



# IMB-194-L

## Mini-ITX Motherboard



### KEY FEATURES

- Intel® 7<sup>th</sup>/ 6<sup>th</sup> Gen (KabyLake-S/Skylake-S) Core™ Processors with Q170 chipset
- 2 x 260-pin SO-DIMM up to 32GB DDR4 2133 MHz (16GB per DIMM)
- 1 x PCIe x16 (Gen3), 4 x USB 3.1 Gen1, 4 x USB 2.0, 1 x mini-PCIe, 1 x mSATA, 5 x COM, 4 x SATA3
- 2 x Intel Gigabit LAN
- Supports triple display, 1 x HDMI 1.4b, 1 x DP 1.2a, 1 x VGA, 1 x LVDS
- TPM 2.0 onboard IC
- Supports Intel® vPro, AMT, RAID 0/1/5/10
- ATX PWR

### SPECIFICATIONS

#### Form Factor

Dimensions	Mini-ITX (6.7-in x 6.7-in)
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#### Processor System

CPU	Intel® 7 <sup>th</sup> / 6 <sup>th</sup> Gen (KabyLake-S/Skylake-S) Core™ Processors
Chipset	Intel® Q170
Socket	LGA1151
BIOS	AMI SPI 128 Mbit

#### Memory

Technology	Dual Channel DDR4 2133 MHz
Capacity	32 GB (16 GB per DIMM)
Socket	2 x 260-pin SO-DIMM

#### Graphics

Controller	Intel® Gen9 Graphics DX 11/12
HDMI	HDMI 1.4b Max resolution up to 4096x2160@24Hz
DisplayPort	DisplayPort 1.2a, DP++ Max resolution up to 4096x2304@60Hz
VGA	Max resolution up to 1920x1200@60Hz
LVDS	Dual channel 24 bit up to 1920x1200@60Hz
eDP	N/A
DVI	N/A
MultiDisplay	Triple Display

#### Expansion Slot

PCIe	1 x PCIe x16 (Gen3)
PCI	N/A
mini-PCIe	1 x Full/Half size with PCIe x1 and USB 2.0
M.2	N/A

#### Audio

Interface	Realtek ALC887/897, High Definition Audio. Line-out, Mic-in
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#### Ethernet

Controller/ Speed	LAN1: 1 x Intel® I210AT with 10/100/1000 Mbps LAN2: 1 x Intel® I219LM with 10/100/1000Mbps, support AMT/vPro
Connector	2 x RJ-45

#### Rear I/O

HDMI	1 x HDMI 1.4b
DisplayPort	1 x DP 1.2a
VGA	1
DVI	N/A
Ethernet	2 x 1 Gigabit LAN
USB	4 x USB 3.1 (Gen1)
Audio	2 (Mic-in, Line-out)
COM	COM1, 2(RS-232/422/485)
PS2	N/A

#### Internal Connector

USB	4 x USB 2.0 (2 x 2.54 pitch header)
COM	COM3,4,5(RS-232)
Parallel	N/A
GPIO	4 x GPI, 4 x GPO
TPM	TPM 2.0 onboard IC
LVDS	1
eDP	N/A
VGA	N/A
SATA PWR Output	N/A
Speaker Header	1

#### Storage

M.2	N/A
mSATA	1 x Full size with shared SATA3 and USB 2.0
SATA	4 x SATA3 (6Gb/s), SATA3_1 is shared with mSATA
RAID	Supports Intel® vPro, AMT, RAID 0/1/5/10
eMMC	N/A

#### Watchdog Timer

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

#### Power Requirements

Input PWR	ATX PWR (24+4-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 Temp	0°C ~ 60°C
Storage Temp	-40° C ~ 85° C
Operating Humidity	5% ~ 90%
Storage Humidity	5% ~ 90%