

# Fault-Resilient Computing Platforms for Computer Telephony and Networking

Vol. **02**



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# Flexible Computing Platforms That Deliver

Advantech's mission is to deliver premium class computing platforms to enable our customers to do business anywhere without downtime. To meet the rising demand for high-availability computing platforms for mission-critical applications, Advantech devotes much of its resources to the products fitted for the computer telephony and network computing industries. It has developed a wide range of platform products for applications such as call centers, IP Gateway, UnPBX, fax-on-demand, video-on-demand, Internet server, Networking and more! Advantech is the ideal supplier for your computer telephony integration and Internet/Intranet networking requirements.

## Choosing Advantech Gives You These Competitive Edges!

### Production innovation

Advantech, with proven technology and experience, provides a wide range of innovative product offerings, including industrial computers, SBCs, RAID subsystems, CompactPCs and Server PCs. All products come with state-of-the-art features including cutting-edge performance, high-reliability, easy maintenance and more.

### Quality in design & manufacturing

Advantech holds ISO-9001 and ISO-14001 certifications and abides by strict rules on quality assurance in design and development, production, installation, and service. All our system products have been subjected to extensive environmental tests in our in-house QA Lab. Only after completing and passing all tests will our products be submitted to an independent and certified testing laboratory for final approval.

### Best Price/Performance Ratio

Advantech delivers the best price/performance ratio in the industry. With affordable solutions for your high-availability applications, you can achieve the most with your project budget.



# Maximum Reliability



## e-Server Systems

Thin servers for Internet/Intranet-based system product line. Designed for ISP, ASP, and space-limited data centers.



## Full-function Single Board Computers

Supporting multiple level processors, Advantech's single board computers deliver ultra-high computing performance for today's most demanding applications.



## Industrial-grade Server PCs

Featuring rackmount and RAID solutions, the server PCs give users flexible expansion capacity both in terms of physical space and data

storage.



## Fault-resilient Industrial Computers

The fault-resilient IPC chassis family is designed for mission critical, non-stop applications. Most are equipped with a redundant power supply, and feature auto-detection of system malfunctions.



## CompactPCI Systems

To meet the rapidly expanding mission-critical industry; Advantech, as a total solution provider, released a variety of CompactPCI products. These include enclosures, processor boards, and peripheral modules.



## Rackmount Peripherals

To help system integrators build space-saving and easy-to-operate rackmount computing systems, Advantech provides versatile rackmount peripherals.

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# Products Selection Guide

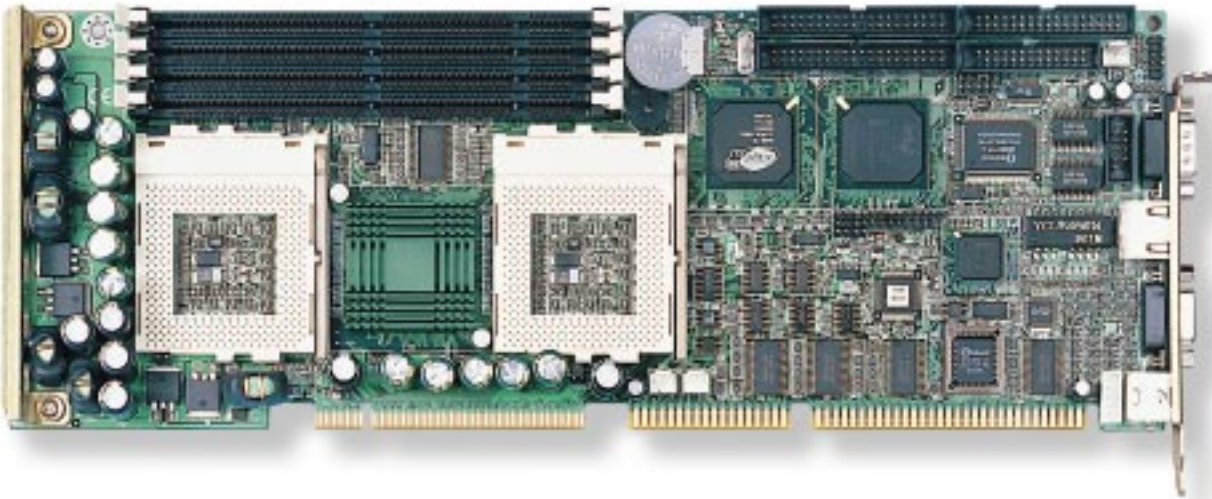
## e-Server System



## Single Board Computer

Specifications		2 U		1 U
		IPC-613	IPC-602	IPC-601
Form Factor		Motherboard	Passive Backplane	Passive Backplane
Height (1U=1.75")		2U	2U	1
Expansion Slots (max.)		2 PCI	3 PCI / 2 ISA	1 PCI
Power Supplies		300 W ATX	300 W ATX / 310W AT DC	300 W ATX
Disk Drive Capacity	FDD	1	1	1
	CD-ROM	1	1	1
	3.5" HDD	4	1 (internal)	3
Cooling System	No. of Fans	3	2	3
	Total CFM	115.8	84	21
System Monitoring		Yes	No	Yes
CPU Type		<b>Advantech's Recommended Full-size CPU Cards</b> PCA-6276 : Dual FC-PGA Pentium® III/Celeron SBC with VGA/LAN (P. 14)  PCA-6179 : FC-PGA Pentium® III SBC with VGA/LAN/SCSI (133 MHz FSB) (P. 16)  PCA-6178 : FC-PGA Pentium® III SBC with VGA/LAN/SCSI (P. 17)		
Max. Processor Speed (MHz)				
Chipset				
L2 Cache				
Max. System Memory				
SCSI				
VGA				
LAN				
I/O	RS-23			
	Paralle			
	FDD			
	USB			
	Keyboard/ Mouse			
IDE				
Dimension (W x H x D)	mm	482 x 88 x 595	482 x 88 x 450	482 x 44 x 600
	inches	19 x 3.5 x 23.5	19 x 3.5 x 17.7	19 x 1.7 x 24
Weight	kg	10	10	8
	Lb	22	22	17.6
Reference Page		P.8	P.10	P.12

Specifications		Dual Processor
		PCA-6276 Series
Bus		PCI/ISA
CPU Type		Dual Intel Pentium® III/ Celeron™ Socekt 370
Max. Processor Speed ( MHz )		850/500
Chipset		Intel 440BX
L2 Cache		256/128 On-CPU
Max. System Memory		1 GB
Solid State Disk Support		IDE Flash SSD
BIOS		Award
Watchdog Timer		1 ~ 63 sec. (63 levels)
I/O	On-board VGA	Yes
	Panel display	No
	Serial COM ports	2
	Parallel	Bidirectional SPP/EPP/ECP
	HDD storage (IDE)	4
	FDD storage	2
	SCSI interface	No
	Ethernet LAN	Yes
	IR	Yes
	OBS (Hardware monitor)	Yes
Power Requirements		+5 V, ±12V
ECC		Yes
USB		2
ATX Control		Yes
Reference Page		P.14




Pentium® III			Celeron™	Pentium® MMX		
PCA-6180 series	PCA-6179 series	PCA-6178 series	PCA-6168 series	PCA-6166 series	PCA-6359 series	PCA-6155V series
PCI/ISA	PCI/ISA	PCI/ISA	PCI/ISA	PCI/ISA	PCI/ISA	PCI/ISA
Intel Pentium® III Socket 370	Intel Pentium® III \ Socket 370	Intel Pentium® III Socket 370	Intel Celeron™ Socket 370	Intel MMX®, AMD K6-2/3, Super 7	On-board Intel Pentium MMX®	Intel MMX, AMD K5, K6 Cyrix MI, MII Socket 7 P55C
933	933	850	600	Intel 233/AMD 500	266	233
Intel 815E	VIA ApolloPro 133 A	Intel 440BX	Intel 440BX	SiS 530	Intel 430TX	SiS 5598
256KB on-CPU	256KB on-CPU	256KB on-CPU	128KB On-CPU	1 MB On-board	512 KB PB-SRAM	512 KB on-board
512 MB	1.5 GB	768 MB	768 MB	768 MB	256 MB	256 MB
IDE Flash SSD	DiskOnChip® 2000	DiskOnChip® 2000	DiskOnChip® 2000	DiskOnChip® 2000	DiskOnChip® 2000	DiskOnChip® 2000
Award	Award	Award	Award	Award	Award	Award
1 ~ 63 sec. (63 levels)	1 ~ 63 sec. (63 levels)	1 ~ 63 sec. (63 levels)	1 ~ 63 sec. (63 levels)	1 ~ 63 sec. (63 levels)	1 ~ 63 sec. (63 levels)	1 ~ 63 sec. (63 levels)
Yes	Yes	Yes	Yes	Yes	Yes	Yes
No	No	No	No	No	Yes	No
2	2	2	2	2	2	2
Bidirectional SPP/EPP/ECP	Bidirectional SPP/EPP/ECP	Bidirectional SPP/EPP/ECP	Bidirectional SPP/EPP/ECP	Bidirectional SPP/EPP/ECP	Bidirectional SPP/EPP/ECP	Bidirectional SPP/EPP/ECP
4	4	4	4	4	4	4
2	2	2	2	2	2	2
No	Yes	Yes	Yes	Yes	Yes	No
Yes (Dual)	Yes	Yes	Yes	Yes	Yes	No
Yes	Yes	Yes	Yes	Yes	Yes	Yes
Yes	Yes	Yes	Yes	Yes	No	No
+5 V, ±12 V	+5 V, ±12 V	+5 V, ±12 V	+5 V, ±12 V	+5 V, ±12 V	+5 V, ±12V	+5 V, ±12 V
No	Yes	Yes	Yes	No	No	No
4	2	2	2	2	2	2
Yes	Yes	Yes	Yes	Yes	Yes	No
P.15	P.16	P.17	P.18	P.19	P.20	P.21

# Products Selection Guide



## Rackmount Industrial Computer Chassis



Specifications		Server PC		6U	4U		
		SPC-530	SPC-520	IPC-622	IPC-623	IPC-616	IPC-615
Height ( 1U=1.75")		5U	5U	6 U	4 U	4U	4 U
No. of Slots (max.)		20	9	20	20	14	15
Power Supplies	110/220 V <sub>AC</sub> input	400 W ATX redundant	400 W ATX / 400 W ATX redundant	300 W AT redundant	400 W redundant/ 300 W redundant	300 W ATX	300 W ATX / 250 W AT redundant
	-48V <sub>DC</sub> input	optional	optional	300 W AT redundant	--	310 W AT	310 W AT
ISA Backplanes		--	--	1, 2, or 4 segments	1 segment	1 segment	1 segment
PICMG Backplanes		1 or 2 segments	1 segment	1 or 2 segments	1 segment	1 segment	1 segment
Disk Drive Capacity	5.25"	6	10	4	3	3	2
	3.5"	--	--	2	2	2	1
Cooling System	No. of fans	3	3	4	3	2	2
	Total CFM	258	258	196	258	106	172
Fault Detection		Yes	Yes	Yes	Yes	Yes	Yes
Dimensions (W x H x D)	mm	482 x 222 x 660	482 x 222 x 660	483 x 266 x 462	482 x 177 x 660	482 x 177 x 478	482 x 177 x 478
	inches	19 x 8.75 x 26	19 x 8.75 x 26	19 x 10.5 x 18	19 x 7 x 26	19 x 7 x 18.8	19 x 7 x 18.8
Weight	kg	21	20	30	26	16	20
	lb	46.2	44	66	57	35.2	44
Reference Page 		P.22	P.24	P.26	P.28	P.30	P.32



## Disk Array Subsystem



4U	Tabletop
IPC-610	IPC-6908
4 U	--
14	8
300 W ATX 250 W AT redundant	300 W ATX / 250 W AT redundant
310 W AT	310 W AT
1 segment	1 segment
1 segment	1 segment
3	2
2	2
1	2
86	98
--	Yes
482 x 177 x 452	200 x 300 x 463
19 x 7 x 17.8	7.9 x 11.8 x 18.2
17.5	12
38.5	26.4
P.34	P.36

Specifications		5U		4U
		RAID-500UW/U2	RAID-500	RAID-400
Disk Cartridges Installed		8	0	0
Power Supplies	AC-DC	300 W redundant	300 W redundant	300 W redundant
	DC-DC	300 W redundant	300 W redundant	300 W redundant
Cooling Fans	No. of fans	2	2	2
	Total CFM	98	98	98
LED for Failure		Yes	Yes	Yes
Fault Detection	Power	Yes	Yes	Yes
	Fan	Yes	Yes	Yes
	Overheating	Yes	Yes	Yes
RAID Controller		Yes	No	No
SCSI Interface		Ultra Wide/Ultra 2	No	No
RAID Level		Level 0, 1(0+1), 3 or 5	No	No
SCSI Bandwidth		40MB/S~80MB/S	No	No
SCSI Cable		Single-End/LVD	No	No
DRAM for RAID Controller		32 M	No	No
Dimension	mm	482 x 222.25 x 482	482 x 222.25 x 482	482 x 177.8 x 482
	inches	19 x 8.75 x 19	19 x 8.75 x 19	19 x 7 x 19

Reference Page




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# Products Selection Guide

## CompactPCI™ Enclosure

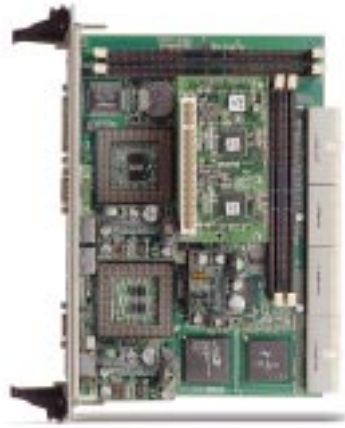


Specifications		14-Slot	8-Slot		5-Slot
		MIC-3031/14	MIC-3032/8	MIC-3021/8	MIC-3033/5
Height ( 1U=1.75")		12 U	9 U	7U	4U
CompactPCI Slots (max.)		14	8	8	5
Power Supplies	110/220 V <sub>AC</sub> input	N+1 redundant (560 W + 280 W)	400 W ATX / N+1 redundant (300 W + 300 W)	400 W ATX / N+1 redundant (300 W + 300 W)	N+1 redundant (300W + 300 W)
	-48V <sub>DC</sub> input	--	400W ATX	--	--
Front I / O		Yes	Yes	Yes	Yes
Rear I / O		Yes	Yes	--	Yes
CT Bus (H.110)		Yes	Yes	--	Yes
Disk Drive Capacity	5.25"	3	3	4	1(Slim CD-ROM)
	3.5"	2	FDD x 1	FDD x 1	3
Cooling System	No. of fans	3	3	2	2
	Total CFM	258	258	172	86(in) /15(out)
Fault Detection		Yes	Yes	Optional	Yes
Dimensions (W x H x D)	mm	440 x 530x 342	440 x 400 x 342	440 x 311x 240	440 X 177 x 342
	inches	17.3 x 21 x 13.5	17.3 x 15.75 x 13.5	17.3 x 12.25x 10	17.3 x 7 x 13.5
Weight	kg	20	15	12	10
	lb	66	33	27	22
Reference Page 		P.42	P.44	P.48	P.46





# CompactPCI™ CPU Board



Specifications	FC-PGA		Slot1	
	MIC-3385 series	MIC-3365 series	MIC-3376 series	
Bus Interface	64-bit, 66 MHz	32-bit, 33 MHz	32-bit, 33 MHz	
CPU Type	Intel Pentium® III (FC-PGA) Socket 370	Intel Celeron™ Pentium® III (FC-PGA) Socket 370	Intel Pentium® III Slot 1	
Max. Processor Speed ( MHz )	866	Celeron™ 700 Pentium® III 850	850	
Chipset	Intel 840	Intel 810	Intel 440BX	
Front Side Bus Clock	133/100 MHz	100 / 66 MHz	100 / 66 MHz	
L2 Cache	256 KB On-CPU	128 KB /256 KB On-CPU	512 KB On-CPU	
Max. System Memory	2 GB	512MB	512 MB	
Solid State Disk Support	CompactFlash	CompactFlash	CompactFlash	
No. of Bus Masters	7	7	7/14	
BIOS	Award	Award	Award	
Watchdog Timer	--	1 ~ 63 sec. (63 levels)	1 ~ 63 sec. (63 levels)	
I/O	On-board VGA	Yes	Yes	Yes
	Panel display	--	--	--
	Serial port	2	1 or 2	2
	Parallel Port	Yes	Yes	Yes
	USB	1	1 or 2	2
	LAN	2	2	2
	IDE	4	4	4
	FDD	2	2	2
	SCSI	--	Yes	Optional
Dimensions	6U high, 2-slot wide	6U high, 1 or 2-slot wide	6U high, 2-slot wide	
Reference Page	P.50	P.52	P.54	

Specifications	Rear Transition Board	
	MIC-3302	MIC-3301
VGA	Yes	--
Panel Display	Yes	--
Serial Port	1 or 2	1
USB	1 or 2	--
LAN	2	--
IDE	4	4
FDD	2	2
SCSI	Yes	--
CompactFlash	Yes	Yes
On-Board HDD	Optional	Yes
Keyboard	Yes	Yes
Mouse	Yes	Yes
Designation	MIC-3365	MIC-3376
Board Size	6U height, 1 or 2-slot wide	6U height, 2-slot wide
	P.51	P.53

