

Agilent 35670A GPIB Commands: Quick Reference

This Quick Reference of the GPIB commands recognized by the Agilent 35670A lists the common commands and then lists the subsystem commands in alphabetical order. Figure 1 shows the Agilent 35670A status registers.

- Syntax descriptions use the following conventions:

	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 preceding command.
- Use “;:” to reset the command parser to the base of the command tree when sending multiple commands within a single program message.
- The input defaults to channel 1 and the trace defaults to trace A if the optional [1|2|3|4] parameter is not specified.
- To view the GPIB command which corresponds to a front panel operation, press [**Local/GPIB**] [GPIB ECHO ON OFF] to highlight **ON**.
- For more information on a particular command refer to *GPIB Programming with the Agilent 35670A*.

Parameter Definitions:

<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> ::= GPIB 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> ::= Integer[,Integer]. . . <LF>

or

<BLOCK> ::= Floating-point number[,Floating-point]. . . <LF>

<FILENAME> takes the following form:

<FILENAME> ::= '[MSIS:][\DIR_NAME\]filename'

where MSIS: must be 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>]]: which selects the external disk drive.

\DIR_NAME\ ::= ASCII characters

(MS-DOS file systems only)

<MMEMNAME> takes the following form:

<MMEMNAME> ::= '[MSIS:][\DIR_NAME\]filename'

'MSIS:[\DIR_NAME\][filename]'

_'MSIS:[\DIR_NAME\]filename'

See <FILENAME> for additional information.

<MSINAME> takes the following form:

<MSINAME> ::= 'MSIS:[\DIR_NAME\]'

See <FILENAME> for additional information.

For more information about parameters, refer to chapter 2, "Introduction to the Command Reference," in *GPIB Programming with the Agilent 35670A*.

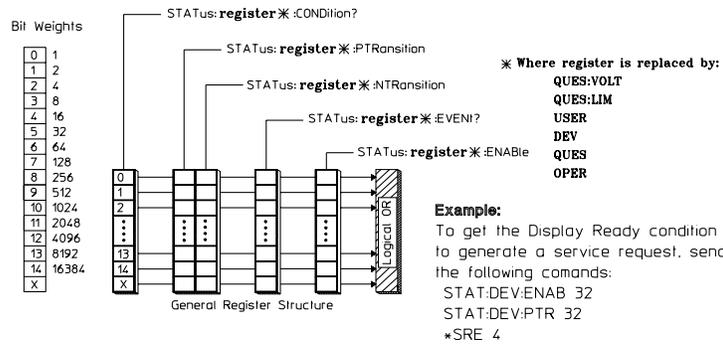
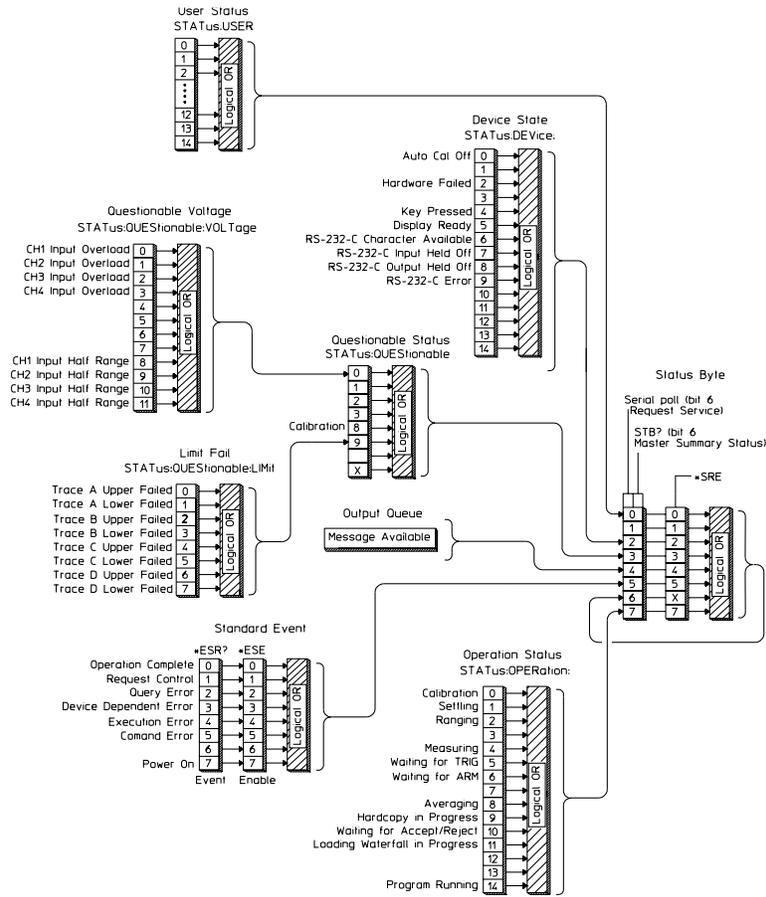


Figure 1. HP 35670A Status Register Summary

Command List

Common Commands

*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	Enables the status bit to be set for completion of overlapped commands
*OPC?	Queries completion of overlapped commands
*OPT?	Returns analyzer's option configuration
*PCB-? 0~30[,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

ABORt

ABORt

ARM

ARM[:IMMediate]

ARM:RPM:INCRement 1~500000[RPM]

ARM:RPM:MODE OFF|O|U|P|DOWN

ARM:RPM:THReshold 5~491520[RPM]

ARM:SOURce IMMEDIATE|MANUAL|RPM|TIMER

ARM:TIMER 0~500000[S]

CALCulate[1|2|3|4]

CALCulate[1|2|3|4]:ACTive AIBICIDIABICDIABCD
 CALCulate[1|2|3|4]:CFIT:ABORT
 CALCulate[1|2|3|4]:CFIT:COPY-? SYNThesis
 CALCulate[1|2|3|4]:CFIT:DATA <BLOCK>
 CALCulate[1|2|3|4]:CFIT:DESTination D1|D2|D3|D4|D5|D6|D7|D8
 CALCulate[1|2|3|4]:CFIT:FREQuency[:AUTO] OFFI0|ONI1
 CALCulate[1|2|3|4]:CFIT:FREQuency:STARt 0~115000[HZ]
 CALCulate[1|2|3|4]:CFIT:FREQuency:STOP 0.390625~115000[HZ]
 CALCulate[1|2|3|4]:CFIT:FSCale 1e-06~1e+06
 CALCulate[1|2|3|4]:CFIT[:IMMEDIATE]
 CALCulate[1|2|3|4]:CFIT:ORDer:AUTO OFFI0|ONI1
 CALCulate[1|2|3|4]:CFIT:ORDer:POLes 0~20
 CALCulate[1|2|3|4]:CFIT:ORDer:ZERos 0~20
 CALCulate[1|2|3|4]:CFIT:TDELay -100~100[S]
 CALCulate[1|2|3|4]:CFIT:WEIGHt:AUTO OFFI0|ONI1
 CALCulate[1|2|3|4]:CFIT:WEIGHt:REGister D1|D2|D3|D4|D5|D6|D7|D8
 CALCulate[1|2|3|4]:DATA?
 CALCulate[1|2|3|4]:DATA:HEADer:POINTs?
 CALCulate[1|2|3|4]:FEED <CMDSTR>
 CALCulate[1|2|3|4]:FORMat MLINear|MLOGarithmic|PHASel|REAL|IMAGinary|
 NYQuist|UPHase|GDELay|POLar
 CALCulate[1|2|3|4]:GDAPerture:APERture 0~20[PCT]
 CALCulate[1|2|3|4]:LIMit:BEEP[:STATe] OFFI0|ONI1
 CALCulate[1|2|3|4]:LIMit:FAIL?
 CALCulate[1|2|3|4]:LIMit:LOWer:CLEar[:IMMEDIATE]
 CALCulate[1|2|3|4]:LIMit:LOWer:MOVE:Y-? -9.9e+37~9.9e+37
 CALCulate[1|2|3|4]:LIMit:LOWer:REPort[:DATA]?
 CALCulate[1|2|3|4]:LIMit:LOWer:REPort:YDATA?
 CALCulate[1|2|3|4]:LIMit:LOWer:SEGment <BLOCK>
 CALCulate[1|2|3|4]:LIMit:LOWer:SEGment:CLEar-? -9.9e+37~9.9e+37
 CALCulate[1|2|3|4]:LIMit:LOWer:TRACe[:IMMEDIATE]
 CALCulate[1|2|3|4]:LIMit:STATe OFFI0|ONI1
 CALCulate[1|2|3|4]:LIMit:UPPer:CLEar[:IMMEDIATE]
 CALCulate[1|2|3|4]:LIMit:UPPer:MOVE:Y-? -9.9e+37~9.9e+37
 CALCulate[1|2|3|4]:LIMit:UPPer:REPort[:DATA]?
 CALCulate[1|2|3|4]:LIMit:UPPer:REPort:YDATA?
 CALCulate[1|2|3|4]:LIMit:UPPer:SEGment <BLOCK>
 CALCulate[1|2|3|4]:LIMit:UPPer:SEGment:CLEar-? -9.9e+37~9.9e+37
 CALCulate[1|2|3|4]:LIMit:UPPer:TRACe[:IMMEDIATE]
 CALCulate[1|2|3|4]:MARKer:BAND:STARt -9.9e+37~9.9e+37[HZ|SIORDI
 COUNT|AVG|VIVPKIRPMIEUIREV]

CALCulate[1|2|3|4]:MARKer:BAND:STOP -9.9e+37~9.9e+37[HZ|SI|ORDI
 COUNT|AVG|VIVPK|IRPM|IEUIREV]

CALCulate[1|2|3|4]:MARKer:COUPled[:STATe] OFF|O|ONI1

CALCulate[1|2|3|4]:MARKer:DTABle:CLEar[:IMMediate]

CALCulate[1|2|3|4]:MARKer:DTABle:COPIY[1|2|3|4]

CALCulate[1|2|3|4]:MARKer:DTABle[:DATA]?

CALCulate[1|2|3|4]:MARKer:DTABle:X[:DATA]?

CALCulate[1|2|3|4]:MARKer:DTABle:X:DELeTe

CALCulate[1|2|3|4]:MARKer:DTABle:X:INSert -9.9e+37~9.9e+37[HZ|SI|ORDI
 COUNT|AVG|VIVPK|IRPM|IEUIREV]

CALCulate[1|2|3|4]:MARKer:DTABle:X:LABel '<STRING>'

CALCulate[1|2|3|4]:MARKer:DTABle:X:SELeCt[:POINt] 1~50

CALCulate[1|2|3|4]:MARKer:FUNCTion OFF|O|HPOWeR|THD|BPOWeR|BRMS|
 SPOWeR|OVERshoot|RTIMe|STIMe|DTIMe|SSLevell|GMARgin|PMARgin|
 GCRossover|PCRossover|FREQuency|DAMPing|SINFo|WEIGHt|TPOWeR|
 WPOWeR

CALCulate[1|2|3|4]:MARKer:FUNCTion:RESult?

CALCulate[1|2|3|4]:MARKer:HARMonic:COUNT 0~400

CALCulate[1|2|3|4]:MARKer:HARMonic:FUNDamental -9.9e+37~9.9e+37[HZ|
 ORD|ICPM]

CALCulate[1|2|3|4]:MARKer:MAXimum[:GLOBal]

CALCulate[1|2|3|4]:MARKer:MAXimum[:GLOBal]:TRACk OFF|O|ONI1

CALCulate[1|2|3|4]:MARKer:MAXimum:LEFT

CALCulate[1|2|3|4]:MARKer:MAXimum:RIGHT

CALCulate[1|2|3|4]:MARKer:MODE ABSolute|RELative

CALCulate[1|2|3|4]:MARKer:POSition -9.9e+37~9.9e+37[HZ|SI|
 ORD|ICOUNT|AVG|VIVPK|IRPM|IEUIREV]

CALCulate[1|2|3|4]:MARKer:POSition:POINt 0~2047

CALCulate[1|2|3|4]:MARKer:REFerence:X -9.9e+37~9.9e+37[HZ|SI|ORDI
 COUNT|AVG|VIVPK|IRPM|IEUIREV]

CALCulate[1|2|3|4]:MARKer:REFerence:Y -9.9e+37~9.9e+37[DBVRMS|VPKI
 DBVPK|IV|DBV|IEUI|DBEUI|VRMS]

CALCulate[1|2|3|4]:MARKer:SIDeband:CARRier -9.9e+37~9.9e+37[HZ|ORDI
 CPM]

CALCulate[1|2|3|4]:MARKer:SIDeband:COUNT 0~200

CALCulate[1|2|3|4]:MARKer:SIDeband:INCRement -9.9e+37~9.9e+37[HZ|
 ORD|ICPM]

CALCulate[1|2|3|4]:MARKer[:STATe] OFF|O|ONI1

CALCulate[1|2|3|4]:MARKer:X[:ABSolute] -9.9e+37~9.9e+37[HZ|SI|ORDI
 COUNT|AVG|VIVPK|IRPM|IEUIREV]

CALCulate[1|2|3|4]:MARKer:X:RELative -102400~102400[HZ|SI|ORD|ICOUNT|
 AVG|VIVPK|IRPM|IEUIREV]

CALCulate[1|2|3|4]:MARKer:Y[:ABSolute]?

CALCulate[1|2|3|4]:MARKer:Y:RELative -150~150

CALCulate[1|2|3|4]:MATH:CONStant[1|2|3|4|5] -9.9e+37~9.9e+37
 [-9.9e+37~9.9e+37]
 CALCulate[1|2|3|4]:MATH:DATA <USER>
 CALCulate[1|2|3|4]:MATH[:EXPRession[1|2|3|4|5]] <EXPR>
 CALCulate[1|2|3|4]:MATH:SELEct F1|F2|F3|F4|F5
 CALCulate[1|2|3|4]:MATH:STATe OFF|O|ON|1
 CALCulate[1|2|3|4]:SYNTHeSis:COpy-? CFIT
 CALCulate[1|2|3|4]:SYNTHeSis:DATA <BLOCK>
 CALCulate[1|2|3|4]:SYNTHeSis:DEStination D1|D2|D3|D4|D5|D6|D7|D8
 CALCulate[1|2|3|4]:SYNTHeSis:FSCale 1e-06~1e+06
 CALCulate[1|2|3|4]:SYNTHeSis:GAIN -9.9e+37~9.9e+37
 CALCulate[1|2|3|4]:SYNTHeSis[:IMMediate]
 CALCulate[1|2|3|4]:SYNTHeSis:SPACing LINear|LOGarithmic
 CALCulate[1|2|3|4]:SYNTHeSis:TDElay -100~100[S]
 CALCulate[1|2|3|4]:SYNTHeSis:TTPe PZERol|PFRaction|POLYnomial
 CALCulate[1|2|3|4]:UNIT:AMPLitude PEAK|PIRMS
 CALCulate[1|2|3|4]:UNIT:ANGLE DEGR|e|RADian
 CALCulate[1|2|3|4]:UNIT:DBReference 'DBV'|'DBM'|'DBSPL'|'DBUSER146
 CALCulate[1|2|3|4]:UNIT:DBReference:IMPedance 1e-15~1e+15[OHM]
 CALCulate[1|2|3|4]:UNIT:DBReference:USER:LABel '<STRING>'
 CALCulate[1|2|3|4]:UNIT:DBReference:USER:REFerence 1e-15~1e+15
 CALCulate[1|2|3|4]:UNIT:MECHanical 'G'|'M/S2'|'M/S'|'M'|'INCH/S2'|'INCH/S'|
 'INCH'|'MILS'
 CALCulate[1|2|3|4]:UNIT:VOLTage 'V'|'V2'|'V2/HZ'|'V2S/HZ'|@ 14 6V/RTHZ'
 CALCulate[1|2|3|4]:UNIT:X 'HZ'|'CPM'|'ORD'|'USER'
 CALCulate[1|2|3|4]:UNIT:X:ORDer:FACTor 1e-15~1e+15[HZ/ORD|RPM/ORD]
 CALCulate[1|2|3|4]:UNIT:X:USER:FREQuency:FACTor 1e-15~1e+15
 CALCulate[1|2|3|4]:UNIT:X:USER:FREQuency:LABel '<STRING>'
 CALCulate[1|2|3|4]:UNIT:X:USER:TIME:FACTor 1e-15~1e+15
 CALCulate[1|2|3|4]:UNIT:X:USER:TIME:LABel '<STRING>'
 CALCulate[1|2|3|4]:WATerfall:COUNT 1~32767
 CALCulate[1|2|3|4]:WATerfall[:DATA]?
 CALCulate[1|2|3|4]:WATerfall:SLICe:COpy-? D1|D2|D3|D4|D5|D6|D7|D8
 CALCulate[1|2|3|4]:WATerfall:SLICe:SELEct -16382~1e+06[HZ|S|ORD|
 COUNT|AVG|V|V|PK|IRPM|IEUIREV]
 CALCulate[1|2|3|4]:WATerfall:SLICe:SELEct:POINT 0~2048
 CALCulate[1|2|3|4]:WATerfall:TRACe:COpy-? D1|D2|D3|D4|D5|D6|D7|D8
 CALCulate[1|2|3|4]:WATerfall:TRACe:SELEct -9.9e+37~9.9e+37[S|IRPM|
 COUNT|AVG]
 CALCulate[1|2|3|4]:WATerfall:TRACe:SELEct:POINT 0~32767
 CALCulate[1|2|3|4]:X:DATA?

CALibration

CALibration[:ALL]?

CALibration:AUTO OFFI0IONI1IONCE

DISPlay

DISPlay:ANNotation[:ALL] OFFI0IONI1

DISPlay:BODE

DISPlay:BRIGhtness 0.5~1

DISPlay:ERRor-? '<STRING>'

DISPlay:EXTernal[:STATe] OFFI0IONI1

DISPlay:FORMat SINGLE|ULOWer|FBACK|SUBLIULFBIQUAD

DISPlay:GPIB:ECHO OFFI0IONI1

DISPlay:PROGram:KEY:BOX 0~9,OFFI0IONI1

DISPlay:PROGram:KEY:BRACket 0~9,0~9,OFFI0IONI1

DISPlay:PROGram[:MODE] OFFI0IFULLIUPPerLOWer

DISPlay:PROGram:VECTor:BUFFer[:STATe] OFFI0IONI1

DISPlay:RPM[:STATe] OFFI0IONI1

DISPlay:STATe OFFI0IONI1

DISPlay:TCAPture:ENVELOpe[:STATe] OFFI0IONI1

DISPlay:VIEW TRACe|MSTATe|MMEMory|STABle|CTABle|FTABle|TTABle|
MEMory|OPTion|CAPTure|IState|MESSage

DISPlay[:WINDow[1|2|3|4]]:DTABle:MARKer[:STATe] OFFI0IONI1

DISPlay[:WINDow[1|2|3|4]]:DTABle[:STATe] OFFI0IONI1

DISPlay[:WINDow[1|2|3|4]]:LIMit:STATe OFFI0IONI1

DISPlay[:WINDow[1|2|3|4]]:POLar:CLOCKwise OFFI0IONI1

DISPlay[:WINDow[1|2|3|4]]:POLar:ROTation -360~360

DISPlay[:WINDow[1|2|3|4]]:TRACe:APOWer[:STATe] OFFI0IONI1

DISPlay[:WINDow[1|2|3|4]]:TRACe:BPOWer[:STATe] OFFI0IONI1

DISPlay[:WINDow[1|2|3|4]]:TRACe:GRATicule:GRID[:STATe] OFFI0IONI1

DISPlay[:WINDow[1|2|3|4]]:TRACe:LABel '<STRING>'

DISPlay[:WINDow[1|2|3|4]]:TRACe:LABel:DEFault[:STATe] OFFI0IONI1

DISPlay[:WINDow[1|2|3|4]]:TRACe:X:MATCh[1|2|3|4]

DISPlay[:WINDow[1|2|3|4]]:TRACe:X[:SCALE]:AUTO OFFI0IONCE

DISPlay[:WINDow[1|2|3|4]]:TRACe:X[:SCALE]:LEFT -9.9e+37~9.9e+37[HZ|SI
ORDICOUNT|AVG|VIVPK|IRPM|IEUIREV]DISPlay[:WINDow[1|2|3|4]]:TRACe:X[:SCALE]:RIGHT -9.9e+37~9.9e+37[HZ|SI
ORDICOUNT|AVG|VIVPK|IRPM|IEUIREV]

DISPlay[:WINDow[1|2|3|4]]:TRACe:X:SPACing LINear|LOGarithmic

DISPlay[:WINDow[1|2|3|4]]:TRACe:Y:MATCh[1|2|3|4]

DISPlay[:WINDow[1|2|3|4]]:TRACe:Y[:SCALE]:AUTO OFFI0IONI1IONCE

DISPlay[:WINDow[1|2|3|4]]:TRACe:Y[:SCALE]:BOTTom -9.9e+37~9.9e+37
[DBVRMS|VRMS|VIVPK|IDBVPK|VIDB|VIEUIDBEU]

DISPLAY[:WINDow[1|2|3|4]]:TRACe:Y[:SCALe]:CENTer -9.9e+37~9.9e+37
 [DBVRMSIVRMSIVPKIDBVPKIVIDBVIEWIDBEU]
 DISPLAY[:WINDow[1|2|3|4]]:TRACe:Y[:SCALe]:PDIVision 0~9.9e+37[DBI
 VRMSIVPKIV]
 DISPLAY[:WINDow[1|2|3|4]]:TRACe:Y[:SCALe]:REFerence TOPICENTerI
 BOTTomIRANGe
 DISPLAY[:WINDow[1|2|3|4]]:TRACe:Y[:SCALe]:TOP -9.9e+37~9.9e+37
 [DBVRMSIVRMSIVPKIDBVPKIVIDBVIEWIDBEU]
 DISPLAY[:WINDow[1|2|3|4]]:TRACe:Y:SPACing LINearLOGarithmic
 DISPLAY[:WINDow[1|2|3|4]]:WATERfall:BASEline 0~100[PCT]
 DISPLAY[:WINDow[1|2|3|4]]:WATERfall:BOTTom 0~9.9e+37[SIRPMICOUNTI
 AVG]
 DISPLAY[:WINDow[1|2|3|4]]:WATERfall:COUNT 1e-06~9.9e+37[SIRPMICOUNTI
 AVG]
 DISPLAY[:WINDow[1|2|3|4]]:WATERfall:HEIGHT 1~100[PCT]
 DISPLAY[:WINDow[1|2|3|4]]:WATERfall:HIDDEN OFFI0ION1
 DISPLAY[:WINDow[1|2|3|4]]:WATERfall:SKEW OFFI0ION1
 DISPLAY[:WINDow[1|2|3|4]]:WATERfall:SKEW:ANGLE 0~45
 DISPLAY[:WINDow[1|2|3|4]]:WATERfall[:STATe] OFFI0ION1
 DISPLAY[:WINDow[1|2|3|4]]:WATERfall:TOP 0~9.9e+37[SIRPMICOUNTI]AVG]

FORMat

FORMat[:DATA] ASCii|REAL[,3~64]

HCOPY

HCOpy:COLor:DEFault
 HCOpy:DESTination 'SYSTem:COMMunicate:GPIB:RDEvice'|'MMEMory 46I
 'SYSTem:COMMunicate:CENTronics'|'SYSTem:COMMuni cate:SERial'
 HCOpy:DEvice:LANGUage HPGLIPCLIPHPGI
 HCOpy:DEvice:SPEed 0~100
 HCOpy[:IMMEDIATE]
 HCOpy:ITEM:ALL[:IMMEDIATE]
 HCOpy:ITEM:FFEEd:STATe OFFI0ION1
 HCOpy:ITEM:LAbel:COLor 0~16
 HCOpy:ITEM:LAbel:STATe OFFI0ION1
 HCOpy:ITEM:LAbel:TEXT '<STRING>'
 HCOpy:ITEM:TDSTamp:FORMat FORMat1|FORMat2|FORMat3|FORMat4|
 FORMat5
 HCOpy:ITEM:TDSTamp:STATe OFFI0ION1
 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:LIMit:LTYPe SOLid|DASHed|DOTTed|
 STYLe<n>
 HCOPy:ITEM[:WINDow[1|2|3|4]]:TRACe:LTYPe SOLid|DASHed|DOTTed|
 STYLe<n>
 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:REFerence[:IMMediate]
 HCOPy:PAGE:DIMensions:AUTO OFFI0IONI1
 HCOPy:PAGE:DIMensions:USER:LLEfT -32767~32767,-32767~32767
 HCOPy:PAGE:DIMensions:USER:URIGHt -32767~32767,-32767~32767
 HCOPy:PLOT:ADDRes 0~30
 HCOPy:PRINt:ADDRes 0~30
 HCOPy:TITLe[1|2] '<STRING>'

INITiate

INITiate:CONTInuous OFFI0IONI1
 INITiate[:IMMediate]

INPut[1|2|3|4]

INPut[1|2|3|4]:BIAS[:STATe] OFFI0IONI1
 INPut[1|2|3|4]:COUPling ACIDC
 INPut[1|2|3|4]:FILTer:AWEighting[:STATe] OFFI0IONI1
 INPut[1|2|3|4]:FILTer[:LPASs][:STATe] OFFI0IONI1
 INPut[1|2|3|4]:LOW GROund|FLOat
 INPut[1|2|3|4]:REFerence:DIRectiOn 0~32767
 INPut[1|2|3|4]:REFerence:POINt 0~32767
 INPut[1|2|3|4][:STATe] OFFI0IONI1

INSTrument

INSTrument:NSElect 0~5
 INSTrument[:SElect] FFT|OCTave|ORDER|SINE|HISTogram|CORRelation

MEMory

MEMory:CATalog[:ALL]?
 MEMory:CATalog:NAME? TCAPture|WATerfall|WREGister|PROGram|RDISK
 MEMory:DELeTe:ALL
 MEMory:DELeTe[:NAME]-? TCAPture|WATerfall|WREGister|PROGram|RDISK
 MEMory:FREE[:ALL]?

MMEMory

MMEMory:COpy-? <MMEMNAME>,<MMEMNAME>
 MMEMory:DELeTe-? <MMEMNAME>
 MMEMory:DISK:ADDRess 0~30
 MMEMory:DISK:UNIT 0~10
 MMEMory:FSYSstem?
 MMEMory:INITialize-? [<MSINAME>],[LIFIDOS],[,0~7.00006e+06],[,0~256]
 MMEMory:LOAD:CFIT-? <FILENAME>
 MMEMory:LOAD:CONTInue
 MMEMory:LOAD:CONTInue?
 MMEMory:LOAD:DTABLE:TRACe[1|2|3|4]-? <FILENAME>
 MMEMory:LOAD:LIMit:LOWer:TRACe[1|2|3|4]-? <FILENAME>
 MMEMory:LOAD:LIMit:UPPer:TRACe[1|2|3|4]-? <FILENAME>
 MMEMory:LOAD:MATH-? <FILENAME>
 MMEMory:LOAD:PROGram-? <FILENAME>
 MMEMory:LOAD:STATe-? 1~1,<FILENAME>
 MMEMory:LOAD:SYNThesis-? <FILENAME>
 MMEMory:LOAD:TCAPture-? <FILENAME>
 MMEM:LOAD:TRACe-? D1ID2ID3ID4ID5ID6ID7ID8,<FILENAME>[,NOScale]
 MMEMory:LOAD:WATerfall-? W1IW2IW3IW4IW5IW6IW7IW8,<FILENAME>
 MMEMory:MDIRectory-? '<DIR_NAME>'
 MMEMory:MOVE-? <FILENAME>,<FILE>
 MMEMory:MSIS <MSINAME>
 MMEMory:NAME '<FILENAME>'
 MMEMory:STORe:CFIT-? <FILENAME>
 MMEMory:STORe:CONTInue
 MMEMory:STORe:CONTInue?
 MMEMory:STORe:DTABLE:TRACe[1|2|3|4]-? <FILENAME>
 MMEMory:STORe:LIMit:LOWer:TRACe[1|2|3|4]-? <FILENAME>
 MMEMory:STORe:LIMit:UPPer:TRACe[1|2|3|4]-? <FILENAME>
 MMEMory:STORe:MATH-? <FILENAME>
 MMEMory:STORe:PROGram-? <FILENAME>
 MMEMory:STORe:PROGram:FORMat ASCiilBINary
 MMEMory:STORe:STATe-? 1~1,<FILENAME>
 MMEMory:STORe:SYNThesis-? <FILENAME>
 MMEMory:STORe:TCAPture-? <FILENAME>
 MMEMory:STORe:TRACe-? TRACe1|TRACe2|TRACe3|TRACe4,<FILENAME>
 MMEMory:STOR:WATerfall-? TRACe1|TRACe2|TRACe3|TRACe4,<FILENAME>

OUTPut

OUTPut:FiLTeR[:LPASs][:STATe] OFFI0IONI1

OUTPut[:STATe] OFFI0IONI1

PROGram

PROGram:EDIT:ENABle OFFI0IONI1

PROGram:EXPLicit:DEFine

PROGram1|PROGram2|PROGram3|PROGram4|PROGram5,<PROGRAM>

PROGram:EXPLicit:LABel PROGram1|PROGram2|PROGram3|PROGram4|
PROGram5,'<STRING>'

PROGram[:SELeCted]:DEFine <PROGRAM>

PROGram[:SELeCted]:DELete:ALL

PROGram[:SELeCted]:DELete[:SELeCted]

PROGram[:SELeCted]:LABel '<STRING>'

PROGram[:SELeCted]:MALLocate 1200~500000

PROGram[:SELeCted]:NAME PROGram1|PROGram2|PROGram3|PROGram4|
PROGram5

PROGram[:SELeCted]:NUMBer '<NVARNAME>','<BLOCK>'

PROGram[:SELeCted]:STATe STOPIPAUSelRUNICONTinue

PROGram[:SELeCted]:STRing '<SVARNAME>','<STRING>'

[SENSe:]

[SENSe:]AVERAge:CONFidence 0.25~2[DB]

[SENSe:]AVERAge:COUNT 1~1e+07

[SENSe:]AVERAge:HOLD OFFI0IMAXimum|MINimum

[SENSe:]AVERAge:IMPulse OFFI0IONI1

[SENSe:]AVERAge:IREsult:RATE 1~1e+07

[SENSe:]AVERAge:IREsult[:STATe] OFFI0IONI1

[SENSe:]AVERAge:PREView OFFI0IMANual|TIMed

[SENSe:]AVERAge:PREView:ACcept

[SENSe:]AVERAge:PREView:REJect

[SENSe:]AVERAge:PREView:TIME 0.1~3600[S]

[SENSe:]AVERAge[:STATe] OFFI0IONI1

[SENSe:]AVERAge:TCONtrol FREeze|REPeat|EXPOntial

[SENSe:]AVERAge:TIME 0~9.9e+37[S|RECIpNT]

[SENSe:]AVERAge:TYPE MAXimum|RMS|TIME|VECTor|ECONFidence

[SENSe:]FEED INPut|TCAPture

[SENSe:]FREQuency:BLOCKsize 256~2048

[SENSe:]FREQuency:CENTer 0.0234375~115000[HZ|CPM]

[SENSe:]FREQuency:MANual 0.015625~51200[HZ]

[SENSe:]FREQuency:RESolution 0.015625~51200[HZ|PCT|PNT|SWPI
PNT|DECIPNT|OCT]

[SENSe:]FREQuency:RESolution:AUTO OFFI0IONI1
 [SENSe:]FREQuency:RESolution:AUTO:MCHange 0.00391~100[PCT]
 [SENSe:]FREQuency:RESolution:AUTO:MINimum 0.015625~51200[HZICPM]
 PNT/SWIPNT/DECIPNT/OCT]
 [SENSe:]FREQuency:RESolution:OCTave THIRdIFULLITWELfth
 [SENSe:]FREQuency:SPAN 0.015625~102400[HZICPM]
 [SENSe:]FREQuency:SPAN:FULL
 [SENSe:]FREQuency:SPAN:LINK STARTtICENTer
 [SENSe:]FREQuency:START 0~115000[HZICPM]
 [SENSe:]FREQuency:STEP[:INCRement] 0.015625~102400[HZICPM]
 [SENSe:]FREQuency:STOP 0.03125~115000[HZICPM]
 [SENSe:]HISTogram:BINS 4~1024
 [SENSe:]ORDer:MAXimum 3.125~200[ORD]
 [SENSe:]ORDer:RESolution 0.0078125~1[ORD]
 [SENSe:]ORDer:RESolution:TRACk 1~2048
 [SENSe:]ORDer:RPM:MAXimum 0~9.9e+37[RPM]
 [SENSe:]ORDer:RPM:MINimum 0~9.9e+37[RPM]
 [SENSe:]ORDer:TRACk[1|2|3|4|5] 0~9.9e+37[ORD]
 [SENSe:]ORDer:TRACk[1|2|3|4|5]:STATe OFFI0IONI1
 [SENSe:]REFerence SINGleIPAIR
 [SENSe:]REJect:STATe OFFI0IONI1
 [SENSe:]SWEep:DIRection UPIDOWN
 [SENSe:]SWEep:DWELI 0.00025~32768[SICYCLE]
 [SENSe:]SWEep:MODE AUTOIMANual
 [SENSe:]SWEep:OVERlap 0~99[PCT]
 [SENSe:]SWEep:SPACing LINearLOGarithmic
 [SENSe:]SWEep:STIME 0~9.9e+37[SICYCLE]
 [SENSe:]SWEep:TIME 0.000976562~8192[S]
 [SENSe:]TCAPture:ABORt
 [SENSe:]TCAPture:DELete
 [SENSe:]TCAPture[:IMMediate]
 [SENSe:]TCAPture:LENGth 0~9.9e+37[SIBLKIPNT]
 [SENSe:]TCAPture:MALLocate
 [SENSe:]TCAPture:START[1|2|3|4] -9.9e+37~9.9e+37[SIBLKIPNT]
 [SENSe:]TCAPture:STOP[1|2|3|4] -9.9e+37~9.9e+37[SIBLKIPNT]
 [SENSe:]TCAPture:TACHometer:RPM:MAXimum 5~491519
 [SENSe:]TCAPture:TACHometer[:STATe] OFFI0IONI1
 [SENSe:]VOLTag[1|2|3|4][:DC]:RANGe:AUTO OFFI0IONI1
 [SENSe:]VOLTag[1|2|3|4][:DC]:RANGe:AUTO:DIRection UPIEITHer
 [SENSe:]VOLTag[1|2|3|4][:DC]:RANGe:UNIT:USER:LABel '<STRING>'
 [SENS:]VOLT[1|2|3|4][:DC]:RANGe:UNIT:USER:SFACTor -9.9e+37~9.9e+37
 [V/EUIEU/V]
 [SENSe:]VOLTag[1|2|3|4][:DC]:RANGe:UNIT:USER[:STATe] OFFI0IONI1

[SENSe:]VOLTage[1|2|3|4][:DC]:RANGe:UNIT:XDCR:LABel PAIGIM/S2IM/SI
MIKGINIDYNIINCH/S2IINCH/SIINCHIMILILBIUSER
[SENSe:]VOLTage[1|2|3|4][:DC]:RANGe[:UPPer] -51~31.66[DBVRMSIVPK
IDBVPKIVDBVIEUIDBEUIVRMS]
[SENSe:]WINDow[1|2|3|4]:EXPonential 3.8147e-06~9.9999e+06[S]
[SENSe:]WINDow[1|2|3|4]:FORCe 3.8147e-06~9.9999e+06[S]
[SENSe:]WINDow[1|2|3|4]:ORDer:DC OFFI0IONI1
[SENSe:]WINDow[1|2|3|4][:TYPE] HANNingIFLATtopIUNIFormIFORCeI
EXPonentialLAGILLAG

SOURce

SOURce:BURSt 0~100[PCT]
SOURce:FREQuency[:CW] 0~115000[HZ]
SOURce:FREQuency:FIXed 0~115000[HZ]
SOURce:FUNCTion[:SHAPE] SINusoidIRANDomIBRANDomIPCHirpIBCHirpI
PINKIUSERICAPT
SOURce:USER:CAPTure 1~4
SOURce:USER[:REGister] D1ID2ID3ID4ID5ID6ID7ID8
SOURce:USER:REPeat OFFI0IONI1
SOURce:VOLTage[:LEVel]:AUTO OFFI0IONI1
SOUR:VOLT[:LEVel][:IMMediate][:AMPLitude] -9.9e+37~13.9794[DBVRMSI
VPKIDBVPKIVDBVIVRMS]
SOURce:VOLTage[:LEVel][:IMMediate]:OFFSet -10~10[V]
SOURce:VOLTage[:LEVel]:REFerence -69.276~31.66[DBVRMSIVPKIDBVPKIVI
DBVIEUIDBEUIVRMS]
SOURce:VOLTage[:LEVel]:REFerence:CHANnel INPut1IINPut2IINPut3IINPut4
SOURce:VOLTage[:LEVel]:REFerence:TOLerance 0.1~20[DB]
SOURce:VOLTage:LIMit[:AMPLitude] -9.9e+37~13.9794[DBVRMSIVPKI
DBVPKIVDBVIVRMS]
SOURce:VOLTage:LIMit:INPut -69.276~31.66[DBVRMSIVPKIDBVPKIVI
DBVIEUIDBEUIVRMS]
SOURce:VOLTage:SLEW 0~10000[V/SIVPK/SIVRMS/S]

STATus

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 0~32767

STATus:OPERation:PTRansition 0~32767
 STATus:PRESet
 STATus:QUEStionable:CONDition?
 STATus:QUEStionable:ENABle 0~32767
 STATus:QUEStionable[:EVENT]?
 STATus:QUEStionable:LIMit:CONDition?
 STATus:QUEStionable:LIMit:ENABle 0~32767
 STATus:QUEStionable:LIMit[:EVENT]?
 STATus:QUEStionable:LIMit:NTRansition 0~32767
 STATus:QUEStionable:LIMit:PTRansition 0~32767
 STATus:QUEStionable:NTRansition 0~32767
 STATus:QUEStionable:PTRansition 0~32767
 STATus:QUEStionable:VOLTage:CONDition?
 STATus:QUEStionable:VOLTage:ENABle 0~32767
 STATus:QUEStionable:VOLTage[:EVENT]?
 STATus:QUEStionable:VOLTage:NTRansition 0~32767
 STATus:QUEStionable:VOLTage:PTRansition 0~32767
 STATus:USER:ENABle 0~32767
 STATus:USER[:EVENT]?
 STATus:USER:PULSe-? 0~32767

SYSTEM

SYSTem:BEEPer[:IMMediate]-? [25~14880][,0~60][,0~1]
 SYSTem:BEEPer:STATe OFFI0IONI1
 SYSTem:COMMunicate:GPIB[:SELF]:ADDRess 0~30
 SYSTem:COMMunicate:SERial[:RECeive]:BAUD 300~9600
 SYSTem:COMMunicate:SERial[:RECeive]:BITS 5~8
 SYSTem:COMMunicate:SERial[:RECeive]:PACE NONEIXON
 SYSTem:COMMunicate:SERial[:RECeive]:PARity:CHECK OFFI0IONI1
 SYSTem:COMMunicate:SERial[:RECeive]:PARity[:TYPE] NONEIEVENIODD
 SYSTem:COMMunicate:SERial[:RECeive]:SBITS 1~2
 SYSTem:COMMunicate:SERial:TRANsmit:PACE NONEIXONIDSR
 SYSTem:DATE 0~9999,1~12,1~31
 SYSTem:ERRor?
 SYSTem:FAN[:STATe] OFFI0IFULLIAUTO
 SYSTem:FLOG:CLEar
 SYSTem:KEY 0~255
 SYSTem:KLOCK OFFI0IONI1
 SYSTem:POWer:SOURce? ACIDC
 SYSTem:POWer:STATe OFFI0IONI1
 SYSTem:PRESet
 SYSTem:SET <STATE>

SYSTem:TIME 0~23,0~59,0~60

SYSTem:VERSion?

TEST

TEST:LOG:CLEar

TEST:LONG

TEST:LONG:RESult?

TRACe

TRACe[:DATA] D1|D2|D3|D4|D5|D6|D7|D8,<DATA>

TRACe:WATerfall[:DATA] W1|W2|W3|W4|W5|W6|W7|W8,<WDATA>

TRACe:X[:DATA]? TRACe1|TRACe2|TRACe3|TRACe4|D1|D2|D3|D4|D5|D6|D7|D8|W1|W2|W3|W4|W5|W6|W7|W8

TRACe:X:UNIT? TRACe1|TRACe2|TRACe3|TRACe4|D1|D2|D3|D4|D5|D6|D7|D8|W1|W2|W3|W4|W5|W6|W7|W8

TRACe:Z[:DATA]? TRACe1|TRACe2|TRACe3|TRACe4|D1|D2|D3|D4|D5|D6|D7|D8|W1|W2|W3|W4|W5|W6|W7|W8

TRACe:Z:UNIT? TRACe1|TRACe2|TRACe3|TRACe4|D1|D2|D3|D4|D5|D6|D7|D8|W1|W2|W3|W4|W5|W6|W7|W8

TRIGger

TRIGger:EXTernal:FILTer[:LPAS][:STATe] OFF|O|ON|1

TRIGger:EXTernal:LEVel -10~10[V]

TRIGger:EXTernal:RANGe HIGH|LOW

TRIGger[:IMMediate]

TRIGger:LEVel -9.9e+37~9.9e+37[PCT|IV|PK|IEU]

TRIGger:LEVel:TTL HIGH|LOW

TRIGger:SLOPe POSitive|NEGative

TRIGger:SOURce IMMEDIATE|EXTernal|INTERNAL1|INTERNAL2|INTERNAL3|INTERNAL4|OUTPUT|BUS

TRIGger:START[1|2|3|4] -9.9e+37~9.9e+37[S]

TRIGger:TACHometer:HOLDoff 0~0.052224[S]

TRIGger:TACHometer:LEVel -20~20[V]

TRIGger:TACHometer:PCOunt 0.5~2048

TRIGger:TACHometer:RANGe HIGH|LOW

TRIGger:TACHometer[:RPM]?

TRIGger:TACHometer:SLOPe POSitive|NEGative