SPECIFICATIONS SHC68-C68-D4

Shielded, Single-Ended Cable for High-Speed Digital Devices

This document lists the specifications for the SHC68-C68-D4. Specifications in this document are nominal unless otherwise noted. Specifications are subject to change without notice. Refer to *ni.com/manuals* the most recent specifications.



Caution Do not exceed the operating specifications for the device connected to the SHC68-C68-D4. Refer to the documentation for your high-speed digital device for the warranted, maximum operating temperature, additional environmental requirements, and pinouts.

The SHC68-C68-D4 is available with the following options and lengths:

- 0.55 m (781013-01)
- 1 m (196275-01)
- 1 m low leakage¹ (152870-01)
- 2 m (781293-01)

Visit *ni.com/info* and enter the Info Code D4COMPATIBILITY for a list of devices and accessories that are compatible with the SHC68-C68-D4.

Electrical Specifications

Maximum voltage

±30 VDC

Specification	0.55 m	1 m and 1 m Low-Leakage ¹	2 m
Characteristic impedance	50 Ω ±10%	50 Ω ±10%	50 Ω ±10%
Resistance	0.3 Ω	0.5 Ω	1 Ω
Capacitance	60 pF	100 pF	200 pF
Propagation delay	2.7 ns	4.9 ns	9.6 ns
Channel-to-channel skew	50 ps	50 ps	75 ps

¹ The PCB surfaces of low-leakage cables are cleaned of contaminants during manufacturing, reducing induced current leakage.



Physical Characteristics

Weight	
0.55 m	175 g (6.2 oz)
1 m and 1 m low leakage	255 g (9.0 oz)
2 m	435 g (15.3 oz)
Wire gauge	
Size	0.032 mm ² (32 AWG)
Stranding	7/0.08 mm (7/40)
I/O connectors	68-pin male VHDCI connector (x2)
I/O channels	40 single-ended channels

Safety

This product is designed to meet the requirements of the following electrical equipment safety standards for measurement, control, and laboratory use:

- IEC 61010-1, EN 61010-1
- UL 61010-1, CSA 61010-1

Worldwide Support and Services

The NI website is your complete resource for technical support. At *ni.com/support*, you have access to everything from troubleshooting and application development self-help resources to email and phone assistance from NI Application Engineers.

Visit *ni.com/services* for NI Factory Installation Services, repairs, extended warranty, and other services.

Visit *ni.com/register* to register your NI product. Product registration facilitates technical support and ensures that you receive important information updates from NI.

NI corporate headquarters is located at 11500 North Mopac Expressway, Austin, Texas, 78759-3504. NI also has offices located around the world. For telephone support in the United States, create your service request at *ni.com/support* or dial 1 866 ASK MYNI (275 6964). For telephone support outside the United States, visit the *Worldwide Offices* section of *ni.com/niglobal* to access the branch office websites, which provide up-to-date contact information, support phone numbers, email addresses, and current events.

Refer to the *NI Trademarks and Logo Guidelines* at ni.com/trademarks for information on NI trademarks. Other product and company names mentioned herein are trademarks or trade names of their respective companies. For patents covering NI products/technology, refer to the appropriate location: **Help**»**Patents** in your software, the patents.txt file on your media, or the *National Instruments Patent Notice* at ni.com/trademarks. Other product and company names mentioned herein are trademarks or trade names of their respective companies. For patents covering NI products/technology, refer to the appropriate location: **Help**»**Patents** in your software, the patents.txt file on your media, or the *National Instruments Patent Notice* at ni.com/atents. You can find information about end-user license agreements (EULAs) and third-party legal notices in the readme file for your NI product. Refer to the *Export Compliance Information* at ni.com/ legal/export-compliance for the NI global trade compliance policy and how to obtain relevant HTS codes, ECCNs, and other import/export data. NI MAKES NO EXPRESS OR IMPLIED WARRANTIES AS TO THE ACCURACY OF THE INFORMATION CONTAINED HEREIN AND SHALL NOT BE LIABLE FOR ANY ERRORS. U.S. Government Customers: The data contained in this manual was developed at private expense and is subject to the applicable limited rights and restricted data rights as set forth in FAR 52.227-14, DFAR 252.227-7014, and DFAR 252.227-7015.

© 2016 National Instruments. All rights reserved.