



100G CWDM 10km Specification Published

Los Angeles, CA– March 20, 2017 — The 4-Wavelength WDM MSA group is pleased to announce the release of a new specification for a low cost and low power 100G interface with 10 km reach. The 100G-4WDM-10 technical specification leverages the success of the CWDM4 2 km specification that has found broad acceptance in its target datacenter market.

Like CWDM4, the 100G-4WDM-10 specification employs 4 lanes of 25 Gb/s using Coarse Wavelength Division Multiplexing (CWDM) technology to transport 100G optical traffic across duplex single mode fiber (SMF). Both specifications take advantage of Forward Error Correction (FEC) on the host port, in accordance with IEEE 802.3bj KR4 RS FEC. One key advantage of CWDM is that the lasers do not need to be cooled or temperature controlled, resulting in lower power consumption and simplicity of manufacturing. 100G-4WDM-10 transceivers share these advantages and furthermore are specified to be fully interoperable with CWDM4 products. The 100G-4WDM-10 specification does not restrict the form-factor although high-density QSFP28 modules are expected to be dominant.

“Demand for 100GbE optical transceivers reached \$1.1 billion in 2016 with demand exceeding supply. Our data shows strong interest in 10km modules. Being optimized for data centers, the new 100G-4WDM-10 will become an important complement to 10km 100G-LR4 modules”, remarked Dale Murray, Principal Analyst, LightCounting Market Research.

Chris Cole of Finisar, Project Chair, commented that “the new 10km specification builds on ten years of optics industry experience in developing and deploying 100G SMF interfaces and will lead to continued cost reduction.”

This is the first specification released by the 4-Wavelength WDM MSA group. This group consists of industry experts from more than 20 leading companies including optical component vendors, chip vendors, and system OEMS. "We recognized that there are a number of unmet needs in the industry that can be addressed with optical specifications optimized for cost and power, and today's announcement marks an important step toward enabling follow-on implementations, future form factors and systems for 100G interfaces. I'm pleased to participate in the 4-Wavelength WDM multi-source agreement as chairman and to represent Juniper Networks, a founding member of the group," explained MSA chair Jeffery Maki of Juniper Networks. The group is now working on specification for 20 km and 40 km interoperable optics based on the LAN-WDM wavelengths.

The group has grown since its formation in September 2016 and continues to attract new members.

Current member companies are Applied Optoelectronics, Inc., Broadcom Limited, Brocade, Ciena, ColorChip, Dell Inc., Finisar Corporation, Foxconn Interconnect Technology, Huawei Technology Co., Ltd., Inphi Corporation, Intel Corporation, Juniper Networks, Kaiam Corp., Lumentum, MACOM Technology, NeoPhotonics Corporation, Oclaro Inc., Skorpion Technologies Inc., Source Photonics, and Sumitomo Electric Industries, Ltd.

The specification is available for free download. Details of the specification and more information about the MSA can be found at 4wdm-msa.org.

Requests for additional information or interviews may be submitted at 4wdm-msa.org. MSA member companies will be exhibiting at OFC 2017.

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