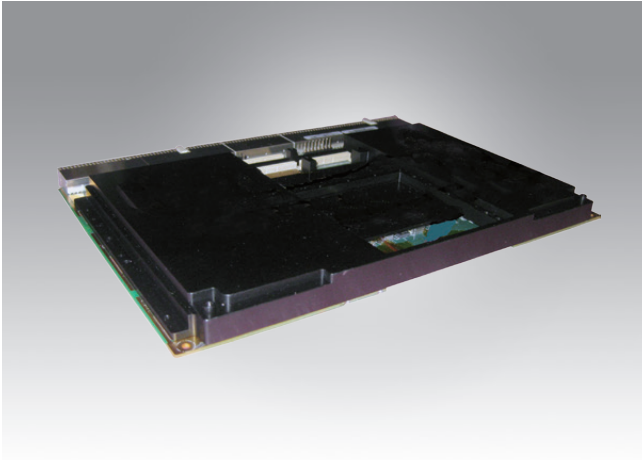


MIC-3395MIL

6U CompactPCI 3rd Generation Intel® Core™ i7 Rugged Processor Blade with ECC



Features

- Supports 3rd Generation Intel® Core™ i3/i5/i7 processors and Intel® QM67 PCH with embedded graphic (dual independent display)
- Up to 16 GB (DDR3 1600) ECC memory (max 8GB on board, socket SO-UDIMM x1, max 8 GB)
- Conduction cooled with ANSI/VITA30.1-2002 compliancy
- Optimized single-slot SBC with 2.5" SATA-III HDD/CFast socket/ on-board 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



Introduction

MIC-3395MIL, a CompactPCI PICMG2.16 compliant single slot 6U CPU board, offers with two different configurations that meet a wide range of environmental requirements for ruggedized application.

Using Intel's 3rd generation core i7 ULV processors, it offers a low power dissipation design without the need of on-board forced ventilation. Ruggedized requirements are addressed by a condition cooled design an extended operation temperature range (-40° C ~ 70° C). Shock and vibration resistances of the board are increased by using wedge locks and a single-piece CNC-milled aluminum alloy plate that conforms to the major IC packages. With highly integrated functional capabilities, the MIC-3395MIL fully utilizes the I/O features of the Intel chipsets. It supports maximum 16GB of 1600 MHz DDR3 RAM, an onboard 2.5" Serial ATA HDD or SSD, a CFast slot, an onboard NAND flash (as optional), and a set of I/O functions brought through the backplane to a unique rear transition module, which contains two/four LAN ports, two DVI ports, two USB 2.0, one P/S2 port and one RS-232 port on the front panel.

Specifications

Processor System	CPU	Intel® 3rd Generation Core i7 ULV up to 2.5 GHz (4MB L2 cache)
	Platform Controller 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	PClex8	Gen2 (5GT/s)
	PCI	64-bit/66 MHz
Memory	Technology	DDR3 1600 MHz, dual channel with ECC support
	Max. Capacity	Up to 16GB (max. 8GB on-board, max. 8GB SODIMM)
	Socket	204-pin SODIMM x1
Graphic	Controller	Intel embedded graphic controller Iris (triple 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	10/100/1000Base-TX 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	10/100/1000Base-TX Ethernet
Storage	I/O Connector	RJ-45 (front panel)
	Onboard HDD/SSD	1 2.5" (SATA-III)
	Channels	Onboard SATA-III connector
	Onboard Flash	SATA-II
	Channels	1 CFast socket (SATA-II) 1 soldered NAND Flash (SATA-II optional)
	RTM	SATA-III
Front I/O	Channels	2 SATA-III connectors
	USB2.0	1 type A
	VGA	1
	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

Specifications (Cont.)

Rear I/O	USB2.0	4 ports
	COM	2 ports
	LAN	2 ports
	SATA	2 SATA-III
	PCIe	1 PCIe4
	Display	1 DVI-I and 1 DVI-D
	Others	PS/2 for keyboard & mouse
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® 2003/XP SP3/2008/Win7, RHEL 6.1, VxWorks 6.x (on request)
Power Requirement	Configuration	4HP
	TDP	Maximum: up to 50W (dual core) or less, depending on CPU type
Physical	Dimension (WxD)	233.35 x 160.0 mm
		Operating Non-operating
Environment	Temperature	-40 ~ 70° C (-40 ~ 158° F) -40 ~ 85° C (-40 ~ 185° F)
	Humidity	95 % @ 40° C, non-condensing 95 % @ 60° C, non-condensing
	Vibration (5-500 Hz)	3.5 Grms (without on-board 2.5" SATA HDD)
	Bump	25G, 6ms
	Altitude	15000ft above sea level (without conformal coating) 40000 ft, -40° C, above sea level
Regulatory	Conformance	FCC Class A, CE, RoHS, CCC
Compliance	Standards	PICMG2.0 R3.0, PICMG2.1 R.0, PICMG2.9 R1.0, PICMG2.16 R1.0

Ordering Information

System Board Model Number	Front Panel					Main On-board Features				
	VGA	USB2.0 (type A)	Ethernet (RJ45)	Console (RJ45)	Conduction cool	CPU	Memory	CFast Socket	Storage Channel	SODIMM Socket
MIC-3395MILS-P4E	1	1	2	1	-	I7-3517UE	4GB	1	1	1
MIC-3395MILC-P4E	-	-	-	-	Yes	I7-3555LE	4GB	1	-	-

Part number	Rear Panel							On-board Header/Socket/Connector							
	LAN	USB2.0 (type A)	COM (D-SUB9)	COM (RJ45)	PS/2	DVI-D	DVI-I	VGA	MiniSAS	USB	COM	SATA	SAS (SATA interface)	Slot Width	Conn.
RIO-3395MIL-A1E	2	2	1	-	1	1	-	1	-	-	-	2	-	2*	J3, J4, J5
RIO-3315-A1E	2	2	-	1	1	1	1	-	1	2	1	2	4	1	J3, J4, J5
RIO-3315-C1E	4	2	-	1	1	1	1	-	-	2	1	2	-	1	J3, J4, J5

CPU Information

CPU Type	# of Core	# of Thread	DMI	Frequency	Cache	TDP	Graphics	PCIe
I7-3517UE	2	4	5 GT	1.7 GHz	4 MB	17W	350-900GHz	Gen 3
I7-3555LE	2	4	5 GT	2.5 GHz	4 MB	25W	550-950GHz	Gen 3

Related Products

Model number	Configuration
RIO-3395MIL-A1E	RTM Module with 2 LAN port, 1 DVI, 1 VGA, 1 COM (D-SUB9), 2 USB 2.0
RIO-3315-A1E	RTM Module with SAS Controller for MIC-3395 and MIC-3395MIL
RIO-3315-C1E	RTM Module with 4 LAN ports and USB2.0 for MIC-3395 and MIC-3395MIL
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