

Application: HDTV PCI Card
Pericom Device: PI7C8152A – 32-bit/66MHz PCI-to-PCI Bridge



OVERVIEW

HDTV has lifelike pictures and digital sound. The higher resolution produces clarity like you have never seen from a picture tube. Films retain their original width, enhancing your home theater experience. Imagine seeing *more* of a football field or a scenic panorama!

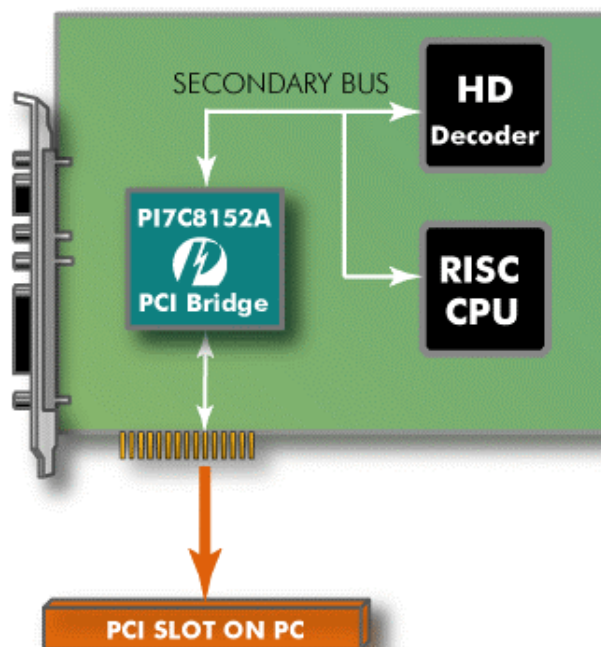
The Federal Communications Commission has mandated that all stations be able to broadcast HDTV by 2006. HDTV provides 720 or 1080 lines of resolution, as compared to 525 lines the old traditional analog TV signal provided. In addition, an HDTV signal provides 5.1 channel Dolby Digital surround sound. The result is superior clarity in both picture and sound, making it seem like you are watching the event “live” or “in person”.

With the shifting of home personal computers now becoming more media or entertainment driven, HDTV can be viewed on the PC monitor instead of on an HDTV ready TV set or HDTV ready plasma screen. HDTV PCI cards will take the digital video signal and display it directly to the monitor.

PERICOM SOLUTION

The PI7C8152A provides a key “building block” on these HDTV PCI cards. On most HDTV PCI cards, there is normally more than one PCI device residing on the card. These PCI devices can be, but are not limited to, High Definition Decoders, Encoders, Audio Processors, RISC CPU’s, and various multimedia devices. The PI7C8152A is a PCI-to-PCI Bridge that allows more than one of the above devices to reside on the PCI card. PCI Specifications specify that each PCI slot may only have one device or one load plugged in. In order for multiple devices to reside on the card, the PI7C8152A is used as the “interface”. The devices are placed on the secondary bus of the PI7C8152A PCI-to-PCI Bridge and are now able to be placed in a single slot (Figure 1). The enhanced performance on the PI7C8152A is a perfect fit for the HDTV application.

FIGURE 1 – HDTV PCI CARD



KEY FEATURES & SPECIFICATIONS

- PI7C8152A
 - 32-bit/66MHz Primary and Secondary Ports
 - Compliant with the following specifications:
 - *PCI Local Bus Specification*, Revision 2.2
 - *PCI-to-PCI Bridge Architecture Specification*, Revision 1.1
 - *Advanced Configuration Power Interface (ACPI) Specification*
 - *PCI Power Management Specification*, Revision 1.0
 - Concurrent Primary and Secondary port operation
 - Four 128-byte FIFO's for delay transactions
 - Two 128-byte FIFO's for posted memory transactions
 - Packages:
 - 160-pin QFP
 - Extended commercial temperature support
 - 0°C to 85°C

KEY BENEFITS

- For PCI bus expansion and speed isolation
- Extended Commercial Temperature range
- Enhanced Performance

COMPETITOR CROSS REFERENCE

PERICOM	COMPETITOR	PERICOM ADVANTAGE
PI7C8152A	Intel: 21152	<ul style="list-style-type: none"> • Extended temperature support • 66MHz support • Enhanced performance
	DELTA / ISSI: PCI4152 / PCI2250PC152	
	TI: PCI2250PCM	

ADDITIONAL INFORMATION

- Website
 - Datasheets, Product Presentation, IBIS models, Application Notes, BSDL File, Schematics, Errata, Reliability Report, Quality, Package Data, & Performance Comparisons vs. competition
<http://www.pericom.com/products/pci/psempart.php?productID=PI7C8152A>

CONTACT INFORMATION

Application Support

Please contact your local Pericom Sales Representative or franchised distributor. Contact list provided on the web: <http://www.pericom.com/partners/index.php>