AMC772

Intel® Ice Lake-D Processor Xeon® D-1746TER 10/40GbE

Key Features

- Processor AMC Intel® Ice Lake-D Processor Xeon® D-1746TER (Ice Lake-D)
- PCIe on ports 4-7 and 40GbE and/or 4x 10GbE on Ports 8-11
- Serial Over LAN (SOL)
- 48GB of DDR4 memory with ECC
- NVMe M.2 Storage
- Display Port (DP)
- Platform Firmware Resilience (PFR) via on board FPGA for security
- Trusted Platform Management (TPM)
- Single module, mid-size with option for full-size or 8HP

Benefits

- Ice Lake-D embedded hardware security features, AI capability, enhanced connectivity and fast boot
- Low power for balanced performance and power
- Ideal upgrade for Broadwell-DE (such as AMC754)
- Electrical, mechanical, software, and system-level expertise in house
- Full system supply from industry leader
- AS9100 and ISO9001 certified company

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AMC772

The AMC772 is a Processor AMC (PrAMC) in a single module, mid-size Advanced Mezzanine Card (AMC) form factor based on the Intel® Processor Xeon® D-1746TER (Ice Lake-D) for general purpose processing in demanding embedded applications. The D-1746TER has 10 cores with three channels of DDR4 memory.

The AMC772 comes with 48GB of DDR4 memory with ECC and a M.2 NVMe storage. The BIOS allows booting from onboard Flash, PXE, and/or USB.

The Module provides PCIe on ports 4-7 and 40GbE and/or octal 10GbE on Ports 8-11 per AMC.2, GbE on Ports 0/1 to the CPU, and SATA on Ports 2 and 3 per AMC.3. The Module also provides 10GbE-T on the front panel.

The module utilizes the Intel Bootguard PFR via on board FPGA and Trusted Platform Management (TPM). The FPGA can be reprogrammed by the customer to meet their security beyond what is provided by the PFR.

There are dual USB 3.0 type C connectors for extended storage, peripherals, etc.

Linux OS is standard on the AMC772, consult VadaTech for other options.

Block Diagram

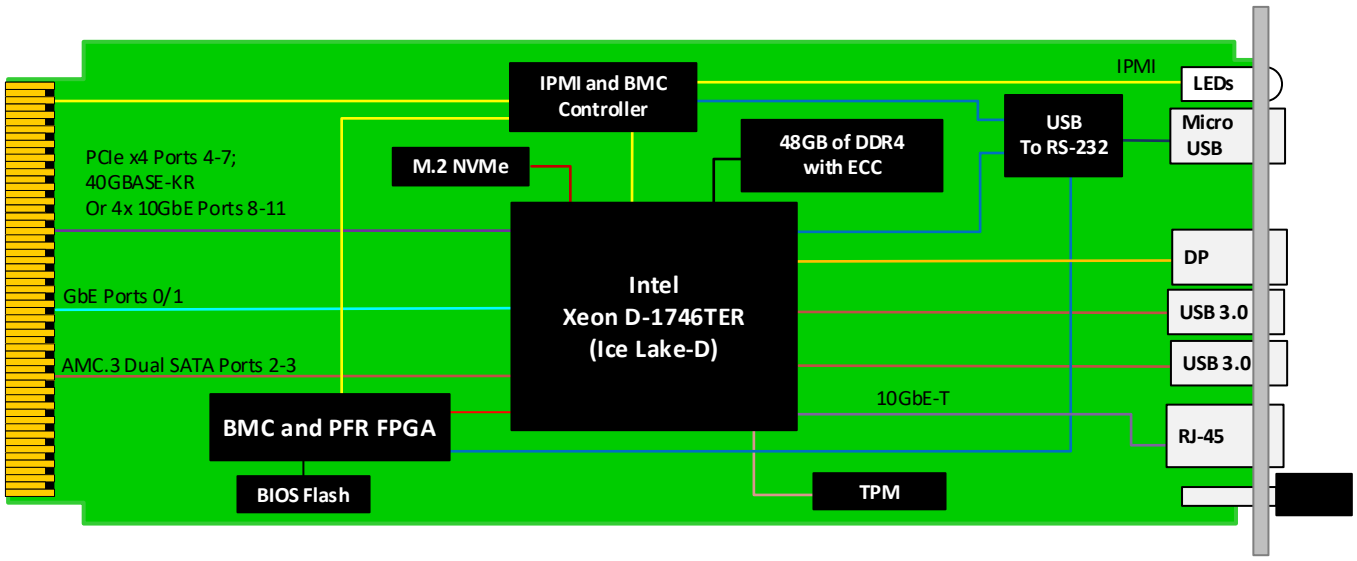

Figure 1: AMC772 Functional Block Diagram

Specifications

Architecture		
Physical	**Dimensions**	Width: 2.89” (73.5 mm)
		Depth: 7.11” (180.6 mm)
Type	**AMC Processor**	Intel® Ice Lake-D Processor Xeon® D-1746TER
Standards		
AMC	**Type**	AMC.0, AMC.2 and/or AMC.3
Module Management	**IPMI**	IPMI v2.0
10/40GbE	**Lanes**	PCIe x4 on Ports 4-7 and 40GBase-KR4 and/or octal 10GbE on Ports 8-11
Configuration		
Power	**AMC772**	~75W
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**	10GbE-T via RJ-45 and Mini DP for Video
		2x USB type C connectors for USB 2.0/3.0
		1x Micro USB for RS-232 for each sub-system
	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 ISO9001:2015 and AS9100D standards	
Warranty	Two (2) years, see VadaTech Terms and Conditions	

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

AMC772 – ABC-D00-00J

A = DDR4 Memory	D = CPU	
0 = 48GB 1 = Reserved	0 = D-1746TER 1 = Reserved 2 = Reserved	
B = NVMe M.2 Storage		
0 = 1TB 1 = Reserved		
C = Front Panel Size		**J = Temperature Range and Coating***
1 = Mid-size (4HP) 2 = Full-size (6HP) 3 = Extended-size (8HP) 4 = Mid-size, MTCA.1/.4 (captive screw) 5 = Full-size, MTCA.1/.4 (captive screw) 6 = Extended-size, MTCA.1/.4 (captive screw) 7 = Mid-size, MTCA.2 8 = Full-size, MTCA.2		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 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 -36V DC to -75V DC input, 936W (available in 468W)
- Hot swappable with support for power module redundancy

VT866

- MTCA System Platform 19” x 5U x 10.5” deep (with handles 12” deep)
- Full redundancy with dual MicroTCA Carrier Hub (MCH), dual Cooling Units and dual Power Modules
- Up to 12 AMCs in single width/full-size

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