

Introduction

Thank you for purchasing an Advance accelerator card from ClearSpeed Technology plc.

Before installing, read through this Installation Guide to ensure that the installation goes smoothly. This document applies to the following ClearSpeed products:

- the Advance X620 Accelerator card (PCI-X interface),
- the Advance e620 Accelerator card (PCIe interface),
- the Advance e710 Accelerator card (PCIe interface).

We recommend that the card is installed by a competent IT professional. If you are unsure about any aspect of the installation, please seek expert advice.

Package contents

The Advance accelerator card package contains:

- the Advance card,
- a disposable antistatic wrist strap,
- a replacement short mounting bracket required for some systems,
- OPTIONAL: a CD-ROM containing the software and documentation for the card.

This guide gives you pre-installation advice and explains how to install the card.

Before you start

To install the Advance X620, you need a system with:

- A suitable PCI-X slot. For best performance, use a 133 MHz PCI-X slot.
- Minimum airflow across the heatsinks of 500 LFM or 2.5 m/s.

To install the Advance e620, you need a system with:

- A suitable PCIe slot. For best performance, use a PCIe slot with x8 mechanical and x8 electrical interfaces.
- Minimum airflow across the heatsinks of 500 LFM or 2.5 m/s.

To install the Advance e710, you need a system with:

- A suitable PCIe slot. For best performance, use a slot with x8 mechanical and x8 electrical interfaces.
- Minimum airflow across the heatsinks of 300 LFM or 1.5 m/s.

Caution: The card can be damaged by static electricity. Observe these precautions for handling electrostatic sensitive devices.

Whenever you remove the card from your computer, please make sure that:



- You always have the antistatic wrist strap on;
- You always put the card back in its packaging.
- Do not let your clothing touch any electronic parts.

ClearSpeed Technology assumes no responsibility for any damage or injury that results from failure to follow these instructions or from failure to observe safety precautions.

1 Software installation

Before you install the card you should first install the runtime software and the diagnostic tools. The CD-ROM contains the software and drivers for all the supported platforms. Before installing the software, please check the ClearSpeed customer support web site for any updates:

<http://support.clearspeed.com/downloads/>

The software installation instructions and other useful documentation can be found on the CD-ROM or the documents page:

<http://support.clearspeed.com/documentation/>

2 Card-handling procedures

Static electricity can severely damage this equipment. Handle the card and any other device in your system with extreme care and avoid unnecessary contact with the system components on the main card.

When installing the card it is important that you observe the following:

- Only remove the card from the antistatic packaging when you are ready to install it.
- Always make sure you have the enclosed wrist strap connected to the chassis before removing the card from its antistatic packaging.
- Always hold the card by its edges and avoid touching its circuitry or edge connector.
- Always work on a correctly grounded antistatic surface to avoid possible damage to the card from static discharge.
- Always have the power supply switched off and unplugged when working with the computer system.

3 Installation instructions

Caution: Before installing the Advance card, ensure that any switches on the card are set to the OFF position. For more information on the position of the switches, refer to the Advance Accelerator Card User Guide.

If at all possible avoid using a riser card. Although PCI riser cards are commonly used, they will generally violate PCI specifications for the length of signal traces. For more information see the Advance Accelerator Card User Guide which can be found on the ClearSpeed customer support site:

<http://support.clearspeed.com/documentation/>

You may need to refer to the manufacturer's instructions to help you to:

- Open the computer system
- Identify the PCI-X or PCIe slots

To install the card, follow these procedures:

1. Make sure the system and all other peripheral devices connected to it have been powered down and unplugged.
2. Ensure that the system is securely grounded.
3. Open the system-unit cover.
4. Tighten the adhesive side of the wrist strap firmly around your wrist to ensure good contact with your skin.
5. Identify a suitable slot as follows:
 - a) For a PCI-X slot, the slot type and speed are printed next to the slot, for example, "pcix-133". If you are unsure about which is the PCI-X slot, consult the motherboard manual to help you identify it.
 - a) For a PCIe slot, first identify the x8 or x16 mechanical slots on your motherboard. If these are not marked on the motherboard, consult the motherboard manual to help you identify it. You must also check that the slot provides a minimum of x8 electrical connection. For more information on compatible slot options, refer to the Advance Accelerator Card User Guide.
6. Release the locking mechanism (screw or clip) and the bracket. Refer to the manufacturer's instructions, if necessary.
7. Remove the protective cover from the Advance card's edge connector.
8. Align the card above the slot then press down firmly until it is completely seated in the slot.

Caution: Do not force the card into the slot.

9. Ensure that neither the card, nor any of the components on it, can come into contact with any metallic part of the system.
10. Secure the card to the chassis by engaging the locking mechanism. Replace the system cover.
11. Power up the system. Note that the LEDs on the PCIe based accelerator cards will illuminate green, or flash green during normal operation. LEDs on the PCI-X cards should remain off in normal operation. Refer to the *Advance Accelerator Card User Guide* for your product for troubleshooting information.

Note: There are no user-configurable switch or jumper options. Changes to the existing configuration may impair operation of the card.

4 Troubleshooting

If you experience problems during installation and need further clarification, refer to the Advance Accelerator Card User Guide for more information. The User Guide is available from the ClearSpeed customer support site:

<http://support.clearspeed.com/documentation/>

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