MIC-3397

6U CompactPCI Intel® Xeon® E3 Quad Core & Pentium® Dual Core Processor Blade

Preliminary

Features

- Supports 22nm Intel® Xeon® & Pentium® low voltage processor
- Intel ® DH8900 chipset supports DM1.0 x 4
- Up to 16GB DDR3-1333/1600 ECC memory
- Optional extension module on 8HP version supports high-end discrete graphics, up to four display output ports
- Supports up to five GbE ports, six USB2.0 ports, two VGA ports,three COM ports, one PS/2 connector, three 2.5" SATA connector (one SATA HDD is optional with 8GB NAND flash), one Cfast, one PCIe 2.0x4 interface to the Rear Transition Module (RTM)
- PICMG2.0 R3.0, PICMG2.1 R.0, PICMG2.16 R1.0 Compliant

CompactPCI® PICMG FCC C€ RoHS COMPLIANT 2002/95/EC

Introduction

Advantech's MIC-3397 series is a 6U CompactPCI single board computer with server class processor of Intel® Quad-Core Xeon® E3-1125C v2(40W)/E3-1105C v2(25W) and low power dissipation processor of Intel® Dual-Core Pentium® B925C(15W) ,with DH8900 chipset supports DMI1.0 x 4 FSB. The processor using Intel® 22nm 64 bit process technology, up to 2.5GHz clock speed, 8MB L3 cache featured with Intel® Hyper-Threading, Virtualization, Trusted Execution Technology, enable the board meet the highest standards for the management and security of high-availability applications. It supports dual channel ECC memory, up to 16GB DDR3 of 1333/1600 MHz with max 8G on board and 8G SO-DIMM memory, three 2.5" Serial ATA interfaces (one on board optional with one 8 GB NAND flash, two to RTM),one Cfast slot, five Gigabit Ethernet ports(two on front panel, two to PCIMG2.16, two to RTM with one optional with front panel), six USB2.0 ports (three on front panel, three to RTM), two VGA ports (one on front panel, one to RTM) on 4HP, three COM ports (one to front panel, two to RTM), one PS/2 port, and one PCIe2.0 x4 interface reserved for user define to rear transition module.

MIC-3397, designed in single slot (4HP) and dual slots (8HP) form factor widths features. The 8HP version provides extensive & rich IO support, is featured with a high-performance discrete graphics, using AMD Radeon E6760 GPU, supports 1GB GDDR5 at PCIe x1, x2, x4, x8, and x16 lane widths, 2.5 GT/s and 5.0 GT/s link-data rates, up to four display outputs including one DVI-I, one DVI-D port and two DP 1.1or 1.2 port in a MXM 3.0 type A form factor.

MIC-3397 Series can be installed in a standard CompactPCI system slot as system master, or peripheral slot as stand-alone server blade without CompactPCI bus communication, it meets the harsh environment application, to make board attractive to multiple markets which is ideally suited for datacom, telecom and military applications, its outstanding graphics design will bring more opportunities for image-processing in medical, defense system and many other vertical segments applications.

Specifications

Processor System	CPU	Quad-Core Intel® Xeon® Processor E3-1125C v2/E3-1105C v2; Dual-Core Intel® Pentium® Processor B925C
	Max Speed	Up to 8MB L3 Cache, 2.5 GHz
	Chipset	Intel® DH8900 PCH (Cave creek)
	BIOS	Redundant AMI 8 MByte SPI flash
Memory	Technology	Dual Channel DDR3 1333/1600 MHz with ECC
	Max. Capacity	8GB on board
	Socket	SO-DIMM x1, up to 8GB
Compact PCI Interface	J1 ~ J2 Connectors	64bit/66MHz PCI local bus
	J3 Connector	PICMG2.16 + RTM
	J5 Connector	RTM
	Bridge	Pericom PI7C9X130DNDE
	Mode	System Master/Drone (Stand alone)
Ethernet	PHY	4 Marvel l 88E1112-C2-NNC1I000 Gigabit Ethernet PHY
	Interface	SGMII, 10/100/1000 Base TX Ethernet
	I/O Connector	PICMG2.16 x 2 to J3, RTM x2 or RJ45 x1 to front
	Controller	Intel WGI210AT SLJXR Gigabit Ethernet Controller
	Interface	PCIe 1.0x1, 10/100/1000 Base TX Ethernet
	I/O Connector	RJ45 x1 to front
Graphics	Controller	SM750GX160000-AC ,265P, 16Mbytes of embedded 32-bit DDR memory
	Resolution	Dual display: 1360x768 (Clone & extended mode) Single display:1920x1080 (16bit, clone mode only)
	Controller (on MIC-3314)	AMD Radeon E6760, 128-bit wide, 1 GB, GDDR5, 51.2 GB/s
	Resolution	DP: 4096 x 2160; Dual Link DVI-D: 2560 x 1600; Single Link DVI-I: 1920 x 1200
	Multi-display	Max up to 4 multidisplays:(Clone mode/extended): Config 1:1xDP+1xDP+1xDVI-D+1xDVI-I Config 2: 1xDP+1xDP+1xDVI-D+1xVGA
Storage	Mode	SATA-II
	Channels	1 channel to on board SATA carrier or on board NAND flash 1 channel to on board cfast socket 2 channels to RTM

Specifications (Cont.)

Front I/O	USB2.0	3 type A	
	COM	1 RS232/422 on RJ45	
	LAN	2 10/100/1000Mbps on RJ45	
	Graphics	1 VGA port on 4HP 2 DP port, 1 DVI-D and 1 DVI-I port on extension board	
	Front Panel LEDs	x1 blue/yellow for Hot Swap/HDD, x1 green for Power, and x1 green for Master/Drone mode	
	Buttons	System reset button	
To RTM	USB2.0	3 ports	
	COM	2 RS232/422/485 on RJ45 or DB9	
	LAN	PICMG2.16 x2 to J3, RTM x2 (1 mux to front)	
	SATA	2 ports	
	PCIe	PCIe2.0 x4	
	Graphics	1 VGA port	
	Others	PS/2 for KB & Mouse	
BIOS	Boot Options	SATA,USB port, USB disk, network (PXE)	
Watchdog Timer	Output	Local reset & interrupt	
	Interval	Programmable 1s ~ 255s	
Hardware Monitor	Controller	NCT6776D	
Operating System	Compatibility	Windows7, Windows7 Embedded, Linux	
Power Requirement	TDP (max./typ.)	4HP:80W (MIC-3397) 8HP:115W (MIC-3397 + MIC-3314)	
Physical	Dimension & Weight	6U/1 slot width (4HP): 233.35 x 160 x 20 mm (9.2" x 6.3" x 0.8") 6U/2 slot width (8HP): 233.35 x 160 x 40 mm (9.2" x 6.3" x 1.6")	
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	2.0G Grms (Single slot, without on-board 2.5" SATA HDD) 1.06 Grms (Dual slot, without on-board 2.5" SATA HDD)	2Grms
	Shock	10G (Without on-board 2.5" SATA HDD)	30G (Single slot, without on-board 2.5" SATA HDD)
	Altitude	15000 feet above sea level	40000 feet 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, PICMG2.16 R1.0,	

Supported CPU Configurations

Intel CPU Model Number	# Cores	Freq.	Cache	Memory Types	CPU TDP
Intel® Pentium® Processor B925C	2	2.0GHz	4 MB L3 Cache	DDR3/3-1333	15W
Intel® Xeon® Processor E3-1105C v2	4	1.8GHz	8 MB L3 Cache	DDR3/3-1333/1600	25W
Intel® Xeon® Processor E3-1125C v2	4	2.5GHz	8 MB L3 Cache	DDR3/3-1333/1600	40W

Ordering Information

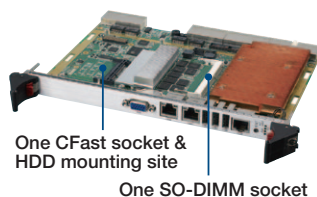| CPU Board	Front panel						CPU	On board Features					
	LAN (1)	COM (RJ45)	USB	VGA	DVI	DP		Memory (Up to 8GB)	SO-DIMM (Up to 8G)(4)	SATA HDD Socket	Cfast Socket	Slot Width	Conn.
MIC-3397A2-M8E	2	1	3	1	NA	NA	Pentium B925C	8 GB	NA	1	1	1	J3/J5
MIC-3397C2-M8E	2	1	3	1	NA	NA	Xeon E3-1125C v2	8 GB	1	1	1	1	J3/J5
MIC-3397B1-M8E	2	1	3	1	2	2	Xeon E3-1105C v2	8 GB	1	1	1	2	J3/J5
MIC-3397C1-M8E	2	1	3	1	2	2	Xeon E3-1125C v2	8 GB	1	1	1	2	J3/J5

Note:
1. LAN2 on front is switchable with RIO LAN1 which can be set in BIOS
2. COM support RS232/422 mode only
3. Total memory capacity is up to 16GB, 8GB on board, 8GB on SO-DIMM
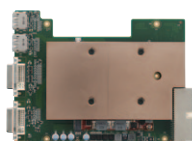4. Pentium B925C SKU w/o SO-DIMM socket

Recommended Configurations

CPU board	Extension Module	Rear I/O Board
MIC-3397x-MxE Series	MIC-3314	RIO-3315-XXX RIO-3317-XXX

MIC-3397 4HP

One CFast socket & HDD mounting site

One SO-DIMM socket

MIC-3314

MIC-3397 + MIC-3314

DVI-D

Two DP

DVI-I

VGA

COM

Three USB2.0

Two Gigabit LAN

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