

IEEE 802.3 Beyond 400 Gb/s Ethernet (B400G) Study Group, February 2021 Electronic Interim Series
Unapproved Meeting Minutes, Prepared by Tom Issenhuth, John D'Ambrosia

Meeting called to order at 10:02 am ET (all times ET), 08 Feb 2021

Meeting called to order by John D'Ambrosia, SG Chair.

Chair showed IMAT information and asked everyone to sign-in as meeting attendance would be taken from IMAT.

D'Ambrosia announced he was appointing Tom Issenhuth to be Study Group secretary

Presentation #1 Agenda and General Information

Presenter: John D'Ambrosia

URL: https://www.ieee802.org/3/B400G/public/21_02/agenda_b400g_a_210208.pdf

Chair asked if there were any objections to the agenda, there were none, and the agenda (Slide #2) was considered approved.

Minutes - https://www.ieee802.org/3/B400G/public/21_0118/minutes_b400g_210118_unapproved.pdf

Chair noted that the affiliation for Kohichi Tamura needed to "CIG" not Oclaro as noted.

Chair advised everyone to review their affiliation for IMAT when signing in.

Chair asked if there were any other corrections, there were none.

Chair asked if there were any objections to approving the modified minutes. There were none, and the minutes were considered approved.

Chair noted that the information regarding the procedures had been sent out, and requested that individuals review the following IEEE SA policies prior to the interim meeting –

- IEEE SA Pre-PAR Patent Policy
- IEEE SA Participation Policy
- IEEE SA Copyright Policy

Chair showed the IEEE SA Pre-PAR Patent Policy slides.

Chair showed the IEEE SA Participation Policy slides.

Chair showed the IEEE SA Copyright Policy slides.

Chair asked if anyone needed to review the policies at that time – there were no requests to do so.

Presentation #2 Technical Feasibility of Logic Layer to Support Rate Objective

Presenter Xinyuan Wang and Xiang He

URL https://www.ieee802.org/3/B400G/public/21_02/wang_b400g_01_210208.pdf

General discussion.

Presentation #3 Potential SMF Objectives for 800GE

Presenter Brian Welch

URL https://www.ieee802.org/3/B400G/public/21_02/welch_b400g_01_210208.pdf

Brain will be providing an updated presentation with an expanded list of supporters. General discussion.

Presentation #4 Looking Beyond 400G : A System Vendor Perspective

Presenter Rakesh Chopra

URL https://www.ieee802.org/3/B400G/public/21_02/chopra_b400g_01_210208.pdf

General discussion.

D'Ambrosia asked Issenhuth to chair the meeting while he presented. Issenhuth assumed chairing meeting at 12:01 pm.

Presentation #5 Long Term Consideration Regarding Rate Choice

Presenter John D'Ambrosia

URL https://www.ieee802.org/3/B400G/public/21_02/dambrosia_b400g_01_210208.pdf

General discussion.

D'Ambrosia resumed chairing the call at 12:23 pm.

Chair reviewed future meetings and discussed their planning and logistics.

Meeting broke at 12:29 pm.

Meeting was reconvened at 10:02 am ET (all times ET), 11 Feb 2021

Meeting called to order by John D'Ambrosia, SG Chair.

Chair noted that the information regarding the procedures had been sent out, and requested that individuals review the following IEEE SA policies prior to the interim meeting –

- IEEE SA Pre-PAR Patent Policy
- IEEE SA Participation Policy
- IEEE SA Copyright Policy

Chair showed the IEEE SA Pre-PAR Patent Policy slides.

Chair showed the IEEE SA Participation Policy slides.

Chair showed the IEEE SA Copyright Policy slides.

Chair asked if anyone needed to review the policies at that time – there were no requests to do so.

Chair showed IMAT information and asked everyone to sign-in as meeting attendance would be taken from IMAT.

Presentation #6 Considerations on Beyond 400G

Presenter Leon Bruckman

URL https://www.ieee802.org/3/B400G/public/21_02/bruckman_b400g_01a_210211.pdf

General discussion.

Presentation #7 Forecasting Demand for Ethernet Optics

Presenter Vlad Kozlov

URL https://www.ieee802.org/3/B400G/public/21_02/kozlov_b400g_01_210211.pdf

General discussion.

Presentation #8 Beyond 400 Gbps Speed: opportunities and challenges

Presenter Sameh Boujelbene

URL https://www.ieee802.org/3/B400G/public/21_02/boujelbene_b400g_01_210211.pdf

General discussion.

Straw Poll #1

I am interested in objectives targeting:

800 Gb/s:	12 (17%)
1.6 Tb/s:	2 (3%)
Both:	43 (61%)
Need more information:	8 (11%)
Abstain:	5 (7%)

81 attendees

Chair noted during the discussion of the straw poll that the rates noted in the straw poll were Ethernet rates.

Straw Poll #2

I am interested in development of higher speed electrical interfaces targeting "Beyond 400 GbE" based on:

100 Gb/s per lane:	6 (9%)
200 Gb/s per lane:	12 (17%)
Both	38 (55%)
Need more information:	9 (13%)
Abstain:	4 (6%)

78 attendees

Straw Poll #3

I am interested in development of optical solutions targeting "Beyond 400 GbE" with optical signaling per lane based on:

100 Gb/s:	3 (5%)
200 Gb/s:	19 (33%)
800 Gb/s:	4 (7%)
Need more information:	28 (49%)
Abstain:	3 (5%)

74 attendees

Chair reviewed future meetings and discussed their planning and logistics.

Chair adjourned the session at 1:03 pm, 11 Feb 2021

Attendees (per IMAT)

Name	Affiliation	8-Feb	11-Feb
BakroNagy, Istvan	Effect Photonics		X
Baldwin, Thananya	Keysight Technologies	X	X
Bernstein, Gary	Leviton Manufacturing Co.	X	
Bhatt, Vipul	II-VI Incorporated		X
Bliss, Will	Broadcom Corporation	X	
Brown, Matthew	HUAWEI		X
Bruckman, Leon	HUAWEI	X	X
Carty, Clark	Cisco Systems, Inc.	X	X
Casher, Patrick	Foxconn Interconnect Technologies (FIT)	X	
Chang, Xin	Huawei Technologies Co., Ltd		X
Chen, Chan	Applied Optoelectronics, Inc.	X	X
D'Ambrosia, John	Futurewei, US Subsidiary of Huawei	X	X
Dawe, Piers J G	Nvidia		X
Deandrea, John	Finisar Corporation		X
Ewen, John	Marvell	X	X
Ghiasi, Ali	Ghiasi Quantum LLC, Inphi	X	X
Goergen, Joel	Cisco Systems, Inc.	X	X
Gustlin, Mark	Cisco Systems, Inc.	X	X
Harstead, Ed	Nokia		X
Haser, Alexandra	Molex Incorporated		X
He, Xiang	Huawei Technologies Co., Ltd	X	X
Healey, Adam	Broadcom Inc.	X	X
Hidaka, Yasuo	Credo Semiconductor	X	X
Huber, Thomas	Nokia	X	X
Isono, Hideki	Fujitsu Optical Components Limited	X	X
Issenhuth, Tom	Huawei Technologies Co. Ltd	X	X
Jackson, Kenneth	Sumitomo Electric Industries, LTD		X
Jimenez, Andrew	Anixter Inc.		X
Johnson, John	Broadcom Corporation	X	X
Kimber, Eric	Semtech Ltd	X	X
Klempa, Michael	Amphenol Corporation	X	X
Klingensmith, William	DoD		X
Kota, Kishore	Inphi Corporation		X
Kuschnerov, Maxim	Huawei Technologies Duesseldorf GmbH		X
Lam, Cedric	Google	X	X
Le Cheminant, Greg	Keysight Technologies	X	X
Lee, Sylvanus	Leviton Manufacturing Co.	X	X
Lewis, David	Lumentum Inc.		X
Lingle, Robert	OFS		X

Liu, Karen	Lightwave Logic		X
Lyubomirsky, Ilya	Inphi Corporation	X	X
Mak, Gary	Inphi Corporation	X	X
Maki, Jeffery	Juniper Networks, Inc.	X	X
Malicoat, David	Malicoat Networking Solutions; Senko Advanced Components	X	X
Maniloff, Eric	Ciena Corporation	X	X
Marques, Flavio	FURUKAWA ELECTRIC	X	
MASUDA, TAKEO	OITDA	X	
mi, guangcan	HUAWEI	X	X
Milicevic, Mario	Maxlinear Corp	X	X
Moorwood, Charles	Keysight Technologies	X	X
Mu, Jianwei	Hisense Broadband	X	X
Muller, Shimon	Axalume	X	X
Murty, Ramana	Broadcom Corporation		X
Nicholl, Shawn	Xilinx	X	X
Noujeim, Leesa	Google	X	
Nowell, Mark	Cisco Systems, Inc.	X	X
Ofelt, David	Juniper Networks, Inc.	X	X
Omori, Kumi	NEC Corporation	X	X
Palkert, Thomas	Samtec-Macom	X	X
Parthasarathy, Vasu	Broadcom Corporation	X	
Pepper, Gerald	Keysight Technologies	X	X
Piehler, David	Dell	X	X
Pimpinella, Rick	Panduit Corp.	X	X
Rabinovich, Rick	Keysight Technologies	X	X
Radhamohan, Rajeshmohan	MaxLinear Inc		X
Ramesh, Sridhar	Maxlinear Corp		X
Ran, Adee	Intel	X	X
Rannow, R K	Silverdraft Supercomputing	X	X
Rechtman, Zvi	NVIDIA Corporation	X	X
Ren, Hao	HUAWEI	X	
Sambasivan, Sam	AT&T	X	
Sarlet, Gert	II-VI	X	X
Savi, Olindo	Hubbell Incorporated	X	X
She, Qingya	Fujitsu Network Communications	X	X
Shukla, Priyank	Synopsys, Inc.	X	
Sommers, Scott	Molex Incorporated		X
Son, Yung Sung	Optomind Inc		X
Sone, Yoshiaki	Nippon Telegraph and Telephone Corporation (NTT)	X	X
Sorbara, Massimo	GLOBALFOUNDRIES	X	X
Stassar, Peter	Huawei Technologies Co., Ltd	X	X

Sun, Junqing	Credo Semiconductor	X	
Tailor, Bharat	Semtech Canada Corporation	X	X
TAKAHARA, TOMOO	Fujitsu	X	X
Tamura, Kohichi	CIG	X	X
Terada, Masaru	FURUKAWA ELECTRIC	X	X
Theodoras, James	HG Genuine		X
Theodoras, James	HG Genuine	X	
Tracy, Nathan	TE Connectivity	X	X
Tran, Viet	Keysight Technologies	X	X
Trowbridge, Stephen	Nokia	X	X
Umnov, Alexander	Independent	X	X
Wang, Ruoxu	Huawei Technologies Co., Ltd	X	X
Wang, Xinyuan	Huawei Technologies Co. Ltd	X	X
Weaver, James	Arista Networks Inc.	X	X
Welch, Brian	Cisco Systems, Inc.	X	X
Winzer, Peter	Nubis Communications	X	X
Wu, Mau-Lin	MediaTek Inc.	X	X
Xu, Yu	Huawei Technologies Co., Ltd		X
Zebian, Sara	Google	X	X
Zhang, Bo	Inphi Corporation	X	X
Zhou, Xiang	Google	X	X