



Application Note Automation and Scripting

Overview:

Using a simple terminal emulation program, it is possible to automate communications with the Spectronix Eye-BERT products . The macro below illustrates how to use TeraTerm V4.90 to automate setup and logging of the Eye-BERT Micro 10G. This example opens up a log file using the current date and time and stores the device information. A log entry is then created every second thereafter and every 5th second the BERT counters are reset. The example can be altered for more sophisticated functions. Refer to the software programming guide for your specific product.

Macro File:

```
getdate logfile "Log %Y-%m-%d, %H.%M.%S.txt" ; get the date and time

logopen logfile 0 0 ; open a log file
logwrite #13#10 ; new line
logwrite logfile ; write the file name to the file
logwrite ' *****'

sendln 'setrate 1031250000' ; set the BERT rate
mpause 100 ; wait 100mS
sendln 'setpat 7' ; set the pattern
mpause 100 ; wait 100mS
logwrite #13#10 ; new line
sendln 'setpat !' ; get BERT information

seconds = 0 ; seconds counter
while 1
    if seconds=5 then ; every 5 seconds
        sendln 'reset' ; reset the BER
        logwrite #13#10 ; write new line to file
        logwrite 'Reset' ; indicate reset in file
        seconds=0 ; reset timer
    else ; if not reset interval
        sendln '+R' ; read BER
    endif
    seconds= seconds+1 ; increment timer
    pause 1 ; timer interval
endwhile
logclose
```

Output Log File:

```
Log 2016-05-12, 11.24.00.txt *****
SPECTRONIX Eye-BERT Micro Firmware V 0.1AVAGO HFCT-721XPD SN: M6479FW5
1310.00 nm, 10.50 MbpsTemp: 36.9 °C Rx: -5.0 dBm sigTx: -2.4 dBmErrors:0BER:
0.0000E00Sig: Rate: 1031250000
Rx: -5.0dBm, Sig LOL , 36.9C, Cnt: 0.000E00, Err: 0, BER: 0.000E00
Rx: -5.0dBm, Sig Lock, 36.9C, Cnt: 6.442E+09, Err: 0, BER: 0.000E00
Rx: -5.0dBm, Sig Lock, 37.8C, Cnt: 1.610E+10, Err: 0, BER: 0.000E00
Rx: -5.1dBm, Sig Lock, 36.9C, Cnt: 2.684E+10, Err: 0, BER: 0.000E00
Rx: -5.0dBm, Sig Lock, 36.9C, Cnt: 3.650E+10, Err: 0, BER: 0.000E00
Reset=w P!ùòÿ,q_ÿû$
Rx: -5.0dBm, Sig Lock, 36.9C, Cnt: 6.442E+09, Err: 0, BER: 0.000E00
Rx: -5.0dBm, Sig Lock, 37.8C, Cnt: 1.610E+10, Err: 0, BER: 0.000E00
Rx: -5.1dBm, Sig Lock, 37.8C, Cnt: 2.684E+10, Err: 0, BER: 0.000E00
Rx: -5.1dBm, Sig Lock, 37.8C, Cnt: 3.865E+10, Err: 0, BER: 0.000E00
```