



# V Rose Microsystems, Inc.

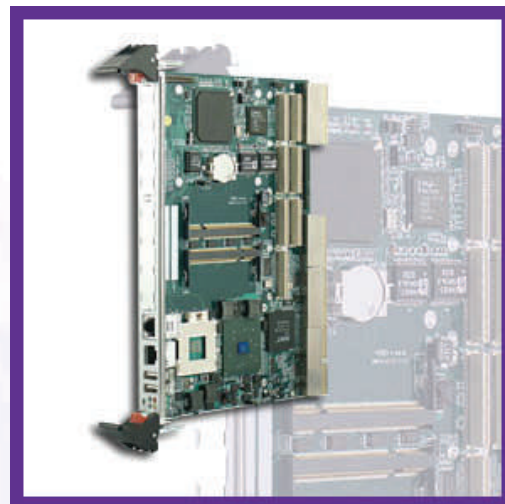
www.vrosemicrosystems.com

**VRM-cPCI-6840**

## Product Data Sheet

### Overview:

The **VRM-cPCI-6840** Intel® Pentium® M processor blade is designed with versatile features and options for OEM applications. The CPU options include the low power Intel® Pentium® M 1.6GHz with 1MB cache, the high performance Intel® Pentium® M with 2MB cache or the Ultra Low Voltage Intel® Celeron® processor. The product incorporates the embedded Intel® 855GME chipset, which supports up to 2GB DDR RAM. It also includes CRT, DVI, and LVDS display interface options. Additional features of the cVRM-PCI-6840 are three Gigabit Ethernet ports, two 64-bit/66MHz PMC sites, and a PCI 64-bit/66MHz capable universal CompactPCI bus to achieve high communication bandwidth. The cPCI-6840 series offers the best balance between computing performance, communication bandwidth, and power consumption.



### Features:

#### PROCESSOR SYSTEM

**CPU:** uFC-PGA Intel Pentium M/Celeron M:

Pentium M 1.6GHz, 400MHz FSB, 1MB L2 cache

Pentium M 1.8GHz, 400MHz FSB, 2MB L2 cache

Celeron M 1.3GHz, 400MHz FSB, 512KB L2 cache

**Chipset:** Intel 855GME with 6300ESB I/O Controller

**RAM:** 2, 200-pin SODIMM sockets, up to 2GB DDR-333 SDRAM

**BIOS:** Award 4MB flash memory

**CompactPCI Bus:** 64-Bit/66MHz CompactPCI bus, Operation in system slot and peripheral slot with compactPCI bus communication.

**PICMG standard:** PICMG 2.0 CompactPCI R3.0, PICMG 2.1 Hot Swap R2.0, PICMG 2.3 PMC R1.0, PICMG 2.9 System Management R10 (v1.5), PICMG 2.16 R1.0

#### STORAGE

**SBC:** 44-pin IDE connector on Ultra ATA100 primary IDE channel for 2.5" HDD direct mounting.

**RTM:** Ultra ATA100 secondary IDE channel is routed to RTM for 40-pin IDE connector and CompactFlash slot.

#### CONNECTIVITY

**PMC/XMC:** Maximum up to two PCI 64-bit/66MHz slots, Upper PMC2 slot provides J24 rear I/O connection.

**Ethernet:** Intel® 82546GB Dual-Port Gigabit Ethernet Controller for two PICMG® 2.16/RTM GbE ports, Intel® 82541PI Single-Port Gigabit Ethernet Controller for front panel GbE port

**Graphics:** Intel 855GME Integrated Graphics with 32 MB UMA

**USB:** Two ports on front panel, two ports on RTM

**PS/2:** 1 PS/2 Keyboard mouse port on panel of cPCI-6840V and cPCI-R6841

**Serial Port:** Two RJ-45 16C550 compatible RS-232 ports on front and rear panel.

#### MISCELLANEOUS

**LED:** 4 LEDs on front panel.

**Battery:** Coin cell lithium battery onboard for RTC, CMOS RAM for BIOS configuration

**Hardware Monitor:** Monitoring of CPU temperature, fan speed, system temp, vcore/dc voltages

**Watchdog Timer:** Two stage, SMI/SCI before RESET

#### SAFETY & EMI

**Certifications:** CE, FCC Class A



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### Features:

#### MECHANICAL AND ENVIRONMENTAL

**Form Factor:** 6U 4HP CompactPCI

**Operating Temp:** 0C to 55C (external air flow required)

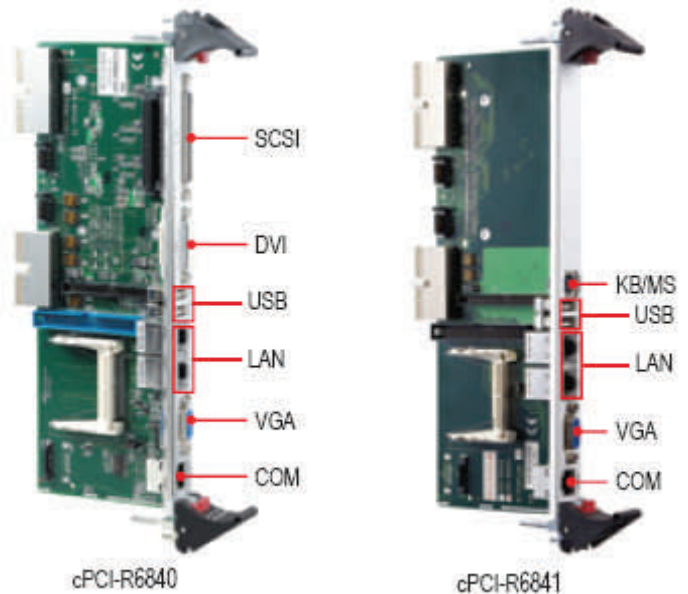
**Storage Temp:** -20C to 80C

**Rel Humidity:** 90% non condensing

**Shock:** 15G peak-to-peak, 11ms duration, non-operation

**Vibration:** Non-operation: 1.88Grms, 5-500Hz, each axis, Operation: .5Grms, 5-500Hz, each axis:

**Power Consumption:** 8.8 A at +5 V, 4.0 A at +3.3 V, 0.2 A at +12 V (1.6 GHz CPU, 512 MB DDR- 333, HDD, USB, K/B, Mouse attached)



### Ordering:

**VRM-cPCI-6840/P18/M1G:** 6U cPCI Pentium® M 1.8 GHz universal blade, with 1 GB DDR and two PMC

**VRM-cPCI-6840V/P18/M1G:** 6U cPCI Pentium® M 1.8 GHz universal blade, with VGA, KB/MS, 1 GB DDR, and one PMC

**VRM-cPCI-R6840:** 6U cPCI RTM with DVI, SCSI, LVDS, Dual-GbE, VGA, USB, SATA, CF, COM, and IDE connectors for cPCI-6840(V)

**VRM-cPCI-R6841:** 6U cPCI RTM with LVDS, Dual GbE, VGA, USB, SATA, CF, COM, and IDE for cPCI-6840(V) (without PIM)

**VRM-cPCI-R6841P:** 6U cPCI RTM with PIM, LVDS, Dual GbE, VGA, USB, SATA, CF, COM and IDE for cPCI-6840(V)

**VRM-DB-6840CF:** CompactFlash® Daughter Board for cPCI-6840 series