

PRV-1220

Remote CompactFlash Adaptor

MNL-0516-01 Rev B1

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22 Feb 10

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Parvus Corporation
3222 S. Washington St.
Salt Lake City, Utah, USA 84115
Phone: +1 (801) 483-1533
Toll-Free: +1 (800) 483-3152
Main: +1 (801) 483-1533
Fax: +1 (801) 483-1523
Email:
Sales: sales@parvus.com
Support: tsupport@parvus.com
Web-site: <http://www.parvus.com>

Send us your comments and feedback: feedback@parvus.com

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WEEE

The information below is issued in compliance with the regulations as set out by the 2002/96/CE directive, subsequently superseded by 2003/108/CE, and refers electrical and electronic equipment and the management of their waste (WEEE). When disposing of a device, including all of its components, subassemblies and materials that are an integral part of the product, you should take the WEEE directive into consideration.



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 its 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).

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Chapter 1 Introduction

This section provides a functional description of the PRV-1220.

Functional Description

PRV-1220 is a low-cost, CompactFlash® to IDE adapter flexibly designed with both 40-pin (0.10") and 44-pin (2mm) IDE connectors. Fully compatible with Type I and Type II cards, the adapter enables both solid-state CompactFlash and IBM® Microdrive® media to be used as a bootable IDE (ATA) disk drive in any computer with an IDE (Integrated Drive Electronics) interface. The product features power and activity LED indicators, a master/slave selection jumper, four mounting holes, and front panel mounting brackets.

Transparent to the operating system (OS), the CFII-IDE does not require any device drivers to work with DOS®, Windows®, Linux®, and any other PC-based operating systems. A CompactFlash card appears as a small IDE hard disk drive to the BIOS and OS. The product's small size and versatile design make it an ideal solution for embedded systems requiring reliable, removable Flash memory storage. Compact Flash provides a robust, low-current, low-operating temperature, and highly reliable storage solution for embedded computing applications. Formerly known as the CFII-IDE.

Features

- **Bootable:** Can be used as a boot device
- **Master/Slave:** Jumper Configurable
- **CompactFlash Socket:** for Type I and II Cards
- **Mounting Holes:** for Flush Mount or L-Bracket Installation
- **IDE Support:** Connectors for *both* 40- and 44-Pin IDE Cabling
- **Power Interface:** for 40-pin IDE
- **LED Indicators:** Activity and Power
- **Software:** No Drivers required; Compatible with Windows, Linux, QNX systems with IDE

Chapter 2 Quick Start-up

This section describes the installation of the PRV-1220.

Installation

Board Mounting

There are four holes, one on each corner of the board, to aid in mounting the board. The board can also be mounted with the two provided L-brackets.

Setup

The CompactFlash device can be set as either master or slave using JP1. If the board is connected to a 40-pin IDE cable, then +5V needs to be supplied to J3. The power and activity LEDs can be externally connected through J5. See the Connection and Configuration sections of this manual for more information.

Attaching Media

Ensure that power is not being applied to the CFII-IDE board before inserting a CompactFlash card. Failure to do so may damage both the CompactFlash card and the CFII-IDE board. Slide either a Type I or Type II CompactFlash card into J2. Finally attach either a 44 or 40-pin IDE ribbon cable to J1 or J4 respectively. Attach the other end to an external IDE controller. Be sure that no power is being applied to the external IDE controller.

Chapter 3 Connector Description

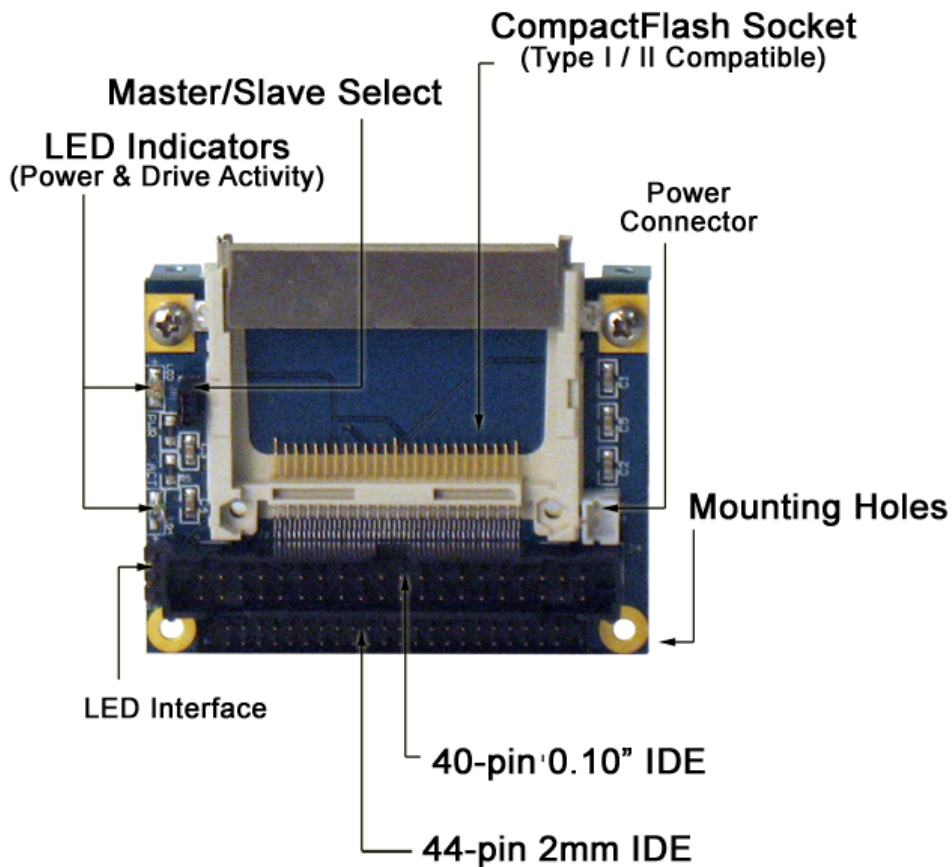
This chapter includes the pinouts, signal descriptions and connector part numbers for the PRV-1220.

Connector Identification

Component and Connector Placement

Connector / Jumper / LED	Function
J1	44 Pin IDE Connector
J2	CompactFlash Connector
J3	+5V Power Connector for CompactFlash
J4	40 Pin IDE Connector
J5	External LED Header
JP1	Master/Slave CompactFlash Card
LD3	CompactFlash Power LED
LD4	CompactFlash Activity LED

Figure 3.1 Connector Layout



Connector Pinouts

This section provides the pinouts necessary for creating cables that would properly connect to this assembly. If custom cabling is not designed and built by Parvus all EMI and EMC consideration must be handled by the customer.

J1: 44 Pin 2mm IDE Connector

J4: 40 Pin 0.1" IDE Connector

Pin	Function	Pin	Function
1	Reset*	2	Ground
3	Data 7	4	Data 8
5	Data 6	6	Data 9
7	Data 5	8	Data 10
9	Data 4	10	Data 11
11	Data 3	12	Data 12
13	Data 2	14	Data 13
15	Data 1	16	Data 14
17	Data 0	18	Data 15
19	Ground	20	(key)
21	DMA Req	22	Ground
23	Write*	24	Ground
25	Read*	26	Ground
27	Ready*	28	BALE
29	DMA Ack*	30	Ground
31	INT Req	32	IOCS16
33	Address 1	34	PDIAG*
35	Address 0	36	Address 2
37	CS1FX*	38	CS3FX
39	DASP*	40	Ground
41	+5V DC	42	+5V DC
43	Ground	44	N/C

NOTE: The first 40 pins are common between the 40 and 44 pin IDE connectors.

* - indicates active low

J2: CompactFlash Slot

Pin	Function	Pin	Function
1	Ground	2	Data 3
3	Data 4	4	Data 5
5	Data 6	6	Data 7
7	CS0*	8	A10
9	Ground	10	A9
11	A8	12	A7
13	Vcc	14	A6
15	A5	16	A4
17	A3	18	A2
19	A1	20	A0
21	Data 0	22	Data 1
23	Data 2	24	IOCS16*

25	Ground	26	Ground
27	Data 11	28	Data 12
29	Data 13	30	Data 14
31	Data 15	32	CS1*
33	Ground	34	IOR*
35	IOW*	36	WE*
37	+IRQ	38	Vcc
39	Master/Slave Select	40	N/C
41	Reset*	42	IORDY_IDE

J3: Power Connector for CompactFlash Card

Pin	Function
1	VCC
2	Ground

Note:

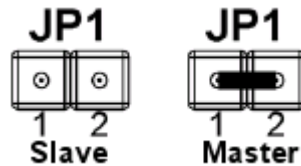
This connector is only to be used when using the 40 pin IDE connector to provide power to the CompactFlash card.

J5: LED Connection Interface

Pin	Function
1	VCC
2	Power LED
3	Activity LED

Chapter 4 Operational Description

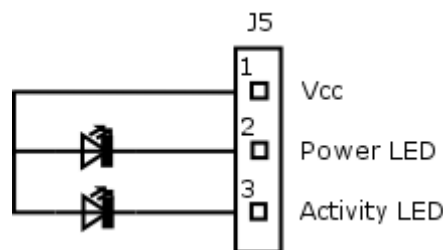
Configuration



JP1: CompactFlash Master/Slave Select Jumper

Jumper	Function
1 - 2	Master
None	Slave

Connector J5 can be used to bring out the power and hard drive activity signals to an external source. The figure below shows how a connection should be made.



Chapter 5 Specifications

This chapter provides the specifications for the PRV-1220.

Technical Specification

Electrical

- Requirements +5Vdc
- Do not insert/remove CompactFlash card with power applied

Environmental Specifications

This section describes the environmental standards that the PRV-1220 has either been designed to meet or tested to.

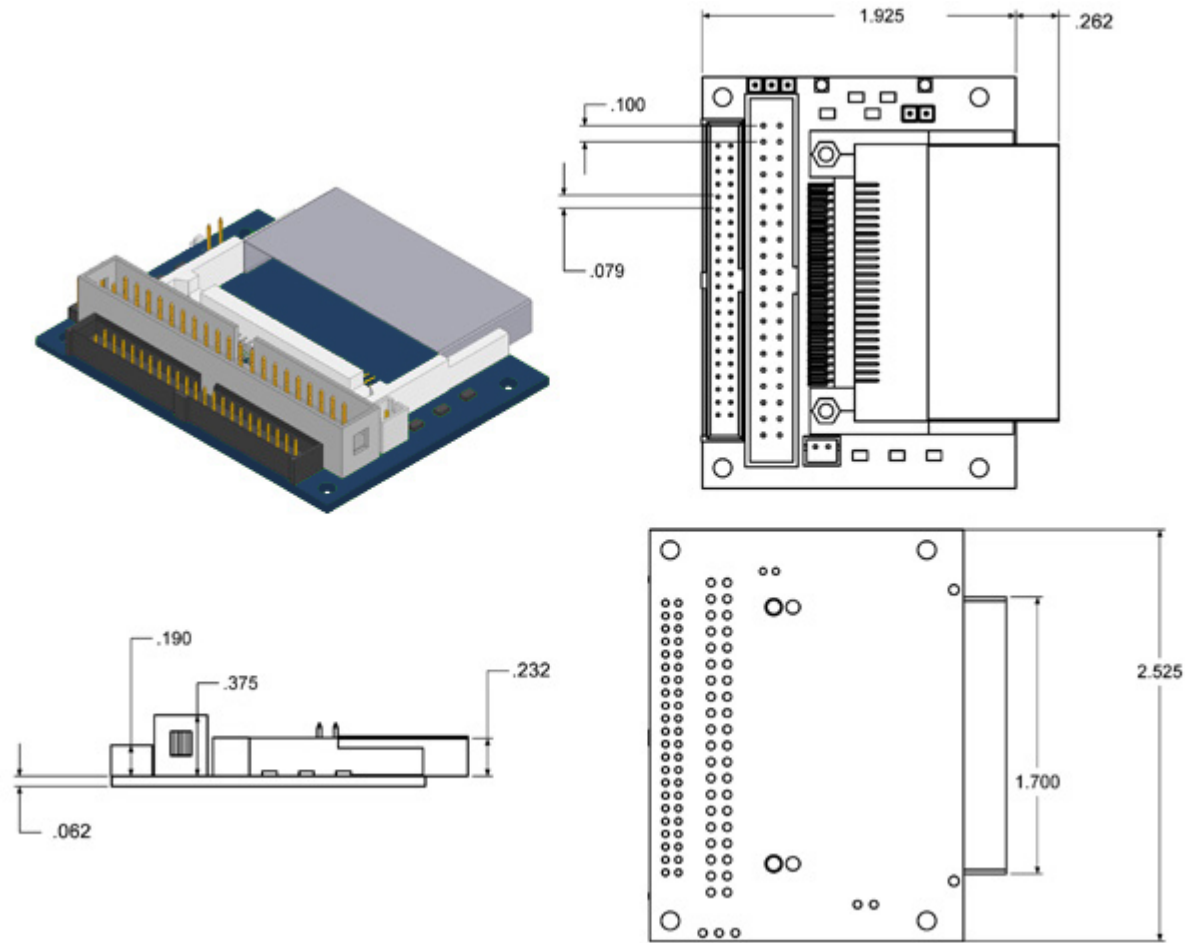
- Operating Temperature -40°C to +85°C
- Humidity Up to 95%, non-condensing
- Cooling Not required

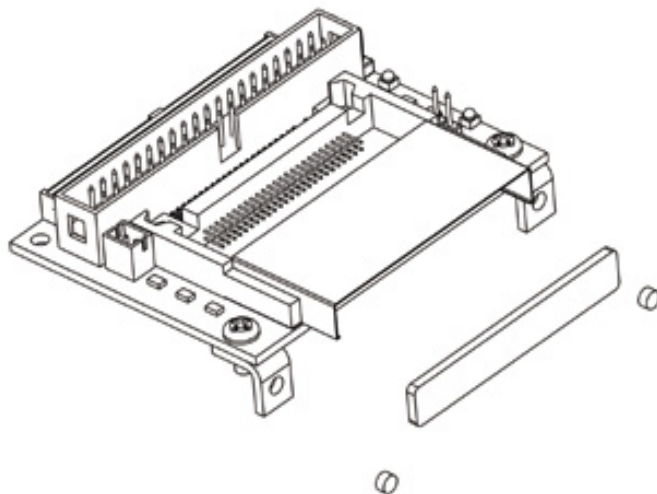
Mechanical

This section provides details related to the mechanical construction of the PRV-1220.

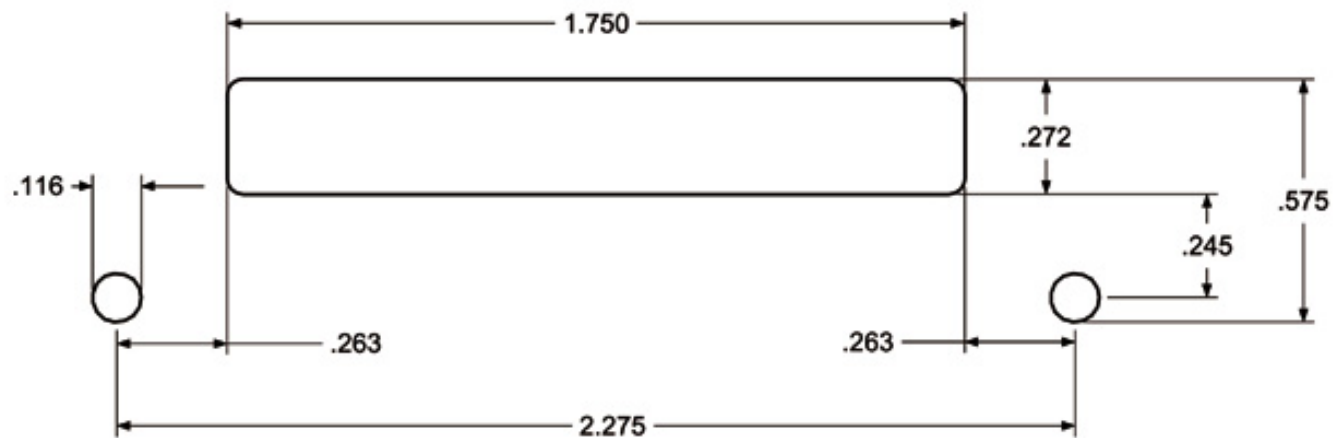
Dimensions

2.525" (L) x 2.187" (W) x 0.375" (T)





Recommended Panel Cut-Outs (for Mounting with L-Brackets)



Chapter 6 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!

Chapter 7 Contact Info

Main Phone: +1 (801) 483-1533

Fax: +1 (801) 483-1523

Sales

+1(800) 483-3152 or (801) 483-1533,

sales@parvus.com

Product Technical Support

+1 (801) 433-6322,

tsupport@parvus.com

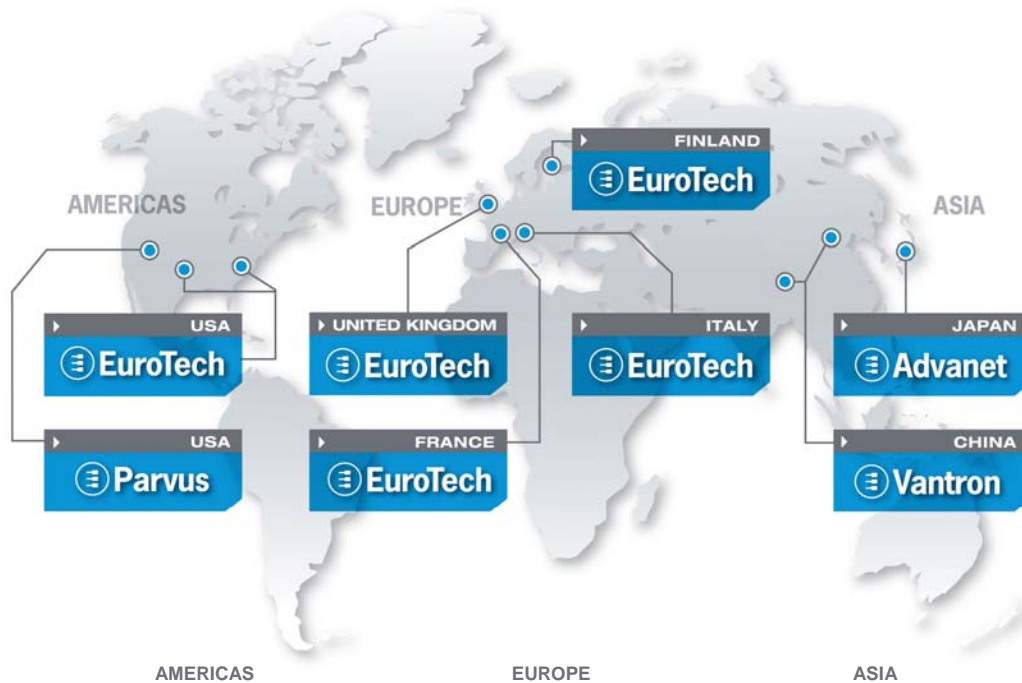
Customer Feedback

feedback@parvus.com

Company contact info:

Parvus[®] Corporation
3222 S. Washington St.
Salt Lake City, Utah, USA 84115
(801) 483-1533, FAX (801) 483-1523
Web-site: <http://www.parvus.com>

Eurotech Group Worldwide presence



USA

EUROTECH

Toll free +1 888.941.2224
 Tel. +1 301.490.4007
 Fax +1 301.490.4582
 E-mail: sales.us@eurotech.com
 E-mail: support.us@eurotech.com
 Web: www.eurotech-inc.com

PARVUS

Tel. +1 800.483.3152
 Fax +1 801.483.1523
 E-mail: sales@parvus.com
 E-mail: tsupport@parvus.com
 Web: www.parvus.com

Italy

EUROTECH

Tel. +39 0433.485.411
 Fax +39 0433.485.499
 E-mail: sales.it@eurotech.com
 E-mail: support.it@eurotech.com
 Web: www.eurotech.com

United Kingdom

EUROTECH

Tel. +44 (0) 1223.403410
 Fax +44 (0) 1223.410457
 E-mail: sales.uk@eurotech.com
 E-mail: support.uk@eurotech.com
 Web: www.eurotech.com

France

EUROTECH

Tel. +33 04.72.89.00.90
 Fax +33 04.78.70.08.24
 E-mail: sales.fr@eurotech.com
 E-mail: support.fr@eurotech.com
 Web: www.eurotech.com

Finland

EUROTECH

Tel. +358 9.477.888.0
 Fax +358 9.477.888.99
 E-mail: sales.fi@eurotech.com
 E-mail: support.fi@eurotech.com
 Web: www.eurotech.com

Japan

ADVANET

Tel. +81 86.245.2861
 Fax +81 86.245.2860
 E-mail: sales@advanet.co.jp
 E-mail: tsupport@advanet.co.jp
 Web: www.advanet.co.jp

China

VANTRON

Tel. +86 28.85.12.39.30
 Fax +86 28.85.12.39.35
 E-mail: sales@vantrontech.com.cn
 E-mail: support.cn@eurotech.com
 Web: www.vantrontech.com.cn



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