



May 27, 2014

To: John D'Ambrosia and members of the IEEE P802.3bs 400 Gb/s Ethernet Task Force  
CC: David Law and members of IEEE 802.3

Subject: OIF CEI-56G-USR, XSR, VSR, MR Projects

From: Nathan Tracy, OIF Technical Committee Chair ([ntracy@te.com](mailto:ntracy@te.com))

Dear Mr. D'Ambrosia and members of the IEEE P802.3bs Task Force,

The OIF has initiated multiple 56G Common Electrical I/O Projects. These include:

CEI-56G-USR: A low power, Ultra Short Reach ( $\leq 1\text{cm}$ ) electrical, chip-to-optical engine interface operating @ 39-56Gbps signalling for MCM use cases (within a single package).

This project will facilitate optical engine integration within ASIC packaging

CEI-56G-XSR: A low power, Close Proximity Reach ( $\leq 50\text{mm}$ ) electrical, chip-to-discrete optical engine interface operating @ 39-56Gbps signalling for PCB use cases.

This project will facilitate an efficient interface to a board mounted optical engine

CEI-56G-VSR: The IA shall define electrical I/O lane(s) that support data rates from 39 to 56Gb/s for chip-to-module interfaces. Reach 0 to  $\sim 100\text{mm}$  (exact max reach TBD)

CEI-56G-MR: The proposed CEI-56G-MR Project is for the chip-to-chip application with max loss in the range of 15 to 25dB (possibly higher) at 14GHz, which is in the range of 20 to 50dB at 28GHz (dependent on material.)

We are aware of the interest in 56G electrical interfaces by the 400G 802.3bs task force and have accelerated our schedules with a goal to complete our implementation agreements in 2015. We have scheduled multiple conference calls between our plenary meetings, and have scheduled an additional day of meeting time as an interim meeting during the week of our 3Q TC meeting that will focus on the 56G CEI work. We hope to adopt baseline proposals for each of the above projects during our meeting July 28-31, 2014 in Boston, MA. Interested parties from among the OIF membership are encouraged to attend.

We request that you acknowledge the OIF in any derivative work.

Sincerely,

A handwritten signature in black ink that reads "Nathan Tracy". The signature is written in a cursive style and is positioned above a light gray rectangular background.

Nathan Tracy,  
OIF Technical Committee Chair ([ntracy@te.com](mailto:ntracy@te.com))