ISIS XL

PC/104+ Module with Intel® Atom™ processor

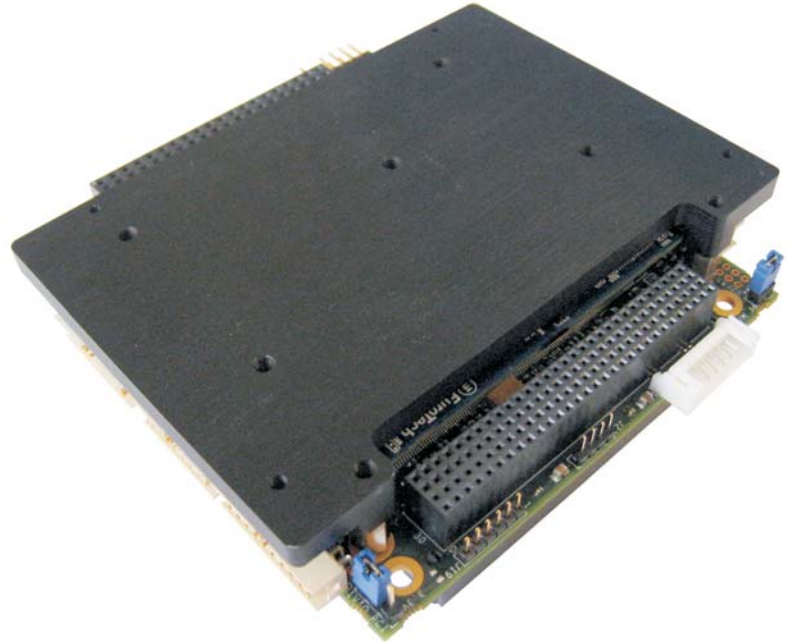## Features:

- Intel® Atom™ Processor up to 1.33GHz

- High performance x86 compatibility in a fanless design

- Atmel Trusted Platform Module Device

- 20-channel GPS receiver

- Extended temperature range

Supported Operating Systems:

- Windows® XP

- Windows® XP Embedded

- Linux

The ISIS XL processor board provides all the benefits of Intel's new Atom LPIA architecture in a PC/104+ form factor; comprising of a processor module and carrier board.

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. The ISIS XL offers high-performance x86 compatibility in a fanless design that requires only a fraction of the power previously needed for comparable systems.

A full range of on board peripherals are provided including 8 x USB 2.0 ports, VGA, LVDS, HD-Audio, RS232/422/485, Ethernet, GPIO and IDE. Expansion requirements are well covered by a combination of PC/104 (ISA), PC/104+ (PCI) and PCI Express MiniCard, so interfacing to real-world I/O or the latest wireless technology is easy. Requiring less than 5W of power and running at 1.1GHz or 1.33GHz the ISIS XL has all the functionality and connectivity previously associated with much larger and more power-hungry systems.

The ISIS XL comes with up to 1GB of DDR2 RAM and 4GB of soldered-down Flash for security and durability. Further solid-state Flash expansion is available via an SDIO socket.

ISIS XL 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 package is a truly compelling offering that makes the ISIS XL ideally suited to applications such as infotainment, interactive kiosks, in-vehicle systems where mains power is not readily available, HMI, medical, mobile access routers and industrial control.

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ISIS XL

Technical Specifications

PROCESSOR	Intel® Atom™ processor options (13mm x 14mm BGA)
	1.33GHz (2.3W)
	1.1GHz (2W)
CHIPSET	System Controller Hub US15W (22mm x 22mm BGA)
	2.3W (industrial temperature)
SUPPORTED OS	Windows XP, XP Embedded and Linux
MEMORY	System memory: DDR2 SDRAM
	Up to 1GB (400/533MHz)
	Flash: 2GB or 4GB solid-state drive (NAND Flash on board)
BIOS	InsydeH2O
	SPI Flash (proprietary)
TPM (optional)	Atmel Trusted Platform Module device, TCG v1.2 compatible
TEST SUPPORT	JTAG interface (Intel XDP)
STACKING CONNECTORS	High density board to board connector supporting:
	Video ports (LVDS, SDVO)
	Intel high definition audio
	I/O connectivity (8 x USB 2.0, 2 x PCIe (x1), LPC, PATA)
	Power connector
EXPANSION	PC/104+ (PCI 32-bit)
	PC/104 (ISA 16-bit)
	PCI Express MiniCard socket
	SDIO socket (4-bit)
	I²C interface
GRAPHICS	VGA interface
	Single-channel LVDS 24-bit interface
AUDIO	HD audio digital interface
USB SUPPORT	USB 2.0 supporting low/full/high speed modes
	8 x user accessible ports (on pin headers)
ETHERNET	1 x fast Ethernet port supporting 10/100 BaseT

SUPER-IO	SMSC SCH3114 SuperIO device
	GPIO
	3 High speed serial ports 16C550 compatible
	- 2 x user accessible ports (RS232/RS485/RS422 & RS232)
	- 1 x port used to connect to onboard GPS receiver
	PS/2 keyboard and mouse support
IDE SUPPORT	Parallel ATA interface - single channel (Master/Slave)
GPS RECEIVER	iTrax300 20-channel GPS receiver with full position/velocity/time functionality
POWER SUPPLY	5V only (+/-5%)
	4 - 4.5W power consumption (average per typical application)
DIMENSIONS	ISIS XL carrier board PC/104+ form factor, 96mm x 90mm
	ISIS XL processor module 100mm x 67mm
OPERATING TEMPERATURE	Industrial: -40°C to +85°C

Development Kit

- 8.4" 800 x 600 LCD with touchscreen
- HD audio breakout with line in, line out and mic in connections
- 80GB hard drive
- Windows XP, XP Embedded and Linux
- 10/100 Ethernet port
- 4 x USB 2.0 ports
- 2 x serial ports
- Other features (VGA port, SDIO, PS/2 keyboard/mouse)

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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