

## 1 Twisted Pair 100 Mbit/s Ethernet Objectives

- Support 100 Mb/s operation in automotive environments (e.g. EMC, temperature).
- Preserve the IEEE 802.3/Ethernet frame format at the MAC client service interface.
- Preserve minimum and maximum frame size of the current IEEE 802.3 standard.
- Support full duplex operation only.
- Support a speed of 100 Mbit/s at the MAC/PLS service interface.
- Maintain a bit error ratio (BER) of less than or equal to  $10^{-10}$  at the MAC/PLS service interface.
- Do not preclude the ability to survive automotive fault conditions (e.g. shorts, over voltage, EMC, ISO16750)
- Support fast-startup operation using predetermined configurations which enables the time from power\_on=FALSE to valid data to be less than 100ms and optional operation with run-time configuration.
- Support of optional speed discovery for one pair systems (→ work for 1000BASE-T1, CFI required)
- Operation clock (accuracy, jitter???)