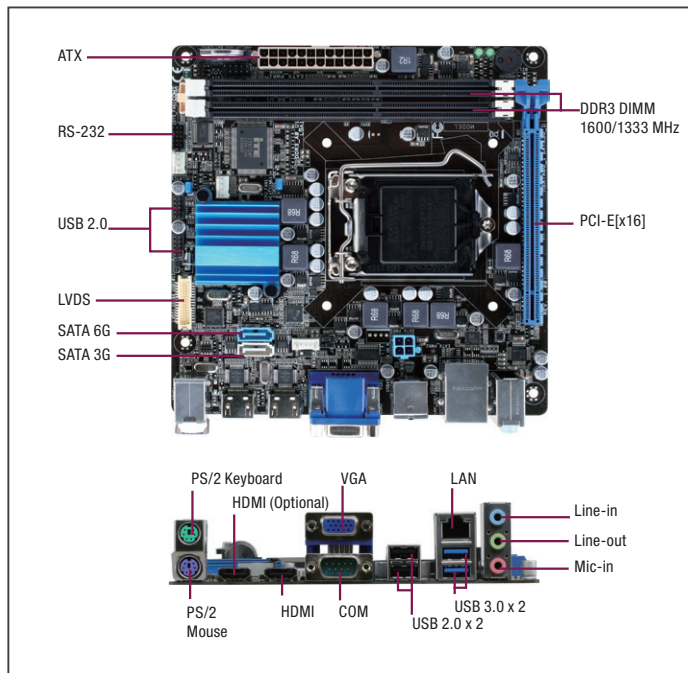


## Mini-ITX Embedded Motherboard with 2nd/3rd Generation Intel® Core™ i7/i5/i3 Processor



## Features

- Socket 1155 for 2nd/3rd Generation Intel® Core™ i7/i5/i3 Processor
- Intel® B75 Express Chipset
- DDR3 1600/1333 MHz DIMM x 2, Up to 16 GB
- Dual Independent Display:  
VGA, LVDS, HDMI (Dual HDMI Optional for Supporting Three Independent Display)
- Realtek RTL8111F, Gigabit Ethernet x 1
- SATA 6.0 Gb/s x 1, USB 3.0 x 2, PCI-E3.0/2.0 [x16] x 1



## Rear Panel I/O Ports

USB	USB 3.0 x 2, USB 2.0 x 2
Display I/O	VGA x 1, HDMI x 2 (1 optional)
Audio I/O	Mic-in x 1, Line in x 1, Line-out x 1
LAN I/O	LAN (RJ-45) port x 1
Serial Port	RS-232 x 1
PS/2 Port	PS/2 Port (Keyboard & Mouse) x 2
Others	—

## Internal I/O Connectors

Storage	SATA3 (6.0Gb/s) connector x 1, SATA2 (3.0Gb/s) connector x 1
USB	USB port x 2, USB 2.0 connectors support additional x 4
Display I/O	LVDS x 1
Audio I/O	—
Serial Port	Boxer header for COM (RS-232) x 1
PS/2 Port	—
Parallel Port	—
DIO	8-bit Digital I/O interface (4-in /4-out) x 1
FAN	CPU Fan connector (4-pin) x 1, Chassis Fan connectors (4-pin) x 1
Power	24-pin EATX Power connector, 4-pin AUX 12V Power connector
Others	Front panel header x 1

## OS

OS Support	Windows® XP 32-bit, Windows® 7 32/64-bit, Linux Fedora
------------	--

## Specifications

System	
Processor	LGA1155 socket for 2nd/3rd Generation Intel® Core™ i7/ i5/ i3/ Pentium® / Celeron® Processor
Chipset	Intel® B75 Express Chipset
Memory	DDR3 1333/1600 MHz DIMM x 2, Up to 16GB, Non-ECC, Dual-channel memory architecture
Graphics	Intel® HD Graphics
I/O Chipset	ITE 8728F
Ethernet	Realtek PCIe Gb LAN 8111F x 1, RJ-45 x 1
Audio	Realtek® ALC887
TPM	—
Expansion Slots	PCIe [x16] x 1
BIOS	64M bit Flash ROM x 2, AMI BIOS
H/W Monitor	Temperature Monitor on CPU/Chassis, Voltage Monitor on Vcore/5V/3.3V/12V, Fan Monitor on CPU/Chassis
WatchDog Timer	1~255 steps by software program
Smart Fan Control	CPU Fan/ Chassis Fan
Wake On LAN/PXE	Yes (WOL/PXE)
Power State	S1, S3, S4, S5
Graphics	
Graphics Chipset	Intel® HD Graphics
Graphics Multi Display	VGA+HDMI, LVDS+VGA, LVDS+HDMI, HDMI+HDMI, VGA+HDMI+HDMI (optional), LVDS+HDMI+HDMI (optional)
VGA	Up to 1920 x 1200 @60Hz
DVI	—
HDMI	Up to 1920 x 1080 @60Hz
Display Port	—
LVDS	Up to 1920 x 1200 @60 Hz, Dual Channel 18/24-bit, support EDID LVDS autodetect
eDP	—
Backlight Control	—
Environment & Power & ME	
Battery	Lithium battery
Power Requirement	24pin ATX connector x 1, 4pin ATX 12V Power connector x 1
Operating Temperature	32°F ~ 131°F (0°C ~ 55°C)
Storage Temperature	-40°F ~ 185°F (-40°C ~ 85°C)
Operating Humidity	0% ~ 90% R/H, non-condensing
Certificate	CE & FCC
Form Factor	Mini-ITX 6.7" x 6.7" (170mm x 170mm)
Weight	1.1 lb (0.5 Kg)
MTBF (Hours)	199,397

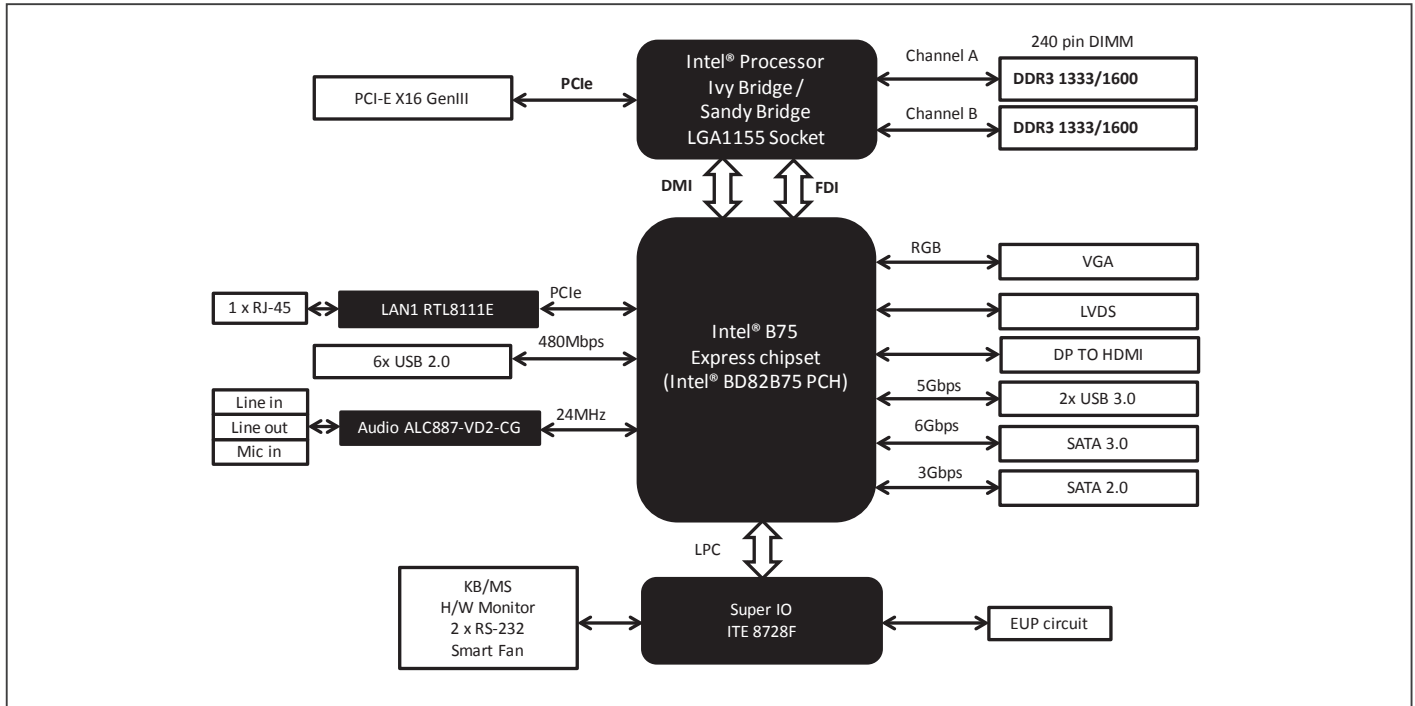
## Packing List

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

## Optional Accessories

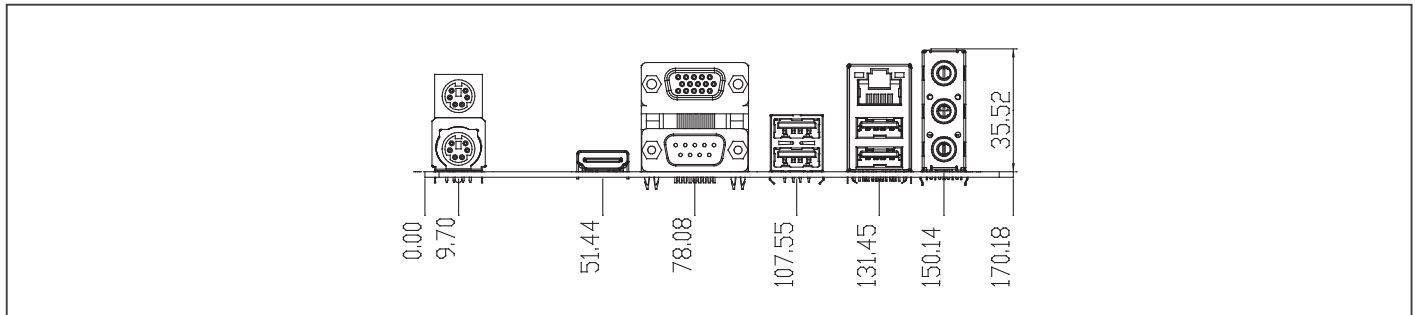
Part Number	Description
1759200172	CPU Cooler (2-Ball, Screw with Retention Plate)
175921156B	CPU Cooler (2-Ball, Push-pin Type)
1700190450	2U CPU Cooler (2-Ball, Push-pin Type)
1709070800	SATA Cable
1709100201	USB 2.0 Cable (10P, 200MM, p=2.00mm, w/ bracket)
1701100206	COM Cable (200MM, p=2.00mm)

## Block Diagram



## Dimension

Unit: mm



## Ordering Information

Part Number	CPU	RAM	Fan/Fanless	Display	Storage	LVDS	LAN	USB	RS-232	RS-232/422/485	Expansion Slot	Power	TPM	Temp.
EMB-B75B-A10	Socket	DIMM x 2	Fan	VGA, HDMI, LVDS	SATA3 x 1, SATA2 x 1	Dual Channel 18/24-bit	GbE x 1	USB 3.0 x 2, USB 2.0 x 6	2	—	PCI-E(x16) x 1	ATX	—	32°F ~ 131°F (0°C ~ 55°C)