

## 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: Liaison reply to ITU-T SG15 on coordination of bidirectional optical for access

Approval: Agreed to at IEEE 802.3 interim meeting, Indianapolis, IN USA, 12<sup>th</sup> September 2019

Dear Mr Effenberger,

We want to inform you that the IEEE P802.3cp Bidirectional 10 Gb/s, 25 Gb/s, & 50 Gb/s optical access PHYs Task Force has progressed its draft and has reached consensus on the various optical parameter choices for the loss budgets and wavelength plans. These are summarized in the following tables.

The optical path loss budgets are as follows:

Reach class	Total loss budget
10 km	6.3 dB
20 km	13 dB
40 km	18 dB
40 km	23 dB

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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.

Note that for 40 km there are two loss budgets, reflecting the traditional ER budget and a budget suitable for non-engineered links.

The center wavelengths are as follows:

Down / Up wavelength (nm)	Reach class		
	10 km	20 km	40 km
Speed			
10 Gb/s NRZ	1330 / 1270 $\pm$ 10nm	1330 / 1270 $\pm$ 10nm	1330 / 1270 $\pm$ 10nm
25 Gb/s NRZ	1330 / 1270 $\pm$ 10nm	1310 / 1290 $\pm$ 8nm	1310 / 1290 $\pm$ 8nm
50 Gb/s PAM4	1330 / 1270 $\pm$ 10nm	1310 / 1290 $\pm$ 8nm	1310 / 1290 $\pm$ 8nm

These decisions are implemented in the latest version of our draft D1.0, which is attached. We note that the next ITU-T SG15 Q2 meeting is 21<sup>st</sup> to 24<sup>th</sup> October 2019; if you could review the draft and have an interested party submit comments, that would be most appreciated.

For future communications, please note that our next face-to-face meeting will be 11<sup>th</sup> to 14<sup>th</sup> November 2019. We also plan to have a conference call from 00h00 to 01h00 UTC on 11<sup>th</sup> October 2019. The reflector subscription information can be found at <http://www.ieee802.org/3/cp/reflector.html>.

We appreciate your review and look forward to continued coordination on the development of bidirectional optical access PHYs.

Sincerely,  
David Law  
Chair, IEEE 802.3 Ethernet Working Group

Attachment: 8023cp\_D1p0.pdf