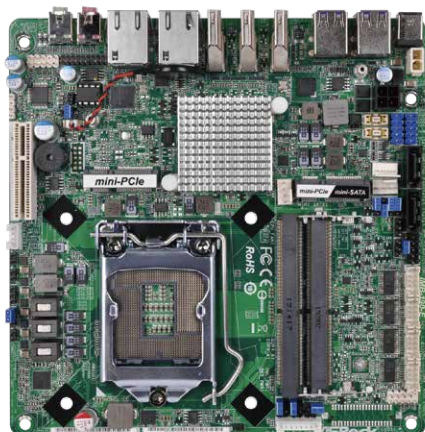


# IMB-190

## Mini-ITX Motherboard



### KEY FEATURES

- Supports Intel® 7<sup>th</sup>/ 6<sup>th</sup> Gen (Kabylake-S/Skylake-S) Core™ Processors (Socket 1151)
- Supports Dual Channel DDR4 SO-DIMM 2133, up to 32GB
- 3 x HDMI, 1 x LVDS
- 4 x USB 3.0, 4 x USB 2.0, 2 x SATA3, 4 x COM
- 2 x Mini-PCIe, 1 x PCIe x4, 1 x mSATA
- 2 x Intel® LAN
- 1 x TPM Header
- Supports Intel® vPro, AMT, RAID 0/1
- 12V / 19~24V DC-in

### Specifications

#### Processor System

Dimensions	Mini-ITX (6.7-in x 6.7-in)
CPU	Supports Intel® 7 <sup>th</sup> / 6 <sup>th</sup> Gen (Kabylake-S/Skylake-S) Core™ Processors (Socket 1151)
Chipset	Intel® Q170

#### Expansion Slot

PCIe	1 x PCIe x4
Mini-PCIe	1 x half size with PCIe x1 and USB2.0
M.2	N/A
mini-PCIe/ mSATA	1 x full size with PCIe x1, SATA3 and USB2.0

#### Memory

Technology	Dual Channel DDR4 2133 MHz
Max.	32GB
Socket	2 x SO-DIMM

#### Graphics

Controller	Intel® Gen9 Graphics DX 11/12, OGL4.3/4.4
VGA	Supports max resolution up to 1920 x 1200
LVDS	Supports Dual channel 24-bit co-lay with eDP, max resolution up to 1920 x 1200@60Hz
eDP	N/A
HDMI	HDMI1: Supports max resolution 4096 x 2160@60Hz HDMI2 & 3: Supports max resolution 4096 x 2160@30Hz
DVI	N/A
DisplayPort	N/A
Multi Display	Triple Display

#### Ethernet

Interface	10/100/1000 Mbps
Controller	1 x Intel® I210 1 x Intel® I219LM

#### Rear I/O

VGA	N/A
DVI	N/A
HDMI	3
DisplayPort	N/A
Ethernet	2
USB	4 x USB 3.0
Audio Jack	2 (Mic-in, Line-out)
Serial	N/A
PS/2	N/A

#### Internal Connector

USB	4 x USB 2.0
LVDS	1
eDP	N/A
VGA	1
Serial	2 x COM (RS-232), 2 x COM (RS-232/422/485)
SATA	2 x SATA3
RAID	Intel® SATA RAID 0/1
Parallel	N/A
GPIO	4 x GPI + 4 x GPO
SATA PWR Output Con	1
Speaker Header	1
TPM	1 x Header

#### Watchdog Timer

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

#### Power Requirements

Input PWR	12V / 19~24V DC-in (DC Jack / 4-pin ATX PWR Con)
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
Storage Temperature	-40°C – 85°C