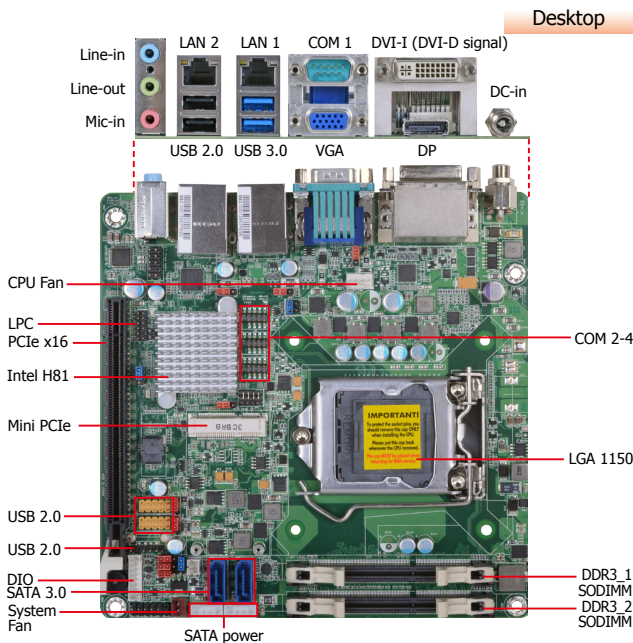


HD171/HD173-H81

Mini-ITX Board

► Features

MEMORY	2 DDR3 SODIMM up to 16GB
EXPANSION	1 PCIe x16 1 Mini PCIe
DISPLAY OUTPUTS	1 DP, 1 DVI-I (DVI-D signal), 1 VGA
LAN	2 LAN
COM	4 COM
USB	9 USB: 2 USB 3.0, 7 USB 2.0
STORAGE	2 SATA 3.0
DIO	8-bit DIO

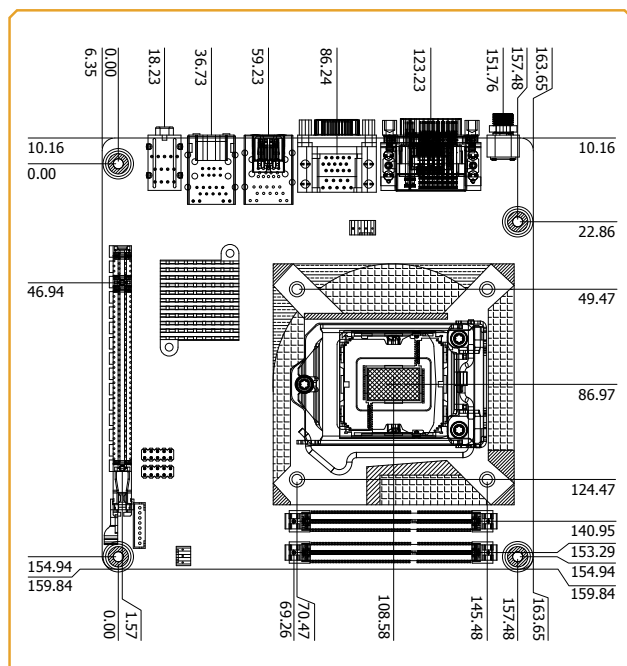


* The photos above refer to HD171-H81.

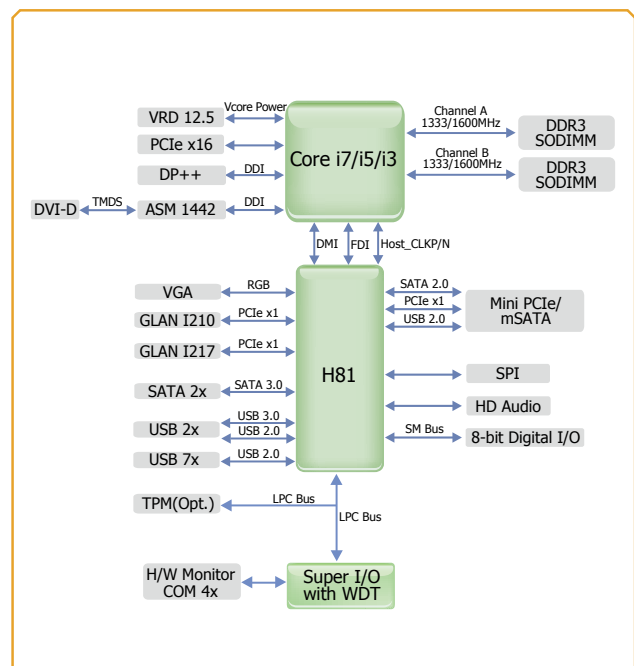


Model Name	Power	LAN	COM
HD171-H81N	12V DC-in	2	1 RS422/485, 3 RS232
HD173-H81N	19~24V DC-in	2	1 RS422/485, 3 RS232

► Mechanical Drawing



► Block Diagram



HD171/HD173-H81

Mini-ITX Board

Specifications * Optional and is not supported in standard model. Please contact your sales representative for more information.

PROCESSOR

- LGA 1150 socket for:
 - 4th Generation Intel® Core™ processors (22nm process technology)
 - : Intel® Core™ i7-4770TE (8M Cache, up to 3.3 GHz); 45W
 - : Intel® Core™ i5-4590T (6M Cache, up to 3.0 GHz); 35W
 - : Intel® Core™ i5-4570TE (4M Cache, up to 3.3 GHz); 35W
 - : Intel® Core™ i3-4350T (4M Cache, 3.1 GHz); 35W
 - : Intel® Core™ i3-4340TE (4M Cache, 2.6 GHz); 35W
 - : Intel® Core™ i3-4330TE (4M Cache, 2.4 GHz); 35W
 - : Intel® Pentium® G3320TE (3M Cache, 2.3 GHz); 35W
 - : Intel® Celeron® G1820TE (2M Cache, 2.2 GHz); 35W

CHIPSET

- Intel® H81 Express Chipset

SYSTEM MEMORY

- Two 204-pin DDR3 SODIMM sockets
- Supports DDR3 1333/1600MHz
- Supports up to 16GB system memory
- Supports dual channel memory interface
- 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 3 slot (PCIe 3.0)
- 1 Mini PCIe slot
 - Supports USB and PCIe signals
 - Supports mSATA
 - Supports full size Mini PCIe card

ONBOARD GRAPHICS FEATURES

- Intel® HD Graphics
- Display ports: 1 DP, 1 DVI-I (DVI-D signal), 1 VGA
- Supports dual independent displays
- DP: supports DP++, resolution up to 3840x2160 @ 60Hz
- DVI-D, VGA: resolution up to 1920x1200 @ 60Hz
- Supports 6 Graphics Execution Units (EUs)
- Intel® Clear Video Technology
- DirectX Video Acceleration (DXVA) support for accelerating video processing

ONBOARD AUDIO FEATURES

- Realtek ALC888 5.1-channel High Definition Audio

ONBOARD LAN FEATURES

- Intel® I210 PCI Express Gigabit Ethernet controller
- Intel® I217 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

TRUSTED PLATFORM MODULE (TPM)*

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

REAR PANEL I/O PORTS

- 1 12V (HD171) or 19~24V (HD173) DC-in jack or 4-pin power connector*
- 1 DB-9 RS232 serial port
- 1 VGA port
- 1 DP port (default) or 1 mini-DIN-6 PS/2 keyboard/mouse port*
- 1 DVI-D port
- 2 RJ45 LAN ports
- 2 USB 2.0 ports
- 2 USB 3.0 ports
- Mic-in, line-in and line-out jacks

Ordering Information

Model Name	Memory	VGA	DVI-D	DP++	LAN	RS232	RS422/485	Power	Thermal	Temperature
HD171-H81N	2 SODIMM	1	1	1	2	3	1	12V DC-in	Active	0°C to 60°C
HD173-H81N	2 SODIMM	1	1	1	2	3	1	19~24V DC-in	Active	0°C to 60°C

Packing List

- 1 HD171/HD173 motherboard
- 1 Serial ATA data with power cable: A81-002013-000G
- 1 I/O shield: A49-HD1710-010G
- 1 DVD

I/O CONNECTORS

- 2 connectors for 4 external USB 2.0 ports
- 1 connector for 1 external USB 2.0 port or 1 vertical USB 2.0/1.1 port*
- 3 connectors for 3 external serial ports (2.0mm pitch)
 - 1 RS422/485
 - 2 RS232
- 1 8-bit Digital I/O connector
- 1 front audio connector for line-out and mic-in jacks
- 1 LPC connector
- 2 Serial ATA connectors
- 2 Serial ATA power connectors
- 1 chassis intrusion connector
- 1 front panel connector
- 2 fan connectors

BIOS

- AMI BIOS
 - 64Mbit SPI BIOS

ENERGY EFFICIENT DESIGN

- Supports ErP Lot6 power saving*
- 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/+12V/+3.3V/3VSB/VBAT
- Monitors CPU/system fan speed and failure alarm
- Read back capability that displays temperature, voltage and fan speed
- Watchdog timer function

POWER CONSUMPTION

- HD171-H81N: 35.28W with i7-4770TE at 2.3GHz and 2x 8GB DDR3 SODIMM

OS SUPPORT

- Windows XP Professional x86 & SP3 (32-bit) (limited function)
- 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)

Note: Windows 10 will be available upon request. Please contact DFI for more information.

TEMPERATURE

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

HUMIDITY

- 10% to 90%

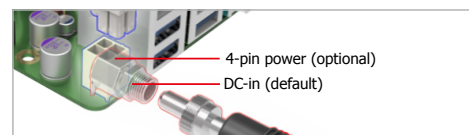
DIMENSIONS

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

CERTIFICATION

- CE, FCC Class B, RoHS

Power Connector



Optional Items

- USB port cable: 332-253010-026G
- COM port cable: A81-015011-001G
- Serial ATA data with power cable: A81-002013-000G
- I/O shield: A49-HD1710-010G
- Power adapter (100W, 12V, Level 6) : 671-110002-100G
- Power adapter (120W, 19V, Level 6) : 671-110003-100G
- Heat sink with fan: 552-200049-000G