MMF Ad Hoc meeting minutes

14th August 2014

Unapproved minutes 1a

recorded by jonathan king

MMF ad hoc meeting minutes, 14th August 2014

- **Meeting started** at 9 am Pacific, chaired by Jonathan King.
- **Attendee list** was taken from the Webex attendee list, 12 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:** The agenda was amended and approved at the start of the meeting. Minutes of 3rd,10th, and 24th July, were approved.
- **Presentations and discussion points:**
  - Draft changes to SRS sections – MMF ad hoc working document maintained by Jonathan King
    - Change marked draft of Clause 95 with proposed changes to make TxVEC the primary metric of the stressed receiver conformance test signal.
  - Discussion topics:
    - Clock recovery unit (CRU) use – Mike Dudek
    - Other SRS items – Piers Dawe
    - Need for eye diagram for SRS test signal – Mike Dudek
- **Discussion:**
  - The group reviewed the proposed changes to the SRS sections of Clause 95.
  - For measuring TxVEC of the stressed receiver conformance test signal, setting M to zero (in equation 95-4) was discussed but not decided upon. A revised version of the agreed proposed changes to SRS will be loaded onto the MMF ad hoc materials page.
  - **continued…..**

MMF ad hoc meeting minutes, 14th August 2014

- **Discussion continued…..**
  - CRU use vs clean clock for SRS calibration was discussed: There was consensus to describe use of a CRU for measurements of TxVEC, J2 and J4, but refer to the use of a clean clock for calibration of low frequency SJ, and to replace 'clean clock' with 'CRU' in the SRS test configuration shown in Figure 95-5.
  - The need for an eye mask test for the SRS test signal was discussed: There was no consensus to remove it from the draft yet because it was felt that using TxVEC as the measure of SRS test source stress was not yet validated by experiment, and so the eye mask test would act as a back stop to prevent over stressing of the receiver.
  - Piers presented some simulated eyes which showed that low-pass filtering (to contribute 2/3 of the TxVEC in dB) created substantially more VECP than the link model predicts for worst case bits, and that it was not possible to simultaneously meet TxVEC and J2 and J4 specs. Reducing the fraction of TxVEC that needed to be created by the low pass filter was discussed, so was changing the TxVEC target value . Piers is planning to continue his work to help resolve this issue.
  - Note: Attached list of items needing comments against daft 3.1 , and items for further consideration in the MMF ad hoc (next slide) has been updated.
- **Meeting ended** at 11.05am
- **Next meetings:** 21st August , 9am to 11am Pacific

MMF ad hoc meeting minutes, 14th August 2014

- Noted items that will require a comment against D3.1:
  - Section 95.7.2, need to modify *note d* under Table 95-7 to be consistent with using the TxVEC target value as the main metric of the stressed receiver conformance signal.
  - Section 95.8.5.2, amend text describing patterns for measuring Pave and histograms to include 'Using one of the patterns specified in Table 95-10, measure…' to be clear that P_{ave}, crossing points, and the histograms, are all measured with the same test pattern.
  - Section 95.8.5.2, change 'outer boundary of the histogram.' to 'outer boundary of the histogram window.'
  - Section 95.8.5.5, note a) against Table-95-xx , change 'sine' to 'sinusoidal'.
  - Section 95.8.8.2, need to modify the fifth indented paragraph describing the iteration of adjustable features, to be consistent with using TxVEC target value as the main metric of the stressed receiver conformance signal, and point to other changes needed for consistency, as shown in king_02_0814_optx
  - Table 95-13 should have a corresponding PICS entry.
  - 95.12.4.5 Comment needed to make IEC hazard level requirement consistent.
  - Section 95.8.8.4 change 'implementor' to 'implementer' (needs to be done for the whole of 802.3 via revision project)
  - Table 95-10, in 'TxVEC of stressed receiver conformance test signal calibration' row, replace '3 or 5' with '3, 5, or valid 100GBASE-SR4 signal'
  - Comment needed to make eye safety hazard class consistent throughout the draft.
- For consideration in MMF ad hoc :
  - Different (more descriptive) name for TxVEC ?
  - Should 100GBASE-SR4 signals be allowed for TxVEC measurements ?
  - What is the appropriate IEC hazard level for 100GBASE-SR4 ?
  - Check reference receiver noise assumptions in clause 86.
  - Review of the value of the Tx_OMA minus TDP vs min Tx_OMA (currently 0.9 dB for clause 95).
  - Review use of clean clock vs CRU for SRS calibration
    - Consensus to use CRU for measurement of TxVEC, J2 and J4, but refer to use of a clean clock for calibration of Low frequency SJ. Make comment to replace clean clock with CRU in SRS test in Figure 95-5, and refer to clean clock in appropriate text

Attendees

Pete Anslow, Ciena
Dave Brown, Semtech
Piers Dawe, Mellanox
Patrick Decker, Oracle
Dan Dove, Dove Networking Solutions/Huawei
Mike Dudek, Qlogic
Jonathan King, Finisar
Greg LeCheminant, Agilent
Jeff Maki, Juniper
Petar Pepeljugski, IBM
John Petrilla, Avago Tech
Nathan Tracy, TE