
IEEE 802.3ap Signaling Ad Hoc

IEEE 802.3ap Task Force
August 2004

Signaling Ad Hoc Topics - 1

Simulation

- Is there a common sim platform?
 - Matlab? Hspice? Other?
 - StatEye-like script
- Channel ad hoc spec usage in simulations
 - Channel ad hoc defines link between TP1 and TP4
 - Define component edge to TP1, TP4 to component edge
 - Depends on *exact* TP1 and TP4 location
 - Incorporation of channel loss/reflections
 - Incorporation of NEXT/FEXT
- Additional considerations?

Signaling Ad Hoc Topics - 2

Signaling Candidates

- Current proposals: NRZ, PAM4, Duobinary (PR2)
- Are there others?
- Signaling & equalization proposals must be connected
- Test Patterns
 - PCS and line code dependent

Signaling Ad Hoc Topics - 3

Solution Comparison

- BER and Reach performance
- Robustness (how do we measure this?)
- RFI/EMI considerations
- Compatibility with 4-lane (10Gb) and serial GbE

Signaling Ad Hoc *NON-TOPICS*

- Implementation-specific requirements (ESD, etc)
- Specific training and power-up requirements
- Controls and OOB signaling requirements

Meeting Schedule

- Thursday, August 5 (8:00AM PDT)
 - Signaling ad hoc introduction
 - Discuss initial work items for group
- Monday, August 23 (8:00AM PDT)
 - Solution comparison criteria
 - Definition of link model, test points, and test patterns
- Thursday, September 2 (8:00AM PDT)
 - Define sections of the link model not covered by the channel ad hoc
 - Channel simulation model draft - for early sims
 - Review NEXT / FEXT considerations (definition of aggressors)
- Thursday, September 16 (8:00AM PDT)
 - Finalize channel simulation models for studied
 - Use data from channel model ad hoc when available
 - Run sims and report results.