

### Main Features

- ◆ Intel Core 2 Duo, Core Duo & Core Solo Processor Family support
- ◆ Intel 945GM Chipsets
- ◆ Two 240-pin DDR2 DIMM Socket support un-buffered non-ECC DDR2 400/533/667 up to 4GB
- ◆ Intel 82573L PCI Express Gigabit LAN X 2
- ◆ Support LVDS /VGA Display and one x16 PCI Express slot
- ◆ CompactFlash Socket

### Product Overview

EBC 500 is a 5.25" embedded board featuring Intel® Core 2 Duo, Core Duo, Core Solo processor with 533/667 MHz FSB; speed up to 2.17 GHz. The EBC 500 offers high performance and various processors and PCI Express; versatile display and I/O port selections, which is the best solution for advanced embedded applications.

### Specifications

#### CPU Support

- Single mPGA478 ZIF Socket
- Support Intel® Core 2 Duo, Core Duo, Core Solo family processors with 533/667 MHz

#### Main Memory

- 2 x 240-pin DDR2 DIMM socket, up to 4GB un-buffered non-ECC DDR2 533/667 SDRAM

#### Chipset

- Intel 945GM
- ICH7-DHM

#### BIOS

- Award system BIOS
- Plug & Play support
- Advanced Power Management and Advanced Configuration & Power Interface support
- 4M bits flash ROM

#### On Board LAN

- Intel® 82573L PCI Express Gigabit Ethernet Controller x 2 supporting two GbE LAN ports
- Support Boot From LAN (PXE)
- Support Wake on LAN (When 5Vsb power available). (LAN1 only)
- Interface: RJ45 with LED connector x 2

#### Display

- Intel® 945GM integrated graphics solution w/ Intel® Extreme Graphics 2 technology
- Up to 64 MB of dynamic video memory allocation

#### CRT: Analog Display Support

Drive a standard progressive scan analog monitor with pixel resolution up to 1600x1200 at 85 Hz, 2048x1536 at 75Hz

#### LVDS: LFP (local flat panel) LVDS interface

Single or dual pixel LVDS panel support up to UXGA panel resolution (1600x1200)

#### TV Out: Support S-Video up to 1024 x 768 NTSC/PAL and 1080p HDTV

CCFL: 1 x CCFL for LCD Panel Backlight Inverter Power Pin 2,3 support 12VDC power source for inverter (Max. 12VDC@2A for each)

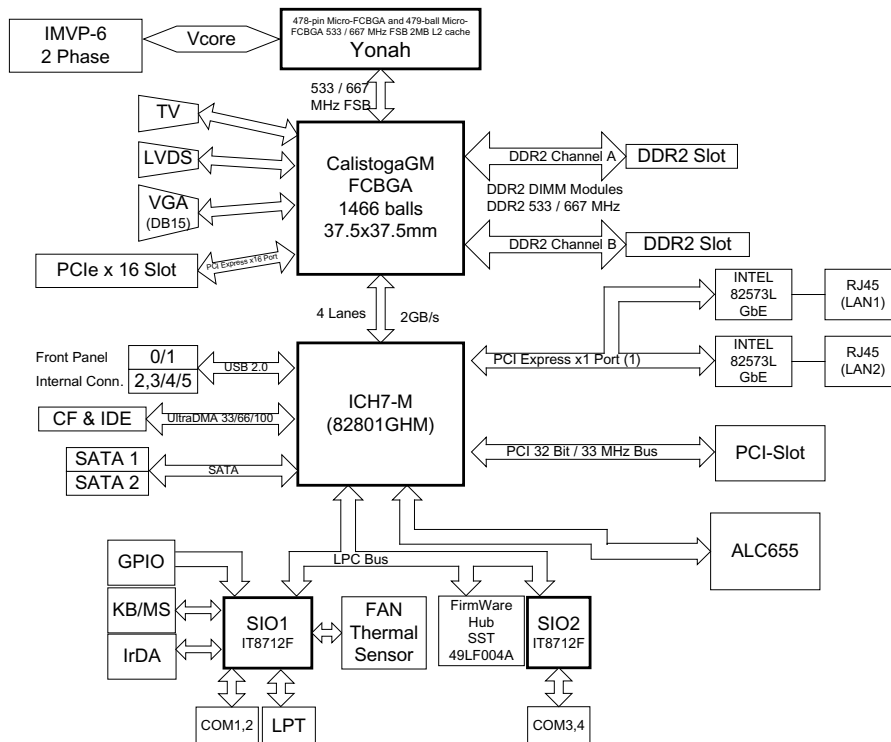
#### Audio

- Realtek RTL655 CODEC for AC97 v2.1 CODECI
- Interface: Mic in and Speaker out connector, Line in with pin header

#### I/O interface

- USB 2.0: 6 x USB 2.0 port (2 on front, 4 on Board by one JST Connector), bandwidth: 480 Mb/s
- Serial ports: 4 x SIO, support RS-232 with pin headers  
1 x jumper to switch 5V and 12V power source
- Parallel ports: 1 x Box Header connector
- PS/2: 1 x PS/2 connector for Keyboard and Mouse
- GPIO: 8 GPIO lines via header (GPI 0~3 and GPO 0~3); GP00 and GP01 could be connected to LED for programmable feature; TTL Level (0/5V)
- FAN: 3x FAN JST connector (one for CPU, two for system)
- IrDA: 1 x pin header for IrDA, TX, RX
- 1 x On Board buzzer
- 1 x SMBus 2.0 controller with pin header
- 1 x pin header for reset (for power on button switch)

## Block Diagram



### Storage Support

- CF: 1x Internal CompactFlash socket( Support One Type I & II Compact Flash Card (Primary Master)
- SATA: 2 x SATA ports, support Raid 0,1, bandwidth: 150 MB/s
- IDE: 1 x 44-pin IDE connector
- DOM: 1 x 2-pin Jst power (+5V,GND ) for DOM

### Watchdog Timer

- Watchdog Timer is programmable by software from 0 to 255 seconds (Tolerance 15% under room temperature 25°C)

### On-board RTC

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

### Power Input

- Support both AT and ATX Mode (Factory default setting is AT mode)
- AT mode: +5V Power in, No Power On push Button, Software Shutdown function and LAN remote wake up
- ATX mode: Power Required: +5V / -5V / 5Vsb Power In (+12V/-12V for PC 104 plus)  
When Change to ATX Mode, the BIOS default setting is as follow:  
POWER -SUPPLY TYPE -->[ATX]  
AUTO PWR-FAILURE RESUME-->[ON]

### Dimensions

- 203 mm(L) x 143 mm (W)  
7.9"(L) x 5.6 "(W)

### Environment

- Board level operating temperature: 0°C to 60°C
- Storage temperature: -20°C to 80°C
- Relative humidity: 10% to 90% (Non-condensing)

### Certifications

- CE approval
- FCC Class A

## Ordering information

- **EBC 500 (P/N: 1E00050000X0) RoHS Compliant**  
5.25" Embedded Board supporting Intel Core 2 Duo, Core Duo and Core Solo CPU w/VGA/ Dual LVDS/Audio/4 COMs/6 USB2.0 /Dual Gigabit LAN