



IMB-191

IMB-193

# IMB-191 / IMB-193

## Mini-ITX Motherboard

### Spotlight 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
- 2 x HDMI, 1 x LVDS (IMB-191)
- 2 x HDMI, 1 x DisplayPort, 1 x eDP (IMB-193)
- 4 x USB 3.0, 4 x USB 2.0, 2 x SATA3, 4 x COM
- 1 x Mini-PCIe, 1 x PCIe x4 Slot, 1 x mSATA
- 2 x Intel® LAN (IMB-191)
- 1 x Intel LAN, 1 x Realtek LAN (IMB-193)
- 1 x TPM Header
- 12V / 19~24V DC-in (IMB-191)
- 19V DC-in (IMB-193)

### Specifications

Processor System	IMB-191	IMB-193
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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® H110	

Expansion Slot		
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PCIe	1 x PCIe x4	
Mini-PCIe	1 x half size (Supports PCIe x1 & USB device)	
M.2	N/A	
mSATA	1 x full size (shared SATA and USB device)	

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

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

Ethernet		
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Interface	10/100/1000 Mbps	
Controller	1 x Intel® I210 1 x Intel® I219V	1 x Intel® I219v 1 x Realtek RTL8111G

Rear I/O	IMB-191	IMB-193
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VGA	N/A	
DVI	N/A	
HDMI	2	
DisplayPort	N/A	1
Ethernet	2	
USB	4 x USB 3.0	
Audio Jack	2 (Mic-in, Line-out)	
Serial	N/A	
PS/2	N/A	

Internal Connector		
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USB	4 x USB 2.0	
LVDS	1	N/A
eDP	N/A	1
VGA	1	N/A
Serial	2 x COM (RS-232, 2 x RS-232/422/485)	3 x COM (RS-232), 1 x COM (RS-232/422/485)
SATA	2 x SATA3	
Parallel	N/A	
GPIO	4 x GPI + 4 x GPO	
SATA PWR Output Con	1	
Speaker Header	1	
TPM	1 x Header	

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

Power Requirements		
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Input PWR	12V / 19~24V DC-in (DC Jack / 4-pin ATX PWR Con)	19V 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		
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Operating Temperature	0°C – 60°C	
Storage Temperature	-40°C – 85°C	