



- 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 speeds from 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 SuperI/O 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) |