



**InterNational Committee for Information Technology Standards**  
**(INCITS)** Secretariat: Information Technology  
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[www.INCITS.org](http://www.INCITS.org)



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**T11-2021-00350-v000**

**Draft Minutes**  
**INCITS Fibre Channel (T11) Technical Committee**  
**Regular Meeting #168**  
**09 December 2021 – 1 PM to 3 PM EST**  
**Deerfield Beach, FL (Hybrid Meeting)**

## **1 Opening Remarks and Introductions**

### **1.1 Introductory Remarks**

TC T11 chair Steve Wilson (Broadcom) convened regular meeting #168 of the INCITS Fibre Channel (T11) Technical Committee on Thursday, 09 December 2021 at 1:03 PM EST. He introduced himself and thanked our hosts Amphenol for the physical meeting facilities and Marvell for the virtual meeting facilities.

He next introduced Vice-Chair Craig Carlson (Marvell) and Patty Driever (IBM) as secretary.

### **1.2 Self-introductions**

The chair then asked those present in the room to introduce themselves.

### **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 Code of Conduct**

The chair reminded everyone that we are operating under the INCITS Code of Conduct (found at <https://www.incits.org/standards-information/policies>). The General Principles of this code include:

- Respect others
- Behave ethically
- Escalate and resolve disputes
- Work for the net benefit of the community
- Uphold consensus and governance
- Agree to a clear purpose and scope
- Participate actively and manage effective participation

### **1.3.4 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 T11-2021-00313-v001. The chair presented the agenda with final updates as T11-2021-00313-v002 and made a call for any changes and new agenda items. No changes or new items were requested.

Dave Peterson (Broadcom) moved and Dean Wallace (Marvell) seconded that T11-2021-00313-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:

Gaurav Chawla was removed as Alternate for Dell, Inc. Other representation for Dell remains the same.

Anil Gurumurthy was added as Alternate for Marvell Semiconductor, Inc. Other representation for Marvell remains the same.

### **3.3 New Voting Memberships**

- No additional companies answered the vice-chair's call so none were granted voting membership at this meeting.

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

- No company is in membership jeopardy for non-attendance during this meeting cycle.

### **3.5 Voting memberships in jeopardy for non-payment of dues**

- There were no companies in membership jeopardy for non-payment of dues.

### **3.6 Voting memberships in jeopardy for letter ballot performance**

- CommScope is in membership jeopardy for letter ballot performance for not having voted on two of last three T11 letter ballots.

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

Technical Committee T11 had 17 voting members at the T11 regular meeting 07 October 2021. With no members losing voting privileges, and no members gaining voting privileges the voting membership of T11 remains at 17 for 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 voting membership for this meeting is 17. One third of the total membership for this meeting is 6. 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 6. A quorum is therefore present for this meeting. It should be noted that of the 16 (voting and non-voting) member companies present at this plenary meeting, 7 were in attendance in-person during this plenary meeting and 10 member companies had representatives present during the week at the ad-hoc meetings.

### **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 #167**

The prior regular meeting of the INCITS Fibre Channel (T11) Technical Committee was #167 on 07 October 2021. The draft Minutes of that meeting were posted as document T11/2021-00287-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](mailto:pgd@us.ibm.com)) or at the subsequent meeting in person.

Dave Peterson (Broadcom) moved and Greg McSorley (Amphenol) seconded to accept T11/2021-00287-v000 as the Minutes of T11 meeting #167 on 07 October 2021. The motion passed by acclamation.

See action item [21-016](#).

## **6 Review of Old Action Items**

21-012	T11 secretary to post approved Minutes of T11 meeting #166 as agreed at T11 meeting #167. Completed by posting T11/2021-00293-v000 on October 07, 2021.
21-013	T11 Chair to forward new project proposal for FC-NVMe-3 as documented in <a href="#">T11-2021-00188-v003</a> to INCITs for further processing. Forwarded to EB by the INCITS Secretariat. Approved by EB.
21-014	T11 Chair to forward new project proposal for FC-SP-2/AM2 as documented in <a href="#">T11-2021-00250-v000</a> and forward to INCITs for further processing. Forwarded to EB by the INCITS Secretariat. Approved by EB.
21-015	T11 chair to update T11 Future Meeting Schedule to reflect current 2022 hosting plans. See <a href="#">Clause 19.4.1</a> . Completed by Chair on November 1, 2021.

## 7 Review of T11 Project and Proposal Status

### 7.1 Project Proposals

#### 7.1.1 FC-NVMe-3 ([T11-2021-00188-v003](#))

Project proposal for FC-NVMe-3 was approved by INCITS.

#### 7.1.2 FC-SP-2/AM2 ([T11-2021-00250-v000](#))

Project proposal for FC-SP-2/AM2 was approved by INCITS.

### 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 FC-SP-2/AM2

This letter ballot passed with a vote of Yes – 14, No – 0, Not Voting – 2. One comment was

received.

## **9 Old Business**

No old business was reopened.

## **10 Task Group T11.2 - Physical Interfaces**

### **10.1 Report to T11 Plenary ([T11-2021-00371-v000](#))**

Task Group vice-chair Dean Wallace (Marvell) gave the report posted as T11-2021-00371-v000 on activity at T11.2.

### **10.2 Actions**

**10.2.1** There were no actions

### **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 ([T11-2021-00369-v000](#))**

Task Group Chair Craig Carlson (Marvell) presented the information posted as T11-2021-00369-v000 on activity at T11.3.

### **11.2 Actions**

#### **11.2.1 FC-RDMA ([T11-2021-00317-v000](#))**

Craig Carlson (Marvell) presented a new project proposal FC-RDMA. Craig made a motion, seconded by Dave Peterson (Broadcom) that T11 accept the new project proposal for FC-RDMA as documented in [T11-2021-00317-v000](#) and forward to INCITs for further processing. Motion carried with votes recorded as follows: In Favor - 13, Opposed – 0, Abstain – 2 (Craig Carlson on behalf of Marvell and Fred Knight on behalf of NetApp).



See action item [21-017](#).

### **11.3 Other Items**

No other items were presented for TG T11.3.

## **12 Joint TG T11.2 / T11.3 Items**

### **12.1 Report to T11 Plenary**

There was no meeting of the Joint T11.2/T11.3 Task Group during this meeting cycle.

### **12.2 Actions**

**12.2.1** There were no actions.

### **12.3 Other Items**

No other items were presented for Joint T11.2/T11.3.

## **13 T11 project activities**

None for this meeting cycle.

## **14 Review of International Activity**

### **14.1 INCITS SC 25 / WG4 TAG Status Report ([T11-2021-00362-v000](#))**

Dave Peterson (Broadcom) presented the information posted as T11-2021-00362-v000 on INCITS SC 25 / WG4 TAG project status (see [annex B.2](#)).

## **15 T11 New Business**

## **15.1 Liaison Review**

INCITS has asked that all TCs and TGs review their liaisons. We must provide information on when those liaisons started. Steve had hoped to get this list together before the December meeting, but we have received an extension until February from INCITS to complete this. Steve needs some help from those more closely involved with some of the groups, so he will be in touch with liaison reps to try to pull this together.

## **16 Call for Patents**

### **16.1 Call for Patents**

#### **16.1.1 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 the INCITS patent policy, which is publicly available at [INCITS Patent Policy](#).

#### **16.1.2 INCITS/ISO patent disclosure form**

A template form for a patent declaration that is satisfactory to both INCITS and ISO can be found in [INCITS Patent Declaration Form](#).

No company responded to the call for patents.

## **17 Liaison Reports**

### **17.1 T11 report ([T11-2021-00309-v000](#)), INCITS Liaison report ([T11-2021-00327-v000](#))**

Steve Wilson (Broadcom) presented the information posted as T11-2021-00309-v000 on activity at T11 as reported to other organizations, and the information posted as T11-2021-00327-v000 on activity at INCITS other than T11 project status.

### **17.2 TC T10 ([T11-2021-00370-v000](#))**

Fred Knight (NetApp) gave report T11-2021-00370 on activity at T10.

### 17.3 FCIA ([T11-2021-00361-v000](#))

Mark Jones (Broadcom) gave report T11-2021-00283-v000 on activity at FCIA.

### 17.4 IEEE 802.3 ([T11-2021-00365-v000](#))

Tom Palkert (Macom) and Mabud Choudhury (OFS) posted report T11-2021-00365-v000 on activity at IEEE 802.3, but it had been reviewed earlier in the T11.2 Plenary meeting, so was not repeated here. Document is available on the website for anyone's review.

### 17.5 INCITS TC CS1 (None)

### 17.6 SNIA and SFF ([T11-2021-00360-v000](#))

Fred Knight (NetApp) discussed report T11-2021-00360-v000 on SNIA 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 in Raleigh, NC and by Marvell via Zoom hybrid conference 07-11 February 2022.

### 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 2021–2022 meeting schedule

The chair announced the following schedule for 2021-2022.

Date	Location	Host Organization	Host Person
February 1-5, 2021	Virtual Meeting		
April 5-9, 2021	Virtual Meeting		

June 7-12, 2021	Virtual Meeting		
August 16-20, 2021	Sante Fe, NM	Broadcom	Steve Wilson
October 4-8, 2021	Coeur d'Alene	SNIA/SFF	Paul Coddington
December 6-10, 2021	Deerfield Beach, FL	Amphenol	Chris Lyon
February 7-11, 2022	Raleigh, NC*	FCIA	Chris Lyon
April 4-8, 2022	New Orleans, LA*	Broadcom	Steve Wilson
June 6-10, 2022	Duluth, MN	Marvell	Craig Carlson
August 8-12, 2022	tbd	tbd	tbd
October 3-7, 2022	tbd	tbd	tbd
December 5-9, 2022	Deerfield Beach, FL*	SNIA/SFF	Paul Coddington

\*Locations are pending group approval

## 19.4 Approval of Meeting Venues

### 19.4.1 February 2022 Meeting Venue

Chris Lyon has offered that FCIA will host the February meeting in Raleigh, NC with a room rate of \$195.

### 19.4.2 April 2022 Meeting Venue

Steve Wilson has offered that Broadcom will host the April 2022 meeting in New Orleans, LA with a room rate of \$249.

### 19.4.3 December 2022 Meeting Venue

Chris Lyon has offered that FCIA will host the December 2022 meeting in Deerfield Beach, FL with a room rate of \$250/night.

Roger Hathorn (IBM) made a motion, seconded by Dave Peterson (Broadcom) that we accept the February, April and December meeting locations as identified above. Motion

passed 15-Yes, 0-No, and 0-Abstain.

Chair to update T11 meeting information with locations as noted in 19.4.1, 19.4.2 and 19.4.3. See action item [21-018](#).

#### **19.4.4 2023 Meeting Dates**

Chair Steve Wilson presented a list of proposed meeting dates for 2023.

Roger Hathorn (IBM) made a motion, seconded by Dave Peterson (Broadcom) that we accept the 2023 meeting dates as presented. Motion passed 14-Yes, 0-No, and 0-Abstain.

Chair to update T11 meeting information with 2023 meeting dates. See action item [21-018](#).

#### **19.5 Next meeting information**

The chair reminded the membership that the next T11 plenary week, February 07-11, is planned to be a hybrid meeting with the face-to-face meeting in Raleigh, NC hosted by FCIA and the virtual meeting will be using Marvell Zoom facilities.

#### **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 February 2022 T11 meetings

The vice chair Craig Carlson (Marvell) created and the chair 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 February 2022.

### 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 #168 is shown in annex A.2. 27 people from 16 member (15 voting) organizations were in attendance.

### 21 Review of Action Items

21-016	T11 secretary to post approved Minutes of T11 meeting #167 as agreed at T11 meeting #1687. (See <a href="#">clause 5</a> )
21-017	T11 Chair to forward new project proposal for FC-RDMA as documented in <a href="#">T11-2021-00317-v000</a> to INCITs for further processing
21-018	T11 chair to update T11 Future Meeting Schedule to reflect current 2022 hosting plans as well as 2023 meeting dates. See <a href="#">Clause 19.4</a> .
21-019	Roger Hathorn to update Letter to Travel Rep on Hotel Rates in order to reflect a more current date.

### 22 Adjournment

Greg McSorley (Amphenol) moved to adjourn at 1:55 PM EST. 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:

**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 #168 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	Chris Lyon
	Alternate	Brad Brubaker
	Alternate	Paul Coddington
	Alternate	Daniel Dillow
	Alternate	Michael Klempa
	Alternate	Sam Kocsis
	Alternate	Gregory McSorley
	Alternate	Alex Persaud
	Alternate	Hu Silver
	Alternate	Michael Wingard
Broadcom	Principal	Steven L. Wilson



	Alternate	Evan Beauprez
	Alternate	Ben Chu
	Alternate	Robert Hannah
	Alternate	Adam Healey
	Alternate	Howard Johnson
	Alternate	Mark Jones
	Alternate	Anil Mehta
	Alternate	David Peterson
	Alternate	James Smart
	Alternate	Anil Veerabhadrapa
Cisco	Principal	Mike Blair
	Alternate	Harsha Bharadwaj
	Alternate	Rajesh L.G.
	Alternate	Fabio Maino
	Alternate	Edward Mazurek
	Alternate	Mark Nowell
	Alternate	Sai Pavan
	Alternate	Kiran Ranabhor
	Alternate	Shalom Shefa
	Alternate	Sumanth Sindiri
	Alternate	Ramesh Sivakolundu
Commscope	Principal	Yang (Sunny) Xu
	Alternate	Gary Gibbs
Corning	Principal	David Kozischek
	Alternate	Steven E. Swanson
DCS	Principal	Steve Eisele
	Alternate	Rodney Jacks
Dell	Principal	Erik Smith
	Alternate	Jai Bansai
	Alternate	David Black

	Alternate	David Brown
	Alternate	Doug Farley
	Alternate	David Piehler
	Alternate	Vinay Sawal
	Alternate	Joseph White
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
II-VI Inc	Principal	Vipul Bhatt
	Alternate	Vera Koleva
	Alternate	Lance Thompson
Keysight Technologies	Principal	Stephen Didde
	Alternate	Joachim Vobis
Macom	Principal	Thomas Palkert
Marvell Semiconductor Inc	Principal	Craig W. Carlson
	Alternate	Anshul Agarwal
	Alternate	Sanjaya Anand
	Alternate	Qian Banglong
	Alternate	Girish Basrur
	Alternate	Kathy Caballero
	Alternate	Michael Dudek
	Alternate	Arun Easi
	Alternate	Robert Friend
	Alternate	Duane Grigsby
	Alternate	Anil Gurumurthy
	Alternate	James Hamada
Alternate	Andrew Joy	

	Alternate	Ali Khwaja
	Alternate	Stephen Lam
	Alternate	Ray Leung
	Alternate	Raymond Liang
	Alternate	Akinori Maeda
	Alternate	Praveen Midhag
	Alternate	Trinh Nguyen
	Alternate	Raul Oteyza
	Alternate	Arun Patil
	Alternate	Eddy Soetjahja
	Alternate	Alan Spalding
	Alternate	Gourangadoss Sundar
	Alternate	Andrew Vasquez
	Alternate	Dean Wallace
NetApp	Principal	Frederick Knight
	Alternate	John Meneghini
OFS	Principal	Roman Shubochkin
	Alternate	Mabud Choudhury
Teledyne LeCroy	Principal	David Rodgers
	Alternate	Amit Bakshi
	Alternate	Rakesh Kathiresan Natarajan
	Alternate	Douglas Lee
	Alternate	Henry Poelstra
Viavi	Alternate	Srikant Tadigadapa
	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 #168 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
	Alternate	Yuji Sekine
Ciena	Principal	Stephen Shew
	Alternate	Sebastien Gareau
Credo Semiconductor	Principal	Phil Sun
	Alternate	Dr. Fang Cai
	Alternate	Yasuo Hidaka
Futurewei	Principal	Timothy Jeffries
	Alternate	Victor Cao
Lumentum Operations	Principal	David Lewis
MediaTek	Principal	Tamer Ali
	Alternate	Chihlong Dai
	Alternate	Herbert Wang
	Alternate	Mau-Lin Wu
Molex	Principal	Alexandra Haser
	Alternate	Scott Sommers
Panduit	Principal	Jose Castro
	Alternate	Bulent Kose
	Alternate	Robert Reid
TE Connectivity	Principal	Nathan Tracy
	Alternate	Jeff Mason
	Alternate	Matt Schumacher
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 #168 of the INCITS Fibre Channel (T11) Technical Committee:

Organization	Representative(s)	In Person
AMPHENOL CORP	Paul Coddington	Y
	Michael Klemper	Y
	Gregory McSorley	Y
BROADCOM INC	Ben Chu	N
	Howard Johnson	Y
	Mark Jones	Y
	David Peterson	Y
	James Smart	N
	Steven L. Wilson	Y
CISCO SYSTEMS INC	Mike Blair	N
	Ramesh Sivakolundu	Y
COMMSCOPE	Sunny Xu	N
CORNING	David Kozischek	N
DELL INC	Erik Smith	N
HEWLETT PACKARD ENTERPRISE	Barry Maskas	N
IBM CORP	Patty Driever	N
	Roger Hathorn	Y
II-VI INC	Lance Thompson	N
KEYSIGHT TECHNOLOGIES INC	Stephen Didde	N
MARVELL SEMICONDUCTOR	Craig Carlson	Y
	Raul Oteyza	N
	Dean Wallace	Y
NETAPP INC	Frederick Knight	Y

OFS FITEL LLC	Mabud Choudhury	N
PANDUIT CORPORATION	Jose Castro	N
TELEDYNE LECROY CORPORATION	Henry Poelstra	N
VIAMI SOLUTIONS INC	Jason Rusch	Y

**A.2.2 Ad hoc meeting attendance**

FC-SW-8 ad hoc, members

Organization	Representative(s)
BROADCOM INC	Howard Johnson
	David Peterson
	James Smart
CISCO SYSTEMS INC	Harsha Bharadwaj
	Mike Blair
	Edward Mazurek
IBM CORP	Patty Driever
	Roger Hathorn
MARVELL SEMICONDUCTOR INC	Craig Carlson
NETAPP INC	Frederick Knight

FC-PI-8 ad hoc, members

Organization	Representative(s)
AMPHENOL CORPORATION	Paul Coddington
	Michael Klempa
BROADCOM INC	Ben Chu
	Anil Mehta
	James Smart
CISCO SYSTEMS INC	Kiran Ranabhor
	Ramesh Sivakolundu

	Xiaohong Wu
COMMSCOPE	Sunny Xu
DATA CENTER SYSTEMS	Steve Eisele
HEWLETT PACKARD ENTEPRISE	Barry Maskas
II-VI INC	Lance Thompson
KEYSIGHT TECHNOLOGIES INC	Stephen Didde
MACOM	Thomas Palkert
MARVELL SEMICONDUCTOR INC	Mike Dudek
	Raul Oteyza
	Dean Wallace
OFS FITEL LLC	Mabud Choudhury
PANDUIT CORPORATION	Jose Castro
VIAVI SOLUTIONS INC	Jason Rusch

FC-GS-9 ad hoc, members

Organization	Representative(s)
BROADCOM INC	Howard Johnson
	David Peterson
	James Smart
CISCO SYSTEMS INC	Harsha Bharadwaj
	Edward Mazurek
HEWLETT PACKARD ENTERPRISE	Barry Maskas
IBM CORPORATION	Patty Driever
	Roger Hathorn
MARVELL SEMICONDUCTOR INC	Craig Carlson
NETAPP INC	Frederick Knight
VIAVI SOLUTIONS INC	Jason Rusch

FC-LS-5 ad hoc, members

Organization	Representative(s)
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BROADCOM INC	Howard Johnson
	Dave Peterson
CISCO SYSTEMS INC	Harsha Bharadwaj
	Edward Mazurek
	Ramesh Sivakolundu
HEWLETT PACKARD ENTERPRISE	Barry Maskas
IBM CORP	Patty Driever
	Roger Hathorn
MARVELL SEMICONDUCTOR INC	Craig Carlson
NETAPP INC	Frederick Knight
VIAVI SOLUTIONS INC	Jason Rusch

FC-FS-6 ad hoc, members

Organization	Representative(s)
BROADCOM	David Peterson
	James Smart
CISCO SYSTEMS INC	Ed Mazurek
HEWLETT PACKARD ENTERPRISE	Barry Maskas
IBM	Patty Driever
	Roger Hathorn
MARVELL SEMICONDUCTOR INC	Craig Carlson
	Raul Oteyza
NETAPP INC	Frederick Knight

FC-PM ad hoc, members

Organization	Representative(s)
BROADCOM INC	David Peterson
	James Smart



CISCO SYSTEMS INC	Harsha Bharadwaj
	Edward Mazurek
HEWLETT PACKARD ENTERPRISE	Barry Maskas
IBM CORPORATION	Patty Drierer
	Roger Hathorn
MARVELL SEMICONDUCTOR INC	Craig Carlson
NETAPP INC	Frederick Knight
VIAVI SOLUTIONS INC	Jason Rusch

FC-NVMe-3 ad hoc, members

Organization	Representative(s)
BROADCOM INC	Howard Johnson
	David Peterson
	James Smart
CISCO SYSTEMS INC	Harsha Bharadwaj
	Mike Blair
	Edward Mazurek
HEWLETT PACKARD ENTERPRISE	Barry Maskas
IBM CORPORATION	Patty Drierer
	Roger Hathorn
KEYSIGHT TECHNOLOGIES	Stephen Didde
MARVELL SEMICONDUCTOR INC	Craig Carlson
NETAPP INC	Frederick Knight
VIAVI SOLUTIONS INC	Jason Rusch

FC-SP-2/AM2 ad hoc, members

Organization	Representative(s)
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BROADCOM INC	David Peterson
	James Smart
CISCO SYSTEMS INC	Edward Mazurek
HEWLETT PACKARD ENTERPRISE	Barry Maskas
IBM CORPORATION	Patty Driever
	Roger Hathorn
KEYSIGHT TECHNOLOGIES	Stephen Didde
MARVELL SEMICONDUCTOR INC	Craig Carlson
	Raul Oteyza
NETAPP INC	Frederick Knight

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

Organization	Representative(s)
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## 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 #168 held on 09 December 2021.

Standard	Status	Action	Target or Reaffirm Date	Editor	Ad Hoc Chair	Secretary
Projects in Development Stage						
FC-FS-6	In dev.	To T11	Dec-21	Carlson	Peterson	Driever

FC-GS-9	In dev.	To T11	Dec-21	Rusch	Peterson	Johnson
FC-LS-5	In dev.	To T11	Dec-21	Carlson	Driever	Rusch
FC-MSQS-3	In dev.	To T11	Dec-21	Castro	Wallace	Wallace
FC-PI-8	In dev.	ToT11	Dec-21	Rusch	Wallace	Wallace
FC-PM	In dev.	To T11.	Dec.21	Peterson	Carlson	Peterson
FC-SW-8	In dev	ToT11	Dec 21	Peterson	Carlson	Peterson
FC-NVMe-3	In dev.	ToT11	Dec 22	Peterson	Carlson	
FC-SP-2/AM2	In dev	ToT11	Dec 22	Peterson	Hathorn	
Projects in Approval Stage						

## 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 #168, 09 December 2021 in document T11-2021-00362-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	<p>Submitted in July 2018. Resubmission email from INCITS/TIA on January 18, 2019</p> <p>Feb 22 – email from Juergen indicates IEC project was started</p> <p>JTC1-SC25/2860/NP ballot opened 3/1/2019 and closed 05/24/2019 – Stage: ACD – Approved for CD</p> <p>9/16/19 – CD circulated on 9/13/19</p> <ul style="list-style-type: none"> <li>- International (comments) due date: 12/06/2019</li> <li>- TAG (comments) Deadline: 11/06/2019</li> </ul> <p>Stage: PCC – Preparation of CC</p> <p>1/28/20 – No comments requesting changes received, with request for Word source</p> <p>6/03/20 – Received request for Word source again 😞</p> <p>DIS text was submitted to IEC for further processing. FDIS ballot should be issued shortly.</p> <p>12/7/20 – Sent email requesting status</p> <p>12/11/20 – Submitted CDV</p> <p>5/28/21 – Comments received from ISO-IEC Central Office.</p> <ul style="list-style-type: none"> <li>- Had two con calls to discuss 7 remaining open items</li> </ul> <p>11/29/21 – Sent final FDIS PDF to ISO/IEC Central Office</p>