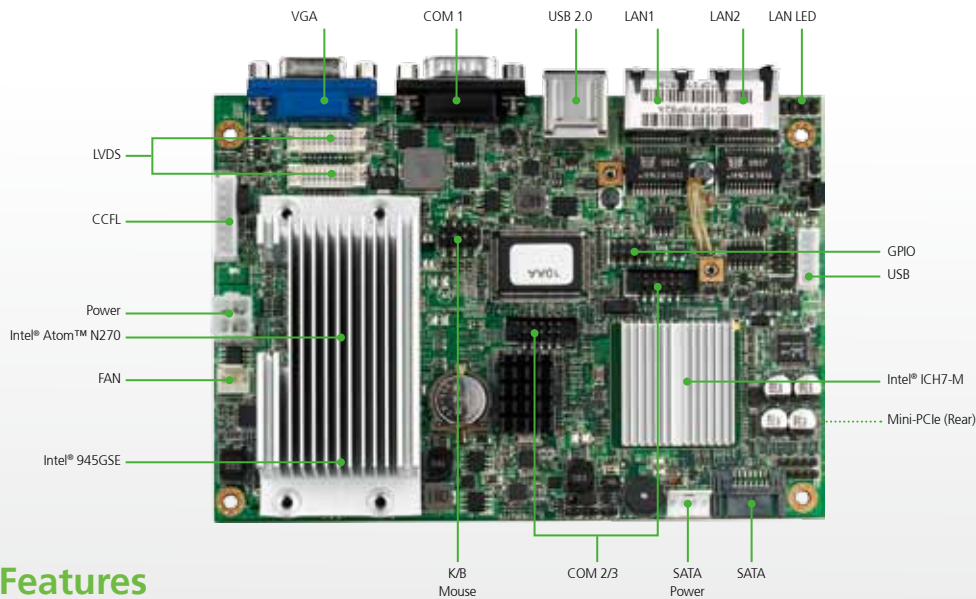


# EBC 342

**3.5" ECX On-board Intel® Atom™ N270 1.66GHz CPU**  
**with 24-bit LVDS/Gigabit LAN/CF**



## 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
- 1 CF, 1 Mini-PCle Card
- 1 SATA, 3 COM, 6 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-PCle 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

- 1 x 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

- 2 x Realtek RTL8111C-GR PCI Express Gigabit Ethernet
- Support Boot From LAN (PXE)
- 2 x 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:
  - 1 x DB15 VGA port
  - Resolution up to 1600 x 1200 at 85 Hz, 2048x1536 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
  - 2 x DF13 20-pin LVDS connector for internal connection
- CCFL interface:
  - 1 x CCFL for LCD Panel Backlight Inverter

### Audio

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

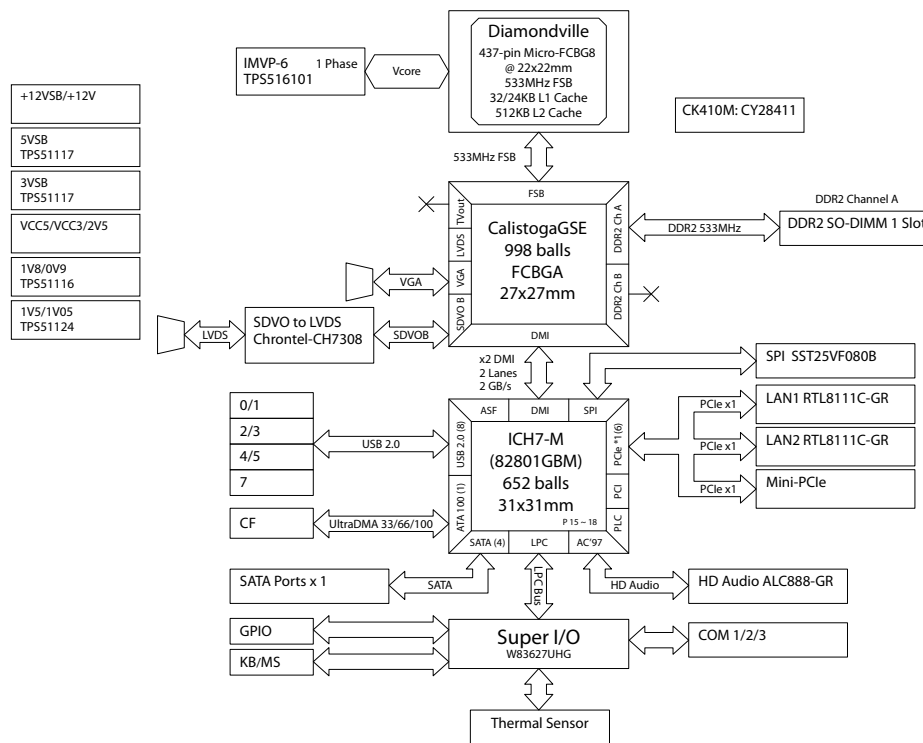
### Expansion

- 1 x Mini-PCle

### I/O Interface

- Serial port: 3 port, One DB9 Connector and Two 2 x 5 2.0mm box header serial
- Parallel port: 1 x 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
- 1 x 3-pin fan connector (for CPU)
- 1 x DB15 VGA connector
- 1 x Keyboard/Mouse pin header
- On board Buzzer/SMBus2.0/Reset SW

## Block Diagram



### 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

- 1 x SATA port
- 1 x 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
- 1 x 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/6 x USB2.0/3 x COMs/1 x Mini-PCle/2 x Gigabit LAN/1 x parallel port