T11-2019-00241-v000

Draft Minutes
INCITS Fibre Channel (T11) Technical Committee
Regular Meeting #154
15 August 2019 – 1 PM to 4 PM MDT
Santa Fe, NM

1 Opening Remarks and Introductions

1.1 Introductory Remarks

TC T11 chair Steve Wilson (Broadcom) convened regular meeting #154 of the INCITS Fibre Channel (T11) Technical Committee on Thursday, 15 August 2019 at 1:01 PM MDT. He introduced himself, and thanked our host Marvell for the meeting facilities and amenities.

He next introduced Craig Carlson (Marvell) as vice chair and Patty Driever (IBM) as secretary.

1.2 Self-introductions

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

After self-introductions Steve Wilson asked Dean Wallace to make a few remarks about a former T11 member, Jonathan King, who passed away recently, and then led us in a moment of silence in his honor.

1.3 Operating under INCITS Procedures

1.3.1 Patent Information

The chair indicated that among the rules and policies under which this Technical Committee operates are the ANSI intellectual property policies as specified in pages 1-3 of INCITS

patent policy slides available from http://www.incits.org/standards-information/legal-info.

He displayed these pages without comment or explanation, and directed that questions about the policy should be referred to the questioner's legal counsel or the ANSI General Counsel.

1.3.2 Antitrust Guidelines

The chair indicated that among the rules and policies under which this Technical Committee operates are the INCITS Antitrust Guidelines as specified in http://www.incits.org/standards-information/legal-info. Any person present at the meeting is responsible for objecting if he believes discussion in the meeting violates those guide- lines. 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.

1.3.3 Public access rules

The chair indicated that among the rules and policies under which this Technical Committee operates are the INCITS rules for operating in Public Access Mode, as specified in Section 3.11 of INCITS Organization, Policies, and Procedures (found at http://www.incits.org).

The chair encouraged those nonmembers who attend T11 meetings regularly or intend to attend T11 meetings regularly to join the organization. He further advised that nonmembers, by remaining in this meeting, acknowledge that they understand and agree to the policies of this meeting.

1.4 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. He reminded those present that both the electronic attendance list and physical presence at the meeting will be required to qualify as attendance for formal records of this meeting.

2 Approval of the Agenda

An electronic version of the agenda was posted as T11-2019-00212-v001. The chair presented the agenda with final updates as T11-2019-00212-v002 and made a call for any changes and new agenda items. No changes or new items were requested.

Dave Peterson (Broadcom) moved and Tom Palkert (Macom) seconded that T11-2019-00212-v002 as presented at this meeting be approved as the agenda for this meeting. The motion passed by acclamation.

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 Organization, Policies, and Procedures found at http://www.incits.org. An overview of these requirements was introduced by the chair and was available to all attendees among the electronically distributed meeting documents.

The vice 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 annex A.1. Attendance for this meeting is shown in annex A.2. Attendance for the ad hoc meetings is shown in annex A.3.

3.2 Changes in Representation Since the Last Meeting

The following changes in representation have been made since the last meeting:

- Mike Davis was removed as an Alternate for Amphenol. Other representation for Amphenol remains the same.
- Gary Irwin was removed as an Alternate for Commscope. Other representation for

Commscope remains the same.
- Jonathan King was removed as an Alternate for Finisar. Other representation for Finisar remains the same.
- Arun Easi and Eddy Soetjahja were added as Alternates for Marvell Semiconductor. Other representation for Marvell remains the same.
- Vijay Rao was added as an Alternate for NetApp. Other representation for NetApp remains the same.
- Paul Luber was removed as an Alternate for Microsoft. Other representation for Microsoft remains the same.
- Hajime Takahashi was removed as an Alternate for Keysight Technologies. Other representation for Keysight Technologies remains the same.

3.3 New Voting Memberships

- No new voting memberships were granted at this meeting.

3.4 Voting memberships in jeopardy for attendance

- **Panduit** was in jeopardy for non-attendance, and was not present so loses voting membership at this meeting.

Notification of membership jeopardy by T11 Chair was sent via email on June 19, 2019 (T11-2019-00202-v000).

3.5 Voting memberships in jeopardy for non-payment of dues

- No member is in jeopardy for non-payment of dues for this meeting cycle.

3.6 Voting memberships in jeopardy for letter ballot performance

- Teledyne-LeCroy is in jeopardy for letter ballot performance. Notification of letter ballot jeopardy by T11 Chair was sent via email on July 09, 2019 (T11-2019-00211-v000).

3.7 Membership for this meeting

Technical Committee T11 had 20 voting members at the T11 regular meeting 06 June 2019.

With losing one voting membership, the voting membership of T11 changes to 19 effective this meeting.

Reflecting the above changes, the voting membership of T11 for this meeting is recorded in annex A.1.2.

Reflecting the above changes, the advisory (i.e., nonvoting) membership of T11 for this meeting is recorded in annex A.1.3.

3.8 Call for members of the press and journalists

The chair requested members of the press and journalists to introduce themselves. No person attending the meeting made such an introduction.

3.9 Call for Quorum

The total membership for this meeting is 19. One third of the total membership for this meeting is 7. The number of member organizations that responded to the call for quorum was 15. This exceeds or equals one third of the total membership for this meeting and also exceeds or equals 7. A quorum is therefore present for this meeting.

3.10 Call for Guests

The chair requested those associated with organizations that are not members of T11 to introduce themselves. No one responded.

4 Document Distribution

The chair described the process for T11 document distribution via http://standards.incits.org.

5 Approval of Minutes - Meeting #153

The prior regular meeting of the INCITS Fibre Channel (T11) Technical Committee was #153 on 06 June 2019. The draft Minutes of that meeting were posted as document T11/2019-00175-v000.

T11 minutes are reviewed as posted on the T11 web site. Corrections may be requested either before the subsequent meeting by email to the T11 secretary (pgd@us.ibm.com) or at the subsequent meeting in person. One correction was made to action item 19-010 to reflect that the amendment in question was for FC-PI-7 instead of FC-PI-8 as in correctly noted in the minutes.

Dave Peterson (Broadcom) moved and Alan Rajapa (Dell) seconded to accept T11/2019-00175-v000 as modified as the Minutes of T11 meeting #153 on 06 June 2019. The motion passed by acclamation.

See action item 19-013.

6 Review of Old Action Items

19-009	T11 secretary to post approved Minutes of T11 meeting #152 as agreed at T11 meeting #153. (See clause 5). Completed by posting T11-2019-00198-v000 on June 9, 2019.

19-010	T11 chair to forward the project proposal for FC-PI-7 Amendment 1 (**T11-2019-00129-v000**) to INCITS for further processing. See Clause 11.2. Completed by email to Rachel Porter on June 13, 2019 (**T11-2019-00201-v000)**
19-011	T11 chair to request INCITS create projects on the INCITS website for the two newly approved T11 projects, FC-SW-8 and FC-LS-5. See Clause 7.1 Completed by email to Lynn Barra on July 11, 2019.
19-012	T11 chair to update T11 meeting schedule to show tentative hosts for February and April 2020. See Clause 19.4. Completed by posting the most recent T11 meeting schedule on 6/19/19

7 Review of T11 Project and Proposal Status

7.1 Project Proposals

7.1.1 FC-PI-7 AM1 was approved as project INCITS 543-201x/AM1-201x.

7.2 Project Status Review

The T11 Project status sheet was displayed (see annex B.1). The current version can be viewed at any time at http://standards.incits.org, in the "T11 Projects" folder in the documents section.

The chair reminded all TG chairs to assure the project status sheet is maintained to reflect changes in status of their projects.

8 Results of non-ISO Letter Ballots

8.1 None

9 Old Business

No old business was reopened.

10 Task Group T11.2 - Physical Interfaces

10.1 Report to T11 Plenary (T11-2019-00262-v000)

Task Group chair Tom Palkert (Macom) gave the report posted as T11-2019-00262-v000 on activity at T11.2.

10.2 Actions

10.2.1 Dean Wallace (Marvell) made a motion to request T11 approve the withdrawal of INCITS 543-201x/AM 1-201x as the amendment will be incorporated into the base standard. Seconded by Dave Peterson (Broadcom). Motion carried 15-0-0. See action item 19-014.

10.2.2 Dean Wallace (Marvell) made a motion to request T11 approve T11-2019-00094-v001 to be incorporated into INCITS 543 and requests INCITS to initiate a second public review. Revised FC-PI-7 document is T11-2019-00217-v000. Seconded by Dave Peterson (Broadcom). Motion carried 15-0-0. See action item 19-015.

10.3 Other Items

No other items were presented for TG T11.2.

11 Task Group T11.3 - Interconnection Schemes

11.1 Report to T11 Plenary (T11-2019-00261-v000)

Task Group chair Craig Carlson (Marvell) presented the information posted as T11-2019-00261-v000 on activity at T11.3.

11.2 Actions

11.2.1 Craig Carlson made a request to T11 to forward the project proposal for FC-GS-9 (**T11-2019-00173-v000**) to INCITS for further processing. Seconded by Dave Peterson (Broadcom). Motion carried 15-0-0. See action item 19-017.

11.2.2 Craig Carlson made a request to T11 to accept T11-2019-00171-v003 as RFC ballot comment resolution and forward the resulting FC-GS-8 draft standard Rev. 11.07 contained in **T11-2019-00103-v001** to INCITS for further processing, including initiation of a letter ballot.

See action item 19-016.

11.2.3 Craig Carlson made a request to T11 to accept T11-2019-00078-v006 and T11-2019-00079-v006 as RFC ballot comment resolution and forward the resulting FC-LS-4 draft standard Rev. 4.05 contained in **T11-2019-00213-v001** to INCITS for further processing, including initiation of a letter ballot. See action item 19-018.

11.3 Other Items

No other items were presented for TG T11.3.

12 Joint TG T11.2 / T11.3 Items (T11-2019-00245-v000)

Task Group chair Tom Palkert (Macom) presented the information posted as T11-2019-00245-v000 on activity at the joint T11.2/T11.3 working group.

13 T11 project activities

None for this meeting cycle.

14 Review of International Activity

14.1 INCITS SC 25 / WG4 TAG Status Report (T11-2019-00243-v000)

Dave Peterson (Broadcom) presented the information posted as T11-2019-00243-v000 on INCITS SC 25 / WG4 TAG project status (see annex B.2).

14.2 FC-PI-7 Fast Track
Regarding FC-PI-7, Steve stated that by taking the fast track vote now, the INCITS/SC 25-WG4 TAG can vote on it at their October meeting. Then after we get the approval notice from ANSI (hopefully in November), we'll submit everything to the EB for approval and submission to JTC 1.

As a result, Dave Peterson (Broadcom) made a motion that T11 approves INCITS 543 (FC-PI-7) to be submitted to INCITS/SC 25-WG4 TAG for Fast Track processing. Seconded by Dean Wallace (Marvell). Motion carried 15-0-0. See action item 19-019.

15 T11 New Business

No new business was presented at this meeting.

16 Call for Patents

16.1 Patent information registry

The chair indicated that the current record of responses to prior calls for patents can be found in the T11 web site at <http://www.t11.org/t11/docreg.nsf/v2t?openForm&ent=35>.

16.2 Call for Patents

16.2.1 Patent Information Overview

The chair reminded the meeting that among the rules and policies under which T11 operates are the INCITS intellectual property policies. An overview of patent information relevant to T11 may be found in T11-2010-008v0.

16.2.2 INCITS/ISO patent disclosure form

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.

No company responded to the call for patents.

17 Liaison Reports

17.1 T11 report (T11-2019-00203-v000), INCITS Liaison report (T11-2019-00230-v000)

Steve Wilson (Broadcom) presented the information posted as T11-2019-00203-v000 on activity at T11 as reported to other organizations, and the information posted as T11-2019-00230-v000 on activity at INCITS other than T11 project status.

17.2 TC T10 (T11-2019-00249-v000)

Fred Knight (NetApp) gave report T11-2019-00249-v000 on activity at T10 and Dave Peterson (Broadcom) gave verbal report specifically on activity at T10 relative to the FCP-5 project.
.

17.3 FCIA (T11-2019-00250-v000)

Chris Lyon (Amphenol) gave report T11-2019-00250-v000 on activity at FCIA.

17.4 IEEE 802.3 (T11-2019-00253-v000)

Tom Palkert (Molex) gave report T11-2019-00253-v000 on activity at IEEE 802.3.

17.5 INCITS TC CS1 (none)

No report on activities of INCITS Technical Committee CS1 was received.

17.6 SNIA and DMTF (T11-2019-00248-v000)

Fred Knight (NetApp) discussed report T11-2019-00248-v000 on SNIA and DMTF activities.

17.7 NVMe (verbal)

Craig Carlson (Marvell) gave a brief verbal report on recent NVMe activities.

18 Administrative Matters

18.1 Officer Appointments

Officers of this Technical Committee and its Task Groups are:

T11 Chairman	Steve Wilson (Broadcom)
T11 International Representative	David Peterson (Broadcom)
T11 Vice Chairman	Craig Carlson (Marvell)
T11 Secretary	Patty Driever (IBM)

T11.2 Chairman	Tom Palkert (Macom)
T11.2 Vice-Chairman	Dean Wallace (Marvell)
T11.2 Secretary	Jason Rusch (Viavi)
T11.3 Chairman	Craig Carlson (Marvell)
T11.3 Vice-chairman	Roger Hathorn (IBM)
T11.3 Secretary	Patty Driever (IBM)

19 Future Meeting Schedule

19.1 Authorization of adhoc meetings

The chair directed members to the ICMS T11 calendar located at the T11 section of the web site http://standards.incits.org the latest announcements of pending work group interim meetings and teleconferences. He advised that authorization of ad hoc work group meetings is delegated to the appropriate TG, if any.

The vice chair will account for these requests in the schedule for the T11 plenary week hosted by FCIA and Greg McSorley in Couer d'Alene, ID, 07-11 October 2019.

19.2 Guidelines for hosting T11 meetings (T11-2017-00151-v000)

For members who are considering hosting future plenary meetings, the chair directed their attention to "Guidelines for hosting T11 Plenary Weeks" T11-2017-00151-v000. This information includes guidelines for hosting a T11 meeting week and room night histories of past meeting weeks. This is required reading for those who are considering hosting because it summarizes the needs of the committee for meeting facilities and gives considerations that may reduce costs for the host.

Groups arranging to meet with T11 were strongly advised to confirm with the host any changes in their needs for meeting space well before the meeting. Failure to do so could easily cause serious inconvenience to the host and/or the group.

19.3 Request for hosts and 2019–2020 meeting schedule

The chair announced the following schedule for 2019-2020.

Date	Location	Host Organization	Host Person
February 4-8, 2019	Ft. Worth, TX	Teledyne-LeCroy	Dave Rogers
April 8-12, 2019	Boca Raton, FL	Amphenol	Chris Lyon
June 3-7, 2019	La Jolla, CA	Broadcom	Steve Wilson
August 12-16, 2019	Santa Fe, NM	Marvell	Craig Carlson
October 7-11, 2019	Couer d'Alene, ID	FCIA	Shelby Laramy
December 2-6, 2019	New Orleans, LA	SFF/SNIA	Greg McSorley
February 3-7, 2020	(tbd)	Teledyne-LeCroy	Dave Rodgers
April 6-10, 2020	(tbd)	Amphenol	Chris Lyon
June 1-5, 2020	(tbd)	(tbd)	
August 10-14, 2020	(tbd)	(tbd)	
October 5-9, 2020	(tbd)	(tbd)	
December 7-11, 2020	(tbd)	(tbd)	

19.4 Approval of Meeting Venues

Steve indicated that Teledyne-LeCroy has asked to move out of the February 2020 slot to one later in the year. DCS may take over the February meeting slot.
Chris Lyon is working through a contract for Deerfield Beach in April 2020.
Broadcom has approval to host a meeting in 2020, and is considering June or August 2020 in Alaska (June may be first choice).
Marvell is also looking to host in either June or August.
Rupin Mohan said HP may also be interested in hosting a meeting in 2020.
Chris Lyon indicated FCIA will look into possibly hosting in Hilton Head, SC in October 2020.
Greg McSorley also indicated that SFF is willing to host a meeting in 2020.
See action item 19-020.

19.5 Next meeting information

The chair reminded the membership that the next T11 plenary week is hosted by FCIA and Chris Lyon in Couer d'Alene, ID, October 07-11, 2019. He noted that detailed information about the hotel and the locale can be found on the INCITS website in the T11 Meeting Information folder under October 2019.

19.6 Letter to travel representatives on hotel rates (T11-2017-00150-v000)

The chair reminded the membership that
- T11 plenary meetings are hosted by volunteer organizations;
- A plenary host receives no reimbursement from T11 or INCITS for any expenses of hosting;
- A plenary host may depend on agreements with the meeting hotel in order to reduce the expenses of the host and also possibly, though not necessarily, reduced the room rates for the members; and
- A hotel may charge punitive extra fees to a host if the meeting does not achieve an agreed number of room nights identified with group members.

Therefore, T11 expects those attending meetings during a plenary week to stay at the meeting hotel and identify themselves as members of the T11 group, even though less expensive lodging may be found in the area, or even at the same hotel. Document T11-2017-00150-v000 has been posted which contains a letter to those with budget responsibilities for member organizations justifying this obligation.

19.7 Plenary week meeting map for October 2019 T11 meetings

The vice chair Craig Carlson (Marvell) presented the tentative meeting map of the next T11 meeting week. He advised members for the most recent meeting map of the next T11 regular meeting to go to the INCITS website, search the T11 Meeting Information folder under October 2019.

20 Final Attendance Notice / Check

The chair reviewed the electronically registered attendance list, advised that the list was about to close, and reminded those who had not registered that the list would then become the only source of attendance for formal records of this meeting.

Final registered attendance for T11 regular meeting #154 is shown in annex A.2. 19 people from 15 member organizations were in attendance.

21 Review of Action Items

19-013	T11 secretary to post approved Minutes of T11 meeting #153 as agreed at T11 meeting #154. (See clause 5)
19-014	T11 chair to forward request for withdrawal of INCITS 543-301x/AM1-201x to INCITS for further processing. See Clause 10.2.
19-015	T11 chair to forward request to initiate a second public review on the revised INCITS 543 (FC-PI-7, **T11-2019-00173-v000**) to INCITS for further processing. See Clause 10.2.
19-016	T11 chair to request INCITS Secretariat initiate a letter ballot on the FC-GS-8 draft standard Rev. 11.07 contained in **T11-2019-00103-v001.** See Clause 11.2.
19-017	T11 chair to forward the project proposal for FC-GS-9 (**T11-2019-00173-v000**) to INCITS for further processing. See Clause 11.2.
19-018	T11 chair to request INCITS Secretariat initiate a letter ballot on the FC-LS-4 draft standard Rev. 4.05 contained in **T11-2019-00213-v001.** See Clause 11.2.
19-019	T11 chair to request INCITS 543 (FC-PI-7) to be submitted to INCITS/SC 25-WG4 TAG for Fast Track processing. See Clause 14.2.
19-020	T11 chair to update T11 meeting schedule to remove Teledyne as tentative hosts for February and other potential updates. See Clause 19.4.

22 Adjournment

Greg McSorley (Amphenol) moved to adjourn at 1:55 PM, seconded by Tom Palkert (Macom). The motion passed by acclamation.

Annex A Membership and Attendance

A.1 Membership for this meeting

A.1.1 Emeritus Members

These people have been granted Emeritus membership in INCITS Fibre Channel (T11) Technical Committee, recognizing their many years of skilled leadership and high quality technical contribution:

Mr. James Coomes

Dr. William Ham

Mr. Robert Kembel

Mr. Bob Nixon

Mr. Schelto Van Doorn

A.1.2 Voting Members

The following is the list of organizations that are voting members of record for regular meeting #154 of the INCITS Fibre Channel (T11) Technical Committee, including the recognized representatives of each member organization:

Organization	Representative Type	Representative
Amphenol	Principal	Gregory McSorley
	Alternate	Brad Brubaker
	Alternate	Mike Davis
	Alternate	Daniel Dillow
	Alternate	Chris Lyon
	Alternate	Alex Persaud
	Alternate	Hu Silver
	Alternate	Michael Wingard
Broadcom	Principal	Steven L. Wilson

	Alternate	David Baldwin
	Alternate	Evan Beauprez
	Alternate	Ben Chu
	Alternate	Adam Healey
	Alternate	Howard Johnson
	Alternate	Mark Jones
	Alternate	Anil Mehta
	Alternate	David Peterson
	Alternate	Rob Peterson
	Alternate	James Smart
Cisco	Principal	Mike Blair
	Alternate	Harsha Bharadwaj
	Alternate	Rajesh L G
	Alternate	Fabio Maino
	Alternate	J Metz
	Alternate	Joe Pelissier
Commscope	Principal	Yang (Sunny) Xu
	Alternate	Gary Gibbs
	Alternate	Gary Irwin
	Alternate	Paul Kolesar
Corning	Principal	Doug Coleman
	Alternate	Steven E. Swanson
DCS	Principal	Todd Wheeler
	Alternate	~~Steve Eisel~~
Dell	Principal	Alan Rajapa
	Alternate	David Black
	Alternate	David Brown
	Alternate	Gaurav Chawla
	Alternate	Erik Smith
	Alternate	Joseph White
	Alternate	Jeff Young

Finisar	Principal	Vipul Bhatt
	Alternate	Jonathan King
	Alternate	Vera Koleva
Foxconn Interconnect Technology	Principal	John Petrilla
	Alternate	Fred Fons
	Alternate	Glenn Moore
	Alternate	William Peters
Fujitsu America Inc	Principal	Mark Malcolm
	Alternate	Kun Katsumata
	Alternate	Osamu Kimura
	Alternate	Eugene Owens
Global Foundries	Principal	Adrian Butter
	Alternate	John Ewen
	Alternate	Jon Garlett
Hewlett Packard Enterprise	Principal	Barry Maskas
	Alternate	Curtis Ballard
	Alternate	Rupin Mohan
	Alternate	Krishna Babu Puttagunta
IBM	Principal	Roger Hathorn
	Alternate	Patty Driever
	Alternate	Stephen Guendert
Macom	Principal	Tom Palkert
Marvell Semiconductor Inc	Principal	Craig W. Carlson
	Alternate	Anshul Agarwal
	Alternate	Sanjaya Anand
	Alternate	Girish Basrur
	Alternate	Kathy Caballero
	Alternate	Michael Dudek
	Alternate	Arun Easi
	Alternate	Robert Friend
	Alternate	Duane Grigsby

	Alternate	Rick Hicksted Jr.
	Alternate	Ali Khwaja
	Alternate	Stephen Lam
	Alternate	Ray Leung
	Alternate	Akinori Maeda
	Alternate	Praveen Midha
	Alternate	Trinh Nguyen
	Alternate	Raul Oteyza
	Alternate	Eddy Soetjahja
	Alternate	Alan Spalding
	Alternate	Gourangadoss Sundar
	Alternate	Darren Trapp
	Alternate	Andrew Vasquez
	Alternate	Dean Wallace
NetApp	Principal	Frederick Knight
	Alternate	John Meneghini
	Alternate	Urmi Misra
OFS	Principal	Roman Shubochkin
	Alternate	Mabud Choudhury
Teledyne LeCroy	Principal	David Rodgers
	Alternate	Douglas Lee
	Alternate	Henry Poelstra
Viavi	Principal	Jason Rusch
	Alternate	Scott Baxter
	Alternate	George Bullis
	Alternate	Paul Gentieu

A.1.3 Advisory Members

The following is the list of organizations that are advisory (i.e., nonvoting) members of record for regular meeting #154 of the INCITS Fibre Channel (T11) Technical Committee, including the recognized representatives of each member organization:

Organization	Representative Type	Representative
Anritsu	Principal	Tadanori Nishikobara
Ciena	Principal	Stephen Shew
	Alternate	Sebastien Gareau
Futurewei	Principal	Timothy Jeffries
	Alternate	Lei Wang
Hitachi Vantara	Principal	Eric Hibbard
	Alternate	Vincent Franceschini
	Alternate	Akinobu Shimada
	Alternate	Erwin van Londen
	Alternate	Ken Wood
Keysight Technologies	Principal	Stephen Didde
	Alternate	Steve Sekel
	Alternate	Hajime Takahashi
	Alternate	Joachim Vobis
Lumentum	Principal	Dave Lewis
MediaTek	Principal	Tamer Ali
	Alternate	Mau-Lin Wu
Microsoft	Principal	Lee Prewitt
	Alternate	Paul Luber
	Alternate	Steve Olsson
Molex	Principal	Alexandra Haser
	Alternate	Jay Neer
	Alternate	Tom Palkert
	Alternate	Scott Sommers
Panduit	Principal	Jose Castro
	Alternate	Bulent Kose
	Alternate	Robert Reid
	Alternate	Steve Skiest
TE Connectivity	Principal	Nathan Tracy
	Alternate	Jeff Mason

	Principal	Jeffrey Dremann
Unisys	Alternate	Phil Shelton
	Principal	Neil MacLean
	Alternate	Wenchao Cui
VMWare	Alternate	Wenhua Liu
	Alternate	Murali Rajagopal
	Alternate	Ahmad Tawil

A.2 Attendance at this meeting

A.2.1 Member organizations

The following is the list of member organizations and their representatives recorded in the online attendance registry as attending regular meeting #153 of the INCITS Fibre Channel (T11) Technical Committee:

Organization	Representative(s)
AMPHENOL	Chris Lyon
	Gregory McSorley
BROADCOM	Steven L. Wilson
	David Peterson
CISCO	Mike Blair
	J Metz
CORNING INC	Doug Coleman
DELL INC	Alan Rajapa
FINISAR CORPORATION	Vera Koleva
FOXCONN INTERCONNECT TECHNOLOGY LTD (FIT)	John Petrilla
FUJITSU AMERICA INC	Mark Malcolm
GLOBALFOUNDRIES US2 LLC	Adrian Butter
HEWLETT PACKARD ENTERPRISE	Rupin Mohan
IBM CORP	Patty Driever
	Roger Hathorn

MACOM	Thomas Palkert
MARVELL SEMICONDUCTOR INC	Craig W. Carlson
	Deav Wallace
NETAPP INC	Frederick Knight
VIAVI SOLUTIONS INC	Jason Rusch

A.2.2 Ad hoc meeting attendance

FC-NVMe-2 ad hoc, members

Organization	Representative(s)
BROADCOM	David Baldwin
	David Peterson
	Steven Wilson
CISCO	Mike Blair
	J Metz
DELL INC	Alan Rajapa
FUJITSU AMERICA INC	Mark Malcolm
HEWLETT PACKARD ENTERPRISE	Rupin Mohan
IBM	Patty Driever
	Roger Hathorn
MARVELL SEMICONDUCTOR	Craig Carlson
NETAPP INC	Frederick Knight
VIAVI	Jason Rusch

FC-SW-8 ad hoc, members

Organization	Representative(s)
BROADCOM	David Baldwin
	Howard Johnson
	David Peterson

	Steven Wilson
CISCO	Mike Blair
DELL INC	Alan Rajapa
FUJITSU AMERICA INC	Mark Malcolm
IBM	Patty Driever
IBM	Roger Hathorn
MARVELL SEMICONDUCTOR INC	Craig Carlson
VIAVI	Jason Rusch

FC-PI-8 ad hoc, members

Organization	Representative(s)
AMPHENOL CORPORATION	Gregory McSorley
BROADCOM INC	Ben Chu
	Anil Mehta
COMMSCOPE	Gary Gibbs
CORNING INC	Doug Coleman
DELL INC	Alan Rajapa
FINISAR CORP	Vera Koleva
FOXCONN INTERCONNECT TECHNOLOGY LTD (FIT)	John Petrilla
GLOBALFOUNDRIES US2 LLC	Adrian Butter
MACOM	Thomas Palkert
MARVELL SEMICONDUCTOR INC	Dean Wallace

FC-GS-8 ad hoc, members

Organization	Representative(s)
BROADCOM	David Baldwin
	Howard Johnson
	David Peterson
CISCO	Mike Blair
DELL INC	Alan Rajapa

FUJITSU AMERICA INC	Mark Malcolm
IBM	Patty Driever
IBM	Roger Hathorn
NETAPP INC	Frederick Knight
VIAVI	Jason Rusch

FC-LS-4 ad hoc, members

Organization	Representative(s)
BROADCOM	David Baldwin
	Howard Johnson
	Dave Peterson
CISCO	Mike Blair
	J Metz
DELL INC	Alan Rajapa
FUJITSU AMERICA INC	Mark Malcolm
IBM	Patty Driever
IBM	Roger Hathorn
MARVELL SEMICONDUCTOR INC	Craig Carlson
NETAPP INC	Frederick Knight
VIAVI	Jason Rusch

FC-FS-6 ad hoc, members

Organization	Representative(s)
BROADCOM	David Baldwin
	Howard Johnson
	David Peterson
	Steven Wilson
CISCO	Mike Blair
	J Metz

DELL INC	Alan Rajapa
FUJITSU AMERICA INC	Mark Malcolm
IBM	Patty Driever
	Roger Hathorn
MARVELL SEMICONDUCTOR INC	Craig Carlson
NETAPP INC	Frederick Knight
VIAVI	Jason Rusch
WESTERN DIGITAL	Ralph Weber

FC-RDMA ad hoc, members

Organization	Representative(s)
BROADCOM	David Baldwin
	Howard Johnson
	Dave Peterson
	Steven Wilson
CISCO	Mike Blair
DELL INC	Alan Rajapa
FUJITSU AMERICA INC	Mark Malcolm
IBM	Patty Driever
	Roger Hathorn
MARVELL SEMICONDUCTOR INC	Craig Carlson
NETAPP INC	Frederick Knight
VIAVI	Jason Rusch

Joint T11.2/T11.3 ad hoc, members

Organization	Representative(s)
BROADCOM	David Baldwin
	Ben Chu

		Dave Peterson
		Steven Wilson
	CISCO	Mike Blair
		J Metz
	COMMSCOPE	Sunny Xu
	DELL INC	Alan Rajapa
	FINISAR CORPORATION	Vera Koleva
	FOXCONN INTERCONNECT TECHNOLOGY INC (FIT)	John Petrilla
	FUJITSU AMERICA INC	Mark Malcolm
	IBM	Patty Driever
		Roger Hathorn
	MARVELL SEMICONDUCTOR INC	Craig Carlson
		Raul Oteyza
	NETAPP INC	Frederick Knight
	VIAVI	Jason Rusch

Annex B Supporting Documents

B.1 T11 Project Status

The following table indicates the status of all active T11 projects. It reflects the official status as reported on the T11 web site as of the T11 regular meeting #153 held on 06 June 2019.

Standard	Status	Action	Target or Reaffirm Date	Editor	Ad Hoc Chair	Secretary
Projects in Development Stage						
FC-FS-6	In dev.	To T11	Dec-19	Carlson	Peterson	Driever

FC-GS-8	In dev.	To T11	Oct-19	Rusch	Peterson	Driever
FC-LS-4	In dev.	To T11	Oct-19	Carlson	Driever	Rusch
FC-LS-5	In dev	To T11	Jun-20	Carlson	Driever	Rusch
FC-PI-7P	In dev.	ToT11	Dec-19	Castro	Wallace	Wallace
FC-PI-8	In dev.	ToT11	Dec-20	Castro	Wallace	Wallace
FC-SW-7	In dev.	To T11	Apr-19	Peterson	Carlson	Peterson
FC-MSQS-3	In dev.	To T11	Dec-19	Castro	Wallace	Wallace
FC-NVMe-2	In dev.	To T11	Oct-19	Peterson	Carlson	Hathorn
FC-RDMA	In dev.	To T11.	Oct.20	Peterson	Carlson	Peterson
FC-SW-8	In dev	ToT11	Jun 20	Peterson	Carlson	Peterson
Projects in Approval Stage						
FC-PI-7	At INCITS	2nd PR	Oct-20	Castro	Wallace	Wallace
FC-SW-7	At INCITS	Pre-Edit	Oct-20	Peterson	Carlson	Peterson

B.2 INCITS SC 25 / WG4 project status

The following tables indicates the status of all active INCITS SC 25 / WG4 TAG projects. It reflects the official status as reported at the T11 regular meeting #154, 15 August 2019 in document T11-2019-00178-v000. The SC 25/WG 4 TAG project database is available in document sc25-wg4-2018-00011-TAG-Project-Database.

B.2.1 Active T11 SC25 WG4 TAG Projects

	ISO/IEC # (T11 allocated)	Status
FC-SP-2+AM1 NWIP	14165-432	Submitted in July 2018. Resubmission email from INCITS/TIA on January 18, 2019 Feb 22 – email from Juergen indicates IEC project was started JTC1-SC25/2860/NP ballot opened 3/1/2019 and closed 05/24/2019 – Stage: ACD – Approved for CD
FC-BB-6 Fast Track	14165-246	ISO ballot opened 3/21/2019 and closed 6/13/2019 Source and PDF in A4 format requested
FC-SB-6 Fast Track	14165-225	ISO ballot opened 3/21/2019 and closed 6/13/2019 Source and PDF in A4 format requested