Adopted & Approved Objectives: 25 Gb/s Ethernet over a single lane for server interconnect

Approved by 802.3 WG and 802 EC at Nov 2014 Interim meeting
Adopted and approved Objectives

• Support a MAC data rate of 25 Gb/s
• Support full-duplex operation only
• Preserve the Ethernet frame format utilizing the Ethernet MAC
• Preserve minimum and maximum FrameSize of current IEEE 802.3 standard
• Support a BER of better than or equal to $10^{-12}$ at the MAC/PLS service interface (or the frame loss ratio equivalent)
• Support optional Energy-Efficient Ethernet operation
• Define a single-lane 25 Gb/s PHY for operation over a printed circuit board backplane consistent with channels specified in IEEE Std 802.3bj-2014 Clause 93
• Define a single-lane 25 Gb/s PHY for operation over links consistent with copper twin axial cables, with lengths up to at least 3m
• Define a single-lane 25 Gb/s PHY for operation over links consistent with copper twin axial cables, with lengths up to at least 5m
• Define a single-lane 25 Gb/s PHY for operation over MMF consistent with IEEE P802.3bm Clause 95
• Provide appropriate support for OTN