



HP 89400-Series HP-IB Commands Quick Reference



HP 89400-Series HP-IB Commands:

Quick Reference

This Quick Reference lists the common commands and then lists the subsystem commands in alphabetical order. Figure 1 shows the HP 89400-series status registers.

- Syntax descriptions use the following conventions:

{ }	encloses one or more parameters that may be included zero or more times.
	indicates ``or"; one and only one of the items can be chosen.
< >	indicates the name of items that need further definition.
[]	indicates the enclosed items are optional.
(~)	indicates a valid range of values.

- Add a "?" to make the query form of a command; commands listed with a "?" are query only; commands listed with a "-?" cannot be queried.
- A ":" indicates branching points on the command tree.
- Use ";" to send multiple commands within a single program message. The command parser assumes the second command comes from the same branch as the preceeding command. Use ":" to reset the command parser to the base of the command tree.
- The input defaults to channel 1 and the trace defaults to trace A if the optional [1|2] parameter is not specified.
- To view the HP-IB command which corresponds to a front panel operation, press [**Local/Setup**] [**SCPI cmd echo on**].
- For more information on a particular command refer to *HP 89400-Series HP-IB Command Reference*.



Command List

*CAL?	Calibrates analyzer and returns the result
*CLS	Clears the Status Byte
*ESE (0 ~ 255)	Sets or queries bits in the Standard Event Enable register
*ESR?	Reads and clears the Standard Event event register
*IDN?	Returns analyzer's identification string
*OPC	Sets completion of overlapped commands
*OPC?	Queries completion of overlapped commands
*OPT?	Returns analyzer's option configuration
*PCB-? (0 ~ 30)	Sets the pass-control-back address
*PSC (-32767 ~ 32767)	Sets or queries Power-On Status Clear flag
*RST	Executes a device reset
*SRE (0 ~ 255)	Sets or queries bits in the Service Request Enable register
*STB?	Reads Status Byte register
*TRG	Triggers analyzer
*TST?	Performs self test
*WAI	Wait-to-continue command

ABOR ABORt

ARM ARM:DElAy (0 ~ 41.94{S})
 ARM:LEVel (rangè depends on config{V})
 ARM:REGion ABOVE | BELow
 ARM:SOURce IMMEDIATE | EXTernal

CALC CALCulate[1 | 2 | 3 | 4]:DATA?
 CALCulate[1 | 2 | 3 | 4]:DATA:HEAdEr:POINts?
 CALCulate[1 | 2 | 3 | 4]:FEED < STRING >
 CALCulate[1 | 2 | 3 | 4]:FORMAt
 MLINear | MLOGarithmic | PHASe | UPHase | REAL | IMAGinary | GDElAy | COMPlEx | CONS | IEYE | QEYE | TEYE
 CALCulate[1 | 2 | 3 | 4]:GDAPerture:APERTure (0.0625 ~ 16{PCT})
 CALCulate[1 | 2 | 3 | 4]:MARKer:BAND:STARt (-3.40282e+38 ~ 3.40282e+38{HZ | S | SYM})
 CALCulate[1 | 2 | 3 | 4]:MARKer:BAND:STOP (-3.40282e+38 ~ 3.40282e+38{HZ | S | SYM})
 CALCulate[1 | 2 | 3 | 4]:MARKer:COUPled[:STATe] OFF | 0 | ON | 1
 CALCulate[1 | 2 | 3 | 4]:MARKer:FCOunt OFF | 0 | ON | 1
 CALCulate[1 | 2 | 3 | 4]:MARKer:FCOunt:RESult?
 CALCulate[1 | 2 | 3 | 4]:MARKer:FUNCTion OFF | 0 | BPOWer | BRMS | BCN | BCNO
 CALCulate[1 | 2 | 3 | 4]:MARKer:FUNCTion:DDEMod:RESult?
 EVRM | MERM | PERM | FERR | ADR | IQOF | DEV | FSRM | EVPK | EVPS | FSPK | FSPS | MEPK | MEPS | PEPK | PEPS



CALCulate[1|2|3|4]:MARKer:FUNCTION:RESult?
 CALCulate[1|2|3|4]:MARKer:MAXimum
 CALCulate[1|2|3|4]:MARKer:MAXimum:LEFT
 CALCulate[1|2|3|4]:MARKer:MAXimum:NEXT
 CALCulate[1|2|3|4]:MARKer:MAXimum:RIGHT
 CALCulate[1|2|3|4]:MARKer:MAXimum:TRACk OFF|0|ON|1
 CALCulate[1|2|3|4]:MARKer:MINimum[:GLOBal]
 CALCulate[1|2|3|4]:MARKer:OFFSet[:STATe] OFF|0|ON|1
 CALCulate[1|2|3|4]:MARKer:OFFSet:X (-3.40282e+38 ~ 3.40282e+38[HZ]|S|SYM)
 CALCulate[1|2|3|4]:MARKer:OFFSet:Y (range depends on config)(see table Units1))
 CALCulate[1|2|3|4]:MARKer:OFFSet:Z (-3.40282e+38 ~ 3.40282e+38[S])
 CALCulate[1|2|3|4]:MARKer:OFFSet:ZERO
 CALCulate[1|2|3|4]:MARKer:POLar:UNIT:POWer DBM|WRMS|W|V
 CALCulate[1|2|3|4]:MARKer:READout MPHase|RIMaginary
 CALCulate[1|2|3|4]:MARKer:SEARch:BUFFer[:STATe] OFF|0|ON|1
 CALCulate[1|2|3|4]:MARKer:SEARch:LEFT
 CALCulate[1|2|3|4]:MARKer:SEARch:OFFSet
 CALCulate[1|2|3|4]:MARKer:SEARch:RIGHT
 CALCulate[1|2|3|4]:MARKer:SEARch:TARGet (range depends on config)(see table Units1))

CALCulate[1|2|3|4]:MARKer[:STATe] OFF|0|ON|1
 CALCulate[1|2|3|4]:MARKer:TRACe OFF|0|ON|1
 CALCulate[1|2|3|4]:MARKer:X[:ABSolute] (range depends on config[HZ|S|SYM])
 CALCulate[1|2|3|4]:MARKer:X:RELative?
 CALCulate[1|2|3|4]:MARKer:Y?
 CALCulate[1|2|3|4]:MARKer:Y:RELative?
 CALCulate[1|2|3|4]:MARKer:Z[:ABSolute] (0 ~ Buffer Depth)*
 CALCulate[1|2|3|4]:MARKer:Z:RELative?
 CALCulate[1|2|3|4]:MARKer:Z:UNIT S|UNITLESS
 CALCulate[1|2|3|4]:MATH:CONStant[1|2|3|4|5] (-3.40282e+38 ~ 3.40282e+38)[,(-3.40282e+38 ~ 3.40282e+38)]
 CALCulate[1|2|3|4]:MATH:CONStant[1|2|3|4|5]:IMAG (-3.40282e+38 ~ 3.40282e+38)
 CALCulate[1|2|3|4]:MATH:CONStant[1|2|3|4|5]:MAG (0 ~ 3.40282e+38)
 CALCulate[1|2|3|4]:MATH:CONStant[1|2|3|4|5]:PHASe (-3.40282e+38 ~ 3.40282e+38[DEG|RAD])
 CALCulate[1|2|3|4]:MATH:CONStant[1|2|3|4|5]:REAL (-3.40282e+38 ~ 3.40282e+38)
 CALCulate[1|2|3|4]:MATH:CONStant[1|2|3|4|5]:STEP (-3.40282e+38 ~ 3.40282e+38)
 CALCulate[1|2|3|4]:MATH[:EXPRession[1|2|...|6]] <EXPR>
 CALCulate[1|2|3|4]:MATH:SELEct F1|F2|F3|F4|F5|F6
 CALCulate[1|2|3|4]:MATH:STATe OFF|0|ON|1
 CALCulate[1|2|3|4]:STATe OFF|0|ON|1



CALCulate[1|2|3|4]:UNIT:AM

AM|AM2|PCT|DBAMRMS2|DBAMPK2|AMRMS|AMPK|AMRMS2|AMPK2|DBAMRMS2/HZ|DBAMPK2/HZ
|AMRMS/RTHZ|AMPK/RTHZ|AMRMS2/HZ|AMPK2/HZ

CALCulate[1|2|3|4]:UNIT:ANGLE

DEG|RAD|DBRADRMS2|DBRADPK2|RADRMS|RADPK|RADRMS2|RADPK2|RAD2|DBRADRMS2/HZ|DBRADPK2/HZ
|RADRMS/RTHZ|RADPK/RTHZ|RADRMS2/HZ|RADPK2/HZ

CALCulate[1|2|3|4]:UNIT:FREQUENCY

HZ|DBHZRMS2|DBHZPK2|HZRMS|HZPK|HZRMS2|HZPK2|HZ2|DBHZRMS2/HZ|DBHZPK2/HZ|HZRMS/RTHZ
|HZPK/RTHZ|HZRMS2/HZ|HZPK2/HZ

CALCulate[1|2|3|4]:UNIT:POWER

DBVRMS|DBVPK|DBV|V|VPK|VRMS|DBM|V2|VPK2|VRMS2|WRMS|W|V/RTHZ|VRMS/RTHZ|V2/HZ|VPK/RTHZ
|VPK2/HZ|VRMS2/HZ|DBVRMS/RTHZ|DBV/RTHZ|DBVPK/RTHZ|DBM/HZ|WRMS/HZ|W/HZ|DB|UNITLESS|PCT

CALCulate[1|2|3|4]:UNIT:TIME S

CALCulate[1|2|3|4]:UPHase:CREference (0 ~ 3.40282e+38[HZ|S|SYM])

CALCulate[1|2|3|4]:UPHase:OFFSet (range depends on config(DEG|RAD))

CALCulate[1|2|3|4]:X:UNIT:FREQUENCY HZ

CALCulate[1|2|3|4]:X:UNIT:TIME S|SYM

CAL

CALibration:AUTO OFF|0|ON|1|ONCE

CALibration:ZERO:AUTO OFF|0|ON|1|ONCE

CONT CONTInue

DISP DISPlay:ANNotation[:ALL] OFF|0|ON|1
DISPlay:BRIGhtness (20 ~ 100[PCT])
DISPlay:CMAP:COLor[1|2|...|256]:HSL (0 ~ 1),(0 ~ 1),(0 ~ 1)
DISPlay:CMAP:DEFault
DISPlay:ENABle OFF|0|ON|1
DISPlay:FORMat SINGLE|TWO|FOUR|QUAD
DISPlay:MFUNction OFF|0|ON|1
DISPlay:PROGram[:MODE] OFF|0|FULL|UPPer|LOWer
DISPlay:TCAPture:ENVELOpe OFF|0|ON|1
DISPlay:WINDow[1|2|3|4]:ACTive OFF|0|ON|1|ONCE
DISPlay:WINDow[1|2|3|4]:SPECtrogram:COLors (2 ~ 64)
DISPlay:WINDow[1|2|3|4]:SPECtrogram:ENHance (0 ~ 100[PCT])
DISPlay:WINDow[1|2|3|4]:SPECtrogram:MAP COLor|RCOLor|GREY|RGRey|MAP1|MAP2
DISPlay:WINDow[1|2|3|4]:SPECtrogram[:STATe] OFF|0|ON|1
DISPlay:WINDow[1|2|3|4]:SPECtrogram:THReshold (0 ~ 100[PCT])
DISPlay:WINDow[1|2|3|4]:TRACe:BUFFer (0 ~ Buffer Depth)*
DISPlay:WINDow[1|2|3|4]:TRACe:DCARrier OFF|0|ON|1
DISPlay:WINDow[1|2|3|4]:TRACe:EYE:COUNT (0.1 ~ 40)



DISPlay[:WINDow[1|2|3|4]]:TRACe:GRATicule:GRID[:STATe] OFF|0|ON|1
 DISPlay[:WINDow[1|2|3|4]]:TRACe:INDicator CROSS|CIRCLE
 DISPlay[:WINDow[1|2|3|4]]:TRACe:INDicator:SIZE (0.1 ~ 50[PCT])
 DISPlay[:WINDow[1|2|3|4]]:TRACe:INFO <STRING>
 DISPlay[:WINDow[1|2|3|4]]:TRACe:LABel?
 DISPlay[:WINDow[1|2|3|4]]:TRACe:LABel:AUTO OFF|0|ON|1
 DISPlay[:WINDow[1|2|3|4]]:TRACe:LABel:USER <STRING>
 DISPlay[:WINDow[1|2|3|4]]:TRACe[:STATe] OFF|0|ON|1
 DISPlay[:WINDow[1|2|3|4]]:TRACe:SYMBol DOTS|BARS|OFF|0
 DISPlay[:WINDow[1|2|3|4]]:TRACe:SYMBol:FORMat BIN|HEX
 DISPlay[:WINDow[1|2|3|4]]:TRACe:X[:SCALe]:AUTO OFF|0|ON|1|ONCE
 DISPlay[:WINDow[1|2|3|4]]:TRACe:X[:SCALe]:LEFT (range depends on config[HZ|S|SYM])
 DISPlay[:WINDow[1|2|3|4]]:TRACe:X[:SCALe]:RIGHT (range depends on config[HZ|S|SYM])
 DISPlay[:WINDow[1|2|3|4]]:TRACe:X[:SCALe]:RLEVel (range depends on config)(see table Units1))
 DISPlay[:WINDow[1|2|3|4]]:TRACe:X[:SCALe]:SPACing LINEar|LOGarithmic
 DISPlay[:WINDow[1|2|3|4]]:TRACe:Y:RLINe OFF|0|ON|1
 DISPlay[:WINDow[1|2|3|4]]:TRACe:Y[:SCALe]:AUTO OFF|0|ONCE
 DISPlay[:WINDow[1|2|3|4]]:TRACe:Y[:SCALe]:PDIVision (range depends on config)(see table Units2))
 DISPlay[:WINDow[1|2|3|4]]:TRACe:Y[:SCALe]:RLEVel (range depends on config)(see table Units1))

DISPlay[:WINDow[1|2|3|4]]:TRACe:Y[:SCALe]:RLEVel:AUTO OFF|0|ON|1
 DISPlay[:WINDow[1|2|3|4]]:TRACe:Y[:SCALe]:RPOSition (0 ~ 100[PCT])
 DISPlay[:WINDow[1|2|3|4]]:WATerfall:AZIMuth (-99 ~ 99[PIXELS])
 DISPlay[:WINDow[1|2|3|4]]:WATerfall:BLINe[:STATe] OFF|0|ON|1
 DISPlay[:WINDow[1|2|3|4]]:WATerfall:ELEVation (0 ~ Buffer Depth[PIXELS])*
 DISPlay[:WINDow[1|2|3|4]]:WATerfall:HEIGHt (0 ~ Buffer Depth[PIXELS])*
 DISPlay[:WINDow[1|2|3|4]]:WATerfall:HLINe[:STATe] OFF|0|ON|1
 DISPlay[:WINDow[1|2|3|4]]:WATerfall[:STATe] OFF|0|ON|1
 DISPlay[:WINDow[1|2|3|4]]:WATerfall:THReshold (0 ~ 100[PCT])

FORM FORMat[:DATA] ASCii|REAL[(3 ~ 64)]

HCOP HCOpy:ABORt
 HCOpy:DATA?
 HCOpy:DEStination <STRING>
 HCOpy:DEvice:CMAP:DEfault
 HCOpy:DEvice:COLor OFF|0|ON|1
 HCOpy:DEvice:LANGUage PCL|HPGL|PHPGI|TIFF
 HCOpy:DEvice:RESolution (0 ~ 600)
 HCOpy:DEvice:SPEEd (0 ~ 100)
 HCOpy[:IMMediate]



HCOpy:ITEM:ALL[:IMMediate]
 HCOpy:ITEM:ANNotation:COLor (0 ~ 16)
 HCOpy:ITEM:FFEEd:STATe OFF | 0 | ON | 1
 HCOpy:ITEM:TDSTamp:CFORmat HR12 | HR24
 HCOpy:ITEM:TDSTamp:FORMat FORMat1 | FORMat2 | FORMat3 | FORMat4 | FORMat5 | FORMat6
 HCOpy:ITEM:TDSTamp:STATe OFF | 0 | ON | 1
 HCOpy:ITEM[:WINDow[1 | 2 | 3 | 4]]:TRACe:COLor (0 ~ 16)
 HCOpy:ITEM[:WINDow[1 | 2 | 3 | 4]]:TRACe:GRATicule:COLor (0 ~ 16)
 HCOpy:ITEM[:WINDow[1 | 2 | 3 | 4]]:TRACe:GRATicule[:IMMediate]
 HCOpy:ITEM[:WINDow[1 | 2 | 3 | 4]]:TRACe[:IMMediate]
 HCOpy:ITEM[:WINDow[1 | 2 | 3 | 4]]:TRACe:LTYPe
 STYLe0 | DOTTed | DASHed | STYLe1 | STYLe2 | STYLe3 | STYLe4 | STYLe5 | STYLe6 | SOLid
 HCOpy:ITEM[:WINDow[1 | 2 | 3 | 4]]:TRACe:MARKer:COLor (0 ~ 16)
 HCOpy:ITEM[:WINDow[1 | 2 | 3 | 4]]:TRACe:MARKer[:IMMediate]
 HCOpy:ITEM[:WINDow[1 | 2 | 3 | 4]]:TRACe:MARKer:OFFSet[:IMMediate]
 HCOpy:PAGE:DIMensions:AUTO OFF | 0 | ON | 1
 HCOpy:PAGE:DIMensions:USER:LLEft (-32767 ~ 32767),(-32767 ~ 32767)
 HCOpy:PAGE:DIMensions:USER:URIGHt (-32767 ~ 32767),(-32767 ~ 32767)
 HCOpy:PLOT:ADDReSS (0 ~ 30)

HCOPY:PRINT:ADDRESS (0 ~ 30)

INIT INITiate:CONTInuous OFF | 0 | ON | 1
 INITiate[:IMMediate]

INP INPut[1 | 2]:COUPling AC | DC
 INPut[1 | 2]:FILTer[:LPASs][:STATe] OFF | 0 | ON | 1
 INPut[1 | 2]:IMPedance (50 ~ 1e+06[OHM])
 INPut[1 | 2][:STATe] OFF | 0 | ON | 1

INST INSTrument:NSElect (1 ~ 5)
 INSTrument[:SElect] SCALar | DEMod | ADEMod | DDEMod | VECTor | VDEMod

MEM MEMory:DELeTe[:NAME]-? RDISk | D1 | D2 | D3 | D4 | D5 | D6 | DREG
 MEMory:MALLocate:APPLication (0 ~ 3.40282e+38)
 MEMory:MALLocate:MEASurement:DEFault
 MEMory:MALLocate:MEASurement:FPOints (51 ~ 3201)
 MEMory:MALLocate:MEASurement:MSSRate (16 ~ 100)
 MEMory:MALLocate:MEASurement:MTEmp (0 ~ 100)
 MEMory:MALLocate:MEASurement:TPOints (64 ~ 4096)
 MEMory:MALLocate:PROGrama (0 ~ 3.40282e+38)



MMEM MMEMory:COpy-? <FILENAME>,<MSUS>[,<FILENAME>][,<MSUS>]
MMEMory:DATA <FILENAME>,<USER>
MMEMory:DELe-? <FILENAME>[,<MSUS>]
MMEMory:FSYS-? LIF|DOS
MMEMory:INITialize-? [,<MSUS>][,LIF|DOS][,(0 ~ 7.00006e+06)][,(0 ~ 256)]
MMEMory:LOAD:APPLication-? <FILENAME>[,<MSUS>]
MMEMory:LOAD:CONTinue
MMEMory:LOAD:CONTinue?
MMEMory:LOAD:MATH-? <FILENAME>[,<MSUS>]
MMEMory:LOAD:PROG-? <FILENAME>[,<MSUS>]
MMEMory:LOAD:STATe-? (1 ~ 1),<FILENAME>[,<MSUS>]
MMEMory:LOAD:TCAP-? <FILENAME>[,<MSUS>]
MMEMory:LOAD:TRACe-? D1|D2|D3|D4|D5|D6,<FILENAME>[,<MSUS>]
MMEMory:LOAD:TRACe:BUFFer-? D1|D2|D3|D4|D5|D6,<FILENAME>[,<MSUS>]
MMEMory:MOVE-? <FILENAME>,<MSUS>[,<FILENAME>][,<MSUS>]
MMEMory:MSIS <MSUS>
MMEMory:NAME <FILENAME>
MMEMory:STORe:CONTinue
MMEMory:STORe:CONTinue?

MMEMory:STORe:MATH-? <FILENAME>[, <MSUS>]
MMEMory:STORe:PROGrama-? <FILENAME>[, <MSUS>]
MMEMory:STORe:STATe-? (1 ~ 1), <FILENAME>[, <MSUS>]
MMEMory:STORe:TCAPture-? <FILENAME>[, <MSUS>]
MMEMory:STORe:TRACe-? TRACe1 | TRACe2 | TRACe3 | TRACe4, <FILENAME>[, <MSUS>]
MMEMory:STORe:TRACe:BUFFer-? TRACe1 | TRACe2 | TRACe3 | TRACe4, <FILENAME>[, <MSUS>]
OUTP OUTPut:FiLTeR[:LPASs][:STATe] OFF | 0 | ON | 1
OUTPut:IMPedance (50 ~ 75[OHM])
OUTPut[:STATe] OFF | 0 | ON | 1
PAUS PAUSE
PROG PROGRAm:EXPLicit:DEFine PROGRAm1, <PROGRAM>
PROGRAm[:SELeCted]:DEFine <PROGRAM>
PROGRAm[:SELeCted]:DELeTe:ALL
PROGRAm[:SELeCted]:DELeTe[:SELeCted]
PROGRAm[:SELeCted]:MALLocate (1200 ~ 500000)
PROGRAm[:SELeCted]:NAME PROGRAm1
PROGRAm[:SELeCted]:NUMBer <STRING>, <BLOCK>
PROGRAm[:SELeCted]:STATe STOP | PAUSE | RUN | CONTINUE
PROGRAm[:SELeCted]:STRing <STRING>, <STRING>

ROUT ROUTe:RECEiver RF2 | RF1 | IF | INPut | EXTeRnal | COMBiNe
SCR SCReen:CONTeNts TRACe | MSTate | ISTate | MMEMory | MEMory | OPTions | TCAPture
SENS [SENSe:]AVERAge:COUNT (1 ~ 99999)
 [SENSe:]AVERAge:COUNT:INTermediate?
 [SENSe:]AVERAge:IREsult:RATE (1 ~ 99999)
 [SENSe:]AVERAge:IREsult[:STATe] OFF | 0 | ON | 1
 [SENSe:]AVERAge[:STATe] OFF | 0 | ON | 1
 [SENSe:]AVERAge:TCONtrol EXPOntial | NORMal | REPeat
 [SENSe:]AVERAge:TYPE MAX | RMS | COMPLex

 [SENSe:]BANDwidth:MODE:ARBitrary OFF | 0 | ON | 1
 [SENSe:]BANDwidth[:RESolution] (range depends on config(HZ))
 [SENSe:]BANDwidth[:RESolution]:AUTO OFF | 0 | ON | 1
 [SENSe:]BANDwidth[:RESolution]:AUTO:OFFSet OFF | 0 | ON | 1

 [SENSe:]CORRection[1 | 2]:EDElay[:TIME] (range depends on config(S))
 [SENSe:]CORRection[1 | 2]:EXTeRnal[:STATe] OFF | 0 | ON | 1
 [SENSe:]CORRection[1 | 2]:FILTer:XTIME:STATe OFF | 0 | ON | 1
 [SENSe:]CORRection[1 | 2]:IMPedance[:INPut][:MAGNitude] (0.001 ~ 1e+10(OHM))

[SENSe:]CORRection[1 | 2]:LOSS[:INPut]:MAGNitude (range depends on config)

[SENSe:]DATA TCAP1 | TCAP2, <DEF_BLOCK>

[SENSe:]DATA:HEADer:POINts? TCAP1 | TCAP2

[SENSe:]DDEMod:CLOCK (range depends on config[SYM])

[SENSe:]DDEMod:DVBQam:NState (16 ~ 64)

[SENSe:]DDEMod:FILTer:ALPHa (range depends on config)

[SENSe:]DDEMod:FILTer:MEASurement OFF | 0 | RECTangular | RCOSine | RRCosine | GAUSSian | USER | LPASs

[SENSe:]DDEMod:FILTer:MEASurement:USER:FEED <STRING>

[SENSe:]DDEMod:FILTer:REFeRence OFF | 0 | RECTangular | RCOSine | RRCosine | GAUSSian | USER | LPASs

[SENSe:]DDEMod:FILTer:REFeRence:USER:FEED <STRING>

[SENSe:]DDEMod:FORMat QPSK | PSK | QAM | MSK | FSK | DVBQam | VSB

[SENSe:]DDEMod:FREQuency:MIRROr OFF | 0 | ON | 1

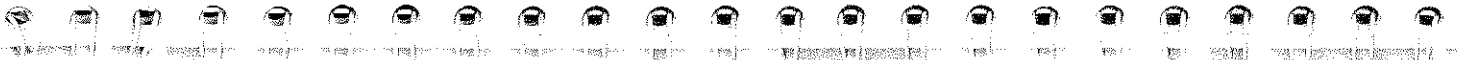
[SENSe:]DDEMod:FSK:NState (2 ~ 4)

[SENSe:]DDEMod:MSK:FORMat TYPE1 | TYPE2

[SENSe:]DDEMod:NORMalize OFF | 0 | ON | 1

[SENSe:]DDEMod:PRATe (range depends on config)

[SENSe:]DDEMod:PRESet: ? NADC | PDC | GSM | PHP | DECT | CDPD | TETRa



[SENSe:]DDEMod:PSK:NState (2 ~ 8)
 [SENSe:]DDEMod:QAM:NState (16 ~ 256)
 [SENSe:]DDEMod:QPSK:FORMat NORMal | DIFFerential | DPI4
 [SENSe:]DDEMod:SEARch:PULSe:STATe OFF | 0 | ON | 1
 [SENSe:]DDEMod:SEARch:SYNC:OFFSet (range depends on config[SYM])
 [SENSe:]DDEMod:SEARch:SYNC:PATtern < STRING >
 [SENSe:]DDEMod:SEARch:SYNC:STATe OFF | 0 | ON | 1
 [SENSe:]DDEMod:SEARch:TIME (range depends on config[S | SYM])
 [SENSe:]DDEMod:SRATe (range depends on config[HZ])
 [SENSe:]DDEMod:TIME (range depends on config[SYM])
 [SENSe:]DDEMod:VSB:NState (8 ~ 16)

[SENSe:]DEMod[1 | 2] OFF | 0 | AM | PM | FM | BASEband
 [SENSe:]DEMod[1 | 2]:CARRier:AUTO OFF | 0 | ON | 1
 [SENSe:]DEMod[1 | 2]:CARRier:AUTO:PM PAFReq | PHASe
 [SENSe:]DEMod[1 | 2]:CARRier:FREQ?

[SENSe:]DETEctor[:FUNCTION] SIGNal | SAMPlE | POSitive

[SENSe:]FEED <STRING>

[SENSe:]FREQuency:BASeband OFF|0|ON|1

[SENSe:]FREQuency:CENTer (range depends on config(HZ))

[SENSe:]FREQuency:CENTer:TRACk INP1|INP2|OFF|0

[SENSe:]FREQuency:EXTernal:BANDwidth (range depends on config(HZ))

[SENSe:]FREQuency:EXTernal:CENTer (range depends on config(HZ))

[SENSe:]FREQuency:EXTernal:COMMunicate OFF|0|ON|1

[SENSe:]FREQuency:EXTernal:COMMunicate:ADDReSS (0 ~ 30)

[SENSe:]FREQuency:EXTernal:MAXimum (range depends on config(HZ))

[SENSe:]FREQuency:EXTernal:MINimum (range depends on config(HZ))

[SENSe:]FREQuency:EXTernal:MIRRor OFF|0|ON|1

[SENSe:]FREQuency:MANual (range depends on config(HZ))

[SENSe:]FREQuency:SPAN (range depends on config(HZ))

[SENSe:]FREQuency:SPAN:FULL

[SENSe:]FREQuency:SPAN:PCHiRp EXACT|NEARest

[SENSe:]FREQuency:SPAN:WIDE OFF|0|ON|1

[SENSe:]FREQuency:STARt (range depends on config(HZ))

[SENSe:]FREQuency:STEP:AUTO OFF|0|ON|1



[SENSe:]FREQuency:STEP[:INCRement] (range depends on config(HZ))

[SENSe:]FREQuency:STOP (range depends on config(HZ))

[SENSe:]SWEep[1 | 2]:MODE AUTO | MANual

[SENSe:]SWEep[1 | 2]:OVERlap (0 ~ 99.99(PCT))

[SENSe:]SWEep[1 | 2]:POINTs (51 ~ (range depends on config))

[SENSe:]SWEep[1 | 2]:TIME:DELay (range depends on config(S))

[SENSe:]SWEep[1 | 2]:TIME:GATE:DELay (range depends on config(S))

[SENSe:]SWEep[1 | 2]:TIME:GATE:DELay:STEP[:INCRement] (range depends on config(S))

[SENSe:]SWEep[1 | 2]:TIME:GATE:SPAN (range depends on config(S))

[SENSe:]SWEep[1 | 2]:TIME:GATE:STATe OFF | 0 | ON | 1

[SENSe:]SWEep[1 | 2]:TIME:OVERlap (0 ~ 99.99(PCT))

[SENSe:]SWEep[1 | 2]:TIME:RESolution:AUTO OFF | 0 | ON | 1

[SENSe:]SWEep[1 | 2]:TIME:SPAN (range depends on config(S))

[SENSe:]TCAPture[1 | 2]:ABORt

[SENSe:]TCAPture[1 | 2]:DIRection FORWard | REVerse

[SENSe:]TCAPture[1 | 2][:IMMediate]

[SENSe:]TCAPture[1 | 2]:LENGth (range depends on config(S) | POINTS | RECORDS)

[SENSe:]TCAPture[1 | 2]:RANGe (1e-20 ~ 1e+20)

[SENSe:]TCAPture[1 | 2]:START (range depends on config[S | POINTS | RECORDS])

[SENSe:]TCAPture[1 | 2]:STOP (range depends on config[S | POINTS | RECORDS])

[SENSe:]VOLTage[1 | 2][:DC]:RANGe:AUTO OFF | 0 | ON | 1 | ONCE

[SENSe:]VOLTage[1 | 2][:DC]:RANGe:AUTO:DIRection UP | EITHER

[SENSe:]VOLTage[1 | 2][:DC]:RANGe:UNIT:VOLTage DBM | DBV | DBVRMS | DBVPK | V | VPK | VRMS | W | WRMS

[SENSe:]VOLTage[1 | 2][:DC]:RANGe[:UPPer] (range depends on config[DBM | DBV | DBVRMS | DBVPK | V | VPK | VRMS | W | WRMS])

[SENSe:]VOLTage[1 | 2]:PROTection:CLEAr

[SENSe:]WINDow:GATE UNIFORM | FLATtop | HANNing | GTOp

[SENSe:]WINDow:GATE:COUPLing OFF | 0 | ON | 1

[SENSe:]WINDow[:TYPE] UNIFORM | FLATtop | HANNing | GTOp

SOUR SOURce:AM:STATe OFF | 0 | ON | 1

SOURce:FREQuency[:CW] (range depends on config[HZ])

SOURce:FREQuency:OFFSet (range depends on config[HZ])

SOURce:FUNCTion[:SHAPE] SINusoid | USER | RANDom | PCHirp

SOURce:FUNCTion:USER:FEED < STRING >

SOURce:IFINput:STATe OFF | 0 | ON | 1



SOURce:RF OFF | 0 | ON | 1

SOURce:USER:REPeat OFF | 0 | ON | 1

SOURce:VOLTage[:LEVel][:IMMediate][:AMPLitude] (range depends on
config[DBM | DBV | DBVRMS | DBVPK | V | VPK | VRMS | W | WRMS])

SOURce:VOLTage[:LEVel][:IMMediate]:OFFSet (range depends on config[V])

SOURce:VOLTage[:LEVel]:UNIT:VOLTage DBM | DBV | DBVRMS | DBVPK | V | VPK | VRMS | W | WRMS

SOURce:VOLTage:PROTEction:CLEar

STAT

STATus:DEvice:CONDition?

STATus:DEvice:ENABle (0 ~ 32767)

STATus:DEvice[:EVENT]?

STATus:DEvice:NTRansition (0 ~ 32767)

STATus:DEvice:PTRansition (0 ~ 32767)

STATus:OPERation:CONDition?

STATus:OPERation:ENABle (0 ~ 32767)

STATus:OPERation[:EVENT]?

STATus:OPERation:NTRansition (0 ~ 65535)

STATus:OPERation:PTRansition (0 ~ 32767)

STATus:PRESet

STATus:QUEStionable:CONDition?

STATus:QUESTIONable:ENABle (0 ~ 65535)
STATus:QUESTIONable[:EVENT]?
STATus:QUESTIONable:FREQuency:CONDition?
STATus:QUESTIONable:FREQuency:ENABle (0 ~ 32767)
STATus:QUESTIONable:FREQuency[:EVENT]?
STATus:QUESTIONable:FREQuency:NTRansition (0 ~ 32767)
STATus:QUESTIONable:FREQuency:PTRansition (0 ~ 32767)
STATus:QUESTIONable:MODulation:CONDition?
STATus:QUESTIONable:MODulation:ENABle (0 ~ 32767)
STATus:QUESTIONable:MODulation[:EVENT]?
STATus:QUESTIONable:MODulation:NTRansition (0 ~ 32767)
STATus:QUESTIONable:MODulation:PTRansition (0 ~ 32767)
STATus:QUESTIONable:NTRansition (0 ~ 32767)
STATus:QUESTIONable:PTRansition (0 ~ 32767)
STATus:QUESTIONable:VOLTag:CONDition?
STATus:QUESTIONable:VOLTag:ENABle (0 ~ 32767)
STATus:QUESTIONable:VOLTag[:EVENT]?
STATus:QUESTIONable:VOLTag:NTRansition (0 ~ 32767)
STATus:QUESTIONable:VOLTag:PTRansition (0 ~ 32767)

STATus:USER:ENABle (0 ~ 32767)
 STATus:USER[:EVENT]?
 STATus:USER:PULSe-? (0 ~ 65535)
SYST SYSTem:BEEPer:STATe OFF|0|ON|1
 SYSTem:COMMUnicate[1|2]:GPIB:ADDRes (0 ~ 33)
 SYSTem:COMMUnicate[1|2]:LAN:EADdress?
 SYSTem:COMMUnicate[1|2]:LAN:IPADdress <STRING>
 SYSTem:COMMUnicate[1|2]:LAN:PORT BNC|AUI
 SYSTem:COMMUnicate[1|2]:LAN:ROUTE:GATeway <STRING>
 SYSTem:COMMUnicate[1|2]:LAN:ROUTE:SMASk <STRING>
 SYSTem:COMMUnicate[1|2]:LAN:STATe OFF|0|ON|1
 SYSTem:COMMUnicate[1|2]:LAN:XWINDow:HOSTname <STRING>
 SYSTem:COMMUnicate[1|2]:LAN:XWINDow:RATE (0 ~ 60(HZ))
 SYSTem:COMMUnicate[1|2]:LAN:XWINDow[:STATe] OFF|0|ON|1
 SYSTem:COMMUnicate[1|2]:SERial:CONTRol:DTR IBFull|OFF|0
 SYSTem:COMMUnicate[1|2]:SERial[:RECEive]:BAUD (75 ~ 19200)
 SYSTem:COMMUnicate[1|2]:SERial[:RECEive]:PACE XON|NONE
 SYSTem:COMMUnicate[1|2]:SERial[:RECEive]:PARity[:TYPE] EVEN|ODD|NONE
 SYSTem:DATE (1980 ~ 2100),(1 ~ 12),(1 ~ 31)

SYSTem:ERRor?

SYSTem:GPIB:ECHO OFF | 0 | ON | 1

SYSTem:KEY (0 ~ 511)

SYSTem:KLOCK OFF | 0 | ON | 1

SYSTem:PRESet

SYSTem:TIME (0 ~ 23),(0 ~ 59),(0 ~ 59)

TRAC TRACe:BUFFer:COPI-? D1 | D2 | D3 | D4 | D5 | D6, TRACe1 | TRACe2 | TRACe3 | TRACe4 | CAL1 | CAL2

TRACe:COPI-? D1 | D2 | D3 | D4 | D5 | D6, TRACe1 | TRACe2 | TRACe3 | TRACe4 | CAL1 | CAL2

TRACe[:DATA] D1 | D2 | D3 | D4 | D5 | D6, < DEF_BLOCK >

TRACe[:DATA]:HEADer:POINts? D1 | D2 | D3 | D4 | D5 | D6

TRACe:X[:DATA]? D1 | D2 | D3 | D4 | D5 | D6 | TRACe1 | TRACe2 | TRACe3 | TRACe4

TRACe:X:UNIT? D1 | D2 | D3 | D4 | D5 | D6 | TRACe1 | TRACe2 | TRACe3 | TRACe4

TRIG TRIGger:HOLDoff:DELay (0 ~ 41.94[S])

TRIGger:HOLDoff:STATe OFF | 0 | ON | 1

TRIGger:LEVel (range depends on config[DBM | DBV | DBVRMS | DBVPK | V | VPK | VRMS | W | WRMS])

TRIGger:SLOPe POSitive | NEGative

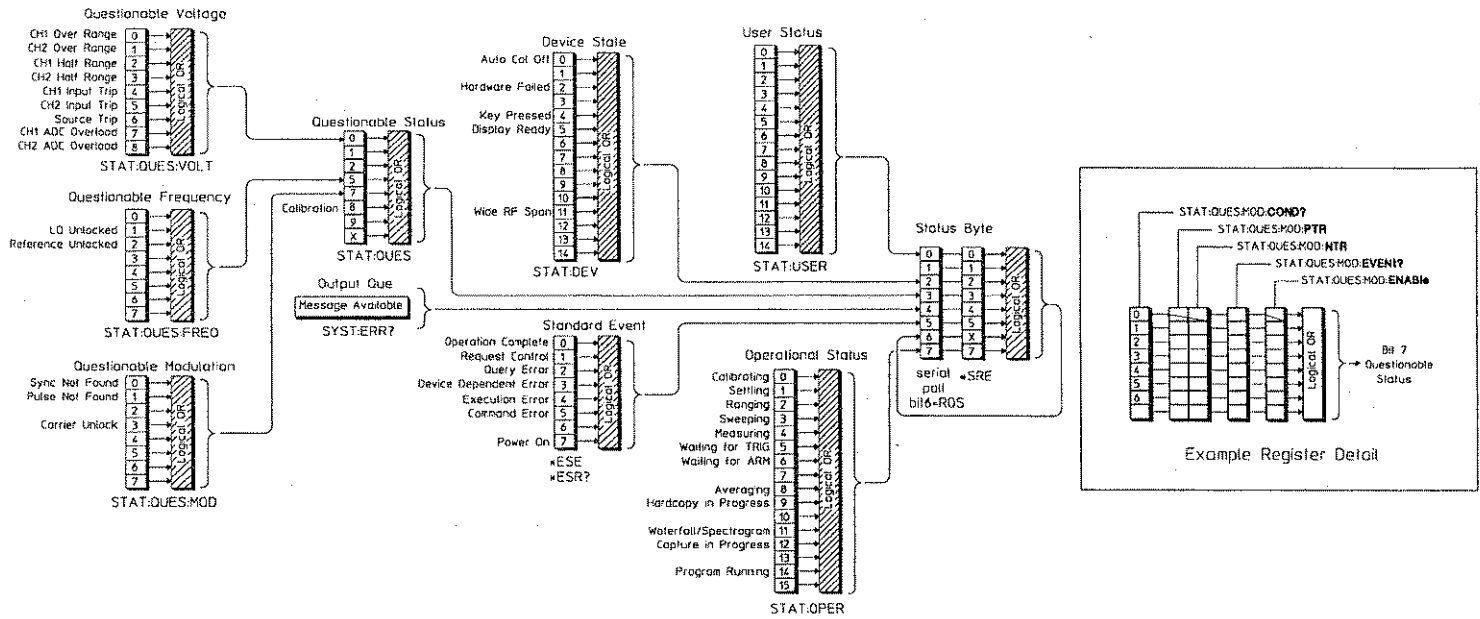
TRIGger:SOURce BUS | EXTeRnal | IF | IF1 | IF2 | IMMEDIATE | INTeRnal1 | INTeRnal2 | OUTPut

Units1

am	dBampk2/Hz	dBradms2/Hz	Hzipk2	radpk2	Vpk
am2	dBamrms2	dBV	Hzipk2/Hz	radpk2/Hz	Vpk/rtHz
ampk	dBamrms2/Hz	dBV/rtHz	Hzrms	radrms	Vpk2
ampk/rtHz	dBHzipk2	dBVpk	Hzrms/rtHz	radrms/rtHz	Vpk2/Hz
ampk2	dBHzipk2/Hz	dBVpk/rtHz	Hzrms2	radrms2	Vrms
ampk2/Hz	dBHzrms2	dBVrms	Hzrms2/Hz	radrms2/Hz	Vrms/rtHz
amrms	dBHzrms2/Hz	dBVrms/rtHz	MHz	s	Vrms2
amrms/rtHz	dBm	deg	pct	unitless	Vrms2/Hz
amrms2	dBm/Hz	Hz	rad	V	W
amrms2/Hz	dBradpk2	Hz2	rad2	V/rtHz	W/Hz
dB	dBradpk2/Hz	Hzipk	radpk	V2	Wrms
dBampk2	dBradms2	Hzipk/rtHz	radpk/rtHz	V2/Hz	Wrms/Hz

Units2

am	amrms2	Hzipk2	rad	radrms2	Vpk
am2	amrms2/Hz	Hzipk2/Hz	rad2	radrms2/Hz	Vpk/rtHz
ampk	dB	Hzrms	radpk	S	Vpk2
ampk/rtHz	deg	Hzrms/rtHz	radpk/rtHz	unitless	Vpk2/Hz
ampk2	Hz	Hzrms2	radpk2	V	Vrms
ampk2/Hz	Hz2	Hzrms2/Hz	radpk2/Hz	V/rtHz	Vrms/rtHz
amrms	Hzipk	MHz	radrms	V2	Vrms2
amrms/rtHz	Hzipk/rtHz	pct	radrms/rtHz	V2/Hz	Vrms2/Hz



Parameter Definitions:

<BLOCK> or <DEF_BLOCK>

If you are sending binary data using indefinite length syntax,

<BLOCK> takes the following form:

<BLOCK> ::= #0<data_byte>[,<data_byte>]...<LF><^END>

<data_byte> ::= unsigned 8-bit data

<LF> ::= line feed character, ASCII decimal 10

<^END> ::= HP-IB END message (EOI set true)

If you are sending binary data using definite length syntax,

<BLOCK> takes the following form:

<BLOCK> ::= #<byte><length_bytes><data_byte>[<data_byte>]...

<byte> ::= number of length bytes to follow (ASCII encoded)

<length_bytes> ::= number of data bytes to follow (ASCII encoded)

<data_byte> ::= unsigned 8-bit data

If you are sending ASCII data, <BLOCK> takes the following form:

<BLOCK> ::= NRf[,NRf]...<LF>

<FILENAME> takes the following form:

<FILENAME> ::= '[MSUS:]filename'

where MSUS: (mass storage unit specifier) is replaced with:

RAM: which selects volatile RAM.

NVRAM: which selects non-volatile RAM.

INT: which selects the internal disk drive.

EXT[,<select_code>[,<unit_number>]]: selects external disk drive.

<STRING> is an ASCII string

HP Part Number 89400-90005

Microfiche Part Number 89400-90205

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