RPM

Dynatem introduces a Rugged, Low-Power Pentium M CPU in a single VMEbus slot

PRESS RELEASE

PHOTO AVAILABLE

Contact: Mike Horan

Phone: (949) 855-3235

Fax: (949) 770-3481

E-mail: ***sales@dynatem.com***

www.dynatem.com

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, IEEE 1101.2-compliant, conduction-cooled versions with heat sink, stiffener bar, and wedgelocks are available**
- **855GME and 6300ESB chipset**
- **Up to 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**
- **Video, IDE, COM ports, two SATA ports, two USB 2.0 ports, and two Gb Ethernet ports (VITA 31.1 compliant) are available through the backplane**
- **Tundra Universe IID PCI-VMEbus interface provides 64-bit VMEbus transfers**
- **Single-slot VMEbus operation with up to 8 GB bootable CompactFlash**

Mission Viejo, California, May 2, 2005---- Dynatem is now shipping the Intel Pentium M-based **RPM**. The RPM supports an x86 processor that is ideal for embedded, rugged applications with its low power consumption. The high-speed 855GME and 6300ESB chipset supports a 66 MHZ PCI-X expansion bus that can fully utilize the two Gb Ethernet ports available on the RPM 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 (VITA 31.1 compatible), DVO/VGA, two USB 2.0 ports and a COM port configurable for RS-232/422/485 operation. A PMC expansion site permits I/O tailored to users' application requirements.

The RPM was designed in compliance with IEEE 1101.2 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. Wedgelocks secure the RPM 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 RPM has no socketed components, other than the optional CompactFlash drive (PXE is supported for diskless booting), so the RPM is remains rugged in high shock and vibration environments.

The RPM'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 RPM'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 Serial ATA. The RPM comes populated with 512 MB or 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 RPM routes a DVI-I graphics interface to the P0 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 the on-board PMC site and the high-bandwidth 82546 dual-port Gb Ethernet controller.

The secondary IDE interface is routed to the on-board CompactFlash connector while the primary IDE is routed through P2. The RPM supports two USB 2.0 ports and a COM port that are routed to P2. PMC-X I/O is also routed to P2. The two Gbit Ethernet ports, two SerialATA ports, and the DVI-I signals are routed to P0.

The Tundra Universe IID PCI-VMEbus interface chip allows 64-bit VMEbus transfer rates over 30 MB/sec. Full VMEbus System Controller functions are provided. Versions

of the RPM without the Universe IID installed offer a lower-cost, non-VMEbus-compatible option.

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 RPM starts at $6,700 in single quantity. Customized versions can be quoted upon request. Other x86-based VMEbus processor boards from Dynatem include the extended temperature/rugged **DPC2**, the low-cost **DMC** with two PMC sites in a single VMEbus slot, and the high-performance LV-Xeon based **DHC**. The **DPM**, a convection-cooled, industrial version of the RPM with additional front panel I/O, is already available.

Dynatem manufactures and integrates systems based on 3U and 6U VMEbus 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***.

###