

Objectives as adopted September Interim, 2015

2.5 Gb/s and 5 Gb/s Ethernet over Backplane and
Copper Cable

CU4HDD Study Group

Objectives

- Support MAC data rates of 2.5 Gb/s and 5 Gb/s
- Support full duplex operation only
- Preserve the 802.3 Ethernet frame format utilizing the 802.3 MAC
- Preserve minimum and maximum Frame Size of current 802.3 standard
- Support Auto-Negotiation (Clause 73)
- Support optional Energy-Efficient Ethernet operation.

Objectives

- Support a BER better than or equal to $10E-12$ at the MAC/PLS service interface (or the frame loss ratio equivalent)
- Define a single lane 2.5 Gb/s PHY that supports operation over defined 2.5 Gb/s backplane and twinaxial copper cable channels.
- Define a single lane 5 Gb/s PHY that supports operation over defined 5 Gb/s backplane and twinaxial copper cable channels