

Domino Gamma

Image Acquisition from High-End Analog Cameras

Features

- Support of monochrome (single or dual-tap) & RGB analog cameras
- Four 10-bit 40MHz A/D converters
- High-resolution, typically 1300 x 1030
- Independent camera control: 3 timing generators, 3 trigger strobe lines
- Asynchronous reset, shutter control and progressive-scan support
- 16-Mbyte frame buffer
- Libraries, ActiveX controls and DLLs included



Introduction

General

The Domino Gamma is the ideal solution for high-end multiple-camera applications .

The Domino Gamma provides acquisition from typically three analog cameras (up to 6) on a single PCI board. The Domino Gamma is fitted with 3 connectors and four digitizers.

Simultaneous acquisition from all channels is possible. Three timing generators, three trigger and strobe lines are available for independent camera control.

The Domino Gamma supports top-notch high-resolution cameras with a pixel clock frequency up to 40MHz. It is compatible with single-tap, dual-tap and RGB cameras and generates 8-bit or 10-bit pixels per channel. Asynchronous reset, exposure control and progressive scanning are supported.

It comes with the MultiCam driver, which drastically simplifies its integration into your machine vision application

Applications

- Quality control
- Semiconductor inspection
- On-the-fly image acquisition
- High frame rate image acquisition

Specifications

Acquisition

- Four 10-bit 40MHz A/D converters
- Four 10-bit input look-up-tables
- Support of automatic precise input calibration
- 20,10 or 5MHz programmable input filter
- Programmable gain and offset control

PCI Interface

- PCI rev 2.2 (5V and 3.3V) compliant interface
- Support of DMA and bus mastering

Camera Support

- Support of single-tap, dual-tap and RGB analog cameras
- Support of high-resolution cameras, typically 1300 x 1030
- Interlaced or progressive scanning
- Asynchronous reset and shutter control
- Camera pixel clock support
- Typical configurations supported
 - Three independent single-tap cameras
 - Two independent dual-tap cameras
 - Two independent single-tap and one dual-tap cameras
 - One RGB camera and one monochrome single-tap camera

Timing Generators

- Three independent timing generators Frame Buffer

Frame Buffer

- 16-Mbyte SDRAM frame buffer

Connections

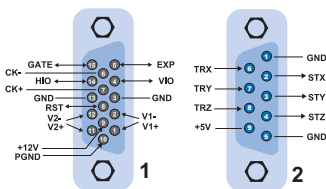
Camera Connection

Three DB15HD connectors on the main bracket including:

- Differential / single ended video inputs (75 ohms)
- Reset, VD, HD, exposure control and pixel clock lines
- Specific connection for 12 V camera supply

I/O Connections

- RS-232 (default) or RS-485 (optional) DB9 connector on the extra bracket
- Trigger-strobe (3 lines each) DB9 connector on the extra bracket
- General purpose I/O DB9 connector on the extra bracket

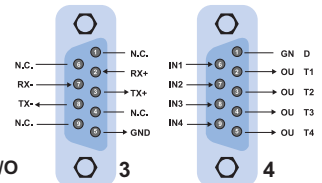


1. Camera

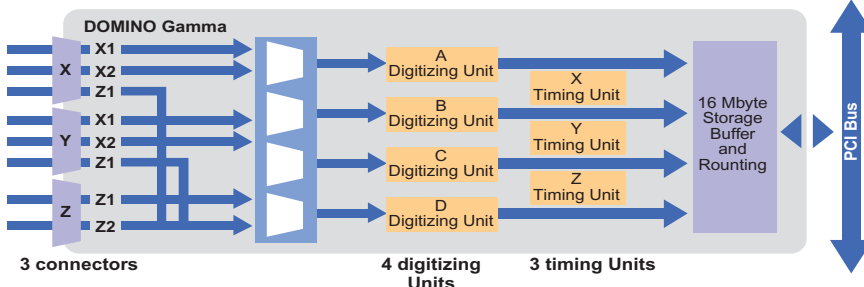
2. Trigger/ Strobe

3. Serial I/O

4. General Purpose I/O



Block Diagram



Software Support

DLLs and ActiveX controls for windows NT/95/98/2000

Ordering Information

- **Domino Gamma**
Advanced for high-end Multi-Camera applications