

T-BERD®/MTS-6000A and -8000 Platforms

8100-Series FiberComplete™ EVO Module Family



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 8100-Series FiberComplete EVO Module Family for the T-BERD/MTS-6000A and T-BERD/MTS-8000 (V2) offers the most complete fiber-testing solution for quick, easy use in characterizing point-to-point or point-to-multipoint passive-optical networks (PON).

Platform Compatibility

T-BERD/MTS-6000A



Compact multilayer platform for network installation and maintenance

T-BERD/MTS-8000 V2



Scalable platform for multiple-layer and multiple-protocol testing



Specifications (Typical at 25°C)

General	
Weight	0.6 kg (1.1 lb)
Dimensions (W x H x D)	213 x 124 x 32 mm (8.38 x 4.88 x 1.26 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. Measurement range +10 to -60 dBm Absolute uncertainty $\pm 0.2 dB$ Wavelength range 800 to 1650 nm

OTDR

	Central Wavelength	Pulse Width	RMS Dynamic Range ¹	Event Dead Zone ²	Attenuation Dead Zone ³
8100B	1310/1550/1625 nm	5 ns to 20 μs	42/40/40 dB	0.65 m	2 m
8100C	1310/1490/1550/	2 ns to 20 µs	45/44.5/45/44 dB	0.60 m	2 m
	1625 nm				

- 1. The one-way difference between the extrapolated backscattering level at the start of the fiber and the RMS noise level after 3 minutes averaging using the largest pulse width.
- 2. Measured at ± 1.5 dB down from the peak of an unsaturated reflective event using the shortest pulse width.
- 3. Measured at ± 0.5 dB from the linear regression using a FC/PC reflectance and using the shortest pulse width.

Optical	Source

Laser safety class (21 CFR)	Class 1
Wavelengths	Same as those for the OTDR
Output power level (CW mode)	−3.5 dBm ⁴
Stability	<±0.1dB at 25°C over 1 hr
Operating modes	CW, 270 Hz, 330 Hz, 1 kHz, 2 kHz, TWINtest

Power Meter	
Calibrated wavelengths	1310, 1490, 1550, 1625 nm
Power range	−3 to −55 dBm
Typical uncertainty ⁵	± 0.5 dB at -30 dBm

Bidirectional Test Set

Wavelength at 25°C	1310 \pm 20 nm, 1490 \pm 20 nm, 1550 \pm 20 nm, 1625 \pm 20 nm
Insertion Loss	
Reference methods	Loopback and side by side
Dynamic range	42 dB
Typical uncertainty ⁶	±0.2 dB
Repeatability ⁷	<0.05 dB

Optical Return Loss	
Measurement range ⁸	Up to 55 dB
Typical uncertainty ⁹	±0.9 dB
Repeatability	<0.1 dB

- 4. Subtract 3 dB when used in modulation mode (270/330/1 kHz/2 kHz).
- 5. At calibrated wavelengths.
- Side-by-side referencing.
- 10 consecutive measurements without disconnecting.
- 8. With APC connector.
- 9. From 10 to 45 dB.

Ordering Information

FiberComplete Module with OTDR and FaultFinder Functions*

Description	Part Number
1310/1550 nm FiberComplete with 8100B OTDR	E8126B-FCOMP
1310/1550 nm FiberComplete with 8100C OTDR	E8126C-FCOMP
1310/1550/1625 nm FiberComplete with 8100B OTDR	E8136B-FCOMP
1310/1550/1625 nm FiberComplete with 8100C OTDR	E8136C-FCOMP
1310/1490/1550 nm FiberComplete with 8100C OTDR	E8139C-FCOMP

Accessories

Description	Part Number
SC/PC and SC/APC nonreflective terminators - FC/PC and FC/APC nonreflective terminators - LC/PC nonreflective terminator	ENRTERMSC - ENRTERMFC - ENRTERMLC
Nonreflective optical terminator kit	ENRTERMKIT
LC mating sleeve - FC mating sleeve - SC mating sleeve	EMSSMLC- S3101 - S3111

^{*}All FiberComplete modules come standard with a kit of nonreflective terminations and their respective mating sleeves for zero ORL referencing (equivalent to a mandrel) and a built-in light source option.

For more information about the T-BERD/MTS-6000A and -8000 test platforms, refer to their respective data sheets.

Network and Service Enablement Regional Sales

NORTH AMERICA	LATIN AMERICA	ASIA PACIFIC	EMEA	www.idsu.com/nse
TOLL FREE: 1 855 ASK-JDSU	TEL: +1 954 688 5660	TEL: +852 2892 0990	TEL: +49 7121 86 2222	www.jusu.com/nse
1 855 275-5378	FAX: +1 954 345 4668	FAX: +852 2892 0770	FAX: +49 7121 86 1222	