

A6869B VGA/USB PCI Card Installation Guide

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About This Document

This document describes installation instructions for the A6869B VGA/USB PCI card.

Intended Audience

This document is intended for system administrators responsible for the installation of PCI accessory cards in HP server products. Administrators are expected to have knowledge of ESD safety precautions as well as procedures for safely shutting down Windows® nPartitions and powering down PCI power domains. This document is not a tutorial.

New and Changed Information in This Edition

- Added information about chassis restrictions in the HP rx8640 and rx7640 mid-range servers.

Typographic Conventions

This document uses the following typographical conventions:



CAUTION: A caution calls attention to important information that if not understood or followed will result in data loss, data corruption, or damage to hardware or software.



IMPORTANT: This alert provides essential information to explain a concept or to complete a task.



NOTE: A note contains additional information to emphasize or supplement important points of the main text.

Related Information

There are many features available for HP Servers at this website including links to download Windows® Drivers.

HP Servers Technical Support

<http://www.hp.com/support/itaniumservers>

Publishing History

The document printing date and part number indicate the document's current edition. The printing date will change when a new edition is printed. Minor changes may be made at reprint without changing the printing date. The document part number will change when extensive changes are made. Document updates may be issued between editions to correct errors or document product changes. To ensure that you receive the updated or new editions, you should subscribe to the appropriate product support service. See your HP sales representative for details. You can find the latest version of this document on line at:

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1 Overview

The A6869B VGA/USB PCI card is the latest generation of the A6869A PCI card released in 2001. This new release updates components that are nearing end-of-life.

It has assigned part number: *A6869-60602*.

The major component change on the board is a move from the ATI R7000 video graphics array (VGA) controller to the ATI ES1000 VGA controller. The ATI ES1000 controller is intended for a server environment, is more focused to IA64 software support, and is more cost effective than its predecessor.

The A6869B VGA/USB PCI card is a dual function combo card, hosting VGA and universal serial bus (USB) controllers. Both of these devices sit behind a PCI-PCI bridge. The A6869B VGA/USB PCI card operates at the conventional 66MHz/64 bit PCI rate and is universally keyed. All signalling and form factors conform to the *PCI Local Bus Specification 2.3*. The VGA controller has 128Mbits of DDR-1 RAM for use as a frame buffer.

2 Installing a A6869B VGA/USB PCI Card in a Server

The A6869B VGA/USB PCI card can be installed into any slot in a PCI/PCI-X backplane.



CAUTION: Observe all ESD safety precautions before attempting this procedure. Failure to follow ESD safety precautions could result in damage to the server.



IMPORTANT: If you are installing the A6869B in HP servers based on the sx1000 chipset, such as HP Superdome, rx7620 or rx8620, the system firmware must be updated to a minimum revision of 3.88.



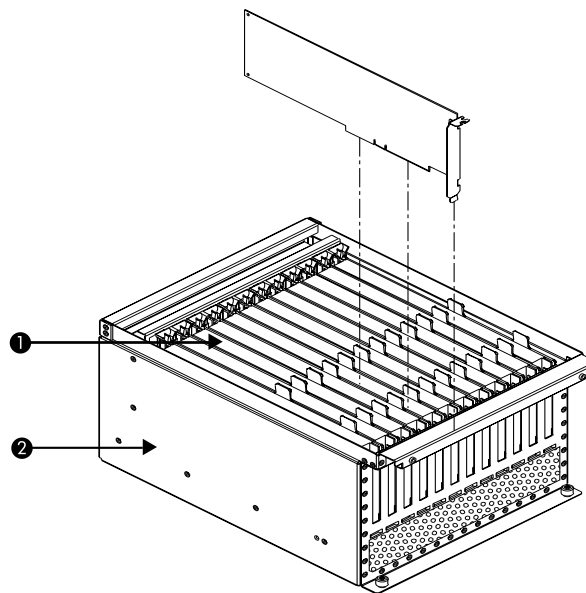
IMPORTANT: Search for available PCI slots that support the conventional clock speed to conserve availability of higher speed PCI-X card slots to PCI-X cards that use the higher bandwidth. This applies to mid-range as well as high-end HP server I/O PCI-X backplanes.

If you have a partition that has multiple I/O chassis and cells, ensure that the A6869B is placed in the I/O chassis that is connected to the lowest cell in the partition. For slot selection, follow the preceding paragraph recommendations.



IMPORTANT: The HP rx8640/rx7640 mid-range servers only support one A6869B USB 2.0/VGA PCI Adapter card per partition, and the A6869B card must be installed in an IO Chassis that has a Core I/O card installed.

Figure 2-1 PCI/PCI-X Card Location



1 PCI/PCI-X Cards

2 PCI/PCI-X Backplane



IMPORTANT: Some PCI I/O cards, such as the A6869B VGA/USB PCI card, cannot be added or replaced online (while Windows® remains running). For these cards, you must shut down Windows® on the nPartition before performing the card replacement or addition. See the section on Shutting Down nPartitions and Powering off Hardware Components in the appropriate service guide.

1. If the A6869B VGA/USB PCI card is currently not installed, follow proper procedures to shut down the nPartition and power-off the appropriate PCI power domain.
2. Locate a vacant conventional clock speed PCI slot where the A6869B VGA/USB PCI card will reside.
3. Position the PCI card over the empty slot, observing that edge connector keyways match on the PCI backplane connector.
4. Using a slow firm pressure, seat the card down into the slot.
5. Connect the monitor, mouse, and keyboard cables to the card.
6. Connect power, and turn on the monitor.
7. Follow proper procedures to power-on the PCI power domain and boot the Windows® nPartition.

Once Windows® has completely booted, the video, keyboard and mouse are ready for use.

3 Troubleshooting the A6869B VGA/USB PCI Card

The following provides some troubleshooting solutions.

Problem	Solutions
Black Screen. No text displayed.	Hardware problem. <ul style="list-style-type: none">• Must have supported power enabled.• Must have a functional VGA/USB PCI card.• Must have a functional PCI slot. Select another slot on same partition/backplane.• Must have the VGA/USB PCI card firmly seated in PCI backplane slot.• Must have a supported monitor.• Must have verified cable connections to VGA/USB PCI card.
Display unreadable.	<ul style="list-style-type: none">• Ensure system FW supports the VGA/USB PCI card.• Ensure graphics resolution is compatible and set correctly.



NOTE: Both the HP rx7640 8-socket server and the HP rx8640 16-socket server always have at least one Core I/O card (factory installed in IO Chassis 1 for the rx7640, and in IO Chassis 0 for the rx8640).

For an rx7640 with only one Core I/O and one A6869B card, the A6869B card must be installed in IO chassis 1, and for for an rx8640 with only one Core I/O and one A6869B card, the A6869B card must be installed in IO chassis 0.

The following are examples of unsupported configurations.

Server	Configuration	Result	Workaround
rx7640	Only one Core I/O installed IO Chassis 1 and an A6869B card installed in IO Chassis 0.	Windows® will not boot with this unsupported configuration.	Move the A6869B card to IO Chassis 1.
rx8640	Only one Core I/O installed IO Chassis 0 and an A6869B card installed in IO Chassis 1.	Windows® will not boot with this unsupported configuration.	Move the A6869B card to IO Chassis 0.



NOTE: If you have an rx7640 or an rx8640 with two Core I/O cards, you may install the A6869B card in either IO Chassis (only one A6869B card per partition).