

VIAVI

4100-Series FiberComplete Module

For T-BERD/MTS-2000 V2 and -4000 V2 Platforms

FiberComplete™ is the first solution to fully automate all the fundamental fiber-qualification tests, such as bidirectional insertion loss (IL), optical return loss (ORL), and optical time domain reflectometry (OTDR), with one module from one optical port.

You can now equip each technician with a single piece of equipment that fulfills all of the traditional fiber testing requirements. The VIAVI 4100-Series FiberComplete module for the T-BERD/MTS-2000 V2 and -4000 V2 platforms offers the most complete fiber-testing solution for quick and easy use in characterizing point-to-point or point-to-multipoint passive-optical networks (PON).

Platform Compatibility

T-BERD/MTS-2000 V2

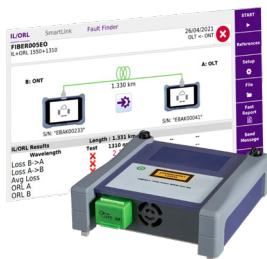


One-slot handheld modular platform for fiber network testing

T-BERD/MTS-4000 V2



Two-slot handheld modular platform for testing fiber optic networks



Key Benefits

- One powerful unit equips field technicians with all the fundamental fiber tests they need
- Cuts test time by more than half with fewer connections and disconnections, automatic continuity check, and an intelligent fault finder
- Minimizes training and gets reliable measurements using a single connection port that combines a fully automated process with easy-to-read results
- Optimizes workflow: Compiles test results into one complete cable view, automatically stores measurements

Key Features

- 3.5 s measurement time for bi-directional IL/ORL and length at two wavelengths
- Full setup and data exchange between near end and far end units for fewer mistakes and retests
- Smart Link Mapper (SLM) icon-based map view of the fiber link
- Real-time continuity check and automatic product pairing (single strand and ribbon/MPO cables)
- Manage fiber and cable results
- Step-by-step wizard lets you reference initial IL/ORL tests
- Smart Access Anywhere (SAA) for remote control and field tech support
- StrataSync enabled for centralized cloud based asset, configuration, test data and workflow management

Applications

- Measure bidirectional OTDR, IL, and ORL with one unit
- Troubleshoot in FaultFinder mode for immediate results
- Conduct acceptance tests in Bidirectional OTDR mode
- Certify ribbon and MPO-based cables by adding VIAVI MPO switch module

Specifications (Typical at 25°C)

General					
Weight	0.35 kg (0.77 lb)				
Dimensions (w × h × d)	128 × 134 × 40 mm (5.04 × 5.28 × 1.58 in)				
Applicable fiber	SMF 9/125 μm				
Interchangeable optical connectors	FC, SC, LC (PC or APC)				
Built-in Power Meter (Mainframe) T-BERD/MTS-2000 V2, -4000 V2					
T-BERD/MTS mainframes require the broadband power meter option for referencing					
Measurement range	+5 to -50 dBm				
Absolute uncertainty	±0.2 dB				
Wavelength range	800 to 1650 nm				
OTDR					
	Central Wavelength	Pulse Width	RMS Dynamic Range	Event Dead Zone	Attenuation Dead Zone
4100 B	1310/1550/1625/1650 nm	5 ns to 20 μs	42/40/40/40 dB	0.65 m	2.5 m
Source Function (also valid for CW source mode)					
Laser safety class (21 CFR)	Class 1				
Wavelength at 25°C	1310±20 nm, 1550±20 nm, 1625±10 nm				
Output level into 9/125 μm fiber (CW mode)	-3.5 dBm				
Modulated output average level	3 dB less				
Modulation frequencies	Continuous wave, 270 Hz, 330 Hz, 1 kHz, 2 kHz				
Stability (over 8h)	±0.1 dB				
Output power accuracy	±0.65 dB				
Loss Test Set Function					
Insertion Loss					
Loss range	40 dB				
Uncertainty	±0.2 dB ¹				
Repeatability	<0.05 dB ²				
Result resolution	0.01 dB				
Optical Return Loss					
ORL display range	Up to 55 dB				
Uncertainty	±0.5 dB ³				
Length⁴					
Measurement range	150 km				
Uncertainty	0/+5 m ± 0.001% x distance				

1. Using side-by-side reference

2. Without disconnection

3. From 10 to 45 dB range

4. Measurement @ 1550 nm with an index of refraction n = 1.468

Ordering Information

FiberComplete Module with OTDR and FaultFinder Functions*	
Description	Part Number
4100 Module B FiberComplete - 1310/1550 NM - PC/APC	E4126B-FCOMP-PC/-APC
4100 Module B FiberComplete - 1310/1550/1625 NM - PC/APC	E4136B-FCOMP-PC/-APC
4100 Module B FiberComplete - 1310/1550/Filtered 1650 NM - APC	E4138FB65-FCOMP-APC ⁵
4100 Module FiberComplete FaultFinder - 1310/1550 NM - APC	E4126-FCOMPFF-APC
4100 Module FiberComplete FaultFinder - 1310/1550/1625 NM - APC	E4136-FCOMPFF-APC
Options	
FiberComplete upgrade to add OTDR Function	EFCOFF2OTDR-UPG
Accessories	
Singlemode MPO Switch Module - 1x12 Pinned MPO - SC/APC	E41MPO12SM
Digital videoscope kit, including P5000i probe, soft case, and 7 inspection tips	ESDFSCOPE5KI
Optical Fiber Cable software	EOFS200
Additional Nonreflective optical terminators kit	ENRTERMKIT

5. Only 1310 & 1550 nm used in FiberComplete application

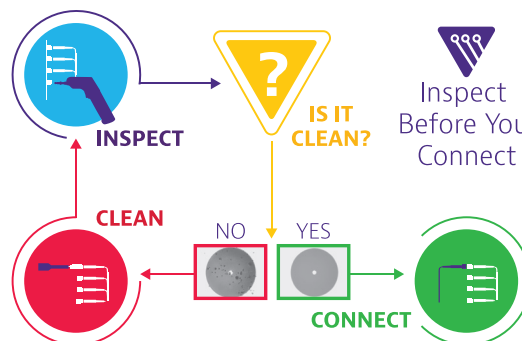
*All FiberComplete modules come standard with SC, LC, and FC nonreflective terminations for zero ORL referencing (equivalent to a mandrel), built-in light and power meter source option.

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.



VIAMI Care Support Plans



Increase your productivity for up to 5 years with optional VIAMI 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 VIAMI 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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