

SCSI

SCSI: Small computer systems interface. A very widely used high data rate general purpose parallel interface. A maximum of eight devices can be connected to one bus, for example a controller, and up to **seven disks** or devices of different sorts-- Winchester disks, optical disks, tape drives, etc.--and may be **shared between several computers.**

SCSI specifies a cabling standard (50-way), a protocol for sending and receiving commands and their format. It is intended as a **device-independent** interface so the host computer needs no details about the peripherals it controls. But with **two versions (single ended and balanced), two types of connectors and** numerous variations in the level of implementation of the interface, SCSI devices cannot "plug and play" on a computer with which they have not been tested. Also, with total bus cabling for the popular single ended configuration **limited to 18 feet (6 meters)**, all devices must be close.

SCSI is popular and has continued development over a **number of years resulting in the following range of maximum transfer rates:**

Standard SCSI
Fast SCSI
Ultra SCSI

5 Mbps (max.)

10 Mbps (max.)

20 Mbps (max.)

For each of these there is the 8-bit normal "narrow" bus (1 byte per transfer) or the 16-bit Wide bus (2 bytes per transfer), so **Wide Ultra SCSI could transfer data at a maximum rate of 40 Mbps.** Note that **these are peak rates. Continuous rates will be considerably less.** Also, achieving this will depend on the performance of the connected device

Differential SCSI

: An electrical signal configuration where information is sent simultaneously through sets of wires in a cable. Information is interpreted by the difference in voltage between the wires. Differential interfaces permit cable lengths up to 75 feet (25 meters).

Single-Ended SCSI

: An electrical signal configuration where information is sent through one wire in a cable. Information is interpreted by the change in the voltage of the signal. Single-ended interfaces permit cable lengths up to 18 feet (6 meters).