# **MIC-3318**

# 3U CompactPCI® Pentium® 4-M Controller



Intel<sup>®</sup> Pentium<sup>®</sup> 4 Processor–M (fanless) 1.2 or 1.7 GHz (400MHz FSB), BIOS selection

PC-2100 DDR266 SO-DIMM, 200-pin socket x 1

## **Features**

- Built-in Intel<sup>®</sup> Pentium<sup>®</sup> 4-M CPU processor up to 1.7 GHz
- Supports up to 512 MB DDR-266 memory on board
- On-board high-performance VGA display
- Dual Gigabit Ethernet with RJ-45 connector on board
- Supports 2 Ultra ATA 33/66/100 high-speed IDE devices
- Onboard CompactFlash<sup>®</sup> disk socket
- One PCI-to-PCI bridge drives up to 7 bus master peripherals
- Advantech Hot-swap Manager to support Advantech I/O and Communication Hot-swap function
- Rear I/O signal support for easy wiring (MIC-3318R only)
- Supports on-board 2.5" HDD

# Introduction

The MIC-3318 is a 3U CompactPCI<sup>®</sup> controller that has been optimized for its on-board Intel<sup>®</sup> Pentium<sup>®</sup> 4 Processor-M, and Intel<sup>®</sup> 845GV Chipset. Designed to be a high performance CompactPCI<sup>®</sup> platform, MIC-3318 delivers compelling system bus speed performance at 400 MHz with its Intel NetBurst<sup>™</sup> microarchitecture. Innovative wide data paths and flexible memory refresh technology optimize the DDR SDRAM's performance in the MIC-3318. 512 KB of On-die L2 Cache, and dual Gigabit Ethernet ports are also provided.

MIC-3318 is a powerful 3U CompactPCI® Controller that fulfills your requirements in mission-critical applications, such as military defense, transportation, traffic control, test and measurement (T&M) as well as critical data acquisition & control applications.

# **Specifications**

## **Processor System**

•	CPU
•	Speed

- L2 Cache
- Chipset
- BIOS

### Bus

- Front Side Bus
  PCI-to-PCI Bridge
- Controller Pericom

PCI

- Memory
- Technology
- Capacity

## Graphics

•	Controller	Integrated in Intel <sup>®</sup> 845GV chipset
•	VRAM	DVMT 64 MB
•	Resolution	2048 x 1536 High Color @ 75 Hz for Flat panel 1920 x 1080 True Color @ 85 Hz for CRT

1 GB

512 KB on die

Intel® 845GV

400 MHz

PI7C8150

32-bit/33 MHz

Award 4 MB Flash

### Ethernet

•	Interface	10/100/1000Base-TX Gigabit Ethernet
•	Controller	Intel® 82540 x 2
•	Connector	RJ-45 x 2

LAN1 supports both front and rear I/O access on MIC-3318R (jumper selectable)

## Serial

Interface	RS-232/422/485, jumper selectable		
<ul> <li>Controller</li> </ul>	Winbond™ 83627HF Super IO chip		
<ul> <li>Data Bits</li> </ul>	5, 6, 7, 8		
<ul> <li>Stop Bits</li> </ul>	1, 1.5, 2		
<ul> <li>Parity</li> </ul>	None, even, odd		
<ul> <li>Speed (bps)</li> </ul>	50 ~ 115.2 k		
<ul> <li>Data signals</li> </ul>	RS-232: TxD, RxD, RTS, CTS, DTR, DSR, DCD, GND, RI		
RS-422/485	TxD, RxD, RTS, CTS		
<ul> <li>Connectors</li> </ul>	DB-9 x 2		
<ul> <li>COM1 supports both front and rear I/O access on MIC-3318R</li> </ul>			
EIDE			
<ul> <li>Mode</li> </ul>	ATA 33/66/100 mode		
<ul> <li>Channels</li> </ul>	2 (One 44-pin 2.5" HDD connector and ext- connector; another for CF socket)		
<ul> <li>Storage Site</li> </ul>	One IDE connector and space reserved for embedded 2.5" HDD		
Front I/O Interface			
- LAN	2 x Gigabit Ethernet, RJ-45 connector		
<ul> <li>Serial</li> </ul>	2 x RS-232/422/485, DB-9 connector		
Rear I/O Signal Interface (MIC-3318R series) <ul> <li>VGA, KB/MS, USB3, USB4, LAN1, COM1</li> </ul>			
<b>Operating Systems</b>			

Windows<sup>®</sup> 2000/XP

## Hardware Monitor

Compatibility

- ControllerMonitor
- Winbond<sup>™</sup> 83627HF Super IO chip CPU temperature, 3.3 V/5 V/12 V

#### Watchdog Timer

- Output
- Interval
- **Miscellaneous**
- Solid State Disk
- 2.5" HDD One 2.5" HDD bay for easy installation

Power. IDE

2 channels

System reset

Programmable, 0 ~ 255 sec.

One on-board CompactFlash socket

- LEDs
- USB (v2.0)
- Real Time Clock

#### **Power Requirements**

With P4-M 1.2 GHz					
	+3.3 V	+5 V	+12 V	-12 V	
Typical	1.7 A	3.4 A	16 mA	16 mA	
Max	1.7 A	4.7 A	16 mA	16 mA	

Built into the South Bridge

With P4-M 1.7 GHz					
	+3.3 V	+5 V	+12 V	-12 V	
Typical	1.7 A	4.1 A	16 mA	16 mA	
Max	1.7 A	5.7 A	16 mA	16 mA	

#### Environment

- Operating Temperature -10 ~ 60° C @1.2 GHz CPU
  - -10 ~ 50° C @1.7 GHz CPU
- Storage Temperature -40 ~ 80° C (-40~140° F)
- Humidity 95% @ 60° C, non-condensing

#### **Physical**

- Dimensions 100 x 160 mm (3U), 2-slot (8 TE) width 0.6 kg
- Weight

## Compliance

 Standard PICMG 2.0, R3.0 CompactPCI® Specification PICMG 2.1, R2.0 Hot-Swap Specification

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## **Rear Transition Board for MIC-3318R series**

- P/N
- KB/MS Yes
- COM COM1
- LAN1 LAN
- VGA Yes
- USB3, USB4 USB

# **Ordering Information**

- MIC-3318-AC00 MIC-3318 w/ on-board P4-M 1.7 GHz CPU, 256 MB
  - RAM without Rear I/O support
- MIC-3318-AD00 MIC-3318 w/ on-board P4-M 1.7 GHz CPU, 512 MB RAM without Rear I/O support
- MIC-3318R-AC00 MIC-3318 w/ on-board P4-M 1.7 GHz CPU, 256 MB RAM and Rear I/O support
- MIC-3318R-AD00 MIC-3318 w/ on-board P4-M 1.7 GHz CPU, 512 MB RAM and Rear I/O support
- MIC-3518 Rear I/O module for MIC-3318R

# Asssembling / Disassembling **MIC-3318**



# Front View of MIC-3318

