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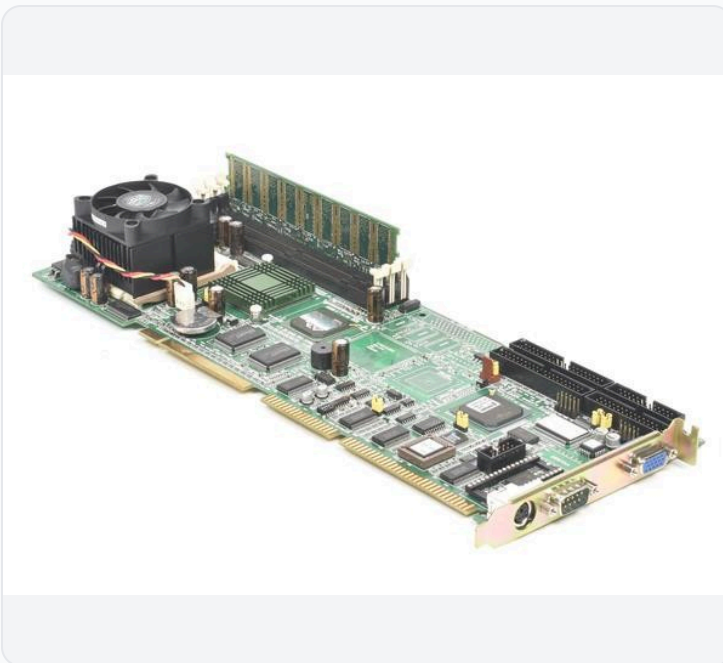
Data Sheet

August 15, 2026

ADVANTECH

Advantech PCA-6178VE Single Board Computer

Advantech Embedded Test Systems. Channels: PIO modes 3/4 with bus mastering to 16.67 MB/sec.



MODEL

Advantech PCA-6178VE

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

PCA-6178VE

LISTING

<https://aumictechlabs.com/products/pca-6178ve-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Advantech PCA-6178VE is an industrial-grade single board computer built on Socket 370 architecture, supporting Intel Pentium III and Celeron processors up to 700+ MHz and 1.0–1.1 GHz respectively. It combines the Intel 82440BX PCI chipset with a 66/100 MHz Front Side Bus to deliver deterministic performance in embedded control and automation environments. The board integrates on-board VGA/AGP graphics via ATI Rage Pro Turbo or ATI RAGE XL with 4–8 MB video memory, 10/100Base-T Ethernet with Wake-On-LAN, dual Enhanced IDE interfaces supporting ATA 33 at up to 33 MB/sec throughput, and an Ultra II SCSI controller for flexible storage connectivity. Technical Specifications Processor & Memory Socket 370: Intel Pentium III (up to 700+ MHz) or Celeron (up to 1.0–1.1 GHz) 256 KB L2 cache at full CPU speed Three 168-pin DIMM sockets; maximum 768 MB PC-100 SDRAM with ECC support Intel 82440BX chipset; 66/100 MHz FSB Award 2 Mbit Flash BIOS Graphics & Display ATI Rage Pro Turbo or ATI RAGE XL controller with AGP 2X 4 MB SGRAM or 8 MB SDRAM on-board video memory Connectivity Dual RS-232 ports: 16C550 UARTs, 16-byte FIFO, up to 115.2 Kbps One enhanced parallel port (SPP/EPP/ECP

modes) Two USB 1.1 ports 10/100Base-T Ethernet (Intel 82559 or 82551 controller) with RJ-45 and WoL PS/2 keyboard/mouse connector Storage Interfaces Two Enhanced IDE channels: PIO modes 3/4 with bus mastering to 16.67 MB/sec; Ultra DMA mode 33 MB/sec (ATA 33) On-board Ultra II SCSI controller Compact Flash socket (4–40 MB) on select variants Monitoring & Control Programmable watchdog timer: 1–63 seconds, system reset or IRQ11 generation CPU fan, thermal, and voltage monitoring with alerts CMOS auto-backup/restore; ATX soft power switch; message LED Power (Typical at Pentium III 700 MHz, 192 MB SDRAM) +5 V @ 5.2 A, +12 V @ 0.4 A, -12 V @ 0.1 A Key Features PICMG-compliant PCI/ISA architecture (32-bit/33 MHz PCI, HISA) ECC memory support for critical reliability Integrated graphics eliminates external video card requirement Wake-On-LAN for remote management Flexible storage: IDE, SCSI, and Compact Flash options Per-port serial configuration; configurable parallel port addressing Typical Applications Industrial automation, embedded control systems, legacy system integration, telecommunications equipment, factory floor monitoring. Compatibility & Integration PICMG standards compliance ensures modular deployment. Socket 370 compatibility with mainstream Pentium III/Celeron processors from the era supports cost-effective processor scaling. PC-100 SDRAM with ECC meets high-reliability requirements in environments.

PCA6178VE Characteristics / Specifications

PARAMETER	VALUE
Model	PCA-6178VE
Instrument Type	industrial single board computer
Cpu Socket	Socket 370
Cpu Support	Intel Pentium III up to 1.0 GHz or Celeron up to 1.1 GHz
L2 Cache Pentium Iii	256 KB
Chipset	Intel 440BX
Front Side Bus	66/100 MHz
Bios	Award 2 Mbit Flash
Pci Bus	32 bit / 33 MHz
Isa	HISA high drive
Memory Sockets	three 168-pin DIMM
Memory Maximum	768 MB PC-100 SDRAM with ECC
Graphics Controller	ATI RAGE XL AGP 2X
Graphics Memory Ve 00b	4 MB SGRAM
Ethernet	10/100Base-T
Ethernet Controller	Intel 82559
Ethernet Connector	RJ-45
Ide	two channels, up to 4 devices, Ultra DMA/33 (over 33 MB/s)
Usb	2 ports USB 1.1
Serial Ports	2 RS-232
Parallel	1 SPP/EPP/ECP
Watchdog	programmable 1 to 63 s, interrupt or reset
Typical Power Plus 5 V	5.2 A (Pentium III 700 MHz, 192 MB example)
Typical Power Plus 12 V	0.4 A
Typical Power Minus 12 V	0.1 A

PARAMETER	VALUE
Operating Temperature	0 to 60 C
Dimensions	338 × 122 mm (13.3 × 4.8 in)
Ssd Support	M-Systems DiskOnChip 2000 to 144 MB
Form Factor	full-size PICMG PCI/ISA CPU card

General Specifications & Supplementary Characteristics

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Ssd Support	M-Systems DiskOnChip 2000 to 144 MB
Form Factor	full-size PICMG PCI/ISA CPU card Notes From Advantech PCA-6178 series user manual and PCA-6178-B/C datasheets (VE SKU is HISA/VGA/LAN). Confirm 4 MB versus 8 MB SGRAM on the VE-00 versus VE-02 suffix.

Full OEM specifications

Complete technical content extracted from the manufacturer datasheet. Sparse OEM tables are reconstructed as tables below; other text is preserved as paragraphs.

Specifications	
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Available from Aumictech

Used and refurbished unit evaluated in-house. Calibration: Available on request. Used · In stock.

Request a quote: sales@aumictech.com · +1 (484) 841-9341

Aumictech

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NIST-traceable calibration · SAM registered ·
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Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.