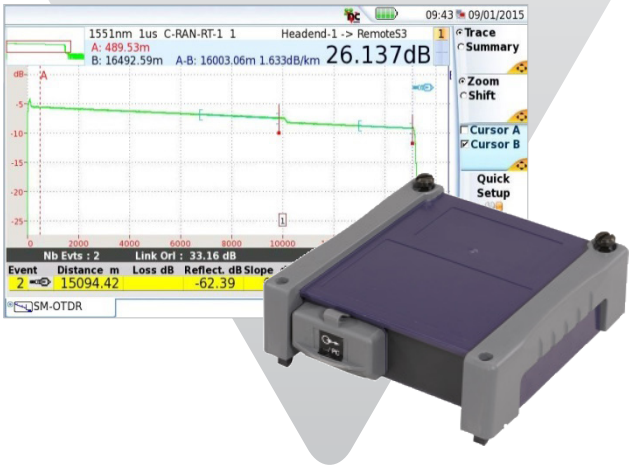

4100-Series CWDM OTDR Module

For T-BERD®/MTS-2000, –4000, –5800 Platforms

Connect the Viavi Solutions™ 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

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

T-BERD/MTS-5800

T-BERD/MTS-5800 handheld test instrument for 10 G Ethernet and fiber networks testing

Key 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

Key Features

- 8 CWDM wavelength OTDR module
- 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	350 g (0.77 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
Distance Measurements	
Mode	Automatic or dual cursor
Display range	From 0.5 up to 320 km
Display resolution	1 cm
Cursor resolution	From 1 cm
Sampling resolution	From 4 cm
Accuracy	±1 m ±sampling resolution ±1.10-5[2] x distance (excluding group index uncertainties)
Attenuation Measurements	
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 5.99 dB in 0.01 dB step
Reflectance/ORL Measurements	
Automatic or manual	
Reflectance accuracy	±2 dB
Display resolution	0.01 dB
Threshold	–11 to –99 dB in 1 dB steps
Storage	Bellcore/Telcordia compatible Version 1.1 and Version 2.0

1. Time base controller/clock accuracy.

OTDR	E41CWDM8U
Wavelength[1]	1471/1491/1511/1531/1551/1571/ 1591/1611 ±3 nm
Pulsewidth	10 to 20 µs
Dynamic range[2]	35 dB
Event dead zone[3]	1.5 m
Attenuation dead zone[4]	5 m
Continuous wave light source	Wavelengths: all above listed
	Output power -3.5 dBm
	Stability: <±0.1dB at 25°C, over 1 hr
	Operating modes[5]: 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. 1650 nm ±1 nm for E81165C module.
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
4100 CWDM OTDR Modules	
1471 to 1611 nm	E41CWDM8U
Switchable Optical Connectors	
Straight polished connector	EUNISPCFC, EUNISPCSC, ENISPCLC
8° angled connectors	EUNISAPCFC, EUNISAPCSC, ENISAPCLC

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

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