Fiber deep and Remote PHY test solutions

Become an optical test expert with EXFO's solutions portfolio

Smarter network in sight.
Fiber deep and Remote PHY test solutions

CATV and multiple-system operators (MSOs) are transforming their networks to support Docsis 3.1 and FTTH. The current use of distributed access architecture (DAA) technologies, such as Metro Ethernet, and fiber deep with Node+0 leading to Remote PHY (RPHY) is changing the face of traditional deployments. EXFO offers a suite of leading test solutions that cover the head-end to the node and deliver unmatched accuracy for measuring multiple optical wavelengths and validating Ethernet services.

About EXFO

EXFO develops smarter network test, data and analytics solutions for the world’s leading communications service providers, network equipment manufacturers and webscales. Since 1986, we’ve worked side by side with our clients in the lab, field, data center, boardroom and beyond to pioneer essential technology and methods for each phase of the network lifecycle. Our portfolio of test orchestration and real-time 3D analytics solutions turn complex into simple and deliver business-critical insights from the network, service and subscriber dimensions. Most importantly, we help our clients flourish in a rapidly transforming industry where “good enough” testing and data analytics just isn’t good enough anymore—it never was for us, anyway.
Empowering the technician from the HE to the node

Explore our essential tools

- **FIP-400B Series**
  - Connector inspection

- **FTB-740 Series**
  - DWDM and CWDM testing

- **FOT-5205 and FTB-5235**
  - DWDM spectral validation

- **EtherCHK-1-10**
  - Ethernet service validation

- **FTB-5700**
  - Dispersion testing

Architecture example of Node+0 with Remote PHY
Address the biggest network problem with fiber inspection tools

Fiber inspection with next-level automation

With its unique automatic focus-adjustment system, the FIP-435B automates each operation in the test sequence, transforming the critical inspection step into a quick and simple one-step process accessible to technicians of any skill level.

FIP-400B series

Key features and benefits

- Fast and easy one-step inspection process
- WiFi connectivity (no wires or adaptors)
- PASS/FAIL analysis based on industry standards (IEC/IPC)
- Full-day onboard rechargeable battery
- Screen-free operation with pass/fail LED
- Easy swap from single-fiber to MPO/MTP connectors

<table>
<thead>
<tr>
<th>Use</th>
<th>Series</th>
<th>Network test point</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fiber inspection</td>
<td>FIP-400B</td>
<td>Every optical connection point</td>
</tr>
<tr>
<td>MPO/MTP connector inspection</td>
<td>FIPT-400-MF</td>
<td>Head-end, FTTH patch panels</td>
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Fiber inspection solution is also available as a kit, which includes:

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<tr>
<td>Fiber inspection</td>
<td>TK-FIP-MPCx-MSO kit (Includes: FIP-435B, MPC-100X, FLS-140, belt holster)</td>
<td>Every optical connection point</td>
</tr>
</tbody>
</table>
xWDM OTDR link validation for healthy networks

This tunable WDM OTDR provides complete end-to-end link characterization and troubleshooting for testing through MUX/DEMUX. The xWDM OTDR is the tool of choice to turn up customers or quickly locate issues in these high-value links.

Quickly find breaks and automate plant characterization

FTB-740C-xWDM OTDR Series

Key features and benefits

- C-band ITU grid channel 17–62, 100 GHz/50 GHz, to test through DWDM MUX/DEMUX
- 18 CWDM channels covered in one OTDR port, scalable to your deployments
- In-service testing of active C/DWDM networks
- iOLM technology enabled to support one button push, multi-pulsing and high-resolution plant characterization
- CWDM+DWDM combo available
- Channel centering auto-correction to avoid leakage/BER to other active channels
- Additional tunable filtering input to support active live testing in high-capacity networks
- PON-optimized performances to support multi-technology and future upgrades to GPON/FTTH
- Tunable Source capability to validate muxes/splicing during the construction phase

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</thead>
<tbody>
<tr>
<td>DWDM c-band tunable OTDR</td>
<td>FTB/FTBx-740C-DWC</td>
<td>Field node</td>
</tr>
<tr>
<td>CWDM 18-channel OTDR</td>
<td>FTB/FTBx-740C-CW10/CW18</td>
<td>Head-end, CPE</td>
</tr>
<tr>
<td>xWDM C/DWDM tunable OTDR</td>
<td>TK-1-740C-xWDm</td>
<td>Head-end, CPE</td>
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Optical spectrum testing designed for the field

The compact, entry-level optical spectrum analyzer (OSA) and DWDM channel checker are ideal for a variety of field applications, including network commissioning and troubleshooting.

**FTB-5235: OSA**

**Key features and benefits**
- Covers CWDM and DWDM wavelengths
- Features auto-discovery of active channels
- Accepts low power channel discovery via a non-intrusive monitor port on the MUX
- Measures OSNR for systems with amplification
- WDM and drift mode

**FOT-5205: DWDM channel checker**

**Key features and benefits**
- ITU channels 14.5–62
- Fast 0.5 second acquisition time
- One-button analysis of active channels
- Compact, economical tool for field technicians

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<tr>
<td>C/DWDM optical spectrum validation</td>
<td>FTB-5235</td>
<td>Head-end</td>
</tr>
<tr>
<td>DWDM optical spectrum validation</td>
<td>FOT-5205</td>
<td>Field node</td>
</tr>
</tbody>
</table>
A simple and affordable Ethernet validation tool

Comprehensive, yet simple test suites enabling field technicians to easily validate and troubleshoot Ethernet network performance.

EtherCHK-1-10:10GE Ethernet service validation

Key features and benefits

- Lightweight and portable solution
- Custom-designed platform with ultra-bright 8-inch multitouch screen
- Built-in connectivity—choose between Gigabit interface, WiFi, Bluetooth
- Ethernet validation up to 10G
- Y.1564, RFC 2544, traffic generation/monitoring
- Agnostic smart loopback tool
- Ethercheck can use templates for the configuration. This ensures uniformity in testing and results, and simplifies the setup

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<tr>
<td>Ethernet service validation up to 1G</td>
<td>EtherCHK-1</td>
<td>Head-end, field node</td>
</tr>
<tr>
<td>Ethernet service validation up to 10G</td>
<td>EtherCHK-10</td>
<td>Head-end, field node</td>
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Avoid errors in transmission due to dispersion issues

The ideal dispersion tester for Remote PHY deployments

This user-friendly dispersion tester will help you prevent dispersion issues, which are pulse broadening problems that can lead to bit errors, and even network failures. This test instrument quickly validates that chromatic dispersion (CD) and polarization mode dispersion (PMD) are within acceptable values.

FTB-5700 CD/PMD analyzer

Key features and benefits

- CD/PMD measurements in a single instrument
- Maximized network uptime
- The industry’s only single-ended dispersion tester, resulting in reduced truck rolls and over 50% OPEX savings compared with dual-ended instruments
- One-button operation for first-time-right results
- From #1 vendor by market share for CD and PMD testing, based on Frost & Sullivan’s 2015 fiber optic test equipment (FOTE) study

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<tbody>
<tr>
<td>Dispersion testing</td>
<td>FTB-5700</td>
<td>Head-end or field node</td>
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