

# eTOP-IPC1960T



## 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/ WiFi module/ 2.5" HDD/ 3x Coms/ 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
- Optional: AC power input model/ DC power input model

## Product Overview

eTOP-IPC1960T 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. eTOP-IPC1960T 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/m<sup>2</sup>
- 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 generation Intel Core processor family, rPGA 988

Processor	i5-2510E (Default)	i3-2330	Celeron® B810
# of Core	2	2	2
Clock Speed	2.5GHz	2.2GHz	1.6GHz
Max. TDP	35W	35W	35W

- BIOS: AMI BIOS
- System chipset: Intel® QM67
- 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 or 1x 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: 2x Mini-PCIe sockets (support optional WiFi or 3.5G module)
- Panel backlight control button: Increase brightness / decrease brightness / Backlight On/Off (For eTOP-IPC1960T-AC only)

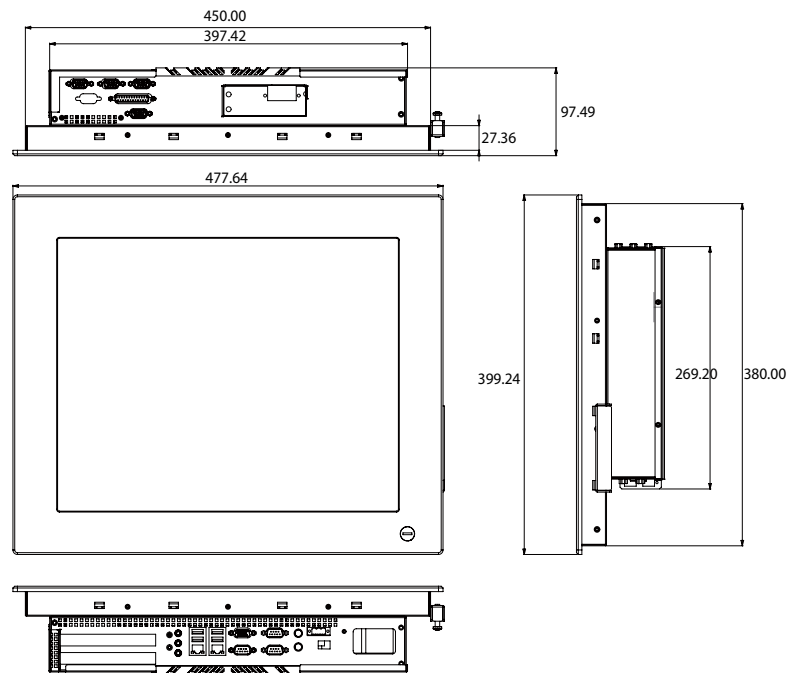
### Rear I/O

- 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 eTOP-IPC1960T-AC only

- DIO w/ 2.5kv isolated protection:
  - 4x Digital Input (Source type)
  - Input Voltage (Dry Contact): Logic 0: Close to GND
  - Logic 1: Open

## Dimension Drawing



Input Voltage: Logic 0: 3V max

Logic 1: +5 to 30V

- 4x Digital Output (Sink type)

Output Voltage: +3.6 to 5V

Sink current: 200 mA 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 and ATX 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 877 RAL 90 06 front bezel
- Enclosure: Aluminum front bezel with SPCC Housing
- IP protection: IP66 front
- Mounting: panel/ wall/ stand/ VESA 100mm x 100mm

For eTOP-IPC1960T-DC

- Power input: +9 to 30VDC
- Power Connector: Terminal Blocks 3-Pin Phoenix Connector

For eTOP-IPC1960T-AC

- Power input: 90~260 VAC @ 47~63Hz, 1.7~1A
- 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: -5°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: 477.64 x 399.24 x 97.49 mm
- Weight: 13Kg (IPPC1960T-AC); 12.4Kg (IPPC1960T-DC)

### Certifications

- CE approval

## Ordering Information

### • eTOP-IPC1960T-AC (P/N: 72IPC1960TPAC)

19" SXGA LED Backlight Fanless Touch Panel PC, Intel® Core™ i5-2510E 2.5GHz, touch screen, 2GB DDR3, 6xCOMs, 4x4 GPIO, 4x4 D/I/O with isolated protection, AC Power Input

### • eTOP-IPC1960T-DC (P/N: 72IPC1960TPDC)

19" SXGA LED Backlight Fanless Touch Panel PC, Intel® Core™ i5-2510E 2.5GHz, touch screen, 2GB DDR3, 3xCOMs, DC Power Input

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