FTB-720 LAN/WAN Access OTDR

OPTIMIZED FOR MULTIMODE AND SINGLEMODE ACCESS NETWORK TESTING

iOLM READY

EXFO Connect Compatible

40G

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

> The ideal construction OTDRs for everyday field testing in any access network as well as in LAN/WAN networks

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

Live fiber testing at 1625 nm

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

Access network testing

LAN/WAN characterization

Private networks

Data centers

PLATFORM COMPATIBILITY

Platform
FTB-1

EXFO | Assessing Next-Gen Networks

iNTELLIGENT OPTICAL LINK MAPPER—GOING BEYOND OTDR

iOLM | intelligent Optical Link Mapper

Powered by
Link Aware™
TECHNOLOGY

Using an automated multipulse acquisition approach and filled with advanced algorithms, the iOLM is an OTDR-based application that delivers detailed information on every element of the link through a single button operation–providing maximum intelligence and simplicity for expert-level link characterization.

› Hardware optimized for field upgradability to the optional iOLM software application

› Multiple acquisitions with one button–all automated

› Expert-level characterization results in a single, comprehensive report

› The highest single-ended fiber testing performance available

› 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

› No more trace misinterpretation: prompt diagnosis and clear optical link view

Three ways to benefit from the iOLM on this module:

iOLM only	**OTDR combo**	**Upgrade**
FTB-720 with iOLM application	FTB-720 with iOLM and OTDR applications	iOLM software option for your existing FTB-720 OTDR

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

EXFO | C nnect

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

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SPECIFICATIONS [a]

TECHNICAL SPECIFICATIONS

Wavelength (nm) [b]	850 ± 20, 1300 ± 20, 1310 ± 20, 1550 ± 20, 1625 ± 15 (filtered)
Dynamic range (dB) [c, d]	27, 26, 36, 34, 34
Event dead zone (m) [e]	0.8
Attenuation dead zone (m) [e]	4, 4.5, 5, 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, 50, 100, 275, 500, 1000 Singlemode: 5, 10, 30, 50, 100, 275, 500, 1000, 2500, 10 000, 20 000
Launch conditions [f]	Class CPR 1 or 2 [i]
Linearity (dB/dB) [b]	±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 256 000
Distance uncertainty (m) [g]	±(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]	−3 (1300 nm), −7 (1550 nm)

GENERAL SPECIFICATIONS

Size (H x W x D)	130 mm x 36 mm x 252 mm (5 $\frac{1}{8}$ in x 1 $\frac{7}{16}$ in x 9 $\frac{15}{16}$ in)	
Weight	0.65 kg (1.4 lb)	

Temperature
    Operating
    Storage
	
	0 °C to 50 °C
	−40 °C to 70 °C
		
		(32 °F to 122 °F)
		(−40 °F to 158 °F)

Relative humidity	0% to 95% non-condensing	

LASER SAFETY

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

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IEC 60825-1:2007        21 CFR 1040.10
INVISIBLE LASER RADIATION
DO NOT VIEW DIRECTLY
WITH OPTICAL INSTRUMENTS
CLASS 1M LASER PRODUCT
λ: 800-1200 nm, PW ≤ 1 μsec, Ppk ≤ 500 mW
λ: 1200-1400 nm, PW ≤ 20 μsec, Ppk ≤ 250 mW
λ: 1200-1700 nm, PW ≤ 20 μsec, Ppk ≤ 500 mW
QST 572
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NOTES

a. All specifications valid at 23 °C ± 2 °C with an FC/PC connector, unless otherwise specified; APC connector for FTB-720 singlemode model.

b. Typical.

c. Typical dynamic range with longest pulse and three-minute averaging at SNR = 1.

d. Multimode dynamic range is specified for 62.5 μm fiber; a 3 dB reduction is seen when testing 50 μm 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.

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ORDERING INFORMATION

Multimode and singlemode (access and LAN/WAN OTDR)

FTB-720-XX-XX-XX-XX-XX-XX

Model
FTB-720-000-04B = OTDR with filtered 1625 nm port
FTB-720-023B-04B = OTDR 1310/1550 nm with filtered 1625 nm port
FTB-720-23B = OTDR 1310/1550 nm
FTB-720-12CD = OTDR 850/1300 nm
FTB-720-12CD-23B = OTDR 850/1300 nm, 1310/1550 nm

Base Software
OTDR = Enables the OTDR application only
iOLM = Enables the iOLM application only [a]
Oi = Enables iOLM and OTDR applications [a]

Multimode Connector
EI-EUI-28 = UPC/DIN 47256
EI-EUI-76 = UPC/HMS-10/AG
EI-EUI-89 = UPC/FC narrow key
EI-EUI-90 = UPC/ST
EI-EUI-91 = UPC/SC
EI-EUI-95 = UPC/E-2000

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

OTDR Software Option [c]
00 = Without software option
AD = Auto diagnostic (macrobend detection, pass/fail and fault finder)
EC = Event characterization (bidirectional analysis and Template mode)

Singlemode 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

Example: FTB-720-023B-04B-Oi-EI-EUI-89-EA-EUI-89-AD

Notes

a. The iOLM software is available on singlemode port only. FTB-720-12CD-23B must be ordered with Oi option to enable iOLM on the singlemode port.

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

c. Available 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).

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