

# FTB-500

NETWORK TESTING



## Boundless capabilities. Expert design.

### The true next-gen network enabler

- Full fiber characterization: industry-renowned OTDRs combined with the most advanced dispersion analyzers
- Industry-exclusive: distributed PMD analysis
- 10G, 40G and 100G-ready
- Most compact and powerful Ethernet, SONET/SDH, OTN and Fibre Channel analyzers

### A network testing powerhouse

- Choose the best fit: four-slot or eight-slot configurations
- Faster setups and faster testing
- Universal wireless connectivity
- Full backward compatibility with all FTB modules



Next-Generation Network Assessment



**EXFO**  
EXPERTISE REACHING OUT

The all-new FTB-500  
**Testing unlimited.**

The result of over 10 years of proven leadership in multimodular test platforms, the FTB-500 delivers a whole new spectrum of network testing possibilities, a whole new testing paradigm: more advanced applications, faster setups, test cycles and reporting, wireless communication and reporting, and universal compatibility with all EXFO FTB modules, past, present and future.

Designed for network experts, this high-end, highly evolutive platform enables true next-generation network testing.

**EXFO modular test platforms:  
a history of market innovations**

**2009**

First portable test platform truly optimized for next-generation networks, delivering unlimited test possibilities and universal wireless connectivity.

• FTB-500



**2007**

First handheld modular platform integrating optical, copper, transport and datacom testing

• AXS-200



**2006**

First multilayer platform built specifically for metro/access supertechs

• FTB-200



**2001**

First modular platform designed for core-to-access testing

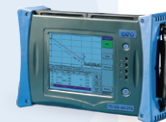
• FTB-400



**2000**

First field-proof mini-OTDR platform

• FTB-100



**1996**

First PC-based multimodular platform

• FTB-300

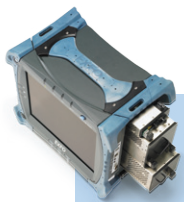


*The latest evolution in EXFO's time-proven multimodular test platforms, the FTB-500 provides network experts with the power to combine more test applications than ever before—and run them faster than ever before.*

## Shape it as *you* see fit.

Massive processing power. Mix-and-match flexibility.  
Right out of multi-application wonderland.

The FTB-500 platform brings you new, highly advanced applications and pushes your current ones' efficiency to new heights. So go ahead: break new grounds, set new test performance standards, tame new technologies. Benefit from an all-in-one platform that you can build around your most unique requirements.



### FTB-500 8-slot platform

Distributed  
PMD

#### Distributed PMD analysis

Single-ended, span-by-span measurement of PMD, enabling targeted fiber upgrades and cost-effective deployment of 10, 40 and 100 Gbit/s transmission.

Fiber  
analysis

#### Full fiber characterization

PMD, CD and OTDR testing combined in a single solution, for in-depth fiber characterization. Run FastReporter post-processing software while performing your acquisitions, for faster data analysis and report generation—directly on-site.

100  
Gbit/s

#### 100 Gbit/s testing applications

The most advanced hardware, ready for future 100 Gbit/s applications.

ROADM/  
POTS  
10  
Gbit/s

#### ROADM/POTS and 40 Gbit/s testing

Integrated optical and transport testing in a portable solution supporting OC-768, STM-256, OTU3 as well as true in-band OSNR for ROADMs, 40G transmission and UDWDM signals.

All-in-one transport and datacom configuration supporting:

- DS0/E0 to OC-768/STM-256
- OTU1/OTU2/OTU3/OTU1e/OTU2e with FEC
- 10/100M, Gigabit Ethernet and 10 Gigabit Ethernet (LAN/WAN)
- 1x/2x/4x/10x Fibre Channel
- Next-generation SONET/SDH (GFP, LO/HO VCAT and LCAS)



### FTB-500 4-slot platform

ROADM  
and  
PTN

#### ROADM and PTN turn-up testing

Combines SONET/SDH, OTN, Ethernet and Fibre Channel analysis, as well as an optical spectrum analyzer with a built-in polarization controller.

CWDM

#### CWDM turn-up testing

Integrates two metro/CWDM OTDRs and a high-power-up to 23 dBm—optical spectrum analyzer (with built-in polarization controller) into a single portable solution.

Multiservice

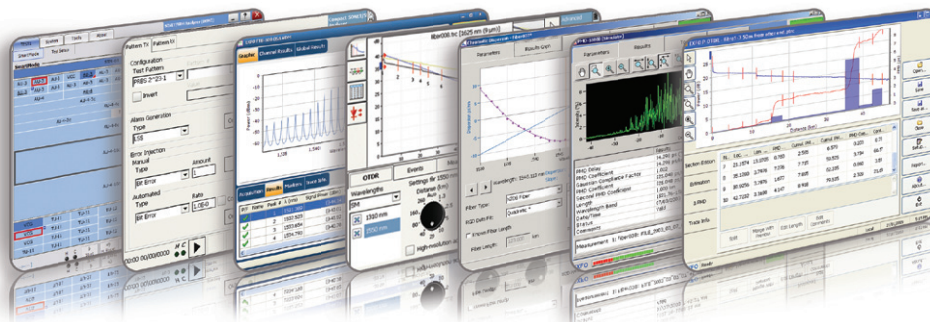
#### Multiservice testing

Simultaneously runs a 10 gigabit next-generation SONET/SDH analyzer, as well as 1 gigabit and 10 gigabit Ethernet analyzers, delivering IPTV test capabilities and TCP throughput assessment.

GigE/  
10  
GigE

#### Gigabit/10 Gigabit Ethernet configurations

- Gigabit Ethernet analyzer, OTDR and optical spectrum analyzer with polarization controller
- Gigabit Ethernet analyzer, 10 gigabit Ethernet analyzer and OTDR



A broader scope of tests. A broader range of modules.  
A breadth of fresh air.

The all-new FTB-500 houses any of EXFO's FTB plug-and-play modules, enabling you to reconfigure your test solution as your test needs evolve. Combine physical and optical characterization applications with transport and datacom test modules covering next-generation 10G, 40G and 100G analysis.

Optical

**Optical test modules**

Choose from the industry's most renowned line of OTDRs and most advanced dispersion analyzers.

OTDR	FTB-7xxx (B-C-D-E series)	MultiTest Module	FTB-3930
Optical Spectrum Analyzers	FTB-5240S		
	FTB-5240S-P	Multiwavelength Meter	FTB-5320
Single-Ended Dispersion Analyzer	FTB-5700	PMD Analyzer	FTB-5500B
Distributed PMD Analyzer	FTB-5600 <i>Industry first!</i>		
Optical Switch	FTB-9100	Chromatic Dispersion Analyzer	FTB-5800

Transport and datacom

**Transport and datacom test modules**

Discover the most compact and powerful SONET/SDH, OTN, Fibre Channel and Ethernet analyzers—the new standards in next-generation network testing.

40/43 Gigabit SONET/SDH Test Module	FTB-8140 Transport Blazer
Next-Generation SONET/SDH Test Modules	FTB-8120/8130 Transport Blazer
SONET/SDH Test Module	FTB-8115 Transport Blazer
DSn/PDH and SONET/SDH Electrical Test Module	FTB-8105 Transport Blazer
Multiservice Test Modules	FTB-8120NGE/8130NGE Power Blazer
10 Gigabit Ethernet Test Module	FTB-8510G Packet Blazer
Ethernet Test Modules	FTB-8510/8510B Packet Blazer
Fibre Channel and Ethernet Test Modules	FTB-8525/8535 Packet Blazer
Fibre Channel Test Module	FTB-8520 Packet Blazer SAN
100G/40G Ethernet Test Module	FTB-85100G Packet Blazer

Enjoy testing at your swift pace.

Faster setups. Faster testing.  
Faster everything.

When you're ready to start your day, you want to be able to actually start it—quick. The FTB-500 “understands” this, as it lets you expedite the setup process and get down to testing, so you can get to your next location faster and breathe through your tight day-to-day schedule.

Loading a 10G BER test configuration from your Favorites list



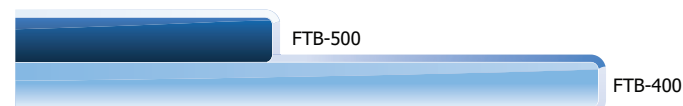
65%  
faster

Generating a .pdf file for a 10G BER test



80%  
faster

Setting up a complex test case:  
*OTU2/ODU2 + ODU1 (all TCMS enabled)/STM-16/LOP VCG/AU-4/TU-11-64v/BER*



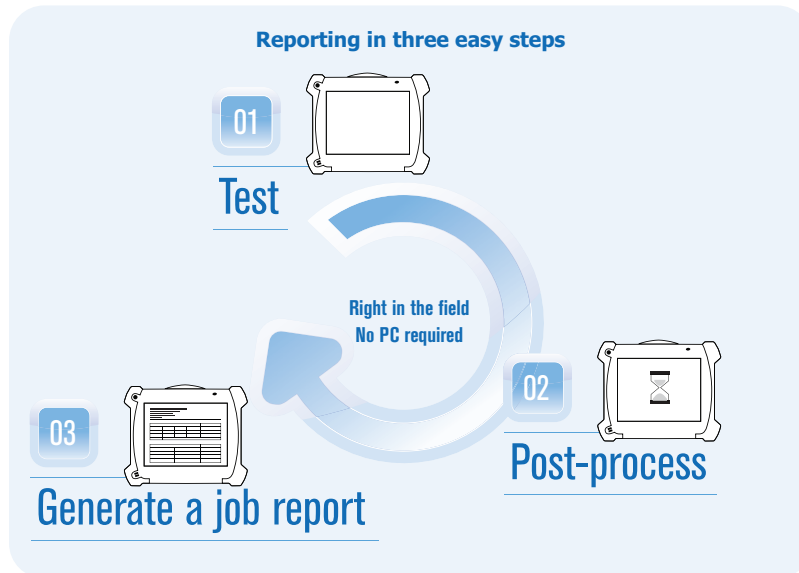
55%  
faster



Timing comparison between the new FTB-500 and the FTB-400.

## Generate your reports. Shut down the platform. Go straight home.

Running on Windows XP, the FTB-500 platform allows you to generate reports in the field, without having to use a desktop PC. Thanks to the FastReporter post-processing and reporting software, you can perform total fiber characterization, launch a report on-site combining PMD, CD and OTDR results, and be done.



## Designed for portability. Manageability. Viewability. In short, for easy-ability.

The field brings its fair share of challenges: hard-to-reach locations, dark environments, rain, cold, sunlit environments and other conditions that can complicate your job. Designed to deliver a new level of user-friendliness, the FTB-500 makes it all much easier.

- Conveniently located handles and first-class ergonomics, for easy carrying and operation
- Angled stance for easier viewing of results
- Easily accessible ports and stylus



USB 2.0  
Probe  
Speaker out  
Micro in  
Serial  
Power meter/VFL



8.5 in  
21.6 cm



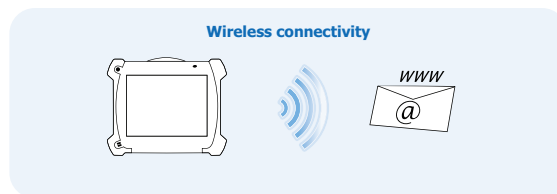
5.75 in  
14.6 cm



## Allow the world to connect with you.

**Downloadable tutorials. Real-time information portal.  
Just like bringing along your team of experts.**

When a question arises, you need answers, easily accessible. The FTB-500 lets you download and view tutorials directly on its screen. It also lets you access EXFO's Next-Gen Networking Blog, which explores the latest test approaches and provides key insight into commonly encountered testing challenges. Keeping in touch with up-to-the-minute expertise has never been easier.



**It's your platform. You control it.  
Whether you're on-site or not.**

Sometimes, there is just no way around it: you need to be in two places at the same time, carrying out test cycles on-site, and overseeing the operations from a remote location. Which is exactly what the FTB-500 enables, using Windows-based remote desktop capabilities as well as VNC.



**Universal, wireless connectivity. Total reporting freedom.  
No strings attached.**

Whether you are downtown or in the middle of nowhere, you can transmit your test results as soon as you're ready. Because the FTB-500 is also ready—for wireless communication, that is. Send you reports either through mobile networking, or Wi-Fi or Bluetooth connection, and share your files whenever you need to.

## Let others take the risk.

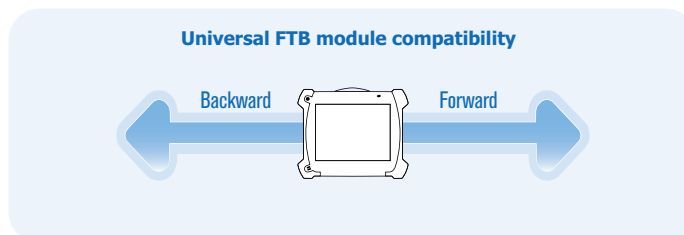
**Modular platform design expertise. Proven innovation leadership.  
Leap into next-gen—with a safety net.**

Having pioneered the modular testing approach over 10 years ago, EXFO has established itself as the proven leader in multimodule network test platforms. Combined with our steadfast focus on market-driven innovation, this makes the FTB-500 the most advanced and reliable test platform for today's network experts.



**Backward compatible. Forward compatible.  
What an evolutive platform should be.**

Designed to secure both your past and future investments, the FTB-500 can house any of EXFO's FTB modules—the tried and tested ones that you already own, as well as next-generation modules that will be available in the future. Plus, its open architecture allows for frequent software and hardware upgrades, enabling your platform to evolve with your testing needs and helping you make the most of your investment. Shouldn't boundless testing capabilities come with unlimited value for your money?



## SPECIFICATIONS <sup>a</sup>

Central processing unit (CPU)	Intel Core 2 Duo
Display	Touchscreen, color TFT, 800 x 600 TFT, 307 mm (12.1 in)
Interfaces	Ethernet port Fiber probe port ExpressCard port 34 mm format Serial RS-232 port Monitor port Four USB 2.0 ports Standard PC Mic in and Speaker out ports (3.5 mm)
Storage	Internal 80 GB hard drive minimum with G-shock protection Flash USB drive (1 GB, 2 GB and 8 GB optional) ExpressCard memory card (16 GB and up, optional) External USB read/write DVD drive (optional)
Batteries <sup>b</sup>	Eight-slot configuration: three rechargeable Li-ion, smart batteries (total of 207 W•h) Four-slot configuration: two rechargeable Li-ion, smart batteries (total of 138 W•h)
Power supply	100–240 VAC, 50/60 Hz

## GENERAL SPECIFICATIONS

Temperature	
operating	0 °C to 50 °C (32 °F to 122 °F)
storage <sup>c</sup>	–40 °C to 70 °C (–40 °F to 158°F)
Relative humidity	0 % to 95 % (non-condensing)
Size (H x W x D)	Eight-slot configuration: 366 mm x 296 mm x 216 mm (11 11/16 in x 14 7/16 in x 8 1/2 in) Four-slot configuration: 366 mm x 296 mm x 146 mm (11 11/16 in x 14 7/16 in x 5 3/4 in)
Weight <sup>d</sup>	Eight-slot configuration: 10.9 kg (24 lb) Four-slot configuration: 8.5 kg (18.7 lb)
CE compliance, CSA, EU WEEE, China RoHS	

## ACCESSORIES

GP-10-047B	Semi-rigid carrying case with wheels and handle (four-slot platform)	GP-2090	Extra Li-ion smart battery
GP-10-056B	Semi-rigid carrying case with wheels and handle (eight-slot platform)	GP-2091	USB keyboard (USB port)
GP-10-075	Universal hard carrying case (eight-slot platform)	GP-2092	USB memory stick (8 GB)
GP-10-078	Universal hard carrying case (four-slot platform)	GP-2093	ExpressCard Wi-Fi
GP-302	USB mouse	GP-2094	ExpressCard memory (16 GB)
GP-2016	RJ-45 LAN cable (10 ft)	GP-2095	Headset
GP-2028	Computer security cable kit	GP-2096	USB A-A for master-to-master communication
GP-2086	Bluetooth USB Adapter	GP-2100	DVD ±R writable 8x external USB 2.0
		GP-2101	Cable RS232 straight F-M

## PM-500 BUILT-IN POWER METER SPECIFICATIONS (OPTIONAL) <sup>e</sup>

Calibrated wavelengths (nm)	850, 1300, 1310, 1490, 1550, 1625, 1650
Power range (dBm)	10 to –86
Uncertainty (%) <sup>e</sup>	±5 % ± 3 pW (up to 5 dBm)
Display resolution (dB)	0.01 = max to –76 dBm 0.1 = –76 dBm to –86 dBm
Automatic offset nulling range <sup>f</sup>	Max power to –63 dBm
Tone detection (Hz)	270/1000/2000

## VISUAL FAULT LOCATOR (VFL) (OPTIONAL)

Laser, 650 nm ± 10 nm
CW
Typical P <sub>out</sub> in 62.5/125 μm: 2 dBm (1.6 mW)

## LASER SAFETY



21 CFR 1040.10 AND IEC 60825-1:2007  
CLASS 3R WITH VFL OPTION

### Notes

- All specifications valid at 23 °C (73 °F).
- Standard recharge time is 4 h. Recharge temperature: 0 °C to 45 °C (32 °F to 113 °F).
- Not including internal batteries. Battery storage temperatures: –20 °C to 60 °C (–4 °F to 140 °F) for shipping, and –20 °C to 45 °C (–4 °F to 113 °F) for long-term storage.
- Platform with batteries (three for the eight-slot configuration, and two for the four-slot configuration) and without modules.
- At 23 °C ± 1 °C, at 1550 nm and with an FC connector. With modules in idle mode. Battery-operated.
- For ±0.05 dB, from 18 °C to 28 °C.

ORDERING INFORMATION

FTB-500-XX-XX-XX-XX-XX-XX-XX

**Display** ■

- S1 = TFT active screen
- S2 = TFT outdoor-enhanced screen

**Module capacity** ■

- QTR = Four-slot module capacity
- OCT = Eight-slot module capacity

**Batteries** ■

- 00 = Without batteries
- BTY = With batteries

**Power meter** ■

- 00 = Without power meter
- VPM3 = VFL, power meter with InGaAs detector

■ **Platform software option** <sup>a</sup>

- FPS = Fiber probe software

■ **Probe option**

- 00 = Without probe
- FP4S = Inspection probe (400x)
- FP4D = Inspection probe (200x/400x)

■ **Connector adapter**

- FOA-12 = Biconic
- FOA-14 = NEC-D4: PC, SPC, UPC
- FOA-16 = SMA-905, SMA-906
- FOA-22 = FC/PC, FC/SPC, FC/UPC, FC/APC
- FOA-28 = DIN 47256, DIN 47256/APC
- FOA-32 = ST: ST/PC, ST/SPC, ST/UPC
- FOA-54 = SC: SC/PC, SC/SPC, SC/UPC, SC/APC
- FOA-78 = Radial EC
- FOA-96B = E-2000 E2000/APC
- FOA-98 = LC
- FOA-99 = MU

**Note**

- a. Included when selecting one of the probe models.

Example: FTB-500-S1-OCT-BTY-VPM3-FOA-22- FP4S-FPS

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EXFO is certified ISO 9001 and attests to the quality of these products. This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. EXFO has made every effort to ensure that the information contained in this specification sheet is accurate. However, we accept no responsibility for any errors or omissions, and we reserve the right to modify design, characteristics and products at any time without obligation. Units of measurement in this document conform to SI standards and practices. In addition, all of EXFO's manufactured products are compliant with the European Union's WEEE directive. For more information, please visit [www.EXFO.com/recycle](http://www.EXFO.com/recycle). Contact EXFO for prices and availability or to obtain the phone number of your local EXFO distributor.

For the most recent version of this spec sheet, please go to the EXFO website at <http://www.EXFO.com/specs>

In case of discrepancy, the Web version takes precedence over any printed literature.