

# NI PXI-2567 Specifications

## 64-Channel Relay Driver Module

This document lists specifications for the NI PXI-2567 relay driver module. All specifications are subject to change without notice. Visit [ni.com/manuals](http://ni.com/manuals) for the most current specifications.

Configuration ..... 64 channels, nonlatching

Channels are in a bank arrangement, with eight banks of eight channels.

## Input Characteristics

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Maximum drive voltage,  
external power ..... 50 VDC

Maximum drive current

Per channel ..... 600 mA

Per module ..... 25 A

Internal drive power ..... 5 V at 1.25 A, 12 V at 0.5 A

Per channel protection circuitry

Overvoltage protection activates at 80 V maximum.

Over-current protection activates at 1.5 A minimum.

Over-temperature protection activates at 150 °C junction temperature.

Internal drive power protection circuitry

The 5 V and 12 V internal power supplies have fuses for over-current protection. These fuses are customer replaceable. Refer to the [Accessories](#) section for fuse ratings.

# Dynamic Characteristics

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Single-channel operate time  
(typical at 25 °C).....60  $\mu$ s



**Note** The operate time is measured from an input trigger to 90% activation of a 500  $\Omega$  resistor or between consecutive channel operations.

During power-on or reset, all relay drivers disconnect (power down).

# Trigger Characteristics

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## Input trigger

Sources .....PXI trigger lines 0–7,  
Front panel

Minimum pulse width.....150 ns

## Front panel input voltage

Minimum .....–0.5 V

VL maximum .....+0.7 V

VH minimum.....+2.0 V

Nominal .....+3.3 V

Maximum .....+5.5 V

## Output trigger

Destinations .....PXI trigger lines 0–7,  
Front panel

Pulse width .....Programmable (1  $\mu$ s to 62  $\mu$ s)

Front panel nominal voltage.....3.3 V TTL, 8 mA

# Physical Characteristics

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I/O connector.....	78-pin D-subminiature
Power requirement, including optional internal drive power .....	8 W at 5 V, 0.5 W at 3.3 V, 6 W at 12 V
Dimensions (W × H × D).....	2.0 cm × 10.0 cm × 16.3 cm (0.8 in. × 3.9 in. × 6.4 in.)
Weight.....	220 g (8 oz)

## Environment

Operating temperature.....	0 °C to 55 °C
Storage temperature .....	–20 °C to 70 °C
Relative humidity .....	5% to 85%, noncondensing
Pollution Degree .....	2
Approved at altitudes up to	2,000 m
Indoor use only	

## Accessories



**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.

The module comes with one mating connector and backshell kit. Replacement fuses and additional mating connectors are available through general electronics catalogs.

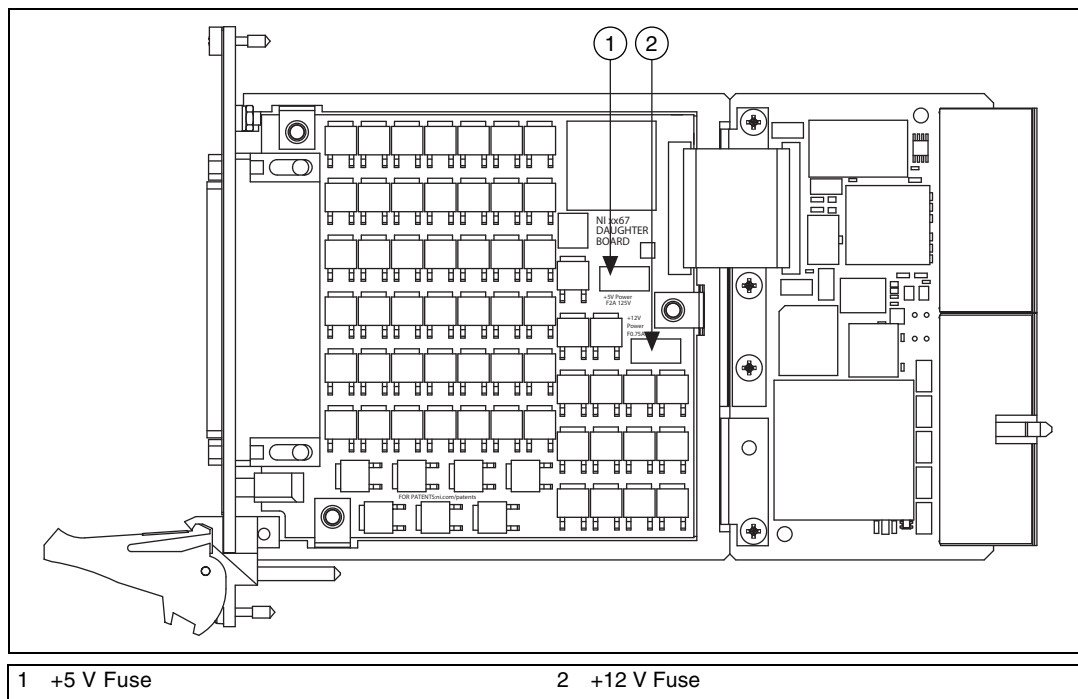
**Table 1.** Third-Party Accessories for the NI PXI-2567

Accessory	Rating	Manufacturer and Part Number
5 V internal supply fuse	F2 A, 125 V	Littlefuse, NANO <sup>2</sup> , 154.002
12 V internal supply fuse	F0.75 A, 125 V	Littlefuse, NANO <sup>2</sup> , 154.750
78-pin D-subminiature, female, vertical or right-angle	60 V, 5 A	Any

## How to Replace the Fuses

The front panel LEDs show the status of the +5 V and +12 V fuses. If an LED is on, the corresponding fuse is intact. Complete the following steps to replace a fuse.

1. Ground yourself with a grounding strap or with a ground to your PXI chassis. Proper grounding prevents damage to your PXI module from electrostatic discharge.
2. Power off the PXI chassis and remove the module with the blown fuse.
3. Remove the blown fuse with pliers and replace it. Refer to Figure 1 for the fuse locations.



**Figure 1.** NI PXI-2567 Daughterboard Diagram with Fuse Locations

# Compliance and Certifications

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## Safety

This product meets the requirements of the following standards for safety and 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/hardref.nsf](http://ni.com/hardref.nsf), 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, you *must* operate this device with shielded cabling.

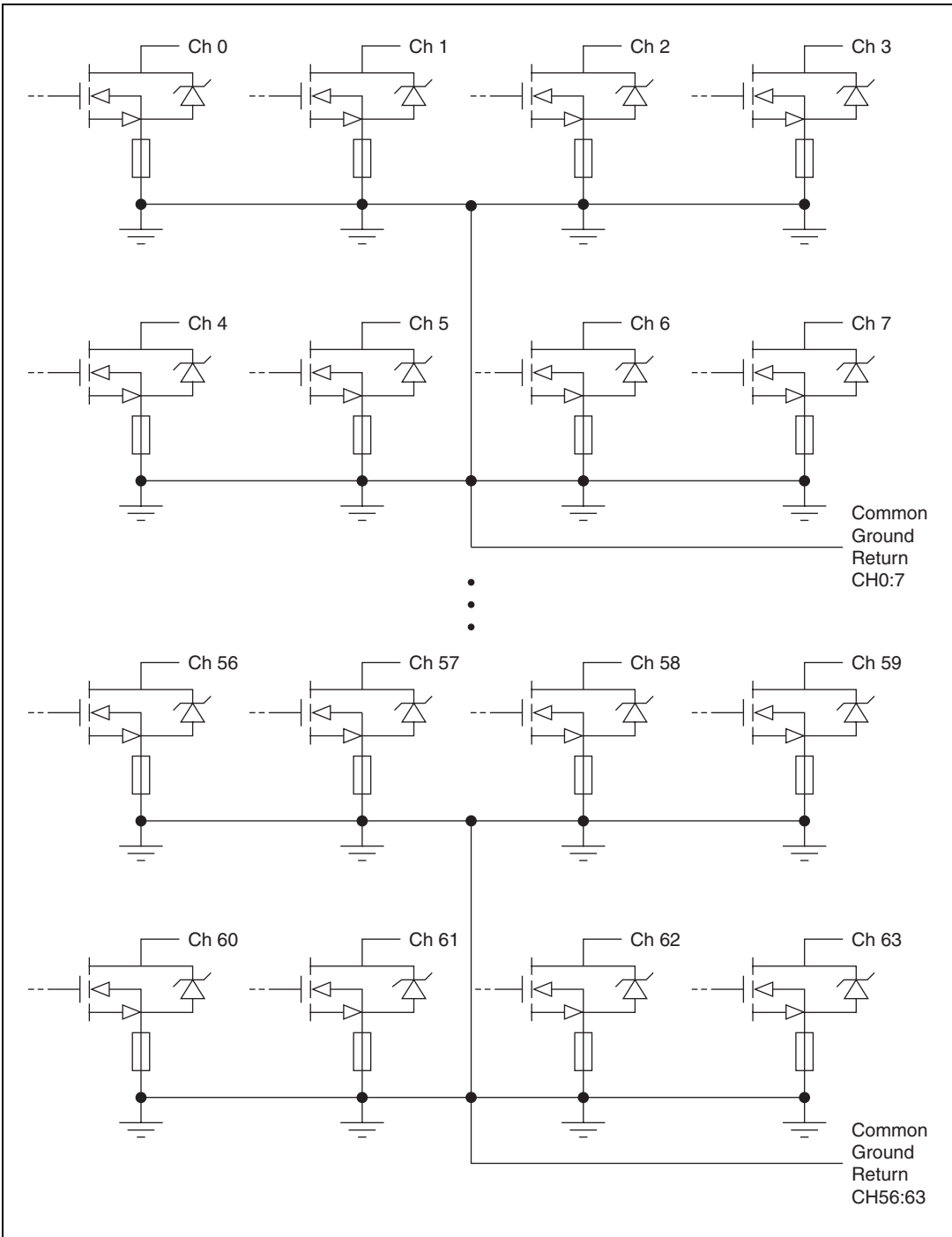
## CE Compliance

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, visit [ni.com/hardref.nsf](http://ni.com/hardref.nsf), search by model number or product line, and click the appropriate link in the Certification column.



**Figure 2.** PXI-2567 Relay Driver Output Topology

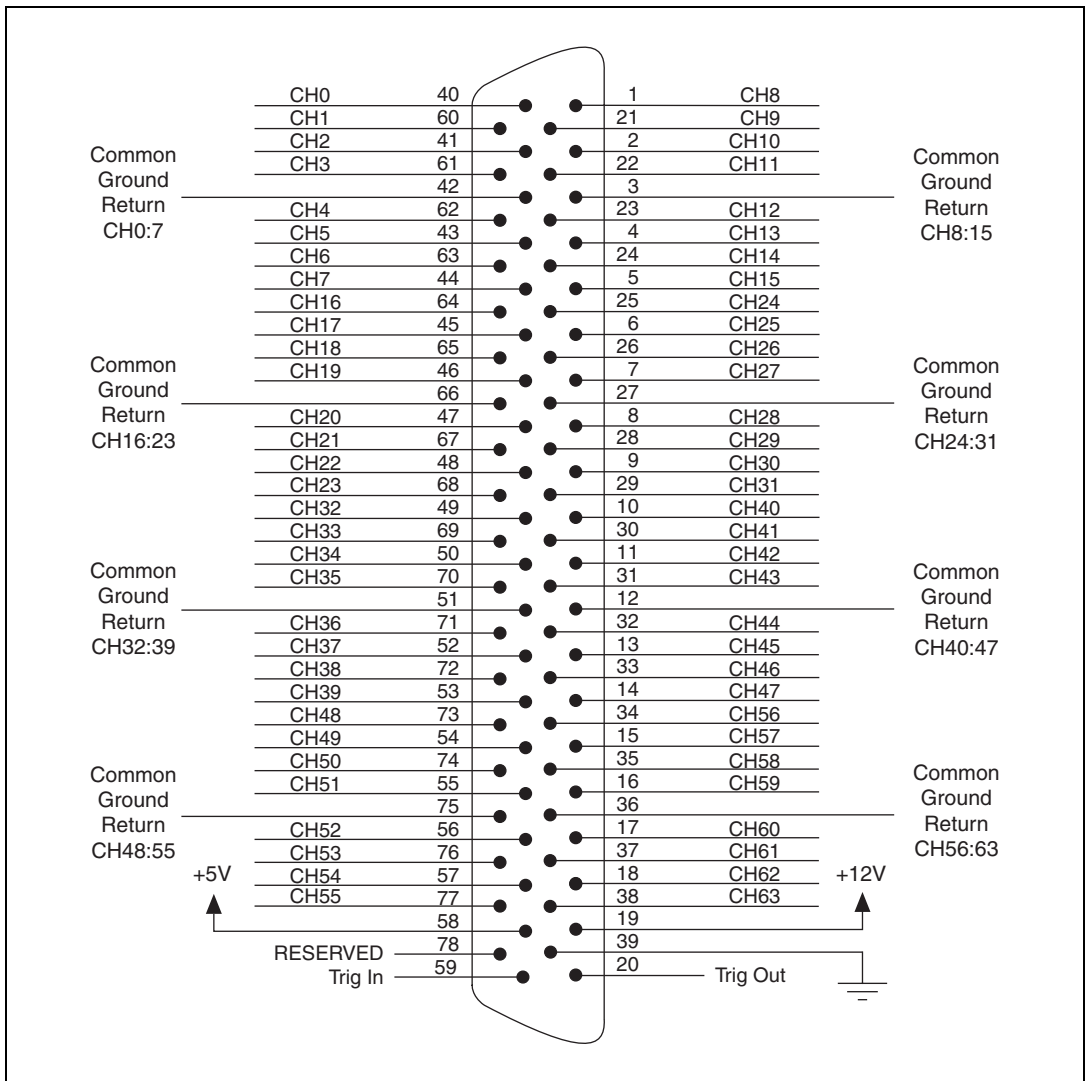


Figure 3. NI PXI-2567 Front Panel Pinout

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