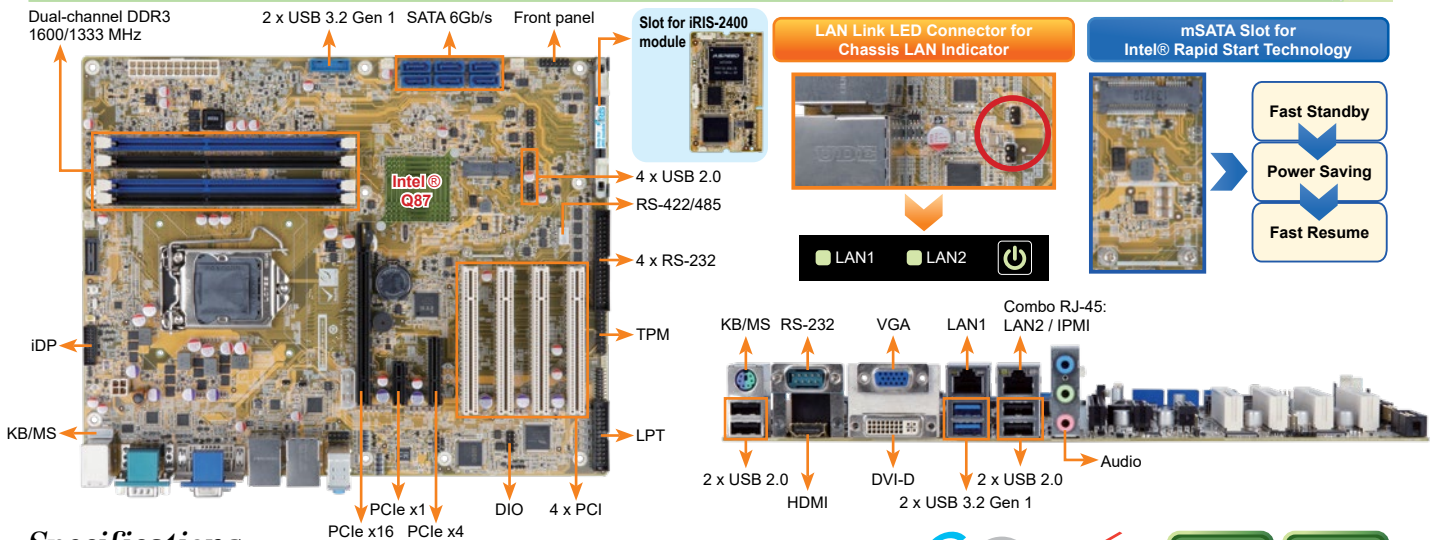


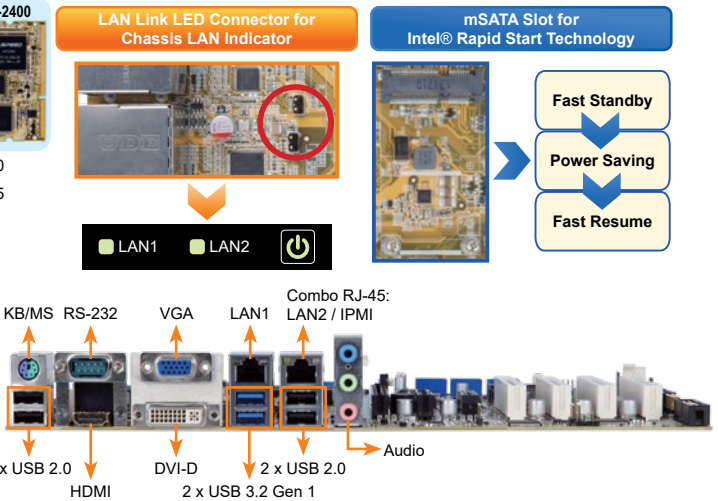
# IMBA-Q870-i2

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



## Specifications

- ◆ CPU  
LGA1150 4th generation 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@60 Hz)  
1 x DVI-D (up to 2560x1600@60 Hz)  
1 x HDMI (up to 2560x1600@60 Hz)  
1 x iDP interface for HDMI, LVDS, VGA, DVI, DP (up to 3840x2160@60 Hz)
- ◆ Audio  
Realtek ALC662 HD codec supports 5.1-channel  
3 x Audio jacks (line-out, line-in, mic-in) on rear I/O  
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) 2 x USB 3.2 Gen 1 (5Gb/s) (2x10 pin, P=2.0)  
1 x LPT (2x13 pin, P=2.54) 4 x RS-232 (2x20 pin, P=2.54)  
1 x mSATA (colay SATA 6) 4 x USB 2.0 (2x4 pin, P=2.54)  
1 x RS-422/485 (1x4 pin, P=2.54) 6 x SATA 6Gb/s (RAID 0/1/5/10 supported)
- ◆ 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 4 x PCI slots
- ◆ 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 fan (1x3 pin)
- ◆ Power Supply: ATX Power Supply
- ◆ Power Consumption  
3.3V@0.66A, 5V@4.34A, 12V@0.16A, Vcore\_12V@4.01A, 5VSB@0.21A (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 305mm
- ◆ 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
- Intel® PCIe GbE with Intel® AMT 9.0 support
- Support triple independent display with HDMI, DVI and 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 mSATA supported
- IEI jumper-less function
- Support IPMI 2.0 via iRIS-2400 module

## Packing List

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

## Ordering Information

Part No.	Description
IMBA-Q870-i2-R10	ATX motherboard supports 22nm LGA1150 Intel® Core™ i7/i5/i3, Pentium® and Celeron® CPU per Intel® Q87, DDR3, triple independent display VGA/DVI-D/HDMI/iDP, dual Intel® GbE, USB 3.2 Gen 1 (5Gb/s), SATA 6Gb/s, audio, iRIS-2400 and RoHS
IMBA-Q870-ECO-R10	LGA1150 Intel® Core™ i7/i5/i3, Pentium® and Celeron® CPU per Intel® Q87, DDR3, triple independent display VGA, DVI-D, HDMI, iDP, USB 3.2 Gen 1 (5Gb/s), SATA 6Gb/s, ECO packing, RoHS (10 pcs/pack)
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 457mm with bracket
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