

IEEE 802.3 Ethernet Working Group
EC REVIEW 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 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 |

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.

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 21st to 24th 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 11th to 14th November 2019. We also plan to have a conference call 20h00 to 21h00 New York, NY, USA time zone on 10th 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