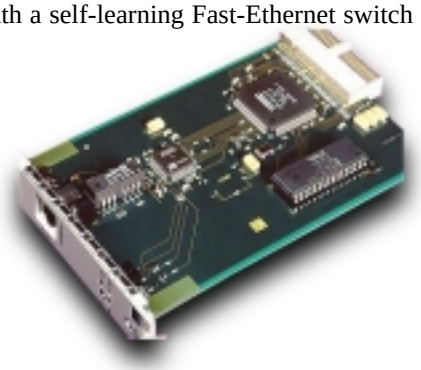
V Rose Microsystems, Inc.

VRM-CN1

Product Datasheet

Overview:

The **VRM-CN1** host adapter interfaces with *CompactPCI* systems to the most popular networking class, the 10/100Mbit/s Ethernet/Fast-Ethernet LAN. The 3U (single size Eurocard) is provided with a Twisted Pair interface according to IEEE802.3 (ANSI 8802-3) 10Base-T and 100Base-TX, half and full duplex. By employing the Auto-Negotiation algorithm, the technology capabilities of the remote link partner may be determined and operation automatically adjusted to the highest performance common operating mode. The **VRM-CN1** is built around the high-end LAN controller chip DEC21143. Equipped with smart functionality and hardware features as FIFO's and several DMA channels, the 21143 minimizes the hosts load. All popular operating systems, for example Windows98/NT or Linux, come with ready to use 21143 networking drivers. As a frontend, the ICS 1890 PHY (physical layer adapter) chip cares for a maximum data rate of 200Mbit/s in full duplex, Fast-Ethernet mode. The **VRM-CN1** should be connected to the LAN (typically hub or switch) by shielded twisted Pair (STP) and unshielded twisted pair (UTP) CAT5 cables up to a maximum length of 105m. As an option, the **VRM-CN1** provides full support for an upgradeable Flash BIOS ROM up to 256KB. This feature allows for remote boot from any node in the net. A serial EEPROM is provided for storing the unique Ethernet address, and the **VRM-CN1** hard configuration and control data. The status of the **VRM-CN1** is indicated by an array of four LEDs. The jumperless board can be installed in a plug & play manner. The **VRM-CN1's** performance will be explored best with a self-learning Fast-Ethernet switch as the remote link.



Features:

- 3U Eurocard (100x160mm²), front panel width 20.2mm, mechanics constructed with respect to EMC requirements, ejector lever
- CON1 Connector- Twisted Pair RJ45, 8-pole, wired as a host adapter. 1:1 cabling to any Hubs, Switches, Router, Transceiver, Cross wiring required for direct connection to second host adapter
- Category 5, UTP or STP cable type, length up to 105m maximum
- 10BaseT 10Mbit/s (20Mbit/s @ Full Duplex); 100 Base-TX (Fast Ethernet)100Mbit/s (200Mbit/s @ Full Duplex), Auto-Negotiation for best performance
- DEC 21143 PCI Ethernet controller, Low Power CMOS design, OnNow Power Management PC97,PC98, and ACPI compliant, NWAY IEEE 802.3 Auto-Negotiation algorithm, independent DMA controllers for transmit/receive, handles data transfers between CPU memory and onchip memory
- ICS 1890 PHYceiver, single chip Physical Layer solution, CMOS Low Power design, MII (Media Independent Interface)
- 2x2 LED, Activity, Collision, Link, 100 Mb/s
- CompactPCI Bus-Connector P1: 32-bit, 33MHz (133MB/s), 32-Bit DMA Bus Master (133MB/s), PCI Burst Mode, 3.3V or 5V interface
- Power Supply—Connector P1: +5 ±5% 0.24A max., +3.3V ±0.3V 0.23A max., +12V ±5% 30mA max.
- Operating Temperature: 0-70°C
- Humidity: 5-90% non-condensing.

Optional:

VRM-CR9-ADP: mechanical kit, converts front panel from 3U to 6U

V Rose Microsystems, Inc.
55 East Main Street
Johnstown, NY 12095

PH: 518.762.1288
FX: 518.762.4399
www.vrosemicrosystems.com