

eTOP-IPC2170P Tech-Note

IPC2170P 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. IPC2170P is ideal for use in oil and gas rig, wind farms, chemical factories, pharmaceutical factories, and hazardous working area.



- 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
- Mounting support: panel/wall/stand/VESA 100mm x 100mm
- Wide range power input 12~30VDC

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 IPC2170P 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
- 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: IPC2170P

- 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°C to 50°C

P-Cap: -10°C to 50°C

Storage temperature: -20°C to 75°C

Operating humidity: 10%~90% relative humidity, non-condensing

(for IPC2170P series, limits to be at 90% RH at max 50°C)

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

