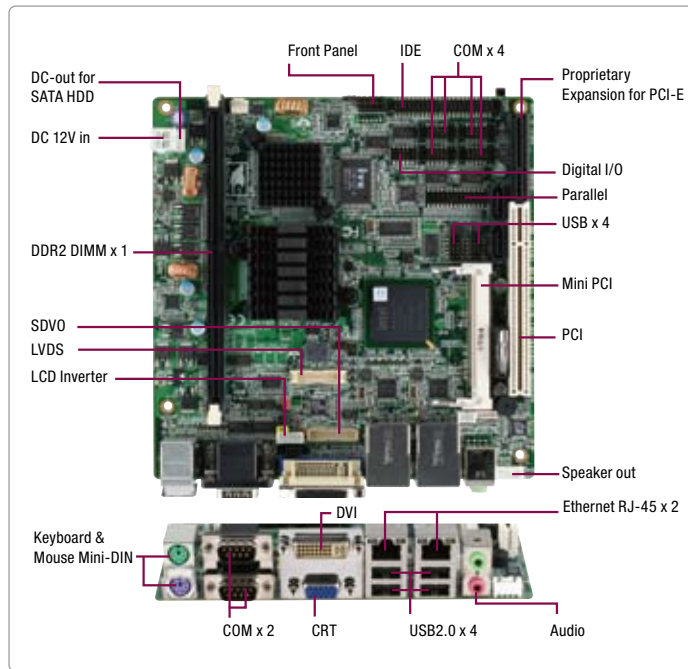


# EMB-9459T Rev. A

Embedded Motherboard With Onboard Intel® Atom™ N270 Processor



## Features

- Onboard Intel® Atom™ N270 Processor (Fanless)
- Intel® 945GSE + ICH7M
- DIMM DDR2 400/533, Max. 2 GB
- Gigabit Ethernet x 2
- CRT, 18-bit Dual-channel LVDS, DVI, SDVO Connector x 1
- HD 5.1CH Audio S/P DIF, Stereo Amplifier
- SATA 1.5Gb/s x 2, EIDE x 1 & CompactFlash™ Type 2 x 1
- USB2.0 x 8, COM x 6, Parallel x 1
- PCI x 1, Mini PCI x 1, PCI-Express [x1] (Through Riser Card)
- +12V Only Operation
- Onboard SATA Power Connector x 1
- Optional TPM



## Specifications

System	
Form Factor	Mini-ITX
Processor	Onboard Intel® Atom™ N270 Processor 1.6 GHz, FSB 533 MHz
System Memory	240-pin DDR2 DIMM x 1, Max. 2 GB (DDR2 400/533)
Chipset	Intel® 945GSE + ICH7M
I/O Chipset	ITE8712
Ethernet	Realtek 8111C for 10/100/1000Base-TX, RJ-45 x 2
BIOS	Award Plug & Play SPI BIOS - 2 MB ROM
Wake On LAN	Yes
Watchdog Timer	ITE.IT8712F/KX-L
H/W Status Monitoring	Supports power supply voltages and temperature monitoring
Expansion Interface	Mini PCI x 1, PCI-Express [x1] slot x 2 in PCI-E [x4] socket (through Riser Card)
Battery	Lithium battery
Power Requirement	DC 12V in
Power Consumption (Typical)	Intel® Atom™ N270, DDR2 667 512MB, 1.2A @+12V
Board Size	6.7" (L) x 6.7" (W) (170mm x 170mm)
Gross Weight	1.2 lb (0.5Kg)
Operating Temperature	32°F ~ 140°F (0°C ~ 60°C), -4°F ~ 158°F (-20°C ~ 70°C) for WITAS 1
Storage Temperature	-40°F ~ 176°F (-40°C ~ 80°C)
Operating Humidity	0% ~ 90% relative humidity, non-condensing
MTBF (Hours)	66,000
Display	
Chipset	Intel® 945GSE integrated
Memory	Shared system memory up to 224 MB / DVMT3.0
Resolutions	Up to 2048 x 1536 @ 32bpp colors for CRT Up to 1600 x 1200 @ 18bpp colors for LCD
LCD Interface	18-bit dual-channel LVDS, optional 24-bit dual-channel by SDVO module PER-V04B (DVI exclusive)
DVI	DVI-I x 1
I/O	
Storage	EIDE x 1 (UDMA-100 for one device), SATA 1.5Gb/s x 2, CompactFlash™ x 1
Serial Port	RS-232 x 5, RS-232/422/485 x 1
Parallel Port	SPP/ EPP/ ECP mode
USB	USB2.0 x 8
Digital I/O	Supports 8-bit (programmable)
IrDA	One IrDA Tx/Rx header
PS/2 Port	Keyboard x 1, Mouse x 1
Audio	Line-out, Mic-in (or Line-in) & CD-in, Stereo Amplifier included, HD 5.1 channel

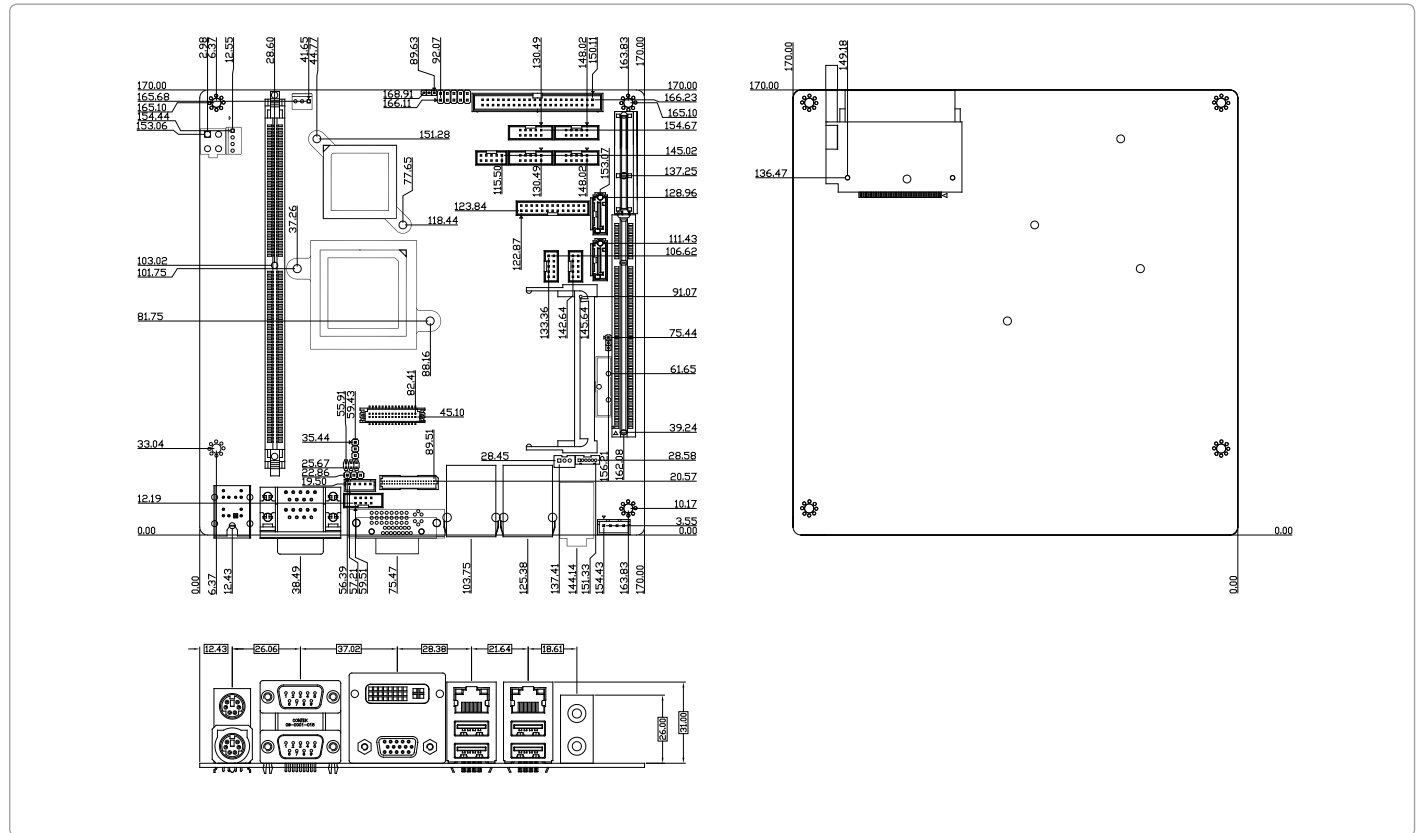
## Packing List

- 1709070500  
SATA Cable
- 1702151200  
Onboard SATA Power Cable
- 9657666600  
Jumper Cap
- M209459000  
Metal I/O Bracket
- Product CD
- EMB-9459T Rev. A

# EMB-9459T Rev. A

## Dimension

Unit: mm



## Ordering Information

Part Number	CPU	RAM	Fan/Fan-less	Display	Storage	LVDS	LAN	USB	RS-232	RS-232/422/485	Expansion Slot	Power	Temp.
TF-EMB-9459T-A10	Intel® Atom™ N270	DIMM	Fanless	VGA/LVDS/DVI-I	SATA2 x 2, EIDE x 1, CF x 1	18-bit Dual-channel	GbE x 2	8	5	1	PCI-E[x4] x 1, PCI-E[x1] x 1, Mini PCI x 1	+12V/DC	0°C ~ 60°C
TF-EMB-9459T-A10-01	Intel® Atom™ N270	DIMM	Fanless	VGA/LVDS/SDVO	SATA2 x 2, EIDE x 1, CF x 1	18-bit Dual-channel	GbE x 2	8	5	1	PCI-E[x4] x 1, PCI-E[x1] x 1, Mini PCI x 1	+12V/DC	0°C ~ 60°C
TF-EMB-9459T-A10-02 (Bulk)	Intel® Atom™ N270	DIMM	Fanless	VGA/LVDS/DVI-I	SATA2 x 2, EIDE x 1, CF x 1	18-bit Dual-channel	GbE x 2	8	5	1	PCI-E[x4] x 1, PCI-E[x1] x 1, Mini PCI x 1	+12V/DC	0°C ~ 60°C
TF-EMB-9459T-A10-03 (Bulk)	Intel® Atom™ N270	DIMM	Fanless	VGA/LVDS/SDVO	SATA2 x 2, EIDE x 1, CF x 1	18-bit Dual-channel	GbE x 2	8	5	1	PCI-E[x4] x 1, PCI-E[x1] x 1, Mini PCI x 1	+12V/DC	0°C ~ 60°C
TF-EMB-9459T-A10-04 (Bulk)	Intel® Atom™ N270	DIMM	Fanless	VGA/LVDS	SATA2 x 2, EIDE x 1, CF x 1	18-bit Dual-channel	GbE x 2	8	5	1	PCI-E[x4] x 1, PCI-E[x1] x 1, Mini PCI x 1	+12V/DC	0°C ~ 60°C
TF-EMB-9459TW1-A10 (WITAS 1)	Intel® Atom™ N270	DIMM	Fanless	VGA/LVDS/DVI-I	SATA2 x 2, EIDE x 1, CF x 1	18-bit Dual-channel	GbE x 2	8	5	1	PCI-E[x4] x 1, PCI-E[x1] x 1, Mini PCI x 1	+12V/DC	WITAS 1 -20°C ~ 70°C
TF-EMB-9459TW1-A10-02 (WITAS 1) (Bulk)	Intel® Atom™ N270	DIMM	Fanless	VGA/LVDS/DVI-I	SATA2 x 2, EIDE x 1, CF x 1	18-bit Dual-channel	GbE x 2	8	5	1	PCI-E[x4] x 1, PCI-E[x1] x 1, Mini PCI x 1	+12V/DC	WITAS 1 -20°C ~ 70°C

## Optional Accessories

- **1701440500**  
IDE Cable, 44P, 2.54mm, 30+20 cm, IDC
- **1709100208**  
USB Cable
- **1701260200**  
Printer Cable
- **1701100206**  
COM Cable
- **1709030150**  
SPDIF Cable
- **1700060156**  
Audio Cable Support 5.1CH
- **TF-PER-R16P-A10**  
Riser Card, PCI + PCI-E [x4]
- **TF-PER-V04B-A10**  
SDVO to LVDS Module
- **TF-PER-1110-A10**  
Riser Card for PCI, 2-slot