**VIAVI**

**LASER COMPONENTS**®

Data Sheet

# VIAVI
## Hi-Res Multimode OTDR Solution

T-BERD®/MTS-6000A with EVO AV high-resolution
multimode OTDR module

The VIAVI Solutions® Hi-Res multimode OTDR solution characterizes and locates faults on very short multimode fiber runs deployed in aircraft, spacecraft, submarines, and ships. It is the industry's most compact, lightweight, and portable unit, enabling testing in areas where access to fiber is difficult or limited. The solution also characterizes fibers during the manufacturing process.

The RDZ-SLM software application's streamlined user interface takes the complexity out of OTDR testing. Technicians at any skill level can easily and quickly perform error-free tests. The enhanced OTDR test mode includes the following important features:

- SmartLink provides a simple, icon-based map view of a fiber link and its passive elements (connectors, splices, and bends) — it immediately diagnoses potential problems when pass/fail thresholds are set up

- The OTDR trace overlay function compares maintenance results to a reference trace — it clearly shows differences for locating potential issues

- SmartConfigs are generic and user-defined setup configurations — they help eliminate OTDR setup errors and keep results consistent across all users





RDZ-SLM apps



### Key Benefits

- Compact, lightweight, and field portable
- Smarter and faster field testing
- Precise event characterization

### Key Features

- Industry-leading dead-zone performance
- Streamlined and error-free setup
- Connector end-face inspection and automated pass/fail analysis
- FastReport onboard PDF report generation
- TIA/IEC pass/fail thresholds for Tier-2 certification
- Battery operated

## Specifications (typical at 25°C)

### General

| | |
|---|---|
| Weight | 3.8 kg (8.5 lb) |
| Dimensions | 290 x 188 x 97 mm (11.5 x 7.4 x 3.8 in) |
| Display | 8" TFT high-visibility color touch screen, 800 x 600 LCD |
| Internal memory | 2 GB (128 MB for storage) |
| I/O interfaces | 2 USB 2.0 ports 1 mini-USB 2.0 port RJ45 LAN 10/100/1000 Mbps 1 RS422 interface |

### Environmental

| | |
|---|---|
| Operating temperature range | −10 to +45°C (14 to 113°F) |
| Humidity | 0 to 95% non-condensing |

### Optical Power Meter

| | |
|---|---|
| Calibrated wavelengths | 850/1310/1490/1550/1625 nm |
| Measurement range[1] | +10 to −60 dBm |
| Optical interfaces | 2.5 mm universal push/pull (UPP) |

### Visual Fault Locator

| | |
|---|---|
| Wavelength | 650 nm |
| Emission Mode | CW, 1 Hz |
| Laser safety class (21 CFR) | Class 2 |
| Optical interfaces | 2.5 mm universal push/pull (UPP) |

### OTDR

| | |
|---|---|
| Optical interfaces | PC connector with FC and SC adapters (ST and DIN also available) |
| Laser safety class (21 CFR) | Class 1 |
| Distance units | Kilometer, meter, feet, miles, inches |
| Group index range | 1.300000 to 1.700000 in 0.00001 steps |
| Number of data points | Up to 256,000 data points |
| Distance measurement | Automatic or dual cursor |
| Display range | From 0.05 to 10 km |
| Cursor resolution | 1 cm |
| Sampling resolution | 2 cm |
| Distance accuracy (relative) | ±0.1 m ±sampling resolution ±1.10$^{-5}$ x distance (excluding group index uncertainties) |

### Attenuation Measurement

Automatic, manual, 2-point, 5-point, and LSA

| | |
|---|---|
| Display resolution | 0.001 dB |
| Cursor resolution | 0.001 dB |
| Linearity | ±0.05 dB/dB |
| Threshold | 0.01 to 1.99 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 |

### RDZ-SLM OTDR Application

| | |
|---|---|
| Central wavelength[2] | 850 +10/−30 nm |
| Dynamic range[3] | 16 dB |
| Pulse widths | 1 ns |
| Event dead zone[4] | 0.2 m |
| Attenuation dead zone[5] | 0.4 m |

### Expert OTDR Application

| | |
|---|---|
| Central wavelength[2] | 850 +10/−30 nm; 1300 ±20 nm |
| Dynamic range[3] | 24/24 dB |
| Pulse widths | 1 ns to 50 ns |
| Event dead zone[4] | 0.2/0.25 m |
| Attenuation dead zone[5] | 1.5/2.1 m |

1. At 25°C after 20 minutes for stabilization and after zero setting.
2. Laser at 25°C and measured at 10 µs.
3. The one-way difference between the extrapolated backscattering level at the start of the fiber and the RMS (SNR = 1) noise level, after 30 seconds averaging using the largest pulse width.
4. Measured at ±1.5 dB below the peak of an unsaturated reflective event using the shortest pulse width.
5. Measured at ±0.5 dB from the linear regression using a −35 dB reflectance and the shortest pulse width.

## Ordering Information

| Description | Part Number |
|---|---|
| T-BERD 6000A Hi-Res multimode OTDR solution | TB6000AV2-OTDR-RDZMM* |
| MTS-6000A Hi-Res multimode OTDR solution | MTS6000AV2-OTDR-RDZMM* |
| EVO AV high-resolution multimode OTDR module for T-BERD/MTS-6000A (v2) and T-BERD/MTS-8000 (v2) | E8123AV |

* Included items: T-BERD/MTS-6000A v2 mainframe with high-visibility touchscreen
Built-in optical power meter and visual fault locator
Module carrier
High-resolution multimode OTDR module with PC connector
SC and FC optical adapters
Soft carrying case

## 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

### 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 | ✓ | ✓ | ✓ | ✓* | ✓ |