

IEEE 802.3 Ethernet Working Group **DRAFT** Liaison Communication

Source: IEEE 802.3 Working Group¹

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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, 12th Sep 2019

Dear Dr. Effenberger,

We want to inform you that the IEEE P802.3cp 10, 25, & 50G Bidirectional optical access PHYs project 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 |

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.

| | |
|-------|-------|
| 40 km | 23 dB |
|-------|-------|

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 | | | |
| 10Gb/s NRZ | 1330 / 1270 \pm 10nm | 1330 / 1270 \pm 10nm | 1330 / 1270 \pm 10nm |
| 25Gb/s NRZ | 1330 / 1270 \pm 10nm | 1310 / 1290 \pm 8nm | 1310 / 1290 \pm 8nm |
| 50Gb/s PAM4 | 1330 / 1270 \pm 10nm | 1310 / 1290 \pm 8nm | 1310 / 1290 \pm 8nm |

These decisions will be implemented in the next version of our draft (1.0), which is attached. ~~Please watch our Email reflector to see notices of the new draft.~~ We note that the next Q2 meeting in Oct. 21-24; 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 11-14 Nov 2019. We also plan to have a conference call on 20:00-21:00 New York 10 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](#)