



Features

- Industrial-grade 12.1" WXGA LCD panel with 50k backlight lifetime
- Optical bonding PCAP multipoint touch screen
- IP66 grade aluminum alloy front panel
- Intel® Alder Lake-N N97 Quad-core 2.0GHz processor
- 1 x DDR5 SDRAM, max.32GB, 1 x M.2 2280 NVMe or SATA SSD
- 3 x Intel® 226-V 2.5GbE Ethernet, support WoL and PXE
- 2 x RS232/422/485, RS485 support automatic flow control
- Support TPM2.0 hardware security
- Supports embedded / VESA 100mm x 100mm mounting holes
- 9V to 36V DC Wide Range Power Input, Supporting OVP / OCP / RPP

Specifications

System	
CPU	Intel® Alder Lake-N N97 Quad-core 2.0GHz , TDP 12W
L2 Cache	2.0 MB
System Chipset	Integrated with Intel® SoC
Memory	1 x DDR5L 4800MHz 8GB, MAX 32GB
Harddisk	1 x M.2 120G SSD (250G / 500G / 2TB SSD) / 1 x 2.5" SATA
Graphics	Intel® UHD Graphics
Network	Intel® 226-V GbE LAN
Audio	Realtek ACL897 Audio controller
TPM	TPM 2.0
Watchdog Timer	Software Programmable Supports 1~255 sec. System Reset
Operation System	Windows 10 / 11, Linux, Ubuntu
I / O	
VIDEO	1 x H-DMI
Ethernet	3 x LAN (10/100/1000/2500 Mbps)
USB	4 x USB 3.0
COM	2 x RS-232 / 422 / 485 (Adjustable through BIOS)
Audio	1x Audio_out & Mic_in
Wireless Network	Optional (WiFi / Bluetooth / 4G / 5G)
Expansion	
M.2	1*M.2 (Key-E, 2230, PCIe+USB, Wifi+BT)
	1*M.2 (Key-B, 3042/3052, PCIe/ USB 3.0+USB2.0, 4G/5G)
	1*M.2 (Key-M, 2280, SATA / SSD)
SIM Socket	1x SIM Socket
Display	
LCD Size	12.1" (16:10)
Resolution	1280 x 800
Brightness (cd/m²)	400 cd/m²
Contrast Ratio	1000:1
Backlight MTBF	50000 hrs
Viewing Angle	89 / 89 / 89 / 89 (CR≥10) (L / R / U / D)
Touch screen	
Touch Type	Optical bonding PCAP Touch
Surface Hardness	≥7H

Power	
Power Adapter	1 x Optional AC/DC 12V/5A , 60W
Power Mode	Support AT, ATX Mode
Power Input	2-Pin Terminal Block Connector with Power Input 9~36VDC
Power Protection	OVP (Over Voltage Protection) OCP (Over Current Protection) RPP (Reverse Polarity Protection)
Power Consumption	≤35W
Physical	
Material	Aluminum alloy panel, anodized treatment
Mounting	Stand / Wall / VESA / Panel
Dimension (W x H x D)	314 x 216 x 60 mm
Cut-out Size	300 x 203 mm
Packing Size	450 x 170 x 350 mm
Weight (Net)	2.6 KG
Environment	
Operating Temperature	-20~70°C (-4~158°F)
Storage Temperature	-30~80°C (-22~176°F)
Relative Humidity	5%~95%@40°C, non-condensing
Vibration Protection	1.5 Grms, IEC 60068-2-64, random, 5 ~ 500 Hz, 1 hr/axis
IP Level	Front Panel IP66
EMC	CE, FCC, UL, KC, Class A, ROHS , IEC / EN 62368-1

Dimension & I/O

I / O Definition:	
A: DC 9V~36V	B: COM1:RS-232 / 422 / 485
C: COM2	D: 2 x LAN
E: H-DMI	F: 2 x USB 3.0
G: 1 x LAN	H: 2 x USB 3.0
I: Audio	J: Power Button

Panel Cutout Dimensions: 300 x 203 mm (11.81 x 8.00 in)

Ordering info

Available models	Description
AS-12.1-LC1-6412	12.1" Fanless Industrial Panel PC Intel® Elkhart Lake Celeron J6412 2.0GHz Processor with PCAP
AS-12.1-LC1-N97	12.1" Fanless Industrial Panel PC Intel® Alder Lake-N N97 2.0GHz Processor with PCAP

Packing list

1 x Standard product
1 x 60W PSU (Power Supply)
1 x Power cable & plug
8 x Panel mount metal clips