

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
- 4 single-ended high voltage outputs
- Cross point alignment
- Integrated low jitter clock source
- Built-in clock and data recovery (CDR)
- PRBS pattern length 7, 9, 15, 23, 31
- Full BERT eye scan diagram
- User interface via Ethernet
- All in one compact 1U 19" box

C-BERT 2830-4

FAST AND EFFECTIVE 100 GBIT ETHERNET TESTING

The C-BERT 2810-4 is a complete bit error rate tester dedicated for 100G Ethernet driving EMLs, VCSEL and optical modulators direct. Four independent high voltage output channels eliminate the need of external amplifiers and Bias-T circuits. The cross point alignment feature enable optimization of the optical output. The BERT eye scan reveals low-probability events and shows the true performance of the DUT to aid troubleshooting. The OS independent GUI is easy to install and enable remote control from everywhere. The compact C-BERT 2830-4 is a powerful, time saving and cost efficient solution for 100G Ethernet TOSA testing.

APPLICATION

- 100G Ethernet 4 channel devices
- EML, VCSEL, optical modulator
- TOSA four channel wide
- Reseach, Development & Production

SPECIFICATIONS

Pattern Generator Data Output	Min.	Typ	Max.	Unit
Data Rate	24		29	Gb/s
PRBS Pattern	2 ⁷ -1, 2 ⁹ -1, 2 ¹⁵ -1, 2 ²³ -1, 2 ³¹ -1			
Single-Ended Output Signal Swing	0.5		2.5	Vpp
Rise / Fall Time [20-80%]	12.5			ps
Cross Point Adjustment	35		75	%
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

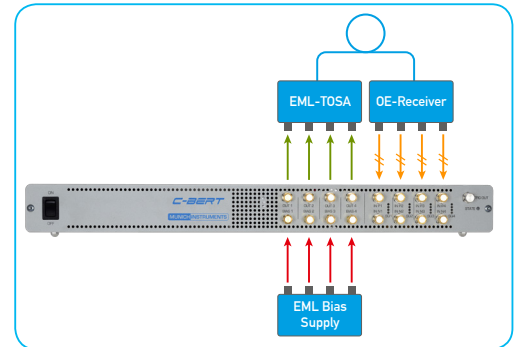
General

RF Connector Type	RPC2.92mm 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

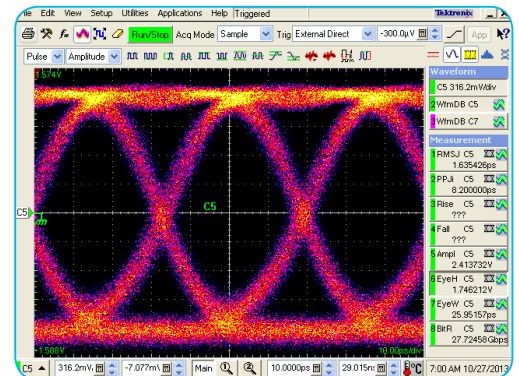
ORDERING INFORMATION

Order No	Description
MI-PE2830-4	25 / 28 Gb/s 4ch PPG and ED with high voltage single-ended outputs

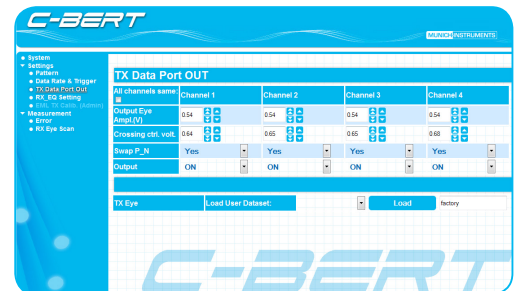
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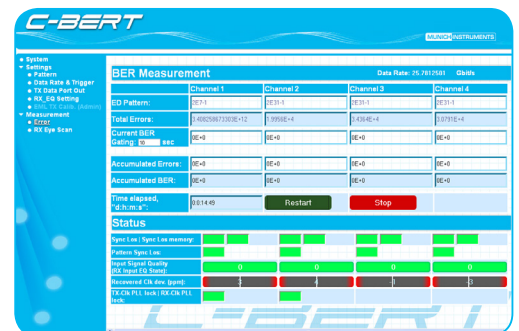
100GbE EML-TOSA Test Setup



Electrical Output Eye Diagram at 28 Gb/s with 2.5Vpp



GUI with Transmitter Data Port Out Settings



GUI with Measurement Results Display