



InterNational Committee for Information Technology Standards
(INCITS) Secretariat: Information Technology
Industry Council (ITI) 700 K Street NW, Suite 600,
Washington, DC 20001

www.INCITS.org



T11-2023-00065-v000

**Draft Minutes
INCITS Fibre Channel (T11) Technical Committee
Regular Meeting #175
09 February 2023 – 1 PM to 3 PM MST
Tucson, AZ (Hybrid Meeting)**

1 Opening Remarks and Introductions

1.1 Introductory Remarks

TC T11 chair Howard Johnson (Broadcom) convened regular meeting #175 of the INCITS Fibre Channel (T11) Technical Committee on Thursday, 09 February 2023 at 1:01 PM MST. He introduced himself and thanked our host FCIA for the physical meeting facilities as well 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 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 T11-2023-00001-v003. The chair presented the agenda with final updates as T11-2023-00001-v004 and made a call for any changes and new agenda items. No changes or new items were requested.

Chris Lyon (Amphenol) moved and Jim Yasueda (Teledyne LeCroy) seconded that T11-2023-00001-v004 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 (entitled "**Membership Clause 2022**").

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:

Isaac Horn was added as an Alternate for Amphenol Corporation. All other representation for Amphenol remains the same.

Steven Wilson was removed as Principal for Broadcom, Inc. and Howard Johnson became

the new Principal member. All other representation for Broadcom remains the same.

Furui Li was added as an Alternate for Credo Semiconductor. All other representation for Credo remains the same.

David Lewis was removed as Alternate for Lumentum Operations. All other representation for Lumentum remains the same.

Pei-Rong and YC Lin were added as Alternates for MediaTek USA Inc. All other representation for MediaTek remains the same.

Matt Schumacher was removed as Alternate for TE Connectivity. All other representation for TE Connectivity 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

- Credo is in membership jeopardy for lack of attendance at 2 of the last 3 plenary meetings.

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

- Corning, Credo Semiconductor and Lumentum Operations are 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 23 voting members at the T11 regular meeting 08 December 2022. With no members losing or gaining voting privileges voting membership of T11 remains at 23 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 guests, members of the press and journalists

The chair requested members of the press and journalists and those associated with organizations that are not members of T11 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 23. One third of the total membership for this meeting is 8. The number of member organizations that responded to the call for quorum was 21. This exceeds or equals one third of the total membership for this meeting and also exceeds or equals 8. A quorum is therefore present for this meeting. It should be noted that of the 21 voting member companies present at this plenary meeting, 8 were in attendance in-person during this plenary meeting and 9 member companies had representatives present during the week at the ad-hoc meetings.

4 Document Distribution

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

5 Approval of Minutes - Meeting #174

The prior regular meeting of the INCITS Fibre Channel (T11) Technical Committee was #174 on 08 December 2022. The draft Minutes of that meeting were posted as document T11/2022-00378-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.

Chris Lyon (Amphenol) moved and Jim Yuseda (Teledyne-LeCroy) seconded to accept T11/2022-00378-v000 as the Minutes of T11 meeting #174 on 08 December 2022. The motion passed by acclamation.

See action item [23-001](#).

6 Review of Old Action Items

22-022	T11 secretary to post approved Minutes of T11 meeting #173 as agreed at T11 meeting #174. Completed by posting T11/2022-00378-v000 on December 21, 2022.
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22-023	Chair to update the 2023-2024 meeting schedule to reflect the current changes voted on in this plenary meeting. Completed by Chair on January 22, 2023.
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7 Review of T11 Project and Proposal Status

7.1 Project Proposals

7.1.1 FC-FS-7 Project Proposal (T11-2023-00002-v000)

Dave Peterson (Broadcom) presented the project proposal for an FC-FS-7 technical working group. Dave made a motion that we accept T11-2023-00002-v000 as the project proposal for FC-FS-7 and forward to INCITS for further processing. Craig Carlson (Marvell) seconded the motion. The motion carried: In Favor – 21, Opposed – 0, Abstain – 0.

See action item [23-002](#).

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.

7.3 National Project Status Report

The Chair also shared information from INCITS the National Processing Report. The Chair will post this information in the “T11 Projects” folder in the documents section.

8 Results of non-ISO Letter Ballots

8.1 None

9 Old Business

9.1 2023 National Maintenance Review (eb-2022-00732/T11-2023-00015-v000)

The T11 community was informed of the 2023 National Maintenance review by INCITS following the October 2022 T11 plenary meeting. The Chair indicated that he will present a series of motions on which of the following standards/technical reports will be either stabilized, reaffirmed, or withdrawn.

Motion 1: Howard Johnson (Broadcom) moves and Chris Lyon (Amphenol) seconds to recommend to INCITS that the following standards be Stabilized (2/3 meeting vote). The rationale for stabilization is that the standards have ongoing validity and effectiveness, but they are mature and unlikely to require maintenance of any sort.

INCITS 462-2010/AM1-2012[R2017]	Information technology - Fibre Channel - Backbone - 5 (FC-BB-5) - Amendment 1
INCITS 528-2013[R2018]	Information Technology - Common Building Blocks Specification
INCITS 530-2013[R2018]	Information Technology - Architecture for Managed Computing Systems
INCITS 531-2013[R2018]	Information Technology - Systems Management Discovery for Managed Computer Systems

Motion carried: In Favor-21, Opposed-0, Abstain-0.

Motion 2: Howard Johnson (Broadcom) moves and Chris Lyon (Amphenol) seconds to recommend to INCITS that the following standards/technical reports be Reaffirmed (2/3 meeting vote):

INCITS 540-2018	Information technology - Fibre Channel - Non-Volatile Memory Express (FC-NVMe)
INCITS 544-2018	Information technology - Fibre Channel - Single Byte Command Code Sets Mapping Protocol - 6 (FC-SB-6)
INCITS 487-2018	Information technology - Fibre Channel - Link Services - 3 (FC-LS-3)
INCITS/TR-32-2003[R2018]	INCITS Technical Report for Information technology - Fibre Channel - Management Information Base-FA (MIB-FA)
INCITS/TR-33-2003[R2018]	INCITS Technical Report for Information Technology - Fibre Channel Signal Modeling (FC-SM)
INCITS/TR-53-2018	INCITS Technical Report for Information technology - Fibre Channel - Energy Efficiency (FC-EE)

INCITS/TR-44-2008[R2018]	INCITS Technical Report for Information technology - Fibre Channel Signal Modeling - 2 (FCSM-2)
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Motion carried: In Favor-21, Opposed-0, Abstain-0.

See action item [23-003](#).

9.2 2023 Continued Stabilization Review (eb-2022-00762/T11-2023-00014-v000)

Motion 1: Howard Johnson (Broadcom) moves and Chris Lyon (Amphenol) seconds to recommend to INCITS that the following standards continue their stabilized status for another 10-year cycle.

INCITS 210-1998[S2013]	Information technology - High-Performance Parallel Interface - Framing Protocol (HIPPI-FP)
INCITS 303-1998[S2013]	Information technology - Fibre Channel Physical and Signaling Interface-3 (FC-PH-3)
INCITS 323-1998[S2013]	Information technology - High-Performance Parallel Interface - 6400 Mbit/s Physical Layer (HIPPI-6400-PH)
INCITS 338-2003[S2013]	Information technology - High-Performance Parallel Interface - 6400 Mbit/s Optical Specifications (HIPPI-6400-OPT)
INCITS 332-1999/AM 1-2003[S2013]	Information technology - Fibre Channel Arbitrated Loop (FC-AL-2) - Amendment 1
INCITS 373-2003[S2013]	Information technology - Fibre Channel Framing and Signaling Interface (FC-FS)
INCITS 374-2003[S2013]	Information technology - Fibre Channel Single - Byte Command Set-3 (FC-SB-3)

Motion carried: In Favor-21, Opposed-0, Abstain-0.

See action item [23-004](#).

9.3 Project Organization on ICMS (T11-2023-00007-v001)

Dave Peterson (Broadcom) presented again on how we're looking to ensure the structure of

ICMS and how we use it are what we need/want it to be.

Dave proposed that we assign the subgroups and projects as appropriate to T11.2 and T11.3 as noted above.

However we plan to continue to post documents under T11.

Dave will ask Lynn to make changes noted in his presentation. We need to ensure with her though that when we post the docs to T11, that we will still be able to associate the doc with the appropriate subgroup, even if the subgroups are now a part of T11.2 or T11.3.

Dave also suggested we might want to formalize document numbering and file naming conventions. More discussion is needed before we could come to terms with if or how we would want this to play out.

Dave also proposed developing a set of guidelines for Committee and Project Chairs with 'how tos' and 'should dos', another set of guidelines for secretaries, and a third set for new members. Additionally guidelines for RFC and Letter ballot comment submissions.

Dave is also asking for a new type of document of 'Status Report'. Roger suggested another one for 'Meeting Documents' might be helpful.

10 Task Group T11.2 - Physical Interfaces

10.1 Report to T11 Plenary ([T11-2023-00087-v000](#))

Task Group Chair Tom Palkert (Macom) gave the report posted as T11-2023-00087-v000 on activity at T11.2.

10.2 Actions

10.2.1 There were no actions this meeting cycle.

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 ([T11-2023-00085-v000](#))

Task Group Chair Craig Carlson (Marvell) presented the information posted as T11-2023-00085-v000 on activity at T11.3.

11.2 Actions

11.2.1 There were no actions this meeting cycle.

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 during this plenary meeting cycle for the Joint T11.2/T11.3 TG.

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

13.1 FC-PI-8 Public Review

FC-PI-8 completed its public review cycle on Jan. 17th with no comments, so moves on to the next phase of standardization.

13.2 FC-SP-2/AM2 Public Review

FC-SP-2/AM2 completed public review cycle on Jan. 17th with no comments, so moves on to the next phase of standardization.

14 Review of International Activity

14.1 INCITS Computer Systems Interconnect (SC 25 / WG4 TAG) Status Report ([T11-2023-00046-v000](#))

Dave Peterson (Broadcom) presented the information posted as T11-2023-00046-v000 on INCITS Computer Systems Interconnect (SC 25 / WG4 TAG) project status (see [annex B.2](#)).

15 Fibre Channel (T11) New Business

15.1 T11 Emeritus Status for Steve Wilson ([T11-2023-00012-v001](#))

The Chair (Howard Johnson/Broadcom) made the following motion:
INCITS/Fibre Channel nominates Steve Wilson for appointment by the INCITS Executive Board as an Emeritus Member of INCITS/Fibre Channel as specified in Section 3.9.3.4., Emeritus Members, in INCITS Policies. The required supporting documentation can be found in T11-2023-00012-v001.

Motion was seconded by Dean Wallace (Marvell). Motion carried: In Favor – 21, Opposed – 0, Abstain - 0.

See action item [23-005](#).

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 ([T11-2022-00416-v000](#)), INCITS Liaison report ([T11-2023-00016-v000](#))

Howard Johnson (Broadcom) presented the information posted as T11-2022-00416-v000 on activity at T11 as reported to other organizations, and the information posted as T11-2023-00016-v000 on activity at INCITS other than T11 project status.

17.2 TC T10 ([T11-2023-00076-v000](#))

Fred Knight (NetApp) gave report T11-2023-00076-v000 on activity at T10.

17.3 FCIA ([T11-2023-00077-v000](#))

Mark Jones (Broadcom) gave report T11-2023-00077-v000 on activity at FCIA.

17.4 IEEE 802.3 ([T11-2023-00086-v001](#))

Tom Palkert (Macom) and Mabud Choudhury (OFS) gave report T11-2023-00086-v001 on activity at IEEE 802.3.

17.5 INCITS TC CS1 (No report)

17.6 SNIA and SFF ([T11-2023-00078-v000](#))

Fred Knight (NetApp) discussed report T11-2023-00078-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	Howard Johnson (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 Calendar Notices

18.2.1 T11 Plenary Dates

The Chair presented the Plenary meeting dates for 2023 and 2024:

February 9, 2023
April 6, 2023
June 15, 2023
August 3, 2023
October 5, 2023
December 7, 2023
February 8, 2024
April 4, 2024
June 6, 2024
August 8, 2024
October 10, 2024
December 5, 2024

The Chair will add these to the INCITS calendar now so they are known in advance.

18.2.2 Ad Hoc meetings

We want to get these posted to the T11 calendar as soon as possible (after the meeting map has been released from the prior plenary).

19 Future Meeting Schedule

19.1 Approval of meeting venues and schedule

The chair announced the following schedule for 2023-2024.

Date	Location	Host Organization	Host Person
February 6-10, 2023	Tucson, AZ	FCIA	Chris Lyon
April 3-7, 2023	Coeur d'Alene, ID	Broadcom	Howard Johnson
*June 5-9, 2023	Reno/Tahoe, NV	Marvell	Craig Carlson
August 7-11, 2023	tbd	Cisco	Kiran Ranabhor
October 2-6, 2023	tbd	SNIA/SFF	Paul Coddington
December 4-8, 2023	Deerfield Beach, FL	Amphenol	Chris Lyon
February 5-9, 2024			
April 1-5, 2024			
June 3-7, 2024			
August 5-9, 2024			
October 7-11, 2024			
December 2-6, 2024			

*Pending contract

Craig Carlson suggested we change the Reno/Tahoe location to 'tbd' at this point.

See action item [23-006](#).

The Chair encouraged the member companies to consider sponsoring the 2024 meetings.

19.1.1 April 2023 meeting venue

Dave Peterson (Broadcom) made a motion, seconded by Chris Lyon (Amphenol) to approve Coeur d'Alene as the April 2023 meeting location. Motion passed: In Favor – 21, Opposed – 0, Abstain – 0.

It will be a hybrid meeting with the face-to-face meeting in Coeur d'Alene, Idaho hosted by Broadcom and the virtual meeting will be using Marvell Zoom facilities.

19.1.2 April 2023 meeting information (Hybrid, Fibre Channel April 2023)

The Chair pointed everyone to the April meeting information regarding hotel reservations in Coeur d'Alene, Idaho.

19.1.3 April 2023 meeting map (Meeting_Map_Apr_2023 F2F.txt)

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 Fibre Channel regular meeting to go to the INCITS website, search the Fibre Channel Meeting Information folder under April 2023.

19.2 Request for hosts

19.2.1 Guidelines for hosting ([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.

19.2.2 Letter to travel representatives on hotel rates ([T11-2023-00011-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 T11-2023-00011-v000 has been posted which contains a letter to those with budget responsibilities for member organizations justifying this obligation.

19.3 Authorization of adhoc groups and meetings

19.3.1 Authorization for adhoc groups and meetings are approved by their respective TGs

The chair directed members to the ICMS Fibre Channel calendar located at the Fibre Channel 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.

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 #175 is shown in annex A.2. 31 people from 21 member (21 voting) organizations were in attendance.

21 Review of Action Items

23-001	T11 secretary to post approved Minutes of T11 meeting #174 as agreed at T11 meeting #174. (See clause 5)
23-002	Chair to forward FC-FS-7 project proposal to INCITS for further processing.
23-003	Chair to inform INCITs of the result of the votes regarding standards to be reaffirmed and standards to be stabilized.
23-004	Chair to inform INCITs of the vote regarding standards to continue as stabilized.
23-005	Chair to forward nomination of Steve Wilson for appointment by the INCITS Executive Board as an Emeritus Member of INCITS/Fibre Channel
23-006	Chair to update meeting location file. See Clause 19.1 .

22 Adjournment

Chris Lyon (Amphenol) moved to adjourn at 2:35 PM MST. 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:

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 #175 of the INCITS Fibre Channel (T11) Technical Committee, including the recognized representatives of each member organization:

Organization	Representative Type	Representative
Amphenol	Principal	Chris Lyon
	Alternate	Brad Brubaker
	Alternate	Paul Coddington
	Alternate	Daniel Dillow
	Alternate	Fan Fu
	Alternate	Isaac Horn
	Alternate	Sam Kocsis
	Alternate	Alex Persaud
	Alternate	Hu Silver
	Alternate	Michael Wingard
Broadcom	Principal	Howard Johnson

	Alternate	Evan Beauprez
	Alternate	Ben Chu
	Alternate	Robert Hannah
	Alternate	Adam Healey
	Alternate	Mark Jones
	Alternate	Anil Mehta
	Alternate	Dr. Ramana Murty
	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	Christian Schmutzer
	Alternate	Shalom Shefa
	Alternate	Sumanth Sindiri
	Alternate	Ramesh Sivakolundu
	Alternate	Yi Tang
	Alternate	Xiaohong Wu
Alternate	Xiaokang Zhu	
CommScope	Principal	Yang (Sunny) Xu
	Alternate	Gary Gibbs
	Alternate	Earl Parsons
Corning	Principal	David Kozischek
Credo Semiconductor	Principal	Phil Sun
	Alternate	Dr. Fang Cai

	Alternate	Yasuo Hidaka
	Alternate	Furui Li
Data Center Systems	Principal	Steve Eisele
	Alternate	Eddie Taylor
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	Roberto Rodes
	Alternate	Lance Thompson
Keysight Technologies	Principal	Stephen Didde
	Alternate	Joachim Vobis
Lumentum Operations	Principal	Ernest Muhigana
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	Mike 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
MediaTek	Principal	Tamer Ali
	Alternate	Chihlong Dai
	Alternate	Pei-Rong Li
	Alternate	YC Lin
	Alternate	Henry Park
	Alternate	Herbert Wang
	Alternate	Mau-Lin Wu
Molex	Principal	Scott Sommers

	Alternate	Egide Murisa
NetApp	Principal	Frederick Knight
OFS Fitel LLC	Principal	Roman Shubochkin
	Alternate	Mabud Choudhury
Panduit	Principal	Jose Castro
	Alternate	Bulent Kose
	Alternate	Robert Reid
TE Connectivity	Principal	Nathan Tracy
	Alternate	Dwayne Crawford
	Alternate	Daniel Gorenc
	Alternate	Jeff Mason
Teledyne LeCroy	Principal	Henry Poelstra
	Alternate	Amit Bakshi
	Alternate	Craig Foster
	Alternate	Rakesh Kathiresan Natarajan
	Alternate	Nick Kriczky
	Alternate	Douglas Lee
	Alternate	Srikant Tadigadapa
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 #175 of the INCITS Fibre Channel (T11) Technical Committee, including the recognized representatives of each member organization:

Organization	Representative Type	Representative
Anritsu	Principal	Tadanori Nishikobara
	Alternate	Yuji Sekine

Ciena	Principal	Stephen Shew
	Alternate	Sebastien Gareau
Futurewei	Principal	Timothy Jeffries
	Alternate	Victor Cao
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 #175 of the INCITS Fibre Channel (T11) Technical Committee:

Organization	Representative(s)	In Person
AMPHENOL CORP	Paul Coddington	N
	Isaac Horn	Y
	Chris Lyon	Y
BROADCOM INC	Howard Johnson	Y
	Mark Jones	N
	David Peterson	Y
CISCO SYSTEMS INC	Mike Blair	Y
	Ramesh Sivakolundu	Y
	Xiaohong Wu	Y
COMMSCOPE	Sunny Xu	N
CORNING INC	David Kozischek	N
CREDO SEMICONDUCTOR	Fang Fu	N

DATA CENTER SYSTEMS	Steve Eisele	N
DELL INC	David Brown	N
HEWLETT PACKARD ENTERPRISE	Barry Maskas	N
IBM CORP	Patty Driever	Y
	Roger Hathorn	Y
II-VI INC	Vera Koleva	N
	Roberto Rodes	N
KEYSIGHT TECHNOLOGIES INC	Stephen Didde	N
MACOM	Thomas Palkert	Y
MARVELL SEMICONDUCTOR	Craig Carlson	Y
	Dean Wallace	Y
MOLEX INC	Egide Murisa	N
NETAPP INC	Frederick Knight	Y
OFS FITEL LLC	Mabud Choudhury	N
PANDUIT CORPORATION	Jose Castro	N
TE CONNECTIVITY	Daniel Gorenc	N
TELEDYNE LECROY CORPORATION	Henry Poelstra	N
	Jim Yaseuda	Y
VIAMI SOLUTIONS INC	Jason Rusch	N

A.2.2 Ad hoc meeting attendance

FC-SW-8 ad hoc, members

Organization	Representative(s)
BROADCOM INC	Howard Johnson
	David Peterson
CISCO SYSTEMS INC	Harsha Bharadwaj
	Mike Blair

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-PI-8 ad hoc, members

Organization	Representative(s)
AMPHENOL CORPORATION	Paul Coddington
	Isaac Horn
	Chris Lyon
BROADCOM INC	Ben Chu
	Mark Jones
	Anil Mehta
	Ramana Murty
CISCO SYSTEMS INC	Ramesh Sivakolundu
	Xiaohong Wu
COMMSCOPE	Sunny Xu
CORNING INC	David Kozischek
CREDO SEMICONDUCTOR	Fang Cai
DATA CENTER SYSTEMS	Steve Eisele
DELL TECHNOLOGIES INC	David Piehler
II-VI INC	Vera Koleva
	Roberto Rodes
KEYSIGHT TECHNOLOGIES INC	Stephen Didde
MACOM	Thomas Palkert
MARVELL SEMICONDUCTOR INC	Mike Dudek
	Raul Oteyza
	Dean Wallace

MEDIATEK USA INC	Henry Park
MOLEX INC	Egide Murisa
OFS FITEL LLC	Mabud Choudhury
PANDUIT CORPORATION	Jose Castro
TELEDYNE LECROY CORPORATION	Henry Poelstra

FC-GS-9 ad hoc, members

Organization	Representative(s)
BROADCOM INC	Howard Johnson
	David Peterson
	James Smart
	Mike Blair
	Edward Mazurek
DELL INC	David Brown
HEWLETT PACKARD ENTERPRISE	Barry Maskas
IBM CORPORATION	Patty Driever
	Roger Hathorn
NETAPP INC	Frederick Knight

FC-LS-5 ad hoc, members

Organization	Representative(s)
BROADCOM INC	Howard Johnson
	David Peterson
	James Smart
CISCO SYSTEMS INC	Harsha Bharadwaj
	Mike Blair
DELL INC	David Brown
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	Howard Johnson
	Anil Mehta
	David Peterson
	James Smart
CISCO SYSTEMS INC	Harsha Bharadwaj
	Mike Blair
	Ed Mazurek
	Xiaohong Wu
DELL INC	David Brown
HEWLET PACKARD ENTERPRISE	Barry Maskas
IBM	Patty Driever
	Roger Hathorn
MARVELL SEMICONDUCTOR INC	Craig Carlson
	Raul Oteyza
	Dean Wallace
NETAPP INC	Frederick Knight

FC-RDMA ad hoc, members

Organization	Representative(s)
BROADCOM INC	Howard Johnson
	David Peterson
CISCO SYSTEMS INC	Harsha Bharadwaj
	Mike Blair
DELL INC	David Brown

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-NVMe-3 ad hoc, members

Organization	Representative(s)
BROADCOM INC	Howard Johnson
	David Peterson
	James Smart
CISCO SYSTEMS INC	Harsha Bharadwaj
	Mike Blair
DELL INC	David Brown
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-SP-3 ad hoc, members

Organization	Representative(s)
BROADCOM INC	Howard Johnson
	David Peterson
	James Smart

CISCO SYSTEMS INC	Harsha Bharadwaj
	Edward Mazurek
DELL INC	David Brown
HEWLETT PACKARD ENTERPRISE	Barry Maskas
IBM CORPORATION	Patty Driever
	Roger Hathorn
MARVELL SEMICONDUCTOR INC	Craig Carlson
VIAVI SOLUTIONS INC	Jason Rusch

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 #175 held on 09 February 2023.

Standard	Phase	Next Action	Target Date	Chair	Editor	Secretary
Projects in Development Stage						
FC-FS-6	RFC	T11 LB	Apr-23	Peterson	Carlson	Driever
FC-GS-9	WG	RFC	Apr-23	Peterson	Rusch	Blair

FC-LS-5	RFC	T11 LB	Jun-23	Driever	Carlson	Rusch
FC-RDMA	WG	To T11.	Jun.23	Peterson	Carlson	Peterson
FC-SW-8	WG	RFC	Apr 23	Carlson	Peterson	Peterson
FC-NVMe-3	WG	RFC	Oct 23	Carlson	Peterson	Hathorn
FC-SP-3	WG	RFC	TBD	Hathorn	Peterson	Peterson
FC-MSQS-3	WG	TBD	Jun-23	Wallace	Castro	Wallace
FC-PI-9	WG	RFC	Dec 23	Wallace	Rusch	Wallace
Projects in Approval Stage						
FC-PI-8	PR	PUB	Apr-23	Wallace	Rusch	Wallace
Keys: WG = Work Group RFC = Request for Comments LB = Letter Ballot PR = Public Review PUB = Published TBD = To Be Determined						

B.2 INCITS Computer Systems Interconnect (SC 25 / WG4) project status

The following tables indicates the status of all active INCITS Computer Systems Interconnect (SC 25 / WG4) TAG projects. It reflects the official status as reported at the Fibre Channel (T11) regular meeting #175, 09 February 2023 in document T11-2023-00046-v000. The SC 25/WG 4 TAG project database is available in document [sc25-wg4-2018-00011-TAG-Project-Database](#).

B.2.1 Active Fibre Channel (T11) Computer Systems Interconnection (SC25 WG4 TAG) Projects

	ISO/IEC # (T11 allocated)	Status
None at this time		
Potential Items: * FC-PI-8 * FC-FS-6 * FC-LS-5 * FC-GS-9 * FC-SW-8 * FC-SP-3		