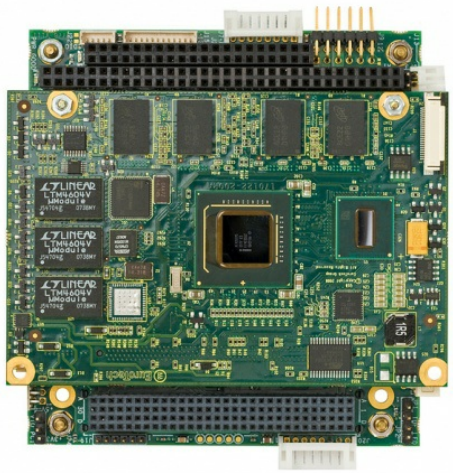
ISIS

PC/104+ CPU Module - Intel Atom Z500



- **x86 Compatible, Fanless Design**
- **High Performance and Efficiency**
- **Comprehensive Expansion Capabilities**
- **Industrial and Commercial Temperature**

Features

Feature rich, Intel Architecture - The ISIS is based on the powerful Intel Atom Z500 series processor with CPU speedsfrom 1.1GHz up to 1.6GHz and packs a large number of peripherals in the compact and efficient PC/104+ form factor
Low Power Design - Eurotech's low power, fanless design allows the ISIS to deliver extensive capabilities while using only 7 - 8W power
Expandability - A combination of PC/104 (ISA), PC/104+(PCI) and PCI Express MiniCard makes interfacing to real-world I/O and to the latest wireless technologies straight forward
Upgrade for existing applications - Legacy applications based on the ISA bus can be injected with the capability and performance of a cutting-edge platform
ESF support - The ISIS supports Everyware Software Framework (ESF): simple software development and portability to new hardware platforms
EC ready - Enjoy the benefit of the Everyware Cloud (EC): dramatically cut Time-to-Market when building highly scalable, robust applications that connect devices to business applications
Application-ready Development Kits - Eurotech's fullfeatured application-ready Development Kits help customers begin application development quickly

Description

The ISIS processor board provides all the benefits of the Intel Atom Z500 series processor, while bundling a rich set of functions and options in a PC/104+ form factor.
The ISIS offers high-performance x86 compatibility in a fanless design that requires only a fraction of the power previously needed for comparable systems: with a requirement of only 7-8W (typical), a full range of on board peripherals are provided, including eight USB 2.0 ports, VGA, LVDS, HD-Audio, RS-232/RS-422/RS-485, Ethernet, GPIO and IDE.
Expansion buses include 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. Running at 1.1GHz or 1.6GHz, the ISIS has all the functionality and connectivity previously associated with much larger and more power-hungry systems.
The ISIS comes with up to 1GB of DDR2 RAM and 4GB of soldered-down Flash for security and durability. Further solid-state Flash expansion is possible via an SDIO socket; on-board GPS is available as an option.
ISIS 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 Wind River Linux 3.0.

Specifications		
PROCESSOR	CPU	Intel Atom Z500 (13mm x 14mm BGA): 1.6GHz (2.3W) Option, 1.1GHz (2W) Option
BIOS	Type	InsydeH20 – SPI Flash (Proprietary)
MEMORY	RAM	System Memory: up to 1GB (400/533MHz) DDR2 SDRAM
STORAGE	SSD	2GB or 4GB Solid-State Drive (NAND Flash on Board)
I/O INTERFACES	Ethernet	1 x 10/100Mbps Ethernet Supporting 10/100 BaseT
	USB	USB 2.0 Supporting Low/Full/High Speed Modes: 8x User Accessible Ports (on Pin Headers)
	Digital I/O	SDIO Socket (4-bit)
	PCI	PCI 32-bit (PC/104+), PCI Express MiniCard Socket
	ISA	ISA 16-bit (PC/104)
	Super I/O	SMSC SCH3114 SuperIO device, enabling: GPIO – 4x High Speed Serial Ports 16C550 Compatible (2x user accessible ports (RS-232/RS-422/RS-485 & RS-232), 2x port used to connect to onboard GPS receiver) – PS/2 Keyboard and Mouse Support
	JTAG	JTAG Interface (Intel XDP)
	Video	VGA Interface, Single Channel LVDS 24-bit Interface
	Audio	High Definition Audio (Intel HD Audio)
RADIO	GPS	iTrax300 20-ch GPS Receiver with full Position/Velocity/Time Functionality
OTHER	RTC	Supercap or External Battery
	I2C	Yes
	TPM	Factory Option
POWER	Consumption	7W – 8W (Average per Typical Application)
ENVIRONMENT	Operating Temp	Commercial Temperature 0 to +70°C – Extended Temperature -40 to +85°C (ISIS XL)
MECHANICAL	Compliance	PC/104+
	Dimensions	ISIS Carrier Board 96x90mm – ISIS Processor Module 100x67mm
SOFTWARE	OS	Microsoft Windows XP, XP Embedded, Wind River Linux 3.0 – Specific RTOS Support (Call for Details)