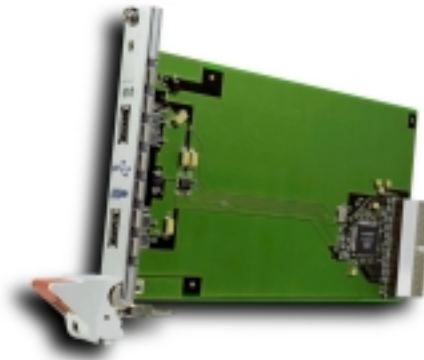


### Overview:

The **VRM-CB1** is a dual-port USB host controller, suitable for any industrial computer systems based on the *CompactPCI*<sup>®</sup> bus. The **VRM-CB1** is housed on a single-size Eurocard (3U). It is provided with two USB connectors (type A, according to USB specification 1.1). The board is compliant with Microsoft OHCI specification 1.0a. Users of Windows98 will find all driver support needed already embedded in their operating system. The **VRM-CB1** has been designed with rugged environment in mind. Both pairs of USB data transmission lines are protected against transient voltages by a special suppressor circuitry. The USB power lines of each USB connector are overcurrent limited and short circuit proof (individual power switches for both USB ports with thermal shutdown). These measures are important, because USB allows for hot plug operation (life connect/disconnect). For use of the **VRM-CB1** with 6U CPCI Systems, a mechanical kit is available, which expands the 3U front panel to 6U (VRM-CR9-ADP). The board has been designed around the Lucent USS-312 chip, which is compatible to the popular USB controllers of OPTi and CMD. The **VRM-CB1** cares for effortless and low-cost attachment of USB peripheral devices to *CompactPCI* industrial computers. An individual controller like the **VRM-CB1** is dedicated to time critical devices guaranteeing faster response and highest possible data throughput.



### Features:

- 3U Eurocard (100x160mm<sup>2</sup>), front panel 4HP (20.2mm) EMC shielded, ejection lever
- 2 downstream USB ports according to USB Rev 1.1, up to 127 devices can be controlled by one **VRM-CB1**, support of all transfer modes (control, interrupt, bulk, isochronous), SPH (self powered hub) functionality
- 2x type A connector (front panel), power line pins individually overcurrent limited and fused against short circuit, thermal shutdown, nominal load 5 USB units (5V/0.5A) each connector, data signal lines protected from transient voltages
- 12Mbps full speed, 1.5Mbps low speed operation
- Lucent USS-312, compliant with OHCI Rel. 1.0a, compatible to CMD USB-670 and OPTi FireLink 82C681
- 1x2 LED (front panel), signalling USB power to port 1-2
- *Windows98* and *NT5*: Microsoft Windows Standard OpenHCD Drivers compliant, follow directions after window 'New Hardware found' opens up with the message 'USB Root Hub'. (*Linux: available soon*)
- 32-bit, 33 MHz (133MB/s), 32-bit DMA bus master (133MB/s), PCI burst mode, 3.3V or 5V interface
- +5V  $\pm$ 5% 0.1A max. (external load by remotely sourced USB devices not included), +3.3V  $\pm$ 0.3V 0.2A max. V10 +3.3V or 5V allowed, max. 0.1A
- Operating Temperature 0-70°C
- Humidity: 5 – 90% non condensing

### Ordering Options:

**VRM-CB1:** 3U CompactPCI dual-port USB OHCI host controller

**VRM-CR9-ADP:** Front panel expansion to 6U, mounting kit