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PCI-6733

NOTE TO USERS

NI 67xx Pinout Labels for the SCB-68A


Analog Output Modules/Devices Using the 68-Pin Shielded Connector Block

If you are using an NI 67xx (formerly referred to as AO Series) analog output device or module with the SCB-68A, you can print and attach a connector-specific pinout label to the cover of the connector block for easy connection reference. This document provides labels for the following models:

- NI 6703
- NI 6704
- NI 6711
- NI 6713
- NI 6715
- NI 6722
- NI 6723
- NI 6731
- NI 6733
- NI 6738
- NI 6739

Use the following label if you are connecting the SCB-68A to the NI 6703 model.

Figure 1. NI 6703



Analog

68	AO GND 0
34	AO 0 (V)
67	NC
33	AO GND 1
66	AO 1 (V)
32	NC
65	AO GND 2
31	AO 2 (V)
64	NC
30	AO GND 3
63	AO 3 (V)
29	NC
62	AO GND 4
28	AO 4 (V)
61	NC
27	AO GND 5
60	AO 5 (V)
26	NC

Analog

59	AO GND 6
25	AO 6 (V)
58	NC
24	AO GND 7
57	AO 7 (V)
23	NC
56	AO GND/NC*
22	AO 8 (V)
55	AO GND 8
21	NC
54	AO 9 (V)
20	AO GND 9
53	NC
19	AO GND/NC*
52	AO 10 (V)
18	AO GND 10

Analog

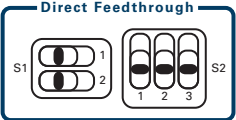
51	NC
17	AO 11 (V)
50	AO GND 11
16	NC
49	AO GND 12
15	AO 12 (V)
48	NC
14	AO GND 13
47	AO 13 (V)
13	NC
46	AO GND 14
12	AO 14 (V)
45	NC
11	AO GND 15
44	AO 15 (V)
10	NC

**Analog/
Digital**

1	+5V
35	D GND/NC*
2	P0.0
36	D GND
3	P0.1
37	D GND
4	P0.2
38	RESERVED
5	P0.3
39	D GND
6	P0.4
40	RESERVED
7	P0.5
41	D GND
8	P0.6
42	D GND
9	D0.7
43	AO GND/NC*

SCB-68A Quick Reference Label
NI 6703 AO Series


Direct Feedthrough



*: Connected to Ground on NI 6703; No Connect (NC) on SH68-68-D1 cable.

Use the following label if you are connecting the SCB-68A to the NI 6704 model.

Figure 2. NI 6704



Analog

68	AO GND 0/16
34	AO 0 (V)
67	AO 16 (I)
33	AO GND 1/17
66	AO 1 (V)
32	AO 17 (I)
65	AO GND 2/18
31	AO 2 (V)
64	AO 18 (I)
30	AO GND 3/19
63	AO 3 (V)
29	AO 19 (I)
62	AO GND 4/20
28	AO 4 (V)
61	AO 20 (I)
27	AO GND 5/21
60	AO 5 (V)
26	AO 21 (I)

Analog

59	AO GND 6/22
25	AO 6 (V)
58	AO 22 (I)
24	AO GND 7/23
57	AO 7 (V)
23	AO 23 (I)
56	AO GND/NC*
22	AO 8 (V)
55	AO GND 8/24
21	AO 24 (I)
54	AO 9 (V)
20	AO GND 9/25
53	AO 25 (I)
19	AO GND/NC*
52	AO 10 (V)
18	AO GND 10/26

Analog

51	AO 26 (I)
17	AO 11 (V)
50	AO GND 11/27
16	AO 27 (I)
49	AO GND 12/28
15	AO 12 (V)
48	AO 28 (I)
14	AO GND 13/29
47	AO 13 (V)
13	AO 29 (I)
46	AO GND 14/30
12	AO 14 (V)
45	AO 30 (I)
11	AO GND 15/31
44	AO 15 (V)
10	AO 31 (I)

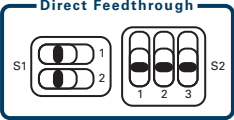
**Analog/
Digital**

1	+5V
35	D GND/NC*
2	P0.0
36	D GND
3	P0.1
37	D GND
4	P0.2
38	RESERVED
5	P0.3
39	D GND
6	P0.4
40	RESERVED
7	P0.5
41	D GND
8	P0.6
42	D GND
9	D0.7
43	AO GND/NC*

SCB-68A Quick Reference Label

NI 6704 AO Series


Direct Feedthrough



*: Connected to Ground on NI 6704; No Connect (NC) on SH68-68-D1 cable.

Use the following label if you are connecting the SCB-68A to the NI 6711/6731 models.

Figure 3. NI 6711/6731



Analog

68	NC
34	AO GND
67	AO GND
33	NC
66	AO GND
32	AO GND
65	NC
31	AO GND
64	AO GND
30	NC
63	AO GND
29	AO GND
62	NC
28	NC
61	AO GND
27	AO GND
60	NC
26	AO GND

**Analog/
Digital**

59	AO GND
25	AO 3
58	AO GND
24	AO GND
57	AO 2
23	AO GND
56	AO GND
22	AO 0
55	AO GND
21	AO 1
54	AO GND
20	AO EXT REF
53	D GND
19	P0.4
52	P0.0
18	D GND

Digital

51	P0.5
17	P0.1
50	D GND
16	P0.6
49	P0.2
15	D GND
48	P0.7
14	+5V
47	P0.3
13	D GND
46	NC
12	D GND
45	EXT STROBE
11	PFI 0
44	D GND
10	PFI 1

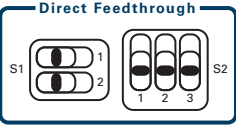
Digital

1	FREQ OUT
35	D GND
2	CTR 0 OUT
36	D GND
3	PFI 9/CTR 0 GATE
37	PFI 8/CTR 0 SOURCE
4	D GND
38	PFI 7
5	PFI 6/AO STARTTRIG
39	D GND
6	PFI 5/AO SAMP CLK
40	CTR 1 OUT
7	D GND
41	PFI 4/CTR 1 GATE
8	+5V
42	PFI 3/CTR 1 SOURCE
9	D GND
43	PFI 2

SCB-68A Quick Reference Label

NI 6711/6731 AO Series

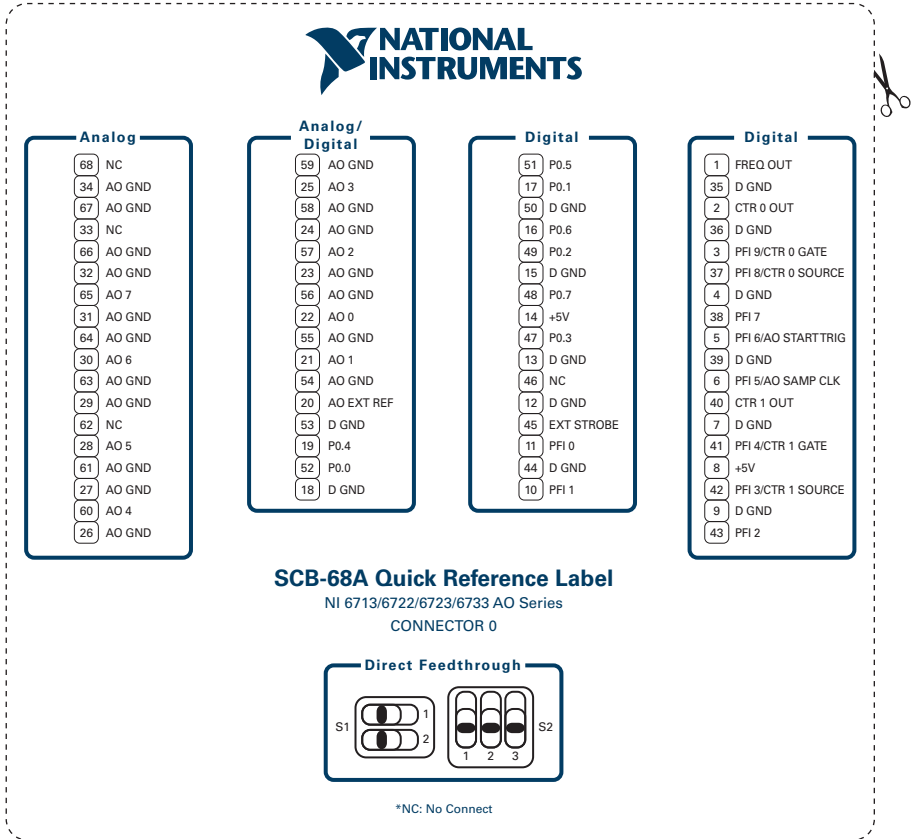
Direct Feedthrough



*NC: No Connect

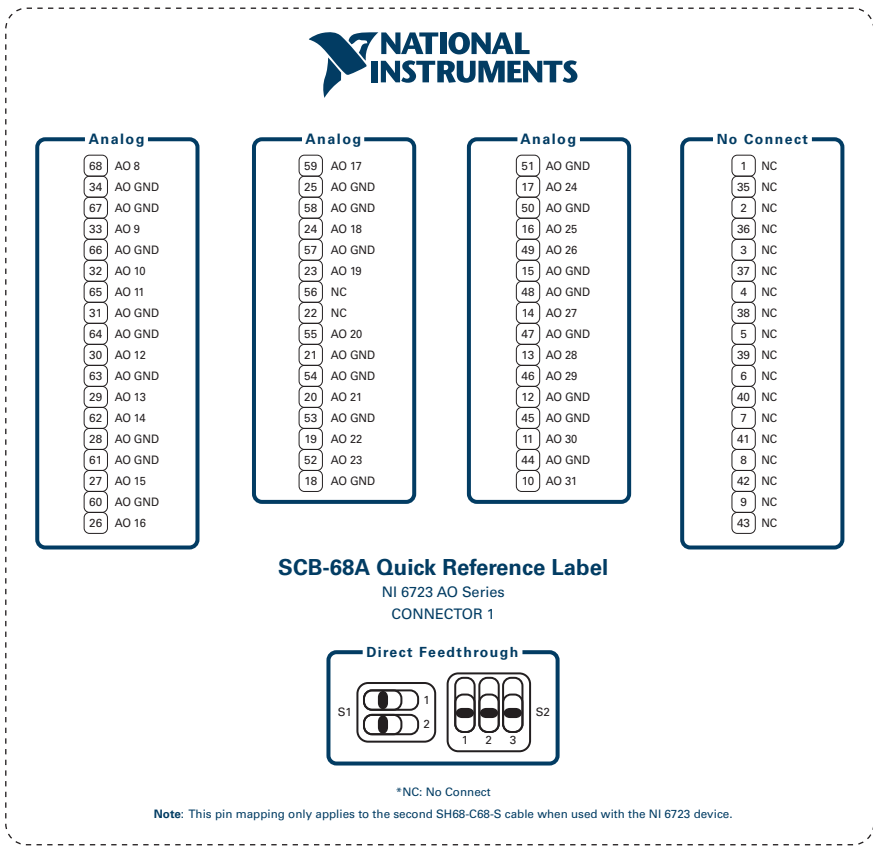
Use the following label if you are connecting the SCB-68A to Connector 0 of the NI 6713/6722/6723/6733 models.

Figure 4. NI 6713/6722/6723/6733 Connector 0



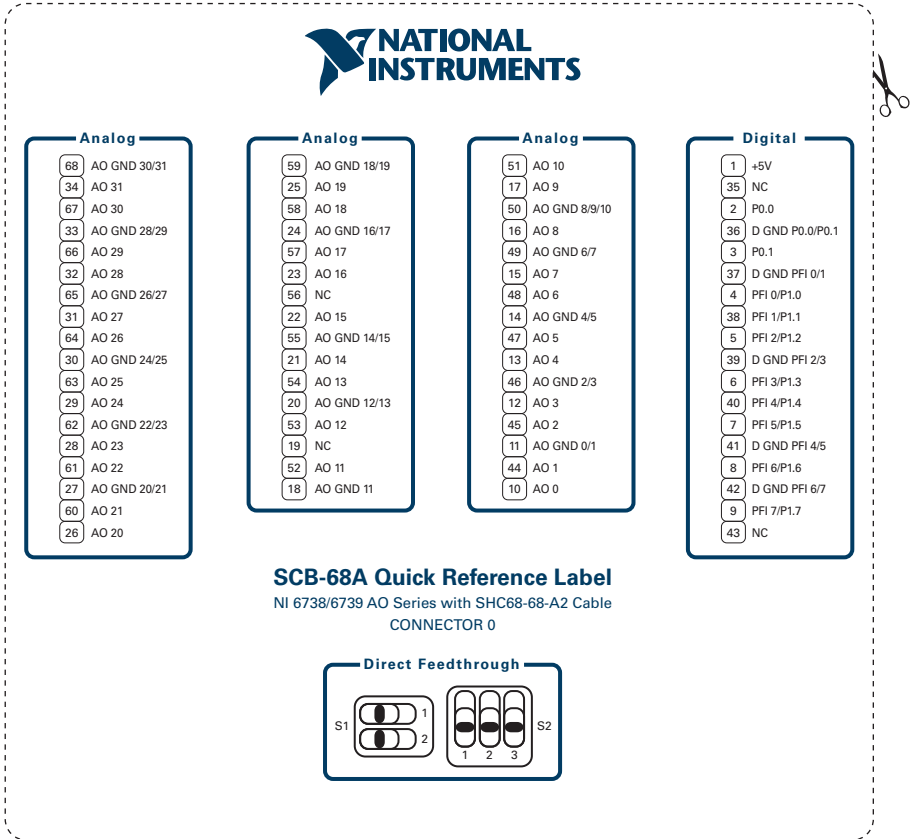
Use the following label if you are connecting the SCB-68A to Connector 1 of the NI 6723 model.

Figure 5. NI 6723 Connector 1



Use the following label if you are connecting the SCB-68A to Connector 0 of the NI 6738/6739 models with the SHC68-68-A2 cable.¹

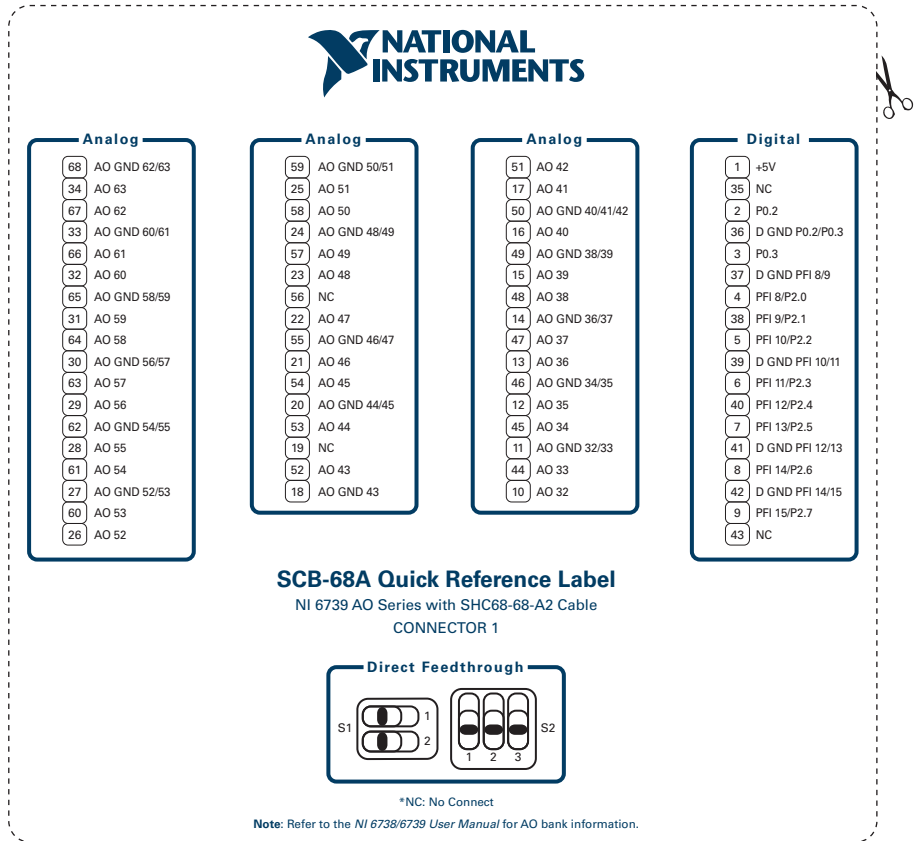
Figure 6. NI 6738/6739 Connector 0 with SHC68-68-A2 Cable



¹ Refer to Figure 8 if you are using the NI 6738/6739 with the SH68-C68-S cable and NI PXIe-6738 Adapter or NI PXIe-6739 Adapter.

Use the following label if you are connecting the SCB-68A to Connector 1 of the NI 6739 model with the SHC68-68-A2 cable.¹


Figure 7. NI 6739 Connector 1 with SHC68-68-A2 Cable



¹ Refer to Figure 9 if you are using the NI 6739 with the SH68-C68-S cable and NI PXIe-6739 Adapter.

Use the following label if you are connecting the SCB-68A to Connector 0 of the NI 6738/6739 models with the SH68-C68-S cable and NI PXIe-6738 Adapter or NI PXIe-6739 Adapter.

Figure 8. NI 6738/6739 Connector 0 with SH68-C68-S Cable and NI PXIe-6738/6739 Adapter



Analog

68	AO GND 30/31
34	AO 31
67	AO 30
33	AO GND 28/29
66	AO 29
32	AO 28
65	AO GND 26/27
31	AO 27
64	AO 26
30	AO GND 24/25
63	AO 25
29	AO 24
62	AO GND 22/23
28	AO 23
61	AO 22
27	AO GND 20/21
60	AO 21
26	AO 20

Analog

59	AO GND 18/19
25	AO 19
58	AO 18
24	AO GND 16/17
57	AO 17
23	AO 16
56	AO GND
22	AO 15
55	AO GND 14/15
21	AO 14
54	AO 13
20	AO GND 12/13
53	AO 12
19	AO GND
52	AO 11
18	AO GND 11

Analog

51	AO 10
17	AO 9
50	AO GND 8/9/10
16	AO 8
49	AO GND 6/7
15	AO 7
48	AO 6
14	AO GND 4/5
47	AO 5
13	AO 4
46	AO GND 2/3
12	AO 3
45	AO 2
11	AO GND 0/1
44	AO 1
10	AO 0

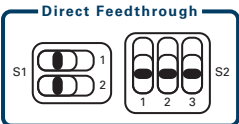
Digital

1	+5V
35	D GND
2	P0.0
36	D GND P0.0/P0.1
3	P0.1
37	D GND PFI 0/1
4	PFI 0/P1.0
38	PFI 1/P1.1
5	PFI 2/P1.2
39	D GND PFI 2/3
6	PFI 3/P1.3
40	PFI 4/P1.4
7	PFI 5/P1.5
41	D GND PFI 4/5
8	PFI 6/P1.6
42	D GND PFI 6/7
9	PFI 7/P1.7
43	D GND

SCB-68A Quick Reference Label

NI 6738/6739 AO Series with SH68-C68-S Cable and Adapter

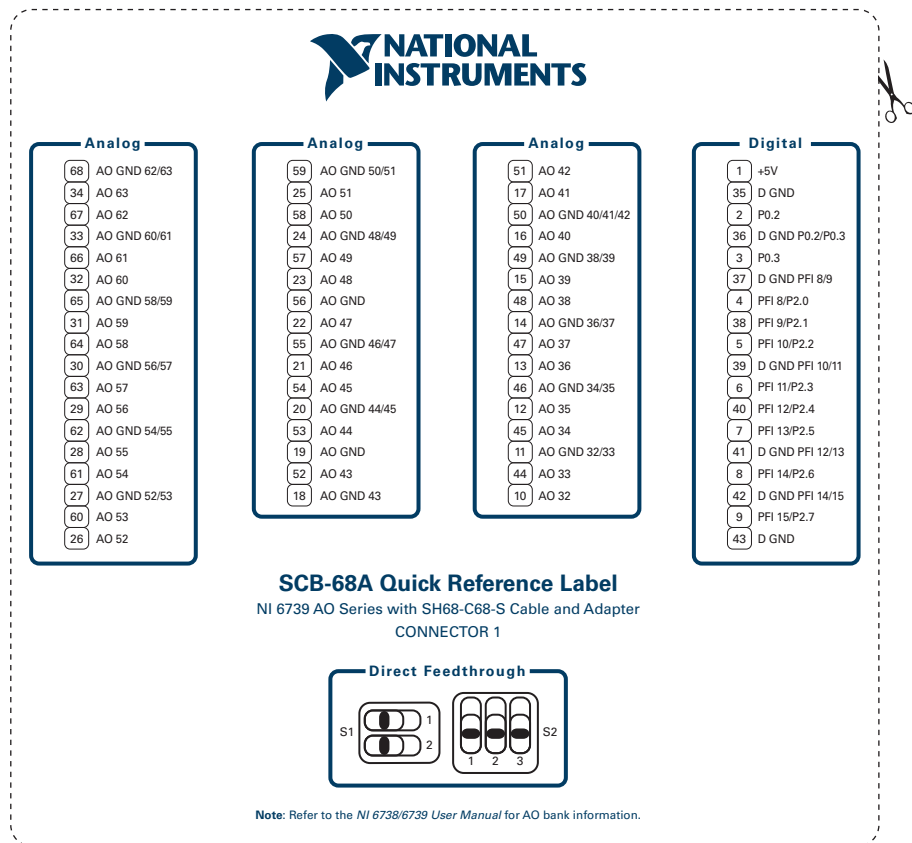
CONNECTOR 0



Note: Refer to the NI 6738/6739 User Manual for AO bank information.

Use the following label if you are connecting the SCB-68A to Connector 1 of the NI 6739 model with the SH68-C68-S cable and NI PXIe-6739 Adapter.

Figure 9. NI 6739 Connector 1 with SH68-C68-S Cable and NI PXIe-6739 Adapter



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