Specifications for the NI SCXI™-1128

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..... 64x1 1-wire multiplexer
32x1 2-wire multiplexer
16x1 4-wire multiplexer
4x8 2-wire matrix

Input Characteristics

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

Maximum switching voltage..... 250 V, CAT II
(channel-to-channel and channel-to-ground)

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.

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

Offset Voltage

0 °C to 25 °C..... <25 µV

25 °C to 50 °C..... <100 µV

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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

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 (64x1 1-wire multiplexer) (32x1 2-wire multiplexer) (16x1 4-wire multiplexer)	777687-31
NI SCXI-1332 terminal block (4x8 2-wire matrix)	777687-32
0.40 m matrix expansion cable	185440-0R4
0.75 m matrix expansion cable	185440-0R75

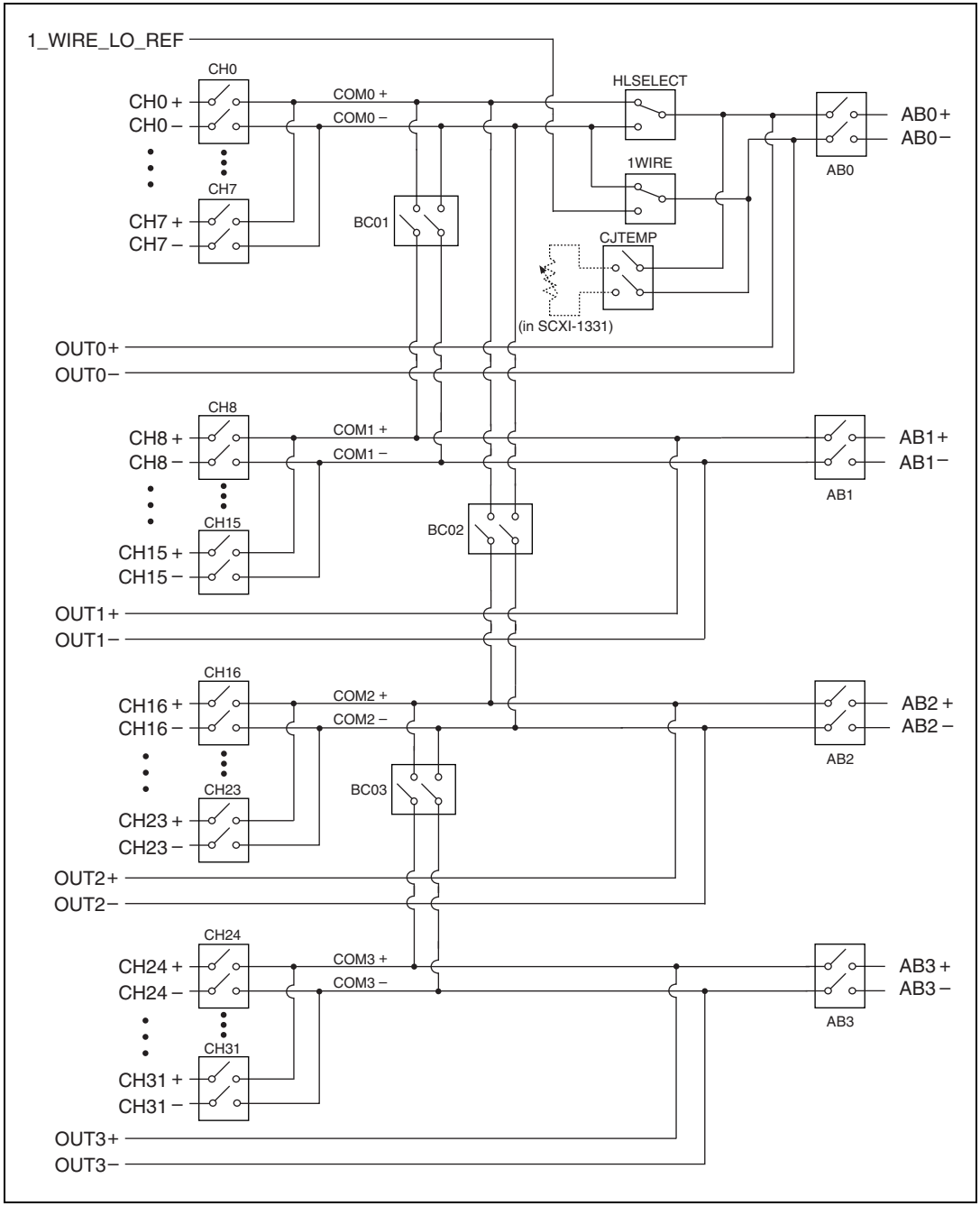

Figure 1. NI SCXI-1128 Power-On State

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 3111-1, UL 61010B-1
- CAN/CSA C22.2 No. 1010.1

Note For UL and other safety certifications refer to the product label or visit `ni.com`.

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, you *must* 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, click **Declarations of Conformity Information** at `ni.com/hardref.nsf/`.