# OPTIMIZED FOR MULTIMODE AND SINGLEMODE ACCESS NETWORK TESTING









Housed in a full-size portable platform, this OTDR is ideal to maximize efficiency of fiber installers testing multimode and singlemode fibers.

#### **KEY FEATURES**

Dynamic range of up to 36 dB

Event dead zone as low as 0.8 meter

Combined singlemode/multimode wavelengths (12CD-23B model)

Integrated tool: combines a visual fault locator, inspection probe, broadband power meter and a CW source mode

Controlled launch conditions for more accurate loss measurements

EXFO Connect-compatible: automated asset management; data goes through the cloud and into a dynamic database

#### **APPLICATIONS**

Access network testing

LAN/WAN characterization

#### PLATFORM COMPATIBILITY



FTB-200 Two-slot modular platform for combined applications



FTB-500 Four- or eight-slot platform for fiber characterization



#### **EXFO Connect**

## EXFO Connect

### AUTOMATE ASSET MANAGEMENT. PUSH TEST DATA IN THE CLOUD. GET CONNECTED.

EXFO Connect pushes and stores test equipment and test data content automatically in the cloud, allowing you to streamline test operation from build-out to maintenance.

### ADDITIONAL SOFTWARE TEST CAPABILITIES ON THE FTB-200 PLATFORM



EXpert VoIP generates a voice-over-IP call directly from the test platform to validate performance during service turn-up and troubleshooting.

- Supports a wide range of signaling protocols, including SIP, SCCP, H.248/Megaco and H.323
- · Supports MOS and R-factor quality metrics
- Simplifies testing with configurable pass/fail thresholds and RTP metrics



EXpert IP integrates six commonly used datacom test tools into one platform-based application to ensure that field technicians are prepared for a wide range of testing needs.

- Rapidly performs debugging sequences with VLAN scan and LAN discovery
- · Validates end-to-end ping and traceroute
- · Verifies FTP performance and HTTP availability



This powerful IPTV quality assessment solution enables set-top-box emulation and passive monitoring of IPTV streams, allowing quick and easy pass/fail verification of IPTV installations.

- Real-time video preview
- · Analyzes up to 10 video streams
- Comprehensive QoS and QoE metrics including MOS score

#### SPECIFICATIONS a

TECHNICAL SPECIFICATIONS	
Wavelength (nm) b	$850 \pm 20, 1300 \pm 20, 1310 \pm 20, 1550 \pm 20$
Dynamic range (dB) c, d	27, 26, 36, 34
Event dead zone (m) <sup>e</sup>	1
Attenuation dead zone (m) <sup>e</sup>	3, 4, 4.5, 5
Distance range (km)	Multimode: 0.1, 0.3, 0.5, 1.3, 2.5, 5, 10, 20, 40 Singlemode: 1.25, 2.5, 5, 10, 20, 40, 80, 160, 260
Pulse width (ns)	Multimode: 5, 10, 30, 100, 275, 1000 Singlemode: 5, 10, 30, 100, 275, 1000, 2500, 10 000, 20 000
Launch conditions f	Class CPR 1 or 2 i
Linearity (dB/dB) <sup>b</sup>	±0.03
Loss threshold (dB)	0.01
Loss resolution (dB)	0.001
Sampling resolution (m)	Multimode: 0.04 to 2.5 Singlemode: 0.04 to 5
Sampling points	Up to 128 000
Distance uncertainty (m) <sup>g</sup>	±(0.75 + 0.0025 % x distance + sampling resolution)
Measurement time	User-defined (60 min. maximum)
Typical real-time refresh (Hz)	3
Stable source output power (dBm) h	-1.5 (1300 nm), -7 (1550 nm)

#### NOTES

- a. All specifications valid at 23 °C  $\pm$  2 °C with an FC/PC connector, unless otherwise specified.
- b. Typical.
- c. Typical dynamic range with longest pulse and three-minute averaging at  $\ensuremath{\mathsf{SNR}}=1.$
- d. Multimode dynamic range is specified for 62.5  $\mu m$  fiber; a 3 dB reduction is seen when testing 50  $\mu m$  fiber.
- e. Typical dead zone for multimode reflectance below -35 dB and singlemode reflectance below -45 dB, using a 5 ns pulse.
- f. For multimode port, controlled launch conditions allow 50 µm and 62.5 µm multimode fiber testing.
- g. Does not include uncertainty due to fiber index.
- h. Typical output power is given at 1300 nm for multimode output and 1550 nm for singlemode output.
- i. Under improvement to achieve better conditions.



#### LASER SAFETY

21 CFR 1040.10 AND IFC 60825-1:2007 CLASS 1M



#### **ORDERING INFORMATION** Multimode and singlemode (access and LAN/WAN OTDR) FTB-7200D-XX-XX-XX Model ■ OTDR Software Option a FTB-7200D-12CD-23B = Four-wavelength MM/SM OTDR module, 850/1300 nm 00 = Without software option (50/125 $\mu m$ and 62.5/125 $\mu m)$ and 1310/1550 nm (9/125 $\mu m)$ AD = Macrobend finder and linear view FTB-7200D-12CD = Dual-wavelength MM OTDR module, 850/1300 nm ■ Multimode Connector b (50/125 μm and 62.5/125 μm) EI-EUI-28 = UPC/DIN 47256 FTB-7200D-023B = Dual-wavelength SM OTDR module, 1310/1550 nm (9/125 $\mu \text{m}$ ) EI-EUI-76 = UPC/HMS-10/AG EI-EUI-89 = UPC/FC narrow key Singlemode Connector EA-EUI-28 = APC/DIN 47256 EI-EUI-90 = UPC/ST EA-EUI-89 = APC/FC narrow key EI-EUI-91 = UPC/SC EA-EUI-91 = APC/SC EI-EUI-95 = UPC/E-2000 EA-EUI-95 = APC/E-2000EI-EUI-98 = UPC/LC EA-EUI-98 = APC/LC El connectors = See note below Example: FTB-7200D-12CD-23B-EI-EUI-89-EA-EUI-95-AD

- a. This software option is compatible only on FTB-200 platform.
- b. Please refer to the example above. First select the multimode connector, then the singlemode connector.

#### **EI CONNECTORS**



To maximize the performance of your OTDR, EXFO recommends using APC connectors. These connectors generate lower reflectance, which is a critical parameter that affects performance, particularly dead zones. APC connectors provide better performances than UPC connectors, thereby improving testing efficiency.

Note: UPC connectors are also available, simply replace EA-XX by EI-XX in the ordering part number. Additional connectors available are the EI-EUI-76 (UPC/HMS-10/AG) and EI-EUI-90 (UPC/ST).

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