# PMC PowerPC Board with Gigabit Ethernet, USB and CAN - Product Release from esd electronics, Inc

*Introducing the PMC–CPU/440, a PowerPC PrPMC Module with gigabit Ethernet, USB, and CAN offering a powerful CPU core with an embedded processor integrating a DDR2 RAM & serial interface controller, a PCI bus interface, & 2 gigabit Ethernet MACs.*

**Dec. 2, 2009** - *PRLog* -- The PMC-CPU/440 is a PCI Mezzanine Card that automatically switches to monarch (PrPMC) or non-monarch mode ac-cording to the system's requirements. The PowerPCTM AMCC PPC440EPx with 533 MHz or 667 MHz enables a performance of 1334 DMIPS peak, is equipped with at least 256 Mbyte DDR2 RAM and 256 Mbyte NAND Flash, and offers system time sup¬port by RTC (with double layer capacitor) or IRIG-B. For CAN bus synchronization tasks, a high-resolution CAN hardware timestamp is supported.

Providing 2 – 4 CAN interfaces controlled by an FPGA IP-Module, the PMC-CPU/440 comes with two Gigabit Ethernet interfaces that are accessible as 1000BaseT via RJ45 connectors at the front panel. The CAN signals are available as TTL only via PMC connector, and all the CAN interfaces allow data transfer rates of 1 Mbit/s. External converters from CAN-TTL to CANISO11898 are available. The PMC – CPU/440 has a RS-232 serial port available via the PMC-I/O connector, and includes a USB 2.0 interface (host or device) at the front panel.

The module comes with DDR2 RAM and flash memories, a double layer capacitor buffered real-time clock (RTC) and a FPGA. esd provides a serial console through an USB device port that integrates a USB-to-serial converter. This is in accordance to modern PC technologies abandoning serial ports. A second serial interface is accessible via the PMC-I/O connector with RS232 signal levels.

esd electronics' PMC – CPU/440's flash memory carries the open source firmware 'U-Boot' that enables the module to boot various operating systems from network or on-board Flash, directly and fully supporting Linux, VxWorks (5.5 and 6.3), OS/9 and QNX on-board drivers, as well as supporting higher layer protocols like CANo¬pen and DeviceNet.

The on-board FPGA provides extended flexibilities for specialized applications. The default FPGA functionality includes two high-speed CAN interfaces, IRIG-B time-code decoding and generation and much more. Many FPGA pins are directly connected the PMC P4 IO connector

For further technical information log on to our web site at http://www.esd-electronics-usa.com/PMC-CPU%20440%20PowerP... or contact Michelle Dzialo at 413-772-3170.

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esd electronics, Inc. has 20 years experience as qualified system integrators in industrial automation specializing in Controller Area Network (CAN) technologies CANopen, DeviceNet and J1939 providing CAN interfaces for PCI, PCIe, cPCI, ISA, VME, & PC104. Visit our website at

http://www.esd-electronics-usa.com.

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|---|---|
| Source | esd electronics, Inc |
| City/Town | Greenfield |
| State/Province | Massachusetts |
| Zip | 01301 |
| Country | United States |
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