



KEY FEATURES

- Intel® Alder Lake-N SoC Processors
- 1 x 260-pin SO-DIMM DDR4 3200 MHz, up to 16GB
- 1 x PCIe x1 (Gen3), 1 x USB3.2 Gen2 Type C, 4 x USB 3.2 Gen1, 6 x USB 2.0, 1 x M.2 Key E, 1 x M.2 Key B, 1 x M.2 Key M, 4 x COM, 1 x SATA3
- 2 x Realtek 2.5 Gigabit LAN
- Support Triple display, 1 x HDMI2.0b, 1 x DP 1.4a (from Type-C), 1 x VGA, 1 x LVDS or eDP
- TPM Header
- 12~28V DC-In

SPECIFICATIONS

Form Factor

Dimensions	Mini-ITX (6.7-in x 6.7-in x 1.5-in, 17.0 cm x 17.0 cm x 3.8 cm)
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Processor System

CPU	Intel® Alder Lake-N SoC Processors IMB-1006J (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	16GB
Socket	1 x 260-pin SO-DIMM

Graphics

Controller	Intel® UHD Graphics
HDMI	HDMI 2.0b Max resolution up to 4096 x 2160@60Hz
DisplayPort	DP 1.4a 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 (Included 1 output from Type-C)

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 ALC662/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	1 x HDMI2.0b
DisplayPort	1 x DP1.4a
VGA	1
Ethernet	2 x 2.5 Gigabit LAN
USB	1 x USB 3.2 Gen2 (Type-C, 5V/3A, supports DP1.4a display output) 1 x USB 3.2 Gen1 2 x USB 2.0
Audio	2 (Mic-In, Line-Out)
DC Jack	1

Internal Connector

USB	3 x USB 3.2 Gen1 (1 x USB3.2 header, 1 x USB 3.2 Gen1 Type-A vertical con) 4 x USB 2.0 (2x2.54 pitch header)
COM	COM1, COM2 (RS-232/422/485) COM3, COM4 (RS-232/TTL-5V)
GPIO	4 x GPI, 4 x GPO
LVDS	1 (Connector with LVDS/eDP signal, switch by BIOS)
VGA	1
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 and USB 2.0 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	12~28V DC-In with 4-pin wafer 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%

BLOCK DIAGRAM

