

XMCGA7

XMC High Performance Graphics Board

Features

- AMD Radeon E6460 GPU
- 512 MB GDDR5 SDRAM
- x8 PCI Express (Gen 2 capable)
- Two independent output channels (Dual Head)
- DVI 1.0 digital video output
 - Single link to 1920x1200 @ 60 Hz
- Analog VGA output
 - VESA resolutions to 1920x1200 @ 60 Hz
- XMC (VITA 42) form factor
- Front and rear I/O options
- Air- and conduction-cooled variants

XMCGA7 is the seventh generation of graphics mezzanine card designed to support the needs of the rugged marketplace, bringing modern graphics performance for demanding 2D and 3D applications.

The XMC form factor allows for high speed PCI Express connections to single board computers in the system. The XMCGA7 supports the 8-lane PCI Express implementation, providing the maximum available communication bandwidth to a CPU such as GE Intelligent Platforms XVR14.

The GPU is capable of PCI Express Gen 2 speeds, and will automatically train to the speed of the host board. Furthermore, the PCI Express link will automatically adapt to the active number of lanes available, and will work with single board computers in 8- and 4-lane configurations.

XMCGA7 is designed to support a number of connector options, which are defined at build time:

- **XMC I/O** – the XMC I/O connector (P16) allows optimal routing of signals on host boards which support this connector. Signal pairs are preserved for the high-speed digital connections (DVI) ensuring the best possible signal integrity.
- **PMC I/O** – for replacement of legacy boards, or for hosts which do not support the XMC I/O connector, the PMC I/O connector (P14) may be used.
- **Front I/O** – for air-cooled (level 1-2) boards, the signals can be brought out through the front panel, easing the task of cabling in deployed systems or in lab development boards. The VHDCI connector supports both channels with both DVI and VGA. An adapter cable is available from GE to split the signals out onto two DVI-I connectors.

AMD Windows and Linux drivers are available for the XMCGA7.



XMCGA7 – XMC High Performance Graphics Board

Specifications

GPU

- AMD Radeon E6460 processor

Video memory

- 512 MB GDDR5 SDRAM

Host interface

- 8-lane PCI Express (gen 2 capable)

RGB (VGA) output

- 2 channels, VESA: resolutions up to 1920x1200 @ 60 Hz

Digital output

- 2 channels, single link DVI 1.0: resolutions up to 1920x1200 @ 60 Hz

Form factor

- XMC (VITA 42): air- or conduction-cooled

Drivers

- AMD Windows and Linux

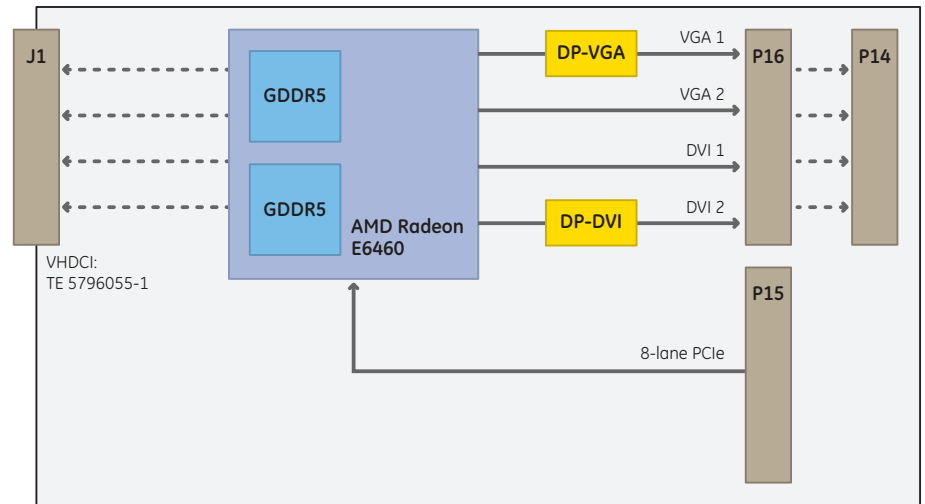
Power

- 12 watts running FurMark 3D OpenGL benchmark application

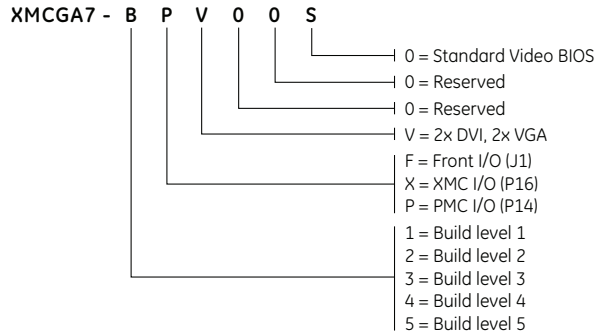
Weight

- 220g (air-cooled variant)

Block Diagram



Ordering Information



Contact GE Intelligent Platforms for other display and processing configurations.

About GE Intelligent Platforms

GE Intelligent Platforms is a division of GE that offers software, control systems, services, and expertise in automation and embedded computing. We offer a unique foundation of agile and reliable technology providing customers a sustainable competitive advantage in the industries they serve, including energy, water, consumer packaged goods, oil and gas, government and defense, and telecommunications. GE Intelligent Platforms is headquartered in Charlottesville, VA. For more information, visit www.ge-ip.com.

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