EBC 342

Main Features

- Onboard Intel® Atom™ N270 1.6 GHz CPU
- Intel® 945GSE/ ICH7-M Chipset
- One 200-pin SODIMM socket supports up to 2 GB DDR2 400/ 533 MHz SDRAM
- Dual Gigabit Ethernet

- 24-bit LVDs Dual View, 2-CH LVDS
- 5.1-CH Audio
- 1x CF, 1 Mini-PCIe Card
- 1x SATA, 3x COM, 6x USB, 16-bit GPIO

Product Overview

The EBC 342 is a 3.5" ECX embedded board with an on-board Intel® Atom™ N270 1.6GHz processor with 512 KB L2 cache by 533/ 667 MHz FSB. The EBC 342 features Intel® 945GSE and ICH7-M chipsets, which supports DDR2 400/ 533 memory, along with integrated GMA950 graphics for large display application to support Multiple Display. The South Bridge ICH7-M provides a Compact Flash socket, four serial ports, six USB 2.0 ports, two Gigabit Ethernet LAN port, one Mini-PCIe interface for application. The EBC 342 is a great solution featuring a low power consumption processor and small footprint with versatile displays and numerous I/O port support at industrial applications.

Specifications

CPU Support
- Support Intel® Atom™ N270 1.6GHz processor with 533MHz FSB

Main Memory
- 1x 200-pin SO-DIMM socket, up to 2GB non-ECC 400/ 533 DDR2 memory

Chipset
- Intel® 82945GSE Graphic Controller Hub (GMCH)
- Intel® 82801 GBM ICH7 Mobile (ICH7-M)

BIOS
- Award system BIOS
- Plug & Play support
- Advanced Power Management
- Advanced Configuration & Power Interface
- 8M bits SPI ROM

On-board LAN
- 2x Realtek RTL8111C-GR PCI Express Gigabit Ethernet
- Support Boot From LAN (PXE)
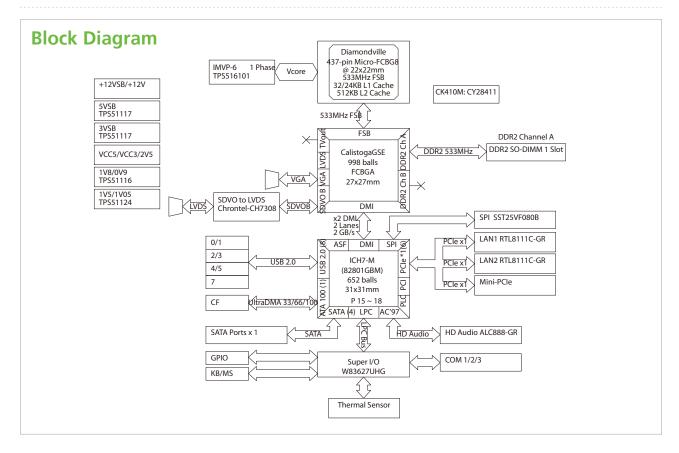- 2x RJ45 with LED

Display
- Intel® 945GSE integrated 3D graphics engine, based on Intel® GMA950 architecture, delivers sophisticated graphics for large display application, dual independent display support, at graphics core speeds up to 166MHz, provides a wealth of options for high-resolution displays
- Analog VGA interface:
  1x DB15 VGA port
  Resolution up to 1600 x 1200 at 85 Hz, 2048 x 1536 at 75Hz
- LVDS interface:
  SDVO w/ CH7308B single/ dual LVDS transmitter to single (24bit) or dual pixel (48bit) LVDS panel, resolution up to 1600 x 1200
  2x DF13 20-pin LVDS connector for internal connection
- CCFL interface:
  1x CCFL for LCD Panel Backlight Inverter

Audio
- Realtek ALC888 CODEC for High Definition
- 1x Mic-in and 1 x Line-out Pin header

Expansion
- 1x Mini-PCIe

NEXCOM

Block Diagram

I/O Interface

- Serial port: 3 port, One DB9 Connector and Two 2 x 5 2.0mm box header serial
- Parallel port: 1x 26-pin box header
- USB 2.0: 6 ports, 2 ports edge connector, 2 ports by 2.0mm JST connector, 2 ports by 2.0mm pin header
- 8 GPIO lines via header (GPI 0~3 and GPO0~3) TTL Level (0/5 V)
- On-board Power LED and HDD Active LED Pin Header
- 1x 3-pin fan connector (for CPU)
- 1x DB15 VGA connector
- 1x Keyboard/Mouse pin header
- On board Buzzer/ SMBus2.0/ Reset SW

Watchdog Timer

- Watchdog timeout can be programmable by Software from 1 second to 255 seconds and from 1 minute to 255 minutes (Tolerance 15% under room temperature 25°C)

Storage

- 1x SATA port
- 1x CF socket

System Monitor

- Monitoring of 4 voltages and 2 temperatures
- 4 Voltage (Vcore, +12V , +3.3V , +1.5V)
- 2 Temperatures (CPU, System)

On-board RTC

- On-chip RTC with battery backup
- 1x External Li-Ion battery

Power Input

- Support AT and ATX mode

Power Requirements

- Power requirement: +12V DC Input
- One 4-pin power connector

Dimensions

- 3.5" ECX form factor/ 146mm (L) x 105mm (W) (5.7"x4.1")

Environment

- Operating temperatures: 0°C to 60°C
- Storage temperature: -20°C to 85°C
- Relative humidity: Operating 10% to 90%, non-condensing

Certifications

- CE approval
- FCC Class A

Ordering Information

- **EBC 342 (P/N: 10E00034200X0) RoHS Compliant**
  Low power Embedded Board with Intel® Atom™ N270 processor and based on Intel® 945GSE 3D graphics engine GMA950 w/ VGA/ 24bit LVDS/ 6x USB2.0/ 3x COMs/ 1x Mini-PCIe/ 2x Gigabit LAN/ 1x parallel port