

## IEEE 802.3 Ethernet Working Group Liaison Communication

Source: IEEE 802.3 Working Group<sup>1</sup>

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From:    David Law                              Chair, IEEE 802.3 Ethernet Working Group  
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Subject:    Update on IEEE P802.3cg 10 Mb/s over single balanced twisted-pair Ethernet

Approval:    Agreed to at IEEE 802.3 Plenary Meeting, Berlin, Germany, 13<sup>th</sup> July 2017

Dear Mr Emplit,

Thank you for your liaison letter of 26th June 2017 regarding single balanced twisted pair cabling projects in the TIA TR42 engineering committee. We are pleased to provide you with an update on recent decisions that may be relevant to your work in supporting single-pair cabling systems.

A baseline link segment specification for insertion loss, return loss, alien near-end crosstalk and alien far-end crosstalk for IEEE P802.3cg was adopted at our 13-16 March 2017 meeting in Vancouver, BC, Canada. Details may be found at:

[http://www.ieee802.org/3/cg/public/Mar2017/diminico\\_01\\_0317.pdf](http://www.ieee802.org/3/cg/public/Mar2017/diminico_01_0317.pdf).

We have adopted a PAM3 based modulation scheme described in slides 4 and 5 of the following presentation as a baseline specification for the IEEE P802.3cg 1,000m PHY objective: [http://www.ieee802.org/3/cg/public/May2017/Graber\\_3cg\\_08a\\_0517.pdf](http://www.ieee802.org/3/cg/public/May2017/Graber_3cg_08a_0517.pdf).

We have adopted the electromagnetic classifications described in slide 13 of the following presentation as a baseline specification for the IEEE P802.3cg 1,000m PHY objective: [http://www.ieee802.org/3/cg/public/May2017/diminico\\_01\\_0517.pdf](http://www.ieee802.org/3/cg/public/May2017/diminico_01_0517.pdf).

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<sup>1</sup> 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.

We have also adopted a DC Loop Resistance limit described in slide 19 of the following presentation as a baseline specification for the IEEE P802.3cg 1,000m PHY objective: [http://www.ieee802.org/3/cg/public/May2017/diminico\\_02\\_0517.pdf](http://www.ieee802.org/3/cg/public/May2017/diminico_02_0517.pdf).

We would welcome any questions or comments you may have on this.

Sincerely,

David Law

Chair, IEEE 802.3 Ethernet Working Group