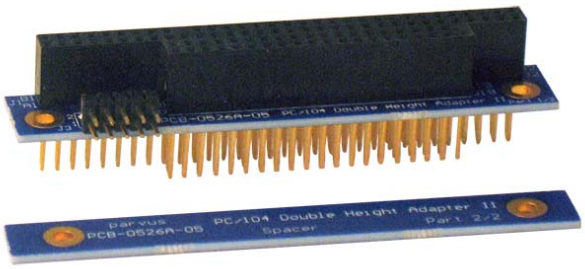
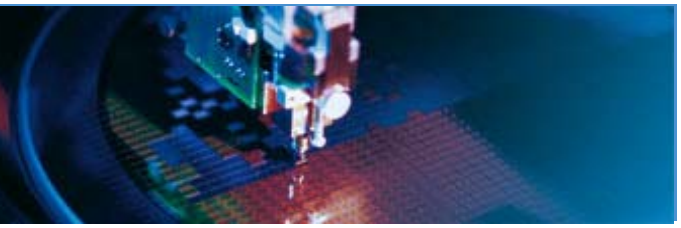
USER MANUAL





PRV-0414

PCB Double Height Adaptor
(Adaptor for Tall PCB Components)

MNL-0337-01 Rev H3 REF. ECO-3163 01 Feb 10

RUGGED SOLUTIONS FOR REAL WORLD APPLICATIONS

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This symbol has been attached to the equipment or, in the case that this is not possible, on the packaging, instruction literature and/or the guarantee sheet. By using this symbol it states that the device has been marketed after August 13th 2005, and implies that you must separate all of its components when possible, and dispose of them in accordance with local waste disposal legislations.

- Because of the substances present in the equipment, an improper use or disposal of the refuse can cause damage to human health and to the environment.
- With reference to WEEE, it is compulsory not to dispose of the equipment with normal urban refuse; arrangements should be instigated for separate collection and disposal.
- For more detailed information about recycling of WEEE, please contact your local waste collection body.
- In case of illicit disposal, sanctions will be levied on transgressors.

RoHS

This device, including all it components, subassemblies and the consumable materials that are an integral part of the product, has been manufactured in compliance with the European directive 2002/95/EC known as the RoHS directive (Restrictions on the use of certain Hazardous Substances), this directive targets the reduction of certain hazardous substances previously used in electrical and electronic equipment (EEE).

Table of Contents

Chapter 1 Introduction

This section provides a functional description of the PRV-0414.

Functional Description

The PRV-0414 PC/104 Double Height Adapter is a low-cost interconnection board that gives embedded PC/104 computer systems a method for connecting circuit board modules taller than the prescribed PC/104 specification height. The adapter is especially useful for high-profile PC/104 CPU, power supply and hard drive modules that incorporate onboard fans or heatsinks for thermal management, as these types of boards commonly exceed the PC/104 form factor height of 0.60” and take up two card slots. Overcoming PC/104 height infringement can also be especially useful during prototype development when placing a prototype card at the end of a card stack becomes impractical.

Measuring only 3.550" x 0.550" in size, the PC/104 Double Height Adapter provides clearance for tall board components in a card stack, while offering a 16-bit pass-through header for all standard PC/104 bus signals and a 10-pin power connector for power/grounding through the PC/104 bus. The adapter also has standard PC/104 board mounting holes and can be placed on top or bottom of any PC/104 module with its 104-pin and socket connector.

Included with the adapter is also a set of nylon stand-off spacers for board mounting and a second, smaller (3.550" x 0.40") circuit board used to maintain proper spacing on the other side of the PC/104 slot. Stand-offs can be inserted into mounting holes for the adapter and adjacent PC/104 modules, or alternatively, the PC/104 card stack can be securely mounted in a PC/104 railed card cage without any standoffs required.

Features

- 16-Bit PC/104 (ISA) bus
- Set of 8 Plastic Board Stand-offs (with Nuts and Screws)
- Standard PC/104 Mounting Holes
- 10-Pin Power Header (Dual Row 0.100 inch)

About PC/104

The PC/104 specification is characterized by its small form-factor (3.550" x 3.775"), stackable 104-pin/socket ISA bus connector, and reduced bus signal drive, making PC/104's size, durability, expandability, reliability, quality, and power consumption ideal for embedded computing. PC/104 technology leverages the same readily available development tools used with personal desktop computers to dramatically improve time-to-market for embedded systems development. The full PC/104 specification can be found at the PC/104 Consortium Web site: http://www.pc104.org/technology/pc104_tech.html

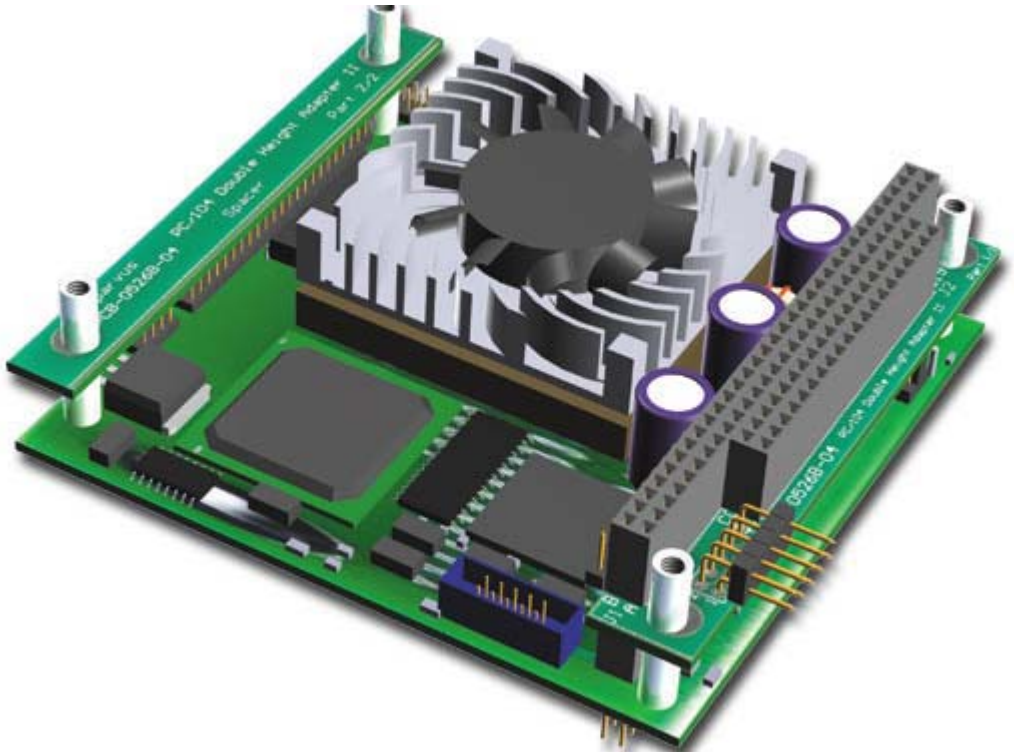
Chapter 2 Quick Start-up

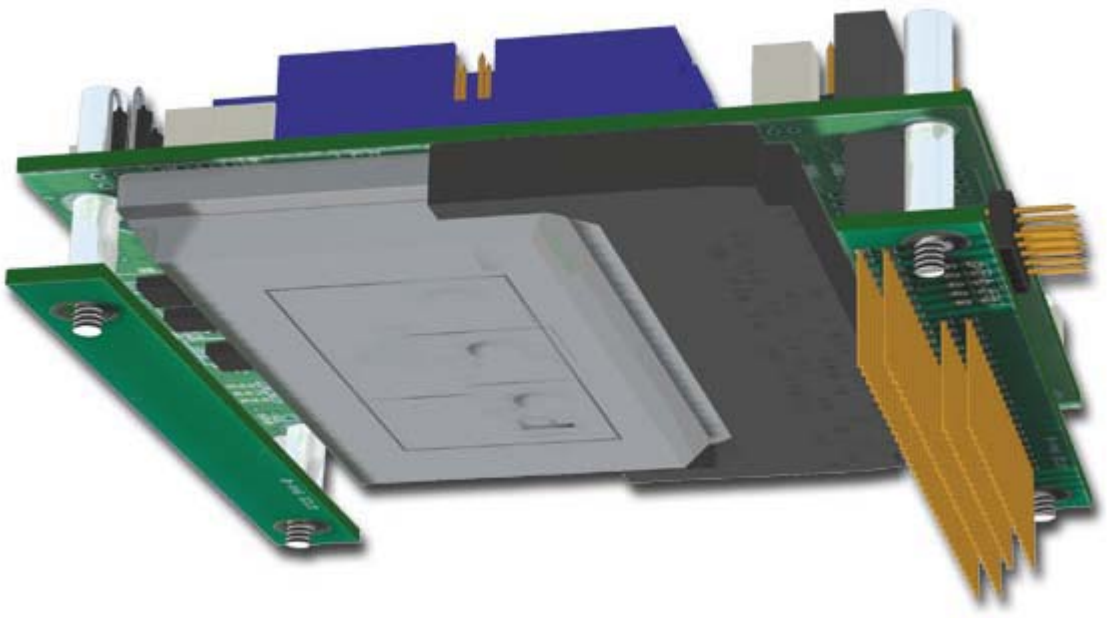
This section describes the installation of the PRV-0414. It then describes power-up of the assembly.

Installation

Installing the PC/104 Double Height Adapter

Remove the PC/104 Double Height Adapter from the anti-static bag. There are two pieces; One piece (PART 1), contains the stack-through connector(s) for the PC/104 bus. The other piece (PART 2) acts as a spacer for the other side of the stack to maintain PC/104 card spacing requirements. Install the section containing the PC/104 connector(s) onto the top or bottom side of the board requiring extra height, and install two spacers, if they are to be used, to secure the adapter. Place PART 2 onto the remaining spacers, and install two spacers to secure PART 2 to the stack. Assemble the next card on top of the stack adapter using standard mounting hardware.





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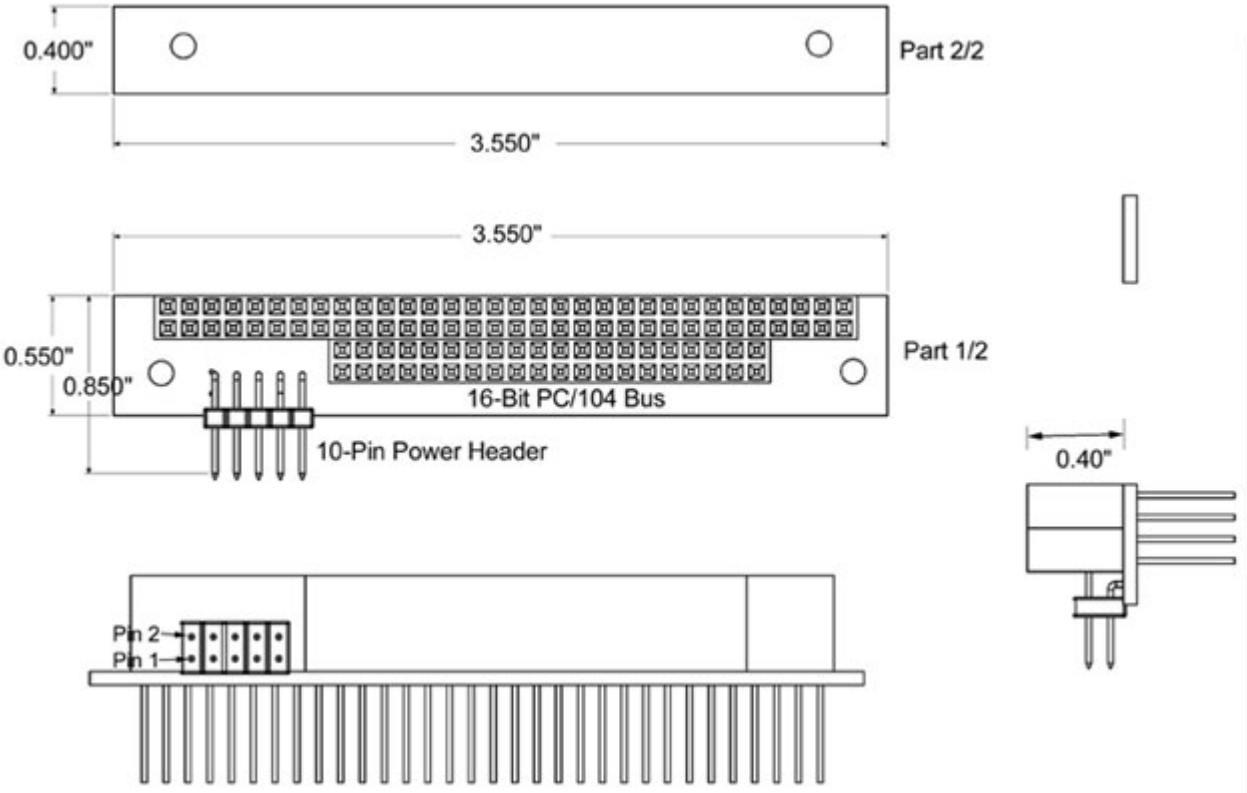
Chapter 3 Connector Description

This chapter includes the pinouts, signal descriptions for the PRV-0414.

Connector Identification

RoHS PCB (PCB-0526-05) with 10-pin Power Connector:



Connector	Function
J1,J2	PC/104 Bus
10-pin Power Header	Used to supply power to or take power from PC/104 Bus

Connector Pinouts

J1/J2: PC/104 Bus

Pin	Row A	Row B	Row C	Row D
0	--	--	GND	GND
1	/IOck	GND	/SBHE	/MCS16
2	SD7	Rstdrv	LA23	/IOCS16
3	SD6	+5v	LA22	IRQ10
4	SD5	IRQ9	LA21	IRQ11
5	SD4	-5v	LA20	IRQ12
6	SD3	DRQ2	LA19	IRQ15
7	SD2	-12v	LA18	IRQ14
8	SD1	/Exfer	LA17	/DA0
9	SD0	+12v	/MR	DRQ0
10	IOrdy	(key)	/MW	/DA5
11	AEN	/SMW	SD8	DRQ5
12	SA19	/SMR	SD9	/DA6
13	SA18	/IOW	SD10	DRQ6
14	SA17	/IOR	SD11	/DA7
15	SA16	/DA3	SD12	DRQ7
16	SA15	DRQ3	SD13	+5v
17	SA14	/DA1	SD14	/MSTR
18	SA13	DRQ1	SD15	GND
19	SA12	/Rfrsh	(key)	GND
20	SA11	SCLK	--	--
21	SA10	IRQ7	--	--
22	SA9	IRQ6	--	--
23	SA8	IRQ5	--	--
24	SA7	IRQ4	--	--
25	SA6	IRQ3	--	--
26	SA5	/DA2	--	--
27	SA4	TC	--	--
28	SA3	BALE	--	--
29	SA2	+5v	--	--
30	SA1	OSC	--	--
31	SA0	GND	--	--
32	GND	GND	--	--

Note: The PC/104 bus always uses Row A and B, while Row C and D are for 16 bit systems. B10 and C19 are keyed locations.

10-Pin Power Connector –

Used in supplying power or taking power from the PC/104 bus
Pins 1 & 2 are designated on applicable drawing above for current PCB version (**PCB-0526-04).**

Pin	Function	Pin	Function
1	Ground	6	N/C
2	+5V	7	Key
3	Ground	8	+5V
4	+12V	9	Ground
5	Ground	10	+5V

Specifications

This chapter provides the specifications for the PRV-0414.

Technical Specification

Optional Auxiliary Input
- Power Requirements
- +5V &/or +12V

Environmental Specifications

Operating Temperature
-40C to +85C

Storage Temperature
-40C to +85C

Mechanical

This section provides details related to the mechanical construction of the PRV-0414.

Dimensions

Dimensions 3.510" x 0.550" (part 1), 3.510" x 0.40" (part 2).

Chapter 4 Troubleshooting

Technical Assistance

If you have a technical question or if you cannot isolate a problem with your product, please call or e-mail the Parvus Technical Support team:

- Email: tsupport@parvus.com
- Phone: +1 (801) 433-4322
- Fax: +1 (801) 483-1523

Returning For Service

Before returning any Parvus product, please fill out a Returned Material Authorization (**RMA**) request form available for download from the following website under the support section:

www.parvus.com

Email this form to the email address listed above to receive authorization for shipment. An RMA number will be emailed back to you as soon as possible.

Note. You must have the RMA number in order to return any product for any reason.

Pack the module in an anti-static material and ship it in a sturdy cardboard box with enough packing material to adequately cushion it.

Warning! Any product returned to Parvus improperly packed will immediately void the warranty for that particular product!

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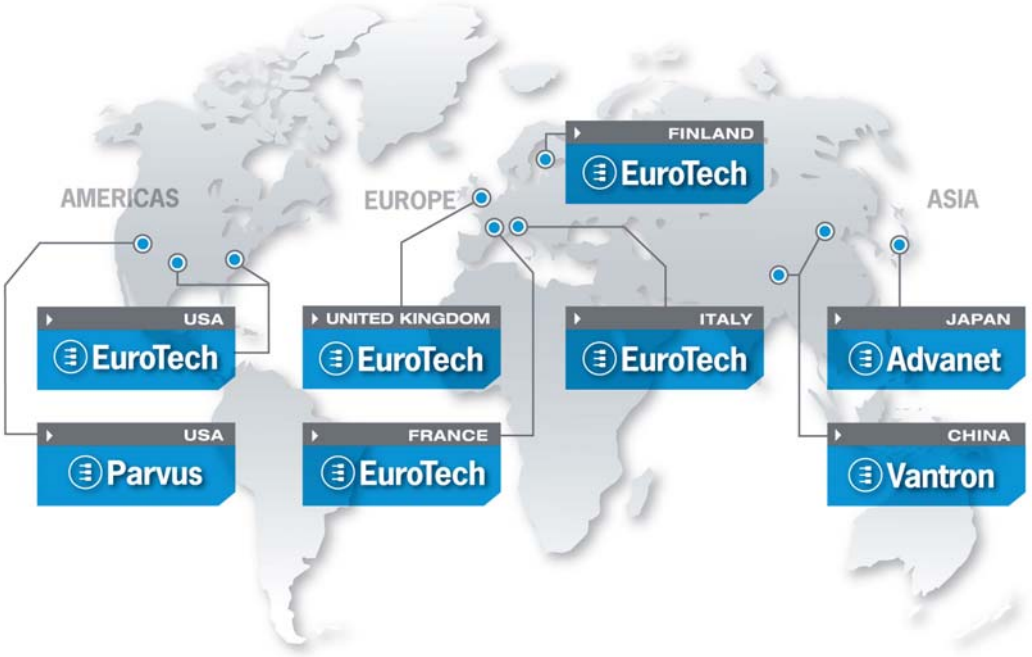

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