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 120 km

Platform Compatibility

- FTB-400 Universal Test System
- FTB-200 Compact Platform
Building on EXFO’s market-proven dispersion testing expertise, the FTB-5700 Single-Ended Dispersion Analyzer combines chromatic dispersion and polarization mode dispersion 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 and delivering one combined results file—dramatically reducing the cost of ownership and speeding up the learning curve, the test cycles as well as the reporting.

Housed in either of EXFO’s multimodular portable platforms, the FTB-200 Compact Platform and the FTB-400 Universal Test System, 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

* High reflection (4% or more) required at far end, using an unterminated UPC connector or reflector connector.
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, such as 10 Gbit/s (OC-192/STM-64), and longer routes, thanks to the advent of reconfigurable optical add/drop multiplexers (ROADMs).

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

Characterize CD in a Snap

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

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

<table>
<thead>
<tr>
<th>ITU</th>
<th>Common Name</th>
<th>Default Test Wavelengths Range*</th>
</tr>
</thead>
<tbody>
<tr>
<td>G.652</td>
<td>Standard Fiber</td>
<td>1475 - 1626 nm</td>
</tr>
<tr>
<td>G.653</td>
<td>Dispersion-Shifted Fiber (DSF)</td>
<td>1475 - 1626 nm</td>
</tr>
<tr>
<td>G.654</td>
<td>Cut-off Shifted Fiber</td>
<td>1530 - 1626 nm</td>
</tr>
<tr>
<td>G.655</td>
<td>Non-Zero Dispersion-Shifted Fiber (NZDSF)</td>
<td>1475 - 1626 nm</td>
</tr>
<tr>
<td>G.656</td>
<td>Wideband Non-Zero Dispersion Fiber</td>
<td>1475 - 1626 nm</td>
</tr>
</tbody>
</table>

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

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
PMD is a real threat to both legacy and newly deployed networks. And as high-speed services—namely 10 Gbit/s—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 PMD Analyzer FTB-5700 is fast, reliable and ready to go.

Key PMD Testing Features

- The only single-ended PMD analyzer on the market: reduced both the testing time and operational expenses (OPEX)
- Random SOP scrambling: robust technology for aerial fibers
- Based on TIA FOTP-124A and IEC 61282-9

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. 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: 4405 m

**FD Measurement**

- Dispersion (1550 nm): 78.16 ps/nm ✓
- Dispersion slope (2550 nm): 0.94 ps/(nm²)
- Coefficient (1550 nm): 117.98 ps/(nm²)✓
- Max. dispersion: 100.14 ps/nm✓

**PMD Measurement**

- PMD: 1.15 ps ✓
- PMD, 2nd order: 0.115 ps/nm
- Coefficient: 0.54 ps/√m

**FTB-5700 Single-Ended Dispersion Analyzer**

**Critical info on selected test**

**Key pass/fail measurements**

**Start**

Single press: start all tests

**Save**

**Discard**

**Select test** to perform

**Fiber Auto-naming**

**List of fibers**

- **Fiber ID**: Fiber002, Fiber003, Fiber004, Fiber006
- **Cable Name**: Cable1-4
- **File Name**: Fib002, Fib003
- **Date**: 01/16/2007 12:55:55

**Critical info on selected test**

**Fiber**

FTB-5700 Single-Ended Dispersion Analyzer
Fast-Track Data Post-Processing with FastReporter Software

The optional FastReporter software package provides you with the postprocessing 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 of EXFO’s dispersion analyzer series.

<table>
<thead>
<tr>
<th>10 Gbps</th>
<th>FTB-5700 Single-Ended Dispersion Analyzer</th>
<th>FTB-5500B PMD Analyzer</th>
<th>FTB-5800 CD Analyzer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Short reach</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Long reach</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Ultra-long reach</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Amplified link</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Compensation</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>
FTB-5700
Single-Ended Dispersion Analyzer

SPECIFICATIONS (PRELIMINARY) a

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measured wavelength range (nm)</td>
<td>1475 to 1626</td>
</tr>
<tr>
<td>Maximum measurement distance (km)</td>
<td>≥120</td>
</tr>
<tr>
<td>Distance uncertainty (km)</td>
<td>± (0.01 + 1 % x distance)</td>
</tr>
<tr>
<td>Chromatic dispersion b</td>
<td></td>
</tr>
<tr>
<td>Number of test points</td>
<td>8</td>
</tr>
<tr>
<td>CD uncertainty (ps/nm)</td>
<td>± 12</td>
</tr>
<tr>
<td>Test time (s)</td>
<td>40</td>
</tr>
<tr>
<td>PMD c</td>
<td></td>
</tr>
<tr>
<td>PMD range (ps)</td>
<td>0.5 to 15</td>
</tr>
<tr>
<td>Test time (s)</td>
<td>180</td>
</tr>
</tbody>
</table>

GENERAL SPECIFICATIONS

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temperature</td>
<td>Operating: 0 °C to 50 °C, Storage: −40 °C to 70 °C</td>
</tr>
<tr>
<td></td>
<td>(32 °F to 122 °F, −40 °F to 158 °F)</td>
</tr>
<tr>
<td>Relative humidity</td>
<td>0 % to 93 % non-condensing</td>
</tr>
<tr>
<td>Size (H x W x D)</td>
<td>96 mm x 50 mm x 281 mm (3 ¾ in x 2 in x 11 in)</td>
</tr>
<tr>
<td>Weight</td>
<td>1.3 kg (2.8 lb)</td>
</tr>
</tbody>
</table>

Notes
a. Typical.
b. At 1550 nm, on 50 km of G.652 singlemode fiber.
c. For a fiber length ≥ 100 m.

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.

Distributed by: Mega Hertz

800-883-8839   sales@go2mhz.com   www.go2mhz.com