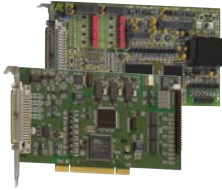






## Multifunction, analog input and analog output boards for 3.3 V or 5 V PCI slots



	Analog input					Multifunction boards				Analog output	
	APCI-3010	APCI-3016	APCI-3002	APCI-3003	APCI-3001 CPCI-3001	APCI-3110	APCI-3116	APCI-3120 CPCI-3120	APCI-3122	APCI-3501	APCI-3504
<b>PCI-bus 32-bit</b>	3.3/5 V	3.3/5 V	3.3/5 V	3.3/5 V	3.3/5 V	3.3/5 V	3.3/5 V	3.3/5 V	5 V	3,3/5 V	5 V
<b>CompactPCI bus</b>					5 V			5 V			
<b>Simultaneous acquisition</b>				✓							
<b>Analog inputs</b>											
Single Ended	16/8/4	16/8/4			16/8/4	16/8	16/8	16/8			
Differential	8/4/2	8/4/2	16		8/4	8/4	8/4	8/4			
Diff. separated from each other				4							
Resolution (bit)	12	16	16	16	12	12	16	16			
Optical isolation	✓	✓	✓	✓	✓	✓	✓	500 V			
Throughput (kHz)	200	200	200	400/ channel	100	200	200	100			
Voltage range											
0-10 V; ± 10 V / 0-5 V; ± 5 V 0-2 V; ± 2 V / 0-1 V; ± 1 V	✓	✓	✓	✓	✓	✓	✓	✓			
Other ranges optional	0-20 mA	0-20 mA	0-20 mA	0-20 mA	0-20 mA	0-20 mA	0-20 mA	0-20 mA			
Gain 1, 2, 5, 10	✓	✓	✓	✓	✓	✓	✓	✓			
FIFO (value)	512	512	512	1024	256	512	512	256			
<b>Functions of the analog inputs</b>											
DMA (scatter gather, single, continuous, sequence)	✓	✓	✓	✓		✓	✓				
DMA (single, continuous, sequence)					✓			✓			
Auto Refresh	✓	✓	✓	✓		✓	✓				
Interrupt	✓	✓	✓	✓	✓	✓	✓	✓			
Programmed I/O	✓	✓	✓	✓	✓	✓	✓	✓			
<b>Trigger:</b>											
Software	✓	✓	✓	✓	✓	✓	✓	✓			
TTL input	✓	✓	-	-	-	✓	✓	-			
24 V input	✓	✓	-	-	-	✓	✓	-			
Sequence RAM	✓	✓	✓	✓	✓	✓	✓	✓			
<b>Analog outputs</b>						4	4	4 or 8	4	4 or 8	4
Resolution (bit)						12	12	14	12	14	12
Optical isolation						✓	✓	✓	✓	✓	✓
0-10 V ± 10 V						✓	✓	✓	✓	✓	✓
Other ranges											0-20 mA
Setup time						15 µs	15 µs	30 µs	15 µs	30 µs	15 µs
<b>Digital I/O</b>											
24 V inputs, isolated	4	4	4	4	4	4	4	4	10	2	
24 V outputs, isolated	4(50mA)	4(50mA)	4(50mA)	4(50mA)	4(OpenC)	4(50mA)	4(50mA)	4(OpenC)	12(500mA)	2(OpenC)	
<b>TTL I/O</b>	24	24				24	24				
<b>Timer/Counter/Watchdog</b> (depth) and/or	3 / 3 / 1 16-bit	3 / 3 / 1 16-bit	1 / - / - 16-bit	1 / - / - 16-bit	1 / - / - 16-bit	3 / 3 / 2 16-bit	3 / 3 / 2 16-bit	1 / - / 1 24-bit		1 / - / - 12-bit	1 / - / - 12-bit
<b>Page</b>	22	22	23	23	22	24	24	25 / 32	25	26	26
<b>Software</b>	Drivers for Windows XP/2000/NT/98; Linux; LabView; LabWindows CVI + Samples <span style="float: right;">Current driver list on the web <a href="http://www.addi-data.com">www.addi-data.com</a></span>										

## Length, noise, vibration, temperature and pressure measurement

	Length measurement	Noise and vibration measurement	Temperature measurement	Pressure measurement
	 <b>APCI-3701</b>	 <b>APCI-3600</b>	 <b>APCI-3200</b>	 <b>APCI-3300</b>
<b>PCI bus 64 or 32-bit</b>	<b>3.3 V / 5 V</b>	<b>3.3 V / 5 V</b>	<b>5 V</b>	<b>5 V</b>
<b>Noise and vibration measurement</b>		✓		
<b>Thermocouples</b> J,K,T,E,R,S,B,N <b>Pt100, Pt1000</b>			✓	
<b>Strain gauges</b>				✓
<b>Inductive displacement transducers</b>	Half Bridge, LVDT			
<b>Signal conditioning</b>		4 current sources for ICP™ sensor supply		
<b>Analog inputs</b>			4 groups 4 channels	4 groups 4 channels
Single-ended (SE)/ differential (diff.)	16/8/1 channels for inductive displacement transducers	8/8	16 thermo/8 RTDs 8 thermo/4 RTDs 4 thermo/2 RTDs	8/4 inputs for DMS
Resolution (bit)	16	24	18	18
Optical isolation			✓	✓
Throughput	depends on transducer type 2-20 kHz (50 kHz opt.)	2-200 kHz (through software)	20-160 Hz	20-160 Hz
Voltage ranges		± 10 V	+ 2.5 V	0-2.5 V
Gain	depends on transducer type		1, 2, 4, 8, 16, 32, 64, 128	1, 2, 4, 8, 16, 32, 64, 128
FIFO (values)		128 DWORD		
<b>Functions analog inputs</b>				
DMA (scatter gather; single; continuous; sequence)	✓	scatter gather free run, ring buffer		
Auto Refresh	✓			
Interrupt	✓	✓	✓	✓
Programmed I/O	✓	✓	✓	✓
Trigger: Software 24 V Input	✓ ✓	✓ ✓	✓ ✓	✓ ✓
Sequenz-RAM	✓			
<b>Analog outputs</b>		2		
Resolution (bit)		16		
0-10 V ± 10 V		± 10 V		
<b>Chronometer inputs</b> <b>Gate inputs</b>		4 2		
<b>Timer/Watchdog</b> (depth) in combination, and/or	1 / - 16-bit		- / -	- / -
<b>Digital I/O</b> Inputs 24 V, isolated Outputs, 24 V, isolated	8 8 (125 mA)	8 8 (50 mA)	4 3 (Open Collector)	4 3 (Open Collector)
<b>Page</b>	29	28	28	29
<b>Software</b>	Current driver list on the web <a href="http://www.addi-data.com">www.addi-data.com</a>			