

FTB-7400E Metro/CWDM OTDR

METRO/CORE AND CWDM NETWORK FIBER CHARACTERIZATION



High-resolution OTDR covering longer metro distances and ITU-based CWDM networks

KEY FEATURES

- Industry-leading linearity of ± 0.03 dB/dB
- Up to 256 000 sampling points
- Event dead zone of 0.8 m and attenuation dead zone of 4 m
- Low-water-peak fiber testing at 1383 nm
- Dynamic range of up to 42 dB for long-haul testing
- Tests through CWDM-based multiplexers and demultiplexers at ITU-recommended wavelengths

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

- Metro/core network testing
- CWDM network testing

PLATFORM COMPATIBILITY



Platform
FTB-500



Compact Platform
FTB-200



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**

FTB-7400E with iOLM application

OTDR combo

FTB-7400E with iOLM and
OTDR applications

Upgrade

iOLM software option for your
existing FTB-7400E OTDR

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-200 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

All specifications valid at 23 °C ± 2 °C with an FC/PC connector, unless otherwise specified.

TECHNICAL SPECIFICATIONS			
Model ^a	FTB-7400E-XXXX	FTB-7400E-CWS	FTB-7400E-CWCL
Wavelengths (nm) ^b	1310 ± 20/1383 ± 1/1550 ± 20/1625 ± 10	1470 ± 3/1490 ± 3/1510 ± 3/1530 ± 3	1550 ± 3/1570 ± 3/1590 ± 3/1610 ± 3
Dynamic range at 20 μs (dB) ^c	42/40/41/41	41/41/ 41/41	41/41/ 40/40
Event dead zone (m) ^d	0.8	0.8	0.8
Attenuation dead zone (m) ^d	4/4/4.5/4.5	4/4.5/4.5	4/4.5/4.5
Distance range (km)	1.25, 2.5, 5, 10, 20, 40, 80, 160, 260, 400	1.25, 2.5, 5, 10, 20, 40, 80, 160, 260, 400	1.25, 2.5, 5, 10, 20, 40, 80, 160, 260, 400
Pulse width (ns)	5, 10, 30, 100, 275, 1000, 2500, 10 000, 20 000	5, 10, 30, 100, 275, 1000, 2500, 10 000, 20 000	5, 10, 30, 100, 275, 1000, 2500, 10 000, 20 000
Linearity (dB/dB) ^b	± 0.03	± 0.03	± 0.03
Loss threshold (dB)	0.01	0.01	0.01
Loss resolution (dB)	0.001	0.001	0.001
Sampling resolution (m)	0.04 to 5	0.04 to 5	0.04 to 5
Sampling points	Up to 256 000	Up to 256 000	Up to 256 000
Distance uncertainty (m) ^e	± (0.75 + 0.001 % x distance + sampling resolution)	± (0.75 + 0.001 % x distance + sampling resolution)	± (0.75 + 0.001 % x distance + sampling resolution)
Measurement time	User-defined (5 sec. minimum to 60 min. maximum)	User-defined (5 sec. minimum to 60 min. maximum)	User-defined (5 sec. minimum to 60 min. maximum)
Typical real-time refresh (Hz)	4	4	4
Stable source output power (dBm) ^f	-4.5 (7400E-0023B)		


Notes

- For complete details on all available configurations, refer to the Ordering Information section.
- Typical.
- Typical dynamic range with a three-minute averaging at SNR = 1.
- Typical dead zone of singlemode modules for reflectance below -45 dB, using a 5 ns pulse.
- Does not include uncertainty due to fiber index.
- Typical output power value at 1550 nm.

GENERAL SPECIFICATIONS			
Size (H x W x D)	97 mm x 25 mm x 260 mm (3 13/16 in x 1 in x 10 1/4 in)		
Weight	0.55 kg (1.2 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		

LASER SAFETY

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



ORDERING INFORMATION

Singlemode (METRO/CWDM)

FTB-7400E-XX-XX-XX-XX

Model

Dual Wavelength

FTB-7400E-0023B = SM OTDR module, 1310/1550 nm (9/125 μ m)

Triple Wavelength

FTB-7400E-0234B = SM OTDR module, 1310/1550/1625 nm (9/125 μ m)

Quadruple Wavelength

FTB-7400E-2347B = SM OTDR module, 1310/1383/1550/1625 nm (9/125 μ m)FTB-7400E-CWS = CWDM SM OTDR module,
1470/1490/1510/1530 nm (9/125 μ m)FTB-7400E-CWCL = CWDM SM OTDR module,
1550/1570/1590/1610 nm (9/125 μ m)

Base Software

OTDR = Enables the OTDR application only

iOLM = Enables the iOLM application only^aOi = Enables iOLM and OTDR applications^aiOLM Software Option^a

00 = Without iOLM option

iEX = iOLM Expert mode

RT = Real-time OTDR mode (via iOLM application)^bOTDR Software Option^{a, c}

00 = Without software option

AD = Macrobend finder and linear view

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

EA-EUI-98 = APC/LC

EI Connectors: See note below

Example: FTB-7400E-2347B-Oi-EI-EUI-89-AD

Notes

- Available on the FTB-200v2 platform only.
- Available with iOLM base software only. This feature is part of the Oi base software.
- 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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