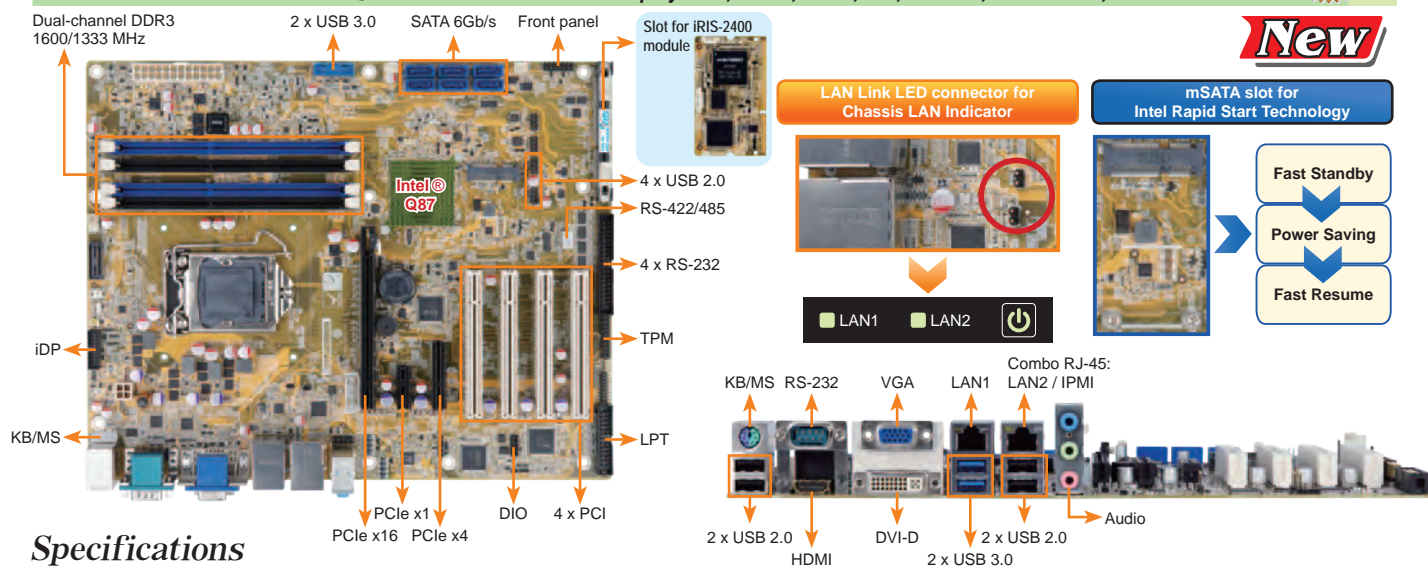


# IMBA-Q870-i2

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 3.0, SATA 6Gb/s, iRIS-2400



## Specifications

- ◆ CPU: LGA1150 Intel® 4th generation Core™ i7/i5/i3, Pentium® or Celeron® processor supported
- ◆ System Chipset: Intel® Q87
- ◆ Memory: Four 240-pin 1600/1333MHz dual-channel DDR3 & DDR3L SDRAM unbuffed DIMMs support up to 32GB
- ◆ 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: VGA (up to 1920x1200 @ 60 Hz)  
DVI-D (up to 2560x1600 @ 60 Hz)  
HDMI (up to 2560x1600 @ 60 Hz)  
iDP interface for HDMI, LVDS, VGA, DVI, DP (up to 3840x2160 @ 60 Hz)
- ◆ Super I/O: Fintek F81866
- ◆ Audio: Realtek ALC662 HD Audio codec (Line-in, Line-out, Mic)
- ◆ I/O Interface:
 

|  |   |
|--|---|
| 5 x RS-232   | 4 x USB 3.0 (2 on rear, 2 by pin header)    |
| 1 x RS-422/485   | 8 x USB 2.0 (4 on rear, 4 by pin header)    |
| 1 x LPT  | 6 x SATA 6Gb/s (RAID 0, 1, 5, 10 supported) |
| 1 x mSATA (colay SATA port 6) (support SATA 6Gb/s signal only) |   |
| 1 x 6-pin wafer for PS/2 KB/MS                                 |   |
- ◆ Front Audio: 2 x 5-pin header
- ◆ Front Panel: 1 x Front panel (Power LED, HDD LED, Speaker, Power Button, Reset Button)
- ◆ LAN LED: 2 x 2-pin headers for LAN1 Link LED, LAN2 Link LED
- ◆ TPM: 1 x 20-pin (2x10) header
- ◆ SMBus: 1 x 4-pin wafer
- ◆ I2C: 1 x 4-pin wafer
- ◆ 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 (4-bit input, 4-bit output)
- ◆ Fan Connector: 1 x 4-pin CPU fan connector  
2 x 3-pin system fan connector
- ◆ 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 16GB (4x4GB) 1333MHz 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



1 Industrial Computing Solutions

## Features

1. LGA1150 Intel® 4th generation Core™ i7/i5/i3, Pentium® or Celeron® processor supported
2. Dual-channel DDR3 1600/1333MHz
3. Intel® PCIe GbE with Intel® AMT 9.0 support
4. Support triple independent display with HDMI, DVI and VGA and iDP
5. Support PCI Express generation 3.0 at 8GT/s I/O bandwidth
6. USB 3.0 and SATA 6Gb/s mSATA supported
7. IEI jumper-less function
8. IEI One Key Recovery solution allows you to create rapid OS backup and recovery
9. Support IPMI 2.0 via iRIS-2400 module

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Video Capture Solutions

## Packing List

|   |                |
|---|----------------|
| 1 x IMBA-Q870-i2 single board computer      |                |
| 1 x I/O shielding (P/N: 45014-0046C0-00-RS) | 1 x Utility CD |
| 2 x SATA cable (P/N: 32000-062800-RS)       | 1 x QIG        |

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Embedded Computing Solutions

## 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, Three Independent Displays VGA/DVI-D/HDMI/iDP, Dual Intel® GbE, USB 3.0, SATA 6Gb/s, Audio, iRIS-2400 and RoHS |
| iRIS-2400-R10       | IPMI 2.0 adapter card with AST2400 BMC chip for DDR3 SO-DIMM socket interface   |
| 19800-003100-300-RS | Dual-port USB cable with bracket  |
| 19800-010500-200-RS | USB 3.0 cable 457mm with bracket  |
| 32205-003800-300-RS | RS-422/485 cable, 200mm   |
| 32205-001203-200-RS | RS-232 cable, 40-pin to four DB-9   |
| 32102-000100-200-RS | SATA power cable, MOLEX 5264-4P to SATA15P  |
| 19800-000075-RS     | PS/2 KB/MS Y-cable with bracket, 220mm  |
| 19800-000049-RS     | LPT cable   |
| CF-1156A-RS-R11     | High performance LGA1155/LGA1156 cooler kit, 1U chassis compatible, 73W   |
| CF-1156E-R11        | High performance LGA1155/LGA1156 cooler kit, 95W  |
| DP-LVDS-R10         | DisplayPort to 24-bit dual-channel LVDS converter board (for IEI iDP connector)   |
| DP-HDMI-R10         | DisplayPort to HDMI converter board (for IEI iDP connector)   |
| DP-DVI-R10          | DisplayPort to DVI-D converter board (for IEI iDP connector)  |
| DP-VGA-R10          | DisplayPort to VGA converter board (for IEI iDP connector)  |
| DP-DP-R10           | DisplayPort to DisplayPort converter board (for IEI iDP connector)  |
| TPM-IN01-R11        | 20-pin Infineon TPM module, software management tool, firmware V3.17  |

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Automation Control

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ORing Network Communication

6

Power Supply/ Peripherals

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Panel Solutions Introduction