

SCSI Connectors and SCSI Cable information
SCSI Terms, SCSI specifications - SCSI cable length specs

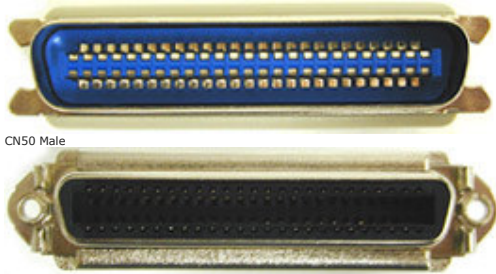
The Connectors:

IDC50
50 Pin Header



IDC 50 pin female, mates to IDC50 male "header", used on SCSI-1, SCSI-2, Ultra SCSI "narrow" etc. All internal 50-conductor "8-bit" SCSI uses these connectors.

CN50



Centronics C50 sometimes referred to as CN50, Cent50 (External connector on many SCSI-1 and some SCSI-2 Controllers) The controller connector and peripherals connectors should be females, and the cables male.

DB25



DB25 Male
SCSI-1
Used with the older Macs, Zip drives, and many scanners.

HD50



HD50 Male (Mini D50 HPDB50 SCSI-2/SCSI-3 external connector) . The easy way to tell the difference between an HD50 and an HD68 (unless you want to count those tiny little pins) is to measure them. HPDB50 is about 1 3/8" (36mm) , and the HPDB68 is about 1 7/8" (47mm)

HD68



HD68 Male (MiniD68 HPDB68 Ultra wide SCSI-3/ Ultra2 LVD SCSI/ wide Differential SCSI both internal and external) The internal and external connectors appear to be different, but they are the same basic connector. The easy way to tell the difference between an HD50 and an HD68 (unless you want to count those tiny little pins) is to measure them. HD50 is about 1 3/8" (36mm) , and the HD68 is about 1 7/8" (47mm).

VHDCI



VHDCI male
VHDCI 0.8mm HPCN68 male- Sometimes called SCSI-5. Very popular in RAID cards.

HDI-30

HDI-30 is for Apple Macintosh PowerBooks.

HPCN50 Used in Japan, on several Digital cameras and things.



HPCN50 pin (rare)

DB50



DB50 Male

SCSI-1

Usually used on old Sun Sparcstations.



DB50 Female

DB37



Male DB37

SCSI-1



Female DB37

HDCN60



(Mini Centronics 60 HDCN60 - old IBM RS6000)

We don't carry these cables anymore

The SCSI Types Bus lengths, devices supported, etc.

Much more info on SCSI Cable lengths and "gotchas" below the chart STA (SCSI Trade Association) -Endorsed Terms & Terminology for SCSI Parallel Interface Technology. see here for term descriptions

STA Terms (notes-see below)	Bus Speed, MBytes/Sec. Max.	Bus Width, bits	Max. Bus Lengths, Meters ⁽¹⁾			Max. Device Support
			Single-ended	LVD	HVD	
SCSI-1 ⁽²⁾	5	8	6	⁽³⁾	25	8
Fast SCSI ⁽²⁾	10	8	3	⁽³⁾	25	8
Fast Wide SCSI	20	16	3	⁽³⁾	25	16
Ultra SCSI ⁽²⁾	20	8	1.5	⁽³⁾	25	8
Ultra SCSI ⁽²⁾	20	8	3	-	-	4
Wide Ultra SCSI	40	16	-	⁽³⁾	25	16
Wide Ultra SCSI	40	16	1.5	-	-	8
Wide Ultra SCSI	40	16	3	-	-	4
Ultra2 SCSI ^(2,4)	40	8	⁽⁴⁾	12	25	8
Wide Ultra2 SCSI ⁽⁴⁾	80	16	⁽⁴⁾	12	25	16
Ultra3 SCSI or Ultra160 SCSI ⁽⁶⁾	160	16	⁽⁴⁾	12	⁽⁵⁾	16
Ultra320 SCSI ⁽⁶⁾	320	16	⁽⁴⁾	12	⁽⁵⁾	16

Notes:

- The listed maximum bus lengths may be exceeded in Point-to-Point and engineered applications.
- Use of the word "Narrow", preceding SCSI, Ultra SCSI, or Ultra2 SCSI is optional.
- LVD was not defined in the original SCSI standards for this speed. If all devices on the bus support LVD, then 12-meters operation is possible at this speed. However, if any device on the bus is single-ended only, then the entire bus switches to single-ended mode and the distances in the single-ended column apply.
- Single-ended is not defined for speeds beyond Ultra.
- HVD (Differential) is not defined for speeds beyond Ultra2.
- After Ultra2 all new speeds are wide only.

The Cable Length Rules*

(In case you're not confused yet)

A short simplified guide to scsi cable lengths.

Type of SCSI	"Single-ended" (Regular) SCSI bus length	"Differential" SCSI bus length	LVD SCSI bus length ⁺⁺ (ULTRA2 OR ULTRA160)
5 MHz (SCSI-1)	6 meters	25 meters	-

10 MHz (SCSI-2 FAST, Fast / Wide SCSI)	3 meters	25 meters	-
20 MHz (Ultra SCSI, Ultra Wide SCSI or "Fast20")	3 meters (3 devices + host adapter) or 1.5 meters (4 devices + host adapter)*	25 meters	-
40 MHz (Ultra2, Ultra160, U320 SCSI or "Fast40")	-	-	12 meters

***please note:** "Ultra" SCSI cable lengths are severely limited! The maximum cable length is ten feet when four devices (*including* the host adapter) or less are on the bus. If five devices are used (four devices and your host adapter), then the maximum bus length is 1.5 meters (five feet!). †Knocking Ultra2 or U160 chains out of LVD mode by putting "Legacy" Single Ended (regular Ultra scsi, etc) devices on the chain will give you the same cable length restrictions as Ultra scsi. Watch it!!