

## Overview:

The VRM-CE5-X is a quad port Serial ATA hostadapter, compliant with SATA 1.0 specification. The CompactPCI® board can be optionally equipped with an 2.5" on-board hard disk drive. The VRM-CE5-X provides an extended BIOS (both RAID/non-RAID versions available), which enables the module to operate either as boot device, or as additional SATA host controller in a system. In addition, the optional on-board SATA to Parallel ATA bridge allows for attachment of a legacy IDE (Parallel ATA) hard disk drive. The VRM-CE5-X provides four separate SATA channels to access storage media such as hard disk drive. On-board SATA connectors are provided optionally for system internal usage. As an alternative, SATA line 0 is dedicated to an optional on-board 2.5" hard disk drive by means of the on-board Serial ATA to Parallel ATA bridge. All SATA lines are alternatively accessible for external devices attached to the front panel connector. Also available as an option, the SATA lines are alternatively wired for rear I/O usage across J2. Available for download are drives (RAID and non-RAID) for popular operating systems (e.g. Windows®2000, Windows®XP, Linux and Netware. A software RAID configuration utility and a BIOS Flash tool complement the software suite.

## Features:

- Form Factor 3U Eurocard (100x160mm<sup>2</sup>), front panel width 4HP (20.3mm)
- Controller PCI to quad-port Serial ATA (SATA) host controller (Silicon Image), SATA Link 1.5Gbps
- SATA Port Channel 0 available either via on-board connector option SATA -01 (1=system internal usage), or dedicated to the on-board SATA to assignments Parallel ATA bridge (option for 2.5" IDE on-board hard disk drive), or available from the front panel optional connector.  
SATA-OE (E=external usage) or optionally routed to CompactPCI connector J2 for rear I/O usage Channels 1-3 available either via on-board connector option SATA-1I...SATA-3I (I=internal usage) or accessible via SATA-1E ... SATA-3E (E=external) front panel SATA connectors (option), or optionally routed to CompactPCI connector J2 for rear I/O usage.
- CompactPCI@Bus 32-bit, 33/66Mhz, CompactPCI connector J1, 3.3V or 5V VIO (not keyed)
- BIOS On-board Flash, non-RAID or RAID versions, programming tool available for BIOS update
- Drivers/Software Windows® 2000, Windows®XP, Linux or Novell Netware®, Software RAID (level 0=striping, level 1= mirroring, level 10 = mirrored Stripe, level 5), RAID controller function requires changing of standard BIOS to RAID BIOS (BIOS Flash tool available by download)
- Typical Power Consumption:  
+3.3V ±5% 0.45A max.  
+5V±5% 0.75A max (on-board hard disk only)
- Thermal Condition:  
Operating Temperature: 0°C... +70°C (hard disk option: tbd)  
Storage Temperature: -40°C ...+85°C
- Environmental Conditions:  
Humidity: 5% ... 05% non condensing  
Altitude: ~300m...+3000m
- Shock: 15g 0.33ms, 6g 6 ms (hard disk option: tbd)
- Vibration: 1g 5-2000Hz (hard disk option: tbd)



## Ordering Options:

- VRM-CE5-1: 3U CompactPCI Serial ATA controller, 4 SATA front panel connectors for external usage
- VRM-CE5-2: 3U CompactPCI Serial ATA controller, 4 SATA on-board connectors for system internal usage
- VRM-CE5-3: 3U CompactPCI Serial ATA controller, 4 SATA channels routed across J2 connector for rear I/O usage
- VRM-CR9-5: Mechanical kit, expands 3U front panel to 6U

Block Diagram:

