

Adopted Objectives

Approved by 802.3 WG 16 March 2017

1. Preserve the IEEE 802.3/Ethernet frame format at the MAC client service interface
2. Preserve minimum and maximum frame size of the current IEEE 802.3 standard
3. Support full duplex operation only
4. 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
5. Support data rates of 2.5 Gb/s, 5 Gb/s and 10 Gb/s at the MAC/PLS service interface.
6. Support a BER better than or equal to 10⁻¹² at the MAC/PLS service interface (or the frame loss ratio equivalent)
7. Support optional Auto-Negotiation
8. Support optional Energy Efficient Ethernet
9. Support operation in automotive environments (e.g., EMC, temperature)
10. Do not preclude meeting FCC and CISPR EMC requirements.

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11. Define the performance characteristics of an automotive link segment and an electrical PHY to support 2.5 Gb/s point-to-point operation over this link segment supporting up to four inline connectors for at least 15m on at least one type of automotive cabling (e.g., UTP, STQ, STP, SPP, Coax, or Twinax).
12. Define the performance characteristics of an automotive link segment and an electrical PHY to support 5 Gb/s point-to-point operation over this link segment supporting up to four inline connectors for at least 15m on at least one type of automotive cabling.

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13. Define the performance characteristics of an automotive link segment and an electrical PHY to support 10 Gb/s point-to-point operation over this link segment supporting up to four inline connectors for at least 15m on at least one type of automotive cabling.
14. Support optional Clause 104 power over data lines on appropriate media.