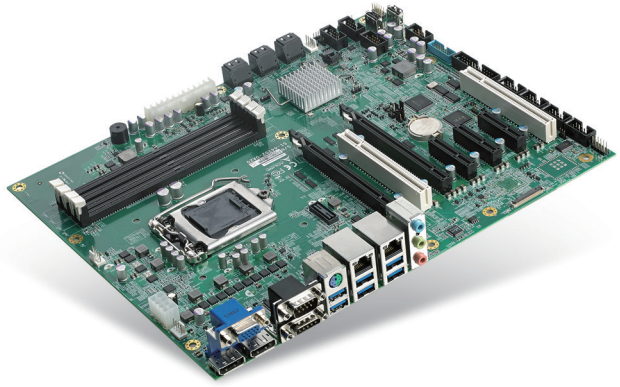
IMB-M43

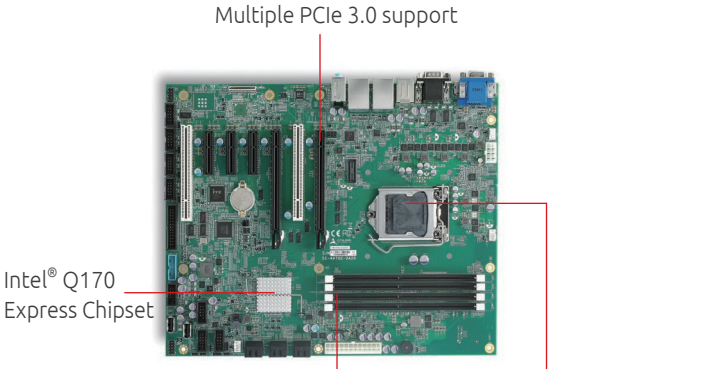
Industrial ATX Motherboard with 6th/7th Gen Intel® Core™ i7/i5/i3 Processor

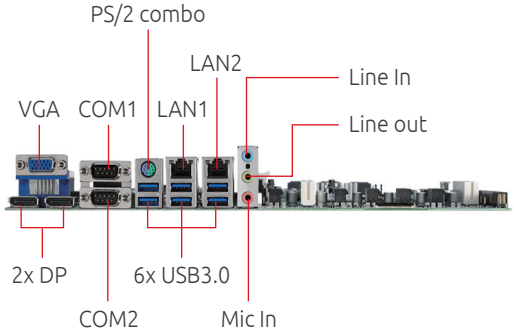
Features

- 6th/7th Gen Intel® Core™ i7/i5/i3 processors and Q170 chipset
- Dual-channel DDR4 2133/2400 MHz memory up to 64 GB
- Intel® PCIe 3.0 slot bifurcation supports up to 5x PCIe 3.0 expansion slots
- Rugged I/O design to enhance I/O port compatibility and reliability
- Unique power design to ensure stable USB power of 5V ±5%
- IEC 61000-4-2~6 (Performance Criterion A), CE/FCC class B certified



Product Illustration





Ordering Information

- **IMB-M43**
  ATX 6th/7th Intel® Core™ i7/i5/i3 industrial motherboard
  Note: CPU, Memory module and Cooler kit are not included

Packing Lists

- IMB-M43
- IMB-M43 I/O shield

Optional Accessories

- **USB 3.0 Cable**
  2-port USB 3.0 port cable with bracket
- **USB 2.0 Cable**
  4-port USB 2.0 port cable with bracket
- **LPT Cable**
  1-port LPT port cable with bracket
- **COM Cable**
  2-port COM port cable with bracket
- **2U CPU Cooler**
  LGA1156 2U Thermal Module

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Specifications

Processor System	
CPU	Intel® Core™ i7-6700, 3.4 GHz, 8M Cache, 14nm, 65W TDP, LGA1151 (4C/8T)
	Intel® Core™ i7-6700TE, 2.4 GHz 8M Cache, 14nm, 35W TDP, LGA1151 (4C/8T)
	Intel® Core™ i5-6500, 3.2 GHz, 6M Cache, 14nm, 65W TDP, LGA1151 (4C/4T)
	Intel® Core™ i5-6500TE, 2.3 GHz, 6M Cache, 14nm, 35W TDP, LGA1151 (4C/4T)
	Intel® Core™ i3-6100, 3.7 GHz, 3M Cache, 14nm, 51W TDP, LGA1151 (2C/4T)
	Intel® Core™ i3-6100TE, 2.7 GHz, 4M Cache, 14nm, 35W TDP, LGA1151 (2C/4T)
	Intel® Pentium® G4400, 3.3GHz, 3M Cache, 14nm, 54W TDP, LGA1151 (2C/2T)
	Intel® Pentium® G4400TE, 2.4GHz, 3M Cache, 14nm, 35W TDP, LGA1151 (2C/2T)
	Intel® Celeron® G3900, 2.8GHz, 2M Cache, 14nm, 51W TDP, LGA1151 (2C/2T)
	Intel® Celeron® G3900TE, 2.3GHz, 2M Cache, 14nm, 35W TDP, LGA1151 (2C/2T)
	Intel® Core™ i7-7700, 3.6GHz, 8M Cache, 14nm, 65W TDP, LGA1151 (4C/8T)
	Intel® Core™ i7-7700T, 2.9GHz 8M Cache, 14nm, 35W TDP, LGA1151 (4C/8T)
	Intel® Core™ i5-7500, 3.4GHz, 6M Cache, 14nm, 65W TDP, LGA1151 (4C/4T)
	Intel® Core™ i5-7500T, 2.7GHz, 6M Cache, 14nm, 35W TDP, LGA1151 (4C/4T)
	Intel® Core™ i3-7101E, 3.9GHz, 3M Cache, 14nm, 54W TDP, LGA1151 (2C/4T)
	Intel® Core™ i3-7101TE, 3.4GHz, 3M Cache, 14nm, 35W TDP, LGA1151 (2C/4T)
Chipset	Intel® Q170 Express Chipset
Memory	Four 288 PIN DDR4 Sockets (vertical type) Dual channel DDR4 2133/2400 MHz, up to 64 GB
BIOS	AMI® UEFI BIOS, 128 Mb SPI Flash Memory
Watchdog Timer	software programmable and can be generate system reset

Hardware Monitor	CPU voltage
	+3.3 V voltage
	+5 V voltage
	+12 V voltage
	CPU temperature
	System temperature
	CPU fan speed
	System fan speed
Operating Systems	Microsoft® Windows® 7 32/64-bit (only for 6th Gen Intel® Core™ processors)
	Microsoft® Windows® 8.1 64-bit
	Microsoft® Windows® 10 64-bit
	Ubuntu 15.10 32/64-bit
I/O Interfaces	
Serial ATA	6x SATA 6.0 Gb/s connectors
	Software RAID support 0/1/5/10
USB	6x USB 3.0 connectors (rear)
	2x USB 3.0 pin headers
	4x USB 2.0 pin headers
	2x USB 2.0 (vertical type A connector)
Serial Ports	2x RS-232/422/485 with auto flow control connector (rear)
	4x RS-232 pin headers
Expansion slots	<Signal> If PEG3 is occupied, PEG1 is PCIex8 Gen3, PEG2 is PCIex4 Gen3, and PEG3 is PCIex4 Gen3 If PEG3 is not occupied and PEG2 is occupied, PEG1 is PCIex8 Gen3, PEG2 is PCIex8 Gen3, and PEG3 is no signal If PEG3 is not occupied and PEG2 is not occupied, PEG1 is PCIex16 Gen3,PEG2 and PEG3 is no signal PCIe1: PCIe x4 Gen3, PCIe2: PCIe x4 Gen3, PCI1: PCI 2.2, PCI2: PCI 2.2
	<Physical Slot> PEG1: PCIex16 slot, PCI1: PCI slot, PEG2: PCIex16 slot,PEG3: PCIex4 slot,PCIe1: PCIex4 slot,PCIe2: PCIex4 slot,PCI2: PCI slot
Parallel Port	1x LPT pin header
PS2 Combo Port	1x PS/2 keyboard & Mouse connector (rear)
DIO	1x 10-pin/2.54mm GPIO pin header: 4 in and 4 out, one ground pin and one power pin (5V/12V/no power, jumper selected)

*Extending operating temperature is optional and requires use of an industrial solid-state drive storage device or CFast card..
**Other Linux Distribution support by request

Specifications

Audio	
Audio Codec	Realtek® ALC262-VC2-GR
Interface	1x Mic-in, 1x Line-out and 1x Line-in connector (rear)
Graphics	
Graphics Engine	Integrated Intel® HD Graphics series (based on CPU)
VGA	1x VGA connector (rear), resolution up to 1920 x 1200 @ 60 Hz
DisplayPort 1.2	2x DP connector (rear), resolution up to 4096 x 2304 @ 60 Hz
Ethernet	
Controller	LAN1: Intel® I219-LM via RJ45 connector (rear)
	LAN2: Intel® I211-AT via RJ45 connector (rear)
Intel® AMT	LAN1 Support
Wake On LAN	LAN1 and LAN2 support
Mechanical and Environmental	
Form Factor	ATX
Dimension	305 mm x 244 mm (W x L)
Operating Temperature	0 °C to 60 °C
Storage Temperature	-40 °C to 85 °C
Relative Humidity	40° C @ 95% RH Non-condensing
Certification	CE & FCC Class B

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