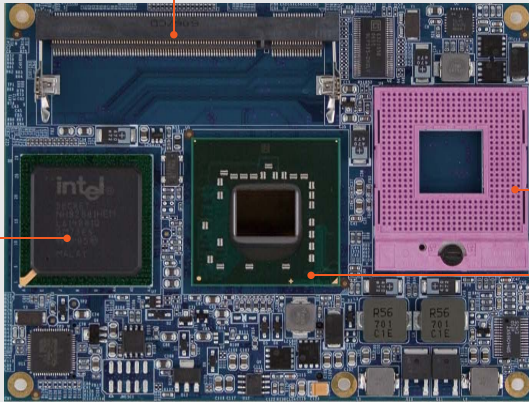




One 200-pin SODIMM up to 2GB DDR2 SDRAM



Intel® ICH8-M Chipset

Supports 65nm Intel® µFC-PGA 478 / µFC-BGA 479 Core 2 Duo CPU

Intel® GM965 / GME965 Chipset

Features

- Supports 65nm Intel® µFC-PGA 478 / µFC-BGA 479 (Socket M) Core™ 2 Duo CPU
- Intel® GM965 / GME965 / ICH8-M Chipset
- One SODIMM up to 2 GB DDR2 SDRAM
- 2 x 24-bit LVDS, Dual View
- Broadcom BCM5787 Gigabit LAN
- 4 PCI, 5 PCI Express x1, 1 PCI Express x16
- 3 SATA II, 8 USB 2.0, 8-bit GPIO



ETX Modules

Specifications

System

• CPU	Supports 65nm Intel® µFC-PGA 478 / µFC-BGA 479 Core™ 2 Duo CPU
• BIOS	Award 512KB Flash BIOS
• System Chipset	Intel® GM965 / GME965 / ICH8-M
• System Memory	One 200-pin SODIMM socket supports up to 2 GB DDR2 400/533/667 SDRAM
• Watchdog Timer	Reset: 1 sec.~255 min. and 1 sec. or 1 min./step
• Expansion	4 PCI slots, 5 PCIe x 1, 1 PCIe x 16

I/O

• MIO	1 x EIDE , LPC, Smbus / I2C Bus, 3 SATA II
• USB	8 x USB 2.0 ports
• DIO	4-bit GPI and 4-bit GPO

Display

• Chipset	Intel® GM965 / GME965 Integrated
• Display Memory	Intel® DVMT 4.0 Supports up to 256 MB video memory
• Resolution	CRT mode: 2048 x 1536 @ 60 Hz LCD/Simultaneous mode: 1600 x 1200 @ 75Hz Widescreen mode: 1920 x 1200 @ 65 Hz
• Multiple Display	CRT + LVDS, CRT + TV
• LVDS Interface	Dual channel 24-bit LVDS
• TV-out	Intel® GM965 Integrated TV Interface Supports HDTV (For GM965 only)

Ethernet

• LAN	Broadcom BCM5787 Gigabit LAN, supports wake on LAN
• Ethernet Interface	10 / 100 / 1000Base-Tx Gigabit Ethernet compatible

Mechanical & Environmental

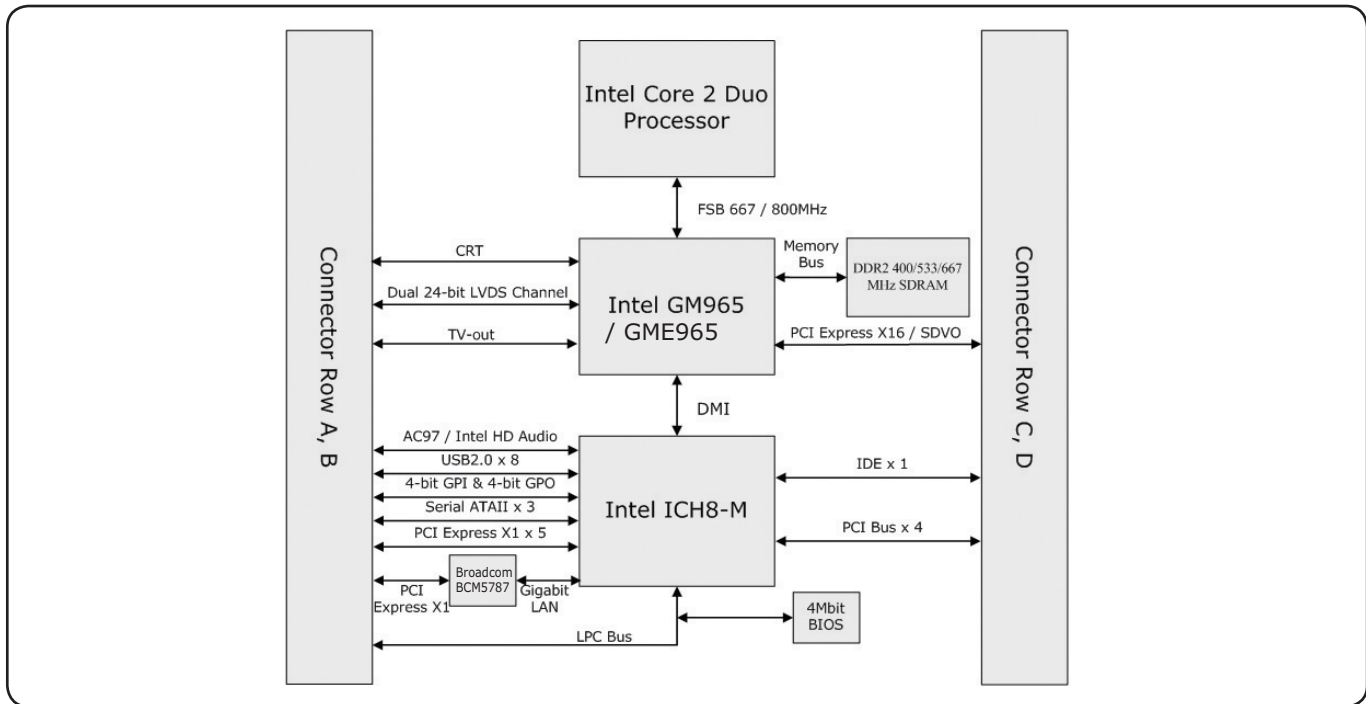
• Power Requirement	+12V / VCC5SB
• Power Type	ATX
• Operating Temperature	0~60°C (32~140°F)
• Operating Humidity	0%~90% relative humidity, non-condensing
• Size (L x W)	5" x 3.7" (125 mm x 95 mm)
• Weight	0.44 lbs (0.2 Kg)

Ordering Information

- **ESM-GM965**
Intel® GM965 / GME965 Core™ 2 Duo ETXexpress Module
 - **EEV-EX11 P1-9**
ETXexpress Carrier Board for Evaluation
 - **ACC-2850HS-01R**
Heat Spreader for ESM-GM965 Series
 - **ACC-2850HS-02R**
Heat Spreader for ESM-GM965 Series with BGA Type CPU, Height:11mm
 - **ACC-ETEHS-03R**
Heatsink for ETX Express Heat Spread w/o Fan 125 x 95 x 24 mm
 - **ACC-ETEHS-04R**
Heatsink for ETX Express Heat Spread with Fan 125 x 95 x 24 mm
- Note: Cable kit not included**



Block Diagram



Mobile Intel® GM965 / GME965 Express Chipset

The Mobile Intel® GM965 Express chipset featuring the Mobile Intel® Graphics Media Accelerator X3100 provides Microsoft Windows Vista Premium support with the highest level of Windows Aero experience and provides Intel® Clear Video Technology delivering enhanced video quality. The Mobile Intel® GM965 Express Chipset features dual-channel DDR2 memory, 800/533 MHz system bus, PCI Express x16 graphics ports and PCI Express x1 I/O ports, Serial ATA, and Hi-Speed USB 2.0 connectivity.

Features and Benefits

• Vista Premium support	Enables Vista Premium logo with the highest level of Aero experience.
• Intel® Clear Video Technology	Provides outstanding video playback with sharper image quality, increased clarity, and customizable color controls.
• Mobile Intel® Graphics Media Accelerator (GMA) X3100	Exceptional 3D graphics performance for corporate and consumer laptops.
• Enhanced support for a high definition experience	Enhanced high definition experience with improved HDTV connectivity & HDMI supporting up to 1080p and easy to use TV configuration utility, Intel® TV Wizard. Enhanced HW acceleration for MPEG2 & WMV9B formats
• 800 MHz front side bus	Provides up to 20 percent faster data transfer rate compared to the previous generation bus speed.
• Support for dual channel DDR2 667 MHz memory technology	Support for increased performance memory technology.
• Integrated high speed USB 2.0	Support for 10 USB 2.0 peripherals for maximum 40x faster data transfer and backward compatible to support USB 1.1 devices.
• Intel® Matrix Storage Technology 5.5	Enables enhanced performance, power management and data protection for the storage subsystem.

01
ETX

02
3.5"

03
EPIC

04
5.25"

05
PC/104

06
Embedded System

07
Smart Terminal

08
InnoFlex PPC

09
ACC