

GRA110

3U VPX High Performance Graphics Board

Features

- NVIDIA G73 GPU
 - As used on NVIDIA® GeForce® 7600GT
- Leading OpenGL performance
- 256 MBytes DDR SDRAM
- Two independent output channels
- VESA output resolutions to 1600x1200
- RS-170, NTSC & PAL video output
- DVI 1.0 digital video output
- RS170, NTSC & PAL Video output
- Air- and rugged conduction- variants
- 3U VPX Form Factors

The GRA110 is the first graphics board to be announced in the 3U VPX form factor. Bringing desktop performance to the rugged market, the GRA110 represents a step change in capability for the embedded systems integrator. With outstanding functionality, together with PCI Express™ interconnect, even the most demanding applications can now be deployed with incredible fidelity.

The VPX form factor allows for high speed PCI Express connections to single board computers in the system. The GRA110 supports the 16-lane PCI Express implementation, providing the maximum available communication bandwidth to a CPU such as GE Fanuc Embedded System's SBC340. The PCI Express link will automatically adapt to the active number of lanes available, and so will work with single board computers in 8- and 4-lane configurations.

With a rich set of I/O, the GRA110 is designed to serve many of the most common video applications. Dual, independent channels mean that it is capable of driving RGB analog component video, digital DVI 1.0, and RS170, NTSC or PAL standards. In addition, the GRA110's video input capability allows integration of sensor data using RS170, NTSC or PAL video formats.

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Specifications

GPU

- State of the art NVIDIA® G73 graphics processor

Video memory

- 256 MBytes GDDR3 memory

Number of channels

- Two

RGB output

- VESA: resolutions up to 1600x1200 @ 60Hz

Digital output

- DVI 1.0: resolutions up to 1600x1200 @ 60Hz

TV output

- RS170, NTSC, PAL

Video input

- RS170, NTSC, PAL

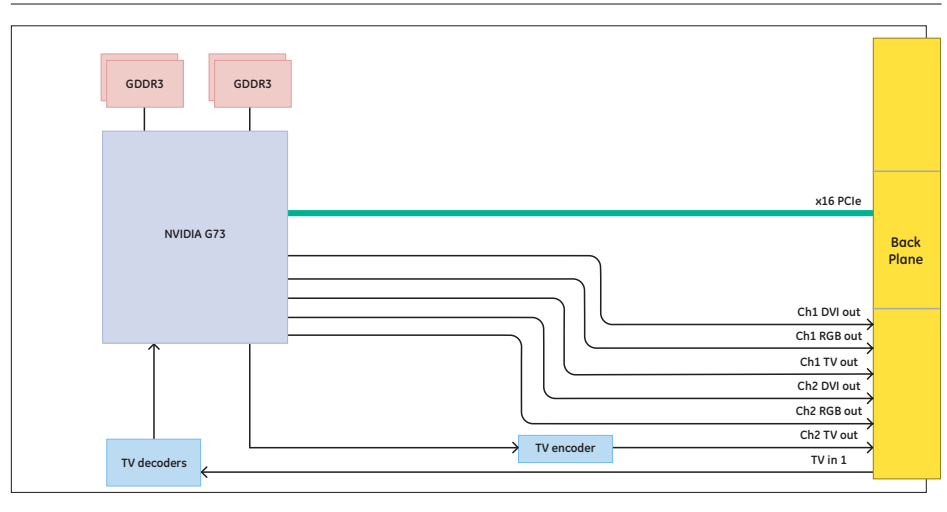
Form factor

- 3U VPX: allows maximum bandwidth between CPU & GPU on 16-lane PCI Express

Drivers

- RTOS
- Drivers for Windows & Linux running on Pentium® host card available from NVIDIA

Block Diagram



Standard Ordering Information

GRA110-1000

Level 1 Air-cooled GRA110

Dual Channel NVIDIA graphics processing unit, with NVIDIA G73 CPU; 256 MBytes GDDR3 SDRAM. Dual DVI 1.0 output; Dual VGA output; Dual RS-170/NTSC/PAL output; RS-170/NTSC/PAL input

GRA110-2000

Level 2 Air-cooled GRA110, as above

GRA110-3000

Level 3 Air-cooled GRA110, as above

GRA110-4000

Level 4 Air-cooled GRA110, as above

About GE Fanuc Embedded Systems

GE Fanuc Embedded Systems is a leading global provider of embedded computing solutions for a wide range of industries and applications. Our comprehensive product offering includes many types of I/O, single board computers, high performance signal processors, fully integrated, rugged systems including flat panel displays, plus high speed networking and communications products. The company is headquartered in the U.S. and has design, manufacturing and support offices throughout the world. Whether you're looking for one of our standard products or a fully custom solution, GE Fanuc Embedded Systems has the breadth, experience and 24/7 support to deliver what you need. For more information, visit www.gefanucembedded.com.

GE Fanuc Embedded Systems Information Centers

Americas:
1 800 368 2738 or 1 703 263 1483

Asia Pacific:
+61 7 5538 4442

Europe, Middle East and Africa:
+44 1327 359444

Additional Resources

For more information, please visit the GE Fanuc Embedded Systems web site at:

www.gefanucembedded.com

