

Approved P802.3ca Objectives

- ❑ Support subscriber access networks using point-to-multipoint topologies on optical fiber
- ❑ Provide Physical Layer specifications that
 - Operate over a single SMF strand
 - Support symmetric and/or asymmetric MAC data rates of:
 - 25 Gb/s in downstream and 10 Gb/s or 25 Gb/s in upstream (25G-EPON)
 - 50 Gb/s in downstream and 10 Gb/s, 25 Gb/s, or 50 Gb/s in upstream (50G-EPON)
 - Have a BER better than or equal to 10^{-12} at the MAC/PLS service interface (or the frame loss ratio equivalent)
 - Support coexistence with select legacy PON technologies
 - Optical power budgets to accommodate channel insertion losses equivalent to PR20 and PR30, as defined in Clause 75.
 - Wavelength allocation allowing concurrent operation with 10G-EPON, XG-PON1, and XGS-PON PHYs (1575nm-1580nm downstream, 1260nm-1280nm upstream)
 - Wavelength allocation allowing concurrent operation of 25G-EPON and G-PON reduced wavelength set (1480nm-1500nm downstream, 1290nm-1330nm upstream) PHYs