IEEE P802.3by Task Force Informal Communication

Source: IEEE P802.3by Task Force[1]

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Subject: Informal Communication, Direct Attach Cable Identification

Approval: Agreed to in IEEE P802.3by Task Force meeting, Pittsburgh, PA, 22 May 2015

Dear Dal,

The IEEE P802.3by Task Force is in the process of defining physical layer specifications for 25 Gb/s transmission over backplane, copper cabling and multi-mode fiber-optic cabling. We specify use of SFP28 and QSFP28 connectors in the use of our standard, and thus believe there is an industry benefit to having close communications with the SFF organization.

In the process of developing our specification, we have three different passive cable assemblies that we intend to support. Each requires a different level of Forward Error Correction (FEC) to ensure performance. To ensure interoperability, our Task Force desires to have a means to identify each cable type and adjust our Auto-Negotiation advertisements accordingly. The cable types are CA-N, CA-S, and CA-L, which reference No-FEC, Short and Long Cables. The CA-L type is consistent with parameters for a single lane of the 100GBASE-CR4 cable.

Our Task Force has determined that a few bits within SFF register sets to identify the type of cable for Passive Direct Attach Cables (DAC) and also a bit or bits that identify compliance to our Annex 109B Chip-to-module 25 Gigabit Attachment Unit Interface for 25GBASE-SR modules and limiting active DACs and AOCs would be very helpful. We would appreciate an ongoing discussion with your group on this matter.

Sincerely,
Mark Nowell
Chair, IEEE P802.3by 25 Gb/s Task Force

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[1] This document solely represents the views of the IEEE P802.3by Task Force, and does not necessarily represent a position of the IEEE, the IEEE Standards Association, IEEE 802 or IEEE 802.3 Working Group.