

Gravity card compatibility with modern systems and operating systems

The Gravity Series PCI board was developed in 2004 and the PCIe version added in early 2006. This tech note is applicable to all cards that begin with the following

P/N: GRAV_PCIe. (See section 1)

P/N: GRAV64 (See section 2)

Section 1:

The PCIe Gravity card uses a PLX 8311 Bridge chip. PLX at the time designed this chip to work with PCIe Gen1 and 32-bit operating systems. The Bridge chip has limitations and often requires changes to some of the internal register settings to allow it to work on some modern systems and the 64-bit operating systems (OS's). Older GRAV_PCIe cards must be returned to GRT for register setting upgrades if they will be used in a newer system.

GRT considers the GRAV_PCIe card to be obsolete when used with modern motherboards (beyond Gen 1 PCIe) and is not guaranteed to work on all systems and OS's.

GRT has written 64-bit drivers for the GRAV_PCIe card and has been able to get it to operate successfully on some, but not all, new systems. Some systems require BIOS updates and changing BIOS settings, while other systems are simply incompatible. GRT is not able to provide general guidelines on how to know if a GRAV_PCIe card will work on a particular new system.

Section 2:

Gravity 64 bit (GRAV64) cards are designed to be used in 64 bit PCI slots commonly referred to as PCI-X.

Some modern systems only come with PCIe and a few 32 bit style PCI slots.

The GRAV64 card will fit into these 32 bit PCI slots, but it is not recommended for use in a 32 bit slot as the throughput of the card is very slow and there may be some DMA transfer anomalies.

If your system does not have PCI-X (64bit PCI) slots, then the newer Matrix Series card is recommended as a replacement or the Gravity PCIe with an understanding of its limitation per section 1 of this tech note.

Options for GRAV_PCIe or GRAV64 customers.

1. If you have a legacy system where the GRAV_PCIe or GRAV64 works with no issues, replicate that environment for any new equipment built.
2. Upgrade to a Matrix card, in most cases GRT has an equivalent version.
3. Purchase a Titan system from GRT to host GRAV_PCIe or GRAV64 cards. GRT's Titan rack mount systems can house from 1 card to as many as 17 cards. Titan systems have been qualified to work with all both Gravity and Matrix series cards with the latest OS's including Win7 64-bit and Win8 64-bit.

NOTE: GRT cannot provide technical support if you are attempting to use GRAV_PCIe cards in newer systems, unless the system was provided by GRT. You may hire GRT by the hour to help you attempt to migrate to a new platform, but success is not guaranteed. It will be required for you to provide a complete system to GRT and to provide an open purchase order to cover the support.