



**Touch Panel PC** **P21AL01**

# Reliable AI Graphics and Computational Performance

## Intel® Alder Lake Multi-Touch Panel PC

The P21AL01, a fanless touch Panel PC is powered by the Intel® 12th-Gen Alder Lake-U/UE processor, which supports faster DDR5 memory and takes advantage of its hybrid architecture with performance cores (P-cores) for primary workloads and efficiency cores (E-cores) for multitasking. It features Intel® Iris Xe Graphics (Core i5/ i7), providing enhanced graphics and computing performance for AI workloads. The P21AL01 supports two independent display outputs and adopts a modular design to offer a flexible and efficient custom configuration for I/O interfaces, meeting specific application requirements. With an IP65 rating on the front, VESA-ready, dual Intel Gigabit LAN, and expandability, it is suitable for industrial/commercial and medical applications in the IoT field.



**FANLESS**



**10-POINT  
MULTI-TOUCH**



**IP65**



**DUAL  
(2.5G/1G) LAN**



**EASY SWAP  
STORAGE**

### FEATURES

- 21.5-inch Full HD capacitive, 10-point multi-touch screen
- 12<sup>th</sup> Generation Intel® Alder Lake-U/UE Processor based
- Dual independent displays: HDMI 2.0 (up to 4096 x 2160 @ 60Hz) and DVI
- Robust design: fanless, IP65 front panel, aluminum chassis, hidden switch
- 4 x USB 3.2 Gen 2 (Type-A), 2 x Intel® Gigabit LAN (2.5G and 1G)
- Versatile Connectivity: 3 x COM (1 x RS232 and 2 x RS232/422/485 with 5V power support), 2 x RJ-45



## SPECIFICATIONS

P21AL01

System			
Processor	12th Gen. Intel® Alder Lake Core i3-1215UE (default) Optional: i5-1235U, i5-1245UE, i7-1255U, i7-1265UE, Celeron® 7305E		
Memory	2 x 262 pin SO-DIMM up to 64GB Dual Channel DDR5 4800MHz	BIOS	AMI UEFI 64 bit
Display and Touch Screen			
Display	21.5" 1920x1080 Full HD TFT LED with 10-Point Projected Capacitive Multi-Touch		
Viewing Angle (H/V°)	89 (left), 89 (right), 89 (up), 89 (down)	Brightness	500/350 cd/m2
Contrast	1000:1	Backlight Lifetime	30,000 hrs
Graphics			
Chipset	Intel® UHD or Iris® Xe Graphics		
Display Interface	<ul style="list-style-type: none"><li>Supports two independent displays</li><li>1 x HDMI 2.0: 4096 x 2160@60Hz</li><li>1 x DVI-I: 1920 x 1080@60Hz</li></ul>		
Video Decoder	WMV, AVC/H264, JPEG/MJPEG, HEVC/H265, VP9, AV1		
Storage			
Internal	<ul style="list-style-type: none"><li>1 x M.2 2280 M key (PCIe NVMe / SATA)</li><li>1 x Swappable 2.5" SSD SATA 3.0 drive bay (compatible 7mm)</li></ul>		
Audio			
Audio Codec	Realtek ALC888S-VD 2-channel		
Network			
Ethernet	<ul style="list-style-type: none"><li>2 x Intel® LAN</li><li>Support Wake On LAN</li></ul>		
WLAN	Realtek RTL8821CE 802.11a/b/g/n/ac + Bluetooth 5.0 (M.2 2230 E key) with 2 internal antenna(default)/external antenna(optional)		
I/O Interface			
Serial Ports	<ul style="list-style-type: none"><li>1 x RS-232 (DB-9)</li><li>2 x RS-232/422/485 (DB-9)</li></ul> (RS-232 with power supply: ring in/ 5V (standard) &12V (with specific optional board))		
USB	4 x USB3.2 Gen 2 (Type A)	Audio	1 x Line-out 1 x Mic-in
Power			
Bundled Adapter	19V/4.74A 90W external adapter		
Watchdog Timer			
Watchdog	Support watchdog		
OS Support			
OS Support	Windows 11 64bit / Linux 64bit		
Mechanism			
IP Rating	IP65 Front Panel Protection	Mounting	VESA Mount 100 x 100 mm
Dimension (WxHxD)	394 x 256 x 48.9 mm	Weight	7.6kg
Environment			
Operating Temperature	0 ~ 40°C	Storage Temperature	-20°C ~ 60°C
Relative Humidity	20% - 80% RH (non-condensing)	EMC	CE, FCC, VCCI, BSMI, UKCA
Safety	CB, CEC, cTUVus, BSMI, EAC	RF	US, EU, Taiwan