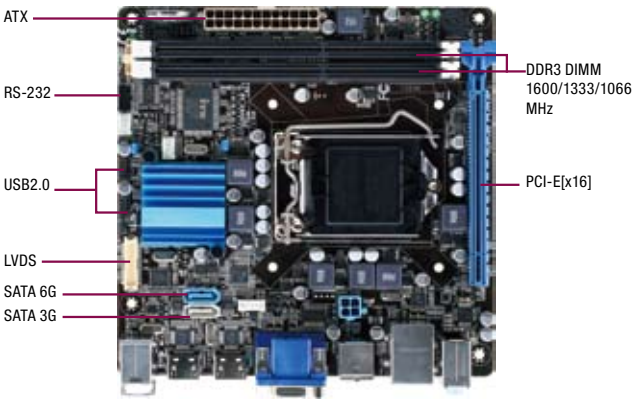
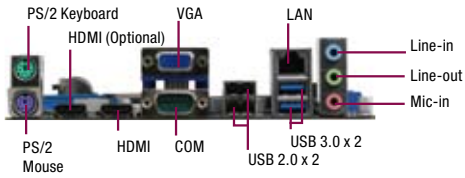
EMB-B75B

Mini-ITX Embedded Motherboard with Intel® 2nd/3rd Generation Core™ i7/ i5/ i3 Processor





Features

- **Intel® Socket 1155 for 2nd/3rd Generation Core™ Processor**
- **Intel® B75 Express Chipset**
- **DDR3 1600/1333/1066 MHz DIMM x 2, Max. 16GB**
- **Dual independent Display: VGA, LVDS, HDMI (Dual HDMI Optional)**
- **Realtek RTL8111F, Gigabit Ethernet x 1**
- **SATA 6.0 Gb/s x 1, USB3.0 x 2, PCIe 3.0/2.0 [x16] x 1**

PCI Express · Giga LAN · DDR 2 · USB 2.0 · CE FC

Specifications

System	
Form Factor	Mini-ITX
Processor	LGA1155 socket for Intel® 2nd/3rd Generation Core™ i7/ i5/ i3/ Pentium®/ Celeron® Processors
System Memory	DIMM x 2, max. 16GB, DDR3 1600/1333/1066 MHz, non-ECC, un-buffered memory
Chipset	Intel® B75 Express Chipset
I/O Chipset	ITE 8728F
Ethernet	Realtek 8111F, Gigabit Ethernet, RJ-45 x 1
BIOS	64Mbit Flash ROM, AMI BIOS
Wake On LAN	Yes (WOL / PXE)
Watchdog Timer	1~255 steps by software program
H/W Status Monitoring	Temperature Monitor on CPU/Chassis, Voltage Monitor on Vcore/5V/3.3V/12V, Fan Monitor on CPU/Chassis
Expansion Interface	PCIe 3.0/2.0[x16] x 1
Battery	Lithium battery
Power Requirement	24-pin ATX connector x 1, 4-pin ATX 12V Power connector x 1
Power Consumption (Typical)	Intel® Core™ i7-3770K, DDR3 1600/8GB, ATX, 5.2A@12V, 1.18A@5V, 1.1A@3.3V
Board Size	6.7" x 6.7"(170mm x 170mm)
Gross Weight	1.1 lb (0.5 Kg)
Operation Temperature	32°F ~ 131°F (0°C ~ 55°C)
Storage Temperature	-40°F ~185°F (-40°C ~85°C)
Operation Humidity	0% ~ 90% RH, non-condensing
MTBF (Hours)	125,948
Display	
Graphic Engine	Intel® Graphics Media Accelerator
Resolution	Up to 1920 x 1200 @60Hz for VGA Up to 1920 x 1080 @60Hz for HDMI Up to 1920 x 1200 @60Hz, Dual-Channel 18/24-bit for LVDS, support EDID LVDS auto detection
Output Interface	VGA, HDMI (Dual HDMI optional), LVDS
I/O	
Storage	SATA 6.0 Gb/s x 1, SATA 3.0 Gb/s x 1
Serial Port	RS-232 on back panel x 1, RS-232 on mid-board x 1
Universal Serial Bus	USB 3.0 x 2 (on back panel), USB 2.0 x 6 (4ports on mid-board, 2 ports on back panel)
Digital I/O	—
PS/2 Port	PS/2 Port (Keyboard & Mouse) x 2
Audio	Line-in, Mic-in, Line-out

Packing List

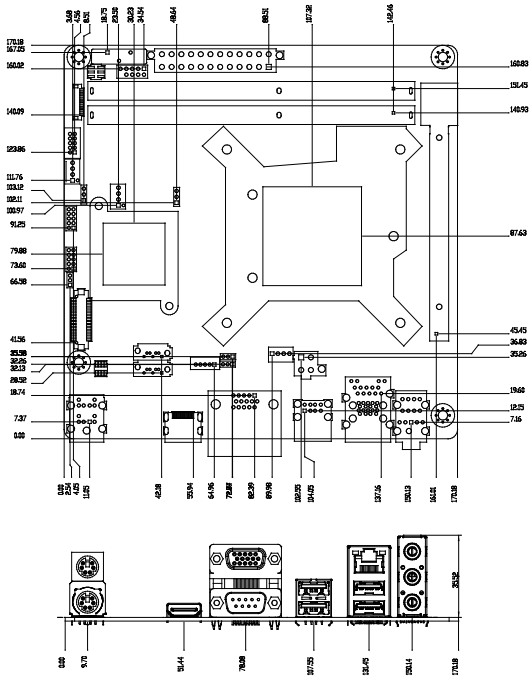
- **I/O Shield**
- **SATA Power Cable**
- **SATA Cable x 2**
- **Product CD**
- **EMB-B75B**

EMB-B75B

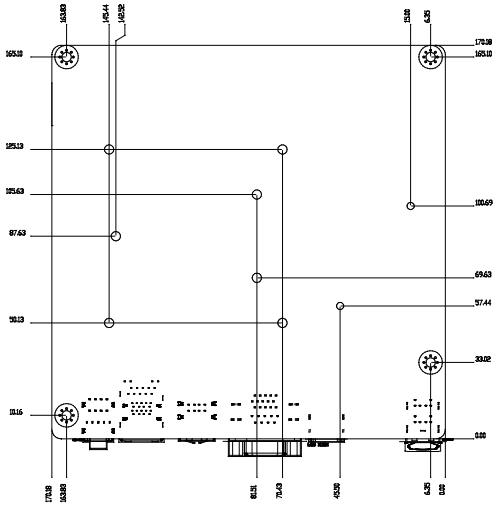
Dimension

Unit: mm

EMB-B75B_COMPONENT_SIDE



EMB-B75B_SOLDER_SIDE



Ordering Information

Part Number	CPU	RAM	Fan/Fanless	Display	Storage	LVDS	LAN	USB	RS-232	RS-232/422/485	Expansion Slot	Power	Temp.
EMB-B75B-A10	Socket	DIMM	FAN	VGA, HDMI	SATA3 x 1 SATA2 x 1	18/24-bit	GbE x 1	USB 3.0 x 2 USB 2.0 x 6	2	—	PCIe [x16] x 1	ATX	0°C ~ 55°C

Optional Accessories

- **1700190450**
  USB 3.0 Cable
- **1709100201**
  USB 2.0 Cable
- **1701100206**
  COM Cable
- **175921156B**
  CPU Cooler
- **1709070800**
  SATA Cable