

Objectives

Jon Lewis

Dell Technologies

23 January 2024

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.