

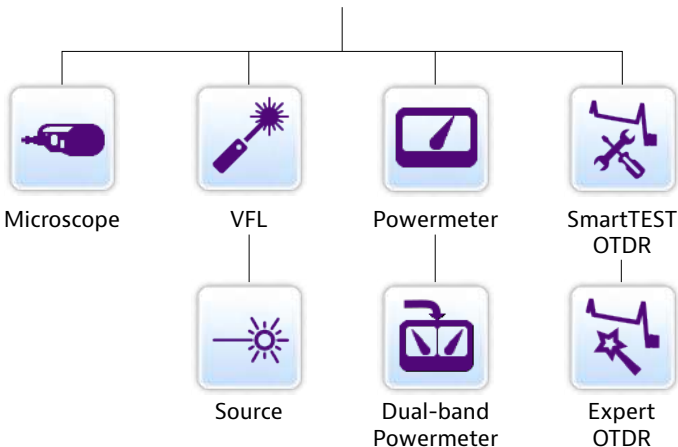
VIAVI

SmartOTDR Handheld Fiber Tester

The affordable, easy-to-use handheld tester for techs at any level

The lightweight and compact SmartOTDR speeds and optimizes field testing of metro and access networks—with a tailored OTDR interface and automatic analysis that any technician can understand.

With SmartOTDR, generic or user-defined setup configurations eliminate setup errors and maintain results consistency. One-touch operation and a single results window ensure fast and easy measurements, while robust wireless connectivity options increase productivity anywhere.



Benefits

- Combines all essential fiber tests in one handheld with visual fault locator (VFL), optical power meter (OPM), and P5000i microscope options
- Simplifies OTDR analysis with Smart Link Mapper (SLM) result view
- Upgrades easily in the field
- Automates testing with objective, pass/fail results
- Enhances productivity anywhere with powerful network connectivity options

Features

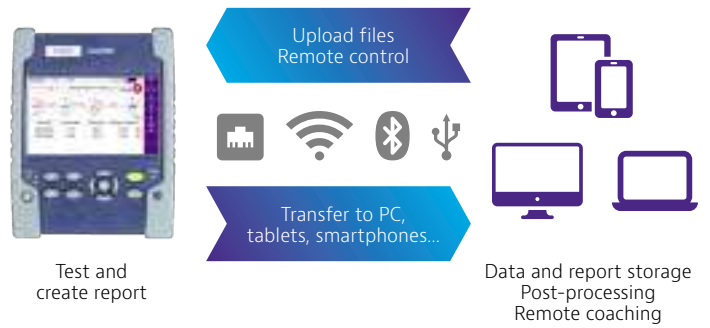
- Single-/dual-/tri-wavelength versions with 1310/1550 nm and in-service 1625 or 1650 nm wavelengths
- Light, compact, hands-free design includes 5" high-visibility outdoor touch screen
- Integrated CW light source
- PON optimized to test through 1x128 splitter ratio with FTTH-SLM
- Built-in broadband and dual-band selective power meter (1490/1550/1577 nm)
- Automated fiber inspection and macrobend detection with pass/fail analysis software
- 3G/4G connectivity via USB, Bluetooth®/ WiFi options
- 3-year warranty*
- All-day battery life

*Except 100AS version

Powerful Connectivity

Several connectivity options (3G/4G smartphones via USB and optional Bluetooth/WiFi) enable remote control as well as data and work-order transfers to-and-from tablets, smartphones, and computers. The SmartOTDR quickly resolves field issues in real time, and optional SmartAccess Anywhere (SAA) can open a tunnel in the cloud so a technician can remotely access and operate the instrument. Compatible with a wide range of cloud servers (WebDAV service providers), the SmartOTDR can also instantly share measurement reports using onboard FastReport .pdf report generation.

SmartOTDR includes a one-year trial of cloud-based StrataSync™ for asset, configuration, and test-data management, and to ensure that all instruments have the latest software and options installed.



Connectivity features and options enhance workflows



- 1. 5-inch high-visibility capacitive touch screen
- 2. Charge indicator
- 3. On indicator
- 4. File menu
- 5. Setup menu
- 6. Start/Stop
- 7. Testing indicator
- 8. On/Off
- 9. Home page
- 10. Cancel (switch off functions)
- 11. Direction and validation keys
- 12. Results page
- 13. Loudspeaker
- 14. AC/DC input
- 15. Slave mini USB port
- 16. Visual fault locator (VFL)
- 17. Master USB ports
- 18. OTDR port/continuous light source/power meter
- 19. OTDR live port (in-service test)/dual-band power meter
- 20. WiFi/Bluetooth options

Specifications (typical at 25°C)

| General | | | |
|---|---|---------------------------------------|--|
| Display | 5-inch capacitive color touch screen (12.5 cm) | | |
| Display resolution | 800 x 480 W VGA | | |
| Interfaces | 2x USB 2.0 ports, 1x mini-USB 2.0 port, built-in Bluetooth and WiFi (optional, dongles also available) | | |
| Storage | 10,000 OTDR traces typical | | |
| Battery | Rechargeable Lithium-polymer battery, up to 20 hours of operation ¹ | | |
| Power supply | AC/DC adapter, input 100-250 V AC, 50-60 Hz; 2.5 A max, output 12 V DC, 25 W | | |
| Electrical safety | EN60950 compliant | | |
| Size (HxWxD) | 175 x 138 x 57 mm (6.9 x 5.4 x 2.24 in) | | |
| Weight (battery included) | Approx. 0.9 kg (1.98 lb) | | |
| Operating/storage temperature | Operating: -20 to +50°C; storage: -20 to +60°C | | |
| Humidity (noncondensing) | 95% | | |
| OTDR | | | |
| Laser safety class (21 CFR) | Class 1 | | |
| Number of data points | Up to 256,000 data points | | |
| Display range | 0.1 km to 260 km | | |
| Sampling resolution | 4 cm | | |
| Distance accuracy | $(\pm 1 \text{ m}) \pm (\text{sampling resolution}) \pm (1.10^{-5} \times \text{distance})$, excluding group index uncertainties | | |
| Attenuation resolution | 0.001 dB | | |
| Attenuation linearity | $\pm 0.04 \text{ dB/dB}$ | | |
| | SmartOTDR 100AS | SmartOTDR 100A | SmartOTDR 100B |
| Central wavelength ² | 1310/1550 nm $\pm 20 \text{ nm}$ | 1310/1550/1650 nm $\pm 20 \text{ nm}$ | 1310/1550/1625/1650 nm $\pm 20 \text{ nm}$ |
| RMS dynamic range ³ | 30/30 dB | 37/35/32 dB | 40/40/41/41 dB |
| Pulse widths | 5 ns to 20 μs | 5 ns to 20 μs | 3 ns to 20 μs |
| Event dead zone ⁴ | 1.35 m | 1.35 m | 0.9 m |
| Attenuation dead zone ⁵ | 4 m | 4 m | 2.5 m |
| Splitter attenuation dead zone | Not available | Not available | 45 m after 15 dB splitter loss |
| CW Light Source⁹ | | | |
| Output power level ⁶ | -3.5 dBm | | |
| Stability long term (8 hr) ⁷ | $\pm 0.05 \text{ dB}$ | | |
| Built-in Broadband Power Meter (optional) | | | |
| Operating mode | 270, 330, 1 kHz, 2 kHz, and TWINTest | | |
| Power level range | 0 to -55 dBm | | |
| Calibrated wavelengths | 1310, 1490, 1550, 1625, and 1650 nm | | |
| Measurement accuracy ⁸ | $\pm 0.5 \text{ dB}$ | | |
| Built-in Visual Fault Locator (optional) | | | |
| Wavelength | 650 nm | | |
| Emission mode | CW, 1 Hz | | |
| Laser class | Class 2 per EN60825-1 and FDA21 CFR Part 1040.10 standards | | |
| Built-in Dual-band Power Meter (E118FA65PPM version) | | | |
| Wavelengths | 1310/1550 nm; 1490/1550 nm; 1490/1577 nm | | |
| Measurement ranges | 1310/1490 nm: -35 to +5 dBm; 1550/1577 nm: -35 to +23 dBm | | |
| Measurement accuracy | $\pm 0.5 \text{ dB}$ | | |

1. Per Telcordia GR-196-CORE.

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 3 minutes of averaging using the largest pulsewidth.

4. Measured at $\pm 1.5 \text{ dB}$ below the peak of an unsaturated reflective event using the shortest pulse width.

5. Measured at $\pm 0.5 \text{ dB}$ from the linear regression using a FC/UPC-type reflectance and the shortest pulse width.

6. $\pm 1 \text{ dB}$.

7. After light source stabilization, warm-up time of 20 min.

8. At calibrated wavelengths and at -30 dBm.

9. Not available on filtered wavelengths

Ordering Information

| SmartOTDR Configurations | Part Number |
|---|---------------------|
| All configurations include a hands-free soft case with neck strap, a stylus for capacitive touch screen, a Lithium-Polymer battery and SC/PC or SC/APC connector(s). | |
| SmartOTDR 1550 nm AS-range handheld tester | E100AS-PC/-APC* |
| SmartOTDR 1550 nm A-range handheld tester | E100A-APC* |
| SmartOTDR filtered 1650 nm A-range handheld tester | E118FA65-APC* |
| SmartOTDR filtered 1650 nm A-range handheld tester with broadband and dual-band in-line selective power meter | E118FA65PPM-APC* |
| SmartOTDR 1310/1550 nm A-range handheld tester | E126A-PC/-APC* |
| SmartOTDR 1310/1550/filtered 1650 nm A-range handheld tester | E138FA65-PC/-APC* |
| SmartOTDR 1310/1550 nm B-range handheld tester | E126B-APC* |
| SmartOTDR 1310/1550/filtered 1625 nm B-range handheld tester | E136FB-APC* |
| SmartOTDR 1310/1550/filtered 1650 nm B-range handheld tester | E138FB65-APC* |
| Additional OTDR Connector Adapters | |
| SC universal adapter | EUSCADS/EUSCADS-APC |
| FC universal adapter | EUFCADS |
| LC universal adapter | EULCADS/EULCADS-APC |
| Accessories | |
| Additional AC Adapter/Charger | E20PWMC |
| Additional Lithium Polymer battery | E10LIPO |
| Additional hands-free soft case with neck strap | E10GLOVE |
| Additional stylus for capacitive touch screen | EHVT-STYLUS |
| Large soft carrying case (optional) | E40SCASE1 |
| 12 V car lighter adapter (optional) | E40LIGHTER |
| EU/US-to-India type D power adapter (optional) | EINDIADPLUG |
| USB GPS receiver | EUSBGPSRECEIVER |
| Optional Tools | |
| VFL with 2.5 mm UPP adapter | E10VFL |
| Optical power meter option (same port as OTDR) | E10PM |
| P5000i digital microscope kit with 7 tips | ESDFSCOPE5KI |
| Built-in WiFi/Bluetooth (BLE) | E10WIFIBLUE |
| External WiFi USB dongle/Bluetooth (BLE) | EWIFIBLUE |
| Software Options | |
| FTTH-SLM Base - Tailored OTDR App. for FTTH Networks (Basic PON Architectures) | ESMARTFTTH-100-BASE |
| FTTH-SLM Premium - Tailored OTDR App. for FTTH Networks (Advanced PON Architectures, including Unbalanced/tapered Splitters) | ESMARTFTTH-100 |
| FTTH-SLM Assistant - Simplified Set-up Mode for FTTH-SLM Base or FTTH-SLM Premium Apps | EFTTHSLM-ASSIST-100 |
| FTTA-SLM - Tailored OTDR App. for FTTA Networks | ESMARTFTTA-100 |
| Enterprise-SLM - Tailored OTDR App. for Enterprise and Datacenter Networks | ENTERPRISE-100 |
| CABLE-SLM - Management and Automation of High Count Fiber Cables OTDR Measurements | ESMARTCABL-100 |
| SmartAccess Anywhere - Remote Access and Control from Anywhere | SAA-100-L2 |
| GPS - Embedded GPS Coordinates into Test Files and Reports | EGPS |
| Additional Software Options | |
| Addition of 1310 nm wavelength (E100A and E100AS versions only) | E113-UPG |
| SmartLink Mapper/SLM view (E100AS version only) | ESMARTLINK100UP |
| Increased Dynamic Range - 37/35 dB at 1310/1550 nm (E100AS version only) | EXTRANGE100UP |

* For ordering in the USA replace E for F in the part number, e.g. E100AS-PC becomes F100AS-PC

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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