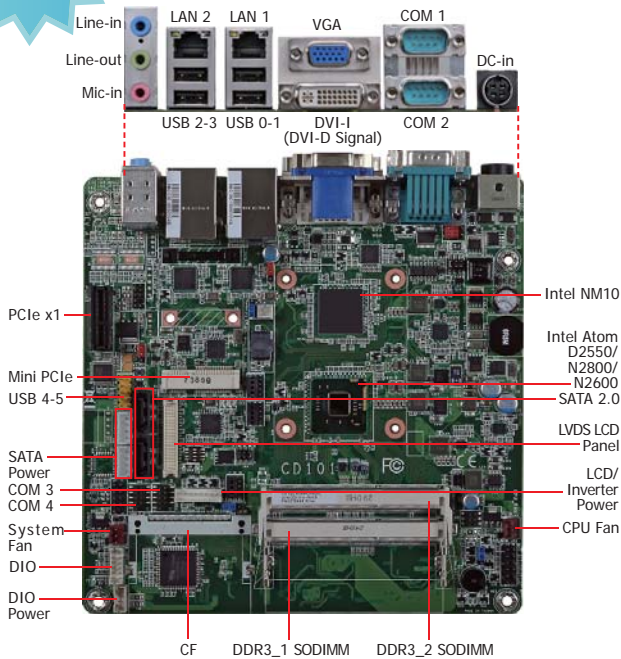


# DFI® CD101-N Series Mini-ITX

Intel® Atom™  
D2550/N2800/  
N2600

Atom

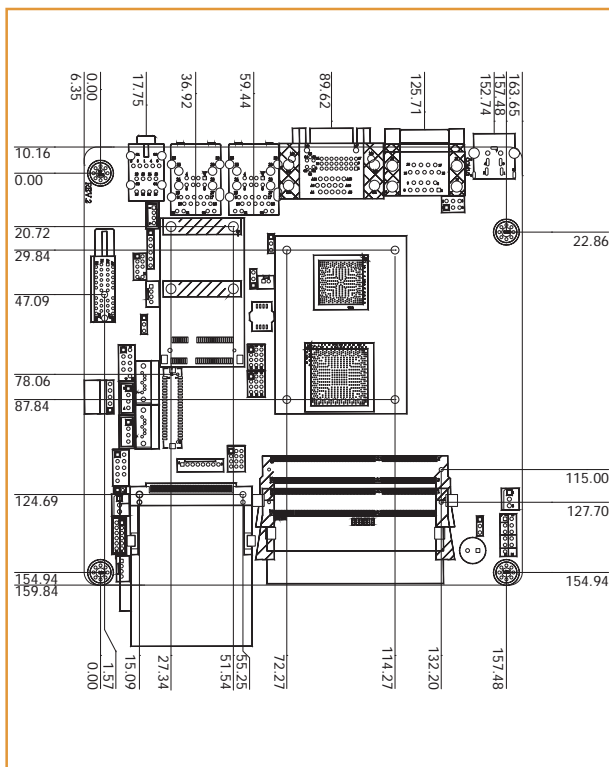


## Features

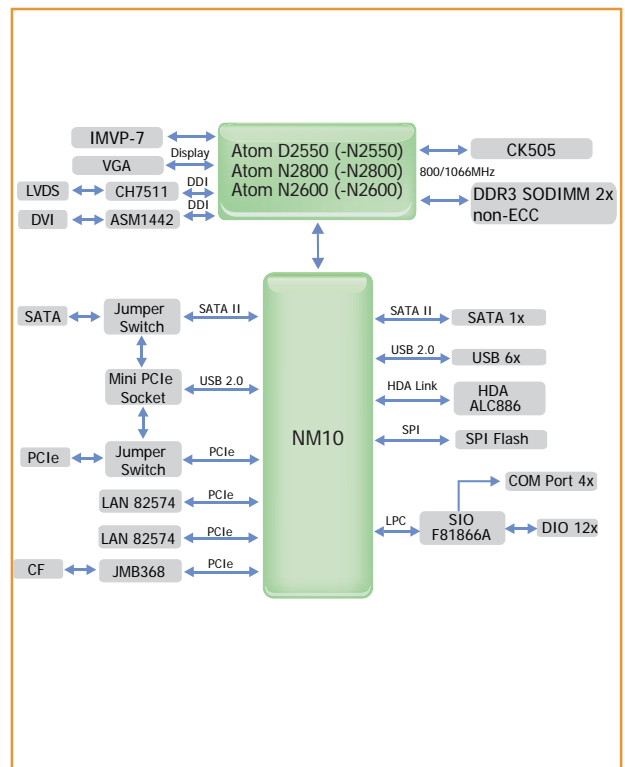
CHIPSET	Intel® NM10
CPU	Intel® Atom™ D2550 (-N2550) Intel® Atom™ N2800 (-N2800) Intel® Atom™ N2600 (-N2600)
MEMORY	2 DDR3 SODIMM up to 4GB (-N2550/-N2800) 1 DDR3 SODIMM up to 2GB (-N2600)
EXPANSION	1 PCIe x1, 1 Mini PCIe
DISPLAY OUTPUTS	1 DVI, 1 VGA, 1 LVDS
LAN	2 Gigabit LAN ports
COM	4 COM
USB	6 USB 2.0
STORAGE	2 SATA 2.0, 1 CF (option)
DIO	12-bit DIO



## Mechanical Drawing



## Block Diagram



## Specifications

### PROCESSOR

- CD101-N2550:
  - Intel<sup>®</sup> Atom<sup>™</sup> D2550, 1.86GHz, 2x 512K L2, 10W TDP, dual-core
  - Cooling: heatsink with cooling fan
- CD101-N2800:
  - Intel<sup>®</sup> Atom<sup>™</sup> N2800, 1.86GHz, 2x 512K L2, 6.5W TDP, dual-core
  - Cooling: heatsink (fanless solution)
- CD101-N2600:
  - Intel<sup>®</sup> Atom<sup>™</sup> N2600, 1.6GHz, 2x 512K L2, 3.5W TDP, dual-core
  - Cooling: heatsink (fanless solution)

### CHIPSET

- Intel<sup>®</sup> NM10 Express chipset

### SYSTEM MEMORY

- Supports DDR3 1066MHz (CD101-N2550/CD101-N2800)
- Supports DDR3 800MHz (CD101-N2600)
- Supports single channel memory interface
- Two 204-pin DDR3 SODIMM sockets support up to 4GB system memory (CD101-N2550/CD101-N2800)
- One 204-pin DDR3 SODIMM socket supports up to 2GB system memory (CD101-N2600)
- DRAM device technologies: 1Gb, 2Gb and 4Gb DDR3 DRAM technologies are supported for x8 and x16 devices, unbuffered, non-ECC

### EXPANSION SLOTS

- 1 PCIe x1 slot
- 1 Mini PCIe slot
  - Supports USB and PCIe signals
  - Supports half size and/or full size Mini PCIe card
- 1 CompactFlash socket (option)

### ONBOARD GRAPHICS FEATURES

- Intel<sup>®</sup> GMA 3650 (CD101-N2550/CD101-N2800)
- Intel<sup>®</sup> GMA 3600 (CD101-N2600)
- Supports DVI (DVI-D signal), VGA, and LVDS interfaces
- LVDS: 24-bit, dual channel
- DVI and VGA display resolution up to 1920x1200
- Supports Hardware H.264/AVC, MPEG-2 video decoder, VC-1, DirectX 9, 1080p decoder

### ONBOARD AUDIO FEATURES

- Realtek ALC886 7.1-channel High Definition Audio

### ONBOARD LAN FEATURES

- 2 Intel<sup>®</sup> 82574 Gigabit Ethernet Controllers
- Integrated 10/100/1000 transceiver
- Fully compliant with IEEE 802.3, IEEE 802.3u, IEEE 802.3ab

### SERIAL ATA (SATA) INTERFACE

- Supports 2 Serial ATA interfaces
- SATA 2.0 with data transfer rate up to 3Gb/s
- Integrated Advanced Host Controller Interface (AHCI) controller

### REAR PANEL I/O PORTS

- 1 4-pin DC-in 9-24V jack or 4-pin ATX 9-24V power connector (optional)
- 1 DVI-I port (DVI-D signal)
- 1 VGA port
- 2 DB-9 serial ports
  - 1 RS232/422/485 (RS232 and/or Power)
  - 1 RS232
- 2 LAN ports
- 4 USB 2.0/1.1 ports
- Mic-in, Line-in, Line-out jacks

### I/O CONNECTORS

- 1 connector for 2 external USB 2.0/1.1 ports
- 2 connectors for 2 external RS232 serial ports
- 1 LVDS LCD panel connector
- 1 LCD/inverter power connector
- 1 12-bit Digital I/O connector
- 1 Digital I/O power connector
- 1 front audio connector for line-out and mic-in jacks
- 2 SATA 2.0 ports
- 2 SATA power connectors
- 1 chassis intrusion connector
- 1 front panel connector
- 2 fan connectors

### BIOS

- AMI BIOS
  - 16Mbit SPI BIOS

### ENERGY EFFICIENT DESIGN

- ACPI v3.0 specification
- System Power Management
- Wake-On-Events include:
  - Wake-On-USB KB/Mouse
  - Wake-On-LAN
  - RTC timer to power-on the system
- AC power failure recovery

### DAMAGE FREE INTELLIGENCE

- Monitors CPU/system temperature and overheat alarm
- Monitors VCore/VGFX/1.05V/3.3V/5VSB/3VSB/VBAT voltages and failure alarm
- Monitors CPU/system fan speed and failure alarm
- Read back capability that displays temperature, voltage and fan speed
- Watchdog timer function
  - Watchdog timeout programmable via software from 1 to 255 seconds

### POWER CONSUMPTION

- 21.6W with D2550 at 1.86GHz and 2x 2GB DDR3 SODIMM
- 19.104W with N2800 at 1.86GHz and 2x 2GB DDR3 SODIMM
- 16.92W with N2600 at 1.60GHz and 1x 2GB DDR3 SODIMM

### TEMPERATURE

- Operating: 0°C to 60°C
- Storage: -20°C to 85°C

### HUMIDITY

- 10% to 90%

### DIMENSIONS

- Mini-ITX form factor
- 170mm (6.7") x 170mm (6.7")

### CERTIFICATION

- CE
- FCC Class B
- RoHS

## Packing List

- 1 CD101-N motherboard
- 1 Serial ATA data with power cable
- 1 I/O shield
- 1 QR (Quick Reference)
- 1 DVD

## Optional Items

- USB port cable
- Serial ATA data cable
- Serial ATA power cable
- COM port cable
- I/O shield
- Power adapter: 671-106004-000G