

SB-244-1N305

Industrial Fanless Rugged Controller w/ Intel® Alder Lake-N Core i3 Processor N-series



Features

- Intel® Alder Lake-N Core i3-N305 (8 Cores, Up to 3.8GHz)
- 1 x DDR4 3200MHz SO-DIMM Slot, up to 16GB
- Support DP/HDMI display
- Support 4 LAN ports
- Support Wide DC Input 10-36V
- Support M.2 2242 slot(SATA), mSATA, MiniPCle, M.2 3052 5G
- Support Over-voltage and Reserved Power Insertion Protection



HDMI



Over-voltage
Protection



USB 3.1



-20~60°C



Wide Voltage
Range



Reversed
Power Insertion
Protection

System

CPU	Intel® Alder Lake-N Core i3-N305 processor (8 Cores, Up to 3.8GHz)
Memory	1 x DDR4 SO-DIMM socket, supporting 3200 MHz SDRAM up to 16GB
Chipset	Integrated in CPU
Graphics	Integrated Intel® UHD Graphics
LAN chipset	1 x Intel® i210-AT GbE controller 3 x Intel® i226-V 2.5GbE controllers
Watchdog Timer	1~255 levels reset

Storage

Device	1 x M.2 2242 SATA SSD 1 x MiniPCle slot for mSATA *CTOS is available
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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

Qualification

Certification	CE, FCC
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External I/O

Serial Ports	4 x RS232/422/485 (default RS232) with auto flow control
USB Ports	2 x USB3.2 4 x USB2.0
LANs	4 x RJ45
Video Ports	1 x HDMI (Max Resolution: 4096x2160@60Hz) 1 x DP (Max Resolution: 4096x2160@60Hz)

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 MiniPCle slot (PCle/USB2.0/mSATA signal supported) 1 x M.2 B key 3052 cellular module (USB3.0 Signal supported)
SIM Card	1 x SIM Card socket for 3G/4G module 1 x SIM Card socket for 5G module
COM Port	2 x RS232 by Pin header
GPIO	1 x 8bit programmable GPIO pin header (3.3V / 5V Jumper Voltage adjustable)

Mechanical

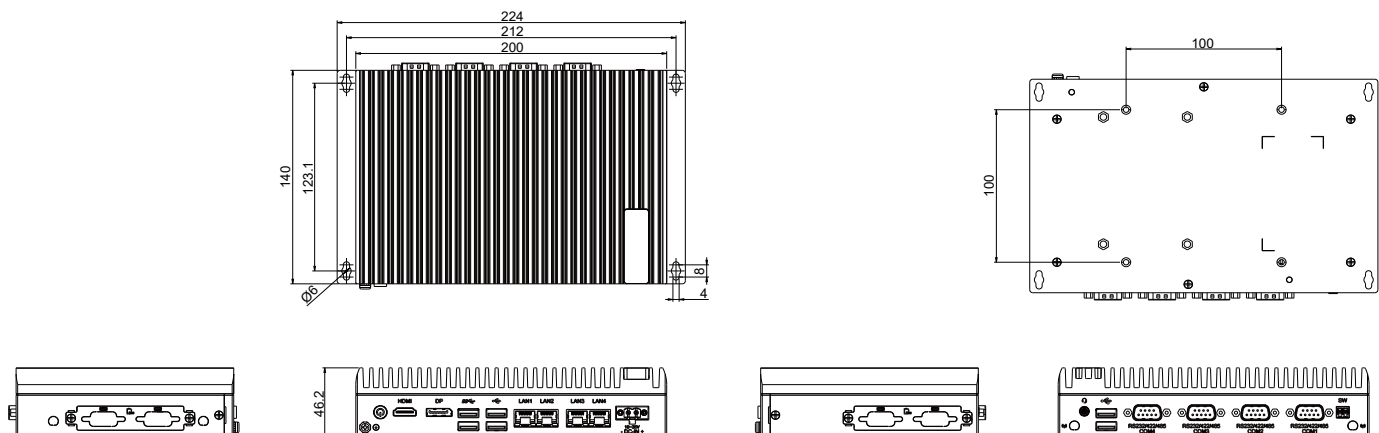
Construction	Aluminum Alloy
Mounting	Wall-mount VESA-mount (optional) Din Rail (optional, Composition: SB-244-VESA-MOUNT + SPA BOX PC DIN RAIL KIT)
Dimension (W x H x D)	224 x 140 x 46.2 mm
Weight	1.6 kg

Environmental

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

*CTOS means Configure-to-Order Service.

Dimension



Unit: mm

Packing List

SB-244-1N305	1 pcs BOX PC
Thermal PAD	2 pcs for Memory, 1 pcs for M.2 2242
2-pin terminal block	1 pcs 5mm for Power-input, 1 pcs 3.5mm for Remote on-off SW
Screw Package	1 pcs

Ordering Information

SB-244-1N305	Barebone Fanless System with Intel® Processor Alder Lake-N Core i3-N305, 4 x LAN, 4 x COM(up to 6), 6 x USB, 1 x HDMI, 1 x DP, DC10-36V power input
SB-244-1N305-R8S128	Fanless System with commercial 8GB RAM & 128GB SSD, Intel® Processor Alder Lake-N Core i3-N305, 4 x LAN, 4 x COM(up to 6), 6 x USB, 1 x HDMI, 1 x DP, DC10-36V power input
SPA BOX PC DIN RAIL KIT	DIN Rail Bracket w/Screw, 35mm W25, 25X47.8mm
SB-244-VESA-MOUNT	VESA BRACKET w/ DIN-Rail screw hole, SECC, Gray Paint, 224 x 130 x 10.5mm, DIN-Rail mount (SB-244-VESA-MOUNT + SPA BOX PC DIN RAIL KIT) for SB-244-TGLU,SB-244-1NXXX
8bit GPIO Cable	250mm, DB9M TO HSG2 x 6P(2.0), 8bit GPIO, W/O BRACKET, W/SCREW
2 x RS232 Y Cable	100mm,DB9M x 2 TO HSG2 x 3P(2.0), RS232, W/O BRACKET, W/SCREW
PAC-120W-FSP-SPA-US R1.0	AC/DC Adapter Kit (w/ UKCA), 19V, 120W, 2 WIRE w/ US POWER CORD
PAC-120W-FSP-SPA-EU R1.0	AC/DC Adapter Kit (w/ UKCA), 19V, 120W, 2 WIRE w/ EU POWER CORD
PAC-120W-FSP-SPA-UK R1.0	AC/DC Adapter Kit (w/ UKCA), 19V, 120W, 2 WIRE w/ UK POWER CORD
PAC-120W-FSP-SPA-IN R1.0	AC/DC Adapter Kit (w/ UKCA), 19V, 120W, 2 WIRE w/ IN POWER CORD
PAC-120W-FSP-SPA-JP R1.0	AC/DC Adapter Kit (w/ UKCA), 19V, 120W, 2 WIRE w/ JP POWER CORD