

# MIRACH

## Intel® Atom™ Processor Zxx based module



### Key Benefits

- Competitive prices with ARM11 and CORTEX cores
- Scalable solution (800 MHz...1.6 GHz)
- Low power consumptions (1...5 Watt)
- Smaller modular solution (80 x 60 mm)
- Best performance/Watt ratio
- Boot from removable devices
- Configurable BIOS and HW
- X86 architecture compliant solution
- Windows XP, XP Embedded, Vista and Linux fully supported

### Key Applications

- Building & home automation
- Programmable automation controller
- Digital signage
- Portable point-of-sales, ATM, kiosks
- In-vehicle infotainment head-unit
- Entry gaming machine
- Biomedical application

### Key Features

- Intel® Atom™ Z5xx Processor family
- Up to 1 GB DDR2 Ram
- Intel® Graphics Media Accelerator 500: 2D, 3D and advanced 3D graphics support
- Dual Head Video (LVDS up to 1280 x 1024 and SDVO up to 1080i)
- H264 hardware codec up to 1080i@30fps, high profile, L4.1 (MPEG2-4, VC1 and WMV9 supported)
- Intel® High Definition Audio up to 4 audio streams (up to 16 channels each), 32-bit sample depth and sample rates to 192 KHz

- 8 USB 2.0 Host (1 client configurable)
- Interfaces: LPC, IDE, PCI-E 1x, GPIO, UART, IRDA
- Operating temperature: 0...+60 °C

Intel® Atom™ processor a new generation of powerful and energy-efficient mobile processing unit.

### Processor

Intel® ATOM™ Zxx processors from 800 MHz...1.6 GHz

### Configurations:

- Mirach-001: Intel® Atom™ Z500 800 MHz, 512 MB DDR2 on board
- Mirach-002: Intel® Atom™ Z500 800 MHz, 1 GB DDR2 on board
- Mirach-003: Intel® Atom™ Z510 1.1 GHz, 512 MB DDR2 on board
- Mirach-004: Intel® Atom™ Z510 1.1 GHz, 1 GB DDR2 on board
- Mirach-005: Intel® Atom™ Z530 1.6 GHz, 512 MB DDR2 on board
- Mirach-006: Intel® Atom™ Z530 1.6 GHz, 1 GB DDR2 on board

### Chipset

- Intel® System Controller Hub US15W
- Front Side Bus: 400/533 MHz

### Bus

- 2 x PCI Express 1X
- 1 x LPC

### DRAM

- DDR2 on board up to 1 GB

### Serial Ports

- 1 x UART
- 1 x IRDA

### USB

8 x USB 2.0 Host (1 client configurable)

### Video

- 1 x LVDS 24-bit (up to 1280 x 1024)
- 1 x SDVO (up to 1080i)

### Mass Storage

- 1 x IDE
- 1 x SDIO/MMC

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## Audio

1 x Intel® High Definition Audio

## Hardware Monitoring

- 1 x RTC
- 1 x Watchdog timer
- On board lithium battery

## GPIO

12 x channel GPIO

## Power Supply

- +5 V
- Support S0, S3, S4, S5 power states
- New power state C6: Deep Power Down Technology

## Physical Features

- Modular 80 x 60 mm
- Fanless heatsink
- -0...+60 °C temperature range



rev. 2.0

Order details	Resale price*
Megrez1 (base board with Mizar module on board)	1.250 €
Megrez2 (base board with Mirach3 module on board)	1.250 €
Mirach3 (module with Intel ATOM processor 1,1 GHz)	185 €
Mirach5 (module with Intel ATOM processor 1,6 GHz)	245 €
Mizar (module with Intel EP80579 Integrated Processor)	260 €

\* Resale prices are subject to change.

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