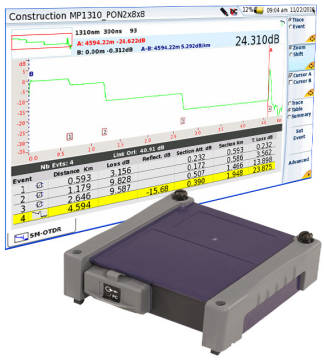
# T-BERD®/MTS-2000/-4000 Platforms

## Metro-PON (MP) OTDR Module




### Key Benefits

- **Offer ideal test solution for use in the installation, turn-up and maintenance of Metro, Metro-Access and Access/ FTTx networks with high-port-count splitters**
- **Provide in-service troubleshooting with dedicated wavelengths for and instantaneous traffic detection when connecting live fiber**
- **Include bi-directional analysis, fault locator, macrobend detection and multi-pulse acquisition test features**

### Key Features

- **Up to 42dB dynamic range and 256,000 acquisition points**
- **PON-optimized to test up to 1x128 splitter**
- **Single-/ dual-/ tri-wavelength versions with 1310, 1490,1550, 1625 and 1650nm**
- **Single connector port for 1310, 1550, and in-service 1625nm or 1650nm wavelengths**
- **Integrated CW Light source as standard and Broadband Power Meter**
- **FiberComplete™ compatible**

JDSU Metro-PON (MP) OTDR module provides the optimum performance that fiber installers and service providers need to test Metro, Cable TV (CATV) and FTTH networks with high-port-count splitters.

With various wavelengths combinations, including filtered wavelengths for in-service testing, an improved dynamic range and optimized resolution and dead zones at short pulses, the MP module is the ideal OTDR to test any PON systems up to 1x128 splitting ratio.

## PLATFORM COMPATIBILITY

**T-BERD 2000 / MTS-2000**

One-Slot Handheld Modular Platform
Fiber Networks Testing

**T-BERD 4000 / MTS-4000**

Two-Slot Handheld Modular Platform
Fiber/Copper & Multiple Services Testing

## Specifications

### General (Typical at 25°C)

| | |
|---|---|
| Weight | 0.35 kg (0.77 lb) |
| Dimensions (w × h × d) | 128x134x40 mm (5x5.28x1.58 in) |

### Optical interfaces

| | |
|---|---|
| Interchangeable optical connectors | FC, SC, DIN, LC and ST |

### Technical Characteristics

| | |
|---|---|
| Laser safety class (21 CFR) | 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 256,000 data points |
| Distance measurement | Automatic or dual cursor |
| Display range | 0.5 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 | ±0.03 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

| | |
|---|---|
| Output power level | -3.5 dBm |

### Broadband Power Meter (Optional)

| | |
|---|---|
| Power level range | 0 to −55 dBm |
| Measurement wavelengths | 1310, 1490, 1550, 1625, and 1650 nm |
| Calibrated wavelengths | 1310, 1490, 1550, 1625, and 1650 nm |
| Measurement accuracy | ±0.5 dB |

### Metro-PON (MP) OTDR Module (Typical at 25°C)

*These are standard specifications, representing only a selection of the JDSU offerings. For specific requirements, please contact your local JDSU representative.*

| | | | | | |
|---|---|---|---|---|---|
| Central wavelength[1] | 1310±20 nm | 1490±20 nm | 1550±20 nm | 1625±10 nm | 1650±20nm |
| Pulse width | 3 ns to 20 µs | 3 ns to 20 µs | 3 ns to 20 µs | 3 ns to 20 µs | 3 ns to 20 µs |
| RMS dynamic range[2] | 42 dB | 40 dB | 40 dB | 40 dB | 40dB |
| Event dead zone[3] | 80 cm | 80 cm | 80 cm | 80 cm | 80 cm |
| Attenuation dead zone[4] | 4m | 4m | 4m | 4m | 4m |

(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.
(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 a FC/UPC-type reflectance.

### Basic Ordering Information (Contact JDSU for additional references)

| | |
|---|---|
| Metro PON 1310/1550 nm OTDR Module | E4126MP |
| Metro PON 1310/1490/1550 nm OTDR Module | E4138MP49 |
| Metro PON 1310/1550/625 nm OTDR Module | E4136MP |
| Metro PON 1310/1550 and Filtered 1625 nm OTDR Module | E4136RMP |
| Metro PON Filtered 1650 nm OTDR Module | E4118RMP65 |

### Universal optical connectors

| | |
|---|---|
| Straight connectors | EUNIPCFC, EUNIPCSC, EUNIPCST, EUNIPCDIN, EUNIPCLC |
| 8° angled connectors | EUNIAPCFC, EUNIAPCSC, EUNIAPCDIN, EUNIAPCLC |

For more information on the T-BERD/MTS-2000 and T-BERD/MTS-4000 test platforms, please refer to the separate data sheets and brochure.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