

SONET/SDH 10 Gb/s Test Module

FTB-8000

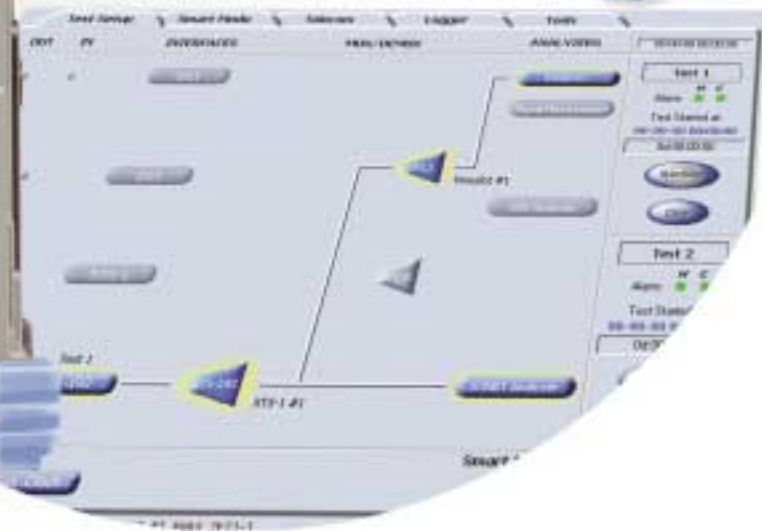


Enables the integration of protocol-, optical- and physical-layer testing into one platform

DS0/E0 to OC-192c/STM-64c testing in a single module

Provides support for SONET, SDH, PDH and T-Carrier

Automatic signal discovery



Fiber-optic T&M,
monitoring, manufacturing
and assembly solutions

EXFO

Turning Up New Revenue-Generating Services

By integrating DS0/E0 to OC-192c/STM-64c test functions into its FTB-400 Universal Test System, EXFO now offers physical-, optical- and protocol-layer testing as part of a single test platform. The result: tremendous operational efficiencies when it comes to turning up revenue-generating services in a timely fashion. The same field professional that lit up a new wavelength on a DWDM route and performed an OSA test with an FTB-400 can now, in a snap, complete the final certification of the channel by running an OC-192c/STM-64c BERT test.

When it comes to generating revenue, every penny counts. That's why EXFO's FTB-8000 SONET/SDH 10 Gb/s Test Module includes a full-fledged suite of test functions for turning up services ranging from OC-192c/STM-64c down to DS0/E0. The FTB-8000 covers all the requirements for long-haul, metro and access networks.



Key Features

- Easy-to-use Smart User Interface (SUI)
- Automated test scripting
- Remote management
- Portable and field-oriented

Benefits

- Compatible with optical- and physical-layer test modules
- Compatible with the FTB-8500 Packet Blazer™ datacom test modules
- Support for SONET, SDH, PDH and T-Carrier
- DS0/E0 to OC-192c/STM-64c testing in a single module

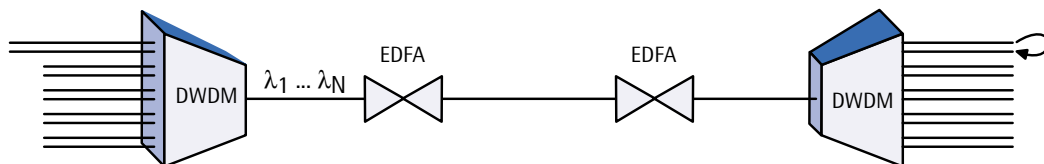
The FTB-400 Universal Test System

The FTB-400 UTS becomes the first portable telecom/datacom network test platform to combine full test capabilities for DS0/E0 to OC-192c/STM-64c, 10/100/1000 Mb/s Ethernet with optical- and physical-layer testing capabilities, making it a truly universal test system.

Designed with a unique layered approach, the FTB-8000 module can be combined with any of the existing or future FTB modules, all within the 2-slot or 7-slot FTB-400 platform. It can also be used as an FTB-400 stand-alone solution for applications requiring only protocol-layer testing.

Maintaining the Infrastructure

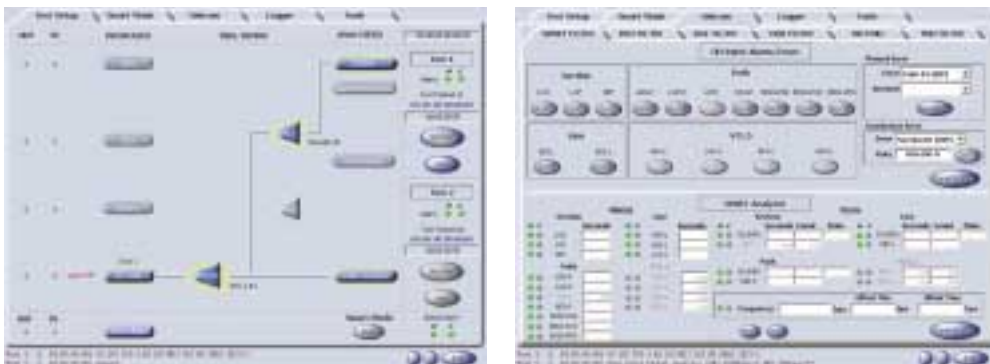
The ability to upgrade an existing fleet of FTB-400 platforms to include protocol-layer testing reduces overall cost of ownership. In addition, it provides field technicians with new insight into the behavior of their network. For instance, a technician can now correlate protocol-layer anomalies (such as bit or parity errors) with physical- or optical-layer defects (such as low OSNR or excessive PMD or CD), considerably reducing the amount of time required to troubleshoot a problem in the network. All of this, without having to carry more than a single, field-rugged, portable unit—the FTB-400 UTS.



The FTB-8000 performs 10 Gb/s certification of DWDM channels using OC-192c/STM-64c bit-error-rate testing technology.

Smart User Interface (SUI)

As part of EXFO's family of protocol-layer testing products, the FTB-8000 comes with a unique Smart User Interface (SUI) for unparalleled ease-of-use. Its Test Scripting feature enables the automation of field-testing procedures. The FTB-8000 can also be remotely managed via EXFO's Visual Guardian™ element management system (EMS).



Speed up data management and tailor configurations as well as test formats with the FTB-8000's comprehensive, easy-to-operate Smart User Interface.

Monitoring Service-Level Agreements

The FTB-8000 unleashes the full power of a complete SONET/SDH analyzer in a single module, allowing operators to perform long-term performance monitoring and gather an extensive suite of health parameters concerning their in-service networks. In addition, the Smart Mode enables the FTB-8000 to automatically discover the structure of the received SONET/SDH signal, map out the embedded tributaries and scan for alarms and errors.



Smart Mode screen capture

FTB-8000 Specifications

	SONET	SDH
Test capabilities	DS0, DS1, DS3, STS-1, OC-3, OC-12, OC-48 and OC-192, including SONET overhead processing	64 Kb/s, 1.5M, 2M, 34M, 45M, 140M, STM-0e, STM-1e, STM-1o, STM-4, STM-16 and STM-64, including SDH overhead processing
Telecom interfaces	Electrical (input and output ports): <ul style="list-style-type: none"> Meeting Telcordia GR-499 standard: DS1, DS1 (BITS) and DS3 Meeting Telcordia GR-253 standard: STS-1 Optical (input and output ports): <ul style="list-style-type: none"> Meeting Telcordia GR-253 standard: OC-3, OC-12, OC-48 and OC-192 	Electrical (input and output ports): <ul style="list-style-type: none"> Meeting ITU-T G.703 standard: 1.5M/2M, 1.5M/2M (external clock), 34M/45M and 140M Meeting ITU-T G.703 standard: STM-1e Optical (input and output ports): <ul style="list-style-type: none"> Meeting ITU-T G.707, G.841, G.957 and G.958 standards: STM-1, STM-4, STM-16 and STM-64
Measurements	<ul style="list-style-type: none"> BER, G.821, G.826, G.828, G.829, M2100 and M2101 Electrical and optical signal frequency and power 	<ul style="list-style-type: none"> BER, G.821, G.826, G.828, G.829, M2100 and M2101 Electrical and optical signal frequency and power

General Specifications

Power	110/220 VAC	
Weight	4.54 kg	(10 lb)
Size (W x H x D)	25.4 cm x 7.1 cm x 32.3 cm	(10 in x 2 13/16 in x 12 11/16 in)
Operating Temperature	0 °C to 40 °C	(32 °F to 104 °F)

Ordering Information

Ordering module

FTB-80XX-XX-XX-XX

Model

00 = 10 Gb/s, DS0/E0 to OC-192/STM-64
 10 = 2.5 Gb/s, DS0/E0 to OC-48/STM-16
 20 = 10 Gb/s, OC-48/STM-16 to OC-192/STM-64

Software

01 = SONET
 02 = SDH
 03 = SONETSDH

Example: FTB-8000-13-15-03

Ordering Test Kit

TK-400-D4-NXX-XX-FTB-80XX-XX-XX-XX

TFT active color
 touchscreen

See model
 and software
 info left

Memory

N10 = Standard 256 MB
 N12 = Additional 256 MB (Total of 512 MB)

Receptacle

00 = Two-slot receptacle (GP-402)
 H = Seven slot receptacle (GP-407)
 BP = Bus Protector (GP-2000)

Example: TK-400-D4-N10-BP-FTB-8000-13-15-03

	8000-13-15	8000-13-215	8000-SW-15	8010-13-13	8010-13-15	8010-13-LR	8010-SW-SW	8020-13-15	8020-15-15	8020-SW-15
	DS0/E0 to OC-192/STM-64	DS0/E0 to OC-192/STM-64	DS0/E0 to OC-192/STM-64	DS0/E0 to OC-48/STM-16	DS0/E0 to OC-48/STM-16	DS0/E0 to OC-48/STM-16	DS0/E0 to OC-48/STM-16	OC-48/STM-16 to OC-192/STM-64	OC-48/STM-16 to OC-192/STM-64	OC-48/STM-16 to OC-192/STM-64
OC-3/STM-1										
RX (nm)	1310/1550	1310/1550	1310/1550	1310/1550	1310/1550	1310/1550	1310/1550			
TX (nm)	1310	1310	1310/1550	1310	1310	1310	1310/1550			
TX Reach (km)	15	15	40/80	15	15	15	40/80			
OC-12/STM-4										
RX (nm)	1310/1550	1310/1550	1310/1550	1310/1550	1310/1550	1310/1550	1310/1550			
TX (nm)	1310	1310	1310/1550	1310	1310	1310	1310/1550			
TX Reach (km)	15	15	40/80	15	15	15	40/80			
OC-48/STM-16										
RX (nm)	1310/1550	1310/1550	1310/1550	1310/1550	1310/1550	1310/1550	1310/1550	1310/1550	1310/1550	1310/1550
TX (nm)	1310	1550	1310/1550	1310	1550	1310	1310/1550	1310	1550	1310/1550
TX Reach (km)	15	80	40/80	15	80	40	40/80	15	80	40/80
OC-192/STM-64										
RX (nm)	1310/1550	1310/1550	1310/1550					1310/1550	1310/1550	1310/1550
TX (nm)	1550	1550	1550					1550	1550	1550
TX Reach (km)	40	40	40					40	40	40

Optional Software

Description

DS1FDL	DS1-FDL Analysis Software Option for the FTB-8000, FTB-8010 modules. Requires SONET base software or SONET+SDH option pre-installed.
DS3FEAC	DS3-FEAC Analysis Software Option for the FTB-8000, FTB-8010 modules. Requires SONET base software or SONET+SDH option pre-installed.
G747	G.747 Analysis Software Option for the FTB-8000, FTB-8010 modules. Requires SONET or SDH base software or SONET+SDH option pre-installed.
VT2	VT2 Analysis Software Option for the FTB-8000, FTB-8010 modules. Requires SONET base software or SONET+SDH option pre-installed.

Safety

CLASS 1 LASER PRODUCT
 21 CFR 1040.10
 IEC 60825-1

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Rugged Handheld Solutions

- OLTS
- Power Meter
- Light Source
- Talk Set

UNIVERSAL TEST SYSTEM

- OTDR
- OLTS
- ORL
- Switch

Optical Fiber

- OSA
- PMD
- Chromatic Dispersion Analyzer
- Multiwavelength Meter
- Channel Selector

DWDM Test Systems

Protocol

- 10/100 and Gigabit Ethernet
- SONET (DS0 to OC-192c)
- SDH/PDH (64 Kb/s to STM-64c)

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