Testing photonics and optical components for manufacturing, design and research challenges

Smarter network in sight.™

EXFO

Who we are

EXFO develops smarter test, monitoring and analytics solutions for the global communications industry.

How we're ahead in photonics testing

We recognize that component manufacturers need a turnkey solution that enables end-to-end testing in volume production settings. EXFO leads the industry in the relatively new domain of testing photonic integrated circuit (PIC)—with hardware and software solutions that are automated, scalable, fast, accurate and cost-optimized. These innovative solutions can inter-operate with any third-party instrumentation (e.g., wafer disc handling systems).

We have designed the fastest PIC testing system in the industry, providing rapid and repeatable measurements through the use of "one dynamic range" type optical detectors.

This innovative solution integrates various components onto a single chip, increasing functionality and density while lowering cost of production and energy requirements. Innovation in light coupling methods has made wafer-level testing possible for mass production, greatly simplifying and speeding up testing.

With unique and patented advantages, EXFO's industry-leading passive and active optical component test solutions increase testing efficiencies—regardless of form factor—for bar, die, wafer-disc-level or packaged components. Highly accurate and reliable measurements are achieved through automation and optical synchronization.

Supporting test processes from end-to-end

One-stop shop

for expertise and solutions to deliver optimized R&D and manufacturing.

Faster response time

via comprehensive testing for cost savings and faster time-to-market.

Seamless integration

with your existing processes.

Protecting your investment

by banking on future-proof solutions that deliver optimal value today and beyond.
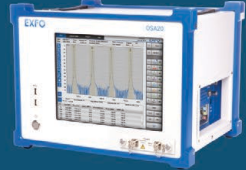
Customized solutions

as needed, created through industry collaborations.

Accurate and repeatable results

through automation and leading specs to support high-volume manufacturing.

Innovative PIC testers

Tailored solutions to meet your needs

Close collaboration with other pioneering industry stakeholders to design customized solutions with a track record of successes for several PIC manufacturers.

- EXFO partnered with Hewlett Packard Enterprise (HPE) and MPI Corporation for streamlined, low-power, automated and fully integrated PIC testing at the wafer level to support applications from R&D lab tests to full-scale manufacturing. Wafer discs are provided by HPE; wafer handling and probe alignment are addressed by MPI; optical test and measurement is done by EXFO.

- AEPONYX, a PIC inventor and micro-optical switch leader, needed a solution for faster processing of advanced silicon photonic devices. EXFO collaborated with AEPONYX and Maple Leaf Photonics (MLP), an integrated electro-photonics probe system developer) in the design and customization of a fully automated, optoelectrical probing system. This system uses ultra-fast optical test instrumentation that can generate a large data set for device characterization. **This integrated solution increased wafer testing speed by more than 10 times compared to previous technologies.**

- Tower Semiconductor optimized its PIC testing using a system that combines EXFO's CTP10 passive optical component test unit and MPI Corporation's TS3000 wafer disc handler. This combination met the company's two foundry-based requirements of scalability and customization to support different test setups for each PIC device, as well as its customers' need for accurate test measurements traceable throughout the PIC ecosystem.

We are here to help.

Contact your **EXFO sales representative** to learn more about our testing solutions for photonics or visit **EXFO.com**

EXFO