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SCXI-1332

NI SCXI™-1128 Specifications

32-Channel Solid-State Relay Multiplexer/Matrix

このドキュメントには、日本語ページも含まれています。

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.

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

Refer to the *NI Switches Help* for detailed topology and pinout information.

Input Characteristics

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

Maximum switching voltage

Channel-to-ground...................... 300 VDC/250 VAC, CAT II

⚠ **Caution** This module is rated for Measurement Category II and intended to carry signal voltages no greater than 300 VDC/250 VAC. This module features $250V_{rms}$ continuous isolation between the input channels and the backplane (bus) as verified by a 2,300 V_{rms} dielectric withstand test, 5 seconds maximum. Do *not* use this module for connection to signals or for measurements within Categories III or IV. Refer to the *Read Me First: Safety and Electromagnetic Compatibility* document for more information about measurement categories.

⚠ **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.

⚠ **Caution** 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.

⚠ **Caution** The switching power is limited by the maximum switching current, the maximum voltage, and must not exceed 9 W.

Maximum switching power.............9 W
(per channel)

Maximum switching current ....30 mA
(per channel)

DC path resistance...........................<1.2 kΩ

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

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Dynamic Characteristics

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

📝 **Note** Certain applications may require additional time for proper settling. Refer to the *NI Switches Help* for information about including additional settling time.

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

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

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 (L × W × H)................19.8 × 3.0 × 17.3 cm
(7.8 × 1.2 × 6.8 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

Maximum altitude ....2,000 m

Indoor use only.

Accessories

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

Table 1. NI Accessories Available for the NI SCXI-1128

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

⚠ **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.

📝 **Note** When using the SCXI-1128 with either the SCXI-1331 or the SCXI-1332 terminal block, observe the maximum voltage specifications of the SCXI-1128 (300 VDC/250 VAC).
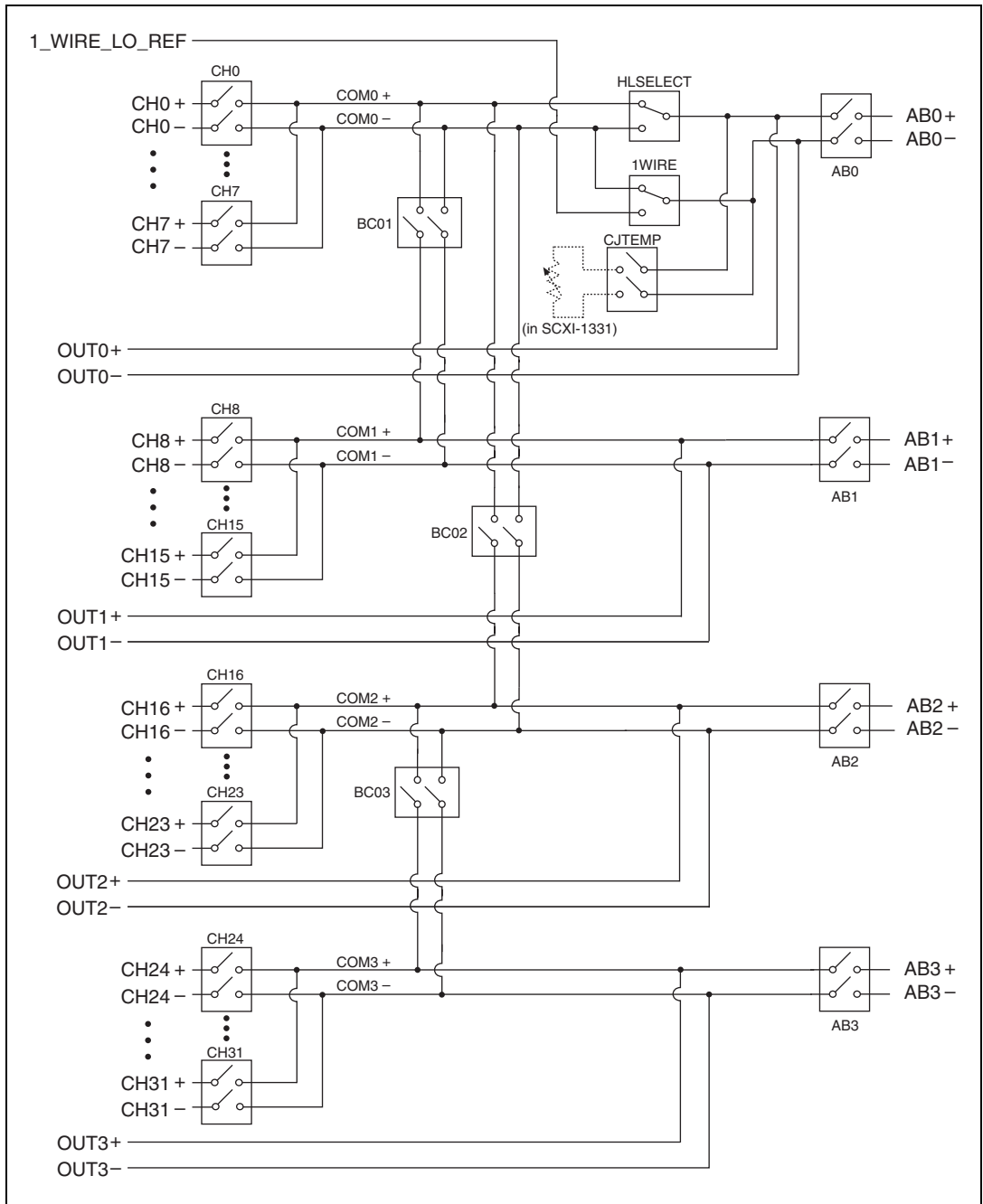
Figure 1 shows the NI SCXI-1128 in its power-on state.

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, CSA 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

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

• EN 61326 EMC requirements; Minimum Immunity

• EN 55011 Emissions; Group 1, Class A

• CE, C-Tick, ICES, and FCC Part 15 Emissions; Class A

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

CE Compliance

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

• 2006/95/EC; Low-Voltage Directive (safety)

• 2004/108/EC; Electromagnetic Compatibility Directive (EMC)

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.

Environmental Management

National Instruments is committed to designing and manufacturing products in an environmentally responsible manner. NI recognizes that eliminating certain hazardous substances from our products is beneficial not only to the environment but also to NI customers.

For additional environmental information, refer to the *NI and the Environment* Web page at `ni.com/environment`. This page contains the environmental regulations and directives with which NI complies, as well as other environmental information not included in this document.

Waste Electrical and Electronic Equipment (WEEE)

EU Customers At the end of their life cycle, all products *must* be sent to a WEEE recycling center. For more information about WEEE recycling centers and National Instruments WEEE initiatives, visit `ni.com/environment/weee.htm`.

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