

DEVICE SPECIFICATIONS

NI PCI/PXI/PXIe-5114

250 MS/s, 8-Bit Oscilloscope

This document lists the specifications for the National Instruments PXI/PXIe/PCI-5114 (NI 5114).

Unless otherwise noted, the following conditions were used for each specification:

- All filter settings
- All impedance selections
- Sample clock set to 250 MS/s

Warranted specifications describe warranted, traceable product performance over ambient temperature ranges of 0 °C to 55 °C for NI PXI/PXIe-5114 modules and 0 °C to 45 °C for NI PCI-5114 modules and include guardband for measurement uncertainty, unless otherwise noted. Specifications are warranted under the following conditions:

- The NI 5114 module is warmed up for 15 minutes at ambient temperature
- Self-calibration is completed after warm-up period
- Calibration cycle is maintained
- The PXI/PXI Express/PCI chassis fan speed is set to HIGH, the foam fan filters are removed if present, and the empty slots contain PXI chassis slot blockers and filler panels. For more information about cooling, refer to the *Maintain Forced-Air Cooling Note to Users* available at <http://www.ni.com/manuals>.
- External calibration is performed at 23 °C ± 3 °C

Typical values are representative of an average unit operating at room temperature.

All specifications are *typical* unless otherwise noted.

Specifications are subject to change without notice. For the most recent NI 5114 specifications, visit <http://www.ni.com/manuals>.

To access NI 5114 documentation, including the NI PXI/PXIe/PCI-5114 Getting Started Guide, go to **Start»All Programs»National Instruments»NI-SCOPE»Documentation**. In Windows 8, click **NI Launcher** and select **NI-SCOPE** in the window that appears.



Caution Refer to the *Read Me First: Safety and Electromagnetic Compatibility* document for important safety and electromagnetic compatibility information. To obtain a copy of this document online, visit ni.com/manuals and search for the document title.



Caution To ensure the specified EMC performance, operate this product only with double-shielded cables (for example, RG-223/U) and accessories.



Caution Do not operate the NI 5114 in a manner not specified in this document. Product misuse can result in a hazard. You can compromise the safety protection built into the product if the product is damaged in any way. If the product is damaged, return it to National Instruments for repair.



Hot Surface If the NI 5114 has been in use, it may exceed safe handling temperatures and cause burns. Allow the NI 5114 to cool before removing it from the PXI/PXI Express chassis or PC. Refer to the *Environment* section for operating temperatures of this device.

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Analog Input

Number of channels.....	Two (simultaneously sampled)
Input type.....	Referenced single-ended
Connectors.....	BNC

Impedance and Coupling

Input impedance

50 Ω	50 $\Omega \pm 1.5\%$
1 M Ω	1 M $\Omega \pm 1\%$ in parallel with a typical capacitance of 26 pF

Input coupling.....AC¹, DC, GND

Voltage Levels

Table 1. 50 Ω Full-Scale (FS) Input Range and Programmable Vertical Offset Range

Input Range (V_{pk-pk})	Vertical Offset Range (V)
0.04 V	± 0.8
0.1 V	± 0.8
0.2 V	± 0.8
0.4 V	± 0.8
1 V	± 6.5
2 V	± 6.0
4 V	± 5.0
10 V	± 2.0

¹ AC coupling available on 1 M Ω input only.

Table 2. 1 M Ω Full Scale (FS) Input Range and Programmable Vertical Offset Range

Input Range (V _{pk-pk})	Vertical Offset Range (V)
0.04 V	±0.8
0.1 V	±0.8
0.2 V	±0.8
0.4 V	±0.8
1 V	±8.0
2 V	±8.0
4 V	±8.0
10 V	±30
20 V	±25
40 V	±15

Maximum input overload

50 Ω7 V_{rms} with |Peaks| ≤10 V

1 M Ω|Peaks| ≤35 V

Accuracy

Resolution.....8 bits

DC accuracy, warranted²

NI PXI-5114.....±[(1.5% × |Reading - Vertical Offset| +
2% of Vertical Offset + 0.3% of FS + 200 μ V)

NI PXIe-5114.....±[(1.5% × |Reading - Vertical Offset| +
2% of Vertical Offset + 0.3% of FS + 200 μ V)

NI PCI-5114.....±[(1.5% × |Reading - Vertical Offset| +
2% of Vertical Offset + 0.3% of FS + 280 μ V)

DC drift.....±(0.03% × Reading + 0.06% of FS + 40 μ V)
per °C

Crosstalk³

At 10 MHz input frequency.....≤-60 dB

At 100 MHz input frequency.....≤-45 dB

² Within ±5 °C of self-calibration temperature.

³ CH 0 to/from CH 1, and External Trigger to CH 0 or CH 1

Bandwidth and Transient Response

Bandwidth (-3 dB), warranted

0.04 V_{pk-pk} input range.....100 MHz

All other input ranges.....125 MHz

Rise/fall time

0.04 V_{pk-pk} input range.....3.5 ns

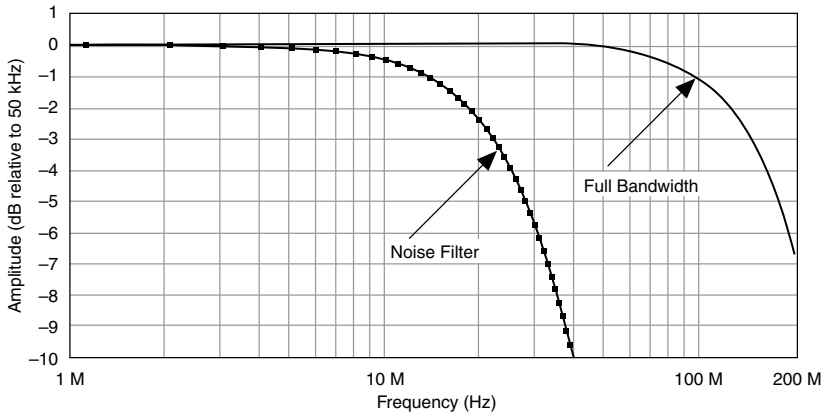
All other input ranges.....2.8 ns

Bandwidth-limiting filter.....20 MHz noise filter

AC coupling⁴ cutoff (-3 dB).....12 Hz

Passband flatness⁵..... ± 1 dB up to 50 MHz

Figure 1. NI 5114 Frequency Response, Typical



Spectral Characteristics

Spurious-free dynamic range.....58 dBc

(SFDR), typical⁶

Total harmonic distortion (THD),.....-58 dBc

typical⁶

⁴ AC coupling available on 1 M Ω input only.

⁵ Referenced to 50 kHz, with bandwidth-limiting filter disabled.

⁶ 10 MHz, 10 MHz - 1 dBFS input signal. Includes the second through the fifth harmonics. Measured from DC to 125 MHz, with the 20 MHz bandwidth-limiting filter disabled. ENOB values are corrected to full scale.

Table 3. Effective Number of Bits (ENOB), Calculated⁶

Input Range (V_{pk-pk})	ENOB
0.04 V	6.2
All other input ranges	7.2

Table 4. Signal to Noise and Distortion (SINAD)⁶

Input Range (V_{pk-pk})	SINAD
0.04 V	38 dB
All other input ranges	44 dB

Noise

Table 5. RMS Noise⁷

Input Range (V_{pk-pk})	Full Bandwidth	20 MHz Filter Enabled
0.04 V	0.45% FS	0.28% FS
All other input ranges	0.28% FS	0.28% FS

Horizontal

Sample Clock

Sources

- Internal⁸.....Onboard Clock (internal VCXO)
- External.....CLK IN (front panel SMB connector)

⁷ Verified using a 50 Ω terminator connected to input.

⁸ Internal Sample Clock is locked to the Reference Clock or derived from the onboard VCXO.

Onboard Clock (Internal VCXO)

Sample rate range

Real-time sampling (single-shot) ⁹	3.815 kS/s to 250 MS/s
Random interleaved sampling (RIS)	250 MS/s to 5 GS/s in 250 MS/s increments

Timebase frequency¹⁰.....250 MHz

Timebase accuracy

Not phase-locked to Reference Clock	±25 ppm
Phase-locked to Reference Clock	Equal to the Reference Clock accuracy

Sample Clock delay range.....±1 Sample Clock period

Sample Clock delay resolution.....≤20 ps

External Sample Clock

Sources.....CLK IN (front panel SMB connector)

Frequency range¹¹.....50 MHz to 250 MHz

Duty cycle tolerance.....45% to 55%

Phase-Locked Loop (PLL) Reference Clock

Sources

NI PXI-5114.....	PXI_CLK10 (backplane connector) or CLK IN (front panel SMB connector)
NI PXIe-5114.....	PXI_CLK10 (backplane connector) or CLK IN (front panel SMB connector)
NI PCI-5114.....	RTSI 7 or CLK IN (front panel SMB connector)

⁹ Divide by n sampling used for all rates less than 250 MS/s. For more information about the Sample Clock and decimation, refer to the [NI High-Speed Digitizers Help](#).

¹⁰ When not using External Sample Clock.

¹¹ Divide by n decimation available where $1 \leq n \leq 65,535$. For more information about the Sample Clock and decimation, refer to the [NI High-Speed Digitizers Help](#).

Frequency range ¹²	1 MHz to 20 MHz in 1 MHz increments. Default of 10 MHz.
Duty cycle tolerance.....	45% to 55%
Exported Reference Clock destinations	
NI PXI-5114.....	PFI <0..1> (front panel 9-pin mini-circular DIN connector) or PXI_Trig <0..7> (backplane connector)
NI PXIe-5114.....	PFI <0..1> (front panel 9-pin mini-circular DIN connector) or PXI_Trig <0..7> (backplane connector)
NI PCI-5114.....	PFI <0..1> (front panel 9-pin mini-circular DIN connector) or RTSI <0..7>

External Sample Clock and External Reference Clock In (CLK IN, Front Panel Connector)

Input voltage range

Sine wave.....	0.65 V _{pk-pk} to 2.8 V _{pk-pk} (0 dBm to 13 dBm)
Square wave.....	0.2 V _{pk-pk} to 2.8 V _{pk-pk}
Maximum input overload.....	7 V _{rms} with Peaks ≤ 10 V
Impedance.....	50 Ω
Coupling.....	AC

¹² The PLL Reference Clock frequency must be accurate to ±50 ppm.

Trigger

Reference (Stop) Trigger

Trigger types¹³.....Edge, window, hysteresis, video, digital, immediate, and software

Trigger sources

NI PXI-5114.....CH 0, CH 1, TRIG, PXI_Trig <0..6>, PFI <0..1>, PXI Star Trigger, RTSI <0..6>, and Software

NI PXIe-5114.....CH 0, CH 1, TRIG, PXI_Trig <0..6>, PFI <0..1>, RTSI <0..6>, and Software

NI PCI-5114.....CH 0, CH 1, TRIG, PXI_Trig <0..6>, PFI <0..1>, RTSI <0..6>, and Software

Time resolution

Onboard Clock, time-to-digital.....40 ps
conversion circuit (TDC) on

Onboard Clock, TDC off.....4 ns

External Clock, TDC off.....External Clock period

Minimum rearm time¹⁴

TDC on.....10 μ s

TDC off.....2 μ s

Holdoff.....From rearm time up to $[(2^{35} - 1) \times$
Sample Clock period]

Trigger delay.....From 0 up to $[(2^{35} - 1) - \text{posttrigger samples}] \times$
(1/sample rate), in seconds

Analog Trigger (Edge, Window, and Hysteresis Trigger Types)

Sources.....CH 0, CH 1, TRIG (front panel BNC connectors)

Trigger level resolution.....8 bits (1 in 256)

Trigger level range

CH 0, CH 1.....100% FS

TRIG (external trigger)..... ± 5 V

¹³ Refer to the following sources and the [NI High-Speed Digitizers Help](#) for more information about which sources are available for each trigger type.

¹⁴ Holdoff set to 0. Onboard Sample Clock at maximum rate.

Edge trigger sensitivity	
CH 0, CH 1.....	5% FS up to 100 MHz
TRIG (external trigger).....	0.5 V _{pk-pk} up to 100 MHz
Level accuracy	
CH 0, CH 1.....	±5% FS up to 100 MHz
TRIG (external trigger).....	±0.5 V up to 10 MHz
Jitter.....	≤65 ps rms
Trigger filters	
Low frequency (LF) reject.....	50 kHz
High frequency (HF) reject.....	50 kHz

Digital Trigger (Digital Trigger Type)

Sources

NI PXI-5114.....	PXI_Trig <0..6> (backplane connector), PFI <0..1> (front panel DIN connector), or PXI Star Trigger (backplane connector)
NI PXIe-5114.....	PXI_Trig <0..6> (backplane connector), PFI <0..1> (front panel DIN connector)
NI PCI-5114.....	RTSI <0..6>, PFI <0..1> (front panel DIN connector)

Video Trigger (Video Trigger Type)

Sources.....CH 0, CH 1, or TRIG (front panel BNC connectors)

Types.....Specific Line, Any Line, and Specific Field

Standards¹⁵

SDTV.....	M-NTSC, B/G-PAL, SECAM, M-PAL
EDTV.....	480i/59.94 fps, 480i/60 fps, 480p/59.94 Fps, 480p/60 Fps, 576i/50 fps, 576p/50 Fps
HDTV.....	720p/50 Fps, 720p/59.94 Fps, 720p/60 Fps, 1080i/50 fps, 1080i/59.94 fps, 1080i/60 fps, 1080p/24 Fps

¹⁵ fps = fields per second. Fps = frames per second.

External Trigger (TRIG, Front Panel Connector)

Connector.....	BNC
Impedance.....	1 M Ω in parallel with 22 pF
Coupling.....	AC, DC
AC-coupling cutoff (-3 dB).....	12 Hz
Input voltage range.....	± 5 V
Maximum input overload.....	Peaks \leq 42 V

Programmable Function Interface (PFI 0 and PFI 1, AUX Front Panel Connectors)

Connector.....	9-pin mini-circular DIN
Direction.....	Bidirectional

As an Input (Trigger)

Destinations.....	Start Trigger (Acquisition Arm), Reference (Stop) Trigger, Arm Reference Trigger, Advance Trigger
Input impedance.....	150 k Ω
V _{IH}	2.0 V
V _{IL}	0.8 V
Maximum input overload.....	-0.5 V, 5.5 V
Maximum frequency.....	25 MHz

As an Output (Event)

Sources.....	Start Trigger (Acquisition Arm), Reference (Stop) Trigger, End of Record, Done (End of Acquisition), Probe Compensation (1 kHz, 50% duty cycle square wave, PFI 1 only)
Output impedance.....	50 Ω
Logic type.....	3.3 V CMOS
Maximum drive current.....	± 24 mA
Maximum frequency.....	25 MHz

Waveform Specifications

Onboard memory size ¹⁶	8 MB per channel (standard), 64 MB per channel (option), 256 MB per channel (option)
Minimum record length.....	1 sample
Number of pretrigger samples ¹⁷	Zero up to full record length
Number of posttrigger samples ¹⁷	Zero up to full record length
Maximum number of records in onboard memory ¹⁸	
8 MB.....	32,768
64 MB.....	100,000
256 MB.....	100,000
Allocated onboard memory per record.....	(<i>Record length</i> × 1 byte/S) + 240 bytes, rounded up to next multiple of 128 bytes (minimum 256 bytes)

Calibration

External Calibration

External calibration calibrates the onboard references used in self-calibration and the external trigger levels. All calibration constants are stored in nonvolatile memory.

Self-Calibration

Self-calibration is done on software command. The calibration corrects for gain, offset, triggering, and timing errors for all input ranges.

Related Information

[For information about when to self-calibrate the device, refer to the NI High-Speed Digitizers Help.](#)

Calibration Specifications

Interval for external calibration.....	2 years
Warm-up time.....	15 minutes

¹⁶ Onboard memory is shared between enabled channels.

¹⁷ Single-record and multirecord acquisitions.

¹⁸ You can exceed these numbers if you fetch records while acquiring data. For more information, refer to the [NI High-Speed Digitizers Help](#).

Power

+3.3 VDC

NI PXI-5114.....	.840 mA
NI PXIe-5114.....	1.1 A
NI PCI-5114.....	1.6 A

+5 VDC

NI PXI-5114.....	1.1 A
NI PCI-5114.....	1.7 A

+12 VDC

NI PXI-5114.....	.250 mA
NI PXIe-5114.....	1.5 A
NI PCI-5114.....	.45 mA

-12 VDC (NI PXI-5114 only)..... 170 mA

Total power

NI PXI-5114.....	13.32 W
NI PXIe-5114.....	21.63 W
NI PCI-5114.....	14.32 W

Software

Driver Software

The different form factors of the NI 5114 are supported in the following versions of NI-SCOPE:

- NI PCI-5114: NI-SCOPE 3.1 or later
- NI PXI-5114: NI-SCOPE 2.9 or later
- NI PXIe-5114: NI-SCOPE 14.1 or later

NI-SCOPE is an IVI-compliant driver that allows you to configure, control, and calibrate the NI 5114. NI-SCOPE provides application programming interfaces for many development environments.

Application Software

NI-SCOPE provides programming interfaces, documentation, and examples for the following application development environments:

- LabVIEW
- LabWindows™/CVI™
- Measurement Studio

- Microsoft Visual C/C++
- Microsoft Visual Basic

Interactive Soft Front Panel and Configuration

The NI-SCOPE Soft Front Panel version 14.1 or later supports interactive control of the NI 5114. The NI-SCOPE Soft Front Panel is included on the NI-SCOPE DVD.

National Instruments Measurement & Automation Explorer (MAX) also provides interactive configuration and test tools for the NI 5114. MAX is included on the NI-SCOPE DVD.

TClk Specifications

You can use the National Instruments TClk synchronization method and the NI-TClk driver to align the Sample clocks on any number of SMC-based modules in a chassis. For more information about TClk synchronization, refer to the *NI-TClk Synchronization Help*, which is located within the *NI High-Speed Digitizers Help*. For other configurations, including multichassis systems, contact NI Technical Support at ni.com/support.

Intermodule SMC Synchronization Using NI-TClk for Identical Modules

Specifications are valid for modules installed in one NI PXI-1042 chassis. These specifications do not apply to PCI modules. Specifications are valid under the following conditions:

- All parameters are set to identical values for each SMC-based module.
- Sample Clock set to 250 MS/s.
- All filters are disabled.



Note Although you can use NI-TClk to synchronize non-identical modules, these specifications apply only to synchronizing identical modules.

Skew ¹⁹	500 ps
Average skew after manual adjustment ²⁰	<20 ps
Sample Clock adjustment resolution	<20 ps

¹⁹ Caused by clock and analog path delay differences. No manual adjustment performed.

²⁰ For more information about manual adjustment, refer to the *Synchronization Repeatability Optimization* topic in the *NI-TClk Synchronization Help*.

Physical

Front Panel

Table 6. NI 5114 Front Panel Connectors

Label	Function	Connector Type
CH 0	Analog input connection; digitizes data and triggers acquisitions.	BNC female
CH 1	Analog input connection; digitizes data and triggers acquisitions.	BNC female
TRIG	External analog trigger; signals on the TRIG connector cannot be digitized.	BNC female
CLK IN	Imports an external Reference Clock or Sample Clock to the oscilloscope.	SMB jack
AUX I/O	PFI 0 and PFI 1 lines for digital trigger input/output and probe compensation.	9-pin mini-circular DIN

Table 7. NI PXI/PXIe-5114 Front Panel Indicators²¹

Label	Function
ACCESS	The ACCESS LED indicates the status of the PCI bus and the interface from the NI PXI/PXIe-5114 to the controller.
ACTIVE	The ACTIVE LED indicates the status of the onboard acquisition hardware of the NI PXI/PXIe-5114.

Dimensions and Weight

Dimensions

NI PXI-5114.....	3U, one slot, PXI/cPCI module, 21.6 cm × 2.0 cm × 13.0 cm (8.5 in × 0.8 in × 5.1 in)
NI PXIe-5114.....	21.4 cm × 2.0 cm × 13.0 cm (8.4 in × 0.8 in × 5.1 in)
NI PCI-5114.....	35.5 cm × 2.0 cm × 11.3 cm (14.0 in × 0.8 in × 4.4 in)

²¹ For more information, refer to the [NI High-Speed Digitizers Help](#).

Weight

NI PXI-5114.....	455 g (16 oz)
NI PXIe-5114.....	501 g (17.7 oz)
NI PCI-5114.....	421 g (14.8 oz)

Figure 2. NI PXI-5114

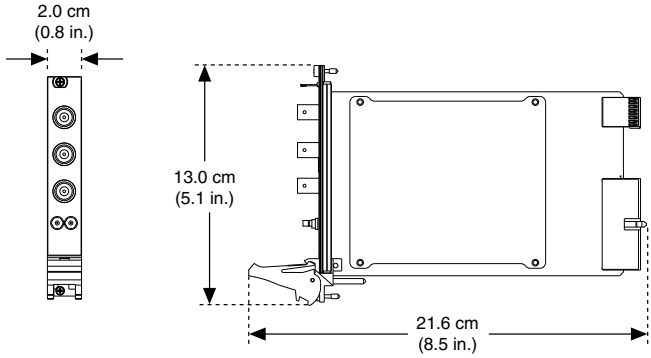


Figure 3. NI PXIe-5114

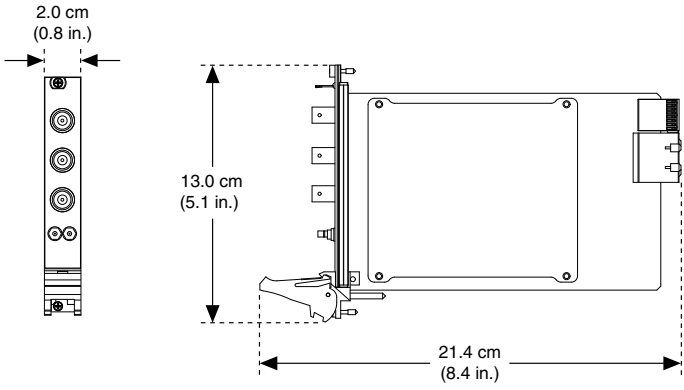
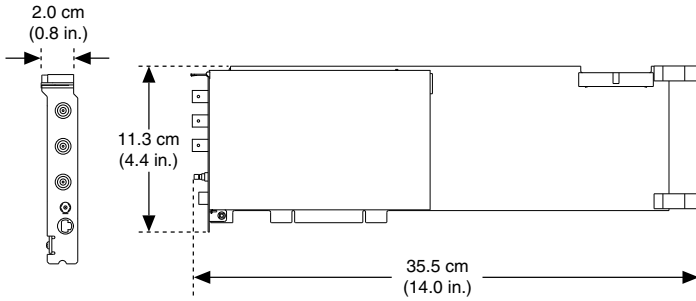


Figure 4. NI PCI-5114



Environment

PCI Module

Environment

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

Pollution Degree.....2

Indoor use only.

Operating Environment

Ambient temperature range.....0 °C to 45 °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.)

Storage Environment

Ambient temperature range.....-40 °C to 71 °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.)

PXI Module

Environment

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

Pollution Degree.....2

Indoor use only.

Operating Environment

Ambient temperature range.....0 °C 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.)

Storage Environment

Ambient temperature range.....-40 °C to 71 °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.)

Shock and Vibration

Operational shock.....30 g peak, half-sine, 11 ms pulse (Tested in accordance with IEC-60068-2-27. Test profile developed in accordance with MIL-PRF-28800F.)

Random vibration

Operating.....5 Hz to 500 Hz, 0.3 g_{rms}

Nonoperating.....5 Hz to 500 Hz, 2.4 g_{rms} (Tested in accordance with IEC-60068-2-64. Nonoperating test profile exceeds the requirements of MIL-PRF-28800F, Class 3.)

PXI Express Module

Environment

Maximum altitude.....	2,000 m (800 mbar) (at 25 °C ambient temperature)
Pollution Degree.....	2
Indoor use only.	

Operating Environment

Ambient temperature range.....	0 °C to 55 °C (Tested in accordance with IEC-60068-2-1 and IEC-60068-2-2. Meets MIL-PRF-28800F Class 3 low temperature limit and MI-PRF-28800F Class 2 high temperature limit.)
Relative humidity range.....	10% to 90%, noncondensing (Tested in accordance with IEC-60068-2-56.)

Storage Environment

Ambient temperature range.....	-40 °C to 71 °C (Tested in accordance with IEC-60068-2-1 and IEC-60068-2-2. Meets MIL-PRF-28800F Class 3 limits.)
Relative humidity range.....	5% to 95%, noncondensing (Tested in accordance with IEC-60068-2-56.)

Shock and Vibration

Operating shock.....	30 g peak, half-sine, 11 ms pulse (Tested in accordance with IEC-60068-2-27. Meets MIL-PRF-28800F Class 2 limits.)
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Random vibration

Operating.....	5 Hz to 500 Hz, 0.3 g _{rms}
Nonoperating.....	5 Hz to 500 Hz, 2.4 g _{rms} (Tested in accordance with IEC-60068-2-64. Nonoperating test profile exceeds the requirements of MIL-PRF-28800F, Class 3.)

Compliance and Certifications

Safety

This product is designed to meet the requirements of the following electrical equipment safety standards 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 61326-1 (IEC 61326-1): Class A emissions; Basic immunity
- EN 55011 (CISPR 11): Group 1, Class A emissions
- EN 55022 (CISPR 22): Class A emissions
- EN 55024 (CISPR 24): Immunity
- AS/NZS CISPR 11: Group 1, Class A emissions
- AS/NZS CISPR 22: Class A emissions
- FCC 47 CFR Part 15B: Class A emissions
- ICES-001: Class A emissions



Note In the United States (per FCC 47 CFR), Class A equipment is intended for use in commercial, light-industrial, and heavy-industrial locations. In Europe, Canada, Australia, and New Zealand (per CISPR 11), Class A equipment is intended for use only in heavy-industrial locations.



Note Group 1 equipment (per CISPR 11) is any industrial, scientific, or medical equipment that does not intentionally generate radio frequency energy for the treatment of material or inspection/analysis purposes.



Note For EMC declarations, certifications, and additional information, refer to the [Online Product Certification](#) section.

CE Compliance

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

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 not only to the environment but also to NI customers.

For additional environmental information, refer to the *Minimize Our Environmental Impact* 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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