

PROTEUS COM Express

Intel® Atom™ COM Express processor module

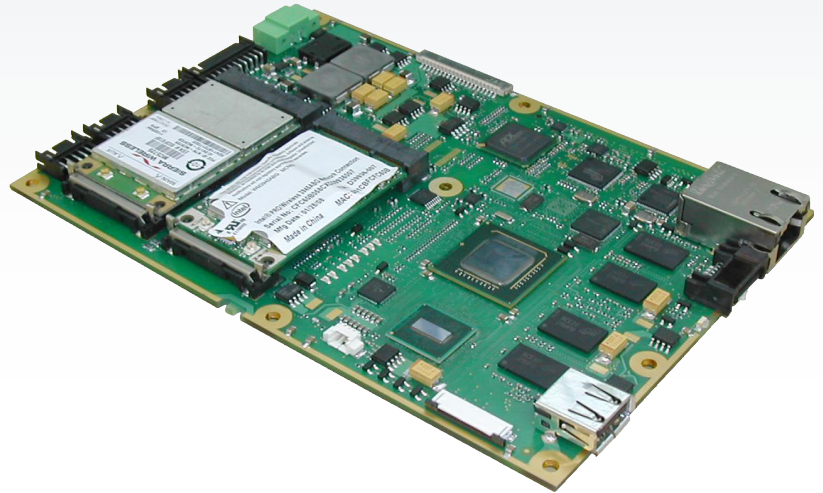
Features

Features:

- Intel® Atom™ Processor up to 1.6GHz
- 20-channel GPS receiver
- Bluetooth or ZigBee wireless communications
- Atmel Trusted Platform Module Device
- PCI-Express mini card support
- 5mm/8mm stacking height for custom carrier board

Supported Operating Systems:

- Windows XP
- Windows XP Embedded
- Windows CE 6.0
- Linux®



PROTEUS COM Express is a processor module aimed at wired and wireless, net-centric multimedia applications, especially in situations where low power and high performance are required. Using Intel's Hi-K 45nm technology the Intel Atom Z500 series processor delivers the benefits of Intel's x86 architecture in a robust, ultra-small package with exceptional performance-per-watt.

The processor is matched with an Intel System Controller Hub (SCH) US15W which is a highly integrated device combining a graphics memory controller and an I/O controller.

PROTEUS COM Express offers a choice of 1.1GHz or 1.6GHz processor, with options for 512MB or 1GB soldered down RAM and 2GB or 4GB soldered Parallel ATA Flash memory. Coupled to the extremely low heat generation of the Atom processor, PROTEUS COM Express is perfect for applications needing high end performance in a fanless, rugged package.

The module features a COM Express Type 1 expansion connector, supporting PCI Express, LPC, USB, SMBUS, I²C, HD Audio, SATA, LVDS and Gigabit Ethernet interfaces. The provision of two independent display interfaces allows deployment in applications requiring different content to be served to different users.

In addition to the above interfaces, the PROTEUS COM Express provides options for onboard GPS, Bluetooth and ZigBee support. The provision of two sites for PCI-Express mini cards allows easy and flexible expansion for applications requiring wireless local and wide area networking. Additional non-volatile storage may be added on the board itself using MicroSD Flash.

Having all this performance in such a small package is a truly compelling offering that makes the PROTEUS COM Express ideally suited to applications such as infotainment, interactive kiosks, access control, HMI, medical and industrial control.

PROTEUS COM Express

Technical Specifications

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|---------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|--------------------------------------------------------------------------------------------------------------------------------|
| PROCESSOR | Intel Atom Processor options: Z530 up to 1.6GHz Z510 up to 1.1GHz | SDIO/MMC | 1x MicroSD socket |
| CHIPSET | System Controller Hub US15W (2.3W) | TPM | Atmel Trusted Platform Module Device, TCG v1.2 compatible SMBUS interface |
| SUPPORTED OS | Windows XP, XP Embedded, CE 6.0 and Linux | MODULES | 20-channel GPS receiver SirfStar III chipset module Bluetooth or ZigBee wireless communications provided by onboard modules |
| MEMORY | Up to 1 GB (400/533MHz) DDR2 SDRAM 4 GB parallel ATA Flash on board (optional) | TEST SUPPORT | JTAG Interface (Intel XDP) |
| GRAPHICS | Ultra low power integrated 3D Graphics 2x single-channel LVDS 24-bit interface to Board to Board connector | POWER SUPPLY | 12V DC (optional: 5V standby, 3.3V Battery) On-board voltage regulators and power management Power LED |
| AUDIO | HD Audio interface on Board to Board connector | DIMENSIONS | 155mm x 110mm |
| TOUCHSCREEN | 4, 5 and 8 wire resistive touchscreen interface | OTHER | 5mm/8mm stacking height for custom carrier board |
| USB SUPPORT | USB 2.0 supporting low/full/high speed modes 2x user accessible ports (Pin header, one client configurable) 2x ports connected to PCI Express MiniCard sockets 4x ports on Board to Board connector | OPERATING TEMP | 0°C to +70°C |
| ETHERNET | Gigabit Ethernet port supporting 10/100/1000baseT Output to Board to Board connector | | |
| SERIAL ATA | Supports 2x serial ATA 300 Output to Board to Board connector | | |
| SERIAL PORT | 1x serial port used for general purpose RS232 TX/RX port | | |
| PCI EXPRESS | Chipset PCI Express interfaced to: <ul style="list-style-type: none">• x1 PCI Express to Board to Board connector• x1 PCI Express switch to:<ul style="list-style-type: none">– x1 PCIe Gigabit Ethernet controller– x1 PCIe serial ATA controller– 2 x1 PCIe MiniCard sockets– 3 x1 PCIe Board to Board connectors | | |

Development Kit

- 8.4" 800 x 600 LCD with touchscreen
- HD Audio with Line in, Line out and Mic In connections
- 80 GB hard drive
- Windows XP, XP Embedded, CE 6.0, Linux
- Gigabit Ethernet port
- 4x USB 2.0 ports
- 2x Serial ATA ports
- Other features (secondary LVDS interface, GPIO)

About Eurotech

EuroTech delivers embedded computer systems for high capability and low power applications, networking and wearable computing solutions, and application framework middleware for multimedia, industrial, transportation, medical, and wireless applications. EuroTech platforms allow OEM and enterprise customers to focus on their core revenue-generating products and services and get to market quickly.

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Americas

EUROTECH Inc
e-mail: sales-us@eurotech.com
tel: +1 301.490.400
toll free: +1 888.941.2224

Western Europe

EUROTECH UK
e-mail: sales-uk@eurotech.com
tel: +44 (0) 1223 403.410

EUROTECH France
e-mail: sales-fr@eurotech.com
tel: +33 04.72.89.00.90

Central & Southern Europe

EUROTECH Italy
e-mail: sales-it@eurotech.com
tel: +39 0433.485.411

Northern & Eastern Europe

EUROTECH Finland
e-mail: sales-fi@eurotech.com
tel: +358 9.477.888.0