

Objectives Proposed Changes

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

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

- Preserve the IEEE 802.3/Ethernet frame format at the MAC client service interface
- Preserve minimum and maximum frame size of the current IEEE 802.3 standard
- Support full duplex operation only
- Define optional startup procedure which enables the time from power_on=FALSE to a state capable of transmitting and receiving valid data to be less than 100ms
- Support a BER better than or equal to 10⁻¹² at the MAC/PLS service interface (or the frame loss ratio equivalent)
- Support a data rate of 25 Gb/s, ~~50 Gb/s and 100 Gb/s~~ at the MAC/PLS service interface
- Support optional Auto-Negotiation
- Support optional Energy Efficient Ethernet optimized for automotive applications
- Support operation in automotive environments (e.g., EMC, temperature)
- Do not preclude meeting FCC and CISPR EMC requirements

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

- Define the performance characteristics of an automotive link segment and an electrical PHY to support 25 Gb/s point-to-point operation over this link segment supporting up to 2 inline connectors for at least 11 m on at least one type of automotive cabling
- ~~• Define the performance characteristics of an automotive link segment and an electrical PHY to support 50 Gb/s point-to-point operation over this link segment supporting up to 2 inline connectors for at least 11 m on at least one type of automotive cabling~~
- ~~• Define the performance characteristics of an automotive link segment and an electrical PHY to support 100 Gb/s point-to-point operation over this link segment supporting up to 2 inline connectors for at least 11 m on at least one type of automotive cabling~~
- Support optional Clause 104 power over data lines on appropriate media

Thank You!