SCSI

EE 475 Homework #5
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Primary Application: I/O of storage devices.

Specification Comparison:

	SCSI-1	SCSI-2	Ultra	Ultra Wide	Ultra 2
Connector	50 pin low density	50 pin high density	50 pin high density	68 pin high density	68 pin high density
Bits, Data Rate	8 bit, 5 MB/sec	8 bit, 10 MB/sec	8 bit, 20 MB/sec	16 bit, 40 MB/sec	16 bit, 80 MB/sec
Cable length for single-ended devices	6 meters	3 meters	3 meters	3 meters for 3 or less devices, 1.5 meters for 4 or more devices	12 meters
Max number of Devices	8	8	4	8	16
Bus sync. Freq.	Asynch.	10 MHz	20 MHz	20 MHz	40 MHz

These specifications assume use of a high quality cable with a characteristic impedance between 90 and 100 Ohms.

Most SCSI devices are single-ended, but can be differential. Differential devices are incompatible with single-ended devices and much more expensive, but allow a maximum cable length of 25 meters.

Most current applications of SCSI use a parallel interface, but newer specifications of SCSI allow for serial interface.

The given SCSI processor operates on a voltage range of 4.75-5.25 Volts. The processor also has an approximate transition time of 0.5 ns and a knee frequency of 500 MHz.