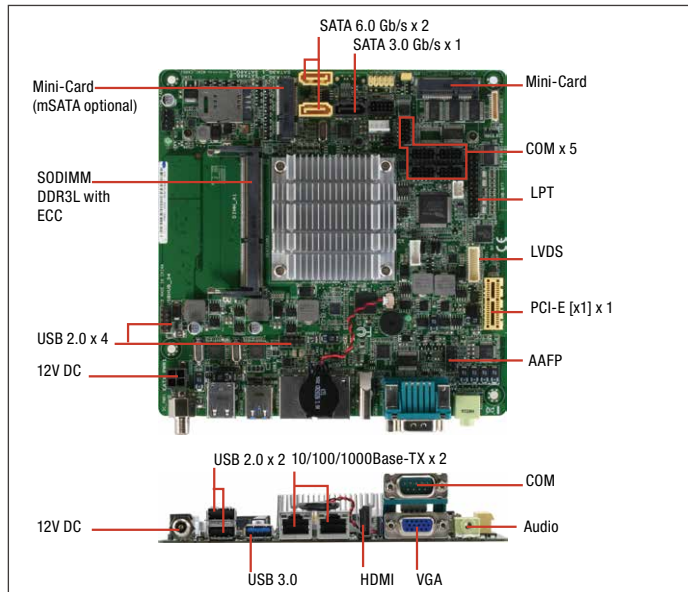


## Mini-ITX Embedded Motherboard with Intel® Atom™ E3845 Processor, SATA3 x 2, SATA2 x 2, USB x 8



## Specifications

System	
Processor	Intel® Atom™ E3845 Processor (4C @ 1.91 GHz CPU, 542/792 MHz GFX, 10W TDP)
Chipset	—
Memory	DDR3L 1333 MHz SODIMM x 1 up to 8 GB, ECC, un-buffered memory, flat type
Graphics	Intel® HD Graphics
I/O Chipset	Fintech 81866D
Ethernet	Realtek PCIe Gb LAN 8111G x 2
Audio	Realtek® ALC887 (colay ALC892/886)
TPM	Infineon SLB9635 TT 1.2 (default : No)
Expansion Slots	Full-size Mini-Card (mSATA default) (PCIe+USB optional) + SIM Card (default: No) x 1, Half-size Mini-Card (PCIe+USB) x 1, PCIe [x1] x 1
BIOS	64 M bit Flash ROM, AMI BIOS
H/W Monitor	Temperature Monitor on CPU/System, Voltage Monitor on Vcore/5V/3.3V/12V, Fan Monitor on CPU/Chassis
WatchDog Timer	1~255 step by software program
Smart Fan Control	Chassis Fan (fanless)
Wake On LAN/ PXE	Yes (WOL/PXE)
Power State	S3, S4, S5
Graphics	
Graphics Chipset	Intel® HD Graphics
Graphics Multi Display	VGA+LVDS, VGA+HDMI, LVDS+HDMI
VGA	Up to 1920 x 1200 @60 Hz
DVI	—
HDMI	Up to 1920 x 1200 @60 Hz
Display Port	—
LVDS	Up to 1920 x 1080 @60Hz, Dual Channel 18/24-bit (via CH7511)
eDP	—
Backlight Control	Voltage / PWM
Environment & Power & ME	
Battery	Lithium battery
Power Requirement	12VDC
Operating Temperature	32°F ~ 140°F (0°C ~ 60°C)
Storage Temperature	-40°F ~185°F (-40°C ~85°C)
Operating Humidity	0% ~ 90%RH, 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)	283,770
Rear Panel I/O Ports	
USB	USB 3.0/2.0 x 1, USB 2.0 x 2
Display I/O	VGA x 1, HDMI x 1
Audio I/O	Line-out x 1

## Features

- Intel® Atom™ E3845 Processor
- ECC SODIMM x 1, up to 8GB
- Dual Displays: LVDS x 1, VGA x 1, HDMI x 1
- SATA 6.0 Gb/s x 2, SATA 3.0 Gb/s x 2
- USB 3.0 x 1, USB 2.0 x 7
- Full-size Mini-Card x 1 + SIM Card (mSATA default) x 1, Half-size Mini-Card (PCIe + USB)x 1



LAN I/O	LAN (RJ-45) port x 2
Serial Port	COM (RS-232) x 1
PS/2 Port	—
Others	DC port (12V) Screw type x 1
Internal I/O Connectors	
Storage	SATA3 (6.0Gb/s) x 2, SATA2 (3.0Gb/s) x 2 (1 colay with mSATA), SATA power connector x 1, Full Size Mini-Card slot (mSATA) x 1
USB	USB 2.0 (2x5PIN, 2.54mm) x 2 ports support additional 4 USB, USB 2.0 (1x 5PIN, 2.0mm) x 1 port supports additional 1 USB
Display I/O	LVDS connector x 1, LVDS 3V /5V jumper x 1, LCD DC / PWM mode jumper x 1, LCD backlight connector (inverter) x 1, LCD backlight 12V /5V jumper x 1
Audio I/O	AAFP x 1
Serial Port	Boxer header for COM (RS-232) x 4, Boxer header for COM (RS-232/422/485) x 1
PS/2 Port	PS/2 Keyboard Mouse 6 PIN Connector x 1
Parallel Port	SPP/EPP Mode
DIO	DIO (4in/4out) x 1
FAN	Chassis Fan connector x 1
Power	12V AUX Power Connector x 1, AT/ATX mode select jumper (default:No) x 1
Others	Half-size Mini-Card (PCIe + USB) x 1, PCIe [x1] x 1, SIM Card Socket (default : No) x 1, LPT PIN header x 1, Front Panel connector x 1, CMOS jumper x 1
OS	
OS Support	Windows® 7 32/64-bit, Windows® 8.1 32/64-bit, Linux Fedora

## Packing List

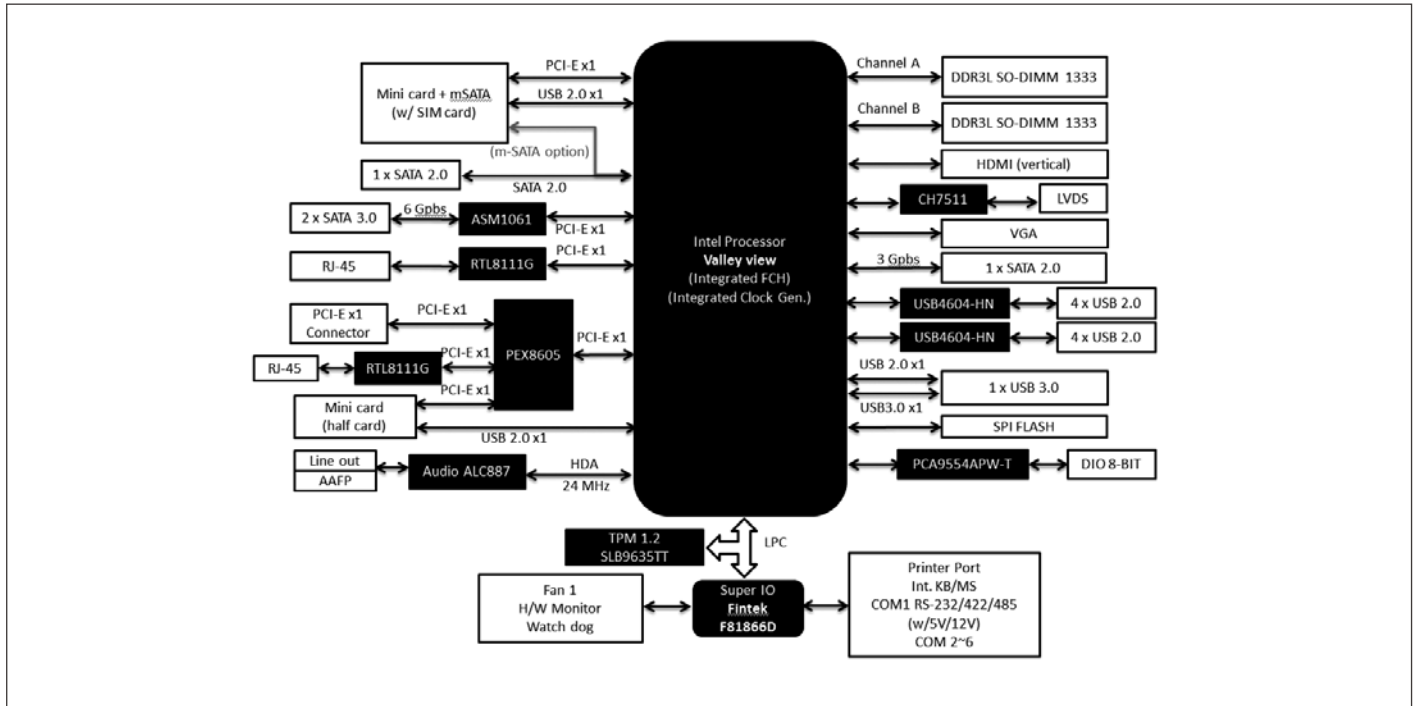
- SATA Cable
- SATA Power Cable
- I/O Shield
- Heatsink
- Product CD
- EMB-BT7

## Optional Accessories

Part Number	Description
1709100330	USB 2.0 Cable (9P, 330MM, p=2.54mm, w/ bracket)
1709050201	USB 2.0 Cable (5P, 220MM, p=2.00mm)
1701260305	LPT Cable (25P, 270MM)
1757306007	Lockable Adapter 60W
1757908403	Lockable Adapter 84W
1701100206	COM Port Cable
1700060152	PS/2 cable (6P, 150mm, p=2.00mm)
170910020K	USB 2.0 Cable (9P, 200MM, p=2.54mm, w/o bracket)
1702150300	SATA Power Cable 4P, 2.54mm

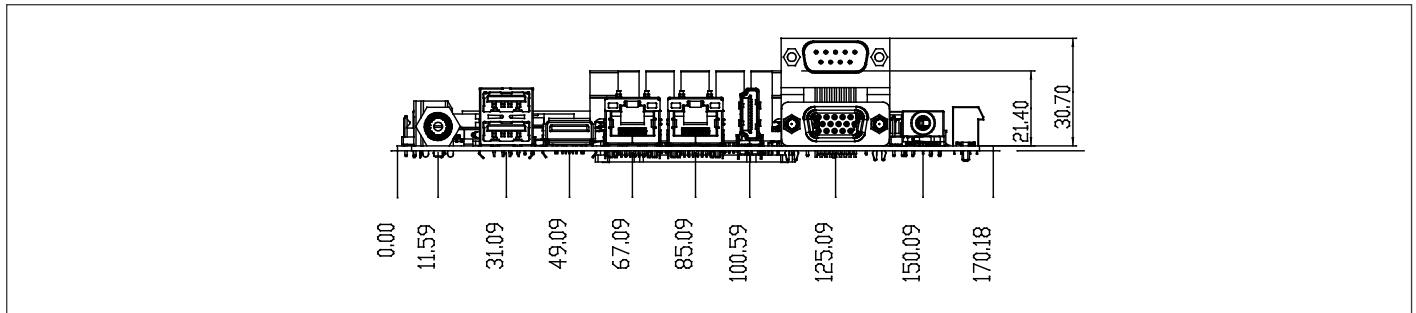
# EMB-BT7

## Block Diagram



## Dimension

Unit: mm



## Order Information

Part Number	CPU	RAM	Fan/ Fanless	Display	Storage	LVDS	LAN	USB	RS- 232	RS- 232/422/485	Expansion Slot	Power	TPM	Temp.
EMB-BT7-A11-3845-MS	E3845 D0	DDR3L-1333 x1 ECC Supported	Fanless	VGA, LVDS, HDMI	SATA2 x 1, SATA3 x 2, Full size, Mini-Card x 1 (mSATA)	Dual Channel 18/24-bit	GbE x 2	USB 3.0 x 1, USB 2.0 x 7	5	1	PCIe [x1] x 1, Half-size Mini-Card x 1 (PCIe [x1] x 1 & USB)	12V DC	No	32°F ~ 140°F (0°C ~ 60°C)