

IEEE 802.3 motions

IEEE 802 EC Teleconference
Thursday 28th May 2020

ME 5.021 New PAR: IEEE P802.3cy Greater than 10 Gb/s Electrical Automotive Ethernet

IEEE P802.3cy Greater than 10 Gb/s Electrical Automotive Ethernet

Title

Standard for Ethernet Amendment: Physical Layer Specifications and Management Parameters for greater than 10 Gb/s Electrical Automotive Ethernet

Scope of project

Specify additions to and appropriate modifications of IEEE Std 802.3 to add greater than 10 Gb/s electrical Physical Layer specifications for symmetrical and asymmetrical operation and management parameters for media and operating conditions for applications in the automotive environment.

Need

Automotive in-vehicle networks have begun the transition from legacy electronic architectures (domain-based) to zonal architectures using Ethernet links to support fully autonomous operation. This has generated a need for data rates greater than 10 Gb/s in the automotive environment. IEEE Std 802.3 does not currently support rates greater than 10 Gb/s in the automotive environment.

IEEE P802.3cy Greater than 10 Gb/s Electrical Automotive Ethernet

Motion

Approve forwarding IEEE P802.3cy PAR documentation in <https://mentor.ieee.org/802-ec/dcn/20/ec-20-0008-07-00EC-ieee-p802-3cy-draft-par-response.pdf> to NesCom

Approve CSD documentation in <https://mentor.ieee.org/802-ec/dcn/20/ec-20-0009-04-00EC-ieee-p802-3cy-draft-csd-response.pdf>

M: Law, S: D'Ambrosia

Y: ??, N: ?, A: ?

Working Group vote

PAR: Y: 112, N: 1, A: 3

CSD: Y: 109, N: 0, A: 1

ME 5.022 New PAR: IEEE P802.3cz Multi-Gigabit Optical Automotive Ethernet

IEEE P802.3cz Multi-Gigabit Optical Automotive Ethernet

Title

Standard for Ethernet Amendment: Physical Layer Specifications and Management Parameters for Multi-Gigabit Optical Automotive Ethernet

Scope of project

Specify additions to and appropriate modifications of IEEE Std 802.3 to add Physical Layer specifications and management parameters for multi-gigabit optical Ethernet for application in the automotive environment.

Need

Applications in automotive industries have begun the transition of legacy automotive networks to Ethernet to support Advanced Driver Assist Systems. This has generated a need for data rate greater than 1 Gb/s in the automotive environment. Optical fiber has been used in automotive applications both for Ethernet and other protocols. This project will complement other 802.3 projects working on specifications for electrical media operation at rates greater than 1 Gb/s in the automotive environment.

IEEE P802.3cz Multi-Gigabit Optical Automotive Ethernet

Motion

Approve forwarding IEEE P802.3cz PAR documentation in <https://mentor.ieee.org/802-ec/dcn/20/ec-20-0010-01-00EC-ieee-p802-3cz-draft-par-response.pdf> to NesCom

Approve CSD documentation in <https://mentor.ieee.org/802-ec/dcn/20/ec-20-0011-02-00EC-ieee-p802-3cz-draft-csd-response.pdf>

M: Law, S: D'Ambrosia

Y: ??, N: ?, A: ?

Working Group vote

PAR: Y: 113, N: 0, A: 2

CSD: Y: 104, N: 1, A: 2

ME 5.023 New PAR: IEEE P802.3da Enhancement of 10 Mb/s Operation over Single Balanced Pair Multidrop Segments

IEEE P802.3da Enhancement of 10 Mb/s Operation over Single Balanced Pair Multidrop Segments

Title

IEEE Standard for Ethernet Amendment: Physical Layer Specifications and Management Parameters for Enhancement of 10 Mb/s Operation over Single Balanced Pair Multidrop Segments

Scope of project

Specify additions and modifications of the Physical Layer (including reconciliation sublayers), management parameters, Ethernet support for time synchronization protocols, and optional power delivery supporting multiple powered devices on the 10 Mb/s mixing segment.

Need

Many applications in building, industrial, and transportation industries have begun the transition from legacy non-Ethernet networks to Ethernet. A number of these applications require enhancements to 10Mb/s multidrop single balanced pair networks, e.g., larger multidrop topologies, power delivery, TSSI (Time Synchronization Service Interface). These enhancements will increase the applications addressed by this technology.

IEEE P802.3da Enhancement of 10 Mb/s Operation over Single Balanced Pair Multidrop Segments

Motion

Approve forwarding IEEE P802.3da PAR documentation in <https://mentor.ieee.org/802-ec/dcn/20/ec-20-0012-06-00EC-ieee-p802-3da-draft-par-response.pdf> to NesCom

Approve CSD documentation in <https://mentor.ieee.org/802-ec/dcn/20/ec-20-0013-02-00EC-ieee-p802-3da-draft-csd-response.pdf>

M: Law, S: D'Ambrosia

Y: ??, N: ?, A: ?

Working Group vote

PAR: Y: 96, N: 0, A: 6

CSD: Y: 80, N: 2, A: 2

ME 5.024 New PAR: IEEE P802.3db 100 Gb/s, 200 Gb/s, and 400Gb/s Operation over Optical Fiber using 100 Gb/s Signaling

IEEE P802.3db 100 Gb/s, 200 Gb/s, and 400Gb/s Operation over Optical Fiber using 100 Gb/s Signaling

Title

Standard for Ethernet Amendment: Physical Layer Specifications and Management Parameters for 100 Gb/s, 200 Gb/s, and 400 Gb/s Operation over Optical Fiber using 100 Gb/s Signaling

Scope of project

This project specifies additions to and appropriate modifications of IEEE Std 802.3 and adds Physical Layer specifications and management parameters for 100 Gb/s, 200 Gb/s, and 400 Gb/s Ethernet optical interfaces for server attachment and other intra-data center applications using 100 Gb/s signaling over optical fiber.

Need

Rapid growth of server, network, and internet traffic is driving the need for higher data rates, higher density, lower cost fiber optic solutions, including the shortest links in the data center such as server-attachment. To address these needs, advances in technology now enable the specification of 100 Gb/s, 200 Gb/s, and 400 Gb/s Physical Layer types operating over optical interconnects using 100 Gb/s signaling. IEEE Std 802.3 does not currently define operation over multimode fiber using 100 Gb/s signaling.

IEEE P802.3db 100 Gb/s, 200 Gb/s, and 400Gb/s Operation over Optical Fiber using 100 Gb/s Signaling

Motion

Approve forwarding IEEE P802.3db PAR documentation in <https://mentor.ieee.org/802-ec/dcn/20/ec-20-0014-01-00EC-ieee-p802-3db-draft-par-response.pdf> to NesCom

Approve CSD documentation in <https://mentor.ieee.org/802-ec/dcn/20/ec-20-0015-00-00EC-ieee-p802-3db-draft-csd-response.pdf>

M: Law, S: D'Ambrosia

Y: ??, N: ?, A: ?

Working Group vote

PAR: Y: 88, N: 0, A: 1

CSD: Y: 85, N: 0, A: 2