Report from "Statistical Eye" ad hoc

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Introduction

- See dawe_04_0708* for background
- In spite of its name, this ad hoc is not associated with OIF's StatEye
- Consensus of the ad-hoc phone calls (repeated from dawe_04_0708)
  - This ad hoc's subject is basic work that need to be done somewhere and feed into .3ba, so it might as well be in .3ba. Separate .3ba and SFP+ meetings would dilute the effort
  - Be sure that any implications for faster-than-10G lanes and multiple lanes are not forgotten
  - Don't attempt too much
    - We do not intend to tell the groups bringing in proposals what they should do, rather work with them when they have the basics in place. Don't become open ended or accepting all tasks, don't become a general-purpose physical lane ad hoc
  - **Straw poll, 17 participants**

    Continue as an ad hoc in .3ba?

    Yes; no disagreement, no abstains

* http://ieee802.org/3/ba/public/jul08/dawe_04_0708.pdf

Recent activity and the draft

- There have been no meetings of the Ad Hoc between Denver and Seoul
- Pre-draft 0.9 contains:

156.7.4.7 Eye diagrams

Eye diagrams can be used to assess both electrical and optical signals.

[Editor's note (to be removed prior to publication) - *Generic details of the eye mask measurement to be included here. This is being studied by the Statistical Eye Ad Hoc.**]***

158.8.8 Transmitter optical waveform (transmit eye)

[Editor's note (to be removed prior to publication) - *Details of the transmit eye mask measurement to be included here. This is being studied by the Statistical Eye Ad Hoc*

*Note: clause 158.8.5.3 refers to this clause for its reference receiver bandwidth requirement. Depending upon the results of the Statistical Eye Ad Hoc, this may or may not be appropriate.**]***

- And any future Clause 157 may use the ad hoc's output similarly

Next steps

(Same plan as in July)

1. Ensure the plan below is acceptable to being enacted as part of P802.3ba
2. Continue with engineering work and P802.3ba conference calls, using the SFP+ embodiment of Clause 52 PMDs (LR and SR) as case histories
3. Use above to decide how Clause 52 eye spec and measurement procedure can be improved
4. When P802.3ba PMD proposals are at that level of detail, apply same tools to define their mask specs and measurement procedure
    - This may be directed at optical or electrical scenarios depending on need and volunteer activity

Backup

(Same as in July)

It is desirable that any new mask spec take the channel into account

- For new PMDs, should work backwards from the receiver's needs through the channel to define a mask (or whatever) for the transmitter.

An eye mask could be the primary transmitter spec, or acting in concert with something else e.g. TDP or TWDP, or not used at all - depends what is chosen, PMD by PMD

For .3 maintenance, may be less channel-specific (e.g. presently have same mask for SR, LR and ER channels) as don't want to make unnecessary changes