

# IPPC-9171G

17" SXGA LED backlight TFT LCD Intel® Core™ i7/i5/i3 Celeron Mobile Processor Industrial Panel PC with 1x PCIe Slot

NEW



## Features

- Intel® Core™ i7/i5/i3 Celeron® μFC-PGA988 processor with Intel QM67 chipset
- 17" SXGA LED backlight with low power consumption
- Front access USB connector
- Supports 1 xPCIe x1 or 4 (Gen2)
- Heavy-duty stainless steel chassis with aluminum front panel
- Strengthened glass protects the front panel from shock damage and is NEMA4/IP65 compliant
- Support dual display of HDMI, LVDS, VGA
- Supports 1 x 2.5" SATA II or SATA III HDD and 1 x CFast
- Hard anodic coating to prevent panel abrasion and acid corrosion
- Supports embedded software APIs and Utilities

## Introduction

IPPC-9171G is a fully functional computer system with front USB access, supports Intel mobile Core i7-2710QE 2.1GHz / Core i5-2510E 2.5 GHz / Core i3-2330E 2.2 GHz / Celeron B810 1.6 GHz processors up to 6 MB L3 cache and DDR3 SO-DIMM 1066/1333 up to 8 GB, and a resolution of up to 1280 x 1024 to meet the demands of today's high-end industrial software. The IPPC-9171G is a rugged unit with an aluminum panel, 17" TFT LCD with LED backlight, a stainless steel structure and a PCIe slot. The IPPC-9171G is rugged enough to handle the toughest industrial operating environments. And from panels to racks, it can be mounted anywhere.

## Specifications

### General

- BIOS** AMI EFI 64 Mbit SPI
- Certifications** BSMI, CCC, CE, FCC, UL
- Cooling System** 2 x 10.1 CFM fans w/50,000 hrs MTBF
- Dimensions (W x H x D)** 482 x 354.8 x 98 mm(18.98"x13.97"x 3.86")
- Disk Drive Bay** Supports one 2.5" SATA II or SATA III HDD
- Enclosure** Stainless steel back case, 10 mm aluminum front panel
- Mounting** Panel, rack
- Power Input** 100~240 V<sub>AC</sub> @ 4A 50~60hz
- Power Supply** 180 W, MTBF: 100,000 hrs
- Weight (Gross)** 14 Kg (30.86 lbs)

### System Hardware

- CPU** Supports uFC-PGA988 Intel mobile Core i7-2710QE 2.1 GHz / Core i5-2510E 2.5 GHz / Core i3-2330E 2.2 GHz / Celeron B810 1.6GHz processor
- Chipset** Intel 6 series chipset(QM67)
- Audio Ports** Mic-in, Line-out, Line-in
- Expansion Slots** Supports 1 x PCIe x1 or x4
- PS/2** 1 x keyboard and 1 x mouse
- Lan** 2 x 10/100/1000Mbps
- Memory** 2 x 204 pin DDR3 1066/1333 SODIMM sockets supports up to 8GB(2x 4GB)
- I/Os**
  - 1 x VGA
  - 1 x HDMI
  - 5 x USB 2.0( one at front)
  - 4 x RS-232

### LCD Display

- LCD Display Type** SXGA TFT LCD with LED Backlight
- Display Size** 17"
- Max. Resolution** 1280 x 1024
- Max. Colors** 16.7M colors (RGB 6-bits +Hi-FRC data)
- Viewing Angle (H/V°)** 170/160
- Luminance** 380 cd/m2
- Backlight Life** 50,000 hrs
- Contrast Ratio** 400 : 1

### Touchscreen

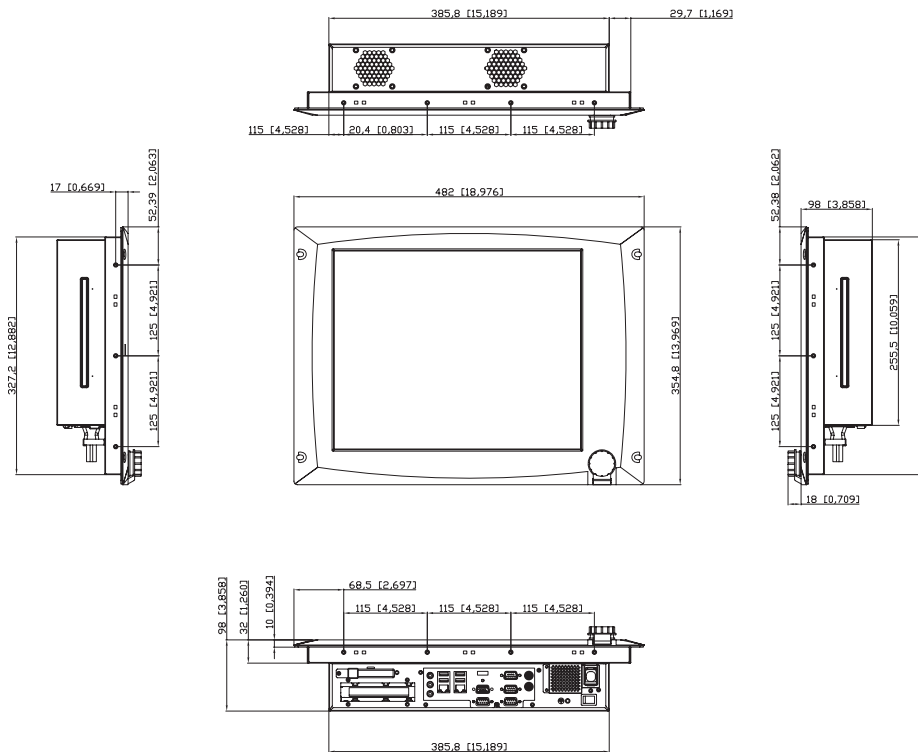
- Lifespan** 36 million with a silicone rubber of R8 finger, writing rate is by 250g at 2 times/s
- Light Transmission** > 80%
- Type** Analog resistive (5-wire)

### Environment

- Humidity** 5 ~ 85% @ 40°C (non-condensing)
- Ingress Protection** Front panel: NEMA4/IP65
- Operating Temperature** 0 ~ 50°C (32 ~ 122°F)
- Storage Temperature** -20 ~ 60°C (-4 ~ 140°F)
- Vibration Protection** 5 ~ 500 Hz, 1 G<sub>RMS</sub> random vibration

## Dimensions

Unit: mm



Cut Out Dimensions 447.5mm (17.618") x 329.50mm (12.972")

## Ordering Information

- IPPC-9171G-R1AE 17" SXGA Intel® Core™ i7/i5/i3 Celeron with TS

## Accessories

### Notes:

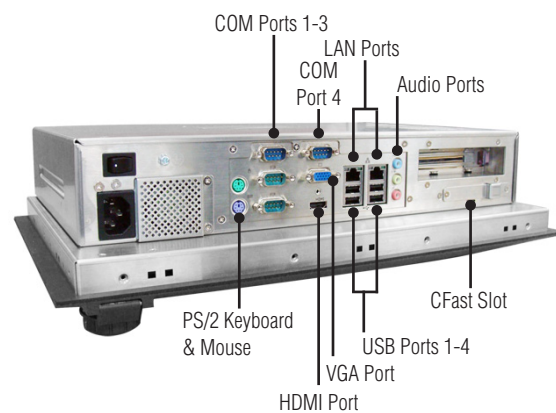
1. When used in a panel mounted environment, the panel's thickness can not be over 10 mm.

- 1702002600 Power Cable US Plug 1.8 M
- 1702002605 Power Cable EU Plug 1.8 M
- 1702031801 Power Cable UK Plug 1.8 M
- 1702031836 Power Cable China/Australia Plug 1.8 M

2. Dual Display

- Primary Display LCD
- Second Display CRT or HDMI

## I/O Overview



## Value-Added Software Services

**Software API:** An interface that defines the ways by which an application program may request services from libraries and/or operating systems. Provides not only the underlying drivers required but also a rich set of user-friendly, intelligent and integrated interfaces, which speeds development, enhances security and offers add-on value for Advantech platforms. It plays the role of catalyst between developer and solution, and makes Advantech embedded platforms easier and simpler to adopt and operate with customer applications.

## Software APIs

### Control



**GPIO**

General Purpose Input/Output is a flexible parallel interface that allows a variety of custom connections. It allows users to monitor the level of signal input or set the output status to switch on/off a device. Our API also provides Programmable GPIO, which allows developers to dynamically set the GPIO input or output status.



**Hardware Control**

The Hardware Control API allows developers to set the PWM (Pulse Width Modulation) value to adjust fan speed or other devices; it can also be used to adjust the LCD brightness.

### Display



**Brightness Control**

The Brightness Control API allows a developer to interface with an embedded device to easily control brightness.



**Backlight**

The Backlight API allows a developer to control the backlight (screen) on/off in an embedded device.

### Monitor



**Watchdog**

A watchdog timer (WDT) is a device that performs a specific operation after a certain period of time if something goes wrong and the system does not recover on its own. A watchdog timer can be programmed to perform a warm boot (restarting the system) after a certain number of seconds.



**Hardware Monitor**

The Hardware Monitor (HWM) API is a system health supervision API that inspects certain condition indexes, such as fan speed, temperature and voltage.

### Power Saving



**CPU Speed**

Make use of Intel SpeedStep technology to reduce power consumption. The system will automatically adjust the CPU Speed depending on system loading.



**System Throttling**

Refers to a series of methods for reducing power consumption in computers by lowering the clock frequency. These APIs allow the user to lower the clock from 87.5% to 12.5%.

## CPU Compatibility

CPU Family	Speed	Spec.	Core Stepping	TDP	L3 cache	Advantech PN
Intel i7-2710QE	2.1 GHz	SR02T	D-2	45 W	6 MB	96MPI7M-2.1-6M9T
Intel i5-2510E	2.5 GHz	SR02U	D-2	35 W	3 MB	96MPI5M-2.5-3M9T
Intel i3-2330E	2.2 GHz	SR02V	D-2	35 W	3 MB	96MPI3M-2.2-3M9T
Intel Celeron B810	1.6 GHz	-	D-2	35 W	2 MB	96MPCM-1.6-2M9T

## Memory Compatibility

Brand	Size	Speed	Type	ECC	Vendor PN	Memory	Advantech PN
Transcend	1GB	DDR3 1066	SODIMM DDR3	N	TS128MSK64V1U/TS2KSU28200-1S	SEC K4B1G0846D-HCF8 (128x8)	96SD3-1G1066NN-TR
	1GB	DDR3 1066	SODIMM DDR3	N	TS128MSK64V1U	SEC HCH9 K4B1G0846D (128x8)	96SD3-1G1066NN-TR
	2GB	DDR3 1066	SODIMM DDR3	N	TS256MSK64V1U/TS5KSU28400-1S	SEC K4B1G0846D-HCF8 (128x8)	96SD3-2G1066NN-TR
	2GB	DDR3 1066	SODIMM DDR3	N	TS128MSK64V1U	SEC HCH9 K4B1G0846D (128x8)	96SD3-2G1066NN-TR
	4GB	DDR3 1066	SODIMM DDR3	N	TS7KSN28420-1Y	HYNIX H5TQ2G83BFR (256x8)	96SD3-4G1066NN-TR
Apacer	1GB	DDR3 1066	SODIMM DDR3	N	78.02GC3.420	ELPIDA J1108BDBG-DJ-F (128x8)	96SD3-1G1066NN-AP
	2GB	DDR3 1066	SODIMM DDR3	N	78.A2GC3.421	ELPIDA J1108BDBG-AEE (128x8)	96SD3-2G1066NN-AP
	4GB	DDR3 1066	SODIMM DDR3	N	78.B2GC8.AF1	HYNIX H5TQ2G83BFR (256x8)	96SD3-4G1066NN-AP
Kingston	2GB	DDR3 1066	SODIMM DDR3	N	KVR1066D3S7/2G	KVR1066D3S7/2G (256x8)	-
DSL	1GB	DDR3 1066	SODIMM DDR3	N	-	ELPIDA J1108BASEDJ-E (128x8)	-
	4GB	DDR3 1066	SODIMM DDR3	N	D3SH56082XH18AB	HYNIX H5TQ2G83BFR (256x8)	-
Micron	1GB	DDR3 1066	SODIMM DDR3	N	MT8JSF12864HZ-1G1F1	Micron 9FF27 D9KPT (128x8)	-
Samsung	2GB	DDR3 1066	SODIMM DDR3	N	M471B5673DH1-CF8	SEC 904 HCF8 K4B1G0846D (128x8)	-
G.SKILL	4GB	DDR3 1066	SODIMM DDR3	N	F3-8500CL7S-4GBSQ	HYNIX H5TQ2G83AFRG7C (256X8)	-
Transcend	1GB	DDR3 1333	SODIMM DDR3	N	TS128MSK64V3U	SEC 849 HCH9 K4B1G0846D (128x8)	-
	2GB	DDR3 1333	SODIMM DDR3	N	TS256MSK64V3U	SEC 904 HCF8 K4B1G0846D (128x8)	-
	4GB	DDR3 1333	SODIMM DDR3	N	TS512MSK64V3N	HYNIX H5TQ2G83BFR (256x8)	-
Apacer	1GB	DDR3 1333	SODIMM DDR3	N	78.02GC6.420	ELPIDA J1108BDBG-DJ-F (128x8)	96SD3-1G1333NN-AP
	2GB	DDR3 1333	SODIMM DDR3	N	78.A2GC6.421	ELPIDA J1108BDBG-DJ-F (128x8)	96SD3-2G1333NN-AP
	4GB	DDR3 1333	SODIMM DDR3	N	78.B2GC9.AF1	HYNIX H5TQ2G83BFR (256x8)	-
DSL	1GB	DDR3 1333	SODIMM DDR3	N	D3SE28081XH15AA	ELPIDA J1108BDESDJ- F (128x8)	-
	2GB	DDR3 1333	SODIMM DDR3	N	D3SE28082XH15AA	ELPIDA J1108BDESDJ- F (128x8)	-
	4GB	DDR3 1333	SODIMM DDR3	N	D3SH56082XH15AA	HYNIX H5TQ2G83BFR (256x8)	-
Kingston	1GB	DDR3 1333	SODIMM DDR3	N	KVR1333D3S9/1G	ELPIDA J1108BDBG-DJ-F (128x8)	-
	2GB	DDR3 1333	SODIMM DDR3	N	KVR1333D3S9/2G	ELPIDA J1108BDBG-DJ-F (128x8)	-
ATP	4GB	DDR3 1333	SODIMM DDR3	N	AW12M64F8BKH9S	SEC 019 HCH9 K4B2G0846C (256x8)	-