

Photonics Technology Leaders Join Forces to Form the 4x400G MSA

New consortium to advance the development and adoption of high density 1.6T optical transceivers operating at 100 Gbps per lane

SAN JOSE, Calif., December 13, 2021 – The 4x400G Multi-Source Agreement (MSA) group today announced its formation as an industry consortium to advance the development and adoption of high density 1.6T pluggable optical transceivers operating at 100Gbps per lane. The founding members of the [MSA](#) include Arista, Broadcom, Intel, Molex, and AOI.

The [4x400G MSA](#) will address end user needs for next-generation network infrastructure based on existing 100G Lambda optical interface standards with reaches up to 10 km on single mode fiber. Using widely available and proven 100G per lane optical component technology and manufacturing infrastructure, a 1.6T 4x 400G solution can be delivered expeditiously.

The high density 1.6T optical interfaces will interoperate with standard 400G FR4 and 2x400G FR4 modules already being deployed in 12.8T and 25.6T switches and other networking equipment today. The same approach can be used to offer 4x400G LR4 optical modules fully interoperable with installed 400G LR4 and 2x400G LR4 optics.

This specification will leverage the industry leading OSFP-XD pluggable form factor to support a CMIS compliant module that supports a 1.6Tbps data rate and enables 51.2T bandwidth in a 1 RU (32 port) high density form-factor networking equipment faceplate.

While the industry is also in the process of developing 200G per lane optics solutions, the 100G per lane solution meets a broad market requirement and can be brought to market quickly, with target initial deployment in 2023.

"Compatibility with the installed base of 100G Lambda Optics is a key requirement for large customers to adopt the OSFP-XD high density optics module form factor," said Andreas Bechtolsheim, CDO Arista Networks. "The new 4x400G MSA will enable a multi-sourced ecosystem for 1.6T optics with 100G Lambda speed".

"The industry is moving with the speed of light," commented Vladimir Kozlov, CEO and founder of LightCounting. "Scaling up performance of AI clusters and datacenters requires a lot of optics, and customers are not willing to wait for 200G per lane devices to emerge; but it is a good problem to have. We are looking forward to see 16x100G optics hitting the market soon to fill this need."

The MSA is now accepting new contributor members. For more information on the 4x400G MSA, please visit <https://4x400G.com/>.

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