

Multi-Wavelength Meter

FTB-5320



Measurement accuracy of 0.003 nm

State-of-the-art drift analysis

Intuitive graphical interface



Complete, One-Button DWDM System Characterization

The FTB-5320 is the perfect tool for system operators facing new DWDM testing challenges. The bandwidth squeeze has been the driving force behind the deployment of DWDM in the long-haul market and is the reason for its further expansion into the metropolitan arena. Specifically designed for DWDM testing, the easy-to-use FTB-5320 Multi-Wavelength Meter is among the best on the market for absolute wavelength accuracy.



Key Benefits

- High wavelength accuracy
- Drift mode monitoring over time
- Rugged and splashproof
- User-friendly

Multitasking

The FTB-400 Universal Test System offers rapid and powerful multitasking with simultaneous acquisitions and post-processing. Combine up to seven single-slot, field-interchangeable modules for hundreds of versatile combinations.

Combine the three-slot FTB-5240 Optical Spectrum Analyzer, and the three-slot FTB-5320 Multi-Wavelength Meter in the FTB-400 Universal Test System to certify signal quality by characterizing the entire DWDM network. Take advantage of the OSA's high OSNR, power accuracy and dynamic range along with the Multi-Wavelength Meter's high wavelength accuracy, in one single instrument.



The right tool for today's DWDM challenge

High-Level Accuracy

The extreme accuracy of 0.003 nm wavelength measurement enables precise adjustment of carrier wavelength. Measurement of channel spacing as tight as 25 GHz is assured with the internal HeNe laser.

At the touch of a button, the FTB-5320 detects every signal and provides complete data for channels, frequencies, wavelengths and power levels. The FTB-5320 Multi-Wavelength Meter is ideal for verifying channel stability. Use the monitoring-over-time feature to measure power and wavelength drift, critical parameters in DWDM testing.

Easy-to-Use Software

ToolBox is the user-friendly software for the FTB-400 UTS. The ToolBox graphical user interface simplifies your test applications, offering ease-of-use to both experienced and new users. This extremely intuitive operating environment uses a common structure and layout for each test tool providing overall uniformity. Reduce training time and increase testing efficiency.

Flexible Customization

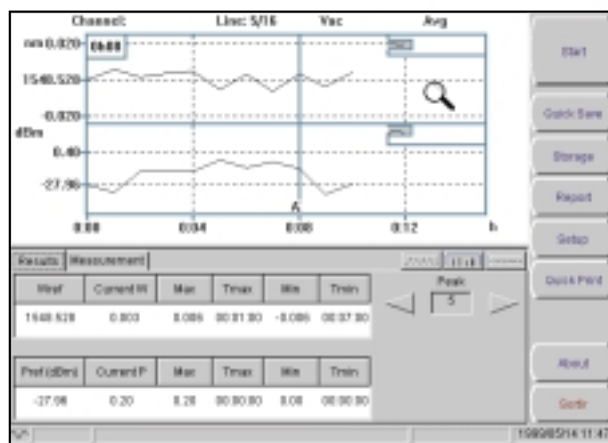
The intuitive software was designed to meet DWDM operators' expectations. The setup menu enables customization as follows:

- User-determined power offset
- Screen display options
- Quick save and file autonaming capabilities
- Quick print options
- Saving in ASCII format
- Choice of restoring and saving files to a floppy disk, hard disk or to any network

Comprehensive Testing Parameters

Measure central wavelength, a key factor in obtaining a distinct signal in multichannel communication, and power for each channel to ensure that system specifications are met. In fact, accurate central wavelength is more and more important as channel counts increase and channel spacing decreases.

Main parameters such as SNR, total power and channel identification are given as standard data. SNR is a determining factor for the performance and efficiency of a DWDM system and has a great impact on its bit error rate (BER).



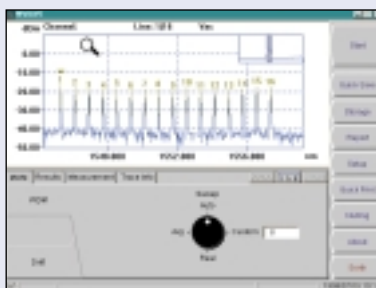
Monitor power and wavelength as a function of time

Graphical Display Options

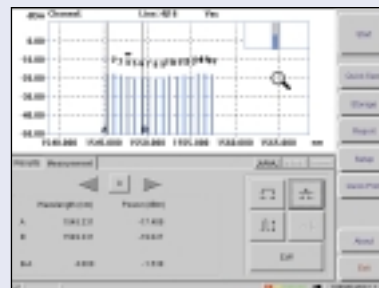
When performing drift tests, a graphical display shows wavelength and power stability for each channel. Expanded drift over time will occasionally result in overlap between two adjacent channels. Measure and control the drift to avoid loss of data and make sure the network performs at maximum efficiency.

Zoom options enable operators to close in on portions of the trace for more detailed viewing. Markers can be used to make specific measurements.

Results can be viewed either on a bar graph or a spectral graph.



Graphical display – spectral graph



Graphical display – bar graph

Specifications¹

Wavelength Measurement		
Wavelength range (nm)		1450 to 1650
Wavelength uncertainty ^{2,3} (nm)		± 0.003
Wavelength repeatability (nm)		± 0.001
Minimum channel spacing (GHz)	Similar power level	≥ 12.5
	Different power level	≥ 25
Power Measurement		
Power uncertainty ^{2,4} (dB)		± 0.35
Power repeatability ² (dB)		± 0.1
Power range (dBm)		+ 10 to -45
Power linearity ⁵ (dB)	+10 dBm to -20 dBm	± 0.1
	-20 dBm to -30 dBm	± 0.25
Polarization dependence (dB)		± 0.25
OSNR ⁶ (dB)	Typical	29
	Minimum	> 25
ORL ⁵ (dB)		> 40

Standard Accessories

Instruction manual, connector cleaners, and Certificate of Compliance

Laser Safety

21 CFR 1040.10 and 1040.11 CLASS 1 LASER PRODUCT
IEC 60825-1:1993+A1:1997

General Specifications

Size (H x W x D)	9.6 cm x 7.6 cm x 26.0 cm	(3 3/4 in x 3 in x 10 1/4 in)
Weight	1.3 kg	(2.8 lb)
Temperature	operating	5 °C to 40 °C (41 °F to 104 °F)
	storage	-40 °C to 70 °C (-40 °F to 158 °F)
Relative humidity	0 to 95 % non-condensing	

Ordering Information

FTB-5320-XX

Connector code

EI = UPC Universal Interface
EA = APC Universal Interface

The fixed baseplate (EI or EA) must be ordered with a removable universal connector adapter (EUI-XX).

Please specify one EUI from the following list:

EUI-28 = DIN 47256 EUI-90 = ST (EI only)
EUI-76 = HMS-10/AG (EI only) EUI-91 = SC
EUI-89 = FC narrow key EUI-95 = E-2000

Notes

- All specifications are guaranteed above -30 dBm unless specified otherwise, for FC connectors.
- Specified at room temperature.
- May degrade ± 0.001 nm over operating temperature range.
- At 1550 nm, -10 dBm for single peak and excluding connector repeatability.
- Specified at 1550 nm.
- Single peak signal, at 50 GHz (0.4 nm) peak.

Find out more about EXFO's extensive line of high-performance portable instruments by visiting our Web site at www.exfo.com



Rugged Handheld Solutions

- OLTS
- Power Meter
- Light Source
- Talk Set



Modular Platforms

- OTDR
- OLTS
- and more



Advanced DWDM Test Systems

- OSA
- PMD
- Multiwavelength Meter

CORPORATE HEADQUARTERS	465 Godin Avenue	Vanier (Quebec) G1M 3G7 CANADA	Tel.: 1 418 683-0211 . Fax: 1 418 683-2170
EXFO AMERICA	1201 Richardson Drive, Suite 260	Richardson TX 75080 USA	Tel.: 1 800 663-3936 . Fax: 1 972 907-2297
EXFO EUROPE	Le Dynasteur, 10/12 rue Andras Beck	92366 Meudon la Forêt Cedex FRANCE	Tel.: +33.1.40.83.85.85 . Fax: +33.1.40.83.04.42
EXFO ASIA-PACIFIC	151 Chin Swee Road, #03-29 Manhattan House	SINGAPORE 169876	Tel.: +65 333 8241 . Fax: +65 333 8242
TOLL-FREE (USA and Canada)	Tel.: 1 800 663-3936	www.exfo.com • info@exfo.com	

EXFO is certified ISO 9001 and attests to the quality of these products, which come with a 12-month warranty and after-sales support service. 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.

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 Web site at <http://www.exfo.com/support/techdocs.asp>

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