

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

Supported Operating Systems:

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



PROTEUS is a stand-alone single board computer 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 Z5xx 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 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 is perfect for applications needing high end performance in a fanless, rugged package.

In addition to a full range of standard PC peripherals, the PROTEUS is able to interface directly to LVDS displays and has an integral touchscreen controller. Options exist for the provision of onboard GPS, Bluetooth and ZigBee support and 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 either using MicroSD Flash or via the SATA interface provided by the board, and the provision of two independent display interfaces allows deployment in applications requiring different content to be served to different users.

PROTEUS is compatible with all major desktop operating systems, and is also available with pre-installed, ready to run, embedded operating systems including Windows XP, XP Embedded, CE 6.0 and Linux.

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

Technical Specifications

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| PROCESSOR | Intel Atom Processor options: Z530 Processor 1.6GHz (2.3W) Z510 Processor 1.1GHz (2W) |
| CHIPSET | System Controller Hub US15W (2.3W) |
| SUPPORTED OS | Windows XP, XP Embedded, CE 6.0 and Linux |
| MEMORY | Up to 1GB (400/533MHz) DDR2 SDRAM 4GB parallel ATA Flash on board (optional) |
| GRAPHICS | Ultra low power integrated 3D Graphics 2 x single-channel LVDS 24-bit interface to two connectors 1 x backlight connector |
| AUDIO | HD audio CODEC and 2W audio amplifier supporting mic in, line in, speakers out and headphones |
| TOUCHSCREEN | 4, 5 and 8 wire resistive touchscreen interface |
| USB SUPPORT | USB 2.0 supporting low/full/high speed modes 2 x user accessible ports (Pin header, one client configurable) 2 x ports connected to PCI Express MiniCard socket 1 x port connected to board edge Type A connector |
| ETHERNET | Gigabit Ethernet port supporting 10/100/1000baseT Output to board edge RJ45 connector |
| SERIAL ATA | Supports 1 x serial ATA 300 1 x SATA connector 1 x power connector for 2.5" SATA drive |
| SERIAL PORT | 1 x serial port used for general purpose RS232 TX/RX port |
| PCI EXPRESS | Chipset PCI Express interfaced to: • x1 PCI Express to PCIe MiniCard socket • x1 PCI Express switch to: - x1 PCIe Gigabit Ethernet controller - x1 PCIe serial ATA controller - x1 PCIe MiniCard socket |

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|-----------------------|--|
| SDIO/MMC | 1 x MicroSD socket |
| TPM | Atmel Trusted Platform Module Device, TCG v1.2 compatible SMBUS interface |
| MODULES (optional) | 20-channel GPS receiver SirFStar III chipset module Bluetooth or ZigBee wireless communications provided by onboard modules |
| TEST SUPPORT | JTAG Interface (Intel XDP) |
| POWER SUPPLY | 8.5 to 24V DC (+12V nominal) |
| DIMENSIONS | 155mm x 110mm |
| OTHER | COM Express extended module mechanical footprint |
| OPERATING TEMPERATURE | Commercial: 0°C to +70°C |

Development Kit

- 8.4" 800 x 600 LCD with touchscreen
- HD audio with line in, headphones, mic in & speaker output connections
- 80GB hard drive
- Windows XP, XP Embedded, CE 6.0, Linux
- Gigabit Ethernet port
- 3 x USB 2.0 ports
- 1 x serial port
- Other features (secondary LVDS interface, serial ATA, 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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