



### Features

- LCD Size: 12.1", 15" with Touch Panel
- E3827 (1.75 GHz) CPU
- WES7 (Windows Embedded Standard 7)
- Support eLogger HMI (free)
- 3 I/O Expansion Slots
- NEMA 4/IP65 Compliant Front Panel
- Ultra-Rugged Construction and Reliable Design
- Operating Temperature : -10 °C ~ +60 °C



### Introduction

The iPPC-x731-WES7 series are WES7 based Panel PC that combine computing, I/O, and operator interface into a single unit, and provide the perfect solution for integrating HMI, data acquisition and control in an individual PAC. It is equipped with an Intel Atom E3827 CPU, three I/O expansion slots, TFT LCD and a variety of connectives including dual Gigabit Ethernet, USB port, RS-232 and RS-485 interface. The operating system is pre-installed in the built-in mSATA SSD, and the storage can be expanded from a Compact Flash slot. Local I/O slots are available to use our I-8K and I-87K series I/O modules and remote I/O expansion is available to use our Ethernet I/O modules and RS-485 I/O modules. Designed for panel mount installation, the front panel is NEMA 4/IP65 rated and can withstand sprayed water, humidity and extreme dust. Designed to operate over a wide -10°C ~ 60°C ambient temperature range, the fanless design offers the ultimate in reliability with no moving parts.

Since WES7 has the same Win32 API as Windows 7, most popular applications on desktop can run on WES7 based Panel PC.

### WES7 Embedded OS

WES7 has the same Win32 API as Windows 7. Most popular applications on desktop can be run on WES7. It's also compatible with rich Windows IDEs, such as Visual studio, Delphi, Borland C++ Builder, etc.



- Full Win32 API
- Remote Desktop Protocol 5.1
- Silverlight 5
- Enhanced Write Filter
- MS SQL Server 2012 Express
- .NET Framework 3.5 SP1, 4.0, 4.5

## Specifications

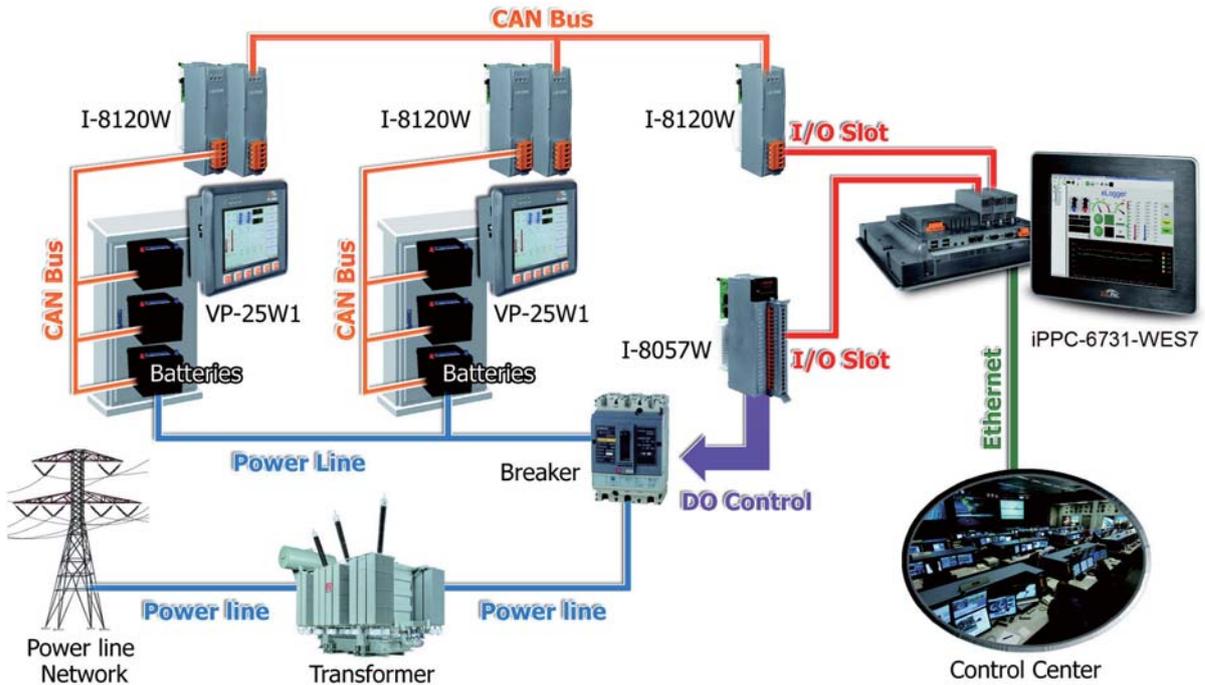
Models	iPPC-5731-WES7	iPPC-6731-WES7
<b>LCD</b>		
Diagonal Size	12.1"	15"
Resolution	800 x 600	1024 x 768
Brightness (cd/m2)	400	
Contrast Ratio	500 : 1	
LED Backlight Life (hrs)	50,000	
Touch Panel	Yes, 5-wire, resistive type; light transmission: 80 %	
LED Indicator	4 (Run, PWR, L1, L2; L1 and L2 for user programmable)	
<b>System Software</b>		
OS	Microsoft Windows Embedded Standard 7 SP1	
Framework Support	.Net Framework 3.5 SP1, 4.0, 4.5	
Embedded Service	IE11, FTP Server, IIS 7.0, ASP (Java Script, VB Script)	
SDK Provided	DII for Visual Studio.Net	
Multilanguage Support	English, German, French, Spanish, Portuguese, Russian, Italian, Korean, Japanese, Simplified Chinese, Traditional Chinese	
<b>CPU Module</b>		
CPU	E3827 (1.75 GHz, 64-bit dual core)	
SDRAM (DDR3)	2 GB	
MRAM	128 KB	
Flash (SSD)	mSATA slot with one 16 GB SSD	
EEPROM	16 KB	
Memory Expansion	CF slot with a 8 GB CF card (support up to 32 GB)	
RTC (Real Time Clock)	Provide second, minute, hour, date, day of week, month, year	
64-bit Hardware Serial Number	Yes, for software copy protection	
Dual Watchdog Timers	Yes (0.8 second)	
Rotary Switch	Yes (0 ~ 9)	
<b>Communication Ports</b>		
Ethernet	2 x RJ-45 10/100/1000 Base-TX	
USB 2.0	2	4
COM 2	RS-232 (Rx/D, Tx/D, CTS, RTS, DSR, DTR, CD, RI and GND); Non-isolated	
COM 3	RS-485 (Data+, Data-, GND); 2500 Vdc isolated	
COM 4	RS-232/RS-485 (Rx/D, Tx/D, CTS, RTS and GND for RS-232, Data+ and Data- for RS-485); 2500 Vdc isolated	
Audio	Earphone-out	Mic-in and earphone-out
<b>I/O Expansion Slots</b>		
Slot Number	3 (Support High Profile I-8K and I-87K Modules)	
<b>Mechanical</b>		
Dimensions (W x H x D), Unit: mm	323 x 254 x 139	381 x 305 x 139
Panel Cut-Out (W x H), Unit: mm	309 x 240, ±1	364 x 288, ±1
Installation	Panel Mounting	
Ingress Protection	Front panel: NEMA 4/IP65	
Weight	2.2 kg estimate	3.1 kg estimate
<b>Environmental</b>		
Operating Temperature	-10 °C ~ +60 °C	
Storage Temperature	-20 °C ~ +70 °C	
Ambient Relative Humidity	10 % ~ 90 % RH (non-condensing)	
<b>Power</b>		
Input Range	+10 Vdc ~ +30 Vdc	
Redundant Power Inputs	Yes	
Isolation	1 kV	
Consumption	20 W	25 W

## Applications

### Energy Storage System

**Products:** iPPC-6731-WES7, VP-25W1, I-8120W, I-8057W

This application improves the usage efficiency of electrical power. During the off-peak time for electricity use, the unused electricity can be stored in batteries. During peak time, these batteries then supply power to the electricity grid. The application utilizes two I-8120W modules plugged in one VP-25W1 in each subsystem. One is for obtaining the battery status, and another is for transmitting the data to the iPPC-6731-WES7. The iPPC-6731-WES7 controls the charge time using a breaker, stores data to local SQL data base and transmits the status information to the PC via the Ethernet for backup.



### Machine Automation

**Products:** iPPC-6731-WES7, I-8092F, I-8094, I-8094F

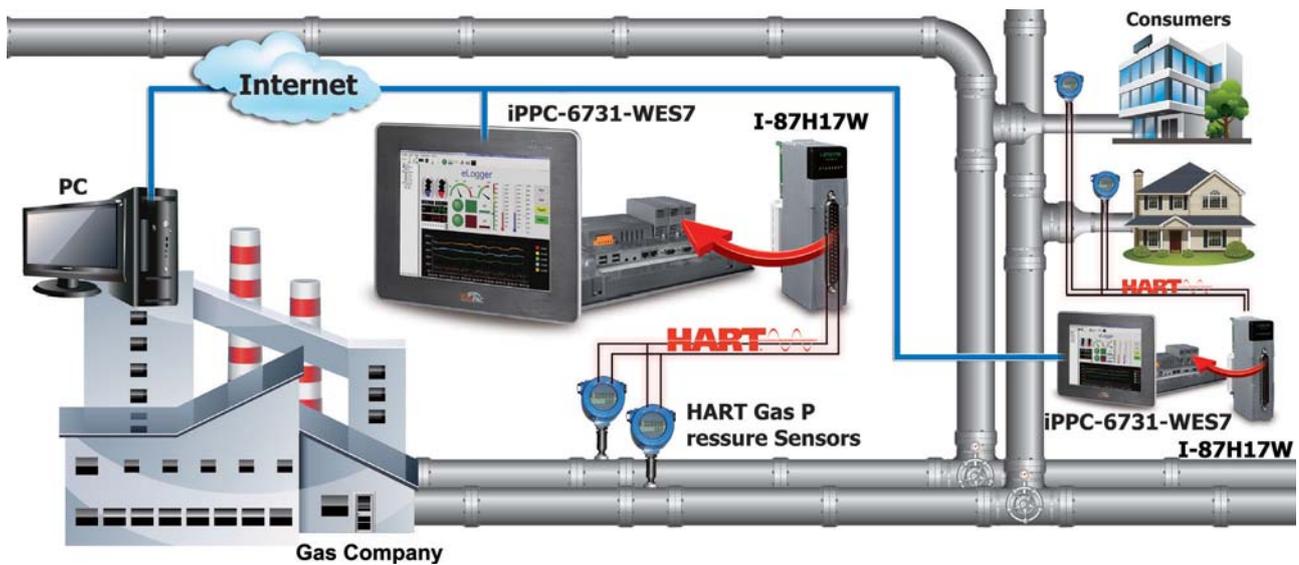
ICP DAS provides a wide range of motion solutions for machine automation systems, including PAC/ Panel PC, motion control modules and a various of development software such as VC, C# or VB .NET to apply to machine automation control systems. Furthermore, with a TFT color LCD, iPPC-6731-WES7 becomes a perfection product to integrate HMI, controller and motion control module into a single unit.



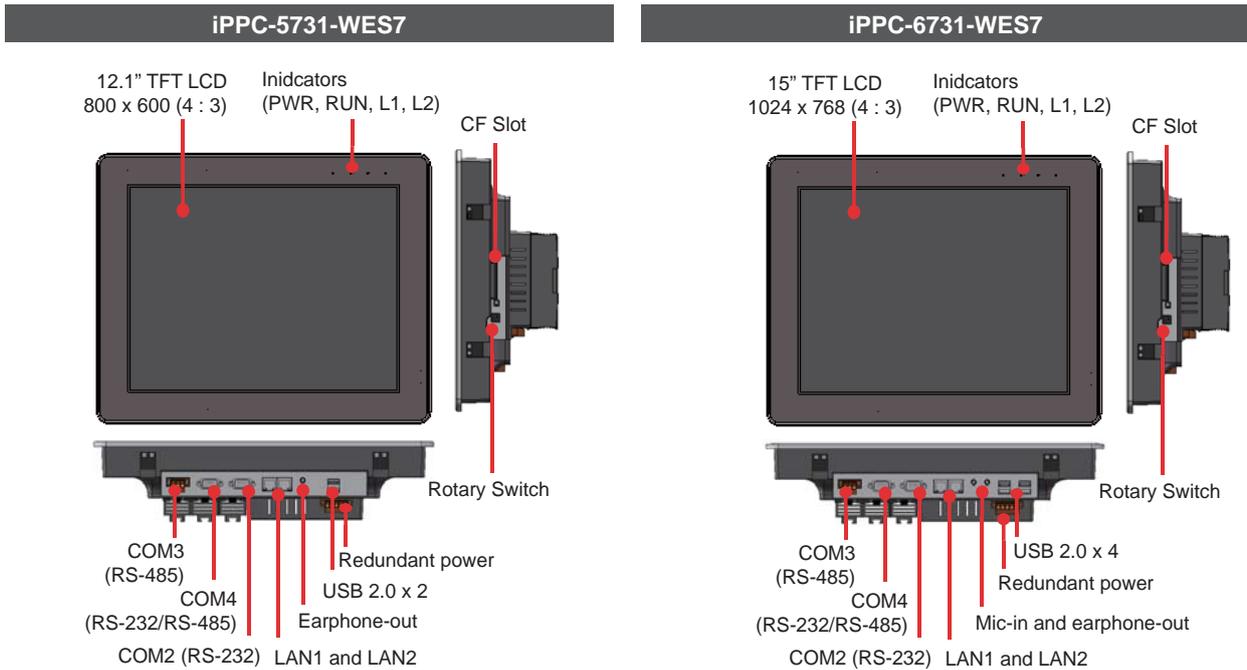
### Pressure Detection of Gas Pipeline

**Products: iPPC-6731-WES7, I-87H17W**

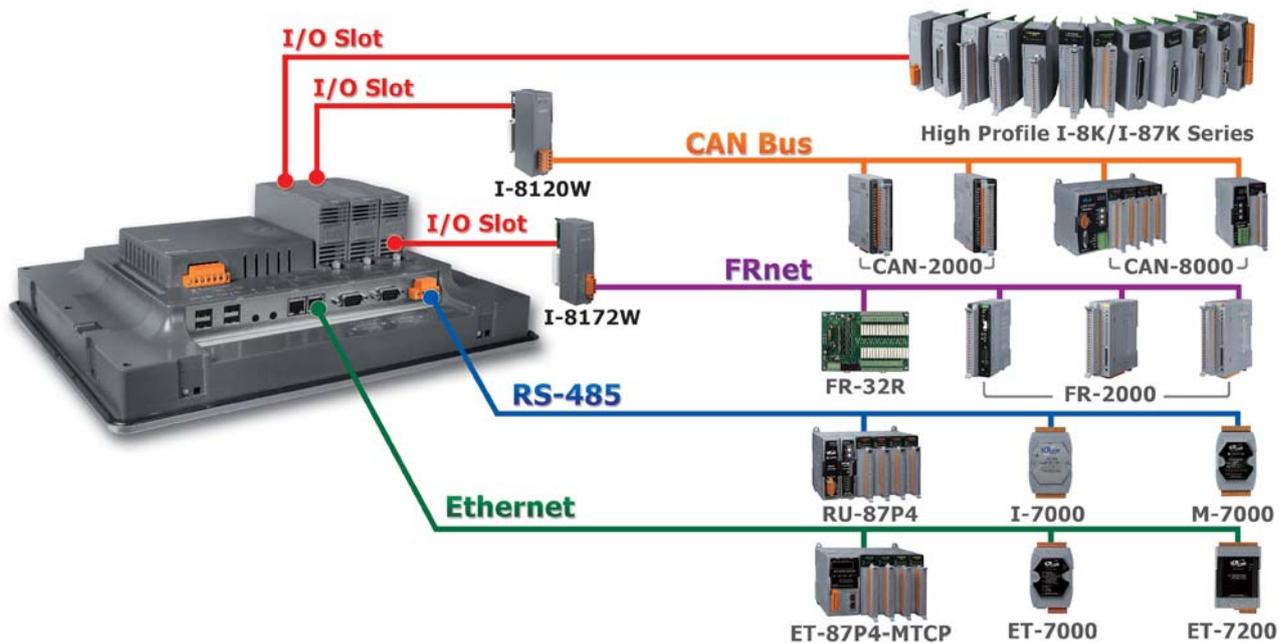
In general, the process of the natural gas transported to users' houses requires long-distance pipeline. The gas pressure in the pipeline will be reduced gradually from high to medium until low. If the gas pipeline ruptures and nobody knows it, it will cause the great loss of company. Further, it even causes the more serious disaster. So the most important mission for gas transportation system is strict control of the gas pipeline pressure. The gas company uses HART bus manometer for stable measurement and easy maintenance. The iPPC-6731-WES7 and I-87H17W with eight HART AI channels are used to collect these HART manometers data quickly and easily. Through Ethernet, the control center can monitor all gas pipeline pressure remotely.



### Appearance



### I/O Expansion



### Ordering Information

iPPC-5731-WES7	12.1" Panel PC with Atom E3827 CPU and WES7 OS
iPPC-6731-WES7	15" Panel PC with Atom E3827 CPU and WES7 OS

### Accessories

DP-660	24 Vdc/2.5 A, 60 W and 5 VDC/0.5 A, 2.5 W Power Supply with DIN-Rail Mounting
MDR-60-24 CR	24 Vdc/2.5 A, 60 W Power Supply with DIN-Rail Mounting (RoHS)