

# MIC-3397

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



### 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



### Introduction

Advantech's MIC-3397 is a 6U CompactPCI single board computer with a choice of server class or low power processors based on the Quad-Core Intel® Xeon® E3-1125C v2(40W) or Dual-Core Intel® Pentium® B925C(15W), with DH8900 chipset. The processor is based on Intel® 22nm 64 bit process technology, with up to 2.5GHz clock speeds 8MB L3 cache, Intel® Hyper-Threading, Virtualization, and Trusted Execution Technology, all of which enable the board for applications requiring higher levels of performance and security. The MIC-3397 supports dual channel ECC memory, up to 16GB DDR3 at 1333/1600MHz with max 8GB on board and 8GB 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 on the front panel), six USB2.0 ports (three on front panel, three to RTM), two VGA ports (one on front panel, one to RTM) on the 4HP model, three COM ports (one to front panel, two to RTM), one PS/2 port, and one PCIe2.0 x4 interface reserved for user define extensions on the rear transition module.

The MIC-3397, is designed in single slot (4HP) and dual slots (8HP) form factor. The 8HP version provides extensive & rich IO support, and features high-performance discrete graphics, using an AMD Radeon E8860 GPU, supports 2GB 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 needs of applications operating in harsh environments and is ideally suited for datacom, telecom and military applications. Its outstanding graphics capabilities make it a good choice 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; 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
Ethernet	PHY	4 Marvel I 88E1112-C2-NNC1000 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® WG1210AT SLJXR Gigabit Ethernet Controller
	I/O Connector	PCIe 1.0x1, 10/100/1000 Base TX Ethernet RJ45 x1 to front
Graphics	Controller	SM750GX160000-AC ,265P, 16Mbytes of embedded 32-bit DDR memory
	Resolution	Dual display: 1360 x 768 (Clone & extended mode) Single display:1920 x 1080 (16bit, clone mode only)
	Controller (on MIC-3314)	AMD Radeon E8860, 128-bit wide, 2 GB, GDDR5
	Resolution	DP: 3840 x 2160; Dual Link DVI-D: 2560 x 1600; Single Link DVI-I: 1920 x 1080
	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 Buttons	x1 blue/yellow for Hot Swap/HDD, x1 green for Power, and x1 green for Master/Drone mode 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	Temperature	Operating: 0 ~ 55° C (32 ~ 122° F) Non-operating: -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)
	Shock	10G (Without on-board 2.5" SATA HDD) 2Grms
	Altitude	15000 feet above sea level 30G (Single slot, without on-board 2.5" SATA HDD)
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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 E3-1125C 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) (2)	USB	VGA	DVI	DP		Memory (Up to 8GB) (3)	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-3397C1-M8E	2	1	3	1	2	2	Xeon® E3-1125C v2	8 GB	1	1	1	2	J3/J5

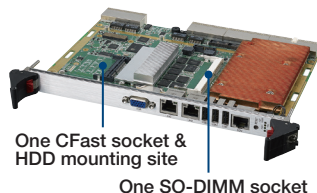
Note:

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

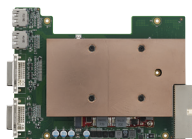
## Recommended Configurations

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

### MIC-3397 4HP



### MIC-3314



### MIC-3397 + MIC-3314

