

Approved Minutes
INCITS Fibre Channel TG T11.2 Plenary Meeting #78
10 June 2010 – 9 AM to 11 AM (CDT)
Minneapolis, MN

1 Opening remarks and introductions

TC TG T11.2 chair Tom Palkert (Luxtera) convened the meeting on Thursday, 10 June 2010 at 9:07 AM Central daylight time. He introduced himself as chair.

1.1 Meeting guidelines (Anti-Trust and IPR)

The chair stated that the meeting was operating under INCITS procedures, and called attention to the INCITS patent policy by showing the INCITS Patent Policy Slides. The advice on the slides was provided and there was no discussion and for reference the slides can be found at http://www.incits.org/pat_slides.pdf, also available to T11 members as T11/08-406v0.

The chair noted that the INCITS Antitrust Guidelines <http://www.incits.org/inatrust.htm> applied to this committee meeting, and that it was the responsibility of all attendees, and not just the Officers, to ensure that the Guidelines are followed, and to terminate discussions if they are not.

1.2 Electronic Attendance

The chair instructed those present how to register using the electronic attendance list for this meeting, and informed those present of the necessary password.

1.3 Meeting Documents

The chair noted that meeting documents are obtainable from <ftp://ftp.t11.org/latest>.

1.4 Self-introductions

Members introduced themselves and the companies which they represent.

1.5 Patent Policy

Attendees were reminded that the template for submitting patent declaration information to INCITS and ISO can be downloaded from http://www.incits.org/patdec_form.doc. Completed and signed declaration forms can be submitted via email to patents@itic.org.

2 Approval of the Agenda

An electronic version of the agenda T11/10-219v0 and supporting documents were accessible via the TC web site. The chair presented the agenda, and made a call for any new agenda items. Michael DeBie (Avago) moved and Bob Nixon (Emulex) seconded to accept the agenda as presented; the agenda was approved by unanimous consent.

3 Attendance and Membership

3.1 Gaining and Losing Voting Membership

Information on how membership is gained, maintained, and lost in any INCITS Technical Committee or Task Group may be found in the INCITS/RD-2 at www.incits.org. An overview of these requirements was presented by the chair and was distributed to all attendees in the electronically distributed meeting documents.

3.2 Roll Call of Members in Jeopardy for Non-Attendance

No company lost membership for non-attendance.

3.3 Jeopardy / Membership Loss for Not Voting in T11.2 Letter Ballots

No company lost membership for not voting on T11.2 letter ballots.

3.4 Members in Jeopardy for Non-Payment of Fees

No company lost membership for non-payment of fees.

3.5 Membership Changes and Announcement of New Members

- Genum joined with .David Brown as Principal, Ryan Latchman and Bharat Tailor are alternates.
- Juniper joined with Joe White as Principal, Simon Gordon and Jaya Bandyopadhyay are alternates.
- Bob Nixon is added as alternate for Emulex.
- Nava Navaruparajah is added as alternate for HP.
- Mike Dudek is added as alternate for Qlogic.

3.6 T11.2 Voting Memberships for this meeting

Based on the above information, the total voting membership increases to 27 effective at the start of this meeting. The complete list of all members (voting, advisory, liaisons, etc.) is

Organization	Representative	Membership Class (P, A, L, E, XO, FoC, Etc.)
Agilent	Joachim Vobis	P
	Stephen Didde	A
Amphenol	Greg McSorley	P
	Michael Wingard	A
Avago Technologies	Randy Clark	P
	David Cunningham	A
	Rita Horner	A
	Michael deBie	A
Broadcom	Ali Ghiasi	P
	Scott Powell	A
	Pat Thaler	A
Brocade	Steven Wilson	P
	Scott Kipp	A
Cinch	Merrick Moeller	P
Corning Inc.	Doug Coleman	P
	Steven E. Swanson	A
Dell	Gaurav Chawla	P
	Bhavesh Patel	A
EMC	Jason Pritchard	P
	Mickey Felton	A
	David Black	A
Emulex	Hossein Hashemi	P
	Bill Schuman	A
	Kamran Mansoori	A
	Bob Nixon	A
FCI	Doug Wagner	P
	David Sideck	A
Finisar	Chris Yien	P
	Richard Johnson	A
Fujitsu	Sandy Wilson	P
	Jim DeCaires	A
	Eugene Owens	A

	Mark Malcolm	A
	Kun Katsumata	A
Genum	David Brown	P
	Ryan Latchman	A
	Bharat Tailor	A
HP	Barry Maskas	P
	Sean Fitzpatrick	A
	Krishna Puttagunta	A
	Nava Navaruparajah	A
IBM	John Ewen	P
	David Stauffer	A
	Roger Hathorn	A
JDSU	Dave Lewis	P
Juniper	Joe White	P
	Simon Gordon	A
	Jaya Bandyopadhyay	A
LSI	Adam Healey	P
	John Lohmeyer	A
	Pervez Aziz	A
Luxtera	Tom Palkert	P
Molex	Jay H. Neer	P
	Michael Rost	A
Opnext	Jon Anderson	P
	Josef Berger	A
Panduit	Robert Elliot	P
	Steve Skiest	A
	Robert Reid	A
	Gaston Tudbury	A
QLogic	Dean Wallace	P
	Mark Owen	A
	Mike Dudek	A
Systimax	Terry Cobb	P
	Paul Kolesar	A
Tyco	Michael Walmsley	P
	Doug Lawrence	A
	Michael Fogg	A
	Andrew Nowak	A
Vitesse	George Noh	P
	Badri Gomatam	A

4 Anti-Trust Policies

The chair noted that among the rules and policies under which T11.2 TG operates are the INCITS Antitrust Guidelines as specified in <http://www.incits.org/inatrust.htm>. Any member of the meeting is responsible for objecting if he believes discussion in the meeting violates these guidelines. As examples, there should never be discussion of the following topics at any INCITS or INCITS subgroup meeting:

- Any company's prices or pricing policies;
- Specific R&D, sales, and marketing plans;
- Any company's confidential product, product development, or production strategies;
- Whether certain suppliers or customers will be served;
- Prices paid to input sources; or
- Complaints about individual firms or other actions that might tend to hinder a competitor in any market.

If such discussion is not immediately terminated, it is the chairperson's responsibility to terminate the meeting.

5 Document Distribution

The chair reviewed T11.2 document distribution and covered the following points:

- Distribution of meeting documents is available from <ftp://ftp.t11.org/latest>.
- Document Subscription service: see <http://www.t11.org>.
- T11 and T11.2 web pages and reflectors

6 Approval of the Minutes of April 2010 Plenary Meeting #77

The T11/10-184v0 minutes of the April 1 T11.2 plenary were reviewed. It was moved by Greg McSorley (Amphenol) and seconded by Bob Nixon (Emulex) to accept the minutes. The motion passed by unanimous consent.

7 Review of Old Action Items

- 09-006: Tom Palkert and Dean Wallace to prepare a project proposal for energy efficient PHY. Carried over.
- 10-003: Tom Palkert and Dave Stauffer to draft a response to the OIF liaison letter. Completed.
- 10-004: Dean Wallace to set up a telecon call to discuss OIF requirements. Completed.

8 Review of T11.2 Projects

8.1 Project Status Review

The chair reviewed the status of the FC-MSQS, FC-PI-3, and FC-PI-5 projects.

8.2 FC-PI-5 Ad Hoc Working Group

Dean Wallace (Qlogic) presented the FC-PI-5 Ad Hoc meeting report T11/10-287v1. The T11 letter ballot for FC-PI-5 failed because not enough member companies had voted. Comment resolution was held on remaining comments, and the modified document will be ready for a new T11 letter ballot. Three presentations were given. Adam Healey gave T11/10-269v0 "Updates to 1600-DF-EA-S channel" to increase epsilon point loss budget. James Lott (VIS) presented T11/10-270v0 "High speed VCSELs for optical data links," discussing development done in Germany on VCSELs operating at 25-40 Gbd. Jim Tatum (Finisar) gave T11/10-268v0 "VCSEL based 32GFC data links, and started very early discussion of link reach / power budget / architecture / relative cost tradeoffs.

Dean Wallace (Qlogic) moves and Adam Healey (LSI) seconds the following motion: T11.2 recommends to T11 that document T11/10-113v0 as modified per accepted comments in comment resolution document T11/10-126v3 be released as FC-PI-5 revision 2.0 to a T11 letter ballot.

Yes: 20 No: 0 Abstain: 0

8.3 MSQS Ad Hoc Working Group

Dean Wallace (Qlogic) presented the MSQS Working group report T11/10-275v0. All 166 technical comments against MSQS revision 1.0 (T11/10-011v0) have been resolved, as captured in comment resolution document T11/10-012v5. Two presentations were given. Richard Johnson reviewed T11/10-109v2 "Proposed change to introduction 7.1". Ali Ghiasi gave T11/10-231v1 "16GFC HCB and MCB," which completes the biggest gap in the MSQS revision 1.0 document.

Dean Wallace (Qlogic) moves and Michael deBie (Avago) seconds the following motion: T11.2 recommends to T11 that document T11/10-011v0 as modified per accepted comments in

comments resolution document T11/012v5 be released as MSQS revision 2.0 to a T11 letter ballot.

Yes: 22 No: 0 Abstain: 0

8.4 Joint T11.2 / T11.3 Ad Hoc Working Group

Dean Wallace (Qlogic) presented the Joint T11.2 / T11.3 Ad hoc status T11/10-288v0. Two presentations were given, both by Bob Nixon (Emulex): T11/10-216v1 "64b/66b protocol clarification" and T11/10-221v1 "FC-FS-3 version 1.00 with 64b/66b clarification."

Dean Wallace (Qlogic) moves and Bob Nixon (Emulex) seconds the following motion: T11.2 requests T11 to conduct a letter ballot on approving the changes specified in T11/10-221v1 as desired clarifications to revision 1.00 of FC-FS-3, which is now at INCITS for further processing following public review.

Yes: 24 No: 0 Abstain: 0

9 Letter Ballots

MSQS Revision 1.0 (T11/10-011v1) successfully completed T11.2 letter ballot:

Yes: 16 No: 4 Abstain: 1.

10 Old Business

No old business for this meeting cycle.

11 Review of International Activity

None given for this meeting cycle.

12 New Business and New Technical Items

Tom Palkert (Luxtera) presented T11/10-175v1 "FC-PI-6 project proposal to define 32GFC variants."

Tom Palkert (Luxtera) moves and Dean Wallace (Qlogic) seconds the following motion: T11.2 requests that T11 initiate a new physical interfaces project FC-PI-6 per T11/10-175v1.

Yes: 24 No: 0 Abstain: 0

13 Call for Patents

The chair noted that the current record of responses to prior calls for patents can be found on the T11 web site at <http://www.t11.org/t11/docreg/nsf/patentdoc?OpenView>. A template form for a patent declaration that is satisfactory to both INCITS and ISO can be found in http://www.incits.org/patdec_form.doc. The chair made the call for patents. No members disclosed patents for this meeting cycle.

14 List of Meeting Attendees

The electronic attendance record for this T11.2 plenary meeting showed 29 attendees representing 25 companies:

AGILENT TECHNOLOGIES [Joachim Vobis](#)
AMPHENOL INTERCONNECT [Gregory McSorley](#)
AVAGO TECHNOLOGIES [Michael deBie](#)
BROADCOM [Ali Ghiasi](#)
BROCADE [Steven L. Wilson](#)
DELL [Gaurav Chawla](#)
EMC [Gary S. Robinson](#)

EMULEX [Bob Nixon](#)
FCI [Doug Wagner](#)
FINISAR CORPORATION [Richard Johnson](#)
FUJITSU AMERICA, INC. [Sandy Wilson](#)
GENNUM CORPORATION [David Brown](#)
HEWLETT-PACKARD COMPANY [Nadaraha \(Nava\) Navaruparajah](#)
IBM [Roger Hathorn](#)
IBM [Scott Carlson](#)
INTEL CORPORATION [Prafulla Deuskar](#)
JUNIPER [Joseph White](#)
LSI CORP. [Adam Healey](#)
LSI CORP. [John Lohmeyer](#)
LUXTERA [Tom Palkert](#)
MICROSOFT CORPORATION [James Borden](#)
MOLEX [Jay Neer](#)
OPNEXT [Jon Anderson](#)
PANDUIT CORPORATION [Robert Elliot](#)
QLOGIC [Dean Wallace](#)
SOLUTION TECHNOLOGY [Robert Kembel](#)
SYMANTEC [Roger Cummings](#)
SYSTEMAX SOLUTIONS [Terry Cobb](#)
TYCO ELECTRONICS [Michael Walmsley](#)
VITESSE [George Noh](#)

15 Liaison Reports

15.1 INCITS, SC25, and T11 Liaison report

Steve Wilson (Brocade) displayed the T11/10-196v0 on "INCITS liaison report." He also reviewed T11/10-234v0 on "INCITS activities report."

15.2 SFF SSWG on Transceivers

Tom Palkert (Luxtera) gave T11/10-291v0 of the SFF SSWG on Transceivers meeting which was held Tuesday evening.

15.3 T10

John Lohmeyer (LSI) gave an informal review of latest T10 activities, including 12 Gig SAS.

15.4 IEEE

Jon Anderson (OpNext) gave an informal report on IEEE meeting in Geneva and on a joint IEEE-ITU workshop on the future of Ethernet.

15.5 Infiniband

Tom Palkert gave an informal report on the latest status of T11 attempts to establish a liaison with Infiniband.

15.6 OIF

Dean Wallace (Qlogic) reviewed T11/10-285v1 "Response to OIF liaison for 32GFC."

Jay Neer (Molex) moves and Dean Wallace (Qlogic) seconds the following motion: T11.2 will send T11/10-285v1 to OIF as an initial 32GFC liaison document. Motion passed by acclamation.

16 Future Meeting Schedule

The next plenary meeting will be held in Chicago, IL, on August 5.

Dean Wallace (Qlogic) moves and George Noh (Vitesse) seconds the following motions:

Plenary week schedule

The FC-PI-5 / FC-PI-6 Ad Hoc requests 9:00 to 4:30 PM Wednesday, August 4.

MSQS requests 9:00 AM to 4:30 PM Tuesday, August 3.

The joint T11.2 / T11.3 Ad Hoc requests 5:30 PM to 6:30 PM Wednesday, August 4.

Authorization of Ad Hoc groups & study groups

No requests were made for this meeting cycle.

Authorization of Telephone Conference Calls

The FC-PI-5 / FC-PI-6 Ad Hoc requests 3 telephone conference calls.

The MSQS Ad Hoc requests 3 telephone conference calls.

The Joint T11.2/T11.3 Ad Hoc requests 2 telephone conference calls.

All motions passed by acclamation.

17 Action Items

- 09-006: Tom Palkert and Dean Wallace to prepare a project proposal for energy efficient PHY.

18 Adjournment

Ali Ghiasi (Broadcom) moved to adjourn at 10:30 AM. The motion passed by unanimous consent.