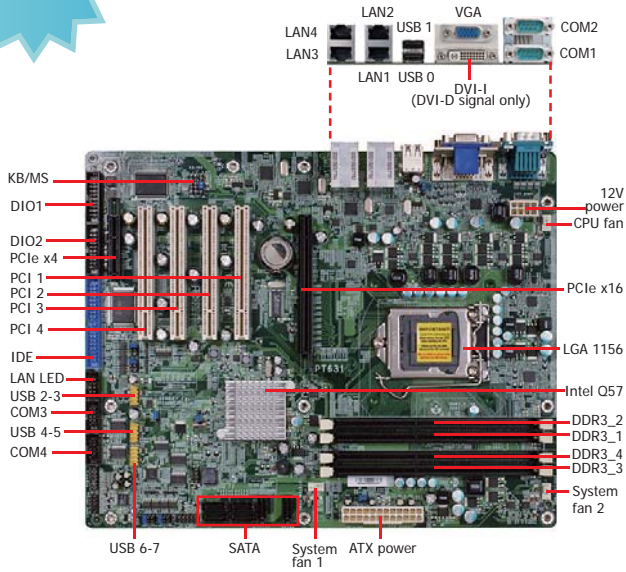


# DFI® PT631-IPM ATX

**Q57**

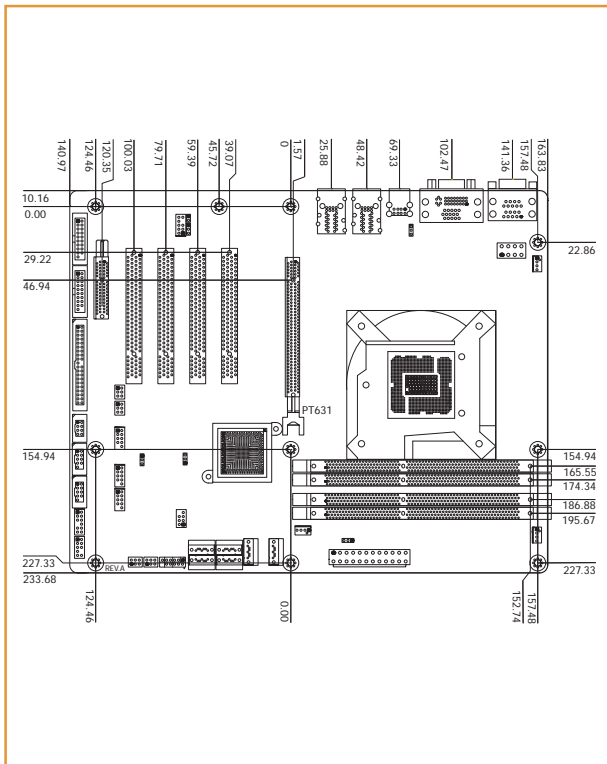
Desktop



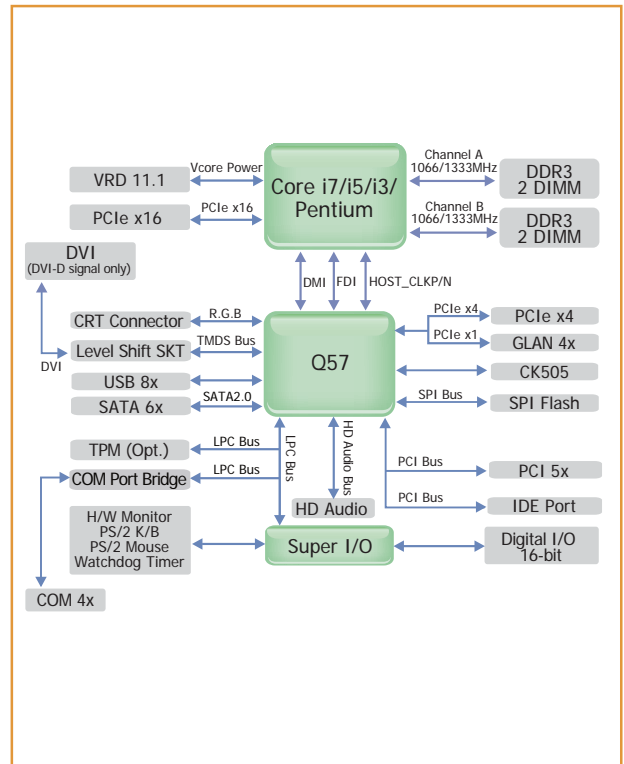
## Features

CHIPSET	Intel® Q57
CPU	Intel® Core™ i7/i5/i3 Intel® Pentium®
MEMORY	4 DDR3 DIMM up to 16GB
EXPANSION	1 PCIe x16, 1 PCIe x4, 4 PCI
DISPLAY OUTPUTS	1 DVI-I (DVI-D signal), 1 VGA
LAN	4 Gigabit LAN ports
COM	4 COM
USB	8 USB 2.0
STORAGE	6 SATA 2.0 1 IDE
DIO	2 16-bit DIO

## Mechanical Drawing



## Block Diagram



## Specifications

### PROCESSOR

- LGA 1156 socket for:
  - Intel® Core™ i7-860 2.80GHz/8M
  - Intel® Core™ i5-750 2.66GHz/8M
  - Intel® Core™ i5-660 3.33GHz/4M
  - Intel® Core™ i3-540 3.06GHz/4M
  - Intel® Pentium® G6950 2.80GHz/3M

### CHIPSET

- Intel® Q57

### SYSTEM MEMORY

- Four 240-pin DDR3 DIMM sockets
- Supports DDR3 1066/1333MHz
- Supports maximum memory bandwidth of 21GB/s in dual-channel mode when using DDR3 1333MHz
- Supports dual channel memory interface
- Supports up to 16GB system memory

### EXPANSION SLOTS

- 1 PCI Express x16 slot (PCIe 2.0)
- 1 PCI Express x4 slot (PCIe 1.0)
- 4 PCI slots (PCI 2.3)

### ONBOARD GRAPHICS FEATURES

- Intel® HD Graphics
  - VGA display resolution up to 2048x1536
  - Supports 3D, 2D and video capabilities
- Note: Both Intel® Core™ i7-860 and Core™ i5-750 CPUs does not support integrated graphics.

### ONBOARD AUDIO FEATURES

- Realtek ALC262 2-channel High Definition Audio
- Two 24-bit stereo DACs and three 20-bit stereo ADCs

### ONBOARD LAN FEATURES

- 3 Intel® W82574L PCI Express Gigabit Ethernet controllers
- 1 Intel® W82578DM iAMT6.0 Gigabit Ethernet PHY
- Supports 10Mbps, 100Mbps and 1Gbps data transmission
- IEEE 802.3 (10/100Mbps) and IEEE 802.3ab (1Gbps) compliant

### SERIAL ATA (SATA) INTERFACE

- 6 Serial ATA ports compliant with SATA 1.0 specification
- SATA speed up to 3Gb/s (SATA 2.0)
- Supports RAID 0/1/5/10

### INTEL ACTIVE MANAGEMENT TECHNOLOGY (AMT)

- Supports iAMT6.0
- Out-of-band system access
- Remote troubleshooting and recovery
- Hardware-based agent presence checking
- Proactive alerting
- Remote hardware and software asset tracking

### TRUSTED PLATFORM MODULE (TPM)

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

### REAR PANEL I/O PORTS

- 2 DB-9 RS232/422/485 serial ports
- 1 DB-15 VGA port
- 1 DVI-I port (DVI-D signal)
- 4 RJ45 LAN ports
- 2 USB 2.0/1.1 ports

### I/O CONNECTORS

- 3 connectors for 6 external USB 2.0/1.1 ports
- 2 connectors for 2 external RS232/422/485 serial ports
- 1 connector for PS/2 keyboard/mouse port
- 2 16-bit Digital I/O connectors (32-bit)
- 1 audio connector for mic-in, line-in and line-out jacks
- 1 front audio connector for line-out and mic-in jacks
- 6 Serial ATA connectors
- 1 40-pin IDE connector
- 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
- 8Mbyte SPI BIOS

### ENERGY EFFICIENT DESIGN

- ACPI v3.0 specification
- System Power Management
- Wake-On-Events include:
  - Wake-On-PS/2 Keyboard/Mouse
  - Wake-On-USB Keyboard/Mouse
  - Wake-On-LAN
  - RTC timer to power-on the system
- AC power failure recovery
- Watchdog timer function

### DAMAGE FREE INTELLIGENCE

- Monitors CPU/system temperature and overheat alarm
- Monitors VCORE/+5V/+12V/SM/+3.3V/VBAT voltages and failure alarm
- Monitors CPU fan / system fan 1 / system fan 2 speed and failure alarm
- Read back capability that displays temperature, voltage and fan speed

### POWER CONSUMPTION

- 61.85 W with i7-860 at 2.80GHz and 2x 1GB DDR3 DIMM

### TEMPERATURE

- 0°C to 60°C

### HUMIDITY

- 10% to 90%

### DIMENSIONS

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

### CERTIFICATION

- CE
- FCC Class B
- RoHS

## Packing List

- 1 PT631-IPM motherboard
- 2 Serial ATA data cables
- 2 Serial ATA power cables
- 2 USB cables
- 1 Bracket mounted with a COM port cable
- 1 I/O shield
- 1 PS/2 Keyboard/Mouse Cable
- 1 QR (Quick Reference)
- 1 CD

## Optional Items

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