

IEEE P802.3cz Multi-Gigabit Optical Automotive Ethernet Division of Work

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802.3 Virtual Plenary
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Task Force Omnibus Motion (22 Feb)

Motion to support and adopt division of Multi-Gigabit Optical Automotive Ethernet work into two projects per watanabe_3cz_01g_220222.pdf and direct the TF Chair to prepare project documents consistent with this presentation for March plenary consideration.

In addition, adopt Chief Editor's draft (Chief_Editor_proposes technically_complete_draft.pdf) as P802.3cz/D1.3 and request that P802.3cz/D1.3 be submitted for March plenary WG preview.

Passed by unanimous consent.

“PAR split” Status

- Division of work documents submitted for consideration (48-hour rule)
 - Available on P802.3cz public area web page on 22 Feb:
https://www.ieee802.org/3/cz/public/15_feb_2022/index.html
 - Announced to 802.3 on 23 Feb:
https://www.ieee802.org/3/email_dialog/msg01296.html
 - Announced to LMSC 802 Executive Committee on 23 Feb
<https://www.ieee802.org/secmail/msg27001.html>
 - Announced to 802.3, 9 Mar correction to P802.3dh objectives
 - Mr. Law will submit PARs to NesCom by 17 March for 27 April NesCom consideration

“PAR split” documents

- A side by side comparison of the current P802.3cz project documents to the proposed P802.3cz modification and proposed P802.3dh project documents:
https://www.ieee802.org/3/cz/public/15_feb_2022/watanabe_3cz_01g_22022_2.pdf
- Mr. Law’s 802.3 announcements of document availability:
<https://www.ieee802.org/3/private/email/msg02540.html>
https://www.ieee802.org/3/email_dialog/msg01296.html
- Corrected P802.3 objectives announced on 802.3 dialog and 802.3 reflectors, and posted to P802.3cz March meeting page:
<https://www.ieee802.org/3/private/email/msg02548.html>

Objectives

P802.3cz changes

- Reach/rate objectives changed to “graded-index glass optical fiber”
- 50 Gb/s reach increased to 40m

P802.3dh

- Based on P802.3cz current objectives
- Reach/rate objectives specify “graded-index plastic optical fiber”
- Rates include 2.5 Gb/s, 5 Gb/s, 10 Gb/s, and 25 Gb/s
- Number of connections reduced

Motion #2

Move that the IEEE 802.3 Working Group approve the IEEE P802.3cz Objectives modifications, as per https://ieee802.org/3/cz/public/15_feb_2022/grow_3cz_01g_PARsplit-g/grow_03g_P802d3cz-mod-Objectives_200222.pdf.

M: R. Grow

S: S. Swanson

Technical

Passed by unanimous consent

Motion #3

Move that the IEEE 802.3 Working Group approve the IEEE P802.3dh Objectives, as per https://www.ieee802.org/3/cz/public/mar_2022/grow_06h_P802d3dh-Objectives_20200309.pdf.

M: R. Grow

S: Y. Watanabe

Technical

Y: 84, N: 5, A: 28 Passed

CSD – Managed Objects

P802.3cz changes

- Somehow, response went missing on CSD stored in EC archive.
- Added 802.3 generic response

P802.3dh

- 802.3 generic response

CSD – Coexistence

P802.3cz changes

- No change to 802.3 generic response

P802.3dh

- 802.3 generic response

CSD - Broad Market Potential

P802.3cz changes

- Broad sets of applicability
 - No changes
- Multiple vendors and users
 - Updated language for individual participation

P802.3dh

- Broad sets of applicability
 - Include reference to TF presentations
 - Address market for 15 m links
- Multiple vendors and users
 - Uses updated language for individual participation

CSD - Compatibility

P802.3cz changes

- No changes

P802.3dh

- Copy P802.3cz

CSD – Distinct Identity

P802.3cz changes

- “a single PHY for each rate and link reach using graded-index glass optical fiber”

P802.3dh

- “a single PHY for each rate and link reach using graded-index plastic optical fiber”

CSD – Technical Feasibility

P802.3cz changes

- Reliability
 - No change
- Component vendors
 - Updated language for individual participation

P802.3dh

- Reliability
 - New text for plastic fiber
- Component vendors
 - Includes updated language for individual participation

CSD – Economic Feasibility

P802.3cz changes

- No change

P802.3dh

- Add language including P802.3cz TF presentations

Motion #4

Move that the IEEE 802.3 Working Group approve the modified IEEE P802.3cz CSD “Managed Objects”, “Coexistence”, “Broad Market Potential”, “Compatibility”, “Distinct Identity”, “Technical Feasibility”, and “Economic Feasibility” responses, as per <<https://mentor.ieee.org/802-ec/dcn/22/ec-22-0038-00-00EC-draft-ieee-p802-3cz-csd-modification.pdf>>

M: R. Grow

S: S. Swanson

Technical

Y: 105, N: 1, A: 12 Passed

Motion #5

Move that the IEEE 802.3 Working Group approve the IEEE P802.3dh CSD “Managed Objects”, “Coexistence”, “Broad Market Potential”, “Compatibility”, “Distinct Identity”, “Technical Feasibility”, and “Economic Feasibility” responses, as per <<https://mentor.ieee.org/802-ec/dcn/22/ec-22-0036-00-00EC-draft-ieee-p802-3dh-csd.pdf>>

M: R. Grow

S: Y. Watanabe

Technical

Y: 94, N: 5, A: 16 Passed

PAR (1)

P802.3cz modification

- 2.1 Title: “using graded-index glass optical fiber”
- 4.2, 4.3 Dates: Plus 8 months
- 5.1 Participants: no change
- 5.2.b Project Scope: “using graded-index glass optical fiber”

P802.3dh

- 2.1 Title: “using graded-index plastic optical fiber”
- 4.2, 4.3 Dates: P802.3cz new dates plus 15 months
- 5.1 Participants: 30
- 5.2.b Project Scope: “using graded-index plastic optical fiber”

PAR (2)

P802.3cz modification

- 5.3 Contingent: no change
- 5.5 Need: update for current state of IEEE Std 802.3 Automotive Ethernet
- 8.1 Additional Notes: Note added for 5.2.b explaining reason for modification.

P802.3dh

- 5.3 Contingent: Yes, IEC 60793-2-40
- 5.5 Need: account for current state of IEEE Std 802.3 Automotive Ethernet, plus P802.3cz
- 8.1 Additional Notes: Note to 5.3 with additional information on contingency.

Comments on PARs (802.3 voters)

- P802.3cz, 2.1 Title – “Standard for Ethernet Amendment: Standard for EthernetAmendment:”
Replace with “Standard for Ethernet Amendment:”
 - Accept.
- P802.3dh, 2.1 Title: “IEEE Standard for Ethernet Amendment: Standard for EthernetAmendment:”
Replace with “Standard for Ethernet Amendment:”
 - Accept.
- P802.3cz, P802.3dh, 5.5 Need – Two sentences missing at end of Need from what the TF approved.
Add: “The number of cameras in vehicles is increasing as is the camera data rate with movement to higher resolution video. Optical data links are applicable to both the vehicle network backbone as well as connection of selected devices where location or other factors favor using an optical link.”
 - Accept.

Motion #6

Move that the IEEE 802.3 Working Group approve the IEEE P802.3cz PAR, <https://mentor.ieee.org/802-ec/dcn/22/ec-22-0039-00-00EC-draft-ieee-p802-3cz-par-modification.pdf> as modified by slide 19 of 0310_P802d3cz_01b_PAR-split.pdf.

M: R. Grow

S: S. Swanson

Technical

Y: 114, N: 2, A: 6 Passed

Motion #7

Move that the IEEE 802.3 Working Group approve the IEEE P802.3dh PAR, <https://mentor.ieee.org/802-ec/dcn/22/ec-22-0037-00-00EC-draft-ieee-p802-3dh-par.pdf> as modified by slide 19 of 0310_P802d3cz_01b_PAR-split.pdf, and changing the two undated instances of “IEC 60793-2-40” with “IEC 60793-2-40:2021”.

M: R. Grow

S: Y. Watanabe

Technical

Y: 88, N: 4, A: 21 Passed

Thank you