

# SB-244-RPLU

Industrial Fanless Rugged Controller w/ Intel® 13<sup>th</sup> Raptor Lake U Series Processor & Discrete TPM



## Features

- 13<sup>th</sup> Generation Intel® Core i7 / i5 / i3 Processors (Raptor Lake)
- 1 x DDR5 4800MHz SODIMM Slot, up to 32GB
- Support 2 x HDMI
- Support 1 x GbE PHY LAN , 3 x 2.5GbE
- Support 10-36V Wide DC Input
- Support Over-voltage and Reserved Power Insertion Protection
- Support M.2 SSD, M.2 Wi-Fi, Mini-PCIe, M.2 3052 5G
- Support Discrete TPM 2.0



HDMI



Over-voltage Protection



USB 3.2



-20~60°C



Wide Voltage Range



Reversed Power Insertion Protection

## System

CPU	13 <sup>th</sup> Generation Intel® Core™ i7/ i5/ i3 (Raptor Lake U series)
Memory	1 x 262-pin DDR5 SO-DIMM sockets, supporting 4800 MHz SDRAM up to 32GB
Chipset	Integrated in CPU
Graphics	Intel® UHD Graphics for 13 <sup>th</sup> Gen Intel® Processors
LAN chipset	1 x Intel® i219-LM GbE PHY 3 x Intel® I226-V 2.5GbE controllers
Watchdog Timer	1~255 levels reset
TPM	Nuvoton NPCT760AABYX TPM 2.0 chip

## Storage

Device	1 x M.2 2242 B-Key SATA SSD 1 x M.2 2280 M-key NVMe supported 1 x SATA 3.0 (2.5" HDD/SSD)
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## Audio

Type	1 x audio(Line-out & Mic-in) (Chipset ALC888S/897)
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## Power System

Power Input	10-36V DC, 2-pin phoenix connector
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## OS

Windows 10/11, Ubuntu 22.04
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## Qualification

Certification	CE, FCC
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## External I/O

Serial Ports	4 x RS232/422/485(default RS-232) with auto flow control (5-pin phoenix terminal head interface)
USB Ports	3 x USB3.2 3 x USB2.0
LAN	4 x RJ45

Video Ports	2 x HDMI (Max Resolution: 4096 x 2304@60Hz)
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Power Button	1 x power button w/ LED
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Remote on-off	1 x SW
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## Internal I/O

Expansion Slot	1 x full-size Mini PCIe (PCIe x1 / USB2.0 signals)
	1 x M.2 2230 E-key slot (PCIe x1 / USB2.0 signals)
Expansion Slot	1 x M.2 2280 M-key NVMe (PCIe x4 signals)
	1 x M.2 2242 B-key SATA SSD or 3042/3052 cellular module (USB3.2 signals) [Note: 2242 M.2 SSD, 3042 M.2, 3052 M.2 share one card slot, only one of the cards can be inserted]

SIM Card	1 x SIM Card socket for 4G/5G module
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USB Port	2 x USB2.0 by pin head
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COM Port	2 x R232 by 3-wire pin head
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GPIO	1 x 8bit programmable GPIO pin header (3.3V / 5V jumper voltage adjustable)
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## Mechanical

Chassis	Aluminum alloy
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Mounting	Wall-mount, Din-rail
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Dimension	200 x 140 x 55.7 mm
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Weight (Net)	1.8kg
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## Environmental

Operating Temp.	-20 ~ 60°C (-4 ~ 140°F), ambient w/ air flow
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Storage Temp.	-40 ~ 85°C (-40 ~ 185°F)
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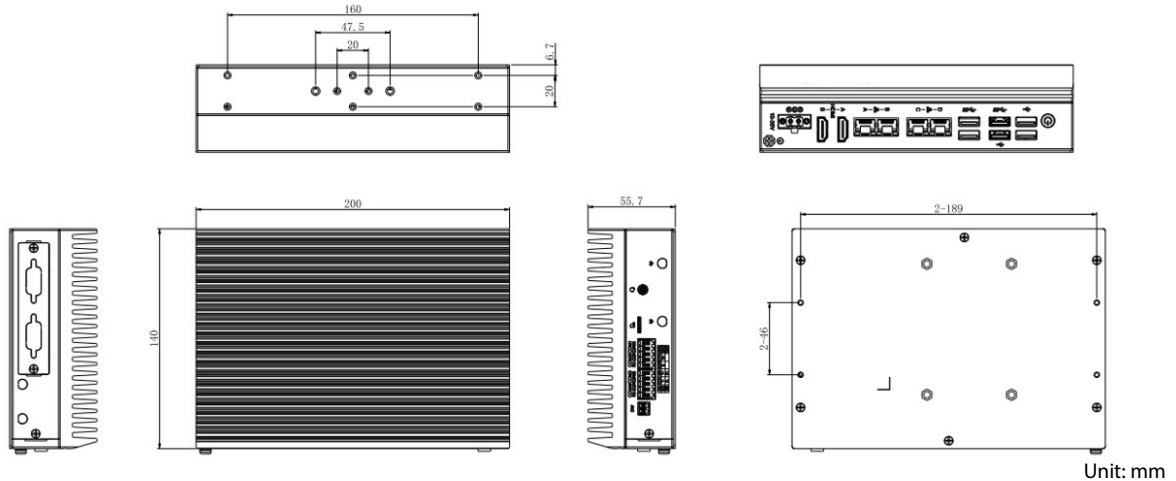
Operating Humidity	10% ~ 95% (non-condensing)
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Vibration	5~500Hz, 2Grms operation
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Shock	Operation: 10G@11ms
	Non-operation: 30G@11ms

# SB-244-RPLU

## Dimensions



## Packing List

SB-244-11XXX	1pcs BOX PC	
Wall-mount bracket	2 pcs	
DIN-rail kit	1 pcs	
Thermal Pad	1pcs for Memory 2pcs for M.2-2242/3042	
2-pin terminal block	1pcs 5mm for power-input, 1pcs 3.5mm for remote on-off SW	
DIP-10 terminal block	2pcs for serial ports	
Screw package	1 pcs	
22-pin SATA & power cable	1 pcs	

## Ordering Information

SB-244-11315U	SB-244-11315U w/ i3-1315U Fanless System, 4xLAN, 4xCOM(up to 6), 6xUSB, 2xHDMI, DC12-36V power input
SB-244-11335U	SB-244-11335U w/ i5-1335U Fanless System, 4xLAN, 4xCOM(up to 6), 6xUSB, 2xHDMI, DC12-36V power input
SB-244-11365U	SB-244-11365U w/ i7-1365U Fanless System, 4xLAN, 4xCOM(up to 6), 6xUSB, 2xHDMI, DC12-36V power input
PAC-120W-FSP-SPA R1.0	AC/DC ADAPTER KIT (W/UKCA),19V,120W,2 WIRE w/ USA POWER CORD
PAC-120W-FSP-SPA R1.1	AC/DC ADAPTER KIT (W/UKCA),19V,120W,2 WIRE w/ EU POWER CORD
PAC-120W-FSP-SPA R1.2	AC/DC ADAPTER KIT (W/UKCA),19V,120W,2 WIRE w/ UK POWER CORD
PAC-120W-FSP-SPA R1.3	AC/DC ADAPTER KIT (W/UKCA),19V,120W,2 WIRE w/ IN POWER CORD