### Voting Results on T10 Letter Ballot 02-420r0 on Forwarding SSM-2 to First Public Review

**Ballot closed:** 2002/11/25 12:00 noon MST

<table>
<thead>
<tr>
<th>Organization</th>
<th>Name</th>
<th>Vote</th>
<th>Add'l Info</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adaptec, Inc.</td>
<td>Ron Roberts</td>
<td>Yes</td>
<td></td>
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<tr>
<td>Amphenol Interconnect</td>
<td>Michael Wnograd</td>
<td>Yes</td>
<td></td>
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<tr>
<td>Andiamo Systems, Inc.</td>
<td>Claudio DeSanti</td>
<td>Yes</td>
<td></td>
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<tr>
<td>BREA Technologies, Inc.</td>
<td>Bill Galloway</td>
<td>P Abs</td>
<td>Cmnts</td>
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<tr>
<td>Brocade</td>
<td>Brian Forbes</td>
<td>P Yes</td>
<td></td>
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<tr>
<td>Cisco Systems, Inc.</td>
<td>David Peterson</td>
<td>P Abs</td>
<td>Cmnts</td>
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<tr>
<td>Congruent Software, Inc.</td>
<td>Peter Johansson</td>
<td>P Abs</td>
<td>Cmnts</td>
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<tr>
<td>Crossroads Systems, Inc.</td>
<td>Robert Griswold</td>
<td>P Yes</td>
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<tr>
<td>Dallas Semiconductor</td>
<td>James A. Lott, Jr.</td>
<td>P Yes</td>
<td></td>
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<tr>
<td>Dell Computer Corp.</td>
<td>Kevin Marks</td>
<td>P Yes</td>
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<tr>
<td>EMC</td>
<td>Gary S. Robinson</td>
<td>P Yes</td>
<td></td>
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<tr>
<td>Emulex</td>
<td>Robert H. Nixon</td>
<td>P Abs</td>
<td>Cmnts</td>
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<tr>
<td>ENDL</td>
<td>Ralph O. Weber</td>
<td>P Yes</td>
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<tr>
<td>FCI</td>
<td>Douglas Wagner</td>
<td>P Yes</td>
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<tr>
<td>Fujitsu</td>
<td>Mike Fitzpatrick</td>
<td>P Yes</td>
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<tr>
<td>General Dynamics</td>
<td>Nathan Hastad</td>
<td>P Yes</td>
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<tr>
<td>Hewlett Packard Co.</td>
<td>William Ham</td>
<td>A Yes</td>
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<tr>
<td>Hitachi Cable Manchester</td>
<td>Zane Daggett</td>
<td>P Yes</td>
<td></td>
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<tr>
<td>Honda Connectors</td>
<td>Terry Enright</td>
<td>P Yes</td>
<td></td>
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<tr>
<td>IBM Corp.</td>
<td>George O. Penokie</td>
<td>P Yes</td>
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<tr>
<td>Intel Corp.</td>
<td>Cris Simpson</td>
<td>P Yes</td>
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<td>KnowledgeTek, Inc.</td>
<td>Dennis Moore</td>
<td>P Abs</td>
<td>Cmnts</td>
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<tr>
<td>LSI Logic Corp.</td>
<td>John Lohmeyer</td>
<td>P No</td>
<td>Cmnts</td>
</tr>
<tr>
<td>Maxtor Corp.</td>
<td>Mark Evans</td>
<td>P Yes</td>
<td></td>
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<tr>
<td>Microsoft Corp.</td>
<td>Emily Hill</td>
<td>P Yes</td>
<td></td>
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<tr>
<td>Molex Inc.</td>
<td>Jay Neer</td>
<td>P Yes</td>
<td></td>
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<tr>
<td>Network Appliance Inc.</td>
<td>James R. (Bob) Davis</td>
<td>P Yes</td>
<td></td>
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<tr>
<td>Nishan Systems Inc.</td>
<td>Charles Monia</td>
<td>P Yes</td>
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<tr>
<td>Ophidian Designs</td>
<td>Edward A. Gardner</td>
<td>P Abs</td>
<td>Cmnts</td>
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<tr>
<td>Panasonic Technologies, Inc.</td>
<td>Terence J. Nelson</td>
<td>P Yes</td>
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<tr>
<td>Philips Electronics</td>
<td>William P. McFerrin</td>
<td>P Yes</td>
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<tr>
<td>QLogic Corp.</td>
<td>Skip Jones</td>
<td>P Yes</td>
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<tr>
<td>Quantum Corp.</td>
<td>Paul Entzel</td>
<td>P Abs</td>
<td>Cmnts</td>
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<tr>
<td>Seagate Technology</td>
<td>A. Bruce Manildi</td>
<td>A Yes</td>
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<tr>
<td>Storage Technology Corp.</td>
<td>Dennis Appleyard</td>
<td>A Yes</td>
<td></td>
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<tr>
<td>Sun Microsystems, Inc.</td>
<td>Vit Novak</td>
<td>P Yes</td>
<td></td>
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<tr>
<td>Texas Instruments</td>
<td>Paul D. Aloisi</td>
<td>P Yes</td>
<td>Cmnts</td>
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<tr>
<td>Toshiba</td>
<td>Hiroshi Suzuki</td>
<td>P Yes</td>
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<tr>
<td>TycoElectronics</td>
<td>Jie Fan</td>
<td>P Yes</td>
<td></td>
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<tr>
<td>UNISYS</td>
<td>Ron Mathews</td>
<td>P Yes</td>
<td></td>
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<tr>
<td>Veritas Software</td>
<td>Roger Cummings</td>
<td>P Abs</td>
<td>Cmnts</td>
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<tr>
<td>Vixel Corp.</td>
<td>Kenneth Hirata</td>
<td>P Yes</td>
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<tr>
<td>Western Digital Corporation</td>
<td>DNV</td>
<td></td>
<td></td>
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</tbody>
</table>

**Ballot totals:** (33:1:8:1=43)

- **33 Yes**
- **1 No**
- **8 Abstain**

1 Organization(s) did not vote

43 Total voting organizations
6 Duplicate ballot(s) not counted
10 Ballot(s) included comments

This 2/3rds majority ballot passed.

33 Yes are more than half the membership eligible to vote minus abstentions [greater than 17] AND

33 Yes are at least 23 (2/3rds of those voting, excluding abstentions [34]) AND

33 Yes are equal to or exceed a quorum [14]

**Key:**

- P   Voter is principal member
- A   Voter is alternate member
- Abs Abstain vote
DNV Organization did not vote
Cmnts Comments were included with ballot
NoCmnts No comments were included with a vote that requires comments

****************************
Comments attached to Abs ballot from Bill Galloway of BREA Technologies, Inc.:
Not materially affected by this proposal.

****************************
Comments attached to Abs ballot from David Peterson of Cisco Systems, Inc.:
Standard is not relevant to my organization.

****************************
Comments attached to Abs ballot from Peter Johansson of Congruent Software, Inc.:
My abstention is for lack of technical expertise in the subject matter.

****************************
Comments attached to Abs ballot from Robert H. Nixon of Emulex:
1) My organization is not materially affected by this issue.

****************************
Comments attached to Abs ballot from Dennis Moore of KnowledgeTek, Inc.:
No material impact.

****************************
Comments attached to No ballot from John Lohmeyer of LSI Logic Corp.:
1. Global
Most occurrences of 'NCITS' should be replaced by 'INCITS'. Exception:
2. Global
All occurrences of SPI-X should be SPI-x.
3. Global
Replace all occurrences of 'must' with some other word or words. Usually, 'shall' or 'should'.
4. Global
There are numerous places where a specific vendor's product or part number is referenced. ANSI allows this only if we add the phrase 'or equivalent' to the product or part number.
5. Abstract; page iii
Delete 'T10' in last line of the abstract.

6. Table of Contents; page 3
Correct header alignment of 8.4.2 and 8.4.3.

7. Table of Contents; page 3
Delete extraneous '83'.

8. Table of Contents; page 4
Delete extraneous '85'.

9. 1.0 Scope; page 1
Delete 'T10' in T10 SCSI Parallel Interface (SPI-X) family of standards.

10. 3.0 Resources; pages 3-4
This clause should be converted into an informative annex. It should be made clear that equivalent tools may be substituted. (Yes, I know that in most cases there are no equivalent tools. See my comment #4.)

11. 4.1 Definitions; page 5
The text between 4.1 and 4.1.1 is known as a hanging reference and is not permitted. Convert this text to 4.1.1 Precedence of definition authority and renumber the remaining definitions.

12. 4.1 Definitions; page 5
You cannot reference a withdrawn standard (SPI).

Change
3) National Committee for Information Technology Standards standard X3.253:1995, SCSI-3 Parallel Interface to
3) ANSI X3.302:1998, SCSI Parallel Interface - 2 (SPI-2)

Change the footnote 3 on the same page to reference ANSI (same as footnote 1 on page 2)

13. 4.2 Acronyms; page 12.
Add:
SPI-x The family of SCSI Parallel Interface - x (SPI-x) standards

14. 7.2.3 Model Name; page 50
The title of the sub clause should be 'Model name'. Only the first word is capitalized.

15. 7.2.3 Model name; page 50
Add:
If this URL is no longer valid, contact INCITS (www.incits.org) for the current URL.

16. Annex A; page 83
Mark this Annex informative.

17. Annex A; page 83
I am currently the person maintaining the SSM model database. There are only two models each from two companies (a total of four) included in this database. The URLs break frequently (especially those from my
Since this database is so sparse and the maintenance issues will become untenable if more vendors actually participate, I think A.1 needs to be re-written and A.2 and A.3 need to be deleted.

Should the SSM folks manage to convince me that the SSM model database should remain, then the URL www.t10.org/ssm.htm needs to include a disclaimer similar to the one in my comment #15.

Comments attached to Abs ballot from Edward A. Gardner of Ophidian Designs:

I have insufficient physical layer competence to evaluate the draft standard.

Comments attached to Abs ballot from Paul Entzel of Quantum Corp.:

We do not have the technical expertise to judge this standard.

Comments attached to Yes ballot from Paul D. Aloisi of Texas Instruments:

SSM-2 Letter ballot comments
Texas Instruments

1. Editorial - Table of contents has 83 before Annex A and 85 before Annex B

2. Editorial - Page 5 note 2 the I in INCITS is red

3. Editorial - 4.1.44 ? the comma is red.

4. Editorial - 4.1.69 ? ro is red.

5. Editorial - 4.1.77 ? the should be the

6. Editorial - 5.2.2.4 ? see 4.100 is red.

7. Editorial - 6.2.1.3.6 Clamp diode and pullup references - add are

Different voltage references for the clamp diodes than that are used for the pullup or pulldown transistors within the device shall be determined.

8. Editorial - 6.2.3 4th paragraph, at is red.

9. Editorial - 6.2.4 has 1 or 2 extra carriage returns after the heading.

10.
Editorial ? 7.2.7.2 the X is red.

11. Editorial ? 7.3.2.3.4 has extra carriage returns between the 3rd and 4th paragraphs.

12. Technical ? 7.3.2.7.2 and 7.3.2.7.3 there is a requirement for a 3mm rigid coax cable, I think this should be 3m not 3mm

13. Editorial ? 7.4.3.4.2 the W are red.

14. Editorial ? 7.4.3.4.2.1 make the definition the same format on the 5th sentence. The voltage range is for both 4- to 5.25V and 2.7 to 5.25V terminators.

15. Editorial ? 7.4.3.4.2.2 V is red.

16. Editorial ? 7.5 the probe tables use , instead of ,

17. Editorial ? 7.5.4.2 0.1 pF should be 0.1 pF

18. Editorial ? 8.4.2 Simulation does exist for the cut back drivers now, this needs to be reworded.

Since SCSI driver IBIS models that will perform cutback do not exist, 160M bytes per second operation will be used for this phase of the simulations. IBIS now allows cutback drivers which can be used for SPI-4 simulations, but were not available when this simulation was done.

19. Editorial ? 10.2.1 4th paragraph has a space missing between that and may. And the 5th paragraph there is a space missing between right and most.

20. Technical ? Table 17 the Ultra2 data line rate should be 20 MHz.

21. Editorial ? 10.4 the comma should be black

22. Editorial ? A.1 this technical report should be changed to this standard or this document.

******************************************************************************
Comments attached to Abs ballot from Roger Cummings of Veritas Software:
Not within our organization's expertise
******************************************************************************