



# T-BERD<sup>®</sup>/MTS-2000 MTS-4000 Platforms

## 4100-Series FiberComplete™ Module

FiberComplete is the first solution to perform 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 Solutions 4100-Series FiberComplete module for the dual-slot, T-BERD/MTS-4000 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).

### Key Benefits

- One powerful unit equips field technicians with all the traditional fiber tests they need
- Cuts testing almost in 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 and automatically stores measurements

### Key Features

- Make one connection, one-touch automated measurements
- Real-time continuity check and automatic product pairing
- Manage fiber and cable results
- Step-by-step wizard lets you reference initial IL/ORL tests

### Applications

- Measure bidirectional OTDR, IL, and ORL with one unit
- Troubleshoot in FaultFinder mode for immediate results
- Conduct acceptance tests in Bidirectional OTDR mode

## Platform Compatibility

### T-BERD/MTS-2000



One-slot handheld modular platform for fiber network testing

### T-BERD/MTS-4000



Two-slot handheld modular platform for fiber/copper and multiple services testing

## 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, DIN, LC (PC or APC), and ST (PC)				
Built-in Power Meter (Mainframe)					
T-BERD/MTS mainframes require the broadband power meter option for referencing.					
	Standard		High Power		
Measurement range	+5 to -50 dBm		+27 to -30 dBm		
Absolute uncertainty	±0.2 dB		±0.25 dB		
Wavelength range	800 to 1650 nm		800 to 1650 nm		
OTDR					
	Central Wavelength	Pulse Width	RMS Dynamic Range	Event Dead Zone	Attenuation Dead Zone
Metro-Access (MA)	1310/1550/1625 nm	3 ns to 20 μs	37/35 to 35 dB	0.9 m	4 m
Metro-PON (MP)	±0.2 dB	3 ns to 20 μs	42/40/40/40 dB	0.8 m	4 m
Bidirectional Test Set					
Source Function (also valid for CW source mode)					
Laser safety class (21 CFR)	Class 1				
Wavelength at 25°C	1310±20 nm, 1490±20 nm, 1550±20 nm, 1625±20 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					
Loss range	40 dB				
Absolute uncertainty	±0.25 dB <sup>1</sup>				
Repeatability	<0.05 dB <sup>2</sup>				
Result resolution	0.01 dB				
Optical Return Loss					
ORL measurement range	Up to 55 dB				
Absolute uncertainty	±0.5 dB <sup>3</sup>				
Repeatability	<0.1 dB <sup>4</sup>				
Length Function					
Measurement range	150 km <sup>5</sup>				
Absolute uncertainty	±30m <sup>6</sup>				

- Using side-by-side reference
- Without disconnection
- From 10 to 45 dB range
- From 20 to 40 dB range
- Typical at 1550 nm
- From 50 m to 20 km range

## Ordering Information

FiberComplete Module with OTDR and FaultFinder Functions*	
Description	Part Number
1310/1550 nm FiberComplete with 37/35 dB MA OTDR with 42/40 dB MP OTDR	E4126FCOMP-MA/E4126FCOMP-MP
1310/1550/1625 nm FiberComplete with 37/35/35 dB MA OTDR with 42/40/40 dB MP OTDR	E4136FCOMP-MA/E4136FCOMP-MP
1310/1550/ Filtered 1625 nm FiberComplete with 37/35/35 dB MA OTDR with 42/40/40 dB MP OTDR	E4136FCOMP-RMA/E4136FCOMP-RMP**
1310/1490/1550 nm FiberComplete with 42/40/40 dB MP OTDR	E4138FCOMP-MP
1310/1550 FiberComplete Fault Finder	E4126FCOMP-FF
1310/1550/1625 nm FiberComplete Fault Finder	E4136FCOMP-FF
1310/1490/1550 nm FiberComplete Fault Finder	E4138FCOMP-FF
Accessories	
Digital video scope kit, including P5000i probe, soft case, and 7 inspection tips	EDFSCOPE5Ki
Optical Fiber Trace software	EOFS100
SC/PC & SC/APC nonreflective terminators - FC/PC & FC/APC nonreflective terminators - LC/PC non-reflective terminator	ENRTERMSC - ENRTERMFC - ENRTER-MLC
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.

\*\*Bidirectional IL and ORL functions are not available on filtered wavelengths.



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