



# IMB-390

Micro ATX Motherboard

## Spotlight Features

- Socket LGA1151 for Intel® Core i7/i5/i3/Celeron (Skylake-S)
- Intel® Gen9 Intel® Graphics DX 11/12, OGL4.3/4.4
- Supports Dual Channel DDR4 2133MHz, 4 x Long-DIMM, up to 64GB system memory
- 1 x VGA, 1 x HDMI, 1 x Displayport, 1 x eDP
- 6 xUSB 3.0, 6 x USB 2.0, 6 x SATA3
- 1 x Mini-PCIe, 1 x PCIe x16, 2 x PCI, 1 x PCIe x4 Slot,
- 2 x mSATA
- Gigabit LAN : 2 x Intel LAN
- 1 x TPM
- ATX PWR Con (24+8-pin)

## Specifications

### Processor System

Dimension	Micro ATX (9.6-in x 9.6-in)
CPU	Socket LGA1151 for Intel® Core i7/i5/i3/Celeron(Skylake-S)
Core Number	(By CPU, Max 4)
Max Speed	(By CPU)
L2 Cache	(By CPU)
Chipset	Intel® Q170
BIOS	UEFI

### Expansion Slot

PCIe	1 x PCIe x16, 2 x PCI, 1 x PCIe x4 slot
Mini PCIe	1 (half/full size, supports PCIe x1 and USB device)
M.2	0
mSATA	1 (full size, supports SATA and USB device)

### Memory

Technology	Dual Channel DDR4 2133MHz
Max.	64GB
Socket	4 x Long-DIMM

### Graphics

Controller	Intel® Gen9 Graphics DX 11/12, OGL4.3/4.4
VRAM	Shared Memory
VGA	Supports max resolution up to 1920 x 1200 (optional)
LVDS	Supports max resolution up to 1920 x 1200@60Hz
eDP	Supports max resolution up to 4096 x 2160@60Hz
HDMI	Supports max resolution up to 4096 x 2160@60Hz
DVI	Supports max resolution up to 1920 x 1200@60Hz
DisplayPort	Supports max resolution up to 4096 x 2160@60Hz
Multi Display	Yes (Triple Display)

### Ethernet

Interface	10/100/1000 Mbps
Controller	1 x Intel I219LM, 1 x Intel I210
Connector	2 x RJ45

### SATA

Max Data Transfer Rate	SATA3 (6.0Gb/s)
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### Rear I/O

VGA	1
DVI	1
HDMI	1
DisplayPort	1
Ethernet	2
USB	4 x USB 3.0
Audio	3 (Mic-in, Line-in, Line-out)
Serial	1 x COM (RS-232/422/485)
PS/2	1 x PS/2 combo

### Internal Connector

USB	2 x USB 3.0 (1 x USB3.0 header), 6 x USB 2.0 (3 x 2.54 pitch header)
LVDS/inverter	1/1
eDP	1 (Optional)
VGA	0
Serial	5 x COM (supports RS-232 only)
SATA	6 (one shared with mSATA)
mPCIe	1
Parallel	1 (shared with GPIO)
mSATA	1
IrDA	0
GPIO	8 x GPI + 8 x GPO
SATA PWR Output Con	0
Speaker Header	1

### Watchdog Timer

Output	From Super I/O to drag RESETCON#
Interval	256 segments, 0,1,2...255sec/min

### Power Requirements

Input PWR	ATX PWR Con (24+8-pin)
Power On	AT/ATX Supported AT : Directly PWR on as power input ready ATX : Press button to PWR on after power input ready

### Environment

Operating Temperature	0°C – 60°C
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