Super-PON Objectives

IEEE 802.3 Working Group

Super-PON

Objectives

- Preserve the Ethernet frame format utilizing the Ethernet MAC
- Support a BER of better than or equal to 10⁻¹² at the MAC/PLS service interface (or the frame loss ratio equivalent)
- Support a passive point-to-multipoint ODN with a reach of at least 50 km with a 1:64 split ratio
- Support optical amplification located in the central office near the OLT for both downstream and upstream operations
- Support at least 16 wavelengths for TDMA PON operations
- Support the MAC data rate of 10Gb/s downstream
- Support the MAC data rates of 2.5Gb/s and 10Gb/s upstream
- Leverage existing EPON PCS and PMA to support the above MAC data rates
- Support fixed and tunable laser implementations