NOTE TO USERS

NI 78xxR Pinout Labels for the SCB-68

Reconfigurable I/O R Series Modules/Devices Using the 68-Pin Shielded Connector Block

If you are using an NI 78xxR (formerly referred to as R Series) reconfigurable I/O device or module with the SCB-68, 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:
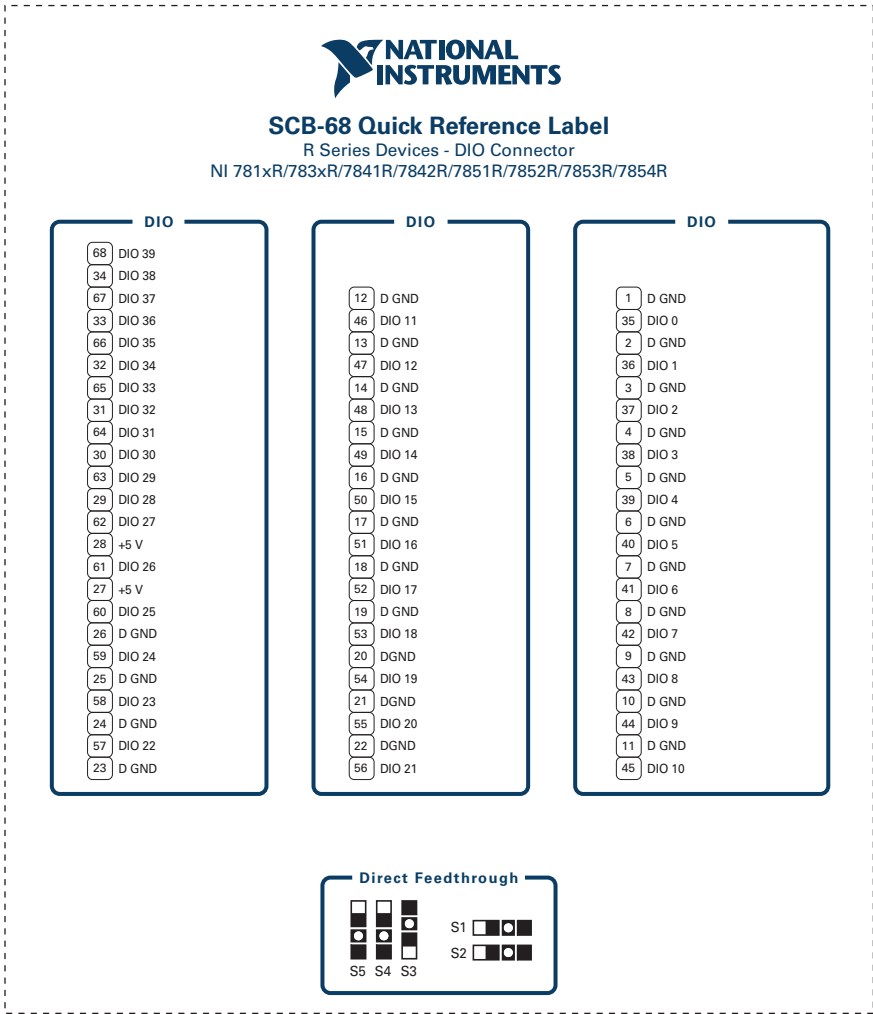
- NI PCI-7811R
- NI PXI-7811R
- NI PCI-7813R
- NI PXI-7813R
- NI PCI-7830R
- NI PXI-7830R
- NI PCI-7831R
- NI PXI-7831R
- NI PCI-7833R
- NI PXI-7833R
- NI PCIe-7841R
- NI PXI-7841R
- NI PCIe-7842R
- NI PXI-7842R
- NI USB-7845R
- NI PXIe-7846R

- NI USB-7846R
- NI PXIe-7847R
- NI PCIe-7851R
- NI PXI-7851R
- NI PCIe-7852R
- NI PXI-7852R
- NI PXI-7853R
- NI PXI-7854R
- NI USB-7855R
- NI PXIe-7856R
- NI USB-7856R
- NI PXIe-7857R
- NI PXIe-7858R
- NI PXIe-7867R
- NI PXIe-7868R

Note To find the appropriate cable for your device, go to ni.com/info and enter Info Code scb68acables.

NATIONAL INSTRUMENTS™

Use the following label if you are connecting the SCB-68 to the RMIO connector on NI PXIe-7867R/7868R models.

Figure 1. RMIO Connector for NI PXIe-7867R/7868R

NATIONAL INSTRUMENTS

SCB-68 Quick Reference Label
R Series Devices - DIO Connector
NI 781xR/783xR/7841R/7842R/7851R/7852R/7853R/7854R

DIO

68	DIO 39
34	DIO 38
67	DIO 37
33	DIO 36
66	DIO 35
32	DIO 34
65	DIO 33
31	DIO 32
64	DIO 31
30	DIO 30
63	DIO 29
29	DIO 28
62	DIO 27
28	+5 V
61	DIO 26
27	+5 V
60	DIO 25
26	D GND
59	DIO 24
25	D GND
58	DIO 23
24	D GND
57	DIO 22
23	D GND

DIO

12	D GND
46	DIO 11
13	D GND
47	DIO 12
14	D GND
48	DIO 13
15	D GND
49	DIO 14
16	D GND
50	DIO 15
17	D GND
51	DIO 16
18	D GND
52	DIO 17
19	D GND
53	DIO 18
20	DGND
54	DIO 19
21	DGND
55	DIO 20
22	DGND
56	DIO 21

DIO

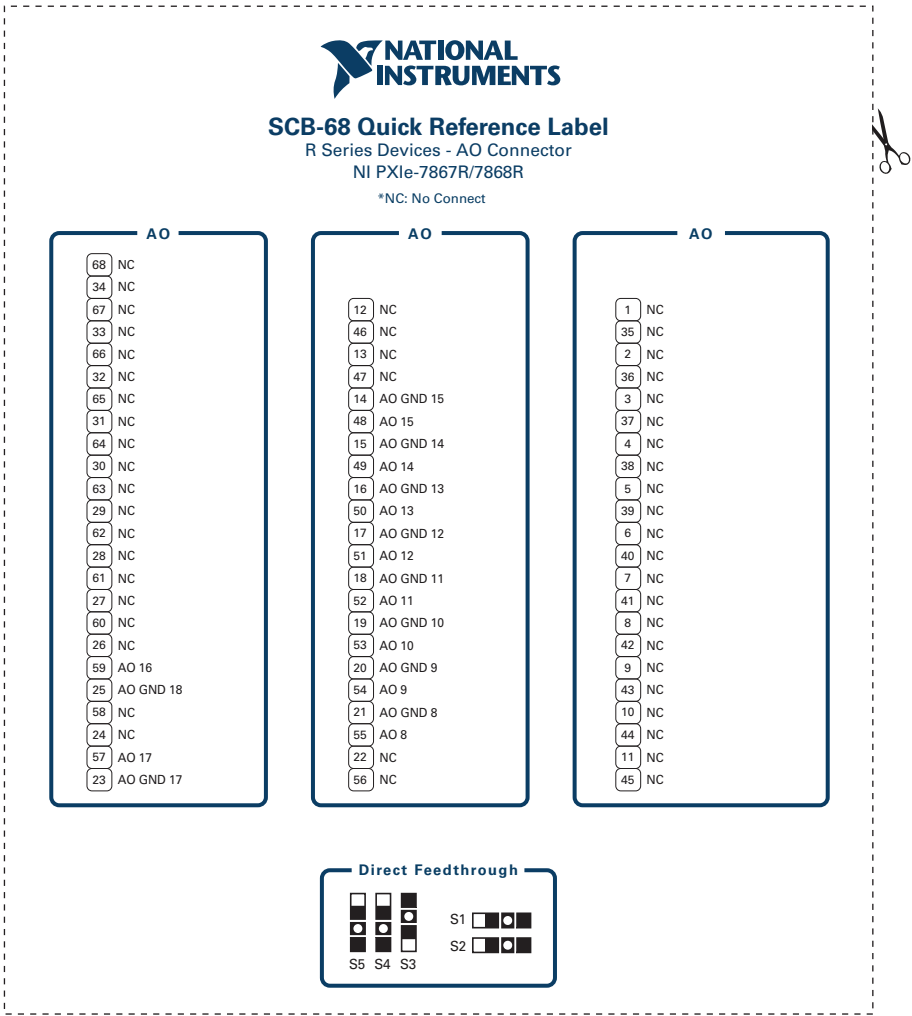| 1 | D GND |
35	DIO 0
2	D GND
36	DIO 1
3	D GND
37	DIO 2
4	D GND
38	DIO 3
5	D GND
39	DIO 4
6	D GND
40	DIO 5
7	D GND
41	DIO 6
8	D GND
42	DIO 7
9	D GND
43	DIO 8
10	D GND
44	DIO 9
11	D GND
45	DIO 10

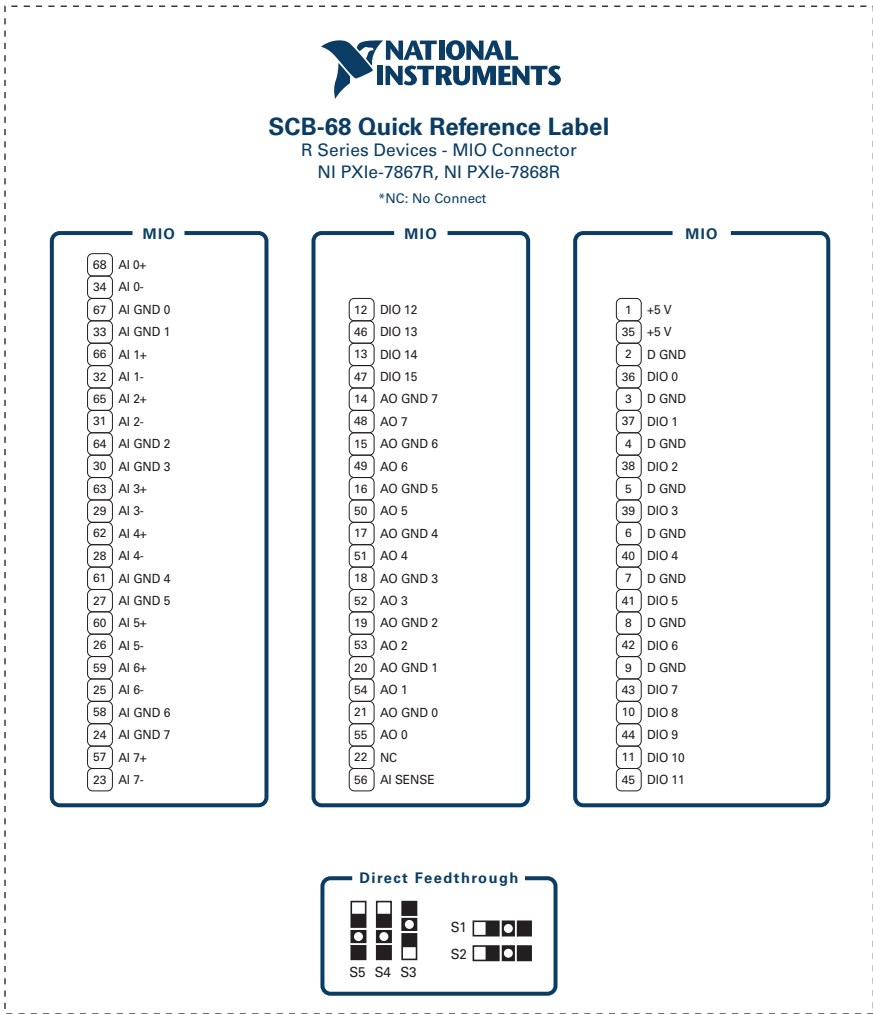**Direct Feedthrough**

S5 S4 S3

S1
S2

Use the following label if you are connecting the SCB-68 to the RAO connector on NI PXIe-7867R/7868R models.

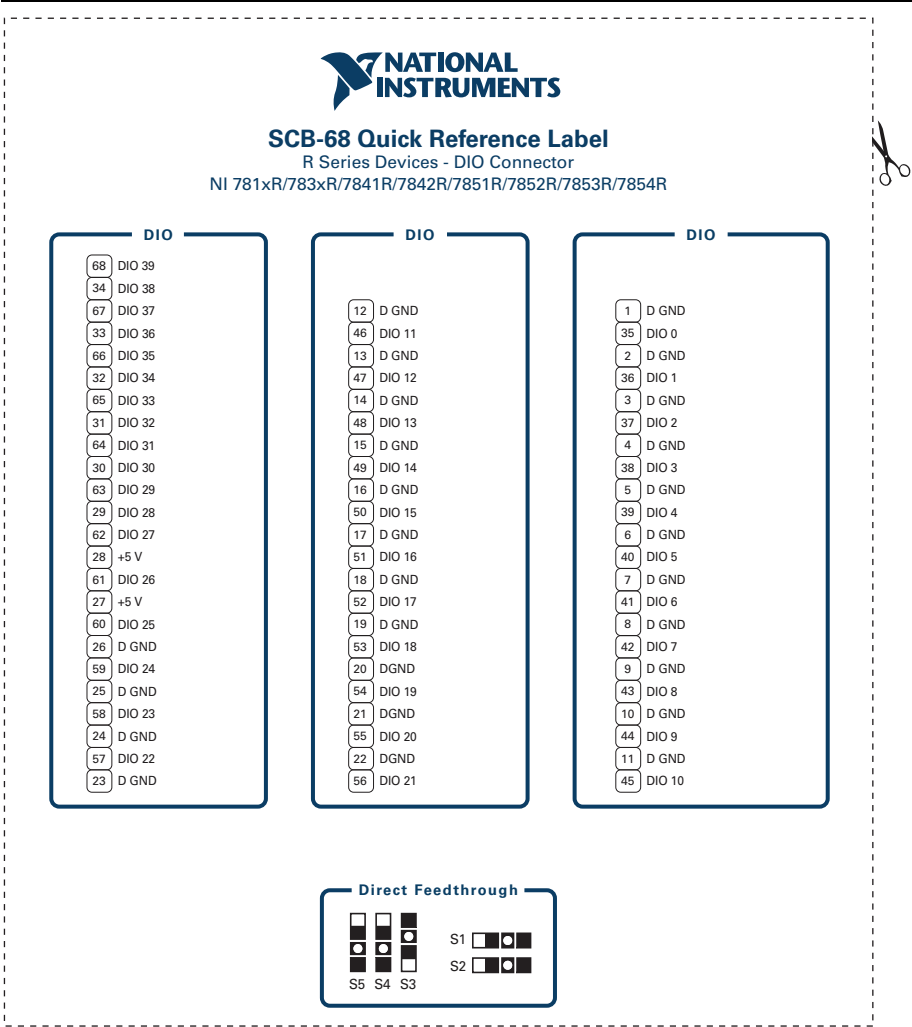**Figure 2.** RAO Connector for NI PXIe-7867R/7868R

NATIONAL INSTRUMENTS

SCB-68 Quick Reference Label
R Series Devices - AO Connector
NI PXIe-7867R/7868R
*NC: No Connect

AO

68	NC
34	NC
67	NC
33	NC
66	NC
32	NC
65	NC
31	NC
64	NC
30	NC
63	NC
29	NC
62	NC
28	NC
61	NC
27	NC
60	NC
26	NC
59	AO 16
25	AO GND 18
58	NC
24	NC
57	AO 17
23	AO GND 17

AO

12	NC
46	NC
13	NC
47	NC
14	AO GND 15
48	AO 15
15	AO GND 14
49	AO 14
16	AO GND 13
50	AO 13
17	AO GND 12
51	AO 12
18	AO GND 11
52	AO 11
19	AO GND 10
53	AO 10
20	AO GND 9
54	AO 9
21	AO GND 8
55	AO 8
22	NC
56	NC

AO

1	NC
35	NC
2	NC
36	NC
3	NC
37	NC
4	NC
38	NC
5	NC
39	NC
6	NC
40	NC
7	NC
41	NC
8	NC
42	NC
9	NC
43	NC
10	NC
44	NC
11	NC
45	NC

Direct Feedthrough

S5 S4 S3

S1
S2

Use the following label if you are connecting the SCB-68 to the RMIO connector on NI 781xR/783xR/784xR/785xR models.

Figure 3. RMIO Connector for NI 781xR/783xR/784xR/785xR

NATIONAL INSTRUMENTS

SCB-68 Quick Reference Label
R Series Devices - MIO Connector
NI PXIe-7867R, NI PXIe-7868R

*NC: No Connect

MIO	
68	AI 0+
34	AI 0-
67	AI GND 0
33	AI GND 1
66	AI 1+
32	AI 1-
65	AI 2+
31	AI 2-
64	AI GND 2
30	AI GND 3
63	AI 3+
29	AI 3-
62	AI 4+
28	AI 4-
61	AI GND 4
27	AI GND 5
60	AI 5+
26	AI 5-
59	AI 6+
25	AI 6-
58	AI GND 6
24	AI GND 7
57	AI 7+
23	AI 7-

MIO	
12	DIO 12
46	DIO 13
13	DIO 14
47	DIO 15
14	AO GND 7
48	AO 7
15	AO GND 6
49	AO 6
16	AO GND 5
50	AO 5
17	AO GND 4
51	AO 4
18	AO GND 3
52	AO 3
19	AO GND 2
53	AO 2
20	AO GND 1
54	AO 1
21	AO GND 0
55	AO 0
22	NC
56	AI SENSE

MIO	
1	+5 V
35	+5 V
2	D GND
36	DIO 0
3	D GND
37	DIO 1
4	D GND
38	DIO 2
5	D GND
39	DIO 3
6	D GND
40	DIO 4
7	D GND
41	DIO 5
8	D GND
42	DIO 6
9	D GND
43	DIO 7
10	DIO 8
44	DIO 9
11	DIO 10
45	DIO 11

Direct Feedthrough

S5 S4 S3

S1
S2

Use the following label if you are connecting the SCB-68 to the RDIO connector on NI 781xR/783xR/7841R/7842R/7851R/7852R/7853R/7854R models.

Figure 4. RDIO Connector for
NI 781xR/783xR/7841R/7842R/7851R/7852R/7853R/7854R

NATIONAL INSTRUMENTS

SCB-68 Quick Reference Label
R Series Devices - DIO Connector
NI 781xR/783xR/7841R/7842R/7851R/7852R/7853R/7854R

DIO	
68	DIO 39
34	DIO 38
67	DIO 37
33	DIO 36
66	DIO 35
32	DIO 34
65	DIO 33
31	DIO 32
64	DIO 31
30	DIO 30
63	DIO 29
29	DIO 28
62	DIO 27
28	+5 V
61	DIO 26
27	+5 V
60	DIO 25
26	D GND
59	DIO 24
25	D GND
58	DIO 23
24	D GND
57	DIO 22
23	D GND

DIO	
12	D GND
46	DIO 11
13	D GND
47	DIO 12
14	D GND
48	DIO 13
15	D GND
49	DIO 14
16	D GND
50	DIO 15
17	D GND
51	DIO 16
18	D GND
52	DIO 17
19	D GND
53	DIO 18
20	DGND
54	DIO 19
21	DGND
55	DIO 20
22	DGND
56	DIO 21

DIO	
1	D GND
35	DIO 0
2	D GND
36	DIO 1
3	D GND
37	DIO 2
4	D GND
38	DIO 3
5	D GND
39	DIO 4
6	D GND
40	DIO 5
7	D GND
41	DIO 6
8	D GND
42	DIO 7
9	D GND
43	DIO 8
10	D GND
44	DIO 9
11	D GND
45	DIO 10

Direct Feedthrough

S5 S4 S3

S1
S2

Note For NI PXIe-7846R/7847R/7856R/7857R/7858R/7867R/7868R models, use the use the SCB-68 HSDIO Shielded Connector Block to connect to the RDIO connector.