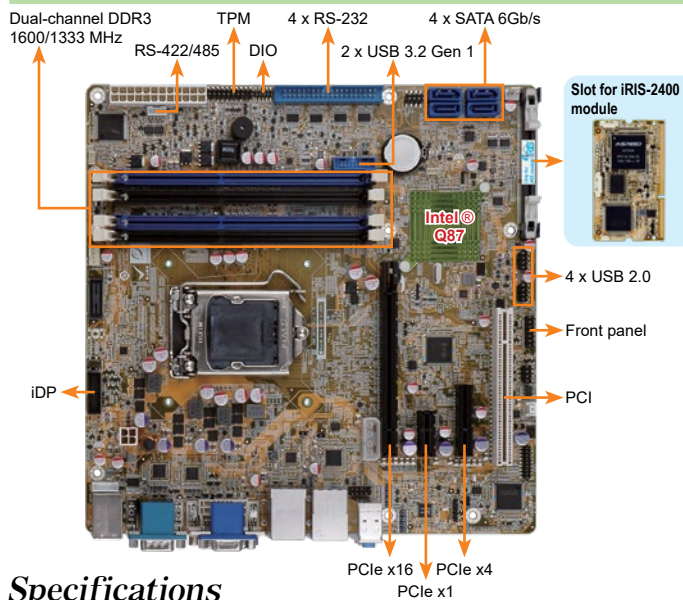


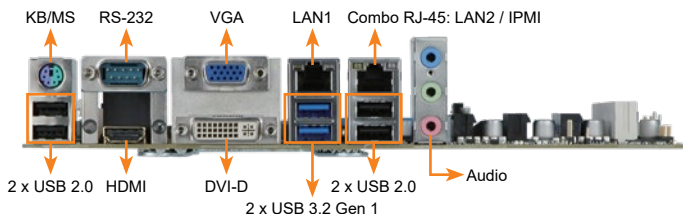
# IMB-Q870-i2

microATX motherboard supports 22nm LGA1150 Intel® Core™ i7/i5/i3, Pentium® and Celeron® CPU per Intel® Q87, DDR3, HDMI, DVI-D, VGA, iDP, USB 3.2 Gen 1 (5Gb/s), SATA 6Gb/s, six serial ports, iRIS-2400



## New and More Powerful Graphics

2nd Generation Intel® Core™ Processor (Sandy Bridge)	3rd Generation Intel® Core™ Processor (Ivy Bridge)	4th Generation Intel® Core™ Processor (Haswell)	
Intel® HD Graphics 3000 series	Intel® HD Graphics 4000 series	GT3-Intel® HD Graphics 5000 series	Core i7
Intel® HD Graphics 2000 series	Intel® HD Graphics 2500 series	GT2-Intel® HD Graphics 4000 series	Core i5/ Core i3
Intel® HD Graphics series	Intel® HD Graphics series	GT1-Intel® HD Graphics series	Celeron/ Pentium



## Specifications

- ◆ CPU: LGA1150 Intel® Core™ i7/i5/i3, Pentium® or Celeron® processor supported
- ◆ Chipset: Intel® Q87
- ◆ Memory: Four 240-pin 1600/1333 MHz dual-channel DDR3 & DDR3L SDRAM unbuffered DIMMs support up to 32 GB
- ◆ BIOS: UEFI BIOS
- ◆ Ethernet: LAN1: Intel® I217LM with Intel® AMT 9.0 support; LAN2: Intel® I210-AT PCIe controller with NCSI support
- ◆ Graphics Engine: Intel® HD Graphics Gen 7.5 supports DX11.1 and OpenCL 1.2, OpenGL 3.2; Full MPEG2, VC1, AVC Decode
- ◆ Display Output: Triple independent display; 1 x VGA (up to 1920x1200@60Hz); 1 x DVI-D (up to 2560x1600@60Hz); 1 x HDMI (up to 2560x1600@60Hz); 1 x iDP interface for HDMI, LVDS, VGA, DVI, DP (up to 3840x2160@60Hz)
- ◆ Audio: Realtek ALC662 HD Audio codec supports 5.1-channel; 3 x Audio jacks (line-out, line-in, mic-in) on rear IO; 1 x Front audio (2x5 pin)
- ◆ External I/O Interface: 1 x KB/MS, 2 x USB 3.2 Gen 1 (5Gb/s); 1 x RS-232, 4 x USB 2.0
- ◆ Internal I/O Interface: 1 x KB/MS (1x6 pin), 4 x SATA 6Gb/s (RAID 0/1/5/10 supported); 1 x RS-422/485 (1x4 pin, P=2.0), 4 x RS-232 (2x5 pin, P=2.54); 2 x USB 3.2 Gen 1 (5Gb/s) (2x10 pin), 4 x USB 2.0 (2x4 pin, P=2.54)
- ◆ Front Panel: 1 x Front panel (2x7 pin, power LED, HDD LED, speaker, power button, reset button)
- ◆ LAN LED: 2 x LAN LED (1x2 pin)
- ◆ TPM: 1 x TPM (2x10 pin)
- ◆ SMBus: 1 x SMBus (1x4 pin)
- ◆ I<sup>2</sup>C: 1 x I<sup>2</sup>C (1x4 pin)
- ◆ iRIS Remote Management Module: 1 x iRIS-2400 slot
- ◆ Expansion: 1 x PCIe x16 slot (Gen 3), 1 x PCIe x4 slot; 1 x PCIe x1 slot, 1 x PCI slot
- ◆ Watchdog Timer: Software programmable, support 1~255 sec. system reset
- ◆ Digital I/O: 8-bit digital I/O (2x5 pin)
- ◆ Fan Connector: 1 x CPU smart fan (1x4 pin), 2 x System smart fan (1x3 pin)
- ◆ Power Supply: ATX power supply
- ◆ Power Consumption: 3.3V@0.53A, 5V@4.96A, 12V@0.12A, Vcore\_12V@3.95A, 5VSB@0.18A (Intel® Core™ i7-4770K 3.90 GHz CPU with 16 GB (4x4 GB) 1333 MHz DDR3 memory)
- ◆ Operating Temperature: -20°C ~ 60°C
- ◆ Storage Temperature: -30°C ~ 70°C
- ◆ Operating Humidity: 5% ~ 95%, non-condensing
- ◆ Dimensions: 244mm x 244mm
- ◆ Weight: GW: 1200g / NW: 700g
- ◆ CE/FCC compliant



## Features

- LGA1150 4th generation Intel® Core™ i7/i5/i3, Pentium® or Celeron® processor supported
- Dual-channel DDR3 1600/1333 MHz supported
- Intel® PCIe GbE with Intel® AMT 9.0 support
- Support triple display via HDMI, DVI, VGA and iDP
- Support PCI Express generation 3.0 at 8GT/s I/O bandwidth
- USB 3.2 Gen 1 (5Gb/s) and SATA 6Gb/s supported
- IEI jumper-less function
- Support IPMI 2.0 via iRIS-2400 module

## Packing List

1 x IMB-Q870-i2 single board computer	2 x SATA cable
1 x I/O shielding	1 x QIG

## Ordering Information

Part No.	Description
IMB-Q870-i2-R10	microATX motherboard supports 22nm LGA1150 Intel® Core™ i7/i5/i3/Pentium® and Celeron® CPU per Intel® Q87, DDR3, dual Intel® PCIe GbE, HDMI, DVI-D, VGA, DP, audio, SATA 6Gb/s, USB 3.2 Gen 1 (5Gb/s), six serial ports, iRIS-2400 and RoHS
iRIS-2400-R10	IPMI 2.0 adapter card with AST2400 BMC chip for DDR3 SO-DIMM socket interface
19800-000049-RS	LPT flat cable, 240mm, P=2.54
19800-000075-RS	PS/2 KB/MS cable with bracket, 220mm, P=2.0
19800-003100-300-RS	Dual port USB cable with bracket, 300mm, P=2.54
19800-010500-200-RS	USB 3.2 Gen 1 (5Gb/s) cable with bracket, 450mm
32102-000100-200-RS	SATA power cable, MOLEX 5264-4P to SATA15P
32205-001203-200-RS	RS-232 cable, 40-pin to four DB-9, 400mm, P=2.54
32205-003800-300-RS	RS-422/485 cable, 200mm, P=2.0
CF-115XA-R10	High performance LGA1155/LGA1156 cooler kit, 1U chassis compatible, 73W
CF-115XE-R10	High performance LGA1155/LGA1156 cooler kit, 95W
DP-DP-R10	DisplayPort to DisplayPort converter board (for IEI iDP connector)
DP-DVI-R10	DisplayPort to DVI-D converter board (for IEI iDP connector)
DP-HDMI-R10	DisplayPort to HDMI converter board (for IEI iDP connector)
DP-LVDS-R10	DisplayPort to 24-bit dual-channel LVDS converter board (for IEI iDP connector)
DP-VGA-R10	DisplayPort to VGA converter board (for IEI iDP connector)
TPM-IN01-R20	20-pin Infineon TPM module, software management tool, firmware v3.17