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Dear Executive

The optical components market is again growing after a slowdown in the second half of 2015, according to market research firm LightCounting.

LightCounting's most recent analysis shows that the optical components market has been growing at 8-12 percent per year on average over the past five years.

"Several smaller vendors, including Acacia Communications, Applied Optoelectronics and Innolight grew faster than larger vendors in 2014, and this trend is likely to continue this year," said LightCounting CEO Vladimir Kozlov. "Acacia reports very strong demand for 100G DWDM transponders and plans to ramp production of silicon-photonics products in 2015. Applied Optoelectronics and Innolight are benefiting from doing business with 'white box' suppliers and Web2.0 companies, such as Google."

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With OFC looming next week, the fiber optics announcements already are coming fast and furious as vendors vie to get client attention prior to the deluge of new information that is part and parcel to any OFC event. Following is some of the new latest and greatest:

***Ixia** says that it will unveil “the world’s first 25 Gigabit Ethernet (GbE) validation product” at OFC. Ixia says its product—the latest in its history of first-to-market Ethernet speed innovations that span 40/100/400GbE—enables its customers to successfully deploy 25GbE in order to meet both the growing bandwidth requirements and cost and space considerations of ever-evolving data centers. "25GbE is a good example of the networking industry responding to a growing need in an agile manner. With the unprecedented explosion of bandwidth requirements in the data center, new technologies like 25GbE must be deployed very quickly. Ixia is at the forefront of making this happen,” says Ixia’s Sunil Kalidindi.

***Broadcom** is announcing its next generation addition to the StrataDNX ("Dune") family of switch system-on-chip (SoC) devices. Broadcom says its new switch SoCs are ideal for optical transport, carrier Ethernet, edge and core routers, data center, cloud, and enterprise campus market segments. The Broadcom StrataDNX products are the world's first to provide 800 Gbps packet processing per device at a high interface bandwidth while integrating a scalable multi-terabit switch fabric, hierarchical traffic manager, external packet buffer memory and advanced packet processing, according to the vendor. This unique combination enables equipment makers to deliver network equipment with a higher port density, lower power consumption and greater subscriber scale in a smaller physical system size.

***Xilinx** has announced the availability of its 100G IEEE 802.3bj Reed-Solomon FEC (RS-FEC) IP for data center, service provider, and enterprise applications. The 100G RS-FEC IP enables new emerging optical solutions such as SR4, CWDM4, PSM4 or ER4f, according to the vendor. Xilinx says it is the first to demonstrate a complete 100G RS-FEC IP solution with Finisar and TE Connectivity optics showcased in multiple demonstrations at OFC.

***ColorChip** reports that it is adding a 100 Gbps (4 x 25 Gbps) CWDM high-speed transceiver to its product portfolio. The transceiver is implemented in a Pluggable Quad Small Form factor (QSFP28) package and is designed to meet the requirements of the CLR4 specification and the CWDM4 MSA, operating over single-mode fiber to serve cost effective data center applications from 100 m to 2 km link lengths. ColorChip says its 100G QSFP28 Modules will be demonstrated at OFC by running 100G Ethernet Traffic in the Arista 7280E Data Center Switch.

***Tektronix** is announcing a new high sensitivity Clock Recovery Trigger Pickoff (CRTP) option for its 100G broad wavelength 80C15 Optical Sampling Module for use with DSA8300 Digital Serial Analyzer sampling oscilloscopes. This configuration is the “first and only test solution with signal sensitivity sufficient to test optical devices and perform clock recovery required by the recently approved 100GBASE-SR4 (IEEE 802.3bm) specification,” according to Tektronix. The IEEE 802.3bm specification targets shorter distance 100 Gbps optical links using lower-cost, lower-power equipment in conjunction with multimode fiber. The specification presents a number of test challenges and requires an optical-to-electrical converter with high enough sensitivity to capture very low power signals. Until now, such a solution has not been available, limiting test configurations to higher power measurements only. With the 80C15 Optical Sampling Module and option CRTP, Tektronix now offers the industry's “best optical signal analysis product for 100G Ethernet standards [for] both single-mode and multimode optics,” according to the vendor.

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Acacia has announced the successful line side interoperability of a Fujitsu Optical Components-built coherent CFP Module using the NTT Electronics DSP/ASSP and an Acacia coherent DSP/ASIC-based 100G CFP at metro distances.

"In the design phase, Acacia worked with industry leaders like NTT Electronics to ensure line side interoperability. We see a lot of benefits to service and content providers in designing our products to interoperate with other merchant coherent CFP's, which is also the reason these requirements are being driven by some of the biggest Tier 1 service providers," said Acacia Co-founder and CTO Benny Mikkelsen.

“We view these successful results as a milestone in offering a critical network component from multiple technology vendors to provide service and content providers the confidence of a continuous supply," said Tatsuro Kunikane, Corporate Senior Vice President of Fujitsu Optical Components.

"This result proves that interoperable solutions based on any EFEC utilizing G.709 7% overhead can be achieved. Network operators can receive a significant benefit from this interoperable pluggable solution," said Masahito Tomizawa, Executive Manager at NTT Network Innovation Labs.

"100G coherent applications are the backbone of our future networking plans," said Per Nihlén, CTO of SUNET, a communication service provider in Sweden. "We have been very clear on requirements to vendors with proposed standardization around simple and mature technologies including QPSK-base modulation format and EFEC for this interoperability. We strongly support this testing through our requirements and our own internal testing."

Sincerely,

David Chaffee