



Making SCSI Work™

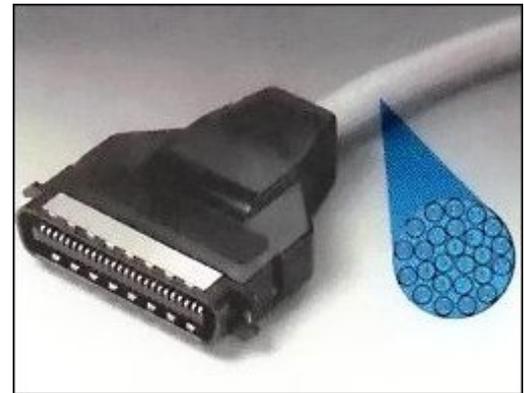
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SCSI Quiet Cable™

- Premium Cable for Reliable SCSI Performance
- Specified and Tested for Slow, Fast, Ultra, Ultra2, Ultra160 and Ultra320 SCSI Applications
- Wired to Minimize Induced Signal Noise
- Used in Testing Devices for FCC and CE Acceptance

Pinouts:

- **50-pin SE and HVD**
- **68-pin SE and HVD**
- **68-pin LVD/MSE**



SCSI Quiet Cable™ is designed to give maximum performance in all single-ended and differential (HVD and LVD) Slow, Fast, Ultra, Ultra2, Ultra3 and Ultra4 SCSI applications.

For reliable system performance, SCSI cable must meet ANSI specifications, which define both electrical and physical parameters. An example is cable pair position within the cable, with signal pairs around the outside and control pairs in the center.

Using Paralan's SCSI Quiet Cable™ virtually eliminates cables as a problem in getting a SCSI subsystem running reliably and at full data throughput.

All cables meet the ANSI X3T10 standards, and are CE and FCC Class A tested.

For a discussion of SCSI cable characteristics, please read [The Case for Quiet Cable](#) and [SCSI Cables: More than a Couple of Connectors and a Few Pieces of Wire](#) at this site. Each Paralan SCSI Quiet Cable™ consists of a shielded cable with 25 (or 34 for wide SCSI) twisted pairs of conductors and two connectors which may be SCSI-1, SCSI-2, SCSI-3, or a combination. The shield is electrically connected to the metal shell of each connector and is isolated from all other signal wires and the connector pins.

Cable pair impedance is maintained at 123 ohms, closely matching SCSI termination and thus reducing the potential for reflections. The cabling used for Paralan SCSI Quiet Cable™ is a high grade UL and CSA-approved, shielded cable consisting of 25 or 34 twisted pairs of multistranded 28 gauge flexible copper wire. Signals are placed within the cable at specified locations to improve noise immunity and to decrease signal crosstalk. The pin numbers and mnemonics of the Paralan cable used are detailed in our [cable tables \(50-conductor for SE and HVD Interface, 68-conductor for SE and HVD Interface, 68-conductor for LVD/MSE SCSI \)](#).

For more information on SCSI cabling be sure to check out the SCSI White Paper "[Cable Cautions](#)" an excerpt from "Making SCSI Work" written by Paralan Staff.

Paralan now has a SCSI cable tester (benchtop model) that makes short work of verifying cable performance. The [Model ST123 SCSI Cable Tester](#) checks for **twisted pair integrity, pin-to-pin continuity, shorts, opens, and more.**

Plus the *hand-held* SCSI Cable Tester, Model ST1000, for testing cable assemblies made to SCSI specifications.

Fast, inexpensive and simple to use!

[PDF version of this data sheet.](#)

Specifications For SCSI Quiet Cable™:

<p>Electrical Characteristics Max. Operating Voltage: 150 Vrms Max. Continuous Current per Conductor @ 25°C: 500 mA Nom. Capacitance between Conductors @ 1 kHz: 10 pF/ft Nom. Conductor dc Resistance @ 20°C: 67 ohms /1000 ft</p> <p>Nominal Impedance of Pair: 123 ohms (TDR) differential Propagation Delay: 1.54 nS/ft max Pair to Pair Propagation Delay: 0.04 nS/ft max Attenuation: 4 dB/100 ft max @ 10 MHz</p> <p>Connectors: See connector pinout and housing drawings below.</p>	<p>Physical Characteristics Temperature Rating: -20 to +60°C Insulation Material: Flame retardant PP .034"dia. Jacket Material (Color): PVC (Lt. Gray) Type Shield and % Coverage: Aluminum/polyester overtape wrapped cable - 100% T.C. braid - 85% min. coverage 36 AWG tinned copper over tape shield</p> <p>Twisted Pair: Left hand lay Applicable Specifications: UL type CL2, CSA PCC FT4 Nominal Diameter 0.415±0.015" - 25 pair cable (See pinout table)</p> <p style="padding-left: 40px;">0.460±0.015" - 34 pair cable (See pinout table)</p> <p>Conductor: 28-7/36 AWG tinned copper .015" nom. dia. Drain Wire: 28-7/36 AWG tinned copper between shields</p>
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Ordering Guide Paralan SCSI Quiet Cable™, for Single-ended and Differential (HVD and LVD) SCSI-1, -2 and -3 SCSI Applications.

Ordering Guide for CABLES IN FEET
 (To order SCSI Quiet Cables™ in meters, see metric ordering guide below)

Model No.	SQ_____	_____	_____
Connector Type (male unless stated otherwise):			
SCSI-1 (Alt. 2 - A Cable) - Centronics type	0	0	
DB 50 (non-SCSI standard)	1	1	
SCSI-2 (Alt. 1 - A Cable) - 50-pin High Density	2	2	
50-pin Centronics Female with Bail Socket	4	4	
50-pin High Density Female SCSI-2 (Pin & Socket) Latch Fastener	5	5	
SCSI-3 (Alt. 3 - P Cable) - 68-pin High Density	9	9	
68-pin High Density Female SCSI-3 (Pin & Socket) Latch Fastener	A	A	
68-pin High Density SCSI-3 (Pin & Socket) Latch Fastener	C	C	
68-pin High Density Female SCSI-3 (Pin & Socket) Screw Fastener	D	D	
50 Pin Centronics with 4/40 Male Screws	F	F	
68 Pin High Density 90° Backshell - Pin 1 On Exit End-Latch	G	G	
68 Pin High Density 90° Backshell - Pin 68 On Exit End-Latch	H	H	
SCSI-2 90° Backshell (50-pin High-Density, latch fasteners, cable exit pin 1 end)	J	J	
SCSI-2 90° Backshell (50-pin High-Density, latch fasteners, cable exit pin 50 end)	K	K	
50 Pin Centronics 90° Backshell - Pin 1 On Cable Exit End	L	L	
50 Pin Centronics 90° Backshell - Pin 50 On Cable Exit End	M	M	
SCSI-3 90° Backshell (68-pin High-Density, Jackscrew fasteners, cable exit pin 1 end)	N	N	
SCSI-3 90° Backshell (68-pin High-Density, Jackscrew fasteners, cable exit pin 68 end)	P	P	
50 Pin High Density with 2-56 Thumb Screws	R	R	
68 Pin VHDCI Connector w/45° Backshell - Cable Exit Pin 1 End	U	U	
VHDCI (68-pin very High-Density, Jackscrew fasteners, cable exit offset)	V	V	
68 Pin VHDCI Connector w/45° Backshell - Cable Exit Pin 68 End	W	W	
Connector#1-----	----		

Connector#2 -----	-----	---		
Length in Feet -----	-----	-----	-----	001-160

- Example: Part No. SQ02 - 015: Paralan SCSI Quiet Cable™ with SCSI-1 (Alt. 2-A, centronics type) connector on one end and SCSI-2 50-pin High Density (Alt. 1 - A) connector on the other, 15 feet long.

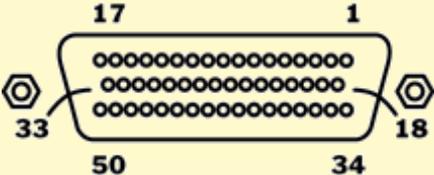
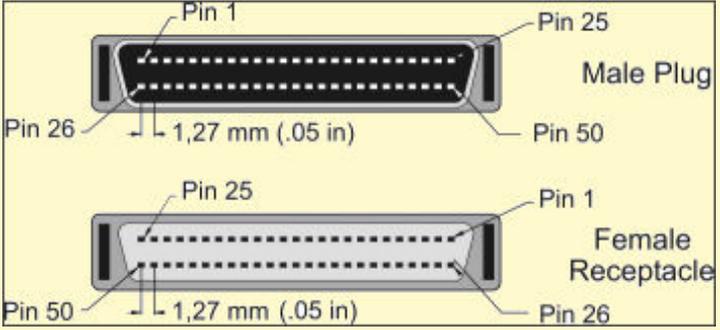
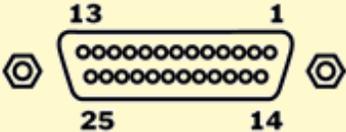
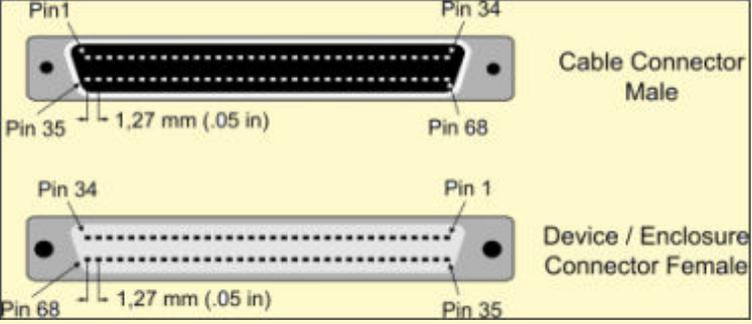
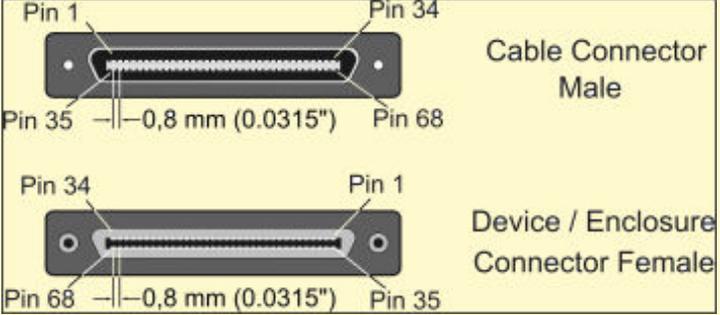
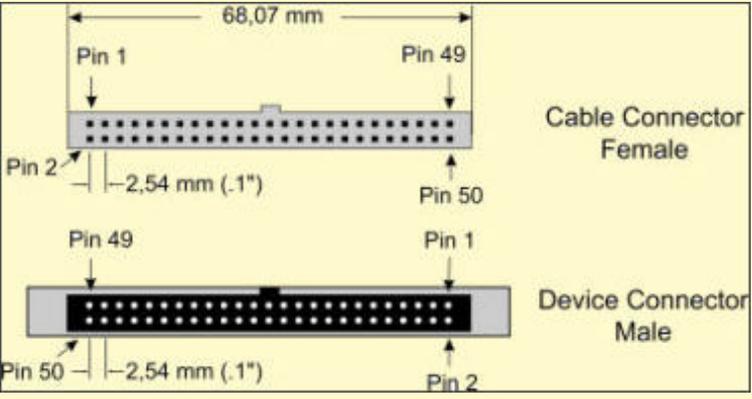
Ordering Guide for CABLES IN METERS
(To Order SCSI Quiet Cables™ in feet, see previous ordering guide)

Model No.	SQ____	____-	M____
Connector Type (male unless stated otherwise):			
SCSI-1 (Alt. 2 - A Cable) - Centronics type	0	0	
DB 50 (non-SCSI standard)	1	1	
SCSI-2 (Alt. 1 - A Cable) - 50-pin High Density	2	2	
50-pin Centronics Female with Bail Socket	4	4	
50-pin High Density Female SCSI-2 (Pin & Socket) Latch Fastener	5	5	
SCSI-3 (Alt. 3 - P Cable) - 68-pin High Density	9	9	
68-pin High Density Female SCSI-3 (Pin & Socket) Latch Fastener	A	A	
68-pin High Density SCSI-3 (Pin & Socket) Latch Fastener	C	C	
68-pin High Density Female SCSI-3 (Pin & Socket) Screw Fastener	D	D	
50 Pin Centronics with 4/40 Male Screws	F	F	
68 Pin High Density 90° Backshell - Pin 1 On Exit End-Latch	G	G	
68 Pin High Density 90° Backshell - Pin 68 On Exit End-Latch	H	H	
SCSI-2 90° Backshell (50-pin High-Density, latch fasteners, cable exit pin 1 end)	J	J	
SCSI-2 90° Backshell (50-pin High-Density, latch fasteners, cable exit pin 50 end)	K	K	
50 Pin Centronics 90° Backshell - Pin 1 On Cable Exit End	L	L	
50 Pin Centronics 90° Backshell - Pin 50 On Cable Exit End	M	M	
SCSI-3 90° Backshell (68-pin High-Density, Jackscrew fasteners, cable exit pin 1 end)	N	N	
SCSI-3 90° Backshell (68-pin High-Density, Jackscrew fasteners, cable exit pin 68 end)	P	P	
50 Pin High Density with 2-56 Thumb Screws	R	R	
68 Pin VHDCI Connector w/45° Backshell - Cable Exit Pin 1 End	U	U	
VHDCI (68-pin very High-Density, Jackscrew fasteners, cable exit offset)	V	V	
68 Pin VHDCI Connector w/45° Backshell - Cable Exit Pin 68 End	W	W	
Connector #1 -----	----		
Connector#2 -----	-----	----	
Length in Meters -----	-----	-----	0.5-50

- Example: Part No. SQ09 - M12: Paralan SCSI Quiet Cable™ with SCSI-1 (Alt. 2 - A cable) connector on one end and SCSI-3 (Alt. 3 - P cable) connector on the other, 12 m long.

SCSI BUS CONNECTORS

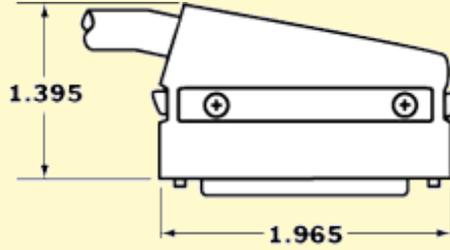
Description	Connector	Paralan "Quiet Cable" Option No.
<p>This 50-contact, centronics-type is used for Slow, Fast or Ultra, 8-bit Narrow SCSI applications. Frequently called the "SCSI-1 Connector". The SCSI spec terms it the "Alternative 2, A-cable connector".</p>		0

<p>This DB-50 pin-and-socket connector is not recognized by the SCSI specifications. Used on older Sun and DG computers for 8-bit Narrow SCSI applications.</p>		<p>1</p>
<p>Known as the 50-pin high-density SCSI connector. This pin-and-socket connector is also called the "SCSI-2 Connector". The SCSI recognized version has "latch" type fasteners. Used for 8-bit Narrow SCSI devices. The SCSI spec terms it the "Alt 1, A-cable connector".</p>		<p>2</p>
<p>This pin-and-socket DB25 connector was used on Apple computers, devices directed at the Apple market and some older Sun workstations. Not recognized by the SCSI specs. SCSI systems with this connector must be limited to Slow data rates and be no more than 4 or 5 feet long.</p>		<p>3</p>
<p>Known as the 68-pin high-density SCSI connector. This pin-and-socket connector is also called the "SCSI-3 Connector". The SCSI recognized version has "thumbscrew" fasteners. A few SCSI devices have used the "latch" version. Used for 16-bit Wide SCSI devices. The SCSI spec terms it the "Alt 3, P-cable connector".</p>		<p>9</p>
<p>This 68-contact is known as the "VHDCI" SCSI connector. Its very small size allows fitting up to 4 of them on the mounting bracket on the back of a PCI or ISA bus card. The SCSI spec terms it the "Alt 4, P-cable connector".</p>		<p>V</p>
<p>This SCSI-1 and SCSI-2, 50 contact IDC is normally used with ribbon cable internally. There is no backshell for this connector. It may be used externally on one end of a round cable, however, the wire will be exposed at the connector.</p>		<p>X</p>

These drawings are not to scale, but their relative sizes are approximately correct.

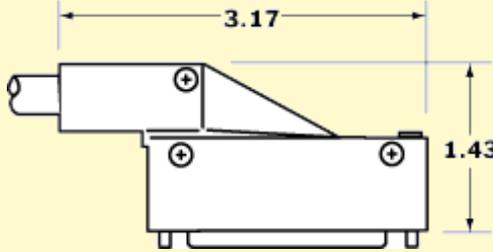
90° BACKSHELL CONNECTOR HOUSINGS

50-pin High-Density 90° Backshell Connector (male) with Latch Fasteners



J
(Cable exit pin 1 end)
K
(Cable exit pin 50 end)

68-pin High-Density 90° Backshell Connector (male) with Jackscrew Fasteners



N
(Cable exit pin 1 end)
P
(Cable exit pin 68 end)

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