T10/98-197r0 Zane Daggett Hitachi Cable Manchester July 6, 1998

As a cable manufacturer I have some concerns about SPI-3. I have never brought these to light before mainly because I was not involved with attending these meetings when SPI and SPI-2 were being developed. I have outlined my proposed changes below.

Under Definitions: Fast-5 through 40 is listed. Shouldn't Fast-80 also be included?

Table 14 under Section 6.2

Today's market is leaning towards VHCDI connectors. 28 AWG is ref. a few times. I feel that some type of caution needs be noted about the inability to terminate 28 AWG to VHDCI and still meet the electricals of SCSI Fast-20 and higher.

Table 15

Table Heading SE Characteristic Impedance. The term "Characteristic Impedance" implies a type of measurement method that conflicts with SE. Therefore I recommend we remove the term Characteristic.

Table 16

Table Heading Differential Characteristic Impedance. The term "Characteristic Impedance" implies a type of measurement method that conflicts with one method of Differential Impedance. Therefore I recommend we remove the term Characteristic.

The use of N/A should be dropped from this table. If you are looking for values I can easily provide these numbers.

Section 6.2 calls out a statement for Attenuation. With increase speeds that are being required for Fast 20 and higher I recommend attenuation testing be required for a range of frequencies. i.e. Testing cable using an network analyzer at 5, 10, 20, 40, 80 and even 160 MHz. One point test of 5 MHz is not enough to fully understand the reliability of a cable. Impedance should also be tested over a range of frequencies rather than some given time measurement. I would like to see Impedance testing be changed to include testing over a range of frequencies using an Impedance Analyzer.

Annex F:

This entire annex should be dropped and a new testing procedure guideline be developed to include attenuation testing and impedance testing over a range of frequencies. It might not be a bad idea to include capacitance.