

INDUSTRIAL AUTOMATION PRODUCT

PCI-6224

PCI Multifunction I/O Device

NI PCI-6224 is a PCI multifunction data-acquisition device with 32 single-ended analog inputs, 48 bidirectional digital I/O lines and two 32-bit counters/timers. Its maximum aggregate analog-input sample rate is 250 kS/s.

IDENTITY	VERIFIED VALUE
Manufacturer	NI
Complete model	PCI-6224
Product role	PCI Multifunction I/O Device
System family	Industrial automation
Source record	NI part number 779067-01 and PCI-6224 specifications

DOCUMENT SCOPE

Model identity, official technical data, model-specific applications, precautions, FAQ and controlled acceptance records.

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EMAIL sales13@apterpower.com

WEBSITE www.apterpower.com



PCI-6224

Technical Specifications

PARAMETER	VERIFIED VALUE
NI part number	779067-01
Bus	PCI
Analog inputs	32 single-ended
Analog input resolution	16 bit
Maximum sample rate	250 kS/s
Digital I/O	48 bidirectional channels
Counters/timers	2, 32 bit
Analog outputs	0
Front connectors	2 VHDCI connectors
Input ranges	±0.2 V, ±1 V, ±5 V and ±10 V

ENGINEERING BOUNDARY

Use only the complete NI PCI-6224 identity and the current manufacturer documentation. Verify the installed revision, companion hardware, wiring and saved configuration before replacement or release.

Related Products on Apter Power

MODEL	APTER POWER PAGE
NI PCI-5122	View NI PCI-5122
NI PCI-8361	View NI PCI-8361
NI PCIE-8361	View NI PCIE-8361
NI PXIE-8360	View NI PXIE-8360
Bently Nevada 130530-0050-02	View Bently Nevada 130530-0050-02
Bently Nevada 130539-14	View Bently Nevada 130539-14

System Role and Common Applications

NI PCI-6224 is a PCI multifunction data-acquisition device with 32 single-ended analog inputs, 48 bidirectional digital I/O lines and two 32-bit counters/timers. Its maximum aggregate analog-input sample rate is 250 kS/s.

FUNCTION 1

Acquires up to 32 single-ended analog channels

FUNCTION 2

Provides 48 correlated bidirectional digital I/O lines

FUNCTION 3

Includes two 32-bit counters/timers and digital triggering

FUNCTION 4

Uses NI-DAQmx for configuration and measurements

APPLICATION	ENGINEERING CONTEXT
Laboratory automation	Acquires mixed analog and digital signals through a PCI host.
Design verification	Combines analog input, digital I/O and counters for controlled engineering tests.
Manufacturing test	Provides repeatable DAQ channels for automated production fixtures.
Research data logging	Supports voltage measurements with NI-DAQmx channel configuration.

ACCEPTANCE DUTY

Confirm identity, interface, companion hardware, configured values and controlled functional response before release.

Engineering Precautions and FAQ

NO.	PRECAUTION
1	Verify the complete PCI-6224 and 779067-01 identity before installation.
2	Use an approved PCI host and power down the computer before inserting the board.
3	Observe ESD controls when handling the device and VHDCI connectors.
4	Confirm the selected analog input range before applying a signal.
5	Do not use the device for Measurement Categories II, III or IV.
6	Use documented NI cables and connector pinouts for both VHDCI interfaces.
7	Install a supported NI-DAQmx version and preserve the channel configuration.
8	Run self-test and controlled analog, digital and counter tests before release.

QUESTION	ANSWER
What is NI PCI-6224?	It is a PCI multifunction I/O device with 32 single-ended analog inputs, 48 bidirectional digital lines and two counters/timers.
What is the maximum NI PCI-6224 analog-input sample rate?	The official NI product record specifies a maximum sample rate of 250 kS/s.
Which analog ranges are available on NI PCI-6224?	The published ranges include ± 0.2 V, ± 1 V, ± 5 V and ± 10 V.
How does NI PCI-6224 connect to external signals?	It uses two VHDCI front connectors with approved NI cables or terminal accessories.

Related Products on Apter Power

MODEL	APTER POWER PAGE
Bently Nevada 130539-15	View Bently Nevada 130539-15
Bently Nevada 130539-17	View Bently Nevada 130539-17
Bently Nevada 130539-20	View Bently Nevada 130539-20
Bently Nevada 130539-30	View Bently Nevada 130539-30
Bently Nevada 130539-34	View Bently Nevada 130539-34
Bently Nevada 130539-35	View Bently Nevada 130539-35

FAQ, Related Products and Official Sources

QUESTION	ANSWER
Which driver configures NI PCI-6224?	NI-DAQmx provides the supported configuration, self-test and measurement interface.
Can NI PCI-6224 be used for Measurement Categories II, III or IV?	No. The NI 622x specification limits the device to Measurement Category I use.
What confirms successful commissioning of NI PCI-6224?	A passed NI-DAQmx self-test and controlled analog, digital and counter verification confirm the device.

MODEL	APTER POWER PAGE
Bently Nevada 130539-45	View Bently Nevada 130539-45
Bently Nevada 130539-50	View Bently Nevada 130539-50
Bently Nevada 130539-72	View Bently Nevada 130539-72
Bently Nevada 130539-99	View Bently Nevada 130539-99
Epro MMS6831	View Epro MMS6831
Epro PR6423-002-000-CON021	View Epro PR6423-002-000-CON021

MANUFACTURER SOURCE RECORDS

NI PCI-6224 Official Product Page - NI part number 779067-01 and PCI-6224 specifications
NI 622x Specifications - PCI/PXI-6224/6225/6229 specification tables

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