



IMB-1212/ IMB-1213

Mini-ITX Motherboard

KEY FEATURES

- Intel® 9th/ 8th Gen (Coffee Lake-S) Core™ Processors with H310 chipset (IMB-1212)
- Intel® 9th/ 8th Gen (Coffee Lake-S) Core™ Processors with Q370 chipset (IMB-1213)
- 2 x 260-pin SO-DIMM up to 64GB* DDR4 2666MHz
- 1 x PCIe x16 (Gen3), 4 x USB 3.1 Gen1, 4 x USB 2.0, 1 x mini-PCIe, 1 x M.2 Key E, 1 x M.2 Key M, 4 x COM, 2 x SATA3
- 2 x Intel 1 Gigabit LAN
- Supports dual display, 2 x DP 1.2, 1 x VGA, 1 x LVDS or eDP (IMB-1212)
- Supports triple display, 3 x DP 1.2, 1 x LVDS or eDP (IMB-1213)
- TPM header (IMB-1212)
- TPM 2.0 onboard IC, supports Intel® vPro, AMT, RAID 0/1 (IMB-1213)
- 12V/19~28V DC-In



IMB-1212



IMB-1213

SPECIFICATIONS

Form Factor	IMB-1212	IMB-1213
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Dimensions	Mini-ITX (6.7-in x 6.7-in)	
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Processor System

CPU	Intel® 9 th / 8 th Gen (Coffee Lake-S) Core™ Processors, up to 65W <small>*The Performance of CPUs over 65W will be limited due to power design.</small>	
Chipset	Intel® H310	Intel® Q370
Socket	LGA1151	
BIOS	AMI SPI 128 Mbit	

Memory

Technology	Dual Channel DDR4 2666 MHz	
Capacity	64GB* <small>* Intel Core i9/i7/i5 CPUs support up to 64GB (32GB per DIMM) Intel Core i3/Pentium/Celeron CPUs support up to 32GB (16GB per DIMM)</small>	
Socket	2 x 260-pin SO-DIMM	

Graphics

Controller	Coffee Lake integrated graphics	
HDMI	N/A	
DisplayPort	DisplayPort 1.2, DP++ Max resolution up to 4096x2304@60Hz	
VGA	Max resolution up to 1920x1200@60Hz	N/A
LVDS	Dual channel 24 bit up to 1920x1200@60Hz	
eDP	eDP 1.4 Max resolution up to 4096x2304@60Hz	
DVI	N/A	
MultiDisplay	Dual Display	Triple Display

Expansion Slot

PCIe	1 x PCIe x16 (Gen3)	1 x PCIe x16 (Gen3, Support riser card x8/x8, x8/x4/x4)
PCI	N/A	
mini-PCIe	1 x Full/Half size with PCIe x1 and USB 2.0	
M.2	1 x M.2 (Key E, 2230) with PCIe x1, USB 2.0 and CNVi for Wireless	

Audio

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

Controller/ Speed	LAN1: 1 x Intel® I219V with 10/100/1000 Mbps	LAN1: 1 x Intel® I219LM with 10/100/1000 Mbps, supports AMT/vPro
	LAN2: 1 x Intel® I210 with 10/100/1000 Mbps	
Connector	2 x RJ-45	

Rear I/O	IMB-1212	IMB-1213
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HDMI	N/A	
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DisplayPort	2 x DP 1.2	3 x DP 1.2
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VGA	N/A	
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DVI	N/A	
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Ethernet	2 x 1 Gigabit LAN	
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USB	4 x USB 3.1 (Gen1)	
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Audio	2 (Mic-in, Line-out)	
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COM	N/A	
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PS2	N/A	
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Internal Connector

USB	4 x USB 2.0 (2 x 2.54 pitch header)	
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COM	COM3, 4(RS232/422/485) COM1, 2(RS232)	
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Parallel	N/A	
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GPIO	4 x GPI, 4 x GPO	
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TPM	TPM Header	TPM 2.0 onboard IC
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LVDS	1 (shared with eDP, by jumper setting)	
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eDP	1 (shared with LVDS, by jumper setting)	
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VGA	1	N/A
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SATA PWR Output	1	
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Speaker Header	1	
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Storage

M.2	1 x M.2 (Key M, 2242/2260/2280) with SATA3 for SSD	1 x M.2 (Key M, 2242/2260/2280) with PCIe x4 and SATA3 for SSD
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mSATA	N/A	
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SATA	2 x SATA3 (6Gb/s)	
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RAID	N/A	Intel® SATA RAID 0/1
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Watchdog Timer

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

Input PWR	12V or 19~28V DC-In with 4-pin plug PWR cable or 4-pin DC Jack	
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Power On	AT/ATX Supported	
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	- AT : Directly PWR on as power input ready	
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	- ATX : Press button to PWR on after power input ready	
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Environment

Operating Temp	0°C ~ 60°C	
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Storage Temp	-40° C ~ 85° C	
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Operating Humidity	5% ~ 90%	
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Storage Humidity	5% ~ 90%	
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