BERTScope® BITALYZER

Remote Control Guide

Part Number 0150-703-06.76

BitAlyzer and **BERTScope** technologies are registered with the U.S. Patent and Trademark Office, U.S. Patent Nos. 5,414,713; 6,636,994; 6,728,311; and other pending patents.

This Remote Control Guide is applicable to the following products:

BERTScope BSA 85C, BSA125C, BSA260C Signal Integrity Analyzers
BERTScope BSA 85CPG, BSA125CPG, BSA260CPG Pattern Generators
BitAlyzer BA1500, BA1600 Bit Error Ratio Test Systems

BERTScope/BitAlyzer Remote Control Guide
Part Number 0150-703-06.76
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BERTScope/BitAlyzer Remote Control

Theory of Operation

The BitAlyzer/BERTScope remote control features enable operation of the instrument's bit error analysis processes remotely via an IEEE-488 communications connection. Remote control is implemented using a text-oriented command protocol described in the following pages of this document. These commands enable you to set and query the system parameters of the BitAlyzer or BERTScope, and to operate the analyzer in different modes, including live error analysis and off-line playback of previously recorded error data.

The text-oriented commands follow a basic three-part structure, consisting of one word identifying the major feature of the BitAlyzer/BERTScope being addressed, another word identifying a specific operation or parameter within that feature, and optional parameters. The BitAlyzer/BERTScope receives and operates on each command immediately. Command execution sets a status variable that may be queried by the user to determine if the previous command was successful. Alternatively, a mode can be selected in which these statuses are automatically returned after each command execution.

It is most useful to have an understanding of the basic principles of BitAlyzer Error Location Analysis before undertaking remote control programming. There is a high degree of similarity between the BitAlyzer's graphical user interface and the remote control command protocol.

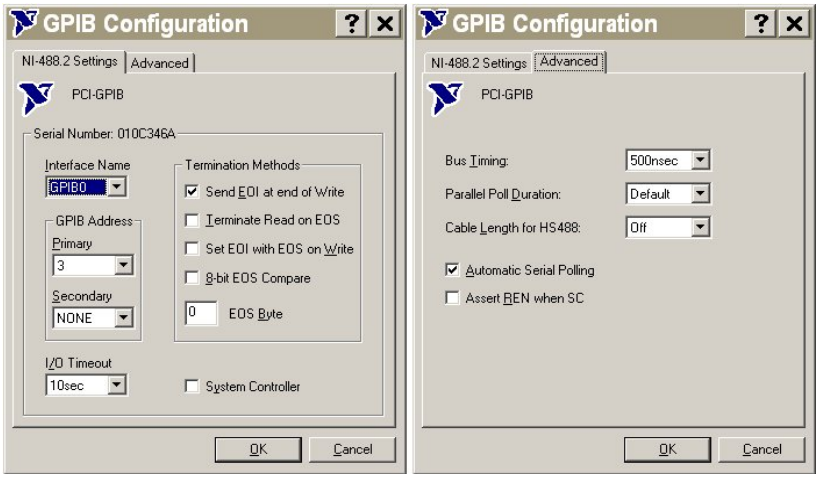
This document describes how to interface with the BitAlyzer/BERTScope using the IEEE-488 connection. The BitAlyzer/BERTScope is an IEEE-488 bus peripheral only; it is not an IEEE-488 bus controller and cannot produce SRQ signals. On the IEEE-488 Setup panel in the System View, touch the Tools tab, then the Remote button, then IEEE Address. Enter the unique address in the GPIB Address field.

For more technical assistance in programming your remote control applications, please contact Tektronix. We are glad to help.

Setting Up Remote Control

Launch the BERTScope "RemoteClient" program by pressing the Remote button in the BERTScope's System view. Next, press the Disconnect button to enable the IEEE Address button. You might need to wait a few seconds for this to occur. Finally, press the IEEE Address button.

You should now see the GPIB Configuration dialog. The Primary GPIB Address should be set to '3'.



Remote Control Protocol

Command Description

Remote control communications are exchanged as ASCII strings over a LAN telnet (TCP port 23) between the host computer and the BitAlyzer or BERTScope. Select a communications port to be used for access to the instrument's remote control operations. If the port is set to NONE, then remote control is disabled.

The input values of commands are checked against the same ranges as the user interface. If an input is received that is outside of this legal range, the input will be clipped and recorded in the status queue.

It is recommended that you request the status of a command by sending "SYSTem:ERRor?" after each command. Besides telling you what has happened with the command, this will also synchronize command transmission and handling.

Command Syntax

Most commands have both a "long version" and "short version," indicated by capitalized versus lowercase letters. For example: `GENerator:PATTern?` can be typed out exactly as shown, or as `GEN:PATT?` The capital letters and the colon (:) are required; the lowercase letters are optional. **The actual use of capital and lowercase letters is not significant – commands are *not* case-sensitive.**

Remote Control Command Lines are defined as ASCII text strings ending with "\r" or "\n".

Every Command Line consists of two parts, a Command and <Setup Data> that are separated by a space and defined as ASCII texts.

<Setup Data> can be Double, Integer, or Boolean numbers, a file's absolute pathname, a special word, or a Data Type. For a Boolean data type, the input can be 1 (ON) or 0 (OFF). The returned response will be

either 1 for true or 0 for false. A question-mark character (?) is added at the end of a command, without a space, to create a Query.

When command setup data uses a string as a parameter, the string should be enclosed in double-quotes (“string”). Filenames always require the absolute path, enclosed within double-quotes.

For every Command processed, an error code will be returned. If the command has a question mark (a Query), the setup information is also returned. A list of these codes is included below:

Error Codes		Error Messages
0	"NO ERROR"	"TOO MANY PARAMETERS"
-350	"Queue Overflow"	"UNRECOGNIZED COMMAND"
-10	File transfer error	"WRONG PARAMETER TYPE"
-20	System error or event	"TOO LITTLE PARAMETERS"
-30	Command error; see list of error messages	"WRONG PARAMETER FORMAT"
-40	No software option	"WRONG PARAMETER NUMBER"
		"WRONG ACTION-ONLY"
		"WRONG QUERY-ONLY"
		"REQUESTED <QUERY PARAMETER> IS NOT SUPPORTED ON THE PLATFORM"

Communications Timeouts

Most commands issued to the BitAlyzer/BERTScope are processed quickly and return within milliseconds. A handful of commands require considerable processing and take longer, including:

- Detector Delay Calibration – 8 sec. (approximately)
- Generator Delay Calibration – 7 sec.
- Detector Auto-Align – 5 sec.
- Generator Data Signal Enabling (BERTScope only) – 7 sec.
- Run State Enable (Physical Layer Tests that perform initial auto-align) – 6 sec.

As a result, programming the communications architecture with a two-second timeout for most commands, and a 10-second timeout for the commands listed above is one approach. Another approach is to set all communications timeouts to be 10 seconds. Of course, commands that don’t require this much time will not be affected by the longer timeout, and this ensures that all commands can complete without triggering communications timeouts.

Sample Remote Programming

Rev. March 2005

Remote Command Usage: BERTScope operation

Cabling Setup:

- Cable the Generator ClockP out to the Detector Clock In
- Cable the Generator DataP out to the Detector DataP In
- Cable the Generator DataN out to the Detector DataN In

  NOTE: Data cables must be the same length

Misc: Assume that data outputs are already set for 50-ohm output impedance.

- View Generator

```
VIEW Generator
```

- Turn off Generator Amps

```
GEN:DOP:ENAB 0          ; Turn off DataP
GEN:DON:ENAB 0          ; Turn off DataN
GEN:COP:ENAB 0          ; Turn off ClockP
GEN:CON:ENAB 0          ; Turn off ClockN
```

- PN7 pattern to both Generator and Detector

```
GEN:PATT PN7            ; Use a HW 2^7-1 pattern. Load in
                        ; Generator
DET:PATT PN7            ; Same pattern loaded into Detector
```

- View Detector

```
VIEW Detector
```

- General Detector settings

```
DET:AREN 0              ; Auto Resync mode off
```

- Set Detector to custom levels. Clock, then Data

```
                        ; voltage which Gen ClkP will be
                        ; set to AC coupled after the DC
                        ; termination voltage setting
DET:CINP:TAC
DET:DIMP:IMOD           ; Detector is expecting differential
DIFF
                        ; data (both inputs)
DET:DINP:TVOL 0         ; Detector is going to terminate
                        ; inputs to 0 mV DC
                        ; Don't care about threshold voltage.
                        ; Auto align will find and set
```

- Finish setting up the Generator. Set frequency, set output amp conditions

```
VIEW Generator
GEN:ICL 9953000000      ; Set internal synthesizer to 9.953 GHz
GEN:CSEL INT            ; Gate the internal synthesizer to
                        ; the Generator (not an ext syn)
GEN:COP:TVOL 0          ; 0 mV Termination for ClockP
GEN:COP:SLOF 0          ; 0 mV Offset for ClockP
GEN:COP:SLAM 1000       ; 1000 mV (1 V) Amplitude for ClockP
GEN:DOUT:LPNS 1         ; Link DataP & DataN. Only set
                        ; conditions for one, other follows
GEN:DOP:TVOL 0          ; 0 mV Termination for DataP
GEN:DOP:SLOF 0          ; 0 mV Offset for DataP
GEN:DOP:SLAM 1000       ; 1000 mV (1 V) Amplitude for DataP
```

- Turn outputs on, and query their “on” status—they can take up to 3 seconds to turn on

```
GEN:COP:ENAB 1          ; Enable ClockP output
GEN:DOP:ENAB 1          ; Enable DataP output
GEN:DON:ENAB 1          ; Enable DataN output

Loop Until = 1
GEN:COP:ENAB?           ; Is Generator ClockP Enabled yet?
Wait 0.25
Repeat

Loop Until = 1
GEN:DOP:ENAB?           ; Is Detector DataP Enabled yet?
Wait 0.25
Repeat

Loop Until = 1
GEN:DON:ENAB?           ; Is Detector DataN Enabled yet?
Wait 0.25
Repeat
```

- Calibrate Generator and Detector Delay paths for this frequency at this time and temperature

```
GEN:PCAL                ; Initiate Generator Delay Calibration.
Wait Until reply        ; Takes awhile (10 seconds?)
RSTATE?

Repeat

DET:PCAL                ; Initiate a Detector Delay Calibration.
Wait Until reply        ; Takes awhile (10 seconds?)
RSTATE?

Repeat
```

- Now, Auto Align the Detector (“Perform Data Centering”)

```
DET:PDC              ; Initiate an Auto Align.
Wait Until reply     ; Takes awhile
RSTATE?

Repeat
```

- Auto Align is completed, and Detector is ready to run (error-free if cabled back-to-back)

```
DET:DCS?             ; Was Auto Align successful?
                     ; Result = 1 if successful
DET:ISYNC?           ; Should be sync’d
                     ; Result = 1 if sync’d
```

- But, first, query some results from the Auto Align:

```
DET:DCAM?            ; What is the data amplitude in mV?
                     ; Should be about 2 V pp (differential —
                     ; adds the amplitudes of the two
                     ; two out-of-phase inputs)
DET:DCHM?            : What is the data offset voltage
                     ; in mV?  Should be about 0 V DC
DET:DCW?             : What is the width of the eye?
                     ; Should be inverse of frequency
```

- Run bits through the detector for 20 seconds.

```
DET:RUIN 20          ; Sets the run interval for 20 seconds
RSTATE 1             ; Runs the detector for the set time
                     ; above (20 seconds)

Wait Until Reply

RSTATE?              ; Are we done with the 20-second run
                     ; yet?
Repeat
```

- Running has stopped. Did errors accumulate along the way? (If you want errors to accumulate, slightly unscrew the data cables during run time, and watch the GUI in Detector view.)

```
DET:BITS?            ; How many bits passed during the
                     ; 20-second run? Should be about 20
                     ; seconds x 9.953 Gb/s
DET:ERR?             ; And how many errors in those 20
                     ; seconds?
```

Remote Command Usage: Run a test and read back measurements

Example: Run Jitter Peak analysis and obtain the Total Jitter result.

Assumption: Detector is in sync

```
VIEW JITTER                 ; Switch to Jitter Peak View
RSTATE 1                    ; Toggle Run state

Wait Until Reply            ; Toggling Run state to 1 does an auto align,
                            ;  which will take approximately 5 seconds

JITT:TST?                   ; Query Jitter Peak Status

If OK Proceed
Else Take necessary action

JITT:IVALUE?                Query Invalid value
JITT:TJIT?                  Query to retrieve Total Jitter

Run test until Total Jitter value is not the invalid value returned earlier

RSTATE 0                    ; Stop test once we have valid value
```

Command Listing

Generator

DELAY:GENRecal?
DELAY:GENR?

Retrieve the information that indicates whether Generator delay needs recalibration. Query only. ***Note:*** Since monitoring for these calibrations is suspended while Physical Layer tests are running, using this command under those circumstances may not return an accurate result.

Returns: < 1 > Needs delay recalibration.
< 0 > Does not need a delay recalibration.

GENerator:CREFerence <EXTernal | INTernal>
GEN:CREF <EXT | INT>
GENerator:CREFerence?
GEN:CREF?

BERTScope only. Set or retrieve the Generator input clock reference.

Params: <EXTernal> External clock reference
<INTernal> Internal clock reference
Returns: < EXTernal | INTernal >

GENerator:CSELect <INTernal | EXTernal>
GEN:CSEL <INT | EXT>
GENerator:CSELect?
GEN:CSEL?

Set or retrieve the clock used by the Generator.

Params: <INTernal> Generator uses the internal clock synthesizer
<EXTernal> Generator uses the external clock
Returns: < INTernal | EXTernal >

GEN:CUTOFFKHZ?

Retrieve the frequency at which the Generator switches to the DDR mode. Applies to BERTScope 17500. Query only.

GENerator:DDEFs <numeric>
GEN:DDEF <numeric>
GENerator:DDEFs?
GEN:DDEF?

Set or retrieve the Generator data delay in femto-seconds.

Params: <numeric> Set Generator data delay in fs.
Returns: < numeric >

GENerator:DDELay <numeric>
GEN:DDEL <numeric>
GENerator:DDELay?
GEN:DDEL?

Set or retrieve the Generator data delay in picoseconds.

Params:	<numeric>	Generator data delay. **BitAlyzer:** When the BitAlyzer is operating within range [1 to 981 MHz], Data Delay is within range [0 to 33,000 ps]. Input out of range will be clipped and recorded in the status queue. When the BitAlyzer is operating within range [982 to 1,500 MHz], Data Delay is within range [0 to 5,000 ps]. **BERTScope:** When the BERTScope is operating within range [500 to 1,000 MHz], Data Delay is within range [0 to 32,000 ps]. Input out of range will be clipped and recorded in the status queue. When the BERTScope is operating within range [1,100 to 12,500 MHz], Data Delay is within range [0 to 3,000 ps].
Returns:	< numeric >	

GENerator:DINVert <bool>
GEN:DINV <bool>
GENerator:DINVert?
GEN:DINV?

Set or retrieve data inversion state for the Generator.

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	Data inversion is on
	< 0 >	Data inversion is off

GENerator:DRATe?
GEN:DRAT?

Retrieve the Generator data rate. Query only.

Returns:	< numeric >	Generator data rate in bits/sec. “0” means No Clock.

GENerator:EXTPagmode < SWITCHRISE | SWITCHFALL | AORBRISE | AORBFALL | OFF>
GEN:EXTP < SWITCHRISE | SWITCHFALL | AORBRISE | AORBFALL | OFF>
GENerator:EXTPagmode?
GEN:EXTP?

Set or retrieve the Generator External Page Select mode.

Params:	<SWITCHRISE>	Switch momentarily to the other page on rising edge
	<SWITCHFALL>	Switch momentarily to the other page on falling edge
	<AORBRISE>	Switch to the other page on a rising edge
	<AORBFALL>	Switch to the other page on a falling edge
	<OFF>	External page select is off
Returns:	< SWITCHRISE | SWITCHFALL | AORBRISE | AORBFALL | OFF >	

GENerator:FULLRATEclock <bool>
GEN:FULLRATE <bool>
GENerator:FULLRATEclock?
GEN:FULLRATE?

Set or retrieve Full Rate Clock property of the Generator.

Returns:	< 1 >	Generator is in Full Rate Clock mode
	< 0 >	Generator is in Half Rate Clock mode

GENerator:ICLock <numeric>
GEN:ICL <numeric>
GENerator:ICLock?
GEN:ICL?

Set or retrieve the internal clock synthesizer frequency of the Generator. May require some delay to complete.

Params:	<numeric>	Generator internal clock synthesizer frequency in Hz **BitAlyzer BA1500:** Range [1 to 1,500,000] **BitAlyzer BA1600:** Range [1 to 1,600,000] **BERTScope 7500:** Range [100,000,000 to 7,500,000,000] **BERTScope BSA125C:** Range [100,000,000 to 12,500,000,000] **BERTScope BSA175C:** Range [500,000,000 to 17,500,000,000] Input out of range will be clipped and recorded in the status queue.
Returns:	< numeric >	

GENerator:OFfsetfreq <numeric>
GEN:OF <numeric>
GENerator:OFfsetfreq?
GEN:OF?

Set or retrieve Generator's Frequency Offset in PPM.

Params:	<numeric>	Generator's Frequency Offset in PPM. Range [-500 to +500]
Returns:	< numeric >	

GENerator:PCALibration
GEN:PCAL

Perform Generator delay calibration. Action only. May require some delay to complete.

GENerator:PMMOD:DEViation <numeric>
GEN:PMMOD:DEV <numeric>
GENerator:PMMOD:DEViation?
GEN:PMMOD:DEV?

Set or retrieve Phase Modulation Deviation in UI. Range is from 0 to the value dependent on PM. Frequency:

>40 kHz to 160 kHz	Decreases 30 dB/decade to 37.5/n UI at 165 kHz
40 kHz	300/n UI
10 Hz to <40 kHz	Increases at 20 dB/decade to 6000/n UI at 2 kHz (fixed 6000/n UI from 2 kHz to 10 Hz)

where:

n = 1 for 6 GHz ≤ clk ≤ 12.5 GHz
n = 2 for 3 GHz ≤ clk < 6 GHz
n = 4 for 1.5 GHz ≤ clk < 3 GHz
n = 8 for 750 MHz ≤ clk < 1.5 GHz
n = 16 for 375 MHz ≤ clk < 750 MHz
n = 32 for 187.5 MHz ≤ clk < 375 MHz
n = 64 for 100 MHz ≤ clk < 187.5 MHz

Params:	<numeric>	Generator's Phase Modulation Deviation in UI. Range: 0 to the upper limit as dependent on the PM Frequency (see GEN:PMMOD:FREQ).
Returns:	< numeric >	

GENerator:PMMOD:ENABle <bool>
GEN:PMMOD:ENAB <bool>
GENerator:PMMOD:ENABle?
GEN:PMMOD:ENAB?

Enable or disable Phase Modulation.

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	Generator Phase Modulation is enabled
	< 0 >	Generator Phase Modulation is disabled

GENerator:PMMOD:FREQuency <numeric>
GEN:PMMOD:FREQ <numeric>
GENerator:PMMOD:FREQuency?
GEN:PMMOD:FREQ?

Set or retrieve Phase Modulation Frequency.

Params: <numeric> Generator's Phase Modulation Frequency. Range [10 Hz to 160 kHz]

Returns: < numeric >

GENerator:REFIN:ENABLE <bool>
GEN:REFIN:ENABLE <bool>
GENerator:REFIN:ENABLE?
GEN:REFIN:ENABLE?

Enable or disable Generator's Reference In.

Returns: < 1 > Generator Reference In is enabled

< 0 > Generator Reference In is disabled

GENerator:REFIN:FREQuency <numeric>
GEN:REFIN:FREQ <numeric>
GENerator:REFIN:FREQuency?
GEN:REFIN:FREQ?

Set or retrieve Generator's Reference In frequency in Hz.

Params: <numeric> Generator Reference In frequency in Hz. Possible values are:

10,000,000
100,000,000
106,250,000
156,250,000
133,330,000
166,670,000
200,000,000

Returns: < numeric >

GENerator:REFOUT:ENABLE <bool>
GEN:REFOUT:ENABLE <bool>
GENerator:REFOUT:ENABLE?
GEN:REFOUT:ENABLE?

Enable or disable Generator's Reference Out.

Params: <bool> On = 1, Off = 0

Returns: < 1 > Generator Reference Out is enabled

< 0 > Generator Reference Out is disabled

GENerator:REFOUT:FREQuency <numeric>
GEN:REFOUT:FREQ <numeric>
GENerator:REFOUT:FREQuency?
GEN:REFOUT:FREQ?

Set or retrieve Generator's Reference Out frequency in Hz.

Params: <numeric> Generator Reference Out frequency in Hz. Possible values are:

10,000,000
100,000,000
106,250,000
156,250,000
133,330,000
166,670,000
200,000,000

Returns: < numeric >

GENerator:SYNFM:PRESent?
GEN:SYNFM:PRES?

Retrieve whether SynFM module is present. Query only.

Params: <bool> On = 1, Off = 0

Returns: < 1 > SynFM module is present

< 0 > SynFM module is not present

Generator — Data Generator

GENerator:ISERror
GEN:ISER

Inject a single error. Action only.

GENerator:LUPFilename?
GEN:LUPF?

Retrieve user pattern file that has been loaded to the Generator. Query only.

Returns: < "filename" > The file containing the user pattern that has been loaded into the Generator. Filename is enclosed in quotes.

GENerator:PATTern <PN7 | PN11* | PN15 | PN20 | PN23 | PN31 | USTart | UCYCle | ALLZERO | PASSthrough>
GEN:PATT <PN7 | PN11* | PN15 | PN20 | PN23 | PN31 | UST | UCYC | ALLZERO | PASS>
GENerator:PATTern?
GEN:PATT?

Set or retrieve the Generator data type. PRBS-11 is available only on BERTScope instruments. The 'Passthrough' type is available only on BERTScope Si 8500C, 17500C, and 25000C models.

Params:	<PN7 | PN11* | PN15 | PN20 | PN23 | PN31>	Generator pseudo-random pattern data type. PN11 pattern is available only on the BERTScope.
	<USTart>	User pattern (See GEN:UPLoad to load a user pattern file)
	<UCYCle>	User pattern cycle
	<ALLZERO>	All-zeros pattern
	<PASSthrough>	When corresponding option is purchased, Detector Pass-Through mode outputs whatever the Detector has just received. Available only on BERTScope Si models.
Returns:	< PN7 | PN11 | PN15 | PN20 | PN23 | PN31 | USTart | UCYCle | ALLZERO | PASSthrough >	

*PN11 pattern is available only on BERTScope.

GENerator:PSELect <A | B>
GEN:PSEL <A | B>
GENerator:PSELect?
GEN:PSEL?

Set or retrieve the selected page of the user pattern loaded to the Generator.

Params:	<A>	User pattern page A
	<B>	User pattern page B
Returns:	< PageA | PageB >	

GENerator:PSWitch
GEN:PSW

Switch the page of the user pattern loaded to the Generator. Action only.

GENerator:UPLoad <"filename">
GEN:UPL <"filename">

Load user pattern from the specified file. Action only.

Params:	<"filename">	Load the specified user pattern file into the Generator. Use the absolute pathname and enclose the string in quotes.

GENerator:UPLPercent?
GEN:UPLP?

Retrieve the user pattern loading percentage completion value. Query returns 100 if the loading is complete. Query only.

Returns: < number > The percentage of user pattern loaded into the Generator

GENerator:UPLTracking <bool>
GEN:UPLT <bool>
GENerator:UPLTracking?
GEN:UPLT?

Set or retrieve whether the Generator tracks the Detector when loading a user pattern. If the tracking is true, the command GEN:UPL <"filename"> loads the user pattern into both the Generator and Detector.

Params: <bool> On = 1, Off = 0

Returns: < 1 > Generator tracks Detector when loading

< 0 > Generator does not track Detector when loading

GENerator:UPWLen?
GEN:UPWL?

Retrieve the word count from the Generator RAM. Query only.

Returns: < number > The number of words in RAM

Generator Pattern Start

GENerator:PSTart:LFAMily <LVTTL | CML | ECL | PECL | LVPECL>
GEN:PST:LFAM <LVTTL | CML | ECL | PECL | LVPECL>
GENerator:PSTart:LFAMily?
GEN:PST:LFAM?

Set or retrieve the pattern start input signal logic family. Command available only on BitAlyzer.

Params: <LVTTL | CML | ECL | PECL | LVPECL> The pattern start input logic family

Returns: < LVTTL | CML | ECL | PECL | LVPECL >

GENerator:PSTart:TAC <bool>
GEN:PST:TAC <bool>
GENerator:PSTart:TAC?
GEN:PST:TAC?

Set or retrieve the termination AC of the Generator pattern start input.

Params: <bool> On = 1, Off = 0

Returns: < 1 > Generator pattern start input termination AC is on

< 0 > Generator pattern start input termination AC is off

GENerator:PSTart:THReshold <numeric>
GEN:PST:THR <numeric>
GENerator:PSTart:THReshold?
GEN:PST:THR?

Set or retrieve the threshold of the Generator pattern start input. Command is available only on BitAlyzer.

Params:	<numeric>	Generator pattern start input threshold in mV. Range [–2,000 to 4,000]. Input out of range will be clipped and recorded in the status queue.
Returns:	< numeric >	

GENerator:PSTart:TMODe <REDGe | FEDGe | DISabled>
GEN:PST:TMOD <REDG | FEDG | DIS>
GENerator:PSTart:TMODe?
GEN:PST:TMOD?

Set or retrieve the trigger mode of the Generator pattern start input.

Params:	<REDGe>	Generator pattern start trigger at the rising edge
	<FEDGe>	Generator pattern start trigger at the falling edge
	<DISabled>	Trigger is disabled.
Returns:	< REDGe | FEDGe | DISabled >	

GENerator:PSTart:TVOLtage <numeric>
GEN:PST:TVOL <numeric>
GENerator:PSTart:TVOLtage?
GEN:PST:TVOL?

Set or retrieve the termination voltage of the Generator clock input.

Params:	<numeric>	Generator clock input termination voltage in mV. Range [–2,000 to 3,300]. Input out of range will be clipped and recorded in the status queue.
Returns:	< numeric >	

Generator Spread Spectrum Clock (SSC)

GENerator:SSCMOD:DEViation <numeric>
GEN:SSCMOD:DEV <numeric>
GENerator:SSCMOD:DEViation?
GEN:SSCMOD:DEV?

Set or retrieve the SSC modulation deviation. Argument range is different for first generation hardware (Option SSC) and second generation (Option XSSC).

Params:	<numeric>	SSC modulation deviation in ppm. **Option SSC:** Range [0 to 10,000] in Down spread or Up spread mode; [0 to 5,000] in Center spread mode. **Option XSSC:** Range is a function of data rate. Refer to BERTScope Technical Specifications.
Returns:	< numeric >	

GENerator:SSCMOD:ENABle <bool>
GEN:SSCMOD:ENAB <bool>
GENerator:SSCMOD:ENABle?
GEN:SSCMOD:ENAB?

Set or retrieve whether the SSC/XSSC option is enabled (option must be present in order to enable; see GEN:SSCMOD:PRES command below).

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	SSC is enabled
	< 0 >	SSC is disabled

GENerator:SSCMOD:FREQuency <numeric>
GEN:SSCMOD:FREQ <numeric>
GENerator:SSCMOD:FREQuency?
GEN:SSCMOD:FREQ?

Set or retrieve the SSC modulation frequency. Argument range is different for first generation hardware (Option SSC) and second generation (Option XSSC).

Params:	<numeric>	SSC modulation frequency in Hz. **Option SSC:** Range [25,000 to 35,000] **Option XSSC:** Range [20,000 to 160,000]. Note that modulation deviation is uncalibrated for modulation frequencies >40 kHz.
Returns:	< numeric >	

GENerator:SSCMOD:PRESent <bool>
GEN:SSCMOD:PRES <bool>
GENerator:SSCMOD:PRESent?
GEN:SSCMOD:PRES?

Set or retrieve whether the SSC/XSSC option is present.

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	SSC is present.
	< 0 >	SSC is not present.

GENerator:SSCMOD:SIGnal <TRIANGLE | SINUSOID>
GEN:SSCMOD:SIG <TRIANGLE | SINUSOID>
GENerator:SSCMOD:SIGnal?
GEN:SSCMOD:SIG?

Set or retrieve the SSC/XSSC modulation signal type.

Params:	<TRIANGLE>	Triangular-shaped modulation
	<SINUSOID>	Sinewave-shaped modulation
Returns:	< TRIANGLE | SINUSOID >	

GENerator:SSCMOD:SIGNALSETTABLE?
GEN:SSCMOD:SIGNALSETTABLE?

Returns whether the SSC/XSSC modulation signal is selectable. First-generation SSC hardware only modulates in TRIANGLE mode. Query only.

Returns:	< 1 >	Modulation is selectable (TRIANGLE or SINUSOID) (XSSC hardware)
	< 0 >	Only modulates in TRIANGLE mode (1st generation SSC hardware)

GENerator:SSCMOD:TYPE <UP | DOWN | CENTER>
GEN:SSCMOD:TYPE <UP | DOWN | CENTER>
GENerator:SSCMOD:TYPE?
GEN:SSCMOD:TYPE?

Set or retrieve the SSC/XSSC modulation type.

Params:	<UP>	Modulation deviation ranges from the nominal frequency to the nominal frequency plus the deviation amount.
	<DOWN>	Modulation deviation is centered around the nominal frequency.
	<CENTER>	Modulation deviation ranges from the nominal frequency minus the deviation amount to the nominal frequency.
Returns:	< UP | DOWN | CENTER >	

Generator Clock Input

GENerator:CINPut:LFAMily <LVTTL | CML | ECL | PECL | LVPECL>
GEN:CINP:LFAM <LVTTL | CML | ECL | PECL | LVPECL>
GENerator:CINPut:LFAMily?
GEN:CINP:LFAM?

Set or retrieve the Generator Clock input logic family. This command is available *only* on the BitAlyzer platform.

Params:	<LVTTL | CML | ECL | PECL | LVPECL>	Set the Generator Clock input logic family
Returns:	< LVTTL | CML | ECL | PECL | LVPECL >	

GENerator:CINPut:TAC <bool>
GEN:CINP:TAC <bool>
GENerator:CINPut:TAC?
GEN:CINP:TAC?

Set or retrieve the termination AC of the Generator Clock input.

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	Generator Clock input termination AC is on
	< 0 >	Generator Clock input termination AC is off

GENerator:CINPut:THReshold <numeric>
GEN:CINP:THR <numeric>
GENerator:CINPut:THReshold?
GEN:CINP:THR?

Set or retrieve the threshold of the Generator Clock input. This command is available *only* on the BitAlyzer platform.

Params:	<numeric>	Generator Clock input threshold in mV. Range [–1,200 to +800]. Input out of range will be clipped and recorded in the status queue.
Returns:	< numeric >	

GENerator:CINPut:TVOLtage <numeric>
GEN:CINP:TVOL <numeric>
GENerator:CINPut:TVOLtage?
GEN:CINP:TVOL?

Set or retrieve the termination voltage of the Generator Clock input.

Params:	<numeric>	Generator Clock input termination voltage in mV. Range [–2,000 to +3,300]. Input out of range will be clipped and recorded in the status queue.
Returns:	< numeric >	

GENerator:CLocKOPTimize
GEN:CLKOPT

BitAlyzer only. Initiates procedure for optimizing the location of the Generator external clock input threshold. May take seconds to complete. Locates the mid-point of the clock envelope. Action only.

GENerator:CLocKOPTimizeResult?
GEN:CLKOPTR?

BitAlyzer only. Returns the located threshold in millivolts. If optimization fails, returns -99999999 as a sentinel value. Query only.

GENerator:SUBRatediv <1 | 2 | 4 | 8 | 16 | 32 | 64 | 128>
GEN:SUBR <1 | 2 | 4 | 8 | 16 | 32 | 64 | 128>
GENerator:SUBRatediv?
GEN:SUBR?

Set or retrieve the sub-rate clock output divider for the Generator's internal clock synthesizer.

Params:	<1 | 2 | 4 | 8 | 16 | 32 | 64 | 128>	Generator internal clock synthesizer sub-rate clock output divider. "1" is full rate.
Returns:	< 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 >	

Generator Clock Output Positive

GENerator:COPositive:CLIPped?
GEN:COP:CLIP?

Retrieve whether the Generator Clock+ output setting is clipped. Query only.

Returns:	< 1 >	The Generator Clock+ output setting is clipped
	< 0 >	The Generator Clock+ output setting is not clipped

GENerator:COPositive:ENABle <bool>
GEN:COP:ENAB <bool>
GENerator:COPositive:ENABle?
GEN:COP:ENAB?

Set or retrieve whether the Generator Clock+ output is enabled. May require some delay to complete.

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	Generator Clock+ output is enabled
	< 0 >	Generator Clock+ output is disabled

GENerator:COPositive:IMPedance <numeric>
GEN:COP:IMP <numeric>
GENerator:COPositive:IMPedance?
GEN:COP:IMP?

Set or retrieve the impedance of the Generator Clock output positive. May require some delay to complete.

Params:	<numeric>	Generator Clock+ output impedance in Ohms. Range [30 to 100,000]. Input out of range will be clipped and recorded in the status queue.
Returns:	< numeric >	

GENerator:COPositive:LFAMily <LVTTL | CML | ECL | PECL | LVPECL | LVDS | SCFL>
GEN:COP:LFAM <LVTTL | CML | ECL | PECL | LVPECL | LVDS | SCFL>
GENerator:COPositive:LFAMily?
GEN:COP:LFAM?

Set or retrieve the Generator Clock+ output logic family. PECL is not available on the BERTScope.

Params:	<LVTTL | CML | ECL | PECL | LVPECL | LVDS | SCFL>	The Generator Clock+ output logic family
Returns:	< LVTTL | CML | ECL | PECL | LVPECL | LVDS | SCFL >	

GENerator:COPositive:SLAMplitude <numeric>
GEN:COP:SLAM <numeric>
GENerator:COPositive:SLAMplitude?
GEN:COP:SLAM?

Set or retrieve the signal level amplitude of the Generator Clock+ output. May require some delay to complete.

Params:	<numeric>	Generator Clock+ output signal level amplitude in mV. Input out of range will be clipped and recorded in the status queue. **BitAlyzer:** Range [70 to 2,000]. **BERTScope:** Range [250 to 2,000].
Returns:	< numeric >	Generator Clock+ output signal level amplitude

GENerator:COPositive:SLOFfset <numeric>
GEN:COP:SLOF <numeric>
GENerator:COPositive:SLOFfset?
GEN:COP:SLOF?

Set or retrieve the signal level offset of the Generator Clock+ output. May require some delay to complete.

Params:	<numeric>	Generator Clock+ output signal level offset in mV. Input out of range will be clipped and recorded in the status queue. **BitAlyzer:** Range [–2,000 to +4,000]. **BERTScope:** Range [–2,000 to +2,000].
Returns:	< numeric >	Generator Clock+ output signal level offset

GENerator:COPositive:SLVHigh <numeric>
GEN:COP:SLVH <numeric>
GENerator:COPositive:SLVHigh?
GEN:COP:SLVH?

Set or retrieve the signal level V_H of the Generator Clock+ output. May require some delay to complete.

Params:	<numeric>	Generator Clock+ output signal level V_H in mV. Range [–1,750 to +3,000]. Input out of range will be clipped and recorded in the status queue.
Returns:	< numeric >	

GENerator:COPositive:SLVLow <numeric>
GEN:COP:SLVL <numeric>
GENerator:COPositive:SLVLow?
GEN:COP:SLVL?

Set or retrieve the signal level V_L of the Generator Clock+ output. May require some delay to complete.

Params:	<numeric>	Generator Clock+ output signal level V_L in mV. Range [–2,250 to +1,000]. Input out of range will be clipped and recorded in the status queue.
Returns:	< numeric >	

GENerator:COPositive:TAC <bool>
GEN:COP:TAC <bool>
GENerator:COPositive:TAC?
GEN:COP:TAC?

Set or retrieve the termination AC of the Generator Clock+ output. May require some delay to complete.

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	Generator Clock+ output termination AC is on
	< 0 >	Generator Clock+ output termination AC is off

GENerator:COPositive:TVOLtage <numeric>
GEN:COP:TVOL <numeric>
GENerator:COPositive:TVOLtage?
GEN:COP:TVOL?

Set or retrieve the termination voltage of the Generator Clock output positive. May require some delay to complete.

Params:	<numeric>	Generator Clock+ output termination voltage in mV. Range [–2,000 to +2,000]. Input out of range will be clipped and recorded in the status queue.
Returns:	< numeric >	

Generator Clock Output Negative

GENerator:CONegative:CLIPped?
GEN:CON:CLIP?

Retrieve whether the Generator Clock– output setting is clipped. Query only.

Returns:	< 1 >	The Generator Clock– output setting is clipped
	< 0 >	The Generator Clock– output setting is not clipped

GENerator:CONegative:ENABle <bool>
GEN:CON:ENAB <bool>
GENerator:CONegative:ENABle?
GEN:CON:ENAB?

Set or retrieve whether the Generator Clock– output is enabled. May require some delay to complete.

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	Generator Clock– output is enabled
	< 0 >	Generator Clock– output is disabled

GENerator:CONegative:IMPedance <numeric>
GEN:CON:IMP <numeric>
GENerator:CONegative:IMPedance?
GEN:CON:IMP?

Set or retrieve the impedance of the Generator Clock– output. May require some delay to complete.

Params:	<numeric>	Generator Clock– output impedance in Ohms. Range [30 to 100,000]. Input out of range will be clipped and recorded in the status queue.
Returns:	< numeric >	

GENerator:CONegative:LFAMily <LVTTL | CML | ECL | PECL | LVPECL | LVDS | SCFL>
GEN:CON:LFAMily <LVTTL | CML | ECL | PECL | LVPECL | LVDS | SCFL>
GENerator:CONegative:LFAMily?
GEN:CON:LFAM?

Set or retrieve the Clock– output logic family. PECL is not available on the BERTScope.

Params:	<LVTTL | CML | ECL | PECL | LVPECL | LVDS | SCFL>	The Clock– output logic family
Returns:	< string >	

GENerator:CONegative:SLAMplitude <numeric>
GEN:CON:SLAM <numeric>
GENerator:CONegative:SLAMplitude?
GEN:CON:SLAM?

Set or retrieve the signal level amplitude of the Generator Clock– output. May require some delay to complete.

Params:	<numeric>	Generator Clock– output signal level amplitude in mV. Range [250 to 2,000]. Input out of range will be clipped and recorded in the status queue.
Returns:	< numeric >	

GENerator:CONegative:SLOFfset <numeric>
GEN:CON:SLOF <numeric>
GENerator:CONegative:SLOFfset?
GEN:CON:SLOF?

Set or retrieve the signal level offset of the Generator Clock– output. May require some delay to complete.

Params:	<numeric>	Generator Clock– output signal level offset in mV. Range [–2,000 to +2,000]. Input out of range will be clipped and recorded in the status queue.
Returns:	< numeric >	

GENerator:CONegative:SLVHigh <numeric>
GEN:CON:SLVH <numeric>
GENerator:CONegative:SLVHigh?
GEN:CON:SLVH?

Set or retrieve the signal level V_H of the Generator Clock– output. May require some delay to complete.

Params:	<numeric>	Generator Clock– output signal level V_H in mV. Range [–1,750 to +3,000]. Input out of range will be clipped and recorded in the status queue.
Returns:	< numeric >	

GENerator:CONegative:SLVLow <numeric>
GENerator:CONegative:SLVLow?
GEN:CON:SLVL <numeric>
GEN:CON:SLVL?

Set or retrieve the signal level V_L of the Generator Clock– output. May require some delay to complete.

Params:	<numeric>	Generator Clock– output signal level V_L in mV. Range [–2,250 to +1,000]. Input out of range will be clipped and recorded in the status queue.
Returns:	< numeric >	

GENerator:CONegative:TAC <bool>
GEN:CON:TAC <bool>
GENerator:CONegative:TAC?
GEN:CON:TAC?

Set or retrieve the termination AC of the Generator Clock– output. May require some delay to complete.

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	Generator Clock– output termination AC is on
	< 0 >	Generator Clock– output termination AC is off

GENerator:CONegative:TVOLtage <numeric>
GEN:CON:TVOL <numeric>
GENerator:CONegative:TVOLtage?
GEN:CON:TVOL?

Set or retrieve the termination voltage of the Generator Clock– output. May require some delay to complete.

Params:	<numeric>	Generator Clock– output termination voltage in mV. Range [–2,000 to +2,000]. Input out of range will be clipped and recorded in the status queue.
Returns:	< numeric >	

Generator Clock Output Positive/Negative

GENerator:CLKDIVider <long>
GEN:CLKDIV <long>
GENerator:CLKDIVider?
GEN:CLKDIV?

Set or retrieve the value of the clock divider.

Params:	<long>	Value of Clock Divider
Returns:	< long >	

GENerator:COUTput:LPNSignals <bool>
GEN:COUT:LPNS <bool>
GENerator:COUTput:LPNSignals?
GEN:COUT:LPNS?

Set or retrieve whether the Generator Data output positive and negative are linked. May require some delay to complete.

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	Generator Clock+/– outputs are linked
	< 0 >	Generator Clock+/– outputs are not linked

GENerator:SUBRatediv <1 | 2 | 4 | 8 | 16 | 32 | 64 | 128>
GEN:SUBR <1 | 2 | 4 | 8 | 16 | 32 | 64 | 128>
GENerator:SUBRatediv?
GEN:SUBR?

Set or retrieve the sub-rate clock output divider for the Generator's internal clock synthesizer.

Params:	<1 | 2 | 4 | 8 | 16 | 32 | 64 | 128>	Generator internal clock synthesizer sub-rate clock output divider. "1" is full rate.
Returns:	< 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 >	

GENerator:SUBrate:STRess:CLKMODe <STRessed | SUBRate>
GENerator:SUBrate:STRess:CLKMODe?
GEN:SUB:STR:CLKMOD <STR | SUBR>
GEN:SUB:STR:CLKMOD?

Set or retrieve the sub-rate clock mode.

Params:	<STRessed>	Stressed
	<SUBRate>	Sub-Rate
Returns:	< STRessed | SUBRate >	

Generator Data Output Positive

GENerator:DOPositive:CLIPped?
GEN:DOP:CLIP?

Retrieve whether the Generator Data+ output setting is clipped. Query only.

Returns:	< 1 >	The Generator Data+ setting is clipped
	< 0 >	The Generator Data+ setting is not clipped

GENerator:DOPositive:ENABle <bool>
GEN:DOP:ENAB <bool>
GENerator:DOPositive:ENABle?
GEN:DOP:ENAB?

Set or retrieve whether the Generator Data+ output is enabled. May require some delay to complete.

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	Generator Data+ output is enabled
	< 0 >	Generator Data+ output is disabled

GENerator:DOPositive:IMPedance <numeric>
GEN:DOP:IMP <numeric>
GENerator:DOPositive:IMPedance?
GEN:DOP:IMP?

Set or retrieve the impedance of the Generator Data+ output. May require some delay to complete.

Params:	<numeric>	Generator Data+ output impedance in Ohms. Range [30 to 100,000] Input out of range will be clipped and recorded in the status queue.
Returns:	< numeric >	

GENerator:DOPositive:LFAMily <LVTTL | CML | ECL | PECL | LVPECL | LVDS | SCFL>
GEN:DOP:LFAM <LVTTL | CML | ECL | PECL | LVPECL | LVDS | SCFL>
GENerator:DOPositive:LFAMily?
GEN:DOP:LFAM?

Set or retrieve the Generator Data+ output logic family. PECL is not available on the BERTScope.

Params: <LVTTL | CML | ECL | PECL | LVPECL | LVDS | SCFL> Generator Data+ output logic family

Returns: < string >

GENerator:DOPositive:SLAMplitude <numeric>
GEN:DOP:SLAM <numeric>
GENerator:DOPositive:SLAMplitude?
GEN:DOP:SLAM?

Set or retrieve the signal level amplitude of the Generator Data+ output. May require some delay to complete.

Params: <numeric> Generator Data+ output signal level amplitude in mV. Range [250 to 2,000]. Input out of range will be clipped and recorded in the status queue.

Returns: < numeric >

GENerator:DOPositive:SLOFfset <numeric>
GEN:DOP:SLOF <numeric>
GENerator:DOPositive:SLOFfset?
GEN:DOP:SLOF?

Set or retrieve the signal level offset of the Generator Data+ output. May require some delay to complete.

Params: <numeric> Generator Data+ output signal level offset in mV. Range [–2,000 to +2,000]. Input out of range will be clipped and recorded in the status queue.

Returns: < numeric >

GENerator:DOPositive:SLVHigh <numeric>
GEN:DOP:SLVH <numeric>
GENerator:DOPositive:SLVHigh?
GEN:DOP:SLVH?

Set or retrieve the signal level V_H of the Generator Data+ output. May require some delay to complete.

Params: <numeric> Generator Data+ output signal level V_H in mV. Range [–1,750 to +3,000]. Input out of range will be clipped and recorded in the status queue.

Returns: < numeric >

GENerator:DOPositive:SLVLow <numeric>
GEN:DOP:SLVL <numeric>
GENerator:DOPositive:SLVLow?
GEN:DOP:SLVL?

Set or retrieve the signal level V_L of the Generator Data+ output. May require some delay to complete.

Params:	<numeric>	Generator Data+ output signal level V_L in mV. Range [–2,250 to +1,000]. Input out of range will be clipped and recorded in the status queue.
Returns:	< numeric >	

GENerator:DOPositive:SYMmetry <numeric>
GEN:DOP:SYM <numeric>
GENerator:DOPositive:SYMmetry?
GEN:DOP:SYM?

Set or retrieve the symmetry adjustment of the Generator Data+ output.

Params:	<numeric>	Generator Data+ output symmetry, in percent. Range [25 to 75]. Input out of range will be clipped and recorded in the status queue.
Returns:	< numeric >	

GENerator:DOPositive:TAC <bool>
GEN:DOP:TAC <bool>
GENerator:DOPositive:TAC?
GEN:DOP:TAC?

Set or retrieve the termination AC of the Generator Data+ output. May require some delay to complete.

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	Generator Data+ output termination AC is on
	< 0 >	Generator Data+ output termination AC is off

GENerator:DOPositive:TVOLtage <numeric>
GENerator:DOPositive:TVOLtage?
GEN:DOP:TVOL <numeric>
GEN:DOP:TVOL?

Set or retrieve the termination voltage of the Generator Data+ output. May require some delay to complete.

Params:	< numeric >	Generator Data+ output termination voltage in mV. Range [–2,000 to +2,000]. Input out of range will be clipped and recorded in the status queue.
Returns:	< numeric >	

Generator Data Output Negative

GENerator:DONegative:CLIPped?
GEN:DON:CLIP?

Retrieve whether the Generator Data– output setting is clipped. Query only.

Returns:	< 1 >	The Generator Data– output setting is clipped
	< 0 >	The Generator Data– output setting is not clipped

GENerator:DONegative:ENABle <bool>
GEN:DON:ENAB <bool>
GENerator:DONegative:ENABle?
GEN:DON:ENAB?

Set or retrieve whether the Generator Data– output is enabled. May require some delay to complete.

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	Generator Data– output is enabled
	< 0 >	Generator Data– output is disabled

GENerator:DONegative:IMPedance <numeric>
GEN:DON:IMP <numeric>
GENerator:DONegative:IMPedance?
GEN:DON:IMP?

Set or retrieve the impedance of the Generator Data– output. May require some delay to complete.

Params:	<numeric>	Generator Data– output impedance in Ohms. Range [30 to 100,000]. Input out of range will be clipped and recorded in the status queue.
Returns:	< numeric >	

GENerator:DONegative:LFAMily <LVTTL | CML | ECL | PECL | LVPECL | LVDS | SCFL>
GEN:DON:LFAM <LVTTL | CML | ECL | PECL | LVPECL | LVDS | SCFL>
GENerator:DONegative:LFAMily?
GEN:DON:LFAM?

Set or retrieve the Generator Data– output logic family. PECL is not available on the BERTScope.

Params:	<LVTTL | CML | ECL | PECL | LVPECL | LVDS | SCFL>	The Generator Data– output logic family
Returns:	< LVTTL | CML | ECL | PECL | LVPECL | LVDS | SCFL >	

GENerator:DONegative:SLAMplitude <numeric>
GEN:DON:SLAM <numeric>
GENerator:DONegative:SLAMplitude?
GEN:DON:SLAM?

Set or retrieve the signal level amplitude of the Generator Data– output. May require some delay to complete.

Params:	<numeric>	Generator Data– output signal level amplitude in mV. Range [250 to 2,000]. Input out of range will be clipped and recorded in the status queue.
Returns:	< numeric >	

GENerator:DONegative:SLOFfset <numeric>
GEN:DON:SLOF <numeric>
GENerator:DONegative:SLOFfset?
GEN:DON:SLOF?

Set or retrieve the signal level offset of the Generator Data– output. May require some delay to complete.

Params:	<numeric>	Generator Data– output signal level offset in mV. Range [–2,000 to +2,000]. Input out of range will be clipped and recorded in the status queue.
Returns:	< numeric >	

GENerator:DONegative:SLVHigh <numeric>
GEN:DON:SLVH <numeric>
GENerator:DONegative:SLVHigh?
GEN:DON:SLVH?

Set or retrieve the signal level V_H of the Generator Data– output. May require some delay to complete.

Params:	<numeric>	Generator Data– output signal level V_H in mV. Range [–1,750 to +3,000]. Input out of range will be clipped and recorded in the status queue.
Returns:	< numeric >	

GENerator:DONegative:SLVLow <numeric>
GEN:DON:SLVL <numeric>
GENerator:DONegative:SLVLow?
GEN:DON:SLVL?

Set or retrieve the signal level V_L of the Generator Data– output. May require some delay to complete.

Params:	<numeric>	Generator Data– output signal level V_L in mV. Range [–2,250 to +1,000 mV]. Input out of range will be clipped and recorded in the status queue.
Returns:	< numeric >	

GENerator:DONegative:SYMmetry <numeric>
GEN:DON:SYM <numeric>
GENerator:DONegative:SYMmetry?
GEN:DON:SYM?

Set or retrieve the symmetry adjustment of the Generator Data– output.

Params:	<numeric>	Generator Data– output symmetry, in percent. Range [25 to 75%]. Input out of range will be clipped and recorded in the status queue.
Returns:	< numeric >	

GENerator:DONegative:TAC <bool>
GEN:DON:TAC <bool>
GENerator:DONegative:TAC?
GEN:DON:TAC?

Set or retrieve the termination AC of the Generator Data– output. May require some delay to complete.

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	Generator Data– output termination AC is on
	< 0 >	Generator Data– output termination AC is off

GENerator:DONegative:TVOLtage <numeric>
GEN:DON:TVOL <numeric>
GENerator:DONegative:TVOLtage?
GEN:DON:TVOL?

Set or retrieve the termination voltage of the Generator Data– output. May require some delay to complete.

Params:	<numeric>	Generator Data– output termination voltage in mV. Range [–2,000 to +2,000]. Input out of range will be clipped and recorded in the status queue.
Returns:	< numeric >	

Generator Data Output Positive/Negative

GENerator:DOUTput:LPNSignals <bool>
GEN:DOUT:LPNS <bool>
GENerator:DOUTput:LPNSignals?
GEN:DOUT:LPNS?

Set or retrieve whether the Generator Data+/– outputs are linked. May require some delay to complete.

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	Generator Data+/– outputs are linked
	< 0 >	Generator Data+/– outputs are not linked

Generator Trigger

GENerator:TOFFset <numeric>
GEN:TOFF <numeric>
GENerator:TOFFset?
GEN:TOFF?

Set or retrieve the Generator Trigger offset.

Params:	<numeric>	Generator Trigger offset **BitAlyzer:** in 32-bit words. Range [0 to (Pattern Size – 1)] for all the PRBS patterns. For others, the range is [0 to 0]. Input out of range will be clipped and recorded in the status queue. **BERTScope:** in 128-bit words. Range [0 to (Pattern Size – 1)] for all the PRBS patterns. For others, the range is [0 to 0]. Input out of range will be clipped and recorded in the status queue.
Returns:	< numeric >	

GENerator:TOMethod <PCYCle | CLOCk>
GEN:TOM <PCYC | CLOC>
GENerator:TOMethod?
GEN:TOM?

Set or retrieve the Generator Trigger out method.

Params:	<PCYCle>	Generator Trigger out method is pattern cycle
	<CLOCk>	**BitAlyzer:** Generator Trigger out method is a divided-down clock/64 **BERTScope:** Generator trigger out method is a divided-down clock/256
Returns:	< PCYCle | CLOCk >	

Generator Error Inject

GENerator:EIEType <1BIT | 2BITs | 4BITs | 8BITs | 16Bits | 32Bits | 64Bits | 128Bits>
GEN:EIET <1BIT | 2BIT | 4BIT | 8BIT | 16B | 32B | 64B | 128B>
GENerator:EIEType?
GEN:EIET?

Set or retrieve the Generator Error Inject type. May require some delay to complete.

Params:	<1Bit | 2Bits | 4Bits | 8Bits | 16Bits | 32Bits | 64Bits | 128Bits>	Generator error inject type is 1, 2, 4, 8, 16, 32, 64, or 128 bit(s)
Returns:	< 1BIT | 2BITs | 4BITs | 8BITs | 16Bits | 32Bits | 64Bits | 128Bits >	

GENerator:EIINterval <numeric>
GEN:EIIN <numeric>
GENerator:EIINterval?
GEN:EIIN?

Set or retrieve the Generator Error Inject interval. May require some delay to complete.

Params:	<numeric>	Generator Error Inject interval in bits **BitAlyzer:** Range [32 to 16,777,184]; must be modulo 32. Input out of range will be clipped and recorded in the status queue. **BERTScope:** Range [16,384 to 16,777,184]; must be modulo 128. Input out of range will be clipped and recorded in the status queue.
Returns:	< numeric >	

GENerator:EIMode <CONTinuous | MANual | EXTernal | OFF>
GEN:EIM <CONT | MAN | EXT | OFF>
GENerator:EIMode?
GEN:EIM?

Set or retrieve the Generator Error Inject mode. May require some delay to complete.

Params:	<CONTinuous>	Generator Error Inject mode is continuous
	<MANual>	Generator Error Inject mode is manual
	<EXTernal>	Generator is set to inject a single error on receipt of an external signal
	<OFF>	Generator Error Inject is off
Returns:	< CONTinuous | MANual | EXTernal | OFF >	

GENerator:IBER?
GEN:IBER?

Retrieve the injected BER of the Generator. Query only.

Returns:	< numeric >	Generator injected bit error rate

GSM – Generator Stress Module – Stressed Eye

All GSM commands apply *only* to the BERTScope family of analyzers. Before using the GSM commands, send **GSM:STRess:ENABle 1** to enable all stress features (see **GSM:STRess** below).

GSM:BUJitter:AMPUi <number>
GSM:BUJ:AMPU <number>
GSM:BUJitter:AMPUi?
GSM:BUJ:AMPU?

Set or retrieve the PRBS jitter amplitude in percent of UI.

Params:	<number>	PRBS jitter amplitude in %UI. Range [0 to 50%]. The amplitude limits change with regard to the analyzer's operating frequency
Returns:	< number >	

GSM:BUJitter:ENABle <bool>
GSM:BUJ:ENAB <bool>
GSM:BUJitter:ENABle?
GSM:BUJ:ENAB?

Set or retrieve whether the PRBS jitter on the clock is enabled.

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	PRBS jitter on the clock is enabled
	< 0 >	PRBS jitter on the clock is disabled

GSM:BUJitter:FREQuency <number>
GSM:BUJ:FREQ <number>
GSM:BUJitter:FREQuency?
GSM:BUJ:FREQ?

Set or retrieve the PRBS jitter frequency in Hz.

Params:	<number>	PRBS jitter frequency in Hz. Range [100,000,000 to 2,500,000,000]
Returns:	< number >	

GSM:BUJitter:TYPE <PRBS7 | PRBS10 | PRBS11>
GSM:BUJ:TYPE <PRBS7 | PRBS10 | PRBS11>
GSM:BUJitter:TYPE?
GSM:BUJ:TYPE?

Set or retrieve the PRBS jitter type.

Params:	<PRBS7>	Insert PRBS7 jitter
	<PRBS10>	Insert PRBS10 jitter
	<PRBS11>	Insert PRBS11 jitter.
Returns:	< PRBS7 | PRBS10 | PRBS11 >	

GSM:EXHFrequency:ENABle <bool>
GSM:EXHF:ENAB <bool>
GSM:EXHFrequency:ENABle?
GSM:EXHF:ENAB?

Set or retrieve whether the external high frequency jitter is enabled.

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	External high frequency jitter is enabled
	< 0 >	External high frequency jitter is disabled

GSM:EXSJitter:AMPUi <number>
GSM:EXSJ:AMPU <number>
GSM:EXSJitter:AMPUi?
GSM:EXSJ:AMPU?

Set or retrieve the external sinusoidal jitter amplitude in percent of UI.

Params: <number> External sinusoidal jitter amplitude in %UI. Range [0 to Maximum allowed %UI]. The amplitude limits change with regard to the analyzer's operating frequency.

Returns: < number >

GSM:EXSJitter:MODE

Command is obsolete; see GSM:EXSJitter:INVErt and GSM:EXSJitter:ENABle.

GSM:EXSJitter:ENABle <bool>
GSM:EXSJ:ENAB <bool>
GSM:EXSJitter:ENABle?
GSM:EXSJ:ENAB?

Enable/disable External Sinusoidal Jitter.

Params: <bool> On = 1, Off = 0

Returns: < 1 > EXS Jitter is enabled

< 0 > EXS Jitter is disabled

GSM:EXSJitter:INVErt <bool>
GSM:EXSJ:INVE <bool>
GSM:EXSJitter:INVErt?
GSM:EXSJ:INVE?

Set or retrieve invert state of EXS Jitter.

Params: <bool> On = 1, Off = 0

Returns: < 1 > EXS Jitter is inverted

< 0 > EXS Jitter is not inverted

GSM:F2Jitter:AMPUi <number>
GSM:F2J:AMPU <number>
GSM:F2Jitter:AMPUi?
GSM:F2J:AMPU?

Set or retrieve the F/2 Jitter amplitude.

Params: <number> F/2 Jitter amplitude in %UI

Returns: < number >

GSM:F2Jitter:AVAilable?
GSM:F2J:AVA?

Checks to see if the F/2 Jitter option is available. Query only.

Returns: < 1 > F/2 Jitter is available

< 0 > F/2 Jitter is not available

GSM:F2Jitter:ENABle <bool>
GSM:F2J:ENAB <bool>
GSM:F2Jitter:ENABle?
GSM:F2J:ENAB?

Set or retrieve whether F/2 Jitter is enabled.

Params: <bool> On = 1, Off = 0

Returns: < 1 > F/2 Jitter is enabled

< 0 > F/2 Jitter is disabled

GSM:F2Jitter:MAXAmpui?
GSM:F2J:MAXA?

Returns the maximum %UI for the current F/2 Jitter synthesizer frequency. Query only.

Returns <number> Maximum %UI for F/2 Jitter synthesizer frequency

GSM:LFRJ:AMPUI <number>
GSM:LFRJ:AMPUI?

Set or retrieve the low frequency random jitter amplitude in percent of UI.

Params: <number> LFR Jitter amplitude in %UI

Returns: < number >

GSM:LFRJ:ENABLE <bool>
GSM:LFRJ:ENABLE?

Set or retrieve whether low frequency random jitter is enabled.

Params: <bool> On = 1, Off = 0

Returns: < 1 > LFR Jitter is enabled

< 0 > LFR Jitter is disabled

GSM:LFSJ:AMPPS <number>
GSM:LFSJ:AMPPS?

Set or retrieve the low frequency sinusoidal jitter amplitude in picoseconds.

Params: <number> LFS Jitter amplitude in picoseconds

Returns: < number >

GSM:LFSJ:ENABLE <bool>
GSM:LFSJ:ENABLE?

Set or retrieve whether low frequency sinusoidal jitter is enabled.

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	LFS Jitter is enabled
	< 0 >	LFS Jitter is disabled

GSM:LFSJ:FREQ <number>
GSM:LFSJ:FREQ?

Set or retrieve the low frequency sinusoidal jitter frequency in Hz.

Params:	<number>	LFSJ frequency in Hz
Returns:	< number >	

GSM:RCONfiguration <"filename">
GSM:RCON <"filename">

Restore Stress configuration. Action only.

Params:	<"filename">	Configuration filename used to restore. Filename is enclosed in double quotes.
Returns:	< filename >	

GSM:RJitter:AMPUi <number>
GSM:RJ:AMPU <number>
GSM:RJitter:AMPUi?
GSM:RJ:AMPU?

Set or retrieve the random jitter amplitude in percent of UI.

Params:	<number>	Random jitter amplitude in %UI. Range [0 to 50%]. The amplitude limits change with regard to the analyzer's operating frequency.
Returns:	< number >	

GSM:RJitter:ENABle <bool>
GSM:RJ:ENAB <bool>
GSM:RJitter:ENABle?
GSM:RJ:ENAB?

Set or retrieve whether random jitter on the clock is enabled.

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	Random jitter on the clock is enabled
	< 0 >	Random jitter on the clock is disabled

GSM:RJ:TYPE <1GHZ | 100MHZ>
GSM:RJ:TYPE?

Set or retrieve the random jitter bandwidth type.

Params: <1GHZ> RJ bandwidth type 1 GHz

<100MHZ> RJ bandwidth type 100 MHz

Returns: < 1GHZ | 100MHZ >

GSM:SCONfiguration <"filename">
GSM:SCON <"filename">

Save Stress configuration. Action only.

Params: <"filename"> Configuration filename used to save. Filename is enclosed in quotes.

Returns: < filename >

GSM:SJitter:AMPUi <number>
GSM:SJ:AMPU <number>
GSM:SJitter:AMPUi?
GSM:SJ:AMPU?

Set or retrieve the sinusoidal jitter amplitude in percent of UI.

Params: <number> Sinusoidal jitter amplitude in %UI. Range [0 to Maximum allowed %UI]. The amplitude limits change with regard to the analyzer's operating frequency.

Returns: < number >

GSM:SJitter:ENABle <bool>
GSM:SJ:ENAB <bool>
GSM:SJitter:ENABle?
GSM:SJ:ENAB?

Set or retrieve whether sinusoidal jitter on the clock is enabled.

Params: <bool> On = 1, Off = 0

Returns: < 1 > Sinusoidal jitter on the clock is enabled

< 0 > Sinusoidal jitter on the clock is disabled

GSM:SJitter:FREQuency <number>
GSM:SJ:FREQ <number>
GSM:SJitter:FREQuency?
GSM:SJ:FREQ?

Set or retrieve the sinusoidal jitter frequency in Hz.

Params: <number> Sinusoidal jitter frequency in Hz. Range [20,000 to 80,000,000]

Returns: < number >

GSM:SInterference:AMPLitude <number>
GSM:SI:AMPL <number>
GSM:SInterference:AMPLitude?
GSM:SI:AMPL?

Set or retrieve the Data+/– sinusoidal interference amplitude in mV.

Params: <number> Sinusoidal interference amplitude on Data+/– output. Range [0 to 400]. The amplitude limits change with regard to the analyzer's operating frequency.

Returns: < number >

GSM:SInterference:ENABle <bool>
GSM:SI:ENAB <bool>
GSM:SInterference:ENABle?
GSM:SI:ENAB?

Set or retrieve whether sinusoidal interference on Data+/– output is enabled.

Params: <bool> On = 1, Off = 0

Returns: < 1 > Sinusoidal interference on Data+/– is enabled

< 0 > Sinusoidal interference on Data+/– is disabled

GSM:SInterference:FREQuency <number>
GSM:SI:FREQ <number>
GSM:SInterference:FREQuency?
GSM:SI:FREQ?

Set or retrieve the sinusoidal interference frequency in Hz.

Params: <number> Sinusoidal interference frequency in Hz. Range [100,000,000 to 2,500,000,000]

Returns: < number >

GSM:SInterference:MODE <INPhase | OUTPhase | EXTErnal>
GSM:SI:MODE <INP | OUTP | EXTE>
GSM:SInterference:MODE?
GSM:SI:MODE?

Set or retrieve the internal sinusoidal interference mode.

Params: <INPhase> Sinusoidal interference is in phase

<OUTPhase> Sinusoidal interference is out of phase

<EXTErnal> Sinusoidal interference is External

Returns: < INPhase | OUTPhase | EXTErnal >

GSM:SINEgative:AMPLitude <number>
GSM:SINE:AMPL <number>
GSM:SINEgative:AMPLitude?
GSM:SINE:AMPL?

Set or retrieve the Data– output sinusoidal interference amplitude in mV.

Params: <number> Sinusoidal interference amplitude on Data–, in mV. Range [0 to 400]. The amplitude limits change with regard to the analyzer's operating frequency.

Returns: < number >

GSM:SINEgative:ENABle <bool>
GSM:SINE:ENAB <bool>
GSM:SINEgative:ENABle?
GSM:SINE:ENAB?

Set or retrieve whether sinusoidal interference on the Data– output is enabled.

Params: <bool> On = 1, Off = 0

Returns: < 1 > Sinusoidal interference on Data– is enabled

< 0 > Sinusoidal interference on Data– is disabled

GSM:SIPOsitive:AMPLitude <number>
GSM:SIPO:AMPL <number>
GSM:SIPOsitive:AMPLitude?
GSM:SIPO:AMPL?

Set or retrieve the Data+ output sinusoidal interference amplitude in mV.

Params: <number> Sinusoidal interference amplitude on Data+ output. Range [0 to 400]. The amplitude limits change with regard to the analyzer's operating frequency.

Returns: < number >

GSM:SIPOsitive:ENABle <bool>
GSM:SIPO:ENAB <bool>
GSM:SIPOsitive:ENABle?
GSM:SIPO:ENAB?

Set or retrieve whether sinusoidal interference on the Data+ output is enabled.

Params: <bool> On = 1, Off = 0

Returns: < 1 > Sinusoidal interference on Data+ is enabled

< 0 > Sinusoidal interference on Data+ is disabled

GSM:STRess:ENABle <bool>
GSM:STR:ENAB <bool>
GSM:STRess:ENABle?
GSM:STR:ENAB?

Set or retrieve whether the entire global stress feature is enabled. The entire stress feature includes jitter insertion of sinusoidal jitter (SJ), external sinusoidal jitter (EXSJ), random jitter (RJ), PRBS jitter (BUJ) and external high frequency jitter (EXHF).

There are commands to enable each individual stress insertion, such as GSM:SJitter:ENABle; however, unless the Stress Feature is enabled using this command, those individual jitter insertion enabling commands do not enable any jitter insertion. For example, if one sent a "`GSM:SJ:ENAB 1`" without enabling the stress feature (query "`GSM:STR:ENAB?`" returns 0), the system merely caches the SJ Enable value. The next time "`GSM:STR:ENAB 1`" is sent, the SJ is then enabled. After the stress feature is enabled, one can still enable or disable individual types of jitter insertion by sending the corresponding ENABle command.

This command corresponds to the Clock control's "Jitter Insertion Enabled" menu item in the Generator view.

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	All stress enabled
	< 0 >	All stress disabled

Detector

DETector:ATTENFactor <numeric>
DET:ATTENF <numeric>
DETector:ATTENFactor?
DET:ATTENF?

BERTScope only. Set or retrieve the Detector's Data Input Attenuation Factor. ***Note:*** The format used for parameter and return value is determined by the current attenuation factor mode setting. See DET:ATTENFM below.

Params:	<numeric>	Valid ranges: 0.001:1 to 1000:1 ***or*** –60 dB to +60 dB
Returns:	< numeric >	

DETector:ATTENFactorMode <DECIBEL | RATIO>
DET:ATTENFM <DECIBEL | RATIO>
DETector:ATTENFactorMode?
DET:ATTENFM?

BERTScope only. Set or retrieve Detector attenuation factor mode, Decibel or Ratio.

Params:	<DECIBEL>	BERTScope interprets and displays the Detector's Data Input Attenuation Factor in dB. (*Example:* `20 dB`)
	<RATIO>	BERTScope interprets and displays the Detector's Data Input Attenuation Factor as a ratio. (*Example:* `20:1`)
Returns:	< DECIBEL | RATIO >	

DETector:BINVert <bool>
DET:BINV <bool>
DETector:BINVert?
DET:BINV?

Set or retrieve the blank invert of the Detector.

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	Detector Blank is inverted
	< 0 >	Detector Blank is not inverted

DETector:BRM <numeric>
DET:BRM <numeric>
DETector:BRM?
DET:BRM?

Set or retrieve the Bit Rate Multiplier.

Params:	<numeric>	Bit Rate Multiplier, a numeric value. Range [1 to 8]. A value of –1 calculates the Bit Rate Multiplier value automatically.
Returns:	< numeric >	

DETector:CINVert <bool>
DET:CINV <bool>
DETector:CINVert?
DET:CINV?

Set or retrieve the clock invert of the Detector.

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	Detector Clock is inverted
	< 0 >	Detector Clock is not inverted

DETector:DDEFs <numeric>
DET:DDEF <numeric>
DETector:DDEFs?
DET:DDEF?

Set or retrieve the Detector data delay in femto-seconds.

Params:	<numeric>	Set Detector data delay in fs
Returns:	< numeric >	

DETector:DDELay <numeric>
DET:DDEL <numeric>
DETector:DDELay?
DET:DDEL?

Set or retrieve the data delay of the Detector (in picoseconds).

Params:	<numeric>	Detector Data delay. **BitAlyzer**: When operating within the range [1 to 981 MHz], Detector Data Delay is within a range [0 to 33,000 ps]. Input out of range will be clipped and recorded in the status queue. When operating within the range [982 to 1,500 MHz], the Detector Data Delay is within a range [0 to 5,000 ps]. **BERTScope**: When the BERTScope is operating within the range [500 to 1,000 MHz], the Detector Data Delay is within a range [0 to 32,000 ps]. Input out of range will be clipped and recorded in the status queue. When the BERTScope is operating within the range [1,100 to 12,500 MHz], the Detector Data Delay is within a range [0 to 3,000 ps].
Returns:	< numeric >	

DELAY:DETRecal?
DELAY:DETR?

Retrieve the information that indicates whether Detector delay needs recalibration. Query only.
Note: Since monitoring for these calibrations is suspended while Physical Layer tests are running, using this command under those circumstances may not return an accurate result.

Returns:	< 1 >	Needs Delay Recalibration
	< 0 >	Does not need a Delay Recalibration

DETector:DINVert <bool>
DET:DINV <bool>
DETector:DINVert?
DET:DINV?

Set or retrieve the data invert of the Detector.

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	Detector Data is inverted
	< 0 >	Detector Data is not inverted

DETector:DRATe?
DET:DRAT?

Retrieve the data rate of the Detector. Query only.

Returns:	< numeric >	Detector Data rate in Bits/s. 0 = No Clock.

DETector:FULLRATEclock <bool>
DET:FULLRATE <bool>
DETector:FULLRATEclock?
DET:FULLRATE?

Set or retrieve the Full Rate Clock property of the Detector.

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	Detector is in Full Rate Clock mode
	< 0 >	Detector is in Half Rate Clock mode

DETector:OPERmode <ELEC | OPTIC>
DET:OPER <ELEC | OPTIC>
DETector:OPERmode?
DET:OPER?

BERTScope only. Set or retrieve Detector operating mode, Electrical or Optical.

Params:	<ELEC>	BERTScope operates in Electrical mode
	<OPTIC>	BERTScope operates in Optical mode
Returns:	< ELEC | OPTIC >	

DETector:PCALibration
DET:PCAL

Perform Detector delay calibration. Action only. May require some delay to complete.

DETector:RSNumber?
DET:RSN?

Retrieve the result serial number of the Detector. Query only.

Returns:	< numeric >	Detector's result serial number

Detector — Error Detector

DETector:ARENable <bool>
DET:AREN <bool>
DETector:ARENable?
DET:AREN?

Set or retrieve the automatic resync setting of the Detector.

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	Detector automatic resync is on
	< 0 >	Detector automatic resync is off

DETector:ARTHreshold <numeric>
DET:ARTH <numeric>
DETector:ARTHreshold?
DET:ARTH?

Set or retrieve the threshold of the Detector automatic resync.

Params:	<numeric>	Detector automatic resync threshold in number of errors. Range [3 to 100,000]. Input out of range will be clipped and recorded in the status queue.
Returns:	< numeric >	

DETector:DPATtern?
DET:DPAT?

Retrieve detected pattern of the Detector. The PRBS-11 pattern is available only on BERTScope instruments. Query only.

Returns:	GRABNGO	Grab and Go
	NO_CLOCK	No clock
	NONE	No pattern
	NOT_AVAILABLE	Detector is in Live Data mode
	ONE	All ones
	IPN7 | IPN11 | IPN15 | IPN20 | IPN23 | IPN31	Pseudo-random pattern: PRBS-7, PRBS-11*, PRBS-15, PRBS-20, PRBS-23, or PRBS-31
	RAM_SHIFTNSYNC	Shift and Sync
	RAM_TRIGGER	Trigger
	IGRABNGO	*Inverted* Grab and Go
	IPN7 | IPN11 | IPN15 | IPN20 | IPN23 | IPN31	*Inverted* pseudo-random pattern: PRBS-7, PRBS-11*, PRBS-15, PRBS-20, PRBS-23, or PRBS-31
	IRAM_SHIFTNSYNC	*Inverted* Shift and Sync
	IRAM_TRIGGER	*Inverted* Trigger
	ZERO	All zeros

*PN11 pattern is available only on the BERTScope.

DETector:GLENgth <integer>
DET:GLEN <integer>
DETector:GLENgth?
DET:GLEN?

Set or retrieve the Detector capture length. The action causes the machine to capture the input number of words into the Detector. The query returns the amount of captured RAM in words.

Params:	<integer>	Number of words to capture
Returns:	< integer >	Number of words captured

DETector:ISYNc?
DET:ISYN?

Retrieve whether the Detector is in sync. Query only.

Returns:	< 1 >	Detector is in sync
	< 0 >	Detector is not in sync

DETector:LUPFilename?
DET:LUPF?

Retrieve user pattern file that has been loaded to the Detector. Query only.

Returns:	< filename >	User pattern file that has been loaded to the Detector.

DETector:NALArm?
DET:NALA?

Retrieve the negative input protection alarm. Query only.

Returns:	< 1 >	Negative input protection alarm is on
	< 0 >	No negative input protection alarm

DETector:PALArm?
DET:PALA?

Retrieve the positive input protection alarm state. Query only.

Returns:	< 1 >	Positive input protection alarm is on
	< 0 >	No positive input protection alarm

DETector:PATTern <PN7 | PN11* | PN15 | PN20 | PN23 | PN31 | USTart | UGRab | USHift | AUTomatic | ALLZERO>
DET:PATT <PN7 | PN11* | PN15 | PN20 | PN23 | PN31 | UST | UGR | USH | AUT | ALLZERO>
DETector:PATTern?
DET:PATT?

Set or retrieve the data type of the Detector. PN11 pattern is available only on BERTScope instruments.

Params:	<PN7 | PN11***** | PN15 | PN15 | PN20 | PN23 | PN31>	Pseudo-random data types: PRBS-7, PRBS-11*, PRBS-15, PRBS-20, PRBS-23, PRBS-31.
	<USTart>	User pattern (See GEN:UPLoad to load a user pattern file.)
	<UGRab>	Grab and Go
	<USHift>	Shift and Sync
	<AUTomatic>	Automatic detection
	<ALLZERO>	All-zeros pattern
Returns:	< PN7 | PN11* | PN15 | PN20 | PN23 | PN31 | USTart | UGRab | USHift | AUTomatic | ALLZERO >	

*The PN11 pattern is available only on the BERTScope.

DETector:RESEtall
DET:RESE

Reset the Detector results *AND* Error Analysis results. Action only.

DETector:RRESults
DET:RRES

Reset the Detector results. Action only.

DETector:SETHreshold <integer>
DET:SETH <integer>
DETector:SETHreshold?
DET:SETH?

Set or retrieve the Detector Shift Error Tolerance. This action causes the machine to capture the input number of words into the detector.

Params:	<integer>	Number of errors permitted for synchronizing
Returns:	< integer >	

DETector:UPLoad <"filename">
DET:UPL <"filename">

Load user pattern from the specified file. Action only.

Params:	<filename>	Load the specified pattern file into the Detector. Use absolute pathname and enclose string in quotes.

DETector:UPLPercent?
DET:UPLP?

Retrieve the user pattern loading percentage completion value. It returns 100 if the loading is complete. Query only.

Returns:	< number >	The percentage of user pattern loaded into the Detector

DETector:UPWLen?
DET:UPWL?

Retrieve the word count from the Generator RAM. Query only.

Returns:	< number >	The number of words in RAM

Detector Start Detect

DETector:SDETect:TAC <bool>
DET:SDET:TAC <bool>
DETector:SDETect:TAC?
DET:SDET:TAC?

Set or retrieve the termination AC of the Detector Start Detect.

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	Detector Start Detect Termination AC is on
	< 0 >	Detector Start Detect Termination AC is off

DETector:SDETect:THReshold <numeric>
DET:SDET:THR <numeric>
DETector:SDETect:THReshold?
DET:SDET:THR?

Set or retrieve the threshold of the Detector Start Detect.

Params:	<numeric>	Detector Start Detect threshold in mV. Range [–2,000 to +4,000]. Input out of range will be clipped and recorded in the status queue.
Returns:	< numeric >	

DETector:SDETect:TMODe <REDGe | FEDGe | DISabled>
DET:SDET:TMOD <REDG | FEDG | DIS>
DETector:SDETect:TMODe?
DET:SDET:TMOD?

Set or retrieve the trigger mode of the Detector Start Detect.

Params:	<REDGe>	Trigger at the rising edge
	<FEDGe>	Trigger at the falling edge
	<DISabled>	Trigger disabled
Returns:	< REDge | FEDGe | Disabled >	

DETector:SDETect:TVOLtage <numeric>
DET:SDET:TVOL <numeric>
DETector:SDETect:TVOLtage?
DET:SDET:TVOL?

Set or retrieve the termination voltage of the Detector Start Detect.

Params:	<numeric>	Detector Start Detect termination voltage in ps. Range [–2,000 to +3,300]. Input out of range will be clipped and recorded in the status queue.
Returns:	< numeric >	

Detector Clock Input

DETector:CINPut:CLIPped?
DET:CINP:CLIP?

Retrieve whether the Detector Clock input setting is clipped. Query only.

Returns:	< 1 >	Detector Clock input setting is clipped
	< 0 >	Detector Clock input setting is not clipped

DETector:CINPut:IMODe <DIFFerential | SENDed | ISENded>
DET:CINP:IMOD <DIFF | SEND | ISEN>
DETector:CINPut:IMODe?
DET:CINP:IMOD?

Set or retrieve the interface mode of the Detector Clock input. May require some delay to complete.

Params:	<DIFFerential>	Differential interface
	<SENDed>	Single-ended interface
	<ISENded>	Inverted single-ended interface
Returns:	< Differential | SingleEnded | SingleEndedInverted >	

DETector:CINPut:LFAMily <LVTTL | CML | ECL | PECL | LVPECL | LVDS | SCFL | DLVTTL | DCML | DECL | DPECL | DLVPECL | DLVDS>
DET:CINP:LFAM <LVTTL | CML | ECL | PECL | LVPECL | LVDS | SCFL | DLVTTL | DCML | DECL | DPECL | DLVPECL | DLVDS>
DETector:CINPut:LFAMily?
DET:CINP:LFAM?

Set or retrieve the clock input logic family. PECL and DPECL are not available on the BERTScope,.

Params:	<LVTTL | CML | ECL | PECL | LVPECL | LVDS | SCFL | DLVTTL | DCML | DECL | DPECL | DLVPECL | DLVDS>	The clock input logic family
Returns:	< LVTTL | CML | ECL | PECL | LVPECL | LVDS | SCFL | DLVTTL | DCML | DECL | DPECL | DLVPECL | DLVDS >	

DETector:CINPut:TAC <bool>
DET:CINP:TAC <bool>
DETector:CINPut:TAC?
DET:CINP:TAC?

Set or retrieve the termination AC of the Detector Clock input. May require some delay to complete.

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	Detector Clock input termination AC is on
	< 0 >	Detector Clock input termination AC is off

DETector:CINPut:THReshold <numeric>
DET:CINP:THR <numeric>
DETector:CINPut:THReshold?
DET:CINP:THR?

Set or retrieve the threshold of the Detector Clock input. May require some delay to complete. Available only on BitAlyzer.

Params:	<numeric>	Detector Clock input threshold in mV. Range [–2,000 to +4,000]. Input out of range will be clipped and recorded in the status queue.
Returns:	< numeric >	

DETector:CINPut:TVOLtage <numeric>
DET:CINP:TVOL <numeric>
DETector:CINPut:TVOLtage?
DET:CINP:TVOL?

Set or retrieve the termination voltage of the Detector Clock input. May require some delay to complete.

Params:	<numeric>	Detector Clock input termination voltage in ps. Range [–2,000 to +3,300]. Input out of range will be clipped and recorded in the status queue.
Returns:	< numeric >	

DETector:CLocKOPTimize
DET:CLKOPT

BitAlyzer only. Initiates procedure for optimizing the location of the Detector Clock input threshold. Locates mid-point of clock envelope. May take seconds to complete. Action only.

DETector:CLocKOPTResult?
DET:CLKOPTR?

BitAlyzer only. Returns the located threshold in millivolts. If optimization fails, returns -99999999 as a sentinel value. Query only.

Detector Data Input

DETector:ATTENFactor <numeric>
DET:ATTENF <numeric>
DETector:ATTENFactor?
DET:ATTENF?

Set or retrieve the Detector's Data Input Attenuation Factor. ***Note:*** The format used for parameter and return value is determined by the current attenuation factor mode setting.

Params:	<numeric>	Valid ranges [0.001:1 to 1000:1] ***or*** [–60 dB to +60 dB]
Returns:	< numeric >	

DETector:ATTENFactorMode <DECIBEL | RATIO>
DET:ATTENFM <DECIBEL | RATIO>
DETector:ATTENFactorMode?
DET:ATTENFM?

BERTScope only. Set or retrieve Detector attenuation factor mode, Decibel or Ratio.

Params:	<DECIBEL>	BERTScope interprets and displays the Detector's Data Input Attenuation Factor in dB. (*Example:* `20 dB`)
	<RATIO>	BERTScope interprets and displays the Detector's Data Input Attenuation Factor as a ratio. (*Example:* `20:1`)
Returns:	< DECIBEL | RATIO >	

DETector:DINPut:CLIPped?
DET:DINP:CLIP?

Retrieve whether the Detector Data input setting is clipped. Query only.

Returns:	< 1 >	Detector Data input setting is clipped
	< 0 >	Detector Data input setting is not clipped

DETector:DINPut:IMODe <DIFFerential | SENDed | ISENded>
DET:DINP:IMOD <DIFF | SEND | ISEN>
DETector:DINPut:IMODe?
DET:DINP:IMOD?

Set or retrieve the interface mode of the Detector Data input. May require some delay to complete.

Params:	<DIFFerential>	Differential interface
	<SENDed>	Single-ended interface
	<ISENded>	Inverted single-ended interface
Returns:	< Differential | SingleEnded | SingleEndedInverted >	

DETector:DINPut:LFAMily <LVTTL | CML | ECL | PECL | LVPECL | LVDS | SCFL | DLVTTL | DCML | DECL | DPECL | DLVPECL | DLVDS>
DET:DINP:LFAM <LVTTL | CML | ECL | PECL | LVPECL | LVDS | SCFL | DLVTTL | DCML | DECL | DPECL | DLVPECL | DLVDS>
DETector:DINPut:LFAMily?
DET:DINP:LFAM?

Set or retrieve the Data input logic family. PECL and DPECL are not available on the BERTScope.

Params:	<LVTTL | CML | ECL | PECL | LVPECL | LVDS | SCFL | DLVTTL | DCML | DECL | DPECL | DLVPECL | DLVDS>	The data input logic family
Returns:	< LVTTL | CML | ECL | PECL | LVPECL | LVDS | SCFL | DLVTTL | DCML | DECL | DPECL | DLVPECL | DLVDS >	

DETector:DINPut:TAC <bool>
DET:DINP:TAC <bool>
DETector:DINPut:TAC?
DET:DINP:TAC?

Set or retrieve the termination AC of the Detector Data input. May require some delay to complete. This command is available *only* on the BitAlyzer platform.

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	Detector Data input termination AC is on
	< 0 >	Detector Data input termination AC is off

DETector:DINPut:THReshold <numeric>
DET:DINP:THR <numeric>
DETector:DINPut:THReshold?
DET:DINP:THR?

Set or retrieve the threshold of the Detector Data input. May require some delay to complete.

Params:	<numeric>	Detector Data input threshold in mV. Range [–2,400 to +2,500]. Input out of range will be clipped and recorded in the status queue.
Returns:	< numeric >	

DETector:DINPut:TVOLtage <numeric>
DET:DINP:TVOL <numeric>
DETector:DINPut:TVOLtage?
DET:DINP:TVOL?

Set or retrieve the termination voltage of the Detector Data input. May require some delay to complete.

Params:	<numeric>	Detector Data input termination voltage in ps. Range [–2,000 to +3,300]. Input out of range will be clipped and recorded in the status queue.
Returns:	< numeric >	

Detector Symbol Filtering

DETector:SYMbolFILtering:ENABle <bool>
DET:SYMFIL:ENAB <bool>
DETector:SYMbolFILtering:ENABle?
DET:SYMFIL:ENAB?

Set or retrieve whether Detector Symbol Filtering option is enabled (the corresponding option must be purchased). Available only on BERTScope 17.5G and 26G analyzers.

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	Detector Symbol Filtering is on
	< 0 >	Detector Symbol Filtering is off

DETector:SYMbolFILtering:PRESET <USB3 | SATA | PCIE | PCIESWITCH | SASALIGN | SASPRIMITIVES>
DET:SYMFIL:PRESET <USB3 | SATA | PCIE | PCIESWITCH>

Sets Detector Symbol Filtering according to a preset. The presets are equivalent to setting the symbols as shown below. Available only on BERTScope 17.5G and 26G analyzers. Action only.

Params:	<USB3 >	Set symbols to: K28.1, K28.1
	<SATA>	Set symbols to: K28.1, D10.2, D10.2, D27.3
	<PCIE>	Set symbols to: K28.0, K28.0
	<PCIESWITCH>	Set symbols to: K28.0
	<SASALIGN>	
	<SASPRIMITIVES>	
Returns:	< USB3 | SATA | PCIE | PCIESWITCH | SASALIGN | SASPRIMITIVES >	

DETector:SYMbolFILtering:SYMBOLS <sym0>[,<sym1>[,<sym2>[,<sym3>]]]
DET:SYMFIL:SYMBOLS <sym0>[,<sym1>[,<sym2>[,<sym3>]]]
DETector:SYMbolFILtering:SYMBOLS?
DET:SYMFIL:SYMBOLS?

Set or retrieve symbol sequence for Detector Symbol Filtering. User can specify up to four symbols to be filtered. Available only on BERTScope 17.5G and 26G analyzers. Usage examples:

```
DET:SYMFIL:SYMBOLS K28.1,K28.1
DET:SYMFIL:SYMBOLS K28.1,D10.2,D10.2,D27.3
```

Params:	<sym0>[,<sym1>[,<sym2>[,<sym3>]]]>	Set up to 4 symbols to be filtered
Returns:	< sym0 >[,< sym1 >[,< sym2 >[,< sym3 >]]] >	

Detector Blank Input

DETector:BINPut:CDBLank <bool>
DET:BINP:CDBL <bool>
DETector:BINPut:CDBLank?
DET:BINP:CDBL?

Set or retrieve the “Count during blank” setting of the Detector Blank input.

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	Detector blank input count during blank is on
	< 0 >	Detector blank input count during blank is off

DETector:BINPut:ROENd <bool>
DET:BINP:ROEN <bool>
DETector:BINPut:ROENd?
DET:BINP:ROEN?

Set or retrieve the “Resync on end” setting of the Detector Blank input.

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	Detector blank input resync on end is on
	< 0 >	Detector blank input resync on end is off

Detector Trigger

DETector:TOFFset <numeric>
DET:TOFF <numeric>
DETector:TOFFset?
DET:TOFF?

Set or retrieve the Detector Trigger offset.

Params:	<numeric>	Detector Trigger offset. **BitAlyzer**: in 32-bit words. Range [0 to (Pattern Size –1) if the detected pattern is one of the PRBS patterns. For other patterns, the range is [0 to 0]. Input out of range will be clipped and recorded in the status queue. **BERTScope**: in 128-bit words. Range [0 to (Pattern Size –1)] if the detected pattern is one of the PRBS patterns. For others, the range is [0 to 0]. Input out of range will be clipped and recorded in the status queue.
Returns:	< numeric >	

DETector:TOMethod <PCYCle | CLOCk>
DET:TOM <PCYC | CLOC>
DETector:TOMethod?
DET:TOM?

Set or retrieve the Detector Trigger out method.

Params:	<PCYCle>	Detector Trigger out method is pattern cycle
	<CLOCk>	**BitAlyzer:** Detector trigger out method is clock/64 **BERTScope:** Detector trigger out method is clock/256
Returns:	< PatternCycle | Clock/64 | Clock/256 >	

Detector Results

DETector:BDMode <TACCumulation | INTerval>
DET:BDM <TACC | INT>
DETector:BDMode?
DET:BDM?

Set or retrieve the Detector BER display mode.

Params:	<TACCumulation>	Display the total accumulation BER
	<INTerval>	Display the BER of the interval
Returns:	< TACCumulation | INTerval >	

DETector:BEDFormat <DECimal | SCIentific>
DET:BEDF <DEC | SCI>
DETector:BEDFormat?
DET:BEDF?

Set or retrieve the Detector's display format for bits and errors.

Params:	<DECimal>	Display the bits and errors as decimal
	<SCIentific>	Display the bits and errors in scientific format
Returns:	< DECimal | SCIentific >	

DETector:BER?
DET:BER?

Retrieve the current bit error rate. Query only.

DETector:BITS?
DET:BITS?

Retrieve how many bits the Detector has received. Query only.

DETector:EFBits?
DET:EFB?

Retrieve the latest count of error free bits. Query only.

DETector:EFTime?
DET:EFT?

Retrieve the latest error free time. Query only.

DETector:ETIMe?
DET:ETIM?

Retrieve the elapsed time since last reset. Query only.

DETector:ERRors?
DET:ERR?

Retrieve how many errors the Detector has detected. Query only.

DETector:RESEtall
DET:RESE

Reset the Detector AND Error Analysis results. Action only.

DETector:RRESults
DET:RRES

Reset the Detector results. Action only.

DETector:RESYncs?
DET:RESY?

Retrieve how many resyncs the Detector has tried. Query only.

DETector:RRESults
DET:RRES

Reset the Detector results. Action only.

DETector:RUINterval <numeric>
DET:RUIN <numeric>
DETector:RUINterval?
DET:RUIN?

Set or retrieve the Detector's results update interval.

Params:	<numeric>	Detector results update interval in seconds. Range [1 to 3,600]. Input out of range will be clipped and recorded in the status queue.
Returns:	< numeric >	

Detector Convenience

DETector:PDARkcalibration
DET:PDAR

Perform Dark Calibration. Action only. May require some delay to complete.

DETector:PDCenter
DET:PDC

Perform Data Centering. This command is equivalent to the 'Auto Align' function on the local control interface. Action only. May require some delay to complete.

DETector:MRESync
DET:MRES

Perform manual resync. Action only.

Detector Auto Align Results

DETector:DCAMv?
DET:DCAM?

Retrieve the data center amplitude in mV. Query only.

DETector:DCHMv?
DET:DCHM?

Retrieve the data center height in mV. Query only.

DETector:DCSuccess?
DET:DCS?

Retrieve whether Detector Data Centering (Auto Align) succeeds or not. Query only.

Returns:	< 1 >	Data centering is successful
	< 0 >	Data centering is not successful

DETector:DCTime?
DET:DCT?

Retrieve the data center time. Query only.

DETector:DCUinterval?
DET:DCU?

Retrieve the data center unit interval. Query only.

DETector:DCUMv?
DET:DCUM?

Retrieve the data center Ua in mV. Query only.

DETector:DCWidth?
DET:DCW?

Retrieve the data center width. Query only.

DETector:IVALue?
DET:IVAL?

Retrieve the illegal value. Query only. Before data centering is successful, all the result queries will return this illegal value. The user can read the value to know what it is.

Detector Optical Mode

Note: In Electrical mode, values are displayed in mV or percent of amplitude. In Optical mode, choose between μW or dBm.

DETector:OPERmode <ELEC | OPTIC>
DET:OPER <ELEC | OPTIC>
DETector:OPERmode?
DET:OPER?

BERTScope only. Set or retrieve Detector operating mode, Electrical or Optical.

Params:	<ELEC>	BERTScope operates in Electrical mode
	<OPTIC>	BERTScope operates in Optical mode
Returns:	< ELEC | OPTIC >	

OPTIC:ADDRcv <"string",long,double,double,bool>
OPTIC:ADDR <"string",long,double,double,bool>

Add a new optical Receiver. Action only.

Params:	<"Name">	String of (maximum) 15 characters. String is enclosed in double quotes
	<Wavelength>	Long numerical value in nM. Range [500 to 2000]
	<Gain>	Double numerical value in V/W. Range [1 to 3000]
	<Offset>	Double numerical value in nM. Range [500 to 2000]
	<ACCoupled>	Boolean: True (1) for AC Coupled, False (0) for DC Coupled

OPTIC:DELRcv <"string">
OPTIC:DELR <"string">

Delete an optical Receiver.

Params:	<"Name">	String of (maximum) 15 characters. String is enclosed in double quotes. There should be at least one valid optical receiver.

OPTIC:PIKRcv <"string">
OPTIC:PIKR <"string">
OPTIC:PIKRcv?
OPTIC:PIKR?

Select or retrieve the selected optical Receiver.

Params:	<"Name">	String of (maximum) 15 characters. String is enclosed in double quotes. There should be at least one valid optical receiver.
Returns:	< string >	

Clock Recovery (see separate manual)

Clock Recovery Option remote control commands are published in a separate manual, PN 0130-702.

DPP (see separate manual)

DPP Option remote control commands are published in a separate manual, PN 0140-701.

LTS (see separate manual)

LTS Option remote control commands are published in a separate manual, PN 0138-701.

Analysis Engine (Error Analysis)

EANalysis:BEFThreshold <long>
EAN:BEFT <long>
EANalysis:BEFThreshold?
EAN:BEFT?

Set or retrieve Burst Error Free Threshold.

Params:	<long>	Burst Error Free Threshold. Range [1 to 1,000,000]
Returns:	< long >	Burst Error Free Threshold

EANalysis:BMLength <long>
EAN:BML <long>
EANalysis:BMLength?
EAN:BML?

Set or retrieve Burst Minimum Length.

Params:	<long>	Burst Minimum Length. Range [2 to 1,000,000]
Returns:	< long >	Burst Minimum Length

EANalysis:BRANalysis?
EAN:BRAN?

Returns Analysis Bit Rate. Query only.

EANalysis:BSBLanking <bool>
EAN:BSBL <bool>
EANalysis:BSBLanking?
EAN:BSBL?

Set or retrieve whether Bursts should span Blanking.

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	Turn on Bursts Span Blanking
	< 0 >	Turn off Bursts Span Blanking

EANalysis:BSIPeriod <bool>
EAN:BSIP <bool>
EANalysis:BSIPeriod?
EAN:BSIP?

Set or retrieve whether Bursts should span Integration Periods.

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	Turn on Bursts Span Integration Period
	< 0 >	Turn off Bursts Span Integration Period

EANalysis:BSMarker <bool>
EAN:BSM <bool>
EANalysis:BSMarker?
EAN:BSM?

Set or retrieve whether Bursts should span Markers.

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	Turn on Bursts Span Markers
	< 0 >	Turn off Bursts Span Markers

EANalysis:BRACquisition?
EAN:BRAC?

Returns Acquisition Bit Rate. Query only.

EANalysis:CAResults
EAN:CAR

Clear all Error Analysis results. Action only.

EANalysis:CDBLanking <bool>
EAN:CDBL <bool>
EANalysis:CDBLanking?
EAN:CDBL?

Set or retrieve whether to Count During Blanking.

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	Count During Blanking
	< 0 >	Do not Count During Blanking

EANalysis:CPUFile
EAN:CPUF

Cancel Playback of UER File. Action only.

EANalysis:EPSecond?
EAN:EPS?

Returns Events Per Second. Query only.

EANalysis:IBLanking <bool>
EAN:IBL <bool>
EANalysis:IBLanking?
EAN:IBL?

Set or retrieve whether to Invert Blanking.

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	Invert Blanking
	< 0 >	Do not Invert Blanking

EANalysis:IMODe <BLANk | DATA | MARKer>
EAN:IMOD <BLAN | DATA | MARK>
EANalysis:IMODe?
EAN:IMOD?

Set or retrieve Integration Mode to define the Integration Period boundary.

Params:	<BLANk>	Select Blank signal as the boundary
	<DATA>	Set the number of bits as the boundary
	<MARKer>	Select Marker signal as the boundary
Returns:	< BLANk | DATA | MARKer >	

EANalysis:IPERiod <double>
EAN:IPER <double>
EANalysis:IPERiod?
EAN:IPER?

Set or retrieve the number of bits in an Integration Period.

Params:	<long>	Integration Period in bits. Range [10,000,000 to 1.00E+20]
Returns:	< long >	Integration Period

EANalysis:MPSecond?
EAN:MPS?

Returns Markers Per Second. Query only.

EANalysis:OUFile <bool>
EAN:OUF <bool>
EANalysis:OUFile?
EAN:OUF?

Set or retrieve whether it is OK To Overwrite UER File.

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	OK to Overwrite UER File
	< 0 >	Do not Overwrite UER File

EANalysis:PUPRogress?
EAN:PUPR?

Returns Playback UER Progress. Query only.

EANalysis:RAPRoperties <"filename">
EAN:RAPR <"filename">

Restore All Properties. Action only.

Params:	<"filename">	Configuration filename used to restore. Use the absolute pathname and enclose the string in double quotes.

EANalysis:RFPathname <"string">
EAN:RFP <"string">
EANalysis:RFPathname?
EAN:RFP?

Set or retrieve Record File Pathname.

Params:	<"string">	Record File pathname. Use the absolute pathname and enclose the string in double quotes.
Returns:	< string >	The pathname to the Record File

EANalysis:RFSLimit <long>
EAN:RFSL <long>
EANalysis:RFSLimit?
EAN:RFSL?

Set or retrieve Record File Size Limit

Params:	<long>	Record file size limit. Range [100 kB to 500 MB]
Returns:	< long >	Record file size limit

EANalysis:RPATtern?
EAN:RPAT?

Returns Recognized Pattern. Query only.

EANalysis:SADefaults
EAN:SAD

Set All Defaults. Action only.

EANalysis:SANalyzer?
EAN:SAN?

Returns Analyzer State. Query only.

EANalysis:SAPRoperties <“string”>
EAN:SAPR <“string”>

Save All Properties. Action only.

Params:	<“string”>	Configuration filename used for save. Use absolute pathname, enclose string in double quotes.

EANalysis:SECount?
EAN:SEC?

Returns Squelch Event Count. Query only.

EANalysis:SMODe <BLANk | MARKer | NONE | PATTern>
EAN:SMOD <BLAN | MARK | NONE | PATT>
EANalysis:SMODe?
EAN:SMOD?

Set or retrieve Synchronization Mode.

Params:	<BLANk>	Select Blank signal as the cue for resync
	<MARKer>	Select Marker signal as the cue for resync
	<NONE>	No auto-resync
	<PATTern>	Select Pattern Cycle as the cue for resync
Returns:	< BLANk | MARKer | NONE | PATTern >	

EANalysis:SPUFile
EAN:SPUF

Start Playback of UER File. Action only.

EANalysis:SSTate?
EAN:SST?

Returns Squelch State. Query only.

EANalysis:SSYNchronization?
EAN:SSYN?

Returns Synchronization State. Query only.

EANalysis:UFPathname <“string”>
EAN:UFP <“string”>
EANalysis:UFPathname?
EAN:UFP?

Set or retrieve UER File Pathname

Params:	<“string”>	Pathname to the UER File. Use absolute pathname, enclose string in double quotes.
Returns:	< string >	UER File pathname

EANalysis:UFSize?
EAN:UFS?
Returns UER File Size. Query only.

Basic BER

EANalysis:BBER:BERate?
EAN:BBER:BER?
Retrieve Burst Error Rate. Query only.

EANalysis:BBER:BERRors?
EAN:BBER:BERR?
Retrieve Burst Errors. Query only.

EANalysis:BBER:BEVents?
EAN:BBER:BEV?
Retrieve Burst Events. Query only.

EANalysis:BBER:IPCount?
EAN:BBER:IPC?
Retrieve Integration Period Count. Query only.

EANalysis:BBER:MCOunt?
EAN:BBER:MCO?
Retrieve Marker Count. Query only.

EANalysis:BBER:NAValue?
EAN:BBER:NAV?
Retrieve “Not Available” value. Query only.

EANalysis:BBER:NBERate?
EAN:BBER:NBER?
Retrieve Non-Burst Error Rate. Query only.

EANalysis:BBER:SCOunt?
EAN:BBER:SCO?
Retrieve Squelched Count. Query only.

EANalysis:BBER:STATistics?
EAN:BBER:STAT?
Retrieve Total Bit Count, Total Error Count, and Total Squelched Count. Query only.

EANalysis:BBER:TBERate?
EAN:BBER:TBER?
Retrieve Total Error Rate. Query only.

EANalysis:BBER:TCOunt?
EAN:BBER:TCO?
Retrieve Total Bit Count. Query only.

EANalysis:BBER:TERRors?
EAN:BBER:TERR?
Retrieve Total Errors. Query only.

EANalysis:BBER:TSCOunt?
EAN:BBER:TSCO?
Retrieve Total Squelched Count. Query only.

Block Errors

EANalysis:BLOCk:ACENter
EAN:BLOC:ACEN
Auto Center Block Errors view. Action only.

EANalysis:BLOCk:BCOunt?
EAN:BLOC:BCO?
Retrieve Block Errors chart Bin Count. Query only.

EANalysis:BLOCk:BDATa?
EAN:BLOC:BDAT?
Retrieve Block Errors binary Bin Data. Query only. The binary query should return #1nnbbb...b where:

1	is a number from 1 to 9 (tells number of digits for block length)
nn	is the block length (number of bytes to follow)
b	is a byte of binary data

EANalysis:BLOCk:BMAPping <int, int>
EAN:BLOC:BMAP <int, int>
EANalysis:BLOCk:BMAPping?
EAN:BLOC:BMAP?
Set or retrieve Block Errors chart Bin Mapping (start, end).

Params:	<int>	Bin Map Start value. Range [0 to 998]
	<int>	Bin Map End value. Range [1 to 32,767]
Returns:	< int, int >	

EANalysis:BLOCk:BMODe <BLANking | MARKer | PATTern | USERquantity>
EAN:BLOC:BMOD <BLAN | MARK | PATT | USER>
EANalysis:BLOCk:BMODe?
EAN:BLOC:BMOD?

Set or retrieve mode used to define the Block Errors view Block boundary.

Params:	<BLANking>	Select Blank signal as the boundary
	<MARKer>	Select Marker signal as the boundary
	<PATTern>	Select Pattern Cycle as the boundary
	<USERquantity>	Select a user-specified quantity of bits as the boundary
Returns:	< BLANking | MARKer | PATTern | USERquantity >	

EANalysis:BLOCk:BRESolution?
EAN:BLOC:BRES?

Retrieve Block Errors view Bin Resolution. Query only.

EANalysis:BLOCk:BQUantity?
EAN:BLOC:BQU?

Retrieve quantity of bits set as the Block boundary. Query only.

EANalysis:BLOCk:CEXTents <Xmin, Xmax, Ymin, Ymax>
EAN:BLOC:CEXT <Xmin, Xmax, Ymin, Ymax>
EANalysis:BLOCk:CEXTents?
EAN:BLOC:CEXT?

Set or retrieve Block Errors view Chart Extents

Params:	<Xmin>	X-Axis minimum, double
	<Xmax>	X-Axis maximum, double
	<Ymin>	Y-Axis minimum, double
	<Ymax>	Y-Axis maximum, double
Returns:	< Xmin, Xmax, Ymin, Ymax >	

EANalysis:BLOCk:ECOunt?
EAN:BLOC:ECO?

Retrieve Block Errors Element Count. Query only.

EANalysis:BLOCk:FCURsors
EAN:BLOC:FCUR

Fit Block Errors Cursors. Action only.

EANalysis:BLOCk:HCURsors <bool>
EAN:BLOC:HCUR <bool>
EANalysis:BLOCk:HCURsors?
EAN:BLOC:HCUR?

Enable/disable Block Errors Horizontal Cursors.

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	Enable horizontal cursors
	< 0 >	Disable horizontal cursors

EANalysis:BLOCk:LSCale <bool>
EAN:BLOC:LSC <bool>
EANalysis:BLOCk:LSCale?
EAN:BLOC:LSC?

Enable/disable Block Errors Log Scale.

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	Enable Log scale on chart
	< 0 >	Disable Log scale on chart

EANalysis:BLOCk:UQUantity <double>
EAN:BLOC:UQU <double>
EANalysis:BLOCk:UQUantity?
EAN:BLOC:UQU?

Set or retrieve Block Errors view Block Mode User Quantity, if BLOCk:BMODe (above) is set to USERquantity.

Params:	<UQUantity>	Set a quantity of bits as the Block boundary. Range [1 to 1,073,741,823] (Upper limit is $2^{30} - 1$)
Returns:	< double >	Quantity of bits defining a Block

EANalysis:BLOCk:VCURsors <bool>
EAN:BLOC:VCUR <bool>
EANalysis:BLOCk:VCURsors?
EAN:BLOC:VCUR?

Enable/disable Block Errors Vertical Cursors.

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	Enable Block Errors vertical cursors
	< 0 >	Disable Block Errors vertical cursors

Burst Length

EANalysis:BLENgth:ACENter
EAN:BLEN:ACEN

Auto Center the Burst Length view. Action only.

EANalysis:BLENgth:BCOunt?
EAN:BLEN:BCO?

Retrieve Burst Length view Bin Count. Query only.

EANalysis:BLENgth:BDATa?
EAN:BLEN:BDAT?

Retrieve Burst Length binary Bin Data. Query only. The binary query should return #1nnbbb...b

where: 1 is a number from 1 to 9 (tells number of digits for block length)
nn is the block length (number of bytes to follow)
b is a byte of binary data

EANalysis:BLENgth:BMAPping <int, int>
EAN:BLEN:BMAP <int, int>
EANalysis:BLENgth:BMAPping?
EAN:BLEN:BMAP?

Set or retrieve Burst Length Bin Mapping (start, end)

Params: <int> Bin Map Start value. Range [0 to 998]
<int> Bin Map End value. Range [1 to 32,767]

Returns: < int, int >

EANalysis:BLENgth:BRESolution?
EAN:BLEN:BRES?

Retrieve Burst Length bin resolution. Query only.

EANalysis:BLENgth:CEXTents <Xmin, Xmax, Ymin, Ymax>
EAN:BLEN:CEXT <Xmin, Xmax, Ymin, Ymax>
EANalysis:BLENgth:CEXTents?
EAN:BLEN:CEXT?

Set or retrieve Burst Length Chart Extents.

Params: <Xmin> X-Axis minimum, double
<Xmax> X-Axis maximum, double
<Ymin> Y-Axis minimum, double
<Ymax> Y-Axis maximum, double

Returns: < Xmin, Xmax, Ymin, Ymax >

EANalysis:BLENgth:ECOunt?
EAN:BLEN:ECO?
Retrieve Block Errors Element Count. Query only.

EANalysis:BLENgth:FCURsors
EAN:BLEN:FCUR
Fit Burst Length Cursors. Action only.

EANalysis:BLENgth:HCURsors <bool>
EAN:BLEN:HCUR <bool>
EANalysis:BLENgth:HCURsors?
EAN:BLEN:HCUR?
Enable/disable horizontal cursors on Burst Length view.

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	Enable horizontal cursors
	< 0 >	Disable horizontal cursors

EANalysis:BLENgth:LSCale <bool>
EAN:BLEN:LSC <bool>
EANalysis:BLENgth:LSCale?
EAN:BLEN:LSC?
Enable/disable Log scale on Burst Length View.

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	Enable Log scale on chart
	< 0 >	Disable Log scale on chart

EANalysis:BLENgth:VCURsors <bool>
EAN:BLEN:VCUR <bool>
EANalysis:BLENgth:VCURsors?
EAN:BLEN:VCUR?
Enable/disable vertical cursors on Burst Length view.

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	Enable vertical cursors
	< 0 >	Disable vertical cursors

Correlation

EANalysis:CORRelation:ACENter
EAN:CORR:ACEN

Auto Center Correlation View. Action only.

EANalysis:CORRelation:BCOunt?
EAN:CORR:BCO?

Retrieve Correlation Bin Count. Query only.

EANalysis:CORRelation:BDATa?
EAN:CORR:BDAT?

Retrieve Correlation binary Bin Data. Query only. The binary query should return #1nnbbb...b,

where: 1 is a number from 1 to 9 (tells number of digits for block length)
nn is the block length (number of bytes to follow)
b is a byte of binary data

EANalysis:CORRelation:BMAPping <int, int>
EAN:CORR:BMAP <int, int>
EANalysis:CORRelation:BMAPping?
EAN:CORR:BMAP?

Set or retrieve Bin Mapping (start, end) values.

Params: <int> Bin Map Start value. Range [0 to 998]
<int> Bin Map End value. Range [1 to 37,767]

Returns: < int, int >

EANalysis:CORRelation:BRESolution?
EAN:CORR:BRES?

Retrieve Correlation Bin Resolution. Query only.

EANalysis:CORRelation:CMODe <BLANking | MARKer | PATTern | USERquantity>
EAN:CORR:CMOD <BLAN | MARK | PATT | USER>
EANalysis:CORRelation:CMODe?
EAN:CORR:CMOD?

Set or retrieve Correlation Mode to define the Correlation Cycle boundary.

Params: <BLANking> Select Blank signal as the boundary
<MARKer> Select Marker signal as the boundary
<PATTern> Select Pattern Cycle as the boundary
<USERquantity> Select a user-specified quantity of bits as the boundary

Returns: < BLANking | MARKer | PATTern | USERquantity >

EANalysis:CORRelation:CEXTents <Xmin, Xmax, Ymin, Ymax>
EAN:CORR:CEXT <Xmin, Xmax, Ymin, Ymax>
EANalysis:CORRelation:CEXTents?
EAN:CORR:CEXT?

Set or retrieve Correlation Chart Extents.

Params:	<Xmin>	X-Axis minimum, double
	<Xmax>	X-Axis maximum, double
	<Ymin>	Y-Axis minimum, double
	<Ymax>	Y-Axis maximum, double
Returns:	< Xmin, Xmax, Ymin, Ymax >	

EANalysis:CORRelation:CQUantity?
EAN:CORR:CQU?

Retrieve Correlation Quantity. Query only.

EANalysis:CORRelation:ECOunt?
EAN:CORR:ECO?

Retrieve Correlation Element Count. Query only.

EANalysis:CORRelation:FCURsors
EAN:CORR:FCUR

Fit Correlation Cursors. Action only.

EANalysis:CORRelation:HCURsors <bool>
EAN:CORR:HCUR <bool>
EANalysis:CORRelation:HCURsors?
EAN:CORR:HCUR?

Enable/disable horizontal cursors on Correlation view.

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	Enable horizontal cursors
	< 0 >	Disable horizontal cursors

EANalysis:CORRelation:LSCale <bool>
EAN:CORR:LSC <bool>
EANalysis:CORRelation:LSCale?
EAN:CORR:LSC?

Enable/disable Log scale on Correlation chart.

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	Enable Log scale on chart
	< 0 >	Disable Log scale on chart

EANalysis:CORRelation:UQUantity <double>
EAN:CORR:UQU <double>
EANalysis:CORRelation:UQUantity?
EAN:CORR:UQU?

Set or retrieve User Quantity used to define the Correlation Cycle boundary.

Params:	<USERquantity>	Set a quantity of bits as the Cycle boundary. Range [1 to 1,073,741,823] (Upper limit is $2^{30} - 1$)
Returns:	< double >	Quantity of bits defining a Correlation Cycle

EANalysis:CORRelation:VCURsors <bool>
EAN:CORR:VCUR <bool>
EANalysis:CORRelation:VCURsors?
EAN:CORR:VCUR?

Enable/disable vertical cursors on Correlation view.

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	Enable Correlation vertical cursors
	< 0 >	Disable Correlation vertical cursors

Error Free Interval

EANalysis:EFINterval:ACENter
EAN:EFIN:ACEN

Auto Center the Error Free Interval view. Action only.

EANalysis:EFINterval:BCOunt?
EAN:EFIN:BCO?

Retrieve Bin Count on EFI Analysis view. Query only.

EANalysis:EFINterval:BDATa?
EAN:EFIN:BDAT?

Retrieve binary Bin Data on EFI Analysis view. Query only. The binary query should return #1nnbbb...b, where:

1	is a number from 1 to 9 (tells number of digits for block length)
nn	is the block length (number of bytes to follow)
b	is a byte of binary data

EANalysis:EFINterval:BMAPping <int, int>
EAN:EFIN:BMAP <int, int>
EANalysis:EFINterval:BMAPping?
EAN:EFIN:BMAP?

Set or retrieve Bin Mapping (start, end) values on EFI Analysis view.

Params:	<int>	Bin Map Start value. Range [1 to 999]
	<int>	Bin Map End value. Range [2 to 32,767]
Returns:	< int, int >	

EANalysis:EFINterval:BRESolution?
EAN:EFIN:BRES?

Retrieve Bin Resolution on EFI Analysis view. Query only.

EANalysis:EFINterval:CEXTents <Xmin, Xmax, Ymin, Ymax>
EAN:EFIN:CEXT <Xmin, Xmax, Ymin, Ymax>
EANalysis:EFINterval:CEXTents?
EAN:EFIN:CEXT?

Set or retrieve Chart Extents on EFI Analysis view.

Params:	<Xmin>	X-Axis minimum, double
	<Xmax>	X-Axis maximum, double
	<Ymin>	Y-Axis minimum, double
	<Ymax>	Y-Axis maximum, double
Returns:	< Xmin, Xmax, Ymin, Ymax >	

EANalysis:EFINterval:ECOunt?
EAN:EFIN:ECO?

Retrieve Element Count. Query only.

EANalysis:EFINterval:FCURsors
EAN:EFIN:FCUR

Fit Cursors. Action only.

EANalysis:EFINterval:HCURsors <bool>
EAN:EFIN:HCUR <bool>
EANalysis:EFINterval:HCURsors?
EAN:EFIN:HCUR?

Enable/disable horizontal cursors on EFI Analysis view.

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	Enable horizontal cursors
	< 0 >	Disable horizontal cursors

EANalysis:EFINterval:LSCale <bool>
EAN:EFIN:LSC <bool>
EANalysis:EFINterval:LSCale?
EAN:EFIN:LSC?

Enable/disable Log scale on EFI Analysis view.

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	Enable Log scale on chart
	< 0 >	Disable Log scale on chart

EANalysis:EFINterval:VCURsors <bool>
EAN:EFIN:VCUR <bool>
EANalysis:EFINterval:VCURsors?
EAN:EFIN:VCUR?

Enable/disable vertical cursors on EFI Analysis view.

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	Enable EFI Analysis vertical cursors
	< 0 >	Disable EFI Analysis vertical cursors

Error Map

EANalysis:EMAP:ACENter
EAN:EMAP:ACEN

Auto Center 2-D Error Map View. Action only.

EANalysis:EMAP:CEXTents <Xmin, Xmax, Ymin, Ymax>
EAN:EMAP:CEXT <Xmin, Xmax, Ymin, Ymax>
EANalysis:EMAP:CEXTents?
EAN:EMAP:CEXT?

Set or retrieve 2-D Error Map Chart Extents.

Params:	<Xmin>	X-Axis minimum, double
	<Xmax>	X-Axis maximum, double
	<Ymin>	Y-Axis minimum, double
	<Ymax>	Y-Axis maximum, double
Returns:	< Xmin, Xmax, Ymin, Ymax >	

EANalysis:EMAP:CMODe <NONE | SEGMent | SLENgth | SINGle>
EAN:EMAP:CMOD <NONE | SEGM | SLEN | SING>
EANalysis:EMAP:CMODe?
EAN:EMAP:CMOD?

Set or retrieve the 2-D Error Map View Cursor Mode.

Params:	<NONE>	No cursors are displayed
		Segment axis cursor displayed
	<SLENgth>	Length axis cursor displayed
	<SINGle>	Single cursor is displayed
Returns:	< NONE | SEGMent | SLENgth | SINGle >	

EANalysis:EMAP:DATa?
EAN:EMAP:DAT?

Error Map Data. Query only.

EANalysis:EMAP:DBCount?
EAN:EMAP:DBC?

Retrieve 2-D Error Map Database Burst Count. Query only.

EANalysis:EMAP:DMCount?
EAN:EMAP:DMC?

Retrieve 2-D Error Map Database Marker Count. Query only.

EANalysis:EMAP:DSCount?
EAN:EMAP:DSC?

Retrieve 2-D Error Map Database Squelch Count. Query only.

EANalysis:EMAP:FCURsors
EAN:EMAP:FCUR

Fit 2-D Error Map Cursors. Action only.

EANalysis:EMAP:FGRaph
EAN:EMAP:FGR

Fit 2-D Error Map Graph. Action only.

EANalysis:EMAP:HCURsors <bool>
EAN:EMAP:HCUR <bool>
EANalysis:EMAP:HCURsors?
EAN:EMAP:HCUR?

Enable/disable horizontal cursors on 2-D Error Map.

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	Enable horizontal cursors
	< 0 >	Disable horizontal cursors

EANalysis:EMAP:LSCale <bool>
EAN:EMAP:LSC <bool>
EANalysis:EMAP:LSCale?
EAN:EMAP:LSC?

Enable/disable Log scale on 2-D Error Map.

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	Enable Log scale on chart
	< 0 >	Disable Log scale on chart

EANalysis:EMAP:RPRogress?
EAN:EMAP:RPR?

Retrieve 2-D Error Map Rendering Progress. Query only.

EANalysis:EMAP:SBURsts <bool>
EAN:EMAP:SBUR <bool>
EANalysis:EMAP:SBURsts?
EAN:EMAP:SBUR?

Choose whether to show bursts on 2-D Error Map.

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	Enable Show Bursts
	< 0 >	Disable Show Bursts

EANalysis:EMAP:SCOunt?
EAN:EMAP:SCO?

Retrieve 2-D Error Map Segment Count. Query only.

EANalysis:EMAP:SERRors <bool>
EAN:EMAP:SERR <bool>
EANalysis:EMAP:SERRors?
EAN:EMAP:SERR?

Choose whether to show errors on 2-D Error Map.

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	Enable Show Errors
	< 0 >	Disable Show Errors

EANalysis:EMAP:SLENgth?
EAN:EMAP:SLEN?

Retrieve 2-D Error Map Segment Length. Query only.

EANalysis:EMAP:SMODe <MARKers | QUANtity | SEConds>
EAN:EMAP:SMOD <MARK | QUAN | SEC>
EANalysis:EMAP:SMODe?
EAN:EMAP:SMOD?

Set or retrieve mode used to define Error Map Segment.

Params:	<MARKers>	Use marker signal to define Segment
	<QUANtity>	Use quantity of bits to define Segment
	<SEConds>	Use quantity of seconds to define Segment
Returns:	< MARKers | QUANtity | SEConds >	

EANalysis:EMAP:SSEConds <double>
EAN:EMAP:SSEC <double>
EANalysis:EMAP:SSEConds?
EAN:EMAP:SSEC?

Set or retrieve quantity of seconds used to define a 2-D Error Map Segment if mode is set to SEConds.

Params:	<SEConds>	Quantity of seconds to define a Segment. Range [1 to 3,600]
Returns:	< double >	Quantity of seconds defining a Segment

EANalysis:EMAP:SQUantity <double>
EAN:EMAP:SQU <double>
EANalysis:EMAP:SQUantity?
EAN:EMAP:SQU?

Set or retrieve quantity of bits used to define a 2-D Error Map Segment if mode is set to QUANtity.

Params:	<QUANtity>	Quantity of bits to define a Segment. Range [1 to 1.00E+100]
Returns:	< double >	Quantity of bits defining a Segment.

EANalysis:EMAP:SSQuelches <bool>
EAN:EMAP:SSQ <bool>
EANalysis:EMAP:SSQuelches?
EAN:EMAP:SSQ?

Choose whether to show squelches on 2-D Error Map.

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	Enable Show Squelches
	< 0 >	Disable Show Squelches

EANalysis:EMAP:VCURsors <bool>
EAN:EMAP:VCUR <bool>
EANalysis:EMAP:VCURsors?
EAN:EMAP:VCUR?

Enable/disable vertical cursors on 2-D Error Map.

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	Enable 2-D Error Map vertical cursors
	< 0 >	Disable 2-D Error Map vertical cursors

FEC Emulation

EANalysis:FEC:CNAMe?
EAN:FEC:CNAM?

Retrieve Forward Error Correction Analysis Configuration filename. Query only.

Returns:	< filename >	Name of file used to store FEC configuration. (See EAN:FEC:SCON)

EANalysis:FEC:DTAB <CINTerval | PROCessing | TACCumulation>
EAN:FEC:DTAB <CINT | PROC | TACC>
EANalysis:FEC:DTAB?
EAN:FEC:DTAB?

Set or retrieve FEC Display Tab.

Params:	<CINTerval>	Current Interval
	<PROCessing>	Processing
	<TACCumulation>	Total Accumulation
Returns:	< CINTerval | PROCessing | TACCumulation >	

EANalysis:FEC:EMODe <DISabled | FULL | IAOuter | IONLy>
EAN:FEC:EMOD <DIS | FULL | IAO | IONL>
EANalysis:FEC:EMODe?
EAN:FEC:EMOD?

Set or retrieve FEC Emulation Mode.

Params:	<DISabled>	Disable FEC Emulation
	<FULL>	Emulation Mode to Full: all stages engaged.
	<IAOuter>	Emulation Mode to Inner and Outer (2-D code), erasure deactivated
	<IONLy>	Emulation Mode to Inner Only (one-dimensional). Outer code and erasure are disabled.
Returns:	< DISabled | FULL | IAOuter | IONLy >	

EANalysis:FEC:IMODe <BIT | SYMBol>
EAN:FEC:IMOC <BIT | SYMB>
EANalysis:FEC:IMODe?
EAN:FEC:IMOD?

Set or retrieve FEC Interleave Mode.

Params:	<BIT>	Interleave Mode to Bit. On = 1, Off = 0
	<SYMBol>	Interleave Mode to Symbol. On = 1, Off = 0
Returns:	< BIT | SYMBol >	

EANalysis:FEC:KINNer <long>
EAN:FEC:KINN <long>
EANalysis:FEC:KINNer?
EAN:FEC:KINN?

Set or retrieve Inner (or one-dimensional code) k value (output block size).

Params:	<long>	Inner k value. Range [1 to 255]
Returns:	< long >	

EANalysis:FEC:KOUTer <long>
EAN:FEC:KOUT <long>
EANalysis:FEC:KOUTer?
EAN:FEC:KOUT?

Set or retrieve a two-dimensional code Outer k value (output block size).

Params:	<long>	Outer k value. Range [1 to 1.00E+00]
Returns:	< long >	

EANalysis:FEC:NINNer <long>
EAN:FEC:NINN <long>
EANalysis:FEC:NINNer?
EAN:FEC:NINN?

Set or retrieve Inner (or one-dimensional code) n value (input block size).

Params: <long> Inner n value. Range [1 to 65,536]

Returns: < long >

EANalysis:FEC:NOUTer <long>
EAN:FEC:NOUT <long>
EANalysis:FEC:NOUTer?
EAN:FEC:NOUT?

Set or retrieve a two-dimensional code Outer n value (input block size).

Params: <long> Outer n value. Range [1 to 65,536]

Returns: < long >

EANalysis:FEC:RINTerval <double>
EAN:FEC:RINT <double>
EANalysis:FEC:RINTerval?
EAN:FEC:RINT?

Set or retrieve Report Interval in seconds.

Params: <double> Number of seconds in Report Interval. Range [1 to 300]

Returns: < double >

EANalysis:FEC:RITables?
EAN:FEC:RIT?

Retrieve the number of FEC Emulation Tables during the Report Interval. Query only.

EANalysis:FEC:SFEC <bool>
EAN:FEC:SFEC <bool>
EANalysis:FEC:SFEC?
EAN:FEC:SFEC?

Enable/disable Strip FEC Overhead.

Params: <bool> On = 1, Off = 0

Returns: < 1 > Enable Strip FEC Overhead

< 0 > Disable Strip FEC Overhead

EANalysis:FEC:SPINterval?
EAN:FEC:SPIN?

Retrieve FEC Emulation Symbols Per Interval. Query only.

EANalysis:FEC:SSIZe <long>
EAN:FEC:SSIZ <long>
EANalysis:FEC:SSIZe?
EAN:FEC:SSIZ?

Set or retrieve FEC (Forward Error Correction) symbol size.

Params: <long> FEC symbol size. Range [1 to 32]

Returns: < long >

EANalysis:FEC:TDFLag <bool>
EAN:FEC:TDFL <bool>
EANalysis:FEC:TDFLag?
EAN:FEC:TDFL?

Enable/disable Two Dimensional Flag.

Params: <bool> On = 1, Off = 0

Returns: < 1 > Enable Two-Dimensional flag

< 0 > Disable Two-Dimensional flag

EANalysis:FEC:TERasure <long>
EAN:FEC:TER <long>
EANalysis:FEC:TERasure?
EAN:FEC:TER?

Set or retrieve a two-dimensional code Erasure t value (erasure strength).

Params: <long> Erasure t value. Range [0 to 1.00]

Returns: < long >

EANalysis:FEC:TINNer <long>
EAN:FEC:TINN <long>
EANalysis:FEC:TINNer?
EAN:FEC:TINN?

Set or retrieve Inner (or one-dimensional code) t value (correction strength).

Params: <long> Inner t value. Range [0 to 255]

Returns: < long >

EANalysis:FEC:TOUTer <long>
EAN:FEC:TOUT <long>
EANalysis:FEC:TOUTer?
EAN:FEC:TOUT?

Set or retrieve two-dimensional code Outer t value (correction strength).

Params: <long> Outer t value. Range [0 to 1.00]

Returns: < long >

EANalysis:FEC:AABCount?
EAN:FEC:AABC?
Retrieve total accumulated Bit Count after FEC Emulation. Query only.

EANalysis:FEC:AAECount?
EAN:FEC:AAEC?
Retrieve total accumulated Error Count after FEC Emulation. Query only.

EANalysis:FEC:AAERate?
EAN:FEC:AAER?
Retrieve total accumulated Error Rate after FEC Emulation. Query only.

EANalysis:FEC:ABBCount?
EAN:FEC:ABBC?
Retrieve total accumulated Bit Count before FEC Emulation. Query only.

EANalysis:FEC:ABECount?
EAN:FEC:ABEC?
Retrieve total accumulated Error Count before FEC Emulation. Query only.

EANalysis:FEC:ABERate?
EAN:FEC:ABER?
Retrieve total accumulated Error Rate before FEC Emulation. Query only.

EANalysis:FEC:AICorrections?
EAN:FEC:AIC?
Retrieve total accumulated Inner Corrections. Query only.

EANalysis:FEC:AIFailures?
EAN:FEC:AIF?
Retrieve total accumulated Inner Failures. Query only.

EANalysis:FEC:AOCorrections?
EAN:FEC:AOC?
Retrieve total accumulated Outer Corrections. Query only.

EANalysis:FEC:AOFailures?
EAN:FEC:AOF?
Retrieve total accumulated Outer Failures. Query only.

EANalysis:FEC:AECorrections?
EAN:FEC:AEC?
Retrieve total accumulated Erasure Corrections. Query only.

EANalysis:FEC:AEFailures?
EAN:FEC:AEF?
Retrieve total accumulated Erasure Failures. Query only.

EANalysis:FEC:ADRate?
EAN:FEC:ADR?
Retrieve Data Rate after FEC Emulation. Query only.

EANalysis:FEC:BDRate?
EAN:FEC:BDR?
Retrieve Data Rate before FEC Emulation. Query only.

EANalysis:FEC:IABCount?
EAN:FEC:IABC?
Retrieve current interval Bit Count after FEC Emulation. Query only.

EANalysis:FEC:IAECount?
EAN:FEC:IAEC?
Retrieve current interval Error Count after FEC Emulation. Query only.

EANalysis:FEC:IAERate?
EAN:FEC:IAER?
Retrieve current interval Error Rate after FEC Emulation. Query only.

EANalysis:FEC:IBBCount?
EAN:FEC:IBBC?
Retrieve current interval Bit Count before FEC Emulation. Query only.

EANalysis:FEC:IBECount?
EAN:FEC:IBEC?
Retrieve current interval Error Count before FEC Emulation. Query only.

EANalysis:FEC:IBERate?
EAN:FEC:IBER?
Retrieve current interval Error Rate before FEC Emulation. Query only.

EANalysis:FEC:IECorrections?
EAN:FEC:IEC?
Retrieve interval Erasure Corrections. Query only.

EANalysis:FEC:IEFailures?
EAN:FEC:IEF?
Retrieve current interval Erasure Failures. Query only.

EANalysis:FEC:IICorrections?
EAN:FEC:IIC?
Retrieve current interval Inner Corrections. Query only.

EANalysis:FEC:IIFailures?
EAN:FEC:IIF?
Retrieve current interval Inner Failures. Query only.

EANalysis:FEC:IOCorrections?
EAN:FEC:IOC?
Retrieve current interval Outer Corrections. Query only.

EANalysis:FEC:IOFailures?
EAN:FEC:IOF?
Retrieve current interval Outer Failures. Query only.

EANalysis:FEC:MINPut?
EAN:FEC:MINP?
Retrieve FEC Emulation Markers Input. Query only.

EANalysis:FEC:MOUTput?
EAN:FEC:MOUT?
Retrieve FEC Emulation Markers output. Query only.

EANalysis:FEC:OVERhead?
EAN:FEC:OVER?
Retrieve FEC Emulation FEC Overhead. Query only.

EANalysis:FEC:RCONfiguration <"filename">
EAN:FEC:RCON <"filename">
Restore FEC Configuration. Action only.

Params: <"filename"> Configuration filename used for restore (see **SCON**figuration). Filename is enclosed in double quotes.

EANalysis:FEC:SCONfiguration <"filename">
EAN:FEC:SCON <"filename">
Save FEC Configuration. Action only.

Params: <"filename"> Configuration filename used to save (see **RCON**figuration). Filename is enclosed in double quotes.

EANalysis:FEC:TBLanked?
EAN:FEC:TBL?
Retrieve FEC Emulation Tables Blanked. Query only.

EANalysis:FEC:TOVerrun?
EAN:FEC:TOV?
Retrieve FEC Emulation Tables Overrun. Query only.

EANalysis:FEC:TPRocessed?
EAN:FEC:TPR?
Retrieve FEC Emulation Tables Processed. Query only.

EANalysis:FEC:TSQuelched?
EAN:FEC:TSQ?
Retrieve FEC Emulation Tables Squelched. Query only.

Pattern Sensitivity

EANalysis:PSENsitivity:ACENter
EAN:PSEN:ACEN
Auto Center Pattern Sensitivity View. Action only

EANalysis:PSENsitivity:BCOunt?
EAN:PSEN:BCO?
Retrieve Pattern Sensitivity Bin Count. Query only.

EANalysis:PSENsitivity:BDATa?
EAN:PSEN:BDAT?
Retrieve binary Pattern Sensitivity Bin Data. Query only. The binary query should return #1nnbbb...b
where: 1 is a number from 1 to 9 (tells number of digits for block length)
nn is the block length (number of bytes to follow)
b is a byte of binary data

EANalysis:PSENsitivity:BMAPping <int, int>
EAN:PSEN:BMAP <int, int>
EANalysis:PSENsitivity:BMAPping?
EAN:PSEN:BMAP?
Set or retrieve Pattern Sensitivity Bin Mapping (start, end) values.
Params: <int> Bin Map Start value. Range [1 to 999]
<int> Bin Map End value. Range [1 to 32,767]
Returns: < int, int >

EANalysis:PSENsitivity:BRESolution?
EAN:PSEN:BRES?
Retrieve Bin Resolution. Query only.

EANalysis:PSENsitivity:CEXTents <Xmin, Xmax, Ymin, Ymax>
EAN:PSEN:CEXT <Xmin, Xmax, Ymin, Ymax>
EANalysis:PSENsitivity:CEXTents?
EAN:PSEN:CEXT?

Set or retrieve Pattern Sensitivity Chart Extents.

Params:	<Xmin>	X-Axis minimum, double
	<Xmax>	X-Axis maximum, double
	<Ymin>	Y-Axis minimum, double
	<Ymax>	Y-Axis maximum, double
Returns:	< Xmin, Xmax, Ymin, Ymax >	

EANalysis:PSENsitivity:ECOunt?
EAN:PSEN:ECO?

Retrieve Element Count. Query only

EANalysis:PSENsitivity:FCURsors
EAN:PSEN:FCUR

Fit Cursors. Action only.

EANalysis:PSENsitivity:HCURsors <bool>
EAN:PSEN:HCUR <bool>
EANalysis:PSENsitivity:HCURsors?
EAN:PSEN:HCUR?

Enable/disable horizontal cursors on Pattern Sensitivity view.

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	Enable horizontal cursors
	< 0 >	Disable horizontal cursors

EANalysis:PSENsitivity:LSCale <bool>
EAN:PSEN:LSC <bool>
EANalysis:PSENsitivity:LSCale?
EAN:PSEN:LSC?

Enable/disable Log scale on Pattern Sensitivity view.

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	Enable Log scale on chart
	< 0 >	Disable Log scale on chart

EANalysis:PSENsitivity:PFOund?
EAN:PSEN:PFO?

Pattern found. Read-only result; query only.

EANalysis:PSENsitivity:PMODe <PRBS | FILE>
EAN:PSEN:PMOD <PRBS | FILE>
EANalysis:PSENsitivity:PMODe?
EAN:PSEN:PMOD?

Set or retrieve the Pattern Sensitivity Pattern Mode; a pre-defined PRBS pattern, or a User Pattern contained in the named file.

Params:	<PRBS>	Pseudo-Random Pattern used in Pattern Sensitivity analysis.
	<"filename">	User Pattern file to be used in Pattern Sensitivity analysis. The filename specified by EAN:PSEN:UPF will be used (see below).
Returns:	< PRBS | filename >	

EANalysis:PSENsitivity:UPFile <"filename">
EAN:PSEN:UPFile <"filename">
EANalysis:PSENsitivity:UPFile?
EAN:PSEN:UPF?

Set or retrieve Pattern Sensitivity User Pattern filename

Params:	<"filename">	Filename of the User Pattern File, enclosed in double quotes
Returns:	< filename >	

EANalysis:PSENsitivity:VCURsors <bool>
EAN:PSEN:VCUR <bool>
EANalysis:PSENsitivity:VCURsors?
EAN:PSEN:VCUR?

Enable/disable vertical cursors on Pattern Sensitivity view.

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	Enable Pattern Sensitivity vertical cursors
	< 0 >	Disable Pattern Sensitivity vertical cursors

Strip Chart

EANalysis:SCHart:ACENter
EAN:SCH:ACEN

Auto Center Strip Chart View. Action only.

EANalysis:SCHart:ASCRoll <bool>
EAN:SCH:ASCR <bool>
EANalysis:SCHart:ASCRoll?
EAN:SCH:ASCR?

Enable/disable Strip Chart auto scroll.

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	Enable Strip Chart auto scroll
	< 0 >	Disable Strip Chart auto scroll

EANalysis:SCHart:CEXTents <Xmin, Xmax, Ymin, Ymax>
EAN:SCH:CEXT <Xmin, Xmax, Ymin, Ymax>
EANalysis:SCHart:CEXTents?
EAN:SCH:CEXT?

Set or retrieve Strip Chart's chart extents.

Params:	<Xmin>	X-Axis minimum, double
	<Xmax>	X-Axis maximum, double
	<Ymin>	Y-Axis minimum, double
	<Ymax>	Y-Axis maximum, double
Returns:	< Xmin, Xmax, Ymin, Ymax >	

EANalysis:SCHart:FCURsors
EAN:SCH:FCUR

Fit Cursors. Action only.

EANalysis:SCHart:HCURsors <bool>
EAN:SCH:HCUR <bool>
EANalysis:SCHart:HCURsors?
EAN:SCH:HCUR?

Enable/disable horizontal cursors on Strip Chart.

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	Enable horizontal cursors
	< 0 >	Disable horizontal cursors

EANalysis:SCHart:VCURsors <bool>
EAN:SCH:VCUR <bool>
EANalysis:SCHart:VCURsors?
EAN:SCH:VCUR?

Enabl/disable vertical cursors on Strip Chart.

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	Enable Strip Chart vertical cursors
	< 0 >	Disable Strip Chart vertical cursors

Physical Layer Test

Eye Diagram

EYE:AMPPf <UW | DBM>
EYE:AMPP <UW | DBM>
EYE:AMPPf?
EYE:AMPP?

BERTScope only, Optical mode. Set or retrieve the Auto Center optical power format.

Params:	<UW>	Value displayed in µW
	<DBM>	Value displayed in dBm
Returns:	< MW | DBM >	

EYE:ASMode <EOPening | TRANsition>
EYE:ASM <EOP | TRAN>
EYE:ASMode?
EYE:ASM?

Set or retrieve the Auto Center mode of the Eye view.

Params:	<EOPening>	Auto center at the eye opening
	<TRANsition>	Auto center at the transition
Returns:	< EYEOPENING | TRANSITION >	

EYE:AVGPwrPf <UW | DBM>
EYE:AVGPP <UW | DBM>
EYE:AVGPwrPf?
EYE:AVGPP?

Set or retrieve Optical Mode Average Power format. BERTScope only.

Params:	<UW>	Value displayed in µW
	<DBM>	Value displayed in dBm
Returns:	< UW | DBM >	

EYE:CMODe <NONE | TIME | VOLT | TVOL | SINGle>
EYE:CMOD <NONE | TIME | VOLT | TVOL | SING>
EYE:CMODe?
EYE:CMOD?

Set or retrieve the cursor mode of the Eye view.

Params:	<NONE>	No cursor is displayed
	<TIME>	Only two time cursors are displayed
	<VOLT>	Only two voltage cursors are displayed
	<TVOL>	Two time cursors and two voltage cursors are displayed
	<SINGle>	Single cursor is displayed
Returns:	< NONE | TIME | VOLTAGE | TIME&VOLTAGE | SINGLE >	

EYE:CN0Pf <UW | DBM>
EYE:CN0P <UW | DBM>
EYE:CN0Pf?
EYE:CN0P?

BERTScope only, Optical mode. Set or retrieve Cross Noise 0 optical power format.

Params:	<UW>	Value displayed in µW
	<DBM>	Value displayed in dBm
Returns:	< UW | DBM >	

EYE:CN1Pf <UW | DBM>
EYE:CN1P <UW | DBM>
EYE:CN1Pf?
EYE:CN1P?

BERTScope only, Optical mode. Set or retrieve Cross Noise 1 optical power format.

Params:	<UW>	Value displayed in µW
	<DBM>	Value displayed in dBm
Returns:	< UW | DBM >	

EYE:CRAPf <UW | DBM>
EYE:CRAP <UW | DBM>
EYE:CRAPf?
EYE:CRAP?

BERTScope only, Optical mode. Set or retrieve Cross Amplitude optical power format.

Params:	<UW>	Value displayed in µW
	<DBM>	Value displayed in dBm
Returns:	< MW | DBM >	

EYE:CVFOrmat <MV | %>
EYE:CVFO <MV | %>
EYE:CVFOrmat?
EYE:CVFO?

Set or retrieve Crossing Voltage power format.

Params: <MV> Value displayed in mV
<%> Value displayed in %UI

Returns: < MV | % >

EYE:CVPF <UW | DBM>
EYE:CVPF?

BERTScope only, Optical mode. Set or retrieve Crossing Voltage optical power format.

Params: <UW> Value displayed in µW
<DBM> Value displayed in dBm

Returns: < UW | DBM >

EYE:EHFOrmat <MV | %>
EYE:EHFO <MV | %>
EYE:EHFOrmat?
EYE:EHFO?

Set or retrieve the Eye Height measurement value format.

Params: <MV> Value displayed in mV
<%> Value displayed in %UI

Returns: < MV | % >

EYE:EHPF <UW | DBM>
EYE:EHPF?

BERTScope only, Optical mode. Set or retrieve Eye Height optical power format.

Params: <UW> Value displayed in µW
<DBM> Value displayed in dBm

Returns: < UW | DBM >

EYE:EMODe <8020 | 9010>
EYE:EMOD <8020 | 9010>
EYE:EMODe?
EYE:EMOD?

Set or retrieve the edge mode of the Eye view.

Params: <8020> Use 80%–20% edge
<9010> Use 90%–10% edge

Returns: < 8020 | 9010 >

EYE:ERFO <dB | %>
EYE:ERFO?

Set or retrieve the Extinction Ratio measurement value format.

Params:	<dB>	Value displayed in dB
	<%>	Value displayed in %
Returns:	< dB | % >	

EYE:ESAV <"filename">

Save Eye diagram matrix data to a CSV file. Full path name should be given. Action only.

Params:	<"filename">	CSV file to be saved. Filename in double quotes, include full path

EYE:EWFO <TIME | %UI>
EYE:EWFO?

Set or retrieve the Eye Width measurement value format.

Params:	<TIME>	Value displayed in ps
	<%UI>	Value displayed in %UI
Returns:	< TIME | %UI >	

EYE:EXPFileopt
EYE:EXPF
EYE:EXPFileopt?
EYE:EXPF?

Set or retrieve the file format for exporting single-value waveform data to a .csv file.

Params:	<YVAL>	Export Y values
	<YVALVERB>	Export Y values with header information
	<XYVAL>	Export X and Y values
	<XYVALVERB>	Export X and Y values with header information
Returns:	< YVAL | YVALVERB | XYVAL | XYVALVERB >	

EYE:EYEOper <CLASSIC | CLEAN>
EYE:EYEO <CLASSIC | CLEAN>
EYE:EYEOper?
EYE:EYEO?

Set or retrieve the Eye diagram operating mode.

Params:	<CLASSIC>	Classic Eye mode
	<CLEAN>	CleanEye mode
Returns:	< CLASSIC | CLEAN >	

EYE:GENable <bool>
EYE:GEN <bool>
EYE:GENable?
EYE:GEN?

Enable/disable Eye display graticule (grid).

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	Eye graticule is on
	< 0 >	Eye graticule is off

EYE:JPFOrmat <TIME | %UI>
EYE:JPFO <TIME | %UI>
EYE:JPFOrmat?
EYE:JPFO?

Set or retrieve the Eye Jitter P-P measurement value format.

Params:	<TIME>	Value displayed in ps
	<%UI>	Value displayed in %UI
Returns:	< TIME | %UI >	

EYE:JRFOrmat <TIME | %UI>
EYE:JRFO <TIME | %UI>
EYE:JRFOrmat?
EYE:JRFO?

Set or retrieve the Eye Jitter RMS measurement value format.

Params:	<TIME>	Value displayed in ps
	<%UI>	Value displayed in %UI
Returns:	< TIME | %UI >	

EYE:L0PF <UW | DBM>
EYE:L0PF?

BERTScope only, Optical mode. Set or retrieve Level 0 optical power format.

Params:	<UW>	Value displayed in µW
	<DBM>	Value displayed in dBm
Returns:	< UW | DBM >	

EYE:L1PF <UW | DBM>
EYE:L1PF?

BERTScope only, Optical mode. Set or retrieve Level 1 optical power format.

Params:	<UW>	Value displayed in µW
	<DBM>	Value displayed in dBm
Returns:	< UW | DBM >	

EYE:LCRTHresh <numeric>
EYE:LCRTH <numeric>
EYE:LCRTHresh?
EYE:LCRTH?

Set or retrieve the threshold level (in mV or µW, depending on the mode) for the Rising or Falling Level Crossing measurement.

Params:	<numeric>	The threshold value in mV or µW that defines the level at which the 80/20 or 90/10 rising or falling edge crosses to set the Rising or Falling Level Crossing in ps. Limits vary depending on the signal, and must be between the 80/20 or 90/10 points on the rising or falling edges, depending on the edge mode configuration.
Returns:	< numeric >	

EYE:MBARsel <OFF | MEASUREMENTS | STRESS>
EYE:MBAR <OFF | MEASUREMENTS | STRESS>
EYE:MBARsel?
EYE:MBAR?

Set or retrieve the Sidebar selection in the Eye Diagram.

Params:	<OFF>	No Sidebar
	<MEASUREMENTS>	Show Measurement Sidebar
	<STRESS>	Show Stress Sidebar (if Stress Option is enabled)
Returns:	< OFF | MEASUREMENTS | STRESS >	

EYE:MDENable <bool>
EYE:MDEN <bool>
EYE:MDENable?
EYE:MDEN?

Enable/disable display of Eye measurements.

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	Eye measurements display enabled
	< 0 >	Eye measurements display disabled

EYE:NL0Pf <UW | DBM>
EYE:NL0P <UW | DBM>
EYE:NL0Pf?
EYE:NL0P?

BERTScope only, Optical mode. Set or retrieve Noise Level 0 optical power format.

Params:	<UW>	Value displayed in µW
	<DBM>	Value displayed in dBm
Returns:	< UW | DBM >	

EYE:NL1Pf <UW | DBM>
EYE:NL1P <UW | DBM>
EYE:NL1Pf?
EYE:NL1P?

BERTScope only, Optical mode. Set or retrieve Noise Level 1 optical power format.

Params: <UW> Value displayed in µW

<DBM> Value displayed in dBm

Returns: < UW | DBM >

EYE:NLPF <UW | DBM>
EYE:NLPF?

BERTScope only, Optical mode. Set or retrieve Noise Level optical power format.

Params: <UW> Value displayed in µW

<DBM> Value displayed in dBm

Returns: < UW | DBM >

EYE:OMAPf <UW | DBM>
EYE:OMAP <UW | DBM>
EYE:OMAPf?
EYE:OMAP?

BERTScope only, Optical mode. Set or retrieve OMA optical power format.

Params: <UW> Value displayed in µW

<DBM> Value displayed in dBm

Returns: < UW | DBM >

EYE:OVerSHoot1FOrmat <MV | %>
EYE:OVSH1FO <MV | %>
EYE:OVerSHoot1FOrmat?
EYE:OVSH1FO?

Set or retrieve the Eye Overshoot1 measurement format.

Params: <MV> Value displayed in mV

<%> Value displayed in %UA

Returns: < MV | % >

EYE:OVerSHoot0FOrmat <MV | %>
EYE:OVSH0FO <MV | %>
EYE:OVerSHoot0FOrmat?
EYE:OVSH0FO?

Set or retrieve the Eye Overshoot0 measurement format.

Params:	<MV>	Value displayed in mV
	<%>	Value displayed in %UA
Returns:	< MV | % >	

EYE:PERSistence <numeric>
EYE:PERS <numeric>
EYE:PERSistence?
EYE:PERS?

Set or retrieve the persistence of the Eye view.

Params:	<numeric>	Eye persistence as a number of images being persisted. Range [0 to 5]. Input out of range will be clipped and recorded in the status queue. A value of –1 runs the Eye diagram with infinite persistence.
Returns:	< numeric >	

EYE:SDEPth <numeric>
EYE:SDEP <numeric>
EYE:SDEPth?
EYE:SDEP?

Set or retrieve the Eye Sample Depth in bits.

Params:	<numeric>	Eye Sample Depth in bits. Range [2,000 to 10,000,000]. Input out of range will be clipped and recorded in the status queue. A value of –1 runs the Eye diagram in the 'Auto' mode with a sample depth of 10,000 bits.
Returns:	< numeric >	

EYE:SSAV <"filename">

Save Single Value Eye diagram data to a CSV file. Full path name should be given. Action only.

Params:	<"filename">	CSV file to be saved. Filename in double quotes, include full path

EYE:TCOFfset <numeric>
EYE:TCOF <numeric>
EYE:TCOFfset?
EYE:TCOF?

Set or retrieve the Eye center time offset of the Eye view.

Params:	<numeric>	Eye center time offset in ps. The range of the input is the same as described in the numeric keypad if you click the volt Center button in the Eye view. Range [0 to 33,000]
Returns:	< numeric >	

EYE:TEXTent <numeric>
EYE:TEXT <numeric>
EYE:TEXTent?
EYE:TEXT?

Set or retrieve the time extent of the Eye view.

Params:	<numeric>	Eye time extent in ps. Range [200 to 33,000]. Input out of range will be clipped and recorded in the status queue.
Returns:	< numeric >	

EYE:TOFFset <numeric>
EYE:TOFF <numeric>
EYE:TOFFset?
EYE:TOFF?

Set or retrieve the time offset of the Eye view.

Params:	<numeric>	Eye time offset in ps. Range [–16,500 to +16,500]. Input out of range will be clipped and recorded in the status queue.
Returns:	< numeric >	An integer. Range [–16,500 to +16,500]

EYE:VCOFfset <numeric>
EYE:VCOF <numeric>
EYE:VCOFfset?
EYE:VCOF?

Set or retrieve the Eye center voltage offset of the Eye view.

Params:	<numeric>	Eye center voltage offset in mV. The range of the input is the same as described in the numeric keypad if you click the time Center button in the Eye view. Range [–2000 to +4000]
Returns:	< numeric >	

EYE:VEXTent <numeric>
EYE:VEXT <numeric>
EYE:VEXTent?
EYE:VEXT?

Set or retrieve the voltage extent of the Eye view.

Params:	<numeric>	Eye voltage extent in mV. Range [160 to 6,000]. Input out of range will be clipped and recorded in the status queue.
Returns:	< numeric >	

EYE:VMAPf <UW | DBM>
EYE:VMAP <UW | DBM>
EYE:VMAPf?
EYE:VMAP?

BERTScope only, Optical mode. Set or retrieve Maximum voltage power format.

Params:	<UW>	Value displayed in µW
	<DBM>	Value displayed in dBm
Returns:	< UW | DBM >	

EYE:VMIPf <UW | DBM>
EYE:VMIP <UW | DBM>
EYE:VMIPf?
EYE:VMIP?

BERTScope only, Optical mode. Set or retrieve Minimum voltage power format.

Params:	<UW>	Value displayed in µW
	<DBM>	Value displayed in dBm
Returns:	< UW | DBM >	

EYE:VOFFset <numeric>
EYE:VOFF <numeric>
EYE:VOFFset?
EYE:VOFF?

Set or retrieve the voltage offset of the Eye view.

Params:	<numeric>	Eye voltage offset in mV. Range [–2000 to 4000]. Input out of range will be clipped and recorded in the status queue.
Returns:	< numeric >	

EYE:VOFPf <UW | DBM>
EYE:VOFP <UW | DBM>
EYE:VOFPf?
EYE:VOFP?

BERTScope only, Optical mode. Set or retrieve Voltage Offset power format.

Params:	<UW>	Value displayed in µW
	<DBM>	Value displayed in dBm
Returns:	< UW | DBM >	

EYE:VPPPf <UW | DBM>
EYE:VPPP <UW | DBM>
EYE:VPPPf?
EYE:VPPP?

BERTScope only, Optical mode. Set or retrieve Peak-to-Peak power format.

Params:	<UW>	Value displayed in µW
	<DBM>	Value displayed in dBm
Returns:	< UW | DBM >	

Eye: CleanEye Mode

EYE:AMPLitude:CleanEYE:CONFIG?
EYE:AMPL:CEYE:CONFIG?

Retrieve configuration data of the CleanEye Amplitude measurement. Command available for 7.5G, 12.5G, 17G and 25G models only. Query only. The data is returned in the following format (in one line, shown here as multiline for clarity):

```
Max point: <from>%UI-<to>%UI(<method>),
Min point: <from>%UI-<to>%UI(<method>)
```

Example:

```
Max point: 30%UI-70%UI(Average), Min point: 40%UI-55%UI(Min)
```

In this example, the “from”, “to”, and “method” values correspond to the current settings. “Method” could be either “**Average**”, “**Mode**” or “**Max**” for the Max point and “**Average**”, “**Mode**” or “**Min**” for the Min point. These parameters are set using the **EYE:AMPL:CEYE:POINT** command below.

EYE:AMPLitude:CleanEYE:ENABle <bool>
EYE:AMPL:CEYE:ENAB <bool>
EYE:AMPLitude:CleanEYE:ENABle?
EYE:AMPL:CEYE:ENAB?

Set or retrieve whether CleanEye amplitude measurement is enabled. Command available for 7.5G, 12.5G, 17G and 25G models only.

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	CleanEye amplitude measurement is enabled
	< 0 >	CleanEye amplitude measurement is not enabled

EYE:AMPLitude:CleanEYE:POINT <0 | 1>, <numeric>, <numeric>, <AVERAGE | MODE | MIN | MAX>
EYE:AMPL:CEYE:POINT <0 | 1>, <numeric>, <numeric>, <AVERAGE | MODE | MIN | MAX>

Set an individual point for CleanEye Amplitude measurement. Command available for 7.5G, 12.5G, 17G and 25G models only. Action only.

Params:	<0 | 1>	Point Number (0 for Max point, 1 for Min point)
	<numeric>	From: (integer value in %UI)
	<numeric>	To: (integer value in %UI)
	<method>	AVERAGE, MODE, or MAX for Max point AVERAGE, MODE, or MIN for min point

Returns: < 0 | 1 >, < numeric >, < numeric >, < AVERAGE | MODE | MIN | MAX >

EYE:AMPLitude:CleanEYE:PROTOCOL **<protocol>**
EYE:AMPL:CEYE:PROTOCOL <protocol>
EYE:AMPLitude:CleanEYE:PROTOCOL?
EYE:AMPL:CEYE:PROTOCOL?

Set a protocol preset for CleanEye Amplitude measurement. The preset affects “from”, “to”, and “method” values for both measurement points. If no protocol was set, returns “None”. Command available for 7.5G, 12.5G, 17G and 25G models only.

Params:	<protocol>	PCIE SATA_minamp SATA_maxamp SAS DPORT10 DPORT11 USB3 None

Returns: < protocol >

EYE:CLRSamdep <long>
EYE:CLRS <long>
EYE:CLRSamdep?
EYE:CLRS?

Set or retrieve CleanEye sample depth.

Params:	<numeric>	Sample depth, a numeric value. Range [2,000 to 1,000,000]

Returns: < numeric >

EYE:CLRPtlen < numeric >
EYE:CLRP <numeric>
EYE:CLRPtlen?
EYE:CLRP?

Set or retrieve CleanEye Pattern length in bits.

Params: <numeric> Pattern length in bits, a numeric value. Range [64 to 1,048,576]. A value of –1 calculates pattern length automatically based on input detector pattern.

Returns: < numeric >

EYE:DEEMphasisRatio:CleanEYE:CONFIG?
EYE:DEEMR:CEYE:CONFIG?

Retrieve configuration data of the CleanEye Deemphasis Ratio measurement. Command available for 7.5G, 12.5G, 17G and 25G models only. Query only. The data is returned in the following format (in one line, shown here as multiline for clarity):

```
Full 1 point: <from>%UI-<to>%UI(<method>),
Deemp 1 point: <from>%UI-<to>%UI(<method>),
Full 0 point: <from>%UI-<to>%UI(<method>),
Deemp 0 point: <from>%UI-<to>%UI(<method>)
```

Example:

```
Full 1 point: 30%UI-70%UI(Average), Deemp 1 point: 120%UI-350%UI(Mode),
Full 0 point: 120%UI-450%UI(Min), Deemp 0 point: 40%UI-55%UI(Mode)
```

In this example, the “from”, “to”, and “method” values correspond to the current settings. “Method” could be either “**Average**”, “**Mode**” or “**Max**” for the “1” points and “**Average**”, “**Mode**” or “**Min**” for the “0” points. These parameters are set using the **EYE:DEEM:CEYE:POINT** command below.

EYE:DEEMphasisRatio:CleanEYE:ENABle <bool>
EYE:DEEMR:CEYE:ENAB <bool>
EYE:DEEMphasisRatio:CleanEYE:ENABle?
EYE:DEEMR:CEYE:ENAB?

Set or retrieve whether CleanEye de-emphasis ratio measurement is enabled. Command available for 7.5G, 12.5G, 17G and 25G models only.

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	CleanEye de-emphasis ratio measurement is enabled
	< 0 >	CleanEye de-emphasis ratio measurement is not enabled

EYE:DEEMphasisRatio:CleanEYE:POINT <0 | 1 | 2 | 3>, <numeric>, <numeric>, <AVERAGE | MODE | MIN | MAX>
EYE:DEEMR:CEYE:POINT <0 | 1 | 2 | 3>, <numeric>, <numeric>, <AVERAGE | MODE | MIN | MAX>

Set an individual point for CleanEye Deemphasis Ratio measurement. Command available for 7.5G, 12.5G, 17G and 25G models only.

Params:	<0 | 1 | 2 | 3>	Point Number: 0: Full 1 point 1: De-emphasized 1 point 2: Full 0 point 3: De-emphasized 0 point)
	<from>	From: (integer value in %UI)
	<to>	To: (integer value in %UI)
	<method>	AVERAGE, MODE, or MAX for Max point AVERAGE, MODE, or MIN for Min point

Returns: < 0 | 1 | 2 | 3 >, < numeric >, < numeric >, < AVERAGE | MODE | MIN | MAX >

EYE:DEEMphasisRatio:CleanEYE:PROTOCOL <protocol>
EYE:DEEMR:CEYE:PROTOCOL <protocol>
EYE: DEEMphasisRatio:CleanEYE:PROTOCOL?
EYE:DEEMR:CEYE:PROTOCOL?

Set a protocol preset for CleanEye De-Emphasis Ratio measurements. When setting, the preset affects “from”, “to”, and “method” values for all 4 measurement points. If no protocol was set, returns “None”. Command available for 7.5G, 12.5G, 17G and 25G models only.

Params:	<protocol>	PCIE_dsfs PCIE_dsds PCIE_fsfs PCIE_fsds SAS DPORT10 DPORT11 USB3 None

Returns: < protocol >

EYE:EXPFileopt
EYE:EXPF
EYE:EXPFileopt?
EYE:EXPF?

Set or retrieve the file format for exporting Single Value Waveform data to a .csv file.

Params:	<YVAL>	Export Y values
	<YVALVERB>	Export Y values with header information
	<XYVAL>	Export X and Y values
	<XYVALVERB>	Export X and Y values with header information
Returns:	< YVAL | YVALVERB | XYVAL | XYVALVERB >	

EYE:EYEOper <CLASSIC | CLEAN>
EYE:EYEO <CLASSIC | CLEAN>
EYE:EYEOper?
EYE:EYEO?

Set or retrieve the Eye diagram operating mode.

Params:	<CLASSIC>	Classic Eye mode
	<CLEAN>	CleanEye mode
Returns:	< CLASSIC | CLEAN >	

EYE:FIREnab <bool>
EYE:FIRE <bool>
EYE:FIREnab?
EYE:FIRE?

Enable/disable FIR filter.

Params:	<bool>	Enable or disable FIR filter. On = 1, Off = 0
Returns:	< 1 >	FIR filter is enabled
	< 0 >	FIR filter is disabled

EYE:FIRTpspac <double>
EYE:FIRT <double>
EYE:FIRTpspac?
EYE:FIRT?

Set or retrieve FIR filter spacing in UI.

Params:	<double>	Filter Spacing in terms of UI, a numeric value. Range [10 to 100]
Returns:	< double >	

EYE:FIRLoad <"filename">
EYE:FIRL <"filename">

Load the FIR filter parameters specified in the file. Full path name should be given. Action only.

Params: <"filename"> FIR filter file to be loaded. Filename in double quotes, include full path

EYE:FIRSave <"filename">
EYE:FIRS <"filename">

Save the current FIR filter parameters in the file specified. Full path name should be given. Action only.

Params: <"filename"> FIR filter file to be Saved. Filename in double quotes, include full path

EYE:FIRDetails?
EYE:FIRD?

Retrieve the current FIR filter parameters. Query only.

Returns: < TapCount(TapCoeff) > *Example:* 2(0.1) (0.2)

EYE:FTIMe:CleanEYE:CONFIG?
EYE:FTIM:CEYE:CONFIG?

Retrieve configuration data of the CleanEye Fall Time measurement. Command available for 7.5G, 12.5G, 17G and 25G models only. Query only. The data is returned in the following format (in one line, shown here as multiline for clarity):

```
Edge Mode: <mode>,
Max point: <from>%UI-<to>%UI(<method>),
Min point: <from>%UI-<to>%UI(<method>)
```

Example:

```
Edge Mode: 8020, Max point: 30%UI-70%UI(Average), Min point: 40%UI-55%UI(Min)
```

In this example, the "edge mode," "from," "to," and "method" values correspond to the current settings. "Edge Mode" can be either "**8020**" or "**9010**". "Method" can be either "**Average**," "**Mode**," or "**Max**" for the Max point and "**Average**," "**Mode**," or "**Min**" for the Min point. These parameters are set using the **EYE:FTIME:CEYE:POINT** command below.

EYE:FTIMe:CleanEYE:ENABle <bool>
EYE:FTIM:CEYE:ENAB <bool>
EYE:FTIMe:CleanEYE:ENABle?
EYE:FTIM:CEYE:ENAB?

Set or retrieve whether CleanEye Fall Time measurement is enabled. Command available for 7.5G, 12.5G, 17G and 25G models only.

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	CleanEye fall time measurement is enabled
	< 0 >	CleanEye fall time measurement is not enabled

EYE:FTIME:CleanEYE:POINT <0 | 1>, <numeric>, <numeric>, <AVERAGE | MODE | MIN | MAX>
EYE:FTIM:CEYE:POINT <0 | 1>, <numeric>, <numeric>, <AVERAGE | MODE | MIN | MAX>

Set an individual point for CleanEye Fall Time measurement. Command available for 7.5G, 12.5G, 17G and 25G models only.

Params:	<0 | 1>	Point Number 0: Max point 1: Min point
	<from>	From: (integer value in %UI)
	<to>	To: (integer value in %UI)
	<method>	AVERAGE, MODE, or MAX for Max point AVERAGE, MODE, or MIN for Min point

Returns: < 0 | 1 >, < numeric >, < numeric >, < AVERAGE | MODE | MIN | MAX >

EYE:FTIME:CleanEYE:PROTOCOL <protocol>
EYE:FTIM:CEYE:PROTOCOL <protocol>
EYE:FTIME:CleanEYE:PROTOCOL?
EYE:FTIM:CEYE:PROTOCOL?

Retrieve a protocol preset for CleanEye Fall Time measurement. If no protocol was set, returns “None”. Command available for 7.5G, 12.5G, 17G and 25G models only.

Params:	<protocol>	PCIE SATA SAS DPORT10 None

Returns: < protocol >

EYE:LRMBits <numeric>
EYE:LRMB <numeric>
EYE:LRMBits?
EYE:LRMB?

Set or retrieve number of bits to Single Value Waveform export.

Params: <numeric> No of bits to export. Range [1 to length of input pattern]

Returns: < numeric >

EYE:LRMSAmperbit <numeric>
EYE:LRMSA <numeric>
EYE:LRMSAmperbit?
EYE:LRMSA?

Set or retrieve samples per bit for Single Value Waveform export.

Params: <numeric> Samples per bit to export, a numeric value. Range [1 to 1,000]

Returns: < numeric >

EYE:LRMSTartbit <numeric>
EYE:LRMST <numeric>
EYE:LRMSTartbit?
EYE:LRMST?

Set or retrieve Single Value Waveform start bit.

Params: <numeric> Single Value Waveform start bit. Range [0 to pattern length]

Returns: < numeric >

EYE:LRMExport <"filename">
EYE:LRME <"filename">

Export Single Value Waveform data to a CSV file. Full path name should be given. Action only.

Params: <"filename"> CSV file to be saved. Filename in double quotes, include full path

EYE:LRMCancel
EYE:LRMC

Cancel the LRM export. Action only.

EYE:LRMPRPcnt?
EYE:LRMPRP?

Retrieve the progress of the LRM export in percentage. Query only.

EYE:LRMPRCnt?
EYE:LRMPRC?

Retrieve the progress of the LRM export in terms of sample count. Query only.

EYE:RTIMe:CleanEYE:CONFIG?
EYE:RTIM:CEYE:CONFIG?

Retrieve configuration data of the CleanEye Rise Time measurement. Command available for 7.5G, 12.5G, 17G and 25G models only. Query only. The data is returned in the following format (in one line, shown here as multiline for clarity):

```
Edge Mode: <mode>,
Max point: <from>%UI-<to>%UI(<method>),
Min point: <from>%UI-<to>%UI(<method>)
```

Example:

```
Edge Mode: 8020, Max point: 30%UI-70%UI(Average), Min point: 40%UI-55%UI(Min)
```

In this example, the "edge mode", "from", "to", and "method" values correspond to the current settings. "Edge Mode" could be either "**8020**" or "**9010**". "Method" could be either "**Average**", "**Mode**" or "**Max**" for the Max point and "**Average**", "**Mode**" or "**Min**" for the Min point. These parameters are set using the **EYE:RTIM:CEYE:POINT** command below.

EYE:RTIMe:CleanEYE:ENABle <bool>
EYE:RTIM:CEYE:ENAB <bool>
EYE:RTIMe:CleanEYE:ENABle?
EYE:RTIM:CEYE:ENAB?

Set or retrieve whether CleanEye Rise Time measurement is enabled. Command available for 7.5G, 12.5G, 17G and 25G models only.

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	CleanEye rise time measurement is enabled
	< 0 >	CleanEye rise time measurement is not enabled

EYE:RTIMe:CleanEYE:POINT <0 | 1>, <numeric>, <numeric>, <AVERAGE | MODE | MIN | MAX>
EYE:RTIM:CEYE:POINT <0 | 1>, <numeric>, <numeric>, <AVERAGE | MODE | MIN | MAX>

Set an individual point for CleanEye Rise Time measurement. Command available for 7.5G, 12.5G, 17G and 25G models only.

Params:	<0 | 1>	Point Number 0: Max point 1: Min point
	<from>	From: (integer value in %UI)
	<to>	To: (integer value in %UI)
	<method>	AVERAGE, MODE, or MAX for Max point AVERAGE, MODE, or MIN for Min point
Returns:	< 0 | 1 >, < numeric >, < numeric >, < AVERAGE | MODE | MIN | MAX >	

EYE:RTIMe:CleanEYE:PROTOCOL <protocol>
EYE:RTIM:CEYE:PROTOCOL <protocol>
EYE:RTIMe:CleanEYE:PROTOCOL?
EYE:RTIM:CEYE:PROTOCOL?

Retrieve a protocol preset for CleanEye Rise Time measurement. If no protocol was set, returns “None”. Command available for 7.5G, 12.5G, 17G and 25G models only.

Params:	<protocol>	PCIE SATA SAS DPORT10 None
Returns:	< protocol >	

EYE:SSAV <“filename”>

Save Single Value Eye diagram data to a CSV file. Full path name should be given. Action only.

Params:	<“filename”>	CSV file to be saved. Filename in double quotes, include full path.

Eye: Enable Eye Measurement Overlay

EYE:MCONfig:ADD <0LEV | 1LEV | AMPL | AVGV | CAMP | CAN0 | CAN1 | CVOLt | DCAL | DEEMR | DSNR | EHE | EWID | EXTR | FLC | FTIM | JITT | JRMS | NLEV | NLV0 | NLV1 | OMA | OVSH1 | OVSH2 | RLC | RTIM | SCNT | UINT | VECP | VMAX | VMIN | VOFS | VPP>

EYE:MCON:ADD

Add the specified measurement to the Eye measurement list. Action only.

Params:		
	<0LEV ***or*** 0LEVel>	0 Level
	<1LEV ***or*** 1LEVel>	1 Level
	<AMPL ***or*** AMPLitude>	Amplitude
	<AVGVP ***or*** AVGVoltsPwr>	Average Volts/Power
	<CAMP ***or*** CAMPlitude>	Cross Amplitude
	<CAN0>	Cross Amplitude Noise 0
	<CAN1>	Cross Amplitude Noise 1
	<CVOL ***or*** CVOLt>	Crossing Voltage
	<DCAL ***or*** DCALibration>	Dark Calibration
	<DEEMR ***or*** DEEMphasisRatio>	De-Emphasis Ratio
	<DSNR>	DSNR
	<EHE ***or*** EHEight>	Eye Height
	<EWID ***or*** EWIDth>	Eye Width
	<EXTR ***or*** EXTRatio>	Extinction Ratio
	<FLC ***or*** FLCross>	Falling Level Crossing
	<FTIM ***or*** FTIMe>	Fall Time
	<JITT ***or*** JITTer>	Jitter Peak-to-Peak
	<JRMS>	Jitter RMS
	<NLEV ***or*** NLEVel>	Noise Level
	<NLV0>	Noise Level 0
	<NLV1>	Noise Level 1
	<OMA>	OMA
	<OVSH1 ***or*** OVerSHoot1>	Overshoot 1
	<OVSH2 ***or*** OVerSHoot2>	Overshoot 2
	<RLC ***or*** RLCross>	Rising Level Crossing
	<RTIM ***or*** RTIMe>	Rise Time
	<SCNT>	Sample Count
	<UNIT ***or*** UINTerval>	Unit Interval
	<VECP>	VECP
	<VMAX>	Voltage Maximum
	<VMIN>	Voltage Minimum
	<VOFS ***or*** VOFSet>	Voltage Offset
	<VPP>	Voltage Peak-to-Peak

EYE:MCONfig:REM <0LEV | 1LEV | AMPL | AVGV | CAMP | CAN0 | CAN1 | CVOLt | DCAL | DEEMR | DSNR | EHE | EWID | EXTR | FLC | FTIM | JITT | JRMS | NLEV | NLV0 | NLV1 | OMA | OVSH1 | OVSH2 | RLC | RTIM | SCNT | UINT | VECP | VMAX | VMIN | VOFS | VPP>

EYE:MCON:REM

Remove the specified measurement from the Eye measurement list. Action only.

Params:		
	<0LEV ***or*** 0LEVel>	0 Level
	<1LEV ***or*** 1LEVel>	1 Level
	<AMPL ***or*** AMPLitude>	Amplitude
	<AVGVP ***or*** AVGVoltsPwr>	Average Volts/Power
	<CAMP ***or*** CAMPlitude>	Cross Amplitude
	<CAN0>	Cross Amplitude Noise 0
	<CAN1>	Cross Amplitude Noise 1
	<CVOL ***or*** CVOLt>	Crossing Voltage
	<DCAL ***or*** DCALibration>	Dark Calibration
	<DEEMR ***or*** DEEMphasisRatio>	De-Emphasis Ratio
	<DSNR>	DSNR
	<EHE ***or*** EHEight>	Eye Height
	<EWID ***or*** EWIDth>	Eye Width
	<EXTR ***or*** EXTRatio>	Extinction Ratio
	<FLC ***or*** FLCross>	Falling Level Crossing
	<FTIM ***or*** FTIMe>	Fall Time
	<JITT ***or*** JITTer>	Jitter Peak-to-Peak
	<JRMS>	Jitter RMS
	<NLEV ***or*** NLEVel>	Noise Level
	<NLV0>	Noise Level 0
	<NLV1>	Noise Level 1
	<OMA>	OMA
	<OVSH1 ***or*** OVerSHoot1>	Overshoot 1
	<OVSH2 ***or*** OVerSHoot2>	Overshoot 2
	<RLC ***or*** RLCross>	Rising Level Crossing
	<RTIM ***or*** RTIMe>	Rise Time
	<SCNT>	Sample Count
	<UNIT ***or*** UINTerval>	Unit Interval
	<VECP>	VECP
	<VMAX>	Voltage Maximum
	<VMIN>	Voltage Minimum
	<VOFS ***or*** VOFSet>	Voltage Offset
	<VPP>	Voltage Peak-to-Peak

EYE:MCONfig:RMAll
EYE:MCON:RMA

Remove ***all*** measurements from the Eye measurement list. Action only. (***Note:*** The command is uppercase RMA, optionally followed by two lowercase l's – not capital I's.)

EYE:MOENable:0LEVel <bool>
EYE:MOEN:0LEV <bool>
EYE:MOENable:0LEVel?
EYE:MOEN:0LEV?

Set or retrieve whether Eye 0-Level measurement is overlaid

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	Eye Level0 measurement is overlaid
	< 0 >	Eye Level0 measurement is not overlaid

EYE:MOENable:1LEVel <bool>
EYE:MOEN:1LEV <bool>
EYE:MOENable:1LEVel?

Set or retrieve whether Eye Level1 measurement is overlaid

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	Level1 measurement is overlaid
	< 0 >	Level1 measurement is not overlaid

EYE:MOENable:AMPLitude <bool>
EYE:MOEN:AMPL <bool>
EYE:MOENable:AMPLitude?
EYE:MOEN:AMPL?

Set or retrieve whether Eye Amplitude measurement is overlaid

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	Amplitude measurement is overlaid
	< 0 >	Amplitude measurement is not overlaid

EYE:MOENable:AVGVoltsPwr <bool>
EYE:MOEN:AVGVP <bool>
EYE:MOENable:AVGVoltsPwr?
EYE:MOEN:AVGVP?

Set or retrieve whether Avg Volts/Pwr measurement is overlaid

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	Avg Volts/Pwr measurement is overlaid
	< 0 >	Avg Volts/Pwr measurement is not overlaid

EYE:MOENable:CAMPlitude <bool>
EYE:MOEN:CAMP <bool>
EYE:MOENable:CAMPlitude?
EYE:MOEN:CAMP?

Set or retrieve whether Cross Amplitude measurement is overlaid

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	Cross Amplitude measurement is overlaid
	< 0 >	Cross Amplitude measurement is not overlaid

EYE:MOENable:CAN0 <bool>
EYE:MOEN:CAN0 <bool>
EYE:MOENable:CAN0?
EYE:MOEN:CAN0?

Set or retrieve whether Cross Amplitude Noise Level0 measurement is overlaid

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	Cross Amplitude Noise Level0 measurement is overlaid
	< 0 >	Cross Amplitude Noise Level0 measurement is not overlaid

EYE:MOENable:CAN1 <bool>
EYE:MOEN:CAN1 <bool>
EYE:MOENable:CAN1?
EYE:MOEN:CAN1?

Set or retrieve whether Cross Amplitude Noise Level1 measurement is overlaid

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	Cross Amplitude Noise Level1 measurement is overlaid
	< 0 >	Cross Amplitude Noise Level1 measurement is not overlaid

EYE:MOENable:CVOLt <bool>
EYE:MOEN:CVOL <bool>
EYE:MOENable:CVOLt?
EYE:MOEN:CVOL?

Enable/disable Crossing Voltage measurement is overlaid

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	Crossing Voltage measurement is overlaid
	< 0 >	Crossing Voltage measurement is not overlaid

EYE:MOENable:DCALibration <bool>
EYE:MOEN:DCAL <bool>
EYE:MOENable:DCALibration?
EYE:MOEN:DCAL?

Enable/disable Dark Calibration measurement is overlaid

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	Dark Calibration measurement is overlaid
	< 0 >	Dark Calibration measurement is not overlaid

EYE:MOENable:DEEMphasisRatio <bool>
EYE:MOEN:DEEMR <bool>
EYE:MOENable:DEEMphasisRatio?
EYE:MOEN:DEEMR?

Set or retrieve whether De-Emphasis Ratio measurement is overlaid

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	De-Emphasis Ratio measurement is overlaid
	< 0 >	De-Emphasis Ratio measurement is not overlaid

EYE:MOENable:DSNR <bool>
EYE:MOEN:DSNR <bool>
EYE:MOENable:DSNR?
EYE:MOEN:DSNR?

Enable/disable Eye DSNR measurement is overlaid

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	Eye DSNR measurement is overlaid
	< 0 >	Eye DSNR measurement is not overlaid

EYE:MOENable:EHEight <bool>
EYE:MOEN:EHE <bool>
EYE:MOENable:EHEight?
EYE:MOEN:EHE?

Set or retrieve whether Eye height measurement is overlaid

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	Eye height measurement is overlaid
	< 0 >	Eye height measurement is not overlaid

EYE:MOENable:EWIDth <bool>
EYE:MOEN:EWID <bool>
EYE:MOENable:EWIDth?
EYE:MOEN:EWID?

Set or retrieve whether Eye Width measurement is overlaid

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	Eye's eye width measurement is overlaid
	< 0 >	Eye's eye width measurement is not overlaid

EYE:MOENable:EXTRatio <bool>
EYE:MOEN:EXTR <bool>
EYE:MOENable:EXTRatio?
EYE:MOEN:EXTR?

Set or retrieve whether Eye Extinction Ratio measurement is overlaid

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	Eye's Extinction Ratio measurement is overlaid
	< 0 >	Eye's Extinction Ratio measurement is not overlaid

EYE:MOENable:FLCRoss <bool>
EYE:MOEN:FLCR <bool>
EYE:MOENable:FLCRoss?
EYE:MOEN:FLCR?

Set or retrieve whether Falling Level Crossing measurement is overlaid

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	Falling Level Crossing measurement is overlaid
	< 0 >	Falling Level Crossing measurement is not overlaid

EYE:MOENable:FTIMe <bool>
EYE:MOEN:FTIM <bool>
EYE:MOENable:FTIMe?
EYE:MOEN:FTIM?

Set or retrieve whether Eye Fall Time measurement is overlaid

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	Eye fall time measurement is overlaid
	< 0 >	Eye fall time measurement is not overlaid

EYE:MOENable:JITTer <bool>
EYE:MOEN:JITT <bool>
EYE:MOENable:JITTer?
EYE:MOEN:JITT?

Set or retrieve whether Eye Jitter P-P measurement is overlaid

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	Eye jitter P-P measurement is overlaid
	< 0 >	Eye jitter P-P measurement is not overlaid

EYE:MOENable:JRMS <bool>
EYE:MOEN:JRMS <bool>
EYE:MOENable:JRMS?
EYE:MOEN:JRMS?

Set or retrieve whether Eye Jitter RMS measurement is overlaid

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	Eye jitter RMS measurement is overlaid
	< 0 >	Eye jitter RMS measurement is not overlaid

EYE:MOENable:NLEVel <bool>
EYE:MOEN:NLEV <bool>
EYE:MOENable:NLEVel?
EYE:MOEN:NLEV?

Set or retrieve whether Eye Noise Level measurement is overlaid

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	Eye Noise Level measurement is overlaid
	< 0 >	Eye Noise Level measurement is not overlaid

EYE:MOENable:NLV0 <bool>
EYE:MOEN:NLV0 <bool>
EYE:MOENable:NLV0?
EYE:MOEN:NLV0?

Set or retrieve whether Eye Noise Level0 measurement is overlaid

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	Eye Noise Level0 measurement is overlaid
	< 0 >	Eye Noise Level0 measurement is not overlaid

EYE:MOENable:NLV1 <bool>
EYE:MOEN:NLV1 <bool>
EYE:MOENable:NLV1?
EYE:MOEN:NLV1?

Set or retrieve whether Eye Noise Level1 measurement is overlaid

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	Eye Noise Level1 measurement is overlaid
	< 0 >	Eye Noise Level1 measurement is not overlaid

EYE:MOENable:OMA <bool>
EYE:MOEN:OMA <bool>
EYE:MOENable:OMA?
EYE:MOEN:OMA?

Set or retrieve whether Eye OMA measurement is overlaid

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	Eye OMA measurement is overlaid
	< 0 >	Eye OMA measurement is not overlaid

EYE:MOENable:OVerSHoot0 <bool>
EYE:MOEN:OVSH0 <bool>
EYE:MOENable:OVerSHoot0?
EYE:MOEN:OVSH10?

Set or retrieve whether Overshoot0 measurement is overlaid

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	Eye Overshoot0 measurement is overlaid
	< 0 >	Eye Overshoot0 measurement is not overlaid

EYE:MOENable:OVerSHoot0 <bool>
EYE:MOEN:OVSH0 <bool>
EYE:MOENable:OVerSHoot0?
EYE:MOEN:OVSH0?

Set or retrieve whether Overshoot0 measurement is overlaid

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	Eye Overshoot0 measurement is overlaid
	< 0 >	Eye Overshoot0 measurement is not overlaid

EYE:MOENable:OVerSHoot1 <bool>
EYE:MOEN:OVSH1 <bool>
EYE:MOENable:OVerSHoot1?
EYE:MOEN:OVSH1?

Set or retrieve whether Overshoot1 measurement is overlaid

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	Eye Overshoot1 measurement is overlaid
	< 0 >	Eye Overshoot1 measurement is not overlaid

EYE:MOENable:RLCRoss <bool>
EYE:MOEN:RLCR <bool>
EYE:MOENable:RLCRoss?
EYE:MOEN:RLCR?

Set or retrieve whether Rising Level Crossing measurement is overlaid

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	Rising Level Crossing measurement is overlaid
	< 0 >	Rising Level Crossing measurement is not overlaid

EYE:MOENable:RTIMe <bool>
EYE:MOEN:RTIM <bool>
EYE:MOENable:RTIMe?
EYE:MOEN:RTIM?

Set or retrieve whether Eye Rise Time measurement is overlaid

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	Eye rise time measurement is overlaid
	< 0 >	Eye rise time measurement is not overlaid

EYE:MOENable:SCNT <bool>
EYE:MOEN:SCNT <bool>
EYE:MOENable:SCNT?
EYE:MOEN:SCNT?

Set or retrieve whether Sample Count measurement is overlaid

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	Eye Sample Count measurement is overlaid
	< 0 >	Eye Sample Count measurement is not overlaid

EYE:MOENable:UINTerval <bool>
EYE:MOEN:UINT <bool>
EYE:MOENable:UINTerval?
EYE:MOEN:UINT?

Set or retrieve whether Eye Unit Interval measurement is overlaid

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	Eye unit interval measurement is overlaid
	< 0 >	Eye unit interval measurement is not overlaid

EYE:MOENable:VECP <bool>
EYE:MOEN:VECP <bool>
EYE:MOENable:VECP?
EYE:MOEN:VECP?

Set or retrieve whether Eye VECP measurement is overlaid

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	Eye VECP measurement is overlaid
	< 0 >	Eye VECP measurement is not overlaid

EYE:MOENable:VMAX <bool>
EYE:MOEN:VMAX <bool>
EYE:MOENable:VMAX?
EYE:MOEN:VMAX?

Set or retrieve whether Voltage Maximum measurement is overlaid

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	Eye V_{MAX} measurement is overlaid
	< 0 >	Eye V_{MAX} measurement is not overlaid

EYE:MOENable:VMIN <bool>
EYE:MOEN:VMIN <bool>
EYE:MOENable:VMIN?
EYE:MOEN:VMIN?

Set or retrieve whether Voltage Minimum measurement is overlaid

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	Eye V_{MIN} measurement is overlaid
	< 0 >	Eye V_{MIN} measurement is not overlaid

EYE:MOENable:VOFS <bool>
EYE:MOEN:VOFS <bool>
EYE:MOENable:VOFS?
EYE:MOEN:VOFS?

Set or retrieve whether Eye V_{offset} measurement is overlaid

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	Eye V_{offset} measurement is overlaid
	< 0 >	Eye V_{offset} measurement is not overlaid

EYE:MOENable:VPP <bool>
EYE:MOEN:VPP <bool>
EYE:MOENable:VPP?
EYE:MOEN:VPP?

Set or retrieve whether Eye Voltage Peak-to-Peak measurement is overlaid

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	Eye V_{PP} measurement is overlaid
	< 0 >	Eye V_{PP} measurement is not overlaid

EYE:PDARkcalibration
EYE:PDAR

Perform Dark Calibration. Action only. May require some delay to complete.

Eye: Data Collecting

EYE:ASSuccess?
EYE:ASS?

Retrieve report of whether the auto center is successful or not. Query only.

Returns:	<1>	Eye auto center is successful
	<0>	Eye auto center is not successful

EYE:EPRogress?
EYE:EPR?

Retrieve the progress of the Eye data collection. Query only.

EYE:ISNumber?
EYE:ISN?

Retrieve the serial number of the latest Eye image.

EYE:MSNumber?
EYE:MSN?

Retrieve the serial number of the latest Eye measurements.

EYE:NAVailable?
EYE:NAV?
Retrieve the not-available value of the Eye measurement. Query only.

EYE:STATus?
EYE:STAT?
Retrieve the status of the Eye diagram. Query only.

Returns:	NOTRUNNING	Status codes
	OK	
	NOCLOCK	
	LOWCLOCK	
	DROPCLOCK	
	FREQCHANGE	

Eye: Optical Mode

Note: In Electrical mode, choose between mVolts or percent of amplitude for Eye Height, Cross Voltage, and Contour Eye Height measurements. In Optical mode, select a power format of μW or dBm.

EYE:AMPPf <UW | DBM>
EYE:AMPP <UW | DBM>
EYE:AMPPf?
EYE:AMPP?
BERTScope only, Optical mode. Set or retrieve Amplitude power format.

Params:	<UW>	Value displayed in μW
	<DBM>	Value displayed as dBm
Returns:	< UW | DBM >	

EYE:CN0Pf <UW | DBM>
EYE:CN0P <UW | DBM>
EYE:CN0Pf?
EYE:CN0P?
BERTScope only, Optical mode. Set or retrieve Cross Noise 0 power format.

Params:	<UW>	Value displayed in μW
	<DBM>	Value displayed in dBm
Returns:	< UW | DBM >	

EYE:CN1Pf <UW | DBM>
EYE:CN1P <UW | DBM>
EYE:CN1Pf?
EYE:CN1P?

BERTScope only, Optical mode. Set or retrieve Cross Noise 1 power format.

Params:	<UW>	Value displayed in μW
	<DBM>	Value displayed in dBm
Returns:	< UW | DBM >	

EYE:CRAPf <UW | DBM>
EYE:CRAP <UW | DBM>
EYE:CRAPf?
EYE:CRAP?

BERTScope only, Optical mode. Set or retrieve Cross Amplitude power format.

Params:	<UW>	Value displayed in μW
	<DBM>	Value displayed in dBm
Returns:	< UW | DBM >	

EYE:CVPF <UW | DBM>
EYE:CVPF?

BERTScope only, Optical mode. Set or retrieve Cross voltage power format.

Params:	<UW>	Value displayed in μW
	<DBM>	Value displayed in dBm
Returns:	< UW | DBM >	

EYE:EHPF <UW | DBM>
EYE:EHPF?

BERTScope only, Optical mode. Set or retrieve Eye Height power format.

Params:	<UW>	Value displayed in μW
	<DBM>	Value displayed in dBm
Returns:	< UW | DBM >	

EYE:L0PF <UW | DBM>
EYE:L0PF?

BERTScope only, Optical mode. Set or retrieve Level 0 power format.

Params:	<UW>	Value displayed in μW
	<DBM>	Value displayed in dBm
Returns:	< UW | DBM >	

EYE:L1PF <UW | DBM>
EYE:L1PF?

BERTScope only, Optical mode. Set or retrieve Level 1 power format.

Params:	<UW>	Value displayed in μW
	<DBM>	Value displayed in dBm
Returns:	< UW | DBM >	

EYE:NL0Pf <UW | DBM>
EYE:NL0P <UW | DBM>
EYE:NL0Pf?
EYE:NL0P?

BERTScope only, Optical mode. Set or retrieve Noise Level 0 power format.

Params:	<UW>	Value displayed in μW
	<DBM>	Value displayed in dBm
Returns:	< UW | DBM >	

EYE:NL1Pf <UW | DBM>
EYE:NL1P <UW | DBM>
EYE:NL1Pf?
EYE:NL1P?

BERTScope only, Optical mode. Set or retrieve Noise Level 1 power format.

Params:	<UW>	Value displayed in μW
	<DBM>	Value displayed in dBm
Returns:	< UW | DBM >	

EYE:NLPF <UW | DBM>
EYE:NLPF?

BERTScope only, Optical mode. Set or retrieve Noise Level power format.

Params:	<UW>	Value displayed in μW
	<DBM>	Value displayed in dBm
Returns:	< UW | DBM >	

EYE:OMAPf <UW | DBM>
EYE:OMAP <UW | DBM>
EYE:OMAPf?
EYE:OMAP?

BERTScope only, Optical mode. Set or retrieve OMA power format.

Params:	<UW>	Value displayed in μW
	<DBM>	Value displayed in dBm
Returns:	< UW | DBM >	

EYE:OVSH1Pf <UW | DBM>
EYE:OVSH1P <UW | DBM>
EYE:OVSH1Pf?
EYE:OVSH1P?

BERTScope only, Optical mode. Set or retrieve Overshoot1 power format.

Params: <UW> Value displayed in μW

<DBM> Value displayed in dBm

Returns: < UW | DBM >

EYE:OVSH0Pf <UW | DBM>
EYE:OVSH0P <UW | DBM>
EYE:OVSH0Pf?
EYE:OVSH0P?

BERTScope only, Optical mode. Set or retrieve Overshoot0 power format.

Params: <UW> Value displayed in μW

<DBM> Value displayed in dBm

Returns: < UW | DBM >

EYE:VMAPf <UW | DBM>
EYE:VMAP <UW | DBM>
EYE:VMAPf?
EYE:VMAP?

BERTScope only, Optical mode. Set or retrieve Maximum voltage power format.

Params: <UW> Value displayed in μW

<DBM> Value displayed in dBm

Returns: < UW | DBM >

EYE:VMIPf <UW | DBM>
EYE:VMIP <UW | DBM>
EYE:VMIPf?
EYE:VMIP?

BERTScope only, Optical mode. Set or retrieve Minimum voltage power format.

Params: <UW> Value displayed in μW

<DBM> Value displayed in dBm

Returns: < UW | DBM >

EYE:VOFPf <UW | DBM>
EYE:VOFP <UW | DBM>
EYE:VOFPf?
EYE:VOFP?

BERTScope only, Optical mode. Set or retrieve Voltage Offset power format.

Params:	<UW>	Value displayed in μW
	<DBM>	Value displayed in dBm
Returns:	< UW | DBM >	

EYE:VPPPf <UW | DBM>
EYE:VPPP <UW | DBM>
EYE:VPPPf?
EYE:VPPP?

BERTScope only, Optical mode. Set or retrieve Peak to Peak power format.

Params:	<UW>	Value displayed in μW
	<DBM>	Value displayed in dBm
Returns:	< UW | DBM >	

Eye: Read Eye Measurement

EYE:ASCale
EYE:ASC

Perform Eye's auto center. Action only. May require some delay to complete.

EYE:CLEar
EYE:CLE

Clear the Eye image and measurements. Action only.

EYE:MVALue:0LEVel?
EYE:MVAL:0LEV?

Retrieve the Eye 0-Level. Query only.

EYE:MVALue:1LEVel?
EYE:MVAL:1LEV?

Retrieve the Eye 1-Level. Query only.

EYE:MVALue:AMPLitude?
EYE:MVAL:AMPL?

Retrieve the Amplitude. Query only.

EYE:MVALue:AVGVoltsPwr?
EYE:MVAL:AVGVP?
Retrieve the Eye 0-Level. Query only.

EYE:MVALue:CAMPlitude?
EYE:MVAL:CAMP?
Retrieve Cross Amplitude. Query only.

EYE:MVALue:CAN0?
EYE:MVAL:CAN0?
Retrieve Cross Amplitude Noise Level 0. Query only.

EYE:MVALue:CAN1?
EYE:MVAL:CAN1?
Retrieve Cross Amplitude Noise Level 1. Query only.

EYE:MVALue:CVOLt?
EYE:MVAL:CVOL?
Retrieve the Cross Volt measurement value. Query only. The return value is a number in the format that is determined by the Cross Volt measurement value format. If the format is MV, the value is in mVolts. If the format is %, the value is in percentage. The format can be queried and set by using EYE:CVFOmat command in the Eye:Enable Eye Measurement Overlay section, above.

EYE:MVALue:DCALibration?
EYE:MVAL:DCAL?
Retrieve the Dark Calibration. Query only.

EYE:MVALue:DEEMphasisRatio?
EYE:MVAL:DEEMR?
Retrieve the current ratio value. Query only.

EYE:MVALue:DSNR?
EYE:MVAL:DSNR?
Retrieve the rise DSNR. Query only.

EYE:MVALue:EHEight?
EYE:MVAL:EHE?
Retrieve the Eye Height. Query only.

EYE:MVALue:EWIDth?
EYE:MVAL:EWID?
Retrieve the Eye Width. Query only.

EYE:MVALue:EXTRatio?
EYE:MVAL:EXTR?
Retrieve the Extinction Ratio. Query only.

EYE:MVALue:FLCRoss?
EYE:MVAL:FLCR?
Queries the Falling Level Crossing in ps. This is the point in time at which the falling edge (the same edge used for the Fall Time measurement) crosses a configurable level crossing threshold in mV or µW (depending on the mode). Either the 80/20 or the 90/10 points of the falling edge are used, based on the configuration. See EYE:LCRTHresh on how to set the level crossing threshold and EYE:EdgeMODe <8020 | 9010> on how to set the amount of edge to use.

EYE:MVALue:FTIMe?
EYE:MVAL:FTIM?
Retrieve the Fall Time. Query only.

EYE:MVALue:JITTer?
EYE:MVAL:JITT?
Retrieve the Jitter P-P. Query only. The return value is a number in the format that is determined by the Jitter P-P measurement value format. If the format is in TIME, the value is in picoseconds (ps). If the format is in %UI, the value is in percentage of a Unit Interval. The format can be queried and set using the EYE:JPFOrmat command in the Eye:Enable Eye Measurement Overlay section, above.

EYE:MVALue:JRMS?
EYE:MVAL:JRMS?
Retrieve the Eye Jitter RMS measurement value. Query only. The return value is a number in the format that is determined by the Jitter RMS measurement value format. If the format is in TIME, the value is in picoseconds (ps). If the format is in %UI, the value is in percentage of a Unit Interval. The format can be queried or set using the EYE:JRFOrmat command in the Eye:Enable Eye Measurement Overlay section, above.

EYE:MVALue:NLEVel?
EYE:MVAL:NLEV?
Retrieve the maximum Noise Level. Query only.

EYE:MVALue:NLV0?
EYE:MVAL:NLV0?
Retrieve Noise Level 0. Query only.

EYE:MVALue:NLV1?
EYE:MVAL:NLV1?
Retrieve Noise Level 1. Query only.

EYE:MVALue:OMA?
EYE:MVAL:OMA?
Retrieve the OMA. Query only.

EYE:MVALue:OVerSHoot0?
EYE:MVAL:OVSH0?
Retrieve the Overshoot0 measurement. Query only.

EYE:MVALue:OVerSHoot1?
EYE:MVAL:OVSH1?
Retrieve the Overshoot1 measurement. Query only.

EYE:MVALue:RLCRoss?
EYE:MVAL:RLCR?
Queries the Rising Level Crossing in ps. This is the point in time at which the rising edge (the same edge used for the Rise Time measurement) crosses a configurable level crossing threshold in mV or µW (depending on the mode). Either the 80/20 or the 90/10 points of the rising edge are used, based on the configuration. See EYE:LCRTHresh on how to set the level crossing threshold and EYE:EdgeMODe <8020 | 9010> on how to set the amount of edge to use.

EYE:MVALue:RTIMe?
EYE:MVAL:RTIM?
Retrieve the Rise Time. Query only.

EYE:MVALue:SCNT?
EYE:MVAL:SCNT?
Retrieve the Sample Count. Query only.

EYE:MVALue:UINTerval?
EYE:MVAL:UINT?
Retrieve the Unit Interval. Query only.

EYE:MVALue:VECP?
EYE:MVAL:VECP?
Retrieve VECP. Query only.

EYE:MVALue:VMAX?
EYE:MVAL:VMAX?
Retrieve Voltage Maximum. Query only.

EYE:MVALue:VMIN?
EYE:MVAL:VMIN?
Retrieve Voltage Minimum. Query only.

EYE:MVALue:VOFS?
EYE:MVAL:VOFS?
Retrieve the Eye Voffset value. Query only.

EYE:MVALue:VPP?
EYE:MVAL:VPP?
Retrieve Voltage Peak-to-Peak. Query only.

BER Contour

CONTour:BBER?
CONT:BBER?
Retrieve BER Contour Best BER. Query only.

CONTour:BDELay?
CONT:BDEL?
Retrieve BER Contour Best Delay in ps. Query only.

CONTour:BTHReshold?
CONT:BTHR?
Retrieve BER Contour Best Threshold in mV. Query only.

CONTour:CBPPf <UW | DBM>
CONT:CBPP <UW | DBM>
CONTour:CBPPf?
CONT:CBPP?
BERTScope only, Optical mode. Set or retrieve Contour Best Point Threshold power format.

Params: <UW> Value displayed in μW
< DBM > Value displayed in dBm

Returns: < UW | DBM >

CONTour:CEHPf <UW | DBM>
CONT:CEHP <UW | DBM>
CONTour:CEHPf?
CONT:CEHP?
BERTScope only, Optical mode. Set or retrieve Contour Eye Height power format.

Params: <UW> Value displayed in μW
< DBM > Value displayed in dBm

Returns: < UW | DBM >

CONTour:CERate:EM<6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16>?
CONT:CER:EM<6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16>?

Retrieve specified Contour's Error Rate. Contour is is EM6, EM7, EM8, …, EM16. Note that there is ***no space before*** the contour number. Query only.

Params: <6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16> Contour is EM6, EM7, EM8, …, EM16

Returns: < EMErrRate > Requested Contour's error rate

CONTour:CFG?
CONT:CFG?

Retrieve four configuration parameters for the current BER Contour, including: Unit Interval, Amplitude, Center Time, Center Threshold Voltage. Query only.

Returns: < UI UA CT CV > where UI is Unit Interval in picoseconds, UA is amplitude in milliVolts, CT is center time in picoseconds, and CV is center threshold voltage in milliVolts.

Example:
```
contour:cfg?
93.379 357 167.335 1263
```

CONTour:CLEar
CONT:CLE

Clear the BER Contour image and measurements. Action only.

CONTour:CMFName <"filename">
CONT:CMFN <"filename">
CONTour:CMFName?
CONT:CMFN?

Set or retrieve the BER Contour Mask filename.

Params: <"filename"> Filename of .MSK file to load. Filename is enclosed in double quotes.

Returns: < filename > Name of currently loaded Mask file

CONTour:CMResult?
CONT:CMR?

Retrieve the Compliance Mask test result as "Pass" or "Fail". Query only.

CONTour:CSTatus?
CONT:CST?

Retrieve BER Contour Status. Query only.

Returns: NOTRUNNING Status codes
OK
NOCLOCK
LOWCLOCK
NOPATTERN
NOTFOUND
ACQERROR

CONTour:ECONtour:EM<6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16> <bool>
CONT:ECON:EM<6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16> <bool>
CONTour:ECONtour:EM<6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16>?
CONT:ECON:EM<6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16>?

Enable or retrieve state of specified Contour. Note that there is ***no space before*** the contour number.

Params:	<6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16>	Contour is EM6, EM7, EM8, …, EM16
	<bool>	On = 1, Off = 0
Returns:	< 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 > < 0 | 1 >	

CONTour:ECTFile <layer><"filename">
CONT:ECTF <layer><"filename">

Export Contour to file. Action only.

Params:	<layer>	Layer is EM6, EM7, EM8, …, EM16
	<"filename">	Filename is "full path, name and extension" enclosed in double quotes

CONTour:EMContour <EM6 | EM7 | EM8 | EM9 | EM10 | EM11 | EM12 | EM13 | EM14 | EM15 | EM16>
CONT:EMC <EM6 | EM7 | EM8 | EM9 | EM10 | EM11 | EM12 | EM13 | EM14 | EM15 | EM16>
CONTour:EMContour?
CONT:EMC?

Enable or retrieve state of Eye Measure Contour.

Params:	<EM6 | EM7 | EM8 | EM9 | EM10 | EM11 | EM12 | EM13 | EM14 | EM15 | EM16>	Enable contour, selecting from EM6, EM7, EM8, …, EM16
Returns:	< EM6 | EM7 | EM8 | EM9 | EM10 | EM11 | EM12 | EM13 | EM14 | EM15 | EM16 >	

CONTour:EMHeight?
CONT:EMH?

Retrieve BER Contour Eye Measure Height in mV. Query only.

CONTour:EMWidth?
CONT:EMW?

Retrieve BER Contour Eye Measure Width in ps. Query only.

CONTour:ERRThr <double>
CONT:ERRT <double>
CONTour:ERRThr?
CONT:ERRT?

Set or retrieve BER Contour Jitter Error Threshold.

Params:	<double>	Numeric value. Range [1 to 10,000]
Returns:	< double >	

CONTour:IMEasurement?
CONT:IME?
Retrieve BER Contour Invalid Measurement. Query only.

CONTour:MBARsel <OFF | MEASUREMENTS | STRESS | ADVANCED | LAYERS>
CONT:MBAR <OFF | MEASUREMENTS | STRESS | ADVANCED | LAYERS>
CONTour:MBARsel?
CONT:MBAR?
Set or retrieve the BER Contour Sidebar selection.

Params:	<OFF>	No Sidebar
	<MEASUREMENTS>	Show Measurement Sidebar
	<STRESS>	Show Stress Sidebar (if Stress Option is enabled)
	<ADVANCED>	Show Advanced features Sidebar
	<LAYERS>	Show Contour layers Sidebar
Returns:	< OFF | MEASUREMENTS | STRESS | ADVANCED | LAYERS >	

CONTour:MBDepth?
CONT:MBD?
Measure BER depth. Query only.

CONTour:MERate <double>
CONT:MER <double>
CONTour:MERate?
CONT:MER?
Set or retrieve BER Contour Mask Error Rate.

Params:	<double>	Mask error rate. Range [1E–18 to 1E–02]
Returns:	< double >	

CONTour:MFILe <“filename”>
CONT:MFIL <“filename”>
CONTour:MFILe?
CONT:MFIL?
Saves current BER Contour to a Mask File. An error will result if BER Contour has not been run yet.

Params:	<“filename”>	Filename of .MSK file. Filename is enclosed in double quotes
Returns:	< filename >	Last saved filename of the BER Contour mask file

CONTour:PTS <layered>?
CONT:PTS <layered>?

Returns the X,Y coordinates of a specified contour produced by the BER Contour view. The contour must be available when queried; otherwise a SERVER ERROR will be returned. Query only.

Params:	<layered>	Select contour layer from EM6, EM7, EM8, …, EM16

Returns:	< N (ps1, mv1) (ps2, mv2), …, (psN, mvN) >	where N is the number of points in the contour, ps1 is the first point's time value in picoseconds, mv1 is the first point's voltage value in milliVolts, etc. The response is generated on one line of text output.
		The series of points can be considered a 'closed polygon,' where the first point can be connected to the last point.
		Example:
		`contour:points em12?`
		`32 (167.000, 1106.404) (159.430, 1104.830) (151.122, 1107.907)`
		…

CONTour:REFMode <LIVEdata | DPATtern>
CONT:REFM <LIVE | DPAT>
CONTour:REFMode?
CONT:REFM?

Set or retrieve BER Contour Reference mode.

Params:	<LIVEdata>	Live Data mode
	<DPATtern>	Detected Pattern mode
Returns:	< LIVEdata | DPATtern >	

CONTour:REFPattern?
CONT:REFP?

Retrieve BER Reference Pattern. Query only.

CONTour:RETime?
CONT:RET?

Retrieve BER Contour Run Elapsed Time in seconds. Query only.

CONTour:STFile <"filename">
CONT:STF <"filename">

Save Contour results to named file. Action only.

Params:	<"filename">	Name of .CSV file where Contour analysis results will be saved. Filename is enclosed in double quotes.

CONTour:SUFBits <value>
CONT:SUFB <value>
CONTour:SUFBits?
CONT:SUFB?

Set or retrieve BER Contour Sufficient Bits.

Params: <value> Numeric value. Range [1,000 to 1E+11]. A value of –1 initiates automatic mode

Returns: < value > Numeric Value or Automatic

BER Contour Optical Mode

Optical Mode commands apply only to BERTScope.

Note: In Electrical mode, the user can choose between mV or percent of amplitude for Eye Height, Crossing Voltage, Contour Eye Height measurements. In Optical mode, choose between µW or dBm.

CONTour:CBPPf <UW | DBM>
CONT:CBPP <UW | DBM>
CONTour:CBPPf?
CONT:CBPP?

Set or retrieve BER Contour Optical Mode Best Point Threshold power format.

Params: <UW> Value displayed in µW

<DBM> Value displayed in dBm

Returns: < UW | DBM >

CONTour:CEHPf <UW | DBM>
CONT:CEHP <UW | DBM>
CONTour:CEHPf?
CONT:CEHP?

Set or retrieve BER Contour Optical Mode Eye Height power format.

Params: <UW> Value displayed in µW

<DBM> Value displayed in dBm

Returns: < UW | DBM >

Jitter Map

JMAP:AVGTT?

Retrieve the average transition time. Query only.

Returns: < numeric > Average transition time in %UI, mUI, or ps

JMAP:BUJ?

Retrieve the BUJ. Measurement value. Query only.

Returns: < numeric > BUJ in %UI, mUI, or ps

JMAP:BUJLOCKED
JMAP:BUJLOCKED?

Set or retrieve the BUJ locked measurement value in units specified by JUNITS.

Returns: < numeric > BUJ in %UI, mUI, or ps

JMAP_BUJ:MBARSEL <OFF | MEASUREMENTS | GENERATOR | STRESS | CLOCKRECOVERY>
JMAP_BUJ:MBARSEL?

Set or retreive the Sidebar state for the JitterMap BUJ view.

Params:	<OFF>	Hide Sidebar
	<MEASUREMENTS>	Show Measurement Sidebar
	<GENERATOR>	Show Generator Sidebar
	<STRESS>	Show Stress Sidebar (if Stress Option is enabled)
	<CLOCKRECOVERY>	Show Clock Recovery Sidebar (if Clock Recovery unit is detected)
Returns:	< OFF | MEASUREM ENTS | GENERATOR | STRESS | CLOCKRECOVERY >	

JMAP:CYCLES?

Retrieve the number of measurement cycles completed during a run (RJPJ + DDJ + SRJ / cycle). Query only.

Returns: < numeric > Measurement cycles.

JMAP:DCD?

Retrieve the Duty-Cycle Distortion measurement value in units specified by JUNITS. Query only.

Returns: < numeric > Duty Cycle Distortion in %UI, mUI, or ps.

JMAP:DCDLOCKED
JMAP:DCDLOCKED?

Set or retrieve the Duty Cycle Distortion locked measurement value in units specified by JUNITS.

Returns: < numeric > Duty Cycle Distortion in %UI, mUI, or ps

JMAP:DDJ?

Retrieve the Data-Dependent Jitter measurement value in units specified by JUNITS. Query only.

Returns: < numeric > Data Dependent Jitter in %UI, mUI, or ps

JMAP:DDPWS?

Retrieve the minimum pulse width measurement value in units specified by JUNITS. Query only.

Returns: < numeric > Minimum pulse width in %UI, mUI, or ps

JMAP:DJ?

Retrieve the Deterministic Jitter measurement value in units specified by JUNITS. Query only.

Returns: < numeric > Deterministic Jitter, in %UI, mUI, or ps

JMAP:EJ?

Retrieve the Emphasis Jitter measurement value in units specified by JUNITS. Query only.

Returns: < numeric > Emphasis Jitter, in %UI, mUI, or ps

JMAP:EJLOCKED
JMAP:EJLOCKED?

Set or retrieve the EJ locked measurement value in units specified by JUNITS.

Returns: < numeric > Emphasis Jitter in %UI, mUI, or ps

JMAP_EJ:MBARSEL <OFF | MEASUREMENTS | GENERATOR | STRESS | CLOCKRECOVERY>
JMAP_EJ:MBARSEL?

Set or retreive the Sidebar state for the JitterMap EJ view.

Params:	<OFF>	Hide Sidebar
	<MEASUREMENTS>	Show Measurement Sidebar
	<GENERATOR>	Show Generator Sidebar
	<STRESS>	Show Stress Sidebar (if Stress Option is enabled)
	<CLOCKRECOVERY>	Show Clock Recovery Sidebar (if Clock Recovery unit is detected)
Returns:	< OFF | MEASUREMENTS | GENERATOR | STRESS | CLOCKRECOVERY >	

JMAP:EJTROF?

Retrieve Emphasis Jitter Transition Offset measurement value in units specified by JUNITS. Query only.

Returns: < numeric > Emphasis Jitter Transition Offset in %UI, mUI, or ps

JMAP:EMPRATMODE <AUTO | MANUAL>
JMAP:EMPRATMODE?

Set or retrieve the emphasis ratio mode.

Note: If 'MANUAL' is selected, use JMAP:EMPRAT to set or retrieve the value.

Params:	<AUTO>	Use Auto-emphasis ratio
	<MANUAL>	Allow manual ratio entry
Returns:	< AUTO | MANUAL >	

JMAP_ETB:MBARSEL <OFF | MEASUREMENTS | GENERATOR | STRESS | CLOCKRECOVERY>
JMAP_ETB:MBARSEL?

Set or retrieve the Sidebar state for the JitterMap Edge Time Per Bit view.

Params:	<OFF>	Hide Sidebar
	<MEASUREMENTS>	Show Measurement Sidebar
	<GENERATOR>	Show Generator Sidebar
	<STRESS>	Show Stress Sidebar (if Stress Option is enabled)
	<CLOCKRECOVERY>	Show Clock Recovery Sidebar (if Clock Recovery unit is detected)
Returns:	< OFF | MEASUREM ENTS | GENERATOR | STRESS | CLOCKRECOVERY >	

JMAP_ETH:MBARSEL <OFF | MEASUREMENTS | GENERATOR | STRESS | CLOCKRECOVERY>
JMAP_ETH:MBARSEL?

Set or retrieve the Sidebar state for the JitterMap Edge Timings histogram view.

Params:	<OFF>	Hide Sidebar
	<MEASUREMENTS>	Show Measurement Sidebar
	<GENERATOR>	Show Generator Sidebar
	<STRESS>	Show Stress Sidebar (if the option is enabled)
	<CLOCKRECOVERY>	Show Clock Recovery Sidebar (if Clock Recovery unit is detected)
Returns:	< OFF | MEASUREM ENTS | GENERATOR | STRESS | CLOCKRECOVERY >	

JMAP:F2J?

Retrieve F2 Jitter measurement value in the units specified by JUNITS. Query only.

Returns:	< numeric >	F2 Jitter in %UI, mUI, or ps.

JMAP:INVALIDVALUE?
JMAP:IVALUE?

Retrieve the "magic number" returned if a JitterMap measurement cannot be made. Query only.

Returns:	< numeric >	Invalid value.

JMAP:ISI?

Retrieve the Inter-Symbol Interference measurement value in the units specified by JUNITS. Query only.

Returns: < numeric > Inter-Symbol Interference in %UI, mUI, or ps

JMAP:JUNITS <PICOSECS | PERCENTUI | MILLIUI>
JMAP:JUNITS?

Set or retrieve the units in which the jitter measurements are reported and displayed.

Params: <PICOSECS> Returns jitter in picoseconds

<PERCENTUI> Returns jitter in %UI

<MILLIUI> Returns jitter in mUI

Returns: < PICOSECS | PERCENTUI | MILLIUI >

JMAP:MANUALTHRESH
JMAP:MANUALTHRESH?

Set or retrieve the value used if JMAP:THRESHMODE (see below) is set to MANUAL

Params: <numeric> In mVolts if Detector is in Electrical mode, in uWatts if in Optical mode

Returns: < numeric >

JMAP_MAP:MBARSEL <OFF | MEASUREMENTS | GENERATOR | STRESS | CLOCKRECOVERY>
JMAP_MAP:MBARSEL?

Set or retrieve the Sidebar state for the JitterMap Map view.

Params: <OFF> Hide Sidebar

<MEASUREMENTS> Show Measurement Sidebar

<GENERATOR> Show Generator Sidebar

<STRESS> Show Stress Sidebar (if Stress Option is enabled)

<CLOCKRECOVERY> Show Clock Recovery Sidebar (if Clock Recovery unit is detected)

Returns: < OFF | MEASUREM ENTS | GENERATOR | STRESS | CLOCKRECOVERY >

JMAP:MEASURE_EJ <bool>
JMAP:MEAS_EJ <bool>
JMAP:MEASURE_EJ?
JMAP:MEAS_EJ?

Set or retrieve the ON /OFF state of the EJ measurement category.

Params: <bool> On = 1, Off = 0

Returns: < 1 > Include EJ measurements in the run

< 0 > Do NOT include EJ measurements in the run

JMAP:MEASURE_SRJ <bool>
JMAP:MEASURE_SRJ?
JMAP:MEAS_SRJ <bool>
JMAP:MEAS_SRJ?

Set or retrieve the ON /OFF state of the SRJ measurement category.

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	Include SRJ/NSR measurements in the run
	< 0 >	Do NOT include SRJ/NSR measurements in the run

JMAP:NISI?

Retrieve the Non-ISI (TJ minus ISI) measurement value in the units specified by JUNITS. Query only.

Returns:	< numeric >	Non-ISI, in %UI, mUI, or ps

JMAP:NSR?

Retrieve the Non-Subrate Jitter measurement value in the units specified by JUNITS. Query only.

Returns:	< numeric >	Non-Subrate Jitter, in %UI, mUI, or ps

JMAP:NUMEDGES?

Retrieve the number of edges measured by RJ. Query only.

Returns:	< numeric >	Number of edges

JMAP:PATLEN <numeric>
JMAP:PATLEN?

Set or retrieve the value used if JMAP:PATLENMODE = 'MANUAL'.

Params:	<numeric>	User pattern length, in Bits
Returns:	< numeric >	

JMAP:PATLENMODE <FROMFILE | AUTO | MANUAL>
JMAP:PATLENMODE?

Set or retrieve the selection mode for the user pattern length.

Note: If 'MANUAL' is selected, use JMAP:PATLEN (above) to set or retrieve the value.

Params:	<FROMFILE>	Use the length specified in the currently selected user pattern file
	<AUTO>	Determine the pattern length from the signal
	<MANUAL>	Allow manual specification of the pattern length
Returns:	< FROMFILE | AUTO | MANUAL >	

JMAP:PPBEr <double>
JMAP:PPBE <double>
JMAP:PPBEr?
JMAP :PPBE?

Set or retrieve the BER where Jitter Map Total Jitter measurements are made.

Params: <double> Numeric value. Range [1.00E-50 to 1.00E-02]

Returns: < double >

JMAP:RconfigDISK <"filename">
JMAP:RDISK <"filename">

Restores the BERTScope JitterMap settings from a file. The complete path must be specified in the parameter string. The path must be accessible to the host computer or BERTScope running the remote control software. The file extension should be '.CJM'. Action only.

Example:

```
JMAP_MAP:RCONFIGDISK "D:\BitAlyzer\Configurations\mycfg.CJM"
```

Params: <"filename"> Complete pathname to the configuration file used to restore. Enclose string in double quotes.

JMAP:RETIME?

Retrieve the elapsed run time, in seconds. Query only.

Returns: < numeric > Elapsed run time in seconds

JMAP:RJ?

Retrieve the Random Jitter RMS measurement value in the units specified by JUNITS. Query only.

Returns: < numeric > Random Jitter, in %UI-rms, mUI-rms or ps-rms

JMAP:RJLOCKED
JMAP:RJLOCKED?

Sets/Retrieve the RJ locked measurement value in the units specified by JUNITS.

Returns: < numeric > RJ in %UI, mUI, or ps

JMAP:RJAVGERLY?

Retrieve the average RJ for the early bits in the units specified by JUNITS. Query only.

Returns: < numeric > Random Jitter avg of early bits in %UI-rms, mUI-rms, or ps-rms

JMAP:RJAVGAVGFALL?

Retrieve the average RJ for the falling transitions e in the units specified by JUNITS. Query only.

Returns: < numeric > Random Jitter average of falling transitions in %UI-rms, mUI-rms, or ps-rms

JMAP:RJAVGLATE?

Retrieve the average RJ for the late bits v in the units specified by JUNITS. Query only.

Returns: < numeric > Random Jitter for late bits in %UI-rms, mUI-rms, or ps-rms

JMAP:RJAVGRISE?

Retrieve the average RJ for the rising edges in the units specified by JUNITS. Query only.

Returns: < numeric > Random Jitter for rising bits in %UI-rms, mUI-rms, or ps-rms

JMAP:RJDD?

Retrieve the dirac-delta computed RJ dirac-delta in the units specified by JUNITS. Query only.

Returns: < numeric > Random Jitter for dirac-delta RJ in %UI-rms, mUI-rms, or ps-rms

JMAP:RJEVEN?

Retrieve the RJ for even bits in the units specified by JUNITS. Query only.

Returns: < numeric > Random Jitter for even bits in %UI-rms, mUI-rms, or ps-rms

JMAP:RJLEFTERLY?

Retrieve the computed RJ left early bits in the units specified by JUNITS. Query only.

Returns: < numeric > Random Jitter for left early in %UI-rms, mUI-rms, or ps-rms.

JMAP_RJ:MBARSEL <OFF | MEASUREM ENTS | GENERATOR | STRESS | CLOCKRECOVERY>
JMAP_RJ:MBARSEL?

Set or retrieve the Sidebar state for the JitterMap RJ view.

Params:	<OFF>	Hide Sidebar
	<MEASUREMENTS>	Show Measurement Sidebar
	<GENERATOR>	Show Generator Sidebar
	<STRESS>	Show Stress Sidebar (if Stress Option is enabled)
	<CLOCKRECOVERY>	Show Clock Recovery Sidebar (if Clock Recovery unit is detected)

Returns: < OFF | MEASUREM ENTS | GENERATOR | STRESS | CLOCKRECOVERY >

JMAP:RJODD?

Retrieve the computed RJ for the odd bits in the units specified by JUNITS. Query only.

Returns: < numeric > Random Jitter for odd bits in %UI-rms, mUI-rms, or ps-rms

JMAP:RJRHTAVG?

Retrieve the computed right avg RJ in the units specified by JUNITS. Query only.

Returns: < numeric > Avg right Random Jitter in %UI-rms, mUI-rms, or ps-rms

JMAP:RJRHTLATE?

Retrieve the computed right RJ for late bits di in the units specified by JUNITS.

Returns: < numeric > Random Jitter for right late bits in %UI-rms, mUI-rms, or ps-rms

JMAP:RUNMODE <NORMAL | LONGPATTERNLOCK>
JMAP:RUNMODE?

Set or retrieve the run mode; Normal, or Long Pattern Lock.

Params:	<NORMAL>	Run in normal mode – long pattern lock off
	<LONGPATTERNLOCK>	Run with long pattern lock on
Returns:	< NORMAL | LONGPATTERNLOCK >	

JMAP:SconfigDISK <"string">
JMAP:SDISK <"string">

Saves the current BERTScope JitterMap settings to a file. The complete path must be specified in the parameter string. The path must be accessible to the host computer or BERTScope running the remote control software. The file extension should be '.CJM'. Action only.

Example:

```
JMAP:SCONFIGDISK "D:\BitAlyzer\Configurations\mycfg.CJM"
```

Params:	<"string">	Complete pathname where JitterMap settings are to be saved. The string is enclosed in double quotes.

JMAP:SRJ?

Retrieve the computed subrate jitter in the units specified by JUNITS. Query only. Query only.

Returns: < numeric > Subrate jitter in %UI-rms, mUI-rms, or ps-rms

JMAP_SRJ:MBARSEL <OFF | MEASUREM ENTS | GENERATOR | STRESS | CLOCKRECOVERY>
JMAP_SRJ:MBARSEL?

Set or retrieve the Sidebar state for the JitterMap SRJ view.

Params:	<OFF>	Hide Sidebar
	<MEASUREMENTS>	Show Measurement Sidebar
	<GENERATOR>	Show Generator Sidebar
	<STRESS>	Show Stress Sidebar (if Stress Option is enabled)
	<CLOCKRECOVERY>	Show Clock Recovery Sidebar (if Clock Recovery unit is detected)
Returns:	< OFF | MEASUREM ENTS | GENERATOR | STRESS | CLOCKRECOVERY >	

JMAP:SUBRATESELECTED_#
JMAP:SRSEL_#
JMAP:SUBRATESELECTED_#?
JMAP:SRSEL_#?

Note: Replace the # symbol above with a valid Subrate: 2, 4, 5, 8, 10, 16, 20, 32, 40, 64, or 128.

Set or retrieve the ON /OFF state of a subrate.

Params:	#	Replace with a valid subrate
	<bool>	On = 1, Off = 0
Returns:	< 1 >	Include this Subrate in the SRJ measurement
	< 0 >	Do NOT include this Subrate in the SRJ measurement

JMAP:THRESHMODE <enum>
JMAP:THRESHMODE?

Set or retrieve the threshold selection mode.

Note: If MANUAL is selected, use JMAP:MANUALTHRESH (above) to set or retrieve value.

Params:	<enum>	Threshold selection mode
Returns:	< enum >	

JMAP:TJ?

Retrieve the computed TJ in the units specified by JUNITS. Query only.

Returns:	< numeric >	Total Jitter for TJ , in %UI-rms, mUI-rms, or ps-rms

JMAP:TJBERDPTH?

Retrieve the TJ BER Depth. Query only.

Returns:	< numeric >	TJ BER Depth

JMAP_TJ:MBARSEL <OFF | MEASUREM ENTS | GENERATOR | STRESS | CLOCKRECOVERY>
JMAP_TJ:MBARSEL?

Set or retrieve the Sidebar state for the JitterMap TJ view.

Params:	<OFF>	Hide Sidebar
	<MEASUREMENTS>	Show Measurement Sidebar
	<GENERATOR>	Show Generator Sidebar
	<STRESS>	Show Stress Sidebar (if Stress Option is enabled)
	<CLOCKRECOVERY>	Show Clock Recovery Sidebar (if Clock Recovery unit is detected)
Returns:	< OFF | MEASUREM ENTS | GENERATOR | STRESS | CLOCKRECOVERY >	

JMAP:TJSTARTBER
JMAP:TJSTARTBER?

Set or retrieve the starting BER value used during the TJ measurement.

Param: <numeric> BER from 1E-10 to 1E-2

Returns: < numeric >

JMAP:UJ?

Retrieve the computed UJ in the units specified by JUNITS. Query only.

Returns: < numeric > Uncorrelated Jitter in %UI-rms, mUI-rms, or ps-rms

JMAP:UJBERDPTH?

Retrieve the UJ BER Depth. Query only.

Returns: < numeric > UJ BER Depth

JMAP:UJRMS?

Retrieve the RMS UJ in the units specified by JUNITS. Query only.

Returns: < numeric > UJ rms in %UI-rms, mUI-rms, or ps-rms

JMAP:UJSTARTBER
JMAP:UJSTARTBER?

Set or retrieve the starting BER value used during the UJ measurement.

Param: <numeric> BER from 1E-10 to 1E-2

Returns: < numeric >

OPT_JITTERMAP?

Check to see if the instrument has JitterMap Option enabled. Query only.

Returns: < 0 > Jitter Map Option is enabled

< 1 > Jitter Map Option is disabled

Jitter Peak

JITTer:ASCale <LEDGE | TEDGE | CTIME>
JITT:ASC <LEDGE | TEDGE | CTIME>

Set Jitter Peak Auto Scale parameters.

Params: <LEDGE> Leading Edge

<TEDGE> Trailing Edge

<CTIME> Center Time

JITTer:BITPos <long>
JITT:BITP <long>
JITTer:BITPos?
JITT:BITP?

Set or retrieve the bit position the Jitter Peak is to operate on.

Params: <numeric> Bit Position, a numeric value. Range [0 to (length of the input pattern –1)]

Returns: < numeric >

JITTer:CFG?
JITT:CFG?

Retrieve the auto-align results used to automatically align the Jitter Peak. Query only.

Returns: <UI UA CT CV> where **UI** is the Unit Interval in ps, **UA** is amplitude in mV, **CT** is center time in ps, and **CV** is center threshold voltage in mV.

JITTer:CLEar
JITT:CLE

Clear the Jitter Peak image and measurements. Action only.

JITTer:DJFormat <TIME | %UI>
JITT:DJFO <TIME | %UI>
JITTer:DJFOrmat?
JITT:DJFO?

Set or retrieve the Jitter Peak Deterministic Jitter measurement value format.

Params: <TIME> Value is displayed in psec

<%UI> Value is displayed in %UI

Returns: < TIME | %UI >

JITTer:DJITter?
JITT:DJIT?

Retrieve the Deterministic Jitter. Query only. The return value is a number in the format that is determined by the Deterministic Jitter format of either TIME or %UI. See JITTer:DJFOrmat command above for querying and changing the format.

JITTer:DMODe <COUNt | GRAPh | RDATa>
JITT:DMOD <COUN | GRAP | RDAT>
JITTer:DMODe?
JITT:DMOD?

Set or retrieve the Jitter Peak display mode.

Params: <COUNt> Counters
<GRAPh> Graph
<RDATa> Raw data

Returns: < COUNt | GRAPh | RDATa >

JITTer:EGRaticule <bool>
JITT:EGR <bool>
JITTer:EGRaticule?
JITT:EGR?

Enable/disable the graticule (grid) on the Jitter Peak display.

Params: <bool> On = 1, Off = 0

Returns: < 1 > Enable Jitter Peak graticule
< 0 > Disable Jitter Peak graticule

JITTer:EQSCale <bool>
JITTer:EQSC <bool>
JITTer:EQSCale?
JITTer:EQSC?

Enable/disable the Q Scale on the Jitter Peak display.

Params: <bool> On = 1, Off = 0

Returns: < 1 > Enable Q Scale
< 0 > Disable Q Scale

JITTer:ERRThr <double>
JITT:ERRT <double>
JITTer:ERRThr?
JITT:ERRT?

Set or retrieve Jitter Peak Error Threshold.

Params: <double> Jitter Peak error threshold, a numeric value. Range [1 to 10,000]

Returns: < double >

JITTer:IVALue?
JITT:IVAL?

Retrieve Jitter Peak Invalid Value. Query only.

JITTer:L0EValue?
JITT:L0EV?
Retrieve Jitter Peak Leading Edge error value. Query only.

JITTer:L0Mean?
JITT:L0M?
Retrieve Jitter Peak Leading Edge mean. Query only.

JITTer:L0NPoints?
JITT:L0NP?
Retrieve Jitter Peak Leading Edge number of measured points. Query only.

JITTer:L0Sigma?
JITT:L0S?
Retrieve Jitter Peak Leading Edge sigma. Query only.

JITTer:L1EValue?
JITT:L1EV?
Retrieve Jitter Peak Trailing Edge error value. Query only.

JITTer:L1Mean?
JITT:L1M?
Retrieve Jitter Peak Trailing Edge mean. Query only.

JITTer:L1NPoints?
JITT:L1NP?
Retrieve Jitter Peak Trailing Edge number of measured points. Query only.

JITTer:L1Sigma?
JITT:L1S?
Retrieve Jitter Peak Trailing Edge sigma. Query only.

JITTer:LData?
JITT:LD?
Retrieve the measured points for the left edge of the Jitter Peak display. Query only.

Returns:	< N (x1, y1) (x2, y2) … (xN, yN) >	where N is the number of points, the x-values are delay values represented in ps, and the y-values are BER measurements.

JITTer:LFit?
JITT:LF?
Retrieve the extrapolated points for the left edge of the Jitter Peak display. Query only.

Returns:	< N (x1, y1) (x2, y2) … (xN, yN) >	where N is the number of points, the x-values are delay values represented in ps, and the y-values are BER measurements.

JITTer:MBARsel <OFF | MEASUREMENTS | STRESS | ADVANCED >
JITT:MBAR <OFF | MEASUREMENTS | STRESS | ADVANCED >
JITTer:MBARsel?
JITT:MBAR?

Set or retrieve the Jitter Peak Sidebar selection.

Params:	<OFF>	Hide Sidebar
	<MEASUREMENTS>	Show Measurement Sidebar
	<STRESS>	Show Stress Sidebar (if Stress Option is enabled)
	<ADVANCED>	Show Advanced features Sidebar
Returns:	< OFF | MEASUREMENTS | STRESS | ADVANCED >	

JITTer:MBDepth?
JITT:MBD?

Measure Jitter Peak BER Depth. Query only.

JITTer:OBSTring?
JITT:OBST?

Retrieve Jitter Peak Optimum BER String. Query only.

JITTer:OLBer?
JITT:OLB?

Retrieve Jitter Peak Optimum Log BER. Query only.

JITTer:OPERmode <ALLBITS | SINGLEBIT>
JITT:OPER <ALLBITS | SINGLEBIT>
JITTer:OPERmode?
JITT:OPER?

Set or retrieve the Jitter Peak operating mode.

Params:	<ALLBITS>	Jitter Peak operates on all bits
	< SINGLEBIT >	Jitter Peak operates on the chosen single bit
Returns:	< ALLBITS | SINGLEBIT >	

JITTer:OTValue?
JITT:OTV?

Retrieve Optimum Jitter Peak threshold value in mV. Query only.

JITTer:PPBEr <double>
JITT:PPBE <double>
JITTer:PPBEr?
JITT:PPBE?

Set or retrieve the BER where Jitter Peak measurements are made.

Params: <double> Numeric value. Range [1.00E–50 to 1.00E–05]

Returns: < double >

JITTer:RData?
JITT:RD?

Retrieve the measured points for the right edge of the Jitter Peak display.

Returns: < N (x1, y1) (x2, y2) … (xN, yN) > where N is the number of points, the x-values are delay values represented in ps, and the y-values are BER measurements.

JITTer:REFMode <LIVEdata | DPATtern>
JITT:REFM <LIVE | DPAT>
JITTer:REFMode?
JITT:REFM?

Set or retrieve Jitter Peak Reference mode.

Params: <LIVEdata> Live Data mode

<DPATtern> Detected Pattern mode

Returns: < LIVEdata | DPATtern >

JITTer:REFPattern?
JITT:REFP?

Retrieve Jitter Peak Reference Pattern. Query only.

JITTer:RETime?
JITT:RET?

Retrieve Jitter Peak Run Elapsed Time in seconds. Query only.

JITTer:RFit?
JITT:RF?

Retrieve the measured points for the right edge of the Jitter Peak display.

Returns: < N (x1, y1) (x2, y2) … (xN, yN) > where N is the number of points, the x-values are delay values represented in ps, and the y-values are BER measurements.

JITTer:RJITter?
JITT:RJIT?

Retrieve the Random Jitter. Query only. The return value is a number in the format that is determined by the Random Jitter format of either TIME or %UI. See the JITTer:RJFOrmat command above for querying or changing the format.

JITTer:RJFOrmat <TIME | %UI>
JITT:RJFO <TIME | %UI>
JITTer:RJFOrmat?
JITT:RJFO?

Set or retrieve the Jitter Peak Random Jitter measurement value format.

Params: <TIME> Value is displayed in psec

<%UI> Value is displayed in %UI

Returns: < TIME | %UI >

JITTer:SBER <double>
JITT:SBER <double>
JITTer:SBER?
JITT:SBER?

Set or retrieve the Starting BER for Jitter Peak measurements.

Params: <double> Numeric value. Range [1.00E to 1.00E-05]

Returns: < double >

JITTer:SCURsors <X1,X2,Y1,Y2>
JITT:SCUR <X1,X2,Y1,Y2>

Set Jitter Peak Cursor positions. Action only.

Params: <X1> X1 cursor position, double

<X2> X2 cursor position, double

<Y1> Y1 cursor position, double

<Y2> Y2 cursor position, double

Returns: < X1,X2,Y1,Y2 >

JITTer:SDATa? <int>
JITT:SDAT? <int>

Retrieve Jitter Peak Series Data, binary. Query only.

Returns: <integer> Series data. Range [0 to 14]

JITTer:SDEFaults
JITT:SDEF

Set Defaults. Action only.

JITTer:STFile <"filename">
JITT:STF <"filename">

Save Jitter Peak results to named file. Action only.

Params: <"filename"> File where Jitter Peak results are saved. Enclose filename in double quotes

JITTer:SUFBits <double>
JITT:SUFB <double>
JITTer:SUFBits?
JITT:SUFB?

Set or retrieve Jitter Peak Sufficient Bits.

Params: <value> A numeric value. Range [1,000 to 1E+11]. A value of –1 initiates automatic mode

Returns: < value > Numeric Value or Automatic

JITTer:SVIew <Xmin, Ymin, Xmax, Ymax>
JITT:SVI <Xmin, Ymin, Xmax, Ymax>

Set Jitter Peak view axes.

Params: <Xmin> X-Axis minimum, double
<Ymin> Y-Axis minimum, double
<Xmax> X-Axis maximum, double
<Ymax> Y-Axis maximum, double

Returns: < Xmin, Ymin, Xmax, Ymax >

JITTer:TJITter?
JITT:TJIT?

Retrieve the Total Jitter. Query only. The return value is a number in the format that is determined by the Total Jitter format of either TIME or %UI. See JITTer:TJFOrmat command above for querying and changing the format.

JITTer:TJFOrmat <TIME | %UI>
JITT:TJFO <TIME | %UI>
JITTer:TJFOrmat?
JITT:TJFO?

Set or retrieve the Jitter Peak Total Jitter measurement value format.

Params: <TIME> Value is displayed in psec
<%UI> Value is displayed in %UI

Returns: < TIME | %UI >

JITTer:THRMODe <AUTOmatic | MANual>
JITT:THRMOD <AUTO | MAN>
JITTer:THRMODe?
JITT:THRMOD?

Set or retrieve the threshold mode of the Jitter Peak.

Params: <AUTOmatic> Jitter threshold mode is automatic
< MANual > Jitter threshold mode is manual

Returns: < AUTOmatic | MANual >

JITTer:TSTatus?
JITT:TST?

Retrieve Jitter Peak Status. Query only.

Returns: NOTRUNNING Status codes
OK
NOCLOCK
LOWCLOCK
NOPATTERN
NOTFOUND
ACQERROR
WAITING

JITTer:TVALue <double>
JITT:TVAL <double>
JITTer:TVALue?
JITT:TVAL?

Set or retrieve Jitter Peak Manual Threshold.

Params: <double> Jitter Peak manual threshold value. Range [–3,000 to +3,000]

Returns: < double >

JITTer:X1Cursor <double>
JITT:X1C <double>
JITTer:X1Cursor?
JITT:X1C?

Set or retrieve Jitter Peak View's X1 Cursor.

Params: <double> Position of Jitter Peak Cursor X1

Returns: < double >

JITTer:X2Cursor <double>
JITT:X2C <double>
JITTer:X2Cursor?
JITT:X2C?

Set or retrieve Jitter Peak View's X2 Cursor.

Params: <double> Position of Jitter Peak Cursor X2

Returns: < double >

JITTer:XMAX <double>
JITT:XMAX <double>
JITTer:XMAX?
JITT:XMAX?

Set or retrieve Jitter Peak View's X Maximum value.

Params: <double> Jitter Peak X Maximum value

Returns: < double >

JITTer:XMIN <double>
JITT:XMIN <double>
JITTer:XMIN?
JITT:XMIN?

Set or retrieve Jitter Peak View's X Minimum value.

Params: <double> Jitter Peak X Minimum value

Returns: < double >

JITTer:Y1Cursor <double>
JITT:Y1C <double>
JITTer:Y1Cursor?
JITT:Y1C?

Set or retrieve position of Jitter Peak's Cursor Y1.

Params: <double> Position of Jitter Peak Cursor Y1

Returns: < double >

JITTer:Y2Cursor <double>
JITT:Y2C <double>
JITTer:Y2Cursor?
JITT:Y2C?

Set or retrieve position of Jitter Peak's Cursor Y2.

Params: <double> Position of Jitter Peak Cursor Y2

Returns: < double >

JITTer:YMAX <double>
JITT:YMAX <double>
JITTer:YMAX?
JITT:YMAX?

Set or retrieve Jitter Peak View's Y Maximum value.

Params: <double> Jitter Peak Y Maximum value

Returns: < double >

JITTer:YMIN <double>
JITT:YMIN <double>
JITTer:YMIN?
JITT:YMIN?

Set or retrieve Jitter Peak View's Y Minimum value.

Params: <double> Jitter Peak Y Minimum value

Returns: < double >

Jitter Tolerance

JTOL:BERThr <double>
JTOL:BERT <double>
JTOL:BERThr?
JTOL:BERT?

Set or retrieve BER Threshold.

Params: <double> BER Threshold, a numeric Value. Range [1E–20 to 1E–7]

Returns: <double>

JTOL:CHCOrd <XLOGOFS | XLOGEXT | YLOGOFS | YLOGEXT>?
JTOL:CHCO <XLOGOFS | XLOGEXT | YLOGOFS | YLOGEXT>?

Retrieve the chart coordinates. Query Only.

Params: <XLOGOFS> Retrieve X Offset from the chart
<XLOGEXT> Retrieve X Extent from the chart
<YLOGOFS> Retrieve Y Offset from the chart
<YLOGEXT> Retrieve Y Extent from the chart

Returns: <double>

JTOL:CHRX <double>
JTOL:CHRX?

Set or retrieve Jitter Tolerance Cursor X position.

Params: <double> Position of X Cursor in Chart

Returns: <double>

JTOL:CHRY <double>
JTOL:CHRY?

Set or retrieve Jitter Tolerance Cursor Y position.

Params: <double> Position of Y Cursor in Chart

Returns: <double>

JTOL:CONFdet?
JTOL:CONF?

Retrieve the configuration parameters of the current Jitter tolerance template. Query only.

Returns: < TC(FreqMHz,TemplateUI,Attributes,LimitUI >

Example: `2(0.1, 0.5, 0, 0) (0.2, 0.5, 0, 0)`

JTOL:DIFLg <SJLIMIT | CURSOR, bool>
JTOL:DIFL <SJLIMIT | CURSOR, bool>
JTOL:DIFLg <SJLIMIT | CURSOR>?
JTOL:DIFL <SJLIMIT | CURSOR>?

Shows or hides different cursors on the chart.

Params:	<SJLIMIT, bool>	Shows the SJ limit in the Chart.
	<CURSOR, bool>	Shows the Cursors in the Chart
	<bool>	On = 1, Off = 0
Returns:	< 1 >	SJ Limit/Cursors On
	< 0 >	SJ Limit/Cursors Off

JTOL:DIFMt <CHART | TABLE>
JTOL:DIFM <CHART | TABLE>
JTOL:DIFMt?
JTOL:DIFM?

Set or retrieve display format.

Params:	<CHART>	Displays as a Chart
	<TABLE>	Displays as a Table
Returns:	< CHART | TABLE >	

JTOL:ELPSt?
JTOL:ELPS?

Retrieve elapsed time. Query only.

Returns:	<double>	Elapsed time

JTOL:EXPCSv <"filename">
JTOL:EXPCS <"filename">

Export Jitter Tolerance results to a CSV file. Full path name should be given. Action only.

Params:	<"filename">	CSV file to be saved. Filename in quotes, include full path

JTOL:LDTPl <"filename">
JTOL:LDTP <"filename">

Load a template file. Full path name should be given. Action only.

Params:	<"filename">	Template file to be loaded. Filename in quotes, include full path

JTOL:MARGui <double>
JTOL:MARG <double>
JTOL:MARGui?
JTOL:MARG?

Set or retrieve Margin UI in percentage.

Params:	<double>	Margin %UI, a numeric Value. Range [-90 to 400]
Returns:	<double>	

JTOL:MBARsel <OFF | GENERATOR | STRESS | CRU>
JTOL:MBAR <OFF | GENERATOR | STRESS | CRU>
JTOL:MBARsel?
JTOL:MBAR?

Set or retrieve Jitter Tolerance Sidebar selection.

Params:	<OFF>	Hide Sidebar
	<GENERATOR>	Show Generator Sidebar
	<STRESS>	Show Stress Sidebar (if Stress Option is enabled)
	<CRU>	Show Clock Recovery Sidebar (If Clock Recovery unit is detected)
Returns:	< OFF | GENERATOR | STRESS | CRU >	

JTOL:PRECui <double>
JTOL:PREC <double>
JTOL:PRECui?
JTOL:PREC?

Set or retrieve Precision UI.

Params:	<double>	Precision UI, a numeric value. Range [0.005 to 0.05]
Returns:	<double>	

JTOL:RelaxFLIP <bool>
JTOL:RFLIP <bool>
JTOL:RelaxFLIP?
JTOL:RFLIP?

Enable/disable the relax with Pattern Generator RAM page flip.

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	Relax is enabled
	< 0 >	Relax is disabled

JTOL:RelaxMODE <OFF | ABSWITCH | ONESHOT>
JTOL:RMODE <OFF | ABSWITCH | ONESHOT>
JTOL:RelaxMODE?
JTOL:RMODE?

Set or retrieve Relax Mode

Params:	<OFF>	Turn PageSelect off
	<ABSWITCH>	Specify Relax mode to be Page A or Page B
	<ONESHOT>	Specify Relax mode to switch to the other page for a moment and switch back

Returns: < OFF | ABSWITCH | ONESHOT >

JTOL:RELSt?
JTOL:RELS?

Retrieve Relax State. Query only.

Returns: < NORELAX | RELAX | NOTRUNNING >

JTOL:RELTme <double>
JTOL:RELT <double>
JTOL:RELTme?
JTOL:RELT?

Set or retrieve Relax Time.

Params: <double> Relax time in seconds. Range [0 to 100]

Returns: <double>

JTOL:RESDet?
JTOL:RESD?

Retrieve the Jitter Tolerance Result status. Query only.

Returns: <TC(AmpUI, Bits, Errors, BER, Status>
0 = TM_BLANK
1 = TM_SKIPPED
2 = TM_INPROGRESS
3 = TM_PASSED
4 = FAIL_NOSYNC
5 = TM_FAIL_BER
6 = TM_FAIL_CLKERR
7 = TM_FAIL_DATAERR
8 = TM_LIMIT_REACHED
Example: `2(0.1, 1000, 100, 0.1, 1) (0.2, 1000, 100, 0.1, 2)`

JTOL:RUNSt?
JTOL:RUNS?

Retrieve the Jitter Tolerance Run Status. Query only.

Returns: 0 = TM_READY
1 = TM_SWEEPING
2 = TM_TESTING
3 = TM_RELAXING
4 = TM_AUTOALIGNING
5 = TM_TEST_PASS
6 = TM_TEST_FAIL
7 = TM_RSTATUS_COUNT

JTOL:SJBAse <double>
JTOL:SJBA <double>
JTOL:SJBAse?
JTOL:SJBA?

Set or retrieve SJ Baseline Amplitude UI in percentage.

Params: <double> SJ Baseline Amplitude %UI. Range [0 to 100]

Returns: <double>

JTOL:SVTPl <"filename">
JTOL:SVTP <"filename">

Save the current template in a file. Full path name should be given. Action only.

Params: <"filename"> Template file to be saved. Filename in double quotes, include full path.

JTOL:TEND <DURATION | BITSERRS | CONFIDENCE>
JTOL:TEND?

Set or retrieve Test End Mode.

Params: <DURATION> Specify Test end mode in Seconds
<BITSERRS> Specify Test end mode in Bits and Errors.
<CONFIDENCE> Specify Test end mode in Confidence Percentage

Returns: < DURATION | BITSERRS | CONFIDENCE >

JTOL:TEVAl <DURATION | BITS | ERRORS | CONFIDENCE, double>
JTOL:TEVA <DURATION | BITS | ERRORS | CONFIDENCE, double>
JTOL:TEVAl <DURATION | BITS | ERRORS | CONFIDENCE>?
JTOL:TEVA <DURATION | BITS | ERRORS | CONFIDENCE>?

Set or retrieve Test End Value.

Params:	<DURATION, double>	Set duration in seconds. Range [0 to 5000]
	<BITS, double>	Set bits as numeric. Range [1E8 to 1E14]
	<ERRORS, double>	Set errors as numeric. Range [0 to 100]
	<CONFIDENCE, double>	Set confidence in percentage. Range [1 to 99.99]
Returns:	< double >	

JTOL:TMODe <MARGIN | SEARCH | CONTOUR>
JTOL:TMOD <MARGIN | SEARCH | CONTOUR>
JTOL:TMODe?
JTOL:TMOD?

Set or retrieve Test mode.

Params:	<MARGIN>	Margin mode
	<SEARCH>	Search mode
	<CONTOUR>	Contour mode
Returns:	< MARGIN | SEARCH | CONTOUR >	

JTOL:TolALG <STEP | FMTOP | FMBOT | BINARY | FMBOTFINE>
JTOL:TALG <STEP | FMTOP | FMBOT | BINARY | FMBOTFINE>
JTOL:TolALG?
JTOL:TALG?

Set or retrieve the algorithm type used in Search and Contour modes.

Params:	<STEP>	Refine step algorithm
	<FMTOP>	From top algorithm
	<FMBOT>	From bottom algorithm
	<BINARY>	Binary search algorithm
	<FMBOTFINE>	From bottom fine algorithm
Returns:	< STEP | FMTOP | FMBOT | BINARY | FMBOTFINE >	

Mask Test

MASK:ATOFfset <double>
MASK:ATOF <double>
MASK:ATOFfset?
MASK:ATOF?

Adjust Mask Test time offset in ps.

Params:	<double>	Mask Test time offset in ps
Returns:	< double >	

MASK:AVOFfset <double>
MASK:AVOF <double>
MASK:AVOFfset?
MASK:AVOF?

Adjust Mask Test voltage offset in millivolts.

Params:	<double>	Mask Test voltage offset in mV
Returns:	< double >	

MASK:CLEar
MASK:CLE

Clear Mask. Action only.

MASK:CPERrors?
MASK:CPER?

Retrieve Mask Test Center Polygon Errors. Query only.

MASK:EMLayer:COORds <bool>
MASK:EML:COOR <bool>
MASK:EMLayer:COORds?
MASK:EML:COOR?

Enable/disable the Mask Test Coordinates layer.

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	Mask Test coordinates layer is enabled
	< 0 >	Mask Test coordinates layer is disabled

MASK:EMLayer:LOAD <bool>
MASK:EML:LOAD <bool>
MASK:EMLayer:LOAD?
MASK:EML:LOAD?

Enable/disable Mask Test Layer.

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	Mask Test layer is enabled
	< 0 >	Mask Test layer is disabled

MASK:EMLayer:PROGress <bool>
MASK:EML:PROG <bool>
MASK:EMLayer:PROGress?
MASK:EML:PROG?

Enable/disable the Mask Test Progress layer.

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	Mask Test progress layer is enabled
	< 0 >	Mask Test progress layer is disabled

MASK:EMLayer:RESults <bool>
MASK:EML:RES <bool>
MASK:EMLayer:RESults?
MASK:EML:RES?

Enable/disable the Mask Test Results layer.

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	Mask Test results layer is enabled
	< 0 >	Mask Test results layer is disabled

MASK:IVALue?
MASK:IVAL?

Retrieve Mask Test Invalid Value. Query only.

MASK:LMASk
MASK:LMAS

Load Mask. Action only. To specify a filename, see the MASK:MFName command.

MASK:LPERrors?
MASK:LPER?

Retrieve Mask Test Lower Polygon Errors. Query only.

MASK:MBARsel <OFF | MEASUREMENTS | STRESS | ADVANCED >
MASK:MBAR <OFF | MEASUREMENTS | STRESS | ADVANCED >
MASK:MBARsel?
MASK:MBAR?

Set or retrieve the Mask Test Sidebar selection.

Params:	<OFF>	Hide Sidebar
	<MEASUREMENTS>	Show Measurement Sidebar
	<STRESS>	Show Stress Sidebar (if Stress Option is enabled)
	<ADVANCED>	Show Advanced features Sidebar
Returns:	< OFF | MEASUREMENTS | STRESS | ADVANCED >	

MASK:MFName <"filename">
MASK:MFN <"filename">
MASK:MFName?
MASK:MFN?

Set or retrieve Mask Filename.

Params:	<"filename">	Mask filename, enclosed in double quotes. To load the mask file, see the MASK:LMASK command.
Returns:	< "filename" >	

MASK:MLCount?
MASK:MLC?

Retrieve Mask Layer Count. Query only.

MASK:MSTatus?
MASK:MST?

Retrieve Mask Test Status. Query only.

Returns:	NOTRUNNING	Status codes
	OK	
	NOCLOCK	
	LOWCLOCK	
	DROPCLOCK	
	FREQCHANGE	
	NOPATTERN	

MASK:REFMode <LIVEdata | DPATtern>
MASK:REFM <LIVE | DPAT>
MASK:REFMode?
MASK:REFM?

Set or retrieve Mask Reference mode.

Params:	<LIVEdata>	Live Data mode
	<DPATtern>	Detected Pattern mode
Returns:	< LIVEdata | DPATtern >	

MASK:REFPattern?
MASK:REFP?

Retrieve Mask Test Reference Pattern. Query only.

MASK:RETime?
MASK:RET?

Retrieve Mask Test Run Elapsed Time in Seconds. Query only.

MASK:RSTate <bool>
MASK:RST <bool>
MASK:RSTate?
MASK:RST?

Set or retrieve Mask Test Run State.

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	Run
	< 0 >	Stop

MASK:SCOunt?
MASK:SCO?

Retrieve Mask Test Sample Count. Query only.

MASK:SDEPth <numeric>
MASK:SDEP <numeric>
MASK:SDEPth?
MASK:SDEP?

Set or retrieve the Mask test Sample Depth in bits.

Params:	<numeric>	Mask Sample Depth in bits. Range [2,000 to 10,000,000]. Input out of range will be clipped and recorded in the status queue. A value of –1 runs the Eye diagram in the 'Auto' mode with a sample depth of 10,000 bits. Setting a value other than –1 runs the Mask test in the Manual mode. Once the specified depth is reached, the Mask testing automatically stops running.
Returns:	< numeric >	

MASK:SLData? <int>
MASK:SLD? <int>

Retrieve Mask Test Sketch Layer Data (binary)

Params: <integer> Sketch layer data. Range [0 to 5]

MASK:SMWadjustments <"filename">
MASK:SMW <"filename">

Save Mask with adjustments. Action only.

Params: <"filename"> Mask filename, enclosed in double quotes

MASK:STMArgin <double>
MASK:STMA <double>
MASK:STMArgin?
MASK:STMA?

Set or retrieve the Mask Time margin.

Params: <double> Time margin as %UI. Range [–90% to +100%UI]

Returns: < double >

MASK:STVMArgin <double>
MASK:STVMA <double>
MASK:STVMArgin?
MASK:STVMA?

Set or retrieve Mask Test Time and Voltage margin.

Params: <double> Time and voltage margin as %UI. Range [–90% to +100%UI]

Returns: < double >

MASK:SVMArgin <double>
MASK:SVMA <double>
MASK:SVMArgin?
MASK:SVMA?

Set or retrieve Mask Test Voltage margin.

Params: <double> Voltage margin as %UI. Range [–90% to +100%UI]

Returns: < double >

MASK:TMARgin <double>
MASK:TMAR <double>
MASK:TMARgin?
MASK:TMAR?

Set or retrieve Mask Test Time margin

Params: <double> Time margin as %UI. Range [–90 to +100]

Returns: < double >

MASK:TVMARgin <double>
MASK:TVMAR <double>
MASK:TVMARgin?
MASK:TVMAR?

Set or retrieve Mask Test Time and Voltage margin

Params: <double> Time and voltage margin as %UI. Range [–90 to +100], default = 0

Returns: < double >

MASK:UAMPlitude <double>
MASK:UAMP <double>
MASK:UAMPlitude?
MASK:UAMP?

Set or retrieve Mask Test Unit Amplitude in millivolts.

Params: <double> Mask Test Unit Amplitude in mV

Returns: < double >

MASK:UINTerval <double>
MASK:UINT <double>
MASK:UINTerval?
MASK:UINT?

Set or retrieve Mask Test Unit Interval in ps.

Params: <double> Mask Test Unit Interval in ps

Returns: < double >

MASK:UPERrors?
MASK:UPER?

Retrieve Mask Test Upper Polygon errors. Query only.

MASK:VMARgin <double>
MASK:VMAR <double>
MASK:VMARgin?
MASK:VMAR?

Set or retrieve Mask Test voltage margin a percentage of Unit Amplitude

Params: <double> Voltage margin as %UI. Range [–90 to +100]

Returns: < double >

MASK:WFORms?
MASK:WFOR?

Retrieve the number of waveforms tested in the Mask Test. Query only.

Q-Factor

QFACtor:ASCale <LEV0 | LEV1 | MIDLev>
QFAC:ASC <LEV0 | LEV1 | MIDL>

Auto Scale the Q-Factor display to fit data. Action only.

Params:	<LEV0>	0-Level
	<LEV1>	1-Level
	<MIDLev>	Middle (logic threshold) level

QFACtor:CFG?
QFAC:CFG?

Retrieve the auto-align results used to automatically align the Q-Factor analysis. Query only.

Returns:	< UI UA CT CV >	where UI is the Unit Interval in picoseconds, UA is amplitude in millivolts, CT is center time in picoseconds, and CV is center threshold voltage in milliVolts.

QFACtor:CLEar
QFAC:CLE

Clear the Q-Factor image and measurements. Action only.

QFACtor:DLYMODe <AUTOmatic | MANual>
QFAC:DLYMOD <AUTO | MAN>
QFACtor:DLYMODe?
QFAC:DLYMOD?

Set or retrieve the Q-Factor delay mode.

Params:	< AUTOmatic >	Q-Factor delay mode is automatic
	< MANual >	Q-Factor delay mode is manual
Returns:	< AUTOmatic | MANual >	

QFACtor:DMODe <COUNt | GRAPh | RDATa>
QFAC:DMOD <COUN | GRAP | RDAT>
QFACtor:DMODe?
QFAC:DMOD?

Set or retrieve the Q-Factor display mode.

Params:	<COUNt>	Counters
	<GRAPh>	Graph
	<RDATa>	Raw data
Returns:	< COUNt | GRAPh | RDATa >	

QFACtor:EGRaticule <bool>
QFAC:EGR <bool>
QFACtor:EGRaticule?
QFAC:EGR?

Enable/disable graticule (grid) on the Q-Factor display.

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	Enable Q-Factor graticule
	< 0 >	Disable Q-Factor graticule

QFACtor:EQSCale <bool>
QFAC:EQSC <bool>
QFACtor:EQSCale?
QFAC:EQSC?

Enable/disable the Q Scale on the Q-Factor display.

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	Enable Q-Factor Q Scale
	< 0 >	Disable Q-Factor Q Scale

QFACtor:ERRThr <double>
QFAC:ERRT <double>
QFACtor:ERRThr?
QFAC:ERRT?

Set or retrieve Jitter Error Threshold from Q-Factor analysis.

Params:	<double>	Numeric value. Range [1 to 10,000]
Returns:	< double >	

QFACtor:IVALue?
QFAC:IVAL?

Retrieve Invalid Value. Query only.

QFACtor:L0Data?
QFAC:L0D?

Retrieve the measured points for the Q-Factor display Level0. Query only.

Returns:	< N (x1, y1) (x2, y2) … (xN, yN) >	where N is the number of points, the x-values are threshold values represented in millivolts, and the y-values are BER measurements.

QFACtor:L0EValue?
QFAC:L0EV?

Retrieve Q-Factor Level0 error value. Query only.

QFACtor:L0Fit?
QFAC:L0F?

Retrieve the extrapolated points for the Q-Factor display Level0. Query only.

Returns: < N (x1, y1) (x2, y2) … (xN, yN) > where N is the number of points, the x-values are threshold values represented in millivolts, and the y-values are BER measurements.

QFACtor:L0Mean?
QFAC:L0M?

Retrieve Q-Factor Level0 mean. Query only.

QFACtor:L0NPoints?
QFAC:L0NP?

Retrieve Q-Factor Level0 number of measured points. Query only.

QFACtor:L0Sigma?
QFAC:L0S?

Retrieve Q-Factor Level0 sigma. Query only.

QFACtor:L1Data?
QFAC:L1D?

Retrieve the measured points for the Q-Factor display Level1. Query only.

Returns: < N (x1, y1) (x2, y2) … (xN, yN) > where N is the number of points, the x-values are threshold values represented in millivolts, and the y-values are BER measurements.

QFACtor:L1EValue?
QFAC:L1EV?

Retrieve Q-Factor Level1 error value. Query only.

QFACtor:L1Fit?
QFAC:L1F?

Retrieve the extrapolated points for the Q-Factor display Level1. Query only.

Returns: < N (x1, y1) (x2, y2) … (xN, yN) > where N is the number of points, the x-values are threshold values represented in millivolts, and the y-values are BER measurements.

QFACtor:L1Mean?
QFAC:L1M?

Retrieve Q-Factor Level1 mean. Query only.

QFACtor:L1NPoints?
QFAC:L1NP?

Retrieve Q-Factor Level1 number of measured points. Query only.

QFACtor:L1Sigma?
QFAC:L1S?
Retrieve Q-Factor Level1 sigma. Query only.

QFACtor:MBARsel <OFF | MEASUREMENTS | STRESS | ADVANCED>
QFAC:MBAR <OFF | MEASUREMENTS | STRESS | ADVANCED>
QFACtor:MBARsel?
QFAC:MBAR?
Set or retrieve the Q-Factor display Sidebar selection.

Params:	<OFF>	No Sidebar
	<MEASUREMENTS>	Show Measurements
	<STRESS>	Show Stress Sidebar (if Stress Option is enabled)
	<ADVANCED>	Show Advanced features Sidebar
Returns:	< OFF | MEASUREMENTS | STRESS | ADVANCED >	

QFACtor:MBDepth?
QFAC:MBD?
Measure Q-Factor BER depth. Query only.

QFACtor:OQ?
QFAC:OQ?
Retrieve Q-Factor optimum Q. Query only.

QFACtor:OTValue?
QFAC:OTV?
Retrieve optimum Q-Factor value. Query only.

QFACtor:OLBer?
QFAC:OLB?
Retrieve Q-Factor optimum log BER. Query only.

QFACtor:OBSTring?
QFAC:OBST?
Retrieve Q-Factor optimum BER string. Query only.

QFACtor:REFMode <LIVEdata | DPATtern>
QFAC:REFM <LIVE | DPAT>
QFACtor:REFMode?
QFAC:REFM?

Set or retrieve Q-Factor reference mode.

Params: <LIVEdata> Live data mode

<DPATtern> Detected pattern mode

Returns: < LIVEdata | DPATtern >

QFACtor:REFPattern?
QFAC:REFP?

Retrieve Q-Factor reference pattern. Query only.

QFACtor:RETime?
QFAC:RET?

Retrieve Q-Factor run elapsed time in seconds. Query only.

QFACtor:SCURsors <X1,X2,Y1,Y2>
QFAC:SCUR < X1,X2,Y1,Y2>

Set Q-Factor cursor positions.

Params: <X1> X1 cursor position, double

<X2> X2 cursor position, double

<Y1> Y1 cursor position, double

<Y2> Y2 cursor position, double

Returns: < X1,X2,Y1,Y2 >

QFACtor:SDATa? <int>
QFAC:SDAT? <int>

Retrieve Q-Factor series data, binary. Query only.

Returns: <int> Series data. Range [0 to 14]

QFACtor:SDEFaults
QFAC:SDEF

Set Q-Factor Defaults. Action only.

QFACtor:STFile <"filename" >
QFAC:STF <"filename" >

Save Q-Factor results to named file. Action only.

Params: <"filename"> File where Q-Factor results are to be saved. Enclose filename in double quotes

QFACtor:SUFBits <double>
QFAC:SUFB <double>
QFACtor:SUFBits?
QFAC:SUFB?

Set or retrieve Q-Factor sufficient bits.

Params: <value> A numeric value with range [1,000 to 1E+11]. A value of –1 initiates automatic mode

Returns: < value > Numeric value or automatic

QFACtor:SVIew <Xmin, Ymin, Xmax, Ymax>
QFAC:SVI <Xmin, Ymin, Xmax, Ymax>

Set Q-Factor view axes.

Params: <Xmin> X-Axis minimum, double
<Ymin> Y-Axis minimum, double
<Xmax> X-Axis maximum, double
<Ymax> Y-Axis maximum, double

Returns: < Xmin, Ymin, Xmax, Ymax >

QFACtor:TSTatus?
QFAC:TST?

Q-Factor analysis status. Query only.

Returns: NOTRUNNING Status codes
OK
NOCLOCK
LOWCLOCK
NOPATTERN
NOTFOUND
ACQERROR
WAITING

QFACtor:TVALue <double>
QFAC:TVAL <double>
QFACtor:TVALue?
QFAC:TVAL?

Set or retrieve Q-Factor value.

Params: <double> Q-Factor value. Range [0 to 5,000]

Returns: < double >

QFACtor:X1Cursor <double>
QFAC:X1C <double>
QFACtor:X1Cursor?
QFAC:X1C?

Set or retrieve Q-Factor cursor X1's position.

Params: <double> Position of Q-Factor X1 cursor

Returns: < double >

QFACtor:X2Cursor <double>
QFAC:X2C <double>
QFACtor:X2Cursor?
QFAC:X2C?

Set or retrieve Q-Factor cursor X2's position.

Params: <double> Position of Q-Factor X2 cursor

Returns: < double >

QFACtor:XMAX <double>
QFAC:XMAX <double>
QFACtor:XMAX?
QFAC:XMAX?

Set or retrieve Q-Factor view's X maximum

Params: <double> Q-Factor X maximum

Returns: < double >

QFACtor:XMIN <double>
QFAC:XMIN <double>
QFACtor:XMIN?
QFAC:XMIN?

Set or retrieve Q-Factor view's X minimum

Params: <double> Q-Factor X minimum

Returns: < double >

QFACtor:Y1Cursor <double>
QFAC:Y1C <double>
QFACtor:Y1Cursor?
QFAC:Y1C?

Set or retrieve Q-Factor cursor Y1's position.

Params: <double> Position of Q-Factor Y1 cursor

Returns: < double >

QFACtor:Y2Cursor <double>
QFAC:Y2C <double>
QFACtor:Y2Cursor?
QFAC:Y2C?

Set or retrieve Q-Factor cursor Y2's position.

Params: <double> Position of Q-Factor Y2 cursor

Returns: < double >

QFACtor:YMAX <double>
QFAC:YMAX <double>
QFACtor:YMAX?
QFAC:YMAX?

Set or retrieve Q-Factor view's Y maximum

Params: <double> Q-Factor Y maximum

Returns: < double >

QFACtor:YMIN <double>
QFAC:YMIN <double>
QFACtor:YMIN?
QFAC:YMIN?

Set or retrieve Q-Factor view's Y minimum

Params: <double> Q-Factor Y minimum

Returns: < double >

Mainframe

CardTEMP?
CTEMP?

This command is no longer supported. See SENSor:TEMP? command below.

DELAY:DETRecal?
DELAY:DETR?

Retrieve the information that indicates whether Detector delay needs recalibration. Query only.

Note: Since monitoring for these calibrations is suspended while Physical Layer tests are running, using this command under those circumstances may not return an accurate result.

Returns:	< 1 >	Detector needs delay recalibration
	< 0 >	Detector does not need a delay recalibration

DELAY:GENRecal?
DELAY:GENR?

Retrieve the information that indicates whether Generator delay needs recalibration. Query only.

Note: Since monitoring for these calibrations is suspended while Physical Layer tests are running, using this command under those circumstances may not return an accurate result.

Returns:	< 1 >	Generator needs delay recalibration
	< 0 >	Generator does not need a delay recalibration

FAMILY_1500?

Check if the instrument is a BitAlyzer 1500. Query only.

Returns:	< 1 >	Instrument is a BitAlyzer 1500
	< 0 >	Instrument is not a BitAlyzer 1500

FAMILY_7500?

Check if the instrument is a BERTScope 7500 (Model A or B). Query only.

Returns:	< 1 >	Instrument is a BERTScope 7500
	< 0 >	Instrument is not a BSA7500

FAMILY_12500?

Check if the instrument is a BERTScope 12500 (Model A or B). Query only.

Returns:	< 1 >	Instrument is a BERTScope 12500
	< 0 >	Instrument is not a BSA12500

PLATFORM?

Retrieve the value of the current device's platform. Query only.

Returns: < 0 | 1 | 2 | 3 > 0: Unknown
1: BA1500/BA1600
2: BERTScope 7.5G and BERTScope 12.5G (Models A and B)
3: BERTScope Model C (17G and above; also 12.5G Model C)

PRODNAME?

Retrieve the string identifying the product (the "Identity" shown in the Remote Client). Query only.

Returns: "BitAlyzer 1500""BERTScope 7500"
"BERTScope 12500" (can be Model A, B, or C)
"BERTScope 17500"
"BERTScope 22000"
"BERTScope 25000"
"BERTScope 28000"
"Unknown Product"

GUILockout <bool>
GUIL<bool>
GUILockout?
GUIL?

Set or retrieve the state of the GUI lockout selection.

Params: <bool> On = 1, Off = 0

Returns: < 1 > GUI lockout is in effect

< 0 > GUI lockout is not in effect

MODEL_A?

Check if the instrument is a BERTScope Model A (7500 or 12500). Query only.

Returns: < 1 > Instrument is a BERTScope Model A

< 0 > Instrument is not a Model A

MODEL_B?

Check if the instrument is a BERTScope Model B (7500 or 12500). Query only.

Returns: < 1 > Instrument is a BERTScope Model B

< 0 > Instrument is not a Model B

OPT_CE?

Check if the instrument has PatternVu Option enabled. Query only.

Returns: < 1 > PatternVu Option is enabled

< 0 > Pattern Option is disabled

OPT_EA_2D_MAP?

Check if the instrument has 2-D Error Map Analyzer Option enabled. Query only.

Returns: < 1 > 2-D Error Map Option is enabled

< 0 > 2-D Error Map Option is disabled

OPT_EA_ECC?

Check if the instrument has FEC Emulation Analyzer Option enabled. Query only.

Returns: < 1 > FEC Emulation is enabled

< 0 > FEC Emulation is disabled

OPT_GSM?

Check if the instrument has a Generator Stress Module installed. Query only.

Returns: < 1 > Generator Stress Module is installed

< 0 > Generator Stress Module is not installed

OPT_JITTERMAP?

Check if the instrument has JitterMap Option enabled. Query only.

Returns: < 1 > JitterMap Option is enabled

< 0 > JitterMap Option is disabled

OPT_JT?

Check if the instrument has Jitter Tolerance Option enabled. Query only.

Returns: < 1 > Jitter Tolerance Option is enabled

< 0 > Jitter Tolerance Option is disabled

OPT_LIVE_DATA?

Check if the instrument has Live Data Option enabled. Query only.

Returns: < 1 > Live Data Option is enabled

< 0 > Live Data Option is disabled

OPT_PCI?

Check if the instrument has PCIE Option enabled. Query only.

Returns: < 1 > PCIE Option is enabled

< 0 > PCIE Option is disabled

OPT_PHY_TEST?

Check if the instrument has Physical Layer Test Option enabled. Query only.

Returns: < 1 > Physical Layer Test Option is enabled

< 0 > Physical Layer Test Option is disabled

OPT_SSCPLUS?

Retrieve the flag signifying whether SSC PLUS (XSSC) option is enabled. Query only.

Returns: < 1 > SSC PLUS Option is enabled

< 0 > SSC PLUS Option is disabled

PTFile <"filename">
PTF <"filename">

Print the current view into a file.

Params: <"filename"> Specify a file where the screen will be printed (saved). Enclose filename in double quotes.

RCStatus?
RCS?

Returns the version information of Remote Control. Query only.

RDURation <long>
RDUR <long>
RDURation?
RDUR?

Set or retrieve the run duration of the BERTScope. Setting to '0' is the equivalent of a GUI 'Clear,' which allows the run (see RSTate command, below) to go on 'forever.'

Params: <long> Set system run duration. Range [1 to 36E6]. Zero (0) sets an infinite duration

Returns: < long > System run duration

RSTate <bool>
RST <bool>
RSTate?
RST?

Set or retrieve the run state of the BERTScope.

Params: <bool> On = 1, Off = 0

Returns: < 1 > System is running

< 0 > System is not running

SENSor:TEMP?
SENS:TEMP?

Retrieve internal temperature in degrees Celsius. Query only. This measurement is not calibrated, and should only be used as a relative indication of temperature.

Returns: < double > Positive integer, internal temperature (°C)

SENSor:V12?
SENS:V12?

Retrieve reading of the internal +12 volt register. Query only.

Returns: < double > Interval 12 V register

SENSor:V1P5?
SENS:V1P5?

Retrieve reading of the internal +1.5 volt register. Query only.

Returns: < double > Internal +1.5 V register

SENSor:V2P5?
SENS:V2P5?

Retrieve reading of the internal +2.5 volt register. Query only.

Returns: < double > Internal +2.5 V register

SENSor:V3P3?
SENS:V3P3?

Retrieve reading of the internal +3.3 volt register. Query only.

Returns: < double > Internal 3.3 V register

SENSor:V5?
SENS:V5?

Retrieve reading of the internal +5 volt register. Query only.

Returns: < double > Internal 5 V register

SENSor:VM12?
SENS:VM12?

Retrieve reading of the internal –12 volt register. Query only.

Returns: < double > Internal –12 V register

SENSor:VM19?
SENS:VM19?

Retrieve reading of the internal –19 volt register. Query only.

Returns: < double > Internal –19 V register

SENSor:VM2?
SENS:VM2?

BitAlyzer only. Retrieve reading of the internal –2 volt register. Query only.

Returns: < double > Internal –2 V register

SENSor:VM5?
SENS:VM5?

Retrieve reading of the internal –5 volt register. Query only.

Returns: < double > Internal –5 V register

SENSor:VM5P2?
SENS:VM5P2?

BitAlyzer only. Retrieve reading of the internal –5.2 volt register. Query only.

Returns: < double > Internal –5.2 V register

VIEW <BBER | BER | BLEN | CONT | CORR | CRC | CRLR | CRS | DET | DPP | EDIT | EFIN | EMAP | EYE | FEC | GEN | HOME | JITT | JMAP_MAP | JS | JTOL | LOG | LTS | MASK | PSEN | QFAC | SSCW |SCH | STRESS | SYST>

VIEW?

Set or retrieve the current view of the BERTScope.

Params:	<BBER>	Basic BER
	<BER ***or*** BERror>	Block Error
	<BLEN ***or*** BLENgth>	Burst Length
	<CONTour>	BER Contour
	<CORR ***or*** CORRelation>	Correlation
	<CRC ***or*** CRControl>	Clock Recovery Control
	<CRS ***or*** CRService>	Clock Recovery Service
	<CRLR ***or*** CRLoopResponse>	Clock Recovery Loop Response
	<DET ***or*** DETector>	Detector
	<DPP>	DPP Interface
	<EDIT ***or*** EDITor>	Editor
	<EFIN ***or*** EFINterval>	Error Free Interval
	<EMAP>	2D Error Map
	<EYE>	Eye Diagram
	<FEC>	FEC Emulation
	<GEN ***or*** GENerator>	Generator
	<HOME>	Home
	<JITTer>	Jitter Peak
	<JMAP_MAP>	Jitter Map
	<JS ***or*** crJitterSpectrum>	Clock Recovery Jitter Spectrum
	<JTOL ***or*** JTOLerance>	Jitter Tolerance Test
	<LOG>	System Event Log
	<LTS>	Lightwave Test Set Interface
	<MASK>	Mask Test
	<PSEN ***or*** PSENsitivity>	Pattern Sensitivity
	<QFAC ***or*** QFACtor>	Q-Factor
	<SCH ***or*** SCHart>	Strip Chart
	<SSCW ***or*** crSSCWaveform>	Clock Recovery SSC Waveform
	<STRESS ***or*** STRESSedeye>	Stressed Eye
	<SYST ***or*** SYSTem>	System

Returns: < BBER | BER | BLEN | CONT | CORR | CRC | CRLR | CRS | DET | DPP | EDIT | EFIN | EMAP | EYE | FEC | GEN | HOME | JITT | JMAP_MAP | JS | JTOL | LOG | LTS | MASK | PSEN | QFAC | SSCW | SCH | SSCW | STRESS | SYST >

System View

DIALog:CDRam <bool>
DIAL:CDR <bool>
DIALog:CDRam?
DIAL:CDR?

Enable/disable display of a warning if capturing Detector RAM.

Params: <bool> On = 1, Off = 0

Returns: < 1 > Display warning if capturing Detector RAM

< 0 > Do not display warning if capturing Detector RAM

DIALog:RDCalibration <bool>
DIAL:RDC <bool>
DIALog:RDCalibration?
DIAL:RDC?

Enable/disable display of “Recommend delay calibration” message.

Params: <bool> On = 1, Off = 0.

Returns: < 1 > Display “Recommend delay calibration” message

< 0 > Do not display “Recommend delay calibration” message

DIALog:SRFCapture <bool>
DIAL:SRFC <bool>
DIALog:SRFCapture?
DIAL:SRFC?

Enable/disable display of a warning if stop running for capture.

Params: <bool> On = 1, Off = 0

Returns: < 1 > Display warning if stop running for capture

< 0 > Do not display warning if stop running for capture

DIALog:SRView <bool>
DIAL:SRV <bool>
DIALog:SRView?
DIAL:SRV?

Enable/disable display of a warning if switching running view.

Params: <bool> On = 1, Off = 0

Returns: < 1 > Display warning if switching running view

< 0 > Do not display warning if switching running view

STAB <TOOLs | REGistry | SETTings | ABOut | LOG | SelfTESt>
STAB?

Set or retrieve which tab is being displayed on the System view.

Params:	<TOOLs>	System Tools tab
	<REGistry>	System Registry tab
	<SETTings>	System Settings tab
	<ABOut>	System About tab
	<LOG>	System Log tab
	<SelfTESt>	System Self-Test tab
Returns:	< TOOLs | REGistry | SETTings| ABOut| LOG | SelfTESt >	

RAM Capture

CBLength <numeric> , <"filename">
CBL <numeric> , <"filename">

Capture the Detector RAM into a file by the input length. The first parameter is the number of words to capture. The second parameter is a string specifying the filename. *There must be a comma between the first and second parameters.* The filename should not contain any path and must have a .RAM extension. The captured file is in the D:\<BERTScope | BitAlyzer>\UserPatterns directory. Action only.

Params:	<numeric>	Number of words to capture into RAM
	<"filename">	Filename where RAM content is to be saved. Filename is enclosed in double quotes, should not contain any path, and must have .RAM as extension. *Example:* "`MyPattern.RAM`"

CBTrigger <"filename">
CBT <"filename">

Capture the Detector RAM into a file by trigger. The input parameter is a string specifying the filename. The file name should not contain any path and must have a .RAM extension. The captured file is in the D:\BitAlyzer\UserPatterns or D:\BERTScope\UserPatterns directory. Action only.

Params:	<"filename">	Filename where RAM content is to be saved. Filename is enclosed in double quotes, should not contain any path, and must have .RAM as extension. *Example:* "`MyPattern.RAM`"

CBTriggerlength <numeric> , <"filename">
CBT <numeric> , <"filename">

BERTScope only. Capture the Detector RAM into a file by trigger. The first parameter is the number of words to capture; the second parameter is a string specifying the filename. *There must be a comma between the first and second parameters.* The filename is enclosed in quotes, should not contain any path, and must have a .RAM extension. The captured file is in the D:\BERTScope\UserPatterns directory. Action only.

Params:	<numeric>	Number of words to capture into RAM
	<"filename">	Filename where RAM content is to be saved. Filename is enclosed in double quotes, should not contain any path, and must have .RAM as extension. *Example:* "`MyPattern.RAM`"

RCCancel
RCC

Cancel a running Detector RAM capture operation, if capturing was initiated by either CBLength or CBTRigger command (see above). Action only.

RCProgress?
RCP?

Retrieve the percentage completion of the running Detector RAM capture operation. This command should be used *only after* either the CBLength or CBTRigger command (see above). Query only.

Returns:	< numeric >	Percentage completion value of the capture operation

System Event Log

SLOG:CFILter:ALL <bool>
SLOG:CFIL:ALL <bool>

Enable/disable all system event log filters. Action only.

Params:	<bool>	On = 1, Off = 0.
Returns:	< 1 >	All log filters are On
	< 0 >	All log filters are Off

SLOG:CFILter:PCHanges <bool>
SLOG:CFIL:PCH <bool>
SLOG:CFILter:PCHanges?
SLOG:CFIL:PCH?

Set or retrieve whether Parameter Changes filter is enabled.

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	Parameter Changes filter is enabled
	< 0 >	Parameter Changes filter is disabled

SLOG:CFILter:PRECognition <bool>
SLOG:CFIL:PREC <bool>
SLOG:CFILter:PRECognition?
SLOG:CFIL:PREC?

Set or retrieve whether Pattern Recognition filter is enabled.

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	Pattern Recognition filter is enabled
	< 0 >	Pattern Recognition filter is disabled

SLOG:CFILter:SEVents <bool>
SLOG:CFIL:SEV <bool>
SLOG:CFILter:SEVents?
SLOG:CFIL:SEV?

Set or retrieve whether System Events filter is enabled.

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	System Events filter is enabled
	< 0 >	System Events filter is disabled

SLOG:CFILter:VCHanges <bool>
SLOG:CFIL:VCH <bool>
SLOG:CFILter:VCHanges?
SLOG:CFIL:VCH?

Set or retrieve whether View Changes filter is enabled.

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	View Changes log filter is enabled
	< 0 >	View Changes log filter is disabled

SLOG:CFILter:BATHreshold <bool>
SLOG:CFIL:BATH <bool>
SLOG:CFILter:BATHreshold?
SLOG:CFIL:BATH?

Set or retrieve whether BER Above Threshold filter is enabled.

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	BER Above Threshold filter is enabled
	< 0 >	BER Above Threshold filter is disabled

SLOG:CLOG

Clear the system event log. Action only.

SLOG:ENABle <bool>
SLOG:ENAB <bool>
SLOG:ENABle?
SLOG:ENAB?

Set or retrieve whether system event logging is enabled.

Params:	<bool>	On = 1, Off = 0
Returns:	< 1 >	System event logging is enabled
	< 0 >	System event logging is disabled

SLOG:LBTHreshold <double>
SLOG:LBTH <double>
SLOG:LBTHreshold?
SLOG:LBTH?

Set or retrieve the Log BER Threshold, when BER Above Threshold log filter is enabled.

Params:	<double>	BER above threshold value, double

SLOG:SLTFile <"filename">
SLOG:SLTF <"filename">

Save log to a file. Action only.

Params:	<"filename">	Location where log file will be saved as a "|" (vertical bar) separated text file. Filename is enclosed in double quotes.

Configuration

RCONfiguration <"filename">
RCON <"filename">

Restores a pre-saved configuration from a file representing the entire state of the instrument.

Params:	<"filename">	Specify the configuration file that will be used to restore. Filename is enclosed in double quotes.

SCONfiguration <"filename">
SCON <"filename">

Save the current configuration into a file.

Params:	<"filename">	Specify where the configuration file will be saved. Filename is enclosed in double quotes.

Status Queries

The following commands retrieve information for each component, such as driver version, H/W availability, and whether a driver is loaded.

CLKStatus?
CLKS?

Retrieve the CLK driver's information. Query only. This command is supported for backwards compatibility, but has been superseded by the NDRIvers? and DVERsion? commands in this section.

DELAY:DETRecal?
DELAY:DETR?

Retrieve the information that indicates whether Detector delay needs recalibration. Query only.
Note: Since monitoring for these calibrations is suspended while Physical Layer tests are running, using this command under those circumstances may not return an accurate result.

Returns: < 1 > Yes, Detector needs delay recalibration

< 0 > No, Detector does not need a delay recalibration

DELAY:GENRecal?
DELAY:GENR?

Retrieve the information that indicates whether Generator delay needs recalibration. Query only.

Note: Since monitoring for these calibrations is suspended while Physical Layer tests are running, using this command under those circumstances may not return an accurate result.

Returns: < 1 > Yes, Generator needs delay recalibration

< 0 > No, Generator does not need a delay recalibration

DIOStatus?
DIOS?

Retrieve the DIO driver's information. Query only. This command is supported for backwards compatibility, but has been superseded by the NDRIvers? and DVERsion? commands in this section.

DLYMstatus?
DLYM?

Retrieve the DLYM driver's information. Query only. This command is supported for backwards compatibility, but has been superseded by the NDRIvers? and DVERsion? commands in this section.

DVERsion? <integer>
DVER? <integer>

Retrieve the <Integer>-th driver version. Query only.

Params: <Integer> <Integer>-th driver. The number is of the range [0 to (N – 1)], where N is the value returned from the **NDRIvers?** command, above.

Returns: < Driver name and version number >

EYEStatus?
EYES?

Retrieve the EYE driver's information. Query only. This command is supported for backwards compatibility, but has been superseded by the NDRIvers? and DVERsion? commands in this section.

GIOStatus?
GIOS?

Retrieve the GIO driver's information. Query only. This command is supported for backwards compatibility, but has been superseded by the NDRIvers? and DVERsion? commands in this section.

HMSTatus? <CLK | GIO | DIO | DLYM | SRX | STX>
HMST? <CLK | GIO | DIO | DLYM | SRX | STX>

Retrieve the hardware module information. Query only.

Params:	<CLK | GIO | DIO | DLYM | SRX | STX>	Hardware module designation. Only one parameter is accepted per query.
Returns:	< Hardware module information >	
	If the command is given a non-applicable parameter, the query returns "Requested hardware module is not supported on the platform".	

ISSTatus?
ISST?

Retrieve the Instrument Server's version info. Query only.

NDRIvers?
NDRI?

Retrieve the number sequence of the software drivers. Query only.

SNUMber?
SNUM?

Retrieve the instrument serial number. Query only.

Returns: < Instrument serial number >

SRXStatus?
SRXS?

Retrieve the SRX driver's information. Query only. This command is supported for backwards compatibility, but has been superseded by the NDRIvers? and DVERsion? commands in this section.

STXStatus?
STXS?

Retrieve the STX driver's information. Query only. This command is supported for backwards compatibility, but has been superseded by the NDRIvers? and DVERsion? commands in this section.

TREAding? <CAB | GENDELAY | DETDELAY>
TREA? <CAB | GENDELAY | DETDELAY>

Retrieve the internal temperature readings in degrees Celsius. Query only

Params:	<CAB> <GENDELAY> <DETDELAY>	Temperature register designation. Only one parameter is accepted per query.
Returns:	< Internal temperature reading in ºCelsius > If the command is given a non-applicable parameter, the query returns “Requested temperature reading is not supported on the platform”.	

VREAding? < M5P2 | M2 | M12 | 3P3 | 5 | 12 >
VREA? < M5P2 | M2 | M12 | 3P3 | 5 | 12 >

Retrieve the internal voltage register reading. Query only.

Params:	<M5P2 | M2 | 3P3_STBY | 3P3 | 5 | 12 | M12 | 2P5 | 1P5 | M5 | M19 | PGM_3P3 | PGM_M5 | PGM_5 | PGM_M8 | PGM_8 | PGM_M11 | PGM_11 | PGM_M17P5 | PDM_3P3 | PDM_5 | PDM_11 | PDM_M3P3 | PDM_M5 | PDM_M11>	Voltage register designation. Only one parameter is accepted per query.
Returns:	< Internal voltage register reading > If the command is given a non-applicable parameter, the query returns “Requested hardware module is not supported on the platform”.	

Common Commands

***CLS**

Clear the status queue. Action only. This command will not show in the list of Trace messages displayed on the remote control client user interface.

***IDN?**

Retrieve the identification of the device. Query only. This command will not show in the list of Trace messages displayed on the remote control client user interface.

SYSTem:ERRor?
SYST:ERR?

Retrieve items listed in the error status queue. Query only. This command will not show in the list of Trace messages displayed on the remote control client user interface.

The status queue is first in, first out. It can contain up to 100 error messages. If the queue overflows, the last error/event in the queue is replaced with Error –350, Queue overflow. When all errors/events have been read from the queue, further error/event queries will return 0, NO ERROR.

Returns: < n, “event/string” >

File Transfer

Transfer files between the BitAlyzer/BERTScope and a remote PC. ***Note:*** File transfer protocol is illustrated in the Send and Get diagrams, following. File Transfer commands will not show up in the list of Trace messages displayed on the remote control the client user interface.

ABORT

Cancels a SEND or GET file operation. This command will not show in the list of Trace messages displayed on the remote control client user interface.

An ABORT reply indicates that the file transfer operation is being discontinued. This command will not show in the list of Trace messages displayed on the remote control client user interface.

BUFFER <Bytes> <CRC>

During "Get" or "Send" file transfer, indicates size of next buffer to be transferred. Once file transfer is initiated, this command precedes a block transfer of the exact number of Bytes. During transfer of these Bytes, no command processing occurs. These Bytes are transferred in binary form.

Params: <Bytes> The number of Bytes in the next block of binary data transfer (unsigned short)

<CRC> **BitAlyzer:** The 32-bit checksum of the buffer
BERTScope: The 128-bit checksum of the buffer

Returns: Continue or Abort

CONTINUE

Acknowledges that a file transfer operation may proceed. This command will not show in the list of Trace messages displayed on the remote control client user interface.

After each buffer has been transmitted, the receiver replies with this CONTINUE message if the transfer may proceed; otherwise, it replies with an ABORT message.

Returns: binary data or Abort

DONE

Acknowledgement: Tells the file receiver that all the buffers have been sent out. File transfer is completed. This command will not show in the list of Trace messages displayed on the remote control client user interface.

FILE:DELETE "full-path-name"

Use to delete a file or a folder. Enclose the pathname in double quotes. Search is not case-sensitive. Spaces are allowed within the string. A file is deleted only if it is not read-only. A folder is deleted only if it is empty. Action only.

FILE:EXISTS? "full-path-name"

Search is not case-sensitive. Spaces are allowed within the string. Enclose in double quotes. Query only.

Returns: < 0 > File does not exist

< 1 > File exists

FILE:GET <filename>

Get a file from BitAlyzer/BERTScope. Action only. This command will not show in the list of Trace messages displayed on the remote control client user interface.

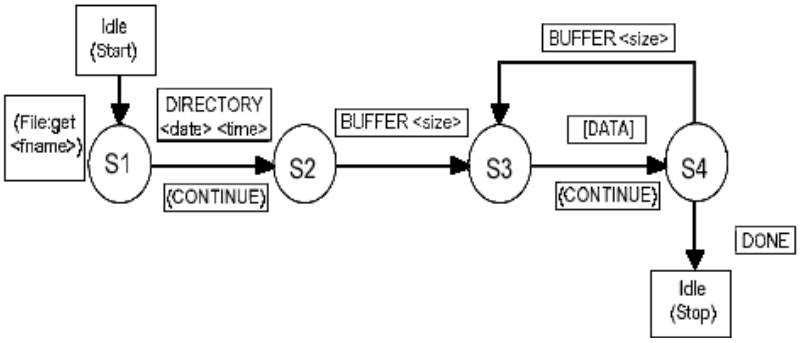
Params: <filename> Name of the BitAlyzer/BERTScope file to be sent to the PC.

These commands start the file transfer. The Remote Control program needs to follow a specific protocol in order to complete the transfer (see the GET diagram, below).

The file is separated into packets of up to 4,090 Bytes. For each packet, a **BUFFER <Bytes> <CRC>** command is sent first. The sender should calculate the CRC value for a packet and send it in the buffer acknowledge. The receiver will recalculate and compare the CRC. If the CRC is incorrect, the receiver will request a retry. Remote Service supports retry up to three times, after which it will assume the session of file transfer is impossible to complete correctly and will issue an ABORT. When it reaches the EOF, the sender should let the receiver know by issuing a DONE.

The acknowledgement of file transfer should be all uppercase: CONTINUE, ABORT, RETRY, DONE, and BUFFER.

GET From BitAlyzer/BERTScope to remote PC:



FILE:MKDIR "full-folder-name"

Create a folder. Action only. Enclose the full name in double quotes. The string can include upper and lower case letters, and spaces are allowed.

FILE:SEND <filename>

Send a file from the remote PC to BitAlyzer/BERTScope. Action only. Command will not show in the list of Trace messages displayed on the remote control client user interface.

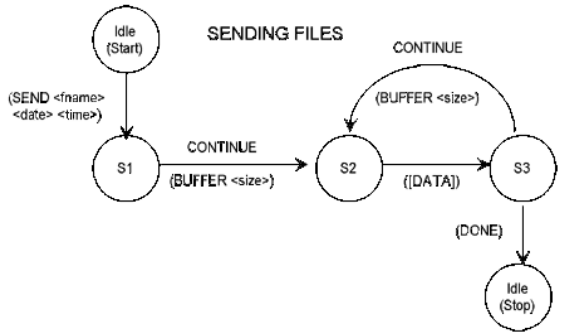
Params: <filename> Name of the PC file to be sent to the BitAlyzer/BERTScope

This command starts a file transfer from the remote PC to the BitAlyzer/BERTScope. The Remote Control program needs to follow a specific protocol in order to complete the transfer (see the SEND diagram, below).

The file is separated into packets of up to 4,090 Bytes. For each packet, a **BUFFER <Bytes> <CRC>** command is sent first. The sender should calculate the CRC value for a packet and send it in the buffer acknowledge. The receiver will recalculate and compare the CRC. If the CRC is incorrect, the receiver will request a retry. Remote Service supports retry up to three times, after which it will assume the session of file transfer is impossible to complete correctly and will issue an ABORT. When it reaches the EOF, the sender should let the receiver know by issuing a DONE.

The acknowledgement of file transfer should be all uppercase: CONTINUE, ABORT, RETRY, DONE, and BUFFER.

SEND from remote PC to BitAlyzer/BERTScope:



RETRY

Acknowledgement: Requests the file sender to resend the previous buffer. This command will not show in the list of Trace messages displayed on the remote control client user interface.

The RETRY command is used when the buffer was not received correctly. Retry is supported for up to three attempts.

Error Messages and Codes

Error Messages

"TOO MANY PARAMETERS"
"UNRECOGNIZED COMMAND"
"WRONG PARAMETER TYPE"
"TOO LITTLE PARAMETERS"
"WRONG PARAMETER FORMAT"
"WRONG PARAMETER NUMBER"
"WRONG ACTION-ONLY"
"WRONG QUERY-ONLY"
"REQUESTED <QUERY PARAMETER> IS NOT SUPPORTED ON THE PLATFORM"

Error Codes

0	"NO ERROR"
-350	"Queue Overflow"
-10	File transfer error
-20	System error or event
-30	Command error, see list of error messages
-40	No software option

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