

IEEE P802.3da Objectives

1. Define performance characteristics of a mixing segment for 10Mb/s multidrop single balanced pair networks supporting up to at least 16 nodes, for up to at least 50m reach.
2. Maintain a bit error ratio (BER) at the MAC/PLS service interface of less than or equal to 10^{-10} on the new mixing segment.
3. Specify an optional PLCA node ID allocation method
4. Support interoperability with Clause 147 multidrop
5. Support optional Time Synchronization Service Interface (TSSI)
6. Select a single MDI connector

IEEE P802.3da Objectives - continued

7. Specify improvements for Energy Efficient Ethernet compared to current 10Mb/s multidrop single balanced pair networks
8. Support operation in the noise environments for building, industrial, and transportation applications
9. Specify optional plug-and-play power distribution over the mixing segment
10. PSE shall only energize the mixing segment when at least one PD is connected
11. Support addition/**removal** of a node or set of nodes to a continuously operating powered mixing segment