## MMF Ad Hoc meeting minutes

13<sup>th</sup> June 2013
Approved minutes
recorded by Jonathan King

## MMF ad hoc meeting minutes, 13th June 2013 ... 1

- Meeting started at 9 am Pacific, chaired by Jonathan King.
- Attendee list was taken from the Webex attendee list, ~25 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 agreed following addition of a presentation from Jack Jewell.
- **Meeting minutes for 30<sup>th</sup> May**: When asked, no objections were made to approving the 30<sup>th</sup> May meeting minutes, so they are approved by the MMF ad hoc.
- **Presentation 1:** Extended wavelength MMF update—Jack Jewell -*jewell\_01\_0613\_mmf.* Jack summarized feedback from Fibre Channel and Ethernet so far on the proposal for extended wavelength receivers, and modeling results showing that a 950 nm VCSEL could support 100m reach on OM4.
- **Discussion:** The modal bandwidth of OM4 at 950nm and 1060nm, and the anticipated performance of longer wavelength (eg 950nm) VCSELs was discussed. Jonathan said the performance of product worthy 950nm VCSELs was unknown, and that the cost/benefit of adding an extended wavelength Rx spec to P802.3bm should be understood and the proposal supported by system vendors. Mike Dudek asked if the introduction of longer wavelength VCSELs would be blocked if extended wavelength range was not specified in 802.3bm. There were several questions about which Ethernet applications would benefit from compatibility between 25Gb/s 850nm VCSELs and 50Gb/s longer wavelength VCSELs. The involvement of system vendors and fibre/cable makers was generally agreed to be important to the discussion.

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- Presentation 2: Draft text for TDP test for Clause 95 working document prepared by Jonathan King (an action item from last weeks call) with proposed TDP test definition referencing clause 52, with list of appropriate exceptions.
- Discussion: Mike Dudek said that reference transmitter rise/fall times of less than 12ps should be added to the list of exceptions. John Petrilla said TDP should be measured with +/- 0.11 UI decision offset from the centre of the eye to be consistent with the link budget analysis; he hopes to present updated SRS and TDP values next week. Piers asked for a plot of TDP vs decision offset.
- Presentation 3: A working document starting to look at text for the SRS test for Clause 95 prepared by Jonathan King was not reviewed due to lack of time.
- Meeting ended at 10.30am
- Actions and issues requiring resolution:
  - Contributions addressing the 100m MMF reach objective TBD items
    - John Petrilla said he hoped to have a presentation next week to update SRS and TDP values.
    - Jonathan said he'd distribute the revised TDP draft text on the reflector for further review.
    - Jonathan said he'd also distribute the working document for the SRS test on the reflector, for comments prior to review in MMF ad hoc.
    - Proposals for alternative SRS test and TDP test are invited.
- Next meeting: 20<sup>th</sup> June 2013, 9am to 10.30 Pacific

## **Attendees**

Pete Anslow, Ciena Dave Brown, Semtech Canada Kevin Burt, Samtec Wheling Cheng, Rob Coenen, Reflex Photonics Piers Dawe, Iptronics Dan Dove, Applied Micro Mike Dudek, Qlogic Ali Ghiasi, Broadcom Jack Jewell, Commscope Jonathan King, Finisar Paul Kolesar, Commscope Chuang Liang,

Marco Mazzini, Cisco John Petrilla, Avago Technologies Rick Rabinovich, Alcatel-Lucent Michael Ressl, Hitachi Cable Jeff Slavik, Avago Technologies Matt St Peter, Radisys Andre Szczepanek, Inphi Pirooz Tooyserkani, Cisco Nathan Tracy, TE Connectivity Alan Ugolini, US Conec Paul Vanderlaan, Berk-Tek CK Wong, FCI