

# C-BERT™

## 100 Gbit Ethernet Bit Error Rate Tester



### KEY-FEATURES

- Simultaneous four channel BER testing
- 4x 24 up to 29 Gb/s data rate
- Integrated low jitter clock source
- Built-in clock and data recovery (CDR)
- PRBS pattern length 7, 9, 15, 23, 31
- 4 differential data outputs up to 1V
- Full BERT eye scan diagram
- Auto decision point alignment
- User interface via Ethernet
- All in one compact 1U 19" box

## C-BERT 2810-4

### FAST AND EFFECTIVE 100 GBIT ETHERNET TESTING

The C-BERT 2810-4 is a complete bit error rate tester dedicated for 100G Ethernet applications. The four independent channels enable an actual operating environment with traffic on all lanes. The simultaneous testing of 4 channels is much faster than testing each channel individually saving time and money. The BERT eye scan reveals low-probability events and shows the true performance of the DUT to aid troubleshooting. The high RF port density eliminates long cable length which degrades the signal at 25 Gb/s. The OS independent GUI is easy to install and enable remote control from everywhere. The complete and compact C-BERT is a powerful and cost efficient test solution for 100G Ethernet.

### APPLICATION

- 100G Ethernet 4 channel devices
- CFP2 Transceiver
- Four channel TOSA & ROSA
- Active Optical Cable (AOC)
- Research, Development & Production

### SPECIFICATIONS

Pattern Generator Data Output	Min.	Typ	Max.	Unit
Data Rate	24		29	Gb/s
PRBS Pattern	2 <sup>7</sup> -1, 2 <sup>9</sup> -1, 2 <sup>15</sup> -1, 2 <sup>23</sup> -1, 2 <sup>31</sup> -1			
Differential Output Signal Swing	0.4		1.0	Vpp
Rise / Fall Time [20-80%]		14		ps
Total Jitter		1.0		ps(rms)

#### Reference Clock and Trigger

Reference Clock Output / Trigger Output	Data Rate / 10			
Output Signal Swing	1500			mVpp

#### Error Detector

Data Rate	24		29	Gb/s
Differential Input Signal Swing	80		2000	mVpp

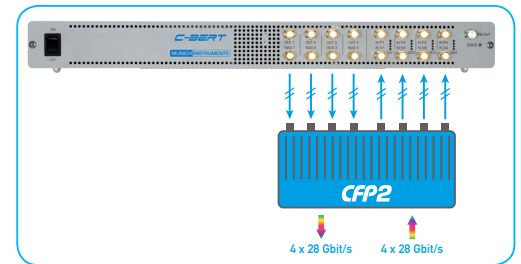
#### General

RF Connector Type	RPC 2.92mm Connector (female)			
Electrical User Interface	RJ45, 100Base Ethernet			
Power Supply	85 – 264 Vac, 50/60 Hz			
Case Temperature	10		40	°C
Dimensions	435.8 x 270 x 44 (1U, 19" box)			mm

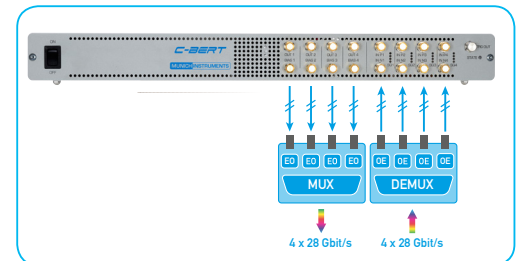
### ORDERING INFORMATION

Order No	Description
MI-PE2810-4	25 / 28 Gb/s 4ch PPG and ED

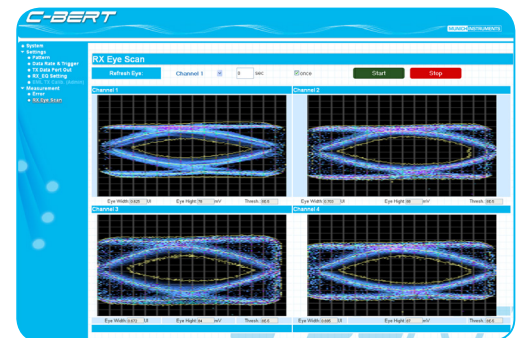
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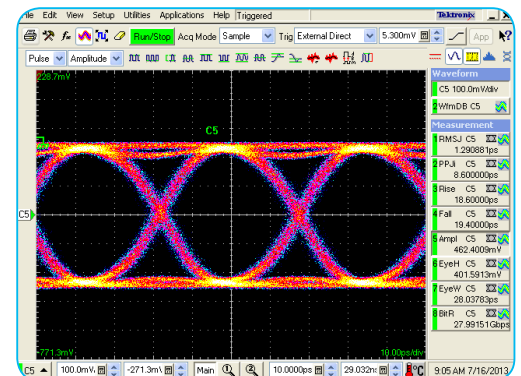
CFP2 Transceiver Test Setup



100GbE TOSA + ROSA Test Setup



BERT Eye Scan Diagrams of four Channels



Electrical Output Eye Diagram at 28 Gb/s