IEEE 802.3 NEA Ad hoc Meeting – IEEE 802.3 “Ethernet for AI” Assessment
24 June 2025 Electronic Meeting

Unapproved Meeting Minutes, prepared by John D’Ambrosia and Mark Nowell
Session called to order at 9:31 am EDT (all times EDT), 24 June 2025

Meeting called to order by John D’Ambrosia, Chair - IEEE 802.3 NEA “Ethernet for AI” Assessment

Chair gave the meeting introduction.

Chair reminded everyone to sign into IMAT, which would be used for tracking attendance

Presentation #1	**Agenda and General Information**
Presenter	John D’Ambrosia
URL	https://www.ieee802.org/3/ad_hoc/E4AI/public/25_0624/agenda_e4ai_a_250624.pdf

During the presentation, the chair noted that Slide 11 needed to be updated - change to Slide 11 - PMD⟶ PHY**

Agenda – chair asked if there were any comments on the agenda. There were none. Chair asked if there were any objections to the agenda, there were none, and the agenda was considered approved by unanimous consent.

Minutes – 29 May 2025 IEEE 802.3 NEA – Ethernet for AI Assessment Electronic Meeting
https://www.ieee802.org/3/ad_hoc/E4AI/public/25_0529/minutes_e4ai_250529_unapproved.pdf

Chair asked if there were any modifications of the minutes needed. No one responded.
Chair asked if there were any objections to the approval of the minutes. There were none, and the minutes were approved by unanimous consent.

Chair reviewed IEEE SA Pre-PAR Patent Policy. See Slide #15.

Chair noted from Slide #17 and noted by participating in this activity, you agree to comply with the IEEE Code of Ethics, all applicable laws, and all IEEE policies and procedures including but not limited to the IEEE SA Copyright Policy.

Chair reviewed Slide #19 - Participant behavior in IEEE-SA activities is guided by the IEEE Codes of Ethics & Conduct

Chair noted from Slide #20 Participants in the IEEE SA “individual process” shall act independently of others, including employers. By participating in standards activities using the “individual process”, you are deemed to accept these requirements then you shall immediately cease any participation.

Chair noted that background information about the IEEE 802.3 NEA Ad hoc was in the appendix.

Chair reviewed IEEE 802.3 NEA “Ethernet for AI” Assessment Information on Slide #5.

Chair reviewed Different Interconnect Requirements identified for the assessment on Slide #6.

Chair reviewed Meeting Decorum, Ground Rules, and Important Bylaws, Rules, and References. See Slides #7-10.
Chair noted background on NEA can be found in Appendix.

Chair reviewed future meetings for all NEA activities. See Slide #11.

Chair reminded participants about the NEA ICAID Status Report. See Slide #12.

Presentation #2 **UALink 200G 1.0 Specification Overview: Data Link Layer (DL) and Physical Layer (PL)**
Presenters Kent Lusted, Dave Brown
URL https://www.ieee802.org/3/ad_hoc/E4AI/public/25_0624/lusted_e4ai_01_250624.pdf

Discussion
There were questions of clarification and discussion on the presentation.

The chair provided an IMAT reminder.

It was noted that UALink was working on sending a liaison to 802.3 in response to the liaison previously sent on behalf of the E4AI effort. Mr. Lusted and the chair will work on logistics offline.

Before the start of the presentation, the presenter noted that minor editorial changes (missing page #'s) had been made. The updated presentation will be sent to the chair.

Presentation #3 **PAMXmY Modulation Proposal for 448G**
Presenters Peter Graumann
URL https://www.ieee802.org/3/ad_hoc/E4AI/public/25_0624/graumann_e4ai_01a_250624.pdf

Discussion
There were questions of clarification and discussion on the presentation.

Presentation #4 **Physical Considerations for Intrapair Skew Characterization and Measurement**
Presenters Rohan Phadke
URL https://www.ieee802.org/3/ad_hoc/E4AI/public/25_0624/phadke_e4ai_01_250624.pdf

Discussion
There were questions of clarification and discussion on the presentation.

Before the start of the presentation, the presenter noted that minor editorial changes (corrected citations) had been made. The updated presentation will be sent to the chair.

Presentation #5 **400 Gb/s+ Per Lane Transmission with PAM4, 6, 8**
Presenters Yu Xu
URL https://www.ieee802.org/3/ad_hoc/E4AI/public/25_0624/xu_e4ai_01a_250624.pdf

Discussion
There were questions of clarification and discussions on the presentation.

The chair provided a wrap-up of the Assessment activity. For the 19th Aug meeting, which represents approximately 6 months of the assessment being underway, he requested the following:

- Kent Lusted provides a summary of electrical-related presentations to date.
- Mark Nowell provides a summary of optical-related presentations to date.
- John D'Ambrosia provides a summary of presentations related to higher ethernet rates beyond 1.6 Tb/s.

THe chair noted that given the number of topics addressed in the assessment to date, this study could actually wind up suggesting being multiple new efforts in the future.

Meeting adjourned at 12:00 pm.

IMAT Attendance

Name	Employer	Affiliation
Akinwale, Oluwafemi		Intel Corporation
Bernier, Eric	Huawei Technologies Canada Co., Ltd.	Huawei Technologies Canada; Huawei Technologies Co., Ltd
Bovington, Jock	Cisco Systems, Inc.	Cisco Systems, Inc.
Bruckman, Leon	NVIDIA	NVIDIA
Calvin, John	Keysight Technologies	Keysight Technologies
Chan Carusone, Anthony	Alphawave Semi	Alphawae Semi
Cicalini, Alberto		Qualcomm Incorporated; Qualcomm Technologies, Inc
Cox, Ian		Broadcom Corporation
D'Ambrosia, John	Futurewei Technologies, U.S. Subsidiary of Huawei	Futurewei Technologies, U.S. Subsidiary of Huawei
Dawe, Piers J G	NVIDIA	Nvidia
Dsilva, Hansel		Amphenol Corporation
El-Chayeb, Ahmad	Keysight Technologies Inc	Keysight Technologies Inc
Ferretti, Vincent	Corning Incorporated	Corning Incorporated
Ghiasi, Ali	Ghiasi Quantum LLC	Ghiasi Quantum LLC, MARVELL
HE, MICHAEL		TeraHop Pte. Ltd.
He, Xiang	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd
Healey, Adam	Broadcom Inc.	Broadcom Inc.
Heck, Howard	TE Connectivity	Intel Corporation
Hon, Kam Yan		Cisco Systems, Inc.
Hutchins, Jeff	Ranovus	Ranovus
Isono, Hideki	Furukawa FITEL Optical Components Limited	Fujitsu Optical Components
Issenhuth, Tom	Issenhuth Consulting, LLC	Huawei Technologies Co., Ltd
Jackson, Kenneth	Sumitomo Electric Industries, LTD	Sumitomo Electric Industries, LTD
Johnson, John	Broadcom Corporation	Broadcom
Kaygusuz, Ahmet	Adhoc Teknoloji	Adhoc Teknoloji
Kim, Do Kyun		LG ELECTRONICS
Klempa, Michael	Alphawave Semi	Alphawave Semi
Kugel, Valery		Juniper Networks, Inc.
Landry, Gary	Texas Instruments Inc.	Texas Instruments
Li, Pei-Rong	MediaTek Inc.	MediaTek Inc.
Liu, Cathy	Broadcom Corporation	Broadcom
Lusted, Kent	Synopsys, Inc.	Synopsys, Inc.
Mellitz, Richard	Samtec, Inc.	Samtec, Inc.
mi, guangcan	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd
Moorwood, Charles	Keysight Technologies	Keysight Technologies
Muhigana, Ernest	Lumentum LLC	Lumentum
Muller, Shimon	Enfabrica Corp.	Enfabrica
MURAKAMI, YUKI	FUJITSU	FUJITSU
Nering, Raymond	Cisco Systems, Inc.	Cisco Systems, Inc.

NIIHARA, YOSHIHIRO	Fujikura Ltd.	Fujikura Ltd.
Nowell, Mark	Cisco Systems, Inc.	Cisco Systems, Inc.
Ofelt, David	Juniper Networks, Inc.	Juniper Networks, Inc.
Opsasnick, Eugene	Broadcom Inc.	Broadcom Inc.
Palkert, Thomas		Samtec, Inc., Macom
Parsons, Earl	CommScope, Inc.	CommScope, Inc.
peng, semmy	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd
Phadke, Rohan		Arista Networks
Rabinovich, Rick	Keysight Technologies	Keysight Technologies
Ramesh, Sridhar	MaxLinear	Maxlinear Inc
Ran, Adee	Cisco Systems, Inc.	Cisco Systems, Inc.
Ren, Hao	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd
Royer, Tyler	SENKO Advanced Components	Senko Advanced Components
Sakai, Toshiaki	Socionext Inc.	Socionext
Simms, William	NVIDIA Corporation	NVIDIA Corporation
Sommers, Scott	Molex LLC	Molex Incorporated
Son, Yung Sung	Optomind Inc	Optomind Inc
Tracy, Nathan	TE Connectivity	TE Connectivity
Tran, Viet	Keysight Technologies	Keysight Technologies
Wang, Xinyuan	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd
WANG, Xuebo		Huawei Technologies Co., Ltd
Weaver, James	Arista Networks	Arista Networks
Welch, Brian	Cisco Systems, Inc.	Cisco Systems, Inc.
Xu, Yu	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd
Yu, Rang-Chen	Innolight Technology Corproation	Innolight Technology Corproation
Zhuang, Shu		Anritsu Company
Zhuang, Yan	Huawei Technologies Co., Ltd	Huawei