

Industrial Computer Chassis

Selection Guide



Model Name		IPC-3026		IPC-6806S-D		ACP-4020		ACP-4D00		IPC-623		IPC-622		
		IPC-3026		IPC-6806S-D		ACP-4020		ACP-4D00		IPC-623		IPC-622		
Form Factor Support		PICMG 1.0/1.3 Half-size SBC		PICMG 1.0/1.3 Half-size SBC		PICMG 1.3 Half-size SBC ATX/Micro-ATX		PICMG 1.3/PCI Half-size SBC		PICMG 1.0/1.3 Full size SBC		PICMG 1.0/1.3 Full size SBC		
Drive Bay	Slim Optical Drive	-		1		1		-		-		-		
	2.5"	-		1 (hot-swap)		1 (Internal)		-		-		-		
	3.5"	Hot-swap	-		-		-		-		-		-	
		External	1		-		2		1 / each node		1		-	
		Internal	-		1		-		-		1		2	
5.25"	-		-		-		-		3		4			
Front I/O	USB	2		2		2 (USB 3.0)		2 (USB 2.0) + 2 (USB 3.0) / each node		-		2		
	PS/2	-		-		-		-		-		-		
Cooling	No. of Fans	1		1		2		1 / each node		3		4		
	CFM	44.6		53		2 x 53		1 x 58 per node		3 x 114		4 x 58		
Power Supply	AC	150W Flex ATX		250W Flex ATX		300W PS/2 400W PS/2 500W PS/2		250W Flex ATX 300W Flex ATX		400W 500W		400W PS/2 500W PS/2 700W PS/2		
	AC Redundant	-		-		-		-		570W 2+1		500W Mini RPS 750W Mini RPS		
	DC	-		-		300W 48V		-		-		-		
No. of Slots for add-on cards		4		4		15		6 / each node		20		20		
No. of Full-size Cards ^{Note}		-		-		0		0		20		20		
Passive Backplane Options	PICMG 1.0	Yes		Yes		-		Yes (PCI BP only)		Yes		Yes		
	PICMG 1.3	Yes		Yes		Yes		Yes		Yes		Yes		
Intelligent System Module		Yes		-		Yes		Yes		-		Yes		
Dimensions (W x H x D)	mm	150 x 222 x 270		191 x 178 x 290		482 x 177 x 348		430 x 177 x 350		482 x 177 x 657		482 x 266 x 464		
	inch	5.9 x 8.74 x 10.63		7.5 x 7.01 x 11.42		19 x 7.0 x 13.7		19 x 7.0 x 13.8		19 x 7 x 26		19 x 10.5 x 18.3		
Weight	kg	4.4		5.6		8.5		15		26		30		
	lb	9.7		12.3		18.7		33		57		66		

Note: Depending on system configuration. Board component or CPU cooler mechanical interference might reduce supported full-size card number.

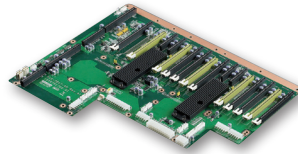
High-End Passive Backplanes

Selection Guide

Full-Size SBC Backplane

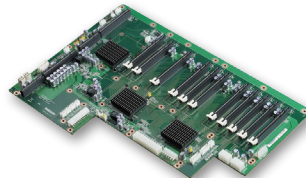
PCE-7B17-00A1E

17 slot BP for 20-slot chassis
 Segments: 1
 One CPU card slot
 PCIe slot: five x8, eleven x4
 PCI-X slot: N/A
 PCI slot: N/A
 Compatible with IPC chassis: IPC-623, IPC-622



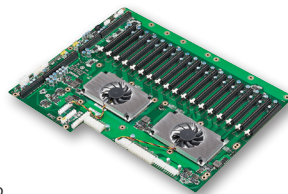
PCE-5B12-00A1E

12-slot BP for 20-slot chassis
 Segments: 1
 One CPU card slot
 PCIe slot: Ten x16 and one x4
 PCI-X slot: N/A
 PCI slot: N/A
 Compatible with IPC chassis: IPC-623, IPC-622



PCE-5B19-00A1E

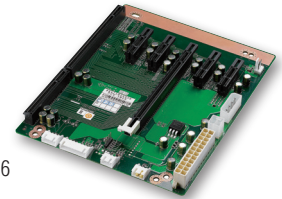
19 slot BP for 20-slot chassis
 Segments: 1
 One CPU card slot
 PCIe slot: Seventeen x16 and One x4
 PCI-X slot: N/A
 PCI slot: N/A
 Compatible with IPC chassis: IPC-623, IPC-622



Half-Size SBC Backplane

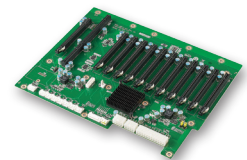
PCE-3B06-00A1E

6 slot backplane for 6-slot chassis
 Segments: 1
 One CPU card slot
 PCIe slot: One x16, four x1
 Size: 142 x 176 mm (5.59" x 6.92")
 Compatible with ACP-4D00, IPC-6806S, IPC-3026
 Ordering information: PCE-3B06-00A1E



PCE-4B13-00A1E

13-slot backplane for 14-slot half-sized chassis
 Segments: 1
 One CPU card slot
 PCIe slot: One x8, Eleven x4
 PCI slot: N/A
 Size: 315 x 243.84 mm (12.4" x 9.6")
 Compatible with IPC chassis: ACP-4020
 Ordering information: PCE-4B13-00A1E



Full-Size SBC Backplane

Model Name	PCIe				PCI-X			PCI
	x16	x8	x4	x1	64/66	64/100	64/133	32/33
PCE-7B17-00A1E	-	5	11	-	-	-	-	-
PCE-5B12-00A1E	10	-	1	-	-	-	-	-
PCE-5B19-00A1E	17	-	1	-	-	-	-	-

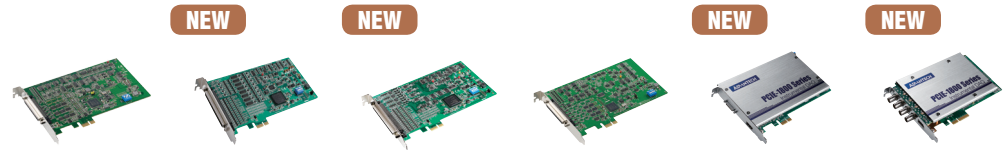
Half-Size SBC Backplane

Model Name	Slots per segment							Segment
	ISA	PCI	PCIe x16	PCIe x 8	PCIe x4	PCIe x1	PICMG	
PCE-3B06-00A1E	-	-	1	-	-	4	1	1
PCE-4B13-00A1E	-	-	-	1	11	-	-	-

Compatibility Matrix

Model Name	IPC-3026	IPC-6806S-D	ACP-4020	ACP-4D00	IPC-622	IPC-623
PCE-7B17-00A1E					V	V
PCE-5B12-00A1E					V	V
PCE-5B19-00A1E					V	V
PCE-3B06-00A1E	V	V		V		
PCE-4B13-00A1E			V			

Data Acquisition I/O PCIe Card Selection Guide



Category		Multifunction						
Bus		PCIe						
Part Number		PCIE-1810	PCIE-1812	PCIE-1813	PCIE-1816/H	PCIE-1802/L	PCIE-1840/L	
Analog Input	Resolution	12 bits	16 bits	26 bits	16 bits	24 bits	16 bits	
	Channels	16 SE/8 diff.	8 diff. (simultaneous)	4 Voltage/ Bridge input	16 SE/8 diff.	8 diff./ 4 diff.	4 SE	
	Onboard FIFO	4,096 samples	4,096 samples	4,096 samples	4,096 samples	4,096 samples	1 G samples	
	Sampling Rate	500 kS/s	250 kS/s	38.4 kS/s	500 KSPS/ 1MSPS	216 kS/s	125 MSPS/ 80MSPS	
	Input Ranges	Unipolar Inputs (V)	0 ~ 10, 0 ~ 5, 0 ~ 2.5, 0 ~ 1.25	0 ~ 10, 0 ~ 5, 0 ~ 2.5, 0 ~ 1.25	Voltage Input: ± 10 V, ± 5 V, ± 2.5 V, ± 1.25 V, ± 625 mV, ± 312.5 mV	0 ~ 10, 0 ~ 5, 0 ~ 2.5, 0 ~ 1.25	-	-
		Bipolar Inputs (V)	$\pm 10, \pm 5, 2.5, 1.25, 0.625$	$\pm 10, \pm 5, 2.5, 1.25, 0.625$	Bridge Input: ± 31.25 mV/V, ± 62.5 mV/V, ± 125 mV/V, ± 250 mV/V, ± 500 mV/V, and ± 1 V/V	$\pm 10, \pm 5, 2.5, 1.25, 0.625$	$\pm 0.2, \pm 0.5, \pm 1, \pm 2, \pm 5, \pm 10$ V	0.2 / 0.4 / 1 / 2 / 4 / 10 / 20 Vpp
	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
Software		✓	✓	✓	✓	✓	✓	
	DMA	Bus mastering	Bus mastering	Bus mastering	Bus mastering	Bus mastering	Bus mastering	
Analog Output	Resolution	12 bits	16 bits	16 bits	16 bits	-	-	
	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 (V)	0 ~ 5, 0 ~ 10, $\pm 5, \pm 10$	0 ~ 5, 0 ~ 10, $\pm 5, \pm 10$	0 ~ 5, 0 ~ 10, $\pm 5, \pm 10$	0 ~ 5, 0 ~ 10, $\pm 5, \pm 10$	-	-	
	Output Rate	500 kS/s/s	3 MS/s	3 MS/s	3 MS/s	-	-	
	DMA Transfer	Bus mastering	Bus mastering	Bus mastering	Bus mastering	-	-	
Digital I/O	Input Channels	24 (shared)	32 (shared)	32 (shared)	24 (shared)	1	-	
	Output Channels	-	-	-	-	2	-	
Timer/ Counter	Channels	2	4 (encoder included)	4 (encoder included)	2	-	-	
	Resolution	32 bits	32 bits	32 bits	32 bits	-	-	
	Max. Input Frequency	10 MHz	10 MHz	10 MHz	10 MHz	-	-	
Isolation Voltage	-	-	-	-	-	-		
Auto Calibration	✓	✓	✓	✓	✓	✓		
Board ID Switch	✓	✓	✓	✓	✓	✓		
Dimensions (L x H)	167 x 100 mm (6.6" x 3.9")	167 x 100 mm (6.6" x 3.9")	167 x 100 mm (6.6" x 3.9")	167 x 100 mm (6.6" x 3.9")	168 x 99 mm (6.6" x 3.9")	175 x 100 mm (6.9" x 3.9")		
Connector	68-pin SCSI	100-pin SCSI (female)	100-pin SCSI (female)	68-pin SCSI	1 x 19-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)		
Legacy Driver	Windows XP/2000	-	-	-	-	-	-	
	WinCE	-	-	-	-	-	-	
	Linux	-	-	-	-	-	-	
DAQ/NAVI Driver	Windows 8/7/Vista/XP/2000	✓	✓	✓	✓	-	-	
	WinCE	-	-	-	-	-	-	
	Linux	-	-	-	-	-	-	
LabVIEW Driver	✓	✓	✓	✓	-	-		

* 80 kHz on Pentium® 4-based (or higher) systems.

** SS: Single DMA channel, single A/D channel scan.