Why the ISAAC PAR Should Not Preclude 25 Gbps

Natalie Wienckowski

In-Vehicle Networking Solutions

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PAR Text Proposals - 1

[Current Draft PAR](#) 5.2B: Physical Layer specifications and management parameters for electrical media and operating conditions optimized for automotive end-node cameras for operation up to 25 Gbps in one direction and with a lower data rate in the other direction,

Benefits:

1. Allows 25 Gbps presentations and discussions

2. Enables PAR split if 25 Gbps is desired, but is found to be delaying the project

PAR Text Proposals - 2

September 28 proposal by me in [email to reflector](): Physical Layer specifications and management parameters for electrical media and operating conditions for applications in the automotive environment for Multi Gbps operation in one direction and 1 Gbps or less in the other direction

Benefits:

1. Allows 25 Gbps presentations and discussions

2. Enables PAR split if 25 Gbps is desired, but is found to be delaying the project

Issues:

1. Opens discussion to speeds beyond 25 Gbps

2. Opens the projects to speeds not yet available in Electrical Automotive Ethernet PHYs

PAR Text Proposals - 3

Physical Layer specifications and management parameters for electrical media and operating conditions optimized for automotive end-node cameras for operation up to 10 Gbps in one direction and with a lower data rate in the other direction,

Benefits:

1. May allow a faster project completion

Issues:

1. Forbids greater than 10 Gbps presentations and discussions

PAR Text Proposals Comparison

	10 Gbps allowed	10 Gbps required	≤ 25 Gbps allowed	> 10 Gbps required	> 25 Gbps allowed	>25 Gbps required
Proposal 1 (25 Gbps)	yes	no	yes	no	no	no
Proposal 2 (No specific speed)	yes	no	yes	no	yes	no
Proposal 3 (10 Gbps)	yes	no	no	no	no	no

The PAR can **exclude** options, but it does not **require** anything.

Current SG state

There is considerable support for including 25 Gbps in the PAR and Objectives

[November Plenary Straw Poll](#)

Straw Poll #3: I would support the following paths forward (Chicago Rules):	Results:
A. Include 25Gbps in the PAR and the Objectives	26/58 (45%)
B. Include 25Gbps in Objectives, but PAR does not contain fixed rate limits for fast direction	24/58 (41%)
C. Include 25Gbps in the PAR, but not the Objectives	21/58 (36%)
D. Exclude 25Gbps from both the PAR and the Objectives	17/58 (29%)
E. Abstain	13/58 (22%)

- 25 Gbps support, e.g. voted for A, B, and/or C: 34/58 (58%), could reach 75% with some abstain voters switching ((34+13)/58 = 81%)
- 10 Gbps only support, e.g. voted for D, cannot reach 75% with all abstains added ((17+13)/58 = 51%)

Project Documents Approval

	802.3 SG/TF	802.3 WG	802 Stds. Committee	NesCom / SASB
PAR	✅	✅	✅	✅
CSD	✅	✅	✅	
Objectives	✅	✅		

Path to SG Approved Project Documents by February 6, 2024

- Most likely option for an approved PAR in the SG
  - Include 25 Gbps in the PAR, preferably option 1
- Objectives
  - These are easy to change as they only require SG/TF and 802.3 WG
  - A 25 Gbps Objective can be added after project approval
  - A 25 Gbps Objective can be deleted after project approval

Wienckowski – IEEE802.3 ISAAC SG v2