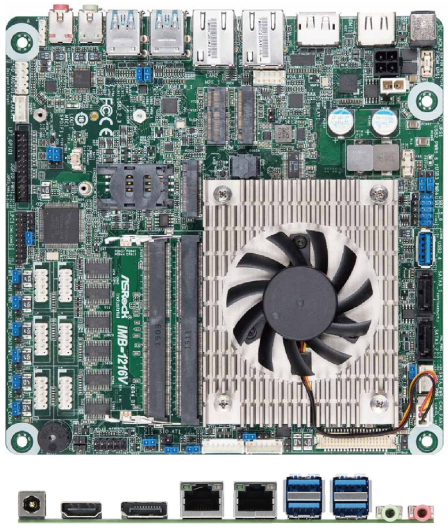
ASRock Industrial



IMB-1216

Mini-ITX Motherboard

KEY FEATURES

- Intel® 8th Gen (Whiskey Lake-U) Core™ MCP Processors
- 2 x 260-pin SO-DIMM up to 32GB DDR4 2400MHz (16GB per DIMM)
- 5 x USB 3.2 Gen1, 3 x USB 2.0, 1 x M.2 Key E, 1 x M.2 Key B, 1 x M.2 Key M, 6 x COM, 2 x SATA3
- 1 x Intel 1 Gigabit LAN, 1 x Realtek 1 Gigabit LAN
- Supports triple display, 1 x HDMI 2.0a, 1 x DP 1.2 or VGA, 1 x LVDS or eDP
- TPM 2.0 onboard IC, supports Intel® vPro, AMT (IMB-1216P/IMB-1216M)
- TPM Header (IMB-1216V/IMB-1216E)
- Supports Intel® RAID 0/1
- 12V~28V DC-In

SPECIFICATIONS

Form Factor

Dimensions	Mini-ITX (6.7-in x 6.7-in)

Processor System

CPU	Intel® 8th Gen (Whiskey Lake-U) Core™ MCP Processors IMB-1216P (i7-8665UE, QC, 1.7GHz, 15W) IMB-1216M (i5-8365UE, QC, 1.6GHz, 15W) IMB-1216V (i3-8145UE, DC, 2.2GHz, 15W) IMB-1216E (CELERON-4305UE, DC, 2.0GHz,15W)
Chipset	MCP
Socket	N/A
BIOS	AMI SPI 128 Mbit

Memory

Technology	Dual Channel DDR4 2400 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 2.0a Max resolution up to 4096x2160@60Hz
DisplayPort	DisplayPort 1.2, DP++ Max resolution up to 4096x2304@60Hz
VGA	Max resolution up to 1920x1200@60Hz
LVDS	Dual channel 24 bit up to 1920x1200@60Hz
eDP	eDP 1.4 Max resolution up to 4096x2304@60Hz
DVI	N/A
MultiDisplay	Triple Display

Expansion Slot

PCIe	N/A
PCI	N/A
mini-PCIe	N/A
M.2	1 x M.2 (Key E, 2230) with PCIe x1, USB2.0 and CNVi for Wireless 1 x M.2 (Key B, 3042) with PCIe x1, USB 3.0 and UIM for 4G
SIM Socket	1 x Socket connected to M.2 Key_B

Audio

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

Ethernet

Controller/ Speed	IMB-1216P/IMB-1216M LAN1: 1 x Intel I219LM with 10/100/1000 Mbps, supports AMT/vPro LAN2: 1 x Realtek RTL8111G/RTL8111H-CG with 10/100/1000 Mbps IMB-1216V/IMB-1216E LAN1: 1 x Intel I219V with 10/100/1000 Mbps LAN2: 1 x Realtek RTL8111G/RTL8111H-CG with 10/100/1000 Mbps
Connector	2 x RJ-45

Rear I/O

HDMI	1 x HDMI 2.0a
DisplayPort	1 x DP 1.2 (shared with internal VGA, by BIOS setting)
VGA	N/A
DVI	N/A
Ethernet	2 x 1 Gigabit LAN
USB	4 x USB 3.2 (Gen1)
Audio	2 (Mic-in, Line-out)
COM	N/A
PS2	N/A

Internal Connector

USB	1 x USB 3.2 (Gen1) (1 x Type-A vertical con) 3 x USB 2.0 (2 x 2.54 pitch header)
COM	COM1, 2(RS232/422/485), COM3, 4, 5, 6 (RS-232)
Parallel	1 (shared with GPIO)
GPIO	8 x GPI, 8 x GPO (shared with LPT header)
TPM	IMB-1216P/IMB-1216M: TPM 2.0 IC onboard IMB-1216V/IMB-1216E: TPM Header
LVDS	1 (shared with eDP, by BIOS setting)
eDP	1 (shared with LVDS, by BIOS setting)
VGA	1 x Header (shared with DP port, by BIOS setting)
SATA PWR Output	1
Speaker Header	1

Storage

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

Watchdog Timer

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

Power Requirements

Input PWR	12V~28V DC-In with 4-pin plug PWR cable or DC Jack
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%

The specification is subject to change without notice. The brand and product names are trademarks of their respective companies. Any configuration other than original product specification is not guaranteed.

Assured Systems

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