

From: Richard Moore  
 Date: Monday, October 18, 1999  
 Subject: SPI-3 letter ballot comments

The following are my comments for the SPI-3 letter ballot.

Figure 46: Note 4 says, "VA or VN are required to drive the 100 mV at the leading edge of the transition. Those signals shall be at least |100 mV| for at least  $t_m$  before and after the transition." First, putting absolute value symbols around a positive number does not change the value of that number. I believe the intended wording is, "The absolute value of those signals shall be at least 100 mV..." Second, it is not clear whether this requirement is on the receiver or on the signal. Is this intended to constrain the system design so that signals not meeting this requirement never occur, or is it intended to constrain the receiver design so that signals meeting this requirement produce a guaranteed response by the receiver? Third, if the signal achieves the 100 mV magnitude, then drops below 100 mV magnitude, then rises above 100 mV magnitude again, all during a single tar or taf period, which crossing of 100 mV magnitude is used for the start of the  $t_m$  measurement?

Figure 47: Same comment as for Figure 46.

Section 9.3.3, text below Figure 47 on p. 94,: Again, the absolute value symbols are being misused, in "Signals shall remain above the |100 mV| level..." and "The signals shall not drop below |30 mV|..."

Section 10.4.1, paragraph 7: Change "physical reconnected" to "physically reconnected". Revision 10 already fixed one instance in the second sentence of this paragraph, but there is a second instance in the third sentence. Also, delete "basically" from "basically reconnected" (or change it to "physically reconnected" if that was intended) in this same sentence.

Section 12.1, list item (h): The meaning of the phrase "between SPI information units" is unclear where data stream information units are concerned. This is because the last ACK of the first information unit may occur after the first REQ of the second information unit.

Figures 55-58: In transitioning from a SPI information unit to a MESSAGE IN or MESSAGE OUT phase, is it always appropriate for the path to travel through a logical disconnect, as shown? For example, if the message is INITIATOR

DETECTED ERROR, shouldn't the logical connection for the message be the same as for the SPI information unit that preceded it?

Annex A, Table A.1: If the minimum terminator bias is 100 mV, and device leakage of up to 20 uA is allowed, then the minimum VN of 100 mV for OR-tied signals cannot be met under these conditions.