

VIAVI T-BERD/MTS 4100-Series FiberComplete Module

For T-BERD/MTS-2000,-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 dual-slot T-BERD/MTS-4000 V2 and single-slot T-BERD®/MTS-2000 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



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 traditional 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

- Make one connection, one-touch automated measurements
- 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
- 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

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), and ST (PC)				
Built-in Power Meter (Mainframe) T-BERD/MTS-2000, -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 ⁵	800 to 1650 nm				
OTDR					
	Central Wavelength	Pulse Width	RMS Dynamic Range	Event Dead Zone	Attenuation Dead Zone
Metro-Access/PON (MA3)	1310/1550/1625 nm	3 ns to 20 μs	43/41/41 dB	0.7 m	3 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				
Spectral bandwidth	10 nm maximum				
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				
TWINtest and Auto-λ	All wavelengths activated consecutively				
Loss Test Set Function					
Insertion Loss					
Loss range	40 dB				
Absolute uncertainty	±0.25 dB ¹				
Repeatability	<0.05 dB ²				
Result resolution	0.01 dB				
Optical Return Loss					
ORL measurement range	Up to 45 dB				
Absolute uncertainty	±0.9 dB ³				
Repeatability	<0.01 dB ⁵				
Length⁴					
Measurement range	150 km				
Absolute uncertainty	±30m				

1. Using side-by-side reference

2. Without disconnection

3. From 20 to 40 dB range

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

5. -45 dBm from 800 to 1250 nm

Ordering Information

FiberComplete Module with OTDR and FaultFinder Functions*	
Description	Part Number
1310/1550 nm FiberComplete with 43/41 dB MA3 OTDR	E4126MA3FCO
1310/1550/1625 nm FiberComplete with 43/41/41 dB MA3 OTDR	E4136MA3FCO
Accessories	
Digital videoscope kit, including P5000i probe, soft case, and 7 inspection tips	ESDFSCOPE5KI
Optical Fiber Trace software	EOFS100
SC/PC and SC/APC nonreflective terminators - FC/PC and FC/APC nonreflective terminators - LC/PC non-reflective terminator	ENRTERMSC - ENRTERMFC - ENRTERMLC
LC mating sleeve - FC mating sleeve - SC mating sleeve	EMSSMLC- S3101 - S3111
Nonreflective optical terminators kit	ENRTERMKIT

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



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