

IPPC 1960T

19" TFT SXGA 4:3 Heavy Industrial Panel PC with
3rd Generation Intel® Core™ i5, 2.7GHz



IPPC 1960TP2E-AC



IPPC 1960TP2E-DC

Main Features

- 4:3 19" SXGA Fanless Panel Computer
- Powerful 2nd/ 3rd generation Intel® Core™ processor
- Two expansion slots for add-on PCI or/ and PCIe cards
- Optional 3.5G/ Wi-Fi module/ 2.5" HDD/ 3x Coms/ GPIO/ DIO/ Dimming Control Button
- Front accessible USB 2.0 for easy of field maintenance
- Metal housing with robust aluminum front bezel for harsh environment
- IP66 compliant front panel
- Optional: AC power input model/ DC power input model

Product Overview

IPPC 1960T is a heavy industrial panel PC equipped with powerful 2nd/3rd generation Intel® Core™ processor, TFT LCD panel with LED backlight and user-friendly touch screen. It provides two expansion slots to support EtherCat, PROFINET, Modbus/ TCP modules. The NEMA4/ IP66 rated heavy-duty aluminum front bezel and the vibration-resistant rugged chassis are specifically designed for outdoor and harsh industrial environments. IPPC 1960T is ideal for use in oil and gas rig, wind farms, chemical factories, pharmaceutical factories, and hazardous working area.

Specifications

Panel

- LED Size: 19", 4:3
- Resolution: SXGA 1280x1024
- Luminance: 350cd/m²
- Contrast ratio: 1000
- LCD color: 16.7M
- Viewing Angle: 80(U), 80(D), 85(L), 85(R)
- Backlight: LED

Touch

- Touch screen: 5-wire resistive
- Touch light transmission: 80%
- Touch interface: USB

System

- CPU: Support 2nd/ 3rd gen. Intel® Core™ processor family, rPGA 988
 - Intel® Core™ i5-3610ME (2x2.7GHz, 3M cache, Max. TDP 35W)(Default)
 - Intel® Core™ i3-3120ME (2x2.4GHz, 3M cache, Max. TDP 35W)
 - Intel® Celeron® B810 (2x1.6GHz, 2M cache, Max. TDP 35W)
 - Intel® Pentium® B950 (2x2.1GHz, 2M cache, Max. TDP 35W)
- BIOS: AMI BIOS
- System chipset: Intel® HM76 Express chipset
- System memory: 1x 204-pin DDR3 SO-DIMM socket, 4G DDR3 (Default), Support up to 8GB DDR3-1066/1333, Non-ECC and Un-buffered
- Storage Device:
 - 1x external locked CFast socket
 - 1x hard drive bay: optional 1x 2.5" SATA HDD
 - 1x SATA DOM (Optional)

- 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: 2x mini-PCIe sockets (support optional Wi-Fi or 3.5G module)
 - 2x expansion slots for add-on PCI or/ and PCIe cards
 - 1x PCI and 1x PCIe4 slots (Default)
 - 2x PCIe4 slots
 - 2x PCI slots
- Panel backlight control button: Increase brightness/ decrease brightness/ Backlight On/Off (For IPPC1960TP2E-AC only)

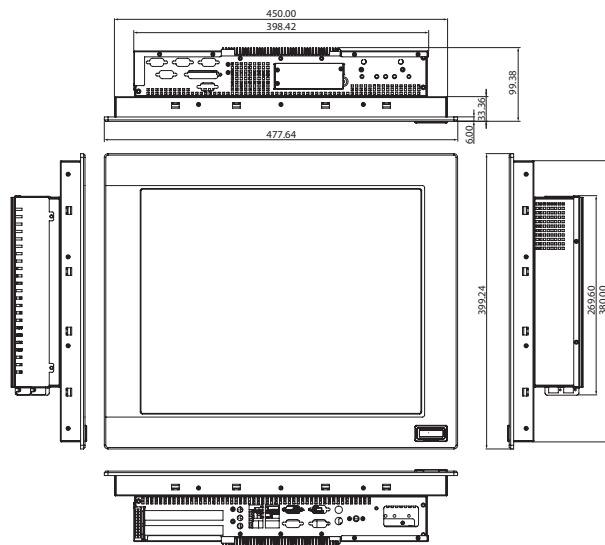
Rear I/O

- Ethernet: 2x RJ45
- 2nd display VGA port: 1x DB15
- Audio port: 1x Line out; 1x Line in; 1x MIC-in
- USB: 5 x USB 2.0 (1 in front)
- 2x PS2 keyboard/ mouse
- ATX Power switch
- Reset button
- COM #1: RS232/422/485 w/RI or 5V or 12V selection
- COM #2: RS232/422/485 w/RI or 5V or 12V selection
- COM #3: RS232 w/RI or 5V or 12V selection

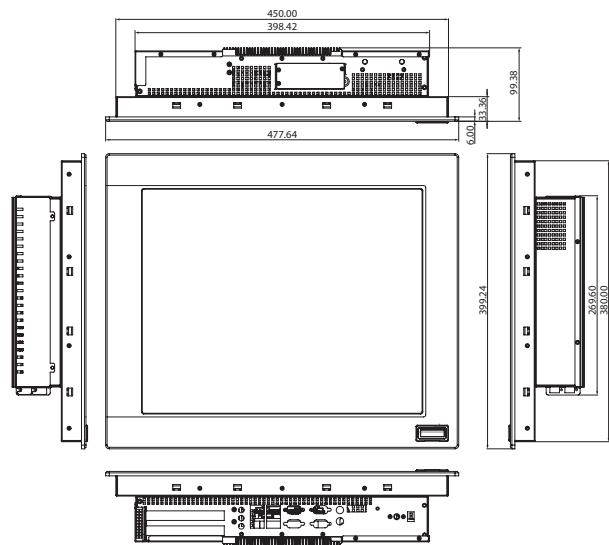
For IPPC1960TP2E-AC only

- DIO w/ 2.5kv isolated protection:
 - 4x Digital Input (Source type)
 - Input Voltage (Dry Contact): Logic 0: Close to GND

Dimension Drawing



IPPC 1960TP2E-AC



IPPC 1960TP2E-DC

Logic 1: Open

Input Voltage: Logic 0: 3V max.

Logic 1: +5 to 30V

- 4x Digital Output (Sink type)

Output Voltage: +3.6 to 5V

Sink current: 200mA max. per channel

- GPIO: 4 x digital in/ 4 x digital out
- COM #1: RS232/422/485 w/ 2.5kv isolated protection
- COM #2: RS232/422/485 w/ 2.5kv isolated protection
- COM #3: RS232 w/ RI or 5V or 12V selection
- COM #4: RS232 w/ RI or 5V or 12V selection
- COM #5: RS232
- COM #6: RS232
- AC Power switch

Audio

- AC97 codec: Realtek ALC886-GR
- Audio interface: Line-out/ Line-in/ MIC-in Audio Jack

Ethernet

- LAN chip: dual Intel® 82574L Gigabit LAN
- Ethernet interface: 10/100/1000 Based-Tx Ethernet compatible

Mechanical & Environment

- Color: pantone 432C\ RAL 70 24 front bezel
- Enclosure: Aluminum front bezel with SPPC nickle plated Housing
- IP protection: IP66 front
- Mounting: panel/ wall/ stand/ VESA 100mm x 100mm

For IPPC1960TP2E-DC

- Power input: +9 to 30VDC
- Power Adapter: Optional AC to DC power adapter (+24V, 120W)

For IPPC 1960TP2E-AC

- Power input: 100-240V~, 1.5A, 50-60Hz; Fuse: 250VAC/3A
- Power Connector: AC Inlet (IEC60320 C14)
- Power Supply: 120W
- 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 50°C

• Storage temperature: -20°C to 75°C

• Operating humidity: 10%~90% relative humidity, non-condensing

Limits to be at 90% RH at max 50°C

• Dimension: 477.64mm x 399.24mm x 99.38mm

• Weight: 11.2Kg (IPPC 1960TP2E-AC); 10.6Kg (IPPC 1960TP2E-DC)

Certifications

- CE approval
- FCC Class A

Ordering Information

System

• **IPPC 1960TP2E-DC (P/N: 10II1960T00X0)**

19" SXGA LED Backlight Fanless Touch Panel PC, Intel® Core™ i5-3610ME 2.7GHz, touch screen, 4GB DDR3, 3xCOMs, DC Power Input

• **IPPC 1960TP2E-AC (P/N: 10II1960T01X0)**

19" SXGA LED Backlight Fanless Touch Panel PC, Intel® Core™ i5-3610ME 2.7GHz, touch screen, 4GB DDR3, 6xCOMs, 4x4 GPIO, 4x4 DI/O with isolated protection, AC Power Input

Option

• **24V/5A, 120W AC TO DC DIN RAIL POWER SUPPLY (P/N: 7440120001X00)**

• **Riser Card 2x PCI slots (P/N: 20JK036P200X0)**

• **Riser Card 2x PCIe4 slots (P/N: 20JK036E200X2)**