MMF Ad Hoc meeting minutes

19th Dec 2013

Approved minutes

recorded by jonathan king

MMF ad hoc meeting minutes, 19th Dec. 2013

- **Meeting started** at 9 am Pacific, chaired by Jonathan King.
- **Attendee list** was taken from the Webex attendee list, 21 attendees were noted.
- **Presentations** shared in the MMF ad hocs can be found at the MMF ad hoc web page.
  - *http://www.ieee802.org/3/bm/public/mmfadhoc/meetings/index.html*
- **IEEE patent policy:** Attendees were reminded of the IEEE patent policy
  - *http://www.ieee802.org/3/patent.html*
- **House keeping:** Agenda slides were agreed, and the minutes for the MMF meetings of 24th Oct and 6th Nov 2013 were approved.
- **Presentations:**
  - 'Draft 100G SR4 TDP update' – John Petrilla
  - 'Modal Noise update' – Petar Pepeljugoski
- **Discussion:**
  - John presented spreadsheet model results on the effect of not including an allowance for fibre bandwidth reduction introduced by chromatic dispersion in the restricted bandwidth TDP test receiver: The TDP test receiver bandwidth would increase to 16.21 GHz, and TDP max limit would reduce to 4.08 dB. In discussion, there was some disagreement over whether this is the best way for 802.3bm to define TDP. Mike Dudek and Piers Dawe agreed to work offline to agree what should be included in the TDP test. John also showed that spreadsheet modeling seems to show that the trade-off of RIN and Tx rise time for constant TDP would not necessarily ensure link integrity. John introduced an alternative to the TDP test which uses a Tx mask at TP2, with proposed mask coordinates and hit ratio, similar to the Fibre Channel test. Piers said he would like to confirm John's work independently (and n ot using the same spreadsheet model. Another option put forward during the meeting was to add a RIN spec to catch bad transmitters. It was agreed that more study of the an alternative to TDP was needed.

  - continued …..

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- **Discussion** continued :
  - Petar presented a summary of statistical modeling of 100GBASE-SR4 links with modal noise calculations. He showed that using the worst case specs in the 100GBASE-SR4 reference model, that no link (out of ~16000 modeled links) had BER above 5e-5.
  - Jonathan asked what the modal loss was. Petar said there was a distribution of modal loss determined by the connector offset distribution, and that he would show that in an update. Piers asked if it would be possible to model another one or two cases at different 'just compliant' SR4 spec corners. Petar offered to do so, and Piers, Mike Dudek and Petar would work offline to agree what these should be.
  - Jonathan asked if 'following the adoption of BER< 1e-13, should 802.3bm adjust the link model and specs to allow the use of four 100GBASE-SR4 PMDs as a 400GBASE-SR16 PMD ?' John Petrilla said that that the current Q target (3.89) used in the link model already accommodated a BER of better than 1e-13 after RS FEC correction.

- **Meeting ended** at 10.55 am.
- **Next meeting:** Thursday Jan 9th, 2014 , 9 am to 10.30 am

Attendees

David Brown, Semtech
Robert Coenen, Intel
Piers Dawe, Mellanox
Patrick Decker, Oracle
Dan Dove, independent
Mike Dudek, Qlogic
Galen Fromm, Cray
Ali Ghiasi, independent
Jonathan King, Finisar
Paul Kolesar, Commscope
Brett Lane, Panduit
David Langsam, Samtec
Andy Moorwood, Infinera
Dale Murray, Lightcounting
Petar Pepeljugoski, IBM
John Petrilla, Avago Technologies
Rick Pimpinella, Panduit
Randy Rannow, APIC
Mike Ressl, Hitachi Cable
Pirooz Tooyserkani, Cisco
Eric Zbiden, Samtec