

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. Define a PHY which supports backward compatibility with Clause 147 PHYs on Clause 147 compliant mixing segments

IEEE P802.3da Objectives - continued

5. Support optional Time Synchronization Service Interface (TSSI)
6. Specify required electrical and mechanical characteristics for connection methods necessary to achieve communications and powering objectives that allows multiple connector types
7. Support energy efficient operation for 10Mb/s single balanced pair multidrop networks
8. Support operation in the noise environments for building, industrial, and transportation applications

IEEE P802.3da Objectives - continued

9. Specify optional plug-and-play power distribution over the mixing segment
10. Define a method to detect at least one MPD before applying full operating power
11. Specify device characteristics necessary to enable addition and/or removal of a node or set of nodes to a powered mixing segment with a bounded interruption