

MXM3.0-E4690-V0

Modular MXM-3.0 supporting independent video outputs designed for Industrial, Medical, Military, and Aerospace COTS customers requiring -40°C to +85°C operation, MIL-STD-810D 40G shock and vibration, and IPC Class 3 reliability

FEATURES

- ATI™ Radeon™ E4690 GPU 600MHz
- 700MHz 128-bit 512MB GDDR3 Memory
- Form Factor: MXM-3.0
- Bus Interface: PCIe 2.1
- GPU Interface: Up to 16 lanes PCIe 2.0
- 55nm Process Technology
- Floating Point Performance: 384 GFLOPS
- Shader Processing Units: 320
- DirectX® 10.1
- Shader Model 4.1
- OpenGL® 3.0
- AVIVO™ Display Engine
- Full 30-bit Display Pipeline
- Stream Computing
- Motion Video Decode:
UVD2.0 for H.264, VC-1, MPEG-2 decoding
- Internal Thermal Sensor

CUSTOM CONFIGURATIONS:

WOLF offers OEMs customized video configurations on all of its Video Graphic Modules, guaranteeing the perfect fit to your product.

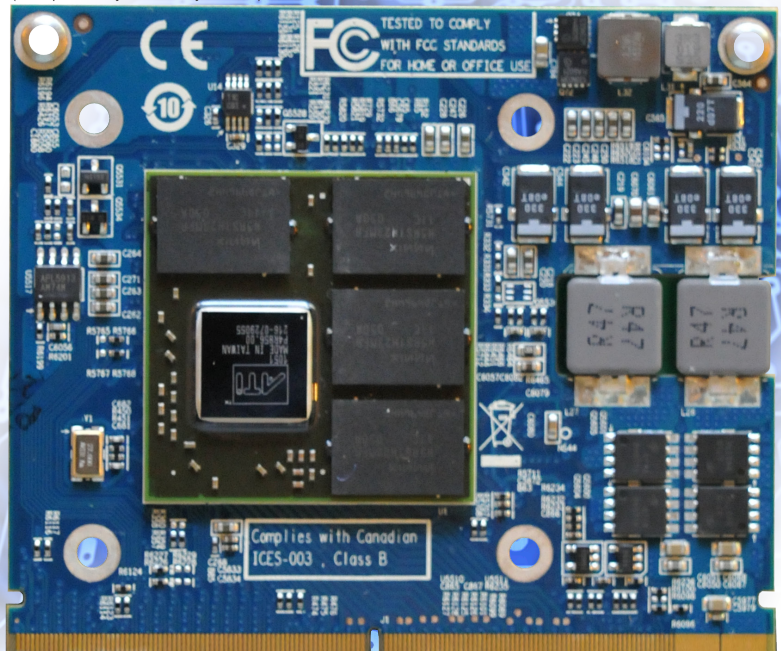
OVERVIEW

WOLF is a manufacturer of COTS products for Industrial, Medical, Military, and Aerospace customers.


The MXM3.0-E4690-V0 can provide multiple combinations of HDMI, DisplayPort, DVI, TMDS, LVDS, SVGA, and TV-Out (Composite or S-Video).

This card uses a standard MXM-3.0 connection, and is available in extended temperature conduction-cooled with an operating range between -40°C and +85°C. Utilizing WOLF's expertise, the MXM3.0-E4690-V0 is rated for MIL-STD-810D 40G shock and vibration, and IPC Class 3 reliability.

(actual product may not be exactly as shown)



WOLF Industrial Systems Inc.

Development partners: **AMD** 

5 Foxfire Chase, Uxbridge, Ontario, L9P 1R4, Canada

Toll-free: 800 931-4114

Tel: 905-852-1163

Fax: 905-852-1735

sales@WOLF.ca

www.WOLF.ca



The MXM3.0-E4690-V0 is a member of WOLF's Video Graphic Modules family, and allowing for multiple combinations of video outputs using the following: HDMI, DisplayPort™, DVI, TMDS, LVDS, VGA, S-Video TV-Out, and Composite TV-Out.

VIDEO OUTPUT OPTIONS:

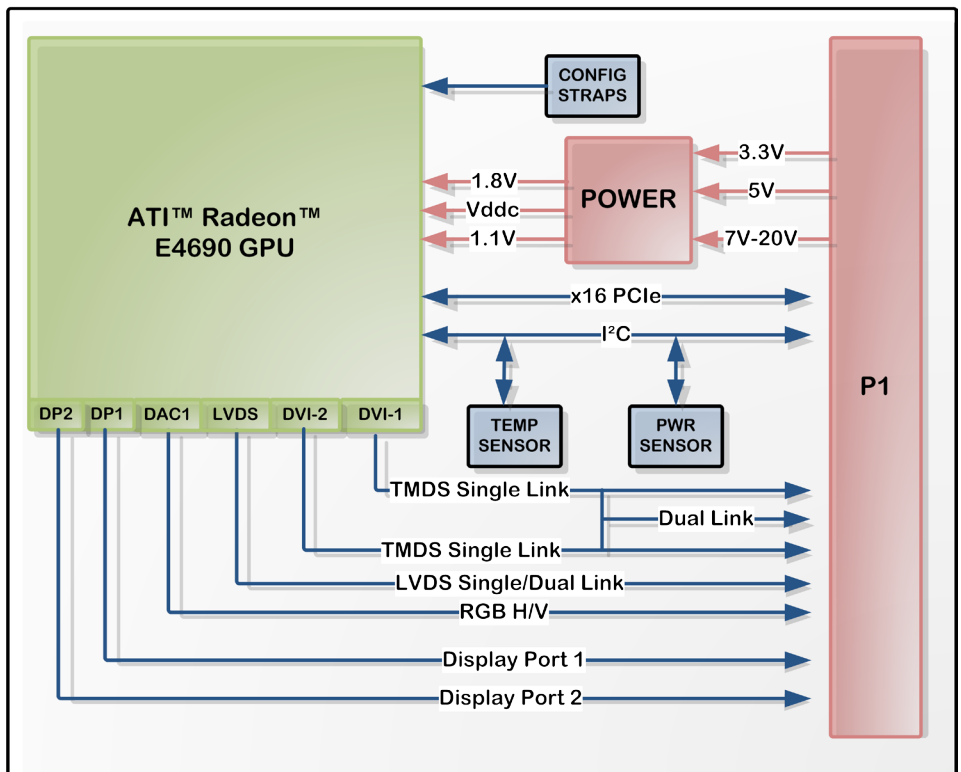
- LVDS
- TMDS
- HDMI 1.4a
- DisplayPort™ 1.1a, 2.0
- DVI-D
- VGA
- S-Video
- Composite

ADVANCED FEATURES

Unique to WOLF Video boards is the monitoring of two on-board temperature sites: GPU die PCB conductive rail, using a standard SM-BUS interface.

Environmental Specs

Supply Voltage:	+3.3V and +5V and +7-20V DC
Power Consumption:	typical 15 watts
Dimensions:	MXM-3.0 Type 'A' 70mm×82mm
Weight:	Less than 125 grams
Operating Temp:	-40°C to +85°C
Storage Temp:	-55°C to +105°C
Relative Humidity:	5% to 95% non-condensing
Shock:	40G, 11ms half-sine shock pulses in 3-axis
Explosion Safety:	no voltages above 7-20V DC
Altitude:	between 0 and 15,250 meters



Visit www.WOLF.ca/products/ for more information about this and other advanced video modules and solutions.



AMD/ATI MOBILITY RADEON™ E4690 SPECIFICATIONS:

The AMD/ATI Mobility Radeon™ E4690 is a fully integrated graphics solution which provides the fastest and most advanced 2D and 3D multimedia graphics performance in its class for mobile, industrial, aerospace and military computers using the new PCI Express® bus architecture.

Further, it integrates many progressive new features required for demanding applications without compromising performance.

Graphic Features:

DirectX® 10.1 programmable vertex and pixel shades, enabling complex and realistic texture and lighting effects. Up to 16 textures per pixel.

OpenGL® 3.0

SmartShader™ 4.1

Power Play™, a robust power-management technology that reduces graphics-processor power consumption and maximizes the life of your systems battery. Its features include Power-on-Demand, which monitors system activity, and dynamically adjusts clocks and voltages based on usage.

Charisma Engine™, which includes acceleration for advanced character-animation features.

Smooth Vision™, which permits new levels of realism without slowing down frame rates.

Specifications:

- OpenGL® 3.0
- PCI Express Specification Rev. 2.0
- DVI 1.0 Spec Digital Visual Interface Assemblies
- IEEE STD 1386 Standard For Common Mezzanine Card Family

Full-screen anti-aliasing and anisotropic filtering.

TV-Out and S-Video support for up to 1024×768 resolution.

DVI, SVGA, S-video, Composite, TMDS single link, and LVDS 18bpp and 24bpp single and dual links.

Video Modes:

The VGA, DVI, and LVDS outputs will support the following resolutions for both LCD and CRT displays:

- 640×480 (VGA)
- 800×600 (SVGA)
- 1024×768 (XGA)
- 1280×768 (WXGA)
- 1280×800 (WXGA)
- 1280×1024 (SXGA)
- 1600×1200 (UXGA)
- 1920×1200 (WUXGA)
- 2048×1536 (QXGA)
- 2560×1600 (WQXGA)
- 2560×2048 (QSXGA)
- up to 3840×2400 (QUXGA)

These resolutions are supported for the following refresh rates:

- 60Hz
- 70Hz
- 75Hz
- 85Hz

RGB and DVI video modes support 16-bit (65K) color and 32-bit (16.7 million) color.

Military Standards:

- MIL-STD-810F Environmental Engineering
- IPC Class 3 Requirements for Soldered Electrical and Electronic Assemblies