

# IMB-1005

Mini-ITX Motherboard



## KEY FEATURES

- Intel® Alder Lake-N SoC Processors
- 1 x 260-pin SO-DIMM DDR4 3200 MHz, up to 32GB
- 1 x PCIe x1 (Gen3), 4 x USB 3.2 Gen1, 5 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, 1 x SATA3
- 2 x Realtek 2.5 Gigabit LAN
- Support Triple display, 2 x HDMI2.0b, 1 x VGA, 1 x LVDS or eDP
- TPM Header
- ATX-PWR (24+4-pin) and 12~28V DC-In co-design

## SPECIFICATIONS

### Form Factor

Dimensions	Mini-ITX (6.7-in x 6.7-in x 1.6-in, 17.0 cm x 17.0 cm x 4.1 cm)
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### Processor System

CPU	Intel® Alder Lake-N SoC Processors IMB-1005J (N97, QC, Max Speed Up to 3.6GHz, 12W) *For other CPU SKUs request, please contact regional Sales for availability
Chipset	SoC
BIOS	AMI SPI 256 Mbit

### Memory

Technology	Single Channel DDR4 3200 MHz
Capacity	32GB
Socket	1 x 260-pin SO-DIMM

### Graphics

Controller	Intel® UHD Graphics
HDMI	HDMI 2.0b Max resolution up to 4096 x 2160@60Hz
VGA	Max resolution up to 1920 x 1200@60Hz
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	Triple display

### Expansion Slot

PCIe	1 x PCIe x1 (Gen3)
M.2	1 x M.2 (Key E, 2230) with PCIe x1, USB 2.0 and CNVi for Wireless 1 x M.2 (Key B, 3042/3052) with PCIe x1, USB 3.2 Gen1, USB2.0 and SIM for 4G/5G
SIM Socket	1 x SIM socket connected to M.2 key B

### Audio

Interface	Realtek ALC897 HD, High Definition Audio. Mic-in, Line-out
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### Ethernet

Controller/ Speed	LAN1: Realtek RTL8125BG with 10/100/1000/2500 Mbps LAN2: Realtek RTL8125BG with 10/100/1000/2500 Mbps
Connector	2 x RJ-45

### Rear I/O

HDMI	2 x HDMI2.0b
VGA	1
Ethernet	2 x 2.5 Gigabit LAN
USB	2 x USB 3.2 Gen1 2 x USB 2.0
Audio	2 (Mic-In, Line-Out)
COM	COM1, COM2, COM3 (RS-232/422/485)

### Internal Connector

USB	2 x USB 3.2 Gen1 (1 x USB3.2 header) 3 x USB 2.0 (1 x 2.54 pitch header, 1 x USB 2.0 Type-A vertical con)
COM	COM4 (RS-232) COM5 (RS-232 or TTL (optional)) COM6 (RS-232 or ccTalk (optional))
GPIO	4 x GPI, 4 x GPO
LVDS	1 (Connector with LVDS/eDP signal, switch by BIOS)
SATA PWR Output	1
Speaker Header	1
MIPI Camera Header	1 (optional)

### Storage

M.2	1 x M.2 (Key M, 2242/2260/2280) with PCIe Gen3 x1 or SATA3 for SSD
SATA	1 x SATA3 (6Gb/s)

### 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

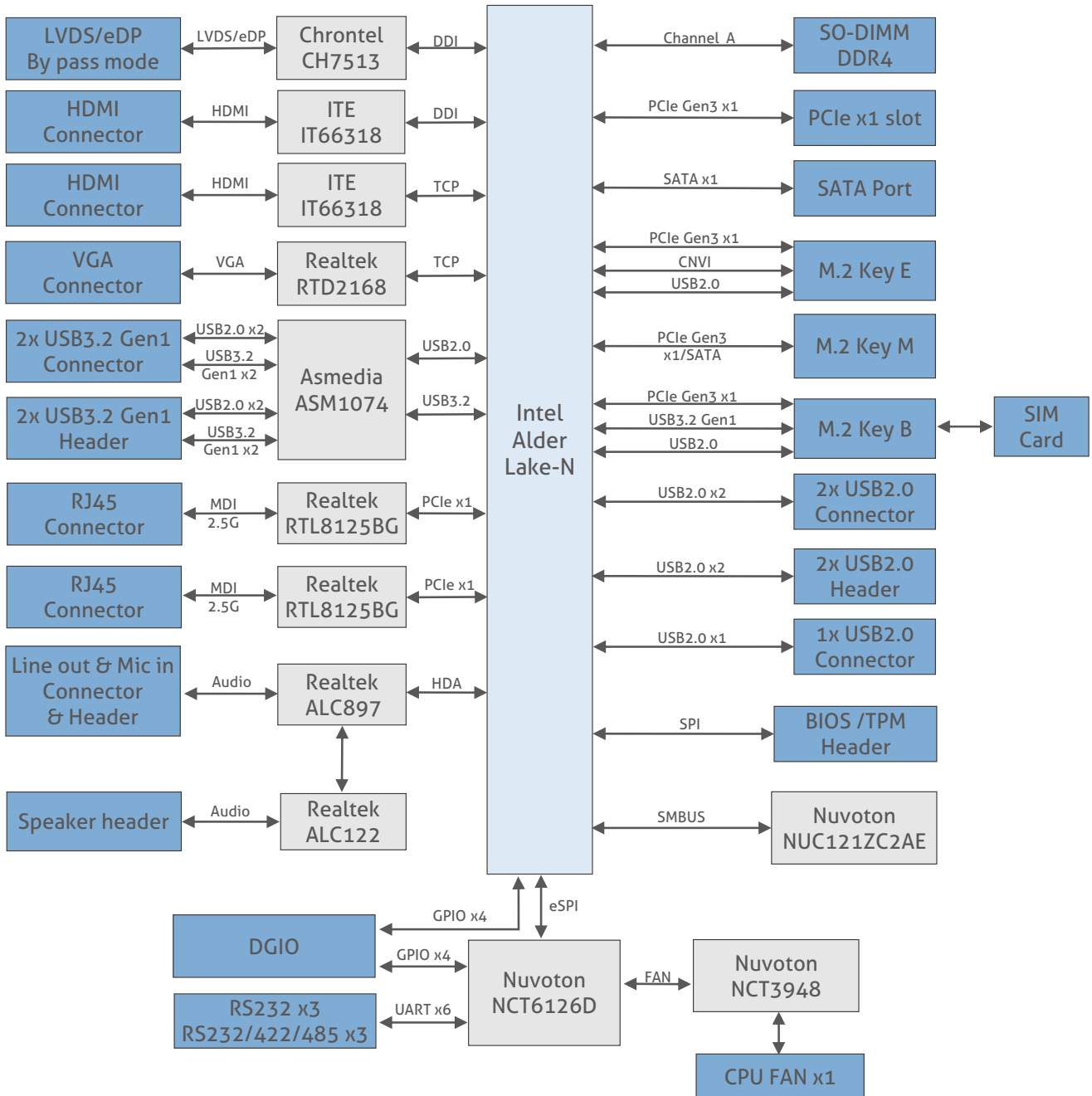
Input PWR	ATX-PWR (24+4-pin) and 12~28V DC-In co-design
Power On	AT/ATX Supported - AT : Directly PWR on as power input ready - ATX : Press button to PWR on after power input ready

### 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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## 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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