Reference: [A3200 Software-Based Machine Controller | Aerotech, Inc. (archive.org)](#)

A3200 Get the Right PC User Guide

The A3200 controller is engineered to run on a real-time operating system (RTOS) in front of Windows on an industrial PC.

To get a PC that is built for real-time performance, choose from one of the following options. Note that options one, two and three are built on Advantech industrial motherboards, which are on the Intel embedded roadmap, and contain Windows 10 IoT Enterprise Long-Term Service Channel (LTSC) installations. The Intel embedded roadmap and Windows LTSC ensures your PC solution will work reliably for years to come.

[Contact sales](#) at any time for assistance.

Option 1. Buy a PC from Aerotech

The *"simple, ready-to-go"* solution.

Recommended for: All end-users, worldwide

The A3200 iPC from Aerotech is a 100 percent configured and optimized industrial PC. It can be shipped from Aerotech ready to immediately start controlling your system.

To learn more, visit [A3200 iPC](#).

Option 2. Buy through Arrow Electronics

The *"install it yourself"* solution.

Recommended for: Integrators in the continental USA

Electronics distributor [Arrow Electronics](#) can directly ship the PC hardware on which the A3200 iPC is built. All hardware settings, BIOS settings and Windows 10 LTSC installation are managed by Arrow.

Note: The A3200 Motion Composer Suite with A3200 Software-Based Machine Controller and the FireWire® PCI/PCIe or HyperWire® PCIe card must be installed upon receipt of the PC hardware.

Please contact Arrow sales representative [Kelly O'Rourke](#) to purchase one of the following PC Options From Arrow Electronics:

PC Type	Arrow Part Number
Control Cabinet PC (Similar to the [A3200-iPC](#), -CC02 Hardware option)	C-ARR05-ARK6610-02
Control Cabinet PC (Similar to the [A3200-iPC](#), -CC03 Hardware option)	C-ARR05-ARK6610-01
4U Rack Mount PC (Similar to the [A3200-iPC](#), -R402 Hardware option)	C-ARR05-ACP4020-01
1U Rack Mount PC (Similar to the [A3200-iPC](#), -R103 Hardware option)	C-ARR05-ACP1010-01
Desktop PC (Similar to the [A3200-iPC](#), -DT01 Hardware option)	C-ARR05-IPC7120-01

Option 3. Buy Direct from Advantech

The *"build it yourself"* solution.

Recommended for: OEM machine builders and integrators, worldwide

[Advantech](#), a global supplier of industrial PCs, has partnered with Aerotech to supply customers with a reliable, high-performance PC solution. Aerotech customers can save on cost by building their own high-end, reliable PC solution. Detailed instructions on the required parts, configurations and setup procedures are available on the Aerotech [manuals and help files page](#) and [here.](#)

Option 4. Buy Your Own PC

Due to PC configuration changes caused by Windows 10 updates over the lifetime of operation, Aerotech does not recommend this option. We recommend one of the Intel-embedded roadmap motherboards and Windows 10 LTSC installations offered in options one, two and three above.

However, if you do choose this option, we offer a few recommended PC specifications:

Recommended PC Specifications for A3200-Installation	
Processor	Recommended: - Intel Core i5/i7 or Xeon processor with four or more cores[1,2,3] Not Supported: - AMD, Intel Celeron, Intel Pentium 4, Intel Pentium D, Itanium or notebook/laptop/mobile processors[4]

RAM	Recommended: • 4 GB for 32-bit Operating System • 8 GB for 64-bit Operating System
Operating System[5]	32-bit or 64-bit version of the following: • Microsoft Windows 10 • Microsoft Windows 8.1 (any Service Pack) • Microsoft Windows 7 (Service Pack 1 (SP1)) - Before installing the A3200 software, run Windows Update a minimum of one time and make sure all of the updates complete. Other operating systems are not supported.
PCI/PCIe Expansion Port	A single open PCI or PCIe card slot is required to accommodate the required FireWire PCI or PCIe card for Aerotech's motion bus.
Graphics Display	• Standard display adapter[6] • 1024 x 768 pixels or higher resolution
Hard Disk Space	500 MB available disk space.

1. A PC that has two physical processors is not supported. Use a PC with one processor and more than one physical core.

2. Intel Xeon processors based on the Intel Core 2 or Intel Core i3/i5/i7 architecture are supported. Intel Xeon processors based on older architectures are not supported.

3. A PC that has INtime configured is always limited to 32 cores, even when the PC has more than 32 physical cores.

4. Laptop computers are not supported. They can be used for offline debugging and simulation only. PCMCIA FireWire cards are not supported.

5. To avoid machine disruption, Aerotech disables automatic updates on Windows PCs that are shipped from Aerotech. To customize your update settings, refer to Microsoft's Windows documentation or Aerotech's User Guide to Windows 10 Updates.

6. Aerotech recommends that you do not use high-end display adapters because they can cause interference with the A3200. Use a medium-performance onboard integrated graphics adapter or a medium-performance PCI express dedicated graphics card. For more information, refer to Optimizing PC Performance.

Other PC-Related Services from Aerotech

PC Evaluations
Aerotech can evaluate your PC for a fee. Contact Global Technical Support for this service. No guarantee of compatibility can be made.

Servicing a Non-Approved PC
A non-approved PC can be serviced. Phone/email support for remote support is billed at an hourly rate (one-hour minimum). No guarantee of compatibility can be made.

PCs for Legacy A3200 Installations

Prior to version 6.x of A3200, Aerotech supported other PCs as standard products. Those products can be purchased from Aerotech via configuration options in the A3200 iPC product or they can be purchased directly from each respective manufacturer. They include:

PC Type	Vendor & Vendor Part Number
4U Rack Mount PC (Intel i5-4590S, 8 GB RAM, 500 GB HDD, Intel HD4000/5000 Graphics, Windows 10 64-bit)	BSI (www.bsicomputer.com) RMS575-AERO-1064B
4U Rack Mount PC (Intel i5-4590S, 8 GB RAM, 500 GB HDD, Intel HD4000/5000 Graphics, Windows 7 Pro 64-bit)	BSI (www.bsicomputer.com) RMS575-AERO-64BIT
4U Rack Mount PC (Intel i5-4590S, 8 GB RAM, 500 GB HDD, Intel HD4000/5000 Graphics, Windows 7 Pro 32-bit)	BSI (www.bsicomputer.com) RMS575-AERO-32BIT
1U Rack Mount PC (Intel i5-4590S, 8 GB RAM, 500 GB HDD, Intel HD5000 Graphics, Windows 10 64-bit)	Polywell (www.polywell.com) Aero2330
1U Rack Mount PC (Intel i5-4590S, 8 GB RAM, 500 GB HDD, Intel HD5000 Graphics, Windows 7 64-bit)	Polywell (www.polywell.com) Aero1763
1U Rack Mount PC (Intel i5-4590S, 8 GB RAM, 500 GB HDD, Intel HD5000 Graphics, Windows 7 32-bit)	Polywell (www.polywell.com) Aero1650
1U Rack Mount PC (Intel i5-4590S, 8 GB RAM, 120 GB SSD, Intel HD5000 Graphics, Windows 7 64-bit)	Polywell (www.polywell.com) Aero1960

Recommended FireWire Cables

Aerotech strongly recommends using FireWire cables supplied by Aerotech (NCONNECT cables). These cables are tested to ensure proper performance. A single open PCI or PCIe card slot is required to accommodate the required Firewire PCI or PCIe card for Aerotech's motion bus.