

40GE SMF SG Objectives

Note: these objectives are currently approved by the study group and are pending approval from the 802.3 Working group in March 2010 plenary meeting.

- Preserve the IEEE 802.3 / Ethernet frame format utilizing the IEEE 802.3 MAC
- Preserve minimum and maximum FrameSize of current IEEE 802.3 standard
- Support a BER better than or equal to 10^{-12} at the MAC/PLS service interface
- Support a MAC data rate of 40 Gb/s
- Use the 40GBASE-R PCS and PMA
- Use only existing electrical and logical interfaces from IEEE Std 802.3 as modified by IEEE P802.3ba
- Provide Physical Layer specification which support 40 Gb/s operation over at least 2 km on SMF.
- Provide optical compatibility with existing carrier 40Gb/s client interfaces (OTU3/STM-256/OC-768/40G POS).