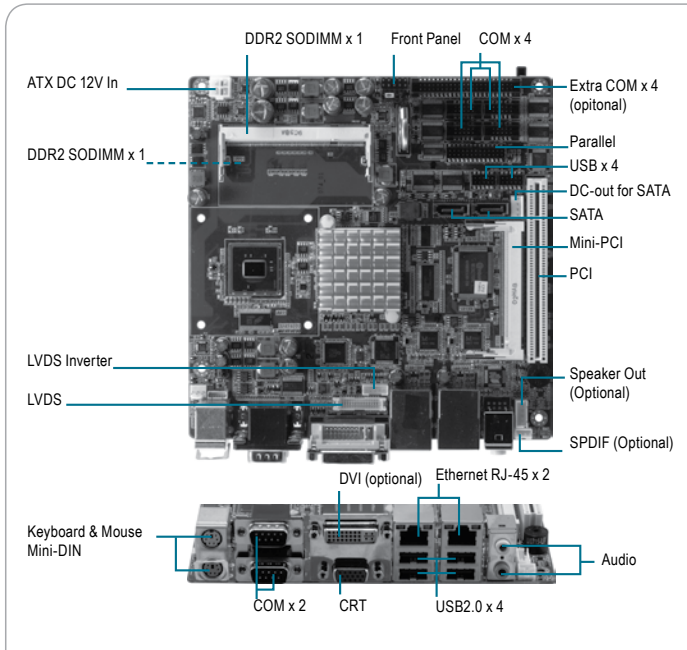


EMB-LN9T

Embedded Motherboard With Intel® Atom™ N450/D510 Processors

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Embedded Motherboards



Features

- Onboard Intel® Atom™ N450/D510 Processor (Fanless with N450)
- Intel® ICH8M
- DDR2 533/667 SODIMM x 2, Max. 4GB
- Dual Ethernet (Gigabit or 10/100Base-TX)
- VGA, 18-bit Single Channel LVDS or 24-bit Single Channel LVDS or DVI
- SATA 1.5Gb/s x 2, CompactFlash™ x 1
- USB2.0 x 8, COM x 6, LPT x 1
- PCI x 1, Mini-PCI x 1, Mini Card x 1
- DC 12 V Input With PS-ON Power Type
- Optional: TPM, Extra COM x 4 (Total 10 COM), Amplifier Speaker Out, SPDIF, RAID 0 & 1



Specifications

System	
Form Factor	Mini-ITX
Processor	Onboard Intel® Atom™ N450/D510 Processor (Fanless with N450)
System Memory	200-pin DDR2 SODIMM x 2, Max. 4GB (DDR2 667/800)
Chipset	Intel® ICH8M
I/O Chipset	Winbond W83627UHG
Ethernet	Realtek 8111C for 10/100/1000Base-TX or Realtek 8102E for 10/100Base-TX, RJ-45 x 2
BIOS	AMI Plug & Play SPI BIOS - 4MB ROM
Wake on LAN	Yes
Watchdog Timer	Generates a time-out system reset
H/W Status Monitoring	Supports power supply voltages and temperature monitoring
Expansion Interface	PCI x 1, Mini-PCI x 1, Mini Card x 1
Battery	Lithium battery
Power Requirement	DC-12 V input with PS-ON Power Type
Power Consumption (Typical)	CPU: Intel® Atom™ D510@1.66G, DDR2 667 2G 1.48A@+12V
Board Size	6.7" (L) x 6.7" (W) (170mm x 170mm)
Gross Weight	1.1 lb (0.5kg)
Operating Temperature	32°F ~ 140°F (0°C ~ 60°C)
Storage Temperature	-40°F ~ 176°F (-40°C ~ 80°C)
Operating Humidity	0% ~ 90% relative humidity, non-condensing
MTBF (Hours)	60,000
Display	
	Supports CRT/LCD, CRT/DVI simultaneous/ dual view display
Chipset	Intel® N450/ D510 integrated Integrates hardware MPEG2 decoder
Memory	Shared system memory up to 384 MB/ DVMT 4.0
Resolution	Up to 2048 x 1536 (QXGA) @ 60 Hz for CRT (D510) Up to 1400 x 1050 (SXGA) @ 60 Hz for CRT (N450) Up to 1366 x 768 or 1280 x 800 (WXGA) for LCD & DVI
LCD Interface	18-bit single channel or 24-bit single channel
DVI	Optional (disable LVDS function, or clone with 24-bit LVDS)
I/O	
Storage	SATA 1.5Gb/s x 2, CompactFlash™ x 1
Serial Port	RS-232 x 5, RS-232/422/485 x 1, optional extra RS-232 x 4
Parallel Port	SPP/EP/ECP mode
USB	USB2.0 x 8
PS/2 Port	Keyboard + Mouse x 1
Audio	Line-in, Mic-in, optional: Amplifier speaker out, Line-out, SPDIF

Packing List

- **1709070500**
SATA cable
- **1702151200**
Onboard SATA Power cable
- **9657666600**
Jumper Cap
- **M20945900**
Metal I/O Bracket
- **Quick Installation Guide**
- **Product CD**
- **EMB-LN9T with Active Cooler (D510 Version) or With Passive Cooler (N450 Version)**

Ordering Information

- **TF-EMB-LN9T-A10**
Mini-ITX, Intel® Atom™ D510, 1 DIM, Gigabit Ethernet, Audio, 2 COM, 2 USB, 1 SATA, DC12V, Rev. A1.0
- **TF-EMB-LN9T-A10-01**
Mini-ITX, Intel® Atom™ D510, 18-bit LVDS, 2 DIM, 2 Gigabit Ethernet, Audio, 6 COM, 8 USB, 2 SATA, CompactFlash™, Mini-PCI, PCI, Mini Card, DC12V, Rev. A1.0
- **TF-EMB-LN9T-A10-02**
Mini-ITX, Intel® Atom™ D510, 18-bit LVDS, 1 DIM, Gigabit Ethernet, Audio, 2 COM, 2 USB, 1 SATA, DC12V, Rev. A1.0, Bulk
- **TF-EMB-LN9T-A10-03**
Mini-ITX, Intel® Atom™ D510, 18-bit LVDS, 2 DIM, 2 Gigabit Ethernet, Audio, 6 COM, 8 USB, 2 SATA, CompactFlash™, Mini-PCI, PCI, Mini Card, DC12V, Rev. A1.0, Bulk
- **TF-EMB-LN9T-A10-04**
Mini-ITX, Intel® Atom™ D510, 18-bit LVDS, 2 DIM, 2 Gigabit Ethernet, Audio, 10 COM, 8 USB, 2 SATA, CompactFlash™, Mini-PCI, PCI, Mini Card, DC12V, Rev. A1.0
- **TF-EMB-LN9T-A10-05**
Mini-ITX, Intel® Atom™ N450, 18-bit LVDS, 2 DIM, 2 Gigabit Ethernet, 6 COM, 8 USB, 2 SATA, CompactFlash™, Mini-PCI, Mini Card, DC12V, Rev. A1.0, Fanless
- **TF-EMB-LN9T-A10-06**
Mini-ITX, Intel® Atom™ D510, DVI, 24-bit LVDS, 2 DIM, 2 Gigabit Ethernet, 6 COM, 8 USB, 2 SATA, CompactFlash™, Mini-PCI, Mini Card, DC12V, Rev. A1.0

Optional Accessories

- **1709100208**
USB Cable
- **1701260200**
Printer Cable
- **1701100206**
COM Cable
- **1709030150**
SPDIF Cable
- **TF-PER-R16P-A10**
Riser Card, PCI + PCI-E for Mini-ITX
- **TF-PER-V30C-A11**
Mini-PCI Single Channel Capture Module with Philips SAA7135
- **TF-PER-1110-A10**
Riser Card for PCI, 2-slot