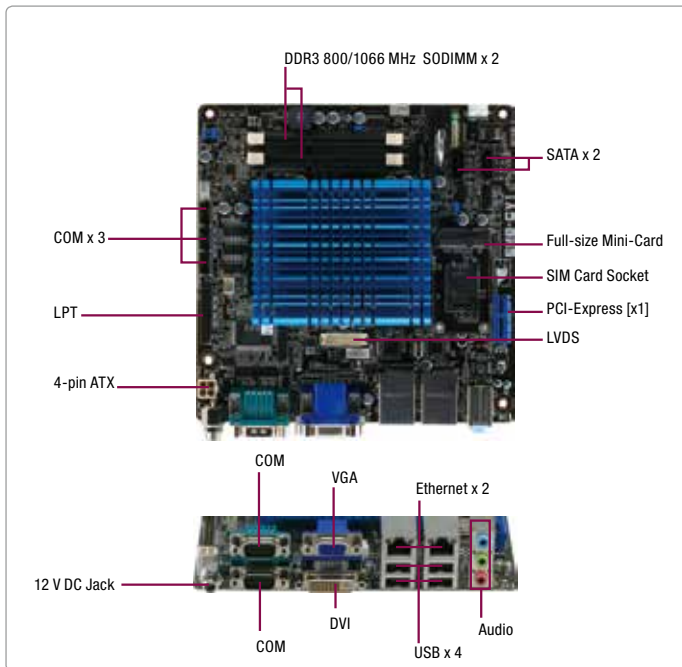


EMB-CV1

Mini-ITX Embedded Motherboard with Intel® Atom™ D2550 Processor



Features

- Onboard Intel® Atom™ D2550 Processor
- Intel® NM10
- DDR3 800/1066 MHz SODIMM x 2, Up to 4 GB
- VGA, 18/24-bit LVDS, DVI, Dual Independent Display
- Gigabit Ethernet x 2, Realtek 8111E
- VIA 1708S, 6-Channel High Definition Audio CODEC
- COM x 5 (RS-232 x 4, RS-232/422/485 x 1)
- PCI-Express [x1] x 1, Mini-Card x 1 (Full Size, mSATA Optional), SIM Slot
- DC 12V (Selectable AT/ATX Mode for Power On)



Specifications

System	
Form Factor	Mini-ITX
Processor	Integrated Intel® Atom™ processor D2550 Dual Core 1.86 GHz (TDP ≤ 10W)
System Memory	204-pin Dual-Channel DDR3 800/1066 MHz SODIMM x 2, up to 4 GB, non-ECC, un-buffered memory
Chipset	Intel® NM10
I/O Chipset	ITE IT8783F
Ethernet	Realtek® 8111E, Gigabit Ethernet, RJ-45 x 2
BIOS	AMI BIOS, 32 MB ROM
Wake On LAN	Yes
Watchdog Timer	Yes
TPM	—
H/W Status Monitoring	Temperature Monitor on CPU/Chassis Voltage Monitor on Vcore /5V/3.3V/12V Fan Monitor on CPU/Chassis
Expansion Interface	PCI-E [x1] x 1, Full-size Mini-Card (PCI x 1 + USB, mSATA optional) + SIM Card x 1
Battery	Lithium battery
Power Requirement	DC 12V, 4-pin ATX x 1
Power Consumption	Intel® Atom™ D2550, Transcend DDR3 1066 SODIMM, DC, 1.21A@+12V
Board Size	6.7" x 6.7" (170mm x 170mm)
Gross Weight	1.1 lb (0.5 kg)
Operation Temperature	32°F ~ 140°F (0°C ~ 60°C)
Storage Temperature	-40°F ~ 185°F (-40°C ~ 85°C)
Operation Humidity	0%~90%RH, non-condensing
MTBF (Hours)	178,000
Display	
Graphic	Intel® Graphics Media Accelerator
Memory	—
Resolution	Up to 1920 x 1200@60 Hz for VGA Up to 1440 x 900 @60 Hz for LVDS Up to 1920 x 1200@60 Hz for DVI
Output Interface	18/24-bit LVDS VGA x 1, DVI-D x 1 VGA+LVDS, VGA+DVI, LVDS+DVI
I/O	
Storage	SATA 3 Gb/s x 2 (IDE / AHCI) SATA power connector x 1 m-SATA x 1 (if use mSATA, one of SATA will be disable)
Serial Port	RS-232 x 4, RS-232/422/485 x 1 (RS-422/485 is selectable by jumper and BIOS)
Parallel Port	SPP/EPP/ECP

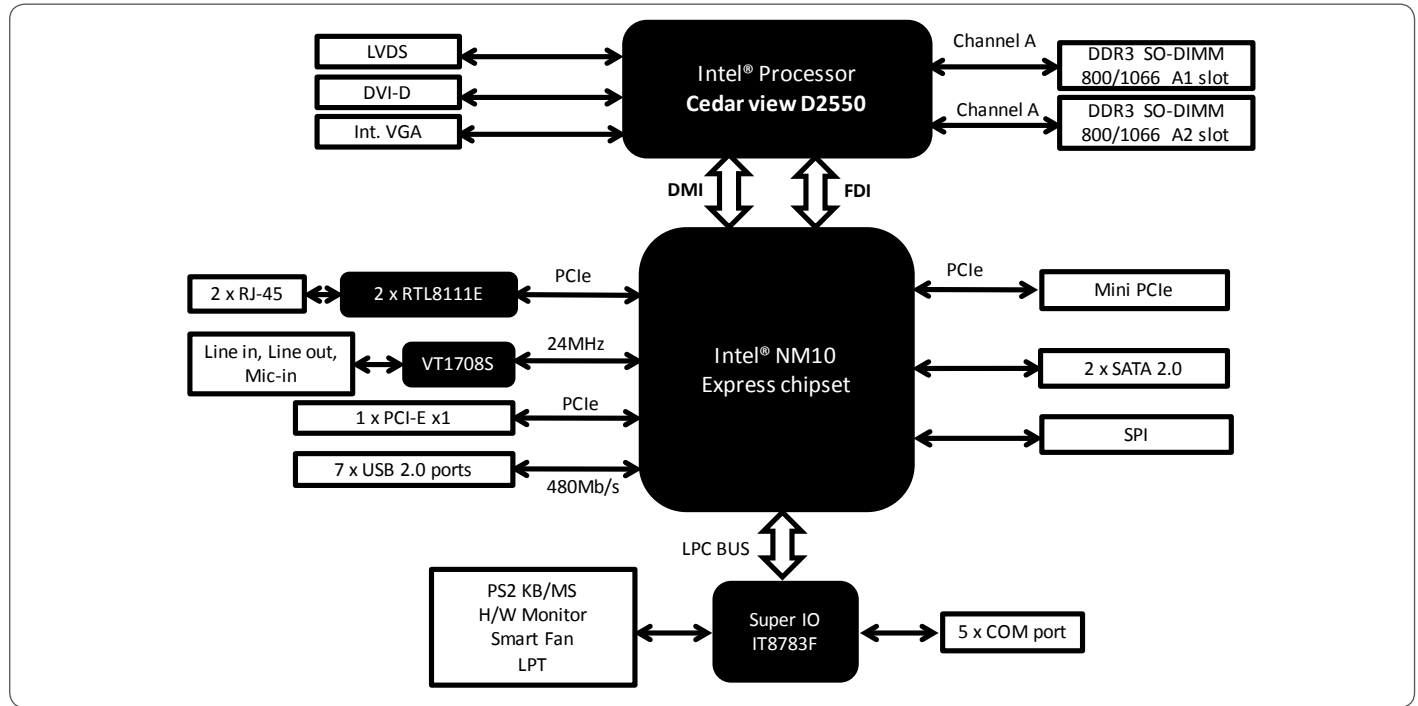
USB	USB 2.0 x 7, 3 ports for internal, 4 ports on back panel
Digital I/O	8-bit programmable (in/out programmable)
PS/2 Port	PS/2 Port Keyboard/Mouse 6-pin connector x 1
Audio	Line-in, Mic-in, Line-out

Packing List

- SATA Cable x 2
- SATA Power Cable
- Metal I/O Bracket
- Product CD
- EMB-CV1

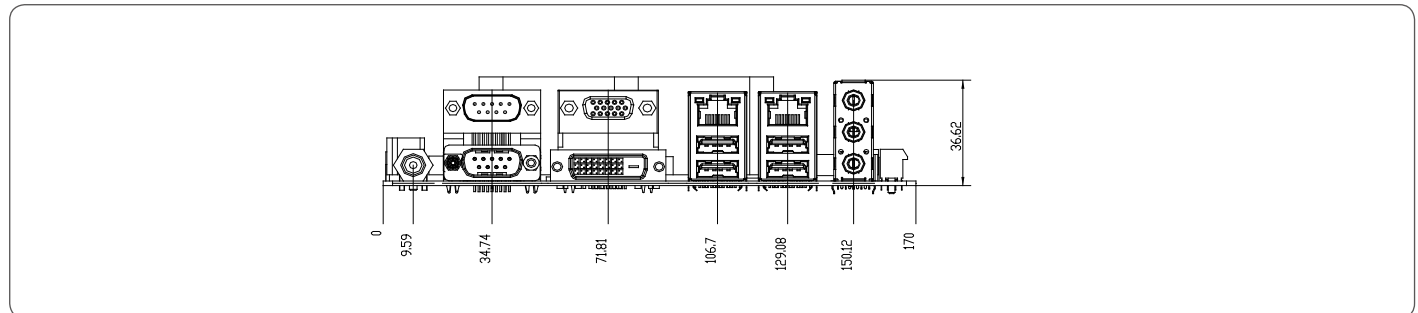
EMB-CV1

Block Diagram



Dimension

Unit: mm



Ordering Information

PN	CPU	RAM	Fan/Fanless	Display	Storage	LVDS	LAN	USB	RS-232	RS-232/422/485	Expansion Slot	Power	Temp.
EMB-CV1-A11	Intel® Atom™ D2550	SODIMM	Fanless	VGA, DVI-D, LVDS	SATA2 x 2	18/24b, 1CH	GbE x 2	7	4	1 (supports 5V/12V/RI option)	Full-size Mini-Card with SIM Card x 1, PCI-E[x1] x 1	+12V/DC	0°C ~60°C
EMB-CV1-A11-MS	Intel® Atom™ D2550	SODIMM	Fanless	VGA, DVI-D, LVDS	SATA2 x 1 mSATA x 1	18/24b, 1CH	GbE x 2	7	4	1 (supports 5V/12V/RI option)	Full-size Mini-Card for mSATA, PCI-E[x1] x 1	+12V/DC	0°C ~60°C

Note:
Intel® Atom™ Processor D2000 series and N2000 series (CV) do NOT support DMA function that may affect ECP mode of Parallel port.

Optional Accessories

- **1757306007**
Lockable Adapter 60W
- **1757908403**
Lockable Adapter 84W
- **1700060152**
PS/2 Cable
- **1701260305**
LPT Cable (25P, 270MM)
- **1701100206**
COM Cable (200MM, p=2.00mm)
- **1709100201**
USB 2.0 cable (10P, 200MM, p=2.00mm, w/bracket)
- **1709050201**
USB 2.0 Cable (5P, 220MM, p=2.00mm)
- **1709070800**
SATA Cable