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Find the *National Instruments PCI-6520* at our website: *Click HERE*

NI 6520 Specifications

This document lists specifications for the NI PCI-6520 device. All specifications are subject to change without notice. These specifications are typical at 25 °C unless otherwise noted.

Digital I/O

Number of channels ..... 16 (eight optically isolated digital input channels and eight non-latching relay output channels)

Data transfers ..... Interrupts, programmed I/O

I/O connector ..... 37-pin male D-SUB

Isolated Inputs

Number of input channels ..... 8 (each bipolar and isolated from other channels)

Input voltage range ..... –30 VDC to 30 VDC, P0.*X*+ to P0.*X*–

Isolation

Channel-to-channel ..... 60 VDC continuous[1]

Digital logic levels

Level	Min	Max
Input low voltage	0 VDC	±4 VDC
Input high voltage	±11 VDC	±30 VDC

Input current

11 V inputs ..... 4.5 mA/channel max

30 V inputs ..... 12.5 mA/channel max

Propagation delay ..... 45 µs typ

Electromechanical Relay Outputs

Number of channels 8

Relay types ..... 3 non-latching SPDT (Form C), 5 non-latching SPST (Form A)

Power-on state ..... De-energized, default; user-programmable to de-energized or energized

Note The response time of programmable power-up states is 400 ms.

Default power-off state ..... Relays de-energized

Caution The maximum switching current is limited by the maximum switching power, the maximum voltage, and must not exceed 60 W/60 VA.

Contact rating

Maximum switching power ..... 60 W/60 VA

Maximum voltage (AC) ..... 42.4 V_{pk}/30 V_{rms}

Maximum voltage (DC) ..... 60 VDC

Maximum current ..... 2 A[2]

DC path resistance

Initial ..... 0.2 Ω

End of life ..... ≥1.0 Ω

Relay operate time ..... 2 ms typ, 4 ms max

Expected relay life

Mechanical ..... 100,000,000 cycles

Electrical

30 VDC, 1 ADC resistive ..... 500,000 cycles

30 VDC, 2 ADC resistive ..... 100,000 cycles

[1] Verified by 620 Vrms dielectric withstand test, 5 s.

[2] All channels—external PC ambient, up to 55 °C.

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Power Requirement

5 V (±5 %).....400 mA typ,
600 mA max

Physical Characteristics

Dimensions.....17.5 cm × 9.9 cm
(6.9 in. × 3.9 in.)

Weight .....150.0 g (5.29 oz)

Pin Assignments

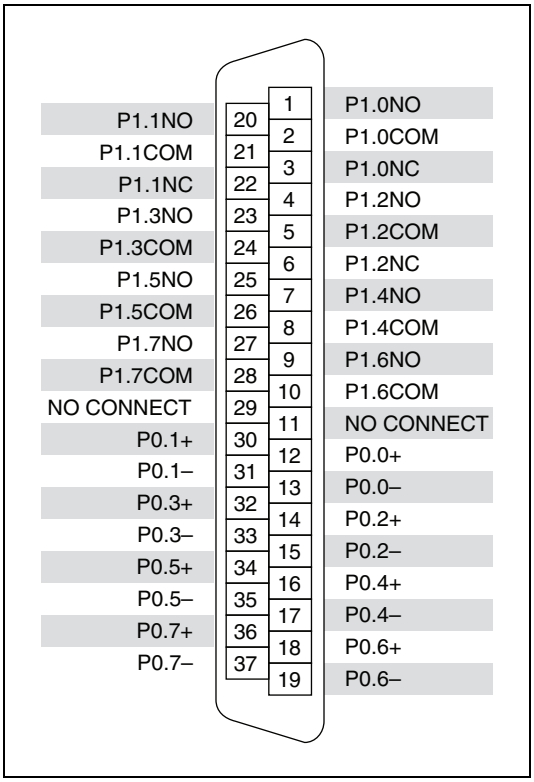


Figure 1. NI 6520 Pin Assignments

Environmental

The NI 6520 device is intended for indoor use only.

Operating Environment

Ambient temperature range .....0 to 55 °C
(tested in accordance with
IEC-60068-2-1 and
IEC-60068-2-2)

Relative humidity range..... 10 to 90%,
noncondensing
(tested in accordance with
IEC-60068-2-56)

Altitude ..... 2,000 m (at 25 °C ambient
temperature)

Pollution Degree 2

Storage Environment

Ambient temperature range ..... –20 to 70 °C
(tested in accordance with
IEC-60068-2-1 and
IEC-60068-2-2)

Relative humidity range..... 5 to 95%, noncondensing
(tested in accordance with
IEC-60068-2-56)

Safety

This product meets 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 the *Online Product Certification* section.

Electromagnetic Compatibility

This product meets the requirements of the following EMC standards for electrical equipment for measurement, control, and laboratory use:

- EN 61326 (IEC 61326): Class A emissions; Basic immunity
- EN 55011 (CISPR 11): Group 1, Class A emissions
- AS/NZS CISPR 11: Group 1, Class A emissions
- FCC 47 CFR Part 15B: Class A emissions
- ICES-001: Class A emissions

Note For the standards applied to assess the EMC of this product, refer to the *Online Product Certification* section.

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

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CE Compliance CE

This product meets the essential requirements of applicable European Directives as follows:

- 2006/95/EC; Low-Voltage Directive (safety)
- 2004/108/EC; Electromagnetic Compatibility Directive (EMC)

Online Product Certification

Refer to the product Declaration of Conformity (DoC) for additional regulatory compliance information. To obtain product certifications and 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

NI is committed to designing and manufacturing products in an environmentally responsible manner. NI recognizes that eliminating certain hazardous substances from our products is beneficial to the environment and 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 the product life cycle, all products must be sent to a WEEE recycling center. For more information about WEEE recycling centers, National Instruments WEEE initiatives, and compliance with WEEE Directive 2002/96/EC on Waste Electrical and Electronic Equipment, visit `ni.com/environment/weee`.

电子信息产品污染控制管理办法 （中国 RoHS）



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The National Instruments Web site is your complete resource for technical support. At `ni.com/support` you have access to everything from troubleshooting and application development self-help resources to email and phone assistance from NI Application Engineers.

A Declaration of Conformity (DoC) is our claim of compliance with the Council of the European Communities using the manufacturer's declaration of conformity. This system affords the user protection for electromagnetic compatibility (EMC) and product safety. You can obtain the DoC for your product by visiting `ni.com/certification`. If your product supports calibration, you can obtain the calibration certificate for your product at `ni.com/calibration`.

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