

# E221 Series



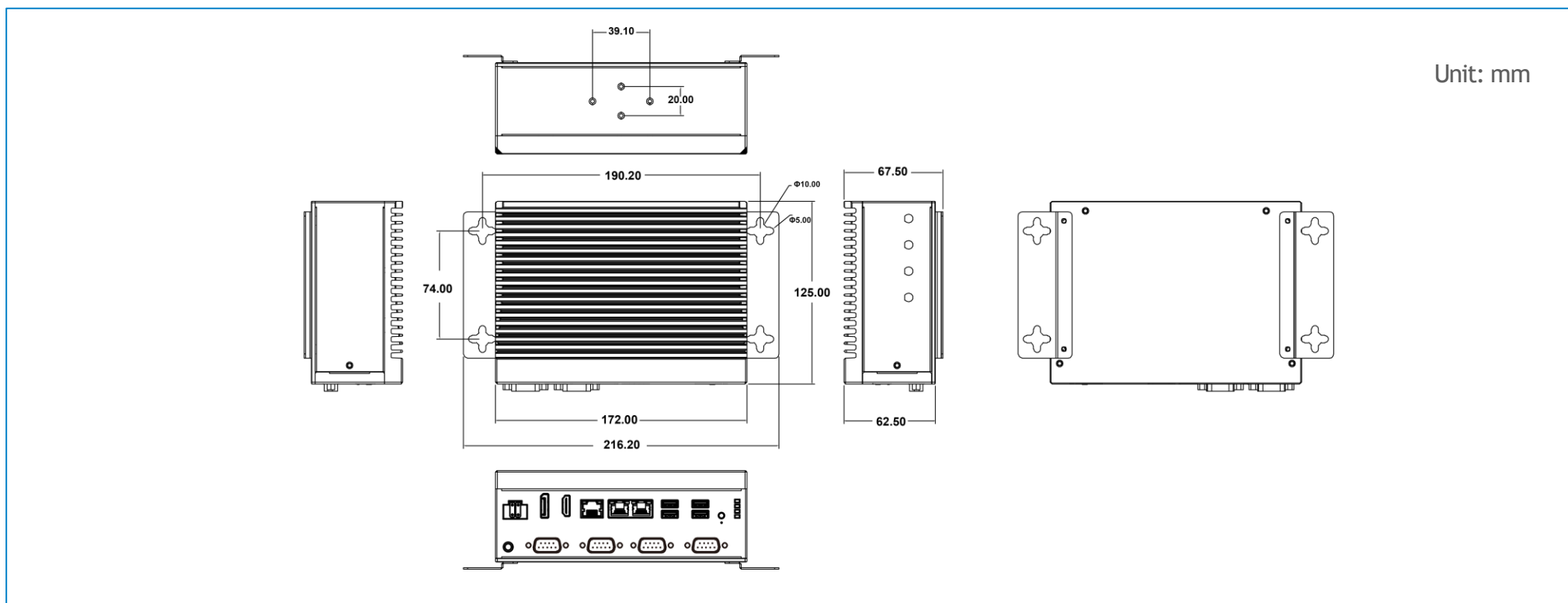
## Product Features

- Intel® Alder Lake N N50/ N97/ N200/ i3-N305 CPU
- Single channel DDR5-4800 up to 16GB memory
- 2 independent display via DP and HDMI
- 3 LAN (2 x Intel i210, 1 x Realtek RTL8111H)
- 1 RS-232/422/485, 1 RS-232, 2 RS-232/485
- 2 USB 3.0, 2 USB 2.0
- Support 4G/5G, Wi-Fi 6 module expansion
- DC 9-36V, UPS module is optional
- 172 x 125 x 62.5mm (L x W x H), support Wall-mounting/ Back-mounting/ Din rail installation
- Modular and cable-free design
- CE/FCC Class B, ESD 8KV/15KV
- Windows 10/11, centos 8, ubuntu 20.04/22.04

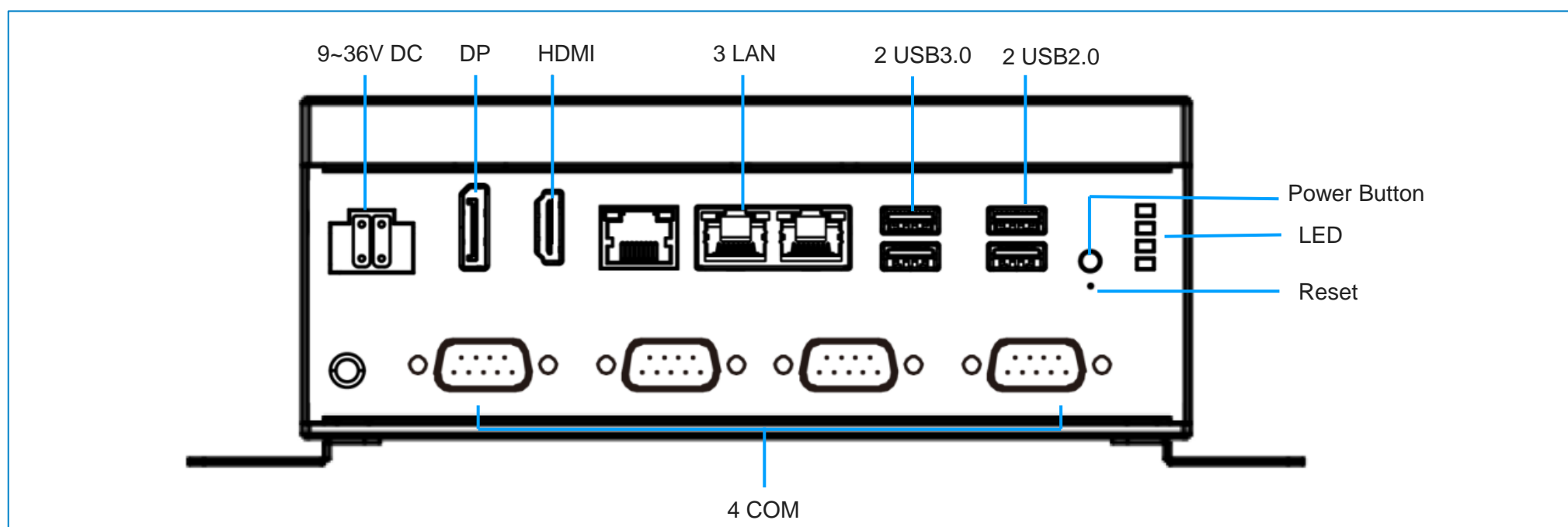
## Specifications

Item	Description	
<b>Processor System</b>	CPU	Intel® Alder Lake N N50/ N97/ N200/ i3-N305 CPU
	TDP	Max 15W
	BIOS	AMI 128Mbit SPI Flash
<b>Memory</b>	Technology	Single channel DDR5 4800MT/s SO-DIMM
	Max. Capacity	16 GB
<b>Graphics</b>	Controller	Intel Gen12 UHD Graphics Engines (SoC integrated)
	Feature	DX12,Open GL4.6,Vulkan 1.2
<b>External I/O</b>	DP	1 x DP1.4a, resolution up to 4096 x 2304@60 Hz
	HDMI	1 x HDMI 2.0b, resolution up to 4K x 2K@60Hz
	Ethernet	2 x Intel i210 GbE LAN, 1 x 4K x 2K@60Hz GbE LAN
	Serial Port	COM1: RS-232/422/485, COM2: RS-232, COM3~4: RS-232/485 (Default mode is RS-232)
	USB	2 x USB2.0, 2 x USB3.0
	Power Input Connector	4 PIN Phoenix terminal, support remote switch
<b>LED &amp; Switch</b>	LED Indicator	Power status, HDD, User-defined 1, user-defined 2
	Power Button	1 x Power Button
	Reset	1 x Reset
<b>Internal Connectors</b>	Internal USB2.0	1 x internal USB2.0 (PIN-Out), 1 x internal USB2.0 Type-A support Dongle
	M.2 E-Key	1 x M.2 2230 support Wi-Fi 6 (Support both CNVI and PCIe protocol)
	M.2 B-Key	1 x M.2 3052 support 4G/5G
	M.2 M-Key	1 x M.2 2280 Sata3.0
	SIM	1 x Nano SIM
<b>Power Supply</b>	Power Input	DC 9-36V ± 10%
	Max. Consumption	60W
	Power Management	AT/ATX
<b>Others</b>	Watchdog	Interrupt, system reset, programmable 1 ~ 255 seconds/minute
	TPM	TPM 2.0 (Optional)
<b>Environment</b>	Operating Temperature	0 ~ 60 °C (32~140°F)
	Storage Temperature	-40° C ~ 85° C (-40~185°F)
	Operating Humidity	95% @ 40 °C (Non-condensing)
	Storage Humidity	95% @ 60 °C (Non-condensing)
<b>Physical Characteristic</b>	Dimension	172 x 125 x 62.5mm (L x W x H)
	Weight	1.26 kg
	Installation	Wall-mounting/ Back-mounting/ Din rail
<b>Certification</b>	EMC	CE, FCC
<b>Operation System</b>	OS	Windows 10/11, centos 8, ubuntu 20.04/22.04

## Dimension



## Interfaces



## Ordering Information

Model	CPU	Turbo Frequency	TDP	Core/ Thread	LAN	COM	USB3.0	USB2.0	DP	HDMI	Power
E221-01	N50	3.40 GHz	6W	2C	3	4	2	2	1	1	9~36V DC
E221-02	N97	3.60 GHz	12W	4C	3	4	2	2	1	1	9~36V DC
E221-03	N200	3.70 GHz	6W	4C/4T	3	4	2	2	1	1	9~36V DC
E221-04	i3-N305	3.80 GHz	15W	8C/8T	3	4	2	2	1	1	9~36V DC

## Optional Accessories

Part Number	Description
-	WiFi+BT module M.2 2230 WiFi6 2T2R AW-XB547NF
MF0A000000000016	5G module, M.2 RM500Q-GL Sub-6 GHz Worldwide (Excluding US)
MF0A000000000042	5G LTE module, M.2 RM520NGLAA-M20-SGASA, Worldwide
MF0A000000000036	4G LTE module, M.2 EM05CEFC-128-SGAS, China
MF0A000000000066	5G LTE module, M.2 RM500UCNVAA-D10-SNADA EMEA/Asia-Pacific
82UPS00000000002	Internal UPS module
MC0A000000000025	Din rail clip (25*80mm)

## OS Support

Part Number	Description
AA0A000000000002	Win10 IoT Ent 2019 LTSC Entry OEM
AA0A000000000003	Win10 IoT Ent 2019 LTSC MultiLang ESD OEI High End
AA0A000000000004	Win10 IoT Ent 2019 LTSC MultiLang ESD OEI Value
AA0A000000000005	Win10 IoT Ent 2021 LTSC Multilang ESD OEI Entry
A087	Win 11
A088	centos 8
A049	ubuntu 20.04 (E221)
A053	ubuntu 22.04 (E221)

## Packing List

Part Number	Description	Quantity
-	E221 Series Embedded PC	1
KE0A000000000004	Round head screws	6
ZM0A000000000020	Three-plug power cord	1
ZM0A000000000058	24V 2.5A Power adaptor with 4PIN terminal	1
MC0A000000000019	Wall-mounting kits (100*37*1mm)	1