Anritsu Breaks Bandwidth Barrier with World's First 145 GHz O/E CAL Module Accelerating 1.6T Data Center Evolution

MORGAN HILL, CA, UNITED STATES, October 30, 2025 /EINPresswire.com/ -- Anritsu Company has launched the MN4765B-0140 O/E Reference Calibration Module, the world's fastest and first traceable solution to support the testing demands of next-generation data centers and the explosive growth of Artificial Intelligence (AI) and Machine Learning.

As data centers transition from 224 Gbps to 448 Gbps per lane to achieve total data rates like 1.6T, the required bandwidth for electrical-optical (E/O) modulators and optical-to-electrical (O/E) photodetectors now exceeds 130 GHz. The new MN4765B-0140 is engineered to meet this critical need, pushing the measurement frontier to 145 GHz.

Key Technological Breakthroughs

The MN4765B-0140 is a monumental step forward for high-speed component verification:

- World's First 145 GHz Reference Photodetector: It offers the widest commercially available frequency range from 70 kHz to 145 GHz for O/E calibration at the 1550 nm wavelength, enabling the high-confidence characterization of cutting-edge E/O and O/E devices.
- Traceability to 145 GHz: Anritsu secured traceability for the new module to a recognized National Metrology Institute. This is a crucial differentiator, as existing standards from NIST are limited to 110 GHz, making the MN4765B-0140 the only solution providing verifiable measurement accuracy at these extreme bandwidths.
- Unique, Cost-Effective System Solution: When integrated with Anritsu's VectorStar ME7838D 145 GHz Vector Network Analyzer (VNA), the combination creates the world's only complete, traceable, and flexible system for testing the entire high-speed opto-electronic ecosystem, including TOSA, ROSA, BOSA, and Coherent Optical Sub-Assemblies (COSA).

Securing Investment in High-Speed R&D
Anritsu's solution provides significant advantages over competing systems, which typically forces customers into a more expensive solution lacking the necessary 145 GHz reference calibration module entirely.

Anritsu Company

"The AI revolution is demanding a massive leap in data center interconnect speeds, making the 145 GHz bandwidth non-negotiable for 1.6T deployment," said a spokesperson for Anritsu Company. "The MN4765B-0140 eliminates measurement uncertainty at these critical frequencies. Coupled with the flexible and future-proof VectorStar VNA platform, our customers gain a powerful, cost-effective tool that secures their investment by offering a simple upgrade path and superior measurement speed."

The MN4765B-0140 O/E Calibration Module is available for order immediately.

About Anritsu
Anritsu is a provider of innovative communications test and measurement solutions. Anritsu engages customers as true partners to help develop wireless, optical, microwave/RF, and digital solutions for R&D, manufacturing, installation, and maintenance applications, as well as multidimensional service assurance solutions for network monitoring and optimization. Anritsu also provides precision microwave/RF components, optical devices, and high-speed electrical devices for communication products and systems. The company develops advanced solutions for emerging and legacy wireline and wireless technologies used in commercial, private, military/aerospace, government, and other markets.

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