AMC713

QorIQ P5010/5020 Processor AMC, PCIe

AMC713

Key Features

- PrAMC with NXP QorIQ P5010/P5020
- Up to16 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
- Conduction Cooled option available

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
- Electrical, mechanical, software, and system-level expertise in house
- Full system supply from industry leader
- AS9100 and ISO9001 certified company

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AMC713

The AMC713 is a Processor AMC (PrAMC) in a single module, mid-size AdvancedMC (AMC) form factor based on the NXP P5010 (single core) or P5020 (dual core) processors. The unit provides dual x4 PCIe on Ports 4-7 and 8-11 per AMC.1 and the PCIe interface can be configured in Host or Agent mode.

AMC713 has Dual GbE on ports 0-1 per AMC.2 and routes dual SATA to ports 2 and 3 per AMC.3. The front panel provides GbE via RJ-45, 10 GbE via SFP+ and RS-232 via Micro USB connectors.

AMC713 has a Serial over LAN (SoL) with a true hardware Random Number Generator. It also has option for up to 16 GB of DDR3 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 module is also available for rugged conduction-cooled applications (MTCA.2 or MTCA.3).
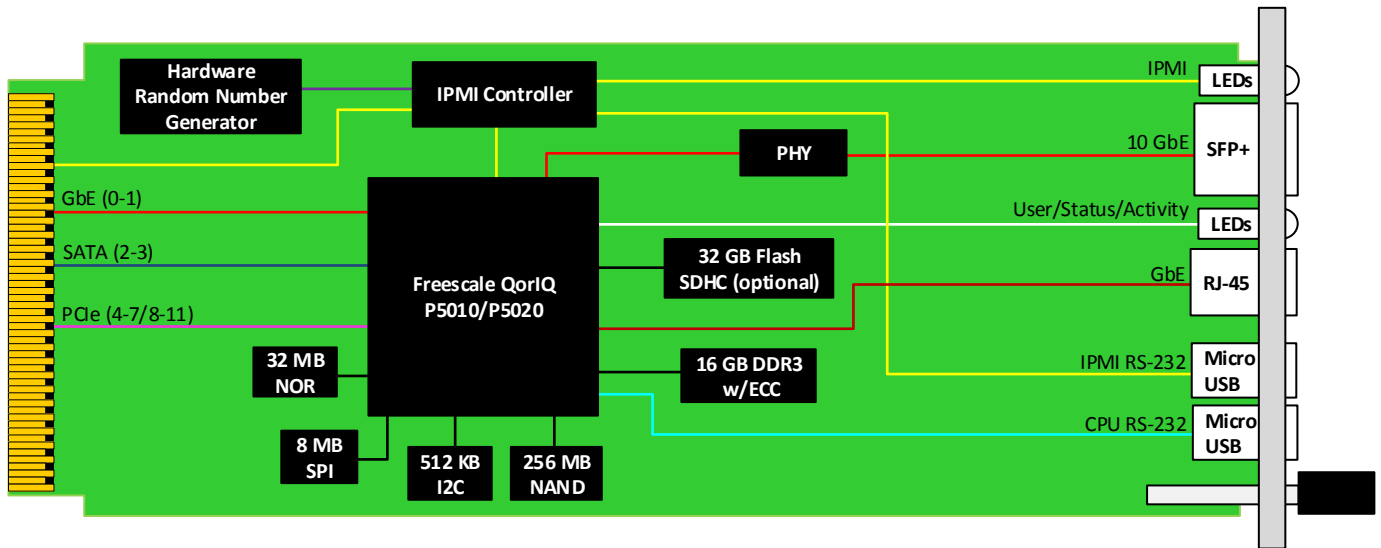

Figure 1: AMC713

Block Diagram

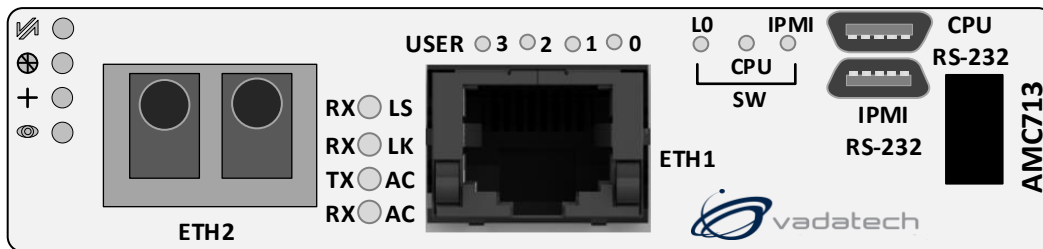*Figure 2: AMC713 Functional Block Diagram*

Front Panel

Figure 3: AMC713 Front Panel

AMC713 – QorIQ P5010/5020 Processor AMC, PCIe

Specifications

Architecture		
Physical	**Dimensions**	Single module, mid-size (full-size optional)
		Width: 2.89" (73.5 mm)
		Depth 7.11" (180.6 mm)
Type	**AMC Processor**	NXP QorIQ P5010 (single core) or P5020 (dual core) processors

Standards		
AMC	**Type**	AMC.0, AMC.1, AMC.2 and AMC.3
Module Management	**IPMI**	IPMI v2.0
PCIe	**Lanes**	Dual x4 Gen2

Configuration		
Power	**AMC713/AMC713C**	~26W
Environmental	**Temperature**	See ordering options and [environmental spec sheet](#)
		Storage Temperature: –40° to +90°C
	Vibration	Operating 9.8 m/s2 (1G), 5 to 500Hz on each axis
	Shock	Operating 325G/2 ms, 160G/1 ms
	Relative Humidity	5 to 95% non-condensing
Front Panel	**Interface Connectors**	Single GbE via RJ45 (air-cooled only)
		10GbE via SFP+
		x2 RS-232 for CPU and IPMI via Micro USB
	LEDs	IPMI management control
		Activity/Link user LEDs
	Mechanical	Hot swap ejector handle
Software Support	**Operating System**	Linux and Windows

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

AMC713 – ABC-DE0-0HJ

A = CPU Speed	D = SDHC	
1 = P5010 @ 2 GHz (NXP) 2 = P5020 @ 2 GHz (NXP) 3 = P5010 @ 1.5 GHz 4 = P5020 @ 1.5 GHz 5 = P5010 @ 1.8 GHz 6 = P5020 @ 1.8 GHz 7 = Reserved	0 = No SDHC 1 = 16 GB 2 = 32 GB	
B = DDR3	**E = SFP+ TXCVR**	**H = Operating Temperature**
0 = 4 GB 1 = 8 GB 2 = 16 GB	0 = No SFP+ 1 = 10GBASE-SR 2 = Reserved 3 = 10GBASE-LRM 4 = 10GBASE-LR	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

Contact

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