

Objectives

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Approved Objectives

- Support the IEEE 802.3/Ethernet frame format at the MAC client service interface
- Support the minimum and maximum frame size of the current IEEE 802.3 standard
- Support operation in automotive environments (e.g., EMC, temperature)
- Do not preclude meeting FCC and CISPR EMC requirements.
- Do not preclude power delivery over balanced and unbalanced link segments
- 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 100 ms

Approved Objectives

- Define performance characteristics of link segments suitable for use with automotive balanced-pair cabling and automotive unbalanced coaxial cabling supporting use of up to 4 inline connectors and up to at least 15m reach on at least one type of automotive cabling.
- Define an electrical PHY to support up to 10 Gbps data rate point-to-point operation in one direction and up to 100 Mbps point-to-point operation in the other direction over the defined balanced-pair link segment.
- Define an electrical PHY to support up to 10 Gbps data rate point-to-point operation in one direction and up to 100 Mbps point-to-point operation in the other direction over the defined unbalanced coaxial link segment.
- Define an electrical PHY to support up to 5 Gbps data rate point-to-point operation in one direction and up to 100 Mbps point-to-point operation in the other direction over the defined balanced-pair link segment.
- Define an electrical PHY to support up to 5 Gbps data rate point-to-point operation in one direction and up to 100 Mbps point-to-point operation in the other direction over the defined unbalanced coaxial link segment.

Approved Objectives

- Define an electrical PHY to support up to 2.5 Gbps data rate point-to-point operation in one direction and up to 100 Mbps point-to-point operation in the other direction over the defined balanced-pair link segment.
- Define an electrical PHY to support up to 2.5 Gbps data rate point-to-point operation in one direction and up to 100 Mbps point-to-point operation in the other direction over the defined unbalanced coaxial link segment.

Potential Objectives – Page 1

- Support optional auto-negotiation
- Support optional energy-efficient ethernet optimized for automotive applications
- Define the performance characteristics of an automotive link segment supporting up to four inline connectors for at least 11m on both automotive coax and shielded balanced pair media and an electrical PHY to support up to 10 Gb/s point-to-point operation over this link segment in one direction and up to 100 Mb/s in the other direction over the link segment.

Objective for Discussion

- Define a reconciliation sublayer (including any necessary client primitives) to coordinate the PHY's speed capabilities with the MAC's operation
- Other Objectives??