IEEE 802.3 Ethernet Working Group
Liaison Communication

Source: IEEE 802.3 Working Group[1]

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From: David Law   Chair, IEEE 802.3 Ethernet Working Group
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Subject: Liaison reply to TR42

Approval: Agreed to at IEEE 802.3 plenary teleconference meeting, 23rd July 2020

Dear Mr Sandels,

Thank you very much for your letter. In your letter, you address the Chair of the IEEE P802.3cg Task Force. It is our pleasure to inform you that the IEEE P802.3cg Task Force has concluded its work.

IEEE 802.3 Ethernet specifications are interoperability specifications and do not specify the electromagnetic performance of the attached devices. Electromagnetic compatibility is

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

outside the scope of IEEE 802.3 interface specifications. From IEEE Std 802.3cg-2019 146.9.2.2:

> A system integrating the 10BASE-T1L PHY is expected to comply with all applicable local and national codes for electromagnetic compatibility.

When designing systems to meet their application requirements for electromagnetic capability, a vendor is responsible for using the noise tolerance performance of the included PHY component(s) along with the common-mode rejection and insertion loss characteristics of the cabling and the MDI.

The absolute common-mode voltage range varies by application, and as such is outside the scope of IEEE 802.3 Ethernet standards.

Sincerely,
David Law
Chair, IEEE 802.3 Ethernet Working Group