MMF Ad Hoc meeting minutes

20th December 2012

Approved minutes
recorded by Jonathan King

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- Meeting started at 8:35 am Pacific, chaired by Jonathan King.
- Attendee list was taken from the Webex attendee list, ~30 attendees were noted.
- **Presentations** shared in the MMF ad hoc 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
- Agenda slides were agreed; two additional topics were noted for discussion if time permitted: FEC and latency, suggested by Paul Kolesar prompted by recent discussion on the reflector; FEC, BER and FER - Pete Anslow is working on an updated slide set.
- Meeting minutes for 29th Nov and Dec 13th: Jonathan asked if anyone had amendments to the unapproved minutes for the 29th November and 13th December meetings. No comments or changes were raised, so the minutes are approved by the MMF ad hoc.
- Presentations and discussion:
 - Jonathan King Ref Tx and TDP: showed that a reference Tx which just meets a scaled version of the Clause 52 specs is expected to have appreciable eye closure, which should be accounted for in TDP measurements.
 - During discussion, Pete Anslow said clause 52 is clear that any Ref Tx VECP should be accounted for; John Petrilla and Jonathan said that the description of TDP is spread over several sections and could be improved upon for clarity. Ali Ghiasi and Mike Dudek suggested that TDP could be defined as an eye amplitude at the output of a simulated fibre, similar to CEI-28G-VSR, for example as a software filter in a 'scope, which would avoid the issue of having to build a Ref Tx.

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Discussion, continued

- John Petrilla 100G 100m MMF TDP: John presented updated link modeling results, revised for a target Q consistent with BER of 5x10⁻⁵ and jitter budget accounted from TP1 to TP4, for the 100m reach PMD, including a 5 dB TDP value and revised reach of 106 m.
- During discussion, Piers Dawe said he would like to verify, through independent simulation, the 5 dB TDP value, since it sounded high compared to 3.9 dB for 10GBASE SR. Comments from others said that chromatic dispersion penalty is not included in the 10GBASE-SR TDP value, and that the worst case penalty for 10GBASE-SR is close to 5 dB.
- FEC and latency: A brief discussion concluded that a contribution is needed which quantifies the importance/value of latency from a system level perspective.
- FEC, BER and FER: Pete Anslow said he is working on a contribution which will address a
 description for the error statistics required at the PMA service interface in order to meet
 the required FER.

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- Actions and issues requiring resolution:
 - A contribution is needed which quantifies the importance/value of latency from a system level perspective.
 - A description of the error statistics required at the PMA service interface in order to meet the required FER is expected to be part of a future contribution from Pete Anslow.
 - A PIC statement will also be needed to describe the PMA service interface BER requirement and error statistics.
 - 802.3bm will also need to define a normative test to guarantee system operation
 - If defined, should the 20m reach PMD be compatible with the 100m PMD?
 - Further contributions addressing options for 20m MMF reach objective, showing significant cost density or power improvements
- Next meeting: Thursday 10th January, 2013, 8.30 am Pacific, duration 1.5 hours
 Webex meeting details are shown on the last slide

Attendees

Pete Anslow, Ciena Murat Arabaci, Juniper Kevin Burt, Samtec Derek Cassidy, BT Dave Chalupsky, Intel Piers Dawe, IPtronics Dan Dove, Applied Micro Mike Dudek, Qlogic Ali Ghiasi, Broadcom Hioroshi Hamano, Fujitsu Adam Healey, LSI Jack Jewell, independent Jonathan King, Finisar Paul Kolesar, Commscope Sharon Lutz, US Conec

Jeffery Maki, Juniper Marco Mazzini, Cisco Phil McClay, TE Connectivity Dale Murray, LightCounting John Petrilla, Avago technologies Randy Perrie, Onechipphotonics Rick Pimpinella, Panduit Rick Rabanovich, Alcatel-Lucent Adee Ran, Intel Michael Ressl, Brian Teipen, Nathan Tracy, TE Paul Vanderlaan, Nexans Hiroki Yanagisawa,

Webex details

- Start: 8.30am Pacific, 4.30pm GMT, 1.5 hours duration
- Webex meeting number: 599 824 734
- Meeting password: IEEE
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- To join the meeting go to
 - https://finisar.webex.com/finisar/j.php?J=592272448&PW=NYWY4OTVhYTAy
 - 2. If requested, enter your name and email address.
 - 3. Enter the meeting password: IEEE
 - 4. Click "Join".
 - 5. Follow the instructions that appear on your screen.
- Teleconference information
 - Call-in toll-free number: 1-8666545792 (US)
 - Show global numbers:
 https://www.tcconline.com/offSite/OffSiteController.jpf?cc=9805136069
 - Conference Code: 980 513 6069