AMC725

Xeon E3 Processor, 10GbE, MTCA.4, Double Module, AMC

AMC725

Key Features

- Double module, mid-size per AMC.0 and MTCA.4
- Intel® Xeon E3 processor options with PCH
- DVI graphics (SM750 w/16 MB DDR), up to 1920x1440 resolution
- PCIe Gen3 x4 on ports 4-7 and 8-11 or single PCIe x8 on ports 4-11 (AMC.1)
- GbE on ports 0 and 1 (AMC.2) and SATA on ports 2 and 3 (AMC.3)
- PCIe Gen3 x8, dual SATA and quad USB to RTM
- Dual 10GbE via SPF+ and dual GbE via RJ-45 to front panel

Benefits

- High-performance Xeon E3 processor with dual 10 GbE ports to the front panel
- Highly versatile combination of distributed processing, storage options, and RTM routing configurations
- Electrical, mechanical, software, and system-level expertise in house
- Full system supply from industry leader
- AS9100 and ISO9001 certified company

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The AMC725 is a Processor AMC (PrAMC) in a MTCA.4 double module, mid-size AMC form factor. It features an Intel® Xeon E3 Processor with Cave Creek PCH, and on-board dual RAID options. The module provides dual PCIe Gen3 x4 or single x8 on ports 4-11 per AMC.1, dual GbE on ports 0 and 1 per AMC.2, and SATA on ports 2 and 3 per AMC.3. Dual 10 GbE ports are included on the front panel.

The AMC725 comes with 16 GB of DDR3 memory with ECC. It routes PCIe, USB and SATA signals to the RTM connector for further expansion. The Serial over LAN (SoL) with hardware Random Number Generator (RNG) acts as a seed generator for authentication. The BIOS allows booting from on-board Flash, off-board SATA, PXE boot, and USB.

The Solid State Drives (SSDs) with no moving parts allows for high speed data storage and retrieval. When the SSDs are used in RAID configuration they provide greater reliability and power efficiency.

Figure 1: AMC725

Block Diagram

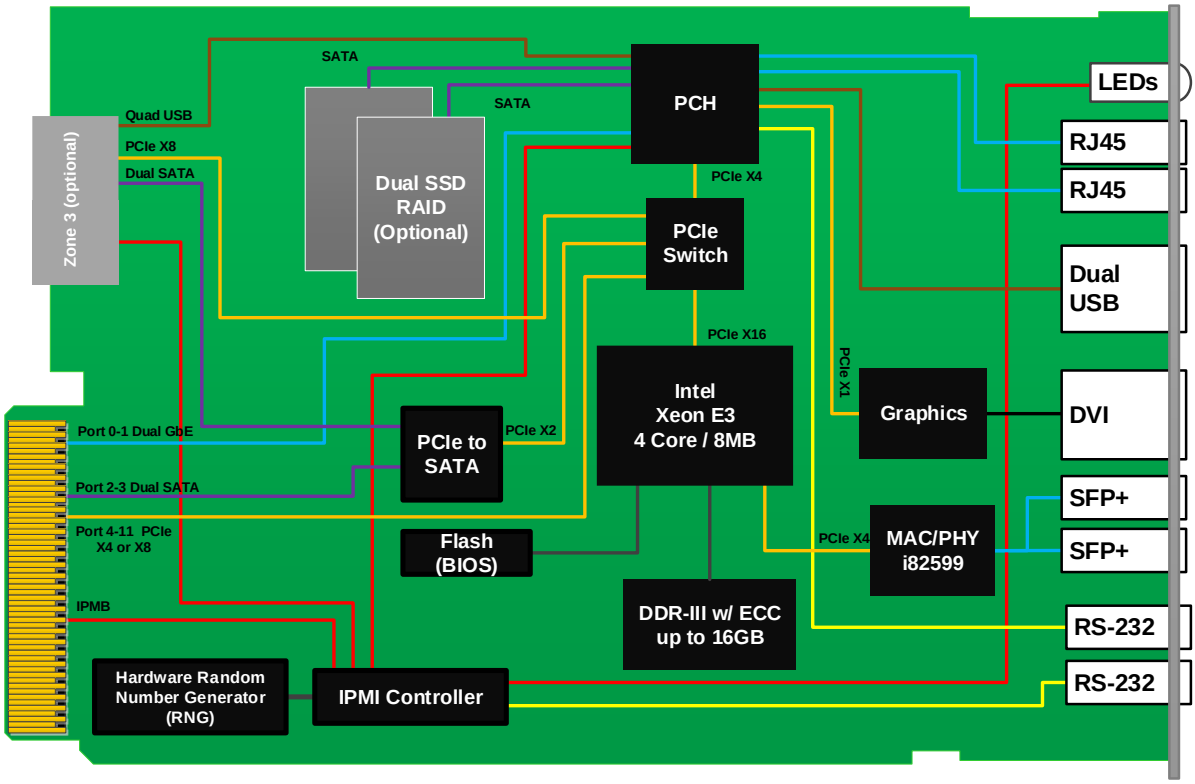

Figure 2: AMC725 Functional Block Diagram

Front Panel

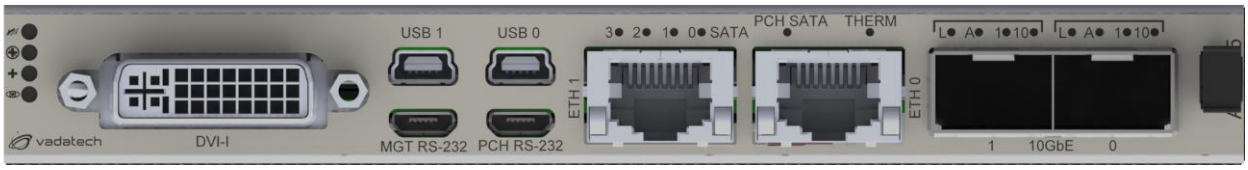

Figure 3: AMC725 Front Panel

Specifications

Architecture		
Physical	**Dimensions**	Double module, full-size
		Width: 5.85” (148.5 mm)
		Depth 7.11” (180.6 mm)
Type	**AMC Processor**	Intel Xeon E3
Standards		
AMC	**Type**	AMC.0, AMC.1, AMC.2 and AMC.3
Module Management	**IPMI**	IPMI v2.0
PCIe	**Lanes**	Dual x4 or single x8 as PCIe
Configuration		
Power	**AMC725**	~45 W
Environmental	**Temperature**	See ordering options and environmental spec sheet
		Storage Temperature: –40° to +85°C
	Vibration	Operating 9.8 m/s^2 (1 G), 5 to 500 Hz on each axis
	Shock	Operating 325G/2 m/s, 160G/1 m/s
	Relative Humidity	5 to 95% non-condensing
Front Panel	**Interface Connectors**	Dual GbE via RJ-45
		Dual USB via mini USB
		Single DVI
		Dual 10GbE via SFP+
		Dual RS-232 via micro USB
	LEDs	IPMI management control
		Activity/Link user LEDs
	Mechanical	Hot swap ejector handle
Software Support	**Operating System**	Linux, VxWorks and Windows
Other		
MTBF	MIL Hand book 217-F@ TBD hrs	
Certifications	Designed to meet FCC, CE and UL certifications, where applicable	
Standards	VadaTech is certified to both the ISO9001:2000 and AS9100B:2004 standards	
Warranty	Two (2) years	

INTEGRATION SERVICES AND APPLICATION-READY PLATFORMS

VadaTech has a full ecosystem of OpenVPX, ATCA and MTCA products including chassis platforms, shelf managers, AMC modules, Switch and Payload Boards, Rear Transition Modules (RTMs), Power Modules, and more. The company also offers integration services as well as pre-configured Application-Ready Platforms. Please contact VadaTech Sales for more information.

Ordering Options

AMC725 – ABC-DEF-GHJ

A = SFP+ TXCVR	D = Processor Type	G = Front Panel Type
0 = No TXCVR 1 = 10GBASE-SR 2 = 10GBASE-LR	0 = 4C, 2.0 GHz, 8 MB LLC (Xeon E3 1125) 1 = 4C, 2.5 GHz, 8 MB LLC (Xeon E3 1125 V2)	0 = MicroTCA.0 (no Zone 3) 1 = MicroTCA.1/MicroTCA.4 (with Zone 3)**
B = DD3 ECC Memory	**E = Number of SSD**	**H = Temperature Range**
0 = Reserved 1 = 8 GB 2 = 16 GB	0 = No SSD 1 = 1 2 = 2	0 = Commercial (–5° to +55°C) 1 = Industrial (–20° to +70°C) 2 = Extended (–40° to +85°C)***
C = Front Panel Size	**F = SSD Size***	**J = Conformal Coating**
0 = Reserved 1 = Reserved 2 = Mid-size 3 = Full-size	0 = No SSD 1 = Reserved 2 = 240 GB 3 = 360 GB 4 = 480 GB 5 = Reserved 6 = Reserved	0 = No coating 1 = Humiseal 1A33 Polyurethane 2 = Humiseal 1B31 Acrylic

Notes: *SSD Size (both the same for dual SSD)

**Includes captive screws

***Conduction cooled, temperature is at edge of module. Consult factory for availability.

Related Products

VT811

- MTCA System Platform 19” x 8U x 14.9” deep (with handles 16.23” deep)
- Full redundancy with dual MicroTCA Carrier Hub (MCH), dual Cooling Units and quad Power Modules
- Up to twelve AMCs: 12 front mid-size double module slots and RTM slots

AMC520

- Ten channels of ADC with 125 MSPS @ 16-bit resolution utilizing AD9268 device
- Dual DAC with 250 MSPS @ 16-bit resolution utilizing MAX5878 device (this is user programmable for lower sampling rate)
- Internal clock or precision external clock from RTM/backplane/front panel clocks

UTC018

- Double-module, 12 HP height module per AMC.0
- Universal AC input (85 to 265 V), 1000 W
- Provides power up to 12 AMCs, 2 MCHs and Cooling Units

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