Date: Jan. 15, 2002

To: T10 Committee (SCSI)

From: George Penokie (IBM/Tivoli)

Subject: SPI-4 Comments Resolution Document

Table 1 - SPI-4 Comments Status

Company	Number of comment received	Accepted	Unresolved	Rejected	Remaining
Compaq	87	85	0	2	0
ENDL	355	353	0	2	0
Maxtor	79	73	0	6	0
QLogic	22	19	0	3	0
TI	6	6	0	0	0
LSI	13	13	0		
Seagate	1	1			
Total	563	550	0	13	0

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Comments attached to Abs ballot from Mr. Robert Snively of Brocade Comm. Systems, Inc.:

This document is outside the scope of our company's business. Our organization has not reviewed this document.

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Comments attached to No ballot from Mr. Robert C. Elliott of Compaq Computer Corp.:

CPQ #1 Page i (comment 1 on page) General Acrobat reports this file uses a mix of Type 1 and TrueType fonts: Arial, bold Arial Arial, italic Arial, bolditalic Helvetica-oblique TimesNewRoman Symbol type 1 Symbol TrueType MSTT31cbnnnn (several) Please change them all to TrueType or all to Type 1, e.g. Change Helvetica-oblique to Arial, Italic Change Type 1 Symbol to TrueType Symbol Try to eliminate the the MSTTcbnnnn fonts (special encoded versions of some font)

Accept: As much as possible I have. But the annexs are the problem and it cannot be solved unless all the imported drawings are redrawn in frame and that's not worth the effort.

CPQ #2 Page i (comment 2 on page) General Change the PDF title to SCSI Parallel Interface-4 (SPI-4) Change the author's name from IBM_User Run Acrobat 5 Optimize PDF before final distribution (this works better than just fixing the FrameMaker named destinations setting)

Accept: But I will not be able to use the Acrobat 5 Optimize as I do not have Acrobat 5.

CPQ #3 Page 1 (comment 1 on page) General Include this proposal in SPI-4: 01-290r0 Report transfer capabilities port control submode page for SPI-5

Reject: This has not even been talked about yet.

CPQ #4 Page 1 (comment 2 on page) Section 1 SCSI-2, SPI-2, and SPI-3 are listed. Why is SPI-1 not listed? SPI-2 is not in the list of normative references.

No Change: SPI has be officially withdrawn and there are no norminative references to SPI-2.

CPQ #5 Page 2 (comment 1 on page) Section 1 Figure 1 change: device-Type to: Device-Type

Accept

CPQ #6 Page 3 (comment 1 on page) Section 1 Delete: Serial Storage Architecture SCSI-2 Protocol [X3.294-1996]

Accept

CPQ #7 Page 3 (comment 2 on page) Section 1 Since CAM is a SCSI-2 standard, it might be best to remove references to it in this SCSI-3 standard

Accept

CPQ #8 Page 4 (comment 1 on page) Section 2.3 Add acronyms after each standard reference (SAM-2) (SPC-3) (PIP) (SSM-2) (SDV) (on next page)

Accept most: Added SAM-2 and SPC-3. Acronyms PIP, SSM-2, and SDV and not used in this document.

CPQ #9 Page 5 (comment 1 on page) Section 3.1.8 Change: Bulk cable to: bulk cable

Accept

CPQ #10 Page 5 (comment 2 on page) Section 3.1.9 Section 3.1.10 Section 3.1.24 Section 3.1.50 Section 3.1.53 Section 3.1.70 Section 3.1.84 Section 3.1.90 Section 3.1.94 Section 3.1.103 Section 3.1.113 Section 3.1.114 Change the style of the: from heading text to normal text so the: doesn't show up in the PDF bookmark

Accept

CPQ #11 Page 11 (comment 1 on page) Section 3.2 Sort the acronyms list

Accept

CPQ #12 Page 11 (comment 2 on page) Section 3.2 SPC-3 is in normative references SPC-2 is in acronyms SPC-2 is used in the text Pick one

Accept: SPC-2 is gone.

CPQ #13 Page 14 (comment 1 on page) Section 4.2 Change: Cables, Connectors, Signals, Transceivers to: Cables, connectors, signals, transceivers

Accept

CPQ #14 Page 73 (comment 1 on page) Section 6.1

Change: used to connect the TERMPWR, terminators, and SCSI devices in a SCSI bus segment. to: used to connect the TERMPWR, terminators, expanders, and SCSI devices in a SCSI bus segment. This change includes expanders (which are not SCSI devices according to the definitions in SPI-4)

Accept

CPQ #15 Page 73 (comment 2 on page) Section 6.1

Change: c) to provide continuity between reserved pins and ground pins between SCSI devices and terminators.

to: c) to provide continuity between reserved pins and ground pins between SCSI devices, expanders, and terminators.

Accept

CPQ #16 Page 73 (comment 3 on page) Section 6.1

Change: The interconnect shall meet the specified characteristics to ensure that compliant worst case transmitted signals result in received signals that meet the requirements in clause 7.

to: The interconnect shall meet the specified requirements for bulk cable and shall transport compliant worst case transmitted signals in a manner that results in received signals that meet the requirements in clause 7.

Accept

CPQ #17 Page 73 (comment 4 on page) Section 6.1

Change: intended to produce interchangeable components while achieving the required signal transmission properties.

to: intended to aid in producing interchangeable interconnect components while achieving the required signal transmission properties.

Accept

CPQ #18 Page 74 (comment 1 on page) Section 6.3.1

Change: For length dependent parameters both total and per unit length requirements are specified. This ensures performance compliance when concatenating cables in the same SCSI bus segment. Implementors have the practical option to use only the total requirements and to loosen the per unit length requirements in non-concatenated applications; however, this practice creates non-conforming cables. Any bulk cable not meeting the per unit length requirements shall be labeled in a manner indicating that it is not suitable for use in cable assemblies that may be used in a concatenated manner.

to: Only total, end to end, requirements are specified. Bulk cable intended to be used in cable assemblies that may be concatenated with other cable assemblies in the same bus segment shall meet the per unit length specifications. This reduces the risk that the concatenated cable assembly combination does not meet the signal transport requirements. Any bulk cable not meeting the per unit length requirements shall be labeled in a manner indicating that it may not be suitable for use in cable assemblies that are used in a concatenated manner.

Accept

CPQ #19 Page 76 (comment 1 on page) Section 6.3.9

Delete: Both the per meter and the length equivalent to the terminator to terminator spacing requirements in table 21 shall be simultaneously met. just above table 21 and delete the same wording in table 21.

Accept

CPQ #20 Page 77 (comment 1 on page) Section 6.6

Change: The maximum distance between terminators when using SE transceivers shall be as defined in table 22. to: The distances specified in table 22 are recommended maximums. Any length that satisfies the requirements in sub clauses 6.1 through 6.5 may be used.

Rejected

CPQ #21 Page 78 (comment 1 on page) Section 6.6

Change table title: Table 22 - SE maximum bus segment path length between terminators

to: Table 22 - SE maximum recommended bus segment path length between terminators

Rejected

CPQ #22 Page 78 (comment 2 on page) Section 6.6

Delete footnote b: b It is recommended that the SCSI devices be uniformly spaced between terminators with the end SCSI devices located as close as possible to the terminators.

Accept

CPQ #23 Page 78 (comment 3 on page) Section 6.6

Change: The stub length when using SE transceivers shall not exceed 0,1 m. The stub length is measured from the transceiver to the connection of the SCSI bus segment path (see figure 4).

to: The stub length when using SE transceivers should not exceed 0,1 m. The stub length is measured from the end of the electrical stub path, commonly on a transceiver, to the stub connection on the SCSI bus segment path (see figure 4).

Accept

CPQ #24 Page 78 (comment 4 on page) Section 6.8

Change: The maximum distance between terminators when using LVD transceivers shall be as defined in table 23.

to: The distance achievable between terminators when using LVD terminators depends on the details of the choices for device position, bulk cable properties, system noise, and other system design properties. Table 23 shows some distances that should be achievable with good system design and commonly available components.

Accept: Added two footnotes to table 23:

For environments where all elements of the bus segment (e.g., cables, device interfaces, environmental noise and other values) are controlled to be better than minimally required, it may be possible to extend the path length.

The maximum bus segment path lengths are achievable only if the receiver mask requirements are met (see 9.4).

CPQ #25 Page 79 (comment 1 on page) Section 6.9

Change The stub length when using LVD transceivers shall not exceed 0,1 m. The difference in stub length shall be less than 1,27 cm for the REQ, ACK, DB(15,0), P_CRCA and DB(P1) signals. Stub length differences on the plus and minus signals of the same differential line should be minimized. The stub length is measured from the stub connection (see 4.5) to the end of the stub. The spacing of SCSI devices on the SCSI bus segment path shall be as indicated in table 24.

to: The stub length is measured from the stub connection (see 4.5) to the end of the stub. The stub length when using LVD transceivers should not exceed 0,1 m. The difference in stub length shall be less than 1,27 cm for the REQ, ACK, DB(15,0), P_CRCA and DB(P1) signals to aid in reducing signal to signal skew. Stub length differences on the plus and minus signals of the same differential signal should be minimized. The spacing of SCSI devices on the SCSI bus segment path is determined by the details of the system design. Table 24 shows some guidelines that may be used as a starting point for creating bus segments that meet the signal requirements at the device receiver. Using the spacings in Table 24 without a complete system design process may not yield compliant bus segments.

Accepted with modifications: Added in the following sentence: The stub length is measured from the stub connection (see 4.5) to the end of the stub.

CPQ #26 Page 79 (comment 2 on page) Section 6.9

Change: Table 24 - Minimum stub connection spacing rules for LVD SCSI devices to: Table 24 - Minimum stub connection spacing guidelines for LVD SCSI devices

Accept with medications: Changed the last sentence to: It is recommended that the spacing of SCSI devices on the SCSI bus segment path be as indicated in table 24.

CPQ #27 Page 25 (comment 1 on page) Section 4.12.1 Change: messages are to: messages (see 16.3.12, 16.3.16, and 16.3.18) are

Accept

CPQ #28 Page 108 (comment 1 on page) Section 8.2 Signal descriptions Wording for P_CRCA is still awkward.

Change: When referred to as DB(P_CRCA) it is a signal sourced by the SCSI device driving the DATA BUS during the SELECTION phase, RESELECTION phase, ST DATA phase, COMMAND phase, MESSAGE phase, and STATUS phase. The P_CRCA signal is associated with the DB(7-0) signals and is used to detect the presence of an odd number of bit errors within the byte. The P_CRCA bit is driven such that the number of logical ones in the byte plus the parity bit is odd.

When referred to as P_CRCA and data group transfers are enabled (see 4.12.4.6.3) it is a signal sourced by a SCSI target port during DT DATA phases to control whether a data group field is a pad field, pCRC field, or data field (see 10.7.3.3.5). When asserted the data group field shall be pad or pCRC fields that shall not be transferred to the application client. When negated the data group field shall be a data field that shall be transferred to the application client.

When referred to as P_CRCA and information unit transfers are enabled it is a signal sourced by the SCSI target port. Depending on the negotiated condition of read streaming and write flow control the SCSI initiator port and SCSI target port usage for P_CRCA is different. When information unit transfers are enabled the SCSI target port and SCSI initiator port shall use the P_CRCA signal as indicated in table 39.

to: During the SELECTION phase, RESELECTION phase, ST DATA phase, COMMAND phase, MESSAGE phase, and STATUS phase, this signal is referred to as DB(P_CRCA) and is sourced by the SCSI device port driving the DATA BUS. The DB(P_CRCA) signal is associated with the DB(7-0) signals and is used to detect the presence of an odd number of bit errors within the byte. The DB(P_CRCA) bit is

driven such that the number of logical ones in the byte plus the parity bit is odd.

During DT DATA phases when data group transfers are enabled (see 4.12.4.6.3) this signal is referred to as P_CRCA and is sourced by the SCSI target port to control whether a data group field is a pad field, pCRC field, or data field (see 10.7.3.3.5). When asserted the data group field shall be pad or pCRC fields that shall not be transferred to the application client. When negated the data group field shall be a data field that shall be transferred to the application client.

During DT DATA phases when information unit transfers are enabled this signal is referred to as P_CRCA and is sourced by the SCSI target port. Depending on the negotiated condition of read streaming and write flow control the SCSI initiator port and SCSI target port usage for P_CRCA is different. When information unit transfers are enabled the SCSI target port and SCSI initiator port shall use the P_CRCA signal as indicated in table 29.

Accept

CPQ #29 Page 109 (comment 1 on page) Section 8.2 In item P1 (PARITY 1) Change: When data group transfers are enabled (see 4.12.4.6.3) to: During DT DATA phases when data group transfer are enabled (see),

Accept

CPQ #30 Page 109 (comment 2 on page) Section 8.2 In item P1 (PARITY 1) Change: When information unit transfers and synchronous transfers are enabled to: During DT DATA phases when information unit transfers and DT synchronous transfers are enabled

Accept

CPQ #31 Page 110 (comment 1 on page) Section 8.2 In item P1 (PARITY 1) Change: When information unit transfers and paced transfers are enabled to: During DT DATA phases when paced transfers are enabled,

Accept

CPQ #32 Page 110 (comment 2 on page) Section 8.2 In item P1 (PARITY 1) Change: indicate whether the data valid or data invalid state during paced transfers to: indicate the data valid or data invalid state during paced (remove "whether")

Accept

CPQ #33 Page 114 (comment 1 on page) Section 9.1 SCSI parallel bus timing values Tables 42, 43, 44, 45 (various) timing values Change "Timing values" header to "Timing values for negotiated transfer rate"

Accept

CPQ #34 Page 122 (comment 1 on page) Section 9.2.16 pCRC receive hold time Section 9.2.17 pCRC receive setup time Section 9.2.18 pCRC transmit hold time Section 9.2.19 pCRC transmit setup time on Page 122 Section 9.2.28 Receive assertion period on Page 123 [etc. - make this change in all 9.2.x sections] Change: while pCRC protection is enabled (see 4.12). to: during data group transfers.

Accept

CPQ #35 Page 123 (comment 1 on page) Section 9.2.29 Receive hold time Remove (two times): while using synchronous transfers,

9.2.28 change "using synchronous transfers" to "using synchronous transfers or paced transfers" twice
9.2.29 delete second "using synchronous transfers"

9.2.32 change "using synchronous transfers" to "using synchronous transfers or paced transfers" twice
9.2.33 delete second "using synchronous transfers"
9.2.35 change "synchronous transfers" to "data group transfers"
9.2.36 change "synchronous transfers" to "data group transfers"
9.2.39 change first "synchronous transfers" to "synchronous transfers or paced transfers"
9.2.49 change "any signals transmitted" to "with asynchronous transfers"
9.2.49 delete the second sentence or change "the synchronous transfers" to "synchronous transfers or paced transfers"
9.2.53 change "using synchronous transfers" to "using synchronous transfers or paced transfers" twice
9.2.54 delete second "using synchronous transfers"
9.2.56 change "using synchronous transfers" to "using synchronous transfers or paced transfers" twice
9.2.57 delete second "using synchronous transfers"
9.2.59 change "synchronous transfer DT DATA phase" to "data group transfer"
9.2.60 change "synchronous transfer DT DATA phase" to "data group transfer"
9.4.1 change title "synchronous transfers" to "synchronous transfers and paced transfer clocking signals"
9.4.1 change "for synchronous transfers" to "for synchronous transfers and paced transfer clocking signals"
9.4.1 table 67 change "the synchronous transfers" to "synchronous transfers and for paced transfer clocking signals"
9.4.1 table 67 change title "(synchronous transfers)" to "for synchronous transfers and paced transfer clocking signals"
Also:
10.11.5 "after detecting the attention condition has been cleared" to "after detecting that the attention condition has been cleared"

Accept:

CPQ #36 Page 124 (comment 1 on page) Section 9.2.35 Receive REQ assertion period with P_CRCA transitioning Section 9.2.36 Receive REQ negation period with P_CRCA transitioning Change: synchronous transfers to: data group transfers

Accept; Deleted the referenced text because the sentence did not make sense with this change plus the change requested in CPQ #34

CPQ #37 Page 124 (comment 2 on page) Section 9.2.39 Change: data transfer rate to: transfer rate

Accept

CPQ #38 Page 127 (comment 1 on page) Section 9.2.59 Transmit REQ assertion period with P_CRCA transitioning Section 9.2.60 Transmit REQ negation period with P_CRCA transitioning Change: synchronous transfer DT DATA phase to: data group transfer

Accept; Deleted the referenced text because the sentence did not make sense with this change plus the change requested in CPQ #34.

CPQ #39 Page 144 (comment 1 on page) Section 9.6.2 DT data transfer calculations Figure 77 Change: data rate to: transfer period

Accept

CPQ #40 Page 147 (comment 1 on page) Section 10.3 Expected and unexpected bus free phases item n) Change: message negotiation to: negotiation

Accept

CPQ #41 Page 148 (comment 1 on page) Section 10.4.3 QAS protocol Crossing page 148-149 Change: that has information unit transfers enabled (see 4.12.4.6.4) to: with an information unit transfer agreement

in effect

Accept

CPQ #42 Page 149 (comment 1 on page) Section 10.4.3 QAS protocol Change: Any time the data transfer agreement is in an indeterminate state (see 4.12) before the SCSI initiator port may use QAS that SCSI initiator port shall renegotiate to enable QAS. to: Any time an initiator's negotiation required flag is true, that initiator shall renegotiate to enable QAS.

Accept; I left the cross-reference to 4.12 in the sentence.

CPQ #43 Page 151 (comment 1 on page) Section 10.5.2.3 Information unit transfers enabled Check this: If the first message received by the SCSI target port during the MESSAGE OUT phase is not a TARGET RESET message or a PPR message the SCSI target port shall change to a MESSAGE IN phase and issue a MESSAGE REJECT message followed by a WDTR message with TRANSFER WIDTH EXPONENT field set to 00h. If the SCSI target port does not support the WDTR message it shall follow the MESSAGE REJECT message with a SDTR message with the REQ/ACK OFFSET field set to 00h.

If the target is required to send WDTR, must it follow it with SDTR too? We added that rule in 4.12.6 but it is not reflected here. When it runs SDTR after WDTR (if it is required) must it negotiation REQ/ACK offset of 0? Or is the only purpose to run either WDTR or SDTR so IU_REQ gets turned off? This section cannot violate 4.12.6.

Accepted: Deleted the following sentence from 10.5.2.3: If the SCSI target port does not support the WDTR message it shall follow the MESSAGE REJECT message with a SDTR message with the REQ/ACK OFFSET field set to 00h. And changed the new last sentence to: If the first message received by the SCSI target port during the MESSAGE OUT phase is not a TARGET RESET message or a PPR message the SCSI target port shall change to a MESSAGE IN phase and issue a MESSAGE REJECT message then originate WDTR negotiation (see 4.12.7.5) with the TRANSFER WIDTH EXPONENT field set to 00h.

CPQ #44 Page 152 (comment 1 on page) Section 10.5.3.1 Change: (If IU not in effect...) 13.2.2 to (If IU not in effect...) 13.2.1

Accept

CPQ #45 Page 152 (comment 2 on page) Section 10.5.3.1 Change: true. In this case, the SCSI initiator port shall create to: true, create

Accept

CPQ #46 Page 152 (comment 3 on page) Section 10.5.3.1 bottom of page Change: should do a selection to: shall do a selection

Accept

CPQ #47 Page 152 (comment 4 on page) Section 10.5.3.1 bottom of page Change: and negotiate to: and should negotiate

Accept

CPQ #48 Page 154 (comment 1 on page) Section 10.7.1 Change: negotiated data transfer width (see 16.3.18). to: negotiated transfer width exponent (see 4.x.4.5)

Accept

CPQ #49 Page 157 (comment 1 on page) Section 10.7.3.1 Change: agreement to: transfer agreement

Accept

CPQ #50 Page 157 (comment 2 on page) Section 10.7.3.1 Remove minimum

Accept

CPQ #51 Page 158 (comment 1 on page) Section 10.7.3.3.2 Change: information unit transfers are enabled to: information unit transfer agreement has been established

Accept

CPQ #52 Page 160 (comment 1 on page) Section 10.7.3.3.5,6,7 Check capitalization of section headers e.g. Data Group data field transfer

Accept

CPQ #53 Page 163 (comment 1 on page) Section 10.7.3.3.7 Change: negotiated values to: negotiated transfer period

Accept

CPQ #54 Page 164 (comment 1 on page) Section 10.7.4.1 Change: The agreement to: The transfer agreement

Accept

CPQ #55 Page 165 (comment 1 on page) Section 10.7.4.2.1 Training pattern overview Change: the retain training information is disabled to: retain training information is disabled

Accept

CPQ #56 Page 165 (comment 2 on page) Section 10.7.4.2.1 Training pattern overview Change: vender to: vendor

Accept

CPQ #57 Page 165 (comment 3 on page) Section 10.7.4.2.2 DT DATA IN phase training pattern Change: A; to A:

Accept; Also changed B; and C; to B: and C:.

CPQ #58 Page 166 (comment 1 on page) Section 10.7.4.2.3 item 10 Change: negotiated offset. to: negotiated REQ/ACK offset.

Accept

CPQ #59 Page 170 (comment 1 on page) Section 10.7.5 Change: wide data transfer to: wide transfers (in section name and first line of text)

Accept

CPQ #60 Page 170 (comment 2 on page) Section 10.7.5 Change: non-zero wide data transfer agreement to: wide transfer agreement

Accept

CPQ #61 Page 170 (comment 3 on page) Section 10.7.5 Delete: These messages determine the use of

wide mode by both SCSI devices and establish a data path width to be used during the ST DATA phase.

Accept

CPQ #62 Page 170 (comment 4 on page) Section 10.7.5 Change: A wide data transfer of 16-bits may be established. All SCSI devices shall support 8-bit data transfers. to: All SCSI devices shall support narrow data transfers.

Accept

CPQ #63 Page 170 (comment 5 on page) Section 10.7.5 Change: 8-bit data transfers to: narrow transfers

Accept

CPQ #64 Page 170 (comment 6 on page) Section 10.7.5 Change: 16-bit wide data transfers to: wide transfers

Accept

CPQ #65 Page 171 (comment 1 on page) Section 10.8.1 Change: data byte of information unit to: last data byte of an information unit

Accept

CPQ #66 Page 183 (comment 1 on page) Section 13.2.1 Change: not effect to: not in effect

Accept

CPQ #67 Page 183 (comment 2 on page) Section 13.2.1 Change: is; to: is:

Accept

CPQ #68 Page 187 (comment 1 on page) Section 14.1 There should be a table listing all the IU types and their names in 14.1 or 14.3.1 (a new overview section)

Accept: A table was added into section 14.1 with a list of IUs and a reference to where they are defined.

CPQ #69 Page 192 (comment 1 on page) Section 14.3.1 need to prohibit BUS FREE if the task management function is not supported, or it will be treated as a successful function. (target cannot just always go bus free and parse the function later)

Reject: This is already covered in this section by the following statement.

If the TASK MANAGEMENT FLAGS field is not a supported value then the task manager shall terminate the task with a GOOD status and the packetized failure code shall be set to TASK MANAGEMENT FUNCTION NOT SUPPORTED. If a task management function fails the task manager shall terminate the task with a GOOD status. The packetized failure code shall be set to TASK MANAGEMENT FUNCTION FAILED.

CPQ #70 Page 192 (comment 2 on page) Section 14.3.1 Change: not equal 00h to: not equal to 00h

Accept

CPQ #71 Page 193 (comment 1 on page) Section 14.3.1 Table 50 This formula is incorrect given how n is defined: additional cdb length = (n-19)/4 As pictured, n has to be 20 or higher. If there is no data, n must be 20, but (20-19)/4 is not 0. It's unclear if n should be 19 for no data (the last CDB byte) or 20 (the first CRC byte). This affects whether n-19 or n-20 should be used To fix: Remove the 20 on the left Replace n with n-1 on the left side. Label CRC with n through n+3. The CRC always starts with n, so is always 20 or

higher. Replace 19 with 20 in the equation

Accept; Replaced the formula as: Additional CDB length = (number of additional CDB bytes)/4

CPQ #72 Page 193 (comment 2 on page) Section 14.3.1 Table 50 Consider changing: ADDITIONAL CDB to: ADDITIONAL CDB DATA It's not an additional CDB, it's additional data for the same CDB. (admittedly FCP, SRP, etc. all use the same wording)

Reject: The text describing the field makes it clear this is an extension of the CDB not a new one.

CPQ #73 Page 206 (comment 1 on page) Section 16.3.1 Table 64 Clear Attention Condition column Change: Yes=SCSI initiator port shall clear the attention condition before last ACK of the MESSAGE OUT phase. to: Clear Attention Condition * * = when Direction is Out

This is unclear for messages with both In and Out directions. It could be interpreted as prohibiting attention conditions at the end of a MESSAGE IN.

For messages which can travel in both Directions In and Out:

1) If "Yes", once an initiator inputs the message, should it clear an attention condition? "before last ACK of the MESSAGE OUT phase" is probably enough to clarify this, if you happen to notice that Yes is a keyword defined by a footnote.

2) If "N/A", once an initiator inputs the message, is it prohibited from having an attention condition? It seems like Yes should be paired with No, not N/A. But it's really pairing N/A with In and "Yes" or "Not required" with Out.

By the way, in Table 73, the SIMPLE message supports IN and OUT and is marked "Not required." That should really be "N/A" for In and "Not Required" for Out.

My LBC suggests footnoting the "Clear Attention Condition" header to qualify it with only Out direction messages, so N/A is not even needed.

Accept: Added a footnote to the tables.

CPQ #74 Page 309 (comment 1 on page) Section G.4 Enabling ECP Change: default agreement to: default transfer agreement

Accept

CPQ #75 Page 347 (comment 1 on page) SPI-3 should be "SPI-4" in Annex M title and in Table M.1 caption

Accept

CPQ #76 Page 347 (comment 2 on page) Annex M and Table M.1 Change: SPI-3 to SCSI-2 terminology mapping to: SPI-4 to SCSI-2 terminology mapping

Accept

CPQ #77 Page 347 (comment 3 on page) Annex M horizontal lines in table M.1 would be nice

Accept

CPQ #78 Page 348 (comment 1 on page) Section N.1.2 Section N.1.3 These show up at the same level of hierarchy in PDF bookmarks as N.1

Accept; This annex has been completely removed.

CPQ #79 Note that FCP-2 uses up all the rest of byte 2 for bidirectional and for FCP_CONF_REQ. You might want to mark the whole rest of the byte "reserved for FCP", change it to "restricted", or change it to plain "reserved."

Accept; Changed reserved bytes to ‘reserved for FCP’.

CPQ #80 On page 165+, sections 10.7.4.2.2 DT DATA IN phase training pattern and 10.7.4.2.3 DT DATA OUT phase training pattern, it is not clear that the initiator port and target port patterns are run concurrently. In the first section, a reader may think that the initiator port pattern starts after the target port pattern.

I'd also change "the training pattern" to "its training pattern" throughout, since there are 4 different "patterns" discussed in these section.

For example:

10.7.4.2.2 DT DATA IN phase training pattern...

While the SCSI target port is sending its training pattern, the SCSI initiator port shall begin sending its training pattern if it detects the SEL, MSG, and I/O true and C/D false on the first assertion of the REQ signal. The SCSI initiator port shall transmit the following training pattern:

1) assert ACK signal within 200 ns of the first REQ assertion;
2) if precompensation is enabled then set the drivers to the strong driver state;
3) wait the equivalent of 32 transfer periods (e.g., 200 ns at fast-160);
4) negate ACK signal;
5) wait the equivalent of 32 transfer periods (e.g., 200 ns at fast-160);
6) set precompensation to negotiated state; and
7) assert and negate ACK signal at the negotiated transfer period 32 times, (e.g., (2 x 6,25) x 32 = 400 ns at fast-160).

10.7.4.2.3 DT DATA OUT phase training pattern...

While the SCSI target port is sending its training pattern, the SCSI initiator port shall begin section A of its training pattern if it detects the SEL and MSG true, and C/D and I/O false on the first assertion of the REQ signal. The SCSI initiator port shall transmit the following training pattern:

Accept: Added in the following text in sections 10.7.4.2.2 and 10.7.4.2.2 ‘independent of the start of the SCSI target ports training pattern’ into the description of when the initiator starts its training pattern.

CPQ #81 The DT DATA IN section uses DB(P_CRCA) but the DT DATA OUT section uses P_CRCA. Since these are paced transfers, P_CRCA should be used throughout sections 10.7.4.2.2 and 10.7.4.2.3. Section 10.12 has an odd mix of the two. Section 18.1.4.2 should use P_CRCA.

Accept

CPQ #82 In packetized parallel SCSI, there are two possibly conflicting definitions for "Function Complete."

1. Section 14.3.1 requires a bus free condition before any status IU is sent.

"If the TASK MANAGEMENT FLAGS field is a supported value not equal 00h the target shall perform the selected task management function before processing any further SPI information units regardless of the command type. On completion of a supported task management function the target shall go to a BUS FREE phase. No SPI status information unit shall be reported for the task management function."

2. Section 14.3.5 defines status IU failure code of 00h as "NO FAILURE or TASK MANAGEMENT FUNCTION COMPLETE"

The first section seems to preclude a status IU of 00h with a meaning of "TASK MANAGEMENT FUNCTION COMPLETE" from ever occurring. The "NO FAILURE" meaning will be common (for status IUs responding to non-task management function command IUs).

Therefore, request that the TASK MANAGEMENT FUNCTION COMPLETE be removed from table 60.

Accept

CPQ #83 Rename TASK MANAGEMENT FLAGS to TASK MANAGEMENT FUNCTION. It doesn't really contain flags.

Accept

CPQ #84 section 4.12.3 The first statement ‘negotiation required flag’ is not defined.

Accept: Added in a definition of negotiation require flag of: A flag maintained by a port for each other port indicating when it is required to originate negotiation with that port (see 4.12.3).

CPQ #85 section 10.7.4.3.1 figure 79 - The phase diagrams need to clearly indicate that the other offset clock (REQ or ACK) since some seem to think this relationship has been dropped due to the figure.

Accept: Added in the following note to figure 79 - Note: The number of valid transitions shall not exceed the REQ/ACK offset (see 10.7.4.1).

CPQ #86 section 10.7.3.3.5 - The last paragraph has a packetized failure code set to ILLEGAL REQUEST RECEIVED IN SPIL_Q INFORMATION UNIT is not define in table 63.

Accept: The ILLEGAL REQUEST RECEIVED IN SPIL_Q INFORMATION UNIT has been added to table 63 as code 07h.

CPQ #87 section 16.5.1 - The title heading is ‘task attribute message codes’ and it should be ‘task management message codes’.

Accept

****

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

Our organization can not assign proper expertise to establish a supportable position on this issue

****

Comments attached to No ballot from Mr. Ralph O. Weber of ENDL Texas:

The ENDL ’No’ vote will be changed to ’Yes’ provided the following comments are resolved acceptably: 6, 118, 119, 139, 140, 229, 250, 326, 328, 330, 332, 333, 335, 336, 338, and 339.

ENDL 1 PDF page 30 Introduction, P 1 "...the bus width (8 or 16)." Should be "...the bus width (i.e., 8 or 16 bits)."

Accept

ENDL 2 PDF page 31 Clause 1, P 1 after list b) "The interface protocol includes provision for the

connection of multiple SCSI initiator ports (SCSI devices capable of initiating an I/O process) and multiple SCSI target ports (SCSI devices capable of responding to a request to perform an I/O process)." should be "The interface protocol includes provision for the connection of multiple SCSI initiator ports (i.e., SCSI devices capable of initiating an I/O process) and multiple SCSI target ports (i.e., SCSI devices capable of responding to a request to perform an I/O process)."

Accept

ENDL 3 PDF page 31 Clause 1 2nd list a) Since there is only a list entry a), the use of the list format should be removed and a single sentence constructed.

Accept

ENDL 4 PDF page 31 Clause 1 2nd list a) "...(COMMAND, MESSAGE, and STATUS)." should be "...(i.e., COMMAND, MESSAGE, and STATUS)."

Accept

ENDL 5 PDF page 32 Figure 1 "Shared Command Set (for all SCSI device types)" should be "Shared Command Set for all SCSI device types"

Accept

ENDL 6 PDF page 32 Clause 1 near bottom of page after Figure 1 "Transport Protocols:" should be "SCSI Protocols:"

Accept

ENDL 7 PDF page 33 2.1 P 1 "...standards listed below." should be "...standards listed in clause 2."

Accept: Changed to ‘listed in this clause’.

ENDL 8 PDF page 33 2.1 P 2 "...(ISO, IEC, CEN/CENELEC, ITUT)," should be "...(e.g., ISO, IEC, CEN/CENELEC, ITUT),"

Accept

ENDL 9 PDF page 33 2.1 P 2 "...foreign standards (including BSI, JIS, and DIN)." should be "...foreign standards, including BSI, JIS, and DIN."

Accept

ENDL 10 PDF page 33 2.1 P 3 "...is provided below as needed." should be "...is provided as needed."

Accept

ENDL 11 PDF page 34 2.4 P 1 "...listed document(s)," should be "...listed documents,"

Accept

ENDL 12 PDF page 35 3.1.4 "The total (peak to peak) time difference..." should be "The total peak to peak time difference..."

Accept

ENDL 13 PDF page 35 3.1.7 "3.1.7 auto-contingent allegiance:" should be "3.1.7 auto- contingent allegiance (ACA):"

Accept

ENDL 14 PDF page 35 3.1.14 "3.1.14 contingent allegiance:" should be "3.1.14 contingent allegiance (CA):"

Accept

ENDL 15 PDF page 36 3.1.22 "...cable lengths (also see 3.1.99 SE)." should be "...cable lengths. Differential signaling contrasts with single-ended signaling (see 3.1.99)."

Accept: The reference was removed.

ENDL 16 PDF page 38 3.1.58 This definition "3.1.58 multimode single-ended (MSE): A signalling alternative for LVD SCSI devices that employs MSE (see 7.4) drivers and receivers..." is circular, saying in effect MSE is MSE. Change to "3.1.58 multimode single-ended (MSE): A signalling alternative for LVD SCSI devices that combines LVD SCSI and single- ended SCSI (see 7.4) drivers and receivers..."

Accept

ENDL 17 PDF page 38 3.1.61 "...odd number (1, 3, 5, 7, or 9)." should be "odd number (e.g., 1, 3, 5, 7, or 9)."

Accept

ENDL 18 PDF page 40 3.1.98 "The act of allowing the cable terminators to bias the signal to the false state (by placing the driver in the high impedance condition)." should be "The act of allowing the cable terminators to bias the signal to the false state by placing the driver in the high impedance condition."

Accept

ENDL 19 PDF page 40 3.1.99 The definition "3.1.99 single-ended (SE): A signalling alternative that uses SE (see 7.2) drivers and receivers..." is circular, saying in effect single-ended is single-ended. Change to "3.1.99 single-ended (SE): A signalling alternative that uses single drivers and receivers (see 7.2)..."

Accept with the following wording; A signaling configuration (see 7.2) that uses unbalanced transmission lines (i.e., a signal line and a ground return path).

ENDL 20 PDF page 40 3.1.99 "...and receivers (also see 3.1.22, differential)." should be "...and receivers. Single-ended signaling contrasts with differential signaling (see 3.1.22)."

Accept: The reference was removed.

ENDL 21 PDF page 40 3.1.113 "(e.g., a bit, field, code value)" is missing an and/or and should be "(e.g., a bit, field, or code value)"

Accept

ENDL 22 PDF page 42 3.4 P 9 "...(i.e., item 1 must occur..." should be "...(i.e., item 1 is required to occur..."

Accept

ENDL 23 PDF page 44 Table 1 table notes (Key) "No" should not be capitalized

Accept

ENDL 24 PDF page 44 Table 1 table footnote a "table 26" should not be underlined.

Accept

ENDL 25 PDF page 44 4.2 1st P after Table 1 "(see 5)." should be "(see clause 5)." in two places.

Accept

ENDL 26 PDF page 45 Figure 2 and Figure 3 "TRANSCEIVER (DRIVER + RECEIVER)" should be "TRANSCEIVER (i.e., DRIVER and RECEIVER)", once in each of the two figures.

Accept

ENDL 27 PDF page 48 4.7 P 2 "One way of disabling a terminator is to disconnect all the signal lines (optionally including DIFFSENS) by an electronic switch." should be "One way of disabling a terminator is to disconnect all the signal lines, optionally including DIFFSENS, by an electronic switch.

Accept

ENDL 28 PDF page 52 Figure 9 AAF is not in the acronyms glossary.

Accept: Removed the notation AAF as this was the only placed it was used.

ENDL 29 PDF page 53 4.11.3.2 P 5 "(16.3.4)" should be "(see 16.3.4)"

Accept

ENDL 30 PDF page 60 Table 6 Second and subsequent lines of each table note paragraph should be indented as is the case in other tables such as table 16.

Accept

ENDL 31 PDF page 61 4.12.4.5 Table 8 "Specifies 8 bit data bus (narrow transfer agreement)." should be "Specifies 8 bit data bus (i.e., narrow transfer agreement)." Also, "Specifies 16 bit data bus (wide transfer agreement)." should be "Specifies 16 bit data bus (i.e., wide transfer agreement)."

Accept

ENDL 32 PDF page 69 Figure 13 "...shall create a bus free condition (unexpected)." should be "...shall create an unexpected bus free condition."

Accept

ENDL 33 PDF page 71 Figure 15 "...shall create a bus free condition (unexpected)." should be "...shall create an unexpected bus free condition."

Accept

ENDL 34 PDF page 73 Figure 17 "...shall create a bus free condition (unexpected)." should be "...shall create an unexpected bus free condition."

Accept

ENDL 35 PDF page 74 Figure 18 "...shall create a bus free condition (unexpected)." should be "...shall create an unexpected bus free condition."

Accept

ENDL 36 PDF page 76 Figure 20 "...shall create a bus free condition (unexpected)." should be "...shall

create an unexpected bus free condition."

Accept

ENDL 37 PDF page 80 5.1 P 2 "The connector mechanical drawings conform to the ISO 1660 (technical drawings - dimensioning and tolerancing) standard." should be "The connector mechanical drawings conform to the ISO 1660, technical drawings - dimensioning and tolerancing standard.

Accept

ENDL 38 PDF page 80 5.1 P 3 "(see 2)." should be "(see clause 2)."

Accept

ENDL 39 PDF page 80 5.1 bullet a) "Use IEC 512-2 (low-level contact resistance test procedure for electronic connectors) as a reference procedure." should be "Use IEC 512-2, low-level contact resistance test procedure for electronic connectors as a reference procedure."

Accept

ENDL 40 PDF page 80 5.1 bullet c) and bullet e) Use either "item (a)" or "item a)" but not both.

Accept

ENDL 41 PDF page 80 5.1 bullet c) "...above (this is an optional step);" should be "...above. This is an optional step;"

Accept

ENDL 42 PDF page 80 5.1 bullet d) "Use IEC 512-11-7 (standard practice for conducting mixed flowing gas environmental tests) as a reference procedure;" should be "Use IEC 512-11-7, standard practice for conducting mixed flowing gas environmental tests as a reference procedure;"

Accept

ENDL 43 PDF page 80 5.2.1 P 1 & 2 "(0,05 in)" should be "(i.e., 0,05 in)". This occurs once in paragraph 1 and once in paragraph 2.

Accept

ENDL 44 PDF page 80 5.2.2 P 1 & P 2 "(0,05 in)" should be "(i.e., 0,05 in)". This occurs once in paragraph 1 and once in paragraph 2.

Accept

ENDL 45 PDF page 81 5.2.3 P 1 & 2 and 5.2.4 P1 & P2 "(0,05 in)" should be "(i.e., 0,05 in)". This occurs once in each of the four paragraphs in the two subclauses.

Accept

PDF page 87 5.3.2 P 1 & P 2 and 5.3.4 P 1 & P2 "(0,05 in)" should be "(i.e., 0,05 in)". This occurs once in each of the four paragraphs in the two subclauses.

Accept

ENDL 46 PDF page 87 5.3.3 P 1 & P 2 "(0,085 in)" should be "(i.e., 0,085 in)" once in each of the two paragraphs in the subclause.

Accept

ENDL 47 PDF page 87 5.3.5 P 1 & P 2 "(0,0315 in)" should be "(i.e., 0,0315 in)" once in each of the two paragraphs in the subclause.

Accept

ENDL 48 PDF page 99 Table 15 The column headings contain two instances of "(note 3)". There is no "note 3" and if there were, the reference as written is not in ISO format.

Accept, corrected the reference.

ENDL 49 PDF page 102 Table 18 The column headings contain two references "(note 2)". There is no "note 2" and if there were the reference would not be in ISO format.

Accept, corrected the reference.

ENDL 50 PDF page 103 6.1 P 1 "This clause defines..." should be "Clause 6 defines..." Note that this usage has already been corrected in 6.2, the 3rd to the last P before 6.3.

Accept

ENDL 51 PDF page 103 6.1 last P before 6.2 "...in this clause..." should be "...in clause 6..." Note that this usage has already been corrected in 6.2, the 3rd to the last P before 6.3.

Accept

ENDL 52 PDF page 104 6.3.1 P 1, 2nd to last P and last P before 6.3.2 "...in this clause..." should be "...in 6.3...", once in each of three paragraphs.

Accept

ENDL 53 PDF page 104 6.3.1 P 2 "...whose performance is affected by the attached (sometimes unused) connectors as well as by the non-uniformity in the bulk cable." should be "...whose performance is affected by the attached connectors, even if they are unused, as well as by the non-uniformity in the bulk cable."

Accept

ENDL 54 PDF page 104 "...areas (e.g. the..." is missing a comma and should be "...areas (e.g., the..."

Accept

ENDL 55 PDF page 105 Table 19 table footnote a "will meet" should be "should meet" or "meets"

Accept

ENDL 56 PDF page 105 6.3.4 P 1 "The swept frequency (extended distance) differential impedance limits shall be a maximum peak-to-peak variation of..." should be "The swept frequency differential impedance limits used in extended distance transmission lines shall be a maximum peak-to-peak variation of..."

Accept

ENDL 57 PDF page 105 6.3.7 P 2 "The differential propagation time skew (pair to pair) shall be..." should be "The differential propagation time pair to pair skew shall be..."

Accept

ENDL 58 PDF page 106 6.3.10 1st P after equation "...the induced absolute peak noise (deviation from zero differential)..." should be "...the induced absolute peak noise (i.e., deviation from zero differential)..."

Accept

ENDL 59 PDF page 107 Note 10 "...(135 ohms maximum cable impedance at 7,3 mA max driver current)." should be "(i.e., 135 ohms maximum cable impedance at 7,3 mA max driver current)."

accept

ENDL 60 PDF page 108 Table 22 table note a "(cables, device interfaces, environmental noise and other values)" should be "(e.g., cables, device interfaces, and environmental noise)", note the removal of "and other values" since it is implied by e.g.

Accept

ENDL 61 PDF page 110 7.1 2nd P after a,b,c list "...the above transmitter implementations..." should be "...the transmitter implementations described in this subclause..."

Accept

ENDL 62 PDF page 110 7.1 2nd P after note 12 "...in this clause," should be "...in clause 7,"

Accept

ENDL 63 PDF page 110 7.1 3rd P after note 12 "...in the remaining subclauses of this clause..." should be "...in clause 7...". At a minimum the word ’remaining’ needs to be clarified to show what occurs before the ’remaining’ part begins.

Accept

ENDL 64 PDF page 111 Table 25 row 1 and row 2 "SE (passive negation) input voltage" should be "SE passive negation input voltage". Likewise, "SE (active negation) input voltage" should be "SE active negation input voltage"

Accept; Changed to SE with active negation input voltage.

ENDL 65 PDF page 111 Table 25 row 3 & Table 26 row 1 and row 2 For consistency, the phrase "+ or -" should be replaced with the plus or minus sign, THREE instances total.

Accept; Changed the + or - to ‘signal line(s)’.

ENDL 66 PDF page 111 Table 25 table note "could" should be "may"

Accept

ENDL 67 PDF page 112 Table 27 Two instances of "(signal asserted)" should be "for signal asserted" or "(i.e., signal asserted)" and two instances of "(signal negated)" should be "for signal negated" or "(i.e., signal negated)"

Accepted; Changed to ‘for an asserted signal’ or ‘for a negated signal’.

ENDL 68 PDF page 112 7.2.2 2nd P after table 27 "The output characteristics (signal negated) for active-negation drivers shall..." should be "The signal negated output characteristics for active-negation drivers shall..."

Accepted; changed to ‘output characteristics when a signal is negated for active-negation drivers’.

ENDL 69 PDF page 113 Note 14 "which" should be "that"

Accept

ENDL 70 PDF page 113 7.2.2 1st P after note 14 "could" should be "may"

Accept

ENDL 71 PDF page 113 7.2.2 last line on PDF pg 113 "...the first group of signals (ACK and REQ)..." should be "...the first group of signals (i.e., ACK and REQ)..."

Accept

ENDL 72 PDF page 114 7.2.2 bullets a) and b) above figure 41 "520 mV per ns maximum (0,7 V D.C. to 2,3 V D.C.);" should be "520 mV per ns maximum at 0,7 V D.C. to 2,3 V D.C.;" and "520 mV per ns maximum (2,3 V D.C. to 0,7 V D.C.)." should be "520 mV per ns maximum at 2,3 V D.C. to 0,7 V D.C."

Accept; Changed to ‘maximum between xx and xx’.

ENDL 73 PDF page 114 1st P after a,b list on PDF pg 114 "The slew rates specified above are..." should be "The slew rates specified is this subclause are..."

Accept

ENDL 74 PDF page 114 7.2.3 P1 "...on each signal (including both receivers and disabled drivers)." should be "...on each signal, including both receivers and disabled drivers."

Accept

ENDL 75 PDF page 115 Table 28 Three instances of "(signal true)" should be "for signal true" or "(i.e., signal true)" and three instances of "(signal false)" should be "for signal false" or "(i.e., signal false)"

Accept; Changed to (i.e., signal xx).

ENDL 76 PDF page 115 Table 28 The expansion of the acronyms VIL, VIH, IIL, and IIH need not be repeated in the second and third rows of the table, to whit "VIL" not "VIL (low-level input voltage)".

Accept

ENDL 77 PDF page 115 Table 28 table notes Following the model shown in table 16, there should be no blank lines between table notes.

Accept

ENDL 78 PDF page 115 7.2.3 1st P after table 28 "...may occur (e.g. with some..." is missing a comma and should be "...may occur (e.g., with some..."

Accept

ENDL 79 PDF page 115 1st P after a,b list on PDF pg 115 "...should meet the above I IL and I IH electrical characteristics..." should be "...should meet the IL and I IH electrical characteristics specified in this subclause..."

Accept

ENDL 80 PDF page 116 Table 29 Two instances of "(high-impedance state);" should be "for the high-impedance state;" or "(i.e., high-impedance state);"

Accept; Changed to (i.e., xxx)

ENDL 81 PDF page 116 Table 29 "(Leakage current)" should be "(leakage current)

Accept"

ENDL 82 PDF page 116 Table 29 Expansion of the acronym IL (Leakage current) need not be repeated in the third row of the table.

Accept

ENDL 83 PDF page 116 Table 29 table notes Following the model shown in table 16, there should be no blank lines between table notes.

Accept

ENDL 84 PDF page 117 7.3.1 1st P after figure 43 "The terminator bias voltage V BIAS (V BIAS is the voltage measured when I = 0 in figure 44)..." should be "The terminator bias voltage V BIAS (i.e., the voltage measured when I = 0 in figure 44)..."

Accept

ENDL 85 PDF page 118 7.3.1 1st P after figure 45 "The terminator bias voltage V BIAS (V BIAS is the voltage measured when I = 0 in figure 44)..." should be "The terminator bias voltage V BIAS (i.e., the voltage measured when I = 0 in figure 44)..."

Accept

ENDL 86 PDF page 119 Table 30 In the column headings, three instances of "(figure xx)" should be "(see figure xx)"

ENDL 87 PDF page 119 Table 30 table footnote a "(figure 43)" should be "(see figure 43)"

Accept

ENDL 88 PDF page 122 Table 32 table notes P 1 "In all the above examples..." should be "In all the examples in this table..."

Accept

ENDL 89 PDF page 122 Table 32 table notes P 1 There should be a period at the end of the sentence in the first table note, (i.e., "01b." not "01b").

Accept

ENDL 90 PDF page 122 Table 32 table notes Following the model shown in table 16, there should be no blank lines between table notes.

Accept

ENDL 91 PDF page 122 Table 32 table notes P 3 "...shall follow the above rules..." should be "...shall follow the rules described in this subclause..."

Accept

ENDL 92 PDF page 127 Table 33 row 7 and row 8 "(same signal)" should be "when testing the same signal", once in each row

Accept; Changed to (within the signal pair).

ENDL 93 PDF page 128 Table 34 row 2 "phase (note)" should be "phase"

Accept; The (note) should have been a footnote reference to the tables footnote. That has been corrected.

ENDL 94 PDF page 128 Table 34 row 4 Two instances of "x (bus settle delay)" should be "times bus settle delay".

Accept

ENDL 95 PDF page 128 Table 34 row 8 "DATA BUS (SELECTION and RESELECTION phases)" should be "DATA BUS during SELECTION and RESELECTION phases" similar to row 7.

Accept

ENDL 96 PDF page 128 Table 34 row 9 "DATA BUS (During information transfers)" should be "DATA BUS during information transfers"

Accept

ENDL 97 PDF page 129 Table 35 table notes Following the model shown in table 16, there should be no blank lines between table notes.

Accept

ENDL 98 PDF page 131 Table 36 last table note "could" should be "may"

Accept

ENDL 99 PDF page 131 Note 17 "The DIFFSENS voltage filter time delay allows time for the DIFFSENS pin to settle after the initial power connection (in the case of insertion of a SCSI device into an active system), or..." should be "The DIFFSENS voltage filter time delay allows time for the DIFFSENS pin to settle after the initial power connection in the case of insertion of a SCSI device into an active system, or..."

Accept; Changed to (e.g., xxx).

ENDL 100 PDF page 131 Bullet b) after table 36 "...after (a) is achieved." should be "...after item a) is achieved."

Accept

ENDL 101 PDF page 131 Table 36 table notes Following the model shown in table 16, there should be no blank lines between table notes.

Accept

ENDL 102 PDF page 133 7.4.1 1st P on PDF pg 133 "...driver (similar to that described for multimode transceivers see 7.4.3)..." should be "driver, similar to that described for multimode transceivers (see 7.4.3)..."

Accept

ENDL 103 PDF page 133 Note 18 "...in MSE mode (caused by the SCSI devices and/or terminators that are single-ended)." should be "...in MSE mode, caused by the SCSI devices and/or terminators that are single-ended."

Accept

ENDL 104 PDF page 134 7.4.2 P 5 "If HVD operation is indicated by the DIFFSENS receiver all signals (except DIFFSENS) shall be set to a high impedance state (> 100 K ohms to the local ground)." should be "If HVD operation is indicated by the DIFFSENS receiver all signals, except DIFFSENS, shall be set to a high impedance state (i.e., greater than 100 K ohms to the local ground)."

Accept

ENDL 105 PDF page 136 2nd P on PDF pg 136 "...TERMPWR source (for example if the TERMPWR source voltage..." should be "...TERMPWR source (e.g., if the TERMPWR source voltage..."

Accept

ENDL 106 PDF page 136 3rd P on PDF pg 136 "...maximum (short circuit) current..." should be "...maximum (i.e., short circuit) current..."

Accept; Changed to ‘Connect a wire to the sockets (i.e., create a short circuit)...’.

ENDL 107 PDF page 136 Note 23 "...(table 13)..." should be "...(see table 13)..."

Accept

ENDL 108 PDF page 136 Note 23 "...(28 AWG)..." should be "...(i.e., 28 AWG)..."

Accept

ENDL 109 PDF page 137 Last P before table 38 The following sentence "In table 38 a hyphen ("-") represents a logical zero bit resulting from the data bus bit being released." should be placed in table 38 as a key, something like "Key - = a logical zero bit resulting from the data bus bit being released"

Accept

ENDL 110 PDF page 137 8.2 P 1 thru 10 All of the periods in the following should be replaced with colons since not one of them is a sentence: BSY (BUSY). SEL (SELECT). RST (RESET). C/D (CONTROL/ DATA). I/O (INPUT/OUTPUT). MSG (MESSAGE). REQ (REQUEST). ACK (ACKNOWLEDGE). ATN (ATTENTION). P_CRCA (PARITY/CRC AVAILABLE).

Accept

ENDL 111 PDF page 139 1st P after table 39 "P1 (PARITY 1)." should be "P1 (PARITY 1):" (i.e., use a colon not a period).

Accept

ENDL 112 PDF page 140 3rd & 4th P on PDF pg 140 "P1 (PARITY 1)." should be "P1 (PARITY 1):" and "DB(15-0) (16-bit DATA BUS)." should be "DB(15-0) (16-bit DATA BUS):" (i.e., use a colon not a period).

Accept

ENDL 113 PDF page 140 8.3.1 P 1 "Signals may be in a true (asserted) or false (negated) state." should be "Signals may be in a true (i.e., asserted) or false (i.e., negated) state."

Accept

ENDL 114 PDF page 142 Table 40 table notes The table notes appear to be a key but are not labeled as such. Also, following the model of table 1, there should be no blank lines between key entries.

Accept

ENDL 115 PDF page 142 Table 40 "A unique data bit (the SCSI ID) shall..." should be "A unique data bit representing the SCSI ID shall..." or at least "A unique data bit (i.e., the SCSI ID) shall..."

Accept

ENDL 116 PDF page 142 Table 40 "The P_CRCA and DB(P1) bit(s)..." should be "The P_CRCA and DB(P1) bits..."

Accept

ENDL 117 PDF page 143 Table 41 The table footnote references in the rows for subclauses 9.2.23, 9.2.42 and 9.2.45 should not be underlined.

Accept

ENDL 118 PDF page 146 Table 44 "Transmit setup time" row What is "(1,48) ns"? The use of parentheses in this way is not described in 3.4. Perhaps this is using the accountant's method of indicating a negative value, in which case "-1,48 ns" would make more sense and fit better with the use of the plus or minus sign elsewhere in the table.

Accept

ENDL 119 PDF page 147 Table 45 The "(0,08)" construct appears twice in this table without explanation either in the key or in 3.4. See a similar note regarding table 44 (ENDL 118).

Accept

ENDL 120 PDF page 148 Table 46 last two rows of table body To match the notation in figure 66, "setup (int)" should be "SETUP (int)" and "hold (int)" should be "HOLD (int)"

Accept

ENDL 121 PDF page 148 Table 46 Table footnotes are identified by both letters and numbers.

Accept

ENDL 122 PDF page 148 Table 46 table footnote a "Tolerance adjusted for half cycle (transfer period)" should be "Tolerance adjusted for half cycle (i.e., transfer period)"

Accept

ENDL 123 PDF page 149 9.2.4 bullet a "the BUS FREE phase is detected (the BSY and SEL signals..." should be "the BUS FREE phase is detected (i.e., the BSY and SEL signals..."

Accept

ENDL 124 PDF page 149 9.2.5 P 1 "...BUS FREE phase (BSY and SEL..." should be "...BUS FREE phase (i.e., BSY and SEL..."

Accept

ENDL 125 PDF page 152 9.2.17 P 2 "which" should be "that"

Accept

ENDL 126 PDF page 152 9.2.23 P 1 "(See SCSI Primary Commands-3 standard)." should be "(See SCSI Primary Commands-3 standard.)"

Accept; Change See to see.

ENDL 127 PDF page 155 9.2.42 P 1 "(See SCSI Primary Commands-3 standard)." should be "(See SCSI Primary Commands-3 standard.)"

Accept; Change See to see.

ENDL 128 PDF page 155 9.2.46 P1 "The signal timing skew includes cable skew (measured with 0101... patterns) and..." should be "The signal timing skew includes cable skew that is measured with 0101... patterns and..."

Accept

ENDL 129 PDF page 164 Figure 67 title "LVD receiver mask (synchronous transfers)" should be "LVD receiver mask for synchronous transfers"

Accept

ENDL 130 PDF page 166 9.4.3 second bullet a "...after 100 ns continuous assertion (or negation) of the signal;" should be "...after 100 ns continuous assertion or negation of the signal;"

Accept

ENDL 131 PDF page 167 9.4.3 bullet a before note 32 "...after 100 ns continuous assertion (or negation) of the signal;" should be "...after 100 ns continuous assertion or negation of the signal;"

Accept

ENDL 132 PDF page 167 Note 33 "...meets the above requirements..." should be "...meets the requirements described in this subclause..."

Accept

ENDL 133 PDF page 172 Figure 75 title Since the title for figure 76 does not include "(all times in ns)" the parenthetical expression should be removed from the figure 75 title too.

Accept

ENDL 134 PDF page 177 10.4.1 P 3 "which" should be "that"

Accept

ENDL 135 PDF page 178 10.4.2 1st bullet 2 "...phase (i.e. after..." is missing a comma and should be "...phase (i.e., after..."

Accept

ENDL 136 PDF page 178 10.4.2 bullet 4 "After waiting at least an arbitration delay (measured from its assertion of the BSY signal) the SCSI device..." should be "After waiting at least an arbitration delay, measured from its assertion of the BSY signal, the SCSI device..."

Accept

ENDL 137 PDF page 179 Last numbered list before 10.4.4 The first words on entries 2, 3, 4, and 5 in the

list should be capitalized.

Accept

ENDL 138 PDF page 179 Bullet 3 in the last numbered list before 10.4.4 "wait until the SCSI target port transitions to BUS FREE (this occurs after two QAS arbitration delays);" should be "Wait until the SCSI target port transitions to BUS FREE (i.e., after two QAS arbitration delays);"

Accept

ENDL 139 PDF page 179 10.4.4 bullet 1 "...QAS REQUEST (55h) message..." should be "...QAS REQUEST message..."

Accept

ENDL 140 PDF page 180 10.4.4 1st bullet 1 on PDF pg 180) "...QAS REQUEST (55h) message..." should be "...QAS REQUEST message..."

Accept

ENDL 141 PDF page 180 10.4.4 1st bullet 4 on PDF pg 180 "After waiting at least one QAS arbitration delay (measured from the detection of the MSG, C/D, and I/O signals being negated) the SCSI device..." should be "After waiting at least one QAS arbitration delay, measured from the detection of the MSG, C/D, and I/O signals being negated, the SCSI device..."

Accept

ENDL 142 PDF page 180 10.4.4 second bullet 3 on PDF pg 180 Regarding, "A SCSI device that loses arbitration may return to step (a)." It is not immediately obvious where to find step (a).

Accept; The reference was not correct. It has been changed to ‘step 1)’.

ENDL 143 PDF page 181 10.5.2.1 P 1 "The SCSI initiator port shall create an attention condition (indicating that a MESSAGE OUT phase is to follow the SELECTION phase)." should be "The SCSI initiator port shall create an attention condition, indicating that a MESSAGE OUT phase is to follow the SELECTION phase."

Accept

ENDL 144 PDF page 182 10.5.2.4 bullet b "could" should be "may"

Accept

ENDL 145 PDF page 182 10.5.2.4 bullet b "...an improper selection (two SCSI target ports..." should be "...an improper selection (e.g., two SCSI target ports..."

Accept

ENDL 146 PDF page 182 10.5.3.1 P 1 "...clear the attention condition (indicating that a INFORMATION UNIT OUT phase is to follow the SELECTION phase)." should be "...clear the attention condition, indicating that a INFORMATION UNIT OUT phase is to follow the SELECTION phase."

Accept

ENDL 147 10.5.3.2 bullet b "could" should be "may"

Accept

ENDL 148 PDF page 183 10.5.3.2 bullet b "...an improper selection (two SCSI target ports..." should be "...an improper selection (e.g., two SCSI target ports..."

Accept

ENDL 149 PDF page 184 10.6.3 bullet b "could" should be "may"

Accept

ENDL 150 PDF page 184 10.6.3 bullet b "...an improper selection (two SCSI target ports..." should be "...an improper selection (e.g., two SCSI target ports..."

Accept

ENDL 151 PDF page 184 10.7.1, 10.8.1, 10.9.1, 10.10.1, & 10.11.1 headings The text in the above mentioned 10.x.1 headings is larger than the text in the 10.x.2 headings. The text in all headings at a given level should be the same size.

Accept

ENDL 152 PDF page 184 10.7.1 P 3 "...REQ or ACK handshake(s)..." should be "...REQ or ACK handshakes..."

Accept

ENDL 153 PDF page 186 10.7.2 P 2 "...I/O signal is true (transfer to..." should be "...I/O signal is true (i.e., transfer to..."

Accept

ENDL 154 PDF pages 186 & 187 10.7.2 P 2 and P 3 The last three words in each of these two paragraphs should be changed from "...as described above." to "...as described in this subclause."

Accept

ENDL 155 PDF page 186 10.7.2 P 3 "...I/O signal is false (transfer to..." should be "...I/O signal is false (i.e., transfer to..."

Accept

ENDL 156 PDF page 187 10.7.3.2 P 4 "...I/O signal is true (transfer to..." should be "...I/O signal is true (i.e., transfer to..."

Accept

PDF page 187 ENDL 157 10.7.3.2 P 5 "...I/O signal is false (transfer to..." should be "...I/O signal is false (i.e., transfer to..."

Accept

ENDL 158 PDF page 188 10.7.3.3.2 1st P after a,b list "...I/O signal is true (transfer to..." should be "...I/O signal is true (i.e., transfer to..."

Accept

ENDL 159 PDF page 188 10.7.3.3.2 1st P after 1st 1,2 list "...I/O signal is true (transfer to..." should be "...I/O signal is true (i.e., transfer to..."

Accept

ENDL 160 PDF page 188 10.7.3.3.2 1st P after 2nd 1,2 list "...I/O signal is false (transfer to..." should be "...I/O signal is false (i.e., transfer to..."

Accept

ENDL 161 PDF page 188 10.7.3.3.2 1st P after 3rd 1,2 list "...I/O signal is false (transfer to..." should be "...I/O signal is false (i.e., transfer to..."

Accept

ENDL 162 PDF page 190 10.7.3.3.5 Note 42 "The requirement above ensures..." should be "The requirement in the preceding paragraph ensures..."

Accept

ENDL 163 PDF page 190 10.7.3.3.5 1st P after note 42 "...I/O signal is true (transfer to..." should be "...I/O signal is true (i.e., transfer to..."

Accept

ENDL 164 PDF page 191 10.7.3.3.5 1st P after 1st 1,2 list "...I/O signal is true (transfer to..." should be "...I/O signal is true (i.e., transfer to..."

Accept

ENDL 165 PDF page 191 10.7.3.3.5 1st P after 2nd 1,2 list "...I/O signal is false (transfer to..." should be "...I/O signal is false (i.e., transfer to..."

Accept

ENDL 166 PDF page 191 10.7.3.3.5 1st P after 3rd 1,2 list "...I/O signal is false (transfer to..." should be "...I/O signal is false (i.e., transfer to..."

Accept

ENDL 167 PDF page 191 10.7.3.3.6 P 1 "...I/O signal is true (transfer to..." should be "...I/O signal is true (i.e., transfer to..."

Accept

ENDL 168 PDF page 192 1 P after both 1,2,3 lists on PDF pg 192 "After either of the above sequences..." should be "After either of the sequences described in this subclause..."

Accept

ENDL 169 PDF page 193 10.7.3.3.7 P 1 "...I/O signal is false (transfer to..." should be "...I/O signal is false (i.e., transfer to..."

Accept

ENDL 170 PDF page 192 10.7.3.3.7 1 P after both 1,2,3 lists "After either of the above sequences..." should be "After either of the sequences described in this subclause..."

Accept

ENDL 171 PDF page 195 10.7.4.2.2 bullet 4 in 2nd 1,2,3 list The strikeout should be removed from the "s" in "simultaneously"

Accept

ENDL 172 PDF page 199 10.7.4.4 P 2 "...I/O signal is true (transfer to..." should be "...I/O signal is true (i.e., transfer to..."

Accept

ENDL 173 PDF page 199 10.7.4.4 1st P after 1st 1,2 list "...I/O signal is true (transfer to..." should be "...I/O signal is true (i.e., transfer to..."

Accept

ENDL 174 PDF page 199 10.7.4.4 last P on PDF pg 199 "...I/O signal is false (transfer to..." should be "...I/O signal is false (i.e., transfer to..."

Accept

ENDL 175 PDF page 200 10.7.4.4 1st P after 1st 1,2 list on PDF pg 200 "...I/O signal is false (transfer to..." should be "...I/O signal is false (i.e., transfer to..."

Accept

ENDL 176 PDF page 201 Table 48 Other tables use a double line in the way that this table uses a blank row.

Accept

ENDL 177 PDF page 201 Table 48 table notes P 1 "...as shown above." should be "...as shown in this table."

Accept

ENDL 178 PDF page 201 Table 48 table notes Following the model shown in table 16, there should be no blank lines between table notes.

Accept

ENDL 179 PDF page 201 10.8.1 P 2 "...during the REQ/ACK handshake(s) of this phase." should be "...during the REQ/ACK handshakes of this phase."

Accept

ENDL 180 PDF page 201 10.8.2 P 1 "If the SCSI target port detects one or more parity error(s)..." should be "If the SCSI target port detects one or more parity errors..."

Accept

ENDL 181 PDF page 202 10.9.2 P 2, 10.9.3 P 2, 10.9.4 P 2, and 10.9.5 P 2 "...during the REQ/ACK handshake(s) of this phase." should be "...during the REQ/ACK handshakes of this phase." FOUR OCCURRENCES

Accept

ENDL 182 PDF page 203 10.11.2 P 2 and 10.11.4 P 2 "...during the REQ/ACK handshake(s) of this

phase." should be "...during the REQ/ACK handshakes of this phase.", one instance in each of the two paragraphs.

Accept

ENDL 183 PDF page 203 10.11.4 P 2 "The SCSI target port shall handshake byte(s) in this phase..." should be "The SCSI target port shall handshake bytes in this phase..."

Accept

ENDL 184 PDF page 204 10.11.4 last P before 10.11.5 Two instances of "byte(s)" should be "bytes".

Accept

ENDL 185 PDF page 204 10.11.4 last P before 10.11.5 "...(i.e. no parity errors),..." is missing a comma and should be "...(i.e., no parity errors),..."

Accept

ENDL 186 PDF page 204 10.11.4 last P before 10.11.5 "...(e.g. after receiving..." is missing a comma and should be "...(e.g., after receiving..."

Accept

ENDL 187 PDF page 204 10.11.4 last P before 10.11.5 "...it shall indicate it will not retry by changing..." should be "...it shall indicate that no retry is being attempted by changing..."

Accept

ENDL 188 PDF page 204 10.11.5 P 1 Several uses of "(s)" should be just "s": "one or more parity error(s) on the message byte(s)", "message(s)", and "message byte(s)"

Accept

ENDL 189 PDF page 204 10.12 bullet f and bullet g "...(initiator driving)..." should be "...(i.e., initiator driving)..." in two places in each bullet. ALSO "...(target driving)..." should be "...(i.e., target driving)..." in two places in each bullet. A total of 8 changes.

Accept; Changed to (i.e., SCSI xxx port driving).

ENDL 190 PDF page 206 11.2 heading "ST DATA BUS protection (parity)" should be "ST DATA BUS parity protection" or "ST DATA BUS protection using parity"

Accept

ENDL 191 PDF page 206 11.3 heading "DT DATA BUS protection (CRC)" should be "DT DATA BUS CRC protection" or "DT DATA BUS protection using CRC"

Accept

ENDL 192 PDF page 206 11.3.1 heading "DT DATA BUS protection (CRC) overview" should be "DT DATA BUS CRC protection overview" or "Overview of DT DATA BUS protection using CRC"

Accept

ENDL 193 PDF page 206 11.3.1 P 1 "...32-bit (four byte)..." should be "...32-bit (i.e., four byte)..."

Accept

ENDL 194 PDF page 207 11.3.3 top of PDF pg 207 The word "transmitted." should not be separated from the rest of the paragraph by a page break.

Reject - That’s the way it falls.

ENDL 195 PDF page 208 11.3.4 P 5 "...all ones (FFFFFFFFh)." should be "...all ones (i.e., FFFFFFFFh)."

Accept

ENDL 196 PDF page 209 12.2 P 6 "...which may result in an unexpected action." should be "...possibly resulting in an unexpected action."

Accept

ENDL 197 PDF page 210 12. 2 bullet b "...at the SCSI target port’s earliest convenience (often, but not necessarily on a logical block boundary)." should be "...at the SCSI target port’s earliest convenience (e.g., on a logical block boundary)."

Accept

ENDL 198 PDF page 210 12.2 bullet g "...current SPI information unit (i.e. after receiving..." is missing a comma and should be "...the current SPI information unit (i.e., after receiving...

Accept

ENDL 199 PDF page 210 12.3 P 2 "Environmental conditions (e.g. static discharge)..." is missing a comma and should be "Environmental conditions (e.g., static discharge)..."

Accept

ENDL 200 PDF page 210 12.4 P 1 "A SCSI device detecting a reset event shall release all SCSI bus signals (except the RST signal, if it is asserting RST) within a bus clear delay of the transition of the RST signal to true." should be "A SCSI device detecting a reset event shall release all SCSI bus signals except the RST signal if it is asserting RST within a bus clear delay of the transition of the RST signal to true."

Accept: Moved the statement in ()s to the end of the sentence and removed the ()s.

ENDL 201 PDF page 211 12.5.1 heading The text in the 12.5.1 heading should be the same size as the text in the 12.5.2 heading

Accept

ENDL 202 PDF page 217 14.1 P 4 Three instances of "pair(s)" should be "pairs".

Accept

ENDL 203 PDF page 223 Table 51 In keeping with the form used elsewhere, "(See SAM-2)" should be "(See the SCSI Architecture Model -2 standard.)" in four instances in this table.

Accept

ENDL 204 PDF page 226 Table 54 code 05h "...information unit(s)..." should be "...information units..."

Accept

ENDL 205 PDF page 227 14.3.2 1st full P on PDF pg 227 "...information unit(s)." should be "...information units."

Accept

ENDL 206 PDF page 227 Table 55 "(table 54)" should be "(see table 54)"

Accept

ENDL 207 PDF page 228 14.3.3 1st P after table 56 "...(e.g., parameter lists, mode pages, user data, etc.)." should not include 'etc.' since that is implied by 'e.g.' to whit "...(e.g., parameter lists, mode pages, and user data)."

Accept

ENDL 208 PDF page 229 14.3.4 1st P after table 57 "...(e.g., parameter lists, mode pages, user data, etc.)." should not include 'etc.' since that is implied by 'e.g.' to whit "...(e.g., parameter lists, mode pages, and user data)."

Accept

ENDL 209 PDF page 230 Table 58 The point size on "(n-m)" in bytes 4-7 is smaller than the point size on "(m-11)" in bytes 8-11. It is possible that "(n-m)" is less that 9 points and thus too small for a T10 standard.

Accept

ENDL 210 PDF page 230 14.3.5 2nd P after table 58 "...the sense data valid bit (SNSVALID) shall be set to one..." should be "...the SNSVALID bit shall be set to one..." since the definition of SNSVALID already appears in the preceding paragraph.

Accept

ENDL 211 PDF page 230 14.3.5 3rd P after table 58 "...the sense data valid bit (SNSVALID) shall be set to zero." should be "...the SNSVALID bit shall be set to zero." since the definition of SNSVALID already appears two paragraphs above.

Accept

ENDL 212 PDF page 230 14.3.5 5th P after table 58 "...the packetized failures valid bit (RSPVALID) shall be set to zero." should be "...the RSPVALID bit shall be set to zero." since the definition of the RSPVALID bit appears in the preceding paragraph.

Accept

ENDL 213 PDF page 231 14.3.5 top of PDF pg 231 The word "zero." should not separated from the rest of the paragraph by a page break.

Reject: That's just the way it falls.

ENDL 214 PDF page 236 16.3.1 heading The text in the 16.3.1 heading should be the same size as text in the 16.3.2 heading.

Accept

ENDL 215 PDF page 236 Table 64 table notes Second and subsequent lines of each table note paragraph should be indented as is the case in other tables such as table 16.

Accept

ENDL 216 PDF page 238 16.3.3 1st line on PDF pg 238 "...physical disconnect privilege (DISCPRIV bit set to zero)..." should be "...physical disconnect privilege (i.e., DISCPRIV bit set to zero)..."

Accept

ENDL 217 PDF page 238 16.3.3 2nd P after a,b list on PDF pg 238 Remove the parentheses in "(See the DTDC field of the physical disconnect/reconnect mode page in the 18.1.2 for additional controls over physical disconnection.)"" ALSO note that "DTDC" does not appear to be in small caps.

Accept

ENDL 218 PDF page 240 16.3.9 P 1 and 16.3.10 P 1 "...be added (two's complement) to the..." should be "...be added using two's complement arithmetic to the...". There is one instance in 16.3.9 P 1 and two instances 16.3.10 P 1 for a total of THREE CHANGES.

Accept

ENDL 219 PDF page 244 16.4.1 P 2 "could" should be "may"

Accept

ENDL 220 PDF page 245 Table 73 Second and subsequent lines of each table note paragraph should be indented as is the case in other tables such as table 16.

Accept

ENDL 221 PDF page 245 Table 73 Key entries for M, NS, Yes, and 80h+ are not required because those terms do not appear in the table.

Accept

ENDL 222 PDF page 247 Table 78 Second and subsequent lines of each table note paragraph should be indented as is the case in other tables such as table 16.

Accept

ENDL 223 PDF page 247 Table 78 Key entries for NS, In, and *** are not required because those entries do not appear in the table.

Accept

ENDL 224 PDF page 247 Note 50 "item (f)" should be "item f)"

Accept

ENDL 225 PDF page 247 16.5.2 1st P after note 50 "...identified (i.e. an I_T_L nexus..." is missing a comma and should be "...identified (i.e., an I_T_L nexus..."

Accept

ENDL 226 PDF page 250 Note 52 Remove the parentheses from "(The SCSI devices on the bus or the SCSI ID assignments may have changed.)"

Accept

ENDL 227 PDF page 251 Note 53 "could" should be "may"

Accept

ENDL 228 PDF page 253 2nd P on PDF pg 253 "...defined below." should be "...defined in this subclause."

Accept

ENDL 229 PDF page 253 & others Tables 81, 84, 85, 86, 88, & 89 I believe that the page code values should not appear in the table titles. If the code values are retained in these titles, then they should be added in the titles for the message bytes formats.

Accept

ENDL 230 PDF page 254 18.1.2 6th P on PDF pg 254 "...512 bytes (e.g. a value..." is missing a comma and should be "...512 bytes (e.g., a value..."

Accept

ENDL 231 PDF page 254 18.1.2 last P on PDF pg 254 In "The DATA TRANSFER DISCONNECT CONTROL (DTDC) field..." the field name as it appears in the format table is DTDC, so "DATA TRANSFER DISCONNECT CONTROL" should not be in small caps.

Accept

ENDL 232 PDF page 262 Table 90 "Unknown (device not capable of reporting bus mode)" should be "Unknown (e.g., device not capable of reporting bus mode)"

Accept

ENDL 233 PDF page 269 Table A.1 table footnote e "must" should be "shall"

Accept

ENDL 234 A.2 heading This heading should not be at the bottom of a page with no text following it.

Accept

ENDL 235 PDF page 271 Table A.2 row 3 & Table A.3 row 3 "All four above conditions" should be "All four conditions shown in the previous rows of this table"

Accept

ENDL 236 PDF page 271 Table A.3 What does "(note)" mean in column 1 rows 1 and 2? If it is intending to reference the table note (i.e., "The test limits shall be within the shaded area of figure A.3.") then the example of Table A.2 should be followed and "(note)" should be deleted.

Accept: This looks like left over stuff from before the new table note structure. I have removed the term note.

ENDL 237 PDF page 277 A.2.6 P 2 "...alternating logical states (one - zero,..." should be "...alternating logical states (e.g., one - zero,..."

Accept

ENDL 238 PDF page 277 A.2.6 P 4 "The rise and fall times specified above are..." should be "The rise and fall times specified in this subclause are..."

Accept

ENDL 239 PDF page 281 A.3.5 P 1 "...operating at Fast-160..." should be "...operating at fast-160..."

Accept

ENDL 240 PDF page 285 B.2.2 P 1 "...between 1 000 ns (QAS arbitration delay) and 1 490 ns (QAS arbitration delay+bus settle delay+2 deskew delays) after..." should be "...between 1 000 ns (i.e., QAS arbitration delay) and 1 490 ns (i.e., QAS arbitration delay+bus settle delay+2 deskew delays) after..."

Accept

ENDL 241 PDF page 285 B.3.4 P 1 "...can only be..." should be "...is only allowed to be..."

Accept

ENDL 242 PDF page 286 Note 57 top of PDF pg 286 "...will now be waiting..." should be "...is now waiting..."

Accept

ENDL 243 PDF page 286 Note 58 "(B.3.6)" should be "(see B.3.6)"

Accept

ENDL 244 PDF page 286 B.4 P 2 "could" should be "may"

Accept

ENDL 245 PDF page 288 C.3 2nd P after table C.2 "VOLTS signal(s)" should be "VOLTS signals"

Accept

ENDL 246 PDF page 290 Table C.4 Since it appears to apply to only one row, the table note should be a table footnote with cross reference.

Accept

ENDL 247 PDF page 290 Table C.4 table note "...12 V D.C.or 5 V D.C.source (or both)..." should be "...12 V D.C. or 5 V D.C. source or both...", note the addition of spaces after both instances of "D.C." as well as the removal of the parentheses.

Accept

ENDL 248 PDF page 292 1 P on PDF pg 292 "The signal requirements are indicated below, ..." should be "The signal requirements are indicated in subclause C.8,..."

Accept

ENDL 249 PDF page 296 Table E.1 The acronym TDR does not appear in the glossary and is not suitable defined by the ’e.g.’ statements in this table.

Accept: Added TDR to the acronym

ENDL 250 PDF page 297 Table E.1 This table is continued on a second page without any indication that this is the case.

Accept

ENDL 251 PDF page 297 Table E.1 row with E.4 as a reference "(note 4)" is not a proper note reference

Accept

ENDL 252 PDF page 297 Table E.1 row with E.5 as a reference "(note 2)" is not a proper note reference

Accept

ENDL 253 PDF page 297 Table E.1 row with E.6 as a reference "(note 3)" is not a proper note reference IN TWO COLUMNS

Accept

ENDL 254 PDF page 297 Table E.1 table notes Second and subsequent lines of each table note paragraph should be indented as is the case in other tables such as table 16.

Accept

ENDL 255 PDF page 298 E.1 5th P on PDF pg 298 "...straight (in a line)..." should be "...straight (i.e., in a line)..."

Accept

ENDL 256 PDF page 298 E.1 5th P on PDF pg 298 "These types of bulk cable are considered to be part of a cable assembly (where connectors are attached)..." should be "These types of bulk cable are considered to be part of a cable assembly where connectors are attached..."

Accept

ENDL 257 PDF page 298 E.1 bullet 1 on PDF pg 298 "...(e.g. wires..." is missing a comma and should be "...(e.g., wires..."

Accept

ENDL 258 PDF page 298 E.2.1.2 P 1 To be consistent with the notation in table E.1, "This test requires type A samples (see table E.1) prepared..." should be "This test requires type (A) samples (see table E.1) prepared..."

Accept

ENDL 259 PDF page 299 E.2.1.2 bullet 6 on PDF pg 299 "...to the shield (for planar type cable, tie..." should be "...to the shield (e.g., for planar type cable, tie..."

Accept

ENDL 260 PDF page 299 E.2.1.4.2 heading "Measurement system (with test fixture) calibration" should be "Measurement system with test fixture calibration"

Accept

ENDL 261 PDF page 300 E.2.1.4.3 P 1 "...proper signal transition (STD) time..." should be "...proper STD time..." since the acronym is correctly identified in the subclause header.

Accept

ENDL 262 PDF page 300 E.2.1.4.3 P 1 "...described below." should be "...described in this subclause."

Accept

ENDL 263 PDF page 301 E.2.4.1.3 1st P after 1st a,b list on PDF pg 301 "...amplitude (most instruments do this calculation automatically)." should be "...amplitude. Most instruments do this calculation automatically."

Accept

ENDL 264 PDF page 301 E.2.1.5 P 1 "...described below." should be "...described in this subclause."

Accept

ENDL 265 PDF page 301 E.2.1.5 bullet a "...to 2 ns / div (total time axis span of 20 ns)." should be "...to 2 ns / div (i.e., total time axis span of 20 ns)."

Accept

ENDL 266 PDF page 302 E.2.1.5 bullet e "...(cable from fixture to TDR)..." should be "...(i.e., cable from fixture to TDR)..."

Accept

ENDL 267 PDF page 302 E.2.1.5 1st P after list on PDF pg 302 "which" should be "that"

Accept

ENDL 268 PDF page 302 E.2.2.2 P 1 To be consistent with the notation in table E.1, "This test requires type B samples (see table E.1) prepared..." should be "This test requires type (B) samples (see table E.1) prepared..."

Accept

ENDL 269 PDF page 303 E.2.2.3.3 heading "Measurement system (with test fixture) calibration" should be "Measurement system with test fixture calibration"

Accept

ENDL 270 PDF page 304 E.2.2.3.4 P 1 "...described below." should be "...described in this subclause."

Accept

ENDL 271 PDF page 304 E.2.2.4 P 1 "...described below." should be "...described in this subclause."

Accept

ENDL 272 PDF page 304 E.2.4.1.3 1st P after 1st a,b list "...amplitude (most instruments do this calculation automatically)." should be "...amplitude. Most instruments do this calculation automatically."

Accept

ENDL 273 PDF page 305 E.2.2.4 P 1 "...described below." should be "...described in this subclause."

Accept

ENDL 274 PDF page 305 E.2.2.4 bullet a "...to 2 ns / div (total time axis span of 20 ns)." should be "...to 2

ns / div (i.e., total time axis span of 20 ns)."

Accept

ENDL 275 PDF page 305 E.2.2.4 bullet e "...(cable from fixture to TDR)..." should be "...(i.e., cable from fixture to TDR)..."

Accept

ENDL 276 PDF page 305 E.2.2.4 last P before figure E.6 "which" should be "that"

Accept

ENDL 277 PDF page 306 E.2.3 heading "Differential extended distance (balanced) impedance (frequency domain)" should be "Differential extended distance balanced impedance frequency domain"

Accept

ENDL 278 E.2.3.1 P 1 To be consistent with the notation in table E.1, "This test requires type C samples (see table E.1) prepared..." should be "This test requires type (C) samples (see table E.1) prepared..."

Accept

ENDL 279 PDF page 306 E.2.3.1 bullet 1 "...occur. (Approximately 30 m or greater.)" should be "...occur, approximately 30 m or greater."

Accept

ENDL 280 PDF page 307 E.2.3.2.5 P 1 In E.2.3.2.2 the reference format is "(test fixture 2 figure E.7)" here the reference format is "(refer to test fixture 2 in figure E.7)" pick a single reference format and use it consistently.

Accept

ENDL 281 PDF page 307 E.2.3.2.5 P 1 "A coaxial cable (same transmission line impedance as the test instrument) connects..." should be "A coaxial cable with the same transmission line impedance as the test instrument connects..."

Accept

ENDL 282 PDF page 307 Note 68 "...high frequency (650 MHz or greater)..." should be "...high frequency (i.e., 650 MHz or greater)..."

Accept

ENDL 283 PDF page 307 E.2.3.3 P 1 "...200 Hz (averaging at a minimum of 2 averages)." should be "...200 Hz, averaging at a minimum of 2 averages."

Accept

ENDL 284 PDF page 308 E.3.1.1 bullet 6 (2nd list) "Connect one (1) conductor..." should be "Connect one conductor..."

Accept

ENDL 285 PDF page 308 E.3.1.1 P 1 To be consistent with the notation in table E.1, "This test requires type D samples (see table E.1) prepared..." should be "This test requires type (D) samples (see table E.1)

prepared..."

Accept

ENDL 286 PDF page 309 E.3.1.3 bullet 2 "Connect a wire (short) to the sockets of the test fixture and perform a "short" calibration as specified by the bridge." should be "Connect a wire short to the sockets of the test fixture and perform a short circuit calibration as specified by the bridge."

Accept; Changed to ‘Connect a wire to the sockets (i.e., create a short circuit)...’.

ENDL 287 PDF page 309 E.3.1.4.2 P 1 "...other side of the test fixture (ground)." should be "...other side of the test fixture (i.e., ground)."

Accept

ENDL 288 PDF page 309 E.3.2.1 P 1 To be consistent with the notation in table E.1, "This test requires type F samples (see table E.1) prepared..." should be "This test requires type (F) samples (see table E.1) prepared..."

Accept

ENDL 289 PDF page 310 E.3.2.3.2 bullet 5 "Minimum average points shall be two (2)." should be "Minimum average points shall be two."

Accept

ENDL 290 PDF page 310 E.3.2.3.3 bullet 2 "Connect wire (short) to test fixture head and perform "short" circuit calibration." should be "Connect wire short to test fixture head and perform short circuit calibration."

Accept; Changed to ‘Connect a wire to the sockets (i.e., create a short circuit)...’.

ENDL 291 PDF page 310 E.3.2.4 P 2 "could" should be "may"

Accept

ENDL 292 PDF page 311 E.4.1 P 1 To be consistent with the notation in table E.1, "This test requires type G samples (see table E.1) prepared..." should be "This test requires type (G) samples (see table E.1) prepared..."

Accept

ENDL 293 PDF page 311 E.5.1 P 1 To be consistent with the notation in table E.1, "This test requires type H samples (see table E.1) prepared..." should be "This test requires type (H) samples (see table E.1) prepared..."

Accept

ENDL 294 PDF page 312 E.5.3 bullet 20)A) and 21)A) "Connect a wire (short) to the sockets of the test fixture and perform a "short" calibration as specified by the TDR scope." should be "Connect a wire short to the sockets of the test fixture and perform a short circuit calibration as specified by the TDR scope." TWO CHANGES

Accept; Changed to ‘Connect a wire to the sockets (i.e., create a short circuit)...’.

ENDL 295 PDF page 313 E.5.4 bullet 10 "...launch step (signal transition);" should be "...launch step (i.e., signal transition);"

Accept

ENDL 296 PDF page 313 E.6.1 P 1 "Using the time domain (through) measurement,..." should be "Using the time domain (i.e., through) measurement,..."

Accept

ENDL 297 PDF page 314 E.7.1 1st P after figure E.11 "The series resistive loss of the conductors (copper)..." should be "The series resistive loss of the copper conductors..."

Accept

ENDL 298 PDF page 314 E.7.1 1st P after figure E.11 "...will be affected..." should be "...is affected..."

Accept

ENDL 299 PDF page 315 E.7.1 1st P on PDF pg 315 "...attenuation (>50 dB)..." should be "...attenuation (i.e., greater than 50 dB)..."

Accept

ENDL 300 PDF page 316 E.7.4 1st P after figure E.13 "...to unmatched case above." should be "...to the unmatched case discussed previously in this subclause." Note the addition of "the" as well as the removal of "above".

Accept

ENDL 301 PDF page 317 E.7.4 1st P after figure E.14 "...in the example below." should be "...in the following example."

Accept

ENDL 302 PDF page 318 E.7.4 1st P after figure E.15 "Also an additional uncertainty is introduced because a small value (cable attenuation) is being subtracted from a large value (attenuator attenuation)." should be "Also an additional uncertainty is introduced because a small value (i.e., cable attenuation) is being subtracted from a large value (i.e., attenuator attenuation)."

Accept

ENDL 303 PDF page 319 E..7.6 P 1 "which" should be "that"

Accept

ENDL 304 PDF page 320 E.7.7 P 1 "Connect the DUT to the test fixtures shown in figure E.16 and figure E.17 (including the board mounted connectors)." should be "Connect the DUT to the test fixtures shown in figure E.16 and figure E.17, including the board mounted connectors."

Accept

ENDL 305 PDF page 322 E.8.1 P 2 "...noise (due to the mapping of the time and space as in the TDR tests), and..." should be "...noise, due to the mapping of the time and space as in the TDR tests, and..."

Accept

ENDL 306 PDF page 323 E.8.1 2nd to last P before E.8.2 "could" should be "may"

Accept

ENDL 307 PDF page 323 E.8.1 last P before E.8.2 "...peak noise (deviation from zero differential)..." should be "...peak noise (i.e., deviation from zero differential)..."

Accept

ENDL 308 PDF page 323 E.8.2 P 1 To be consistent with the notation in table E.1, "This test requires type B samples (see table E.1) as..." should be "This test requires type (B) samples (see table E.1) as..."

Accept

ENDL 309 PDF page 323 E.8.4 P 1 "...tests in E.2.2.3 (using a short in place..." should be "...tests in E.2.2.3 (i.e., using a short in place..."

Accept:

ENDL 310 PDF page 324 E.8.5 1st P after figure E.22 "Note the largest peak (i.e. largest deviation..." should be "The largest peak (i.e., largest deviation..." Since this is not a note, the paragraph should not begin with the word "note" and a comma is missing after i.e.

Accept

ENDL 311 PDF page 326 F.3 P 3 "...first paragraph of this clause." should be "...first paragraph of this subclause."

Accept

ENDL 312 PDF page 326 F.3 bullet b "...transceiver type (LVD or SE)..." should be "...transceiver type (e.g., LVD or SE)..."

Accept

ENDL 313 PDF page 327 F.3 bullet e "...transceiver types (SE, LVD)." should be "...transceiver types (e.g., SE and LVD)."

Accept

ENDL 314 PDF page 327 F.4 bullet h Two instances of "could" should be "may"

Accept

ENDL 315 PDF page 328 Figure F.1 "EACH SEGMENT TYPE CAN AUTOSWITCH..." should be "EACH SEGMENT TYPE IS ALLOWED TO AUTOSWITCH..."

Accept

ENDL 316 PDF page 328 F.5 P 1 "...conversions (e.g. SE to LVD)." is missing a comma and should be "...conversions (e.g., SE to LVD)."

Accept

ENDL 317 PDF page 330 Table F1 column 3 heading Since none of the references shown in this table are references to clause, this column heading should be "Subclause" not "Clause".

Accept

ENDL 318 PDF page 330 Table F.1 row 2 "...that can be negotiated..." should be "...that is capable of being negotiated..."

Accept

ENDL 319 PDF page 330 Table F.1 "...two wide LVD Fast-40 bus..." should be "two wide LVD fast-40 bus..."

Accept

ENDL 320 PDF page 334 F.8.7 P 1 "...will not return to the negated state..." should be "...does not return to the negated state..."

Accept

ENDL 321 PDF page 334 F.8.7 P 1 "...since it will continue to be driven..." should be "...since it continues to be driven..."

Accept; Changed the ‘will’ to ‘shall’.

ENDL 322 PDF page 335 F.9 P 1 "can" should be "may"

Accept

ENDL 323 PDF page 336 F.9 1st P after equation on PDF pg 336 "...from the above equation..." should be "...from the minimum recommended offset value equation in this subclause..."

Accept

ENDL 324 PDF page 341 Table G.2 column 4 heading Since none of the references shown in this table are references to clause, this column heading should be "Subclause" not "Clause".

Accept

ENDL 325 PDF page 341 Table G.3 title It is highly unusual to have an acronym as the one text in a table tile. Perhaps the acronym could be expanded in the title.

Accept

ENDL 326 PDF page 341 Table G.3 Row lines should extend into multi-byte fields following the model shown in table 81.

Accept

ENDL 327 PDF page 342 G.6.1.1 P 4 "...sub-clause..." should be "subclause..."

Accept

ENDL 328 PDF page 343 Table G.5 Row lines should extend into multi-byte fields, even reserved fields, following the model shown in table 81.

Accept

ENDL 329 PDF page 345 G.6.2.1 3rd P on PDF pg 345 "...sub-clause..." should be "subclause..."

Accept

ENDL 330 PDF page 345 Table G.7 Row lines should extend into multi-byte fields, even reserved fields, following the model shown in table 81.

Accept

ENDL 331 PDF page 346 G.6.3.1 P 4 "...sub-clause..." should be "subclause..."

Accept

ENDL 332 PDF page 348 Table G.10 Row lines should extend into multi-byte fields, even reserved fields, following the model shown in table 81.

Accept

ENDL 333 PDF page 349 Table G.11 Row lines should extend into multi-byte fields, even reserved fields, following the model shown in table 81.

Accept

ENDL 334 PDF page 349 G.6.4.1 P 4 "...sub-clause..." should be "subclause..."

Accept

ENDL 335 PDF page 350 Table G.12 Row lines should extend into multi-byte fields, even reserved fields, following the model shown in table 81.

Accept

ENDL 336 PDF page 351 Table G.13 Row lines should extend into multi-byte fields, even reserved fields, following the model shown in table 81.

Accept

ENDL 337 PDF page 352 Table G.14 "(B73384B8508F27h)" is in a larger font in table G.14 than it is in table G.12 or table G.1. Pick a font size and use it consistently.

Accept

ENDL 338 PDF page 352 Table G.14 bytes 8-11, 120-123, and 232-235 Reserved fields should not have MSB and LSB indications.

Accept

ENDL 339 PDF page 353 Table G.14 Table G.14 is continued on a second page with no indication that this has occurred.

Accept

ENDL 340 PDF page 354 Annex H P 3 "Two of the RESERVED lines (A cable contact numbers 23 and 24) and the OPEN line (A cable contact number 25) on the A cable are TERMPWR lines on the P cable (P cable contact numbers 33, 34, and 35)." should be "Two of the RESERVED lines (i.e., A cable contact numbers 23 and 24) and the OPEN line (i.e., A cable contact number 25) on the A cable are TERMPWR lines on the P cable (i.e., P cable contact numbers 33, 34, and 35)."

Accept

ENDL 341 PDF page 357 Annex I P 1 "...amount of capacitance (and its spacing) that..." should be "...amount of capacitance and its spacing that..."

Accept

ENDL 342 PDF page 357 Annex I P 2 "...an attenuation (or amplification) of..." should be "...an attenuation or amplification of...

Accept

ENDL 343 PDF page 358 Annex I last P before figure I.1 "For example, a cabled bus segment with L = 295 nH/m (90 nH/ft) and C = 41 pF/m (12,5 pF/ft) and Z = 85...no more than 85 pF/m (26 pF/ft) anywhere...loads spaced 0,3 m (1 ft) from each other, 50 pF spaced 0,6 m (2 ft) apart, or 12,5 pF spaced 0,15 m (0,5 ft) apart." should be "For example, a cabled bus segment with L = 295 nH/m (i.e., 90 nH/ft) and C = 41 pF/m (i.e., 12,5 pF/ft) and Z = 85...no more than 85 pF/m (i.e., 26 pF/ft) anywhere...loads spaced 0,3 m (i.e., 1 ft) from each other, 50 pF spaced 0,6 m (i.e., 2 ft) apart, or 12,5 pF spaced 0,15 m (i.e., 0,5 ft) apart."

Accept: Removed all the english notation.

ENDL 344 PDF page 361 Annex K a,b,c list Three instances of "(figure K....)" should be "(see figure K...)"

Accept

ENDL 345 PDF page 367 L.1.8 P 1 "...figure L.7 and figure L.7..." should be "...figure L.6 and figure L.7..."

Accept

ENDL 346 PDF page 369 a P in the middle of PDF pg 369 "The method used to calculate these parameters is shown below." should be "The method used to calculate these parameters is as follows."

Accept

ENDL 347 PDF page 370 1st P after 1st a,b list on PDF pg 370 "As demonstrated above..." should be "As demonstrated in this subclause..."

Accept

ENDL 348 PDF page 372 L.1.11 P 1 "...element (figure L.9) is..." should be "...element (see figure L.9) is..."

Accept

ENDL 349 PDF page 373 1st P after 1 a,b list on PDF pg 373 The "above" in phrase "...based on the above equation,..." needs to be replaced but I cannot begin to guess which of the "above" equations is being referenced.

Accept: Added the words: '...are based on the characteristic impedance and propagation delay equations.'

ENDL 350 PDF page 378 N.1.2 P 1 "For example, two wide SCSI devices connected with a narrow cable will discover that the cable does not support wide transfers during this checking. These SCSI devices will then re-negotiate to narrow transfers." should be "For example, two wide SCSI devices connected with a narrow cable *are able to* discover that the cable does not support wide transfers during this checking. *Then* these SCSI devices <> re- negotiate to narrow transfers." Two "will's removed.

Accept; This annex has been completely removed.

ENDL 351 PDF page 379 N.2.2 both lists All list entries should start with a capital letter (e.g., "Crosstalk" not "crosstalk")

Accept; This annex has been completely removed.

ENDL 352 PDF page 379 N.2.2 first a,b,c list Each parenthetical expression should begin with "i.e.," for

example "(i.e., 0001h, ...)" not "(0001h,...)"

Accept; This annex has been completely removed.

ENDL 353 PDF page 380 N.6 1st P after a,b,c list on PDF pg 380 "...port (possibly as a result..." should be "...port (e.g., as a result..."

Accept; This annex has been completely removed.

****

Comments attached to YesC ballot from Mr. Mark Evans of Maxtor Corp.:

Maxtor's comments for the letter ballot of SPI-4, rev 7

Maxtor # 1.Global It appears that the editor has corrected "initiator" and "target" to be "SCSI initiator port" and "SCSI target port" to be consistent with the latest SAM convention in almost every case. However, though "SCSI device" is used hundreds of times in the draft to mean, "either a SCSI initiator port or a SCSI target port", it has been changed to "SCSI device port" only once (see 18.1.4.1 Port control mode page overview). In addition, there are several instances of "SCSI device" where I think the intention is that it should be "driver", "receiver", or "transceiver". Each occurrence of "SCSI device" in the draft needs to be examined and modified as required.

Accept; The term SCSI device port is not correct and was changed to SCSI target port.

Maxtor # 2.Global Though the phrase "an SCSI..." was completely purged from SPI-3, it is used MANY times in SPI-4 (as is "a SCSI..."). Though I didn't perform a thorough search, I only saw occurrences of "...a SCSI initiator..." and "...an SCSI initiator..." I found no instances of "...an SCSI target..." or "...an SCSI device..." By comparing instances in SPI-4 to instances in SPI-3 it appears this is an artifact of replacing "...an initiator..." with "...an SCSI initiator port...." I don't care which it is, but it should be the same throughout the document.

Accept

Maxtor # 3.Global Sometimes there is a space between "REQ (ACK)", and sometimes there is no space between "REQ(ACK)". I don't care which it is, but it should be the same throughout the document.

Accept: Removed the space.

Maxtor # 4.Global When did we switch to the new "note in the table" format (i.e., no "Note:" and superscript references)?

No Change: This occurred a few rev's ago on Ralph Weber's recommendation. This is being changed in all standards.

Maxtor # 5.Global There are several places where the phrase "...worse case..." should be changed to "...worst-case...".

Accept: Changed all to worst-case.

Maxtor # 6.page IA (PDF page 3), Abstract, first sentence: I recommend that the "the" be removed from the sentence or that "the's be added in front of all of the elements being defined.

Accept

Maxtor # 7.page xxx (PDF page 30), Introduction, second sentence: I recommend that this sentence be changed to read, "Data may be transferred asynchronously or synchronously at rates that depend on

implementation."

Accept

Maxtor # 8.page 5 (PDF page 35), 3.1.4 asymmetry: I recommend that this read, "The maximum time from any transition edge on a signal to the subsequent transition edge during a "1010..." pattern, as measured at their zero-crossing points, minus the data transfer period (see 9.2.52)."

Accept: The glossary entry for asymmetry was deleted.

Maxtor # 9.page 5 (PDF page 35), 3.1.9 bus segment path: The word "directly" should be deleted.

Accept

Maxtor # 10.page 6 (PDF page 36), 3.1.22 differential: I recommend that this read, "A signaling alternative that uses drivers and receivers with two complementary signals to improve signal-to-noise ratios."

Accept

Maxtor # 11.page 6 (PDF page 36), 3.1.24 driver: I recommend that this read, "The circuitry used to control the state of a signal line in a bus segment."

Accept

Maxtor # 12.page 7 (PDF page 37), 3.1.39 I/O process: I recommend that this read, "An I/O process consists of one initial connection (or, if information units are enabled, the establishment of a nexus) and zero or more physical or logical reconditions, all pertaining to a single task or a group of tasks. An I/O process begins with the establishment of a nexus. If the SPI information unit transfers are disabled an I/O process normally ends with a COMMAND COMPLETE message. If information unit transfers are enabled an I/O process normally ends with a SPI L_Q information unit with the type field set to status and the DATA LENGTH field set to zero."

Accept

Maxtor # 13.page 7 (PDF page 37), 3.1.44 intersymbol interference (ISI): I think that the definition here is missing the element of proximity and would recommend that it be replaced with, "the effect that a transition (or "symbol") on a signal line has on transitions before or after it on the same line."

Accept

Maxtor # 14.page 8 (PDF page 38), 3.1.56 message: I recommend that this read, "One or more bytes transferred between a SCSI initiator port and a SCSI target port to perform link control or task management, or to associate task attributes with commands."

Accept

Maxtor # 15.page 9 (PDF page 39), 3.1.78 planar, first sentence: The word "substantially" should be deleted.

Reject: In this case the word carries valuable information that would be lost if it were to be removed.

Maxtor # 16.page 9 (PDF page 39), 3.1.84 receiver: I recommend that this read, "The circuitry used to detect the electrical state of a signal line in a bus segment."

Accept

Maxtor # 17.page 9 (PDF page 39), 3.1.92 SCSI initiator device, first sentence: The phrase "target SCSI

device" should be changed to "SCSI target device".

Accept

Maxtor # 18.page 9 (PDF page 39), 3.1.93 SCSI initiator port first sentence: This should read, "A SCSI initiator device object that acts as the connection between application clients and the service delivery subsystem through which requests and responses are routed."

Accept

Maxtor # 19.page 9 (PDF page 39), 3.1.94 SCSI target device: There should be a period or some other punctuation before "See the SCSI..."

Accept

Maxtor # 20.page 10 (PDF page 40), 3.1.106 task manager: The definition reads, "An agent within the device server that executes task management functions." However, the model in figures 14 and 16 in SAM-2 rev 20 shows that the task manager is an agent within the logical unit. This definition should be changed to be in concert with SAM-2 rev 20.

Accept

Maxtor # 21.page 10 (PDF page 40), 3.1.108 task set: The first sentence begins, "A group of tasks within a device server..." However, the model in figure 14 in SAM-2 rev 20 shows that the task set is within the logical unit. This definition should be changed to be in concert with SAM-2 rev 20.

Accept

Maxtor # 22.page 10 (PDF page 40), 4.6 Bus segment loading, fourth paragraph, second sentence: I think this sentence would be more clear if it read, "SCSI devices containing enabled bus segment termination shall present loading at the stub connection that is no more than the sum of the maximum allowed termination loading and the maximum allowed bus segment loading."

Accept: If this is really talking about the 3dr paragraph not the 4th paragraph in 4.6.

Maxtor # 23.page 18 (PDF page 48), 4.7 Termination requirements, second paragraph, first sentence: The comma should be deleted from the sentence

Accept

Maxtor # 24.page 19 (PDF page 49), 4.8 Clocking methods for data transfers, second paragraph, first sentence: I recommend that this read, "Regardless of whether ST or DT transfers are enabled the negotiated transfer period sets the maximum rate at which the data is clocked in mega transfers per second."

Accept

Maxtor # 25.page 19 (PDF page 49), 4.8 Clocking methods for data transfers, second paragraph, fourth sentence: I recommend that this read, "An example of a negotiated transfer period of 25 ns with DT transfers is shown in figure 7."

Accept

Maxtor # 26.page 19 (PDF page 49), 4.8 Clocking methods for data transfers, second paragraph, fifth sentence: I recommend that this read, "The rising edge to rising edge time for DT is 50 ns while the rising edge to rising edge time for ST is 25 ns."

Accept

Maxtor # 27.page 19 (PDF page 49), 4.8 Clocking methods for data transfers, second paragraph: I recommend that the following sentence be added at the end of this paragraph,"For ST DATA and DT DATA synchronous transfers the clocking signal (REQ or ACK) occurs when the DATA BUS is in a steady state."

Accept

Maxtor # 28.page 19 (PDF page 49), 4.8 Clocking methods for data transfers, third paragraph: I recommend that this read, "Figure 8 shows an example paced transfers with a negotiated transfer period of 6,25 ns at the receiving SCSI device's connector. For DT DATA paced transfers the clocking signal (REQ or ACK) occurs when the DATA BUS signals may also be changing state."

Accept: But changed the last sentence to 'For paced transfers the clocking signal (i.e., REQ or ACK) may occur when the DATA BUS is changing state.'

Maxtor # 29.page 21 (PDF page 51), 4.10 Paced transfer on a SCSI bus: I think a couple of important elements of paced transfers are not included in this subclause. I recommend that something like the following be added, "During paced DT DATA transfers the clock signal (ACK or REQ) transitions at the negotiated transfer period and is qualified for clocking data by DB(P1)."

Accept: Added in the following: During paced transfers the clock signal (i.e., REQ or ACK) transitions at the negotiated transfer period. Data is qualified by the clock signal and the phase of the P1 signal (see 10.7.4.3).

Maxtor # 30.page 23 (PDF page 53), 4.11.1.2 Synchronous transfers: I think the first paragraph is redundant. I recommend deleting the first paragraph and adding the reference on transfer agreement to the paragraph on ST DATA phases.

Accept

Maxtor # 31.page 24 (PDF page 54), 4.11.3.2 Data group transfers, seventh paragraph, first sentence: I recommend that "pCRC" be changed to "pCRC field".

Reject: The pCRC in the sentence 'The pCRC shall be used to protect all data group transfers.' is the actual pCRC. The pCRC field does nothing to protect data in only contains the pCRC value which does protect the data.

Maxtor # 32.page 24 (PDF page 54), 4.11.3.3 Information unit transfers, first paragraph: I recommend that the first sentence be made into two sentences, "Information unit transfers are permitted when a synchronous transfer agreement is in effect. Information unit transfers are mandatory when a paced transfer agreement is in effect."

Accept

Maxtor # 33.page 24 (PDF page 54), 4.11.3.3 Information unit transfers, third paragraph: I recommend that the first sentence be modified to be as follows, "If the number of bytes in the SPI information unit is not a multiple of four, the transmitting SCSI device shall transmit one, two, or three pad bytes as is necessary to make the transfer a multiple of four bytes before transmitting an iuCRC."

Accept

Maxtor # 34.page 24 (PDF page 54), 4.11.3.3 Information unit transfers, seventh paragraph: I think that "...iuCRC interval,..." should be deleted from the sentence.

Accept

Maxtor # 35.page 26 (PDF page 56), Figure 11 - Error-free negotiation message sequences: I think there is an arrow missing from the "SCSI target port originated" side. As with the "SCSI initiator port originated" side of the figure, there should be an arrow straight down from "WDTR OUT".

Reject

Maxtor # 36.page 26 (PDF page 56), 4.12.3 When to negotiate, Note 7, first sentence I think the phrase "...broken SCSI initiator device software..." should be replaced with something like "...less than optimum SCSI initiator device software implementations..."

Accept: Changed broken to illegal.

Maxtor # 37.page 28 (PDF page 58), Table 3 - Responding message requirements: There is are two errors in the "TRANSFER WIDTH EXPONENT" row: This value is negotiated with either the PPR or WDTR messages, NOT SDTR. Also, "any value" is not valid. 00h and 01h are valid, 02h is obsolete, and all other values are reserved. 00h and 01h could also be added as valid values for this field in Table 2 - Negotiable fields and effects of successful negotiation.

Accept

Maxtor # 38.page 28 (PDF page 58), Table 4 - Transfer agreements: I think that some of the information in this table is misleading, but at least it does reference Table 11. However, I've found at least four cells that I think contain incorrect values: in the first row TRANSFER PERIOD OFFSET should be TRANSFER PERIOD FACTOR; in the "ST synchronous" row the TRANSFER PERIOD FACTOR shall be "GE 0Ah"; in the "narrow" row the TRANSFER WIDTH EXPONENT shall be "00h"; in the "ST DATA" row the TRANSFER PERIOD FACTOR shall be "GE 0Ah".

Accept

Maxtor # 39.page 29 (PDF page 59), Table 5 - Transfer Period Factor: Table 32 is "precompensation". I don't see how this note relates as this is a requirement for Fast-160. I guess I'm confused about notes (a) and (b).

Accept: The table reference was incorrect. It should be referenced table 42 not table 32. This has been corrected.

Maxtor # 40.page 36 (PDF page 66), Table 11 - Valid negotiable field combinations: I see two errors and three additions that should be added in the table: in the second and third rows, "00h - FFh" should be, "0Ah - FFh"; in the eighth and tenth rows, "Use DT DATA IN and DT DATA OUT phases with information unit transfers" should be changed to something like "Use DT DATA IN and DT DATA OUT phases with paced information unit transfers"; in the ninth row, "Use DT DATA IN and DT DATA OUT phases with information unit transfers" should be changed to something like "Use DT DATA IN and DT DATA OUT phases with synchronous information unit transfers"

Accept partially; The 00h-FFh in rows 2 and 3 is correct because the req/ack offset is 00h and therefore the transfer period factor can be any value. I have placed the term 'ignore' in the transfer factor and transfer width exponent, and protocol options fields in those two rows. The other part of the comment is accepted but the paced transfer were added to rows 9 and 11 while the synchronous transfers were added to rows 8 and 10.

Maxtor # 41.page 37 (PDF page 67), 4.12.6 Message restrictions, second paragraph, second sentence: The second sentence reads, "If a SCSI target port responds to PPR with values that are attainable via WDTR and SDTR, the SCSI initiator port should repeat negotiation with a WDTR and SDTR negotiation sequence." I think that the intent here is something like, "If a SCSI target port responds to PPR only with values that are attainable via WDTR and SDTR (i.e., all protocol option bits set to zero), the SCSI initiator port should repeat negotiation with a WDTR and SDTR negotiation sequence." This should be changed accordingly. Otherwise, the subsequent WDTR/SDTR negotiation would result in setting to zero any

protocol option bit that had been set to one via the PPR negotiation.

Accept

Maxtor # 42.page 38 (PDF page 68), Figure 12 - SCSI initiator port originated PPR negotiation: SCSI initiator port response: The text in the SCSI initiator port response boxes next to everything other than "successful negotiation" read that the initiator "...shall...." "...originate..." something (like a negotiation). If this is true, and there is a faulty target a deadlock loop could result if the target port kept doing something other than "successful negotiation", and the initiator port kept trying to originate negotiation. After some point in time the initiator should be allowed to give up and/or cause a reset event. There are similar instances of this that should be corrected in figures 14, 16, and 19. There are similar instances of this for the target port in figures 13, 15, 17, 18, and 21. Of course the target port can't create a reset event when it's ready to give up, but it could go to BUS FREE. I think the concept of "giving up" should be included in these figures. It could be in the form of notes.

Accept; Added the following sentence before the tables. If the negotiation fails after a vendor-specific number of retries, the SCSI port originating the negotiation sequence may discontinue communication with the other SCSI port.

Maxtor # 43.page 48 (PDF page 78), Figure 22 - SCSI Parallel Interface service reference mode: This figure shows a SCSI Application Client relating to another SCSI Application Client via the SCSI Application Protocol. I think this is based on "Figure 25 - Protocol service reference model" in SAM-2 rev 20. The figure in SAM-2 shows "SCSI Application [in initiator]" relating to "SCSI Application [in target]". The application in the target is NOT an application client. If the application in the initiator is an application client, then the thing in the target is a device server. One way or another, this figure needs to be corrected.

Accept

Maxtor # 44.page 48 (PDF page 78), Figure 23 - Model for a four step confirmed service: The word "Manager" is missing from the upper right hand box and should be added after, "SCSI device Server or Task".

Accept

Maxtor # 45.page 76 (PDF page 106), I think that "...as measured in Annex subclause E.8." should be changed to "...(see E.8)."

Accept

Maxtor # 46.page 76 (PDF page 106), 7.1 SCSI parallel interface electrical characteristics overview, seventh paragraph (last on the page), first sentence: I think that, "In addition to the SCSI device electrical requirements defined in the remaining subclauses of this clause..." should be changed to, "In addition to the SCSI device electrical requirements defined in this clause..."

Accept; Changed to 'in clause 7' per ENDL comments.

Maxtor # 47.page 76 (PDF page 106), Figure 40 - Active negation current vs. voltage: For some reason the shaded portions of the diagram didn't come out as being shaded in my. PDF version. They should be shaded.

Accept

Maxtor # 48.page 86 (PDF page 116), 7.2.4 SE input and output characteristics, Note 15: This note just says to me, "Things work better if you design stuff good." The note could be deleted as this is obvious.

Reject.

Maxtor # 49.page 97 (PDF page 127), 7.3.4.1 Management of LVD release glitches, second paragraph, second sentence: The word "usage" should be changed to "use".

Accept

Maxtor # 50.page 103 (PDF page 133), 7.4.1 LVD/MSE multimode termination, fifth paragraph, first sentence: The phrase, "...for purposes of..." should be changed to, "...for the purpose of..." (unless there are other purposes not described here - if so, the other purposes should be described).

Accept

Maxtor # 51.page 103 (PDF page 133), 7.4.1 LVD/MSE multimode termination, Note 18: The term "hard ground" is used twice in this note. How is this different from ground? Does this mean earth ground?

Accept; Changed to hard-wired.

Maxtor # 52.page 108 (PDF page 138), 8.2 Signal descriptions, ATN: "ATTENTION" should not be capitalized.

Accept

Maxtor # 53.page 108 (PDF page 138), Table 39 - P_CRC signal usage requirements: There are a couple of empty boxes that could be removed from the table.

Accept

Maxtor # 54.page 111 (PDF page 141), LVD signals, second paragraph: I think we discussed the following for SPI-3: the terms "+ signal" and "- signal" are used in some places and "+ SIGNAL" and "- SIGNAL" in others. I don’t care which it is, but it should be the same throughout the document.

Accept; All figures use SIGNAL, all body text uses signal.

Maxtor # 55.page 113 (PDF page 143), Table 41 - SCSI bus control timing values: I don’t think the little note reference "b’s" should be underlined, nor should there be a little underline before them.

Accept

Maxtor # 56.page 118 (PDF page 148), Table 46 - SCSI Fast-160 timing budget template: "REQ/ACK period / 2" should be changed to "REQ(ACK) period / 2".

Accept

Maxtor # 57.page 118 (PDF page 148), Table 46 - SCSI Fast-160 timing budget template: In note (b), "cross-talk" should be changed to "crosstalk".

Accept

Maxtor # 58.page 121 (PDF page 151), 9.2.12 Flow control receive hold time and 9.2.13 Flow control receive setup time: What does, "Specified to ease receiver timing requirements." mean or add to this? Couldn’t this be deleted? Where something like this is included in other clauses, there is more meat to it (see 9.2.17 and 9.2.19). Even in those cases I think that they should be notes.

Accept; Deleted. This deletion was only applied to 9.2.12 and 9.2.13.

Maxtor # 59.page 124 (PDF page 154), 9.2.39 REQ (ACK) period, first paragraph, third sentence: The word "cross-talk" should be changed to "crosstalk" (this is the only other occurrence of this in the standard).

Accept

Maxtor # 60.page 128 (PDF page 158), 9.3.1 Measurement points overview, first paragraph, first sentence: The phrase, "...the following subclauses..." should be changed to "...in this clause..."

Accept

Maxtor # 61.page 128 (PDF page 158), 9.3.2 SE fast-5 and fast-10 measurement points, first paragraph, second sentence: This should be changed to, "The rise and fall times for the SE REQ and ACK signals shall..."

Accept

Maxtor # 62.page 134 (PDF page 164), 9.4.2 Paced transfers with precompensation enabled There are several places where it looks like there is a space between the "+" and "-" signs and the following number. This could be an artifact of the pdf process.

No Change. There are no spaces in the frame file.

Maxtor # 63.page 144 (PDF page 174), Figure 77 - System setup and hold timings for fast-160 DT paced transfers: There are line feeds missing between the text of the notes.

Accept; What are you talking about?

Maxtor # 64.page 146 (PDF page 176), Expected and unexpected bus free phases: This is a nit, but I think these should be separate subclauses (e.g., 10.2.1 and 10.2.2) under the BUS FREE phase clause.

Reject; Although in principal I agree with this, there are just too many references to 10.3 that would be to be examined and possibly changed. The chance of error is high. This could be looked at early in SPI-5 and changed there.

Maxtor # 65.page 147 (PDF page 177), 10.4.1 Arbitration and QAS overview, third paragraph, last sentence: I recommend that this be changed to, "Fairness is always enabled when QAS is enabled."

Accept

Maxtor # 66.page 148 (PDF page 178), 10.4.2 NORMAL ARBITRATION phase, item (4) in the bulleted list: The phrase "...an arbitration delay..." could be changed to "...one arbitration delay...".

Accept

Maxtor # 67.page 152 (PDF page 182), 10.5.3.1 Information unit transfers disabled or enabled, fifth paragraph, first sentence: I think this sentence should be change to something like, "The SCSI initiator port shall release the SEL signal and may change the DATA BUS any time after two system deskew delays have elapsed after the SCSI initiator port detects that BSY signal is true."

Accept: Change sentence to;The SCSI initiator port shall wait at least two system deskew delays after detecting that the BSY signal is true. The SCSI initiator port shall then release the SEL signal and may change the DATA BUS signals.

Maxtor # 68.page 155 (PDF page 185), 10.7.1 Information transfer phases overview, fourth paragraph, second sentence: The phrase, "...the REQ/ACK signals..." should be changed to "...the REQ and ACK signals...".

Accept

Maxtor # 69.page 157 (PDF page 187), 10.7.3.1 Synchronous transfer overview, third paragraph, first

sentence: The phrase, "...the following subclauses..." should be changed to "...in this clause..."

Accept

Maxtor # 70.page 162 (PDF page 192), 10.7.3.3.6 Data Group Pad field and pCRC field transfer to SCSI initiator port, sentence after the second bulleted list: The phrase, "...ended a data group." should be changed to "...ended a data group transfer."

Accept

Maxtor # 71.page 163 (PDF page 193), 10.7.3.3.7 Data Group Pad field and pCRC field transfer to SCSI target port, sentence after the second bulleted list: The phrase, "...ended a data group." should be changed to "...ended a data group transfer."

Accept

Maxtor # 72.page 164 (PDF page 194), 10.7.4.1 Paced transfer overview, seventh paragraph, first sentence: The phrase, "...the REQ/ACK signals..." should be changed to "...the REQ and ACK signals...".

Accept.

Maxtor # 73.page 167 (PDF page 197), 10.7.4.3.1 P1 data valid/invalid state transitions overview, first sentence of the first three paragraphs: The word, "...device..." should be change to the phrase, "...SCSI device port...".

Accept

Maxtor # 74.pages 188 through 191 (PDF page 218 through 221), Figures 85 through 88: There is an odd dotted line in each of these figures (going to MESSAGE OUT). Does this have some meaning I don't get or is it extra?

Accept; Changed the arrow to point all the way to the box outline.

Maxtor # 75.page 195 (PDF page 225), 14.3.2 SPI L_Q information unit, first paragraph, first sentence: There is an extra "to" between "unit" and "that" that should be deleted.

Accept

Maxtor # 76.page 196 (PDF page 226), 14.3.2 SPI L_Q information unit, Table 54 - TYPE: In the box in the third column, third row, there are two places where, "...SCSI target device..." should be changed to, "...SCSI target port...".

Accept; Changed all to either SCSI target device or SCSI initiator device.

Maxtor # 77.page 196 (PDF page 226), 14.3.2 SPI L_Q information unit, Table 54 - TYPE: In the boxes in the third column, rows two, three and six: should the last words in each sentence be changed to, "...SCSI device port..."?

Accept; Changed all to either SCSI target device or SCSI initiator device.

Maxtor # 78.page 211 (PDF page 241), 16.3.12 PARALLEL PROTOCOL REQUEST: I know that much of what was here before has been moved to clause 4, but, because it so important it is worth repeating, I would like to add back in a sentence like, "A PARALLEL PROTOCOL REQUEST message negotiation shall only be initiated by a SCSI initiator port."

Reject

Maxtor # 79.page 220 (PDF page 250), 17.1 Command processing considerations and exception conditions overview: The phrase, "...the following subclauses..." should be changed to "This clause..."

Accept

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Comments attached to YesC ballot from Mr. Richard Moore of QLogic Corp.:

QLOGIC LETTER BALLOT COMMENTS ON SPI-4R7:

1. "Asynchronous transfer" is defined in the glossary but not "synchronous transfer".

Accept: Added the following definition: An information transfer that uses a REQ/ACK offset other than zero and does not use pacing.

2. 4.12.1, second paragraph: Insert the word "messages" between "PPR, SDTR and WDTR" and "are called...". This is more consistent with usage elsewhere in the standard, where a message of type XXX is referred to as "XXX message" rather than just "XXX".

Accept

3. 4.12.2, second paragraph, beginning with "e.g.": This passage is too wordy, and could be shortened to, "e.g., if the originating port asks for a REQ/ACK offset of 32 and the responding port only supports a REQ/ACK offset of 16, then the responding port replies with an offset of 16", with no loss of meaning.

Accept

4. 4.12.3: The fifth and sixth paragraphs mention "default transfer agreement", which hasn’t been defined prior to this point. There should be a reference to Table 3, where this agreement is defined.

Accept

5. 4.12.3, Note 7: The last sentence is confusing. If an unexpected COMMAND phase notifies the initiator "that negotiation is required", why does it then say "so extra negotiation is not needed"?

Accept: Change the end of the note as follows: negotiation before each INQUIRY, REPORT LUNS, or REQUEST SENSE command is not needed.

6. Table 3: In the Message column, for TRANSFER WIDTH EXPONENT, the entry should read "PPR, WDTR".

Accept

7. Table 4: Replace "TRANSFER PERIOD OFFSET" with "TRANSFER PERIOD FACTOR".

Accept

8. Table 4: Including a separate row for "synchronous" (to include both ST and DT cases) is confusing, when transfer agreements for "ST synchronous" and "DT synchronous" are listed individually on the next two lines. For clarity, only the individual cases should be listed.

Reject

9. 4.12.4.5, second paragraph: Change "the only" to "then only".

Accept

10. Figures 12-21: Including the "reasons" in the third column of each figure can be confusing. Sometimes, it is an explanation of the response in the second column, such as "SCSI target port detected a parity error". At other times, the "reason" is a result, such as "successful negotiation". At still other times, it is a conclusion drawn by one device about the other, such as "SCSI target port faulty". Either better labeling is needed, such as "result" or "conclusion" in the last two cases, or the "reasons" should just be deleted.

Accepted: Deleted the word ‘reasons’.

11. Figures 12-21: Some of the third column entries describe actions beyond "SCSI initiator port response" or "SCSI target port response". These descriptions are redundant since they are described under "second response" in the following figure in each case.

Reject

12. Figure 21: "If every value port shall set its transfer agreement to the default transfer agreement" doesn’t make sense.

Accept; Changed to: SCSI initiator port should create an attention condition and originate an SDTR OUT with every value set to zero. If the initiator port does not create an attention condition, the initiator port shall set its transfer agreement to the default transfer agreement.

13. 9.2.2: The setup time is described for data groups and DT or paced information units, but it is not described for asynchronous and ST transfers (which use neither data groups nor information units).

Accept; Changed the sentence to ‘When information unit transfers are not being used’.

14. 9.2.3: The setup time is described for data groups and DT or paced information units, but it is not described for asynchronous and ST transfers (which use neither data groups nor information units).

Accept: Changed the sentence to ‘When information unit transfer are not being used,’.

15. 10.4.4, item (1) in the first list: "waits" should be "wait".

Accept

16. 10.7.3.3.6, item (6) in the first list: "without waiting for the previous ACK transition" is not correct wording. The previous ACK transition has already happened so not waiting for it is meaningless. If the intended meaning is, "without waiting for the ACK transition corresponding to the previous REQ transition", then we recommend this simplified wording: "without waiting for the synchronous offset to reach zero".

Accept

17. F.1, second paragraph: "SCSI initiator ports shall implement the basic integrity check method for physical layer integrity checking described in Annex N" does not seem to belong in this annex (Simple expander requirements). What’s more, Annex N is informative, so "shall" is inappropriate.

Accept: Deleted the paragraph and Annex N.

18. Paragraph 4 of G.5 "Communicative expander function structures" states incorrect data structure size of multiple function data buffer. The correct size is 176 (16-byte header plus ten 16-byte SEDB = 11*16 = 176).

Accept

19. Paragraph 1 of G.6.2.2 "CONTROL" identifies the data structure shown in Table G.7 "CONTROL data structure" as a SEDB (short expander descriptor block). However, since CONTROL is a single function, its data buffer should be a LEDB (long expander descriptor block).

Accept

20. No single function should require a USED bit, since each provides an EXPANDER ADDRESS in the data buffer and the INITIATOR ADDRESS in the function header (G.6.2 "Outbound single functions" and G.6.4 "Inbound single functions").

Reject - Your statement is true but single expander functions are processed the same way as multiple functions.

21. G.5 "Communicative expander function structures" states that, for outbound functions, the MODE field of the WRITE BUFFER command shall be set to write data, echo buffer or echo buffer plus enable ECP mode, and for inbound functions, the MODE field of the READ BUFFER command shall be set to write data, echo buffer or echo buffer plus enable ECP mode. However, G.6.1.1, G.6.2.1, G.6.3.1 and G.6.4.1 specify " a WRITE BUFFER command with the MODE field set to one of the values specified in table G.2" ("Expander functions"). The latter statement should be corrected by referencing the expander function code field of the expander function header ("Table G.1").

Accept

22. The paragraph ‘When QAS is enabled, the port may participate in QAS arbitrations when attempting to connect to a port that has enabled QAS. When QAS is enabled and information unit transfers are enabled for a connected SCSI target port, that SCSI target port may issue a QAS REQUEST message to release the bus after a DT DATA phase. When QAS is enabled and information unit transfers are disabled for a connected SCSI target port, that SCSI target port shall not issue QAS REQUEST messages.’ is unclear as to when a SCSI port may participate in a QAS.

Accept: Changed to:

When an initiator port and a target port have negotiated with each other to enable QAS, either of the two ports may participate in QAS arbitrations when attempting to connect to the other port. When an initiator port and target port have negotiated with each other to disable QAS, neither port shall participate in QAS arbitrations when attempting to connect to the other port.

When QAS and information unit transfers are both enabled for a connected SCSI target port, that SCSI target port may issue a QAS REQUEST message to release the bus after a DT DATA phase. When QAS is enabled for and information unit transfers are disabled for a connected SCSI target port, that SCSI target port shall not issue QAS REQUEST messages.

****

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

SPI-4 - TI Letter ballot comments Paul Aloisi

Definitions added

1. SCSI Terminator: The terminator is at each end of a SCSI bus segment. The terminator provides impedance match and biasing, holding the bus in a negated state when it is not driven.

Accept

2. 4.1 states This standard defines the cables, connectors, signals, transceivers, and protocol used to interconnect parallel SCSI devices and the services provided to the application client.

Change to: This standard defines the cables, connectors, signals, transceivers, Terminators, and protocol used to interconnect parallel SCSI devices and the services provided to the application client.

Accept

3. Add a paragraph after the second paragraph of 4.5

The SCSI protocol requires the bus to be held at a negated state when no drivers are active on the bus. The terminators hold the bus to a negated state when there are no active drivers on the bus and provide impedance matching.

Accept

4. 4.10 Figure 9 uses the term AAF, but it is not used or defined in the paragraphs just before the figure. Add to the first paragraph the following sentence. The optional receiver adjustment is known as Adaptive Active Filter (AAF).

Accept. The term AAF has been removed as it not used anywhere else in the document.

5. Figure 40 the shading is gone, the text refers to shaded and non shaded areas.

Accept

6. Table 33 note a It is recommended that implementors design capacitive loads to be as small as practical.

Change to: a It is recommended that implementors design capacitive loads to be balanced and as small as practical.

Accept

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

Not within our organization’s area of expertise

EMail comments

From the T10 Reflector (t10@t10.org) 10/31/2001, posted by: Katsumoto Onoyama <k-onoya@str.hitachi.co.jp>

I have A question about mode parameters of page 0x18 (protocol specific LUN page) and 0x19 (protocol specific port page).

In SPC-2 (Rev20) or SPC-3 (Rev00), PROTOCOL IDENTIFIER is described in BYTE 2 on both page 0x18 and 0x19.

But in SPI-4, PROTOCOL IDENTIFIER is NOT described (BYTE 2 is reserved) on page 0x18, and is described in BYTE 3 on page 0x19.

I think SPC is correct, and SPI has typo in description of PROTOCOL IDENTIFIER bits.

Accept: Protocol Identifier placed into byte 2.

****

Comments received by email from Mr.John Lohmeyer of LSI Logic:

1. G.2.4

The phrase "on the path to the SCSI target port" was deleted from the end of this definition and should be reinstated. Without this phrase, the definition is ambiguous. I understand the phrase was deleted

because it conflicted with the existing definition of 'path'. Therefore I suggest adding the following words to this sentence" "on the pathway to the SCSI target port".

Accepted

2. G.2.5

Similar issue as in comment #1. I suggest adding the following words to this sentence" "on the pathway to the SCSI initiator port".

Accepted

3. G.2.x

The definition for path was deleted because it conflicted with an existing definition of 'path. Add the following definition for 'pathway' and renumber the subsequent definitions:

"G.2.9 Pathway: The set of all bus segments and expanders between a SCSI initiator port and a SCSI target port."

Accepted

4. G.3

SEDB should be defined as Short Expander Descriptor Block (not Blocks). There are multiple places where SEDBs has been used as the plural for this acronym and there are places where the singular form should be used.

Accepted

5. G.5, fourth paragraph

The end of the first sentence should read "... ten 16-byte SEDBs.".

Accepted

6. Table G.2

Two references to subclauses are missing and one is wrong. Add G.6.3.4 as the subclause reference for the REPORT CURRENT STATUS expander function. Add G.6.4.3 as the subclause reference for the REPORT SAVED TRAINING CONFIGURATION VALUES expander function. Correct the EXPANDER INQUIRY expander function subclause reference to G.6.4.2.

Accepted

7. G.6.3.1, second paragraph, last sentence

The REPORT CURRENT STATUS expander function code was left out of this sentence. It should read: "...described in the MARGIN REPORT (see G.6.3.2), REPORT CAPABILITIES (see G.6.3.3), and REPORT CURRENT STATUS (see G.6.3.4) expander function codes."

Accepted

8. Table G.9

The SIGNAL GROUND BIAS fields were changed to DRIVER ASYMMETRY in table G.6 - MARGIN CONTROL SEDB. I assume this change should be propagated here. This affects three places: the Byte 2 and Byte 10 rows in the table and the first sentence below table G.9.

Accepted

9. G.6.3.2, first paragraph below table G.9

An entire sentence was omitted from the end of this paragraph. It should be added back in. The missing sentence is: "In this case, the initiator should set the USED bit to 1 in this SEDB before returning the data buffer to the application client."

Accepted

10. G.6.4.1, second paragraph, last sentence

The REPORT SAVED TRAINING CONFIGURATION VALUES expander function code was left out of this sentence. It should read: "...as described for the EXPANDER INQUIRY (see G.6.4.2) and REPORT CAPABILITIES (see G.6.3.3), and REPORT SAVED TRAINING CONFIGURATION VALUES (see G.6.4.3) expander function codes."

Accepted

11. G.6.5 EXPANDER INQUIRY

This subclause got an undue promotion. It should be subclause G.6.4.2.

Accepted

12. Table G.12

The EVPD field is omitted in this table. It should be bit 0 of byte 9.

Accepted

13. G.6.6 REPORT SAVED TRAINING CONFIGURATION VALUES

This subclause got an undue promotion. It should be subclause G.6.4.3.

Accepted

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Comments received by email from Mr. Daniel Smith of Seagate:

Table A.8 has a D.C. common mode value of 1.25mV (millivolts). This should be 1.25V (volts).

Accepted.

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