IEEE P802.3cb CU4HDD 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.

- Support a BER better than or equal to 10^{-12} at the MAC/PLS service interface (or the frame loss ratio equivalent)

- Define a PHY for 2.5 Gb/s operation over a printed circuit board backplane ~~and/or twinaxial copper cable~~ with total channel insertion loss of <= 11 dB at 1.5625 GHz

- Define a PHY for 5 Gb/s operation over a printed circuit board backplane ~~and/or twinaxial copper cable~~ with total channel insertion loss of <= ~~15~~ 16 dB at ~~3~~ 2.578125 GHz