

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.

BRAND	NI	MODEL	PCI-6224
PRODUCT	PCI Multifunction I/O Device	FAMILY	Industrial automation
OFFICIAL SOURCE	NI PCI-6224 Official Product Page	RECORD	NI part number 779067-01 and PCI-6224 specifications

DOCUMENT SCOPE

Official technical evidence, controlled engineering checks, model-specific FAQ and related product navigation.

APTER POWER SALES TEAM

WHATSAPP / PHONE +86 180 3023 531

EMAIL sales13@apterpower.com

WEBSITE www.apterpower.com



PCI-6224

Product Overview and Applications

SYSTEM FUNCTION

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.

Technical Data and Acceptance

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

Acceptance Path

1 IDENTITY

The complete PCI-6224 marking and revision agree with the engineering record.

2 COMPATIBILITY

System position, companion hardware and interfaces match the manufacturer documentation.

3 CONFIGURATION

Saved values, channel mappings and protection limits are restored without unexplained change.

4 FUNCTIONAL PROOF

Diagnostics and the model-specific controlled test pass without unexplained fault.

Precautions and Model-Specific FAQ

NO.	PRECAUTION	QUESTION	ANSWER
1	Verify the complete PCI-6224 and 779067-01 identity before installation.	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.
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.	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.
4	Confirm the selected analog input range before applying a signal.	Which analog ranges are available on NI PCI-6224?	The published ranges include ± 0.2 V, ± 1 V, ± 5 V and ± 10 V.
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.	How does NI PCI-6224 connect to external signals?	It uses two VHDCI front connectors with approved NI cables or terminal accessories.
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.		

Related Products on Apter Power

MODEL	APTER POWER PAGE
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
Epro PR6423-002-001-CN-CON041	View Epro PR6423-002-001-CN-CON041
Epro PR6423-003-030-CON021	View Epro PR6423-003-030-CON021

FAQ, Related Products and 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.

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

Related Products on Apter Power

MODEL	APTER POWER PAGE
Epro PR6423-004-120-CN-C ON021	View Epro PR6423-004-120-CN-CON021
Epro PR6423-010-100-CN-C ON021	View Epro PR6423-010-100-CN-CON021
Epro PR6423-015-040	View Epro PR6423-015-040
Epro PR6423-018-040-CON021	View Epro PR6423-018-040-CON021
Epro PR6423-018-140-CON021	View Epro PR6423-018-140-CON021
Epro PR6423-01K-010	View Epro PR6423-01K-010
Epro PR6424-014-140-CON021	View Epro PR6424-014-140-CON021
Epro PR6426-010-040-CON0 21-916-120	View Epro PR6426-010-040-CON021-916-120

APTER POWER SALES TEAM

WHATSAPP / PHONE +86 180 3023 5313

EMAIL sales13@apterpower.com

WEBSITE www.apterpower.com



PCI-6224