

# MA OTDR Module

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

The Viavi Solutions MA OTDR module provides technicians with the ideal test tool for characterizing various access and metro network architectures, such as CWDM, wireless backhaul, and FTTx.

The MA OTDR module meets the challenges of commissioning a complete metro ring, troubleshooting a bend in a distribution frame, or qualifying high-port-count optical splitters in passive optical networks (PON). Its impressive technical specifications combined with a wide range of test functions give technicians with the best solution to more efficiently deploy or repair fiber links in the field.

The MA module's optical performance combined with the complete T-BERD/MTS platform suite ensures testing is done right—the first time.

Standard test features include:

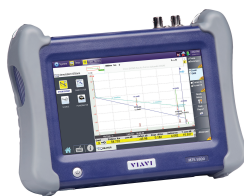
- Automatic macrobend detection
- Summary results table with pass/fail analysis
- Bidirectional OTDR analysis
- FastReport onboard report generation

## Key Features and Benefits

- Up to 40 dB dynamic range
- PON-optimized to test up to 1x32 splitter ratio, and up to 1x64 splitter ratio with the FTTH-SLM application
- Single-, dual-, tri-wavelength versions with 1310, 1550, 1625, and 1650 nm
- Single connector port for 1310, 1550, and in-service 1625 nm wavelengths
- Integrated CW light source and power meter
- FiberComplete™ compatible
- Ready for SLM, FTTA-SLM, and FTTH-SLM intelligent optical application software
- Instantly detects traffic upon connecting 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 models -5811P/L and -5822P.

## Specifications

General (Typical at 25°C)	
<b>Weight</b>	0.35 kg (0.77 lb)
Dimensions (w × h × 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 128,000 data points
Distance measurement	Automatic or dual cursor
Display range	0.5 to 260 km
Cursor resolution	1 cm
Sampling resolution	4 cm
Accuracy	±1 m ±sampling resolution ±1.10 <sup>-5</sup> x distance (Excluding group index uncertainties)
Attenuation Measurement	
Automatic, manual, 2-point, 5-point, and LSA	
Display range	1.25 to 55 dB
Display resolution	0.001 dB
Cursor resolution	0.001 dB
Linearity	±0.03 dB/dB
Threshold	0.01 to 5.99 dB in 0.01 dB steps
Reflectance/ORL Measurements	
Reflectance accuracy	±2 dB
Display resolution	0.01 dB
Threshold	11 to -99 dB in 1 dB steps
CW Source and Broadband Power Meter (optional)	
CW source output power level	-3.5 dBm
Power level range	0 to -50 dBm
Calibrated wavelengths	1310, 1490, 1550, 1625, and 1650 nm
Measurement accuracy	±0.5 dB

MA OTDR Module (Typical at 25°C)				
Central wavelength <sup>1</sup>	1310 ±20 nm	1550 ±20 nm	1625±10 nm	1650±20 nm
Pulse width	3 ns to 20 µs	3 ns to 20 µs	3 ns to 20 µs	3 ns to 20 µs
RMS dynamic range <sup>2</sup>	40 dB	38 dB	37 dB	37 dB
Event dead zone <sup>3</sup>	90 cm	90 cm	90 cm	90 cm
Attenuation dead zone <sup>4</sup>	4m	4m	4m	4m

1. Laser at 25°C
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 ±1.5 dB down from the peak of an unsaturated reflective event.
4. Measured at ±0.5 dB from the linear regression using an FC/UPC-type reflectance.

## Ordering Information

Description	Part Number
<b>MA OTDR modules and options</b>	
Metro access 1310/1550 nm OTDR module	E4126MA
Metro access 1310/1550/1625 nm OTDR module	E4136MA
Metro access 1310/1550 and filtered 1625 nm OTDR module	E4136RMA
Metro access filtered 1650 nm OTDR module	E4118RMA65
Continuous and modulated source option	E410TDRLS
Power meter option	E410TDRPM
<b>Universal optical connectors</b>	
Straight connectors	EUNIPCFC, EUNIPCSC, EUNIPCST, EUNIPCDIN, EUNIPCCLC
8° angled connectors	EUNIAPCFC, EUNIAPCSC, EUNIAPCDIN, EUNIAPCLC

For more information on T-BERD/MTS-2000, -4000, and -5800 test platforms, please refer to their respective data sheets and the brochure.

Contact your Viavi representative for additional information regarding your specific needs.



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