

**Meeting Minutes**  
**IEEE P802.3bq Channel Model Ad Hoc**  
**September 18th, 2013**  
**Prepared by Pete Cibula and Brad Booth**

**Meeting Agenda:**

- 1) Roll call - Record attendance, attendees' names and affiliations
- 2) Reminder of IEEE patent policy: [www.ieee802.org/3/patent.html](http://www.ieee802.org/3/patent.html)
- 3) Houskeeping: Placeholder, the house is pretty clean right now.
  - a) Approve August 21<sup>st</sup> meeting minutes (minutes are located [here](#))
- 4) New business for the September 18<sup>th</sup> ad hoc meeting as follows:
  - a) Channel Modeling ad hoc sub-team updates with discussion
    - i) MDI-to-MDI cabling channel (C. DiMinico and W. Larsen) – Update on MDI-to-MDI cabling channel efforts with discussion
    - ii) PCB transmission lines & noise for 10GBASE-T systems (B. Booth and P. Cibula) - Update on data collection on PCB transmission lines and noise for 10GBASE-T systems with discussion.
    - iii) MDI & isolation path (M. Grimwood and G. Zimmerman) – Update on data collection for MDI and isolation path with discussion.
  - b) New contributions with discussion
- 5) General Discussion and meeting wrap-up
  - a) Review action items from the September 18<sup>th</sup> meeting
  - b) Suggestions for future presentations
  - c) Next steps/future meetings

**The 7<sup>th</sup> meeting of the P802.3bq Channel Modeling Ad Hoc was called to order at 8:05 AM Pacific Time.**

- 1) The agenda was reviewed with those in attendance; no modifications were suggested and the agenda was approved without opposition. The agenda stands approved.
- 2) Participants were asked to email B. Booth or P. Cibula a note confirming their attendance. The attendance record at the bottom of these minutes is a compilation of email confirmations and an online meeting log.
- 3) P. Cibula reminded everyone of the patent policy. Those not familiar with it were directed to the URL above.
- 4) Approval of August 21<sup>st</sup> meeting minutes: Co-chair Brad Booth previously posted meeting minutes for the August 21<sup>st</sup> channel modeling ad hoc meeting; no modifications or corrections were suggested and the minutes were approved without opposition.

- 5) The meeting was then opened to hear new business for the September 18<sup>th</sup> ad hoc meeting as follows:
- a) Channel Modeling ad hoc sub-team updates
    - i) MDI & isolation path (M. Grimwood and G. Zimmerman)
      - (1) Discussion focused around our Action Item from the P802.3bq Task Force Chair for models for 40G optimized, 10G/40G and 1G/10G/40G magnetics. The subteam plans to have 16 port measurements ready for the November meeting showing sufficient OCL to support 40Gb speeds.
      - (2) Participants asked several questions about issues associated with supporting multiple speeds (40Gb vs. 40Gb/10Gb vs. 40Gb/10Gb/1Gb), variability over temperature, bias currents, interoperability and associated OCL values; further discussion was deferred until the upcoming contribution(s) are submitted and reviewed by participants.
    - ii) PCB transmission lines & noise for 10GBASE-T systems (B. Booth and P. Cibula).
      - (1) It was noted that PSNEXT plots in the host trace channel overview presented at the York meeting were incorrect; the contribution has been [updated](#) to correct the PSNEXT plots. Note that there is no change to the corresponding s-parameter files. Next steps for this effort will be to evaluate the effects of variations in channel impedance using 90 ohm and 110 ohm targets, followed by investigations that consider alternate routings and vias.
      - (2) Participants asked some questions associated with the host trace channel, including clarifying whether the file represents measurements or a mathematical model (A: Model based on lab measurements that have been correlated to the model) and whether the model has been checked for stability, causality, and passivity (A: Checked for causality and passivity). The discussion closed with a suggestion that submitters continue to use appropriate methodologies and engineering wisdom to evaluate the quality of submitted s-parameter models.
    - iii) MDI-to-MDI cabling channel (C. DiMinico and W. Larsen).
      - (1) Channel measurements are ongoing and the subteam indicated that there is a good chance for an update at the next channel ad-hoc meeting.
  - b) Closing discussion – The co-chairs reviewed the ad hoc’s Action Item from the York Interim “MDI champions of channel modeling ad hoc to request models for 40G optimized, 10G/40G and 1G/10G/40G magnetics” and believe that the ongoing work of the MDI and isolation path subteam outlined above will address that request.
- 6) The next meeting was scheduled for Wednesday, October 2<sup>nd</sup>, 2013 at 8:00AM PDT.

**The P802.3bq Channel Modeling Ad Hoc meeting was adjourned at 8:29 AM Pacific Daylight Time.**

## Meeting Attendance

Name	Employer	Affiliation (if different)
Brad Booth	Microsoft	
Brian Buckmeier	Bel Fuse (Please confirm, thx!)	
Dave Chalupsky	Intel	
Pete Cibula	Intel	
Harry Forbes	Nexans	
Robert Fransen	Panduit	
Mike Good	Nexans	
Mike Grimwood	Broadcom	
Wayne Larsen	Commscope	
Rich Mellitz	Intel	
Arturo Pachon	TE Connectivity	
Shachi Paithankar	Intel	
Victor Renteria	Bel Fuse (Please confirm, thx!)	
Martin Rossbach	Nexans	
Ray Schmelzer	Intel	
Dominik Schweizer	R&M	
Sterling Vaden	OCP	
Paul Vanderlaan	Nexans	
Bob Wagner	Panduit	
Peter Wu	Marvell	