AMC769

Intel Xeon Tiger Lake-H AMC, PCIe Gen3

AMC769

Key Features

- Intel Xeon W-11865MRE SoC (Tiger Lake-H) 11th 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

AdvancedMC™

vadatech
THE POWER OF VISION

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 11th 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 32M x 8 BIOS SPI Flash (two copies) for the OS. The module has Serial over LAN (SoL). The BIOS allows booting from onboard 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

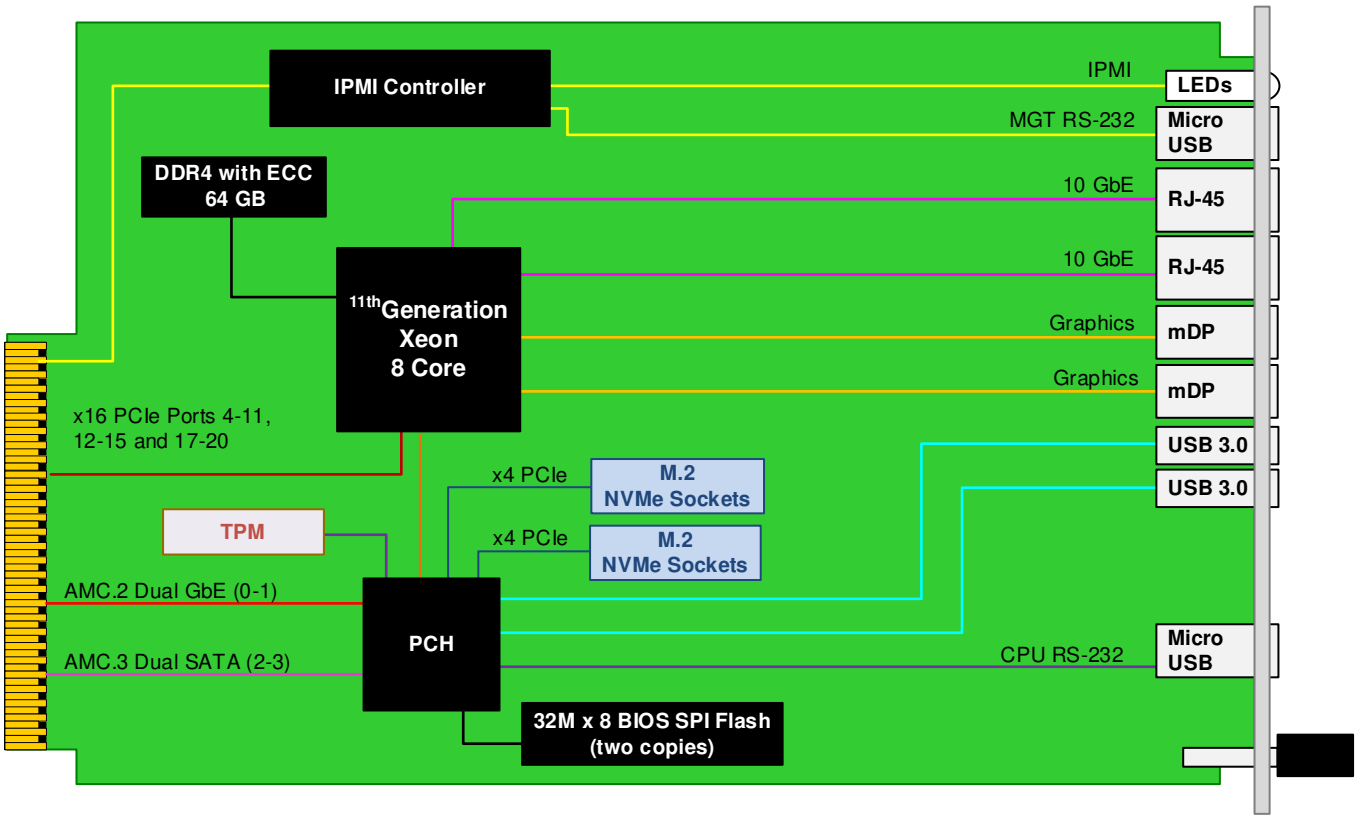

Figure 4: AMC769 Functional Block Diagram

Specifications

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

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

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, Wenhu 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 | www.vadatech.com

Choose VadaTech

We are technology leaders

- First-to-market silicon
- Constant innovation
- Open systems expertise

We commit to our customers

- Partnerships power innovation
- Collaborative approach
- Mutual success

We deliver complexity

- Complete signal chain
- System management
- Configurable solutions

We manufacture in-house

- Agile production
- Accelerated deployment
- AS9100 accredited

vadatech
THE POWER OF VISION

DOC NO. 4FM737-12 REV 01 | VERSION 1.4 – AUG/25