



CRM1

Dynatem introduces a Rugged, Low-Power

Pentium M CPU in a single CompactPCI

slot

PRESS RELEASE

PHOTO AVAILABLE

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Features:

- **Low-power Intel Pentium M processor at 1.4 GHz (-40° to 71°C), extended temperature versions (-40° to 85°C) available at 1.0 GHz**
- **Ruggedized, VITA 301.1-2002 compliant, conduction-cooled versions with heat sink, stiffener bar, and wedge locks are available**
- **855GME and 6300ESB chipset**
- **1 GB of DDR-266 SDRAM with ECC, at 2.1 GB/s**
- **One rugged PMC/PMC-X site supports 64-bit PCI up to 66 MHz and a second PMC site with 32-bit @ 33 MHz performance**
- **DVI-I Video, IDE, FDC, two COM ports, two SATA ports, four USB 2.0 ports, and two Gb Ethernet ports (PICMG 2.16 compliant) are available through the backplane**

- **PICMG 2.0 R3.0 Compliant with a universal PCI-PCI bridge for operation in system and peripheral slots and hot swap support**
- **Single-slot CompactPCI operation with up to 8 GB bootable CompactFlash**
- **Pigeon Point's IPM Sentry offers IPMI System Management in compliance with PICMG 2.9**

Mission Viejo, California, April 20, 2006---- Dynatem is now shipping the Intel Pentium M-based **CRM1**. The CRM1 supports an x86 processor that is ideal for embedded, rugged applications with its low power consumption. The high-speed 855GME & 6300ESB chipset supports a 66 MHZ PCI-X expansion bus that can fully utilize the two Gb Ethernet ports available on the CRM1 with no data transfer bottleneck. On-board CompactFlash permits single-slot booting. I/O routed to the backplane includes an EIDE port, two Serial ATA ports, two Gb Ethernet ports (PICMG 2.16 compatible), DVO/VGA, four USB 2.0 ports, and two COM ports. Two PMC expansion sites permit system tailoring to users' application requirements.

The CRM1 was designed in compliance with Vita 30.1-2002 so it comes with top and bottom cooling plates that are bonded to the major components through thermal conduction and to the heat conducting printed circuit board mechanically. Wedge locks secure the CRM1 in the chassis and bring the module's heat from the cooling plates and the PCB and, ultimately, the components to a heat plate in the chassis. The CRM1 has no socketed components, other than the optional CompactFlash drive (PXE is supported for

diskless booting), so the CRM1 remains rugged in high shock and vibration environments.

The CRM1's Pentium M processor utilizes a new micro architecture to meet the current and future demands of high-performance, low-power embedded computing, making it ideal for communications and industrial automation applications. It features advanced branch prediction capability, micro-ops fusion for improved instruction execution, and a dedicated hardware stack manager that employs sophisticated hardware control for improved stack management.

The CRM1's 855GME and 6300ESB chipset includes DRAM controller, PCI bus arbitration logic and interface, high-performance PCI, USB 2.0 interfaces, RTC, NV-RAM, standard PC timers, Ultra DMA, and interrupt logic. The chipset also provides Ultra ATA 100/66/33 IDE protocol and SerialATA. The CRM1 comes populated with 1 GB of DDR-266 SDRAM with ECC and a memory bandwidth of 2.1 GB/s.

The 855GME offers integrated, high-performance graphics that can support resolutions up to 1600 x 1200 at 85 MHz. The CRM1 routes a DVI-I graphics interface to the J5 backplane connector that combines a PaneLink digital graphic interface with a conventional SVGA analog interface. The 6300ESB supports PCI-X transfer rates of 66 MHz (64-bit) for one on-board PMC site, the PCI-PCI bridge to the CompactPCI backplane, and the high-bandwidth 82546 dual-port Gb Ethernet controller. Another PMC site (32-bit at 33 MHz) is provided though its I/O is not routed to the backplane.

The secondary IDE interface is routed to the on-board CompactFlash connector while the primary IDE is routed through P2. The CRM1 supports four USB 2.0 ports and two COM ports that are routed to J5. Two SerialATA ports, and the DVI-I signals are also routed to J5. . PMC-X I/O and two Gbit Ethernet ports are routed to J3.

The PLX PCI-CompactPCI bridge chip supports a 64-bit, 66 MHz interface to the backplane. This is a “universal” PCI-PCI bridge that can be used in the system slot on the backplane (in the transparent mode) or any of the peripheral slots (in the non-transparent mode). No jumper reconfiguration is required. The CRM1 can also be used as a PICMG 2.16 blade. It supports hot swap and IPMI.

Dynatem offers board support packages for such popular operating systems as VxWorks, Windows NT, Windows XP, Linux, QNX, and RTX. Support for other operating systems can be quoted upon request. PXE is available for diskless booting and fully volatile operation – desirable in secure systems.

Pricing for the CRM1 starts at \$5,300 in single quantity. Customized versions can be quoted upon request. The **CPM1**, a convection-cooled, industrial version of the CRM1 with additional front panel I/O, is already available.

Dynatem manufactures and integrates systems based on 3U and 6U CompactPCI and CompactPCI modules. Custom stand-alone embedded designs are also provided.

Dynatem is located at 23263 Madero, Suite C, Mission Viejo, CA 92691. For additional information, call (949) 855-3235, fax (949) 770-3481, e-mail sales@dynatem.com or visit our website at www.dynatem.com.

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