

# Telum™ 3001

## DVI/VGA Graphics Adapter AdvancedMC™

### Features

- Graphics processing unit with x8 lanes PCI Express and 128 MB memory
- 3D/2D graphics support
- Supports resolutions up to 1600 x 1200 (VGA)
- Supports resolutions up to 1920 x 1200 (DVI)
- Supports dual display outputs using both DVI and VGA interfaces
- Support for multiple 3001 adapters per system
- DMS-59 front panel connector and adapters supporting various DVI and VGA video options
- Supports multiple graphics adapter cards in one system in ganged mode to increase graphical processing capability
- AMC.0 R2.0 compliant
- AMC.0 Management Module Controller (MMC) (IPMI v2.0 compliant); supports module hot swap
- 1 Mb Flash ROM for video BIOS
- RoHS compliant
- Designed for NEBS compliance
- Operating system support
  - Windows® XP/Vista,
  - Linux®
  - Carrier Grade Linux
  - Solaris
  - VxWorks®

Telum™ 3001 is a high-quality graphics adapter AdvancedMC™ that incorporates a high-performance graphics processing unit (GPU). Integrating x8 PCI-Express (PCI-E) and 128 MB memory in a single package allows the GPU to deliver exceptional 2D, 3D and multimedia graphics performance.

Telum 3001 is ideal for board development applications that need video for debugging and monitoring, as well as for medical and other imaging applications. Designed to handle high-resolution graphics displays, this AdvancedMC's comprehensive display mode supports many standard screen resolutions up to two times 1920 x 1200 at 60 Hz with 30 bpp on DVI or 1600 x 1200 on a VGA connection.

To optimize graphics processing, increase graphics processing capability and overall performance, Telum 3001 offers a rich feature set that includes DirectX 10.0 compliance, OpenGL 2.0 support, VESA mode, Anti-aliasing filtering, dedicated unified video decoder (UVD), MPEG1/2/4 hardware acceleration, PowerPlay™, and CrossFireX™.

A front panel-mounted DMS-59 video interface connector supports a variety of configurations including two DVI-D connections, two analog VGA connections, or one DVI-I connection plus an analog VGA connection.

### Intelligent Platform Management Interface (IPMI) & Hot Swap Compliance

An AMC.0 Module Management Controller (MMC) subsystem is included with the Telum 3001. This MMC is IPMI v2.0 compliant and initializes board level parameters, monitors board voltage and temperature conditions, maintains system status, and manages hot swap operation for high availability applications. A microcontroller is used as the IPMI intelligence and connects to the AdvancedMC management bus. This module is hot swap capable and is field replaceable in accordance with AMC.0.



# Telum 3001 DVI/VGA Graphics Adapter AdvancedMC

## Specifications

### AdvancedMC Conformance

- AMC.0 R2.0

### ATI M72-CSP128 GPU

- 64-bit memory interface supporting 128 MB memory
- x8 lanes PCI-Express; PCI-Express 1.1
- 2 independent display controllers
- 2 fully integrated DVI interfaces
  - Support for two single link DVIs
  - 1650 Mb/s per channel with 165MHz pixel clock rate per link

### 3D/2D Graphics Support

- VESA Mode
- Fully Microsoft® DirectX® 10.0 compliant
- Support for OpenGL® 2.0
- MPEG 1/2/4 hardware acceleration
- UVD for H.264 and VC-1
- Anti-Aliasing up to 8x
- Anisotropic filtering up to 16x
- Full speed 32-bit floating point processing per component

### x8 PCI Express Implementation

- Connection on Ports 4-11

### Front Panel I/O

- Single DMS-59 front panel connector supports
  - 2 DVI-D connections or
  - 2 analog VGA connections or
  - 1 VGA/DVI-I connection plus 1 analog VGA connection

### Rear Panel I/O

- None

### Dimensions

- 180.6 mm x 73.5 mm (7.2 inches x 2.89 inches)

### Weight

- 0.24 Kg (0.529 lbs)

### Power Requirements

- Less than 24 watts

### Standard Screen Resolutions Supported (per video output)

- Up to 1920 x 1200 30 bpp (DVI)
- Up to 1600 x 1200 30 bpp (VGA)

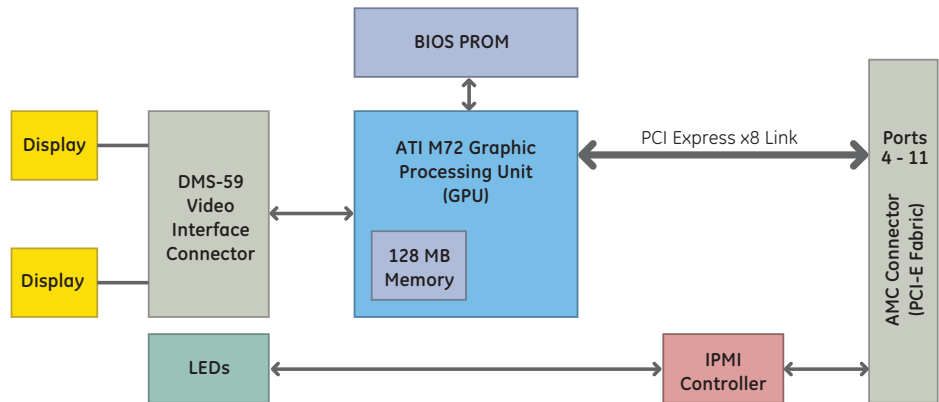
### Environmental

- Temperature
  - Operating: 0° to +70 °C
  - Storage: -40° to +85 °C
- Relative Humidity
  - Operating: 5% to 95%, noncondensing
  - Storage: 5% to 95%, noncondensing

### Regulatory Compliance:

- CE Mark
- Emissions
  - FCC 47CFR Part 15 Class A (USA)
  - EN55022: 1998/A1:2000/A2:2003 Class A ITE (EU)
  - VCCI Class A ITE (Canada)
  - AS/NZ CISPR 22:2002
  - AS/NZ CISPR 22:2002 Class A (Aus. New Zealand)
  - ICES-003 Issue 3 Class A (Canada)
  - VCCI Class A ITE
- Immunity
  - EN55024:1998/A1:2001/A2:2003 (EU)
- Safety
  - UL60950-1 (USA)
  - CSA 22.1 No. 60950-1-03 (Canada)
  - EN 60950-1 (EU)
- RoHS 2002/95/EC compliant

## Block Diagram



## Ordering Information

<b>T3001A10001</b>	Telum 3001; H8 IPMI controller; 128MB graphic memory; full-size AdvancedMC; commercial temperature range
<b>DMS59A</b>	DMS-59 compliant Y-cable with two DVI-D connections
<b>DMS59B</b>	DMS-59 compliant Y-cable with two VGA connections
<b>DMS59C</b>	DMS-59 compliant Y-cable with one DVI-D and one VGA connections

For detailed information and additional options, contact GE Fanuc Intelligent Platforms

## About GE Fanuc Intelligent Platforms

GE Fanuc Intelligent Platforms, a joint venture between General Electric Company (NYSE: GE) and FANUC LTD of Japan, is an experienced high-performance technology company and a global provider of hard-ware, software, services, and expertise in automation and embedded computing. We offer a unique foundation of agile, advanced and ultra-reliable technology that provides customers a sustainable advantage in the industries they serve, including energy, water, consumer packaged goods, government & defense, and telecommunications. GE Fanuc Intelligent Platforms is a worldwide company headquartered in Charlottesville, VA and is part of GE Enterprise Solutions. For more information, visit [www.gefanuc.com](http://www.gefanuc.com).

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## Additional Resources

For more information, please visit the GE Fanuc Intelligent Platforms web site at:

[www.gefanuc.com](http://www.gefanuc.com)

