

Full-sized CPU Cards



PCA-6188



PCA-6187



PCA-6186

Selection Guide

Specification		Pentium® 4 / Celeron® Full-sized CPU Card					
		PCA-6188	PCA-6187	PCA-6186	PCA-6185	PCA-6184	PCA-6005-B
Processor System	CPU	Intel® Pentium® 4/ Celeron® Socket 478	Intel® Pentium® 4/ Celeron® Socket 478	Intel® Pentium® 4/ Celeron® Socket 478	Intel® Pentium® 4/ Celeron® Socket 478	Intel® Pentium® 4/ Celeron® Socket 478	Intel® Pentium® 4/ Celeron® Socket 478
	Max. Speed	3.2 GHz/2.4 GHz	3.2 GHz/2.4 GHz	3.06 GHz / 2.4 GHz	3.06 GHz / 2.4 GHz	3.06 GHz/2.4 GHz	3.06 GHz/2.4 GHz
	L2 Cache	256,512 KB / 128KB	256,512 KB / 128KB	256,512 KB / 128KB	256,512 KB / 128KB	256,512 KB / 128KB	256,512 KB / 128KB
	Chipset	Intel 875P + 6300ESB	Intel 865G + ICH5	Intel 845GV + ICH4	ServerWorks GC-SL+ CSB5	Intel 845E + ICH2	SiS 651 + 962L
Bus	BIOS	Award 4 Mb FWH	Award 4 Mb FWH	Award 4 Mb FWH	Award 4 Mb FWH	Award 4 Mb FWH	Award 2 Mb FWH
	FSB	400/533/800 MHz	400/533/800 MHz	400/533 MHz	400/533 MHz	400/533 MHz	400/533 MHz
	PCI	PCI-X 64-bit / 66 MHz	32-bit / 33 MHz	32-bit / 33 MHz	PCI-X 64-bit / 66 MHz	32-bit / 33 MHz	32-bit / 33 MHz
	ISA	HISA (ISA high drive)	HISA (ISA high drive)	HISA (ISA high drive)	Not supported	HISA (ISA high drive)	Not supported
Graphic	Controller	Ati Mobility Radeon 9600 Pro (AGP 8X)	Chipset integrated	Chipset integrated	ATI Rage XL (PCI)	ATI RAGE Pro 128 4XL (AGP 4X)	Chipset integrated
	VRAM	64 MB DDR SDRAM	Share system memory up to 64 MB	Share system memory 8-64 MB	8 MB SDRAM	32 MB SDRAM	Share system memory up to 64 MB (default 32 MB)
	LCD	Yes	N/A	N/A	N/A	N/A	N/A
Ethernet	Interface	10/100/1000Base-T	10/100/1000Base-T or 10/100Base-T	10/100/1000Base-T or 10/100Base-T	10/100/1000Base-T	10/100Base-T	100Base-T
	Controller	Intel 82547/82541	Intel 82547/82541, Intel 82562 (FE)	Intel 82562/82551, Intel 82540 (GbE)	Broadcom BCM 5703/5704	Intel 82559 x 2	Realtek 8139C x 2
	Connector	RJ-45 x 2	RJ-45 x 2	RJ-45 x 2	RJ-45 x 2	RJ-45 x 2	RJ-45 x 2
	Disable from BIOS	Yes	Yes	Yes for FE LAN NO for GbE	N/A	Yes	N/A
SCSI	Interface	N/A	Ultra 160	N/A	Ultra 320	N/A	Ultra 160
	Controller	N/A	Adaptec AIC-7899	N/A	Adaptec AIC-7902	N/A	Adaptec AIC-7899
	Max. Data Transfer Rate	N/A	160 MB/Sec.	N/A	320 MB/Sec.	N/A	160 MB/Sec.
	Channel	N/A	2	N/A	2	N/A	2
Memory	Technology	Dual channel DDR 266/333/400 SDRAM support ECC	Dual channel DDR 266/333/400 SDRAM	DDR 200/266 SDRAM	DDR 200/266 SDRAM with ECC, Registered only	DDR 200/266 SDRAM, support ECC	DDR 200/266/333 SDRAM
	Max. Capacity	4 GB	4 GB	2 GB	4 GB	2 GB	2 GB
	Socket	184-pin DIMM x4	184-pin DIMM x4	184-pin DIMM x2	184-pin DIMM x3	184-pin DIMM x2	184-pin DIMM x2
SATA	Max. Data Transfer Rate	150 MB/Sec.	150 MB/Sec.	N/A	N/A	N/A	N/A
	Channel	2	2	N/A	N/A	N/A	N/A
EIDE	Mode	ATA 100/66/33	ATA 100/66/33	ATA 100/66/33	ATA 100/66/33	ATA 100/66/33	ATA 133/100/66/33
	Channel	2 (Max. four devices)	2 (Max. four devices)	2 (Max. four devices)	2 (Max. four devices)	2 (Max. four devices)	2 (Max. four devices)
I/O Interface	USB	(USB 2.0 compliant)	(USB 2.0 compliant)	(USB 2.0 compliant)	(USB 1.1 compliant)	(USB 1.1 compliant)	(USB 2.0 compliant)
	Serial	2 (RS-232)	2 (RS-232)	2 (RS-232)	2 (RS-232)	2 (RS-232)	2 (RS-232)
	Parallel	1 (SPP/EPP/ECP)	1 (SPP/EPP/ECP)	1 (SPP/EPP/ECP)	1 (SPP/EPP/ECP)	1 (SPP/EPP/ECP)	1 (SPP/EPP/ECP)
	FDD	1	1	1	1	1	1
	PS/2	1	1 (for VE, VG versions)	1 (for LV, VE, VG versions)	1	1 (for L, V, VE versions)	1 (for V, VE versions)
			2 (for G2, F versions)	2 (for E2, G2 versions)	1	2 (for E2 version)	2 (for E2, F versions)
	LAN	1 (for VG version) 2 (for G2 version)	1 (for VE, VG versions)	1 (for VE, VG versions)	1 (for VG version)	1 (for VE version)	1 (for VE version)
			2 (for G2, F versions)	2 (for E2, G2 versions)	2 (for G2, F versions)	2 (for E2 version)	2 (for E2, F versions)
OBS (hardware monitor)	Yes	Yes	Yes	Yes	Yes	Yes	
Watchdog Timer	Output	Interrupt, system reset	Interrupt, system reset	Interrupt, system reset	Interrupt, system reset	Interrupt, system reset	Interrupt, system reset
	Interval	Programmable, 1-255 sec/min	Programmable, 1-255 sec/min	Programmable, 1-255 sec/min	Programmable, 1-63 sec	Programmable, 1-255 sec/min	Programmable, 1-255 sec/min
Miscellaneous	Audio (require PCA-AUDIO-00A1)	Yes	Yes	Yes	No	Yes	Yes
	Advantech SNMP-1000	Yes	Yes	Yes	Yes	Yes	Yes
	Solid State Disk	IDE Flash Disk	IDE Flash Disk	IDE Flash Disk	IDE Flash Disk	IDE Flash Disk	IDE Flash Disk
Reference Page		4-2	4-4	4-6	4-7	4-8	4-10



PCA-6003



PCA-6277-B



PCA-6180-B

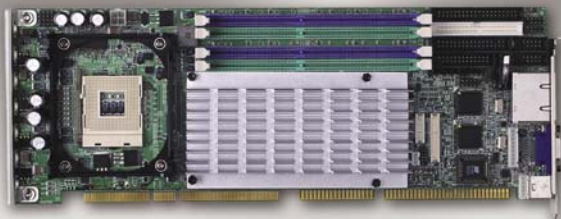
- Industrial Motherboard 1
- Industrial VGA Card 2
- Industrial Motherboard Chassis 3
- Full-sized CPU Cards 4
- Industrial Computer Chassis 5
- Industrial Computer Peripherals 6

Dual Pentium® III Full-sized CPU Card		Pentium® III / Celeron® Full-sized CPU Card					Ultra Low Voltage / Low-power Full-sized CPU Card	
PCA-6278	PCA-6277-B	PCA-6183	PCA-6181	PCA-6180-B	PCA-6003	PCA-6178-C	PCA-6002-B	PCA-6004
Dual Intel® Pentium® III (Tualatin) Socket 370	Dual Intel® Pentium® III Socket 370	Intel® Pentium® III/ Celeron® (Tualatin) Socket 370	Intel® Pentium® III/ Celeron® (Tualatin) Socket 370	Intel® Pentium® III/ Celeron® (Tualatin) Socket 370	Intel® Pentium® III/ Celeron® (Tualatin) Socket 370	Intel® Pentium® III/ Celeron® (Tualatin) Socket 370	Intel® Celeron® (Ultra Low Voltage)	VIA C3 EBGA (Low-power)
1.26 GHz	1.4 GHz	1.4 GHz / 1.2 GHz	1.4 GHz / 1.2 GHz	1.4 GHz/1.3 GHz	1.4 GHz/1.3 GHz	1.0 GHz/1.1 GHz	650/400 GHz	800 MHz
256, 512 KB	256, 512 KB	256,512 KB / 128,256 KB	128,256,512 KB	256,512 KB / 128,256 KB	256,512 KB / 128,256 KB	256 KB/128 KB	256 KB	L1 128 KB; 64 KB
ServerWorks ServerSet 30LE + OSB4	VIA Apollo Pro 133T (694T) + 686B	ServerWorks ServerSet 30LC-T+ OSB4	VIA Apollo Pro 133T (694T) + 686B	Intel 815E + ICH2	VIA Apollo PLE 133T (VT8601)+ 686B	Intel 440BX	Intel 815E + ICH2	VIA Apollo PLE 133T (VT8601)+ 686B
Award 2 Mb FWH	Award 2 Mb FWH	Award 2 Mb FWH	Award 2 Mb FWH	Award 4 Mb FWH	Award 2 Mb FWH	Award 2 Mb FWH	Award 4 Mb FWH	Award 2 Mb FWH
100/133 MHz	100/133 MHz	100/133 MHz	66/100/133 MHz	66/100/133 MHz	66/100/133 MHz	66/100 MHz	100 MHz	133 MHz
64-bit / 66 MHz	32-bit / 33 MHz	64-bit	32-bit / 33 MHz	32-bit / 33 MHz	32-bit / 33 MHz	32-bit / 33 MHz	32-bit / 33 MHz	32-bit / 33 MHz
HISA (ISA high drive)	HISA (ISA high drive)	HISA (ISA high drive)	HISA (ISA high drive)	HISA (ISA high drive)	HISA (ISA high drive), optional	HISA (ISA high drive)	HISA (ISA high drive)	HISA (ISA high drive), optional
ATI RAGE XL (PCI)	ATI RAGE Pro 128 4XL (AGP 4X)	ATI RAGE XL	ATI RAGE Pro 128 4XL (AGP 4X)	Chipset integrated	Chipset integrated	ATI RAGE XL (AGP 2X)	Chipset integrated	Chipset integrated
8 MB SGRAM	32 MB SDRAM	8 MB SDRAM	32 MB SDRAM	Share system memory up to 11 MB	Share system memory up to 8 MB	4 / 8 MB SGRAM	Share system memory up to 11 MB	Share system memory up to 8 MB
N/A	N/A	N/A	N/A	N/A	Optional 18-bit TFT LCD support	N/A	N/A	Optional 18-bit TFT LCD support
10/100Base-T	10/100Base-T	10/100/1000Base-T or 10/100Base-T	10/100Base-T	10/100Base-T	10/100Base-T	10/100Base-T	10/100Base-T	10/100Base-T
Intel 82559 x 2	Realtek 8139C x2	Intel 82559, Broadcom 5701 (GbE)	Realtek 8139C x2	Intel 82562/82559	Realtek 8139C	Intel 82559	Intel 82562/82551	Realtek 8139C
RJ-45 x 2	RJ-45 x 2	RJ-45 x 2	RJ-45 x 2	RJ-45 x 2	RJ-45	RJ-45	RJ-45 x 2	RJ-45
No	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
N/A	Ultra 160	Ultra 160	Ultra 160	Ultra 160	N/A	Ultra2 wide Symbios SYM53C895	N/A	N/A
	Adaptec AIC-7899	Adaptec AIC-7899W	Adaptec AIC-7899	Adaptec AIC-7892		80 MB/Sec.		
	160 MB/Sec.	160 MB/Sec. (64bit/33MHz)	160 MB/Sec.	160 MB/Sec.		1		
	2	2	2	1				
PC-133/100 SDRAM support ECC Registered only	PC-133/100 SDRAM support ECC	PC-133/100 SDRAM support ECC Registered only	PC-133/100 SDRAM support ECC	PC-133/100 SDRAM	PC-133/100 SDRAM	PC-100 SDRAM support ECC	PC-133/100 SDRAM	PC-133/100 SDRAM
4 GB	1.5 GB for PC133, 2 GB for PC100	4 GB	1.5 GB	512 MB	1 GB	768 MB	512 MB	1 GB
168-pin DIMM x4	168-pin DIMM x4	168-pin DIMM x4	168-pin DIMM x3	168-pin DIMM x3	168-pin DIMM x2	168-pin DIMM x3	168-pin DIMM x2	168-pin DIMM x2
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
ATA 33	ATA 100/66/33	ATA 33	ATA 100/66/33	ATA 100/66/33	ATA 100/66/33	ATA 33	ATA 100/66/33	ATA 100/66/33
2	2	2	2	2	2	2	2	2
(Max. four devices)	(Max. four devices)	(Max. four devices)	(Max. four devices)	(Max. four devices)	(Max. four devices)	(Max. four devices)	(Max. four devices)	(Max. four devices)
(USB 1.1 compliant)	(USB 1.1 compliant)	(USB 1.1 compliant)	(USB 1.1 compliant)	(USB 1.1 compliant)	(USB 1.1 compliant)	(USB 1.1 compliant)	(USB 1.1 compliant)	(USB 1.1 compliant)
2 (RS-232)	2 (RS-232)	2 (RS-232)	2 (RS-232)	2 (RS-232)	2 (RS-232)	2 (RS-232)	2 (RS-232)	2 (RS-232)
1 (SPP/EPP/ECP)	1 (SPP/EPP/ECP)	1 (SPP/EPP/ECP)	1 (SPP/EPP/ECP)	1 (SPP/EPP/ECP)	1 (SPP/EPP/ECP)	1 (SPP/EPP/ECP)	1 (SPP/EPP/ECP)	1 (SPP/EPP/ECP)
1	1	1	1	1	1	1	1	1
1	1 (for V, VE versions)	1 (for L, V, VG, GS versions)	1 (for L, V, VE, ES versions)	2	1	1	1 (for VE version)	1
	2 (for E2, F versions)	2 (for E2, F versions)	2 (for E2, F versions)				2 (for E2 version)	
1 (for VE version)	1 (for VE version)	1 (for VG, GS versions)	1 (for VE, ES versions)	1 (for E, ES versions)	1 (or VE, H versions)	1 (for VE, F versions)	1 (for VE versions)	1 (for VE, H versions)
2 (for E2 version)	2 (for E2, F versions)	2 (for E2, F versions)	2 (for E2, F versions)	2 (for E2, F versions)			2 (for E2 versions)	
Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Interrupt, system reset	Interrupt, system reset	Interrupt, system reset	Interrupt, system reset	Interrupt, system reset	Interrupt, system reset	Interrupt, system reset	Interrupt, system reset	Interrupt, system reset
Programmable, 1-63 sec	Programmable, 1-63 sec.	Programmable, 1-63 sec.	Programmable, 1-63 sec.	Programmable, 1-255 sec./min	Programmable, 1-63 sec.	Programmable, 1-63 sec.	Programmable, 1-255 sec./min	Programmable, 1-63 sec.
No	No	No	No	No	Yes	No	Yes	Yes
No	Yes	Yes	Yes	No	Yes	No	Yes	Yes
IDE Flash Disk	IDE Flash Disk	IDE Flash Disk	IDE Flash Disk	IDE Flash Disk	IDE Flash Disk	M-systems' DOC 2000 (144 MB)	Compact Flash socket (Compact Flash Type I/II)	IDE Flash Disk
4-11	4-12	4-13	4-14	4-15	4-16	4-17	4-18	4-19

PCA-6188

Socket 478 Pentium® 4/Celeron® Processor Card with 64-bit PCI-X/VGA/ Dual Gigabit LAN/HISA (400/533/800 MHz FSB)

NEW



Features

- Supports up to 2 Serial-ATA devices
- Supports Dual Channel DDR 400 SDRAM
- Intel® 875P chipset 400/533/800 MHz FSB
- Onboard AGP 8X ATI Mobility Radeon 9600 Pro VGA controller, 64MB DDR SDRAM integrated
- Supports dual display, LVDS and DVI
- 64-bit, 66MHz PCI-X
- Supports 10/100/1000Base-T Ethernet
- 4 USB 2.0 ports
- CMOS automatic backup and restore to prevent accidental data loss of BIOS setup
- HISA (ISA high drive) support

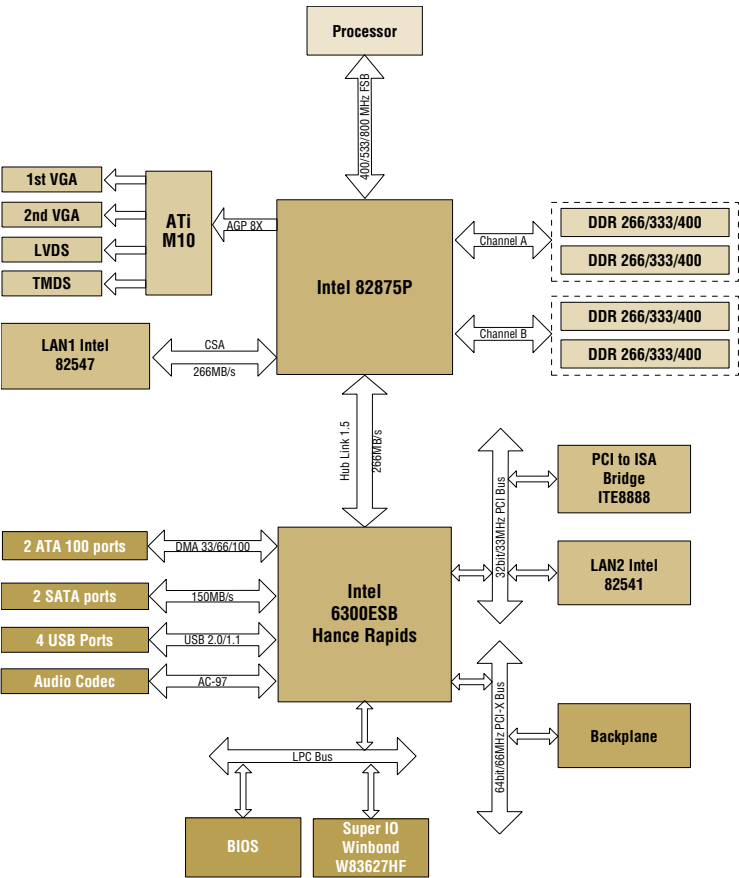
CE FCC

Specifications

Processor System	CPU (0.13 & 0.09 micron)	Intel Pentium 4	Intel Celeron		
	Max. Speed	3.06 GHz (533 FSB), 3.2 GHz (800 FSB) * Vcore 1.75 V CPU (Willamete) not supported	2.4 GHz		
	L2 Cache	512/256 KB	128 KB		
	Chipset	Intel® 875P + 6300ESB			
	BIOS	Award 4 Mb FWH			
Bus	Front Side Bus	400/533/800 MHz			
	PCI	64-bit/33/66MHz PCI, 66MHz PCI-X			
	ISA	HISA (ISA high drive), no DMA support			
Memory	Technology	Dual Channel DDR266/333/400 SDRAM with ECC support			
	Max. Capacity	4 GB			
	Socket	184-pin DIMM x 4			
Graphic	Controller	ATI Mobility Radeon 9600 Pro (AGP 8X)			
	VRAM	64MB DDR SDRAM integrated			
	Video Output	1 CRT1, 2048 x 1536, up to 200Hz vertical rate			
		1 CRT2, 2048 x 1536, up to 200Hz vertical rate 1 LVDS, dual 115MHz interface, 2048 x 1536@60Hz 1 DVI, 1600 x 1200@60Hz, 165MHz			
Ethernet	Interface	10/100Base-T; 10/100/1000Base-T (optional)			
	Controller	LAN 1: Intel 82547GI (Gigabit, CSA) LAN 2: Intel 82541GI (Gigabit)			
	Connector	RJ-45 x 2			
SATA	Max. Data Transfer Rate	150MB/Sec.			
	Channel	2			
EIDE	Mode	ATA 100/66/33			
	Channel	2 (Max. 4 devices)			
I/O Interface	USB	Max. 4 (USB 2.0 compliant)			
	Serial	2 (RS-232)			
	Parallel	1 (SPP/EPP/ECP)			
	FDD	1			
	PS/2	1			
Watchdog Timer	Output	Interrupt, system reset			
	Interval	Programmable 1~255 sec.			
Miscellaneous	Audio Output	AC-97 audio interface (requires an audio extension module P/N: PCA-AUDIO-00A1)			
Power Requirement	Typical	Pentium4			
		+5 V	-5 V	+12 V	-12 V
		TBD	TBD	TBD	TBD
Environment	Temperature	Operating	Non-Operating		
		0~60 °C (32~140 °F), depends on CPU's speed	-20~70 °C (-40 ~ 158 °F)		
Physical	Dimensions	338 x 122 mm (13.3" x 4.8")			

- Industrial Motherboard 1
- Industrial VGA Card 2
- Industrial Motherboard Chassis 3
- Full-sized CPU Cards 4
- Industrial Computer Chassis 5
- Industrial Computer Peripherals 6

Block Diagram



Ordering Information

Part Number	Fast Ethernet LAN	Gigabit LAN
PCA-6188VG-00A1	--	Single
PCA-6188G2-00A1	--	Dual

Packing List

▪ FDD cable	X 1	1700340640
▪ IDE HDD cable	X 2	1701400452
▪ Serial ATA HDD data cable	X 2	1700071000
▪ Serial ATA HDD power cable	X 2	1703150102
▪ ATX 12V power converter cable	X 1	170304015K
▪ Printer + COM cable	X 1	1701260305
▪ 4 USB ports extension cable kit	X 1	
▪ Y cable for PS/2 mouse & keyboard	X 1	1700060202
▪ Jumper pack	X 1	9689000068
▪ Startup manual	X 1	--
▪ Utility CD	X 1	--

Accessory Options

▪ CPU cooler for Pentium 4 up to 2.8 GHz, for 1U chassis	1759214200
▪ Audio extension module	PCA-AUDIO-00A1

PCA-6187

Socket 478 Pentium® 4/Celeron® Processor Card with VGA/Dual Gigabit LAN/HISA/SCSI (400/533/800 MHz FSB)

NEW



Features

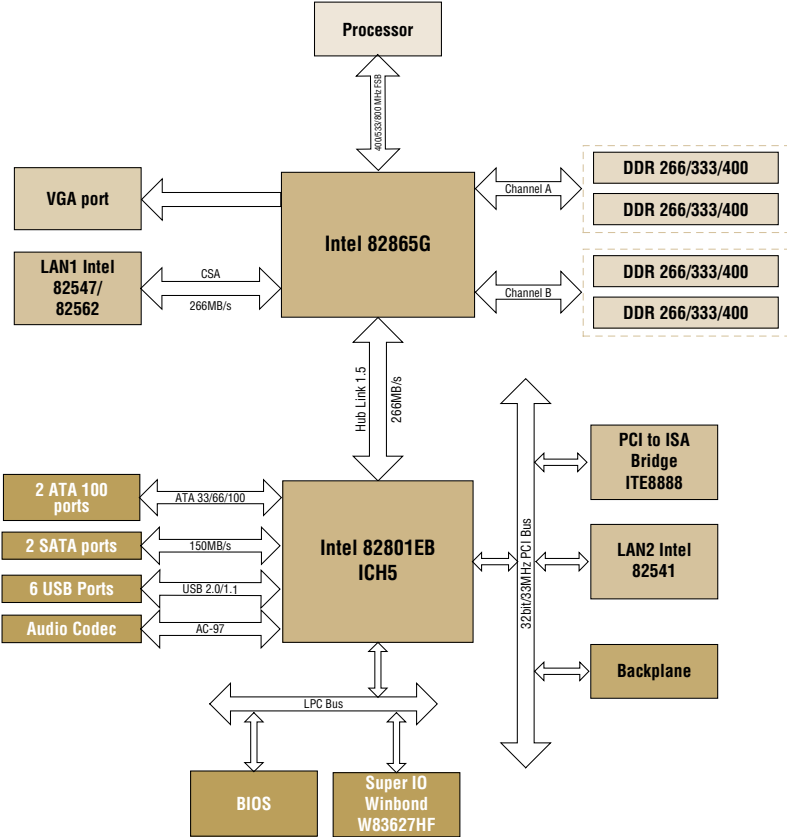
- Supports up to 2 Serial-ATA devices
- Supports Dual Channel DDR 400 SDRAM
- Onboard Adaptec AIC-7899 dual channel Ultra 160 SCSI up to 160MB/Sec.
- Intel® 865G chipset 400/533/800 MHz FSB
- Onboard integrated VGA controller, shared memory architecture
- Supports 10/100Base-T Ethernet or 10/100/1000Base-T Ethernet
- 6 USB 2.0 ports
- CMOS automatic backup and restore to prevent accidental data loss of BIOS setup
- HISA (ISA high drive) support

CE FCC

Specifications

Processor System	CPU	Intel Pentium 4	Intel Celeron
	Max. Speed	3.06 GHz (533 FSB) 3.2 GHz (800 FSB) * Vcore 1.75 V CPU (Willamete) not supported	2.4 GHz
	L2 Cache	512/256 KB	128 KB
	Chipset	Intel® 865G + ICH5	
	BIOS	Award 4 Mb FWH	
Bus	Front Side Bus	400/533/800 MHz	
	PCI	32-bit/33 MHz	
	ISA	HISA (ISA high drive)	
Memory	Technology	Dual Channel DDR266/333/400 SDRAM	
	Max. Capacity	4 GB	
	Socket	184-pin DIMM x 4	
Graphic	Controller	Chipset integrated VGA controller	
	VRAM	Dynamically shared system memory, 8-64MB	
Ethernet	Interface	10/100Base-T; 10/100/1000Base-T (optional)	
	Controller	LAN 1: Intel 82562EZ (FE); Intel 82547GI (Gigabit, CSA) LAN 2: Intel 82541GI (Gigabit)	
	Connector	RJ-45 x 2	
SCSI	Interface	Ultra 160	
	Controller	Adaptec AIC-7899	
	Max. Data Transfer Rate	160MB/Sec.	
SATA	Channel	2	
	Max. Data Transfer Rate	150MB/Sec.	
EIDE	Mode	ATA 100/66/33	
	Channel	2 (Max. 4 devices)	
I/O Interface	USB	Max. 6 (USB 2.0 compliant), 4 ports on board for G2, F versions	
	Serial	2 (RS-232)	
	Parallel	1 (SPP/EPP/ECP)	
	FDD	1	
	PS/2	1	
Watchdog Timer	Output	Interrupt, system reset	
	Interval	Programmable, 1~255 sec.	
Miscellaneous	Audio Output	AC-97 audio interface (requires an audio extension module P/N: PCA-AUDIO-00A1)	
Power Requirement	Typical	Pentium4 3.0GHz (800MHz FSB), 4 x 512MB DDR 400 SDRAM	
		+5 V -5 V +12 V -12 V 6.53 A 0.1 A 4.6 A 0.2 A	
Environment	Operating		Non-Operating
	Temperature	0-60 °C (32-140 °F), depends on CPU's speed	-20-70 °C (-40 ~ 158 °F)
Physical	Dimensions	338 x 122 mm (13.3" x 4.8")	

Block Diagram



- Industrial Motherboard 1
- Industrial VGA Card 2
- Industrial Motherboard Chassis 3
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- Industrial Computer Chassis 5
- Industrial Computer Peripherals 6

Ordering Information

Part Number	HISA	VGA	Fast Ethernet LAN	Gigabit LAN	SCSI
PCA-6187VE-00A1	V	V	Single	--	--
PCA-6187VG-00A1	V	V	--	Single	--
PCA-6187G2-00A1	V	V	--	Dual	--
PCA-6187F-00A1	V	V	--	Dual	V

Packing List

- FDD cable X 1 1700340640
- IDE HDD cable X 2 1701400452
- Serial ATA HDD data cable X 2 1700071000
- Serial ATA HDD power cable X 2 1703150102
- ATX 12V power converter cable X 1 170304015K
- Printer + COM cable X 1 1701260305
- Y cable for PS/2 mouse & keyboard X 1 1700060202
- Jumper pack X 1 9689000068
- Startup manual X 1 --
- Utility CD X 1 --

Accessory Options

- USB cable with 2 ports 1700100170
- USB extension module with 4 ports (only for VE, VG versions) PCA-USB4-00A1
- CPU cooler for Pentium 4 up to 2.8 GHz, for 1U chassis 1759214200
- Audio extension module PCA-AUDIO-00A1
- SCSI cable with terminator (125cm) 1700000182

PCA-6186

Socket 478 Pentium® 4/Celeron® Processor Card with VGA/Dual Gigabit LAN/HISA (400/533 MHz FSB)



Features

- Socket 478 Pentium® 4/Celeron® up to 3.06/2.4 GHz
- Supports Intel® Hyper-Threading® Technology
- Intel 845GV chipset 400/533 MHz FSB
- Onboard integrated VGA controller, shared memory architecture
- Supports dual 10/100Base-T Ethernet or dual 10/100/1000Base-T Ethernet
- 6 USB 2.0 ports
- CMOS automatic backup and restore to prevent accidental data loss of BIOS setup
- HISA (ISA high drive) support

Specifications

Processor System	CPU	Intel Pentium 4	Intel Celeron		
	Max. Speed	3.06 GHz	2.4 GHz		
	L2 Cache	512/256 KB	128 KB		
	Chipset	Intel 845 GV + ICH4			
	BIOS	Award 4 Mb FWH			
Bus	Front Side Bus	400/533 MHz			
	PCI	32-bit/33 MHz			
	ISA	HISA (ISA high drive)			
Memory	Technology	DDR 200/266 SDRAM			
	Max. Capacity	2 GB			
	Socket	184-pin DIMM x 2			
Graphic	Controller	Chipset integrated VGA controller			
	VRAM	Dynamically shared system memory 8-64 MB			
Ethernet	Interface	10/100Base-T; 10/100/1000Base-T (optional)			
	Controller	LAN 1: Intel 82562(FE); Intel 82540(Gigabit), LAN 2: Intel 82551(FE); Intel 82540(Gigabit)			
	Connector	RJ-45 x 2			
EIDE	Mode	ATA 100/66/33			
	Channel	2 (Max. 4 devices)			
I/O Interface	USB	Max. 6 (USB 2.0 compliant), 4 ports onboard for E2, G2 versions			
	Serial	2 (RS-232)			
	Parallel	1 (SPP/EPP/ECP)			
	FDD	1			
	PS/2	1 (for LV, VE, VG, G2 versions), 2 (for E2 version)			
Watchdog Timer	Output	Interrupt, system reset			
	Interval	Programmable, 1 ~ 255 sec.			
Miscellaneous	Audio Output	AC-97 audio interface (requires an audio extension module P/N: PCA-AUDIO-00A1)			
Power Requirement	Typical	Pentium 4 2 GHz, 256 MB DDR SDRAM			
		+5 V	-5 V	+12 V	-12 V
		8.7 A	0.1 A	0.3 A	0.2 A
		Operating		Non-Operating	
Environment	Temperature	0 ~ 60° C (32 ~ 140° F), depends on CPU's speed			
	Dimensions	-20 ~ 70° C (-4 ~ 158° F)			
Physical	Dimensions	338 x 122 mm (13.3" x 4.8")			

Ordering Information

Part Number	HISA	VGA	Fast Ethernet LAN	Gigabit LAN
PCA-6186LV-00A1	V	V	--	--
PCA-6186VE-00A1	V	V	Single	--
PCA-6186E2-00A1	V	V	Dual	--
PCA-6186VG-00A1	V	V	--	Single
PCA-6186G2-00A1	V	V	--	Dual

Packing List

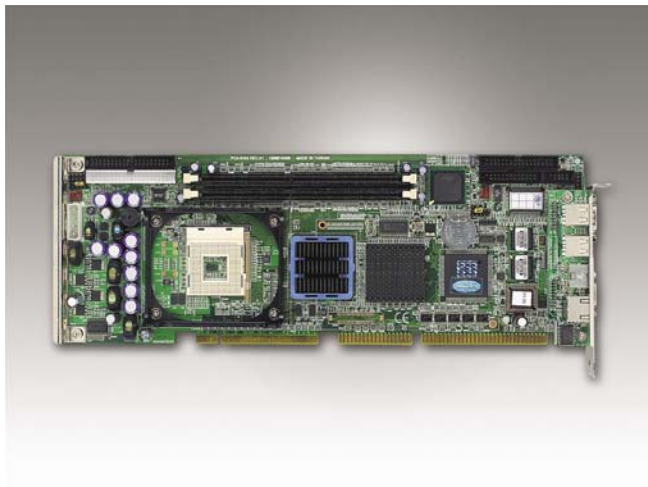
▪ FDD cable	X 1	1700340640
▪ IDE HDD cable	X 2	1701400452
▪ Printer + COM cable	X 1	1701260305
▪ Y cable for PS/2 mouse & keyboard (LV, VE, VG, G2 versions only)	X 1	1700060202
▪ Jumper pack	X 1	9689000068
▪ Single slot bracket (E2, G2 versions only)	X 1	1962159010
▪ Startup manual	X 1	--
▪ Utility CD	X 1	-

Accessory Options

▪ USB cable with 2 ports	1700100170
▪ USB extension module with 4 ports (only for LV, VG, VE versions)	PCA-USB4-00A1
▪ CPU cooler for Pentium 4 up to 2.8 GHz, for 1U chassis	1759214200
▪ Audio extension module	PCA-AUDIO-00A1

PCA-6184

**Socket 478 Pentium® 4/Celeron® Processor Card with VGA/
Dual LAN/HISA (400/533 MHz FSB)**



Features

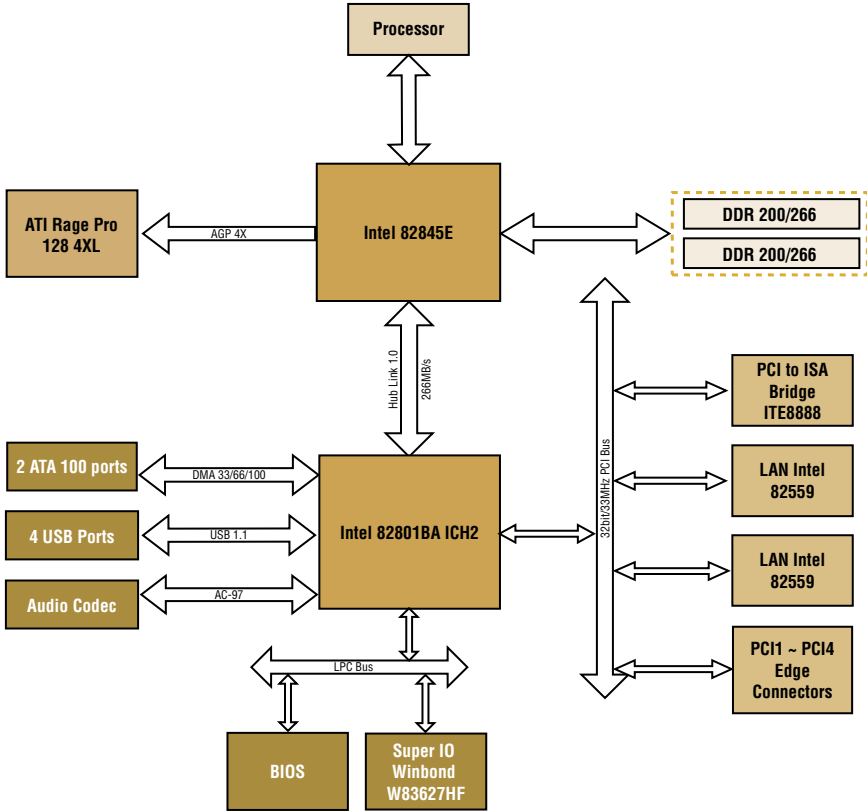
- Socket 478 Intel® Pentium® 4/ Celeron® up to 3.06 GHz.
- Supports Intel Hyper-Threading Technology
- Intel 845E chipset 400/533 MHz FSB
- Onboard high performance AGP 4X VGA with 32 MB SDRAM
- Supports dual 10/100Base-T Ethernet
- AC-97 Audio Interface
- CMOS automatic backup and restore to prevent accidental data loss of BIOS setup
- HISA (ISA high drive) support



Specifications

Processor System	CPU	Intel Pentium 4	Intel Celeron		
	Max. Speed	3.06 GHz	2.4 GHz		
	L2 Cache	512/256 KB	128 KB		
	Chipset	Intel 845E + ICH2			
	BIOS	Award 4 Mb FWH			
Bus	Front Side Bus	400/533 MHz			
	PCI	32-bit/33 MHz			
	ISA	HISA (ISA high drive)			
Memory	Technology	DDR200/266 SDRAM with ECC support			
	Max. Capacity	2 GB			
	Socket	184-pin DIMM x 2			
Graphic	Controller	ATI RAGE Pro 128 4XL (AGP 4X)			
	VRAM	32 MB SDRAM			
Ethernet	Interface	10/100Base-T			
	Controller	Intel 82559 x 2			
	Connector	RJ-45 x 2			
EIDE	Mode	ATA 100/66/33			
	Channel	2 (Max. 4 devices)			
I/O Interface	USB	Max. 4 (USB 1.1 compliant), 4 ports onboard for E2 version			
	Serial	2 (RS-232)			
	Parallel	1 (SPP/EPP/ECP)			
	FDD	1			
	PS/2	1 (for L, V, VE versions), 2 (for E2 version)			
Watchdog Timer	Output	Interrupt, system reset			
	Interval	Programmable, 1~255 sec.			
Miscellaneous	Audio Output	AC-97 audio interface (requires an audio extension module P/N: PCA-AUDIO-00A1)			
	Typical	Pentium 4 2.8G (533MHz), 512MB DDR266 SDRAM			
Power Requirement		+5 V	-5 V	+12 V	-12 V
		12.38 A	0.1 A	0.5 A	0.2 A
Environment		Operating	Non-Operating		
	Temperature	0~60 °C (32~140 °F), depends on CPU's speed	-20~70 °C (-4 ~ 158 °F)		
Physical	Dimensions	338 x 122 mm (13.3" x 4.8")			

Block Diagram



- Industrial Motherboard 1
- Industrial VGA Card 2
- Industrial Motherboard Chassis 3
- Full-sized CPU Cards 4
- Industrial Computer Chassis 5
- Industrial Computer Peripherals 6

Ordering Information

Part Number	HISA	VGA (AGP)	LAN
PCA-6184V-00A2	V	V	--
PCA-6184VE-00A2	V	V	Single
PCA-6184E2-00A2	V	V	Dual
PCA-6184L-00A2	V	--	--

Packing List

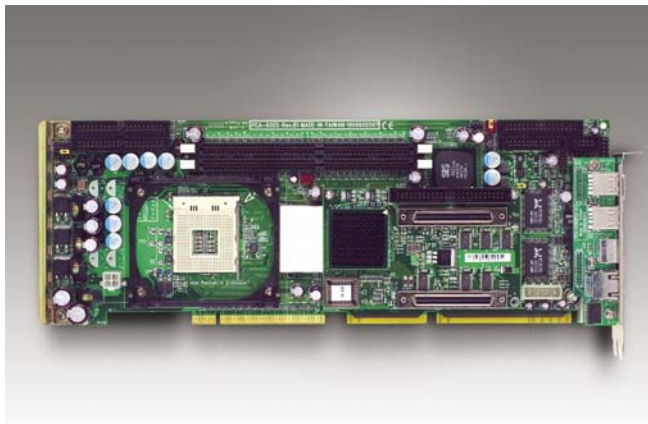
- FDD cable X 1 1700340640
- IDE HDD cable X 2 701400452
- Printer + COM cable X 1 1701260305
- Y cable for PS/2 mouse & keyboard X 1 1700060202
- Jumper pack X 1 9689000068
- Single slot bracket (E2 versions only) X 1 --
- Startup manual X 1 --
- Utility CD X 1 --

Accessory Options

- USB cable with 2 ports 1700100170
- USB extension module with 4 ports (only for V, VE versions) PCA-USB4-00A1
- CPU cooler for Pentium 4 up to 2.8 GHz, for 1U chassis 1759214200
- Audio extension module PCA-AUDIO-00A1

PCA-6005-B

**Socket 478 Pentium® 4/Celeron® Processor Card with VGA/
Dual LAN/SCSI (400/533 MHz FSB)**



CE FCC

Features

- Socket 478 up to 3.06 GHz, supports Intel® Hyper-Threading® Technology
- SIS651 chipset 400/533 MHz FSB
- Integrated high performance VGA, shared system DRAM up to 64 MB
- Supports dual 10/100Base-T Ethernet, Realtek 8139C controller
- Onboard Adaptec AIC-7899 Ultra 160 SCSI up to 160 MB/sec.
- 4 USB 2.0 ports
- CMOS automatic backup and restore to prevent accidental data loss of BIOS setup
- No ISA support

Specifications

Processor System	CPU	Intel Pentium 4	Intel Celeron		
	Max. Speed	3.06 GHz	2.4 GHz		
	L2 Cache	512/256 KB	128 KB		
	Chipset	SiS651			
	BIOS	Award 2 Mb Flash			
Bus	Front Side Bus	400/533 MHz			
	PCI	32-bit/33 MHz			
	ISA	Not supported			
Memory	Technology	DDR 200/266/333 SDRAM			
	Max. Capacity	2 GB			
	Socket	184-pin DIMM x 2			
Graphic	Controller	Chipset integrated VGA controller			
	VRAM	Shared system memory up to 64 MB			
Ethernet	Interface	10/100Base-T			
	Controller	RTL8139C x 2			
	Connector	RJ-45 x 2			
SCSI	Interface	Ultra 160			
	Controller	Adaptec AIC-7899			
	Max. Data Transfer Rate	160 MB/sec.			
	Channel	2			
EIDE	Mode	ATA 133/100/66/33			
	Channel	2 (Max. 4 devices)			
I/O Interface	USB	Max. 4 (USB 2.0 compliant), 4 ports onboard for E2, F versions			
	Serial	2 (RS-232)			
	Parallel	1 (SPP/EPP/ECP)			
	FDD	1			
	PS/2	1 (for V, VE versions), 2 (for E2, F versions)			
	Watchdog Timer	Output	Interrupt, system reset		
Miscellaneous	Interval	Programmable, 1 ~ 255 sec.			
	Audio Output	AC-97 audio interface (requires an audio extension module P/N: PCA-AUDIO-00A1)			
Power Requirement	Typical	Pentium 4 1.6 GHz, 512 MB DDR SDRAM			
		+5 V	-5 V	+12 V	-12 V
		2.3 A	0.1 A	3.3 A	0.2 A
		Operating	Non-Operating		
Environment	Temperature	0 ~ 60 °C (32 ~ 140 °F), depends on CPU's speed	-20 ~ 70 °C (-4 ~ 158 °F)		
	Physical	Dimensions	338 x 122 mm (13.3" x 4.8")		

Ordering Information

Part Number	VGA	SCSI	LAN
PCA-6005V-00B1	V	--	--
PCA-6005VE-00B1	V	--	Single
PCA-6005E2-00B1	V	--	Dual
PCA-6005F-00B1	V	V	Dual

Packing List

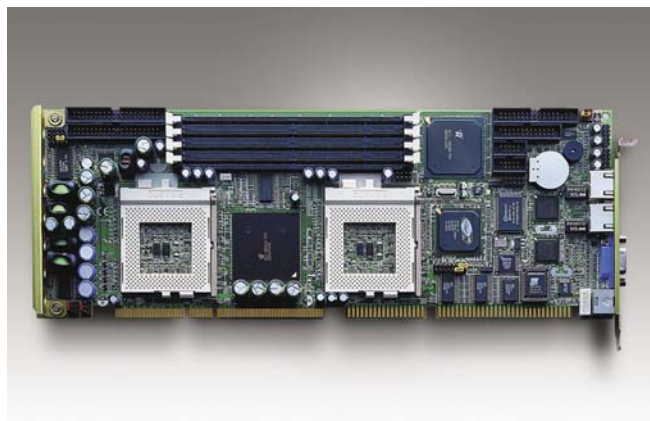
▪ FDD cable	X 1	1700340640
▪ IDE HDD cable	X 2	1701400452
▪ Printer + COM cable	X 1	1701260305
▪ Y cable for PS/2 mouse & keyboard (only for V, VE versions)	X 1	1700060202
▪ Jumper pack	X 1	9689000068
▪ Startup manual	X 1	--
▪ Utility CD	X 1	--

Accessory Options

▪ USB cable with 2 ports	1700100170
▪ USB extension module with 4 ports (only for V, VE versions)	PCA-USB4-00A1
▪ SCSI cable (125 cm) with terminator	1700000182
▪ CPU cooler for Pentium 4 up to 2.53 GHz, for 1U chassis	1959252100
▪ Audio extension module	PCA-AUDIO-00A1

PCA-6278

Dual Socket 370 Pentium® III Processor (Tualatin) Card with 64-bit PCI/VGA/Dual LAN/HISA (133 MHz FSB)



Features

- Dual Socket 370 Intel® Pentium® III up to 1.26 GHz
- Up to 4 GB registered SDRAM
- Onboard high performance VGA with 8 MB SGRAM
- Supports dual 10/100Base-T Ethernet, Intel 82559 controller
- 64-bit/66 MHz PCI bus interface
- CMOS automatic backup and restore to prevent accidental data loss of BIOS setup

Specifications

Processor System	CPU	Intel Pentium III x 2			
	Max. Speed	1.4 GHz			
	L2 Cache	512/256 KB			
	Chipset	ServerWorks ServerSet 30LE + OSB4			
	BIOS	Award 2 Mb Flash			
Bus	Front Side Bus	100/133 MHz			
	PCI	64-bit/66 MHz			
	ISA	HISA (ISA high drive)			
	Technology	PC-133/100 registered SDRAM with ECC support			
Memory	Max. Capacity	4 GB			
	Socket	168-pin DIMM x 4			
Graphic	Controller	ATI RAGE XL			
	VRAM	8 MB SGRAM			
Ethernet	Interface	10/100Base-T			
	Controller	Intel 82559 x 2			
	Connector	RJ-45 x 2			
EIDE	Mode	ATA 33			
	Channel	2 (Max. 4 devices)			
I/O Interface	USB	Max. 4 (USB 1.1 compliant)			
	Serial	2 (RS-232)			
	Parallel	1 (SPP/EPP/ECP)			
	FDD	1			
	PS/2	1 (for mouse and keyboard, Y cable included)			
Watchdog Timer	Output	Interrupt, system reset			
	Interval	Programmable, 1 ~ 63 sec.			
Miscellaneous	Solid State Disk	IDE flash disk			
Power Requirement	Typical	Dual Pentium III 1 GHz, 2 GB SDRAM			
		+5 V	-5 V	+12 V	-12 V
		12.3 A	0.1 A	0.1 A	0.4 A
	Environment	Temperature	Operating		Non-Operating
Physical	Dimensions	0 ~ 60 °C (32 ~ 140 °F)		-20 ~ 70 °C (-4 ~ 158 °F)	
		338 x 122 mm (13.3" x 4.8")			

Ordering Information

Part Number	HISA	VGA (PCI)	SCSI	LAN
PCA-6278V-00A1	V	V	--	--
PCA-6278VE-00A1	V	V	--	Single
PCA-6278E2-00A1	V	V	--	Dual

Packing List

▪ FDD cable	X 1	1700340640
▪ IDE HDD cable	X 2	1701400607
▪ Printer + COM cable	X 1	1701260305
▪ Y cable for PS/2 mouse & keyboard	X 1	1700060202
▪ Jumper pack	X 1	9689000068
▪ Startup manual	X 1	--
▪ Utility CD	X 1	--

Accessory Options

▪ USB cable with 2 ports	1700100170
▪ CPU cooler for Pentium III up to 1.26 GHz, for 1U chassis	1759254100

Industrial Motherboard 1

Industrial VGA Card 2

Industrial Motherboard Chassis 3

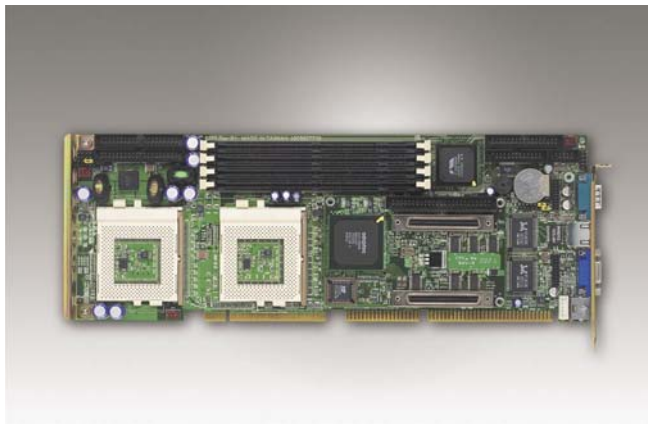
Full-sized CPU Cards 4

Industrial Computer Chassis 5

Industrial Computer Peripherals 6

PCA-6277-B

**Dual Socket 370 Pentium® III
Processor Card with VGA/Dual LAN/
SCSI/HISA (100/133 MHz FSB)**



Features

- Dual Socket 370 Intel® Pentium® III up to 1.4 GHz
- VIA Apollo Pro133T 100/133 MHz FSB
- On-board high performance AGP 4X VGA with 32 MB SDRAM
- Supports dual 10/100 Base-T Ethernet, Realtek 8139C controller
- On-board Adaptec AIC-7899 dual-channel Ultra 160 up to 160 MB/sec.
- On-board hardware monitoring
- CMOS automatic backup and restore to prevent accidental data loss of BIOS setup

Specifications

Processor System	CPU	Intel Pentium III x 2		
	Max. Speed	1 GHz		
	L2 Cache	256 KB		
	Chipset	VIA Apollo Pro133A		
	BIOS	Award 2 Mb Flash		
Bus	Front Side Bus	100/133 MHz		
	PCI	32-bit/33 MHz		
	ISA	HISA (ISA high drive)		
Memory	Technology	PC-133/100 SDRAM with ECC support		
	Max. Capacity	2 GB		
	Socket	168-pin DIMM x 4		
Graphic	Controller	ATI RAGE Pro 128 4XL (AGP 4X)		
	VRAM	32 MB SDRAM		
Ethernet	Interface	10/100Base-T		
	Controller	RTL8139C x 2		
	Connector	RJ-45 x 2		
SCSI	Interface	Ultra 160		
	Controller	Adaptec AIC-7892		
	Max. Data Transfer Rate	160 MB/sec.		
EIDE	Channel	1		
	Mode	ATA 100/66/33		
I/O Interface	Channel	2 (Max. 4 devices)		
	USB	Max. 4 (USB 1.1 compliant), 4 ports onboard for E2, F versions		
	Serial	2 (RS-232)		
	Parallel	1 (SPP/EPP/ECP)		
	FDD	1		
Watchdog Timer	PS/2	2 (mouse x 1, keyboard x 1)		
	Output	Interrupt, system reset		
Power Requirement	Interval	Programmable, 1 ~ 63 sec.		
	Typical	Dual Pentium III 1 GHz, 384 MB SDRAM		
Environment	+5 V	-5 V	+12 V	-12 V
	11.8 A	0.1 A	0.5 A	0.1 A
Physical	Operating	Non-Operating		
	Temperature	0 ~ 60 °C (32 ~ 140 °F)		
Physical	Dimensions	-20 ~ 70 °C (-4 ~ 158 °F)		
	Dimensions	338 x 122 mm (13.3" x 4.8")		

Ordering Information

Part Number	HISA	VGA (PCI)	SCSI	LAN
PCA-6277V-00A1	V	V	--	--
PCA-6277VE-00A1	V	V	--	Single
PCA-6277E2-00A1	V	V	--	Dual
PCA-6277F-00A1	V	V	V	Dual

Packing List

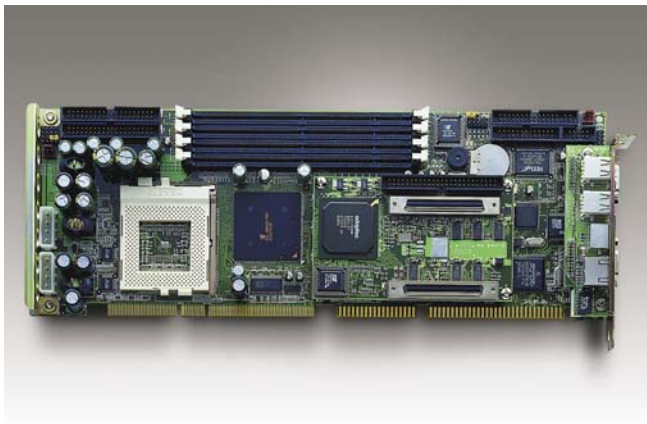
▪ FDD cable	X 1	1700340640
▪ IDE HDD cable	X 2	1701400452
▪ Printer + COM cable	X 1	1701260305
▪ Y cable for PS/2 mouse & keyboard (only for V, VE versions)	X 1	1700060202
▪ Jumper pack	X 1	9689000068
▪ Startup manual	X 1	--
▪ Utility CD	X 1	-

Accessory Options

▪ USB cable	1700100170
▪ SCSI cable (125 cm) with terminator	1700000182

PCA-6183

Socket 370 Pentium® III/Celeron® Processor (Tualatin) Card with 64-bit PCI/VGA/Dual LAN/HISA (133 MHz FSB)



Features

- Socket 370 Intel® Pentium® III/Celeron® up to 1.4 GHz
- Up to 4 GB registered SDRAM
- Onboard high performance VGA with 8 MB SDRAM
- Supports 10/100/1000Base-T Ethernet or dual 10/100Base-T Ethernet, Broadcom 5701/Intel 82559 controller
- 64-bit/66 MHz PCI bus interface
- Onboard hardware monitoring
- CMOS automatic backup and restore to prevent accidental data loss of BIOS setup

Specifications

Processor System	CPU	Intel Pentium III	Intel Celeron
	Max. Speed	1.4 GHz	1.2 GHz
	L2 Cache	512/256 KB	256/128 KB
	Chipset	ServerWorks ServerSet 30LC-T	
	BIOS	Award 2 Mb Flash	
Bus	Front Side Bus	100/133 MHz	
	PCI	64-bit/66 MHz	
	ISA	HISA (ISA high drive)	
Memory	Technology	PC-133/100 registered SDRAM with ECC support	
	Max. Capacity	4 GB	
	Socket	168-pin DIMM x 4	
Graphic	Controller	ATI RAGE XL	
	VRAM	8 MB SDRAM	
Ethernet	Interface	10/100Base-T x 2; 10/100/1000Base-T (optional)	
	Controller	Intel 82559 x 2 (FE); Broadcom 5701 (Gigabit)	
	Connector	RJ-45 x 2	
EIDE	Mode	ATA 33	
	Channel	2 (Max. 4 devices)	
SCSI	Interface	Ultra 160 (64-bit PCI)	
	Controller	Adaptec AIC-7899W	
	Max. Data Transfer Rate	160 MB/sec.	
	Channel	2	
I/O Interface	USB	Max. 4 (USB 1.1 compliant), 4 ports onboard for E2, F versions	
	Serial	2 (RS-232)	
	Parallel	1 (SPP/EPP/ECP)	
	FDD	1	
	PS/2	1 (for L, V, VG, GS versions), 2 (for E2, F versions)	
Watchdog Timer	Output	Interrupt, system reset	
	Interval	Programmable, 1 ~ 63 sec.	
Miscellaneous	Solid State Disk	IDE flash disk	
Power Requirement	Typical	Pentium III 1.26 GHz, 4 GB SDRAM	
		+5 V	+12 A
		8 A	0.5 A
Environment	Operating		-12 V
	Non-Operating		0.3 A
Physical	Temperature	0 ~ 60 °C (32 ~ 140 °F)	-20 ~ 70 °C (-4 ~ 158 °F)
	Dimensions	338 x 122 mm (13.3" x 4.8")	

Ordering Information

Part Number	HISA	VGA (PCI)	SCSI	Fast Ethernet LAN	Gigabit LAN
PCA-6183L-00A1	V	--	--	--	--
PCA-6183V-00A1	V	V	--	--	--
PCA-6183E2-00A1	V	V	--	Dual	--
PCA-6183VG-00A1	V	V	--	--	Single
PCA-6183F-00A1	V	V	V	Dual	--
PCA-6183GS-00A1	V	V	V	--	Single

Packing List

• FDD cable	X 1	1700340640
• IDE HDD cable	X 2	1701400452
• Printer + COM cable	X 1	1701260305
• Y cable for PS/2 mouse & keyboard (only for L, V, VG, GS versions)	X 1	1700060202
• Single-slot bracket	X 1	1962159010
• Jumper pack	X 1	9689000068
• Startup manual	X 1	--
• Utility CD	X 1	--

Accessory Options

• USB cable with 2 ports	1700100170
• USB extension module with 4 ports (only for V, VG, GS versions)	PCA-USB4-00A1
• SCSI cable (125 cm) with terminator	1700000182
• CPU cooler for Pentium III up to 1.26 GHz, for 1U chassis	1759254100

Industrial Motherboard 1

Industrial VGA Card 2

Industrial Motherboard Chassis 3

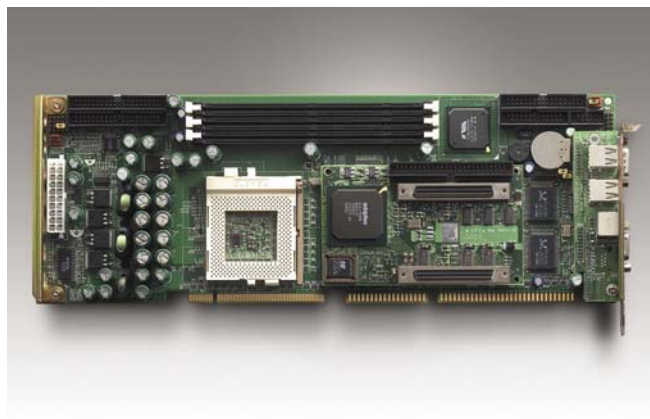
Full-sized CPU Cards 4

Industrial Computer Chassis 5

Industrial Computer Peripherals 6

PCA-6181

Socket 370 Pentium® III/Celeron® Processor (Tualatin) Card with VGA/ Dual LAN/SCSI/HISA (133 MHz FSB)



Features

- Socket 370 Intel® Pentium® III/Celeron® up to 1.4 GHz
- VIA Apollo Pro 133T 66/100/133 MHz FSB
- Onboard high performance AGP 4X VGA with 32 MB SDRAM
- Supports dual 10/100Base-T Ethernet, Realtek 8139C controller
- Onboard Adaptec AIC-7899 dual channel Ultra 160 SCSI up to 160 MB/sec.
- CMOS automatic backup and restore to prevent accidental data loss of BIOS setup

Specifications

Processor System	CPU	Intel Pentium III	Intel Celeron
	Max. Speed	1.4 GHz	1.2 GHz
	L2 Cache	512/256 KB	128/256 KB
	Chipset	VIA Apollo Pro133T	
	BIOS	Award 2 Mb Flash	
Bus	Front Side Bus	66/100/133 MHz	
	PCI	32-bit/33 MHz	
	ISA	HISA (ISA high drive)	
Memory	Technology	PC-133/100 SDRAM with ECC support	
	Max. Capacity	1.5 GB	
	Socket	168-pin DIMM x 3	
Graphic	Controller	ATI RAGE Pro 128 4XL (AGP 4X)	
	VRAM	32 MB SDRAM	
Ethernet	Interface	10/100Base-T	
	Controller	RTL8139C x 2	
	Connector	RJ-45 x 2	
SCSI	Interface	Ultra 160	
	Controller	Adaptec AIC-7899	
	Max. Data Transfer Rate	160 MB/sec.	
EIDE	Mode	ATA 100/66/33	
	Channel	2 (Max. 4 devices)	
I/O Interface	USB	Max. 4 (USB 1.1 compliant), 4 ports onboard for E2, F versions	
	Serial	2 (RS-232)	
	Parallel	1 (SPP/EPP/ECP)	
	FDD	1	
	PS/2	1 (for L, V, VE, ES versions), 2 (for E2, F versions)	
Watchdog Timer	Output	Interrupt, system reset	
	Interval	Programmable, 1 ~ 63 sec.	
Power Requirement	Typical	Pentium III 1 GHz, 256 MB SDRAM	
		+5 V 6.8 A	+12 V 0.4 A
Environment	Operating		Non-Operating
	Temperature	0 ~ 60 °C (32 ~ 140 °F)	-20 ~ 70 °C (-4 ~ 158 °F)
Physical	Dimensions	338 x 122 mm (13.3" x 4.8")	

Ordering Information

Part Number	HISA	VGA (AGP)	SCSI	LAN
PCA-6181L-00A1	V	--	--	--
PCA-6181V-00A1	V	V	--	--
PCA-6181VE-00A1	V	V	--	Single
PCA-6181E2-00A1	V	V	--	Dual
PCA-6181ES-00A1	V	V	V	Single
PCA-6181F-00A1	V	V	V	Dual

Packing List

• FDD cable	X 1	1700340640
• IDE HDD cable	X 2	1701400452
• Printer + COM cable	X 1	1701260305
• Y cable for PS/2 mouse & keyboard (only for L, V, VE, ES versions)	X 1	1700060202
• Jumper pack	X 1	9689000068
• Startup manual	X 1	--
• Utility CD	X 1	--

Accessory Options

• USB cable with 2 ports	1700100170
• USB extension module with 4 ports (only for V, VE, ES versions)	PCA-USB4-00A1
• SCSI cable (125 cm) with terminator	1700000182
• CPU cooler for Pentium III up to 1.26 GHz, for 1U chassis	1759254100

PCA-6180-B

Socket 370 Pentium® III/Celeron® Processor (Tualatin) Card with VGA/ Dual LAN/SCSI/HISA (133 MHz FSB)

Industrial Motherboard 1

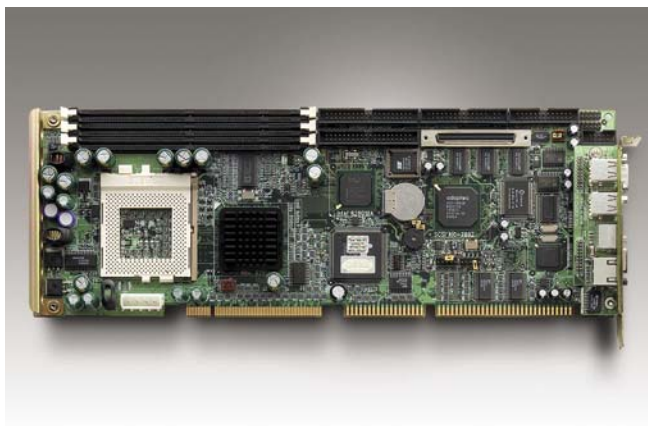
Industrial VGA Card 2

Industrial Motherboard Chassis 3

Full-sized CPU Cards 4

Industrial Computer Chassis 5

Industrial Computer Peripherals 6



Features

- Socket 370 Pentium® III/Celeron® up to 1.4 GHz
- Intel® 815E (B) 100/133 MHz FSB
- Onboard integrated VGA controller, shared system memory architecture
- Supports dual 10/100Base-T Ethernet, Intel 82559/82562 controller
- CMOS automatic backup and restore to prevent accidental data loss of BIOS setup

Specifications

Processor System	CPU	Intel Pentium III	Intel Celeron
	Max. Speed	1.4 GHz	1.3 GHz
	L2 Cache	512/256 KB	256/128 KB
	Chipset	Intel 815E	
	BIOS	Award 4 Mb FWH	
Bus	Front Side Bus	66/100/133 MHz	
	PCI	32-bit/33 MHz	
	ISA	HISA (ISA high drive)	
Memory	Technology	PC-133/100 SDRAM	
	Max. Capacity	512 MB	
	Socket	168-pin DIMM x 3	
Graphic	Controller	Chipset integrated VGA controller	
	VRAM	Dynamically shared system memory	
Ethernet	Interface	10/100Base-T	
	Controller	LAN 1: Chipset Built-in MAC with external PHY (Intel 82562), LAN 2: Intel 82559	
	Connector	RJ-45 x 2	
SCSI	Interface	Ultra 160	
	Controller	Adaptec AIC-7892	
	Max. Data Transfer Rate	160 MB/sec.	
EIDE	Mode	ATA 100/66/33	
	Channel	2 (Max. 4 devices)	
I/O Interface	USB	4 onboard (USB 1.1 compliant)	
	Serial	2 (RS-232)	
	Parallel	1 (SPP/EPP/ECP)	
	FDD	1	
	PS/2	2 (for mouse and keyboard, Y cable included)	
Watchdog Timer	Output	Interrupt, system reset	
	Interval	Programmable, 1 ~ 255 sec.	
Power Requirement	Typical	Pentium III 866 MHz, 128 MB SDRAM	
		+5 V +12 V -12 V	
		6 A 0.4 A 0.1 A	
Environment	Operating		Non-Operating
	Temperature	0 ~ 60 °C (32 ~ 140 °F)	-20 ~ 70 °C (-4 ~ 158 °F)
Physical	Dimensions	338 x 122 mm (13.3" x 4.8")	

Ordering Information

Part Number	HISA	VGA	SCSI	LAN
PCA-6180E-00B1	V	V	--	Single
PCA-6180E2-00B1	V	V	--	Dual
PCA-6180ES-00B1	V	V	V	Single
PCA-6180F-00B1	V	V	V	Dual

Packing List

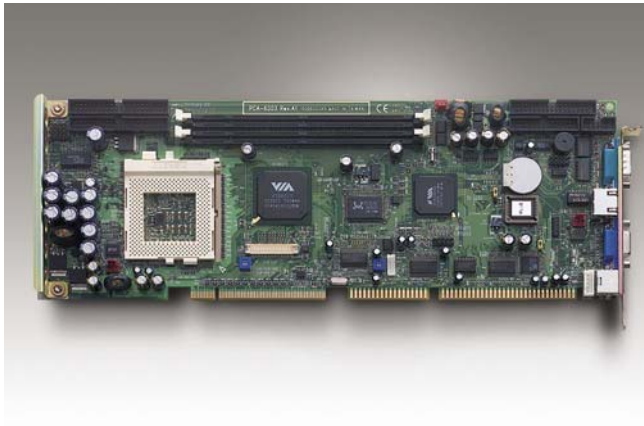
▪ FDD cable	X 1	1700340640
▪ IDE HDD cable	X 2	1701400452
▪ Printer + COM cable	X 1	1701260305
▪ ATX-to-PS/2 power cable	X 1	1700000450
▪ Y cable for PS/2 mouse & keyboard	X 1	1700060202
▪ Jumper pack	X 1	9689000068
▪ Startup manual	X 1	--
▪ Utility CD X 1	--	

Accessory Options

▪ USB cable with 2 ports	1700100170
▪ SCSI cable (125 cm) with terminator	1700000182
▪ CPU cooler for Pentium III up to 1.26 GHz, for 1U chassis	1759254100

PCA-6003

Socket 370 Pentium® III/Celeron® Processor (Tualatin) Card with VGA/LAN/HISA/LCD (133 MHz FSB)



Features

- Cost-effective Socket 370 SBC with full features
- Pentium® III up to 1.4 GHz, Celeron® up to 1.3 GHz
- VIA Apollo PLE133T chipset, supports 66/100/133 MHz FSB
- Two DIMM Sockets for SDRAM up to 1 GB
- Onboard AGP/VGA
- Onboard 10/100Base-T networking controller
- Optional ISA high drive (HISA)

Specifications

Processor System	CPU	Intel® Pentium III	Intel Celeron
	Max. Speed	1.4 GHz	1.3 GHz
	L2 Cache	512/256 KB	256/128 KB
	Chipset	VIA Apollo PLE133T	
	BIOS	Award 2 Mb Flash	
Bus	Front Side Bus	66/100/133 MHz	
	PCI	32-bit/33 MHz	
	ISA	HISA (ISA high drive), only for PCA-6003H-00A1	
Memory	Technology	PC-133/100 SDRAM	
	Max. Capacity	1 GB	
	Socket	168-pin DIMM x 2	
Graphic	Controller	Chipset integrated VGA controller	
	VRAM	shared system memory up to 8 MB	
	LCD	Optional 18-bit TFT LCD support	
Ethernet	Interface	10/100Base-T	
	Controller	RTL8139C	
	Connector	RJ-45	
EIDE	Mode	ATA 100/66/33	
	Channel	2 (Max. 4 devices)	
I/O Interface	USB	Max. 2 (USB 1.1 compliant)	
	Serial	2 (RS-232)	
	Parallel	1 (SPP/EPP)	
	FDD	1	
	PS/2	1 (for mouse and keyboard, Y cable included)	
Watchdog Timer	Output	Interrupt, system reset	
	Interval	Programmable, 1 ~ 63 sec.	
Miscellaneous	Audio Output	AC-97 audio interface (requires an audio extension module P/N: PCA-AUDIO-00A1)	
	Typical	Pentium III 1 GHz, 256 MB SDRAM	
Power Requirement	+5 V		+12 V
	6.8 A		400 mA
Environment	Operating	Non-Operating	
	Temperature	0 ~ 60 °C (32 ~ 140 °F) -20 ~ 70 °C (-4 ~ 158 °F)	
Physical	Dimensions	338 x 122 mm (13.3" x 4.8")	

Ordering Information

Part Number	HISA	VGA	LAN	LCD
PCA-6003V-00A1	--	v	--	--
PCA-6003VE-00A1	--	v	v	--
PCA-6003H-00A1	v	v	v	v

Packing List

▪ FDD cable	X 1	1700340640
▪ IDE HDD cable	X 2	1701400452
▪ Printer + COM cable	X 1	1701260305
▪ Y cable for PS/2 mouse & keyboard	X 1	1700060202
▪ Jumper pack	X 1	9689000068
▪ Startup manual	X 1	--
▪ Utility CD	X 1	--

Accessory Options

▪ USB cable with 2 ports	1700100170
▪ Audio extension module	PCA-AUDIO-00A1
▪ CPU cooler for Pentium III up to 1.26 GHz, for 1U chassis	759254100

PCA-6178-C

Socket 370 Pentium® III/Celeron® Processor Card with VGA/LAN/SCSI/HISA (66/100 MHz FSB)

Industrial Motherboard 1

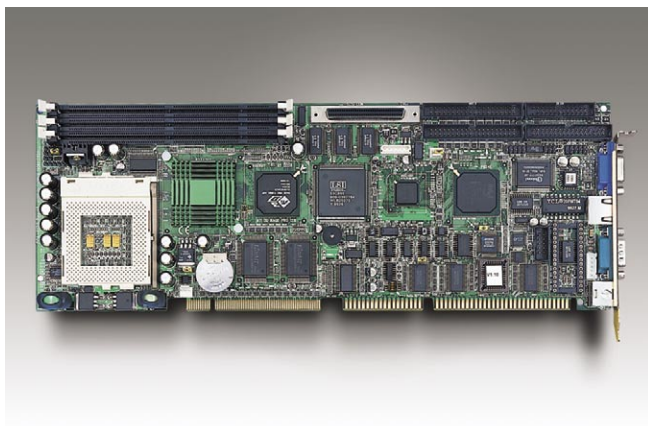
Industrial VGA Card 2

Industrial Motherboard Chassis 3

Full-sized CPU Cards 4

Industrial Computer Chassis 5

Industrial Computer Peripherals 6



Features

- Socket 370 Pentium® III/Celeron® up to 1.0 GHz/1.1 GHz
- Intel® 440BX chipset 66/100 FSB
- Onboard high performance AGP 2X VGA with 4/8 MB SGRAM
- Supports 10/100Base-T Ethernet, Intel 82559 controller
- Onboard Symbios SYM53C895 Ultra2 SCSI up to 80 MB/sec.
- CMOS automatic backup and restore to prevent accidental data loss of BIOS setup

Specifications

Processor System	CPU	Intel Pentium III	Intel Celeron
	Max. Speed	1.0 GHz	1.1 GHz
	L2 Cache	256 KB	128 KB
	Chipset	Intel 440BX	
	BIOS	Award 2 Mb Flash	
Bus	Front Side Bus	66/100 MHz	
	PCI	32-bit/33 MHz	
	ISA	HISA (ISA high drive)	
Memory	Technology	PC-100 SDRAM with ECC support	
	Max. Capacity	768 MB	
	Socket	168-pin DIMM x 3	
Graphic	Controller	ATI RAGE XL (AGP 2X)	
	VRAM	8 MB	
Ethernet	Interface	10/100Base-T	
	Controller	Intel 82559	
	Connector	RJ-45	
SCSI	Interface	Ultra2 wide	
	Controller	Symbios SYM53C895	
	Max. Data Transfer Rate	80 MB/sec.	
	Channel	1	
EIDE	Mode	ATA 33	
	Channel	2 (Max. 4 devices)	
I/O Interface	USB	Max. 2 (USB 1.1 compliant)	
	Serial	2 (RS-232)	
	Parallel	1 (SPP/EPP/ECP)	
	FDD	1	
	PS/2	1 (for mouse and keyboard, Y cable included)	
Watchdog Timer	Output	Interrupt, system reset	
	Interval	Programmable, 1 ~ 63 sec.	
Miscellaneous	Solid State Disk	M-systems' DOC 2000 (144 MB)	
	Typical	Pentium III 700 MHz, 192 MB SDRAM	
Power Requirement		+5 V	+12 V
		5.2 A	0.4 A
		-12 V	0.1 A
Environment		Operating	Non-Operating
	Temperature	0 ~ 60 °C (32 ~ 140 °F)	-20 ~ 70 °C (-4 ~ 158 °F)
Physical		338 x 122 mm (13.3" x 4.8")	
	Dimensions		

Ordering Information

Part Number	HISA	VGA (AGP)	SCSI	LAN
PCA-6178L-00C1	V	--	--	--
PCA-6178V-00C1	V	V	--	--
PCA-6178VE-00C1	V	V	--	V
PCA-6178VS-00C1	V	V	V	--
PCA-6178F-00C1	V	V	V	V

Packing List

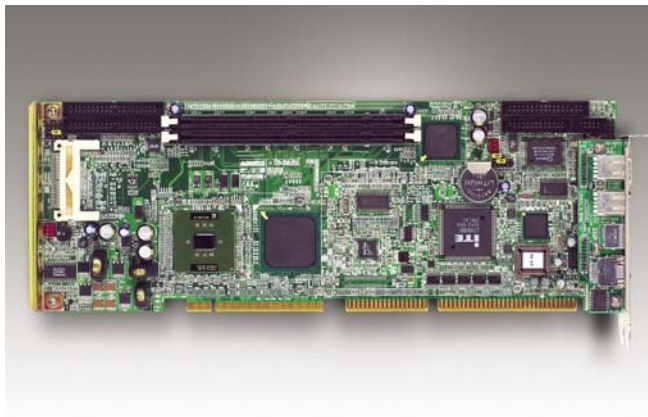
CPU fan	X 1	1759207200
FDD cable	X 1	1700340640
IDE HDD cable	X 2	1701400607
Printer + COM cable	X 1	1701260305
ATX-to-PS/2 power cable	X 1	1700000450
Y cable for PS/2 mouse & keyboard	X 1	1700060202
Jumper pack	X 1	9689000068
Startup manual	X 1	--
Utility CD	X 1	--

Accessory Options

USB cable with 2 ports	1700100170
SCSI cable (125 cm) with terminator	1700000182

PCA-6002-B

Ultra Low Voltage Celeron® (Tualatin) Processor Card with VGA/Dual LAN/HISA (100 MHz FSB)



Features

- Onboard Ultra Low Voltage Celeron® (Tualatin)
- Fanless operation
- Intel® 815E 100 MHz FSB
- Onboard integrated VGA controller, shared memory architecture
- Supports dual 10/100Base-T Ethernet, Intel 82551QM/82562ET controller
- CMOS automatic backup and restore to prevent accidental data loss of BIOS setup
- Supports Type I/II CompactFlash

Specifications

Processor System	CPU	Celeron (Tualatin)		
	Max. Speed	400/650 MHz		
	L2 Cache	256 KB		
	Chipset	Intel 815E + ICH2		
Bus	BIOS	Award 4 Mb FWH		
	Front Side Bus	100 MHz		
	PCI	32-bit/33 MHz		
Memory	ISA	HISA (ISA high drive)		
	Technology	PC-133/100 SDRAM		
	Max. Capacity	512 MB		
Graphic	Socket	168-pin DIMM x 2		
	Controller	Chipset integrated VGA controller		
Ethernet	VRAM	Dynamically shared system memory		
	Interface	10/100Base-T		
	Controller	LAN 1: Chipset Built-in MAC with external PHY (Intel 82562ET) LAN2: Intel 82551QM		
EIDE	Connector	RJ-45 x 2		
	Mode	ATA 100/66/33		
I/O Interface	Channel	2 (Max. 4 devices)		
	USB	Max. 4 (USB 1.1 compliant), 4 ports onboard for E2 version		
	Serial	2 (RS-232)		
	Parallel	1 (SPP/EPP/ECP)		
	FDD	1		
Watchdog Timer	PS/2	1 (for VE version), 2 (for E2 version)		
	Output	Interrupt, system reset		
Miscellaneous	Interval	Programmable, 1 ~ 255 sec.		
	Solid State Disk	CompactFlash socket((Type I/II)		
Power Requirement	Typical	Celeron 650 MHz, 256 MB SDRAM		
		+5 V 3.4 A	-5 V 0.1 A	+12 V 0.2 A -12 V 0.2 A
Environment	Operating	Non-Operating		
	Temperature	0 ~ 60 °C (32 ~ 140 °F) -20 ~ 70 °C (-4 ~ 158 °F)		
Physical	Dimensions	338 x 122 mm (13.3" x 4.8")		

Ordering Information

Part Number	Processor	HISA	VGA (AGP)	LAN
PCA-6002VE-00B1	Celeron 400 MHz	V	V	Single
PCA-6002E2-00B1	Celeron 400 MH	V	V	Dual
PCA-6002VE-03B1	Celeron 650 MHz	V	V	Single
PCA-6002E2-03B1	Celeron 650 MHz	V	V	Dual

Packing List

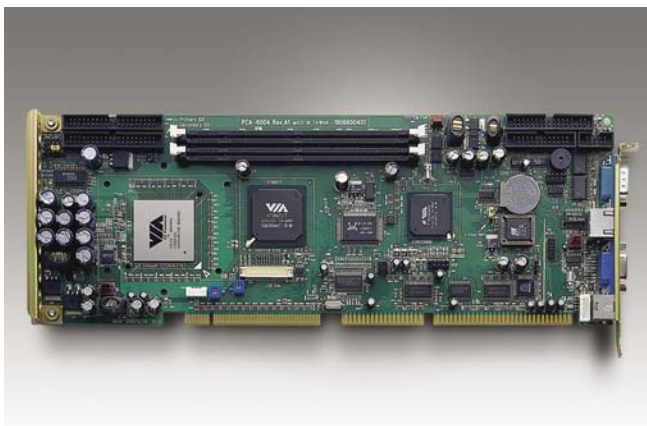
FDD cable	X 1	1700340640
IDE HDD cable	X 2	1701400452
Printer + COM cable	X 1	1701260305
Y cable for PS/2 mouse & keyboard (only for VE version)		1700060202
Jumper pack	X 1	9689000068
Startup manual	X 1	--
Utility CD	X 1	--

Accessory Options

USB cable with 2 ports	1700100170
USB extension module with 4 ports (only for VE version)	PCA-USB4-00A1

PCA-6004

VIA C3 800 MHz Card with VGA/LAN/
HISA/LCD (133 MHz FSB)



Features

- Embedded low-power C3 800 MHz CPU
- Fanless operation (external cooling required)
- VIA Apollo PLE133T chipset, 133 MHz FSB
- Dual DIMM sockets for SDRAM up to 1 GB
- Onboard AGP/VGA
- Onboard 10/100Base-T networking controller
- Optional ISA high drive (HISA)

Specifications

Processor System	CPU	VIA C3 EBGA			
	Max. Speed	800 MHz			
	L2 Cache	L1 128 KB, L2 64 KB			
	Chipset	VIA Apollo PLE 133T + 686 B			
	BIOS	Award 2 Mb Flash			
Bus	Front Side Bus	133 MHz			
	PCI	32-bit/33 MHz			
	ISA	HISA (ISA high drive), only for PCA-6004H-00A1			
Memory	Technology	PC-133/100 SDRAM			
	Max. Capacity	1 GB			
	Socket	168-pin DIMM x 2			
Graphic	Controller	Chipset integrated VGA controller			
	VRAM	Shared system memory up to 8 MB			
	LCD	Optional 18-bit TFT LCD support			
Ethernet	Interface	10/100Base-T			
	Controller	RTL8139C			
	Connector	RJ-45			
EIDE	Mode	ATA 100/66/33			
	Channel	2 (Max. 4 devices)			
I/O Interface	USB	2 (USB 1.1 compliant)			
	Serial	2 (RS-232)			
	Parallel	1 (SPP/EPP)			
	FDD	1			
	PS/2	1 (for mouse and keyboard, Y cable included)			
Watchdog Timer	Output	Interrupt, system reset			
	Interval	Programmable, 1 ~ 63 sec.			
Miscellaneous	Audio Output	AC-97 audio interface (requires an audio extension module P/N: PCA-AUDIO-00A1)			
Power Requirement	Typical	128 MB SDRAM			
		+5 V	-5 V	+12 V	-12 V
		3.1 A	0.1 A	0.1 A	0.2 A
Environment	Temperature	Operating	Non-Operating		
		0 ~ 60 °C (32 ~ 140 °F)	-20 ~ 70 °C (-4 ~ 158 °F)		
Physical	Dimensions	338 x 122 mm (13.3" x 4.8")			

Ordering Information

Part Number	HISA	VGA	LAN	LCD
PCA-6004V-00A1	--	V	--	--
PCA-6004VE-00A1	--	V	V	--
PCA-6004H-00A1	V	V	V	V

Packing List

▪ FDD cable	X 1	1700340640
▪ IDE HDD cable	X 2	1701400452
▪ Printer + COM cable	X 1	1701260305
▪ Y cable for PS/2 mouse & keyboard	X 1	1700060202
▪ Jumper pack	X 1	9689000068
▪ Startup manual	X 1	--
▪ Utility CD	X 1	--

Accessory Options

▪ USB cable with 2 ports	1700100170
▪ Audio extension module	PCA-AUDIO-00A1

Industrial
Motherboard 1

Industrial
VGA Card 2

Industrial
Motherboard
Chassis 3

Full-sized
CPU Cards 4

Industrial
Computer
Chassis 5

Industrial
Computer
Peripherals 6