

IMB-M43

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



Features

- 6th Gen Intel® Core™ i7/i5/i3
- Dual-channel DDR4 2133 MHz, up to 64 GB DRAM support
- PCIe 3.0 bifurcation supports up to 5x PCIe 3.0 expansion slots
- Rugged I/O design to enhance I/O port compatibility and reliability

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® Q170 Express Chipset
Chipset	Intel® Q170 Express Chipset
Memory	Four 288 PIN DDR4 Sockets (vertical type) Dual channel DDR4 2133 MHz, up to 64 GB
BIOS	AMI®UEFI BIOS, 128 Mb SPI Flash Memory
Watchdog Timer	24~65536 sec. 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 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 connector (rear) 2x USB 3.0 pin header 4x USB2.0 pin headers 2x USB2.0 (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 PCIe x8 Gen3, PEG2 is PCIe x4 Gen3, and PEG3 is PCIe x4 Gen3 If PEG3 is not occupied and PEG2 is occupied, PEG1 is PCIe x8 Gen3, PEG2 is PCIe x8 Gen3, and PEG3 is no signal If PEG3 is not occupied and PEG2 is not occupied, PEG1 is PCIe x16 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: PCIe x16 slot, PCI1: PCI slot, PEG2: PCIe x16 slot, PEG3: PCIe x4 slot, PCIe1: PCIe x4 slot, PCIe2: PCIe x4 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)

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	-20 °C to 80 °C
Relative Humidity	0 % to 90 %, non-condensing
Certification	CE & FCC Class B

Ordering Information

Model Number	Description/Configuration
IMB-M43	ATX Intel® Core™ i7/i5/i3 industrial motherboard

Note: CPU, Memory module and Cooler kit are not included

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

Packing Lists

IMB-M43
IMB-M43 I/O shield