

Terminator Specification

- Termination Specs versus bus operations
 - Terminators need to be specified for worst case
 - Uncompressed image information - data all ones
 - Power - 1.44 Watts Narrow, 1.9 Watts wide
 - Regulator current - 450 mA Narrow, 675 mA wide
 - Sink current for Active Negation - 200 mA Narrow, 300 mA wide
 - Resistance over actual Junction temperatures
 - Minimum current specs. 20 mA at 0.2 V
 - Except for short buses <0.3 meters.
- Terminators must meet the 20 mA minimum with 12 lines asserted on a narrow bus, 20 lines asserted on a wide bus and 37 lines asserted on a 32 bit bus.

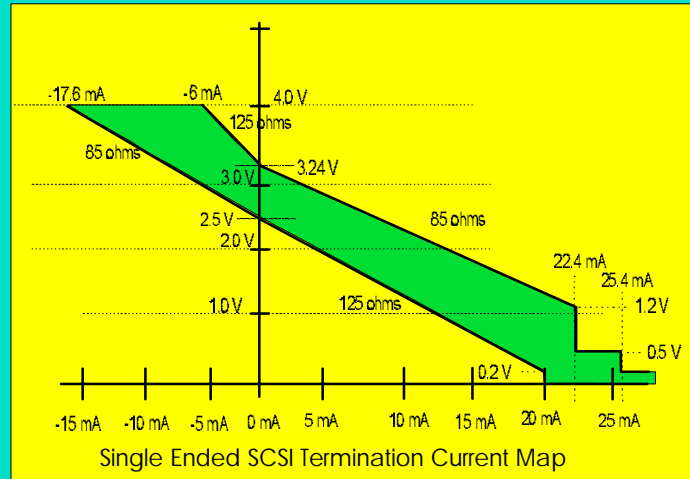
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Terminator Specifications

- Terminator impedance
 - Dean Wallace proposed 45 ohms
 - This is too low, on an unloaded cable this will produce a reflected wave that can causing reclocking.
 - 85 ohms minimum with maximum impedance cable will product the maximum size reflect wave that can be tolerated.

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SCSI Single Ended Termination



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Current Termination Issue

- Some of the current terminations do not have adequate gate drive for a 4 Volt signal.
 - The internal charge pump has head room for 3 Volts, but not 4 Volts.
 - Effect, above 3 Volts the switch on resistance is a factor since these were not designed for 4 Volts.
 - Increase the impedance limit at 4 Volts to 152 ohms.
 - The maximum drive voltage for Fast-20 is 3.24 Volts.

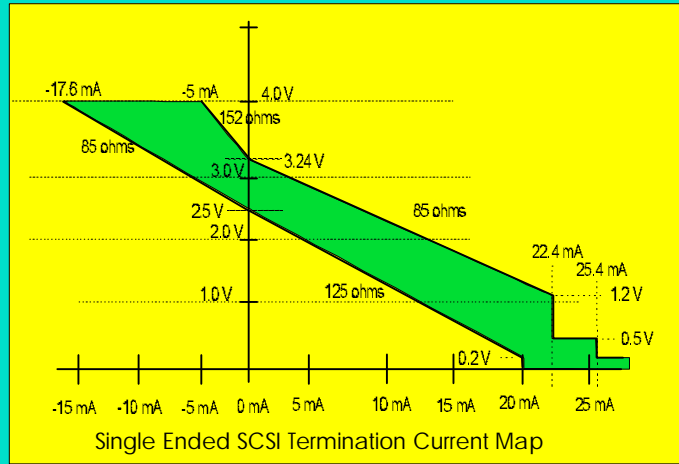
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Proposed Single Ended Termination



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