# EXFO serving component vendors in manufacturing, design, and research

Smarter network in sight.



## 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 turn-key solution that enables end-to-end testing in volume production settings. EXFO leads the industry in the relatively new domain of Photonic Integrated Circuit (PIC) testing, with hardware and software solutions that are automated, scalable, fast, accurate, and cost-optimized. EXFO's solutions can interoperate with any third-party instrumentation such as wafer disc handling systems.

EXFO has the fastest PIC testing system on the market, with repeatable measurements using "one dynamic range" type optical detectors.

The solution integrates various components on a single chip, increasing functionality along with increased density, reducing cost of production and lowering energy requirements. Innovation in light coupling methods has made wafer-level testing possible for mass production, simplifying testing, reducing test time per unit, and avoiding bottlenecks.

With proven unique and patented advantages, EXFO's high-end passive and active optical component test solutions portfolio sets the bar for testing, regardless of form factor, including wafer disc level, bar, die, or packaged components. And EXFO's PIC test solutions are automated, with optical synchronization that provides the most accurate measurements.

## Tailored solutions to meet customer needs

EXFO's flexibility working with other industry innovators to deliver customized solutions has resulted in success stories for numerous PIC manufacturers, including:

- EXFO worked with <u>Hewlett Packard Enterprise</u> (HPE) and <u>MPI Corporation</u> to offer streamlined PIC testing solutions supporting applications from R&D lab testing to full-scale manufacturing. Wafer discs are provided by HPE; wafer handling and probe alignment is addressed by MPI; optical test and measurement is done by EXFO.
- <u>AEPONYX</u>, a PIC inventor and micro-optical switch leader, needed a solution for faster processing of advanced silicon photonics devices. A fully-automated, optoelectrical probing system with ultra-fast optical test instrumentation -- capable of generating a large data set for device characterization -- was required. EXFO collaborated with integrated electro-photonics probe system developer <u>Maple Leaf Photonics</u> (MLP) and AEPONYX to enable a customized measurement system.
  The new test system dramatically increases wafer testing speed by more than 10 times compared to previous technologies.
- Tower Semiconductor's foundry-based requirements included scalability and customization to support the different
  test setup requirements of each PIC device. And the company's large customer base needed accurate test measurements
  traceable throughout the PIC ecosystem. EXFO's CTP10 passive optical component test system integrated with
  MPI Corporation's TS3000 wafer disc handler system optimized Tower Semiconductor's PIC testing.

# The EXFO Advantage

How can we help support your end-to-end processes?



#### 'One-stop-shop'

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



#### Faster response time

Comprehensive, end-to-end testing for cost savings and faster time-to-market.



#### Seamless integration

with your existing processes.



#### **Protecting your investment**

through leading-edge test solutions that deliver best value now and for the future.



#### **Customized solutions**

as needed, created through industry collaborations.

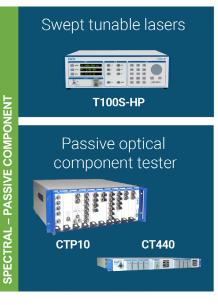


#### Repeatable and accurate results

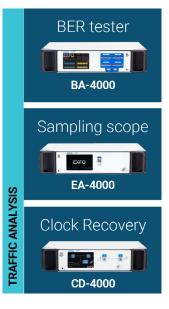
Automated solutions, delivering repeatable and accurate results to support high-volume manufacturing.

# Innovative PIC testing solutions









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