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T11-2019-00333-v000

**Approved Minutes**  
**INCITS Fibre Channel TG T11.2 Plenary Meeting #134**  
**10 October 2019 – 9:00 AM to 9:31 AM (PT)**  
**Coeur d’Alene, ID**

## 1 Opening remarks and introductions

### 1.1 Introductory Remarks

TG T11.2 vice-chair Dean Wallace (Marvell) convened regular meeting #134 of the INCITS Fibre Channel (T11.2) Task Group on Thursday, 10 October 2019 at 9:00 AM (PT). He introduced himself as vice-chair and thanked our host the FCIA for the meeting facilities. The chair next introduced Jason Rusch (VIAVI Solutions) as the T11.2 secretary.

### 1.2 Self-introductions

The chair requested those present to introduce themselves, with identification of the organizations they represent.

### 1.3 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. For reference the slide set is available to T11 members as T11/08-406v0.

The chair noted that the INCITS Antitrust Guidelines 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.

See <http://www.incits.org/standards-information/legal-info>.

### 1.4 Electronic Attendance

The chair instructed those present how to register using the electronic attendance list for this meeting, found via the URL <http://standards.incits.org/login>, and informed those present of the necessary password. He reminded those present that the electronic attendance list would become the only source of attendance for formal records of this meeting.

## 2 Approval of the Agenda

An electronic version of the agenda was posted as T11-2019-00308-v000 and supporting documents were accessible via the TC web site. The chair made a call for any changes and new agenda items.

Greg McSorley (Amphenol) moved and Adrian Butter (GlobalFoundries) seconded to accept that T11-2019-00308-v000 as presented at this meeting be approved as the agenda for this meeting. The agenda passed by acclamation.

## 3 Attendance and Membership

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### 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 Organization, Policies, and Procedures found at [www.incits.org](http://www.incits.org). An overview of these requirements was presented by the chair and was distributed to all attendees.

The chair presented the current list of members and representatives, and invited corrections. The membership effective for this meeting, as adjusted for changes introduced at this meeting, is shown in subclause 3.6 below. Attendance for this meeting is shown in clause 14 below.

### 3.2 Roll Call of Members in Jeopardy for Non-Attendance

- Molex and DCS were in jeopardy for non-attendance. DCS was present and retains voting membership. Molex was not present and becomes an advisory member.

### 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

- Molex lost voting rights at this meeting.

### 3.6 Quorum Check

- Quorum was achieved with 18 Voting member companies present.

### 3.7 T11.2 Voting Memberships for this meeting

Task Group T11.2 had 18 voting members at the T11.2 regular meeting #134, 10 October 2019.

Organization	Representative	Participant Class (P, A)
Amphenol	Greg McSorley	P
	Brad Brubaker	A
	Mike Davis	A
	Daniel Dillow	A
	Chris Lyon	A
	Alex Persaud	A
	Hu Silver	A
	Michael Wingard	A
Broadcom, Inc	Ben Chu	P
	David Baldwin	A
	Evan Beauprez	A
	Adam Healey	A
	Howard Johnson	A
	Dave Peterson	A
	James Smart	A
	Steve Wilson	A
Cisco	Mike Blair	P
	Ziad Chaine	A
	J Metz	A

CommScope	Yang (Sunny) Xu	P
	Gary Gibbs	A
	Gary Irwin	A
Corning Inc.	Paul Kolesar	A
	Doug Coleman	P
DCS	Steven Swanson	A
	Kevin Ehringer	P
Dell	Todd Wheeler	A
	Louis Ricci	P
	David Black	A
	Gaurav Chawla	A
	Alan Rajapa	A
	Erik Smith	A
	Joseph White	A
Finisar	Jeff Young	A
	Vipul Bhatt	P
	Jonathan King	A
Foxconn Interconnect Tech	Vera Koleva	A
	John Petrilla	P
	Eric Chu	A
	Glenn Moore	A
Fujitsu	William Peters	A
	Mark Malcolm	P
	Kun Katsumata	A
GlobalFoundries	Gene Owens	A
	Adrian Butter	P
	John Ewen	A
HPE	Jon Garlett	A
	Barry Maskas	P
	Rupin Mohan	A
IBM	Krishna Babu Puttagunta	A
	Roger Hathorn	P
Marvell Semiconductor	Patty Driever	A
	Dean Wallace	P
	Anshul Agarwal	A
	Girish Basrur	A
	Craig Carlson	A
	Mike Dudek	A
	Ali Khwaja	A
	Stephen Lam	A
	Akinori Maeda	A
	Alan Spalding	A
Darren Trapp	A	
NetApp	Fred Knight	P
OFS	Roman Shubochkin	P
	Mabud Choudhury	A
Teledyne LeCroy	David Rogers	P
	Douglas Lee	A
	Henry Poelstra	A
Viavi Solutions	Jason Rusch	P

The following is a list of advisory members:

Organization	Representative	Participant Class (P, A)
Anritsu	Ken Mochizuki	P
Futurewei	Xu Qi ming	P
	Eddy Zhou	A
Lumentum	Dave Lewis	P
MediaTek USA	Tamer Ali	P
	Mau-Lin Wu	A
Molex	Alex Haser	P
	Jay H. Neer	A
	Tom Palkert	A
	Scott Sommers	A
Panduit	Jose Castro	P
	Bulent Kose	A
	Robert Reid	A
	Steve Skiest	A
SmartDV Technologies	Deepak Kumar Tala	P
TE Connectivity	Nathan Tracy	P
	Melissa Knox	A
	Jeff Mason	A
	Andy Nowak	A

The following is a list of emeritus members:

James Coomes
William Ham
Schelto van Doorn

#### 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/standards-information/legal-info>. 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 which is available from <http://standards.incits.org>.

#### 6 Approval of the Minutes of August 2019 Plenary Meeting #133

The prior regular meeting of the INCITS Fibre Channel T11.2 Task Group was #133 on 15 August 2019. The draft minutes of that meeting were posted as document T11-2019-00263-v000.

T11.2 minutes were reviewed as posted on the T11 web site. Corrections may be requested either before the subsequent meeting by email to [jason.rusch@viavisolutions.com](mailto:jason.rusch@viavisolutions.com) or at the subsequent meeting in person.

Greg McSorley (Amphenol) moved and Adrian Butter (GlobalFoundries) seconded to accept T11-2019-00263-v000 as the minutes of T11.2 meeting #133 on 15 August 2019. The motion passed by acclamation.

## 7 Review of Old Action Items

Action items completed at this meeting:

- Dean Wallace to add the updated FCIA 128GFC MRD to the FC-PI-8 Agenda.
- Dean Wallace to send a one-page summary of the FCIA 128GFC MRD to Robert Lingle.
- Dean Wallace to send an email to the T11.2 reflector asking for volunteers to provide data for FC-PI-7P.
- T11.2 Chair to request T11 to withdraw Amendment 1 to INCITS 543-201x (FC-PI-7).
- T11.2 Chair to request T11 to incorporate the equation defect into INCITS 543 and request second public review.

Action items carried from prior meetings:

- T11.2 chair to request SFF-DD liaison.
- T11.2 chair to liaison Anil Mehta's (Broadcom, Inc) presentation T11-2019-00030-v001 to the OIF.
- T11.2 chair to request IEEE Liaison with T11.2 for 802.3cu.
- Dean Wallace to request Anil Mehta to summarize his Link Speed Negotiation presentations into one document to liaison to OIF.
- T11.2 Chair to ask FCIA to review marketing requirements for FC-PI-7P.

## 8 Review of T11.2 Projects

### 8.1 Project Status Review

The chair reviewed project status of activities in the T11.2 TG.

### 8.2 FC-PI-8 Ad Hoc Working Group (T11-2019-00181-v000)

The FC-PI-8 ad hoc chair Dean Wallace (Marvell) presented meeting report T11-2019-00307-v001.

Summary:

- FC-PI-7P is moving forward.
- FC-PI-8 ovr on FEC, training, and line rate
- Discussion about line rate versus data throughput

Eight presentations were given:

- Multi-lane modules for 64GFC, Anil Mehta, BSN, T11-2019-304-v000
- FC-PI-7P status discussion
- C2M training on 128GFC links, Anil Mehta, BSN, T11-2019-00225-v002
- Other options for 128GFC FC FECS, Raul Oteyza, Marvell, T11-2019-00223-v001
- FEC options for 128GFC, correction capability, Andy Joy, Marvell, T11-2019-00293-v000
- 128 GFC speed doubling, Adrian Butter, GlobalFoundries, T11-2019-00275-v000
- FC-PI-7x data rate spec issues, Adrian Butter, GlobalFoundries, T11-2019-00295-v000
- Ethernet 100GB SR call for interest presentation, all, T11-2019-00294-v000

### 8.3 Joint T11.2 / T11.3 Ad Hoc Working Group

The Joint T11.2 / T11.3 ad hoc chair Dean Wallace (Marvell) presented meeting report T11-2019-00306-v000. Five presentations were given:

- C2M training on 128GFC links, Anil Mehta, BSN, T11-2019-00225-v002
- Multi-lane modules for 64GFC, Anil Mehta, BSN, T11-2019-304-v000
- FEC options for 128GFC, correction capability, Andy Joy, Marvell, T11-2019-00293-v000
- Other options for 128GFC FC FECS, Raul Oteyza, Marvell, T11-2019-00223-v001
- 128 GFC speed doubling, Adrian Butter, GlobalFoundries, T11-2019-00275-v000

## 9 Letter Ballots

No open letter ballots.

## 10 Old Business

There was no old business to be reviewed for this meeting cycle.

## 11 Review of International Activity

There was no International Activity given for this meeting cycle.

## 12 New Business and New Technical Items

There was no new business to be reviewed for this meeting cycle.

## 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/v2t?openForm&ent=35>. A template form for a patent declaration that is satisfactory to both INCITS and ISO can be found in <http://www.incits.org/standards-information/legal-info>. The chair made the call for patents.

No member responded.

## 14 List of Meeting Attendees

The electronic attendance record for this T11.2 plenary meeting showed 18 attendees representing 15 voting companies:

Organization	Representative	Role
Amphenol Corporation	Chris Lyon	Member
Amphenol Corporation	Gregory McSorley	Member
Broadcom Inc	David Baldwin	Member
Broadcom Inc	Ben Chu	Member
Broadcom Inc	Steven Wilson	Member
Cisco Systems Inc	Mike Blair	Member
CommScope	Gary Gibbs	Member
Corning Inc	Doug Coleman	Member
Data Center Systems	Todd Wheeler	Member
Dell Inc	Alan Rajapa	Member
Foxconn Interconnect Technology Ltd (FIT)	John Petrilla	Member
Fujitsu America Inc	Mark Malcolm	Member
GlobalFoundries US2 LLC	Adrian Butter	Member
Hewlett Packard Enterprise	Krishna Babu Puttagunta	Member
IBM Corporation	Patty Driever	Member
Marvell Semiconductor Inc	Dean Wallace	Vice Chair
NetApp Inc	Frederick Knight	Member
Viavi Solutions Inc	Jason Rusch	Secretary

The electronic attendance for the FC-PI-8 ad hoc meeting showed 10 attendees representing 9 member companies:

<b>Organization</b>	<b>Representative</b>	<b>Role</b>
Amphenol Corporation	Gregory McSorley	Member
Broadcom Inc	Ben Chu	Member
Broadcom Inc	Anil Mehta	Member
CommScope	Gary Gibbs	Member
Corning Inc	Doug Coleman	Member
Data Center Systems	Todd Wheeler	Member
Dell Inc	Alan Rajapa	Member
Foxconn Interconnect Technology Ltd (FIT)	John Petrilla	Member
GlobalFoundries US2 LLC	Adrian Butter	Member
Marvell Semiconductor Inc	Dean Wallace	Vice Chair

## 15 Liaison Reports

### 15.1 INCITS and T11 Liaison reports

T11 chair Steve Wilson (Broadcom, Inc) gave T11-2019-00287-v000 "INCITS report to T11" and T11-2018-00268-v000 "T11 report to INCITS."

### 15.2 SFF Transceiver liaison

There was no report at this meeting cycle.

### 15.3 IEEE

There was no report at this meeting cycle.

### 15.4 OIF

There was no report at this meeting cycle.

## 16 Future Meeting Schedule

The next plenary meeting will be held in New Orleans, LA on December 2-5, 2019.

Jason Rusch (VIAVI) moves and Dean Wallace (Marvell) seconds the following motions:

Authorization of Ad Hoc groups and study groups for the plenary week:

- FC-PI-8 ad hoc requests Tuesday 12/03/19 9:00 to 6:00 and Wednesday 12/04/19 from 9:00 to 12:00.
- Joint T11.2/T11.3 ad hoc requests Wednesday 12/04/19 from 1:30 to 3:00.

Authorization of Telephone Conference Calls:

- Request two conference calls for FC-PI-8.
- Request two conference calls for Joint T11.2/T11.3.

All motions passed by acclamation.

## 17 Action Items

Action items carried from prior meetings:

- 1806-01** T11.2 chair to request SFF-DD liaison.
- 1902-01** T11.2 chair to liaison Anil Mehta's (Broadcom, Inc) presentation T11-2019-00030-v001 to the OIF.
- 1906-01** T11.2 chair to request IEEE Liaison with T11.2 for 802.3cu.
- 1908-01** Dean Wallace to request Anil Mehta to summarize his Link Speed Negotiation presentations into one document to liaison to OIF.
- 1908-02** T11.2 Chair to ask FCIA to review marketing requirements for FC-PI-7P.

New action items:

- 1910-01** T11.2 Secretary to create a T11.2 folder for Plenary meeting document uploads and upload the current meeting document zip file to this location.

## 18 Adjournment

Greg McSorley (Amphenol) moved to adjourn at 9:31 AM PT. The motion passed by unanimous consent.