



MP OTDR Module

T-BERD®/MTS-2000, -4000, -5800 platforms

The JDSU MP OTDR module provides the optimum performance that fiber installers and service providers need to test metro, cable TV (CATV) and FTTH networks with high-port-count splitters.

With various wavelength combinations including filtered wavelengths for in-service testing, an improved dynamic range, and optimized resolution and dead zones at short pulses, the MP module is the ideal OTDR to test any PON system with up to a 1x128 splitting ratio.

The MP module's optical performance, combined with the T-BERD/MTS platform's complete suite of features, ensures that testing is done right the *first* time.

Standard testing features include:

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

Key Features

- Up to 43 dB dynamic range and 256,000 acquisition points
- PON-optimized to test up to a 1x128 splitter
- Single-, dual-, and tri-wavelength versions with 1310/1490/1550/1625/1650 nm
- Single connector port for 1310, 1550, and in-service 1625 nm or 1650 nm wavelengths
- Integrated CW light source and power meter
- FiberComplete™ compatible
- Ready for SLM, FTTH-SLM, and FTTH-SLM intelligent optical application software
- Instantly detects traffic when connected to live fiber



T-BERD/MTS-2000 one-slot handheld modular platform for testing fiber networks



T-BERD/MTS-5800* handheld test instrument for testing 10 G Ethernet and fiber networks



T-BERD/MTS-4000 two-slot handheld modular platform for testing fiber, copper, and multiple services

*Compatible with TBERD/MTS-5811P/L, -5822P.

Specifications

General (typical at 25°C)					
Weight	0.35 kg (0.77 lb)				
Dimensions (w x h x d)	128 x 134 x 40 mm (5 x 5.28 x 1.58 in)				
Optical Interfaces					
Interchangeable optical connectors	FC, SC, DIN, LC and ST				
Technical Characteristics					
Laser safety class (21 CFR)	Class 1				
Distance units	Kilometers, feet, and miles				
Group index range	1.30000 to 1.70000 in 0.00001 steps				
Number of data points	Up to 256,000 data points				
Distance measurement	Automatic or dual cursor				
Display range	0.5 to 260 km				
Cursor resolution	1 cm				
Sampling resolution	4 cm				
Accuracy	$\pm 1 \text{ m} \pm \text{sampling resolution} \pm 1.10^{-5} \times \text{distance}$ (excluding group index uncertainties)				
Attenuation Measurement					
Automatic, manual, 2-point, 5-point, and LSA					
Display range	1.25 dB to 55 dB				
Display resolution	0.001 dB				
Cursor resolution	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					
Reflectance accuracy	$\pm 2 \text{ dB}$				
Display resolution	0.01 dB				
Threshold	-11 to -99 dB in 1 dB steps				
CW Source					
CW Source output power level	-3.5 dBm				
Power Meter (optional)					
Power level range	0 to -55 dBm				
Calibrated wavelengths	1310, 1490, 1550, 1625, and 1650 nm				
Measurement accuracy	$\pm 0.5 \text{ dB}$				
MP OTDR (typical at 25°C)					
Central wavelength ¹	1310 $\pm 20 \text{ nm}$	1490 $\pm 20 \text{ nm}$	1550 $\pm 20 \text{ nm}$	1625 $\pm 10 \text{ nm}$	1650 $\pm 20 \text{ nm}$
Pulse width	3 ns to 20 μs				
RMS dynamic range ²	43 dB	41 dB	41 dB	41 dB	40 dB
Event dead zone ³	80 cm				
Attenuation dead zone ⁴	4 m				

Ordering Information

Description	Part Number
MP 1310/1550 nm OTDR module	E4126MP
MP 1310/1490/1550 nm OTDR module	E4138MP49
MP 1310/1550/1625 nm OTDR module	E4136MP
MP 1310/1550 and filtered 1625 nm OTDR module	E4136RMP
MP Filtered 1650 nm OTDR module	E4118RMP65
MP 1310/1550 and filtered 1650 nm OTDR module	E4138RMP65
Power meter option	E41OTDRPM
Universal Optical Connectors	
Straight	EUNIPCF, EUNIPCSC, EUNIPCST, EUNIPCDIN, EUNIPCLC
8° angled	EUNIAPCF, EUNIAPCSC, EUNIAPCDIN, EUNIAPCLC

1. Laser at 25°C and measured at 10 μs .
2. The one-way difference between the extrapolated backscattering level at the start of the fiber and the RMS noise level, after 3 minutes averaging.
3. Measured at $\pm 1.5 \text{ dB}$ down from the peak of an unsaturated reflective event.
4. Measured at $\pm 0.5 \text{ dB}$ from the linear regression using a FC/UPC-type reflectance.

For more information on the T-BERD/MTS-2000, -4000, and -5800 test platforms, please refer to their respective data sheets and brochures or contact your JDSU representative.



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