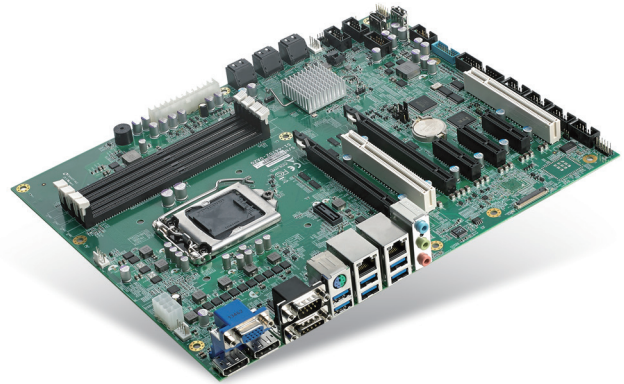


IMB-M43

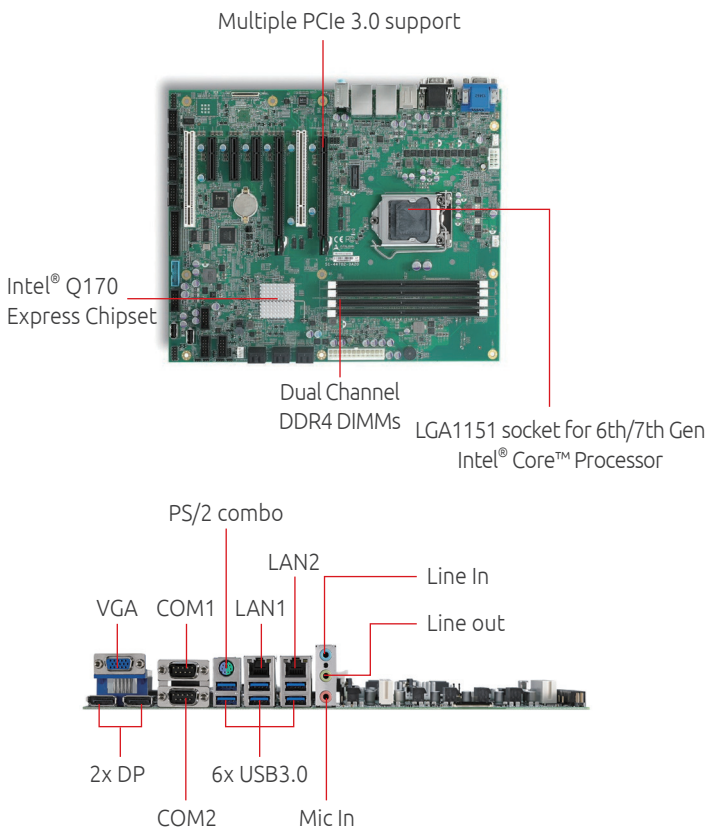
Industrial ATX Motherboard with 6th/7th Gen Intel® Core™ i7/i5/i3 Processor

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

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 PCIe8 Gen3, PEG2 is PCIe4 Gen3, and PEG3 is PCIe4 Gen3 If PEG3 is not occupied and PEG2 is occupied, PEG1 is PCIe8 Gen3, PEG2 is PCIe8 Gen3, and PEG3 is no signal If PEG3 is not occupied and PEG2 is not occupied, PEG1 is PCIe16 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: PCIe16 slot, PCI1: PCI slot, PEG2: PCIe16 slot, PEG3: PCIe4 slot, PCIe1: PCIe4 slot, PCIe2: PCIe4 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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