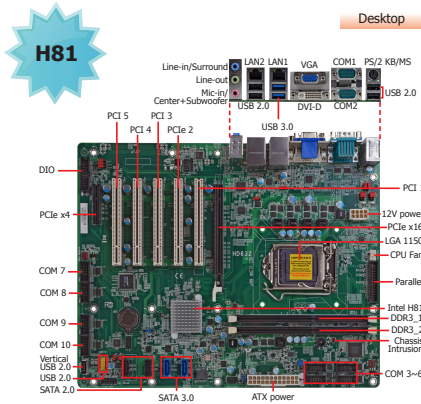


**DFI HD632-H81 ATX**

**HD632-H81 ATX DFI**



**Features**

- CHIPSET** Intel® H81
- CPU** 4th Generation Intel® Core™ processors
- MEMORY** 2 DDR3/DDR3L DIMM up to 16GB
- EXPANSION** 1 PCIe x16  
1 PCIe x4  
5 PCI
- DISPLAY OUTPUTS** 1 VGA, 1 DVI-D
- LAN** 2 Gigabit LAN ports
- COM** 10 COM
- USB** 9 USB: 2 USB 3.0, 7 USB 2.0
- STORAGE** 4 SATA: 2 SATA 3.0, 2 SATA 2.0
- PARALLEL** 1 Parallel
- DIO** 8-bit DIO



Vertical USB port for securing USB flash drive

**Specifications**

4th Generation Intel® Core™ Processors

- PROCESSOR**
- LGA 1150 socket for:
    - 4th Generation Intel® Core™ processors (22nm process technology)
      - : Intel® Core™ i3-4330 (3M Cache, 3.5 GHz); 54W
      - : Intel® Core™ i3-4330TE (3M Cache, up to 2.4 GHz); 35W
    - : Intel® Pentium® G3420 (3M Cache, 3.2 GHz); 54W
    - : Intel® Pentium® G3320TE (3M Cache, 2.3 GHz); 35W

- CHIPSET**
- Intel® H81 Express Chipset

- SYSTEM MEMORY**
- Two 240-pin DDR3/DDR3L DIMM sockets
  - Supports DDR3/DDR3L 1066/1333/1600MHz
  - 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 Gen 2 slot (PCIe 2.0)
  - 1 PCIe x4 Gen 2 slot (PCIe 2.0)
  - 5 PCI slots (PCI 2.3)

**ONBOARD GRAPHICS FEATURES**

- Intel® HD Graphics
- Display ports: VGA and DVI-D
- VGA and DVI-D supports up to 1920x1200 @ 60Hz resolution
- Supports 6 Graphics Execution Units (EUs)
- Intel® Clear Video Technology
- DirectX Video Acceleration (DXVA) support for accelerating video processing

**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 Intel® I210 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**

- 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

**TRUSTED PLATFORM MODULE (TPM) - optional**

- Provides a Trusted PC for secure transactions
- Provides software license protection, enforcement and password protection

- REAR PANEL I/O PORTS**
- 1 mini-DIN-6 port for PS/2 mouse/keyboard
  - 2 DB-9 RS232 serial ports (RS232 and/or power)
  - 1 VGA port
  - 1 DVI-D port
  - 2 RJ45 LAN ports
  - 2 USB 3.0/2.0/1.1 ports
  - 4 USB 2.0/1.1 ports
  - Line-in/Surround, Line out, Mic-in/Center+Subwoofer jacks

- I/O CONNECTORS**
- 1 connector for 2 external USB 2.0/1.1 ports
  - 1 vertical USB 2.0/1.1 port
  - 1 8-bit Digital I/O connector
  - 8 connectors for 8 external serial ports
    - 7 RS232 (4 are optional)
    - 1 RS422/485
  - 1 front audio connector for line-out and mic-in jacks
  - 1 S/PDIF connector
  - 1 parallel port
  - 4 Serial ATA ports
  - 1 24-pin ATX power connector
  - 1 8-pin 12V power connector
  - 1 chassis intrusion connector
  - 1 front panel connector
  - 3 fan connectors

- BIOS**
- AMI BIOS
  - 64Mbit SPI BIOS

- WATCHDOG TIMER**
- Software programmable from 1 to 255 seconds

**ENERGY EFFICIENT DESIGN**

- Supports ErP Lot6 power saving (optional)
- Supports ACPI
  - System Power Management
  - Wake-On-Events include:
    - Wake-On-PS/2 KB/Mouse
    - 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<sub>3.3V</sub>/V<sub>DIMM</sub>/12V/5VSB voltages and failure alarm
- Monitors CPU/system fan speed and failure alarm
- Read back capability that displays temperature, voltage and fan speed

**POWER CONSUMPTION**

- TBD

**OS SUPPORT**

- Windows XP Professional x86 & SP3 (32-bit)
- Windows XP Professional x64 & SP2 (64-bit)
- Windows 7 Ultimate x86 & SP1 (32-bit)
- Windows 7 Ultimate x64 & SP1 (64-bit)
- Windows 8 Enterprise x86 (32-bit)
- Windows 8 Enterprise x64 (64-bit)

**TEMPERATURE**

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

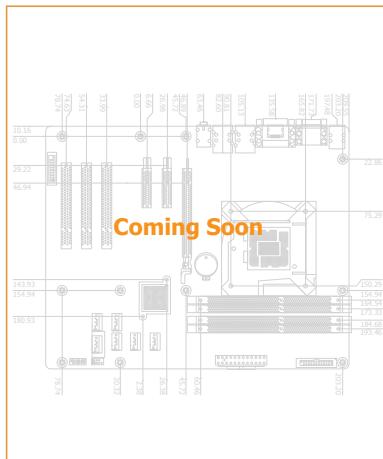
**HUMIDITY**

- 5% to 90%

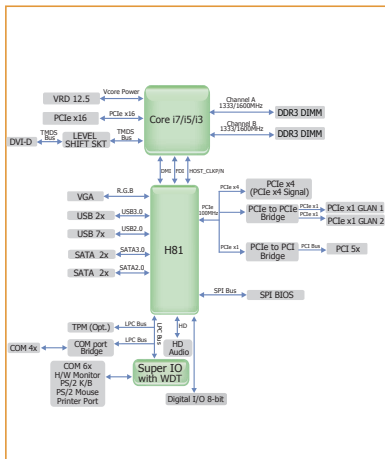
**DIMENSIONS**

- ATX form factor
- 305mm (12") x 244mm (9.6")

**Mechanical Drawing**



**Block Diagram**



**Packing List**

- 1 HD632 motherboard
- 1 Serial ATA data cable
- 1 I/O shield
- 1 DVD
- 1 QR (Quick Reference)

**Optional Items**

- USB port cable
- COM port cable
- Serial ATA data cable
- Serial ATA power 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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