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**Subject: Proposal for LVD maximum bus path length between terminators for Fast-160 to be included in SPI-4**

## Introduction

Since it has been demonstrated that Fast-160 can operate with sufficient margin in systems with 25 meters of cable, the following details what needs to be included in SPI-4 to specify this. This is constructed as a “drop-in” replacement clause in the standard.

The clause referenced in this proposal is relative to the draft standard SCSI Parallel Interface – 3 (SPI-3) revision 13a. That document is available at <ftp://ftp.t10.org/t10/drafts/spi3/spi3r13a.pdf>.

## 6.8 Cables used with LVD transceivers

Balanced interconnect media (e.g., twisted-planar, discrete wire twisted pairs, matched printed circuit board traces) should be used with LVD transceivers.

NOTE 6 - Use of unbalanced media such as planar untwisted construction typically produces higher crosstalk than balanced constructions but may be used if all electrical requirements are met.

The maximum distance between terminators when using LVD transceivers shall be as defined in table 13.

**Table 13 - LVD maximum bus path length between terminators**

Interconnect	Maximum bus path length between terminators (meters) (note 1)					
	Fast-5	Fast-10	Fast-20	Fast-40	Fast-80	Fast-160
Point-to-point interconnect	25	25	25	25	25	25
Multidrop interconnect	12	12	12	12	12	12
Note: 1 For environments where all elements of the bus (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 and SCSI device count (see note 10 in 7.2.4).						