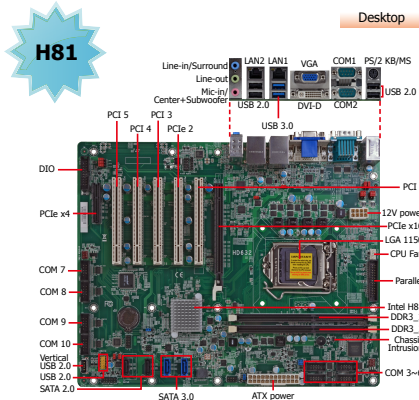


**DFI HD632-H81 ATX**

**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**

- 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**
  - Intel® I210 PCI Express Gigabit Ethernet controller
  - Intel® I217LM Gigabit Ethernet Phy
  - 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

**Packing List**

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

**4th Generation Intel® Core™ Processors**

- 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
  - 1 Digital I/O power 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 VCore/5V/3.3V/V\_DIMM/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

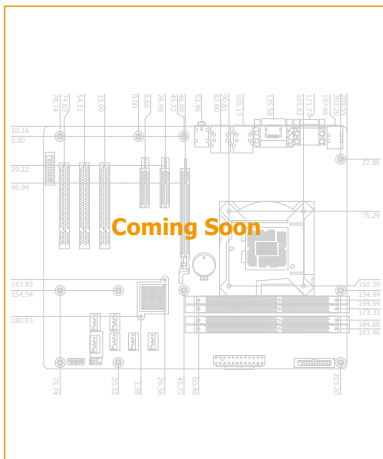
- HUMIDITY**
  - 5% to 90%

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

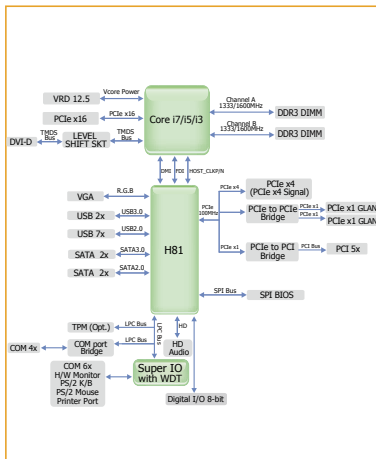
**Optional Items**

- USB port cable
- COM port cable
- Serial ATA data cable
- Serial ATA power cable
- I/O shield

**Mechanical Drawing**



**Block Diagram**



## 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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