

VIAVI

4100-Series MA2 OTDR Modules

For T-BERD®/MTS-2000 V2, -4000 V2, -5800 and, OneAdvisor and CellAdvisor 5G platforms

The VIAVI MA2 OTDR module provides the optimum performance that fiber installers and service providers need to install and turn-up metro, access and wireless x-haul point-to-point optical network architectures

Fiber infrastructure is the foundation of the network performance and quality of delivered services. An OTDR is the only tool that verifies condition of installed fibers and passive components to ensure workmanship meets the required specifications and quality.

Module portability allows migration of fiber test capabilities across VIAVI platforms, offering the flexibility to move and mix fiber certification with different technologies such as coax or RF test and network layer tests such as Ethernet, BERT, CPRI, etc.



T-BERD/MTS-2000 V2
one-slot handheld modular platform for testing fiber networks



T-BERD/MTS-4000 V2
Two-slot handheld modular platform for testing fiber networks



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



CellAdvisor 5G
Cell site test solution



OneAdvisor-800
All-in-One Cell-site Installation and Maintenance Test Solution

Features and Benefits

- Up to 40 dB dynamic range and 256,000 acquisition points
- Sharp dead-zones to qualify small jumpers (e.g. top/bottom of the cell tower, inside central office interconnections)
- Dual/tri-wavelength versions with 1310/1550/1625 nm
- Supports SLM application tailored for various network applications (FTTA, Enterprise, High fiber count cables)
- 3-year warranty period



Standard features and benefits include:

- Standard multi-pulses acquisition (SmartAcq) – improves event detection (splices, connectors, bends, ...) and removes the need for expensive and heavy launch cables.
- Icon-based map view (Smart Link Mapper – SLM) – eliminates OTDR interpretation errors and speeds up results analysis with instant identification of faults and impairments
- The SmartTEST mode assists fiber technicians (new or experienced) through the steps of OTDR testing. It eliminates the complex OTDR tasks (setup configuration, analysis and reporting) and guides the user through an easy and clear test/certification process.

For more information, please refer to the OTDR Solutions brochure.

Specifications

| General | |
|----------------------------|---|
| Weight | 0.35 kg (0.77 lb) |
| Technical Characteristics | |
| Laser safety class (21CFR) | Class 1 |
| Group index range | 1.30000 to 1.70000 in 0.00001 steps |
| Sampling points | Up to 256,000 |
| Distance measurement | |
| Modes | Automatic or dual cursor |
| Display range | 0.1 up to 260 km |
| Cursor resolution | 1 cm |
| Sampling resolution | 4 cm |
| Accuracy ¹ | 0.5 m ±sampling resolution ±1.10 ⁻⁵ x distance |
| Attenuation Measurement | |
| Modes | Automatic, manual, 2-point, 5-point, and LSA |
| Display resolution | 0.001 dB |
| Linearity | 0.03 dB/dB |

| Reflectance/ORL Measurements | |
|---------------------------------|--------------------------------|
| Reflectance accuracy | ±2 dB |
| Display resolution | 0.01 dB |
| Threshold | -11 to -99 dB in 1 dB steps |
| Optical light source (standard) | |
| Wavelengths | Same as OTDR port ² |
| Output power level | -3.5 dBm in CW mode |
| Tone generation | 270Hz, 330Hz, 1 kHz, 2kHz |
| Auto λ mode | Yes (with VIAVI power meters) |
| Stability (8h) | <±0.1 dB |
| Power meter (optional) | |
| Input power range | -3 to -55 dBm |
| Calibrated wavelengths | 1310/1490/1550/1625/1650 nm |
| Power uncertainty | ±0.5 dB |

| OTDR Modules (typical at 25°C) | | | | |
|--------------------------------|----------------------------------|--------------------------------|------------------------------|------------------------------------|
| | Central wavelengths ³ | RMS dynamic range ⁴ | Event dead zone ⁵ | Attenuation dead zone ⁶ |
| 4100 MA2 | 1310 ±20 nm | 40 dB | 0.7 m | 3 m |
| | 1550±20 nm | 38 dB | | |
| | 1625±10 nm | 38 dB | | |

¹Excluding group index uncertainties

²Except filtered wavelengths

³Laser at 25°C and measured at 10µs

⁴The one-way difference between the extrapolated backscattering level at the start of the fiber and the RMS noise level, after 3 minutes averaging

⁵Measured at ±1.5 dB down from the peak of an unsaturated reflective event, using 5ns pulsewidth

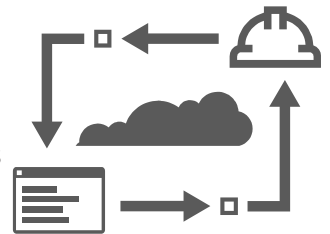
⁶Measured at ±0.5 dB down from the linear regression using a FC/UPC-type reflectance, using 5ns pulsewidth

Ordering Information

| Description | Part Number |
|---|-----------------------------------|
| 4100 MODULE MA2 OTDR - 1310/1550 NM – PC/APC | E4126MA2-PC/-APC |
| 4100 MODULE MA2 OTDR - 1310/1550/1625 NM – PC/APC | E4136MA2-PC/-APC |
| Universal PC connector adapters | EUSCADS, EULCADS, EUFCADS |
| Universal APC connector adapters | EUSCADS-APC, EULCADS-APC, EUFCADS |
| Optical power meter option | E41OTDRPM |

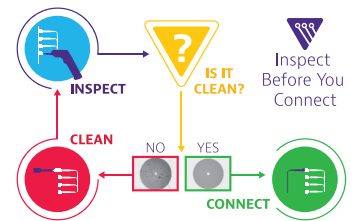
Test Process Automation (TPA)

Allows your team to deliver expert-level test results and close projects on the first try, every time. TPA is a closed loop test system that optimizes workflows, eliminates manual, error prone work and automates immediate data reporting for job close out, team progress updates and network health analytics. Execute jobs efficiently to ensure high quality network builds, rapid turn-up/activation and enhanced operational visibility.



Inspect Before You Connect (IBYC)

Contamination is the number 1 reason for troubleshooting optical networks. Proactive inspection and cleaning of fiber connectors can prevent poor signal performance,



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.

Plan availability depends on product and region. Not all plans are available for each product or in every region.

To find out which VIAVI Care Support Plan options are available for this product in your region, contact your local representative or visit: viavisolutions.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 | Accessory Coverage | Express Loaner |
|---|------------------------------------|----------------------|----------------|------------------|---------------------|---------------------------------|---------------------|--------------------|----------------|
|  BronzeCare | Technician Efficiency | Premium | ✓ | ✓ | ✓ | | | | |
|  SilverCare | Maintenance & Measurement Accuracy | Premium | ✓ | ✓ | ✓ | ✓* | ✓ | | |
|  MaxCare | High Availability | Premium | ✓ | ✓ | ✓ | ✓* | ✓ | ✓ | ✓ |



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To reach the VIAVI office nearest you, visit viavisolutions.com/contact.

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