt:SHAPE[:TYPE]	553
:BURSt[:STATe]	554
:CHANnel	554

Contents

:DATA	555
:DATA:FIX4	555
:DEFault	556
:EDATa:DELay	556
:EDCLock	556
:EREFerence	557
:EREFerence:VALue	557
:FILTer	558
:IQ:SCALE	559
:MODulation:FSK[:DEVIation]	559
:MODulation:MSK[:PHASe]	560
:MODulation:UFSK	560
:MODulation:UIQ	561
:MODulation[:TYPE]	561
:POLarity[:ALL]	562
:PPart:SLOT0 [1] 2 3 4[:TYPE]	562
:PPart:SLOT0 [1] 2 3 4 5 6 7 8 9 10 11:CUSTom	562
:PPart:SLOT0 [1] 2 3 4 5 6 7 8 9 10 11:CUSTom:FIX4	563
:PPart:SLOT0 [1] 2 3 4 5 6 7 8 9 10 11:LCAPacity:A	563
:PPart:SLOT0 [1] 2 3 4 5 6 7 8 9 10 11:LCAPacity:P	564
:PPart:SLOT0 [1] 2 3 4 5 6 7 8 9 10 11:LCAPacity:S	564
:PPart:SLOT0 [1] 2 3 4 5 6 7 8 9 10 11:LCAPacity[:B]	565
:PPart:SLOT0 [1] 2 3 4 5 6 7 8 9 10 11:LCAPacity[:B]:FIX4	565
:PPart:SLOT0 [1] 2 3 4 5 6 7 8 9 10 11:LCAPacity:POWer	566
:PPart:SLOT0 [1] 2 3 4 5 6 7 8 9 10 11:STATe	566
:PPart:SLOT0 [1] 2 3 4 5 6 7 8 9 10 11:TRAFfic:A	566
:PPart:SLOT0 [1] 2 3 4 5 6 7 8 9 10 11:TRAFfic:P	567
:PPart:SLOT0 [1] 2 3 4 5 6 7 8 9 10 11:TRAFfic:S	567
:PPart:SLOT0 [1] 2 3 4 5 6 7 8 9 10 11:TRAFfic[:B]	568
:PPart:SLOT0 [1] 2 3 4 5 6 7 8 9 10 11:TRAFfic[:B]:FIX4	568
:PPart:SLOT0 [1] 2 3 4 5 6 7 8 9 10 11:ZLCapacity:A	569
:PPart:SLOT0 [1] 2 3 4 5 6 7 8 9 10 11:ZLCapacity:P	569
:PPart:SLOT0 [1] 2 3 4 5 6 7 8 9 10 11:ZLCapacity:A	569
:PPart:SLOT0 [1] 2 3 4 5 6 7 8 9 10 11:ZLCapacity[:B]	570
:PPart:SLOT0 [1] 2 3 4 5 6 7 8 9 10 11:ZLCapacity[:B]:FIX4	570
:PPart:SLOT0 [1] 2 3 4 5 6 7 8 9 10 11:ZTRAffic:A	571
:PPart:SLOT0 [1] 2 3 4 5 6 7 8 9 10 11:ZTRAffic:P	571
:PPart:SLOT0 [1] 2 3 4 5 6 7 8 9 10 11:ZTRAffic:S	572

:PPart:SLOT0 [1] 2 3 4 5 6 7 8 9 10 11:ZTRaffic[:B]	572
:PPart:SLOT0 [1] 2 3 4 5 6 7 8 9 10 11:ZTRaffic[:B]:FIX4	573
:RFPart:SLOT0 [1] 2 3 4[:TYPE]	573
:RFPart:SLOT0 [1] 2 3 4 5 6 7 8 9 10 11:CUSTom.	574
:RFPart:SLOT0 [1] 2 3 4 5 6 7 8 9 10 11:CUSTom:FIX4	574
:RFPart:SLOT0 [1] 2 3 4 5 6 7 8 9 10 11:DUMM2:A	575
:RFPart:SLOT0 [1] 2 3 4 5 6 7 8 9 10 11:DUMM2:P	575
:RFPart:SLOT0 [1] 2 3 4 5 6 7 8 9 10 11:DUMM2:S	575
:RFPart:SLOT0 [1] 2 3 4 5 6 7 8 9 10 11:DUMM[1]:A	576
:RFPart:SLOT0 [1] 2 3 4 5 6 7 8 9 10 11:DUMM[1]:P	576
:RFPart:SLOT0 [1] 2 3 4 5 6 7 8 9 10 11:DUMM[1]:S	577
:RFPart:SLOT0 [1] 2 3 4 5 6 7 8 9 10 11:LCAPacity:A	577
:RFPart:SLOT0 [1] 2 3 4 5 6 7 8 9 10 11:LCAPacity:P	577
:RFPart:SLOT0 [1] 2 3 4 5 6 7 8 9 10 11:LCAPacity:S	578
:RFPart:SLOT0 [1] 2 3 4 5 6 7 8 9 10 11:LCAPacity[:B]	578
:RFPart:SLOT0 [1] 2 3 4 5 6 7 8 9 10 11:LCAPacity[:B]:FIX4	579
:RFPart:SLOT0 [1] 2 3 4 5 6 7 8 9 10 11:LCAPacity:POWer.	579
:RFPart:SLOT0 [1] 2 3 4 5 6 7 8 9 10 11:STATe	579
:RFPart:SLOT0 [1] 2 3 4 5 6 7 8 9 10 11:TRAFfic:A	580
:RFPart:SLOT0 [1] 2 3 4 5 6 7 8 9 10 11:TRAFfic:P	580
:RFPart:SLOT0 [1] 2 3 4 5 6 7 8 9 10 11:TRAFfic:S	581
:RFPart:SLOT0 [1] 2 3 4 5 6 7 8 9 10 11:TRAFfic[:B]	581
:RFPart:SLOT0 [1] 2 3 4 5 6 7 8 9 10 11:TRAFfic[:B]:FIX4	582
:RFPart:SLOT0 [1] 2 3 4 5 6 7 8 9 10 11:ZLCapacity:A	582
:RFPart:SLOT0 [1] 2 3 4 5 6 7 8 9 10 11:ZLCapacity:P	583
:RFPart:SLOT0 [1] 2 3 4 5 6 7 8 9 10 11:ZLCapacity:S	583
:RFPart:SLOT0 [1] 2 3 4 5 6 7 8 9 10 11:ZLCapacity[:B]	584
:RFPart:SLOT0 [1] 2 3 4 5 6 7 8 9 10 11:ZLCapacity[:B]:FIX4	584
:RFPart:SLOT0 [1] 2 3 4 5 6 7 8 9 10 11:ZTRaffic:A	585
:RFPart:SLOT0 [1] 2 3 4 5 6 7 8 9 10 11:ZTRaffic:P	585
:RFPart:SLOT0 [1] 2 3 4 5 6 7 8 9 10 11:ZTRaffic:S	585
:RFPart:SLOT0 [1] 2 3 4 5 6 7 8 9 10 11:ZTRaffic[:B]	586
:RFPart:SLOT0 [1] 2 3 4 5 6 7 8 9 10 11:ZTRaffic[:B]:FIX4	586
:SECondary:RECall	587
:SECondary:SAVE	587
:SECondary:TRIGger[:SOURce]	587
:SECondary[:STATe]	588
:SOUT	588

Contents

:SOUT:OFFSet	589
:SOUT:SLOT	589
:SRATe	590
:TRIGger:TYPE	591
:TRIGger:TYPE:CONTInuous[:TYPE]	592
:TRIGger:TYPE:GATE:ACTive	592
:TRIGger[:SOURce]	593
:TRIGger[:SOURce]:EXTernal[:SOURce]	593
:TRIGger[:SOURce]:EXTernal:DELay	594
:TRIGger[:SOURce]:EXTernal:SLOPe	594
:TRIGger[:SOURce]:EXTernal:DELay:STATe	595
[:STATe]	595
EDGE Subsystem—Option 402 ([:SOURce]:RADio:EDGE)	596
:ALPHA	596
:BBCLock	596
:BBT	597
:BURSt:SHAPE:FALL:DELay	597
:BURSt:SHAPE:FDELay	598
:BURSt:SHAPE:FALL:TIME	598
:BURSt:SHAPE:FTIME	599
:BURSt:SHAPE:RDELay	600
:BURSt:SHAPE:RISE:DELay	600
:BURSt:SHAPE:RISE:TIME	601
:BURSt:SHAPE:RTIME	602
:BURSt:SHAPE[:TYPE]	602
:BURSt[:STATe]	603
:CHANnel	603
:DATA	604
:DATA:FIX4	604
:DEFault	604
:EDATa:DELay	605
:EDCLock	605
:EREFerence	606
:EREFerence:VALue	606
:FILTer	607
:IQ:SCALE	608
:MODulation:FSK[:DEViation]	608
:MODulation:MSK[:PHASe]	609

:MODulation:UFSK	609
:MODulation:UIQ	610
:MODulation[:TYPE]	610
:POLarity[:ALL]	611
:SECondary:RECall	611
:SECondary:SAVE	611
:SECondary:TRIGger[:SOURce]	612
:SECondary[:STATe]	612
:SLOT0 [1] 2 3 4 5 6 7:CUSTom.	613
:SLOT0 [1] 2 3 4 5 6 7:CUSTom:FIX4	613
:SLOT0 [1] 2 3 4 5 6 7:CUSTom:GUARd.	614
:SLOT0 [1] 2 3 4 5 6 7:NORMal:ENCRyption	614
:SLOT0:NORMal:ENCRyption:BCH:BCC	615
:SLOT0:NORMal:ENCRyption:BCH:CELLid	615
:SLOT0:NORMal:ENCRyption:BCH:LAC	615
:SLOT0:NORMal:ENCRyption:BCH:MCC	616
:SLOT0:NORMal:ENCRyption:BCH:MNC	616
:SLOT0:NORMal:ENCRyption:BCH:PLMN	616
:SLOT0 [1] 2 3 4 5 6 7:NORMal:ENCRyption:DLINK:MCS5:DATA	617
:SLOT0 [1] 2 3 4 5 6 7:NORMal:ENCRyption:DLINK:MCS9:DATA	617
:SLOT0 [1] 2 3 4 5 6 7:NORMal:ENCRyption:ETCH:F43:DATA	618
:SLOT0 [1] 2 3 4 5 6 7:NORMal:ENCRyption:FIX4	618
:SLOT0 [1] 2 3 4 5 6 7:NORMal:ENCRyption:ULINK:MCS5:DATA	619
:SLOT0 [1] 2 3 4 5 6 7:NORMal:ENCRyption:ULINK:MCS9:DATA	619
:SLOT0 [1] 2 3 4 5 6 7:NORMal:ENCRyption:UNCodeD	620
:SLOT0 [1] 2 3 4 5 6 7:NORMal:GUARd.	620
:SLOT0 [1] 2 3 4 5 6 7:NORMal:T1	621
:SLOT0 [1] 2 3 4 5 6 7:NORMal:T2	621
:SLOT0 [1] 2 3 4 5 6 7:NORMal:TSEQuence	621
:SLOT0 [1] 2 3 4 5 6 7:LCAPacity:POWer.	622
:SLOT0 [1] 2 3 4 5 6 7:STATe	622
:SLOT0 [1] 2 3 4 5 6 7[:TYPE]	622
:SOUT:	623
:SOUT:OFFSet	623
:SOUT:SLOT	624
:SRATe.	624
:TRIGger:TYPE.	626
:TRIGger:TYPE:CONTInuous[:TYPE]	626

Contents

:TRIGger:TYPE:GATE:ACTive	627
:TRIGger[:SOURce]	627
:TRIGger[:SOURce]:EXTernal[:SOURce]	628
:TRIGger[:SOURce]:EXTernal:DELay	628
:TRIGger[:SOURce]:EXTernal:DELay:FINE	629
:TRIGger[:SOURce]:EXTernal:DELay:STATe	629
:TRIGger[:SOURce]:EXTernal:SLOPe	630
[:STATe]	630

SCPI Command Reference, Volume 3

Receiver Test Digital Commands (continued)..... 631

GPS Subsystem—Option409

([:SOURce]:RADio[1] 2 3 4:GPS)	632
:DATA	632
:DMODE	632
:DSHift	633
:FILTer	633
:FILTer:ALPHA	634
:FILTer:BBT	635
:FILTer:CHANnel	635
:IQPHase	635
:PCODE	636
:RCODE	636
:REFClk	637
:REFFreq	637
:SATid	638
[:STATe]	638

GSM Subsystem—Option 402 ([:SOURce]:RADio:GSM)..... 639

:ALPha	639
:BBCLock	639
:BBT	640
:BRATe	640
:BURSt:PN9	642
:BURSt:SHAPE:FALL:DELay	642
:BURSt:SHAPE:FALL:TIME	643
:BURSt:SHAPE:FDELay	643
:BURSt:SHAPE:FTIME	644

:BURSt:SHAPE:RDElay	645
:BURSt:SHAPE:RISE:DElay	645
:BURSt:SHAPE:RISE:TIME	646
:BURSt:SHAPE:RTIME	646
:BURSt:SHAPE[:TYPE]	647
:BURSt[:STATE]	648
:CHANnel	648
:DATA	649
:DATA:FIX4	649
:DEFault	649
:DENCode	650
:EDATa:DElay	650
:EDCLock	651
:EREference	651
:EREference:VALue	652
:FILTer	652
:IQ:SCALE	653
:MODulation:FSK[:DEviation]	653
:MODulation:MSK[:PHASe]	654
:MODulation:UFSK	654
:MODulation:UIQ	655
:MODulation[:TYPE]	655
:POLarity[:ALL]	656
:SECondary:RECall	656
:SECondary:SAVE	657
:SECondary:TRIGger[:SOURce]	657
:SECondary[:STATE]	658
:SLOT0 [1] 2 3 4 5 6 7:ACCess:ENCRyption	658
:SLOT0 [1] 2 3 4 5 6 7:ACCess:ENCRyption:FIX4	658
:SLOT0 [1] 2 3 4 5 6 7:ACCess:ETAil	659
:SLOT0 [1] 2 3 4 5 6 7:ACCess:SSEQUence	659
:SLOT0 [1] 2 3 4 5 6 7:ACCess:CUSTom	660
:SLOT0 [1] 2 3 4 5 6 7:CUSTom:FIX4	660
:SLOT0 [1] 2 3 4 5 6 7:DUMMy:TSEQUence	660
:SLOT0 [1] 2 3 4 5 6 7:NORMal:ENCRyption	661
:SLOT0:NORMal:ENCRyption:BCH:BCC	663
:SLOT0:NORMal:ENCRyption:BCH:CELLid	663
:SLOT0:NORMal:ENCRyption:BCH:LAC	663

Contents

:SLOT0:NORMAl:ENCRyption:BCH:MCC	664
:SLOT0:NORMAl:ENCRyption:BCH:MNC	664
:SLOT0:NORMAl:ENCRyption:BCH:PLMN	664
:SLOT0 [1] 2 3 4 5 6 7:NORMAl:ENCRyption:CS1:DATA	665
:SLOT0 [1] 2 3 4 5 6 7:NORMAl:ENCRyption:DLINK:MCS1:DATA	665
:SLOT0 [1] 2 3 4 5 6 7:NORMAl:ENCRyption:FIX4	665
:SLOT0 [1] 2 3 4 5 6 7:NORMAl:ENCRyption:TCH:FS:DATA	666
:SLOT0 [1] 2 3 4 5 6 7:NORMAl:ENCRyption:ULINK:MCS1:DATA	666
:SLOT0 [1] 2 3 4 5 6 7:NORMAl:STeAl	666
:SLOT0 [1] 2 3 4 5 6 7:NORMAl:TSEQuence	667
:SLOT0 [1] 2 3 4 5 6 7:POWer	668
:SLOT0 [1] 2 3 4 5 6 7:STATe	668
:SLOT0 [1] 2 3 4 5 6 7:SYNC:ENCRyption	668
:SLOT0 [1] 2 3 4 5 6 7:SYNC:ENCRyption:FIX4	669
:SLOT0 [1] 2 3 4 5 6 7:SYNC:TSEQuence	669
:SLOT0 [1] 2 3 4 5 6 7[:TYPE]	669
:SOUT	670
:SOUT:OFFSet	670
:SOUT:SLOT	671
:SRATe	671
:TRIGger:EXTeRnal:DELay	673
:TRIGger:TYPE	673
:TRIGger:TYPE:CONTInuous[:TYPE]	674
:TRIGger:TYPE:GATE:ACTive	674
:TRIGger[:SOURce]	675
:TRIGger[:SOURce]:EXTeRnal[:SOURce]	675
:TRIGger[:SOURce]:EXTeRnal:DELay	676
:TRIGger[:SOURce]:EXTeRnal:DELay:FINE	676
:TRIGger[:SOURce]:EXTeRnal:DELay:STATe	677
:TRIGger[:SOURce]:EXTeRnal:SLOPe	677
[:STATe]	677
NADC Subsystem–Option 402 ([:SOURce]:RADio[:NADC])	679
:ALPha	679
:BBCLock	679
:BBT	680
:BRATe	680
:BURSt:PN9	682
:BURSt:SHAPE[:TYPE]	682

:BURSt:SHAPE:FALL:DELAy	682
:BURSt:SHAPE:FALL:TIME	683
:BURSt:SHAPE:FDELAy	684
:BURSt:SHAPE:FTIME	684
:BURSt:SHAPE:RDELAy	685
:BURSt:SHAPE:RISE:DELAy	686
:BURSt:SHAPE:RISE:TIME	686
:BURSt:SHAPE:RTIME	687
:BURSt[:STATe]	687
:BURSt:SHAPE[:TYPE]	688
:CHANnel	688
:DATA	689
:DATA:FIX4	689
:DEFault	690
:EDATa:DELAy	690
:EDCLock	690
:EREFerence	691
:EREFerence:VALue	691
:FILTer	692
:FRATe	693
:IQ:SCALE	693
:MODulation:FSK[:DEViation]	694
:MODulation:MSK[:PHASe]	694
:MODulation:UFSK	695
:MODulation:UIQ	695
:MODulation[:TYPE]	696
:REPeat	696
:POLarity[:ALL]	696
:SECondary:RECall	697
:SECondary:SAVE	697
:SECondary:TRIGger[:SOURce]	698
:SECondary[:STATe]	698
:SLOT[1] 2 3 4 5 6:DCUStom	699
:SLOT[1] 2 3 4 5 6:DCUStom:FIX4	699
:SLOT[1] 2 3 4 5 6:DTCHannel:CDLocator	699
:SLOT[1] 2 3 4 5 6:DTCHannel:CDVCcode	700
:SLOT[1] 2 3 4 5 6:DTCHannel:SACChannel	700
:SLOT[1] 2 3 4 5 6:DTCHannel:SWORd	701

Contents

:SLOT[1] 2 3 4 5 6:DTCHannel[:DATA]	701
:SLOT[1] 2 3 4 5 6:DTCHannel[:DATA]FIX4	701
:SLOT[1] 2 3 4 5 6:POWer	702
:SLOT[1] 2 3 4 5 6:STATe	702
:SLOT[1] 2 3 4 5 6:UCUStom	703
:SLOT[1] 2 3 4 5 6:UCUStom:FIX4	703
:SLOT[1] 2 3 4 5 6:UTCHannel:CDVCcode	703
:SLOT[1] 2 3 4 5 6:UTCHannel:SACChannel	704
:SLOT[1] 2 3 4 5 6:UTCHannel:SWORd	704
:SLOT[1] 2 3 4 5 6:UTCHannel[:DATA]	705
:SLOT[1] 2 3 4 5 6:UTCHannel[:DATA]:FIX4	705
:SLOT[1] 2 3 4 5 6[:TYPE]	706
:SOUT	706
:SOUT:OFFSet	706
:SOUT:SLOT	707
:SRATe	707
:TRIGger[:SOURce]	709
:TRIGger:TYPE	709
:TRIGger:TYPE:CONTInuous[:TYPE]	710
:TRIGger:TYPE:GATE:ACTive	710
:TRIGger[:SOURce]:EXTernal[:SOURce]	711
:TRIGger[:SOURce]:EXTernal:DELay	712
:TRIGger[:SOURce]:EXTernal:DELay:STATe	712
:TRIGger[:SOURce]:EXTernal:SLOPe	712
[:STATe]	713
PDC Subsystem–Option 402 ([:SOURce]:RADio:PDC)	714
:ALPha	714
:BBCLock	714
:BBT	715
:BRATe	715
:BURSt:PN9	716
:BURSt:SHAPE:FALL:DELay	717
:BURSt:SHAPE:FALL:TIME	717
:BURSt:SHAPE:FDELay	718
:BURSt:SHAPE:FTIME	719
:BURSt:SHAPE:RDELay	719
:BURSt:SHAPE:RISE:DELay	720
:BURSt:SHAPE:RISE:TIME	721

:BURSt:SHAPE:RTIME	721
:BURSt:SHAPE[:TYPE]	722
:BURSt[:STATE]	722
:CHANnel	723
:DATA	723
:DATA:FIX4	724
:DEFault	724
:EDATa:DELay	724
:EDCLock	725
:EREFerence	725
:EREFerence:VALue	726
:FILTer	726
:FRATE	727
:IQ:SCALE	728
:MODulation:FSK[:DEViation]	728
:MODulation:MSK[:PHASe]	729
:MODulation:UFSK	729
:MODulation:UIQ	730
:MODulation[:TYPE]	730
:POLarity[:ALL]	731
:SECOndary:RECall	731
:SECOndary:SAVE	731
:SECOndary:TRIGger[:SOURce]	732
:SECOndary[:STATE]	732
:SLOT0 [1] 2 3 4 5:DCUStom	733
:SLOT0 [1] 2 3 4 5:DCUSTom:FIX4	733
:SLOT0 [1] 2 3 4 5:DTCHannel:CCODE	734
:SLOT0 [1] 2 3 4 5:DTCHannel:SACChannel	734
:SLOT0 [1] 2 3 4 5:DTCHannel:SWORd	734
:SLOT0 [1] 2 3 4 5:DTCHannel[:TCHannel]	735
:SLOT0 [1] 2 3 4 5:DTCHannel[:TCHannel]:FIX4	735
:SLOT0 [1] 2 3 4:POWER	736
:SLOT0 [1] 2 3 4 5:STATE	736
:SLOT0 [1] 2 3 4 5:UCUStom	736
:SLOT0 [1] 2 3 4 5:UCUStom:FIX4	737
:SLOT0 [1] 2 3 4 5:UTCHannel:CCODE	737
:SLOT0 [1] 2 3 4 5:UTCHannel:SACChannel	737
:SLOT0 [1] 2 3 4 5:UTCHannel:SWORd	738

Contents

:SLOT0 [1] 2 3 4 5:UTCHannel[:TCHannel]	738
:SLOT0 [1] 2 3 4 5:UTCHannel[:TCHannel]:FIX4	739
:SLOT0 [1] 2 3 4 5:UVOX:CCODE	739
:SLOT0 [1] 2 3 4 5:UVOX:SACChannel	739
:SLOT0 [1] 2 3 4 5:UVOX:SWORd	740
:SLOT0 [1] 2 3 4 5[:TYPE]	740
:SOUT	741
:SOUT:OFFSet	741
:SOUT:SLOT	742
:SRATe	742
:TRIGger:TYPE	744
:TRIGger:TYPE:CONTInuous[:TYPE]	744
:TRIGger:TYPE:GATE:ACTive	745
:TRIGger[:SOURce]	745
:TRIGger[:SOURce]:EXTernal[:SOURce]	746
:TRIGger[:SOURce]:EXTernal:DELay	746
:TRIGger[:SOURce]:EXTernal:DELay:STATe	747
:TRIGger[:SOURce]:EXTernal:SLOPe	747
[:STATe]	747
PHS Subsystem–Option 402 ([:SOURce]:RADio:PHS)	749
:ALPha	749
:BBCLock	749
:BBT	750
:BRATe	750
:BURSt:PN9	751
:BURSt:SCRamble:SEED	752
:BURSt:SCRamble[:STATe]	752
:BURSt:SHAPE:FALL:DELay	753
:BURSt:SHAPE:FALL:TIME	753
:BURSt:SHAPE:FDELay	754
:BURSt:SHAPE:FTIME	754
:BURSt:SHAPE:RDELay	755
:BURSt:SHAPE:RISE:DELay	756
:BURSt:SHAPE:RISE:TIME	756
:BURSt:SHAPE:RTIME	757
:BURSt:SHAPE[:TYPE]	757
:BURSt[:STATe]	758
:CHANnel	758

:DATA	759
:DATA:FIX4	759
:DEFault	760
:DLINK:SLOT[1] 2 3 4:CUSTom.	760
:DLINK:SLOT[1] 2 3 4:CUSTom:FIX4	760
:DLINK:SLOT[1] 2 3 4:POWer	761
:DLINK:SLOT[1] 2 3 4:SCHannel:CSID	761
:DLINK:SLOT[1] 2 3 4:SCHannel:IDLE	762
:DLINK:SLOT[1] 2 3 4:SCHannel:PSID	762
:DLINK:SLOT[1] 2 3 4:SCHannel:UWORD	762
:DLINK:SLOT[1] 2 3 4:STATe	763
:DLINK:SLOT[1] 2 3 4:TCHannel:SACChannel	763
:DLINK:SLOT[1] 2 3 4:TCHannel:UWORD	764
:DLINK:SLOT[1] 2 3 4:TCHannel[:TCHannel]	764
:DLINK:SLOT[1] 2 3 4:TCHannel[:TCHannel]:FIX4	764
:DLINK:SLOT[1] 2 3 4[:TYPE]	765
:EDATa:DELay	765
:EDCLock	766
:EREFerence	766
:EREFerence:VALue	767
:FILTer	767
:IQ:SCALE	768
:MODulation:FSK[:DEViation]	768
:MODulation:MSK[:PHASe]	769
:MODulation:UFSK	769
:MODulation:UIQ	770
:MODulation[:TYPE]	770
:POLarity[:ALL]	771
:SECondary:RECall	771
:SECondary:SAVE	772
:SECondary:TRIGger[:SOURce]	772
:SECondary[:STATe]	773
:SOUT	773
:SOUT:OFFSet	774
:SOUT:SLOT	774
:SRATe	775
:TRIGger:TYPE	776
:TRIGger:TYPE:CONTInuous[:TYPE]	777

Contents

:TRIGger:TYPE:GATE:ACTive	777
:TRIGger[:SOURce]	778
:TRIGger[:SOURce]:EXTernal[:SOURce]	778
:TRIGger[:SOURce]:EXTernal:DELay	779
:TRIGger[:SOURce]:EXTernal:DELay:STATe	779
:TRIGger[:SOURce]:EXTernal:SLOPe	780
:ULINK:SLOT[1] 2 3 4:CUSTom	780
:ULINK:SLOT[1] 2 3 4:CUSTom:FIX4	780
:ULINK:SLOT[1] 2 3 4:POWer	781
:ULINK:SLOT[1] 2 3 4:SCHannel:CSID	781
:ULINK:SLOT[1] 2 3 4:SCHannel:IDLE	782
:ULINK:SLOT[1] 2 3 4:SCHannel:PSID	782
:ULINK:SLOT[1] 2 3 4:SCHannel:UWORD	782
:ULINK:SLOT[1] 2 3 4:STATe	783
:ULINK:SLOT[1] 2 3 4:TCHannel:SACChannel	783
:ULINK:SLOT[1] 2 3 4:TCHannel:UWORD	784
:ULINK:SLOT[1] 2 3 4:TCHannel[:TCHannel]	784
:ULINK:SLOT[1] 2 3 4:TCHannel[:TCHannel:FIX4	784
:ULINK:SLOT[1] 2 3 4[:TYPE]	785
[:STATe]	785
TETRA Subsystem–Option 402 ([:SOURce]:RADio:TETRa)	786
:ALPha	786
:BBCLock	786
:BBT	787
:BRATe	787
:BURSt:PN9	788
:BURSt:SCRamble:SEED	789
:BURSt:SCRamble[:STATe]	789
:BURSt:SHAPE:FALL:DELay	790
:BURSt:SHAPE:FALL:TIME	790
:BURSt:SHAPE:FDELay	791
:BURSt:SHAPE:FTIME	791
:BURSt:SHAPE:RDELay	792
:BURSt:SHAPE:RISE:DELay	793
:BURSt:SHAPE:RISE:TIME	793
:BURSt:SHAPE:RTIME	794
:BURSt:SHAPE[:TYPE]	795
:BURSt[:STATe]	795

:CHANnel	796
:DATA	796
:DATA:FIX4	796
:DEFault	797
:EDATa:DELay	797
:EDCLock	798
:EREFerence	798
:EREFerence:VALue	799
:FILTer	799
:IQ:SCALE	800
:MODulation:FSK[:DEViation]	800
:MODulation:MSK[:PHASe]	801
:MODulation:UFSK	801
:MODulation:UIQ	802
:MODulation[:TYPE]	802
:POLarity[:ALL]	803
:SECondary:RECall	803
:SECondary:SAVE	804
:SECondary:TRIGger[:SOURce]	804
:SECondary[:STATe]	805
:SLOT[1] 2 3 4:DCCustom	805
:SLOT[1] 2 3 4:DCCustom:FIX4	805
:DCNormal:B1	806
:DCNormal:B2	806
:SLOT[1] 2 3 4:DCNormal:TSEQuence	807
:SLOT[1] 2 3 4:DCNormal[:DATA]	807
:SLOT[1] 2 3 4:DCNormal[:DATA]:FIX4	807
:SLOT[1] 2 3 4:DCSync:B	808
:SLOT[1] 2 3 4:DCSync:FCOR	808
:SLOT[1] 2 3 4:DCSync:SSB	809
:SLOT[1] 2 3 4:DCSync:STS	809
:SLOT[1] 2 3 4:DCSync[:DATA]	809
:SLOT[1] 2 3 4:DCSync[:DATA]:FIX4	810
:SLOT[1] 2 3 4:DDCustom	810
:SLOT[1] 2 3 4:DDCustom:FIX4	811
:SLOT[1] 2 3 4:DDNormal:B1	811
:SLOT[1] 2 3 4:DDNormal:B2	811
:SLOT[1] 2 3 4:DDNormal:TSEQuence	812

Contents

:SLOT[1] 2 3 4:DDNormal[:DATA]	812
:SLOT[1] 2 3 4:DDNormal[:DATA]:FIX4	813
:SLOT[1] 2 3 4:DDSync:B	813
:SLOT[1] 2 3 4:DDSync:FCOR	813
:SLOT[1] 2 3 4:DDSync:SSB	814
:SLOT[1] 2 3 4:DDSync:STS	814
:SLOT[1] 2 3 4:DDSync[:DATA]	814
:SLOT[1] 2 3 4:DDSync[:DATA]:FIX4	815
:SLOT[1] 2 3 4:POWER	815
:SLOT[1] 2 3 4:STATe	816
:SLOT[1] 2 3 4:UC1:TSEquence	816
:SLOT[1] 2 3 4:UC1[:DATA]	816
:SLOT[1] 2 3 4:UC1[:DATA]:FIX4	817
:SLOT[1] 2 3 4:UC2:TSEquence	817
:SLOT[1] 2 3 4:UC2[:DATA]	817
:SLOT[1] 2 3 4:UC2[:DATA]:FIX4	818
:SLOT[1] 2 3 4:UCUStom	818
:SLOT[1] 2 3 4:UCUStom:FIX4	819
:SLOT[1] 2 3 4:UNORmal:TSEquence	819
:SLOT[1] 2 3 4:UNORmal[:DATA]	819
:SLOT[1] 2 3 4:UNORmal[:DATA]:FIX4	820
:SLOT[1] 2 3 4[:TYPE]	820
:SOUT	821
:SOUT:OFFSet	822
:SOUT:SLOT	822
:SRATe	823
:TRIGger:TYPE	824
:TRIGger:TYPE:CONTInuous[:TYPE]	825
:TRIGger:TYPE:GATE:ACTive	825
:TRIGger[:SOURce]	826
:TRIGger[:SOURce]:EXTernal[:SOURce]	826
:TRIGger[:SOURce]:EXTernal:DELay	827
:TRIGger[:SOURce]:EXTernal:DELay:STATe	827
:TRIGger[:SOURce]:EXTernal:SLOPe	828
[:STATe]	828
Wideband CDMA Base Band Generator Subsystem–Option 400	
([:SOURce]:RADio:WCDMA:TGPP[:BBG])	829
:BBCLock	829
:BBCLock:EXT:RATE	829

:DLINK:APPLY	830
:DLINK:AWGN:CN	830
:DLINK:AWGN:CPower	830
:DLINK:AWGN:ECNO	831
:DLINK:AWGN:ECRPower	831
:DLINK:AWGN:ECRef	831
:DLINK:AWGN:FNBW	832
:DLINK:AWGN:NPower	832
:DLINK:AWGN:TTLPower	833
:DLINK:AWGN[:STATE]	833
:DLINK:BBCLock	833
:DLINK:CARB:CMODE:CCODE	834
:DLINK:CARB:CMODE:DATA	834
:DLINK:CARB:CMODE:FOFFset	834
:DLINK:CARB:CMODE:FSTRuct	835
:DLINK:CARB:CMODE:POWer	835
:DLINK:CARB:CMODE:PRATio	835
:DLINK:CARB:CMODE:SCTYpe	836
:DLINK:CARB:CMODE:SFOrmat	836
:DLINK:CARB:CMODE:SSCodeos	837
:DLINK:CARB:CMODE:TFIRst	837
:DLINK:CARB:CMODE:TGL	837
:DLINK:CARB:CMODE[:STATE]	838
:DLINK:CPICH:CCODE	838
:DLINK:CPICH:POWer	838
:DLINK:CPICH[:STATE]	839
:DLINK:CRATe	839
:DLINK:DPCH[1]:BALance	839
:DLINK:DPCH[1]:BINitalize	840
:DLINK:DPCH[1] 2:ALL[:STATE]	840
:DLINK:DPCH[1] 2:CCODE	841
:DLINK:DPCH[1] 2:DATA	841
:DLINK:DPCH[1] 2:DATA:FIX4	842
:DLINK:DPCH[1] 2:POWer	842
:DLINK:DPCH[1] 2:RCSetup	843
:DLINK:DPCH[1] 2:SLOTformat	844
:DLINK:DPCH[1] 2:SRATe	844
:DLINK:DPCH[1] 2:SSCodeos	845

Contents

:DLINK:DPCH[1] 2:TFCI:PATtern	845
:DLINK:DPCH[1] 2:TOFFset	846
:DLINK:DPCH[1] 2:TPC:NUMSteps	846
:DLINK:DPCH[1] 2:TPC:PATtern	847
:DLINK:DPCH[1] 2[:STATe]	847
:DLINK:FILTer	848
:DLINK:FILTer:ALPHA	849
:DLINK:FILTer:BBT	849
:DLINK:FILTer:CHANnel	849
:DLINK:MSYNc	850
:DLINK:OCNS[1] 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16: ALL[:STATe]	850
:DLINK:OCNS[1] 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16:CCODE	851
:DLINK:OCNS[1] 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16:DATA	851
:DLINK:OCNS[1] 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16:POWer	852
:DLINK:OCNS[1] 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16:SRATe	852
:DLINK:OCNS[1] 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16:SSCodeos	853
:DLINK:OCNS[1] 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16:TOFFset	853
:DLINK:OCNS[1] 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16[:STATe]	854
:DLINK:OOSTest[:STATe]	854
:DLINK:OOSTest:DTXGate:POLarity	854
:DLINK:PADJust	855
:DLINK:PCCPch:BCHData	855
:DLINK:PCCPch:BCHData:FIX4	856
:DLINK:PCCPch:CCODE	856
:DLINK:PCCPch:POWer	856
:DLINK:PCCPch[:STATe]	857
:DLINK:PICH:CCODE	857
:DLINK:PICH:DATA	858
:DLINK:PICH:DATA:FIX4	858
:DLINK:PICH:PIBits	858
:DLINK:PICH:PINDicator	859
:DLINK:PICH:POWer	859
:DLINK:PICH[:STATe]	859
:DLINK:POLarity	860
:DLINK:PSCH:POWer	860
:DLINK:PSCH[:STATe]	861
:DLINK:RPANel:INPut:ALTPower	861
:DLINK:RPANel:INPut:BBGRef	861

:DLINK:RPANel:INPut:BGATe	862
:DLINK:RPANel:INPut:PTRigger1	862
:DLINK:RPANel:INPut:PTRigger2	863
:DLINK:RPANel:OUTPut:DCLock.	863
:DLINK:RPANel:OUTPut:DOUT	865
:DLINK:RPANel:OUTPut:EVENT1	866
:DLINK:RPANel:OUTPut:EVENT2	866
:DLINK:RPANel:OUTPut:EVENT3	867
:DLINK:RPANel:OUTPut:EVENT4	867
:DLINK:RPANel:OUTPut:SSYNc	868
:DLINK:SCH[:STATe].	868
:DLINK:SCRamblecode	869
:DLINK:SDElay	869
:DLINK:SSCH:POWer	869
:DLINK:SSCH:SSGRoup	870
:DLINK:SSCH[:STATe].	870
:DLINK:TStatus:COMPressed	870
:DLINK:TSETup	871
:DLINK:TGAP:POFFset	872
:DLINK:TGAP:PSI[1]:CFN.	872
:DLINK:TGAP:PSI[1]:CMMethod	873
:DLINK:TGAP:PSI[1]:D	873
:DLINK:TGAP:PSI[1]:L1	874
:DLINK:TGAP:PSI[1]:L2	874
:DLINK:TGAP:PSI[1]:PL1	874
:DLINK:TGAP:PSI[1]:PL2	875
:DLINK:TGAP:PSI[1]:PRC	875
:DLINK:TGAP:PSI[1]:PS	876
:DLINK:TGAP:PSI[1]:SN	876
:DLINK:TGAP:RPARameter	876
:DLINK:TGAP:SCFN	877
:DLINK:TGAP:START:TRIGger	877
:DLINK:TGAP:START:TRIGger:POLarity.	878
:DLINK:TGAP:STOP:TRIGger.	878
:DLINK:TGAP:STOP:TRIGger:POLarity	878
:DLINK:TGAP[:STATe].	879
:DLINK:TXDV	879
:DLINK[:TGRoup [A] B]:DCH[1] 2 3 4 5 6:BLKSize	880

Contents

:DLINK[:TGRoup [A] B]:DCH[1] 2 3 4 5 6:BPFRame	880
:DLINK[:TGRoup [A] B]:DCH[1] 2 3 4 5 6:BRATe	881
:DLINK[:TGRoup [A] B]:DCH[1] 2 3 4 5 6:BSSize	881
:DLINK[:TGRoup [A] B]:DCH[1] 2 3 4 5 6:CODE	882
:DLINK[:TGRoup [A] B]:DCH[1] 2 3 4 5 6:CRC	882
:DLINK[:TGRoup [A] B]:DCH[1] 2 3 4 5 6:DATA	883
:DLINK[:TGRoup [A] B]:DCH[1] 2 3 4 5 6:DATA:EINSert	883
:DLINK[:TGRoup [A] B]:DCH[1] 2 3 4 5 6:DATA:FIX4	884
:DLINK[:TGRoup [A] B]:DCH[1] 2 3 4 5 6:NBLocks	884
:DLINK[:TGRoup [A] B]:DCH[1] 2 3 4 5 6:POSition	885
:DLINK[:TGRoup [A] B]:DCH[1] 2 3 4 5 6:PPERcentage.	885
:DLINK[:TGRoup [A] B]:DCH[1] 2 3 4 5 6:RMATch.	886
:DLINK[:TGRoup [A] B]:DCH[1] 2 3 4 5 6:TTI	886
:DLINK[:TGRoup [A] B]:DCH[1] 2 3 4 5 6[:STATe]	887
:LINK	887
:POLarity[:ALL]	887
:ULINK:APPLy	888
:ULINK:AWGN:CN	888
:ULINK:AWGN:CPOWer.	889
:ULINK:AWGN:DRATe	889
:ULINK:AWGN:EBNO	889
:ULINK:AWGN:EBRef	890
:ULINK:AWGN:FNBW	890
:ULINK:AWGN:NPOWer	891
:ULINK:AWGN:TICPower	891
:ULINK:AWGN[:STATe]	892
:ULINK:CRATe	892
:ULINK:DPCCh:BETA	892
:ULINK:DPCCh:CCODE	893
:ULINK:DPCCh:DATA	893
:ULINK:DPCCh:DATA:FIX4.	894
:ULINK:DPCCh:FBI:PATtern	894
:ULINK:DPCCh:FBI:PATtern:FIX	895
:ULINK:DPCCh:FBI[:STATe]	895
:ULINK:DPCCh:POWer	896
:ULINK:DPCCh:RATE	896
:ULINK:DPCCh:SLOTformat.	896
:ULINK:DPCCh:TFCI:PATtern	897

:ULINK:DPCCh:TFCI:PATtern:FIX	897
:ULINK:DPCCh:TFCI[:STATe]	898
:ULINK:DPCCh:TPC:NSTeps	898
:ULINK:DPCCh:TPC:PATtern	899
:ULINK:DPCCh:TPC:PATtern:FIX4	899
:ULINK:DPCCh:TPC:PATtern:TRIGger:POLarity	900
:ULINK:DPCCh:TPC:PATtern:TRIGger[:STATe]	900
:ULINK:DPCCh:TPOWer	901
:ULINK:DPCCh[:STATe]	901
:ULINK:DPDCh:BETA	902
:ULINK:DPDCh:CCODE	902
:ULINK:DPDCh:DATA	903
:ULINK:DPDCh:DATA:FIX4	904
:ULINK:DPDCh:POWer	904
:ULINK:DPDCh:RATE	905
:ULINK:DPDCh:RBER	906
:ULINK:DPDCh:SLOTformat	906
:ULINK:DPDCh:TBER[:CLENgth]	907
:ULINK:DPDCh:TBER:ELENgth	908
:ULINK:DPDCh:TPOWer	908
:ULINK:DPDCh[:STATe]	909
:ULINK:FCLock:INTerval	909
:ULINK:FCLock:POLarity	909
:ULINK:FILTer	910
:ULINK:FILTer:ALPHA	911
:ULINK:FILTer:BBT	911
:ULINK:FILTer:CHANnel	912
:ULINK:FOFFset	912
:ULINK:PADJust	913
:ULINK:PHYSical[1]:TYPE	913
:ULINK:PMODE:TPControl:HOLD	913
:ULINK:PMODE:TPControl:POWer:INITial	914
:ULINK:PMODE:TPControl:POWer:MAXimum	914
:ULINK:PMODE:TPControl:POWer:MINimum	915
:ULINK:PMODE:TPControl:POWer:RESet	916
:ULINK:PMODE:TPControl:POWer:STEP	916
:ULINK:PMODE:TPControl:TRIGger:POLarity	917
:ULINK:PMODE[:SElect]	917

Contents

:ULINK:PRACH:AICH:NUMBER	917
:ULINK:PRACH:AICH:POLarity	918
:ULINK:PRACH:AWGN:CN	918
:ULINK:PRACH:AWGN:CPOWer	919
:ULINK:PRACH:AWGN:DRATe	919
:ULINK:PRACH:AWGN:EBNO	919
:ULINK:PRACH:AWGN:ECNO	920
:ULINK:PRACH:AWGN:EREF	920
:ULINK:PRACH:AWGN:NPOWer	921
:ULINK:PRACH:AWGN:TICPower	921
:ULINK:PRACH:AWGN[:STATe]	922
:ULINK:PRACH:MESSAge:CPARt:BETA	922
:ULINK:PRACH:MESSAge:CPARt:DATA	923
:ULINK:PRACH:MESSAge:CPARt:DATA:FIX4	923
:ULINK:PRACH:MESSAge:CPARt:POWer	924
:ULINK:PRACH:MESSAge:CPARt:RATE	924
:ULINK:PRACH:MESSAge:CPARt:SLOTformat	925
:ULINK:PRACH:MESSAge:CPARt:TFCI:PATTErn	925
:ULINK:PRACH:MESSAge:CPARt:TFCI:PATTErn:FIX	926
:ULINK:PRACH:MESSAge:CPARt:TFCI[:STATe]	926
:ULINK:PRACH:MESSAge:DPARt:BETA	927
:ULINK:PRACH:MESSAge:DPARt:DATA	927
:ULINK:PRACH:MESSAge:DPARt:DATA:FIX4	928
:ULINK:PRACH:MESSAge:DPARt:POWer	928
:ULINK:PRACH:MESSAge:DPARt:RATE	929
:ULINK:PRACH:MESSAge:DPARt:SLOTformat	930
:ULINK:PRACH:MODE[:SElect]	931
:ULINK:PRACH:MULTi:MESSAge:TPOWer	931
:ULINK:PRACH:MULTi:MESSAge[:STATe]	932
:ULINK:PRACH:MULTi:NUMBER	932
:ULINK:PRACH:MULTi:PREAmble:NUMBER	933
:ULINK:PRACH:MULTi:PREAmble:POWer:INITIAL	933
:ULINK:PRACH:MULTi:PREAmble:POWer:MAX	933
:ULINK:PRACH:MULTi:PREAmble:POWer:RSTep	934
:ULINK:PRACH:MULTi:PREAmble:PPM	934
:ULINK:PRACH:MULTi:UE[1] 2 3 4 5 6 7 8:MESSAge:CPARt: CCODE	935
:ULINK:PRACH:MULTi:UE[1] 2 3 4 5 6 7 8:MESSAge:DPARt: CCODE	935

:ULINK:PRACH:MULTi:UE[1] 2 3 4 5 6 7 8:PREamble:SIGNature	936
:ULINK:PRACH:MULTi:UE[1] 2 3 4 5 6 7 8	
:SPOsition[1] 2 3 4 5 6 7 8[:ASLot]	936
:ULINK:PRACH:MULTi:UE[1] 2 3 4 5 6 7 8[:STATe].	937
:ULINK:PRACH:PREamble:POWer:AVERAge	938
:ULINK:PRACH:PREamble:POWer:MODE.	938
:ULINK:PRACH:RPARAmeter	939
:ULINK:PRACH:SCRamblecode	939
:ULINK:PRACH:SDELay	940
:ULINK:PRACH:SUBChannel	940
:ULINK:PRACH:TOFFset.	941
:ULINK:PRACH:TPA.	941
:ULINK:PRACH:TPM	942
:ULINK:PRACH:TPOWer	942
:ULINK:PRACH:TPP.	943
:ULINK:PRACH:TRIGger	943
:ULINK:PRACH:TRIGger:POLarity.	944
:ULINK:PRACH:TRIGger:SOURce	944
:ULINK:PRACH:TTI	945
:ULINK:PRACH[:SINGLE]:MESSAge[:STATe]	945
:ULINK:PRACH[:SINGLE]:NUMBER.	946
:ULINK:PRACH[:SINGLE]:MESSAge:CPART:CCODE	946
:ULINK:PRACH[:SINGLE]:MESSAge:DPART:CCODE	947
:ULINK:PRACH[:SINGLE]:MESSAge:TPOWer	948
:ULINK:PRACH[:SINGLE]:NUMBER.	948
:ULINK:PRACH[:SINGLE]:PREamble:NUMBER	949
:ULINK:PRACH[:SINGLE]:PREamble:POWer:INITIAL	949
:ULINK:PRACH[:SINGLE]:PREamble:POWer:MAX	950
:ULINK:PRACH[:SINGLE]:PREamble:POWer:RSTep	950
:ULINK:PRACH[:SINGLE]:PREamble:PPM	951
:ULINK:PRACH[:SINGLE]:PREamble:SIGNature	951
:ULINK:RMChannel	952
:ULINK:RPANel:DPCH:INPut:ALTPower	953
:ULINK:RPANel:DPCH:INPut:BBGRef	953
:ULINK:RPANel:DPCH:INPut:BGATe	953
:ULINK:RPANel:DPCH:INPut:PTRigger1	954
:ULINK:RPANel:DPCH:INPut:PTRigger2	954
:ULINK:RPANel:DPCH:OUTPut:DCLock.	955
:ULINK:RPANel:DPCH:OUTPut:DOuT	956

Contents

:ULINK:RPANel:DPCH:OUTPut:EVENT1	956
:ULINK:RPANel:DPCH:OUTPut:EVENT2	957
:ULINK:RPANel:DPCH:OUTPut:EVENT3	957
:ULINK:RPANel:DPCH:OUTPut:EVENT4	958
:ULINK:RPANel:DPCH:OUTPut:SSYNc	958
:ULINK:RPANel:PRACH:INPut:ALTPower	959
:ULINK:RPANel:PRACH:INPut:BBGRef	959
:ULINK:RPANel:PRACH:INPut:BGATe	960
:ULINK:RPANel:PRACH:INPut:PTRigger1	960
:ULINK:RPANel:PRACH:INPut:PTRigger2	960
:ULINK:RPANel:PRACH:OUTPut:DCLock	961
:ULINK:RPANel:PRACH:OUTPut:DOUT	963
:ULINK:RPANel:PRACH:OUTPut:EVENT1	964
:ULINK:RPANel:PRACH:OUTPut:EVENT2	964
:ULINK:RPANel:PRACH:OUTPut:EVENT3	965
:ULINK:RPANel:PRACH:OUTPut:EVENT4	966
:ULINK:RPANel:PRACH:OUTPut:SSYNc	967
:ULINK:SCRamblecode	967
:ULINK:SDElay	968
:ULINK:SFNRst:POLarity	968
:ULINK:SYNC:MODE	969
:ULINK:SYNC[:SOURce]	969
:ULINK:TGAP:POFFset	970
:ULINK:TGAP:PSI[1] 2 3 4 5 6:CFN	970
:ULINK:TGAP:PSI[1]:CMMethod	971
:ULINK:TGAP:PSI[1] 2 3 4 5 6:D	971
:ULINK:TGAP:PSI[1] 2 3 4 5 6:L1	972
:ULINK:TGAP:PSI[1] 2 3 4 5 6:L2	972
:ULINK:TGAP:PSI[1] 2 3 4 5 6:PL1	973
:ULINK:TGAP:PSI[1] 2 3 4 5 6:PL2	973
:ULINK:TGAP:PSI[1] 2 3 4 5 6:POWer	973
:ULINK:TGAP:PSI[1] 2 3 4 5 6:PRC	974
:ULINK:TGAP:PSI[1] 2 3 4 5 6:PS	974
:ULINK:TGAP:PSI[1] 2 3 4 5 6:SN	975
:ULINK:TGAP:RPARameter	975
:ULINK:TGAP:SCFN	976
:ULINK:TGAP[:STATe]	976
:ULINK:TGAP:STARt:TRIGger	977

:ULINK:TGAP:START:TRIGger:POLarity.	977
:ULINK:TGAP:STOP:TRIGger.	977
:ULINK:TGAP:STOP:TRIGger:POLarity	978
:ULINK:TOFFset	978
:ULINK:TStatus:COMPressed	978
:ULINK:TStatus:RACH	979
:ULINK:TStatus:RECeive	979
:ULINK:TStatus:SYNC	980
:ULINK:[TGRoup[1]]:DCH[1] 2 3 3 5 6:BLKSize	980
:ULINK[:TGRoup[1]]:DCH[1] 2 3 4 5 6:BPFFrame	981
:ULINK[:TGRoup[1]]:DCH[1] 2 3 4 5 6:BRATe	981
:ULINK:[TGRoup[1]]:DCH[1] 2 3 3 5 6:CODE	981
:ULINK:[TGRoup[1]]:DCH[1] 2 3 3 5 6:CRC	982
:ULINK:[TGRoup[1]]:DCH[1] 2 3 3 5 6:DATA.	982
:ULINK[:TGRoup[1]]:DCH[1] 2 3 4 5 6:DATA:BER:ACTual	983
:ULINK[:TGRoup[1]]:DCH[1] 2 3 4 5 6:DATA:BER:ERRor:BIT	983
:ULINK[:TGRoup[1]]:DCH[1] 2 3 4 5 6:DATA:BER:TOTal:BIT.	984
:ULINK[:TGRoup[1]]:DCH[1] 2 3 4 5 6:DATA:BER:[VALue]	984
:ULINK[:TGRoup[1]]:DCH[1] 2 3 4 5 6:DATA:BLER:ACTual	985
:ULINK[:TGRoup[1] 2]:DCH[1] 2 3 4 5 6:DATA:BLER:ERRor:BLOCK.	985
:ULINK[:TGRoup[1] 2]:DCH[1] 2 3 4 5 6:DATA:BLER:TOTal:BLOCK.	985
:ULINK[:TGRoup[1]]:DCH[1] 2 3 4 5 6:DATA:BLER:[VALue].	986
:ULINK[:TGRoup[1]]:DCH[1] 2 3 4 5 6:DATA:EINSert	986
:ULINK[:TGRoup[1]]:DCH[1] 2 3 4 5 6:DATA:FIX4.	987
:ULINK[:TGRoup[1]]:DCH[1] 2 3 4 5 6:NBLock	987
:ULINK[:TGRoup [1]]:DCH[1] 2 3 4 5 6:PPERcentage	988
:ULINK[:TGRoup[1]]:DCH[1] 2 3 4 5 6:RMATCh	988
:ULINK[:TGRoup[1]]:DCH[1] 2 3 4 5 6:TTI.	988
:ULINK[:TGRoup[1]]:DCH[1] 2 3 4 5 6[:STATe]	989
:ULINK[:TGRoup[1]]:RACH[1]:BLKSize.	989
:ULINK[:TGRoup [1]]:RACH[1]:BPFFrame	990
:ULINK[:TGRoup [1]]:RACH[1]:BRATe.	990
:ULINK[:TGRoup[1]]:RACH[1]:CODE.	990
:ULINK[:TGRoup[1]]:RACH[1]:CRC	991
:ULINK[:TGRoup[1]]:RACH[1]:DATA.	991
:ULINK[:TGRoup[1]]:RACH[1]:DATA:BER:ACTual	992
:ULINK[:TGRoup[1]]:RACH[1]:DATA:BER:ERRor:BIT.	992
:ULINK[:TGRoup[1]]:RACH[1]:DATA:BER:TOTal:BIT	992

Contents

:ULINK[:TGRoup[1]]:RACH[1]:DATA:BER[:VALue]	993
:ULINK[:TGRoup[1]]:RACH[1]:DATA:BLER:ACTual.	993
:ULINK[:TGRoup[1]]:RACH[1]:DATA:BLER:ERRor:BLOCK.	994
:ULINK[:TGRoup[1]]:RACH[1]:DATA:BLER:TOTal:BLOCK	994
:ULINK[:TGRoup[1]]:RACH[1]:DATA:BLER[:VALue]	994
:ULINK[:TGRoup[1]]:RACH[1]:DATA:EINSert.	995
:ULINK[:TGRoup[1]]:RACH[1]:DATA:FIX4	995
:ULINK[:TGRoup[1]]:RACH[1]:NBLock.	996
:ULINK[:TGRoup [1]]:RACH[1]:PPERcentage	996
:ULINK[:TGRoup[1]]:RACH[1]:RMArch	997
:ULINK[:TGRoup[1]]:RACH[1]:TTI	997
:ULINK[:TGRoup[1]]:RACH[1][:STATe]	997
[:STATe]	998

6 Bit Error Rate Test (BERT) Commands

This chapter provides SCPI description for subsystems dedicated to BERT testing for the ESG Vector Signal Generator. This chapter contains the following sections:

- “Calculate Subsystem–Option UN7 and 300 (:CALCulate:BERT)” on page 362
- “Data Subsystem–Option UN7 and 300 (:DATA)” on page 373
- “Input Subsystem–Option UN7 (:INPut:BERT[: BASEband])” on page 383
- “Measure Subsystem–Option 300 (:MEASure[:SCALar]:BERT:BTS:LOOPback)” on page 389
- “Sense Subsystem–Options UN7 and 300 ([:SOURce]:SENSe:BERT)” on page 393

Calculate Subsystem–Option UN7 and 300 (:CALCulate:BERT)

:BTS:LOOPback:EDGE:ETCH:F43:COMParator:CRITeria:ERATe

Supported All with Option 300

```
:CALCulate:BERT:BTS:LOOPback:EDGE:ETCH:F43:COMParator:CRITeria:  
ERATe <val>  
:CALCulate:BERT:BTS:LOOPback:EDGE:ETCH:F43:COMParator:CRITeria:ERATe?
```

This command sets the error rate pass/fail threshold value.

The variable <val> is a decimal notation representing a percentage value.

***RST** +1.00000000E-001

Range 0.0–1.0

Key Entry Error Rate

Remarks N/A

:BTS:LOOPback:EDGE:ETCH:F43:COMParator:CRITeria[:SElect]

Supported All with Option 300

```
:CALCulate:BERT:BTS:LOOPback:EDGE:ETCH:F43:COMParator:  
CRITeria[:SElect] ERATe|NOLimit  
:CALCulate:BERT:BTS:LOOPback:EDGE:ETCH:F43:COMParator:CRITeria[:SElect]?
```

This command determines which of the following pass/fail limit (comparator) criteria is applied to the measurement.

ERATe This choice reports, on the front panel display of the signal generator, the pass or fail status compared to the specified threshold for the error rate.

NOLimit This choice disables the pass/fail indication.

***RST** NOLimit

Key Entry Error Rate No Limits

Remarks N/A

:BTS:LOOPback:EDGE:MCS5:COMParator:CRITeria:ERATe

Supported All with Option 300

```
:CALCulate:BERT:BTS:LOOPback:EDGE:MCS5:COMParator:CRITeria:ERATe <val>  
:CALCulate:BERT:BTS:LOOPback:EDGE:MCS5:COMParator:CRITeria:ERATe?
```

This command sets the error rate pass/fail threshold value.

The variable <val> is a decimal notation representing a percentage value.

***RST** +1.00000000E-001

Range 0.0–1.0

Key Entry **Error Rate**

Remarks N/A

:BTS:LOOPback:EDGE:MCS5:COMParator:CRITeria[:SElect]

Supported All with Option 300

```
:CALCulate:BERT:BTS:LOOPback:EDGE:MCS5:COMParator:  
CRITeria[:SElect] ERATe|NOLimit  
:CALCulate:BERT:BTS:LOOPback:EDGE:MCS5:COMParator:CRITeria[:SElect]?
```

This command determines which of the following pass/fail limit (comparator) criteria is applied to the measurement.

ERATe This choice reports, on the front panel display of the signal generator, the pass or fail status compared to the specified threshold for the error rate.

NOLimit This choice disables the pass/fail indication.

***RST** NOLimit

Key Entry **Error Rate** **No Limits**

Remarks N/A

:BTS:LOOPback:EDGE:MCS9:COMParator:CRITeria:ERATe

Supported All with Option 300

```
:CALCulate:BERT:BTS:LOOPback:EDGE:MCS9:COMParator:CRITeria:ERATe <val>  
:CALCulate:BERT:BTS:LOOPback:EDGE:MCS9:COMParator:CRITeria:ERATe?
```

This command sets the error rate pass/fail threshold value.

Calculate Subsystem–Option UN7 and 300 (:CALCulate:BERT)

The variable <val> is a decimal notation representing a percentage value.

*RST	+1.00000000E-001
Range	0.0–1.0
Key Entry	Error Rate
Remarks	N/A

:BTS:LOOPback:EDGE:MCS9:COMParator:CRITeria[:SElect]

Supported All with Option 300

```
:CALCulate:BERT:BTS:LOOPback:EDGE:MCS9:COMParator:
CRITeria[:SElect] ERATE|NOLimit
:CALCulate:BERT:BTS:LOOPback:EDGE:MCS9:COMParator:CRITeria[:SElect]?
```

This command determines which of the following pass/fail limit (comparator) criteria is applied to the measurement.

- ERATE** This choice reports, on the front panel display of the signal generator, the pass or fail status compared to the specified threshold for the error rate.
- NOLimit** This choice disables the pass/fail indication.

*RST	NOLimit
Key Entry	Error Rate No Limits
Remarks	N/A

:BTS:LOOPback:EDGE:UNCoded:COMParator:CRITeria:ERATE

Supported All with Option 300

```
:CALCulate:BERT:BTS:LOOPback:EDGE:UNCoded:COMParator:CRITeria:
ERATE <val>
:CALCulate:BERT:BTS:LOOPback:EDGE:UNCoded:COMParator:CRITeria:ERATE?
```

This command sets the error rate pass/fail threshold value.

The variable <val> is a decimal notation representing a percentage value.

*RST	+2.00000000E-002
Range	0.0–1.0
Key Entry	Error Rate

Remarks N/A

:BTS:LOOPback:EDGE:UNCoded:COMParator:CRITeria[:SElect]

Supported All with Option 300

```
:CALCulate:BERT:BTS:LOOPback:EDGE:UNCoded:COMParator:  
CRITeria[:SElect] ERATE|NOLimit  
:CALCulate:BERT:BTS:LOOPback:EDGE:UNCoded:COMParator:CRITeria[:SElect]?
```

This command determines which of the following pass/fail limit (comparator) criteria is applied to the measurement.

ERATE This choice reports, on the front panel display of the signal generator, the pass or fail status compared to the specified threshold for the error rate.

NOLimit This choice disables the pass/fail indication.

***RST** NOLimit

Key Entry **Error Rate** **No Limits**

Remarks N/A

:BTS:LOOPback:GSM:CS1:COMParator:CRITeria:ERATe

Supported All with Option 300

```
:CALCulate:BERT:BTS:LOOPback:GSM:CS1:COMParator:CRITeria:  
ERATe <val>  
:CALCulate:BERT:BTS:LOOPback:GSM:CS1:COMParator:CRITeria:ERATe?
```

This command sets the error rate pass/fail threshold value.

The variable <val> is a decimal notation representing a percentage value.

***RST** +1.00000000E-001

Range 0.0–1.0

Key Entry **Error Rate**

Remarks N/A

:BTS:LOOPback:GSM:CS1:COMParator:CRITeria[:SElect]

Supported All with Option 300

```
:CALCulate:BERT:BTS:LOOPback:GSM:CS1:COMParator:
CRITeria[:SElect] ERATe|NOLimit
:CALCulate:BERT:BTS:LOOPback:GSM:CS1:COMParator:CRITeria[:SElect]?
```

This command determines which of the following pass/fail limit (comparator) criteria is applied to the measurement.

ERATE This choice reports, on the front panel display of the signal generator, the pass or fail status compared to the specified threshold for the error rate.

NOLimit This choice disables the pass/fail indication.

***RST** NOLimit

Key Entry **Error Rate** **No Limits**

Remarks N/A

:BTS:LOOPback:GSM:CS4:COMParator:CRITeria:ERATe

Supported All with Option 300

```
:CALCulate:BERT:BTS:LOOPback:GSM:CS4:COMParator:CRITeria:
ERATe <val>
:CALCulate:BERT:BTS:LOOPback:GSM:CS4:COMParator:CRITeria:ERATe?
```

This command sets the error rate pass/fail threshold value.

The variable <val> is a decimal notation representing a percentage value.

***RST** +1.00000000E-001

Range 0.0–1.0

Key Entry **Error Rate**

Remarks N/A

:BTS:LOOPback:GSM:CS4:COMParator:CRITeria[:SElect]

Supported All with Option 300

```
:CALCulate:BERT:BTS:LOOPback:GSM:CS4:COMParator:  
CRITeria[:SElect] ERATe|NOLimit  
:CALCulate:BERT:BTS:LOOPback:GSM:CS4:COMParator:CRITeria[:SElect]?
```

This command determines which of the following pass/fail limit (comparator) criteria is applied to the measurement.

ERATE This choice reports, on the front panel display of the signal generator, the pass or fail status compared to the specified threshold for the error rate.

NOLimit This choice disables the pass/fail indication.

***RST** NOLimit

Key Entry **Error Rate** **No Limits**

Remarks N/A

:BTS:LOOPback:GSM:MCS1:COMParator:CRITeria:ERATe

Supported All with Option 300

```
:CALCulate:BERT:BTS:LOOPback:GSM:MCS1:COMParator:CRITeria:  
ERATe <val>  
:CALCulate:BERT:BTS:LOOPback:GSM:MCS1:COMParator:CRITeria:ERATe?
```

This command sets the error rate pass/fail threshold value.

The variable <val> is a decimal notation representing a percentage value.

***RST** +1.00000000E-001

Range 0.0–1.0

Key Entry **Error Rate**

Remarks N/A

:BTS:LOOPback:GSM:MCS1:COMParator:CRITeria[:SElect]

Supported All with Option 300

```
:CALCulate:BERT:BTS:LOOPback:GSM:MCS1:COMParator:
CRITeria[:SElect] ERATe|NOLimit
:CALCulate:BERT:BTS:LOOPback:GSM:MCS1:COMParator:CRITeria[:SElect]?
```

This command determines which of the following pass/fail limit (comparator) criteria is applied to the measurement.

ERATE This choice reports, on the front panel display of the signal generator, the pass or fail status compared to the specified threshold for the error rate.

NOLimit This choice disables the pass/fail indication.

***RST** ERAT

Key Entry Error Rate No Limits

Remarks N/A

:BTS:LOOPback:GSM:COMParator:CRITeria:CIB

Supported All with Option 300

```
:CALCulate:BERT:BTS:LOOPback:GSM:COMParator:CRITeria:CIB <val>
:CALCulate:BERT:BTS:LOOPback:GSM:COMParator:CRITeria:CIB?
```

This command sets the Class II residual bit error rate pass/fail threshold value.

The variable <val> is a decimal notation representing a percentage value.

***RST** +4.00000000E-003

Range 0.0–1.0

Key Entry Class Ib RBER

Remarks N/A

:BTS:LOOPback:GSM:COMParator:CRITeria:CII

Supported All with Option 300

```
:CALCulate:BERT:BTS:LOOPback:GSM:COMParator:CRITeria:CII <val>
:CALCulate:BERT:BTS:LOOPback:GSM:COMParator:CRITeria:CII?
```

This command sets the Class Ib residual bit error rate pass/fail threshold value.

The variable <val> is a decimal notation representing a percentage value.

***RST** +2.00000000E-002
Range 0.0–1.0
Key Entry **Class II RBER**
Remarks N/A

:BTS:LOOPback:GSM:COMParator:CRITeria:FERasure

Supported All with Option 300

:CALCulate:BERT:BTS:LOOPback:GSM:COMParator:CRITeria:FERasure <val>
:CALCulate:BERT:BTS:LOOPback:GSM:COMParator:CRITeria:FERasure?

This command sets the frame erasure rate pass/fail threshold value.

The variable <val> is a decimal notation representing a percentage value.

***RST** +1.00000000E-003
Range 0.0–1.0
Key Entry **Frame Erasure**
Remarks N/A

:BTS:LOOPback:GSM:COMParator:CRITeria[:SElect]

Supported All with Option 300

:CALCulate:BERT:BTS:LOOPback:GSM:COMParator:CRITeria[:SElect] FERasure |
CLIB | CLII | ANY | NOLimit
:CALCulate:BERT:BTS:LOOPback:GSM:COMParator:CRITeria[:SElect]?

This command determines which of the following pass/fail limit (comparator) criteria is applied to the measurement.

- FERasure This choice reports, on the front panel display of the signal generator, the pass or fail status compared to the specified threshold for frame erasure ratio.
- CLIB This choice reports, on the front panel display of the signal generator, the pass or fail status compared to the specified threshold for the number of Class Ib errors detected in the measurement.
- CLII This choice reports, on the front panel display of the signal generator, the pass or fail status compared to the specified threshold for the number of

Calculate Subsystem–Option UN7 and 300 (:CALCulate:BERT)

	Class II errors detected in the measurement.
ANY	This choice reports, on the front panel display of the signal generator, the pass or fail status compared to all of the specified comparator criteria.
NOLimit	This choice disables the pass/fail indication.
*RST	NOLimit
Key Entry	Frame Erasure Class Ib RBER Class II RBER Exceeds Any Limit
	No Limits
Remarks	N/A

[:BASEband] :COMParator:MODE

Supported All with Option UN7

```
:CALCulate:BERT[:BASEband]:COMParator:MODE CEND|FHOLD
:CALCulate:BERT[:BASEband]:COMParator:MODE?
```

This command selects the pass/fail judgement mode of the comparator function.

- CEND This choice selects the cycle end mode and each BER measurement result is compared with the limit value to make a pass/fail assessment at the end of a cycle.
- FHOLD This choice selects the fail hold mode and only one fail judgement is allowed during that BER measurement loop. Any failed judgement after the first failure is ignored.

***RST** CEND

Key Entry **Cycle End Fail Hold**

Remarks For automated tests, the results of this command can be accessed from the rear panel BER TEST OUT pin on the AUX I/O connector. For more information about the rear panel AUX I/O connector pin configuration, refer to the *User's Guide*.

[:BASEband] :COMParator:THReshold

Supported All with Option UN7

```
:CALCulate:BERT[:BASEband]:COMParator:THReshold <val>
:CALCulate:BERT[:BASEband]:COMParator:THReshold?
```

This command specifies the threshold value for the pass/fail judgement function.

The variable <val> is a decimal notation representing a percentage value.

*RST	+1.00000000E-002
Range	0.0000001–1.00
Key Entry	Pass/Fail Limits
Remarks	This command is valid only while the BER pass/fail command is active. Refer to “[:BASEband]:COMParator[:STATe]” on page 371.

[:BASEband]:COMParator[:STATe]

Supported	All with Option UN7
:CALCulate:BERT[:BASEband]:COMParator[:STATe] ON OFF 1 0	
:CALCulate:BERT[:BASEband]:COMParator[:STATe]?	

This command enables or disables the pass/fail judgement function.

*RST	0
Key Entry	Pass/Fail Off On
Remarks	N/A

[:BASEband]:DISPlay:MODE:

Supported	All with Option UN7
:CALCulate:BERT[:BASEband]:DISPlay:MODE PERCent SCIentific	
:CALCulate:BERT[:BASEband]:DISPlay:MODE?	

This command selects the display mode for the bit error rate (BER) measurement.

PERCent	This choice reports measurement results as a percentage.
SCIentific	This choice reports measurement results in scientific notation.
*RST	PERC
Key Entry	BER Display % Exp
Remarks	N/A

[:BASeband]:DISPlay:UPDate:

Supported All with Option UN7

:CALCulate:BERT[:BASeband]:DISPlay:UPDate CEND|CONT

:CALCulate:BERT[:BASeband]:DISPlay:UPDate?

This command selects the display update mode during bit error rate (BER) measurements.

CEND This choice selects the cycle end mode and the previous BER measurement result is displayed during the current measurement cycle.

CONT This choice selects the continuous mode and the display shows the real-time intermediate results during that BER measurement cycle.

***RST** CONT

Key Entry Update Display Cycle End Cont

Remarks N/A

Data Subsystem–Option UN7 and 300 (:DATA)

:BERT:BTS:LOOPback:EDGE:ETCH:F43[:DATA]

Supported All with Option 300

```
:DATA:BERT:BTS:LOOPback:EDGE:ETCH:F43[:DATA]? IEC|IEBC|DEFC|BCO|IER|IABer|ALL|TEC|TEBC|TDEFc|TBCO|TER|TABer|TALL|JUDGE|STOP|SCAuse
```

This data query returns the measurement result value for each variable.

IEC|IEBC|DEFC|BCO|IER|IABer are intermediate values, so during the measurement, these variables are updated as well as the display information.

At the end of the measurement, the final values are stored to: TEC|TEBC|TDEFc|TBCO|TER|TABer variables. These variables and JUDGE|STOP|SCAuse are not updated until the next BER measurement is completed.

- | | |
|-------|---|
| IEC | This choice provides the intermediate error count with the following range: <Integer> 0 to 1500000. |
| IEBC | This choice provides the intermediate non-erased bit error blocks with the following range: <Integer> 0 to 1500000. |
| DEFC | This choice provides the intermediate downlink error frame count with the following range: <Integer> 0 to 750000. |
| BCO | This choice provides the intermediate block or bit count with the following range: <Integer> 0 to 1500000 (block). |
| IER | This choice provides the intermediate error ratio with the following range: <Real> 0 to 1 (0 to 100%). |
| IABer | This choice provides the intermediate average BER within blocks that have errors. The range is as follows: <Real> 0 to 1. |
| ALL | This choice returns all intermediate values (IEC, IEBC, DEFC, BCO, IER, and IABer) at the same time. |
| TEC | This choice provides the total error count with the following range: <Integer> 0 to 1500000 (block). |
| TEBC | This choice provides the total non-erased bit error blocks count with the following range: <Integer> 0 to 1500000. |
| TDEFc | This choice provides the total downlink error frame count with the following range: <Integer> 0 to 65535. |

Data Subsystem–Option UN7 and 300 (:DATA)

TBCO	This choice provides the total block count with the following range: <Integer> 0 to 1500000 (block).
TER	This choice provides the total error ratio with the following range: <Real> 0 to 1 (0 to 100%).
TABer	This choice provides the total average BER within blocks that have errors. The range is as follows: <Real> 0 to 1.
TALL	This choice returns all total values (TEC, TEBC, TDEFc, TBCO, TER, TABer, JUDGE, STOP, and SCAuse) at the same time. If accidental TCH synchronization loss caused the measurement to stop, TSLoss is returned.
JUDGE	This choice provides the pass or fail string. If pass/fail criteria is NOLimit, NONE is returned.
STOP	This choice checks to see if the stop threshold is met and returns one of the following values: <Enumerated set> TRUE FALSE. When threshold to stop criteria is NONE, FALSE is returned.
SCAuse	This choice provides the stop cause by returning one of the following values: <Enumerated set> NONE Ebit EBlock TSL. If accidental TCH synchronization loss caused the measurement to stop, TSL is returned.
*RST	N/A
Range	N/A
Key Entry	N/A
Remarks	N/A

:BERT:BTS:LOOPback:EDGE:MCS5[:DATA]

Supported All with Option 300

:DATA:BERT:BTS:LOOPback:EDGE:MCS5[:DATA]? IEC|IEBC|DEFc|BCO|IER|IABer|ALL|TEC|TEBC|TDEFc|TBCO|TER|TABer|TALL|JUDGE|STOP|SCAuse

This data query returns the measurement result value for each variable.

IEC|IEBC|DEFc|BCO|IER|IABer are intermediate values, so during the measurement, these variables are updated as well as the display information. ALL returns all intermediate values at the same time.

At the end of the measurement, the final values are stored to:

TEC|TEBC|TDEFc|TBCO|TER|TABer variables. These variables and

JUDGE|STOP|SCAUSE are not updated until the next BER measurement is completed.

For more information on the parameters, refer to [page 373](#).

*RST	N/A
Range	N/A
Key Entry	N/A
Remarks	N/A

:BERT:BTS:LOOPback:EDGE:MCS9[:DATA]

Supported All with Option 300

:DATA:BERT:BTS:LOOPback:EDGE:MCS9[:DATA]? IEC|IEBC|DEFC|BCO|IER|IABer|ALL|TEC|TEBC|TDEFc|TBCO|TER|TABer|TALL|JUDGE|STOP|SCAUSE

This data query returns the measurement result value for each variable.

IEC|IEBC|DEFC|BCO|IER|IABer are intermediate values, so during the measurement, these variables are updated as well as the display information. ALL returns all intermediate values at the same time.

At the end of the measurement, the final values are stored to: TEC|TEBC|TDEFc|TBCO|TER|TABer variables. These variables and JUDGE|STOP|SCAUSE are not updated until the next BER measurement is completed.

For more information on the parameters, refer to [page 373](#).

*RST	N/A
Range	N/A
Key Entry	N/A
Remarks	N/A

:BERT:BTS:LOOPback:EDGE:UNCoded[:DATA]

Supported All with Option 300

:DATA:BERT:BTS:LOOPback:EDGE:UNCoded[:DATA]? IEC|IEBC|DEFC|BCO|IER|IABer|ALL|TEC|TEBC|TDEFc|TBCO|TER|TABer|TALL|JUDGE|STOP|SCAUSE

This data query returns the measurement result value for each variable.

IEC|IEBC|DEFC|BCO|IER|IABer are intermediate values, so during the measurement, these variables are updated as well as the display information. ALL

returns all intermediate values at the same time.

At the end of the measurement, the final values are stored to: TEC | TEBC | TDEFc | TBCO | TER | TABer variables. These variables and JUDGE | STOP | SCAuse are not updated until the next BER measurement is completed.

For more information on the parameters, refer to [page 373](#).

*RST	N/A
Range	N/A
Key Entry	N/A
Remarks	N/A

:BERT:BTS:LOOPback:GSM[:DATA]

Supported All with Option 300

:DATA:BERT:BTS:LOOPback:GSM[:DATA]? IBC | IIC | FEC | DFEC | FRC |
 IBBer | ALL | TEC | TEBC | TDEFc | TBCO | TER | TABer | TALL | JUDGE | STOP | SCAuse

This data query returns the measurement result value for each variable.

IBC | IIC | FEC | DFEC | FRC | IBBer | IIBer | FER are intermediate values, so during the measurement, these variables are updated as well as the display information. ALL returns intermediate values at the same time.

At the end of the measurement, the final values are stored to: TIBC | TIIC | TFEC | TDEFc | TFRC | TIBBer | TIIBer | TFER variables. These variables and JUDGE | JCAuse | STOP | SCAuse are not updated until the next BER measurement is completed. TALL returns all of the total values at the same time.

IBC	This choice provides the intermediate class Ib error count with the following range: <Integer> 0 to 792000000.
IIC	This choice provides the intermediate class II error count with the following range: <Integer> 0 to 468000000.
FEC	This choice provides the intermediate frame erasure count with the following range: <Integer> 0 to 6000000.
DFEC	This choice provides the intermediate downlink error frame count with the following range: <Integer> 0 to 65535.
FRC	This choice provides the intermediate frame count with the following range: <Integer> 0 to 6000000.
IBBer	This choice provides the intermediate class Ib error ratio with the

	following range: <Real> 0 to 1 (0 to 100%).
IIBer	This choice provides the intermediate class II error ratio with the following range: <Real> 0 to 1 (0 to 100%).
FER	This choice provides the intermediate frame erasure ratio with the following range: <Real> 0 to 1 (0 to 100%).
ALL	This choice provides all intermediate values (IBC, IIC, FEC, DEFC, FRC, IIBer, IIBer, FER) at the same time.
TIBC	This choice provides the total class Ib bit error count with the following range: <Integer> 0 to 792000000.
TIIC	This choice provides the total class II bit error count with the following range: <Integer> 0 to 468000000.
TFEC	This choice provides the total frame erasure count with the following range: <Integer> 0 to 6000000.
TDEFc	This choice provides the total downlink error frame count with the following range: <Integer> 0 to 65535.
TFRC	This choice provides the total frame count with the following range: <Integer> 0 to 6000000.
TIBBer	This choice provides the total class Ib error ratio with the following range: <Real> 0 to 1 (0 to 100%).
TIIBer	This choice provides the total class II error ratio with the following range: <Real> 0 to 1 (0 to 100%).
TFER	This choice provides the total frame erasure ratio with the following range: <Real> 0 to 1 (0 to 100%).
TALL	This choice returns all total values (TIBC TIIC TFEC TDEFc TFRC TIBBer TIIBer TFER JUDGE JCAuse STOP SCAuse) at the same time. If accidental TCH synchronization loss caused the measurement to stop, TSLoss is returned.
JUDGE	This choice provides the comparator result (TEST OUT) with the following values: <Enumerated set> FAIL PASS NONE. If pass/fail criteria is NOLimit, NONE is returned
JCAuse	This choice provides which limit was met to cause the comparator result by returning one of the following values: <Enumerated set> NOLimit FER CIB CII
STOP	This choice checks to see if the stop threshold is met and returns one of the following values: <Enumerated set> TRUE FALSE. When threshold

	to stop criteria is NONE, FALSE is returned.
SCAuse	This choice provides the stop cause by returning one of the following values: <Enumerated set> NONE FE CIB CII TSLoss. If accidental TCH synchronization loss caused the measurement to stop, TSLoss is returned.
*RST	N/A
Range	N/A
Key Entry	N/A
Remarks	N/A

:BERT:BTS:LOOPback:GSM:CS1[:DATA]

Supported All with Option 300

:DATA:BERT:BTS:LOOPback:GSM:CS1[:DATA]? IEC|IEBC|DEFc|BCO|IER|IABer|ALL|TEC|TEBC|TDEFc|TBCO|TER|TABer|TALL|JUDGE|STOP|SCAuse

This data query returns the measurement result value for each variable.

IEC|IEBC|DEFc|BCO|IER|IABer are intermediate values, so during the measurement, these variables are updated as well as the display information. ALL returns all intermediate values at the same time.

At the end of the measurement, the final values are stored to: TEC|TEBC|TDEFc|TBCO|TER|TABer variables. These variables and JUDGE|STOP|SCAuse are not updated until the next BER measurement is completed.

For more information on the parameters, refer to [page 373](#).

*RST	N/A
Range	N/A
Key Entry	N/A
Remarks	N/A

:BERT:BTS:LOOPback:GSM:CS4[:DATA]

Supported All with Option 300

:DATA:BERT:BTS:LOOPback:GSM:CS4[:DATA]? IEC|IEBC|DEFc|BCO|IER|IABer|ALL|TEC|TEBC|TDEFc|TBCO|TER|TABer|TALL|JUDGE|STOP|SCAuse

This data query returns the measurement result value for each variable.

IEC | IEBC | DEFC | BCO | IER | IABer are intermediate values, so during the measurement, these variables are updated as well as the display information. ALL returns all intermediate values at the same time.

At the end of the measurement, the final values are stored to: TEC | TEBC | TDEFc | TBCO | TER | TABer variables. These variables and JUDGE | STOP | SCAuse are not updated until the next BER measurement is completed.

For more information on the parameters, refer to [page 373](#).

*RST	N/A
Range	N/A
Key Entry	N/A
Remarks	N/A

:BERT:BTS:LOOPback:GSM:MCS1[:DATA]

Supported All with Option 300

:DATA : BERT : BTS : LOOPback : GSM : MCS1 [: DATA] ? IEC | IEBC | DEFC | BCO | IER | IABer | ALL | TEC | TEBC | TDEFc | TBCO | TER | TABer | TALL | JUDGE | STOP | SCAuse

This data query returns the measurement result value for each variable.

IEC | IEBC | DEFC | BCO | IER | IABer are intermediate values, so during the measurement, these variables are updated as well as the display information. ALL returns all intermediate values at the same time.

At the end of the measurement, the final values are stored to: TEC | TEBC | TDEFc | TBCO | TER | TABer variables. These variables and JUDGE | STOP | SCAuse are not updated until the next BER measurement is completed.

For more information on the parameters, refer to [page 373](#).

*RST	N/A
Range	N/A
Key Entry	N/A
Remarks	N/A

:BERT:AUXout

Supported All with Option UN7

```
:DATA:BERT[:BASeband]:AUXout ERRor|REFerence|PN9
:DATA:BERT[:BASeband]:AUXout?
```

This command selects a pre-defined output signal configuration for pins on the AUX I/O rear panel connector. Refer to [Table 1](#) for the output pin configuration and signal type.

- ERRor This choice selects the bit error rate (BER) information output.
- REFerence This choice selects the reference information output.
- PN9 This choice selects a pseudo-random data output.

Table 1 AUX I/O pin configurations

Pin#	ERRor	REFerence	PN9
1	BER Meas End	BER Data Out	PN9 Data
4	BER Sync Loss	Sync Start	No signal
20	BER Test Out	BER Clock Out	PN9 Clock
21	BER Error Out	BER Error Out	BER Error Out
22	BER No Data	Reference Data	No signal

- BER Meas End** A signal at this pin indicates the status of the bit error rate (BER) measurements. BER measurements are being executed when the signal is high.
- BER Sync loss** A low signal at this pin indicates that the synchronization is lost. This signal is valid only when the signal at the BER Meas End pin is high.
- BER Test Out** A signal at this pin indicates the test result of the bit error rate measurements. The result is guaranteed at the falling edge of the BER Meas End signal. The result is pass when the signal is low; the result is fail when the signal is high. The signal is also high when the pass/fail judgment is set to off.
- BER Error Out** A signal at this pin indicates the number of the error bits. The output is normally low. One pulse signal (pulse width matches the input clock) indicates one error bit. Pulses for the error bits of one measurement cycle are not synchronized with the rear panel

	connector BER CLK IN signal and are output when the BER Meas End signal is high.
BER No Data	A low signal at this pin indicates the no data status. The no data status is reported when there has been no clock inputs for more than 3 seconds or there has been no data change for more than 200 bits. This signal is valid only when the signal of the BER Meas End output signal is high.
BER Clock Out	The BER Clock Out signal monitors the rear panel BER CLK IN signal after polarity control, delay control, and gate control (if applicable) have taken place.
BER Data Out	This is a data stream for the bit error rate measurements. The clock signal is used to trigger the reading of the data.
Sync Start	This signal indicates the timing when the PN generator starts to generate a PN sequence. This signal can also indicate if the hardware is triggering a PN synchronization or making a measurement when the signal is high.
PN9 Clock	This signal is the clock signal for the PN9 Data. The falling edge of the PN9 Clock indicates the center of PN9 Data. The PN9 Clock rate is 37.5Mbits per second.
PN9 Data	This signal is PN9 data for the self-loopback test.
Reference Data	This signal uses the pseudo-random bit stream as the reference signal.
*RST	ERRor
Key Entry	Error Out Reference Out PN9 Out
Remarks	N/A

[:DATA]

Supported All with Option UN7

:DATA [:DATA] ? BEC | BITC | BER | ALL | TBEC | TBIT | TBER | JUDGE

This query returns the data measurement for the selected variable.

BEc	This choice provides the intermediate bit error count result.
BITC	This choice provides the intermediate bit count result.
BER	This choice provides the intermediate bit error rate result.

ALL	This choice provides the values of the bit error count, bit error rate, and bit count in the following format: <bit count>, <error count>, <bit error rate>
TBEC	This choice provides the total bit error count at the end of each cycle.
TBIT	This choice provides the total bit count at the end of each cycle.
TBER	This choice provides the total bit error rate at the end of each cycle.
JUDGe	This choice provides the pass or fail string.
*RST	N/A
Range	N/A
Key Entry	N/A
Remarks	N/A

Input Subsystem–Option UN7 (:INPut:BERT[: BASEband])

:CGATe:DELay:CLOCK

Supported All with Option UN7

```
:INPut:BERT[:BASEband]:CGATe:DELay:CLOCK <val>  
:INPut:BERT[:BASEband]:CGATe:DELay:CLOCK?
```

This command sets the number of delay bits for the signal applied to the BER GATE IN rear panel connector.

One bit corresponds with one bit of delay for the input clock.

***RST** 1

Range 1–16384

Key Entry Gate Clk Delay

Remarks The gate delay mode must be set to CLOCK for this command to work. Refer to “:CGATe:DELay:MODE”. Also, the gate and gate delay must be enabled for this command to work. Refer to “:CGATe[:STATe]” on page 385 and “:CGATe:DELay[:STATe]” on page 384.

:CGATe:DELay:MODE

Supported All with Option UN7

```
:INPut:BERT[:BASEband]:CGATe:DELay:MODE TIME|CLOCK  
:INPut:BERT[:BASEband]:CGATe:DELay:MODE:?
```

This command selects the operating mode of the gate delay.

TIME This choice selects the time mode which makes it possible to set the gate time delay in absolute time and the resolution.

CLOCK This choice selects the clock mode which enables you to set the gate delay by a set number of bits.

***RST** TIME

Key Entry Gate Mode Time Clk

Remarks The gate state and gate delay state must be enabled for this command to work. Refer to “:CGATe[:STATe]” on page 385 and

[“:CGATe:DElAy\[:STATe\]” on page 384.](#)

:CGATe:DElAy:TIME

Supported All with Option UN7

```
:INPut:BERT[:BASEband]:CGATe:DElAy:TIME <val><unit>  
:INPut:BERT[:BASEband]:CGATe:DElAy:TIME?
```

This command sets the delay time of the gate signal. The gate delay time must be the multiple of the minimum resolution value and if not, the delay resolution is automatically rounded to the nearest multiplied value of the gate time delay value.

The variable <val> is expressed in units of seconds (s), milliseconds (ms), microseconds (μ s), and nanoseconds (ns).

***RST** +2.67000000E-008

Range 2.67 ns–1.0 s

Key Entry Gate Time Delay

Remarks Gate Delay Off On must be set to On and Gate Mode Time Clk set to Time for this command to work. Refer to [“:CGATe:DElAy\[:STATe\]” on page 384](#) and [“:CGATe:DElAy:MODE” on page 383](#).

To set the resolution, refer to [“:CLOCK:DElAy:RESolution” on page 385](#).

:CGATe:DElAy[:STATe]

Supported All with Option UN7

```
:INPut:BERT[:BASEband]:CGATe:DElAy[:STATe] ON|OFF|1|0  
:INPut:BERT[:BASEband]:CGATe:DElAy[:STATe]?
```

This command enables or disables the operating state of the gate delay.

ON This choice enables the gate delay adjustment function.

OFF This choice disables the gate delay adjustment function.

***RST** 0

Key Entry Gate Delay Off On

Remarks The gate must be enabled for this command to work. To enable the gate, refer to [“:CGATe\[:STATe\]” on page 385](#).

:CGATe:POLarity

Supported All with Option UN7

```
:INPut:BERT[:BASEband]:CGATe:POLarity POSitive|NEGative  
:INPut:BERT[:BASEband]:CGATe:POLarity?
```

This command sets the input polarity of the gate signal supplied to the BER GATE IN rear panel connector.

POS With this choice, the signal is valid when the gate signal is high.

NEG With this choice, the signal is valid when the gate signal is low.

***RST** POS

Key Entry Gate Polarity Neg Pos

Remarks N/A

:CGATe[:STATe]

Supported All with Option UN7

```
:INPut:BERT[:BASEband]:CGATe[:STATe] ON|OFF|1|0  
:INPut:BERT[:BASEband]:CGATe[:STATe]?
```

This command sets the operating state of the clock gate function.

ON This choice enables the clock gate function.

OFF This choice disables the clock gate function.

***RST** 0

Key Entry Gate Off On

Remarks N/A

:CLOCK:DELAy:RESolution

Supported All with Option UN7

```
:INPut:BERT[:BASEband]:CLOCK:DELAy:RESolution <val><unit>  
:INPut:BERT[:BASEband]:CLOCK:DELAy:RESolution?
```

This command sets the resolution of the clock delay. The minimum resolution is 13.3 ns and it corresponds to 1/75 MHz. The 75 MHz is the sampling clock for the BERT board. The input value must be a multiple of the minimum resolution. If the set value is not a multiple value, the delay resolution is automatically rounded to the nearest multiple

value with reference to the set value.

***RST** +1.33000000E-008

Range 13.3ns–80μs

Key Entry Resolution

Remarks The clock delay or the gate delay must be enabled for this command to work. Refer to “:CLOCK:DELAy[:STATe]” on page 386 and “:CGATE:DELAy[:STATe]” on page 384. A change in the resolution value can affect both the clock and the gate delay time automatically.

:CLOCK:DELAy:TIME

Supported All with Option UN7

```
:INPut:BERT[:BASEband]:CLOCK:DELAy:TIME <val><unit>
```

```
:INPut:BERT[:BASEband]:CLOCK:DELAy:TIME?
```

This command sets the clock signal delay time.

The variable <val> is expressed in units of seconds (s), milliseconds (ms), microseconds (μs), and nanoseconds (ns).

***RST** +2.67000000E-008

Range 26.7ns–999.9967600ms

Key Entry Clock Time Delay

Remarks The clock delay must be enabled for this command to work. Refer to “:CLOCK:DELAy[:STATe]” on page 386.

:CLOCK:DELAy[:STATe]

Supported All with Option UN7

```
:INPut:BERT[:BASEband]:CLOCK:DELAy[:STATe] ON|OFF|1|0
```

```
:INPut:BERT[:BASEband]:CLOCK:DELAy[:STATe]?
```

This command sets the operating state of the clock delay function.

ON This choice enables the clock delay adjustment.

OFF This choice disables the clock delay adjustment.

***RST** 0

Key Entry Clock Delay Off On

Remarks N/A

:CLOCK:POLarity

Supported All with Option UN7

```
:INPut:BERT[:BASEband]:CLOCK:POLarity POSitive|NEGative  
:INPut:BERT[:BASEband]:CLOCK:POLarity?
```

This command sets the input polarity of the clock signal supplied to the BER CLK IN rear panel connector.

POS With this choice, the signal is valid when the clock signal is high.

NEG With this choice, the signal is valid when the clock signal is low.

***RST** POS

Key Entry **Clock Polarity Neg Pos**

Remarks N/A

:DATA:POLarity

Supported All with Option UN7

```
:INPut:BERT[:BASEband]:DATA:POLarity POSitive|NEGative  
:INPut:BERT[:BASEband]:DATA:POLarity?
```

This command sets the input polarity of the data signal supplied to the BER DATA IN rear panel connector.

POS With this choice, the signal is valid when the data signal is high.

NEG With this choice, the signal is valid when the data signal is low.

***RST** POS

Key Entry **Data Polarity Neg Pos**

Remarks N/A

:IMPedance**Supported** All with Option UN7

:INPut:BERT[:BASEband]:IMPedance OHM_75|HIGH

:INPut:BERT[:BASEband]:IMPedance?

This command sets the input termination mode of the BER CLK IN, BER DATA IN, and BER GATE IN rear panel connectors.

RST** HIGH**Key Entry** Impedance 75 Ohm High**Remarks** N/A**:THReshold*Supported** All with Option UN7

:INPut:BERT[:BASEband]:THReshold V0_7|V1_4|V1_65|V2_5

:INPut:BERT[:BASEband]:THReshold?

This command sets the threshold voltage level of the BER CLK IN, BER DATA IN, and BER GATE IN rear panel connectors.

V0_7 This choice selects 0.7 volts (normal TTL) as the turn-on voltage for the input signal.

V1_4 This choice selects 1.4 volts (Schmit TTL) as the turn-on voltage for the input signal.

V1_65 This choice selects 1.65 volts (CMOS 3.3 volts is the maximum operating range) as the turn-on voltage for the input signal.

V2_5 This choice selects 2.5 volts (CMOS 5 volts is the maximum operating range) as the turn-on voltage for the input signal.

***RST** V1_4**Key Entry** 0.7V 1.4V 1.65V 2.5V**Remarks** N/A

Measure Subsystem–Option 300 (:MEASure[:SCALar]:BERT:BTS:LOOPback)

:EDGE:MCS5[:SENSitivity]

Supported All with Option 300

```
:MEASure[:SCALAR]:BERT:BTS:LOOPback:EDGE:MCS5[:SENSitivity]?  
<high amplitude><unit>,<low amplitude><unit>,<pass amplitude><unit>,  
<error sensitivity limit>,<block count>,<initial block count>
```

This query returns either PASS or FAIL and the result for the measured sensitivity level. When this command is executed before the signal generator is synchronized with the BTS, the message “Fail, -999.00” is displayed.

There are two other status errors that may be returned; SERR or DERR.

SERR	This indicates that RF synchronization is lost during search and the search is aborted.
DERR	This indicates that a downlink error occurred during search and the search is aborted.

When these errors are returned, the sensitivity search returns a value of -1.0.

This command can be used in both the BER% measurement or the sensitivity search mode. After this command is executed, the measurement mode is in the sensitivity search mode.

***RST** N/A

Range N/A

Key Entry N/A

Remarks The trigger source must be set to IMMEDIATE to execute this command. If the trigger source selection is BUS, error “-214 Trigger deadlock” is generated and no data is returned.

:EDGE:MCS9[:SENSitivity]

Supported All with Option 300

```
:MEASure[:SCALAR]:BERT:BTS:LOOPback:EDGE:MCS9[:SENSitivity]?  
<high amplitude><unit>,<low amplitude><unit>,<pass amplitude><unit>,  
<error sensitivity limit>,<block count>,<initial block count>
```

This query returns either PASS or FAIL and the result for the measured sensitivity level. When this command is executed before the signal generator is synchronized with the BTS, the message “Fail, -999.00” is displayed.

There are two other status errors that may be returned; SERR or DERR.

- | | |
|------|---|
| SERR | This indicates that RF synchronization is lost during search and the search is aborted. |
| DERR | This indicates that a downlink error occurred during search and the search is aborted. |

When these errors are returned, the sensitivity search returns a value of -1.0.

This command can be used in both the BER% measurement or the sensitivity search mode. After this command is executed, the measurement mode is in the sensitivity search mode.

***RST** N/A

Range N/A

Key Entry N/A

Remarks The trigger source must be set to IMMEDIATE to execute this command. If the trigger source selection is BUS, error “-214 Trigger deadlock” is generated and no data is returned.

:EDGE:UNCoded[:SENSitivity]

Supported All with Option 300

```
:MEASure[:SCALAR]:BERT:BTS:LOOPback:EDGE:UNCoded[:SENSitivity]?  
<high amplitude><unit>,<low amplitude><unit>,<pass amplitude><unit>,  
<error sensitivity limit>,<block count>,<initial block count>
```

This query returns either PASS or FAIL and the result for the measured sensitivity level. When this command is executed before the signal generator is synchronized with the BTS, the message “Fail, -999.00” is displayed.

There are two other status errors that may be returned; SERR or DERR.

Measure Subsystem—Option 300 (:MEASure[:SCALar]:BERT:BTS:LOOPback)

SERR	This indicates that RF synchronization is lost during search and the search is aborted.
DERR	This indicates that a downlink error occurred during search and the search is aborted.

When these errors are returned, the sensitivity search returns a value of -1.0 .

This command can be used in both the BER% measurement or the sensitivity search mode. After this command is executed, the measurement mode is in the sensitivity search mode.

*RST	N/A
Range	N/A
Key Entry	N/A
Remarks	The trigger source must be set to IMMEDIATE to execute this command. If the trigger source selection is BUS, error “-214 Trigger deadlock” is generated and no data is returned.

:GSM[:SENSitivity]

Supported All with Option 300

```
:MEASure[:SCALAR]:BERT:BTS:LOOPback:GSM[:SENSitivity]?
<high amplitude><unit>,<low amplitude><unit>,<pass amplitude><unit>,<error sensitivity limit>,<block count>,<initial block count>
```

This query returns either PASS or FAIL and the result for the measured sensitivity level. When this command is executed before the signal generator is synchronized with the BTS, the message “Fail, -999.00 ” is displayed.

There are two other status errors that may be returned; SERR or DERR.

SERR	This indicates that RF synchronization is lost during search and the search is aborted.
DERR	This indicates that a downlink error occurred during search and the search is aborted.

When these errors are returned, the sensitivity search returns a value of -1.0 .

This command can be used in both the BER% measurement or the sensitivity search mode. After this command is executed, the measurement mode is in the sensitivity search mode.

*RST	N/A
-------------	-----

Bit Error Rate Test (BERT) Commands

Measure Subsystem–Option 300 (:MEASure[:SCALar]:BERT:BTS:LOOPback)

Range N/A

Key Entry N/A

Remarks The trigger source must be set to IMMEDIATE to execute this command. If the trigger source selection is BUS, error “-214 Trigger deadlock” is generated and no data is returned.

Sense Subsystem–Options UN7 and 300 ([:SOURCE]:SENSE:BERT)

:BTS:LOOPback:EDGE:ETCH:F43:BLOCK:COUNT

Supported All with Option 300

```
:SENSE:BERT:BTS:LOOPback:EDGE:ETCH:F43:BLOCK:COUNT <val>  
:SENSE:BERT:BTS:LOOPback:EDGE:ETCH:F43:BLOCK:COUNT?
```

This command specifies the total number of blocks to be measured.

***RST** +600

Range 1–1500000

Key Entry **Block Count**

Remarks N/A

:BTS:LOOPback:EDGE:ETCH:F43:CONTain

Supported All with Option 300

```
:SENSE:BERT:BTS:LOOPback:EDGE:ETCH:F43:CONTain ON|OFF|1|0  
:SENSE:BERT:BTS:LOOPback:EDGE:ETCH:F43:CONTain?
```

This command enables or disables the BER measurement for ETCH/F43 channels in addition to the BLER measurement.

ON With this choice, data bits of the specified number of blocks are measured.

OFF This choice disables the measurement.

***RST** 1

Key Entry **BER Mode Off On**

Remarks N/A

:BTS:LOOPback:EDGE:ETCH:F43:STOP:CRITeria:EBLock**Supported** All with Option 300

```
:SENSe:BERT:BTS:LOOPback:EDGE:ETCH:F43:STOP:CRITeria:EBLock <val>
:SENSe:BERT:BTS:LOOPback:EDGE:ETCH:F43:STOP:CRITeria:EBLock?
```

This command specifies the number of erased blocks that contain bit errors for the threshold limit to stop the measurement.

RST** +60**Range** 0–1500000**Key Entry** **Block Erasure*Remarks** N/A**:BTS:LOOPback:EDGE:ETCH:F43:STOP:CRITeria[:SELEct]****Supported** All with Option 300

```
:SENSe:BERT:BTS:LOOPback:EDGE:ETCH:F43:STOP:CRITeria[:SELEct] EBLock|
NONE
:SENSe:BERT:BTS:LOOPback:EDGE:ETCH:F43:STOP:CRITeria[:SELEct]?
```

This command determines which of the following threshold criteria is used to prematurely stop the measurement prior to the normal measurement end. In each case, the measurement will terminate no later than 200 ms after the threshold is exceeded.

EBLock This choice enables you to specify the number of erased blocks.

NONE This choice disables the stop measurement threshold criteria function.

RST** NONE**Key Entry** **Block Erasure No Thresholds*Remarks** N/A**:BTS:LOOPback:EDGE:FTRigger:EXTernal:DELay****Supported** All with Option 300

```
:SENSe:BERT:BTS:LOOPback:EDGE:FTRigger:EXTernal:DELay <val>
:SENSe:BERT:BTS:LOOPback:EDGE:FTRigger:EXTernal:DELay?
```

This command specifies the delay time of the external frame trigger. This delay is the offset from the beginning of timeslot 0.

The variable <val> is expressed in symbols with a resolution of 0.25.

*RST	+0.00000000E+000
Range	-1250 to 1250
Key Entry	Ext Frame Trigger Delay
Remarks	Refer to the <i>User's Guide</i> for information on how to calculate the delay value.

:BTS:LOOPback:EDGE:FTRigger:EXTErnal:POLarity

Supported All with Option 300

```
:SENSe:BERT:BTS:LOOPback:EDGE:FTRigger:EXTErnal:POLarity POSitive|
NEGative
:SENSe:BERT:BTS:LOOPback:EDGE:FTRigger:EXTErnal:POLarity?
```

This command specifies the external frame trigger polarity.

POS	This selects the reference edge to be the rising edge of the pulse.
NEG	This selects the reference edge to be the falling edge of the pulse.
*RST	POS
Key Entry	External Frame Trigger Polarity Neg Pos
Remarks	N/A

:BTS:LOOPback:EDGE:FTRigger[SELEct]

Supported All with Option 300

```
:SENSe:BERT:BTS:LOOPback:EDGE:FTRigger[:SELEct] INTernAl|EXTernAl
:SENSe:BERT:BTS:LOOPback:EDGE:FTRigger[:SELEct]?
```

This command specifies the frame trigger source to be used by the baseband generator.

INTernAl	This choice enables internal triggering.
EXTernAl	This choice enables the triggering by an externally applied signal at the rear panel connector.
*RST	INT
Key Entry	Frame Trigger Source Int Ext
Remarks	To enable this command, the frame trigger synchronization source must be PDCH. Refer to “:BTS:LOOPback:EDGE:SYNC[:SOURCE]” on

page 406.

:BTS:LOOPback:EDGE:MCS5:BLOCK:COUNT**Supported** All with Option 300

```
:SENSe:BERT:BTS:LOOPback:EDGE:MCS5:BLOCK:COUNT <value>
:SENSe:BERT:BTS:LOOPback:EDGE:MCS5:BLOCK:COUNT?
```

This command specifies the total number of blocks to be measured.

RST** +600**Range** 1–1500000**Key Entry** **Block Count*Remarks** N/A**:BTS:LOOPback:EDGE:MCS5:CONTain****Supported** All with Option 300

```
:SENSe:BERT:BTS:LOOPback:EDGE:MCS5:CONTain ON|OFF|1|0
:SENSe:BERT:BTS:LOOPback:EDGE:MCS5:CONTain?
```

This command enables or disables the BER measurement for MCS-5 channels in addition to the BLER measurement.

ON With this choice, data bits of the specified number of blocks are measured.

OFF This choice disables the measurement.

RST** 1**Key Entry** **BER Mode Off On*Remarks** N/A**:BTS:LOOPback:EDGE:MCS5:ESENsitivity****Supported** All with Option 300

```
:SENSe:BERT:BTS:LOOPback:EDGE:MCS5:ESENsitivity <val>
:SENSe:BERT:BTS:LOOPback:EDGE:MCS5:ESENsitivity?
```

This command specifies the target error rate when performing a sensitivity search.

The variable <val> is a decimal notation representing a percentage value.

***RST** +1.00000000E-001
Range 1E-6 to 1
Key Entry Target BER %
Remarks N/A

:BTS:LOOPback:EDGE:MCS5:HAMplitude

Supported All with Option 300

```
:SENSe:BERT:BTS:LOOPback:EDGE:MCS5:HAMplitude <val>  
:SENSe:BERT:BTS:LOOPback:EDGE:MCS5:HAMplitude?
```

This command specifies the maximum amplitude level for performing a sensitivity search. The high amplitude value can not be lower than the low amplitude value.

The variable <val> is expressed in units of dBm.

***RST** -9.00000000E+001
Range -136 to 20
Key Entry High Amplitude
Remarks N/A

:BTS:LOOPback:EDGE:MCS5:LAMplitude

Supported All with Option 300

```
:SENSe:BERT:BTS:LOOPback:EDGE:MCS5:LAMplitude <val>  
:SENSe:BERT:BTS:LOOPback:EDGE:MCS5:LAMplitude?
```

This command specifies the minimum amplitude level for performing a sensitivity search. The low amplitude value can not be higher than the high amplitude value.

The variable <val> is expressed in units of dBm.

***RST** -1.10000000E+002
Range -136.0 to 20
Key Entry Low Amplitude
Remarks N/A

:BTS:LOOPback:EDGE:MCS5:PAMplitude**Supported** All with Option 300

:SENSe:BERT:BTS:LOOPback:EDGE:MCS5:PAMplitude <val>

:SENSe:BERT:BTS:LOOPback:EDGE:MCS5:PAMplitude?

This command specifies the threshold amplitude for pass/fail comparator results when performing a sensitivity search.

The variable <val> is expressed in units of dBm.

RST** -1.01000000E+002**Range** -136.0 to 20**Key Entry** Pass Amplitude**Remarks** N/A**:BTS:LOOPback:EDGE:MCS5:SBLock:COUNT*Supported** All with Option 300

:SENSe:BERT:BTS:LOOPback:EDGE:MCS5:SBLock:COUNT <val>

:SENSe:BERT:BTS:LOOPback:EDGE:MCS5:SBLock:COUNT?

This command specifies the total number of blocks for each measurement during the sensitivity search.

RST** +1200**Range** 1–1500000**Key Entry** Block Count**Remarks** N/A**:BTS:LOOPback:EDGE:MCS5:SBLock:INITial*Supported** All with Option 300

:SENSe:BERT:BTS:LOOPback:EDGE:MCS5:SBLock:INITial <val>

:SENSe:BERT:BTS:LOOPback:EDGE:MCS5:SBLock:INITial?

This command specifies the total number of blocks to be measured at the beginning of each measurement during the sensitivity search.

***RST** +600**Range** 1–1500000

Key Entry	Initial Block Count
Remarks	N/A

:BTS:LOOPback:EDGE:MCS5:STOP:CRITeria:EBLock

Supported All with Option 300

```
:SENSE:BERT:BTS:LOOPback:EDGE:MCS5:STOP:CRITeria:EBLock <val>
:SENSE:BERT:BTS:LOOPback:EDGE:MCS5:STOP:CRITeria:EBLock?
```

This command specifies the number of erased blocks that contain bit errors for the threshold limit to stop the measurement.

*RST	+60
Range	0–1500000
Key Entry	Block Erasure
Remarks	N/A

:BTS:LOOPback:EDGE:MCS5:STOP:CRITeria[:SElect]

Supported All with Option 300

```
:SENSE:BERT:BTS:LOOPback:EDGE:MCS5:STOP:CRITeria[:SElect] EBlock|NONE
:SENSE:BERT:BTS:LOOPback:EDGE:MCS5:STOP:CRITeria[:SElect]?
```

This command determines which of the following threshold criteria is used to prematurely stop the measurement prior to the normal measurement end. In each case, the measurement will terminate no later than 200 ms after the threshold is exceeded.

EBlock	This choice enables you to specify the number of erased blocks or bit errors.
NONE	This choice disables the stop measurement threshold criteria function.
*RST	NONE
Key Entry	Block Erasure No Thresholds
Remarks	N/A

:BTS:LOOPback:EDGE:MCS9:BLOCK:COUNT**Supported** All with Option 300

:SENSe:BERT:BTS:LOOPback:EDGE:MCS9:BLOCK:COUNT <val>

:SENSe:BERT:BTS:LOOPback:EDGE:MCS9:BLOCK:COUNT?

This command specifies the total number of blocks to be measured.

Only even values can be entered. If odd numbers are entered, the value increments by one to make it an even value.

RST** +600**Range** 2–1500000**Key Entry** **Block Count*Remarks** N/A**:BTS:LOOPback:EDGE:MCS9:CONTain****Supported** All with Option 300

:SENSe:BERT:BTS:LOOPback:EDGE:MCS9:CONTain ON|OFF|1|0

:SENSe:BERT:BTS:LOOPback:EDGE:MCS9:CONTain?

This command enables or disables the BER measurement for MCS-9 channels in addition to the BLER measurement.

ON With this choice, data bits of the specified number of blocks are measured.

OFF This choice disables the measurement.

RST** 1**Key Entry** **BER Mode Off On*Remarks** N/A**:BTS:LOOPback:EDGE:MCS9:ESENSitivity****Supported** All with Option 300

:SENSe:BERT:BTS:LOOPback:EDGE:MCS9:ESENSitivity <val>

:SENSe:BERT:BTS:LOOPback:EDGE:MCS9:ESENSitivity?

The variable <val> is a decimal notation representing a percentage value.

***RST** +1.00000000E-001

Range 1E-6 to 1
Key Entry Target BER %
Remarks N/A

:BTS:LOOPback:EDGE:MCS9:HAMplitude

Supported All with Option 300

```
:SENSe:BERT:BTS:LOOPback:EDGE:MCS9:HAMplitude <val>  
:SENSe:BERT:BTS:LOOPback:EDGE:MCS9:HAMplitude?
```

This command specifies the maximum amplitude level for performing a sensitivity search. The high amplitude value can not be lower than the low amplitude value.

The variable <val> is expressed in units of dBm.

***RST** -8.00000000E+001

Range -136.0 to 20

Key Entry High Amplitude

Remarks N/A

:BTS:LOOPback:EDGE:MCS9:LAMplitude

Supported All with Option 300

```
:SENSe:BERT:BTS:LOOPback:EDGE:MCS9:LAMplitude <val>  
:SENSe:BERT:BTS:LOOPback:EDGE:MCS9:LAMplitude?
```

This command specifies the minimum amplitude level for performing a sensitivity search. The low amplitude value can not be higher than the high amplitude value.

The variable <val> is expressed in units of dBm.

***RST** -1.00000000E+002

Range -136.0 to 20

Key Entry Low Amplitude

Remarks N/A

:BTS:LOOPback:EDGE:MCS9:PAMplitude**Supported** All with Option 300

:SENSe:BERT:BTS:LOOPback:EDGE:MCS9:PAMplitude <val>

:SENSe:BERT:BTS:LOOPback:EDGE:MCS9:PAMplitude?

This command specifies the threshold amplitude for pass/fail comparator results when performing a sensitivity search.

The variable <val> is expressed in units of dBm.

RST** -9.15000000E+001**Range** -136.0 to 20**Key Entry** Pass Amplitude**Remarks** N/A**:BTS:LOOPback:EDGE:MCS9:SBlock:COUNT*Supported** All with Option 300

:SENSe:BERT:BTS:LOOPback:EDGE:MCS9:SBlock:COUNT <val>

:SENSe:BERT:BTS:LOOPback:EDGE:MCS9:SBlock:COUNT?

This command specifies the total number of blocks to be measured at each measurement during the sensitivity search.

Only even values can be entered. If odd numbers are entered, the value increments by one to make it an even value.

RST** +1200**Range** 2–1500000**Key Entry** Block Count**Remarks** N/A**:BTS:LOOPback:EDGE:MCS9:SBlock:INITIAL*Supported** All with Option 300

:SENSe:BERT:BTS:LOOPback:EDGE:MCS9:SBlock:INITIAL <val>

:SENSe:BERT:BTS:LOOPback:EDGE:MCS9:SBlock:INITIAL?

This command specifies the total number of blocks to be measured at the beginning of each measurement during the sensitivity search.

Only even values can be entered. If odd numbers are entered, the value increments by one to make it an even value.

***RST** +600
Range 2–1500000
Key Entry **Initial Block Count**
Remarks N/A

:BTS:LOOPback:EDGE:MCS9:STOP:CRITeria:EBLock

Supported All with Option 300

```
:SENSe:BERT:BTS:LOOPback:EDGE:MCS9:STOP:CRITeria:EBLock <val>
:SENSe:BERT:BTS:LOOPback:EDGE:MCS9:STOP:CRITeria:EBLock?
```

This command specifies the number of erased blocks that contain bit errors for the threshold limit to stop the measurement.

***RST** +60
Range 0–1500000
Key Entry **Block Erasure**
Remarks N/A

:BTS:LOOPback:EDGE:MCS9:STOP:CRITeria[:SElect]

Supported All with Option 300

```
:SENSe:BERT:BTS:LOOPback:EDGE:MCS9:STOP:CRITeria[:SElect] EBLock|NONE
:SENSe:BERT:BTS:LOOPback:EDGE:MCS9:STOP:CRITeria[:SElect]?
```

This command determines which of the following threshold criteria is used to prematurely stop the measurement prior to the normal measurement end. In each case, the measurement will terminate no later than 200 ms after the threshold is exceeded.

EBLock This choice enables you to specify the number of non-erased blocks that contain bit errors.

NONE This choice disables the stop measurement threshold criteria function.

***RST** NONE
Key Entry **Block Erasure No Thresholds**
Remarks N/A

:BTS:LOOPback:EDGE:MEASurement:STOP

Supported All with Option 300

:SENSe:BERT:BTS:LOOPback:EDGE:MEASurement:STOP

This command immediately stops any current measurement and releases the PRBS synchronization. After the synchronization is released, a new PRBS synchronization is attempted.

***RST** N/A

Range N/A

Key Entry Stop Measurement

Remarks N/A

:BTS:LOOPback:EDGE:MEASurement:TSLot

Supported All with Option 300

:SENSe:BERT:BTS:LOOPback:EDGE:MEASurement:TSLot 0|1|2|3|4|5|6|7

:SENSe:BERT:BTS:LOOPback:EDGE:MEASurement:TSLot?

This command specifies the timeslot number in which the measurement is to be performed.

The following EDGE timeslot configuration conditions will generate error message “-221 Settings Conflict”:

- If the specified timeslot does not have one of the BLER/BER measurable channel types, which are uncoded, E-TCH/43.2NT, MCS-9, and MCS-5.
- If the specified timeslot type is not set to “NORMal.”

***RST** +0

Key Entry Timeslot

Remarks This command couples the selected timeslot number with the EDGE configuration.

Changing the timeslot configuration with EDGE on will not generate an error message if EDGE BERT is off and the timeslot is off.

:BTS:LOOPback:EDGE:MEASurement[:MODE]

Supported All with Option 300

```
:SENSe:BERT:BTS:LOOPback:EDGE:MEASurement[:MODE] BLER|SSEarch  
:SENSe:BERT:BTS:LOOPback:EDGE:MEASurement[:MODE]?
```

This command specifies the measurement mode.

BLER This choice specifies BLER% as the measurement mode.

SSEarch This choice specifies sensitivity search as the measurement mode.

***RST** BLER

Key Entry **Measurement Mode BLER% Search**

Remarks If the BLER% measurement is already running, this command will abort the BLER% measurement.

:BTS:LOOPback:EDGE:SINVert

Supported All with Option 300

```
:SENSe:BERT:BTS:LOOPback:EDGE:SINVert ON|OFF|1|0  
:SENSe:BERT:BTS:LOOPback:EDGE:SINVert?
```

This command sets the operating state of the spectrum inverting function.

ON This choice specifies that the EDGE demodulator invert the spectrum of the received RF signal.

OFF This choice leaves the spectrum of the received RF signal unaffected.

***RST** 1

Key Entry **Spectrum Invert Off On**

Remarks N/A

:BTS:LOOPback:EDGE:SYNC:AGain

Supported All with Option 300

```
:SENSe:BERT:BTS:LOOPback:EDGE:SYNC:AGain
```

This command adjusts the input signal level of the internal demodulator. Use this adjustment when switching from BCH synchronization to PDCH synchronization.

***RST** N/A

Range	N/A
Key Entry	Adjust Gain
Remarks	This command is ignored unless the status displays "Waiting for PDCH."

:BTS:LOOPback:EDGE:SYNC:RF

Supported	All with Option 300
:SENSe:BERT:BTS:LOOPback:EDGE:SYNC:RF	

This command releases the current synchronization with the BTS and immediately starts to try to synchronize to either a BCH or PDCH signal as selected with the SYNC[:SOURCE] command. This command will also stop the current measurement.

*RST	N/A
Range	N/A
Key Entry	Synchronize to BCH/PDCH
Remarks	N/A

:BTS:LOOPback:EDGE:SYNC[:SOURCE]

Supported	All with Option 300
:SENSe:BERT:BTS:LOOPback:EDGE:SYNC[:SOURCE] BCH PDCH	
:SENSe:BERT:BTS:LOOPback:EDGE:SYNC[:SOURCE]?	

This command specifies the synchronization source from the BTS under test.

BCH	This choice specifies the traffic channel as the synchronization source.
PDCH	This choice specifies the packet data channel as the synchronization source.
*RST	BCH
Key Entry	Sync Source BCH PDCH
Remarks	N/A

:BTS:LOOPback:EDGE:TRIGger[:SOURce]

Supported All with Option 300

```
:SENSe:BERT:BTS:LOOPback:EDGE:TRIGger[:SOURce] IMMEDIATE|KEY|EXT|BUS  
:SENSe:BERT:BTS:LOOPback:EDGE:TRIGger[:SOURce]?
```

This command determines the trigger source for the EDGE loopback bit error rate measurement.

- | | |
|-----------|---|
| IMMEDIATE | This choice begins the measurement directly after synchronization has been achieved. |
| KEY | This choice begins the measurement when the front panel Trigger key is pressed, provided that synchronization has been achieved. If synchronization has not occurred, the trigger is ignored. |
| EXT | This choice begins the measurement as soon as a trigger signal is applied to the rear panel connector provided that synchronization has been achieved. If synchronization has not occurred, the trigger is ignored. |
| BUS | This choice enables GPIB triggering using the *TRG or GET command or LAN and RS-232 triggering using the *TRG command. |

***RST** KEY

Key Entry Immediate Trigger Key Ext Bus

Remarks An inherent variable delay will always exist when starting a measurement because the measurement must await the start of the next speech frame after the trigger. The delay can vary between 0 and 23 ms (5 frames) depending on where the trigger falls within the TDMA multiframe.

A trigger is ignored unless the EDGE loopback operating state is turned on.

:BTS:LOOPback:EDGE:ULINK:OFFSet

Supported All with Option 300

```
:SENSe:BERT:BTS:LOOPback:EDGE:ULINK:OFFSet <val>  
:SENSe:BERT:BTS:LOOPback:EDGE:ULINK:OFFSet?
```

This command specifies, in symbols, the amount of compensation for the insertion of equipment such as fading simulators into the uplink RF path.

***RST** +0

Range	–500 to 10000
Key Entry	Uplink Timing Advance
Remarks	N/A

:BTS:LOOPback:EDGE:UNCoded:BIT:COUNT

Supported All with Option 300

```
:SENSE:BERT:BTS:LOOPback:EDGE:UNCoded:BIT:COUNT <value>
:SENSE:BERT:BTS:LOOPback:EDGE:UNCoded:BIT:COUNT?
```

This command specifies the total number of bits to be measured for the uncoded channel.

*RST	+139200
Range	1392–2147483647
Key Entry	Bit Count
Remarks	N/A

:BTS:LOOPback:EDGE:UNCoded:ESENsitivity

Supported All with Option 300

```
:SENSE:BERT:BTS:LOOPback:EDGE:UNCoded:ESENsitivity <val>
:SENSE:BERT:BTS:LOOPback:EDGE:UNCoded:ESENsitivity?
```

This command specifies the target error rate when performing a sensitivity search.

*RST	+2.00000000E-002
Range	1E–6 to 1
Key Entry	Target BER %
Remarks	N/A

:BTS:LOOPback:EDGE:UNCoded:HAMPLitude

Supported All with Option 300

```
:SENSE:BERT:BTS:LOOPback:EDGE:UNCoded:HAMPLitude <val>
:SENSE:BERT:BTS:LOOPback:EDGE:UNCoded:HAMPLitude?
```

This command specifies the maximum amplitude level for performing a sensitivity search. The high amplitude value can not be lower than the low amplitude value.

The variable <val> is expressed in units of dBm.

***RST** -8.50000000E+001
Range -136.0 to 20
Key Entry **High Amplitude**
Remarks N/A

:BTS:LOOPback:EDGE:UNCoded:LAMPLitude

Supported All with Option 300

:SENSE:BERT:BTS:LOOPback:EDGE:UNCoded:LAMPLitude <val>
:SENSE:BERT:BTS:LOOPback:EDGE:UNCoded:LAMPLitude?

This command specifies the minimum amplitude level for performing a sensitivity search. The low amplitude value can not be higher than the high amplitude value.

The variable <val> is expressed in units of dBm.

***RST** -1.05000000E+002
Range -136.0 to 20
Key Entry **Low Amplitude**
Remarks N/A

:BTS:LOOPback:EDGE:UNCoded:PAMPLitude

Supported All with Option 300

:SENSE:BERT:BTS:LOOPback:EDGE:UNCoded:PAMPLitude <val>
:SENSE:BERT:BTS:LOOPback:EDGE:UNCoded:PAMPLitude?

This command specifies the threshold amplitude for pass/fail comparator results when performing a sensitivity search.

The variable <val> is expressed in units of dBm.

***RST** -9.50000000E+001
Range -136.0 to 20
Key Entry **Pass Amplitude**
Remarks N/A

:BTS:LOOPback:EDGE:UNCoded:SBIT:COUNT**Supported** All with Option 300

:SENSe:BERT:BTS:LOOPback:EDGE:UNCoded:SBIT:COUNT <val>

:SENSe:BERT:BTS:LOOPback:EDGE:UNCoded:SBIT:COUNT?

This command specifies the total number of bits to be measured during a sensitivity search for the uncoded channel.

RST** +139200**Range** 1392–2147483647**Key Entry** Bit Count**Remarks** N/A**:BTS:LOOPback:EDGE:UNCoded:SBIT:INITial*Supported** All with Option 300

:SENSe:BERT:BTS:LOOPback:EDGE:UNCoded:SBIT:INITial <val>

:SENSe:BERT:BTS:LOOPback:EDGE:UNCoded:SBIT:INITial?

This command specifies the total number of bits to be measured at the beginning of the sensitivity search for the uncoded channel.

RST** +13920**Range** 1392–2147483647**Key Entry** Initial Bit Count**Remarks** N/A**:BTS:LOOPback:EDGE:UNCoded:STOP:CRITeria:EBIT*Supported** All with Option 300

:SENSe:BERT:BTS:LOOPback:EDGE:UNCoded:STOP:CRITeria:EBIT <val>

:SENSe:BERT:BTS:LOOPback:EDGE:UNCoded:STOP:CRITeria:EBIT?

This command specifies the number of block erasures or bit errors, depending on the measurement channel type, for the threshold limit to stop the measurement.

***RST** +2784**Range** 0–2147483647**Key Entry** Error Count

Remarks N/A

:BTS:LOOPback:EDGE:UNCoded:STOP:CRITeria[:SElect]

Supported All with Option 300

```
:SENSe:BERT:BTS:LOOPback:EDGE:UNCoded:STOP:CRITeria[:SElect] EBIT|NONE
:SENSe:BERT:BTS:LOOPback:EDGE:UNCoded:STOP:CRITeria[:SElect]?
```

This command determines which of the following threshold criteria is used to prematurely stop the measurement prior to the normal measurement end. In each case, the measurement will terminate no later than 200 ms after the threshold is exceeded.

EBIT This choice enables you to specify the number of bit errors.

NONE This choice disables the stop measurement threshold criteria function.

***RST** NONE

Key Entry **Error Count No Thresholds**

Remarks N/A

:BTS:LOOPback:EDGE[:STATe]

Supported All with Option 300

```
:SENSe:BERT:BTS:LOOPback:EDGE[:STATe] ON|OFF|1|0
:SENSe:BERT:BTS:LOOPback:EDGE[:STATe]?
```

This command sets the operating state of the EDGE loopback bit error rate (BER) function.

ON This choice enables the EDGE loopback BER function.

OFF This choice disables the EDGE loopback BER function.

***RST** 0

Key Entry **EDGE BERT Off On**

Remarks Although you can configure the measurement parameters while the operating state is off, any command triggers sent will be ignored until the operating state is turned on.

:BTS:LOOPback:GSM:CS1:BLOCK:COUNT**Supported** All with Option 300

:SENSe:BERT:BTS:LOOPback:GSM:CS1:BLOCK:COUNT <val>

:SENSe:BERT:BTS:LOOPback:GSM:CS1:BLOCK:COUNT?

This command specifies the total number of blocks to be measured.

RST** +600**Range** 1–1500000**Key Entry** **Block Count*Remarks** N/A**:BTS:LOOPback:GSM:CS1:CONTain****Supported** All with Option 300

:SENSe:BERT:BTS:LOOPback:GSM:CS1:CONTain ON|OFF|1|0

:SENSe:BERT:BTS:LOOPback:GSM:CS1:CONTain?

This command enables or disables the BER measurement for CS-1 channels in addition to the BLER measurement.

ON With this choice, data bits of the specified number of blocks are measured.**OFF** This choice disables the BER measurement.***RST** 1**Key Entry** **BER Mode Off On****Remarks** N/A**:BTS:LOOPback:GSM:CS1:STOP:CRITeria:EBLock****Supported** All with Option 300

:SENSe:BERT:BTS:LOOPback:GSM:CS1:STOP:CRITeria:EBLock <val>

:SENSe:BERT:BTS:LOOPback:GSM:CS1:STOP:CRITeria:EBLock?

This command specifies the number of erased blocks that contain bit errors for the threshold limit to stop the measurement.

***RST** +60**Range** 0–1500000

Key Entry **Block Erasure**

Remarks N/A

:BTS:LOOPback:GSM:CS1:STOP:CRITeria[:SElect]

Supported All with Option 300

```
:SENSe:BERT:BTS:LOOPback:GSM:CS1:STOP:CRITeria[:SElect] EBlock|NONE  
:SENSe:BERT:BTS:LOOPback:GSM:CS1:STOP:CRITeria[:SElect]?
```

This command determines which of the following threshold criteria is used to prematurely stop the measurement prior to the normal measurement end. In each case, the measurement will terminate no later than 200 ms after the threshold is exceeded.

EBlock This choice enables you to specify the number of erased blocks.

NONE This choice disables the stop measurement threshold criteria function.

***RST** NONE

Key Entry **Block Erasure** **No Thresholds**

Remarks N/A

:BTS:LOOPback:GSM:CS4:BLOCK:COUNT

Supported All with Option 300

```
:SENSe:BERT:BTS:LOOPback:GSM:CS4:BLOCK:COUNT <value>  
:SENSe:BERT:BTS:LOOPback:GSM:CS4:BLOCK:COUNT?
```

This command specifies the total number of blocks to be measured.

***RST** +600

Range 1 to 1500000

Key Entry **Block Count**

Remarks N/A

:BTS:LOOPback:GSM:CS4:CONTain

Supported All with Option 300

```
:SENSe:BERT:BTS:LOOPback:GSM:CS4:CONTain ON|OFF|1|0  
:SENSe:BERT:BTS:LOOPback:GSM:CS4:CONTain?
```

This command enables or disables the BER measurement for CS-4 channels in addition

to the BLER measurement.

ON	With this choice, data bits of the specified number of blocks are measured.
OFF	This choice disables the BER measurement.
*RST	1
Key Entry	BER Mode Off On
Remarks	N/A

:BTS:LOOPback:GSM:CS4:STOP:CRITeria:EBLock

Supported All with Option 300

```
:SENSe:BERT:BTS:LOOPback:GSM:CS4:STOP:CRITeria:EBLock <val>
:SENSe:BERT:BTS:LOOPback:GSM:CS4:STOP:CRITeria:EBLock?
```

This command specifies the threshold limit to stop the measurement which is the number of erased blocks that contain bit errors.

*RST	+60
Range	0–1500000
Key Entry	Block Erasure
Remarks	N/A

:BTS:LOOPback:GSM:CS4:STOP:CRITeria[:SElect]

Supported All with Option 300

```
:SENSe:BERT:BTS:LOOPback:GSM:CS4:STOP:CRITeria[:SElect] EBlock|NONE
:SENSe:BERT:BTS:LOOPback:GSM:CS4:STOP:CRITeria[:SElect]?
```

This command determines which of the following threshold criteria is used to prematurely stop the measurement prior to the normal measurement end. In each case, the measurement will terminate no later than 200 ms after the threshold is exceeded.

EBlock	This choice enables you to specify the number of erased blocks.
NONE	This choice disables the stop measurement threshold criteria function.
*RST	NONE
Key Entry	Block Erasure No Thresholds
Remarks	N/A

:BTS:LOOPback:GSM:ESENSitivity

Supported All with Option 300

```
:SENSe:BERT:BTS:LOOPback:GSM:ESENSitivity <val>  
:SENSe:BERT:BTS:LOOPback:GSM:ESENSitivity?
```

This command specifies the target error rate when performing a sensitivity search.

***RST** +2.00000000E-002

Range 1E-6 to 1

Key Entry Target BER%

Remarks N/A

:BTS:LOOPback:GSM:FRAMe:CIB

Supported All with Option 300

```
:SENSe:BERT:BTS:LOOPback:GSM:FRAMe:CIB?
```

This query returns the total number of Class Ib bits to be measured which are calculated from the total number of frames specified to be measured.

***RST** N/A

Range N/A

Key Entry N/A

Remarks N/A

:BTS:LOOPback:GSM:FRAMe:CII

Supported All with Option 300

```
:SENSe:BERT:BTS:LOOPback:GSM:FRAMe:CII?
```

This query returns the total number of Class II bits to be measured which are calculated from the total number of frames specified to be measured.

***RST** N/A

Range N/A

Key Entry N/A

Remarks N/A

:BTS:LOOPback:GSM:FRAMe:COUNT**Supported** All with Option 300

:SENSe:BERT:BTS:LOOPback:GSM:FRAMe:COUNT <val>

:SENSe:BERT:BTS:LOOPback:GSM:FRAMe:COUNT?

This command determines the length of the measurement specified by the total number of frames included in one measurement.

RST** +100**Range** 1–6000000**Key Entry** **Frame Count*Remarks** N/A**:BTS:LOOPback:GSM:HAMPlitude****Supported** All with Option 300

:SENSe:BERT:BTS:LOOPback:GSM:HAMPlitude <val>

:SENSe:BERT:BTS:LOOPback:GSM:HAMPlitude?

This command specifies the maximum amplitude level for performing a sensitivity search.

The variable <val> is expressed in units of dBm.

RST** –9.00000000E+001**Range** –136.0 to 20**Key Entry** **High Amplitude*Remarks** N/A**:BTS:LOOPback:GSM:LAMPlitude****Supported** All with Option 300

:SENSe:BERT:BTS:LOOPback:GSM:LAMPlitude <val>

:SENSe:BERT:BTS:LOOPback:GSM:LAMPlitude?

This command specifies the minimum amplitude level for performing a sensitivity search.

The variable <val> is expressed in units of dBm.

***RST** –1.15000000E+002

Range –136.0 to 20
Key Entry **Low Amplitude**
Remarks N/A

:BTS:LOOPback:GSM:MCS1:BLOCK:COUNT

Supported All with Option 300
:SENSE:BERT:BTS:LOOPback:GSM:MCS1:BLOCK:COUNT <val>
:SENSE:BERT:BTS:LOOPback:GSM:MCS1:BLOCK:COUNT?

This command specifies the total number of blocks to be measured.

***RST** +600
Range 1–1500000
Key Entry **Block Count**
Remarks N/A

:BTS:LOOPback:GSM:MCS1:CONTain

Supported All with Option 300
:SENSE:BERT:BTS:LOOPback:GSM:MCS1:CONTain ON|OFF|1|0
:SENSE:BERT:BTS:LOOPback:GSM:MCS1:CONTain?

This command enables or disables the BER measurement for MCS-1 channels in addition to the BLER measurement.

ON With this choice, data bits of the specified number of blocks are measured.

OFF This choice disables the BER measurement.

***RST** 1
Key Entry **BER Mode Off On**
Remarks N/A

:BTS:LOOPback:GSM:MCS1:STOP:CRITeria:EBLock

Supported All with Option 300

```
:SENSe:BERT:BTS:LOOPback:GSM:MCS1:STOP:CRITeria:EBLock <val>
:SENSe:BERT:BTS:LOOPback:GSM:MCS1:STOP:CRITeria:EBLock?
```

This command specifies the number of erased blocks that contain bit errors for the threshold limit to stop the measurement.

***RST** +60

Range 0-1500000

Key Entry Block Erasure

Remarks N/A

:BTS:LOOPback:GSM:MCS1:STOP:CRITeria[:SELEct]

Supported All with Option 300

```
:SENSe:BERT:BTS:LOOPback:GSM:MCS1:STOP:CRITeria[:SELEct] EBlock|NONE
:SENSe:BERT:BTS:LOOPback:GSM:MCS1:STOP:CRITeria[:SELEct]?
```

This command determines which of the following threshold criteria is used to prematurely stop the measurement prior to the normal measurement end. In each case, the measurement will terminate no later than 200 ms after the threshold is exceeded.

- EBLock This choice enables you to specify the number of erased blocks.
- NONE This choice disables the stop measurement threshold criteria function.

***RST** NONE

Key Entry Block Erasure No Thresholds

Remarks N/A

:BTS:LOOPback:GSM:MEASurement:STOP

Supported All with Option 300

```
:SENSe:BERT:BTS:LOOPback:GSM:MEASurement:STOP
```

This command stops any current measurement and releases the current PRBS synchronization. After the synchronization is released, a new PRBS synchronization is attempted.

***RST** N/A

Range	N/A
Key Entry	Stop Measurement
Remarks	N/A

:BTS:LOOPback:GSM:MEASurement:TSLot

Supported All with Option 300

```
:SENSe:BERT:BTS:LOOPback:GSM:MEASurement:TSLot 0|1|2|3|4|5|6|7
:SENSe:BERT:BTS:LOOPback:GSM:MEASurement:TSLot?
```

This command specifies the timeslot number in which the measurement is to be performed. This command couples the selected timeslot number with the GSM configuration.

The following GSM timeslot configuration conditions will generate error message “-221 Settings Conflict”:

- If the specified timeslot E field fails to designate either MPN9 or MPN15.
- If the specified timeslot is not set to “Normal.”

***RST** +0

Key Entry Timeslot

Remarks Changing the timeslot configuration with GSM on will not generate error messages if GSM BERT is off and the timeslot is off.

:BTS:LOOPback:GSM:MEASurement[:MODE]

Supported All with Option 300

```
:SENSe:BERT:BTS:LOOPback:GSM:MEASurement[:MODE] BER|SSEarch
:SENSe:BERT:BTS:LOOPback:GSM:MEASurement[:MODE]?
```

This command specifies the measurement mode.

BER This choice specifies BER% as the measurement mode.

SSEarch This choice specifies sensitivity search as the measurement mode.

***RST** BER

Key Entry Measurement Mode BER% Search

Remarks If the BER% measurement is already running, this command will abort the BER% measurement.

:BTS:LOOPback:GSM:PAMPlitude**Supported** All with Option 300

:SENSe:BERT:BTS:LOOPback:GSM:PAMPlitude <val>

:SENSe:BERT:BTS:LOOPback:GSM:PAMPlitude?

This command specifies the threshold amplitude for pass/fail comparator results when performing a sensitivity search.

The variable <val> is expressed in units of dBm.

RST** -1.04000000E+002**Range** -136.0 to 20**Key Entry** Pass Amplitude**Remarks** N/A**:BTS:LOOPback:GSM:SFRame:COUNT*Supported** All with Option 300

:SENSe:BERT:BTS:LOOPback:GSM:SFRame:COUNT <val>

:SENSe:BERT:BTS:LOOPback:GSM:SFRame:COUNT?

This command specifies the total number of frames to be measured for the final measurements during the sensitivity search.

RST** +100**Range** 1–6000000**Key Entry** Frame Count**Remarks** N/A**:BTS:LOOPback:GSM:SFRame:INITial*Supported** All with Option 300

:SENSe:BERT:BTS:LOOPback:GSM:SFRame:INITial <val>

:SENSe:BERT:BTS:LOOPback:GSM:SFRame:INITial?

This command specifies the number of frames to be measured while sensitivity search is running rough searching to gain search speed. It is the first phase of sensitivity search.

***RST** +26**Range** 1–6000000

Key Entry **Initial Frame Count**

Remarks N/A

:BTS:LOOPback:GSM:SINVert

Supported All with Option 300

:SENSe:BERT:BTS:LOOPback:GSM:SINVert ON|OFF|1|0

:SENSe:BERT:BTS:LOOPback:GSM:SINVert?

This command sets the operating state of the spectrum inverting function.

ON This choice specifies that the GSM demodulator invert the spectrum of the received RF signal.

OFF This choice leaves the spectrum of the received RF signal unaffected.

***RST** 1

Key Entry **Spectrum Invert Off On**

Remarks N/A

:BTS:LOOPback:GSM:STOP:CRITeria:CIB

Supported All with Option 300

:SENSe:BERT:BTS:LOOPback:GSM:STOP:CRITeria:CIB <val>

:SENSe:BERT:BTS:LOOPback:GSM:STOP:CRITeria:CIB?

This command specifies the threshold number of Class Ib errors to stop the measurement.

***RST** 300

Range 0–1000000

Key Entry **Class Ib Bit Error**

Remarks Refer to “[:BTS:LOOPback:GSM:STOP:CRITeria\[:SElect\]](#)” on page 422 for information on the use of the file variables.

:BTS:LOOPback:GSM:STOP:CRITeria:CII

Supported All with Option 300

:SENSe:BERT:BTS:LOOPback:GSM:STOP:CRITeria:CII <val>

:SENSe:BERT:BTS:LOOPback:GSM:STOP:CRITeria:CII?

This command specifies the threshold number of Class II errors to stop the measurement.

***RST** 300

Range 0–1000000

Key Entry **Class II Bit Error**

Remarks Refer to “[:BTS:LOOPback:GSM:STOP:CRITeria\[:SElect\]](#)” on page 422 for information on the use of the file variables.

:BTS:LOOPback:GSM:STOP:CRITeria:FERasure

Supported All with Option 300

:SENSe:BERT:BTS:LOOPback:GSM:STOP:CRITeria:FERasure <val>

:SENSe:BERT:BTS:LOOPback:GSM:STOP:CRITeria:FERasure?

This command specifies the threshold number of erased frames to stop the measurement.

***RST** 120

Range 0–1000000

Key Entry **Frame Erasure**

Remarks Refer to “[:BTS:LOOPback:GSM:STOP:CRITeria\[:SElect\]](#)” for information on the use of the file variables.

:BTS:LOOPback:GSM:STOP:CRITeria[:SElect]

Supported All with Option 300

:SENSe:BERT:BTS:LOOPback:GSM:STOP:CRITeria[:SElect] FERasure|CIB|CII|
ANY|NONE

:SENSe:BERT:BTS:LOOPback:GSM:STOP:CRITeria[:SElect]?

This command sets the threshold criteria used to prematurely stop the measurement prior to the normal measurement end. In each case, the measurement will terminate no

later than 200 ms after the threshold is exceeded.

FERasure	This selection ends the measurement when the number of erased frames exceeds the specified threshold.
CIB	This selection ends the measurement when the number of Class Ib errors detected exceeds the specified threshold.
CII	This selection ends the measurement when the number of Class II errors detected exceeds the specified threshold.
ANY	This selection ends the measurement when any of the above stop measurement threshold criteria is exceeded.
NONE	This selection disables the stop measurement threshold criteria function, so that the measurement runs for the specified number of speech frames.
*RST	NONE
Key Entry	Frame Erasure Class Ib Bit Error Class II Bit Error Exceeds Any Thresholds No Thresholds
Remarks	N/A

:BTS:LOOPback:GSM:SYNC:RF

Supported All with Option 300

:SENSe:BERT:BTS:LOOPback:GSM:SYNC:RF

This command releases the current synchronization with the BTS and immediately starts to try to synchronize to either a BCH or TCH signal as selected with the SYNC[:SOURCE] command. This command will also stop the current measurement.

***RST** N/A

Range N/A

Key Entry **Synchronize to BCH/TCH**

Remarks The test equipment can use a BCH signal from the BTS to determine the required transmit timeslot, frame and multiframe timing. The BCH signal is always transmitted in timeslot 0 and contains multiframe information. Use BCH when a BCH subset is present which contains SCH bursts with a properly coded T2 parameter.

Use TCH when providing a TCH/FS training sequence from the BTS. However, only one timeslot from the BTS can be active at a time and

you must specify to the receiver which timeslot is being received since it has no absolute reference (unlike a BCH signal, which is always transmitted in timeslot 0).

:BTS:LOOPback:GSM:SYNC[:SOURce]

Supported All with Option 300

```
:SENSe:BERT:BTS:LOOPback:GSM:SYNC[:SOURce] BCH|TCH
:SENSe:BERT:BTS:LOOPback:GSM:SYNC[:SOURce] ?
```

This command specifies the synchronization source from the BTS under test.

- BCH** This choice specifies the broadcast channel as the synchronization source.
- TCH** This choice specifies the traffic channel as the synchronization source.
- *RST** BCH
- Key Entry** **Sync Source BCH TCH**
- Remarks** N/A

:BTS:LOOPback:GSM:TRIGger[:SOURce]

Supported All with Option 300

```
:SENSe:BERT:BTS:LOOPback:GSM:TRIGger[:SOURce] IMMEDIATE|KEY|EXT|BUS
:SENSe:BERT:BTS:LOOPback:GSM:TRIGger[:SOURce] ?
```

This command determines the trigger source for the GSM loopback bit error rate measurement.

- IMMEDIATE** This choice begins the measurement directly after synchronization has been achieved.
- KEY** This choice begins the measurement when the front panel **Trigger** key is pressed, provided that synchronization has been achieved. If synchronization has not occurred, the trigger is ignored.
- EXT** This choice begins the measurement as soon as a trigger signal is applied to the rear panel connector provided that synchronization has been achieved. If synchronization has not occurred, the trigger is ignored.
- BUS** This choice enables GPIB triggering using the *TRG or GET command or LAN and RS-232 triggering using the *TRG command.

*RST	KEY
Key Entry	Immediate Trigger Key Ext Bus Aux
Remarks	An inherent variable delay will always exist when starting a measurement because the measurement must await the start of the next speech frame after the trigger. The delay can vary between 0 and 23 ms (5 frames) depending on where the trigger falls within the TDMA multiframe. A trigger is ignored unless the GSM loopback operating state is turned on.

:BTS:LOOPback:GSM:ULINK:OFFSet

Supported All with Option 300

```
:SENSe:BERT:BTS:LOOPback:GSM:ULINK:OFFSet <value>  
:SENSe:BERT:BTS:LOOPback:GSM:ULINK:OFFSet?
```

This command specifies the amount of compensation for the insertion of equipment such as fading simulators into the uplink RF path.

*RST	+0
Range	-500 to 10000
Key Entry	Uplink Timing Advance
Remarks	N/A

:BTS:LOOPback:GSM[:STATe]

Supported All with Option 300

```
:SENSe:BERT:BTS:LOOPback:GSM[:STATe] ON|OFF|1|0  
:SENSe:BERT:BTS:LOOPback:GSM[:STATe]?
```

This command turns on and off the operating state of the GSM loopback bit error rate function. Although you can configure the measurement parameters while the operating state is off, any command triggers sent will be ignored until the operating state is turned on.

*RST	0
Key Entry	GSM BERT Off On
Remarks	N/A

[:BASEband]:PRBS:FUNCtion:SPIgnore:DATA**Supported** All with Option UN7

```
:SENSe:BERT[:BASEband]:PRBS:FUNCtion:SPIgnore:DATA ALL_0|ALL_1
:SENSe:BERT[:BASEband]:PRBS:FUNCtion:SPIgnore:DATA?
```

This command selects the bit parameter of the special pattern ignore function.

ALL_0 This choice ignores more than 80 bits of 0's when they are detected.

ALL_1 This choice ignores more than 80 bits of 1's when they are detected.

***RST** ALL_0**Key Entry** Spcl Pattern 0's 1's

Remarks This command is valid only when the special pattern ignore function is on. Refer to “[:BASEband]:PRBS:FUNCtion:SPIgnore[:STATE]” on page 426.

[:BASEband]:PRBS:FUNCtion:SPIgnore[:STATE]**Supported** All with Option UN7

```
:SENSe:BERT[:BASEband]:PRBS:FUNCtion:SPIgnore[:STATE] ON|OFF|1|0
:SENSe:BERT[:BASEband]:PRBS:FUNCtion:SPIgnore[:STATE]?
```

This command enables or disables the special pattern ignore function.

ON This choice detects more than 80 bits of 0's or 1's in the incoming bit stream and ignores these bits when making BER measurements. To select 0's or 1's refer to “[:BASEband]:PRBS:FUNCtion:SPIgnore:DATA” on page 426

OFF This choice disables the detect mode for the BER measurement.

***RST** 0**Key Entry** Spcl Pattern Ignore Off On**Remarks** N/A

[:BASEband]:PRBS[:DATA]

Supported All with Option 300

```
:SENSE:BERT[:BASEband]:PRBS[:DATA] PN9 | PN11 | PN15 | PN20 | PN23  
:SENSE:BERT[:BASEband]:PRBS[:DATA] ?
```

This command selects the incoming data pattern for making BER measurements.

PN9–PN23 These choices select an internally generated pseudo-random pattern for BER measurements.

***RST** PN9

Key Entry PN9 PN11 PN15 PN20 PN23

Remarks N/A

[:BASEband]:RSYNc:THReshold

Supported All with Option UN7

```
:SENSE:BERT[:BASEband]:RSYNc:THReshold <val>  
:SENSE:BERT[:BASEband]:RSYNc:THReshold?
```

This command specifies the threshold level for the resynchronizing function.

***RST** 0.40

Range 0.05–0.40

Key Entry Resync Limits

Remarks This command is valid only when the BERT resynchronizing function is on. Refer to “[:BASEband]:RSYNc[:STATe]” on page 427.

[:BASEband]:RSYNc[:STATe]

Supported All with Option UN7

```
:SENSE:BERT[:BASEband]:RSYNc[:STATe] ON | OFF | 1 | 0  
:SENSE:BERT[:BASEband]:RSYNc[:STATe] ?
```

This command sets the operating state of the resynchronization function.

ON This choice enables the resynchronization function.

OFF This choice disables the resynchronization function.

***RST** 1

Key Entry **BERT Resync Off On**

Remarks N/A

[:BASEband]:STATE

Supported All with Option UN7

:SENSe:BERT[:BASEband]:STATe ON|OFF|1|0

:SENSe:BERT[:BASEband]:STATe?

This command sets the operating state of the bit error rate test (BERT) measurement.

ON This choice enables the BERT measurement.

OFF This choice disables the BERT measurement.

***RST** 0

Key Entry **BERT Off On**

Remarks N/A

[:BASEband]:STOP:CRITeria:EBIT

Supported All with Option UN7

:SENSe:BERT[:BASEband]:STOP:CRITeria:EBIT <val>

:SENSe:BERT[:BASEband]:STOP:CRITeria:EBIT?

This command specifies the threshold limit to stop the measurement.

***RST** 100

Range 0–1000000000

Key Entry **Error Count**

Remarks When the stop mode criteria is set to EBIT, the signal generator monitors the error bits and when it exceeds the set value, the signal generator stops the current BER measurement and waits for the next trigger.

EBIT must be the selection for this command to work. To select EBIT refer to “[:BASEband]:STOP:CRITeria[:SElect]”.

[:BASEband]:STOP:CRITeria[:SElect]

Supported All with Option UN7

```
:SENSe:BERT[:BASEband]:STOP:CRITeria[:SElect] EBIT|NONE  
:SENSe:BERT[:BASEband]:STOP:CRITeria[:SElect]?
```

This command determines which threshold criteria is used to prematurely stop the measurement.

EBIT This choice enables a specified number of bit errors to prematurely stop the measurement.

NONE This choice disables the stop measurement threshold criteria function.

***RST** NONE

Key Entry **Error Count** **No Thresholds**

Remarks The measurement will terminate no later than 200 ms after the threshold is exceeded.

[:BASEband]:TBITs

Supported All with Option UN7

```
:SENSe:BERT[:BASEband]:TBITs <val>  
:SENSe:BERT[:BASEband]:TBITs?
```

This command specifies the total bit count to be measured in one measurement cycle.

***RST** +10000

Range 100–4294967295

Key Entry **Total Bits**

Remarks N/A

[:BASEband]:TRIGger:BDELay

Supported All with Option UN7

```
:SENSe:BERT[:BASEband]:TRIGger:BDELay <val>  
:SENSe:BERT[:BASEband]:TRIGger:BDELay?
```

This command specifies the number of bits to delay the trigger signal.

***RST** 0

Range 0–65535

Key Entry	Delay Bits
Remarks	This command is valid only when the trigger bit delay function is on. Refer to “[:BASEband]:TRIGger:BDELay:STATE”.

[:BASEband]:TRIGger:BDELay:STATE

Supported All with Option UN7

```
:SENSe:BERT[:BASEband]:TRIGger:BDELay:STATE ON|OFF|1|0
:SENSe:BERT[:BASEband]:TRIGger:BDELay:STATE?
```

This command sets the operating state of the trigger delay function.

ON This choice enables the trigger delay function.

OFF This choice disables the trigger delay function.

***RST** 0

Key Entry **Bit Delay Off On**

Remarks This command needs to be set to ON before the number of bits for the trigger delay can be set. Refer to “[:BASEband]:TRIGger:BDELay”.

[:BASEband]:TRIGger:COUNT

Supported All with Option UN7

```
:SENSe:BERT[:BASEband]:TRIGger:COUNT <val>
:SENSe:BERT[:BASEband]:TRIGger:COUNT?
```

This command sets the number of times the bit error rate test (BERT) measurements will repeat.

***RST** 1

Range 0–65535

Key Entry **Cycle Count**

Remarks With 0 set, the BER measurements are repeated until you set the BERT operating state is set to off. Refer to “[:BASEband]:STATE” on [page 428](#).

[:BASEband]:TRIGger:POLarity

Supported All with Option UN7

```
:SENSe:BERT[:BASEband]:TRIGger:POLarity POSitive|NEGative  
:SENSe:BERT[:BASEband]:TRIGger:POLarity?
```

This command selects the polarity of the trigger signal.

POSitive This choice triggers on the rising edge of the input data signal.

NEGative This choice triggers on the falling edge of the input data signal.

***RST** POS

Key Entry Aux I/O Trigger Polarity Pos Neg

Remarks This command is valid only when the trigger source AUX is selected. Refer to “[:BASEband]:TRIGger[:SOURCE]” on page 431.

[:BASEband]:TRIGger[:SOURCE]

Supported All with Option UN7

```
:SENSe:BERT[:BASEband]:TRIGger[:SOURCE] IMMEDIATE|KEY|EXT|BUS|AUX  
:SENSe:BERT[:BASEband]:TRIGger[:SOURCE]?
```

This command selects the triggering type for starting the bit error rate test (BERT) measurements.

IMMEDIATE This choice begins the measurement directly after synchronization has been achieved.

KEY This choice begins the measurement when the front panel **Trigger** key is pressed, provided that synchronization has been achieved. If synchronization has not occurred, the trigger is ignored.

EXT This choice begins the measurement as soon as a trigger signal is applied to the rear panel connector provided that synchronization has been achieved. If synchronization has not occurred, the trigger is ignored.

BUS This choice enables GPIB triggering using the *TRG or GET command or LAN and RS-232 triggering using the *TRG command.

AUX This choice triggers an event using the rear panel AUX I/O connector pin #22. Refer to the *User's Guide*.

Bit Error Rate Test (BERT) Commands

Sense Subsystem—Options UN7 and 300 ([:SOURce]:SENSe:BERT)

*RST	KEY					
Key Entry	Immediate	Trigger Key	Ext	Bus	Aux I/O	
Remarks	N/A					

7 Receiver Test Digital Commands

This chapter provides SCPI descriptions for subsystems dedicated to digital real-time testing for the ESG Vector Signal Generator. This chapter contains the following sections:

- “All Subsystem–Option 001 or 002 ([:SOURce])” on page 434
- “AWGN Real-Time Subsystem–Option 403 ([:SOURce]:RADio:AWGN:RT)” on page 435
- “Bluetooth Subsystem–Option 406 ([:SOURce]:RADio:BLUEtooth:ARB)” on page 436
- “CDMA2000 BBG Subsystem–Option 401 ([:SOURce]:RADio:CDMA2000[:BBG])” on page 451
- “Custom Subsystem–Option 001 or 002 ([:SOURce]:RADio:CUSTom)” on page 524
- “DECT Subsystem–Option 402 ([:SOURce]:RADio:DECT)” on page 546
- “EDGE Subsystem–Option 402 ([:SOURce]:RADio:EDGE)” on page 596

All Subsystem–Option 001 or 002 ([:SOURce])

:RADio:ALL:OFF

Supported All with Option 001 or 002

[[:SOURce]]:RADio:ALL:OFF

This command disables all digital modulation personalities on a particular baseband.

***RST** N/A

Range N/A

Key Entry N/A

Remarks This command does not affect analog modulation.

AWGN Real-Time Subsystem–Option 403 ([:SOURce]:RADio:AWGN:RT)

:BWIDth

Supported All with Option 403

```
[:SOURce]:RADio:AWGN:RT:BWIDth <val>  
[:SOURce]:RADio:AWGN:RT:BWIDth?
```

This command adjusts the real-time AWGN bandwidth value.

The variable <val> is expressed in units of Hertz (Hz–MHz).

***RST** +1.00000000E+006

Range 5E4–8E7

Key Entry Bandwidth

Remarks N/A

[:STATe]

Supported All with Option 403

```
[:SOURce]:RADio:AWGN:RT[:STATe] ON|OFF|1|0  
[:SOURce]:RADio:AWGN:RT[:STATe]?
```

This command enables or disables the operating state of real-time AWGN.

***RST** 0

Key Entry Real-time AWGN Off On

Remarks N/A

Bluetooth Subsystem–Option 406 ([:SOURce]:RADio:BLUEtooth:ARB)

:AMADdr

Supported All with Option 406

```
[:SOURce]:RADio:BLUEtooth:ARB:AMADdr <val>
[:SOURce]:RADio:BLUEtooth:ARB:AMADdr?
```

This command sets the 3-bit active member address (AM_ADDR).

***RST** +1

Range 0–7

Key Entry AM_ADDR

Remarks In a piconet, one or more slaves are connected to a single master; a temporary 3-bit address (AM_ADDR) is used to identify each active slave.

:BDADdr

Supported All with Option 406

```
[:SOURce]:RADio:BLUEtooth:ARB:BDADdr <val>
[:SOURce]:RADio:BLUEtooth:ARB:BDADdr?
```

This command sets the unique hexadecimal Bluetooth device address (BD_ADDR) with up to 48 bits.

***RST** #H0000000000008

Range #H0–#HFFFFFFFFFFFFFFF

Key Entry BD_ADDR

Remarks The address is derived from the IEEE802 standard.

:BURSt[:STATe]

Supported All with Option 406

```
[:SOURCE]:RADio:BLUEtooth:ARB:BURSt[:STATe] ON|OFF|1|0  
[:SOURCE]:RADio:BLUEtooth:ARB:BURSt[:STATe]?
```

This command enables or disables the burst function.

- ON(1) This choice will ramp up the signal power prior to transmitting the packet and ramp it down after the end of the packet transmission.
- OFF(0) This choice provides a linked series of packet transmissions with no power ramping.

***RST** 1

Key Entry Burst Off On

Remarks N/A

:CGDelay

Supported All with Option 406

```
[:SOURCE]:RADio:BLUEtooth:ARB:CGDelay <val>  
[:SOURCE]:RADio:BLUEtooth:ARB:CGDelay?
```

This command sets the number of symbols to shift the output symbol clock (EVENT 1 rear panel connector) and gate (EVENT 2 rear panel connector) signals relative to the Bluetooth signal. The shifting of these signals is used to compensate for any packet delay through the DUT during BER tests.

***RST** +0.00000000E+000

Range 0.0–24999.9

Key Entry Clock/Gate Delay

Remarks This command is only effective with a continuous PN9 (CPN9) payload data and is intended for bit error rate testing (BERT, Option UN7). Refer to “[:DATA](#)” on page 438 for selecting the CPN9 data choice.

When the clock and gate delay is set to zero (0), the rising edge of the symbol clock lines up with the middle of each symbol and the gate is high during the user payload field (PN9 data).

:DATA**Supported** All with Option 406

[:SOURCE]:RADIO:BLUETOOTH:ARB:DATA TPN9|CPN9|<val>

[:SOURCE]:RADIO:BLUETOOTH:ARB:DATA?

This command sets the user payload data type; user payload data is the voice or data information (less the payload header) that is carried in a packet.

- TPN9** This choice places a truncated PN9 sequence consisting of 216 bits into a single packet.
- CPN9** This choice places 8 continuous PN9 sequences into 19 packets, followed by one packet with no user payload. This ensures that the SEQN bit is properly alternated which is a requirement to filter out packet re-transmission at the destination.
- <val>** This variable lets you set your own 8 bit data pattern for a single packet. A change in the user payload data type resets the eight bit pattern to a value of 00000000.

RST** TPN9**Range** <val>: #B0–#B11111111 or 0–255**Key Entry** **Truncated PN9** **Continuous PN9** **8 Bit Pattern*Remarks** The PN9 sequence (511 bits) is standard based. The sequence begins with the first one of nine consecutive ones.**:IQ:EXTERNAL:FILTER****Supported** All with Option 406

[:SOURCE]:RADIO:BLUETOOTH:ARB:IQ:EXTERNAL:FILTER 40e6|THROUGH

[:SOURCE]:RADIO:BLUETOOTH:ARB:IQ:EXTERNAL:FILTER?

This command selects the filter or through path for I/Q signals routed to the rear panel I and Q outputs. Selecting a filter with this command will automatically set “:IQ:EXTERNAL:FILTER:AUTO” on page 439 to OFF(0) mode.

40e6 This choice applies a 40 MHz baseband filter.**THROUGH** This choice bypasses filtering.***RST** THR**Key Entry** **40.000 MHz** **Through**

Remarks N/A

:IQ:EXTErnal:FILTEr:AUTO

Supported All with Option 406

```
[ :SOURce ] :RADio:BLUEtooth:ARB:IQ:EXTErnal:FILTEr:AUTO ON|OFF|1|0  
[:SOURCE]:RADio:BLUEtooth:ARB:IQ:EXTErnal:FILTEr:AUTO?
```

This command enables or disables the automatic selection of the filters for I/Q signals routed to the rear panel I/Q outputs.

ON(1) This choice will automatically select a digital modulation filter optimized for the current signal generator settings.

OFF(0) This choice disables the auto feature which lets you select a digital modulation filter or through path. Refer to “[:IQ:EXTErnal:FILTEr](#)” on [page 438](#) for selecting a filter or through path.

***RST** 1

Key Entry I/Q Output Filter Manual Auto

Remarks N/A

:HEADer:CLEAr

Supported All with Option 406

```
[ :SOURce ] :RADio:BLUEtooth:ARB:HEADer:CLEAr
```

This command clears the header information from the header file used by this format.

***RST** N/A

Key Entry Clear Header

Remarks The **Bluetooth Off On** softkey must be set to On for this command to function.

:HEADer:SAVE

Supported All with Option 406

```
[ :SOURce ] :RADio:BLUEtooth:ARB:HEADer:SAVE
```

This command saves the header information to the header file used by this format.

***RST** N/A

Bluetooth Subsystem–Option 406 ([:SOURCE]:RADIO:BLUETOOTH:ARB)**Key Entry** **Save Setup To Header****Remarks** The **Bluetooth Off On** must be set to On for this command to function.**:IMPairments****Supported** All with Option 406

```
[:SOURCE]:RADIO:BLUETOOTH:ARB:IMPAIRMENTS ON|OFF|1|0
[:SOURCE]:RADIO:BLUETOOTH:ARB:IMPAIRMENTS?
```

This command enables or disables the Bluetooth signal impairment function.

ON(1) This choice enables the current impairment settings.

OFF(0) This choice disables the impairments.

RST** 0**Key Entry** **Impairments Off On*Remarks** N/A**:IMPairments:AWGN****Supported** All with Option 406

```
[:SOURCE]:RADIO:BLUETOOTH:ARB:IMPAIRMENTS:AWGN ON|OFF|1|0
[:SOURCE]:RADIO:BLUETOOTH:ARB:IMPAIRMENTS:AWGN?
```

This choice enables or disables the additive white gaussian noise (AWGN) impairment.

RST** 0**Key Entry** **AWGN Off On*Remarks** The AWGN impairment is not added to the signal until the Bluetooth signal impairment function is enabled. Refer to “**:IMPairments**” for enabling the impairments.**:IMPairments:AWGN:CNR****Supported** All with Option 406

```
[:SOURCE]:RADIO:BLUETOOTH:ARB:IMPAIRMENTS:AWGN:CNR <val>
[:SOURCE]:RADIO:BLUETOOTH:ARB:IMPAIRMENTS:AWGN:CNR?
```

This command sets the carrier to noise ratio expressed in a 1 MHz bandwidth for the additive white gaussian noise (AWGN) impairment.

The variable <val> is expressed in units of decibels (dB).

***RST** +21

Range 10–40

Key Entry C/N[1MHz]

Remarks The value set by this command does not affect the Bluetooth signal until both the AWGN impairment and the Bluetooth signal impairment function are enabled. Refer to “:IMPairments:AWGN” on page 440 for more information.

:IMPairments:AWGN:NSEed

Supported All with Option 406

```
[ :SOURCE ] :RADio:BLUEtooth:ARB:IMPairments:AWGN:NSEed <val>  
[ :SOURCE ] :RADio:BLUEtooth:ARB:IMPairments:AWGN:NSEed?
```

This command sets the noise seed value for the additive white gaussian noise (AWGN) impairment.

***RST** +1

Range 1–65535

Key Entry Noise Seed

Remarks A change in the seed value changes the noise pattern.

The value set by this command does not affect the Bluetooth signal until both the AWGN impairment and the Bluetooth signal impairment function are enabled. Refer to “:IMPairments:AWGN” on page 440 for more information.

:IMPairments:DDEVIation

Supported All with Option 406

```
[ :SOURCE ] :RADio:BLUEtooth:ARB:IMPairments:DDEVIation <val>  
[ :SOURCE ] :RADio:BLUEtooth:ARB:IMPairments:DDEVIation?
```

This command sets the maximum linear or sinusoidal carrier frequency drift deviation during the Bluetooth packet transmission.

The variable <val> is expressed in units of kilohertz (–kHz to kHz) with a minimum resolution of 1 kHz.

Bluetooth Subsystem—Option 406 ([:SOURce]:RADio:BLUEtooth:ARB)

*RST	+0.00000000E+000
Range	-1E5 to -1E3, 0, 1E3 to 1E5
Key Entry	Drift Deviation
Remarks	Refer to “:IMPairments:FDType” on page 442 for selecting either a linear or sinusoidal frequency drift. The value set by this command does not affect the Bluetooth signal until the Bluetooth signal impairment function is enabled. Refer to “:IMPairments” on page 440 for more information.

:IMPairments:FDType

Supported All with Option 406

```
[:SOURce]:RADio:BLUEtooth:ARB:IMPairments:FDType LINear|SINE
[:SOURce]:RADio:BLUEtooth:ARB:IMPairments:FDType?
```

This command sets the carrier frequency drift impairment type that will occur during the length of the Bluetooth packet transmission.

LINear This choice enables the carrier frequency to drift linearly from the signal generator carrier frequency setting to the value entered for the frequency drift.

SINE This choice enables the carrier frequency to drift sinusoidally above and below the signal generator carrier frequency setting. For example, if the carrier signal generator setting is 2.4 GHz and the drift value was 100 kHz, the carrier frequency would sinusoidally drift to 2.4001 GHz, back to 2.4 GHz and continue drifting to frequency values less than 2.4 GHz until the packet transmission ends. With a negative drift value, the carrier frequency deviation would begin drifting toward 2.3999 GHz at the beginning of the drift cycle.

***RST** SINE

Key Entry **Freq Drift Type Linear Sine**

Remarks To set a drift value, refer to “:IMPairments:DDEVIation” on page 441.

The value set by this command does not affect the Bluetooth signal until the Bluetooth signal impairment function is enabled. Refer to “:IMPairments” on page 440 for more information.

The carrier frequency value on the signal generator display does not change during the drift impairment.

:IMPairments:FOFFset

Supported All with Option 406

```
[ :SOURCE ] :RADio:BLUEtooth:ARB:IMPairments:FOFFset <val>  
[ :SOURCE ] :RADio:BLUEtooth:ARB:IMPairments:FOFFset?
```

This command sets a carrier frequency offset impairment value as part of a Bluetooth setup.

The variable <val> is expressed in units of kilohertz (–kHz to kHz) with a minimum resolution of 1 kHz.

***RST** +0.00000000E+000

Range –1E5 to –1E3, 0, 1E3 to 1E5

Key Entry Freq Offset

Remarks The value set by this command does not affect the Bluetooth signal until the Bluetooth signal impairment function is enabled. Refer to [“:IMPairments” on page 440](#) for more information.

The carrier frequency value on the signal generator display does not change during the offset impairment.

:IMPairments:MINdex

Supported All with Option 406

```
[ :SOURCE ] :RADio:BLUEtooth:ARB:IMPairments:MINdex <val>  
[ :SOURCE ] :RADio:BLUEtooth:ARB:IMPairments:MINdex?
```

This command sets the modulation index impairment value for the Bluetooth waveform.

***RST** +3.15000000E–001

Range 2.5E–1 to 4E–1

Key Entry Mod Index

Remarks The value set by this command does not affect the Bluetooth signal until the Bluetooth signal impairment function is enabled. Refer to [“:IMPairments” on page 440](#) for more information.

Only the peak-to-peak frequency deviation is changed by this command; the bit rate (1 MHz) remains constant. The modulation

index is derived from the following formula:

$$\text{Mod Index} = \frac{\text{Peak-to-Peak Frequency Deviation}}{\text{Bit Rate}}$$

:IMPairments:STERror

Supported All with Option 406

```
[:SOURCE]:RADio:BLUetooth:ARB:IMPairments:STERror <val>
[:SOURCE]:RADio:BLUetooth:ARB:IMPairments:STERror?
```

This command sets the symbol timing error impairment value for the Bluetooth waveform.

The variable <val> is expressed in units of parts per million (ppm) and in units of hertz (Hz). A 20 ppm timing error corresponds to a 20 Hz shift in the symbol rate. The range value indicated below applies to both units of measurement.

***RST** +0

Range -50 to 50

Key Entry Symbol Timing Err

Remarks The value set by this command does not affect the Bluetooth signal until the Bluetooth signal impairment function is enabled. Refer to “:IMPairments” on page 440 for more information.

:IQ:MODulation:ATTen

Supported All with Option 406

```
[:SOURCE]:RADio:BLUetooth:ARB:IQ:MODulation:ATTen <val>
[:SOURCE]:RADio:BLUetooth:ARB:IQ:MODulation:ATTen?
```

This command attenuates the I/Q signals being modulated through the signal generator RF path.

The variable <val> is expressed in units of decibels (dB).

ON (1) This choice enables the attenuation auto mode which optimizes the modulator attenuation for the current conditions.

OFF (0) This choice holds the attenuator at its current setting or at a selected value. Refer to “:IQ:MODulation:ATTen” on page 444 for setting the attenuation value.

***RST** +2.00000000E+000

Range 0–40
Key Entry **Modulator Atten Manual Auto**
Remarks N/A

:IQ:MODulation:ATTen:AUTO

Supported All with Option 406

```
[:SOURce]:RADio:BLUEtooth:ARB:IQ:MODulation:ATTen:AUTO ON|OFF|1|0
[:SOURce]:RADio:BLUEtooth:ARB:IQ:MODulation:ATTen:AUTO?
```

This command enables or disables the I/Q attenuation auto mode.

***RST** 1
Key Entry **Modulator Atten Manual Auto**
Remarks N/A

:IQ:MODulation:FILTer

Supported All with Option 406

```
[:SOURce]:RADio:BLUEtooth:ARB:IQ:MODulation:FILTer 2.1e6|40e6|THROUGH
[:SOURce]:RADio:BLUEtooth:ARB:IQ:MODulation:FILTer?
```

This command enables you to select a filter or through path for I/Q signals modulated onto the RF carrier. Selecting a filter with this command will set “:IQ:MODulation:ATTen:AUTO” on page 445 to OFF(0) mode.

2.1E6 This choice applies a 2.1 MHz baseband filter to the I/Q signals.
 40E6 This choice applies a 40 MHz baseband filter to the I/Q signals.
 THROUGH This choice bypasses filtering.

***RST** THR
Key Entry **2.100 MHz 40.000 MHz Through**
Remarks N/A

:IQ:MODulation:FILTer:AUTO**Supported** All with Option 406

```
[:SOURCE]:RADIO:BLUETOOTH:ARB:IQ:MODulation:FILTer:AUTO ON|OFF|1|0
[:SOURCE]:RADIO:BLUETOOTH:ARB:IQ:MODulation:FILTer:AUTO?
```

This command enables or disables the automatic selection of the filters for I/Q signals modulated onto the RF carrier.

ON(1) This choice will automatically select a digital modulation filter.

OFF(0) This choice disables the auto feature which lets you select a digital modulation filter or through path. Refer to “:IQ:MODulation:FILTer” on page 445 for selecting a filter or through path.

***RST** 1

Key Entry I/Q Mod Filter Manual Auto

Remarks N/A

:MDEStination:PULSe**Supported** All with Option 406

```
[:SOURCE]:RADIO:BLUETOOTH:ARB:MDEStination:PULSe NONE|M1|M2|M3|M4
[:SOURCE]:RADIO:BLUETOOTH:ARB:MDEStination:PULSe?
```

This command routes the selected marker to the Pulse/RF Blanking function. The NONE parameter clears the marker for the Pulse/RF Blanking function.

***RST** NONE

Key Entry None Marker 1 Marker 2 Marker 3 Marker 4

Remarks N/A

:MDEStination:AAMPlitude**Supported** All with Option 406

```
[:SOURCE]:RADIO:BLUETOOTH:ARB:MDEStination:AAMPlitude NONE|M1|M2|M3|M4
[:SOURCE]:RADIO:BLUETOOTH:ARB:MDEStination:AAMPlitude?
```

This command routes the selected marker to the Alternate Amplitude function. The NONE parameter clears the marker for the Alternate Amplitude function.

***RST** NONE
Key Entry None Marker 1 Marker 2 Marker 3 Marker 4
Remarks N/A

:MDEStination:ALCHold

Supported All with Option 406

```
[:SOURce]:RADio:BLUetooth:ARB:MDEStination:ALCHold NONE|M1|M2|M3|M4  
[:SOURce]:RADio:BLUetooth:ARB:MDEStination:ALCHold?
```

This command routes the selected marker to the ALC Hold function. The NONE parameter clears the marker for the ALC Hold function.

***RST** NONE
Key Entry None Marker 1 Marker 2 Marker 3 Marker 4
Remarks N/A

:MPOLarity:MARKer1

Supported All with Option 406

```
[:SOURce]:RADio:BLUetooth:ARB:MPOLarity:MARKer1 NEGative|POSitive  
[:SOURce]:RADio:BLUetooth:ARB:MPOLarity:MARKer1?
```

This command sets the polarity for marker 1.

***RST** POS
Key Entry Marker 1 Polarity Neg Pos
Remarks N/A

:MPOLarity:MARKer2

Supported All with Option 406

```
[:SOURce]:RADio:BLUetooth:ARB:MPOLarity:MARKer2 NEGative|POSitive  
[:SOURce]:RADio:BLUetooth:ARB:MPOLarity:MARKer2?
```

This command sets the polarity for marker 2.

***RST** POS
Key Entry Marker 2 Polarity Neg Pos
Remarks N/A

:MPOlarity:MARKer3

Supported All with Option 406

```
[ :SOURce ] :RADio:BLUETOOTH:ARB:MPOlarity:MARKer3 NEGative|POSitive  
[ :SOURce ] :RADio:BLUETOOTH:ARB:MPOlarity:MARKer3?
```

This command sets the polarity for marker 3.

***RST** POS

Key Entry Marker 3 Polarity Neg Pos

Remarks N/A

:MPOlarity:MARKer4

Supported All with Option 406

```
[ :SOURce ] :RADio:BLUETOOTH:ARB:MPOlarity:MARKer4 NEGative|POSitive  
[ :SOURce ] :RADio:BLUETOOTH:ARB:MPOlarity:MARKer4?
```

This command sets the polarity for marker 4.

***RST** POS

Key Entry Marker 4 Polarity Neg Pos

Remarks N/A

:PACKet

Supported All with Option 406

```
[ :SOURce ] :RADio:BLUETOOTH:ARB:PACKet DH1  
[ :SOURce ] :RADio:BLUETOOTH:ARB:PACKet?
```

This command selects a DH1 packet.

***RST** DH1

Choices DH1

Key Entry Packet (DH1)

Remarks A DH1 packet covers a single timeslot.

:REFernce:EXTernal:FREQuency

Supported All with Option 406

```
[ :SOURCE ] :RADio:BLUetooth:ARB:REFernce:EXTernal:FREQuency <val>
[ :SOURCE ] :RADio:BLUetooth:ARB:REFernce:EXTernal:FREQuency?
```

This command sets the lock frequency of the internal ARB waveform clock to match the externally applied ARB waveform clock reference at the BASEBAND GEN REF IN connector.

The variable <val> is expressed in units of hertz (Hz–MHz).

***RST** +1.00000000+007

Range 2.5E5–1E8

Key Entry Reference Freq

Remarks Use this command when EXTernal is the ARB waveform clock reference source. Refer to “:REFernce[:SOURCE]” on page 449 for selecting either the internal or an external source.

:REFernce[:SOURCE]

Supported All with Option 406

```
[ :SOURCE ] :RADio:BLUetooth:ARB:REFernce[ :SOURCE ] INTernal | EXTernal
[ :SOURCE ] :RADio:BLUetooth:ARB:REFernce[ :SOURCE ] ?
```

This command selects either an internal or external reference for the ARB waveform clock.

***RST** INT

Key Entry ARB Reference Ext Int

Remarks If the EXTernal choice is selected, the frequency of the external reference must be entered into the signal generator and the signal must be applied to the BASEBAND GEN REF IN connector. Refer to “:REFernce:EXTernal:FREQuency” on page 449 for entering the frequency value.

:RSYMBOLS**Supported** All with Option 406

[:SOURCE]:RADIO:BLUETOOTH:ARB:RSYMBOLS <val>

[:SOURCE]:RADIO:BLUETOOTH:ARB:RSYMBOLS?

This command controls how long it takes the RF burst to ramp up at the beginning of the packet transmission and down at the end.

The variable <val> is expressed in symbols (1 symbol interval equals 1 μ s).

RST** +6**Range** 1–10**Key Entry** **Burst Power Ramp*Remarks** N/A**:SCLOCK:RATE****Supported** All with Option 406

[:SOURCE]:RADIO:BLUETOOTH:ARB:SCLOCK:RATE <val>

[:SOURCE]:RADIO:BLUETOOTH:ARB:SCLOCK:RATE?

This command sets the sample clock rate for the Bluetooth modulation format.

The variable <val> is expressed in units of hertz.

RST** +1.00000000E+008**Range** 1–1E8**Key Entry** **ARB Sample Clock*Remarks** N/A**[:STATE]****Supported** All with Option 406

[:SOURCE]:RADIO:BLUETOOTH:ARB[:STATE] ON|OFF|1|0

[:SOURCE]:RADIO:BLUETOOTH:ARB[:STATE]?

This command enables or disables the Bluetooth waveform generator.

***RST** 0**Key Entry** **Bluetooth Off On**

CDMA2000 BBG Subsystem–Option 401 ([:SOURce]:RADio:CDMA2000[:BBG])

:LMODe

Supported All with Option 401

```
[:SOURce]:RADio:CDMA2000[:BBG]:LMODe FORWard|RT12|RA12|RT34|RE34|RC34
[:SOURce]:RADio:CDMA2000[:BBG]:LMODe?
```

This command selects either forward or reverse link Real Time CDMA2000.

FORWard This choice selects the forward link mode.

RT12 This choice selects the reverse traffic channel for radio configurations one and two.

RA12 This choice selects the reverse access channel for radio configurations one and two.

RT34 This choice selects the reverse traffic channel for radio configurations three and four.

RE34 This choice selects the reverse enhanced access channel for radio configurations three and four.

RC34 This choice selects the reverse common control channel for radio configurations three and four.

***RST** FORW

Key Entry	Link Forward Reverse	RadioConfig 1/2 Traffic	RadioConfig 1/2 Access
	RadioConfig 3/4 Traffic	RadioConfig 3/4 Enhanced Access	
	RadioConfig 3/4 Common Control		

Remarks N/A

[:FORWard]:BBCLock

Supported All with Option 401

```
[:SOURce]:RADio:CDMA2000[:BBG][:FORWard]:BBCLock INT[1]|EXT[1]
[:SOURce]:RADio:CDMA2000[:BBG][:FORWard]:BBCLock?
```

This command selects the baseband data clock source for the forward link.

*RST	INT
Field Entry	BBG Data Clock
Remarks	If the EXT choice is selected, the external frequency must be entered and the signal must be applied to the BASEBAND GEN REF IN rear panel connector.

[:FORWard]:CHIPrate

Supported All with Option 401

```
[:SOURce]:RADio:CDMA2000[:BBG][:FORWard]:CHIPrate <val>
[:SOURce]:RADio:CDMA2000[:BBG][:FORWard]:CHIPrate?
```

This command adjusts the chip rate value.

The variable <val> is expressed in units of chips per second (cps–Mcps).

*RST	+1.22880000E+006
Range	1E3–1.3E6
Field Entry	Chip Rate
Remarks	The default value (1.228800 Mcps) is in accordance with the IS-2000 specification.

[:FORWard]:ESDelay

Supported All with Option 401

```
[:SOURce]:RADio:CDMA2000[:BBG][:FORWard]:ESDelay <val>
[:SOURce]:RADio:CDMA2000[:BBG][:FORWard]:ESDelay?
```

This command modifies the even second clock pulse.

*RST	+2.00000000E+001
Range	0.5–128.0
Field Entry	Even Second Delay
Remarks	The even second clock pulse sets the delay to align the RF with the trigger. When the noise function is set to ON, this value will increase. Refer to “[:FORWard]:NOISe[:STATe]” on page 480 for more information.

[:FORWARD]:FILTER**Supported** All with Option 401

```
[:SOURCE]:RADio:CDMA2000[:BBG][:FORWARD]:FILTer RNYQuist|NYQuist|
GAUSSian|RECTangle|IS95|IS95_EQ|IS95_MOD|IS95_MOD_EQ|AC4Fm|UGGaussian|
"<user FIR>"|
[:SOURCE]:RADio:CDMA2000[:BBG][:FORWARD]:FILTer?
```

This command specifies the filter type.

IS95	This choice selects a filter that meets the criteria of the IS-95 standard.
IS95_EQ	This choice selects a filter which is a combination of the IS-95 filter (above) and the equalizer filter described in the IS-95 standard. This filter is only used for IS-95 baseband filtering.
IS95_MOD	This choice selects a filter that meets the criteria of the IS-95 error function (for improved adjacent channel performance) with lower passband rejection than the filter specified in the IS-95 standard.
IS95_MOD_EQ	This choice selects a filter which is a combination of the equalizer filter described in the IS-95 standard and a filter that meets the criteria of the IS-95 error function (for improved adjacent channel performance), with lower passband rejection.
AC4Fm	This choice selects a predefined Association of Public Safety Communications Officials (APCO) specified compatible 4-level frequency modulation (C4FM) filter.
UGGaussian	This choice selects a backwards compatible GSM Gaussian filter (Gaussian filter with a fixed BbT value of 0.300) for the ESG E44xxB Option UN3 or UN4.
"<user FIR>"	This variable is any filter file that you have stored into memory.
*RST	IS95_EQ
Key Entry	Root Nyquist Nyquist Gaussian Rectangle IS-95 IS-95 w/EQ IS-95 Mod IS-95 MOD w/EQ APCO 25 C4FM UN3/4 GSM Gaussian User FIR
Remarks	Refer to “File Name Variables” on page 14 for information on the file name syntax.

[:FORWARD]:FILTER:ALPHA**Supported** All with Option 401

```
[:SOURce]:RADio:CDMA2000[:BBG][:FORWARD]:FILTer:ALPHA <val>
[:SOURce]:RADio:CDMA2000[:BBG][:FORWARD]:FILTer:ALPHA?
```

This command changes the Nyquist or root Nyquist filter’s alpha value.

The filter alpha value can be set to the minimum level (0), the maximum level (1), or in between by using fractional numeric values (0.001–0.999).

RST** +2.20000000E–001**Range** 0.000–1.000**Key Entry** **Filter Alpha*Remarks** To change the current filter type, refer to “[:FORWARD]:FILTer” on [page 453](#).**[:FORWARD]:FILTER:BBT****Supported** All with Option 401

```
[:SOURce]:RADio:CDMA2000[:BBG][:FORWARD]:FILTer:BBT <val>
[:SOURce]:RADio:CDMA2000[:BBG][:FORWARD]:FILTer:BBT?
```

This command changes the bandwidth-multiplied-by-bit-time filter value.

The filter BbT value can be set to the minimum level (0), the maximum level (1), or in between by using fractional numeric values (0.001–0.999).

RST** +5.00000000E–001**Range** 0.000–1.000**Key Entry** **Filter BbT*Remarks** This command is effective only after choosing a Gaussian filter. It does not have an effect on other types of filters.

To change the current filter type, refer to “[:FORWARD]:FILTer” on [page 453](#).

[:FORWARD]:FILTER:CHANnel**Supported** All with Option 401

```
[:SOURCE]:RADio:CDMA2000[:BBG] [:FORWARD]:FILTer:CHANnel EVM|ACP
[:SOURCE]:RADio:CDMA2000[:BBG] [:FORWARD]:FILTer:CHANnel?
```

This command optimizes the Nyquist and root Nyquist filters to minimize error vector magnitude (EVM) or to minimize adjacent channel power (ACP).

EVM This choice provides the most ideal passband.

ACP This choice improves stopband rejection.

***RST** EVM

Key Entry Optimize FIR For EVM ACP

Remarks To change the current filter type, refer to “[:FORWARD]:FILTer” on [page 453](#).

[:FORWARD]:LCState**Supported** All with Option 401

```
[:SOURCE]:RADio:CDMA2000[:BBG] [:FORWARD]:LCState <val>
[:SOURCE]:RADio:CDMA2000[:BBG] [:FORWARD]:LCState?
```

This command sets the long code seed used to generate the long code for the forward link.

***RST** #H0000000000

Range #H0–#H3FFFFFFFF

Field Entry Long Code State

Remarks The storage register for the long code state allows a 42-bit binary number to be entered.

[:FORWARD]:FFCH:DATA**Supported** All with Option 401

```
[:SOURCE]:RADio:CDMA2000[:BBG] [:FORWARD]:FFCH:DATA PN9|PN15|FIX4|
"<file name>"|EXT
[:SOURCE]:RADio:CDMA2000[:BBG] [:FORWARD]:FFCH:DATA?
```

This command configures the data field for the forward fundamental channel.

CDMA2000 BBG Subsystem–Option 401 ([:SOURce]:RADio:CDMA2000[:BBG])

*RST	PN9
Key Entry	PN9 PN15 FIX4 User File Ext
Remarks	Refer to “File Name Variables” on page 14 for information on the file name syntax.

[:FORWard]:FFCH:DATA:FIX4

Supported All with Option 401

```
[:SOURce]:RADio:CDMA2000[:BBG][:FORWard]:FFCH:DATA:FIX4 <val>
[:SOURce]:RADio:CDMA2000[:BBG][:FORWard]:FFCH:DATA:FIX4?
```

This command selects a fixed 4-bit data pattern to be repeated as necessary to fill the selected data area.

*RST	#B0000
Range	#B0000–#B1111 or 0–15
Key Entry	FIX4
Remarks	N/A

[:FORWard]:FFCH:EBNO

Supported All with Option 401

```
[:SOURce]:RADio:CDMA2000[:BBG][:FORWard]:FFCH:EBNO <val>
[:SOURce]:RADio:CDMA2000[:BBG][:FORWard]:FFCH:EBNO?
```

This command sets the ratio of energy per bit to noise power spectral density (expressed in dB) for the forward fundamental channel.

*RST	+0.00000000E+000
-------------	------------------

CDMA2000 BBG Subsystem–Option 401 ([:SOURCE]:RADio:CDMA2000[:BBG])

Range

$$\min \text{EbNo: } 10\log_{10} \left[\frac{\text{Chip Rate}}{1000(\text{Bit Rate})} \right] + \text{Normalized Power} + \text{RCFactor}$$

$$\max \text{EbNo: } 10\log_{10} \left[\frac{1000(\text{Chip Rate})}{\text{Bit Rate}} \right] + \text{Normalized Power} + \text{RCFactor}$$

Normalized Power is the channel amplitude after adjusting the code power to 0 dB. Refer to “[:FORWARD]:PADJust” on page 482 for adjusting the code domain power.

RCFactor is dependent on the selected radio configuration. The following table shows the RCFactor by radio configuration.

RC	RCFactor
1	$10\log_{10} \left[\frac{1}{2} \left(\frac{11}{11 + \frac{9600}{\text{Bit Rate}}} \right) \right]$
2	$10\log_{10} \left[\frac{1}{2} \left(\frac{23}{23 + \frac{14400}{\text{Bit Rate}}} \right) \right]$
3, 4	$10\log_{10} \left[\frac{11}{11 + \frac{9600}{\text{Bit Rate}}} \right]$
5	$10\log_{10} \left[\frac{11}{11 + \frac{14400}{\text{Bit Rate}}} \right]$

Field Entry EbNo

Remarks Changes to the EbNo values also change the EcNo values for all other channels in the current link (forward or reverse).

Queries of this command are only valid for the current operating state.

[:FORWARD]:FFCH:FOFFset

Supported All with Option 401

```
[:SOURCE]:RADio:CDMA2000[:BBG] [:FORWARD]:FFCH:FOFFset <val>
[:SOURCE]:RADio:CDMA2000[:BBG] [:FORWARD]:FFCH:FOFFset?
```

This command sets the frame offset value for the forward fundamental channel.

***RST** +0

CDMA2000 BBG Subsystem–Option 401 ([:SOURce]:RADio:CDMA2000[:BBG])

Range	0–15
Field Entry	Frame Offset
Remarks	Changing this value also changes the frame offset value for the forward supplemental channels (FSCH1 and FSCH2).

[:FORWard]:FFCH:LCMask

Supported All with Option 401

```
[:SOURce]:RADio:CDMA2000[:BBG][:FORWard]:FFCH:LCMask?
```

This command outputs the contents of the long code mask field for the forward fundamental channel.

*RST	#H31800000000
Range	N/A
Key Entry	N/A
Remarks	This value is shared by the forward supplemental channels (FSCH1 and FSCH2).

[:FORWard]:FFCH:LCMask:ESN

Supported All with Option 401

```
[:SOURce]:RADio:CDMA2000[:BBG][:FORWard]:FFCH:LCMask:ESN <val>
```

```
[:SOURce]:RADio:CDMA2000[:BBG][:FORWard]:FFCH:LCMask:ESN?
```

This command sets the permuted electronic serial number (ESN) for the long code mask, which is used to identify a particular mobile.

*RST	#H00000000
Range	#H0–#HFFFFFFF
Field Entry	Permuted ESN
Remarks	Changing this value also changes the permuted ESN for the long code mask in the forward supplemental channels (FSCH1 and FSCH2).

[:FORWARD]:FFCH:LCMask:HEADer**Supported** All with Option 401

```
[:SOURCE]:RADio:CDMA2000[:BBG][:FORWARD]:FFCH:LCMask:HEADer <val>
[:SOURCE]:RADio:CDMA2000[:BBG][:FORWARD]:FFCH:LCMask:HEADer?
```

This command sets the header for the long code mask, which is used to identify a particular mobile.

RST** #H318**Range** 000–3FF**Field Entry** Header**Remarks** Changing this value also changes the header for the long code mask in the forward supplemental channels (FSCH1 and FSCH2).**[:FORWARD]:FFCH:POWER*Supported** All with Option 401

```
[:SOURCE]:RADio:CDMA2000[:BBG][:FORWARD]:FFCH:POWER <val>
[:SOURCE]:RADio:CDMA2000[:BBG][:FORWARD]:FFCH:POWER?
```

This command sets the power for the forward fundamental channel.

The variable <val> is expressed in units of decibels (dB).

RST** +0.00000000E+000**Range** –40 to 0**Field Entry** Power**Remarks** N/A**[:FORWARD]:FFCH:PRAMP*Supported** All with Option 401

```
[:SOURCE]:RADio:CDMA2000[:BBG][:FORWARD]:FFCH:PRAMP ON|OFF|1|0
[:SOURCE]:RADio:CDMA2000[:BBG][:FORWARD]:FFCH:PRAMP?
```

This command sets the power puncturing operating state for the forward fundamental channel.

***RST** 1**Field Entry** Ramp

Remarks N/A

[:FORWard]:FFCH:PRTTime

Supported All with Option 401

```
[:SOURce]:RADio:CDMA2000[:BBG][:FORWard]:FFCH:PRTTime <val>
[:SOURce]:RADio:CDMA2000[:BBG][:FORWard]:FFCH:PRTTime?
```

This command sets the power ramp time indicator values for the forward fundamental channel.

Power frame indicators are used to command the mobile (increasing or decreasing power). For example, if 4 is the selected value, it will cause the mobile to respond with 4 sequential power increases, then 4 power decreases. This pattern will continue indefinitely.

The variable <val> is expressed in

***RST** +1
Range 1–80
Field Entry Ramp Time
Remarks N/A

[:FORWard]:FFCH:QOF

Supported All with Option 401

```
[:SOURce]:RADio:CDMA2000[:BBG][:FORWard]:FFCH:QOF <val>
[:SOURce]:RADio:CDMA2000[:BBG][:FORWard]:FFCH:QOF?
```

This command sets the quasi-orthogonal function channel value.

***RST** +0
Range 0–3
Field Entry QOF
Remarks N/A

[:FORWARD]:FFCH:RATE

Supported All with Option 401

```
[:SOURCE]:RADio:CDMA2000[:BBG][:FORWARD]:FFCH:RATE 1.2kbps|1.5kbps|  
1.8kbps|2.4kbps|2.7kbps|3.6kbps|4.8kbps|7.2kbps|9.6kbps|14.4kbps  
[:SOURCE]:RADio:CDMA2000[:BBG][:FORWARD]:FFCH:RATE?
```

This command sets the data rate for the forward paging channel.

The variable <val> is expressed in units of bits per second (bps–Mbps).

***RST** +9.6000000E+003

Range 1.2E3–1.44E4

Field Entry Bit Rate

Remarks N/A

[:FORWARD]:FFCH:RCONfig

Supported All with Option 401

```
[:SOURCE]:RADio:CDMA2000[:BBG][:FORWARD]:FFCH:RCONfig <val>  
[:SOURCE]:RADio:CDMA2000[:BBG][:FORWARD]:FFCH:RCONfig?
```

This command sets the radio configuration value for the forward fundamental channel.

***RST** +3

Range 1–5

Field Entry Radio Config

Remarks N/A

[:FORWARD]:FFCH:WALSh

Supported All with Option 401

```
[:SOURCE]:RADio:CDMA2000[:BBG][:FORWARD]:FFCH:WALSh <val>  
[:SOURCE]:RADio:CDMA2000[:BBG][:FORWARD]:FFCH:WALSh?
```

Execute this command to set the Walsh code for the forward fundamental channel.

***RST** +10

Range *RC1,2,3, & 5:* 0–63 *RC4:* 0–127

Field Entry Walsh

Remarks N/A

[:FORWard]:FFCH[:STATE]

Supported All with Option 401

```
[:SOURce]:RADio:CDMA2000[:BBG][:FORWard]:FFCH[:STATE] ON|OFF|1|0
[:SOURce]:RADio:CDMA2000[:BBG][:FORWard]:FFCH[:STATE]?
```

This command enables or disables the operating state of the forward fundamental channel.

***RST** 0

Field Entry State

Remarks N/A

[:FORWard]:FPCH:DATA

Supported All with Option 401

```
[:SOURce]:RADio:CDMA2000[:BBG][:FORWard]:FPCH:DATA DEFault|"<file name>"
[:SOURce]:RADio:CDMA2000[:BBG][:FORWard]:FPCH:DATA?
```

This command configures the data field for the forward paging channel.

***RST** DEFAULT

Key Entry **Default** **User File**

Remarks A user-defined file can have a maximum length of 512 bytes.

Refer to “File Name Variables” on page 14 for information on the file name syntax.

[:FORWard]:FPCH:EBNO

Supported All with Option 401

```
[:SOURce]:RADio:CDMA2000[:BBG][:FORWard]:FPCH:EBNO <val>
[:SOURce]:RADio:CDMA2000[:BBG][:FORWard]:FPCH:EBNO?
```

This command sets the ratio of energy per bit to noise power spectral density (expressed in dB) for the forward paging channel.

***RST** +0.00000000E+000

Range $\min EbNo: 10 \log_{10} \left[\frac{\text{Chip Rate}}{1000(\text{Bit Rate})} \right] + \text{Normalized Power}$

$$\max EbNo: 10\log_{10} \left[\frac{1000(\text{Chip Rate})}{\text{Bit Rate}} \right] + \text{Normalized Power}$$

Normalized Power is the channel amplitude after adjusting the code power to 0 dB. Refer to “[:FORWARD]:PADJust” on page 482 for adjusting the code domain power.

Field Entry EbNo

Remarks Changes to the EbNo values also change the EcNo values for all other channels in the current link (forward or reverse).

Queries of this command are only valid for the current operating state.

[:FORWARD]:FPCH:LCMask

Supported All with Option 401

```
[:SOURCE]:RADio:CDMA2000[:BBG][:FORWARD]:FPCH:LCMask?
```

This command outputs the contents of the long code mask field for the forward paging channel.

***RST** +0.00000000E+000

Range N/A

Key Entry N/A

Remarks N/A

[:FORWARD]:FPCH:LCMask:F1

Supported All with Option 401

```
[:SOURCE]:RADio:CDMA2000[:BBG][:FORWARD]:FPCH:LCMask:F1 <val>
```

```
[:SOURCE]:RADio:CDMA2000[:BBG][:FORWARD]:FPCH:LCMask:F1?
```

This command sets the value of field one for the forward paging channel long code mask.

***RST** #H18CD

Range #H0–#H1FFF

Field Entry Field 1

Remarks N/A

[:FORWARD]:FPCH:LCMask:F2**Supported** All with Option 401

```
[:SOURCE]:RADio:CDMA2000[:BBG][:FORWARD]:FPCH:LCMask:F2 <val>
[:SOURCE]:RADio:CDMA2000[:BBG][:FORWARD]:FPCH:LCMask:F2?
```

This command sets the value of field two for the forward paging channel long code mask.

RST** #H00**Range** #H00–#H1F**Field Entry** Field 2**Remarks** N/A**[:FORWARD]:FPCH:LCMask:F3*Supported** All with Option 401

```
[:SOURCE]:RADio:CDMA2000[:BBG][:FORWARD]:FPCH:LCMask:F3 <val>
[:SOURCE]:RADio:CDMA2000[:BBG][:FORWARD]:FPCH:LCMask:F3?
```

This command sets the value of field three for the forward paging channel long code mask.

RST** #H000**Range** #H0–#HFFF**Field Entry** Field 3**Remarks** N/A**[:FORWARD]:FPCH:MESSAge*Supported** All with Option 401

```
[:SOURCE]:RADio:CDMA2000[:BBG][:FORWARD]:FPCH:MESSAge <bit_count>,
<datablock>
```

This command sends a bit count and a data block (to queue up messaging), generated as a one-time paging message (asynchronous paging message), to the paging channel.

After a one-time paging message is generated, the signal generator reverts to synchronous paging file messages.

***RST** N/A**Range** N/A

Key Entry N/A

Remarks N/A

[:FORWARD]:FPCH:POWER

Supported All with Option 401

```
[:SOURCE]:RADIO:CDMA2000[:BBG][:FORWARD]:FPCH:POWER <val>
[:SOURCE]:RADIO:CDMA2000[:BBG][:FORWARD]:FPCH:POWER?
```

Execute this command to set the power for the forward paging channel.

The variable <val> is expressed in units of decibels (dB).

***RST** +0.00000000E+000

Range -40 to 0

Field Entry Power

Remarks N/A

[:FORWARD]:FPCH:RATE

Supported All with Option 401

```
[:SOURCE]:RADIO:CDMA2000[:BBG][:FORWARD]:FPCH:RATE 4.8kbps|9.6kbps
[:SOURCE]:RADIO:CDMA2000[:BBG][:FORWARD]:FPCH:RATE?
```

This command sets the data rate for the forward paging channel.

The variable <val> is expressed in units of bits per second (bps–Mbps).

***RST** +9.60000000E+003

Field Entry Bit Rate

Remarks N/A

[:FORWARD]:FPCH:WALSh

Supported All with Option 401

```
[:SOURCE]:RADIO:CDMA2000[:BBG][:FORWARD]:FPCH:WALSh <val>
[:SOURCE]:RADIO:CDMA2000[:BBG][:FORWARD]:FPCH:WALSh?
```

This command sets the Walsh code for the forward paging channel.

***RST** +1

CDMA2000 BBG Subsystem–Option 401 ([:SOURce]:RADio:CDMA2000[:BBG])

Range	0–63
Field Entry	Walsh
Remarks	N/A

[:FORWard]:FPCH[:STATe]

Supported All with Option 401

```
[:SOURce]:RADio:CDMA2000[:BBG][:FORWard]:FPCH[:STATe] ON|OFF|1|0
[:SOURce]:RADio:CDMA2000[:BBG][:FORWard]:FPCH[:STATe]?
```

Execute this command to set the operating state for the forward paging channel.

*RST	0
Field Entry	State
Remarks	N/A

[:FORWard]:FPICH:ECNO

Supported All with Option 401

```
[:SOURce]:RADio:CDMA2000[:BBG][:FORWard]:FPICH:ECNO <val>
[:SOURce]:RADio:CDMA2000[:BBG][:FORWard]:FPICH:ECNO?
```

This command sets the ratio of energy per chip to the noise power spectral density (expressed in dB) for the forward pilot channel.

*RST	+0.00000000E+000
Range	<i>min EcNo</i> : -30 + Normalized Power <i>max EcNo</i> : 30 + Normalized Power
	Normalized Power is the channel amplitude after adjusting the code power to 0 dB. Refer to “[:FORWard]:PADJust” on page 482 for adjusting the code domain power.

Field Entry EcNo

Remarks Changes to the EcNo values also change the EbNo values for all other channels in the current link (forward or reverse).

Queries of this command are only valid for the current operating state.

[[:FORWARD]:FPICH:POWER]**Supported** All with Option 401

```
[:SOURCE]:RADio:CDMA2000[:BBG] [:FORWARD]:FPICH:POWER <val>
[:SOURCE]:RADio:CDMA2000[:BBG] [:FORWARD]:FPICH:POWER?
```

This command sets the power for the forward pilot channel.

The variable <val> is expressed in units of decibels (dB).

RST** +0.00000000E+000**Range** -40 to 0**Field Entry** Power**Remarks** N/A**[[:FORWARD]:FPICH[:STATE]]*Supported** All with Option 401

```
[:SOURCE]:RADio:CDMA2000[:BBG] [:FORWARD]:FPICH[:STATE] ON|OFF|1|0
[:SOURCE]:RADio:CDMA2000[:BBG] [:FORWARD]:FPICH[:STATE]?
```

This command enables or disables the operating state of the forward pilot channel.

RST** 1**Field Entry** State**Remarks** N/A**[[:FORWARD]:FSCH[1]|2:DATA]*Supported** All with Option 401

```
[:SOURCE]:RADio:CDMA2000[:BBG] [:FORWARD]:FSCH[1]|2:DATA PN9|PN15|FIX4|
"<file name>"|EXT
[:SOURCE]:RADio:CDMA2000[:BBG] [:FORWARD]:FSCH[1]|2:DATA?
```

This command configures the data field for the forward supplemental traffic channels.

***RST** PN9**Key Entry** PN9 PN15 FIX4 User File EXT**Remarks** N/A

[:FORWARD]:FSCH[1] | 2:DATA:FIX4**Supported** All with Option 401

```
[:SOURCE]:RADIO:CDMA2000[:BBG][:FORWARD]:FSCH[1] | 2:DATA:FIX4 <val>
[:SOURCE]:RADIO:CDMA2000[:BBG][:FORWARD]:FSCH[1] | 2:DATA:FIX4?
```

This command selects a fixed 4-bit data pattern that repeats as necessary to fill the selected data area.

RST** #B0000**Range** #B0000–#B1111 or 0–15**Key Entry** **FIX4*Remarks** N/A**[:FORWARD]:FSCH[1] | 2:EBNO****Supported** All with Option 401

```
[:SOURCE]:RADIO:CDMA2000[:BBG][:FORWARD]:FSCH[1] | 2:EBNO <val>
[:SOURCE]:RADIO:CDMA2000[:BBG][:FORWARD]:FSCH[1] | 2:EBNO?
```

This command sets the ratio of energy per bit to noise power spectral density (expressed in dB) for the reverse access channel.

***RST** +0.00000000E+000

Range

$$\text{min EbNo: } 10 \log_{10} \left[\frac{\text{Chip Rate}}{1000(\text{Bit Rate})} \right] + \text{Normalized Power}$$

$$\text{max EbNo: } 10 \log_{10} \left[\frac{1000(\text{Chip Rate})}{\text{Bit Rate}} \right] + \text{Normalized Power}$$

Normalized Power is the channel amplitude after adjusting the code power to 0 dB. Refer to “[:FORWARD]:PADJUST” on page 482 for adjusting the code domain power.

Field Entry EbNo**Remarks** Changes to the EbNo values also change the EcNo values for all other channels in the current link (forward or reverse).

Queries of this command are only valid for the current operating state.

[:FORWARD]:FSCH[1] | 2:FOFFset

Supported All with Option 401

```
[:SOURCE]:RADio:CDMA2000[:BBG] [:FORWARD]:FSCH[1] | 2:FOFFset <val>  
[:SOURCE]:RADio:CDMA2000[:BBG] [:FORWARD]:FSCH[1] | 2:FOFFset?
```

This command sets the frame offset value for the forward supplemental traffic channels.

***RST** +0

Range 0–15

Field Entry Frame Offset

Remarks Changing this value also changes the frame offset value for the forward fundamental channel (FFCH).

[:FORWARD]:FSCH[1] | 2:LCMask

Supported All with Option 401

```
[:SOURCE]:RADio:CDMA2000[:BBG] [:FORWARD]:FSCH[1] | 2:LCMask?
```

This query outputs the contents of the long code mask field for the forward supplemental traffic channels.

***RST** 0

Range N/A

Key Entry N/A

Remarks This value is shared with the forward fundamental channel (FFCH).

[:FORWARD]:FSCH[1] | 2:LCMask:ESN

Supported All with Option 401

```
[:SOURCE]:RADio:CDMA2000[:BBG] [:FORWARD]:FSCH[1] | 2:LCMask:ESN <val>  
[:SOURCE]:RADio:CDMA2000[:BBG] [:FORWARD]:FSCH[1] | 2:LCMask:ESN?
```

This command defines the permuted electronic serial number (ESN) for the long code mask, which is used to identify a particular mobile.

***RST** #H00000000

Range #H0–#HFFFFFFF

Field Entry Permuted ESN

Remarks Changing this value also changes the permuted ESN for the long code mask in the forward fundamental channel (FFCH).

[:FORWard]:FSCH[1] | 2:LCMask:HEADer

Supported All with Option 401

```
[:SOURce]:RADio:CDMA2000[:BBG] [:FORWard]:FSCH[1] | 2:LCMask:HEADer <val>
[:SOURce]:RADio:CDMA2000[:BBG] [:FORWard]:FSCH[1] | 2:LCMask:HEADer?
```

This command sets the header for the long code mask, which is used to identify a particular mobile.

***RST** #H318

Range 000–3FF

Field Entry Header

Remarks Changing this value also changes the header for the long code mask in the forward fundamental channel (FFCH).

[:FORWard]:FSCH[1] | 2:POWER

Supported All with Option 401

```
[:SOURce]:RADio:CDMA2000[:BBG] [:FORWard]:FSCH[1] | 2:POWER <val>
[:SOURce]:RADio:CDMA2000[:BBG] [:FORWard]:FSCH[1] | 2:POWER?
```

This command sets the power for the forward supplemental traffic channels.

The variable <val> is expressed in units of decibels (dB).

***RST** +0.00000000E+000

Range –40 to 0

Field Entry Power

Remarks N/A

[:FORWard]:FSCH[1] | 2:QOF

Supported All with Option 401

```
[:SOURce]:RADio:CDMA2000[:BBG] [:FORWard]:FSCH[1] | 2:QOF <val>
[:SOURce]:RADio:CDMA2000[:BBG] [:FORWard]:FSCH[1] | 2:QOF?
```

This command sets the quasi-orthogonal function value for the forward supplemental

traffic channels.

***RST** +0
Range 0–3
Field Entry QOF
Remarks N/A

[:FORWARD]:FSCH[1] | 2:RATE

Supported All with Option 401

[:SOURCE]:RADio:CDMA2000[:BBG] [:FORWARD]:FSCH[1] | 2:RATE 19.2kbps |
 28.8kbps | 38.4kbps | 57.6kbps | 76.8kbps | 115.2kbps | 153.6kbps | 230.4kbps |
 307.2kbps

[:SOURCE]:RADio:CDMA2000[:BBG] [:FORWARD]:FSCH[1] | 2:RATE?

This command sets the data rate for the forward supplemental traffic channels.

***RST** +1.92000000E+004
Field Entry Bit Rate
Remarks Values preceded by an asterisk indicate data rate values that are eligible for turbo coding.

[:FORWARD]:FSCH[1] | 2:RCONfig

Supported All with Option 401

[:SOURCE]:RADio:CDMA2000[:BBG] [:FORWARD]:FSCH[1] | 2:RCONfig 3 | 4 | 5

[:SOURCE]:RADio:CDMA2000[:BBG] [:FORWARD]:FSCH[1] | 2:RCONfig?

This command sets the radio configuration value for the forward supplemental channels.

***RST** +3
Field Entry Radio Config
Remarks N/A

[[:FORWARD]:FSCH[1] | 2:TCODE**Supported** All with Option 401

```
[:SOURce]:RADio:CDMA2000[:BBG] [:FORWARD]:FSCH[1] | 2:TCODE ON|OFF|1|0
[:SOURce]:RADio:CDMA2000[:BBG] [:FORWARD]:FSCH[1] | 2:TCODE?
```

This command enables or disables the turbo coding operating state for the forward supplemental traffic channels.

***RST** 0**Field Entry** Turbo Coding**Remarks** Turbo coding is available for all data rates, excluding the following radio configurations (highest data rate of each radio configuration):

RC3: 153.6
 RC4: 307.2
 RC5: 230.4

To change the data rate for the forward supplemental traffic channel, refer to “[[:FORWARD]:FSCH[1] | 2:RATE” on page 471.

[[:FORWARD]:FSCH[1] | 2:WALSh**Supported** All with Option 401

```
[:SOURce]:RADio:CDMA2000[:BBG] [:FORWARD]:FSCH[1] | 2:WALSh <val>
[:SOURce]:RADio:CDMA2000[:BBG] [:FORWARD]:FSCH[1] | 2:WALSh?
```

This command sets the Walsh code for the forward supplemental traffic channels.

***RST** *FSCH1: 12 FSCH2: 14*

Range	<i>RC3</i>	<i>RC4</i>	<i>RC5</i>
	<i>Data Rate=19.2: 0–31</i>	<i>Data Rate=19.2: 0–63</i>	<i>Data Rate=28.8: 0–31</i>
	<i>Data Rate=38.4: 0–15</i>	<i>Data Rate=38.4: 0–31</i>	<i>Data Rate=57.6: 0–15</i>
	<i>Data Rate=76.8: 0–7</i>	<i>Data Rate=76.8: 0–15</i>	<i>Data Rate=115.2: 0–7</i>
	<i>Data Rate=307.2: 0–3</i>	<i>Data Rate=153.6: 0–7</i>	<i>Data Rate=230.4: 0–3</i>
		<i>Data Rate=307.2: 0–3</i>	

Field Entry Walsh**Remarks** N/A

[[:FORWARD]:FSCH[1] | 2[:STATE]**Supported** All with Option 401

```
[:SOURCE]:RADio:CDMA2000[:BBG] [:FORWARD]:FSCH[1] | 2[:STATE] ON|OFF|1|0
[:SOURCE]:RADio:CDMA2000[:BBG] [:FORWARD]:FSCH[1] | 2[:STATE] ?
```

This command enables or disables the operating state of the forward supplemental traffic channel.

RST** 0**Field Entry** State**Remarks** N/A**[[:FORWARD]:FSYNc:CFRequency*Supported** All with Option 401

```
[:SOURCE]:RADio:CDMA2000[:BBG] [:FORWARD]:FSYNc:CFRequency <val>
[:SOURCE]:RADio:CDMA2000[:BBG] [:FORWARD]:FSYNc:CFRequency?
```

This command directs the mobile station to a CDMA channel having a primary paging channel.

RST** +50**Range** 0–2047**Field Entry** CDMA Freq**Remarks** N/A**[[:FORWARD]:FSYNc:DAYLt*Supported** All with Option 401

```
[:SOURCE]:RADio:CDMA2000[:BBG] [:FORWARD]:FSYNc:DAYLt 1|0
[:SOURCE]:RADio:CDMA2000[:BBG] [:FORWARD]:FSYNc:DAYLt?
```

This command sets the daylight savings time offset for the forward synchronization channel, where 1 = on and 0 = off.

***RST** +0**Field Entry** DAYLT**Remarks** N/A

[[:FORWARD]:FSYNc:EBNO]**Supported** All with Option 401

```
[:SOURce]:RADio:CDMA2000[:BBG][:FORWARD]:FSYNc:EBNO <val>
[:SOURce]:RADio:CDMA2000[:BBG][:FORWARD]:FSYNc:EBNO?
```

This command sets the ratio of energy per bit to noise power spectral density (expressed in dB) for the quick paging channel.

***RST** +0.00000000E+000**Range** $\min EbNo: 10\log_{10} \left[\frac{\text{Chip Rate}}{1000(\text{Bit Rate})} \right] + \text{Normalized Power}$

$$\max EbNo: 10\log_{10} \left[\frac{1000(\text{Chip Rate})}{\text{Bit Rate}} \right] + \text{Normalized Power}$$

Normalized Power is the channel amplitude after adjusting the code power to 0 dB. Refer to “[[:FORWARD]:PADJust]” on page 482 for adjusting the code domain power.

Field Entry EbNo**Remarks** Changes to the EbNo values also change the EcNo values for all other channels in the current link (forward or reverse).

Queries of this command are only valid for the current operating state.

[[:FORWARD]:FSYNc:ECFRequency]**Supported** All with Option 401

```
[:SOURce]:RADio:CDMA2000[:BBG][:FORWARD]:FSYNc:ECFRequency <val>
[:SOURce]:RADio:CDMA2000[:BBG][:FORWARD]:FSYNc:ECFRequency?
```

This command direct the mobile station to a CDMA channel having a primary paging channel. The mobile tunes to the Ext CDMA Freq field when it has a protocol revision level of 6 or greater, and it supports either the quick paging channel or radio configurations greater than 2. Otherwise, the mobile tunes to the CDMA Freq field for the CDMA channel.

This command sets the extended CDMA frequency for the forward synchronization channel.

***RST** +0**Range** 0–2047**Field Entry** Ext CDMA Freq

Remarks N/A

[:FORWARD]:FSYNc:LPSec

Supported All with Option 401

```
[:SOURCE]:RADIO:CDMA2000[:BBG][:FORWARD]:FSYNc:LPSec <val>  
[:SOURCE]:RADIO:CDMA2000[:BBG][:FORWARD]:FSYNc:LPSec?
```

This command sets the leap seconds value for the forward synchronization channel.

***RST** +0

Range 0–255

Field Entry Leap Seconds

Remarks N/A

[:FORWARD]:FSYNc:LTMoff

Supported All with Option 401

```
[:SOURCE]:RADIO:CDMA2000[:BBG][:FORWARD]:FSYNc:LTMoff <val>  
[:SOURCE]:RADIO:CDMA2000[:BBG][:FORWARD]:FSYNc:LTMoff?
```

This command sets the current local time offset from the basestation for the forward synchronization channel, where 1= 30 minutes, 2= 60 minutes, 3= 90 minutes, and so on.

***RST** +0

Range 0–63

Field Entry LTM OFF

Remarks N/A

[:FORWARD]:FSYNc:MPREv

Supported All with Option 401

```
[:SOURCE]:RADIO:CDMA2000[:BBG][:FORWARD]:FSYNc:MPREv <val>  
[:SOURCE]:RADIO:CDMA2000[:BBG][:FORWARD]:FSYNc:MPREv?
```

This command sets the minimum protocol revision level for the forward synchronization channel.

***RST** +1

Range 0–255

Field Entry P Rev Min

Remarks N/A

[:FORWARD]:FSYNc:MSGType

Supported All with Option 401

```
[:SOURce]:RADio:CDMA2000[:BBG][:FORWARD]:FSYNc:MSGType <val>
[:SOURce]:RADio:CDMA2000[:BBG][:FORWARD]:FSYNc:MSGType?
```

This command sets the message type value for the forward synchronization channel.

***RST** +1

Range 0–255

Field Entry Message Type

Remarks N/A

[:FORWARD]:FSYNc:NID

Supported All with Option 401

```
[:SOURce]:RADio:CDMA2000[:BBG][:FORWARD]:FSYNc:NID <val>
[:SOURce]:RADio:CDMA2000[:BBG][:FORWARD]:FSYNc:NID?
```

This command sets the network identification value for the forward synchronization channel.

***RST** +1

Range 0–65535

Key Entry Network ID

Remarks N/A

[:FORWARD]:FSYNc:POWER

Supported All with Option 401

```
[:SOURce]:RADio:CDMA2000[:BBG][:FORWARD]:FSYNc:POWER <val>
[:SOURce]:RADio:CDMA2000[:BBG][:FORWARD]:FSYNc:POWER?
```

This command sets the power for the forward synchronization channel.

The variable <val> is expressed in units of decibels (dB).

***RST** +0.00000000E+000
Range -40 to 0
Field Entry Power
Remarks N/A

[:FORWARD]:FSYNc:PRATe

Supported All with Option 401

```
[:SOURCE]:RADio:CDMA2000[:BBG][:FORWARD]:FSYNc:PRATe <val>
[:SOURCE]:RADio:CDMA2000[:BBG][:FORWARD]:FSYNc:PRATe?
```

This command sets the base station paging rate for the forward supplemental channel.

***RST** +0
Range 0–3
Field Entry PRAT
Remarks N/A

[:FORWARD]:FSYNc:PREV

Supported All with Option 401

```
[:SOURCE]:RADio:CDMA2000[:BBG][:FORWARD]:FSYNc:PREV <val>
[:SOURCE]:RADio:CDMA2000[:BBG][:FORWARD]:FSYNc:PREV?
```

This command sets the protocol revision level for the forward synchronization channel.

***RST** +1
Range 0–255
Field Entry P Rev
Remarks N/A

[:FORWARD]:FSYNc:RESERved

Supported All with Option 401

```
[:SOURCE]:RADio:CDMA2000[:BBG][:FORWARD]:FSYNc:RESERved <val>
[:SOURCE]:RADio:CDMA2000[:BBG][:FORWARD]:FSYNc:RESERved?
```

This command sets the reserved field value for the forward synchronization channel.

CDMA2000 BBG Subsystem–Option 401 ([:SOURce]:RADio:CDMA2000[:BBG])

*RST	+0
Range	0–7
Key Entry	Reserved
Remarks	Currently, base stations and mobiles ignore reserved bits, so the reserved field should be set to “0” with the query returning the same value.

[:FORWARD]:FSYnc:SID

Supported All with Option 401

```
[:SOURce]:RADio:CDMA2000[:BBG][:FORWARD]:FSYnc:SID <val>
[:SOURce]:RADio:CDMA2000[:BBG][:FORWARD]:FSYnc:SID?
```

This command sets the system identification for the forward synchronization channel.

*RST	+7
Range	0–32767
Field Entry	System ID
Remarks	N/A

[:FORWARD]:FSYnc:STYPe

Supported All with Option 401

```
[:SOURce]:RADio:CDMA2000[:BBG][:FORWARD]:FSYnc:STYPe IS95|JSTD8|IS2000
[:SOURce]:RADio:CDMA2000[:BBG][:FORWARD]:FSYnc:STYPe?
```

This command selects the forward synchronization channel type.

IS95	This choice selects a channel type that is compatible with the IS95 CDMA standard.
JSTD8	This choice selects a channel type that is compatible with PCS CDMA standard personal station requirements for 1.9 to 2.0 GHz.
IS2000	This choice selects a channel type that is compatible with the IS2000 CDMA standard.
*RST	JSTD8
Key Entry	IS95 JSTD8 IS2000
Remarks	N/A

[:FORWARD]:FSYNc:SYSTime

Supported All with Option 401

```
[:SOURCE]:RADIO:CDMA2000[:BBG][:FORWARD]:FSYNc:SYSTime <val>  
[:SOURCE]:RADIO:CDMA2000[:BBG][:FORWARD]:FSYNc:SYSTime?
```

This command sets the system time value for the forward synchronization channel.

***RST** #H00000000

Range #H0–#HFFFFFFFF

Field Entry Time

Remarks N/A

[:FORWARD]:FSYNc:WALSh

Supported All with Option 401

```
[:SOURCE]:RADIO:CDMA2000[:BBG][:FORWARD]:FSYNc:WALSh <val>  
[:SOURCE]:RADIO:CDMA2000[:BBG][:FORWARD]:FSYNc:WALSh?
```

This command sets the Walsh code for the forward synchronization channel.

***RST** +32

Range 0–63

Field Entry Walsh

Remarks N/A

[:FORWARD]:FSYNc[:STATE]

Supported All with Option 401

```
[:SOURCE]:RADIO:CDMA2000[:BBG][:FORWARD]:FSYNc[:STATE] ON|OFF|1|0  
[:SOURCE]:RADIO:CDMA2000[:BBG][:FORWARD]:FSYNc[:STATE]?
```

This command enables or disables the operating state for the forward synchronization channel.

***RST** 0

Field Entry State

Remarks N/A

[:FORWARD]:NOISE:CN**Supported** All with Option 401

```
[:SOURce]:RADio:CDMA2000[:BBG][:FORWARD]:NOISE:CN <val>
[:SOURce]:RADio:CDMA2000[:BBG][:FORWARD]:NOISE:CN?
```

This command sets the carrier to noise ratio for the forward link.

The variable <val> is expressed in units of decibels (dB).

***RST** +0.00000000E+000**Range** -30 to 30**Key Entry** C/N**Remarks** The carrier to noise ratio is the ratio of the carrier power to in-channel noise power.

A change to the carrier to noise ratio will change all EbNo/EcNo field values.

[:FORWARD]:NOISE[:STATE]**Supported** All with Option 401

```
[:SOURce]:RADio:CDMA2000[:BBG][:FORWARD]:NOISE[:STATE] ON|OFF|1|0
[:SOURce]:RADio:CDMA2000[:BBG][:FORWARD]:NOISE[:STATE]?
```

This command enables or disables the noise function for the CDMA2000 baseband forward link.

NOTE When this command is enabled, an immediate increase in the Even Second Delay value will occur. The Even Second Delay value will increase by an increment of 11.5 chips. The chip increase will be seen in the appropriate fields on the display.

Changes to Even Second Delay and Trigger Advance will not affect synchronization; automatic compensation is performed internally.

***RST** 0**Key Entry** Noise Off On**Remarks** Both the carrier and noise power value will be adjusted to match the specified carrier to noise ratio. Refer to “[:FORWARD]:NOISE:CN” on [page 480](#) to change the carrier to noise ratio.

The noise function can only be turned on with Option 403 installed.

[:FORWARD]:OCNS:POWER

Supported All with Option 401

```
[:SOURCE]:RADio:CDMA2000[:BBG][:FORWARD]:OCNS:POWER <val>  
[:SOURCE]:RADio:CDMA2000[:BBG][:FORWARD]:OCNS:POWER?
```

This command sets the power level for the orthogonal channel noise simulator.

The variable <val> is expressed in units of decibels (dB).

***RST** +0.00000000E+000

Range -40 to 0

Field Entry Power

Remarks N/A

[:FORWARD]:OCNS:WALSh

Supported All with Option 401

```
[:SOURCE]:RADio:CDMA2000[:BBG][:FORWARD]:OCNS:WALSh <val>  
[:SOURCE]:RADio:CDMA2000[:BBG][:FORWARD]:OCNS:WALSh?
```

This command sets the Walsh code for the orthogonal channel noise simulator.

***RST** +61

Range 0–63

Field Entry Walsh

Remarks N/A

[:FORWARD]:OCNS[:STATE]

Supported All with Option 401

```
[:SOURCE]:RADio:CDMA2000[:BBG][:FORWARD]:OCNS[:STATE] ON|OFF|1|0  
[:SOURCE]:RADio:CDMA2000[:BBG][:FORWARD]:OCNS[:STATE]?
```

This command sets the power for the orthogonal channel noise simulator.

***RST** 0

Field Entry State

Remarks N/A

[:FORWard]:PADJust

Supported All with Option 401

```
[:SOURce]:RADio:CDMA2000[:BBG][:FORWard]:PADJust EQUAL|SCALE
```

This command sets the code domain power (the relative power in each of the channels).

EQUal Sets all channels to equal power, and the total power to 0 dB.

SCALE Scales all of the current channel powers so that the total power equals 0 dB, keeping the previous power ratios between the individual channels.

***RST** N/A

Key Entry **Equal Powers Scale To 0dB**

Remarks N/A

[:FORWard]:POLarity

Supported All with Option 401

```
[:SOURce]:RADio:CDMA2000[:BBG][:FORWard]:POLarity NORMAL|INVERTed
```

```
[:SOURce]:RADio:CDMA2000[:BBG][:FORWard]:POLarity?
```

This command sets the rotation direction for the phase modulation vector.

NORMAL This choice selects normal phase polarity.

INVERTed This choice inverts the internal Q signal.

***RST** NORM

Field Entry Phase Polarity

Remarks N/A

[:FORWard]:QPCH:CCI

Supported All with Option 401

```
[:SOURce]:RADio:CDMA2000[:BBG][:FORWard]:QPCH:CCI <val>
```

```
[:SOURce]:RADio:CDMA2000[:BBG][:FORWard]:QPCH:CCI?
```

This command selects the configuration change indicator for the quick paging channel.

***RST** +3

Range	0–3
Field Entry	Change
Remarks	N/A

[:FORWARD]:QPCH:EBNO

Supported All with Option 401

```
[:SOURCE]:RADio:CDMA2000[:BBG][:FORWARD]:QPCH:EBNO <val>
[:SOURCE]:RADio:CDMA2000[:BBG][:FORWARD]:QPCH:EBNO?
```

This command sets the ratio of energy per bit to noise power spectral density (expressed in dB) for the quick paging channel.

***RST** +0.00000000E+000

Range

$$\min EbNo: 10\log_{10} \left[\frac{\text{Chip Rate}}{1000(\text{Bit Rate})} \right] + \text{Normalized Power}$$

$$\max EbNo: 10\log_{10} \left[\frac{1000(\text{Chip Rate})}{\text{Bit Rate}} \right] + \text{Normalized Power}$$

Normalized Power is the channel amplitude after adjusting the code power to 0 dB. Refer to “[:FORWARD]:PADJust” on page 482 for adjusting the code domain power.

Field Entry EbNo

Remarks Changes to the EbNo values also change the EcNo values for all other channels in the current link (forward or reverse).

Queries of this command are only valid for the current operating state.

[:FORWARD]:QPCH:PI

Supported All with Option 401

```
[:SOURCE]:RADio:CDMA2000[:BBG][:FORWARD]:QPCH:PI <val>
[:SOURCE]:RADio:CDMA2000[:BBG][:FORWARD]:QPCH:PI?
```

This command selects the paging slots for the quick paging channel.

***RST** +0

Field Entry Paging Indicator

Remarks When the bit rate is 2400, a value of 191 turns all paging slots on.

When the bit rate is 4800, a value of 383 turns all paging slots on.

When the bit rate is either 2400 or 4800, a value of –1 turns all paging slots off.

To change the bit rate value, refer to “[:FORWard]:QPCH:RATE” on page 484.

[:FORWard]:QPCH:POWer

Supported All with Option 401

```
[:SOURce]:RADio:CDMA2000[:BBG][:FORWard]:QPCH:POWer <val>
[:SOURce]:RADio:CDMA2000[:BBG][:FORWard]:QPCH:POWer?
```

This command sets the power value for the quick paging channel.

The variable <val> is expressed in units of decibels (dB).

***RST** +0.00000000E+000

Range –40 to 0

Field Entry Power

Remarks N/A

[:FORWard]:QPCH:RATE

Supported All with Option 401

```
[:SOURce]:RADio:CDMA2000[:BBG][:FORWard]:QPCH:RATE 2.4kbps|4.8kbps
[:SOURce]:RADio:CDMA2000[:BBG][:FORWard]:QPCH:RATE?
```

This command sets the bit rate for the quick paging channel.

***RST** +4.80000000E+003

Field Entry Bit Rate

Remarks N/A

[:FORWARD]:QPCH:WALSh**Supported** All with Option 401

```
[:SOURCE]:RADIO:CDMA2000[:BBG][:FORWARD]:QPCH:WALSh <val>
[:SOURCE]:RADIO:CDMA2000[:BBG][:FORWARD]:QPCH:WALSh?
```

This command sets the Walsh code for the quick paging channel.

RST** +80**Range** 0–127**Field Entry** Walsh**Remarks** N/A**[:FORWARD]:QPCH[:STATE]*Supported** All with Option 401

```
[:SOURCE]:RADIO:CDMA2000[:BBG][:FORWARD]:QPCH[:STATE] ON|OFF|1|0
[:SOURCE]:RADIO:CDMA2000[:BBG][:FORWARD]:QPCH[:STATE]?
```

This command enables or disables the operating state of the quick paging channel.

RST** 0**Field Entry** State**Remarks** N/A**[:FORWARD]:SRATE*Supported** All with Option 401

```
[:SOURCE]:RADIO:CDMA2000[:BBG][:FORWARD]:SRATE?
```

This command returns the value of the current spreading rate.

***RST** +1**Range** N/A**Key Entry** N/A**Remarks** N/A

:PNOffset**Supported** All with Option 401

```
[:SOURce]:RADio:CDMA2000[:BBG]:PNOffset <val>
[:SOURce]:RADio:CDMA2000[:BBG]:PNOffset?
```

This command sets the current pseudorandom number (PN) offset value.

RST** +1**Range** 0–511**Field Entry** PN Offset**Remarks** The PN offset value is the time offset in the short code assigned to each basestation, allotting a unique identity for each.**:REVerse:BBCLock*Supported** All with Option 401

```
[:SOURce]:RADio:CDMA2000[:BBG]:REVerse:BBCLock INT[1]|EXT[1]
[:SOURce]:RADio:CDMA2000[:BBG]:REVerse:BBCLock?
```

This command selects the data clock source.

RST** INT**Key Entry** Internal External**Remarks** If the EXT choice is selected, the REFERENCE selection will automatically be set to internal. The external data clock source must be connected to the DATA CLOCK front panel BNC input connector, and its frequency must match the specified chip rate.**:REVerse:CHIPrate*Supported** All with Option 401

```
[:SOURce]:RADio:CDMA2000[:BBG]:REVerse:CHIPrate <val>
[:SOURce]:RADio:CDMA2000[:BBG]:REVerse:CHIPrate?
```

Execute this command to adjust the chip rate.

The variable <val> is expressed in units of chips per second (cps–Mcps).

***RST** +1.22880000E+006**Range** 1E3–1.3E6

Field Entry	Chip Rate
Remarks	The default value (1.228800 Mcps) is in accordance with the IS-2000 specification.

:REVerse:ESDelay

Supported All with Option 401

```
[:SOURCE]:RADio:CDMA2000[:BBG]:REVerse:ESDelay <val>
[:SOURCE]:RADio:CDMA2000[:BBG]:REVerse:ESDelay?
```

This command modifies the even second clock pulse.

***RST** +2.75000000E+001

Range 0.5–128.0

Field Entry Even Second Delay

Remarks The even second clock pulse sets the delay to align the RF with the trigger.

When the noise function is set to ON, this value will increase. Refer to “:REVerse:NOISe[:STATe]” on page 492 for more information.

:REVerse:FILTer

Supported All with Option 401

```
[:SOURCE]:RADio:CDMA2000[:BBG]:REVerse:FILTer RNYQuist|NYQuist|GAUSSian|
RECTangle|IS95|IS95_EQ|IS95_MOD|IS95_MOD_EQ|AC4Fm|UGGaussian|
"<user FIR>"
[:SOURCE]:RADio:CDMA2000[:BBG]:REVerse:FILTer?
```

This command specifies the filter type for the reverse link.

IS95	This choice selects a filter that meets the criteria of the IS-95 standard.
IS95_EQ	This choice selects a filter which is a combination of the IS-95 filter (above) and the equalizer filter described in the IS-95 standard. This filter is only used for IS-95 baseband filtering.
IS95_MOD	This choice selects a filter that meets the criteria of the IS-95 error function (for improved adjacent channel performance) with lower passband rejection than the filter specified in the IS-95 standard.
IS95_MOD_EQ	This choice selects a filter which is a combination of the equalizer

CDMA2000 BBG Subsystem–Option 401 ([:SOURce]:RADio:CDMA2000[:BBG])

	filter described in the IS-95 standard and a filter that meets the criteria of the IS-95 error function (for improved adjacent channel performance), with lower passband rejection.
AC4Fm	This choice selects a predefined Association of Public Safety Communications Officials (APCO) specified compatible 4-level frequency modulation (C4FM) filter.
UGGaussian	This choice selects a backwards compatible GSM Gaussian filter (Gaussian filter with a fixed BbT value of 0.300) for the ESG E44xxB Option UN3 or UN4.
"<user FIR>"	This variable is any filter file that you have stored into memory.
*RST	IS95
Key Entry	Root Nyquist Nyquist Gaussian Rectangle IS-95 IS-95 w/EQ IS-95 Mod IS-95 MOD w/EQ APCO 25 C4FM UN3/4 GSM Gaussian User FIR
Remarks	Refer to “File Name Variables” on page 14 for information on the file name syntax.

:REVerse:FILTer:ALPHA

Supported All with Option 401

[:SOURce]:RADio:CDMA2000[:BBG]:REVerse:FILTer:ALPHA <val>

[:SOURce]:RADio:CDMA2000[:BBG]:REVerse:FILTer:ALPHA?

This command changes the alpha value on the Nyquist or root Nyquist filter.

The filter alpha value can be set to the minimum level (0), the maximum level (1), or in between by using fractional numeric values (0.001–0.999).

***RST** +2.20000000E–001

Range 0.000–1.000

Key Entry **Filter Alpha**

Remarks This command is effective only after choosing the root Nyquist or Nyquist filter. It does not effect other types of filters.

To change the current filter type, refer to “:REVerse:FILTer” on page 487.

:REVerse:FILTer:BBT

Supported All with Option 401

```
[:SOURCE]:RADio:CDMA2000[:BBG]:REVerse:FILTer:BBT <val>
[:SOURCE]:RADio:CDMA2000[:BBG]:REVerse:FILTer:BBT?
```

This command changes the bandwidth-multiplied-by-bit-time filter value.

The filter BbT value can be set to the minimum level (0), the maximum level (1), or in between by using fractional numeric values (0.001–0.999).

***RST** +5.00000000E-001

Range 0.500–1.000

Key Entry Filter BbT

Remarks This command is effective only after choosing the Gaussian filter. It does not effect other types of filters.

To change the current filter type, refer to “[:REVerse:FILTer](#)” on [page 487](#).

:REVerse:FILTer:CHANnel

Supported All with Option 401

```
[:SOURCE]:RADio:CDMA2000[:BBG]:REVerse:FILTer:CHANnel EVM|ACP
[:SOURCE]:RADio:CDMA2000[:BBG]:REVerse:FILTer:CHANnel?
```

This command optimizes the Nyquist and root Nyquist filters to minimize error vector magnitude (EVM) or to minimize adjacent channel power (ACP).

EVM This choice provides the most ideal passband.

ACP This choice improves stopband rejection.

***RST** EVM

Key Entry Optimize FIR For EVM ACP

Remarks To change the current filter type, refer to “[:REVerse:FILTer](#)” on [page 487](#).

:REVerse:LCMask**Supported** All with Option 401

```
[:SOURce]:RADio:CDMA2000[:BBG]:REVerse:LCMask <val>
[:SOURce]:RADio:CDMA2000[:BBG]:REVerse:LCMask?
```

This command specifies a unique serial number code to identify a mobile station.

RST** #H00000000000**Range** #H0–#H3FFFFFFFFFFFF**Field Entry** Long Code Mask**Remarks** N/A**:REVerse:LCState*Supported** All with Option 401

```
[:SOURce]:RADio:CDMA2000[:BBG]:REVerse:LCState <val>
[:SOURce]:RADio:CDMA2000[:BBG]:REVerse:LCState?
```

This command sets a unique code to address a mobile station.

RST** #H00000000000**Range** #H0–#H3FFFFFFFFFFFF**Field Entry** Long Code State**Remarks** The storage register for the long code state allows a 42-bit binary number to be entered.**:REVerse:PADJust*Supported** All with Option 401

```
[:SOURce]:RADio:CDMA2000[:BBG]:REVerse:PADJust EQUAL|SCALE
```

Execute this command to set the code domain power.

EQUAL Sets all channels to equal power, and the total power to 0 dB.

SCALE Scales all of the current channel powers so that the total power equals 0 dB, keeping the previous power ratios between the individual channels.

***RST** N/A**Key Entry** Equal Powers Scale To 0dB

Remarks N/A

:REVERSE:POLARITY[:ALL]

Supported All with Option 401

```
[:SOURCE]:RADIO:CDMA2000[:BBG]:REVERSE:POLARITY[:ALL] NORMAL|INVERTED  
[:SOURCE]:RADIO:CDMA2000[:BBG]:REVERSE:POLARITY[:ALL]?
```

This command sets the phase polarity to either normal or inverted.

NORMAL This choice selects normal phase polarity.

INVERTED This choice inverts the internal Q signal.

***RST** NORM

Key Entry Normal Inverted

Remarks N/A

:REVERSE:NOISE:CN

Supported All with Option 401

```
[:SOURCE]:RADIO:CDMA2000[:BBG]:REVERSE:NOISE:CN <val>  
[:SOURCE]:RADIO:CDMA2000[:BBG]:REVERSE:NOISE:CN?
```

This command sets the carrier to noise ratio for the reverse link.

The variable <val> is expressed in units of decibels (dB).

***RST** +0.00000000E+000

Range -30 to 30

Key Entry C/N

Remarks The carrier to noise ratio is the ratio of the carrier power to in-channel noise power, expressed in decibels (dB).

A change to the carrier to noise ratio will only align the EbNo/EcNo field values in the active operating mode.

:REVerse:NOISe[:STATe]**Supported** All with Option 401

```
[:SOURce]:RADio:CDMA2000[:BBG]:REVerse:NOISe[:STATe] ON|OFF|1|0
[:SOURce]:RADio:CDMA2000[:BBG]:REVerse:NOISe[:STATe]?
```

This command enables or disables the noise function for the baseband reverse link.

NOTE When this command is enabled, an immediate increase in the Even Second Delay and Trigger Advance values will occur. The Even Second Delay value will increase by an increment of 11.5 chips and the Trigger Advance value will increase by an increment of 12 chips. The chip increase will be seen in the appropriate field on the display.

Changes to Even Second Delay and Trigger Advance will not affect synchronization; automatic compensation is performed internally.

***RST** 0**Key Entry** Noise Off On

Remarks Both the carrier and noise power value will be adjusted to match the specified carrier to noise ratio. Refer to “[:REVerse:NOISe:CN](#)” on [page 491](#) to change the carrier to noise ratio.

The noise function can only be turned on with Option 403 installed.

:REVerse:RC12:ACCess:RACH:DATA**Supported** All with Option 401

```
[:SOURce]:RADio:CDMA2000[:BBG]:REVerse:RC12:ACCess:RACH:DATA PN9|PN15|
FIX4|"<file name>"
[:SOURce]:RADio:CDMA2000[:BBG]:REVerse:RC12:ACCess:RACH:DATA?
```

Execute this command to configure the data field for the reverse access channel.

***RST** PN9**Key Entry** **PN9** **PN15** **FIX4** **User File**

Remarks Refer to “File Name Variables” on page 14 for information on the file name syntax.

:REVerse:RC12:ACCess:RACH:DATA:FIX4**Supported** All with Option 401

```
[:SOURCE]:RADio:CDMA2000[:BBG]:REVerse:RC12:ACCess:RACH:DATA:FIX4 <val>
[:SOURCE]:RADio:CDMA2000[:BBG]:REVerse:RC12:ACCess:RACH:DATA:FIX4?
```

This command selects a fixed 4-bit data pattern to be repeated as necessary to fill the selected data area.

RST** #B0000**Range** #B0000–#B1111 or 0–15**Key Entry** **FIX4*Remarks** N/A**:REVerse:RC12:ACCess:RACH:EBNO****Supported** All with Option 401

```
[:SOURCE]:RADio:CDMA2000[:BBG]:REVerse:RC12:ACCess:RACH:EBNO <val>
[:SOURCE]:RADio:CDMA2000[:BBG]:REVerse:RC12:ACCess:RACH:EBNO?
```

This command sets the ratio of energy per bit to noise power spectral density (expressed in dB) for the reverse access channel.

***RST** +0.00000000E+000

Range

$$\min EbNo: 10\log_{10} \left[\frac{\text{Chip Rate}}{1000(\text{Bit Rate})} \right] + \text{Normalized Power}$$

$$\max EbNo: 10\log_{10} \left[\frac{1000(\text{Chip Rate})}{\text{Bit Rate}} \right] + \text{Normalized Power}$$

Normalized Power is the channel amplitude after adjusting the code power to 0 dB. Refer to “:REVerse:PADJust” on page 490 for adjusting the code domain power.

Field Entry EbNo**Remarks** Changes to the EbNo values also change the EcNo values for all other channels in the current link (forward or reverse).

Queries of this command are only valid for the current operating state.

:REVERSE:RC12:ACCESS:RACH:FLENGTH**Supported** All with Option 401

[:SOURCE]:RADIO:CDMA2000[:BBG]:REVERSE:RC12:ACCESS:RACH:FLENGTH?

This command queries the frame length for the reverse access channel.

The frame length is expressed as seconds (ms).

RST** +20**Range** N/A**Field Entry** Frame Length**Remarks** N/A**:REVERSE:RC12:ACCESS:RACH:FOFFSET*Supported** All with Option 401

[:SOURCE]:RADIO:CDMA2000[:BBG]:REVERSE:RC12:ACCESS:RACH:FOFFSET <val>

[:SOURCE]:RADIO:CDMA2000[:BBG]:REVERSE:RC12:ACCESS:RACH:FOFFSET?

This command sets the frame offset value for the reverse access channel.

RST** +0**Range** 0–15**Field Entry** Frame Offset**Remarks** N/A**:REVERSE:RC12:ACCESS:RACH:POWER*Supported** All with Option 401

[:SOURCE]:RADIO:CDMA2000[:BBG]:REVERSE:RC12:ACCESS:RACH:POWER <val>

[:SOURCE]:RADIO:CDMA2000[:BBG]:REVERSE:RC12:ACCESS:RACH:POWER?

This command sets the power for the reverse access channel.

The variable <val> is expressed in units of decibels (dB).

***RST** +0.00000000E+000**Range** –40 to 0

Field Entry Power

Remarks N/A

:REVERSE:RC12:ACCESS:RACH:RCONFIG

Supported All with Option 401

```
[:SOURCE]:RADIO:CDMA2000[:BBG]:REVERSE:RC12:ACCESS:RACH:RCONFIG 1|2
[:SOURCE]:RADIO:CDMA2000[:BBG]:REVERSE:RC12:ACCESS:RACH:RCONFIG?
```

This command select the radio configuration value for the reverse access channel.

***RST** +1

Field Entry Radio Config

Remarks N/A

:REVERSE:RC12:ACCESS:RACH:RATE

Supported All with Option 401

```
[:SOURCE]:RADIO:CDMA2000[:BBG]:REVERSE:RC12:ACCESS:RACH:RATE?
```

This command queries the data rate for the reverse access channel.

***RST** +4.80000000E+003

Range N/A

Field Entry Bit Rate

Remarks N/A

:REVERSE:RC12:ACCESS:RACH[:STATE]

Supported All with Option 401

```
[:SOURCE]:RADIO:CDMA2000[:BBG]:REVERSE:RC12:ACCESS:RACH[:STATE] ON|OFF|
1|0
[:SOURCE]:RADIO:CDMA2000[:BBG]:REVERSE:RC12:ACCESS:RACH[:STATE]?
```

This command enables or disables the operating state for the reverse access channel.

***RST** +1

Field Entry State

Remarks N/A

:REVerse:RC12:TRAFfic:RSCH:DATA**Supported** All with Option 401

```
[:SOURce]:RADio:CDMA2000[:BBG]:REVerse:RC12:TRAFfic:RSCH:DATA PN9|PN15|
FIX4|"<file name>"
[:SOURce]:RADio:CDMA2000[:BBG]:REVerse:RC12:TRAFfic:RSCH:DATA?
```

This command configures the data field for the reverse supplemental traffic channel.

RST** PN9**Key Entry** PN9 PN15 FIX4 User File**Remarks** Refer to “File Name Variables” on page 14 for information on the file name syntax.**:REVerse:RC12:TRAFfic:RSCH:DATA:FIX4*Supported** All with Option 401

```
[:SOURce]:RADio:CDMA2000[:BBG]:REVerse:RC12:TRAFfic:RSCH:DATA:FIX4 <val>
[:SOURce]:RADio:CDMA2000[:BBG]:REVerse:RC12:TRAFfic:RSCH:DATA:FIX4?
```

This command sets a fixed 4-bit data pattern that repeats as necessary to fill the selected data area.

RST** #B0000**Range** #B0000–#B1111 or 0–15**Key Entry** FIX4**Remarks** N/A**:REVerse:RC12:TRAFfic:RSCH:FLENgth*Supported** All with Option 401

```
[:SOURce]:RADio:CDMA2000[:BBG]:REVerse:RC12:TRAFfic:RSCH:FLENgth?
```

This command queries the frame length value for the reverse supplemental traffic channel.

***RST** +20**Range** N/A**Field Entry** N/A**Remarks** N/A

:REVERSE:RC12:TRAFFIC:RSCH:FOFFSET

Supported All with Option 401

```
[:SOURCE]:RADIO:CDMA2000[:BBG]:REVERSE:RC12:TRAFFIC:RSCH:FOFFSET <val>  
[:SOURCE]:RADIO:CDMA2000[:BBG]:REVERSE:RC12:TRAFFIC:RSCH:FOFFSET?
```

This command sets the frame offset value for the reverse supplemental traffic channel.

***RST** +0
Range 0–15
Field Entry Frame Offset
Remarks N/A

:REVERSE:RC12:TRAFFIC:RSCH:POWER

Supported All with Option 401

```
[:SOURCE]:RADIO:CDMA2000[:BBG]:REVERSE:RC12:TRAFFIC:RSCH:POWER <val>  
[:SOURCE]:RADIO:CDMA2000[:BBG]:REVERSE:RC12:TRAFFIC:RSCH:POWER?
```

This command sets the power for the reverse supplemental traffic channel.

The variable <val> is expressed in units of decibels (dB).

***RST** +0.00000000E+000
Range –40 to 0
Field Entry Power
Remarks N/A

:REVERSE:RC12:TRAFFIC:RSCH:RATE

Supported All with Option 401

```
[:SOURCE]:RADIO:CDMA2000[:BBG]:REVERSE:RC12:TRAFFIC:RSCH:RATE 1.2kbps |  
1.8kbps | 2.4kbps | 3.6kbps | 4.8kbps | 7.2kbps | 9.6kbps | 14.4kbps  
[:SOURCE]:RADIO:CDMA2000[:BBG]:REVERSE:RC12:TRAFFIC:RSCH:RATE?
```

This command sets the data rate for the reverse supplemental traffic channel.

***RST** +9.60000000E+003
Field Entry Bit Rate
Remarks N/A

:REVERSE:RC12:TRAFFIC:RSCH:RCONFIG**Supported** All with Option 401

```
[:SOURCE]:RADIO:CDMA2000[:BBG]:REVERSE:RC12:TRAFFIC:RSCH:RCONFIG 1|2
[:SOURCE]:RADIO:CDMA2000[:BBG]:REVERSE:RC12:TRAFFIC:RSCH:RCONFIG?
```

This command sets the data rate for the reverse supplemental traffic channel.

RST** +1**Field Entry** Radio Config**Remarks** N/A**:REVERSE:RC12:TRAFFIC:RSCH[:STATE]*Supported** All with Option 401

```
[:SOURCE]:RADIO:CDMA2000[:BBG]:REVERSE:RC12:TRAFFIC:RSCH[:STATE] ON|OFF|
1|0
[:SOURCE]:RADIO:CDMA2000[:BBG]:REVERSE:RC12:TRAFFIC:RSCH[:STATE]?
```

This command sets the operating state for the reverse supplemental traffic channel.

RST** 0**Field Entry** State**Remarks** N/A**:REVERSE:RC34:CCONTROL:RCCCh:DATA*Supported** All with Option 401

```
[:SOURCE]:RADIO:CDMA2000[:BBG]:REVERSE:RC34:CCONTROL:RCCCh:DATA PN9|
PN15|FIX4| "<file name>"
[:SOURCE]:RADIO:CDMA2000[:BBG]:REVERSE:RC34:CCONTROL:RCCCh:DATA?
```

This command configures the data field for the reverse common control channel.

***RST** PN9**Key Entry** PN9 PN15 FIX4 User File**Remarks** Refer to “File Name Variables” on page 14 for information on the file name syntax.

:REVERSE:RC34:CControl:RCCCh:DATA:FIX4**Supported** All with Option 401[:SOURCE]:RADIO:CDMA2000[:BBG]:REVERSE:RC34:CControl:RCCCh:DATA:
FIX4 <val>

[:SOURCE]:RADIO:CDMA2000[:BBG]:REVERSE:RC34:CControl:RCCCh:DATA:FIX4?

This command selects a fixed 4-bit data pattern to be repeated as necessary to fill the selected data area.

RST** #B0000**Range** #B0000–#B1111 or 0–15**Key Entry** **FIX4*Remarks** N/A**:REVERSE:RC34:CControl:RCCCh:EBNO****Supported** All with Option 401

[:SOURCE]:RADIO:CDMA2000[:BBG]:REVERSE:RC34:CControl:RCCCh:EBNO <val>

[:SOURCE]:RADIO:CDMA2000[:BBG]:REVERSE:RC34:CControl:RCCCh:EBNO?

This command sets the ratio of energy per bit to noise power spectral density (expressed in dB) for the reverse common control channel.

***RST** +0.00000000E+000**Range** $\min EbNo: 10\log_{10} \left[\frac{\text{Chip Rate}}{1000(\text{Bit Rate})} \right] + \text{Normalized Power}$ $\max EbNo: 10\log_{10} \left[\frac{1000(\text{Chip Rate})}{\text{Bit Rate}} \right] + \text{Normalized Power}$

Normalized Power is the channel amplitude after adjusting the code power to 0 dB. Refer to “:REVERSE:PADJUST” on page 490 for adjusting the code domain power.

Field Entry EbNo**Remarks** Changes to the EbNo values also change the EcNo values for all other channels in the current link (forward or reverse).

Queries of this command are only valid for the current operating state.

:REVerse:RC34:CCONtrol:RCCCh:FLENgth**Supported** All with Option 401

[:SOURce]:RADio:CDMA2000[:BBG]:REVerse:RC34:CCONtrol:RCCCh:FLENgth 5|10|20

[:SOURce]:RADio:CDMA2000[:BBG]:REVerse:RC34:CCONtrol:RCCCh:FLENgth?

This command sets the frame length value for the reverse common control channel.

The frame length is expressed as seconds (ms).

RST** +20**Field Entry** Frame Length**Remarks** N/A**:REVerse:RC34:CCONtrol:RCCCh:FOFFset*Supported** All with Option 401

[:SOURce]:RADio:CDMA2000[:BBG]:REVerse:RC34:CCONtrol:RCCCh:FOFFset <val>

[:SOURce]:RADio:CDMA2000[:BBG]:REVerse:RC34:CCONtrol:RCCCh:FOFFset?

This command sets the frame offset value for the reverse common control channel.

The frame offset value is expressed as seconds (ms).

***RST** +0**Range** *Frame Length=5:* 0–3
Frame Length=10: 0–7
Frame Length=20: 0–20**Field Entry** Frame Offset**Remarks** N/A**:REVerse:RC34:CCONtrol:RCCCh:POWer****Supported** All with Option 401

[:SOURce]:RADio:CDMA2000[:BBG]:REVerse:RC34:CCONtrol:RCCCh:POWer <val>

[:SOURce]:RADio:CDMA2000[:BBG]:REVerse:RC34:CCONtrol:RCCCh:POWer?

This command sets the power for the reverse common control channel.

The variable <val> is expressed in units of decibels (dB).

***RST** +0.00000000E+000
Range -40 to 0
Field Entry Power
Remarks N/A

:REVERSE:RC34:CControl:RCCCh:RCONfig

Supported All with Option 401

```
[:SOURCE]:RADIO:CDMA2000[:BBG]:REVERSE:RC34:CControl:RCCCh:RCONfig 3|4
[:SOURCE]:RADIO:CDMA2000[:BBG]:REVERSE:RC34:CControl:RCCCh:RCONfig?
```

This command selects the radio configuration value for the reverse common control channel.

***RST** +3
Field Entry Radio Config
Remarks N/A

:REVERSE:RC34:CControl:RCCCh:RATE

Supported All with Option 401

```
[:SOURCE]:RADIO:CDMA2000[:BBG]:REVERSE:RC34:CControl:RCCCh:RATE 9.6kbps|
19.2kbps|38.4kbps
[:SOURCE]:RADIO:CDMA2000[:BBG]:REVERSE:RC34:CControl:RCCCh:RATE?
```

This command adjusts the data rate value for the reverse common control channel.

***RST** +9.60000000E+003
Field Entry Bit Rate
Remarks N/A

:REVERSE:RC34:CControl:RCCCh:WALSh

Supported All with Option 401

```
[:SOURCE]:RADIO:CDMA2000[:BBG]:REVERSE:RC34:CControl:RCCCh:WALSh?
```

This command queries the Walsh code for the reverse common control channel.

***RST** +2

Range	N/A
Field Entry	Walsh
Remarks	N/A

:REVerse:RC34:CCONtrol:RCCCh[:STATe]

Supported All with Option 401

```
[:SOURce]:RADio:CDMA2000[:BBG]:REVerse:RC34:CCONtrol:RCCCh[:STATe] ON|OFF|1|0
```

```
[:SOURce]:RADio:CDMA2000[:BBG]:REVerse:RC34:CCONtrol:RCCCh[:STATe]?
```

This command sets the operating state for the reverse common control channel.

*RST	0
Field Entry	State
Remarks	N/A

:REVerse:RC34:CCONtrol:RPICh:ECNO

Supported All with Option 401

```
[:SOURce]:RADio:CDMA2000[:BBG]:REVerse:RC34:CCONtrol:RPICh:ECNO <val>
[:SOURce]:RADio:CDMA2000[:BBG]:REVerse:RC34:CCONtrol:RPICh:ECNO?
```

This command sets the ratio of energy per chip to the noise power spectral density (expressed in dB) for the reverse common control pilot channel.

***RST** +0.00000000E+000

Range *min EcNo*: -30 + Normalized Power
max EcNo: 30 + Normalized Power

Normalized Power is the channel amplitude after adjusting the code power to 0 dB. Refer to “[:REVerse:PADJust](#)” on page 490 for adjusting the code domain power.

Field Entry EcNo

Remarks Changes to the EcNo values also change the EbNo values for all other channels in the current link (forward or reverse).

Queries of this command are only valid for the current operating state.

:REVerse:RC34:CCONtrol:RPICh:GRATe**Supported** All with Option 401

[:SOURCE]:RADio:CDMA2000[:BBG]:REVerse:RC34:CCONtrol:RPICh:GRATe FULL|HALF|QUARter

[:SOURCE]:RADio:CDMA2000[:BBG]:REVerse:RC34:CCONtrol:RPICh:GRATe?

This command configures the gating data field for the reverse common control pilot channel.

FULL This choice transmits all sixteen power control bits.

HALF This choice transmits eight power control bits.

QUARter This choice transmits four power control bits.

RST** FULL**Key Entry** Full Half Quarter**Remarks** N/A**:REVerse:RC34:CCONtrol:RPICh:POWer*Supported** All with Option 401

[:SOURCE]:RADio:CDMA2000[:BBG]:REVerse:RC34:CCONtrol:RPICh:POWer <val>

[:SOURCE]:RADio:CDMA2000[:BBG]:REVerse:RC34:CCONtrol:RPICh:POWer?

This command sets the power for the reverse common control pilot channel.

The variable <val> is expressed in units of decibels (dB).

RST** +0.00000000E+000**Range** -40 to 0**Field Entry** Power**Remarks** N/A**:REVerse:RC34:CCONtrol:RPICh:WALSh*Supported** All with Option 401

[:SOURCE]:RADio:CDMA2000[:BBG]:REVerse:RC34:CCONtrol:RPICh:WALSh?

This command queries the Walsh code for the reverse common control pilot channel.

***RST** +0

Range	N/A
Field Entry	Walsh
Remarks	N/A

:REVerse:RC34:CCONtrol:RPICh[:STATe]

Supported All with Option 401

```
[:SOURce]:RADio:CDMA2000[:BBG]:REVerse:RC34:CCONtrol:RPICh[:STATe] ON|
OFF|1|0
[:SOURce]:RADio:CDMA2000[:BBG]:REVerse:RC34:CCONtrol:RPICh[:STATe]?
```

This command sets the operating state for the reverse common control pilot channel.

*RST	1
Field Entry	State
Remarks	N/A

:REVerse:RC34:EACCess:REACH:DATA

Supported All with Option 401

```
[:SOURce]:RADio:CDMA2000[:BBG]:REVerse:RC34:EACCess:REACH:DATA PN9|PN15|
FIX4|"<file name>"
[:SOURce]:RADio:CDMA2000[:BBG]:REVerse:RC34:EACCess:REACH:DATA?
```

This command configures the data field for the reverse enhanced access channel.

*RST	PN9
Key Entry	PN9 PN15 FIX4 User File
Remarks	Refer to “File Name Variables” on page 14 for information on the file name syntax.

:REVerse:RC34:EACCess:REACH:DATA:FIX4

Supported All with Option 401

```
[:SOURce]:RADio:CDMA2000[:BBG]:REVerse:RC34:EACCess:REACH:DATA:
FIX4 <val>
[:SOURce]:RADio:CDMA2000[:BBG]:REVerse:RC34:EACCess:REACH:DATA:FIX4?
```

This command selects a fixed 4-bit data pattern to be repeated as necessary to fill the selected data area.

***RST** #B0000
Range #B0000–#B1111 or 0–15
Key Entry FIX4
Remarks N/A

:REVerse:RC34:EACCess:REACH:EBNO

Supported All with Option 401

[:SOURCE]:RADio:CDMA2000[:BBG]:REVerse:RC34:EACCess:REACH:EBNO <val>
[:SOURCE]:RADio:CDMA2000[:BBG]:REVerse:RC34:EACCess:REACH:EBNO?

This command sets the ratio of energy per bit to noise power spectral density (expressed in dB) for the reverse enhanced access channel.

***RST** +0.00000000E+000
Range $\min EbNo: 10\log_{10} \left[\frac{\text{Chip Rate}}{1000(\text{Bit Rate})} \right] + \text{Normalized Power}$
 $\max EbNo: 10\log_{10} \left[\frac{1000(\text{Chip Rate})}{\text{Bit Rate}} \right] + \text{Normalized Power}$

Normalized Power is the channel amplitude after adjusting the code power to 0 dB. Refer to “:REVerse:PADJust” on page 490 for adjusting the code domain power.

Field Entry EbNo
Remarks Changes to the EbNo values also change the EcNo values for all other channels in the current link (forward or reverse).
Queries of this command are only valid for the current operating state.

:REVerse:RC34:EACCess:REACH:FOFFset

Supported All with Option 401

[:SOURCE]:RADio:CDMA2000[:BBG]:REVerse:RC34:EACCess:REACH:FOFFset <val>
[:SOURCE]:RADio:CDMA2000[:BBG]:REVerse:RC34:EACCess:REACH:FOFFset?

This command sets the frame offset value for the reverse enhanced access channel.

***RST** +0
Range *Frame Length=5:* 0–3 *Frame Length=10:* 0–7
Frame Length=20: 0–15

Field Entry Frame Offset

Remarks N/A

:REVerse:RC34:EACCess:REACH:POWer

Supported All with Option 401

```
[:SOURce]:RADio:CDMA2000[:BBG]:REVerse:RC34:EACCess:REACH:POWer <val>
[:SOURce]:RADio:CDMA2000[:BBG]:REVerse:RC34:EACCess:REACH:POWer?
```

This command sets the power level for the reverse enhanced access channel.

The variable <val> is expressed in units of decibels (dB).

***RST** +0.00000000E+000

Range -40 to 0

Field Entry Power

Remarks N/A

:REVerse:RC34:EACCess:REACH:RCONfig

Supported All with Option 401

```
[:SOURce]:RADio:CDMA2000[:BBG]:REVerse:RC34:EACCess:REACH:RCONfig 3|4
[:SOURce]:RADio:CDMA2000[:BBG]:REVerse:RC34:EACCess:REACH:RCONfig?
```

This command sets the radio configuration for the reverse enhanced access channel.

***RST** +3

Field Entry Radio Config

Remarks N/A

:REVerse:RC34:EACCess:REACH:RATE

Supported All with Option 401

```
[:SOURce]:RADio:CDMA2000[:BBG]:REVerse:RC34:EACCess:REACH:RATE 9.6kbps |
19.2kbps | 38.4kbps
[:SOURce]:RADio:CDMA2000[:BBG]:REVerse:RC34:EACCess:REACH:RATE?
```

This command adjusts the data rate value for the reverse enhanced access channel.

***RST** +9.60000000E+003

Field Entry Bit Rate

Remarks N/A

:REVERSE:RC34:EACCESS:REACH:WALSH

Supported All with Option 401

[:SOURCE]:RADIO:CDMA2000[:BBG]:REVERSE:RC34:EACCESS:REACH:WALSH?

This command queries the Walsh code for the reverse enhanced access channel.

***RST** +2

Range N/A

Field Entry Walsh

Remarks N/A

:REVERSE:RC34:EACCESS:REACH[:STATE]

Supported All with Option 401

[:SOURCE]:RADIO:CDMA2000[:BBG]:REVERSE:RC34:EACCESS:REACH[:STATE] ON|OFF|1|0

[:SOURCE]:RADIO:CDMA2000[:BBG]:REVERSE:RC34:EACCESS:REACH[:STATE]?

This command sets the operating state for the reverse enhanced access channel.

***RST** 0

Field Entry State

Remarks N/A

:REVERSE:RC34:EACCESS:RPICH:ECNO

Supported All with Option 401

[:SOURCE]:RADIO:CDMA2000[:BBG]:REVERSE:RC34:EACCESS:RPICH:ECNO <val>

[:SOURCE]:RADIO:CDMA2000[:BBG]:REVERSE:RC34:EACCESS:RPICH:ECNO?

This command sets the ratio of energy per chip to the noise power spectral density (expressed in dB) for the reverse enhanced access pilot channel.

***RST** +0.00000000E+000

Range *min EcNo*: -30 + Normalized Power

CDMA2000 BBG Subsystem–Option 401 ([:SOURce]:RADio:CDMA2000[:BBG])

max EcNo: 30 + Normalized Power

Normalized Power is the channel amplitude after adjusting the code power to 0 dB. Refer to “:REVerse:PADJust” on page 490 for adjusting the code domain power.

Field Entry

EcNo

Remarks

Changes to the EcNo values also change the EbNo values for all other channels in the current link (forward or reverse).

Queries of this command are only valid for the current operating state.

:REVerse:RC34:EACCEss:RPICh:GRATe**Supported**

All with Option 401

```
[:SOURce]:RADio:CDMA2000[:BBG]:REVerse:RC34:EACCEss:RPICh:GRATe FULL|
HALF|QUARter
```

```
[:SOURce]:RADio:CDMA2000[:BBG]:REVerse:RC34:EACCEss:RPICh:GRATe?
```

This command configures the gating data field for the reverse enhanced access pilot channel.

FULL This choice transmits all sixteen power control bits.

HALF This choice transmits eight power control bits.

QUARter This choice transmits four power control bits.

***RST** FULL

Key Entry Full Half Quarter

Remarks N/A

:REVerse:RC34:EACCEss:RPICh:POWER**Supported**

All with Option 401

```
[:SOURce]:RADio:CDMA2000[:BBG]:REVerse:RC34:EACCEss:RPICh:POWER <val>
[:SOURce]:RADio:CDMA2000[:BBG]:REVerse:RC34:EACCEss:RPICh:POWER?
```

This command sets the power for the reverse enhanced access pilot channel.

The variable <val> is expressed in unit of decibels (dB).

***RST** +0.00000000E+000

Range -40 to 0

Field Entry Power

Remarks N/A

:REVERSE:RC34:EACCESS:RPICH:WALSH

Supported All with Option 401

```
[:SOURCE]:RADIO:CDMA2000[:BBG]:REVERSE:RC34:EACCESS:RPICH:WALSH?
```

This command queries the Walsh code for the reverse enhanced access pilot channel.

***RST** +0

Range N/A

Field Entry Walsh

Remarks N/A

:REVERSE:RC34:EACCESS:RPICH[:STATE]

Supported All with Option 401

```
[:SOURCE]:RADIO:CDMA2000[:BBG]:REVERSE:RC34:EACCESS:RPICH[:STATE] ON|OFF|1|0
```

```
[:SOURCE]:RADIO:CDMA2000[:BBG]:REVERSE:RC34:EACCESS:RPICH[:STATE]?
```

This command sets the operating state for the reverse enhanced access pilot channel.

***RST** 1

Field Entry State

Remarks N/A

:REVERSE:RC34:TRAFFIC:RDCCH:DATA

Supported All with Option 401

```
[:SOURCE]:RADIO:CDMA2000[:BBG]:REVERSE:RC34:TRAFFIC:RDCCH:DATA PN9|PN15|FIX4|"<file name>"
```

```
[:SOURCE]:RADIO:CDMA2000[:BBG]:REVERSE:RC34:TRAFFIC:RDCCH:DATA?
```

This command configures the data field for the reverse traffic dedicated control channel.

***RST** PN9

Key Entry PN9 PN15 FIX4 User File

Remarks Refer to “File Name Variables” on page 14 for information on the file name syntax.

:REVerse:RC34:TRAFfic:RDCCh:DATA:FIX4

Supported All with Option 401

```
[:SOURce]:RADio:CDMA2000[:BBG]:REVerse:RC34:TRAFfic:RDCCh:DATA:
FIX4 <val>
```

```
[:SOURce]:RADio:CDMA2000[:BBG]:REVerse:RC34:TRAFfic:RDCCh:DATA:FIX4?
```

This command selects a fixed 4-bit data pattern to be repeated as necessary to fill the selected data area.

***RST** #B0000

Range #B0000–#B1111 or 0–15

Key Entry **FIX4**

Remarks N/A

:REVerse:RC34:TRAFfic:RDCCh:EBNO

Supported All with Option 401

```
[:SOURce]:RADio:CDMA2000[:BBG]:REVerse:RC34:TRAFfic:RDCCh:EBNO <val>
[:SOURce]:RADio:CDMA2000[:BBG]:REVerse:RC34:TRAFfic:RDCCh:EBNO?
```

This command sets the ratio of energy per bit, per the noise power spectral density (expressed in dB) for the reverse traffic dedicated control channel.

***RST** +0.00000000E+000

Range min EbNo: $10\log_{10}\left[\frac{\text{Chip Rate}}{1000(\text{Bit Rate})}\right] + \text{Normalized Power}$

max EbNo: $10\log_{10}\left[\frac{1000(\text{Chip Rate})}{\text{Bit Rate}}\right] + \text{Normalized Power}$

Normalized Power is the channel amplitude after adjusting the code power to 0 dB. Refer to “:REVerse:PADJust” on page 490 for adjusting the code domain power.

Field Entry EbNo

Remarks Changes to the EbNo values also change the EcNo values for all other channels in the current link (forward or reverse).

Queries of this command are only valid for the current operating state.

:REVERSE:RC34:TRAFFIC:RDCCh:FLENGth

Supported All with Option 401

```
[:SOURCE]:RADIO:CDMA2000[:BBG]:REVERSE:RC34:TRAFFIC:RDCCh:FLENGth 5|20  
[:SOURCE]:RADIO:CDMA2000[:BBG]:REVERSE:RC34:TRAFFIC:RDCCh:FLENGth?
```

This command sets the frame length value for the reverse traffic dedicated control channel.

The frame length is expressed as seconds (ms).

***RST** +20

Field Entry Frame Length

Remarks N/A

:REVERSE:RC34:TRAFFIC:RDCCh:FOFFset

Supported All with Option 401

```
[:SOURCE]:RADIO:CDMA2000[:BBG]:REVERSE:RC34:TRAFFIC:RDCCh:FOFFset <val>  
[:SOURCE]:RADIO:CDMA2000[:BBG]:REVERSE:RC34:TRAFFIC:RDCCh:FOFFset?
```

This command sets the frame offset value for the reverse traffic dedicated control channel.

***RST** +0

Range *Frame Length=5:* 0–3 *Frame Length=20:* 0–7

Field Entry Frame Offset

Remarks N/A

:REVERSE:RC34:TRAFFIC:RDCCh:POWER

Supported All with Option 401

```
[:SOURCE]:RADIO:CDMA2000[:BBG]:REVERSE:RC34:TRAFFIC:RDCCh:POWER <val>  
[:SOURCE]:RADIO:CDMA2000[:BBG]:REVERSE:RC34:TRAFFIC:RDCCh:POWER?
```

This command sets the power for the reverse traffic dedicated control channel.

The variable <val> is expressed in units of decibels (dB).

***RST** +0

Range –40 to 0

Field Entry Power

Remarks N/A

:REVerse:RC34:TRAFfic:RDCCh:RATE

Supported All with Option 401

[:SOURce]:RADio:CDMA2000[:BBG]:REVerse:RC34:TRAFfic:RDCCh:RATE?

This command queries the data rate for the reverse traffic dedicated control channel.

***RST** *Frame Length=5:* RC3/4= +9.60000000E+003

Frame Length=10: RC3= +9.60000000E+003

Frame Length=20: RC3= +1.44000000E+004

Range N/A

Field Entry Bit Rate

Remarks N/A

:REVerse:RC34:TRAFfic:RDDCh:RCONfig

Supported All with Option 401

[:SOURce]:RADio:CDMA2000[:BBG]:REVerse:RC34:TRAFfic:RDDCh:RCONfig 3|4

[:SOURce]:RADio:CDMA2000[:BBG]:REVerse:RC34:TRAFfic:RDDCh:RCONfig?

This command selects the radio configuration value for the reverse traffic dedicated control channel.

***RST** +3

Field Entry Radio Config

Remarks N/A

:REVerse:RC34:TRAFfic:RDCCh:WALSh

Supported All with Option 401

[:SOURce]:RADio:CDMA2000[:BBG]:REVerse:RC34:TRAFfic:RDCCh:WALSh?

This command queries the Walsh code for the reverse traffic dedicated control channel.

***RST** +8

Range 0–15

Field Entry Walsh

Remarks N/A

:REVERSE:RC34:TRAFFIC:RDCCH[:STATE]

Supported All with Option 401

```
[ :SOURCE ] : RADIO : CDMA2000 [ :BBG ] : REVERSE : RC34 : TRAFFIC : RDCCH [ :STATE ] ON | OFF | 1 | 0
```

```
[ :SOURCE ] : RADIO : CDMA2000 [ :BBG ] : REVERSE : RC34 : TRAFFIC : RDCCH [ :STATE ] ?
```

This command sets the operating state for the reverse traffic dedicated control channel.

***RST** 0

Field Entry State

Remarks N/A

:REVERSE:RC34:TRAFFIC:RFCH:DATA

Supported All with Option 401

```
[ :SOURCE ] : RADIO : CDMA2000 [ :BBG ] : REVERSE : RC34 : TRAFFIC : RFCH : DATA PN9 | PN15 | FIX4 | "<file name>"
```

```
[ :SOURCE ] : RADIO : CDMA2000 [ :BBG ] : REVERSE : RC34 : TRAFFIC : RFCH : DATA ?
```

This command configures the data field for the reverse fundamental traffic channel.

***RST** PN9

Key Entry **PN9 PN15 FIX4 User File**

Remarks Refer to “File Name Variables” on page 14 for information on the file name syntax.

:REVERSE:RC34:TRAFFIC:RFCH:DATA:FIX4

Supported All with Option 401

```
[ :SOURCE ] : RADIO : CDMA2000 [ :BBG ] : REVERSE : RC34 : TRAFFIC : RFCH : DATA : FIX4 <val>
```

```
[ :SOURCE ] : RADIO : CDMA2000 [ :BBG ] : REVERSE : RC34 : TRAFFIC : RFCH : DATA : FIX4 ?
```

This command selects a fixed 4-bit data pattern to be repeated as necessary to fill the selected data area.

***RST** #B0000

Range	#B0000–#B1111 or 0–15
Key Entry	FIX4
Remarks	N/A

:REVerse:RC34:TRAFfic:RFCH:EBNO

Supported All with Option 401

```
[:SOURce]:RADio:CDMA2000[:BBG]:REVerse:RC34:TRAFfic:RFCH:EBNO <val>
[:SOURce]:RADio:CDMA2000[:BBG]:REVerse:RC34:TRAFfic:RFCH:EBNO?
```

This command sets the ratio of energy per bit, per the noise power spectral density (expressed in dB) for the reverse fundamental traffic channel.

***RST** +0.00000000E+000

Range

$$\min EbNo: 10\log_{10} \left[\frac{\text{Chip Rate}}{1000(\text{Bit Rate})} \right] + \text{Normalized Power}$$

$$\max EbNo: 10\log_{10} \left[\frac{1000(\text{Chip Rate})}{\text{Bit Rate}} \right] + \text{Normalized Power}$$

Normalized Power is the channel amplitude after adjusting the code power to 0 dB. Refer to “:REVerse:PADJust” on page 490 for adjusting the code domain power.

Field Entry EbNo

Remarks Changes to the EbNo values also change the EcNo values for all other

channels in the current link (forward or reverse).

Queries of this command are only valid for the current operating state.

:REVerse:RC34:TRAFfic:RFCH:FLENgth

Supported All with Option 401

```
[:SOURce]:RADio:CDMA2000[:BBG]:REVerse:RC34:TRAFfic:RFCH:FLENgth 5|20
[:SOURce]:RADio:CDMA2000[:BBG]:REVerse:RC34:TRAFfic:RFCH:FLENgth?
```

This command sets the frame length value for the reverse fundamental traffic channel.

The frame length is expressed as seconds (ms).

***RST** +20

Field Entry Frame Length

Remarks N/A

:REVerse:RC34:TRAFfic:RFCH:FOFFset

Supported All with Option 401

[:SOURCE]:RADio:CDMA2000[:BBG]:REVerse:RC34:TRAFfic:RFCH:FOFFset <val>

[:SOURCE]:RADio:CDMA2000[:BBG]:REVerse:RC34:TRAFfic:RFCH:FOFFset?

This command sets the frame offset value for the reverse fundamental traffic channel.

***RST** +0

Range *Frame Length=5:* 0–3
 Frame Length=20: 0–15

Field Entry Frame Offset

Remarks N/A

:REVerse:RC34:TRAFfic:RFCH:POWer

Supported All with Option 401

[:SOURCE]:RADio:CDMA2000[:BBG]:REVerse:RC34:TRAFfic:RFCH:POWer <val>

[:SOURCE]:RADio:CDMA2000[:BBG]:REVerse:RC34:TRAFfic:RFCH:POWer?

This command sets the power for the reverse fundamental traffic channel.

The variable <val> is expressed in units of decibels (dB).

***RST** +0.00000000E+000

Range –40 to 0

Field Entry Power

Remarks N/A

:REVerse:RC34:TRAFfic:RFCH:RCONfig

Supported All with Option 401

[:SOURCE]:RADio:CDMA2000[:BBG]:REVerse:RC34:TRAFfic:RFCH:RCONfig 3|4

[:SOURCE]:RADio:CDMA2000[:BBG]:REVerse:RC34:TRAFfic:RFCH:RCONfig?

This command sets the radio configuration value for the reverse fundamental traffic channel.

***RST** +3
Field Entry Radio Config
Remarks N/A

:REVerse:RC34:TRAFfic:RFCH:RATE

Supported All with Option 401

```
[:SOURce]:RADio:CDMA2000[:BBG]:REVerse:RC34:TRAFfic:RFCH:RATE 1.2kbps |
1.5kbps | 1.8kbps | 2.7kbps | 3.6kbps | 4.8kbps | 7.2kbps | 9.6kbps | 14.4kbps
[:SOURce]:RADio:CDMA2000[:BBG]:REVerse:RC34:TRAFfic:RFCH:RATE?
```

This command sets the data rate value for the reverse fundamental traffic channel.

***RST** +9.60000000E+003
Field Entry Bit Rate
Remarks N/A

:REVerse:RC34:TRAFfic:RFCH:WALSh

Supported All with Option 401

```
[:SOURce]:RADio:CDMA2000[:BBG]:REVerse:RC34:TRAFfic:RFCH:WALSh?
```

This command queries the Walsh code for the reverse fundamental traffic channel.

***RST** +4
Range N/A
Field Entry Walsh
Remarks N/A

:REVerse:RC34:TRAFfic:RFCH[:STATe]

Supported All with Option 401

```
[:SOURce]:RADio:CDMA2000[:BBG]:REVerse:RC34:TRAFfic:RFCH[:STATe] ON | OFF |
1 | 0
[:SOURce]:RADio:CDMA2000[:BBG]:REVerse:RC34:TRAFfic:RFCH[:STATe]?
```

This command sets the operating state for the reverse fundamental traffic channel.

***RST** 0

Field Entry State

Remarks N/A

:REVerse:RC34:TRAFfic:RSCH[1] | 2:DATA

Supported All with Option 401

```
[ :SOURCE ] : RADio : CDMA2000 [ :BBG ] : REVerse : RC34 : TRAFfic : RSCH [ 1 ] | 2 : DATA PN9 |  
PN15 | FIX4 | "<file name>"
```

```
[ :SOURCE ] : RADio : CDMA2000 [ :BBG ] : REVerse : RC34 : TRAFfic : RSCH [ 1 ] | 2 : DATA ?
```

This command configures the data field for the reverse supplemental channels.

***RST** PN9

Key Entry **PN9 PN15 FIX4 User File**

Remarks Refer to “File Name Variables” on page 14 for information on the file name syntax.

:REVerse:RC34:TRAFfic:RSCH[1] | 2:DATA:FIX4

Supported All with Option 401

```
[ :SOURCE ] : RADio : CDMA2000 [ :BBG ] : REVerse : RC34 : TRAFfic : RSCH [ 1 ] | 2 : DATA :  
FIX4 <val>
```

```
[ :SOURCE ] : RADio : CDMA2000 [ :BBG ] : REVerse : RC34 : TRAFfic : RSCH [ 1 ] | 2 : DATA : FIX4 ?
```

This command sets a fixed 4-bit data pattern that repeats as necessary to fill the selected data area.

***RST** #B0000

Range #B0000–#B1111 or 0–15

Key Entry **FIX4**

Remarks N/A

:REVerse:RC34:TRAFfic:RSCH[1] | 2:DATA:EBNO

Supported All with Option 401

```
[ :SOURCE ] : RADio : CDMA2000 [ :BBG ] : REVerse : RC34 : TRAFfic : RSCH [ 1 ] | 2 : EBNO <val>  
[ :SOURCE ] : RADio : CDMA2000 [ :BBG ] : REVerse : RC34 : TRAFfic : RSCH [ 1 ] | 2 : EBNO ?
```

This command sets the ratio of energy per bit to noise power spectral density (expressed in dB) for the reverse supplemental traffic channels.

CDMA2000 BBG Subsystem–Option 401 ([:SOURce]:RADio:CDMA2000[:BBG])

***RST** +0.00000000E+000

Range $\min EbNo: 10\log_{10} \left[\frac{\text{Chip Rate}}{1000(\text{Bit Rate})} \right] + \text{Normalized Power}$

$\max EbNo: 10\log_{10} \left[\frac{1000(\text{Chip Rate})}{\text{Bit Rate}} \right] + \text{Normalized Power}$

Normalized Power is the channel amplitude after adjusting the code power to 0 dB. Refer to “:REVerse:PADJust” on page 490 for adjusting the code domain power.

Field Entry EbNo

Remarks Changes to the EbNo values also change the EcNo values for all other channels in the current link (forward or reverse).

Queries of this command are only valid for the current operating state.

:REVerse:RC34:TRAFfic:RSCH[1] | 2:FLENgth

Supported All with Option 401

```
[:SOURce]:RADio:CDMA2000[:BBG]:REVerse:RC34:TRAFfic:RSCH[1] | 2:
FLENgth 20 | 40 | 80
[:SOURce]:RADio:CDMA2000[:BBG]:REVerse:RC34:TRAFfic:RSCH[1] | 2:FLENgth?
```

This command sets the frame length value for the reverse supplemental channels.

***RST** +20

Field Entry Frame Length

Remarks N/A

:REVerse:RC34:TRAFfic:RSCH[1] | 2:FOFFset

Supported All with Option 401

```
[:SOURce]:RADio:CDMA2000[:BBG]:REVerse:RC34:TRAFfic:RSCH[1] | 2:
FOFFset <val>
[:SOURce]:RADio:CDMA2000[:BBG]:REVerse:RC34:TRAFfic:RSCH[1] | 2:FOFFset?
```

This command sets the frame offset value for the reverse supplemental channels.

***RST** +0

Range 0–63

Range *Frame Length=20:* 0–15 *Frame Length=40:* 0–31

Frame Length=80: 0–63

Field Entry	Frame Offset
Remarks	N/A

:REVERSE:RC34:TRAFFIC:RSCH[1] | 2:POWER

Supported All with Option 401

```
[ :SOURCE ] :RADIO:CDMA2000 [ :BBG ] :REVERSE:RC34:TRAFFIC:RSCH[1] | 2:
POWER <val>
[ :SOURCE ] :RADIO:CDMA2000 [ :BBG ] :REVERSE:RC34:TRAFFIC:RSCH[1] | 2:POWER?
```

This command sets the power level for the reverse supplemental channels.

The variable <val> is expressed in units of decibels (dB).

***RST** +0.00000000E+000

Range -40 to 0

Field Entry Power

Remarks N/A

:REVERSE:RC34:TRAFFIC:RSCH[1] | 2:RCONFIG

Supported All with Option 401

```
[ :SOURCE ] :RADIO:CDMA2000 [ :BBG ] :REVERSE:RC34:TRAFFIC:RSCH[1] | 2:RCONFIG 3 |
4
[ :SOURCE ] :RADIO:CDMA2000 [ :BBG ] :REVERSE:RC34:TRAFFIC:RSCH[1] | 2:RCONFIG?
```

This command selects the radio configuration value for the reverse supplemental channels.

***RST** +3

Field Entry Radio Config

Remarks N/A

:REVerse:RC34:TRAFfic:RSCH[1] | 2:RATE**Supported** All with Option 401

```
[:SOURCE]:RADio:CDMA2000[:BBG]:REVerse:RC34:TRAFfic:RSCH[1] | 2:
RATE 1.2ksbps | 1.350kbps | 1.5kbps | 1.8kbps | 2.4kbps | 2.7kbps | 3.6kbps | 4.8kbps |
7.2kbps | 9.6kbps | 14.4kbps
[:SOURCE]:RADio:CDMA2000[:BBG]:REVerse:RC34:TRAFfic:RSCH[1] | 2:RATE?
```

Execute this command to set the data rate for the reverse supplemental channels.

***RST** +9.60000000E+003**Field Entry** Bit Rate**Remarks** To change the frame length value, refer to
“:REVerse:RC34:TRAFfic:RSCH[1] | 2:FLENgth” on page 518**:REVerse:RC34:TRAFfic:RSCH[1] | 2:TCODE****Supported** All with Option 401

```
[:SOURCE]:RADio:CDMA2000[:BBG]:REVerse:RC34:TRAFfic:RSCH[1] | 2:TCODE ON |
OFF | 1 | 0
[:SOURCE]:RADio:CDMA2000[:BBG]:REVerse:RC34:TRAFfic:RSCH[1] | 2:TCODE?
```

This command enables or disables the operating state of the turbo coding function for the reverse supplemental channels.

RST** 0**Field Entry** Turbo Coding**Remarks** To ensure that this function is being executed with the correct data rate, refer to “:REVerse:RC34:TRAFfic:RSCH[1] | 2:RATE” on page 520.**:REVerse:RC34:TRAFfic:RSCH[1] | 2:WALSh*Supported** All with Option 401

```
[:SOURCE]:RADio:CDMA2000[:BBG]:REVerse:RC34:TRAFfic:RSCH1:WALSh <1 | 2>
[:SOURCE]:RADio:CDMA2000[:BBG]:REVerse:RC34:TRAFfic:RSCH2:WALSh <2 | 6>
[:SOURCE]:RADio:CDMA2000[:BBG]:REVerse:RC34:TRAFfic:RSCH[1] | 2:WALSh?
```

This command sets the Walsh code value for the reverse supplemental channels.

***RST** Channel 1: +1 Channel 2: +2**Field Entry** Walsh

Remarks N/A

:REVerse:RC34:TRAFfic:RSCH[1] | 2[:STATe]

Supported All with Option 401

```
[:SOURCE]:RADio:CDMA2000[:BBG]:REVerse:RC34:TRAFfic:RSCH[1] |  
2[:STATe] ON|OFF|1|0  
[:SOURCE]:RADio:CDMA2000[:BBG]:REVerse:RC34:TRAFfic:RSCH[1] | 2[:STATe] ?
```

This command enables or disables the operating state of the reverse supplemental channels.

***RST** 0

Field Entry State

Remarks N/A

:REVerse:REFerence:EXTernal:FREQuency

Supported All with Option 401

```
[:SOURCE]:RADio:CDMA2000[:BBG]:REVerse:REFerence:EXTernal:  
FREQuency <val><unit>  
[:SOURCE]:RADio:CDMA2000[:BBG]:REVerse:REFerence:EXTernal:FREQuency ?
```

This command sets the expected frequency of the external reference signal.

***RST** +1.96608000E+007

Range 1–100 MHz

Field Entry Ext BBG Ref Freq

Remarks This setting must match the frequency of the signal that is supplied to the BASEBAND GEN REF IN rear panel BNC connector.

:REVerse:REFerence[:SOURce]

Supported All with Option 401

```
[:SOURCE]:RADio:CDMA2000[:BBG]:REVerse:REFerence[:SOURce] INTernal |  
EXTernal  
[:SOURCE]:RADio:CDMA2000[:BBG]:REVerse:REFerence[:SOURce] ?
```

This command selects the reference clock source.

EXTernal	This choice sets the instrument to use an external reference signal. The external reference frequency must be entered and the signal must be applied to the BASEBAND GEN REF IN rear panel connector.
INTernal	This choice sets the instrument to use the internal reference.
*RST	INT
Field Entry	BBG Reference
Remarks	If the EXT choice is selected, the BBClock selection will automatically be set to internal.

:REVerse:TADVance

Supported All with Option 401

```
[:SOURce]:RADio:CDMA2000[:BBG]:REVerse:TADVance <val>
[:SOURce]:RADio:CDMA2000[:BBG]:REVerse:TADVance?
```

This command selects the number of chips to advance the trigger time slot for the reverse link.

***RST** +28

Range 0–2457599

Field Entry Trigger Advance

Remarks When the noise function is set to ON, this value will increase. Refer to “:REVerse:NOISe[:STATe]” on page 492 for more information.

:REVerse:TEDGE

Supported All with Option 401

```
[:SOURce]:RADio:CDMA2000[:BBG]:REVerse:TEDGE RISing|FALLing
[:SOURce]:RADio:CDMA2000[:BBG]:REVerse:TEDGE?
```

This command selects a falling or rising trigger edge state for the reverse link.

RISing This choice selects a trigger on the rising edge of the signal applied to the PATT TRIG IN rear panel connector.

FALLing This choice selects a trigger on the falling edge of the signal applied to the PATT TRIG IN rear panel connector.

***RST** FALL

Key Entry Rising Falling

Remarks N/A

:REVERSE:SRATE

Supported All with Option 401

[:SOURCE]:RADio:CDMA2000[:BBG]:REVERSE:SRATE?

This command returns the value of the current spreading rate for the reverse channel.

***RST** +1

Range N/A

Key Entry N/A

Remarks N/A

[:STATE]

Supported All with Option 401

[:SOURCE]:RADio:CDMA2000[:BBG][:STATE] ON|OFF|1|0
[:SOURCE]:RADio:CDMA2000[:BBG][:STATE]?

This command enables or disables the CDMA2000 baseband generator modulation format.

***RST** 0

Key Entry CDMA2000 Off On

Remarks N/A

Custom Subsystem–Option 001 or 002 ([:SOURce]:RADio:CUSTom)

:ALPha

Supported All with Option 001 or 002

```
[:SOURce]:RADio:CUSTom:ALPha <val>  
[:SOURce]:RADio:CUSTom:ALPha?
```

This command changes the Nyquist or root Nyquist filter’s alpha value.

The filter alpha value can be set to a minimum level (0), a maximum level (1), or in between by using fractional numeric values (0.001–0.999).

***RST** +3.50000000E–001

Range 0.000–1.000

Key Entry Filter Alpha

Remarks To change the current filter type, refer to “:FILTer” on page 535.

:BBCLock

Supported All with Option 001 or 002

```
[:SOURce]:RADio:CUSTom:BBCLock INT[1] | EXT[1]  
[:SOURce]:RADio:CUSTom:BBCLock?
```

This command toggles the data (bit) clock input to the baseband generator board to either internal or external. This command is independent in each mode and works for both non-burst (continuous) and burst modes. This allows for a matrix of selections between burst/non-burst, internal/external data generation, internal/external data clock, and external bit/symbol data clock.

INT[1] This choice selects the signal generator internal data clock.

EXT[1] This choice selects an external data clock input.

***RST** INT

Key Entry BBG Data Clock Ext Int

Remarks A data clock or continuous symbol sync input must be supplied when external mode is used.

This will be ignored if the external reference is set to EXTERNAL. To change the external reference type, refer to “:EREFerence” on page 534.

:BBT

Supported All with Option 001 or 002

```
[ :SOURce ] :RADio:CUSTom:BBT <val>
[ :SOURce ] :RADio:CUSTom:BBT?
```

This command changes the bandwidth-multiplied-by-bit-time (BbT) filter parameter. The filter BbT value can be set to the maximum level (1) or in between the minimum level (0.100) and maximum level by using fractional numeric values (0.101–0.999).

***RST** +5.00000000E–001

Range 0.100–1.000

Key Entry **Filter BbT**

Remarks This command is effective only after choosing a Gaussian filter. It does not have an effect on other types of filters.

To change the current filter type, refer to “:FILTer” on page 535.

:BRATe

Supported All with Option 001 or 002

```
[ :SOURce ] :RADio:CUSTom:BRATe <val>
[ :SOURce ] :RADio:CUSTom:BRATe?
```

This command sets the bit rate.

The variable <val> is expressed in units of bits per second (bps–Mbps) and the maximum range value is dependent upon the source of data (internal or external), the modulation type, and filter.

***RST** +4.86000000E+004

Range

<i>Modulation Type</i>	<i>Bits per Symbol</i>	<i>Internal Data</i>	<i>External Serial Data</i>
BPSK	1	1–50 Mbps	1–50 Mbps
FSK2			
MSK			

Range

<i>Modulation Type</i>	<i>Bits per Symbol</i>	<i>Internal Data</i>	<i>External Serial Data</i>
C4FM	2	2–100 Mbps	2–50 Mbps
FSK4			
OQPSK			
OQPSK195			
P4QPPSK			
QAM4			
QPSK			
QPSKIS95			
QPSKISAT			
D8PSK	3	3–100 Mbps	3–50 Mbps
EDGE			
FSK8			
PSK8			
FSK16	4	4–100 Mbps	4–50 Mbps
PSK16			
QAM16			
QAM32	5	5–100 Mbps	5–50 Mbps
QAM64	6	6–100 Mbps	6–50 Mbps
QAM256	7	8–100 Mbps	8–50 Mbps

Field Entry

SymRate

Remarks

When user-defined filters are selected using the command in section “:FILTer” on page 535, the upper bit rate will be restricted in line with the following symbol rate restriction:

- FIR filter length > 32 symbols: upper limit is 12.5 Msps
- FIR filter length > 16 symbols: upper limit is 25 Msps

When internal FIR filters are used, the limits of the above table always apply. For higher symbol rates, the FIR filter length will be truncated and will impact the relative timing of the modulated data, as well as the actual filter response (see “:SRATe” on page 539).

A change in the bit rate value will affect the symbol rate value; refer to “:SRATe” on page 539 for a list of the minimum and maximum symbol rate values.

To change the modulation type, refer to “:MODUlation[:TYPE]” on page 538.

:BURSt:SHAPe:FALL:DELay

Supported All with Option 001 or 002

```
[ :SOURce ] :RADio:CUSTom:BURSt:SHAPe:FALL:DELay <val>
```

```
[ :SOURce ] :RADio:CUSTom:BURSt:SHAPe:FALL:DELay?
```

This command sets the burst shape fall delay.

The variable <val> is expressed in bits.

***RST** +0.00000000E+000

Range -22.3750 to 99

Key Entry **Fall Delay**

Remarks To change the modulation type, refer to “:MODulation[:TYPE]” on page 538. Refer to “:SRATE” on page 539 for a list of the minimum and maximum symbol rate values.

“:BURSt:SHAPe:FDELay” on page 528 performs the same function; in compliance with the SCPI standard, both commands are listed.

For concept information on burst shaping, refer to the *User’s Guide*.

:BURSt:SHAPe:FALL:TIME

Supported All with Option 001 or 002

```
[ :SOURce ] :RADio:CUSTom:BURSt:SHAPe:FALL:TIME <val>
```

```
[ :SOURce ] :RADio:CUSTom:BURSt:SHAPe:FALL:TIME?
```

This command sets the burst shape fall time.

The variable <val> is expressed in bits.

***RST** +1.00000000E+001

Range 0.1250–255.8750

Key Entry **Fall Time**

Remarks To change the modulation type, refer to “:MODulation[:TYPE]” on page 538. Refer to “:SRATE” on page 539 for a list of the minimum and maximum symbol rate values.

“:BURSt:SHAPe:FTIME” on page 528 performs the same function; in compliance with the SCPI standard, both commands are listed.

For concept information on burst shaping, refer to the *User’s Guide*.

:BURSt:SHAPe:FDELay

Supported All with Option 001 or 002

```
[ :SOURce ] :RADio:CUSTom: BURSt: SHAPe: FDELay <val>
```

```
[ :SOURce ] :RADio:CUSTom: BURSt: SHAPe: FDELay?
```

This command sets the burst shape fall delay.

The variable <val> is expressed in bits.

***RST** +0.00000000E+000

Range -22.3750 to 99

Key Entry **Fall Delay**

Remarks To change the modulation type, refer to “:MODulation[:TYPE]” on page 538. Refer to “:SRATE” on page 539 for a list of the minimum and maximum symbol rate values.

“:BURSt:SHAPe:FALL:DELay” on page 527 performs the same function; in compliance with the SCPI standard, both commands are listed.

For concept information on burst shaping, refer to the *User’s Guide*.

:BURSt:SHAPe:FTIME

Supported All with Option 001 or 002

```
[ :SOURce ] :RADio:CUSTom: BURSt: SHAPe: FTIME <val>
```

```
[ :SOURce ] :RADio:CUSTom: BURSt: SHAPe: FTIME?
```

This command sets the burst shape fall time.

The variable <val> is expressed in bits.

***RST** +0.00000000E+000

Range 0.1250–255.8750

Key Entry **Fall Time**

Remarks To change the modulation type, refer to “:MODulation[:TYPE]” on page 538. Refer to “:SRATE” on page 539 for a list of the minimum and maximum symbol rate values.

“:BURSt:SHAPe:FALL:TIME” on page 527 performs the same function; in compliance with the SCPI standard, both commands are

listed.

For concept information on burst shaping, refer to the *User's Guide*.

:BURSt:SHAPe:RDELay

Supported All with Option 001 or 002

[:SOURCE] :RADIo:CUStom:BUrSt:SHAPe:RDELay <val>

[:SOURCE] :RADIo:CUStom:BUrSt:SHAPe:RDELay?

This command sets the burst shape rise delay.

The variable <val> is expressed in bits.

***RST** +0.00000000E+000

Range -17.3750 to 99

Key Entry Rise Delay

Remarks To change the modulation type, refer to “:MODulation[:TYPE]” on page 538. Refer to “:SRATE” on page 539 for a list of the minimum and maximum symbol rate values.

“:BURSt:SHAPe:RISE:DELay” on page 529 performs the same function; in compliance with the SCPI standard, both commands are listed.

For concept information on burst shaping, refer to the *User's Guide*.

:BURSt:SHAPe:RISE:DELay

Supported All with Option 001 or 002

[:SOURCE] :RADIo:CUStom:BUrSt:SHAPe:RISE:DELay <val>

[:SOURCE] :RADIo:CUStom:BUrSt:SHAPe:RISE:DELay?

This command sets the burst shape rise delay.

The variable <val> is expressed in bits.

***RST** +0.00000000E+000

Range -17.3750 to 99

Key Entry Rise Delay

Remarks To change the modulation type, refer to “:MODulation[:TYPE]” on page 538. Refer to “:SRATE” on page 539 for a list of the minimum and

maximum symbol rate values.

“:BURSt:SHAPe:RDELaY” on page 529 performs the same function; in compliance with the SCPI standard, both commands are listed.

For concept information on burst shaping, refer to the *User’s Guide*.

:BURSt:SHAPe:RISE:TIME

Supported All with Option 001 or 002

```
[ :SOURce ] :RADio:CUSTom:BURSt:SHAPe:RISE:TIME <val>
[ :SOURce ] :RADio:CUSTom:BURSt:SHAPe:RISE:TIME?
```

This command sets the burst shape rise time.

The variable <val> is expressed in bits.

***RST** +1.00000000E+001

Range 0.1250–121.5000

Key Entry Rise Time

Remarks To change the modulation type, refer to “:MODulation[:TYPE]” on page 538. Refer to “:SRATE” on page 539 for a list of the minimum and maximum symbol rate values.

“:BURSt:SHAPe:RTIME” on page 530 performs the same function; in compliance with the SCPI standard, both commands are listed.

For concept information on burst shaping, refer to the *User’s Guide*.

:BURSt:SHAPe:RTIME

Supported All with Option 001 or 002

```
[ :SOURce ] :RADio:CUSTom:BURSt:SHAPe:RTIME <val>
[ :SOURce ] :RADio:CUSTom:BURSt:SHAPe:RTIME?
```

This command sets the burst shape rise time.

The variable <val> is expressed in bits.

***RST** +1.00000000E+001

Range 0.1250–121.5000

Key Entry Rise Time

Remarks To change the modulation type, refer to “:MODulation[:TYPE]” on

page 538. Refer to “:SRATe” on page 539 for a list of the minimum and maximum symbol rate values.

“:BURSt:SHAPe:RISE:TIME” on page 530 performs the same function; in compliance with the SCPI standard, both commands are listed.

For concept information on burst shaping, refer to the *User’s Guide*.

:BURSt:SHAPe[:TYPE]

Supported All with Option 001 or 002

```
[:SOURCE]:RADio:CUSTom:BURSt:SHAPe[:TYPE] SINE| "<file name>"  
[:SOURCE]:RADio:CUSTom:BURSt:SHAPe[:TYPE] ?
```

This command specifies the burst shape ("<file name>").

SINE This choice selects a state that is defined by the burst rise and fall *RST values, as the default burst shape type.

"<file name>" This choice selects a user designated file from signal generator memory (non-volatile).

***RST** SINE

Key Entry Sine User File

Remarks N/A

:CHANnel

Supported All with Option 001 or 002

```
[:SOURCE]:RADio:CUSTom:CHANnel EVM|ACP  
[:SOURCE]:RADio:CUSTom:CHANnel ?
```

This command optimizes the Nyquist and root Nyquist filters to minimize error vector magnitude (EVM) or to minimize adjacent channel power (ACP).

EVM This choice provides the most ideal passband.

ACP This choice improves stopband rejection.

***RST** ACP

Key Entry Optimize FIR For EVM ACP

Remarks To change the current filter type, refer to “:FILTer” on page 535.

:DATA

Supported All with Option 001 or 002

```
[:SOURce]:RADio:CUSTom:DATA PN9|PN11|PN15|PN20|PN23|FIX4|"<file name>"|  
EXT|P4|P8|P16|P32|P64  
[:SOURce]:RADio:CUSTom:DATA?
```

This command sets the data pattern for unframed transmission.

***RST** PN23

Key Entry **PN9 PN11 PN15 PN20 PN23 FIX4 User File Ext**
4 1's & 4 0's 8 1's & 8 0's 16 1's & 16 0's 32 1's & 32 0's
64 1's & 64 0's

Remarks Refer to “File Name Variables” on page 14 for information on the file name syntax.

:DATA:FIX4

Supported All with Option 001 or 002

```
[:SOURce]:RADio:CUSTom:DATA:FIX4 <val>  
[:SOURce]:RADio:CUSTom:DATA:FIX4?
```

This command sets the binary, 4-bit repeating sequence data pattern for unframed transmission according to the modulation type, symbol rate, filter, and burst shape selected for the custom modulation format.

***RST** #B0000

Range #B0000–#B1111 or 0–15

Key Entry **FIX4**

Remarks FIX4 must be already be defined as the data type.

:DENCode

Supported All with Option 001 or 002

```
[:SOURce]:RADio:CUSTom:DENCode ON|OFF|1|0  
[:SOURce]:RADio:CUSTom:DENCode?
```

This command enables or disables the differential data encoding function.

***RST** 0

Key Entry **Diff Data Encode Off On**

Remarks Executing this command encodes the data bits prior to modulation; each modulated bit is 1 if the data bit is different from the previous one, or 0 if the data bit is the same as the previous one.

:EDATa:DELay

Supported All with Option 001 or 002

[:SOURce]:RADio:CUSTom:EDATa:DELay?

This query returns the amount of delay (in symbols) from the external data input to the beginning of the symbol on the I OUT and Q OUT rear panel connectors and the front panel RF OUTPUT connector.

***RST** N/A

Range N/A

Key Entry N/A

Remarks When the format is turned off, the delay value is unchanged; the query will return the same delay value if the format is on or off.

:EDCLock

Supported All with Option 001 or 002

[:SOURce]:RADio:CUSTom:EDCLock SYMBol|NORMal

[:SOURce]:RADio:CUSTom:EDCLock?

This command sets the external data clock use.

SYMBol This choice specifies that a continuous symbol clock signal must be provided to the SYMBOL SYNC input connector.

NORMal This choice specifies that the DATA CLOCK input connector requires a bit clock. The SYMBOL SYNC input connector requires a (one-shot or continuous) symbol sync signal.

***RST** NORM

Key Entry **Ext Data Clock Normal Symbol**

Remarks Both choices have no effect in internal clock mode. Refer to [“:BBClock” on page 524](#) to select EXT as the data clock type.

:EREFerence

Supported All with Option 001 or 002

```
[:SOURce]:RADio:CUSTom:EREFerence INTernal|EXTernal
```

```
[:SOURce]:RADio:CUSTom:EREFerence?
```

This command selects either an internal or external bit-clock reference for the data generator.

***RST** INT

Key Entry **BBG Ref Ext Int**

Remarks If the EXTernal choice is selected, the external frequency value must be applied to the BASEBAND GEN REF IN rear panel connector.

Refer to “[:EREFerence:VALue](#)” on page 534 to enter the external reference frequency.

:EREFerence:VALue

Supported All with Option 001 or 002

```
[:SOURce]:RADio:CUSTom:EREFerence:VALue <val>
```

```
[:SOURce]:RADio:CUSTom:EREFerence:VALue?
```

This command conveys the expected reference frequency value of an externally applied reference to the signal generator.

The variable <val> is expressed in units of Hertz (Hz–MHz).

***RST** +1.30000000E+007

Range 2.5E5–1E8

Key Entry **Ext BBG Ref Freq**

Remarks The value specified by this command is effective only when you are using an external ARB reference applied to the BASEBAND GEN REF IN rear panel connector.

Refer to “[:EREFerence](#)” on page 534 to select EXTernal as the reference for the bit clock reference of the data generator.

:FILTer

Supported All with Option 001 or 002

```
[:SOURCE]:RADIO:CUSTOM:FILTer RNYQuist|NYQuist|GAUSSian|RECTangle|IS95|
IS95_EQ|IS95_MOD|IS95_MOD_EQ|AC4Fm|UGGaussian|"<user FIR>"
[:SOURCE]:RADIO:CUSTOM:FILTer?
```

This command selects the pre-modulation filter type.

- | | |
|--------------|--|
| IS95 | This choice selects a filter that meets the criteria of the IS-95 standard. |
| IS95_EQ | This choice selects a filter which is a combination of the IS-95 filter (above) and the equalizer filter described in the IS-95 standard. This filter is only used for IS-95 baseband filtering. |
| IS95_MOD | This choice selects a filter that meets the criteria of the IS-95 error function (for improved adjacent channel performance) with lower passband rejection than the filter specified in the IS-95 standard. |
| IS95_MOD_EQ | This choice selects a filter which is a combination of the equalizer filter described in the IS-95 standard and a filter that meets the criteria of the IS-95 error function (for improved adjacent channel performance), with lower passband rejection. |
| AC4Fm | This choice selects a predefined Association of Public Safety Communications Officials (APCO) specified compatible 4-level frequency modulation (C4FM) filter. |
| UGGaussian | This choice selects a backwards compatible GSM Gaussian filter (Gaussian filter with a fixed BbT value of 0.300) for the ESG E44xxB Option UN3 or UN4. |
| "<user FIR>" | This variable is any filter file that you have stored into memory. |

***RST** RNYQ

Key Entry **Root Nyquist Nyquist Gaussian Rectangle IS-95 IS-95 w/EQ**
IS-95 Mod IS-95 Mod w/EQ APCO 25 C4FM UN3/4 GSM Gaussian
User FIR

Remarks Refer to “File Name Variables” on page 14 for information on the file name syntax.

:IQ:SCALe

Supported All with Option 001 or 002

```
[ :SOURce ] :RADio:CUSTom:IQ:SCALe <val>
```

```
[ :SOURce ] :RADio:CUSTom:IQ:SCALe?
```

This command sets the amplitude of the I/Q outputs for better adjacent channel power (ACP); lower scaling values equate to better ACP.

The variable <val> is expressed in units of percent.

***RST** +70

Range 1–200

Key Entry I/Q Scaling

Remarks This command has no effect with MSK or FSK modulation.

:MODulation:FSK[:DEViation]

Supported All with Option 001 or 002

```
[ :SOURce ] :RADio:CUSTom:MODulation:FSK[:DEViation] <val>
```

```
[ :SOURce ] :RADio:CUSTom:MODulation:FSK[:DEViation]?
```

This command sets the symmetric FSK frequency deviation value.

The variable <val> is expressed in units of Hertz and the maximum range value equals the current symbol rate value multiplied by four, limited to 20 MHz.

***RST** +4.00000000E+002

Range 0–2E7

Key Entry Freq Dev

Remarks To change the modulation type, refer to “:MODulation[:TYPE]” on [page 538](#).

Refer to “:SRATE” on [page 539](#) for a list of the minimum and maximum symbol rate values.

To set an asymmetric FSK deviation value, refer to the *User’s Guide* for more information.

:MODulation:MSK[:PHASe]

Supported All with Option 001 or 002

```
[ :SOURce ] :RADio:CUSTom:MODulation:MSK[:PHASe] <val>  
[ :SOURce ] :RADio:CUSTom:MODulation:MSK[:PHASe] ?
```

This command sets the MSK phase deviation value.

The variable <val> is expressed in units of degrees.

***RST** +9.00000000E+001

Range 0–100

Key Entry Phase Dev

Remarks N/A

:MODulation:UFSK

Supported All with Option 001 or 002

```
[ :SOURce ] :RADio:CUSTom:MODulation:UFSK "<file name>"  
[ :SOURce ] :RADio:CUSTom:MODulation:UFSK ?
```

This command selects a user-defined FSK file from the signal generator memory.

***RST** N/A

Range N/A

Key Entry User FSK

Remarks The user-defined FSK file is held in signal generator memory until the command that selects user FSK as the modulation type is sent. Refer to “[:MODulation\[:TYPE\]](#)” on [page 538](#) to change the current modulation type.

Refer to “File Name Variables” on [page 14](#) for information on the file name syntax.

:MODulation:UIQ

Supported All with Option 001 or 002

```
[:SOURce]:RADio:CUSTom:MODulation:UIQ "<file name>"
[:SOURce]:RADio:CUSTom:MODulation:UIQ?
```

This command selects a user-defined I/Q file from the signal generator memory.

***RST** N/A

Range N/A

Key Entry **User I/Q**

Remarks The user-defined I/Q file is held in signal generator memory until the command that selects user I/Q as the modulation type is sent. Refer to [“:MODulation\[:TYPE\]” on page 538](#) to change the current modulation type.

Refer to “File Name Variables” on page 14 for information on the file name syntax.

:MODulation[:TYPE]

Supported All with Option 001 or 002

```
[:SOURce]:RADio:CUSTom:MODulation[:TYPE] BPSK|QPSK|IS95QPSK|GRAYQPSK|
OQPSK|IS95OQPSK|P4DQPSK|PSK8|PSK16|D8PSK|MSK|FSK2|FSK4|FSK8|FSK16|C4FM|
QAM4|QAM16|QAM32|QAM64|QAM256|UIQ|UFSK
[:SOURce]:RADio:CUSTom:MODulation[:TYPE]?
```

This command sets the modulation type for the Custom personality.

***RST** P4DQPSK

Key Entry **BPSK QPSK IS-95 QPSK Gray Coded QPSK OQPSK**
IS-95 OQPSK $\pi/4$ DQPSK 8PSK 16PSK D8PSK MSK 2-Lvl FSK
4-Lvl FSK 8-Lvl FSK 16-Lvl FSK C4FM 4QAM 16QAM 32QAM
64QAM 256QAM User I/Q User FSK

Remarks N/A

:POLarity[:ALL]

Supported All with Option 001 or 002

```
[:SOURCE]:RADio:CUSTom:POLarity[:ALL] NORMal|INVerted
[:SOURCE]:RADio:CUSTom:POLarity[:ALL]?
```

This command sets the rotation direction of the phase modulation vector.

NORMal This choice selects normal phase polarity.

INVerted This choice inverts the internal Q signal.

***RST** NORM

Key Entry **Phase Polarity Normal Invert**

Remarks N/A

:SRATe

Supported All with Option 001 or 002

```
[:SOURCE]:RADio:CUSTom:SRATe <val>
[:SOURCE]:RADio:CUSTom:SRATe?
```

This command sets the transmission symbol rate.

The variable <val> is expressed in units of bits per second (bps–Mbps) and the maximum range value is dependent upon the source of data (internal or external), the modulation type, and filter.

***RST** +2.43000000E+004

Range

<i>Modulation Type</i>	<i>Bits per Symbol</i>	<i>Internal Data</i>	<i>External Serial Data</i>
BPSK	1	1–50 Msps	1–50 Msps
FSK2			
MSK			
C4FM	2	1–50 Msps	1–25 Msps
FSK4			
OQPSK			
OQPSK195			
P4QPPSK			
QAM4			
QPSK			
QPSKIS95			
QPSKISAT			

Range

<i>Modulation Type</i>	<i>Bits per Symbol</i>	<i>Internal Data</i>	<i>External Serial Data</i>
D8PSK	3	1–50 Msps	1–16.67 Msps
EDGE			
FSK8			
PSK8			
FSK16	4	1–50 Msps	1–12.5 Msps
PSK16			
QAM16			
QAM32	5	1–50 Msps	1–10 Msps
QAM64	6	1–50 Msps	1–8.33 Msps
QAM256	8	1–50 Msps	1–6.25 Msps

Key Entry**Symbol Rate****Remarks**

When user-defined filters are selected using the command in section “:FILTer” on page 535, the upper bit rate will be restricted in line with the following symbol rate restriction:

- FIR filter length > 32 symbols: upper limit is 12.5 Msps
- FIR filter length > 16 symbols: upper limit is 25 Msps

When internal FIR filters are used, the limits of the above table always apply. For higher symbol rates, the FIR filter length will be truncated as follows:

- Above 12.5 Msps, the FIR length will be truncated to 32 symbols
- Above 25 Msps, the FIR length will be truncated to 16 symbols

This will impact the relative timing of the modulated data, as well as the actual filter response (see “:BRATe” on page 525).

A change in the symbol rate value will affect the bit rate value; refer to “:BRATe” on page 525 for a list of the minimum and maximum symbol rate values.

To change the modulation type, refer to “:MODulation[:TYPE]” on page 538.

:STANdard:SElect

Supported All with Option 001 or 002

```
[:SOURCE]:RADIO:CUSTOM:STANdard:SElect NONE|AC4Fm|ACQPsk|BLUetooth|CDPD
[:SOURCE]:RADIO:CUSTOM:STANdard:SElect?
```

This command selects a predefined setup for Custom (with the appropriate defaults) and/or clears the selection.

- | | |
|-----------|---|
| NONE | This choice clears the current predefined Custom format. |
| AC4Fm | This choice sets up an Association of Public Safety Communications Officials (APCO) compliant, compatible 4-level frequency modulation (C4FM) format. |
| ACQPsk | This choice sets up an Association of Public Safety Communications Officials (APCO) compliant, compatible quadrature phase shift keying (CQPSK) format. |
| BLUetooth | This choice sets up a Bluetooth (2-level frequency shift keying) format. |
| CDPD | This choice sets up a minimum shift keying Cellular Digital Packet Data (CDPD) format. |

***RST** NONE

Key Entry None APCO 25w/C4FM APCO 25 w/CQPSK Bluetooth CDPD

Remarks N/A

:TRIGger:TYPE

Supported All with Option 001 or 002

```
[:SOURCE]:RADIO:CUSTOM:TRIGger:TYPE CONTInuous|SINGle|GATE
[:SOURCE]:RADIO:CUSTOM:TRIGger:TYPE?
```

This command sets the trigger type.

- | | |
|------------|---|
| CONTInuous | The framed data sequence repeats continuously; the sequence restarts every time the previous playback is completed. To customize continuous triggering, refer to “ :TRIGger:TYPE:CONTInuous[:TYPE] ” on page 542. |
| SINGle | The framed data sequence plays once for every trigger received. |
| GATE | An external trigger signal interrupts the playback while the gating signal is in the inactive state. Playback resumes when the external control signal returns to the active state. The active state can be set to high or low. |

*RST	CONT
Key Entry	Continuous Single Gated
Remarks	N/A

:TRIGger:TYPE:CONTInuous[:TYPE]

Supported All with Option 001 or 002

```
[:SOURce]:RADio:CUSTom:TRIGger:TYPE:CONTInuous[:TYPE] FREE|TRIGger|RESet
[:SOURce]:RADio:CUSTom:TRIGger:TYPE:CONTInuous[:TYPE]?
```

This command customizes the continuous trigger selection.

FREE	This choice immediately transmits a framed data sequence that is continuously repeated.
TRIGger	This choice causes the framed data sequence to wait for a trigger. Once a trigger is received, the transmission of a continuously repeated framed data sequence begins.
RESet	This choice immediately restarts a continuously repeated framed data sequence upon receiving a trigger.

*RST	FREE
Key Entry	Free Run Trigger & Run Reset & Run
Remarks	To select CONTInuous as the trigger type, refer to “:TRIGger:TYPE” on page 541 .

:TRIGger:TYPE:GATE:ACTive

Supported All with Option 001 or 002

```
[:SOURce]:RADio:CUSTom:TRIGger:TYPE:GATE:ACTive LOW|HIGH
[:SOURce]:RADio:CUSTom:TRIGger:TYPE:GATE:ACTive?
```

This command toggles the polarity of the active state of the external gating input signal; GATE must be selected as the arb trigger type.

LOW	The sequence runs while the selected external control gating signal is low and restarts when the gate returns to the high level.
HIGH	The sequence runs while the selected external control gating signal is high and restarts when the gate returns to the low level.

*RST	HIGH
-------------	------

Key Entry	Gate Active Low High
Remarks	To select GATE as the ARB trigger type, refer to “:TRIGger:TYPE” on page 541.

:TRIGger[:SOURce]

Supported All with Option 001 or 002

```
[ :SOURce ] :RADio:CUSTom:TRIGger [ :SOURce ] KEY | EXT | BUS
[ :SOURce ] :RADio:CUSTom:TRIGger [ :SOURce ] ?
```

This command sets the trigger source.

- KEY** This choice enables triggering by pressing the front panel **Trigger** hardkey.
- EXT** This choice enables triggering using an externally applied signal at the PATT TRIG IN rear panel connector or the PATT TRIG IN 2 pin on the rear panel AUX I/O connector. To select the appropriate connector, refer to “:TRIGger[:SOURce]:EXTernal[:SOURce]” on page 543.
- BUS** This choice enables GPIB triggering using the *TRG or GET command or LAN and RS-232 triggering using the *TRG command.

***RST** KEY

Key Entry Trigger Key Ext Bus

Remarks N/A

:TRIGger[:SOURce]:EXTernal[:SOURce]

Supported All with Option 001 or 002

```
[ :SOURce ] :RADio:CUSTom:TRIGger [ :SOURce ] :EXTernal [ :SOURce ] EPT1 | EPT2 |
EPTRIGGER1 | EPTRIGGER2
[ :SOURce ] :RADio:CUSTom:TRIGger [ :SOURce ] :EXTernal [ :SOURce ] ?
```

This command specifies which PATT TRIG IN connection, rear panel connector or AUX I/O connector, will be used to accept an externally applied trigger signal.

EPT1 This choice is synonymous with EPTRIGGER1 and selects the PATT TRIG IN rear panel connector for the external signal connection.

EPT2 This choice is synonymous with EPTRIGGER2 and selects the PATT TRIG IN 2 pin on the rear panel AUX I/O connector for the external signal connection.

EPTRIGGER1 This choice is synonymous with EPT1 and selects the PATT TRIG IN

rear panel connector for the external signal connection.

EPTRIGGER2 This choice is synonymous with EPT2 and selects the PATT TRIG IN 2 pin on the rear panel AUX I/O connector for the external signal connection.

***RST** EPT1

Key Entry Patt Trig In 1 Patt Trig In 2

Remarks This command is effective only if an external trigger is selected as the trigger source. Refer to “:TRIGger[:SOURce]” on page 543.

For more information about the rear panel AUX I/O connector pin configuration, refer to the *User’s Guide*.

:TRIGger[:SOURce]:EXTErnal:DELay

Supported All with Option 001 or 002

```
[ :SOURce ] :RADio:CUSTom:TRIGger [ :SOURce ] :EXTErnal:DELay <val>
[ :SOURce ] :RADio:CUSTom:TRIGger [ :SOURce ] :EXTErnal:DELay?
```

This command specifies the number of delay bits for the external trigger delay.

The variable <val> is expressed in bits.

***RST** +0

Range 0–1048576

Key Entry Ext Delay Bits

Remarks This command is effective only if an external trigger is selected as the trigger source. Refer to “:TRIGger[:SOURce]” on page 543.

:TRIGger[:SOURce]:EXTErnal:DELay:STATe

Supported All with Option 001 or 002

```
[ :SOURce ] :RADio:CUSTom:TRIGger [ :SOURce ] :EXTErnal:DELay:STATe ON|OFF|1|0
[ :SOURce ] :RADio:CUSTom:TRIGger [ :SOURce ] :EXTErnal:DELay:STATe?
```

This command enables or disables the operating state of the external trigger delay function.

***RST** 0

Key Entry Ext Delay Off On

Remarks This command is effective only if an external trigger is selected as the

trigger source. Refer to “:TRIGger[:SOURce]” on page 543.

:TRIGger[:SOURce]:EXTernal:SLOPe

Supported All with Option 001 or 002

```
[ :SOURce ] :RADio:CUSTom:TRIGger [ :SOURce ] :EXTernal:SLOPe POSitive|NEGative  
[ :SOURce ] :RADio:CUSTom:TRIGger [ :SOURce ] :EXTernal:SLOPe?
```

This command sets the polarity of the external trigger.

***RST** NEG

Key Entry Ext Polarity Neg Pos

Remarks This command is effective only if an external trigger is selected as the trigger source. Refer to “:TRIGger[:SOURce]” on page 543.

[:STATe]

Supported All with Option 001 or 002

```
[ :SOURce ] :RADio:CUSTom [ :STATe ] ON|OFF|1|0  
[ :SOURce ] :RADio:CUSTom [ :STATe ] ?
```

This command enables or disables the Custom modulation.

***RST** 0

Key Entry Custom Off On

Remarks Although the Custom modulation is enabled with this command, the RF carrier is not modulated unless you also activate the front panel **Mod On/Off** hardkey.

DECT Subsystem–Option 402 ([:SOURce]:RADio:DECT)

:ALPha

Supported All with Option 402

```
[:SOURce]:RADio:DECT:ALPha <val>  
[:SOURce]:RADio:DECT:ALPha?
```

This command changes the Nyquist or root Nyquist filter’s alpha value.

The filter alpha value can be set to the minimum level (0), the maximum level (1), or in between by using fractional numeric values (0.001–0.999).

***RST** +5.00000000E–001

Range 0.000–1.000

Key Entry Filter Alpha

Remarks To change the current filter type, refer to “:FILTer” on page 558.

:BBCLock

Supported All with Option 402

```
[:SOURce]:RADio:DECT:BBCLock INT[1] |EXT[1]  
[:SOURce]:RADio:DECT:BBCLock?
```

This command toggles the data (bit) clock input to the baseband generator board to either internal or external. This command is independent in each mode and works for both non-burst (continuous) and burst modes. This allows for a matrix of selections between burst/non-burst, internal/external data generation, internal/external data clock, and external bit/symbol data clock.

INT[1] This choice selects the signal generator internal data clock.

EXT[1] This choice selects an external data clock input.

***RST** INT

Key Entry BBG Data Clock Ext Int

Remarks A data clock or continuous symbol sync input must be supplied when external mode is used.

:BBT

Supported All with Option 402

```
[:SOURce]:RADio:DECT:BBT <val>
[:SOURce]:RADio:DECT:BBT?
```

This command changes the bandwidth-multiplied-by-bit-time (BbT) filter parameter.

The filter BbT value can be set to the maximum level (1) or in between the minimum level (0.100) and maximum level by using fractional numeric values (0.101–0.999).

***RST** +5.00000000E–001

Range 0.100–1.000

Key Entry Filter BbT

Remarks This command is effective only after choosing a Gaussian filter. It does not have an effect on other types of filters.

To change the current filter type, refer to “:FILTer” on page 558.

:BRATe

Supported All with Option 402

```
[:SOURce]:RADio:DECT:BRATe <val>
[:SOURce]:RADio:DECT:BRATe?
```

This command sets the bit rate.

The variable <val> is expressed in units of bits per second (bps–Mbps) and the maximum range value is dependent upon the source of data (internal or external), the modulation type, and filter.

***RST** +1.15200000E+006

Range

<i>Modulation Type</i>	<i>Bits per Symbol</i>	<i>Internal Data</i>	<i>External Serial Data</i>
BPSK	1	1–50 Mbps	1–50 Mbps
FSK2			
MSK			
C4FM	2	2–100 Mbps	2–50 Mbps
FSK4			
OQPSK			
OQPSK195			
P4QPPSK			
QAM4			

Range

<i>Modulation Type</i>	<i>Bits per Symbol</i>	<i>Internal Data</i>	<i>External Serial Data</i>
QPSK	2	2–100 Mbps	2–50 Mbps
QPSKIS95			
QPSKISAT			
D8PSK	3	3–100 Mbps	3–50 Mbps
EDGE			
FSK8			
PSK8			
FSK16	4	4–100 Mbps	4–50 Mbps
PSK16			
QAM16			
QAM32	5	5–100 Mbps	5–50 Mbps
QAM64	6	6–100 Mbps	6–50 Mbps
QAM256	7	8–100 Mbps	8–50 Mbps

Key Entry

Symbol Rate

Remarks

When user-defined filters are selected using the command in section “:FILTer” on page 558, the upper bit rate will be restricted in line with the following symbol rate restriction:

- FIR filter length > 32 symbols: upper limit is 12.5 Msps
- FIR filter length > 16 symbols: upper limit is 25 Msps

When internal FIR filters are used, the limits of the above table always apply. For higher symbol rates, the FIR filter length will be truncated and will impact the relative timing of the modulated data, as well as the actual filter response (see “:SRATe” on page 590).

A change in the bit rate value will affect the symbol rate value; refer to “:SRATe” on page 590 for a list of the minimum and maximum symbol rate values.

To change the modulation type, refer to “:MODulation[:TYPE]” on page 561.

:BURSt:PN9

Supported All with Option 402

```
[:SOURCE]:RADio:DECT:BURSt:PN9 NORMal|QUICK
[:SOURCE]:RADio:DECT:BURSt:PN9?
```

This command controls the software PN9 generation.

NORMal	This choice produces a maximum length PN9 sequence.
QUICK	This choice produces a truncated PN9 sequence.
*RST	NORM
Key Entry	PN9 Mode Normal Quick
Remarks	Use Normal mode for bit-error-rate tests where a maximum length PN9 sequence is required.

:BURSt:SHAPe:FALL:DELay

Supported All with Option 402

```
[:SOURCE]:RADio:DECT:BURSt:SHAPe:FALL:DELay <val>
```

```
[:SOURCE]:RADio:DECT:BURSt:SHAPe:FALL:DELay?
```

This command sets the burst shape fall delay.

The variable <val> is expressed in bits.

*RST +0.00000000E+000

Range -10.5625 to 99

Key Entry Fall Delay

Remarks To change the modulation type, refer to “:MODulation[:TYPE]” on page 561. Refer to “:SRATE” on page 590 for a list of the minimum and maximum symbol rate values.

“:BURSt:SHAPe:FDELay” on page 550 performs the same function; in compliance with the SCPI standard, both commands are listed.

For concept information on burst shaping, refer to the *User’s Guide*.

:BURSt:SHAPe:FALL:TIME

Supported All with Option 402

```
[:SOURCE]:RADio:DECT:BURSt:SHAPe:FALL:TIME <val>
```

```
[:SOURCE]:RADio:DECT:BURSt:SHAPe:FALL:TIME?
```

This command sets the burst shape fall time.

The variable <val> is expressed in bits.

*RST +1.00000000E+001

Range	0.0625–127.9375
Key Entry	Fall Time
Remarks	To change the modulation type, refer to “:MODulation[:TYPE]” on page 561. Refer to “:SRATE” on page 590 for a list of the minimum and maximum symbol rate values. “:BURSt:SHAPe:FTIME” on page 550 performs the same function; in compliance with the SCPI standard, both commands are listed. For concept information on burst shaping, refer to the <i>User’s Guide</i> .

:BURSt:SHAPe:FDELay

Supported All with Option 402

```
[ :SOURCE ] :RADio:DECT:BURSt:SHAPe:FDELay <val>
[ :SOURCE ] :RADio:DECT:BURSt:SHAPe:FDELay?
```

This command sets the burst shape fall delay.

The variable <val> is expressed in bits.

***RST** +0.00000000E+000

Range –10.5625 to 99

Key Entry **Fall Delay**

Remarks To change the modulation type, refer to “:MODulation[:TYPE]” on page 561. Refer to “:SRATE” on page 590 for a list of the minimum and maximum symbol rate values.

“:BURSt:SHAPe:FALL:DELay” on page 549 performs the same function; in compliance with the SCPI standard, both commands are listed.

For concept information on burst shaping, refer to the *User’s Guide*.

:BURSt:SHAPe:FTIME

Supported All with Option 402

```
[ :SOURCE ] :RADio:DECT:BURSt:SHAPe:FTIME <val>
[ :SOURCE ] :RADio:DECT:BURSt:SHAPe:FTIME?
```

This command sets the burst shape fall time.

The variable <val> is expressed in bits.

*RST	+1.00000000E+001
Range	0.0625–127.9375
Key Entry	Fall Time
Remarks	To change the modulation type, refer to “:MODulation[:TYPE]” on page 561. Refer to “:SRATE” on page 590 for a list of the minimum and maximum symbol rate values. “:BURSt:SHAPe:FALL:TIME” on page 549 performs the same function; in compliance with the SCPI standard, both commands are listed. For concept information on burst shaping, refer to the <i>User’s Guide</i> .

:BURSt:SHAPe:RDELay

Supported All with Option 402

```
[:SOURCE]:RADio:DECT:BURSt:SHAPe:RDELay <val>  
[:SOURCE]:RADio:DECT:BURSt:SHAPe:RDELay?
```

This command sets the burst shape rise delay.

The variable <val> is expressed in bits.

*RST	+0.00000000E+000
Range	–0.5625 to 99
Key Entry	Rise Delay
Remarks	To change the modulation type, refer to “:MODulation[:TYPE]” on page 561. Refer to “:SRATE” on page 590 for a list of the minimum and maximum symbol rate values. “:BURSt:SHAPe:RISE:DELay” on page 552 performs the same function; in compliance with the SCPI standard, both commands are listed. For concept information on burst shaping, refer to the <i>User’s Guide</i> .

:BURSt:SHAPe:RISE:DELay**Supported** All with Option 402

[:SOURCE]:RADio:DECT:BURSt:SHAPe:RISE:DELay <val>

[:SOURCE]:RADio:DECT:BURSt:SHAPe:RISE:DELay?

This command sets the burst shape rise delay.

The variable <val> is expressed in bits.

***RST** +0.00000000E+000**Range** -0.5625 to 99**Key Entry** Rise Delay**Remarks** To change the modulation type, refer to “:MODulation[:TYPE]” on page 561. Refer to “:SRATE” on page 590 for a list of the minimum and maximum symbol rate values.

“:BURSt:SHAPe:RDELay” on page 551 performs the same function; in compliance with the SCPI standard, both commands are listed.

For concept information on burst shaping, refer to the *User’s Guide*.**:BURSt:SHAPe:RISE:TIME****Supported** All with Option 402

[:SOURCE]:RADio:DECT:BURSt:SHAPe:RISE:TIME <val>

[:SOURCE]:RADio:DECT:BURSt:SHAPe:RISE:TIME?

This command sets the burst shape rise time.

The variable <val> is expressed in bits.

***RST** +1.00000000E+001**Range** 0.0625–10.6250**Key Entry** Rise Time**Remarks** To change the modulation type, refer to “:MODulation[:TYPE]” on page 561. Refer to “:SRATE” on page 590 for a list of the minimum and maximum symbol rate values.

“:BURSt:SHAPe:RTIME” on page 553 performs the same function; in compliance with the SCPI standard, both commands are listed.

For concept information on burst shaping, refer to the *User’s Guide*.

:BURSt:SHAPe:RTIME

Supported All with Option 402

```
[ :SOURce ] :RADio:DECT:BURSt:SHAPe:RTIME <val>
[ :SOURce ] :RADio:DECT:BURSt:SHAPe:RTIME?
```

This command sets the burst shape rise time.

The variable <val> is expressed in bits.

***RST** +1.00000000E+001

Range 0.0625–10.6250

Key Entry **Rise Time**

Remarks To change the modulation type, refer to “:MODulation[:TYPE]” on page 561. Refer to “:SRATE” on page 590 for a list of the minimum and maximum symbol rate values.

“:BURSt:SHAPe:RISE:TIME” on page 552 performs the same function; in compliance with the SCPI standard, both commands are listed.

For concept information on burst shaping, refer to the *User’s Guide*.

:BURSt:SHAPe[:TYPE]

Supported All with Option 402

```
[ :SOURce ] :RADio:DECT:BURSt:SHAPe[:TYPE] SINE| "<file name>"
[ :SOURce ] :RADio:DECT:BURSt:SHAPe[:TYPE] ?
```

This command specifies the burst shape as either SINE or a user-defined file (“<file name>”).

SINE This choice selects a state that is defined by the burst rise and fall *RST values, as the default burst shape type.

"<file name>" This choice selects a user-defined file from signal generator memory (non-volatile).

***RST** SINE

Key Entry **Sine User File**

Remarks N/A

:BURSt[:STATe]**Supported** All with Option 402

```
[:SOURCE]:RADio:DECT:BURSt[:STATe] ON|OFF|1|0
[:SOURCE]:RADio:DECT:BURSt[:STATe]?
```

This command enables or disables the burst function.

ON (1) This choice enables the transmission of framed data. If all timeslots which are switched on are up traffic channels or custom, you will be bursting the timeslots that are on; there will be no RF carrier during the off timeslots.

If you have switched on any timeslot that you have configured as a down traffic channel, the RF carrier is not switched off between any of the timeslots. The off timeslots are transmitted as a continuous series of ones for the time period of the off timeslots.

OFF (0) This choice enables the transmission of unframed data.

RST** 0**Key Entry** Data Format Pattern Framed**Remarks** N/A**:CHANnel*Supported** All with Option 402

```
[:SOURCE]:RADio:DECT:CHANnel EVM|ACP
[:SOURCE]:RADio:DECT:CHANnel?
```

This command optimizes the Nyquist and root Nyquist filters to minimize error vector magnitude (EVM) or to minimize adjacent channel power (ACP).

EVM This choice provides the most ideal passband.

ACP This choice improves stopband rejection.

***RST** EVM**Key Entry** Optimize FIR For EVM ACP**Remarks** To change the current filter type, refer to [“:FILTer” on page 558](#).

:DATA

Supported All with Option 402

```
[:SOURCE]:RADio:DECT:DATA PN9|PN11|PN15|PN20|PN23|FIX4|"<file name>"|EXT|
P4|P8|P16|P32|P64
[:SOURCE]:RADio:DECT:DATA?
```

This command sets the data pattern type (pseudo-random number sequence, 4-bit pattern, sequence of 1's and 0's, data from an external source, or a user file) for unframed data transmission.

***RST** PN23

Key Entry	PN9	PN11	PN15	PN20	PN23	FIX4	User File	Ext
	4 1's & 4 0's	8 1's & 8 0's	16 1's & 16 0's	32 1's & 32 0's	64 1's & 64 0's			

Remarks Refer to “File Name Variables” on page 14 for information on the file name syntax.

:DATA:FIX4

Supported All with Option 402

```
[:SOURCE]:RADio:DECT:DATA:FIX4 <val>
[:SOURCE]:RADio:DECT:DATA:FIX4?
```

This command sets the binary, 4-bit repeating sequence data pattern for unframed transmission according to the modulation type, symbol rate, filter, and burst shape selected for the DECT modulation format.

***RST** #B0000

Range #B0000–#B1111 or 0–15

Key Entry **FIX4**

Remarks FIX4 must already be defined as the data type. To change the data type, refer to “:DATA” on page 555.

:DEFault

Supported All with Option 402

[:SOURCE]:RADio:DECT:DEFault

This command returns all of the DECT modulation format parameters to factory settings. It does not affect any other signal generator parameters.

***RST** N/A

Range N/A

Key Entry Restore Dect Factory Default

Remarks N/A

:EDATa:DELay

Supported All with Option 402

[:SOURCE]:RADio:DECT:EDATa:DELay?

This query returns the amount of delay (in symbols) from the external data input to the beginning of the symbol on the I OUT and Q OUT rear panel connectors and the front panel RF OUTPUT connector.

***RST** N/A

Range N/A

Key Entry N/A

Remarks When the format is turned off, the delay value is unchanged; the query will return the same delay value if the format is on or off.

:EDCLock

Supported All with Option 402

[:SOURCE]:RADio:DECT:EDCLock SYMBOL|NORMAL

[:SOURCE]:RADio:DECT:EDCLock?

This command sets the external data clock use.

SYMBOL This choice specifies that a continuous symbol clock signal must be provided to the SYMBOL SYNC input connector.

NORMAL This choice specifies that the DATA CLOCK input connector requires a

bit clock. The SYMBOL SYNC input connector requires a (one-shot or continuous) symbol sync signal.

*RST	NORM
Key Entry	Ext Data Clock Normal Symbol
Remarks	Both choices have no effect in internal clock mode. Refer to “:BBClock” on page 546 to select EXT as the data clock type.

:EREFerence

Supported All with Option 402

```
[:SOURce]:RADio:DECT:EREFerence INT|EXT
[:SOURce]:RADio:DECT:EREFerence?
```

This command selects either an internal or external bit-clock reference for the data generator.

*RST	INT
Key Entry	BBG Ref Ext Int
Remarks	If the EXT choice is selected, the external source’s frequency value must be applied to the BASEBAND GEN REF IN rear panel connector. The external reference and external data clock are not applicable at the same time. If both are selected, then the external reference takes precedence. Refer to, “:EREFerence:VALue” on page 557 to enter the external reference frequency setting.

:EREFerence:VALue

Supported All with Option 402

```
[:SOURce]:RADio:GSM:EREFerence:VALue <val>
[:SOURce]:RADio:GSM:EREFerence:VALue?
```

This command sets the expected bit-clock reference frequency value for an externally applied reference signal.

The variable <val> is expressed in units of hertz (Hz–MHz).

*RST	+1.30000000E+007
Range	2.5E5–1E8

Key Entry	Ext BBG Ref Freq
Remarks	The value specified by this command is effective only when you are using an external reference applied to the BASEBAND GEN REF IN rear panel connector. Refer to “:EREFerence” on page 557 to select EXT (external source) as the reference for the bit-clock.

:FILTer

Supported All with Option 402

```
[:SOURCE]:RADio:DECT:FILTer RNYQuist|NYQuist|GAUSSian|RECTangle|IS95|
IS95_EQ|IS95_MOD|IS95_MOD_EQ|AC4Fm|UGGaussian|"<user FIR>"
[:SOURCE]:RADio:DECT:FILTer?
```

This command specifies the pre-modulation filter type.

IS95	This choice selects a filter that meets the criteria of the IS-95 standard.
IS95_EQ	This choice selects a filter which is a combination of the IS-95 filter (above) and the equalizer filter described in the IS-95 standard. This filter is only used for IS-95 baseband filtering.
IS95_MOD	This choice selects a filter that meets the criteria of the IS-95 error function (for improved adjacent channel performance) with lower passband rejection than the filter specified in the IS-95 standard.
IS95_MOD_EQ	This choice selects a filter which is a combination of the equalizer filter described in the IS-95 standard and a filter that meets the criteria of the IS-95 error function (for improved adjacent channel performance), with lower passband rejection.
AC4Fm	This choice selects a predefined Association of Public Safety Communications Officials (APCO) specified compatible 4-level frequency modulation (C4FM) filter.
UGGaussian	This choice selects a backwards compatible GSM Gaussian filter (Gaussian filter with a fixed BbT value of 0.300) for the ESG E44xxB Option UN3 or UN4.
"<user FIR>"	This variable is any filter file that you have stored into memory.
*RST	GAUS
Key Entry	Root Nyquist Nyquist Gaussian Rectangle IS-95 IS-95 w/EQ

	IS-95 Mod IS-95 Mod w/EQ UN3/4 GSM Gaussian APCO 25 C4FM
	User FIR
Remarks	Refer to “File Name Variables” on page 14 for information on the file name syntax.

:IQ:SCALe

Supported All with Option 402

```
[ :SOURCE ] :RADio:DECT:IQ:SCALe <val>  
[ :SOURCE ] :RADio:DECT:IQ:SCALe?
```

This command sets the amplitude of the I/Q outputs for better adjacent channel power (ACP); lower scaling values equate to better ACP.

The variable <val> is expressed in units of percent.

***RST** +100

Range 1–200

Key Entry **I/Q Scaling**

Remarks This command has no effect with MSK or FSK modulation.

:MODulation:FSK[:DEViation]

Supported All with Option 402

```
[ :SOURCE ] :RADio:DECT:MODulation:FSK[:DEViation] <val>  
[ :SOURCE ] :RADio:DECT:MODulation:FSK[:DEViation]?
```

This command sets the symmetric FSK frequency deviation value.

The variable <val> is expressed in units of Hertz and the maximum range value equals the current symbol rate value multiplied by four, limited to 20 MHz.

***RST** +2.88000000E+005

Range 0–2E7

Key Entry **Freq Dev**

Remarks To change the modulation type, refer to “:MODulation[:TYPE]” on [page 561](#).

Refer to “:SRATe” on [page 590](#) for a list of the minimum and maximum symbol rate values.

To set an asymmetric FSK deviation value, refer to the *User's Guide* for more information.

:MODulation:MSK[:PHASe]

Supported All with Option 402

```
[:SOURCE]:RADio:DECT:MODulation:MSK[:PHASe] <val>  
[:SOURCE]:RADio:DECT:MODulation:MSK[:PHASe]?
```

This command sets the MSK phase deviation value.

The variable <val> is expressed in units of degrees.

***RST** +9.00000000E+001

Range 0–100

Key Entry **Phase Dev**

Remarks N/A

:MODulation:UFSK

Supported All with Option 402

```
[:SOURCE]:RADio:DECT:MODulation:UFSK "<file name>"  
[:SOURCE]:RADio:DECT:MODulation:UFSK?
```

This command selects a user-defined FSK file from the signal generator memory.

***RST** N/A

Range N/A

Key Entry **User FSK**

Remarks The user-defined FSK file is held in signal generator memory until the command that selects user FSK as the modulation type is sent. Refer to [“:MODulation\[:TYPE\]” on page 561](#) to change the current modulation type.

Refer to “File Name Variables” on page 14 for information on the file name syntax.

:MODulation:UIQ

Supported All with Option 402

```
[ :SOURce ] :RADio:DECT:MODulation:UIQ "<file name>"
[ :SOURce ] :RADio:DECT:MODulation:UIQ?
```

This command selects a user-defined I/Q file from the signal generator memory.

***RST** N/A

Range N/A

Key Entry **User I/Q**

Remarks The user-defined I/Q file is held in signal generator memory until the command that selects user I/Q as the modulation type is sent. Refer to [“:MODulation\[:TYPE\]” on page 561](#) to change the current modulation type.

Refer to “File Name Variables” on page 14 for information on the file name syntax.

:MODulation[:TYPE]

Supported All with Option 402

```
[ :SOURce ] :RADio:DECT:MODulation[:TYPE] BPSK|QPSK|IS95QPSK|GRAYQPSK|
OQPSK|IS95OQPSK|P4DQPSK|PSK8|PSK16|D8PSK|MSK|FSK2|FSK4|FSK8|FSK16|C4FM|
QAM4|QAM16|QAM32|QAM64|QAM256|UIQ|UFSK
[ :SOURce ] :RADio:DECT:MODulation[:TYPE]?
```

This command sets the modulation type for the DECT personality.

***RST** FSK2

Key Entry **BPSK QPSK IS-95 QPSK Gray Coded QPSK OQPSK**
IS-95 OQPSK $\pi/4$ DQPSK 8PSK 16PSK D8PSK MSK 2-Lvl FSK
4-Lvl FSK 8-Lvl FSK 16-Lvl FSK C4FM 4QAM 16QAM 32QAM
64QAM 256QAM User I/Q User FSK

Remarks N/A

:POLarity[:ALL]

Supported All with Option 402

```
[:SOURCE]:RADio:DECT:POLarity[:ALL] NORMal|INVerted  
[:SOURCE]:RADio:DECT:POLarity[:ALL]?
```

This command sets the rotation direction of the phase modulation vector.

NORMal This choice selects normal phase polarity.

INVerted This choice inverts the internal Q signal.

***RST** NORM

Key Entry Phase Polarity Normal Invert

Remarks N/A

:PPart:SLOT0|[1]|2|3|4[:TYPE]

Supported All with Option 402

```
[:SOURCE]:RADio:DECT:PPart:SLOT0|[1]|2|3|4[:TYPE] CUSTom|TRAFfic|  
LCAPacity|ZTRAffic|ZLCapacity  
[:SOURCE]:RADio:DECT:PPart:SLOT0|[1]|2|3|4[:TYPE]?
```

This command specifies the timeslot type for the selected timeslot in the portable part link.

***RST** *Timeslot 0:* TRAF *Timeslots 1–4:* CUST

Key Entry Custom Traffic Bearer Low Capacity Traffic Bearer with Z field
Low Capacity with Z field

Remarks N/A

:PPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:CUSTom

Supported All with Option 402

```
[:SOURCE]:RADio:DECT:PPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:CUSTom PN9|  
PN11|PN15|PN20|PN23|FIX4|"<file name>"|EXT|FDEV1_HS|FDEV1_FS|FDEV2_FS|  
FACCuracy|DM1|DM0|P4|P8|P16|P32|P64  
[:SOURCE]:RADio:DECT:PPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:CUSTom?
```

This command customizes the selected custom timeslot for a portable part link.

***RST** PN9

Key Entry PN9 PN11 PN15 PN20 PN23 FIX4 User File Ext FDEV1_HS
FDEV1_FS FDEV2_FS FACC DM1 DM0 4 1's & 4 0's
8 1's & 8 0's 16 1's & 16 0's 32 1's & 32 0's 64 1's & 64 0's

Remarks Refer to “File Name Variables” on page 14 for information on the file name syntax.

:PPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:CUSTom:FIX4

Supported All with Option 402

[:SOURCE]:RADio:DECT:PPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:CUSTom:
FIX4 <val>

[:SOURCE]:RADio:DECT:PPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:CUSTom:FIX4?

This command sets the binary, 4-bit repeating sequence data pattern which is used in the portable part custom data field of the selected timeslot.

***RST** #B0000

Range #B0000–#B1111 or 0–15

Key Entry FIX4

Remarks FIX4 must already be defined as the data type. To change the data type, refer to “:PPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:CUSTom” on page 562.

:PPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:LCAPacity:A

Supported All with Option 402

[:SOURCE]:RADio:DECT:PPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:LCAPacity:
A <val>

[:SOURCE]:RADio:DECT:PPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:LCAPacity:A?

This command customizes the A field for the selected low-capacity timeslot in the portable part link.

***RST** #H0000FFFF0000FFFF

Range #H0–#HFFFFFFFFFFFFFFFF

Key Entry A field

DECT Subsystem—Option 402 ([:SOURCE]:RADio:DECT)

Remarks The A field carries signaling data (48 bits) and error correction (16 bits).

:PPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:LCAPacity:P

Supported All with Option 402

```
[:SOURCE]:RADio:DECT:PPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:LCAPacity:
```

```
P <val>
```

```
[:SOURCE]:RADio:DECT:PPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:LCAPacity:P?
```

This command customizes the preamble (P) field of the selected low-capacity timeslot in the portable part link.

***RST** #H5555

Range #H0–#HFFFF

Key Entry **P**

Remarks N/A

:PPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:LCAPacity:S

Supported All with Option 402

```
[:SOURCE]:RADio:DECT:PPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:LCAPacity:
```

```
S <val>
```

```
[:SOURCE]:RADio:DECT:PPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:LCAPacity:S?
```

This command customizes the synchronization pattern of the selected low-capacity timeslot in the portable part link.

***RST** #H1675

Range #H0–#HFFFF

Key Entry **S**

Remarks N/A

:PPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:LCAPacity[:B]

Supported All with Option 402

```
[:SOURCE]:RADio:DECT:PPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:
LCAPacity[:B] PN9|PN11|PN15|PN20|PN23|FIX4|"<file name>"|EXT|FDEV1_HS|
FDEV1_FS|FDEV2_FS|FACCuracy|DM1|DM0|P4|P8|P16|P32|P64
[:SOURCE]:RADio:DECT:PPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:
LCAPacity[:B]?
```

This command sets the data pattern type (pseudo-random number sequence, 4-bit pattern, sequence of 1's and 0's, data from an external source, or a user file) for the B field of the selected portable part low-capacity timeslot.

***RST** PN9

Key Entry	PN9	PN11	PN15	PN20	PN23	FIX4	User File	Ext	FDEV1_HS
	FDEV1_FS	FDEV2_FS	FACC	DM1	DM0	4 1's & 4 0's			
	8 1's & 8 0's	16 1's & 16 0's	32 1's & 32 0's	64 1's & 64 0's					

Remarks Refer to “File Name Variables” on page 14 for information on the file name syntax.

:PPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:LCAPacity[:B]:FIX4

Supported All with Option 402

```
[:SOURCE]:RADio:DECT:PPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:
LCAPacity[:B]:FIX4 <val>
[:SOURCE]:RADio:DECT:PPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:
LCAPacity[:B]:FIX4?
```

This command sets the binary, 4-bit repeating sequence data pattern that is used in the selected portable part low-capacity timeslot B field.

***RST** #B0000

Range #B0000–#B1111 or 0–15

Key Entry **FIX4**

Remarks FIX4 must already be defined as the data type. Refer to “:PPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:LCAPacity[:B]” on page 565 to change the data type.

:PPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:LCAPacity:POWer

Supported All with Option 402

```
[:SOURCE]:RADio:DECT:PPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:LCAPacity:  
POWer MAIN|DELTA  
[:SOURCE]:RADio:DECT:PPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:LCAPacity:  
POWer?
```

This command defines the RF output power level for the selected timeslot.

- MAIN This choice specifies RF output as the main power level.
- DELTA This choice specifies RF output as the alternative power level.

***RST** MAIN

Key Entry Timeslot Ampl Main Delta

Remarks N/A

:PPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:STATE

Supported All with Option 402

```
[:SOURCE]:RADio:DECT:PPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:STATE ON|OFF|  
1|0  
[:SOURCE]:RADio:DECT:PPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:STATE?
```

This command enables or disables the operating state of the selected portable part timeslot.

***RST** Timeslot 0: 1 Timeslots 1–11: 0

Key Entry Timeslot Off On

Remarks N/A

:PPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:TRAFfic:A

Supported All with Option 402

```
[:SOURCE]:RADio:DECT:PPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:TRAFfic:  
A <val>  
[:SOURCE]:RADio:DECT:PPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:TRAFfic:A?
```

This command customizes the A field for the selected traffic bearer timeslot in the portable part link. The A field carries signaling data (48 bits) and error correction (16 bits).

***RST** #H0000FFFF0000FFFF
Range #H0–#HFFFFFFFFFFFFFFFF
Key Entry **A** field
Remarks N/A

:PPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:TRAFfic:P

Supported All with Option 402

```
[:SOURCE]:RADio:DECT:PPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:TRAFfic:  
P <val>
```

```
[:SOURCE]:RADio:DECT:PPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:TRAFfic:P?
```

This command customizes the preamble (P) field of the selected traffic bearer timeslot in the portable part link.

***RST** #H5555
Range #H0–#HFFFF
Key Entry **P**
Remarks N/A

:PPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:TRAFfic:S

Supported All with Option 402

```
[:SOURCE]:RADio:DECT:PPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:TRAFfic:  
S <val>
```

```
[:SOURCE]:RADio:DECT:PPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:TRAFfic:  
S?
```

This command sets the synchronization pattern for the selected traffic bearer timeslot in the portable part link.

***RST** #H1675
Range #H0–#HFFFF
Key Entry **S**
Remarks N/A

:PPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:TRAFfic[:B]**Supported** All with Option 402

```
[:SOURCE]:RADio:DECT:PPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:
TRAFfic[:B] PN9|PN11|PN15|PN20|PN23|FIX4|"<file name>"|EXT|FDEV1_HS|
FDEV1_FS|FDEV2_FS|FACCuracy|DM1|DM0|P4|P8|P16|P32|P64
[:SOURCE]:RADio:DECT:PPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:TRAFfic[:B]?
```

This command sets the B field data pattern for the selected traffic bearer timeslot in the portable part link.

***RST** PN9

Key Entry PN9 PN11 PN15 PN20 PN23 FIX4 User File Ext FDEV1_HS
 FDEV1_FS FDEV2_FS FACC DM1 DM0 4 1's & 4 0's
 8 1's & 8 0's 16 1's & 16 0's 32 1's & 32 0's 64 1's & 64 0's

Remarks Refer to “File Name Variables” on page 14 for information on the file name syntax.

:PPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:TRAFfic[:B]:FIX4**Supported** All with Option 402

```
[:SOURCE]:RADio:DECT:PPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:TRAFfic[:B]:
FIX4 <val>
[:SOURCE]:RADio:DECT:PPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:TRAFfic[:B]:
FIX4?
```

This command sets the binary, 4-bit repeating sequence data pattern that is used in the portable part traffic bearer B field of the selected timeslot.

***RST** #B0000**Range** #B0000–#B1111 or 0–15**Key Entry** FIX4**Remarks** FIX4 must already be defined as the data type.

:PPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:ZLCapacity:A

Supported All with Option 402

```
[:SOURCE]:RADio:DECT:PPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:ZLCapacity:  
A <val>
```

```
[:SOURCE]:RADio:DECT:PPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:ZLCapacity:A?
```

This command customizes the A field for the selected low-capacity with Z field timeslot in the portable part link.

The A field carries signaling data (48 bits) and error correction (16 bits).

***RST** #H0000FFFF0000FFFF

Range #H0–#HFFFFFFFFFFFFFFFF

Key Entry A

Remarks N/A

:PPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:ZLCapacity:P

Supported All with Option 402

```
[:SOURCE]:RADio:DECT:PPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:ZLCapacity:  
P <val>
```

```
[:SOURCE]:RADio:DECT:PPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:ZLCapacity:P?
```

This command customizes the preamble (P) field of the selected low-capacity with Z field timeslot in the portable part link.

***RST** #H5555

Range #H0–#HFFFF

Key Entry P

Remarks N/A

:PPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:ZLCapacity:A

Supported All with Option 402

```
[:SOURCE]:RADio:DECT:PPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:ZLCapacity:  
S <val>
```

```
[:SOURCE]:RADio:DECT:PPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:ZLCapacity:S?
```

This command customizes the synchronization pattern of the selected low-capacity with Z field timeslot in the portable part link.

***RST** #H1675
Range #H0–#HFFFF
Key Entry S
Remarks N/A

:PPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:ZLCapacity[:B]

Supported All with Option 402

```
[:SOURCE]:RADio:DECT:PPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:
ZLCapacity[:B] PN9|PN11|PN15|PN20|PN23|FIX4|"<file name>"|EXT|FDEV1_HS|
FDEV1_FS|FDEV2_FS|FACCuracy|DM1|DM0|P4|P8|P16|P32|P64
[:SOURCE]:RADio:DECT:PPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:
ZLCapacity[:B]?
```

This command sets the data pattern for the B field of the selected portable part low-capacity with Z field timeslot.

***RST** PN9
Key Entry PN9 PN11 PN15 PN20 PN23 FIX4 User File Ext FDEV1_HS
FDEV1_FS FDEV2_FS FACC DM1 DM0 4 1's & 4 0's
8 1's & 8 0's 16 1's & 16 0's 32 1's & 32 0's 64 1's & 64 0's
Remarks Refer to “File Name Variables” on page 14 for information on the file name syntax.

:PPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:ZLCapacity[:B]:FIX4

Supported All with Option 402

```
[:SOURCE]:RADio:DECT:PPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:
ZLCapacity[:B]:FIX4 <val>
[:SOURCE]:RADio:DECT:PPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:
ZLCapacity[:B]:FIX4?
```

This command sets the binary, 4-bit repeating sequence data pattern that is used in the portable part low-capacity with Z field B field of the selected timeslot.

***RST** #B0000
Range #B0000–#B1111 or 0–15
Key Entry FIX4

Remarks FIX4 must already be defined as the data type.

:PPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:ZTRaffic:A

Supported All with Option 402

```
[:SOURCE]:RADio:DECT:PPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:ZTRaffic:
A <val>
```

```
[:SOURCE]:RADio:DECT:PPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:ZTRaffic:A?
```

This command customizes the A field for the selected traffic bearer with Z field timeslot in the portable part link. The A field carries signaling data (48 bits) and error correction (16 bits).

***RST** #H0000FFFF0000FFFF

Range #H0–#HFFFFFFFFFFFFFFFF

Key Entry **A field**

Remarks N/A

:PPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:ZTRaffic:P

Supported All with Option 402

```
[:SOURCE]:RADio:DECT:PPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:ZTRaffic:
P <val>
```

```
[:SOURCE]:RADio:DECT:PPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:ZTRaffic:P?
```

This command customizes the preamble (P) field of the selected traffic bearer with Z field timeslot in the portable part link.

***RST** #H5555

Range #H0–#HFFFF

Key Entry **P**

Remarks N/A

:PPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:ZTRaffic:S

Supported All with Option 402

```
[:SOURCE]:RADio:DECT:PPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:ZTRaffic:
S <val>
[:SOURCE]:RADio:DECT:PPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:ZTRaffic:S?
```

This command sets the synchronization pattern for the selected traffic bearer with Z field timeslot in the portable part link.

***RST** #H1675
Range #H0–#HFFFF
Key Entry S
Remarks N/A

:PPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:ZTRaffic[:B]

Supported All with Option 402

```
[:SOURCE]:RADio:DECT:PPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:
ZTRaffic[:B] PN9|PN11|PN15|PN20|PN23|FIX4|"<file name>"|EXT|FDEV1_HS|
FDEV1_FS|FDEV2_FS|FACCuracy|DM1|DM0|P4|P8|P16|P32|P64
[:SOURCE]:RADio:DECT:PPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:ZTRaffic[:B]?
```

This command sets the B field data pattern for the selected traffic bearer with Z field timeslot in the portable part link.

***RST** PN9
Key Entry PN9 PN11 PN15 PN20 PN23 FIX4 User File Ext FDEV1_HS
 FDEV1_FS FDEV2_FS FACC DM1 DM0 4 1's & 4 0's
 8 1's & 8 0's 16 1's & 16 0's 32 1's & 32 0's 64 1's & 64 0's
Remarks Refer to “File Name Variables” on page 14 for information on the file name syntax.

:PPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:ZTRaffic[:B]:FIX4

Supported All with Option 402

```
[:SOURCE]:RADIO:DECT:PPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:ZTRaffic[:B]:
FIX4 <val>
```

```
[:SOURCE]:RADIO:DECT:PPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:ZTRaffic[:B]:
FIX4?
```

This command sets the binary, 4-bit repeating sequence data pattern that is used in the portable part traffic bearer with Z field B field of the selected timeslot.

***RST** #B0000

Range #B0000–#B1111 or 0–15

Key Entry **FIX4**

Remarks FIX4 must already be defined as the data type. Refer to “:PPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:ZTRaffic[:B]” on page 572 to change the data type.

:RFPart:SLOT0|[1]|2|3|4[:TYPE]

Supported All with Option 402

```
[:SOURCE]:RADIO:DECT:RFPart:SLOT0|[1]|2|3|4[:TYPE] CUSTom|DUMM[1]|DUMM2|
TRAFFic|LCAPacity|ZTRaffic|ZLCapacity
```

```
[:SOURCE]:RADIO:DECT:RFPart:SLOT0|[1]|2|3|4[:TYPE]?
```

This command selects the timeslot type for the selected timeslot in the radio fixed part link.

***RST** *Timeslot 0:* TRAF *Timeslots 1–4:* CUST

Key Entry **Custom Dummy Bearer 1 Dummy Bearer 2 Traffic Bearer**
Low Capacity Traffic Bearer with Z field Low Capacity with Z field

Remarks N/A

:RFPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:CUSTom**Supported** All with Option 402

```
[:SOURce]:RADio:DECT:RFPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:CUSTom PN9|
PN11|PN15|PN20|PN23|FIX4|"<file name>"|EXT|FDEV1_HS|FDEV1_FS|FDEV2_FS|
FACCuracy|DM1|DM0|P4|P8|P16|P32|P64
[:SOURce]:RADio:DECT:RFPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:CUSTom?
```

This command sets the data pattern for the data field of the selected custom timeslot in the radio fixed part link.

***RST** PN9

Key Entry PN9 PN11 PN15 PN20 PN23 FIX4 User File Ext FDEV1_HS
 FDEV1_FS FDEV2_FS FACC DM1 DM0 4 1's & 4 0's
 8 1's & 8 0's 16 1's & 16 0's 32 1's & 32 0's 64 1's & 64 0's

Remarks Refer to “File Name Variables” on page 14 for information on the file name syntax.

:RFPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:CUSTom:FIX4**Supported** All with Option 402

```
[:SOURce]:RADio:DECT:RFPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:CUSTom:
FIX4 <val>
[:SOURce]:RADio:DECT:RFPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:CUSTom:
FIX4?
```

This command sets the binary, 4-bit repeating sequence data pattern that is used in the selected radio fixed part custom timeslot.

***RST** #B0000**Range** #B0000–#B1111 or 0–15**Key Entry** FIX4

Remarks FIX4 must already be defined as the data type. Refer to “:RFPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:CUSTom” on page 574 to change the data type.

:RFPART:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:DUMM2:A

Supported All with Option 402

```
[:SOURCE]:RADIO:DECT:RFPART:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:DUMM2:
```

```
A <val>
```

```
[:SOURCE]:RADIO:DECT:RFPART:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:DUMM2:A?
```

This command customizes the A field for the selected dummy 2 timeslot in the radio fixed part link.

***RST** #H000FFFF0000FFFF

Range #H0–#HFFFFFFFFFFFFFFFF

Key Entry A field

Remarks The A field carries signaling data (48 bits) and error correction (16 bits).

:RFPART:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:DUMM2:P

Supported All with Option 402

```
[:SOURCE]:RADIO:DECT:RFPART:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:DUMM2:
```

```
P <val>
```

```
[:SOURCE]:RADIO:DECT:RFPART:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:DUMM2:P?
```

This command customizes the preamble (P) field for the selected dummy 2 timeslot in the radio fixed part link.

***RST** #HAAAA

Range #H0–#HFFFF

Key Entry P

Remarks N/A

:RFPART:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:DUMM2:S

Supported All with Option 402

```
[:SOURCE]:RADIO:DECT:RFPART:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:DUMM2:
```

```
S <val>
```

```
[:SOURCE]:RADIO:DECT:RFPART:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:DUMM2:S?
```

This command customizes the synchronization (S) field of the selected dummy 2 timeslot in the radio fixed part link.

***RST** #HE98A
Range #H0–#HFFFF
Key Entry S
Remarks N/A

:RFPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:DUMM[1]:A

Supported All with Option 402

```
[ :SOURCE ]:RADio:DECT:RFPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:DUMM[1]:  
A <val>  
[ :SOURCE ]:RADio:DECT:RFPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:DUMM[1]:A?
```

This command customizes the A field for the selected dummy 1 timeslot in the radio fixed part link.

***RST** #H0000FFFF0000FFFF
Range #H0–#HFFFFFFFFFFFFFFFFFFFF
Key Entry A field
Remarks The 64-bit A field carries signaling data (48 bits) and error correction (16 bits).

:RFPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:DUMM[1]:P

Supported All with Option 402

```
[ :SOURCE ]:RADio:DECT:RFPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:DUMM[1]:  
P <val>  
[ :SOURCE ]:RADio:DECT:RFPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:DUMM[1]:P?
```

This command customizes the preamble (P) field for the selected dummy 1 timeslot in the radio fixed part link.

***RST** #HAAAA
Range #H0–#HFFFF
Key Entry P
Remarks N/A

:RFPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:DUMM[1]:S

Supported All with Option 402

```
[:SOURce]:RADio:DECT:RFPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:DUMM[1]:
```

```
S <val>
```

```
[:SOURce]:RADio:DECT:RFPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:DUMM[1]:S?
```

This command customizes the synchronization (S) field of the selected dummy 1 timeslot in the radio fixed part link.

***RST** #HE98A

Range #H0–#HFFFF

Key Entry S

Remarks N/A

:RFPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:LCAPacity:A

Supported All with Option 402

```
[:SOURce]:RADio:DECT:RFPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:LCAPacity:
```

```
A <val>
```

```
[:SOURce]:RADio:DECT:RFPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:LCAPacity:A?
```

This command customizes the A field for the selected low-capacity timeslot in the radio fixed part link.

***RST** #H0000FFFF0000FFFF

Range #H0–#HFFFFFFFFFFFFFFFF

Key Entry A field

Remarks N/A

:RFPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:LCAPacity:P

Supported All with Option 402

```
[:SOURce]:RADio:DECT:RFPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:LCAPacity:
```

```
P <val>
```

```
[:SOURce]:RADio:DECT:RFPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:LCAPacity:P?
```

This command customizes the preamble (P) field of the selected low-capacity timeslot in the portable part link.

***RST** #HAAAA

Range #H0–#H1111
Key Entry P
Remarks N/A

:RFPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:LCAPacity:S

Supported All with Option 402

```
[:SOURCE]:RADio:DECT:RFPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:LCAPacity:
S <val>
[:SOURCE]:RADio:DECT:RFPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:LCAPacity:S?
```

This command customizes the synchronization pattern of the selected low-capacity timeslot in the portable part link.

***RST** #HE98A
Range #H0–#H1111
Key Entry S
Remarks N/A

:RFPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:LCAPacity[:B]

Supported All with Option 402

```
[:SOURCE]:RADio:DECT:RFPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:
LCAPacity[:B] PN9|PN11|PN15|PN20|PN23|FIX4|"<file name>"|EXT|FDEV1_HS|
FDEV1_FS|FDEV2_FS|FACCuracy|DM1|DM0|P4|P8|P16|P32|P64
[:SOURCE]:RADio:DECT:RFPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:
LCAPacity[:B]?
```

This command sets the data pattern for the B field of the selected portable part low-capacity timeslot.

***RST** PN9
Key Entry PN9 PN11 PN15 PN20 PN23 FIX4 User File Ext FDEV1_HS
 FDEV1_FS FDEV2_FS FACC DM1 DM0 4 1's & 4 0's
 8 1's & 8 0's 16 1's & 16 0's 32 1's & 32 0's 64 1's & 64 0's
Remarks Refer to “File Name Variables” on page 14 for information on the file name syntax.

:RFPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:LCAPacity[:B]:FIX4

Supported All with Option 402

```
[:SOURCE]:RADio:DECT:RFPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:  
LCAPacity[:B]:FIX4 <val>  
[:SOURCE]:RADio:DECT:RFPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:  
LCAPacity[:B]:FIX4?
```

This command sets the binary, 4-bit repeating sequence data pattern that is used in the selected radio fixed part low-capacity timeslot B field.

***RST** #B0000

Range #B0000–#B1111 or 0–15

Key Entry **FIX4**

Remarks FIX4 must already be defined as the data type.

:RFPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:LCAPacity:POWER

Supported All with Option 402

```
[:SOURCE]:RADio:DECT:RFPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:Power MAIN|  
DELTA  
[:SOURCE]:RADio:DECT:RFPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:Power?
```

This command defines the RF output power level for the selected timeslot.

MAIN This choice specifies RF output as the main power level.

DELTA This choice specifies RF output as the alternative power level.

***RST** MAIN

Key Entry **Timeslot Ampl Main Delta**

Remarks N/A

:RFPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:STATE

Supported All with Option 402

```
[:SOURCE]:RADio:DECT:RFPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:STATE ON|  
OFF|1|0  
[:SOURCE]:RADio:DECT:RFPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:STATE?
```

This command enables or disables the operating state of the selected timeslot in the

DECT Subsystem—Option 402 ([:SOURCE]:RADio:DECT)

radio fixed part.

***RST** *Timeslot 0: 1 Timeslots 1–11: 0*

Key Entry **Timeslot Off On**

Remarks N/A

:RFPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:TRAFfic:A

Supported All with Option 402

```
[ :SOURCE ] :RADio:DECT:RFPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:TRAFfic:
A <val>
```

```
[ :SOURCE ] :RADio:DECT:RFPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:TRAFfic:A?
```

This command customizes the A field for the selected traffic bearer timeslot in the portable part link.

***RST** #H0000FFFF0000FFFF

Range #H0–#HFFFFFFFFFFFFFFFF

Key Entry **A field**

Remarks The A field carries signaling data (48 bits) and error correction (16 bits).

:RFPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:TRAFfic:P

Supported All with Option 402

```
[ :SOURCE ] :RADio:DECT:RFPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:TRAFfic:
P <val>
```

```
[ :SOURCE ] :RADio:DECT:RFPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:TRAFfic:P?
```

This command customizes the preamble (P) field of the selected traffic bearer timeslot in the radio fixed part link.

***RST** #HAAAA

Range #H0–#HFFFF

Key Entry **P**

Remarks N/A

:RFPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:TRAFfic:S

Supported All with Option 402

```
[:SOURCE]:RADio:DECT:RFPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:TRAFfic:
S <val>
```

```
[:SOURCE]:RADio:DECT:RFPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:TRAFfic:S?
```

This command customizes the synchronization (S) field of the selected traffic bearer timeslot in the radio fixed part link.

***RST** #HE98A

Range #H0–#HFFFF

Key Entry S

Remarks N/A

:RFPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:TRAFfic[:B]

Supported All with Option 402

```
[:SOURCE]:RADio:DECT:RFPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:
TRAFfic[:B] PN9|PN11|PN15|PN20|PN23|FIX4|"<file name>"|EXT|FDEV1_HS|
FDEV1_FS|FDEV2_FS|FACCuracy|DM1|DM0|P4|P8|P16|P32|P64
[:SOURCE]:RADio:DECT:RFPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:TRAFfic[:B]?
```

This command sets the B field's data pattern for the selected traffic bearer timeslot in the radio fixed part during framed data transmission.

***RST** PN9

Key Entry PN9 PN11 PN15 PN20 PN23 FIX4 User File Ext FDEV1_HS
 FDEV1_FS FDEV2_FS FACC DM1 DM0 4 1's & 4 0's
 8 1's & 8 0's 16 1's & 16 0's 32 1's & 32 0's 64 1's & 64 0's

Remarks Refer to “File Name Variables” on page 14 for information on the file name syntax.

:RFPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:TRAFfic[:B]:FIX4

Supported All with Option 402

```
[:SOURCE]:RADio:DECT:RFPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:TRAFfic[:B]:FIX4 <val>  
[:SOURCE]:RADio:DECT:RFPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:TRAFfic[:B]:FIX4?
```

This command sets the binary, 4-bit repeating sequence data pattern that is used in the selected radio fixed part traffic bearer timeslot B field.

***RST** #B0000

Range #B0000–#B1111 or 0–15

Key Entry **FIX4**

Remarks FIX4 must already be defined as the data type, refer to “:RFPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:TRAFfic[:B]” on page 581.

:RFPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:ZLCapacity:A

Supported All with Option 402

```
[:SOURCE]:DECT:RFPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:ZLCapacity:A <val>  
[:SOURCE]:RADio:DECT:RFPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:ZLCapacity:A?
```

This command customizes the A field for the selected low-capacity with Z field timeslot in the radio fixed part link. The A field carries signaling data (48 bits) and error correction (16 bits).

***RST** #H0000FFFF0000FFFF

Range #H0–#HFFFFFFFFFFFFFFFF

Key Entry **A field**

Remarks N/A

:RFPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:ZLCapacity:P

Supported All with Option 402

```
[:SOURce]:RADio:DECT:RFPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:ZLCapacity:  
P <val>
```

```
[:SOURce]:RADio:DECT:RFPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:ZLCapacity:  
P?
```

This command customizes the preamble (P) field of the selected low-capacity with Z field timeslot in the radio fixed part link.

***RST** #HAAAA

Range #H0–#HFFFF

Key Entry P

Remarks N/A

:RFPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:ZLCapacity:S

Supported All with Option 402

```
[:SOURce]:RADio:DECT:RFPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:ZLCapacity:  
S <val>
```

```
[:SOURce]:RADio:DECT:RFPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:ZLCapacity:  
S?
```

This command customizes the synchronization (S) field of the selected low-capacity with Z field timeslot in the radio fixed part link.

***RST** #HE98A

Range #H0–#HFFFF

Key Entry S

Remarks N/A

:RFPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:ZLCapacity[:B]

Supported All with Option 402

```
[:SOURCE]:RADio:DECT:RFPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:
ZLCapacity[:B] PN9|PN11|PN15|PN20|PN23|FIX4|"<file name>"|EXT|FDEV1_HS|
FDEV1_FS|FDEV2_FS|FACCuracy|DM1|DM0|P4|P8|P16|P32|P64
[:SOURCE]:RADio:DECT:RFPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:
ZLCapacity[:B]?
```

This command sets the B field’s data pattern for the selected low-capacity with Z field timeslot in the radio fixed part during framed data transmission.

***RST** PN9

Key Entry PN9 PN11 PN15 PN20 PN23 FIX4 User File Ext FDEV1_HS
 FDEV1_FS FDEV2_FS FACC DM1 DM0 4 1’s & 4 0’s
 8 1’s & 8 0’s 16 1’s & 16 0’s 32 1’s & 32 0’s 64 1’s & 64 0’s

Remarks Refer to “File Name Variables” on page 14 for information on the file name syntax.

:RFPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:ZLCapacity[:B]:FIX4

Supported All with Option 402

```
[:SOURCE]:RADio:DECT:RFPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:
ZLCapacity[:B]:FIX4 <val>
[:SOURCE]:RADio:DECT:RFPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:
ZLCapacity[:B]:FIX4?
```

This command sets the binary, 4-bit repeating sequence data pattern that is used in the selected radio fixed part low-capacity with Z field timeslot B field.

***RST** #B0000

Range #B0000–#B1111 or 0–15

Key Entry FIX4

Remarks FIX4 must already be defined as the data type.

:RFPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:ZTRaffic:A

Supported All with Option 402

```
[:SOURce]:RADio:DECT:RFPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:ZTRaffic:  
A <val>
```

```
[:SOURce]:RADio:DECT:RFPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:ZTRaffic:A?
```

This command customizes the A field for the selected traffic bearer timeslot in the radio fixed part link. The A field carries signaling data (48 bits) and error correction (16 bits).

***RST** #H000FFFF0000FFFF

Range #H0–#HFFFFFFFFFFFFFFFF

Key Entry A field

Remarks N/A

:RFPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:ZTRaffic:P

Supported All with Option 402

```
[:SOURce]:RADio:DECT:RFPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:ZTRaffic:  
P <val>
```

```
[:SOURce]:RADio:DECT:RFPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:ZTRaffic:P?
```

This command customizes the preamble (P) field of the selected traffic bearer with Z field timeslot in the radio fixed part link.

***RST** #HAAAA

Range #H0–#HFFFF

Key Entry P

Remarks N/A

:RFPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:ZTRaffic:S

Supported All with Option 402

```
[:SOURce]:RADio:DECT:RFPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:ZTRaffic:  
S <val>
```

```
[:SOURce]:RADio:DECT:RFPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:ZTRaffic:S?
```

This command customizes the synchronization (S) field of the selected traffic bearer with Z field timeslot in the radio fixed part link.

***RST** #HE98A

Range #H0–#HFFFF
Key Entry S
Remarks N/A

:RFPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:ZTRaffic[:B]

Supported All with Option 402

```
[:SOURCE]:RADio:DECT:RFPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:
ZTRaffic[:B] PN9|PN15|FIX4|"<file name>"|EXT|FDEV1_HS|FDEV1_FS|
FDEV2_FS|FACCuracy|DM1|DM0|P4|P8|P16|P32|P64
[:SOURCE]:RADio:DECT:RFPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:
ZTRaffic[:B]?
```

This command sets the B field data pattern for the selected traffic bearer with Z field timeslot in the portable part link.

***RST** PN9
Key Entry PN9 PN11 PN15 PN20 PN23 FIX4 User File Ext FDEV1_HS
 FDEV1_FS FDEV2_FS FACC DM1 DM0 4 1's & 4 0's
 8 1's & 8 0's 16 1's & 16 0's 32 1's & 32 0's 64 1's & 64 0's
Remarks Refer to “File Name Variables” on page 14 for information on the file name syntax.

:RFPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:ZTRaffic[:B]:FIX4

Supported All with Option 402

```
[:SOURCE]:RADio:DECT:RFPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:
ZTRaffic[:B]:FIX4 <val>
[:SOURCE]:RADio:DECT:RFPart:SLOT0|[1]|2|3|4|5|6|7|8|9|10|11:
ZTRaffic[:B]:FIX4?
```

This command sets the binary, 4-bit repeating sequence data pattern that is used in the selected radio fixed part traffic bearer with Z field timeslot B field.

***RST** #B0000
Range #B0000–#B1111 or 0–15
Key Entry FIX4
Remarks FIX4 must already be defined as the data type.

:SECOndary:RECall

Supported All with Option 402

[:SOURCE]:RADio:DECT:SECOndary:RECall

This command recalls the secondary frame configuration, overwriting the current state.

***RST** N/A

Range N/A

Key Entry **Recall Secondary Frame State**

Remarks To save a secondary frame state, refer to “:SECOndary:SAVE” on page 587.

A secondary frame is not active until the secondary state is enabled. To activate a secondary frame, refer to “:SECOndary[:STATe]” on page 588.

:SECOndary:SAVE

Supported All with Option 402

[:SOURCE]:RADio:DECT:SECOndary:SAVE

This command saves the current frame configuration as the secondary frame with the filename DECT_SECONDARY_FRAME.

***RST** N/A

Range N/A

Key Entry **Save Secondary Frame State**

Remarks To recall the secondary frame (saved in non-volatile signal generator memory), refer to “:SECOndary:RECall” on page 587.

:SECOndary:TRIGger[:SOURCE]

Supported All with Option 402

[:SOURCE]:RADio:DECT:SECOndary:TRIGger[:SOURCE] KEY|EXT|BUS

[:SOURCE]:RADio:DECT:SECOndary:TRIGger[:SOURCE] ?

This command selects the type of triggering for the secondary frame.

KEY This choice enables triggering by pressing the front panel **Trigger** hardkey.

DECT Subsystem—Option 402 ([:SOURce]:RADio:DECT)

EXT	This choice enables triggering using an externally applied signal at the PATT TRIG IN rear panel connector or the PATT TRIG IN 2 pin on the rear panel AUX I/O connector. To select the appropriate connector, refer to “:TRIGger[:SOURce]:EXTernal[:SOURce]” on page 593.		
BUS	This choice enables GPIB triggering using the *TRG or GET command or LAN and RS-232 triggering using the *TRG command.		
*RST	N/A		
Key Entry	Trigger Key	Ext	Bus
Remarks	N/A		

:SECOndary[:STATe]

Supported All with Option 402

```
[:SOURce]:RADio:DECT:SECOndary[:STATe] ON|OFF|1|0
[:SOURce]:RADio:DECT:SECOndary[:STATe]?
```

This command enables or disables the ability to switch to the secondary frame.

***RST** 0

Key Entry **Secondary Frame Off On**

Remarks A frame must already be saved as the secondary frame in order to turn the secondary state function on.

To save a frame as the secondary frame, refer to “:SECOndary:SAVE” on page 587.

:SOUT

Supported All with Option 402

```
[:SOURce]:RADio:DECT:SOUT FRAME|SLOT|ALL
[:SOURce]:RADio:DECT:SOUT?
```

This command sets the synchronization location (within the pattern of data) and the type of output at the EVENT 1 rear panel connector.

FRAME This choice outputs a 1-bit signal, synchronized to the bit selected by the synchronization output offset command, for a framed data pattern.

SLOT This choice outputs a 1-bit signal, synchronized to the bit selected by the synchronization output offset command, for a selected timeslot.

ALL This choice outputs a 1-bit signal, synchronized to the bit selected by the

synchronization output offset command, for all active timeslots.

*RST	FRAME		
Key Entry	Begin Frame	Begin Timeslot #	All Timeslots
Remarks	N/A		

:SOUT:OFFSet

Supported All with Option 402

```
[:SOURCE]:RADio:DECT:SOUT:OFFSet <val>
[:SOURCE]:RADio:DECT:SOUT:OFFSet?
```

This command sets the offset value for the location of the output synchronization signal on the EVENT1 rear panel connector relative to the beginning of the framed data pattern or timeslot.

The variable <val> is expressed in bits.

*RST	+0
Range	–479 to 479
Key Entry	Sync Out Offset
Remarks	Negative values move the synchronization output signal earlier; positive values move it later.
	To change the output of the EVENT1 rear panel connector to SLOT, refer to “:SOUT” on page 588 .

:SOUT:SLOT

Supported All with Option 402

```
[:SOURCE]:RADio:DECT:SOUT:SLOT <val>
[:SOURCE]:RADio:DECT:SOUT:SLOT?
```

This command selects the timeslot that will trigger a 1-bit signal at the EVENT 1 rear panel connector.

*RST	+1
Range	<i>Radio Fixed Part Link:</i> 0–12 <i>Portable Part Link:</i> 1–11
Key Entry	Begin Timeslot #
Remarks	To change the output of the EVENT1 rear panel connector to SLOT, refer to “:SOUT” on page 588 .

:SRATe

Supported All with Option 402

```
[:SOURCE]:RADio:DECT:SRATe <val>
[:SOURCE]:RADio:DECT:SRATe?
```

This command sets the transmission symbol rate.

The variable <val> is expressed in units of bits per second (bps–Mbps) and the maximum range value is dependent upon the source of data (internal or external), the modulation type, and filter.

***RST** +1.15200000E+006

Range

<i>Modulation Type</i>	<i>Bits per Symbol</i>	<i>Internal Data</i>	<i>External Serial Data</i>
BPSK	1	1–50 Msps	1–50 Msps
FSK2			
MSK			
C4FM	2	1–50 Msps	1–25 Msps
FSK4			
OQPSK			
OQPSK195			
P4QPPSK			
QAM4			
QPSK			
QPSKIS95			
QPSKISAT			
D8PSK			
EDGE			
FSK8			
PSK8			
FSK16	4	1–25 Msps	1–12.5 Msps
PSK16			
QAM16			
QAM32	5	1–20 Msps	1–10 Msps
QAM64	6	1–16.67 Msps	1–8.33 Msps
QAM256	7	1–12.50 Msps	1–6.25 Msps

Key Entry Symbol Rate

Remarks When user-defined filters are selected using the command in section “:FILTer” on page 558, the upper bit rate will be restricted in line with the following symbol rate restriction:

- FIR filter length > 32 symbols: upper limit is 12.5 Msps

- FIR filter length > 16 symbols: upper limit is 25 Msps

When internal FIR filters are used, the limits of the above table always apply. For higher symbol rates, the FIR filter length will be truncated as follows:

- Above 12.5 Msps, the FIR length will be truncated to 32 symbols
- Above 25 Msps, the FIR length will be truncated to 16 symbols

This will impact the relative timing of the modulated data, as well as the actual filter response (see “:BRATe” on page 547).

A change in the symbol rate value will affect the bit rate value; refer to “:BRATe” on page 547 for a list of the minimum and maximum symbol rate values.

To change the modulation type, refer to “:MODulation[:TYPE]” on page 561.

:TRIGger:TYPE

Supported All with Option 402

```
[:SOURCE]:RADio:DECT:TRIGger:TYPE CONTinuous|SINGLE|GATE
[:SOURCE]:RADio:DECT:TRIGger:TYPE?
```

This command sets the trigger type.

CONTinuous The framed data sequence repeats continuously; the sequence restarts every time the previous playback is completed. To customize continuous triggering, refer to “:TRIGger:TYPE:CONTinuous[:TYPE]” on page 592.

SINGLE The framed data sequence plays once for every trigger received.

GATE An external trigger signal interrupts the playback while the gating signal is in the inactive state. Playback resumes when the external control signal returns to the active state. The active state can be set to high or low.

***RST** CONT

Key Entry Continuous Single Gated

Remarks N/A

:TRIGger:TYPE:CONTInuous[:TYPE]

Supported All with Option 402

```
[ :SOURCE ] :RADio:DECT:TRIGger:TYPE:CONTInuous [ :TYPE ] FREE | TRIGger | RESet  
[ :SOURCE ] :RADio:DECT:TRIGger:TYPE:CONTInuous [ :TYPE ] ?
```

This command customizes the continuous trigger selection.

FREE This choice immediately transmits a framed data sequence that is continuously repeated.

TRIGger This choice causes the framed data sequence to wait for a trigger. Once a trigger is received, the transmission of a continuously repeated framed data sequence begins.

RESet This choice immediately restarts a continuously repeated framed data sequence upon receiving a trigger.

***RST** FREE

Key Entry Free Run Trigger & Run Reset & Run

Remarks To select CONTInuous as the trigger type, refer to “:TRIGger:TYPE” on page 591.

:TRIGger:TYPE:GATE:ACTive

Supported All with Option 402

```
[ :SOURCE ] :RADio:DECT:TRIGger:TYPE:GATE:ACTive LOW | HIGH  
[ :SOURCE ] :RADio:DECT:TRIGger:TYPE:GATE:ACTive ?
```

This command toggles the polarity of the active state of the external gating input signal; GATE must be selected as the arb trigger type.

LOW The sequence runs while the selected external control gating signal is low and restarts when the gate returns to the high level.

HIGH The sequence runs while the selected external control gating signal is high and restarts when the gate returns to the low level.

***RST** HIGH

Key Entry Gate Active Low High

Remarks To select GATE as the ARB trigger type, refer to “:TRIGger:TYPE” on page 591.

:TRIGger[:SOURce]

Supported All with Option 402

```
[ :SOURce ] :RADio:DECT:TRIGger [ :SOURce ] KEY | EXT | BUS
[ :SOURce ] :RADio:DECT:TRIGger [ :SOURce ] ?
```

This command sets the trigger source.

- KEY** This choice enables triggering by pressing the front panel **Trigger** hardkey.
- EXT** This choice enables triggering using an externally applied signal at the PATT TRIG IN rear panel connector or the PATT TRIG IN 2 pin on the rear panel AUX I/O connector. To select the appropriate connector, refer to [“:TRIGger\[:SOURce\]:EXTernal\[:SOURce\]” on page 593](#).
- BUS** This choice enables GPIB triggering using the *TRG or GET command or LAN and RS-232 triggering using the *TRG command.

***RST** KEY

Key Entry	Trigger Key	Ext	Bus
------------------	--------------------	------------	------------

Remarks N/A

:TRIGger[:SOURce]:EXTernal[:SOURce]

Supported All with Option 402

```
[ :SOURce ] :RADio:DECT:TRIGger [ :SOURce ] :EXTernal [ :SOURce ] EPT1 | EPT2 |
EPTRIGGER1 | EPTRIGGER2
[ :SOURce ] :RADio:DECT:TRIGger [ :SOURce ] :EXTernal [ :SOURce ] ?
```

This command specifies which PATT TRIG IN connection, rear panel connector or AUX I/O connector, will be used to accept an externally applied trigger signal.

- EPT1** This choice is synonymous with EPTRIGGER1 and selects the PATT TRIG IN rear panel connector for the external signal connection.
- EPT2** This choice is synonymous with EPTRIGGER2 and selects the PATT TRIG IN 2 pin on the rear panel AUX I/O connector for the external signal connection.
- EPTRIGGER1** This choice is synonymous with EPT1 and selects the PATT TRIG IN rear panel connector for the external signal connection.
- EPTRIGGER2** This choice is synonymous with EPT2 and selects the PATT TRIG IN 2 pin on the rear panel AUX I/O connector for the external signal connection.

DECT Subsystem—Option 402 (:SOURCE):RADio:DECT)

*RST	EPT1
Key Entry	Patt Trig In 1 Patt Trig In 2
Remarks	This command is effective only if an external trigger is selected as the trigger source. Refer to “:TRIGger[:SOURCE]” on page 593. For more information about the rear panel AUX I/O connector pin configuration, refer to the <i>User’s Guide</i> .

:TRIGger[:SOURCE]:EXTernal:DELAy

Supported All with Option 402

```
[ :SOURCE ] :RADio:DECT:TRIGger [ :SOURCE ] :EXTernal:DELAy <val>
[ :SOURCE ] :RADio:DECT:TRIGger [ :SOURCE ] :EXTernal:DELAy?
```

This command specifies the number of delay bits for the external trigger delay.

The variable <val> is expressed in bits.

*RST	+0
Range	0–1048576
Key Entry	Ext Delay Bits
Remarks	This command is effective only if an external trigger is selected as the trigger source. Refer to “:TRIGger[:SOURCE]” on page 593.

:TRIGger[:SOURCE]:EXTernal:SLOPe

Supported All with Option 402

```
[ :SOURCE ] :RADio:DECT:TRIGger [ :SOURCE ] :EXTernal:SLOPe POSitive|NEGative
[ :SOURCE ] :RADio:DECT:TRIGger [ :SOURCE ] :EXTernal:SLOPe?
```

This command sets the polarity for the external trigger.

*RST	NEG
Key Entry	Ext Polarity Neg Pos
Remarks	This command is effective only if an external trigger is selected as the trigger source. Refer to “:TRIGger[:SOURCE]” on page 593.

:TRIGger[:SOURce]:EXTernal:DELay:STATe

Supported All with Option 402

```
[:SOURce]:RADio:DECT:TRIGger[:SOURce]:EXTernal:DELay:STATe ON|OFF|1|0  
[:SOURce]:RADio:DECT:TRIGger[:SOURce]:EXTernal:DELay:STATe?
```

This command enables or disables the operating state of the external trigger delay function.

***RST** 0

Key Entry Ext Delay Off On

Remarks This command is effective only if an external trigger is selected as the trigger source. Refer to “:TRIGger[:SOURce]” on page 593.

[:STATe]

Supported All with Option 402

```
[:SOURce]:RADio:DECT[:STATe] ON|OFF|1|0  
[:SOURce]:RADio:DECT[:STATe]?
```

This command enables or disables the DECT modulation format.

***RST** 0

Key Entry Dect Off On

Remarks Although the DECT modulation is enabled with this command, the RF carrier is not modulated unless you enable the modulation by pressing the front panel **Mod On/Off** hardkey.

EDGE Subsystem–Option 402 ([:SOURce]:RADio:EDGE)

:ALPHa

Supported All with Option 402

```
[:SOURce]:RADio:EDGE:ALPHa <val>  
[:SOURce]:RADio:EDGE:ALPHa?
```

This command changes the Nyquist or root Nyquist filter’s alpha value.

The filter alpha value can be set to the minimum level (0), the maximum level (1), or in between by using fractional numeric values (0.001–0.999).

***RST** +5.00000000E–001

Range 0.000–1.000

Key Entry Filter Alpha

Remarks To change the current filter type, refer to “:FILTer” on page 607.

:BBCLock

Supported All with Option 402

```
[:SOURce]:RADio:EDGE:BBCLock INT[1] |EXT[1]  
[:SOURce]:RADio:EDGE:BBCLock?
```

This command toggles the data (bit) clock input to the baseband generator board to either internal or external. This command is independent in each mode and works for both non-burst (continuous) and burst modes. This allows for a matrix of selections between burst/non-burst, internal/external data generation, internal/external data clock, and external bit/symbol data clock.

INT[1] This choice selects the signal generator internal data clock.

EXT[1] This choice selects an external data clock input.

***RST** INT

Key Entry Ext Data Clock Ext Int

Remarks A data clock or continuous symbol sync input must be supplied when external mode is used.

This will be ignored if the external reference is set to EXTERNAL. To change the external reference type, refer to “:EREFERENCE” on page 606.

:BBT

Supported All with Option 402

```
[:SOURce]:RADio:EDGE:BBT <val>
[:SOURce]:RADio:EDGE:BBT?
```

This command changes the bandwidth-multiplied-by-bit-time (BbT) filter parameter.

The filter BbT value can be set to the maximum level (1) or in between the minimum level (0.100) and maximum level by using fractional numeric values (0.101–0.999).

***RST** +3.00000000E–001

Range 0.100–1.000

Key Entry **Filter BbT**

Remarks This command is effective only after choosing a Gaussian filter. It does not have an effect on other types of filters.

To change the current filter type, refer to “:FILTER” on page 607.

:BURSt:SHAPE:FALL:DELay

Supported All with Option 402

```
[:SOURce]:RADio:EDGE:BURSt:SHAPE:FALL:DELay <val>
[:SOURce]:RADio:EDGE:BURSt:SHAPE:FALL:DELay?
```

This command sets the period of time that the start of the burst fall is delayed.

The variable <val> is expressed in bits. The minimum and maximum values depend upon modulation type and symbol rate.

***RST** +0.00000000E+000

Range –16.2000 to 99

Key Entry **Fall Delay**

Remarks The setting enabled by this command is not affected by signal generator power-on, preset, or *RST.

To change the modulation type, refer to “:MODulation[:TYPE]” on page 610. Refer to “:SRATE” on page 624 for a list of minimum and

maximum symbol rate values.

“:BURSt:SHAPe:FDELaY” on page 598 performs the same function. In compliance with the SCPI standard, both commands are listed.

For concept information on burst shaping, refer to the *User’s Guide*.

:BURSt:SHAPe:FDELaY

Supported All with Option 402

```
[ :SOURCE ] :RADio:EDGE:BURSt:SHAPe:FDELaY <val>
[ :SOURCE ] :RADio:EDGE:BURSt:SHAPe:FDELaY?
```

This command sets the period of time that the start of the burst fall is delayed.

The variable <val> is expressed in bits. The minimum and maximum values depend upon modulation type and symbol rate.

***RST** +0.00000000E+000

Range –16.2000 to 99

Key Entry Fall Delay

Remarks The setting enabled by this command is not affected by signal generator power-on, preset, or *RST.

To change the modulation type, refer to “:MODulation[:TYPE]” on page 610. Refer to “:SRATE” on page 624 for a list of minimum and maximum symbol rate values.

“:BURSt:SHAPe:FALL:DELaY” on page 597 performs the same function. In compliance with the SCPI standard, both commands are listed.

For concept information on burst shaping, refer to the *User’s Guide*.

:BURSt:SHAPe:FALL:TIME

Supported All with Option 402

```
[ :SOURCE ] :RADio:EDGE:BURSt:SHAPe:FALL:TIME <val>
[ :SOURCE ] :RADio:EDGE:BURSt:SHAPe:FALL:TIME?
```

This command sets the period of time where the burst decreases from full power to minimum power.

The variable <val> is expressed in bits. The minimum and maximum values depend

upon modulation type and symbol rate.

***RST** +1.00000000E+001

Range 0.2000–409.2000

Key Entry **Fall Time**

Remarks The setting enabled by this command is not affected by signal generator power-on, preset, or *RST.

To change the modulation type, refer to “:MODulation[:TYPE]” on page 610. Refer to “:SRATE” on page 624 for a list of minimum and maximum symbol rate values.

“:BURSt:SHAPe:FTIME” on page 599 performs the same function. In compliance with the SCPI standard, both commands are listed.

For concept information on burst shaping, refer to the *User’s Guide*.

:BURSt:SHAPe:FTIME

Supported All with Option 402

[:SOURce] :RADio :EDGE :BURSt :SHAPe :FTIME <val>

[:SOURce] :RADio :EDGE :BURSt :SHAPe :FTIME?

This command sets the period of time where the burst decreases from full power to minimum power.

The variable <val> is expressed in bits. The minimum and maximum values depend upon modulation type and symbol rate.

***RST** +0.00000000E+000

Range 0.2000–409.2000

Key Entry **Fall Time**

Remarks The setting enabled by this command is not affected by signal generator power-on, preset, or *RST.

To change the modulation type, refer to “:MODulation[:TYPE]” on page 610. Refer to “:SRATE” on page 624 for a list of minimum and

maximum symbol rate values.

“:BURSt:SHAPe:FALL:TIME” on page 598 performs the same function. In compliance with the SCPI standard, both commands are

listed.

For concept information on burst shaping, refer to the *User's Guide*.

:BURSt:SHAPE:RDELay

Supported All with Option 402

```
[:SOURce]:RADio:EDGE:BURSt:SHAPE:RDELay <val>  
[:SOURce]:RADio:EDGE:BURSt:SHAPE:RDELay?
```

This command sets the period of time that the start of the burst rise is delayed.

The variable <val> is expressed in bits. The minimum and maximum values depend upon modulation type and symbol rate.

***RST** +0.00000000E+000

Range -7.2000 to 99

Key Entry Rise Delay

Remarks The setting enabled by this command is not affected by signal generator power-on, preset, or *RST.

To change the modulation type, refer to “:MODulation[:TYPE]” on page 610. Refer to “:SRATE” on page 624 for a list of minimum and maximum symbol rate values.

“:BURSt:SHAPE:RISE:DELay” on page 600 performs the same function. In compliance with the SCPI standard, both commands are listed.

For concept information on burst shaping, refer to the *User's Guide*.

:BURSt:SHAPE:RISE:DELay

Supported All with Option 402

```
[:SOURce]:RADio:EDGE:BURSt:SHAPE:RISE:DELay <val>  
[:SOURce]:RADio:EDGE:BURSt:SHAPE:RISE:DELay?
```

This command sets the period of time that the start of the burst rise is delayed.

The variable <val> is expressed in bits. The minimum and maximum values depend upon modulation type and symbol rate.

***RST** +0.00000000E+000

Range -7.2000 to 99

Key Entry **Rise Delay**

Remarks The setting enabled by this command is not affected by signal generator power-on, preset, or *RST.

To change the modulation type, refer to “:MODulation[:TYPE]” on page 610. Refer to “:SRATE” on page 624 for a list of minimum and maximum symbol rate values.

“:BURSt:SHAPE:RDElay” on page 600 performs the same function. In compliance with the SCPI standard, both commands are listed.

For concept information on burst shaping, refer to the *User’s Guide*.

:BURSt:SHAPE:RISE:TIME

Supported All with Option 402

```
[:SOURce]:RADio:EDGE:BURSt:SHAPE:RISE:TIME <val>  
[:SOURce]:RADio:EDGE:BURSt:SHAPE:RISE:TIME?
```

This command sets the period of time where the burst increases from a minimum power to full power.

The variable <val> is expressed in bits. The minimum and maximum values depend upon modulation type and symbol rate.

***RST** +1.00000000E+001

Range 0.2000–16.4000

Key Entry **Rise Time**

Remarks The setting enabled by this command is not affected by signal generator power-on, preset, or *RST.

To change the modulation type, refer to “:MODulation[:TYPE]” on page 610. Refer to “:SRATE” on page 624 for a list of minimum and maximum symbol rate values.

“:BURSt:SHAPE:RTIME” on page 602 performs the same function. In compliance with the SCPI standard, both commands are listed.

For concept information on burst shaping, refer to the *User’s Guide*.

:BURSt:SHAPe:RTIME

Supported All with Option 402

```
[ :SOURCE ] :RADio:EDGE:BURSt:SHAPe:RTIME <val>  
[ :SOURCE ] :RADio:EDGE:BURSt:SHAPe:RTIME?
```

This command sets the period of time where the burst increases from a minimum power to full power.

The variable <val> is expressed in bits. The minimum and maximum values depend upon modulation type and symbol rate.

***RST** +1.00000000E+001

Range 0.2000–16.4000

Key Entry **Rise Time**

Remarks The setting enabled by this command is not affected by signal generator power-on, preset, or *RST.

To change the modulation type, refer to “:MODulation[:TYPE]” on page 610. Refer to “:SRATE” on page 624 for a list of minimum and maximum symbol rate values.

“:BURSt:SHAPe:RISE:TIME” on page 601 performs the same function. In compliance with the SCPI standard, both commands are listed.

For concept information on burst shaping, refer to the *User’s Guide*.

:BURSt:SHAPe[:TYPE]

Supported All with Option 402

```
[ :SOURCE ] :RADio:EDGE:BURSt:SHAPe[:TYPE] SINE | "<file name>"  
[ :SOURCE ] :RADio:EDGE:BURSt:SHAPe[:TYPE] ?
```

This command sets the burst shape type.

SINE This choice selects a burst shape defined by the burst rise and fall *RST values.

"<file name>" This choice selects a user-defined file from signal generator memory.

***RST** SINE

Key Entry **Sine User File**

Remarks Refer to “File Name Variables” on page 14 for information on the file

name syntax.

:BURSt[:STATe]

Supported All with Option 402

```
[:SOURCE]:RADIO:EDGE:BURSt[:STATe] ON|OFF|1|0
[:SOURCE]:RADIO:EDGE:BURSt[:STATe]?
```

This command enables or disables the burst function.

ON (1) This choice enables the transmission of framed data. If all timeslots which are switched on are up traffic channels or custom, you will be bursting the timeslots that are on; there will be no RF carrier during the off timeslots.

If you have switched on any timeslot that you have configured as a down traffic channel, the RF carrier is not switched off between any of the timeslots. The off timeslots are transmitted as a continuous series of ones for the time period of the off timeslots.

OFF (0) This choice enables the transmission of unframed data.

***RST** 0

Key Entry **Data Format Pattern Framed**

Remarks N/A

:CHANnel

Supported All with Option 402

```
[:SOURCE]:RADIO:EDGE:CHANnel EVM|ACP
[:SOURCE]:RADIO:EDGE:CHANnel?
```

This command optimizes the Nyquist and root Nyquist filters to minimize error vector magnitude (EVM) or to minimize adjacent channel power (ACP).

EVM This choice provides the most ideal passband.

ACP This choice improves stopband rejection.

***RST** ACP

Key Entry **Optimize FIR For EVM ACP**

Remarks To change the current filter type, refer to “:FILTer” on page 607.

:DATA

Supported All with Option 402

```
[:SOURCE]:RADio:EDGE:DATA PN9|PN11|PN15|PN20|PN23|FIX4|"<file name>"|EXT|
P4|P8|P16|P32|P64
[:SOURCE]:RADio:EDGE:DATA?
```

This command sets the data pattern type (pseudo-random number sequence, 4-bit pattern, sequence of 1's and 0's, data from an external source, or a user file) for unframed data transmission.

***RST** PN9

Key Entry	PN9	PN11	PN15	PN20	PN23	FIX4	User File	Ext
	4 1's & 4 0's	8 1's & 8 0's	16 1's & 16 0's	16 1's & 16 0's	32 1's & 32 0's			
	64 1's & 64 0's							

Remarks Refer to “File Name Variables” on page 14 for information on the file name syntax.

:DATA:FIX4

Supported All with Option 402

```
[:SOURCE]:RADio:EDGE:DATA:FIX4 <val>
[:SOURCE]:RADio:EDGE:DATA:FIX4?
```

This command sets the binary, 4-bit repeating sequence data pattern for unframed transmission according to the modulation type, symbol rate, filter, and burst shape selected for the EDGE modulation format.

***RST** #B0000

Range #B0000–#B1111 or 0–15

Key Entry **FIX4**

Remarks FIX4 must already be defined as the data type.
 To change the data type, refer to “:DATA” on page 604.

:DEFault

Supported All with Option 402

```
[:SOURCE]:RADio:EDGE:DEFault
```

This command returns all of the EDGE modulation format parameters to factory

settings. It does not affect any other signal generator parameters.

*RST	N/A
Range	N/A
Key Entry	Restore EDGE Factory Default
Remarks	N/A

:EDATa:DELay

Supported All with Option 402

`[:SOURce]:RADio:EDGE:EDATa:DELay?`

This query returns the amount of delay (in symbols) from the external data input to the beginning of the symbol on the I OUT and Q OUT rear panel connectors and the front panel RF OUTPUT connector.

*RST	+0.00000000E+000
Range	N/A
Key Entry	N/A
Remarks	When the EDGE format is turned off, the delay value is unchanged; the query will return the same delay value if the format is on or off.

:EDCLock

Supported All with Option 402

`[:SOURce]:RADio:EDGE:EDCLock SYMBol|NORMal`
`[:SOURce]:RADio:EDGE:EDCLock?`

This command sets the external data clock use.

- SYMBol** This choice specifies that a continuous symbol clock signal must be provided to the SYMBOL SYNC input connector.
- NORMal** This choice specifies that the DATA CLOCK input connector requires a bit clock. The SYMBOL SYNC input connector requires a (one-shot or continuous) symbol sync signal.

*RST	NORM
Key Entry	Ext Data Clock Normal Symbol
Remarks	Both choices have no effect in internal clock mode. Refer to “:BBCLock”

on page 596 to select EXT as the data clock type.

:EREFerence

Supported All with Option 402

```
[ :SOURce ] :RADio:EDGE:EREFerence INT|EXT  
[ :SOURce ] :RADio:EDGE:EREFerence?
```

This command selects either an internal or external bit-clock reference for the data generator.

***RST** INT

Key Entry **BBG Ref Ext Int**

Remarks If the EXT choice is selected, the external source’s frequency value must be applied to the BASEBAND GEN REF IN rear panel connector. The external reference and external data clock are not applicable at the same time. If both are selected, then the external reference takes precedence.

Refer to “:EREFerence:VALue” on page 606 to enter the external reference frequency setting.

:EREFerence:VALue

Supported All with Option 402

```
[ :SOURce ] :RADio:EDGE:EREFerence:VALue <val>  
[ :SOURce ] :RADio:EDGE:EREFerence:VALue?
```

This command sets the expected bit-clock reference frequency value for an externally applied reference signal.

The variable <val> is expressed in units of hertz (Hz–MHz).

***RST** +1.30000000E+007

Range 2.5E5–1E8

Key Entry **Ext BBG Ref Freq**

Remarks The value specified by this command is effective only when you are using an external reference applied to the BASEBAND GEN REF IN rear panel connector.

Refer to “:EREFerence” on page 606 to select EXT (external source) as the reference for the bit-clock.

:FILTER

Supported All with Option 402

```
[:SOURCE]:RADIO:EDGE:FILTER RNYquist|NYquist|GAUSSian|RECTangle|IS95|
IS95_EQ|IS95_MOD|IS95_MOD_EQ|EDGE|AC4Fm|UGGaussian|"<user FIR>"
[:SOURCE]:RADIO:EDGE:FILTER?
```

This command selects the pre-modulation filter type.

IS95	This choice selects a filter that meets the criteria of the IS-95 standard.
IS95_EQ	This choice selects a filter which is a combination of the IS-95 filter (above) and the equalizer filter described in the IS-95 standard. This filter is only used for IS-95 baseband filtering.
IS95_MOD	This choice selects a filter that meets the criteria of the IS-95 error function (for improved adjacent channel performance) with lower passband rejection than the filter specified in the IS-95 standard.
IS95_MOD_EQ	This choice selects a filter which is a combination of the equalizer filter described in the IS-95 standard and a filter that meets the criteria of the IS-95 error function (for improved adjacent channel performance), with lower passband rejection.
EDGE	This choice selects Laurant's decomposition of a Gaussian filter with a 0.300 fixed BbT.
AC4Fm	This choice selects a predefined Association of Public Safety Communications Officials (APCO) specified compatible 4-level frequency modulation (C4FM) filter.
UGGaussian	This choice selects a backwards compatible GSM Gaussian filter (Gaussian filter with a fixed BbT value of 0.300) for the ESG E44xxB Option UN3 or UN4.
"<user FIR>"	This variable is any filter file that you have stored into memory.
*RST	EDGE
Key Entry	Root Nyquist Nyquist Gaussian Rectangle IS-95 IS-95 w/EQ IS-95 Mod IS-95 Mod w/EQ EDGE APCO 25 C4FM UN3/4 GSM Gaussian User FIR
Remarks	Refer to "File Name Variables" on page 14 for information on the file name syntax.

:IQ:SCALe

Supported All with Option 402

```
[ :SOURCE ] :RADio:EDGE:IQ:SCALe <val>  
[ :SOURCE ] :RADio:EDGE:IQ:SCALe?
```

This command sets the amplitude of the I/Q outputs for better adjacent channel power (ACP); lower scaling values equate to better ACP.

The variable <val> is expressed in units of percent.

***RST** +113

Range 1–200

Key Entry I/Q Scaling

Remarks This command has no effect with MSK or FSK modulation.

:MODulation:FSK[:DEViation]

Supported All with Option 402

```
[ :SOURCE ] :RADio:EDGE:MODulation:FSK[:DEViation] <val>  
[ :SOURCE ] :RADio:EDGE:MODulation:FSK[:DEViation]?
```

This command sets the symmetric FSK frequency deviation value.

The variable <val> is expressed in units of Hertz and the maximum range value equals the current symbol rate value multiplied by four, limited to 20 MHz.

***RST** +4.00000000E+002

Range 0–2E7

Key Entry Freq Dev

Remarks To change the modulation type, refer to “:MODulation[:TYPE]” on [page 610](#).

Refer to “:SRATe” on [page 624](#) for a list of minimum and maximum symbol rate values.

To set an asymmetric FSK deviation value, refer to the *User’s Guide* for more information.

:MODulation:MSK[:PHASe]

Supported All with Option 402

```
[ :SOURce ] :RADio:EDGE:MODulation:MSK[:PHASe] <val>  
[ :SOURce ] :RADio:EDGE:MODulation:MSK[:PHASe] ?
```

This command sets the MSK phase deviation value.

The variable <val> is expressed in units of degrees.

***RST** +9.00000000E+001

Range 0–100

Key Entry Phase Dev

Remarks N/A

:MODulation:UFSK

Supported All with Option 402

```
[ :SOURce ] :RADio:EDGE:MODulation:UFSK "<file name>"  
[ :SOURce ] :RADio:EDGE:MODulation:UFSK ?
```

This command selects a user-defined FSK file from the signal generator memory.

***RST** N/A

Range N/A

Key Entry User FSK

Remarks The user-defined FSK file is held in signal generator memory until the command that selects user FSK as the modulation type is sent. Refer to “[:MODulation\[:TYPE\]](#)” on [page 610](#) to change the current modulation type.

Refer to “File Name Variables” on [page 14](#) for information on the file name syntax.

:MODulation:UIQ

Supported All with Option 402

```
[:SOURCE]:RADio:EDGE:MODulation:UIQ "<file name>"
[:SOURCE]:RADio:EDGE:MODulation:UIQ?
```

This command selects a user-defined I/Q file from the signal generator memory.

***RST** N/A

Range N/A

Key Entry **User I/Q**

Remarks The user-defined I/Q file is held in signal generator memory until the command that selects user I/Q as the modulation type is sent. Refer to “:MODulation[:TYPE]” on page 610 to change the current modulation type.

Refer to “File Name Variables” on page 14 for information on the file name syntax.

:MODulation[:TYPE]

Supported All with Option 402

```
[:SOURCE]:RADio:EDGE:MODulation[:TYPE] BPSK|QPSK|IS95QPSK|GRAYQPSK|
OQPSK|IS95OQPSK|P4DQPSK|PSK8|PSK16|D8PSK|MSK|FSK2|FSK4|FSK8|FSK16|C4FM|
QAM4|QAM16|QAM32|QAM64|QAM256|EDGE|UIQ|UFSK
[:SOURCE]:RADio:EDGE:MODulation[:TYPE]?
```

This command sets the modulation type for the EDGE personality.

***RST** EDGE

Key Entry **BPSK QPSK IS-95 QPSK Gray Coded QPSK OQPSK**
IS-95 OQPSK $\pi/4$ DQPSK 8PSK 16PSK D8PSK MSK 2-Lvl FSK
4-Lvl FSK 8-Lvl FSK 16-Lvl FSK C4FM 4QAM 16QAM 32QAM
64QAM 256QAM EDGE User I/Q User FSK

Remarks N/A

:POLarity[:ALL]

Supported All with Option 402

```
[ :SOURce ] :RADio:EDGE:POLarity[:ALL] NORMal | INVerted  
[ :SOURce ] :RADio:EDGE:POLarity[:ALL] ?
```

This command sets the rotation direction for the phase modulation vector.

NORMal This choice selects normal phase polarity.

INVerted This choice inverts the internal Q signal.

***RST** NORM

Key Entry Phase Polarity Normal Invert

Remarks N/A

:SECOndary:RECall

Supported All with Option 402

```
[ :SOURce ] :RADio:EDGE:SECOndary:RECall
```

This command recalls the secondary frame configuration, overwriting the current frame.

***RST** N/A

Range N/A

Key Entry Recall Secondary Frame State

Remarks To save a secondary frame state, refer to “:SECOndary:SAVE” on [page 611](#).

A secondary frame is not active until the secondary state is enabled. To activate a secondary frame, refer to “:SECOndary[:STATe]” on [page 612](#).

:SECOndary:SAVE

Supported All with Option 402

```
[ :SOURce ] :RADio:EDGE:SECOndary:SAVE
```

This command saves the current frame configuration as the secondary frame with the filename EDGE_SECONDARY_FRAME.

***RST** N/A

EDGE Subsystem–Option 402 (:SOURce):RADio:EDGE]

Range	N/A
Key Entry	Save Secondary Frame State
Remarks	To recall the secondary frame (saved in non-volatile signal generator memory), refer to “:SECondary:RECall” on page 611.

:SECondary:TRIGger[:SOURce]

Supported All with Option 402

```
[ :SOURce ] :RADio:EDGE:SECondary:TRIGger [ :SOURce ] KEY | EXT | BUS
[ :SOURce ] :RADio:EDGE:SECondary:TRIGger [ :SOURce ] ?
```

This command selects the type of triggering for the secondary frame.

KEY	This choice enables triggering by pressing the front panel Trigger hardkey.
EXT	This choice enables triggering using an externally applied signal at the PATT TRIG IN rear panel connector or the PATT TRIG IN 2 pin on the rear panel AUX I/O connector. To select the appropriate connection, refer to “:TRIGger[:SOURce]:EXTernal[:SOURce]” on page 628.
BUS	This choice enables GPIB triggering using the *TRG or GET command or LAN and RS-232 triggering using the *TRG command.
*RST	N/A
Key Entry	Trigger Key Ext Bus
Remarks	N/A

:SECondary[:STATe]

Supported All with Option 402

```
[ :SOURce ] :RADio:EDGE:SECondary [ :STATe ] ON | OFF | 1 | 0
[ :SOURce ] :RADio:EDGE:SECondary [ :STATe ] ?
```

This command enables or disables the ability to switch to the secondary frame.

*RST	0
Key Entry	Secondary Frame Off On
Remarks	A frame must already be saved as the secondary frame in order to turn the secondary state function on. To save a frame as the secondary frame, refer to “:SECondary:SAVE”

[on page 611.](#)

:SLOT0|[1]|2|3|4|5|6|7:CUSTom

Supported All with Option 402

```
[:SOURce]:RADio:EDGE:SLOT0|[1]|2|3|4|5|6|7:CUSTom PN9|PN11|PN15|PN20|
PN23|FIX4|"<file name>"|EXT|P4|P8|P16|P32|P64
[:SOURce]:RADio:EDGE:SLOT0|[1]|2|3|4|5|6|7:CUSTom?
```

This command sets the data pattern type (pseudo-random number sequence, 4-bit pattern, sequence of 1's and 0's, data from an external source, or a user file) for framed data transmission.

***RST** PN9

Key Entry	PN9	PN15	FIX4	User File	Ext	4 1's & 4 0's	8 1's & 8 0's
	16 1's & 16 0's	32 1's & 32 0's	64 1's & 64 0's				

Remarks Refer to “File Name Variables” on page 14 for information on the file name syntax.

[Refer to “:SLOT0|\[1\]|2|3|4|5|6|7\[:TYPE\]” on page 622](#)

:SLOT0|[1]|2|3|4|5|6|7:CUSTom:FIX4

Supported All with Option 402

```
[:SOURce]:RADio:EDGE:SLOT0|[1]|2|3|4|5|6|7:CUSTom:FIX4 <val>
[:SOURce]:RADio:EDGE:SLOT0|[1]|2|3|4|5|6|7:CUSTom:FIX4?
```

This command sets the binary, 4-bit repeating sequence data pattern that is used in the selected custom timeslot.

***RST** #B0000

Range #B0000–#B1111 or 0–15

Key Entry **FIX4**

Remarks FIX4 must already be defined as the data type.

[To change the data type, refer to “:SLOT0|\[1\]|2|3|4|5|6|7:CUSTom” on page 613.](#)

:SLOT0|[1]|2|3|4|5|6|7:CUSTOM:GUARD

Supported All with Option 402

```
[:SOURCE]:RADIO:EDGE:SLOT0|[1]|2|3|4|5|6|7:CUSTOM:
GUARD <24 or 27 bit_pattern>
[:SOURCE]:RADIO:EDGE:SLOT0|[1]|2|3|4|5|6|7:CUSTOM:GUARD?
```

This command defines the hexadecimal value for the guard time field in the selected custom timeslot.

***RST** *Timeslots 0 & 4: #H7FFFFFFF*
Timeslots: 1, 2, 3, 5, 6, &7: #H0FFFFFFF

Range *Timeslots 0 & 4: #H0–#H7FFFFFFF*
Timeslots: 1, 2, 3, 5, 6, &7: #H0–#H0FFFFFFF

Key Entry **G**

Remarks The guard time field is always modulated (but not bursted), even when the timeslot is off.

If the guard time and T2 symbols of the current timeslot and the T1 symbols of the next timeslot do not match, the burst shape may not be smooth (even if the current timeslot is turned off).

To change the current timeslot type, refer to
 “:SLOT0|[1]|2|3|4|5|6|7[:TYPE]” on page 622.

:SLOT0|[1]|2|3|4|5|6|7:NORMAL:ENCRYPTION

Supported All with Option 402

```
[:SOURCE]:RADIO:EDGE:SLOT0|[1]|2|3|4|5|6|7:NORMAL:
ENCRYPTION PN9|PN11|PN15|PN20|PN23|FIX4|"<file name>"|EXT|P4|P8|P16|P32|
P64|DMCS9|UMCS9|DMCS5|UMCS5|ETCHF43|UNCoded|EBCH1|EBCH2
[:SOURCE]:RADIO:EDGE:SLOT0|[1]|2|3|4|5|6|7:NORMAL:ENCRYPTION?
```

This command selects the data pattern type (pseudo-random number sequence, 4-bit pattern, sequence of 1’s and 0’s, data from an external source, or a user file) and the multiframe channel type for the current normal timeslot.

***RST** PN9

Key Entry	PN9	PN11	PN15	PN20	PN23	FIX4	User File	EXT
	4 1’s & 4 0’s	8 1’s & 8 0’s	16 1’s & 16 0’s	32 1’s & 32 0’s				
	64 1’s & 64 0’s	Downlink MCS-9	Uplink MCS-9	Downlink MCS-5				

Uplink MCS-5 E-TCH/F43.2 Uncoded

Remarks Refer to “File Name Variables” on page 14 for information on the file name syntax.

To change the current timeslot type, refer to “:SLOT0|[1]|2|3|4|5|6|7[:TYPE]” on page 622.

:SLOT0:NORMAL:ENCRyption:BCH:BCC

Supported All with Option 416

```
[:SOURCE]:RADIO:EDGE:SLOT0:NORMAL:ENCRyption:BCH:BCC <val>  
[:SOURCE]:RADIO:EDGE:SLOT0:NORMAL:ENCRyption:BCH:BCC?
```

This command sets the broadcast control code (BCC) which is used to indicate what training sequence is being used by the basestation in the forward channels. This code will allow the mobile station to decode the other channels in the broadcast channel.

***RST** 0

Range 0–7

Remarks N/A

:SLOT0:NORMAL:ENCRyption:BCH:CELLid

Supported All with Option 416

```
[:SOURCE]:RADIO:EDGE:SLOT0:NORMAL:ENCRyption:BCH:CELLid <val>  
[:SOURCE]:RADIO:EDGE:SLOT0:NORMAL:ENCRyption:BCH:CELLid?
```

This command sets the cell identification. The purpose of the cell identity information element is to identify a cell within a location area.

***RST** 0

Range 0–65535

Remarks N/A

:SLOT0:NORMAL:ENCRyption:BCH:LAC

Supported All with Option 416

```
[:SOURCE]:RADIO:EDGE:SLOT0:NORMAL:ENCRyption:BCH:LAC <val>  
[:SOURCE]:RADIO:EDGE:SLOT0:NORMAL:ENCRyption:BCH:LAC?
```

This command sets the location area code (LAC). The location area code provides 16 bits

EDGE Subsystem–Option 402 ([:SOURCE]:RADIO:EDGE)

to allow the administrator to define a location.

***RST** 0
Range 0–65535
Remarks N/A

:SLOT0:NORMAL:ENCRyption:BCH:MCC

Supported All with Option 416

```
[:SOURCE]:RADIO:EDGE:SLOT0:NORMAL:ENCRyption:BCH:MCC <val>
[:SOURCE]:RADIO:EDGE:SLOT0:NORMAL:ENCRyption:BCH:MCC?
```

This command sets the mobile country code (MCC). The mobile country code is a 12 bit number used to represent the country where the basestation is located.

***RST** 0
Range 0–4095
Remarks N/A

:SLOT0:NORMAL:ENCRyption:BCH:MNC

Supported All with Option 416

```
[:SOURCE]:RADIO:EDGE:SLOT0:NORMAL:ENCRyption:BCH:MNC <val>
[:SOURCE]:RADIO:EDGE:SLOT0:NORMAL:ENCRyption:BCH:MNC?
```

This command sets the mobile network code (MNC). The mobile network code is the individual number a network will be assigned.

***RST** 0
Range 0–255
Remarks Federal regulation mandates that a 3-digit MNC will be used. For the ESG implementation the upper four bits are set to 1111.

:SLOT0:NORMAL:ENCRyption:BCH:PLMN

Supported All with Option 416

```
[:SOURCE]:RADIO:EDGE:SLOT0:NORMAL:ENCRyption:BCH:PLMN <val>
[:SOURCE]:RADIO:EDGE:SLOT0:NORMAL:ENCRyption:BCH:PLMN?
```

This command is used to set the Public Land Mobile Network (PLMN) which is used to

indicate the country the phone is in. PLMN is also referred to as the National Country Code (NCC).

*RST	0
Range	0–7
Remarks	N/A

:SLOT0|[1]|2|3|4|5|6|7:NORMAL:ENCRyption:DLINK:MCS5:DATA

Supported All with Option 402

```
[:SOURCE]:RADIO:EDGE:SLOT0|[1]|2|3|4|5|6|7:NORMAL:ENCRyption:DLINK:MCS5:
DATA PN9|PN15
```

```
[:SOURCE]:RADIO:EDGE:SLOT0|[1]|2|3|4|5|6|7:NORMAL:ENCRyption:DLINK:MCS5:
DATA?
```

This command sets the data type (pseudo-random number sequence) for the enhanced general packet radio service (EGPRS) modulation and coding scheme 5 (MCS-5) downlink channel.

***RST** PN9

Key Entry PN9 PN15

Remarks To select downlink MCS-5 as the multiframe channel type, refer to [“:SLOT0|\[1\]|2|3|4|5|6|7:NORMAL:ENCRyption” on page 614.](#)

:SLOT0|[1]|2|3|4|5|6|7:NORMAL:ENCRyption:DLINK:MCS9:DATA

Supported All with Option 402

```
[:SOURCE]:RADIO:EDGE:SLOT0|[1]|2|3|4|5|6|7:NORMAL:ENCRyption:DLINK:MCS9:
DATA PN9|PN15
```

```
[:SOURCE]:RADIO:EDGE:SLOT0|[1]|2|3|4|5|6|7:NORMAL:ENCRyption:DLINK:MCS9:
DATA?
```

This command sets the data type (pseudo-random number sequence) for the enhanced general packet radio service (EGPRS) modulation and coding scheme 9 (MCS-9) downlink channel.

***RST** PN9

Key Entry PN9 PN15

Remarks To select downlink MCS-9 as the multiframe channel type, refer to [“:SLOT0|\[1\]|2|3|4|5|6|7:NORMAL:ENCRyption” on page 614.](#)

:SLOT0|[1]|2|3|4|5|6|7:NORMAL:ENCRyption:ETCH:F43:DATA

Supported All with Option 402

```
[:SOURCE]:RADIO:EDGE:SLOT0|[1]|2|3|4|5|6|7:NORMAL:ENCRyption:ETCH:F43:DATA PN9|PN15
```

```
[:SOURCE]:RADIO:EDGE:SLOT0|[1]|2|3|4|5|6|7:NORMAL:ENCRyption:ETCH:F43:DATA?
```

This command sets the data type (pseudo-random number sequence) for the enhanced, circuit switched, full-rate traffic channel with 43.2 kbits per second of user data (E-TCH/F43.2).

***RST** PN9

Key Entry PN9 PN15

Remarks To select E-TCH/F43.2 as the multiframe channel type, refer to “:SLOT0|[1]|2|3|4|5|6|7:NORMAL:ENCRyption” on page 614.

:SLOT0|[1]|2|3|4|5|6|7:NORMAL:ENCRyption:FIX4

Supported All with Option 402

```
[:SOURCE]:RADIO:EDGE:SLOT0|[1]|2|3|4|5|6|7:NORMAL:ENCRyption:FIX4 <val>  
[:SOURCE]:RADIO:EDGE:SLOT0|[1]|2|3|4|5|6|7:NORMAL:ENCRyption:FIX4?
```

This command sets the binary, 4-bit repeating sequence data pattern for framed transmission according to the modulation type, symbol rate, filter, and burst shape selected for the EDGE modulation format.

***RST** #B0000

Range #B0000–#B1111 or 0–15

Key Entry FIX4

Remarks FIX4 must already be selected as the data type.

To select FIX4 as the data type, refer to “:SLOT0|[1]|2|3|4|5|6|7:NORMAL:ENCRyption” on page 614.

:SLOT0|[1]|2|3|4|5|6|7:NORMAL:ENCRyption:ULINK:MCS5:DATA

Supported All with Option 402

```
[ :SOURCE ] :RADIO:EDGE:SLOT0|[1]|2|3|4|5|6|7:NORMAL:ENCRyption:ULINK:MCS5:  
DATA PN9|PN15
```

```
[ :SOURCE ] :RADIO:EDGE:SLOT0|[1]|2|3|4|5|6|7:NORMAL:ENCRyption:ULINK:MCS5:  
DATA?
```

This command sets the data type (pseudo-random number sequence) for the enhanced general packet radio service (EGPRS) modulation and coding scheme 5 (MCS-5) uplink channel.

***RST** PN9

Key Entry PN9 PN15

Remarks To select uplink MCS-5 as the multiframe channel type, refer to “:SLOT0|[1]|2|3|4|5|6|7:NORMAL:ENCRyption” on page 614.

:SLOT0|[1]|2|3|4|5|6|7:NORMAL:ENCRyption:ULINK:MCS9:DATA

Supported All with Option 402

```
[ :SOURCE ] :RADIO:EDGE:SLOT0|[1]|2|3|4|5|6|7:NORMAL:ENCRyption:ULINK:MCS9:  
DATA PN9|PN15
```

```
[ :SOURCE ] :RADIO:EDGE:SLOT0|[1]|2|3|4|5|6|7:NORMAL:ENCRyption:ULINK:MCS9:  
DATA?
```

This command sets the data type (pseudo-random number sequence) for the enhanced general packet radio service (EGPRS) modulation and coding scheme 9 (MCS-9) uplink channel.

***RST** PN9

Key Entry PN9 PN15

Remarks To select uplink MCS-9 as the multiframe channel type, refer to “:SLOT0|[1]|2|3|4|5|6|7:NORMAL:ENCRyption” on page 614.

:SLOT0|[1]|2|3|4|5|6|7:NORMAL:ENCRyption:UNCOded

Supported All with Option 402

```
[:SOURCE]:RADIO:EDGE:SLOT0|[1]|2|3|4|5|6|7:NORMAL:ENCRyption:  
UNCOded PN9|PN15
```

```
[:SOURCE]:RADIO:EDGE:SLOT0|[1]|2|3|4|5|6|7:NORMAL:ENCRyption:  
UNCOded?
```

This command sets the data type (pseudo-random number sequence) for an uncoded channel.

***RST** PN9

Key Entry PN9 PN15

Remarks To select uncoded as the multiframe channel type, refer to
“:SLOT0|[1]|2|3|4|5|6|7:NORMAL:ENCRyption” on page 614.

:SLOT0|[1]|2|3|4|5|6|7:NORMAL:GUARd

Supported All with Option 402

```
[:SOURCE]:RADIO:EDGE:SLOT0|[1]|2|3|4|5|6|7:NORMAL:  
GUARd <24 or 27 bit_pattern>
```

```
[:SOURCE]:RADIO:EDGE:SLOT0|[1]|2|3|4|5|6|7:NORMAL:GUARd?
```

This command sets the hexadecimal value for the guard time field in the selected normal timeslot.

***RST** *Timeslots 0 & 4:* #H7FFFFFFF

Timeslots: 1, 2, 3, 5, 6, &7: #H0FFFFFFF

Range *Timeslots 0 & 4:* #H0–#H7FFFFFFF

Timeslots: 1, 2, 3, 5, 6, &7: #H0–#H0FFFFFFF

Key Entry G

Remarks The guard time field is always modulated (but not bursted), even when the timeslot is off.

If the guard time and T2 symbols of the current timeslot and the T1 symbols of the next timeslot do not match, the burst shape may not be smooth (even if the current timeslot is turned off).

To change the current timeslot type, refer to
“:SLOT0|[1]|2|3|4|5|6|7[:TYPE]” on page 622.

:SLOT0|[1]|2|3|4|5|6|7:NORMal:T1

Supported All with Option 402

```
[:SOURCE]:RADio:EDGE:SLOT0|[1]|2|3|4|5|6|7:NORMal:T1 <9 bit_pattern>
[:SOURCE]:RADio:EDGE:SLOT0|[1]|2|3|4|5|6|7:NORMal:T1?
```

This command sets the hexadecimal value for the leading 9-bit tail field in the selected normal timeslot.

***RST** #H1FF

Range #H0–#H1FF

Key Entry T1

Remarks N/A

:SLOT0|[1]|2|3|4|5|6|7:NORMal:T2

Supported All with Option 402

```
[:SOURCE]:RADio:EDGE:SLOT0|[1]|2|3|4|5|6|7:NORMal:T2 <9 bit_pattern>
[:SOURCE]:RADio:EDGE:SLOT0|[1]|2|3|4|5|6|7:NORMal:T2?
```

This command sets the hexadecimal value for the trailing 9-bit tail field in the selected normal timeslot.

***RST** #H1FF

Range #H0–#H1FF

Key Entry T2

Remarks N/A

:SLOT0|[1]|2|3|4|5|6|7:NORMal:TSEquence

Supported All with Option 402

```
[:SOURCE]:RADio:EDGE:SLOT0|[1]|2|3|4|5|6|7:NORMal:TSEquence TSC0|TSC1|
TSC2|TSC3|TSC4|TSC5|TSC6|TSC7|<78 bit_pattern>
[:SOURCE]:RADio:EDGE:SLOT0|[1]|2|3|4|5|6|7:NORMal:TSEquence?
```

This command sets the 78-bit training sequence code for a normal timeslot to one of eight values or to create a custom value.

***RST** #H3F3F9E49FFF3FF3F9E49

EDGE Subsystem–Option 402 ([:SOURCE]:RADio:EDGE)

Range	<78 bit pattern>: #H0–#H3FFFFFFFFFFFFFFFFFFFFFFF
Key Entry	TSC0 TSC1 TSC2 TSC3 TSC4 TSC5 TSC6 TSC7 Custom TS
Remarks	N/A

:SLOT0|[1]|2|3|4|5|6|7:LCAPacity:POWer

Supported All with Option 402

```
[:SOURCE]:RADio:EDGE:SLOT0|[1]|2|3|4|5|6|7:POWer MAIN|DELTA
[:SOURCE]:RADio:EDGE:SLOT0|[1]|2|3|4|5|6|7:POWer?
```

This command toggles the RF output power level function for the selected timeslot.

MAIN This choice specifies RF output as the main power level.

DELTA This choice specifies RF output as the alternative power level.

***RST** MAIN

Key Entry Timeslot Ampl Main Delta

Remarks N/A

:SLOT0|[1]|2|3|4|5|6|7:STATe

Supported All with Option 402

```
[:SOURCE]:RADio:EDGE:SLOT0|[1]|2|3|4|5|6|7:STATe ON|OFF|1|0
[:SOURCE]:RADio:EDGE:SLOT0|[1]|2|3|4|5|6|7:STATe?
```

This command enables or disables the operating state of the selected timeslot.

***RST** Timeslot 0: 1 Timeslots 1–7: 0

Key Entry Timeslot Off On

Remarks N/A

:SLOT0|[1]|2|3|4|5|6|7[:TYPE]

Supported All with Option 402

```
[:SOURCE]:RADio:EDGE:SLOT0|[1]|2|3|4|5|6|7[:TYPE] CUSTom|NORMAl|
NORMAL_ALL
[:SOURCE]:RADio:EDGE:SLOT0|[1]|2|3|4|5|6|7[:TYPE]?
```

This command sets the timeslot type.

CUSTom	This choice sets a generic, non-standard timeslot configuration for the selected timeslot, which allows for the modulation of the data pattern and guard bit fields.
NORMal	This choice sets a normal timeslot configuration for the selected timeslot.
NORMAL_ALL	This choice sets all timeslots to a normal timeslot configuration.
*RST	NORM
Key Entry	Custom Normal Normal All
Remarks	N/A

:SOUT:

Supported All with Option 402

```
[:SOURce]:RADio:EDGE:SOUT FRAME|SLOT|ALL
[:SOURce]:RADio:EDGE:SOUT?
```

This command sets the synchronization location (within the pattern of data) and the type of output at the EVENT 1 rear panel connector.

FRAME	This choice outputs a 1-bit signal, synchronized to the bit selected by the synchronization output offset command, for a framed data pattern.
SLOT	This choice outputs a 1-bit signal, synchronized to the bit selected by the synchronization output offset command, for a selected timeslot.
ALL	This choice outputs a 1-bit signal, synchronized to the bit selected by the synchronization output offset command, for all active timeslots.
*RST	FRAME
Key Entry	Begin Frame Begin Timeslot # All Timeslots
Remarks	To change the synchronization output offset value, refer to “:SOUT:OFFSet” on page 623 .

:SOUT:OFFSet

Supported All with Option 402

```
[:SOURce]:RADio:EDGE:SOUT:OFFSet <val>
[:SOURce]:RADio:EDGE:SOUT:OFFSet?
```

This command sets the offset value for the location of the output synchronization signal

on the EVENT1 rear panel connector relative to the beginning of the framed data pattern or timeslot.

The variable <val> is expressed in bits.

***RST** +0

Range –155 to 155

Key Entry **Sync Out Offset**

Remarks Negative values move the synchronization output signal earlier; positive values move it later.

To change the output of the EVENT1 rear panel connector to SLOT, refer to “:SOUT:” on page 623.

:SOUT:SLOT

Supported All with Option 402

[:SOURCE] :RADio:EDGE:SOUT:SLOT <val>

[:SOURCE] :RADio:EDGE:SOUT:SLOT?

This command selects the timeslot that will trigger a 1-bit output signal at the EVENT 1 rear panel connector.

***RST** +0

Range 0–7

Key Entry **Begin Timeslot #**

Remarks To change the output of the EVENT1 rear panel connector to SLOT, refer to “:SOUT:” on page 623.

:SRATe

Supported All with Option 402

[:SOURCE] :RADio:EDGE:SRATe <val>

[:SOURCE] :RADio:EDGE:SRATe?

This command sets the transmission symbol rate.

The variable <val> is expressed in units of bits per second (bps–Mbps) and the maximum range value is dependent upon the source of data (internal or external), the modulation type, and filter.

***RST** +2.70833333E+005

Range

<i>Modulation Type</i>	<i>Bits per Symbol</i>	<i>Internal Data</i>	<i>External Serial Data</i>
BPSK	1	1–50 Msps	1–50 Msps
FSK2			
MSK			
C4FM	2	1–50 Msps	1–25 Msps
FSK4			
OQPSK			
OQPSK195			
P4QPPSK			
QAM4			
QPSK			
QPSKIS95			
QPSKISAT			
D8PSK			
EDGE			
FSK8			
PSK8			
FSK16	4	1–25 Msps	1–12.5 Msps
PSK16			
QAM16			
QAM32	5	1–20 Msps	1–10 Msps
QAM64	6	1–16.67 Msps	1–8.33 Msps
QAM256	7	1–12.50 Msps	1–6.25 Msps

Key Entry

Symbol Rate

Remarks

When user-defined filters are selected using the command in section “:FILTer” on page 607, the upper bit rate will be restricted in line with the following symbol rate restriction:

- FIR filter length > 32 symbols: upper limit is 12.5 Msps
- FIR filter length > 16 symbols: upper limit is 25 Msps

When internal FIR filters are used, the limits of the above table always apply. For higher symbol rates, the FIR filter length will be truncated as follows:

- Above 12.5 Msps, the FIR length will be truncated to 32 symbols
- Above 25 Msps, the FIR length will be truncated to 16 symbols

This will impact the relative timing of the modulated data, as well

as the actual filter response.

To change the modulation type, refer to “:MODulation[:TYPE]” on page 610.

:TRIGger:TYPE

Supported All with Option 402

```
[:SOURCE]:RADio:EDGE:TRIGger:TYPE CONTInuous|SINGle|GATE
[:SOURCE]:RADio:EDGE:TRIGger:TYPE?
```

This command sets the trigger type.

CONTInuous	The framed data sequence repeats continuously; the sequence restarts every time the previous playback is completed. To customize continuous triggering, refer to “:TRIGger:TYPE:CONTInuous[:TYPE]” on page 626.
SINGle	The framed data sequence plays once for every trigger received.
GATE	An external trigger signal interrupts the playback while the gating signal is in the inactive state. Playback resumes when the external control signal returns to the active state. The active state can be set to high or low.

***RST** CONT

Key Entry Continuous Single Gated

Remarks N/A

:TRIGger:TYPE:CONTInuous[:TYPE]

Supported All with Option 402

```
[:SOURCE]:RADio:EDGE:TRIGger:TYPE:CONTInuous[:TYPE] FREE|TRIGger|RESet
[:SOURCE]:RADio:EDGE:TRIGger:TYPE:CONTInuous[:TYPE]?
```

This command customizes the continuous trigger selection.

FREE	This choice immediately transmits a framed data sequence that is continuously repeated.
TRIGger	This choice causes the framed data sequence to wait for a trigger. Once a trigger is received, the transmission of a continuously repeated framed data sequence begins.
RESet	This choice immediately restarts a continuously repeated framed

data sequence upon receiving a trigger.

*RST	FREE
Key Entry	Free Run Trigger & Run Reset & Run
Remarks	To select CONTInuous as the trigger type, refer to “:TRIGger:TYPE” on page 626.

:TRIGger:TYPE:GATE:ACTive

Supported All with Option 402

```
[:SOURce]:RADio:EDGE:TRIGger:TYPE:GATE:ACTive LOW|HIGH
[:SOURce]:RADio:EDGE:TRIGger:TYPE:GATE:ACTive?
```

This command toggles the polarity of the active state of the external gating input signal; GATE must be selected as the arb trigger type.

- LOW The sequence runs while the selected external control gating signal is low and restarts when the gate returns to the high level.
- HIGH The sequence runs while the selected external control gating signal is high and restarts when the gate returns to the low level.

*RST	HIGH
Key Entry	Gate Active Low High
Remarks	To select GATE as the ARB trigger type, refer to “:TRIGger:TYPE” on page 626.

:TRIGger[:SOURce]

Supported All with Option 402

```
[:SOURce]:RADio:EDGE:TRIGger[:SOURce] KEY|EXT|BUS
[:SOURce]:RADio:EDGE:TRIGger[:SOURce]?
```

This command sets the trigger source.

- KEY This choice enables triggering by pressing the front panel **Trigger** hardkey.
- EXT This choice enables triggering using an externally applied signal at the PATT TRIG IN rear panel connector or the PATT TRIG IN 2 pin on the rear panel AUX I/O connector. To select the appropriate connector, refer to “:TRIGger[:SOURce]:EXTernal[:SOURce]” on page 628.
- BUS This choice enables GPIB triggering using the *TRG or GET command or

LAN and RS-232 triggering using the *TRG command.

*RST	KEY
Key Entry	Trigger Key Ext Bus
Remarks	N/A

:TRIGger[:SOURCE]:EXTernal[:SOURCE]

Supported All with Option 402

```
[:SOURCE]:RADio:EDGE:TRIGger[:SOURCE]:EXTernal[:SOURCE] EPT1|EPT2|
EPTRIGGER1|EPTRIGGER2
[:SOURCE]:RADio:EDGE:TRIGger[:SOURCE]:EXTernal[:SOURCE]?
```

This command specifies which PATT TRIG IN connection, rear panel connector or AUX I/O connector, will be used to accept an externally applied trigger signal.

EPT1	This choice is synonymous with EPTRIGGER1 and selects the PATT TRIG IN rear panel connector for the external signal connection.
EPT2	This choice is synonymous with EPTRIGGER2 and selects the PATT TRIG IN 2 pin on the rear panel AUX I/O connector for the external signal connection.
EPTRIGGER1	This choice is synonymous with EPT1 and selects the PATT TRIG IN rear panel connector for the external signal connection.
EPTRIGGER2	This choice is synonymous with EPT2 and selects the PATT TRIG IN 2 pin on the rear panel AUX I/O connector for the external signal connection.

*RST	EPT1
Key Entry	Patt Trig In 1 Patt Trig In 2
Remarks	This command is effective only if an external trigger is selected as the trigger source. Refer to “:TRIGger[:SOURCE]” on page 627. For more information about the rear panel AUX I/O connector pin configuration, refer to the <i>User’s Guide</i> .

:TRIGger[:SOURCE]:EXTernal:DELAy

Supported All with Option 402

```
[:SOURCE]:RADio:EDGE:TRIGger[:SOURCE]:EXTernal:DELAy <val>
[:SOURCE]:RADio:EDGE:TRIGger[:SOURCE]:EXTernal:DELAy?
```

This command specifies the number of delay bits for the external trigger delay.

The variable <val> is expressed in bits.

For most TDMA formats, there is one bit per symbol. However, there are 3 bits per symbol for the EDGE format. If the selected number of delay bits is not a multiple of the number of bits per symbol, the entered value is rounded down to the next whole symbol value.

*RST	+0
Range	0–1048576
Key Entry	Ext Delay Bits
Remarks	This command is effective only if an external trigger is selected as the trigger source. Refer to “:TRIGger[:SOURce]” on page 627.

:TRIGger[:SOURce]:EXTErnal:DELAy:FINE

Supported All with Option 416

```
[:SOURce]:RADio:EDGE:TRIGger[:SOURce]:EXTErnal:DELAy:FINE <val>
[:SOURce]:RADio:EDGE:TRIGger[:SOURce]:EXTErnal:DELAy:FINE?
```

This command sets the fine trigger delay for synchronizing the ESG.

The fine delay value is added to the coarse delay setting (see “:TRIGger[:SOURce]:EXTErnal:DELAy” on page 628).

The variable <val> is expressed as a fraction of one symbol. For the EDGE format, there are 3 bits per symbol.

*RST	+0.00000000E+000
Range	0–1
Remarks	N/A

:TRIGger[:SOURce]:EXTErnal:DELAy:STATe

Supported All with Option 402

```
[:SOURce]:RADio:EDGE:TRIGger[:SOURce]:EXTErnal:DELAy:STATe ON|OFF|1|0
[:SOURce]:RADio:EDGE:TRIGger[:SOURce]:EXTErnal:DELAy:STATe?
```

This command enables or disables the operating state of the external trigger delay function.

*RST	0
-------------	---

EDGE Subsystem–Option 402 ([:SOURCE]:RADio:EDGE)**Key Entry** **Ext Delay Off On****Remarks** This command is effective only if an external trigger is selected as the trigger source. Refer to “:TRIGger[:SOURCE]” on page 627.**:TRIGger[:SOURCE]:EXTernal:SLOPe****Supported** All with Option 402[:SOURCE]:RADio:EDGE:TRIGger[:SOURCE]:EXTernal:SLOPe POSitive|NEGative
[:SOURCE]:RADio:EDGE:TRIGger[:SOURCE]:EXTernal:SLOPe?

This command sets the polarity of the external trigger.

RST** NEG**Key Entry** **Ext Polarity Neg Pos*Remarks** This command is effective only if an external trigger is selected as the trigger source. Refer to “:TRIGger[:SOURCE]” on page 627.**[:STATe]****Supported** All with Option 402[:SOURCE]:RADio:EDGE[:STATe] ON|OFF|1|0
[:SOURCE]:RADio:EDGE[:STATe]?

This command enables or disables the EDGE modulation format.

RST** 0**Key Entry** **EDGE Off On*Remarks** Although the EDGE modulation is enabled with this command, the RF carrier is not modulated unless you also activate the front panel **Mod On/Off** hardkey.

Symbols

of Blocks field, 884
 # of Carriers softkey, 280, 283
 # Points softkey, 58
 # Skipped Points softkey, 297
 ΦM Dev, 198
 ΦM Dev Couple Off On, 199
 FM ΦM Normal High BW, 194
 ΦM Off On, 198
 ΦM Path 1 2, 193
 ΦM Stop Rate, 195
 ΦM Sweep Time, 196
 ΦM Tone 2 Ampl Percent of Peak, 196

Numerics

0.7V,1.4V,1.65V,2.5V softkey, 388
 1 DPCH softkey, 331, 336
 1.23 MHz softkey, 264
 1.25 MHz softkey, 264
 1/2 Conv softkey, 882, 883, 981
 1/3 Conv softkey, 882, 883, 981
 10 msec softkey, 909
 1048576 softkey, 213
 10ms Frame Pulse (DRPS11) softkey, 863, 865, 866, 867, 868
 10ms Frame Pulse (RPS6) softkey
 See wideband CDMA base band generator subsystem keys and fields
 12.2 kbps (34.121 v3.8) softkey, 843
 131072 softkey, 213
 144 kbps (34.121 v3.8) softkey, 843
 16 1's & 16 0's softkey
 See custom subsystem keys
 See DECT subsystem keys
 See EDGE subsystem keys
 See GSM subsystem keys
 See NADC subsystem keys
 See PDC subsystem keys
 See PHS subsystem keys
 See TETRA subsystem keys
 16384 softkey, 213
 16-Lvl FSK softkey
 See DECT subsystem keys
 See PHS subsystem keys
 16PSK softkey
 See custom subsystem keys
 See DECT subsystem keys
 See Dmodulation subsystem keys
 See EDGE subsystem keys
 See GSM subsystem keys
 See NADC subsystem keys
 16PSK softkey (continued)
 See PDC subsystem keys
 See PHS subsystem keys
 See TETRA subsystem keys
 16QAM softkey
 See custom subsystem keys
 See DECT subsystem keys
 See Dmodulation subsystem keys
 See EDGE subsystem keys
 See GSM subsystem keys
 See NADC subsystem keys
 See PDC subsystem keys
 See PHS subsystem keys
 See TETRA subsystem keys
 2 Carriers softkey, 332
 2 SR3 Carriers softkey, 249
 2.100 MHz softkey, 210, 223, 246, 273, 294, 312, 329, 445
 20 msec softkey, 909
 2560 msec softkey, 909
 256QAM softkey
 See custom subsystem keys
 See DECT subsystem keys
 See Dmodulation subsystem keys
 See EDGE subsystem keys
 See GSM subsystem keys
 See NADC subsystem keys
 See PDC subsystem keys
 See PHS subsystem keys
 See TETRA subsystem keys
 262144 softkey, 213
 2-Lvl FSK softkey
 See custom subsystem keys
 See DECT subsystem keys
 See Dmodulation subsystem keys
 See EDGE subsystem keys
 See GSM subsystem keys
 See NADC subsystem keys
 See PDC subsystem keys
 See PHS subsystem keys
 See TETRA subsystem keys
 2nd Scr Offset field, 845, 853
 3 Carriers softkey, 231, 249, 332
 3 DPCH softkey, 331, 336
 3.84MHz chip-clk (DRPS4) softkey, 863, 865, 866, 867, 868
 32 1's & 32 0's softkey
 See custom subsystem keys
 See DECT subsystem keys
 See EDGE subsystem keys

Index

- 32 1's & 32 0's softkey (*continued*)
 - See GSM subsystem keys
 - See NADC subsystem keys
 - See PDC subsystem keys
 - See PHS subsystem keys
 - See TETRA subsystem keys
- 32 Ch Fwd softkey, [229](#), [232](#)
- 32768 softkey, [213](#)
- 32QAM softkey
 - See custom subsystem keys
 - See DECT subsystem keys
 - See Dmodulation subsystem keys
 - See EDGE subsystem keys
 - See GSM subsystem keys
 - See NADC subsystem keys
 - See PDC subsystem keys
 - See PHS subsystem keys
 - See TETRA subsystem keys
- 384 kbps (34.121 v3.8) softkey, [843](#)
- 4 1's & 4 0's softkey
 - See custom subsystem keys
 - See DECT subsystem keys
 - See EDGE subsystem keys
 - See GSM subsystem keys
 - See NADC subsystem keys
 - See PDC subsystem keys
 - See PHS subsystem keys
 - See TETRA subsystem keys
- 4 Carriers softkey, [231](#), [249](#), [332](#)
- 40 msec softkey, [909](#)
- 40.000 MHz softkey, [207](#), [210](#), [218](#), [223](#), [242](#),
[246](#), [269](#), [273](#), [290](#), [294](#), [309](#), [312](#), [327](#), [329](#),
[438](#), [445](#)
- 4-Lvl FSK softkey
 - See custom subsystem keys
 - See DECT subsystem keys
 - See Dmodulation subsystem keys
 - See EDGE subsystem keys
 - See GSM subsystem keys
 - See NADC subsystem keys
 - See PDC subsystem keys
 - See PHS subsystem keys
 - See TETRA subsystem keys
- 4QAM softkey
 - See custom subsystem keys
 - See DECT subsystem keys
 - See Dmodulation subsystem keys
 - See EDGE subsystem keys
 - See GSM subsystem keys
 - See NADC subsystem keys
- 4QAM softkey (*continued*)
 - See PDC subsystem keys
 - See PHS subsystem keys
 - See TETRA subsystem keys
- 5 Channel softkey, [255](#)
- 524288 softkeys, [213](#)
- 64 1's & 64 0's softkey
 - See custom subsystem keys
 - See DECT subsystem keys
 - See EDGE subsystem keys
 - See GSM subsystem keys
 - See NADC subsystem keys
 - See PDC subsystem keys
 - See PHS subsystem keys
 - See TETRA subsystem keys
- 64 Ch Fwd softkey, [229](#), [232](#)
- 64 kbps (34.121 v3.8) softkey, [843](#)
- 64QAM softkey
 - See custom subsystem keys
 - See DECT subsystem keys
 - See Dmodulation subsystem keys
 - See EDGE subsystem keys
 - See GSM subsystem keys
 - See NADC subsystem keys
 - See PDC subsystem keys
 - See PHS subsystem keys
 - See TETRA subsystem keys
- 65536 softkey, [213](#)
- 8 1's & 8 0's softkey
 - See custom subsystem keys
 - See DECT subsystem keys
 - See EDGE subsystem keys
 - See GSM subsystem keys
 - See NADC subsystem keys
 - See PDC subsystem keys
 - See PHS subsystem keys
 - See TETRA subsystem keys
- 8 Bit Pattern softkey, [438](#)
- 8 Channel softkey, [255](#)
- 80 msec softkey, [909](#)
- 80ms Frame Pulse (DRPS13) softkey, [863](#),
[865](#), [866](#), [867](#), [868](#)
- 80ms Frame Pulse (RPS20) softkey
 - See wideband CDMA base band generator
subsystem keys and fields
- 8648A/B/C/D softkey, [158](#), [160](#)
- 8656B,8657A/B softkey, [158](#), [160](#)
- 8657D NADC softkey, [158](#), [160](#)
- 8657D PDC softkey, [158](#), [160](#)
- 8657J PHS softkey, [158](#), [160](#)

- 8-Lvl FSK softkey
 - See DECT subsystem keys
 - See PHS subsystem keys
- 8PSK softkey
 - See custom subsystem keys
 - See DECT subsystem keys
 - See Dmodulation subsystem keys
 - See EDGE subsystem keys
 - See GSM subsystem keys
 - See NADC subsystem keys
 - See PDC subsystem keys
 - See PHS subsystem keys
 - See TETRA subsystem keys
- 9 Ch Fwd softkey, 229, 232
- 9 Channel softkey, 248

- A**
- A field softkey
 - See DECT subsystem keys
- A softkey, 835
- Access softkey, 669
- ACS softkey, 871
- Active softkey, 876
- Actual BER softkey, 992
- Actual BLER field, 985, 993
- Add Comment To Seq[n] Reg[nn] softkey, 120
- Adjust Gain softkey, 405
- Adjust Phase softkey, 49
- AICH softkey, 945
- AICH Trigger Polarity Pos Neg softkey, 918
- ALC BW Normal Narrow, 59
- ALC BW Normal Narrow softkey, 23
- ALC Off On softkey, 60
- All Down softkey, 847, 899
- All softkey, 104, 119
- All Timeslots softkey
 - See DECT subsystem keys
 - See EDGE subsystem keys
 - See GSM subsystem keys
 - See NADC subsystem keys
 - See PDC subsystem keys
 - See PHS subsystem keys
 - See TETRA subsystem keys
- All Up softkey, 847, 899
- Alt Amp Delta softkey, 60
- Alt Ampl Off On softkey, 61
- Alt power in field, 959
- AM softkeys
 - AM Depth, 177
 - AM Depth Couple Off On, 178
 - AM Off On, 177
- AM softkeys (*continued*)
 - AM Off On softkey, 173
 - AM Path 1 2, 172
 - AM Stop Rate, 174
 - AM Sweep Rate, 175
 - AM Tone 2 Ampl Percent Of Peak, 175
 - AM Tone 2 Rate, 174
- AM_ADDR softkey, 436
- Ampl softkeys
 - Ampl, 63
 - Ampl Offset, 65
 - Ampl Ref Off On, 63
 - Ampl Ref Set, 63
 - Ampl Start, 64
 - Ampl Stop, 64
- Amplitude hardkey, 63, 65
- amplitude modulation subsystem keys
 - AM Depth, 177
 - AM Depth Couple Off On, 178
 - AM Off On, 173, 177
 - AM Path 1 2, 172
 - AM Stop Rate, 174
 - AM Sweep Rate, 175
 - AM Tone 2 Ampl Percent Of Peak, 175
 - AM Tone 2 Rate, 174
 - Bus, 176
 - Dual-Sine, 175
 - Ext, 176
 - Ext Coupling DC AC, 173
 - Ext1, 176
 - Ext2, 176
 - Free Run softkey, 176
 - Incr Set, 172, 178
 - Internal, 176
 - Noise, 175
 - Ramp, 175
 - Sine, 175
 - Square, 175
 - Swept-Sine, 175
 - Triangle, 175
 - Trigger Key, 176
- AMR 12.2 kbps softkey, 843, 952
- APCO 25 C4FM softkey
 - See CDMA ARB subsystem keys
 - See CDMA2000 ARB subsystem keys
 - See CDMA2000 BBG subsystem keys and fields
 - See custom subsystem keys
 - See DECT subsystem keys

Index

APCO 25 C4FM softkey (continued)

See Dmodulation subsystem keys

See EDGE subsystem keys

See GPS subsystem keys

See GSM subsystem keys

See NADC subsystem keys

See PDC subsystem keys

See PHS subsystem keys

See TETRA subsystem keys

See wideband CDMA ARB subsystem keys

See wideband CDMA base band generator
subsystem keys and fields

APCO 25 w/C4FM softkey, [280](#), [282](#)

APCO 25 w/C4QPSK softkey, [280](#), [282](#)

APCO 25 w/CQPSK softkey, [541](#)

Apply Channel Setup softkey, [253](#), [257](#), [339](#),
[348](#), [830](#), [888](#)

Arb AWGN Off On softkey, [215](#)

ARB Off On softkey, [308](#)

ARB Reference Ext Int softkey

See AWGN subsystem keys

See bluetooth subsystem keys

See CDMA ARB subsystem keys

See CDMA2000 ARB subsystem keys

See Dmodulation subsystem keys

See dual ARB subsystem keys

See multitone subsystem keys

See wideband CDMA ARB subsystem keys

ARB Sample Clock softkey, [214](#), [229](#), [263](#),
[279](#), [302](#), [317](#), [354](#), [450](#)

Atten Hold Off On softkey, [62](#)

automatic leveling control, [60](#)

Aux I/O Trigger Polarity Pos Neg softkey, [431](#)

Aux softkey

See sense subsystem keys

AWGN Off On softkey, [440](#)

AWGN subsystem keys

[1048576](#), [213](#)

[131072](#), [213](#)

[16384](#), [213](#)

[2.100 MHz](#), [210](#)

[262144](#), [213](#)

[32768](#), [213](#)

[40.000 MHz](#), [207](#), [210](#)

[524288](#), [213](#)

[65536](#), [213](#)

Arb AWGN Off On, [215](#)

ARB Reference Ext Int, [214](#)

ARB Sample Clock, [214](#)

Bandwidth, [207](#)

AWGN subsystem keys (*continued*)

Clear Header, [208](#)

I/Q Mod Filter Manual Auto, [210](#)

I/Q Output Filter Manual Auto, [208](#)

Marker 1, [211](#)

Marker 1 Polarity Neg Pos, [212](#)

Marker 2, [211](#)

Marker 2 Polarity Neg Pos, [212](#)

Marker 3, [211](#)

Marker 3 Polarity Neg Pos, [212](#)

Marker 4, [211](#)

Marker 4 Polarity Neg Pos, [213](#)

Modulator Atten Manual Auto, [209](#)

Noise Seed Fixed Random, [215](#)

None, [211](#)

Reference Freq, [213](#)

Save Setup To Header, [208](#)

Through, [207](#), [210](#)

Waveform Length, [213](#)

B

B softkey, [808](#), [813](#), [835](#)

B1 softkey, [806](#), [811](#)

B2 softkey, [806](#), [811](#)

Bandwidth softkey, [207](#), [435](#)

Base Delay Tp-a softkey, [941](#)

BBG Chip Clock Ext Int softkey

See wideband CDMA base band generator
subsystem keys and fields

BBG Data Clock Ext Int softkey

See custom subsystem keys

See DECT subsystem keys

See GSM subsystem keys

See NADC subsystem keys

See PHS subsystem keys

See TETRA subsystem keys

BBG Data Clock field, [451](#)

BBG Ref Ext Int softkey

See custom subsystem keys

See DECT subsystem keys

See EDGE subsystem keys

See GSM subsystem keys

See NADC subsystem keys

See PDC subsystem keys

See PHS subsystem keys

See TETRA subsystem keys

BBG1 softkey, [26](#), [38](#)

BD_ADDR softkey, [436](#)

Begin Data Format Pattern Framed softkey

See DECT subsystem keys

- Begin Data Format Pattern Framed softkey*
(continued)
See EDGE subsystem keys
See GSM subsystem keys
See NADC subsystem keys
See PDC subsystem keys
See PHS subsystem keys
See TETRA subsystem keys
- Begin Frame softkey
See DECT subsystem keys
See EDGE subsystem keys
See GSM subsystem keys
See NADC subsystem keys
See PDC subsystem keys
See PHS subsystem keys
See TETRA subsystem keys
- Begin Timeslot # softkey
See DECT subsystem keys
See EDGE subsystem keys
See GSM subsystem keys
See NADC subsystem keys
See PDC subsystem keys
See PHS subsystem keys
See TETRA subsystem keys
- BER Display % Exp softkey, 371
BER field, 984, 993
BER Mode Off On softkey
See sense subsystem keys
BER softkey, 986, 995
BERT Off On softkey, 428
BERT Resync Off On softkey, 427
Beta field, 892, 902
Binary softkey, 93, 121
binary values, 17
Bit Count softkey
See sense subsystem keys
Bit Delay Off On softkey, 430
Bit Rate field
See CDMA2000 BBG subsystem keys and fields
Bit softkey, 93
BLER field, 986, 994
BLER softkey, 986, 995
Blk Set Size field, 881
Blk Size field, 880, 980, 989
Block Count softkey
See calculate subsystem keys
See sense subsystem keys
Block Erasure softkey
See sense subsystem keys
Blocking softkey, 871
Bluetooth Off On softkey, 450
Bluetooth softkey, 541
bluetooth subsystem keys
2.100 MHz, 445
40.000 MHz, 438, 445
8 Bit Pattern, 438
AM_ADDR, 436
ARB Reference Ext Int, 449
ARB Sample Clock, 450
AWGN Off On, 440
BD_ADDR, 436
Bluetooth Off On, 450
Burst Off On, 437
Burst Power Ramp, 450
C/N[1 MHz], 440
Clear Header, 439
Clock/Gate Delay, 437
Continuous PN9, 438
Drift Deviation, 441
Freq Drift Type Linear Sine, 442
Freq Offset, 443
I/Q Mod Filter Manual Auto, 446
I/Q Output Filter Manual Auto, 439
Impairments Off On, 440
Marker 1, 446, 447
Marker 1 Polarity Neg Pos, 447
Marker 2, 446, 447
Marker 2 Polarity Neg Pos, 447
Marker 3, 446, 447
Marker 3 Polarity Neg Pos, 448
Marker 4, 446, 447
Marker 4 Polarity Neg Pos, 448
Mod Index, 443
Modulator Atten Manual Auto, 444, 445
Noise Seed, 441
None, 446, 447
Packet (DH1), 448
Reference Freq, 449
Save Setup To Header, 439
Symbol Timing Err, 444
Through, 438, 445
Truncated PN9, 438
boolean SCPI parameters, 10
boolean, numeric response data, 12
BPSK softkey
See custom subsystem keys
See DECT subsystem keys
See Dmodulation subsystem keys
See EDGE subsystem keys

Index

BPSK softkey (continued)

See GSM subsystem keys

See NADC subsystem keys

See PDC subsystem keys

See PHS subsystem keys

See TETRA subsystem keys

Brightness softkey, 83

Build New Waveform Sequence softkey, 302

Burst Envelope Int Ext Off softkey, 23

Burst gate in field, 960

Burst Gate In Polarity Neg Pos softkey, 129, 131

Burst Off On softkey, 437

Burst Power Ramp softkey, 450

Bus softkey

See amplitude modulation subsystem keys

See CDMA ARB subsystem keys

See CDMA2000 ARB subsystem keys

See DECT subsystem keys

See Dmodulation subsystem keys

See dual ARB subsystem keys

See EDGE subsystem keys

See frequency modulation subsystem keys

See GSM subsystem keys

See list/sweep subsystem keys

See low frequency output subsystem keys

See NADC subsystem keys

See PDC subsystem keys

See phase modulation subsystem keys

See PHS subsystem keys

See sense subsystem keys

See TETRA subsystem keys

See trigger subsystem keys

See wideband CDMA ARB subsystem keys

C

C Power field, 889, 919

C/N softkey, 480, 491

C/N value field, 830, 888, 918

C/N[1 MHz] softkey, 440

C4FM softkey, 770

calculate subsystem keys

BER Display % Exp, 371

Block Count, 393

Class II RBER, 368, 369

Class 1b RBER, 368, 369

Cycle End, 370

Error Rate, 362, 363, 364, 365, 366, 367, 368

Exceeds Any Limit, 369

Fail Hold, 370

calculate subsystem keys (*continued*)

Frame Erasure, 369

No Limits, 363, 367, 368, 369

Pass/Fail Limits, 370

Pass/Fail Off On, 371

Update Display Cycle End Cont, 372

calibration subsystem keys

DCFM/DCΦM Cal, 68

Execute Cal, 69

I/Q Calibration, 68

Revert to Default Cal Settings, 69

Start Frequency, 70

Stop Frequency, 71

Carrier Phases Fixed Random softkey, 281

CC softkey, 734, 737, 739

CDL softkey, 699

CDMA ARB subsystem keys

2.100 MHz, 223

3 Carriers, 231

32 Ch Fwd, 229, 232

4 Carriers, 231

40.000 MHz, 218, 223

64 Ch Fwd, 229, 232

9 Ch Fwd, 229, 232

APCO 25 C4FM, 219

ARB Reference Ext Int, 228

ARB Sample Clock, 229

Bus, 235

CDMA Off On, 238

Chip Rate, 218

Clear Header, 221

Clip |I+jQ| To, 217

Clip |I| To, 216

Clip |Q| To, 217

Clip At PRE POST FIR Filter, 216

Clipping Type |I+jQ| |I|, |Q|, 217

Continuous, 234

CPICH, 341

Custom CDMA Multicarrier, 231

Custom CDMA State, 229, 232

Equal Powers, 230

Ext, 235

Ext Delay Off On, 237

Ext Delay Time, 237

Ext Polarity Neg Pos, 237

Filter Alpha, 220

Filter BbT, 221

Free Run, 234

Gate Active Low High, 235

CDMA ARB subsystem keys (*continued*)
Gated, 234
Gaussian, 219
I/Q Mapping Normal Invert, 222
I/Q Mod Filter Manual Auto, 224
I/Q Output Filter Manual Auto, 219
Immediate, 228
IS-2000 SR3 DS, 219
IS-95, 219
IS-95 Mod, 219
IS-95 Mod w/EQ, 219
IS-95 w/EQ, 219
IS-97 Levels, 230
Marker 1, 224, 225
Marker 1 Polarity Neg Pos, 225
Marker 2, 224, 225
Marker 2 Polarity Neg Pos, 226
Marker 3, 224, 225
Marker 3 Polarity Neg Pos, 226
Marker 4, 224, 225
Marker 4 Polarity Neg Pos, 226
Modulator Atten Manual Auto, 222, 223
Multicarrier Off On, 229
None, 224, 225
Nyquist, 219
Off, 228
On, 228
Optimize FIR For EVM ACP, 221
Oversample Ratio, 227
Paging, 230
Patt Trig In 1, 236
Patt Trig In 2, 236
Pilot, 229, 230, 232
Rectangle, 219
Reference Freq, 227
Reset & Run, 234
Reverse, 229
Root Nyquist, 219
Save Setup To Header, 222
Scale to 0dB, 230
Single, 234
Store Custom CDMA State, 233
Store Custom Multicarrier, 232
Sync, 230
Through, 218, 223
Traffic, 230
Trigger & Run, 234
Trigger Key, 235
UN3/4 GSM Gaussian, 219

CDMA ARB subsystem keys (*continued*)
User FIR, 219
Waveform Length, 238
WCDMA, 219
CDMA Freq field, 473
CDMA Off On softkey, 238
CDMA softkey, 94
CDMA2000 ARB subsystem keys
1.23 MHz, 264
1.25 MHz, 264
2 SR3 Carriers, 249
2.100 MHz, 246
3 Carriers, 249
4 Carriers, 249
40.000 MHz, 242, 246
5 Channel, 255
8 Channel, 255
9 Channel, 248
APCO 25 C4FM, 243
Apply Channel Setup, 253, 257
ARB Reference Ext Int, 261
ARB Sample Clock, 263
Bus, 266
CDMA2000 Off On, 268
Clear Header, 245
Clip |I+jQ| To, 241
Clip |I| To, 240
Clip |Q| To, 241
Clip At PRE POST FIR Filter, 240
Clipping Type |I+jQ| |I|, |Q|, 241
Config, 253, 257
Continuous, 264
Custom CDMA2000 Carrier, 248, 250
Custom CDMA2000 Multicarrier, 249
Custom CDMA2000 State, 255
Edit Channel Setup, 253, 257
Equal Powers, 254, 258
Ext, 266
Ext Delay Off On, 267
Ext Delay Time, 267
Ext Polarity Neg Pos, 268
Filter Alpha, 244
Filter BbT, 244
Free Run, 265
Gate Active Low High, 265
Gated, 264
Gaussian, 243
I/Q Mapping Normal Invert, 247
I/Q Mod Filter Manual Auto, 247

Index

CDMA2000 ARB subsystem keys (*continued*)
I/Q Output Filter Manual Auto, 242
Immediate, 262
Insert Row, 253, 257
IS-2000 SR3 DS, 243
IS-95, 243
IS-95 Mod, 243
IS-95 Mod w/EQ, 243
IS-95 w/EQ, 243
Link Forward Reverse, 248
Marker 1, 259
Marker 1 Polarity Neg Pos, 260
Marker 2, 259
Marker 2 Polarity Neg Pos, 260
Marker 3, 259
Marker 3 Polarity Neg Pos, 260
Marker 4, 259
Marker 4 Polarity Neg Pos, 261
Modulator Atten Manual Auto, 246
Multicarrier Off On, 248
None, 259
Nyquist, 243
Off, 262
On, 262
Optimize FIR For EVM ACP, 245
Patt Trig In 1, 266
Patt Trig In 2, 266
Pilot, 248, 255
PN Offset, 253, 257
Radio Config, 255
Rate, 253, 257
Rectangle, 243
Reference Freq, 261
Reset & Run, 265
Root Nyquist, 243
Save Setup To Header, 245
Scale to 0dB, 254, 258
Single, 264
Spread Rate 1, 248, 255, 263
Spread Rate 3, 248, 255, 263
Spreading Type Direct Mcarrier, 248, 264
SR1 9 Channel, 250
SR1 Pilot, 250
SR3 Direct 9 Channel, 250
SR3 Direct Pilot, 250
SR3 Mcarrier 9 Channel, 250
SR3 MCarrier Pilot, 250
Store Custom CDMA State, 252, 256
Store Custom Multicarrier, 250

CDMA2000 ARB subsystem keys (*continued*)
Through, 242, 246
Trigger & Run, 265
Trigger Key, 266
UN3/4 GSM Gaussian, 243
User FIR, 243
Walsh Code, 253, 257
WCDMA, 243
CDMA2000 BBG subsystem keys and fields
APCO 25 C4FM, 453, 487
BBG Data Clock, 451
Bit Rate, 461, 465, 471, 484, 495, 497, 501, 506, 512, 516, 520
C/N, 480, 491
CDMA Freq, 473
CDMA2000 Off On, 523
Change, 482
Chip Rate, 452, 486
DAYLT, 473
EbNo, 456, 462, 468, 474, 483, 493, 499, 501, 505, 510, 514, 517
EcNo, 466, 502, 507
Equal Powers, 482, 490
Even Second Delay, 452, 487
Ext, 455, 467, 496
Ext CDMA Freq, 474
External, 486
Falling, 522
Field 1, 463
Field 2, 464
Field 3, 464
Filter Alpha, 454, 488
Filter BbT, 454, 457, 489
FIX4, 455, 456, 467, 468, 492, 493, 496, 498, 499, 504, 509, 510, 513, 517
Frame Length, 494, 496, 500, 511, 514, 518
Frame Offset, 469, 494, 497, 500, 505, 511, 515, 518
FSYNCH Type, 478
Full, 503, 508
Gaussian, 453, 487
Half, 503, 508
Header, 459, 470
Internal, 486
Inverted, 491
IS-95, 453, 487
IS-95 MOD, 487
IS-95 Mod, 453
IS-95 MOD w/EQ, 487

- CDMA2000 BBG subsystem keys and fields
(*continued*)
- IS-95 Mod w/EQ, 453
 - IS-95 w/EQ, 453, 487
 - Leap Seconds, 475
 - Link Forward Reverse, 451
 - Long Code Mask, 490
 - Long Code State, 455, 490
 - LTM OFF, 475
 - Message Type, 476
 - Network ID, 476
 - Noise Off On, 480, 492
 - Normal, 491
 - Nyquist, 453, 487
 - Optimize FIR For EVM ACP, 455, 489
 - P Rev, 477
 - P Rev Min, 475
 - Paging Indicator, 483
 - Permuted ESN, 458, 469
 - Phase Polarity, 482
 - PN Offset, 486
 - PN15, 455, 467, 492, 496, 498, 504, 509, 513, 517
 - PN9, 455, 467, 492, 496, 498, 504, 509, 513, 517
 - Power, 459, 465, 467, 470, 476, 481, 484, 494, 497, 500, 503, 506, 508, 511, 515, 519
 - PRAT, 477
 - QOF, 460, 470
 - Quarter, 503, 508
 - Radio Config, 461, 471, 495, 498, 506, 512, 515, 519
 - RadioConfig 1/2 Access, 451
 - RadioConfig 1/2 Traffic, 451
 - RadioConfig 3/4 Common Control, 451
 - RadioConfig 3/4 Enhanced Access, 451
 - RadioConfig 3/4 Traffic, 451
 - Ramp, 459
 - Ramp Time, 460
 - Rectangle, 453, 487
 - Reserved, 477
 - Rising, 522
 - Root Nyquist, 453, 487
 - Scale to OdB, 482, 490
 - Spread Rate, 485
 - State, 466, 467, 473, 479, 481, 485, 495, 498, 502, 504, 507, 509, 513, 516, 521
 - State field, 462
 - System ID, 478
- CDMA2000 BBG subsystem keys and fields
(*continued*)
- Time, 479
 - Trigger Advance, 522
 - Turbo Coding, 472, 520
 - UN3/4 GSM Gaussian, 453, 487
 - User File, 455, 462, 467, 492, 496, 498, 504, 509, 513, 517
 - User FIR, 453, 487
 - Walsh, 465, 472, 479, 481, 485, 501, 503, 507, 509, 512, 516, 520
 - Walsh field, 461
 - CDMA2000 Off On softkey, 268, 523
 - CDPD softkey, 280, 282, 541
 - CDVCC softkey, 700, 703
 - CFN #0 Frame Pulse (RPS10) softkey
See wideband CDMA base band generator subsystem keys and fields
 - Chan Code field, 841, 851
 - Chan Code softkey, 840
 - Change field, 482
 - Channel Code field, 902, 946
See wideband CDMA base band generator subsystem keys and fields
 - Channel softkey, 340, 348
 - Channel State field, 901, 909
 - Channel State Off On softkey, 922
See wideband CDMA base band generator subsystem keys and fields
 - ChCode Ctl field, 935
 - ChCode Dat field, 935
 - Chip Clock (RPS1) softkey
See wideband CDMA base band generator subsystem keys and fields
 - Chip Rate field, 452, 486, 839, 892
 - Chip Rate softkey, 218, 324
 - Class Ib Bit Error softkey, 421, 422
 - Class II Bit Error softkey, 422
 - Class II RBER softkey, 368, 369
 - Class Ib RBER softkey, 368, 369
 - Clear Header softkey, 208, 221, 245, 272, 291, 310, 326, 439
 - Clip |I+jQ| To softkey, 217, 241
 - Clip |I| To softkey, 216, 240, 322, 333
 - Clip |Q| To softkey, 217, 241, 323, 333
 - Clip At PRE POST FIR Filter, 216
 - Clip At PRE POST FIR Filter softkey, 240, 322
 - Clip Type |I+jQ| To softkey, 323, 334
 - Clipping Type |I+jQ| |I|, |Q| softkey, 217, 241, 290, 323, 334
 - Clock Delay Off On softkey, 386

Index

- Clock Polarity Neg Pos softkey, [387](#)
- Clock Time Delay softkey, [386](#)
- Clock/Gate Delay softkey, [437](#)
- command tree, SCPI, [7](#)
- Common Mode I/Q Offset softkey, [26](#)
- communication subsystem keys
 - Default Gateway, [72](#)
 - GPIB Address, [72](#)
 - Hostname, [73](#)
 - IP Address, [73](#)
 - Meter Address, [74](#)
 - Meter Channel A B, [74](#)
 - Meter Timeout, [75](#)
 - Power Meter, [75](#)
 - Reset RS-232, [76](#)
 - RS-232 Baud Rate, [76](#)
 - RS-232 ECHO Off On, [76](#)
 - RS-232 Timeout, [77](#)
 - Subnet Mask, [73](#)
- Comp Mode Start Trigger Polarity Neg Pos softkey, [977](#)
- Comp Mode Start Trigger Polarity Pos Neg softkey, [878](#), [879](#)
- Comp Mode Stop Trigger Polarity Neg Pos softkey, [978](#)
- Comp Mode Stop Trigger Polarity Pos Neg softkey, [878](#)
- Compressed Frame (RPS8) softkey
 - See wideband CDMA base band generator subsystem keys and fields
- Compressed Mode Off On softkey, [976](#)
- Compressed Mode Start Trigger softkey, [850](#), [877](#), [977](#)
- Compressed Mode Stop Trigger softkey, [878](#), [977](#)
- Config softkey, [253](#), [257](#)
- Configure Cal Array softkey, [20](#)
- Continuous PN9 softkey, [438](#)
- Continuous softkey
 - See CDMA ARB subsystem keys
 - See CDMA2000 ARB subsystem keys
 - See custom subsystem keys
 - See DECT subsystem keys
 - See Dmodulation subsystem keys
 - See dual ARB subsystem keys
 - See EDGE subsystem keys
 - See GSM subsystem keys
 - See NADC subsystem keys
 - See PDC subsystem keys
 - See PHS subsystem keys
 - See TETRA subsystem keys
- Continuous softkey (continued)
 - See wideband CDMA ARB subsystem keys
- Copy File softkey, [104](#), [109](#), [110](#), [123](#)
- correction subsystem keys
 - Configure Cal Array, [20](#)
 - Flatness Off On, [22](#)
 - Load From Selected File, [20](#)
 - Preset List, [21](#)
 - Store To File, [21](#)
- CPICH softkey, [341](#)
- CRC Size field, [882](#), [982](#), [991](#)
- creating a waveform, multitone, [309](#)
- CS-1 softkey, [661](#)
- CSID softkey, [761](#), [781](#)
- Ctrl Beta field, [922](#)
- Ctrl Pwr field, [924](#)
- Custom CDMA Multicarrier softkey, [231](#)
- Custom CDMA State softkey, [229](#), [232](#)
- Custom CDMA2000 Carrier softkey, [248](#), [250](#)
- Custom CDMA2000 Multicarrier softkey, [249](#)
- Custom CDMA2000 State softkey, [255](#)
- Custom Digital Mod State softkey, [280](#), [282](#)
- Custom Off On softkey, [545](#)
- Custom softkey, [562](#), [573](#), [622](#), [669](#), [765](#)
- custom subsystem keys
 - 16 1's & 16 0's, [532](#)
 - 16PSK, [538](#)
 - 16QAM, [538](#)
 - 256QAM, [538](#)
 - 2-Lvl FSK, [538](#)
 - 32 1's & 32 0's, [532](#)
 - 32QAM, [538](#)
 - 4 1's & 4 0's, [532](#)
 - 4-Lvl FSK, [538](#)
 - 4QAM, [538](#)
 - 64 1's & 64 0's, [532](#)
 - 64QAM, [538](#)
 - 8 1's & 8 0's, [532](#)
 - 8PSK, [538](#)
 - APCO 25 C4FM, [535](#)
 - APCO 25 w/CQPSK, [541](#)
 - BBG Data Clock Ext Int, [524](#)
 - BBG Ref Ext Int, [534](#)
 - Bluetooth, [541](#)
 - BPSK, [538](#)
 - Bus, [543](#)
 - CDPD, [541](#)
 - Continuous, [541](#)
 - Custom Off On, [545](#)
 - D8PSK, [538](#)

custom subsystem keys (*continued*)
 Diff Data Encode Off On, 532
 Ext, 532, 543
 Ext BBG Ref Freq, 534
 Ext Data Clock Normal Symbol, 533
 Ext Delay Bits, 544
 Ext Delay Off On, 544
 Ext Polarity Neg Pos, 545
 Fall Delay, 527, 528
 Fall Time, 527, 528
 Filter Alpha, 524
 Filter BbT, 525
 FIX4, 532
 Free Run, 542
 Freq Dev, 536
 Gate Active Low High, 542
 Gated, 541
 Gaussian, 535
 Gray Coded QPSK, 538
 I/Q Scaling, 536
 IS-95, 535
 IS-95 Mod, 535
 IS-95 Mod w/EQ, 535
 IS-95 OQPSK, 538
 IS-95 QPSK, 538
 IS-95 w/EQ, 535
 MSK, 538
 None, 541
 Nyquist, 535
 Optimize FIR For EVM ACP, 531
 OQPSK, 538
 $\pi/4$ DQPSK, 538
 Patt Trig In 1, 543
 Patt Trig In 2, 543
 Phase Dev, 537
 Phase Polarity Normal Invert, 539
 PN11, 532
 PN15, 532
 PN20, 532
 PN23, 532
 PN9, 532
 QPSK, 538
 Rectangle, 535
 Reset & Run, 542
 Rise Delay, 529
 Rise Time, 530
 Root Nyquist, 535
 Single, 541
 Symbol Rate, 539

custom subsystem keys (*continued*)
 Trigger & Run, 542
 Trigger Key, 543
 UN3/4 GSM Gaussian, 535
 User File, 532
 User FIR, 535
 User FSK, 537, 538
 User I/Q, 538
 Custom TS softkey, 621, 660, 667
 Custom WCDMA State softkey, 346
 Cycle Count softkey, 430
 Cycle End softkey, 370

D

D8PSK softkey
 See custom subsystem keys
 See DECT subsystem keys
 See Dmodulation subsystem keys
 See EDGE subsystem keys
 See GSM subsystem keys
 See NADC subsystem keys
 See PDC subsystem keys
 See PHS subsystem keys
 See TETRA subsystem keys
 Data Beta field, 927
 Data Clock Out Neg Pos softkey, 132
 Data Clock Polarity Neg Pos softkey, 129,
 131, 134
 Data field, 904, 995
 Data Mode Raw Enc TLM softkey, 632
 Data Out Polarity Neg Pos softkey, 133, 135
 Data Polarity Neg Pos softkey, 129, 131, 387
 Data Pwr field, 928
 Data Rate field, 852
 data subsystem keys
 Error Out, 380
 PN9, 380
 Reference Out, 380
 DATA/CLK/SYNC Rear Outputs Off On
 softkey, 134
 DAYLT field, 473
 dBm softkey, 169
 dBuV softkey, 169
 dBuVemf softkey, 169
 DC softkey, 190
 DCFM/DC Φ M Cal softkey, 68
 DCH1 softkey, 890
 DCH2 softkey, 890
 DCH3 softkey, 890
 DCH4 softkey, 890
 DCH5 softkey, 890

Index

- DCH6 softkey, 890
- decimal values, 17
- Dect Off On softkey, 595
- DECT softkey, 280, 282
- DECT subsystem keys
 - 16 1's & 16 0's, 555, 562, 565, 568, 570, 572, 574, 578, 581, 584, 586
 - 16-Lvl FSK, 555
 - 16PSK, 561
 - 16QAM, 561
 - 256QAM, 561
 - 2-Lvl FSK, 561
 - 32 1's & 32 0's, 555, 562, 565, 568, 570, 572, 574, 578, 581, 584, 586
 - 32QAM, 561
 - 4 1's & 4 0's, 555, 562, 565, 568, 570, 572, 574, 578, 581, 584, 586
 - 4-Lvl FSK, 561
 - 4QAM, 561
 - 64 1's & 64 0's, 555, 562, 565, 568, 570, 572, 574, 578, 581, 584, 586
 - 64QAM, 561
 - 8 1's & 8 0's, 555, 562, 565, 568, 570, 572, 574, 578, 581, 584, 586
 - 8-Lvl FSK, 555
 - 8PSK, 561
 - A field, 563, 566, 569, 571, 575, 576, 577, 580, 582, 585
 - All Timeslots, 588
 - APCO 25 C4FM, 558
 - BBG Data Clock Ext Int, 546
 - BBG Ref Ext Int, 557
 - Begin Frame, 588
 - Begin Timeslot #, 588, 589
 - BPSK, 561
 - Bus, 587, 593
 - Continuous, 591
 - Custom, 562, 573
 - D8PSK, 561
 - Data Format Pattern Framed, 554
 - Dect Off On, 595
 - DM0, 562, 565, 568, 570, 572, 574, 578, 581, 584, 586
 - DM1, 562, 565, 568, 570, 572, 574, 578, 581, 584, 586
 - Dummy Bearer 1, 573
 - Dummy Bearer 2, 573
 - Ext, 555, 562, 565, 568, 570, 572, 574, 578, 581, 584, 586, 587, 593
- DECT subsystem keys (*continued*)
 - Ext Data Clock Normal Symbol, 556
 - Ext Delay Bits, 594
 - Ext Delay Off On, 595
 - Ext Polarity Neg Pos, 594
 - FACC, 562, 565, 568, 570, 572, 574, 578, 581, 584, 586
 - Fall Delay, 549, 550
 - Fall Time, 549, 550
 - FDEV1_FS, 562, 565, 568, 570, 572, 574, 578, 581, 584, 586
 - FDEV1_HS, 562, 565, 568, 570, 572, 574, 578, 581, 584, 586
 - FDEV2_FS, 562, 565, 568, 570, 572, 574, 578, 581, 584, 586
 - Filter Alpha, 546
 - Filter BbT, 547
 - FIX4, 555, 562, 563, 565, 568, 570, 572, 573, 574, 578, 579, 581, 582, 584, 586
 - Free Run, 592
 - Freq Dev, 559
 - Gate Active Low High, 592
 - Gated, 591
 - Gaussian, 558
 - Gray Coded QPSK, 561
 - I/Q Scaling, 559
 - IS-95, 558
 - IS-95 Mod, 558
 - IS-95 Mod w/EQ, 558
 - IS-95 OQPSK, 561
 - IS-95 QPSK, 561
 - IS-95 w/EQ, 558
 - Low Capacity, 562, 573
 - Low Capacity with Z field, 562, 573
 - MSK, 561
 - Nyquist, 558
 - Optimize FIR For EVM ACP, 554
 - OQPSK, 561
 - P, 564, 567, 569, 571, 575, 576, 577, 580, 583, 585
 - $\pi/4$ DQPSK, 561
 - Patt Trig In 1, 593
 - Patt Trig In 2, 593
 - Phase Dev, 560
 - Phase Polarity Normal Invert, 562
 - PN11, 555, 562, 565, 568, 570, 572, 574, 581, 584, 586
 - PN15, 555, 562, 565, 568, 570, 572, 574, 578, 581, 584, 586

- DECT subsystem keys (*continued*)
- PN20, 555, 562, 565, 568, 570, 572, 574, 581, 584, 586
 - PN23, 555, 562, 565, 568, 570, 572, 574, 581, 584, 586
 - PN9, 555, 562, 565, 568, 570, 572, 574, 578, 581, 584, 586
 - PN9 Mode Normal Quick, 548
 - QPSK, 561
 - Recall Secondary Frame State, 587
 - Rectangle, 558
 - Reset & Run, 592
 - Restore DECT Factory Default, 556
 - Rise Delay, 551, 552
 - Rise Time, 552, 553
 - Root Nyquist, 558
 - S, 564, 567, 569, 572, 575, 577, 578, 581, 583, 585
 - Save Secondary Frame State, 587
 - Secondary Frame Off On, 588
 - Sine, 531, 553
 - Single, 591
 - Symbol Rate, 590
 - Sync Out Offset, 589
 - Timeslot Ampl Main Delta, 566, 579
 - Timeslot Off On, 566, 579
 - Traffic Bearer, 562, 573
 - Traffic Bearer with Z field, 562, 573
 - Trigger & Run, 592
 - Trigger Key, 587, 593
 - UN3/4 GSM Gaussian, 558
 - User File, 531, 553, 555, 562, 565, 568, 570, 572, 574, 578, 581, 584, 586
 - User FIR, 558
 - User FSK, 560, 561
 - User I/Q, 561
- Default Gateway softkey, 72
- Delay Bits softkey, 429
- Delete All NVWFM Files softkey, 123
- Delete All WFM Files softkey, 124
- Delete All WFM1 Files softkey, 124
- Delete File softkey, 124
- Delete softkeys
- Delete All ARB CDMA Files, 112
 - Delete All ARB DMOD Files, 112
 - Delete All ARB DWCDMA Files, 113
 - Delete All ARB FCDMA Files, 113
 - Delete All ARB MCDMA Files, 115
 - Delete All ARB MDMOD Files, 115
- Delete softkeys (*continued*)
- Delete All ARB MDWCDMA Files, 115
 - Delete All ARB MFCDMA Files, 116
 - Delete All ARB MTONE Files, 116
 - Delete All ARB RCDMA Files, 116
 - Delete All ARB UWCDMA Files, 118
 - Delete All Binary Files, 111
 - Delete All Bit Files, 112
 - Delete All Files, 111
 - Delete All FIR Files, 113
 - Delete All FSK Files, 114
 - Delete All I/Q Files, 114
 - Delete All List Files, 114
 - Delete All SEQ Files, 117
 - Delete All SHAPE Files, 117
 - Delete All State Files, 117
 - Delete All UFLT Files, 118
 - Delete File, 118
- Diagnostic Info softkey, 78, 79, 80, 81, 87
- diagnostic subsystem keys
- Diagnostic Info, 78, 79, 80, 81
 - Installed Board Info, 78
 - Options Info, 80
- Diff Data Encode Off On softkey, 532, 650
- Diff. Mode I Offset softkey, 27
- Diff. Mode Q Offset softkey, 27
- Digital Modulation Off On softkey, 289
- digital modulation subsystem keys
- ALC BW Normal Narrow, 23
 - BBG1, 26, 38
 - Burst Envelope Int Ext Off, 23
 - Common Mode I/Q Offset, 26
 - Diff. Mode I Offset, 27
 - Diff. Mode Q Offset, 27
 - Ext 50 Ohm, 26, 38
 - Ext 600 Ohm, 26, 38
 - Ext In 600 Ohm I Offset, 28
 - Ext In 600 Ohm Q Offset, 29
 - High Crest Mode Off On, 24
 - I Offset, 30
 - I/Q Adjustments Off On, 32
 - I/Q Gain Balance Source 1, 29
 - I/Q Off On, 38
 - I/Q Out Gain Balance, 28
 - I/Q Output Atten, 29
 - I/Q Skew, 32
 - Int I/Q Skew Corrections Off Int Ext, 37
 - Int Phase Polarity Normal Invert, 25, 36
 - Off, 26, 38

Index

- digital modulation subsystem keys
 - (*continued*)
 - Q Offset, [30](#)
 - Quadrature Skew, [31](#)
- discrete response data, [12](#)
- discrete SCPI parameters, [10](#)
- display contrast hardkeys, [84](#)
- display subsystem keys
 - Brightness, [83](#)
 - display contrast, [84](#)
 - Inverse Video Off On, [84](#)
 - Update in Remote Off On, [85](#)
- DL Reference 1.1 softkey, [975](#)
 - wideband CDMA base band generator
 - subsystem softkeys
 - DL Reference 1.1, [876](#)
- DL Reference 1.2 softkey, [975](#)
 - wideband CDMA base band generator
 - subsystem softkeys
 - DL Reference 1.2, [876](#)
- DL Reference 2.1 softkey, [975](#)
 - wideband CDMA base band generator
 - subsystem softkeys
 - DL Reference 2.1, [876](#)
- DL Reference 2.2 softkey, [975](#)
 - wideband CDMA base band generator
 - subsystem softkeys
 - DL Reference 2.2, [876](#)
- DM0 softkey
 - See DECT subsystem keys
- DM1 softkey
 - See DECT subsystem keys
- DMOD softkey, [94](#)
- Dmodulation subsystem keys
 - # of Carriers, [280](#), [283](#)
 - 16PSK, [276](#)
 - 16QAM, [276](#)
 - 2.100 MHz, [273](#)
 - 256QAM, [276](#)
 - 2-Lvl FSK, [276](#)
 - 32QAM, [276](#)
 - 40.000 MHz, [269](#), [273](#)
 - 4-Lvl FSK, [276](#)
 - 4QAM, [276](#)
 - 64QAM, [276](#)
 - 8PSK, [276](#)
 - APCO 25 C4FM, [270](#)
 - APCO 25 w/C4FM, [280](#), [282](#)
 - APCO 25 w/C4QPSK, [280](#), [282](#)
 - ARB Reference Ext Int, [278](#)
 - Dmodulation subsystem keys (*continued*)
 - ARB Sample Clock, [279](#)
 - BPSK, [276](#)
 - Bus, [286](#)
 - Carrier Phases Fixed Random, [281](#)
 - CDPD, [280](#), [282](#)
 - Clear Header, [272](#)
 - Continuous, [285](#)
 - Custom Digital Mod State, [280](#), [282](#)
 - D8PSK, [276](#)
 - DECT, [280](#), [282](#)
 - Digital Modulation Off On, [289](#)
 - EDGE, [280](#), [282](#)
 - Ext, [286](#)
 - Ext Delay Off On, [287](#)
 - Ext Delay Time, [287](#)
 - Ext Polarity Neg Pos, [288](#)
 - Filter Alpha, [271](#)
 - Filter BbT, [271](#)
 - Free Run, [285](#)
 - Freq Dev, [275](#)
 - Freq Spacing, [280](#)
 - Gate Active Low High, [286](#)
 - Gated, [285](#)
 - Gaussian, [270](#)
 - Gray Coded QPSK, [276](#)
 - GSM, [280](#), [282](#)
 - I/Q Mod Filter Manual Auto, [274](#)
 - I/Q Output Filter Manual Auto, [269](#)
 - Immediate, [279](#)
 - Initialize Table, [282](#)
 - Insert Row, [250](#), [282](#)
 - IS-2000 SR3 DS, [270](#)
 - IS-95, [270](#)
 - IS-95 Mod, [270](#)
 - IS-95 Mod w/EQ, [270](#)
 - IS-95 OQPSK, [276](#)
 - IS-95 QPSK, [276](#)
 - IS-95 w/EQ, [270](#)
 - Load/Store, [281](#)
 - Marker 1, [274](#), [275](#)
 - Marker 1 Polarity Neg Pos, [276](#)
 - Marker 2, [274](#), [275](#)
 - Marker 2 Polarity Neg Pos, [277](#)
 - Marker 3, [274](#), [275](#)
 - Marker 3 Polarity Neg Pos, [277](#)
 - Marker 4, [274](#), [275](#)
 - Marker 4 Polarity Neg Pos, [277](#)
 - Modulator Atten Manual Auto, [273](#)

- Dmodulation subsystem keys (*continued*)
- MSK, 276
 - Multicarrier Off On, 280
 - NADC, 280, 282
 - None, 274, 275
 - Nyquist, 270
 - Off, 279
 - On, 279
 - Optimize FIR For EVM ACP, 272
 - OQPSK, 276
 - $\pi/4$ DQPSK, 276
 - Patt Trig In 1, 288
 - Patt Trig In 2, 288
 - PDC, 280, 282
 - PHS, 280, 282
 - PWT, 280, 282
 - QPSK, 276
 - Rectangle, 270
 - Reference Freq, 213, 278
 - Reset & Run, 285
 - Root Nyquist, 270
 - Save Setup To Header, 272
 - Select File, 250, 280
 - Single, 285
 - Store Custom Dig Mod State, 283
 - Symbol Rate, 283
 - TETRA, 280, 282
 - Through, 269, 273
 - Trigger & Run, 285
 - Trigger Key, 286
 - UN3/4 GSM Gaussian, 270
 - User FIR, 270
 - User FSK, 276
 - User I/Q, 276
 - WCDMA, 270
 - Dn Custom Cont softkey, 820
 - Dn Normal Cont softkey, 820
 - Dn Normal Disc softkey, 820
 - Dn Sync Cont softkey, 820
 - Dn Sync Disc softkey, 820
 - Do Power Search softkey, 59, 60
 - Doppler Shift softkey, 633
 - Down Custom softkey, 706, 740
 - Down TCH All softkey, 706, 740
 - Down TCH softkey, 706, 740
 - Down/Up softkey, 847, 899
 - Downlink MCS-1 softkey, 661
 - Downlink MCS-5 softkey, 614
 - Downlink MCS-9 softkey, 614
 - DPCCH + 1 DPDCH softkey, 346
 - DPCCH + 2 DPDCH softkey, 346
 - DPCCH + 3 DPCCH softkey, 346
 - DPCCH + 4 DPDCH softkey, 346
 - DPCCH + 5 DPDCH softkey, 346
 - DPCCH Pilot data-clk (DRPS23) softkey, 863, 865, 866, 867, 868
 - DPCCH Power field, 896
 - DPCCH Raw Data (RPS4) softkey
 - See wideband CDMA base band generator subsystem keys and fields
 - DPCCH Raw Data Clock (RPS5) softkey
 - See wideband CDMA base band generator subsystem keys and fields
 - DPCCH softkey, 346, 890, 913
 - DPCCH TFC I data-clk (DRPS22) softkey, 863, 865, 866, 867, 868
 - DPCCH TPC indicator (DRPS21) softkey, 863, 865, 866, 867, 868
 - DPCH + 1 softkey, 831, 832
 - DPCH + 2 softkey, 831, 832
 - DPCH Channel Balance softkey, 839
 - DPCH Compressed Frame Indicator (DRPS32) softkey, 863, 865, 866, 867, 868
 - DPCH data stream (DRPS24) softkey, 863, 865, 866, 867, 868
 - DPCH data-clk (0) (DRPS28) softkey, 863, 865, 866, 867, 868
 - DPCH Gap Indicator (DRPS33) softkey, 863, 865, 866, 867, 868
 - DPCH softkey, 341
 - DPCH TimeSlot pulse (DRPS25) softkey, 863, 865, 866, 867, 868
 - DPCH10ms Frame-Pulse (DRPS26) softkey, 863, 865, 866, 867, 868
 - DPDCH data-clk withDTX (DRPS20) softkey, 863, 865, 866, 867, 868
 - DPDCH data-clk WithOutDTX (DRPS30) softkey, 863, 865, 866, 867, 868
 - DPDCH Power field, 904
 - DPDCH Raw Data (RPS2) softkey
 - See wideband CDMA base band generator subsystem keys and fields
 - DPDCH Raw DataClock (RPS3) softkey
 - See wideband CDMA base band generator subsystem keys and fields
 - DPDCH softkey, 890
 - Drift Deviation softkey, 441
 - dual ARB subsystem
 - Through, 290
 - dual ARB subsystem keys
 - # Skipped Points, 297
 - 2.100 MHz, 294

Index

dual ARB subsystem keys (*continued*)
40.000 MHz, 290, 294
ARB Off On, 308
ARB Reference Ext Int, 24, 25, 33, 34, 35, 36, 300
ARB Sample Clock, 302
Build New Waveform Sequence, 302
Bus, 305
Clear Header, 291
Clipping Type |I+jQ| |I|, |Q|, 290
Continuous, 305
Edit Repetitions, 302
Edit Selected Waveform Sequence, 302
Ext, 305
Ext Delay Off On, 307
Ext Delay Time, 306
Ext Polarity Neg Pos, 307
First Mkr Point, 295, 297
Free Run, 304
Gate, 303
Gate Active Low High, 304
I/Q Mod Filter Manual Auto, 295
I/Q Output Filter Manual Auto, 292, 293
Immediate, 301
Last Mkr Point, 295, 297
Marker 1, 298
Marker 1 2, 295, 297
Marker 1 Polarity Neg Pos, 299
Marker 2, 298
Marker 2 Polarity Neg Pos, 299
Marker 3, 298
Marker 3 Polarity Neg Pos, 299
Marker 4, 298
Marker 4 Polarity Neg Pos, 300
Modulator Atten Manual Auto, 294
None, 298
Off, 301
On, 301
Patt Trig In 1, 306
Patt Trig In 2, 306
Reference Freq, 300
Reset & Run, 304
Save Setup To Header, 292
Scaling, 302
Segment Advance, 303
Select Waveform, 307
Set Marker Off All Points, 296
Single, 303, 305
Through, 290, 294

dual ARB subsystem keys (*continued*)
Toggle Marker 1, 302
Trigger & Run, 304
Trigger Key, 305
Waveform Runtime Scaling, 301
Dual-Sine softkey, 175, 183, 190, 196
Dummy Bearer 1 softkey, 573
Dummy Bearer 2 softkey, 573
Dummy softkey, 669
DWCDMA softkey, 95
Dwell Type List Step softkey, 52

E

Eb/No field, 919
Eb/No value (dB) field, 889
EbNo field
See CDMA2000 BBG subsystem keys and fields
Ec/No value field, 831, 920
EcNo field, 466, 502, 507
EDGE BERT Off On softkey, 411
EDGE Off On softkey, 630
EDGE softkey, 280, 282, 607
EDGE subsystem keys
16 1's & 16 0's, 604, 613, 614
16PSK, 610
16QAM, 610
256QAM, 610
2-Lvl FSK, 610
32 1's & 32 0's, 604, 613, 614
32QAM, 610
4 1's & 4 0's, 604, 613, 614
4-Lvl FSK, 610
4QAM, 610
64 1's & 64 0's, 604, 613, 614
64QAM, 610
8 1's & 8 0's, 604, 613, 614
8PSK, 610
All Timeslots, 623
APCO 25 C4FM, 607
BBG Ref Ext Int, 606
Begin Frame, 623
Begin Timeslot #, 623, 624
BPSK, 610
Bus, 612, 627
Continuous, 626
Custom, 622
Custom TS, 621
D8PSK, 610
Data Format Pattern Framed, 603

EDGE subsystem keys (*continued*)
Downlink MCS-5, 614
Downlink MCS-9, 614
EDGE, 607
EDGE Off On, 630
E-TCH/F43.2, 614
Ext, 604, 612, 613, 614, 627
Ext BBG Ref Freq, 606
Ext Data Clock Ext Int, 596
Ext Data Clock Normal Symbol, 605
Ext Delay Bits, 628
Ext Delay Off On, 629
Ext Polarity Neg Pos, 630
Fall Delay, 597, 598
Fall Time, 598, 599
Filter Alpha, 596
Filter BbT, 597
FIX4, 604, 613, 614, 618
Free Run, 626
Freq Dev, 608
G, 614, 620
Gate Active Low High, 627
Gated, 626
Gaussian, 607
Gray Coded QPSK, 610
I/Q Scaling, 608
IS-95, 607
IS-95 Mod, 607
IS-95 Mod w/EQ, 607
IS-95 OQPSK, 610
IS-95 QPSK, 610
IS-95 w/EQ, 607
MSK, 610
Normal, 622
Normal All, 622
Nyquist, 607
Optimize FIR For EVM ACP, 603
OQPSK, 610
 $\pi/4$ DQPSK, 610
Patt Trig In 1, 628
Patt Trig In 2, 628
Phase Dev, 609
Phase Polarity Normal Invert, 611
PN11, 604, 613, 614
PN15, 604, 613, 614, 617, 618, 619, 620
PN20, 604, 613, 614
PN23, 604, 613, 614
PN9, 604, 613, 614, 617, 618, 619, 620
QPSK, 610

EDGE subsystem keys (*continued*)
Recall Secondary Frame State, 611
Rectangle, 607
Reset & Run, 626
Restore EDGE Factory Default, 604
Rise Delay, 600
Rise Time, 601, 602
Root Nyquist, 607
Save Secondary Frame State, 611
Secondary Frame Off On, 612
Sine, 602
Single, 626
Symbol Rate, 624
Sync Out Offset, 623
T1, 621
T2, 621
Timeslot Ampl Main Delta, 622
Timeslot Off On, 622
Trigger & Run, 626
Trigger Key, 612, 627
TSC0, 621
TSC1, 621
TSC2, 621
TSC3, 621
TSC4, 621
TSC5, 621
TSC6, 621
TSC7, 621
UN3/4 GSM Gaussian, 607
Uncoded, 614
Uplink MCS-5, 614
Uplink MCS-9, 614
User File, 602, 604, 613, 614
User FIR, 607
User FSK, 609, 610
User I/Q, 610
Edit Channel Setup softkey, 253, 257
Edit Repetitions softkey, 302
Edit Selected Waveform Sequence softkey, 302
Equal Energy per Symbol softkey, 344
Equal Powers softkey
 See CDMA ARB subsystem keys
 See CDMA2000 ARB subsystem keys
 See CDMA2000 BBG subsystem keys and fields
 See wideband CDMA base band generator subsystem keys and fields
Error BER softkey, 992

Index

- Error Bits softkey, [983](#)
- Error Blocks field, [985](#)
- Error Count softkey, [411](#)
 - See sense subsystem keys
- Error Info softkey, [157](#)
- Error Out softkey, [380](#)
- Error Rate softkey
 - See calculate subsystem keys
 - See calculate subsystem keys
- ET softkey, [659](#)
- E-TCH/F43.2 softkey, [614](#)
- Even Second Delay field, [452](#), [487](#)
- Event 1 Polarity Neg Pos softkey, [133](#), [135](#)
- Event 2 Polarity Neg Pos softkey, [133](#), [135](#)
- Exceeds Any Limit softkey, [369](#)
- Exceeds Any Thresholds softkey
 - See sense subsystem keys
- Execute Cal softkey, [69](#)
- Ext 50 Ohm softkey, [26](#), [38](#)
- Ext 600 Ohm softkey, [26](#), [38](#)
- Ext BBG Ref Freq softkey
 - See custom subsystem keys
 - See EDGE subsystem keys
 - See GSM subsystem keys
 - See NADC subsystem keys
 - See PDC subsystem keys
 - See PHS subsystem keys
 - See TETRA subsystem keys
- Ext CDMA Freq field, [474](#)
- Ext Clock Rate x1 x2 x4 softkey, [829](#)
- Ext Data Clock Ext Int softkey
 - See EDGE subsystem keys
 - See PDC subsystem keys
- Ext Data Clock Normal Symbol softkey
 - See custom subsystem keys
 - See DECT subsystem keys
 - See EDGE subsystem keys
 - See GSM subsystem keys
 - See NADC subsystem keys
 - See PDC subsystem keys
 - See PHS subsystem keys
 - See TETRA subsystem keys
- Ext Delay Bits softkey
 - See custom subsystem keys
 - See DECT subsystem keys
 - See EDGE subsystem keys
 - See GSM subsystem keys
 - See NADC subsystem keys
 - See PDC subsystem keys
 - See PHS subsystem keys
 - See TETRA subsystem keys
- Ext Delay Off On softkey
 - See CDMA ARB subsystem keys
 - See CDMA2000 ARB subsystem keys
 - See custom subsystem keys
 - See DECT subsystem keys
 - See Dmodulation subsystem keys
 - See dual ARB subsystem keys
 - See EDGE subsystem keys
 - See GSM subsystem keys
 - See NADC subsystem keys
 - See PDC subsystem keys
 - See PHS subsystem keys
 - See TETRA subsystem keys
 - See wideband CDMA ARB subsystem keys
- Ext Delay Time softkey, [237](#), [267](#), [287](#), [306](#), [357](#)
- Ext Frame Trigger Delay softkey, [394](#)
- Ext In 600 Ohm I Offset softkey, [28](#)
- Ext In 600 Ohm Q Offset softkey, [29](#)
- Ext Polarity Neg Pos softkey
 - See CDMA ARB subsystem keys
 - See CDMA2000 ARB subsystem keys
 - See custom subsystem keys
 - See DECT subsystem keys
 - See Dmodulation subsystem keys
 - See dual ARB subsystem keys
 - See EDGE subsystem keys
 - See GSM subsystem keys
 - See NADC subsystem keys
 - See PDC subsystem keys
 - See PHS subsystem keys
 - See TETRA subsystem keys
 - See wideband CDMA ARB subsystem keys
- Ext softkey
 - See amplitude modulation subsystem keys
 - See CDMA ARB subsystem keys
 - See CDMA2000 ARB subsystem keys
 - See CDMA2000 BBG subsystem keys and fields
 - See custom subsystem keys
 - See DECT subsystem keys
 - See Dmodulation subsystem keys
 - See dual ARB subsystem keys
 - See EDGE subsystem keys
 - See frequency modulation subsystem keys
 - See GSM subsystem keys
 - See list/sweep subsystem keys
 - See low frequency output subsystem keys
 - See NADC subsystem keys

- Ext softkey (continued)*
See PDC subsystem keys
See phase modulation subsystem keys
See PHS subsystem keys
See sense subsystem keys
See TETRA subsystem keys
See trigger subsystem keys
See wideband CDMA ARB subsystem keys
See wideband CDMA base band generator subsystem keys and fields
- Ext softkeys
Ext Coupling DC AC, 173, 181, 194
Ext Detector, 61
Ext Pulse, 203
Ext1, 176, 184, 197
Ext2, 176, 184, 197
- extended numeric SCPI parameter, 9
- External Frame Trigger Polarity Neg Pos softkey, 395
- External softkey, 486
- F**
- FACC softkey
See DECT subsystem keys
- Fail Hold softkey, 370
- Fall Delay softkey
See custom subsystem keys
See DECT subsystem keys
See EDGE subsystem keys
See GSM subsystem keys
See NADC subsystem keys
See PDC subsystem keys
See PHS subsystem keys
See TETRA subsystem keys
- Fall Time softkey
See custom subsystem keys
See DECT subsystem keys
See EDGE subsystem keys
See GSM subsystem keys
See NADC subsystem keys
See PDC subsystem keys
See PHS subsystem keys
See TETRA subsystem keys
- Falling softkey, 522
- FBI State field, 895
- FCDMA softkey, 95
- FCOR softkey, 808, 813
- FCorr softkey, 669
- FDEV1_FS softkey
See DECT subsystem keys
- FDEV1_HS softkey
See DECT subsystem keys
- FDEV2_FS softkey
See DECT subsystem keys
- Field 1 field, 463
- Field 2 field, 464
- Field 3 field, 464
- file
systems, 121
types, 121
- Filter Alpha softkey, 911
See CDMA ARB subsystem keys
See CDMA2000 ARB subsystem keys
See CDMA2000 BBG subsystem keys and fields
See custom subsystem keys
See DECT subsystem keys
See Dmodulation subsystem keys
See EDGE subsystem keys
See GPS subsystem keys
See GSM subsystem keys
See NADC subsystem keys
See PDC subsystem keys
See PHS subsystem keys
See TETRA subsystem keys
See wideband CDMA ARB subsystem keys
See wideband CDMA base band generator subsystem keys and fields
- Filter BbT softkey, 911
See CDMA ARB subsystem keys
See CDMA2000 ARB subsystem keys
See CDMA2000 BBG subsystem keys and fields
See custom subsystem keys
See DECT subsystem keys
See Dmodulation subsystem keys
See EDGE subsystem keys
See GPS subsystem keys
See GSM subsystem keys
See NADC subsystem keys
See PDC subsystem keys
See PHS subsystem keys
See TETRA subsystem keys
See wideband CDMA ARB subsystem keys
See wideband CDMA base band generator subsystem keys and fields
- FIR softkey, 96
- First Mkr Point softkey, 295, 297
- First Spread Code softkey, 340, 348
- FIX softkey, 895

Index

- FIX4 softkey, [894](#), [923](#), [928](#)
 - See CDMA2000 BBG subsystem keys and fields
 - See custom subsystem keys
 - See DECT subsystem keys
 - See EDGE subsystem keys
 - See GPS subsystem keys
 - See GSM subsystem keys
 - See NADC subsystem keys
 - See PDC subsystem keys
 - See PHS subsystem keys
 - See TETRA subsystem keys
 - See wideband CDMA baseband generator subsystem keys and fields
- Flat Noise BW field, [890](#)
- Flatness Off On softkey, [22](#)
- FM softkeys
 - FM Dev, [185](#)
 - FM Dev Couple Off On, [185](#)
 - FM Off On, [184](#)
 - FM Path 1 2, [180](#)
 - FM Stop Rate, [182](#)
 - FM Sweep Rate, [183](#)
 - FM Tone 2 Amp Percent of Peak, [182](#)
 - FM Tone 2 Rate, [182](#)
- forgiving listening and precise talking, [8](#)
- Frame Clock Polarity Neg Pos softkey, [909](#)
- Frame Count softkey
 - See sense subsystem keys
- Frame Erasure softkey, [422](#)
 - See calculate subsystem keys
- Frame Length field
 - See CDMA2000 BBG subsystem keys and fields
- Frame Offset field
 - See CDMA2000 BBG subsystem keys and fields
- Frame offset field, [511](#)
- Frame Repeat Single Cont softkey, [696](#)
- Frame Sync Trigger Mode Single Cont softkey, [969](#)
- Frame Trigger Source Int Ext softkey, [395](#)
- Free Run softkey
 - See amplitude modulation subsystem keys
 - See CDMA ARB subsystem keys
 - See CDMA2000 ARB subsystem keys
 - See custom subsystem keys
 - See DECT subsystem keys
 - See Dmodulation subsystem keys
 - See dual ARB subsystem keys
 - Free Run softkey (continued)
 - See EDGE subsystem keys
 - See frequency modulation subsystem keys
 - See GSM subsystem keys
 - See list/sweep subsystem keys
 - See low frequency output subsystem keys
 - See NADC subsystem keys
 - See PDC subsystem keys
 - See phase modulation subsystem keys
 - See PHS subsystem keys
 - See TETRA subsystem keys
 - See trigger subsystem keys
 - See wideband CDMA ARB subsystem keys
- Freq Dev softkey
 - See custom subsystem keys
 - See DECT subsystem keys
 - See Dmodulation subsystem keys
 - See EDGE subsystem keys
 - See GSM subsystem keys
 - See NADC subsystem keys
 - See PDC subsystem keys
 - See TETRA subsystem keys
- Freq Drift Type Linear Sine softkey, [442](#)
- Freq Offset softkey, [443](#)
- Freq softkeys
 - Freq, [44](#)
 - Freq Multiplier, [44](#)
 - Freq Offset, [43](#), [45](#)
 - Freq Ref Off On, [46](#)
 - Freq Ref Set, [45](#)
 - Freq Start, [46](#), [47](#)
- Freq Spacing softkey, [280](#), [318](#), [319](#)
- Frequency hardkey, [40](#), [42](#), [43](#), [44](#), [47](#), [48](#)
- frequency modulation subsystem keys
 - Bus, [183](#)
 - Dual-Sine, [183](#)
 - Ext, [183](#)
 - Ext Coupling DC AC, [181](#)
 - Ext1, [184](#)
 - Ext2, [184](#)
 - FM Dev, [185](#)
 - FM Dev Couple Off On, [185](#)
 - FM Off On, [184](#)
 - FM Path 1 2, [180](#)
 - FM Stop Rate, [182](#)
 - FM Sweep Rate, [183](#)
 - FM Tone 2 Amp Percent of Peak, [182](#)
 - FM Tone 2 Rate, [182](#)
 - Free Run, [183](#)

frequency modulation subsystem keys

(continued)

Incr Set, 180

Internal 1, 184

Internal 2, 184

Noise, 183

Ramp, 183

Sine, 183

Square, 183

Swept-Sine, 183

Triangle, 183

Trigger Key, 183

frequency subsystem keys

Adjust Phase, 49

Freq, 44

Freq Multiplier, 44

Freq Offset, 43, 45

Freq Ref Off On, 46

Freq Ref Set, 45

Freq Start, 46, 47

Frequency, 40, 42, 43, 44, 47, 48

Phase Ref Set, 48

Ref Oscillator Source Auto Off On, 49

FSK softkey, 96

FSYNCH Type field, 478

Full softkey, 503, 508

Function Generator softkey, 191

G

G softkey, 614, 620

Gain Unit dB Lin Index softkey, 349

Gate Active Low High softkey

See CDMA ARB subsystem keys*See* CDMA2000 ARB subsystem keys*See* custom subsystem keys*See* DECT subsystem keys*See* Dmodulation subsystem keys*See* dual ARB subsystem keys*See* EDGE subsystem keys*See* GSM subsystem keys*See* NADC subsystem keys*See* PDC subsystem keys*See* PHS subsystem keys*See* TETRA subsystem keys*See* wideband CDMA ARB subsystem keys

Gate Clk Delay softkey, 383

Gate Delay Off On softkey, 384

Gate Mode Time Clk softkey, 383

Gate Off On softkey, 385

Gate Polarity Neg Pos softkey, 385

Gate softkey, 303

Gate Time Delay softkey, 384

Gated softkey

See CDMA ARB subsystem keys*See* CDMA2000 ARB subsystem keys*See* custom subsystem keys*See* DECT subsystem keys*See* Dmodulation subsystem keys*See* EDGE subsystem keys*See* GSM subsystem keys*See* NADC subsystem keys*See* PDC subsystem keys*See* PHS subsystem keys*See* TETRA subsystem keys*See* wideband CDMA ARB subsystem keys

Gaussian softkey

See CDMA ARB subsystem keys*See* CDMA2000 ARB subsystem keys*See* CDMA2000 BBG subsystem keys and fields*See* custom subsystem keys*See* DECT subsystem keys*See* Dmodulation subsystem keys*See* EDGE subsystem keys*See* GPS subsystem keys*See* GSM subsystem keys*See* NADC subsystem keys*See* PDC subsystem keys*See* PHS subsystem keys*See* TETRA subsystem keys*See* wideband CDMA ARB subsystem keys*See* wideband CDMA base band generator subsystem keys and fields

Goto Row softkey, 316

GPIB Address softkey, 72

GPS Ref (f0) softkey, 637

GPS Ref Clk Ext Int softkey, 637

GPS subsystem

Data Mode Raw Enc TLM, 632

GPS subsystem keys

APCO 25 C4FM, 633

Data Mode Raw Enc TLM, 632

Doppler Shift, 633

Filter Alpha, 634

Filter BbT, 635

FIX4, 632

Gaussian, 633

GPS Ref (f0), 637

GPS Ref Clk Ext Int, 637

IQ Phase Normal Invert, 635

Index

GPS subsystem keys (*continued*)

- IS-95, [633](#)
- IS-95 Mod, [633](#)
- IS-95 Mod w/EQ, [633](#)
- IS-95 w/EQ, [633](#)
- Nyquist, [633](#)
- Optimize FIR For EVM ACP, [635](#)
- P Code Pwr, [636](#)
- PN15, [632](#)
- PN9, [632](#)
- Ranging Code C/A P C/A+P, [636](#)
- Real-time GPS Off On, [638](#)
- Rectangle, [633](#)
- Root Nyquist, [633](#)
- Satellite ID, [638](#)
- UN3/4 GSM Gaussian, [633](#)
- User File, [632](#)
- User FIR, [633](#)
- Gray Coded QPSK softkey
 - See custom subsystem keys
 - See DECT subsystem keys
 - See Dmodulation subsystem keys
 - See EDGE subsystem keys
 - See GSM subsystem keys
 - See NADC subsystem keys
 - See PDC subsystem keys
 - See PHS subsystem keys
 - See TETRA subsystem keys
- GSM BERT Off On softkey, [425](#)
- GSM Off On softkey, [677](#)
- GSM softkey, [280](#), [282](#)
- GSM subsystem keys
 - 16 1's & 16 0's, [649](#), [658](#), [660](#), [661](#), [668](#)
 - 16PSK, [655](#)
 - 16QAM, [655](#)
 - 256QAM, [655](#)
 - 2-Lvl FSK, [655](#)
 - 32 1's & 32 0's, [649](#), [658](#), [660](#), [661](#), [668](#)
 - 32QAM, [655](#)
 - 4 1's & 4 0's, [649](#), [658](#), [660](#), [661](#), [668](#)
 - 4-Lvl FSK, [655](#)
 - 4QAM, [655](#)
 - 64 1's & 64 0's, [649](#), [658](#), [660](#), [661](#), [668](#)
 - 64QAM, [655](#)
 - 8 1's & 8 0's, [649](#), [658](#), [660](#), [661](#), [668](#)
 - 8PSK, [655](#)
 - Access, [669](#)
 - All Timeslots, [670](#)
 - APCO 25 C4FM, [652](#)

GSM subsystem keys (*continued*)

- BBG Data Clock Ext Int, [639](#)
- BBG Ref Ext Int, [651](#)
- Begin Frame, [670](#)
- Begin Timeslot #, [670](#), [671](#)
- BPSK, [655](#)
- Bus, [657](#), [675](#)
- Continuous, [673](#)
- CS-1, [661](#)
- Custom, [669](#)
- Custom TS, [660](#), [667](#)
- D8PSK, [655](#)
- Data Format Pattern Framed, [648](#)
- Diff Data Encode Off On, [650](#)
- Downlink MCS-1, [661](#)
- Dummy, [669](#)
- ET, [659](#)
- Ext, [649](#), [657](#), [658](#), [660](#), [668](#), [675](#)
- Ext BBG Ref Freq, [557](#), [652](#)
- Ext Data Clock Normal Symbol, [651](#)
- Ext Delay Bits, [676](#)
- Ext Delay Off On, [677](#)
- Ext Polarity Neg Pos, [677](#)
- Fall Delay, [642](#), [643](#)
- Fall Time, [643](#), [644](#)
- FCorr, [669](#)
- Filter Alpha, [639](#)
- Filter BbT, [640](#)
- FIX4, [649](#), [658](#), [660](#), [661](#), [665](#), [668](#), [669](#)
- Free Run, [674](#)
- Freq Dev, [653](#)
- Gate Active Low High, [674](#)
- Gated, [673](#)
- Gaussian, [652](#)
- Gray Coded QPSK, [655](#)
- GSM Off On, [677](#)
- I/Q Scaling, [653](#)
- IS-95, [652](#)
- IS-95 Mod, [652](#)
- IS-95 Mod w/EQ, [652](#)
- IS-95 OQPSK, [655](#)
- IS-95 QPSK, [655](#)
- IS-95 w/EQ, [652](#)
- MSK, [655](#)
- Normal, [669](#)
- Normal All, [669](#)
- Nyquist, [652](#)
- Optimize FIR For EVM ACP, [648](#)
- OQPSK, [655](#)

ΓSM συβαστημ κειψ (continued)

π/4 DQPSK, 655
 Patt Trig In 1, 675
 Patt Trig In 2, 675
 Phase Dev, 654
 Phase Polarity Normal Invert, 656
 PN11, 649, 668
 PN15, 649, 658, 660, 661, 665, 666, 668
 PN20, 649, 668
 PN23, 649, 668
 PN9, 649, 658, 660, 661, 665, 666, 668
 PN9 Mode Normal Quick, 642
 QPSK, 655
 Recall Secondary Frame State, 656
 Rectangle, 652
 Reset & Run, 674
 Restore Factory Default, 649
 Rise Delay, 645
 Rise Time, 646
 Root Nyquist, 652
 S, 666
 Save Secondary Frame State, 657
 Secondary Frame Off On, 658
 Sine, 647
 Single, 673
 SS, 659
 Symbol Rate, 671
 Sync, 669
 Sync Out Offset, 670
 TCH/FS, 661
 Timeslot Ampl Main Delta, 668
 Timeslot Off On, 668
 Trigger & Run, 674
 Trigger Key, 657, 675
 TS, 669
 TSC0, 660, 667
 TSC1, 660, 667
 TSC2, 660, 667
 TSC3, 660, 667
 TSC4, 660, 667
 TSC5, 660, 667
 TSC6, 660, 667
 TSC7, 660, 667
 UN3/4 GSM Gaussian, 652
 Uplink MCS-1, 661
 User File, 647, 649, 658, 660, 661, 668
 User FIR, 652
 User FSK, 654, 655
 User I/Q, 655

H

Half softkey, 503, 508
 Header field, 459, 470
 Help Mode Single Cont softkey, 157, 158
 hexadecimal values, 17
 High Amplitude softkey
 See sense subsystem keys
 High Crest Mode Off On softkey, 24
 Higher Layer softkey, 971
 Hostname softkey, 73

I

I Offset softkey, 30
 I/Q Adjustments Off On softkey, 32
 I/Q Calibration softkey, 68
 I/Q Gain Balance Source 1 softkey, 29
 I/Q Mapping Normal Invert softkey, 222, 247, 328
 I/Q Mod Filter Manual Auto softkey, 210, 224, 247, 274, 295, 312, 329, 446
 I/Q Off On softkey, 38
 I/Q Out Gain Balance softkey, 28
 I/Q Output Atten softkey, 29
 I/Q Output Filter Manual Auto softkey, 208, 219, 242, 269, 292, 293, 310, 327, 439
 I/Q Scaling softkey
 See custom subsystem keys
 See DECT subsystem keys
 See EDGE subsystem keys
 See GSM subsystem keys
 See NADC subsystem keys
 See PDC subsystem keys
 See PHS subsystem keys
 See TETRA subsystem keys
 I/Q Skew softkey, 32
 I/Q softkey, 97
 IDLE softkey, 762, 782
 IEEE 488.2 common command keys
 Diagnostic Info, 87
 RECALL Reg, 89
 Run Complete Self Test, 92
 Save Reg, 90
 Save Seq[n] Reg[nn], 90
 Select Seq, 89
 Immediate softkey, 228, 262, 279, 301
 See sense subsystem keys
 Impairments Off On softkey, 440
 Impedance 75 Ohm High softkey, 388
 Incr Set hardkey
 See amplitude modulation subsystem keys
 See frequency modulation subsystem keys

Index

Incr Set hardkey (continued)

See phase modulation subsystem keys
Increment Scramble Code softkey, 335
Increment Timing Offset softkey, 338
Infinity softkey, 875, 974
Init Power field, 914
Init Pwr field, 933, 949
Initial Bit Count softkey, 410
Initial Block Count softkey, 398, 402
Initial Frame Count softkey, 420
Initialize Phase Fixed Random softkey, 320
Initialize Table softkey, 282
input subsystem keys
 0.7V, 388
 1.4V, 388
 1.6V, 388
 2.5V, 388
 Clock Delay Off On, 386
 Clock Polarity Neg Pos, 387
 Clock Time Delay, 386
 Data Polarity Neg Pos, 387
 Gate Clk Delay, 383
 Gate Delay Off On, 384
 Gate Mode Time Clk, 383
 Gate Off On, 385
 Gate Polarity Neg Pos, 385
 Gate Time Delay, 384
 Impedance 75 Ohm High, 388
 Resolution, 385
Insert Row softkey, 250, 253, 257, 282
Installed Board Info softkey, 78
Int I/Q Skew Corrections Off Int Ext softkey, 37
Int softkeys
 Int Doublet, 203
 Int Free-Run, 203
 Int Gated, 203
 Int Phase Polarity Normal Invert, 25, 36
 Int Triggered, 203
integer response data, 11
Intermod softkey, 871
Internal softkeys
 Internal, 61, 176, 486
 Internal 1, 184, 197
 Internal 2, 184, 197
 Internal Monitor, 191
 Internal Square, 203
Inverse Video Off On softkey, 84
Inverted softkey, 491
IP Address softkey, 73
IQ Phase Normal Invert softkey, 635

IS-2000 SR3 DS softkey
 See CDMA ARB subsystem keys
 See CDMA2000 ARB subsystem keys
 See Dmodulation subsystem keys
 See wideband CDMA ARB subsystem keys
IS-95 Mod softkey
 See CDMA ARB subsystem keys
 See CDMA2000 ARB subsystem keys
 See CDMA2000 BBG subsystem keys and fields
 See custom subsystem keys
 See DECT subsystem keys
 See Dmodulation subsystem keys
 See EDGE subsystem keys
 See GPS subsystem keys
 See GSM subsystem keys
 See NADC subsystem keys
 See PDC subsystem keys
 See PHS subsystem keys
 See TETRA subsystem keys
 See wideband CDMA ARB subsystem keys
 See wideband CDMA base band subsystem keys and fields
IS-95 Mod w/EQ softkey
 See CDMA ARB subsystem keys
 See CDMA2000 ARB subsystem keys
 See CDMA2000 BBG subsystem keys and fields
 See custom subsystem keys
 See DECT subsystem keys
 See Dmodulation subsystem keys
 See EDGE subsystem keys
 See GPS subsystem keys
 See GSM subsystem keys
 See NADC subsystem keys
 See PDC subsystem keys
 See PHS subsystem keys
 See TETRA subsystem keys
 See wideband CDMA ARB subsystem keys
 See wideband CDMA base band generator subsystem keys and fields
IS-95 OQPSK softkey
 See custom subsystem keys
 See DECT subsystem keys
 See Dmodulation subsystem keys
 See EDGE subsystem keys
 See GSM subsystem keys
 See NADC subsystem keys
 See PDC subsystem keys

IS-95 OQPSK softkey (continued)

See PHS subsystem keys
See TETRA subsystem keys

IS-95 QPSK softkey

See custom subsystem keys
See DECT subsystem keys
See Dmodulation subsystem keys
See EDGE subsystem keys
See GSM subsystem keys
See NADC subsystem keys
See PDC subsystem keys
See PHS subsystem keys
See TETRA subsystem keys

IS-95 softkey

See CDMA ARB subsystem keys
See CDMA2000 ARB subsystem keys
See CDMA2000 BBG subsystem keys and fields
See custom subsystem keys
See DECT subsystem keys
See Dmodulation subsystem keys
See EDGE subsystem keys
See GPS subsystem keys
See GSM subsystem keys
See NADC subsystem keys
See PDC subsystem keys
See PHS subsystem keys
See TETRA subsystem keys
See wideband CDMA ARB subsystem keys
See wideband CDMA base band generator subsystem keys and fields

IS-95 w/EQ softkey

See CDMA ARB subsystem keys
See CDMA2000 ARB subsystem keys
See CDMA2000 BBG subsystem keys and fields
See custom subsystem keys
See DECT subsystem keys
See Dmodulation subsystem keys
See EDGE subsystem keys
See GPS subsystem keys
See GSM subsystem keys
See NADC subsystem keys
See PDC subsystem keys
See PHS subsystem keys
See TETRA subsystem keys
See wideband CDMA ARB subsystem keys

*IS-97 Levels softkey, 230***L**

Last Mkr Point softkey, 295, 297
Leap Seconds field, 475
Left Alternate softkey, 340
Left softkey, 836
LF Out softkeys
 LF Out Amplitude, 187
 LF Out Off On, 191
 LF Out Stop Freq, 187, 188, 195
 LF Out Sweep Rate, 189
 LF Out Sweep Time, 190
 LF Out Tone 2 Ampl % of Peak, 188
 LF Out Tone 2 Freq, 187, 188, 195
Link Down Up softkey, 330, 887
Link Forward Reverse softkey, 248, 451
List softkey, 97, 121
list/sweep subsystem keys
 # Points, 58
 Bus, 55
 Dwell Type List Step, 52
 Ext, 55
 Free Run softkey, 55
 Load List From Step Sweep, 56
 Manual Mode Off On, 54
 Manual Point, 53
 Preset List, 57
 Step Dwell, 57
 Sweep Direction Down Up, 51
 Sweep Type List Step, 56
 Trigger Key, 55
Load From Selected File softkey, 20, 119, 125, 317
Load List From Step Sweep softkey, 56
Load/Store softkey, 281
Long Code Mask field, 490
Long Code State field, 455, 490
Low Amplitude softkey, 397, 401
 See sense subsystem keys
Low Capacity softkey, 562, 573
Low Capacity with Z field softkey, 562, 573
low frequency output subsystem keys
 Bus, 190
 DC, 190
 Dual-Sine, 190
 Ext, 190
 Free Run, 190
 Function Generator, 191
 Internal Monitor, 191
 LF Out Amplitude, 187
 LF Out Off On, 191

Index

low frequency output subsystem keys

(continued)

- LF Out Stop Freq, [187](#), [188](#), [195](#)
 - LF Out Sweep Rate, [189](#)
 - LF Out Sweep Time, [190](#)
 - LF Out Tone 2 Ampl % of Peak, [188](#)
 - LF Out Tone 2 Freq, [187](#), [188](#), [195](#)
 - Noise, [190](#)
 - Ramp, [190](#)
 - Sine, [190](#)
 - Square, [190](#)
 - Swept-Sine, [190](#)
 - Triangle, [190](#)
 - Trigger Key, [190](#)
- LTM OFF field, [475](#)

M

- Manual Mode Off On softkey, [54](#)
 - Manual Point softkey, [53](#)
 - Marker 1 2 softkey, [295](#), [297](#)
 - Marker 1 Polarity Neg Pos softkey, [212](#), [225](#), [260](#), [276](#), [299](#), [314](#), [351](#), [447](#)
 - Marker 1 softkey, [211](#), [224](#), [225](#), [259](#), [274](#), [275](#), [298](#), [313](#), [350](#), [351](#), [446](#), [447](#)
 - Marker 2 Polarity Neg Pos softkey, [212](#), [226](#), [260](#), [277](#), [299](#), [314](#), [352](#), [447](#)
 - Marker 2 softkey, [211](#), [224](#), [225](#), [259](#), [274](#), [275](#), [298](#), [313](#), [350](#), [351](#), [446](#), [447](#)
 - Marker 3 Polarity Neg Pos softkey, [212](#), [226](#), [260](#), [277](#), [299](#), [314](#), [352](#), [448](#)
 - Marker 3 softkey, [211](#), [224](#), [225](#), [259](#), [274](#), [275](#), [298](#), [313](#), [350](#), [351](#), [446](#), [447](#)
 - Marker 4 Polarity Neg Pos softkey, [213](#), [226](#), [261](#), [277](#), [300](#), [315](#), [352](#), [448](#)
 - Marker 4 softkey, [211](#), [224](#), [225](#), [259](#), [274](#), [275](#), [298](#), [313](#), [350](#), [351](#), [446](#), [447](#)
- mass memory subsystem keys
- Binary, [121](#)
 - Copy File, [123](#)
 - Delete All NVWFM Files, [123](#)
 - Delete All WFM Files, [124](#)
 - Delete All WFM1 Files, [124](#)
 - Delete File, [124](#)
 - List, [121](#)
 - Load From Selected File, [125](#)
 - Rename File, [126](#)
 - State, [121](#)
 - Store To File, [126](#)
 - User Flatness, [121](#)
- Max Input softkey, [871](#)
- Max Power field, [914](#)

- Max Pwr field, [933](#), [950](#)
 - MCDMA softkey, [98](#)
 - MDMOD softkey, [98](#)
 - MDWCDMA softkey, [99](#)
 - Measurement Mode BER% Search softkey, [419](#)
 - Measurement Mode BLER% Search softkey, [405](#)
- memory subsystem keys
- Add Comment To Seq[n] Reg[nn], [120](#)
 - All, [104](#), [119](#)
 - Binary, [93](#)
 - Bit, [93](#)
 - CDMA, [94](#)
 - Copy File, [104](#), [109](#), [110](#)
 - Delete All ARB CDMA Files, [112](#)
 - Delete All ARB DMOD Files, [112](#)
 - Delete All ARB DWCDMA Files, [113](#)
 - Delete All ARB FCDMA Files, [113](#)
 - Delete All ARB MCDMA Files, [115](#)
 - Delete All ARB MDWCDMA Files, [115](#)
 - Delete All ARB MTONE Files, [116](#)
 - Delete All ARB RCDMA Files, [116](#)
 - Delete All ARB UWCDMA Files, [118](#)
 - Delete All Binary Files, [111](#)
 - Delete All Bit Files, [112](#)
 - Delete All Files, [111](#)
 - Delete All FIR Files, [113](#)
 - Delete All FSK Files, [114](#)
 - Delete All I/Q Files, [114](#)
 - Delete All List Files, [114](#)
 - Delete All MDMOD Files, [115](#)
 - Delete All MFCDMA Files, [116](#)
 - Delete All SEQ Files, [117](#)
 - Delete All SHAPE Files, [117](#)
 - Delete All State Files, [117](#)
 - Delete All UFLT Files, [118](#)
 - Delete File, [118](#)
 - DMOD, [94](#)
 - DWCDMA, [95](#)
 - FCDMA, [95](#)
 - FIR, [96](#)
 - FSK, [96](#)
 - I/Q, [97](#)
 - List, [97](#)
 - Load From Selected File, [119](#)
 - MCDMA, [98](#)
 - MDMOD, [98](#)
 - MDWCDMA, [99](#)
 - MFCDMA, [99](#)

- memory subsystem keys (*continued*)
- MTONE, 100
 - Oversample Ratio, 106
 - RCDMA, 100
 - Rename File, 119
 - SEQ, 101
 - SHAPE, 101
 - State, 102
 - Store To File, 120
 - User Flatness, 103
 - UWCDMA, 103
- Message Data Raw Data (RPS11) softkey
- See wideband CDMA base band generator subsystem keys and fields
- Message Part field, 932
- Message Pulse (RPS22) softkey
- See wideband CDMA base band generator subsystem keys and fields
- Message Type field, 476
- Message-Control Raw Data Clock (RPS12) softkey
- See wideband CDMA base band generator subsystem keys and fields
- Meter Address softkeys, 74
- Meter Channel A B softkey, 74
- Meter Timeout softkey, 75
- MFCDMA softkey, 99
- Min Power field, 915
- Mod Index softkey, 443
- Mod On/Off hardkey, 127
- Modulator Atten Manual Auto softkey, 209, 222, 223, 246, 273, 294, 311, 328, 444, 445
- Msg Ctrl softkey, 920
- Msg Data softkey, 920
- Msg Pwr field, 931, 948
- MSK softkey
- See custom subsystem keys
 - See DECT subsystem keys
 - See Dmodulation subsystem keys
 - See EDGE subsystem keys
 - See GSM subsystem keys
 - See NADC subsystem keys
 - See PDC subsystem keys
 - See PHS subsystem keys
 - See TETRA subsystem keys
- MTONE softkey, 100
- Multicarrier Off On softkey, 229, 248, 280
- Multitone Off On softkey, 321
- multitone subsystem keys
- 2.100 MHz, 312
 - 40.000 MHz, 309, 312
- multitone subsystem keys (*continued*)
- ARB Reference Ext Int, 315
 - ARB Sample Clock, 317
 - Clear Header, 310
 - Freq Spacing, 318, 319
 - Goto Row, 316
 - I/Q Mod Filter Manual Auto, 312
 - I/Q Output Filter Manual Auto, 310
 - Initialize Phase Fixed Random, 320
 - Load From Selected File, 317
 - Marker 1, 313
 - Marker 1 Polarity Neg Pos, 314
 - Marker 2, 313
 - Marker 2 Polarity Neg Pos, 314
 - Marker 3, 313
 - Marker 3 Polarity Neg Pos, 314
 - Marker 4, 313
 - Marker 4 Polarity Neg Pos, 315
 - Modulator Atten Manual Auto, 311
 - Multitone Off On, 321
 - None, 313
 - Number Of Tones, 318, 319
 - Random Seed Fixed Random, 320
 - Reference Freq, 315
 - Save Setup To Header, 310
 - Store To File, 318
 - Through, 309, 312
 - Toggle State, 316, 318
- mV softkey, 169
- mVemf softkey, 169
- N**
- N Power field, 891, 921
- NADC Off On softkey, 713
- NADC softkey, 280, 282
- NADC subsystem keys
- 16 1's & 16 0's, 689, 699, 701, 703, 705
 - 16PSK, 696
 - 16QAM, 696
 - 256QAM, 696
 - 2-Lvl FSK, 696
 - 32 1's & 32 0's, 689, 699, 701, 703, 705
 - 32QAM, 696
 - 4 1's & 4 0's, 689, 699, 701, 703, 705
 - 4-Lvl FSK, 696
 - 4QAM, 696
 - 64 1's & 64 0's, 689, 699, 701, 703, 705
 - 64QAM, 696
 - 8 1's & 8 0's, 689, 699, 701, 703, 705

Index

NADC subsystem keys (*continued*)

8PSK, 696
All Timeslots, 706
APCO 25 C4FM, 692
BBG Data Clock Ext Int, 679
BBG Ref Ext Int, 691
Begin Frame, 706
Begin Timeslot #, 706, 707
BPSK, 696
Bus, 698, 709
CDL, 699
CDVCC, 700, 703
Continuous, 709
D8PSK, 696
Data Format Pattern Framed, 687
Down Custom, 706
Down TCH, 706
Down TCH All, 706
Ext, 689, 698, 699, 701, 703, 705, 709
Ext BBG Ref Freq, 691
Ext Data Clock Normal Symbol, 690
Ext Delay Bits, 712
Ext Delay Off On, 712
Ext Polarity Neg Pos, 712
Fall Delay, 682, 684
Fall Time, 683, 684
Filter Alpha, 679
Filter BbT, 680
FIX4, 689, 699, 701, 703, 705
Frame Repeat Single Cont, 696
Free Run, 710
Freq Dev, 694
Gate Active Low High, 710
Gated, 709
Gaussian, 692
Gray Coded QPSK, 696
I/Q Scaling, 693
IS-95, 692
IS-95 Mod, 692
IS-95 Mod w/EQ, 692
IS-95 OQPSK, 696
IS-95 QPSK, 696
IS-95 w/EQ, 692
MSK, 696
NADC Off On, 713
Nyquist, 692
Optimize FIR For EVM ACP, 688
OQPSK, 696
 $\pi/4$ DQPSK, 696

NADC subsystem keys (*continued*)

Patt Trig In 1, 711
Patt Trig In 2, 711
Phase Dev, 694
PN11, 689, 699, 701, 703, 705
PN15, 689, 699, 701, 703, 705
PN20, 689, 699, 701, 703, 705
PN23, 689, 699, 701, 703, 705
PN9, 689, 699, 701, 703, 705
PN9 Mode Normal Quick, 682
Polarity Normal Invert, 696
QPSK, 696
Rate Full Half, 693
Recall Secondary Frame State, 697
Rectangle, 692
Reset & Run, 710
Restore NADC Factory Default, 690
Rise Delay, 685, 686
Rise Time, 686, 687
Root Nyquist, 692
SACCH, 700, 704
Save Secondary Frame State, 697
Secondary Frame Off On, 698
Sine, 682, 688
Single, 709
Symbol Rate, 707
SYNC, 701, 704
Sync Out Offset, 706
Timeslot Ampl Main Delta, 702
Timeslot Off On, 702
Trigger & Run, 710
Trigger Key, 698, 709
UN3/4 GSM Gaussian, 692
Up Custom, 706
Up TCH, 706
Up TCH All, 706
User File, 682, 688, 689, 699, 701, 703, 705
User FIR, 692
User FSK, 695, 696
User I/Q, 695, 696
Network ID field, 476
No Limits softkey
 See calculate subsystem keys
No Thresholds softkey
 See sense subsystem keys
Noise Off On softkey, 480, 492
Noise Seed Fixed Random softkey, 215
Noise Seed softkey, 441
Noise softkey, 175, 183, 190, 196

- NONE (RPS0) softkey
See wideband CDMA base band generator subsystem keys and fields
- NONE softkey, 981
- None softkey, 211, 224, 225, 259, 274, 275, 298, 313, 350, 351, 446, 447, 541, 882, 883, 986, 995
- Normal All softkey, 622, 669
- Normal softkey, 491, 622, 669, 836
- Num of Blk field, 987, 996
- Num of Pre field, 933, 949
- Number of AICH field, 917
- Number of PRACH 80ms field, 932
- Number of PRACH field, 946, 948
- Number of Preamble field, 949
- Number Of Tones softkey, 318, 319
- numeric boolean response data, 12
- numeric SCPI parameter, 8
- numeric, extended SCPI parameter, 9
- Nyquist softkey
See CDMA ARB subsystem keys
See CDMA2000 ARB subsystem keys
See CDMA2000 BBG subsystem keys and fields
See custom subsystem keys
See DECT subsystem keys
See Dmodulation subsystem keys
See EDGE subsystem keys
See GPS subsystem keys
See GSM subsystem keys
See NADC subsystem keys
See PDC subsystem keys
See PHS subsystem keys
See TETRA subsystem keys
See wideband CDMA ARB subsystem keys
See wideband CDMA base band generator subsystem keys and fields
- O**
- OCNS softkey, 341
- octal values, 17
- Off softkey, 26, 38, 228, 262, 279, 301, 945
- Omitted softkey, 875, 973
- On softkey, 228, 262, 279, 301, 945
- On/Off field, 854, 937
- OpenLoop Ant1 SCH TSTD OFF softkey, 879
- OpenLoop Ant1 softkey, 879
- OpenLoop Ant2 SCH TSTD OFF softkey, 879
- OpenLoop Ant2 softkey, 879
- Optimize ACP ADJ ALT softkey, 330, 345
- Optimize FIR For EVM ACP softkey, 912
See CDMA ARB subsystem keys
See CDMA2000 ARB subsystem keys
See CDMA2000 BBG subsystem keys and fields
See custom subsystem keys
See DECT subsystem keys
See Dmodulation subsystem keys
See EDGE subsystem keys
See GPS subsystem keys
See GSM subsystem keys
See NADC subsystem keys
See PDC subsystem keys
See PHS subsystem keys
See TETRA subsystem keys
See wideband CDMA ARB subsystem keys
See wideband CDMA base band generator subsystem keys and fields
- options
- 001/002
 all subsystem, 206, 434
 custom subsystem, 524
 Dmodulation subsystem, 269
 dual ARB subsystem, 290
 multitone subsystem, 309
- 400
 wideband CDMA ARB subsystem, 322
 wideband CDMA base band generator subsystem, 829
- 401
 CDMA ARB subsystem, 216
 CDMA2000 ARB subsystem, 240
 CDMA2000 BBG subsystem, 451
- 402
 DECT subsystem, 546
 EDGE subsystem, 596
 GSM subsystem, 639
 NADC subsystem, 679
 PDC subsystem, 714
 PHS subsystem, 749
 TETRA subsystem, 786
- 403
 AWGN real-time subsystem, 435
 AWGN subsystem, 207
- 406
 bluetooth subsystem, 436
- 409
 GPS subsystem, 632

Index

options (*continued*)

- UN7/300
 - calculate subsystem, 362
 - data subsystem, 373
 - input subsystem, 383, 389
 - sense subsystem, 393
- Options Info softkey, 80
- OQPSK softkey
 - See custom subsystem keys
 - See DECT subsystem keys
 - See Dmodulation subsystem keys
 - See EDGE subsystem keys
 - See GSM subsystem keys
 - See NADC subsystem keys
 - See PDC subsystem keys
 - See PHS subsystem keys
 - See TETRA subsystem keys
- Output Blanking Off On Auto softkey, 127
- output subsystem keys
 - Mod On/Off, 127
 - Output Blanking Off On Auto, 127
 - RF On/Off, 128
- Oversample Ratio softkey, 106, 227

P

- P Code Pwr softkey, 636
- P Rev field, 477
- P Rev Min field, 475
- P softkey, 564
- $\pi/4$ DQPSK softkey
 - See custom subsystem keys
 - See DECT subsystem keys
 - See Dmodulation subsystem keys
 - See EDGE subsystem keys
 - See GSM subsystem keys
 - See NADC subsystem keys
 - See PDC subsystem keys
 - See PHS subsystem keys
 - See TETRA subsystem keys
- Packet (DH1) softkey, 448
- Paging Indicator field, 483, 859
- Paging softkey, 230
- parameter types. See SCPI commands
 - parameter types
- Pass Amplitude softkey, 398, 402
 - See sense subsystem keys
- Pass/Fail Limits softkey, 370
- Pass/Fail Off On softkey, 371
- paths, SCPI command tree, 7
- Patt Trig In 1 softkey
 - See CDMA ARB subsystem keys
 - See CDMA2000 ARB subsystem keys
 - See custom subsystem keys
 - See DECT subsystem keys
 - See Dmodulation subsystem keys
 - See dual ARB subsystem keys
 - See EDGE subsystem keys
 - See GSM subsystem keys
 - See NADC subsystem keys
 - See PDC subsystem keys
 - See PHS subsystem keys
 - See TETRA subsystem keys
 - See wideband CDMA ARB subsystem keys
 - subsystem keys
- Patt Trig In 2 softkey
 - See CDMA ARB subsystem keys
 - See CDMA2000 ARB subsystem keys
 - See custom subsystem keys
 - See DECT subsystem keys
 - See Dmodulation subsystem keys
 - See dual ARB subsystem keys
 - See EDGE subsystem keys
 - See GSM subsystem keys
 - See NADC subsystem keys
 - See PDC subsystem keys
 - See PHS subsystem keys
 - See TETRA subsystem keys
 - See wideband CDMA ARB subsystem keys
 - subsystem keys
- Pattern Trig In Polarity Neg Pos softkey, 130, 132
- Pattern trigger in 1 field, 960
- Pattern trigger in 2 field, 960
- PCCPCH + SCH + 3 DPCH softkey, 331, 336
- PCCPCH + SCH + 1 DPCH softkey, 331, 336
- PCCPCH + SCH softkey, 331, 336
- P-CCPCH data (DRPS39) softkey, 863, 865, 866, 867, 868
- P-CCPCH data-clk (DRPS38) softkey, 863, 865, 866, 867, 868
- PCCPCH softkey, 831, 832
- PDC Off On softkey, 747
- PDC softkey, 280, 282
- PDC subsystem keys
 - 16 1's & 16 0's, 723, 733, 735, 736, 738
 - 16PSK, 730
 - 16QAM, 730
 - 256QAM, 730
 - 2-Lvl FSK, 730

- PDC subsystem keys (*continued*)
32 1's & 32 0's, 723, 733, 735, 736, 738
32QAM, 730
4 1's & 4 0's, 723, 733, 735, 736, 738
4-Lvl FSK, 730
4QAM, 730
64 1's & 64 0's, 723, 733, 735, 736, 738
64QAM, 730
8 1's & 8 0's, 723, 733, 735, 736, 738
8PSK, 730
All Timeslots, 741
APCO 25 C4FM, 726
BBG Ref Ext Int, 725
Begin Frame, 741
Begin Timeslot #, 741, 742
BPSK, 730
Bus, 732, 745
CC, 734, 737, 739
Continuous, 744
D8PSK, 730
Data Format Pattern Framed, 722
Down Custom, 740
Down TCH, 740
Down TCH All, 740
Ext, 723, 732, 733, 735, 736, 738, 745
Ext BBG Ref Freq, 726
Ext Data Clock Ext Int, 714
Ext Data Clock Normal Symbol, 725
Ext Delay Bits, 746
Ext Delay Off On, 747
Ext Polarity Neg Pos, 747
Fall Delay, 717, 718
Fall Time, 717, 719
Filter Alpha, 714
Filter BbT, 715
FIX4, 723, 724, 733, 735, 736, 737, 738, 739
Free Run, 744
Freq Dev, 728
Gate Active Low High, 745
Gated, 744
Gaussian, 726
Gray Coded QPSK, 730
I/Q Scaling, 728
IS-95, 726
IS-95 Mod, 726
IS-95 Mod w/EQ, 726
IS-95 OQPSK, 730
IS-95 QPSK, 730
IS-95 w/EQ, 726
PDC subsystem keys (*continued*)
MSK, 730
Nyquist, 726
Optimize FIR For EVM ACP, 723
OQPSK, 730
 $\pi/4$ DQPSK, 730
Patt Trig In 1, 746
Patt Trig In 2, 746
PDC Off On, 747
Phase Dev, 729
Phase Polarity Normal Invert, 731
PN11, 723, 735, 736, 738
PN15, 723, 733, 735, 736, 738
PN20, 723, 735, 736, 738
PN23, 723, 735, 736, 738
PN9, 723, 733, 735, 736, 738
PN9 Mode Normal Quick, 716
QPSK, 730
Rate Full Half, 727
Recall Secondary Frame State, 731
Rectangle, 726
Reset & Run, 744
Restore PDC Factory Default, 724
Rise Delay, 719, 720
Rise Time, 721
Root Nyquist, 726
SACCH, 734, 737, 739
Save Secondary Frame State, 731
Secondary Frame Off On, 732
Sine, 722
Single, 744
SW, 734, 738, 740
Symbol Rate, 742
Sync Out Offset, 741
Timeslot Ampl Main Delta, 736
Timeslot Off On, 736
Trigger & Run, 744
Trigger Key, 732, 745
UN3/4 GSM Gaussian, 726
Up Custom, 740
Up TCH, 740
Up TCH All, 740
Up VOX, 740
User File, 722, 723, 733, 735, 736, 738
User FIR, 726
User FSK, 729, 730
User I/Q, 730
Performance Req softkey, 871
Permuted ESN field, 458, 469

Index

- Phase Dev softkey
 - See custom subsystem keys
 - See DECT subsystem keys
 - See EDGE subsystem keys
 - See GSM subsystem keys
 - See NADC subsystem keys
 - See PDC subsystem keys
 - See PHS subsystem keys
 - See TETRA subsystem keys
- phase modulation subsystem keys
 - ΦM Sweep Time softkey, 196
 - FM ΦM Normal High BW softkey, 194
 - ΦM Dev Couple Off On, 199
 - ΦM Dev softkey, 198
 - ΦM Off On softkey, 198
 - ΦM Path 1 2, 193
 - ΦM Tone 2 Ampl Percent of Peak, 196
 - ΦM Tone 2 Rate, 195
 - Bus, 197
 - Dual-Sine, 196
 - Ext, 197
 - Ext Coupling DC AC, 194
 - Ext1, 197
 - Ext2, 197
 - Free Run, 197
 - Incr Set, 193, 199
 - Internal 1, 197
 - Internal 2, 197
 - Noise, 196
 - Ramp, 196
 - Sine, 196
 - Square, 196
 - Swept-Sine, 196
 - Triangle, 196
 - Trigger Key, 197
- Phase Polarity field, 482
- Phase Polarity Normal Invert softkey
 - See custom subsystem keys
 - See DECT subsystem keys
 - See EDGE subsystem keys
 - See GSM subsystem keys
 - See PDC subsystem keys
 - See PHS subsystem keys
 - See TETRA subsystem keys
 - See wideband CDMA base band generator subsystem keys and fields
- Phase Polarity Normal Inverted softkey, 887
- Phase Ref Set softkey, 48
- PHS Off On softkey, 785
- PHS softkey, 280, 282
- PHS subsystem keys
 - 16 1's & 16 0's, 759, 760, 764, 780, 784
 - 16-Lvl FSK, 770
 - 16PSK, 770
 - 16QAM, 770
 - 256QAM, 770
 - 2-Lvl FSK, 770
 - 32 1's & 32 0's, 759, 760, 764, 780, 784
 - 32QAM, 770
 - 4 1's & 4 0's, 759, 760, 764, 780, 784
 - 4-Lvl FSK, 770
 - 4QAM, 770
 - 64 1's & 64 0's, 759, 760, 764, 780, 784
 - 64QAM, 770
 - 8 1's & 8 0's, 759, 760, 764, 780, 784
 - 8-Lvl FSK, 770
 - 8PSK, 770
 - All Timeslots, 773
 - APCO 25 C4FM, 767
 - BBG Data Clock Ext Int, 749
 - BBG Ref Ext Int, 766
 - Begin Frame, 773
 - Begin Timeslot #, 773, 774
 - BPSK, 770
 - Bus, 772, 778
 - C4FM, 770
 - Continuous, 776
 - CSID, 761, 781
 - Custom, 765
 - D8PSK, 770
 - Data Format Pattern Framed, 758
 - Ext, 759, 760, 764, 772, 778, 780, 784
 - Ext BBG Ref Freq, 767
 - Ext Data Clock Normal Symbol, 766
 - Ext Delay Bits, 779
 - Ext Delay Off On, 779
 - Ext Polarity Neg Pos, 780
 - Fall Delay, 753, 754
 - Fall Time, 753, 754
 - Filter Alpha, 749
 - Filter BbT, 750
 - FIX4, 759, 760, 764, 780, 784
 - Free Run, 777
 - Gate Active Low High, 777
 - Gated, 776
 - Gaussian, 767
 - Gray Coded QPSK, 770
 - I/Q Scaling, 768

PHS subsystem keys (*continued*)

IDLE, 762, 782
IS-95, 767
IS-95 Mod, 767
IS-95 Mod w/EQ, 767
IS-95 OQPSK, 770
IS-95 QPSK, 770
IS-95 w/EQ, 767
MSK, 770
Nyquist, 767
Optimize FIR For EVM ACP, 758
OQPSK, 770
 $\pi/4$ DQPSK, 770
Patt Trig In 1, 778
Patt Trig In 2, 778
Phase Dev, 768, 769
Phase Polarity Normal Invert, 771
PHS Off On, 785
PN11, 759, 760, 764, 780, 784
PN15, 759, 760, 764, 780, 784
PN20, 759, 760, 764, 780, 784
PN23, 759, 760, 764, 780, 784
PN9, 759, 760, 764, 780, 784
PN9 Mode Normal Quick, 751
PSID, 762, 782
QPSK, 770
Recall Secondary Frame State, 771
Rectangle, 767
Reset & Run, 777
Restore PHS Factory Default, 760
Rise Delay, 755, 756
Rise Time, 756, 757
Root Nyquist, 767
SA, 763, 783
Save Secondary Frame State, 772
Scramble Off On, 752
Scramble Seed, 752
Secondary Frame Off On, 773
Sine, 757
Single, 776
Symbol Rate, 775
SYNC, 765
Sync Out Offset, 774
TCH, 765
TCH All, 765
Timeslot Ampl Main Delta, 761, 781
Timeslot Off On, 763, 783
Timeslot Type, 785
Trigger & Run, 777

PHS subsystem keys (*continued*)

Trigger Key, 772, 778
UN3/4 GSM Gaussian, 767
User File, 757, 759, 760, 764, 780, 784
User FIR, 767
User FSK, 769, 770
User I/Q, 770
UW, 762, 764, 782, 784
PI Bits field, 858
PICH 10ms FramePulse (DRPS37) softkey, 863, 865, 866, 867, 868
PICH data (DRPS35) softkey, 863, 865, 866, 867, 868
PICH data-clk (DRPS34) softkey, 863, 865, 866, 867, 868
PICH softkey, 341, 831, 832
PICH TimeSlot Pulse (DRPS36) softkey, 863, 865, 866, 867, 868
Pilot softkey, 229, 230, 232, 248, 255
Playback Ratio field, 835
PN Offset field, 486
PN Offset softkey, 253, 257
PN11 softkey
 See custom subsystem keys
 See DECT subsystem keys
 See EDGE subsystem keys
 See GSM subsystem keys
 See NADC subsystem keys
 See PDC subsystem keys
 See PHS subsystem keys
 See sense subsystem keys
 See TETRA subsystem keys
PN15 softkey
 See CDMA2000 BBG subsystem keys and fields
 See custom subsystem keys
 See DECT subsystem keys
 See EDGE subsystem keys
 See GPS subsystem keys
 See GSM subsystem keys
 See NADC subsystem keys
 See PDC subsystem keys
 See PHS subsystem keys
 See sense subsystem keys
 See TETRA subsystem keys
 See wideband CDMA base band generator subsystem keys and fields
PN20 softkey
 See custom subsystem keys
 See DECT subsystem keys

Index

- PN20 softkey (continued)*
 - See* EDGE subsystem keys
 - See* GSM subsystem keys
 - See* NADC subsystem keys
 - See* PDC subsystem keys
 - See* PHS subsystem keys
 - See* sense subsystem keys
 - See* TETRA subsystem keys
- PN23 softkey
 - See* custom subsystem keys
 - See* DECT subsystem keys
 - See* EDGE subsystem keys
 - See* GSM subsystem keys
 - See* NADC subsystem keys
 - See* PDC subsystem keys
 - See* PHS subsystem keys
 - See* sense subsystem keys
 - See* TETRA subsystem keys
- PN9 Mode Normal Quick softkey
 - See* DECT subsystem keys
 - See* GSM subsystem keys
 - See* NADC subsystem keys
 - See* PDC subsystem keys
 - See* PHS subsystem keys
 - See* TETRA subsystem keys
- PN9 Mode Preset softkey, 161
- PN9 softkey
 - See* CDMA2000 BBG subsystem keys and fields
 - See* custom subsystem keys
 - See* data subsystem keys
 - See* DECT subsystem keys
 - See* EDGE subsystem keys
 - See* GPS subsystem keys
 - See* GSM subsystem keys
 - See* NADC subsystem keys
 - See* PDC subsystem keys
 - See* PHS subsystem keys
 - See* sense subsystem keys
 - See* TETRA subsystem keys
 - See* wideband CDMA base band generator subsystem keys and fields
- Polarity Normal Invert softkey, 696
- Power Control Signal Polarity Neg Pos softkey, 917
- Power field
 - See* CDMA2000 BBG subsystem keys and fields
 - See* wideband CDMA baseband generator subsystem keys and fields
- Power Hold Off On softkey, 913
- Power Meter softkey, 75
- Power Mode Norm TPC softkey, 917
- Power On Last Preset softkey, 159
- Power Search Manual Auto softkey, 59, 60
- Power softkey, 348
- power subsystem keys
 - ALC BW Normal Narrow, 59
 - ALC Off On, 60
 - Alt Amp Delta, 60
 - Alt Ampl Off On, 61
 - Ampl, 63
 - Ampl Offset, 65
 - Ampl Ref Off On, 63
 - Ampl Ref Set, 63
 - Ampl Start, 64
 - Ampl Stop, 64
 - Amplitude, 63, 65
 - Atten Hold Off On, 62
 - Do Power Search, 59, 60
 - Ext Detector, 61
 - Internal, 61
 - Power Search Manual Auto, 59, 60
 - Source Module, 61
- PPCCPCH softkey, 341, 342
- Pp-m field, 934, 951
- PRACH Mode Single Multi softkey, 931
- PRACH Power Setup Mode Pp-m Total softkey, 938
- PRACH Processing (RPS19) softkey
 - See* wideband CDMA base band generator subsystem keys and fields
- PRACH Scrambling Code field, 939
- PRACH softkey, 913
- PRACH Trigger Polarity Neg Pos softkey, 944
- PRACH Trigger softkey, 943
- PRACH Trigger Source Immedi Trigger softkey, 944
- PRAT field, 477
- Pre Sig field, 936
- Preamble power average field, 938
- Preamble Pulse (RPS21) softkey
 - See* wideband CDMA base band generator subsystem keys and fields
- Preamble Raw Data (RPS15) softkey
 - See* wideband CDMA base band generator subsystem keys and fields
- Preamble Raw Data Clock (RPS16) softkey
 - See* wideband CDMA base band generator subsystem keys and fields
- Preamble softkey, 920

precise talking and forgiving listening, 8
 Preset hardkey, 160
 Preset List softkey, 21, 57
 Preset Normal User softkey, 162
 PSCH softkey, 341
 PSCH State field, 861
 PSID softkey, 762, 782
 pulse modulation subsystem keys
 Ext Pulse, 203
 Int Doublet, 203
 Int Free-Run, 203
 Int Gated, 203
 Int Triggered, 203
 Internal Square, 203
 Pulse Delay, 66
 Pulse Off On, 204
 Pulse Period, 201
 Pulse Rate, 201
 Pulse Width, 202
 Pulse softkeys
 Pulse Delay, 66
 Pulse Off On, 204
 Pulse Period, 201
 Pulse Rate, 201
 Pulse Width, 202
 Puncture fields, 988, 996
 Puncture softkey, 873
 PwrOffs field, 872, 970
 PWT softkey, 280, 282

Q

Q Offset softkey, 30
 QOF field, 460, 470
 QPSK softkey
 See custom subsystem keys
 See DECT subsystem keys
 See Dmodulation subsystem keys
 See EDGE subsystem keys
 See GSM subsystem keys
 See NADC subsystem keys
 See PDC subsystem keys
 See PHS subsystem keys
 See TETRA subsystem keys
 Quadrature Skew softkey, 31
 Quarter softkey, 503, 508
 quotes, SCPI command use of, 16

R

RACH TrCH softkey, 920

Radio Config field
 See CDMA2000 BBG subsystem keys and fields
 Radio Config softkey, 255
 RadioConfig 1/2 Access softkey, 451
 RadioConfig 1/2 Traffic softkey, 451
 RadioConfig 3/4 Common Control softkey, 451
 RadioConfig 3/4 Enhanced Access softkey, 451
 RadioConfig 3/4 Traffic softkey, 451
 Ramp field, 459
 Ramp softkey, 175, 183, 190, 196
 Ramp Step field, 934, 950
 Ramp Time field, 460
 Random Seed Fixed Random softkey, 320
 Random softkey, 340, 348
 Ranging Code C/A P C/A+P softkey, 636
 Rate Full Half softkey, 693, 727
 Rate Match Attr field, 886, 988, 997
 Rate softkey, 253, 257
 RCDMA softkey, 100
 real response data, 11
 Real-time AWGN Off On softkey, 435
 real-time AWGN subsystem keys
 Bandwidth, 435
 Real-time AWGN Off On, 435
 Real-time GPS Off On softkey, 638
 RECALL Reg softkey, 89
 Recall Secondary Frame State softkey
 See DECT subsystem keys
 See EDGE subsystem keys
 See GSM subsystem keys
 See NADC subsystem keys
 See PDC subsystem keys
 See PHS subsystem keys
 See TETRA subsystem keys
 Rectangle softkey
 See CDMA ARB subsystem keys
 See CDMA2000 ARB subsystem keys
 See CDMA2000 BBG subsystem keys and fields
 See custom subsystem keys
 See DECT subsystem keys
 See Dmodulation subsystem keys
 See EDGE subsystem keys
 See GPS subsystem keys
 See GSM subsystem keys
 See NADC subsystem keys
 See PDC subsystem keys
 See PHS subsystem keys

Index

Rectangle softkey (continued)

See TETRA subsystem keys
See wideband CDMA ARB subsystem keys
See wideband CDMA base band generator subsystem keys and fields

Ref Data Rate field, [889](#), [919](#)

Ref Oscillator Source Auto Off On softkey, [49](#)

Ref Sensitivity softkey, [871](#)

Reference Freq softkey, [449](#)
See AWGN subsystem keys
See bluetooth subsystem keys
See CDMA ARB subsystem keys
See CDMA2000 ARB subsystem keys
See Dmodulation subsystem keys
See dual ARB subsystem keys
See multitone subsystem keys
See wideband CDMA ARB subsystem keys

Reference Out softkey, [380](#)

Rename File, [119](#)

Rename File softkey, [126](#)

Reserved field, [477](#)

Reset & Run softkey
See CDMA ARB subsystem keys
See CDMA2000 ARB subsystem keys
See custom subsystem keys
See DECT subsystem keys
See Dmodulation subsystem keys
See dual ARB subsystem keys
See EDGE subsystem keys
See GSM subsystem keys
See NADC subsystem keys
See PDC subsystem keys
See PHS subsystem keys
See TETRA subsystem keys
See wideband CDMA ARB subsystem keys

Reset RS-232 softkey, [76](#)

Reset to Initial Power softkey, [916](#)

Resolution softkey, [385](#)

response data types. *See* SCPI commands response types

Restore DECT Factory Default softkey, [556](#)

Restore EDGE Factory Default softkey, [604](#)

Restore Factory Default softkey, [649](#)

Restore NADC Factory Default softkey, [690](#)

Restore PDC Factory Default softkey, [724](#)

Restore PHS Factory Default softkey, [760](#)

Restore Sys Defaults softkey, [161](#)

Restore TETRA Factory Default softkey, [797](#)

Resync Limits softkey, [427](#)

Retrigger Mode Off On softkey, [354](#)

Reverse softkey, [229](#)

Revert to Default Cal Settings softkey, [69](#)

RF On/Off hardkey, [128](#)

Right Alternate softkey, [340](#)

Right softkey, [836](#)

Rise Delay softkey
See custom subsystem keys
See DECT subsystem keys
See EDGE subsystem keys
See GSM subsystem keys
See NADC subsystem keys
See PDC subsystem keys
See PHS subsystem keys
See TETRA subsystem keys

Rise Time softkey
See custom subsystem keys
See DECT subsystem keys
See EDGE subsystem keys
See GSM subsystem keys
See NADC subsystem keys
See PDC subsystem keys
See PHS subsystem keys
See TETRA subsystem keys

Rising softkey, [522](#)

RMC 144 kbps (25.141 v3.9) softkey, [952](#)

RMC 384 kbps (25.141 v3.9) softkey, [952](#)

RMC 64 kbps (25.141 v3.9) softkey, [952](#)

RMC122 kbps (25.141 v3.9) softkey, [952](#)

Root Nyquist softkey
See CDMA ARB subsystem keys
See CDMA2000 ARB subsystem keys
See CDMA2000 BBG subsystem keys and fields
See custom subsystem keys
See DECT subsystem keys
See Dmodulation subsystem keys
See EDGE subsystem keys
See GPS subsystem keys
See GSM subsystem keys
See NADC subsystem keys
See PDC subsystem keys
See PHS subsystem keys
See TETRA subsystem keys
See wideband CDMA ARB subsystem keys
See wideband CDMA base band generator subsystem keys and fields

route subsystem keys
Burst Gate In Polarity Neg Pos, [129](#), [131](#)
Data Clock Out Neg Pos, [132](#)
Data Clock Polarity Neg Pos, [129](#), [131](#), [134](#)
Data Out Polarity Neg Pos, [133](#), [135](#)

route subsystem keys (*continued*)

- Data Polarity Neg Pos, [129](#), [131](#)
- DATA/CLK/SYNC Rear Outputs Off On, [134](#)
- Event 1 Polarity Neg Pos, [133](#), [135](#)
- Event 2 Polarity Neg Pos, [133](#), [135](#)
- Pattern Trig In Polarity Neg Pos, [132](#)
- Pattern Trig Polarity Neg Pos, [130](#)
- Symbol Sync Out Polarity Neg Pos, [134](#), [136](#)
- Symbol Sync Polarity Neg Pos, [130](#), [132](#)
- RS-232 Baud Rate softkey, [76](#)
- RS-232 ECHO Off On softkeys, [76](#)
- RS-232 Timeout softkeys, [77](#)
- Run Complete Self Test softkey, [92](#)

S

S softkey, [666](#)

See DECT subsystem keys

SA softkey, [763](#), [783](#)

SACCH softkey, [700](#), [704](#), [734](#), [737](#), [739](#)

Satellite ID softkey, [638](#)

Save Reg softkey, [90](#)

Save Secondary Frame State softkey

See DECT subsystem keys

See EDGE subsystem keys

See GSM subsystem keys

See NADC subsystem keys

See PDC subsystem keys

See PHS subsystem keys

See TETRA subsystem keys

Save Seq[n] Reg[nn] softkey, [90](#)

Save Setup To Header softkey, [208](#), [222](#), [245](#), [272](#), [292](#), [310](#), [326](#), [439](#)

Save User Preset softkey, [162](#)

Scale to 0dB softkey

See CDMA ARB subsystem keys

See CDMA2000 ARB subsystem keys

See CDMA2000 BBG subsystem keys and fields

See wideband CDMA ARB subsystem keys

See wideband CDMA base band generator subsystem keys and fields

Scaling softkey, [302](#)

SCCPCH softkey, [341](#), [342](#)

SCFN field, [877](#), [976](#)

SCH slot-pulse (DRPS10) softkey, [863](#), [865](#), [866](#), [867](#), [868](#)

SCPI command subsystems

all, [206](#), [434](#)

amplitude modulation, [172](#)

SCPI command subsystems (*continued*)

AWGN, [207](#)

AWGN real-time, [435](#)

bluetooth, [436](#)

calculate, [362](#)

calibration, [68](#)

CDMA ARB, [216](#)

CDMA2000 ARB, [240](#)

CDMA2000 BBG, [451](#)

communication, [72](#)

correction, [20](#)

custom, [524](#)

data, [373](#)

DECT, [546](#)

diagnostic, [78](#)

digital modulation, [23](#)

display, [82](#)

Dmodulation, [269](#)

Dual ARB, [290](#)

EDGE, [596](#)

frequency, [40](#)

frequency modulation, [180](#)

GPS subsystem, [632](#)

GSM, [639](#)

IEEE 488.2 common commands, [86](#)

input, [383](#), [389](#)

list/sweep, [51](#)

low frequency output, [187](#)

mass memory, [121](#)

memory, [93](#)

multitone, [309](#)

NADC, [679](#)

output, [127](#)

PDC, [714](#)

phase modulation, [193](#)

PHS, [749](#)

power, [59](#)

pulse, [66](#)

pulse modulation, [201](#)

route, [129](#)

sense, [393](#)

status, [137](#)

system, [156](#)

TETRA, [786](#)

trigger, [165](#)

unit, [169](#)

wideband CDMA ARB, [322](#)

wideband CDMA base band generator, [829](#)

Index

- SCPI commands
 - command tree paths, 7
 - parameter and response types, 8
 - parameter types
 - boolean, 10
 - discrete, 10
 - extended numeric, 9
 - numeric, 8
 - string, 11
 - response data types
 - discrete, 12
 - integer, 11
 - numeric boolean, 12
 - real, 11
 - string, 12
 - root command, 7
- SCPI softkey, 158, 160
- Scramble Code softkey, 340, 346, 348
- Scramble Off On softkey, 752, 789
- Scramble Offset softkey, 340, 348
- Scramble Seed softkey, 752, 789
- Scrambling Code field, 869, 967
- Screen Saver Delay
 - 1 hr softkey, 163
- Screen Saver Mode softkeys, 163
- Screen Saver Off On softkeys, 164
- Second DPDCH I Q softkey, 346
- Secondary Frame Off On softkey
 - See DECT subsystem keys
 - See EDGE subsystem keys
 - See GSM subsystem keys
 - See NADC subsystem keys
 - See PDC subsystem keys
 - See PHS subsystem keys
 - See TETRA subsystem keys
- Segment Advance softkey, 303
- Select File softkey, 250, 280
- Select Seq softkey, 89
- Select Waveform softkey, 307
- sense subsystem keys
 - Adjust Gain, 405
 - Aux, 407, 424, 431
 - Aux I/O Trigger Polarity Pos Neg, 431
 - BER Mode Off On, 393, 396, 417
 - BERT Off On, 428
 - BERT Resync Off On, 427
 - Bit Count, 408, 410
 - Bit Delay Off On, 430
 - Block Count, 396, 398, 400, 413, 417
 - Block Erasure, 394, 399, 412, 413, 414, 418
 - sense subsystem keys (*continued*)
 - Bus, 407, 424, 431
 - Class Ib Bit Error, 421, 422
 - Class II Bit Error, 422
 - Cycle Count, 430
 - Delay Bits, 429
 - EDGE BERT Off On, 411
 - Error Count, 410, 411, 428
 - Exceeds Any Thresholds, 422
 - Ext, 407, 424, 431
 - Ext Frame Trigger Delay, 394
 - External Frame Polarity Net Pos, 395
 - Frame Count, 416, 420
 - Frame Erasure, 422
 - Frame Trigger Source Int Ext, 395
 - GSM BERT Off On, 425
 - High Amplitude, 397, 401, 408
 - Immediate, 407, 424, 431
 - Initial Bit Count, 410
 - Initial Block Count, 398, 402
 - Initial Frame Count, 420
 - Low Amplitude, 397, 401, 409, 416
 - Measurement Mode BER% Search, 419
 - Measurement Mode BLER% Search, 405
 - No Thresholds, 394, 399, 414, 418, 422, 429
 - Pass Amplitude, 398, 402, 409
 - PN11, 427
 - PN15, 427
 - PN20, 427
 - PN23, 427
 - PN9, 427
 - Resync Limits, 427
 - Spcl Pattern 0's 1's, 426
 - Spcl Pattern Ignore Off On, 426
 - Spectrum Invert Off On, 405, 421
 - Stop Measurement, 404, 418
 - Sync Source BCH PDCH, 406
 - Sync Source BCH TCH, 424
 - Synchronize to BCH/PDCH, 406
 - Synchronize to BCH/TCH, 423
 - Target BER %, 396, 400
 - Timeslot, 404, 419
 - Total Bits, 429
 - Trigger Key, 407, 424, 431
 - Uplink Timing Advance, 407, 425
 - SEQ softkey, 101
 - Set Marker Off All Points softkey, 296
 - SF/2 softkey, 971
 - SF2 softkey, 873

- SFN reset-signal (DRPS5) softkey, 863, 865, 866, 867, 868
- SFN RST Polarity softkey, 968
- SFN-CFN Frame Offset softkey, 912
- SHAPE softkey, 101
- Signature field, 951
- Sine softkey
 - See amplitude modulation subsystem keys
 - See DECT subsystem keys
 - See EDGE subsystem keys
 - See frequency modulation subsystem keys
 - See GSM subsystem keys
 - See low frequency output subsystem keys
 - See NADC subsystem keys
 - See PDC subsystem keys
 - See phase modulation subsystem keys
 - See PHS subsystem keys
 - See TETRA subsystem keys
- Single softkey
 - See CDMA ARB subsystem keys
 - See CDMA2000 ARB subsystem keys
 - See custom subsystem keys
 - See DECT subsystem keys
 - See Dmodulation subsystem keys
 - See dual ARB subsystem keys
 - See EDGE subsystem keys
 - See GSM subsystem keys
 - See NADC subsystem keys
 - See PDC subsystem keys
 - See PHS subsystem keys
 - See TETRA subsystem keys
 - See wideband CDMA ARB subsystem keys
- Single Sweep softkey, 166
- Slot Format field, 836, 844, 896, 906, 925, 930 softkey, 119
- Source Module softkey, 61
- Spcl Pattern 0's 1's softkey, 426
- Spcl Pattern Ignore Off On softkey, 426
- Spectrum Invert Off On softkey
 - See sense subsystem keys
- Spread Rate 1 softkey, 248, 255, 263
- Spread Rate 3, 255
- Spread Rate 3 softkey, 248, 263
- Spread Rate field, 485
- Spreading Type Direct Mcarrier, 248
- Spreading Type Direct Mcarrier softkey, 264
- Spurious Response softkey, 871
- Square softkey, 175, 183, 190, 196
- SR1 9 Channel softkey, 250
- SR1 Pilot softkey, 250
- SR3 Direct 9 Channel softkey, 250
- SR3 Direct Pilot softkey, 250
- SR3 Mcarrier 9 Channel softkey, 250
- SR3 MCarrier Pilot softkey, 250
- SS softkey, 659
- SSB softkey, 809, 814
- SSCH 2nd Scramble Group field, 870
- SSCH Power field, 869
- SSCH softkey, 341
- SSCH State field, 870
- Standard softkey, 340
- Start Access Slot Position in 80ms Period field, 936
- Start Frequency softkey, 70
- Start Sub-Channel# field, 940
- State field
 - See CDMA2000 BBG subsystem keys and fields
- State softkey, 102, 121
- STD softkey, 893
- Step Dwell softkey, 57
- Step Power field, 916
- Stop Frequency softkey, 71
- Stop Measurement softkey
 - See sense subsystem keys
- Store Custom CDMA State softkey, 233, 252, 256
- Store Custom Dig Mod State softkey, 283
- Store Custom Multicarrier softkey, 232, 250
- Store Custom W-CDMA State softkey, 335, 338
- Store To File softkey, 21, 120, 126, 318, 347
- string response data, 12
- string SCPI parameter, 11
- strings, quote usage, 16
- STS softkey, 809, 814
- Sub Channel Timing (RPS17) softkey
 - See wideband CDMA base band generator subsystem keys and fields
- Subnet Mask softkey, 73
- subsystems, SCPI commands
 - See SCPI command subsystems
- SW softkey, 734, 738, 740
- Sweep Direction Down Up softkey, 51
- Sweep Repeat Single Cont softkey, 165
- Sweep Type List Step softkey, 56
- Swept-Sine softkey, 175, 183, 190, 196
- Symbol Out Polarity Neg Pos softkey, 134
- Symbol Rate field, 896, 905, 929
- Symbol Rate softkey, 283, 340, 348, 624, 924
- Symbol Sync Out Polarity Neg Pos softkey, 136
- Symbol Sync Polarity Neg Pos softkey, 130, 132

Index

Symbol Timing Err softkey, [444](#)
Sync Out Offset softkey, [589](#), [623](#), [670](#), [706](#),
[741](#), [774](#), [822](#)
SYNC softkey, [701](#), [704](#), [765](#)
Sync softkey, [230](#), [669](#)
Sync Source BCH PDCH softkey, [406](#)
Sync Source BCH TCH softkey, [424](#)
Sync Source SFN FClk ESG softkey, [969](#)
Synchronize to BCH/PDCH softkey, [406](#)
Synchronize to BCH/TCH softkey, [423](#)
System ID field, [478](#)
system subsystem keys
 8648A/B/C/D, [158](#), [160](#)
 8656B,8657A/B, [158](#), [160](#)
 8657D NADC, [158](#), [160](#)
 8657D PDC, [158](#), [160](#)
 8657J PHS, [158](#), [160](#)
 Error Info, [157](#)
 Help Mode Single Cont, [157](#), [158](#)
 PN9 Mode Preset, [161](#)
 Power On Last Preset, [159](#)
 Preset, [160](#)
 Preset Normal User, [162](#)
 Restore Sys Defaults, [161](#)
 Save User Preset, [162](#)
 SCPI, [158](#), [160](#)
 Screen Saver Delay
 1 hr, [163](#)
 Screen Saver Mode, [163](#)
 Screen Saver Off On, [164](#)
 Time/Date, [156](#), [164](#)
 View Next Error Message, [157](#)

T

T1 softkey, [621](#)
T2 softkey, [621](#)
Target BER % softkey
 See sense subsystem keys
TCH All softkey, [765](#)
TCH softkey, [765](#)
TCH/FS softkey, [661](#)
tDPCH Offset field, [846](#)
Test Model 1 w/16 DPCH softkey, [331](#), [336](#)
Test Model 1 w/32 DPCH softkey, [331](#), [336](#)
Test Model 1 w/64 DPCH softkey, [331](#), [336](#)
Test Model 2 softkey, [331](#), [336](#)
Test Model 3 w/16 DPCH softkey, [331](#), [336](#)
Test Model 3 w/32 DPCH softkey, [331](#), [336](#)
Test Model 4 softkey, [331](#), [336](#)
Test Model 5 w/2HSPDSCH softkey, [331](#), [336](#)
Test Model 5 w/4HSPDSCH softkey, [331](#), [336](#)

Test Model 5 w/8HSPDSCH softkey, [331](#), [336](#)
TETRA Off On softkey, [828](#)
TETRA softkey, [280](#), [282](#)
TETRA subsystem keys
 16 1's & 16 0's, [796](#), [805](#), [807](#), [809](#), [810](#), [812](#),
 [814](#), [816](#), [817](#), [818](#), [819](#)
 16PSK, [802](#)
 16QAM, [802](#)
 256QAM, [802](#)
 2-Lvl FSK, [802](#)
 32 1's & 32 0's, [796](#), [805](#), [807](#), [809](#), [810](#), [812](#),
 [814](#), [816](#), [817](#), [818](#), [819](#)
 32QAM, [802](#)
 4 1's & 4 0's, [796](#), [805](#), [807](#), [809](#), [810](#), [812](#),
 [814](#), [816](#), [817](#), [818](#), [819](#)
 4-Lvl FSK, [802](#)
 4QAM, [802](#)
 64 1's & 64 0's, [796](#), [805](#), [807](#), [809](#), [810](#), [812](#),
 [814](#), [816](#), [817](#), [818](#), [819](#)
 64QAM, [802](#)
 8 1's & 8 0's, [796](#), [805](#), [807](#), [809](#), [810](#), [812](#),
 [814](#), [816](#), [817](#), [818](#), [819](#)
 8PSK, [802](#)
 All Timeslots, [821](#)
 APCO 25 C4FM, [799](#)
 B, [808](#), [813](#)
 B1, [806](#), [811](#)
 B2, [806](#), [811](#)
 BBG Data Clock Ext Int, [786](#)
 BBG Ref Ext Int, [798](#)
 Begin Frame, [821](#)
 Begin Timeslot #, [821](#), [822](#)
 BPSK, [802](#)
 Bus, [804](#), [826](#)
 Continuous, [824](#)
 D8PSK, [802](#)
 Data Format Pattern Framed, [795](#)
 Dn Custom Cont, [820](#)
 Dn Normal Cont, [820](#)
 Dn Normal Disc, [820](#)
 Dn Sync Cont, [820](#)
 Dn Sync Disc, [820](#)
 Ext, [796](#), [804](#), [805](#), [807](#), [809](#), [810](#), [812](#), [814](#),
 [816](#), [817](#), [818](#), [819](#), [826](#)
 Ext BBG Ref Freq, [799](#)
 Ext Data Clock Normal Symbol, [798](#)
 Ext Delay Bits, [827](#)
 Ext Delay Off On, [827](#)
 Ext Polarity Neg Pos, [828](#)

TETRA subsystem keys (*continued*)

Fall Delay, 790, 791
Fall Time, 790, 791
FCOR, 808, 813
Filter Alpha, 786
Filter BbT, 787
FIX4, 796, 805, 807, 809, 810, 811, 812, 813,
814, 815, 816, 817, 818, 819, 820
Free Run, 825
Freq Dev, 800
Gate Active Low High, 825
Gated, 824
Gaussian, 799
Gray Coded QPSK, 802
I/Q Scaling, 800
IS-95, 799
IS-95 Mod, 799
IS-95 Mod w/EQ, 799
IS-95 OQPSK, 802
IS-95 QPSK, 802
IS-95 w/EQ, 799
MSK, 802
Nyquist, 799
Optimize FIR For EVM ACP, 796
OQPSK, 802
 $\pi/4$ DQPSK, 802
Patt Trig In 1, 826
Patt Trig In 2, 826
Phase Dev, 801
Phase Polarity Normal Invert, 803
PN11, 796, 805, 807, 809, 810, 812, 814, 816,
817, 818, 819
PN15, 796, 805, 807, 809, 810, 812, 814, 816,
817, 818, 819
PN20, 796, 805, 807, 809, 810, 812, 814, 816,
817, 818, 819
PN23, 796, 805, 807, 809, 810, 812, 814, 816,
817, 818, 819
PN9, 796, 805, 807, 809, 810, 812, 814, 816,
817, 818, 819
PN9 Mode Normal Quick, 788
QPSK, 802
Recall Secondary Frame State, 803
Rectangle, 799
Reset & Run, 825
Restore TETRA Factory Default, 797
Rise Delay, 792, 793
Rise Time, 793, 794
Root Nyquist, 799

TETRA subsystem keys (*continued*)

Save Secondary Frame State, 804
Scramble Off On, 789
Scramble Seed, 789
Secondary Frame Off On, 805
Sine, 795
Single, 824
SSB, 809, 814
STS, 809, 814
Symbol Rate, 823
Sync Out Offset, 822
TETRA Off On, 828
Timeslot Ampl Main Delta, 815
Timeslot Off On, 816
Trigger & Run, 825
Trigger Key, 804, 826
TS, 807, 812, 816, 817, 819
UN3/4 GSM Gaussian, 799
Up Control 1, 820
Up Control 2, 820
Up Custom, 820
Up Normal, 820
User File, 795, 796, 805, 807, 809, 810, 812,
814, 816, 817, 818, 819
User FIR, 799
User FSK, 801, 802
User I/Q, 802
TFCI Field Off On softkey, 340, 345, 348, 350
TFCI Pat field, 845
TFCI Pattern field, 897, 926
TFCI State field, 898, 926
Tfirst field, 837
TGCFN field, 872, 970
TGD field, 873, 971
Tgl field, 837
TGL1 field, 874, 972
TGL2 field, 874, 972, 973
TGPL1 field, 874, 973
TGPRC field, 974
TGPS Inactive Active softkey, 974
TGSN field, 876, 975
Through softkey, 207, 210, 218, 223, 242, 246,
269, 273, 290, 294, 309, 312, 327, 329, 438,
445
Time field, 479
Time/Date softkey, 156, 164
Timeslot Ampl Main Delta softkey
See DECT subsystem keys
See EDGE subsystem keys
See NADC subsystem keys
See PDC subsystem keys

Index

- Timeslot Ampl Main Delta softkey
 - (continued)
 - See PHS subsystem keys
 - See TETRA subsystem keys
- Timeslot Off On softkey
 - See DECT subsystem keys
 - See EDGE subsystem keys
 - See GSM subsystem keys
 - See NADC subsystem keys
 - See PHS subsystem keys
 - See TETRA subsystem keys
- Timeslot Offset softkey, 940
- Timeslot softkey
 - See sense subsystem keys
- Timeslot Type softkey, 785
- Timing Offset softkey, 941, 968, 978
- tOCNS Offset field, 853
- Toggle Marker 1 softkey, 302
- Toggle State softkey, 316, 318
- Total Bits field, 984
- Total Bits softkey, 429
- Total Block field, 985
- TotalPwr field, 891, 921
- TPC Pat Steps field, 898
- TPC Pat Trig Polarity Neg Pos softkey, 900
- TPC Pattern field, 899
- TPC Steps field, 846
- TPC UserFile Trig field, 900
- Tp-m field, 942
- Tp-p field, 943
- Traffic Bearer softkey, 562, 573
- Traffic Bearer with Z field softkey, 562, 573
- Traffic softkey, 230
- Transp Chan A softkey, 841
- Transp Chan B softkey, 841
- Transp Position Flexible Fixed softkey, 885
- Transport CH softkey, 855
- TrCH BER field, 906
- TrCh BlkSize 168 softkey, 939
- TrCh BlkSize 360 softkey, 939
- TrCH State Off On softkey, 997
- TrCHI State Off On softkey, 887
- Triangle softkey, 175, 183, 190, 196
- Trigger & Run softkey
 - See CDMA ARB subsystem keys
 - See CDMA2000 ARB subsystem keys
 - See custom subsystem keys
 - See DECT subsystem keys
 - See Dmodulation subsystem keys
 - See dual ARB subsystem keys
 - See EDGE subsystem keys
 - See GSM subsystem keys
- Trigger & Run softkey (continued)
 - See NADC subsystem keys
 - See PDC subsystem keys
 - See PHS subsystem keys
 - See TETRA subsystem keys
 - See wideband CDMA ARB subsystem keys
- Trigger Advance field, 522
- Trigger In Polarity Neg Pos softkey, 167
- Trigger Key softkey
 - See amplitude modulation subsystem keys
 - See CDMA ARB subsystem keys
 - See CDMA2000 ARB subsystem keys
 - See DECT subsystem keys
 - See Dmodulation subsystem keys
 - See dual ARB subsystem keys
 - See EDGE subsystem keys
 - See frequency modulation subsystem keys
 - See GSM subsystem keys
 - See list/sweep subsystem keys
 - See low frequency output subsystem keys
 - See NADC subsystem keys
 - See PDC subsystem keys
 - See phase modulation subsystem keys
 - See PHS subsystem keys
 - See sense subsystem keys
 - See TETRA subsystem keys
 - See trigger subsystem keys
 - See wideband CDMA ARB subsystem keys
- Trigger Out Polarity Neg Pos softkey, 166
- trigger subsystem keys
 - Bus, 167, 521
 - Ext, 167, 521
 - Free Run, 167, 521
 - Single Sweep, 166
 - Sweep Repeat Single Cont, 165
 - Trigger In Polarity Neg Pos, 167
 - Trigger Key, 167, 521
 - Trigger Out Polarity Neg Pos, 166
- Trigger Sync Reply (RPS7) softkey
 - See wideband CDMA base band generator subsystem keys and fields
- Truncated PN9 softkey, 438
- TS softkey, 669, 807, 812, 816, 817, 819
- TSC0 softkey, 621, 660, 667
- TSC1 softkey, 621, 660, 667
- TSC2 softkey, 621, 660, 667
- TSC3 softkey, 621, 660, 667
- TSC4 softkey, 621, 660, 667
- TSC5 softkey, 621, 660, 667
- TSC6 softkey, 621, 660, 667

- TSC7, 660, 667
TSC7 softkey, 621, 660, 667
TTI field, 886, 945, 988, 997
TTI Frame Clock (RPS9) softkey
 See wideband CDMA base band generator
 subsystem keys and fields
Turbo Coding field, 472, 520
Turbo softkey, 882, 883, 981
Type softkey, 340, 348
- U**
- UDI 64 kbps softkey, 952
UDI ISDN (25.101 v3.5) softkey, 843
UN3/4 GSM Gaussian softkey
 See CDMA ARB subsystem keys
 See CDMA2000 ARB subsystem keys
 See CDMA2000 BBG subsystem keys and
 fields
 See custom subsystem keys
 See DECT subsystem keys
 See Dmodulation subsystem keys
 See EDGE subsystem keys
 See GPS subsystem keys
 See GSM subsystem keys
 See NADC subsystem keys
 See PDC subsystem keys
 See PHS subsystem keys
 See TETRA subsystem keys
 See wideband CDMA ARB subsystem keys
 See wideband CDMA base band generator
 subsystem keys and fields
Uncoded softkey, 614
unit subsystem keys
 dBm, 169
 dBuV, 169
 dBuVemf, 169
 mV, 169
 mVemf, 169
 uV, 169
 uVemf, 169
Up Control 1 softkey, 820
Up Control 2 softkey, 820
Up Custom softkey, 706, 740, 820
Up Normal softkey, 820
Up TCH All softkey, 706, 740
Up TCH softkey, 706, 740
Up VOX softkey, 740
Up/Down softkey, 847, 899
Update Display Cycle End Cont softkey, 372
Update in Remote Off On softkey, 85
Uplink MCS-1 softkey, 661
Uplink MCS-5 softkey, 614
Uplink MCS-9 softkey, 614
Uplink Timing Advance softkey
 See sense subsystem keys
User File softkey
 See CDMA2000 BBG subsystem keys and
 fields
 See custom subsystem keys
 See DECT subsystem keys
 See EDGE subsystem keys
 See GPS subsystem keys
 See GSM subsystem keys
 See NADC subsystem keys
 See PDC subsystem keys
 See PHS subsystem keys
 See TETRA subsystem keys
 See wideband CDMA base band generator
 subsystem keys and fields
User FIR softkey
 See CDMA ARB subsystem keys
 See CDMA2000 ARB subsystem keys
 See CDMA2000 BBG subsystem keys and
 fields
 See custom subsystem keys
 See DECT subsystem keys
 See Dmodulation subsystem keys
 See EDGE subsystem keys
 See GPS subsystem keys
 See GSM subsystem keys
 See NADC subsystem keys
 See PDC subsystem keys
 See PHS subsystem keys
 See TETRA subsystem keys
 See wideband CDMA ARB subsystem keys
 See wideband CDMA base band generator
 subsystem keys and fields
User Flatness softkey, 103, 121
User FSK softkey
 See custom subsystem keys
 See DECT subsystem keys
 See Dmodulation subsystem keys
 See EDGE subsystem keys
 See GSM subsystem keys
 See NADC subsystem keys
 See PDC subsystem keys
 See PHS subsystem keys
 See TETRA subsystem keys
User I/Q softkey
 See custom subsystem keys

Index

User I/Q softkey (continued)

See DECT subsystem keys

See Dmodulation subsystem keys

See EDGE subsystem keys

See GSM subsystem keys

See NADC subsystem keys

See PDC subsystem keys

See PHS subsystem keys

See TETRA subsystem keys

uV softkey, [169](#)

uVemf softkey, [169](#)

UW softkey, [762](#), [764](#), [782](#), [784](#)

UWCDMA softkey, [103](#)

V

View Next Error Message softkey, [157](#)

W

Walsh Code softkey, [253](#), [257](#)

Walsh field

See CDMA2000 BBG subsystem keys and fields

Waveform Length softkey, [213](#), [238](#)

Waveform Runtime Scaling softkey, [301](#)

waveform, creating a multitone, [309](#)

W-CDMA Off On softkey, [359](#), [998](#)

WCDMA softkey

See CDMA ARB subsystem keys

See CDMA2000 ARB subsystem keys

See Dmodulation subsystem keys

See wideband CDMA ARB subsystem keys

wideband CDMA ARB subsystem keys

1 DPCH, [331](#), [336](#)

2 Carriers, [332](#)

2.100 MHz, [329](#)

3 Carriers, [332](#)

3 DPCH, [331](#), [336](#)

4 Carriers, [332](#)

40.000 MHz, [327](#), [329](#)

APCO 25 C4FM, [324](#)

Apply Channel Setup, [339](#), [348](#)

ARB Reference Ext Int, [353](#)

ARB Sample Clock, [354](#)

Bus, [357](#)

Channel, [340](#), [348](#)

Chip Rate, [324](#)

Clear Header, [326](#)

Clip |I| To, [322](#), [333](#)

Clip |Q| To, [323](#), [333](#)

wideband CDMA ARB subsystem keys

(continued)

Clip At PRE POST FIR Filter, [322](#)

Clip Type |I+jQ| To, [323](#), [334](#)

Clipping Type |I+jQ| |I|, |Q|, [323](#), [334](#)

Continuous, [356](#)

Custom WCDMA State, [346](#)

DPCCCH, [346](#)

DPCCCH + 1 DPDCH, [346](#)

DPCCCH + 2 DPDCH, [346](#)

DPCCCH + 3 DPDCH, [346](#)

DPCCCH + 4 DPDCH, [346](#)

DPCCCH + 5 DPDCH, [346](#)

DPCH, [341](#)

Equal Energy per Symbol, [344](#)

Ext Delay Off On, [358](#)

Ext Delay Time, [357](#)

Ext Key, [357](#)

Ext Polarity Neg Pos, [358](#)

Filter Alpha, [325](#)

Filter BbT, [325](#)

First Spread Code, [340](#), [348](#)

Free Run, [355](#)

Gain Unit dB Lin Index, [349](#)

Gate Active Low High, [356](#)

Gated, [356](#)

Gaussian, [324](#)

I/Q Mapping Norma Invert, [328](#)

I/Q Mod Filter Manual Auto, [329](#)

I/Q Output Filter Manual Auto, [327](#)

Increment Scramble Code, [335](#)

Increment Timing Offset, [338](#)

IS-2000 SR3 DS, [324](#)

IS-95, [324](#)

IS-95 Mod, [324](#)

IS-95 Mod w/EQ, [324](#)

IS-95 w/EQ, [324](#)

Left Alternate, [340](#)

Link Down Up, [330](#)

Marker 1, [350](#), [351](#)

Marker 1 Polarity Neg Pos, [351](#)

Marker 2, [350](#), [351](#)

Marker 2 Polarity Neg Pos, [352](#)

Marker 3, [350](#), [351](#)

Marker 3 Polarity Neg Pos, [352](#)

Marker 4, [350](#), [351](#)

Marker 4 Polarity Neg Pos, [352](#)

Modulator Atten Manual Auto, [328](#)

None, [350](#), [351](#)

wideband CDMA ARB subsystem keys
(continued)
Nyquist, 324
OCNS, 341
Optimize ACP ADJ ALT, 330, 345
Optimize FIR For EVM ACP, 326
Patt Trig In 1, 358
Patt Trig In 2, 358
PCCPCH + SCH, 331, 336
PCCPCH + SCH + 1 DPCH, 331, 336
PCCPCH + SCH + 3 DPCH, 331, 336
PICH, 341
Power, 348
PPCCPCH, 341, 342
PSCH, 341
Random, 340, 348
Rectangle, 324
Reference Freq, 353
Reset & Run, 355
Retrigger Mode Off On, 354
Right Alternate, 340
Root Nyquist, 324
Save Setup To Header, 326
Scale to 0dB, 344
SCCPCH, 341, 342
Scramble Code, 340, 346, 348
Scramble Offset, 340, 348
Second DPDCH I Q, 346
Single, 356
SSCH, 341
Standard, 340
Store Custom W-CDMA State, 335, 338
Store To File, 347
Symbol Rate, 340, 348
Test Model 1 w/16 DPCH, 331, 336
Test Model 1 w/32 DPPCH, 331, 336
Test Model 1 w/64 DPCH, 331, 336
Test Model 2, 331, 336
Test Model 3 w/16 DPCH, 331, 336
Test Model 3 w/32 DPCH, 331, 336
Test Model 4, 331, 336
Test Model 5 w/2HSPDSCH, 331, 336
Test Model 5 w/4HSPDSCH, 331, 336
Test Model 5 w/8HSPDSCH, 331, 336
TFCI Field Off On, 340, 345, 348, 350
Through, 327, 329
Trigger & Run, 355
Trigger Key, 357
Type, 340, 348

wideband CDMA ARB subsystem keys
(continued)
UN3/4 GSM Gaussian, 324
User FIR, 324
WCDMA, 324
W-CDMA Off On, 359
wideband CDMA base band generator
subsystem keys and fields
of Blocks, 884
1/2 Conv, 882, 883, 981
1/3 Conv, 882, 883, 981
10 msec, 909
10ms Frame Pulse (DRPS11), 863, 865, 866,
867, 868
10ms Frame Pulse (RPS6), 961, 963, 964,
965, 966, 967
12.2 kbps (34.121 v3.8), 843
144 kbps (34.121 v3.8), 843
20 msec, 909
2560 msec, 909
2nd Scr Offset, 845, 853
3.84MHz chip-clk (DRPS4), 863, 865, 866,
867, 868
384 kbps (34.121 v3.8), 843
40 msec, 909
64 kbps (34.121 v3.8), 843
80 msec, 909
80ms Frame Pulse (DRPS13), 863, 865, 866,
867, 868
80ms Frame Pulse (RPS20), 961, 963, 964,
965, 966, 967
A, 835
ACS, 871
Active, 876
Actual BER, 992
Actual BLER, 985, 993
AICH, 945
AICH Trigger Polarity Pos Neg, 918
All Down, 847, 899
All Up, 847, 899
Alt power in, 959
AMR 12.2 kbps, 843, 952
APCO 25 C4FM, 848, 910
Apply Channel Setup, 830, 888
B, 835
Base Delay Tp-a, 941
BBG Chip Clock Ext Int, 829
BBG Data Clock Ext In, 833
BER, 984, 986, 993, 995

Index

wideband CDMA base band generator
 subsystem keys and fields (*continued*)
 Beta, 892, 902
 BLER, 986, 994, 995
 Blk Set Size, 881
 Blk Size, 880, 980, 989
 Blocking, 871
 Burst gate in, 960
 C Power, 889
 C Power value, 919
 C/N value, 830, 888, 918
 CFN #0 Frame Pulse (RPS10), 955
 Chan Code, 840, 841, 851
 Channel Code, 857, 893, 902, 946, 947
 Channel Code field, 856
 Channel State, 901, 909
 Channel State Off On, 833, 838, 839, 840,
 847, 850, 854, 857, 859, 868, 892, 922,
 981, 989, 990
 ChCode Ctl, 935
 ChCode Dat, 935
 Chip Clock (RPS1), 955, 961, 963, 964, 965,
 966, 967
 Chip Rate, 839, 892
 Comp Mode Start Trigger Polarity Neg Pos,
 977
 Comp Mode Start Trigger Polarity Pos Neg,
 878, 879
 Comp Mode Stop Trigger Polarity Neg Pos,
 978
 Comp Mode Stop Trigger Polarity Pos Neg,
 878
 Compressed Mode Off On, 976
 Compressed Mode Start Trigger, 850, 877,
 977
 Compressed Mode Stop Trigger, 878, 977
 CRC Size, 882, 982, 991
 Ctrl Beta, 922
 Ctrl Pwr, 924
 Data, 904
 Data Beta, 927
 Data field, 995
 Data Pwr, 928
 Data Rate, 852
 DCH1, 890
 DCH2, 890
 DCH3, 890
 DCH4, 890
 DCH5, 890

wideband CDMA base band generator
 subsystem keys and fields (*continued*)
 DCH6, 890
 DL Reference 1.1, 975
 DL Reference 1.2, 975
 DL Reference 2.1, 975
 DL Reference 2.2, 975
 Down/Up, 847, 899
 DPCCH, 890, 913
 DPCCH Pilot data-clk (DRPS23), 863, 865,
 866, 867, 868
 DPCCH Power, 896
 DPCCH Raw Data (RPS4), 955
 DPCCH Raw Data Clock (RPS5), 955
 DPCCH TFCI data-clk (DRPS22), 863, 865,
 866, 867, 868
 DPCCH TPC indicator (DRPS21), 863, 865,
 866, 867, 868
 DPCH + 1, 831, 832
 DPCH + 2, 831, 832
 DPCH 10ms Frame-Pulse (DRPS26), 863,
 865, 866, 867, 868
 DPCH Channel Balance, 839
 DPCH Compressed Frame Indicator
 (DRPS32), 863, 865, 866, 867, 868
 DPCH data stream (DRPS24), 863, 865,
 866, 867, 868
 DPCH data-clk (0) (DRPS28), 863, 865, 866,
 867, 868
 DPCH Gap Indicator (DRPS33), 863, 865,
 866, 867, 868
 DPCH TimeSlot pulse (DRPS25), 863, 865,
 866, 867, 868
 DPDCH, 890
 DPDCH data-clk withDTX (DRPS20), 863,
 865, 866, 867, 868
 DPDCH data-clk WithOutDTX (DRPS30),
 863, 865, 866, 867, 868
 DPDCH Power, 904
 DPDCH Raw Data (RPS2), 955
 DPDCH Raw Data Clock (RPS3), 955
 Eb/No, 919
 Eb/No value (dB), 889
 Ec/No value, 831, 920
 Equal Powers, 855, 913
 Error BER, 992
 Error Bits, 983
 Error Blocks, 985
 Ext, 847

- wideband CDMA base band generator
 subsystem keys and fields (*continued*)
 Ext Clock Rate x1 x2 x4, 829
 FBI State, 895
 Filter Alpha, 849, 911
 Filter BbT, 849, 911
 FIX, 895
 FIX4, 842, 855, 856, 858, 883, 884, 894, 903,
 923, 925, 927, 928, 987, 991
 Flat Noise BW, 890
 Frame Clock Polarity Neg Pos, 909
 Frame Sync Trigger Mode Single Cont, 969
 Gaussian, 848, 910
 Higher Layer, 971
 Infinity, 875, 974
 Init Power, 914
 Init Pwr, 933, 949
 Intermod, 871
 IS-95, 848, 910
 IS-95 Mod, 848, 910
 IS-95 Mod w/EQ, 848, 910
 IS-95 w/EQ, 910
 Left, 836
 Link Down Up, 887
 Max Input, 871
 Max Power, 914
 Max Pwr, 933, 950
 Message Data Raw Data (RPS11), 961, 963,
 964, 965, 966, 967
 Message Part, 932
 Message Pulse (RPS22), 961, 963, 964, 965,
 966, 967
 Message-Control Raw Data (RPS13), 963,
 964, 965, 966, 967
 Message-Control Raw Data Clock (RPS12),
 961, 963, 964, 965, 966, 967
 Min Power, 915
 Msg Ctrl, 920
 Msg Data, 920
 Msg Pwr, 931, 948
 N Power, 891, 921
 NONE, 981
 None, 882, 883, 986, 995
 NONE (RPS0), 955, 961, 963, 964, 965, 966,
 967
 Normal, 836
 Num of Blk, 987, 996
 Num of Pre, 933, 949
 Number of AICH, 917
- wideband CDMA base band generator
 subsystem keys and fields (*continued*)
 Number of PRACH, 946, 948
 Number of PRACH 80ms, 932
 Number of Preamble, 949
 Nyquist, 848, 910
 Off, 945
 Omitted, 875, 973
 On, 945
 On/Off, 854, 937
 OpenLoop Ant1, 879
 OpenLoop Ant1 SCH TSTD OFF, 879
 OpenLoop Ant2, 879
 OpenLoop Ant2 SCH TSTD OFF, 879
 Optimize FIR For EVM ACP, 849, 912
 Paging Indicator, 859
 Pattern trigger in 1, 960
 Pattern trigger in 2, 960
 PCCPCH, 831, 832
 P-CCPCH data (DRPS39), 863, 865, 866,
 867, 868
 P-CCPCH data-clk (DRPS38), 863, 865, 866,
 867, 868
 Performance Req, 871
 Phase Polarity Normal Invert, 860
 Phase Polarity Normal Inverted, 887
 PI Bits, 858
 PICH, 831, 832
 PICH 10ms FramePulse (DRPS37), 863,
 865, 866, 867, 868
 PICH data (DRPS35), 863, 865, 866, 867,
 868
 PICH data-clk (DRPS34), 863, 865, 866,
 867, 868
 PICH TimeSlot Pulse (DRPS36), 863, 865,
 866, 867, 868
 Playback Ratio, 835
 PN15, 834, 841, 851, 855, 858, 893, 894, 897,
 899, 903, 923, 925, 927
 PN9, 834, 841, 851, 855, 858, 883, 893, 894,
 897, 899, 903, 923, 925, 927, 982, 991
 Power, 835, 838, 842, 852, 856, 859, 860
 Power Control Signal Polarity Neg Pos, 917
 Power Hold Off On, 913
 Power Mode Norm TPC, 917
 Pp-m, 934, 951
 PRACH, 913
 PRACH Mode Single Multi, 931
 PRACH Power Setup Mode Pp-m Total, 938

Index

- wideband CDMA base band generator
 - subsystem keys and fields (*continued*)
 - PRACH Processing (RPS19), 961, 963, 964, 965, 966, 967
 - PRACH Scrambling Code, 939
 - PRACH Trigger, 943
 - PRACH Trigger Polarity Neg Pos, 944
 - PRACH Trigger Source Immedi Trigger, 944
 - Pre Sig, 936
 - Preamble, 920
 - Preamble power average, 938
 - Preamble Pulse (RPS21), 961, 963, 964, 965, 966, 967
 - Preamble Raw Data (RPS15), 961, 963, 964, 965, 966, 967
 - Preamble Raw Data Clock (RPS16), 961, 963, 964, 965, 966, 967
 - PSCH State, 861
 - Puncture, 873, 988, 996
 - PwrOffs, 872, 970
 - RACH TrCH, 920
 - Ramp Step, 934, 950
 - Rate Match Attr, 886, 988, 997
 - Rectangle, 848, 910
 - Ref Data Rate, 889, 919
 - Ref Sensitivity, 871
 - Reset to Initial Power, 916
 - Right, 836
 - RMC 144 kbps (25.141 v3.9), 952
 - RMC 384 kbps (25.141 v3.9), 952
 - RMC 64 kbps (25.141 v3.9), 952
 - RMC122 kbps (25.141 v3.9), 952
 - Root Nyquist, 848, 910
 - Scale to 0dB, 855, 913
 - SCFN, 877, 976
 - SCH slot-pulse (DRPS10), 863, 865, 866, 867, 868
 - Scrambling Code, 869, 967
 - SF/2, 971
 - SF2, 873
 - SFN reset-signal (DRPS5), 863, 865, 866, 867, 868
 - SFN RST Polarity, 968
 - SFN-CFN Frame Offset, 912
 - Signature, 951
 - Slot Format, 836, 844, 896, 906, 925, 930
 - Spurious Response, 871
 - SSCH 2nd Scramble Group, 870
- wideband CDMA base band generator
 - subsystem keys and fields (*continued*)
 - SSCH Power, 869
 - SSCH State, 870
 - Start Access Slot Position in 80ms Period, 936
 - Start Sub-Channel#, 940
 - STD, 893
 - Step Power, 916
 - Sub Channel Timing (RPS17), 961, 963, 964, 965, 966, 967
 - Symbol Rate, 896, 905, 924, 929
 - Sync Source SFN FClk ESG, 969
 - tDPCH Offset, 846
 - TFCI Pat, 845
 - TFCI Pattern, 897, 926
 - TFCI State, 898, 926
 - Tfirst, 837
 - TGCFN, 872, 970
 - TGD, 873, 971
 - Tgl, 837
 - TGL1, 874, 972
 - TGL2, 874, 972
 - TGPL1, 874, 973
 - TGPL2, 973
 - TGPRC, 974
 - TGPS Inactive Active, 974
 - TGSN, 876, 975
 - Timeslot Offset, 940
 - Timing Offset, 941, 968, 978
 - tOCNS Offset, 853
 - Total Bits, 984
 - Total Blocks, 985
 - TotalPwr, 891, 921
 - TPC Pat Steps, 898
 - TPC Pat Trig Polarity Neg Pos, 900
 - TPC Pattern, 899
 - TPC Steps, 846
 - TPC UserFile Trig, 900
 - Tp-m, 942
 - Tp-p, 943
 - Transp Chan A, 841
 - Transp Chan B, 841
 - Transp Position Flexible Fixed, 885
 - Transport CH, 855
 - TrCH BER, 906
 - TrCh BlkSize 168, 939
 - TrCh BlkSize 360, 939
 - TrCH State Off On, 887, 997

wideband CDMA base band generator
 subsystem keys and fields (*continued*)
Trigger Sync Reply (RPS7), [961](#), [963](#), [964](#),
 [965](#), [966](#), [967](#)
TTI, [886](#), [945](#), [988](#), [997](#)
TTI Frame Clock (RPS9), [955](#)
Turbo, [882](#), [883](#), [981](#)
UDI 64 kbps, [952](#)
UDI ISDN (25.101 v3.5), [843](#)
UN3/4 GSM Gaussian, [848](#)
Up/Down, [847](#), [899](#)
User File, [841](#), [847](#), [855](#), [858](#), [883](#), [893](#), [894](#),
 [897](#), [903](#), [923](#), [925](#), [927](#), [982](#), [991](#)
User FIR, [848](#), [910](#)
W-CDMA Off On, [998](#)

