

# IPPC 2140P

21.5" TFT WXGA 16:9 Heavy Industrial Panel PC  
with Intel® Celeron® quad core processor J1900, up to 2.42GHz,  
Multi-Touch Screen, 4GB DDR3L, 3 x USB, 2 x COM and Fieldbus Port



## Main Features

- Intel® Celeron® quad core processor J1900, up to 2.42GHz, 2M L2 Cache
- Metal housing with robust aluminum front zero bezel for harsh environment
- 10 points P-Cap multi-touch with zero bezel flush front design
- Dual GbE/2nd display-VGA/ Line-out/PS2 KB/MS
- USB x 3/2 x mini-PCIe sockets/1 x CFast/2 x RS232/422/485
- DDR3L 4GB/2.5" HDD bracket
- IP66 compliant front panel
- Support fieldbus module, JMobile HMI and CODESYS SoftLogic (optional)
- Mounting support: panel/wall/stand/VESA 100mm x 100mm
- Wide range power input 12~30VDC

## Product Overview

The 21.5" fanless panel PC IPPC 2140P incorporating an industrial motherboard is intended for versatile industrial applications. The panel PC has a touch screen LED backlight LCD panel with 1920 x 1080 (Full HD) resolution. The front panel which adopts flush design and complies with IP66 standard makes it the perfect fit in industrial applications.

The IPPC 2140P supports WWAN/WLAN expansion and others via dual Gigabit Ethernet connectors, two mini-PCIe slots and one SIM card holder. With support for wide power input of 12~30VDC, IPPC2140P can gain a strong foothold in industrial field and machine devices. In addition, IPPC 2140P can hook 2nd display via a VGA port for dual independent display. IPPC 2140P has two isolated RS232/422/485 ports and optional fieldbus ports.

## Specifications

### Panel

- LCD size: 21.5", 16:9
- Resolution: Full HD 1920x1080
- Luminance: 300cd/m2
- Contrast ratio: 5000
- LCD color: 16.7M
- Viewing angle: 89 (U), 89 (D), 89 (L), 89 (R)
- Backlight: LED

### Touch

- Ten points P-Cap (Projected Capacitive Touch)
- Touch light transmission: 87%
- Anti-scratch surface: 7H hardness
- Touch interface: USB
- Windows 8 compliance

### System

- CPU: onboard Intel® Celeron® Quad Core processor J1900, 2.0GHz, 2M L2 Cache (maximum frequency 2.42GHz if turbo boost enabled)
- BIOS: AMI BIOS
- System memory: 2 x 204-pin DDR3L SO-DIMM socket, 4GB DDR3L (default), support up to 4GB DDR3L-1066/1333, non-ECC and un-buffered

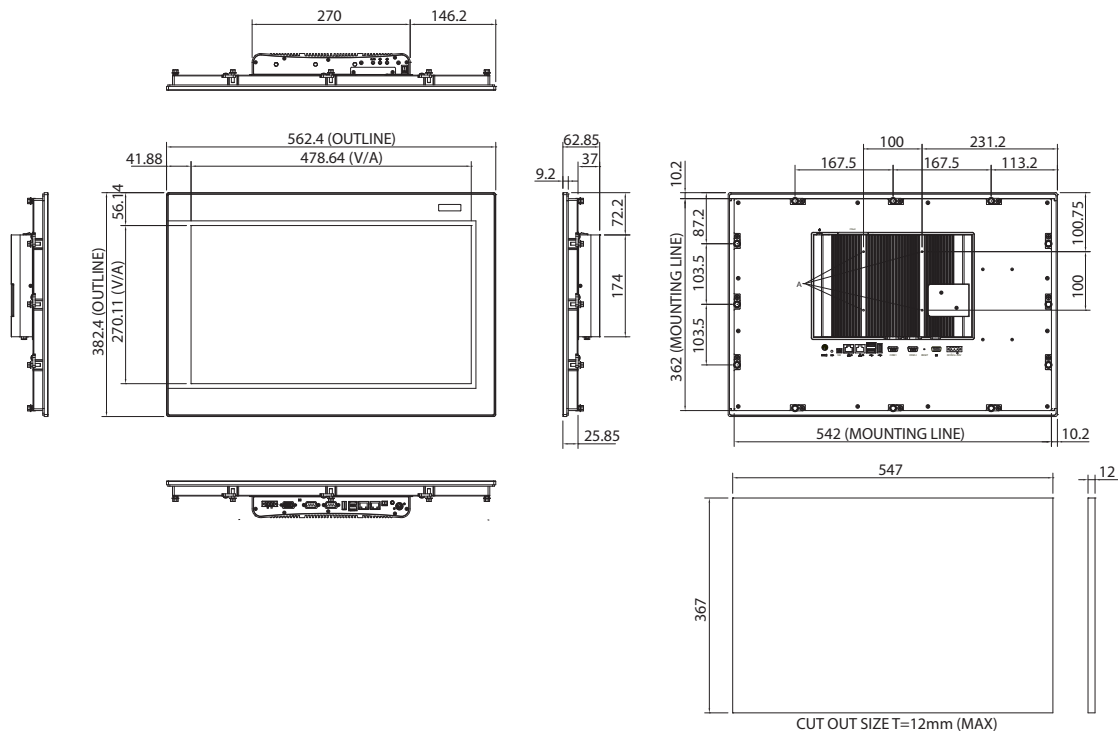
### Storage device:

- 1 x external locked CFast socket
- 1 x hard drive bay: optional 1 x 2.5" SATA HDD or 1 x SATA DOM
- Watchdog timer: Watchdog timeout can be programmable by software from 1 second to 255 seconds and from 1 minute to 255 minutes (tolerance 15% under room temperature 25°C)
- H/W status monitor: monitoring system temperature, and voltage
- Expansion: 2 x mini-PCIe sockets (support optional Wi-Fi, 3.5G module or fieldbus card)
- Panel backlight control button: Increase brightness/decrease brightness/ backlight on/off
- Front Logo LED Indicator to show operating status

### Rear I/O

- Ethernet: 2 x RJ45
- 2nd display VGA port: 1 x DB15
- Audio port: 1 x Line out
- USB: 2 x USB 2.0, 1 x USB 3.0
- 2-pin Remote Power on/ off switch
- Power switch
- Reset button
- COM #1: RS232/422/485 w/ 2.5kv isolated
- COM #2: RS232/422/485 w/ 2.5kv isolated
- Fieldbus: (protocol interface optional)

## Dimension Drawing



| Model      | Protocol           | Connector                       |
|------------|--------------------|---------------------------------|
| FBI90E-PNM | PROFINET Master    | Dual RJ-45                      |
| FBI90E-EP  | EtherNet/IP Master |                                 |
| FBI90E-ECM | EtherCAT Master    |                                 |
| FBI90E-PBM | PROFIBUS Master    | DB9                             |
| FBI90E-DNM | DeviceNet Master   | 5-pins PHOENIX contact terminal |

### Certifications

- ♦ CE (including EN61000-6-2/EN61000-6-4)
- ♦ FCC Class A

### OS Support Lists

- ♦ Windows 8 32bit/64bit
- ♦ Windows 7 32bit/64bit
- ♦ WinCE 7.0

### Audio

- ♦ HD codec: Realtek ALC886-GR
- ♦ Audio interface: Line-out audio jack

### Ethernet

- ♦ LAN chip: dual Intel® I210AT Gigabit LAN
- ♦ Ethernet interface: 10/100/1000 Based-Tx Ethernet compatible

### Mechanical & Environment

- ♦ Color: Pantone 432C/RAL 70 24 front bezel
- ♦ IP protection: IP66 front
- ♦ Mounting: panel/ wall/ stand/ VESA 100mm x 100mm
- ♦ System with panel mounting kit w/o panel mounting hole
- ♦ Power input: 12~30VDC
- ♦ Power adapter: Optional AC to DC power adapter (+12V, 60W)
- ♦ Vibration:
  - IEC 68 2-64 (w/ HDD)
  - 1Grms @ sine, 5~500Hz, 1hr/axis (HDD operating)
  - 2Grms @ sine, 5~500Hz, 1hr/axis (CFast operating)
  - 2.2Grms @ random condition, 5~500Hz, 0.5hr/axis (non-operating)
- ♦ Shock:
  - IEC 68 2-27
  - HDD: 20G@wall mount, half sine, 11ms
- ♦ Operating temperature: -10°C to 60°C
- ♦ Storage temperature: -20°C to 75°C
- ♦ Operating humidity: 10%~90% relative humidity, non-condensing
- ♦ Dimension: 562.4x382.4x62.85mm
- ♦ Weight: 9.26Kg

## Ordering Information

### Barebone

- ♦ **IPPC 2140P (P/N: 10I12140P00X0)**  
21.5" full HD LED backlight touch panel PC, Intel® Celeron® quad core processor J1900, up to 2.42GHz, 2M L2 Cache, touch screen, 4GB DDR3L, 2 x RS232/422/485 and brightness adjustment buttons, optional fieldbus module

### Options

- ♦ **12V, 60W AC/DC power adapter w/o power cord (P/N: 7400060031X00)**
- ♦ **PROFINET Master interface module: FBI90E-PNM for APPC (P/N: 88IA1932T00X0)**
- ♦ **EtherNet/IP Master interface module: FBI90E-EP for APPC (P/N: 88IA1932T01X0)**
- ♦ **EtherCAT Master interface module: FBI90E-ECM for APPC (P/N: 88IA1932T02X0)**
- ♦ **PROFIBUS Master interface module: FBI90E-PBM for APPC (P/N: 8IA1932T03X0)**
- ♦ **DeviceNet Master interface module: FBI90E-DNM for APPC (P/N: 88IA1932T04X0)**