Data Sheet

VIAVI
T-BERD/MTS-2000
Handheld Modular Test Set

Fiber Optic Multitest Tool for Smarter, Faster Field Testing

Costs, workflow, quality, network performance, and customer experience are critical for the success of today's fiber optic networks. Selecting the right test tools has become key toward meeting these needs. The VIAVI Solutions™ T-BERD®/MTS-2000 is a handheld multi-test platform that provides field technicians with a single handheld unit to install, turn-up and maintain these networks to the highest standards.

Its innovative design and hands-free bag ensure that all essential fiber test tools are close at hand, whatever the job or location. A large color screen with graphical user interface drives simple operation and optimal workflow in the field.

Test capabilities include a range of OTDR modules for multimode and single-mode testing, including CWDM & DWDM OTDR, as well as a range of FiberComplete™ modules for automated insertion loss/optical return Loss (IL/ORL), OTDR and fault finding. Both OTDR and FiberComplete modules are passive optical network (PON) optimized. The unit is also ready for connector end face pass/fail analysis to IEC standards with a digital analysis microscope.

The CWDM-OSA and DWDM-OCC modules also enable turn-up and troubleshooting of coarse or dense wavelength division multiplexing (CWDM DWDM or Hybrid) networks.

T-BERD/MTS-2000

Key Benefits

- Ensure the highest-quality connectorizing, splicing, and turn-up of new fiber links
- Improve workflow with hands-free solution, driving best practices to IEC standards
- Smarter and faster field testing with simple setup and instantaneous pass/fail results
- Boost productivity with improved report generation and flexible connectivity
- Decrease OpEx and increase field productivity when combined with StrataSync™ and CerTiFi

Key Features

- High-visibility touch-screen display
- Wide range of field installable OTDR modules including QUAD and PON
- Optional built-in optical power meter, visual fault locator (VFL), and optical talk set
- Flexible connectivity with Ethernet, USB, Bluetooth®, and WiFi capabilities
- Smart Access Anywhere (SAA) for remote control and field tech support
- VIAVI TPA™ (Test Process Automation) enabled — centralized cloud based asset, configuration, test data and workflow management via Job Manager option
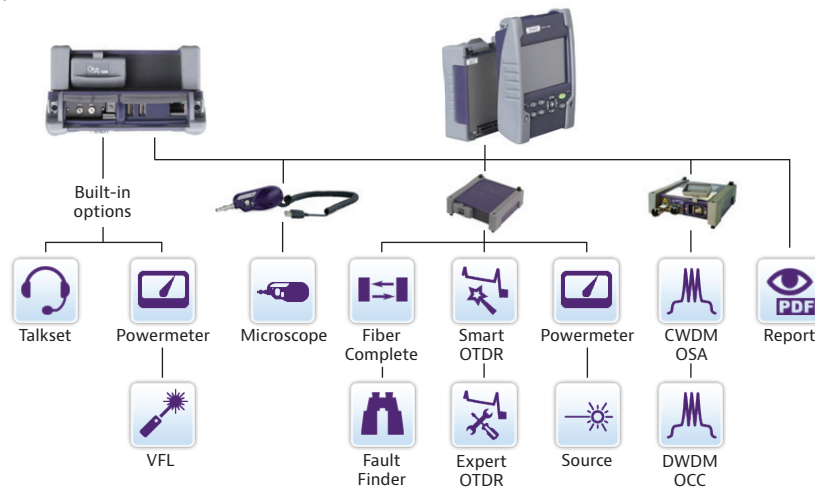
Applications

- Fiber optic test, qualification, certification and reporting
- Certify the fiber physical layer on FTTx/ PON, access, metro and enterprise networks
- FiberComplete automated uni and bi-directional IL, ORL, Length, OTDR certification
- Automated fiber inspection and IEC pass/fail analysis

Widest Range of Applications for Maximum Flexibility

The T-BERD/MTS-2000 provides the largest range of test capabilities offered in one handheld unit. The modular design allows service providers the maximum flexibility to scale their investment and evolve with the growth of their network.
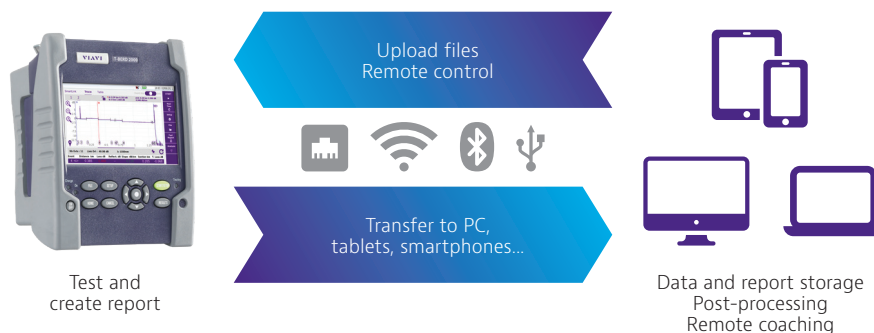
The instrument supports the whole range of essential fiber analysis tools including connection inspection, connection check, source, ORL, OTDR, a power meter, and DWDM Optical Channel Checker (DWDM-OCC).

Application modules used with the T-BERD/MTS-2000 can also be used with the T-BERD/MTS-4000 V2 and the two products are interoperable.

Built-in options: Talkset, Powermeter, VFL, Microscope, Fiber Complete, Fault Finder, Smart OTDR, Expert OTDR, Powermeter, Source, CWDM OSA, DWDM OCC, Report

Boosted Productivity with Seamless Data Workflow

The T-BERD/MTS-2000 integrates various communication capabilities allowing remote control, data and setup uploads/downloads, and report transfer. The unit has one high-speed 1G Ethernet port, three USB ports, and optional WiFi and Bluetooth network connections.

Test and create report

Upload files
Remote control

Transfer to PC, tablets, smartphones…

Data and report storage
Post-processing
Remote coaching

T-BERD/MTS-2000 Design Optimizes Operational Efficiency

1. 5-inch 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
11. Direction and validation keys
12. Results page
13. Loudspeaker
14. Headset jack
15. AC/DC input
16. Slave mini USB port
17. RJ45 connector
18. Master USB ports (2)
19. Power meter port
20. VFL or talk set port
21. WiFi and Bluetooth options

Specifications

General (typical at 25°C)	
Display	5-inch (12.5 cm) capacitive touchscreen – 800 x 480 WVGA
Interfaces	2 x USB 2.0 ports, 1 x RJ45 LAN 10/100/1000 Mbit/s port, 1 x mini USB 2.0, 1 x 2.5 mm female jack port (headset), built-in WiFi 802.11 b/g/n & Bluetooth 4.2 (optional)
Storage	1 GB standard (20,000 OTDR traces typical)
Battery	Rechargeable Lithium-Polymer battery, up to 9 hours of operation[1]
Power supply	AC/DC adapter, input 100-240 V AC, 50-60 Hz; 2 A max, output 12 V DC, 24 W
Electrical safety	EN/IEC 60950-1 compliant
Size with module (H x W x D)	175 x 138 x 80 mm (6.9 x 5.4 x 3.2 inch)
Weight (battery included)	Mainframe only: 864 g (1.89 lb)
	Mainframe with one OTDR module: 1.21 kg (2.67 lb)
Operating temperature	-20 to +50°C (-4 to +122°F)[2]
Storage temperature	-20 to +60°C (-4 to +140°F)
Humidity (non condensing)	5 to 95%
Built-in Broadband Power Meter Option (InGaAs)[3]	
Tone detection	270 Hz, 330 Hz, 1 kHz, 2 kHz
Power range	-60 to +10 dBm
Measurement accuracy	±0.2 dB[4]
Wavelengths	Calibrated: 850/1310/1490/1550/1625/1650 nm
	Selectable: 800 to 1650 nm in 1 nm step
Display resolution	0.01dB/0.01 nW
Connector type	2.5 mm Universal Push/Pull (UPP) (1.25 mm UPP adapter optional)
Built-in Visual Fault Locator (VFL) Option	
Wavelength	650 nm ±10 nm
Emission modes	CW, 1 Hz
Laser safety class	Class 2 per IEC 60825-1:2014 and FDA21 CFR Part 1040.10 standards
Connector type	2.5 mm UPP adapter (1.25 mm UPP adapter optional)
Built-in Talkset Option	
Dynamic range	32 dB[5]
Wavelength	1625 nm
Laser safety	Class 1 per IEC 60825-1:2014 and FDA21 CFR Part 1040.10 standards

1. Per Telcordia GR-196-CORE
2. With modules/all mainframe options: 0 to +40 °C (+32 to +104°F)
3. At 25 °C, after 20-minute warm-up
4. At calibrated wavelengths (except 1650 nm)
5. With a FC/PC connector

Ordering Information

Each mainframe comes with a Lithium-Polymer battery, an AC/DC adapter/charger, a stylus and a glove soft case with a shoulder strap.

Description	Part Number
Mainframes and Built-in Options	
T-BERD/MTS-2000 Platform with Capacitive Touchscreen	ETB2000HVT / EM2000HVT
Built-in Broadband Power Meter option	E20PM
Built-in Power Meter and VFL options	E20PMVFL
Built-in Talkset and Broadband Power Meter options	E20TSPM
Built-in WiFi/Bluetooth / External WiFi/Bluetooth USB dongle	E20WIFIBLUE / EWIFIBLUE
Accessories	
Spare AC/DC Adapter/Charger with UK/US/EU/AUS plugs or US plug only	E20PWMC / E20PWUS
Spare Lithium-Polymer battery	E20LIPO
Spare stylus for capacitive touchscreen	EHVTSTYLUS
Spare wrap-around/glove soft case	E20GLOVE
Soft carrying case	FBPP-SCASE2
Hookstrap*	E40HOOKSTRAP1
Hardcase for one T-BERD/MTS-2000 platform and accessories	E20HCASE1
12 V car lighter adapter	E40LIGHTER
USB GPS receiver	EUSBGPSRECEIVER
1.25 mm UPP adapter for built-in VFL option	FFL–050–U12
1.25 mm UPP adapter for built-in Power Meter option	EUPP125PM
Software Options (Other software options available depending on optical test modules)	
SmartAccess Anywhere - Remote Access and Control from Anywhere	SAA-L2
GPS - Embedded GPS coordinates into test files and reports	EGPS
Password Protection - To prevent resell/use of stolen units	EPASSWORDPROTECT
Job Manager - To deploy test plan procedures to simplify and automate tests.	EJOBMANAGER

* Can be attached to the mainframe or to the glove case

VIAVI TPA™ (Test Process Automation)

Allows your team to deliver expert-level test results and close projects on the first try, every time. VIAVI 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.

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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