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Applied Optoelectronics Announces 50 Gbps Electro-absorption Modulated Lasers (EMLs)

SUGAR LAND, Texas, Aug. 28, 2017 (GLOBE NEWSWIRE) -- Applied Optoelectronics, Inc. (Nasdaq:AAOI), a leading provider of fiber-optic access network products for the internet datacenter, cable broadband, fiber-to-the-home and telecom markets, today announced the development of 1310nm 50 Gbps Electro-absorption Modulated Lasers (EMLs) for 100G, 200G and 400G long reach transceivers.

The new 50 Gbps EML is based on AOI's high yield, low cost and high reliability laser platform. It features high bandwidth, high output optical power, low driving voltage, and high extinction ratio. The new laser has demonstrated superior radio frequency performance at 25 Gbps NRZ with eye mask margin above 40% for the extinction ratio range of 4 dB to 9 dB. This makes it ideal for 100 Gbps long reach (10 km to 40 km) transceiver modules, such as 100GBASE-LR4 and 100GBASE-ER4, for datacenter interconnection (DCI). The high extinction ratio and high output optical power also makes it a good choice for future 100G EPON transceivers for FTTH applications. For 28 GBaud PAM-4 modulation, enabling 50 Gbps transmission, the dispersion eye closure quaternary (TEDCQ) value is typically smaller than 1.5 dB, making these lasers suitable for 200GBASE-LR4, 400GBASE-FR8, and 400GBASE-LR8 transceivers that meet the IEEE 802.3bs 200G / 400G Ethernet transceiver standards.

"High-speed EMLs are ideal for long transmission distance due to their small chirp and low chromatic dispersion in fiber. The new 50 Gbps EML product is an important complement to our existing 25G DMLs (Directly Modulated Lasers) that are extensively used in AOI's market-leading 100 Gbps PSM4 and CWDM4 transceivers for intra-datacenter applications. These new lasers enable us to offer cost-effective long reach transceivers for the DCI market as well as enabling future 200G and 400G transceivers for DCI and other applications," commented Dr. Jun Zheng, AOI's VP and head of R&D.

About Applied Optoelectronics

Applied Optoelectronics Inc. (AOI) is a leading developer and manufacturer of advanced optical products, including components, modules and equipment. AOI's products are the building blocks for broadband fiber access networks around the world, where they are used in the internet datacenter, CATV broadband, FTTH and telecom markets. AOI supplies optical networking lasers, components and equipment to tier-1 customers in all four of these markets. In addition to its corporate headquarters, wafer fab and advanced engineering and production facilities in Sugar Land, TX, AOI has engineering and manufacturing facilities in Taipei, Taiwan and Ningbo, China. For additional information, visit www.aoi-inc.com.

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