

SPI-5 Letter Ballot comments  
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1. (Clarification) Doesn't this section of the scope have to change without Multimode to exclude the electrical interface compatibility with SCSI-2?

Section 1 Scope

b) To provide compatibility such that conforming SCSI-2, SPI-2, SPI-3, SPI-4 devices may interoperate with SPI-5 devices given that the systems engineering is correctly done. Conforming SCSI-2, SPI-2, SPI-3, and SPI-5 devices should respond in an acceptable manner to reject SPI-5 protocol extensions. SPI-5 protocol extensions are designed to be permissive of such rejections and thus allow SCSI-2, SPI-2, SPI-3, and SPI-4 devices to continue operation without requiring the use of the extensions.

Add

b) To provide compatibility such that conforming SCSI-2 (Through a Single ended to LVD SCSI expander), SPI-2, SPI-3, SPI-4 devices may interoperate with SPI-5 devices given that the systems engineering is correctly done. Conforming SCSI-2, SPI-2, SPI-3, and SPI-5 devices should respond in an acceptable manner to reject SPI-5 protocol extensions. SPI-5 protocol extensions are designed to be permissive of such rejections and thus allow SCSI-2, SPI-2, SPI-3, and SPI-4 devices to continue operation without requiring the use of the extensions.

2. (Editorial?) Figure 22, Shouldn't SCSI Parallel Interface –4 Standard be changed to -5

3. (Editorial) Drop the last sentence in 5.1, this standard doesn't support single ended or multimode.

#### **5.1 SCSI parallel interface connectors overview**

Two types of connectors are defined: nonshielded and shielded. The nonshielded connectors are typically used within an enclosure. The shielded connectors are typically used for external applications where electromagnetic compatibility (EMC) and electrostatic discharge (ESD) protection may be required. ~~Either type of connector may be used with the single ended or differential transceivers.~~

4. (Clarification) Clauses 6.3.4 through 6.3.8 should reference PIP to test fixtures and procedures. The one general reference to annex E is not adequate in 6.3.1

Add the following sentence in 6.3.4 through 6.3.8

The test fixtures and test procedures for the measurements are found in the PIP standard.

5. (Editorial) This needs to be reworded, since there is no way to disable precomp in Fast-320

**9.4.3 Paced transfers with precompensation disabled on fast-160 and fast-320**

During paced transfers with a negotiated transfer rate of fast-160 ~~or fast-320~~ and precompensation disabled ~~or fast-320~~ receiving SCSI devices shall operate with signals that meet all the following requirements at the receiver.

6. (Editorial) **There are several references for distance called out in cm, the international standards for mechanical measurement should be in mm. This avoids confusion and errors, like 0.5 cm should be 5 mm.**

7. (Clarification) **Table 1 needs to be expanded to give a better understanding of the changes in technology.**

Transceiver Type	Data Latching (ST/DT)	Maximum transfer rate							
		Asyn c	Fast- 5	Fast- 10	Fast- 20	Fast- 40	Fast- 80	Fast- 160	Fast- 320
SE	ST	yes	yes	yes	yes	no	no	no	no
MSE	ST	yes	yes	yes	yes	no	no	no	no
LVD	ST	yes	yes	yes	yes	yes	no	no	no
	DT	no	no	SPI-3	SPI-3	SPI-3	yes	Paced	Paced

SE = Single ended transceivers, MSE = multimode single ended transceivers,

LVD = Low Voltage differential transceivers.

ST = Single Transition clocking on the falling edge of REQ or ACK.

DT = Double Transition clocking on both the falling and rising edge of REQ or ACK.

SPI-3 and beyond allows DT clocking for speeds of Fast-10 or greater.

Paced = Paced data transfer mode reduces the protocol overhead with packetized commands and messages, Quick Arbitration and selection, Free running clock, training pattern, skew compensation and ISI compensation.