LA OTDR Module
T-BERD®/MTS-2000, -4000, -5800 Platforms

The LA OTDR module provides technicians with the ideal test tool for characterizing and maintaining point-to-point networks including premise, FTTH fiber distribution/drop cabling, and FTTA fronthaul.

The LA OTDR module features fast acquisition time, good resolution, and up to 35 dB dynamic range for installing and maintaining fiber links. Its integrated light source, accessible through the OTDR port, enables quick fiber identification without switching ports. The integrated power meter adds loss-testing capabilities.

The LA module's optical performance, combined with comprehensive T-BERD/MTS platform features, ensures testing is done right, the first time.

Standard test features include:
- Automatic macrobend detection
- Summary results table with pass/fail analysis
- Bidirectional OTDR analysis
- FastReport onboard report generation

Features and Benefits
- Up to 35 dB dynamic range
- Single- and dual-wavelength 1310, 1550, and 1650 nm versions
- In-service 1650 nm wavelength (filtered version)
- Integrated CW light source and power meter (not available on filtered version)
- Ready for SLM, FTTA-SLM, and FTTH-SLM intelligent optical application software
- Instantly detects traffic upon connecting live fiber

*T-BERD/MTS-2000 one-slot handheld modular platform for testing fiber networks
*T-BERD/MTS-5800* handheld test instrument for testing 10 G Ethernet and fiber networks
*T-BERD/MTS-4000 two-slot handheld modular platform for testing fiber, copper, and multiple services

*Compatible with models -5811P/L and -5822P.*
Specifications

General (typical at 25°C)

- **Weight**: 0.35 kg (0.77 lb)
- **Dimensions (w x h x d)**: 128 x 134 x 40 mm

Optical Interfaces

- Interchangeable optical connectors: FC, SC

Technical Characteristics

- **Laser safety class (21CFR)**: Class 1
- **Distance units**: Kilometers, feet, and miles
- **Group index range**: 1.30000 to 1.70000 in 0.00001 steps
- **Number of data points**: Up to 128,000 data points
- **Distance measurement**: Automatic or dual cursor
- **Display range**: 1 to 260 km
- **Cursor resolution**: 1 cm
- **Sampling resolution**: 4 cm
- **Accuracy**: ±1 m ±sampling resolution ±1.10^-5 x distance (excluding group index uncertainties)

Attenuation Measurement

- **Automatic, manual, 2-point, 5-point, and LSA**
- **Display range**: 1.25 to 55 dB
- **Display resolution**: 0.001 dB
- **Cursor resolution**: 0.001 dB
- **Linearity**: ±0.05 dB/dB
- **Threshold**: 0.01 to 5.99 dB in 0.01 dB steps

Reflectance/ORL Measurements

- **Reflectance accuracy**: ±2 dB
- **Display resolution**: 0.01 dB
- **Threshold**: −11 to −99 dB in 1 dB steps

CW Source (not available on filtered version)

- **CW source output power level**: −3.5 dBm
- **Operating Modes**: CW, 270 Hz, 330 Hz, 1 kHz, 2 kHz, TWINTest
- **CW source output power level**: −3.5 dBm

Power Meter Option (not available on filtered version)

- **Power level range**: −2 to −50 dBm
- **Calibrated wavelengths**: 1310, 1550 nm
- **Measurement accuracy**: ±0.5 dB

LA OTDR Module (typical at 25°C)

<table>
<thead>
<tr>
<th>Feature</th>
<th>1310 ±20 nm</th>
<th>1550 ±20 nm</th>
<th>1650 ±20 nm</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Central wavelength</strong></td>
<td>11310±20 nm</td>
<td>1550±20 nm</td>
<td>1650±20 nm</td>
</tr>
<tr>
<td><strong>Pulse width</strong></td>
<td>5 ns to 20 µs</td>
<td>5 ns to 20 µs</td>
<td>5 ns to 20 µs</td>
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<tr>
<td><strong>RMS dynamic range</strong></td>
<td>35 dB</td>
<td>33 dB</td>
<td>30 dB</td>
</tr>
<tr>
<td><strong>Event dead zone</strong></td>
<td>1.5 m</td>
<td>1.5 m</td>
<td>1.5 m</td>
</tr>
<tr>
<td><strong>Attenuation dead zone</strong></td>
<td>6 m</td>
<td>6 m</td>
<td>6 m</td>
</tr>
</tbody>
</table>

1. Laser at 25°C.
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.
3. Measured at ±1.5 dB down from the peak of an unsaturated reflective event.
4. Measured at ±0.5 dB from the linear regression using an FC/UPC-type reflectance.

Ordering Information

<table>
<thead>
<tr>
<th>Description</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>LA OTDR Modules and Option</strong></td>
<td></td>
</tr>
<tr>
<td>LA 1550 nm OTDR</td>
<td>E4115LA</td>
</tr>
<tr>
<td>LA 1310/1550 nm OTDR</td>
<td>E4126LA</td>
</tr>
<tr>
<td>LA filtered 1650 nm OTDR</td>
<td>E4118RLA65</td>
</tr>
<tr>
<td><strong>Power meter</strong></td>
<td>E41OTDRPM</td>
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<tr>
<td><strong>Universal Optical Connectors</strong></td>
<td></td>
</tr>
<tr>
<td>Straight connectors</td>
<td>EUNISPCFC, EUNISPCSC</td>
</tr>
<tr>
<td>8° angled connectors</td>
<td>EUNISAPCFC, EUNISAPCSC</td>
</tr>
</tbody>
</table>

For more information on T-BERD/MTS-2000, -4000 and -5800 test platforms, please refer to their respective datasheets and the family product brochure.

Contact your JDSU representative for additional information regarding your specific needs.