

SMF Ad Hoc report

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Activity I

The IEEE P802.3bs 400 Gb/s Ethernet Task Force SMF Ad Hoc has:

- Held two conference calls since the Atlanta meeting:
 - 2 February 2015 – 28 attendees
 - 24 February 2015 – 56 attendees
- Reviewed 8 presentations:
 - Big ticket items [anslow_01_0215_smf](#)
 - Review of BTIs generated at the Atlanta meeting.
 - Clarification of dispersion requirements for PAM-N 400Gb/s Ethernet SMF PMDs [stassar_01_0215_smf](#)
 - Provided the worst case dispersion limits for NRZ and PAM4 proposals
 - Chromatic Dispersion Tolerance of 400GbE DMT [tanaka_01_0215_smf](#)
 - Provided dispersion penalty measurements for DMT over 10 km.
 - Test plan for Big Ticket Items for PAM-4 400Gb/s SMF PMD [stassar_02_0215_smf](#)
 - Outlined the dispersion penalty test plan for 25 GBd PAM4 over 10 km

Activity II

- Evaluation of Worst Case Dispersion Penalty of 50Gb/s NRZ for 10 km [kojima_01_0215_smf](#)
 - Provided dispersion penalty measurements for 50 GBd NRZ over 10 km using EML sources.
- Big Ticket Items for 10km DMT [corbeil_01_0215_smf](#)
 - Presented simulations on Rx technical feasibility and dispersion penalty for DMT over 10 km.
- 100Gb/s/Lambda 2km PAM4 with KP4 FEC: System Modelling & The Big Ticket Items [tipper_01_0215_smf](#)
 - Provided simulations of dispersion and MPI penalties for 50 GBd PAM4 over 2 km.
- SMF PMD Modulation Observations [cole_01a_0215_smf](#)
 - Argued that “For SMF client interfaces, NRZ is the preferred choice unless it’s not feasible”
- Meeting minutes and presentations can be found at:
 - <http://www.ieee802.org/3/bs/public/adhoc/smf/index.shtml>

Big ticket items as discussed in SMF Ad Hoc

BTIs common to all proposals:

- Dispersion penalty worst case, TDP
- RX sensitivity / technical feasibility
- MPI
- More test results
- Evaluate Coupling between electrical and optical interfaces

BTIs for specific proposals

- 10 km, 2 km, 500 m 4 x 100 Gb/s DMT
 - Optical loss budget model
 - Interoperability
- 500m 4 x 50 GBd PAM4
 - Test results establishing acceptable BER curve

Going forward

On the 24 February 2015 SMF Ad Hoc call, all presenters were asked when the information in support of the BTI's on the previous page is expected to be available.

- All responses were that this information is expected to be available by the May 2015 interim at the latest

Consequently, further SMF Ad Hoc calls will be scheduled going forward.

Thanks!