

### Main Features

- Low Power ETX SOM
- On-Board Intel® Celeron® M 600 MHz with 512 KB L2 Cache
- Intel® 852GM Chipset
- Supports 200/266 SODIMM up to 1 GB
- Intel® 82562ET 10/100 Ethernet Controller
- Realtek ALC655 CODEC, AC' 97 Audio Interface
- Supports LVDS Interface

### Product Overview

ICES 101 is an ETX module with an Intel® Celeron® M or Pentium® M low power processor and Intel® 852GM chipset. The four ETX connectors on the module provide various signals to your carrier board that can be designed for different applications. Support includes ISA, PCI, IDE, LPT, VGA, LVDS, Serial, USB interfaces and others.

In order to enhance the ETX module to meet the best new features of the to new implemented chipset, ICES 101 follows the ETX standard x 1, x 2, x 3, x 4 connections between the ETX SOM and I/O carrier board. ICES 101 provides cost effective versatile functionality and high performance using Intel processors, and is an ideal ETX module for high-end embedded applications.

### Specifications

#### CPU Support

- Intel Celeron M processor
- Intel Pentium M processor
- Supports 400 MHz FSB CPU only

#### Main Memory

- Supports one unbuffered non-ECC DDR SODIMM 200/266 up to 1 GB

#### Chipset

- Intel® 852GM + ICH-4 chipset

#### BIOS

- Award System BIOS
- Advanced Power Management support
- 4 Mbit flash ROM
- Supports Boot from USB-CDROM and Boot From CF Card (Industry grade bootable CF Card)

#### On-board LAN

- Intel 82562ET 10/100 Fast Ethernet
- Supports PXE LAN boot function
- Signals down to I/O Board

#### Display

- Intel® 852GM integrated graphics solution up to 64 MB of dynamic video memory allocation drives a standard progressive scan analog monitor with pixel resolution up to 1600 x 1200 at 85 Hz
- Wide screen resolution support for 852 x 480 and 1366 x 768 resolution
- Single or dual pixel LVDS panel support
- supports CRTs up to 1920 x 1440 x 32 bpp at 85 Hz

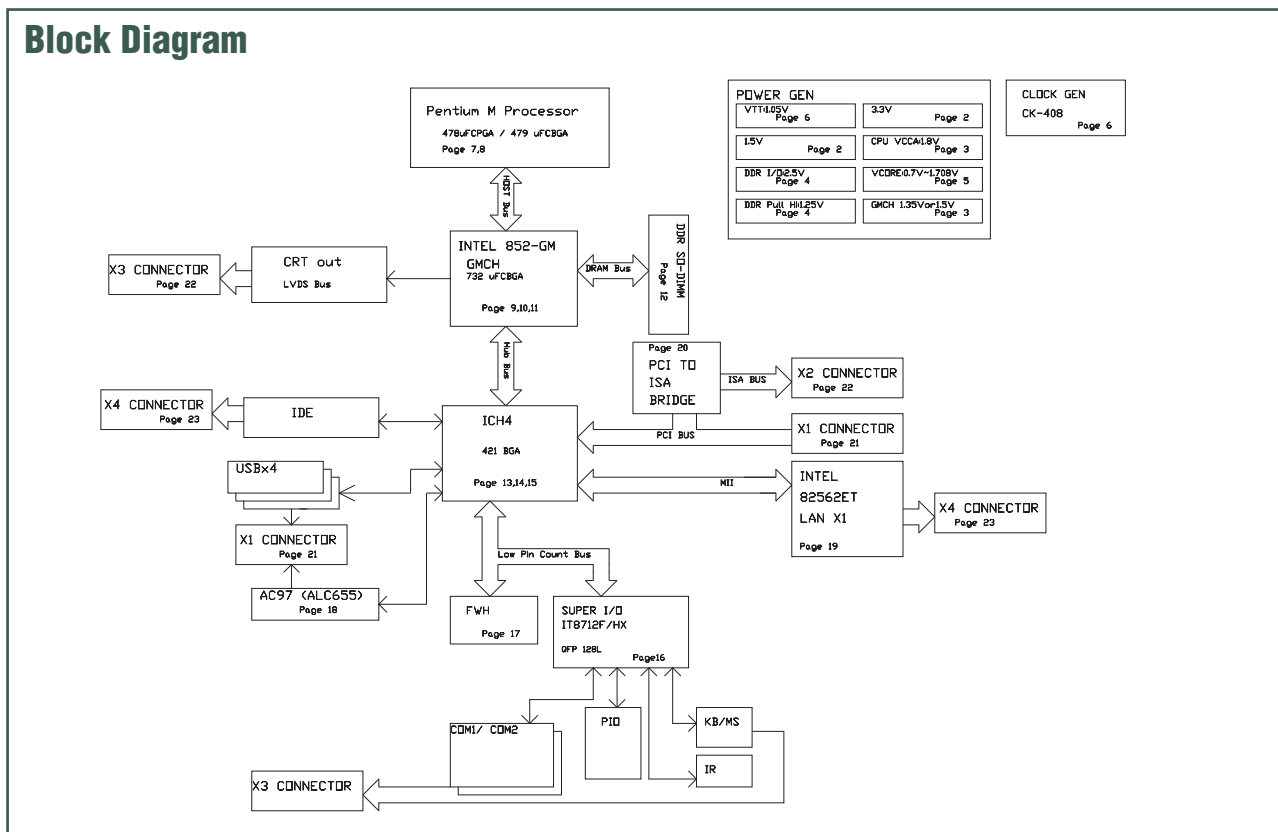
#### Super I/O

- ITE, IT8712F

#### ETX Connector

- X1
  - 32-bit/33 Mhz PCI x 4
  - Realtek ALC 655 Codec - AC' 97 Audio Interface
  - USB 2.0 x 4
- X2
  - ISA Interface
- X3
  - VGA x 1
  - LVDS x 1 (dual pixel)
  - LPT x 1
  - KB/Mouse
  - COM1 and COM2
  - IrDA
- X4
  - Ethernet (10/100)
  - SMBus/I2C
  - IDE x 2

## Block Diagram



### On-board RTC

- On-chip RTC with battery back up
- External Li-ion battery x 1
- Tolerance less than 2 secs (24 hours) under 25 °C environment

### Power Requirements

- +5 V power only, follows ETX power and ground pin definitons.
- Supports both AT and ATX power supplies

### Dimensions

- 95 mm (W) x 114 mm (L) (3.74" x 4.5")

### Environment

- Operating temperature: 0°C to 60°C
- Storage temperature: -20°C to 85°C
- Relative humidity: Non-operating 5% to 95%, non-condensing

### Certifications

- CE approval
- FCC Class A

## Ordering information

- **ICES 101-373 (P/N:1K00010101X0)** RoHS Compliant  
ETX Module with Celeron M 1 GHz /512 KB L2, VGA/ISA/PCI/IDE/LVDS/Audio/COM/LPT/USB2.0/LAN Interface
- **ICES 101-C65 (P/N:1K00010102X0)** RoHS Compliant  
ETX Module with onboard Celeron M 600 MHz processor, VGA/ISA/PCI/IDE/LVDS/Audio/COM/LPT/USB2.0/LAN Interface
- **ICES 101-SKT (P/N:1K00010103X0)** RoHS Compliant  
ETX Module with Pentium M /Celeron M CPU Socket, VGA/ISA/PCI/IDE/LVDS/Audio/COM/LPT/USB2.0/LAN Interface