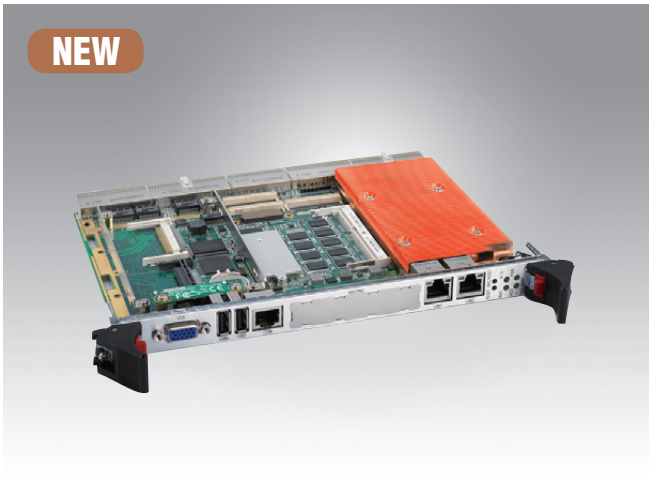
MIC-3395

6U CompactPCI® 2nd and 3rd Generation Intel Core i3/i5/i7 Processor Blade with ECC Support



Features

- Support 2nd and 3rd Generation Intel® Core™ i3/i5/i7 Processors and Intel QM67 PCH with embedded graphics (dual independent display)
- Up to 16 GB (DDR3 1066/1333/1600) ECC memory (max 8GB on-board socket SO-UDIMM x1, max 8GB)
- Optimized single-slot SBC with 2.5" SATA-III HDD/CFast socket
- Integrate on-board 2KB NVRAM and min. 8GB flash (optional)
- TPM
- Two SATA ports, four USB 2.0 ports, two DVI ports, two RS-232 ports, one PS/2 connector, and PCIe x4 interfaces to the Rear Transition Module (RTM)
- Six gigabit Ethernet ports for PICMG 2.16, front and rear connectivity
- PICMG 2.16 R1.0, PICMG 2.1 R2.0, PICMG 2.6 R1.0 compliant

CompactPCI® FCC CE RoHS COMPLIANT 2002/95/EC

Introduction

Using Intel®'s 2nd and 3rd generation Core™ i3/i5/i7 processors based on 32nm and 22nm process technology supporting up to two Cores / four threads at 2.2 GHz and 4 MB level 2 cache, the MIC-3395 blade boosts computing performance deploying the latest virtualization, techniques and CPU enhancements. Onboard soldered DRAM with ECC support and optional memory expansion via an SODIMM socket extend the memory to a maximum of 16 GB to support the most demanding applications in high performance or virtualized environments, supporting up to 4GB per virtual machine. Dual channel design and memory speeds up to 1333MT/s for 2nd generation or 1600MT/s for 3rd generation processors along with increased cache size and cache algorithms guarantee maximum memory throughput. Combined with the powerful Intel QM67 chipset, these new processors offer improved I/O performance by leveraging 5GT/s DMI and PCIe interfaces. An onboard XMC/PMC site with PCIe x8 gen.2 connectivity can host high speed offload or I/O mezzanines such as the MIC-3666 dual 10GE XMC card. With SATA-III support and up to 6Gbps I/O, the latest enhancements in storage technology such as high speed SSDs can be employed. Six gigabit Ethernet ports for PICMG 2.16, front and rear connectivity ensure best in class network connectivity. The processor's integrated enhanced graphics engine (HD3000/HD4000) offers twice the performance over previous generations. With dual independent display support, the MIC-3395 is an ideal fit for demanding workstation or imaging applications. RASUM features integrated in the CPU and chipset combined with PICMG 2.9, IPMI-based management make the MIC-3395 a highly available and reliable computing engine. The RIO-3315 RTM module supports one PS/2 connector with both keyboard and mouse ports, two USB ports, two RS-232 ports, two SATA ports, two DVI ports, and two Gigabit Ethernet ports. In case the SATA disk drives and SATA RAID support of the QM67 do not meet performance and reliability requirements, the RIO-3315 SAS version supports a 4-port SAS controller with RAID and failover support.

Specifications

Processor System	CPU	Intel 2nd and 3rd Generation Core i3/i5/i7 up to 2.2 GHz (4MB L2 cache)
	Platform Controller Hub	Hub Intel QM67
	BIOS	Redundant AMI 8MByte SPI flash
CompactPCI Interface	J1 Connector	32-bit PCI local bus
	J2 Connector	64-bit PCI local bus
	J3 Connector	PICMG2.16 + RTM area
	J4~J5 Connectors	RTM area
XMC/PMC Socket	PCIe x8	Gen2 (5GT/s)
	PCI	64-bit/66 MHz
Memory	Technology	DDR3 1066/1333/1600 MHz, dual channel with ECC support
	Max. Capacity	Up to 16 GB (8 GB on-board, 8 GB SODIMM)
	Socket	204-pin SOUDIMM x1
Graphics	Controller	Intel embedded graphic controller HD3000/HD4000 (dual independent display)
	VRAM	Dynamic
	Resolution	Up to 2048 x 1536, 64k colors at 75Hz
Ethernet	Controller	5 Intel 82574L single-port Gigabit Ethernet controllers (on PCIe x1 channel), 1 Intel 82579LM single-port Gigabit Ethernet controller
	Interface	10/100/1000 Mbps Ethernet
	I/O Connector	PICMG 2.16 and RJ-45 x2 (RTM rear panel), RJ-45 x1 (front panel)
	Controller	1 Intel 82579LM single-port Gigabit Ethernet controller
	Interface	10/100/1000 Mbps Ethernet
	I/O Connector	RJ-45 (front panel)
Storage	Mode	SATA-III
	Channels	Onboard SATA-III connector
	Mode	SATA-II
	Channels	2 channels to RTM 1 channel to CFast socket 1 channel to on-board flash (optional)

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Specifications (Cont.)

Front I/O	USB2.0	2 type A	
	COM	1 RS232 on RJ45	
	LAN	2 10/100/1000 Mbps on RJ45	
	Front Panel LEDs	x1 blue/yellow for Hot Swap/HDD, x1 green for Master/Drone mode, x1 yellow BMC Heartbeat, and x1 green for Power	
	Buttons	CPU reset button and BMC reset button	
Rear I/O	USB2.0	4 ports	
	COM	2 ports	
	LAN	2 ports	
	SATA	2 SATA-II	
	PCIe	1 PCIe x4	
	Others	PS/2 for keyboard & mouse, DVI-I and DVI-D	
Watchdog Timer	Output	Local Rest and Interrupt	
	Interval	Programmable 1s ~ 255s	
Hardware Monitor	HWM	NCT6776F	
BMC	Controller	Renesas H8S 2167, IPMI v2.0 compliant	
Operating System	Compatibility	Windows 7, Windows 2008, Windows 2003, Windows XP SP3, RHEL 6.1, VxWorks 6.x (on request)	
Miscellaneous	NVRAM	2KB	
Power Requirement	Configuration	4HP	
	TDP	Maximum: up to 60 W (quad core), 50 W (dual core) or less, depending on CPU type	
Physical Characteristics	Dimensions (W x D)	233.35 x 160 mm (9.19" x 6.3")	
Environment		Operating	Non-operating
	Temperature	0 ~ 55° C (32 ~ 122° F)	-40 ~ 85° C (-40 ~ 185° F)
	Humidity	95 % @ 40° C, non-condensing	95 % @ 60° C, non-condensing
	Vibration (5-500 Hz)	2 Grms (without on-board 2.5" SATA HDD)	3.5 Grms
	Shock	20 G (without on-board 2.5" SATA HDD)	50 G
	Altitude	4,000 m above sea level	10,000 m above sea level
Regulatory	Conformance	FCC Class A, CE, RoHS	
	NEBS Level 3	Designed to meet GR-63-Core and GR-1089-Core	
Compliance	Standards	PICMG2.0 R3.0, PICMG2.1 R.0, PICMG2.9 R1.0, PICMG2.16 R1.0,	

Ordering Information

Part Number	Front Panel				Main On-board Features					
	VGA	USB2.0 (type A)	Ethernet (RJ45)	Console (RJ45)	CPU	Onboard Memory	CFast Socket	Storage Channel	SODIMM Socket	BMC Function
MIC-3395A1-M4E	1	2	2	1	i7-2655LE	4 GB	1	1 SATA-III	1	No
MIC-3395A2-M4E	1	2	2	1	i7-2655LE	4 GB	1	1 SATA-III	1	Yes
MIC-3395B1-M4E*	1	2	2	1	i5-2515E	4 GB	1	1 SATA-III	1	Yes
MIC-3395C1-M4E*	1	2	2	1	i7-2715QE	4 GB	1	1 SATA-III	1	Yes

*Note: MIC-3395B1-M4E and MIC-3395C1-M4E available by request; please contact your local sales office.

Related Products

Part Number	Description
RIO-3315-A1E	RTM Module with SAS Controller for MIC-3395
RIO-3315-B1E	RTM Module without SAS Controller for MIC-3395
RIO-3315-C1E	RTM Module with 4 LAN ports for MIC-3395
MIC-3666-AE	Dual 10 Gigabit Ethernet XMC
MIC-3665-AE	CompactPCI PMC with dual copper (RJ-45) Gigabit Ethernet interfaces
MIC-3665-BE	CompactPCI PMC with dual fiber Gigabit Ethernet interfaces

MIC-3395x-MxE Series