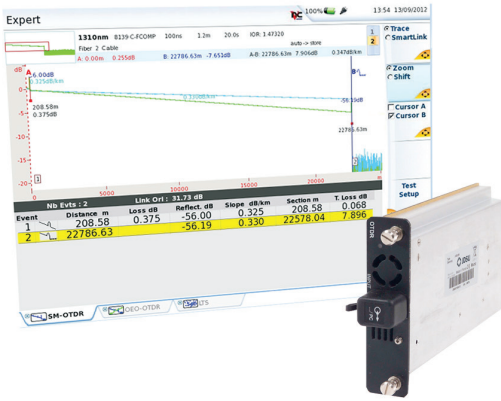


T-BERD®/MTS-6000/-6000A/-8000 Platforms

8100-Series OTDR Module Family — Single-Mode/Multimode SRL



Key Benefits

- Ideal OTDR test solution for LAN/WAN, premises, and metro networks
- Provide very short dead zones for highest precision
- Avoid the risk for live signal interference or optical transmitter damage during an OTDR test with instantaneous automatic traffic detection
- Eliminate OTDR interpretation errors with Smart Link Mapper (SLM) without compromising on test time
- Gain flexibility with quad-wavelength and penta-wavelength single-mode/multimode versions and a dual-wavelength multimode version

Key Features

- Dynamic range of 24/24 dB (multimode) and 41/40/39 dB (single-mode)
- 0.5 m event dead zone and 2 m attenuation dead zone (multimode)
- TIA/IEC pass/fail thresholds
- Optimized for testing 10 MB to 40 GE
- Can be combined with Ethernet/CPRI tests
- Enables Tier 2 certification of premises networks (for Tier 1 certification, use the JDSU Certifier40G)
- IEC 61280-4-1 compliant using an external mode conditioner

The JDSU SRL module, part of the 8100-Series OTDR module family, can connect anywhere on the fiber to characterize single-mode and multimode fiber for commissioning, network upgrades, and troubleshooting with the insurance of workflow optimization and accurate fiber-link fingerprinting.

The optical performance of the SRL module combined with the T-BERD/MTS platform's complete suite of testing features ensures that testing jobs are performed right *the first time*.

Standard testing features include:

- Automatic macrobend detection
- Summary results table with pass/fail analysis
- Bidirectional OTDR analysis
- FastReport onboard report generation

Applications

- Enterprise LAN/WAN
- Military/avionics
- Premises/access/FTTA
- Metro/backhaul

Platform Compatibility

T-BERD/MTS-6000/-6000A



Modular platform for fiber and multiple-services testing

T-BERD/MTS-8000 (V2)



Scalable platform for multiple-layer and multiple-protocol testing

Specifications (typical at 25°C)
General

Weight	Approx. 600 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)
Laser safety class (21 CFR)	Class 1
Distance units	Kilometer, meter, feet, and miles
Group index range	1.30000 to 1.70000 in 0.00001 steps
Number of data points	Up to 128,000

Distance Measurement

Mode	Automatic or dual cursor
Display range	From 2.6 m up to 380 km (single-mode)
Display resolution	1 cm
Cursor resolution	1 cm
Sampling resolution	4 cm
Accuracy	$\pm 1 \text{ m} \pm \text{sampling resolution} \pm 1.10^{-3} \times \text{distance}$ (excluding group index uncertainties)

Attenuation Measurement

Mode	Automatic, manual, 2-point, 5-point, and LSA
Display range	1.25 to 55 dB
Display resolution	0.001 dB
Cursor resolution	From 0.001 dB
Linearity	$\pm 0.03 \text{ dB/dB}$
Threshold	0.01 to 5.99 dB in 0.01 dB steps

Reflectance/ORL Measurements

Mode	Automatic or manual
Reflectance accuracy	$\pm 2 \text{ dB}$
Display resolution	0.01 dB
Threshold	-11 to -99 dB in 1 dB steps

	Multimode	Single-Mode
Wavelength ¹	850 \pm 20 nm; 1300 \pm 20 nm	1310 \pm 20 nm; 1550 \pm 20 nm; 1625 \pm 10 nm
Dynamic range ²	24/24 dB	41/40/39 dB
Pulsewidth	3 ns to 300 ns	3 ns to 20 μ s
Event dead zone ³	0.5 m	0.8 m
Attenuation dead zone ⁴	2 m	4 m
Continuous wave light source ⁵	—	Wavelengths: 1310, 1550, 1625 nm Output power -3.5 dBm Stability: $\pm 0.1 \text{ dB}$ @25°C over 1 hour Operating modes: CW, 270 Hz, 330 Hz, 1 kHz, 2 kHz, Twintest
Automatic traffic detection	Yes	Yes

1. Laser at 25°C and measured at 10 μ s.

2. The one way difference between the extrapolated backscattering level at the start of the fiber and the RMS (SNR=1) noise level, after 3 minutes averaging and using the largest pulsewidth.

3. Measured at $\pm 1.5 \text{ dB}$ down from the peak of an unsaturated reflective event using the shortest pulsewidth.

4. Measured at $\pm 0.5 \text{ dB}$ from the linear regression using a FC/UPC reflectance and using the shortest pulsewidth.

5. Not available for the E8156SRL module.

Ordering Information
8100 Modules

Part Number	Description
E8123SRL	850/1300 nm OTDR module
E8146SRL	850/1300/1310/1550 nm OTDR module
E8156SRL	850/1300/1310/1550/1625 nm OTDR module
E810TDRLS	CW source option (single-mode wavelengths only)

Universal Optical Connectors

Part Number	Description
EUNIPCFC, EUNIPCSC, EUNIPCST, EUNIPCDIN, EUNIPCCLC	Straight connectors for single-mode port
EUNIAPCFC, EUNIAPCSC, EUNIAPCDIN, ENIAPCLC	8° angled connectors for single-mode port
EUNIPCFCMM, EUNIPCSCMM, EUNIPCSTMM, EUNIPCDINMM	Straight connectors for multimode port

For more information about the T-BERD/MTS-6000/-6000A and T-BERD/MTS-8000 test platforms, refer to their respective data sheets and brochure.

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