



BIT ERROR RATE TESTER 8.0 Gbit/s - 11.3 Gbit/s

Preliminary Datasheet

KEY FEATURES:

Data rate 8.0 Gbit/s - 11.3 Gbit/s

PRBS 7, 9, 15, 23 and 31, with additional 8 kByte User defined patterns.

Standard choice of Wavelength

Switchable Clock divider rates at 1/2, 1/4, 1/8, and 1/16

Synchronization with external System clocks

155M reference clock for XFP modules possibility provided.

Power supply for evaluation boards (1.8V, 3.3V, 5.0V and custom)

Internal clock source with 7 switchable clocks from 8.5Gbit/s - 11.3Gbit/s

Pluggable functional electrical- and optical BERT modules, Clock source and Clock divider

Up to 3 X-BERT Modules in one standard 19"/2 frame

Up to 7 X-BERT Modules in one standard 19" frame

GPIB Interface

LabView X-BERT User Interface

Revision 3.1 08/2007



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FUNCTIONAL DESCRIPTION:

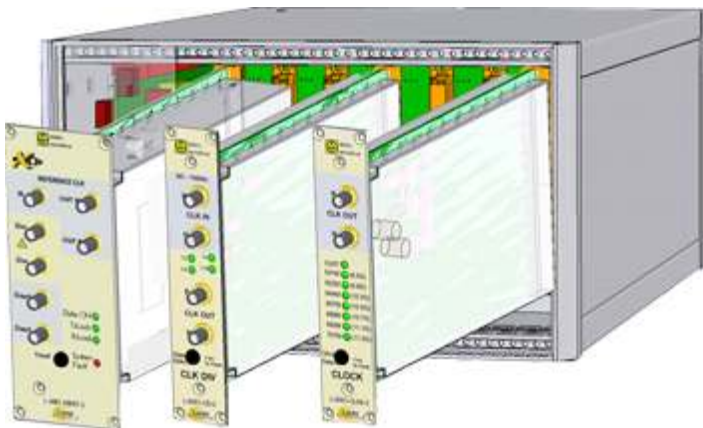
The X-BERT has a modular slot system, giving the option to house electrical- and optical BERT Modules in the same frame and still operate independently. A 19"/2 Frame can house up to 3 BERT Modules, but still has enough space for an internal clock source and clock divider.

Luceo is giving you the option to configure the BERT on own requirements with a frame that will give the ability to enhance and build up the system at a later stage if necessary i.e. the requirement is one electrical BERT immediately. At a later stage another optical and/or electrical BERT can be added without going through the expenses of having to purchase another frame. Every single module is a slot, easily to be replaced / added.

Further more, Luceo is offering the same principle in a 19" Frame for mountable purposes giving space up to 7 BERT Modules.

With a data rate going from 8.0 Gbit/s to 11.3 Gbit/s continuously, test can be conducted on SFP+, XFP and other 10G range transceivers and optical components., Due to the incorporated functionality no O/E converters has to be deployed, clock sources or pattern generators separately, giving an extra saving already.

Equipped with GPIB Interface, the X-BERT can be controlled by any compatible GCIB Software. In addition Luceo's own GUI based on LabView will be provided free of charge.



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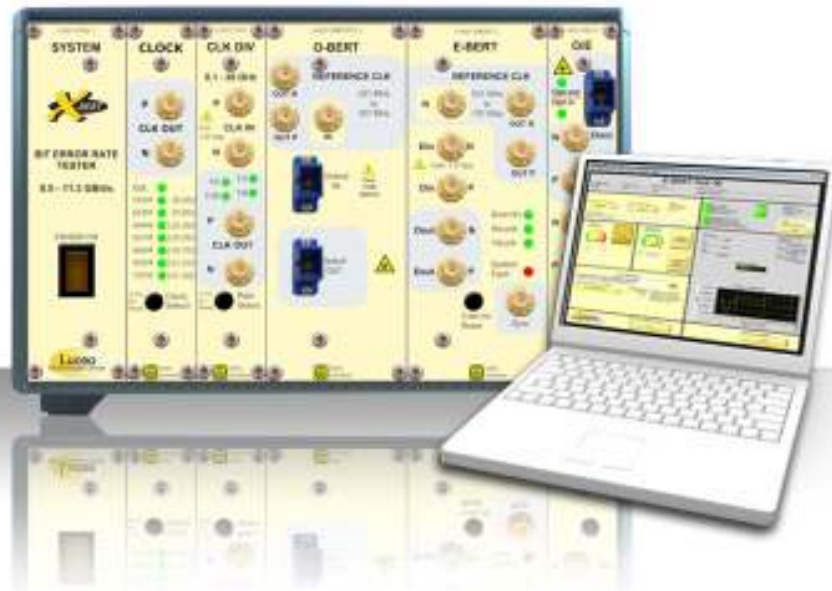


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MODULES AND OPTIONS AVAILABLE:

- Optical BERT Module 9.9 Gbit/s – 11.3 Gbit/s with SC Connectors
- Optical BERT Module 9.9 Gbit/s – 11.3 Gbit/s with FC Connectors
- Electrical BERT Module 9.9 Gbit/s
- Clock Source 622 MHz range
- Clock Divider by $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{8}$, $\frac{1}{16}$
- Clock Data Recovery
- Mainframe with Power Supply
- DC Power Module
- Data Rate range extension 8.0 Gbit/s – 11.3 Gbit/s
- Extended Warranty up to 3 years
- Repair & Calibration Service 3 years



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DEVICE SETUP:

The BER-Tester can be equipped with various modules for optimum adaptation to the application requirements.

Up to seven BERT modules are possible in extended housing (optional).

The following functional modules are available:

1. Optical bit error rate tester O-BERT. Consists of optical interfaces for each receive and transmit channel.
2. Electrical bit error rate tester E-BERT. Consists of electrical interfaces for each receive and transmit channel.
3. Clock driver module. Generates signals from 531.25MHz up to 707.35 MHz in 7 steps for using the O-BERT or E-BERT according to 10G applications. This module is necessary if there is no external clock signal available. Other frequencies are available upon request.
4. Clock divider module. In case there is only a 10GHz clock available, this module divides the signal by 16 to feed the BERT module with the required clock signal. For other clock frequencies the module is also capable to divide the clock by 2, 4, 8 or 16. This might be very useful if other test equipment is not capable to handle 10GHZ clock signals.
5. GPIB interface for set up the device in your test environment.
6. Power supply for external evaluation boards and peripheral devices on request.

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SOFTWARE:

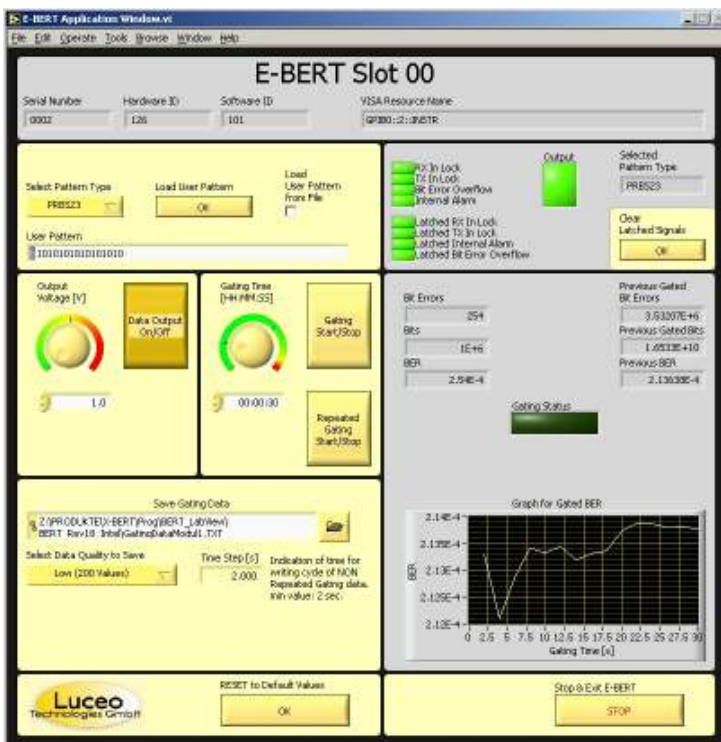
COMPUTER INTERFACE:

To connect the X-BERT to a PC, use the GPIB interface on the back of the device.

GRAPHICAL USER INTERFACE:

Simplicity is goal:

Each individual BERT module has its own user panel and shows actual Bit Error Rate and Gating results. Gating time can be programmed to each module individual.



To integrate the BERT into complex test-setups LabView® drivers will be provided.

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LUCEO TECHNOLOGIES GMBH

Located in Berlin, Germany, the company focuses on optoelectronic innovations in multiple fields. One of them is high-class test equipment.

Luceo's members have decades of optoelectronic experiences, collected in professional fiber optic companies and institutes.

Please visit our website for additional information. www.luceotec.com.

Exceeding the parameters described in this datasheet might lead to permanent damage. Precautions for ESD protection must be preserved at all times when operating and handling the instrument.

Product specifications and descriptions in this document are subject to change without notice.

For the latest version of this document, please visit our website.

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