

***Optical Transceivers: -- Markets Reach \$9.9 Billion By 2020***

LEXINGTON, Massachusetts (October 1, 2014) – WinterGreen Research announces that it has published a new study *Optical Transceivers: Market Shares, Strategy, and Forecasts, Worldwide, 2014 to 2020*. The 2014 study has 593 pages, 217 tables and figures. The vendors in the optical transceivers industry have to invest in high-quality technology and processes. The development of innovative products is essential to keeping and growing market share.

High-speed serial transceivers form the backbone of networks. Communications, servers and many other electronic systems depend on high-speed serial transceivers. Global adoption of the Internet is driving rapid growth of the mega datacenter. Data centers support online commerce, streaming video, social networking, and cloud services. Software as a Service (SaaS) is a primary offering.

Leading vendors offer a broad product selection. They are positioned with innovative technology. Optical module manufacturers address the needs of all major networking equipment vendors worldwide. Leading vendors have taken a leading role in transforming the data communications and tele-communications equipment market.

The shift has been away from utilizing discrete optical components to leveraging the design and pay-as-you-grow flexibility offered by pluggable modules. Optical transceiver products are compliant with Ethernet, Fibre Channel, SONET/SDH/OTN and PON standards. They generally operate at data rates of 10 Gb/s, 40 Gb/s and 100 Gb/s.

Transmitter / Transceivers are capable of distances ranging from very short reach within a datacenter to campus, access, metro, and long-haul reaches. They feature outstanding performance. Units work over extended voltage and temperature ranges. They are positioned to minimize jitter, electromagnetic interference (EMI) and power dissipation.

Optical transceiver components are an innovation engine for the network. Optical transceiver components support and enable low-cost transport throughout the network. Optical transceivers are needed for high speed network infrastructure build-outs. These are both for carriers and data centers. Network infrastructure build-out depends on the availability of consultants who are knowledgeable.



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Consultants with extensive experience are needed to bring optical component network design, installation, upgrade and maintenance into development. Optical components are being used to equip data centers, FTTx, metro access or core networks. They are used for long-haul and WAN.

A palette of pluggable optical transceivers includes GBIC, SFP, XFP, SFP+, X2, CFP form factors. These are able to accommodate a wide range of link spans. Vendors work closely with network planners and infrastructure managers to design high speed optical transport systems.

According to Susan Eustis, lead author of the WinterGreen Research team that prepared the study, “The DP-QPSK is the industry-backed modulation scheme for 100Gbps. Commonality between 40Gbps and 100Gbps coherent designs bring a design choice to the issue is relative costs. The economics of 40 Gbps versus 100 Gbps coherent are matters of comparison. If users buy 40 Gbps and an economical 100 Gbps coherent design appears, 40 Gbps coherent get the required market traction to create economies of scale that market the 40Gbps devices viable in the market.”

Designers are shrinking existing 40Gbps modules, boosting 40Gbps system capacity. The 300-pin LFF transponder, at 7x5 inch, requires its own line card. Two system line cards are needed for a 40Gbps link: one for the short-reach, client-side interface and one for the line-side transponder.

The global optical transceiver market at \$3.2 billion in 2013 is anticipated to grow to \$9.9 billion by 2020 driven by the availability and cost effectiveness of 40 Gbps, 100 Gbps, and 400 Gbps devices. Next generation devices use less power, are less expensive, and are smaller. The adoption of widespread use of the 100 Gbps devices, and the vast increases in Internet traffic are core to change in the communications infrastructure markets.



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