Agilent E8241A/44A/51A/54A PSG Series Performance Signal Generator

Product Note

Programming Conversion Guide

SCPI Command Compatibility

836xxB/L Compatible SCPI Commands

Table 1-1 is a comprehensive list of 836xxB/L SCPI commands arranged by subsystem. Commands that are supported by the PSG Family are identified, in addition to commands that are unsupported. Use the legend within the table to determine command compatibility.

Some of the PSG supported commands are a subset of the 836xxB/L commands. When this occurs, the syntax supported by the PSG is shown in addition to the syntax that is not supported.

Table 01 836xxB/L SCPI Commands

Y= Supported by PSG Family N= Not supported by PSG Family	83620B & 83640B	83620L & 83640L
IEEE Common Commands		
*CLS	Y	Y
*ESE <data>	Y	Y
*ESE?	Y	Y
*ESR?	Y	Y
*IDN?[1]	Y	Y
*LRN?	N	N
*OPC	Y	Y
*OPC?	Y	Y
*OPT?	N	N
*RCL <reg_num>	Y	Y
*RST	Y	Y
*SAV <reg_num>	Y	Y
*SRE <data>	Y	Y
*SRE?	Y	Y
*STB?	Y	Y
*TRG	Y	Y
*TST?	Y	Y
*WAI	Y	Y

[1] The model number returned is the PSG model, which will differ from the replaced 83xxx model. The company name is Agilent Technologies, not Hewlett-Packard.

Y= Supported by PSG Family N= Not supported by PSG Family	83620B & 83640B	83620L & 83640L
Abort Subsystem		
:ABORt	Y	Y
Amplitude Modulation Subsystem		
:AM[:DEPTh] <num>[PCT]|MAXimum|MINimum|<num>DB	Y	
:AM[:DEPTh]? [MAXimum|MINimum]	Y	
:AM:INTernal:FREQuency <num>[<freq suffix>]|MAXimum| MINimum	Y	
:AM:INTernal:FREQuency? [MAXimum|MINimum]	Y	
:AM:INTernal:FUNCtion SINusoid|SQUare|TRIangle|RAMP|NOISe	Y	
:AM:INTernal:FUNCtion?	Y	
:AM:SOURce INTernal|EXTernal	Y	
:AM:SOURce?	Y	
:AM:MODE DEEP|NORMal	Y	
:AM:MODE?	Y	
:AM:STATe ON|OFF|1|0	Y	
:AM:STATe?	Y	
:AM:TYPE LINear|EXPonential	Y	
:AM:TYPE?	Y	
Calibration Subsystem		
:CALibration:AM:AUTO ON|OFF|1|0	N	
:CALibration:AM:AUTO?	N	
:CALibration:AM[:EXECute]	N	
:CALibration:PEAKing:AUTO ON|OFF|1|0	N	N
:CALibration:PEAKing:AUTO?	N	N
:CALibration:PEAKing[:EXECute]	N	N
:CALibration:PMETer:DETector:INITiate? IDETector|DIODe	N	N
:CALibration:PMETer:DETector:NEXT? <num>[<lvl suffix>]	N	N
:CALibration:PMETer:FLATness:INITiate? USER|DIODe|PMETER| MMHead	N	N
:CALibration:PMETer:FLATness:NEXT? <value>[<lvl suffix>]	N	N
:CALibration:SPAN:AUTO ON|OFF|1|0	N	N

Y= Supported by PSG Family N= Not supported by PSG Family	83620B & 83640B	83620L & 83640L
:CALibration:SPAN:AUTO?	N	N
:CALibration:SPAN[:EXECute]	N	N
:CALibration:TRACk	N	N
Correction Subsystem		
:CORRection:ARRay[i]{<value>[DB]}	N	N
:CORRection:ARRay[i]?	N	N
:CORRection:FLATness <freq.>,<corr.>,...<freq.>,<corr.>	N	N
:CORRection:FLATness?	Y	Y
:CORRection:SOURce[i] ARRay|FLATness	N	N
:CORRection:SOURce[i]?	N	N
:CORRection:FLATness:POINts? [MAXimum|MINimum]	Y	Y
:CORRection[:STATe] ON|OFF|1|0	Y	Y
:CORRection[:STATe]?	Y	Y
Diagnostics Subsystem		
:DIAGnostics:ABUS? <value>	N	N
:DIAGnostics:ABUS:AVERage <value>	N	N
:DIAGnostics:ABUS:AVERage?	N	N
:DIAGnostics:ABUS:STATus?	N	N
:DIAGnostics:INSTrument:PMETer:ADDRess <value>	N	N
:DIAGnostics:INSTrument:PMETer:ADDRess?	N	N
:DIAGnostics:INSTrument:PRINter:ADDRess <value>	N	N
:DIAGnostics:INSTrument:PRINter:ADDRess?	N	N
:DIAGnostics:IORW <value>,<value>	N	N
:DIAGnostics:IORW? <value>	N	N
:DIAGnostics:OUTPut:FAULt?	N	N
:DIAGnostics:RESult?	N	N
:DIAGnostics:TEST:CONTinue	N	N
:DIAGnostics:TEST:DATA:DESC?	N	N
:DIAGnostics:TEST:DATA:MAXimum?	N	N
:DIAGnostics:TEST:DATA:MINimum?	N	N
:DIAGnostics:TEST:DATA:VALue?	N	N
:DIAGnostics:TEST:DISable {<num>}1*?|ALL	N	N
:DIAGnostics:TEST:ENABle {<num>}1*?|ALL	N	N

Y= Supported by PSG Family N= Not supported by PSG Family	83620B & 83640B	83620L & 83640L
:DIAGnostics:TEST[:EXECute] <value>	N	N
:DIAGnostics:TEST:LOG:SOURce ALL | FAIL	N	N
:DIAGnostics:TEST:LOG:SOURce?	N	N
:DIAGnostics:TEST:LOG[:STATe]?	N	N
:DIAGnostics:TEST:LOG[:STATe] ON | OFF | 1 | 0	N	N
:DIAGnostics:TEST:LOOP ON | OFF | 1 | 0	N	N
:DIAGnostics:TEST:LOOP?	N	N
:DIAGnostics:TEST:NAME? [<value>]	N	N
:DIAGnostics:TEST:POINts?	N	N
:DIAGnostics:TEST:RESult? [<value>]	N	N
:DIAGnostics:TINT? <value>	N	N
Display Subsystem		
:DISPlay[:STATe] ON | OFF | 1 | 0	Y	Y
:DISPlay[:STATe]?	Y	Y
Frequency Modulation Subsystem		
:FM:COUPling AC | DC	Y	
:FM:COUPling?	Y	
:FM[:DEViation] <val><unit> | MAXimum | MINimum	Y	
:FM[:DEViation]? [MAXimum | MINimum]	Y	
:FM:FILTer:HPASs <num>[<freq suffix>] | MAXimum | MINimum	N	
:FM:FILTer:HPASs? [MAXimum | MINimum]	N	
:FM:INTernal:FREQuency <num>[<freq suffix>] | MAXimum | MINimum	Y	
:FM:INTernal:FREQuency? [MAXimum | MINimum]	Y	
:FM:INTernal:FUNCtion SINusoid | SQUare | TRIangle | RAMP | NOISe	Y	
:FM:INTernal:FUNCtion?	Y	
:FM:SOURce INTernal | EXTernal	Y	
:FM:SOURce?	Y	
:FM:SENSitivity <val><freq suffix/V> | MAXimum | MINimum	Y	
:FM:SENSitivity? [MAXimum | MINimum]	Y	
:FM:STATe ON | OFF | 1 | 0	Y	
:FM:STATe?	Y	

Y= Supported by PSG Family N= Not supported by PSG Family	83620B & 83640B	83620L & 83640L
Frequency Subsystem		
:FREQuency:CENTer <num>[<freq suffix>] | MAXimum | MINimum | UP | DOWN	Y	Y
:FREQuency:CENTer? [MAXimum | MINimum]	Y	Y
:FREQuency[:CW | :FIXed] <num> [<freq suffix>] | MAXimum | MINimum | UP | DOWN	Y	Y
:FREQuency[:CW]? [MAXimum | MINimum]	Y	Y
:FREQuency[:FIXed]? [MAXimum | MINimum]	Y	Y
:FREQuency[:CW]:AUTO ON | OFF | 1 | 0	N	N
:FREQuency[:CW]:AUTO?	N	N
:FREQuency[:FIXed]:AUTO ON | OFF | 1 | 0	N	N
:FREQuency[:FIXed]:AUTO?	N	N
:FREQuency:MANual <num>[freq suffix] | MAXimum | MINimum | UP | DOWN	N	N
:FREQuency:MANual? [MAXimum | MINimum]	N	N
:FREQuency:MODE FIXed | CW | SWEep | LIST	Y	Y
:FREQuency:MODE?	Y	Y
:FREQuency:MULTiplier <num> | MAXimum | MINimum	Y	Y
:FREQuency:MULTiplier? [MAXimum | MINimum]	Y	Y
:FREQuency:MULTiplier:STATe ON | OFF | 1 | 0	N	N
:FREQuency:MULTiplier:STATe?	N	N
:FREQuency:OFFSet <num> | MAXimum | MINimum	Y	Y
:FREQuency:OFFSet? [MAXimum | MINimum]	Y	Y
:FREQuency:OFFSet:STATe ON | OFF | 1 | 0	Y	Y
:FREQuency:OFFSet:STATe?	Y	Y
:FREQuency:SPAN <num>[<freq suffix>] | MAXimum | MINimum | UP | DOWN	Y	Y
:FREQuency:SPAN? [MAXimum | MINimum]	Y	Y
:FREQuency:STARt <num>[<freq suffix>] | MAXimum | MINimum | UP | DOWN	Y	Y
:FREQuency:STARt? [MAXimum | MINimum]	Y	Y
:FREQuency:STEP:AUTO ON | OFF | 1 | 0	Y	Y
:FREQuency:STEP:AUTO?	Y	Y
:FREQuency:STEP[:INCRement] <num> [<freq suffix>] | MAXimum | MINimum	Y	Y

[2] A multiplier of zero is not allowed.

Y= Supported by PSG Family N= Not supported by PSG Family	83620B & 83640B	83620L & 83640L
:FREQuency:STEP[:INCRement]?	Y	Y
:FREQuency:STOP <num>[<freq suffix>] | MAXimum | MINimum | UP | DOWN	Y	Y
:FREQuency:STOP? [MAXimum | MINimum]	Y	Y
Initiate Subsystem		
:INITiate:CONTinuous ON | OFF | 1 | 0	Y	Y
:INITiate:CONTinuous?	Y	Y
:INITiate[:IMMediate]	Y	Y
List Subsystem		
:LIST:DWELl {<num>[<time suffix>] | MAXimum | MINimum}	Y	Y
:LIST:DWELl? [MAXimum | MINimum]	Y	Y
:LIST:DWELl:POINts? [MAXimum | MINimum]	Y	Y
:LIST:FREQuency {<value>[<freq suffix>] | MAXimum | MINimum}	Y	Y
:LIST:FREQuency?	Y	Y
:LIST:FREQuency:POINts? [MAXimum | MINimum]	Y	Y
:LIST:MANual <num>	Y	Y
:LIST:MANual?	Y	Y
:LIST:MODE AUTO | MANual	Y	Y
:LIST:MODE?	Y	Y
:LIST[:POWer]:CORRection {<value>[DB] | MAXimum | MINimum}	N	N
:LIST[:POWer]:CORRection?	N	N
:LIST[:POWer]:CORRection:POINts? [MAXimum | MINimum]	N	N
:LIST:TRIGger:SOURce IMMediate | BUS | EXTernal	Y	Y
:LIST:TRIGger:SOURce?	Y	Y
Marker Subsystem		
:MARKer[n]:AMPLitude[:STATe] ON | OFF | 1 | 0	N	N
:MARKer[n]:AMPLitude[:STATe]?	N	N
:MARKer[n]:AMPLitude:VALue <value> [DB] | MAXimum | MINimum	N	N
:MARKer[n]:AMPLitude:VALue? [MAXimum | MINimum]	N	N
:MARKer[n]:AOFF	N	N
:MARKer[n]:DELTa? <value>,<value>	N	N

Y= Supported by PSG Family N= Not supported by PSG Family	83620B & 83640B	83620L & 83640L
:MARKer[n]:FREQuency <value> [<freq suffix>] | MAXimum | MINimum	N	N
:MARKer[n]:FREQuency? [MAXimum | MINimum]	N	N
:MARKer[n]:MODE FREQuency | DELTa	N	N
:MARKer[n]:MODE?	N	N
:MARKer[n]:REFerence <n>	N	N
:MARKer[n]:REFerence?	N	N
:MARKer[n][:STATe] ON | OFF | 1 | 0	N	N
:MARKer[n][:STATe]?	N	N
Measure Subsystem		
:MEASure:AM?	N	
:MEASure:FM?	N	
Modulation Subsystem		
:MODulation:OUTPut:SOURce AM | FM	N	
:MODulation:OUTPut:SOURce?	N	
:MODulation:OUTPut:STATe ON | OFF | 1 | 0	Y	
:MODulation:OUTPut:STATe?	Y	
:MODulation:STATe?	Y	
Power Subsystem		
:POWer:ALC:BANDwidth | :BWIDth <value> [<freq suffix>] | MAXimum | MINimum	Y	Y
:POWer:ALC:BANDwidth? | :BWIDth? [MAXimum | MINimum]	Y	Y
:POWer:ALC:BANDwidth | :BWIDth:AUTO ON | OFF | 1 | 0	Y	Y
:POWer:ALC:BANDwidth | :BWIDth:AUTO?	Y	Y
:POWer:ALC:CFACtor <value> [DB] | MAXimum | MINimum | UP | DOWN	Y	Y
:POWer:ALC:CFACtor? [MINimum | MAXimum]	Y	Y
:POWer:ALC:SOURce PMETer	N	Y
:POWer:ALC:SOURce INTernal | DIODe | MMHead	N	Y
:POWer:ALC:SOURce?	Y	Y
:POWer:ALC[:STATe] ON | OFF | 1 | 0	Y	Y
:POWer:ALC[:STATe]?	Y	Y
:POWer:AMPLifier:STATE ON | OFF | 1 | 0	N	N
:POWer:AMPLifier:STATE?	N	N
:POWer:AMPLifier:STATE:AUTO ON | OFF | 1 | 0	N	N

Y= Supported by PSG Family N= Not supported by PSG Family	83620B & 83640B	83620L & 83640L
:POWer:AMPLifier:STATE:AUTO?	N	N
:POWer:ATTenuation <num> [DB]|MAXimum|MINimum|UP|DOWN	Y	Y
:POWer:ATTenuation? [MAXimum|MINimum]	Y	Y
:POWer:ATTenuation:AUTO ON|OFF|1|0	Y	Y
:POWer:ATTenuation:AUTO?	Y	Y
:POWer:CENTer <num>[<lvl suffix>] |MAXimum|MINimum|UP|DOWN	Y	Y
:POWer:CENTer? [MAXimum|MINimum]	Y	Y
:POWer[:LEVel] <num>[<lvl suffix>] |MAXimum|MINimum|UP| DOWN	Y	Y
:POWer[:LEVel]? [MAXimum|MINimum]	Y	Y
:POWer:MODE FIXed|SWEep	Y	Y
:POWer:MODE?	Y	Y
:POWer:OFFSet <num> [DB]|MAXimum|MINimum|UP|DOWN	Y	Y
:POWer:OFFSet? [MAXimum|MINimum]	Y	Y
:POWer:OFFSet:STATe ON|OFF|1|0	Y	Y
:POWer:OFFSet:STATe?	Y	Y
:POWer:RANGe <value>[<lvl suffix>] |MAXimum|MINimum|UP| DOWN	N	N
:POWer:RANGe?	N	N
:POWer:SEARch ON|OFF|1|0|ONCE	Y	Y
:POWer:SEARch?	Y	Y
:POWer:SLOPe <value> [DB/<freq suffix>] |MIN|MAX|UP|DOWN	Y	Y
:POWer:SLOPe? [MAXimum|MINimum]	Y	Y
:POWer:SLOPe:STATe ON|OFF|1|0	Y	Y
:POWer:SLOPe:STATe?	Y	Y
:POWer:SPAN <value>[DB] |MAXimum|MINimum|UP|DOWN	Y	Y
:POWer:SPAN? [MAXimum|MINimum]	Y	Y
:POWer:STARt <val><unit> |MAXimum|MINimum|UP|DOWN	Y	Y
:POWer:STARt? [MAXimum|MINimum]	Y	Y
:POWer:STATe ON|OFF|1|0	Y	Y
:POWer:STATe?	Y	Y
:POWer:STEP:AUTO ON|OFF|1|0	Y	Y
:POWer:STEP:AUTO?	Y	Y
:POWer:STEP[:INCRement] <num> [DB]|MAXimum|MINimum	Y	Y
:POWer:STEP[:INCRement]? [MAXimum|MINimum]	Y	Y
:POWer:STOP <val><unit> |MAXimum|MINimum|UP|DOWN	Y	Y
:POWer:STOP? [MAXimum|MINimum]	Y	Y
Pulse Modulation Subsystem		
:PULM:EXTernal:DELay <value>[<time suffix>] |MAXimum| MINimum	N	
:PULM:EXTernal:DELay? [MAXimum|MINimum]	N	
:PULM:EXTernal:POLarity NORMal|INVerted	Y	
:PULM:EXTernal:POLarity?	Y	
:PULM:INTernal:FREQuency <num> [<freq suffix>]|MAXimum| MINimum	Y	
:PULM:INTernal:FREQuency? [MAXimum|MINimum]	Y	
:PULM:INTernal:GATE ON|OFF|1|0	N	
:PULM:INTernal:GATE?	N	
:PULM:INTernal:PERiod <num> [<time suffix>]|MAXimum| MINimum	Y	
:PULM:INTernal:PERiod? [MAXimum|MINimum]	Y	
:PULM:INTernal:TRIGger:SOURce INTernal|EXTernal	Y	
:PULM:INTernal:TRIGger:SOURce? [MAXimum|MINimum]	Y	
:PULM:INTernal:WIDTh <num> [<time suffix>]|MAXimum|MINimum	Y	
:PULM:INTernal:WIDTh? [MAXimum|MINimum]	Y	
:PULM:SLEW <value> [<time suffix>]|MAXimum|MINimum	N	
:PULM:SLEW? [MAXimum|MINimum]	N	
:PULM:SLEW:AUTO ON|OFF|1|0	N	
:PULM:SLEW:AUTO?	N	
:PULM:SOURce SCALar :PULM:SOURce INTernal|EXTernal	N	Y
:PULM:SOURce?	Y	
:PULM:STATe ON|OFF|1|0	Y	
:PULM:STATe?	Y	

Y= Supported by PSG Family N= Not supported by PSG Family	83620B & 83640B	83620L & 83640L
Pulse Subsystem		
:PULSe:FREQuency <num> [<freq suffix>] | MAXimum | MINimum	Y	
:PULSe:FREQuency? [MAXimum | MINimum]	Y	
:PULSe:PERiod <num> [<time suffix>] | MAXimum | MINimum	Y	
:PULSe:PERiod? [MAXimum | MINimum]	Y	
:PULSe:WIDTh <num> [<time suffix>] | MAXimum | MINimum	Y	
:PULSe:WIDTh? [MAXimum | MINimum]	Y	
Reference Oscillator Subsystem		
:ROSCillator:SOURce?	Y	Y
:ROSCillator:SOURce:AUTO ON | OFF | 1 | 0	Y	Y
:ROSCillator:SOURce:AUTO?	Y	Y
:ROSCillator:SOURce INTernal | EXTernal | NONE	Y	Y
Status Subsystem		
:STATus:OPERation:CONDition?	Y	Y
:STATus:OPERation:ENABle <value>	Y	Y
:STATus:OPERation:ENABle?	Y	Y
:STATus:OPERation[:EVENt]?	Y	Y
:STATus:OPERation:NTRansition <value>	Y	Y
:STATus:OPERation:NTRansition?	Y	Y
:STATus:OPERation:PTRansition <value>	Y	Y
:STATus:OPERation:PTRansition?	Y	Y
:STATus:PRESet	Y	Y
:STATus:QUEStionable:CONDition?	Y	Y
:STATus:QUEStionable:ENABle <value>	Y	Y
:STATus:QUEStionable:ENABle?	Y	Y
:STATus:QUEStionable[:EVENt]?	Y	Y
:STATus:QUEStionable:NTRansition <value>	Y	Y
:STATus:QUEStionable:NTRansition?	Y	Y
:STATus:QUEStionable:PTRansition <value>	Y	Y
:STATus:QUEStionable:PTRansition?	Y	Y

Y= Supported by PSG Family N= Not supported by PSG Family	83620B & 83640B	83620L & 83640L
Sweep Subsystem		
:SWEep:CONTrol:STATe ON | OFF | 1 | 0	N	N
:SWEep:CONTrol:STATe?	N	N
:SWEep:CONTrol:TYPE MASTer | SLAVe	N	N
:SWEep:CONTrol:TYPE?	N	N
:SWEep:DWELl <num> [<time suffix>] | MAXimum | MINimum	Y	Y
:SWEep:DWELl? [MAXimum | MINimum]	Y	Y
:SWEep:DWELl:AUTO ON | OFF | 1 | 0	N	N
:SWEep:DWELl:AUTO?	N	N
:SWEep:GENeration STEPped | ANALog	N	N
:SWEep:GENeration?	N	N
:SWEep:MANual:POINt <num> | MAXimum | MINimum	Y	Y
:SWEep:MANual:POINt? [MAXimum | MINimum]	Y	Y
:SWEep:MANual[:RELative] <value>	N	N
:SWEep:MANual[:RELative]?	N	N
:SWEep:MARKer:STATe ON | OFF | 1 | 0	N	N
:SWEep:MARKer:STATe?	N	N
:SWEep:MARKer:XFER	N	N
:SWEep:MODE AUTO | MANual	Y	Y
:SWEep:MODE?	Y	Y
:SWEep:POINts <num> | MAXimum | MINimum	Y	Y
:SWEep:POINts? [MAXimum | MINimum]	Y	Y
:SWEep:STEP <value> [<freq suffix>] | MAXimum | MINimum	N	N
:SWEep:STEP? [MAXimum | MINimum]	N	N
:SWEep:TIME <value> [<time suffix>] | MAXimum | MINimum	N	N
:SWEep:TIME? [MAXimum | MINimum]	N	N
:SWEep:TIME:AUTO ON | OFF | 1 | 0	N	N
:SWEep:TIME:AUTO?	N	N
:SWEep:TIME:LLIMit <value> [<time suffix>] | MAXimum | MINimum	N	N

Y= Supported by PSG Family N= Not supported by PSG Family	83620B & 83640B	83620L & 83640L
:SWEep:TIME:LLIMit? [MAXimum | MINimum]	N	N
:SWEep:TRIGger:SOURce IMMediate | BUS | EXTernal	Y	Y
:SWEep:TRIGger:SOURce?	Y	Y
System Subsystem		
:SYSTem:ALTernate <value> | MAXimum | MINimum	N	N
:SYSTem:ALTernate? [MAXimum | MINimum]	N	N
:SYSTem:ALTernate:STATe ON | OFF | 1 | 0	N	N
:SYSTem:ALTernate:STATe?	N	N
:SYSTem:COMMunicate:GPIB:ADDRess <number>	Y	Y
:SYSTem:DUMP:PRINter?	N	N
:SYSTem:ERRor?	Y	Y
:SYSTem:LANGuage CIIL | COMPatible	N	Y
:SYSTem:LANGuage SCPI	N	Y
:SYSTem:MMHead:SELect:AUTO ON | OFF | 1 | 0	Y	Y
:SYSTem:MMHead:SELect:AUTO?	Y	Y
:SYSTem:MMHead:SELect FRONt | REAR | NONE[3]	Y	Y
:SYSTem:MMHead:SELect?	Y	Y
:SYSTem:PRESet[:EXECute]	Y	Y
:SYSTem:PRESet:SAVE	Y	Y
:SYSTem:PRESet:TYPE FACTory | USER	Y	Y
:SYSTem:PRESet:TYPE?	Y	Y
:SYSTem:SECurity:COUNt <value>[4]	Y	Y
:SYSTem:SECurity:COUNt? [MINimum | MAXimum]	Y	Y
:SYSTem:SECurity[:STATe] ON | OFF | 1 | 0	Y	Y
:SYSTem:SECurity[:STATe]?	Y	Y
:SYSTem:VERSion?	Y	Y

Y= Supported by PSG Family N= Not supported by PSG Family	83620B & 83640B	83620L & 83640L
Trigger Subsystem		
:TRIGger[:IMMediate]	Y	Y
:TRIGger:ODELay <value> [time suffix] | MAXimum | MINimum	N	N
:TRIGger:ODELay? [MAXimum | MINimum]	N	N
:TRIGger:SOURce IMMediate | BUS | EXTernal	Y	Y
:TRIGger:SOURce?	Y	Y
Tsweep Subsystem		
:TSWeep	N	N
Unit Subsystem		
:UNIT:AM DB | PCT	N	
:UNIT:AM?	N	
:UNIT:POWer {<lvl suffix>}	Y	Y
:UNIT:POWer?	Y	Y

[3] Since the PSG Family signal generators have no front panel millimeter rear (source module) interface connector, the "FRONT" suffix defaults to the rear connector.

[4] Use this command sparingly because flash memory allows only a limited number of "writes."

8373xB and 8371xB Compatible SCPI Commands

Table 1-2 is a comprehensive list of 8373xB and 8371xB SCPI commands arranged by subsystem. Commands that are supported by the PSG Family are identified, in addition to commands that are unsupported. Use the legend within the table to determine command compatibility.

Some of the PSG supported commands are subsets of the 8373xB and 8371xB commands. When this occurs, the syntax supported by the PSG Family is shown in addition to the syntax that is not supported.

Table 1-2
8373xB and 8371xB SCPI Commands

Y= Supported by PSG Family N= Not supported by PSG Family	83731B & 83732B	83711B & 83712B
IEEE Common Commands		
*CLS	Y	Y
*DMC	N	N
*EMC	N	N
*EMC?	N	N
*ESE <data>	Y	Y
*ESE?	Y	Y
*ESR?	Y	Y
*GMC?	N	N
*IDN?[5]	Y	Y
*LMC?	N	N
*LRN?	N	N
*OPC	Y	Y
*OPC?	Y	Y
*OPT?	N	N
*PMC	N	N
*PSC	Y	Y
*PSC?	Y	Y
*RCL <reg_num>	Y	Y
*RMC	N	N
*RST	Y	Y
*SAV <reg_num>	Y	Y
*SRE <data>	Y	Y
*SRE?	Y	Y
*STB?	Y	Y
*TST?	Y	Y
*WAI	Y	Y
Abort Subsystem		
:ABORt	Y	
Amplitude Modulation Subsystem		
[:SOURce]:AM[:DEPTh] <val><unit>	Y	
[:SOURce]:AM[:DEPTh] <num>[<PCT>]|<num>DB	Y	
[:SOURce]:AM[:DEPTh]:STEP[:INCRement]	Y	
[:SOURce]:AM:INTernal:FREQuency <num>[<freq suffix>]	Y	
[:SOURce]:AM:INTernal:FREQuency: STEP[:INCRement]	Y	
[:SOURce]:AM:INTernal:FUNCtion SINusoid |SQUare|TRIangle| RAMP|NOISe |UNIForm|GAUSsian	Y	
[:SOURce]:AM:SENSitivity <val>|MIN|MAX|DEF	N	
[:SOURce]:AM:SOURce FEED [:SOURce]:AM:SOURce INTernal|EXTernal	N	Y
[:SOURce]:AM:SOURce?	Y	
[:SOURce]:AM:STATe ON|OFF	Y	
[:SOURce]:AM:STATe?	Y	
[:SOURce]:AM:TYPE LINear|EXPonential	Y	
[:SOURce]:AM:TYPE?	Y	
Display Subsystem		
:DISPlay[:WINDow][:STATe] ON|OFF|1|0	Y	Y
:DISPlay[:WINDow][:STATe]?	Y	Y
Initiate Subsystem		
:INITiate:CONTinuous ON|OFF|1|0	Y	
:INITiate:CONTinuous?	Y	

[5] The model number returned is the PSG model, which will differ from the replaced 83xxx model. The company name is Agilent Technologies, not Hewlett-Packard.

Y= Supported by PSG Family N= Not supported by PSG Family	83731B & 83732B	83711B & 83712B
Correction Subsystem		
[:SOURce]:CORRection:FLATness[:DATA] <freq>,<corr.>,... <freq>,<corr.>	Y	Y
[:SOURce]:CORRection:FLATness:POINts <points>	Y	Y
[:SOURce]:CORRection[:STATe] ON|OFF	Y	Y
[:SOURce]:CORRection[:STATe]?	Y	Y
[:SOURce]:CORRection:CSET[:SELect]	N	N
[:SOURce]:CORRection:CSET[:SELect]?	N	N
[:SOURce]:CORRection:CSET:STATe ON|OFF|1|0	N	N
[:SOURce]:CORRection:CSET:STATe?	N	N
Frequency Modulation Subsystem		
[:SOURce]:FM:COUPling AC|DC	Y	
[:SOURce]:FM:COUPling?	Y	
[:SOURce]:FM[:DEViation] <val><unit>	Y	
[:SOURce]:FM[:DEViation]:STEP [:INCRement] <val> [<freq suffix>]	Y	
[:SOURce]:FM:INTernal:FREQuency <num>[<freq suffix>]	Y	
[:SOURce]:FM:INTernal:FREQuency:STEP[:INCRement]	N	
[:SOURce]:FM:INTernal:FUNCtion SINusoid| SQUAre|TRIAngle| RAMP|UNIForm|GAUSsian	N	
[:SOURce]:FM:SENSitivity?	Y	
[:SOURce]:FM:SOURce	Y	
[:SOURce]:FM:STATe ON|OFF|1|0	Y	
[:SOURce]:FM:STATe?	Y	
Frequency Subsystem		
[:SOURce]:FREQuency[:CW|:FIXed] <num>[<freq suffix>]|UP| DOWN|DEFault	Y	Y
[:SOURce]:FREQuency[:CW|:FIXed] [MAXimum|MINimum|DEFault]	Y	Y
[:SOURce]:FREQuency[:CW|:FIXed]:STEP <val><unit>	Y	Y
[:SOURce]:FREQuency[:CW|:FIXed]:STEP?	Y	Y
[:SOURce]:FREQuency:MULTiplier <val> |UP|DOWN|DEFault[6]	Y	Y
[:SOURce]:FREQuency:MULTiplier?	Y	Y
[:SOURce]:FREQuency:MULTiplier:STEP	N	N
[:SOURce]:FREQuency:MULTiplier:STEP?	N	N

[6] A multiplier of zero is not allowed.

Y= Supported by PSG Family N= Not supported by PSG Family	83731B & 83732B	83711B & 83712B
Memory Subsystem		
:MEMory:CATalog[:ALL]?	Y	Y
:MEMory:CATalog:TABLe	N	N
:MEMory:CATalog:MACRo	N	N
:MEMory:RAM:INITialize	N	N
:MEMory:TABLe:SELect	N	N
:MEMory:TABLe:SELect?	N	N
:MEMory:TABLe:FREQuency	N	N
:MEMory:TABLe:FREQuency?	N	N
:MEMory:TABLe:FREQuency:POINts?	N	N
:MEMory:TABLe:LOSS[:MAGNitude]	N	N
:MEMory:TABLe:LOSS[:MAGNitude]?	N	N
:MEMory:TABLe:LOSS[:MAGNitude]:POINts?	N	N
Modulation Subsystem		
[:SOURce]:MODulation:AOFF	Y	
[:SOURce]:MODulation:STATe	N	
[:SOURce]:MODulation:STATe?	Y	
Output Subsystem		
:OUTPut:IMPedance?	N	N
:OUTPut:PROTection[:STATe]	N	N
:OUTPut:PROTection[:STATe]?	N	N
:OUTPut[:STATe] ON|OFF|1|0	Y	Y
:OUTPut[:STATe]?	Y	Y
Phase Modulation Subsystem		
[:SOURce]:PM:COUPling AC|DC	Y	
[:SOURce]:PM[:DEViation] <val><unit>	Y	
[:SOURce]:PM[:DEViation]:STEP[:INCRement]	Y	
[:SOURce]:PM:INTernal:FREQuency <val><unit>	Y	
[:SOURce]:PM:INTernal:FREQuency:STEP[:INCRement]	Y	
[:SOURce]:PM:INTernal:FUNCtion SINusoid |SQUare|TRIAngle| RAMP|UNIForm|GAUSsian	Y	
[:SOURce]:PM:RANGe AUTO|LOW|HIGH	Y	
[:SOURce]:PM:SENSitivity	N	
[:SOURce]:PM:SOURce FEED [:SOURce] :PM:SOURce INTernal|EXTernal	N	Y
[:SOURce]:PM:STATe ON|OFF|1|0	Y	

Y= Supported by PSG Family N= Not supported by PSG Family	83731B & 83732B	83711B & 83712B
Power Subsystem		
[:SOURce]:POWer:ALC:PMETer	N	N
[:SOURce]:POWer:ALC:PMETer?	N	N
[:SOURce]:POWer:ALC:PMETer:STEP	N	N
[:SOURce]:POWer:ALC:PMETer:STEP?	N	N
[:SOURce]:POWer:ALC:SOURce PMETer	N	Y
[:SOURce]:POWer:ALC:SOURce INTernal|DIODe	N	Y
[:SOURce]:POWer:ALC:SOURce?	Y	Y
[:SOURce]:POWer:ATTenuation:AUTO ONCE	N	Y
[:SOURce]:POWer:ATTenuation:AUTO ON|OFF	N	Y
[:SOURce]:POWer:ATTenuation:AUTO?	Y	Y
[:SOURce]:POWer[:LEVel]	Y	Y
[:SOURce]:POWer[:LEVel]?	Y	Y
[:SOURce]:POWer[:LEVel]:STEP	Y	Y
[:SOURce]:POWer[:LEVel]:STEP?	Y	Y
[:SOURce]:POWer:PROTection:STATe	N	N
[:SOURce]:POWer:PROTection:STATe?	N	N
Pulse Modulation Subsystem		
[:SOURce]:PULM:EXTernal:POLarity NORMal |INVerted	Y	
[:SOURce]:PULM:EXTernal:POLarity?	Y	
[:SOURce]:PULM:SOURce INTernal|EXTernal	Y	
[:SOURce]:PULM:SOURce?	Y	
[:SOURce]:PULM:STATe ON|OFF|1|0	Y	
[:SOURce]:PULM:STATe?	Y	
Pulse Subsystem		
[:SOURce]:PULSe:DELay	Y	
[:SOURce]:PULSe:DELay?	Y	
[:SOURce]:PULSe:DELay:STEP <num> [<time suffix>][DEFault]	Y	
[:SOURce]:PULSe:DELay:STEP? [DEFault]	Y	
[:SOURce]:PULSe:DOUBle[:STATE]	N	
[:SOURce]:PULSe:DOUBle[:STATE]?	N	
[:SOURce]:PULSe:FREQuency	Y	
[:SOURce]:PULSe:FREQuency?	Y	

Y= Supported by PSG Family N= Not supported by PSG Family	83731B & 83732B	83711B & 83712B
[:SOURce]:PULSe:FREQuency:STEP freq|DEFault	Y	
[:SOURce]:PULSe:FREQuency:STEP? [MIN|MAX|DEF]	Y	
[:SOURce]:PULSe:PERiod <num> [<time suffix>]|UP|DOWN	Y	
[:SOURce]:PULSe:PERiod?	Y	
[:SOURce]:PULSe:PERiod:STEP <num> [<time suffix>]	Y	
[:SOURce]:PULSe:PERiod:STEP?	Y	
[:SOURce]:PULSe:TRANsition[:LEADing]	N	
[:SOURce]:PULSe:TRANsition[:LEADing]?	N	
[:SOURce]:PULSe:TRANsition:STATe	N	
[:SOURce]:PULSe:TRANsition:STATe?	N	
[:SOURce]:PULSe:WIDTh MAXimum |MINimum|UP|DOWN|DEFault	Y	
[:SOURce]:PULSe:WIDTh? [MAXimum|MINimum|DEFault]	Y	
[:SOURce]:PULSe:WIDTh:STEP <num> [<time suffix>]|DEFault	Y	
[:SOURce]:PULSe:WIDTh:STEP? [MINimum|MAXimum|DEFault]	Y	
Reference Oscillator Subsystem		
[:SOURce]:ROSCillator:SOURce?	Y	Y
Status Subsystem		
:STATus:OPERation:CONDition?	Y	Y
:STATus:OPERation:ENABle <value>	Y	Y
:STATus:OPERation:ENABle?	Y	Y
:STATus:OPERation[:EVENt]?	Y	Y
:STATus:OPERation:NTRansition <value>	Y	Y
:STATus:OPERation:NTRansition?	Y	Y
:STATus:OPERation:PTRansition <value>	Y	Y
:STATus:OPERation:PTRansition?	Y	Y
:STATus:PRESet	Y	Y
:STATus:QUEStionable:CONDition?	Y	Y

Y= Supported by PSG Family N= Not supported by PSG Family	83731B & 83732B	83711B & 83712B
:STATus:QUEStionable:ENABle <value>	Y	Y
:STATus:QUEStionable:ENABle?	Y	Y
:STATus:QUEStionable[:EVENt]?	Y	Y
:STATus:QUEStionable:NTRansition <value>	Y	Y
:STATus:QUEStionable:NTRansition?	Y	Y
:STATus:QUEStionable:PTRansition <value>	Y	Y
:STATus:QUEStionable:PTRansition?	Y	Y
System Subsystem		
:SYSTem:COMMunicate:GPIB:ADDRess <number>	Y	Y
:SYSTem:COMMunicate:GPIB:ADDRess?	Y	Y
:SYSTem:COMMunicate:PMETer:ADDRess	Y	Y
:SYSTem:COMMunicate:PMETer:ADDRess?	Y	Y
:SYSTem:ERRor?	Y	Y
:SYSTem:KEY	N	N
:SYSTem:KEY?	N	N
:SYSTem:LANGuage "COMP=8673" |"COMPatibility=8673"	N	Y
:SYSTem:LANGuage "SCPI"	N	Y
:SYSTem:LANGuage?	Y	Y
:SYSTem:PRESet	Y	Y
:SYSTem:VERSion?	Y	Y
Trigger Subsystem		
:TRIGger[:SEQuence|:STARt]:SOURce	Y	
:TRIGger[:SEQuence|:STARt]:SOURce?	Y	
:TRIGger:SEQuence2:STOP:SOURce	N	
:TRIGger:SEQuence2:STOP:SOURce?	N	
:TRIGger:SEQuence2:SLOPe	N	

Y= Supported by PSG Family N= Not supported by PSG Family	83731B & 83732B	83711B & 83712B
Unit Subsystem		
:UNIT:FREQuency	N	N
:UNIT:FREQuency?	N	N
:UNIT:POWer {<lvl suffix>}	Y	Y
:UNIT:VOLTage {<lvl suffix>}	N	N
:UNIT:POWer?	Y	Y
:UNIT:VOLTage?	N	N
:UNIT:TIME	N	N
:UNIT:TIME?	N	N

To find out more visit: www.agilent.com/find/psg

Related Agilent literature

PSG Series Product Overview literature number 5988-2411EN

PSG Series Data Sheet literature number 5988-2412EN

PSG Series Product Note: Self Guided Demo literature number 5988-2414EN

PSG Series Configuration Guide literature number 5988-2413EN

PSG Series Product Note: Programming Conversion Guide literature number 5988-2568EN

Warranty

The standard warranty is three years. An extended five-year warranty is available with Option W50.

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