

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/3 x COM/GPIO/DIO/Dimming Control Button
- ♦ Front accessible USB2.0 for easy of field maintenance
- ♦ Metal housing with robust aluminum front bezel for harsh environment
- ♦ IP66 compliant front panel
- ♦ Support fieldbus module (optional)
- ♦ Wide range 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 PROFINET, PROFIBUS, DeviceNet, EtherNet/IP and EtherCAT protocols. 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

System

- ♦ CPU: Support 2nd/3rd gen. Intel® Core™ processor family, rPGA 988
 - Intel® Core™ i7-3540M (2 x 3GHz, 4M cache, Max. TDP 35W)
 - Intel® Core™ i5-3610ME (2 x 2.7GHz, 3M cache, Max. TDP 35W) (Default)
 - Intel® Core™ i3-3120ME (2 x 2.4GHz, 3M cache, Max. TDP 35W)
 - Intel® Celeron® B810 (2 x 1.6GHz, 2M cache, Max. TDP 35W)
- ♦ BIOS: AMI BIOS
- ♦ System chipset: Intel® HM76 Express chipset
- ♦ System memory: 1 x 204-pin DDR3 SO-DIMM socket, 4G DDR3 (Default), support up to 8GB DDR3-1066/1333, non-ECC and un-buffered
- ♦ Storage device:
 - 1 x external locked CFast socket
 - 2 x hard drive bay: optional 2 x 2.5" SATA HDD
- ♦ 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 or 3.5G module)
 - 2 x expansion slots for add-on PCI or/and PCIe cards
 - 1 x PCI and 1 x PCIe4 slots (default)
 - 2 x PCIe4 slots
 - 2 x PCI slots
- ♦ Panel backlight control button: increase brightness/decrease brightness/backlight on/off (for IPPC 1960TP2E-AC only)

Rear I/O

For All

- ♦ 2 x PS2 keyboard/mouse
- ♦ 2nd display VGA port: 1 x DB15
- ♦ Ethernet: 2 x RJ45
- ♦ USB: 5 x USB2.0 (1 in front)
- ♦ Audio port: 1 x Line-out; 1 x Line-in; 1 x MIC-in

For IPPC 1960TP2E-DC only

- ♦ 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
- ♦ ATX power switch
- ♦ Reset button

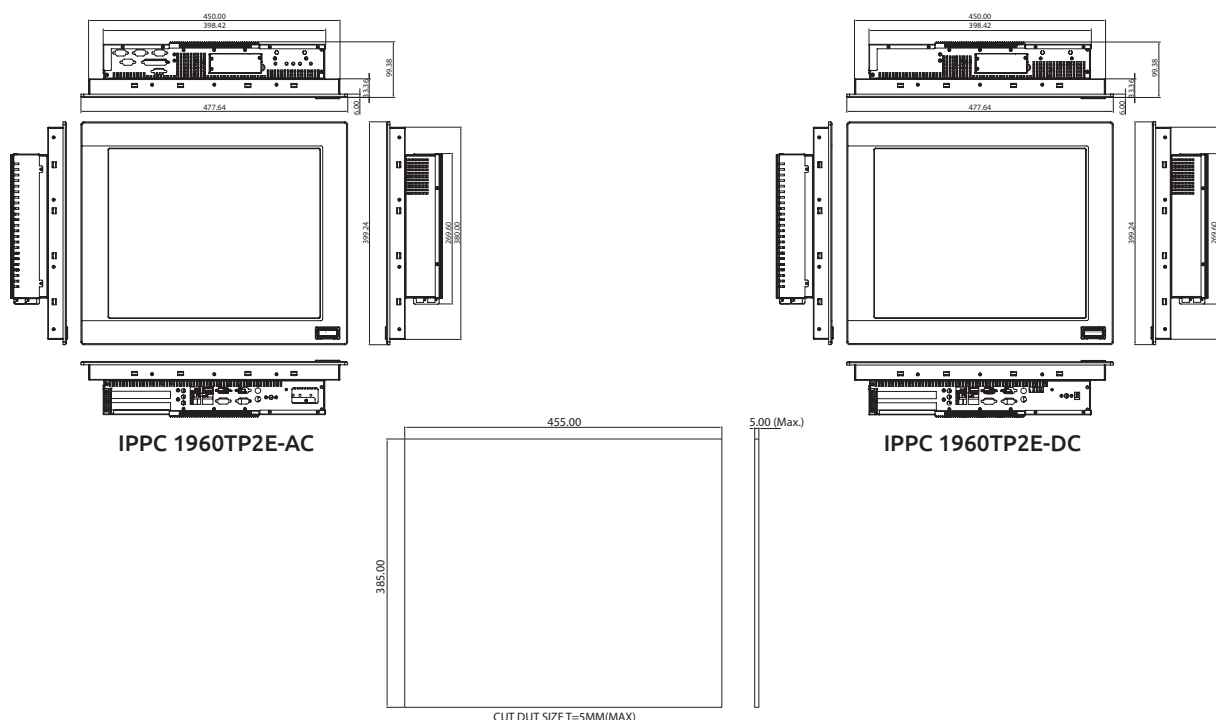
For IPPC 1960TP2E-AC only

- ♦ 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
- ♦ DIO w/ 2.5kv isolated protection:
 - 4 x digital input (source type)
 - 4 x digital output (sink type)
- ♦ GPIO: 4 x Digital In/4 x Digital Out
- ♦ LPT: parallel port
- ♦ AC power switch
- ♦ Reset button

Audio

- ♦ HD Codec: Realtek ALC886-GR
- ♦ Audio interface: Line-out/Line-in/MIC-in audio Jack

Dimension Drawing



Ethernet

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

Fieldbus

- IPPC 1960TP2E-DC: support up to two Fieldbus Module (1 universal Kit and 1 special kit)
- IPPC 1960TP2E-AC: support one special Fieldbus Module kit

Mechanical & Environment

- Color: pantone 432C\RAL 70 24 front bezel
- Enclosure: aluminum front bezel with SPCC nickel plated housing
- IP protection: IP66 front
- Mounting: panel/wall/stand/VESA 100mm x 100mm
- Power

For IPPC 1960TP2E-DC

- Power input: 12-30 VDC, 7-2.5 A, Class 2
- Power adapter: optional AC to DC DIN rail 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
 - * Intel® Core™ i7/Intel® Celeron® B810: -10°C to 40°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: 477.64 x 399.24 x 99.38mm
- Weight: -AC: 11.2Kg
 - DC: 10.6Kg

Certifications

- CE (including EN61000-6-2/EN61000-6-4)
- FCC Class A
- -AC: LVD 60950-1

OS Support Lists

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

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, 3 x COM, 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, 6 x COM, 4 x 4GPIIO, 4 x 4DIO with isolated protection, AC power input

Optional

- **24V/5A, 120W AC to DC DIN rail power adapter w/ o power cord (P/N: 7440120001X00) (for IPPC 1960TP2E-DC only)**
- **Riser card 2 x PCI slots (P/N: 20JK036P200X0)**
- **Riser card 2 x PCIe4 slots (P/N: 20JK036E200X2)**
- **Fieldbus module universal kit (for IPPC 1960TP2E-DC only)**

88J50090E00X0	FBI 90E-PNM kit (w/ 25 cm cable)	PROFINET master
88J50090E01X0	FBI 90E-EP kit (w/ 25 cm cable)	EtherNet/IP master
88J50090E02X0	FBI 90E-ECM kit (w/ 25 cm cable)	EtherCAT master
88J50090E03X0	FBI 90E-PBM kit (w/ 25 cm cable)	PROFIBUS master
88J50090E04X0	FBI 90E-DNM kit (w/ 25 cm cable)	DeviceNET master