

# MIC-3395

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



### Features

- Supports 2nd and 3rd Generation Intel® Core™ i3/i5/i7 Processors and Intel® QM67 PCH with embedded graphics (dual independent display)
- Up to 16GB (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
- Integrated 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 including two PICMG 2.16 for front and rear connectivity
- PICMG 2.16 R1.0, PICMG 2.1 R2.0, PICMG 2.6 R1.0 compliant

CE FCC

### Introduction

Using Intel® 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 including two PICMG 2.16 for 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	2nd and 3rd Generation Intel® 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 16GB (8GB on-board, 8GB 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)
	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
Storage	I/O Connector	RJ-45 (front panel)
	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)

## Specifications (Cont.)

Front I/O	USB2.0	2 type A
	COM	1 RS-232 on RJ-45
	LAN	2 10/100/1000 Mbps on RJ-45
	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
Watchdog Timer	Others	PS/2 for keyboard & mouse, DVI-I and DVI-D
	Output	Local Rest and Interrupt
Hardware Monitor	Interval	Programmable 1s ~ 255s
	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

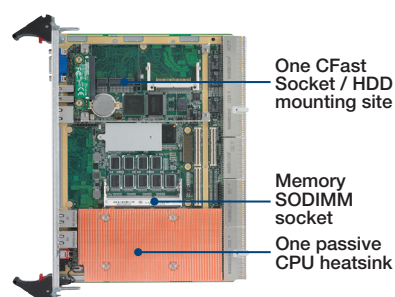
Part Number	Front Panel				Main On-board Features					
	VGA	USB2.0 (type A)	Ethernet (RJ-45)	Console (RJ-45)	CPU	Onboard Memory	CFast Socket	Storage Channel	SODIMM Socket	BMC Function
MIC-3395A1-M4E	1	2	2	1	i7-2655LE	4GB	1	1 SATA-III	1	No
MIC-3395A2-M4E	1	2	2	1	i7-2655LE	4GB	1	1 SATA-III	1	Yes
MIC-3395C1-M4E	1	2	2	1	i7-2715QE	4GB	1	1 SATA-III	1	Yes
MIC-3395IA-M8E	1	2	2	1	i7-3555LE	8GB	1	1 SATA-III	1	Yes
MIC-3395IB-M8E	1	2	2	1	i7-3612QE	8GB	1	1 SATA-III	1	Yes

\* Note: For Sandy Bridge I3, I5 and Ivy Bridge I7-3615QE CPU and on-board flash 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
RIO-3316-D1E	RTM Module with HDD support 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



### MIC-3395lx-MxE Series

