invent

hp SCSI legacy cables: high voltage differential and signle-ended cabling

performance

The SCSI (Small Computer System Interface) interface has been the workhorse of the server, workstation, peripheral and storage market for nearly 15 years. SCSI has a long and proven history in the computing industry.

SCSI has evolved continuously through the years. As SCSI technology evolved, it moved from single-ended (SE) signaling to differential signaling (high voltage differential) which provided for faster speeds, longer cables lengths (up to 25m) and system noise immunity. While the technology has advanced beyond high voltage differential (HVD) and SE signaling, HP provides a full line of cable products to support and protect your existing investment.

- speed: maximum burst bandwidth of 40 Mb/sec
- increased device connectivity: HVD and SE SCSI can connect up to 16 devices
- return on Investment: while SE and HVD SCSI are slower than newer SCSI technologies, legacy products are still viable options
- forward compatible: as more power performance is needed, SCSI devices can be integrated seamlessly into newer SCSI environments
- maximum cable lengths: HVD offers the maximum SCSI bus lengths of 25 meters and SE offers a maximum bus length of 6 meters covering the distance needs of most enterprise workgroups, as well as small and mid-sized businesses

HP HVD and SE SCSI cables are compatible with server or mass storage devices. HP HVD and SE cables are:

- designed and tested to specifically connect your Hewlett-Packard computing devices, insuring 100% compatibility
- designed to stringent specifications
- highest quality cable assemblies for your system

quality and compatibility

- HP designs and tests all cables to meet and exceed industry standards specifications
- meets ANSI/EIA/TIA standards
- superb 360 degree shielding to reduce data corruption from radiated emissions, electromagnetic interference (EMI) and electrostatic discharge (ESD)
- specific mapping of pins within the cable to reduce cross-talk
- contains strain relief to withstand breakage and cable damage
- features thumbscrews for secure connections and easy installation

hp advantage

- guaranteed compatibility with your HP computing equipment
  - reduce down time
- maximize investment by utilizing existing equipment and accommodates device upgrades
- price performance
  - high quality for a reasonable price

ordering considerations

There are a couple of items that have to be taken into consideration when specifying your SCSI cable order.

Connector style: Check the connector type on the both devices you intend to connect. Make sure that the connector styles on both ends of the cable match the connector styles on the devices you want to connect.

Mode of operation: Since its introduction in the 1980's, the speed and amount of data that can be transferred over a SCSI data cable has also evolved. Verify that the mode of operation for the devices is compatible. Multimode cables will operate in LVD, HVD or SE signaling. However, HVD devices cannot operate on the same bus as LVD or SE devices.

The most common acronyms for the generations of SCSI technology as well as the maximum bus lengths and maximum number of devices supported under the standard are listed below.

common acronym	bus width	mode of operation	speed	max clock speed	SCSI architecture	max transfer rate	max bus length	max number of devices
NSE	Narrow	SE	Normal	5 MHz	SCSI-1	5 MB/s	6	8
NSE or FSE	Narrow	SE	Fast	10 MHz	SCSI-2	10 MB/s	3	8
FND	Narrow	HVD	Fast	10 MHz	SCSI-2	10 MB/s	25	8
WSE	Wide	SE	Fast	10 MHz	SCSI-2	20 MB/s	3	16
FWD	Wide	HVD	Fast	10 MHz	SCSI-2	20 MB/s	25	16
UWSE	Wide	SE	Ultra	20 MHz	SCSI-2	40 MB/s	1.5/3	8/4
UWD	Wide	HVD	Ultra	20 MHz	SCSI-2	40 MB/s	25	16
U2D	Wide	LVD	Ultra2	20 MHz	SCSI-2	80 MB/s	12	8
U2WD	Wide	LVD	Ultra2	40 MHz	SCSI-2	80 MB/s	12	16
U3	Wide	LVD	Ultra3	80 MHz	SCSI-3	160 MB/s	12	16

Note: SE=single-ended, HVD=high voltage differential, LVD=low voltage differential, NSE=narrow single-ended, FSE=fast single-ended, FND=fast narrow differential, WSE=wide single-ended

In choosing a cable, be aware that LVD SCSI supports a total bus length of 12 meters. Be sure to include the internal device and external SCSI cable lengths in the overall SCSI bus length calculation.

guaranteed compatibility, reliability, and performance

products

product number	technology	connector	gender	length
92222B SCSI Cable	SE	LDBL50	M/M	1m
C2900A SCSI Cable	SE	LDBL50	M/F Ext	3m
K2296 SCSI Cable	SE	HDTS50/LDBL50	M/M Adptr	1m
C2915A SCSI Cable	SE	HDTS68/LDBL50	M/M Adptr	1m
C2955A SCSI Cable	HVD	HDTS50	M/M	.5m
C2908A SCSI Cable	HVD	HDTS50	M/M	1m
C2957A SCSI Cable	HVD	HDTS50	M/M	2m
C2958A SCSI Cable	HVD	HDTS50	M/M	5m
C7531A SCSI Cable	HVD	HDTC50	M/M	3m
C2961A SCSI Cable	HVD	HDTS68/HDTS50	M/M Adptr	1m
C2906A SCSI Cable	HVD	HDTS68/HDTS50	M/M Adptr	2m
C2907A SCSI Cable	HVD	HDTS68/HDTS50	M/M Adptr	5m
C2367A SCSI Cable	HVD	VHDTS68/HDTS50	M/M Adptr	1m
C2368A SCSI Cable	HVD	VHDTS68/HDTS50	M/M Adptr	2.5m
C7523A SCSI Cable	HVD	VHDTS68/HDTS68	M/F Ext	.5m
C7544A SCSI V Cable	HVD	HD/HD/HDTS68	M/M/M	2m
A5607A SCSI V Cable	HVD	VHD/VHD/HDTS68	M/M/M	2m
A5609A SCSI V Cable	HVD	HD/VHD/HDTS68	M/M/M	2m
A5608A SCSI V Cable	HVD ILT	VHD/VHD ILT/HDTS68	M/M/M	2m
A5610A SCSI V Cable	HVD ILT	HD/VHD ILT/HDTS68	M/M/M	2m
C2980A SCSI Cable	HVD ILT	HDTS68	M/F Ext	.5m
C7554A SCSI Cable	HVD ILT	HDTS68	M/M	5m
C7555A SCSI Cable	HVD ILT	HDTS68	M/M	10m
C7519A SCSI Cable	HVD ILT	VHDTS68/HDTS68	M/F Ext	.5m
C5766A SCSI Cable	HVD ILT	VHDTS68/HDTS68	M/M Adptr	5m
C5767A SCSI Cable	HVD ILT	VHDTS68/HDTS68	M/M Adptr	10m

Connector style Terms: BL = bail lock, TS = thumb screw, M = Male, F = Female, 50 = 50 pin, 68 = 68 pin
*Can be ordered with an OD1 option for factory integration

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