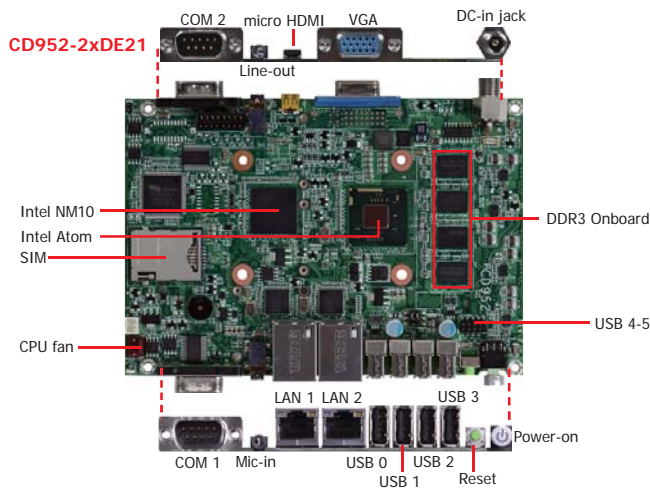
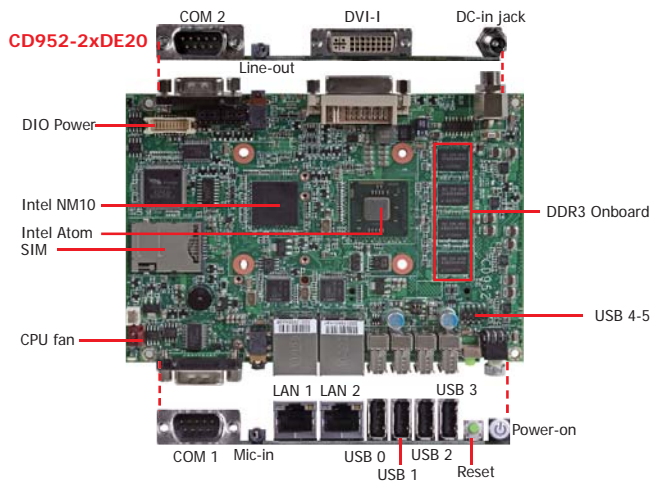
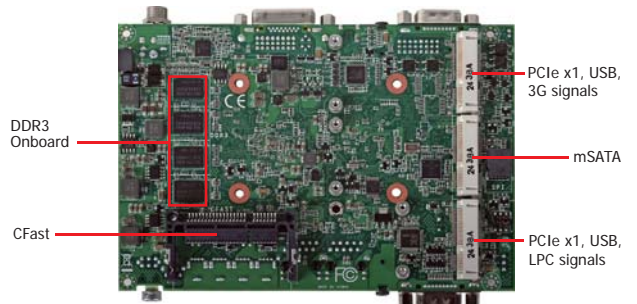


# DFI® CD952 Series 3.5"



## Features

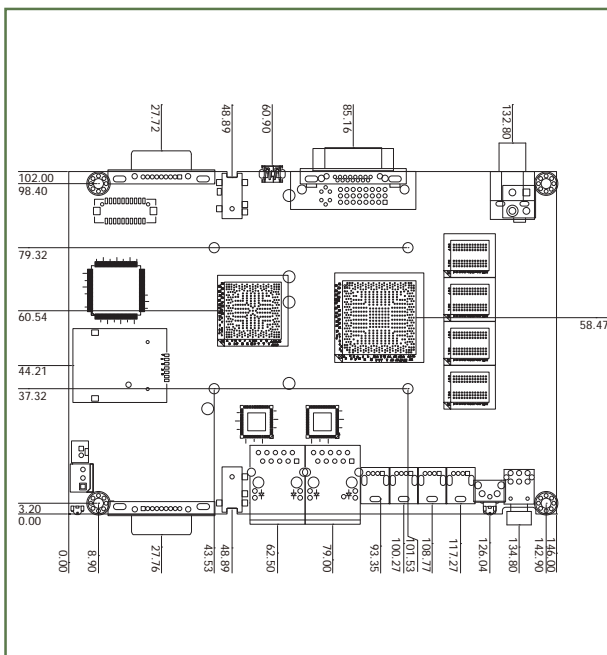
CHIPSET	Intel® NM10
CPU	Intel® Atom™ D2550/N2800/N2600
MEMORY	2GB DDR3 onboard
EXPANSION	3 Mini PCIe 1 SIM
DISPLAY OUTPUT	1 DVI-I or 1 VGA + 1 micro HDMI
LAN	2 Gigabit LAN ports
COM	2 COM
USB	4 USB 2.0
STORAGE	1 mSATA 1 CFAST
DIO	8-bit or isolated 4-bit
DIMENSIONS	146mm x 102mm (5.75" x 4.02")



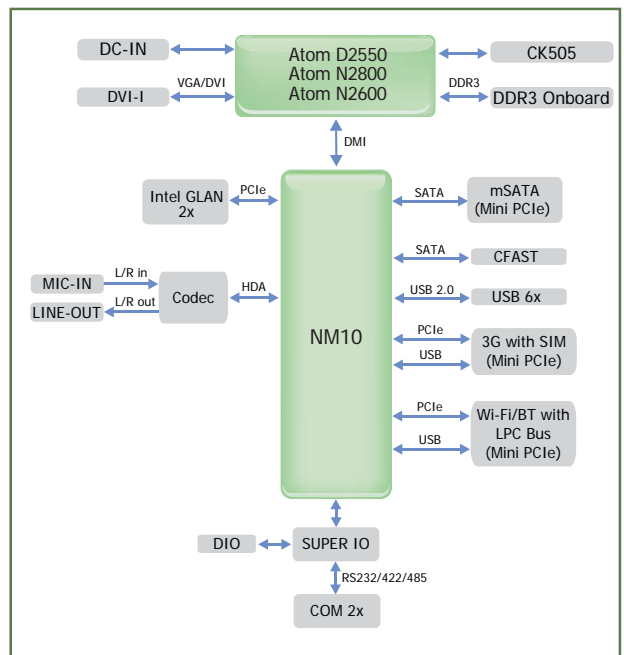
Bottom View

## Fanless

## Mechanical Drawing



## Block Diagram



Supports Intel® Atom™  
D2550/N2800/N2600

## Specifications

### PROCESSOR

- Intel® Atom™ D2550, 1.86GHz, 2x 512K L2, 10W TDP, dual-core
  - Cooling option: heatsink with cooling fan
- Intel® Atom™ N2800, 1.86GHz, 2x 512K L2, 6.5W TDP, dual-core
  - Cooling option: heatsink (fanless solution)
- Intel® Atom™ N2600, 1.6GHz, 2x 512K L2, 3.5W TDP, dual-core
  - Cooling option: heatsink (fanless solution)

### 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 module or LPC module
    - : One slot supports PCIe x1, USB, and 3G signals for 3G or GPRS module
  - 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)
- DVI-I port supports display resolution up to 1920x1200
- VGA port supports display resolution up to 1920x1200
- micro HDMI supports display resolution up to 1920x1080
- 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® 82574 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
- SATA 2.0 with data transfer rate up to 3Gb/s
- Integrated Advanced Host Controller Interface (AHCI) controller

### 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 PANEL 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

### REAR PANEL I/O PORTS

- 9~24V DC-in jack
- 1 DVI-I port (CD952-2xDE20)
- 1 VGA port (CD952-2xDE21)
- 1 micro HDMI port (CD952-2xDE21)
- 1 line-out
- 1 DB-9 port provides one of the following options:
  - 1 RS232/422/485 COM
  - 1 isolated 4-bit DIO (2-bit In and 2-bit Out)

### 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 V<sub>CORE</sub>/5V/3.3V/V<sub>DIMM</sub>/12V/5V<sub>SB</sub> 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

### TEMPERATURE

- Operating: -20°C to 70°C
- Storage: -20°C to 85°C

### HUMIDITY

- 10% to 90%

### DIMENSIONS

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

Rear I/O Ports	CD952-2xDE20	CD952-2xDE21
DVI	1	0
VGA	0	1
micro HDMI	0	1

## Packing List

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

## Optional Items

- USB port cable