QUANTIFI PHOTONICS®

A Teradyne Company

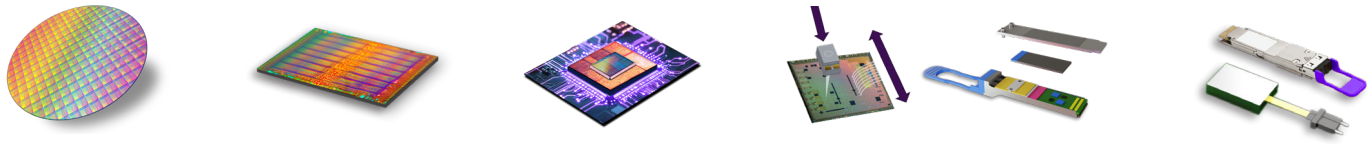
Leading the way

in scalable photonics testing.

About Quantifi Photonics

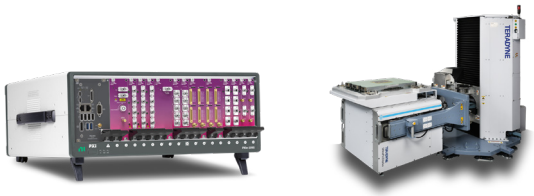
We design and manufacture advanced optical and electronic test solutions that empower engineers to develop and scale up next-generation photonics technologies.

From design validation to mass production, our test solutions power every stage of photonic device innovation and manufacturing - enabling fast, reliable testing of high-speed interconnects, ASICs, PICs, CPO, and transceiver modules.



Wafer sort → DIE/PIC → Integration → Alignment & assembly → Qualification

Test Applications



PIC/CPO Automated Test Equipment

Scalable, automated test platforms for consistent and reliable validation of optical interconnects in high-volume PIC and CPO production environments.

Parallel High-Speed I/O

Cost-effective and scalable high-speed I/O test instruments to support high-volume manufacturing of optical and electrical interconnects.

Coherent Optical Communications

End-to-end coherent signal test solutions to generate and characterize coherently modulated optical signals.

General Purpose Photonics Test

Our extensive portfolio of general-purpose photonic test solutions can also be configured to test a wide variety of photonic devices.

Featured Products

External Laser Small Form-Factor Pluggable

ELSFP 1000 Series

ELSFP-based CW laser module delivers up to eight channels of reliable 1310 nm optical power in a compact, scalable form factor - ideal for high-volume PIC and CPO test applications.

Fixed-Wavelength Laser

LASER 1200 Series

Fixed-wavelength CW laser delivers up to +24 dBm of high optical power and supports multiple wavelengths in a single module, perfect for demanding PIC test applications.

Optical Spectrum Analyzer

OSA 1000 Series

Fast, accurate optical spectral analysis with OSNR, SMSR, spectral width, and multi-peak detection—ideal for WDM monitoring, amplifier testing, transceiver characterization, and passive component evaluation.

Polarization Controller

POL 1200 Series

Fast and responsive (sub-second) automated polarization control for polarization dependent testing procedures. Three operating modes: Scan and Optimize, Manual, and Depolarize, low insertion loss, high optical power input.

Photocurrent Amplifier

PCA 1000 Series

The PCA is designed to precisely measure photocurrent in photonic integrated circuit (PIC) applications. It provides both analog and digital transimpedance amplifiers for photodiode currents ranging from 10 nA to 2 mA.

High-Speed Communication Analyzer

QCA Series

The QCA Series is a digital sampling oscilloscope designed as a cost-effective solution for high-volume manufacturing of next-gen optical interconnects and electrical ICs. It offers ultra-low jitter performance, unmatched instrument density, and modern **VISEYE™** analysis software.

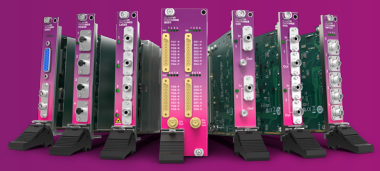
High-Density Optical Power Meter

POWER-1410

Fast monitoring of signal power from -60 to +10 dBm and broad wavelength range of 1250 to 1650 nm. Up to 288 parallel channels in a single 1U rack-mountable instrument.

Product Platforms

PXI



Standardized modular instrument form factor, which enables high density test systems with a wide variety of test instruments.

MATRIQ

Small bench top instrument for flexible R&D, to easily mix and match instruments on the test bench.

EPIQ

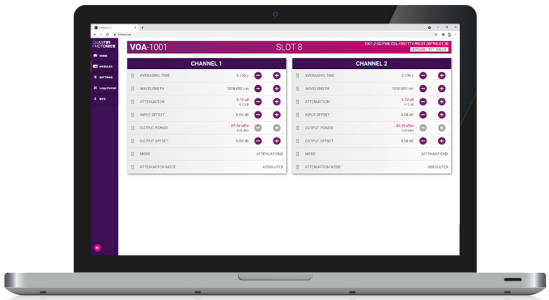
The ultimate solution with maximum instrument and channel density, as well as the ability to act as a custom platform for the final test configuration in manufacturing.

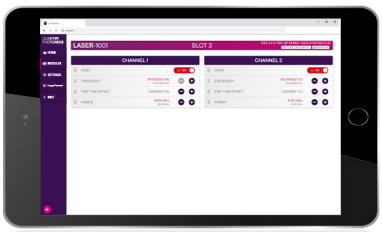
Intuitive Software

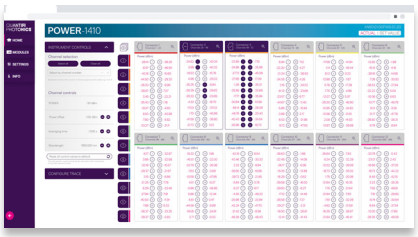
CohesionUI™ is an innovative web-based user interface for a consistent, easy-to-use experience across our products. It includes multi-device support, which means you can control our instruments from any device with a supported web browser, including PC, tablet or smart phone.

Users can also use common application environments like LabVIEW and MATLAB, or their preferred programming language such as BASIC, C, C++, or Python.

COHESIONUI™







288 Channel Optical Power Meter

Bit-Error-Rate Tester

Optical Spectrum Analyzer

Meet the Newest Member of the PXI Family.

Introducing the ELSFP 1000 Series - a reliable, scalable optical source for PIC and CPO test applications.

- Integrates commercially available ELSFP-compliant pluggable modules to provide up to 8 channels of CW optical power at 1310 nm.
- Designed to enable high-volume testing of photonic integrated circuits (PICs) and co-packaged optics (CPO) technologies.
- Integrates seamlessly into PXI-based photonic test systems alongside other Quantifi Photonics PXI test instruments.

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Photonic Test Instruments

Tunable Laser

Versatile telecom laser sources with full tunability across C or L bands. Narrow 100 kHz linewidth, up to 16.5 dBm of power, and optional whisper mode to disable frequency dither.

Fixed Wavelength Laser

Customizable DFB or FP laser sources available in a wide range of wavelengths and powers up to 24 dBm of power. Supports SMF, MMF and PMF.

Swept Tunable Laser

Swept, tunable continuous wave (CW) laser source with 0.01 dB power stability and 400 nm/s high-speed scan rate for R&D and production testing. C/L, O & E-bands.

Super-Luminescent Diode Broadband Light Source

Super-luminescent LED light source with high output power, large bandwidth and low spectral ripple and various wavelengths.

External Laser Small Form-Factor Pluggable (ELSFP) Laser Source

Uses ELSFP-compliant pluggable modules to provide up to 8 channels of CW optical power at 1310 nm at 20 dBm.

Variable Optical Attenuator (VOA)

Fast attenuation speed with low insertion loss and built-in power monitoring. Fixed attenuation or constant output power modes. Supports SMF, MMF & PMF.

Polarization Controller & Scrambler

High-speed automated polarization control with broad wavelength coverage from 1260 to 1650 nm, low insertion loss and back reflection.

Optical Power Meter

Fast terminating or in-line monitoring of optical signal power from -60 to +10 dBm across 750 – 1700 nm. Model with logarithmic analog output for PIC and silicon photonics applications.

Optical Spectrum Analyzer (OSA)

Low cost, spectral measurement in a compact module with built-in analysis for: SMSR, OSNR & spectral width. Targeted wavelengths for applications in O band, C band & L band.

Optical-to-Electrical Converter

High bandwidth, broadband O-to-E converter. Choose from 1 or 2 channels, AC/DC coupling and various conversion gain/operating wavelengths.

Optical Switch

Proven reliability and fast switching time. Wide variety of configurations: 1x4, 1x8, 1x16, 5x5 and more. Supports SMF, MMF and PMF.

Bit-Error-Rate Tester (BERT)

4 or 8-channel Pulse Pattern Generator and Error Detector at rates up to 28 Gbps for the design and production of optical transceivers.

Photocurrent Amplifier

Versatile photodiode amplifier to measure photocurrent in photonic integrated circuit (PIC) applications. Digital and analog measurement.

Passive Component Integration

Integrate passive optical components of your choice such as WDM couplers, splitters, band-pass filters, PM beam-splitters and circulators.

High-Speed I/O

QCA

High-Speed Communication Analyzer

Digital equivalent-time sampling oscilloscope with high-quality precision timebase, ultra-low jitter, and supports optical and electrical signals up to 58 GBaud (NRZ and PAM4). Powered by VISEYE™ signal analysis software.

QCR

Clock Recovery Instrument

Clock recovery instrument for the QCA Series high-speed communication analyzers. Low-jitter design and precise phase-locking provide a reliable, scalable solution for high-speed communication testing.

Coherent Optical Communications

IQTX

Coherent Optical Modulation Transmitter

Generate and control phase-modulated optical signals up to 40 GHz of bandwidth. Supports M-QAM, M-PSK and custom modulation formats and baud rates beyond 64 GBaud.

IQRX

Coherent Optical Receiver

Gold standard coherent receiver for the measurement of coherent modulation formats such as QPSK, 64QAM and OFDM. Available in O-Band and C/L-Band models.

VISIQ™

Coherent Signal Analysis Software

VISIQ™ makes coherent signal analysis and DSP optimization as simple as possible. It works with high-performance real-time oscilloscopes from all leading manufacturers and supports O-band, C-band and L-Band coherent modulation.

OMA

Optical Modulation Analyzer

High-performing and flexible OMA system that supports single and dual polarization PSK and QAM formats, visual signal analysis and performance parameter measurements including EVM, BER, bias errors and more.

Specialized Test Solutions

POWER-1410

Optical Power Meter

Fast monitoring of signal power from -60 to +10 dBm and broad wavelength range of 1250 to 1650 nm. Up to 288 parallel channels in a single 1U rack-mountable instrument.

Photonic Doppler Velocimetry (PDV)

Photonic Doppler Velocimetry (PDV) is an established technique used to measure high-velocity events up to tens of km/s. The Doppler module combines the key optical components for PDV measurements in a compact instrument to enable streamlined high channel count PDV test set-ups.

Proud Members Of

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