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Signal Sources Accessories and Cables

Accessory and Cable Selection Guide

Step 1. Find your selected signal source in Table 1, 2, or 3 below.

Step 2. From that table, determine which accessories are available for use with your selected signal source (Table 4 provides a brief description of accessories and page numbers for more detailed information).

Step 3. Next, pinpoint the appropriate cables for use with your selected source based on the accessory you have chosen.

	Accessory		
	SCB-68	TBX-68	CA-1000[1]
Device	Cables		
NI 5411	SHC50-68	SHC50-68	SHC50-68
NI 5431	SHC50-68	SHC50-68	SHC50-68

Table 1. AWG and FG Accessory Selection Guide

	Accessory			
	SCB-68 TBX-68	CB-68 CB-68LPR	BNC-2110	CA-1000[1]
Device	Cables			
NI 6711	SH68-68-EP SH68-68-R1	R6868	SH68-68-EP	SH68-68-EP SH68-68-R1
NI 6713	SH68-68-EP SH68-68-R1	R6868	SH68-68-EP	SH68-68-EP SH68-68-R1
NI 6715	SHC68-68-EP SHC68U-68-EP	--	–	SHC68-68-EP SHC68U-68-EP
NI 6703	SH68-68-D1	R6868	–	SH68-68-D1
NI 6704	SH68-68-D1	R6868	–	SH68-68-D1

Table 2. Analog Output Accessory Selection Guide

	Accessory		
	CB-50, CB-50LP	CB-27	CA-1000[2]
Device	Cables		
DAQCard-AO-2DC	PSH27-50F-D1	PR27-30F	PSH27-50F-D1

Table 3. DAQCard-AO-2DC Accessory Selection Guide

Accessory	Decription	Page
BNC-2110	Shielded BNC connector block	387
CA-1000	Configurable connector accessory	341
SCB-68	Shielded connector block	387
TBX-68	DIN-rail connector block	387
CB-68LP	Low-cost connector block	388
CB-68LPR	Low-cost connector block	388
CB-27	Low-cost connector block	389
CB-50	Low-cost connector block	388
CB-50LP	Low-cost connector block	388

For complete and up-to-date information about accessories, visit **ni.com/catalog**

Table 4. Overview of Accessories

[1]With the CA-1000, you must also purchase either the SCB-68 or the CB-68LPR. See page 341 for more details on configuring a CA-1000.
[2]With the CA-1000, you must also purchase the CB-50LP. See page 341 for more detail on configuring a CA-1000.

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Signal Sources Accessories and Cables

I/O Connector Blocks

BNC-2110 Connector Block (see Figure 1)

The BNC-2110 is a shielded connector block with signal-labeled BNC connectors for easy connectivity of your analog output, digital I/O, and counter/timer signals to your simultaneous analog output device.

Dimensions – 20.3 by 11.2 by 5.5 cm (8.0 by 4.4 by 2.2 in.)

BNC-2110 777643-01



Figure 1. BNC-2110 I/O Connector Block

SCB-68 Shielded I/O Connector Blocks (see Figure 2)

The SCB-68 is a shielded I/O connector block giving you rugged, very low-noise signal termination. The SCB-68 also houses silk-screened component locations for easy addition of simple signal conditioning circuitry for your analog output channels.

Dimensions – 19.5 by 15.2 by 4.5 cm (7.7 by 6.0 by 1.8 in.)

SCB-68.....776844-01



Figure 2. SCB-68 Shielded I/O Connector Blocks

CA-1000 Custom Connectivity Enclosure (see Figure 3)

The CA-1000 is a configurable enclosure that gives you user-defined connectivity and flexibility through customized panelettes. Each enclosure can accommodate up to 9 panelettes. See page 341 for more information on the CA-1000.

Dimensions – 30.7 by 25.4 by 4.3 cm (21.1 by 10.0 by 1.7 in.)

TBX-68 I/O Connector Block with DIN-Rail Mounting (see Figure 4)

Termination accessory with 68 screw terminals for easy connection of field output signals to 68-pin DAQ devices. Includes one 68-pin male connector for direct connection to 68-pin cables. The TBX-68 is mounted in a protective plastic base with hardware for mounting on a standard DIN rail. Dimensions – 12.50 by 10.74 cm (4.92 by 4.23 in.)

TBX-68.....777141-01



Figure 3. CA-1000 Custom Connectivity Enclosure

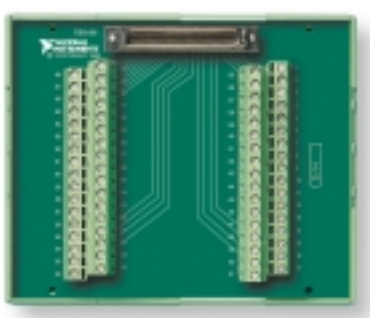


Figure 4. TBX-68 I/O Connector Block

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Signal Sources Accessories and Cables



Figure 5. CB-68LP I/O Connector Block

CB-68LP and CB-68LPR I/O Connector Blocks (see Figures 5 and 6)

Low-cost termination accessory with 68 screw terminals for easy connection of field output signals to analog output devices. Includes one 68-pin male connector for direct connection to 68-pin cables. The connector blocks include standoffs for use on a desktop or for mounting in a custom panel. The CB-68LP has a vertical mounted 68-pin connector. The CB-68LPR has a right-angle mounted connector, and is used with the CA-1000.

CB-68LP dimensions – 14.35 by 10.74 cm (5.65 by 4.23 in.)

CB-68LPR dimensions – 7.62 by 16.19 cm (3.00 by 6.36 in.)

CB-68LP 777145-01

CB-68LPR 777145-02

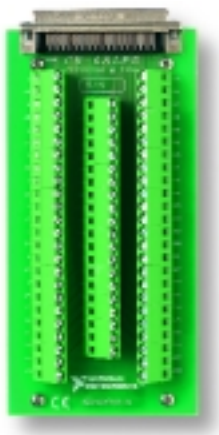


Figure 6. CB-68LPR I/O Connector Block

CB-50 I/O Connector Block with DIN-Rail Mounting (see Figure 7)

Termination accessory with 50 screw terminals for easy connection of field output signals. Includes one 50-pin header for direct connection to 50-pin cables. The CB-50 includes a protective plastic base and hardware for mounting on either a standard DIN-rail, or flush on a wall or panel. Dimensions – 13.5 by 7.3 cm (5.3 by 2.9 in.)

CB-50 776164-90



Figure 7. CB-50 I/O Connector Block

CB-50LP I/O Connector Block (see Figure 8)

Termination board with 50 screw terminals for easy connection of field output signals. Includes one 50-pin header for direct connection to 50-pin cables. The CB-50LP includes metal standoffs for use on a desktop or for mounting on a custom panel.

Dimensions – 13.26 by 7.19 cm (5.22 by 2.83 in.)

CB-50LP 777101-01



Figure 8. CB-50LP I/O Connector Block

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Signal Sources Accessories and Cables

CB-27 I/O Connector Block (see Figure 9)

Portable connector block with 28 screw terminals for easy connection of field output signals to the DAQCard-AO-2DC. Includes one 30-pin header for direct connection to a PR27-30F orR30-30 cable. The CB-27 is housed in a protective plastic enclosure.

CB-27 777100-01



Figure 9. CB-27 I/O Connector Block

Arbitrary Waveform and Frequency Generator Cables

SMB 110 Cable (see Figure 10)

SMB male to BNC female, 50 W coaxial cable for use with the NI 5431.

1 m 763405-01



Figure 10. SMB100 Cable

SMB300 Cable (see Figure 11)

SMB male to alligator clip for use with the NI 5401, NI 5411, and NI 5431.

1 m 763388-01



Figure 11. SMB300 Cable

SHC50-68 Cable (see Figure 12)

Digital cable for connection to generic 68-pin accessories. Use the SHC50-68 to connect the NI 5411 and NI 5431 to the SCB-68 and TBX-68 connector blocks.

50 cm 184748-0R5
1 m 184748-01
2 m 184748-02



Figure 12. SHC50-68 Cable

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Signal Sources Accessories and Cables

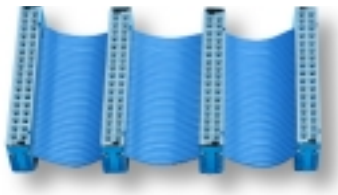


Figure 13. RTSI Bus Cable



Figure 14. Extended RTSI Bus Cable



Figure 15. SH68-68-EP Shielded Cable



Figure 16. SH68-68R1

RTSI Bus Cables (see Figures 13 and 14)

Use RTSI cables to connect timing and synchronization signals among measurement, vision, motion, and CAN boards. For systems with long and short boards working together, use the extended RTSI cable.

2 boards 776249-02
3 boards 776249-03
4 boards 776249-04
5 boards 776249-05
Extended, with 5 connectors.....777562-05

Shielded I/O Cables

SH68-68-EP (see Figure 15)

Shielded 68-conductor cable terminated with two 68-pin female 0.050 series D-type connectors. Features individually shielded analog twisted pairs for reduced crosstalk with high-speed devices. This cable works with all NI 671x Family devices.

1 m.....184749-01

SH68-68R1 (see Figure 16)

Similar to SH6868 except one end terminates with a right-angle 68-pin female 0.050 series D-type connector.

1 m.....185785-01

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Signal Sources Accessories and Cables

SH68-68-D1

Similar to the SH6868 cable but dedicated for use with the NI 670x analog output devices.

1 m.....183432-01
2 m.....183432-02

SHC68-68-EP (see Figure 17)

Shielded cable for connecting and latching the NI 6715 to standard 68-pin accessories. Latching screws secure the shielded connector to the DAQCard itself for stability. Use the SHC68-68-EP for a DAQCard located in the bottom PCMCIA slot of a laptop.

50 cm 186838-0R5
1 m.....186838-01



Figure 17. SHC68-68-EP

SHC68U-68-EP

Same as SHC68-68-EP, except the DAQCard side connector is inverted to allow two latching DAQCards to be used concurrently. Use this cable with a DAQCard inserted in the upper PCMCIA slot in your laptop.

50 cm 186838-0R5
1m 186838-01



Figure 18. PSH27-50F-D1

PSH27-50F-D1 (see Figure 18)

Shielded cable that connects to a DAQCard-AO-2DC and is terminated with a 50-pin female connector that attaches directly to 50-pin accessories.

50 cm 776989-0R5
1 m 776989-01

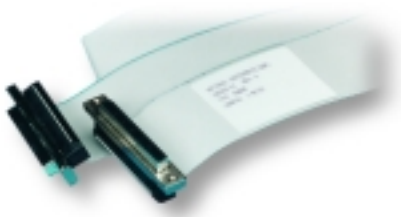


Figure 19. R6868 Ribbon Cable

Ribbon I/O Cables

R6868 Ribbon Cable (see Figure 19)

68-conductor flat ribbon cable terminated with two 68-pin connectors. Use this cable to connect the NI 670x and NI 671x analog output devices to low-cost 68-pin accessories.

1 m 182482-01



Figure 20. PR27-30F

PR27-30F (see Figure 20)

Ribbon cable that connects to a DAQCard-AO-2DC and is terminated with a 30-pin female connector that attaches directly to a 30-pin accessory, such as the CB-27.

50 cm 777131-005
1 m 777131-01

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