

GPIB Command Syntax

for

E1963A W-CDMA Mobile Test Application Revision A.07

E6703C W-CDMA Lab Application Revision C.02

1000-1906



Agilent Technologies

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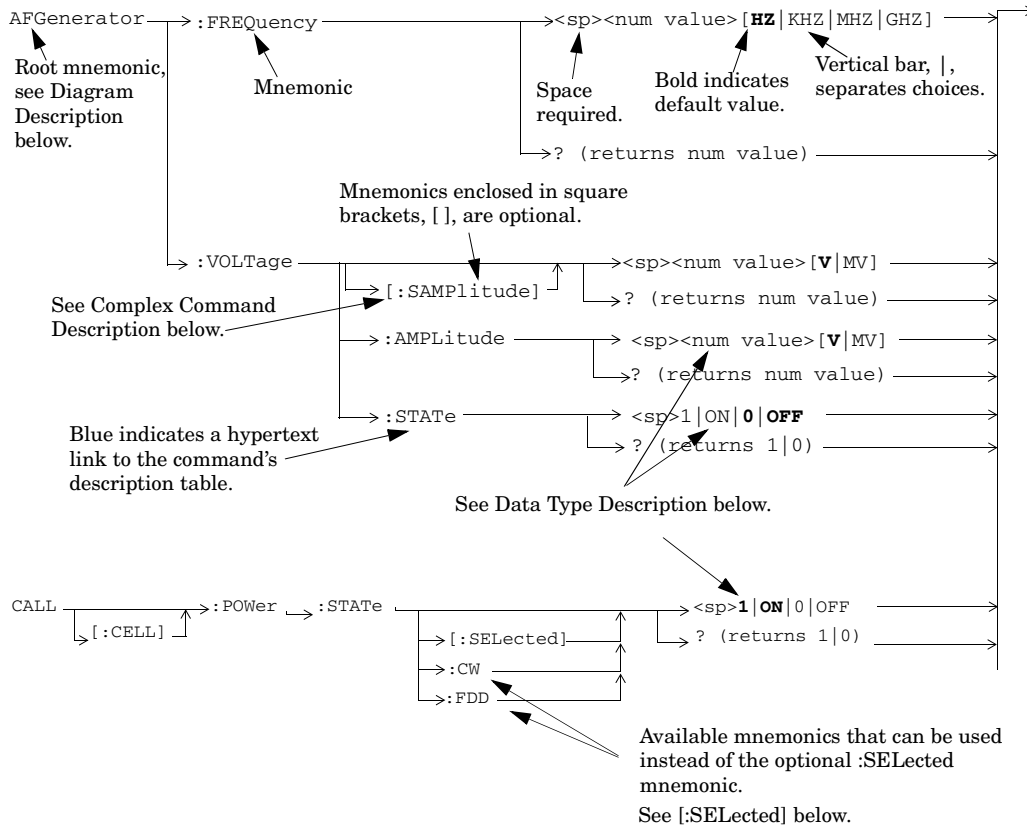
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GPIB Syntax for E1963A and E6703C

Description



GPIO Syntax for E1963A and E6703C

Diagram Description

Mnemonics are connected by lines. Each line can be followed in only one direction, as indicated by the arrow at the end of the line. Any combination of mnemonics that can be generated by starting at the root mnemonic and following the line in the direction of the arrow is syntactically correct.

The uppercase letters of a mnemonic represent the short form of the mnemonic, whereas the long form of a mnemonic is the short form followed by the lowercase letters. The test set accepts either the long form or the short form of the mnemonic. The mnemonics that are inside square brackets are optional. That is, a command operates the same whether or not the mnemonic in square brackets is used in the command.

The drawings show the proper use of spaces. Where spaces are required they are indicated by <sp>, otherwise no spaces are allowed between mnemonics.

Complex Command Description

Complex commands are valuable because they set the state of the parameter and a value for that parameter. For example, the command in the above figure that contains the mnemonic [:SAMPLitude] is a complex command because sets the state to ON as well as the amplitude. You can use parameters such as amplitude, frequency, gain, number, time, and value as a complex command. Refer to the specific command for the parameter that applies.

Data Type Description

| | |
|-----------------------------|---|
| num value | Integer, float or scientific values. For example, CALL:POWer -55.5 CALL:POWer -5.55E+001 CALL:CHANnel 525 |
| string | Characters. The string will often need to be enclosed in single or double quotes, depending upon your programming environment. For example, CALL:UPLink:PRACHannel:ASUBchannels '111111111111' The string returned by the test set is enclosed by double quotes. |
| choice1 choice2 choice3 | Specific character choices. For example, CALL:OPERating:MODE D2KTest SYSTem:COMMunicate:GPIO:DEBug ON |

[:SElected] Mnemonic

The [:SElected] Mnemonic is an optional mnemonic that implies a current selection on the test set. Often there are other mnemonics that can be used in place of the [:SElected] mnemonic to configure a setting that is not the currently selected configuration on the test set. The mnemonics that can replace the [:SElected] mnemonic are listed in parentheses separated by vertical bars (|) in the description table title. An example of a command that contains the [:SElected] mnemonic is shown in the following table.

CALL[:CELL]:POWER:AMPLitude[:SElected]

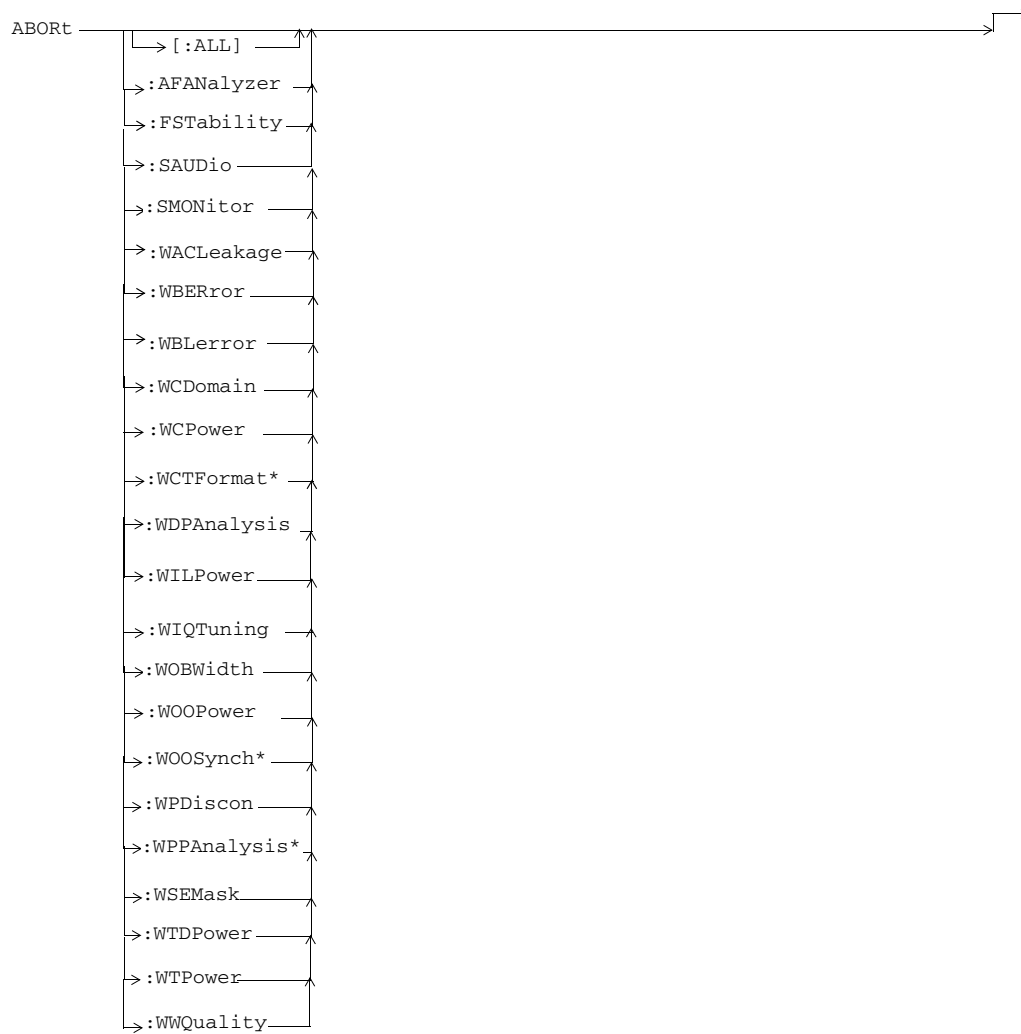
CALL[:CELL]:POWER:AMPLitude:(CW|FDD) ←

Available mnemonics that can be use instead of the optional [:SElected] mnemonic.

| | |
|----------|--|
| Function | Sets/queries the desired cell power level. (See "Cell Pow information about desired versus current power levels.) The optional [:SElected] keyword in this command spec queried applies to the current system type (see "CALL[:C settings for the CW operating mode are independent of operating modes. |
| Setting | Range: (This is the range of settings accepted, see "Cell I Ranges" for the actual hardware range of the source <ul style="list-style-type: none"> FDD: -165 dBm/3.84MHz to +37 dBm/3.84MHz CW: -177 dBm to +46 dBm |

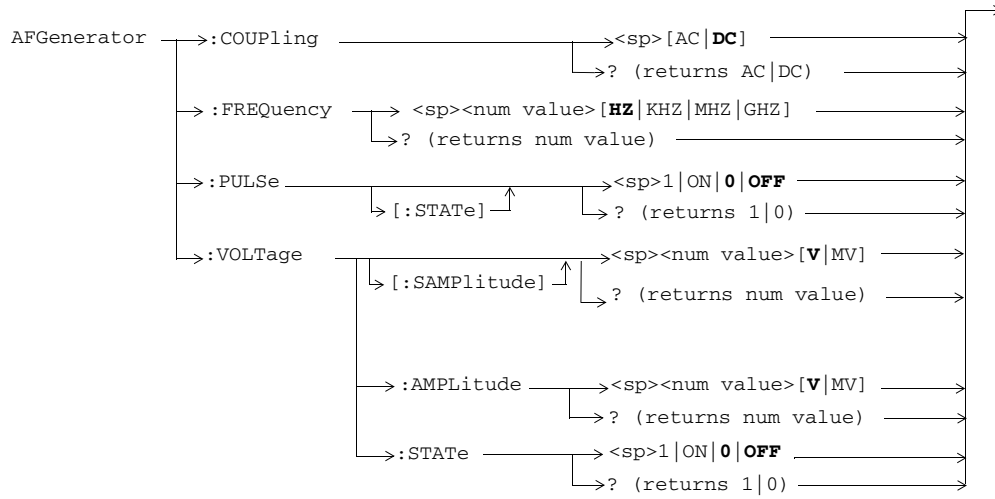
GPiB Syntax for E1963A and E6703C

ABORt



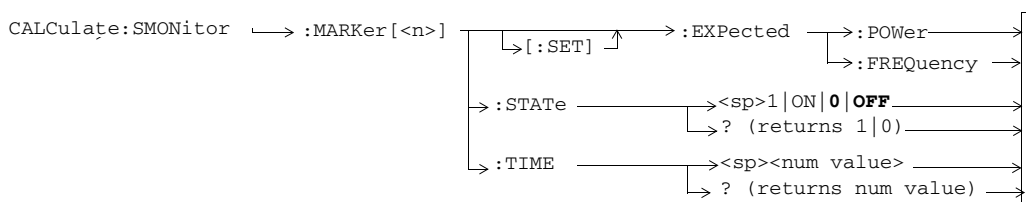
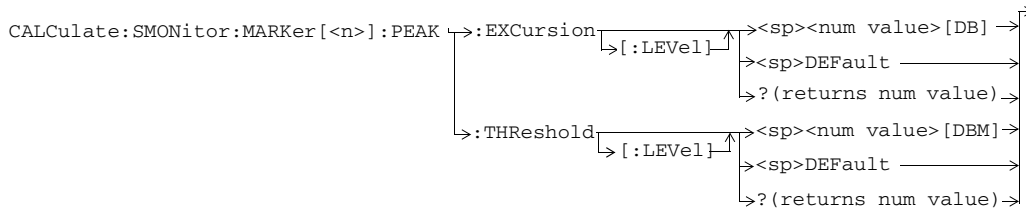
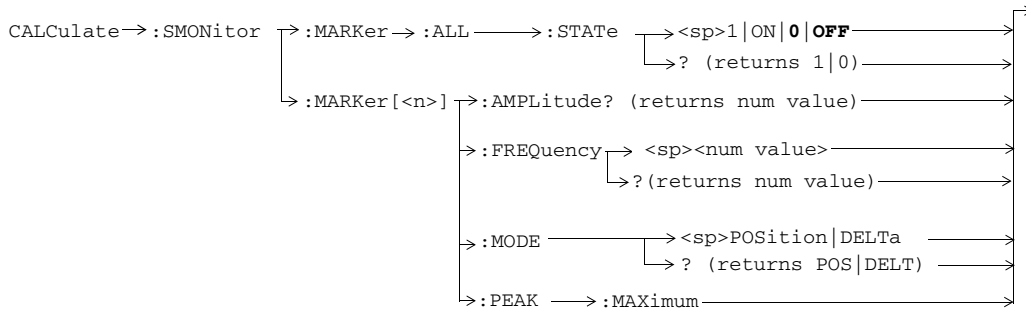
* This command is only applicable to the lab application.

AFGenerator

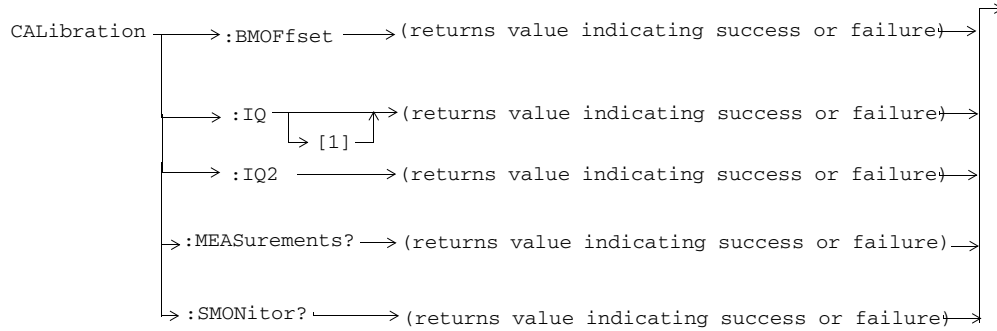


GPIB Syntax for E1963A and E6703C

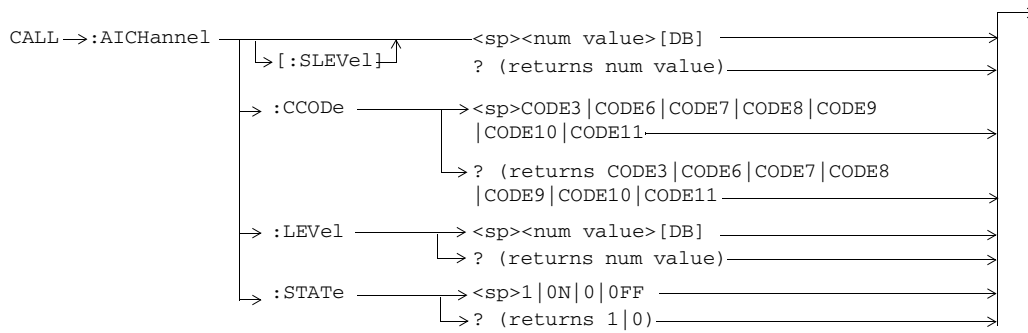
CALCulate:SMONitor



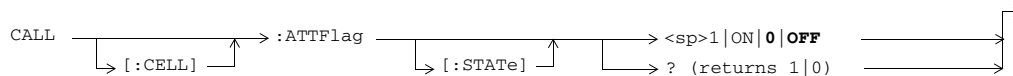
CALibration



CALL:AICHannel

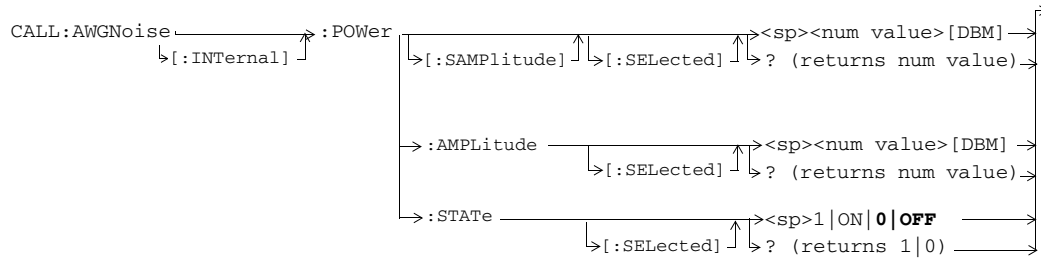


CALL:ATTFlag

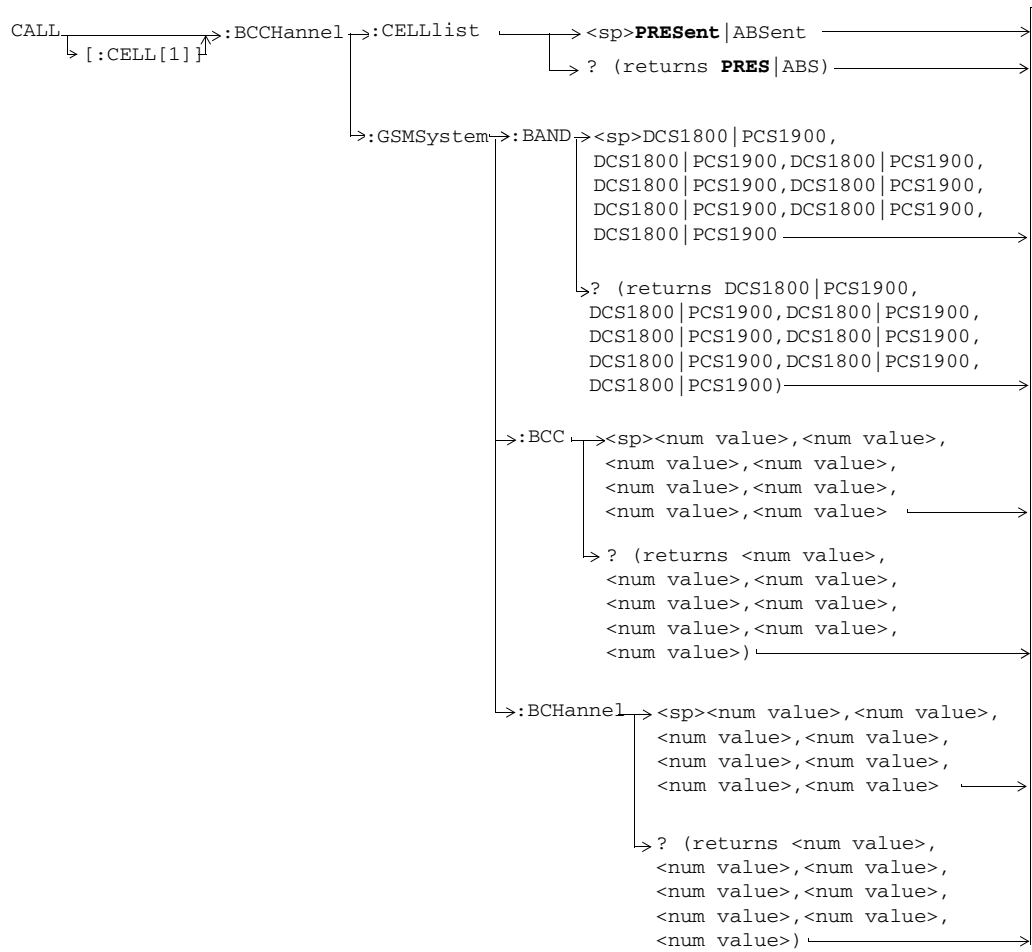


GPIO Syntax for E1963A and E6703C

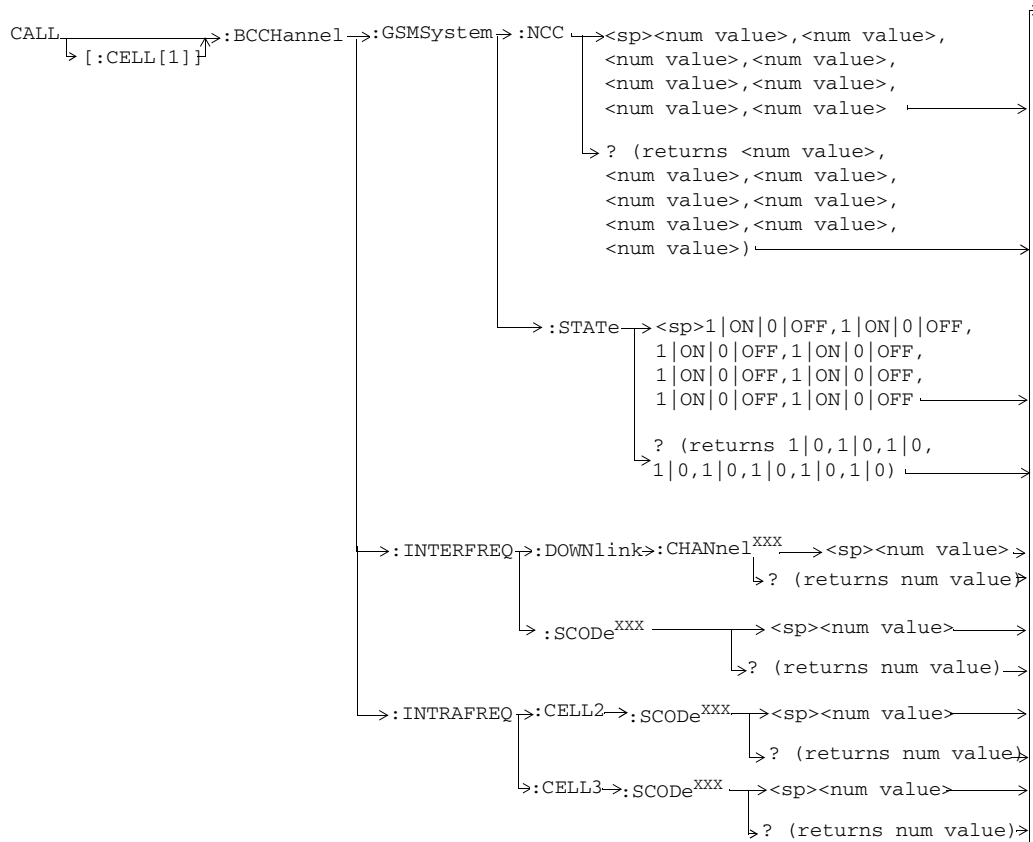
CALL:AWGNoise



CALL:BCCHannel

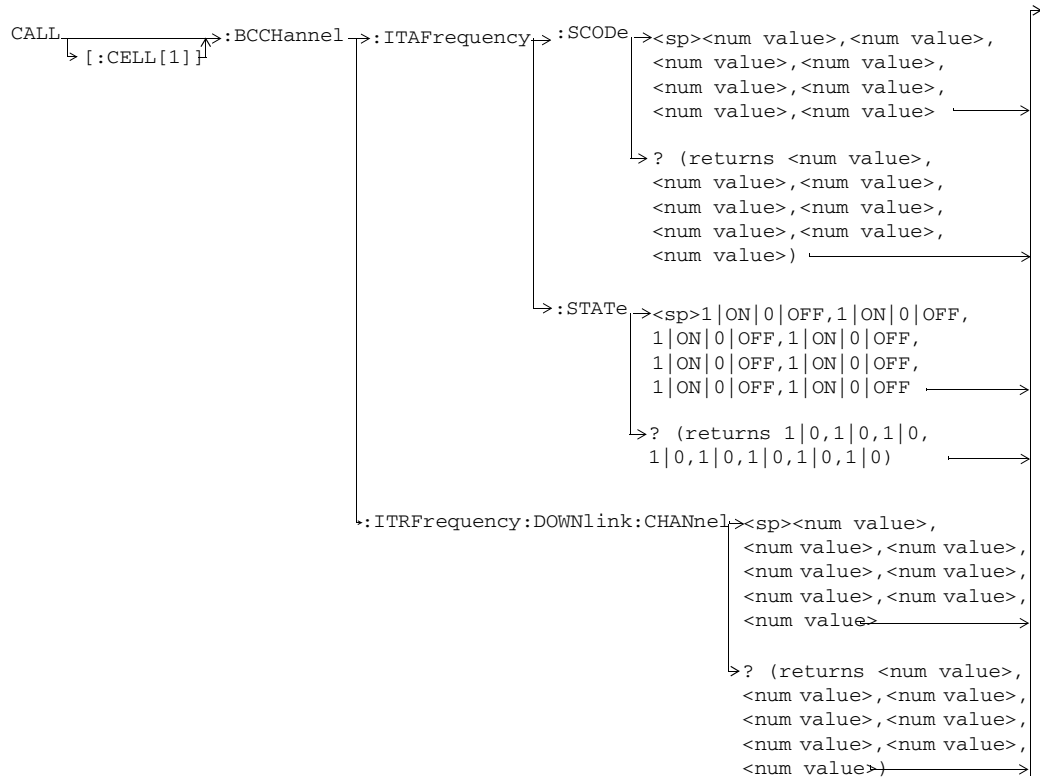


GPiB Syntax for E1963A and E6703C

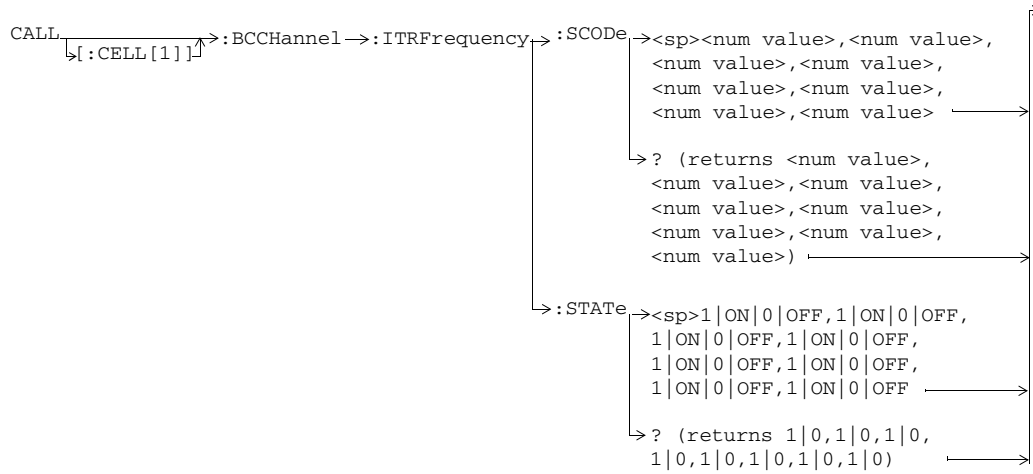


^{xxx} This command is obsolete.

GPIB Syntax for E1963A and E6703C



GPiB Syntax for E1963A and E6703C



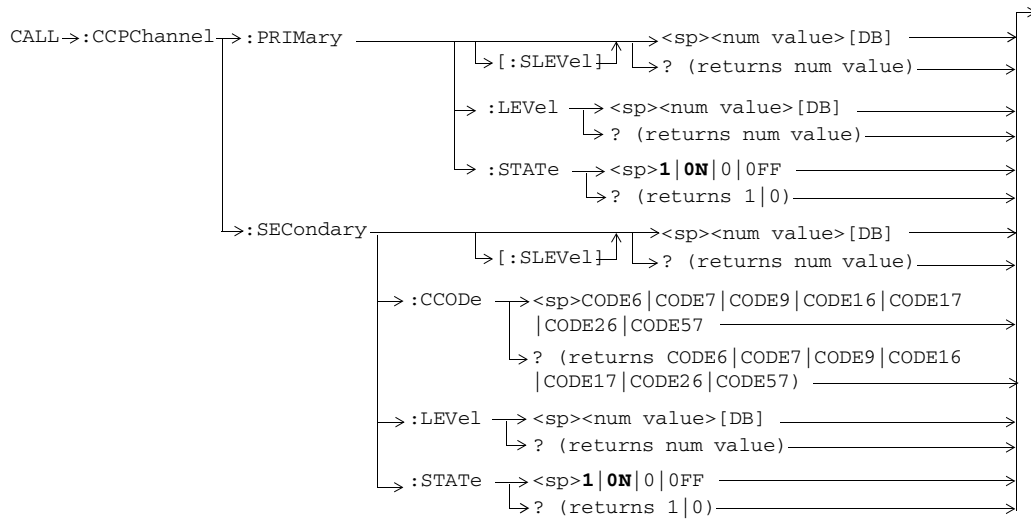
GPiB Syntax for E1963A and E6703C



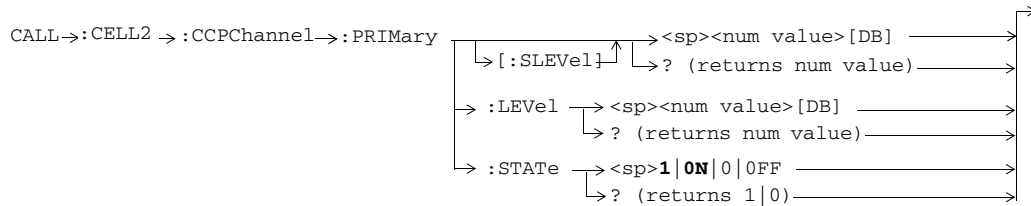
* This command is only applicable to the lab application.

GPiB Syntax for E1963A and E6703C

CALL:CCPChannel

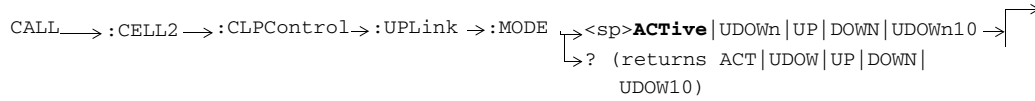


CALL:CELL2:CCPChannel



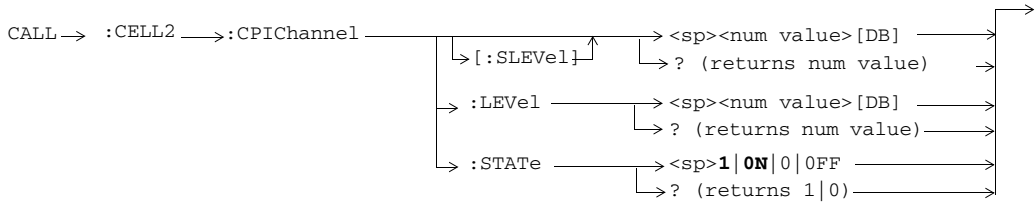
All commands shown in this diagram are only applicable to the lab application.

CALL:CELL2:CLPControl



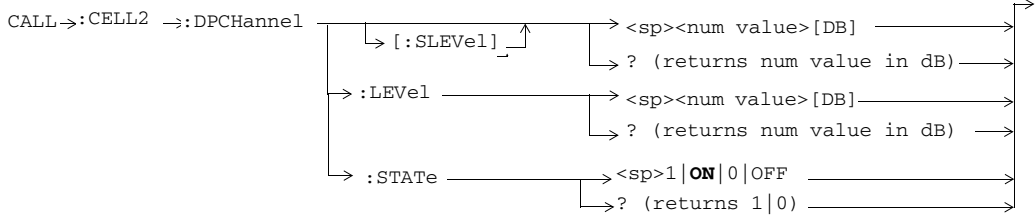
All commands shown in this diagram are only applicable to the lab application.

CALL:CELL2:CPICchannel



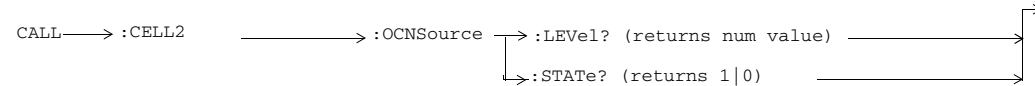
All commands shown in this diagram are only applicable to the lab application.

CALL:CELL2:DPCHannel



All commands shown in this diagram are only applicable to the lab application.

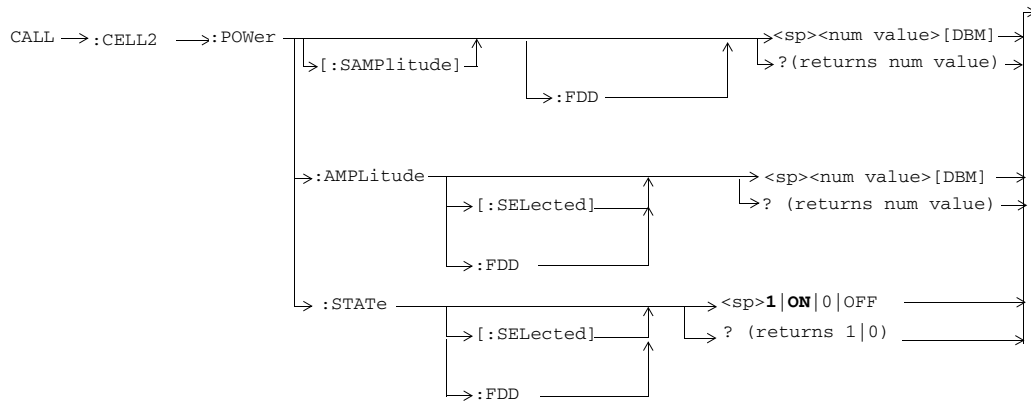
CALL:CELL2:OCNSource



All commands shown in this diagram are only applicable to the lab application.

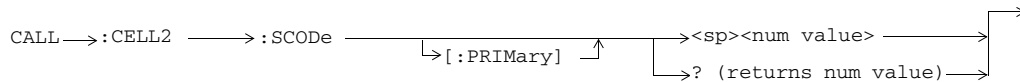
GPiB Syntax for E1963A and E6703C

CALL:CELL2:POWer



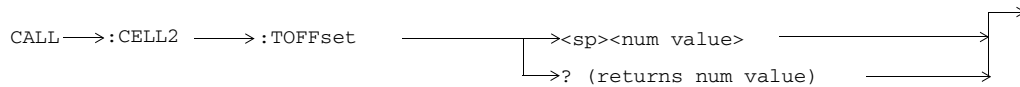
All commands shown in this diagram are only applicable to the lab application.

CALL:CELL2:SCODE



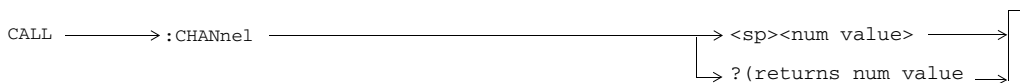
All commands shown in this diagram are only applicable to the lab application.

CALL:CELL2:TOFFset

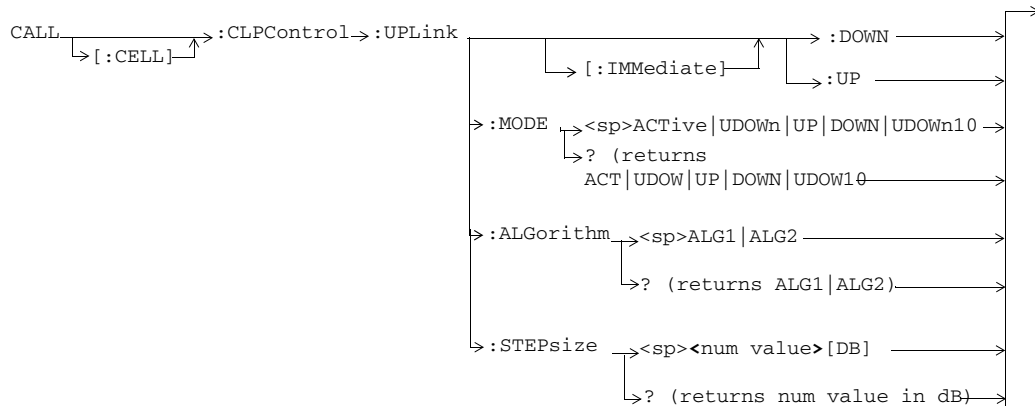


All commands shown in this diagram are only applicable to the lab application.

CALL:CHANnel



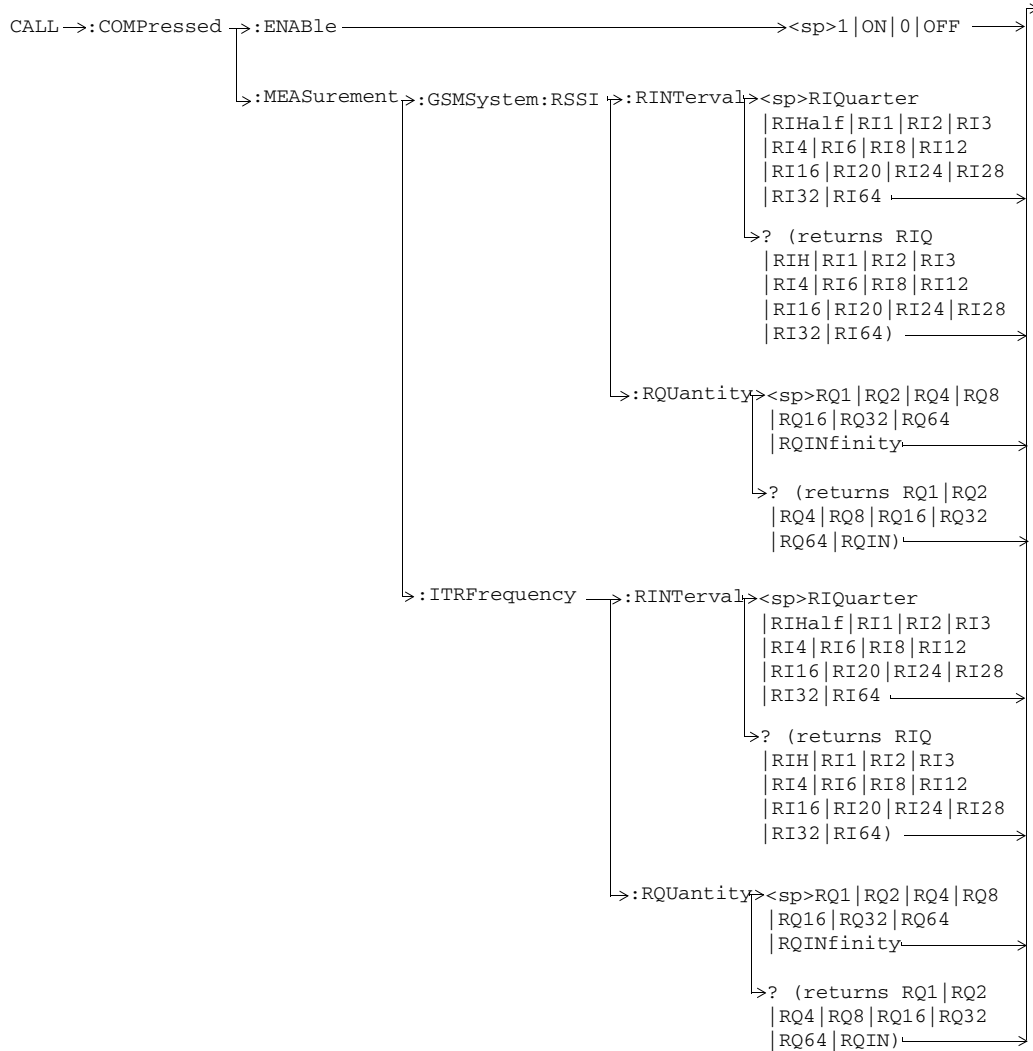
CALL:CLPControl



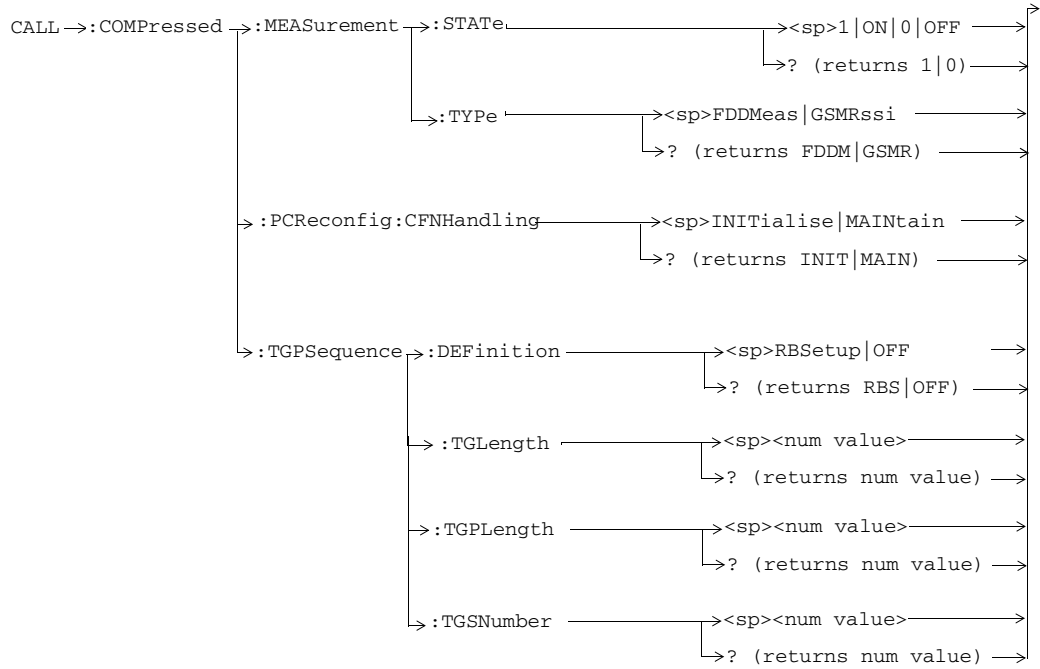
GPIO Syntax for E1963A and E6703C

CALL:COMPRESSED

This section is only applicable to the lab application.

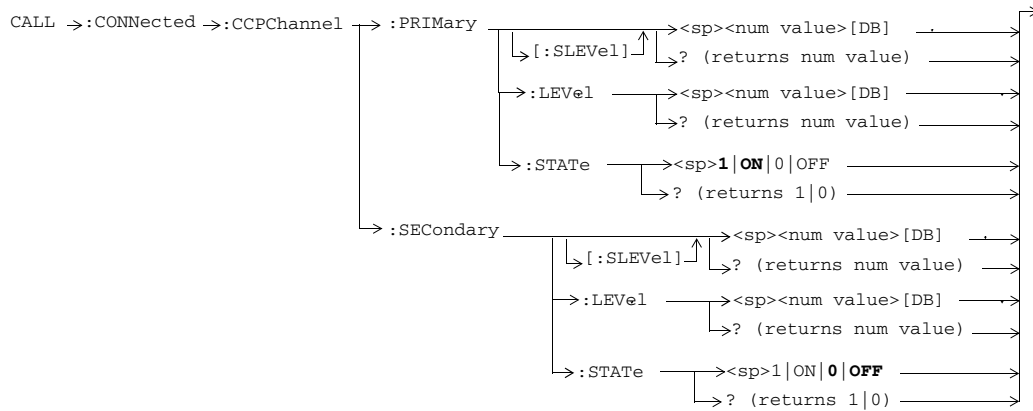
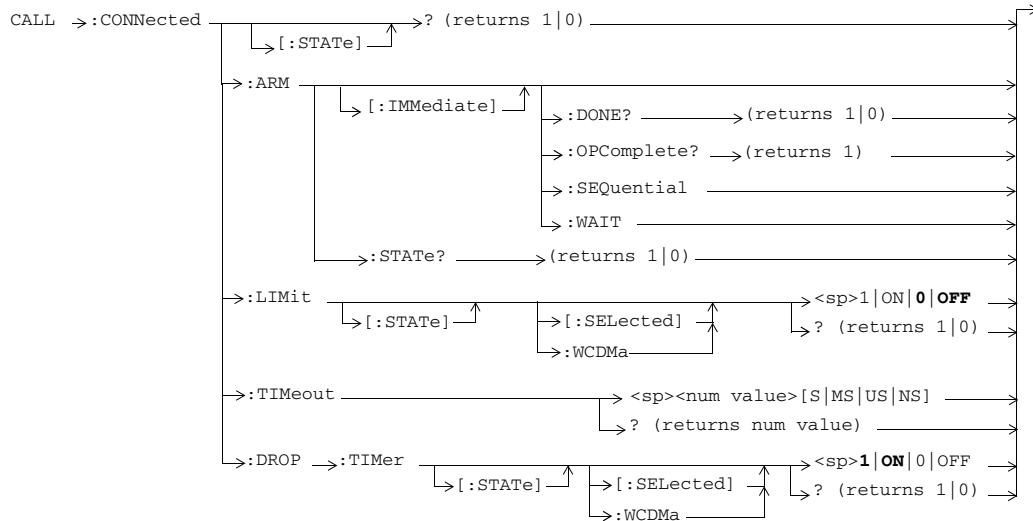


GPIB Syntax for E1963A and E6703C

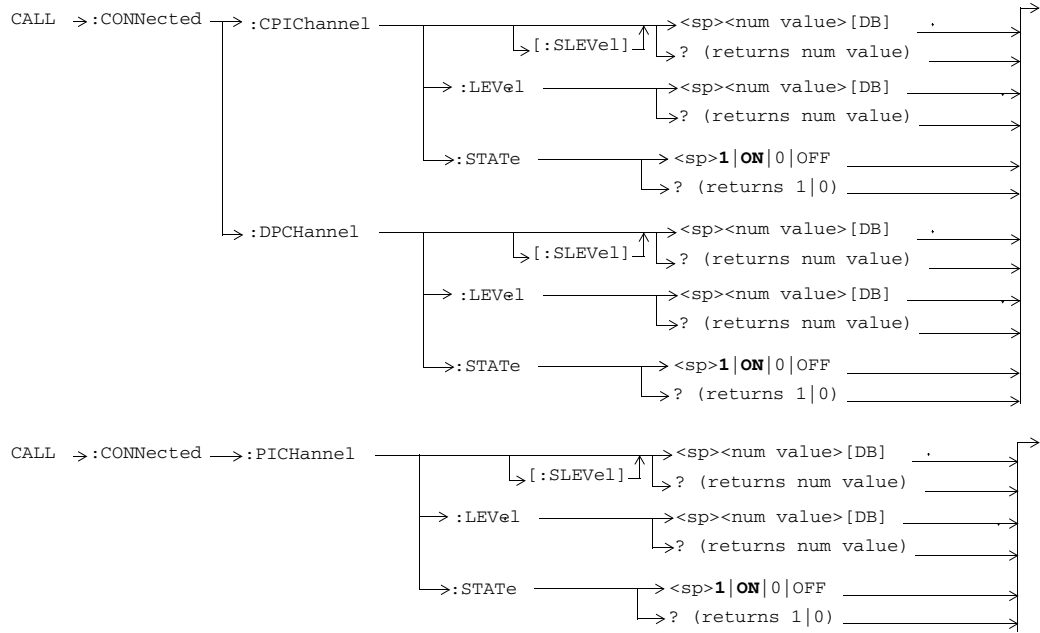


GPiB Syntax for E1963A and E6703C

CALL:CONNECTed

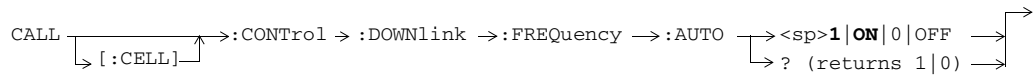


GPIO Syntax for E1963A and E6703C

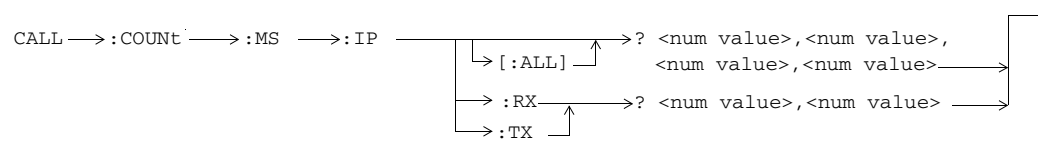


GPiB Syntax for E1963A and E6703C

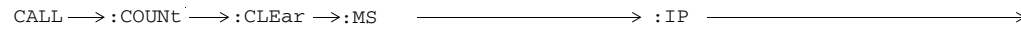
CALL:CONTRol



CALL:COUNT

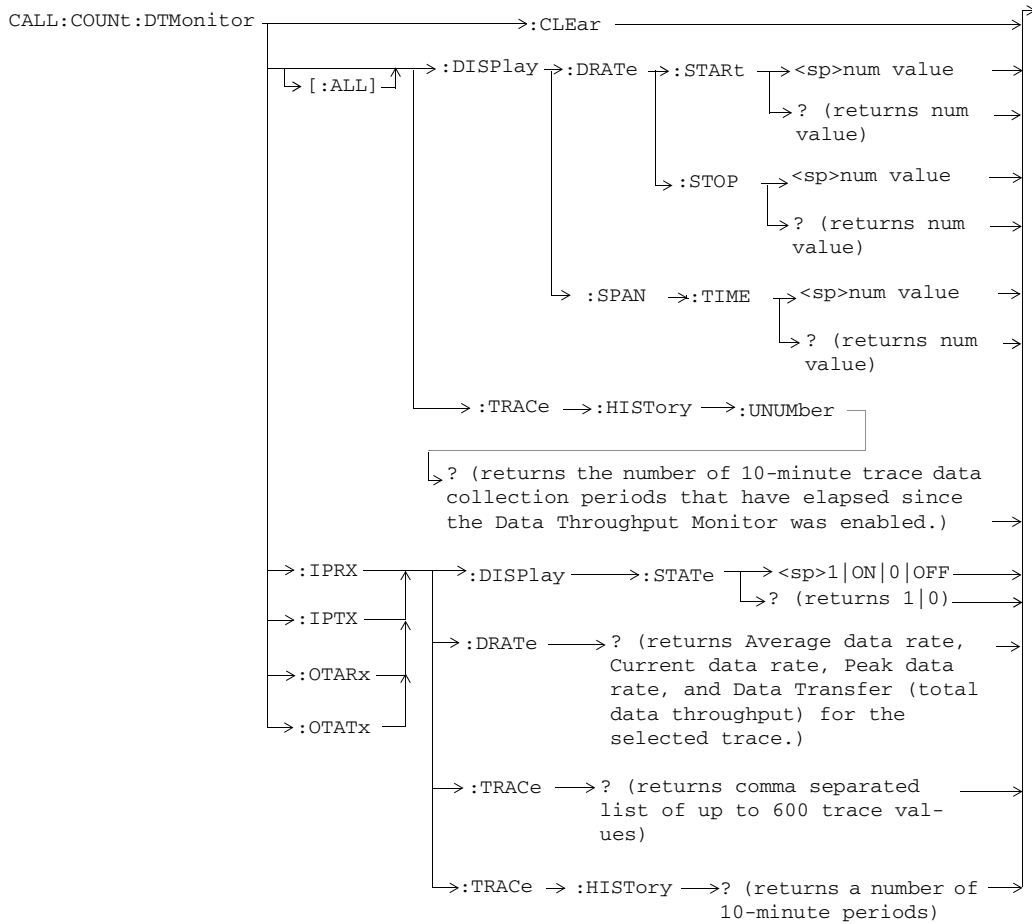


All commands shown in this diagram are only applicable to the lab application.



All commands shown in this diagram are only applicable to the lab application.

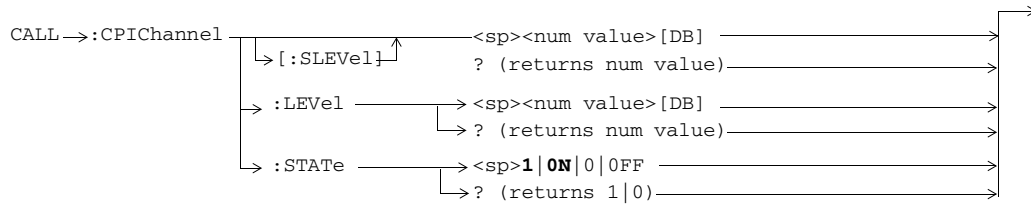
CALL:COUNT:DTMonitor



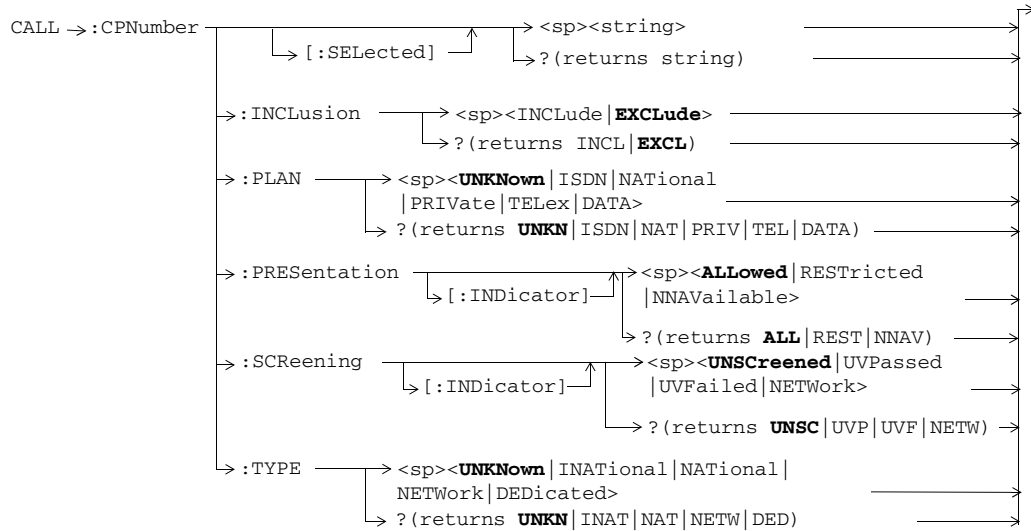
All commands shown in this diagram are only applicable to the lab application.

GPiB Syntax for E1963A and E6703C

CALL:CPiChannel

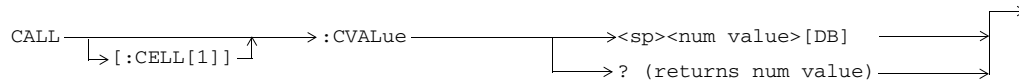


CALL:CPNumber

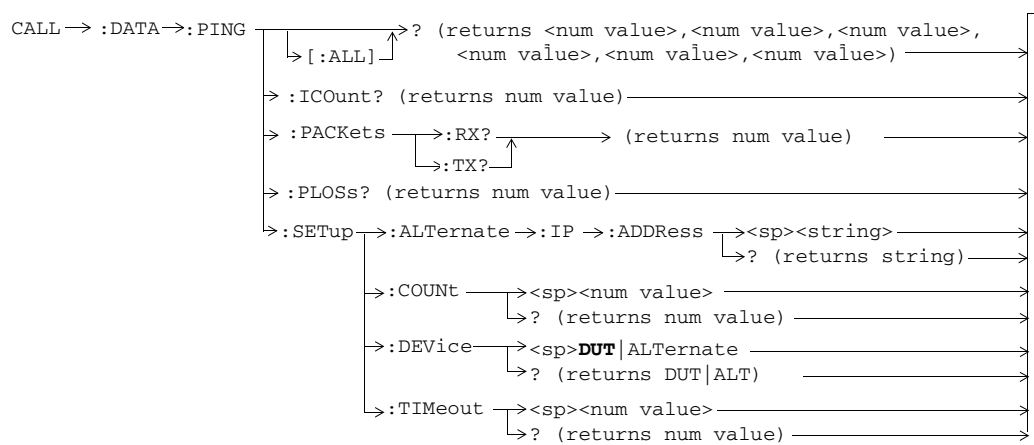


These commands are only applicable to the lab application.

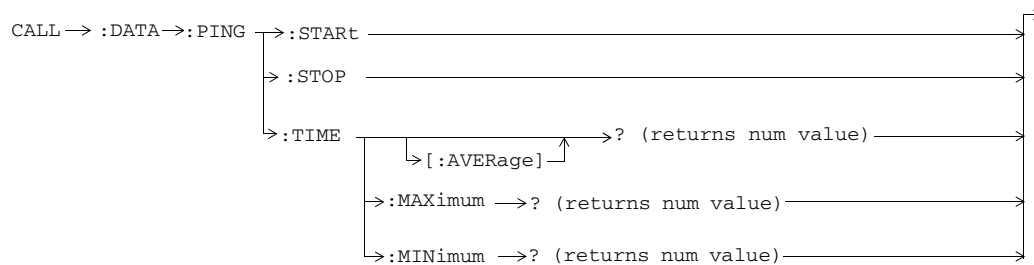
CALL:CVALue



CALL:DATA:PING



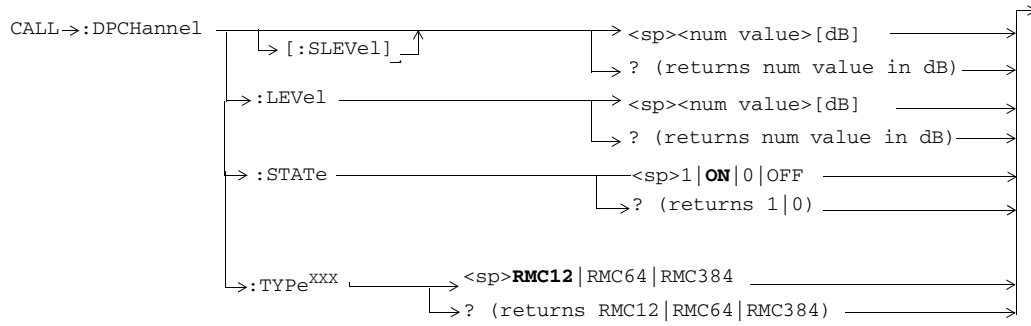
All commands shown in this diagram are only applicable to the lab application.



All commands shown in this diagram are only applicable to the lab application.

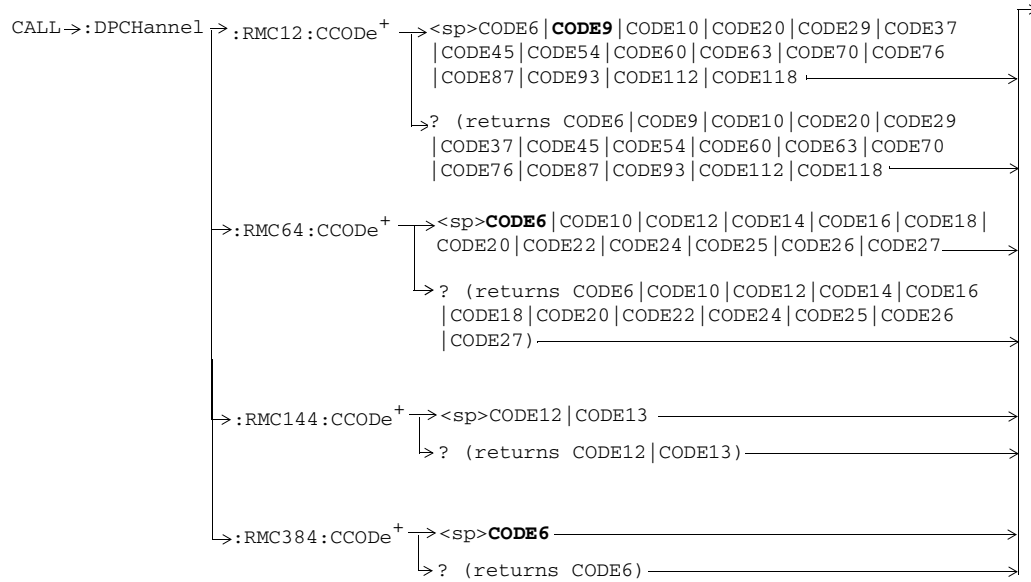
GPiB Syntax for E1963A and E6703C

CALL:DPCHannel



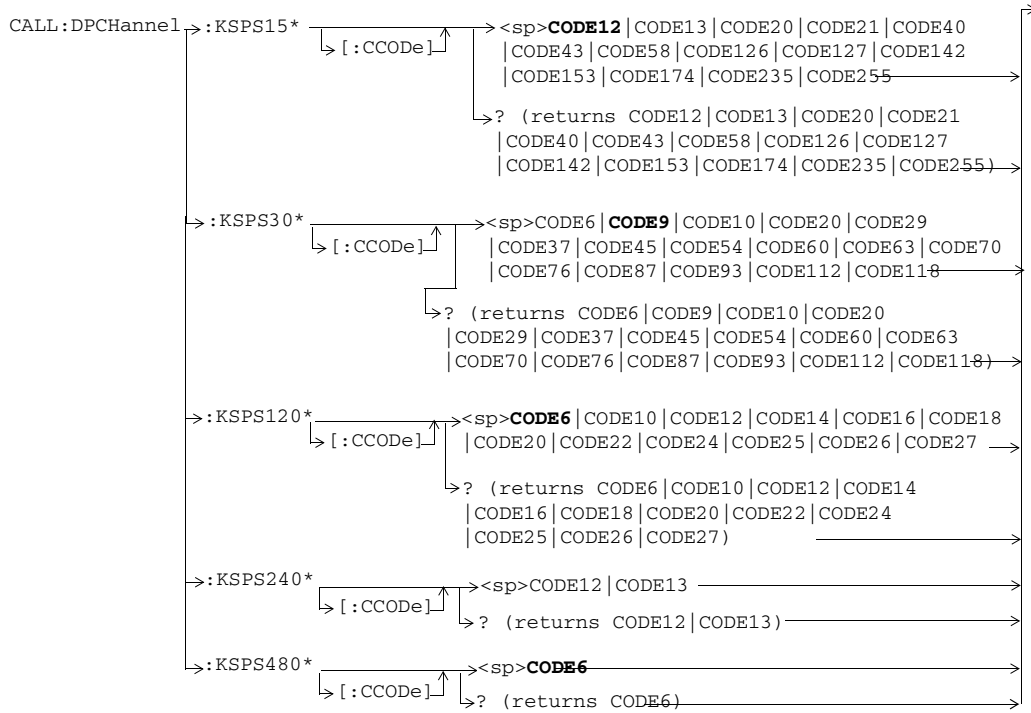
XXX This command is obsolete.

GPIB Syntax for E1963A and E6703C



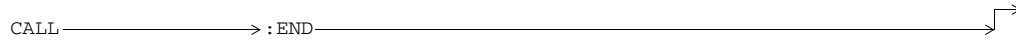
⁺ This command is only applicable to the test application.

GPiB Syntax for E1963A and E6703C



* This command is only applicable to the lab application.

CALL:END



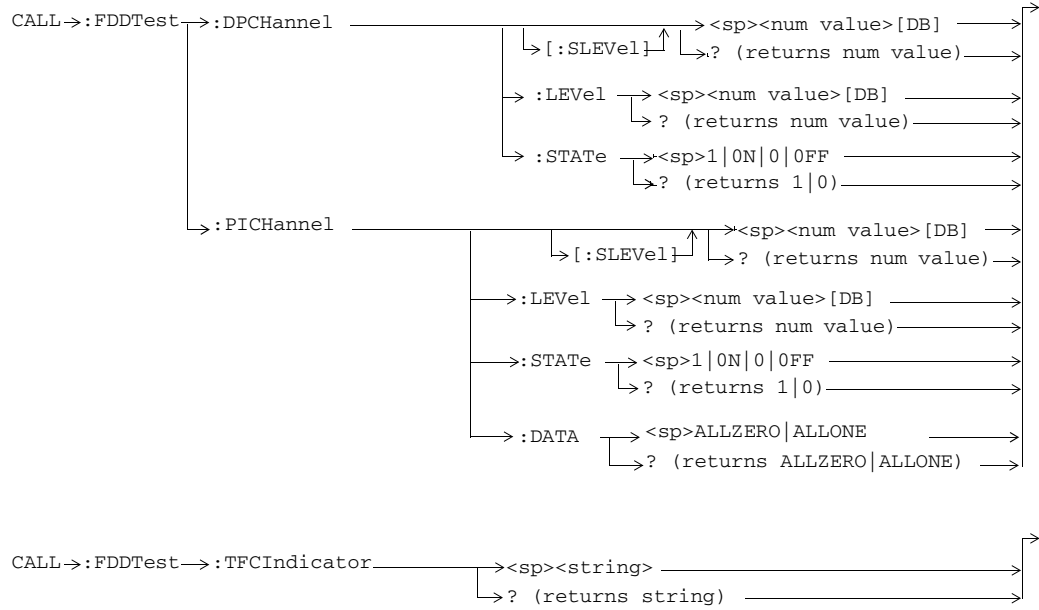
GPIO Syntax for E1963A and E6703C

CALL:FDDTest



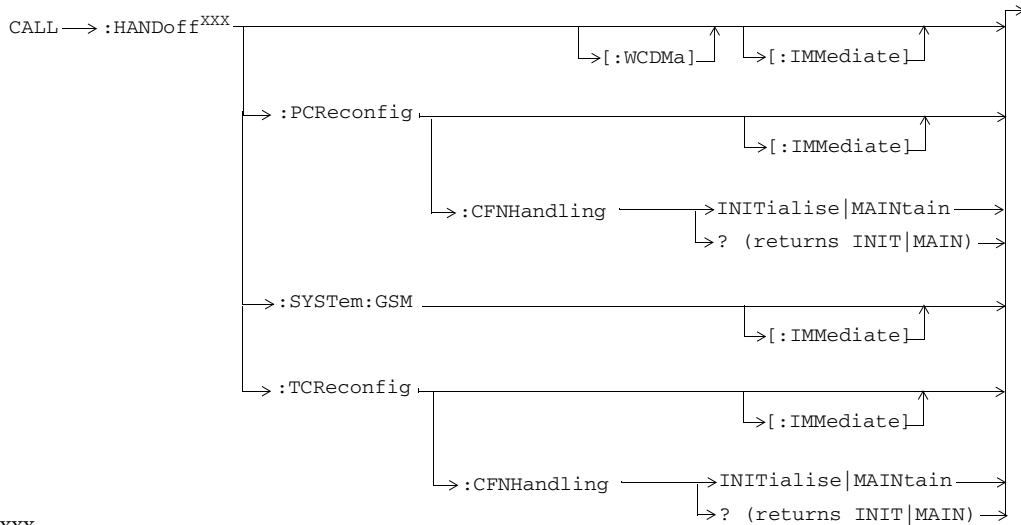
* This command is only applicable to the lab application.

GPIB Syntax for E1963A and E6703C



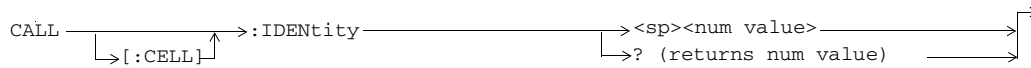
GPiB Syntax for E1963A and E6703C

CALL:HANdoff

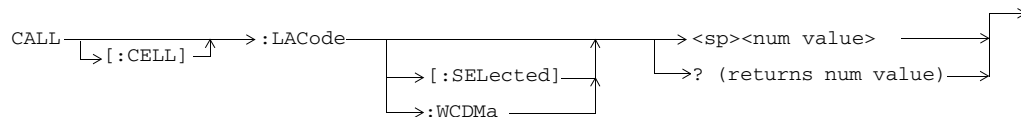


XXX This command is obsolete.

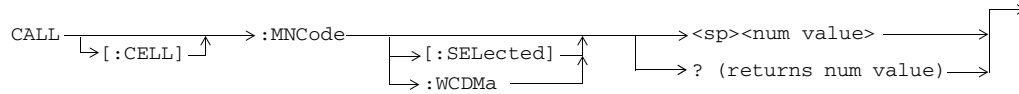
CALL:IDENtity



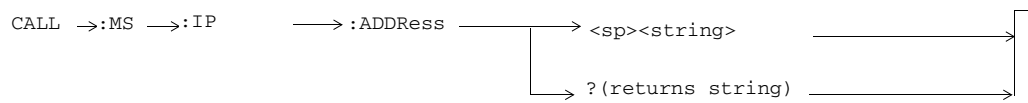
CALL:LACode



CALL:MNCcode

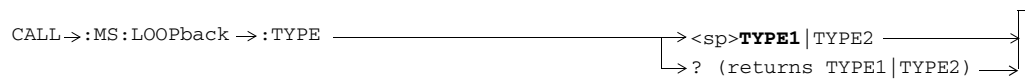


CALL:MS:IP:ADDRESS

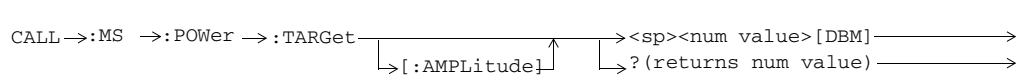


All commands shown in this diagram are only applicable to the lab application.

CALL:MS:LOOPback



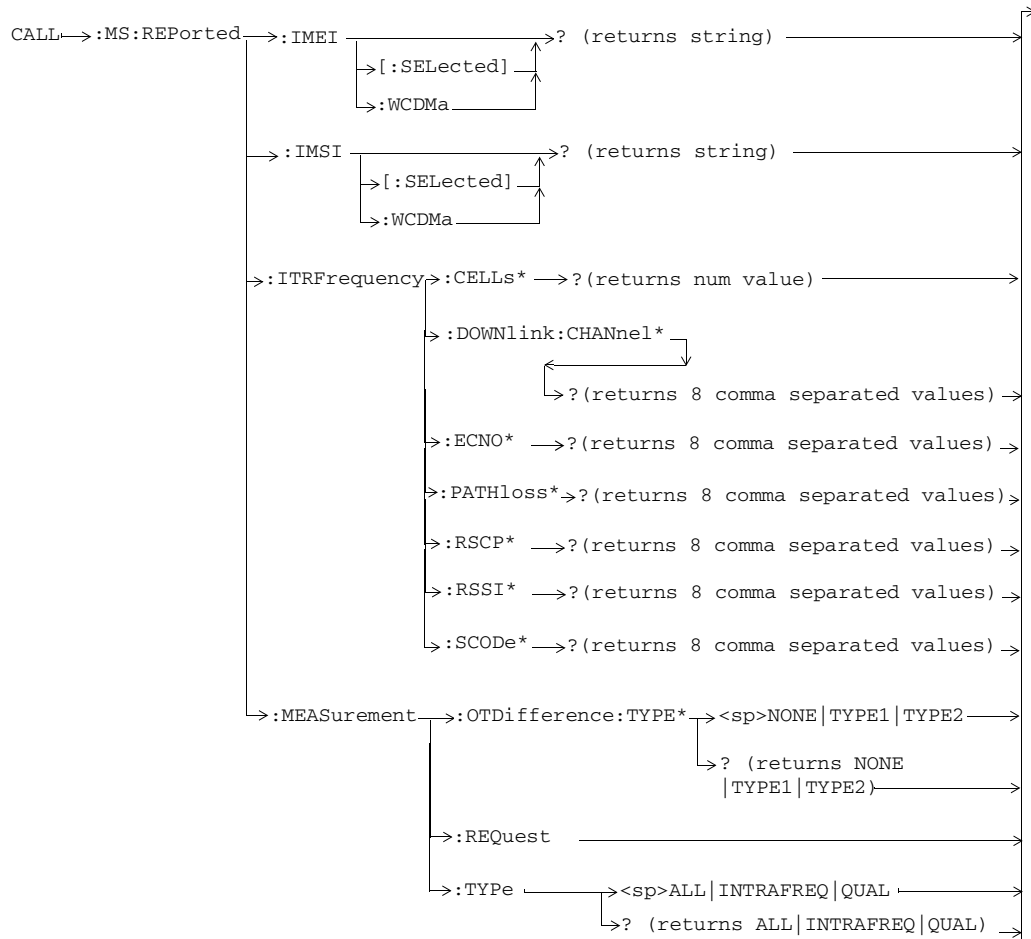
CALL:MS:POWER



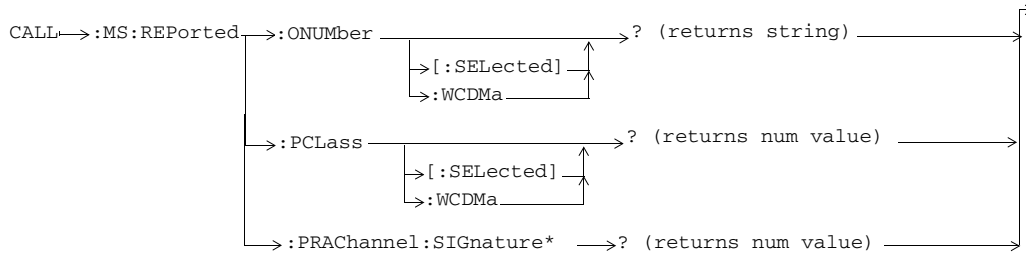
CALL:MS:REPorted



* This query is only applicable to the lab application.

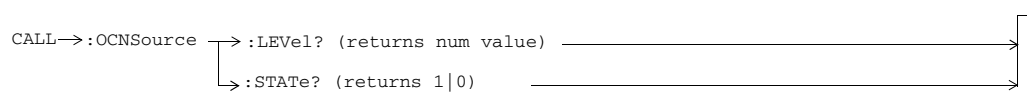


* This command is only applicable to the lab application.

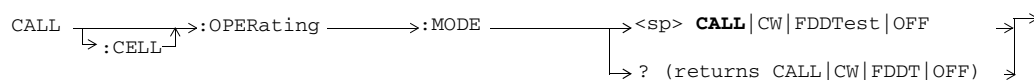


* This command is only applicable to the lab application.

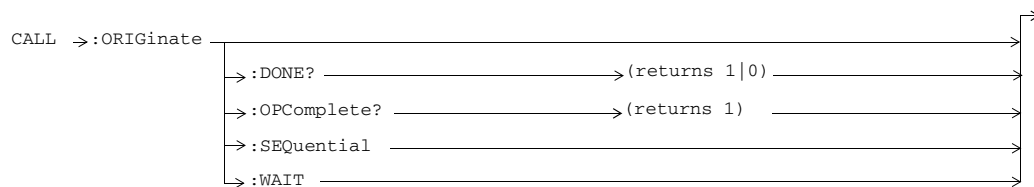
CALL:OCNSource



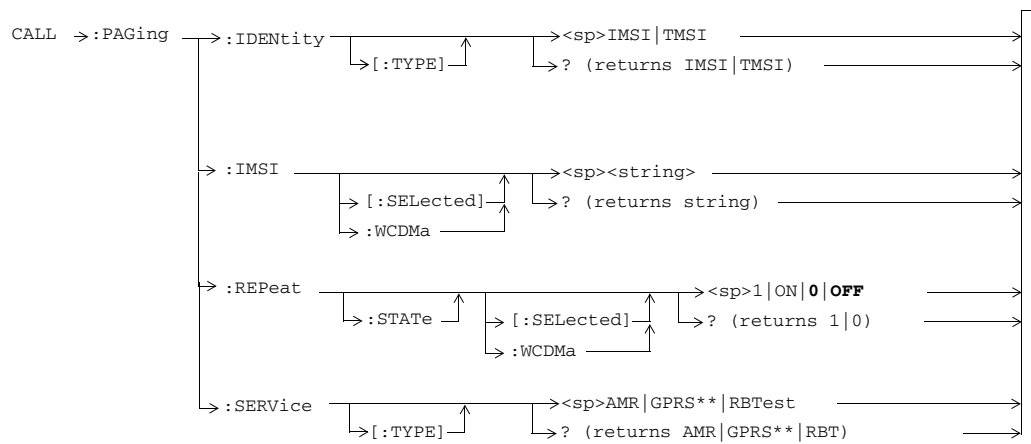
CALL:OPERating



CALL:ORIGinate

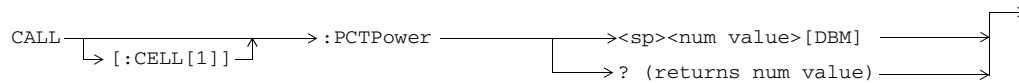


CALL:PAGing

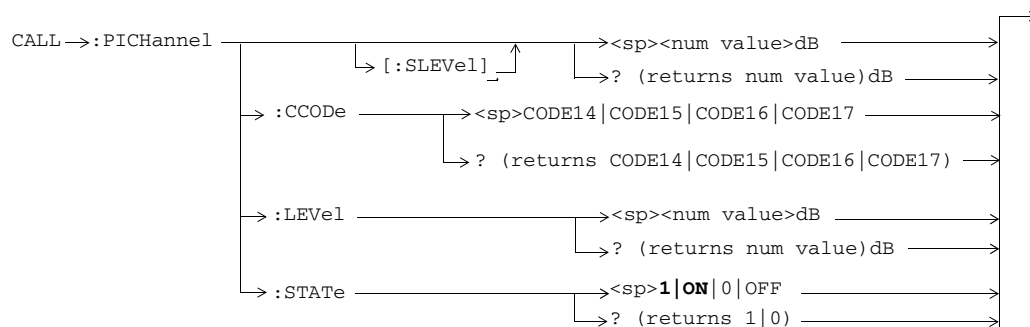


** This setting/query return is only applicable to the lab application.

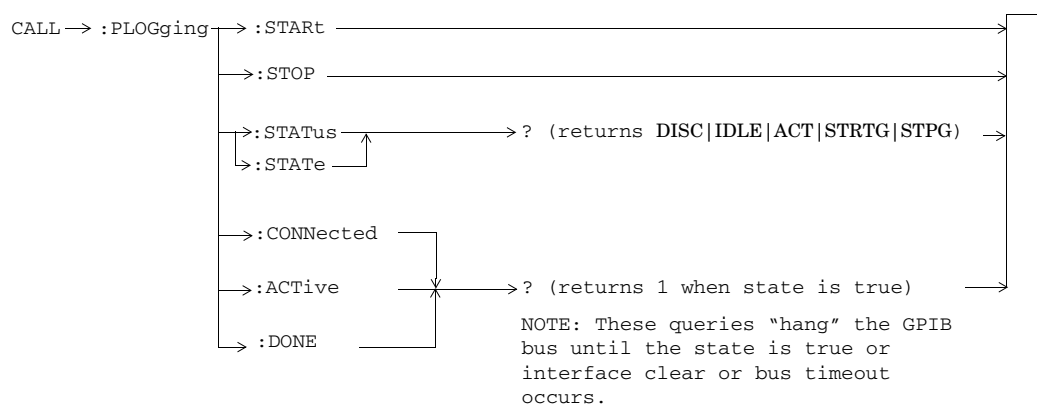
CALL:PCTPower



CALL:PIChannel

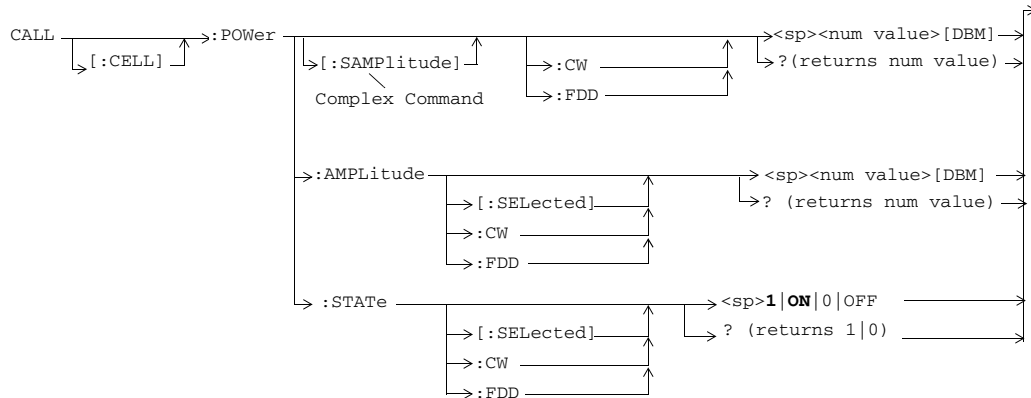


CALL:PLOGging

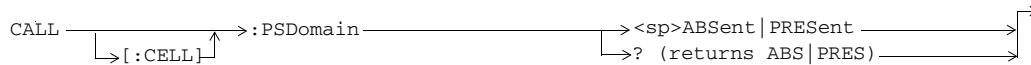


All commands shown in this diagram are only applicable to the lab application.

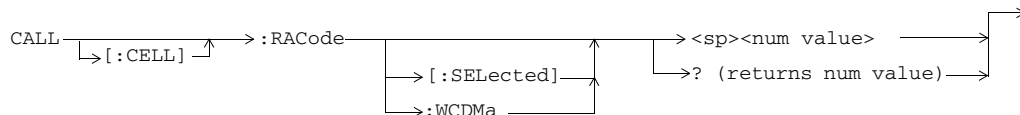
CALL:POWer



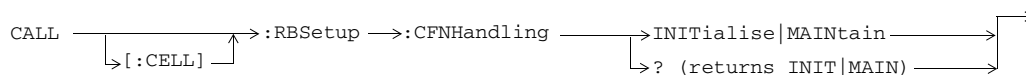
CALL:PSDomain



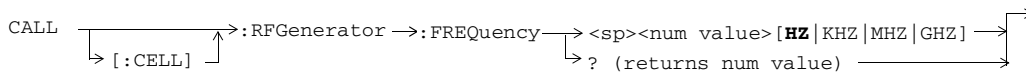
CALL:RACode



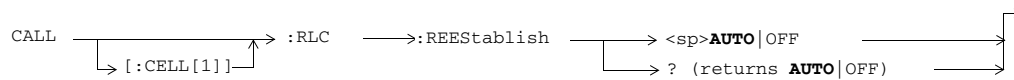
CALL:RBSetup



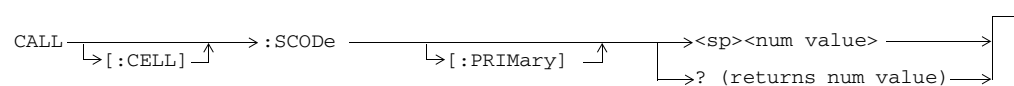
CALL:RFGenerator



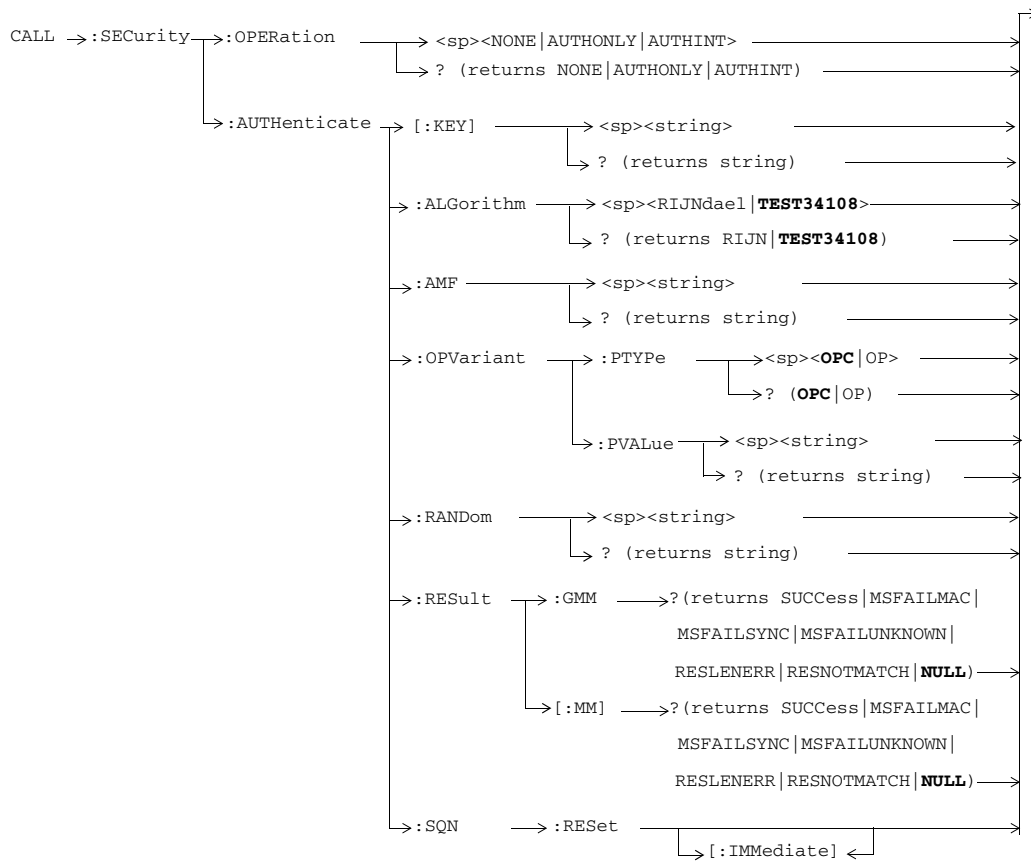
CALL:RLC



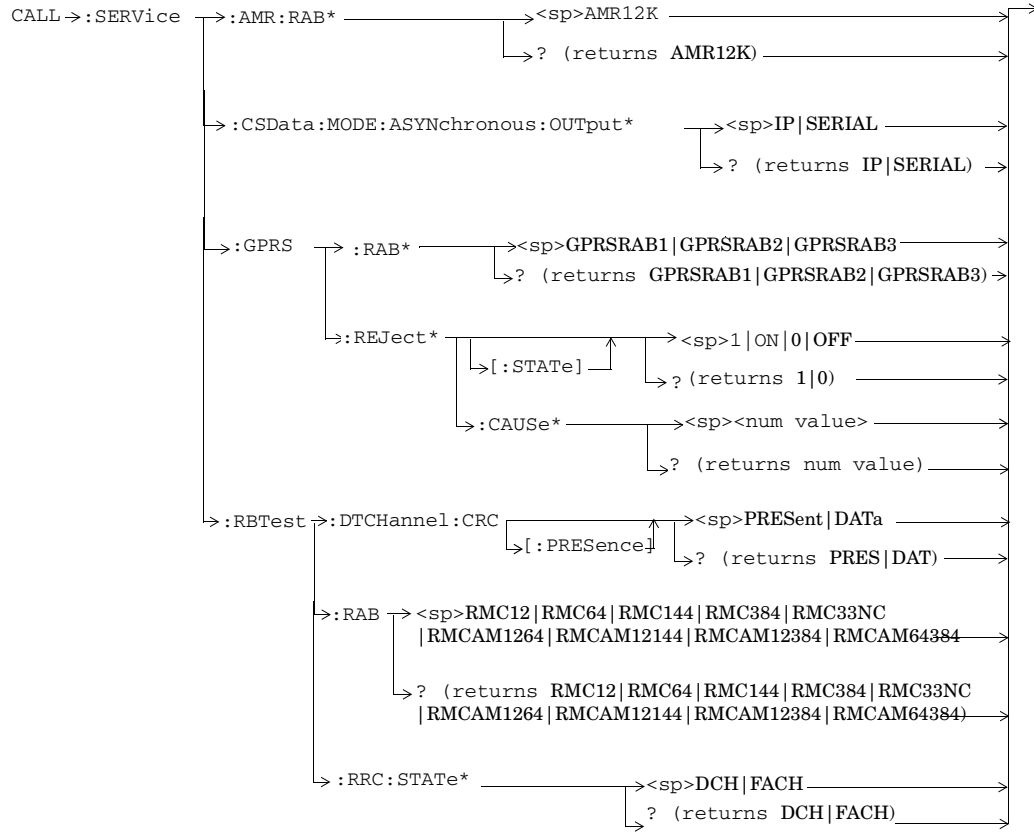
CALL:SCODE



CALL:SECurity

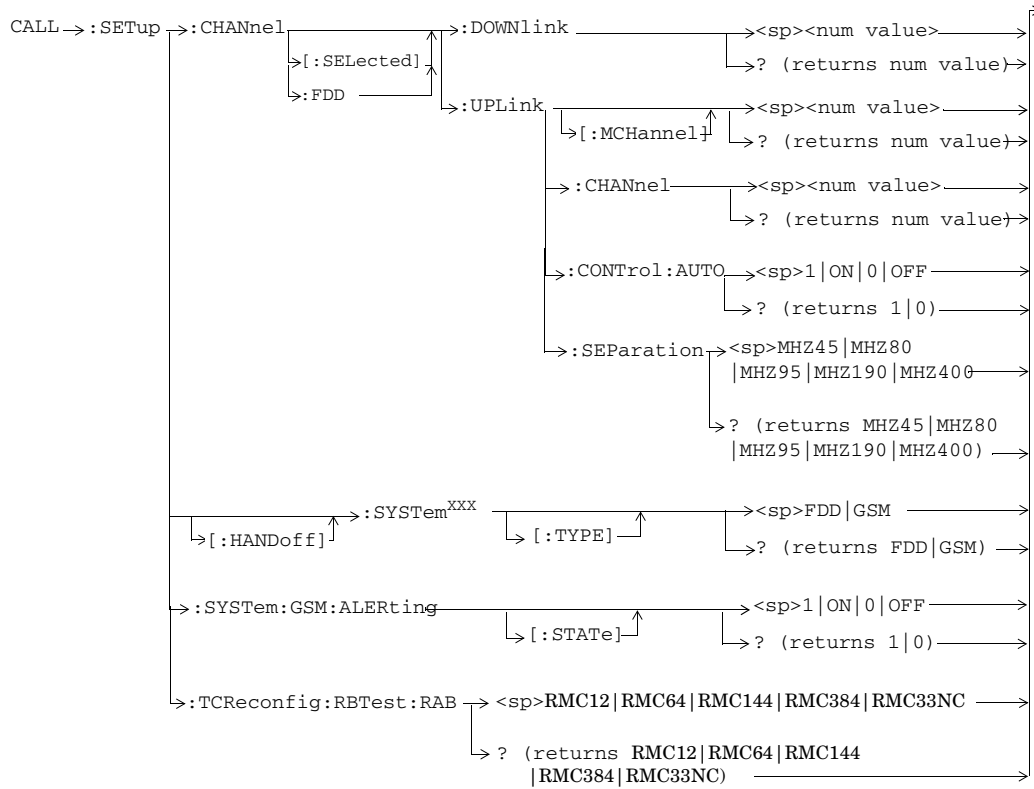


CALL:SERvice



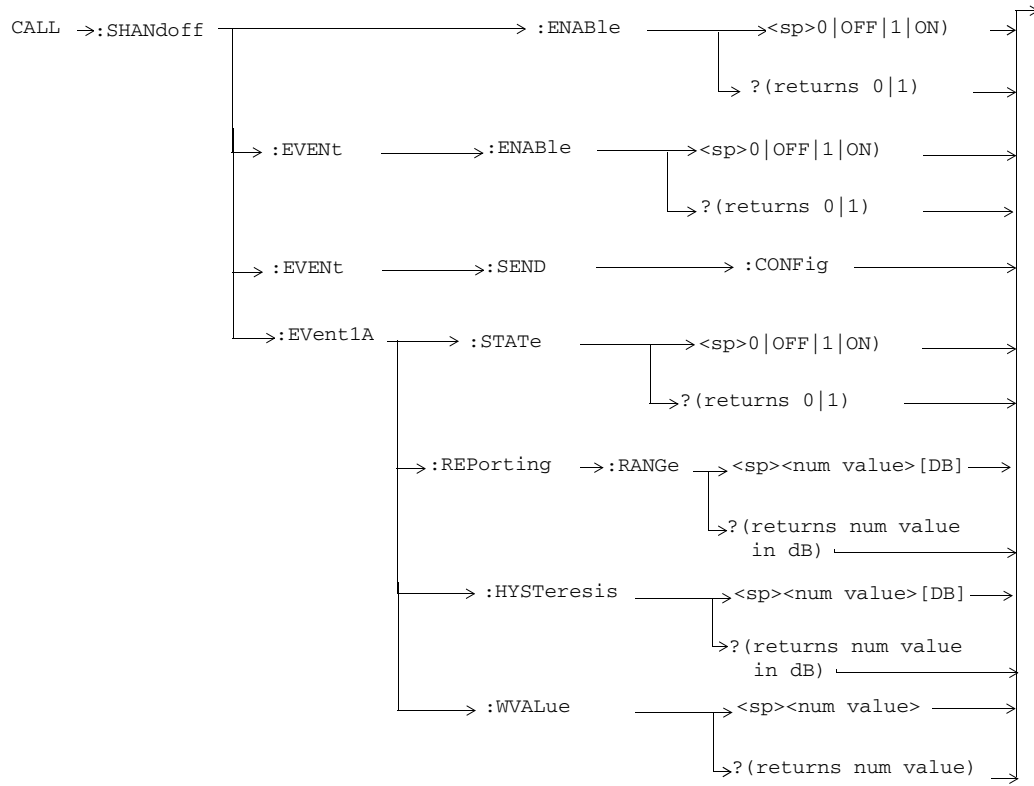
* This command is only applicable to the lab application.

CALL:SETup

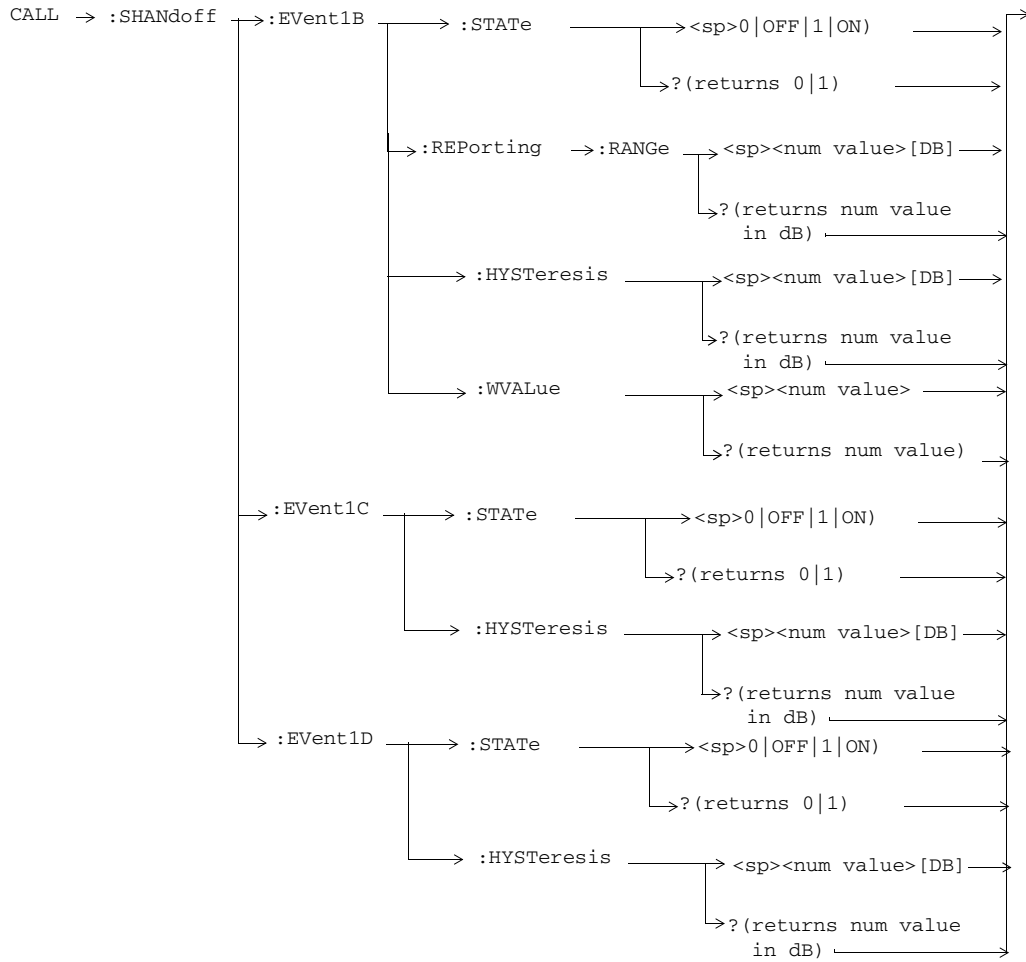


^{xxx} This command is obsolete.

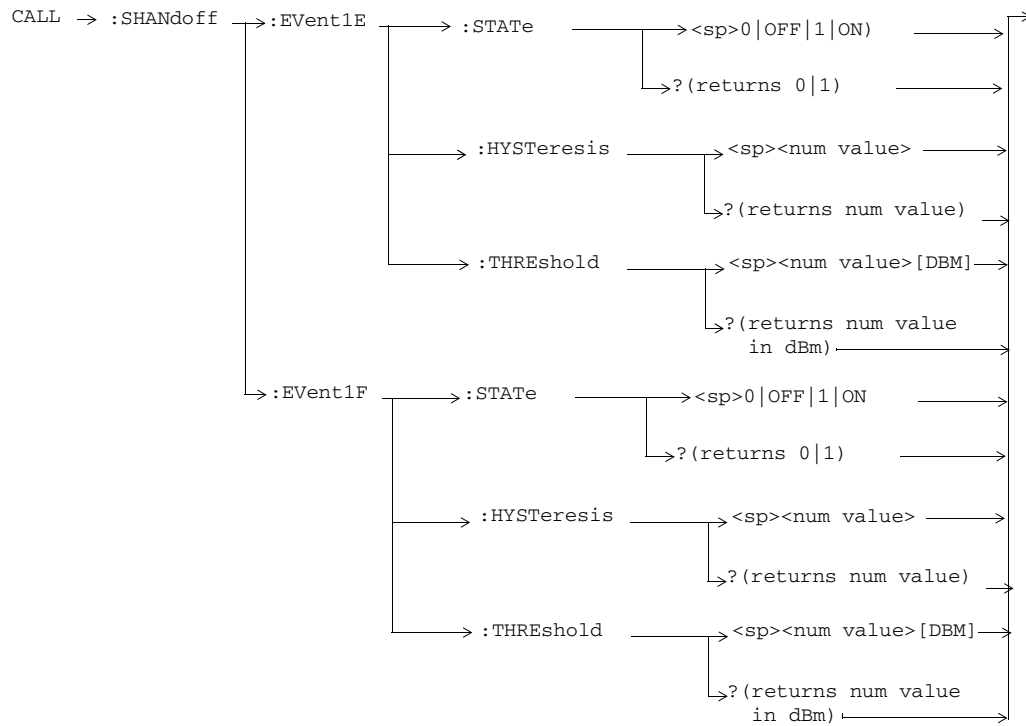
CALL:SHANdoff



All commands shown in this diagram are only applicable to the lab application.



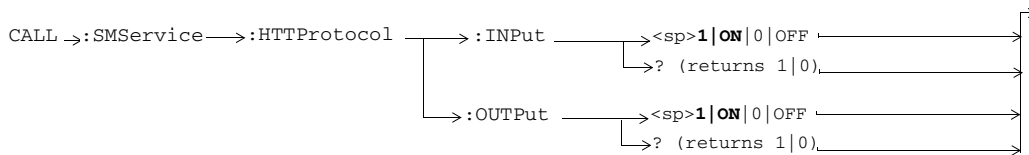
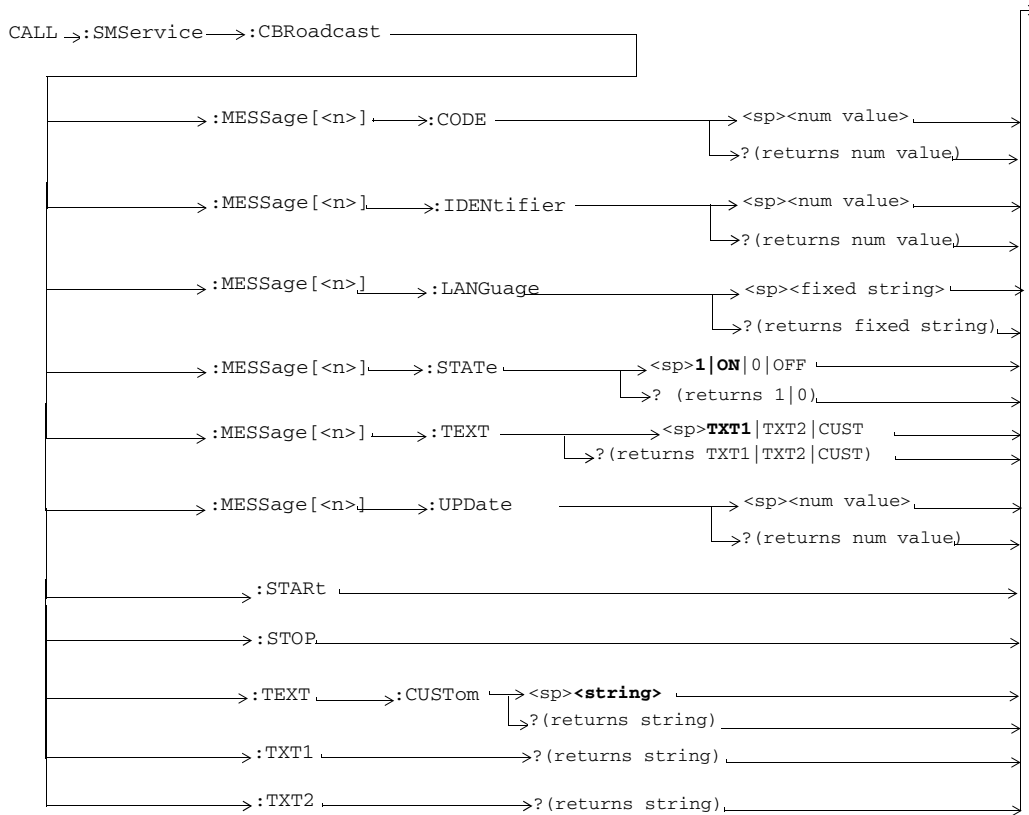
All commands shown in this diagram are only applicable to the lab application.



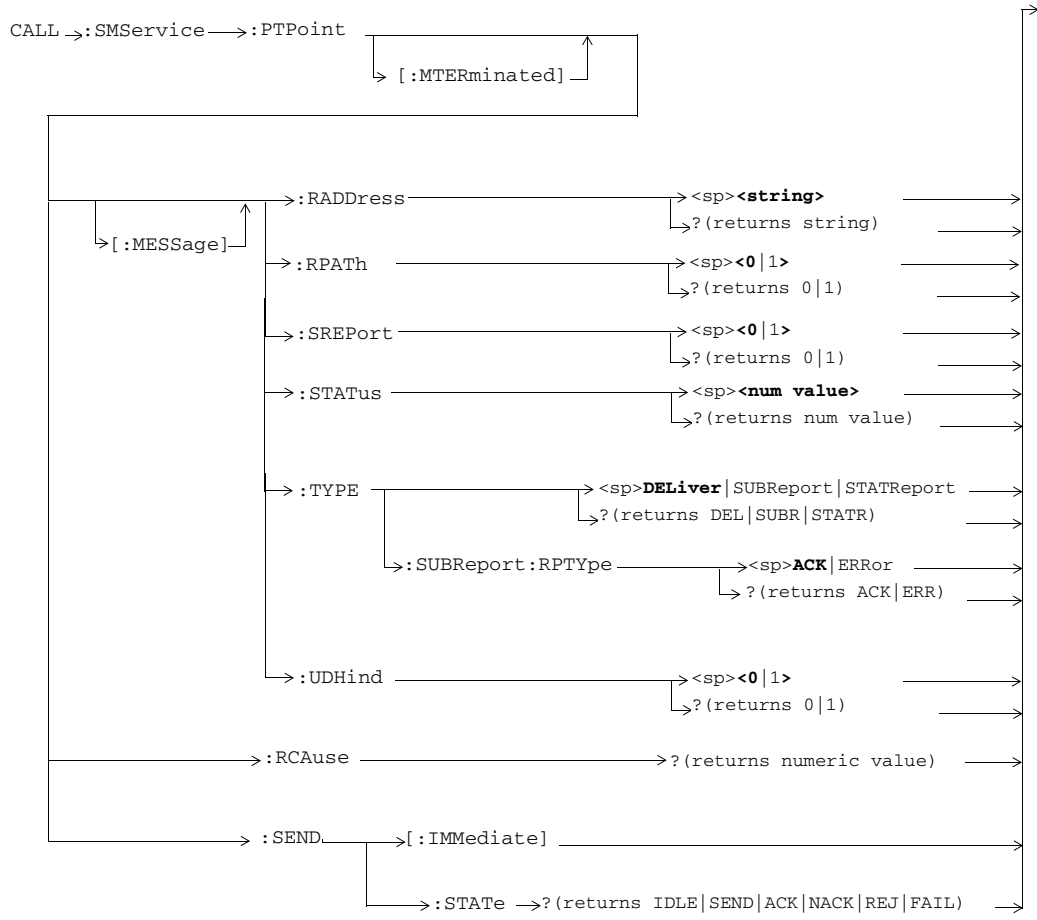
All commands shown in this diagram are only applicable to the lab application.

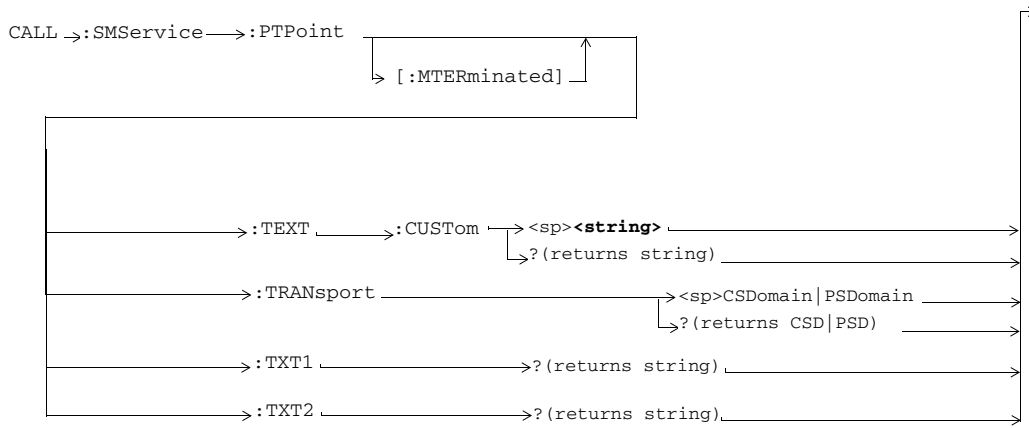
CALL:SMSservice

This section is only applicable to the lab application.

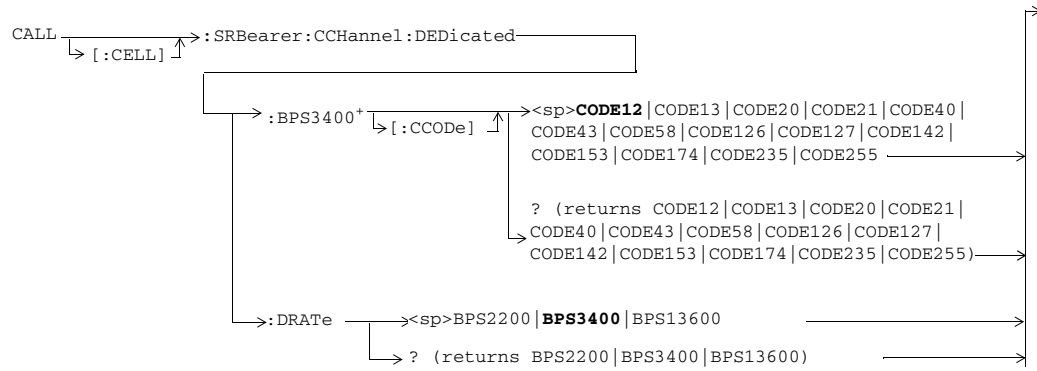








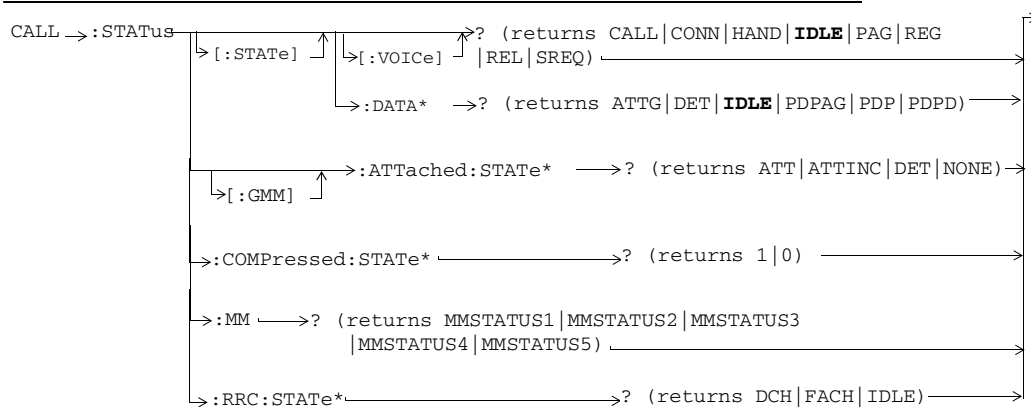
CALL:SRBearer



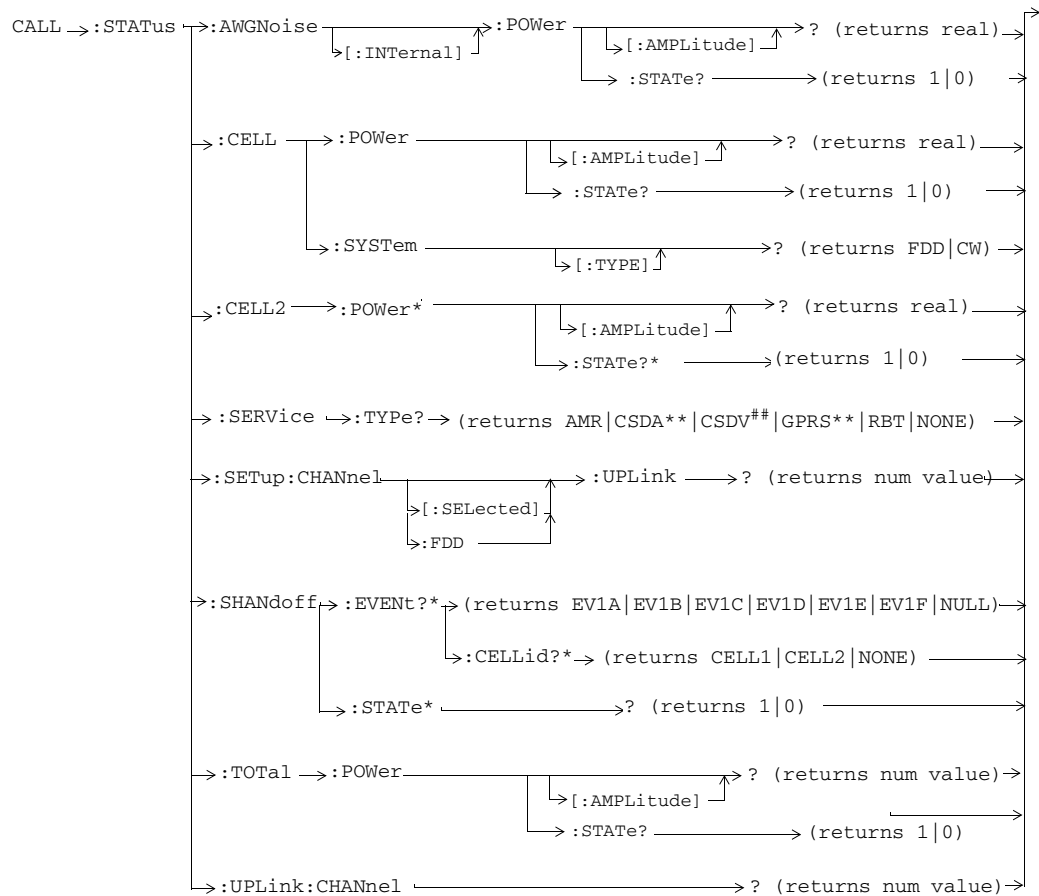
+ This command is only applicable to the test application.

CALL:STATUs

NOTE The CALL:STATUs commands are query only. They return values that indicate the test set's actual hardware settings. Actual hardware settings can differ from settings the user has entered, most frequently due to an error condition. When no error conditions exist, the commands used to enter values will return the same results as the commands used to query actual hardware settings. For example, "CALL:AWGNoise:POWer?" will return the same value as "CALL:STATUs:AWGNoise:POWer?" when no error conditions exist.



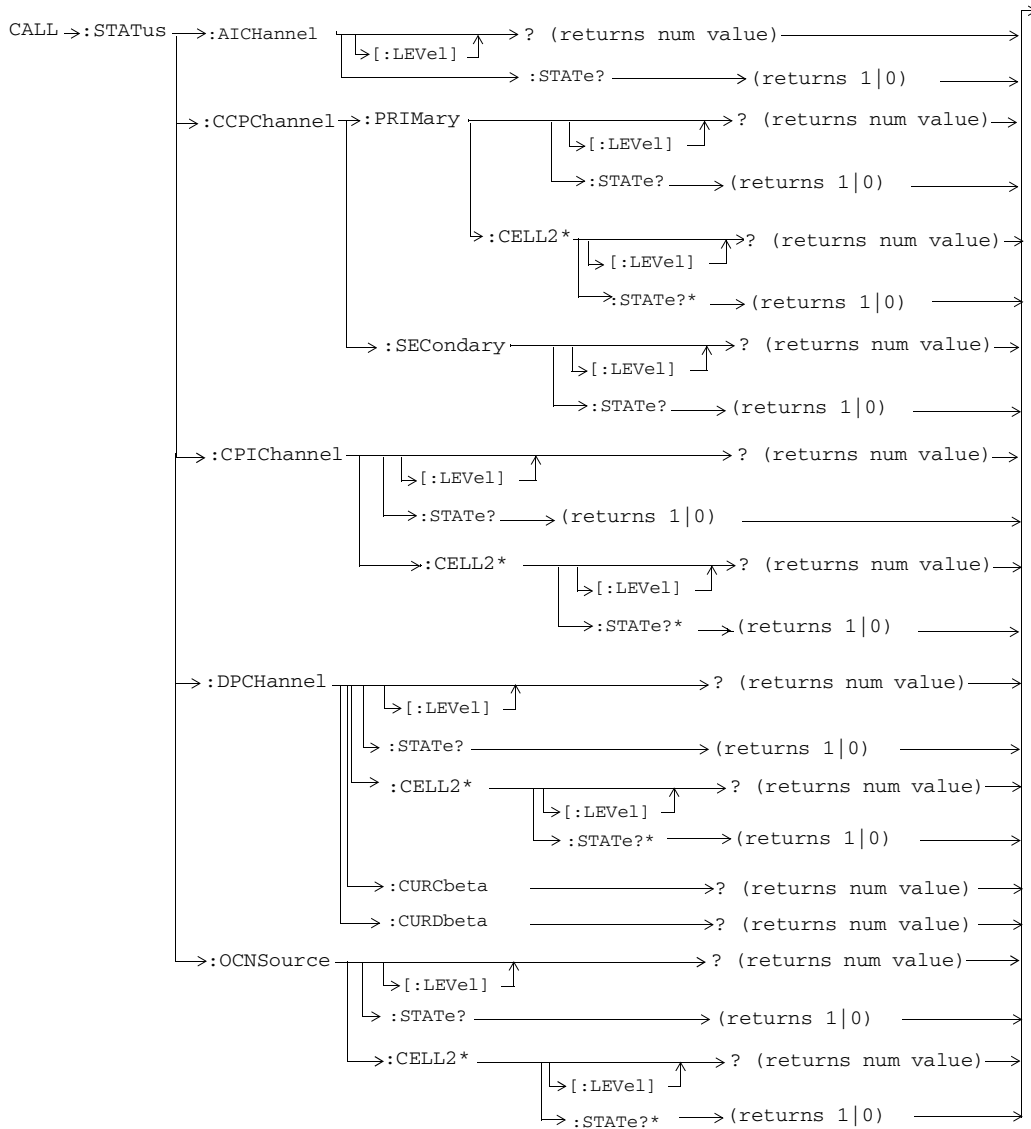
* This command is only applicable to the lab application.



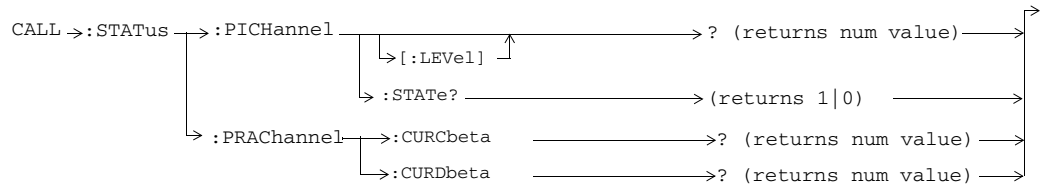
* This command is only applicable to the lab application.

** This query return is only applicable to the lab application.

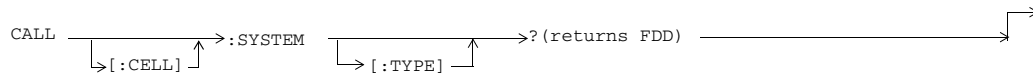
This query return is only applicable to the lab application or feature-licensed test application.



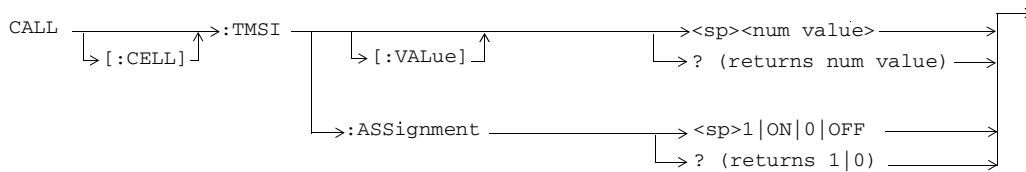
* This command is only applicable to the lab application.



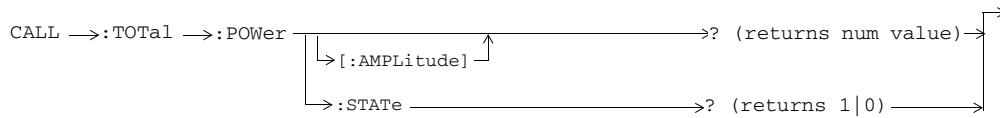
CALL:SYSTem



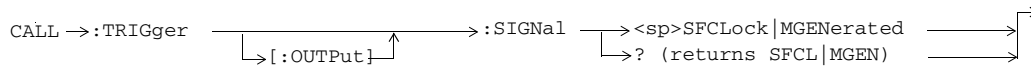
CALL:TMSI



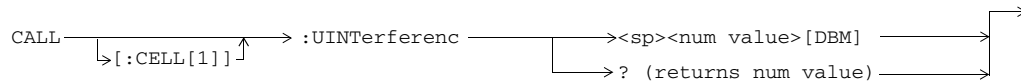
CALL:TOTal:POWer



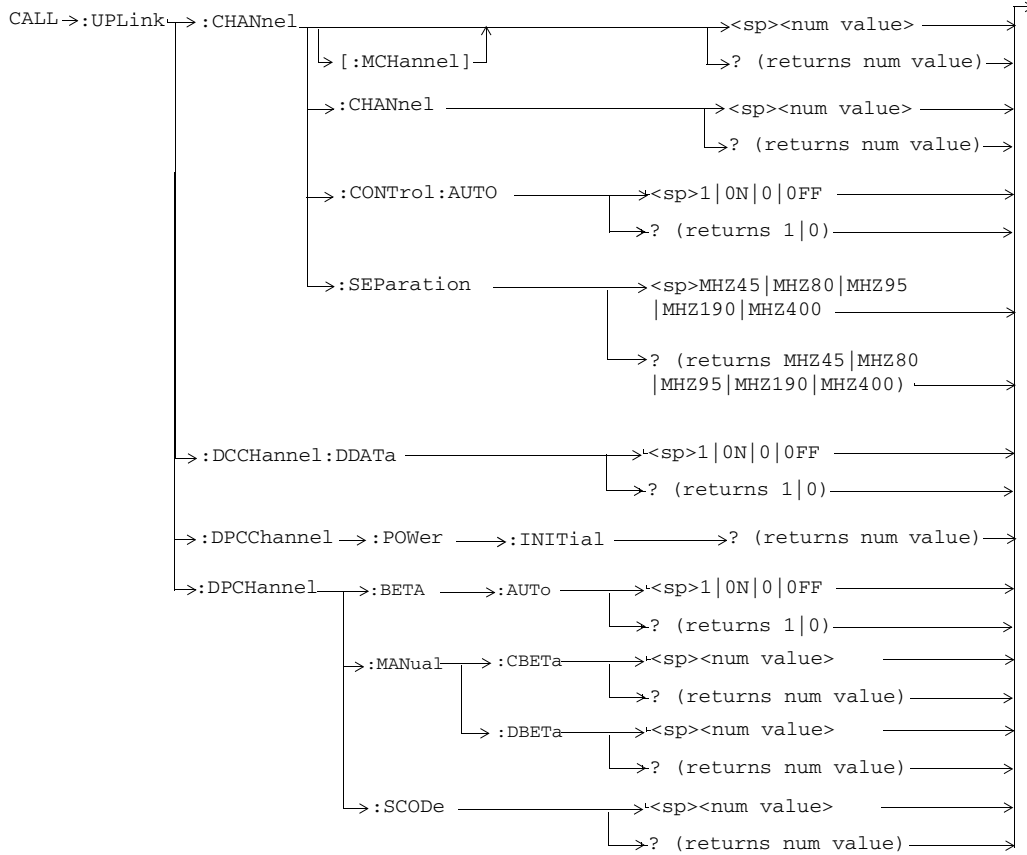
CALL:TRIGger

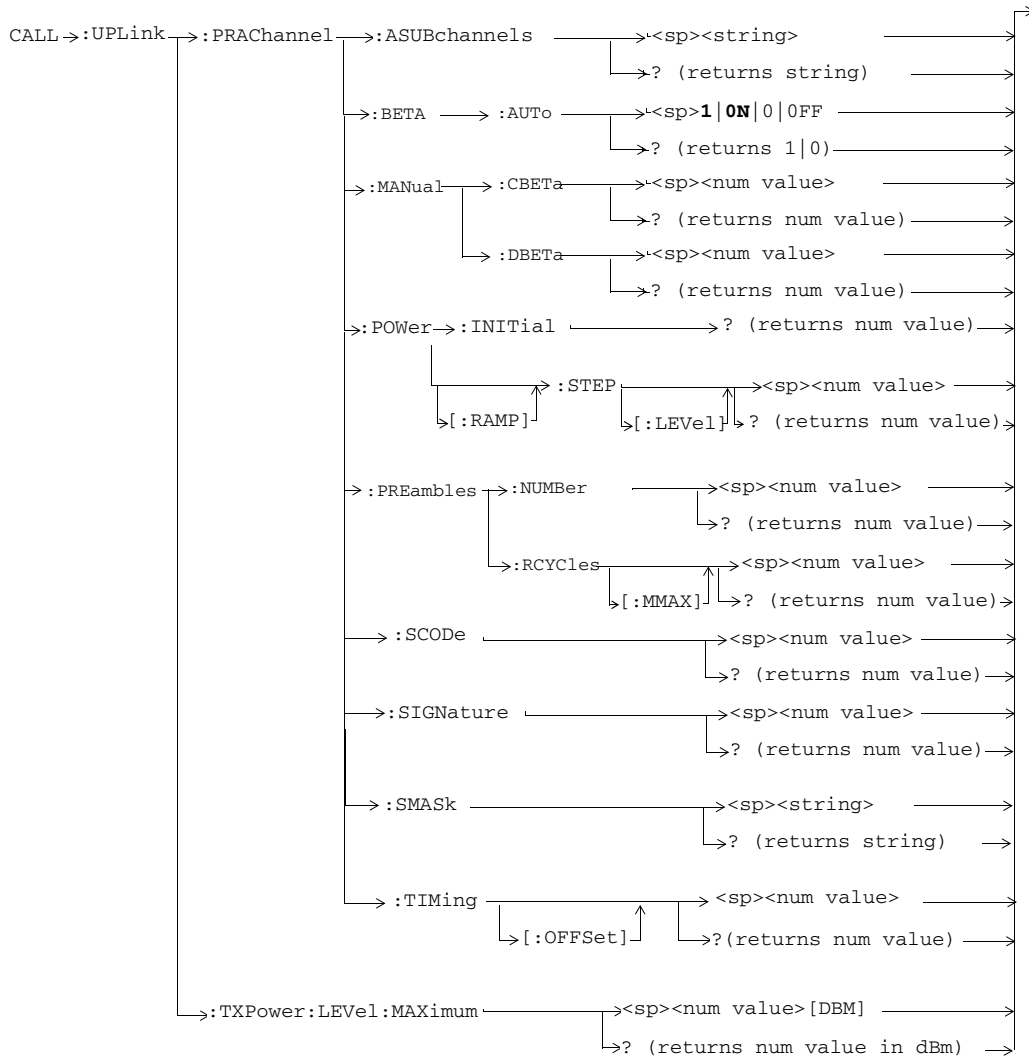


CALL:UINTerferenc

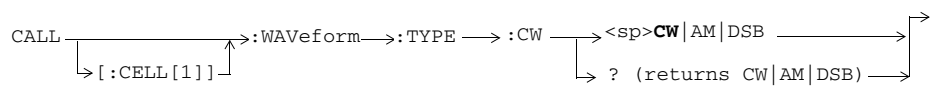


CALL:UPLink

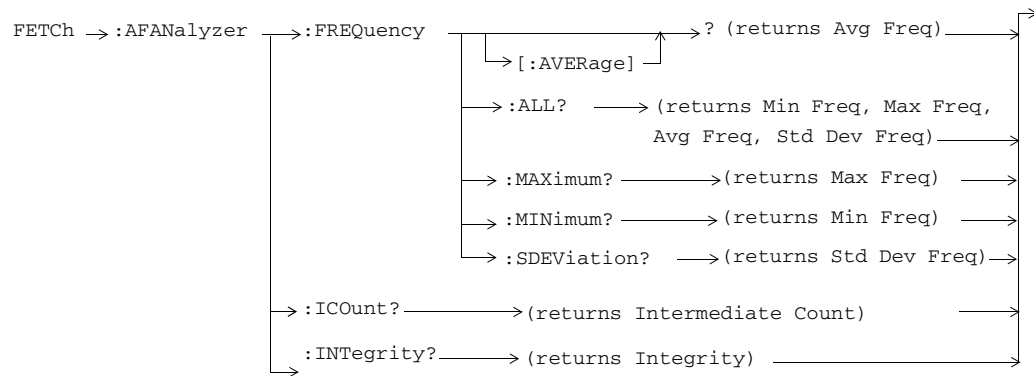
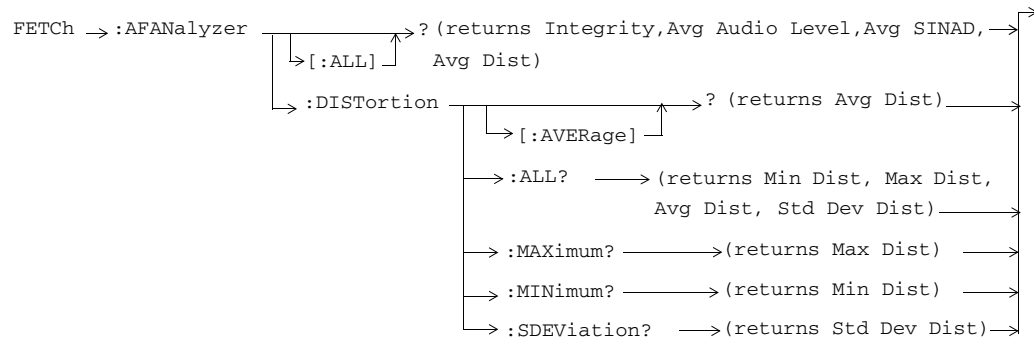


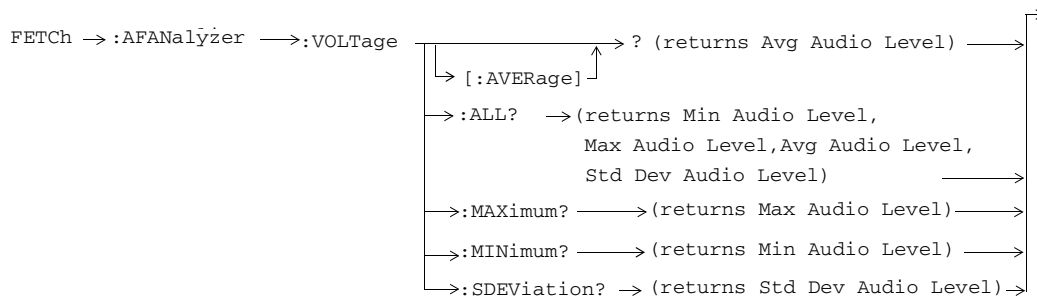
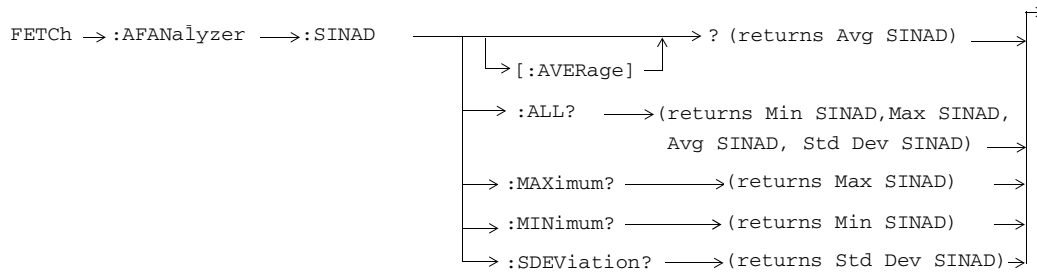


CALL:WAVeform

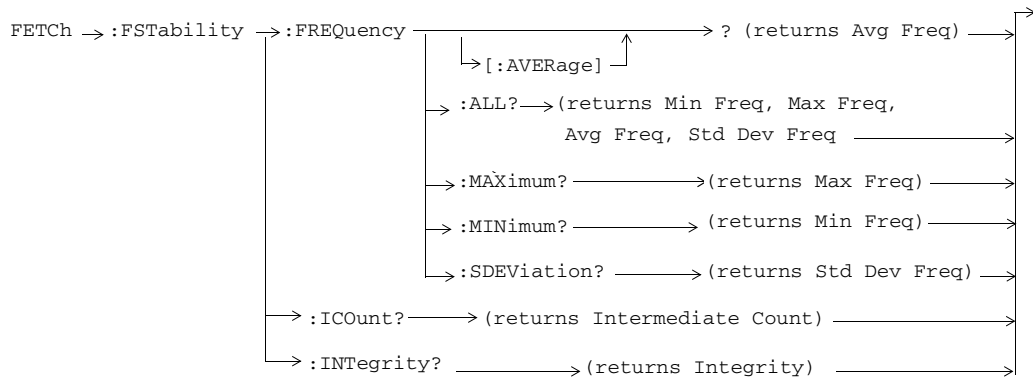
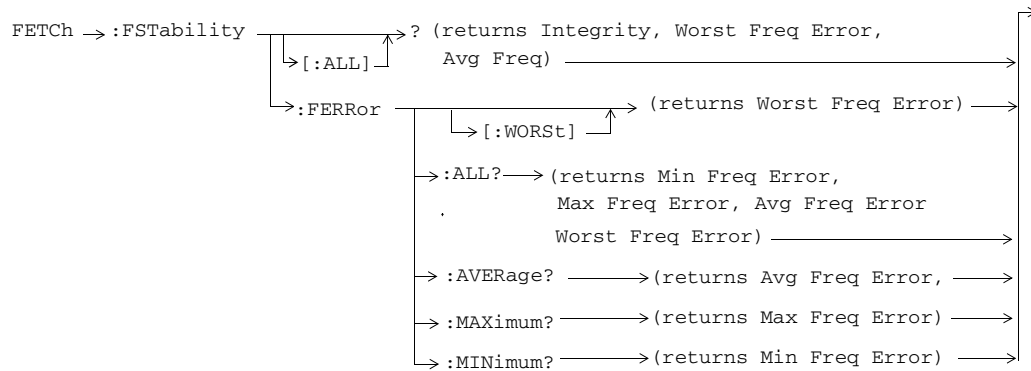


FETCH:AFANalyzer

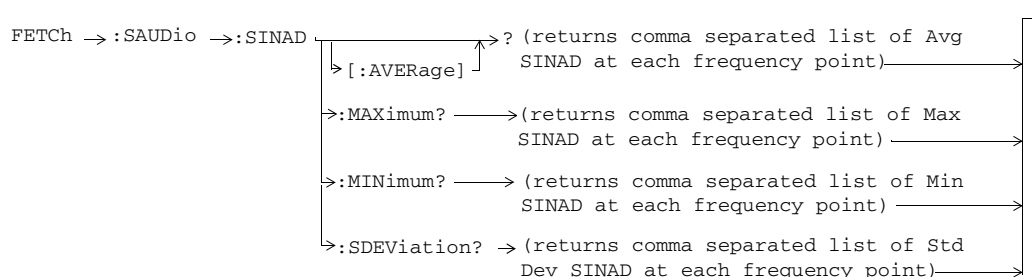
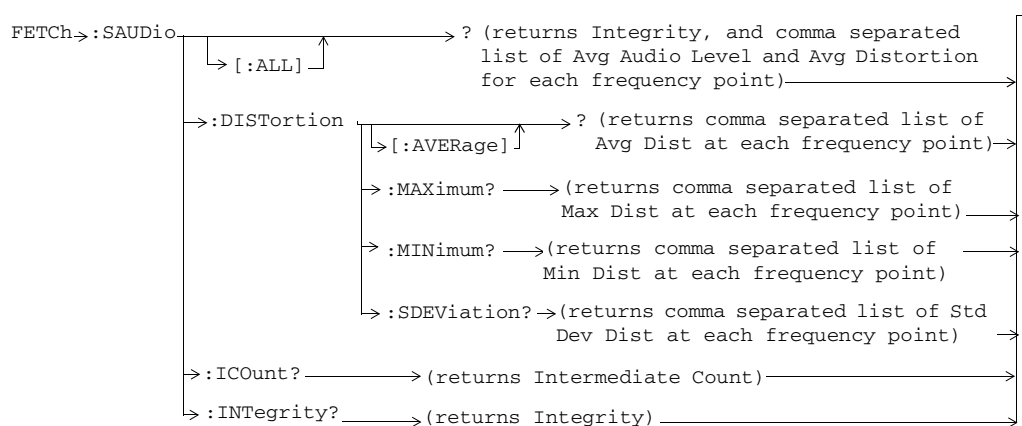


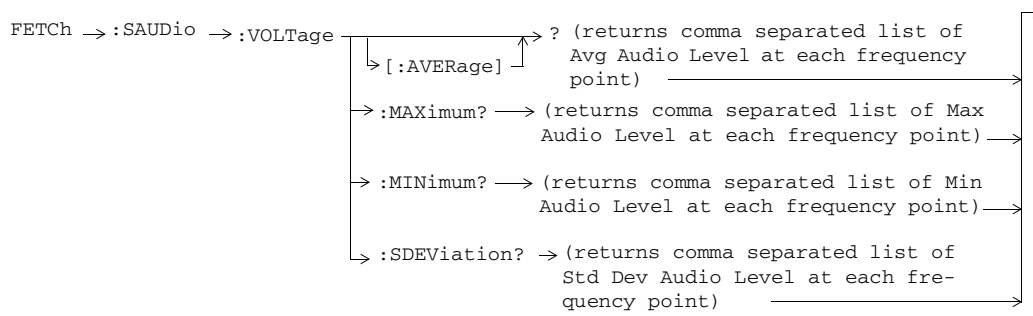


FETCH:FSTability

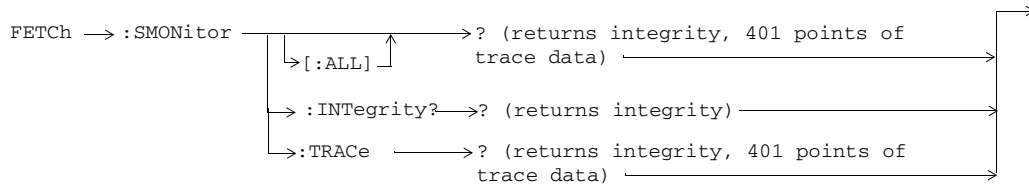


FETCH:SAUDio

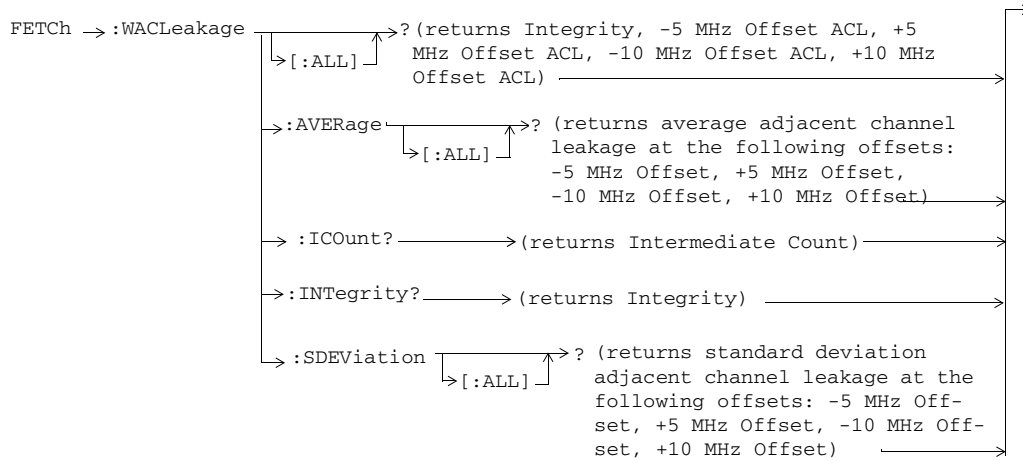




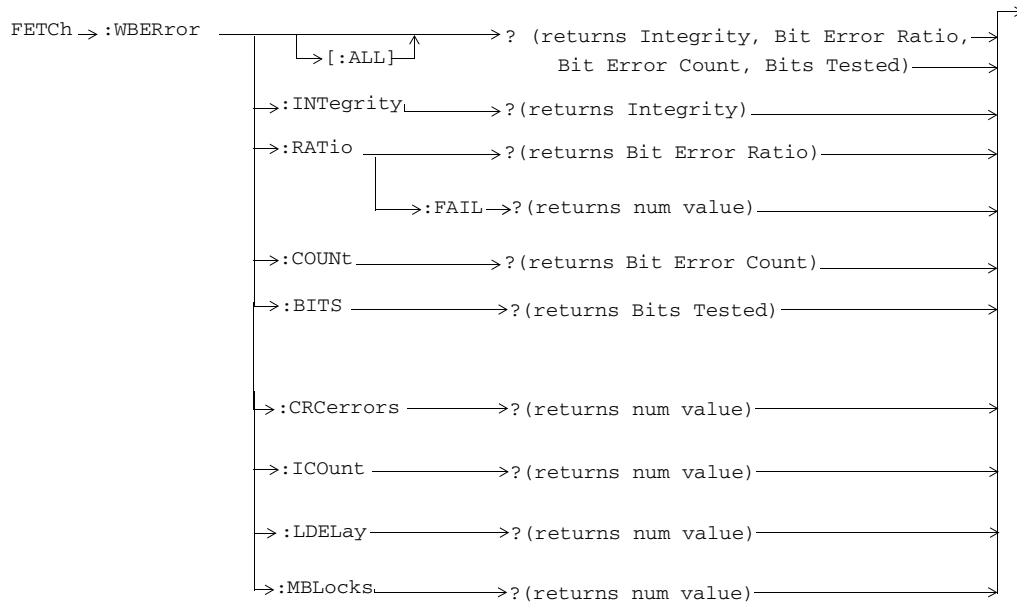
FETCH:SMONitor



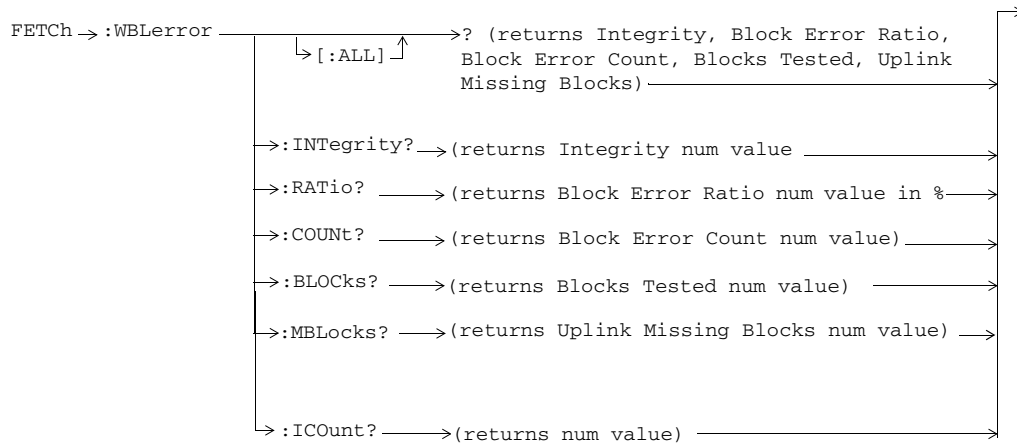
FETCH:WACLeakage



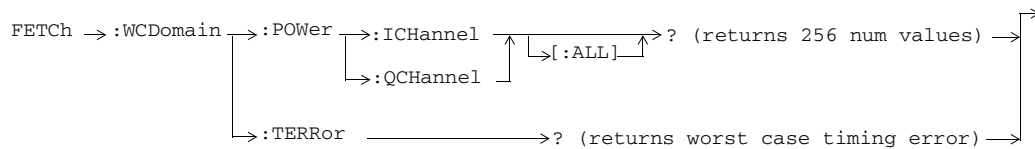
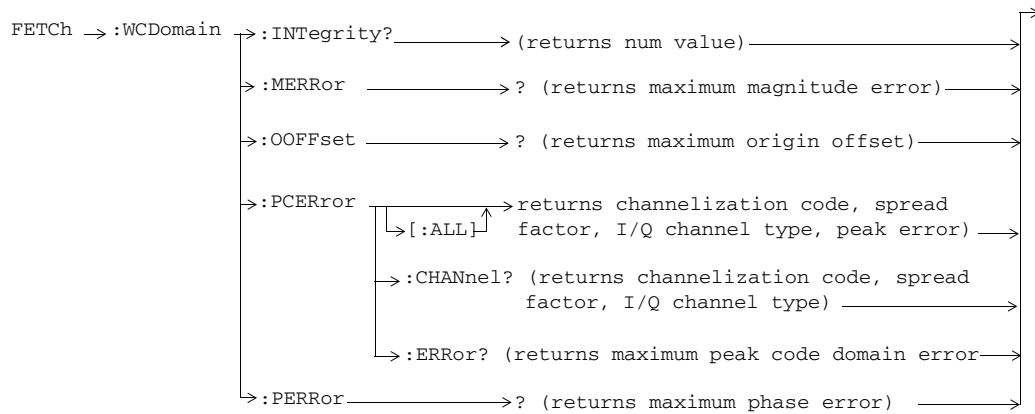
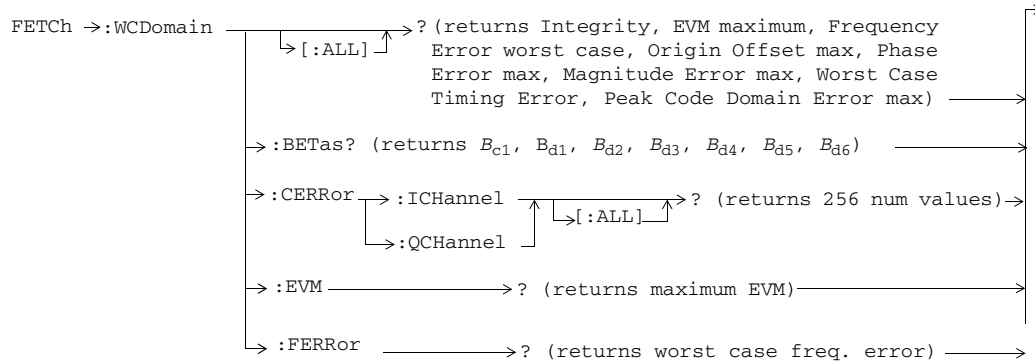
FETCH:WBError



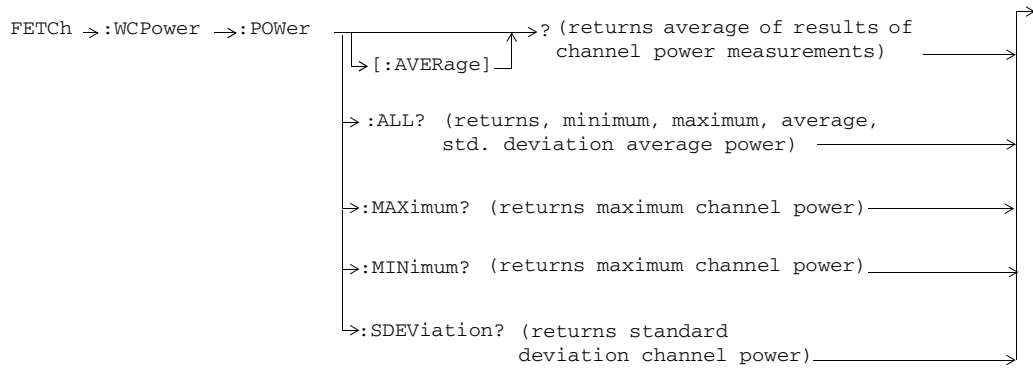
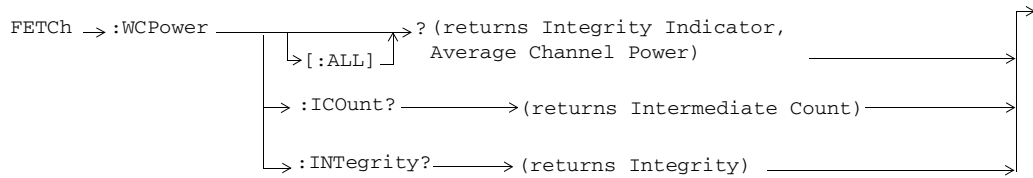
FETCH:WBLerror



FETCH:WCDomain

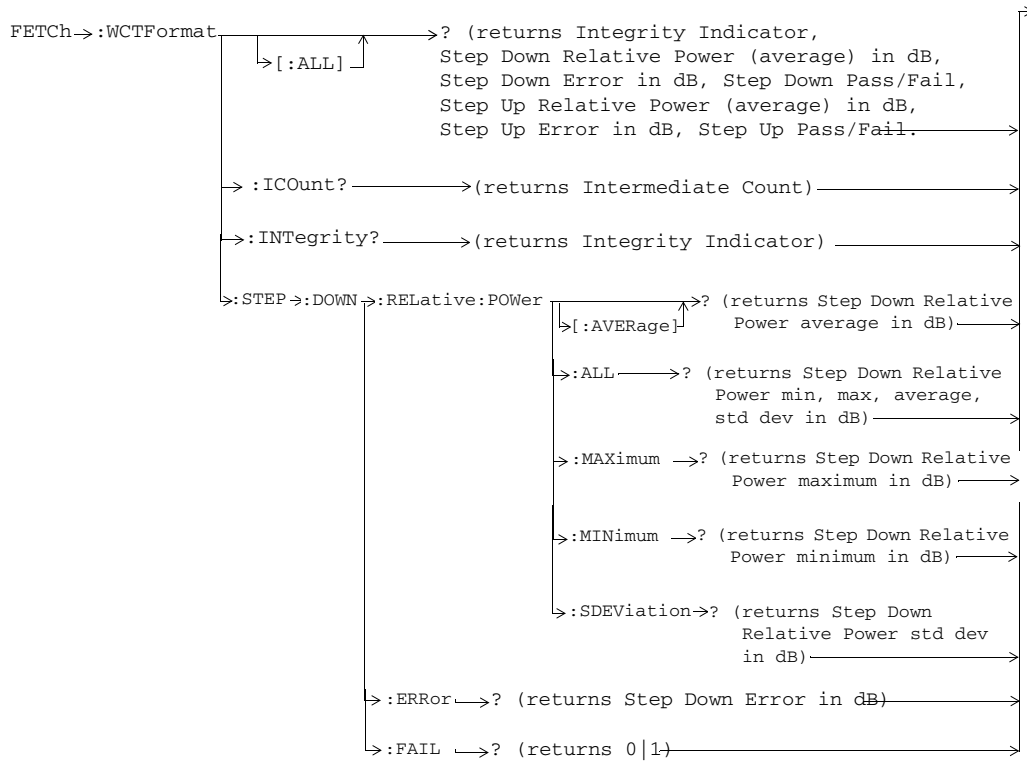


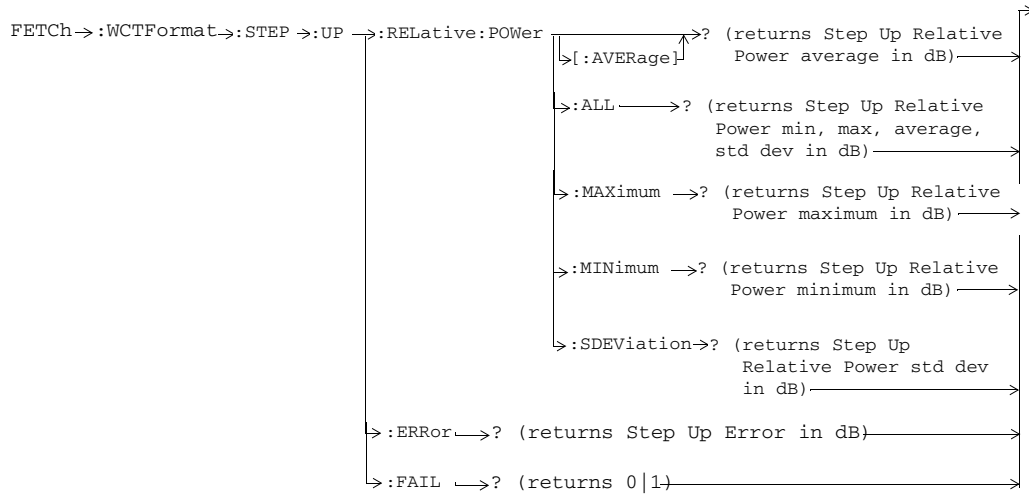
FETCH:WCPower



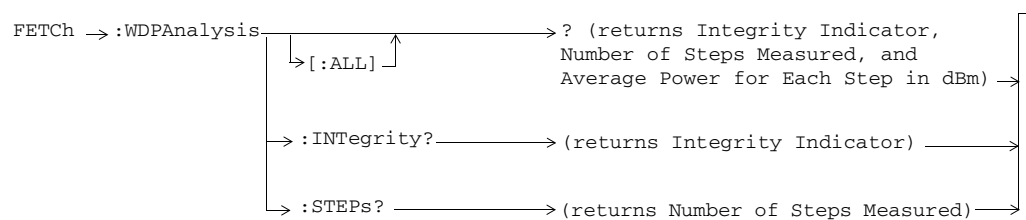
FETCH:WCTFormat

This section is only applicable to the lab application.

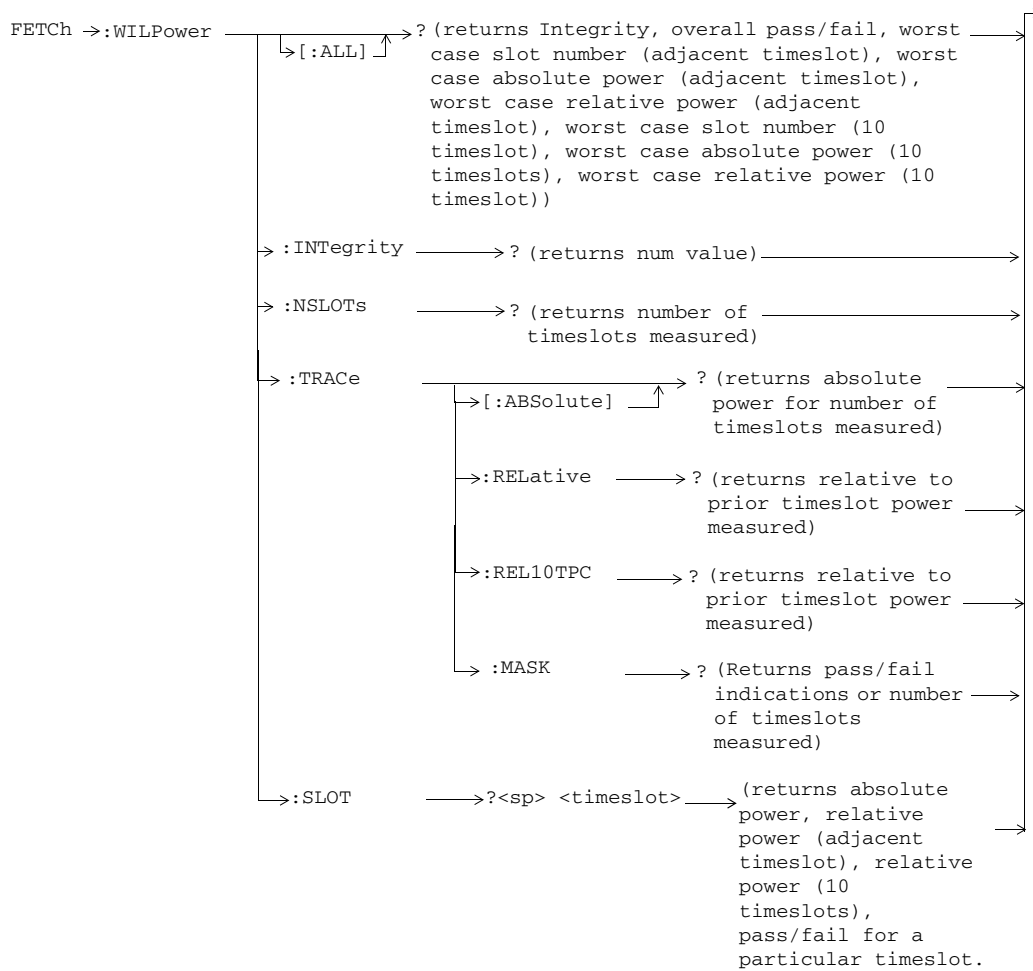




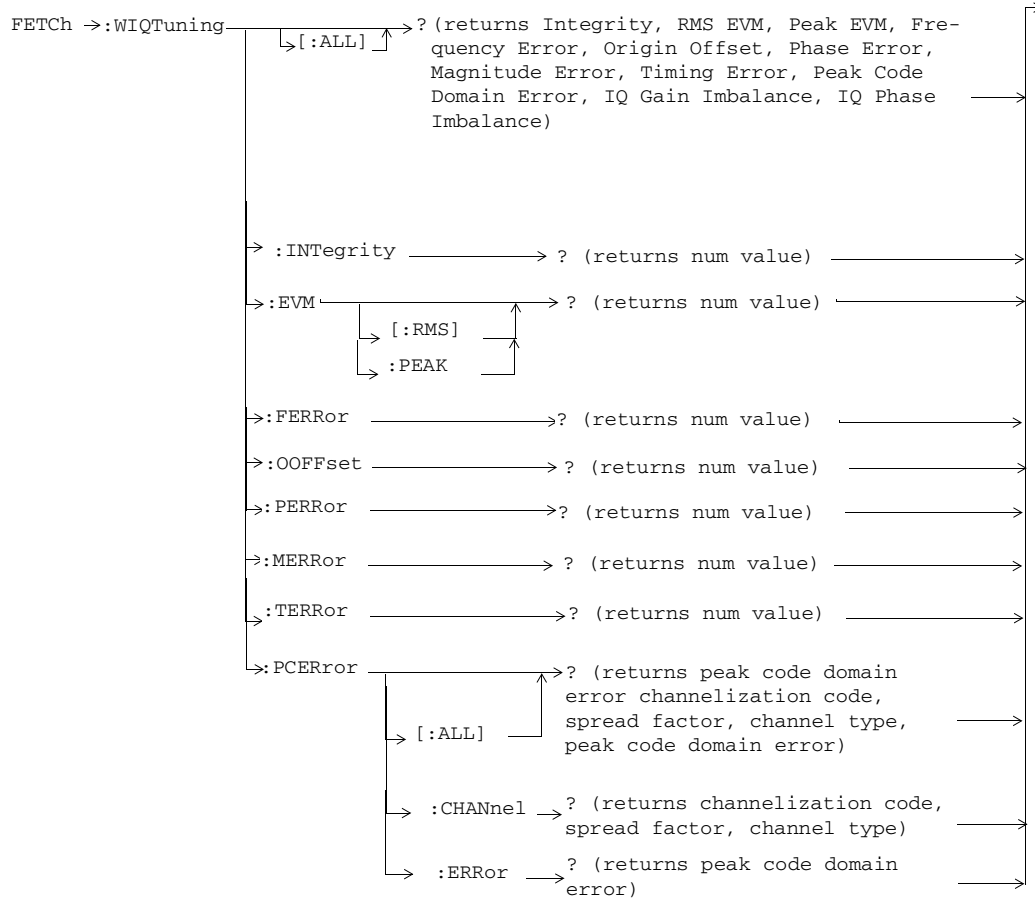
FETCH:WDPAnalysis

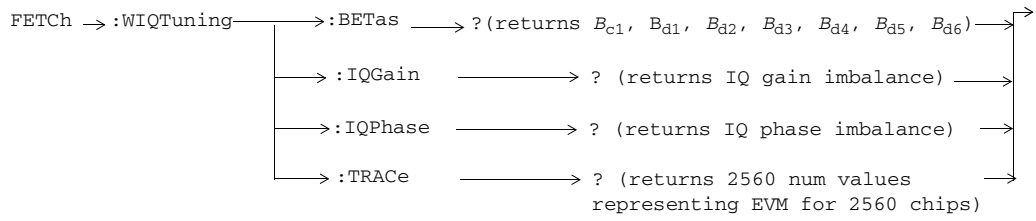


FETCH:WILPower

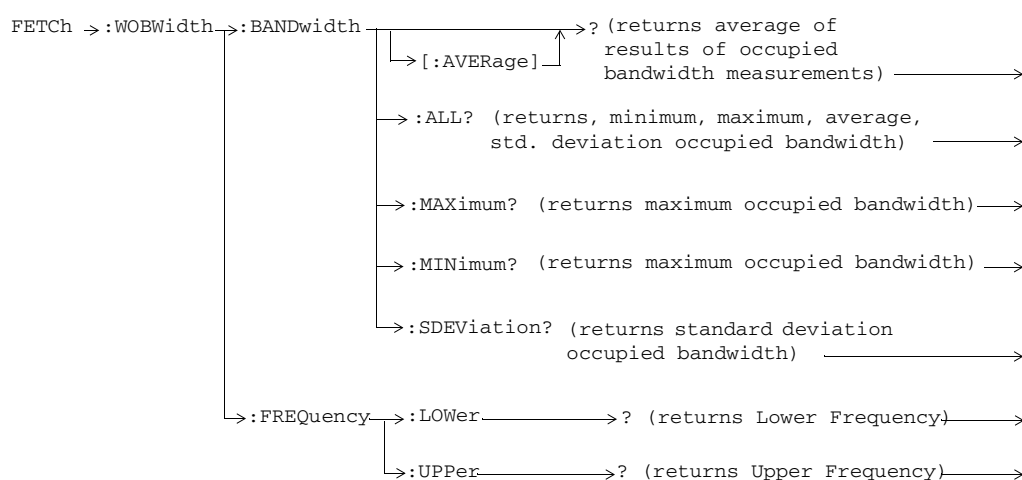
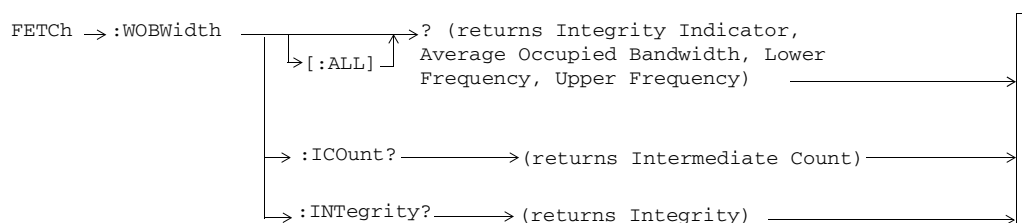


FETCH:WIQTuning

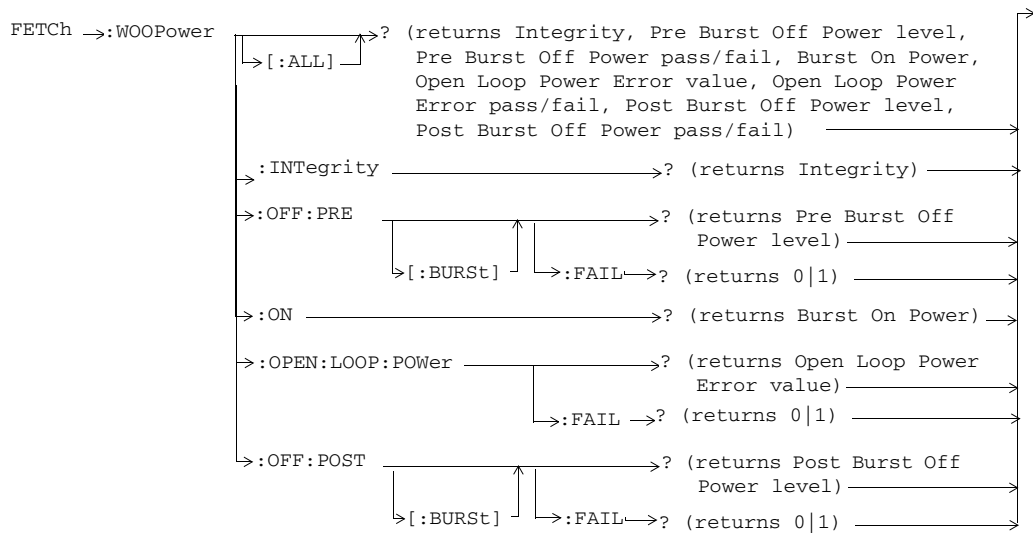




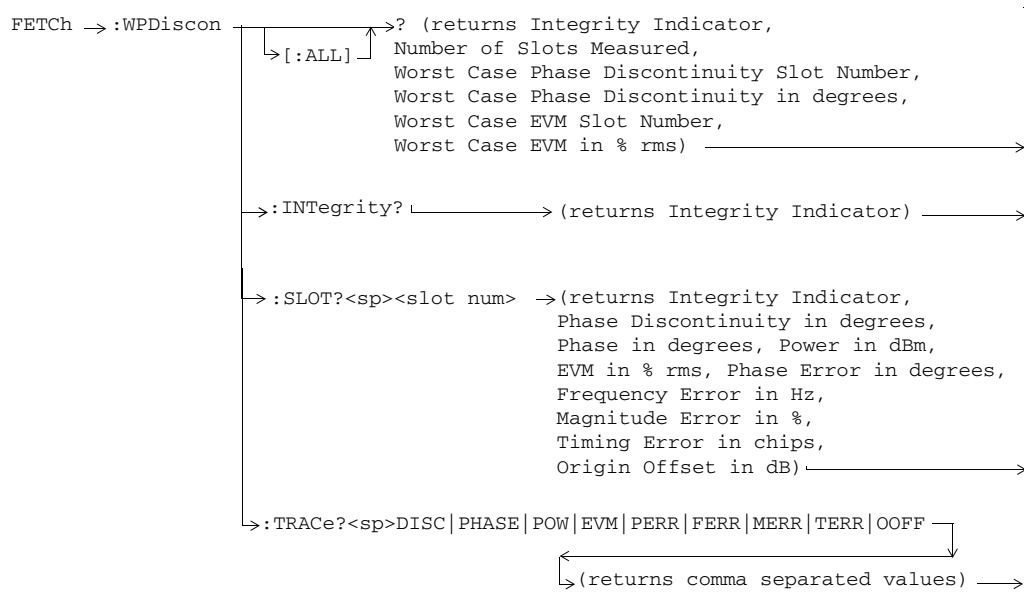
FETCH:WOBWidth



FETCH:WOOPower

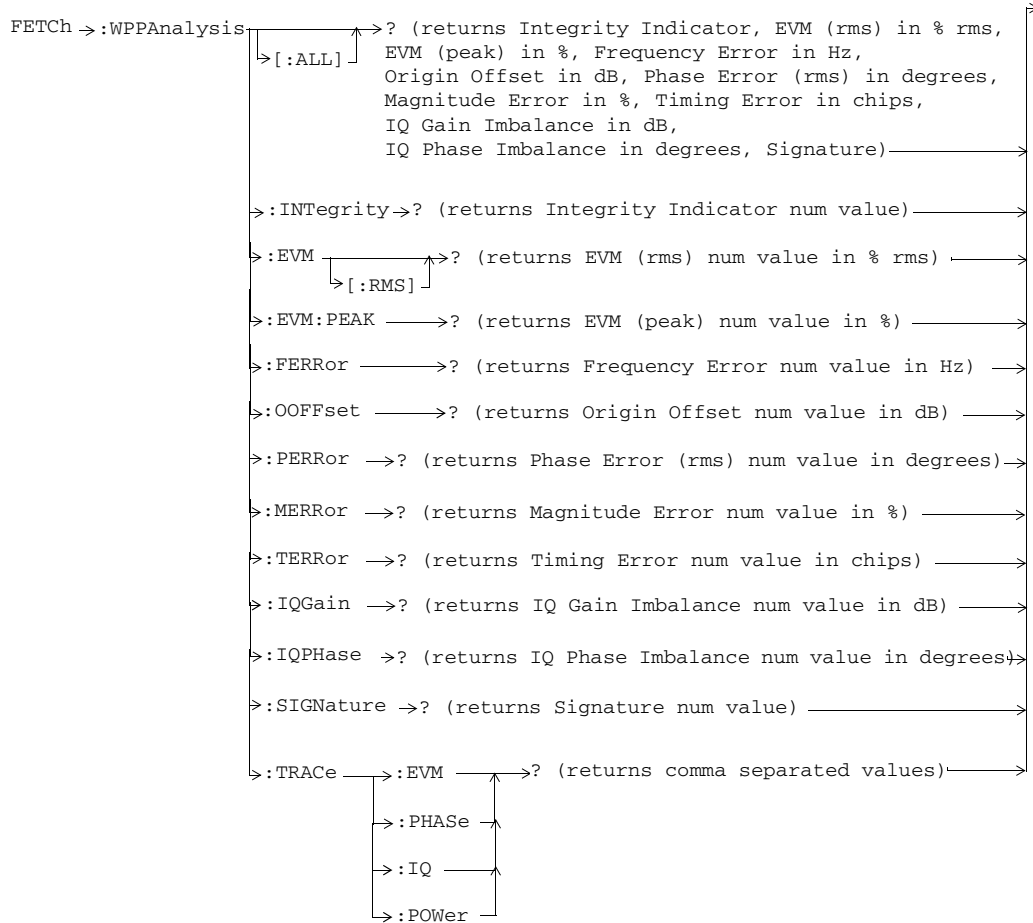


FETCH:WPDIscon

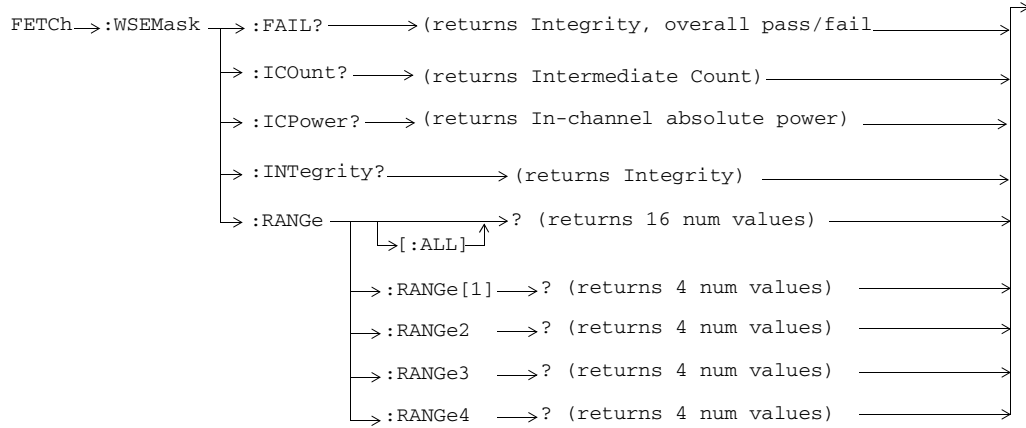
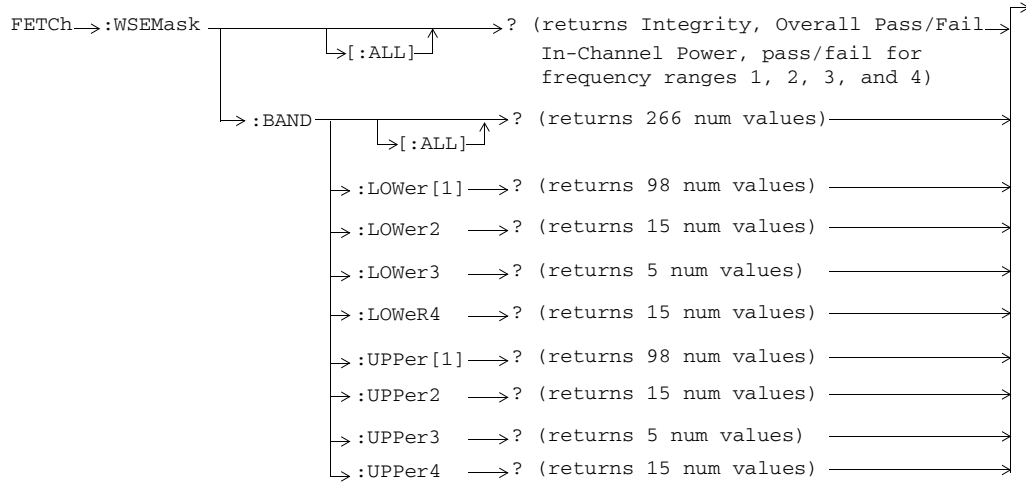


FETCH:WPPAnalysis

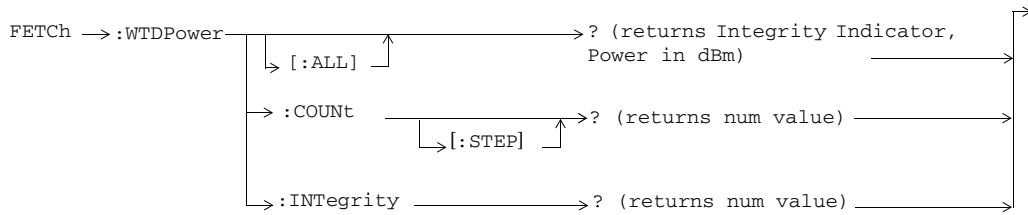
This section is applicable to the lab application only.



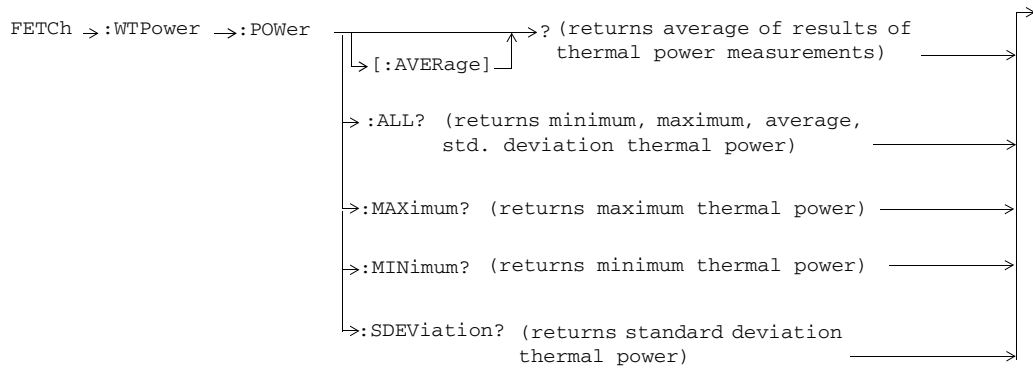
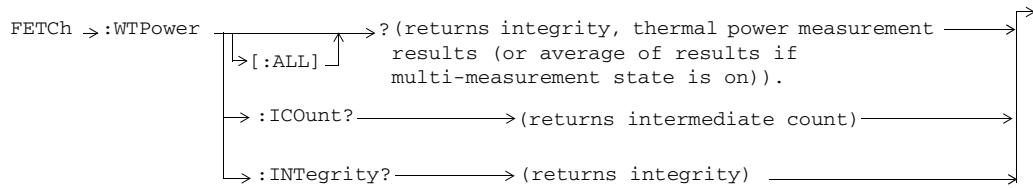
FETCH:WSEMask



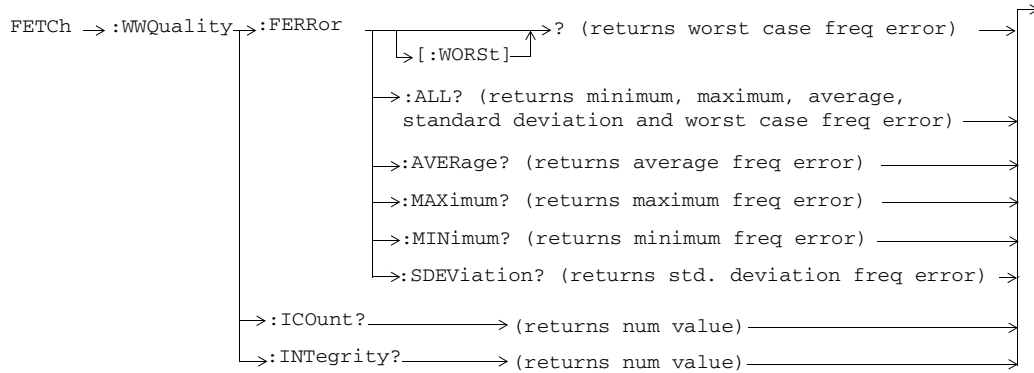
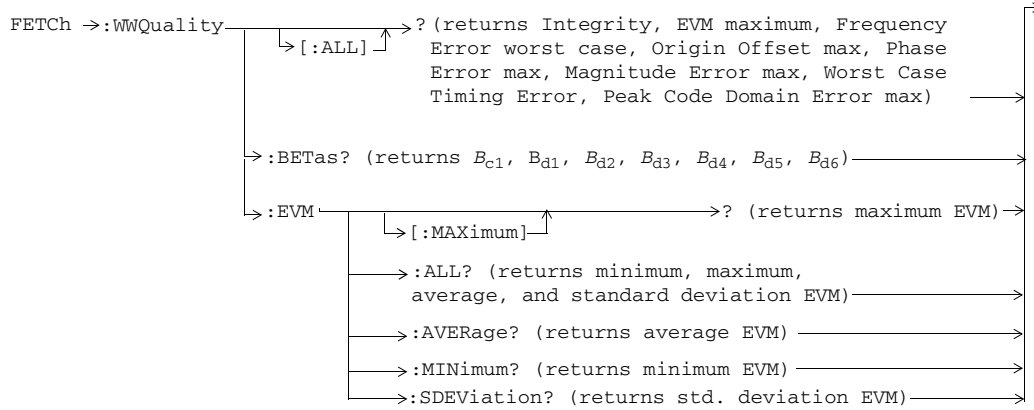
FETCH:WTDPower

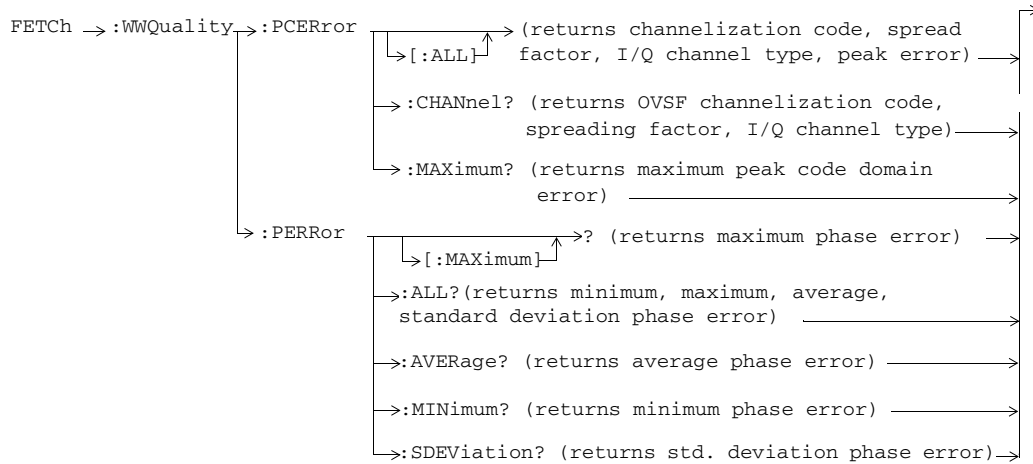
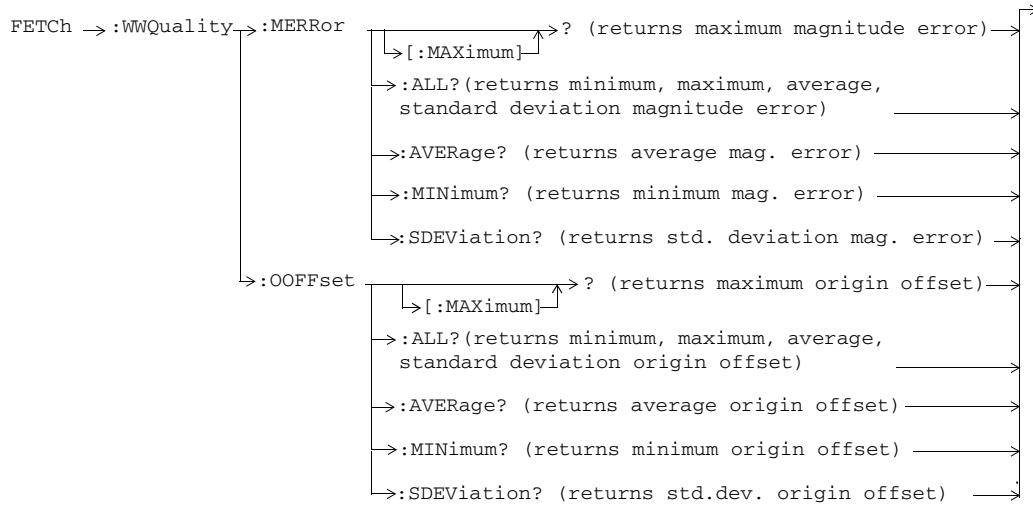


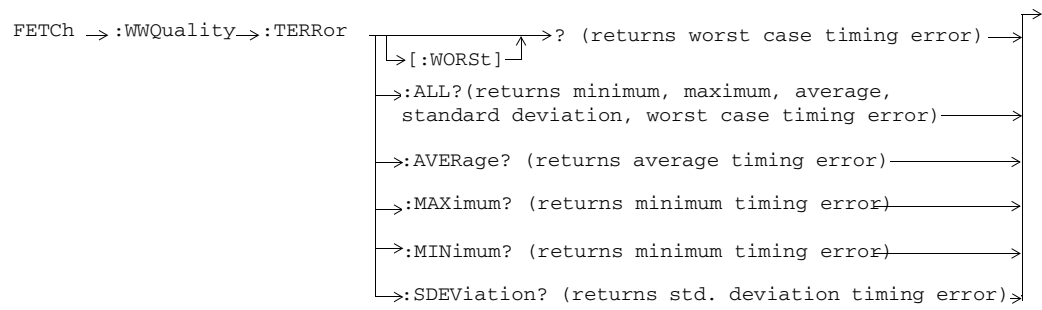
FETCH:WTPower



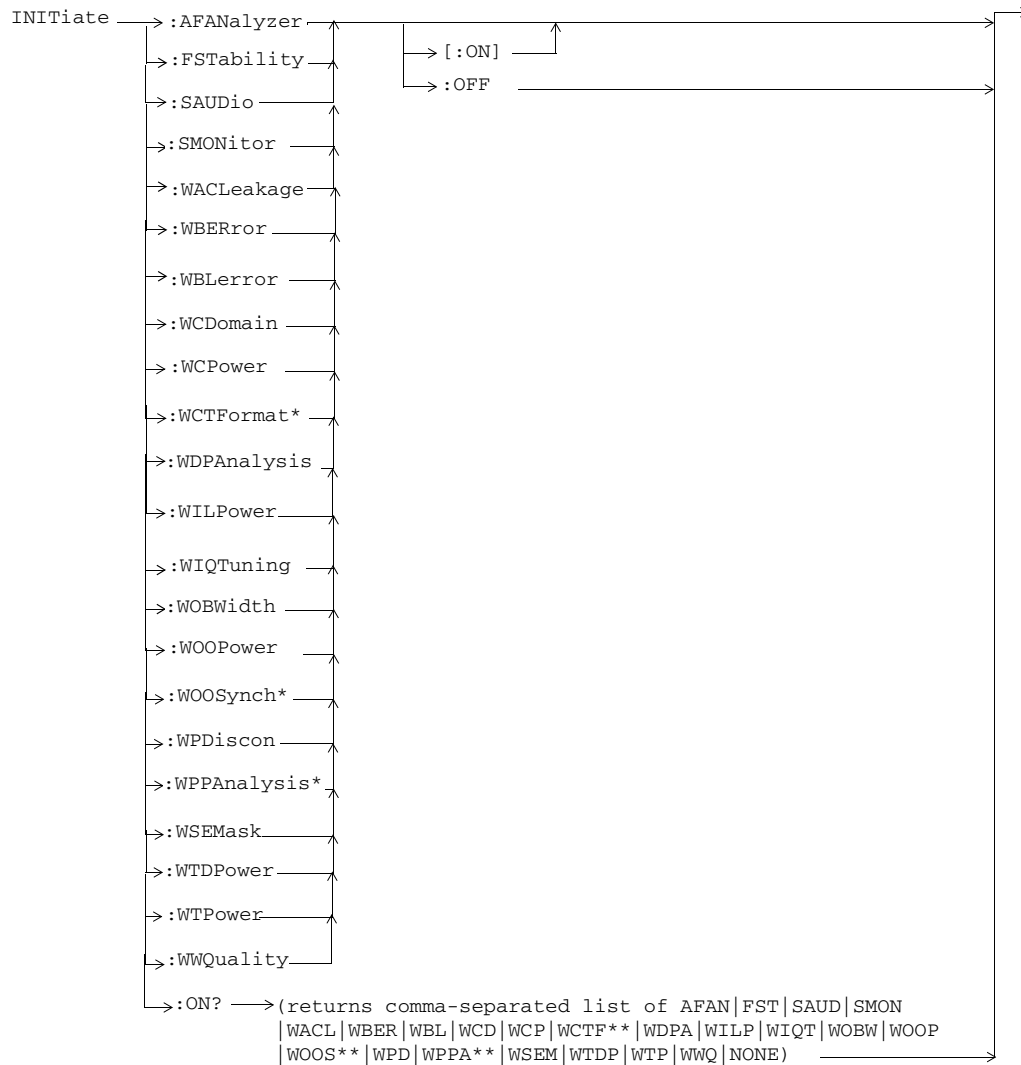
FETCH:WWQuality





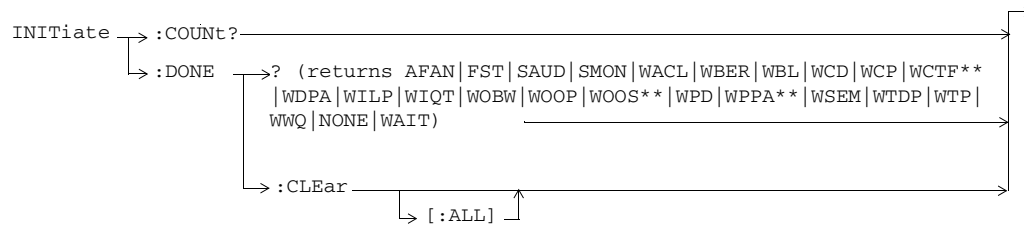


INITiate

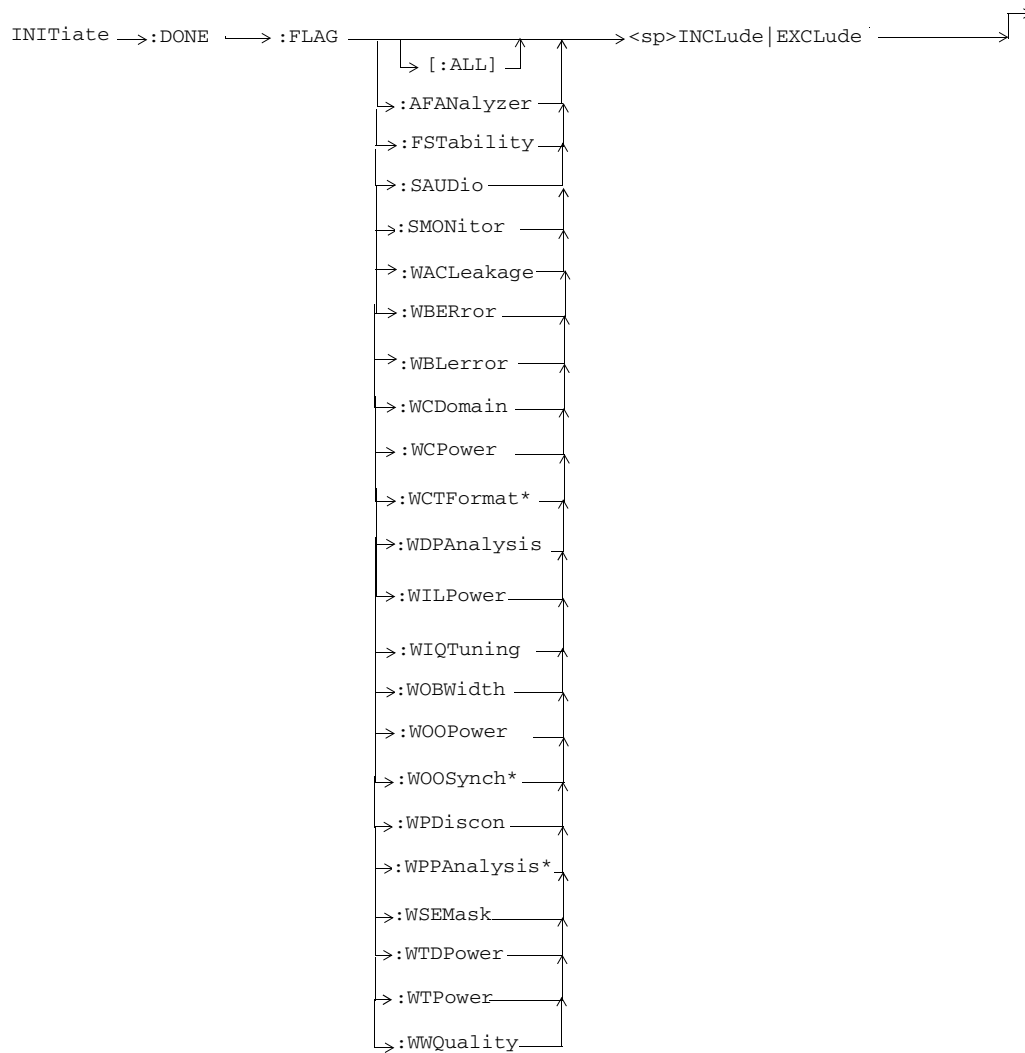


* This command is only applicable to the lab application.

** This query return is only applicable to the lab application.

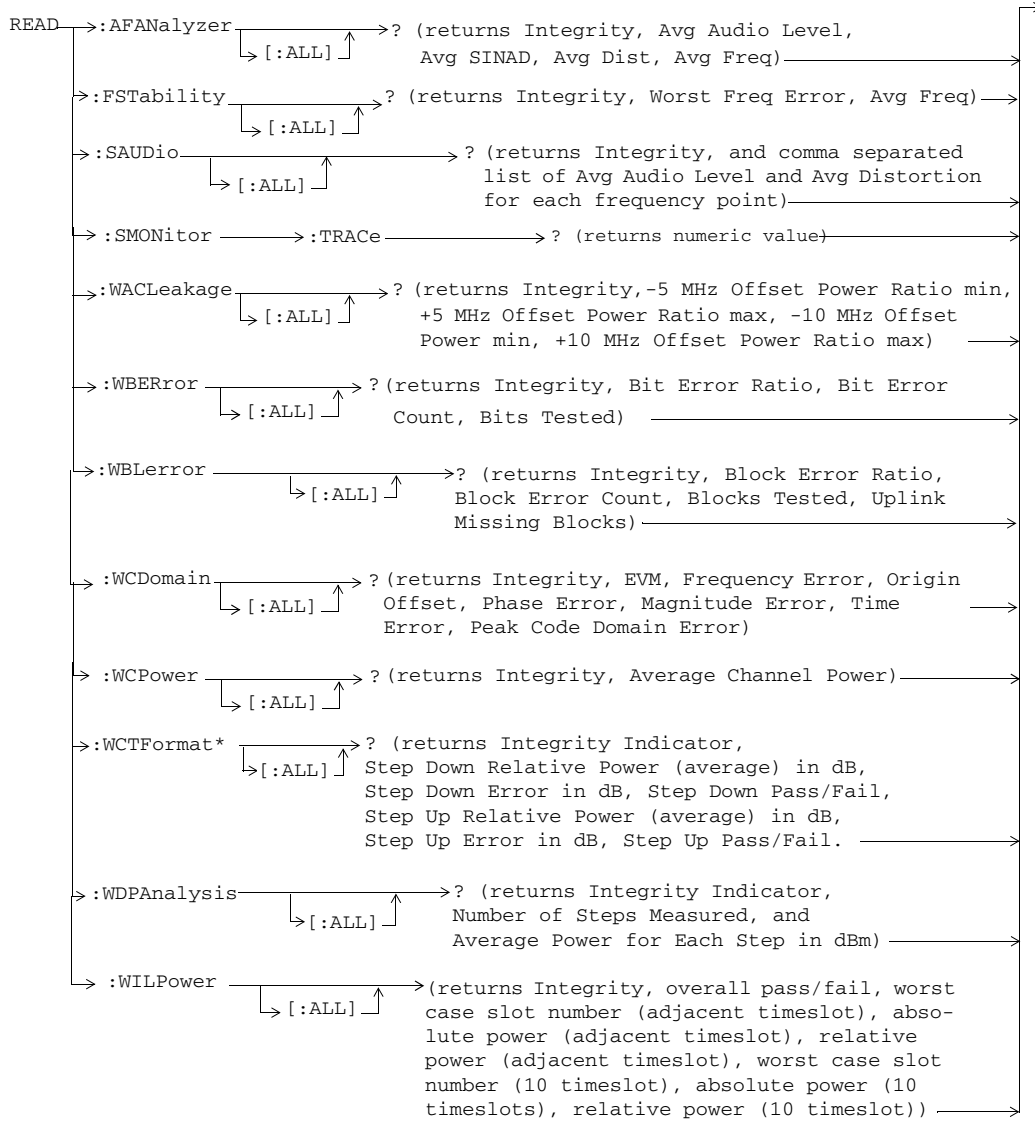


** This query return is only applicable to the lab application.

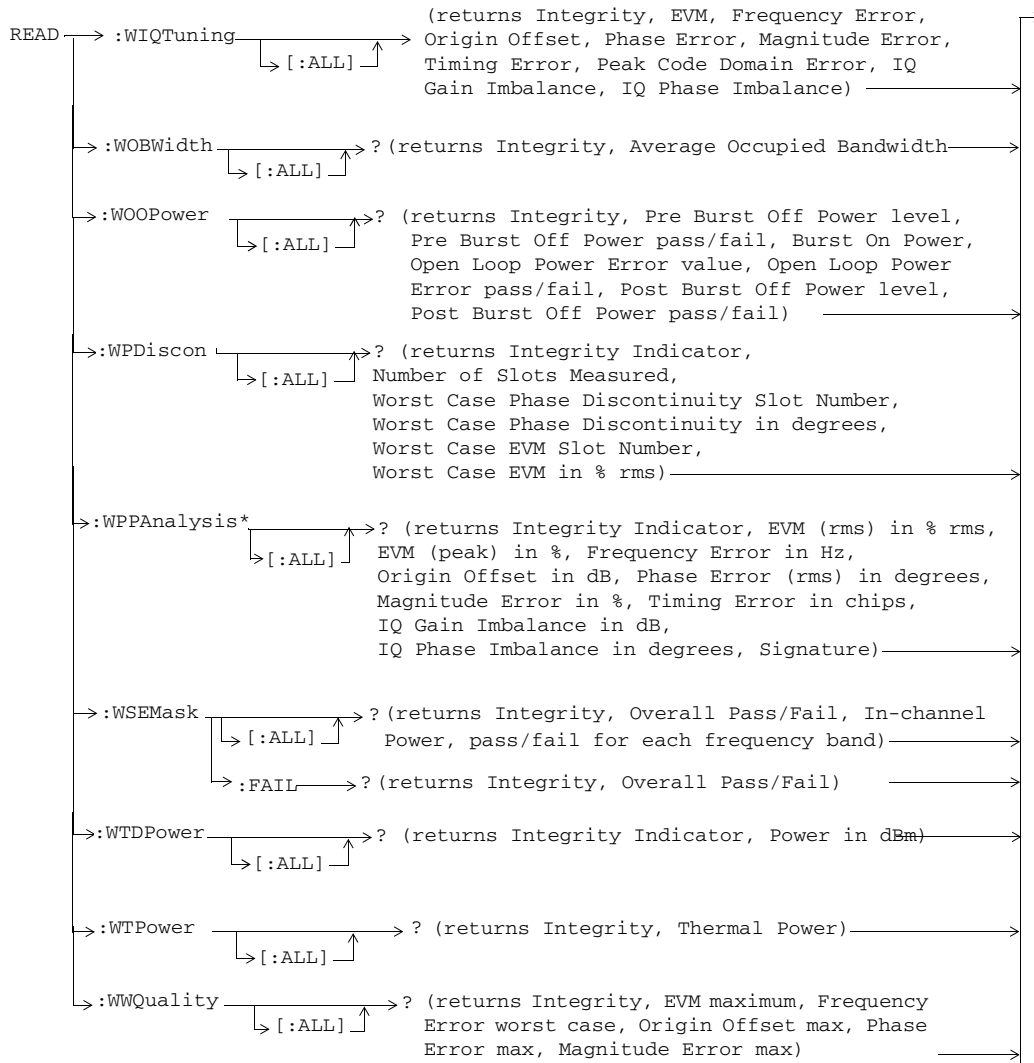


* This command is only applicable to the lab application.

READ

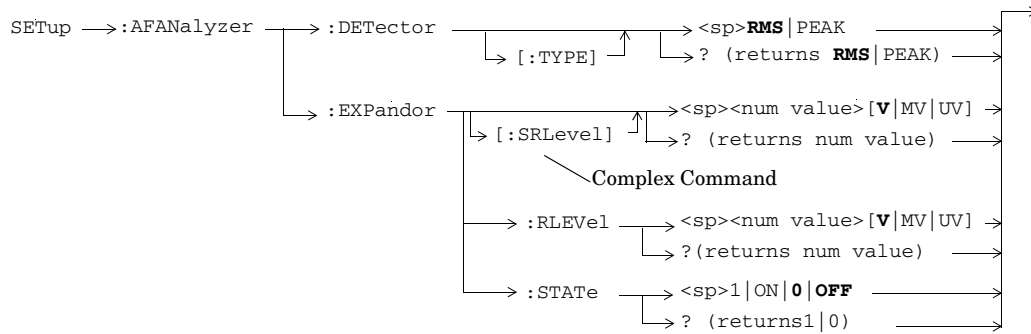
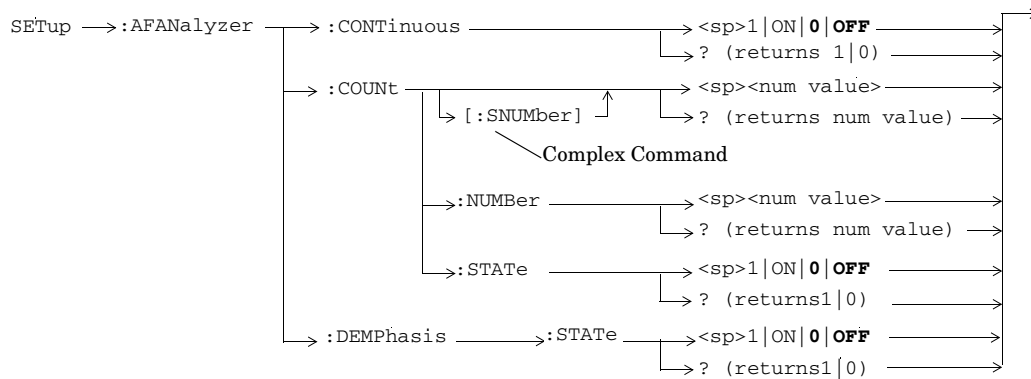


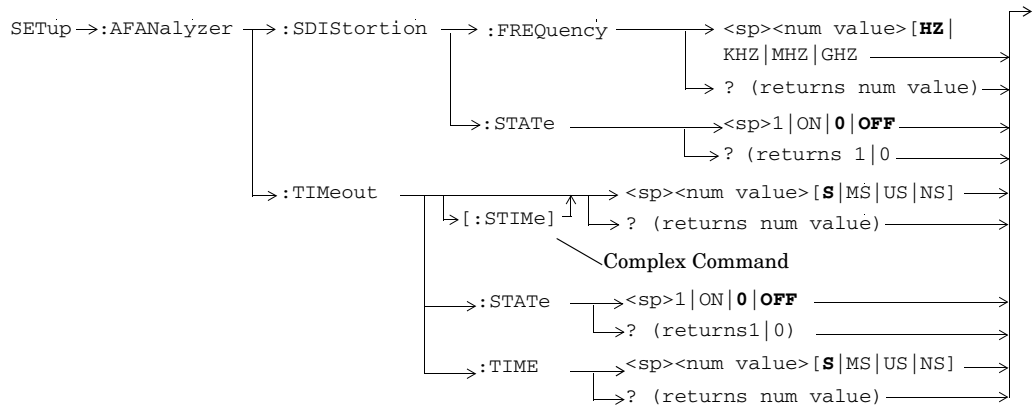
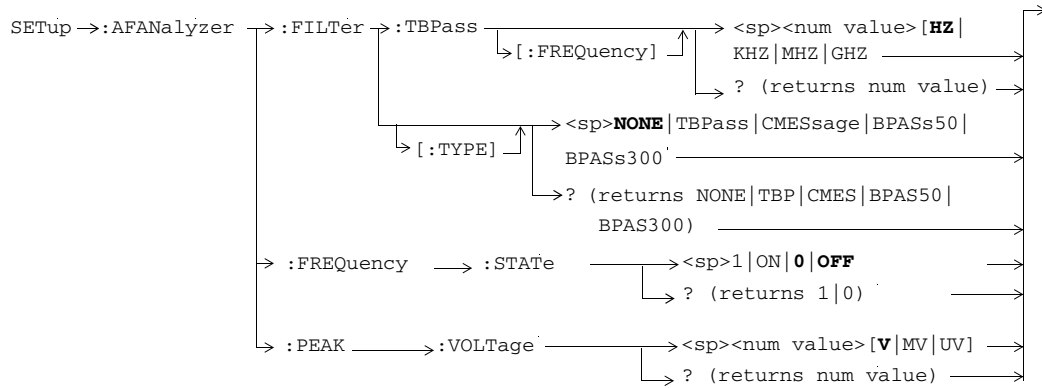
* This query is only applicable to the lab application.



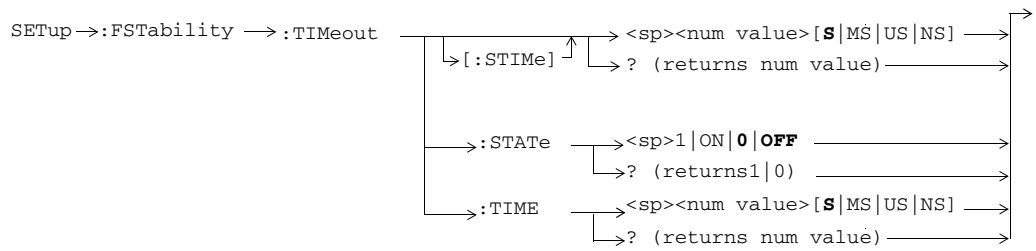
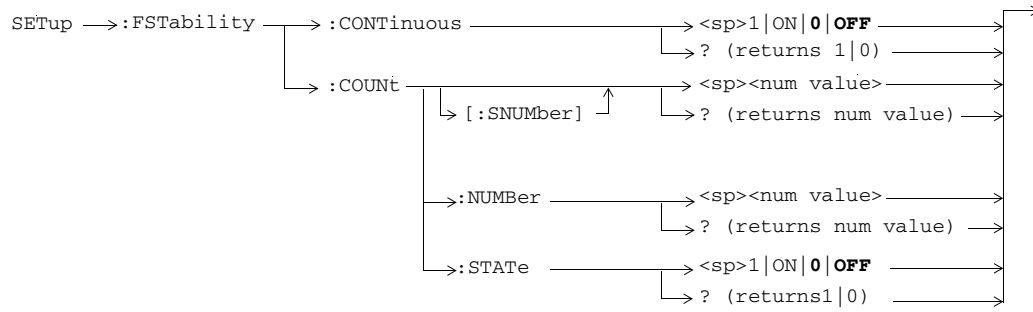
* This query is only applicable to the lab application.

SETup:AFANalyzer

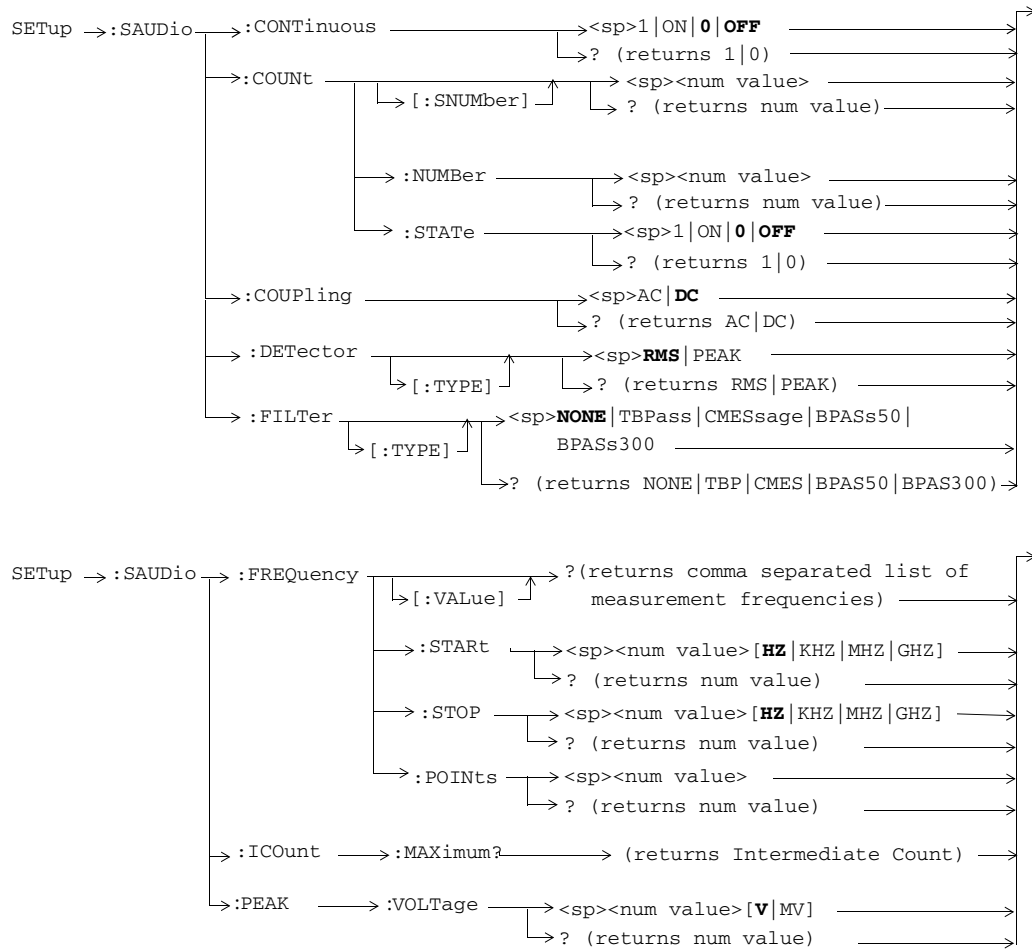


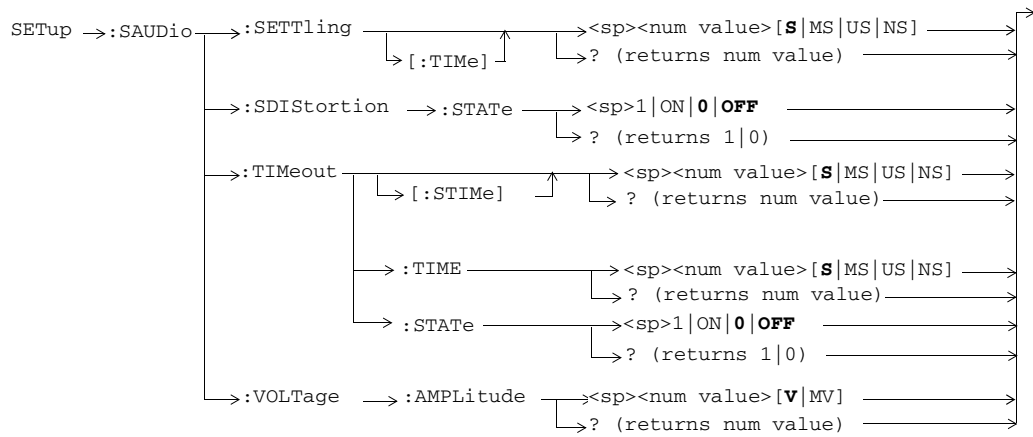


SETup:FSTability

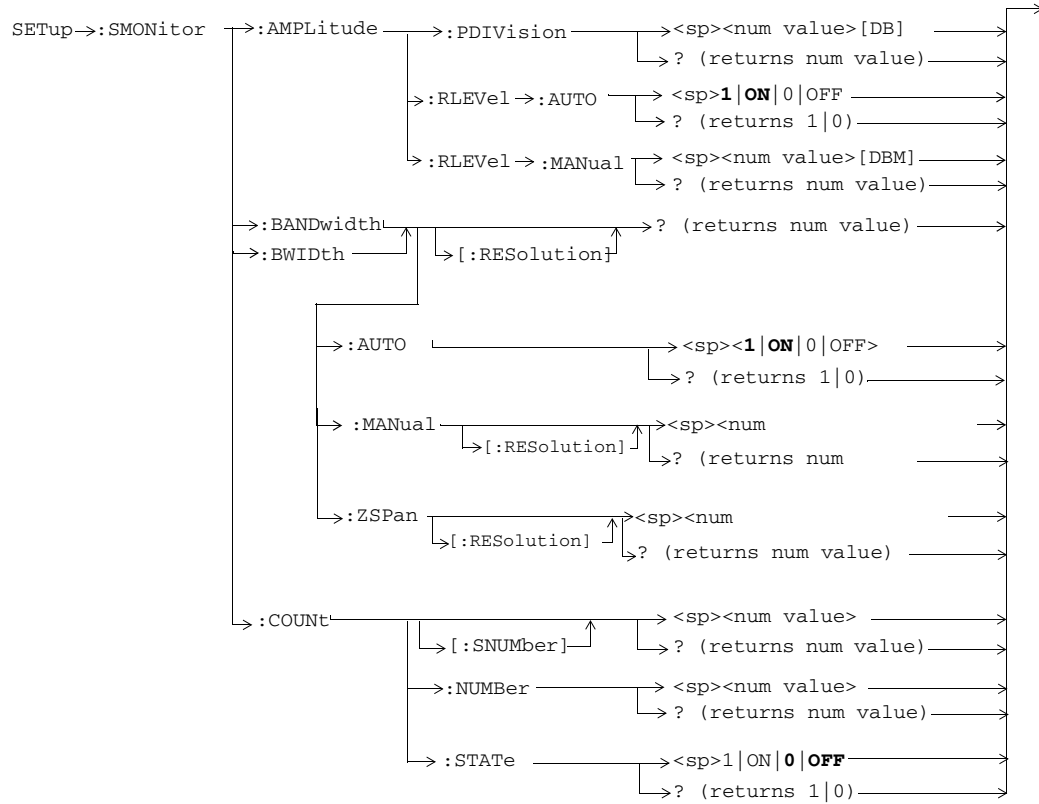


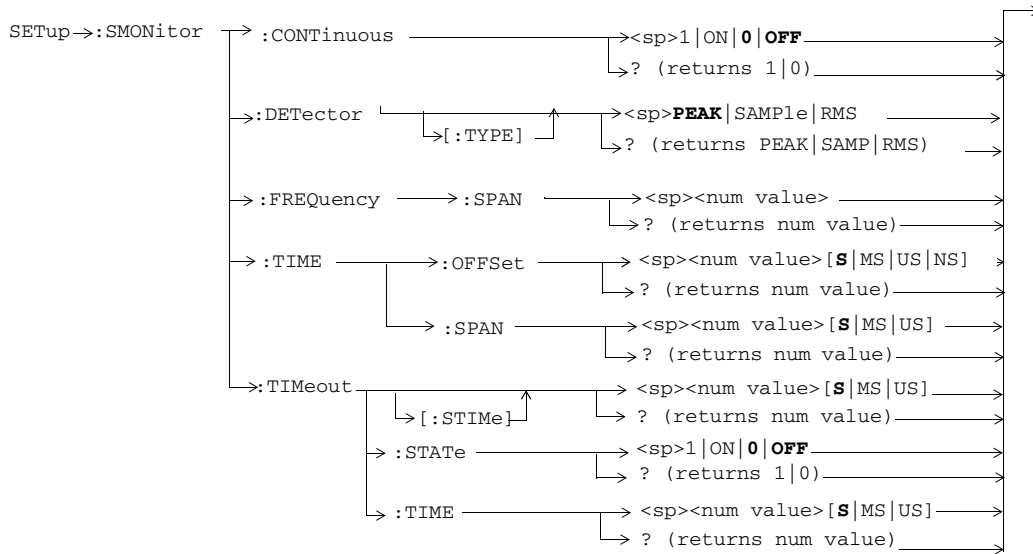
SETup:SAUDio

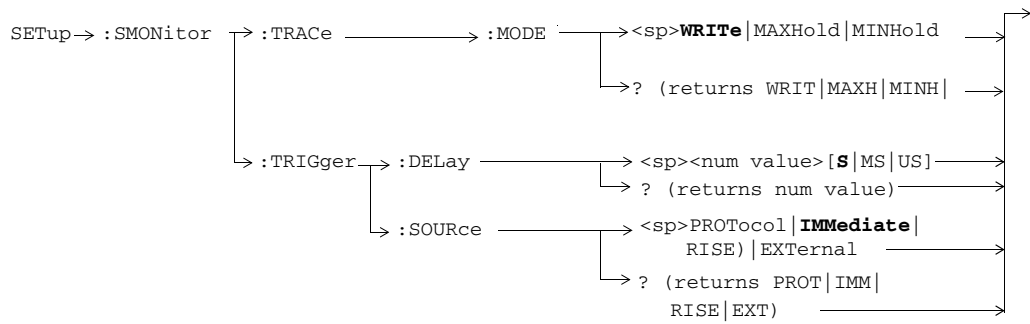




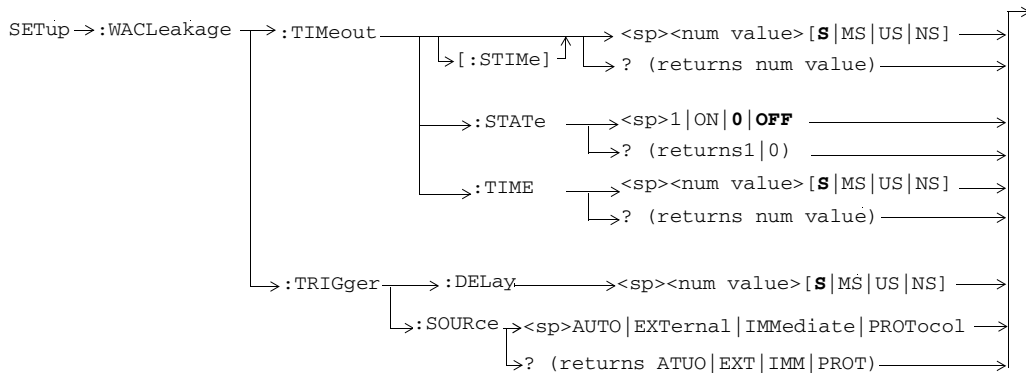
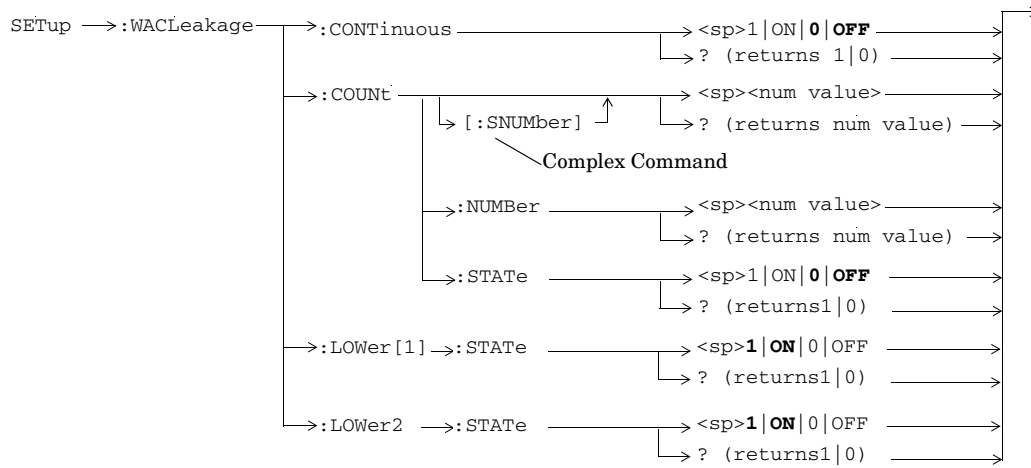
SETup:SMONitor

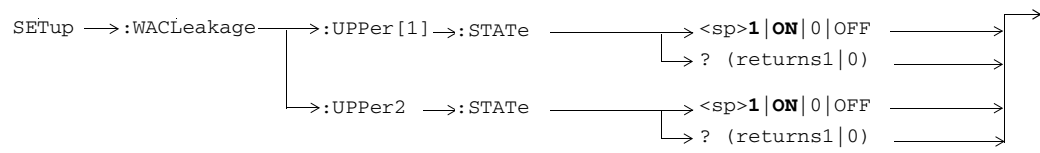




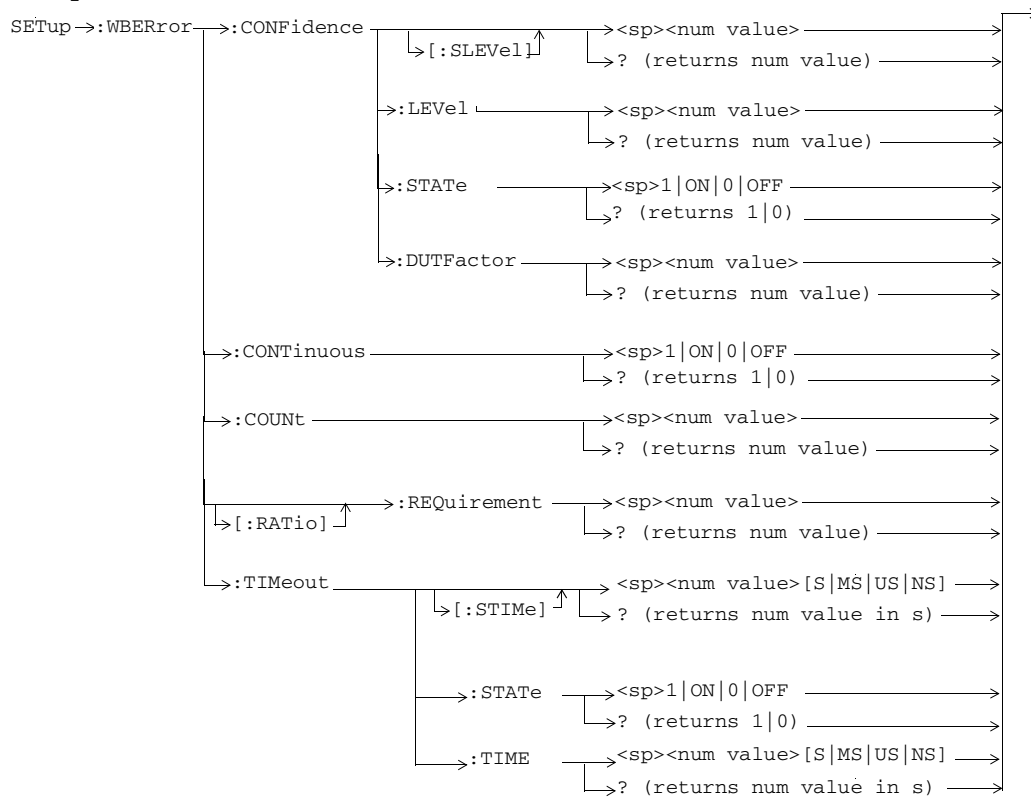


SETup:WACLeakage

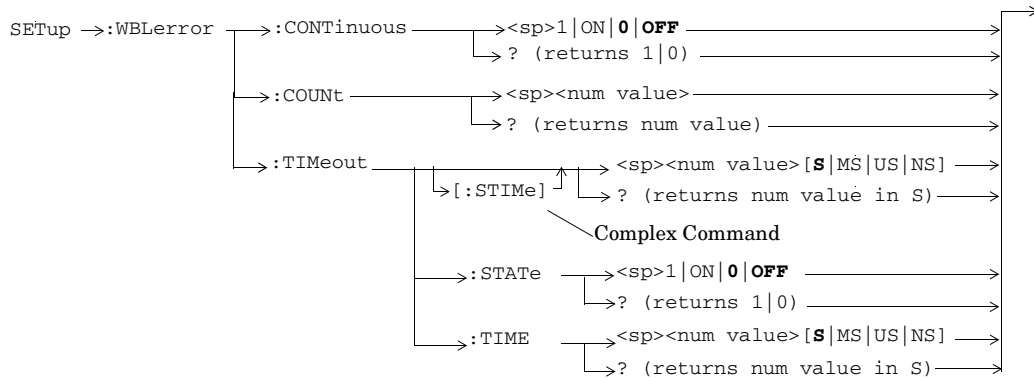




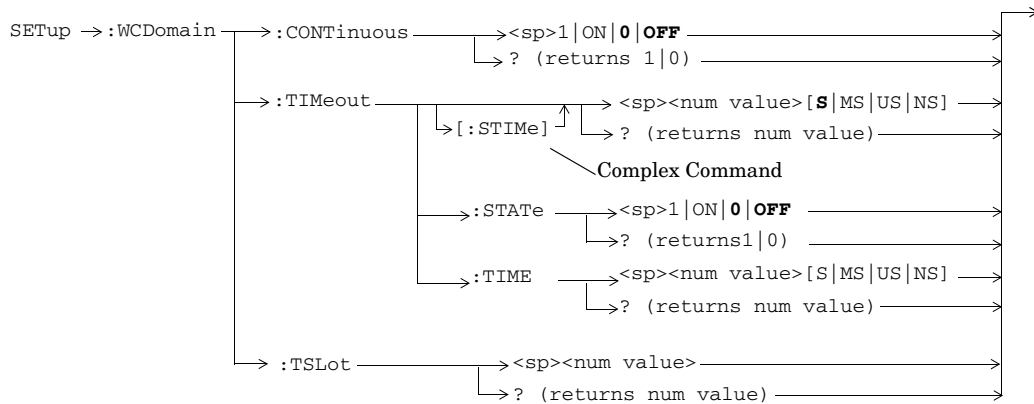
SETup:WBERror



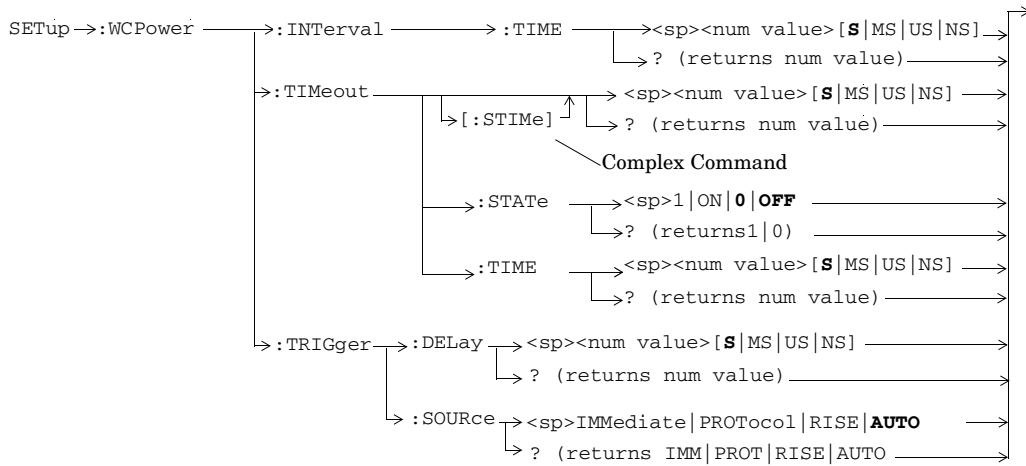
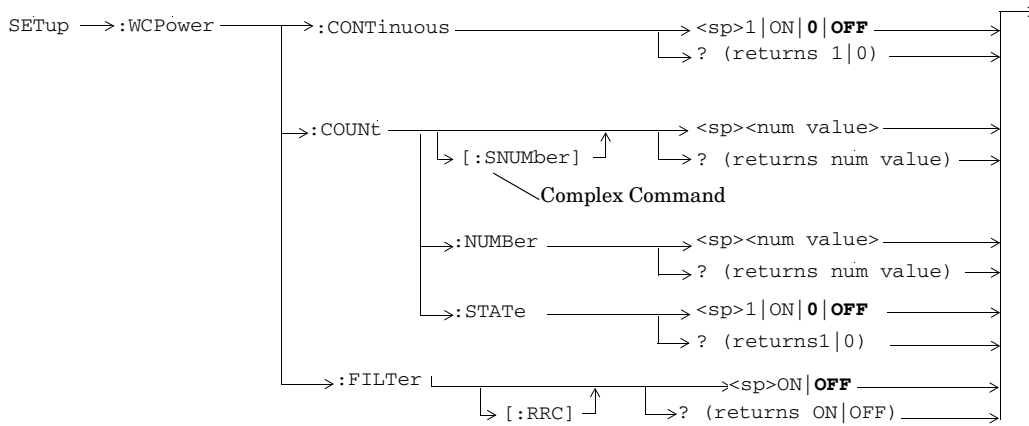
SETup:WBLerror



SETup:WCDomain

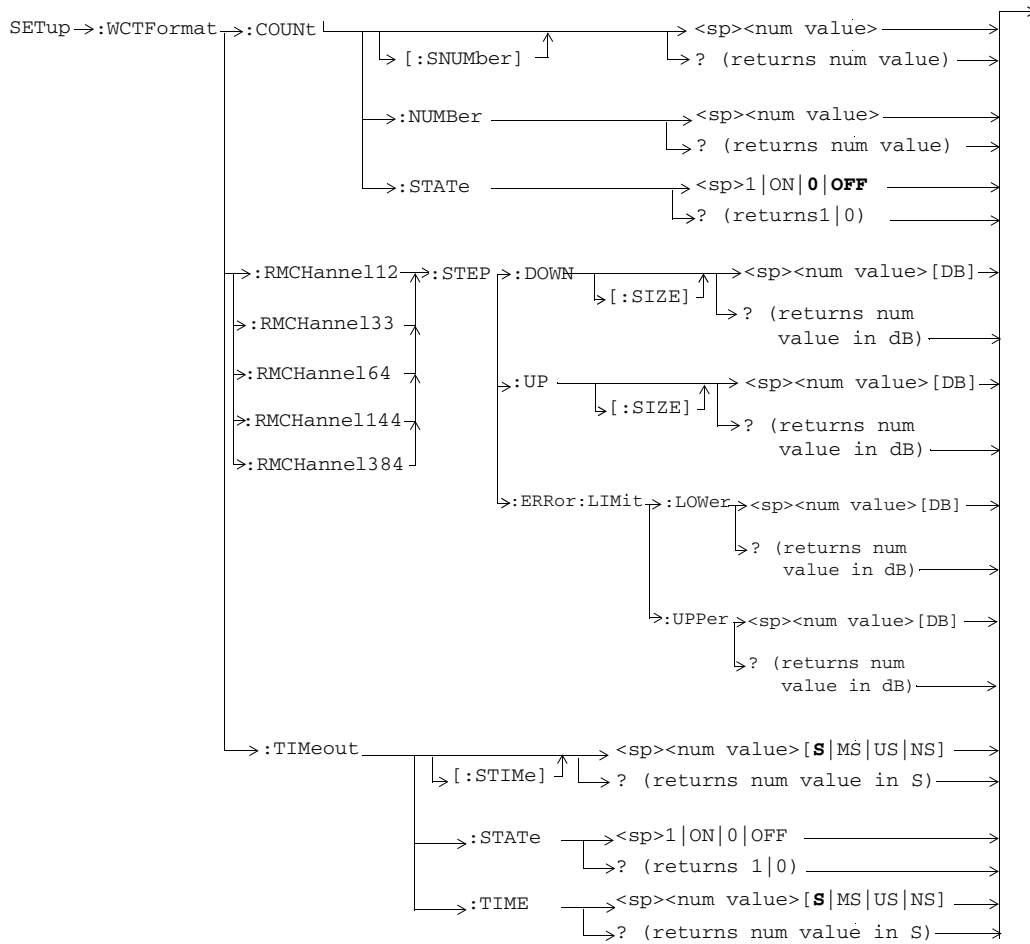


SETup:WCPower

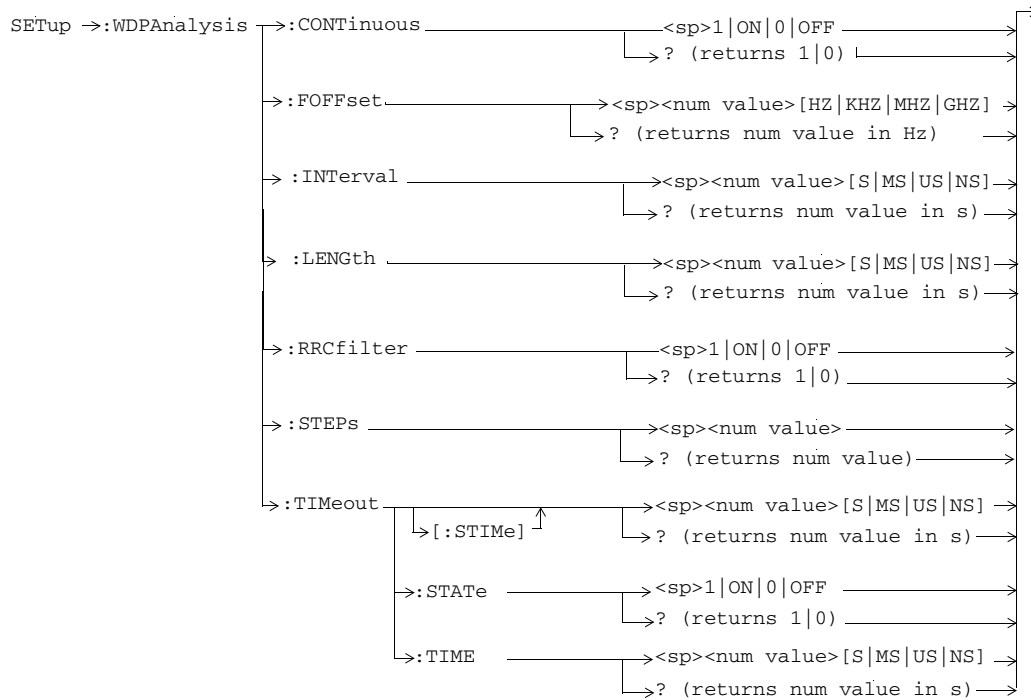


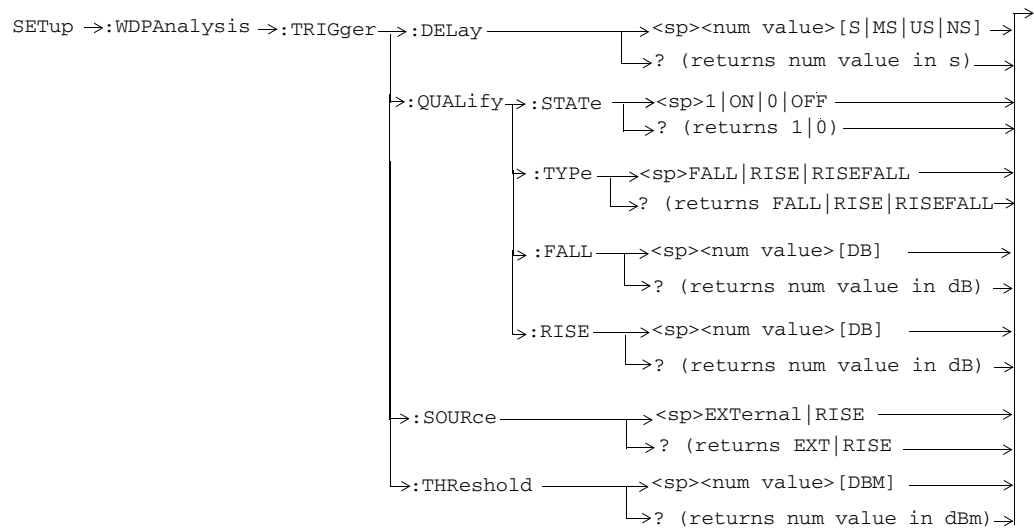
SETup:WCTFormat

This section is only applicable to the lab application.

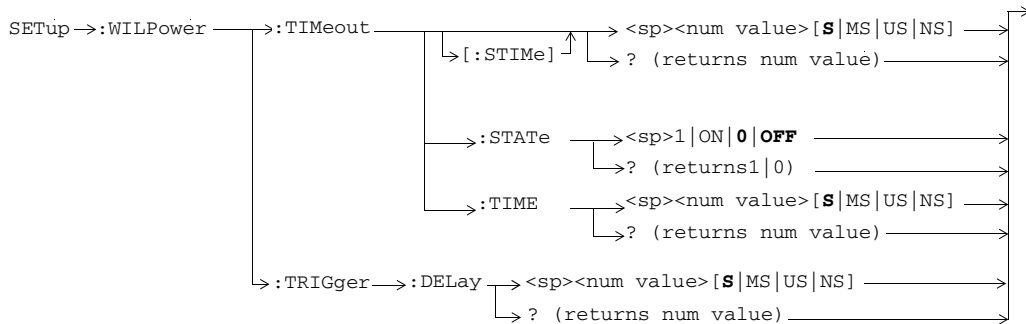
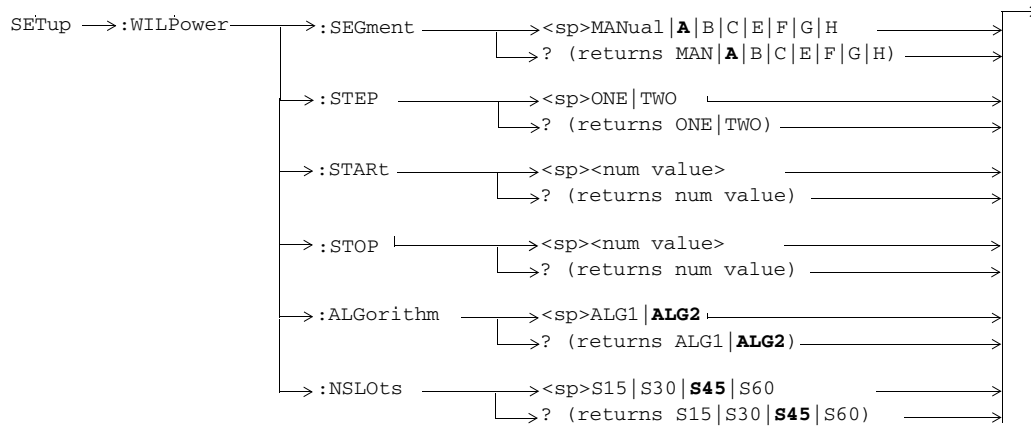


SETup:WDPAnalysis

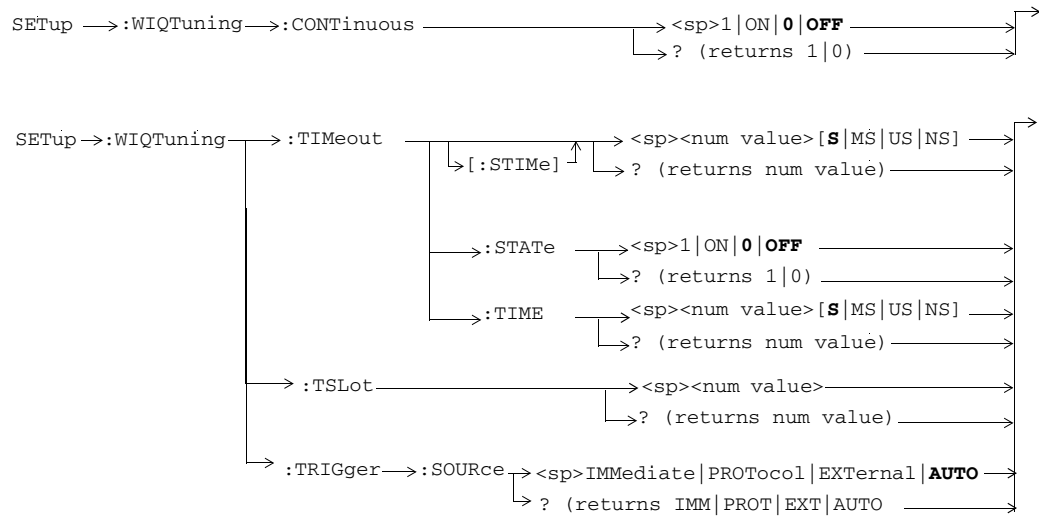




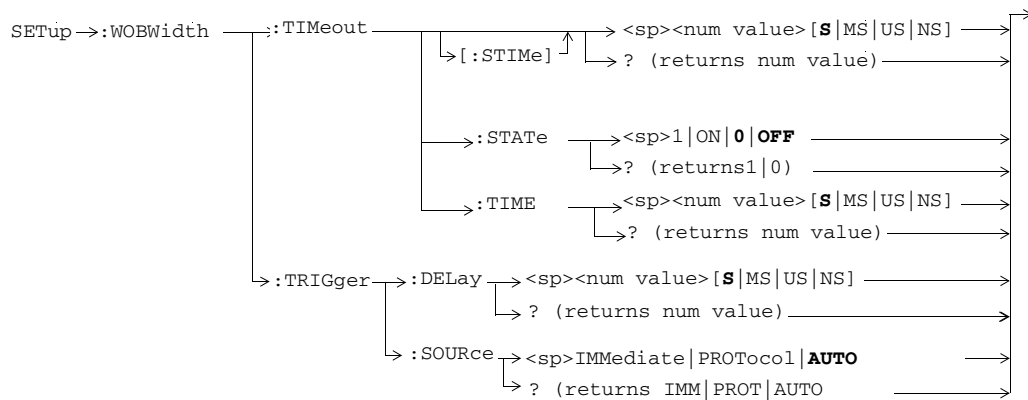
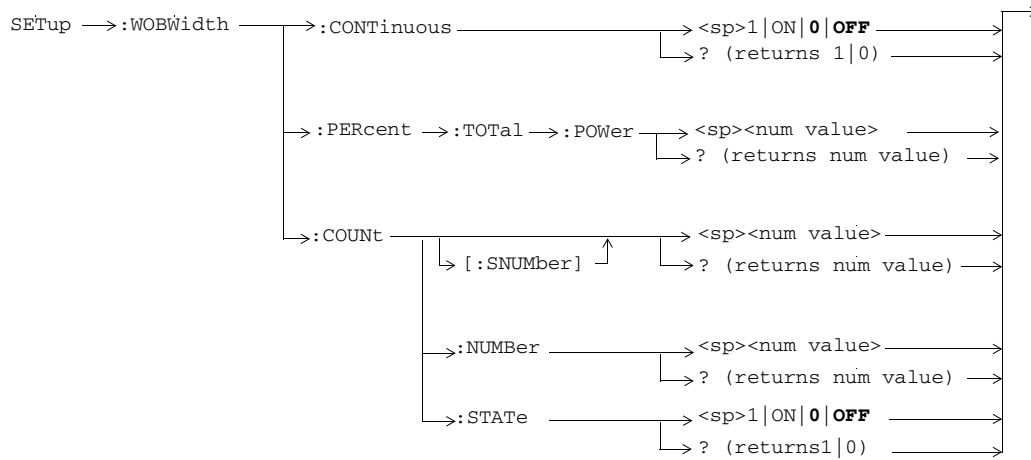
SETup:WILPower



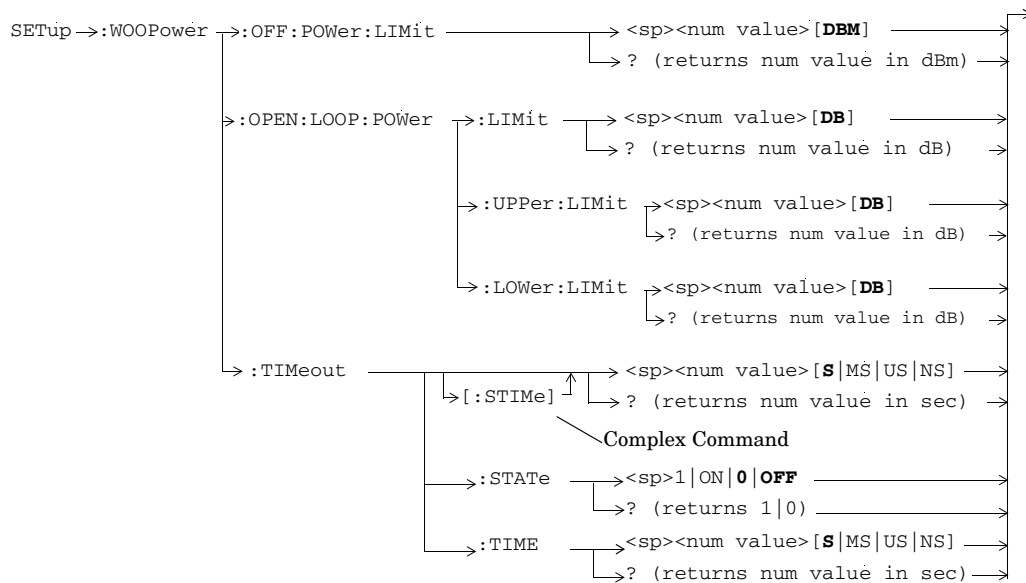
SETup:WIQTuning



SETup:WOBWidth

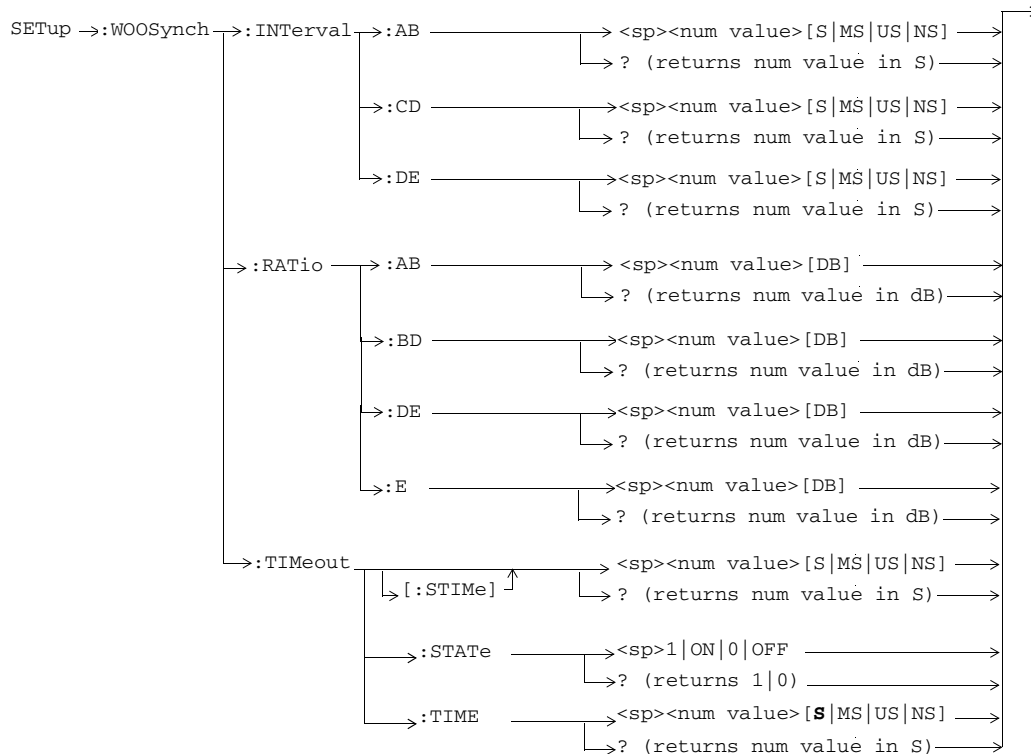


SETup:WOOPower

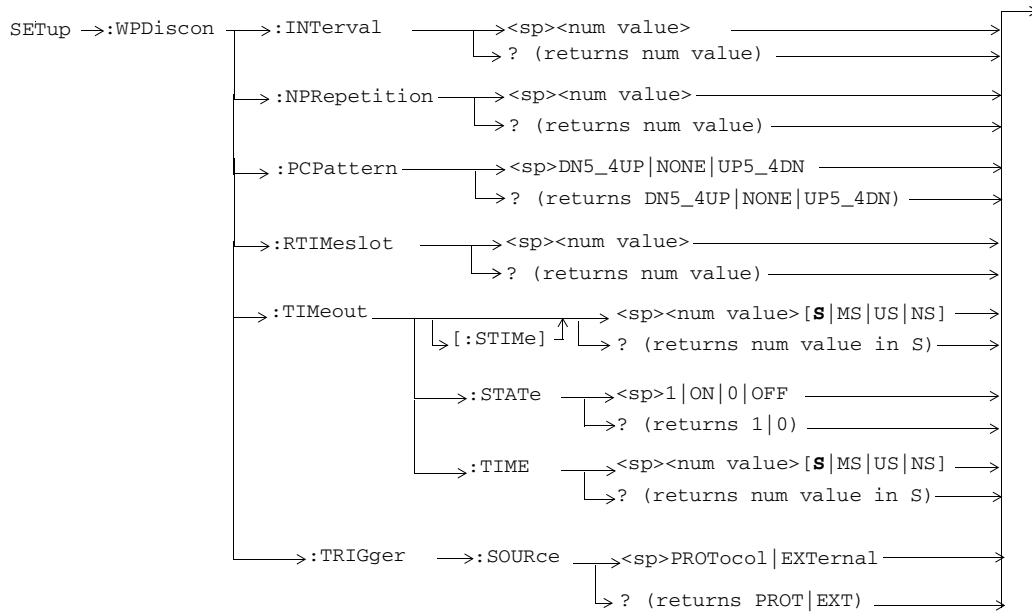


SETup:WOOSynch

This section is only applicable to the lab application.

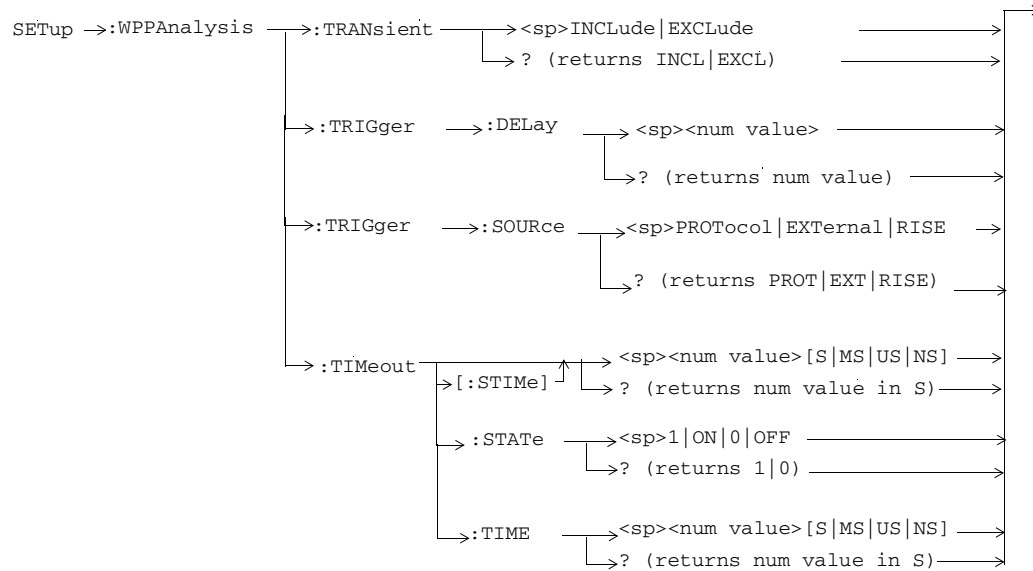


SETup:WPDiscon

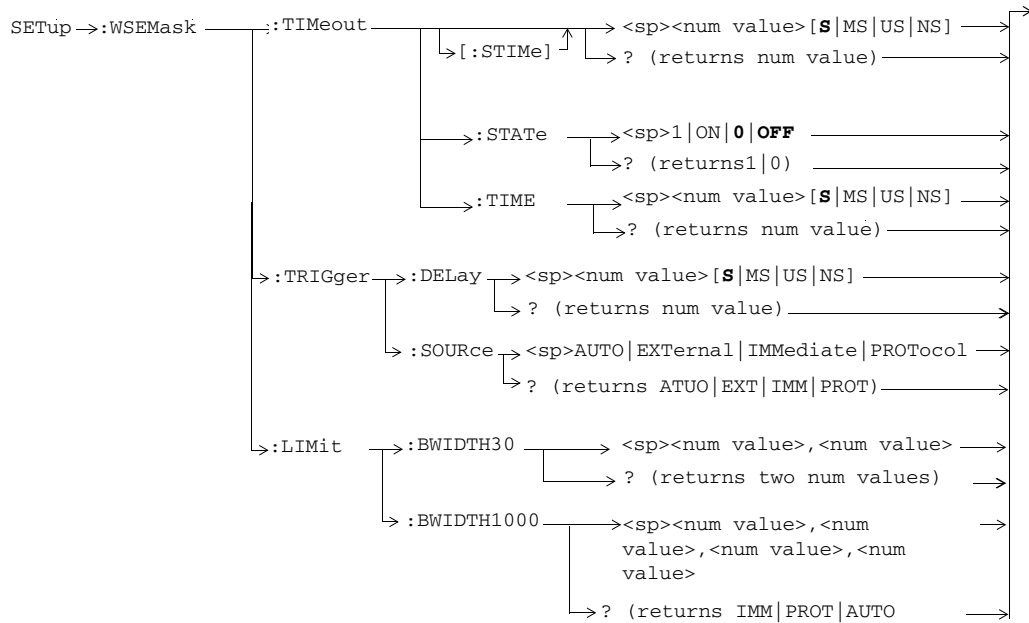
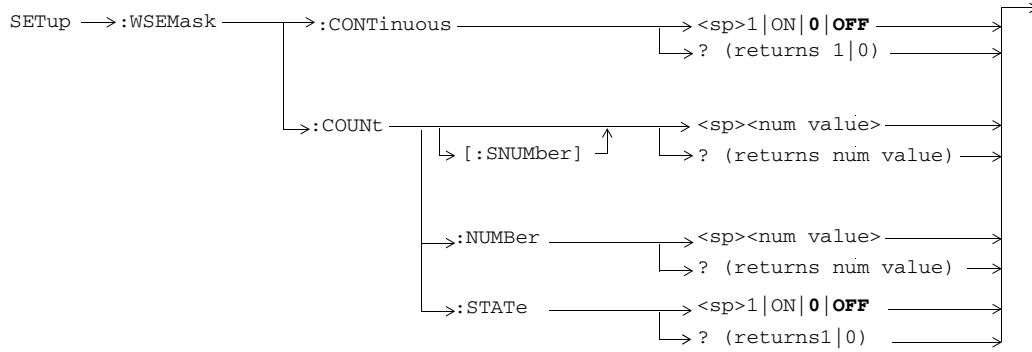


SETup:WPPAnalysis

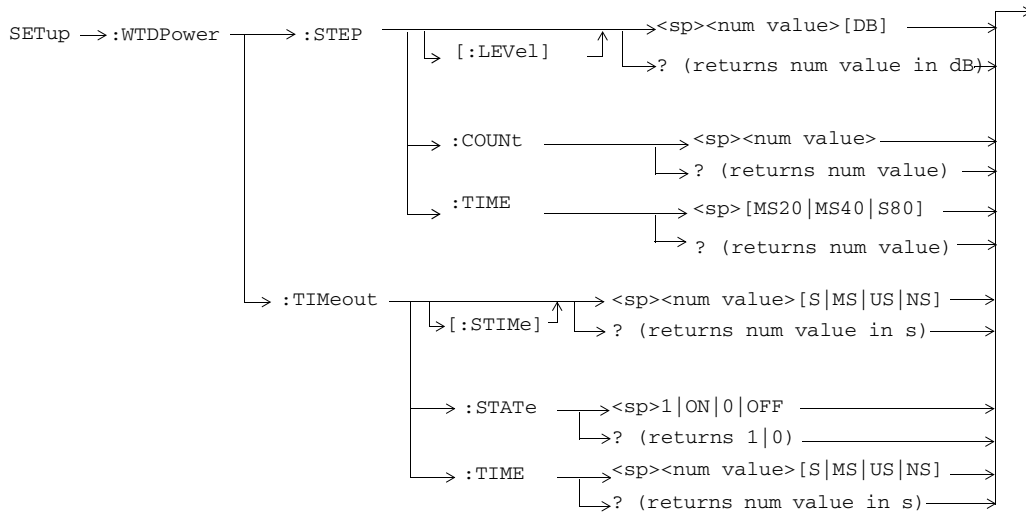
This section is only applicable to the lab application.



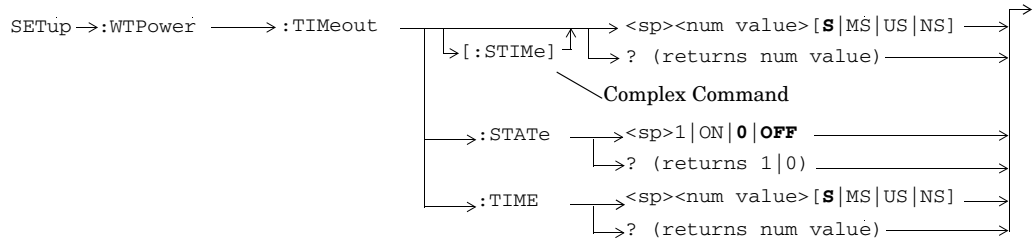
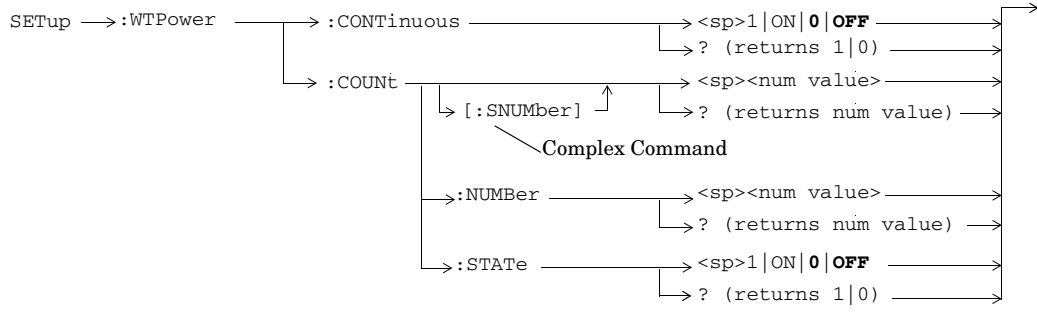
SETup:WSEMask



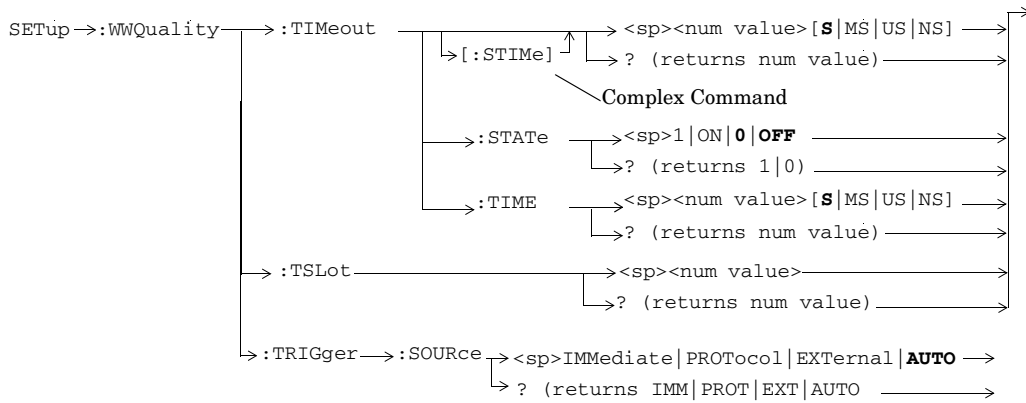
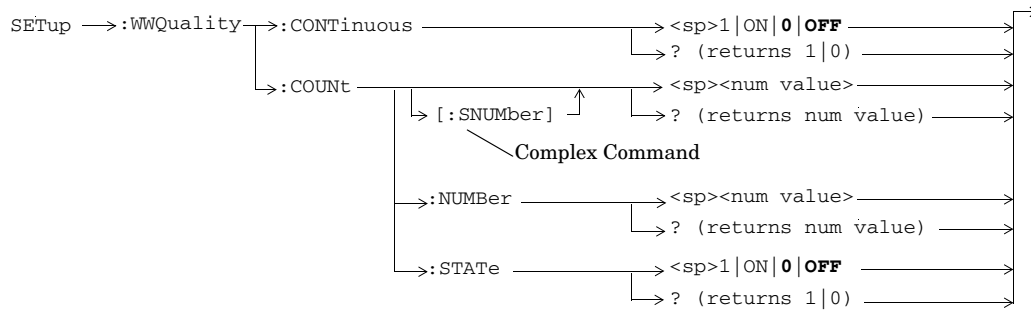
SETup:WTDPower



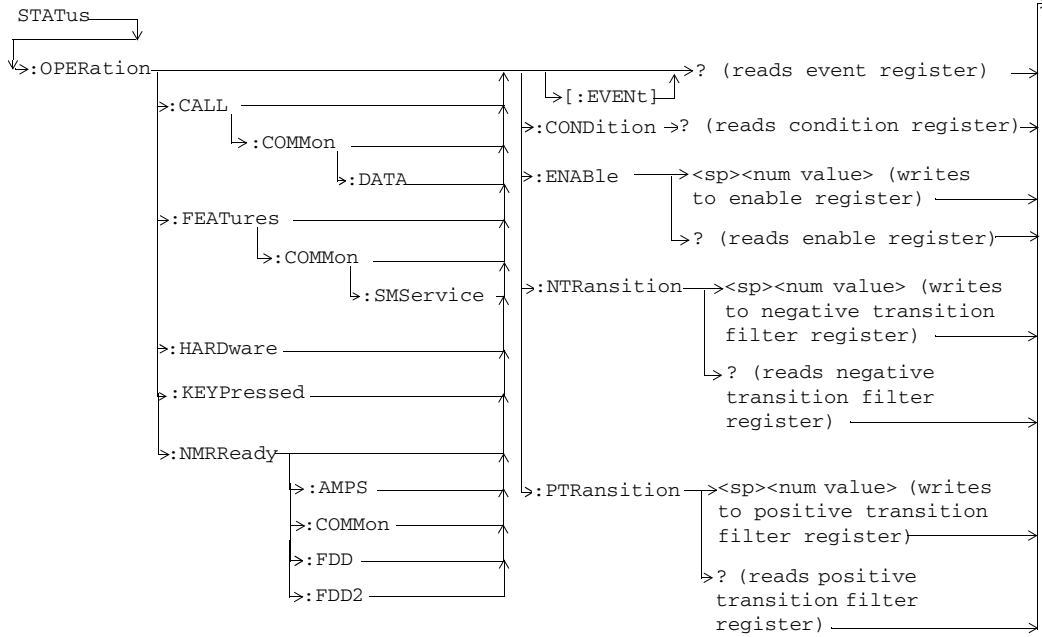
SETup:WTPower



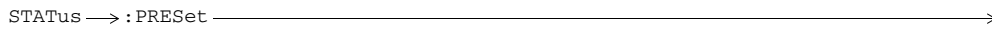
SETup:WWQuality



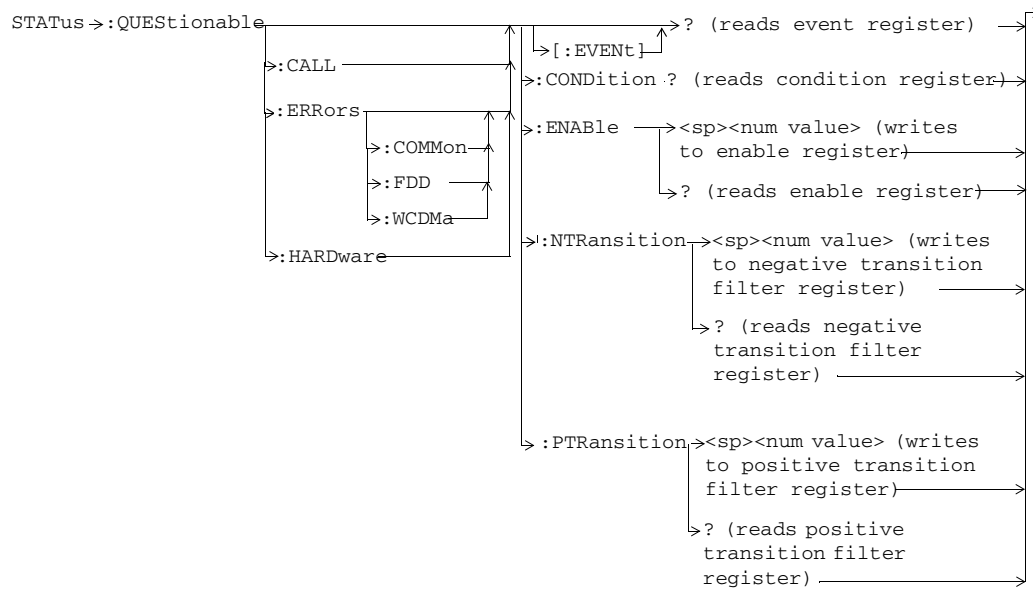
STATUS:OPERation



STATUS:PRESet

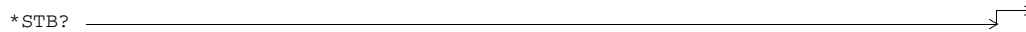


STATUS:QUESTIONable



Status Byte Register

*STB?



Standard Event Status Register

*ESR?

*ESR? → Reads and clears the Std Event Status Register. →

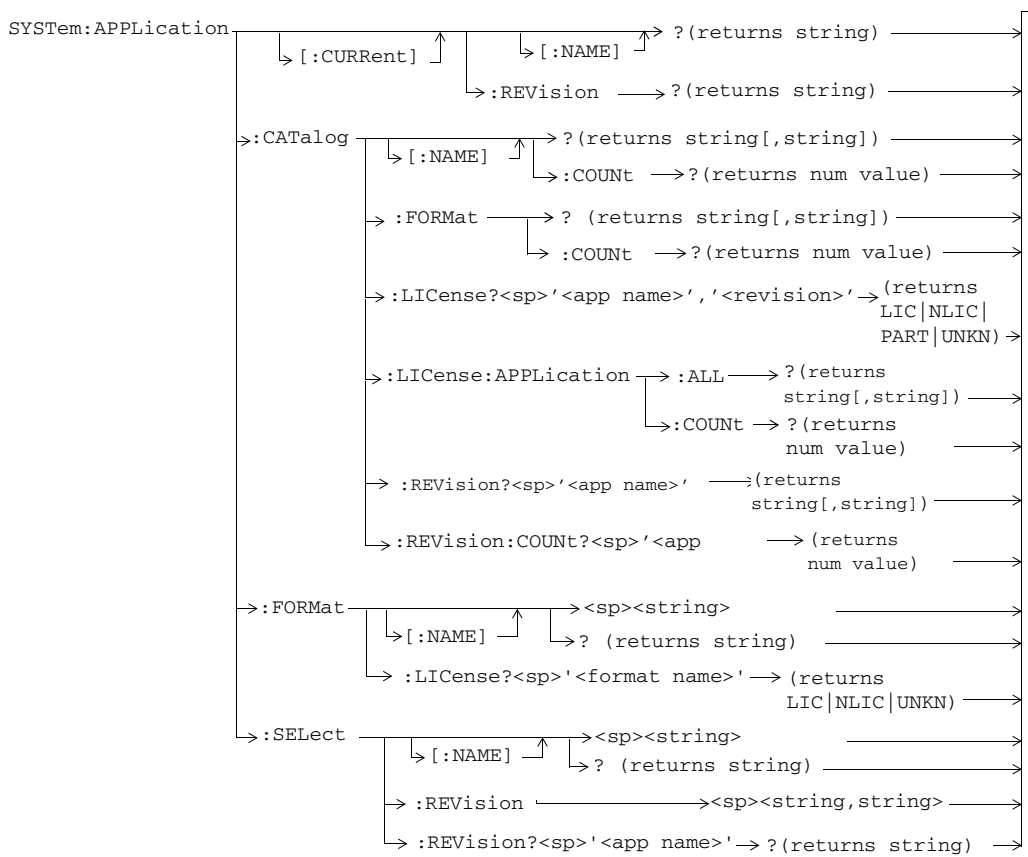
*ESE?

*ESE? → Reads the Std Event Status Register Enable Register →

*ESE

*ESE → Writes to the Std Event Status Register Enable Register →

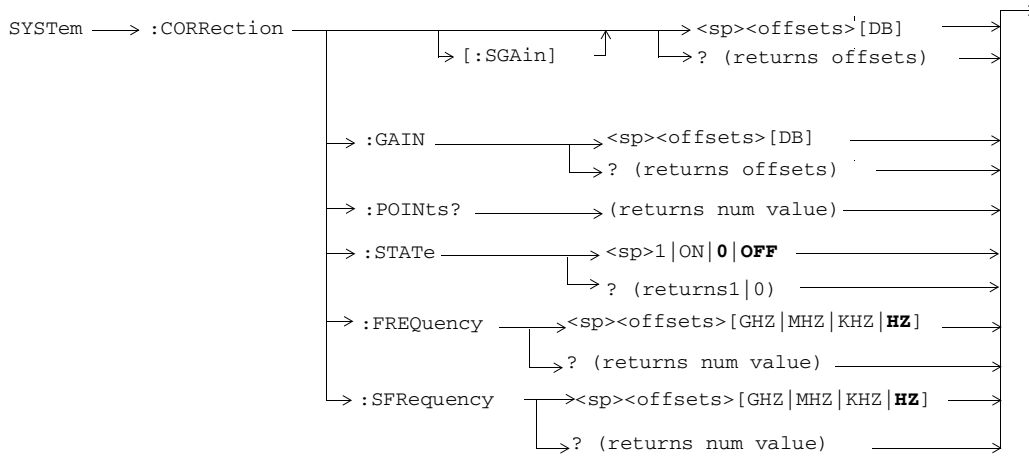
SYSTem:APPLication



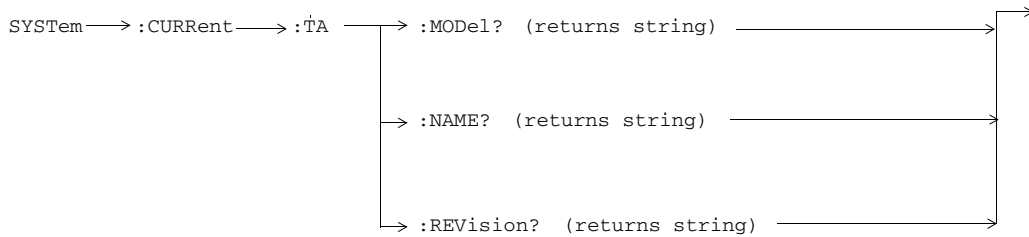
SYSTEM:CONFigure

SYSTEM — :CONFigure —> :INformation —> :HARDware —> :VERBose? —>

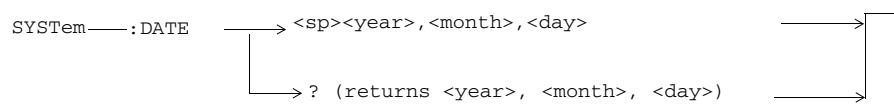
SYSTEM:CORRection



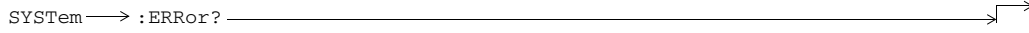
SYSTEM:CURRent:TA



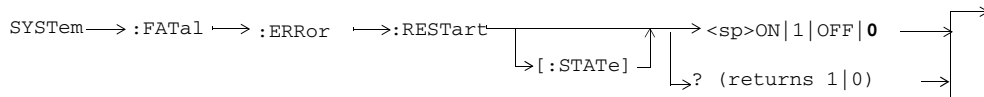
SYSTEM:DATE



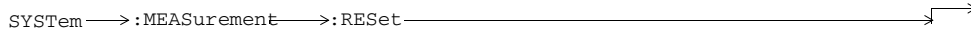
SYSTEM:ERRor?



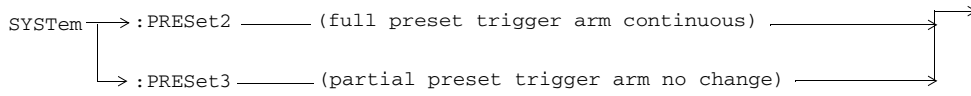
SYSTEM:FATal



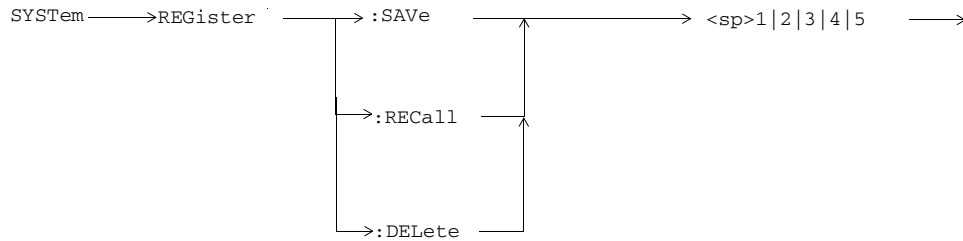
SYSTEM:MEASurement:RESet



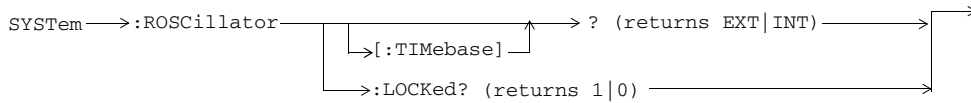
SYSTEM:PRESet



SYSTEM:REGister



SYSTEM:ROSCillator



SYSTem:STATus

This section is only applicable to the lab application and to a test application with the required feature license.

```
SYSTem->:STATus:COMMunicate:LAN:EXTernal  
└─[:STATe]┘ ──> ? (returns CONG  
|CONN|DISC|NCON) ──>  
└─:CONNected:ADDRess ->? (returns string) ->
```

SYSTem:SYNChronized

SYSTem——>:SYNChronized? ——> (returns num value) ——>

SYSTem:TIME

SYSTem——>:TIME ——> <sp><hour>, <minute>, <second> ——>
——> ? (returns <hour>, <minute>, <second>) ——>

SYSTem:TZONE

SYSTem——>:TZONE ——> <sp><hour>, <minute> ——>
——> ? (returns <hour>, <minute>) ——>

SYSTem:UTC

SYSTem——>:UTC ——> <sp><hour>, <minute>, <second> ——>
——> [:TIME] ——> ? (returns <hour>, <minute>, <second>) ——>
——> :DATE ——> <sp><year>, <month>, <day> ——>
——> ? (returns <year>, <month>, <day>) ——>

IEEE 488.2 Common Commands

Description

***CLS** The *CLS, clear status command, is defined in “IEEE Std 488.2-1992”, 10.3. This command will also clear and close the error message screen on the test set’s display.

***ESE** The *ESE, standard event status enable command, is defined in “IEEE Std 488.2-1992”, 10.10.

***ESE?** The *ESE?, standard event status enable query, is defined in “IEEE Std 488.2-1992”, 10.11.

***ESR?** The *ESR?, standard event status register query, is defined in “IEEE Std 488.2-1992”, 10.12.

***IDN?** The *IDN?, identification query, is defined in “IEEE Std 488.2-1992”, 10.14. *IDN? is used to retrieve information about the test set in ASCII format.

***IDN?**, returns ASCII codes 32 through 126 excluding comma and semicolon in four comma separated fields. Field 1 returns the manufacturer, field 2 returns the instrument model number, field 3 returns the serial number, field 4 returns 0.

***OPC** The ***OPC**, operation complete command, is defined in “IEEE 488.2-1992”, 10.18. ***OPC** causes the test set to continuously sense the No Operation Pending flag. When the No Operation Pending flag becomes TRUE, the OPC event bit in the standard event status register (ESR) is set to indicate that the state of all pending operations is completed. The ***OPC** common command is not recommended for use as an overlapped command.

***OPC?** The ***OPC?**, operation complete query, is defined in “IEEE Std 488.2-1992”, 10.19. The ***OPC?** query allows synchronization between the controller and the test set using either the message available (MAV) bit in the status byte, or a read of the output **OPC?**. The ***OPC?** query does not effect the OPC event bit in the Standard Event Status Register (ESR). The ***OPC?** common command is not recommended for use as an overlapped command.

***OPT?** The ***OPT?**, option identification query, is defined in “IEEE Std 488.2-1992”, 10.20. Each option will have a unique name, that name will be returned with the query.

***RST** The ***RST**, full preset command, is defined in “IEEE Std 488.2-1992”, 10.32. ***RST** is the recommended command when performing a full preset on the test set. A ***RST** restores the majority of settings to their default values.

- ***RST** sets trigger arm to single
- **PRESet2** sets trigger arm to continuous

***SRE** The ***SRE**, service request enable command, is defined in “IEEE Std 488.2-1992”, 10.34. The parameter range for this command is 0 through 255.

***SRE?** The ***SRE?**, service request enable query, is defined in “IEEE Std 488.2-1992”, 10.35. Values returned by this query range from 0 through 255.

***STB?** The ***STB?**, read status byte query, is defined in “IEEE Std 488.2-1992”, 10.36. Values returned by this query range from 0 through 255.

***WAI** The ***WAI**, wait-to-continue command, is defined in “IEEE Std 488.2-1992”, 10.39. The ***WAI** command prevents the test set from executing any further commands or queries until all pending operation flags are false. The ***WAI** common command is not recommended for use as an overlapped command.

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