NI SCXI™-1128 Specifications

32-Channel Solid State Relay Multiplexer/Matrix

This document lists specifications for the NI SCXI-1128 multiplexer/matrix module. All specifications are subject to change without notice. Visit ni.com/manuals for the most current specifications.

Configurations... 64×1 1-wire multiplexer
32×1 2-wire multiplexer
16×1 4-wire multiplexer
4×8 2-wire matrix

Input Characteristics

All input characteristics are DC, AC_{rms}, or a combination unless otherwise specified.

Maximum switching voltage

Channel-to-channel......................... 250 V, CAT II

Channel-to-ground.......................... 250 V

⚠ **Caution** Modules that can connect to a common high-voltage analog backplane derate to their lowest common voltage rating. Refer to the *NI Switches Getting Started Guide* for more information.

When hazardous voltages (>42.4 V_{pk}/60 VDC) are present on any relay terminal, safety low-voltage (≤42.4 V_{pk}/60 VDC) cannot be connected to any other relay terminal.

Maximum switching current .... 30 mA at 10 VDC
(per channel) 0.8 mA at 250 VAC

Maximum switching power .... 0.3 W
(per channel)

DC path resistance .... <1.2 kΩ

NATIONAL INSTRUMENTS™

Offset voltage

 0 °C to 25 °C ....<25 µV

 25 °C to 50 °C ....<100 µV

RF Performance Characteristics

Typical channel-to-channel isolation
(50 Ω termination)

 100 Hz ....>80 dB

 1 kHz ....>70 dB

 10 kHz ....>55 dB

 100 kHz ....>35 dB

 1 MHz..>20 dB

Dynamic Characteristics

Maximum scan rate ....1,200 channels/s

Relay operate time (at 20 °C) ....0.25 ms typical, 0.5 ms max

Release time (at 20 °C)...........................0.08 ms typical, 0.2 ms max

Trigger Characteristics

Input trigger

 Sources ....SCXI trigger line 0,
                Rear connector,
                Front panel

 Minimum pulse width......................500 ns

Scanner advanced trigger

 Destinations ....SCXI trigger line 2,
                Front panel

 Pulse width ....1.1 µs

Physical Characteristics

Relay type .... Solid state relay (SSR)

Dimensions (W × H × D) .... 3.0 cm × 17.3 cm × 19.6 cm
(1.2 in. × 6.7 in. × 7.6 in.)

Weight .... 605 g
(1 lb 6 oz)

Environment

The NI SCXI-1128 is intended for indoor use only.

Operating temperature .... 0 °C to 50 °C

Storage temperature .... −20 °C to 70 °C

Relative humidity .... 5% to 85% noncondensing

Recommended warm-up time .... 5 minutes

Pollution Degree 2

Approved at altitudes up to 2,000 m.

Accessories

Visit ni.com for more information about the following accessories.

Table 1. Accessories Available for the NI SCXI-1128

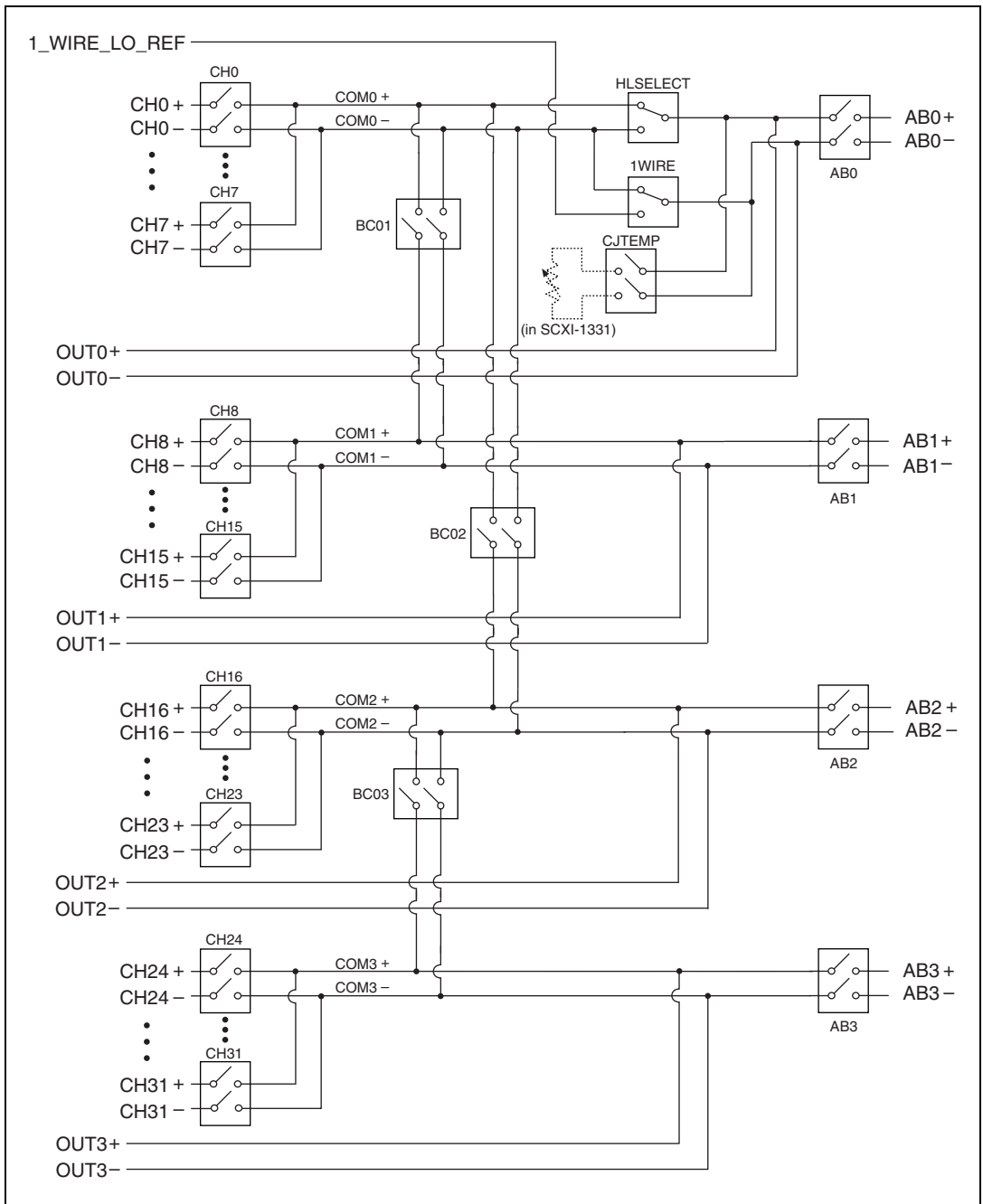| Accessory	Part Number
NI SCXI-1331 terminal block (64 × 1 1-wire multiplexer) (32 × 1 2-wire multiplexer) (16 × 1 4-wire multiplexer)	777687-31
NI SCXI-1332 terminal block (4 × 8 2-wire matrix)	777687-32
0.40 m matrix expansion cable	185440-0R4
0.75 m matrix expansion cable	185440-0R75

Figure 1. NI SCXI-1128 Power-On State

Compliance and Certifications

Safety

This product is designed to meet the requirements of the following standards of safety for electrical equipment for measurement, control, and laboratory use:

• IEC 61010-1, EN 61010-1

• UL 61010-1

• CAN/CSA C22.2 No. 61010-1

Note For UL and other safety certifications, refer to the product label, or visit ni.com/certification, search by model number or product line, and click the appropriate link in the Certification column.

Electromagnetic Compatibility

Emissions .... EN 55011 Class A at 10 m
FCC Part 15A above 1 GHz

Immunity .... EN 61326:1997 + A2:2001,
Table 1

EMC/EMI .... CE, C-Tick, and FCC Part 15
(Class A) Compliant

Note For EMC compliance, operate this device with shielded cabling.

CE Compliance

This product meets the essential requirements of applicable European Directives, as amended for CE marking, as follows:

Low-Voltage Directive (safety) 73/23/EEC

Electromagnetic Compatibility
Directive (EMC) 89/336/EEC

Note Refer to the Declaration of Conformity (DoC) for this product for any additional regulatory compliance information. To obtain the DoC for this product, visit ni.com/certification, search by model number or product line, and click the appropriate link in the Certification column.

373471B-01   Aug04