

PCI 6152 Key Features

- ◆ PCI Bridging - Up to 66MHz
- ◆ 3.3V signaling, including 5V input signal tolerance
- ◆ 300mW Power Consumption
- ◆ 15 x 15 mm Tiny BGA Package
- ◆ 32 x 32 mm PQFP Package
- ◆ Pin Compatible with Intel 21152

Other Features

- ◆ Supports delayed transactions for PCI configuration, I/O and memory read commands
- ◆ Hot Swap Friendly
- ◆ Zero wait state burst
- ◆ Provides memory write data buffering in both directions
- ◆ Provides concurrent primary and secondary bus operation to isolate traffic
- ◆ Provides separate arbitration support for individual secondary port
- ◆ Programmable 2-level arbiter
- ◆ Enhanced address decoding
- ◆ 32-bit I/O and memory address decoding
- ◆ Three-stating of I/O during power up and power down



Application:

Multi-Head PCI Graphics Card

PLX Product:

PCI 6152 – 32-bit PCI-to-PCI Bridge

Key Benefit:

Allows low voltage ASICs to interface to 5V PCI systems

Multi-head graphics card ASIC only supports 3.3V signaling



Multi-head graphics cards allow a single PC to spread content out over several monitors. Today's multi-head graphics card ASICs use low-voltage fine geometry technologies such as 0.18 or 0.13 micron CMOS. These processes don't usually support 5V signaling. This logic level incompatibility prevents the

graphics card from directly connecting to the 5V legacy PCI slots which are commonly found in low cost PCs.

A FastLane PCI to PCI Bridge solves the problem

The simple addition of the *FastLane*[™] PCI 6152 will quickly solve this problem. The PCI 6152 from PLX is the leading solution for high performance 32-bit PCI multiple head graphics cards.

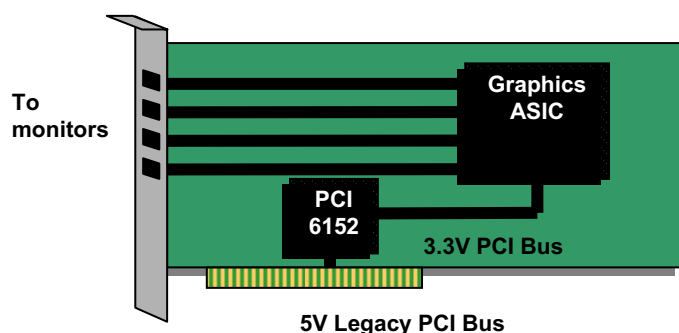
In the card below, the PCI 6152 provides a universal logic level signaling allowing this dual-head graphics card to operate in both 3.3V and 5V PCI environments.

Graphics engine ASICs typically support only 3.3V signaling; adding the PCI 6152 enables the card to work with both 3.3V and 5V logic levels, creating a broader market for these cards.



Why Choose a PLX PCI 6152?

The addition of the PCI 6152 requires just over two square centimeters of additional board real estate to convert the 3.3V ASIC interface to a 5V legacy PCI connection. In addition, the bridge only draws 300 milliwatts of additional power. The small footprint, low power consumption and low cost of the PCI 6152 make this the ideal bridge for the job. The figure below shows how easy it is to make the connection.



PCI 6152: Shipping NOW!

The PCI 6152 is in production today and samples are in stock at PLX in all six package flavors. There are two packages available in both lead-free ROHS compliant versions as well as the traditional leaded packages, with 33MHz and 66MHz versions as well. The PQFP version is only available in the 33MHz version.

Part Number	Package	Speed
PCI 6152-CC33PC	Standard Leaded PQFP Package	33 MHz
PCI 6152-CC33PC G	Lead-Free ROHS Green PQFP Packaging	33 MHz
PCI 6152-CC66BC	Standard Leaded TBGA Package	66 MHz
PCI 6152-CC66BC F	Lead-Free ROHS TBGA Package	66 MHz
PCI 6152-CC66BC	Standard Leaded TBGA Package	66 MHz
PCI 6152-CC66BC F	Lead-Free ROHS TBGA Packaging	66 MHz

Key Advantages of using PLX

PLX is the industry's leading supplier of PCI-to-PCI Bridges. The company is focused on I/O interconnect design and support. Below is a table showcasing the PCI-to-PCI bridges that are available today:

FastLane Bridges	Bus/Speed	Key Feature
PCI 6140	32 /33	Lowest cost
PCI 6152	32/66	Smallest footprint
PCI 6150	32/66	Asynchronous
PCI 6154	64/66	Asynchronous
PCI 6254	64/66	Non-Transparent
PCI 6466	64/66	I-temp
PCI 6520	64/133	PCI-X
PCI 6540	64/133	Non-Transparent

Design Tools & Documentation:

On PLX Public ToolBox:

<http://www.plxtech.com/products/fastlane/pci6152.asp>

- ◆ Data Book, Product Brief, IBIS Models, HSPICE Models, BSDL Files

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