

### 3.1 Definitions

Adaptive Active Filter: A receiver that compensates for the high frequency roll off of the bus segment.

### 3.2 Symbols and Abbreviations

Define AAF: Adaptive Active Filter

#### 6.3.7 Differential attenuation

The attenuation requirements for differential attenuation are specified in table 18.

**Table 18 - Attenuation requirements for SCSI bulk cable**

| Distance between SCSI bus segment terminators (m) | Attenuation per m maximum (dB) DC to 200 MHz | Attenuation of length equivalent to terminator to terminator distance maximum (dB) DC to 200 MHz | Distances are consistent with these minimum size conductors when used with high quality dielectrics | Notes                  |
|---|--|--|---|------------------------|
| 0 to 9 <sup>a</sup>                               | 0,63 <sup>c</sup>                            | 6 <sup>c</sup>   | 0,032 4 mm <sup>2</sup> (32 AWG) solid/<br>0,050 92 mm <sup>2</sup> (30 AWG) stranded               | multiple loads allowed |
| 0 to 12 <sup>d</sup>                              | 0,48 <sup>c</sup>                            | 6 <sup>c</sup>   | 0,050 92 mm <sup>2</sup> (30 AWG) solid/<br>0,080 42 mm <sup>2</sup> (28 AWG) stranded              | multiple loads allowed |
| >12 to 25 <sup>b</sup>                            | 0,48   | 12   | 0,050 92 mm <sup>2</sup> (30 AWG) solid/<br>0,080 42 mm <sup>2</sup> (28 AWG) stranded              | point to point only    |

<sup>a</sup> Twist and flat cable for Fast-320 is restricted to 2 meters (limited by crosstalk) or additional testing using the PIP, Passive Interconnect Performance standard.  
<sup>b</sup> Fast-320 restricts the length to 20 meters or additional testing using the PIP standard.  
<sup>c</sup> These number apply to speeds up to and including Fast-160, PIP defines multiple loads interconnect testing for Fast-320.  
<sup>d</sup> Fast-320 restricts the lengths to 10 meters.

## Section 6.6 Cables used with LVD Transceivers

Table 20

**Table 20 - LVD maximum bus segment path length between terminators Interconnect**

| <b>Maximum bus segment path length between terminators (m) <sup>a, b</sup></b> |                 |                 |                 |                 |                 |                 |                 |
|--|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
|  | <b>Fast-5</b>   | <b>Fast-10</b>  | <b>Fast-20</b>  | <b>Fast-40</b>  | <b>Fast-80</b>  | <b>Fast-160</b> | <b>Fast-320</b> |
| Point-to-point interconnect  | 25              | 25              | 25              | 25              | 25              | 25              | 20 <sup>d</sup> |
| Point-to-point Twist and Flat  | NP <sup>e</sup> | NP <sup>e</sup> | NP <sup>e</sup> | NP <sup>e</sup> | NP <sup>e</sup> | NP <sup>e</sup> | 3               |
| Multidrop interconnect <sup>f</sup>  | 12              | 12              | 12              | 12              | 12              | 12              | 10              |
| Multidrop twist and flat cable   | NP <sup>e</sup> | NP <sup>e</sup> | NP <sup>e</sup> | NP <sup>e</sup> | NP <sup>e</sup> | NP <sup>e</sup> | 2 <sup>c</sup>  |

<sup>a</sup> 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.  
<sup>b</sup> The maximum bus segment path lengths are achievable only if the receiver mask requirements are met (see 9.4).  
<sup>c</sup> twist and flat cable current technology  
<sup>d</sup> 20 meters round cable, twist and flat cable is 3 meters. (GOP add a row for this)  
<sup>e</sup> NP Not previously defined  
<sup>f</sup> Cable based

Backplane lengths are not specified by this standard, see PIP for performance requirements on backplanes.