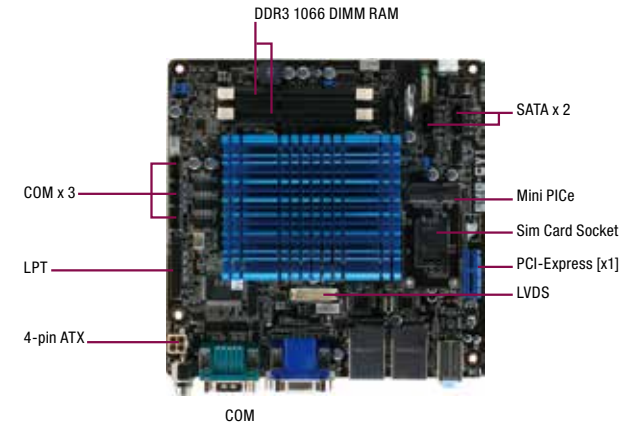
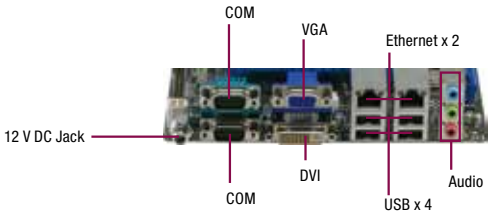
EMB-CV1

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





Features

- **Onboard Intel® Atom™ D2550 Processor**
- **Intel® NM10**
- **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], Mini Card x 1 (Full Size), 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 1.86GHz (TDP ≤ 10W)
System Memory	Dual-Channel with 204-pin SODIMM x 2 DDR3 800/1066 MHz, up to 4GB, 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, 32MB 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-E[x1] + USB) + SIM Card x 1
Battery	Lithium battery
Power Requirement	DC 12V, 4-pin ATX x 1
Power Consumption	Intel® Atom™ Processor 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@60Hz for VGA Up to 1440 x 900 @60Hz for LVDS Up to 1920 x 1200@60Hz 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 3Gb/s x 2 (IDE / AHCI) SATA power connector x 1 m-SATA x 1 (if use mSATA, one of SATA wil 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

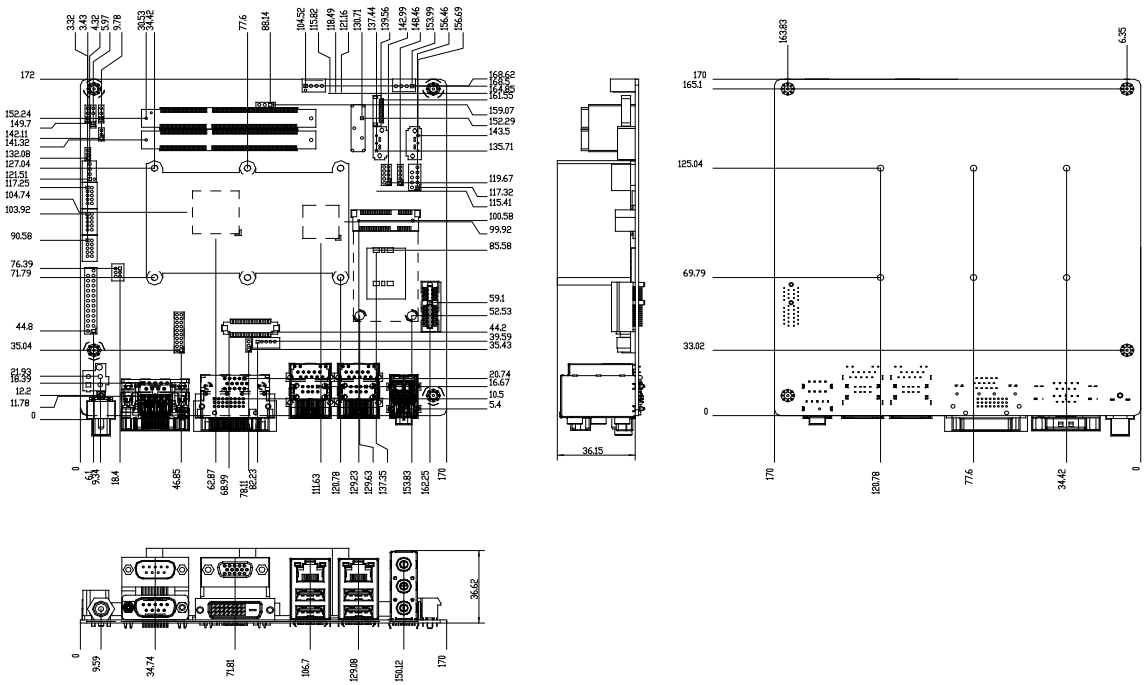
Packing List

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

EMB-CV1

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	Temp.
EMB-CV1-A10-01	Intel® Atom™ D2550	SODIMM	Fanless	VGA/DVI-D/ LVDS	SATA2 x 2	18/24-bit Single Channel	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-A10-MS	Intel® Atom™ D2550	SODIMM	Fanless	VGA/DVI-D/ LVDS	SATA2 x 1 m-SATA x 1	18/24-bit Single Channel	GbE x 2	7	4	1 (supports 5V/12V/RI option)	PCI-E [x1] x 1	+12V/DC	0°C ~ 60°C

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, 220MM, p=2.00mm)
- **170910020A**
  USB 2.0 Cable (5P, 220MM, p=2.00mm)
- **1709070800**
  SATA Cable