

# AMC741

Tilera GX72 Processor, 72 Core,  
Mid-size, AMC



AMC741

## Key Features

- Tilera™ GX72CPU with 72 Tile-Gx Core processors
- Double module, mid-size per AMC.0
- Four banks of DDR3 w/ ECC (up to 64 GB)
- AMC Ports 4-11 are routed to Tilera per AMC.2 (PCIe and XAUI options)
- AMC Ports 17-20 optionally routed as XAUI to the Tilera
- Four 10GbE to front panel
- IPMI 2.0 compliant

## Benefits

- High performance with 72 processor cores (tiles) on Tilera™ chipset
- High bandwidth front-panel and backplane connectivity
- QoS queuing and traffic shaping support
- Strong mil/aero support
- Electrical, mechanical, software, and system-level expertise in house
- Full system supply from industry leader
- AS9100 and ISO9001 certified company



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# AMC741

The AMC741 is ideal for packet filtering, intelligent networking, multimedia, video transcoding, cloud and other applications. The device includes 72 identical processor cores (tiles) interconnected with Tiler's iMesh™ on-chip network.

Each tile consists of a full-featured, 64-bit processor core as well as L1 and L2 cache and a non-blocking Terabit/sec switch. The high processing density and high internal bandwidth of the GX72CPU make it ideal for intensive computing tasks.

The AMC741 provides four 10GbE front-panel ports via LC style connectors, making it suitable for network-centric sensor processing applications. The unit includes IEEE 1588v2 precision timing controller support, which provides precision 1 ns granularity packet timestamping for signal encoding.

The AMC741 is available in mid-size AMC for compact integration into a 1U chassis.



Figure 1: AMC741

# Block Diagram

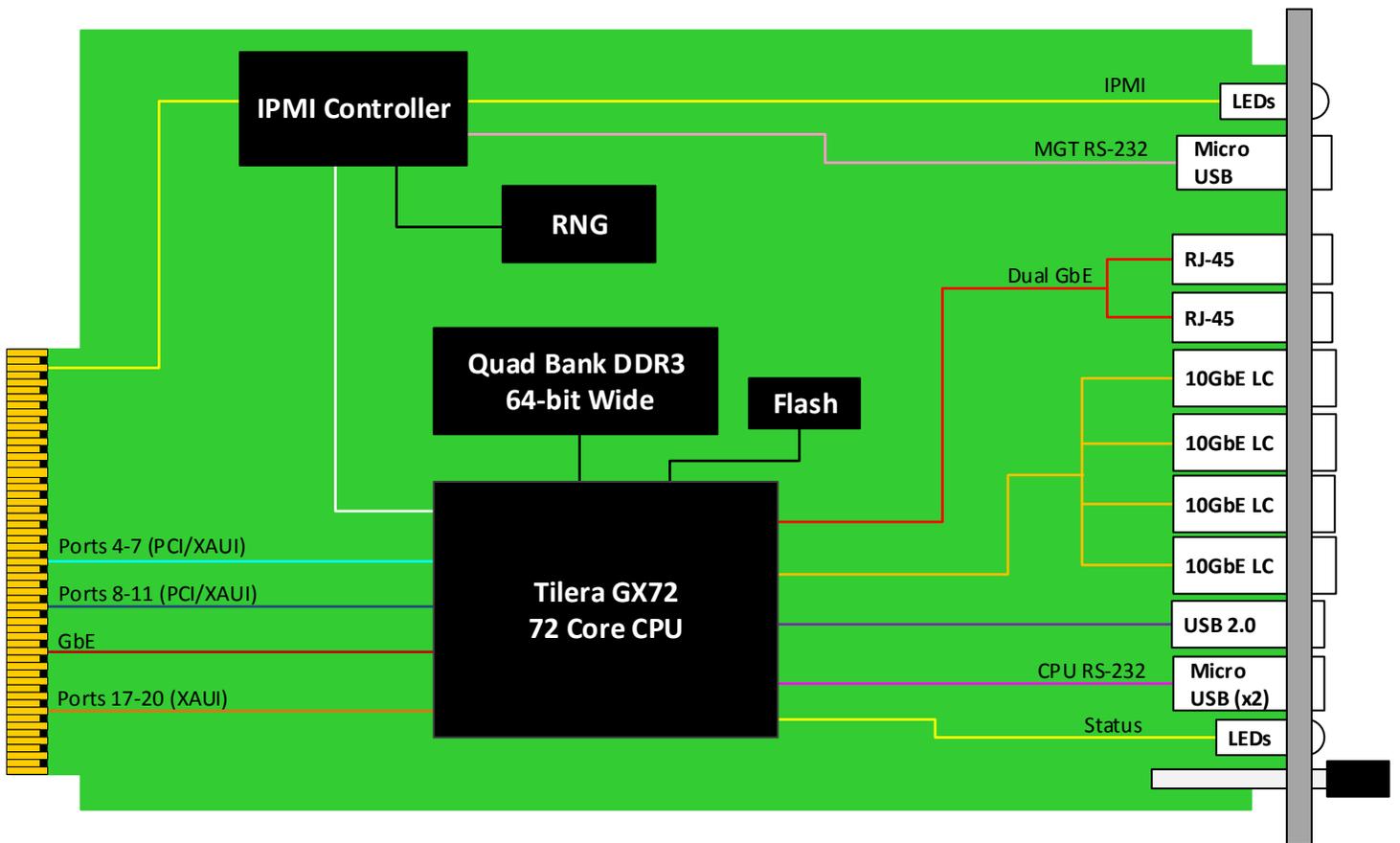


Figure 2: AMC741 Functional Block Diagram

# Specifications

Architecture		
Physical	Dimensions	Width: 5.85" (148.5 mm)
		Depth: 7.11" (180.6 mm)
Type	AMC Processor	72-core Tiler GX72 Processor AMC
Standards		
AMC	Type	AMC.0, AMC.1 and AMC.2
Module Management	IPMI	IPMI v2.0
Configuration		
Power	AMC741	80W
Environmental	Temperature	See <a href="#">Ordering Options</a> and <a href="#">Environmental Spec Sheet</a>
		Storage Temperature: -40° to +90°C
		Altitude Chassis dependent
	Relative Humidity	5 to 95% non-condensing
Front Panel	Interface Connectors	2x RJ-45 for GbE
		4x LC connectors for 10GbE
		3x Micro USB for RS-232
		1x Mini USB for USB 2.0
		LEDs IPMI, activity and GPIO
	Mechanical	Hot swap ejector handle
Software Support	Operating System	Linux (consult VadaTech for other options)
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, see <a href="#">VadaTech Terms and Conditions</a>

## 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

## AMC741 – A0C-D0F-00J

A = 10GbE on Ports 17-20	D = DDR3 Memory with ECC	
0 = Not connected 1 = Connected	0 = 16 GB 1 = 32 GB 2 = 64 GB*	
C = Front Panel Size	F = PCIe Option	J = Temperature Range and Coating
1 = Reserved 2 = Mid-size 3 = Full-size (6 HP)	0 = No PCIe 1 = PCIe on Ports 4-7 2 = PCIe on Ports 8-11 3 = PCIe on Ports 4-11	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: \*Minimum order quantity required.

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

## Related Products

UTC004



- Unified 1 GHz quad-core CPU for MCMC, Shelf Manager, Clocking, and Fabric management
- Automatic fail-over with redundant UTC004s
- Full Layer 2 or 3 managed Ethernet switches

VT813



- 19" x 8U x 14.9" deep (with handles 16.23" deep)
- Full redundancy with dual MicroTCA Carrier Hubs (MCH), dual cooling units and quad PSUs
- Up to twelve AMCs: 12 mid-size double modules in front with 12 mid-size, double-module in the rear

VT899



- MTCA System Platform 5" x 7U x 9" deep
- Redundant Cooling Units
- Up to six AMCs: 6 full-size single or 3 full-size double modules

# Contact

## VadaTech Corporate Office

198 N. Gibson Road, Henderson, NV 89014

Phone: +1 702 896-3337 | Fax: +1 702 896-0332

## Asia Pacific Sales Office

7 Floor, No. 2, Wenhua Street, Neihu District, Taipei 114, Taiwan

Phone: +886-2-2627-7655 | Fax: +886-2-2627-7792

## VadaTech European Sales Office

VadaTech House, Bulls Copse Road, Southampton, SO40 9LR

Phone: +44 2380 016403

[info@vadatech.com](mailto:info@vadatech.com) | [www.vadatech.com](http://www.vadatech.com)

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