

# VIAVI

## 4100-Series FiberComplete PRO Module

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

FiberComplete PRO™ 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, 4000 V2 and OneAdvisor 800 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).

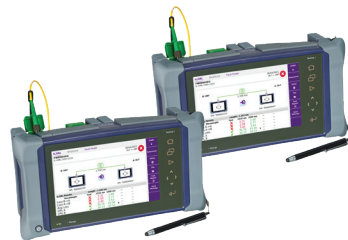
### Platform Compatibility

**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

**OneAdvisor 800**



Modular Test Platform designed for the installation and maintenance of wireline and wireless networks

### Features and Benefits

Save time up to 80%:

- Finish jobs sooner, fastest full bi-directional fiber solution with automatic loss measurement averaging
- Ensure workflow efficiency and consistency for your technicians and contractors
- Direct submit your reports to the cloud (StrataSync TPA suite)

Measure with confidence:

- Limit call backs and repeats, perform corrections as you test
- Eliminate off-site or post processing work and review time
- Remove test complexity, manual processes, and risk of human errors

### Applications

Network new build and maintenance:

- Data center (structured cabling, campus, interconnect)
- Access FTTx, mobile fronthaul
- CATV Distributed Access Architecture
- Wireless backhaul / CRAN / 5G x-haul
- Metro and Core / Long haul Networks



## 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)

### Loss Test Set Function

#### Insertion Loss

Loss range	40 dB <sup>1</sup>
Uncertainty	±0.2 dB <sup>2</sup>
Repeatability	<0.05 dB <sup>3</sup>
Result resolution	0.01 dB

#### Optical Return Loss

ORL display range	Up to 55 dB <sup>4</sup>
Uncertainty	±0.5 dB <sup>5</sup>

#### Length<sup>6</sup>

Measurement range	150 km
Uncertainty	0/+5 m ± 0.001% x distance

### 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 <sup>7</sup>

Please refer to "4100 series OTDR B module data sheet" for all the other OTDR specifications including the power meter option

### Optical Light source (for CW and OTDR modes)

Laser safety class (21 CFR)	Class 1
Wavelength at 25°C	1310±20 nm, 1550±20 nm, 1625±10 nm <sup>8</sup>
Output Power level (CW mode)	-3.5 dBm <sup>9</sup>
Modulated output average level	3 dB less
Modulation frequencies	Continuous wave, 270 Hz, 330 Hz, 1 kHz, 2 kHz
Stability (over 8h)	±0.05 dB
Output power accuracy	±0.65 dB

### Built-in Mainframe Power Meter

(refer to the "Mainframe user manual" for the complete list of the powermeter specifications)

T-BERD/MTS or OneAdvisor 800 mainframes require the broadband power meter option for referencing (Loss Test Set Function)

Measurement range	+5 to -50 dBm
Absolute uncertainty	±0.2 dB
Wavelength range	800 to 1650 nm

- 35 dB with Multi-Fiber MPO based Switch Module
- With / without the Multi-Fiber MPO base switch module
- Without disconnection
- Up to 45 dB with Multi-Fiber MPO based Switch Module
- From 10 to 45 dB range. ±1 dB with Multi-Fiber MPO based Switch Module

- Measurement @ 1550 nm with an index of refraction n = 1.468
- Measured at ±0.5 dB down from the linear regression using a FC/UPC-type reflectance, using 5 ns pulsewidth at 1310 nm
- 1625nm ±20nm with laser in CW 25°C
- ±1 dB

## Software Option Selection Table

Description	IL/ORL (CW mode)	OTDR		
		Bi-dir	Uni-dir	Automatic LOOPBACK
4100 Module B FiberComplete	✓	✓	SW option 1 or 3	SW option 2 or 4
4100 Module B FiberComplete FaultFinder	✓	✗	✗	✗

## 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 <sup>10</sup>
4100 Module FiberComplete FaultFinder - 1310/1550 nm - APC	E4126-FCOMPFF-APC
4100 Module FiberComplete FaultFinder - 1310/1550/1625 nm - APC	E4136-FCOMPFF-APC
Software Options for New Modules	
OTDR LoopBack SW license (option 1)	ELOOPBACK-FCOMP-PRO
TrueBIDIR (bi-directional OTDR analysis) SW license (option 2)	ETRUEBIDIR-FCOMP-PRO
Software Options for Existing Installed Modules	
OTDR Loopback SW license Upgrade (option 3)	ELOOPBACK-FCOMP-PRO-UPG
TrueBIDIR (bi-directional OTDR analysis) SW license Upgrade (option 4)	ETRUEBIDIR-FCOMP-PRO-UPG
High Fiber Count Switch Module	
Singlemode MPO Switch Module - 1x12 Pinned MPO	E41MPO12SM
Accessories	
20 m SM Fiber Launch Cable SC/APC to SC/APC	ELCSM20M-SCA-SCA
150 m SM Fiber Launch Cable SC/APC to SC/APC	ELCSM150M-SCA-SCA
Hands-free softcase with neck strap for permanent fiber launch cable connection	E40GLOVE2
Digital videoscope kit, including P5000i probe, soft case, and 7 inspection tips	ESDFSCOPE5KI
Post Processing Optical Fiber Cable software	EOFS200

10. Only 1310 and 1550 nm used in Bidir. IL/ORL CW mode application

### \*FiberComplete Modules delivered with:

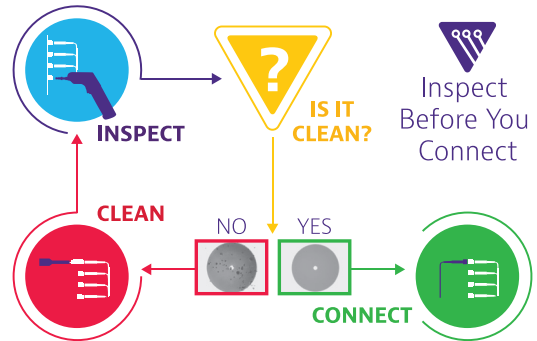
- Built-in light source
- Built-in power meter source
- Connector output: SC PC or SC APC
- Referencing kit with SC and LC nonreflective terminations for zero ORL referencing (equivalent to a mandrel). Mandatory use when bend insensitive test cords or PC connectors are used.

## 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/viamicareplan](http://viavisolutions.com/viamicareplan)

## 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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