

Telecom Division

Thinking inside the box

At EXFO, we have reorganized our business under two new divisions—with respective sales, marketing, R&D, manufacturing and management teams—to better serve the needs of end-customers in different markets. Our Telecom Division consists of former Portable and Monitoring and telecom-related Industrial and Scientific product lines. This division is focused on network service providers, system manufacturers and component vendors on a global basis. Our Photonics and Life Sciences Division, which mainly leverages our core technologies, includes former Industrial and Scientific non-telecom product lines. This division has been created to maximize value from developed and acquired technologies. Beginning in 2004, we will report segmented information along these separate divisions.

As bandwidth requirements and network complexity increase year in and year out, so have residential and business expectations for quality of service, uptime and network reliability. These heightened requirements, increasingly becoming mission-critical throughout the global communications industry, are addressed with cost-effective, best-of-class solutions that only an experienced test and measurement vendor like EXFO can deliver.

Customers rely on our expertise to ensure their optical networks perform impeccably during each phase of the network life cycle—research, development, manufacturing, installation, maintenance and full-time monitoring. Our field-testing solutions provide the utmost efficiency, cost-effectiveness and productivity to minimize the capital (CAPEX) and operating expenditures (OPEX) of network service providers (NSPs). Our advanced optical instruments and test systems enable telecom/datacom system manufacturers as well as component vendors to design and build better networks and related components.

Consolidating our leadership position

We have earned our leadership position in the physical-layer NSP market by anticipating customer needs for 18-plus years. When customers encountered problems upgrading their networks to 10 Gb/s, we were first to market with a unique polarization mode dispersion (PMD) analyzer that detected this limiting physical phenomenon. When customers faced test and measurement issues for their dense wavelength-division multiplexing (DWDM) networks, we introduced the best portable optical spectrum analyzer (OSA) and chromatic dispersion (CD) analyzer on the market. With fiber-to-the-home (FTTH) about to become a reality, lead customers are turning to us for another ready-made test solution. These are merely a few examples of the value-added solutions that customers have come to expect from a reliable, long-term partner such as EXFO, but they provide ample evidence of why our customer list reads like a Who's Who in the global NSP market.



FTB-400 Universal Test System



Our PC-centric, Windows-driven platform, supported by more than a dozen next-generation test technologies, addresses complete service provisioning needs for DWDM, SONET/SDH, Gigabit Ethernet and, most recently, storage area network (SAN) applications.

Raising our field-testing platform to a new level

EXFO has been thinking inside the box since 1996, when we launched the original modular optical test platform. We expanded our leadership position in 2002 by releasing the first all-in-one test set that covers physical-, optical- and protocol-layer field-testing requirements for long-haul, metropolitan and access networks. In 2003, we raised the bar to a new level with the introduction of fully integrated software suites that automate the operation of test modules within our FTB-400 field-testing platform. This latest innovation allows complex testing routines to be carried out with a simple touch of a button. Our PC-centric, Windows-driven platform, supported by more than a dozen next-generation test technologies, addresses complete service provisioning needs for DWDM, SONET/SDH, Gigabit Ethernet and, most recently, storage area network (SAN) applications. We recently released a Fibre Channel test module that provides NSPs with highly accurate bit-error-rate (BER) values, which reflect the quality of their SAN networks. The one-two combination of best-in-class modular platform and broadest suite of test technologies has left competitors little choice but to play catch-up.

Addressing CAPEX and OPEX concerns

It's a matter of dollars and sense. To improve cash-flow requirements and lower debt loads, NSPs are constantly looking for ways to reduce their short-term CAPEX and long-term OPEX budgets. EXFO proves to be the vendor of choice with solutions that characterize high-speed optical networks with a superior level of accuracy and repeatability, while helping NSPs improve their financials.

- Our modular platform design allows several test modules to be used inside a single box, providing significant cost savings. (CAPEX)
- Our proprietary PMD and CD analyzers sweep through optical amplifiers along networks, while conventional methods require dispersion levels to be measured between one amplifier and another. The end result is considerable savings in testing time. (OPEX)
- The Dual Test Set feature on our Packet Blazer™ test module provides end-to-end Ethernet traffic testing using a remote unit, thus eliminating the need for an extra technician in the field. (OPEX)

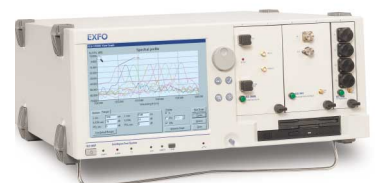
Extending innovation to system manufacturers

Innovation is not limited to field-testing solutions at EXFO. Our R&D/manufacturing-floor platforms, namely the IQS-500 Intelligent Test System and EPX Multi-Channel Test Systems, are designed for testing converging telecom and datacom networks increasingly based on IP technology. The next-generation IQS-500 platform can efficiently run as many as 100 physical-layer test modules using a single controller unit. The flexible and scalable EPX platforms support multi-channel testing, which is critical for characterizing high-speed optical networks with multiple wavelengths, speeds and protocols. Physical- and protocol-layer modules can be stacked in these respective platforms to produce high-performance test stations for networks and related elements including multiplexers, cross-connects, transponders, lambda routers, optical switches and DWDM systems.

In 2003, we leveraged our IQS-500 platform to design a new Cable Assembly Test System for multimode patchcord assemblies and added three test modules to our high-performance power meter series. We also introduced the 2.5+ Gigabit Multi-Rate Transceiver for our EPX platforms to help system manufacturers reduce test time and increase test thoroughness on the production floor. This protocol-layer test module simulates and monitors live traffic on each individual channel, enabling customers to carry out critical tests like BER, hybrid concatenation and service-disruption switch time. Subsequent to the year-end, we released the 10+ Gigabit Multi-Rate Transceiver with deep channelization and mixed payload concatenations for next-generation networks. We also launched a tunable external-cavity laser (ECL), whose broad wavelength range is optimized for coarse wavelength-division multiplexing (CWDM) and fiber-to-the-premises (FTTP) testing. These latest innovations point to one undeniable conclusion about EXFO: Innovation lives here!



EPX16 Multi-Channel Test System



IQS-500 Intelligent Test System