

P802.3ae Interim Meeting, LAX, CA Oct 15-16, 2001

Opening, October 15, 2001

Jonathan Thatcher (JT)-agenda review

B. Grow-Reviewed clause editing reports. Standards timing update.

Piers Dawe-serial PMD, new link model overview, change for stressed receiver sensitivity to give same margin in stressed and unstressed sensitivity, account for deterministic jitter, model vs.reality-concern of jitter measurements

Ad Hoc Reports

Technical feasibility-definition and criteria review by JT.

10GBASE-L (1300nm serial) presented by Vipul Bhatt. Listed Finisar, Agilent and Hitachi Cable in report. Vipul mentioned that one of the vendors was added over the weekend. Test plan for Clause 52 reviewed, including link model assumptions (link distance and margin). Fall time was mentioned as a challenge for all three vendors. Summary: Able to support minimal link length of 10km with margin. Bruce Tolley asked about interoperability between the vendors. Short answer is yes, but not necessarily to the specifications as they currently exist. Straw man vote showed conditional acceptance.

10GBASELX4 (1300 WDM) presented by John Dallesasse (JD). Short summary: Inter-vendor demonstrated for all link distances and fiber types. Pointed out multiple suppliers of key components within the transceivers, in addition to the three transceiver manufacturers (Molex, Blaze Network Products, Pine Photonics). Reviewed intra-vendor testing. Demonstrated under "stressed" conditions. Closing summary: technical feasibility has been demonstrated. JT asked if there were any changes needed to the current draft to make the product more manufacturable. JD said he didn't think anything needed to be changed. Steve Haddock asked questions of jitter testing methodology. JT posed same straw man vote as done on 1300 serial, (split between conditional and complete acceptance w/ no non-acceptance.)

10GBASE-E, (1550nm) Presented by Richard Brand (RB). Nortel, Lucent and Intel. Interesting use of phone technology. Hand slapping rounds for all involved with the attempt. Reviewed 40km chromatic dispersion stress results. Intel-Nortel LAN rates. Lucent-Nortel WAN rates. Summary: 3 party multivendor interoperability to 11dB path loss demonstrated. RB recommended to modify PMD target to 11dB path loss. JT asked similar lines of questioning concerning the 1550 PMD as the pervious PMDs. JT pointed out that there were some 1300 serial results that appeared to have equal distances achieved to the 1550 devices. Bob Zona of Intel pointed out that longer links of fiber weren't tested and that there was excess margin of available that could have been used to extend beyond 40km. JT did the straw man vote. It appears that technical feasibility has been established per the straw man vote.

10GBASE-S (850 serial) presented by Jeff Bisberg. There wasn't any compliance testing with this report. Picolight and Ciello were the PMD vendors. Reviewed targeted operating distances. Distances achieved over the various fiber types. JT asked if it meets the IEEE requirements. Yes, some opportunity to drive down costs with tweaks in link model. JT asked about link length

improvements. Stefan Wurster questioned the validity of technical feasibility without the presentation showing any supporting test data. Dan Dove indicated similar concern over compliance claims. JT posed the straw man vote. 40% fell in the conditional, 20% not accepted, 1 vote for total acceptance.

Mark Fishburn-10GEA- Summary of technology demonstration at N+I.

Bruce Tolley, Cisco-The Customer Requirement for 10GBASE-LX4 Needs solution to support the 300m of installed MMF. Need LX4 to support enterprise infrastructure. Most 1000BASE-X are still SX based (80%). Conclusion is that we need LX4 for the same reasons at 10Gb Ethernet.

October 16, 2001

802.3ae Closing session

Bill Wiedemann (BW) reviewed his call of interest for solutions to address longer distances over MMF and SMF for 10 Gigabit Ethernet. The formal presentation will take place on Tuesday night at the Austin meeting.

David Law requested the ballots be sent back to the IEEE.

Geoff Thompson reviewed the IEEE sponsor ballot group procedure. Information to join the voting pool is posted on the 802.3 web site. There are certain categories that the voters must fall into: user, producer, general interest and government/academics/consultant. Those that wish to get involved in the voting pool need to identify a category to meet the voting requirements for balance within the various categories. Information for current voters should be updated if there have been changes.

10GBASE-S Technical Feasibility-A second presentation was presented by David Kabal with regards to the Picolight and Cielo testing, based on the concerns of Monday's initial report which didn't include any interoperability data related to 802.3ae drafts. Testing was shown using new 50 micron, 2000Mhz.km fiber (the fiber was > than 2000Mhz.km).

JT asked questions concerning the specifications needing to be changed in order for 850nm serial to become a viable product for 10Gb trx. Answered that with some relaxations of the specification, it could be made to be economical. JT-Can these specs be used to make these products into a manufacturable device. Bruce Tolley asked if the parts were tested over other types of fiber besides 2000Mhz.km. The answer was yes. Several questions concerning the fiber types and the methodology of the testing.

Bill Wiedemann asked about power output levels with regards to the measured data on the links. JT brought up another straw man vote for the 10GBASE-S PMD. The unofficial results were 1/3 satisfied, <1/2 conditional, 0% for no.

Bob Grow (BG) reporting on comment resolution. Covering for Brad Booth.

Clause 00-done, Clause 01-done, Clause 30-done, Clause 44-done, Clause 45-resolved, changes to accommodate ID of MSA components (generic w/ no ref to specific MSA), package ID, vendor specific address. Clause 47-done (jitter conformance test), Clause 48 done (major editorial rewrite of Annex 48b), Clause 49-done, Clause 50 done, Clause 51 done (upgraded 6 editorials to technical added one T, technical feasibility comment, technical feasibility proven Y:14, N:0, A:1), JT comment: Clause 51-PMA interface, the SERDES interface for the PMDs

Clause 52-still have outstanding TRs, straw man vote for technical feasibility on three serial PMDs,(Y 18, N 12), The editor asked for what criteria needs to be seen in order to move the clause through the process. BW asked to see data that is in compliance per the 802.3ae draft. BG wants to see some confidence that the changed parameters to the current draft will allow the PMDs to achieve a working standard. New version of the link model was approved.

Clause 53-done, 33 tech (32 resolved, 1 rejected), 4 TRs (3 accepted, one not accepted), added min extinction ratio, added new link model, editorial change to WDM instead of WWDM or CWDM. Therefore all references will be changed within the document to reflect. Several comments. Mention of ITU reference to CWDM. Kirk Bovill mentions that the only reference to WWDM on Yahoo is a radio station. JT mentioned that the reference should be 10GBASE-LX4 Editor Proposal-Change references to WDM from WWDM-large majority said no, Editor Proposal-Change references of WWDM to 10GBASE-LX4, yes

Disapprove status reviewed by Bob Grow

Three new TR comments by JT need to be signed off. Old TR comments (4 exist).

Schedule status

D3.4 in production for November meeting

If D3.4 recirculation is required-quick and clean ballot will theoretically allow Sponsor Ballot prior to January, Standards board meets March, June and September for final ratification

Motion madness

XSBI SERDES Technical Feasibility Motion

The 802.3ae task force agrees that the Clause 51 (PMA) high-speed functions are technically feasible. We have used the following criteria in this determination:

-Demonstrated interoperability between multiple vendors with BER < 10⁻¹² including PMD devices and links

Moved: Bob Grow

Y: 42 , N: 0, A: 5

Motion passes.

Draft 3.3

Task the editorial staff to produce Draft 3.3 for continued processing, and authorize the editors to resolve and incorporate editorial comment resolutions.

Moved:Bob Grow

Passed by acclimation

Minutes approval from July minutes

Vipul Bhatt had a comment concerning equalization presentation plan. JT said to adopt with contingent of cleaning up the comment.

Passed by acclimation.

Motion to adjourn.