ISIS ICE

- **Diskless, fanless operation**
- **Wide range DC power input**
- **Optional Wi-Fi, cellular/GPS capabilities**
- **Expansion via PC/104 and PC/104+**

FEATURES

Intel Architecture – The ISIS ICE is a robust and compact embedded subsystem that houses the powerful Intel Atom Z5xx series processor with CPU speeds from 1.1GHz up to 1.6GHz.

Low Power Design – Eurotech's low power, diskless and fanless design delivers extensive capabilities.

Expandability – A combination of PC/104 (ISA), PC/104+ (PCI) and PCI Express MiniCard makes interfacing to real-world I/O or the latest wireless technologies straight forward.

Rugged Modular Construction – This rugged and compact enclosure has three height options for adding a hard disk and three additional expansion boards.

Wide Range Filtered PSU circuit – A wide range, filtered PSU circuit ensures simple installation and reliable operation for a large number of industrial and vehicular applications.

ESF support – The ISIS ICE 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.

- **Remote Asset Monitoring and Control**
- **Process Control**
- **Communications Gateways**
- **Data Concentrators / Data Loggers**
- **Environmental Monitoring**
- **Energy Management**
- **Access and Machine Control**
- **On-vehicle and Trackside applications**

The ISIS Industrial Compact Enclosure (ICE) is a modular system designed to flexibly accommodate Eurotech's ISIS processor board together with a range of optional communications and I/O interfaces. Available in three height options, the system can be configured with an optional hard disk and up to three additional PC/104 expansion boards.

Standard connectors deliver Ethernet, 4 x USB 2.0, 2 x serial and VGA. Moreover, antenna interfaces are available to cater for the optional on-board GPS and for the addition of internal Wi-Fi and cellular modem mini PCI Express cards.

Embedded operating systems run directly from soldered down Flash memory on the ISIS board itself, allowing the box to be configured as a completely fanless & diskless device. Where additional storage is needed, it can be added by either an internal SDIO card or conventional hard disk. The optional hard disk may alternatively be used for the installation of embedded and standard desktop operating systems.

A wide range, filtered PSU circuit allows the unit to be operated directly from vehicle power supplies (protection excludes load dump), or to be installed into industrial instrumentation cabinets and systems operating at 12 or 24V DC.

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System Architecture

PROCESSOR	Intel® Atom™ processor options (13mm x 14mm BGA)
	1.6GHz (2.3W)
	1.1GHz (2W)
GRAPHICS	VGA interface
MEMORY	System memory: DDR2 SDRAM
	Up to 1GB (400/533MHz)
	Flash: 2GB or 4GB (special order) 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	Small (no PC/104 expansion) 160 x 56 x 128mm
	Medium (up to 1 additional PC/104 card) 160 x 82 x 128mm
	Large (up to 3 additional PC/104 cards) 160 x 108 x 128mm
	-20°C to +60°C (no hard drive fitted)
	0°C to +50°C (with hard drive fitted)
	Power supply 9 – 36V DC
PERIPHERALS	USB 2.0 supporting low/full/high speed modes
	4 x user accessible ports
	1 x fast Ethernet port supporting 10/100 BaseT
	2 x user accessible ports (RS232/485/422 & RS232)
	PC/104+ (PCI 32-bit)
	PC/104 (ISA 16-bit)
	PCI Express MiniCard socket x 2 (1 including associated SIM card socket)
IDE SUPPORT	Parallel ATA interface - single channel (Master/Slave)
GPS RECEIVER	iTrax300 20-ch GPS receiver with full position/velocity/time functionality

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