

Tektronix Unveils 45 GHz Optical Modulation Analyzer for 400G Communications Testing

Tightly Integrated with New 70 GHz ATI Oscilloscopes for Small Footprint, High Performance Digitization

BEAVERTON, Ore., March 24, 2015 /[PRNewswire](#)/ -- Tektronix, Inc., the world's leading manufacturer of oscilloscopes, today unveiled a new 45 GHz optical modulation analyzer (OMA) capable of supporting the latest 100G and next-gen 400G communications standards. With support for single-carrier or multi-carrier systems, the analyzer is tightly integrated with the Tektronix DPO70000SX 70 GHz ATI Performance Oscilloscope also [announced today](#) to provide multi-channel, high sample rate, low noise digitization of complex modulation signaling for testing coherent optical transmitters, transmission systems, and receivers.

The use of new 5¼" high performance oscilloscope packaging provides engineers with the flexibility to place multiple acquisition channels together with minimal rack or bench space impact. For example, two of the new 70 GHz instruments can be placed in the same space as a standard lab performance oscilloscope. This provides additional acquisition performance while minimizing the distance to the modulation analyzer for improved signal fidelity.

To ensure precise performance in a multi-channel environment, the new UltraSync solution enables a multi-instrument acquisition system with coordinated triggers for inherent acquisition-to-acquisition jitter better than typical channel-to-channel jitter in any single instrument. In addition, it includes a high-speed data path to transfer waveforms from extension units to the master unit for rapid analysis.

Integrated test solution speeds time to market

The explosive growth of mobile and cloud computing continues to drive long-haul optical communications bandwidth demands. To maximize fiber optic and network infrastructure investments, the industry has turned to complex optical modulation formats that allow higher effective data rates without requiring greater network bandwidth. To date, researchers and engineers have needed to turn to multiple test and measurement vendors or even build their own test fixtures to perform required tests, costing valuable research time and reducing repeatability. With today's introductions, Tektronix has now solved the industry-wide problem of how to efficiently test coherent modulation technologies.

"As 100G technologies start to move into the mainstream and 400G is coming into focus, we're hearing from customers that configuration flexibility and measurement system integration are vital factors in ensuring fast time to market," said Brian Reich, general manager, Performance Oscilloscopes, Tektronix. "In addition to offering new optical modulation receivers at 45 GHz, we now deliver the most complete coherent optical solution with the signal integrity of a 70 GHz bandwidth ATI oscilloscope and improved configuration flexibility."

Performance Today and the Future

The [OM4245 45 GHz Optical Modulation Analyzer](#) is capable of dual-polarization coherent optical analysis up to 80 GBaud. It offers built-in, narrow linewidth lasers and supports the Tektronix OM-Series User Interface (OUI). Along with proven ease-of-use for typical analysis applications, the Tektronix OUI also provides the flexibility and access to the MATLAB computational engine researchers need for more advanced coherent optical analysis. This provides a robust, time-saving, and customizable platform for conducting experiments in coherent modulation algorithms.

As 100G requirements evolve into 400G, or even 1Tb, engineers need a test and measurement system that can grow with their requirements. The new Tektronix DPO70000SX ATI Performance Oscilloscopes allow

convenient system expansion as performance needs evolve. For analysis beyond 400G, the OM4245 offers Multi-Carrier Support (option MCS) that delivers automated analysis for any configuration of multi-carrier systems including 800G and 1Tb architectures.

The new 45 GHz OMA along with the 70 GHz oscilloscope are being showcased at [OFC 2015](#) taking place this week in Los Angeles, CA. OFC is the largest global conference and exposition for optical communications and networking professionals.

Pricing & Availability

The OM4245 optical modulation analyzer prices start at \$240,000 US MSRP and is available to order now worldwide.

Wondering what else Tektronix is up to? Check out the Tektronix [Bandwidth Banter blog](#) and stay up to date on the latest news from Tektronix on [Twitter](#) and [Facebook](#).

About Tektronix

For more than sixty-five years, engineers have turned to [Tektronix](#) for test, measurement and monitoring solutions to solve design challenges, improve productivity and dramatically reduce time to market. Tektronix is a leading supplier of [test equipment](#) for engineers focused on electronic design, manufacturing, and advanced technology development. Headquartered in Beaverton, Oregon, Tektronix serves customers worldwide and offers award-winning [service](#) and [support](#). Stay on the leading edge at www.tektronix.com.

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For further information: Amy Higgins, PR Manager, Tektronix, ahiggins@tektronix.com, 503.627.6497

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