Accredited Standards Committee* National Committee for Information Technology Standards (NCITS)

 Doc. No.:
 T10/00-207r0

 Date:
 May 24, 2000

 Reply to:
 John Lohmeyer

To:T10 MembershipFrom:Ralph Weber / John LohmeyerSubject:Minutes of T10 Plenary Meeting #37 -- May 18, 2000
Nashua, NH

Agenda

- 1. Opening Remarks
- 2. Approval of Agenda
- 3. Attendance and Membership
- 4. Approval of Minutes March '00 Meeting Dallas, TX (T10/00-157r2)
- 5. Document Distribution
- 6. Call for Patents
- 7. Review of Old Action Items
- 8. Project Status Reports
 - 8.1 Project Status Summary and NCITS Liaison [Lohmeyer]
 - 8.2 SCSI Common Access Method 3 (CAM-3) Status {Project 990-D} [Dallas]
 - 8.3 SCSI-3 Stream Commands (SSC) Status {Project 997-D} [Peterson]
 - 8.4 SCSI Fibre Channel Protocol 2 (FCP-2) {Project 1144-D} [Snively]
 - 8.5 SCSI Architecture Model 2 (SAM-2) {Project 1157-D} [Weber]
 - 8.6 Multimedia Command Set 2 (MMC-2) Status {Project 1228-D} [McFerrin]
 - 8.7 SCSI Primary Commands 2 (SPC-2) Status {Project 1236-D} [Weber]
 - 8.8 Reduced Block Commands (RBC) {Project 1240-D} [McLean]
 - 8.9 SCSI Parallel Interface 3 (SPI-3) {Project 1302-D} [Penokie]
 - 8.10 MultiMedia Command Set 3 (MMC-3) {Project 1363-D} [McFerrin]
 - 8.11 Reduced MultiMedia Command Set (RMC) {Project 1364-D} [McFerrin]
 - 8.12 SCSI Parallel Interface 4 (SPI-4) {Project 1365-D} [Penokie]
 - 8.13 SCSI Domain Validation Technical Report (SDV) {Project 1378-DT} [Roberts]
 - 8.14 SCSI on Scheduled Transfer (SST) {Project 1380-D} [Woelz]
 - 8.15 SCSI Medium Changer Commands 2 (SMC-2) {Project 1383-D} [Oetting]
 - 8.16 SCSI Signal Modeling (SSM) {Project 1414-DT} [Aloisi]
 - 8.17 SCSI VI Protocol (SVP) {Project 1415-D} [Gardner]
 - 8.18 SCSI Primary Commands 3 (SPC-3) {Project 1416-D} [Weber]
 - 8.19 SCSI Block Commands 2 (SBC-2) {Project 1417-D} [Milligan]
 - 8.20 Object-based Storage Devices Commands (OSD) {Project 1355-D} [Milligan]
- 9. Old Business
 - 9.1 Report on T10 Procedures Study Group Meeting [Lohmeyer]
 - 9.2 IEEE Usage of T10 Vendor ID List [Lohmeyer]
 - 9.3 T10 Style Guide and Templates Project Report [Evans]
- 10. New Business
 - 10.1 Actions on Working Group Recommendations
 - 10.1.1 SPI-4 training pattern DC signal strengths (00-231r0) [Elliott]
 - 10.1.2 Making data groups prohibited on pace data transfers [Penokie]
 - 10.1.3 Change weak driver level in SPI-4 to 60% 78% [Aloisi]

*Operating under the procedures of The American National Standards Institute.

NCITS Secretariat, Information Technology Industry Council (ITI)

1250 Eye Street NW, Suite 200, Washington, DC 20005-3922

Email: ncits@itic.org Telephone: 202-737-8888 FAX: 202-638-4922

- 10.1.4 Change receiver threshold, driver asymmetry, and minimum drive level numbers to TBD in SPI-4 revision 0 [Aloisi]
- 10.1.5 Expander Topics (00-199r2) [Ham]
- 10.1.6 Flow Control (00-142r4) [Lamers]
- 10.1.7 Adding Read/Write Attribute commands to SPC-3 (99-148r7) [Jerman]
- 10.1.8 Access controls in SPC-3 (99-245r9) [Hafner]
- 10.1.9 Corrections to EXTENDED COPY (00-211r2) [Chambliss/Weber]
- 10.1.10 Beyond Beyond 2TB (00-212r1) [Weber]
- 10.1.11 Fast-160 (99-295r5) [Milligan]
- 10.2 Identifying liaison for IETF SCSI over IP project [Robinson]
- 10.3 Project proposal for SCSI Stream Commands 2 (SSC-2) (00-173) [Peterson]
- 10.4 Response to public review comment #1 on NCITS.336-200x SPI-3 [Penokie]
- 10.5 PIP Project Proposal (00-238) [Ham]
- 10.6 Report on NCITS style changes [Lohmeyer]
- 10.7 SES defects [Elliott/Lohmeyer]
- 11. ISO/IEC
 - 11.1 ISO/IEC Report [Milligan]
 - 11.2 ISO/IEC Business [Milligan]
 - 11.2.1 Roll Call vote on ISO/IEC fast track processing of SBP-2 [Milligan]
 - 11.2.2 Instructions to the SC 25 working group 4 delegation [Milligan]
- 12. Liaison Reports
 - 12.1 T11 Liaison Report [Wanamaker]
 - 12.2 T13 Liaison Report [Milligan]
 - 12.3 SFF Industry Group [Allan]
 - 12.4 IEEE 1394 [Johansson]
 - 12.5 IEEE P1285 Status
 - 12.6 SCSI Trade Association (STA) [Jones/Aloisi]
 - 12.7 IETF SCSI over IP [Monia/Robinson]
- 13. Review of Action Items
- 14. Meeting Schedule
 - 14.1 Authorization of Working Group Meetings
- 15. Adjournment

Results of Meeting

1. Opening Remarks

John Lohmeyer, the T10 Chair, called the meeting to order at 9:00 a.m., Thursday May 18, 2000. He thanked Zane Daggett of Hitachi Cable Manchester for hosting the meeting.

John said that NCITS Subgroup Membership forms and the T10 Mailing Subscription form were available from the head table. He said that people should use the NCITS forms to insure the NCITS Secretariat has the latest membership information. These forms should be mailed directly to the NCITS Secretariat.

As is customary, the people attending introduced themselves and a copy of the attendance list was circulated. Copies of the draft agenda and general information on T10 were made available to those attending.

The draft agenda was approved with the following additions/changes:

- 10.1.1 SPI-4 training pattern DC signal strengths (00-231r0) [Elliott]
- 10.1.2 Making data groups prohibited on pace data transfers [Penokie]
- 10.1.3 Change weak driver level in SPI-4 to 60% 78% [Aloisi]
- 10.1.4 Change receiver threshold, driver asymmetry, and minimum drive level numbers to TBD in SPI-4 revision 0 [Aloisi]
- 10.1.5 Expander Topics (00-199r2) [Ham]
- 10.1.6 Flow Control (00-142r4) [Lamers]
- 10.1.7 Adding Read/Write Attribute commands to SPC-3 (99-148r7) [Jerman]
- 10.1.8 Access controls in SPC-3 (99-245r9) [Hafner]
- 10.1.9 Corrections to EXTENDED COPY (00-211r2) [Chambliss/Weber]
- 10.1.10 Beyond Beyond 2TB (00-212r1) [Weber]
- 10.5 PIP Project Proposal (00-238) [Ham]
- 12.7 IETF SCSI over IP [Monia]

The following agenda items were added/revised during the course of the meeting:

- 8.13 SCSI Domain Validation Technical Report (SDV) {Project 1378-DT} [Roberts]
- 9.2 IEEE Usage of T10 Vendor ID List [Lohmeyer]
- 9.3 T10 Style Guide and Templates Project Report [Evans]
- 10.6 Report on NCITS style changes [Lohmeyer]
- 10.7 SES defects [Elliott/Lohmeyer]
- 10.1.11 Fast-160 (99-295r5) [Milligan]
- 11.2.2 Instructions to the SC 25 working group 4 delegation [Milligan]
- 12.7 IETF SCSI over IP [Monia/Robinson]

3. Attendance and Membership

The membership requirements were reviewed. NCITS rules permit one vote per organization. An individual from a new organization must attend two out of three consecutive plenary meetings. He/she may apply for voting membership the second meeting via a letter to the Chair of T10. The individual may apply for membership and begin voting at anytime following adjournment of the first meeting. Typically, the individual applies for membership and starts casting votes at the second plenary meeting. Working group and other ad hoc meetings do not count toward attendance requirements.

The option that allows a person attending their first meeting to become a voting member immediately following that meeting, provided their NCITS fees have been paid, permits a new member to vote on letter ballots issued between his/her first and second meetings. Unfortunately, this option also means that the new organization is immediately in attendance jeopardy.

To maintain membership, organizations must pay the NCITS Service Fee (\$300). The ANSI International Program Fee (also \$300) is billed at the same time.

John briefly discussed the mailing fees. Complete pricing information is contained in the 2000 membership form (available at ftp://ftp.t10.org/t10/mem_form.txt).

There are also minimum attendance requirements to maintain voting membership on T10. If a member organization fails to attend two of the last three T10 meetings, they are warned that failing to attend the next T10 meeting would result in their membership being terminated.

The Chair said he had sent letters to 16 people from 9 organizations informing them that their membership was in jeopardy due to non-attendance (see 00-008r0) and that their membership would be terminated if they did not attend this meeting. The following organizations were in attendance jeopardy:

Advansys Amphenol Interconnect Ancot Corp. CMD Technology Dell Computer Hitachi Cable Manchester, Inc. Linfinity Micro UNISYS Western Digital Corp.

All of these organizations were present except:

Advansys Ancot Corp. Linfinity Micro UNISYS Western Digital Corp.

The organizations in attendance jeopardy were terminated due to lack of attendance (i.e., the principal member was changed to observer status and the first alternate member, if any, was dropped; additional alternates, if any, were changed to observers).

The following organizations requested new (or reinstated) membership:

EMC Woven Electronics

The T10 membership during the meeting was 38 organizations down from 41 organizations following the last meeting. Enclosure (1) is the list of the people present at the meeting and enclosure (2) is the current T10 membership list.

4. Approval of Minutes - March '00 Meeting - Dallas, TX (T10/00-157r2)

The minutes were approved as written.

5. Document Distribution

Members who have any problems with their mailing subscription should deal directly with Monica Vago (mvago@itic.org) (202) 626-5741.

John Lohmeyer requested that all documents for the next mailing be in his hands in electronic format by 10:30 a.m. on Thursday May 25, 2000. Documents received after this time may go into a subsequent mailing.

John reminded the committee of the requirements for document submission. Since T10 meets its document retention requirements by preparing mailings, documents included in the mailing must be suitable for archiving. This means that native-format and/or Portable Document Format (PDF) electronic originals with proper identification must be submitted.

The electronic copies can be sent directly to John by email (at lohmeyer@t10.org), or they can be transferred by ftp protocol to ftp.t10.org and placed in the /incoming directory. In the latter case, please also send email to John informing him of the file name and location of the file.

Minutes are available on the T10 World Wide Web page (see below), and are distributed to the T10 Reflector.

To be added to the T10 Reflector, send an email to majordomo@t10.org with the line 'subscribe t10' in the message body.

The NCITS Secretariat maintains a World Wide Web page at http://www.ncits.org/. LSI Logic maintains a World Wide Web page on behalf of T10 on a server provided by the SCSI Trade Association at:

http://www.t10.org/

The current document register is enclosure (3). The T10 document register is also available at:

ftp://ftp.t10.org/t10/dr.txt

6. Call for Patents

This is a regular agenda item to identify any potential patent issues with developing standards and technical reports.

A document is available from ANSI, "Procedures for the Development and Coordination of American National Standards", at no charge. This document is also on the WWW at http://www.ncits.org/help/ansi_sdo.html. Section1.2.11 contains the ANSI patent policy. Amy Marasco manages patent issues for ANSI and can be contacted at amarasco@ansi.org or 212-642-4954. Gene Milligan has prepared a useful "Handy dandy Technical Committee's Patents Guide", which is available at ftp://ftp.t10.org/t10/document.99/99-291r0.pdf.

John asked that anyone who knows of applicable patents contact him. There were no responses.

7. Review of Old Action Items

- 362) Ralph Weber will ensure that the policy of requiring a two-thirds vote to approve the scheduling of a plenary meeting outside the 48 contiguous United States gets recorded in a T10 policies document. *Complete*
- 363) John Lohmeyer will contact Dave Deming to obtain the file containing the electronic image used in the SPI dedication for use in SPI-3. *Complete (Deming did not have the file or photo.)*
- 370) Ralph Weber will create an SPC-2 version descriptors for SPI-3 revisions 13a. *Complete*
- 372) Bob Snively will generate a correction proposal for FC-FS table 79 that currently contains incorrect definitions for the reason codes for LS_RJT. *Complete*
- 373) George Penokie will build a model that shows the impact of the times required for training on packetized performance. *Complete*
- 374) John Lohmeyer will communicate to NCITS the T10 recommendation that BSR NCITS.333-200x (MMC-2) not be changed. *Complete*
- 375) John Lohmeyer will initiate an investigation concerning why T10 was requested to prepare SPI-3 in a format that appears to conflict with the ISO/IEC JTC1 Style Guide (e.g., removal of the document title at the foot of each page) and report to the next meeting. *Complete*
- 376) Dean Wallace will lead the SSM working group in preparation of a press release regarding the usage of the T10 web site that John Lohmeyer can forward to NCITS for distribution. *Carryover*

- 377) John Lohmeyer will forward the SSM press release to NCITS. Carryover
- 378) Zane Daggett will prepare a project proposal for the SCSI Passive Interconnect Performance technical report. *Complete*
- 379) John Lohmeyer will forward the OSD project proposal to NCITS within 72 hours. Complete
- 380) John Lohmeyer will thank Paul Suhler for his public review comment on SSC and inform Paul of the T10 action regarding the comment. *Complete*
- 381) John Lohmeyer will notify NCITS that T10 recommends withdrawing project 990-D (CAM-3). Complete
- 382) Bob Snively will discuss the use of the T10 vendor ID list by IEEE p1244 and report to T10 at the May meeting. *Complete*
- 383) Gene Milligan will submit a NWI proposal and request for simultaneous CD letter ballot for both SSC revision 22 (or latest revision) and SPI-3 revision 13b. *Complete*
- 384) Gene Milligan will notify the JTC 1 TAG of the T10 recommendation to withdraw MMC from ISO/IEC processing. *Complete*
- 385) John Lohmeyer will make the source files for SSC revision 22 (or latest revision) and SPI-3 revision 13b available to Gene Milligan. *Complete*
- 386) Ralph Weber will add OSD to the device types and version descriptors in SPC-2. *Complete*
- 387) John Lohmeyer will send letters to Ron Roberts and Don Tolmie thanking them for bidding on the conversion RBC to ISO/IEC and informing them that T10 has decided not to pursue the project. *Complete*

8. Project Status Reports

8.1 Project Status Summary and NCITS Liaison [Lohmeyer]

John Lohmeyer said that the current T10 project status summary was included in the T10 Information Packages distributed prior to the meeting and will be included in the mailing as usual.

8.2 SCSI Common Access Method - 3 (CAM-3) Status {Project 990-D} [Dallas]

John Lohmeyer reported that NCITS has been notified of the T10 recommendation to withdraw project 990-D, CAM-3. No report was available concerning whether NCITS had acted to withdraw the project.

8.3 SCSI-3 Stream Commands (SSC) Status {Project 997-D} [Peterson]

John Lohmeyer reported that SSC has been approved by BSR and is in the process of being published.

8.4 SCSI Fibre Channel Protocol - 2 (FCP-2) {Project 1144-D} [Snively]

Bob Snively reported that a complete pass has been made through all the technical comments from the FCP-2 forwarding letter ballot. He stated a final review of the comments and resolutions will be held at the June joint T10/T11.3 meeting. He asked for a further review to be held at the July meeting. It was requested that a second letter ballot be conducted on the revised FCP-2 document due to the magnitude of the changes.

8.5 SCSI Architecture Model - 2 (SAM-2) {Project 1157-D} [Weber]

Ralph Weber reported that the working group continues to grapple with the definitions for devices with multiple ports (minutes in 00-206). As no proposals are being brought to this meeting for consideration (except for ancillary effects from access controls), SAM-2 revision 13 will remain current until at least July.

8.6 Multimedia Command Set - 2 (MMC-2) Status {Project 1228-D} [McFerrin]

John reported that the T10 recommendation to not change MMC-2 in response to the negative comments from Panasonic and Hitachi had been communicated to NCITS. Gene Milligan asked if it is appropriate to withdrawn MMC and Bill McFerrin responded that it would not be appropriate.

Chair's Note: The day after the T10 plenary meeting, BSR approved MMC-2 (NCITS.333-2000).

8.7 SCSI Primary Commands - 2 (SPC-2) Status {Project 1236-D} [Weber]

Ralph Weber reported that SPC-2 revision 16 was prepared following the March meeting week but was too late to make the mailing. SPC-2 revision 17 was prepared shortly before this meeting and contains only editorial changes needed to satisfy ISO formatting issues (elimination of dangling paragraphs & use of ISO standards numbers wherever possible). Revision 18 will be prepared following this meeting. Ralph requested that SPC-2 revision 18 be considered for forwarding to first public review in a letter ballot commencing as soon after this meeting as possible.

Ralph Weber took an action item to prepare SPC-2 revision 18 for letter ballot vote. John Lohmeyer took an action item to conduct a letter ballot vote on forwarding SPC-2 revision 18 to first public review.

8.8 Reduced Block Commands (RBC) {Project 1240-D} [McLean]

Ron Roberts reported that he received a thank you message from ANSI regarding his editing work on RBC. John Lohmeyer reported that RBC has passed BSR review and should be published soon.

8.9 SCSI Parallel Interface - 3 (SPI-3) {Project 1302-D} [Penokie]

John Lohmeyer reported that T10 has received a public review comment on SPI-3. Action on the public review comment can be found in item 10.4.

8.10 MultiMedia Command Set - 3 (MMC-3) {Project 1363-D} [McFerrin]

Bill McFerrin reported on the activities of the MMC-3 working group (minutes in 00-243).

8.11 Reduced MultiMedia Command Set (RMC) {Project 1364-D} [McFerrin]

Bill McFerrin announced that work on RMC is being tabled until work on MMC-3 is completed. Bill asked that the proposed forwarding date for RMC be changed to November 2001.

8.12 SCSI Parallel Interface - 4 (SPI-4) {Project 1365-D} [Penokie]

George Penokie reported on the activities of the SPI-4 working group (minutes in 00-205). He noted that several key parametric numbers are marked TBD. He stated that the revision 0 draft document will be available for the next mailing.

8.13 SCSI Domain Validation Technical Report (SDV) {Project 1378-DT} [Roberts]

Ron Roberts reported that SDV revision 2 will be available for the next mailing. He requested time for a June meeting and John added the request to the meeting schedule.

8.14 SCSI on Scheduled Transfer (SST) {Project 1380-D} [Woelz]

Don Woelz reported that SST is progressing to completion. The document will be ready for forwarding after August or October meetings. Gene Milligan asked that T10 members consider inspecting an SST draft for consistency with T10 editing style.

8.15 SCSI Medium Changer Commands - 2 (SMC-2) {Project 1383-D} [Oetting]

Erich Oetting reported that SMC-2 revision 0 was prepared for the last mailing. He noted that incorporation of approved proposals will begin soon.

8.16 SCSI Signal Modeling (SSM) {Project 1414-DT} [Aloisi]

Paul Aloisi reported on the activities of the April signal modeling meeting (minutes in 00-218). Paul requested meetings in June, August, and October and John added the meetings to his schedule. Bill Ham noted that the Passive Interconnect Performance study group holds meetings co-located with the signal modeling group. Bill noted that a project proposal for PIP is on the agenda as item 10.5.

8.17 SCSI VI Protocol (SVP) {Project 1415-D} [Gardner]

Ed Gardner reported that revision 0 of SVP is available and will be in the next mailing. Ed stated that revision 1 will be ready for discussion at the July meetings.

8.18 SCSI Primary Commands - 3 (SPC-3) {Project 1416-D} [Weber]

Ralph Weber reported that the initial draft of SPC-3 will be a duplicate of the SPC-2 revision that contains all approved comments resolutions from the letter ballot vote. As soon after that as possible, SPC-3 revision 1 will be prepared incorporating all committee approved proposals. He noted that the proposals cutoff for SPC-3 is November 2001, that the SPC-3 stabilized draft will be completed by March 2002, and that the forwarding letter ballot is scheduled for May 2002 (see 00-222r0).

Ralph Weber moved that the SPC-3 schedule shown in 00-222r0 be approved. Gene Milligan seconded the motion. The motion passed on a vote of 23:1:0:14=38. Ed Gardner stated that his no vote was based on a belief this vote was a waste of time.

8.19 SCSI Block Commands - 2 (SBC-2) {Project 1417-D} [Milligan]

Gene Milligan reported that about 50% of the SBC pages have been converted to SBC-2 style. Following the conversion, he plans to incorporate approved changes.

8.20 Object-based Storage Devices Commands (OSD) {Project 1355-D} [Milligan]

Gene Milligan reported that revision 1 of OSD is available as 99-315r1. Gene Milligan moved that 99-315r1 be accepted as the committee working draft for project 1355-D. Mark Evans seconded the motion. The motion passed on a vote of 19:0:1:18=38. Gene described the SNIA activities relating to OSD.

9. Old Business

9.1 Report on T10 Procedures Study Group Meeting [Lohmeyer]

John Lohmeyer reported that Monday procedures group reviewed the meeting procedures proposal 00-221r0 and requested changes. John noted that the group had not yet addressed the guest room fee cap.

9.2 IEEE Usage of T10 Vendor ID List [Lohmeyer]

John Lohmeyer reported on the history of the IEEE P1244 usage/reference of the T10 vendor ID list. Bob Snively reported that additional formalities (essentially guaranteeing that the list be maintained in perpetuity) have been requested by IEEE. John stated that the concept is to have NCITS be the responsible organization and that NCITS designates T10 (John) as the keeper of the list. Gary Robinson explained why IEEE demands the above requirements from T10 and NCITS.

John Lohmeyer took an action item to contact NCITS regarding formalization of the responsibilities for maintaining the vendor ID list.

9.3 T10 Style Guide and Templates Project Report [Evans]

Mark Evans reported that the style guides have been distributed, but no work has been done on them. He hoped that the style guides could be revised before the next meeting.

10. New Business

10.1 Actions on Working Group Recommendations

10.1.1 SPI-4 training pattern DC signal strengths (00-231r0) [Elliott]

Rob Elliott moved that 00-231r0 be approved for inclusion in SPI-4 revision 0. Mark Evans seconded the motion. The motion passed on a vote of 19:3:2:14=38. Gene Milligan stated that his negative vote was based on the conflict between the motion on 99-295r5. The results of this motion supersede a portion of the motion approved in item 10.1.11.

10.1.2 Making data groups prohibited on pace data transfers [Penokie]

George Penokie moved that the SPI-4 editor be instructed to prohibit use of data group transfers in conjunction with paced data transfers. Mark Evans seconded the motion.

Gene Milligan stated that the proposal is inappropriate for a standard as it is a marketing decision and because it will impeded the development of Fast-160. Mark Evans stated that he supports the motion because it saves a test vector and has the potential to significantly improve performance. John Lohmeyer noted that compatibility between packetized implementations has not been fully verified and that limiting Fast-160 to packetized may produce industry-wide incompatibilities. Bill Galloway noted that no way has yet been devised to do data group transfers with the free running clock required by Fast-160. Gene Milligan countered that a way surely could be found to do data group transfers with a free running clock.

John Lohmeyer requested a roll call vote. The motion passed on a vote of 11:2:13:12=38. Details of the vote were as follows:

Adaptec, Inc.	А	Mr.	Ron Roberts		1	
AMP / Tyco Electronics	P	Mr.	Charles Brill	1		
Amphenol Interconnect						1
Berg Electronics	P	Mr.	Douglas Wagner	1		
BREA Technologies, Inc.	P	Mr.	Bill Galloway	1		
Circuit Assembly Corp.						1
CMD Technology	P	Mr.	Edward Haske	1		
Compaq Computer Corp.	P	Mr.	Robert C. Elliott	1		
Crossroads Systems, Inc.	P	Mr.	Neil Wanamaker		1	
Dallas Semiconductor	P	Mr.	Charles Tashbook		1	
Dell Computer						1
EMC	P	Mr.	Gary S. Robinson		1	
ENDL Texas	A	Mr.	Ralph O. Weber		1	
Exabyte Corp.						1
Fujitsu						1
General Dynamics						1
Hewlett Packard Co.	A.	Mr.	Steve Jerman		1	
Hitachi Cable Manchester, Inc	P	Mr.	Zane Daggett		1	
Honda Connectors						1
IBM Corp.	P	Mr.	George O. Penokie	1		
Iomega Corp.						1

KnowledgeTek, Inc.							1
LSI Logic Corp.	Р	Mr.	John Lohmeyer		1		
Madison Cable Corp.	P	Ms.	Jie Fan			1	
Maxtor Corp.	Р	Mr.	Pete McLean			1	
Molex Inc.							1
NSTOR							1
Ophidian Designs	P	Mr.	Edward A. Gardner			1	
Panasonic Technologies, Inc							1
Philips Electronics	P	Mr.	William P. McFerrin			1	
QLogic Corp.	P	Mr.	Skip Jones	1			
Quantum Corp.	P	Mr.	Mark Evans	1			
Seagate Technology	Ρ	Mr.	Gene Milligan		1		
Storage Technology Corp.	Ρ	Mr.	Erich Oetting			1	
Sun Microsystems, Inc.	Ρ	Mr.	Kenneth Moe	1			
Texas Instruments	Ρ	Mr.	Paul D. Aloisi	1			
Toshiba America Elec. Comp.	Ρ	Mr.	Tasuku Kasebayashi	1			
Woven Electronics	P	Mr.	Doug Piper			1	
				11	2	13	12 = 38

The results of this motion supersedes a portion of the motion approved in item 10.1.11.

10.1.3 Change weak driver level in SPI-4 to 60% - 78% [Aloisi]

Paul Aloisi moved that the weak driver level range in SPI-4 revision 0 be changed to 60% - 78%. Jie Fan seconded the motion. The motion passed on a vote of 14:0:6:18=38. The results of this motion supersedes a portion of the motion approved in item 10.1.11.

10.1.4 Change receiver threshold, driver asymmetry, and minimum drive level numbers to TBD in SPI-4 revision 0 [Aloisi]

Paul Aloisi moved that the receiver threshold, driver asymmetry, and minimum driver level values in SPI-4 revision 0 be changed to TBD. Mark Evans seconded the motion. The motion passed 18:2:3:15=38. The results of this motion supersedes some portion of the motion approved in item 10.1.11.

10.1.5 Expander Topics (00-199r2) [Ham]

Bill Ham moved that 00-199r2 (r1 as modified) be approved for inclusion in SPI-4 revision 0. Bill Galloway seconded the motion. The motion passed on a vote of 19:0:2:17=38.

10.1.6 Flow Control (00-142r4) [Lamers]

Bill Galloway moved that 00-142r4 (r3 as modified) be approved for inclusion in SPI-4 revision 0. Bill Ham seconded the motion. The motion passed on a vote of 20:1:2:15=38.

10.1.7 Adding Read/Write Attribute commands to SPC-3 (99-148r7) [Jerman]

Steve Jerman moved that 99-148r7 be approved for inclusion in SPC-3, SMC-2, and SSC-2. Erich Oetting seconded the motion. The motion passed on a vote of 21:0:0:17=38.

10.1.8 Access controls in SPC-3 (99-245r9) [Hafner]

Jim Hafner moved that 99-245r9 be approved for inclusion in SPC-3, SAM-2, FCP-2, SPI-4, SBC-2, MMC-3, and a future version of RBC. Rob Elliott seconded the motion. The motion passed on a vote of 20:0:18=38.

10.1.9 Corrections to EXTENDED COPY (00-211r2) [Chambliss/Weber]

Ralph Weber moved that 00-211r2 be approved for inclusion in SPC-2. Bill Galloway seconded the motion. The motion passed on a vote of 21:0:0:17=38.

10.1.10 Beyond Beyond 2TB (00-212r1) [Weber]

Ralph Weber moved that 00-212r1 (r0 as modified) be approved for inclusion in SPC-2. Bill Galloway seconded the motion. The motion passed on a vote of 21:0:0:17=38.

10.1.11 Fast-160 (99-295r5) [Milligan]

Gene Milligan moved that 99-295r5 be approved for incorporation in SPI-4 revision 0. Bill Galloway seconded the motion. The vote passed on a vote of 25:1:0:12=38. Paul Aloisi stated that his no vote was based on the fact that the document was not backed by supporting technical justifications. (Secretary's note: This motion was voted first in the 10.1.x group.)

10.2 Identifying liaison for IETF SCSI over IP project [Robinson]

John Lohmeyer announced that Charles Monia of Adaptec has volunteered to act as liaison between the IETF SCSI over IP project and T10. Gary Robinson reported that IETF has created a project for SCSI over IP and asked to be a liaison in addition to Charles. The group accepted Gary's request.

10.3 Project proposal for SCSI Stream Commands - 2 (SSC-2) (00-173) [Peterson]

Erich Oetting moved that 00-173r1 (r0 as modified) be accepted as a project proposal for a standard and forwarded to NCITS for further processing. Neil Wanamaker seconded the motion. The motion passed on a vote of 20:0:018=38.

John Lohmeyer took an action item to forward 00-173r1 to NCITS as a project proposal for SSC-2 within 72 hours.

10.4 Response to public review comment #1 on NCITS.336-200x - SPI-3 [Penokie]

George Penokie moved that SPI-3 revision 14 be accepted as containing a substantive change in response to the public review comment #1 (00-219r0) from Ron Silletti (IBM) and that SPI-3 revision 14 be forwarded to NCITS for processing towards second public review. Bill Galloway seconded the motion. On a roll call vote, the motion passed on a vote of 26:0:0:12=38. Details of the vote were as follows:

Organization Adaptec, Inc.	Stat A.	Nam Mr.	e Charles Monia	Yes Nc 1	Abs NP
AMP / Tyco Electronics					1
Amphenol Interconnect	P	Mr.	Bill Mable	1	
Berg Electronics	P	Mr.	Douglas Wagner	1	
BREA Technologies, Inc.	P	Mr.	Bill Galloway	1	
Circuit Assembly Corp.					1
CMD Technology	P	Mr.	Edward Haske	1	
Compaq Computer Corp.	Ρ	Mr.	Robert C. Elliott	1	
Crossroads Systems, Inc.	P	Mr.	Neil Wanamaker	1	
Dallas Semiconductor	Ρ	Mr.	Charles Tashbook	1	
Dell Computer	A	Mr.	William Dawkins	1	
EMC	P	Mr.	Gary S. Robinson	1	
ENDL Texas	A	Mr.	Ralph O. Weber	1	
Exabyte Corp.					1
Fujitsu	P	Mr.	Eugene Lew	1	
General Dynamics					1

						-
Hewlett Packard Co.						1
Hitachi Cable Manchester,Inc	P	Mr.	Zane Daggett	1		
Honda Connectors						1
IBM Corp.	Ρ	Mr.	George O. Penokie	1		
Iomega Corp.						1
KnowledgeTek, Inc.						1
LSI Logic Corp.	P	Mr.	John Lohmeyer	1		
Madison Cable Corp.	P	Ms.	Jie Fan	1		
Maxtor Corp.	Р	Mr.	Pete McLean	1		
Molex Inc.						1
NSTOR						1
Ophidian Designs	P	Mr	Edward A. Gardner	1		-
Panasonic Technologies, Inc	-		lawara n. Garaner	-		1
						1
Philips Electronics	P	14		1		T
QLogic Corp.	Ρ		Skip Jones	1		
Quantum Corp.	P		Mark Evans	1		
Seagate Technology	A	Mr.	Gerald Houlder	1		
Storage Technology Corp.	P	Mr.	Erich Oetting	1		
Sun Microsystems, Inc.	P	Mr.	Kenneth Moe	1		
Texas Instruments	P	Mr.	Paul D. Aloisi	1		
Toshiba America Elec. Comp.	Ρ	Mr.	Tasuku Kasebayashi	1		
Woven Electronics	P	Mr.	Doug Piper	1		
				26	0 0	12 = 38

John Lohmeyer took an action item to send a letter to Ron Silletti thanking him for his public review comment. John Lohmeyer took an action item to forward SPI-3 revision 14 to NCITS for processing toward to second public review.

10.5 PIP Project Proposal (00-238) [Ham]

Bill Ham moved that 00-238r0 be accepted as a project proposal for a technical report and forwarded to NCITS for further processing. Paul Aloisi seconded the motion. The motion passed on a vote of 21:0:1:16=38. Steve Jerman stated that his abstention was based on a lack of expertise.

John Lohmeyer took an action item to forward 00-238r0 to NCITS as a project proposal for the PIP Technical Report.

10.6 Report on NCITS style changes [Lohmeyer]

John Lohmeyer reported that he discussed the document style agreements between T10 and NCITS. He noted that the agreement allows T10 to forward documents to NCITS in T10 style, but NCITS may convert the documents to the NCITS/ANSI style. There is no change from our previous agreement. The committee discussed how to proceed from here and agreed that completion of the T10 style guide (see item 9.3) is the next critical step.

10.7 SES defects [Elliott/Lohmeyer]

John Lohmeyer reported on committee activities related to preparation of an amendment for SES to correct technical defects discovered by Compaq and confirmed by the CAP working group. Rob Elliott volunteered to edit the amendment and noted that Bob Snively has volunteered to incorporate the corrections during ISO/IEC processing of SES. Roger Cummings offered to provide amendment documents from his recent efforts to create an amendment for FC-PH.

11. ISO/IEC

11.1 ISO/IEC Report [Milligan]

Gene Milligan presented the ISO/IEC report; the electronic version follows.

Project 25.13.11.02 25.13.11.13 25.13.11.05	# DIS9316-2 IS 9316-1 CD 14776-111	Description CAM SCSI-2 SPI	Status In Publication Published IS Withdrawn	Months Pending Completed Completed	Editor Bill Dallas Larry Lamers
25.13.11.08 25.13.11.14	IS 14776-411 CD 14776-121	SAM Fast-20	Published IS Withdrawn	Completed	Charles Monia
25.13.11.15 25.13.11.13	IS 14776-341 CD 14776-351	SCC SMC	Publishing Awaiting DIS text with resolution of comments	Completed 16 Target 7/99	George Penokie Erich Oetting
25.13.11.25	CD 14776-112	SPI-2	DIS text provided with resolution of comments	Current step Completed	George Penokie
25.13.11.22	CD 14776-371	SES	Awaiting DIS text with resolution of comments	16 Target 8/99	Bob Snively
25.13.11.23	DIS 14776-342	SCC-2	Publishing	Current step completed	George Penokie
25.13.13.02	CD 14776-221	FCP	Awaiting DIS text with resolution of comments	16 Target 8/99	Bob Snively
25.13.11.16	CD 14776-381	OMC	FDIS passed		Japan
25.13.11.17	CD 14776-361	MMC	Withdrawal requested		Ron Roberts
25.13.11.10	CD 14776-321	SBC	FDIS text with resolution of comments provided	Current step completed	Gene Milligan
25.13.11.20	DIS 14776-232	SBP-2	Fast Track DIS	closes 9/15/00	Peter Johansson
25.13.11.xx	CD 14776-326	RBC	NWIP & CD Contribution submitted		Ron Roberts
25.13.11.xx	CD 14776-362	MMC-2	NWIP & CD Contribution submitted		Ron Roberts
25.13.11.11	CD 14776-331	SSC	NWIP & CD Contribution submitted		Dave Peterson

Other than SMC, SES, and FCP overdue editorial work, all of the current T10 ISO/IEC actions are completed.

US TAG: NCITS/T10 SC: N JT/00-0149

Date Due to TAG Administrator: 07/24/00

Subject: For JTC 1 TAG Letter Ballot, ISO/IEC 14776-232: Information Technology - Small Computer System Interface - Part 232: Serial bus protocol (SBP-2) SC/JTC 1 Due Date: 09/15/00

SC25/WG4 meeting is 6/12 through 6/15 and SC25 6/16 in Tromsÿ.

11.2 ISO/IEC Business [Milligan]

11.2.1 Roll Call vote on ISO/IEC fast track processing of SBP-2 [Milligan]

On behalf of Peter Johansson, Gene Milligan moved T10 approve SBP-2 ISO/IEC 14776-232 as presented. Gary Robinson seconded the motion. The motion passed on a roll call vote of 20:1:1:16=38. Details of the roll call vote were as follows.

Organization Adaptec, Inc. AMP / Tyco Electronics Amphenol Interconnect Berg Electronics BREA Technologies, Inc.	Stat A P	Mr.	e Ron Roberts Charles Brill	Yes 1	No Al	bs NP 1 1 1 1
Circuit Assembly Corp.	_			-		1
CMD Technology	P		Edward Haske	1		
Compaq Computer Corp.	Ρ		Robert C. Elliott	1		
Crossroads Systems, Inc.	Р		Neil Wanamaker	1		
Dallas Semiconductor	Р	Mr.	Charles Tashbook	1		
Dell Computer						1
EMC	Ρ		Gary S. Robinson	1		
ENDL Texas	A	Mr.	Ralph O. Weber	1		
Exabyte Corp.						1
Fujitsu	Ρ	Mr.	Eugene Lew	1		
General Dynamics						1
Hewlett Packard Co.	Α.	Mr.	Steve Jerman	1		
Hitachi Cable Manchester,Inc						1
Honda Connectors						1
IBM Corp.	Ρ	Mr.	George O. Penokie	1		
Iomega Corp.						1
KnowledgeTek, Inc.						1
LSI Logic Corp.	Ρ	Mr.	John Lohmeyer	1		
Madison Cable Corp.	Ρ	Ms.	Jie Fan	1		
Maxtor Corp.	Ρ	Mr.	Pete McLean	1		
Molex Inc.						1
NSTOR						1
Ophidian Designs	Ρ	Mr.	Edward A. Gardner		1	
Panasonic Technologies, Inc						1
Philips Electronics						1
QLogic Corp.						1
Quantum Corp.	A	Mr.	Patrick McGarrah	1		
Seagate Technology	Р	Mr.	Gene Milligan	1		
Storage Technology Corp.	Р	Mr.	Erich Oetting	1		
Sun Microsystems, Inc.	Р	Mr.	Kenneth Moe	1		
Texas Instruments	Р	Mr.	Paul D. Aloisi	1		
Toshiba America Elec. Comp.	Р	Mr.	Tasuku Kasebayashi	1		
Woven Electronics	Ρ	Mr.	Doug Piper	1		
				20	1	1 16 = 38

Ed Gardner stated that his no vote was based on the belief that T10 should not be developing international standards. Chuck Brill stated that his abstention was based on concerns about the absence 1394b.

11.2.2 Instructions to the SC 25 working group 4 delegation [Milligan]

Gene Milligan moved that T10 instruct its delegation to promote the activities of T10 and NCITS at SC 25 working group 4. Ralph Weber seconded the motion. In the absence of any objections, the motion passed unanimously.

12. Liaison Reports

12.1 T11 Liaison Report [Wanamaker]

Neil Wanamaker reported on the activities of T11 and provided an electronic report that is available in 00-242r0.

12.2 T13 Liaison Report [Milligan]

Gene Milligan presented the T13 liaison report.

12.3 SFF Industry Group [Allan]

Dal Allan provided the following electronic report:

The 100-pin SCA-2 investigation has reported interim results that indicate speeds beyond 4Gbs may be achievable.

SFF-8551 will be revised to include thread size and depth.

SFF-8067 (40-pin SCA-2 Connector w/Bidirectional ESI), SFF- 8072 (80-pin SCA-2 for Fibre Channel Tape), SFF-8410 (HSS Testing for Duplex Copper Links), and SFF-8420 (HSSDC-1 Shielded Connections) were approved for publication.

SFF-8415 (High Performance Electrical Interconnect) and SFF-8452 (SCA-3) are new projects. SCA-3 will define a resistive tip which reduces electrical disturbance of the SCSI bus.

12.4 IEEE 1394 [Johansson]

Gary Robinson reported that 1394 and 1394a are on fast track at ISO/IEC JTC 1. 1394b is in IEEE ballot resolution.

12.5 IEEE P1285 Status

Bob Snively reported that IEEE P1285 has had two renewals and waivers of its completion time with the most recent being in 1999. He noted that the document is not available on the web site. He agreed to continue efforts to determine if the project has been terminated. Gary Robinson noted that projects usually do not get a third waiver of their completion date.

12.6 SCSI Trade Association (STA) [Jones/Aloisi]

Paul Aloisi reported on the activities of STA and provided an electronic report that can be found in 00-244r0.

12.7 IETF SCSI over IP [Monia/Robinson]

Charles Monia presented the IETF liaison report and provided an electronic report that can be found in 00-234r0. The group discussed whether T10 should entertain a project proposal to develop a SCSI over IP protocol standard. Gary Robinson argued against such an action, noting that prior turf wars of this type between IETF and ISO had been very detrimental. The primary recommendation was that interested T10 members participate directly in the IETF activity.

13. Review of Action Items

- 376) Dean Wallace will lead the SSM working group in preparation of a press release regarding the usage of the T10 web site that John Lohmeyer can forward to NCITS for distribution.
- 377) John Lohmeyer will forward the SSM press release to NCITS.
- 388) Ralph Weber will prepare SPC-2 revision 18 for letter ballot vote.
- 389) John Lohmeyer will conduct a letter ballot vote on forwarding SPC-2 revision 18 to first public review.
- 390) John Lohmeyer will contact NCITS regarding formalization of the responsibilities for maintaining the vendor ID list.
- 391) John Lohmeyer will send a letter to Ron Silletti thanking him for his public review comment.
- 392) John Lohmeyer will forward SPI-3 revision 14 to NCITS for processing toward to second public review.
- 393) John Lohmeyer will forward 00-173r1 to NCITS as a project proposal for SSC-2 within 72 hours. *Completed*
- 394) John Lohmeyer will forward 00-238r0 to NCITS as a project proposal for the PIP Technical Report. *Completed*

14. Meeting Schedule

The next plenary meeting of T10 will be July 13, 2000 in Colorado Springs, CO at the Antlers Adam's Mark Hotel (719-473-5600), hosted by LSI Logic. The meeting will begin at 9:00 a.m. on Thursday.

The meeting list for the next plenary week is:

		ly '00 Meeting M (5/24/00 Version	-			
Monday 7/10	9 10 11 12 +====================================	1 2 3 4	5 6	789		
	Joint T10/T11.3	SCSI CAP WG (FC	CP-2)	((60)	
	+=====================================		====+	((20)	
Tuesday 7/11	8 9 10 11 12			7 8 9 ====+		
	Parallel SCSI			1	(60)	
	MMC WG		Ì	-	(20)	
	T11 ad hocs +		+	((40)	
Wednesday 7/12	9 10 11 12			789		
	SCSI Commands,	Arch., & Protoc		1	(60)	
	MMC WG			((20)	
	+===========	SFF WG	SFF	((40)	
		+				
Thursday 7/13	9 10 11 12 +==============	==+		+		
	T10 Plenary +=================	/ STA Tech (*) ==+============			(70/40)	
	+	/ OSD WG (*) +========+===		1	(15)	
	1	A Marcom +		((15)	
	after T10 plenary m e T10 plenary meeting					
Friday 7/14		1 2 3 4	5			
	+ SCSI Trade Assoc	iation (STA)		((30)	
++ Meetings marked with == are T10-authorized meetings. Meetings marked with are authorized by other groups and may change without notice.						
Other T10-autho Meeting	rized meetings: Date	Location / Cont				
MeetingDateLocation / ContactJoint T11.3/T1006/07/00 Wed 3:00pBoise, ID / T11SST WG06/07/00 Wed 9:00aBoise, ID / T11PIP SG06/12-13 Mon-TueChicago, IL / OgbuokiriSSM WG06/13-14 Tue-WedChicago, IL / OgbuokiriSDV WG06/15/00 Thu 9:00aChicago, IL / Ogbuokiri {tentative loc.SST WG08/09/00 Wed 9:00aSeattle, WA / T11Joint T11.3/T1008/_/00:00Seattle, WA / T11PIP WG8/14-15/00Colo Spgs, CO / BarnesSSM WG8/15-16/00Colo Spgs, CO / BarnesTentative:						

PIP WG	10/11-12/00 Santa Cruz / Seagate
SSM WG	10/12-13/00 Santa Cruz / Seagate
Meeting Map	Abbreviation Key:
Amnd:	Amendment
Cable Perf.:	Cable Performance Testing
CAM:	Common Access Method
CAM-3:	Next generation CAM for SCSI-3
CAP:	Commands, Architecture, and Protocols
EPI:	SCSI Enhanced Parallel Interface (Technical Report)
Fast-20:	Data Transfer at 20 Mega-transfers/second (a.k.a., Ultra)
Fast-40:	Data Transfer at 40 Mega-transfers/second (a.k.a., Ultra2)
Fast-80:	Data Transfer at 80 Mega-transfers/second (a.k.a., Ultra3, Ultra160)
Fast-160:	Data Transfer at 160 Mega-transfers/second (a.k.a., Ultra4, Ultra320)
FC:	Fibre Channel
FC-AL:	Fibre Channel - Arbitrated Loop (a T11 project)
FCLC:	Fibre Channel Loop Community (not an NCITS activity)
I/F:	Interface
HAP:	High Availability Profile (Technical Report)
LB:	Letter Ballot
MMC-2:	Multimedia Commands - 2 (CD-ROM, DVD, etc.)
OBD_T:	Object-Based Device Tutorial
Par.:	Parallel (e.g., SPI-n, Domain Validation)
PH:	Physical (Connectors, Cables, Transceivers, etc.)
-	: Physical Test Planning Study Group
Plenary:	Full Committee Meeting
RAID:	Redundant Array of Independent Devices
RBC:	Reduced Block Commands
SBC:	SCSI-3 Block Commands
SBP-2:	Serial Bus Protocol for IEEE 1394 (2nd generation protocol)
SCC-2:	SCSI Controller Commands - 2 (2nd generation RAID command set)
SCSI:	Small Computer System Interface
SES:	SCSI Enclosure Services
	A STA project on defining a wrapper for SCSI devices
SFF:	SFF Industry Group (not an NCITS activity)
SG:	Study Group SCSI-3 Medium Changer Commands
SMC:	SCSI-5 Medium Changer Commands SCSI Primary Commands - 2 (2nd generation)
SPC-2: SPI-2:	Second Generation SCSI Parallel Interface
SPI-2: SPI-3:	Third Generation SCSI Parallel Interface
SPI-3:	Fourth Generation SCSI Parallel Interface
SSA:	Serial Storage Interface
SSC:	SCSI-3 Stream Commands (includes Tape)
SSWGs:	Specific-Subject Working Groups
STA:	SCSI Trade Association (not an NCITS activity)
STA Tech:	STA Technical Meeting (T10 members invited)
T10:	Lower Level Interfaces Technical Committee
T10 Proc.:	T10 Procedures
WG:	Working Group (same as Ad Hoc Group)

For more information about T10 activities, please contact the following people:

Activity	Contact	Telephone/Email		
 EPI	Bill Ham	 (508) 841-2629 bill.ham@digital.com		

FCP-2, SES	Robert Snively	(408) 487-8135
		rsnively@brocade.com
SBC, SBC-2	Gene Milligan	(405) 324-3070
		gene_milligan@notes.seagate.com
MMC-2, MMC-3, RMC	Bill McFerrin	(303) 651-5400
		BMcFerrin@aol.com
SBP-2 or RBC	Pete McLean	(303) 678-2149
		pete_mclean@maxtor.com
SBP-2	Peter Johansson	(510) 527-3926
		pjohansson@aol.com
SCC-2, SPI-3, SPI-4	George Penokie	(507) 253-5208
		gop@us.ibm.com
SDV	Larry Lamers	(408) 957-7817
		ljlamers@ieee.org
SMC, SMC-2	Erich Oetting	(303) 673-2178
		Erich_Oetting@Stortek.com
SPC-2, SPC-3, SAM-2	Ralph Weber	(214) 912-1373
		roweber@acm.org
SSC, SSC-2	Dave Peterson	(612) 391-1008
		dap@network.com
SSM	Dean Wallace	(714) 668-5028
		d_wallace@qlc.com
SVP	Ed Gardner	(719) 593-8866
		eag@ophidian.com
Other Activities	John Lohmeyer	(719) 533-7560
	-	lohmeyer@t10.org

The long-term T10 meeting week schedule is:

Date	Location	Host/Comments
Jul 10-14, 2000	Colorado Springs, CO	LSI Logic
Sep 11-15, 2000	Huntington Beach, CA	QLogic
Oct 30-Nov 3, 2000	Monterey, CA	Adaptec / dates changed
Jan 15-19, 2001	Orlando, FL	Adaptec (DPT Div.)
Mar 5-9, 2001	Dallas, TX	Texas Instruments
May 7-11, 2001	Manchester, NH	Hitachi Cable
Jul 16-20, 2001	Colorado Springs, CO	LSI Logic
Sep 10-14, 2001	Huntington Beach, CA	QLogic
Nov 5-9, 2001	Monterey, CA	Adaptec

14.1 Authorization of Working Group Meetings

John noted that the working group meetings are required to operate under the same voting procedures as does T10 (that is, one vote per organization) and the results of a working group are not binding on the parent committee. Ad hoc groups should strive to achieve consensus prior to bringing issues to T10.

Erich Oetting moved that T10 authorize the T10-related meetings and events in the list above that had not previously been approved. Charles Brill seconded the motion. The motion passed on a vote of 13:1:1:23=38.

15. Adjournment

The meeting was adjourned at 1:00 p.m. on Thursday May 18, 2000.

Enclosure(1) -- Meeting Attendees

	Name	S 	Organization	Electronic Mail Address
Mr.	Ron Roberts	А	Adaptec, Inc.	ljlamers@ieee.org
Mr.	Charles Monia	Α.	Adaptec, Inc.	cmonia@corp.adaptec.com
Mr.	Charles Brill	Ρ	AMP / Tyco Electronics	cebrill@ix.netcom.com
Mr.	Bill Mable	Ρ	Amphenol Interconnect	mableaipc@aol.com
Mr.	Douglas Wagner	Ρ	Berg Electronics	wagnerdl@bergelect.com
Mr.	Bill Galloway	Ρ	BREA Technologies, Inc.	billg@breatech.com
Mr.	Robert Snively	Ρ	Brocade Communications	rsnively@brocade.com
Mr.	Edward Haske	Ρ	CMD Technology	haske@cmd.com
Mr.	Robert C. Elliott	Ρ	Compaq Computer Corp.	Rob_Elliott@compuserve. com
Dr.	William Ham	А	Compaq Computer Corp.	bill.ham@digital.com
Mr.	Neil Wanamaker	Ρ	Crossroads Systems, Inc.	ntw20@netcom.com
Mr.	John Tyndall	А	Crossroads Systems, Inc.	jtyndall@crossroads.com
Mr.	Charles Tashbook	Ρ	Dallas Semiconductor	charles.tashbook@dalsemi. com
Mr.	William Dawkins	А	Dell Computer	bill_dawkins@dell.com
Mr.	Gary S. Robinson	Ρ	EMC	robinson_gary@emc.com
Mr.	Ralph O. Weber	А	ENDL Texas	roweber@acm.org
Mr.	Eugene Lew	Ρ	Fujitsu	elew@fcpa.fujitsu.com
Mr.	Donald Woelz	V	Genroco, Inc.	don@genroco.com
Mr.	Steve Jerman	Α.	Hewlett Packard Co.	steve_jerman@hp.com
Mr.	Koichi Ono	V	Hitachi America Ltd.	koichi.ono@hal.hitachi. com
Mr.	Zane Daggett	Ρ	Hitachi Cable Manchester, Inc	zdaggett@hcm.hitachi.com
Mr.	Anthony Yang	0	Hitachi Storage Products	anthony.yang@hal.hitachi. com
Mr.	George O. Penokie	Ρ	IBM Corp.	gop@us.ibm.com
Dr.	Jim Hafner	V	IBM Corp.	hafner@almaden.ibm.com
Mr.	Paul Anderson	V	IBM Corp.	pman@us.ibm.com
Mr.	David Chambliss	V	IBM Corp.	chamb@us.ibm.com
Mr.	John Lohmeyer	Ρ	LSI Logic Corp.	lohmeyer@t10.org
Ms.	Jie Fan	Ρ	Madison Cable Corp.	jfan@madisoncable.com
	Pete McLean	Ρ	Maxtor Corp.	pete_mclean@maxtor.com
	Edward A. Gardner		Ophidian Designs	eag@ophidian.com
	William P. errin	Ρ	Philips Electronics	BMcFerrin@aol.com
	Mark Evans	Ρ	Quantum Corp.	mark.evans@quantum.com
	Patrick McGarrah	А	Quantum Corp.	pat.mcgarrah@quantum.com
Mr.	Gene Milligan	Ρ	Seagate Technology	Gene_Milligan@notes. seagate.com
Mr.	Gerald Houlder	A	Seagate Technology	gerry_houlder@notes. seagate.com
Mr.	Erich Oetting	Ρ	Storage Technology Corp.	erich_oetting@stortek.com
Mr.	Kenneth Moe	Ρ	Sun Microsystems, Inc.	kenneth.moe@sun.com
Mr.	Paul D. Aloisi	Ρ	Texas Instruments	Paul_Aloisi@ti.com
Mr.	Donald R. Getty	A#	Texas Instruments	donald_getty@ti.com
Mr.	Tasuku Kasebayashi	P	Toshiba America Elec. Comp.	task.kasebayashi@taec. toshiba.com
Mr.	Roger Cummings	V	Veritas Software	roger.cummings@veritas. com
Mr.	Doug Piper	Ρ	Woven Electronics	doug.piper@ wovenelectronics.com

42 People Present

Key:	Ρ	-	Principal
	A,A#	-	Alternate
	0	-	Observer
	L	-	Liaison
	V	-	Visitor
	Кеу:	A,A# O L	A,A# - O - L -

Enclosure(2) -- T10 Attendance Database

Generated on 2000/05/24 at 14:35:33

Mr. Lawrence J. Lamers (P) Adaptec, Inc. 691 S. Milpitas Blvd. Milpitas, CA 95035	Fax:	(408) 957-7817 (408) 945-6736 ljlamers@ieee.org
Mr. Ron Roberts (A) Adaptec, Inc. 691 S. Milpitas Blvd. Milpitas, CA 95035	Fax:	(408) 957-5640 (530) 677-1218 ljlamers@ieee.org
Mr. Ram Rangarajan (O) Advansys 1150 Ringwood Ct. San Jose, CA 95131	Fax:	(408) 383-5719 (408) 383-9612 rrangarajan@advansys.com
Mr. Steven P. Ego (O) Aeronics Inc. 12741 Research Blvd #500 Austin, TX 78759		(512) 258-2303 (512) 258-4392
Mr. Matt Wakeley (O) Agilent Technologies 8000 Foothills Blvd. MS 5669 Roseville, CA 95747-5669	Fax:	(916) 785-4259 (916) 785-1997 matt_wakeley@agilent.com
Mr. Charles Brill (P) AMP / Tyco Electronics 112 Harvey Rd. Hershey, PA 17033	Fax:	(717) 533-1279 (717) 520-9090 cebrill@ix.netcom.com
Mr. Al Frantum (A) AMP / Tyco Electronics	Fax:	(717) 592-6009 awfrantu@tycoelectronics.com
Ms. Bonnie Rose (O) Amphenol Canada Corp. 20 Melford Dr. Scarboraugh, Ontario Canada M1B 2X6	Fax:	(416) 291-4401 x2239 (416) 292-0647 brose@cosmosgroup.com
Mr. Bill Mable (P) Amphenol Interconnect 20 Valley St. Endicott, NY 13760	Fax:	(607) 786-4236 (607) 786-4311 mableaipc@aol.com
Mr. Michael Wingard (A) Amphenol Interconnect		(607) 786-4241 (607) 786-4311

20 Valley St. Endicott, NY 13760	Email:	mikwingard@aol.com
Mr. Bart Raudebaugh (O) Ancot Corp. 115 Constitution Dr. Menlo Park, CA 94025	Fax:	(415) 322-5322 (415) 322-0455 bart@ancot.com
Mr. Harlan Andrews (O) Apple Computer 6 Infinite Loop MS 306-2MS Cupertino, CA. 95014	Fax:	(408) 974-6430 (408) 862-7577 hea@apple.com
Mr. James R. Bergsten (O) Ark Research Corp. 1190 Saratoga Ave. #110 San Jose, CA 95129-3433	Fax:	(408) 260-5900 (408) 260-5908 bergsten@arkres.com
Mr. Douglas Wagner (P) Berg Electronics 472 Delwood Ct. Newbury Park, CA 91320-4819	Fax:	(805) 498-0325 (805) 498-0325 wagnerdl@bergelect.com
Mr. Jim Koser (A) Berg Electronics 825 Old Trail Road Etters, PA 17319		(717) 938-7679 (717) 938-7991
Mr. Bill Galloway (P) BREA Technologies, Inc. 14902 Mesita Dr. Houston, TX 77083	Fax:	(281) 530-3063 (281) 988-0358 billg@breatech.com
Mr. Robert Snively (P) Brocade Communications 1901 Guadalupe Parkway San Jose, CA 95131	Fax:	(408) 487-8135 rsnively@brocade.com
Mr. Joseph Basista (O) C&M Corp. 49 Middle Road Owego, NY 13827	Fax:	(607) 687-1044 (607) 687-7534 joebasista@aol.com
Mr. Gerry Johnsen (O) Ciprico Inc. 2800 Campus Dr. Suite 60 Plymouth, MN 55441	Fax:	(612) 551-4000 (612) 551-4002 gerry@ciprico.com
Mr. Ian Morrell (P)	Phone:	(949) 598-1780

Circuit Assembly Corp. Fax: (949) 855-4298 18 Thomas St. Email: ianm@circuitassembly.com Irvine, CA 92718-2703 Phone: (949) 855-7887 Fax: (949) 655 Mr. Dennis Lang (A) Circuit Assembly Corp. Email: dennisl@circuitassembly.com 18 Thomas St. Irvine, CA 92718-2703 Mr. Ben Chang (0) Phone: (510) 226-2394 Cirrus Logic Inc. Fax: 3100 W. Warren Ave. Email: ben@corp.cirrus.com Fremont, Ca 94538 Mr. Edward Haske (P) Phone: (949) 454-0800 CMD Technology Fax: (949) 455-1656 Email: haske@cmd.com 1 Vanderbilt Irvine, CA 92718 Mr. Robert C. Elliott (P) Phone: (281) 518-5037 Compaq Computer Corp. Fax: (281) 518-7135 MS 120810 Email: Rob_Elliott@compuserve.com PO Box 692000 Houston, TX 77269-2000 Phone: (603) 884-2508 Mr. William Dallas (A#) Compaq Computer Corp. Fax: (603) 884-2257 ZK03-3/T79 Email: dallas@zk3.dec.com 110 Spit Brook Road Nashua, NH 03062-2698 Mr. Douglas Hagerman (A#) Phone: (508) 841-2145 Fax: (508) 841-6100 Compaq Computer Corp. SHR3-2/W3 Email: douglas.hagerman@compaq.com 334 South Street Shrewsbury, MA 01545 Phone: (508) 841-2629 Dr. William Ham (A) Fax: (508) 841-5266 Compaq Computer Corp. Email: bill.ham@digital.com SHR3-2/W04 334 South Street Shrewsbury, MA 01545 Mr. Mike Zandy (A#) Phone: (281) 518-7930 Compaq Computer Corp. Fax: MS 640222 Email: Mike.Zandy@compaq.com PO Box 692000 Houston, TX 77269-2000 Mr. Peter Johansson (0) Phone: (510) 527-3926 Congruent Software Inc. Ear: (510) 531-2942 Fax: (510) 531-2942 Congruent Software, Inc. Email: pjohansson@aol.com 3998 Whittle Ave. Oakland, CA 94602

Mr. Neil Wanamaker (P) Crossroads Systems, Inc. 9390 Research Blvd. Suite II-300 Austin, TX 78759	Phone: (512) 794-2727 Fax: (512) 349-0304 Email: ntw20@netcom.com
Mr. John Tyndall (A) Crossroads Systems, Inc. 9390 Research Blvd. Suite II-300 Austin, TX 78759	Phone: (512) 794-2782 Fax: (512) 349-0304 Email: jtyndall@crossroads.com
Mr. Charles Tashbook (P) Dallas Semiconductor 4401 S. Beltwood Pkwy. Dallas, TX 75244-3292	Phone: (972) 371-4110 Fax: (972) 371-3715 Email: charles.tashbook@dalsemi.com
Mr. Wayne Mendenhall (A) Dallas Semiconductor 4401 S. Beltwood Pkwy. Dallas, TX 75244	Phone: (972) 371-4485 Fax: Email: wayne.mendenhall@dalsemi.com
Mr. Dave Ford (O) Data General / Clariion Coslin Dr. Southboro, MA 04772	Phone: (617) 926-1399 Fax: Email: dford@orca.com
Mr. Bill Anderson (O) DDK Electronics 3001 Oakmead Village Dr. Santa Clara, CA 95051	Phone: (408) 980-8344 Fax: (408) 980-9750 Email: bill_anderson@ddkconnectors.com
Mr. Ricardo Dominguez (P) Dell Computer One Dell Way Round Rock, TX 78682	Phone: (512) 728-8996 Fax: (512) 728-3653 Email: ricardo_dominguez@dell.com
Mr. William Dawkins (A) Dell Computer One Dell Way Round Rock, TX 78682	Phone: (512) 723-4339 Fax: (512) 723-6657 Email: bill_dawkins@dell.com
Mr. James Benfer (O) Digi-Data Corp. 8580 Dorsey Run Road Jessup, MD 20794	Phone: (301) 498-0200 Fax: Email:
Mr. Robert Reisch (O) Eastman Kodak Co. 460 Buffalo Road Rochester, NY 14652-3816	Phone: (716) 588-0573 Fax: (716) 588-2624 Email: reisch@kodak.com

```
Mr. Terry Maezawa (O)
                               Phone: (404) 487-5815
Electronic&Ind. Enterprises
                                 Fax:
Suite 216
                                 Email:
21 Eastbrook Bend
Peachtree City, GA 30269
Mr. Gary S. Robinson (P) Phone: (508) 435-1000 x21610
EMC
                                  Fax:
228 South St.
                                 Email: robinson_gary@emc.com
Hopkinton, MA 01748
Mr. I. Dal Allan (P)
                          Phone: (408) 867-6630
ENDL
                                 Fax: (408) 867-2115
14426 Black Walnut Ct.
                               Email: endlcom@acm.org
Saratoga, CA 95070
                           Phone: (214) 912-1373
Mr. Ralph O. Weber (A)
                                 Fax: (972) 596-2775
ENDL Texas
Suite 102#178
                                 Email: roweber@acm.org
18484 Preston Rd.
Dallas, TX 75252
Mr. Alan Johnson (0)Phone:Eurologic Systems Ltd.Fax: 43 53 1 206 1200South County Business ParkEmail: ajohnson@eurologic.com
Leopardstown
County Dublin Ireland
Mr. Mike Taylor (P)
                                 Phone: (303) 417-7235
Exabyte Corp.
                                 Fax: (303) 417-7829
1685 38th Street
                                 Email: miketa@exabyte.com
Boulder, CO 80301
                               Phone: (303) 417-7672
Mr. Frank Wang (A)
                                Fax: (303) 417-7829
Exabyte Corp.
1685 38th Street
                               Email: frankw@exabyte.com
Boulder, CO 80301
                           Phone: (717) 502-0784
Mr. Julian Ferry (O)
Foxconn I/O
                                 Fax: (717) 502-1474
140 Coffeetown Rd.
                                Email: julferry@aol.com
Dillsburg, PA 17019
Mr. Stephen Jarvis (O) Phone: (714) 890-8628 x230
Foxconn I/O
                                 Fax: (714) 892-8668
6125 Phyllis Drive
                               Email: s.jarvis@foxconn.com
Cypress, CA 90630
Mr. Don Soracco (O)
                                Phone: (978) 649-9997
Foxconn I/O
                                 Fax: (978) 649-9797
60 Pond St.
                                 Email:
Dunstable, MA 01827
```

Mr. Eugene Lew (P) Fujitsu 2904 Orchard Pkwy San Jose, CA 95134	Phone: (408) 894-3874 Fax: Email: elew@fcpa.fujitsu.com	
Mr. Ben-Koon Lin (A) Fujitsu 2904 Orchard Pkwy. San Jose, CA 95134	Phone: (408) 894-3979 Fax: (408) 894-3908 Email: blin@fcpa.fujitsu.com	
Mr. Kazuo Nakashima (O) Fujitsu Computer Products,Am 2904 Orchard Parkway San Jose, CA 95134	Phone: (408) 894-3849 Fax: (408) 894-3907 Email: knakashima@fcpa.fujitsu.com	n
Mr. Bob Thornton (O) Fujitsu Takamisawa America 250 E. Caribbean Dr. Sunnyvale, CA 94089	Phone: (408) 745-4932 Fax: (408) 745-4971 Email: bthornto@fta.fujitsu.com	
Mr. Nathan Hastad (P) General Dynamics 8800 Queen Ave. S. Bloomington, MN 55431	Phone: (612) 921-6635 Fax: (612) 921-6345 Email: nathan.j.hastad@gd-is.com	
Mr. Tim Mackley (A) General Dynamics 8800 Queen Ave. S. Bloomington, MN 55431	Phone: (612) 921-6866 Fax: Email: timothy.a.mackley@gd-is.com	1
Mr. Pak Chan (O) Gigalabs Inc. 290 Santa Ana Court Sunnyvale, CA 94086	Phone: (408) 481-3030 Fax: (408) 481-3045 Email: pchan@giglabs.com	
Ms. Liza Hunt (XO) Global Engineering Documents 15 Inverness Way East Englewood, CO 80112-5704	Phone: Fax: Email:	
Mr. Rodger Burke (O) Harting, Inc. of N. America 1370 Bowes Road Elgin, IL 60123	Phone: (847) 741-1500 x286 Fax: (847) 741-8257 Email: Rodger.Burke@harting.com	
Mr. Stewart Wyatt (P) Hewlett Packard Co. PO Box 39	Phone: (208) 396-3594 Fax: (208) 393-3319 Email: stewart_wyatt@hp.com	

Boise, ID 83707

Mr. Tim Anderson (A) Hewlett Packard Co. 8000 Foothills Blvd. MS 5669 Roseville, CA 95746	Fax:	(916) 785-1644 (916) 785-5843 tima@core.rose.hp.com
Mr. Brad Culp (O) Hewlett Packard Co. 700 71st. Ave. Greeley, CO 80631	Fax:	(970) 350-4592 (970) 352-3524 brad-culp@hp.com
Mr. Steve Krupa (O) Hewlett Packard Co. Filton Road Stoke Gifford Bristol BS12 6QZ England	Phone: Fax: Email:	
Mr. Zane Daggett (P) Hitachi Cable Manchester,Inc 900 Holt Ave. Manchester, NH 03109	Fax:	(603) 669-4347 x236 (603) 669-9621 zdaggett@hcm.hitachi.com
Mr. Paul Boulay (O) Hitachi Computer Systems Div 3101 Tasman Drive Santa Clara, CA 95054	Fax:	(408) 986-9770 x205 (408) 986-1821 p_boulay@hitachi.com
Mr. Hitoshi Ogawa (O) Hitachi Ltd. Systems Development Lab 292 Yoshida-Cho Yokohama-Shi 244 Japan	Fax:	1181-45881-1241 1181-45860-1674 hogawa@yokolab.sdl.hitachi.co.jp
Mr. Anthony Yang (O) Hitachi Storage Products 1971 Milmont Drive Milpitas, CA 95035	Fax:	(408) 941-7048 (408) 946-1062 anthony.yang@hal.hitachi.com
Mr. Thomas J. Kulesza (P) Honda Connectors 960 Corporate Woods Parkway Vernon Hill, IL 60061	Fax:	(847) 913-9566 (847) 913-9587 tkulesza@hondaconnectors.com
Mr. Terry Enright (A) Honda Connectors 960 Corporate Woods Parkway Vernon Hill, IL 60061		(847) 913-9566 (847) 913-9587
Mr. George O. Penokie (P) IBM Corp.		(507) 253-5208 (507) 253-2880

2B7/114-2 37st Highway 52 N. Rochester, MN 55901-7829	Email: gop@us.ibm.com	
Mr. John P. Scheible (A) IBM Corp. Bldg 815 MS 4051 11400 Burnett Rd. Austin, TX 78758	Phone: (512) 823-8208 Fax: (512) 823-0758 Email: Scheible@vnet.ibm.com	
Mr. Robert Basham (O) IBM Corp. 65U/031-Z 9000 S. Rita Rd. Tucson, AZ 85744	Phone: (520) 799-4923 Fax: Email: robbyb@us.ibm.com	
Mr. Tim Bradshaw (P) Iomega Corp. 1821 Iomega Way Roy, UT 84067	Phone: (801) 778-4262 Fax: (801) 778-4170 Email: bradshat@iomega.com	
Mr. Darrell Redford (A) Iomega Corp. 1821 West Iomega Way Roy, UT 84067	Phone: (801) 778-4432 Fax: (801) 778-4170 Email: redfordd@iomega.com	
Mr. David L. Jolley (A#) Iomega Corporation 1821 West Iomega Way Roy, UT 84067	Phone: (801) 778-3641 Fax: (801) 778-5261 Email: jolley@iomega.com	
Mr. Dennis Moore (P) KnowledgeTek, Inc. 7230 West 119th Pl, Suite C Broomfield, CO 80020	Phone: (303) 465-1800 Fax: (303) 426-1350 Email: dmoore@ix.netcom.com	
Mr. Hayden Smith (O) Lasercard Systems Corp. 2644 Bayshore Parkway Mountain View, CA 94043	Phone: (650) 969-4428 Fax: (650) 967-6524 Email: hsmith@lasercard.com	
Mr. Louis Grantham (O) Linfinity Micro 101 W. McDermott Allen, TX 75013	Phone: (972) 396-7002 Fax: (972) 396-7533 Email: lgrantham@linfinity.co	om
Mr. John Lohmeyer (P) LSI Logic Corp. 4420 ArrowsWest Dr. Colorado Springs, CO 80907	Phone: (719) 533-7560 Fax: (719) 533-7183 Email: lohmeyer@t10.org	
Mr. Charles Binford (A)	Phone: (316) 636-8566	

LSI Logic Corp. Fax: (316) 636-8889 3718 N. Rock Rd. Email: Charles.Binford@lsil.com Wichita, KS 67226-1397 Ms. Jie Fan (P)Phone: (508) 752-2884 x306Madison Cable Corp.Fax: (508) 752-4230125 Goddard Memorial Dr.Email: jfan@madisoncable.comVareboater No. 21602Fax: (508) 752-4230 Worchester, MA 01603 Mr. Michael Karg (A) Phone: (508) 752-2884 x210 Madison Cable Corp. Fax: (508) 752-4230 125 Goddard Memorial Drive Email: mkarg@madisoncable.com Worcester, MA 01603 Mr. Takaharu Al (0) Matsushita Elec. Indust. Co. Fax: +81-6-900-1375 Email: aiai@dsd.mei.co.jp Mr. Takaharu Ai (O) Phone: +81-6-6906-2330 Kadoma, Osaka 571-8504 Japan Mr. Hiroshi Ueda (0)Phone: +81-6-6900 9259Matsushita ElectricFax:1006 Kadoma Kadoma-shiEmail: hueda@isl.mei.co.jp Osaka, Japan Mr. Pete McLean (P) Phone: (303) 678-2149 2190 Miller Dr. Fax: (303) 678-2165 Email: pete_mclean@maxtor.com Longmont, CO 80501 Mr. Charley Riegger (A) Phone: (408) 432-4571 Fax: (408) 432-4432 Maxtor Corp. 510 Cottonwood Dr. Email: charles_riegger@maxtor.com Milpitas, CA 95035 Phone: (303) 678-2828 Mr. LeRoy Leach (0) Fax: (303) 678-2308 Maxtor Corp. 2190 Miller Dr. Email: leroy_leach@maxtor.com Longmont, CO 80501-6744 Mr. Randy Banton (0) Phone: (508) 256-1300 x134 Fax: Mercury Computer 199 Riverneck Road Email: Chelmsford, MA 01824 Mr. Bob Masterson (O)Phone: (708) 867-9600Methode Electronics, Inc.Fax: (708) 867-31497444 West Wilson AveEmail: rwmast@methode.com

Chicago, IL 60656

Mr. Jay Neer (P) Molex Inc. 399 W. Camino Gardens Blvd. Suite 103 Boca Raton, FL 33432	Fax:	(561) 447-2907 (561) 447-2908 jneer@molex.com
Mr. Joe Dambach (A) Molex Inc. 2222 Wellington Court Lisle, IL 60532	Fax:	(708) 527-4546 (708) 969-1352 jdambach@molex.com
Ms. Betty Akeredolu (O) Molex Inc. 2222 Wellington Ct. Lisle, IL 60532	Fax:	(630) 579-4120 bakeredolu@molex.com
Mr. Martin Ogbuokiri (O) Molex Inc. 2222 Wellington Court Data Comm Lisle, IL 60532	Fax:	(630) 527-4370 (630) 969-1352 mogbuokiri@molex.com
Mr. Richard Wagner (O) Montrose/CDT 28 Sword Street Auburn, MA 01501	Fax:	(508) 791-3161 (508) 798-8353 rwagner@montrose-cdt.com
Mr. Brian McKean (A#) Mylex Corp. 4900 Pearl East Circle #104 Boulder, CO 80301-6108	Fax:	(303) 381-4246 (303) 413-0464 brianm@mylexboulder.com
Mr. Gregg Neely (P) NSTOR 10140 Mesa Rim Rd. San Diego, CA 92121	Fax:	(858) 453-9696 (858) 453-9294 greggn@nstor.com
Mr. Edward A. Gardner (P) Ophidian Designs 1262 Hofstead Terrace Colorado Springs, CO 80907	Fax:	(719) 593-8866 (719) 593-8989 eag@ophidian.com
Mr. Han Zou (P) Panasonic Technologies, Inc 2 Research Way Princeton, New Jersey 08540	Fax:	(609) 734-7326 (609) 987-8827 hanzou@research.panasonic.com
Dr. Terry Nelson (A) Panasonic Technologies, Inc 2 Research Way Princeton, NJ 08540	Fax:	(609) 734-7324 (609) 987-8827 tnelson@research.panasonic.com

```
Mr. William P. McFerrin (P) Phone: (720) 320-0790
Philips Electronics
                               Fax:
841 Rocky Mtn Place
                             Email: BMcFerrin@aol.com
Longmont, CO 80501
Mr. Randall C. Hines (A) Phone: (303) 651-5406
Philips Electronics
                               Fax: (303) 682-3029
                          Email: hinesr@worldnet.att.net
1860 Lefthand Circle
Longmont, CO 80501
                          Phone: (408) 991-3348
Mr. Frank Fang (0)
Philips Semiconductors
                              Fax: (408) 991-2600
811 E. Argues Ave.
                             Email: frank.fang@philips.com
Sunnyvale, CA 94088-3409
Mr. Skip Jones (P)
                             Phone: (949) 389-6368
                               Fax: (949) 389-6114
QLogic Corp.
                           Email: sk_jones@qlc.com
26600 Laguna Hills Dr.
Aliso Viejo, CA 92656
                            Phone: (949) 389-6232
Mr. Richard Moore (A#)
                               Fax: (949) 389-6121
QLogic Corp.
26600 Laguna Hills Dr.
                             Email: r_moore@qlc.com
Aliso Viejo, CA 92656
                     Phone: (949) 389-6480
Mr. Dean Wallace (A)
                               Fax: (949) 389-6128
QLogic Corp.
26600 Laguna Hills Dr.
                               Email: d_wallace@qlc.com
Aliso Viejo, CA 92656
Mr. Mark Evans (P)
                             Phone: (408) 894-4019
                              Fax: (408) 894-4990
Quantum Corp.
500 McCarthy Blvd.
                             Email: mark.evans@quantum.com
Milpitas, CA 95035
                             Phone: (508) 770-6364
Mr. Patrick McGarrah (A)
                               Fax: (508) 770-2299
Quantum Corp.
333 South St.
                               Email: pat.mcgarrah@quantum.com
Shrewsbury, MA 01545
                            Phone: (408) 894-4504
Mr. James McGrath (A#)
Quantum Corp.
                               Fax: (408) 894-6375
500 McCarthy Blvd.
                           Email: JMCGRATH@QNTM.COM
Milpitas, CA 95035
                         Phone: (909) 987-3966
Mr. John A. Fobel (O)
                               Fax: (909) 989-2365
Rancho Technology, Inc.
10783 Bell Court
                               Email: johnf@rancho.com
Rancho Cucamonga, CA 91730
```

```
Mr. Ken-Ichi Kojima (O)
Sanyo Electric Co., Ltd.
180 Ohmori Anpachi-Cho
                                   Phone: 584-64-4399
                                     Fax: 584-64-5096
                                   Email:
Anpachi-Gun
Gifu-Ken 503-01 Japan
Mr. Gene Milligan (P)
                                     Phone: (405) 324-3070
Seagate Technology
                                     Fax: (405) 324-3794
MS OKM 251
                                     Email: Gene_Milligan@notes.seagate.com
P. O. Box 12313
Oklahoma City, OK 73157
Mr. Gerald Houlder (A)
                                   Phone: (652) 402-2869
Seagate Technology
                                     Fax: (652) 402-3471
Mailstop SHK231
                                   Email: gerry_houlder@notes.seagate.com
1280 Disc Drive
Shakopee, MN 55379-1863
Mr. Jon P. Baker (O)
                                   Phone: (405) 324-3591
Seagate Technology
                                      Fax:
10323 W. Reno Ave.
                                    Email: jon_baker@notes.seagate.com
Oklahoma City, OK 73116
Mr. Daniel (Dan) F. Smith (O) Phone: (831) 439-7146
Seagate Technology
                                     Fax: (831) 438-4846
4585 Scotts Valley Dr.
                                   Email: daniel_f_smith@notes.seagate.com
Scotts Valley, CA 95066-4544
Mr. Yasunori Hiyoshi (O)
                                   Phone:
Seiko Epson Corp.
                                      Fax:
Corporate Res & Dev
                                     Email: yasunori.hiyoshi@exc.epson.co.jp
3-3-5 Owa Suma-Shi
Nagano-Ken 392-8502 Japan
                               Phone: 49-821-804-3602
Mr. Erhard Weiss (O)
Siemens Nixdorf
                                     Fax: 49-821-804-2910
Depatment: SNI PC SB ESW
                                   Email: weiss.abg@sni.de
Burgermeister-Ulrich-St
D-86199 Augsburg Germany
                                    Phone: (408) 338-4285
Mr. Greq Alvey (0)
Solution Technology
                                     Fax: (408) 338-4374
P.O. Box 104
                                     Email: kd6hnm@aol.com
Boulder Creek, CA 95006

        Mr. Dennis Pak (0)
        Phone: (408) 955-5247

        Sony Electronics, Inc.
        Fax: (408) 955-5066

        3300 Zanker Rd.
        MS# SJ-3B2

        Email:
        dennis_pak@asd.sel.sony.com

Mr. Dennis Pak (O)
                                   Phone: (408) 955-5247
San Jose, CA 95134
Mr. Jeffrey Schroeder (0) Phone: (408) 487-3965
ST Microelectronics
                                     Fax: (408) 441-8470
1060 E. Brokaw Rd.
                                     Email: jeffrey.schroeder@st.com
```

San Jose, CA 95131

Mr. Rich Wahler (O) Standard Microsystems Corp. 300 Kennedy Drive Hauppauge, NY 11788	Phone: (516) 435-6174 Fax: (516) 724-1505 Email:
Mr. Erich Oetting (P) Storage Technology Corp. 2270 South 88th St. Louisville, CO 80028-0268	Phone: (303) 673-2178 Fax: (303) 673-8196 Email: erich_oetting@stortek.com
Mr. Doug Charnley (A) Storage Technology Corp. 2270 South 88th St. MS 0211 Louisville, CO 80028-0211	Phone: (303) 661-7271 Fax: (303) 673-8196 Email: doug_charnley@stortek.com
Mr. David Peterson (O) StorageTek Network Sys. Grp 7600 Brooklyn Blvd. Brooklyn Park, MN 55428	Phone: (612) 391-1008 Fax: (612) 391-1095 Email: dap@network.com
Mr. Franklin Ng (A#) Sun Microsystems Computer Co MS NWK02-101 901 San Antonio Rd. Palo Alto, CA 94303	Phone: (510) 574-9195 Fax: (510) 574-9501 Email: franklin.ng@ebay.sun.com
Mr. Kenneth Moe (P) Sun Microsystems, Inc. UNWK03-112 901 San Antonio Road Palo Alto, CA 94303-4900	Phone: (510) 574-9799 Fax: Email: kenneth.moe@sun.com
Mr. Vit Novak (A) Sun Microsystems, Inc. Mail Stop 15-46 2550 Garcia Ave. Mountain View, CA 94043-1100	Phone: (650) 688-9033 Fax: (650) 688-9265 Email: vit.novak@sun.com
Mr. Pete Tobias (A#) Tandem, a Compaq Company Loc 100-03 10555 Ridgeview Ct. Cupertino, CA 95014-0789	Phone: (408) 285-9913 Fax: (408) 285-9924 Email: tobias_pete@tandem.com
Mr. Ken Plourde (O) Temp Flex Cable, Inc. 11 Depot St. S. Grafton, MA 01560	Phone: (508) 839-5987 Fax: (508) 839-4128 Email: kplourde@templex.com
Mr. Paul D. Aloisi (P) Texas Instruments	Phone: (603) 429-8687 Fax: (603) 429-8963

MS: 84 7 Continental Blvd Merrimack, NH 03054	Email:	Paul_Aloisi@ti.com
Mr. Donald R. Getty (A#) Texas Instruments Suite 220 4010 Moorpark Ave. San Jose, CA 95117-1843	Fax:	(408) 246-3100 x41 (408) 246-3101 donald_getty@ti.com
Mr. Robert Morris (A) Texas Instruments 14351 Myford Rd. Tustin, CA 92780	Fax:	(714) 573-6616 bob.morris@ti.com
Mr. Paresh Sheth (A#) Texas Instruments 14351 Myford Rd. Tustin, CA 92780	Fax:	(714) 573-6156 (714) 573-6916 paresh.sheth@ti.com
Ms. Dora M. Deivert (O) The JPM Company 2135 Ringwood Ave. San Jose, CA 95131	Fax:	(408) 952-3510 (408) 435-9775 dmdeivert@jpmsj.com
Mr. Bill Youngman (O) The JPM Company 2135 Ringwood Ave. San Jose, CA 95131	Fax:	(408) 952-3503 (408) 435-1109 byoungman@jpmsj.com
Mr. Fred Hooper (O) Thomas & Betts 5 Honeysuckle Dr. Norwalk, CT 06851	Fax:	(203) 840-0583 (203) 840-0587 fred_hooper@tnb.com
Mr. Davin Stockwell (O) Thomas & Betts Corp. Electronics Division Irvine, CA 92618	Fax:	(714) 951-6621 x3433 (714) 951-1016 dstockwell@thombetts.com
Mr. Tasuku Kasebayashi (P) Toshiba America Elec. Comp. 35 Hammond Irvine, CA 92618-1607	Fax:	(949) 461-3886 (949) 458-7815 task.kasebayashi@taec.toshiba.com
Mr. Kenneth J. Hallam (O) UNISYS Corporation MV201 25725 Jeronimo Road Mission Viejo, CA 92691	Fax:	(949) 380-5115 (949) 380-5858 ken.hallam@unisys.com
Mr. Marq Elliott (O)	Phone:	(408) 662-7900

Verisys 335-H Spreckels Dr. Aptos, CA 95003	Fax: Email:	
Mr. Michael G. Kaminski (O) Volex Inc. 835 Sinclair Frontage Road Milpitas, CA 95035	Fax:	(408) 945-7766 (408) 945-4360 Mike_Kaminski@volex.com
Mr. Ben Chen (O) Wieson Electronic Co. Ltd.	Phone: Fax: Email:	
Mr. Doug Piper (P) Woven Electronics PO Box 189 Mauldin, SC 29662	Fax:	(864) 967-1751 (864) 963-1761 doug.piper@wovenelectronics.com
Mr. E.J. Mondor (A) Woven Electronics PO Box 189 Mauldin, SC 29662	Fax:	(864) 967-1739 (864) 963-1761 549.9900@mcimail.com
Mr. Harvey Waltersdorf (O) Woven Electronics PO Box 189 Mauldin, SC 29662	Fax: Email:	<pre>(864) 967-1793 (864) 963-1761 harvey.waltersdorf@wovenelectronics. com</pre>
Mr. Larry Aszmann (O) Xiotech Corp. #200 6509 Flying Cloud Dr. Eden Prairie, MN 55344	Fax:	(612) 828-5978 (612) 828-5990 laszmann@xiotech.com
Mr. Arnold Limjoco (O) Yamaichi Electronics 2235 Zanker Rd. San Jose, CA 95131	Fax:	(408) 456-0797 x134 (408) 456-0799 arnold.l@yeu.com

Enclosure(3) -- T10 Document Database Generated on 2000/05/24 at 14:35:14

- T10/00-001R0 Date: 2000/01/21 Author: John Lohmeyer Mailing: 2000_1 Agenda for T10 Meeting #36 (March '00)
- T10/00-001R1 Date: 2000/02/17 Author: John Lohmeyer Mailing: Agenda for T10 Meeting #36 (March '00)
- T10/00-002R0 Date: 2000/01/21 Author: John Lohmeyer Mailing: 2000_1 T10 Project Summary - January '00
- T10/00-003R0 Date: 2000/01/21 Author: John Lohmeyer Mailing: 2000_1 Jeopardy Letter for March '00 meeting
- T10/00-004R0 Date: 1999/12/30 Author: John Lohmeyer Mailing: 2000_1 Letter Ballot on forwarding FCP-2 to first public review
- T10/00-005R0 Date: 2000/02/03 Author: John Lohmeyer Mailing: 2000_2 Results of letter ballot 00-004 on forwarding FCP-2
- T10/00-006R0 Date: 2000/02/16 Author: John Lohmeyer Mailing: 2000_2 Agenda for T10 Meeting #37 (May '00)
- T10/00-006R1 Date: 2000/03/17 Author: John Lohmeyer Mailing: 2000_2 Agenda for T10 Meeting #37 (May '00)
- T10/00-006R2 Date: 2000/05/01 Author: John Lohmeyer Mailing: 2000_3 Agenda for T10 Meeting #37 (May '00)
- T10/00-007R0 Date: 2000/03/15 Author: John Lohmeyer Mailing: 2000_2 T10 Project Summary - March '00
- T10/00-008R0 Date: 2000/03/10 Author: John Lohmeyer Mailing: 2000_2 Jeopardy Letter for May '00 meeting
- T10/00-009R0 Date: 2000/02/16 Author: John Lohmeyer Mailing: 2000_2 Letter Ballot on recommending US Yes vote on OMC FDIS
- T10/00-010R0 Date: 2000/02/29 Author: John Lohmeyer Mailing: 2000_2 Results of letter ballot 00-009 on recommending US Yes vote on OMC FDS
- T10/00-011R0 Date: 2000/02/29 Author: John Lohmeyer Mailing: 2000_2 Letter Ballot on including comments with recommendation on OMC FDIS
- T10/00-012R0 Date: 2000/03/03 Author: John Lohmeyer Mailing: 2000_2 Results of 00-011r0 letter ballot on recommendation on OMC FDIS
- T10/00-013R0 Date: 2000/05/22 Author: John Lohmeyer Mailing: Missing Agenda for T10 Meeting #38 (Jul '00)
- T10/00-014R0 Date: 2000/05/22 Author: John Lohmeyer Mailing: Missing T10 Project Summary - May '00
- T10/00-015R0 Date: 2000/05/22 Author: John Lohmeyer Mailing: Missing Jeopardy Letter for July '00 meeting
- T10/00-016R0 Date: 2000/05/22 Author: John Lohmeyer Mailing: 2000_3 Letter Ballot on forwarding SPC-2 to first public review

- T10/00-101R0 Date: 1999/11/19 Author: Rob Elliott Mailing: 2000_1 Minutes of Access Controls teleconference - 11/18/99
- T10/00-102R0 Date: 1999/12/03 Author: John Lohmeyer Mailing: 2000_1 Minutes of SPI-3/-4 Working Group - 12/2-3/99
- T10/00-103R0 Date: 1999/11/30 Author: Richard Uber Mailing: 2000_1 Ultra-320 SCSI Implementing 1.8x Transmit Pre-compensation
- T10/00-103R1 Date: 1999/12/02 Author: Richard Uber Mailing: 2000_1 Ultra-320 SCSI Implementing 1.8x Transmit Pre-compensation
- T10/00-103R2 Date: 2000/02/09 Author: Richard Uber Mailing: 2000_2 Issues with Implementing Transmitter Pre-Compensation
- T10/00-104R0 Date: 1999/11/30 Author: Andrew Bishop Mailing: 2000_1 Ultra-320 SCSI Compensation Techniques
- T10/00-105R0 Date: 1999/11/30 Author: Russ Brown Mailing: 2000_1 Ultra-320 SCSI Calibration Strategy
- T10/00-105R1 Date: 1999/12/01 Author: Russ Brown Mailing: 2000_1 Ultra320 SCSI Calibration Strategy
- T10/00-106R0 Date: 1999/12/02 Author: Pat McGarrah Mailing: 2000_1 Ultra 320 SCSI Summary and Recommendations
- T10/00-106R1 Date: 2000/02/09 Author: Mark Evans Mailing: 2000_2 Ultra320 SCSI Summary and Recommendations
- T10/00-107R0 Date: 1999/12/01 Author: John Lohmeyer Mailing: 2000_1 Response to NCITS 333 (MMC-2) 1PR comment #1 from Frank Rutherford
- T10/00-108R0 Date: 1999/12/01 Author: John Lohmeyer Mailing: 2000_1 Response to NCITS 333 (MMC-2) 1PR comment #2 from Paul Suhler
- T10/00-109R0 Date: 2000/01/04 Author: Larry Lamers Mailing: 2000_1 SPC-3 Echo Buffer Size
- T10/00-109R1 Date: 2000/01/04 Author: Larry Lamers Mailing: 2000_2 SPC-3 Echo Buffer Size
- T10/00-109R2 Date: 2000/02/15 Author: Larry Lamers Mailing: 2000_2 SPC-3 Echo Buffer Size
- T10/00-109R3 Date: 2000/03/08 Author: Larry Lamers Mailing: 2000_2 SPC-3 Echo Buffer Size
- T10/00-110R0 Date: 1999/11/30 Author: Bill Ham Mailing: 2000_1 Minutes of the SCSI Cable Media Performance WG (draft) - 11/30/99
- T10/00-110R1 Date: 2000/02/10 Author: Bill Ham Mailing: 2000_2 Minutes of the SCSI Cable Media Performance WG (aprvd) - 11/30/99
- T10/00-111R0 Date: 1999/12/01 Author: Bill Ham Mailing: 2000_1 Minutes of SCSI signal modeling WG (draft) - 12/01/99
- T10/00-111R1 Date: 2000/02/10 Author: Bill Ham Mailing: 2000_2

Minutes of SCSI signal modeling WG (aprvd) - 12/01/99

- T10/00-112R0 Date: 1999/12/01 Author: Jonathan Fasig Mailing: 2000_1 Electrical Model Requirements of SCSI Interconnect Components
- T10/00-113R0 Date: 1999/12/01 Author: Dima Smolyansky Mailing: 2000_1 SCSI Connector and Cable Modeling from TDR Measurements
- T10/00-114R0 Date: 1999/12/21 Author: George Penokie Mailing: 2000_1 Unit Attention fixes in Persistent Reservation
- T10/00-115R0 Date: 1999/12/07 Author: Stewart Wyatt Mailing: 2000_1 Minutes of Joint T10/T11.3 Joint Ad Hoc -- 12/7/1999
- T10/00-116R0 Date: 1999/12/13 Author: Skip Jones Mailing: 2000_1 Meeting Notice -- Working Group Meetings -- Feb 7-11, 2000
- T10/00-117R0 Date: Author: Mailing: Missing not used
- T10/00-118R0 Date: 1999/12/15 Author: Gene Milligan Mailing: 2000_1 Comment Resolution
- T10/00-119R0 Date: 1999/12/21 Author: George Penokie Mailing: 2000_1 WDTR/SDTR/PPR Interactions
- T10/00-119R1 Date: 2000/01/10 Author: George Penokie Mailing: 2000_2 WDTR/SDTR/PPR Interactions
- T10/00-120R0 Date: 2000/01/19 Author: Weber & Lohmeyer Mailing: 2000_1 Minutes of SCSI Physical Working Group - Jan 10-11, 2000
- T10/00-120R1 Date: 2000/02/22 Author: Weber & Lohmeyer Mailing: 2000_2 Minutes of SCSI Physical Working Group Jan 10-11, 2000
- T10/00-121R0 Date: 2000/01/19 Author: Weber & Lohmeyer Mailing: 2000_1 Minutes of SCSI Protocol Working Group - Jan 12, 2000
- T10/00-121R1 Date: 2000/01/26 Author: Weber & Lohmeyer Mailing: 2000_1 Minutes of SCSI Protocol Working Group - Jan 12, 2000
- T10/00-121R2 Date: 2000/02/22 Author: Weber & Lohmeyer Mailing: 2000_2 Minutes of SCSI Protocol Working Group - Jan 12, 2000
- T10/00-122R0 Date: 2000/01/20 Author: Weber & Lohmeyer Mailing: 2000_1 Minutes of T10 Plenary Meeting #35 - Jan 13, 2000
- T10/00-122R1 Date: 2000/02/23 Author: Weber & Lohmeyer Mailing: 2000_2 Minutes of T10 Plenary Meeting #35 - Jan 13, 2000
- T10/00-123R0 Date: 2000/01/06 Author: Ralph Weber Mailing: 2000_1 Access Controls, an alternate approach
- T10/00-124R0 Date: 2000/01/04 Author: Dale LaFollette Mailing: 2000_1 Draft Agenda - Joint T10/T11.3 Activity WG - Jan 13, 2000
- T10/00-125R0 Date: 2000/01/05 Author: Gerry Houlder Mailing: 2000_1 Large LBA addressing using variable length CDB structure

T10/00-126R0 Date: 2000/01/10 Author: Vince Bastiani Mailing: 2000_1 U320 Timing Specification T10/00-126R1 Date: 2000/02/10 Author: Vince Bastiani Mailing: 2000_2 Fast-160 Timing Specification T10/00-127R0 Date: 1999/12/31 Author: Rob Elliott Mailing: 2000_1 Target-controlled congestion relief T10/00-127R1 Date: 2000/05/05 Author: Rob Elliott Mailing: 2000_3 Target-controlled congestion relief T10/00-128R0 Date: 2000/01/10 Author: Neil Wanamaker Mailing: 2000_1 T11 Liaison Report - January 2000 T10/00-129R0 Date: 2000/01/31 Author: Gene Milligan Mailing: 2000_2 SPC Support for Partial Loading & Unloading (Summary of 99-347r3) T10/00-130R0 Date: 2000/01/25 Author: Robert Snively/ Mailing: 2000_1 Ralph Weber Minutes of T10/T11.3 Joint Ad Hoc -- 1/13/2000 T10/00-131R0 Date: 2000/01/20 Author: Bill McFerrin Mailing: 2000_1 Minutes of MMC Working Group - 1/11/2000 T10/00-132R0 Date: 2000/02/09 Author: Mark Evans and Mailing: 2000_2 Bruce Leshay Proposal for training pattern protocol to be included in SPI-4 T10/00-132R1 Date: 2000/03/07 Author: Mark Evans and Mailing: 2000_2 Bruce Leshay Proposal for training pattern protocol to be included in SPI-4 T10/00-133R0 Date: 2000/02/09 Author: Bruce Leshay Mailing: 2000_2 Ultra320 SCSI Calibration Protocol T10/00-133R1 Date: 2000/03/07 Author: Bruce Leshay Mailing: 2000_2 Ultra320 SCSI Calibration Protocol T10/00-133R2 Date: 2000/03/27 Author: Bruce Leshay Mailing: 2000_3 Ultra320 SCSI Calibration Protocol T10/00-133R3 Date: 2000/04/26 Author: Bruce Leshay Mailing: 2000_3 Ultra320 SCSI Calibration and Clock Protocol T10/00-134R0 Date: 2000/02/17 Author: John Lohmeyer Mailing: 2000_2 Minutes of SCSI Physical Working Group - Feb 9-10, 2000 T10/00-135R0 Date: 2000/02/08 Author: Paul Suhler Mailing: 2000_2 Support for Large Block Addresses in SSC T10/00-135R1 Date: 2000/02/29 Author: Paul Suhler Mailing: 2000_2 Support for Large Block Addresses in SSC-2 T10/00-135R2 Date: 2000/03/06 Author: Paul Suhler Mailing: 2000_2 Support for Large Block Addresses in SSC-2 T10/00-136R0 Date: 2000/01/28 Author: Carl Zeitler Mailing: 2000_2 Comments on FCP-2 Rev 04

T10/00-137R0 Date: 2000/01/28 Author: Carl Zeitler Mailing: 2000_2 Ladder Diagrams for Error Recovery for FCP-2 Rev 04 Out-Of-Order Delivery -Annex D

T10/00-137R1 Date: 2000/02/23 Author: Carl Zeitler Mailing: 2000_2 Ladder Diagrams for Error Recovery for FCP-2 Rev 04 Out-Of-Order Delivery -Annex D

T10/00-137R2 Date: 2000/03/28 Author: Carl Zeitler Mailing: 2000_3 Ladder Diagrams for Error Recovery for FCP-2 Rev 04 Out-Of-Order Delivery -Annex D

T10/00-137R3 Date: 2000/04/24 Author: Carl Zeitler Mailing: 2000_3 Ladder Diagrams for Error Recovery for FCP-2 Rev 04 Out-Of-Order Delivery -Annex D

T10/00-138R0 Date: 2000/02/01 Author: George Penokie Mailing: 2000_2 Comments on FCP-2 Letter Ballot

T10/00-139R0 Date: 2000/02/02 Author: Bob Snively Mailing: 2000_2 Comments on FCP-2 Letter Ballot

T10/00-140R0 Date: 2000/02/28 Author: Ralph Weber Mailing: 2000_2 Bug in SAM-2 Task Identifier definition

T10/00-140R1 Date: 2000/04/19 Author: Ralph Weber Mailing: 2000_3 SAM-2 Task Identifier Readability Enhancements and Addition of Nexus to SAM-2

T10/00-141R0 Date: 2000/02/03 Author: Gene Milligan Mailing: 2000_2 Comments on FCP-2 Letter Ballot

T10/00-142R0 Date: 2000/01/27 Author: Larry Lamers Mailing: 2000_2 Flow Control & Read Streaming

T10/00-142R1 Date: 2000/04/20 Author: Larry Lamers Mailing: 2000_3 Flow Control & Read Streaming

T10/00-142R3 Date: 2000/05/14 Author: Larry Lamers Mailing: 2000_3 Flow Control & Read Streaming

T10/00-142R4 Date: 2000/05/16 Author: Larry Lamers Mailing: Missing Flow Control & Read Streaming

T10/00-143R0 Date: 2000/02/04 Author: Deborah Donovan Mailing: 2000_2 Transmittal of NCITS No vote & comments on MMC-2 (BSR NCITS.333-20xx)

T10/00-143R1 Date: 2000/02/16 Author: Deborah Donovan Mailing: 2000_2 Transmittal of NCITS No vote & comments on MMC-2 (BSR NCITS.333-20xx)

T10/00-144R0 Date: 2000/02/07 Author: Larry Lamers Mailing: 2000_2 Meeting Announcement - SPI-4 WG Milpitas, CA - March 27-28, 2000

T10/00-145R0 Date: 2000/02/07 Author: Bill Ham Mailing: 2000_2 Minutes of SCSI Passive Interconnect Performance WG (draft) - 2/7/00

T10/00-145R1 Date: 2000/02/29 Author: Bill Ham Mailing: 2000_2 Minutes of SCSI Passive Interconnect Performance WG (aprvd) - 2/7/00

T10/00-207r0

T10/00-146R0 Date: 2000/02/08 Author: Bill Ham Mailing: 2000_2 Minutes of SCSI Signal Modeling WG (draft) - 2/8/00
T10/00-146R1 Date: 2000/03/01 Author: Bill Ham Mailing: 2000_2 Minutes of SCSI Signal Modeling WG (aprvd) - 2/8/00
T10/00-147R0 Date: 2000/02/09 Author: Russ Brown Mailing: 2000_2 Ultra320 SCSI vs. Ultra160 SCSI Eye Diagram Data
T10/00-147R1 Date: 2000/02/09 Author: Russ Brown Mailing: 2000_2 Ultra320 SCSI vs. Ultra160 SCSI Eye Diagram Data
T10/00-148R0 Date: 2000/02/09 Author: Bill Ham Mailing: 2000_2 SCSI History and Signal Integrity Strategies
T10/00-149R0 Date: 2000/02/10 Author: Bill Ham Mailing: 2000_2 Requirements for Measuring Receive Signals in SPI-4 and beyond
T10/00-150R0 Date: 2000/02/11 Author: Bob Snively Mailing: 2000_2 Resolution of FCP-2 letter ballot comments
T10/00-150R1 Date: 2000/03/04 Author: Bob Snively Mailing: 2000_2 Resolution of FCP-2 letter ballot comments
T10/00-150R2 Date: 2000/03/24 Author: Bob Snively Mailing: 2000_3 Resolution of FCP-2 letter ballot comments
T10/00-150R3 Date: 2000/05/10 Author: Bob Snively Mailing: 2000_3 Resolution of FCP-2 letter ballot comments
T10/00-151R0 Date: 2000/02/16 Author: ISO/IEC Mailing: 2000_2 FDIS on Optical Memory Card Device Commands (OMC)
T10/00-152R0 Date: 2000/02/23 Author: Ralph Weber Mailing: 2000_2
Review of 16-byte operation codes
Review of 16-byte operation codes T10/00-153R0 Date: 2000/03/07 Author: Russ Brown Mailing: 2000_2 Ultra320 SCSI with Receiver Equalization 25 m. into Backplane with 6 loads
T10/00-153R0 Date: 2000/03/07 Author: Russ Brown Mailing: 2000_2
T10/00-153R0 Date: 2000/03/07 Author: Russ Brown Mailing: 2000_2 Ultra320 SCSI with Receiver Equalization 25 m. into Backplane with 6 loads T10/00-154R0 Date: 2000/03/07 Author: Russ Brown Mailing: 2000_2
T10/00-153R0 Date: 2000/03/07 Author: Russ Brown Mailing: 2000_2 Ultra320 SCSI with Receiver Equalization 25 m. into Backplane with 6 loads T10/00-154R0 Date: 2000/03/07 Author: Russ Brown Mailing: 2000_2 Ultra640 SCSI with Receiver Equalization 25 m. into Backplane with 6 loads T10/00-155R0 Date: 2000/03/13 Author: Weber / Lohmeyer Mailing: 2000_2
T10/00-153R0 Date: 2000/03/07 Author: Russ Brown Mailing: 2000_2 Ultra320 SCSI with Receiver Equalization 25 m. into Backplane with 6 loads T10/00-154R0 Date: 2000/03/07 Author: Russ Brown Mailing: 2000_2 Ultra640 SCSI with Receiver Equalization 25 m. into Backplane with 6 loads T10/00-155R0 Date: 2000/03/13 Author: Weber / Lohmeyer Mailing: 2000_2 Minutes of Parallel SCSI WG - March 7, 2000 T10/00-155R1 Date: 2000/03/17 Author: Weber / Lohmeyer Mailing: 2000_2
T10/00-153R0 Date: 2000/03/07 Author: Russ Brown Mailing: 2000_2 Ultra320 SCSI with Receiver Equalization 25 m. into Backplane with 6 loads T10/00-154R0 Date: 2000/03/07 Author: Russ Brown Mailing: 2000_2 Ultra640 SCSI with Receiver Equalization 25 m. into Backplane with 6 loads T10/00-155R0 Date: 2000/03/13 Author: Weber / Lohmeyer Mailing: 2000_2 Minutes of Parallel SCSI WG - March 7, 2000 T10/00-155R1 Date: 2000/03/17 Author: Weber / Lohmeyer Mailing: 2000_2 Minutes of Parallel SCSI WG - March 7, 2000
<pre>T10/00-153R0 Date: 2000/03/07 Author: Russ Brown Mailing: 2000_2 Ultra320 SCSI with Receiver Equalization 25 m. into Backplane with 6 loads T10/00-154R0 Date: 2000/03/07 Author: Russ Brown Mailing: 2000_2 Ultra640 SCSI with Receiver Equalization 25 m. into Backplane with 6 loads T10/00-155R0 Date: 2000/03/13 Author: Weber / Lohmeyer Mailing: 2000_2 Minutes of Parallel SCSI WG - March 7, 2000 T10/00-155R1 Date: 2000/03/17 Author: Weber / Lohmeyer Mailing: 2000_2 Minutes of Parallel SCSI WG - March 7, 2000 T10/00-156R0 Date: 2000/03/13 Author: Weber / Lohmeyer Mailing: 2000_2 Minutes of SCSI Commands, Arch., & Protocol WG - Mar 6&8, 2000 T10/00-157R0 Date: 2000/03/14 Author: Weber / Lohmeyer Mailing: 2000_2</pre>

T10/00-158R0 Date: 2000/02/23 Author: Wally Bridgewater Mailing: Missing Receiver Input Voltage Budget for Eye Patterns

- T10/00-159R0 Date: 2000/02/29 Author: Paul Suhler Mailing: 2000_2 Analysis of SSC Public Review Comment (SET CAPACITY)
- T10/00-160R0 Date: 2000/02/29 Author: Zane Daggett Mailing: Missing SCSI passive interconnect performance requirements
- T10/00-161R0 Date: 2000/02/29 Author: Paul Suhler Mailing: 2000_2 SET CAPACITY Command
- T10/00-161R1 Date: 2000/03/22 Author: Paul Suhler Mailing: 2000_3 SET CAPACITY Command
- T10/00-161R2 Date: 2000/04/05 Author: Paul Suhler Mailing: 2000_3 SET CAPACITY Command
- T10/00-162R0 Date: 1999/12/07 Author: Roger Ronald Mailing: 2000_2 Minutes of T11.1 HIPPI Ad Hoc WG (includes SST in item 9.0)
- T10/00-163R0 Date: 2000/02/29 Author: Bill Ham Mailing: 2000_2 Minutes of SCSI Passive Interconnect Performance WG (draft) - 2/29/00
- T10/00-163R1 Date: 2000/04/11 Author: Bill Ham Mailing: 2000_3 Minutes of SCSI Passive Interconnect Performance WG (aprvd) - 2/29/00
- T10/00-164R0 Date: 2000/03/01 Author: Bill Ham Mailing: 2000_2 Minutes of SCSI Signal Modeling WG (draft) - 3/01/00
- T10/00-164R1 Date: 2000/04/12 Author: Bill Ham Mailing: 2000_3 Minutes of SCSI Signal Modeling WG (aprvd) - 3/01/00
- T10/00-165R0 Date: 2000/03/02 Author: Ralph Weber Mailing: 2000_2 Adding Reserved Bytes to EXTENDED COPY Parameter Data
- T10/00-166R0 Date: 2000/03/02 Author: John Lohmeyer Mailing: 2000_2 Meeting Notice - Parallel SCSI WG - April 26-27, 2000
- T10/00-167R0 Date: 2000/03/07 Author: Frank Gasparik Mailing: 2000_2 Pre-Emphasis Experimental Data
- T10/00-168R0 Date: 2000/03/07 Author: Russ Brown Mailing: 2000_2 Receive Equalizer used for Quantum Ultra320 Eye Diagram Data

T10/00-169R0 Date: 2000/03/07 Author: Russ Brown Mailing: 2000_2 Effect of Varying Transmitter Amplitude on Ultra320 SCSI Receiver Equalization

T10/00-170R0 Date: 2000/02/09 Author: Mark Evans Mailing: 2000_2 LVD maximum bus path length between terminators for Fast-160 to be included in SPI-4

T10/00-170R1 Date: 2000/03/07 Author: Mark Evans Mailing: 2000_2 LVD maximum bus path length between terminators for Fast-160 to be included in SPI-4

T10/00-171R0 Date: 2000/03/05 Author: Ralph Weber Mailing: 2000_2 EXTENDED COPY Works in Progress

- T10/00-172R0 Date: 2000/03/08 Author: Ed Gardner Mailing: 2000_2 SVP Issues
- T10/00-173R0 Date: 2000/03/09 Author: Dave Peterson Mailing: 2000_2 Project proposal for SCSI Stream Commands - 2 (SSC-2)
- T10/00-173R1 Date: 2000/05/15 Author: Dave Peterson Mailing: 2000_3 Project proposal for SCSI Stream Commands 2 (SSC-2)
- T10/00-174R0 Date: 2000/03/28 Author: Vince Bastiani Mailing: 2000_3 Proposed training pattern for skew compensation
- T10/00-175R0 Date: 2000/03/07 Author: Dan Smith Mailing: 2000_2 Driver Precompensation with Receiver Filtering for Ultra4
- T10/00-176R0 Date: 2000/03/08 Author: Neil Wanamaker Mailing: 2000_2 T11 Liaison Report for March 2000
- T10/00-177R0 Date: 2000/03/08 Author: Bill McFerrin Mailing: 2000_2 Minutes on MMC Working Group Meeting - March 7, 2000
- T10/00-178R0 Date: 2000/03/08 Author: Bill Ham Mailing: 2000_2 Summary of Physical Test Activities
- T10/00-179R0 Date: 2000/02/28 Author: Jennifer T. Mailing: 2000_2 Garner
- Call for Volunteers Chairman NCITS /T10, I/O Interface Lower Level
- T10/00-180R0 Date: 2000/03/09 Author: Gene Milligan Mailing: 2000_2 ISO/IEC Report - March 2000
- T10/00-181R0 Date: 2000/02/16 Author: Stewart Wyatt Mailing: 2000_2 Minutes of Joint T10/T11.3 Joint Ad Hoc -- 2/16/2000
- T10/00-182R0 Date: 2000/03/06 Author: Stewart Wyatt Mailing: 2000_2 Minutes of Joint T10/T11.3 Joint Ad Hoc -- 3/6/2000
- T10/00-182R1 Date: 2000/04/05 Author: Stewart Wyatt Mailing: 2000_3 Minutes of Joint T10/T11.3 Joint Ad Hoc -- 3/6/2000
- T10/00-183R0 Date: 2000/03/09 Author: Paul Aloisi Mailing: 2000_2 STA Liaison Report for March 2000
- T10/00-184R0 Date: 2000/03/29 Author: John Lohmeyer Mailing: 2000_3 Minutes of Parallel SCSI WG - March 27-28, 2000
- T10/00-184R1 Date: 2000/03/31 Author: John Lohmeyer Mailing: 2000_3 Minutes of Parallel SCSI WG - March 27-28, 2000
- T10/00-185R0 Date: 2000/03/16 Author: Rob Elliott Mailing: 2000_2 Minutes of Access Controls Teleconference - 3/15/2000
- T10/00-186R0 Date: 2000/04/12 Author: Rob Elliott Mailing: 2000_3 Minutes of Access Controls Teleconference - 4/12/2000
- T10/00-187R0 Date: 2000/03/09 Author: Gene Milligan Mailing: 2000_2 SBC-2 schedule

- T10/00-188R0 Date: 2000/03/16 Author: John Lohmeyer Mailing: 2000_2 Unresolved negative from IBM on SSC Letter Ballot
- T10/00-189R0 Date: 2000/03/16 Author: John Lohmeyer Mailing: 2000_2 Unresolved negative from Sun Microsystems on SSC Letter Ballot
- T10/00-190R0 Date: 2000/03/16 Author: John Lohmeyer Mailing: 2000_2 T10 response to Public Review Comment #1 on NCITS.335 (SSC)
- T10/00-191R0 Date: 2000/03/16 Author: John Lohmeyer Mailing: 2000_2 T10 response re NCITS LB negatives on NCITS.333 (MMC-2)
- T10/00-192R0 Date: 2000/03/16 Author: Paul Suhler Mailing: 2000_2 Public Review Comment #1 on NCITS.335:20xx (SSC)
- T10/00-193R0 Date: 2000/03/27 Author: George Penokie Mailing: 2000_3 Training Timing Modeling Results
- T10/00-194R0 Date: 2000/03/27 Author: Bruce Manildi Mailing: 2000_2 Ultra 320 with Precompensation
- T10/00-194R1 Date: 2000/03/27 Author: Bruce Manildi Mailing: 2000_3 320 MB Eye Pattern Data with 15-25-33% Precomp and Crosstalk
- T10/00-195R0 Date: 2000/03/28 Author: Russ Brown Mailing: 2000_3 Ultra320 into fully populated 10-slot backplane
- T10/00-196R0 Date: 2000/03/28 Author: Russ Brown Mailing: 2000_3 Comments on adaptive filtering for Ultra320 SCSI
- T10/00-197R0 Date: 2000/03/27 Author: Mark Evans Mailing: Missing Alternative scheme for LVD pre-comp drivers
- T10/00-198R0 Date: 2000/03/28 Author: Paul Aloisi Mailing: 2000_3 Fast-160 Driver and Receiver masks
- T10/00-199R0 Date: 2000/03/27 Author: Bill Ham & Mailing: 2000_3 Robert Elliott Proposal for expander requirements, domain validation basic integrity check,
- and related target requirements
- T10/00-199R1 Date: 2000/05/02 Author: Bill Ham & Mailing: 2000_3 Robert Elliott
- Proposal for expander requirements, domain validation basic integrity check, and related target requirements
- T10/00-199R2 Date: 2000/05/15 Author: Bill Ham & Mailing: 2000_3 Robert Elliott
- Proposal for expander requirements, domain validation basic integrity check, and related target requirements
- T10/00-200R0 Date: 2000/03/28 Author: Wally Bridgewater Mailing: 2000_3 Eye Window Amplitude
- T10/00-201R0 Date: 2000/03/28 Author: Wally Bridgewater Mailing: 2000_3 The zero offset problem for receiver equalization
- T10/00-202R0 Date: 2000/04/02 Author: Ralph Weber Mailing: 2000_3 Assignments for Variable Length CDB Service Action Codes

T10/00-203R0 Date: 2000/04/02 Author: Ralph Weber Mailing: 2000_3 Describing AEN in the Processor Device Model T10/00-204R0 Date: 2000/04/27 Author: Weber & Lohmeyer Mailing: 2000_3 Minutes of Parallel SCSI WG - April 26-27, 2000 T10/00-205R0 Date: 2000/05/23 Author: Weber & Lohmeyer Mailing: 2000_3 Minutes of Parallel SCSI WG - May 16, 2000 T10/00-206R0 Date: 2000/05/23 Author: Weber & Lohmeyer Mailing: 2000_3 Minutes of SCSI Commands, Arch., & Protocol WG - May 15&17, 2000 T10/00-207R0 Date: 2000/04/04 Author: Weber & Lohmeyer Mailing: Missing Minutes of T10 Plenary Meeting #37 -- May 18, 2000 T10/00-208R0 Date: 2000/04/28 Author: John Lohmeyer Mailing: 2000_3 ltr to Jennifer T. Garner re call for volunteers to chair T10 T10/00-209R0 Date: 2000/04/28 Author: David Steele Mailing: 2000_3 Statement of management support for John Lohmeyer as chair of T10 T10/00-210R0 Date: 2000/04/09 Author: Martin Ogbuokiri Mailing: 2000_3 Meeting Announcement - SPIP, SSM, and SPI-4 WGs - June 12-16, 2000 T10/00-211R0 Date: 2000/04/13 Author: Ralph Weber & Mailing: 2000_3 David Chambliss Corrections to EXTENDED COPY T10/00-211R1 Date: 2000/04/22 Author: Ralph Weber & Mailing: 2000_3 David Chambliss Corrections to EXTENDED COPY T10/00-211R2 Date: 2000/04/28 Author: Ralph Weber & Mailing: 2000_3 David Chambliss Corrections to EXTENDED COPY T10/00-212R0 Date: 2000/04/18 Author: Ralph Weber Mailing: 2000_3 Beyond Beyond 2TB T10/00-212R1 Date: 2000/05/18 Author: Ralph Weber Mailing: 2000_3 Beyond Beyond 2TB T10/00-213R0 Date: 2000/04/18 Author: Ralph Weber Mailing: 2000_3 SAM-2 Byte Count That's Really Buffer Size T10/00-214R0 Date: 2000/04/24 Author: Mark Evans Mailing: 2000 3 Details of test set-up used by Quantum for Ultra320 data T10/00-215R0 Date: 2000/04/24 Author: Mark Evans Mailing: 2000_3 Quantum Ultra320 SCSI Test Configurations T10/00-216R0 Date: 2000/04/05 Author: Stewart Wyatt Mailing: 2000 3 Minutes of Joint T10/T11.3 Joint Ad Hoc -- 4/5/2000 T10/00-217R0 Date: 2000/04/11 Author: Bill Ham Mailing: 2000_3 Minutes of the SPIP WG meeting (draft) - April 11, 2000 T10/00-218R0 Date: 2000/04/12 Author: Bill Ham Mailing: 2000_3

Minutes of the SSM WG meeting (draft) - April 12, 2000

- T10/00-219R0 Date: 2000/04/17 Author: Ron Silletti Mailing: 2000_3 Public Review Comment #1 for NCITS 336 - SCSI Parallel Interface-3
- T10/00-220R0 Date: 2000/04/19 Author: Ralph Weber Mailing: 2000_3 Review of ISO comments on SPC
- T10/00-220R1 Date: 2000/05/19 Author: Ralph Weber Mailing: 2000_3 Review of ISO comments on SPC
- T10/00-221R0 Date: 2000/05/11 Author: Ralph Weber Mailing: 2000_3 Meeting schedule policy document
- T10/00-222R0 Date: 2000/04/19 Author: Ralph Weber Mailing: 2000_3 SPC-3 Schedule
- T10/00-223R0 Date: 2000/04/26 Author: Richard Uber Mailing: 2000_3 Specifying the signal at the receiver when using receiver equalization
- T10/00-224R0 Date: 2000/04/26 Author: Richard Uber Mailing: 2000_3 Validation of Quantum lab setup used for testing Ultra320
- T10/00-225R0 Date: 2000/04/26 Author: Richard Uber Mailing: 2000_3 Transmitter precompensation used with receiver equalization
- T10/00-225R1 Date: 2000/05/16 Author: Richard Uber Mailing: 2000_3 Transmitter precompensation used with receiver equalization
- T10/00-226R0 Date: 2000/04/27 Author: Bill Ham Mailing: Missing Minimum receiver bandwidth requirements
- T10/00-227R0 Date: 2000/04/27 Author: Paul Aloisi Mailing: 2000_3 Calculated signal losses
- T10/00-227R1 Date: 2000/05/16 Author: Paul Aloisi Mailing: 2000_3 Calculated signal losses
- T10/00-227R2 Date: 2000/05/16 Author: Paul Aloisi Mailing: 2000_3 Calculated signal losses
- T10/00-227R3 Date: 2000/05/18 Author: Paul Aloisi Mailing: 2000_3 Calculated signal losses
- T10/00-228R0 Date: 2000/04/28 Author: Rob Elliott Mailing: 2000_3 Obsoleting QAS in SPI-4
- T10/00-229R0 Date: 2000/05/03 Author: Charles Binford Mailing: 2000_3 Task Aborted - SAM changes
- T10/00-230R0 Date: 2000/05/04 Author: Bob Snively Mailing: 2000_3 FCP-2 items that need to be included in FC-FS
- T10/00-230R1 Date: 2000/05/10 Author: Bob Snively Mailing: 2000_3 FCP-2 items that need to be included in FC-FS
- T10/00-231R0 Date: 2000/05/08 Author: Rob Elliott Mailing: 2000_3 SPI-4 training pattern DC signal strengths

Mailing: 2000_3

T10/00-232R0 Date: 2000/05/15 Author: Bob Snively Asymmetrical SCSI behavior T10/00-233R0 Date: 2000/05/12 Author: Rob Elliott Mailing: 2000_3 Minor SES issues T10/00-233R1 Date: 2000/05/17 Author: Rob Elliott Mailing: 2000_3 SES issues: PRODUCT REVISION LEVEL and DESCRIPTOR LENGTH T10/00-234R0 Date: 2000/05/13 Author: Charles Monia Mailing: 2000_3 IETF Liaison Report to T10 T10/00-235R0 Date: 2000/05/16 Author: Richard Uber Mailing: 2000_3 Attenuation Data for Ultra320 SCSI T10/00-236R0 Date: 2000/05/16 Author: Chas Gimarc Mailing: 2000_3 Performance impacts of training and eliminating QAS T10/00-237R0 Date: 2000/05/16 Author: George Penokie Mailing: 2000_3 Training/QAS Performance Graphs T10/00-238R0 Date: 2000/05/16 Author: Bill Ham Mailing: 2000_3 Project Proposal for SCSI Passive Interconnect Performance Technical Report T10/00-239R0 Date: 2000/05/17 Author: Paul Aloisi Mailing: 2000_3 SPI-4 Driver - Receiver Assumptions T10/00-240R0 Date: 2000/05/17 Author: Ed Gardner Mailing: 2000_3 SVP SAM-2 Mapping T10/00-241R0 Date: 2000/05/17 Author: David Chambliss Mailing: 2000_3 Discussion of 00-211r2 Corrections to SCSI EXTENDED COPY T10/00-242R0 Date: 2000/05/18 Author: Neil Wanamaker Mailing: 2000_3 T11 Liaison Report for May 2000 T10/00-243R0 Date: 2000/05/18 Author: Bill McFerrin Mailing: Missing Minutes of MMC Working Group - May 16-17, 2000 T10/00-244R0 Date: 2000/05/18 Author: Paul Aloisi Mailing: 2000_3 STA liaison report for May 2000 T10/00-245R0 Date: 2000/05/22 Author: Stewart Wyatt Mailing: 2000_3 Minutes of Joint T10/T11.3 Joint Ad Hoc -- 5/15/2000