

Potential Objectives for 200GMMF Study Group

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4 September 2025

IEEE 802.3 200 Gb/s per Wavelength MMF PHYs Study Group Ad Hoc Meeting

Overview

- Potential Objectives for 200GMMF SG for discussion and consensus building
- Based on discussions with multiple individual experts
- Based on the contributions for 4 September SG ad hoc meeting
- Based on Objectives from .3db, .3df, and .3dj
- Target is for SG to approve Objectives during 17 September SG interim meeting

Potential Objectives (1 of 3)

- **Non-Rate Specific**

- 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^{-13} at the MAC/PLS service interface (or the frame loss ratio equivalent)
- Provide support to enable mapping over OTN

Potential Objectives (2 of 3)

- **200 Gb/s Related**

- Support a MAC data rate of 200 Gb/s
- Define a physical layer specification that supports 200 Gb/s operation:
 - over 1 pair of MMF with lengths up to at least 10 m
 - over 1 pair of MMF with lengths up to at least 30 m
 - over 1 pair of MMF with lengths up to at least 50 m

- **400 Gb/s Related**

- Support a MAC data rate of 400 Gb/s
- Define a physical layer specification that supports 400 Gb/s operation:
 - over 2 pairs of MMF with lengths up to at least 10 m
 - over 2 pairs of MMF with lengths up to at least 30 m
 - over 2 pairs of MMF with lengths up to at least 50 m

Potential Objectives (3 of 3)

- **800 Gb/s Related**

- Support a MAC data rate of 800 Gb/s
- Define a physical layer specification that supports 800 Gb/s operation:
 - over 4 pairs of MMF with lengths up to at least 10 m
 - over 4 pairs of MMF with lengths up to at least 30 m
 - over 4 pairs of MMF with lengths up to at least 50 m

- **1.6 Tb/s Related**

- Support a MAC data rate of 1.6 Tb/s
- Define a physical layer specification that supports 1.6 Tb/s operation:
 - over 8 pairs of MMF with lengths up to at least 10 m
 - over 8 pairs of MMF with lengths up to at least 30 m
 - over 8 pairs of MMF with lengths up to at least 50 m