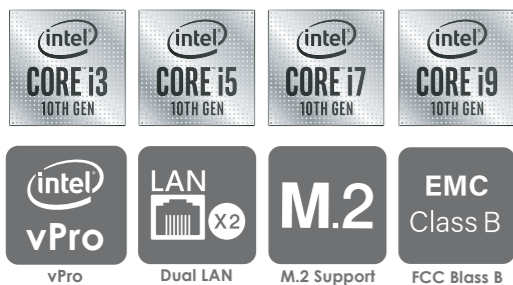


# E420

Intel Raptor Lake-S 13th/  
Alder Lake-S 12th Core-i processor, up to 35W

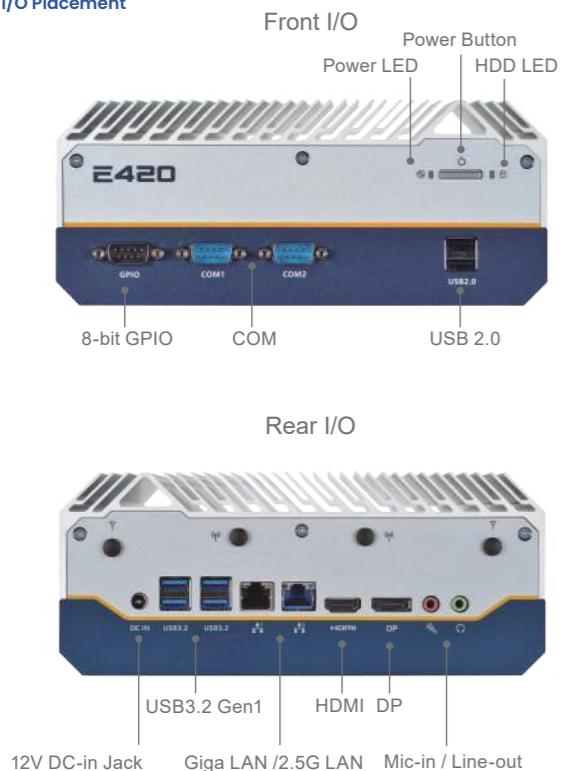
## Introduction

- Intel® H610 Chipset
- 2x DDR5 SO-DIMM up to 64GB
- Support Dual Display for HDMI, DisplayPort
- 1x M.2 2280 M-key (NVME), 1 x M.2 2230 E-key (CNVi), 1 x M.2 3042 B-Key
- 4 x USB3.2 Gen1, 2 x USB2.0, 2 x COM, 8-bit GPIO
- Hailo-8™ AI chip for AI acceleration up to 26TOPS (Optional)

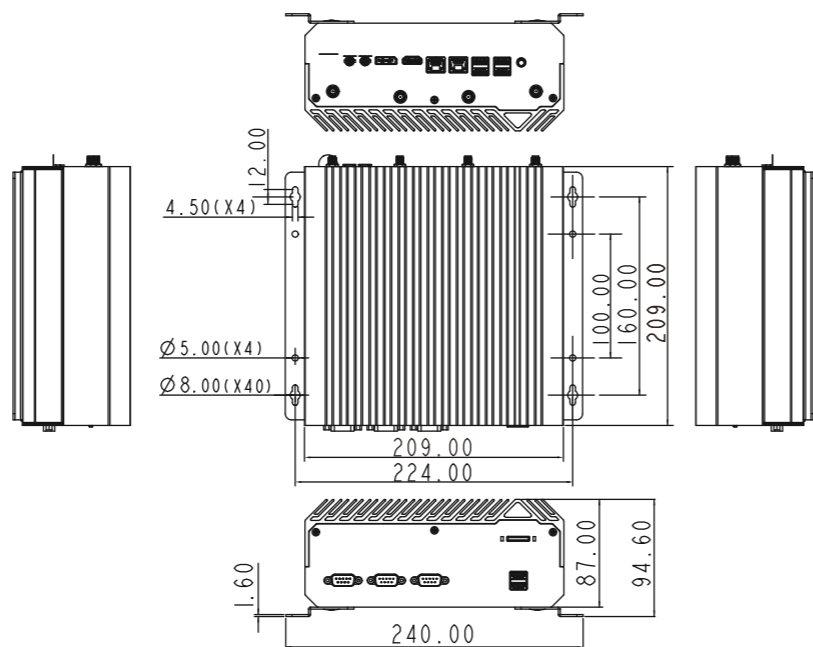


## I/O Interface

I/O Placement



## Dimension (mm)



# E420 Fanless Embedded System

SYSTEM	
CPU	13th/12th Gen Intel® Raptor Lake-S Alder Lake-S LGA1700 Socket Processor Core i9/i7/i5/i3 Processor (TDP Max 35W)
Chipset	Intel® H610
System Memory	DDR5 4800 MHz / 2 x 262-pin SO-DIMM / Max. 64 GB (Non-ECC)
Graphics	Intel® UHD Graphics
Display Interface	DisplayPort 1.2 / HDMI 1.4
Storage Slot	1 x 2.5" HDD/SSD bracket
Ethernet	Intel® I219-LM Giga LAN + Intel® I225V 2.5 Giga LAN
Audio	Realtek® ALC888S
TPM	TPM Header / (support optional TPM 2.0 module)
I/O Chipset	Nuvoton NCT6126D
Expansion Slot	1x M.2 2230 E key (PCIe X1, USB2.0, SMBus, CNVi) 1x M.2 2280 M key (PCIe3.0 X4, SATAIII) 1x M.2 3042 B key (USB2.0, PCIe3.0 X1, SATAIII)"
Indicator	Power Button / Power LED / HDD LED
Front I/O	2 x USB 2.0 8-bit GPIO (DB9 Connector) 1 x RS232 1 x RS232 / 422 / 485"
Rear I/O	4 x SMA hole with rubber cap (for optional wireless module) / 1 x HDMI 1.4 1 x DisplayPort 1.2 2 x RJ-45 4 x USB 3.2 Gen1 1 x Mic-in 1 x Line-out"
H/W Monitor	Temperature Monitor / Voltage Monitor
Watchdog Timer	1~255 steps by software program
POWER REQUIREMENT	
Power Input	12V DC-in Jack (Default)
MECHANICAL	
Thermal Design	Fanless
Dimensions (W X D X H)	209mm x 209mm x 87mm
Material	Cold rolled steel and extruded aluminum front panel
ENVIRONMENTAL	
Operating Temperature	-20 ~ 50°C
Storage Temperature	-40 ~ 85°C (-40 ~ 185°F)
Operating Humidity	10% ~ 95% R/H (Non-condensing)
Vibration Resistance	Operating Random Vibration, PSD (0.25 - GRMS) minimum axis, 3 axes - Test up to 0.50 GRMS Non-operating Random Vibration, 3 axes, 15 min per axis, 2.09Grms
Shock Resistance	Operating (without package) – Half sine wave shock: 40G, 2.5ms duration Non-operating (without package) – Half sine wave shock: 120G, 2ms duration
Certification	CE / FCC Class B
OS	
OS Support	Windows®10 64-bit / Windows® 11 64bit

## Ordering Information

Model Number	Chipset	DP	HDMI	USB 3.2 / 2.0	LAN	M.2 E key / M.2 M key / M.2 B key	Power	
E420	RPL-S/ADL-S	H610	1	1	4/2	2	1 / 1 / 1	DC-in 12V

\*Option: TPM, WIFI / BT

## Packing List

Packing		
• 1 x Embedded System	• 1 x SATA Cable/	• 1 x SATA power Cable
• 1 x CPU Heatspreader	• 1 x 12V, 90W AC adaptor with US + EU power cords	• 1 x Wall Mount Brackets

Rugged

Fanless

Fanned

Rackmount