FTB-730 PON FTTx/MDU OTDR

OPTIMIZED FOR ACCESS FIBER DEPLOYMENTS AND TROUBLESHOOTING

iOLM READY

EXFO Connect Compatible

FROST & SULLIVAN 2011 BEST PRACTICES AWARD
GLOBAL PORTABLE FIBER OPTIC TEST EQUIPMENT MARKET SHARE LEADERSHIP AWARD

SPEC SHEET

The perfect tool for field technicians who must seamlessly characterize splitters in PON FTTx and MDU applications.

KEY FEATURES

- Test through high-port-count splitters (up to 1x128)
- Singlemode port for in-service troubleshooting with standard in-line OPM
- Dynamic range of up to 39 dB
- Short acquisition time to speed up deployment process
- EXFO Connect-compatible: automated asset management; data goes through the cloud and into a dynamic database
- iOLM-ready: one-touch multiple acquisitions, with clear go/no-go results presented in a straightforward visual format

APPLICATIONS

- FTTx/MDU test challenges within PON networks
- Access network testing (P2P)

COMPLEMENTARY PRODUCTS AND OPTIONS

Platform
FTB-1

Fiber Inspection Probe
FIP-400B

FastReporter 2
EFFICIENT POST-PROCESSING SOFTWARE

Data Post-Processing Software
FastReporter 2

EXFO

REMOVING THE COMPLEXITY FROM THE OTDR

iOLM | intelligent Optical Link Mapper

Launch multiple OTDR acquisitions

↓

Analyze the traces

↓

Compound the results

↓

Display a schematic link view and prompt diagnosis

↓

US patent 6,612,750

Using a unique and patented automated multipulse and multi-wavelength acquisition approach, the field-proven iOLM surpasses the traditional OTDR and linear view for expert-level link characterization of any fiber network.

This dynamic OTDR-based application uses EXFO's most advanced algorithms to deliver detailed information and maximum resolution on every element of the link. Thanks to its unmatched intelligence and simplicity, the iOLM converts complex OTDR tests into clear and accurate go/no-go results, through a single button operation.

Powered by Link-Aware™ Technology

- Hardware optimized and intelligent software for maximum performance
- Multiple acquisitions, multiple wavelengths with one button–all automated
- Expert-level characterization results in a single, comprehensive report
- The fastest and hassle-free way to perform full fiber characterization
- No training required: self-setting device with clear go/no-go results
- Minimized truck rolls, thanks to the smartest analysis, powered by Link-Aware™ technology

Three ways to benefit from the iOLM:

OTDR combo (Oi code)
Run iOLM and OTDR applications on one unit

Upgrade
Add iOLM software option, even while in the field

iOLM only
Order a unit with the iOLM application only

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

EXFO Connect

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-1 PLATFORM

EXpert VoIP TEST TOOLS

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 TEST TOOLS

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

EXpert IPTV TEST TOOLS

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

EXFO

All specifications valid at 23° C ± 2° C with FC/APC for FTB-730, unless otherwise specified.

TECHNICAL SPECIFICATIONS (OTDR)

Model	FTB-730 [a]
Wavelength (nm) [b]	1310 ± 20/1490 ± 15/1550 ± 20/1625 ± 10/1650 ± 7
Dynamic range at 20 µs (dB) [c]	39/38/37/39 [d]/37
Event dead zone (m) [e]	0.8
Attenuation dead zone (m) [e]	4/4.5/4.5/4.5/4.5
Distance range (km)	1.25, 2.5, 5, 10, 20, 40, 80, 160, 260, 400
Pulse width (ns)	5, 10, 30, 50, 100, 275, 500, 1000, 2500, 10 000, 20 000
Linearity (dB/dB) [b]	±0.03
PON dead zone (m) [f]	35
Loss threshold (dB)	0.01
Loss resolution (dB)	0.001
Sampling resolution (m)	0.04 to 5
Sampling points	Up to 256 000
Distance uncertainty (m) [g]	±(0.75 + 0.0025 % x distance + resolution)
Measurement time	User-defined (60 min. maximum)
Typical real-time refresh (Hz)	4
Stable source output power (dBm) [h]	–2.5
Reflectance (dB) [b]	±2

TECHNICAL SPECIFICATIONS (In-Line Power Meter)

Input power range (dBm)	1490 nm: –65 to 18 1550 nm: –50 to 28
PON power meter (nm)	Two channels: 1490/1550
Broadband power meter (nm)	One channel: 1270 to 1625
Power uncertainty (dB) [b]	±0.2
Calibrated wavelengths (nm)	1310, 1490, 1550 and 1625
PON power meter spectral band (nm)	1450 to 1530
Broadband power meter spectral band (nm)	1270 to 1625
Display resolution (dB)	0.1
PON power meter ORL (dB) [b]	–55
Broadband power meter ORL (dB) [b]	–50

GENERAL SPECIFICATIONS

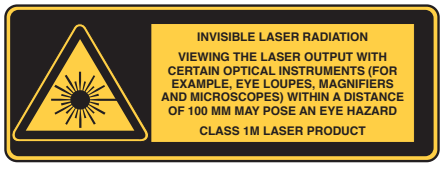
Size (H x W x D)	130 mm x 36 mm x 252 mm (5 $^{1}/_{8}$ in x 1 $^{7}/_{16}$ in x 9 $^{15}/_{16}$ in)	
Weight	0.65 kg (1.4 lb)	
Temperature		
Operating	0 °C to 50 °C	(32 °F to 122 °F)
Storage	–40 °C to 70 °C	(–40 °F to 158 °F)
Relative humidity	0% to 95% non-condensing	

For complete details on all available configurations, refer to the Ordering Information section.

Notes

a. SM Live port built in filter's bandpass 1625 nm ± 15 nm/1650 nm ± 7 nm.
b. Typical.
c. Typical dynamic range with a three-minute averaging at SNR = 1.
d. Non-SM Live 1625 nm dynamic range is 37 dB.
e. Typical dead zone for reflexions below –45dB using a 5 ns pulse.
f. Non-reflective FUT, non-reflective splitter, 13 dB loss, 50 ns pulse, typical value.
g. Does not include uncertainty due to fiber index.
h. Typical output power value at 1550 nm.

LASER SAFETY



ORDERING INFORMATION

SINGLEMODE (PON FTTx/MDU) FOR FTB-1 PLATFORM

FTB-730-XX-XX-XX-XX-XX-XX

Model

Dual Wavelength
FTB-730-23B = SM OTDR module, 1310/1550 nm (9/125 µm)
FTB-730-34B = SM OTDR module, 1550/1625 nm (9/125 µm)

Triple Wavelength
FTB-730-236B = SM OTDR module, 1310/1490/1550 nm (9/125 µm)
FTB-730-234B = SM OTDR module, 1310/1550/1625nm (9/125µm)

SM Live Port
FTB-730-23B-04B = SM and SM live OTDR module, 1310/1550 and 1625 nm live port including in-line broadband power meter
FTB-730-000-04B = SM live OTDR with 1625 nm live port (9/125 µm) including in-line broadband power meter
FTB-730-000-08B = SM live OTDR with 1650 nm live filtered port (9/125 µm)

OPM Option [a]
OPM = One broadband channel included
OPM2 = Dual channel 1490/1550 nm

iOLM Software Option
00 = Without iOLM option
iEX = iOLM Expert mode
RT = Real-time OTDR mode (via iOLM application) [b]

OTDR Software Option [c]
AD = Auto diagnostic (macrobend detection, pass/fail and fault finder) and linear view
EC = Event characterization (bidirectional analysis and Template mode)

Connector
EA-EUI-28 = APC/DIN 47256
EA-EUI-89 = APC/FC narrow key
EA-EUI-91 = APC/SC
EA-EUI-95 = APC/E-2000
EI connectors = See note below

Base Software
OTDR = Enables the OTDR application only
iOLM = Enables the iOLM application only
Oi = Enables iOLM + OTDR applications

Example: FTB-730-23B-04B-OPM-OTDR-EA-EUI-89-AD-EC

Notes

a. Available with FTB-730-000-04B and FTB-730-23B-04B only.

b. Available with iOLM base software only. This feature is part of the Oi base software.

c. Included with OTDR and Oi base softwares only.

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).

EXFO Headquarters > Tel.: +1 418 683-0211 | Toll-free: +1 800 663-3936 (USA and Canada) | Fax: +1 418 683-2170 | info@EXFO.com | www.EXFO.com

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