AMC590 PRODUCT SHEET

Video/Storage AdvancedMC™ Module with Audio



FEATURES

Mid-Size, Single-Wide AdvancedMC Form Factor

High-Performance 2D, 3D, and Multimedia Video with 128 MB GDDR3 Memory and DAC Speeds of 400 MHz

QXGA Resolution up to 2048 x 1536

HDMI Connection for 480p, 720p, and 1080i Output

Video Acceleration and Dual-Display Support for VGA, HDMI, and DVI-D

Supports Standard SATA and SAS* Hard Drives

2.5-in. Hard Drive Options (Current market availability is up to 500GB)

Compatible with RAID array applications

Dual-Port Access for Storage (SAS Mode Only)

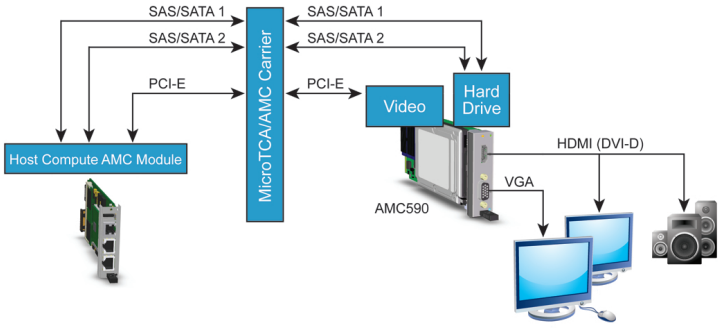
PCM and Dolby® Digital 5.1 Audio Formats

Drivers Available for 32- and 64-Bit Operating Systems:

- NexusWare® CGL OS and Development Environment
- Linux® x64
- Windows® XP
- Windows Vista® (32/64-bit support)

- Contact sales@pt.com for SAS HDD options.

The AMC590 is a high-performance video/storage/audio AdvancedMC module that features the AMD/ATI Radeon™ E2400 video processor and SATA/SAS hard drive interfaces. Integrated into a mid-size single AMC module, the AMC590 allows system designers to develop complete graphics and/or storage subsystems into their applications in a highly compact form factor that uses standards-based, hot-swappable, NEBS-compliant modules. This module is part of PT's line of AdvancedMC products and MicroTCA® products and is ideal for any embedded, compute, aerospace and defense, automation, or other graphic-intensive or storage-intensive application.



Video Features

The video block delivers exceptional 2D, 3D, and multimedia graphics with 128 MB of internal GDDR3 memory. Intensive graphics and multimedia applications can take advantage of the dual-display support, integrated audio, and up to x8 lane PCI Express® interface when coupled with high-performance compute modules. The AMC590 is compatible with Microsoft® DirectX® 10 and OpenGL® 2.0.

Storage Features

The storage block supports both Serial ATA (SATA) and Serial Attached SCSI (SAS) interfaces through the AMC connector ports. The board accommodates standard 2.5-in. hard drives; with a mid-size front panel for 9mm drives and full-size panel for 15 mm drives.

The Port Selector can convert SAS commands to SATA to enable the use of larger capacity SATA drives with compute modules that only support SAS interfaces.

Benefits

Connecting to external network-attached storage can be expensive. It typically requires separate chassis, sparing, cabling, power delivery, and management tools. Integrated storage is easily added to any existing AdvancedMC architecture. Discrete system hard drives and external storage devices can be consolidated inside a single chassis. Sparing, hot-swapping, and infrastructure configuration are simplified, and the mean time to repair is reduced. In short, total cost of ownership for storage is reduced.

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Technical Specifications

ORDERING INFORMATION

PT-AMC590-12413
AMC Storage w/250 GB HDD, Video w/128MB DDR, Audio

PT-AMC590-12414
AMC Storage Module w/250 GB SATA HDD

PT-AMC590-12284
Video/Audio Module w/128 MB DDR

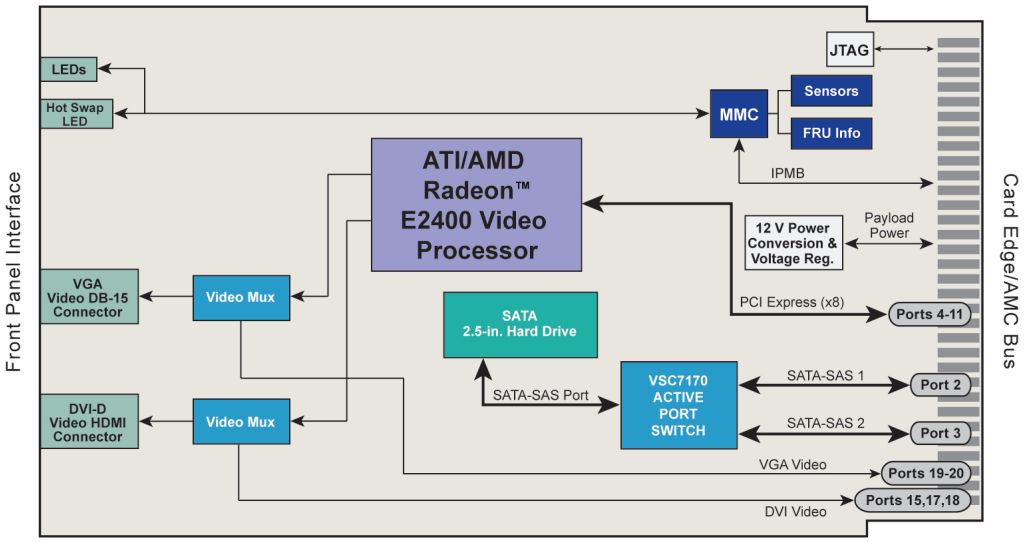
PT-AMC590-12381
HDMI Retention Clip for PT-AMC590, 25-Pack

Software Options

PT's NexusWare® suite of software provides a comprehensive Carrier Grade Linux® (CGL) OS and development environment as well as middleware and protocol communications software.

For more information visit www.pt.com or call your local representative.

Contact sales@pt.com for higher capacity **HDD options and/or SAS options**



AMC590 - Video/Storage/Audio AMC Module

Video Features

- AMD/ATI Radeon™ E2400 video processor
  – Internal 128 MB GDDR3 Memory
- High-performance 2D, 3D, and multimedia graphics
  – QXGA resolution up to 2048 x 1536
  – HDMI output for 480p, 720p, and 1080i
  – 32 bits per pixel
  – DirectX 10 and OpenGL 2.0 support
  – Video acceleration
    - Advanced de-interlacing algorithms
    - Programmable, independent gamma control for video overlay
  – SMARTSHADER™ 4.0
  – SMOOTHVISION™ 2.0
- Dual-display mode
- Integrated HD audio codec supports PCM and Dolby® Digital 5.1 Audio Format

Storage Feature

- SATA and SAS interfaces per AMC.3
- SAS to SATA converter: Allows SATA drives to interface with SAS commands
- 2.5-in. (9.5 mm) hard drive (SATA Gen1, 2, 1x, 2x)
- Compatible with RAID array applications
- Dual port SAS operation – AMC Port 2 and Port 3
- Single port SATA operation – AMC Port 2 or Port 3
- Auto negotiation of data transfer rate of 1.5 Gbps or 3.0 Gbps for each channel

Front Panel Interfaces

- DB15 VGA connector
- HDMI connector (High Definition Multimedia Interface)
  – Including 5.1 Dolby Audio
- LEDs
  – In-service
  – Out-of-service
  – Hot swap

AMC Connector Ports

- Port 2: SATA/SAS 1 (AMC.3)
- Port 3: SATA/SAS 2 (AMC.3)
- Ports 15, 17, 18: HDMI interface
- Ports 19, 20: VGA Interface
- Ports 4-11: x8 PCI Express® Lanes (AMC .1)
  – Auto negotiates to x1, x2, x4, or x8 lanes

Power

- Payload Power: +12 V
- Management Power: +3.3 V
- Nominal - Maximum:
  – PT-AMC590-12359: 15W - 24W
  – PT-AMC590-12360: 6W - 10W
  – PT-AMC590-12284: 12W - 18W

Mechanical

- Single-width, mid-size AMC.0 form factor
- Dimensions: 73.5 mm (W) x 180.6 mm (D) x 28.95 mm (H) (2.9 in x 7.1 in x 1.1 in)
- Weight:
  – PT-AMC590-12359: 0.227 kg (8.0 oz.)
  – PT-AMC590-12360: 0.204 kg (7.2 oz.)
  – PT-AMC590-12284: 0.135 kg (4.8 oz.)

Environmental

- Operating: 0 to 55°C (32 to 131°F)
- Non-operating: -20 to 80°C (-4 to 176°F)
- Humidity: 5 to 90% RH non-condensing

Agency Certifications

- FCC Class A
- CE
- UL 60950
- EN 60950
- EN 300 386
- Designed to meet NEBS Level 3

MTBF

- 311,305 hours per Bellcore SR-332 Issue 1

CONTACT US

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