IEEE P802.3bp Task Force Closing Report

IEEE 802.3 Ethernet Working Group
Steven B. Carlson
High Speed Design, Inc.
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Orlando, FL

Reflector and Web

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Progress this week

- Met Tuesday and Wednesday morning
- ~40 people in the room
- Heard 12 presentations from link segment and EMC ad hocs
- Link segment (testing1-pair CAT6A-like link segment)
 - Analyzed IL for 23-32 AWG stranded wire
 - 26-27 AWG reported as desirable by survey respondents
 - Analyzed IL as a function of temperature at 15 and 40m up to 125C
 - Further test fixture reports including UNH-IOL correlation
 - Focus on real-work topologies as reported in January by BMW
 - Presentations on industrial cable and EMC

Progress this week

- EMC ad hoc
 - Common mode noise on automotive data line test results from Daimler
 - An excellent start---but we need much more data from automotive OEMS!
 - Simulation work on EMC susceptibility
 - EMC road map
 - Color-coded
 - Green (OK, have information)
 - Yellow (need information, possible problem)
 - Red (need information, problem)
 - Doing better—less red than before, but still too much yellow!

Progress this week

- Current work is on 1-pair UTP "CAT6A-like" channel
- May 2013-Victoria BC Interim
 - Refine customer requirements for
 - Electro-Magnetic Emissions and Susceptibility
 - Length, insertion loss
 - 26 AWG stranded (target)
 - 125 C (target)
 - BMW has committed to gathering this information from the OEMS for May
- July 2013-Geneva Plenary
 - Determine if there is a modulation scheme on 1-pair UTP that will meet the performance target
 - If not, move to 1-pair STP investigation and 2-pair UTP investigation
 - STP will likely solve EMC problems, but is not the optimum customer solution
 - May have a mix of UTP and STP deployments in vehicle—this is done now

Thank you!