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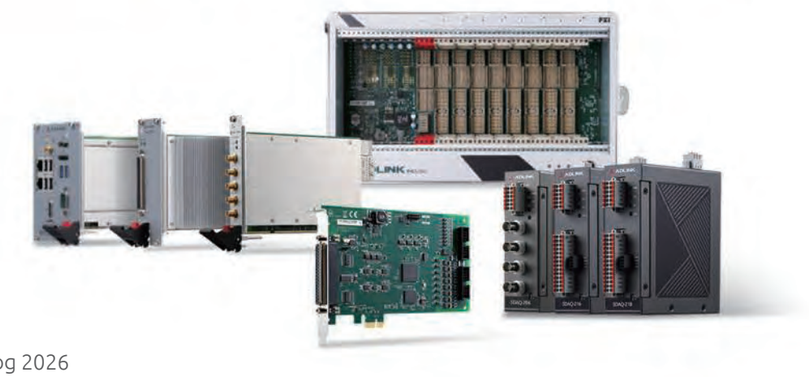
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ADLINK
LEADING EDGE AI COMPUTING



Edge-ready Test and Measurement Solutions



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ABOUT ADLINK

ADLINK is a global leader in edge computing. With expertise in and measurement technologies, enabling reliable data acquisition, precise motion control, and high-performance testing and automation. With expertise in embedded systems, real-time control, and modular PXI/PXIe platforms, ADLINK supports mission-critical applications across semiconductor, automotive, energy, and aerospace industries.



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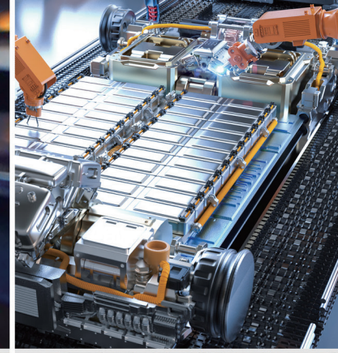
PXI Platforms and Modules

Scalable System-Level Automated Testing

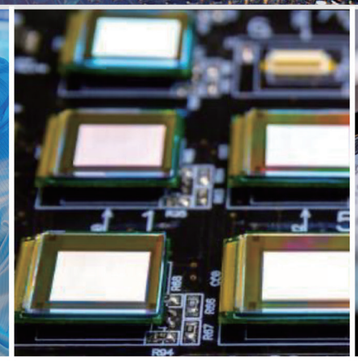
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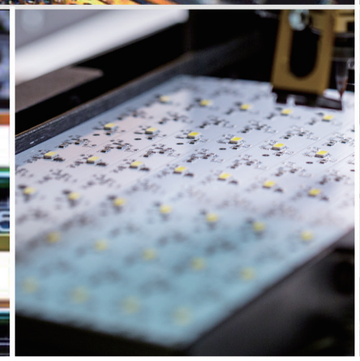
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Shaping the Future of Testing and Measurement











Precision and Intelligent in Edge Innovation

ADLINK test and measurement solutions combine high-speed data acquisition, modular PXIe platforms, and precise signal conditioning to enable synchronized, scalable, and reliable testing.
With edge computing architecture at the core, these solutions bridge real-time measurement and intelligent analysis—empowering engineers to accelerate validation, improve efficiency, and shape the future of automated testing.



Data Acquisition | **PXIe Platforms & Modules**

Sensor measurement | Automated measurement | Automated testing

Solution Highlights

Multiple Measurement Platforms

From PCIe cards and Ethernet DAQ systems to modular PXIe platforms, our scalable architectures support standalone measurement, remote monitoring, and high-performance synchronized testing.



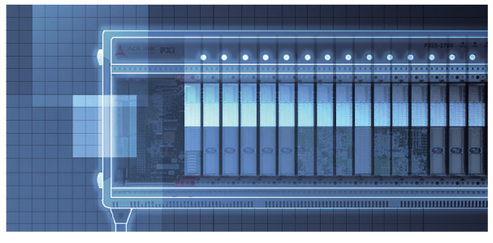
Comprehensive Signal Acquisition Capability

Support for analog, digital, voltage, current, sound, and vibration signals, ensuring flexible and application-ready data acquisition.



Customization without Integration Barriers

From private labeling to complete ODM development, we tailor hardware and system design to fit your requirements without compatibility concerns.



Proven PXISA Compliance and Interoperability

Fully compliant with PXI System Alliance specifications, ensuring broad ecosystem compatibility and long-term test system maintainability.



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Test and Measurement Software Services



Measurement, Automation, and Platform Suite

All product development kits through one portal

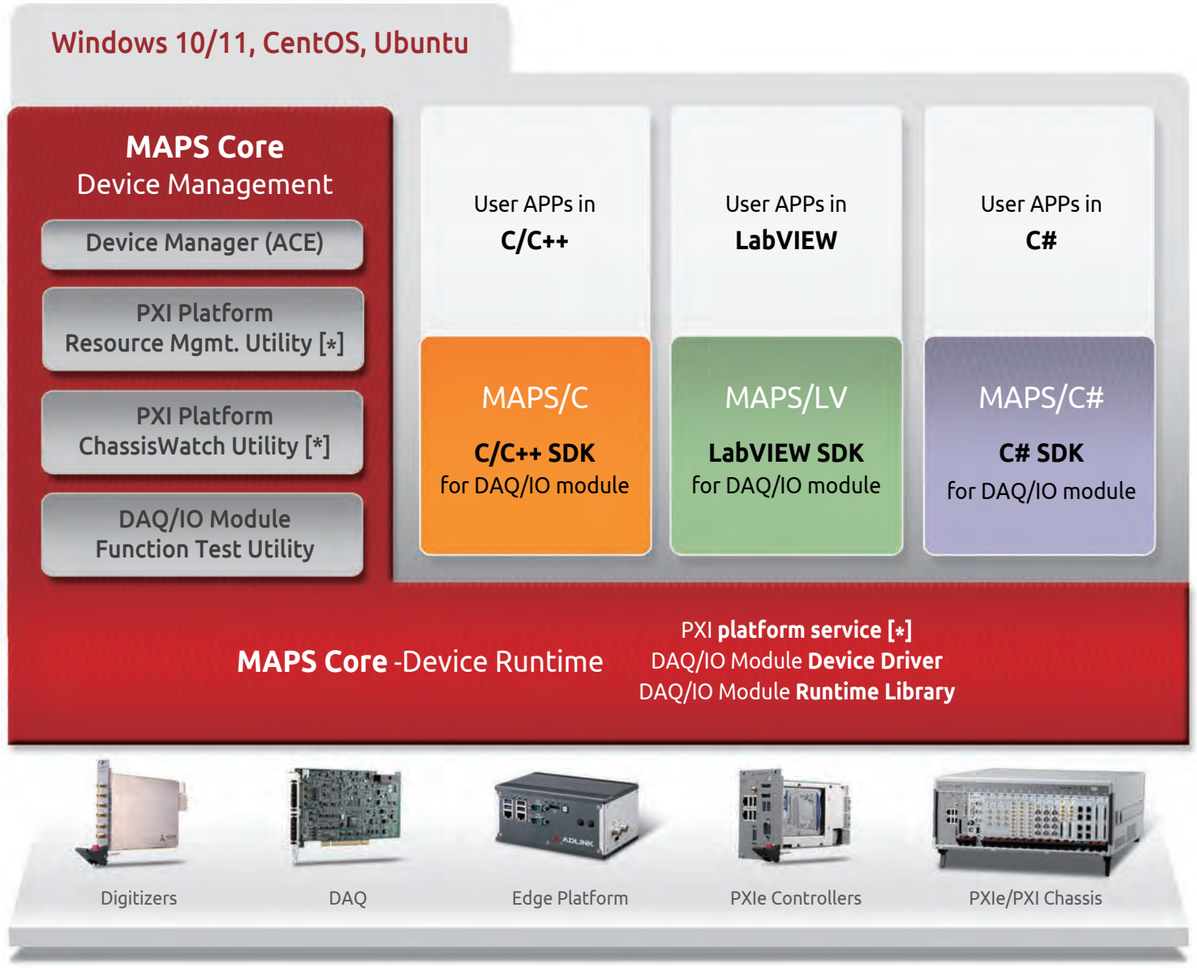
Designed to pack different software suites in a functional base platform

Quick access to explore and validate

DAQPilot Management Utility

A Software Package for ADLINK standalone DAQ system to manage devices, create and deploy iApp to device for edge data analytics and decimation





[*] You can get these **PXI related function** by installing standalone package APPS only.

Stream Continuous Time-Series Data

Traditionally, centralized DAQ systems were used to send buffered or streaming data to a host for further analysis.This configuration is easily achieved over a PCI/PCIe bus in a local DAQ system. However, this configuration is not possible using a distributed Edge DAQ system. Optimization of the system and software architecture is essential to guarantee data delivery for streaming continuous time-series data. DAQPilot has a unified SDK with a task-oriented design that has been optimized for streaming typical DAQ applications.



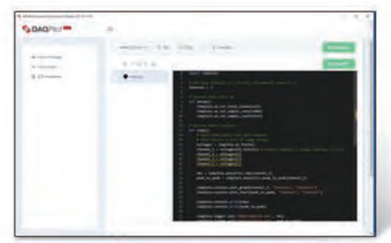
Remotely Manage Multiple Devices/iApp

The DAQPilot device manager is able to auto-discover all supported devices on the local network and features an intuitive user interface for providing device management functionalities including displaying device information, iApp deployment to devices, and setting Tags to identify or group multiple devices. Tags are a convenient way for mass iApp deployment to grouped devices.



iApp for Edge Data Analytics and Decimation

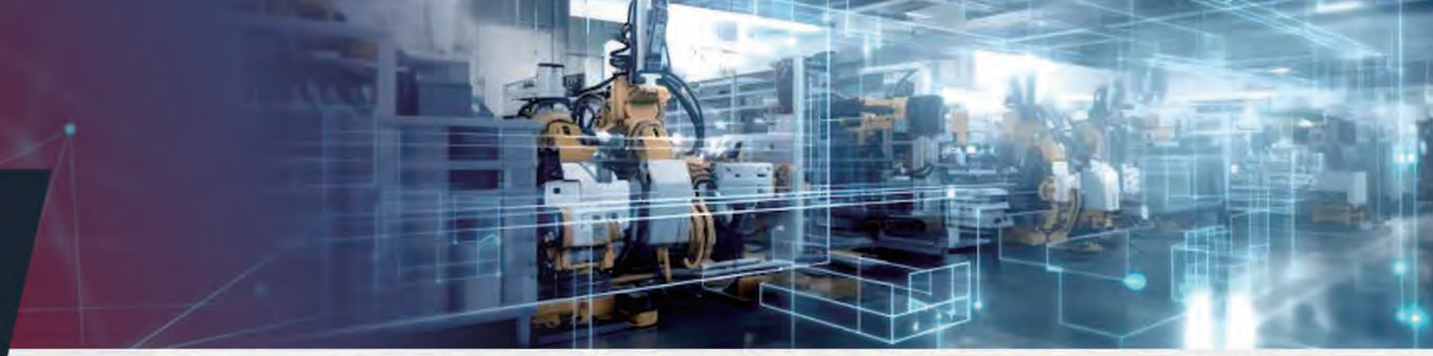
The iApp Creator provides an IDE for python programming, allowing remote development and debugging iApps that can be temporarily deployed to simplify trials. It also provides a dashboard widget showing device data that can reduce development time and debugging effort.



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Data Acquisition

Accurate Signals Capture for Critical Measurements



Data powers AI, and accurate data starts with reliable acquisition. ADLINK's data acquisition solutions capture precise signals from sensors and field devices, providing actionable insights for accurate decision-making to improve production capabilities.



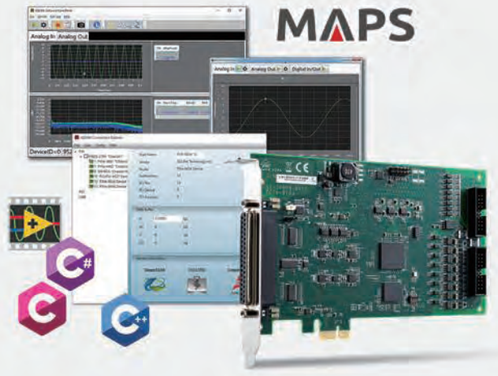
Smart Factory | Research / Laboratory | Semiconductor | Energy | Optoelectronic

Edge DAQ Systems

- Arm-based design suitable for scalable edge computing deployment
- Ethernet-based remote monitoring
- Easy configuration with built-in web console
- Efficient mass device deployment with DAQPilot edge management utility



PC-based DAQ Cards



- Great flexibility with wide IPC compatibility
- High-performance synchronization capability
- Scalable functionality with ADLINK motion/ vision cards
- Simplifiled testing process with all-in-one Measurement, Automation, and Platform Suite (MAPS)

Ethernet DAQs



Current | Voltage

SDAQ-216/218
16/8-ch Multi-function AI, 16-bit, 250 kS/s, 2 AO, 4 DI/O



Vibration

SDAQ-204 series
4-ch Simultaneous AI, 24-bit, 128 kS/s, 4 DI/O, IEPE type sensor

USB DAQs



Temperature | Strain Gauge | Current | Voltage

USB-2401
4-ch 24-bit universal input USB DAQ module



Vibration

USB-2405
4-ch 24-bit 128kS/s dynamic signal acquisition USB 2.0 module

PCIe/PCI DAQs



Voltage

PCIe-9100
16/32-ch 16-bit up to 1MS/s Multi-function DAQ



Strain Gauge

PCI/PCIe-9524
24-bit precision load cell input card



Voltage

PCIe-9834P/9852
4/2-ch 16/14-bit up to 200 MS/s digitizer

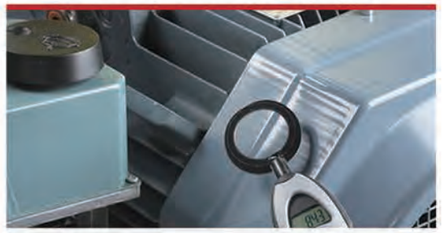


Digital I/O

PCIe-7350/7360
32-ch 50/100 MHz high-speed digital I/O card

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Application Stories



Intelligent Semiconductor Dry Pump Monitoring

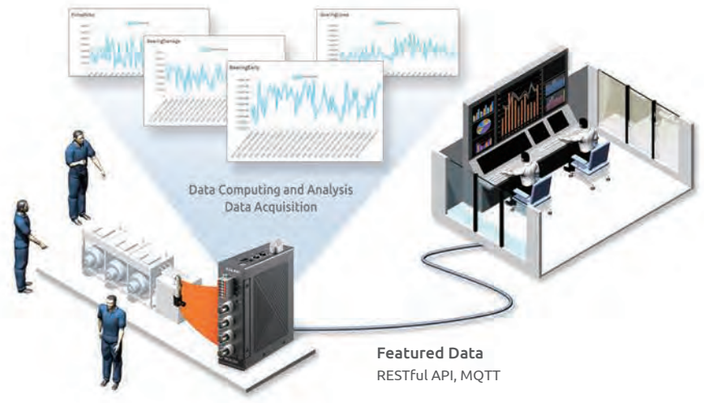
The LPCVD furnace processes 50-150 wafers simultaneously. A critical dry pump maintains exhaust vacuum. Pump failure or bearing issues disrupts operations and leads to wafer loss. To mitigate this, over 100 edge devices and 400 sensors enable constant remote monitoring and predictive maintenance of key machines.

Customer Benefits

- Edge computing reduces data volume and speeds up response time to achieve real-time data analysis
- Plug & play with built-in independent algorithm, saving OT deployment cost
- Remote management, easy upgrades and maintenance with RESTful API, MQTT supported

Products

- **SDAQ-204-DPM**
  Programmable Edge DAQ System



SDAQ-204-DPM



Factory Energy Monitoring

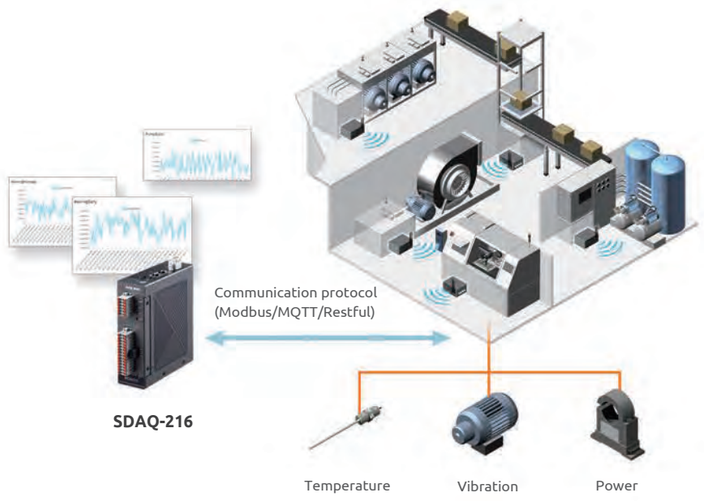
In factory environments, where multiple energy sources are present, real-time insights into energy use, energy coordination, and effective tracking and data analysis are essential for achieving energy conservation and carbon reduction objectives.

Customer Benefits

- Real-time temp, vibration, power data capture and analysis with Modbus/MQTT/ Restful protocol
- Monitoring and managing overall energy usage with built-in DAQPilot ACE software
- Quick deployment with DAQPilot for mass data management

Products

- **DAQ-200 Series**
  Programmable Edge DAQ System





High-precision Screw Quality Testing

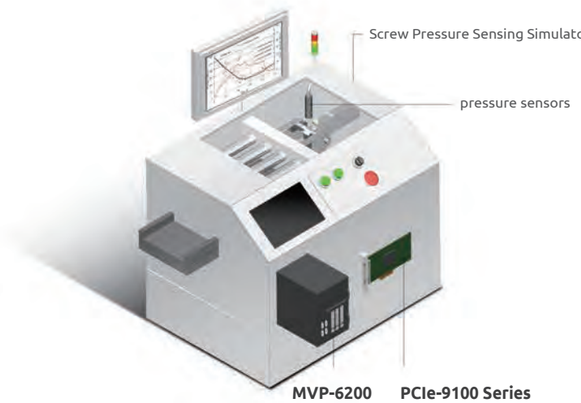
Screw manufacturing, challenged by vibration and noise, results in defects requiring extensive time and resources to discard. Real-time defect monitoring through pressure sensors, analyzing deviations from normal pressure curves, can greatly reduce rejection time. In such an environment, monitoring equipment must endure harsh conditions to collect data quickly and accurately.

Customer Benefits

- Up to 1M sampling rate, 16-bit resolution, and ±200 mV range ensure precise pressure data acquisition.
- Accurate real-time data collection aids in monitoring machine condition and detecting screw defects.
- The ADLINK board efficiently filters noise, enhancing signal processing.
- MAPS test and measurement utility simplifies device setup and app development.

Products

- **PCIe-9100 Series**
  Multiplexer/Simultaneous Multi-Function Data Acquisition Card





Accelerated Automatic Material Testing

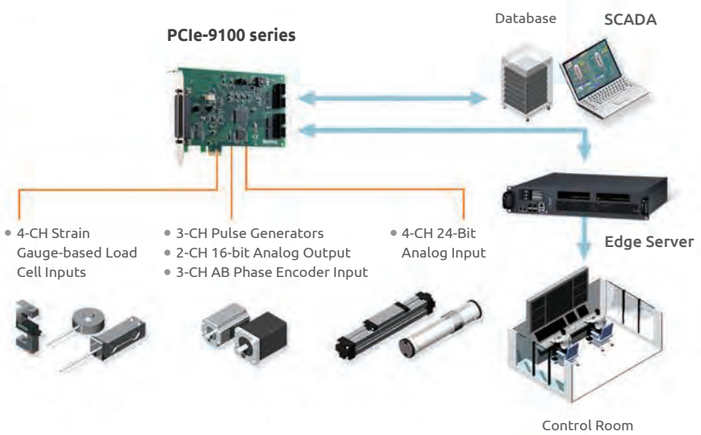
An automatic material system usually consists of signal conditioning, transducer excitation, transducer measurement, LVDT measurement, and actuator control to a stepper motor or hydraulic system. The PCI-9524 speeds up system integration for material testing developers by combining accurate load change measurement, displacement, and motor control.

Customer Benefits

- Quicker integration with onboard amplifier, 4x load cell input
- Higher accuracy with 4-CH general-purpose 24-bit analog inputs
- Easy to control step motor and hydraulic system with support 3-axes AB phase encoder and 2x 16-bit analog outputs

Products

- **PCIe-9100 Series**
  Multiplexer/Simultaneous Multi-Function Data Acquisition Card



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Edge DAQ Systems






Model Name	SDAQ-204	SDAQ-216	SDAQ-218	SDAQ-204-DPM
System Specifications				
CPU	ARM Cortex A9 1.0 GHz			
Ethernet (1Gb)	2x RJ45 Ethernet ports (1 IP, Ethernet cascade supported)			
NAND Flash (eMMC)	32GB			
Memory	DDR3 RAM 1GB			
Storage	32G(eMMC)			
Serial Port	n/a	1 x RS-485 port		n/a
USB	2x USB 2.0			
Power Supply	9 to 30V DC power input			
Power Consumption	Max. 8.8 W			
Isolation	1.5kV			
Communication Interfaces	Web Console / RESTful API / Streaming SDK / Modbus TCP Server ADLINK DAQPilot DASK SDK			n/a
Digital Temperature Sensor	-50°C to 150°C (with 3 meters cable)			
Software Features				
Dry Pump Type	n/a			Rotary and claw type
Output Index				Health, Early detection, Balance, Looseness, Motor misalignment, Pump misalignment
Max monitored pump				2
Analog Input				
Number of Channels	4 (simultaneous, BNC type)	16 SE / 8 pseudo-diff, voltage input	8 current inputs	4 (simultaneous, BNC type)
Resolution	24-bit	16-bit		24-bit
Maximum Sampling Rate	128kS/s and can be adjusted to 1kS, 2 kS, 4kS, 8kS, 16kS, 32kS, 64kS	250 kS/s (multiplexing)		Up to 128 kS/s
Input Range (Voltage)	± 10 V, ± 1.25 V	±10V, ±2.5V, ±1.25V, ±312.5mV	0-20 mA	± 10 V, ± 1.25 V
Input Mode	Pseudo-differential	SE / pseudo-diff	Pseudo-differential	Pseudo-differential
Input Coupling	DC/AC	DC	DC	DC/AC
IEPE	4mA, compliance voltage +24V	n/a	n/a	4mA, compliance voltage +24V
Sensor Type	IEPE sensor (vibration detection)	n/a	n/a	IEPE sensor (vibration detection)
Offset Error	± 0.1mV	± 0.1 mV (± 10V)	±0.01 mA (typical)	± 0.1mV
Gain Error	± 0.05% of FSR	± 0.05% of FSR (± 10V)	±0.05% of FSR (typical)	± 0.05% of FSR
-3dB Bandwidth	0.43 x sampling rate	>100 Hz		0.43 x sampling rate
Flatness	± 0.01 dB (10Hz to 10kHz)	±0.1dB (20 Hz to 30 KHz)		± 0.01 dB (10Hz to 10kHz)
CMRR	Available upon request	105 dB for ±1.25 V & ±0.3125 V 95 dB for ±2.5 V / 85 dB for ±10 V		n/a
AC Cut-off Frequence (-3dB)	0.4Hz	Available upon request		0.4Hz
AC Cut-off Frequence (-0.1dB)	2.4Hz	Available upon request		2.4Hz
Trigger Sources	Software, digital trigger, analog trigger, built-in button trigger			
Trigger Mode	post, delay, middle, gate, post trigger with retrigger, and delay trigger with retrigger			
Auto-Calibration	Yes			
DIO	4-ch DI/O (digital input and output can be configured)	4-ch digital input and 4-ch digital output		4-ch DI/O (digital input and output can be configured)
Overvoltage Protection	± 50V	±15 V		± 50V
DC accuracy - Offset Error	± 50V	±15 V		± 50V
DC accuracy - Gain Error	± 50V	±15 V		± 50V
System Noise		Available upon request		
Input Impedance	200 kΩ	>1G ohm	±249 ohms	200 kΩ
Crosstalk	-100dB	n/a		n/a
Dynamic Range	- 95dB	n/a		- 95dB
SFDR	n/a	100 dB for ±10 V, Diff		n/a
THD (1kHz)	-100 dB	103 dB for ±10 V, Diff		-100 dB
THD+N (1kHz)	-95 dB	n/a		-95 DB

Model Name	SDAQ-204	SDAQ-216	SDAQ-218	SDAQ-204-DPM
Isolated Digital I/O				
Number of I/O	4-ch DI/O (configurable)			
Digital Type	TTL input: 0-5V for DI / Open drain for DO			
Input Logic Level	Logic low: VIL = 0.8 V max. / IIL = 0.2 mA max. / Logic high: VIH = 2.0 V min. / IIH = 0.2 mA max.			
Overvoltage Protection	± 50V			
Supported Modes	• Static digital input/output • Tachometer support (DIO 0) • External digital trigger in	• Static digital input/output • External digital trigger in		• Static digital input/output • Tachometer support (DIO 0) • External digital trigger in
Mechanical				
Demensions	110.5 (L) x 40 (W) x 126.5 (H) mm			
Connectors	4x BNC + 2x 6-pin spring-type terminal block	2x 14-pin + 2x 6-pin spring-type terminal block +1x 4-Pin Housing to 1x 4-Pin Terminal Cable		4x BNC + 2x 6-pin spring-type terminal block
Front Panel LEDs	4			
Housing	Metal, IP30			
Mounting	DIN rail kit (wall mount kit optional)			
Environmental				
Operating Temperature	0°C to 50°C (32˚F to 122˚F)			
Storage Temperature	-20°C to 70°C (-4˚F to 158˚F)			
Humidity	approx. 95% @ 40°C (non-condensing)			
Vibration	Operating: 5 Grms, 5-500 Hz, 3 axes			
ESD	Contact: 4 kV; Air: 8 kV			
Shock	Operating: 100 G, half sine 11 ms duration			
EMC	EN61000-6-4/EN61000-6-2			
EMI	FCC Part 15B Class A, CISPR 32			
EMS	IEC 61000-4-2 ESD: Contact: 4 kV; Air: 8 kV IEC 61000-4-3 RS: 80 MHz to 1.0 GHz, 10 V/m IEC 61000-4-4 EFT: Power: 2 kV; Signal 2 kV IEC 61000-4-5 Surge: Power 0.5 kV; Signal 1 kV IEC 61000-4-6 CS: 0.15 MHz to 80 MHz, 10 V IEC 61000-4-8 PFMF			
Safety	IEC 61010-1			

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Edge DAQ Systems



Model Name	MCM-100
System Specifications	
CPU	Intel Atom® x7-E3950 processor
Video	1x DisplayPort
Ethernet (1Gb)	2x GbE LAN (Intel® I210-IT)
Memory	DDR3L 1600 SODIMM 4 GB
Storage	Factory installed 128 GB mSATA SSD
Serial Port	2x COM (2 x RS-232/422/485)
USB	2x USB 2.0 + 2x USB 3.0
Mini PCIe	2x Mini PCIe card slots
Wireless Kit (option)	Wi-Fi Kit
Power Supply	6 ~ 36 VDC
Power Consumption	System full load: 25W. Processor full load: 35.2W. USB port full load: 38 W
Analog Input	
Number of Channels	4-ch
Resolution	24-Bit
Maximum Sampling Rate	128 kS/s
Input Range (Voltage)	±10V
Input Mode	Diff/P-Dif
Input Coupling	AC/DC
IEPE	0 or 2mA (IEPE compliance: 24V)
Sensor Type	Available upon request
Offset Error	Available upon request
Gain Error	Available upon request
-3dB Bandwidth	0.49 * sampling rate
Flatness	±0.01 dB (20 Hz to 1 kHz)
CMRR	60 dB (20 Hz to 1 kHz)
AC Cut-off Frequence	0.4Hz (-3dB), 2.4Hz (-0.1dB)
Trigger Sources	Analog or digital, software selectable
Trigger Mode	Post, delay, middle, pre-trigger, re-trigger
Auto-Calibration	Yes
DIO	2 programmable function I/O
Overvoltage Protection	±60V
DC accuracy - Offset Error	Typical: ±0.15mV, Max. ±0.3mV
DC accuracy - Gain Error	Typical: ±0.15%, Max. ±0.3%
System Noise	50 µVrms
Input Impedance	200 kΩ (between positive input and negative input) 16.93 kΩ (Between negative input and chassis ground)"
Crosstalk	-100dB
Dynamic Range	100dB
SFDR	104dB
THD (1kHz)	-94 dB
THD+N (1kHz)	-91 dB

Model Name	MCM-100
Isolated Digital I/O	
Number of I/O	2 programmable function I/O
Digital Type	3.3V / TTL (single-ended)
Input Logic Level	Logic low: VIL = 0.8 V max; IIL = 0.2 mA max. Logic high: VIH = 2.0 V min.; IIH = 0.2 mA max
Overvoltage Protection	-2V to +7V
Supported Modes	• Static digital input/output • PWM output, max. frequency: 4 MHz • Frequency/Event counter, max. frequency: 4MHz • Digital trigger IN • Synchronization sample clock IN, max. frequency: 128kHz
Mechanical	
Demensions	183 (W) x 110 (D) x 83.85 (H) mm
Connectors	4x BNC + 1x 4-pin terminal block
Front Panel LEDs	6
Housing	Metal
Mounting	DIN-rail/wall mountable
Environmental	
Operating Temperature	0 to 55°C (32 to 131˚F)
Storage Temperature	-20°C to 70°C (-4˚F to 158˚F)
Humidity	approx. 95% @ 40°C (non-condensing)
Vibration	Operating 5 Grms, 5-500 Hz, 3 axes w/ mSATA SSD
ESD	Contact +/-4 KV, Air +/-8 KV
Shock	Operating 100 G, half sine 11 ms duration w/ mSATA SSD
EMC	EN61000-6-4/EN61000-6-2
EMI	FCC Part 15B Class A
EMS	IEC 61000-4-2 ESD: Contact: 4 kV; Air: 8 kV IEC 61000-4-3 RS: 80 MHz to 1.0 GHz, 10 V/m ;1.4 GHz to 6.0 GHz, 3 V/m IEC 61000-4-4 EFT: Power: 1 kV; Signal 1 kV IEC 61000-4-5 Surge: Power 0.5 kV; Signal 1 kV IEC 61000-4-6 CS: 0.15 MHz to 80 MHz, 10 V
Safety	Available upon request

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Multi-Function PCIe DAQ Cards






Model Name	PCIe-9101/21/41	PCIe-9103	PCIe-9161/63/64	PCIe-9146/47
Analog Input				
Simultaneous/Scanning	Scanning			
Number of Channels	16-ch single-ended (SE) or 8-ch differential input (DI)	32-ch single-ended (SE) or 16-ch differential input (DI)	PCIe-9161: 16-ch PCIe-9163: 32-ch PCIe-9164: 64-ch single-ended (SE) or PCIe-9161: 8-ch PCIe-9163: 16-ch PCIe-9164: 32-ch differential input (DI)	PCIe-9146: 4-ch PCIe-9147: 8-ch differential input (DI)
Resolution	PCIe-9101/9141: 16-bit PCIe-9121: 14-bit	16-bit		
Sampling Rate (Single-channel)	PCIe-9101: 250 KS/s PCIe-9121: 800 KS/s PCIe-9141: 1 MS/s	500 KS/s	4M S/s	1M S/s
Sampling Rate (Scanning)	PCIe-9101: 100kS/s PCIe-9121: 400 KS/s PCIe-9141: 500 KS/s	500 KS/s	1M S/s *1	1M S/s
FIFO Buffer Size	Onboard 4K samples		Onboard 8K samples	Onboard 4K samples
Input Range	± 10 V, ± 5 V, ± 2.5 V, ± 1.25V, ± 0.625V,± 0.3125V			
Input Impedance	10MΩ			1GΩ
Input Coupling	DC			
Overvoltage Protection	Continuous ± 20 V	Continuous ± 15 V		Continuous ± 30 V
Trigger Source	Software, digital, analog			
Trigger modes	Pre-trigger, post-trigger, middle-trigger, delay-trigger, and repeated trigger			
Data Transfer	Polling, DMA			
SNR	90 dB		84 dB	80 dB
ENOB	14.5-bit		14-bit	13-bit
Analog Output				
Number of Channels	2	n/a	PCIe-9161: 2-ch, PCIe-9163/64: 4-ch	2
Resolution	16-bit		16-bit	16-bit
Output Range	± 10 V		± 10 V	± 10 V
FIFO Buffer Size	Onboard 1K samples (2-channel share)		Onboard 4K samples (2/4-channel share)	Onboard 1K samples (2-channel share)
Output Driving Capacity	± 20 mA max.		± 20 mA max.	± 20 mA max.
Slew Rate	10 V/μs		10 V/μs	10 V/μs
Settling Time (0.1% of Full scale)	2 μs		2 μs	2 μs
Output Coupling	DC		DC	DC
Output Impedance	< 0.1 ohm		< 0.1 ohm	< 0.1 ohm
Trigger Source	Software, digital		Software, digital	Software, digital
Data Transfers	Polling, DMA		Polling, DMA	Polling, DMA
Digital Input				
Number of Channels	16			
Compatibility	TTL	Isolation	TTL	TTL
Input Impedance	pull-low 100Kohm	2.4Kohm/0.5W	pull-low 100Kohm	pull-low 100Kohm
Input Frequency Range	0.01Hz to 1M Hz	Available upon request	0.01Hz to 1M Hz	0.01Hz to 1M Hz
FIFO Buffer Size	Onboard 512 samples	Available upon request	Onboard 1024 samples	Onboard 512 samples
Isolation	No	Yes	No	No
Trigger Source	Software, digital	Available upon request	Software, digital	Software, digital
Data Transfer	Polling, DMA	Polling	Polling, DMA	Polling, DMA
Digital Output				
Number of Channels	16			
Compatibility	TTL	Isolation	TTL	TTL
Output Impedance	pull-low 100Kohm	2.4Kohm/0.5W	pull-low 100Kohm	pull-low 100Kohm
Output Frequency Range	0.01Hz to 1M Hz	Available upon request	0.01Hz to 1M Hz	0.01Hz to 1M Hz
FIFO Buffer Size	Onboard 512 samples	Available upon request	Onboard 1024 samples	Onboard 512 samples
Isolation	No	Yes	No	No
Trigger Source	Software, digital	Available upon request	Software, digital	Software, digital
Data Transfer	Polling, DMA	Polling	Polling, DMA	Polling, DMA

Model Name	PCIe-9101/21/41	PCIe-9103	PCIe-9161/63/64	PCIe-9146/47
General Purpose Timer Counter				
Number of Channels	2	1	4	2
Resolution	32-bit			
Compatibility	TTL			
Clock Source	Internal clock fix 33M Hz. External clock 0.01Hz to 8M Max. Selected by software	Internal clock fix 33M Hz. External clock 0.01Hz to 2M Max. Selected by software	Internal clock fix 33M Hz. External clock 0.01Hz to 8M Max. Selected by software	Internal clock fix 33M Hz. External clock 0.01Hz to 8M Max. Selected by software
Output Frequency	By internal clock: 16.5MHz By external clock: 32MHz Max			
Encoder				
Number of Channels	n/a		2	
Encoder Type	n/a		CW/CCW encoder, x 1 AB phase encoder, x 2 AB phase encoder, x 4 AB phase encoder	
General Specification				
Auto Calibration	Yes			
Bus Type	PCI Express 1.0			
Bus Width	x1 lane			
Dimension (L x W x H)	169.55 mm (L) x 16.15 mm (W) x 98.4 mm (H)		181.05mm (L) x 21.1mm(W) x 126.29mm (H)	181.05mm (L) x 19.4mm(W) x 126.72mm (H)
Connector	37-pin D-type connector		68-pin SCSI-type female	
Operating Temperature	0°C to 60°C			
Storage Temperature	-40 to 85 °C			
Humidity	5 to 95%, non-condensing			
Power Consumption	PCIe-9101: Typical: 71.6 mA@3.3V 261.5 mA@12V Max: 257.8 mA@3.3V 556.24 mA@12V PCIe-9121/9141: Typical: 60.3 mA@3.3V 358.2 mA@12V Max: 246.5 mA@3.3V 652.94 mA@12V	Typical: 113 mA@3.3V/292.1 mA@12V Max: 140 mA@3.3V/656.2 mA@12V	Typical: 34 mA@3.3V 490 mA@12V Max: 55 mA@3.3V 885 mA@12V	Typical: 30 mA@3.3V 650 mA@12V Max: 45 mA@3.3V 770 mA@12V

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Multi-Function PCI DAQ Cards



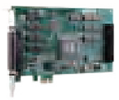



Model Name	PCI-9221	PCI-9112	PCI-9111 Series	PCI-9113A
Analog Input				
Number of Channels	16 SE/ 8 DIFF	16 single-ended or 8 differential	16 single-ended	32 single-ended or 16 differential
Isolated	N	N	N	Y
Resolution	16 Bit	12 Bit	· 12 bits (PCI-9111DG) · 16 bits (PCI-9111HR)	12 Bit
Sampling Rate (Single-channel)	250 kS/s	110 kS/s	100 kS/s	100 kS/s
Sampling Rate (Scanning)	100 kS/s	110 kS/s	100 kS/s	100 kS/s
Accuracy	Available upon request	0.5, 1 0.01% of FSR ± 1 LSB 2, 4 0.02% of FSR ± 1 LSB 8 0.04% of FSR ± 1 LSB	1, 2 0.01% of FSR ± 1 LSB 4, 8 0.02% of FSR ± 1 LSB 16 0.04% of FSR ± 1 LSB	0.01% of FSR ± 1 LSB
FIFO Buffer Size	1 k samples	8 samples	1 k samples	1 k samples
Input Range	±5 V, ±1 V, ±500 mV, ±200 mV	0.5 ±10 V - / 1 ±5 V 0 to 10 V 2 ±2.5 V 0 to 5 V 4 ±1.25 V 0 to 2.5 V 8 ±0.625 V 0 to 1.25 V	1 ±10 V / 2 ±5 V / 4 ±2.5 V 8 ±1.25 V / 16 ±0.625 V	1 ±10 V ±5 V 0 to 10 V 10 ±1 V ±0.5 V 0 to 1 V 100 ±0.1 V ±0.05 V 0 to 0.1 V
Input Impedance	High impedance > 1 GΩ	1 GΩ	10 MΩ	1 GΩ
Input Coupling	DC			
Offset error	±0.7 mV typical, after calibration	n/a		
Gain error	±0.015% of FSR, after calibration	n/a		
Overvoltage Protection	±10 V	continuous ±35 V		
Trigger Source	Software, external digital	Software, timer pacer, external digital		Software, timer pacer
Trigger mode	Post trigger	Post trigger	Post trigger, Pre trigger	Post trigger
Data Transfer	Polling, scatter-gather DMA	programmed I/O, interrupt, bus-mastering DMA	polling, interrupt	polling, interrupt
Isolation Voltage	n/a			2500 VRMS
Analog Oput				
Number of Channels	2 voltage outputs	2 voltage outputs	1 voltage output	n/a
Resolution	16-Bit	12 Bit		
Output Range	±5 V	0 to 10 V, 0 to 5 V, 0 to EXTREF	Bipolar ±10 V /Unipolar 0 to 10 V	
Maximum update rate	1.25 kS/s (static)	n/a		
FIFO Buffer Size	-			
Output Driving Capacity	±5 mA	±5 mA max		
Slew Rate	0.014 V/µs	n/a		
Settling Time (0.1% of Full scale)	1396 µs	30 µs to 0.5 LSB	30 µs	
Rising time	390 µs	n/a		
Falling time	395 µs			
Offset error	±1 mV			
Gain error	±0.02% FSR			
Data Transfers	programmed I/O	programmed I/O		
Digital Input				
Number of channels	8 input	16 inputs and 16 outputs		n/a
Compatibility	5 V/TTL	5 V/TTL		
Data transfers	programmed I/O	programmed I/O		
Digital Output				
Number of channels	4 output	16 inputs and 16 outputs		n/a
Compatibility	5 V/TTL	5 V/TTL		
Data transfers	programmed I/O	programmed I/O		
Encoder Input				
Number of channels	2	n/a		
Encoder type	CW/CCW encoder, x 1 AB phase encoder, x 2 AB phase encoder, x 4 AB phase encoder			
PWM				
Number of channels	2	n/a		
Frequency	0.005 Hz to 5 MHz			
Duty cycle	1%-99%			

Model Name	PCI-9221	PCI-9112	PCI-9111 Series	PCI-9113A
General-Purpose Timer/Counter				
Number of channels	2	1		n/a
Resolution	32 Bit	16 Bit		
Compatibility	5 V/TTL	5 V/TTL		
Base clock available	internal 40 MHz, external clock to 10 MHz	2 MHz, external clock to 10 MHz		
Calibration				
PCI-9112	Auto	Manual	Manual	Manual
General Specifications				
PCI Bus	5 V and 3.3 V universal PCI bus	5 V and 3.3 V universal PCI bus	5 V and 3.3 V universal PCI bus	5 V and 3.3 V universal PCI bus
I/O Connector	One 37-pin D-Sub connector	37-pin D-sub female	· 37-pin D-sub female · 20-pin ribbon male x 2	37-pin D-sub female
Operation temperature	0˚C to 45˚C (32˚F to 113˚F)	0˚C to 60˚C (32˚F to 140˚F)	0˚C to 60˚C	0˚C to 55˚C (32˚F to 131˚F)
Storage temperature	-20˚C to 80˚C (-4˚F to 176˚F)	-20˚C to 80˚C (-4˚F to 176˚F)	-20˚C to 80˚C (-4˚F to 176˚F)	-20˚C to 80˚C (-4˚F to 176˚F)
Humidity	5% to 95% non-condensing	5% to 95% non-condensing	5% to 95% non-condensing	5% to 95% non-condensing
Power requirements	+5 V 1A typical,+12 V 100mA typical,-12 V 100mA typica	+5 V 460 mA typical +12 V 110 mA typical	PCI-9111DG +5 V 570 mA typical PCI-9111HR +5 V 570 mA typical	+5 V 960 mA typical
Dimensions (not including connectors)	120 mm x 87 mm (4.68" x 3.39")	175 mm x 107 mm (6.82" x 4.17")	175 mm x 107 mm	173 mm x 107 mm (6.74" x 4.17")

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High-Speed DIO Cards



Model Name	PCIe-7360	PCIe-7200	PCIe-7350	PCIe-7300A
Digital I/O				
Number of channels	32-channels, per group (8-channel) input/output direction, with selectable logic levels: 1.8 V, 2.5 V, 3.3 V (software selectable)	32-CH digital inputs 32-CH digital outputs"	32, per group (8-channel) input/output direction selectable	16 DI & 16 DO 32 DI 32 DO
Compatibility	3.3 V/TTL ((5 V compatible)	5 V/TTL	3.3 V/TTL ((5 V compatible)	5 V/TTL
Power-up status	All digital inputs	Independent DI/DO	All digital inputs	All digital inputs
Impedance	Input: 10kΩ / Output: 50kΩ	Input : High Impedance; Output : 25Ω	Input: 10kΩ / Output: 50kΩ	Input : High Impedance; Output : 200Ω; Active Terminator on : 110Ω;
Input protection	-1 to 6 V	0 to 5.5V	-1 to 6 V	0 to 5.5V
Data transfer	Programmable I/O, bus-mastering DMA with scatter-gather	programmed I/O, interrupt, bus-mastering DMA	Programmable I/O, bus-mastering DMA with scatter-gather	Bus-mastering DMA with Scatter/Gather
Data width	32/24/16/8 bits (programmable)	32 bits	32/24/16/8 bits (programmable)	32/16/8 bits (programmable)
Maximum data transfer rate	400 MB/s	12 MB/s with external 3 MHz clock, handshaking or external strobe 8 MB/s with internal 2 MHz timer pacer	200 MB/s	DO: 80 MBytes/s, 3 2-bit output @ 20 MHz DI: 80 MBytes/s, 32-bit input @ 20 MHz
Digital logic levels	Input high voltage: 1.2-2 V Input low voltage: 0.63-0.8 V Output high voltage: 3.1 V minimum Output low voltage: 0.2 V maximum"	Input high voltage: 2-5.25 V Input low voltage: 0-0.8 V Output high voltage: 2.7 V minimum Output low voltage: 0.5 V maximum	Input high voltage: 1.2-2 V Input low voltage: 0.63-0.8 V Output high voltage: 3.1 V minimum Output low voltage: 0.2 V maximum	Input high voltage: 2-5.25 V Input low voltage: 0-0.8 V Output high voltage: 2.7 V minimum Output low voltage: 0.5 V maximum
Logic levels	1.8 V, 2.5 V, 3.3 V (software selectable)	5 V	1.8 V, 2.5 V, 3.3 V (software selectable)	5 V
Output driving capacity	1.8V: ±8 mA / 2.5V: ±16 mA 3.3V: ±32mA	Source current: 3.0 mA Sink current: 24 mA	1.8V: ±8 mA / 2.5V: ±16 mA 3.3V: ±32mA	Source current: 8 mA Sink current: 48 mA
Clocking Mode				
Internal clock	up to 100 MHz (100 MHz / N; 1<N<65535)	up to 2MHz	Max. 50 MHz (100 MHz / N; 2<N<65535)	20 MHz, 10 MHz, Timer#0 output (digital input pacer) and Timer #1output (digital output pacer)
External clock	up to 100 MHz (support 8/16/24/ 32-bit data width for DI/DO); up to 200 MHz (support 8/16-bit data width for DI only)	up to 3MHz	Max. 100 MHz (support 8/16-Bit data width only, data throughput must be less than200 MB/s)	up to 40 MHz
Handshake	Handshake			
Burst handshake	Burst handshake		Burst handshaking	
Software trigger	Yes			
External digital trigger	AFI[0…7]	I_TRG, O_TRG	AFI[0…7]	DITRIG, DOTRIG
Trigger Modes	Post trigger, Retrigger, Pattern match, Handshake	Post trigger, Handshake	Post trigger, Retrigger, Pattern match, Handshake	Post trigger, Handshake
Change of State Interrupt				
Interrupt sources	Any of 32 channels or a pre-define channel change-of-state	EO_ACK, EI_REQ, Timer 0, Timer 1 or Timer 2	Any of 32 channels or a pre-define channel Change-of-State	DO_ACK, Handshake, Int_Pacer, CLK_10MHz, CLK_20MHz
Application Function I/O				
Supported modes	static I/O, I2 C or SPI master node, external clock input/output, external digital trigger input, handshake	n/a	static I/O, I2 C or SPI master node, external clock input/output, external digital trigger input, handshaking	n/a
Number of channels	8	n/a	8	n/a

Model Name	PCIe-7360	PCIe-7200	PCIe-7350	PCIe-7300A
Programmable Counter				
Base clock	100MHz	4 MHz	100MHz	10 MHz
Timer 0	DI clock source	DI clock source	DI clock source	as digital input pacer
Timer 1	DO clock source	DO clock source	DO clock source	as digital output pacer
Timer 2	n/a	Base clock source of timer 0 & 1	n/a	as interrupt source
Auxiliary digital I/O				
Number of channels	n/a			4-ch digital inputs 4-ch digital outputs
Compatibility				5 V/TTL
Data transfers				programmed I/O
General Specifications				
I/O connector	68-pin VHDCI female	PCI/PCIe-7200 -37-pin D-sub female -40-pin Header	68-pin VHDCI female	One 100-pin SCSI-II female
PCIe interface	PCIe gen1 x4	PCIe gen1 x1	PCIe gen1 x1	PCIe gen1 x1
Operating temperature	0˚C to 55˚C	0˚C to 60˚C	0˚C to 45˚C	0˚C to 60˚C (32˚F to 140˚F)
Storage temperature	-20˚C to 80˚C (-4˚F to 176˚F)			
Relative humidity	5% to 95%, non-condensing			
Power requirements	12 V @ 550 mA 3.3 V @ 950 mA	12 V @ 200 mA 3.3 V @ 500 mA	12 V @ 680 mA 3.3 V @ 780 mA	12 V @ 119 mA; Terminator on @ 287 mA 3.3 V @ 499 mA; Terminator on @ 543 mA
Dimensions	168 mm (L) x 112 mm (H)	148 mm x 102 mm	168 mm (L) x 112 mm (H)	168 mm x 112 mm (6.55" x 4.36")

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Analog Output Modules





Model Name	PCIe-6208	cPCI-6208	PCI-6208
Voltage Output			
Number of channels	8 voltage outputs		
Resolution	16 bits	12 bits	
Monotonicity	15 bit typical		
Output ranges	±10V		
Slew rate	26 V/μs typical		
Settling time	130 μs typical (20 V step)		16 μs (20 V step)
Gain Error	±0.2% maximum		
DNL	±1 LSB typical		
Output driving capacity	±5 mA maximum		
Output initial status	0 V		
Data transfer	programmed I/O		
Digital I/O			
Number of channels	4 inputs and 4 outputs		
Compatibility	5 V/TTL		
Data transfers	programmed I/O		
General Specifications			
I/O connector	37-pin D-sub female		
Operating temperature	0˚C to 55˚C (32˚F to 122˚F)		
Storage temperature	-20˚C to 80˚C (-4˚F to 176˚F)		
Relative humidity	5% to 95%, non-condensing		
Dimensions (not including connectors)	175 mm x 107 mm	160 mm x 100 mm	168 mm x 112 mm





Model Name	cPCI-6216	PCI-6308	PCI-6216
Voltage Output			
Number of channels	16 voltage outputs	8 voltage outputs	16 voltage outputs
Resolution	16 bits	12 bits	16 bits
Monotonicity	15 bit typical		
Output ranges	±10V		
Slew rate	26 V/μs typical		
Settling time	130 μs typical (20 V step)		
Gain Error	±0.2% maximum		
DNL	±1 LSB typical		
Output driving capacity	±5 mA maximum		
Output initial status	0 V		
Data transfer	programmed I/O		
Digital I/O			
Number of channels	4 inputs and 4 outputs		
Compatibility	5 V/TTL		
Data transfers	programmed I/O		
General Specifications			
I/O connector	37-pin D-sub female		
Operating temperature	0˚C to 55˚C (32˚F to 122˚F)		
Storage temperature	-20˚C to 80˚C (-4˚F to 176˚F)		
Relative humidity	5% to 95%, non-condensing		
Dimensions (not including connectors)	160 mm x 100 mm	175 mm x 107 mm	

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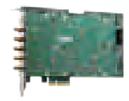
GPIB Modules





Model Name	LPCIe-3488A	USB-3488A	LPCI-3488A
GPIB Bus Specifications	Up to 14 instruments connected		
	Maximum 1.2 MB/s data transfer rate	Maximum 1.5 MB/s data transfer rate	Maximum 1.2 MB/s data transfer rate
	Cable length 2 meters between each instrument (suggested) -20 meters total cable length		
	Data transfer mode: 8-bit parallel		
	Handshake: 3 wire handshake, reception of each data byte is acknowledged		
Certifications	EMC/EMI: CE, FCC Class A		
Software Compatibility	Visual Studio C/C++/C#/VB/VB. Net Borland C Delphi Labview		
External Indicators (USB-3488A)	Ready : Green for active device		
	Active : Blinking amber for data transferring		
General Specifications	Operating temperature : 0˚C to 55˚C (32˚F to 131˚F)		
	Storage temperature : -20˚C to +80˚C (-4˚F to 176˚F)		
	Relative humidity : 5% to 95%, non-condensing		
	Power requirements		
	+3.3V +12V	+5 V	+5 V
	90mA (Max.) 150mA (Max.)	190 mA (typical)	250 mA (typical)
	80mA (Typ.) 100mA (Typ.)	500 mA (maximum)	300 mA (maximum)
Dimensions (not including connectors)	119.77mm x 68.9 mm	81.7 mm (L) x 66.1 mm (W) x 27.8 mm (H) (3.2” x 2.57” x 1.1”)	120 mm x 64 mm (4.68” x 2.49”)
I/O Connectors	GPIB: IEEE-488 standard 24 pin		
	USB: USB standard series A plug (USB-3488A)		

Digitizer Cards





Model Name	PCIe-9852	PCIe-9814P	PCIe-9834P
Analog Input			
Number of Channels	2 single-ended	4 single-ended	
Input Coupling	AC or DC, software selectable	DC	
Bandwidth	90MHz	40MHz	
Input Impedance	50 Ω or 1 MΩ, software selectable	50Ω or 1MΩ, software selectable	
Input Range	±0.2 V, ±2 V, ±10 V	±0.5V, ±1V, ±5V, ±10V (±10V only supports input impedance of 1MΩ)	±0.5V, ±1V, ±5V
ADC Resolution	14 bits	12 bits	16 bits
Gain Error	±0.65% of reading	±1% of reading	±0.15% of reading
Offset Error	±1 mV	±0.5 mV @±0.5V, ±1V ±4 mV @±5V ±10 mV @±10V	±0.1 mV @±0.5V ±0.2 mV @±1V ±0.5 mV @±5V, ±10V
System Noise	Available upon request	0.15 mVrms (±0.5 V range) 0.3 mVrms (±1V) 1.5 mVrms (±5V) 2.5 mVrms (±10V)	0.1 mVrms (±0.5 V range) 0.15 mVrms (±1V) 1 mVrms (±5V) 1.5 mVrms (±10V)
Crosstalk	Crosstalk < -80 dB		
Spectral Characteristics	62 dB (SINAD/SNR), -81 dB (THD), 10 bits (ENOB), 82 dB (SFDR)	64 dB (SNR), -73 dB(THD), 74 dB (SFDR)	67 dB (SNR), -78 dB(THD), 78 dB (SFDR)
Triggering			
Trigger Sources	Software, External digital, Analog inputs, SSI	Software, External digital trigger, Analog trigger from CH0 ~ CH3, SSI	
Trigger Modes	Pre-trigger, post-trigger, middle-trigger, delay-trigger	Pre-trigger, post-trigger, middle-trigger, delay-trigger	
Timebase			
Sample Clock Source	Internal clock (onboard synthesizer) External clock (front panel CLK IN)	Internal clock (onboard oscillator) External clock (front panel CLK IN)	
Sampling Clock Frequency	Internal clock: 200M Hz (accuracy: < ±25 ppm) External clock: 40M Hz ~ 200M Hz	Internal clock: 1.22K Hz ~ 80M Hz (accuracy: < ±25 ppm) External clock: 20M Hz ~ 80M Hz	
External Reference Clock Source	Front panel, SSI	SDI0 (Front panel)	REF_CLK (front panel)
External Reference Clock Frequency	10M Hz or 100M Hz 10M Hz	10M Hz	
External Reference Clock Input Range	500mVpp ~ 5Vpp (AC/DC compliant)	3.3V ~ 5V TTL	
External Sampling Clock Input Range	Vpp ~ 5Vpp (AC/DC compliant)	1Vpp ~ 5Vpp	
General Specifications			
I/O Connector	SMA x 2 for analog inputs SMA x 1 for external trigger input SMA x 1 for external trigger output SMA x 1 for external clock input	SMB x 4 for analog input (CH0, CH1, CH2, CH3) SMB x 1 for external trigger input SMB x 1 for external sample clock input SMB x 3 for synchronous digital input and external reference clock source input	
Dimensions (not including connectors)	167.64 (W) x 106.68 (H) mm (6.53” x 4.16”)	167.64 (W) x 106.68 (H) mm (6.53” x 4.16”)	
Bus Interface	PCI Express x4	PCI Express x4	
Ambient Temperature (Operational)	0˚C to 50˚C (32˚F to 122˚F)	0˚C to 50˚C (32˚F to 122˚F)	
Ambient Temperature (Storage)	-20˚C to 80˚C (-4˚F to 176˚F)	-20˚C to 80˚C (-4˚F to 176˚F)	
Relative Humidity	10% to 90% non-condensing	10% to 90% non-condensing	
Power Requirement	11 Wmax	5.7 Wmax	8.5 Wmax
Certifications			
EMC/EMI	CE, FCC Class A		

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USB DAQ Modules





Model Name	USB-1210	USB-2401	USB-2405 Series
Analog Input			
Resolution	16-bit	24-bit	24-bit
Number of channels	4 differential (simultaneous-sampling)	4 differential	2 or 4 (simultaneous sampling)
Maximum sampling rate	2MS/s per channel	2 kS/s	1 kS/s to 128 kS/s
Programmable gain	1, 5	n/a	1
Input range (Voltage)	± 10 V, ± 2 V (Voltage)	± 25 V, ± 12.5 V, ± 2.5 V, ± 312.5 mV	±10V
Input range (Current)	n/a	± 20 mA	NA
Offset error	± 1mV (gain=1) ± 0.2mV (gain=5)	n/a	Typical: ±0.15mV / Max. ±0.3mV"
Gain error	Typical: ± 0.01% of FSR (gain=1 & 5) Maximum: ± 0.02% of FSR (gain=1 & 5)		Typical: ±0.15% / Max. ±0.3%"
-3dB Bandwidth	600 kHz		0.4 Hz
CMRR	80 dB (gain=1) 90 dB (gain=5)		60 dB
SFDR	98 dB (gain=1 & 5)		104 dB
SINAD	89 dB (gain=1 & 5)		n/a
THD	-100 dB (gain=1 & 5)		Differential : 20 Hz to 20 kHz: -94 dB 20 Hz to 46.4 kHz: -89 dB Pseudodifferential 20 Hz to 20 kHz: -92 dB 20 Hz to 46.4 kHz :-85 dB
SNR	89 dB (gain=1 & 5)		n/a
ENOB	14.3-bit (gain=1 & 5)		n/a
FIFO buffer size	256M Samples	4k samples	8kS across all channel
Trigger sources	Software, external digital, analog trigger (from one analog input channel)	n/a	Analog or digital, software selectable
Trigger mode	Post trigger, delay trigger, middle trigger, gated trigger, pre-trigger, post or delay trigger with re-triggering		Post trigger, delay trigger, middle trigger, gated trigger, pre-trigger, post or delay trigger with re-triggering
External A/D conversion source	Yes (from CONV)		Frequency range from 1 kHz to 128 kHz.
Input coupling	DC	DC	AC or DC, software selectable
Overvoltage protection	Power on: ± 35 V Power off: ± 15V	Power on: Voltage input mode: 30V Current input mode: 60mA Sensor input mode enable: no protection Sensor input mode disable: 30V Excitation voltage (EX+) and AGND: no protection	±60V
Input common mode range	n/a	Voltage input mode: Vcm+Vpp/2 ≦ input range (25V/12.5V/2.5V/ 0.3125V) Current input mode: Vcm ≦ 24V	±10V
Input impedance	1 GΩ	1.009MΩ for voltage input mode 249.5Ω for current input mode	200 kΩ (between positive input and negative input) 16.93 kΩ (Between negative input and chassis ground)
Input Configuration	Differential	Differential	Differential or pseudo-differential
Data transfer	Programmed I/O, continuous (USB bulk transfer mode)		
Integrated Electronic Piezoelectric (IEPE)	n/a	n/a	Current: 2 mA or 0 mA, software selectable IEPE compliance: 24V
Function I/O			
Mode	Digital I/O, general timer/counter, pulse generation	Digital I/O, general timer/counter, pulse generation	Digital I/O
Digital I/O	8 DI / 4 DO (TTL level)	4 DI/2 DO(TTL)	2 programmable function I/O
General timer/counter	Two 32-bit, base clock: 80 MHz, external to 10 MHz	One 32-Bit; base clock 80 MHz, external to 10 MHz	Event counter, max. frequency: 4MH
Pulse generation	Two PWM outputs (Modulation frequency: 0.01 Hz to 5 MHz; duty cycle: 1%-99%)	One channel (modulation frequency: 0.01 Hz to 5 MHz; duty cycle: 1%-99%)	Pulse output, max. frequency:4 MHz
Data transfer	Programmed I/O, continuous	Programmed I/O, continuous	Programmed I/O
General Specifications			
Interface	USB 2.0 high speed	USB 2.0 high speed	USB 2.0 high speed
I/O connector	Two 20-pin removable screw terminals	Two 20-pin removable screw terminals	Two or four BNC and 4-pin removable
Operating temperature	0 to 55°C (32 to 131°F)	0 to 55°C (32 to 131°F)	0 to 55°C (32 to 131°F)
Storage temperature	-20 to 70°C (-4 to 158˚F)	-20 to 70°C (-4 to 158˚F)	-20 to 70°C (-4 to 158˚F)
Relative humidity	5 to 95% non-condensing	5 to 95% non-condensing	5 to 95% non-condensing
Power requirements	5V@ 500 mA (USB bus powered)	5V@ 400 mA (USB bus powered)	5V@ 400 mA (USB bus powered)
Dimensions	114 mm (H) x 156.5 mm (L) x 41.3 mm (W)	114 mm (H) x 156.5 mm (L) x 41.3 mm (W)	114 mm (H) x 156.5 mm (L) x 41.3 mm (W)





Model Name	USB-1901	USB-1902	USB-1903
Analog Input			
Resolution	16-bit		
Number of channels	16 SE / 8 Pseudo-diff, voltage input		8 Current inputs
Maximum sampling rate	250 kS/s(Multiplexing, channel-gain-queue)		
Programmable gain	1, 5, 10, 50		1
Input range (Voltage)	± 10 V, ± 2 V, ± 1 V, ± 200 mV		n/a
Input range (Current)	n/a		0-20 mA
Offset error	± 0.1 mV (gain=1)		±0.01 mA (typical)
Gain error	± 0.05% of FSR (gain=1)		±0.05% of FSR (typical)
-3dB Bandwidth	600 kHz		n/a
CMRR	90 dB		
SFDR	108 dB		
SINAD	89 dB		
THD	-102 dB		
SNR	89 dB		
ENOB	14.5-bit		
FIFO buffer size	4 k samples		
Trigger sources	Software, external digital, analog trigger (from one of analog input channels)		
Trigger mode	Post trigger, delay trigger, retrigger, gate trigger		
External A/D conversion source	Yes (up to 250 kS/s)		
Input coupling	DC		
Overvoltage protection	Continuous ± 24 V		
Input common mode range	± 0.1 V		
Input impedance	High impedance > 1 GΩ		249.5 Ω (input resistor)
Input Configuration	single-end or pseudo-differential	single-end or pseudo-differential	Differential
Data transfer	Programmed I/O, continuous (USB bulk transfer mode)		
Integrated Electronic Piezoelectric (IEPE)	n/a		
Analog Output			
Number of channels	n/a	2 voltage outputs	
Resolution		16-bit	
Maximum update rate		1 MS/s (simultaneous update)	
Output range		± 10 V	
Offset error		± 0.15 mV	
Gain error		± 0.05% of FSR	
INL		≦ 2 LSB	
DNL		< 1 LSB	
Output driving capacity		± 5 mA	
Slew rate		2.2 V/µs	
Settling time (0.1% of full scale)		26 µs	
Rising time		6 µs	
Falling time		6 µs	
FIFO		10 k samples (2-ch sharing)	
Output mode		Programmed I/O, continuous (USB bulk transfer mode	
Function I/O			
Mode	Digital I/O, general timer/counter, pulse generation		
Digital I/O	8 DI / 4 DO (TTL level)		
General timer/counter	Two 32-bit, base clock: 80 MHz, external to 10 MHz		
Pulse generation	Two PWM outputs (Modulation frequency: 0.01 Hz to 5 MHz; Duty cycle: 1%-99%)		
Data transfer	Programmed I/O, continuous (USB bulk transfer mode)		
General SpecificationsInterface			
Interface	USB 2.0 high speed, mini-USB connector		
I/O connector	Two 20-pin screw terminals		
Operating temperature	0 to 55°C (32˚F to 131˚F)		
Storage temperature	-20 to 70°C (-4 to 158˚F)		
Relative humidity	5 to 95% non-condensing		
Power requirements	5V@ 400 mA (USB bus powered)		
Dimensions	114 mm (H) x 156.5 mm (L) x 41.3 mm (W) (4.5” x 6.16” x 1.63”) (without connector and stand)		

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USB DIO Modules





Model Name	USB-7230	USB-7250
Relay Output		
Number of channels	n/a	8 (non-latching, 4-CH form C & 4-CH form A)
Max. switching power		60 W, 125 VA
Max. switching voltage		220 VDC, 250 VAC
Max. switching current		2A
Max. carrying current		2A
Max. contact rating		30 VDC, 2 A (Resistive) 110 VDC, 0.3 A (Resistive) 125 VAC, 0.5 A (Resistive)
Relay on/off time		2 ms (Operating time) 1 ms (Release time)
Resistance		75mΩ
Expected life		50 VDC 0.1A (resistive), 1x10^6
Breakdown voltage		1500 V surge
Optical Isolated Input		
Number of channels	16	8
Polarity	Bi-directional (non-polarity)	
Logic level	VIH=5 to 24V, VIL=0 to 0.1.5V or dry contact	
Input resistance	2.4k @ 0.5W	
Isolated voltage	2500VRMS (channel to system)	
Min. pulse-width for change of state (COS) detection	20.83ns (software programmable)	
Optical Isolated Frequency / Event Counter		
Number of channels	2	
Logic level	VIH=5 to 12V, VIL=0 to 0.1.5V	
Event counter width	32-Bit	
Max. input frequency (DC coupled)	1 MHz	
Min. input frequency (DC coupled)	0.1 Hz	
Max. frequency error	0.5% (f ≦ 50kHz) 1% (50kHz < f ≦ 500kHz) 2% (500kHz < f ≦ 1MHz	
Optical Isolated Output		
Number of channels	16	n/a
Output type	Open drain MOSFET	
Supply voltage	5-35VDC	
Max. sink current	250 mA @ 100% duty (per channel)	
General Specification		
Interface	High speed USB 2.0 compatible, mini-USB connector	
Data transfer	Programmed I/O	
Dimensions	156.5 (L) x 114 (W) x 41.3 (H) mm (6.16" x 4.49" x 1.63")	
I/O Connector	Two 20-pin removable screw-down terminals	
Power requirement	USB power (5 V @ 400 mA	

Load Cell Measurement Cards



Model Name	PCIe-9524
Load Cell Transducer Input	
Number of Channels	4
Resolution	24-bit
Sampling Rate	Auto-zero Disabled • Up to 30 kS/s (single channel) • Up to 1,638 SPS (multi-channel) Auto-zero Enabled • Up to 819 SPS (single channel or multi-channel)
Excitation Voltage	2.5 V/10 V DC
Transducer Sensitivity	1.0 mV/V to 4.0 mV/V
Accuracy	1/200000 of full scale (with remote sense & auto-zero enabled)
Pulse Output & Encoder Input	
Number of axis	3
Pulse Output Mode	OUT/DIR and CW/CCW (26LS31, differential line driver, driving current: up to 20 mA)
Pulse Output Frequency	Max. 500 kHz
Encoder Input	24-bit up/down counter for incremental encoder feedback
General Purpose Analog Input	
Number of channels	4
Resolution	24-bit
Sampling rate	30 kS/s (non-multiplexing)
Input Range	±1.25 V, ±2.5 V, ±5 V, ±10 V
Analog Output	
Number of channels	2
Resolution	16-bit
Update Rate	Up to 5 kS/s
Output Range	±10 V
Driving Capability	5 mA
Isolated Digital Input	
Number of channels	8
Input Range	0 V to 24 V(non-polarity)
Input Resistance	2.7 KΩ

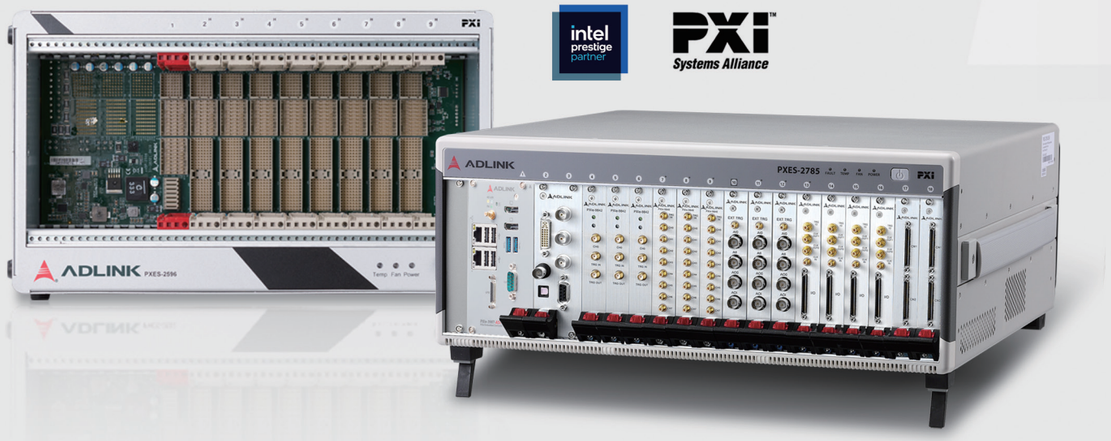
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PXIe Platforms and Modules

Scalable System-Level Automated Testing



ADLINK's PXI/PXIe platforms and modules combine modular, high-performance embedded computing with advanced signal processing. They deliver flexible, high-throughput, and reliable automated test solutions for semiconductor testing, automotive and aerospace applications.



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PXI Systems Alliance



Semiconductor | Photonics / Optoelectronics | Automotive | Aerospace | Energy

Battle-hardened Reliability

Delivering the best balance of performance, quality, and cost for leading ATE brands

Exceptional Interoperability

Ensuring PXI compliance and synchronized measurements as a PXISA sponsor

Top-tier Performance

11th Gen. Intel multicore CPUs, FPGAs, and advanced designs for peak test throughput.

Up to 24 GB/s System Bandwidth via PCIe 3.0

6 to 21-slot Chassis Configurations, with up to 1700 W DC Output

Hot-pluggable Redundant Power Supply with Field-Replaceable PSUs



7th/9th/11th Gen Intel® Xeon® /Core™ Processors (Tigerlake) with 32/64 GB DDR4 dual-channel memory

Full PXI/PXIe Module Coverage & Broad Third-Party Compatibility

Up to 102W per slot Cooling Capacity

Smart Fan Control for Optimal Cooling and Acoustic Performance

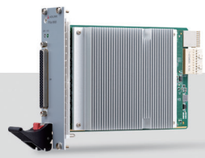
The Latest PXI Express Gen3 Chassis, Controller & Module



PXES-2596
9/12-slot 16 GB/s All Hybrid PXIe Chassis



PXIe-3900-TL Series
11th Generation Intel® Xeon® /Core™ i7/i5/i3 Processor based PXIe Controller



PXIe-9908
8-ch 4-quadrant Source Measurement Unit

Trusted PXIe Customization Partner

Tailoring PXIe system with validated chassis and controller to meet specific automated testing requirements

Branding Customization



Colors, logos, and screen printing for unified branding

Platform Customization



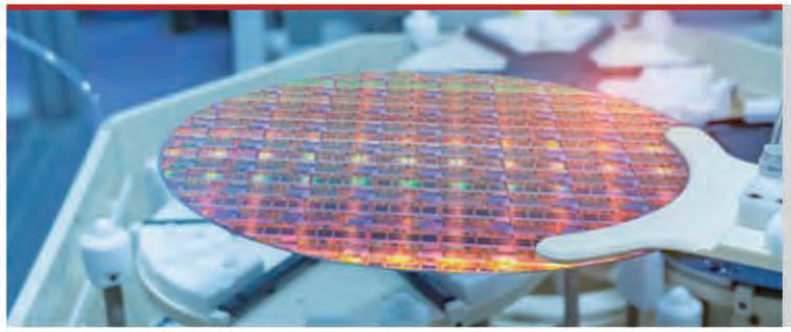
Board-level customization of I/O and software for tailored functionality

Full ODM Customization



Backplanes, PCA boards, power supplies, and clock sources for specialized applications

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Effective Modernization for Automated Semiconductor Testing

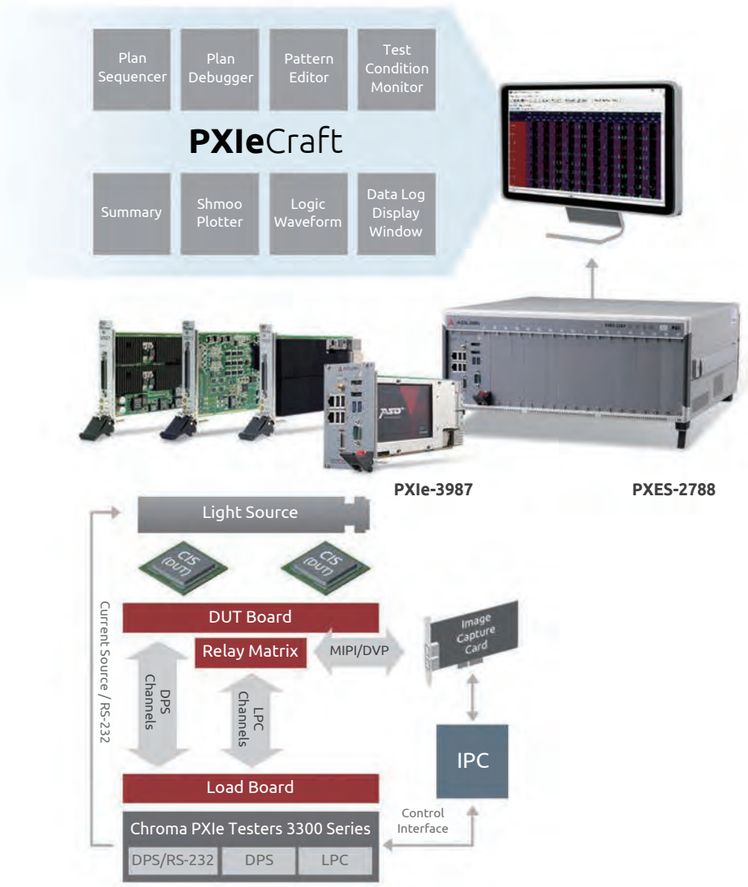
Traditional ATE systems are designed for high-performance testing needs but can be costly due to unnecessary features in large package solutions. The Chroma 3300 system, integrating the ADLINK PXI chassis and controller allows easy reconfiguration for expanding test requirements and uses unified software, saving time and costs.

Customer Benefits

- 18-slot Gen3 PXIe chassis with various modular solutions enhances testing efficiency
- Intel® Core™ i7-7820EQ-based PXIe controller provides high performance computing
- User-friendly PXIe CRAFT platform accelerates testing, result transfers, and large-scale operations

Products

- PXES-2788 18-slot Gen3 PXIe chassis
- PXIe-3987 Intel® Core™ i7-7820EQ-based controller
- Chroma 3300 series PXI tester with power supply and relay drive control
- Chroma semiconductor grade CRAFT-PXIe-software





High-Efficient HIL Testing for Self-driving Controller

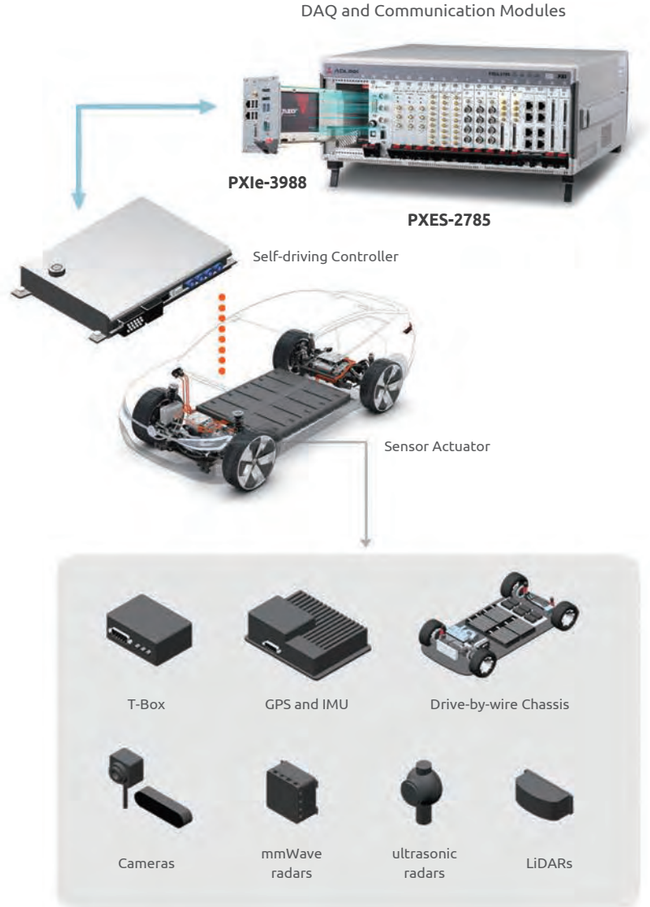
Self-driving controllers process sensor data (LiDARs, mmWave radars, cameras) for real-time tasks. Hardware-in-the-Loop (HIL) testing is cost efficient and quicker to develop. Traditional costly HIL setups face synchronization issues. PXI-based HIL systems provide high bandwidth, power, and efficient cooling for high-speed components and I/O ports.

Customer Benefits

- 18-slot PXIe Gen3 chassis provides high density, expandable functional testing
- 1170W of total power with 82W cooling capacity components and high I/O count testing
- 11th Gen Intel® Core™ i7 processor enables real-time system, ensuring low-latency response, simulation

Products

- PXES-2785 18-slot 24GB/s PXIe Gen3 chassis
- PXIe-3987 Intel® Core™ i7-7820EQ Gen3 PXIe Controller
- ADLINK data acquisition and communication modules



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PXI/PXIe Chassis





Model Name	PXES-2788/HP	PXES-2788E/HP
Total Slots	18	21
PXIe System Slots	up to 4-slot width PXIe controller	up to 1-slot width PXIe controller
PXIe Peripheral Slots	8	11
System Timing Slots	1	1
PXIe Hybrid Slots	8	8
PCI Express Bus	gen3	gen3
Cooling Capacity		
Per Peripheral Slot (Max.)	102W(40°C) 85W(45°C) 60W(50°C)	85W(45°C) 60W(50°C)
Per System Slot (Max.)	200W (0°C to 45°C) 150W(0°C to 55°C)	200W (0°C to 45°C) 150W(0°C to 55°C)
Fans	Rear fans: 3 pcs Top: fans: 4 pcs	Rear fans: 3 pcs Top: fans: 4 pcs
Air Inlet/Outlet Location	Air Inlet: Rear (push) Air Outlet: Top (pull)	Air Inlet: Rear (push) Air Outlet: Top (pull)
Power Supply		
DC Output	1700W/220VAC	1700W/220VAC
AC Input range	200 to 240V AC, 50 to 60Hz, 13.3A (max per PSU)	100 to 240V AC, 50 to 60Hz, 12A (per PSU) 200 to 240V AC, 50 to 60Hz, 8A (per PSU)
AC Input Frequency	50 to 60 Hz	
I/O Switch	Two front panel SMA connectors for 10MHz reference clock input and output Fan mode setting switches Remote inhibit and voltage monitoring connector	
Dimensions	444.4 mm (W) x 177.8 mm (H) x 480.5 mm (D)	
Net Weight	11.9 kg (26.2 lbs)	
Gross (Freight) Weight	14.6 kg (32.2 lbs)	
Operating Environment		
Operating Temperature (Ambient)	0°C to 55°C (32°F to 131°F)	
Relative humidity	10% to 90%, non-condensing	
Storage Environment		
Ambient temperature	-40°C to 71°C (-40°F to 159.8°F)	
Relative humidity	10% to 90%, non-condensing	
Shock and Vibration		
Functional Shock	30 G, half-sine, 11 ms pulse duration random vibration	
Random Vibration	Operating: 5 to 500 Hz, 0.3 Grms, 3 axes Non-operating: 5 to 500 Hz, 2.46 Grms, 3 axes	
EMC Compliance	EN 61326-1 (IEC 61326-1): Class A emissions; Basic immunity EN 55011 (CISPR 11): Group 1, Class A emissions EN 55032:2015/A11:2020, Class A EN 55035:2017/A11:2020 EN 61000-3-2:2019: Class A EN 61000-3-3:2013 FCC 47 CFR Part 15 Subpart B (Class A) ICES-003 Issue 7-2020 AS/NZS CISPR 11: Group 1, Class A emissions AS/NZS CISPR 32: 2015 (Ed 2.0)/C1:2016 : Class A EN 61326-1 Class A emissions; Basic immunity FCC 47 CFR Part 15 Subpart A ICES-001/ICES-003 AS/NZS CISPR 11/32 FCC 47 CFR Part 15 Subpart A ICES-001/ICES-003 AS/NZS CISPR 11/32	
Safety Compliance	EN 61010-1	
Software Support	Windows 10 64-bit, Windows 11 64-bit	







Model Name	PXES-2785	PXES-2780	PXIS-2719A
Total Slots	18	18	19
PXIe System Slots	1	1	1
PXIe Peripheral Slots	10	6	18
System Timing Slots	1	1	0
PXIe Hybrid Slots	6	10	0
PCI Express Bus	gen3	gen3	n/a(pxi)
Cooling Capacity			
Per Peripheral Slot (Max.)	50W (55°C) 82W (45°C, and heat dissipation of modules at both sides of the adjacent 2 slots shall not exceed 50W)	38.2W(55°C)	25W(55°C)
Per System Slot (Max.)	150W		
Fans	Rear fans: 3 pcs		
Air Inlet/Outlet Location	Air Inlet: down Air Outlet: rear (pull)		
Power Supply			
DC Output	1170/1000W (0°C ~ 45°C 220/110VAC) 990/790W (45°C ~ 55°C 220/110VAC)	1120W/220VAC 840W/110VAC	600W
AC Input range	100 to 240 VAC	100 to 240 VAC	85 to 264 VAC full range
AC Input Frequency	50 to 60 Hz	50 to 60 Hz	47 to 63 Hz
I/O Switch	Two BNC connectors for 10MHz reference clock input and output Fan mode setting switches Remote inhibit and voltage monitoring connector	Two BNC connectors for 10MHz reference clock input and output Fan mode setting switches Remote inhibit and voltage monitoring connector	Fan mode setting switches Remote inhibit and voltage monitoring connector
Dimensions	444.4 mm (W) x 177.8 mm (H) x 480.5 mm (D)	464.3 mm (W) x 191.4 mm (H) x 465.3 mm (D)	444 mm (W) x 178 mm (H) x 455 mm (D)
Net Weight	11.9 kg (26.2 lbs)	11.9 kg (26.2 lbs)	13.4 kg (29.5 lbs)
Gross (Freight) Weight	14.6 kg (32.2 lbs)	Available upon request	14.5kg
Operating Environment			
Operating Temperature (Ambient)	0°C to 55°C (32°F to 131°F)		
Relative humidity	10% to 90%, non-condensing		
Storage Environment			
Ambient temperature	-40°C to 71°C (-40°F to 159.8°F)		-20°C to 70°C (-4°F to 158°F)
Relative humidity	10% to 90%, non-condensing		
Shock and Vibration			
Functional Shock	30 G, half-sine, 11 ms pulse duration random vibration		
Random Vibration	Operating: 5 to 500 Hz, 0.3 Grms, 3 axes Non-operating: 5 to 500 Hz, 2.46 Grms, 3 axes		
EMC Compliance	EN 61326-1 Class A emissions; Basic immunity FCC 47 CFR Part 15 Subpart A ICES-001/ICES-003 AS/NZS CISPR 11/32	EN 61326-1 FCC Class A	EN 61326-1 FCC Class A
Safety Compliance	EN 61010-3		
Software Support	Windows 10 64-bit, Windows 11 64-bit		

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PXI/PXIe Chassis






Model Name	PXES-2301	PXES-2314T	PXES-2590	PXES-2596/PXES-2596E
Total Slots	6	4	9	9
PXIe System Slots	1	0	1	1
PXIe Peripheral Slots	5	4	7	3 (PXES-2596E only)
System Timing Slots	0	0	1	0
PXIe Hybrid Slots	0	0	0	8
PCI Express Bus	gen2	gen3	gen2	gen3
Cooling Capacity				
Per Peripheral Slot (Max.)	38W	58W(0°C to 40°C) 38W(0°C to 50°C)	30W	58W (0°C to 40°C) 38W (0°C to 50°C)
Per System Slot (Max.)	150W	n/a	150W	150W
Fans	2 x 100.21 CFM fans	1 x 136 CFM fan	2 x 185.9 CFM fans	2 x 210.38 CFM fans
Air Inlet/Outlet Location	Air Inlet: Bottom (push) Air Outlet: Top	Air Inlet: Left (push) Air Outlet: Right	Air Inlet: Rear (pull) Air Outlet: bottom	Air Inlet: Rear (push) Air Outlet: Top
Power Supply				
DC Output	320W	160W	400W	500W
AC Input range		100 to 240VAC		
AC Input Frequency	47 to 63Hz	47 to 63Hz	50 to 60Hz	47 to 63Hz
I/O Switch	Fan speed selector switch	SMB Thunder bolt connector DC input connector Fan Speed Switch	BNC connectors for 10MHz clock input/output Fan speed selector switch Inhibit mode selector switch D-SUB9 for voltage monitoring and remote inhibit	Fan speed selector switch Inhibit mode selector switch
Dimensions	220.8mm (W) x 319.6mm(D) x 177.8mm (H)	207.9mm (W) x 220.5mm(D) x 148.4mm(H)	322 mm (W) x 456 mm (D) x 190 mm (H)	302.16mm (W) x 457 mm (D) x 177.8 mm (H)
Net Weight	5.85 Kg	3.8 kg	9 kg	11 kg
Operating Environment				
Operating Temperature (Ambient)	0°C to 50°C (32°F to 122°F)	0°C to 50°C (32°F to 122°F)	0°C to 55°C (32°F to 131°F)	0°C to 50°C (32°F to 122°F)
Relative humidity	20% to 80%, non-condensing	20% to 80%, non-condensing	10% to 90%, non-condensing	10% to 90%, non-condensing
Storage Environment				
Ambient temperature	-40°C to 71°C (-40°F to 159.8°F)	-40°C to 71°C (-40°F to 159.8°F)	-20°C to 70°C (-4°F to 158°F)	-20°C to 70°C (-4°F to 158°F)
Relative humidity	10% to 90%, non-condensing	10% to 90%, non-condensing	10% to 90%, non-condensing	10% to 90%, non-condensing
Shock and Vibration				
Functional Shock	30 G, half-sine, 11 ms pulse duration	31 G, half-sine, 11 ms pulse duration	30 G, half-sine, 11 ms pulse duration	30 G, half-sine, 11 ms pulse duration
Random Vibration	Operating: 5 to 500 Hz, 0.21 Grms, 3 axes Non-operating: 5 to 500 Hz, 2.46 Grms, 3 axes	Operating: 5 to 500 Hz, 0.21 Grms, 3 axes Non-operating: 5 to 500 Hz, 2.46 Grms, 3 axes	Operating: 5 to 500 Hz, 0.21 Grms, 3 axes Non-operating: 5 to 500 Hz, 2.46 Grms, 3 axes	Operating: 5 to 500 Hz, 0.21 Grms, 3 axes Non-operating: 5 to 500 Hz, 2.46 Grms, 3 axes
EMC Compliance	FCC/ICES-003 (USA / Canada) Class A - EN 61326-1 CE (Europe) Class A - EN 61326-1	FCC/ICES-003 (USA / Canada) Class A - EN 61326-1 CE (Europe) Class A - EN 61326-2	EN 61326-1 FCC Class A	IEC61326 1 Class A emissions; Basic immunity FCC 47 CFR Part 15 Subpart B (Class A) AS/NZS CISPR 11: Group 1, Class A emissions AS/NZS CISPR 32: 2015 (Ed 2.0)/C1:2016 : Class A
Safety Compliance	CE/LVD- EN 61010-1			
Software Support	Windows 10 64-bit, Windows 11 64-bit	Windows 10 64-bit	Windows 10 64-bit	Windows 10 64-bit

PXI/PXIe Controllers






Model Name	PXIe-3988-TL	PXIe-3987-TL	PXIe-3977-TL	PXIe-3937-TL
Core Features				
CPU	Intel® Xeon® W-11865MRE (2.6/4.7GHz)	Intel® Core™ i7-11850HE (2.6/4.7GHz)	Intel® Core™ i5-11500HE (2.6/4.5GHz)	Intel® Core™ i3-11100HE (2.4/4.4GHz)
DMI	DMI 3.0 8GT/s			
Chipset	Intel® CM246	Mobile Intel® QM175		Mobile Intel® HM175
Memory	Up to 64 GB dual channel DDR4 at 2133/2400 MHz (non-ECC memory)	Up to 32 GB dual channel DDR4 at 2133/2400 MHz (supports non-ECC memory)		
Display				
DisplayPort	3840 x 2160 @60Hz DisplayPort adapters to other standards are available, w/ max. resolution dependent on adapter			
PXI Express Chassis I/O				
Bus	PXI Express 3.0 (backward compatible with 2.x and 1.x)			
System Bandwidth	Up to 16GB/s			
PXIe Link Configuration	2 Link Mode: x8 x8 4 Link Mode: x4 x4 x4 x4			
I/O Connectivity				
Storage	One SATA 6.0 Gb/s port with a 2.5" SATA SSD/HDD bracket			
Ethernet	Intel® Ethernet controller I219-LM, I210			Intel® Ethernet controller I219-V, I210
USB	2 x USB 3.0 and 4 x USB 2.0, front-mounted			
GPIB	Onboard IEEE488 GPIB controller Micro-D 25-pin connector (ACL-IEEE488-MD1-A cable required)			
Trigger I/O	SMB connector to route an external trigger signal to/from PXI trigger bus			
Mechanical and Environmental				
Dimensions	3U/4-slot PXI standard			
Slot Requirements	1 system slot plus 3 controller expansion slots			
Weight	1 kg (2.2 lbs)			
Operating Temp.	0°C to 55°C (32˚F to 131˚F) (w/ SSD) 0°C to 50°C (32˚F to 122˚F) (w/ HDD)			
Storage Temp.	-20°C to 70°C (-4˚F to 158˚F)			
Relative Humidity	5% to 95%, non-condensing			
Shock	30 G, half-sine, 11 ms pulse duration			
Vibration	Operating: 5 to 500 Hz, 0.21 GRMS, 3 axes Non-operating: 5 to 500 Hz, 2.46 GRMS, 3 axes			
Emissions Compliance	EEN 61326-1, FCC Class B		EN 61326-1, FCC Class A	
CE Compliance	Immunity: EN 61326-1			
Operating System	Windows 10 64-bit			

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PXI/PXIe Controllers







Model Name	PXIe-3988	PXIe-3987	PXIe-3977	PXIe-3937	PXI-3982
Core Features					
CPU	Intel® Core™ i3-11100HE (2.4/4.4GHz)	Intel® Core™ i7-7820EQ 3.0GHz (Turbo 3.7GHz)	Intel® Core™ i5-7440EQ 2.9GHz (Turbo 3.6GHz)	Intel® Core™ i3-7100E 2.9GHz	Core™ i7-6820EQ 2.8GHz (Turbo 3.5GHz)
Memory	Up to 64 GB dual channel DDR4 at 2133/2400 MHz (non-ECC memory)	Up to 64GB dual channel DDR4 at 3200 MHz (non-ECC memory)			Up to 32 GB SO-DIMM memory Supports dual-channel DDR4 SDRAM, 2133 MHz
DMI	DMI 3.0 8GT/s	DMI 3.0 8GT/s			5 GT/s
Chipset	Intel® CM246	Mobile Intel® QM175		Mobile Intel® HM175	Intel® QM170 Chipset
Display					
DisplayPort	3840 x 2160 @ 60 Hz DisplayPort adapters to other standards are available, w/ max. resolution dependent on adapter				
PXI Express Chassis I/O					
Bus	PXI Express 3.0 (backward compatible with 2.x and 1.x)				n/a
System Bandwidth	Up to 16GB/s				Maximum system throughput 132 MB/s
PXIe Link Configuration	2 Link Mode: x8 x8 4 Link Mode: x4 x4 x4 x4				n/a
I/O Connectivity					
Storage	One SATA 6.0 Gb/s port with a 2.5" SATA drive bracket	One SATA 6.0 Gb/s port with a 2.5" SATA SSD/HDD bracket			One SATA 6.0 Gb/s port with a 2.5" SATA SSD/HDD bracket
Ethernet	Intel® Ethernet controller I219-LM, I210	Intel® Ethernet controller I219-LM, I210		Intel® Ethernet controller I219-V, I210	One Intel® I210 Gigabit Ethernet and one Intel® I219LM Gigabit Ethernet Two RJ-45 connectors with speed/link/ active LED on faceplate
USB	2 x USB 3.0 and 4 x USB 2.0, front-mounted	2 x USB 3.0 and 4 x USB 2.0, front-mounted			4 x USB 3.0 and 2 x USB 2.0 on faceplate
GPIB	Onboard IEEE488 GPIB controller Micro-D 25-pin connector, front-mounted (ACL-IEEE488-MD1-A cable required)	Onboard IEEE488 GPIB controller Micro-D 25-pin connector, front-mounted (ACL-IEEE488-MD1-A cable required)			On-board IEEE488 GPIB controller Micro-D 25-pin connector on faceplate (ACL-IEEE488-MD1-A cable required)
Trigger I/O	SMB connector, front-mounted, to route an external trigger signal to/ from PXI trigger bus	SMB connector, front-mounted, to route an external trigger signal to/from PXI trigger bus			SMB connector on faceplate to route an external trigger signal to/from PXI trigger bus
COM	RS-232/422/485 D-sub 9-pin connector	RS-232/422/485 D-sub 9-pin connector			n/a
Mechanical and Environmental					
Dimensions	3U/4-slot PXI standard				60.5 mm x 128.7 mm x 213.2 mm
Slot Requirements	1 system slot plus 3 controller expansion slots				1 system slot plus 2 controller expansion slots
Weight	1 kg (2.2 lbs)				1.1 kg (2.3 lbs)
Operating Temp.	0°C to 55°C (32˚F to 131˚F) w/ SSD 0°C to 50°C (32˚F to 122˚F) w/ HDD				0°C to 50°C (32˚F to 122˚F) 0°C to 55°C (32˚F to 131˚F)
Storage Temp.	-20°C to 70°C (-4˚F to 158˚F)				
Relative Humidity	5% to 95%, non-condensing				
Shock	30 G, half-sine, 11 ms pulse duration				
Vibration	Operating: 5 to 500 Hz, 0.21 GRMS, 3 axes Non-operating: 5 to 500 Hz, 2.46 GRMS, 3 axes				
Emissions Compliance	EEN 61326-1, FCC Class B		EN 61326-1, FCC Class A		
CE Compliance	Immunity: EN 61326-1				
Operating Systems	Windows 10 64-bit, CentOS, Ubuntu				Windows 10

Remote Controllers





Model Name	PCIe-8560	PXI-8565	PXIe-8565
Installation	Host PC	System slot	System slot
Operating temperature	0˚C to 50˚C		
Storage temperature	-20˚C to 80˚C		
Relative humidity	10% to 90%, non-condensing		
PCIe Slot	PCIe x1 link with 250MB/s data throughput		
PXIe link capability	n/a		4 Link Configuration: x1, x1, x1, x1 2 Link Configuration: x1, x1"
Cable extenstion	1M, 3M, 7M		
Dimensions	87(W) x 69(H) mm	175 mm (W) x 107 mm (H) (6.82" x 4.17")	
Power requiremen	n/a	+3.3 V, 720 mA	+3.3V, 820mA max.

Model Name	PCIe-8638	PXIe-8638	PXIe-8638D	PXIe-8638P
Installation	Host PC (PCIe x8 slot)	System slot		Peripheral slot
Operating temperature	0˚C to 55˚C			
Storage temperature	-40~71˚C (-40~158˚F)			
Relative humidity	10% to 90%, non-condensing			
PCIe Slot	PCIe Gen 2 x8 ports each support up to 4GB/s			
PXIe link capability	n/a	4 link configuration: x4 x4 x4 x4 2 link configuration: x16 x8		
Cable extenstion	2M, 5M			
Dimensions	Low-profile PCI Express card 142 mm (W) x 69 mm (H)	PXI Express system module: 175 mm (W) x 107 mm (H)		
Power requiremen	n/a	3,3V, 2.6A		

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Multi-Function DAQ Modules





Model Name	cPCI-9116	PXI-2022	PXI-2208
Analog Input			
Number of channels	64 single-ended or 32 differential (software selectable per channel)	16 differential channels	96 single-ended or 48 differential
Resolution	16 Bit	16 Bit, no missing codes	12 Bit, no missing codes
Maximum sampling rate	250 kS/s	250 kS/s	3 MS/s
Input coupling	DC		
Bipolar Input Signal Range	±5 V, ±2.5 V, ±1.25 V, ±0.625 V	± 10 V, ± 2.5 V	±10 V, ±5 V, ±2.5 V, ±2 V, ±1.25 V, ±1 V, ±0.5 V, ±0.25 V, ±0.2 V, ±0.05 V
Unipolar input ranges	0-10 V, 0-5 V,0-2.5 V, 0-1.25 V	0-10 V, 0-5 V, 0-4 V, 0-2.5 V, 0-1 V, 0-0.5 V, 0-0.4 V, 0-0.1 V	0-10 V, 0-5 V, 0-4 V, 0-2.5 V, 0-1 V, 0-0.5 V, 0-0.4 V, 0-0.1 V
Programmable gain	1, 2, 4, 8	1, 4	1, 2, 4, 5, 8, 10, 20, 40, 50, 200
Overvoltage protection	Continuous ±35 V	Power on: ±30 V continuous Power off: ±30 V continuous	Power on: Continuous ±30 V, Power off: Continuous ±15 V
Input impedance	1 GΩ	1 GΩ/pF	1 GΩ/100 pF
Trigger sources	Software, external digital	Software, external digital, SSI bus	Software, external digital/ analog trigger, SSI bus
Trigger modes	Software, pre-trigger, post-trigger, middle trigger, delay trigger, and repeated trigger	Pre-trigger, post-trigger, middle-trigger, delay-trigge	Pre-trigger, post-trigger, middle-trigger, delay-trigger, and repeated trigger
FIFO buffer size	1 k samples	8 K-sample (16 KB)	1 k samples
Data transfers	polling, interrupt, bus-mastering DMA	16 differential channels	Polling, scatter-gather DMA
Offset Error (gain =1)	0.5 mV (typical)	0.6 mV (typical)	±2 mV
Gain Error (gain =1)	±0.04% of FSR	0.05% of input	±0.06% of FSR
Digital I/O			
Number of channels	8 inputs and 8 outputs	4 input/output	24-CH 8255 programmable input/output
Compatibility	5 V/TTL	TTL / CMOS	5 V/TTL
Data transfers	programmed I/O	Polling mode	Programmed I/O
General-Purpose timer/counter			
Number of channels	1	n/a	n/a
Resolution	16 Bit		
Compatibility	5 V/TTL		
Base clock available	24 MHz, external clock up to 24 MHz		
General Specifications			
I/O connector	100-pin SCSI-II female	ACL-10568-1, 68-pin VHDCI-type female	68-pin VHDCI female x 2
Operating temperature	0˚C to 55˚C (32˚F to 131˚F)	0˚C to 55˚C (32˚F to 131˚F)	0˚C to 55˚C (32˚F to 131˚F)
Storage temperature	-20˚C to 80˚C (-4˚F to 176˚F)	-20˚C to 80˚C (-4˚F to 176˚F)	-20˚C to 70˚C (-4˚F to 158˚F)
Relative humidity		5% to 95%, non-condensing	
Power requirements	560 mA typical (+5 V)/ 100 mA typical (+12 V)	3.3V @ 1.5A / 5V @ 1.3A 12V @ 0.35A	0.95 A typical
Dimensions	160 mm x 100 mm (6.24" x 3.9") (not including connectors)		
Auto Calibration	No	Yes (+5 V, ±3 ppm/˚C)	

Multi-Function DAQ Modules





Model Name	PXI-2204	PXI-2205	PXI-2206
Analog Input			
Number of channels	64 single-ended or 32 differential (software selectable per channel)		
Resolution	12 Bit, no missing codes	16 Bit, no missing codes	
Maximum sampling rate	3 MS/s	500 kS/s	250 kS/s
Input coupling	DC		
Bipolar Input Signal Range	Max. : ±10 V, Min. : ±0.05 V±10 V, ±5 V, ±2.5 V, ±1.25 V±10 V, ±5 V, ±2.5 V, ±1.25 V		
Unipolar input ranges	Max. : 0-10 V, Min. : 0-0.1 V0-10 V, 0-5 V, 0-2.5 V, 0-1.25 V0-10 V, 0-5 V, 0-2.5 V, 0-1.25 V		
Programmable gain	1, 2, 4, 5, 8, 10, 20, 40, 50, 200	1, 2, 4, 8	
Overvoltage protection	Power on: Continuous ±30 V, Power off: Continuous ±15 V		
Input impedance	1 GΩ/100 pF		
Trigger sources	Software, external digital/analog trigger, SSI bus		
Trigger modes	Pre-trigger, post-trigger, middle-trigger, delay-trigger, and repeated trigger		
FIFO buffer size	1 k samples		
Data transfers	Polling, scatter-gather DMA		
Offset Error (gain =1)	±2 mV	±1 mV	±2 mV
Gain Error (gain =1)	±0.06% of FSR	±0.08% of FSR	±0.06% of FSR
Analog Output			
Number of channels	2 voltage outputs		
Resolution	12 Bit		
Output ranges	0-10 V, ±10 V, 0-AOEXTREF, ±AOEXTREF		
Maximum update rate	1 µs		
Slew rate	20 V/µs		
Settling time	3 µs to ±0.5 LSB accuracy		
Offset error	±1 mV	±2 mV	±1 mV
Gain error	±0.02% of max. output	±0.04% of max. output	±0.02% of max. output
Driving capacity	±5 mA		
Stability	Any passive load, up to 1500 pF		
Trigger sources	Software, external digital/analog trigger, SSI bus		
Trigger modes	Post-trigger, delay-trigger, and repeated trigger		
FIFO buffer size	1 k samples		
Data transfers	Programmed I/O, scatter-gather DMA		
Digital I/O			
Number of channels	24-CH 8255 programmable input/output		
Compatibility	5 V/TTL		
Data transfers	Programmed I/O		
General-Purpose timer/counter			
Number of channels	2		
Resolution	16-Bit		
Compatibility	5 V/TTL		
Base clock available	40 MHz, external clock up to 10 MHz		
General Specifications			
I/O connector	68-pin VHDCI female x 2		
Operating temperature	0˚C to 55˚C (32˚F to 131˚F)		
Storage temperature	-20˚C to 70˚C (-4˚F to 158˚F)		
Relative humidity	5% to 95%, non-condensing		
Power requirements	+5 V 1.3 A typical	+5 V 1.2 A typical	+5 V 1.3 A typical
Dimensions	160 mm x 100 mm (6.24" x 3.9") (not including connectors)		
Auto Calibration	Yes (+5 V, ±2 ppm/˚C)		

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Multi-Function DAQ Modules





Model Name	PXI-2501	PXI-2502	PXI-2010	PXI-2005
Analog Input				
Number of channels	8 single-ended	4 single-ended	4 simultaneous-sampling channels with differential input	
Resolution	14 Bit, no missing codes		14 Bit	16 Bit, no missing codes
Maximum sampling rate	400 kS/s		2 MS/s	500 kS/s
Input coupling	DC		DC	
Bipolar Input Signal Range	±10 V		±10 V, ±5 V, ±2.5 V, ±1.25 V	
Unipolar input ranges	0-10 V		0-10 V, 0-5 V, 0-2.5 V, 0-1.25 V	
Programmable gain	1		1, 2, 4, 8	
Overvoltage protection	Power on: Continuous ±30 V, Power off: Continuous ±15 V		Power on: Continuous ±35 V, Power off: Continuous ±15 V	
Input impedance	1 GΩ/6 pF		1 GΩ/100 pF	
Trigger sources	Software, external digital/analog trigger, SSI bus		Software, external digital/analog trigger, SSI bus	
Trigger modes	Post-trigger, delay-trigger, and repeated trigger		Pre-trigger, post-trigger, middle-trigger, delay-trigger, and repeated trigger	
FIFO buffer size	2 k samples		8 k samples	512 samples
Data transfers	Polling, scatter-gather DMA		Polling, scatter-gather DMA	
Offset Error (gain =1)	±4 mV		±3 mV	2 mV
Gain Error (gain =1)	±0.1% of FSR		±0.1% of FSR	±0.04% of FSR
Analog Output				
Number of channels	4 voltage outputs	8 voltage outputs	2 voltage outputs	
Resolution	12 Bit		12 Bit	
Output ranges	0-10 V, ±10 V, 0-AOEXTREF, ±AOEXTREF		0-10 V, ±10 V, 0-AOEXTREF, ±AOEXTREF	
Maximum update rate	1 MS/s		1 µs	
Slew rate	20 V/µs		20 V/µs	
Settling time	3 µs to ±0.5 LSB accuracy		3 µs to ±0.5 LSB accuracy	
Offset error	±8 mV		±3mV	±1mV
Gain error	±0.04% of max. output		±0.05% of max. output	±0.04% of max. output
Driving capacity	±5 mA		5 mA	
Stability	Any passive load, up to 1500 pF		Any passive load, up to 1500 pF	
Trigger sources	Software, external digital/analog trigger, SSI bus		Software, external digital/analog trigger, SSI bus	
Trigger modes	Post-trigger, delay-trigger, and repeated trigger		Post-trigger, delay-trigger, and repeated trigger	
FIFO buffer size	8 k samples	16 k samples	2 k samples	
Data transfers	Programmed I/O, scatter-gather DMA		Programmed I/O, scatter-gather DMA	
Digital I/O				
Number of channels	24-CH 8255 programmable input/output		8255 24-Bit programmable input/output	
Compatibility	5 V/TTL		5 V/TTL	
Data transfers	Programmed I/O		Programmed I/O	
General-Purpose timer/counter				
Number of channels	2		2	
Resolution	16 Bit		16 Bit	
Compatibility	5 V/TTL		5 V/TTL	
Base clock available	40 MHz, external clock up to 10 MHz		40 MHz, external clock up to 10 MHz	
General Specifications				
I/O connector	68-pin VHDCI female		68-pin VHDCI female	
Operating temperature	0˚C to 55˚C (32˚F to 131˚F)		0˚C to 55˚C (32˚F to 131˚F)	
Storage temperature	-20˚C to 70˚C (-4˚F to 158˚F)		-20˚C to 70˚C (-4˚F to 158˚F)	
Relative humidity	5% to 95%, non-condensing			
Power requirements	+5 V 1.6 A typical	+5 V 2.12 A typical	+5 V 1.82 A typical	+5 V 2.04 A typical
Dimensions	160 mm x 100 mm (6.24" x 3.9") (not including connectors)			
Auto Calibration	Yes (+5 V, ±2 ppm/˚C)			

Digitizer Modules







Model Name	PXIe-9848H	PXIe-9834	PXIe-9852
Analog Input			
Number of Channels	8 single-ended	4 single-ended	2 single-ended
Input Impedance	50Ω or 1MΩ, software selectable		
Input Coupling	AC or DC, software selectable	DC or AC, software selectable	AC or DC, software selectable
Input Range	±0.2 V, ±2 V, ±100 V Max (with x15/x50 attenuator)	±0.5V, ±1V, ±5V, ±10V (±10V only supports 1MΩ input impedance)	±0.2 V, ±2 V, ±10 V
ADC Resolution	14 bits	16-bit	14 bits
Digital Filter	n/a	10MHz/20MHz, software selectable	n/a
Bandwidth	100 MHz 45 MHz (with x15 attenuator) 35 MHz (with x50 attenuator)	40MHz	90MHz
Offset Error	±1 mV ±2 mV (with x15/x50 attenuator)	±0.5V ±0.8 mVrms ±1V 1.2 mVrms ±5V 4.0 mVrms ±10V 8 mVrms	±1 mV
Gain Erro	±0.5% of reading ±1% of reading (with x15/x50 attenuator)	±0.6% of reading	±0.65% of reading
System Noise	18 LSBrms 38 LSBrms (with x15 attenuator) 22 LSBrms (with x50 attenuator)	±0.5V 0.1 mVrms ±1V 0.15 mVrms ±5V 1 mVrms ±10V 1.5 mVrms	Available upon request
Crosstalk	Available upon request	±0.5V 80 dB ±1V, ±5V, ±10V 90 dB	< -80 dB
Spectral Characteristics – SINAD	65 dB / 55 dB / 58 dB	65 dB	62 dB
Spectral Characteristics – SNR	66 dB / 55 dB / 58 dB	65 dB	62 dB
Spectral Characteristics – THD	-72 dB / -75 dB / -78 dB	-78 dB	-81 dB
Spectral Characteristics – ENOB	10.58 bits / 9 bits / 9.5 bits	Available upon request	10 bits
Spectral Characteristics – SFDR	74 dB / 59 dB / 68 dB	78 dB	83 dB
Triggering			
Trigger Sources	Software External digital trigger Analog trigger from CH0 ~ CH7 PXI_STAR PXI trigger bus [0..7] PXIe_DSTARB	Software External digital trigger Analog trigger from CH0 to CH3 PXI Trigger Bus [0..7] PXI STAR Trigger PXIe_DSTARB	Software External digital Analog inputs PXI_STAR PXI_trigger bus [0..7] PXIe_DSTARB
Trigger Modes	Post-trigger Pre-trigger Middle trigger Delay trigger	Post trigger Pre-trigger Middle trigger Delay trigger	Post-trigger Pre-trigger Middle trigger Delay trigger
Timebase			
Sample Clock Source	Internal clock (onboard oscillator) External clock (PXI_CLK10 or PXIe_CLK100)	Internal clock (onboard oscillator) External clock (front panel CLK IN)	Internal clock (onboard synthesizer) External : CLK IN (front panel)
Sample Clock Frequency	Internal clock: 100M Hz (accuracy: < ±25 ppm)	Internal clock: 1.22K Hz ~ 80M Hz (accuracy: < ±25 ppm) External clock: 20M Hz ~ 80M Hz	Internal clock: 200M Hz (accuracy: < ±25 ppm) External clock: 40M Hz ~ 200M Hz
Timebase Options	Internal: onboard clock (oscillator) External: PXI_CLK10, PXIe_CLK100	Internal clock (onboard oscillator) External clock (front panel CLK IN)	Internal clock (onboard synthesizer) External : CLK IN (front panel)
External Sample Clock Input Range	n/a	0.45Vpp ~ 5Vpp	1Vpp ~ 5Vpp (AC/DC compliant)
External Sample Clock Input Impedance	n/a	50Ω	50Ω
External Sample Clock Input Coupling	n/a	AC	NA
External Reference Clock Input Range	n/a	0.45Vpp ~ 5Vpp	500mVpp ~ 5Vpp (AC/DC compliant)
External Reference Clock Sources	PXI_CLK10 or PXIe_CLK100	Front panel CLK IN PXI 10MHz from PXI/PXIe chassis	PXI_CLK10 or PXIe_CLK100
External Reference Clock	10M Hz or 100M Hz	10MHz ± 2KHz	10M Hz or 100M Hz
General Specifications			
I/O Connector	SMB x 8 for analog inputs SMB x 1 for external digital input	SMA x 4 for analog input SMA x 1 (CLK IN) SMA x 1 (TRG IN)	SMA x 2 SMA x 1 (CLK IN) SMA x 1 (TRG IN)
Dimensions	271.24 (W) x 100 (H) mm (10.57" x 3.9")	3U, one-slot, 165 (W) x 100 (H) mm	160 (W) x 100 (H) mm (6.24" x 3.9")
Ambient Temperature(Operating)	0°C to 55°C (32˚F to 131˚F)	0°C to 50°C (32°F to 122°F)	0°C to 55°C (32˚F to 131˚F)
Ambient Temperature(Storage)	-20°C to 80°C (-4˚F to 176˚F)		
Relative Humidity	10% to 90%, non-condensing	5% to 95%, non-condensing	10% to 90%, non-condensing
Power Consumption	25.5 Wmax	9.28 Wmax	11 Wmax
Certifications			
EMC/EMI	CE, FCC Class A	EN 55022:2010/AC: 2011: Class A EN 55024 / FCC / ICES / ANSI	CE, FCC Class A

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DIO Modules



Model Name	cPCI-7432	cPCI-7433	cPCI-7434
Isolated Digital Input			
Number of channels	32 (PCI-7432/7432HIR, cPCI-7432) 64 (PCI-7433/743)		
Maximum input range (Non-polarity)	24 V, non-polarity (PCI-7432/7433, cPCI-7432/7433)		
Digital logic levels	0 V to 24 V, non-polarity Input high voltage: 5 V to 24 V Input low voltage: 0 V to 1.5 V		
Input resistance	2.4 kΩ @ 0.5 W (PCI-7432, cPCI-7432, cPCI-7433) 2.4 kΩ @ 1 W (PCI-7433) 4.7 kΩ @ 0.5 W (PCI-7432HIR) 4.7 kΩ @ 1 W (PCI-7433HIR		
Isolation voltage	2500 VRMS: PCI-7432/7432HIR/7433/7433HIR 5000 VRMS: cPCI-7432/7433		
Interrupt sources	digital input channel 0 & 1		
Data transfers	programmed I/O		
Isolated Digital Output			
Number of channels	32 (PCI-7432/7432HIR, cPCI-7432) 64 (PCI-7434, cPCI-743		
Output type	open collector Darlington transistor		
Sink current (PCI-7432/7432HIR/7434, cPCI-7434)	500 mA for single channel @ 100% duty cycle 500 mA for all channels @ 20% duty cycle		
Source current (cPCI-7434P)	500 mA for single channel @ 100% duty cycle 260 mA for all channels @ 10% duty		
Power dissipation	Max. 2.25 W per chip (8 DO channels) (PCI-7432/7432HIR/7434, cPCI-7432/7434) Max. 1.47 W per chip (8 DO channels) (cPCI-7434P)		
Supply voltage	5-35 V		
Isolation voltage	2500 VRMS		
Data transfers	programmed I/O		
General Specifications			
I/O connector	100-pin SCSI-II female		
Operating temperature	0˚C to 60˚C (32˚F to 140˚F)		
Storage temperature	-20˚C to 80˚C (-4˚F to 176˚F)		
Relative humidity	5% to 95%, non-condensing		
Power requirements	+5 V		
	530 mA typical	500 mA typical	560 mA typical
Dimensions (not including connectors)	156 mm x 106 mm (6.08" x 4.13")	175 mm x 107 mm (6.82" x 4.17")	156 mm x 106 mm (6.08" x 4.13")

Source Measurement Units



Model Name	PXIe-9908
Device Capabilities	
Channels	8 channels
Voltage Source Range	-10 to +20V
Voltage Measure Range	-10 to +20V
Current Source Range	100mA, 10mA, 2mA
	200uA, 40uA, 5uA, 1uA
	100nA
Current Measure Range	100mA, 10mA, 2mA
	200uA, 40uA, 5uA, 1uA
	100nA
Voltage Measure Range	±100V
Current Source Range	10 µA
Current Measure Range	10 µA
Supplemental Specifications	
Max Measure Rate	1M SPS
Max Source Update Rate	100K SPS
Source Event Delay	5µs
Input Triggers	Start/Source/Sequency Advance/Measure
Output Triggers	Source Complete/Sequence Iteration Complete/Sequence Engine Done/Measure Complete
Cascade mode	
Channels	10 µA
Voltage Source Range	±30V
Voltage Measure Range	±30V
Current Source Range	100mA, 10mA, 2mA
	200uA, 40uA, 5uA, 1uA
	100nA
Current Measure Range	100mA, 10mA, 2mA
	200uA, 40uA, 5uA, 1uA
	100nA
Voltage Measure Range	±100V
Current Source Range	10 µA
Current Measure Range	10 µA
Additional Sepcification	
Dimensions	200 mm × 130 mm × 216 mm
Front panel connector	62-position D-SUB, female
Power consumption (Typical)	3.3V/2.804mA 12V/1280.22mA
Power consumption (Max.)	3.3V/2.814mA 12V/4225.45mA
Operating temperature	0°C to 50°C
Storage temperature	-20°C to 70°C
Operating humidity	10% to 90%, noncondensing
Storage humidity	5% to 95%, noncondensing
Certificate	CE EN 55032/ 55035, FCC Part 15B

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Dynamic Signal Analyzers



Model Name		PXIe-9529H
Analog Input		
Number of Channels		8 (simultaneously)
Resolution		24-bit
Sampling Rate		8 kS/s to 256 kS/s
Bandwidth (-3 dB)		0.433FS
Input Range		±1 V, ±10 V
Input Configuration		Differential, Pseudo-differential
Input Impedance	Between positive input and system ground	1 MΩ
	Between negative input and system ground	Differential configuration: 1 MΩ Pseudo-differential configuration: 50 Ω"
Input Coupling		AC, DC (software selectable)
AC Coupling Cutoff Frequency (-3 dB)		0.3 Hz
Integrated Electronic Piezoelectric (IEPE)		Current: 4 mA for each channel IEPE compliance: 24 V
Overvoltage protection	Differential	± 42.4V
	Pseudo-differential	Positive terminal: ± 42.4V Negative terminal: Not protected, rated at ± 2.5V
Offset Error		± 0.2 mV max
Gain Error		± 0.05% max
System Noise		40 µVrms (fs = 256 kS/s)
SNR	±1 V input range	91 dB (fs = 256 kS/s
	±10 V input range	93 dB (fs = 256 kS/s
THD	±1 V input range	-118 dB (fs = 256 kS/s)
	±10 V input range	-113 dB (fs = 256 kS/s
Dynamic Range	±1 V input range	104 dB (fs = 256 kS/s
	±10 V input range	105 dB (fs = 256 kS/s)
Crosstalk		-105 dB
Trigger		
Trigger Source		Software trigger, analog trigger, external digital trigger, PXI STAR trigger, PXI trigger bus [0..7]
Trigger Mode		Post trigger, delay trigger
External Digital Trigger		5 V TTL compatibility Trigger polarity: Rising edge, falling edge Pulse width: 20 ns minimum
Timebase		
Delay Trigger Timebase		125 MHz
Sample Clock Timebase		Internal: Onboard synthesizer (10 MHz) External: PXIe backplane 10 MHz
General Specifications		
I/O Connector		SMB x 8 for analog inputs SMB x 1 for external digital input
Dimensions		160 (W) x 100 (H) mm (6.24" x 3.9") (not including connectors)
Weight		0.4 kg (0.9 lbs)
Ambient Temperature		Operating: 0°C to 55°C (32˚F to 131˚F) Storage: -20°C to 80°C (-4˚F to 176˚F)
Relative Humidity		10% to 90%, non-condensing
Certifications		EMC/EMI: CE, FCC Class A

Communication Modules





Model Name	cPCI-3544	cPCI-3538-S
Serial Communications Controller	16C550A compatible	
System I/O Mapping	Assigned by PCI BIOS Shared IRQ	
Port Capability	4 independent isolation RS-422/RS-485 ports (switch selectable) Max. 8 cards per system (32 ports max.)	8 independent RS-232 ports (Max. two cards per system, 8-port max.)
Baud Rate	Each port can be configured to 50 to 115,200 bps	
Isolation Voltage	1000 Vrms RS-485 ports support auto-direction flow control Supports rear I/O option for cPCI-3544R	2500 Vrms
Connector	DB37 female connector	DB62 female connector
Operating Temperature	0˚C to +60˚C	
Storage Temperature	-20˚C to +70˚C	
Humidity	5% to 95% non-condensed	
Cable	External cable with DB37 to four DB9 male cable	External cable with 8 standard DB9 (C809M) connectors

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