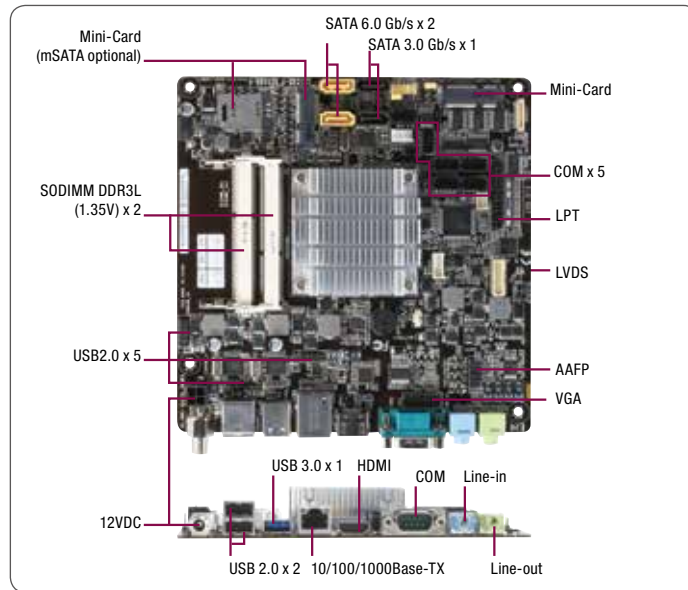


# EMB-BT4

Thin Mini-ITX Embedded Motherboard with Intel® Atom™ J1900/N2807 Processor,  
SATA 6.0 Gb/s x 2, SATA 3.0 Gb/s x 2, USB x 8



## Features

- Intel® Atom™ J1900/N2807 Processor
- DDR3 1333 MHz SODIMM x 2, Up to 8 GB, (J1900)
- DDR3 1333 MHz SODIMM x 1, Up to 4 GB, (N2807)
- 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 + SIM Card (mSATA Default) x 1,
- Half-size Mini-Card x 1
- 12VDC



## Specifications

System	
Form Factor	Thin Mini-ITX
Processor	Intel® Atom™ J1900 Processor (4C @ 2.00 GHz CPU, 688/854 MHz GFX, 10W TDP) Intel® Atom™ N2807 Processor (2C @ 1.58 GHz CPU, 313/750 MHz GFX, 4.3W TDP)
Chipset	—
Memory	DDR3L 1333 MHz SODIMM x 2 up to 8 GB (for J1900), DDR3L 1333 MHz SODIMM x 1 up to 4 GB (for N2807), Non-ECC, un-buffered memory, Dual-channel memory architecture flat type
Graphics	Intel® HD Graphics
I/O Chipset	Fintek 81866D
Ethernet	Realtek PCIe GB LAN 8111G x 1
Audio	Realtek® ALC887 (colay ALC892/886)
TPM	Infineon SLB9635 TT 1.2 (optional)
Expansion Interface	Full-size Mini-Card (PCIe +USB or mSATA) + SIM Card (mSATA default) x 1, Half-size Mini-Card (PCIe +USB) x 1
BIOS	64Mbit 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
Power	
Battery	Lithium battery
Power Requirement	12VDC
Power Consumption	—
Power Compliance	Compliant with EuP / ErP
Mechanical	
Form Factor	Mini-ITX Form Factor, 6.7" x 6.7" (170mmx170mm)
Gross Weight	1.1 lb (0.5 kg)
Environmental	
Operating temperature	32°F ~140°F (0°C ~60°C)
Operating Humidity	0% ~ 90% RH, non-condensing
Certificate	CE & FCC
MTBF	—
Display	
Chipset	Intel® HD 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
LVDS	Up to 1920 x 1080 @60 Hz, Dual Channel 18/24-bit (via CH7511)

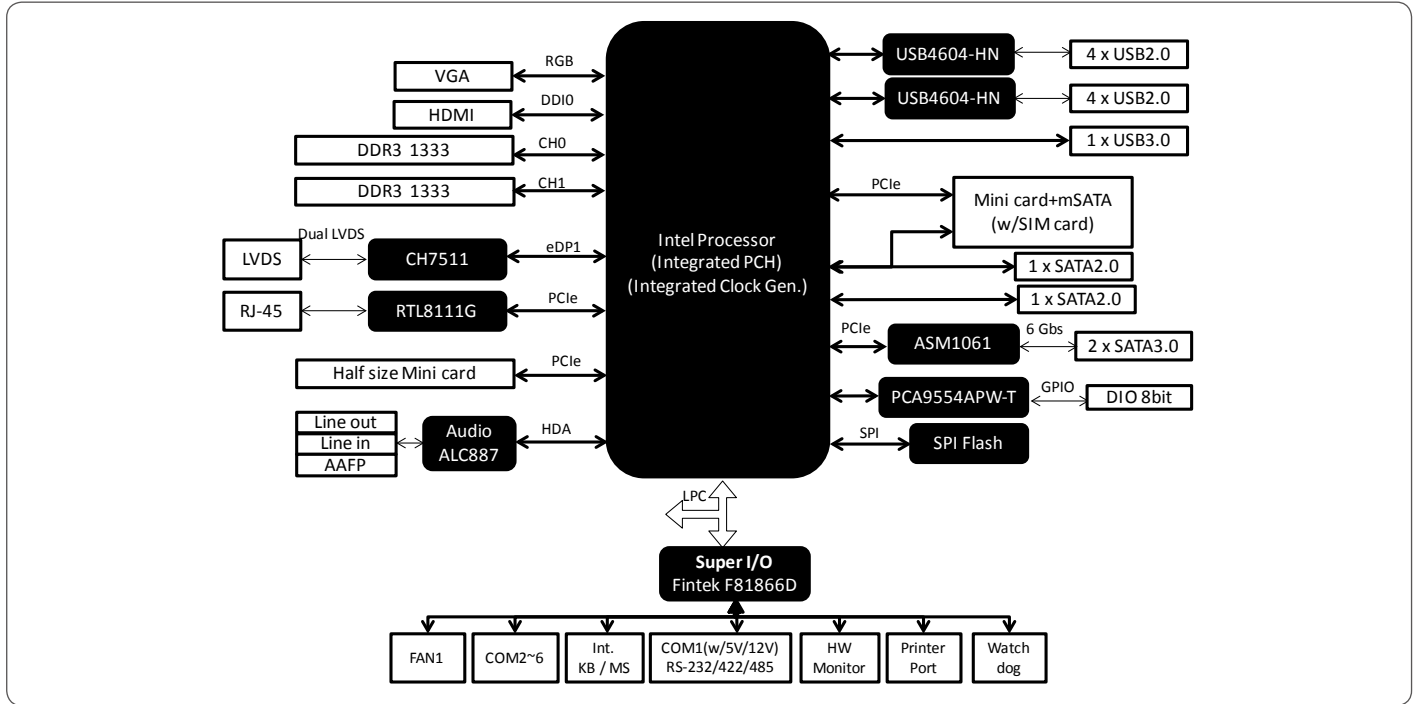
I/O	
Storage	SATA 6 Gb/s x 2, SATA 3 Gb/s x 2, SATA power connector x 1
USB	USB 2.0 x 7 (2 ports at back panel, 5 ports at mid-board), USB 3.0 x 1 (1 ports at back panel)
Display I/O	LVDS x 1, VGA x 1, HDMI x 1
Audio I/O	Line-in, Line-out
LAN I/O	RJ-45 x 1
Serial Port	RS-232 x 5, RS-232/422/485 x 1 supports 5V/12V/RI option (COM1)
Parallel Port	SPP/EPP Mode
PS/2 Port	PS/2 Keyboard / Mouse 6 PIN Connector x 1
DIO	8-bit Digital I/O interface (4-in /4-out)
FAN	Chassis Fan connector(s) (4-pin) x 1
Operating System	
MS Windows	Windows 7 32/64 bit, Windows 8.1 32/64 bit
Linux	Fedora

## Packing List

- SATA Cable
- SATA Power Cable
- Product CD
- I/O Shield
- EMB-BT4
- Heatsink

# EMB-BT4

## Block Diagram



## Dimension

Unit: mm

TBD

## 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-BT4-A10-1900-MS	J1900	SODIMM x2	Fanless	VGA, HDMI, LVDS	SATA2 x 1, SATA3 x 2	18/24b, 2CH	GbE x 1	USB3.0 x 1, USB2.0 x 7	5	1	Full size Mini-Card (PCIe + USB or mSATA) + SIM Card (mSATA default) x 1, Half-size Mini-Card (PCIe + USB)	12VDC	Onboard	0°C~60°C

## 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)