

IEEE 802.3 Ethernet Working Group  
**EC REVIEW DRAFT** 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, Geneva, Switzerland, 23<sup>rd</sup> January 2020

Dear Mr Effenberger,

We want to thank the members of Q2/15 for providing your comments against our recent drafts. Many of these were very useful and have been implemented. We would inform you that the IEEE P802.3cp 10, 25, & 50G Bidirectional optical access PHYs project has progressed its draft to version 1.2, and has reached consensus on the various optical parameter choices for the loss budgets and wavelength plans. The most up-to-date values are summarized in the following tables, where the updates are shown in red.

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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.

The optical path loss budgets are as follows:

Reach class	Total loss budget range
10 km	0 to 6.3 dB
20 km	0 to 15 dB
40 km	5 to 18 dB
40 km +	10 to 23 dB

As before, there are two loss budgets for 40 km reach, reflecting the traditional ER budget (18 dB) and a budget suitable for non-engineered links (23 dB).

The center wavelengths are as follows:

Down / Up wavelength (nm)	Reach class		
	10 km	20 km	40 km
Speed			
10Gb/s NRZ	1330 / 1270 $\pm$ 10nm	1330 / 1270 $\pm$ 10nm	1330 / 1270 $\pm$ 10nm
25Gb/s NRZ	1330 / 1270 $\pm$ 10nm	1314 / 1289 $\pm$ 8nm	1314 / 1289 $\pm$ 8nm
50Gb/s PAM4	1330 / 1270 $\pm$ 10nm	1314 / 1289 $\pm$ 8nm	1314 / 1289 $\pm$ 8nm

This is described in the next version of our draft which is attached. It would be appreciated if you could review the draft and have an interested party submit comments for our continued improvement of the text.

For future communications, please note that our next face to face meeting will be 16<sup>th</sup>-19<sup>th</sup> March 2020. We also plan to have a conference call 15:00-16:00 UTC 27<sup>th</sup> Feb 2020. 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 J. Law  
Chair, IEEE 802.3 Ethernet Working Group

Attachment: 8023cp\_D1p2.pdf