MTS/T-BERD® Platforms

Optical Broadband Source (BBS) Module

Key Features

- **A unique solution for chromatic dispersion (CD), polarization mode dispersion (PMD), and attenuation profile (AP) measurement**
- **A shock-proof and vibration-proof instrument with no moving parts**
- **For both the MTS/T-BERD 8000 and MTS/T-BERD 6000 platforms**
- **High-performance component testing**

Applications

Suitable for the following test applications

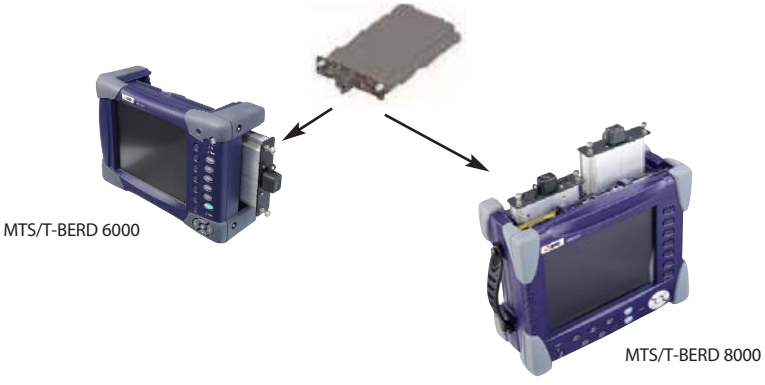
– DWDM and very high speed network characterization
– CWDM system testing
– Water peak qualification
– Component qualifications
– Metro, long haul, and very long haul networks

2007 FROST & SULLIVAN
Global Communications Test & Measurement Company of the Year Award

The JDSU MTS/T-BERD 8000 and MTS/T-BERD 6000 platforms equipped with the Optical Broadband Source (BBS) module deliver comprehensive fiber characterization including coarse wavelength division multiplexing (CWDM) and dense wavelength division multiplexing (DWDM) applications in a rugged, modular platform ideal for field use.

Today's fiber networks must meet exacting performance requirements to withstand the demands of widespread broadband access technology deployment. In addition to deploying fiber infrastructures that perform perfectly, network operators are challenged by the need to reduce operating expenses while adding new revenue-generating services, all within an environment that seems to grow more complex by the minute.

At the test level, the growing demand for 10 Gigabit Ethernet (GigE) and the emergence of 40 G requires that more and more fiber links be fully characterized. With the MTS/T-BERD 8000 test platforms, JDSU has developed ideal, all-in-one solutions for these challenges. The MTS/T-BERD platforms combine small, highly integrated plug-in modules, battery operation, and rugged, drop-tested housing. Its weather-resistant design and long battery life are ideally suited for use in the field and its modularity allows for field upgrades to support new testing requirements. The MTS/T-BERD is easily upgradeable with technologies and advanced options that support the changing needs of field technicians.



Three Test Applications in One

The optical broadband source module supports the qualification of DWDM components and provides physical layer testing including chromatic dispersion (using the referenced phase shift method), PMD (using the fixed analyzer method) and attenuation profile measurements. These measurements are required for high-speed and full-band DWDM transmission verification. Having three test applications in a single product minimizes both capital expenses and the number of instruments carried into the field.

The easy-to-use MTS/T-BERD user interface field technicans provides:

– One module for multiple functions
– Direct access to the selection of one of three test functions

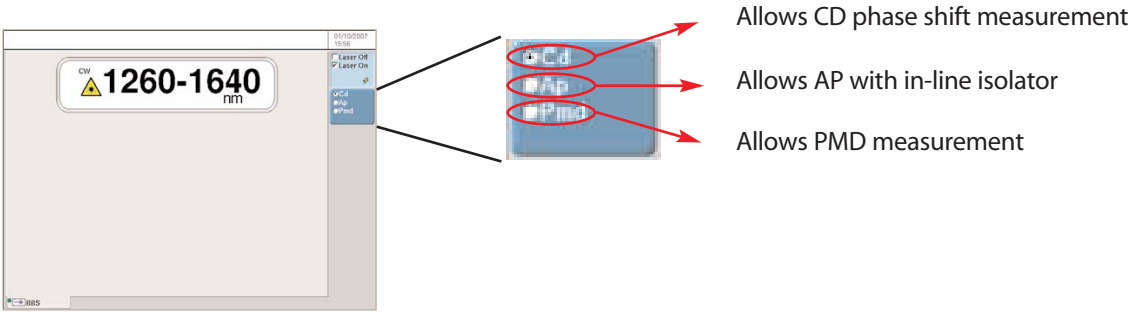


Figure 1 Source configuration

Field dedicated and high performance solution

Housed in a rugged MTS/T-BERD mainframe, the optical broadband source module offers the highest level of integration and ruggedness.

Combined with the ODM plug-in module the complete solution is ready for any field measurement condition. Its size and weight makes it the ideal solution for outside plant testing and its suite of personal computer interfaces and remote control capability the best fit for component testing.

– An all-in-one remote solution when combined with an OTDR
– Wide wavelength range from 1260-1640 nm
– High dynamic range in combination with the ODM module (up to 45 dB)
– Fiber characterization and component testing capability

Specifications

Typical Specifications at 25° C

Optical interfaces	
Applicable fiber	SMF 9/125 µm
Interchangeable optical connectors	FC, SC, DIN, ST, LC

Physical	
Weight	500 g (1.1 lbs)
Dimensions (w x h x d)	213 x 124 x 32 mm (8.38 x 4.88 x 1.26 in)

Wavelength range	
E81BBS1	1485 nm to 1640 nm
E81BBS2	1260 nm to 1640 nm
Min spectral density	-42 dBm/0.1 nm
Output power	>8 dBm[1] (E81BBS2)
Laser safety	Class 3B (FDA21CFR)

[1] Over 1270-1600 nm wavelength range.

Ordering Information

Broadband source	
Broadband Source module for CD/PMD/AP (1260-1640 nm)	E81BBS2A

Universal optical connectors
EUNIPCFC, EUNIPCSC, EUNIPCST, EUNIPCDIN, EUNIPCLC
EUNIAPCFC, EUNIAPCSC, EUNIAPCST, EUNIAPCDIN, EUNIAPCLC

For more information on test adapters, cables, and fiber optic couplers, please refer to the separate datasheet "JDSU Fiber Optic Test Adapters and Cables."

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