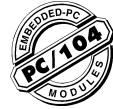# PCM-3663 PC/104-Plus Dual Ethernet Module Startup Manual

Introduction

The powerful, new PC/104-plus dual ethernet module is designed to support the ever increasing number of network connected embedded products on the market. It can be applied to any size form factor CPU board by employing the PC/104-plus throughput connectors. The PCM-3663 can provide a single or dual ethernet configuration using combinations of Intel's 82559ER or Realtek's RTL8139 ethernet chipsets (see ordering information below), and even offers the Intel 82559 chipset as an option. The PCM-3663 provides full 32-bit performance, PCI bus capability and is in full compliance with IEEE 802.3u 100Base-T specifications and IEEE 802.3x Full Duplex Flow Control. The PCM-3663 is your off-the-shelf solution that can immediately provide one or two ethernet ports to your embedded system.

The PCM-3663 module includes a built-in 10 pin box header and RJ-45 connectors. Two diagnostic LEDs indicate the operating status of the module and the network. You can define LEDs according to the application. The PCM-3663 comes with drivers for a wide variety of networks and operating systems. An optional boot ROM lets you boot a remote station automatically from a server, making hard or floppy disks unnecessary. The PCM-3663 also provides Wake-ON-LAN functionality.

Packing List

Before you begin installing your card, please make sure that the following materials have been shipped:

- 1 StartUp Manual for PCM-3663
- 1 CD-ROM for PCM-3663 Driver/Utility

If any of these items are missing or damaged, contact your distributor or sales representative immediately.

Note 1:   For detailed contents of the PCM-3663, please refer to the enclosed CD-ROM or disk (in PDF format).

Note 2:   Acrobat Reader is required to view any PDF file. Acrobat Reader can be downloaded at: **www.adobe.com/Prodindex/acrobat/readstep.html** (Acrobat is a trademark of Adobe.)

Specifications

Standard Functions

- **Chipset**: Realtek:8139 (PCI 10/100 BaseT), or Intel 82559ER (PCI 10/100 Base T)
- **Port**: Single/Twin Ethernet Port
- **Network port**: 10 Mbps IEEE 802.3, 100 Mbps IEEE802.3u, RJ-45 connector
- **Compatability**: PCI version 2.2, 10/100 Mbps CSMA/CD 10/100 Mbps transceiver

Mechanical and Environmental

- **Power Consumption**: +5V @ 800mA (typical),
- **Power Requirements**: +5V ±5% tolerance on power supply
- **Size/Weight:** 96mm x 90mm (3.8" x 3.5") 0.084 kg (0.185 lb)
- **Temperature:** Operating: 0 ~ 60°C (32 ~ 40°F) Storage: -40 ~ 85°C (-40 ~ 185 F)
- **Operating Humidity:** 0% ~ 90% Relative Humidity, non-condensing

Connectors

CN1:	PC104 Plus Connector
CN2:	RJ45 Connector for Ethernet 1
CN3:	Wake ON LAN Connector
CN4:	RJ45 Connector for Ethernet 2
CN5:	Reserved
CN6:	5x2 Connector for Ethernet 1
CN7:	5x2 Connector for Ethernet 2
S1:	PCI ID selection

For more information on this and other Advantech products, please visit our website at:

http://www.advantech.com.tw
http://www.advantech.com/epc

For technical support and service, please visit our support website at:

http://www.advantech.com/support

This startup manual is for the PCM-3663 Series Rev. A1.

Module Settings

There are four PC/104-*plus* cards which are allowed in the PC/104-*plus* CPU system. If you want to install more than one PC/104-*plus* module, you have to note that each module has different settings to avoid module conflicts. For the PCM-3663, you can use S1 to set up different signal settings to avoid conflicts with other PC/104-*plus* modules. Please refer to the following table.
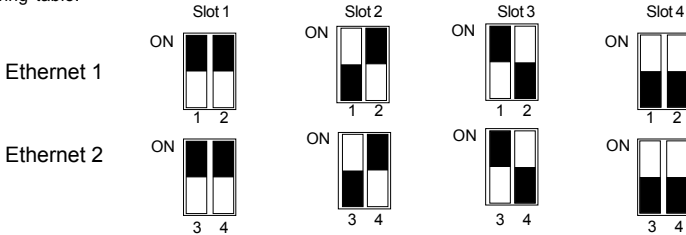
S1 (1,2)	S1 (3,4)	Slot	REQ*	GNT*	CLK	IDSEL	INT0*	INT1*	INT2*	INT3*
*ON,ON	ON,ON	1	REQ0*	GNT0*	CLK0	IDSEL0	INTA*	INTB*	INTC*	INTD*
OFF,ON	*OFF,ON	2	REQ1*	GNT1*	CLK1	IDSEL1	INTB*	INTC*	INTD*	INTA*
ON,OFF	ON,OFF	3	REQ2*	GNT2*	CLK2	IDSEL2	INTC*	INTD*	INTA*	INTB*
OFF,OFF	OFF,OFF	4	REQ2*	GNT2*	CLK3	IDSEL3	INTD*	INTA*	INTB*	INTC*

•IRQ setting of Ethernet 1 can be set by S1 (Switch 1, Switch 2)
•IRQ setting of Ethernet 2 can be set by S1 (Switch 3, Switch 4)

*default setting

Pin Assignments CN6 & CN7

Pin	Signal
1	V c c
2	CRS LED
3	RCV+
4	RCV-
5	BNC LED
6	GND
7	N/C
8	GND
9	XMT+
10	XMT-

Mechanical Drawings