

# AMC709

## LS1046A Processor AMC, 10GbE



AMC709

### Key Features

- PrAMC with NXP Layerscape LS1046A (A72 Core)
- 8 GB DDR4 with ECC
- 10GbE on Ports 4-7 and 8-11 per AMC.2
- Dual GbE per AMC.2 on Ports 0-1
- SATA per AMC.3 on Port 2
- Front panel GbE
- 64 GB of Flash
- Dual USB3.0
- Serial Over Lan (SOL)
- Single-module, mid-size per AMC.0
- Conduction Cooled option available

### Benefits

- High single-threaded performance for compute-plane applications
- Embedded data path acceleration for network processing
- Electrical, mechanical, software, and system-level expertise in house
- Full system supply from industry leader
- AS9100 and ISO9001 certified company



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# AMC709

The AMC709 is a Processor AMC (PrAMC) in a single module, mid-size AdvancedMC (AMC) form factor based on the NXP LS1046A (quad core) processor. The unit provides 10GbE on Ports 4-7 and 8-11 per AMC.2.

AMC709 has Dual GbE on Ports 0-1 per AMC.2. The front panel provides GbE via RJ-45 plus dual USB 3.0 and RS-232 via MiniUSB connectors. The AMC709 has SATA routed to Port 2 of the AMC per AMC.3 specification. It also provides Serial Over Lan (SOL) to access the module serial port over IP.

The module comes with 8 GB of DDR4 memory with ECC, 128 MB NOR flash, 8 MB SPI flash, 512 KB I2C flash, and 64 GB of eMMC.

AMC709 is also available for rugged conduction-cooled applications (MTCA.2 or MTCA.3).



Figure 1: AMC709



Figure 2: AMC709 Conduction Cooled

## Block Diagram

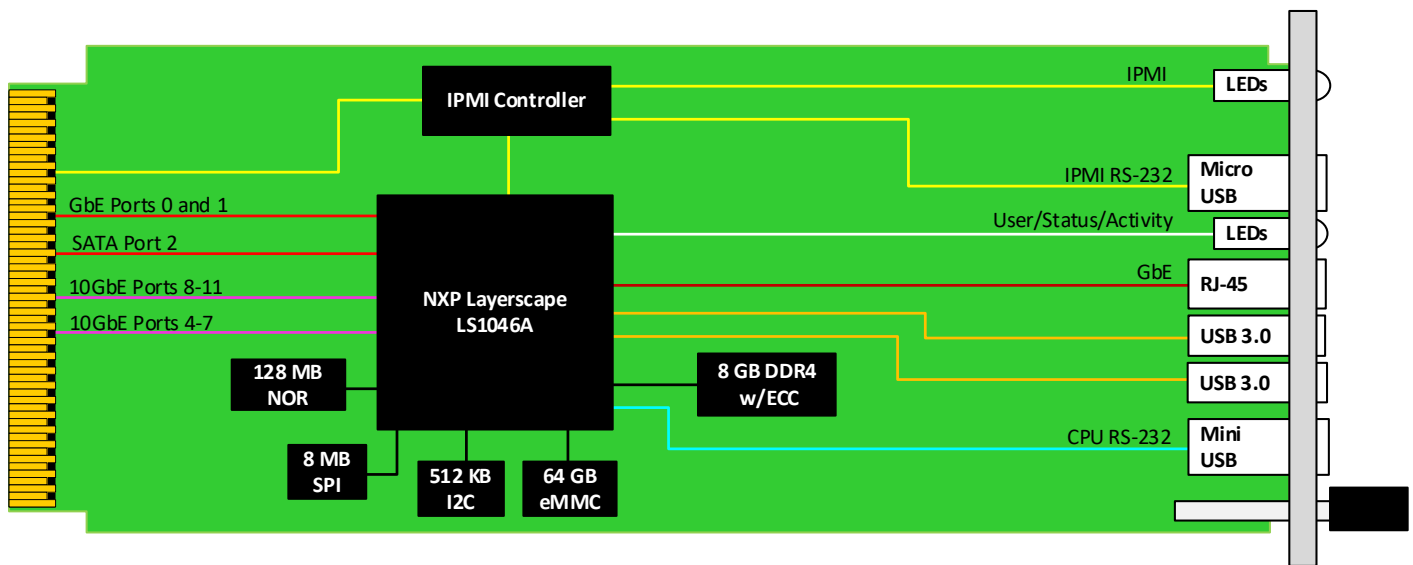


Figure 3: AMC709 Functional Block Diagram

## Front Panel



Figure 4: AMC709 Front Panel

# Specifications

<b>Architecture</b>		
<b>Physical</b>	<b>Dimensions</b>	Single module, mid-size (full-size optional)
		Width: 2.89" (73.5 mm)
		Depth 7.11" (180.6 mm)
<b>Type</b>	<b>AMC Processor</b>	LS1046A (quad-core) processors
<b>Standards</b>		
<b>AMC</b>	<b>Type</b>	AMC.0, AMC.2 and AMC.3
<b>Module Management</b>	<b>IPMI</b>	IPMI v2.0
<b>10GbE</b>	<b>Lanes</b>	On Ports 4-7 and 8-11
<b>Configuration</b>		
<b>Power</b>	<b>AMC709/AMC709C</b>	~28W
<b>Environmental</b>	<b>Temperature</b>	See <a href="#">Ordering Options</a> and <a href="#">Environmental Spec Sheet</a>
		Storage Temperature: -40° to +90°C
	<b>Vibration</b>	Operating 9.8 m/s <sup>2</sup> (1G), 5 to 500Hz on each axis
	<b>Shock</b>	Operating 325G/2 ms, 160G/1 ms
	<b>Relative Humidity</b>	5 to 95% non-condensing
<b>Front Panel</b>	<b>Interface Connectors</b>	Single GbE via RJ45
		Dual USB 3.0
		RS-232 IPMI via MicroUSB and RS-232 for CPU via MiniUSB
	<b>LEDs</b>	IPMI management control
		Activity/Link user LEDs
	<b>Mechanical</b>	Hot-swap ejector handle
<b>Software Support</b>	<b>Operating System</b>	Linux and VxWorks
<b>Other</b>		
<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 ISO9001:2015 and AS9100D standards	
<b>Warranty</b>	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

## AMC709 – ABC-000-0HJ

A = CPU Speed		
0 = 1.8 GHz with Encryption 1 = Reserved		
B = DDR4		H = Operating Temperature
0 = 8 GB 1 = Reserved		0 = Commercial 1 = Industrial 2 = Extended
C = Front Panel Size		J = Temperature Range and Coating
1 = Reserved 2 = Mid-size 3 = Full-size		0 = No coating 1 = Humiseal 1A33 Polyurethane 2 = Humiseal 1B31 Acrylic

## Related Products

AMC718



- Processor AMC with QorIQ P40x0
- PCIe on Ports 4-11
- 16 GB DDR3 memory with ECC

UTC004



- Unified 1 GHz quad-core CPU for MicroTCA Carrier Management Controller (MCMC), Shelf Manager, Clocking, and Fabric management
- Automatic fail-over with redundant UTC004s
- 1GbE base switch with dual 100/1000/10G uplink

VT866



- MTCA System Platform 19" x 5U x 17"
- 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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