PCI703

PrPCIe QorIQ T4241/T4240 in PCIe edge connector form factor

PCI703

Key Features

- Processor QorIQ T4241/T4240 in standard PCIe Edge style (PrPCIe)
- x8 PCIe Gen2 to the host
- Three banks of 64-bit DDR3 memory with Max total of 24GB with ECC
- 10GbE via SFP+
- GbE via RJ-45
- 128 MB NOR Flash
- 64GB of SSD
- 24 virtual cores at up to 1.8 GHz

Benefits

- Integrated control and data path processing in a single module
- 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

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The PCI703 is a Processor module in PCIe standard edge (PrPCIe), based on the Freescale QorIQ T4241/T4241. The module interfaced to the host via x8 PCIe Gen2.

The module provides access to GbE via RJ-45 connector, 10GbE via SFP+ connector and a USB interface for RS-232. There are three Banks of DDR memory for a maximum total of 24GB, an optional 64GB of SSD and a 128MB as the boot flash.
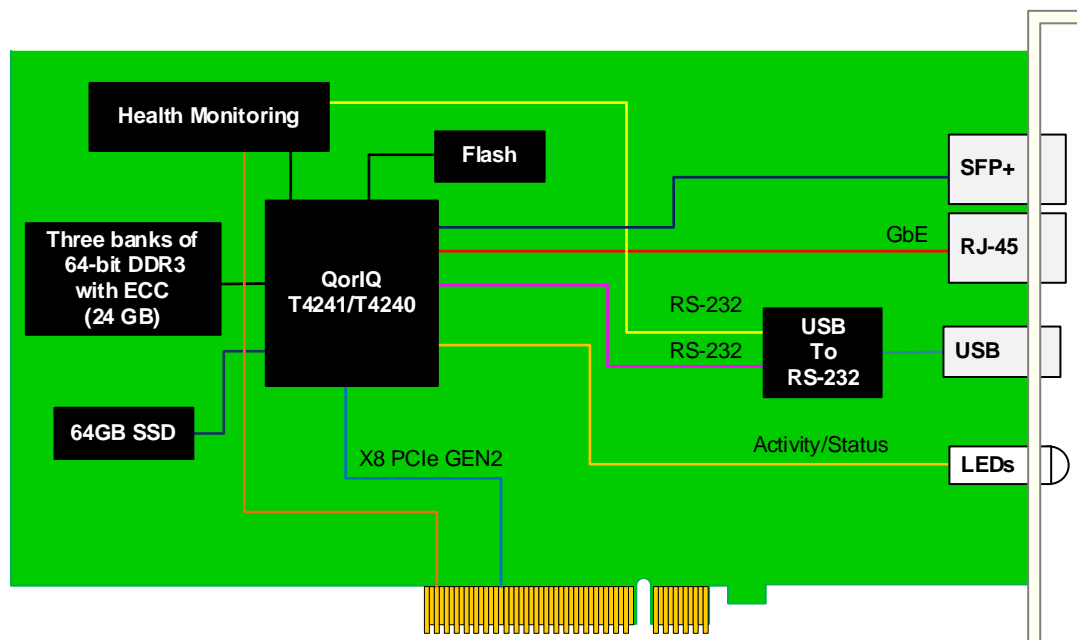
Figure 1: PCI703

Block Diagram

Figure 2: PCI703 Functional Block Diagram

Front Panel

Figure 3: PCI703 Front Panel

Specifications

Architecture		
Physical	**Dimensions**	Single module
		Width: 4.36" (110.74mm)
		Depth: 10.4" (264.16mm)
Type	**PrPCIe**	NXP QorIQ T4241/T4240
Standards		
PCIE	**Type**	PCIex8
Cooling	**Fan**	Active cooling via on board dedicated processor or passive cooling
Configuration		
Power	**PCI703**	~55W
Environmental	**Temperature**	See ordering options and environmental spec sheet
		Storage Temperature: –40° to +85°C
	Vibration	Operating 9.8 m/s^2 (1G), 5 to 500 Hz on each axis
	Shock	Operating 325 G/2 ms, 160G/1 ms
	Relative Humidity	5 to 95% non-condensing
Front Panel	**Interface Connectors**	10GbE via SFP+ ; GbE via RJ-45
		Dual RS-232 (Management and CPU) via USB to RS-232
	LEDs	User Defined
		Link/Activity
Software Support	**Operating System**	Linux/VxWorks (consult Sales for other OS 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

PCI703 – ABC-D00-00J

A = Processor Option	D = Cooling	
0 = T4240 1.8 GHz with SE 1 = T4240 1.8 GHz without SE 2 = T4240 1.5 GHz with SE 3 = T4240 1.5 GHz without SE 4 = T4241 1.8 GHz with SE 5 = T4241 1.8 GHz without SE 6 = T4241 1.5 GHz with SE 7 = T4241 1.5 GHz without SE	0 = Active (fan on the module) 1 = Passive (Platform provides cooling)	
B = DDR3 Memory		
0 = 6 GB 1 = 12 GB 2 = 24 GB		
C = SSD		**J = Temperature Range and Coating**
0 = No load 1 = 64 GB		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*

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Related Products

VT808

- 3U Chassis that accepts four standard x16 PCIe Gen5 style modules
- The chassis is designed specially for the FPGA modules that allows SERDES to be re-configured to any protocol
- 400W per module
  - The modules do not need active cooling (chassis will provide the cooling to each module) which is more efficient vs. active cooling on each module.

PCI596

- PCIe x16 FPGA carrier for FMC+ per VITA 57.4
- Xilinx UltraScale+™ VU13P FPGA
- Allows expansion of a daughter card on top of the FMC for more I/O

PCI597

- Dual PCIe x16 FPGA
- 72 fiber transceivers egress ports
- Optical speed choice of 10G or 28G per link

Contact

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