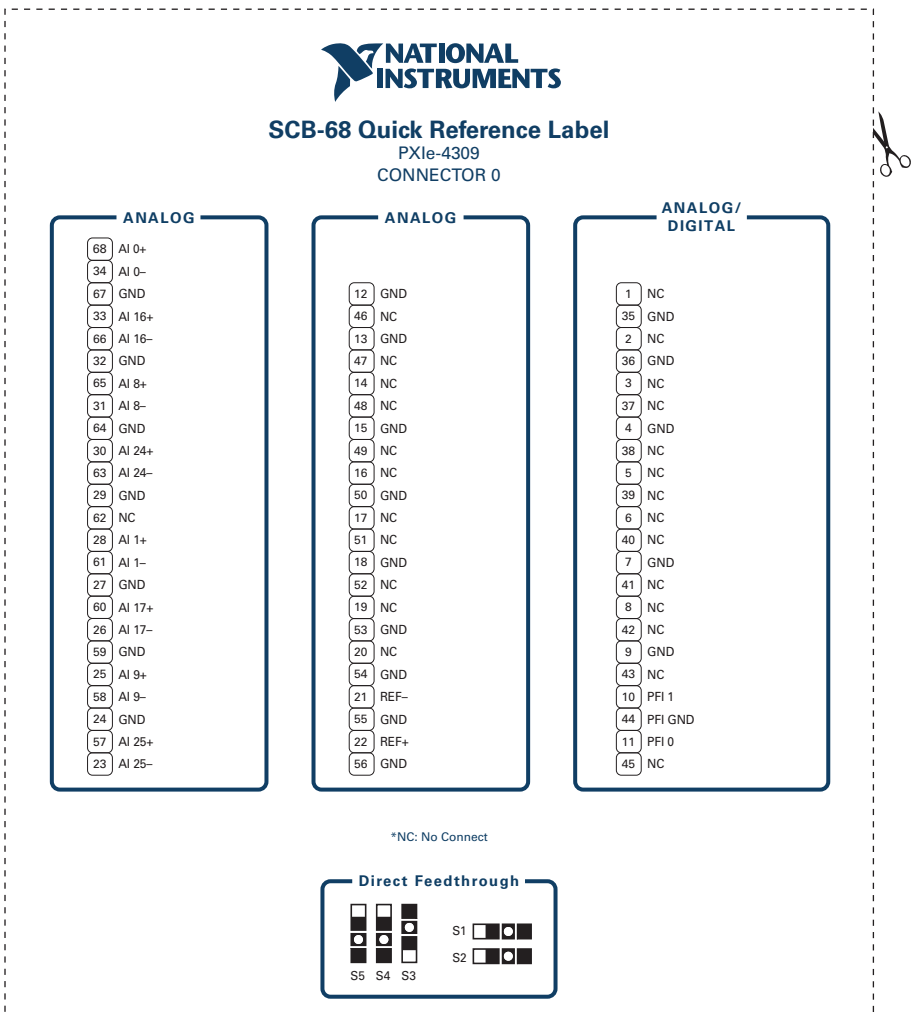NOTE TO USERS

NI 43xx Pinout Labels for the SCB-68

SC Express Modules Using the 68-Pin Shielded Connector Block

If you are using an NI 43xx (formerly referred to as SC Express) 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 model:
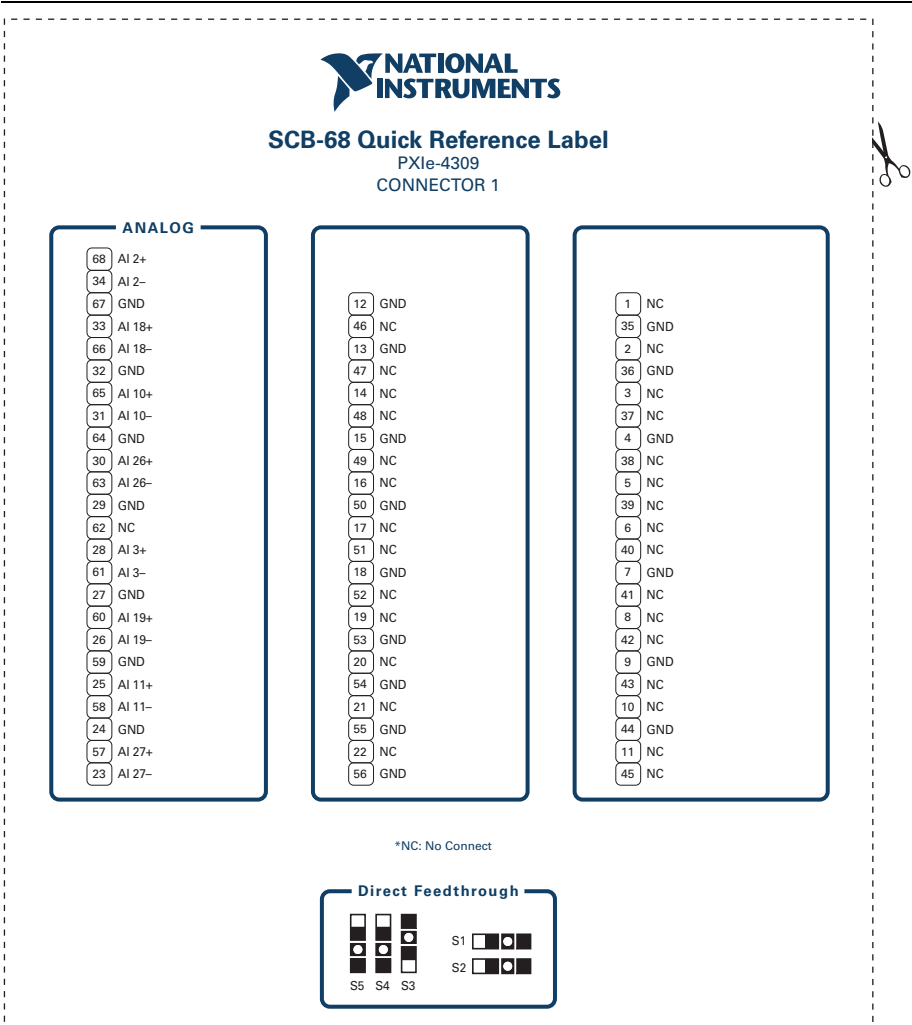
- PXIe-4309

NATIONAL INSTRUMENTS™

Use the following label if you are connecting the SCB-68 to Connector 0 of the PXIe-4309.

Figure 1. PXIe-4309 Connector 0

SCB-68 Quick Reference Label
PXIe-4309
CONNECTOR 0

ANALOG

68	AI 0+
34	AI 0–
67	GND
33	AI 16+
66	AI 16–
32	GND
65	AI 8+
31	AI 8–
64	GND
30	AI 24+
63	AI 24–
29	GND
62	NC
28	AI 1+
61	AI 1–
27	GND
60	AI 17+
26	AI 17–
59	GND
25	AI 9+
58	AI 9–
24	GND
57	AI 25+
23	AI 25–

ANALOG

12	GND
46	NC
13	GND
47	NC
14	NC
48	NC
15	GND
49	NC
16	NC
50	GND
17	NC
51	NC
18	GND
52	NC
19	NC
53	GND
20	NC
54	GND
21	REF–
55	GND
22	REF+
56	GND

ANALOG/ DIGITAL

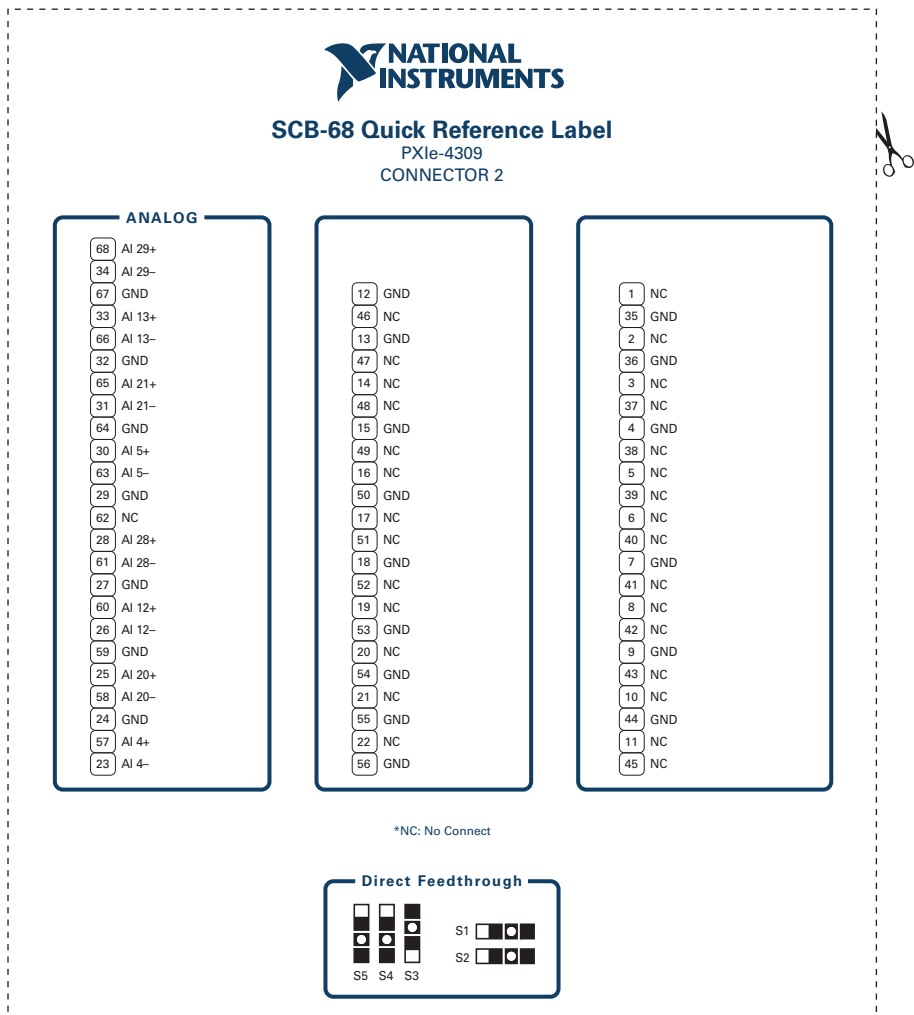|	
1	NC
35	GND
2	NC
36	GND
3	NC
37	NC
4	GND
38	NC
5	NC
39	NC
6	NC
40	NC
7	GND
41	NC
8	NC
42	NC
9	GND
43	NC
10	PFI 1
44	PFI GND
11	PFI 0
45	NC

*NC: No Connect

Direct Feedthrough

S5 S4 S3

S1
S2

Use the following label if you are connecting the SCB-68 to Connector 1 of the PXIe-4309.

Figure 2. PXIe-4309 Connector 1

NATIONAL INSTRUMENTS

SCB-68 Quick Reference Label
PXIe-4309
CONNECTOR 1

ANALOG

Pin	Signal
68	AI 2+
34	AI 2–
67	GND
33	AI 18+
66	AI 18–
32	GND
65	AI 10+
31	AI 10–
64	GND
30	AI 26+
63	AI 26–
29	GND
62	NC
28	AI 3+
61	AI 3–
27	GND
60	AI 19+
26	AI 19–
59	GND
25	AI 11+
58	AI 11–
24	GND
57	AI 27+
23	AI 27–

Pin	Signal
12	GND
46	NC
13	GND
47	NC
14	NC
48	NC
15	GND
49	NC
16	NC
50	GND
17	NC
51	NC
18	GND
52	NC
19	NC
53	GND
20	NC
54	GND
21	NC
55	GND
22	NC
56	GND

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

*NC: No Connect

Direct Feedthrough

S5 S4 S3

S1
S2
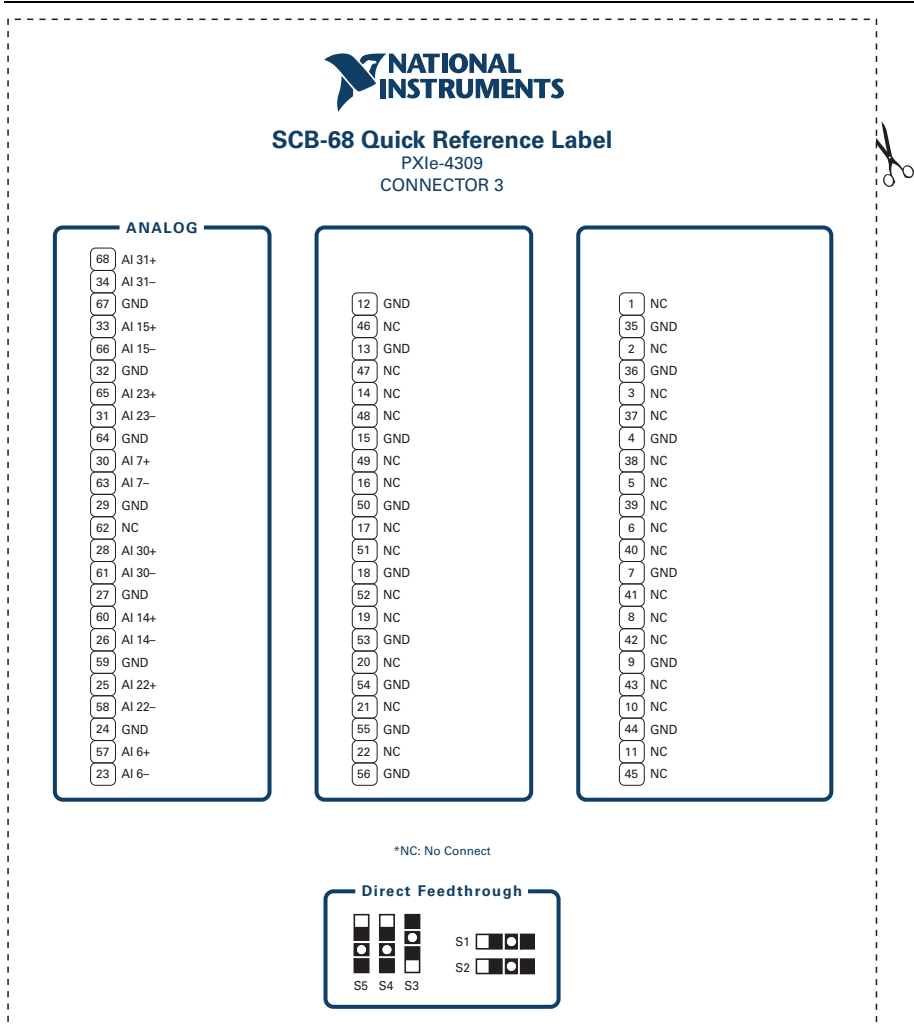
Use the following label if you are connecting the SCB-68 to Connector 2 of the PXIe-4309.

Figure 3. PXIe-4309 Connector 2

NATIONAL INSTRUMENTS

SCB-68 Quick Reference Label
PXIe-4309
CONNECTOR 2

ANALOG

68	AI 29+
34	AI 29–
67	GND
33	AI 13+
66	AI 13–
32	GND
65	AI 21+
31	AI 21–
64	GND
30	AI 5+
63	AI 5–
29	GND
62	NC
28	AI 28+
61	AI 28–
27	GND
60	AI 12+
26	AI 12–
59	GND
25	AI 20+
58	AI 20–
24	GND
57	AI 4+
23	AI 4–

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

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

*NC: No Connect

Direct Feedthrough

S5 S4 S3

S1
S2

Use the following label if you are connecting the SCB-68 to Connector 3 of the PXIe-4309.

Figure 4. PXIe-4309 Connector 3

NATIONAL INSTRUMENTS

SCB-68 Quick Reference Label
PXIe-4309
CONNECTOR 3

ANALOG

68	AI 31+				1	NC	
34	AI 31–	12	GND		35	GND	
67	GND	46	NC		2	NC	
33	AI 15+	13	GND		36	GND	
66	AI 15–	47	NC		3	NC	
32	GND	14	NC		37	NC	
65	AI 23+	48	NC		4	GND	
31	AI 23–	15	GND		38	NC	
64	GND	49	NC		5	NC	
30	AI 7+	16	NC		39	NC	
63	AI 7–	50	GND		6	NC	
29	GND	17	NC		40	NC	
62	NC	51	NC		7	GND	
28	AI 30+	18	GND		41	NC	
61	AI 30–	52	NC		8	NC	
27	GND	19	NC		42	NC	
60	AI 14+	53	GND		9	GND	
26	AI 14–	20	NC		43	NC	
59	GND	54	GND		10	NC	
25	AI 22+	21	NC		44	GND	
58	AI 22–	55	GND		11	NC	
24	GND	22	NC		45	NC	
57	AI 6+	56	GND				
23	AI 6–						

*NC: No Connect

Direct Feedthrough

S5 S4 S3

S1
S2