



IEEE802.3 Study Group ... 10gig Twisted-Pair Copper

Title: System Requirements for Twisted-Pair

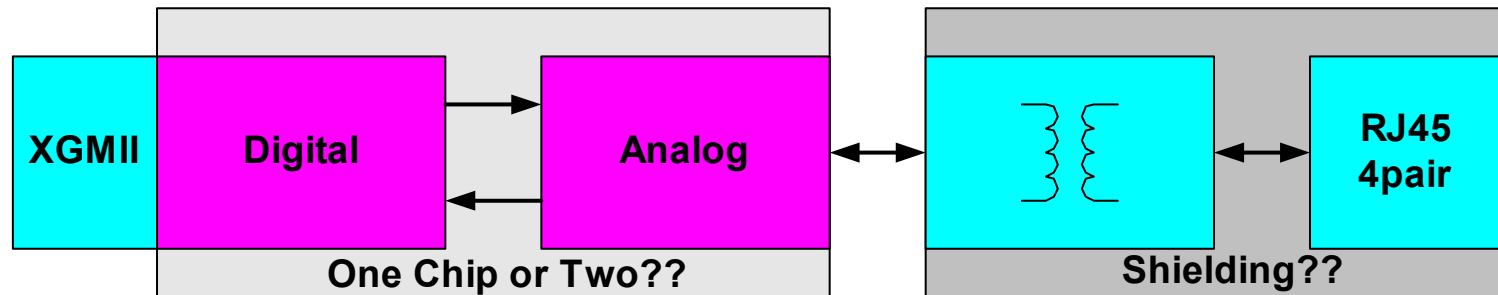
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Abstract: This presentation lists systems-level requirements for a 10gig twisted-pair interface.

System Level Overview

-single channel 10Gigabit TP



Requirements

- Coding
 - Open to most implementations.
 - Prefer something that will allow frame extension \geq 16Kbytes.
- Cable
 - 0 to 100m
 - Cat5/cat5E (std connection 1/2,3/6,4/5,7/8)
- Testing
 - Favor specifying Channel model and transmitter.
 - Actual requirement is for a method to easily diagnose Link Failure for the end customer (TX, Channel, or RX).
- Agency
 - FCC A / CE with up to 8 individual ports on a line card.
 - Layout is not likely to be a quad RJ45 connector.
 - Explore NEBS.

Requirements – cont.

- Favor single chip solution, but open to define an interface between the digital and analog components for two chip solution.
- Favor electrical requirements that allow for both integrated and non-integrated magnetics within the connector to allow for NEBS or other agency compliance (Lightning and power cross).
- Allow for 750mil pair to pair length difference, 50mil within the pair, and possible connector for plug-able interface (from the Magnetic to the chip).