

# AMC713

QorIQ P5010/5020 Processor AMC,  
PCIe



AMC713

## Key Features

- Processor AMC with Freescale QorIQ P5010/P5020
- Up to 16 GB DDR3 with ECC
- PCIe Gen2 on ports 4-7 and 8-11 per AMC.1
- Configurable as Host (Root Complex) or Agent
- 10GbE with SFP+ interface
- Dual GbE per AMC.2 on ports 0-1
- Dual SATA per AMC.3
- Single-module, mid-size per AMC.0
- Option for up to 32 GB SDHC

## Benefits

- High single-threaded performance for compute-plane applications
- Embedded data path acceleration for network processing
- PCIe dual x4 to backplane and 10GbE to front panel supports high-throughput communications
- Design utilizes proven VadaTech subcomponents and engineering techniques
- Full ecosystem from the industry leader

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# AMC713

The AMC713 is a Processor AMC (PrAMC) in a single module, mid-size AdvancedMCTM (AMC) form factor based on the Freescale P5010 (single core) and P5020 (dual core) processors. The module follows the AMC.1, AMC.2 and AMC.3 specifications.

The module front panel provides GbE via RJ-45, 10 GbE via SFP+ and RS-232 via Micro USB connectors.

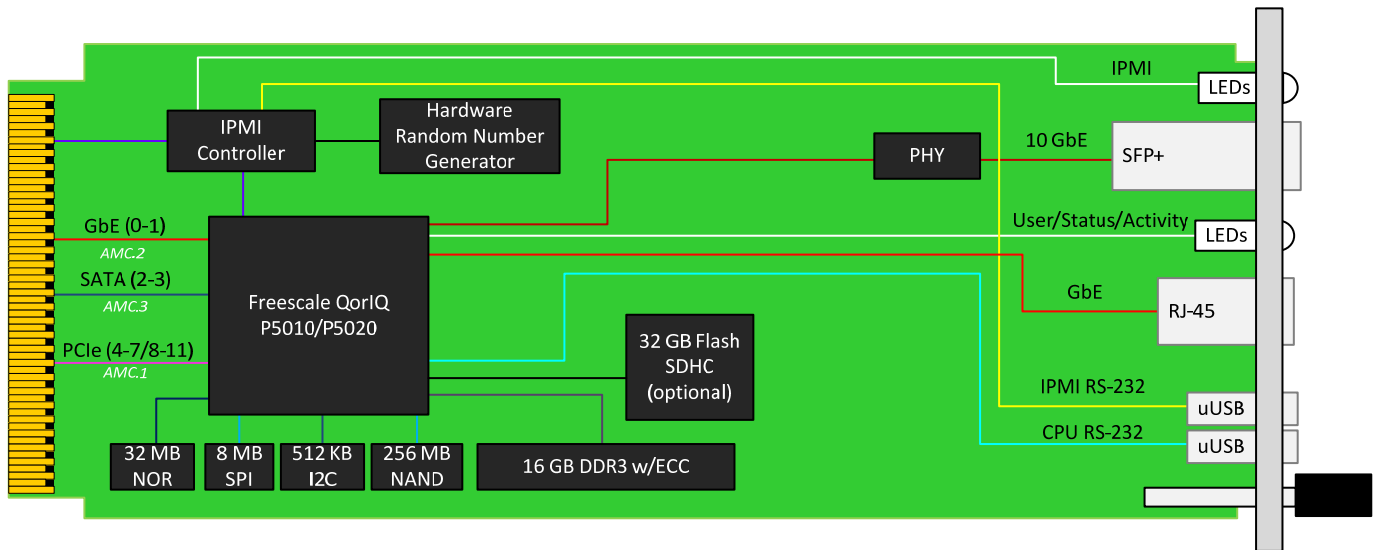
The module provides dual x4 PCIe on ports 4-7 and 8-11 per AMC.4, the PCIe interface is configurable as Host or Agent mode. Dual GbE on ports 0-1 per AMC.2 to the rear. It routes dual SATA to ports 2 and 3 per AMC.3.

The module has option for up to 16 GB of DDR-3 memory with ECC, 32 MB NOR flash, 8 MB SPI flash, 512 KB I2C flash, 256 MB NAND flash and optional 32 GB SDHC.

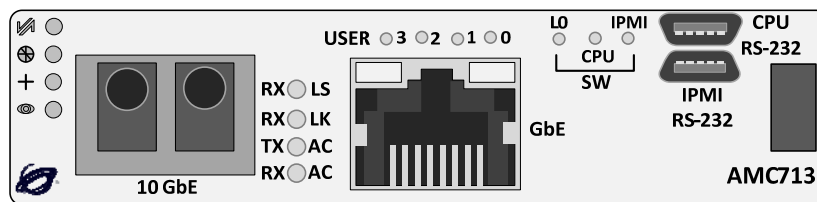
The AMC713 has a Serial over LAN (SoL) with a true hardware Random Number Generator.



## Block Diagram



## Front Panel



# Specifications

Architecture	
Physical	<b>Dimensions</b> Single module, mid-size (full-size optional) Width: 2.89" (73.5 mm) Depth 7.11" (180.6 mm)
Type	Freescale QorIQ P5010 or 5020 processor up to 2.0 GHz Up to 16 GB DDR3 with ECC
Standards	
AMC	<b>Type</b> AMC.0, AMC.1, AMC.2 and AMC.3
Module Management	<b>IPMI</b> IPMI version 2.0
PCIe	<b>Lanes</b> Dual x4 Gen2
Configuration	
Power	<b>AMC713</b> ~26 W
Environmental	<b>Temperature</b> Operating temperature: -5° to 45° C (55°C for limited time, performance restrictions may apply), industrial versions also available (See <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 per cent, non-condensing
Front Panel	<b>Interface Connectors</b> Single GbE via RJ-45, 10 GbE via SFP+ CPU RS-232 via micro USB IPMI RS-232 via micro USB
	<b>LEDs</b> IPMI management control Activity / Link user LEDs
	<b>Mechanical</b> Hot swap ejector handle
Software Support	<b>Operating System</b> Linux and Windows
Conformal Coating	Humiseal 1A33 Polyurethane (Optional)
	Humiseal 1B31 Acrylic (Optional)
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 ATCA and  $\mu$ TCA products including chassis platforms, shelf managers, AMC modules, Switch and Payload Boards, Rear Transition Modules (RTM), 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.

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# Ordering Options

## AMC713 – ABC-DE0-0HJ

<b>A = CPU Speed</b> 1 = P5010 @ 2 GHz (EOL by Freescale) 2 = P5020 @ 2 GHz (EOL by Freescale) 3 = P5010 @ 1.5 GHz 4 = P5020 @ 1.5 GHz 5 = P5010 @ 1.8 GHz 6 = P5020 @ 1.8 GHz	<b>D = SDHC</b> 0 = None 1 = 16 GB 2 = 32 GB	
<b>B = DDR3</b> 0 = 4 GB 1 = 8 GB 2 = 16 GB	<b>E = SFP+ Transceiver</b> 0 = None 1 = 10GBASE-SR 2 = Reserved 3 = 10GBASE-LRM 4 = 10GBASE-LR	<b>H = Operating Temperature</b> 0 = Commercial 1 = Industrial
<b>C = Front Panel Size</b> 1 = Reserved 2 = Mid-size 3 = Full-size		<b>J = Temperature Range and Coating</b> 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 1GHz quad-core CPU for MCMC (MicroTCA Carrier Management Controller), 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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- Open systems expertise

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- Partnerships power innovation
- Collaborative approach
- Mutual success

## We deliver complexity

- Complete signal chain
- System management
- Configurable solutions

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- AS9100 accredited



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