ALAD-U1850T(P)

18.5" Full HD Intel Core Ultra 5 Platform Fanless AI Panel PC Suitable for AI applications such as basic AI reasoning and local AI model data processing.

JHCTECH

IoT Computer Connecting the Dots

Industrial Panel Computer
ALAD Series



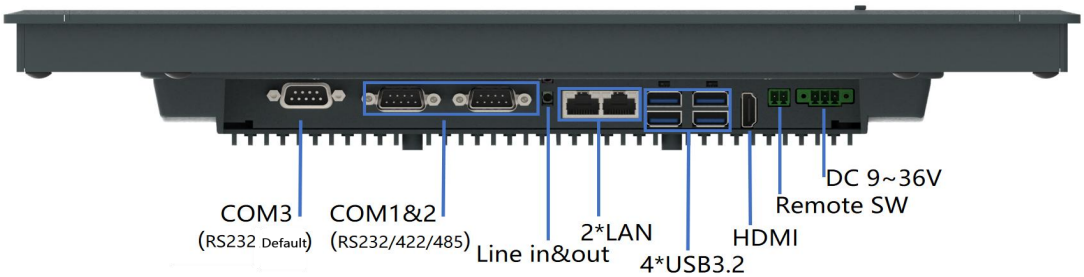
Key Features

- Aluminum die–casting chassis, fanless design
- 18.5'' TFT LCD, Multi-point capacitive/Resistive Touch
- Intel® Meteor Lake Core™ Ultra 5 125U/125H CPU
- Intel® NPU AI Boost, Intel® Arc™ graphics
- 1*DDR5 5600 SODIMM, up to 48GB
- 1*Mini PCIe, 1*M.2 B-Key，1*M.2 M-Key
- 4*COM, 2*LAN, 4*USB3.2,1*8-bit DIO(opt.)
- 2.5” SATA Bay, 1*mSATA, 1*Line in/out, 2*3W Speaker
- DC 9~36V input，IP65 rating for the front panel
- Standard VESA mount and panel mounting

Description

ALAD-U1850T(P) is an industrial computer designed for AI applications, equipped with Intel® Meteor Lake-U series processors. Based on a modular architecture, high-performance NPU, and Arc™ GPU, it meets the needs of basic AI inference, local lightweight language model operations, and other AI applications. Additionally, it can be optionally equipped with Intel® Meteor Lake-H series processors to achieve higher power consumption design and performance release, endowing the product with high-throughput parallel AI computing capabilities for continuous high-load AI task processing.

I/O View



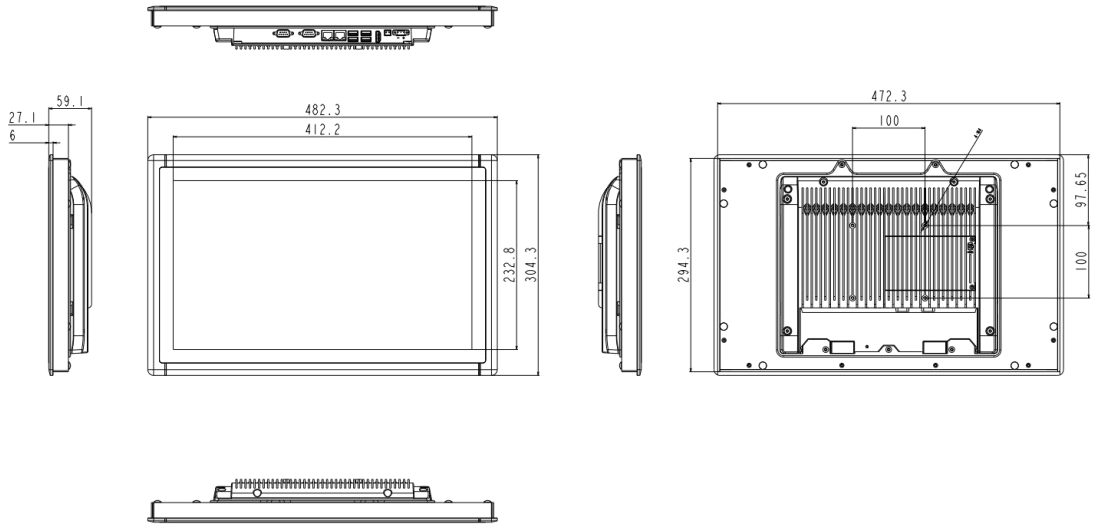
SPEC.

System	CPU	Intel® Meteor Lake Core™ Ultra 5 125U/125H CPU，ULT SoC, TDP 15W/28W
	Chipset	Intel® CPU SoC MCP
	System memory	1*DDR5 5600 MHz SODIMM, up to 48GB
	BIOS	AMI EFI BIOS, 128Mbit SPI flash memory
	Storage	1*2.5'' SATA HDD bay, support SATA3.0 6Gbps HDD/SSD; 1*mSATA，1*M.2 M-Key Type 2280
	Display	18.5 " 1366×768@60Hz / 1920*1080@60Hz(opt.) TFT LCD, 1*HDMI for extended display Intel® Graphics, Intel® Arc™ graphics, Supports DirectX12.2, OpenGL 4.6 and OpenCL 3.0 HDMI 2.1 4096x2304@60Hz, DP 1.4 7680x4320@60Hz, eDP 3820*2400@120Hz
	Expansion	1*Mini PCIe (PCIe&USB signal), supports a functional module with PCIe or USB signals 1*M.2 B-Key Type 3042/3052 with SIM card slot, supports 4G LTE/5G NR Optional M.2 AI Acceleration Module (26 TOPS)
	Audio	Realtek ALC897 controller, support 5.1 channel, 2*3W Speaker
	Real I/O	3*COM: 2*RS232/422/485, 1*RS232, DB9; 1*HDMI; 1*Line out; 1*Line out; 4*USB3.2, 2*RJ45 1*3 pin DC-IN terminal pin; 1*Remote SW;
	Front pane	IP65 rating
	LAN	2*Intel I226V PCIe Gig. Ethernet, 10/100/1000Mbps, support WOL
	Control SW/LED	Power LED, 1*CMOS, 1*AT/ATX, 2-pin terminal remote switch
	Power Supply	DC to DC: 9~36V input
	OS	Windows 11*IoT enterprise， Windows 10*IoT enterprise，SUSE，Ubuntu， Wind River，Red Hat*Enterprise，Wind River VxWorks*7，Yocto
	Construction	Aluminum die–casting front bezel , fin–shaped radiator shell
Mechanical & Environmenal	Operating Temperature	–10~60℃ (14~140 °F)
	Storage Temperature	–20~70℃ (-4~158 °F)
	Storage Humidty	10~95%@40 , non–condensing
	Shock	10G peak acceleration(duration 11ms), in operating with HDD
	Vibration	1G 5~500Hz, in operating with HDD

Mechanical & Environmental	Mounting	Panel mounting, VESA 100*100 and 75*75mm, Rack mounting
	Dimension	(W*H*D): 482.3*304.6*59.1mm; mounting cut out(W*H): 473.5*395.5 mm
	Net Weight	6.63KG
	EMC	CE,FCC Class A
LCD	Type	18.5'' TFT LED backlight
	Resolution	1366×768@60Hz (Default) | 1920*1080@60Hz (Optional)
	Color	16.7M 16.7M
	Pixel Pitch(mm)	0.300*0.300(mm) 0.213*0.213(mm)
	Brightness(cd/m2)	300 500
	Viewing Angle	85°(left), 85°(right), 85°(up),85°(down)
	Operating Temperature	0~60℃(32~140 °F) –20~70℃ (-4~158 °F)
	Backlight Lifetime	50000 Hours
Touch	Type	Projected capacitive touch
	Surface Hardness	≥6H
	Light Transmittance	90%
	Interface	USB
	Consumption	+5V @300mA
	OS	Windows/Linux
	Click Lifetime	35 million times

Dimension

Unit: mm



Ordering Info

Model NO.	CPU	Capacitive Touch Screen(TP)	Description
ALAD-U1850T(P)/S001	Core™ Ultra 5 125U	Projected capacitive touch	Edge AI Industrial panel computer, 18.5'' TFT LCD, 3*COM, 4*USB3.2, 2*LAN, 1*HDMI,1*Mini PCIe, 1*M.2 B-Key , 1*M.2 M-Key , 1*Line in/out, 1*2.5″ SATA Bay, 1*mSATA, 2*3W Speaker, DC 9~36V
ALAD-U1850T(P)/S002	Core™ Ultra 5 125H		
AI-Card	M.2 AI Acceleration Module		
PA-60DC12	AC/DC power adapter, DC12V@5A ,60W		
PA-120DC19	AC/DC power adapter, DC19V@6.32A ,120W		