

VIAVI

4100 Series Quad OTDR Module

For T-BERD®/MTS-2000, –4000 V2, –5800 and OneAdvisor 800 Platforms

The VIAVI Quad OTDR module is the ideal test tool for installers/contractors, wireless service providers, or any user dealing with both single-mode and multimode applications every day. It is perfect for use in installing, turning up, and maintaining premises and enterprise, access, metro, and wireless fronthaul/backhaul networks.

The VIAVI Quad OTDR module features fast acquisition time, sharp resolution, up to a 26 dB multimode dynamic range, and up to a 37 dB single-mode dynamic range for installing and maintaining fiber links. Its integrated light source, accessible through both OTDR ports (multimode and single-mode), let users quickly identify fiber without switching ports and conduct a full range of fiber certification tests.

The Quad module’s optical performance combined with a complete suite of platform enabled testing and reporting features ensures that testing is done right—the first time.

Standard test features include:

- Automatic macrobend detection
- Summary results table with pass/fail analysis
- Smart Link Mapper: Simple icon-based OTDR results view
- FastReport on-board report generation



T-BERD/MTS-2000 V2 one-slot handheld modular platform for testing fiber networks



OneAdvisor 800 All-in-One Cell-site Installation and Maintenance Test Solution



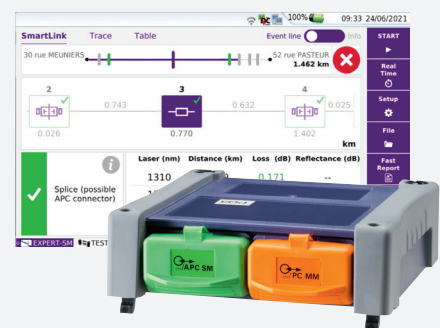
T-BERD/MTS-4000 V2 Two-slot handheld modular platform for testing fiber networks



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

Key Features

- Up to 37 dB dynamic range in single-mode and 26 dB in multimode
- Quad-wavelength version with 850, 1300, 1310, and 1550 nm
- Integrated continuous wave (CW) light source
- TIA/IEC pass/fail thresholds
- Propagation delay measurement in multimode (TIA-568-C)
- Certifies Tier 2 premises networks
- IEC 61280-4-3-compliant using an external modal controller



Specifications

General (Typical at 25°C)	
Weight	0.4 kg (0.88 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, LC, and ST
Technical Characteristics	
Laser safety class (21 CFR)	Class 1
Distance units	Kilometers, feet, and miles
Group index range	1.300000 to 1.700000 in 0.00001 steps
Number of data points	Up to 256,000 data points
Distance measurement	Automatic or dual cursor
Display range	0.5 m to 260 km
Cursor resolution	1 cm
Sampling resolution	4 cm
Accuracy	±0.5 m ±sampling resolution ±1.10 ⁻⁵ x 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
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
Optical Light Source	
CW Source output power level	-3.5 dBm
Operating modes	CW, 270 Hz, 330 Hz, 1 kHz, 2 kHz, TWINTest

Quad OTDR Modules (Typical at 25°C)		
Central wavelength ¹	850/1300 ±30 nm	1310/1550 ±20 nm
Pulse width	3 ns to 1 µs	3 ns to 20 µs
RMS dynamic range ²	26/24 dB	37/35 dB
Event dead zone ³	0.55 m	0.65 m
Attenuation dead zone ⁴	3 m	3 m
Distance range	Up to 10 Km	Up to 260 Km

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 at 500 ns in multimode and 20 µs in Singlemode

3. Measured at ±1.5 dB down from the peak of an unsaturated reflective event

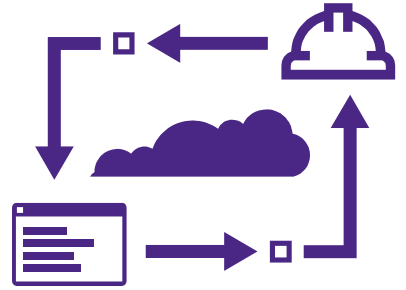
4. Measured at ±0.5 dB from the linear regression using an F/UPC-type reflectance

Ordering Information

Description	Part Number
Quad OTDR Modules and Options	
MULTIMODE/SINGLEMODE -850/1300/1310/1550 nm – PC	E4146A-PC
MULTIMODE/SINGLEMODE -850/1300/1310/1550 nm – APC	E4146A-APC
Accessories	
EF modal controller for 50 µm MM fiber–SC/PC	EFJEF50CONSCPC
EF modal controller for 50 µm MM fiber–FC/PC	EFJEF50CONFPC
Universal PC connector adapters	
Universal PC connector adapters EUSCADS, EULCADS, EUFCADS	
Universal APC connector adapters EUSCADS-APC, EULCADS-APC, EUFCADS	

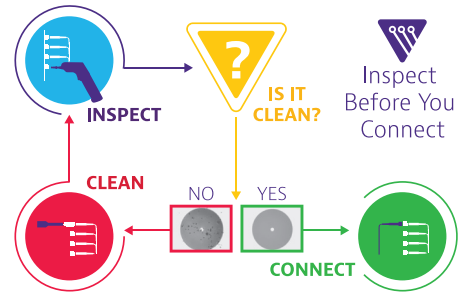
Test Process Automation (TPA)

Allows your team to deliver expert-level test results and close projects on the first try, every time. TPA is a closed loop test system that optimizes workflows, eliminates manual, error prone work and automates immediate data reporting for job close out, team progress updates and network health analytics. Execute jobs efficiently to ensure high quality network builds, rapid turn-up/activation and enhanced operational visibility.



Inspect Before You Connect (IBYC)

Contamination is the number 1 reason for troubleshooting optical networks. Proactive inspection and cleaning of fiber connectors can prevent poor signal performance, equipment damage, and network downtime.



VIAVI Care Support Plans

Increase your productivity for up to 5 years with optional VIAVI Care Support Plans:

- Maximize your time with on-demand training, priority technical application support and rapid service.
- Maintain your equipment for peak performance at a low, predictable cost.

Plan availability depends on product and region. Not all plans are available for each product or in every region. To find out which VIAVI Care Support Plan options are available for this product in your region, contact your local representative or visit: viavisolutions.com/viavicareplan

Features

*5-year plans only

Plan	Objective	Technical Assistance	Factory Repair	Priority Service	Self-paced Training	5 Year Battery and Bag Coverage	Factory Calibration	Accessory Coverage	Express Loaner
 BronzeCare	Technician Efficiency	Premium	✓	✓	✓				
 SilverCare	Maintenance & Measurement Accuracy	Premium	✓	✓	✓	✓*	✓		
 MaxCare	High Availability	Premium	✓	✓	✓	✓*	✓	✓	✓



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