



Main Features

- ♦ 16:9 21.5" FHD Panel PC with P-Cap touch
- ♦ Intel® Processor N97, Quad Core 2.0GHz, 6M Cache
- ♦ 1x DDR5-4800MHz with 8GB installed by default
- ♦ Support multi- Display for DP; 1x USB-C(DP Alt. Mode)
- ♦ Dual Intel® 2.5GbE LAN ports
- ♦ 2 x USB 3.2, 2 x RS-232/422/485 with isolation(optional)
- ♦ Support 1 x M.2 Key B 2242 SSD (SATA 3.0) for storage
- ♦ Support 1 x PCIe x1 Expansion Slot
- ♦ IP66 compliant front panel
- ♦ Mounting support: panel/wall/stand/VESA (100mm x 100mm)
- ♦ DC power input 24V DC
- ♦ Support TPM 2.0

Product Overview

The IPPC 2160-A11 is a 21.5" FHD fanless panel PC powered by Intel® N-Series processor, offering high efficiency and low power consumption. It features an IP66-rated front panel and a die-cast aluminum bezel and metal enclosure for durability, meeting IEC 61000-6-2/EN 61000-6-4 standards.

Expansion options include PCIe, Mini PCIe, and M.2 slots for add-ons like fieldbus and Wi-Fi/LTE/5G modules. It supports dual 2.5GbE connectors for fast data transfer and reliable networking, plus DP and USB-C (DP Alt. Mode) for multiple displays. Ideal for factory automation and IoT applications, the IPPC 2160-A11 combines performance, reliability, and flexibility.

Specifications

Panel

- ♦ LCD size: 21.5", 16:9
- ♦ Resolution: FHD 1920 x 1080
- ♦ Luminance: 250cd/m²
- ♦ Contrast ratio: 5000:1
- ♦ LCD Color: 16.7M
- ♦ Viewing angle: 89(U), 89(D), 89(L), 89(R)
- ♦ Backlight: LED

Touch

- ♦ 10 Point Projected Capacitive Touch
- ♦ Light transmission: 87%
- ♦ Interface: USB
- ♦ Anti-scratch surface: 7H hardness

System

- ♦ CPU : Onboard Alder Lake N Intel® processor N97
- ♦ BIOS: AMI BIOS
- ♦ Support TPM 2.0
- ♦ System memory: 1 x DDR5 SO-DIMM
 - Max.16GB (non-ECC); pre-install 8G industrial grade
 - Memory as the manufacture configuration for shipment
- ♦ Storage device:
 - 1 x M.2 Key B 2242 SSD (SATA 3.0)

Rear I/O

- ♦ Power button
- ♦ 1 x 2-pin remote power on/off terminal block
- ♦ 1 x 3-pin 24V DC input terminal block
- ♦ 2 x USB 3.2 Type-A
- ♦ Ethernet: 2 x RJ45
- ♦ 1 x DP1.4a, up to 4K@60Hz
- ♦ 1 x USB 3.2 Type-C, supports DP1.4a; up to 4K@60Hz
- ♦ DB9 for COM1 & COM2
 - COM1: RS-232/422/485 auto flow control
 - COM2: RS-232/422/485 auto flow control
- ♦ 1 x DIO (2 inputs/2 outputs) + Audio (via option cable/bracket)
- ♦ 2 x RS-232 (via option cable/bracket)

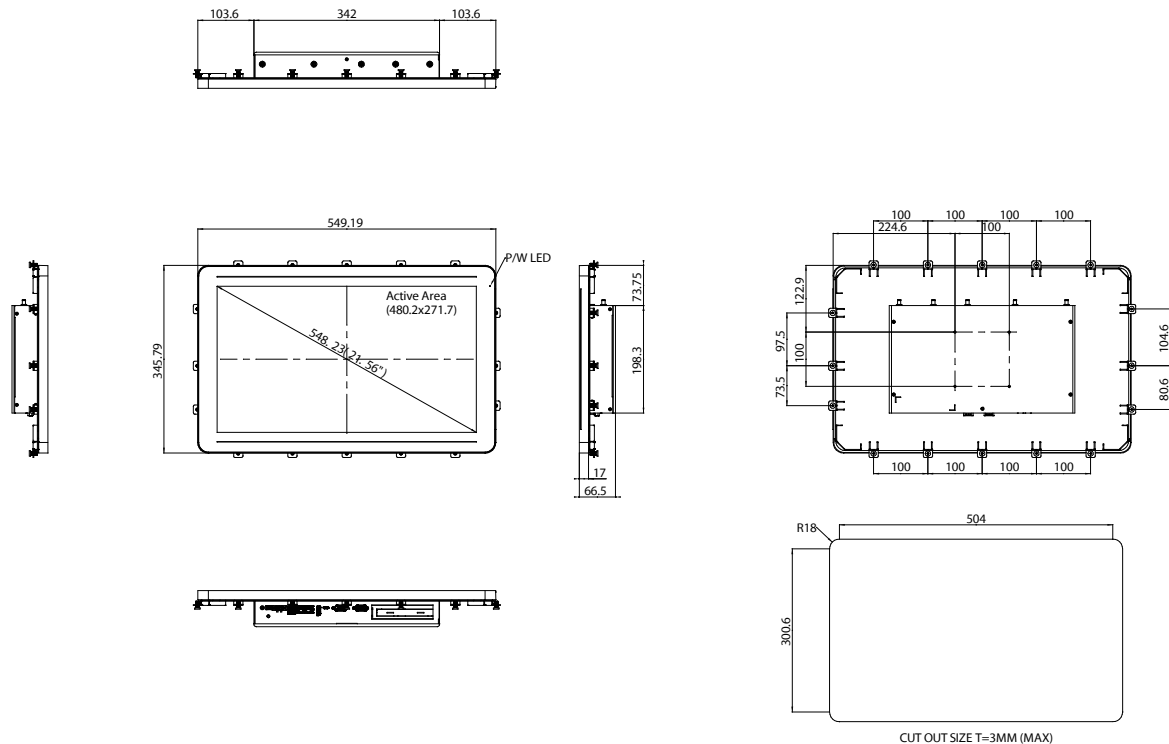
Ethernet

- ♦ Dual Intel® I226-IT Gigabit LAN
 - Ethernet interface: 10/100/1000/2500Base-T Ethernet compatible
 - Support WoL and PXE

Audio

- ♦ REALTEK ALC888S-VD
 - Support Line out/Line in/Mic in (via optional cable)

Dimension Drawing



Internal I/O

- 1 x Mini PCIe (PCIe x1, USB 2.0, SIM) for Wi-Fi/FBI/LTE
- 1 x M.2 Key B 2242 SSD (SATA 3.0)
- 1 x M.2 Key B 3042/3052 (PCIe x1, USB 3.0, USB 2.0, SIM) for 5G/LTE
- 1 x nano-SIM card slot
- 1 x USB 2.0 Type-A
- 1 x PCIe x1 slot

Mechanical & Environment

- Die-cast aluminum alloy front bezel with metal enclosure
- IP protection: IP66 front
- Mounting: panel/wall/stand/VESA 100mm x 100mm
- Power
 - Power input: 24V DC $\pm 20\%$
 - AT/ATX power mode (default: ATX power mode)
 - Power adapter: optional AC to DC power adapter (24V DC, 60W)
- Vibration:
 - 2G@sine, 5-500Hz, 1hr/axis (M.2 operating), IEC 60068-2-64
 - 2G@random condition, 5-500Hz, 1hr/axis (Non-operating), IEC 60068-2-64
- Shock:
 - 20G@VESA mount, half sine, 11ms, IEC 60068-2-27
- Temperature:
 - Operating temperature: $-10^{\circ}\text{C} \sim 55^{\circ}\text{C}$ (Ambient with air flow)
 - Storage temperature: $-20^{\circ}\text{C} \sim 75^{\circ}\text{C}$
- Operating humidity: 10%~90%, non-condensing (limits to be at 90% RH at max 50°C)
- Dimension: 549.19 x 345.79 x 66.5 mm
- Weight: 8.8kg

Certifications

- CE approval (EN 61000-6-2/EN 61000-6-4)
- FCC Class A

OS Support Lists

- Windows 11
- Windows 10, 64-bit

Ordering Information

Barebone

- **IPPC2160-A11 (P/N: 10II0216000X0)**
21.5 P-Cap, N97, DDR5 8GB, 24V, 2 x USB 3.0, 2 x LAN, 1 x DP, 1 x USBC, 1 x COM, PCIe slot

Options

- **24V, 60W AC/DC power adapter w/o power cord (P/N:7400060054X00)**
- **2 x RS-232 w/bracket (P/N: 10II0006001X0)**
- **1 x DIO (2 inputs/ 2 outputs) + Audio(Line out/Line in/ Mic in) (P/N: 10II0006000X0)**