PROTEUS ICE

- **Compact enclosure based on Intel® Atom™**
- **Low power and high performance**
- **GPS, Bluetooth or ZigBee wireless**
- **Atmel Trusted Platform Module Device**
- **PCI-Express mini card support**

FEATURES

Intel Architecture – The PROTEUS ICE houses the powerful Intel Atom Z5xx series processor with CPU speeds from 1.1GHz up to 1.6GHz; giving exceptional performance-per-watt.

Low Power Design – Ideally suited for wired and wireless, net-centric multi-media applications requiring low power and high performance.

Expandability – The PROTEUS ICE interfaces 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 sockets for PCI-Express mini cards.

- **Infotainment**
- **Interactive Kiosks**
- **Access Control**
- **HMI**
- **Medical**

The PROTEUS ICE is specially designed for the PROTEUS embedded SBC. The enclosure is optimized to enable easy installation into wired and wireless, net-centric multimedia applications, especially in situations where low power, high performance but minimum space usage is required.

In addition to a full range of standard PC peripherals, the PROTEUS ICE is able to interface directly to up to two independent LVDS displays and has an integral touchscreen controller. With two sockets for PCIe Mini Cards easily accessible from a removable panel, the Proteus ICE allows flexible expansion for applications requiring wireless local and wide area networking.

Non-volatile storage is available on board and more can be added either using MicroSD Flash or via the SATA interface. Options include onboard GPS, Bluetooth and ZigBee support.

PROTEUS ICE 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 and Linux.

Having all this performance in such a small, good looking and easily installed package is a truly compelling offering that makes the PROTEUS ICE ideally suited to a wide range of applications including infotainment, interactive kiosks, access control, HMI, medical and industrial control.

EUROTECH
Imagine. Build. Succeed.

System Architecture

PROCESSOR	Intel® Atom™ processor options
	Z530 Processor 1.6GHz (2.3W)
	Z510 Processor 1.1GHz (2W)
GRAPHICS/VIDEO	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
MEMORY	Up to 1GB (400/533MHz) DDR2 SDRAM
	4GB parallel ATA Flash on board (optional)
OPERATING ENVIRONMENTS	Microsoft® Windows® XP, XP Embedded
	Wind River Linux 3.0
	Specific RTOS support (call for details)
PHYSICAL/OTHER	200mm x 120mm x 25mm
	570g
	Commercial temperature 0°C to +60°C
	Power supply 8.5 to 25V DC (+12V nominal)
	Atmel Trusted Platform Module Device, TCG v1.2 compatible
	SMBUS interface
PERIPHERALS	4, 5 and 8 wire resistive touchscreen interface
	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
	Gigabit Ethernet port supporting 10/100/1000baseT
	Output to board edge RJ-45 connector
	Supports 1 x serial ATA 300
	1 x SATA connector
	1 x power connector for 2.5" SATA drive
	1 x serial port used for general purpose RS232 TX/RX port
	1 x MicroSD socket
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
MODULES (optional)	20-channel GPS receiver SirFStar III chipset module
	Bluetooth or ZigBee wireless comms provided by onboard modules
TEST SUPPORT	JTAG interface (Intel XDP)

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