

# INSTALLATION INSTRUCTIONS

# LFH200 Cable

This guide describes how to use the National Instruments LFH200 cable to connect the NI PXI-2569/2570/2575 or SCXI-1169/1175 switch module to your system.

The LFH200 cable is available in three configurations:

- SH200LFH-4xDB50F-C—Recommended for use with the PXI-2569/2570 or SCXI-1169.
- SH200LFH-4xDB50F-S—Recommended for use with the PXI-2575 or SCXI-1175.
- SH200LFH-BARE WIRE—Recommended for termination other than 50-pin female D-SUB.

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# Conventions

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The following conventions are used in this guide:

- » The » symbol leads you through nested menu items and dialog box options to a final action. The sequence **File»Page Setup»Options** directs you to pull down the **File** menu, select the **Page Setup** item, and select **Options** from the last dialog box.
- bold** Bold text denotes items that you must select or click in the software, such as menu items and dialog box options. Bold text also denotes parameter names.
- italic* Italic text denotes variables, emphasis, a cross reference, or an introduction to a key concept. This font also denotes text that is a placeholder for a word or value that you must supply.
- monospace Text in this font denotes text or characters that you should enter from the keyboard, sections of code, programming examples, and syntax examples. This font is also used for the proper names of disk drives, paths, directories, programs, subprograms, subroutines, device names, functions, operations, variables, filenames, and extensions.

## Getting Started

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The following items are necessary for connecting the LFH200 cable:

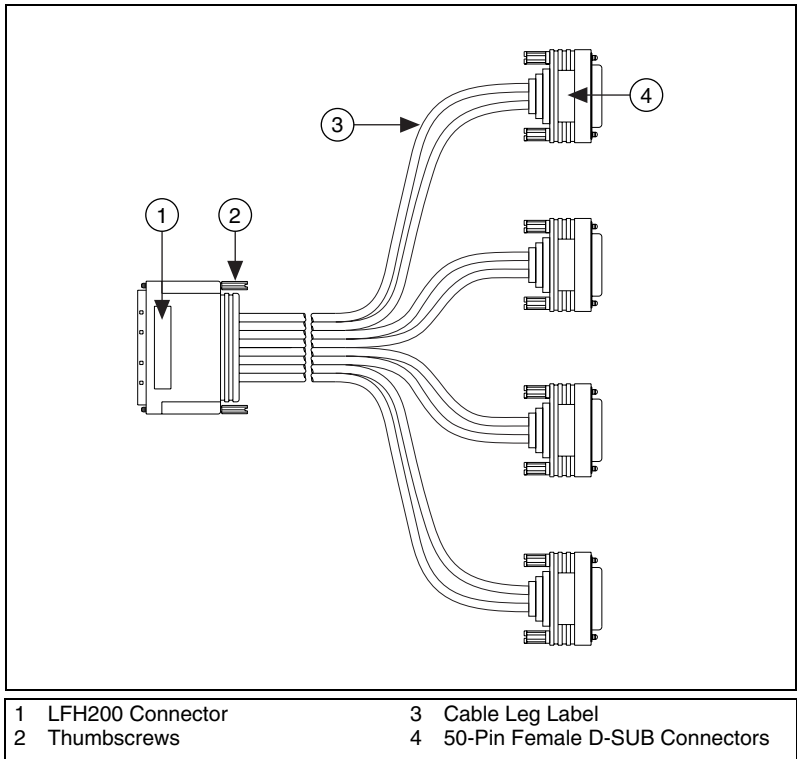
- LFH200 cable
- NI PXI-2569/2570/2575 or SCXI-1169/1175 switch module and documentation

## Connecting the LFH200 Cable

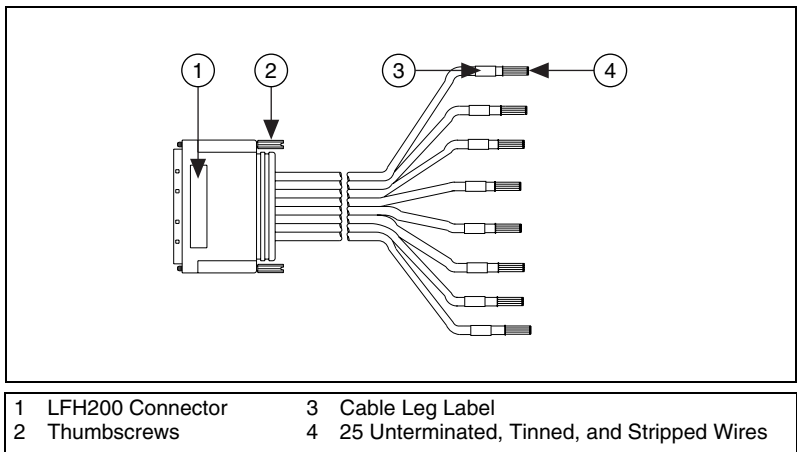
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Complete the following steps to connect the LFH200 cable to your switch module and application. Refer to Figures 1 and 2 for illustrations of the LFH200 cable.

1. Connect the LFH200 connector to the connector on the switch module.
2. Tighten the thumbscrews.
3. Complete either of the following steps, and refer to Tables 1 through 16 to determine how to connect your signals.
  - Connect the D-SUB connectors to your application.
  - Connect the unterminated cables to your application.



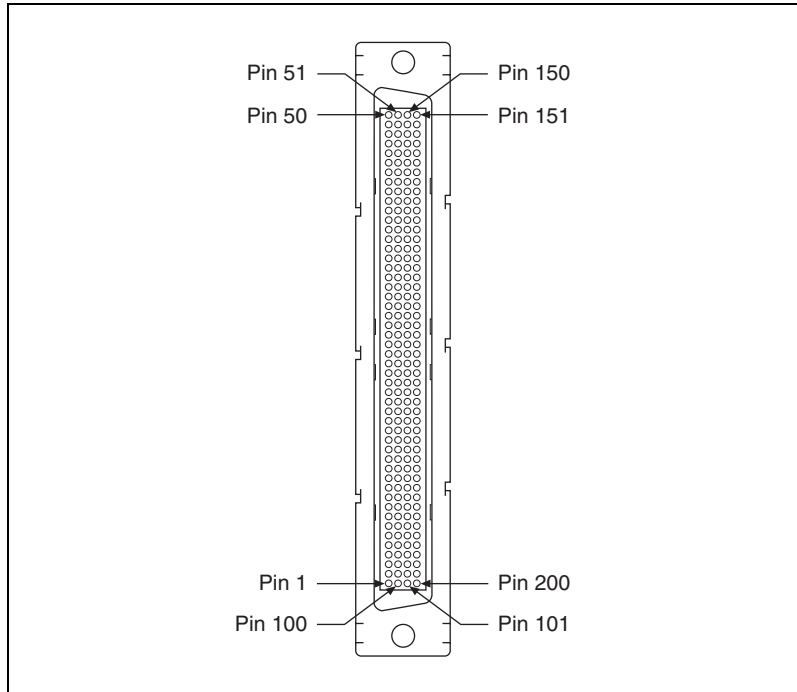
**Figure 1.** SH200LFH-4xDB50F-C or SH200LFH-4xDB50F-S Cable



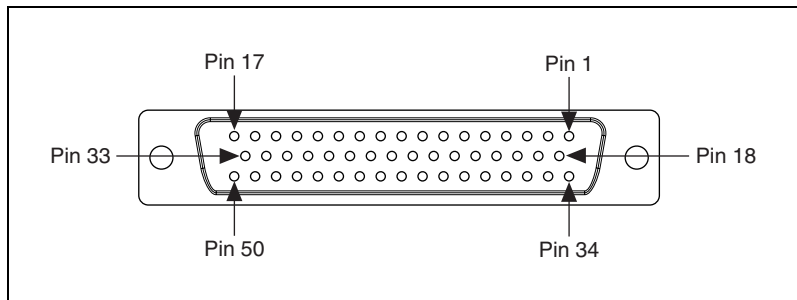
**Figure 2.** SH200LFH-BARE WIRE Cable

# Connectors

The cable in this kit connects an LFH200 connector to four, 50-pin female D-SUB connectors, or eight bundles, leg J0–J7, of unterminated, tinned, and stripped cables. The LFH200 connector provides connection to the switch module. The 50-pin female D-SUB connectors and unterminated cables provide connection to your application. Figures 3 and 4 show the pinouts for these connectors.



**Figure 3.** LFH200 Connector



**Figure 4.** 50-Pin Female D-SUB Connector

# Cable Configurations

The LFH200 cable is available in three configurations:

- SH200LFH-4xDB50F-C
- SH200LFH-4xDB50F-S
- SH200LFH-BARE WIRE

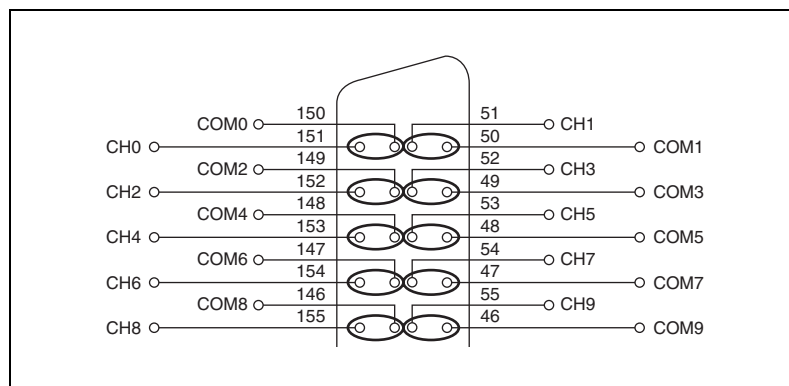
The following sections describe each of the LFH200 cable configurations.

## SH200LFH-4xDB50F-C Cable

The SH200LFH-4xDB50F-C cable is recommended for connecting the PXI-2569/2570 or SCXI-1169 to your system. One end of the cable terminates with an LFH200 connector. The other end of the cable terminates with four 50-pin female D-SUB connectors.

When using the SH200LFH-4xDB50F-C cable with the PXI-2569 or SCXI-1169, each Channel and its corresponding Common form a twisted pair. For example, CH0 is paired with COM0, and CH1 is paired with COM1. Figure 5 illustrates how this pairing relates to the pins on the PXI-2569 or SCXI-1169.

The PXI-2570 follows the same pattern as the PXI-2569 for pairing wires. However, the channel names will be different. For example, on the PXI-2570, COM0 is paired with NO0, and NC0 is paired with NO CONNECT. Refer to the *NI Switches Help* for a complete listing of channel names and pinouts.



**Figure 5.** Twisted Pair Groupings for the PXI-2569 or SCXI-1169

The following tables list the pin assignments for the SH200LFH-4xDB50F-C cable.

**Table 1.** Pin Assignment for SH200LFH-4xDB50F-C Backshell 0

<b>50-Pin D-SUB Backshell 0</b>			
<b>Cable</b>		<b>PXI-2569, SCXI-1169 Channel</b>	<b>PXI-2570 Channel</b>
<b>LFH Pin</b>	<b>50-Pin D-SUB Pin</b>		
26	50	COM49	NO24
27	48	COM47	NO23
28	46	COM45	NO22
29	44	COM43	NO21
30	42	COM41	NO20
31	40	COM39	NO19
32	38	COM37	NO18
33	36	COM35	NO17
34	34	COM33	NO16
35	19	COM31	NO15
36	21	COM29	NO14
37	23	COM27	NO13
38	25	COM25	NO12
39	27	COM23	NO11
40	29	COM21	NO10
41	31	COM19	NO9
42	33	COM17	NO8
43	16	COM15	NO7
44	14	COM13	NO6
45	12	COM11	NO5
46	10	COM9	NO4
47	8	COM7	NO3
48	6	COM5	NO2
49	4	COM3	NO1
50	2	COM1	NO0
51	1	CH1	COM0
52	3	CH3	COM1

**Table 1.** Pin Assignment for SH200LFH-4xDB50F-C Backshell 0 (Continued)

<b>50-Pin D-SUB Backshell 0</b>			
<b>Cable</b>		<b>PXI-2569, SCXI-1169 Channel</b>	<b>PXI-2570 Channel</b>
<b>LFH Pin</b>	<b>50-Pin D-SUB Pin</b>		
53	5	CH5	COM2
54	7	CH7	COM3
55	9	CH9	COM4
56	11	CH11	COM5
57	13	CH13	COM6
58	15	CH15	COM7
59	17	CH17	COM8
60	32	CH19	COM9
61	30	CH21	COM10
62	28	CH23	COM11
63	26	CH25	COM12
64	24	CH27	COM13
65	22	CH29	COM14
66	20	CH31	COM15
67	18	CH33	COM16
68	35	CH35	COM17
69	37	CH37	COM18
70	39	CH39	COM19
71	41	CH41	COM20
72	43	CH43	COM21
73	45	CH45	COM22
74	47	CH47	COM23
75	49	CH49	COM24

**Table 2.** Pin Assignment for SH200LFH-4xDB50F-C Backshell 1

<b>50-Pin D-SUB Backshell 1</b>			
<b>Cable</b>		<b>PXI-2569, SCXI-1169 Channel</b>	<b>PXI-2570 Channel</b>
<b>LFH Pin</b>	<b>50-Pin D-SUB Pin</b>		
126	50	COM48	NC24
127	48	COM46	NC23
128	46	COM44	NC22
129	44	COM42	NC21
130	42	COM40	NC20
131	40	COM38	NC19
132	38	COM36	NC18
133	36	COM34	NC17
134	34	COM32	NC16
135	19	COM30	NC15
136	21	COM28	NC14
137	23	COM26	NC13
138	25	COM24	NC12
139	27	COM22	NC11
140	29	COM20	NC10
141	31	COM18	NC9
142	33	COM16	NC8
143	16	COM14	NC7
144	14	COM12	NC6
145	12	COM10	NC5
146	10	COM8	NC4
147	8	COM6	NC3
148	6	COM4	NC2
149	4	COM2	NC1
150	2	COM0	NC0
151	1	CH0	—
152	3	CH2	—

**Table 2.** Pin Assignment for SH200LFH-4xDB50F-C Backshell 1 (Continued)

<b>50-Pin D-SUB Backshell 1</b>			
<b>Cable</b>		<b>PXI-2569, SCXI-1169 Channel</b>	<b>PXI-2570 Channel</b>
<b>LFH Pin</b>	<b>50-Pin D-SUB Pin</b>		
153	5	CH4	—
154	7	CH6	—
155	9	CH8	—
156	11	CH10	—
157	13	CH12	—
158	15	CH14	—
159	17	CH16	—
160	32	CH18	—
161	30	CH20	—
162	28	CH22	—
163	26	CH24	—
164	24	CH26	—
165	22	CH28	—
166	20	CH30	—
167	18	CH32	—
168	35	CH34	—
169	37	CH36	—
170	39	CH38	—
171	41	CH40	—
172	43	CH42	—
173	45	CH44	—
174	47	CH46	—
175	49	CH48	—

**Table 3.** Pin Assignment for SH200LFH-4xDB50F-C Backshell 2

<b>50-Pin D-SUB Backshell 2</b>			
<b>Cable</b>		<b>PXI-2569, SCXI-1169 Channel</b>	<b>PXI-2570 Channel</b>
<b>LFH Pin</b>	<b>50-Pin D-SUB Pin</b>		
101	50	COM98	—
102	48	COM96	—
103	46	COM94	—
104	44	COM92	—
105	42	COM90	—
106	40	COM88	—
107	38	COM86	—
108	36	COM84	—
109	34	COM82	—
110	19	COM80	—
111	21	COM78	NC39
112	23	COM76	NC38
113	25	COM74	NC37
114	27	COM72	NC36
115	29	COM70	NC35
116	31	COM68	NC34
117	33	COM66	NC33
118	16	COM64	NC32
119	14	COM62	NC31
120	12	COM60	NC30
121	10	COM58	NC29
122	8	COM56	NC28
123	6	COM54	NC27
124	4	COM52	NC26
125	2	COM50	NC25
176	1	CH50	—
177	3	CH52	—

**Table 3.** Pin Assignment for SH200LFH-4xDB50F-C Backshell 2 (Continued)

<b>50-Pin D-SUB Backshell 2</b>			
<b>Cable</b>		<b>PXI-2569, SCXI-1169 Channel</b>	<b>PXI-2570 Channel</b>
<b>LFH Pin</b>	<b>50-Pin D-SUB Pin</b>		
178	5	CH54	—
179	7	CH56	—
180	9	CH58	—
181	11	CH60	—
182	13	CH62	—
183	15	CH64	—
184	17	CH66	—
185	32	CH68	—
186	30	CH70	—
187	28	CH72	—
188	26	CH74	—
189	24	CH76	—
190	22	CH78	—
191	20	CH80	—
192	18	CH82	—
193	35	CH84	—
194	37	CH86	—
195	39	CH88	—
196	41	CH90	—
197	43	CH92	—
198	45	CH94	—
199	47	CH96	—
200	49	CH98	—

**Table 4.** Pin Assignment for SH200LFH-4xDB50F-C Backshell 3

<b>50-Pin D-SUB Backshell 3</b>			
<b>Cable</b>		<b>PXI-2569, SCXI-1169 Channel</b>	<b>PXI-2570 Channel</b>
<b>LFH Pin</b>	<b>50-Pin D-SUB Pin</b>		
1	50	COM99	—
2	48	COM97	—
3	46	COM95	—
4	44	COM93	—
5	42	COM91	—
6	40	COM89	—
7	38	COM87	—
8	36	COM85	—
9	34	COM83	—
10	19	COM81	—
11	21	COM79	NO39
12	23	COM77	NO38
13	25	COM75	NO37
14	27	COM73	NO36
15	29	COM71	NO35
16	31	COM69	NO34
17	33	COM67	NO33
18	16	COM65	NO32
19	14	COM63	NO31
20	12	COM61	NO30
21	10	COM59	NO29
22	8	COM57	NO28
23	6	COM55	NO27
24	4	COM53	NO26
25	2	COM51	NO25
76	1	CH51	COM25
77	3	CH53	COM26

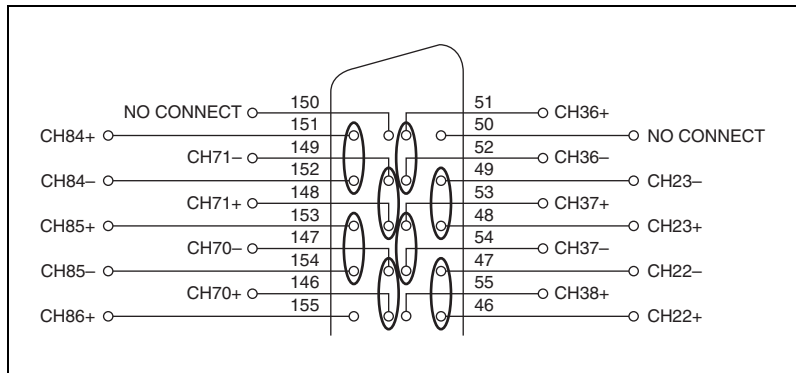
**Table 4.** Pin Assignment for SH200LFH-4xDB50F-C Backshell 3 (Continued)

<b>50-Pin D-SUB Backshell 3</b>			
<b>Cable</b>		<b>PXI-2569, SCXI-1169 Channel</b>	<b>PXI-2570 Channel</b>
<b>LFH Pin</b>	<b>50-Pin D-SUB Pin</b>		
78	5	CH55	COM27
79	7	CH57	COM28
80	9	CH59	COM29
81	11	CH61	COM30
82	13	CH63	COM31
83	15	CH65	COM32
84	17	CH67	COM33
85	32	CH69	COM34
86	30	CH71	COM35
87	28	CH73	COM36
88	26	CH75	COM37
89	24	CH77	COM38
90	22	CH79	COM39
91	20	CH81	—
92	18	CH83	—
93	35	CH85	—
94	37	CH87	—
95	39	CH89	—
96	41	CH91	—
97	43	CH93	—
98	45	CH95	—
99	47	CH97	—
100	49	CH99	—

## SH200LFH-4xDB50F-S Cable

The SH200LFH-4xDB50F-S cable is recommended for connecting the PXI-2575 or SCXI-1175 to your system. One end of the cable terminates with an LFH200 connector. The other end of the cable terminates with four 50-pin female D-SUB connectors.

When using the SH200LFH-4xDB50F-S cable with the PXI-2575 or SCXI-1175, the positive and negative leads of a channel form a twisted pair. For example, CH36+ is paired with CH36-, and CH71+ is paired with CH71-. Figure 6 illustrates how this pairing relates to the pins on the PXI-2575 or SCXI-1175. Refer to the *NI Switches Help* for a complete listing of channel names and pinouts.



**Figure 6.** Twisted Pair Groupings for the PXI-2575 or SCXI-1175 in 95 × 1, 2-Wire Mode

The following tables list the pin assignments for the SH200LFH-4xDB50F-S cable.

**Table 5.** Pin Assignment for SH200LFH-4xDB50F-S Backshell 0

50-Pin D-SUB Backshell 0							
Cable			PXI-2569, SCXI-1169 Channel	PXI-2570 Channel	PXI-2575, SCXI-1175		
LFH Pin	50-Pin D-SUB Pin	Pair?			196 × 1 1-Wire	95 × 1 2-Wire	98 × 1 2-Wire
1	1	Twisted Pair	COM99	—	CH0	CH0+	CH0+
2	2		COM97	—	CH95	CH0–	CH0–
3	3	Twisted Pair	COM95	—	CH1	CH1+	CH1+
4	4		COM93	—	CH96	CH1–	CH1–
5	5	Twisted Pair	COM91	—	CH2	CH2+	CH2+
6	6		COM89	—	CH97	CH2–	CH2–
7	7	Twisted Pair	COM87	—	CH3	CH3+	CH3+
8	8		COM85	—	CH98	CH3–	CH3–
9	9	Twisted Pair	COM83	—	CH4	CH4+	CH4+
10	10		COM81	—	CH99	CH4–	CH4–
11	11	Twisted Pair	COM79	NO39	CH5	CH5+	CH5+
12	12		COM77	NO38	CH100	CH5–	CH5–
13	13	Twisted Pair	COM75	NO37	CH6	CH6+	CH6+
14	14		COM73	NO36	CH101	CH6–	CH6–
15	15	Twisted Pair	COM71	NO35	CH7	CH7+	CH7+
16	16		COM69	NO34	CH102	CH7–	CH7–
17	17	Twisted Pair	COM67	NO33	CH8	CH8+	CH8+
18	18		COM65	NO32	CH103	CH8–	CH8–
19	19	Twisted Pair	COM63	NO31	CH9	CH9+	CH9+
20	20		COM61	NO30	CH104	CH9–	CH9–
21	21	Twisted Pair	COM59	NO29	CH10	CH10+	CH10+
22	22		COM57	NO28	CH105	CH10–	CH10–
23	23	Twisted Pair	COM55	NO27	CH11	CH11+	CH11+
24	24		COM53	NO26	CH106	CH11–	CH11–
25	25	Not Paired	COM51	NO25	CH194	—	CH96–
26	26	Twisted Pair	COM49	NO24	CH12	CH12+	CH12+
27	27		COM47	NO23	CH107	CH12–	CH12–

**Table 5.** Pin Assignment for SH200LFH-4xDB50F-S Backshell 0 (Continued)

50-Pin D-SUB Backshell 0							
Cable			PXI-2569, SCXI-1169 Channel	PXI-2570 Channel	PXI-2575, SCXI-1175		
LFH Pin	50-Pin D-SUB Pin	Pair?			196 × 1 1-Wire	95 × 1 2-Wire	98 × 1 2-Wire
28	28	Twisted Pair	COM45	NO22	CH13	CH13+	CH13+
29	29		COM43	NO21	CH108	CH13–	CH13–
30	30	Twisted Pair	COM41	NO20	CH14	CH14+	CH14+
31	31		COM39	NO19	CH109	CH14–	CH14–
32	32	Twisted Pair	COM37	NO18	CH15	CH15+	CH15+
33	33		COM35	NO17	CH110	CH15–	CH15–
34	34	Twisted Pair	COM33	NO16	CH16	CH16+	CH16+
35	35		COM31	NO15	CH111	CH16–	CH16–
36	36	Twisted Pair	COM29	NO14	CH17	CH17+	CH17+
37	37		COM27	NO13	CH112	CH17–	CH17–
38	38	Twisted Pair	COM25	NO12	CH18	CH18+	CH18+
39	39		COM23	NO11	CH113	CH18–	CH18–
40	40	Twisted Pair	COM21	NO10	CH19	CH19+	CH19+
41	41		COM19	NO9	CH114	CH19–	CH19–
42	42	Twisted Pair	COM17	NO8	CH20	CH20+	CH20+
43	43		COM15	NO7	CH115	CH20–	CH20–
44	44	Twisted Pair	COM13	NO6	CH21	CH21+	CH21+
45	45		COM11	NO5	CH116	CH21–	CH21–
46	46	Twisted Pair	COM9	NO4	CH22	CH22+	CH22+
47	47		COM7	NO3	CH117	CH22–	CH22–
48	48	Twisted Pair	COM5	NO2	CH23	CH23+	CH23+
49	49		COM3	NO1	CH118	CH23–	CH23–
50	50	Not Paired	COM1	NO0	—	—	—

**Table 6.** Pin Assignment for SH200LFH-4xDB50F-S Backshell 1

50-Pin D-SUB Backshell 1							
Cable			PXI-2569, SCXI-1169 Channel	PXI-2570 Channel	PXI-2575, SCXI-1175		
LFH Pin	50-Pin D-SUB Pin	Pair?			196 × 1 1-Wire	95 × 1 2-Wire	98 × 1 2-Wire
51	1	Twisted Pair	CH1	COM0	CH36	CH36+	CH36+
52	2		CH3	COM1	CH131	CH36-	CH36-
53	3	Twisted Pair	CH5	COM2	CH37	CH37+	CH37+
54	4		CH7	COM3	CH132	CH37-	CH37-
55	5	Twisted Pair	CH9	COM4	CH38	CH38+	CH38+
56	6		CH11	COM5	CH133	CH38-	CH38-
57	7	Twisted Pair	CH13	COM6	CH39	CH39+	CH39+
58	8		CH15	COM7	CH134	CH39-	CH39-
59	9	Twisted Pair	CH17	COM8	CH40	CH40+	CH40+
60	10		CH19	COM9	CH135	CH40-	CH40-
61	11	Twisted Pair	CH21	COM10	CH41	CH41+	CH41+
62	12		CH23	COM11	CH136	CH41-	CH41-
63	13	Twisted Pair	CH25	COM12	CH42	CH42+	CH42+
64	14		CH27	COM13	CH137	CH42-	CH42-
65	15	Twisted Pair	CH29	COM14	CH43	CH43+	CH43+
66	16		CH31	COM15	CH138	CH43-	CH43-
67	17	Twisted Pair	CH33	COM16	CH44	CH44+	CH44+
68	18		CH35	COM17	CH139	CH44-	CH44-
69	19	Twisted Pair	CH37	COM18	CH45	CH45+	CH45+
70	20		CH39	COM19	CH140	CH45-	CH45-
71	21	Twisted Pair	CH41	COM20	CH46	CH46+	CH46+
72	22		CH43	COM21	CH141	CH46-	CH46-
73	23	Twisted Pair	CH45	COM22	CH47	CH47+	CH47+
74	24		CH47	COM23	CH142	CH47-	CH47-
75	25	Not Paired	CH49	COM24	CH191	—	CH96+
76	26	Twisted Pair	CH51	COM25	CH24	CH24+	CH24+
77	27		CH53	COM26	CH119	CH24-	CH24-

**Table 6.** Pin Assignment for SH200LFH-4xDB50F-S Backshell 1 (Continued)

50-Pin D-SUB Backshell 1							
Cable			PXI-2569, SCXI-1169 Channel	PXI-2570 Channel	PXI-2575, SCXI-1175		
LFH Pin	50-Pin D-SUB Pin	Pair?			196 × 1 1-Wire	95 × 1 2-Wire	98 × 1 2-Wire
78	28	Twisted Pair	CH55	COM27	CH25	CH25+	CH25+
79	29		CH57	COM28	CH120	CH25–	CH25–
80	30	Twisted Pair	CH59	COM29	CH26	CH26+	CH26+
81	31		CH61	COM30	CH121	CH26–	CH26–
82	32	Twisted Pair	CH63	COM31	CH27	CH27+	CH27+
83	33		CH65	COM32	CH122	CH27–	CH27–
84	34	Twisted Pair	CH67	COM33	CH28	CH28+	CH28+
85	35		CH69	COM34	CH123	CH28–	CH28–
86	36	Twisted Pair	CH71	COM35	CH29	CH29+	CH29+
87	37		CH73	COM36	CH124	CH29–	CH29–
88	38	Twisted Pair	CH75	COM37	CH30	CH30+	CH30+
89	39		CH77	COM38	CH125	CH30–	CH30–
90	40	Twisted Pair	CH79	COM39	CH31	CH31+	CH31+
91	41		CH81	—	CH126	CH31–	CH31–
92	42	Twisted Pair	CH83	—	CH32	CH32+	CH32+
93	43		CH85	—	CH127	CH32–	CH32–
94	44	Twisted Pair	CH87	—	CH33	CH33+	CH33+
95	45		CH89	—	CH128	CH33–	CH33–
96	46	Twisted Pair	CH91	—	CH34	CH34+	CH34+
97	47		CH93	—	CH129	CH34–	CH34–
98	48	Twisted Pair	CH95	—	CH35	CH35+	CH35+
99	49		CH97	—	CH130	CH35–	CH35–
100	50	Not Paired	CH99	—	CH195	—	CH97–

**Table 7. Pin Assignment for SH200LFH-4xDB50F-S Backshell 2**

50-Pin D-SUB Backshell 2							
Cable			PXI-2569, SCXI-1169 Channel	PXI-2570 Channel	PXI-2575, SCXI-1175		
LFH Pin	50-Pin D-SUB Pin	Pair?			196 × 1 1-Wire	95 × 1 2-Wire	98 × 1 2-Wire
101	1	Twisted Pair	COM98	—	CH48	CH48+	CH48+
102	2		COM96	—	CH143	CH48–	CH48–
103	3	Twisted Pair	COM94	—	CH49	CH49+	CH49+
104	4		COM92	—	CH144	CH49–	CH49–
105	5	Twisted Pair	COM90	—	CH50	CH50+	CH50+
106	6		COM88	—	CH145	CH50–	CH50–
107	7	Twisted Pair	COM86	—	CH51	CH51+	CH51+
108	8		COM84	—	CH146	CH51–	CH51–
109	9	Twisted Pair	COM82	—	CH52	CH52+	CH52+
110	10		COM80	—	CH147	CH52–	CH52–
111	11	Twisted Pair	COM78	NC39	CH53	CH53+	CH53+
112	12		COM76	NC38	CH148	CH53–	CH53–
113	13	Twisted Pair	COM74	NC37	CH54	CH54+	CH54+
114	14		COM72	NC36	CH149	CH54–	CH54–
115	15	Twisted Pair	COM70	NC35	CH55	CH55+	CH55+
116	16		COM68	NC34	CH150	CH55–	CH55–
117	17	Twisted Pair	COM66	NC33	CH56	CH56+	CH56+
118	18		COM64	NC32	CH151	CH56–	CH56–
119	19	Twisted Pair	COM62	NC31	CH57	CH57+	CH57+
120	20		COM60	NC30	CH152	CH57–	CH57–
121	21	Twisted Pair	COM58	NC29	CH58	CH58+	CH58+
122	22		COM56	NC28	CH153	CH58–	CH58–
123	23	Twisted Pair	COM54	NC27	CH59	CH59+	CH59+
124	24		COM52	NC26	CH154	CH59–	CH59–
125	25	Not Paired	COM50	NC25	CH193	—	CH95–
126	26	Twisted Pair	COM48	NC24	CH60	CH60+	CH60+
127	27		COM46	NC23	CH155	CH60–	CH60–

**Table 7.** Pin Assignment for SH200LFH-4xDB50F-S Backshell 2 (Continued)

50-Pin D-SUB Backshell 2							
Cable			PXI-2569, SCXI-1169 Channel	PXI-2570 Channel	PXI-2575, SCXI-1175		
LFH Pin	50-Pin D-SUB Pin	Pair?			196 × 1 1-Wire	95 × 1 2-Wire	98 × 1 2-Wire
128	28	Twisted Pair	COM44	NC22	CH61	CH61+	CH61+
129	29		COM42	NC21	CH156	CH61–	CH61–
130	30	Twisted Pair	COM40	NC20	CH62	CH62+	CH62+
131	31		COM38	NC19	CH157	CH62–	CH62–
132	32	Twisted Pair	COM36	NC18	CH63	CH63+	CH63+
133	33		COM34	NC17	CH158	CH63–	CH63–
134	34	Twisted Pair	COM32	NC16	CH64	CH64+	CH64+
135	35		COM30	NC15	CH159	CH64–	CH64–
136	36	Twisted Pair	COM28	NC14	CH65	CH65+	CH65+
137	37		COM26	NC13	CH160	CH65–	CH65–
138	38	Twisted Pair	COM24	NC12	CH66	CH66+	CH66+
139	39		COM22	NC11	CH161	CH66–	CH66–
140	40	Twisted Pair	COM20	NC10	CH67	CH67+	CH67+
141	41		COM18	NC9	CH162	CH67–	CH67–
142	42	Twisted Pair	COM16	NC8	CH68	CH68+	CH68+
143	43		COM14	NC7	CH163	CH68–	CH68–
144	44	Twisted Pair	COM12	NC6	CH69	CH69+	CH69+
145	45		COM10	NC5	CH164	CH69–	CH69–
146	46	Twisted Pair	COM8	NC4	CH70	CH70+	CH70+
147	47		COM6	NC3	CH165	CH70–	CH70–
148	48	Twisted Pair	COM4	NC2	CH71	CH71+	CH71+
149	49		COM2	NC1	CH166	CH71–	CH71–
150	50	Not Paired	COM0	NC0	—	—	—

**Table 8.** Pin Assignment for SH200LFH-4xDB50F-S Backshell 3

50-Pin D-SUB Backshell 3							
Cable			PXI-2569, SCXI-1169 Channel	PXI-2570 Channel	PXI-2575, SCXI-1175		
LFH Pin	50-Pin D-SUB Pin	Pair?			196 × 1 1-Wire	95 × 1 2-Wire	98 × 1 2-Wire
151	1	Twisted Pair	CH0	—	CH84	CH84+	CH84+
152	2		CH2	—	CH179	CH84–	CH84–
153	3	Twisted Pair	CH4	—	CH85	CH85+	CH85+
154	4		CH6	—	CH180	CH85–	CH85–
155	5	Twisted Pair	CH8	—	CH86	CH86+	CH86+
156	6		CH10	—	CH181	CH86–	CH86–
157	7	Twisted Pair	CH12	—	CH87	CH87+	CH87+
158	8		CH14	—	CH182	CH87–	CH87–
159	9	Twisted Pair	CH16	—	CH88	CH88+	CH88+
160	10		CH18	—	CH183	CH88–	CH88–
161	11	Twisted Pair	CH20	—	CH89	CH89+	CH89+
162	12		CH22	—	CH184	CH89–	CH89–
163	13	Twisted Pair	CH24	—	CH90	CH90+	CH90+
164	14		CH26	—	CH185	CH90–	CH90–
165	15	Twisted Pair	CH28	—	CH91	CH91+	CH91+
166	16		CH30	—	CH186	CH91–	CH91–
167	17	Twisted Pair	CH32	—	CH92	CH92+	CH92+
168	18		CH34	—	CH187	CH92–	CH92–
169	19	Twisted Pair	CH36	—	CH93	CH93+	CH93+
170	20		CH38	—	CH188	CH93–	CH93–
171	21	Twisted Pair	CH40	—	CH94	CH94+	CH94+
172	22		CH42	—	CH189	CH94–	CH94–
173	23	Twisted Pair	CH44	—	COM	COM+	COM+
174	24		CH46	—	—	COM–	COM–
175	25	Not Paired	CH48	—	CH190	—	CH95+
176	26	Twisted Pair	CH50	—	CH72	CH72+	CH72+
177	27		CH52	—	CH167	CH72–	CH72–

**Table 8.** Pin Assignment for SH200LFH-4xDB50F-S Backshell 3 (Continued)

<b>50-Pin D-SUB Backshell 3</b>							
<b>Cable</b>			<b>PXI-2569, SCXI-1169 Channel</b>	<b>PXI-2570 Channel</b>	<b>PXI-2575, SCXI-1175</b>		
<b>LFH Pin</b>	<b>50-Pin D-SUB Pin</b>	<b>Pair?</b>			<b>196 × 1 1-Wire</b>	<b>95 × 1 2-Wire</b>	<b>98 × 1 2-Wire</b>
178	28	Twisted Pair	CH54	—	CH73	CH73+	CH73+
179	29		CH56	—	CH168	CH73–	CH73–
180	30	Twisted Pair	CH58	—	CH74	CH74+	CH74+
181	31		CH60	—	CH169	CH74–	CH74–
182	32	Twisted Pair	CH62	—	CH75	CH75+	CH75+
183	33		CH64	—	CH170	CH75–	CH75–
184	34	Twisted Pair	CH66	—	CH76	CH76+	CH76+
185	35		CH68	—	CH171	CH76–	CH76–
186	36	Twisted Pair	CH70	—	CH77	CH77+	CH77+
187	37		CH72	—	CH172	CH77–	CH77–
188	38	Twisted Pair	CH74	—	CH78	CH78+	CH78+
189	39		CH76	—	CH173	CH78–	CH78–
190	40	Twisted Pair	CH78	—	CH79	CH79+	CH79+
191	41		CH80	—	CH174	CH79–	CH79–
192	42	Twisted Pair	CH82	—	CH80	CH80+	CH80+
193	43		CH84	—	CH175	CH80–	CH80–
194	44	Twisted Pair	CH86	—	CH81	CH81+	CH81+
195	45		CH88	—	CH176	CH81–	CH81–
196	46	Twisted Pair	CH90	—	CH82	CH82+	CH82+
197	47		CH92	—	CH177	CH82–	CH82–
198	48	Twisted Pair	CH94	—	CH83	CH83+	CH83+
199	49		CH96	—	CH178	CH83–	CH83–
200	50	Not Paired	CH98	—	CH192	—	CH97+

## SH200LFH-BARE WIRE Cable

The SH200LFH-BARE WIRE cable is recommended for connecting the switch module to your system if termination other than 50-pin female D-SUB is required. One end of the cable terminates with an LFH200 connector. The other end of the cable has eight bundles of unterminated, tinned, and stripped cables.

The following tables list the pin assignments for the SH200LFH-BARE WIRE cable.



**Note** The first color listed in the Bare Wire Color column of Tables 9–16 is the primary color of the wire. The second color listed is the stripe color.

**Table 9.** Pin Assignment for SH200LFH-BARE WIRE Cable Leg J0

Cable Leg J0							
Cable			PXI-2569, SCXI-1169 Channel	PXI-2570 Channel	PXI-2575, SCXI-1175		
200 LFH Pin	Bare Wire Color	Pair?			196 × 1 1-Wire	95 × 1 2-Wire	98 × 1 2-Wire
1	RED/ORG	Twisted Pair	COM99	—	CH0	CH0+	CH0+
2	ORG/RED		COM97	—	CH95	CH0–	CH0–
3	BLU/WHT	Twisted Pair	COM95	—	CH1	CH1+	CH1+
4	WHT/BLU		COM93	—	CH96	CH1–	CH1–
5	BRN/RED	Twisted Pair	COM91	—	CH2	CH2+	CH2+
6	RED/BRN		COM89	—	CH97	CH2–	CH2–
7	GRY/RED	Twisted Pair	COM87	—	CH3	CH3+	CH3+
8	RED/GRY		COM85	—	CH98	CH3–	CH3–
9	BLK/BLU	Twisted Pair	COM83	—	CH4	CH4+	CH4+
10	BLU/BLK		COM81	—	CH99	CH4–	CH4–
11	ORG/WHT	Twisted Pair	COM79	NO39	CH5	CH5+	CH5+
12	WHT/ORG		COM77	NO38	CH100	CH5–	CH5–
13	BLK/ORG	Twisted Pair	COM75	NO37	CH6	CH6+	CH6+
14	ORG/BLK		COM73	NO36	CH101	CH6–	CH6–
15	BLK/GRN	Twisted Pair	COM71	NO35	CH7	CH7+	CH7+
16	GRN/BLK		COM69	NO34	CH102	CH7–	CH7–
17	WHT/GRN	Twisted Pair	COM67	NO33	CH8	CH8+	CH8+
18	GRN/WHT		COM65	NO32	CH103	CH8–	CH8–
19	WHT/GRY	Twisted Pair	COM63	NO31	CH9	CH9+	CH9+
20	GRY/WHT		COM61	NO30	CH104	CH9–	CH9–
21	WHT/BRN	Twisted Pair	COM59	NO29	CH10	CH10+	CH10+
22	BRN/WHT		COM57	NO28	CH105	CH10–	CH10–
23	RED/GRN	Twisted Pair	COM55	NO27	CH11	CH11+	CH11+
24	GRN/RED		COM53	NO26	CH106	CH11–	CH11–
25	RED/BLU	Not Paired	COM51	NO25	CH194	—	CH96–

**Table 10.** Pin Assignment for SH200LFH-BARE WIRE Cable Leg J1

Cable Leg J1							
Cable			PXI-2569, SCXI-1169 Channel	PXI-2570 Channel	PXI-2575, SCXI-1175		
200 LFH Pin	Bare Wire Color	Pair?			196 × 1 1-Wire	95 × 1 2-Wire	98 × 1 2-Wire
26	RED/ORG	Twisted Pair	COM49	NO24	CH12	CH12+	CH12+
27	ORG/RED		COM47	NO23	CH107	CH12-	CH12-
28	BLU/WHT	Twisted Pair	COM45	NO22	CH13	CH13+	CH13+
29	WHT/BLU		COM43	NO21	CH108	CH13-	CH13-
30	BRN/RED	Twisted Pair	COM41	NO20	CH14	CH14+	CH14+
31	RED/BRN		COM39	NO19	CH109	CH14-	CH14-
32	GRY/RED	Twisted Pair	COM37	NO18	CH15	CH15+	CH15+
33	RED/GRY		COM35	NO17	CH110	CH15-	CH15-
34	BLK/BLU	Twisted Pair	COM33	NO16	CH16	CH16+	CH16+
35	BLU/BLK		COM31	NO15	CH111	CH16-	CH16-
36	ORG/WHT	Twisted Pair	COM29	NO14	CH17	CH17+	CH17+
37	WHT/ORG		COM27	NO13	CH112	CH17-	CH17-
38	BLK/ORG	Twisted Pair	COM25	NO12	CH18	CH18+	CH18+
39	ORG/BLK		COM23	NO11	CH113	CH18-	CH18-
40	BLK/GRN	Twisted Pair	COM21	NO10	CH19	CH19+	CH19+
41	GRN/BLK		COM19	NO9	CH114	CH19-	CH19-
42	WHT/GRN	Twisted Pair	COM17	NO8	CH20	CH20+	CH20+
43	GRN/WHT		COM15	NO7	CH115	CH20-	CH20-
44	WHT/GRY	Twisted Pair	COM13	NO6	CH21	CH21+	CH21+
45	GRY/WHT		COM11	NO5	CH116	CH21-	CH21-
46	WHT/BRN	Twisted Pair	COM9	NO4	CH22	CH22+	CH22+
47	BRN/WHT		COM7	NO3	CH117	CH22-	CH22-
48	RED/GRN	Twisted Pair	COM5	NO2	CH23	CH23+	CH23+
49	GRN/RED		COM3	NO1	CH118	CH23-	CH23-
50	RED/BLU	Not Paired	COM1	NO0	—	—	—

**Table 11.** Pin Assignment for SH200LFH-BARE WIRE Cable Leg J2

Cable Leg J2							
Cable			PXI-2569, SCXI-1169 Channel	PXI-2570 Channel	PXI-2575, SCXI-1175		
200 LFH Pin	Bare Wire Color	Pair?			196 × 1 1-Wire	95 × 1 2-Wire	98 × 1 2-Wire
76	RED/ORG	Twisted Pair	CH51	COM25	CH24	CH24+	CH24+
77	ORG/RED		CH53	COM26	CH119	CH24–	CH24–
78	BLU/WHT	Twisted Pair	CH55	COM27	CH25	CH25+	CH25+
79	WHT/BLU		CH57	COM28	CH120	CH25–	CH25–
80	BRN/RED	Twisted Pair	CH59	COM29	CH26	CH26+	CH26+
81	RED/BRN		CH61	COM30	CH121	CH26–	CH26–
82	GRY/RED	Twisted Pair	CH63	COM31	CH27	CH27+	CH27+
83	RED/GRY		CH65	COM32	CH122	CH27–	CH27–
84	BLK/BLU	Twisted Pair	CH67	COM33	CH28	CH28+	CH28+
85	BLU/BLK		CH69	COM34	CH123	CH28–	CH28–
86	ORG/WHT	Twisted Pair	CH71	COM35	CH29	CH29+	CH29+
87	WHT/ORG		CH73	COM36	CH124	CH29–	CH29–
88	BLK/ORG	Twisted Pair	CH75	COM37	CH30	CH30+	CH30+
89	ORG/BLK		CH77	COM38	CH125	CH30–	CH30–
90	BLK/GRN	Twisted Pair	CH79	COM39	CH31	CH31+	CH31+
91	GRN/BLK		CH81	—	CH126	CH31–	CH31–
92	WHT/GRN	Twisted Pair	CH83	—	CH32	CH32+	CH32+
93	GRN/WHT		CH85	—	CH127	CH32–	CH32–
94	WHT/GRY	Twisted Pair	CH87	—	CH33	CH33+	CH33+
95	GRY/WHT		CH89	—	CH128	CH33–	CH33–
96	WHT/BRN	Twisted Pair	CH91	—	CH34	CH34+	CH34+
97	BRN/WHT		CH93	—	CH129	CH34–	CH34–
98	RED/GRN	Twisted Pair	CH95	—	CH35	CH35+	CH35+
99	GRN/RED		CH97	—	CH130	CH35–	CH35–
100	RED/BLU	Not Paired	CH99	—	CH195	—	CH97–

**Table 12.** Pin Assignment for SH200LFH-BARE WIRE Cable Leg J3

Cable Leg J3							
Cable			PXI-2569, SCXI-1169 Channel	PXI-2570 Channel	PXI-2575, SCXI-1175		
200 LFH Pin	Bare Wire Color	Pair?			196 × 1 1-Wire	95 × 1 2-Wire	98 × 1 2-Wire
51	RED/ORG	Twisted Pair	CH1	COM0	CH36	CH36+	CH36+
52	ORG/RED		CH3	COM1	CH131	CH36-	CH36-
53	BLU/WHT	Twisted Pair	CH5	COM2	CH37	CH37+	CH37+
54	WHT/BLU		CH7	COM3	CH132	CH37-	CH37-
55	BRN/RED	Twisted Pair	CH9	COM4	CH38	CH38+	CH38+
56	RED/BRN		CH11	COM5	CH133	CH38-	CH38-
57	GRY/RED	Twisted Pair	CH13	COM6	CH39	CH39+	CH39+
58	RED/GRY		CH15	COM7	CH134	CH39-	CH39-
59	BLK/BLU	Twisted Pair	CH17	COM8	CH40	CH40+	CH40+
60	BLU/BLK		CH19	COM9	CH135	CH40-	CH40-
61	ORG/WHT	Twisted Pair	CH21	COM10	CH41	CH41+	CH41+
62	WHT/ORG		CH23	COM11	CH136	CH41-	CH41-
63	BLK/ORG	Twisted Pair	CH25	COM12	CH42	CH42+	CH42+
64	ORG/BLK		CH27	COM13	CH137	CH42-	CH42-
65	BLK/GRN	Twisted Pair	CH29	COM14	CH43	CH43+	CH43+
66	GRN/BLK		CH31	COM15	CH138	CH43-	CH43-
67	WHT/GRN	Twisted Pair	CH33	COM16	CH44	CH44+	CH44+
68	GRN/WHT		CH35	COM17	CH139	CH44-	CH44-
69	WHT/GRY	Twisted Pair	CH37	COM18	CH45	CH45+	CH45+
70	GRY/WHT		CH39	COM19	CH140	CH45-	CH45-
71	WHT/BRN	Twisted Pair	CH41	COM20	CH46	CH46+	CH46+
72	BRN/WHT		CH43	COM21	CH141	CH46-	CH46-
73	RED/GRN	Twisted Pair	CH45	COM22	CH47	CH47+	CH47+
74	GRN/RED		CH47	COM23	CH142	CH47-	CH47-
75	RED/BLU	Not Paired	CH49	COM24	CH191	—	CH96+

**Table 13.** Pin Assignment for SH200LFH-BARE WIRE Cable Leg J4

Cable Leg J4							
Cable			PXI-2569, SCXI-1169 Channel	PXI-2570 Channel	PXI-2575, SCXI-1175		
200 LFH Pin	Bare Wire Color	Pair?			196 × 1 1-Wire	95 × 1 2-Wire	98 × 1 2-Wire
101	RED/ORG	Twisted Pair	COM98	—	CH48	CH48+	CH48+
102	ORG/RED		COM96	—	CH143	CH48–	CH48–
103	BLU/WHT	Twisted Pair	COM94	—	CH49	CH49+	CH49+
104	WHT/BLU		COM92	—	CH144	CH49–	CH49–
105	BRN/RED	Twisted Pair	COM90	—	CH50	CH50+	CH50+
106	RED/BRN		COM88	—	CH145	CH50–	CH50–
107	GRY/RED	Twisted Pair	COM86	—	CH51	CH51+	CH51+
108	RED/GRY		COM84	—	CH146	CH51–	CH51–
109	BLK/BLU	Twisted Pair	COM82	—	CH52	CH52+	CH52+
110	BLU/BLK		COM80	—	CH147	CH52–	CH52–
111	ORG/WHT	Twisted Pair	COM78	NC39	CH53	CH53+	CH53+
112	WHT/ORG		COM76	NC38	CH148	CH53–	CH53–
113	BLK/ORG	Twisted Pair	COM74	NC37	CH54	CH54+	CH54+
114	ORG/BLK		COM72	NC36	CH149	CH54–	CH54–
115	BLK/GRN	Twisted Pair	COM70	NC35	CH55	CH55+	CH55+
116	GRN/BLK		COM68	NC34	CH150	CH55–	CH55–
117	WHT/GRN	Twisted Pair	COM66	NC33	CH56	CH56+	CH56+
118	GRN/WHT		COM64	NC32	CH151	CH56–	CH56–
119	WHT/GRY	Twisted Pair	COM62	NC31	CH57	CH57+	CH57+
120	GRY/WHT		COM60	NC30	CH152	CH57–	CH57–
121	WHT/BRN	Twisted Pair	COM58	NC29	CH58	CH58+	CH58+
122	BRN/WHT		COM56	NC28	CH153	CH58–	CH58–
123	RED/GRN	Twisted Pair	COM54	NC27	CH59	CH59+	CH59+
124	GRN/RED		COM52	NC26	CH154	CH59–	CH59–
125	RED/BLU	Not Paired	COM50	NC25	CH193	—	CH95–

**Table 14.** Pin Assignment for SH200LFH-BARE WIRE Cable Leg J5

Cable Leg J5							
Cable			PXI-2569, SCXI-1169 Channel	PXI-2570 Channel	PXI-2575, SCXI-1175		
200 LFH Pin	Bare Wire Color	Pair?			196 × 1 1-Wire	95 × 1 2-Wire	98 × 1 2-Wire
126	RED/ORG	Twisted Pair	COM48	NC24	CH60	CH60+	CH60+
127	ORG/RED		COM46	NC23	CH155	CH60-	CH60-
128	BLU/WHT	Twisted Pair	COM44	NC22	CH61	CH61+	CH61+
129	WHT/BLU		COM42	NC21	CH156	CH61-	CH61-
130	BRN/RED	Twisted Pair	COM40	NC20	CH62	CH62+	CH62+
131	RED/BRN		COM38	NC19	CH157	CH62-	CH62-
132	GRY/RED	Twisted Pair	COM36	NC18	CH63	CH63+	CH63+
133	RED/GRY		COM34	NC17	CH158	CH63-	CH63-
134	BLK/BLU	Twisted Pair	COM32	NC16	CH64	CH64+	CH64+
135	BLU/BLK		COM30	NC15	CH159	CH64-	CH64-
136	ORG/WHT	Twisted Pair	COM28	NC14	CH65	CH65+	CH65+
137	WHT/ORG		COM26	NC13	CH160	CH65-	CH65-
138	BLK/ORG	Twisted Pair	COM24	NC12	CH66	CH66+	CH66+
139	ORG/BLK		COM22	NC11	CH161	CH66-	CH66-
140	BLK/GRN	Twisted Pair	COM20	NC10	CH67	CH67+	CH67+
141	GRN/BLK		COM18	NC9	CH162	CH67-	CH67-
142	WHT/GRN	Twisted Pair	COM16	NC8	CH68	CH68+	CH68+
143	GRN/WHT		COM14	NC7	CH163	CH68-	CH68-
144	WHT/GRY	Twisted Pair	COM12	NC6	CH69	CH69+	CH69+
145	GRY/WHT		COM10	NC5	CH164	CH69-	CH69-
146	WHT/BRN	Twisted Pair	COM8	NC4	CH70	CH70+	CH70+
147	BRN/WHT		COM6	NC3	CH165	CH70-	CH70-
148	RED/GRN	Twisted Pair	COM4	NC2	CH71	CH71+	CH71+
149	GRN/RED		COM2	NC1	CH166	CH71-	CH71-
150	RED/BLU	Not Paired	COM0	NC0	—	—	—

**Table 15.** Pin Assignment for SH200LFH-BARE WIRE Cable Leg J6

Cable Leg J6							
Cable			PXI-2569, SCXI-1169 Channel	PXI-2570 Channel	PXI-2575, SCXI-1175		
200 LFH Pin	Bare Wire Color	Pair?			196 × 1 1-Wire	95 × 1 2-Wire	98 × 1 2-Wire
176	RED/ORG	Twisted Pair	CH50	—	CH72	CH72+	CH72+
177	ORG/RED		CH52	—	CH167	CH72–	CH72–
178	BLU/WHT	Twisted Pair	CH54	—	CH73	CH73+	CH73+
179	WHT/BLU		CH56	—	CH168	CH73–	CH73–
180	BRN/RED	Twisted Pair	CH58	—	CH74	CH74+	CH74+
181	RED/BRN		CH60	—	CH169	CH74–	CH74–
182	GRY/RED	Twisted Pair	CH62	—	CH75	CH75+	CH75+
183	RED/GRY		CH64	—	CH170	CH75–	CH75–
184	BLK/BLU	Twisted Pair	CH66	—	CH76	CH76+	CH76+
185	BLU/BLK		CH68	—	CH171	CH76–	CH76–
186	ORG/WHT	Twisted Pair	CH70	—	CH77	CH77+	CH77+
187	WHT/ORG		CH72	—	CH172	CH77–	CH77–
188	BLK/ORG	Twisted Pair	CH74	—	CH78	CH78+	CH78+
189	ORG/BLK		CH76	—	CH173	CH78–	CH78–
190	BLK/GRN	Twisted Pair	CH78	—	CH79	CH79+	CH79+
191	GRN/BLK		CH80	—	CH174	CH79–	CH79–
192	WHT/GRN	Twisted Pair	CH82	—	CH80	CH80+	CH80+
193	GRN/WHT		CH84	—	CH175	CH80–	CH80–
194	WHT/GRY	Twisted Pair	CH86	—	CH81	CH81+	CH81+
195	GRY/WHT		CH88	—	CH176	CH81–	CH81–
196	WHT/BRN	Twisted Pair	CH90	—	CH82	CH82+	CH82+
197	BRN/WHT		CH92	—	CH177	CH82–	CH82–
198	RED/GRN	Twisted Pair	CH94	—	CH83	CH83+	CH83+
199	GRN/RED		CH96	—	CH178	CH83–	CH83–
200	RED/BLU	Not Paired	CH98	—	CH192	—	CH97+

**Table 16.** Pin Assignment for SH200LFH-BARE WIRE Cable Leg J7

Cable Leg J7							
Cable			PXI-2569, SCXI-1169 Channel	PXI-2570 Channel	PXI-2575, SCXI-1175		
200 LFH Pin	Bare Wire Color	Pair?			196 × 1 1-Wire	95 × 1 2-Wire	98 × 1 2-Wire
151	RED/ORG	Twisted Pair	CH0	—	CH84	CH84+	CH84+
152	ORG/RED		CH2	—	CH179	CH84–	CH84–
153	BLU/WHT	Twisted Pair	CH4	—	CH85	CH85+	CH85+
154	WHT/BLU		CH6	—	CH180	CH85–	CH85–
155	BRN/RED	Twisted Pair	CH8	—	CH86	CH86+	CH86+
156	RED/BRN		CH10	—	CH181	CH86–	CH86–
157	GRY/RED	Twisted Pair	CH12	—	CH87	CH87+	CH87+
158	RED/GRY		CH14	—	CH182	CH87–	CH87–
159	BLK/BLU	Twisted Pair	CH16	—	CH88	CH88+	CH88+
160	BLU/BLK		CH18	—	CH183	CH88–	CH88–
161	ORG/WHT	Twisted Pair	CH20	—	CH89	CH89+	CH89+
162	WHT/ORG		CH22	—	CH184	CH89–	CH89–
163	BLK/ORG	Twisted Pair	CH24	—	CH90	CH90+	CH90+
164	ORG/BLK		CH26	—	CH185	CH90–	CH90–
165	BLK/GRN	Twisted Pair	CH28	—	CH91	CH91+	CH91+
166	GRN/BLK		CH30	—	CH186	CH91–	CH91–
167	WHT/GRN	Twisted Pair	CH32	—	CH92	CH92+	CH92+
168	GRN/WHT		CH34	—	CH187	CH92–	CH92–
169	WHT/GRY	Twisted Pair	CH36	—	CH93	CH93+	CH93+
170	GRY/WHT		CH38	—	CH188	CH93–	CH93–
171	WHT/BRN	Twisted Pair	CH40	—	CH94	CH94+	CH94+
172	BRN/WHT		CH42	—	CH189	CH94–	CH94–
173	RED/GRN	Twisted Pair	CH44	—	COM	COM+	COM+
174	GRN/RED		CH46	—	—	COM–	COM–
175	RED/BLU	Not Paired	CH48	—	CH190	—	CH95+

# Accessories

Visit [ni.com](http://ni.com) for information about the following accessory.

**Table 17.** NI Accessory for the LFH200 Cable

Accessory	Part Number
TBX-50 terminal block, with screw connection and 50 position D-Subminiature pin strip	779305-01



**Caution** You must install mating connectors according to local safety codes and standards and according to the specifications provided by the connector manufacturer. You are responsible for verifying safety compliance of third-party connectors and their usage according to the relevant standard(s), including UL and CSA in North America and IEC and VDE in Europe.

Refer to Table 18 for information about third-party accessories for the LFH200 Cable.

**Table 18.** Third-Party Accessories for the LFH200 Cable

Accessory	Manufacturer	Part Number
VARIOFACE module, with screw connection and 50 position D-Subminiature pin strip	Phoenix Contact	FLKM-D50 SUB/S
VARIOFACE module, with screw connection and 50 position D-Subminiature pin strip	Phoenix Contact	FLKMS-D50 SUB/S
VARIOFACE module, with screw connection and 50 position D-Subminiature pin strip, with LED indicators	Phoenix Contact	FLKM-D50 SUB/S/LA
Right-angle 50 position male D-SUB connector <sup>†</sup>	Amp	747497-4

<sup>†</sup>Small quantity orders are available from Digi-Key Corporation (part number A23398-ND)

# Specifications

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The following specifications list properties of the multi-conductor cable used to fabricate the LFH200 cable.

## Impedance

Differential .....  $100 \pm 15 \Omega$

Single-ended .....  $65 \pm 15 \Omega$

## Capacitance

Mutual ..... 15.0 pF/ft nominal

Single-ended ..... 25.0 pF/ft nominal

Time delay..... 1.60 ns/ft maximum

Time delay skew ..... 0.040 ns/ft maximum

## Attenuation

Differential ..... 0.025 dB/ft maximum at 5 Mhz

Single-ended ..... 0.085 dB/ft maximum at 50 Mhz

Conductor DC resistance .....  $0.070 \Omega/\text{ft}$  maximum at  $20^\circ\text{C}$

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