

eTOP-IPC 2160P



Main Features

- 16:9 21.5" Full HD 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 Coms/GPIO/DIO/Dimming control button
- 10 points P-Cap multi-touch with zero bezel flush front design
- Metal housing with robust aluminum front bezel for harsh environment
- IP66 compliant front panel
- Anti-scratch surface: 7H hardness
- Optional: AC power input model/DC power input model

Product Overview

eTOP-IPC 2160P 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. 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-IPC 2160P is ideal for use in oil and gas rig, wind farms, chemical factories, pharmaceutical factories, and hazardous working area. eTOP-IPC 2160P has two isolated RS232/422/485 ports and fieldbus ports.

Specifications

Panel

- LED size: 21.5", 16:9
- Resolution: Full HD 1920 x 1080
- 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

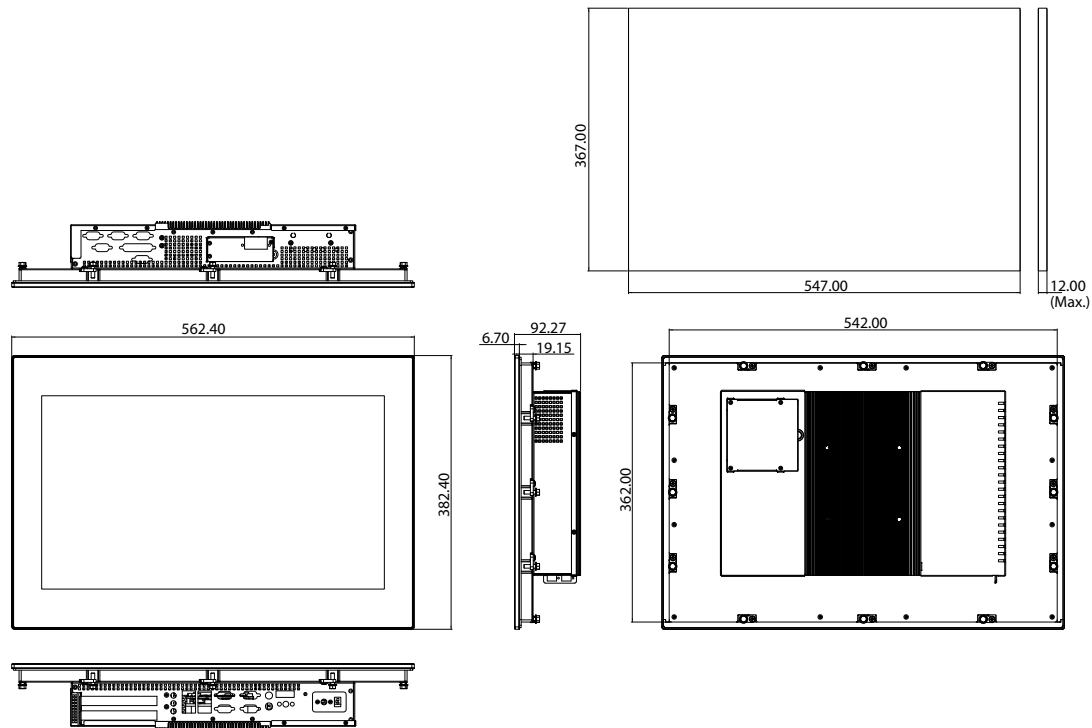
- CPU: support 2nd/3rd gen. Intel® Core™ processor family, rPGA 988
 - Intel® Core™ i7-3520M (2 x 2.9GHz, 4M cache, Max. TDP 35W)
 - Intel® Core™ i5-3610ME (2 x 2.7GHz, 3M cache, Max. TDP 35W) (default)
 - Intel® Core™ i3-3120ME (2 x 2.4GHz, 3M cache, Max. TDP 35W)
 - Intel® Celeron® B810 (2 x 1.6GHz, 2M cache, Max. TDP 35W)
 - Intel® Pentium® B950 (2 x 2.1GHz, 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 unbuffered
- 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

Rear I/O

- Ethernet: 2 x RJ45
- 2nd display VGA port: 1 x DB15
- Audio port: 1 x Line-out; 1 x Line-in; 1 x MIC-in
- USB: 4 x USB 2.0
- 2 x PS2 keyboard/mouse
- AC power switch

Dimension Drawing



- Reset button
- DIO w/ 2.5kv isolated protection:
 - 4 x digital input (source type)
 - Input voltage (dry contact): Logic 0: Close to GND
 - Logic 1: open
 - Input voltage: Logic 0: 3V max.
 - Logic 1: +5 to 30V
 - 4 x 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
- LPT: 1 x parallel port

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

Fieldbus

- Support one special fieldbus module kit

Mechanical & Environment

- Color: pantone 432C\ RAL 70 24 front bezel
- Enclosure: aluminum front bezel with SPPC nickel plated housing
- IP protection: IP66 front
- Mounting: panel/wall/stand/VESA 100mm x 100mm
- System with panel mounting kit w/ o Panel mounting hole
- 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/Intel® Pentium® B950: -10°C to 40°C
- Storage temperature: -20°C to 75°C
- Operating humidity: 10%~90% relative humidity, non-condensing
- Dimension: 562.4mm x 382.4mm x 92.27mm
- Weight: 12.51Kg

Certifications

- CE (including EN61000-6-1/EN61000-6-2/EN61000-6-3/EN61000-6-4)

Ordering Information

System

- **eTOP-IPC 2160PP2E-AC**
21.5" Full HD LED backlight fanless touch panel PC, Intel® Core™ i5-3610ME 2.7GHz, ten points P-Cap touch screen, 4GB DDR3, 6 x COMs, 4 x 4 GPIO, 4 x 4 DI/O with isolated protection, AC power input