ASSURED SYSTEMS®

IPPC 2170P

21.5" TFT Full HD 16:9 Heavy Industrial Panel PC
4th Generation Intel® Core™ i Processor

Main Features

- 16:9 Full HD, 1920 x 1080 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 2170P 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 2170P is ideal for use in oil and gas rig, wind farms, chemical factories, pharmaceutical factories, and hazardous working area.

Specifications

Panel
- LCD 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 (for IPPC 2170P Series)
- Ten points P-Cap (projected capacitive touch)
- Light transmission: 87%
- Interface: USB
- Anti-scratch surface: >= 6H 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)(for DC model only)
- 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
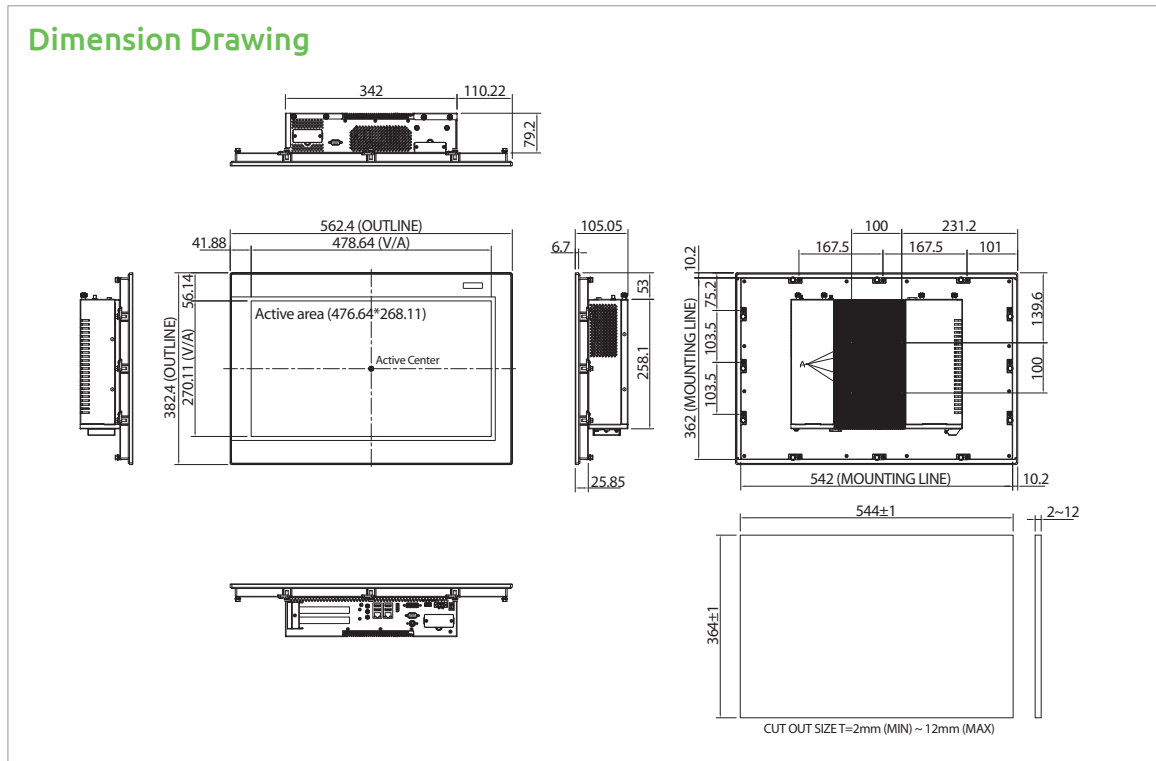 - 2 x PCI slots
  - 1 x PCIe x16 slot

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 Mlic-in
- USB: 4 x USB3.0
- 3-pin remote power on/off switch connector
- Reset button

Industrial Panel PC & Monitor   NEXCOM

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Dimension Drawing

- COM#1: RS232/422/485 w/ 5V or 12V selection (for T/P-DC only)
- ATX power switch (for T/P-DC only)

Top I/O
- COM#2 RS232/422/485 w/ 5V or 12V selection (for T/P-DC only)

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

Ethernet
- LAN chip: dual Intel® I210IT 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
- Enclosure: aluminum front bezel with SPPC nickel plated housing
- IP protection: IP66 front
- Mounting: panel/wall/stand/VESA 100mm x 100mm
- Power: IPPC 2170P
  - 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:
  Resistive: -10℃ to 50℃
  P-Cap: -10℃ to 50℃
  Storage temperature: -20℃ to 75℃
  Operating humidity: 10%~90% relative humidity, non-condensing
  (for IPPC 2170P series, limits to be at 90% RH at max 50℃)

Dimension
- 562.4 x 382.4 x 105.05mm
- Weight: (barebone): 11.7kg

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

OS Support Lists
- Windows 7 32-bit and 64-bit
- Windows 8.1 32-bit and 64-bit
- Windows 10 32-bit and 64-bit

Ordering Information

System
- **IPPC 2170P-DC (P/N: 10II2170P01X0)**
  21.5" Full HD 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)**
- **ASSY NISK37P1E1, one PCI slot and one PCIe x4 slot riser card (P/N: 20JK037P100X0)**
- **ASSY NISK37P2, two PCI slots (P/N: 20JK037P200X0)**
- **ASSY NISK37E2, two PCIe x4 slot (P/N: 20JK037E200X0)**
- **ASSY NISK37E16, one PCIe x16 slot (P/N: 20JK037E100X0)**

Industrial Panel PC & Monitor

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Assured Systems

Assured Systems is a leading technology company with over 1,500 regular clients in 80 countries, deploying over 85,000 systems to a diverse customer base in 12 years of business. We offer high-quality and innovative rugged computing, display, networking and data collection solutions to the embedded, industrial, and digital-out-of-home market sectors.

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