



## iPPC-x801-IoT/iPPC-x901-IoT

10.4"/12.1"/15"/17" Panel PC with  
Atom E3845/E3950 CPU and Win10 IoT

### Features

- 10.4", 12.1", 15" and 17" TFT LCD with Touch Panel
- Windows 10 IoT Enterprise Indise
- Intel® Atom™ E3845 1.91 GHz / E3950 1.6 ~ 2.0 GHz
- Rich software support
- Various Memory and Storage
  - ▶ 4 GB DDR3 SDRAM and 8 GB DDR4
  - ▶ 16 KB EEPROM and 128 KB MRAM for data retention
  - ▶ 1 x microSD socket with one microSD card
- Various Communication Interfaces
  - ▶ 1 x RJ-45, 10/100/1000BASE-T Ethernet Port
  - ▶ 2 x Serial Ports (RS-232/RS-422/RS-485)
  - ▶ 2 x USB 2.0 (host)
- 64-bit Hardware Serial Number for Software Protection
- Redundant Power Inputs



### Introduction

The iPPC-IoT series is Windows 10 IoT Enterprise 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 iPPC. It is equipped with an Intel Atom E3845/E3950 CPU, 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. 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 -20°C ~ 60°C ambient temperature range, the fanless design offers the ultimate in reliability with no moving parts.

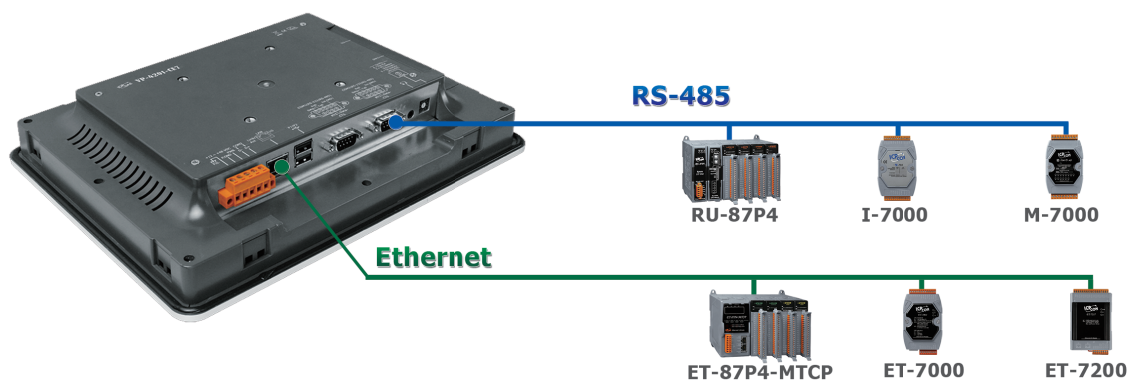
### Windows 10 IoT



Windows 10 IoT is a member of the Windows 10 family that brings enterprise-class power, security, and manageability to the Internet of Things. It leverages Windows' embedded experience, ecosystem, and cloud connectivity, allowing organizations to create their Internet of Things with secure devices that can be quickly provisioned, easily managed, and seamlessly connected to an overall cloud strategy.

- Traditional Windows Shell with Advanced Lockdown Features
- Remote Desktop Protocol 5.1
- Full Windows UI support (e.g. UWP, WinForms, etc)

### Applications



## Specifications

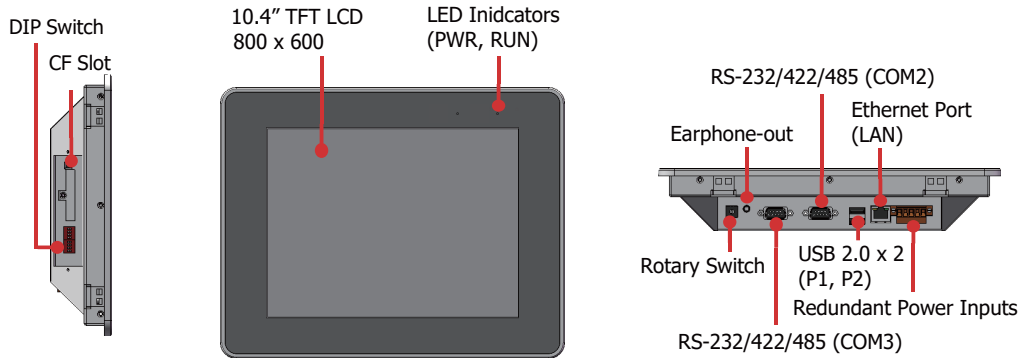
Models	iPPC-4801-IoT	iPPC-5801-IoT	iPPC-6801-IoT	iPPC-7801-IoT
<b>Software</b>				
OS	Windows 10 IoT Enterprise Inside			
Service	IE11, FTP Server, IIS 7.0, ASP (Java Script, VB Script)			
Framework Support	.Net Framework 3.5, 4.0, 4.5			
Multilanguage Support	English, German, French, Spanish, Portuguese, Russian, Italian, Korean, Simplified Chinese, Traditional Chinese			
SDK	DII for VC, DII for Visual Studio.Net			
<b>Main Unit</b>				
CPU	E3845, 1.91 GHz, 64-bit quad core			
64-bit Hardware Serial Number	Yes			
System Memory	4 GB DDR3 SDRAM			
Storage	64 GB SSD, 16 GB CF card			
Non-Volatile Memory	128 KB MRAM, 16 KB EEPROM			
Real Time Clock	Provide seconds, minutes, hours, dates, day of week, month, year			
Watchdog Timer	Dual Watchdog Timer			
<b>Display</b>				
Size	10.4" (4:3)	12.1" (4:3)	15" (4:3)	17" (4:3)
Resolution	800 x 600		1024 x 768	1280 x 1024
Brightness	400 cd/m2			350 cd/m2
Contrast Ratio	500:1	700:1		
Backlight Life	50,000 hours			
Touch Panel	5-wire, resistive type; light transmission: 80 %			
<b>LED Indicators</b>				
Status	1 x System, 1 x Power	1 x System, 1 x Power, 2 x Programmable		
<b>COM Ports</b>				
Ports	2 x RS-232/RS-422/RS-485			
<b>HMI</b>				
Buzzer	Yes			
Rotary Switch	1 x 10 Position (0 ~ 9)			
<b>Audio</b>				
Cable	Earphone-out	Microphone-in and Earphone-out		
<b>Ethernet</b>				
Ports	1 x RJ-45 10/100/1000 Base-TX	2 x RJ-45 10/100/1000 Base-TX		
<b>USB</b>				
USB 2.0	2			4
<b>Power</b>				
Input Range	+10 ~ 30 VDC (1500 VDC Isolated)			
Redundant Power Inputs	Yes			
Consumption	22.0 W	27.0 W	29.0 W	36.0 W
<b>Mechanical</b>				
Casing	Metal			
Dimensions (W x L x H)	291 x 229 x 53 mm	323 x 254 x 63 mm	381 x 305 x 63 mm	413 x 359 x 69 mm
Panel Cut-Out (W x H)	274 x 211, ±1 mm	308 x 239, ±1 mm	364 x 288, ±1 mm	394 x 340, ±1 mm
Installation	Panel Mounting, VESA Mounting (75 x 75, 100 x 100)			
Ingress Protection Rating	Front panel: NEMA 4/IP65			
<b>Environmental</b>				
Operating Temperature	-20 °C ~ +60 °C			
Storage Temperature	-20 °C ~ +70 °C			
Humidity	10 ~ 90 % RH, Non-condensing			

## Specifications

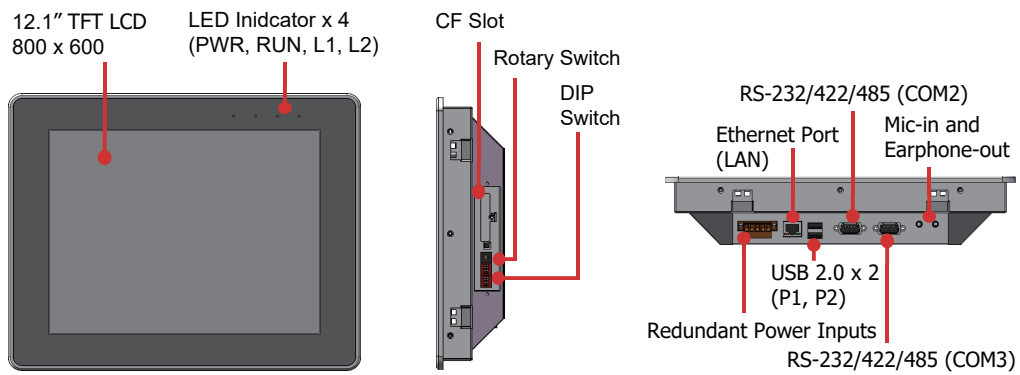
Models	iPPC-4901-IoT	iPPC-5901-IoT	iPPC-6901-IoT	iPPC-7901-IoT
<b>Software</b>				
OS	Windows 10 IoT Enterprise Inside			
Service	IE11, FTP Server, IIS 7.0, ASP (Java Script, VB Script)			
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Multilanguage Support	English, German, French, Spanish, Portuguese, Russian, Italian, Korean, Simplified Chinese, Traditional Chinese			
SDK	DII for VC, DII for Visual Studio.Net			
<b>Main Unit</b>				
CPU	E3845, 1.91 GHz, 64-bit quad core	E3950, 1.6~2.0 GHz, 64-bit quad core		
64-bit Hardware Serial Number	Yes			
System Memory	4 GB DDR3 SDRAM	8 GB DDR4		
Storage	64 GB SSD, 32 GB CF card			
Non-Volatile Memory	128 KB MRAM, 16 KB EEPROM			
Real Time Clock	Provide seconds, minutes, hours, dates, day of week, month, year			
Watchdog Timer	Dual Watchdog Timer			
<b>Display</b>				
Size	10.4" (4:3)	12.1" (4:3)	15" (4:3)	17" (4:3)
Resolution	800 x 600		1024 x 768	1280 x 1024
Brightness	400 cd/m2			350 cd/m2
Contrast Ratio	500:1	700:1		
Backlight Life	50,000 hours			
Touch Panel	5-wire, resistive type; light transmission: 80 %			
<b>LED Indicators</b>				
Status	1 x System, 1 x Power	1 x System, 1 x Power, 2 x Programmable		
<b>COM Ports</b>				
Ports	2 x RS-232/RS-422/RS-485			
<b>HMI</b>				
Buzzer	Yes			
Rotary Switch	1 x 10 Position (0 ~ 9)			
<b>Audio</b>				
Cable	Earphone-out	Microphone-in and Earphone-out		
<b>Ethernet</b>				
Ports	1 x RJ-45 10/100/1000 Base-TX	2 x RJ-45 10/100/1000 Base-TX		
<b>USB</b>				
USB 2.0	2			4
<b>Power</b>				
Input Range	+10 ~ 30 VDC (1500 VDC Isolated)			
Redundant Power Inputs	Yes			
Consumption	22.0 W	27.0 W	29.0 W	36.0 W
<b>Mechanical</b>				
Casing	Metal			
Dimensions (W x L x H)	291 x 229 x 53 mm	323 x 254 x 63 mm	381 x 305 x 63 mm	413 x 359 x 69 mm
Panel Cut-Out (W x H)	274 x 211, ±1 mm	308 x 239, ±1 mm	364 x 288, ±1 mm	394 x 340, ±1 mm
Installation	Panel Mounting, VESA Mounting (75 x 75, 100 x 100)			
Ingress Protection Rating	Front panel: NEMA 4/IP65			
<b>Environmental</b>				
Operating Temperature	-20 °C ~ +60 °C			
Storage Temperature	-20 °C ~ +70 °C			
Humidity	10 ~ 90 % RH, Non-condensing			

## Appearance

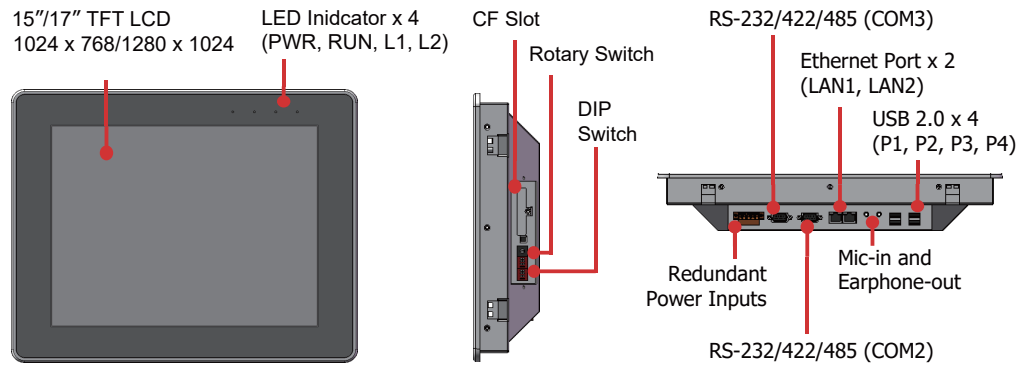
### iPPC-4801-IoT



### iPPC-5801-IoT

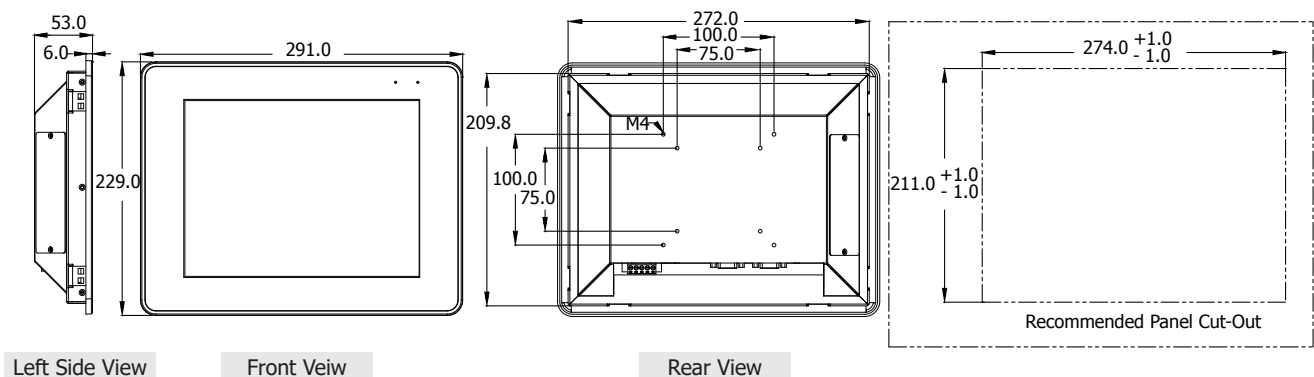


### iPPC-6801-IoT/iPPC-7801-IoT

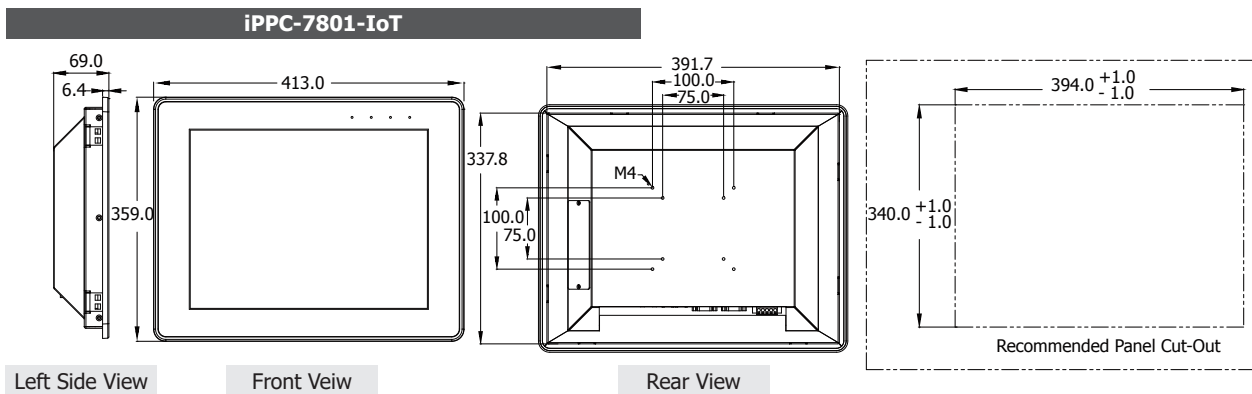
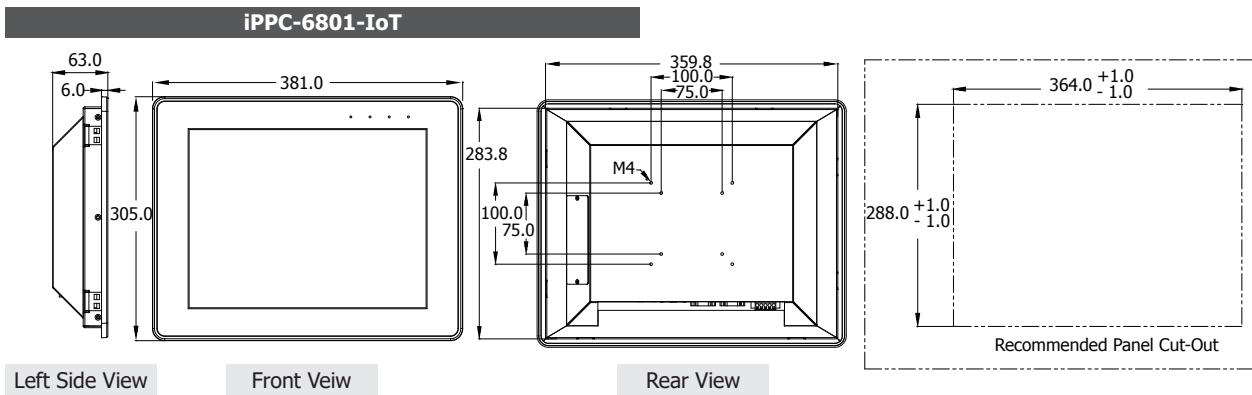
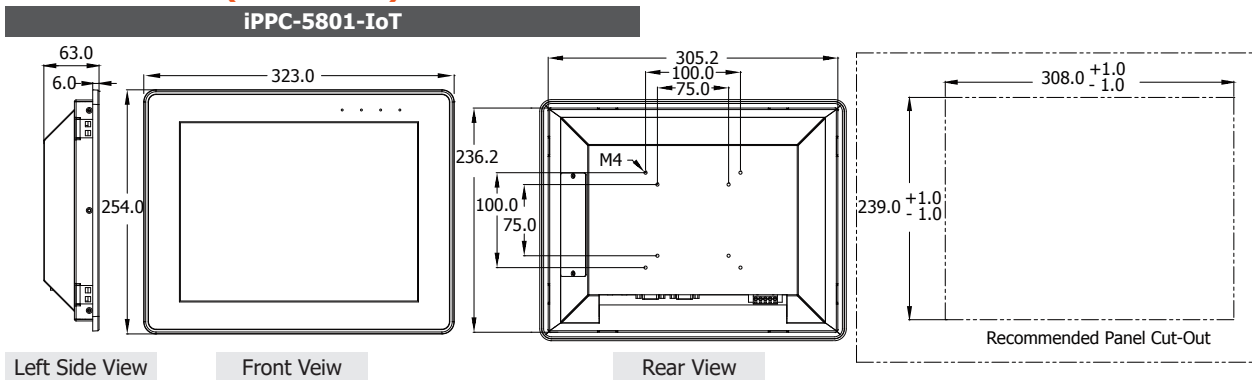


## Dimensions (Units: mm)

### iPPC-4801-IoT



## ■ Dimensions (Units: mm)



## ■ Ordering Information

<b>iPPC-4801-IoT CR</b>	10.4" Panel PC with Atom E3845 CPU and Win10 IoT (RoHS)
<b>iPPC-5801-IoT CR</b>	12.1" Panel PC with Atom E3845 CPU and Win10 IoT (RoHS)
<b>iPPC-6801-IoT CR</b>	15" Panel PC with Atom E3845 CPU and Win10 IoT (RoHS)
<b>iPPC-7801-IoT CR</b>	17" Panel PC with Atom E3845 CPU and Win10 IoT (RoHS)
<b>iPPC-4901-IoT CR</b>	10.4" Panel PC with Atom E3950 CPU and Win10 IoT (RoHS)
<b>iPPC-5901-IoT CR</b>	12.1" Panel PC with Atom E3950 CPU and Win10 IoT (RoHS)
<b>iPPC-6901-IoT CR</b>	15" Panel PC with Atom E3950 CPU and Win10 IoT (RoHS)
<b>iPPC-7901-IoT CR</b>	17" Panel PC with Atom E3950 CPU and Win10 IoT (RoHS)



## iPPC-6x31-IoT

15" Panel PC with Atom E3845/E3950 CPU, Win10 IoT, and 3 I/O Slots

### Features

- 15" LCD with Touch Panel
- Windows 10 IoT Enterprise Indise
- Intel® Atom™ E3845 1.91 GHz / E3950 1.6 ~ 2.0 GHz
- Rich software support
- Various Memory and Storage
  - ▶ 2/4 GB DDR3 SDRAM and 8 GB DDR4
  - ▶ 16 KB EEPROM and 128 KB MRAM for data retention
- Various Communication Interfaces
  - ▶ 2 x RJ-45, 10/100/1000BASE-TX Ethernet Port
  - ▶ 3 x Serial Ports (RS-232/RS-485)
  - ▶ 3 x USB 2.0 (host)
- NEMA 4/IP65 Compliant Front Panel



### Introduction

The iPPC-6x31-IoT series is Windows 10 IoT Enterprise 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 iPPC. It is equipped with an Intel Atom E3845/E3950 CPU, 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. 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 -20°C ~ 60°C ambient temperature range, the fanless design offers the ultimate in reliability with no moving parts.

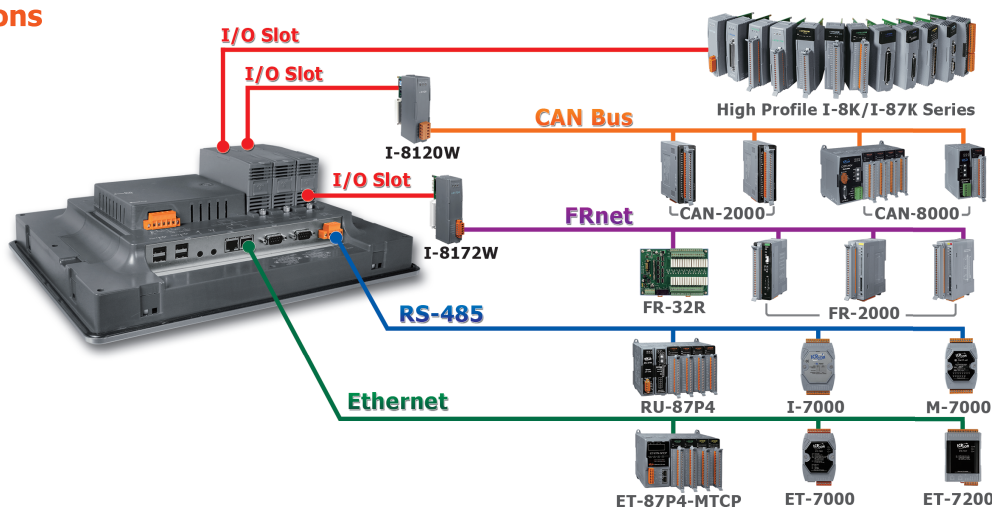
### Windows 10 IoT



Windows 10 IoT is a member of the Windows 10 family that brings enterprise-class power, security, and manageability to the Internet of Things. It leverages Windows' embedded experience, ecosystem, and cloud connectivity, allowing organizations to create their Internet of Things with secure devices that can be quickly provisioned, easily managed, and seamlessly connected to an overall cloud strategy.

- Traditional Windows Shell with Advanced Lockdown Features • Remote Desktop Protocol 5.1
- Full Windows UI support (e.g. UWP, WinForms, etc)

### Applications



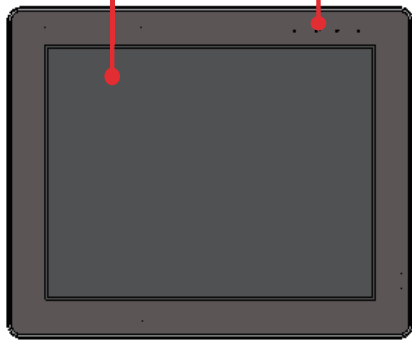
## Specifications

Models	iPPC-6831-IoT	iPPC-6931-IoT
<b>Software</b>		
OS	Windows 10 IoT Enterprise Inside	
Service	IE11, FTP Server, IIS 7.0, ASP (Java Script, VB Script)	
Framework Support	.Net Framework 3.5, 4.0, 4.5	
Multilanguage Support	English, German, French, Spanish, Portuguese, Russian, Italian, Korean, Simplified Chinese, Traditional Chinese	
SDK	DII for VC, DII for Visual Studio.Net	
<b>Main Unit</b>		
CPU	E3845, 1.91 GHz, 64-bit quad core	E3950, 1.6~2.0 GHz, 64-bit quad core
64-bit Hardware Serial Number	Yes	
System Memory	4 GB DDR3 SDRAM	8 GB DDR4
Storage	64 GB SSD, 16 GB CF card	64 GB SSD, 32 GB CF Card
Non-Volatile Memory	128 KB MRAM, 16 KB EEPROM	
Real Time Clock	Provide seconds, minutes, hours, dates, day of week, month, year	
Watchdog Timer	Dual Watchdog Timer	
<b>Display</b>		
Size	15" (4:3)	
Resolution	1024 x 768	
Brightness	400 cd/m2	
Contrast Ratio	700:1	
Backlight Life	50,000 hours	
Touch Panel	5-wire, resistive type; light transmission: 80 %	
<b>LED Indicators</b>		
Status	1 x System, 1 x Power, 2 x Programmable	
<b>I/O Expansion</b>		
I/O Type	I-8K, I-87K series	
Slots	3	
<b>COM Ports</b>		
Ports	1 x RS-232, 1 x RS-485 (2500 VDC), 1 x RS-232/RS-485 (2500 VDC)	
<b>HMI</b>		
Buzzer	Yes	
Rotary Switch	1 x 10 Position (0 ~ 9)	
<b>Audio</b>		
Cable	Microphone-in and Earphone-out	
<b>Ethernet</b>		
Ports	2 x RJ-45, 10/100/1000 Base-TX	
<b>USB</b>		
USB 2.0	3	
<b>Power</b>		
Input Range	+10 ~ 30 VDC (1 kV Isolated )	
Redundant Power Inputs	Yes	
Consumption	25.0 W	
<b>Mechanical</b>		
Casing	Plastic	
Dimensions (W x L x H)	381 x 305 x 88 (mm)	
Panel Cut-Out (W x H)	366 x 290, ±1 (mm)	
Installation	Panel Mounting	
Ingress Protection Rating	Front panel: NEMA 4/IP65	
Weight	5 kg	5.1 kg
<b>Environmental</b>		
Operating Temperature	-20 °C ~ +60 °C	
Storage Temperature	-20 °C ~ +70 °C	
Humidity	10 ~ 90 % RH, Non-condensing	

## Appearance

15" TFT LCD  
1024 x 768 (4 : 3)

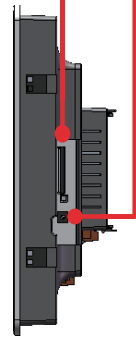
LED Indicator x 4  
(PWR, RUN, L1, L2)



Front Veiw

Rotary Switch

CF Slot



Righ Side View

RS-232(COM2)

RS-232/RS-485 (COM4)

Ethernet Port x 2 (LAN1, LAN2)

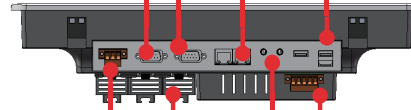
USB 2.0 x 3 (P1, P2, P3)

I/O Slot x 3

RS-485 (COM3)

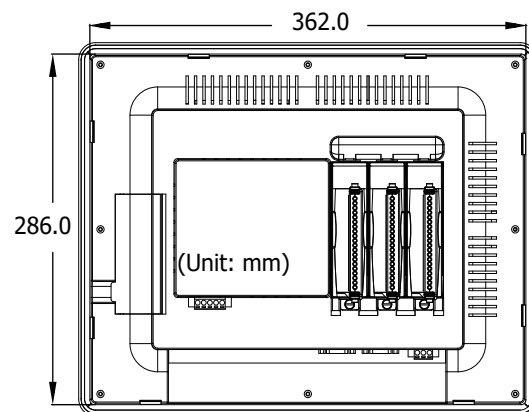
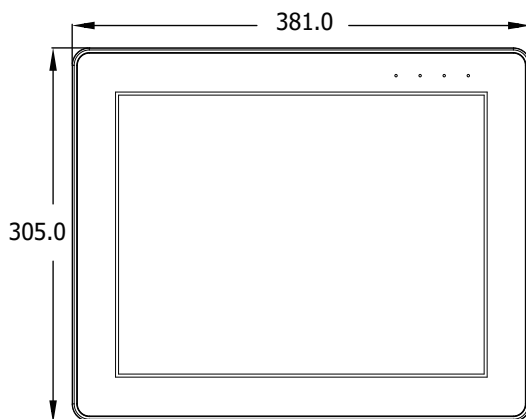
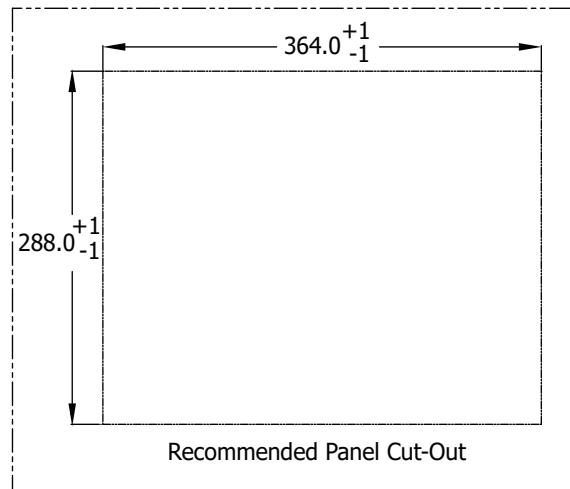
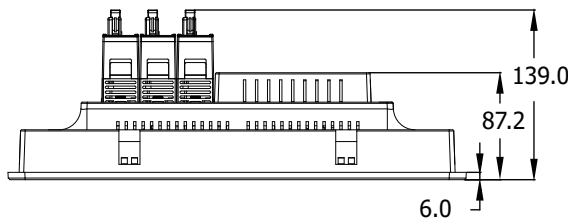
Redundant Power Inputs

Mic-in and Earphone-out



Bottom View

## Dimensions (Units: mm)



## Ordering Information

<b>iPPC-6831-IoT CR</b>	15" Panel PC with Atom E3845 CPU, Win10 IoT, and 3 I/O Slots (RoHS)
<b>iPPC-6931-IoT CR</b>	15" Panel PC with Atom E3950 CPU, Win10 IoT, and 3 I/O Slots (RoHS)