Agenda and General Information

IEEE P802.3dm Asymmetrical Electrical Automotive
Ethernet Task Force

Jon Lewis

Dell Technologies

802.3dm interim Meeting, 14-16 May 2025

New Orleans, LA, USA

Agenda

- Welcome and Introductions
- Approve Agenda
- Approve Minutes
    - https://www.ieee802.org/3/dm/public/041725/Unconfirmed_minutes_3dm_041725.pdf
    - https://www.ieee802.org/3/dm/public/050125/Unconfirmed_minutes_3dm_050125.pdf
- Reflector and Web
- Ground Rules
- IEEE
    - Structure, Bylaws and Rules
    - Call for Patents
    - IEEE Standards Process
- Presentations
- Future Meetings

Task Force Decorum

- An officer is permitted to make an audio or slideshow recording of this meeting exclusively for the purpose of generating minutes which shall not be copied or distributed. **IEEE 802.3 meetings do not use this option.** Recording of the proceedings by any other participant or observer, in part or in whole, via any means, is prohibited. (January 2020 IEEE-SA Standards Board Ops Manual 5.3.3.2)
- Press (i.e., anyone reporting publicly on this meeting) are to announce their presence (January 2020 IEEE-SA Standards Board Ops Manual 5.3.3.3)
- Please observe proper decorum in meetings
- Remote participants: Please **MUTE** unless called on
- Use the **Raise Hand feature in Zoom** to be placed in the queue **(in person and remote participants)**
- The chat should be used only to send to "Everyone", for official business – not for side conversations.

Reflector and Web

- To subscribe to the Asymmetrical Electrical Automotive Ethernet Task Force reflector, send an email to:

    ListServ@ieee.org

    with the following in the body of the message (do not include "<>"):

    subscribe STDS-802-3-ISAAC <yourfirstname> <yourlastname>

    end

- Send 100 Mb/s Long-Reach Single-Pair Ethernet Task Force reflector messages to:

    STDS-802-3-ISAAC@listserv.ieee.org

- Task Force web page URL:

    https://www.ieee802.org/3/dm/index.html

Ground Rules

- Based upon IEEE 802.3 Rules
  - Foundation based upon Robert's Rules of Order
  - Anyone in the room may speak
  - Anyone in the room may vote, Only 802.3 voters vote on electronic meetings
- **RESPECT**… give it, get it
- NO product pitches
- NO corporate pitches
- NO prices!!!
  - This includes costs, ASPs, etc. no matter what the currency
- NO restrictive notices

Attendance

- Attendance will be taken from IMAT
  - IMAT is the official record – so be sure to sign in
- **PLEASE DO NOT FORGET TO SIGN INTO IMAT – NEED FOR CORRECTIONS IS STRONGLY DISCOURAGED**

- Please put your affiliation in your Zoom name. If you are unable to do this, please send me or Natalie a directed chat message and we will change it for you at our earliest convenience.

Important Bylaws and Rules

- **IEEE-SA Operations Manual**
    http://standards.ieee.org/develop/policies/sa_opman/

- **IEEE-SA Standards Board Bylaws**
    http://standards.ieee.org/develop/policies/bylaws/

- **IEEE-SA Standards Board Operations Manual**
    http://standards.ieee.org/develop/policies/opman/

- **IEEE 802 LAN/MAN Standards Committee (LMSC) Policies and Procedures**
    https://ieee.app.box.com/v/PandP-LMSC

- **IEEE 802 LAN/MAN Standards Committee (LMSC) Operations Manual**
    http://www.ieee802.org/devdocs.shtml

- **IEEE 802 LAN/MAN Standards Committee (LMSC) Working Group (WG) Policies and Procedures**
    http://www.ieee802.org/devdocs.shtml

- **IEEE 802.3 Working Group Operating Rules**
    http://ieee802.org/3/rules/P802_3_rules.pdf

INSTRUCTIONS FOR THE WG CHAIR

The IEEE SA strongly recommends that at each WG meeting the chair or a designee:

- **Show slides 1 through 4 of this presentation**
- **Advise the WG attendees that:**
  - IEEE's patent policy is described in Clause 6 of the *IEEE SA Standards Board Bylaws*;
  - Early identification of patent claims which may be essential for the use of standards under development is strongly encouraged;
  - There may be Essential Patent Claims of which IEEE is not aware. Additionally, neither IEEE, the WG, nor the WG Chair can ensure the accuracy or completeness of any assurance or whether any such assurance is, in fact, of a Patent Claim that is essential for the use of the standard under development.
- **Instruct the WG Secretary to record in the minutes of the relevant WG meeting:**
  - That the foregoing information was provided and that slides 1 through 4 (and this slide 0, if applicable) were shown;
  - That the chair or designee provided an opportunity for participants to identify patent claim(s)/patent application claim(s) and/or the holder of patent claim(s)/patent application claim(s) of which the participant is personally aware and that may be essential for the use of that standard
  - Any responses that were given, specifically the patent claim(s)/patent application claim(s) and/or the holder of the patent claim(s)/patent application claim(s) that were identified (if any) and by whom.
- The WG Chair shall ensure that a request is made to any identified holders of potential essential patent claim(s) to complete and submit a Letter of Assurance.
- It is recommended that the WG Chair review the guidance in *IEEE SA Standards Board Operations Manual* 6.3.5 and in FAQs 14 and 15 on inclusion of potential Essential Patent Claims by incorporation or by reference.

Note: **WG** includes Working Groups, Task Groups, and other standards-developing committees with a PAR approved by the IEEE SA Standards Board.

PARTICIPANTS HAVE A DUTY TO INFORM THE IEEE

- **Participants <u>shall</u> inform the IEEE (or cause the IEEE to be informed) of the identity of each holder of any potential Essential Patent Claims of which they are personally aware if the claims are owned or controlled by the participant or the entity the participant is from, employed by, or otherwise represents**

- **Participants <u>should</u> inform the IEEE (or cause the IEEE to be informed) of the identity of any other holders of potential Essential Patent Claims**

Early identification of holders of potential Essential Patent Claims is encouraged

WAYS TO INFORM IEEE

- **Cause an LOA to be submitted to the IEEE SA (patcom@ieee.org); or**

- **Provide the chair of this group with the identity of the holder(s) of any and all such claims as soon as possible; or**

- **Speak up now and respond to this Call for Potentially Essential Patents**

If anyone in this meeting is personally aware of the holder of any patent claims that are potentially essential to implementation of the proposed standard(s) under consideration by this group and that are not already the subject of an Accepted Letter of Assurance, please respond at this time by providing relevant information to the WG Chair

OTHER GUIDELINES FOR IEEE WORKING GROUP MEETINGS

- All IEEE SA standards meetings shall be conducted in compliance with all applicable laws, including antitrust and competition laws.

  - Don't discuss the interpretation, validity, or essentiality of patents/patent claims.

  - Don't discuss specific license rates, terms, or conditions.

    - Relative costs of different technical approaches that include relative costs of patent licensing terms may be discussed in standards development meetings.

      - Technical considerations remain the primary focus.

  - Don't discuss or engage in the fixing of product prices, allocation of customers, or division of sales markets.

  - Don't discuss the status or substance of ongoing or threatened litigation.

  - Don't be silent if inappropriate topics are discussed. Formally object to the discussion immediately.

  For more details, see *IEEE SA Standards Board Operations Manual*, clause 5.3.10 and *Antitrust and Competition Policy: What You Need to Know* at
  http://standards.ieee.org/develop/policies/antitrust.pdf

PATENT-RELATED INFORMATION

The patent policy and the procedures used to execute that policy are documented in the:

- *IEEE SA Standards Board Bylaws*
  (http://standards.ieee.org/develop/policies/bylaws/sect6-7.html#6)
- *IEEE SA Standards Board Operations Manual*
  (http://standards.ieee.org/develop/policies/opman/sect6.html#6.3)

Material about the patent policy is available at
http://standards.ieee.org/about/sasb/patcom/materials.html

If you have questions, contact the IEEE SA Standards Board Patent Committee Administrator at
patcom@ieee.org

INSTRUCTIONS FOR CHAIRS OF STANDARDS DEVELOPMENT ACTIVITIES

At the beginning of each standards development meeting the chair or a designee is to:

- Show the following slides (or provide them beforehand)
- Advise the standards development group participants that:
- IEEE SA's copyright policy is described in Clause 7 of the IEEE SA Standards Board Bylaws and Clause 6.1 of the IEEE SA Standards Board Operations Manual;
- Any material submitted during standards development, whether verbal, recorded, or in written form, is a Contribution and shall comply with the IEEE SA Copyright Policy;
- Instruct the Secretary to record in the minutes of the relevant meeting:
- That the foregoing information was provided and that the copyright slides were shown (or provided beforehand).

IEEE SA STANDARDS ASSOCIATION

◆IEEE   2

IEEE SA COPYRIGHT POLICY

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.

- Previously Published material (copyright assertion indicated) shall not be presented/submitted to the Working Group nor incorporated into a Working Group draft unless permission is granted.

- Prior to presentation or submission, you shall notify the Working Group Chair of previously Published material and should assist the Chair in obtaining copyright permission acceptable to IEEE SA.

- For material that is not previously Published, IEEE is automatically granted a license to use any material that is presented or submitted.

IEEE SA STANDARDS ASSOCIATION

◈IEEE 3

IEEE SA COPYRIGHT POLICY

- The IEEE SA Copyright Policy is described in the IEEE SA Standards Board Bylaws and IEEE SA Standards Board Operations Manual

  - IEEE SA Copyright Policy, see
    Clause 7 of the IEEE SA Standards Board Bylaws
    https://standards.ieee.org/about/policies/bylaws/sect6-7.html#7
    Clause 6.1 of the IEEE SA Standards Board Operations Manual
    https://standards.ieee.org/about/policies/opman/sect6.html

- IEEE SA Copyright Permission
  - https://standards.ieee.org/content/dam/ieee-standards/standards/web/documents/other/permissionltrs.zip

- IEEE SA Copyright FAQs
  - http://standards.ieee.org/faqs/copyrights.html/
- IEEE SA Best Practices for IEEE Standards Development
  - http://standards.ieee.org/develop/policies/best_practices_for_ieee_standards_development_051215.pdf

- Distribution of Draft Standards (see 6.1.3 of the SASB Operations Manual)
  - https://standards.ieee.org/about/policies/opman/sect6.html

IEEE SA STANDARDS ASSOCIATION

IEEE

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Participant behavior in IEEE-SA activities is guided by the IEEE Codes of Ethics & Conduct

- All participants in IEEE-SA activities are expected to adhere to the core principles underlying the:
  - IEEE Code of Ethics
  - IEEE Code of Conduct

- The core principles of the IEEE Codes of Ethics & Conduct are to:
  - *Uphold the highest standards of integrity, responsible behavior, and ethical and professional conduct*
  - *Treat people fairly and with respect, to not engage in harassment, discrimination, or retaliation, and to protect people's privacy.*
  - *Avoid injuring others, their property, reputation, or employment by false or malicious action*

- The most recent versions of these Codes are available at http://www.ieee.org/about/corporate/governance

Approved by SASB in June 2019

Participants in the IEEE-SA "*individual process*" shall act independently of others, including employers

- The IEEE-SA Standards Board Bylaws require that "*participants in the IEEE standards development individual process shall act based on their qualifications and experience*"

- This means participants:
  - **Shall act & vote** based on their personal & independent opinions derived from their expertise, knowledge, and qualifications
  - **Shall not act or vote** based on any obligation to or any direction from any other person or organization, including an employer or client, regardless of any external commitments, agreements, contracts, or orders
  - **Shall not direct** the actions or votes of other participants or retaliate against other participants for fulfilling their responsibility to act & vote based on their personal & independently developed opinions

- By participating in standards activities using the "*individual process*", you are deemed to accept these requirements; if you are unable to satisfy these requirements then you shall immediately cease any participation

Approved by SASB in June 2019

IEEE-SA standards activities shall allow the fair & equitable consideration of all viewpoints

- The IEEE-SA Standards Board Bylaws (clause 5.2.1.3) specifies that "*the standards development process shall not be dominated by any single interest category, individual, or organization*"
  - This means no participant may exercise "*authority, leadership, or influence by reason of superior leverage, strength, or representation to the exclusion of fair and equitable consideration of other viewpoints*" or "*to hinder the progress of the standards development activity*"

- This rule applies equally to those participating in a standards development project and to that project's leadership group

- Any person who reasonably suspects that dominance is occurring in a standards development project is encouraged to bring the issue to the attention of the Standards Committee or the project's IEEE-SA Program Manager

Approved by SASB in June 2019

IEEE P802.3dm Approved Project Documents

- ## PAR

  - https://ieee802.org/3/dm/P802.3dm_PAR.pdf

- ## 5 Criteria

  - https://mentor.ieee.org/802-ec/dcn/24/ec-24-0074-00-ACSD-p802-3dm.pdf

- ## Objectives

  - https://www.ieee802.org/3/ISAAC/public/0324/Objectives_ISAAC_01_0324.pdf

Bold items are fixed. other times are approximate, and the meeting will progress faster if possible.

Presentations

Start Time CDT	Title	Presentation Author(s) and Affiliation(s)
13h15	Agenda and general business	Jon Lewis, Dell Technologies
Presentations		
13h40	Crystal less operation of a TDD PHY	Hiok Tiaq Ng [Aviva Links Inc], et-al
14h10	Emission profiles of FDD and TDD PHYs	Hiok Tiaq Ng, Aviva Links Inc, et-al
14h40	Electromagnetic immunity test results of a TDD PHY	Kamal Dalmia – Aviva Links Tiaq Ng – Aviva Links Conrad Zerna - Aviva Links
15h15	Break	
15h50	Proposed text for RL & IL limits (v2)	Rohit Sharma (Molex) Rich Boyer (Aptiv)
16h10	Understanding Propagation Delay in IEEE 802.3dm: System Implications and Trade-offs	TJ Houck - Marvell
16h40	Updated Maximum Link Segment Delay Considerations	Steve Gorshe - Microchip Technology
17h00	End of day business	Jon Lewis, Dell Technologies
18h30	EA Social – see calendar or QR code	

Bold items are fixed. other times are approximate, and the meeting will progress faster if possible.

Presentations Day 2

Start Time CDT	Title	Presentation Author(s) and Affiliation(s)
08h00	Agenda and general business	Jon Lewis, Dell Technologies
08h20	Evolution of 802.3dm: From GMSLE to ACT and Beyond	TJ Houck - Marvell Jay Corado - ADI
08h40	Receiver Design Targets for an Asymmetric Camera PHY Link	Ahmad Chini - Broadcom corporation Mehmet Tazebay - Broadcom corporation
09h10	Complexity and Performance Comparison of 802.3dm Architecture Proposals	Ahmad Chini - Broadcom corporation Mehmet Tazebay - Broadcom corporation
09h40	Summary of PCS/PMA Logic for ACT/GMSLE Transceiver	William Lo (Axonne Inc)
10h00	Break	
10h30	ACT/GMSLE Training Frame	Alireza Razavi - Marvell
11h00	Transmit Power in ACT/GMSLE	Hossein Sedarat - Ethernovia
12h15	Lunch	
13h15	Baseline Text Proposal for TDD-Based 802.3dm PHY Baseline Text	Wei Lou – Broadcom Ahmad Chini – Broadcom Mehmet Tazebay - Broadcom
15h15	Break	
15h45	Updated ACT/GMSLE draft text proposal Baseline Text	Ragnar Jonsson – Marvell Jay Cordaro – ADI Hossein Sedarat – Ethernovia William Lo – Axonne
17h00	Modulation Independent Baseline Text	Ragnar Jonsson - Marvell
17h30	End of day business	Jon Lewis, Dell Technologies

Break

Resume at ??:?? CDT

Motion

- M:
- S:
- Technical >= 75%

Next meeting

- July 802 plenary – Madrid, Spain (July 27- Aug 1)
  - In-person with remote access on a best effort basis
    - See https://www.ieee802.org/3/interims/index.html for information
    - Registration Fee Required

- Meeting coordinates: https://www.ieee802.org/3/calendar.html

Thank You!