

T10/02-377r0

Voting Results on T10 Letter Ballot 02-376r0 on
Forwarding PIP to First Public Review
Ballot closed: 2002/10/17 12:00 noon MDT

Organization	Name	S	Vote	Add'l	Info
Adaptec, Inc.			DNV		
Amphenol Interconnect	Michael Wingard	P	No		Cmnts
Andiamo Systems, Inc.	Claudio DeSanti	P	Yes		
BREA Technologies, Inc.	Bill Galloway	P	Yes		
Brocade	Brian Forbes	P	Yes		
Cisco Systems, Inc.	David Peterson	P	Yes		
Congruent Software, Inc.	Peter Johansson	P	Abs		Cmnts
Crossroads Systems, Inc.	John Tyndall	A	Yes		
Dallas Semiconductor	James A. Lott, Jr.	P	Yes		
Dell Computer Corp.	Kevin Marks	P	Abs		Cmnts
EMC	Gary S. Robinson	P	Yes		
Emulex	Robert H. Nixon	P	Abs		Cmnts
ENDL	Ralph O. Weber	P	Yes		
Exabyte Corp.	Joe Breher	P	Yes		
FCI	Douglas Wagner	P	Yes		
Fujitsu	Mike Fitzpatrick	P	Yes		
General Dynamics	Nathan Hastad	P	Yes		
Hewlett Packard Co.	William Ham	A	No		Cmnts
Hitachi Cable Manchester	Zane Daggett	P	No		Cmnts
Honda Connectors			DNV		
IBM Corp.	George O. Penokie	P	No		Cmnts
Intel Corp.	Cris Simpson	P	Yes		
Iomega Corp.	Tim Bradshaw	P	Yes		
KnowledgeTek, Inc.	Dennis Moore	P	Yes		
LSI Logic Corp.	William Petty	A	No		Cmnts
Maxtor Corp.	Mark Evans	P	Yes		
Microsoft Corp.	Emily Hill	P	Yes		
Molex Inc.	Jay Neer	P	Yes		
Network Appliance Inc.	James R. (Bob) Davis	P	Yes		
Nishan Systems Inc.	Charles Monia	P	Yes		
Ophiadan Designs	Edward A. Gardner	P	Abs		Cmnts
Panasonic Technologies, Inc	Terence J. Nelson	P	Yes		
Philips Electronics	William P. McFerrin	P	Yes		
Pirus Networks	Milan J. Merhar	A	Yes		
QLogic Corp.	Skip Jones	P	Yes		
Quantum Corp.	Jim Jones	A	Abs		Cmnts
Seagate Technology	A. Bruce Manildi	A	Yes		
Storage Technology Corp.			DNV		
Sun Microsystems, Inc.	Vit Novak	P	Yes		
Texas Instruments	Paul D. Aloisi	P	No		Cmnts
Toshiba America Elec. Comp.	Tasuku Kasebayashi	P	Yes		
TycoElectronics	Jie Fan	P	No		Cmnts
UNISYS	Ron Mathews	P	Yes		
Veritas Software	Roger Cummings	P	Abs		Cmnts
Vixel Corp.	Kenneth Hirata	P	Yes		
Western Digital Corporation	Tom Hanan	P	Yes		

Ballot totals: (30:7:6:3=46)

30 Yes

7 No

6 Abstain

3 Organization(s) did not vote

46 Total voting organizations

1 Duplicate ballot(s) not counted

13 Ballot(s) included comments

This 2/3rds majority ballot passed.

30 Yes are more than half the membership eligible to vote minus abstentions

[greater than 20] AND

30 Yes are at least 25 (2/3rds of those voting, excluding abstentions [37]) AND

30 Yes are equal to or exceed a quorum [15]

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 No ballot from Michael Wingard of Amphenol Interconnect:

Comments are in T10/02-415r0.

Comments attached to Abs ballot from Peter Johansson of Congruent Software, Inc.:

My abstention is because of a lack of technical expertise in the subject matter.

Comments attached to Abs ballot from Kevin Marks of Dell Computer Corp.:

Not technically competent on subject

Comments attached to Abs ballot from Robert H. Nixon of Emulex:

1) The subject matter of this standard is not relevant to the business of my organization.
 end of comments.

Comments attached to No ballot from William Ham of Hewlett Packard Co.:

PIP rev 03a comments: HP (Bill Ham)

Comment number: 1 E
 Document location: p vi
 Comment: update the list of members and alternates and put all the "shalliams" back to "Williams"
 Proposed resolution: Implement the comment

Comment number: 2 E
 Document location: p vii
 Comment: Add the list of contributor names
 Proposed resolution: Implement the comment

Comment number: 3 E
 Document location: p viii
 Comment: Only Annex E is a normative part of the standard.
 Proposed resolution: Remove references to Annex' s A, B, and C and replace with reference to Annex E

Comment number: 4 E
Document location: p ix
Comment: Add table of contents title and reformat with indentations for sub headings
Proposed resolution: Implement the comment

Comment number: 5 E
Document location: p xiv
Comment: Add table of figures title and right justify the page numbers
Proposed resolution: Implement the comment

Comment number: 6 E
Document location: p xv
Comment: Add table of table title and right justify the page numbers
Proposed resolution: Implement the comment

Comment number: 7 E
Document location: 2.2 and 2.4
Comment: Add details for SPI-4 and SFF references
Proposed resolution: Implement the comment

Comment number: 8 E
Document location: 3.2.24
Comment: definition of concatenated is missing
Proposed resolution: add the following definition: connection of two dissimilar interconnect assembly constructions through a passive connector. Examples include: round shielded cable to a backplane with no expander and flat multidrop to round point to point.

Comment number: 9 T
Document location: 3.2.29
Comment: Definition of device is not consistent with usage in the SCSI PIP context
Proposed resolution: Change definition to "the entity that contains the SCSI driver and receiver".

Comment number: 10 T
Document location: 3.2.40
Comment: Definition not relevant to PIP
Proposed resolution: Delete the definition

Comment number: 11 T
Document location: 3.2.85
Comment: definition is missing and irrelevant to PIP
Proposed resolution: delete the definition

Comment number: 12 T
Document location: 3.2.99
Comment: definition is irrelevant to PIP
Proposed resolution: delete the definition

Comment number: 13 T
Document location: 3.2.105
Comment: definition is not consistent with usage in other documents
Proposed resolution: change definition to: "the region of the cable between the connector connection point and the point where the bulk cable is physically undisturbed by the connector attachment methodology."

Comment number: 14 T
Document location: 3.2.117, 119 and 121 and footnote 1
Comment: definitions are irrelevant to PIP
Proposed resolution: delete the definitions and footnote

Comment number: 15 T
Document location: 3.3.120
Comment: definition is missing and may be irrelevant
Proposed resolution: delete the definition

Comment number: 16 E
Document location: 3.3
Comment: delete CAE, HDL, and IBIS as being irrelevant
Proposed resolution: Implement the comment

Comment number: 17 E
Document location: 3.4
Comment: symbol "e" has no meaning specified
Proposed resolution: delete the symbol

Comment number: 18 T
Document location: 3.5.5
Comment: delete the second sentence as being untrue.
Proposed resolution: Implement the comment

Comment number: 19 E
Document location: 4.10.3.1
Comment: first list should have alpha, not numeric, bullets
Proposed resolution: Implement the comment

Comment number: 20 E
Document location: 4.10.3.2 and 4.10.3.3
Comment: use exponents instead of **
Proposed resolution: Implement the comment

Comment number: 21 E
Document location: figure 2
Comment: place the title closer to the actual figure
Proposed resolution: Implement the comment

Comment number: 22 E
Document location: clause 5
Comment: need wording that explains that most level 2 measurements are not described in detail and that the focus is on level 1 measurements.
Proposed resolution: add wording

Comment number: 23 E
Document location: 6.1.3.1 and 6.1.4.1
Comment: replace "Z" with "differential local impedance"
Proposed resolution: Implement the comment

Comment number: 24 E
Document location: 6.4
Comment: list of actions are ordered and need numeric bullets
Proposed resolution: Implement the comment

Comment number: 25 E
Document location: 7.1
Comment: add period

Proposed resolution: Implement the comment

Comment number: 26 E
Document location: 7.5.1.4
Comment: add period
Proposed resolution: Implement the comment

Comment number: 27 E
Document location: 7.5.1.5
Comment: list should have numerical bullets
Proposed resolution: Implement the comment

Comment number: 28 E
Document location: 7.6.2.4
Comment: change "varried" to "varied"
Proposed resolution: Implement the comment

Comment number: 29 E
Document location: 7.7.2.5
Comment: list should have numeric bullets
Proposed resolution: Implement the comment

Comment number: 30 T
Document location: clause 8
Comment: where are the level 2 interconnect assembly measurements?
Proposed resolution: add a table of level 2 measurements

Comment number: 31 T
Document location: 10.3.1
Comment: need more detail concerning the following:
. Data patterns specified are longitudinal (not the payload for the parallel bus segment) - should add a figure for this one
. More complete definition of the aggressor signals that cause the cross talk
. More detail concerning the conditions used for the TDW measurements
Proposed resolution: add the required material

Comment number: 33 T
Document location: 10.3.2.4
Comment: need wording stating the requirements for TDW measurements as well as eye diagram
Proposed resolution: add the required wording

Comment number: 34 E
Document location: 10.4.1
Comment: move statement in 10.4.2.4 that states that there are no requirements that use the TDW methodology to clause 10.4.1
Proposed resolution: Implement the comment

Comment number: 35 E
Document location: 10.5.2.3
Comment: add period
Proposed resolution: Implement the comment

Comment number: 36 T
Document location: 10.5.2.4
Comment: content missing
Proposed resolution: add the required content

Comment number: 37 T
Document location: 10.2
Comment: There are no performance requirements specified for propagation time and propagation time skew.
Proposed resolution: add these requirements as subclause 10.2.5

Comment number: 38 E
Document location: all
Comment: a huge step forward and contributors and commenters are to be congratulated for tackling this huge issue set addressed by PIP and getting it to this point. Unfortunately, there are still too many important areas in rev 03a that need non-trivial attention so the HP vote has to be 'no'.
Proposed resolution: resolve all the comments and issue a new rev.

Comments attached to No ballot from Zane Daggett of Hitachi Cable Manchester:

10/02/02
T 10, Project 1439-D

The following are items which require review.

- 1. Page 27 Dielectric constant variation with frequency

States: Network Analyzer Agilent 8753X
Should be: Impedance Analyzer Agilent 4192x or equivalent

- 2. Page 29 6.1.3.2 Item 9

States: Ground the shield on both ends except for NEXT
Should State: Ground the shield on one end. Connecting both ends creates a closed loop.

- 3. Page 30 6.1.4.2

States: Electrical access is to features designed into the PCB for this purpose.
Suggestion: Electrical access is designed into the PCB for this purpose.

- 4. Page 32 6.2.4 Test Fixture

Suggestion: BH Electronics has Baluns to cover this requirement - Q10219 (50:130) 1 - 600MHz..

- 5. Page 39 Most TDRs have a Cal system built in - this should be an option.

- 6. Page 46 7.5.1.3

States: An Agilent 41928
Should be: An Agilent 4291x

- 7. Page 47 7.6.2.4

The first sentence states: with two fixtures shorted as shown etc.
Should say: with two fixtures connected through

Second Par misspelled 'varried'.

- 8. Page 48 7.6.2.4 Item 8

States: Connect to test etc.
Should say: Connect the test etc.

9. Page 52 7.7.2.5 Item e

Suggestion: add " Note: -30db or 3.2% is the lowest accurate measurement that can be made using a TDR."

10. Page v

Delete "(NCITS Membership to be inserted)"

11. Page vi

Correct the spelling of shalliam Ham

12. Page vii

Introduction is incomplete. Hanging sentence: "The Parallel Interface Performance defines..."
Plus performance is misspelled.

13. Page xiv and xv.

Correct format for LOT and LOF.

14. Page 22, 23 & 24.

Correct formatting issue with table 2.

15. Page 30 -- 6.1.4.2

Second sentence doesn't make sense. Needs rewording.

Comments attached to No ballot from George O. Penokie of IBM Corp.:

This standard does not conform to the SCSI Style Guide (01-313r1). This needs

to be corrected. Some examples of problems are:

- There are no table of contents for figures and tables.
- The normative references to standards does not properly name the standards.
- Notes within the text are note numbered.
- There is extensive use of illegal words (e.g., can, must, will)
- There are bulleted lists when all lists should be numbered or lettered.
- There appear to be numbered lists (ordered) that should be lettered (unordered).
- There poorly formatted tables (e.g., table 2 that could easily be placed in one page, table 11 is a mess).
- Improper cross-references are used (e.g., clause x.x instead of just x.x).
- Calling out specific brand names for test equipment is not allowed.
- Many equations do not use the same font as the rest of the document and appear to be in bold.

In addition:

- There is nothing in figure 25.
- Annex B talks about licensing agreements which is not allowed in a standard.

Comments attached to No ballot from William Petty of

LSI Logic Corp. :

1. Global Comment

Most references to National Committee for Information Technology Standards (NCITS) need to be updated to InterNational Committee for Information Technology Standards (INCITS).

Exception:

The URL <http://www.techstreet.com/incits.html> on page ii is correct.

2. Page vi

"shalliam Petty" should be William Petty. Global substitution error, Is this the only this one?

3. Page vii

Correct spelling of "individuals" and add the individuals or delete this sentence.

4. Page viii, Introduction

Finish the sentence, "The Parallel Interface Performance defines" and correct the spelling error in Performance.

5. Page 2 2.1

"The documents named in this section contain provisions which, through reference in this text, may constitute provisions of this document" should read

"The standards named in this subclause contain provisions which, through reference in this text, may constitute provisions of this standard".

6. Page 2 2.2

Replace SPI-4 with:

ANSI INCITS.362:2002, SCSI Parallel Interface - 4 (SPI-4)

7. Page 2 2.3

Replace reference with:

INCITS/TR-29:2002, SCSI Signal Modeling (SSM)

8. Page 2 2.4

SFF references are not complete. See Note 2 in 2.4 of SPI-4 for complete reference.

9. Page 3 3.1

The reference to SPI-3 is wrong. It should be:

1) NCITS.336:2000, SCSI Parallel Interface - 3 (SPI-3)

10. Page 3 3.2.9

"n" First word should be In.

11. Page 8 3.2.100

Spelling error "tow" should be two.

12. Page 9 3.3

Missing acronyms. STD, TDR, TDT... etc. Many acronyms found throughout the document are not in this list. Have to hunt to find the definitions.

13. Page(17, 22, others?) 4.9.2 & 4.13

References to 3 meter multi-drop maximum lengths. Where does this come from? SPI-x documents multi-drop as 9 or 12 meters maximum depending on wire gauge. There are references in SPI-5 about restricting some cable types to shorter lengths, but none are 3 meters.

14. Page 21 4.11

"100 CM" should be 10,0 CM. $2,5 \times 4 = 10,0$

15. Page 24 4.16

Why is RST not controlled? If not, then why are MSG, CD, and IO controlled?

16. Page 75 Annex B

This entire annex should not be part of the PIP document.

17. Page 76 C.1
Change "shall" in first sentence below Figure C.1 to "are".

18. Page 81 Annex D
This annex needs an extensive editorial review. Stuff like "Per the last PIP meeting", "Greg noted that the concept", "PIP working group", and "PIP group" does not belong in a standard.

19. Page 86 Annex E
Normative annexes are supposed to go before any informative annexes.

Comments attached to Abs ballot from Edward A. Gardner of Ophi dian Desi gns:

I have little knowledge of physical layer behavior and do not feel competent to evaluate this standard.

Comments attached to Abs ballot from Jim Jones of Quantum Corp.:

Not materially affected by this proposal.

Comments attached to No ballot from Paul D. Aloisi of Texas Instruments:

Comments are in T10/02-406r0.

Comments attached to No ballot from Jie Fan of TycoElectronics:

Tyco Electronics/Madison Cable Letter Ballot Comments to PIP (02-376)

- 1. Page 50: paragraph 'In a SCSI cable ...'
Comments: Last sentence should be changed to: The results from each aggressor signal are added to yield the total crosstalk for REQ or ACK respectively
Reason: the current sentence can be confused with the total sum of REQ and ACK measurements, which will exceed the 3% level.
- 2. Various pages: Acceptable values for point to point bulk cable:
Comments: All values should be stated clearly in this document despite of the value set by SPI-x
Reason: To make it more consistent with multi drop bulk cable description
- 3. Page 27 Table 4
Comments: Under column 'Level' : 2* should be removed or edited
Reason: Editorial
- 4. Page 26: Table 3 Comments on Differential capacitance measurement
Comments: Replace current statement with 'TDR/TDT (time domain or calculated capacitance) - Impedance Analyzer (frequency domain or direct measured capacitance)
Reason: a. Two methods are supposed to be relatively equivalent, therefore, should allow flexibility

b. Be consistent with later description

5. Related pages: Insertion Loss for bulk cable (point to point and multi drop)

Comments : Add Balanless method as an alternative/optional method to the standard

Jie Fan
Tyco Electronics/Madison Cable

Comments attached to Abs ballot from Roger Cummings of Veritas Software:

Not within our organization's scope of expertise

***** End of Ballot Report *****