

IEEE 802.3ba XR ad hoc Conference Call, 12 June 08

Meeting Notes

Chair: John Petrilla

Recording Secretary: none

Attendees: (partial list -did not capture all attendees)

Mike Dudek

John Jaeger

Herb Congdon

Mark Gustlin

Paul Kolesar

Jan Peeters Weem

Ali Ghiasi

Phil McClay

Frank Wang

Piers Dawe

John D'Ambrosia

Jeff Maki

Ee Sun (?spelling)

George Oulundsen

John Petrilla, the host and chair of the meeting, opened the meeting (phone conference) at 8:30 AM Pacific. John requested that all attendees send him an email to help him capture their names accurately.

John Petrilla asked if anyone was not familiar with the IEEE patent policy and encouraged everyone to review it. John also asked if any attendee had disclosures to make regarding essential patent claims covered by the IEEE policy. There were no responses.

John Petrilla proposed for the agenda, that the attendees review the contributions posted for the 12 June 08 meeting, starting with petrilla_xr_01_0608 to become familiar with the rows and columns of the comparison matrix and moving to kolesar_xr_01_0608 to discuss the contents and Paul Kolesar's additions. Discussion of oganessyan_xr_01_0608 would be deferred until Gourgen Oganessyan was available to speak to it. Paul Kolesar's suggestion that the agenda include a discussion of a link model by which the proposals could be compared on reasonably equivalent terms was accepted.

Presentation #1: XR Proposal Comparison by John Petrilla et al, see petrilla_xr_01_0612.pdf

John Petrilla presented the matrix, columns for proposals and rows for comparison criteria. The Ryan Latchman CDR proposal was split into two column to distinguish between cases where the CDRs are internal or external to the module. Questions were asked and comments made. In general the structure appeared acceptable but the contents of all cells are open to discussion.

Frank Wang and Ali Ghiasi described the cell content in the EDC column (heading: Replace limiting receivers with linear receivers and use EDC in host ICs). Questions were asked and comments made.

Presentation #2: XR Proposal Comparison edited by Paul Kolesar by Paul Kolesar, see kolesar_xr_01_0612.pdf

Paul Kolesar described the rows and cell content that he added. Questions were asked and comments made. The added criteria were acceptable.

Follow-up:

The following actions/clarifications were generated in the discussion of the above presentations.

- 1, The row, Creates 2nd MMF PMD?, will be changed to reflect if a different module is required.
- 2, A row will be added to capture the difference in fiber cost between OM3 and OM4.
- 3, All difference comparisons should be to the 100 m MMF baseline proposal, pepeljugoski_01_0508.

- 4, The row, Delta Module Power Consumption - two-sided, will be changed to capture the delta/lane for a single module
- 5, The row, Delta System Power Consumption - two-sided, will be changed to capture the delta/lane for a single host, e.g. line card.
- 6, Estimates of the power consumption delta and cost ratio for linear vs limiting receiver modules are requested.
- 7, There is no simple definition of what is "Apparent to installer?". Cell entries should not be a simple yes/no answer and instead describe how the installer can distinguish between a baseline module implementation and one supporting the extended reach.
- 8, The EDC proposal does not include a retimer with the optical Tx and uses the same Tx and TP1 jitter allocation as the 100 m MMF baseline.
- 9, The FEC column will be split to distinguish between cases where FEC encoding always occur and where not.
- 10, The row, Added parts, will be changed to Added parts/functions.
- 11, The row, Added gates, will be changed to Added gates/chip area.
- 12, A new row, Added impairment(s), will be added.
- 13, A new row, Inter-op with baseline modules and/or baseline host ICs? Will be added.
- 14, A new row Auto-negotiation needed? will be added.
- 15, A new row addressing error propagation will be added.
- 16, John Petrilla will consolidate matrix edits and cell entries, distribute/post and keep a master file.
- 17, Paul Kolesar will correspond with John D'Ambrosia regarding acceptable timeframe for completion of the xr ad hoc. There may be substantial value in a presentation of the comparative matrix to the larger 802.3ba body followed by a straw poll.

Next Steps:

New or previously suggested selection criteria include:

- a, Minimum reach for xr should be 200 m to 250 m. Using OM4 for this reach is acceptable.
- b, Solutions where modules are different are more acceptable than solutions where line cards are different.
- c, An installer should be able to readily determine if the extended reach is supported by a particular port on a given device.

Next meeting:

John Petrilla will host the next meeting (phone conference) on June 26 at the same time and with the same phone details. A meeting notice will be sent.