



Main Features

- 16:9 WXGA, 1366 x 768 fanless panel computer
- Powerful 4th generation Intel® Core™ i processor
- Optional two expansion slots for add-on PCI or/and PCIe cards
- Optional 3.5G/Wi-Fi module/2.5" HDD
- Inside USB 2.0 type A connector for license key
- Metal housing with robust aluminum IP66 compliant front bezel for harsh environment
- Two FBI Windows

Product Overview

IPPC-1670P is a heavy industrial panel PC to support powerful 4th generation Intel® Core™ i processor, TFT LCD panel with LED backlight and userfriendly touch screen. It provides two expansion slots to support PROFINET, PROFIBUS, DeviceNet, EtherNet/IP and EtherCAT protocols. The IP66 rated heavy-duty aluminum front bezel and the vibration-resistant rugged chassis are specifically designed for outdoor and harsh industrial environments. IPPC-1670P is ideal for use in oil and gas rig, wind farms, chemical factories, pharmaceutical factories, and hazardous working area.

Specifications

Panel

- LCD size: 15.6", 16:9
- Resolution: WXGA, 1366 x 768
- Luminance: 400cd/m²
- Contrast ratio: 500
- LCD color: 16.7M
- Viewing angle: 80(U), 80(D), 85(L), 85(R)
- Backlight: LED

Touch (for IPPC-1670P Series)

- Ten points P-Cap (projected capacitive touch)
- Light transmission: 87%
- Interface: USB
- Anti-scratch surface: >= 7H hardness

System

- CPU (optional): support 4th gen. Intel® Core™ i processor family, LGA1150 socket type
 - Core™ i5-4590T, Quad Core, 2.0GHz, 6M Cache (maximum frequency 3.0GHz if turbo boost enabled)
 - Core™ i5-4570TE, Dual Core, 2.7GHz, 4M Cache (maximum frequency 3.3GHz if turbo boost enabled)
 - Core™ i3-4350T, Dual Core, 3.1GHz, 4M Cache (no turbo boost)
 - Core™ i3-4340TE, Dual, Core, 2.6GHz, 4M Cache (no turbo boost)
 - Pentium® G3320TE, Dual Core, 2.3GHz, 3M Cache (no turbo boost)
 - Celeron® G1820TE, Dual Core, 2.2GHz, 2M Cache (no turbo boost)
- BIOS: AMI BIOS
- System chipset: Intel® Q87 PCH
- System memory (optional): 2 x 204-pin DDR3/DDR3L SO-DIMM socket,

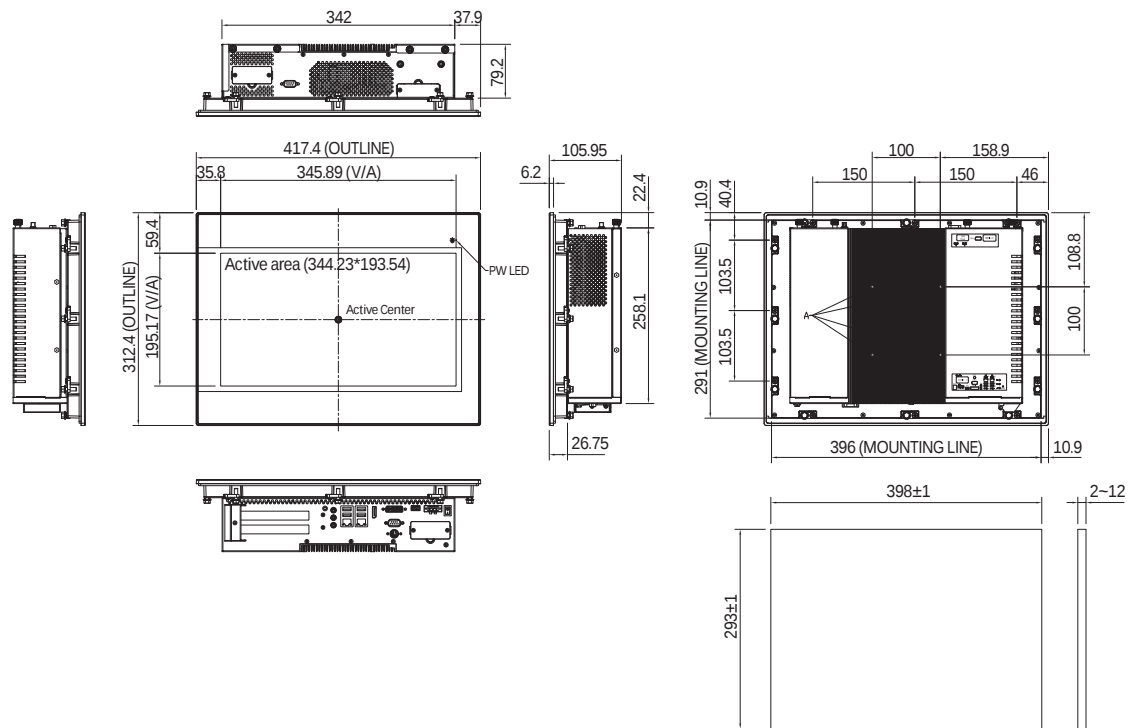
support up to 16GB DDR3/DDR3L 1333/1600, non-ECC and unbuffered

- Storage device:
 - 1 x External locked CFast socket
 - 1 x mini-PCIe w/o SIM card holder slot to support mSATA storage
 - 1 x Hard drive bay: support 1 x 2.5" SATA HDD/SSD (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:
 - 2 x mini-PCIe sockets (support optional Wi-Fi or 3.5G module/ NVRAM/mSATA storage)
 - 2 x Expansion slots for add-on PCI or/and PCIe cards (optional)
 - 1 x PCI and 1 x PCIe x4 slots
 - 2 x PCIe x4 slots
 - 2 x PCI slots
 - 1 x PCIe x16 slot

Rear I/O

- 1 x PS2 for keyboard/mouse
- Ethernet: 2 x RJ45
- 2nd/3rd display: additional independent DisplayPort: 1 x DVI-I (DVI-D + DVI-A) and 1 x DisplayPort
- Audio port: 1 x Line-out; 1 x Line-in; 1 x Mic-in
- USB: 4 x USB3.0
- 3-pin remote power on/off switch connector
- Reset button
- COM#1: RS232/422/485 w/ 5V or 12V selection
- ATX power switch

Dimension Drawing



Top I/O

- ♦ COM#2 RS232/422/485 w/ 5V or 12V selection

Audio

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

Ethernet

- ♦ LAN chip: dual Intel® I210-IT Gigabit LAN
- ♦ Ethernet interface: 10/100/1000 Base-Tx Ethernet compatible

Fieldbus

- ♦ Two FBI Windows

Mechanical & Environment

- ♦ Color: Pantone 432C/RAL 70 24 front bezel
- ♦ IP protection: IP66 front
- ♦ Mounting: panel/wall/stand/VESA 100mm x 100mm
- ♦ Power:
 - Power input: 12~30 VDC
 - Power connector: 3-pin PHOENIX connector
- ♦ 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

Dimension

- ♦ 417.4 x 312.4 x 105.95mm
- ♦ Weight: (barebone): 8.8 kg

Certifications

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

OS Support Lists

- ♦ Windows 7 32-bit and 64-bit
- ♦ Windows 10 32-bit and 64-bit

Ordering Information

System

♦IPPC-1670P-B (P/N: 10I11670P02X0)

15.6" WXGA LED backlight fanless P-CAP touch panel PC, 2 x COM, DC power input

Options

♦24V, 120W AC/DC power adapter w/o power cord (P/N: 7400120023X00)

♦NISK37P1E1, one PCI slot and one PCIe x4 slot riser card (P/N: 10JK037P100X0)

♦NISK37P2, two PCI slots (P/N: 10JK037P200X0)

♦NISK37E2, two PCIe x4 slot (P/N: 10JK037E200X0)

♦NISK37E16, one PCIe x16 slot (P/N: 10JK037E101X0)