

# SPMD Study Group

## Draft Objectives

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# Objectives (1)

1. Define performance characteristics of a mixing segment with a single balanced pair of conductors supporting up to at least **16** nodes, for up to at least **50m** reach
2. Add support for the mixing segment to 10BASE-T1S
3. Maintain a bit error ratio (BER) at the MAC/PLS service interface of less than or equal to  $10^{-10}$  on the mixing segment
4. Support addition of a node or set of nodes to an operating mixing segment without **significant(??) impact** on the data transmission on the mixing segment.

# Objectives(2)

1. Specify increased node count for the PLCA RS
2. Specify an optional PLCA node ID allocation method
3. Support interoperability with Clause 147 multidrop
4. Support optional Time Synchronization Service Interface (TSSI)
5. Select a single mandatory MDI connector for this project
6. Specify improvements for Energy Efficient Ethernet

# Objectives(3)

1. Specify optional plug-and-play power distribution over the mixing segment
2. PSE shall only energize the mixing segment when at least one PD is connected
3. Support addition of a node or set of nodes to an operating powered mixing segment without bringing down the power on the mixing segment.
4. Support optional standby PSE functionality

# Thank You!