

# Analog I/O and Multifunction Cards



Category		Multifunction & Analog Input							
Sampling / Updating		Multiplexer							
Model		PCI-1710U/ 1710UL	PCI-1710HGU	PCI-1711U/ 1711UL	PCI-1712	PCI-1718HDU	PCI-1713U	PCI-1715U	
Analog Input	Resolution	12-bit	12-bit	12-bit	12-bit	12-bit	12-bit	12-bit	
	Channels	16 SE/8 diff.	16 SE/8 diff.	16 SE	16 SE/8 diff.	16 SE/8 diff.	32 SE/16 diff.	32 SE/16 diff.	
	Onboard FIFO	4,096 samples	4,096 samples	1,024 samples	1,024 samples	1,024 samples	4,096 samples	1,024 samples	
	Sampling Rate	100 kS/s	100 kS/s	100 kS/s	1 MS/s	100 kS/s	100 kS/s	500 kS/s	
	Input Ranges	Unipolar Inputs	0 ~ 10, 0 ~ 5, 0 ~ 2.5, 0 ~ 1.25 V	0 ~ 10, 0 ~ 1, 0 ~ 0.1 V	–	0 ~ 10, 0 ~ 5, 0 ~ 2.5, 0 ~ 1.25 V	0 ~ 10, 0 ~ 5, 0 ~ 2.5, 0 ~ 1.25 V	0 ~ 10, 0 ~ 5, 0 ~ 2.5, 0 ~ 1.25 V	0 ~ 10, 0 ~ 5, 0 ~ 2.5, 0 ~ 1.25 V
		Bipolar Inputs	±10, ±5, ±2.5, ±1.25, ±0.625 V	±10, ±5, ±1, ±0.5, ±0.1, ±0.05, ±0.01, ±0.005 V	±10, ±5, ±2.5, ±1.25, ±0.625 V	±10, ±5, ±2.5, ±1.25, ±0.625 V	±10, ±5, ±2.5, ±1.25, ±0.625 V	±10, ±5, ±2.5, ±1.25, ±0.625 V	±10, ±5, ±2.5, ±1.25, ±0.625 V
	Trigger Modes	Configurable Per Channel	✓	✓	✓	✓	✓	✓	✓
		Pacer/Software/ External Pulse	✓	✓	✓	✓	✓	✓	✓
		Analog Slope	–	–	–	✓	–	–	–
	Data Transfer Modes	Advanced Trigger	–	–	–	✓	–	–	–
Software		✓	✓	✓	✓	✓	✓	✓	
	DMA	–	–	–	Bus mastering	–	–	Bus mastering	
Analog Output	Resolution	12-bit	12-bit	12-bit	12-bit	12-bit	–	–	
	Channels	2 (PCI-1710U only)	2	2 (PCI-1711U only)	2	1	–	–	
	Onboard FIFO	–	–	–	32,768 samples	–	–	–	
	Output Range	0 ~ 5, 0 ~ 10 V	0 ~ 5, 0 ~ 10 V	0 ~ 5, 0 ~ 10 V	0 ~ 5, 0 ~ 10, ±5, ±10 V	0 ~ 5, 0 ~ 10 V	–	–	
	Output Rate	Static update	Static update	Static update	1 MHz	Static update	–	–	
	DMA Transfer	–	–	–	✓	–	–	–	
Digital I/O	Input Channels	16	16	16	16 (shared)	16	–	–	
	Output Channels	16	16	16	–	16	–	–	
Timer/ Counter	Channels	1	1	1	3	1	–	–	
	Resolution	16-bit	16-bit	16-bit	16-bit	16-bit	–	–	
	Max. Input Frequency	10 MHz	10 MHz	10 MHz	10 MHz	10 MHz	–	–	
Isolation Voltage		–	–	–	–	–	2,500 V <sub>DC</sub>	2,500 V <sub>DC</sub>	
Auto Calibration		–	–	–	✓	–	–	–	
Board ID Switch		✓	✓	✓	–	✓	–	✓	
Dimensions (L x H)		175 x 100 mm (6.9" x 3.9")	175 x 100 mm (6.9" x 3.9")	175 x 100 mm (6.9" x 3.9")	175 x 100 mm (6.9" x 3.9")	175 x 100 mm (6.9" x 3.9")	175 x 100 mm (6.9" x 3.9")	175 x 100 mm (6.9" x 3.9")	
Connector		68-pin SCSI	68-pin SCSI	68-pin SCSI	68-pin SCSI	DB37	DB37	DB37	
DAQ/NAVI Driver	Windows 7/8/10	✓	✓	✓	✓	✓	✓	✓	
	Linux	–	–	✓	–	–	✓	✓	
LabVIEW Driver		✓	✓	✓	✓	✓	✓	✓	

\* All channels should be set to the same range.  
 ✓: supported, –: not supported, △: optional

- 1 IoT Software Solutions
- 2 Intelligent Systems
- 3 SKY Servers
- 4 AI & Advanced Computer Vision
- 5 Intelligent HMI and Monitors
- 6 Automation Computers
- 7 Intelligent Transportation Platforms
- 8 Mission Critical CompactPCI Platforms
- 9 Utility and Energy Solutions
- 10 EtherCAT Solutions and Automation Controllers
- 11 Intelligent Motion Control Solutions
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- 16 Serial Communication

# Analog I/O and Multifunction Cards



Category		Multifunction & Analog Input					
Sampling / Updating		Multiplexer			Simultaneous Sampling		
Model		PCI-1716/1716L	PCI-1718HDU	PCI-1747U	PCI-1714U/ 1714UL	PCI-1706U	
Analog Input	Resolution	16-bit	12-bit	16-bit	12-bit	16-bit	
	Channels	16 SE/8 diff.	16 SE/8 diff.	64 SE/32 diff.	4 SE	8 diff.	
	Onboard FIFO	1,024 samples	1,024 samples	1,024 samples	32,768/8,192 samples	8,192 samples	
	Sampling Rate	250 kS/s	100 kS/s	250 kS/s	30/10 MS/s	250 kS/s	
	Input Ranges	Unipolar Inputs	0 ~ 10, 0 ~ 5, 0 ~ 2.5, 0 ~ 1.25 V	0 ~ 10, 0 ~ 5, 0 ~ 2.5, 0 ~ 1.25 V	0 ~ 10, 0 ~ 5, 0 ~ 2.5, 0 ~ 1.25 V	-	-
		Bipolar Inputs	±10, ±5, ±2.5, ±1.25, ±0.625 V	±10, ±5, ±2.5, ±1.25, ±0.625 V	±10, ±5, ±2.5, ±1.25, ±0.625 V	±5, ±2.5, ±1, ±0.5 V	±10, ±5, ±2.5, ±1.25 V
	Trigger Modes	Configurable Per Channel	✓	✓	✓	✓	✓
		Pacer/Software/ External Pulse	✓	✓	Pacer/software	✓	✓
		Analog Slope	-	-	-	✓	✓
	Data Transfer Modes	Advanced Trigger	-	-	-	✓	✓
Software		✓	✓	✓	✓	✓	
	DMA	Bus mastering	-	Bus mastering	Bus mastering	✓	
Analog Output	Resolution	16-bit	12-bit	-	-	12-bit	
	Channels	2 (PCI-1716 only)	1	-	-	2	
	Onboard FIFO	-	-	-	-	-	
	Output Range	0 ~ 5, 0 ~ 10, ±5, ±10 V	0 ~ 5, 0 ~ 10, ±5, ±10 V	-	-	0 ~ 5, 0 ~ 10, ±5, ±10, 0 ~ 20, 0 ~ 24, 4 ~ 20 mA	
	Output Rate	Static update	Static update	-	-	Static update	
	DMA Transfer	-	-	-	-	-	
Digital I/O	Input Channels	16	16	-	-	16 (shared)	
	Output Channels	16	16	-	-		
Timer/ Counter	Channels	1	1	-	-	2	
	Resolution	16-bit	16-bit	-	-	32-bit	
	Max. Input Frequency	10 MHz	10 MHz	-	-	10 MHz	
Isolation Voltage		-	-	-	-	-	
Auto Calibration		✓	-	✓	✓	✓	
Board ID Switch		✓	✓	✓	✓	✓	
Dimensions (L x H)		175 x 100 mm (6.9" x 3.9")	175 x 100 mm (6.9" x 3.9")	175 x 100 mm (6.9" x 3.9")	175 x 100 mm (6.9" x 3.9")	175 x 100 mm (6.9" x 3.9")	
Connector		68-pin SCSI	DB37	68-pin SCSI	4 x BNC	68-pin SCSI	
DAQNavI Driver	Windows 7/8/10	✓	✓	✓	✓	✓	
	Linux	✓	-	✓	✓	✓	
LabVIEW Driver		✓	✓	✓	✓	✓	

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Category		Multifunction & Analog Output					
Sampling / Updating		Static Update			Dynamic Update		
Model		PCI-1720U	PCI-1727U	PCI-1724U	PCI-1723	PCI-1721	
Analog Input	Resolution	-	-	-	-	-	
	Channels	-	-	-	-	-	
	Onboard FIFO	-	-	-	-	-	
	Sampling Rate	-	-	-	-	-	
	Input Ranges	Unipolar Inputs	-	-	-	-	-
		Bipolar Inputs	-	-	-	-	-
		Configurable Per Channel	-	-	-	-	-
	Trigger Modes	Pacer/ Software/ External Pulse	-	-	-	-	-
		Analog Slope	-	-	-	-	-
		Advanced Trigger	-	-	-	-	-
Data Transfer Modes	Software	-	-	-	-	-	
	DMA	-	-	-	-	-	
Analog Output	Resolution	12-bit	14-bit	14-bit	16-bit	16-bit	
	Channels	4	12	32	8	4 (waveform output)	
	Onboard FIFO	-	-	-	-	1,024 samples	
	Output Range	0 ~ 5, 0 ~ 10, ±5, ±10, 0 ~ 20, 4 ~ 20 mA	±10, 0 ~ 20 mA	±10, 0 ~ 20 mA	±10, 0 ~ 20, 4 ~ 20 mA	0 ~ 5, 0 ~ 10, ±5, ±10, 0 ~ 20, 4 ~ 20 mA	
	Output Rate	Static update	Static update	Static update	Static update	10 MHz	
	DMA Transfer	-	-	-	-	Bus mastering	
Digital I/O	Input Channels	-	16	-	16 (shared)	16 (shared)	
	Output Channels	-	16	-	-	-	
Timer/ Counter	Channels	-	-	-	-	1	
	Resolution	-	-	-	-	16-bit	
	Max. Input Frequency	-	-	-	-	10 MHz	
Isolation Voltage		2,500 V <sub>DC</sub>	-	1,500 V <sub>DC</sub>	-	-	
Auto Calibration		-	-	-	✓	✓	
Board ID Switch		✓	✓	✓	✓	✓	
Dimensions (L x H)		175 x 100 mm (6.9" x 3.9")	175 x 100 mm (6.9" x 3.9")	175 x 100 mm (6.9" x 3.9")	175 x 100 mm (6.9" x 3.9")	175 x 100 mm (6.9" x 3.9")	
Connector		DB37	2 x 2-pin DB37	DB62	68-pin SCSI	68-pin SCSI	
DAQ/NAVI Driver	Windows 7/8/10	✓	✓	✓	✓	✓	
	Linux	✓	✓	✓	-	✓	
	LabVIEW Driver	✓	✓	✓	✓	✓	

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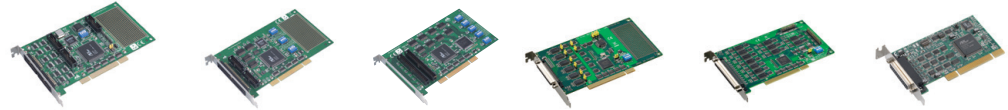
# Analog I/O and Multifunction Cards



Category		Multifunction & Analog Input								
Sampling / Updating		Multiplexer				Simultaneous Sampling				
Model		PCIE-1805	PCIE-1810	PCIE-1816/H	PCIE-1812	PCIE-1813	PCIE-1802/1802L	PCIE-1803	PCIE-1840/1840L	
Analog Input	Resolution	16-bit	12-bit	16-bit	16-bit	26-bit	24-bit	24-bit	16-bit	
	Channels	32 SE/ 16 diff.	16 SE/8 diff.	16 SE/8 diff.	8 diff.	4 diff.	8 diff./ 4 diff.	8 diff.	4 SE	
	Onboard FIFO	4096 samples	4,096 samples	4,096 samples	4,096 samples	4,096 samples	4,096 samples	4096 samples	1 G samples	
	Sampling Rate	128 kS/s	500 kS/s	500 KSPS/1MSPS	250 kS/s	38.4 kS/s	216 kS/s	128 kS/s	125/80 MS/s	
	Input Ranges	Unipolar Inputs	0~20 mA, 4~20 mA	0 ~ 10, 0 ~ 5, 0 ~ 2.5, 0 ~ 1.25 V	0 ~ 10, 0 ~ 5, 0 ~ 2.5, 0 ~ 1.25 V	0 ~ 10, 0 ~ 5, 0 ~ 2.5, 0 ~ 1.25 V	±31.25 mV/V, ±62.5 mV/V, ±125 mV/V, ±250 mV/V, ±500 mV/V, and ±1 V/V (bridge inputs)	-	-	-
		Bipolar Inputs	±1 V, ±2 V, ±5 V, ±10 V	±10 V, ±5 V, ±2.5 V, ±1.25 V, ±0.625 V	±10 V, ±5 V, ±2.5 V, ±1.25 V, ±0.625 V	±10 V, ±5 V, ±2.5 V, ±1.25 V, ±0.625 V	±10 V, ±5 V, ±2.5 V, ±1.25 V, ±625 mV, ±312.5 mV	±10 V, ±5 V, ±2 V, ±1 V, ±0.5 V, ±0.2 V	±10 V, ±5 V, ±2 V, ±1 V	±20 V, ±10 V, ±4 V, ±2 V, ±1 V, ±0.4 V, ±0.2 V
	Trigger Modes	Configurable Per Channel	✓	✓	✓	✓	✓	✓	✓	✓
		Pacer/ Software/ External Pulse	✓	✓	✓	✓	✓	✓	✓	✓
		Analog Slope	✓	✓	✓	✓	✓	✓	✓	✓
	Data Transfer Modes	Advanced Trigger	start/stop/ delayed start/ delayed stop	start/stop/ delayed start/ delayed stop	start/stop/ delayed start/ delayed stop	start/stop/ delayed start/ delayed stop	start/stop/ delayed start/ delayed stop	start/stop/ delayed start/ delayed stop	start/stop/ delayed start/ delayed stop	start/stop/ delayed start/ delayed stop
Software		✓	✓	✓	✓	✓	✓	✓	✓	
	DMA	BUS mastering	Bus mastering	Bus mastering	Bus mastering	Bus mastering	Bus mastering	BUS mastering	Bus mastering	
Analog Output	Resolution	-	12-bit	16-bit	16-bit	16-bit	-	-	-	
	Channels	-	2 (waveform output)	2 (waveform output)	2 (waveform output)	2 (waveform output)	-	-	-	
	Onboard FIFO	-	4,096 samples	4,096 samples	4,096 samples	4,096 samples	-	-	-	
	Output Range	-	0 ~ 5, 0 ~ 10, ±5, ±10 V	0 ~ 5, 0 ~ 10, ±5, ±10 V	0 ~ 5, 0 ~ 10, ±5, ±10 V	0 ~ 5, 0 ~ 10, ±5, ±10 V	-	-	-	
	Output Rate	-	500 kS/s	3 MHz	3 MHz	3 MHz	-	-	-	
	DMA Transfer	-	Bus mastering	Bus mastering	Bus mastering	Bus mastering	-	-	-	
Digital I/O	Input Channels	-	24 (shared)	24 (shared)	32 (shared)	32 (shared)	1	1	-	
	Output Channels	-	-	-	-	-	2	2	-	
Timer/ Counter	Channels	-	2	2	4 (encoder included)	4 (encoder included)	-	-	-	
	Resolution	-	32-bit	32-bit	32-bit	32-bit	-	-	-	
	Max. Input Frequency	-	10 MHz	10 MHz	10 MHz	10 MHz	-	-	-	
Isolation Voltage	-	-	-	-	-	-	-	-		
Auto Calibration	✓	✓	✓	✓	✓	✓	✓	✓		
Board ID Switch	✓	✓	✓	✓	✓	✓	✓	✓		
Dimensions (L x H)	168 x 98 (6.6" x 3.9")	175 x 100 mm (6.9" x 3.9")	175 x 100 mm (6.9" x 3.9")	175 x 100 mm (6.9" x 3.9")	175 x 100 mm (6.9" x 3.9")	175 x 100 mm (6.9" x 3.9")	168 x 100 (6.6" x 3.9")	175 x 100 mm (6.9" x 3.9")		
Connector	DB 62 (female)	68-pin SCSI (female)	68-pin SCSI (female)	100-pin SCSI (female)	100-pin SCSI (female)	1 x 19-pin MINI SCSI (for AI) 1 x HDMI (for Ext. clock and trigger)	1 x 36-pin MINI SCSI (for AI) 1 x HDMI (for Ext. clock and trigger)	4 x BNC (for AI) 1 x HDMI (for Ext. clock and trigger)		
DAQ/NI Driver	Windows 7/8/10	✓	✓	✓	✓	✓	-	✓	-	
	Linux	✓	✓	✓	-	-	✓	✓	-	
	LabVIEW Driver	✓	✓	✓	✓	✓	✓	✓	✓	

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# Digital I/O Cards



Category		Non-Isolated Digital I/O						
Bus		PCI						
Model		PCI-1735U	PCI-1737U	PCI-1739U	PCI-1751	PCI-1753	PCI-1757UP	
TTL DI/O	Input Channels	32	24 (shared)	48 (shared)	48 (shared)	96 (shared)	24 (shared)	
	Output Channels	32						
	Output Channel	Sink Current	24 mA @ 0.5 V	24 mA @ 0.4 V	24 mA @ 0.4 V	24 mA @ 0.4 V	24 mA @ 0.44 V	24 mA @ 0.5 V
		Source Current	15 mA @ 2.0 V	15 mA @ 2.4 V	15 mA @ 2.4 V	15 mA @ 2.4 V	24 mA @ 3.76 V	24 mA @ 3.7 V
Isolated Digital I/O	Input	Channels	-	-	-	-	-	-
		Isolation Voltage	-	-	-	-	-	-
		Input Range	-	-	-	-	-	-
	Output	Channels	-	-	-	-	-	-
		Isolation Voltage	-	-	-	-	-	-
		Output Range	-	-	-	-	-	-
		Max. Sink Current	-	-	-	-	-	-
	Timer/Counter	Channels	3	-	-	3	-	-
Resolution		16-bit	-	-	16-bit	-	-	
Max. Input Frequency		10 MHz	-	-	10 MHz	-	-	
Advanced Function	Pattern Match	-	-	-	-	✓	-	
	Change of State	-	-	-	-	✓	-	
	Board ID Switch	✓	✓	✓	✓	✓	✓	
	Channel-Freeze Function	-	-	-	-	-	-	
	Output Status Read Back	✓	✓	✓	✓	✓	✓	
	Dry/Wet Contact*	-	✓	✓	✓	✓	✓	
Dimensions (L x H)		175 x 100 mm (6.9" x 3.9")	175 x 100 mm (6.9" x 3.9")	175 x 100 mm (6.9" x 3.9")	175 x 100 mm (6.9" x 3.9")	175 x 100 mm (6.9" x 3.9")	120 x 65 mm (4.7" x 2.5")	
Connector		5 x 20-pin	1 x 50-pin	2 x 50-pin	68-pin SCSI	100-pin SCSI	1 x DB25	
DAQnavi Driver	Windows 7/8/10	✓	✓	✓	✓	✓	✓	
	Linux	-	✓	✓	✓	✓	✓	
LabVIEW Driver		✓	✓	✓	✓	✓	✓	

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# Digital I/O Cards



Category		Isolated Digital I/O								
Bus		PCI Express								
Model		PCIE-1730/1730H	PCIE-1750U	PCIE-1752	PCIE-1754	PCIE-1756/1756H	PCIE-1758UDI	PCIE-1758UDO	PCIE-1758UDIO	
TTL DI/O	Input Channels	16	-	-	-	-	-	-	-	
	Output Channels	16	-	-	-	-	-	-	-	
	Output Channel	Sink Current	24 mA @ 0.5 V	-	-	-	-	-	-	-
		Source Current	15 mA @ 2.4 V	-	-	-	-	-	-	-
Isolated Digital I/O	Input	Channels	16	16	-	64	32	128	-	64
		Isolation Voltage	2,500 V <sub>DC</sub>	2,500 V <sub>DC</sub>	-	2,500 V <sub>DC</sub>	2,500 V <sub>DC</sub>	2,500 V <sub>DC</sub>	-	2,500 V <sub>DC</sub>
		Input Range	10 ~ 30 V <sub>DC</sub>	10 ~ 30 V <sub>DC</sub>	-	10 ~ 30 V <sub>DC</sub>	10 ~ 30 V <sub>DC</sub>	10 ~ 30 V <sub>DC</sub>	-	10 ~ 30 V <sub>DC</sub>
	Output	Channels	16 (sink)	16 (Sink or Source)	64 (sink)	-	32 (sink)	-	128	64
		Isolation Voltage	2,500 V <sub>DC</sub>	2,500 V <sub>DC</sub>	2,500 V <sub>DC</sub>	-	2,500 V <sub>DC</sub>	-	2,500 V <sub>DC</sub>	2,500 V <sub>DC</sub>
		Output Range	5 ~ 40 V <sub>DC</sub>	5 ~ 40 V <sub>DC</sub>	5 ~ 40 V <sub>DC</sub>	-	5 ~ 40 V <sub>DC</sub>	-	5 ~ 40 V <sub>DC</sub>	5 ~ 40 V <sub>DC</sub>
		Max. Sink Current	500 mA	500 mA	500 mA	-	500 mA	-	90 mA	90 mA
	Timer/Counter	Channels	-	-	-	-	-	-	-	-
Resolution		-	-	-	-	-	-	-	-	
Max. Input Frequency		-	-	-	-	-	-	-	-	
Advanced Function	Pattern Match	-	-	-	-	-	-	-	-	
	Change of State	-	-	-	-	-	-	-	-	
	Board ID Switch	✓	✓	✓	✓	✓	✓	✓	✓	
	Channel-Freeze Function	✓	-	✓	-	✓	-	-	-	
	Output Status Read Back	✓	✓	✓	-	✓	-	✓	✓	
	Dry/Wet Contact*	✓	✓	-	-	-	-	-	-	
Dimensions (L x H)		175 x 100 mm (6.9" x 3.9")	168 x 100 mm (6.6" x 3.9")	175 x 100 mm (6.9" x 3.9")	175 x 100 mm (6.9" x 3.9")	175 x 100 mm (6.9" x 3.9")	175 x 100 mm (6.9" x 3.9")	175 x 100 mm (6.9" x 3.9")	175 x 100 mm (6.9" x 3.9")	
Connector		1 x DB37 4 x 20-pin	DB 37	100-pin SCSI	100-pin SCSI	100-pin SCSI	Dual 100-pin mini SCSI	Dual 100-pin mini SCSI	Dual 100-pin mini SCSI	
DAQNavii Driver	Windows 7/8/10	✓	✓	✓	✓	✓	✓	✓	✓	
	Linux	✓	✓	✓	-	✓	-	-	-	
	LabVIEW Driver	✓	✓	✓	✓	✓	✓	✓	✓	

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Category		Relay Output					Non-Isolated Digital I/O		
Bus		PCI Express							
Model		PCIE-1760	PCIE-1761H	PCIE-1762H	PCIE-1763AH/DH	PCIE-1765	PCIE-1751	PCIE-1753	
TTL D/I/O	Input Channels	-	-	-	-	-	48 (shared)	96 (shared)	
	Output Channels	-	-	-	-	-	-	-	
	Output Channel	Sink Current	-	-	-	-	-	15 mA @ 0.8 V	15 mA @ 0.8 V
		Source Current	-	-	-	-	-	15 mA @ 2.0 V	15 mA @ 2.0 V
Isolated Digital I/O	Input	Channels	8	8	16	16	-	-	
		Isolation Voltage	2,500 V <sub>DC</sub>	2,500 V <sub>DC</sub>	2,500 V <sub>DC</sub>	2,500 V <sub>DC</sub>	-	-	
		Input Range	4.5 ~ 12 V <sub>DC</sub>	4.5 ~ 12 V <sub>DC</sub>	10 ~ 50 V <sub>DC</sub>	10 ~ 30 V <sub>DC</sub>	-	-	
	Output	Channels	6 x Form A 2 x Form C	6 x Form A 2 x Form C	16**	16 x Form A	12 Form C	-	-
		Isolation Voltage	2,500 V <sub>DC</sub>	2,500 V <sub>DC</sub>	2,500 V <sub>DC</sub>	1,500 V <sub>DC</sub>	2,500 V <sub>DC</sub>	-	-
		Output Range	0.5 A @ 125 V <sub>AC</sub>	2 A @ 250 V <sub>AC</sub>	0.25 A @ 250 V <sub>AC</sub>	400 V <sub>AC</sub> / 60 V <sub>DC</sub>	2 A @ 250 V <sub>AC</sub>	-	-
		Max. Sink Current	1 A @ 30 V <sub>DC</sub>	2 A @ 30 V <sub>DC</sub>	0.5 A @ 30 V <sub>DC</sub>	1.2 A <sub>RMS</sub> / 1.2 A	2A @ 30 V <sub>DC</sub>	-	-
	Timer/Counter	Channels	8 x UP CTR 2 x PWM	8 x CTR 2 x PWM	-	-	-	3	-
Resolution		16-bit	16-bit (2,500 isolation)	-	-	-	32-bit	-	
Max. Input Frequency		500 Hz	500 Hz for CTR	-	-	-	10 MHz	-	
Advanced Function	Pattern Match	✓	✓	-	-	-	✓	✓	
	Change of State	✓	✓	-	-	-	✓	✓	
	Board ID Switch	✓	✓	✓	✓	-	✓	✓	
	Channel-Freeze Function	-	-	✓	-	-	-	-	
	Output Status Read Back	✓	✓	✓	✓	-	✓	✓	
	Dry/Wet Contact*	-	-	-	✓	-	✓	✓	
Dimensions (L x H)		175 x 100 mm (6.9" x 3.9")	175 x 100 mm (6.9" x 3.9")	175 x 100 mm (6.9" x 3.9")	168 x 100 mm (6.6" x 3.9")	175 x 100 mm (6.9" x 3.9")	168 x 100 mm (6.6" x 3.9")	168 x 100 mm (6.6" x 3.9")	
Connector		1 x DB37	1 x DB37	1 x DB62	DB 62	1 x DB37	68-pin SCSI	68-pin SCSI	
DAGNavi Driver	Windows 7/8/10	✓	✓	✓	✓	✓	✓	✓	
	WinCE	-	-	-	-	-	-	-	
	Linux	✓	-	✓	✓	-	-	-	
	LabVIEW Driver	✓	✓	✓	✓	✓	✓	✓	

\* Simultaneous dry/wet contact within a group is acceptable.

\*\* Jumper selectable Form A / Form B type relay output

✓ : supported, - : not supported, △ : optional

1	IoT Software Solutions
2	Intelligent Systems
3	SKY Servers
4	AI & Advanced Computer Vision
5	Intelligent HMI and Monitors
6	Automation Computers
7	Intelligent Transportation Platforms
8	Mission Critical CompactPCI Platforms
9	Utility and Energy Solutions
10	EtherCAT Solutions and Automation Controllers
11	Intelligent Motion Control Solutions
12	High Speed DAQ Solutions
13	Industrial Communication
14	Intelligent Edge DAQ Devices
15	Remote I/O, Wireless I/O & Sensors
16	Serial Communication

# Digital I/O Cards



Category		Isolated Digital I/O						
Bus		PCI						
Model		PCI-1730U	PCI-1733	PCI-1734	PCI-1750/ 1750SO	PCI-1752U/ 1752USO	PCI-1754	
TTL D/I/O	Input Channels	16	-	-	-	-	-	
	Output Channels	16	-	-	-	-	-	
	Output Channel	Sink Current	24 mA @ 0.5 V	-	-	-	-	-
		Source Current	15 mA @ 2.4 V	-	-	-	-	-
Isolated Digital I/O	Input	Channels	16	32	-	16	-	64
		Isolation Voltage	2,500 V <sub>DC</sub>	2,500 V <sub>DC</sub>	-	2,500 V <sub>DC</sub>	-	2,500 V <sub>DC</sub>
		Input Range	5 ~ 30 V <sub>DC</sub>	5 ~ 30 V <sub>DC</sub>	-	5 ~ 50 V <sub>DC</sub>	-	10 ~ 50 V <sub>DC</sub>
	Output	Channels	16 (sink)	-	32 (sink)	16 (sink/source)	64 (sink/source)	-
		Isolation Voltage	2,500 V <sub>DC</sub>	-	2,500 V <sub>DC</sub>	2,500 V <sub>DC</sub>	2,500 V <sub>DC</sub>	-
		Output Range	5 ~ 40 V <sub>DC</sub>	-	5 ~ 40 V <sub>DC</sub>	5 ~ 40 V <sub>DC</sub>	5 ~ 40 V <sub>DC</sub>	-
Max. Current	300 mA	-	200 mA	200 mA	200 mA	-		
Timer/ Counter	Channels	-	-	-	1	-	-	
	Resolution	-	-	-	16-bit	-	-	
	Max. Input Frequency	-	-	-	1 MHz	-	-	
Advanced Function	Pattern Match	-	-	-	-	-	-	
	Change of State	-	-	-	-	-	-	
	Board ID Switch	✓	✓	✓	-	✓	✓	
	Channel-Freeze Function	✓	-	-	-	✓	-	
	Output Status Read Back	✓	-	✓	-	✓	-	
Dry/Wet Contact*	✓	✓	-	✓	-	-		
Dimensions (L x H)		175 x 100 mm (6.9" x 3.9")	175 x 100 mm (6.9" x 3.9")	175 x 100 mm (6.9" x 3.9")	175 x 100 mm (6.9" x 3.9")	175 x 100 mm (6.9" x 3.9")	175 x 100 mm (6.9" x 3.9")	
Connector		1 x DB37 4 x 20-pin	1 x DB37	1 x DB37	1 x DB37	100-pin SCSI	100-pin SCSI	
DAQ/Navii Driver	Windows 7/8/10	✓	✓	✓	✓	✓	✓	
	Linux	✓	✓	✓	✓	✓	✓	
	LabVIEW Driver	✓	✓	✓	✓	✓	✓	

\* Simultaneous dry/wet contact within a group is acceptable.  
 ✓: supported, -: not supported, △: optional





Category		Isolated Digital I/O							
Bus		PCI							
Model		PCI-1756	PCI-1758UDI	PCI-1758UDO	PCI-1758UDIO	PCI-1760U	PCI-1761	PCI-1762	
TTL D/I/O	Input Channels	-	-	-	-	-	-	-	
	Output Channels	-	-	-	-	-	-	-	
	Output Channel	Sink Current	-	-	-	-	-	-	-
		Source Current	-	-	-	-	-	-	-
Isolated Digital I/O	Input	Channels	32	128	-	64	8	8	16**
		Isolation Voltage	2,500 V <sub>DC</sub>	2,500 V <sub>RMS</sub>	-	2,500 V <sub>DC</sub>	2,500 V <sub>DC</sub>	3,750 V <sub>DC</sub>	2,500 V <sub>DC</sub>
		Input Range	10 ~ 50 V <sub>DC</sub>	5 ~ 25 V <sub>DC</sub>	-	5 ~ 25 V <sub>DC</sub>	4.5 ~ 12 V <sub>DC</sub>	5 ~ 50 V <sub>DC</sub>	10 ~ 50 V <sub>DC</sub>
	Output	Channels	32 (Sink)	-	128	64	6 x Form A 2 x Form C	4 x Form A 4 x Form C	16
		Isolation Voltage	2,500 V <sub>DC</sub>	-	2,500 V <sub>RMS</sub>	2,500 V <sub>DC</sub>	2,500 V <sub>DC</sub>	2,500 V <sub>DC</sub>	2,500 V <sub>DC</sub>
		Output Range	5 ~ 40 V <sub>DC</sub>	-	5 ~ 40 V <sub>DC</sub>	5 ~ 40 V <sub>DC</sub>	0.5 A @ 125 V <sub>AC</sub> 1 A @ 30 V <sub>DC</sub>	2 A @ 250 V <sub>AC</sub> 2 A @ 30 V <sub>DC</sub>	0.5 A @ 250 V <sub>AC</sub> 0.5 A @ 30 V <sub>DC</sub>
Max. Sink Current		200 mA	-	90 mA	90 mA				
	Timer/Counter	Channels	-	-	-	-	8 x CTR 2 x PWM	-	-
		Resolution	-	-	-	-	16-bit (2,500 isolation)	-	-
Max. Input Frequency		-	-	-	-	500 Hz for CTR	-	-	
Advanced Function	Pattern Match	-	-	-	-	✓	-	-	
	Change of State	-	-	-	-	✓	-	-	
	Board ID Switch	✓	✓	✓	✓	✓	✓	✓	
	Channel-Freeze Function	✓	-	-	-	-	-	✓	
	Output Status Read Back	✓	-	✓	✓	✓	✓	✓	
	Dry/Wet Contact*	-	-	-	-	-	-	-	
Dimensions (L x H)		175 x 100 mm (6.9" x 3.9")	175 x 100 mm (6.9" x 3.9")	175 x 100 mm (6.9" x 3.9")	175 x 100 mm (6.9" x 3.9")	175 x 100 mm (6.9" x 3.9")	175 x 100 mm (6.9" x 3.9")	175 x 100 mm (6.9" x 3.9")	
Connector		100-pin SCSI	Dual 100-pin mini SCSI	Dual 100-pin mini SCSI	Dual 100-pin mini SCSI	1 x DB37	1 x DB37	1 x DB62	
DAQ/Analog Driver	Windows 7/8/10	✓	✓	✓	✓	✓	✓	✓	
	Linux	✓	✓	✓	✓	-	✓	✓	
	LabVIEW Driver	✓	✓	✓	✓	✓	✓	✓	

\* Simultaneous dry/wet contact within a group is acceptable.

\*\* Jumper selectable Form A / Form B type relay output

✓ : supported, - : not supported, △ : optional

1	IoT Software Solutions
2	Intelligent Systems
3	SKY Servers
4	AI & Advanced Computer Vision
5	Intelligent HMI and Monitors
6	Automation Computers
7	Intelligent Transportation Platforms
8	Mission Critical CompactPCI Platforms
9	Utility and Energy Solutions
10	EtherCAT Solutions and Automation Controllers
11	Intelligent Motion Control Solutions
12	High Speed DAQ Solutions
13	Industrial Communication
14	Intelligent Edge DAQ Devices
15	Remote I/O, Wireless I/O & Sensors
16	Serial Communication

# Digital I/O Cards



Category		Isolated Digital I/O		Counter	Encoder		
Bus		PCI-104		PCI	PCI	PCIE	
Model		PCM-3730I	PCM-3761I	PCI-1780U	PCI-1784U	PCIE-1884	
TTL D/I/O	Input Channels	–	–	8	–	–	
	Output Channels	–	–	8	–	–	
	Output Channel	Sink Current	–	–	24 mA @ 0.5 V	–	–
		Source Current	–	–	15 mA @ 2.4 V	–	–
Isolated Digital I/O	Input	Channels	16	8	–	4	4
		Isolation Voltage	2,500 V <sub>DC</sub>	2,500 V <sub>DC</sub>	–	2,500 V <sub>DC</sub>	2,500 V <sub>DC</sub>
		Input Range	5 ~ 30 V <sub>DC</sub>	5 ~ 30 V <sub>DC</sub>	–	10 ~ 30 V <sub>DC</sub>	5 ~ 50 V <sub>DC</sub>
	Output	Channels	16	8 x Form C	–	4	4
		Isolation Voltage	2,500 V <sub>DC</sub>	2,000 V <sub>DC</sub>	–	2,500 V <sub>DC</sub>	2,500 V <sub>DC</sub>
		Output Range	5 ~ 30 V <sub>DC</sub>	0.25 A @ 250 V <sub>AC</sub> 2 A @ 30 V <sub>DC</sub>	–	TTL level	TTL level
		Max. Sink Current	300 mA		–	50mA	24mA
	Timer/ Counter	Channels	–	–	8 x CTR	4	4
Resolution		–	–	16-bit	32-bit	32-bit	
Max. Input Frequency		–	–	20 MHz	2 MHz (8 MHz for quadrature X4)	10 MHz (40 MHz for quadrature X4)	
Advanced Function	Pattern Match	–	–	–	–	–	
	Change of State	–	–	–	–	–	
	Board ID Switch	–	✓	✓	✓	✓	
	Channel-Freeze Function	–	–	–	–	–	
	Output Status Read Back	–	✓	–	–	–	
	Dry/Wet Contact*	–	–	–	–	–	
Dimensions (L x H)		96 x 90 mm (3.8" x 3.5")	96 x 90 mm (3.8" x 3.5")	175 x 100 mm (6.9" x 3.9")	175 x 100 mm (6.9" x 3.9")	175 x 100 mm (6.9" x 3.9")	
Connector		2 x 20-pin	1 x 20-pin 1 x 50-pin	68-pin SCSI	1 x DB37	1 x DB37	
DAQnavi Driver	Windows 7/8/10	✓	✓	✓	✓	✓	
	Linux	–	✓	✓	✓	–	
LabVIEW I/O Driver		✓	✓	✓	✓	✓	

\* Simultaneous dry/wet contact within a group is acceptable.

\*\* Jumper-selectable Form A/B-type relay output.

✓ : supported, – : not supported, △ : optional