IEEE 802.3 Ethernet for Automotive Imaging Sensors (ISAAC) Study Group PAR & CSD Comments Received

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COMMENTS FROM 802.11

802.3dm - Amendment: Asymmetrical Electrical Automotive Ethernet, PAR and CSD

Note that https://mentor.ieee.org/802-ec/dcn/24/ec-24-0014-01-00EC-draft-ieee-p802-3dm-par.pdf is on the 802 "PARs to review" page, but Mentor has r3 (and is on the NesCom Agenda). We reviewed R3.

5.2.b change "The scope of this project is to specify additions to and appropriate modifications of IEEE Std 802.3 to add Physical Layer specifications and management parameters for electrical media and operating conditions optimized for automotive end-node camera links for operation up to 10 Gb/s in one direction and with a lower data rate in the other direction." to

"~~The scope of this~~ This ~~project is to specify~~ specifies additions to and appropriate modifications of IEEE Std 802.3 to add Physical Layer specifications and management parameters for electrical media and operating conditions, that are optimized for automotive end-node camera links for operation up to 10 Gb/s in one direction and with a lower data rate in the other direction.

Proposed response to 802.11 PAR Scope

- Since item 5.2.b of the PAR is 'Scope of the project', and since the resulting amendment can have a scope less than or equal to the scope of the approved PAR, we believe that “The scope of this project is to specify …” is correct.
- We accept the addition of “that are” (removing the comma, to be grammatically correct) as suggested.
- This results in a PAR scope that reads:
- The scope of this project is to specify additions to and appropriate modifications of IEEE Std 802.3 to add Physical Layer specifications and management parameters for electrical media and operating conditions that are optimized for automotive end-node camera links for operation up to 10 Gb/s in one direction and with a lower data rate in the other direction.

802.3dm - Amendment: Asymmetrical Electrical Automotive Ethernet, PAR and CSD

5.2.b Is this statement too specific. Is the specification restricted to only "automotive end-node camera links " or is it any asymmetric end-node link? Other places in the PAR are not specific to the "camera links".

Proposed response to 802.11

- The project will be optimized for automotive end-node cameras; however, there are other adjacent markets that will see benefits from this project. Building & industrial automation and biomedical applications were specifically brought up during discussions and added as examples of those adjacent applications.

COMMENTS FROM 802.1

PAR Comment

PAR

- 5.5 Need for the Project:
  - Are constraints on complexity and power the only operating conditions that will be evaluated in this project?
- 5.6 Stakeholders for the Standard:
  - The scope of the project is specifically tailored to automotive applications. Building & industrial automation and biomedical applications are included as stakeholders, but don't appear to fit within the current scope. Why are these stakeholders included?

Proposed Response to PAR Comment for 802.1

- 5.5: Although power and complexity are conditions that must be met to achieve success in the automotive market, there are additional factors, including alignment with other IEEE 802 standards and incorporation into that ecosystem, that must be considered.
- 5.6: The project will be optimized for automotive end-node cameras, however, there are other adjacent markets that may see benefits from this project as mentioned in the CSD responses.

CSD Comment

CSD

- Slide 4: Broad Market Potential
  - Broad Sets of Applicability
    - 10 Gb/s data rate is stated in 5.2.b of the PAR and “gigabit rates” are stated here. Please align with scope.
    - The PAR scope appears to be narrowly applied to automotive applications. Bullet point 3 refers to other applications. Please align with scope.

Proposed Response to CSD Comment for 802.1

- Bullet point 1: Specifying “up to 10 Gb/s” in the PAR scope allows the project to address data rates such as 2.5 Gb/s, 5.0 Gb/s, and 10 Gb/s. Therefore, the CSD responses mention “gigabit rates”.
- Bullet point 2: The PAR scope states, “optimized for automotive end-node cameras”, which does not restrict use. Interest has been expressed for use in other “market-adjacent” applications, as reflected in the CSD responses.

No Comments from 802.15

PAR and CSD Review by 802.15 SCM

- **802.1 PARs and CSDs**
  - 802.1ASeb - Amendment: Optional Use of Announce , PAR and CSD
    - No comments
- **802.3 PARs and CSDs**
  - 802.3dm - Amendment: Asymmetrical Electrical Automotive Ethernet, PAR and CSD
    - No comments