



InterNational Committee for Information Technology Standards  
(INCITS) Secretariat: Information Technology  
Industry Council (ITI) 1101 K Street NW, Suite 610,  
Washington, DC 20005

[www.INCITS.org](http://www.INCITS.org)



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**T11-2019-00175-v000**

**Draft Minutes  
INCITS Fibre Channel (T11) Technical Committee  
Regular Meeting #153  
06 June 2019 – 1 PM to 4 PM PDT  
La Jolla, CA**

## **1 Opening Remarks and Introductions**

### **1.1 Introductory Remarks**

TC T11 chair Steve Wilson (Broadcom) convened regular meeting #153 of the INCITS Fibre Channel (T11) Technical Committee on Thursday, 06 June 2019 at 1:02 PM PDT. He introduced himself, and thanked our host Broadcom 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.

### **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 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.

### **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 T11-2019-00139-v001. The chair presented the agenda with final updates as T11-2019-00139-v002 and made a call for any changes and new agenda items. No changes or new items were requested.

Chris Lyon (Amphenol) moved and Alan Rajapa (Dell) seconded that T11-2019-00139-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:

- Kevin Ehringer was removed as Primary for Data Center Systems and Todd Wheeler is assigned as the Primary member. Steve Eisel is added as an Alternate for Data Center Systems. Other representation for Data Center Systems remains the same.

- PingHuang was removed as an Alternate for VMware Inc. Other representation for VMWare Inc remains the same.
- Louis Ricci is removed as Primary for Dell Inc. and Alan Rajapa is assigned as the Primary member. David Brown is added as an Alternate. Other representation for Dell Inc. remains the same.
- Victor Gissin, Liu Qing, Yang Liu, Xu Qi Ming, Xin Qiu, and Eddy Zhou were removed as Alternates for Futurewei. Philip Kufeldt was removed as Primary for Futurwei. Tom Jeffries was added as Primary for Futurewei and Lei Wang was added as Alternate for Futurewei.

### **3.3 New Voting Memberships**

- FoxxConn Interconnect Technologies (FIT) requested membership and has been present at the last two meetings so voting privileges were granted at this meeting.

### **3.4 Voting memberships in jeopardy for attendance**

- **Macom** was in jeopardy for non-attendance, but was present so retains voting membership at this meeting.
- **DCS** was in jeopardy for non-attendance, but was present so retains voting membership at this meeting.

Notification of membership jeopardy by T11 Chair was sent via email on April 17, 2019 (T11-2019-00130-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**

- No member is in jeopardy for letter ballot performance.

### **3.7 Membership for this meeting**

Technical Committee T11 had 19 voting members at the T11 regular meeting 11 April 2019. With

the addition of Foxconn Interconnect Technologies to the voting membership, the voting membership of T11 becomes 20 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 20. One third of the total membership for this meeting is 7. The number of member organizations that responded to the call for quorum was 17. 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 #152

The prior regular meeting of the INCITS Fibre Channel (T11) Technical Committee was #152 on 11 April 2019. The draft Minutes of that meeting were posted as document T11/2019-00127-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. Two corrections were requested—Clause 11.2 had the wrong document number listed for the FC-SW-8 project proposal and the Action Items needed to be renumbered (004 had been erroneously skipped).

Mike Blair (Cisco) moved and Alan Rajapa (Dell) seconded to accept T11/2019-00127-v001 as modified the Minutes of T11 meeting #152 on 11 April 2019. The motion passed by acclamation.

See action item [19-009](#).

## 6 Review of Old Action Items

19-004	T11 secretary to post approved Minutes of T11 meeting #151 as agreed at T11 meeting #152. (See <a href="#">clause 5</a> ) . Completed by posting T11-2019-00126-v000 on April 14, 2019.
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19-005	T11 chair to forward the project proposal for FC-LS-5 ( <a href="#">T11-2019-00006-v000</a> ) to INCITS for further processing. See <a href="#">Clause 11.2</a> . Completed April 30, 2019 ( <a href="#">T11-2019-00135-v000</a> )
19-006	T11 chair to forward the resulting FC-SW-7 draft standard Rev. 1.09 contained in <a href="#">T11-2019-00003-v003</a> to INCITS for further processing, including first public review. See <a href="#">Clause 11.2</a> . Completed April 30, 2019 ( <a href="#">T11-2019-00134-v000</a> )
19-007	T11 chair to forward the project proposal for FC-SW-8 ( <a href="#">T11-2019-00069-v000</a> ) to INCITS for further processing. See <a href="#">Clause 11.2</a> . Completed April 30, 2019 ( <a href="#">T11-2019-00136-v000</a> )
19-008	T11 chair to notify INCITS of T11 recommendations for National Maintenance documents. See <a href="#">Clause 15.1</a> . Completed April 18, 2019 ( <a href="#">T11-2019-00131-v000</a> )

## 7 Review of T11 Project and Proposal Status

### 7.1 Project Proposals

**7.1.1** FC-LS-5 was approved as project INCITS 569-201x.

**7.1.2** FC-SW-8 was approved as project INCITS 568-201x.

Chair to request that INCITS Secretariat add projects to the website for these two new projects. See action item [19-011](#).

### 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 (T11-2019-00192-v000)**

Task Group chair Tom Palkert (Macom) gave the report posted as T11-2019-00192-v000 on activity at T11.2.

### **10.2 Actions**

Tom Palkert made a request to T11 to forward the project proposal for FC-PI-7 Amendment 1 contained in document T11-2019-00129-v000 to INCITS for further processing. Seconded by Chris Lyon (Amphenol). Motion carried 17-0-0. See action item [19-010](#).

### **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 (T11-2019-00191-v000)**

Task Group chair Craig Carlson (Marvell) presented the information posted as T11-2019-00191-v000 on activity at T11.3.

### **11.2 Actions**

No actions were brought forward during this meeting cycle for TG T11.3.

### **11.3 Other Items**

No other items were presented for TG T11.3.

## **12 Joint TG T11.2 / T11.3 Items (T11-2019-00182-v000)**



Task Group chair Tom Palkert (Macom) presented the information posted as T11-2019-00182-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 (T11-2019-00178-v000)**

Dave Peterson (Broadcom) presented the information posted as T11-2019-00178-v000 on INCITS SC 25 / WG4 TAG project status (see [annex B.2](#)).

### **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 (T11-2019-00137-v000), INCITS Liaison report (T11-2019-00172-v000)**

Steve Wilson (Broadcom) presented the information posted as T11-2019-00137-v000 on activity at T11 as reported to other organizations, and the information posted as T11-2019-00172-v000 on activity at INCITS other than T11 project status.

### **17.2 TC T10 (no document)**

Fred Knight (NetApp) gave verbal report 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 (T11-2019-00190-v000)**

Chris Lyon (Amphenol) gave report T11-2019-00190-v000 on activity at FCIA.

### **17.4 IEEE 802.3 (T11-2019-00193-v000) and Liaison Letter (T11-2019-00195)**

Tom Palkert (Molex) gave report T11-2019-00193-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 (T11-2019-00180-v000)**

Fred Knight (NetApp) discussed report T11-2019-00180-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)

### 18.2 T11 Information Technology

#### 18.2.1 Website status

There was no new status relative to the website.

## 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 Marvell and Craig Carlson in Santa Fe, NM, 12-16 August 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)	(tbd)	
April 6-10, 2020	(tbd)	(tbd)	
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**

Teledyne-LeCroy is tentative as a host for February 2020 and Amphenol is tentative for April 2020.

See action item [19-012](#).

## **19.5 Next meeting information**

The chair reminded the membership that the next T11 plenary week is hosted by Marvell and Craig Carlson in Santa Fe, NM, August 12-16, 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 August 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 August 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 August 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 #153 is shown in annex A.2. 19 people from 17 member organizations were in attendance.

## 21 Review of Action Items

19-009	T11 secretary to post approved Minutes of T11 meeting #152 as agreed at T11 meeting #153. (See <a href="#">clause 5</a> )
19-010	T11 chair to forward the project proposal for FC-PI-8 Amendment 1 ( <a href="#">T11-2019-00129-v000</a> ) to INCITS for further processing. See <a href="#">Clause 11.2</a> .
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 <a href="#">Clause 7.1</a>
19-012	T11 chair to update T11 meeting schedule to show tentative hosts for February and April 2020. See <a href="#">Clause 19.4</a> .

## 22 Adjournment

Chris Lyon (Amphenol) moved to adjourn at 1:45 PM, seconded by Alan Rajapa (Dell). 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 #152 of the INCITS Fibre Channel (T11) Technical Committee, including the recognized representatives of each member organization:

<b>Organization</b>	<b>Representative Type</b>	<b>Representative</b>
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	Sanjaya Anand
	Alternate	Anshul Agarwal
	Alternate	Girish Basrur
	Alternate	Kathy Caballero
	Alternate	Robert Friend
	Alternate	Duane Grigsby
	Alternate	Ali Khwaja
	Alternate	Rick Hicksted Jr.

	Alternate	Michael Dudek
	Alternate	Stephen Lam
	Alternate	Ray Leung
	Alternate	Akinori Maeda
	Alternate	Praveen Midha
	Alternate	Trinh Nguyen
	Alternate	Raul Oteyza
	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
Panduit	Principal	Jose Castro
	Alternate	Bulent Kose
	Alternate	Robert Reid
	Alternate	Steve Skiest
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 #152 of the INCITS Fibre Channel (T11) Technical Committee, including the

recognized representatives of each member organization:

<b>Organization</b>	<b>Representative Type</b>	<b>Representative</b>
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
TE Connectivity	Principal	Nathan Tracy
	Alternate	Jeff Mason
Unisys	Principal	Jeffrey Dremann
	Alternate	Phil Shelton

VMWare	Principal	Neil MacLean
	Alternate	Wenchao Cui
	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:

<b>Organization</b>	<b>Representative(s)</b>
AMPHENOL	Chris Lyon
BROADCOM	Steven L. Wilson
	David Peterson
CISCO	Mike Blair
	J Metz
COMMSCOPE	Gary Gibbs
DATA CENTER SYSTEMS	Todd Wheeler
DELL INC	Alan Rajapa
FINISAR CORPORATION	Vera Koleva
FOXCONN INTERCONNECT TECHNOLOGY LTD (FIT)	John Petrilla
GLOBALFOUNDRIES US2 LLC	Adrian Butter
HEWLETT PACKARD ENTERPRISE	Rupin Mohan
IBM CORP	Patty Driever
MACOM	Thomas Palkert
MARVELL SEMICONDUCTOR INC	Craig W. Carlson
NETAPP INC	Frederick Knight
OFS FITEL LLC	Mabud Choudhury

TELEDYNE LECROY CORP	Henry Poelstra
VIAVI SOLUTIONS INC	Jason Rusch

**A.2.2 Ad hoc meeting attendance**

FC-NVMe-2 ad hoc, members

Organization	Representative(s)
BROADCOM	David Baldwin
	Howard Johnson
	David Peterson
	James Smart
	Steven Wilson
CISCO	Mike Blair
	J Metz
DELL INC	Alan Rajapa
	David Brown
HEWLETT PACKARD ENTERPRISE	Rupin Mohan
IBM	Patty Driever
MARVELL SEMICONDUCTOR	Craig Carlson
VIAVI	Jason Rusch

FC-SW-7 ad hoc, members

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

	J Metz
DELL INC	Alan Rajapa
	David Brown
HEWLETT PACKARD ENTERPRISE	Rupin Mohan
IBM	Patty Driever
MARVELL SEMICONDUCTOR INC	Craig Carlson
VIAVI	Jason Rusch

FC-PI-8 ad hoc, members

Organization	Representative(s)
BROADCOM INC	Ben Chu
	Steven Wilson
COMMSCOPE	Gary Gibbs
DATA CENTER SYSTEMS	Todd Wheeler
	Steve Eisele
DELL INC	Alan Rajapa
FINISAR CORP	Vera Koleva
FIT	John Petrilla
GLOBALFOUNDRIES	Adrian Butter
MACOM	Thomas Palkert
MARVELL SEMICONDUCTOR INC	Dean Wallace
OFS FITEL LLC	Mabud Choudhury
PANDUIT CORP	Jose Castro
TELEDYNE-LECROY CORP	Henry Poelstra

FC-GS-8 ad hoc, members

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

	James Smart
CISCO	Mike Blair
DELL INC	Alan Rajapa
	David Brown
HEWLETT PACKARD ENTERPRISE	Rupin Mohan
IBM	Patty Driever
VIAVI	Jason Rusch

FC-LS-4 ad hoc, members

Organization	Representative(s)
BROADCOM	David Baldwin
	Howard Johnson
	Dave Peterson
	James Smart
	Steven Wilson
CISCO	Mike Blair
	J Metz
COMMSCOPE	Gary Gibbs
DELL INC	Alan Rajapa
IBM	Patty Driever
MARVELL SEMICONDUCTOR INC	Craig Carlson
VIAVI	Jason Rusch

FC-FS-6 ad hoc, members

Organization	Representative(s)
BROADCOM	David Baldwin
	Howard Johnson
	David Peterson
CISCO	Mike Blair

	J Metz
DELL INC	Alan Rajapa
	David Brown
IBM	Patty Driever
MARVELL SEMICONDUCTOR INC	Craig Carlson
VIAVI	Jason Rusch
WESTERN DIGITAL	Ralph Weber

## 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	Jun-19	Carlson	Peterson	Driever
FC-GS-8	In dev.	To T11	Apr-19	Rusch	Peterson	Driever
FC-LS-4	In dev.	To T11	Apr-19	Carlson	Driever	Rusch
FC-PI-7P	In dev.	To T11	Jun-19	Castro	Wallace	Wallace
FC-PI-8	In dev.	To T11	Dec-20	Castro	Wallace	Wallace
FC-SW-7	In dev.	To T11.3	Apr-19	Peterson	Carlson	Peterson
FC-MSQS-3	In dev.	To T11	Jun-19	Castro	Wallace	Wallace
FC-NVMe-2	In dev.	To T11.3	Apr-19	Peterson	Carlson	Hathorn
FC-RDMA	In dev.	To T11.3	Oct.20	Peterson	Carlson	Peterson
Projects in Approval Stage						
FC-FS-5	At INCITS	EB Approval	Apr-19	Peterson	Carlson	Driever
FC-PI-7	At INCITS	EB Approval	Apr-19	Castro	Wallace	Wallace
FC-NVMe AM1	At INCITS	ANSI Approval	Feb-19	Peterson	Carlson	Hathorn





## 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 #153, 06 June 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 – Approved for further processing
FC-BB-6 Fast Track	14165-246	ISO ballot opens 3/21/2019 and closes 6/13/2019
FC-SB-6 Fast Track	14165-225	ISO ballot opens 3/21/2019 and closes 6/13/2019