

# AMC769

Intel Xeon Tiger Lake-H AMC,  
PCIe Gen3



AMC769

## Key Features

- Intel Xeon W-11865MRE SoC (Tiger Lake-H) 11<sup>th</sup>-Generation (8 core @ 2.6 GHz Turbo 4.7 GHz)
- Dual 10GbE via RJ-45
- Dual Graphic DP with dual USB 3.0
- x16 PCIe Gen3 on ports 4-11, 12-15 and 17-20
- x16 PCIe Gen3 can be bifurcated as quad x4 or dual x8
- Dual M.2 with PCIe x4 Gen4 to each socket
- 64 GB of DDR4 memory with ECC
- Double module, mid-size (option for full-size) per AMC.0

## Benefits

- 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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# AMC769

The AMC769 is a Processor AMC (PrAMC) in a double module, mid-size AdvancedMC (AMC) form factor based on the Intel® Xeon® Processor W-11865MRE (Tiger Lake-H 11<sup>th</sup> -Generation). The processor has 8 cores with base frequency of 2.6 GHz with max turbo frequency of 4.7 GHz. The module follows the AMC.1, AMC.2 and the AMC.3 specifications.

The module provides x16 PCIe Gen3 thru ports 4-7, 8-11, 12-15 and 17-20. The x16 PCIe could be bifurcated to quad x4 or dual x8. Further the module has GbE on ports 0 and 1 per AMC.2, and SATA on ports 2 and 3 per AMC.3.

The AMC769 provides dual 10GbE via RJ-45. The module also has dual M.2 NVMe storage option which connects to the CPU via PCIe x4 Gen4.

The AMC769 provides up to 64 GB of DDR4 memory with ECC and 64 GB of Flash for the OS. The module has Serial over LAN (SoL). The BIOS allows booting from on-board Flash, off-board SATA, PXE boot, M.2 and USB. There are dual USB 3.0 type connectors for extended storage or peripherals. Linux OS is standard on the AMC769, consult VadaTech for other options.



Figure 1: AMC769

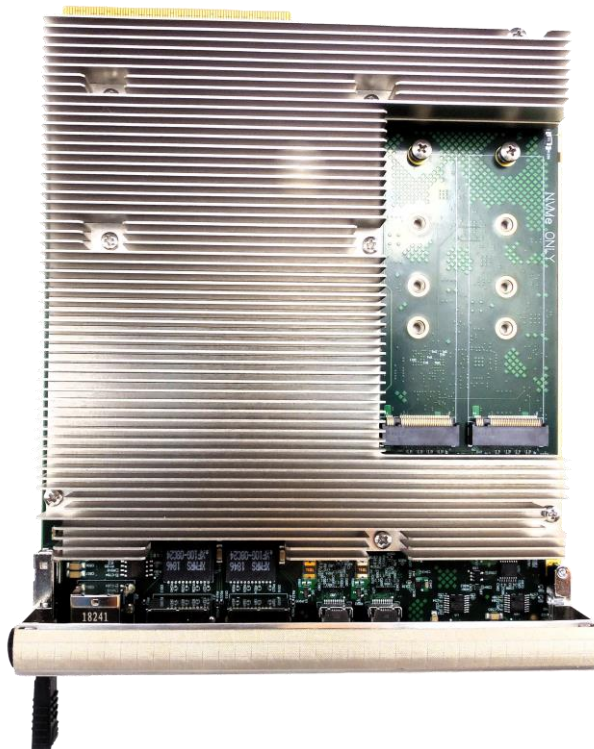


Figure 2: AMC769 Top View with Heatsink

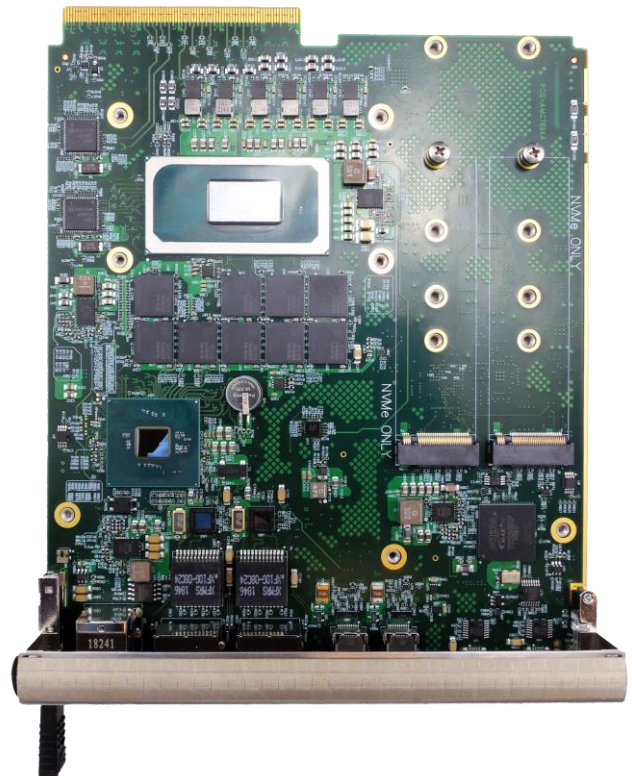


Figure 3: AMC769 Top View without Heatsink

# Block Diagram

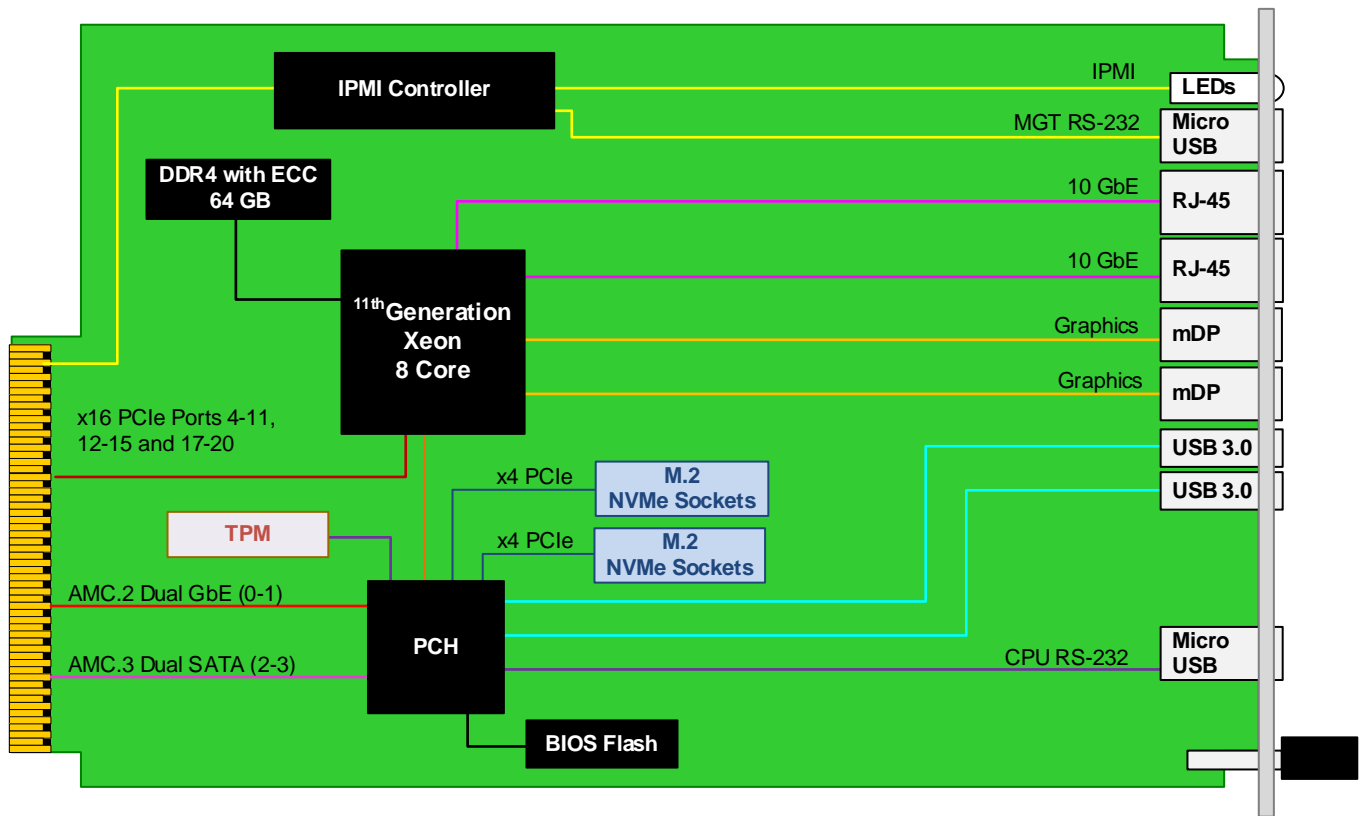


Figure 4: AMC769 Block Diagram

# Specifications

Architecture	
<b>Physical</b>	<b>Dimensions</b> Width: 5.85" (148.5 mm) Depth: 7.11" (180.6 mm)
<b>Type</b>	<b>AMC Processor</b> Intel Xeon Processor AMC, 8 Core
Standards	
<b>AMC</b>	<b>Type</b> AMC.0, AMC.1, AMC.2 and/or AMC.3
<b>Module Management</b>	<b>IPMI</b> IPMI v2.0
<b>PCIe</b>	<b>Lanes</b> Single x16, dual x8 or quad x4 as PCIe Gen3
Configuration	
<b>Power</b>	<b>AMC769</b> ~65 W
<b>Environmental</b>	<b>Temperature</b> See ordering options and <a href="#">environmental spec sheet</a> Storage Temperature: -40° to +90°C
	<b>Altitude</b> Chassis dependent
	<b>Relative Humidity</b> 5 to 95% non-condensing
<b>Front Panel</b>	<b>Interface Connectors</b> 2x RJ-45 10GbE 2x USB type C connectors for USB 3.0 2x Micro USB for RS-232 2x Mini DisplayPort for graphics
	<b>LEDs</b> IPMI, activity and user defined
	<b>Mechanical</b> Hot swap ejector handle
<b>Software Support</b>	<b>Operating System</b> Linux (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

## AMC769 – A0C-DEF-00J

A = DDR4 Memory	D = NVMe Storage Socket One	
0 = Reserved 1 = 64 GB	0 = No NVMe 1 = 1 TB 2 = 2 TB 3 = 4 TB 4 = 8 TB	
	E = NVMe Storage Socket Two	
	0 = No NVMe 1 = 1 TB 2 = 2 TB 3 = 4 TB 4 = 8 TB	
C = Front Panel Size	F = PCIe backplane configuration	J = Temperature Range and Coating*
1 = Reserved 2 = Mid-size 3 = Full-size 4 = Reserved 5 = Reserved 6 = Mid-size, MTCA.1/4 captive screws 7 = Full-size, MTCA.1/4 captive screws 8 = Reserved	0 = No PCIe (no connection to ports 4-20) 1 = x16 (ports 4-11, 12-15 and 17-20) 2 = Dual x8 (ports 4-11 / 12-15 and 17-20) 3 = Quad x4 (ports 4-7 / 8-11 / 12-15 / 17-20) 4 = Single x4 on ports 4-7 5 = Single x4 on ports 8-11 6 = Single x8 on ports 4-11 7 = Dual x4 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: \*Edge of module for conduction cooled boards, consult factory/Sales 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

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

VT819



- 1U MTCA.4 Chassis with 2 AMC Slots, Economic
- Integrated shelf manager with GbE Switch
- Point-to-point backplane routing across the two AMC slots on Ports 4-7 and 8-11

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