



The 4WDM MSA Group Releases 20 km and 40 km Specifications for Cost-Effective and Low-Power 100G Optical Networks

San Jose, California/Gothenburg, Sweden - September 18, 2017 — The [4WDM MSA Group](#) today announced the release of the industry's first specifications for 100G optical networks with 20 km and 40 km reaches using FEC (Forward Error Correction). These specifications are critical for enabling cost-effective and low-power 100G networking in datacenter interconnects, mobile backhaul and other switch, router and transport client-side interfaces in core/metro/access networks where reach longer than 10 km is required.

“Sales of 100GbE 10 km reach transceivers are likely to exceed \$1 billion in 2017 and demand for longer reach 100GbE optics is picking up,” said Dr. Vladimir Kozlov, Founder and Principal Analyst at LightCounting Market Research. “The new 20 and 40 km specifications are an important milestone to enable this market, which we expect to reach \$300 million by 2020.”

Added MSA chair Jeffery Maki of Juniper Networks, “The 4WDM-20 specification, which is an extension of the 100G-4WDM-10 10 km specification, enables customers to increase their reach using the same kind of optical components as 100GBASE-LR4 products. Similarly, the 100G-4WDM-40 enables 40 km reach with lower power consumption and in a smaller form factor than existing 100GBASE-ER4 compliant products that utilize a power-hungry SOA (Semiconductor Optical Amplifier).”

The wavelengths used in the new 20 and 40 km specifications are based on the LAN-WDM grid, which is the same as used by the existing 100GBASE-LR4 and 100GBASE-ER4 standards. To enable low cost, the new specifications use IEEE Std.TM 802.3 “KR4” RS FEC on the host port.

About The 4WDM MSA Group

The [4WDM MSA Group](#) is an industry consortium dedicated to defining optical specifications and promoting adoption of interoperable 100G (4x25G) optical transceivers for 10 km based on the CWDM4 wavelength grid, and for 20 km and 40 km based on the LAN-WDM wavelength grid, over duplex single-mode fiber (SMF). These extended reaches are important for modern datacenter interconnects and mobile backhaul applications. The 4WDM MSA Group is responding to previously unmet industry needs for longer reaches, lower costs, and lower power consumption as compared to previously available standards such that they are implementable in small form factors.

Members of the 4WDM MSA include Applied Optoelectronics, Inc., Broadcom Limited, Brocade, Ciena, ColorChip, Dell Inc., Finisar Corporation, Foxconn Interconnect Technology, Ltd., Huawei Technology Co., Ltd., Inphi Corporation, Intel Corporation, Juniper Networks, Kaiam Corp., Lumentum, MACOM Technology, NeoPhotonics Corporation, Oclaro Inc., Skorprios Technologies Inc., Source Photonics, and Sumitomo Electric Industries, Ltd.

Media Contacts:

Kelly Karr
Oclaro
kelly.karr@taniscomm.com

Victoria McDonald
Finisar
Victoria.mcdonald@finisar.com

Greg Kaufman
Lumentum
media@lumentum.com