ICES 101

ICH4

SO DIMM Socket

Intel 852GM

Intel® Celeron® M

Main Features

- **Low Power ETX CPU Module**
- **On-board Intel® Celeron® M 600 MHz with 512 KB L2 Cache**
- **Intel® 852GM Chipset**
- **Supports 200/266 SO-DIMM up to 1 GB**
- **Intel® 82562ET 10/100 Ethernet Controller**

- **Realtek ALC655 CODEC, AC' 97 Audio Interface**
- **Supports LVDS Interface**

Product Overview

The ICES 101 is an ETX CPU module with Intel® 852GM chipset supports Intel® Celeron® M or Pentium® M processor with 400 MHz FSB and one un-buffered non-ECC SO-DIMM 200/266 up to 1 GB. The Intel® 852GM chipset supports ISA, PCI, IDE, LPT, VGA, LVDS, LAN, Serial, USB interfaces and more.

The ICES 101 follows the ETX standard x 1, x 2, x 3, x 4 connections between the ETX CPU module and I/O carried board, thus it is compatible with the carried boards from other brands like Kontron and Advantech. The ICES 101-C65 ETX CPU Module can easily integrated into most of the limited space projects, such as industrial automation, data acquisition and equipment computers.

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 SO-DIMM 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 reolution
- Single or dual pixel LVDS panel support
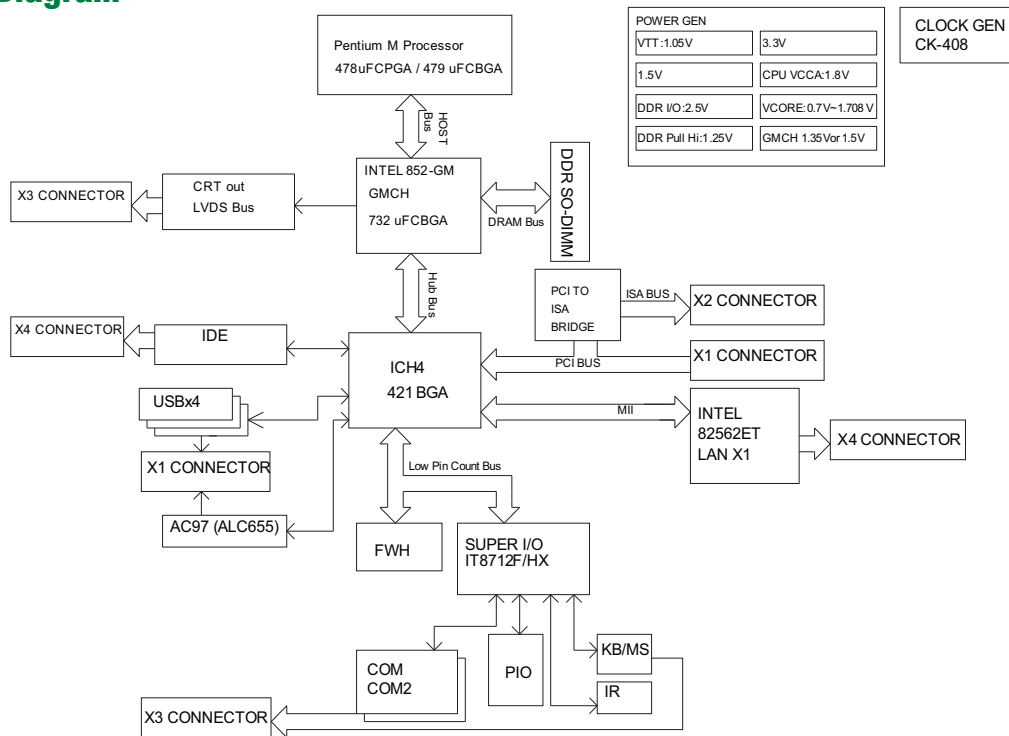- Supports CRTs up to 1920 x 1440 x 32 bpp at 85 Hz

Super I/O
- ITE, IT8712F

ETX Connector
- X1
  4 x 32-bit/33 Mhz PCI
  Realtek ALC 655 Codec - AC' 97 Audio Interface
  4 x USB 2.0
- X2
  ISA Interface (full function)
- X3
  1 x VGA
  1 x LVDS (dual pixel)
  1 x Parallel port
  1 x KB/Mouse
  COM1 and COM2
  1 x IrDA

Block Diagram

- X4
  - 1 x Ethernet (10/100)
  - SMBus/I2C
  - 2 x IDE

On-board RTC

- On-chip RTC with battery back up
- 1 x External Li-ion battery
- 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

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