

Meeting Minutes

Group: IEEE Greater than 50G bidirectional optical access PHYs 802.3dk task force meeting

Location: IEEE Interim, online

Date: January 16, 2023

Opening

9:00 AM (GMT-5) The meeting was called to order by Yuanqiu Luo, acting chair. David Law had another Task force to start, so he will join the meeting later to do the confirmation of the chair. Frank Effenberger volunteered to be the Recording Secretary.

Motion 1

- Move to approve the agenda, located at:
- https://www.ieee802.org/3/dk/public/2301/8023dk_2301_Task_Force_agenda.pdf
- M: Frank Effenberger S: Peter Stassar
- Motion result: Approved by voice without opposition

Motion 2

- Move to approve the minutes from November 2022, located at:
- https://www.ieee802.org/3/GT50GBIDI/public/2211/1122GT50GBiDi_unapproved_minutes.pdf
- M: Ray Nering S: John Johnson
- Motion result: Approved by voice without opposition

The task force chair gave her opening introduction on decorum, goals, big ticket items, ground rules, process, attendance tool, and patent policy.

9:14 AM The task force acting chair made a call for patents; no response was made.

9:17 AM The task force chair reviewed the IEEE Participation guidelines and the IEEE SA Copyright policy.

All the usual IEEE policies and procedures were reviewed.

At 9:26 AM, David Law, the working group chair, joined the meeting.

Motion 3

- Move to confirm Yuanqiu Luo as IEEE P802.3dk >50G Bidirectional optical access PHYs task force chair
- M: Frank Effenberger S: Ray Nering
- Motion result: Approved by voice without opposition

Goals for the January meeting were to discuss contributions and identify baseline candidates.

An initial proposal for a project timeline was shown. This projects baseline selection by May 2023, and full completion by September 2025.

Task Force Contributions

Presentation: Information on TDECQ & CD penalty for 100G PAM4 from 802.3cu project, **Peter Stassar, Huawei**

https://grouper.ieee.org/groups/802/3/dk/public/2301/3dk_Stassar_2301_1.pdf

This presentation reviewed the PMD TDECQ data from .3cu. The fundamental result is that to limit the dispersion penalty to be less than 2 dB (for example), and this then corresponds to an allowable dispersion (ps/nm) range.

Presentation: ITU-T G.9806AM3 update; Jun Shan Wey, VZ; Derek Nasset, HW; Hirotaka Nakamura, NTT; Takuya Kanai, NTT; **John Johnson, BCM**; Fabrice Bourgart; Orange

https://grouper.ieee.org/groups/802/3/dk/public/2301/3dk_Johnson_2301_1.pdf

This gave a readout of the progress on G.9806 Am3. The objective of this amendment is 100 Gb/s bidirectional links. There are two power budgets in the ITU recommendation: class S (this is the same as BR20), and class B- (this is a “super” BR40, with added loss budget at 40 km reach). The amendment is planned for consent in April 2023, and the focus of that document will be only class S (class B- will be for future study).

Presentation: Considerations on 100G and 200G bidi optics, **Guangcan Mi, Huawei**

https://grouper.ieee.org/groups/802/3/dk/public/2301/3dk_Mi_2301_1r1.pdf

This presentation discussed the use cases for 100 Gb/s bidi and noted that the environment for the optical distribution network is harsh (outdoors, issues with dirty connectors). There are a range of AUI's that might be supported (due to history, there are multiple ways to do 100 Gb/s AUI). Once again, the dispersion issue was raised, and how this impacts the wavelength plans and therefore the choice of speed per wavelength. This suggests that 20 km might be better served by 2x50G optics, and 40 km must use 2x50G.

Presentation: Potential solutions for >50G bidi objectives, **Frank Effenberger, Futurewei**

https://grouper.ieee.org/groups/802/3/dk/public/2301/3dk_Effenberger_2301_1.pdf

This considered the dispersion limitations for 100G/wave and 50G/wave in light of the use of G.652 fiber. It finds that for 10 km, 100G/wave should work; however, for 40 km, 50G/wave looks necessary. The 20 km PMD needs more study.

Discussions, straw-polls, other motions

Straw poll #1: I support specification of 100 Gb/s per wavelength for 10 km and 20 km objectives (1304.6 and 1309.1 nm). (13 attendees)

Y: 4 N: 0 Need more info: 6

Future meeting plan

The plan for our next meetings were discussed.
 An interim phone call is proposed for Feb 14, 9~11AM (EST).
 The March meeting in Atlanta is tentatively scheduled for Monday (3/13) afternoon and Tuesday (3/14) morning. We will try to coordinate with .3df/j to have the logic topics done at those times, so reduce the time conflict with our project.

Motion 4

- Move to adjourn the meeting.
- Procedural (>50%)
- M: John Johnson S: Kenneth Jackson
- Results Y: N: A:
- Motion passes by voice without opposition

11:20 AM (GMT-5) Meeting adjourned

Attendees (19)

<u>Name</u>	<u>Affiliation</u>	<u>1/16/2023</u>
Ron Tellas	Belden	<u>X</u>
Guangcan Mi	Huawei	<u>X</u>
Sridhar Ramesh	Maxlinear	<u>X</u>
Yuefeng Cai	Huawei	<u>X</u>
Hideki Isono	Fujitsu	<u>X</u>
Ulf Parkholm	Ericsson	<u>X</u>
Peter Stassar	Huawei	<u>X</u>
Han Hyub Lee	ETRI	<u>X</u>
Jun Shan Wey	Verizon	<u>X</u>
Frank Effenberger	Futurewei	<u>X</u>
John Johnson	Broadcom	<u>X</u>
Ray Nering	Cisco	<u>X</u>
Yuanqiu Luo	Futurewei	<u>X</u>
Kenneth Jackson	Sumitomo	<u>X</u>
John DeAndrea	Finisar	<u>X</u>
Andy Shen	Futurewei	<u>X</u>
David Law	HPE	<u>X</u>
Limin Geng	Huawei	<u>X</u>
Sylvanus Lee	Leviton	<u>X</u>