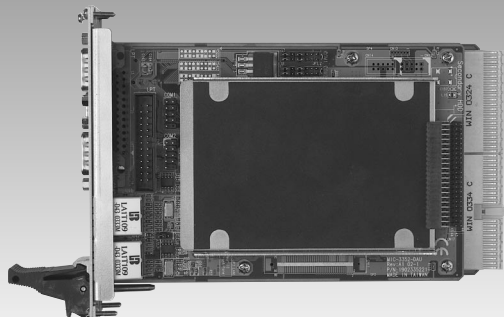# MIC-3318

3U CompactPCI® Pentium® 4-M Controller

NEW

Features

- Built-in Intel® Pentium® 4-M CPU processor up to 1.7 GHz
- Supports up to 512MB DDR-266 memory on board
- Onboard 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 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
- Supports onboard 2.5" HDD

Introduction

The MIC-3318 is a 3U CompactPCI® controller that has been optimized for its onboard Intel® Pentium® 4 Processor-M, and Intel 845GV Chipset. Designed to be a high performance CompactPCI platform, MIC-3318 delivers compelling system bus speed performance at 400 MHz with its Intel NetBurst™ 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 Ethernets

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	Intel Pentium 4 Processor–M (fanless)
Speed	1.2 or 1.7 GHz (400MHz FSB), BIOS selection
L2 Cache	512 KB on die
Chipset	Intel 845GV
BIOS	Award 4 Mb Flash

Bus

Front Side Bus	400 MHz
PCI-to-PCI Bridge Controller Pericom	PI7C8150
PCI	32-bit/33 MHz

Memory

Technology	PC-2100 DDR266 SO-DIMM, 200-pin socket x 1
Max. Capability	512 MB

Graphics

Controller	Integrated in Intel 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

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
Controller	Winbond™ 83627HF Super IO chip
Data bits	5, 6, 7, 8
Stop bits	1, 1.5, 2
Parity	None, even, odd
Speed (bps)	50 ~ 115.2 K
Data signals	RS-232: TxD, RxD, RTS, CTS, DTR, DSR, DCD, GND, RI
RS-422/485	TxD, RxD, RTS, CTS
Connectors	DB-9 x 2

- COM1 supports both front and rear I/O access on MIC-3318R

EIDE

Mode	ATA 33/66/100 mode
Channels	2
Storage Site	One IDE connector and space reserved for embedded 2.5" HDD

Front I/O Interface

LAN	2 x Gigabit Ethernet, RJ-45 connector
Serial	2 x RS-232/422/485, DB-9 connector

Rear I/O Signal Interface (MIC-3318R series)

- VGA, KB/MS, USB3, USB4, LAN1, COM1

Operating Systems

Compatibility	Windows 2000/XP, Kernel Linux v2.4

Hardware Monitor

Controller	Winbond 83627HF Super IO chip
Monitor	CPU temperature, 3.3 V/5 V/12 V

Watchdog Timer

- **Output**   System reset
- **Interval**   Programmable, 0 ~ 255 sec.

Miscellaneous

- **Solid State Disk**   One onboard CompactFlash socket
- **2.5" HDD**   One 2.5" HDD bay for easy installation
- **LEDs**   Power, IDE
- **USB (v2.0)**   2 channels
- **Real Time Clock**   Built into the South Bridge

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	1.7A	4.7 A	16 mA	16 mA

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	1.7A	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
- **Weight**   0.6 kg

Compliance

- **Standard**   PICMG 2.0, R3.0 CompactPCI Specification

                                  PICMG 2.1, R2.0 Hot-Swap Specification

Rear Transition Board for MIC-3318R series

- **P/N**   MIC-3518
- **KB/MS**   Yes
- **COM**   COM1
- **LAN**   LAN1
- **VGA**   Yes
- **USB**   USB3, USB4

Ordering Information

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