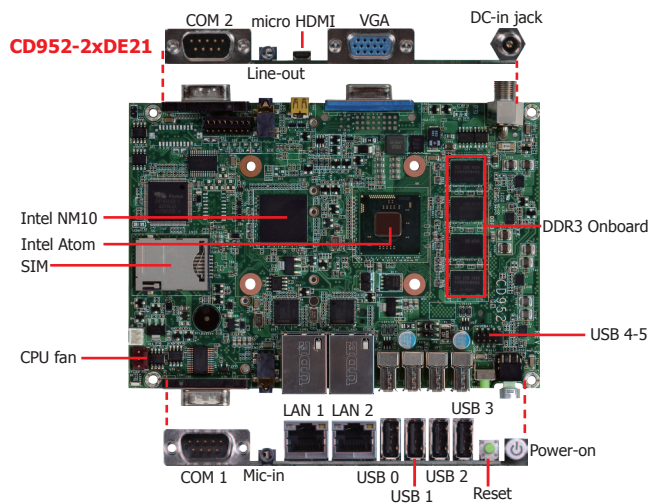
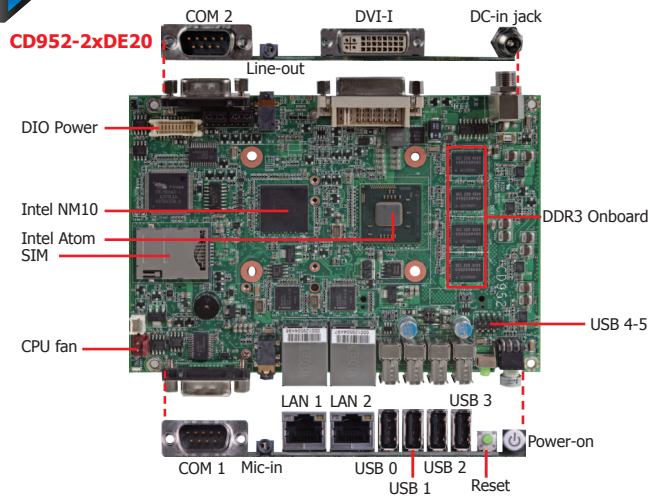




Intel® Atom™ D2550/N2800/N2600
3.5"

CD952 Series

Atom

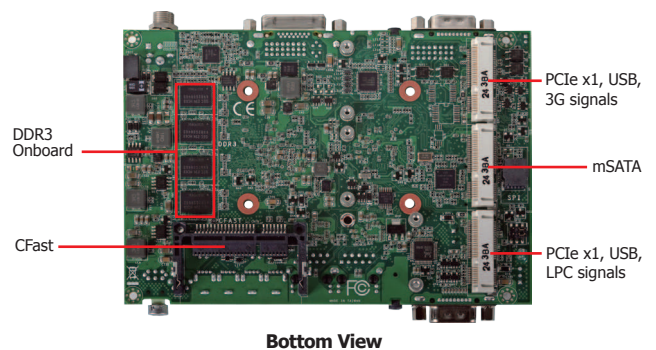


Features

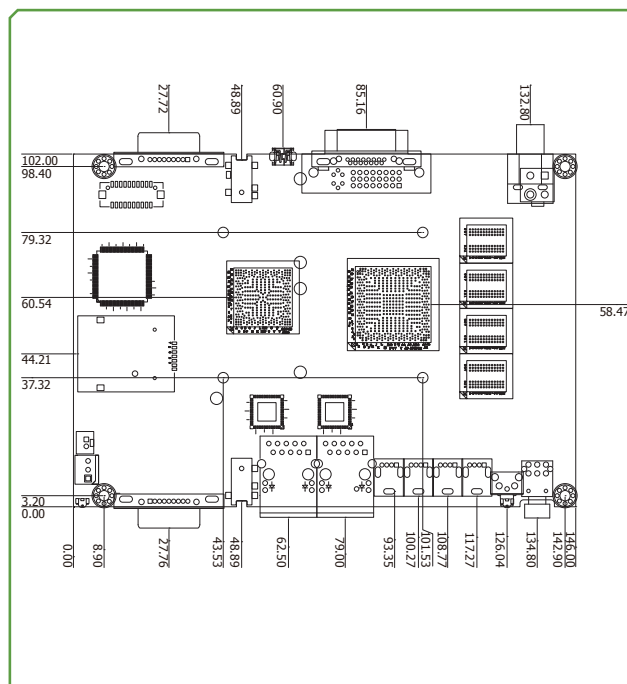
MEMORY	2GB DDR3 onboard
EXPANSION	3 Mini PCIe 1 SIM
DISPLAY OUTPUTS	1 DVI-I or 1 VGA + 1 micro HDMI
LAN	2 LAN
COM	2 COM
USB	4 USB 2.0
STORAGE	1 mSATA 1 CFast
DIO	8-bit or isolated 4-bit
DIMENSIONS	146mm x 102mm (5.75" x 4.02")



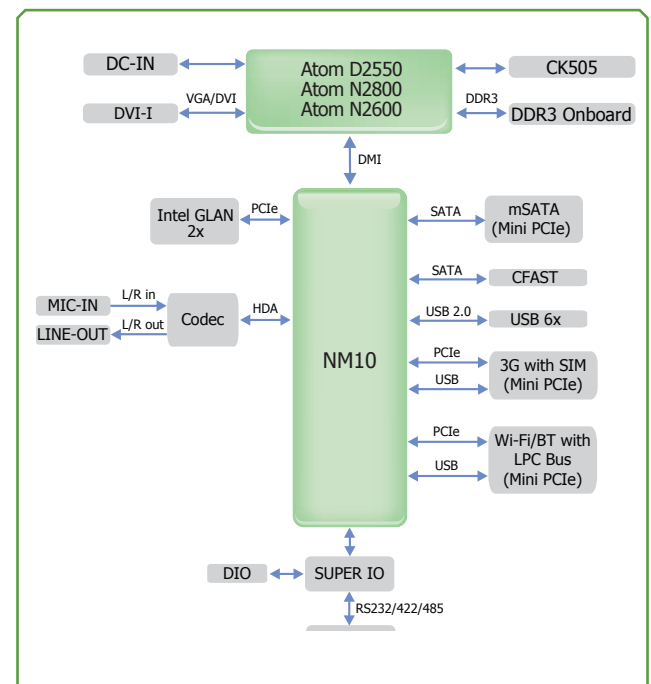
Fanless



Mechanical Drawing



Block Diagram



CD952 Series

► Specifications

PROCESSOR

- Intel® Atom™ D2550, 1.86GHz, 2x 512K L2, 10W TDP, dual-core
- Intel® Atom™ N2800, 1.86GHz, 2x 512K L2, 6.5W TDP, dual-core
- Intel® Atom™ N2600, 1.6GHz, 2x 512K L2, 3.5W TDP, dual-core

CHIPSET

- Intel® NM10 Express chipset

SYSTEM MEMORY

- 2GB DDR3 onboard (standard)
- Intel® Atom™ D2550/N2800 supports up to 4GB (option)

EXPANSION SLOTS

- 3 Mini PCIe slots
 - 2 slots for communication
 - One slot supports PCIe x1, USB, and LPC signals for Wi-Fi/ LPC
 - One slot supports PCIe x1, USB, and 3G signals for 3G/ GPRS
 - 1 slot for storage
 - Supports mSATA module
- 1 SIM card socket
- 1 CFast socket

ONBOARD GRAPHICS FEATURES

- Intel® GMA 3650 (Intel® Atom™ D2550/N2800)
- Intel® GMA 3600 (Intel® Atom™ N2600)
- VGA: resolution up to 1920x1600 @ 60Hz
- HDMI, DVI: resolution up to 1920x1200 @ 60Hz
- Smooth Video Playback
 - Supports hardware decoders (H.264, VC-1, MPEG-4) with Full HD 1080p video playback capability

ONBOARD AUDIO FEATURES

- Realtek® ALC886 7.1-channel High Definition Audio
- 1 line-out and 1 mic-in

ONBOARD LAN FEATURES

- 2 Intel® WG82574L Gigabit Ethernet Controllers
- Integrated 10/100/1000 transceiver
- Fully compliant with IEEE 802.3, IEEE 802.3u, IEEE 802.3ab

COM

- 2 DB-9 ports
 - 1 DB-9 port supports RS232/422/485 COM port
 - 1 DB-9 port supports RS232/422/485 COM or isolated 2-bit In and 2-bit Out DIO
- Supports RS485 auto direction control

STORAGE

- 1 mSATA module via a Mini PCIe slot
- 1 CFast socket

DIO

- 1 isolated 2-bit In and 2-bit Out DIO via the DB-9 port (signal+power)
- 1 8-pin DIO (4-bit In and 4-bit Out) connector

FRONT I/O PORTS

- 1 DB-9 RS232/422/485 COM
- 1 mic-in
- 2 LAN
- 4 USB 2.0 (Type A)
- 1 CFast socket
- 1 reset switch connector
- 1 power button with LED connector

► Ordering Information

Model Name	Part Number	Description
CD952-25DB20	770-CD9521-9B0G	With heat sink, Intel® Atom™ D2550, 1 DVI-I, 2 COM, onboard DDR3 2G, RoHS, 0°C~60°C
CD952-25DB21	770-CD9521-AB0G	With heat sink, Intel® Atom™ D2550, 1 VGA, 1 micro HDMI, 2 COM, onboard DDR3 2G, RoHS, 0°C~60°C
CD952-28DB20	770-CD9521-BB0G	With heat sink, Intel® Atom™ N2800, 1 DVI-I, 2 COM, onboard DDR3 2G, RoHS, 0°C~60°C
CD952-28DB21	770-CD9521-DB0G	With heat sink, Intel® Atom™ N2800, 1 VGA, 1 micro HDMI, 2 COM, onboard DDR3 2G, RoHS, 0°C~60°C
CD952-26DB20	770-CD9521-CB0G	With heat sink, Intel® Atom™ N2600, 1 DVI-I, 2 COM, onboard DDR3 2G, RoHS, 0°C~60°C
CD952-26DB21	770-CD9521-EB0G	With heat sink, Intel® Atom™ N2600, 1 VGA, 1 micro HDMI, 2 COM, onboard DDR3 2G, RoHS, 0°C~60°C

The following models will be available upon request. Please contact your sales representative for more information.

Model Name	Part Number	Description
CD952-25DE20	770-CD9521-0A0G	With heat sink, Intel® Atom™ D2550, 1 DVI-I, 2 COM, onboard DDR3 2G, RoHS, -20°C~70°C
CD952-25DE21	770-CD9521-1A0G	With heat sink, Intel® Atom™ D2550, 1 VGA, 1 micro HDMI, 2 COM, onboard DDR3 2G, RoHS, -20°C~70°C
CD952-28DE20	770-CD9521-8A0G	With heat sink, Intel® Atom™ N2800, 1 DVI-I, 2 COM, onboard DDR3 2G, RoHS, -20°C~70°C
CD952-28DE21	770-CD9521-3A0G	With heat sink, Intel® Atom™ N2800, 1 VGA, 1 micro HDMI, 2 COM, onboard DDR3 2G, RoHS, -20°C~70°C
CD952-26DE20	770-CD9521-6A0G	With heat sink, Intel® Atom™ N2600, 1 DVI-I, 2 COM, onboard DDR3 2G, RoHS, -20°C~70°C
CD952-26DE21	770-CD9521-2A0G	With heat sink, Intel® Atom™ N2600, 1 VGA, 1 micro HDMI, 2 COM, onboard DDR3 2G, RoHS, -20°C~70°C

► Packing List

- 1 CD952 board
- 1 DVD
- 1 QR (Quick Reference)

I/O CONNECTORS

- 1 connector for 2 external USB 2.0/1.1 ports
- 1 chassis intrusion connector
- 1 fan connector

BIOS

- AMI BIOS
- 16Mbit SPI BIOS

WATCHDOG TIMER

- Software programmable from 1 to 255 seconds

POWER

- 9~24V DC power input voltage

ENERGY EFFICIENT DESIGN

- Supports ACPI
- System Power Management
- Wake-On-Events include:
 - Wake-On-USB KB/Mouse
 - Wake-On-LAN
 - RTC timer to power-on the system
- CPU stopped clock control
- AC power failure recovery

DAMAGE FREE INTELLIGENCE

- Monitors CPU/system temperature and overheat alarm
- Monitors VCORE/5V/3.3V/V_DIMM/12V/5VSB voltages and failure alarm
- Monitors system fan speed and failure alarm
- Read back capability that displays temperature, voltage and fan speed

POWER CONSUMPTION

- 13.41W with N2800 at 1.86GHz and 1x 2GB DDR3 onboard

OS SUPPORT

- Windows XP Professional x86 & SP3 (32-bit)
- Windows 7 Ultimate x86 & SP1 (32-bit)

TEMPERATURE

- Operating
 - Standard: 0°C to 60°C
 - Option: -20°C to 70°C
- Storage: -20°C to 85°C

HUMIDITY

- 10% to 90%

DIMENSIONS

- 146mm (5.75") x 102mm (4.02")

Rear I/O Ports	CD952-2xDx20	CD952-2xDx21
9~24V DC-in jack	1	1
Line-out	1	1
DVI-I	1	0
VGA: DB-15 D-sub	0	1
micro HDMI	0	1
COM: DB-9	2	1*
DIO: DB-9 (signal+power)	0	1*

* Jumper selectable

► Optional Items

- USB port cable
- Power adapter (60W, 12V) : 671-106002-102G