

Compatibility of SCPI Commands between UPV and UPP

Firmware Version 3.3.0

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This document lists all UPV SCPI commands which are not compatible to UPP. All commands which do not appear in the list below are compatible between UPV and UPP.

Categories of compatibility:

In column "Compatibility", the following notation is used to classify the compatibility of SCPI commands between UPV and UPP:

Partly supported

This command is accepted by the UPP with a subset of parameters available on the UPV.

Other parameters are rejected by the UPP due to different functionality.

The available subset of parameters are fully or partly emulated for the UPP to achieve identical or similar effect.

Restrictions are described in the column beside.

The query answer of an emulated command can be different from the expected one.

Not available

This command is only valid for UPV and can not be emulated for the UPP. The reason is described in the column beside.

Note:

Command is compatible

Please note different hardware issues.

Remarks:

An option number, e.g. "UPV-B42" means:

This command is available only for the mentioned UPV option and is therefore rejected by the UPP.

Meaning of the colours:

Green: Alias commands (alternative command with identical effect)

Orange: Pertaining to UPV

Magenta: Pertaining to UPP

Blue: Special information on the use of this command for queries

Remote Control Commands sorted alphabetically

SCPI command	Compatibility	Remarks
ADJust:JITTer:AUTO Alias CALibrate:JITTer:AUTO ONCE EXEC Response to query is always OFF	Not available	UPV-K22
ADJust:LDG:AUTO Alias CALibrate:LDG:AUTO ONCE EXEC Response to query is always OFF	Not available	UPV-B1
ADJust:SECGen:AUTO Alias CALibrate:SECGen:AUTO ONCE EXEC Response to query is always OFF	Not available	UPV-B3
ADJust:ZERO Alias ADJust:ZERO:AUTO Alias CALibrate:ZERO:AUTO Alias CALibrate:ZERO OFF ON ONCE EXEC	Not available	
AUXiliaries:AAUXout DC AUDM1 or GENerator	Partly supported	AUDM1 or GENerator are not available
AUXiliaries:PHONe Alias SYSTem:PHONe ON OFF	Not available	Different hardware
AUXiliaries:PHPermanent ON OFF	Not available	Different hardware
AUXiliaries:SPEaker Alias AUXiliaries:SPEaker:STATe ON OFF	Partly supported	OFF is not available
AUXiliaries:SPEaker:CHANnel Alias SYSTem:SPEaker:CHANnel STEReo	Partly supported	Signal routed to BNC output Monitor 1 and Monitor 2 STEReo is not available

CH1 CH2		
AUXiliaries:SPEaker:SOURce Alias SYSTem:SPEaker:SOURce INPut FUNction GENerator DC	Partly supported	Different hardware GENerator is not available
AUXiliaries:TRIGger:INPut:EDGE RISing FALLing	Not available	Different hardware
AUXiliaries:TRIGger:INPut:ENable ON OFF	Not available	Different hardware
AUXiliaries:TRIGger:INPut:MODE MSINgle MCONtstop MStArt	Not available	Different hardware
AUXiliaries:TRIGger:OUTPut:EDGE RISing FALLing	Not available	Different hardware
AUXiliaries:TRIGger:OUTPut:ENable ON OFF	Not available	Different hardware
AUXiliaries:TRIGger:OUTPut:FREQuency <nu>	Not available	Different hardware
AUXiliaries:TRIGger:OUTPut:MODE MEASuring AUXClockout	Not available	Different hardware
INPut:ALIGNment RISing FALLing CH1Hch2l CH1Lch2h CH1Rch2f CH1Fch2r	Not available	UPV-B42
INPut:BANDwidth:MODE B22 B40 B80 B250	Partly supported	B250 not available
INPut:BSLope RISing FALLing	Not available	UPV-B42
INPut:CHMode MONO STEReo	Not available	UPV-K421
INPut:CLKFrequency <nu> 512..12800 kHz	Not available	UPV-K421
INPut:CLKSource INTern EXTern	Not available	UPV-K421

INPut:CLOCK CONTInous GATed	Not available	UPV-B42
INPut:CODing NONE ALAW ULAW	Not available	UPV-B42
INPut:COMMon Alias INPut:LOW FLOat GROund	Partly supported	Starting with serial numbers 120100, 140100, 180100, INPut2:COMMon FLOat is accepted, otherwise INPut2:COMMon GROund is accepted.
INPut:DTYCycle <nu> 10% ... 90%	Not available	UPV-K421
INPut:DWNFactor M16 M32 M64 M128 M256	Not available	UPV-K421
INPut:FOFFset <n> <n> = -Wordlength ... Wordlength-1	Not available	UPV-B42
INPut:FSYNc:FREQUency? Query only	Not available	UPV-B42
INPut:FWIDth ONEBit ONESlot SQUare VALue	Not available	UPV-B42
INPut:FWIDth:VALue <n>	Not available	UPV-B42
INPut:IMPedance R300 R600 R200K	Partly supported	Only available starting with serial numbers 120100, 140100, 180100. R300 is not available
INPut:INPut INTern DSUB PROBe	Not available	UPV-B42
INPut:LBITs <n> <n> = 0 ... depends of Slot Length	Not available	UPV-B42
INPut:LOGVoltage MV0900 MV1200 MV1500 MV1800 MV2500 MV3300	Not available	UPV-B42

INPut:MCHSource<ch> RX1Data RX2Data RX3Data RX4Data <ch> = 1 ... 8	Not available	UPV-B42
INPut:MRATio <n> <n> = 16 ... 768	Not available	UPV-B42
INPut:MSAMplefrequency ON OFF	Not available	UPV-B42
INPut:MSOurce INCLock PROBE	Not available	UPV-B42
INPut:NOSLots <n> <n> = 1 ... 256	Not available	UPV-B42
INPut:RATio <n> <n> = 2 ... 12	Not available	UPV-B42
INPut:RESYnc ONCE EXEC	Not available	UPV-B42
INPut:SAMPlE:FREQUency:MODE Param. for Anlr.-Instr. DIGITAL: AUTO AUTo F32 F44 F48 F88 F96 F176 F192 VALue CHStatus INPut:SAMPlE:FREQUency:MODE Param. for Anlr.-Instr. I2SBOARD: AUTO AUTo F08 F11 F16 F22 F32 F44 F48 F88 F96 F176 F192 F384 VALue	Partly supported	CHStatus and F384 are not available

INPut:SDElay <nu> <nu> -9.824 ... 8.824 ns	Not available	UPV-B42
INPut:SLOTs<ch> <String> <ch> = 1 ... 8	Not available	UPV-B42
INPut:SLTLength <n> <n> = 8 ... 256	Not available	UPV-B42
INPut:SPFRame <n> <n> = 1 ... 32	Not available	UPV-B42
INPut:SYNCto ICLock EMASterclock EFSYnc EFAMon EFBCIk	Not available	UPV-B42
INPut:TIMEout <nu> <nu> 1 ... 500 ms	Not available	UPV-B42
INPut:TYPE For UPV in ANLG Instrument BALanced GEN1 GEN2 For UPV and UPP in Digital Audio Instrument DBALanced or AESebu DUNBalanced or SPDif OPTical INTern	Partly supported	GEN1, GEN2 are not available
INPut2:COMMon Alias INPut2:LOW FLOat GROund	Partly supported	Starting with serial numbers 120100, 140100, 180100, INPut2:COMMon FLOat is accepted, otherwise INPut2:COMMon GROund is accepted.
INPut2:IMPedance R300 R600 R200K	Partly supported	Only available starting with serial numbers 120100, 140100, 180100. R300 is not available
INPut2:TYPE BALanced GEN1 GEN2	Partly supported	GEN1, GEN2 are not available
INSTRument Alias INSTRument:SElect ANLG or A25 DIG or D48	Partly supported	UPV-K22 IMPairment und U2Channel are not available

<p>I2SBoard or I2S IMPairment U2Channel HDMI</p> <p>Alias INSTrument:NSElect 1 2 3 4 5 6 11 1 = ANLG 2 or 3 = DIG 4 = I2SBoard 5 = IMPairment 6 = U2CHannel 7 = not used by Generator occupied by Analyzer (U8CHan) 8 = not used by Generator occupied by Analyzer (A8CHannel) 9 = not used by Generator occupied by Analyzer (A16CHannel) 10 = not used by Generator occupied by Analyzer (DIGBitstream) 11 = HDMI</p>		
<p>INSTrument2 Alias INSTrument2:SElect</p> <p>ANLG or A22 ANLG is Alias to A8CHannel DIG or D48 I2Sboard or I2S U2Channel U8Channel A8Channel A16Channel DIGBitstream HDMI</p> <p>Alias</p> <p>INSTrument2:NSElect 1 2 3 4 6 7 8 9 10 11 1 = ANLG 1 is Alias to 8 2 or 3 = DIG 4 = I2Sboard 5 = not used for Analyzer occupied by Generator (IMPairment) 6 = U2Channel 7 = U8Channel 8 = A8Channel 9 = A16Channel 10 = DIGBitstream 11 = HDMI</p>	Partly supported	The analysator instruments U2Channel, U8Channel, A16Channel and DIGBitstream are not available
<p>MMEMory:LOAD:INTerval 'filename' Alias MMEMory:LOAD:LIST INTerv, 'filename'</p>	Not available	
<p>MMEMory:LOAD:ONTime 'filename' Alias MMEMory:LOAD:LIST ONTime, 'filename'</p>	Not available	

MMEMory:STORE:PWAVEform 'filename'	Not available	UPV-K61, K62, K63
OUTPut:AUXiliary:OUTPut Alias OUTPut:AUXiliary:FEED Alias OUTPut:REFerence:OUTPut Alias OUTPut:REFerence:FEED Alias OUTPut:DIgital:AUXiliary:OUTPut Alias OUTPut:DIgital:AUXiliary:FEED Alias OUTPut:DIgital:REFerence:OUTPut Alias OUTPut:DIgital:REFerence:FEED AOUTput AINPut AINReclock RGENerator AUXin	Not available	
OUTPut:BCLock:JITAmplitude <nu>	Not available	UPV-K22
OUTPut:BCLock:JITFrequency <nu>	Not available	UPV-K22
OUTPut:BSLope RISing FALLing	Not available	UPV-B42
OUTPut:CLOCK CONTinous GATed	Not available	UPV-B42
OUTPut:CODing NONE ALAW ULAW	Not available	UPV-B42
OUTPut:CSIMulator Alias OUTPut:DIgital:CSIMulator OFF SIMLong	Partly supported	
OUTPut:FOFFset <n>	Not available	UPV-B42
OUTPut:FSLope RISing FALLing	Not available	UPV-B42
OUTPut:FWIDth ONEBit ONESlot SQUare VALue	Not available	UPV-B42
OUTPut:FWIDth:VALue <n>	Not available	UPV-B42
OUTPut:IMPedance For UPV: R10 R200	Partly supported	Starting with serial numbers 120100, 140100, 180100, the command OUTPut:IMPedance R25

R600		R600 is available. R10 and R200 are not available
OUTPut:INTClockfreq <nu> Alias OUTPut:DIGital:INTClockfreq <nu>	Not available	
OUTPut:LBITs <n>	Not available	UPV-B42
OUTPut:LOGVoltage MV0900 MV1200 MV1500 MV1800 MV2500 MV3300	Not available	UPV-B42
OUTPut:LOW FLOat GROund	Partly supported	GROund is not available
OUTPut:MCLock:JITAmplitude <nu>	Not available	UPV-K22
OUTPut:MCLock:JITFrequency <nu>	Not available	UPV-K22
OUTPut:MRATio <n>	Not available	UPV-B42
OUTPut:MSAMplefrequency ON OFF	Not available	UPV-B42
OUTPut:NOSLots <n>	Not available	UPV-B42
OUTPut:RATio <n> <n> = 2 ... 12	Not available	UPV-B42
OUTPut:RESYnc ONCE EXEC	Not available	UPV-B42
OUTPut:SAMple:MODE For generator instrument DIGITAL: F32 F44 F48 F88 F96 F176 F192 SYNChron VALue For generator instrument I2SBOARD: F08 F11 F16 F22 F32 F44 F48 F88	Partly supported	SYNChron and F384 are not available

F96 F176 F192 F384 VALue		
OUTPut:SLCOffset <n>	Not available	UPV-B42
OUTPut:SLCSlope RISing FALLing	Not available	UPV-B42
OUTPut:SLCWidth ONEBit SQUare VALue	Not available	UPV-B42
OUTPut:SLCWidth:VALue <n>	Not available	UPV-B42
OUTPut:SLTLength <n>	Not available	UPV-B42
OUTPut:SPFRame <n>	Not available	UPV-B42
OUTPut:SYNC:OUTPut Alias OUTPut:SYNC:FEED Alias OUTPut:DIGital:SYNC:OUTPut Alias OUTPut:DIGital:SYNC:FEED ADOutput ADINput AXINput GSYPll JRFPII AXOutput SYINput ICLock or INTClock	Not available	
OUTPut:SYNC:TYPE Alias OUTPut:DIGital:SYNC:TYPE WCLock BCLock	Not available	Different hardware
OUTPut:TXData<i> "String" <i> = 1 ... 4	Not available	UPV-B42
OUTPut:TYPE BALanced UNBalanced CTEST	Partly supported	CTEST is not available
OUTPut:UNBalanced:OUTPut Alias OUTPut:UNBalanced:FEED Alias OUTPut:DIGital:UNBalanced:OUTPut Alias OUTPut:DIGital:UNBalanced:FEED AOUTput AINPut	Not available	Different hardware
SENSe:DMODE Alias	Partly supported	JPHase, CINPut are not available

<p>SENSe:DIGital:MMODE Alias SENSe:DIGital:FEED ADATa JPHase CINPut</p>		
<p>SENSe:FILTer<i> OFF UFIL1 UFIL2 UFIL3 UFIL4 UFIL5 UFIL6 UFIL7 UFIL8 UFIL9 AWE CARM CCIU CCIR CCIT CMES DEMP17 DEMP5015 DEMP50 DEMP75 DCN IECT JITT URUM WRUM PEMP17 PEMP5015 PEMP50 PEMP75 HP22 HP400 LP22 LP30 LP80 AES17 CWE</p> <p><i> = 1, 2 or 3</p> <p>Alias</p> <p>SENSe<i>:FILTer<n>:AWEighting[:STATe] SENSe<i>:FILTer<n>:CARM[:STATe] SENSe<i>:FILTer<n>:CCIRweight[:STATe] SENSe<i>:FILTer<n>:CCITt[:STATe] SENSe<i>:FILTer<n>:CCUnweight[:STATe] SENSe<i>:FILTer<n>:CCUnweight[:STATe] SENSe<i>:FILTer<n>:CMESsage[:STATe] SENSe<i>:FILTer<n>:DCNoise[:STATe] SENSe<i>:FILTer<n>:DEMPhasis<n>[:STATe] SENSe<i>:FILTer<n>:HP22Hz[:STATe] SENSe<i>:FILTer<n>:HP400Hz[:STATe]</p>	<p>Partly supported</p>	<p>Maximal 2 filters are available</p>

<p>SENSe<i>:FILTer<n>:IECTuner[:STATe]</p> <p>SENSe<i>:FILTer<n>:JITTer[:STATe]</p> <p>SENSe<i>:FILTer<n>:LP22kHz[:STATe]</p> <p>SENSe<i>:FILTer<n>:LP30kHz[:STATe]</p> <p>SENSe<i>:FILTer<n>:LP80kHz[:STATe]</p> <p>SENSe<i>:FILTer<n>:AES[:STATe]</p> <p>SENSe<i>:FILTer<n>:PEMPhasis<n>[:STATe]</p> <p>SENSe<i>:FILTer<n>:UFILTer<n>[:STATe]</p> <p>SENSe<i>:FILTer<n>:URUMble[:STATe]</p> <p>SENSe<i>:FILTer<n>:WRUMble[:STATe]</p> <p>SENSe<i>:FILTer<n>:CWEighting[:STATe]</p> <p>ON</p> <p>OFF</p>		
<p>SENSe:FUNCTion</p> <p>OFF</p> <p>RMS</p> <p>RMSSelect</p> <p>PEAK</p> <p>QPEak</p> <p>SN</p> <p>FFT</p> <p>THD</p> <p>THDNsdr</p> <p>MDISt</p> <p>DFD</p> <p>DIM</p> <p>POLarity</p> <p>COHerence</p> <p>RUBBUzz</p> <p>RECord</p> <p>NOCTave</p> <p>PESQ</p> <p>PEAQ</p> <p>POLQa</p> <p>PLUGin</p>	Partly supported	QPEak, DIM, COHerence, RUBBUzz, RECord, PESQ, PEAQ, POLQa, PLUGin are not available on UPP
<p>SENSe:FUNCTion:DMODE</p> <p>FAST</p> <p>PRECision</p>	Partly supported	Different hardware PRECision is not available
<p>SENSe:FUNCTion:FFT:CMpFactor <n></p> <p><n> = 1,2,4,8,16,32,64,128,256,512,1024</p> <p>Query: If undersampling is turned off, query returns 1</p>	Not available	UPV-K6
<p>SENSe:FUNCTion:FFT:SPAN</p> <p>R2</p> <p>R4</p> <p>R8</p> <p>R16</p> <p>R32</p> <p>R64</p> <p>R128</p> <p>R256</p> <p>R... von Ratio</p> <p>Query Only: Response to query of the alias command</p>	Not available	UPV-K6

CALCulate:TRANsform:FREQuency:SPAN? is a float value in Hz, e.g. "93,75 Hz"		
SENSe:FUNCTion:FFT:USAMple ON OFF	Partly supported	UPV-K6 ON is not available
SENSe:FUNCTion:MMODE Measurement function Peak PPEak NPEak PTOPeak PABSolut Measurement function SN RMS QPEak PPEak NPEak PTOPeak PABSolut Measurement function THD SElectdi LSElectdi DALL LDALI DODD LDODd DEVen LDEVen Measurement function THD+N THDN LTHDn SNDRatio Alias SINad NOISe LNOise Measurement function DFD D2_268 or D2 D3_268 or D3 D2_118 D3_118 Measurement function NOCTave OCT1 OCT3 OCT6 OCT12 OCT24 CBANd Measurement function PESQ, PEAQ and POLQA DUT OFFLine	Partly supported	QPEak mapped to RMS indicated by error message
SENSe:FUNCTion:PEAQ:DELDetect <nu>	Not available	UPV-K61, K62, K63

SENSe:FUNction:PEAQ:VERsion BASic ADVanced	Not available	UPV-K61, K62, K63
SENSe:FUNction:PESQ:ACCording PP862 PPSI862 or PSILence PPSP862 or PSPeach MP8621 MP8622 MPSI8621 MPSP8621 MPSI8622 MPSP8622	Not available	UPV-K61, K62, K63
SENSe:FUNction:PESQ:AVGDelay? Alias SENSe:FUNction:PEAQ:AVGDelay? Alias SENSe:FUNction:POLQa:AVGDelay? Query Only	Not available	UPV-K61, K62, K63
SENSe:FUNction:PESQ:DEGLLevel? Alias SENSe:FUNction:PEAQ:DEGLLevel? Alias SENSe:FUNction:POLQa:DEGLLevel? Query Only	Not available	UPV-K61, K62, K63
SENSe:FUNction:PESQ:REFLevel? Alias SENSe:FUNction:PEAQ:REFLevel? Alias SENSe:FUNction:POLQa:REFLevel? Query Only	Not available	UPV-K61, K62, K63
SENSe:FUNction:POLQa:ATTenuation? Query Only	Not available	UPV-K61, K62, K63
SENSe:FUNction:POLQa:BAND NARRow WIDE	Not available	UPV-K61, K62, K63
SENSe:FUNction:POLQa:DEGSpratio? Query Only	Not available	UPV-K61, K62, K63
SENSe:FUNction:POLQa:GAIN <nu>	Not available	UPV-K61, K62, K63
SENSe:FUNction:POLQa:MAXDelay? Query Only	Not available	UPV-K61, K62, K63
SENSe:FUNction:POLQa:MINDelay? Query Only	Not available	UPV-K61, K62, K63
SENSe:FUNction:POLQa:REFSpratio? Query Only	Not available	UPV-K61, K62, K63
SENSe:FUNction:POLQa:SNRDeg?	Not available	UPV-K61, K62, K63

Query Only		
SENSe:FUNcTion:POLQa:SNRRef?	Not available	UPV-K61, K62, K63
Query Only		
SENSe:FUNcTion:REcOrd:BPS AUTO L8 L16 L32	Not available	
SENSe:FUNcTion:REcOrd:FILE 'filename' Alias SENSe:FUNcTion:REcOrd:FILE 'filename'	Not available	
SENSe:FUNcTion:REcOrd:FLENgth?	Not available	
Query only		
SENSe:FUNcTion:REcOrd:LENgth <nu>	Not available	
SENSe:FUNcTion:REcOrd:TRIGger:LEVel <nu>	Not available	
SENSe:FUNcTion:REcOrd:TRIGger:PRE <nu>	Not available	
SENSe:FUNcTion:REcOrd:TRIGger:SLOPe RISing FALLing	Not available	
SENSe:FUNcTion:REcOrd:TRIGger:SOURce CH1 CH2 MANual GENBurst	Not available	
SENSe:FUNcTion:SETTling:MODE OFF EXPOntial FLAT AVERAge	Partly supported	
SENSe:JITTer:REFeRence Alias SENSe:DIGital:JITTer:REFeRence Alias SENSe:DIGital:SYnc:REFeRence INTClock or GCLock REFPII or PLLVari	Not available	UPV-K22
SENSe:NOTCh Alias SENSe:NOTCh:STATe OFF DB0 DB12 DB30	Partly supported	Different hardware DB0, DB12, DB30 are not available
SENSe:NOTCh:FREQuency <nu> Alias	Not available	Different hardware

SENSe:NOTCh:FREQuency:FIXed <nu>																																				
SENSe:NOTCh:FREQuency:MODE VALue GENTrack	Not available	Different hardware																																		
SENSe:PLUGIn:CONFig:DSTRing 'xxx'	Not available																																			
SENSe:PLUGIn:CONFig:SHOW ON OFF	Not available																																			
SENSe:PLUGIn:DLL 'DLL-Filename'	Not available																																			
SENSe:PLUGIn:INFO? Query only	Not available																																			
SENSe:VOLTagE:RANGe<ch>:VALue <nu> <ch> = 1 ... 16 Alias SENSe:VOLTagE:RANGe <nu> SENSe:VOLTagE:RANGe2 <nu> Alias SENSe:VOLTagE:RANGe:UPPer <nu> SENSe:VOLTagE:RANGe2:UPPer <nu> Alias SENSe:VOLTagE:RANGe:LOWer <nu> SENSe:VOLTagE:RANGe2:LOWer <nu> Response to query is the nominal value of the range without unit. Analog Dual channel instruments <nu> 18 mV: 0.0 ... 0.01979 V 0.018 30 mV: 0.0198 ... 0.03299 V 0.03 60 mV: 0.033 ... 0.06599 V 0.06 100 mV: 0.066 ... 0.10999 V 0.1 180 mV: 0.11 ... 0.19799 V 0.18 300 mV: 0.198 ... 0.32999 V 0.3 600 mV: 0.33 ... 0.65999 V 0.6 1000 mV: 0.66 ... 1.09999 V 1 1800 mV: 1.1 ... 1.97999 V 1.8 3 V: 1.98 ... 3.29999 V 3 6 V: 3.3 ... 6.59999 V 6 10 V: 6.6 ... 10.9999 V 10 18 V: 11.0 ... 19.7999 V 18 30 V: 19.8 ... 32.9999 V 30 60 V: 33.0 ... 65.9999 V 60 100 V: 66.0 ... 110.000 V 100 Analog Multi channel instrument <nu> UPV-B48 und UPP R200 mV: 0.00 ... 0.21999 V 0.2 R800 mV: 0.22 ... 0.87999 V 0.8 R3 V: 0.88 ... 3.29999 V 3 R12 V: 3.3 ... 13.19999 V 12 R50 V: 13.2 ... 55.00000 V 50	Note	Emulation for analog 8 channel Instrument. The following table gives the ranges on the UPP corresponding to the UPV ranges. A command with nonexisting range value sets the next higher range: <table border="1"> <thead> <tr> <th>UPV range,</th> <th>UPP</th> </tr> </thead> <tbody> <tr><td>0.018</td><td>0.2</td></tr> <tr><td>0.03</td><td>0.2</td></tr> <tr><td>0.06</td><td>0.2</td></tr> <tr><td>0.1</td><td>0.2</td></tr> <tr><td>0.18</td><td>0.2</td></tr> <tr><td>0.3</td><td>0.8</td></tr> <tr><td>0.6</td><td>0.8</td></tr> <tr><td>1</td><td>3</td></tr> <tr><td>1.8</td><td>3</td></tr> <tr><td>3</td><td>3</td></tr> <tr><td>6</td><td>12</td></tr> <tr><td>10</td><td>12</td></tr> <tr><td>18</td><td>50</td></tr> <tr><td>30</td><td>50</td></tr> <tr><td>60</td><td>---</td></tr> <tr><td>100</td><td>---</td></tr> </tbody> </table>	UPV range,	UPP	0.018	0.2	0.03	0.2	0.06	0.2	0.1	0.2	0.18	0.2	0.3	0.8	0.6	0.8	1	3	1.8	3	3	3	6	12	10	12	18	50	30	50	60	---	100	---
UPV range,	UPP																																			
0.018	0.2																																			
0.03	0.2																																			
0.06	0.2																																			
0.1	0.2																																			
0.18	0.2																																			
0.3	0.8																																			
0.6	0.8																																			
1	3																																			
1.8	3																																			
3	3																																			
6	12																																			
10	12																																			
18	50																																			
30	50																																			
60	---																																			
100	---																																			

<p>SENSe2:FUNcTion</p> <p>(parameters available for Analog Dual channel Instrument Analog Multichannel Instruments Digital Audio Instrument in Audio Data Mode I²S Instrument USI Dual Chan Instrument USI 8 Chan Instrument) OFF IPEAK or IPEAK</p> <p>(additional parameter available for Digital Audio Instrument in Jitter/Phase Mode) PHASetoref</p> <p>(additional parameter available for Digital Audio Instrument in Common/Input Mode) DIGinpampl</p>	Partly supported	PHASetoref and DIGinpampl are not available
SENSe3:FREQUency:SETTling:COUNT <n>	Not available	
<p>SENSe3:FREQUency:SETTling:MODE</p> <p>OFF EXPonential FLAT AVERAge</p>	Partly supported	EXPonential, FLAT, AVERAge are not available
SENSe3:FREQUency:SETTling:RESolution <nu>	Not available	
SENSe3:FREQUency:SETTling:TOLerance <nu> PCT	Not available	
SENSe3:FREQUency:SETTling:TOUT <nu>	Not available	
SENSe3:PHASe:SETTling:COUNT <n>	Not available	
<p>SENSe3:PHASe:SETTling:MODE</p> <p>OFF EXPonential FLAT AVERAge</p>	Partly supported	EXPonential, FLAT, AVERAge are not available
SENSe3:PHASe:SETTling:RESolution <nu>	Not available	
SENSe3:PHASe:SETTling:TOUT <nu>	Not available	
<p>SENSe8:FUNcTion</p> <p>OFF ON</p>	Partly supported	
<p>SOURce:AM:MODE</p> <p>OFF SINusoid BURSt</p>	Partly supported	SINusoid, BURSt are not available
<p>SOURce:BANDwidth</p> <p>Alias SOURce:BWIDth F30 F100</p>	Not available	
<p>SOURce:DIM</p> <p>DIMA DIMB</p>	Not available	

DIMS		
SOURce:FRAMePhase <nu> Alias SOURce:DIGital:FRAMePhase <nu> <n> = -64 UI ... 64 UI	Not available	UPV-K22
SOURce:FREQUency:AM <nu>	Not available	
SOURce:FUNcTion Alias SOURce:FUNcTion:SHAPE SINusoid STEReo MULtisine BURSt S2Pulse MDISt DFD DIM RANDom ARBitrary POLarity MODulation or FM DC SQUare PLAY PLYAnlr or O131 CHIRp	Partly supported	The generator functions S2Pulse, DIM, MODulation or FM, SQUare, PLYAnlr or O131 and CHIRp are not available
SOURce:FUNcTion:MODE Alias especially for Multisine SOURce:MULtisine:MODE for Multisinus: EQUalvoltage DEFinedvoltage for DFD: IEC268 IEC118 for Modulation: AM FM	Partly supported	AM and FM are not available
SOURce:IMPairment ON OFF	Partly supported	UPV-K22 ON is not available
SOURce:INTerval <nu> Alias SOURce:INTerval:CW <nu> Alias SOURce:INTerval:FIXed<nu>	Not available	
SOURce:LOOP:CHANnel OFF CH1	Not available	UPV-K6 oder K9

CH2 STEReo CROSSsed		
SOURce:LOOP:GAIN <nu>	Not available	UPV-K6 oder K9
SOURce:LOWDistortion ON OFF	Partly supported	UPV-B1 ON is not available
SOURce:PLAY:DELay<i> <nu> <i>: 1 = Ch1, 2 = Ch2	Not available	
SOURce:PROTOcol:AZERo ONCE or EXEC ONCE or EXEC are not necessary Response to query is always OFF	Partly supported	UPP-B2 with UPP-K21 required
SOURce:PROTOcol:CH<x>:BYTE<y> <n> <x> und <y> are suffixes <x> = Channel 1 or 2 <y> = Byte 0 ... 3 <y> = Byte 0 ... 4 <n> = Value 0 ... 255	Partly supported	UPP-B2 with UPP-K21 required On the UPP, the channel suffix <x> is ignored in the SCPIcommand "SOURce:PROTOcol:CH<x>: BYTE<y> <n>". Thus on the UPP, both channels are set identically.
SOURce:PROTOcol:CHANnels CH2Is1 SPLit	Partly supported	SPLit is not available
SOURce:PROTOcol:CRC ON OFF	Partly supported	UPP-B2 with UPP-K21 required
SOURce:PROTOcol:FILE 'filename'	Partly supported	UPP-B2 with UPP-K21 required
SOURce:PROTOcol:MODE AUTomatic AUTOmatic PROFessional CONSUMER FILE	Partly supported	UPP-B2 with UPP-K21 required
SOURce:PROTOcol:NUMerical:BYTe <n> <n> = 0 ... 3 <n> = 0 ... 4	Partly supported	UPP-B2 with UPP-K21 required
SOURce:PROTOcol:NUMerical:CH <n> <n> = 1 2	Not available	UPV-K21
SOURce:PROTOcol:NUMerical:VALue <n>	Partly supported	UPP-B2 with UPP-K21 required

<n> = 0 ... 255		
SOURce:PROTOcol:VALidity NONE CH1And2	Partly supported	UPP-B2 with UPP-K21 required
SOURce:PTORef Alias SOURce:DIGital:PHASetorefvar OFF VALue	Partly supported	Different hardware VALue is not available
SOURce:RANDom:DOMain FREQUency TIME	Partly supported	TIME is not available
SOURce:RANDom:PDF GAUSSian TRIangle RECTangle	Not available	
SOURce:REFerence Alias SOURce:DIGital:REFerence AZERo AONE	Not available	Different hardware
SOURce:SRCMode Alias SOURce:DIGital:SRCMode Alias SOURce:DIGital:FEED JITTer COMMon	Not available	UPV-K22
SOURce:SWEep:INTerval:HALT START VALue MUTE	Not available	
SOURce:SWEep:INTerval:HALT:VALue <nu>	Not available	
SOURce:SWEep:INTerval:POINTs <n>	Not available	
SOURce:SWEep:INTerval:SPACing LINSteps LOGSteps LINPoints LOGPoints	Not available	
SOURce:SWEep:INTerval:START <nu> Alias SOURce:INTerval:START <nu>	Not available	
SOURce:SWEep:INTerval:STEP <nu>	Not available	
SOURce:SWEep:INTerval:STOP <nu> Alias SOURce:INTerval:STOP <nu>	Not available	
SOURce:SWEep:ONTime:HALT START VALue MUTE	Not available	

SOURce:SWEEp:ONTime:HALT:VALue <nu>	Not available	
SOURce:SWEEp:ONTime:POINts <n>	Not available	
SOURce:SWEEp:ONTime:SPACing LINSteps LOGSteps LINPoints LOGPoints	Not available	
SOURce:SWEEp:ONTime:STARt <nu> Alias SOURce:ONTime:STARt <nu>	Not available	
SOURce:SWEEp:ONTime:STEP <nu>	Not available	
SOURce:SWEEp:ONTime:STOP <nu> Alias SOURce:ONTime:STOP <nu>	Not available	
SOURce:SWEEp:XAXis FREQuency VOLTage ONTIme INTervall or INTervall PHASe	Partly supported	ONTime and INTerval are not available
SOURce:SWEEp:ZAXis OFF FREQuency VOLTage ONTIme INTervall or INTervall	Partly supported	ONTime and INTerval are not available
SOURce:SYNC:TO Alias SOURce:SYNC:SOURce Alias SOURce:DIGital:SYNC:TO Alias SOURce:DIGital:SYNC:SOURce For Digital Audio UPV: INTClock or GCLock AINPut AUXinput or RINPut SINPut SINVinput For Digital Audio UPP: INTClock or GCLock AINPut EDARs ECLK EICLK For I2S Board: INTern EXTMasterclock EXTWordclock For USI Dual Chan ICLock	Note	AUXinput mapped to EDARs For option UPP-B2 the Auxin signal is applied at the 9-pin D-Sub connector "DIGITAL BAL" For option UPP-B4 the "Sync In" BNC input must be used. SINPut mapped to ECLK SINVinput mapped to EICLK For option UPP-B2 and UPP-B4 the Sync signal will be applied at the "Sync In" BNC input.

EMASterclock EFSYnc EFAMon EFBCIk For HDMI: HINTern HAUXinput		
SOURce:VOLTage:AM <nu>	Not available	
SOURce:VOLTage:LOWLevel <nu>	Not available	
SWITcher:CONNection COM USB	Not available	
SYSTem:PLUGin:CONFig:DSTRing 'xxx'	Not available	
SYSTem:PLUGin:CONFig:SHOW ON OFF	Not available	
SYSTem:PLUGin:DISPlay:SHOW ON OFF	Not available	
SYSTem:PLUGin:DLL 'DLL-Filename'	Not available	
SYSTem:PLUGin:INFO? Query only	Not available	
TRACe:Subsys<i>:LOAD:AX? TRACe:Subsys<i>:LOAD:AY? TRACe:Subsys<i>:LOAD:BX? TRACe:Subsys<i>:LOAD:BY? Query only: Alias TRACe:LOAD<i>:SWP_AX? TRACe:LOAD<i>:SWP_AY? TRACe:LOAD<i>:SWP_BX? TRACe:LOAD<i>:SWP_BY? Alias TRACe:LOAD<i>:SWE_AX? TRACe:LOAD<i>:SWE_AY? TRACe:LOAD<i>:SWE_BX? TRACe:LOAD<i>:SWE_BY? <i> = 1 ... 4 TRACe:LOAD<i>:BAR_AX? TRACe:LOAD<i>:BAR_AY? TRACe:LOAD<i>:BAR_BX? TRACe:LOAD<i>:BAR_BY? TRACe:LOAD<i>:FFT_AX? TRACe:LOAD<i>:FFT_AY? TRACe:LOAD<i>:FFT_BX? TRACe:LOAD<i>:FFT_BY? <i> = 1 und 2 TRACe:LOAD<i>:WAV_AX?	Partly supported	Subsystem PESQ and IMPR are not available on UPP

TRACe:LOAD<i>:WAV_AY? TRACe:LOAD<i>:WAV_BX? TRACe:LOAD<i>:WAV_BY? <i> = 1 TRACe:LOAD<i>:IMPR_AX? TRACe:LOAD<i>:IMPR_AY? TRACe:LOAD<i>:IMPR_BX? TRACe:LOAD<i>:IMPR_BY?		
TRIGger:PLAYbefmeas ON OFF	Not available	UPV-K9

Remote Control Commands arranged in Categories

SCPI command	Compatibility	Remarks
ADJust:JITTer:AUTO Alias CALibrate:JITTer:AUTO ONCE EXEC Response to query is always OFF	Not available	UPV-K22
ADJust:LDG:AUTO Alias CALibrate:LDG:AUTO ONCE EXEC Response to query is always OFF	Not available	UPV-B1
ADJust:SECGen:AUTO Alias CALibrate:SECGen:AUTO ONCE EXEC Response to query is always OFF	Not available	UPV-B3
ADJust:ZERO Alias ADJust:ZERO:AUTO Alias CALibrate:ZERO:AUTO Alias CALibrate:ZERO OFF ON ONCE EXEC	Not available	
AUXiliaries:PHONe Alias SYSTem:PHONe ON OFF	Not available	Different hardware
AUXiliaries:PHPermanent ON OFF	Not available	Different hardware
AUXiliaries:TRIGger:INPut:EDGE RISing FALLing	Not available	Different hardware
AUXiliaries:TRIGger:INPut:ENable ON OFF	Not available	Different hardware
AUXiliaries:TRIGger:INPut:MODE MSINgle MCONtstop MStArt	Not available	Different hardware
AUXiliaries:TRIGger:OUTPut:EDGE	Not available	Different hardware

RISing FALLing		
AUXiliaries:TRIGger:OUTPut:ENable ON OFF	Not available	Different hardware
AUXiliaries:TRIGger:OUTPut:FREQuency <nu>	Not available	Different hardware
AUXiliaries:TRIGger:OUTPut:MODE MEASuring AUXClockout	Not available	Different hardware
INPut:ALIGNment RISing FALLing CH1Hch2l CH1Lch2h CH1Rch2f CH1Fch2r	Not available	UPV-B42
INPut:BSLope RISing FALLing	Not available	UPV-B42
INPut:CHMode MONO STEReo	Not available	UPV-K421
INPut:CLKFrequency <nu> 512..12800 kHz	Not available	UPV-K421
INPut:CLKSource INTern EXTern	Not available	UPV-K421
INPut:CLOCK CONTInous GATed	Not available	UPV-B42
INPut:CODing NONE ALAW ULAW	Not available	UPV-B42
INPut:DTYCycle <nu> 10% ... 90%	Not available	UPV-K421
INPut:DWNFactor M16 M32 M64 M128 M256	Not available	UPV-K421
INPut:FOFFset <n> <n> = -Wordlength ... Wordlength-1	Not available	UPV-B42
INPut:FSYNc:FREQuency? Query only	Not available	UPV-B42
INPut:FWIDth ONEBit ONESlot	Not available	UPV-B42

SQUare VALue		
INPut:FWIDth:VALue <n>	Not available	UPV-B42
INPut:INPut INtern DSUB PROBE	Not available	UPV-B42
INPut:LBITs <n> <n> = 0 ... depends of Slot Length	Not available	UPV-B42
INPut:LOGVoltage MV0900 MV1200 MV1500 MV1800 MV2500 MV3300	Not available	UPV-B42
INPut:MCHSource<ch> RX1Data RX2Data RX3Data RX4Data <ch> = 1 ... 8	Not available	UPV-B42
INPut:MRATio <n> <n> = 16 ... 768	Not available	UPV-B42
INPut:MSAMplefrequency ON OFF	Not available	UPV-B42
INPut:MSOource INCLock PROBE	Not available	UPV-B42
INPut:NOSLots <n> <n> = 1 ... 256	Not available	UPV-B42
INPut:RATio <n> <n> = 2 ... 12	Not available	UPV-B42
INPut:RESYnc ONCE EXEC	Not available	UPV-B42
INPut:SDElay <nu> <nu> -9.824 ... 8.824 ns	Not available	UPV-B42
INPut:SLOTs<ch> <String> <ch> = 1 ... 8	Not available	UPV-B42
INPut:SLTLength <n>	Not available	UPV-B42

<n> = 8 ... 256		
INPut:SPFRame <n> <n> = 1 ... 32	Not available	UPV-B42
INPut:SYNCto ICLock EMASterclock EFSYnc EFAMon EFBCIk	Not available	UPV-B42
INPut:TIMEout <nu> <nu> 1 ... 500 ms	Not available	UPV-B42
MMEMory:LOAD:INTerval 'filename' Alias MMEMory:LOAD:LIST INTerv, 'filename'	Not available	
MMEMory:LOAD:ONTime 'filename' Alias MMEMory:LOAD:LIST ONTime, 'filename'	Not available	
MMEMory:STORE:PWAVEform 'filename'	Not available	UPV-K61, K62, K63
OUTPut:AUXiliary:OUTPut Alias OUTPut:AUXiliary:FEED Alias OUTPut:REFerence:OUTPut Alias OUTPut:REFerence:FEED Alias OUTPut:DIGital:AUXiliary:OUTPut Alias OUTPut:DIGital:AUXiliary:FEED Alias OUTPut:DIGital:REFerence:OUTPut Alias OUTPut:DIGital:REFerence:FEED AOUTput AINPut AINReclock RGENerator AUXin	Not available	
OUTPut:BCLock:JITAmplitude <nu>	Not available	UPV-K22
OUTPut:BCLock:JITFrequency <nu>	Not available	UPV-K22
OUTPut:BSLope RISing FALLing	Not available	UPV-B42
OUTPut:CLOCK CONTinous GATed	Not available	UPV-B42
OUTPut:CODing NONE ALAW ULAW	Not available	UPV-B42

OUTPut:FOFFset <n>	Not available	UPV-B42
OUTPut:FSLope RISing FALLing	Not available	UPV-B42
OUTPut:FWIDth ONEBit ONESlot SQUare VALue	Not available	UPV-B42
OUTPut:FWIDth:VALue <n>	Not available	UPV-B42
OUTPut:INTClockfreq <nu> Alias OUTPut:DIGital:INTClockfreq <nu>	Not available	
OUTPut:LBITs <n>	Not available	UPV-B42
OUTPut:LOGVoltage MV0900 MV1200 MV1500 MV1800 MV2500 MV3300	Not available	UPV-B42
OUTPut:MCLock:JITAmplitude <nu>	Not available	UPV-K22
OUTPut:MCLock:JITFrequency <nu>	Not available	UPV-K22
OUTPut:MRATio <n>	Not available	UPV-B42
OUTPut:MSAMplefrequency ON OFF	Not available	UPV-B42
OUTPut:NOSLots <n>	Not available	UPV-B42
OUTPut:RATio <n> <n> = 2 ... 12	Not available	UPV-B42
OUTPut:RESYnc ONCE EXEC	Not available	UPV-B42
OUTPut:SLCOffset <n>	Not available	UPV-B42
OUTPut:SLCSlope RISing FALLing	Not available	UPV-B42
OUTPut:SLCWidth ONEBit SQUare VALue	Not available	UPV-B42
OUTPut:SLCWidth:VALue <n>	Not available	UPV-B42
OUTPut:SLTLength <n>	Not available	UPV-B42
OUTPut:SPFRame <n>	Not available	UPV-B42
OUTPut:SYNC:OUTPut Alias OUTPut:SYNC:FEED Alias OUTPut:DIGital:SYNC:OUTPut	Not available	

Alias OUTPut:DIGital:SYNC:FEED ADOutput ADINput AXINput GSYPll JRFPII AXOutput SYINput ICLock or INTClock		
OUTPut:SYNC:TYPE Alias OUTPut:DIGital:SYNC:TYPE WCLock BCLock	Not available	Different hardware
OUTPut:TXData<i> "String" <i> = 1 ... 4	Not available	UPV-B42
OUTPut:UNBalanced:OUTPut Alias OUTPut:UNBalanced:FEED Alias OUTPut:DIGital:UNBalanced:OUTPut Alias OUTPut:DIGital:UNBalanced:FEED AOUTput AINPut	Not available	Different hardware
SENSe:FUNcTion:FFT:CMpFactor <n> <n> = 1,2,4,8,16,32,64,128,256,512,1024 Query: If undersampling is turned off, query returns 1	Not available	UPV-K6
SENSe:FUNcTion:FFT:SPAN R2 R4 R8 R16 R32 R64 R128 R256 R... von Ratio Query Only: Response to query of the alias command CALCulate:TRANsform:FREQuency:SPAN? is a float value in Hz, e.g. "93,75 Hz"	Not available	UPV-K6
SENSe:FUNcTion:PEAQ:DELDetect <nu>	Not available	UPV-K61, K62, K63
SENSe:FUNcTion:PEAQ:VERSion BASic ADVanced	Not available	UPV-K61, K62, K63
SENSe:FUNcTion:PESQ:ACCording PP862	Not available	UPV-K61, K62, K63

PPSI862 or PSILence PPSP862 or PSPeach MP8621 MP8622 MPSI8621 MPSP8621 MPSI8622 MPSP8622		
SENSe:FUNcTion:PESQ:AVGDelay? Alias SENSe:FUNcTion:PEAQ:AVGDelay? Alias SENSe:FUNcTion:POLQa:AVGDelay? Query Only	Not available	UPV-K61, K62, K63
SENSe:FUNcTion:PESQ:DEGLLevel? Alias SENSe:FUNcTion:PEAQ:DEGLLevel? Alias SENSe:FUNcTion:POLQa:DEGLLevel? Query Only	Not available	UPV-K61, K62, K63
SENSe:FUNcTion:PESQ:REFLevel? Alias SENSe:FUNcTion:PEAQ:REFLevel? Alias SENSe:FUNcTion:POLQa:REFLevel? Query Only	Not available	UPV-K61, K62, K63
SENSe:FUNcTion:POLQa:ATTenuation? Query Only	Not available	UPV-K61, K62, K63
SENSe:FUNcTion:POLQa:BAND NARRow WIDE	Not available	UPV-K61, K62, K63
SENSe:FUNcTion:POLQa:DEGSpratio? Query Only	Not available	UPV-K61, K62, K63
SENSe:FUNcTion:POLQa:GAIN <nu>	Not available	UPV-K61, K62, K63
SENSe:FUNcTion:POLQa:MAXDelay? Query Only	Not available	UPV-K61, K62, K63
SENSe:FUNcTion:POLQa:MINDelay? Query Only	Not available	UPV-K61, K62, K63
SENSe:FUNcTion:POLQa:REFSpratio? Query Only	Not available	UPV-K61, K62, K63
SENSe:FUNcTion:POLQa:SNRDeg? Query Only	Not available	UPV-K61, K62, K63
SENSe:FUNcTion:POLQa:SNRRef? Query Only	Not available	UPV-K61, K62, K63

SENSe:FUNcTion:REcOrd:BPS AUTO L8 L16 L32	Not available	
SENSe:FUNcTion:REcOrd:FILE 'filename' Alias SENSe:FUNcTion:REcOrd:FILE 'filename'	Not available	
SENSe:FUNcTion:REcOrd:FLENgth? Query only	Not available	
SENSe:FUNcTion:REcOrd:LENgth <nu>	Not available	
SENSe:FUNcTion:REcOrd:TRIGger:LEVEl <nu>	Not available	
SENSe:FUNcTion:REcOrd:TRIGger:PRE <nu>	Not available	
SENSe:FUNcTion:REcOrd:TRIGger:SLOPe RISing FALLing	Not available	
SENSe:FUNcTion:REcOrd:TRIGger:SOURce CH1 CH2 MANual GENBurst	Not available	
SENSe:JITTer:REFerence Alias SENSe:DIGital:JITTer:REFerence Alias SENSe:DIGital:SYNC:REFerence INTClock or GCLock REFPII or PLLVari	Not available	UPV-K22
SENSe:NOTCh:FREQuency <nu> Alias SENSe:NOTCh:FREQuency:FIXed <nu>	Not available	Different hardware
SENSe:NOTCh:FREQuency:MODE VALue GENTrack	Not available	Different hardware
SENSe:PLUGin:CONFig:DSTRing 'xxx'	Not available	
SENSe:PLUGin:CONFig:SHOW ON OFF	Not available	
SENSe:PLUGin:DLL 'DLL-Filename'	Not available	
SENSe:PLUGin:INFO? Query only	Not available	
SENSe3:FREQuency:SETTling:COUNT <n>	Not available	
SENSe3:FREQuency:SETTling:RESolution <nu>	Not available	

SENSe3:FREQUency:SETTling:TOLerance <nu> PCT	Not available	
SENSe3:FREQUency:SETTling:TOUT <nu>	Not available	
SENSe3:PHASe:SETTling:COUnT <n>	Not available	
SENSe3:PHASe:SETTling:RESolution <nu>	Not available	
SENSe3:PHASe:SETTling:TOUT <nu>	Not available	
SOURce:BANdwidth Alias SOURce:BWIDth F30 F100	Not available	
SOURce:DiM DIMa DIMB DIMs	Not available	
SOURce:FRAMephase <nu> Alias SOURce:DiGital:FRAMephase <nu> <n> = -64 UI ... 64 UI	Not available	UPV-K22
SOURce:FREQUency:AM <nu>	Not available	
SOURce:INterval <nu> Alias SOURce:INterval:CW <nu> Alias SOURce:INterval:FiXed<nu>	Not available	
SOURce:LOOP:CHANnel OFF CH1 CH2 STEReo CROSSsed	Not available	UPV-K6 oder K9
SOURce:LOOP:GAIN <nu>	Not available	UPV-K6 oder K9
SOURce:PLAY:DELay<i> <nu> <i>: 1 = Ch1, 2 = Ch2	Not available	
SOURce:PROTOcol:NUMerical:CH <n> <n> = 1 2	Not available	UPV-K21
SOURce:RANDom:PDF GAUSSian TRIangle RECTangle	Not available	
SOURce:REFerence Alias SOURce:DiGital:REFerence AZERo AONE	Not available	Different hardware

SOURce:SRCMode Alias SOURce:DIGital:SRCMode Alias SOURce:DIGital:FEED JITTer COMMon	Not available	UPV-K22
SOURce:SWEep:INTerval:HALT START VALue MUTE	Not available	
SOURce:SWEep:INTerval:HALT:VALue <nu>	Not available	
SOURce:SWEep:INTerval:POINts <n>	Not available	
SOURce:SWEep:INTerval:SPACing LINSteps LOGSteps LINPoints LOGPoints	Not available	
SOURce:SWEep:INTerval:START <nu> Alias SOURce:INTerval:START <nu>	Not available	
SOURce:SWEep:INTerval:STEP <nu>	Not available	
SOURce:SWEep:INTerval:STOP <nu> Alias SOURce:INTerval:STOP <nu>	Not available	
SOURce:SWEep:ONTime:HALT START VALue MUTE	Not available	
SOURce:SWEep:ONTime:HALT:VALue <nu>	Not available	
SOURce:SWEep:ONTime:POINts <n>	Not available	
SOURce:SWEep:ONTime:SPACing LINSteps LOGSteps LINPoints LOGPoints	Not available	
SOURce:SWEep:ONTime:START <nu> Alias SOURce:ONTime:START <nu>	Not available	
SOURce:SWEep:ONTime:STEP <nu>	Not available	
SOURce:SWEep:ONTime:STOP <nu> Alias SOURce:ONTime:STOP <nu>	Not available	
SOURce:VOLTage:AM <nu>	Not available	
SOURce:VOLTage:LOWLevel <nu>	Not available	
SWITcher:CONNection COM USB	Not available	
SYSTem:PLUGin:CONFig:DSTRing 'xxx'	Not available	

SYSTem:PLUGin:CONFig:SHOW ON OFF	Not available																																			
SYSTem:PLUGin:DISPlay:SHOW ON OFF	Not available																																			
SYSTem:PLUGin:DLL 'DLL-Filename'	Not available																																			
SYSTem:PLUGin:INFO? Query only	Not available																																			
TRIGger:PLAYbefmeas ON OFF	Not available	UPV-K9																																		
SENSe:VOLTagE:RANGe<ch>:VALue <nu> <ch> = 1 ... 16 Alias SENSe:VOLTagE:RANGe <nu> SENSe:VOLTagE:RANGe2 <nu> Alias SENSe:VOLTagE:RANGe:UPPer <nu> SENSe:VOLTagE:RANGe2:UPPer <nu> Alias SENSe:VOLTagE:RANGe:LOWer <nu> SENSe:VOLTagE:RANGe2:LOWer <nu> Response to query is the nominal value of the range without unit. Analog Dual channel instruments <nu> 18 mV: 0.0 ... 0.01979 V 0.018 30 mV: 0.0198 ... 0.03299 V 0.03 60 mV: 0.033 ... 0.06599 V 0.06 100 mV: 0.066 ... 0.10999 V 0.1 180 mV: 0.11 ... 0.19799 V 0.18 300 mV: 0.198 ... 0.32999 V 0.3 600 mV: 0.33 ... 0.65999 V 0.6 1000 mV: 0.66 ... 1.09999 V 1 1800 mV: 1.1 ... 1.97999 V 1.8 3 V: 1.98 ... 3.29999 V 3 6 V: 3.3 ... 6.59999 V 6 10 V: 6.6 ... 10.9999 V 10 18 V: 11.0 ... 19.7999 V 18 30 V: 19.8 ... 32.9999 V 30 60 V: 33.0 ... 65.9999 V 60 100 V: 66.0 ... 110.000 V 100 Analog Multi channel instrument <nu> UPV-B48 und UPP R200 mV: 0.00 ... 0.21999 V 0.2 R800 mV: 0.22 ... 0.87999 V 0.8 R3 V: 0.88 ... 3.29999 V 3 R12 V: 3.3 ... 13.19999 V 12 R50 V: 13.2 ... 55.00000 V 50	Note	Emulation for analog 8 channel Instrument. The following table gives the ranges on the UPP corresponding to the UPV ranges. A command with nonexisting range value sets the next higher range: <table border="1"> <thead> <tr> <th>UPV range,</th> <th>UPP</th> </tr> </thead> <tbody> <tr><td>0.018</td><td>0.2</td></tr> <tr><td>0.03</td><td>0.2</td></tr> <tr><td>0.06</td><td>0.2</td></tr> <tr><td>0.1</td><td>0.2</td></tr> <tr><td>0.18</td><td>0.2</td></tr> <tr><td>0.3</td><td>0.8</td></tr> <tr><td>0.6</td><td>0.8</td></tr> <tr><td>1</td><td>3</td></tr> <tr><td>1.8</td><td>3</td></tr> <tr><td>3</td><td>3</td></tr> <tr><td>6</td><td>12</td></tr> <tr><td>10</td><td>12</td></tr> <tr><td>18</td><td>50</td></tr> <tr><td>30</td><td>50</td></tr> <tr><td>60</td><td>---</td></tr> <tr><td>100</td><td>---</td></tr> </tbody> </table>	UPV range,	UPP	0.018	0.2	0.03	0.2	0.06	0.2	0.1	0.2	0.18	0.2	0.3	0.8	0.6	0.8	1	3	1.8	3	3	3	6	12	10	12	18	50	30	50	60	---	100	---
UPV range,	UPP																																			
0.018	0.2																																			
0.03	0.2																																			
0.06	0.2																																			
0.1	0.2																																			
0.18	0.2																																			
0.3	0.8																																			
0.6	0.8																																			
1	3																																			
1.8	3																																			
3	3																																			
6	12																																			
10	12																																			
18	50																																			
30	50																																			
60	---																																			
100	---																																			

<p>SOURce:SYNC:TO Alias SOURce:SYNC:SOURce Alias SOURce:DIGital:SYNC:TO Alias SOURce:DIGital:SYNC:SOURce</p> <p>For Digital Audio UPV: INTClock or GCLock AINPut AUXinput or RINPut SINPut SINVinput</p> <p>For Digital Audio UPP: INTClock or GCLock AINPut EDARs ECLK EICLk</p> <p>For I2S Board: INTern EXTMasterclock EXTWordclock</p> <p>For USI Dual Chan ICLock EMASterclock EFSYnc EFAMon EFBCIk</p> <p>For HDMI: HINTern HAUXinput</p>	<p>Note</p>	<p>AUXinput mapped to EDARs For option UPP-B2 the Auxin signal is applied at the 9-pin D-Sub connector "DIGITAL BAL" For option UPP-B4 the "Sync In" BNC input must be used.</p> <p>SINPut mapped to ECLK SINVinput mapped to EICLk For option UPP-B2 and UPP-B4 the Sync signal will be applied at the "Sync In" BNC input.</p>
<p>TRACe:Subsys<i></i>:LOAD:AX? TRACe:Subsys<i></i>:LOAD:AY? TRACe:Subsys<i></i>:LOAD:BX? TRACe:Subsys<i></i>:LOAD:BY?</p> <p>Query only:</p> <p>Alias TRACe:LOAD<i></i>:SWP_AX? TRACe:LOAD<i></i>:SWP_AY? TRACe:LOAD<i></i>:SWP_BX? TRACe:LOAD<i></i>:SWP_BY? Alias TRACe:LOAD<i></i>:SWE_AX? TRACe:LOAD<i></i>:SWE_AY? TRACe:LOAD<i></i>:SWE_BX? TRACe:LOAD<i></i>:SWE_BY? <i></i> = 1 ... 4</p> <p>TRACe:LOAD<i></i>:BAR_AX? TRACe:LOAD<i></i>:BAR_AY? TRACe:LOAD<i></i>:BAR_BX?</p>	<p>Partly supported</p>	<p>Subsystem PESQ and IMPR are not available on UPP</p>

<p>TRACe:LOAD<i>:BAR_BY?</p> <p>TRACe:LOAD<i>:FFT_AX? TRACe:LOAD<i>:FFT_AY? TRACe:LOAD<i>:FFT_BX? TRACe:LOAD<i>:FFT_BY? <i> = 1 und 2</p> <p>TRACe:LOAD<i>:WAV_AX? TRACe:LOAD<i>:WAV_AY? TRACe:LOAD<i>:WAV_BX? TRACe:LOAD<i>:WAV_BY? <i> = 1</p> <p>TRACe:LOAD<i>:IMPR_AX? TRACe:LOAD<i>:IMPR_AY? TRACe:LOAD<i>:IMPR_BX? TRACe:LOAD<i>:IMPR_BY?</p>		
<p>AUXiliaries:AAUXout DC AUDM1 or GENerator</p>	Partly supported	AUDM1 or GENerator are not available
<p>AUXiliaries:SPEaker Alias AUXiliaries:SPEaker:STATe ON OFF</p>	Partly supported	OFF is not available
<p>AUXiliaries:SPEaker:CHANnel Alias SYSTem:SPEaker:CHANnel STEReo CH1 CH2</p>	Partly supported	Signal routed to BNC output Monitor 1 and Monitor 2 STEReo is not available
<p>AUXiliaries:SPEaker:SOURce Alias SYSTem:SPEaker:SOURce INPut FUNction GENerator DC</p>	Partly supported	Different hardware GENerator is not available
<p>INPut:BANDwidth:MODE B22 B40 B80 B250</p>	Partly supported	B250 not available
<p>INPut:COMMon Alias INPut:LOW FLOat GROund</p>	Partly supported	Starting with serial numbers 120100, 140100, 180100, INPut2:COMMon FLOat is accepted, otherwise INPut2:COMMon GROund is accepted.
<p>INPut:IMPedance R300 R600 R200K</p>	Partly supported	Only available starting with serial numbers 120100, 140100, 180100. R300 is not available

<p>INPut:SAMPlE:FREQUency:MODE Param. for Anlr.-Instr. DIGITAL: AUTO AUTo F32 F44 F48 F88 F96 F176 F192 VALue CHStatus</p> <p>INPut:SAMPlE:FREQUency:MODE Param. for Anlr.-Instr. I2SBOARD: AUTO AUTo F08 F11 F16 F22 F32 F44 F48 F88 F96 F176 F192 F384 VALue</p>	Partly supported	CHStatus and F384 are not available
<p>INPut:TYPE For UPV in ANLG Instrument BALanced GEN1 GEN2</p> <p>For UPV and UPP in Digital Audio Instrument DBALanced or AESebu DUNBalanced or SPDif OPTical INTErn</p>	Partly supported	GEN1, GEN2 are not available
<p>INPut2:COMMon Alias INPut2:LOW FLOat GROund</p>	Partly supported	Starting with serial numbers 120100, 140100, 180100, INPut2:COMMon FLOat is accepted, otherwise INPut2:COMMon GROund is accepted.
<p>INPut2:IMPedance R300 R600 R200K</p>	Partly supported	Only available starting with serial numbers 120100, 140100, 180100. R300 is not available
<p>INPut2:TYPE BALanced GEN1 GEN2</p>	Partly supported	GEN1, GEN2 are not available
<p>INSTrument</p>	Partly supported	UPV-K22

<p>Alias INSTrument:SElect ANLG or A25 DIG or D48 I2SBoard or I2S IMPairment U2Channel HDMI</p> <p>Alias INSTrument:NSElect 1 2 3 4 5 6 11 1 = ANLG 2 or 3 = DIG 4 = I2SBoard 5 = IMPairment 6 = U2Channel 7 = not used by Generator occupied by Analyzer (U8Chan) 8 = not used by Generator occupied by Analyzer (A8Channel) 9 = not used by Generator occupied by Analyzer (A16Channel) 10 = not used by Generator occupied by Analyzer (DIGBitstream) 11 = HDMI</p>		IMPairment und U2Channel are not available
<p>INSTrument2 Alias INSTrument2:SElect</p> <p>ANLG or A22 ANLG is Alias to A8Channel DIG or D48 I2Sboard or I2S U2Channel U8Channel A8Channel A16Channel DIGBitstream HDMI</p> <p>Alias INSTrument2:NSElect 1 2 3 4 6 7 8 9 10 11 1 = ANLG 1 is Alias to 8 2 or 3 = DIG 4 = I2Sboard 5 = not used for Analyzer occupied by Generator (IMPairment) 6 = U2Channel 7 = U8Channel 8 = A8Channel 9 = A16Channel 10 = DIGBitstream 11 = HDMI</p>	Partly supported	The analysator instruments U2Channel, U8Channel, A16Channel and DIGBitstream are not available
<p>OUTPut:CSIMulator Alias OUTPut:DIGital:CSIMulator</p>	Partly supported	

OFF SIMLong		
OUTPut:IMPedance For UPV: R10 R200 R600	Partly supported	Starting with serial numbers 120100, 140100, 180100, the command OUTPut:IMPedance R25 R600 is available. R10 and R200 are not available
OUTPut:LOW FLOat GROund	Partly supported	GROund is not available
OUTPut:SAMple:MODE For generator instrument DIGITAL: F32 F44 F48 F88 F96 F176 F192 SYNChron VALue For generator instrument I2SBOARD: F08 F11 F16 F22 F32 F44 F48 F88 F96 F176 F192 F384 VALue	Partly supported	SYNChron and F384 are not available
OUTPut:TYPE BALanced UNBalanced CTEST	Partly supported	CTEST is not available
SENSe:DMODE Alias SENSe:DIGital:MMODE Alias SENSe:DIGital:FEED ADATa JPHase CINPut	Partly supported	JPHase, CINPut are not available
SENSe:FILTer<i> OFF UFIL1	Partly supported	Maximal 2 filters are available

UFIL2
 UFIL3
 UFIL4
 UFIL5
 UFIL6
 UFIL7
 UFIL8
 UFIL9
 AWE
 CARM
 CCIU
 CCIR
 CCIT
 CMES
 DEMP17
 DEMP5015
 DEMP50
 DEMP75
 DCN
 IECT
 JITT
 URUM
 WRUM
 PEMP17
 PEMP5015
 PEMP50
 PEMP75
 HP22
 HP400
 LP22
 LP30
 LP80
 AES17
 CWE

<i> = 1, 2 or 3

Alias

SENSE<i>:FILTer<n>:AWEighting[::STATE]
 SENSE<i>:FILTer<n>:CARM[::STATE]
 SENSE<i>:FILTer<n>:CCIRweight[::STATE]
 SENSE<i>:FILTer<n>:CCITt[::STATE]
 SENSE<i>:FILTer<n>:CCIUnweight[::STATE]
 SENSE<i>:FILTer<n>:CCIUnweight[::STATE]
 SENSE<i>:FILTer<n>:CMESsage[::STATE]
 SENSE<i>:FILTer<n>:DCNoise[::STATE]
 SENSE<i>:FILTer<n>:DEMPHasis<n>[::STATE]
 SENSE<i>:FILTer<n>:HP22Hz[::STATE]
 SENSE<i>:FILTer<n>:HP400Hz[::STATE]
 SENSE<i>:FILTer<n>:IECTuner[::STATE]
 SENSE<i>:FILTer<n>:JITTer[::STATE]
 SENSE<i>:FILTer<n>:LP22kHz[::STATE]
 SENSE<i>:FILTer<n>:LP30kHz[::STATE]
 SENSE<i>:FILTer<n>:LP80kHz[::STATE]
 SENSE<i>:FILTer<n>:AES[::STATE]
 SENSE<i>:FILTer<n>:PEMPHasis<n>[::STATE]
 SENSE<i>:FILTer<n>:UFILter<n>[::STATE]
 SENSE<i>:FILTer<n>:URUMble[::STATE]
 SENSE<i>:FILTer<n>:WRUMble[::STATE]

SENSe<i>:FILTer<n>:CWEighting[:STATe] ON OFF		
SENSe:FUNCTion OFF RMS RMSSelect PEAK QPEak SN FFT THD THDNs ndr MDIS t DFD DIM POLarity COHerence RUBBuz z RECO rd NOCTave PESQ PEAQ POLQa PLUGin	Partly supported	QPEak, DIM, COHerence, RUBBuz z, RECO rd, PESQ, PEAQ, POLQa, PLUGin are not available on UPP
SENSe:FUNCTion:DMODE FAST PRECision	Partly supported	Different hardware PRECision is not available
SENSe:FUNCTion:FFT:USAMple ON OFF	Partly supported	UPV-K6 ON is not available
SENSe:FUNCTion:MMODE Measurement function Peak PPEak NPEak PTOPeak PABSolut Measurement function SN RMS QPEak PPEak NPEak PTOPeak PABSolut Measurement function THD SElectdi LSElectdi DALL LDALI DODD LDODd DEVen LDEVen Measurement function THD+N	Partly supported	QPEak mapped to RMS indicated by error message

<p>THDN LTHDn SNDRatio Alias SINad NOISe LNOise</p> <p>Measurement function DFD D2_268 or D2 D3_268 or D3 D2_118 D3_118</p> <p>Measurement function NOCTave OCT1 OCT3 OCT6 OCT12 OCT24 CBANd</p> <p>Measurement function PESQ, PEAQ and POLQA DUT OFFLine</p>		
<p>SENSe:FUNCTion:SETTling:MODE OFF EXponential FLAT AVERage</p>	Partly supported	
<p>SENSe:NOTCh Alias SENSe:NOTCh:STATe OFF DB0 DB12 DB30</p>	Partly supported	Different hardware DB0, DB12, DB30 are not available
<p>SENSe2:FUNCTion (parameters available for Analog Dual channel Instrument Analog Multichannel Instruments Digital Audio Instrument in Audio Data Mode I²S Instrument USI Dual Chan Instrument USI 8 Chan Instrument) OFF IPEAk or IPEAK</p> <p>(additional parameter available for Digital Audio Instrument in Jitter/Phase Mode) PHASetoref</p> <p>(additional parameter available for Digital Audio Instrument in Common/Input Mode) DIGinpampl</p>	Partly supported	PHASetoref and DIGinpampl are not available
<p>SENSe3:FREQUency:SETTling:MODE OFF</p>	Partly supported	EXponential, FLAT, AVERage are not available

EXPOnential FLAT AVERAge		
SENSe3:PHASe:SETTling:MODE OFF EXPOnential FLAT AVERAge	Partly supported	EXPOnential, FLAT, AVERAge are not available
SENSe8:FUNcTion OFF ON	Partly supported	
SOURce:AM:MODE OFF SINusoid BURSt	Partly supported	SINusoid, BURSt are not available
SOURce:FUNcTion Alias SOURce:FUNcTion:SHAPE SINusoid STEReo MULTisine BURSt S2Pulse MDIST DFD DIM RANDom ARBitrary POLarity MODulation or FM DC SQUare PLAY PLYAnlr or O131 CHIRp	Partly supported	The generator functions S2Pulse, DIM, MODulation or FM, SQUare, PLYAnlr or O131 and CHIRp are not available
SOURce:FUNcTion:MODE Alias especially for Multisine SOURce:MULTisine:MODE for Multisinus: EQUalvoltage DEFinedvoltage for DFD: IEC268 IEC118 for Modulation: AM FM	Partly supported	AM and FM are not available
SOURce:IMPairment ON OFF	Partly supported	UPV-K22 ON is not available
SOURce:LOWDistortion ON	Partly supported	UPV-B1 ON is not available

OFF		
SOURce:PROTOcol:AZERo ONCE or EXEC ONCE or EXEC are not necessary Response to query is always OFF	Partly supported	UPP-B2 with UPP-K21 required
SOURce:PROTOcol:CH<x>:BYTE<y> <n> <x> und <y> are suffixes <x> = Channel 1 or 2 <y> = Byte 0 ... 3 <y> = Byte 0 ... 4 <n> = Value 0 ... 255	Partly supported	UPP-B2 with UPP-K21 required On the UPP, the channel suffix <x> is ignored in the SCPIcommand "SOURce:PROTOcol:CH<x>:BYTE<y> <n>". Thus on the UPP, both channels are set identically.
SOURce:PROTOcol:CHANnels CH2Is1 SPLit	Partly supported	SPLit is not available
SOURce:PROTOcol:CRC ON OFF	Partly supported	UPP-B2 with UPP-K21 required
SOURce:PROTOcol:FILE 'filename'	Partly supported	UPP-B2 with UPP-K21 required
SOURce:PROTOcol:MODE AUTomatic AUTOMATIC PROFessional CONSUMER FILE	Partly supported	UPP-B2 with UPP-K21 required
SOURce:PROTOcol:NUMerical:BYTe <n> <n> = 0 ... 3 <n> = 0 ... 4	Partly supported	UPP-B2 with UPP-K21 required
SOURce:PROTOcol:NUMerical:VALue <n> <n> = 0 ... 255	Partly supported	UPP-B2 with UPP-K21 required
SOURce:PROTOcol:VALidity NONE CH1And2	Partly supported	UPP-B2 with UPP-K21 required
SOURce:PTORef Alias SOURce:DIGital:PHASetorefvar OFF VALue	Partly supported	Different hardware VALue is not available
SOURce:RANDom:DOMain FREQuency TIME	Partly supported	TIME is not available
SOURce:SWEep:XAXis FREQuency	Partly supported	ONTime and INTerval are not available

VOLTage ONTime INTERval or INTervall PHASe		
SOURce:SWEEp:ZAXis OFF FREQuency VOLTage ONTime INTERval or INTervall	Partly supported	ONTime and INTerval are not available