Quantifi Photonics Announces Optical Sampling Oscilloscope at OFC 2025

SAN FRANCISCO, CA, UNITED STATES, April 1, 2025 /EINPresswire.com/ -- Quantifi Photonics has announced its new optical version of the QCA Series High-Speed Communication Analyzer and the optical QCR Series Clock Recovery Instrument at OFC 2025.

Quantifi Photonics QCA Series High-Speed Communication Analyzer and QCR Series Clock Recovery Instrument

The QCA Series is designed to enable high-volume testing of next-generation optical interconnects which are crucial to unlock high-performance computing (HPC) and remove large-scale AI connectivity bottlenecks.

The QCA Series addresses the challenges posed by next-gen high-density optical interconnects in HPC and AI systems, which require the testing of multiple high-speed I/O interfaces across many channels and wavelengths. Traditional solutions are costly and lack scalability, making them inadequate for this task. In contrast, the QCA Series, combined with the QCR Series of clock recovery instruments, provides a scalable, cost-effective approach that enables accurate performance and testing in parallel, optimized for test time and throughput.

High-Speed I/O (HSIO) testing, including key metrics like transmitter jitter and eye diagrams, remains a critical hurdle for mass producing optical interconnects. For electrical ICs the main HSIO test challenge is in validation, while for optical devices, the bottleneck shifts to manufacturing. Optical interconnects require 100% testing before deployment, and traditional solutions fail to meet the requirements for high-volume scalability.

Kees Propstra, VP of Global Sales and Marketing at Quantifi Photonics said: “As recently highlighted by NVIDIA, optical interconnects and co-packaged optics are crucial technologies for scaling AI networks. These devices will incorporate dozens and up to hundreds of optical channels that each require validation. The ability to cost-effectively test these high-channel count devices in high volumes is a critical enabler for the HPC and the AI ecosystem. We believe our QCA and QCR products will finally enable true parallel optical high-speed I/O testing at reduced

cost-of-test and with optimized throughput. It’s a game changer for the industry.”

The new optical QCA Series High-Speed Communication Analyzer and QCR Series Clock Recovery Instrument will be demonstrated by Quantifi Photonics at booth 5523 at OFC exhibition, from 1 – 3 April 2025 in San Francisco’s Moscone Center.

Key features of the QCA High-Speed Communication Analyzer platform include:
• High-quality precision timebase and ultra□low jitter, comparable to industry leading performance.
• Supports optical and electrical signals up to 58 GBaud (NRZ and PAM4).
• The QCA Series has up to two channels, and can be synchronized with up to 4 instruments to allow 8-channel parallel testing using a single QCR Clock Recovery Instrument.
• Easy-to-use VISEYE™ jitter measurement and eye diagram analysis software.
• The complementary QCR Series clock recovery instrument provides optimal measurement accuracy.
• Ideal for high-speed interconnects, ASICs, PICs, Silicon Photonics, CPO & transceiver modules.
• Optimized for design verification testing (DVT) and high-volume manufacturing (HVM).

About Quantifi Photonics
Quantifi Photonics provides test solutions to help customers unlock scalable and cost-effective high-volume manufacturing of photonic integrated circuits (PICs), co-packaged optics and pluggable optics. The company’s portfolio includes a wide range of photonic test instruments, and digital sampling oscilloscopes, available as benchtop or the industry-standard PXI format to support cost-effective, high-throughput design verification testing and high-volume manufacturing. Learn more at quantifiphotonics.com.

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