



MB2-10ANS

Fanless Embedded System
with Intel® Alder Lake-N Processor

Introduction

- Intel® Alder Lake-N N97 (4C) / i3-N305 (8C8T) Processor
- 1 x DDR5 SO-DIMM and support up to 16GB
- Support Dual display for HDMI, and DisplayPort
- 2 x Intel® i226 2.5Gigabit Ethernet
- 1 x M.2 B Key, 1 x M.2 M Key, 1 x M.2 E Key slot
- 2 x USB 2.0, 3 x USB 3.2 Gen2 and 1 x USB Type C
- 8V~26V wide voltage power input
- Support Hailo-8™ AI Accelerator



USB3.2



Fanless Design



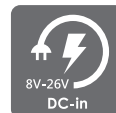
All Solid Capacitor



2.5G LAN



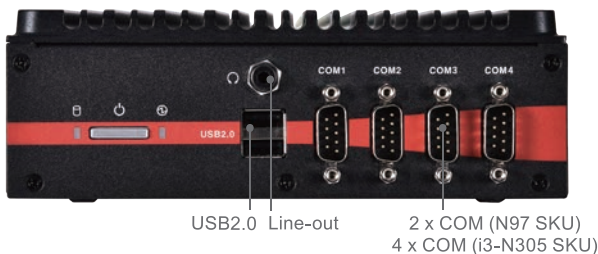
4 COM port



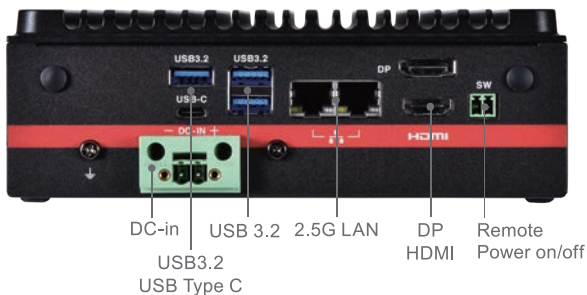
8V-26V DC-in

I/O Interface

Front I/O



Rear I/O

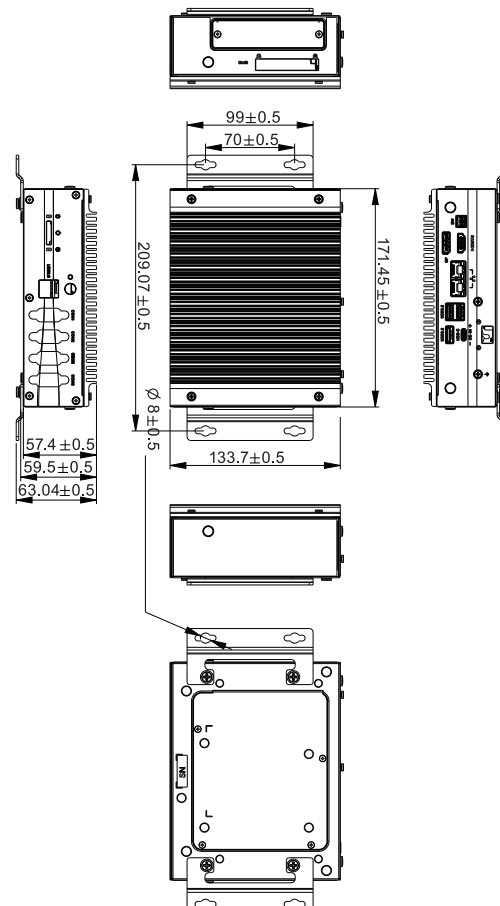


Side I/O



8-bit GPIO (i3-N305 SKU only)

Dimension (mm)



MB2-10ANS Fanless Embedded System

SYSTEM	
CPU	Intel® Alder Lake-N N97 (4C) / i3-N305 (8C8T) Processor
Chipset	Intel® SoC Integrated
System Memory	DDR5 4800 MHz, 1 x 262-pin SO-DIMM, Max. 16GB (Non-ECC)
Graphics	Intel® UHD Graphics
Display Interface	DisplayPort 1.4, HDMI 1.4
Storage Slot	1 x 2.5 HDD / SSD (Default w/ HDD Bracket)
	1 x M.2 2280 M Key NVMe/SATA SSD
	1 x M.2 2242 B-M Key SATA SSD
Ethernet	2 x Intel® I226-V 2.5G LAN
Audio	Realtek® ALC256
I/O Chipset	Nuvoton NCT6126D
TPM	Nuvoton NPCT760AABYX TPM2.0
Expansion Slot	Storage/LTE/5G Slot: 1 x M.2 2242/3042/3052 B Key (USB2.0/PCIeX1/SATAIII)
	Storage: 1 x M.2 2280 M Key (PCIeX1/SATAIII)
	Wireless: 1 x M.2 2230 E key (PCIeX1, USB2.0)
Internal Speaker	1 x Buzzer
Indicator	Power Button / Power LED / HDD LED
Front I/O	3 x RS232 (i3-N305 SKU), 1 x RS232 (N97 SKU)
	1 x RS232 / 422 / 485
	1 x Line-out
Side I/O	2 x USB 2.0
	8-bit GPIO in 10-pin Terminal Block Type connector (for i3-N305 SKU only)
	2 x SMA Antenna hole with rubber cap
Rear I/O	1 x USB Type C (Support PD15W, 5V/3A, DP Alt mode, USB3.2 Gen1)
	3 x USB 3.2 Gen2 Type A
	1 x HDMI 1.4
	1 x DP1.4
	2 x RJ-45
	1 x 2-pin Header Remote Power on / off
	1 x 2-pin Terminal Block Power Input
2 x SMA Antenna hole with rubber cap	
Hardware Monitor	Temperature Monitor, Voltage Monitor
Watchdog Timer	1~255 steps by software program
POWER REQUIREMENT	
Power Input	8~26V Wide Range DC Input w/ Terminal Block Connectivity
Power Adapter	Optional 12V/5A, 60W AC adapter (For AC SKU)
MECHANICAL	
Thermal Design	Fanless
Mounting	Wallmount 75 mm x 75 mm VESA Holes & Din Rail Mount + Transfer Plate Combo Kit (Optional)
Dimensions (W x D x H)	6.7" x 5.2" x 2.2" (171 x 133 x 57 mm)
Weight	2.1kg (4.6 lb)
Material	Bezel and chassis: Steel / Top cover: Die casting
ENVIRONMENTAL	
Operating Temperature	-25°C to 60°C, with 0.7m/s Air Flow and Wide Temperature Memory & Storage
Storage Temperature	-40 ~ 85°C (-40 ~ 185°F)
Operating Humidity	10% ~ 90% R/H (Non-condensing)
Vibration Resistance	Operating: 5Hz~500Hz / 2Grms / 3Axis (w/ SSD, according to IEC60068-2-64)
Shock Resistance	Operating: 50 Grms, Half-sine 11 ms Duration (w/ SSD, according to IEC60068-2-27)
Certification	CE / FCC Class B
OS	
OS Support	Windows® 11 64bit, Windows® 10 64-bit, Linux (support by request)

Ordering Information

Model Number	Processor	COM / GPIO	Operating Temperature	AC Adaptor
MB2-10ANS-N97	N97	2 / None	-25 ~ 60°C	None
MB2-10ANS-N97-AC	N97	2 / None	-25 ~ 60°C	60W AC to DC Adaptor
MB2-10ANS-N305	i3-N305	4 / 8-bit GPIO	-25 ~ 60°C	None
MB2-10ANS-N305-AC	i3-N305	4 / 8-bit GPIO	-25 ~ 60°C	60W AC to DC Adaptor

Packing List

Packing		
• 1 x Embedded System	• 1 x Quick Installation Guide	• 1 x Wall Mount Brackets
• 2 x 2 pin Terminal Block Power Connector	• 1 x SATA and SATA power cable	• 1 x 10-pin Terminal Block Male Connector (i3-N305 SKU)
• 1 x AC Adaptor + US & EU Power Cord (AC SKU)		