

IMB-M43

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

Features

- 6th Gen Intel® Core™ i7/i5/i3 processors and Q170 chipset
- Dual-channel DDR4 2133 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



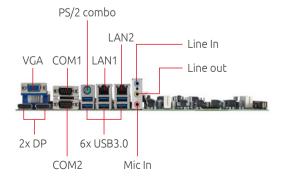
Product Illustration

Multiple PCIe 3.0 support

Intel® Q170

Express Chipset

Dual Channel DDR4 DIMMs LGA1151 socket for 6th Gen Intel® Core™ Processor



Ordering Information

IMB-M43

ATX 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

Specifications

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Processor System	
Processor System	Intel® Core™ i7-6700, 3.4 GHz, 8M Cache, 14nm,
СРИ	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,
Chinant	14nm, 35W TDP, LGA1151 (2C/2T)
Chipset	Intel® Q170 Express Chipset Four 288 PIN DDR4 Sockets (vertical type)
Метогу	Dual channel DDR4 2133 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 Microsoft® Windows® 7 32/64-bit
Operating Systems	Microsoft Windows 7 32/64-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

Temperature Storage Temperature Relative Humidity	-20 °C to 80 °C 0 % to 90 %, non-condensing
	20 °C to 00 °C
Operating	0 °C to 60 °C
Dimension	305 mm x 244 mm (W x L)
Form Factor	ATX
Mechanical and Environmental	
Wake On LAN	LAN1 and LAN2 support
Intel® AMT	LAN1 Support
Controller	LAN1: Intel [®] I219-LM via RJ45 connector (rear) LAN2: Intel [®] I211-AT via RJ45 connector (rear)
Ethernet	
DisplayPort 1.2	2x DP connector (rear), resolution up to 4096 x 2304 @ 60 Hz
VGA	1x VGA connector (rear), resolution up to 1920 x 1200 @ 60 Hz
Graphics Engine	Integrated Intel® HD Graphics series (based on CPU)
Graphics	connector (rear)
Interface	1x Mic-in, 1x Line-out and 1x Line-in connector (rear)
Audio Codec	Realtek® ALC262-VC2-GR
Audio	
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)
PS2 Combo Port	1x PS/2 keyboard & Mouse connector (rear)
Parallel Port	1x LPT pin header
	<physical slot=""> PEG1: PCIex16 slot, PCI1: PCI slot, PEG2: PCIex16 slot, PEG3: PCIex4 slot, PCIe1: PCIex4 slot, PCIe2: PCIex4 slot, PCIe2: PCI slot</physical>
Expansion slots	<signal> If PEG3 is occupied, PEG1 is PClex8 Gen3, PEG2 is PClex4 Gen3, and PEG3 is PClex4 Gen3 If PEG3 is not occupied and PEG2 is occupied, PEG1 is PClex8 Gen3, PEG2 is PClex8 Gen3, and PEG3 is no signal If PEG3 is not occupied and PEG2 is not occupied, PEG1 is PClex16 Gen3,PEG2 and PEG3 is no signal PCle1: PCle x4 Gen3, PCle2: PCle x4 Gen3, PCl1: PCl 2.2, PCl2: PCl 2.2</signal>

^{**}Other Linux Distribution support by request



^{*}Extending operating temperature is optional and requires use of an industrial solid-state drive storage device or CFast card..