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Data Sheet

August 15, 2026

ADVANTECH

Advantech PCE-5120G2-00A2E LGA775 Core 2 Duo Processor Card

The Advantech PCE-5120G2-00A2E is an industrial-grade LGA775 Core 2 Duo processor card designed for reliable performance in demanding environments. It supports Intel Core 2 Duo processors, offering a balance of processing power and energy efficiency. Ideal for applications requiring a solid and stable computing platform.



MODEL

Advantech PCE-5120G2-00A2E

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

PCE-5120G2-00A2E

LISTING

<https://aumictechlabs.com/products/pce-5120g2-00a2e-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Advantech PCE-5120G2-00A2E is a full-size industrial single board computer built on the Intel 945G chipset with ICH7R Southbridge. It supports Intel Core 2 Duo, Pentium D, Pentium 4, and Celeron D processors via the LGA775 socket, with FSB speeds of 1066/800/533 MHz and maximum CPU speeds up to 2.66 GHz for Core 2 Duo. The platform delivers dual-channel DDR2 memory support up to 4 GB, integrated Intel Graphics Media Accelerator 950 with up to 224 MB shared VRAM, and extensive I/O connectivity across four SATA II channels (300 MB/s each), one EIDE channel, dual Gigabit Ethernet ports, eight USB 2.0 ports, and four RS-232 serial ports. Expansion capabilities include one PCIe x16 slot, four PCIe x1 links, and four 32-bit/33 MHz PCI masters to backplane, plus one optional PCI expansion slot. The board integrates RAID

0/1/5/10 support, programmable watchdog timer with intervals from 1 to 256 seconds, and CRT video output at up to 2048 × 1536 @ 75 Hz. Design emphasis on thermal management and component redundancy ensures reliable operation across industrial deployment scenarios.

Technical Specifications

Processor Support: LGA775 socket; Intel Core 2 Duo (up to 2.66 GHz), Pentium D (up to 3.2 GHz dual-core), Pentium 4 (up to 3.8 GHz), Celeron D (up to 3.06 GHz); FSB 1066/800/533 MHz

Memory: Dual-channel DDR2 SDRAM; 533/667 MHz; 4 GB maximum capacity; 4 × 240-pin DIMM sockets

Storage: 4 × SATA II channels (300 MB/s); 1 × EIDE channel (ATA 100/66/33); software RAID 0/1/5/10

Networking: 2 × Gigabit Ethernet (Intel 82573V controllers); 10/100/1000Base-T; 2 × RJ-45 connectors

Expansion: 1 × PCIe x16 (graphics); 4 × PCIe x1 to backplane; 4 × 32-bit/33 MHz PCI masters; 1 optional PCI expansion slot

I/O: 8 × USB 2.0 ports; 4 × RS-232 (COM2 configurable RS-232/422/485); 1 × parallel port (EPP/ECP); 1 × FDD connector; PS/2

Video: Intel GMA 950 (integrated); up to 224 MB shared system memory; 1 × 15-pin CRT output; maximum 2048 × 1536 @ 75 Hz

Watchdog Timer: Programmable interval (1, 2, 4, ..., 256 seconds); interrupt and system reset outputs

Key Features

- Verified CPU support list required due to Intel Vcore compatibility constraints; not all LGA775 processors supported
- Four SATA II channels with hardware RAID acceleration
- Dual Gigabit Ethernet for redundancy and network aggregation
- Extended serial port configuration with RS-422/485 option on COM2

Typical Applications

- Industrial automation and process control
- Network appliances and edge computing nodes
- Storage and server consolidation platforms
- Embedded systems requiring redundant networking

PCE5120G200A2E Characteristics / Specifications

PARAMETER	VALUE
Model	PCE-5120G2-00A2E
Instrument Type	PICMG 1.3 processor card
Cpu Socket	LGA775
Cpu Class	Intel Core 2 Duo
Form Factor	PICMG 1.3 SHB
Memory Type	DDR2 dual channel
Network	dual Gigabit Ethernet
Expansion	PCI Express on SHB
Chipset Class	Intel industrial chipset
Storage Interface	SATA class
Usb Ports	multiple USB 2.0
Watchdog Timer	industrial watchdog
Operating Temperature Class	0 C to 60 C
Storage Temperature Class	minus 40 C to 85 C class
Manufacturer	Advantech
Series Family	PCE-5120
Bios	AMI industrial BIOS class
Graphics	chipset graphics class
Power	ATX from backplane
Use Case	industrial rackmount IPC
Long Life	embedded lifecycle support
Mounting	SHB slot in PICMG chassis
Storage temperature	Class: minus 40 C to 85 C class
Operating temperature	Class: 0 C to 60 C

PCE5120G200A2E Specifications

PARAMETER	VALUE
Key Features	LGA775 Core 2 Duo support
PICMG 1.3 system host board	Dual channel DDR2 memory
Technical Specifications	Model: PCE-5120G2-00A2E
Notes	Socket, Core 2 Duo, PICMG 1.3, DDR2, and dual GbE from Advantech PCE-5120 family OEM datasheet summaries for PCE-5120G2.

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Storage temperature	Class: minus 40 C to 85 C class
Operating temperature	Class: 0 C to 60 C
Operating Temperature	Class: 0 C to 60 C
Operating Temperature Class	0 C to 60 C
Storage Temperature Class	minus 40 C to 85 C class
Manufacturer	Advantech
Series Family	PCE-5120
Bios	AMI industrial BIOS class
Graphics	chipset graphics class
Power	ATX from backplane
Use Case	industrial rackmount IPC
Long Life	embedded lifecycle support
Mounting	SHB slot in PICMG chassis Notes Socket, Core 2 Duo, PICMG 1.3, DDR2, and dual GbE from Advantech PCE-5120 family OEM datasheet summaries for PCE-5120G2.

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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PARAMETER	VALUE
Model	PCE-5120G2-00A2E
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Use Case	industrial rackmount IPC
Long Life	embedded lifecycle support
Mounting	SHB slot in PICMG chassis
Notes	
Socket, Core 2 Duo, PICMG 1.3, DDR2, and dual GbE from Advantech PCE-5120 family OEM datasheet summaries for PCE-5120G2.	

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.