Intel[®] Atom[™] PC/104+ Form Factor

ISIS

- 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 Z5xx 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.

EDC ready – Enjoy the benefit of the Everyware Device Cloud (EDC): 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.

- Infotainment
- Interactive Kiosks
- In-vehicle Systems

The ISIS processor board provides all the benefits of the Intel Atom Z5xx 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 8 x USB 2.0 ports, VGA, LVDS, HD-Audio, RS232/422/485, 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.





PROCESSOR	Intel [®] Atom™ processor options (13mm x 14mm BGA)
	1.6GHz (2.3W)
	1.1GHz (2W)
GRAPHICS/VIDEO	VGA interface
	Single channel LVDS 24-bit interface
AUDIO	Intel [®] High Definition Audio (Intel [®] HD Audio)
MEMORY	System memory: DDR2 SDRAM
	Up to 1GB (400/533MHz)
	Flash: 2GB or 4GB solid-state drive (NAND Flash on board)
OPERATING ENVIRONMENTS	Microsoft [®] Windows [®] XP, XP Embedded
	Wind River Linux 3.0
	Specific RTOS support (call for details)
PHYSICAL/OTHER	ISIS carrier board PC/104+ form factor, 96mm x 90mm
	ISIS processor module 100mm x 67mm
	Extended temperature -40°C to +85°C (ISIS XL)
	Commercial temperature 0°C to +70°C
	Power consumption 7W – 8W (average per typical application)
	Supercap or external battery for RTC backup
	Trusted Platform Management (Option)
PERIPHERALS	USB 2.0 supporting low/full/high speed modes
	8 x user accessible ports (on pin headers)
	1 x fast Ethernet port supporting 10/100 BaseT
	PC/104+ (PCI 32-bit)
	PC/104 (ISA 16-bit)
	PCI Express MiniCard socket
	SDIO socket (4-bit)
	I2C interface
SUPER-10	SMSC SCH3114 SuperIO device
	GPIO
	4 High speed serial ports 16C550 compatible
	- 2 x user accessible ports (RS232/RS485/RS422 & RS232)
	- 2 x port used to connect to onboard GPS receiver
	PS/2 keyboard and mouse support
BIOS	InsydeH20
	SPI Flash (proprietary)
TEST SUPPORT	JTAG interface (Intel XDP)
GPS RECEIVER	iTrax300 20-ch GPS receiver with full position/velocity/time functionality

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