

Intel® Atom™ Processor XMC/PMC Module



APPLICATIONS

The XP A40/x03 is a PC-compatible ultra-low power, high functionality, Processor XMC/PMC module supporting the 1.6 GHz Intel® Atom™ processor Z530. It utilizes the Intel® System Controller Hub US15W to support up to 2 Gbytes of DDR2 SDRAM. This board features a variety of interfaces including dual Gigabit Ethernet, graphics, RS232/422/485, USB and CANbus. The XP A40/x03 is a commercial air-cooled board,



suitable for a range of environments within industrial control, transportation, security, telemetry, scientific and medical applications. Options to operate in temperatures ranging from -40°C to +85°C are available. Ruggedized conduction-cooled and ruggedized air-cooled versions are planned. To simplify the board's integration many industry standard operating systems are supported.

HIGHLIGHTS

- 1.6 GHz Intel® Atom™ processor:
 - 45nm process technology
 - 512 Kbytes L2 cache
 - Intel® Hyper-Threading technology supports 2 execution threads
 - Intel® Virtualization Technology
- Up to 2 Gbytes DDR2-533 SDRAM
- XMC or PMC interface options:
 - XMC supports x1 PCI Express®
 - PMC supports 33/66 MHz PCI and 100/133 MHz PCI-X
- Rear I/O via PMC Pn4 connector
- Supports monarch and non-monarch operation on the PMC version
- Supports Root Complex and Endpoint operation on the XMC version
- Supports DMA via XMC/PMC host interface
- On-board EIDE NAND Flash disk
- 2 x 10/100/1000 Mbps Ethernet interfaces
- 5 x USB 2.0 interfaces
- 2 x serial ports:
 - 1 x RS232 via front panel or 1 x RS232/RS422/RS485 via Pn4
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- High Speed CANbus controller
- Extended temperature versions available:
 - -25°C to +70°C (E-Series)
 - -40°C to +85°C (K-Series, includes humidity sealant)
- Ruggedized air-cooled version planned (RA-Series):
 - -40°C to +75°C, conformally coated
- Ruggedized conduction-cooled version planned (RC-Series):
 - conduction-cooled
 - -40°C to +85°C, conformally coated
- Single-width XMC/PMC form factor
- For use with VME, VXS, CompactPCI® and other XMC Host Boards
- Support for Linux®, Windows® XP Embedded, Windows® XP, QNX® and VxWorks®

