IEEE 802.3
Beyond 10km Optical PHYs Study Group
Closing Report

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IEEE 802.3 Beyond 10km Optical PHYs Study Group Project information

Study Group Organization

John D'Ambrosia, Chair, IEEE 802.3 Beyond 10km Optical PHYs SG

Task force web and reflector information

Reflector:	http://www.ieee802.org/3/B10K/reflector.html
Home page:	http://www.ieee802.org/3/B10K/index.html
PAR:	No Draft Yet
CSD:	No Draft Yet
Objectives:	No Draft Yet
Timeline	None Adopted
Ad Hoc page	http://www.ieee802.org/3/B10K/public/adhoc/index.shtml
Private Area	None Yet

Study Group Accomplishments

- Consensus building on PAR / Objectives / CSD
  - ≈ 104 attendees
- 7 technical presentations
- Straw Polls (see next page) Highlights
  - Growing support for technical feasibility of 50Gb/s PAM4 based approaches for 50/200/400 Gb/s 40km
  - No support for BMP of 50Gb/s Coherent 40km or 80km
  - Support for 50 Gb/s 40km objective
- Support inclusion of 100G Beyond 10km in SG – See following page
- Considered liaisons
  - Proposed Response to ITU-T - IEEE_802d3_to_SG15_B10k_1117_draft
  - Proposed Response to OIF - IEEE_802d3_to_OIF_400ZR_1117_draft
- Approved requesting rechartering of Study Group

Straw Polls

#2 - I believe a PAM4 approach, based on 50 Gb/s PAM4, targeting 40km would be technical feasible at

50 Gb/s	Yes	56	No	0	Need more info	6
200 Gb/s	Yes	41	No	1	Need more info	17
400 Gb/s	Yes	24	No	3	Need more info	34

#3 - I think there is broad market potential for a coherent solution at 50 Gb/s

Results 40km (y/n/a) 2/41/7 80km: 3/36/9

#4 - I would support adopting the following objective

Provide physical layer specifications which support 50 Gb/s operation over at least 40 km of SMF

Results (y/n/a) 59/0/8)

#5 - I believe at 200 Gb/s, there would be broad market potential to develop two approaches targeting 40km reach

4x50Gb/s PAM4

coherent (which might be used as a PHY for DWDM channels)

Results Yes – 0 No – 23 Need more information - 28

Inclusion of 100Gb/s in Study Group Scope

If the “Beyond 10km 100GbE CFI” is successful, I would support modifying the scope of the IEEE 802.3 Beyond 10km Optical PHYs Study Group to include 100Gb/s.

Results	
Yes	84
No	0
Abstain	4

Study Group Motions

Motion #3 - Move that the IEEE 802.3 Beyond 10km Study Group approve:

IEEE_802d3_to_SG15_B10k_1117_draft

IEEE_802d3_to_OIF_400ZR_1117_draft

with editorial license granted to the Chair (or his appointed agent) as liaison communications from the IEEE 802.3 Working Group to ITU-T SG 15 and OIF.

Results – Approved by voice vote without opposition

Motion #4 - Move that the Study Group requests the re-chartering of the Beyond 10 km Optical PHYs Study Group for 50Gb/s, 200 Gb/s, and 400Gb/s Ethernet, unless the formation of a new study group for Beyond 10 km Optical PHYs for 50Gb/s, 100Gb/s, 200 Gb/s, and 400Gb/s Ethernet is approved.

Results – Approved by voice vote without opposition

WG Motion

Move that the IEEE 802.3 Working Group approve:

IEEE_802d3_to_SG15_B10k_1117_draft

IEEE_802d3_to_OIF_400ZR_1117_draft

with editorial license granted to the Chair (or his appointed agent) as liaison communications from the IEEE 802.3 Working Group to ITU-T SG 15 and OIF.

Technical (>75%)

M:D'Ambrosia

S: Nowell

WG Motion

Move that the IEEE 802.3 Working Group request the re-chartering of the Beyond 10 km Optical PHYs Study Group for 50Gb/s, 200 Gb/s, and 400Gb/s Ethernet, unless the formation of a new study group for Beyond 10 km Optical PHYs for 50Gb/s, 100Gb/s, 200 Gb/s, and 400Gb/s Ethernet is approved.

> 50%

M: M. Nowell

S: S. Trowbridge

Results:

Questions?

Thank you!