BERT 800 *800G Bit Error Rate Tester*

Optical communication has become the backbone of modern communication technology due to its low transmission loss, high capacity, and fast speeds. As transmission rates continue to accelerate, accurately measuring bit error rates in optical modules is crucial to ensure reliable performance. Dimension Technology's BERT800 bit error tester series offers a comprehensive solution for testing and verifying high-speed optical transceiver modules. These versatile devices can be used in various applications, including mass production, performance verification, and reliability testing. By combining a universal control board with interchangeable interface boards, the BERT800 series provides a flexible platform for testing bit error rates, configuring module parameters, and monitoring module status.

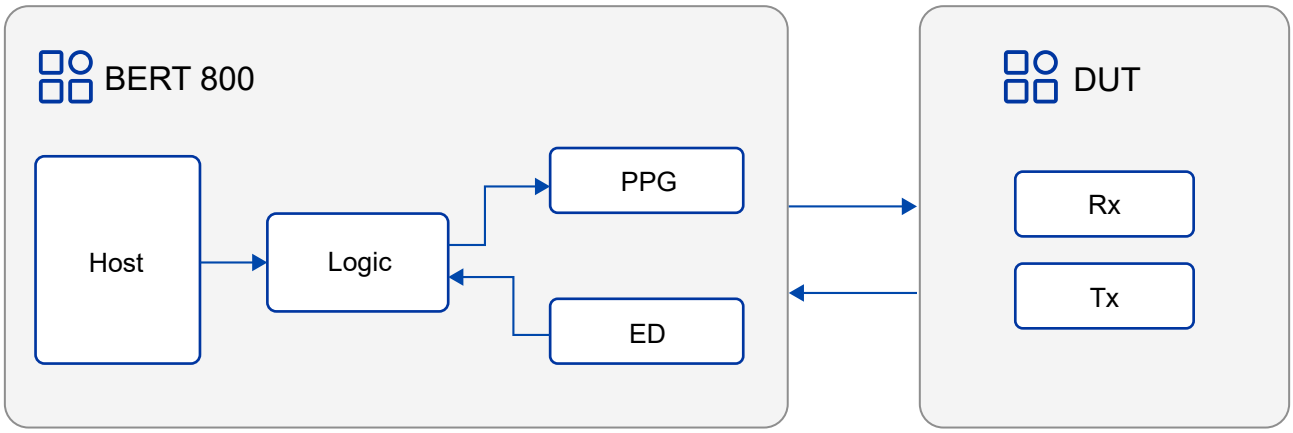
Key Features

- Use control board and replaceable interface board to reduce long-term use cost
- Flexible configuration, support transceiver modules with different packages such as 800G OSFP, QSFP-DD, QSFP28
- Support 800GbE to 100GbE
- Available in production and portable types, suitable for mass production, performance verification, reliability testing, etc.
- Use optimized PHY chip and optical module heat dissipation design
- Provide standard communication protocol, can be easily integrated with test system
- Support NRZ/PAM4, multiple PRBS code types are optional
- Support FEC, support multiple equalization methods
- No high-speed cable required
- Simple user interface

Applications

- Mass production of 800G-100G optical transceiver modules
- R&D and verification of high-speed optical transceiver modules

Flexible and cost-effective



The BERT800 series bit error tester employs a modular design, featuring a control board and interchangeable interface boards. This flexible architecture allows for testing a wide range of optical transceiver modules with different packages, including OSFP, QSFP-DD, and QSFP28. Optimized for high-frequency performance, the BERT800 series effectively manages consumable costs while ensuring accurate data transmission. When the optical module connector reaches its service life, simply replace the corresponding interface board to extend the system's lifespan and reduce long-term operating costs.

Portable Model

Production Model

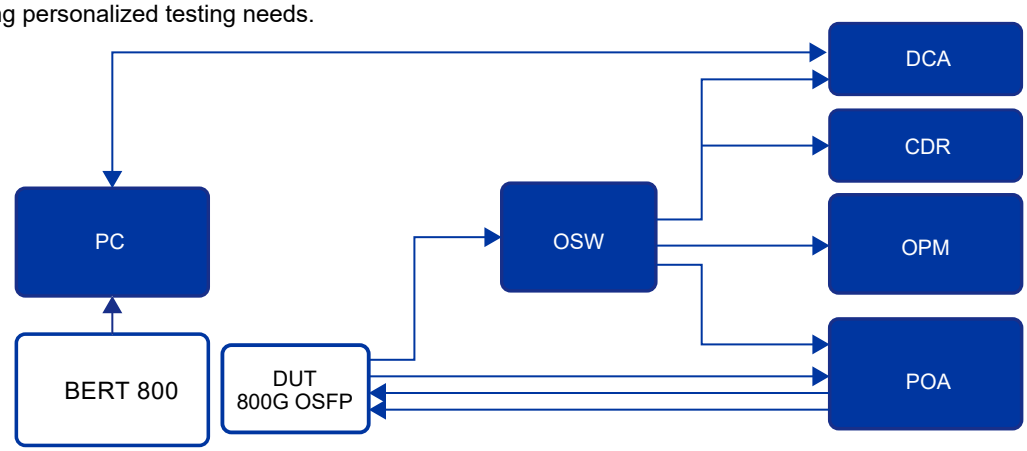
Various Test Options

The Dimension BERT800 utilizes a host computer system to control the pattern generator and error detection unit, enabling comprehensive testing of 800G-100G optical transceiver modules. This system supports various coding modes, including NRZ and PAM4, and offers a range of pseudo-random code patterns, such as PRBS7, PRBS9, PRBS21, PRBS23, PRBS31, and PRBS58.

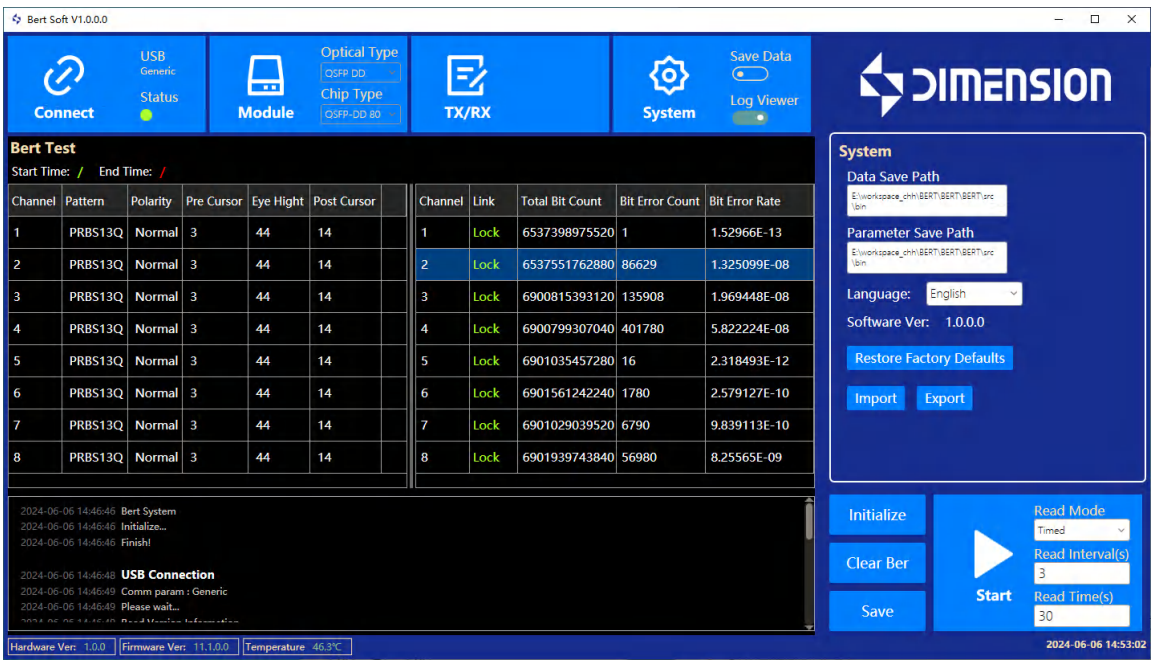
Packages	Interface Board	Supported Transceiver Modules
OSFP	OSFP	112G/800G PAM4 OSFP, 56G/400G PAM4 OSFP
QSFP-DD	QSFP-DD	112G/800G PAM4 QSFP-DD, 56G/400G PAM4 QSFP-DD
QSFP28	QSFP28	QSFP28SR4

Diverse Scenarios of Applications

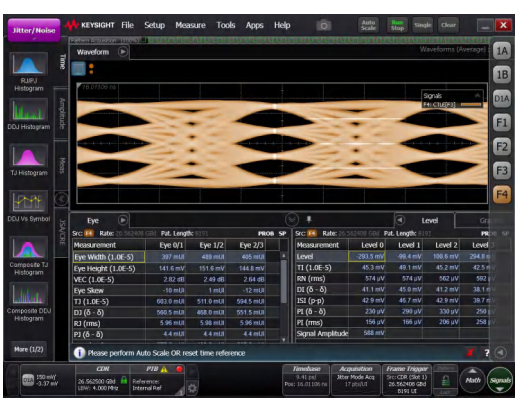
Dimension Technology's BERT800 series offers both production-grade and portable models, catering to various applications including mass production, performance testing, reliability verification, and field deployments. The series incorporates a robust heat dissipation design for PHY chips and optical modules, ensuring long-term stability and reliability. Dimension Technology's BERT800 series adheres to standard communication protocols, enabling seamless integration into customer test systems and accommodating personalized testing needs.



BERT800 User Interface



BERT800 Eye Diagram



BERT 800&Thermal Tester

Specifications

Specification	Parameter
Mode	800G BASE-R; 400G BASE-R; 200G BASE-R; 100G BASE-R
Modulation	NRZ/PAM4
Tx/Rx Connectors	QSFP DD, OSFP, QSFP28
Date Rate	PAM4：53.125GBaud; 26.5625GBaund； NRZ：25.78125Gbps
Patterns	SSPRQ，PRBS58，PRBS31，PRBS23，PRBS15，PRBS9，PRBS7,PRBS31Q，PRBS23Q，PRBS15Q，PRBS13Q
Tx Amplitude	200~950mVpp
Clock Divider	2~1024
Module Power Supply	3.3V
Module Power Supply	10A
Module Communication	I^2C , ≤400K
Communication	USB，RS232，TCP/IP RJ45
Power Supply	24V/3A
Dimensions (LxWxH)	Production Model：398mm*200mm*85mm; Portable Model：215mm*104mm*90mm
Weight(kg)	Production Model：5.2KG； Portable Model：2KG;
Operational Temperature	5°C - 40°C
Storage Temperature	-20°C - 70°C
Humidity	20% - 85%
Power Supply	220/240Vac，50W

Order Info

BERT 800 — [ ] — [ ] — [ ]

Model	
1	Production
2	Portable

Interface	
1	QSFP-DD
2	OSFP
3	QSFP28

Speed	
1	800G
2	400G
3	200G
4	100G

Example.
BERT 800-11-1
BERT800G Bit Error Rate Tester has the interface board for 800G QSFP-DD transceiver module. It's equipped with adapter for thermal cycing tester.

Accessory Order Info

BERT 800 — [ ]

Interface
QSFP-DD
OSFP
QSFP28

Related Products

16-CH MM Programmable Optical Attenuator

Optical Switch

CDR

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