



# CR101-D Mini-ITX **DFI**

## Specifications

### PROCESSOR

- Socket G2 988B for:
  - 3rd Generation Intel® Core™ processors (22nm process technology)
    - : Intel® Core™ i7-3610QE (6M Cache, up to 3.3 GHz); 45W
    - : Intel® Core™ i5-3610ME (3M Cache, up to 3.3 GHz); 35W
    - : Intel® Core™ i3-3120ME (3M Cache, 2.4 GHz); 35W
  - 2nd Generation Intel® Core™ processors (32nm process technology)
    - : Intel® Core™ i7-2710QE (6M Cache, up to 3.0 GHz); 45W
    - : Intel® Core™ i5-2510E (3M Cache, up to 3.1 GHz); 35W
    - : Intel® Core™ i3-2330E (3M Cache, 2.2 GHz); 35W
    - : Intel® Celeron® B810 (2M Cache, 1.6 GHz); 35W

### CHIPSET

- Intel® HM76 Express chipset

### SYSTEM MEMORY

- Two 204-pin DDR3 SODIMM sockets
- Supports DDR3 SODIMM

3rd Generation Processors	2nd Generation Processors
DDR3 1066/1333/1600MHz	DDR3 1066/1333MHz (i5/i3/Celeron)
	DDR3 1600MHz (i7)

- Supports DDR3L SODIMM
  - 1066/1333MHz when operating at 1.35V
  - 1066/1333/1600MHz when operating at 1.5V
- Supports dual channel memory interface
- Supports up to 16GB system memory
- DRAM device technologies: 1Gb, 2Gb and 4Gb DDR3 DRAM technologies are supported for x8 and x16 devices, unbuffered, non-ECC

### EXPANSION SLOTS

- 1 PCIe x16 slot
  - Supports Gen 3.0 (3rd generation processors)
  - Supports Gen 2.0 (2nd generation processors)
  - Configurations (supported only via a riser card):
    - : One x8 (GFX) and two x4 (I/O)
    - : Two x8 (GFX, I/O)
    - : One x16 (GFX, I/O)
- 1 Mini PCIe slot
  - Supports USB and PCIe signals
  - Supports half size card

### ONBOARD GRAPHICS FEATURES

- Intel® HD Graphics 4000
- Display ports: HDMI, DVI-I, and LVDS
- Dual independent display
- HDMI and DVI display resolution up to 1920x1200
- VGA display resolution up to 2048x1536 pixels with 32-bit color at 75Hz
- LVDS: Single Channel - 18/24-bit; Dual Channel: 36/48-bit
- Intel® Clear Video Technology
- DirectX Video Acceleration (DXVA) for accelerating video processing
  - Full AVC/VC1/MPEG2 HW Decode
- Supports DirectX 11/10.1/10/9 and OpenGL 3.0

### ONBOARD AUDIO FEATURES

- Realtek ALC886 5.1-channel High Definition Audio
- Audio outputs: Mic-in/Center+ Subwoofer, line-in/surround and line-out
- S/PDIF audio interface

### ONBOARD LAN FEATURES

- 2 Realtek RTL8111DL PCI Express Gigabit Ethernet controllers
- Integrated 10/100/1000 transceiver
- Fully compliant with IEEE 802.3, IEEE 802.3u, IEEE 802.3ab

### SERIAL ATA (SATA) INTERFACE

- 4 Serial ATA ports
  - 2 SATA 3.0 ports with data transfer rate up to 6Gb/s
  - 2 SATA 2.0 ports with data transfer rate up to 3Gb/s
- Integrated Advanced Host Controller Interface (AHCI) controller

### REAR PANEL I/O PORTS

- 1 12V DC-in
- 1 DB-9 serial port
  - Supports RS232/422/485 (RS232 and/or Power)
- 1 DVI-I port
- 1 HDMI port
- 2 RJ45 LAN ports
- 4 USB 3.0/2.0/1.1 ports
- Mic-in/Center+ Subwoofer, line-in/surround and line out jacks

### I/O CONNECTORS

- 2 connectors for 4 external USB 2.0/1.1 ports
- 1 connector for 1 RS232/422/485 serial port
- 1 LVDS LCD panel connector
- 1 LCD/inverter power connector
- 1 front audio connector for line-out and mic-in jacks
- 1 S/PDIF connector
- 4 Serial ATA ports
- 1 4-pin peripheral power connector
- 1 4-pin 12V power connector
- 1 chassis intrusion connector
- 1 front panel connector
- 3 fan connectors

### BIOS

- AMI BIOS
  - 64Mbit SPI BIOS

### ENERGY EFFICIENT DESIGN

- Supports ErP Lot6 power saving (optional)
- 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/1.05V/DDR/3.3V/5V/12V 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

### POWER CONSUMPTION

- 50.50 W with i7-3610QE at 2.1GHz and 2x 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")

## Packing List

- 1 CR101-D motherboard
- 2 USB port cables (with bracket)
- 2 Serial ATA data cables
- 1 COM port cable (with bracket)
- 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

## Assured Systems

Assured Systems is a leading technology company with over 1,500 regular clients in 80 countries, deploying over 85,000 systems to a diverse customer base in 12 years of business. We offer high-quality and innovative rugged computing, display, networking and data collection solutions to the embedded, industrial, and digital-out-of-home market sectors.

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