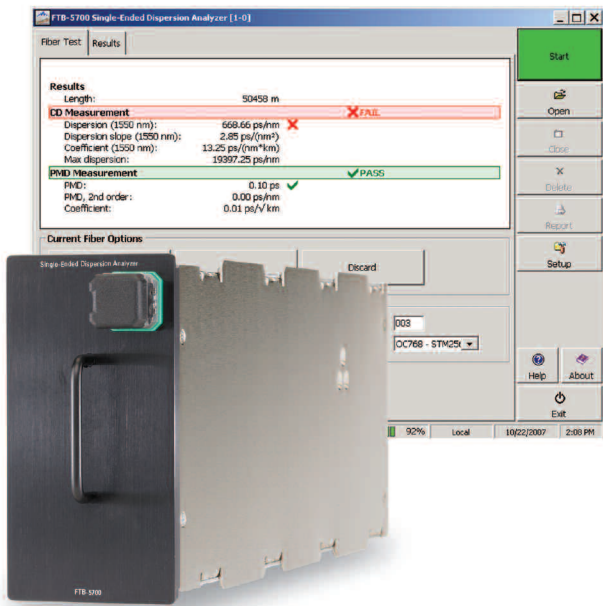


FTB-5700

NETWORK TESTING—OPTICAL



The ultimate CD/PMD characterization solution

- Single-ended PMD and CD measurements
- **The advantage of one:** complete dispersion analysis with a single module, a single connector and a one-step test setup
- Unparalleled software user-friendliness: all automated
- Testing range: up to 140 km

Platform Compatibility

- FTB-200 Compact Platform
- FTB-400 Universal Test System
- FTB-500 Platform



Next-Generation Network Assessment



The Only Combined CD and PMD Test Module on the Market

Building on EXFO's market-proven dispersion testing expertise, the FTB-5700 Single-Ended Dispersion Analyzer combines chromatic dispersion (CD) and polarization mode dispersion (PMD) measurement into a single, highly automated, high-efficiency test solution. It offers **the true advantage of one**—one-ended testing using one module, one connector and a one-step test setup, delivering one combined-results file—dramatically reducing the cost of ownership and speeding up the learning curve, the test cycles, as well as reporting.

Housed in either of EXFO's multimodular portable platforms, the FTB-200 Compact Platform and the FTB-500 Platform, the FTB-5700 delivers straightforward, yet advanced CD and PMD characterization in a single affordable instrument optimized for both entry-level and seasoned technicians.

CD and PMD Testing Combo—The Benefits

One lightweight unit that:

- Provides exclusive single-ended testing technology*
- Enables one technician to test both CD and PMD
- Requires only one training session
- Minimizes manual interventions, for fail-safe results
- Reduces required connections to just one
- Saves valuable processing time—one GUI, one results file, one report



Start with CD or PMD Testing and Upgrade to a Combined Solution Whenever Needed

Not sure if you will require CD testing in the future but need to test PMD today? The FTB-5700 lets you upgrade your dispersion testing solution as your network testing requirements evolve.

You can first start with an FTB-5700 unit equipped with either CD or PMD test features (FTB-5700-CD or FTB-5700-PMD) and later upgrade to a combined solution (FTB-5700-CD-PMD) through our service centers. This makes the purchase of this 40 Gbit/s-ready single-ended dispersion analyzer a truly safe and valuable investment.

* High reflection (4% or more) required at far end, using an unterminated UPC connector or reflector connector.

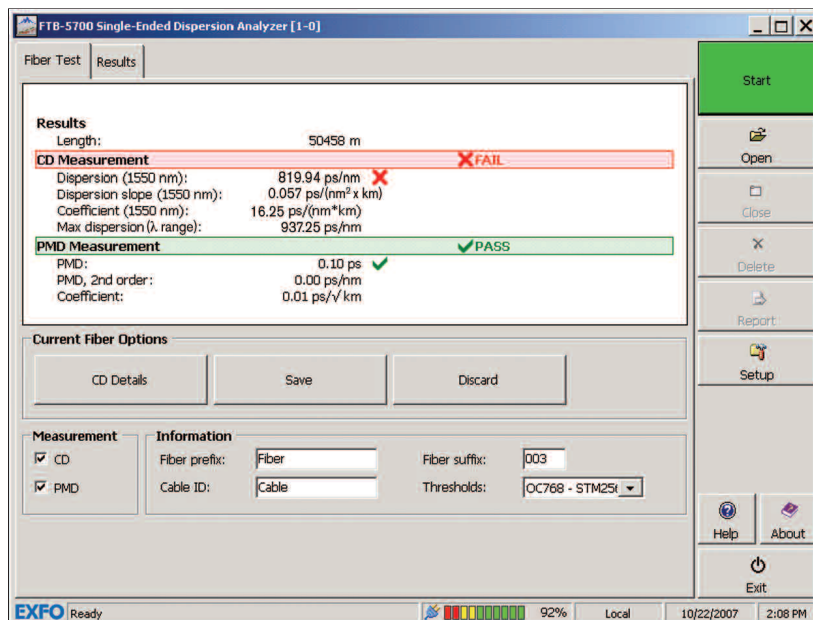
Characterize CD in a Snap

The ongoing race to develop high-speed transmission systems and to increase available bandwidth is facing certain limitations. Chromatic dispersion (CD) measurements are becoming more and more critical for carriers and service providers looking to upgrade their systems to faster transmission rates and longer routes, thanks to the advent of reconfigurable optical add/drop multiplexers (ROADMs).

What's more, since the eight test points are adjustable, the FTB-5700 never loses test points due to high attenuation. Whatever the link, test parameters are automatically optimized.

Key CD Testing Features

- Groundbreaking single-ended testing technology
- Link-length measurement
- Network recognition: automatically adopts the proper parameter setups
- Complies with ITU G.65X fiber testing standards



■ The FTB-5700 features a highly intuitive user interface presenting straightforward pass/fail results.

ITU	Common Name	Default Test Wavelength Range*
G.652	Standard fiber	1475 to 1626 nm
G.653	Dispersion-shifted fiber (DSF)	1475 to 1626 nm
G.654	Cut-Off shifted fiber	1530 to 1626 nm
G.655	Non-zero dispersion-shifted fiber (NZDSF)	1475 to 1626 nm
G.656	Wideband non-zero dispersion fiber	1475 to 1626 nm

* Being configurable, the FTB-5700 automatically selects the proper test wavelength according to fiber type.

The Only Single-Ended PMD Analyzer on the Market

PMD is a real threat to both legacy and newly deployed networks. And as high-speed services are being massively deployed, PMD awareness continues to grow. Whether you need to assess the PMD level of legacy fiber or perform network maintenance, EXFO's FTB-5700 is fast, reliable and ready to go.

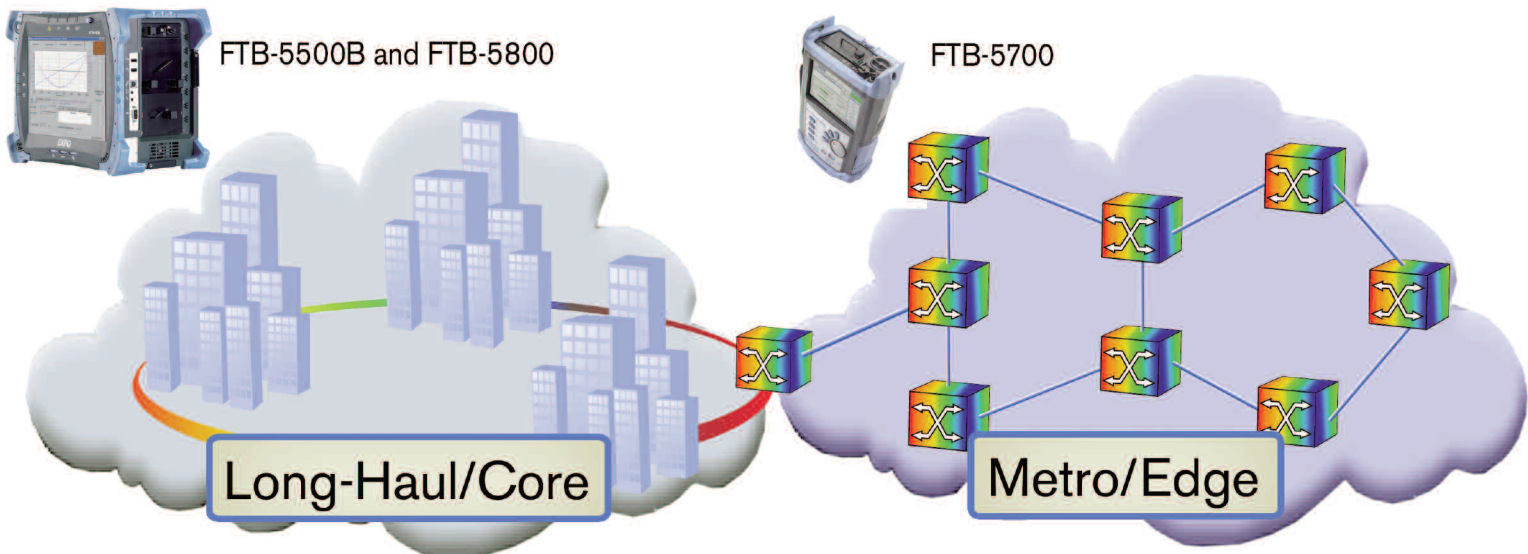
Key PMD Testing Features

- The only single-ended PMD analyzer on the market: reduces both the testing time and operational expenses (OPEX)
- Random SOP scrambling: highly robust technology for aerial fibers*
- New technology based on state of polarization (SOP) scrambling analysis

* Compared to other methods such as the fixed-analyzer approach. High-wind conditions may cause pulse depolarization, limiting usability.

PMD is an average of delay values over a given wavelength range and state of polarization. The FTB-5700 being tunable, over 200 wavelength pairs are acquired, all at different states of polarization. Each pair provides a delay point. The FTB-5700 also uses a tunable reflectometry-based scrambled state-of-polarization analysis (SSA) method as described in the TIA FOTP-243 (to be published).

For even higher accuracy, you can launch multiple scans and perform an averaging of all test results.



A Highly Intuitive User Interface with No Setup Required

Featuring easy-to-read pass/fail results and providing a view of all key parameters and values on one screen, the FTB-5700's user interface is all about field testing simplicity and efficiency.

Results
Length: 4465 m

CD Measurement ✓ PASS

Dispersion (1550 nm): 78.16 ps/nm ✓
 Dispersion slope (1550 nm): 0.076 ps/(nm² x km)
 Coefficient (1550 nm): 17.50 ps/(nm²*km)
 Max dispersion (λ range): 160.14 ps/nm

PMD Measurement ✓ PASS

PMD: 1.15 ps ✓
 PMD, 2nd order: 0.10 ps/nm
 Coefficient: 0.54 ps/√km

Start

Single press:
start all tests

Save

Discard

Measurement

CD

PMD

Select test to perform

Information

Fiber prefix: Fiber Fiber suffix: 001
 Cable ID: cable Thresholds: OC192 - STM64

Fiber Auto-naming

List of Fibers

Fiber ID	Cable Name	File Name	Date
✓ Fiber001	Cable-4km1ps001	Fiber001	10/2/2007 3:44:59
✓ Fiber002	Cable-4km1ps001	Fiber002	8/16/2007 12:50:5
✓ Fiber003	Cable-4km1ps001	Fiber003	8/16/2007 12:37:4
✓ Fiber004	Cable-4km1ps001	Fiber004	8/16/2007 12:42:0
✓ Fiber005	Cable-4km1ps001	Fiber005	8/16/2007 12:46:3

Select test to view

Chromatic Dispersion

Dispersion (1550 nm): 78.16 ps/nm
 Slope (1550 nm): 0.076 ps/(nm² x km)
 Coefficient (1550 nm): 17.50 ps/(nm²*km)
 Max. dispersion (λ range): 160.14 ps/nm

PMD

Fiber type: Telecommunication
 PMD: 1.15 ps
 PMD, 2nd order: 0.10 ps/nm
 Coefficient: 0.54 ps/√km
 Number of scans: 1

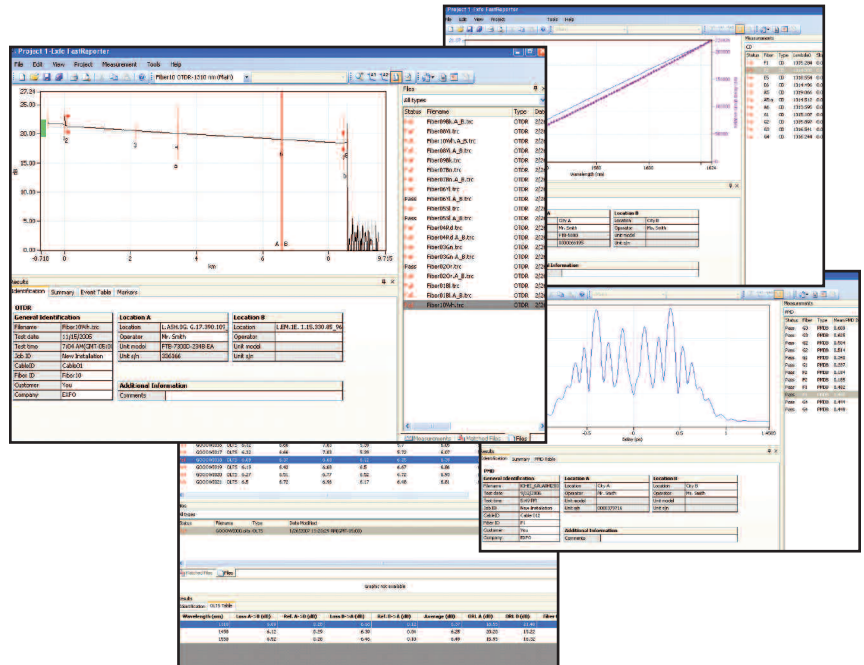
View critical info on selected test

Fast-Track Data Post-Processing with FastReporter Software

The optional FastReporter software package provides you with the post-processing tools and functionalities you need to optimize your test cycles, whatever the application. Designed for **off-line analysis of field-acquired data**, FastReporter offers a truly intuitive graphical user interface, which contributes to boosting productivity.

Flexible Reporting

Choose from various report templates, including PMD, CD and fiber characterization. Generate comprehensive cable reports in PDF, Excel or HTML format.



EXFO's Dispersion Analyzer Series: Applications Chart

For extreme accuracy and ultra-long-haul network applications, EXFO also offers the FTB-5800 CD Analyzer and FTB-5500B PMD Analyzer. This chart shows the list of applications for each module of EXFO's dispersion analyzer series.

		FTB-5700 Single-Ended Dispersion Analyzer	FTB-5500B PMD Analyzer	FTB-5800 CD Analyzer
10 Gbit/s	Short reach	✓	✓	✓
	Long reach	✓	✓	✓
	Ultra-long reach		✓	✓
	Amplified link		✓	✓
	Compensation	✓	✓	✓
40 Gbit/s	Short reach	✓	✓	✓
	Long reach	✓	✓	✓
	Ultra-long reach		✓	✓
	Amplified link		✓	✓
	Compensation	✓*	✓	✓

* Depending on modulation format tolerance



SPECIFICATIONS ^a

Measured wavelength range (nm)	1475 to 1626
Maximum measurement distance (km)	≥120 (140 with reflector)
Distance uncertainty (km)	± (0.01 + 1 % x distance)
Chromatic dispersion ^b	
Number of test points	8
CD uncertainty (ps/nm)	±10
Test time (s)	40
PMD ^c	
PMD display range (ps)	up to 50
PMD range (strong mode coupling) (ps)	0.1 to 20
PMD uncertainty (strong mode coupling) (ps) ^d	± (0.2 + 5 % x PMD)
Test time (s)	< 180

GENERAL SPECIFICATIONS

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 93 % non-condensing	
Size (H x W x D)	96 mm x 50 mm x 281 mm	(3 3/4 in x 2 in x 11 in)
Weight	1.3 kg	(2.8 lb)

SAFETY

21 CFR 1040.10 and IEC 60825-1:1993+A2:2001
CLASS 1 LASER PRODUCT

Notes

- a. Typical.
- b. At 1550 nm, on 100 km of G.652 single-mode fiber.
- c. For a fiber length ≥ 100 m.
- d. For strong mode coupling PMD (telecom fiber) up to 15 ps, with averaging.

ORDERING INFORMATION

FTB-5700-XX-XX

■ **Model**

FTB-5700-**CD**-**PMD** = Single-ended CD and PMD analyzer
 FTB-5700-**PMD** = Single-ended PMD analyzer
 FTB-5700-**CD** = Single-ended CD analyzer

■ **Connector**

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
 EA-EUI-**28** = APC/DIN 47256
 EA-EUI-**89** = APC/FC narrow key
 EA-EUI-**91** = APC/SC
 EA-EUI-**95** = APC/E-2000

Example: FTB-5700-CD-PMD-EI-EUI-89

For extreme accuracy and ultra-long-haul network applications, EXFO also offers the FTB-5800 CD Analyzer and FTB-5500B PMD Analyzer. For these modules, the above connector choice applies, but the FLS-5834A light source is required.

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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. 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.