T-BERD®/MTS-2000/-4000 Platforms

4100-Series FiberComplete™ Module

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

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 JDSU 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).

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	37/35/35 dB	0.9 m	4 m
Metro-PON (MP)	1310/1490/1550/ 1625 nm	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[1]
Repeatability	<0.05 dB[2]
Result resolution	0.01 dB

Optical Return Loss

ORL measurement range	Up to 55 dB
Absolute uncertainty	±0.5 dB[3]
Repeatability	<0.1 dB[4]

Length Function

Measurement range	150 km[5]
Absolute uncertainty	±30m[6]

(1) Using side-by-side reference
(2) Without disconnection
(3) From 10 to 45 dB range
(4) From 20 to 40 dB range
(5) Typical at 1550 nm
(6) From 50 m to 20 km range

Ordering Information

FiberComplete Module with OTDR and FaultFinder Functions*

Part Number	Description
E4126FCOMP-MA/E4126FCOMP-MP	1310/1550 nm FiberComplete with 37/35 dB MA OTDR with 42/40 dB MP OTDR
E4136FCOMP-MA/E4136FCOMP-MP	1310/1550/1625 nm FiberComplete with 37/35/35 dB MA OTDR with 42/40/40 dB MP OTDR
E4136FCOMP-RMA/E4136FCOMP-RMP**	1310/1550/ Filtered 1625 nm FiberComplete with 37/35/35 dB MA OTDR with 42/40/40 dB MP OTDR
E4138FCOMP-MP	1310/1490/1550 nm FiberComplete with 42/40/40 dB MP OTDR
E4126FCOMP-FF	1310/1550 FiberComplete Fault Finder
E4136FCOMP-FF	1310/1550/1625 nm FiberComplete Fault Finder
E4138FCOMP-FF	1310/1490/1550 nm FiberComplete Fault Finder

*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.

Accessories

Part Number	Description
EDFSCOPE5Ki	Digital videoscope kit, including P5000i probe, soft case, and 7 inspection tips
EOFS100	Optical Fiber Trace software
ENRTERMSC - ENRTERMFC - ENRTERMLC	SC/PC & SC/APC nonreflective terminators - FC/PC & FC/APC nonreflective terminators - LC/PC non-reflective terminator
EMSSMLC- S3101 - S3111	LC mating sleeve - FC mating sleeve - SC mating sleeve
ENRTERMKIT	Nonreflective optical terminators kit

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