

# 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  $\pm 0.03$  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

## APPLICATIONS

- Metro/core network testing
- CWDM network testing

## PLATFORM COMPATIBILITY



Platform  
FTB-500

Compact Platform  
FTB-200



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

## TECHNICAL SPECIFICATIONS

Model <sup>a</sup>	FTB-7400E-XXXX	FTB-7400E-CWS	FTB-7400E-CWCL
Wavelengths (nm) <sup>b</sup>	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) <sup>c</sup>	42/40/41/41	41/41/ 41/41	41/41/ 40/40
Event dead zone (m) <sup>d</sup>	0.8	0.8	0.8
Attenuation dead zone (m) <sup>d</sup>	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) <sup>b</sup>	± 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) <sup>e</sup>	± (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) <sup>f</sup>	-4.5 (7400E-0023B)		
Visual fault locator (optional) <sup>b</sup>	Laser, 650 nm ± 10 nm CW, P <sub>out</sub> in 62.5/125 μm: 1.5 dBm (1.4 mW)		

### 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.

## LASER SAFETY

21 CFR 1040.10 AND IEC 60825-1:2007  
CLASS 1M WITHOUT VFL OPTION  
CLASS 3R WITH VFL OPTION



**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 μm)

**Triple-wavelength**

FTB-7400E-0234B = SM OTDR module, 1310/1550/1625 nm (9/125 μm)<sup>a</sup>

**Four-wavelength**

FTB-7400E-2347B = SM OTDR module, 1310/1383/1550/1625 nm (9/125 μm)<sup>a</sup>

FTB-7400E-CWS = CWDM SM OTDR module, 1470/1490/1510/1530 nm (9/125 μm)<sup>a</sup>

FTB-7400E-CWCL = CWDM SM OTDR module, 1550/1570/1590/1610 nm (9/125 μm)<sup>a</sup>

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

**Software Option**

00 = Without software option  
AD = Macrobend finder and linear view<sup>b</sup>

**Visual fault locator** (universal 2.5 mm connector)

00 = Without visual fault locator  
VFL = With visual fault locator (universal 2.5 mm connector)

**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-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

**Note**

- a. VFL always included.
- b. This software option is compatible only on FTB-200 platform.

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