



Features:

- Intel® Atom™ Processor, 1.6GHz
- High performance x86 compatibility in a fanless design
- Low power consumption
- Extensive onboard connectivity
- PC/104, PC/104+ and PCIe expandability for 3G and Wi-Fi
- High resolution graphics (CRT, LVDS and TV-Out)
- Guaranteed consistency and longevity of supply

Supported Operating Systems:

- Windows® XP Embedded
- Fedora Linux

Applications:

- Digital signage
- Kiosks
- Industrial gateways
- Machine control
- Human Machine Interface (HMI)
- Process control

The ALUDRA processor board provides all the benefits of Intel's new Atom LPIA architecture in a EBX form factor.

Using Intel's Hi-K 45nm technology the Intel N270 processor delivers the benefits of Intel's x86 architecture with exceptional performance per-watt. The processor is matched with an Intel 945GSE graphics and memory controller and Intel ICH7-M IO controller hub. The ALUDRA 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 6 x USB 2.0 ports, VGA, LVDS, serial digital video, TV-Out, Audio, 3 x RS232, RS422/485, 2 x Ethernet, GPIO, IDE, 2 x SATA. Expansion requirements are well covered by a combination of PC/104 (ISA), PC/104+ (PCI) and 2 x PCIe MiniCard sockets, so interfacing to real-world I/O or the latest wireless technology is easy. Requiring 20W of power running at 1.6GHz the ALUDRA has all the functionality and connectivity previously associated with much more power-hungry systems.

The ALUDRA comes with up to 2GB of DDR2 RAM. Further solid state Flash expansion is available via a CompactFlash socket.

ALUDRA is compatible with all major desktop operating systems and is also available with pre-installed ready to run embedded operating systems including Windows XP Embedded and Fedora Linux.

Technical Specifications

PROCESSOR	Intel® Atom™ processor N270 (22mm x 22mm BGA) 1.6GHz (2.5W)
CHIPSET	Northbridge: Intel 945GSE graphics and memory controller (27mm x 27mm BGA), 6W Southbridge: Intel ICH7-M IO controller hub (31mm x 31mm BGA), 3.3W
SUPPORTED OS	Windows XP Embedded and Fedora Linux
MEMORY	System memory: DDR2 SDRAM Up to 2GB (400/533MHz)
EXPANSION	PC/104+ (PCI 32-bit) PC/104 (ISA 16-bit) 2 x PCI Express MiniCard sockets CompactFlash socket
GRAPHICS	VGA interface Serial digital video output interface Single-channel LVDS 24-bit interface TV-Out
AUDIO	Audio digital interface
USB SUPPORT	6 x USB 2.0 supporting low/full/high speed modes
ETHERNET	2 x Ethernet ports supporting 10/100/1000 BaseT
IO	4 x input and 4 x output GPIO 3 x RS232 ports RS422/485 port Infrared interface Parallel port PS/2 keyboard and mouse support

HD SUPPORT	Parallel ATA interface - single channel (Master/Slave) 2 x serial ATA interfaces
POWER SUPPLY	5V and 12V (±5%) 20W power consumption Lithium Ion battery for RTC backup
DIMENSIONS	5.25" form factor, 203mm x 146mm
OPERATING TEMPERATURE	0°C to +70°C

Development Kit

The ALUDRA Development Kit is available in the following variants:

- ALUDRA Standard DevKit, with a 8.4" Flat Panel Display and touchscreen
- ALUDRA NO-LCD DevKit, with the perspex base only (no display set)

The ALUDRA Development Kit supports the following features:

- 8.4" 800 x 600 LCD with touchscreen
- PC/104-Plus (PCI bus)
- PC/104 (ISA bus)
- PCI socket
- Two PCI Express MiniCard sockets
- Two 10/100 Ethernet
- Audio; Line-In, Line-Out, Mic-In
- Four USB 2.0 ports
- 2GB SO-DIMM
- Two RS232 serial ports
- Other features; VGA port, CF, 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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