

Application: Digital Video Recorder (DVR)
Pericom Device: PI7C8152 – 32-bit/66MHz PCI-to-PCI Bridge

Overview

What is a Digital Video Recorder (DVR)? You can equate a DVR to being a “tape-less” VCR. Personal Video Recorders (PVR), which are also Digital Video Recorders, have been sold to tens of thousands of households. A PVR or DVR is able to digitally record a video stream. Like a VCR, the captured video can be rewound, fast forwarded, paused, and played at the user’s convenience. Services like TIVO and Ultimate TV for these DVR’s enable families to watch their favorite programs when they want and not according to the networks’ schedules. But the DVR can also be used in another way.

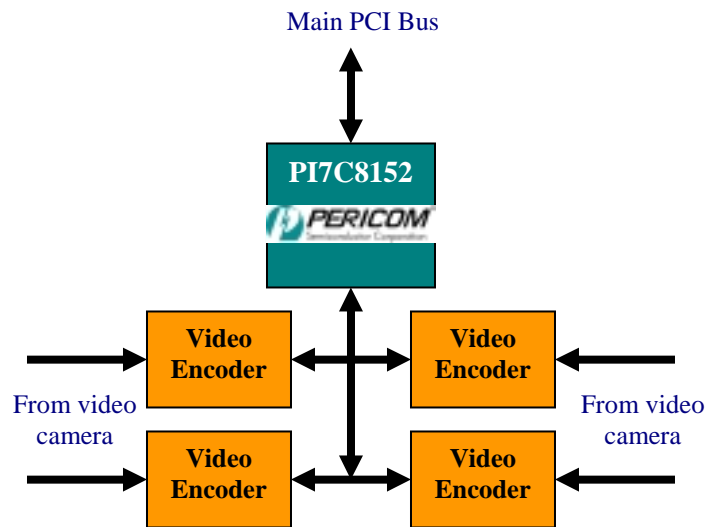
Ever notice all the cameras pointed at the casino floors in Las Vegas? How about the cameras in banks and in retail stores? Video surveillance plays an important role in today’s security measures. Instead of keeping a sea of video tapes, DVR’s can be used to store the hours of video captured by these cameras onto hard disk drives. Security groups can keep the recorded video more efficiently and be able to refer back to it whenever needed.

Pericom Solution

So, how is the PI7C8152 PCI-to-PCI Bridge designed into a DVR? In a video surveillance system, there normally are multiple cameras. Each camera supplies a separate video feed back to the DVR. Each video feed then needs to be decoded from its analog form to digital format. Each video encoder device may take up to 4 video feeds (different encoder devices may take more or less). Depending on the number of cameras, multiple video encoder devices may be needed. Because PCI Specifications allow a certain loading maximum, the only way a system can add more encoder devices is to utilize the PI7C8152 PCI-to-PCI Bridge. The PI7C8152 creates a secondary or additional PCI bus for the added encoder devices. The block diagram shows a typical overview of a DVR system, but will vary from design to design. DVR’s can be in the form of a PCI add-in card or in the form of a stand-alone system. In either configuration, Pericom’s PI7C8152 can help expand the PCI bus to accommodate the need for multiple video encoders.



Viewing multiple camera feeds on one monitor/screen



Block Diagram



Stand-alone DVR System

Key Features & Specifications

- ❑ PI7C8152MA
 - 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
 - Two 128-byte FIFO's for delay transactions
 - Two 128-byte FIFO's for posted memory transactions
 - 160-pin QFP package
 - Extended commercial temperature support
 - 0°C to 85°C
 - Pin Compatible with the Intel 21152

Key Benefits

- ❑ Allows a system to add more devices or loads to the main PCI bus by creating a secondary PCI bus.
- ❑ Allows add-in cards to have multiple devices.

Product Status and Pricing

- ❑ Samples Now
- ❑ Production Now
- ❑ Budgetary Pricing \$7.78 in 1K quantities

Competitive Cross-Reference

Pericom	Competitor	Pericom Advantage
PI7C8152MA	<u>Intel:</u> SB21152BB	66MHz support Extended Temperature Support
PI7C8152MA	<u>PLX / Hint:</u> PCI6152-33PC HB1-SE33P	66MHz support Extended Temperature Support

Additional Information

- ❑ Website
 - Datasheets, Product Presentation, IBIS models, Application Notes, BSDL File, Schematics, Errata, Reliability Report, Quality & Package Data
- ❑ <http://www.pericom.com/pci/psempart.php?productID=PI7C8152>
- ❑ Order Literature Online
 - <http://www.onfulfillment.com/pericom/>
 - Product Selection Guide and Cross Reference
 - Databook CD
 - Powerpoint Presentation with Navigation
 - Order the Databook CD

Contact Information

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

Application Support:

<http://www.pericom.com/support/apps.php>