

IMB-1245-WV

Mini-ITX Motherboard



KEY FEATURES

- Intel® Core™ Ultra processors (Meteor Lake-H)
- 2 x 262-pin SO-DIMM DDR5 5600 MHz, up to 96GB (48GB per DIMM)
- 1 x PCIe x8 (Gen5), 2 x USB 3.2 Gen2, 6 x USB 2.0, 1 x M.2 Key E, 2 x M.2 Key M, 1 x M.2 Key B, 3 x COM, 2 x SATA3
- 1 x Intel 1 Gigabit LAN, 1 Realtek 2.5 Gigabit LAN
- Supports Quad display, 4 x HDMI, 1 x LVDS or eDP
- Supports Intel® vPro, VMD RAID 0/1
- 12~28V DC-In

SPECIFICATIONS

Form Factor

Dimensions(LxWxH)	Mini-ITX (6.7-in x 6.7-in x 0.97-in, 17.0 cm x 17.0 cm x 2.48 cm)
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Processor System

CPU	Intel® Core™ Ultra processors (Meteor Lake-H) IMB-1245P-WV (Ultra7 155H, 6P+8E) IMB-1245M-WV (Ultra5 125H, 4P+8E)
BIOS	AMI SPI 256 Mbit

Memory

Technology	Dual Channel DDR5 5600 MHz
Capacity	96GB (48GB per DIMM)
Socket	2 x 262-pin SO-DIMM

Graphics

Controller	Intel® Arc™ Graphics
HDMI	Max resolution up to 7680x4320@60Hz (HDMI0/1) Max resolution up to 4096x2160@60Hz (HDMI2/3)
LVDS	Dual channel 24 bit up to 1920 x 1200@60Hz (Connector shared with eDP)
eDP	Max resolution up to 1920 x 1080@60Hz (Connector shared with LVDS)
MultiDisplay	Quad display

Expansion Slot

PCIe	1 x PCIe x8 (Gen5)
M.2	1 x M.2 (Key E, 2230) with PCIe Gen4 x1, USB 2.0 and CNVi for Wireless 1 x M.2 (Key B, 3042/3052) with PCIe Gen4 x1, USB 3.2 Gen1, USB 2.0 and SIM for 4G/5G
SIM Socket	1x SIM socket connected to M.2 key B

Audio

Interface	Realtek ALC897 HD, High Definition Audio.
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Ethernet

Controller/ Speed	LAN1: Intel® I219LM with 10/100/1000 Mbps, supports vPro LAN2: Realtek RTL8125BG with 10/100/1000/2500 Mbps
Connector	2 x RJ-45

Rear I/O

HDMI	4 x HDMI
Ethernet	1 x 1 Gigabit LAN 1 x 2.5 Gigabit LAN
USB	2 x USB 2.0 2 x USB 3.2 Gen2
Audio	2 (Mic-In/Line-Out)
DC Jack	1 DC-in

Internal Connector

USB	4 x USB 2.0 (2 x 2.00mm pitch header)
COM	COM3, COM4, COM5 (RS-232/422/485)
LVDS	1 (Connector with LVDS/eDP signal, switch by BIOS)
SATA PWR Output	1
Speaker Header	1
MIPI Camera Header	1

Storage

M.2	1 x M.2 (Key M, 2242/2280) with PCIe Gen4 x4 for SSD 1 x M.2 (Key M, 2242/2280/22110) with PCIe Gen4 x4 for SSD
SATA	2 x SATA3 (6Gb/s)
RAID	Intel® VMD RAID 0/1 ***supported by identical interface (PCIe or SATA) PCIe interface: M.2 Key B+ M.2 Key M, 2 x M.2 Key M SATA interface: 2 x SATA port

Security

TPM	TPM Header
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Watchdog Timer

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

Power Requirements

Input PWR	12~28V 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

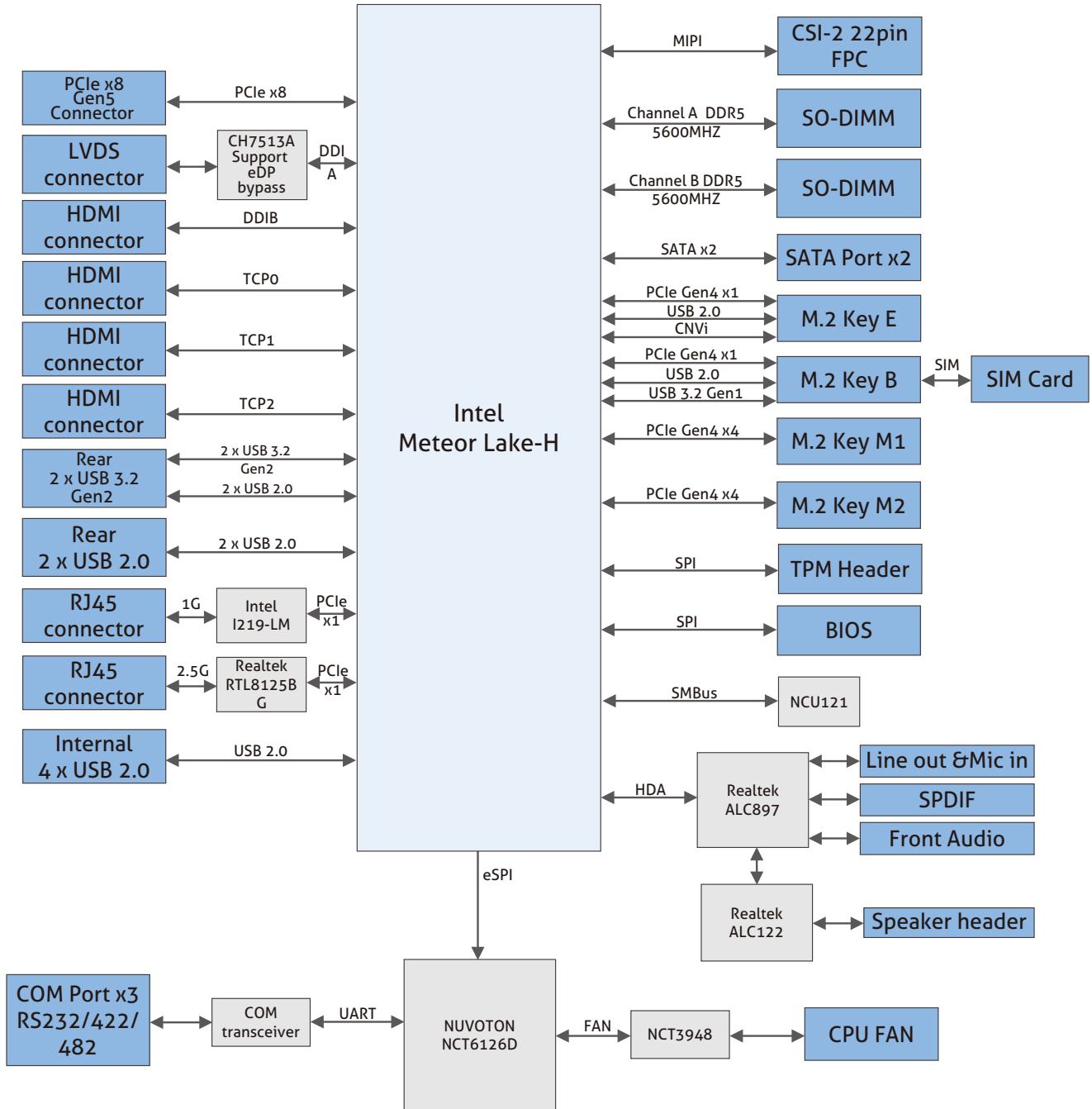
Environment

Operating Temp	-20°C ~ 70°C
Storage Temp	-40° C ~ 85° C
Operating Humidity	5% ~ 90%
Storage Humidity	5% ~ 90%

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BLOCK DIAGRAM



Assured Systems

Assured Systems is a leading technology company with over 1,500 regular clients in 80 countries, deploying over 85,000 systems to a diverse customer base in 12 years of business. We offer high-quality and innovative rugged computing, display, networking and data collection solutions to the embedded, industrial, and digital-out-of-home market sectors.

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