

# AMC750

Processor AMC, Intel® Xeon  
E5-2648L v4, PCIe Gen3 with  
PinoutPlus™



AMC750

## Key Features

- Processor AMC Intel® Xeon E5-2648L v4
- PCIe Gen 3 on ports 4-7 and 8-11(AMC.1)
- x16 PCIe Gen 3 via Tongue 2, optional PCIe to ports 12-15, 17-20
- Video output via DVI-I connector
- GbE to port 0 and 1, SATA to port 2 and 3 (AMC.3)
- Dual GbE to the front panel
- Four banks of DDR4 memory with ECC
- Double module, full-size per AMC.0
- Optional TPM (Trusted Platform Module)

## Benefits

- PinoutPlus™ makes use of the tongue 2 connector per AMC.0 spec for up to 100 W of power and expanded PCIe connectivity
- Design utilizes proven VadaTech subcomponents and engineering techniques
- Electrical, mechanical, software, and system-level expertise in house
- Full system supply from industry leader
- AS9100 and ISO9001 certified company

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# AMC750

The AMC750 is a Processor AMC (PrAMC) in a double module, full-size AdvancedMC (AMC) form factor based on the Intel® Xeon E5-2648L v4 which has 14 Cores @ 1.8 GHz. The module follows the AMC.1 and AMC.3 specifications.

The module provides PCIe Gen3 x16 PinoutPlus™ on tongue 2, providing high-bandwidth connectivity to co-processors such as GPU, Cavium, Tiler, FPGA, etc. (where supported by appropriate chassis such as VadaTech VT815). The use of the tongue 2 connector complies with the AMC.0 specification. Additional expansion is supported on the AMC750 with optional PCIe on ports 12-15 and 17-20.

GbE is provided on ports 0 and 1 per AMC.2, and SATA on ports 2 and 3 per AMC.3. It also provides dual GbE to the front panel.

The AMC750 provides 32 GB of DDR4 memory with ECC and 32 GB of Flash via a SATA disk for the OS. The module has serial over LAN with hardware Random Number Generator (RNG) as seed generator for authentication. The BIOS allows booting from on-board Flash, off-board SATA, PXE boot and USB. There are dual USB for extended storage or peripherals.

Linux OS is standard on the AMC750, consult VadaTech for other options.



Figure 1: AMC750 Front View

# Block Diagram

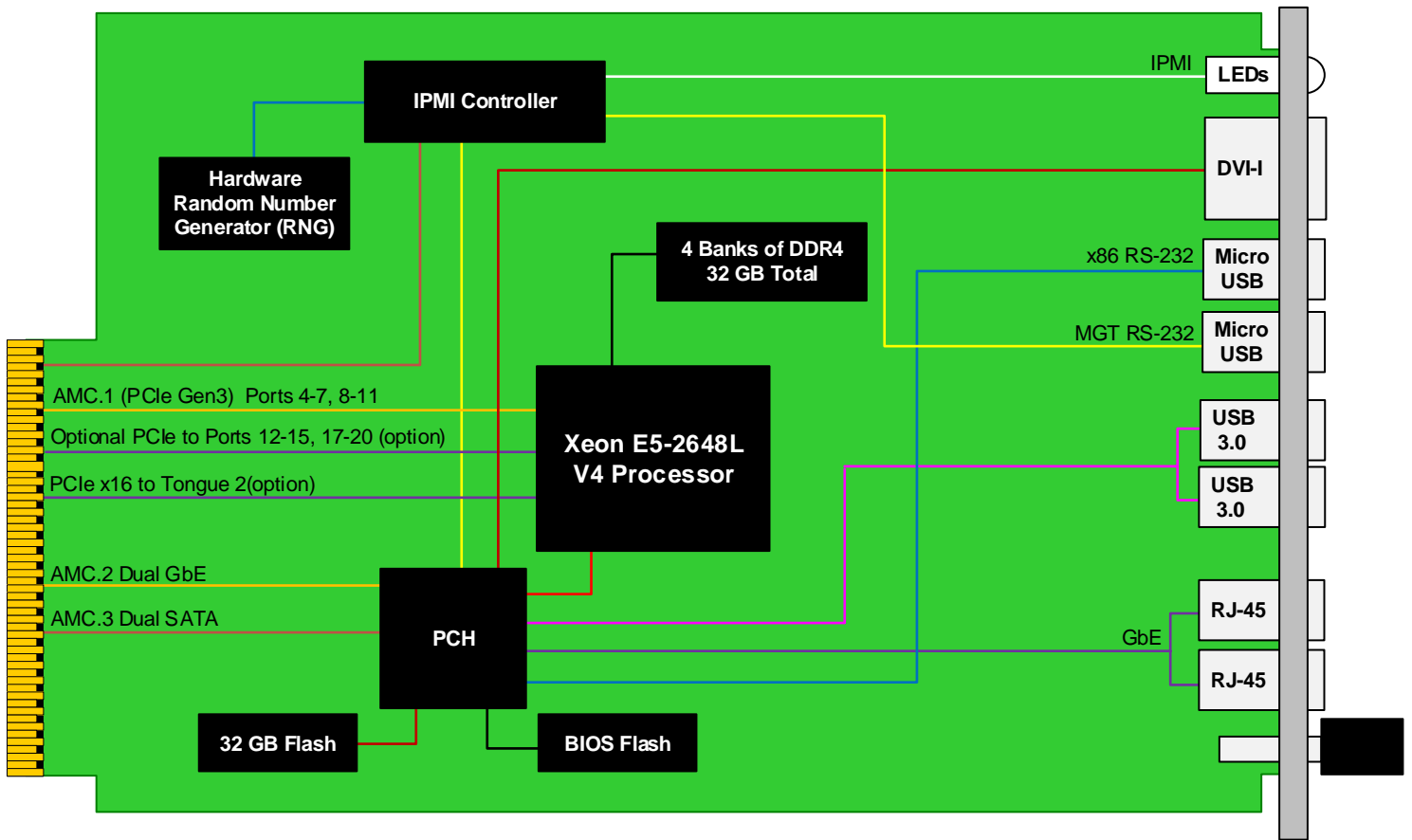


Figure 2: AMC750 Functional Block Diagram

# Front Panel

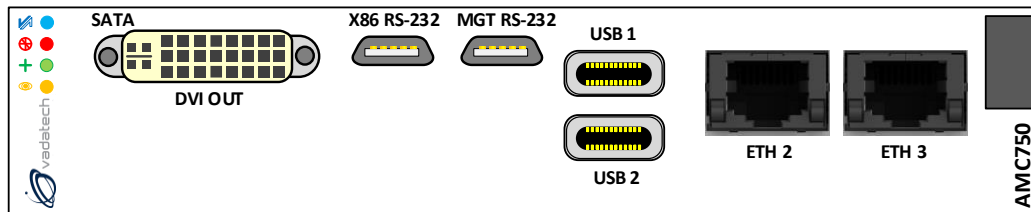


Figure 3: AMC750 Front Panel

# Specifications

Architecture	
<b>Physical</b>	<b>Dimensions</b> Double-module full-size Width: 5.85" (148.5 mm) Depth 7.11" (180.6 mm)
Standards	
<b>AMC</b>	<b>Type</b> AMC.1 and AMC.3
<b>Module Management</b>	<b>IPMI</b> IPMI v2.0
<b>XAU/PCIe</b>	<b>Lanes</b> PCIe Gen 3 on ports 4-7 and 8-11, PCIe Gen3 x16 on tongue 2, optional PCIe Gen3 on Ports 12-15 and 17-20
Configuration	
<b>Power</b>	<b>AMC750</b> ~100 W
<b>Environmental</b>	<b>Temperature</b> See ordering options and <a href="#">environmental spec sheet</a> Storage Temperature: -40° to +85°C
	<b>Vibration</b> Operating 9.8 m/s <sup>2</sup> (1 G), 5 to 500 Hz
	<b>Shock</b> Operating 325 G/2ms, 160 G/1ms
	<b>Relative Humidity</b> 5 to 95% non-condensing
<b>Front Panel</b>	<b>Interface Connectors</b> Dual GbE via RJ-45 Dual USB 3.0 via USB 3.0 standard A Graphics output via DVI-I Port Dual RS-232 via micro USB
	<b>LEDs</b> IPMI management control Activity/Status LEDs
	<b>Mechanical</b> Hot swap ejector handle
<b>Software Support</b>	<b>Operating System</b> Linux and Windows (consult VadaTech for other options)
Other	
<b>MTBF</b>	MIL Hand book 217-F@ TBD hrs
<b>Certifications</b>	Designed to meet FCC, CE and UL certifications, where applicable
<b>Standards</b>	VadaTech is certified to both the ISO9001:2000 and AS9100B:2004 standards
<b>Warranty</b>	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

## AMC750 – ABC-D00-00J

A = Ports 12-15 and 17-20	D = Trusted Platform Module	
0 = Not routed 1 = Routed as PCIe	0 = No TPM 1 = TPM provided	
B = Tongue 2		
0 = Not routed 1 = Installed		
C = Front Panel Size		J = Temperature Range and Coating*
1 = Reserved 2 = Reserved 3 = Full-size 4 = Reserved 5 = Reserved 6 = Full-size MTCA.1 (captive screw) 7 = Extended height 8HP		0 = Commercial (-5° to +55°C), No coating 1 = Commercial (-5° to +55°C), Humiseal 1A33 Polyurethane 2 = Commercial (-5° to +55°C), Humiseal 1B31 Acrylic 3 = Industrial (-20° to +70°C), No coating 4 = Industrial (-20° to +70°C), Humiseal 1A33 Polyurethane 5 = Industrial (-20° to +70°C), Humiseal 1B31 Acrylic 6 = Extended (-40° to +85°C), Humiseal 1A33 Polyurethane* 7 = Extended (-40° to +85°C), Humiseal 1B31 Acrylic*

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

## Related Products

AMC740



- Tiler™ GX72CPU with 72 TILE-Gx Core processors
- Double module, full-size per AMC.0
- Four banks of DDR3 w/ ECC (up to 64 GB)

UTC004



- Unified 1 GHz quad-core CPU for MCMC (MTCA Carrier Management Controller), Shelf Manager, Clocking, and Fabric management
- Non-blocking PCIe Gen 3, SRIO Gen 2, 10GbE/40GbE, or Crossbar Switch option to AMC fat pipes with options for up to 40GbE uplink
- 1GbE base switch with dual 100/1000/10G uplink

UTC020



- Single module, full-size per AMC.0
- Dual -36 V DC to -75 V DC input, 936 W (available in 468 W)
- Hot swappable with support for power module redundancy

# Contact

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