

SP-181C-1N305

Industrial Fanless 18.5" Panel PC w/ Intel® Alder Lake-N Core i3 Processor N-series



- Intel® Alder Lake-N Core i3-N305 Processor (8 cores, up to 3.8GHz)
- 18.5 inches FHD LCD with LED backlight, front panel support IP66
- Industrial-grade 10 points project capacitive touch screen
- 1 x DDR5 4800MHz SODIMM Slot, up to 16GB
- Support two 2.5 GbE LAN
- Wide voltage 10~36V DC-IN, lockable Phoenix connector
- Support remote ON-OFF
- Grounding protection for product shell
- Support 1 x 2.5 inches HDD/SSD expansion
- Support standard VESA and panel mount
- Support Over-Voltage & Reversed Power Insertion Protection



System

CPU	Intel® Core™ i3-N305 Processor (6M Cache, 8 Cores, UP to 3.8GHz)
Memory	1 x DDR5 SO-DIMM sockets, supporting 4800 MHz SDRAM up to 16GB
Chipset	Integrated in CPU
Graphics	Integrated Intel UHD Graphics
LAN Chipset	2 x Intel® I226-V 2.5 GbE controllers
Watchdog Timer	1~255 levels reset

Storage

Device	1 x M.2 M key 2242/2280 slot (SATA signal)
	1 x M.2 M key 2242/2280 slot (PCIe x4 NVMe signal) (OEM Request)
	1 x SATA 3.0(2.5" HDD/SSD driver bay)
	*CTOS is available

Power

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

Type	Windows 10/11, Ubuntu 22.04
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Qualification

Certification	CE, FCC
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LCD Display

Size/Type	18.5 inches TFT LCD Panel
Max. Resolution	1920(H) x 1080(V)
Ratio	16:9
Luminance	350 nits
Contrast Ratio	1000:1
Backlight Type	LED
Backlight Lifetime	50,000 Hrs
Touch Type	10 points project capacitive touch screen
Touch	35,000,000 times
View Angle	CR ≥ 10, 170° (H) / 170° (V)

Audio

Type	1 x Audio (Line-out & Mic-in 2 in 1) (Chipset ALC888S)
Speaker	2 x 4Ω3W speakers

External I/O

Serial ports	1 x RS232/422/485(COM1) with DB9
	1 x RS232(default)/485(Jumper)(COM2) with DB9
	1 x RS232(COM3) with DB9
USB Ports	2 x USB3.2
	2 x USB2.0
LAN	2 x RJ45
Video Ports	1 x HDMI *up to 4096 x 2304@60Hz
Power button	1 x Power button w/ LED
Remote On/Off	1 x Remote On/Off Switch

Internal I/O

Expansion	1 x M.2 E-key 2230 (PCIe x1/USB 2.0 signal) support CNVi
	1 x 8bit GPIO 3.3V(jumper)/5V(default) Power voltage(optional)
	2 x RS232 (optional)

Mechanical

Front Panel	Aluminum alloy
Heat-Sink	Aluminum alloy
Rear Cover	SECC
Dimension	470.5(W) x 295.6(H) x 67(D) mm
Cut-Out	457.5 x 282.6 mm
Mounting	Panel Mount, Wall and VESA-mount(75 x 75 mm)
Weight	6.2 Kg
Ingress Protection	Front Panel IP66

Environmental

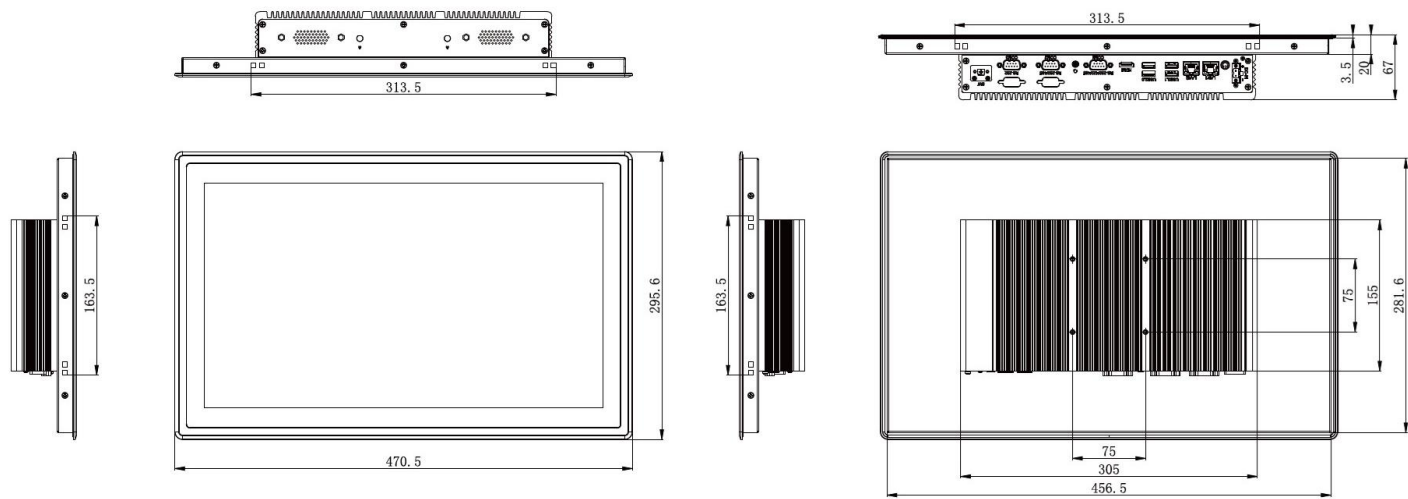
Operating Temp.	-10 ~ 60°C, ambient w/ air flow (WT RAM & SSD)
Storage Temp.	-40 ~ 70°C
Operating Humidity	5 ~ 95% @ 40°C (non-condensing)
Vibration	5~500Hz, 2Grms operation
Shock	Operation: 10G@11ms
	Non-operation: 30G@11ms

*CTOS means Configure-To-Order Service

Note for M.2 M key 2242/2280 slot (PCIe x4 NVMe signal) (OEM Request): When OEM Request is executed, M.2 SATA & 2.5" SATA are disabled.

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Dimension:



Unit:mm

Packing List

SP-181C-1N305	1pcs Panel PC
Panel Hook	4 pcs in 1 package
2-pin terminal block	1pcs 5mm for Power-input, 1pcs 3.5mm for Remote on-off SW
Thermal Pad	4pcs for M.2 2242/Memory, 1pcs for CPU
22-pin SATA & Power Cable	205mm,1pcs
Screw package	1pcs

Ordering Information

SP-181C-1N305	23.8"(16:9) Panel PC with Intel® Core™ i3-N305 processor, HDMI*1, USB*4, LAN*2, COM*5, DC10~36V power input
SP-181C-1N305-R8S128	23.8"(16:9) Panel PC with commercial 8GB RAM & 128GB SSD, Intel® Core™ i3-N305 processor, HDMI*1, USB*4, LAN*2, COM*5, DC10~36V power input
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
8bit GPIO cable	200mm,DB9M TO HSG2*5P(2.0),8bit GPIO,W/O BRACKET,W/SCREW
COM4 cable	150+/-10mm,DB9M TO HSG2*5P(2.0),9-Wire COM4,W/O BRACKET,W/SCREW
COM5 cable	150+/-10mm,DB9M TO HSG2*5P(2.0),3-Wire COM5,W/O BRACKET,W/SCREW