

DATASHEET

## VI.VI T-BERD/MTS 4100-Series CWDM OTDR Modules

For T-BERD/MTS-2000, -4000 V2, -5800 Platforms

Connect the VI.VI 4100-Series CWDM OTDR family to successfully deploy and maintain C-RAN, DAS, CWDM, and fronthaul networks. CWDM OTDR-family optical performance, combined with the T-BERD®/MTS platform's suite of testing features, ensures that testing jobs are performed right—the first time.

### Testing features include:

- Automatic multitest configurations
- Easy-to-read summary results table with pass/fail analysis
- Quick trace interpretation with SLM (optional)
- FastReport™ onboard report generation



### Benefits

- Characterize fiber links with exact CWDM wavelengths
- Qualify C-RAN, DAS, and any mobile fronthaul network
- Troubleshoot live networks with in-service testing capability
- Verify end-to-end continuity using the continuous wave source function
- Eliminate OTDR interpretation errors with Smart Link Mapper (SLM) without comprising test times

### Features

- 8 or 10 CWDM wavelengths in 1 module and 18 wavelengths in 2 modules
- Optimized performance for access and metro applications
- Integrated CW light source with modulation capability
- Instantaneous traffic detection

### Applications

- Qualification of fronthaul access networks
- Testing new CWDM wavelength routes without disrupting traffic on active channels
- Pinpointing faults and their exact locations while in service

## Specifications (typical at 25°C)

Laser safety	Class 1 (IEC), Class 1 (21CFR)
Weight	430g (0.95 lb)
Dimensions (w x h x d)	128 x 134 x 40 mm (5 x 5.28 x 1.58 in)
Distance Units	Km/m/mile/ft
Group index range	1.30000 to 1.70000 in 0.00001 steps
Number of data points	Up to 256,000 data points
<b>Distance Measurements</b>	
Mode	Automatic or dual cursor
Display range	From 0.5 up to 260 km
Display resolution	1 cm
Cursor resolution	From 1 cm
Sampling resolution	From 4 cm
Accuracy	±1 m ±sampling resolution ±110-5 x distance (excluding group index uncertainties)
<b>Attenuation Measurements</b>	
Mode	Automatic, manual, 2-point, 5-point and LSA
Display range	From 1.25 dB to 55 dB
Display resolution	0.001 dB
Cursor resolution	From 0.001 dB
Attenuation linearity	±0.03 dB/dB
Threshold	0.01 to 1.99 dB in 0.01 dB step
<b>Reflectance/ORL Measurements</b>	
Mode	Automatic or manual
Reflectance accuracy	±2 dB
Display resolution	0.01 dB
Threshold	-11 to -98 dB in 1 dB steps
Storage	Bellcore/Telcordia compatible Version 1.1 and Version 2.0

4000-Series CWDM OTDR Module

<b>OTDR</b>	
CWDM Wavelengths <sup>1</sup>	1271/1291/1311/1331/1351/1371/1391/ 1411/1431/1451/1471/1491/1511/1531/ 1551/1571/1591/1611nm +/-3nm
Pulsewidth	10 ns to 20 µs
Dynamic range <sup>2</sup>	35dB
Event dead zone <sup>3</sup>	1.5 m
Attenuation dead zone <sup>4</sup>	5 m
Continuous Wave Light Source	Wavelengths: same as OTDR Output power -3.5 dBm Operating modes <sup>5</sup> : CW, 270 Hz, 330 Hz, 1 kHz, 2 kHz
Automatic traffic detection	Yes
In-service testing	Yes

1. Laser at 25°C and measured at 10 µs.
2. The one-way difference between the extrapolated backscattering level at the start of the fiber and the RMS noise level, after 3 minutes averaging and using the largest pulsewidth.
3. Measured at ±1.5 dB down from the peak of an unsaturated reflective event using the shortest pulsewidth.
4. Measured at ±0.5 dB from the linear regression using a FC/PC reflectance and using the shortest pulsewidth.
5. Subtract 3 dB when used in modulation mode (270/330/1/2 kHz).

## Ordering Information

Description	Part Number
<b>4100 CWDM OTDR Modules</b>	
1271 to 1451 nm	E41CWDM10L
1471 to 1611 nm	E41CWDM8U
1431 to 1611 nm	E41CWDM10U

### Optical Connectors

PC connector with switchable adapter	EUNISPCFC, EUNISPCSC
8° APC connector with switchable adapter	EUNISAPCFC, EUNISAPCSC

For more information on T-BERD/MTS-2000/-4000 V2/-5800 test platforms, refer to their respective datasheets.

## VIAVI Care Support Plans

Increase your productivity for up to 5 years with optional VIAVI 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.

For more Information: go to [viasolutions.com/viavicareplan](https://viasolutions.com/viavicareplan)

### Features

\*5-year plans only

Plan	Objective	Technical Assistance	Factory Repair	Priority Service	Self-paced Training	5 Year Battery and Bag Coverage	Factory Calibration
 BronzeCare	Technician Efficiency	Premium	✓	✓	✓		
 SilverCare	Maintenance & Measurement Accuracy	Premium	✓	✓	✓	✓*	✓

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