



### Overview:

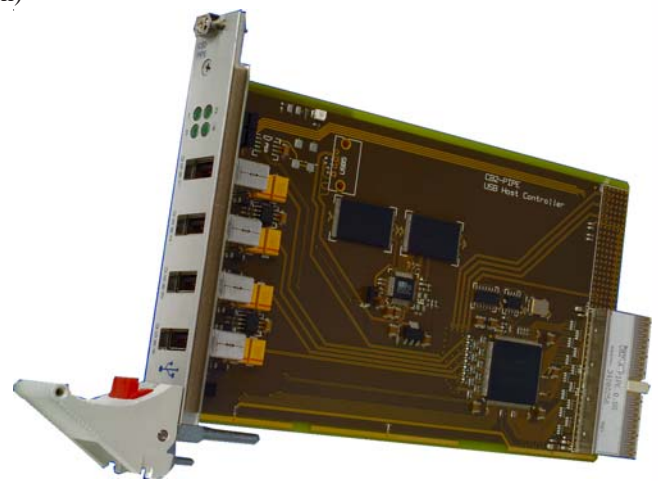
The **VRM-CB2-X** is a 5-port USB2.0 host controller. The 3U CompactPCI® board complies with the Universal Serial Bus Specification Revision 2.0 and Open Host Controller Interface (OHCI) Specification for full-/low-speed signalling and the Intel Enhanced Host Controller Interface (EHCI) Specification for high-speed data transfers. All downstream facing ports can handle high-speed (480Mbps), full-speed (12Mbps), and low-speed (1.5Mbps) transaction. In addition, the **VRM-CB2-X** can be equipped with an on-board Flash disk drive.

All USB power lines are protected against over-current and short circuit conditions. Four of five USB ports are accessible from the front panel. The fifth USB connector is situated on-board for system internal usage. However, when the on-board Flash disk ordering option was chosen, this connector is not stuffed and the USB port 5 is solely dedicated to the USB2.0 Flash disk controller. With its capacity of up to 2GByte and transfer rates of up to 18MB/s for read and 13 MB/s for write, the Flash drive can be used for non-volatile data storage or even as a system boot device.

### Features:

- **FORM FACTOR:** 3U CompactPCI style Eurocard (160x100mm<sup>2</sup>), front panel width 4HP (20.3mm)
- **USB:** Root hub with 5 downstream facing ports, all ports over-current protected, data transfer rate up to 480Mbps, Conforming to USB2.0, OHCI for USB Rev. 1.0a, EHCI for USB Rev. 1.0
  - USB port 1-4 wired to front panel type A connectors
  - USB port 1-4 optionally wired to J2 for rear I/O usage (front panel connectors USB1-4 removed), stuffing options- please take into consideration when ordering
  - USB port 5 wired to the on-board type A connector
  - USB port 5 optionally dedicated to the on-board USB Flash drive (on-board connector USB5 removed), stuffing option- please take into consideration when ordering).
- **FLASH DRIVE:** Optional on-board USB2.0 Flash drive controller and 2 pcs. NAND Flash up to 8Gbit each (total memory capacity up to 2GByte), transfer rates of up to 18MB/s for read and 13MB/s for write, can be used as bootable device (observe Flash memory capacity limitations i.e. a non trimmed down typical Windows® installation may require significantly more than 1GByte), stuffing option- please take into consideration when ordering.
- **COMPACTPCI®:** 32-bit, 133 MBps CPCI master, 3.3V/5V Vio
- **TYPICAL POWER CONSUMPTION:**
  - +3.3V +0.17V/-0.1V 0.4A max. (w/o on-board Flash disk drive option)
  - +5V ±5% 0.1A max. (w/o external current consuming USB devices)
  - +Vio 3.3V/5V 0.1A max.
- **THERMAL CONDITIONS:**
  - Operating temperature: 0°C - + 70°C
  - Storage temperature -20°C to + 85°C
- **ENVIRONMENTAL CONDITIONS:**
  - Humidity 5% to 95% non-condensing
  - Altitude: -300m to +3000m
- **SHOCK:** 15g 0.33ms, 6g 6ms
- **VIBRATION:** 1g 5-2000Hz
- **MTBF:** tbd h

(subject to change)



### Ordering options:

- VRM-CB2-1:** 3U, 5-port USB2.0 480Mbps host adapter EHCI/OHCI
- VRM-CB2-A:** Option on-board USB Flash Disk Drive, bootable, 256MB
- VRM-CB2-C:** Option on-board USB Flash Disk Drive, bootable, 1GB
- VRM-CR9-1-ADAPT:** Mechanical kit, expands 3U front panel to 6U.