Automation Panel PC

Penetrating Segmented Market by Integrating Control Platforms

ADVANTECH

Enabling an Intelligent Planet

www.advantech.com

Segmented Automation Panel Solutions

As a leading provider of human machine interfaces, Advantech's HMI products are designed for segmented automation applications to be applied in different industries. With Advantech's HMI, we offer an integrated I/O and control features with HMI/SCADA software which allows efficient and effective integration and open a new era of automation.

Mining

Marine

Railwa

treatment

BA

MA

FA

Energy

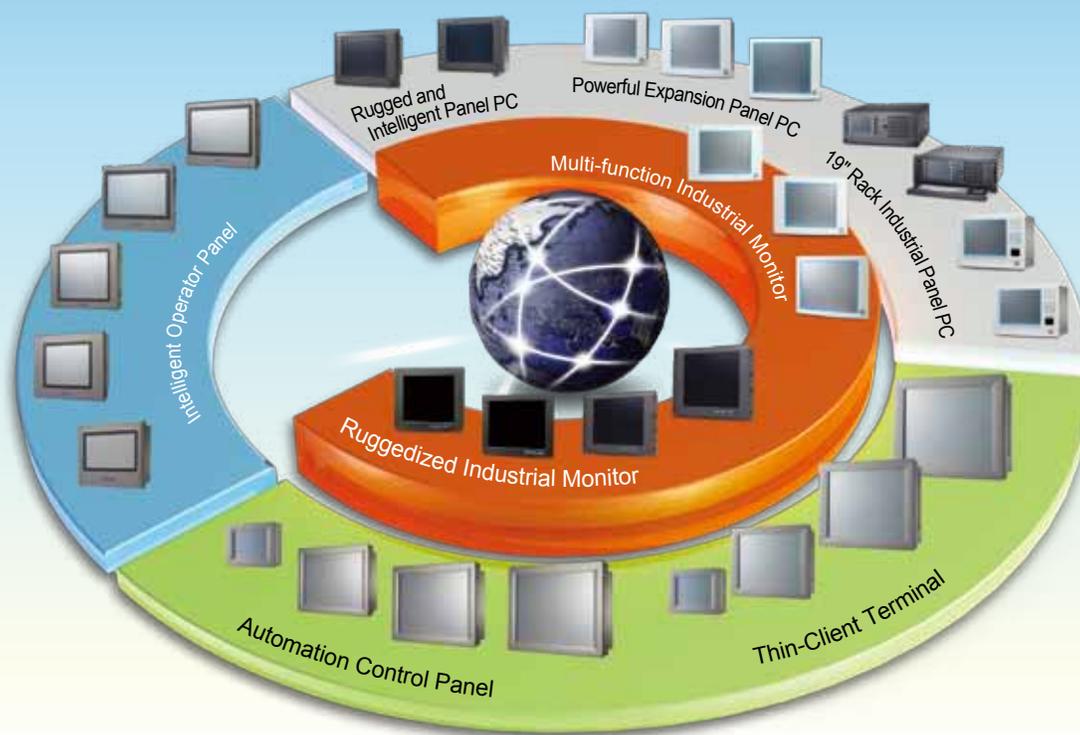Oil & Gas

Comprehensive HMI Portfolio

Advantech's mission is to create value-added, standard product solutions, and offer customized products to meet industrys' unique requirements. Advantech offers a wide range of HMI products for automation needs including Intelligent HMI (WebOP), Embedded Automation Panel PC (TPC), Automation Panel PC (IPPC), and Industrial Monitors (FPM). Advantech offers a comprehensive products and systems which can be used for a wide range of applications.

Industrial Automation Panel

Embedded Automation Panel PC

- Fanless and compact design
- Integrated with control&IO platforms through Mini PCI-e expansion
- Energy Star certified to reduce power consumption by 30-60%
- "Form and fit" compatible design
- Variety of OS support, including: WES7, Windows XP/XPe, WinCE and Linux

- High performance & expansions
- Supports Intelligent iManager with value-added APIs & runtime OS
- Extremely rugged design with die-casting bezel and stainless housing
- 19" rack mount design with rich I/O and PCI-e expansion

Industrial Monitor

Industrial Monitor

- -20ºC~ 60ºC wide operating temperature range
- Suitable for use in harsh environments
- Domain-focused for outdoor, F&B and oil & gas applications
- Meets diverse industrial requirements with C1D2, DNV and IP66 certification
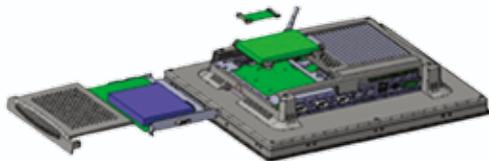
Intelligent HMI

Intelligent HMI

- Intelligent HMI software support: WebOP designer provides comprehensive software range
- Comprehensive product portfolio from 3.5"~15"
- Supports over 300 PLC drivers
- Online official web-site provides technical document sharing, FAQ, forum and online training

Automation Control Panel
TPC-71 Series

With energy saving LED backlight LCD display, TPC-71H series is designed with the low power consumption Intel® Atom™ D525 processor 1.8GHz as its core; fanless but with powerful kernel. With PCI-e expansion and DIO control support, TPC-71H series are designed for automation applications as a control panel solution in a variety of industries

Compact Expansion

With its compact design, it provides the easiest way to expand the TPC's functionality.

RTC Battery Backup

RTC backup ensures real time data management in case of accidental power failure.

Automation IO Control Module

8 x DI/DO design with isolation and Fieldbus control for automation monitoring/control application.

External Antenna

External Antenna design has excellent wireless performance.

TPC-671H

6.5" VGA TFT LCD Intel® Atom™
Touch Panel Computer

▶ 6.5" VGA TFT LCD
▶ Intel® Atom Z510 1.1 GHz
▶ Rich of I/O port for variety of application
▶ Mini PCI-e expansion
▶ 8 x DI/DO with isolation and backup 1MB SRA

TPC-1071H

10.4" SVGA TFT LCD Intel® Atom™
Dual-Core D525 Touch Panel Computer

▶ 10.4" SVGA TFT LCD
▶ Intel® Atom D525 1.8 GHz
▶ Rich of I/O port for variety of application
▶ Full-size PCI-e and Mini PCI-e slot
▶ 8 x DI/DO with isolation and backup 1MB SRAM

TPC-1271H

12.1" SVGA TFT LCD Intel® Atom™
Dual-Core D525 Touch Panel Computer

▶ 12.1" SVGA TFT LCD
▶ Intel® Atom D525 1.8 GHz
▶ Rich of I/O port for variety of application
▶ Full-size PCI-e and Mini PCI-e slot
▶ 8 x DI/DO with isolation and backup 1MB SRAM

TPC- 1571H

15" XGA TFT LCD Intel® Atom™
Dual-Core D525 Touch Panel Computer

▶ 15" XGA TFT LCD
▶ Intel® Atom D525 1.8 GHz
▶ Rich of I/O port for variety of application
▶ Full-size PCI-e and Mini PCI-e slot
▶ 8 x DI/DO with isolation and backup 1MB SRAM

Thin-client Terminal
TPC-50/51 Series

Positioning as a thin-client terminal, TPC-50 series extend their family to TPC-51 series with Intel® Atom™ platform for 5.7", 12.1" & 15". They are designed with Intel® Atom™ eMenlow XL processor as its core. The Intel® Atom has low power consumption and wide operating temperature. This system is fanless, slim design and the front bezel is die-cast Al alloy material. This product also provides a -20~60° C wide operating temperature solution and complete isolation protection for its serial ports which make TPC platform more durable and reliable.

6cm

Slim and Compact
6cm depth fanless design, easy for space-limited installation.

Isolation Protection
2KV isolation protection prevents damage from accidental shock, surges or ground loops.

Wide Temp.

-20ºC   60ºC

Wide Temperature
-20ºC ~ 60ºC wide operating temperature range for harsh environment

energy
ENERGY STAR

Energy Star Certified
Energy-efficient design with Energy Star Certification.

TPC-651H/650H

5.7" VGA TFT LCD Intel® Atom™
Thin Client Computers

▶ 5.7" VGA TFT LED backlight LCD
▶ Intel Z520 1.33 GHz / Intel N270 1.6 GHz
▶ Rich of I/O port for variety of application
▶ Front panel: NEMA4, IP65 certified
▶ TPC-651 with COM port isolation
▶ TPC-651 with wide operating temperatures

TPC-1251H/1250H

12.1" SVGA TFT LCD Intel®
Atom™ Thin Client Computers

▶ 12.1" SVGA TFT LED backlight LCD
▶ Intel Z520 1.33 GHz / Intel N270 1.6 GHz
▶ Rich of I/O port for variety of application
▶ Front panel: NEMA4, IP65 certified
▶ TPC-1251 with COM port isolation
▶ TPC-1251 with wide operating temperature range

TPC-1551H/1550H

15" XGA TFT LCD Intel® Atom™
Thin Client Computers

▶ 15" XGA TFT LED backlight LCD
▶ Intel Z520 1.33 GHz / Intel N270 1.6 GHz
▶ Rich of I/O port for variety of application
▶ Front panel: NEMA4, IP65 certified
▶ TPC-1551 with COM port isolation
▶ TPC-1551 with wide operating temperature range

TPC-1750H

17" SXGA TFT LCD Intel® Atom™
Thin Client Computer

▶ 17" SXGA TFT LED backlight LCD
▶ Intel N270 1.6 GHz
▶ Rich of I/O port for variety of application
▶ Front panel: NEMA4, IP65 certified
▶ Dual Gigabit Ethernet supported

TPC Series Selection Guide

Model Name		TPC-671H	TPC-1071H	TPC-1271H	TPC-1571H
CPU		Intel® Atom™ Z510 1.1GHz with 512KB cache	Intel® Atom™ D525 1.8 GHz with 1MB cach	Intel® Atom™ D525 1.8 GHz with 1MB cach	Intel® Atom™ D525 1.8 GHz with 1MB cach
Memory		1GB SO-DIMM DDR2 SDRAM	2GB SO-DIMM DDR3 SDRAM	2GB SO-DIMM DDR3 SDRAM	2GB SO-DIMM DDR3 SDRAM
Display	Display Type	VGA TFT LCD	SVGA TFT LCD	SVGA TFT LCD	XGA TFT LCD
	Display Size	6.5"	10.4"	12.1"	15"
	Max. Resolution	640x480	800 x 600	800x600	1024x768
	Max. Colors	262 K	262 K	262 K	262 K
	Luminance cd/m2	700 nits	400 nits	450 nits	350 nits
	Viewing Angle (H/V°)	160/140	120/100	160/140	160/140
	Backlight MTBF(hrs)	50000 hrs	50000 hrs	50000 hrs	50000 hrs
Touchscreen		Resistive	Resistive	Resistive	Resistive
HDD		N/A	2.5" SATA HDD x 1 (SATA2)	2.5" SATA HDD x 1 (SATA2)	2.5" SATA HDD x 1 (SATA2)
Network(LAN)		10/100/1000Base-T x 1	10/100/1000Base-T x 2	10/100/1000Base-T x 2	10/100/1000Base-T x 2
I/O ports		RS-232 x 1 RS-422/485 x 1 USB 2.0/1.1 x 2 (Host)	RS-232 x 2 RS-422/485 x 1 USB 2.0/1.1 x 2 (Host) PS/2 x 1 8 x DI/DO with isolation and backup 1MB SRAM	RS-232 x 2 RS-422/485 x 1 USB 2.0/1.1 x 2 (Host) PS/2 x 1 8 x DI/DO with isolation and backup 1MB SRAM	RS-232 x 2 RS-422/485 x 1 USB 2.0/1.1 x 2 (Host) PS/2 x 1 8 x DI/DO with isolation and backup 1MB SRAM
CompactFlash		CompactFlash® slot x 1	CompactFlash® slot x 1	CompactFlash® slot x 1	CompactFlash® slot x 1
Expansion Slots		Mini PCI-e x 1	Mini PCI-e x 1 and PCI-e x 1	Mini PCI-e x 1 and PCI-e x 1	Mini PCI-e x 1 and PCI-e x 1
Power Input Voltage		18~32V V_DC	9~32V V_DC	9~32V V_DC	9~32V V_DC
Dimension		195 x 148 x 44.5 mm (7.68" x 5.83" x 1.75")	286 x 227 x 70.3 mm (11.26" x 8.94" x 2.76")	311 x 237 x 71.6 mm (12.24" x 9.33" x 2.82")	383 x 307 x 78.5 mm (15.08" x 12.09" x 3.09")
Weight		0.95 kg(2.1 lbs)	3.5 kg (7.72 lbs)	4.57 kg (10.07 lbs)	5.5 kg (12.13 lbs)
Front cover		Front bezel: PC+ABS	Front bezel: die-cast aluminum alloy	Front bezel: die-cast aluminum alloy	Front bezel: die-cast aluminum alloy
Operating Temperature		0 ~ 50°C (32 ~ 122°F)	0 ~ 50°C (32 ~ 122°F)	0 ~ 50°C (32 ~ 122°F)	0 ~ 50°C (32 ~ 122°F)
Ingress Protection(Front Panel)		NEMA4/IP65	NEMA4/IP65	NEMA4/IP65	NEMA4/IP65
Certification		BSMI, CCC, CE, FCC, UL	BSMI, CCC, CE, FCC, UL	BSMI, CCC, CE, FCC, UL	BSMI, CCC, CE, FCC, UL
Operating System		Windows 7/ XP/ WES / WEC / Linux	Windows 7/ XP/ WES / WEC / Linux	Windows 7/ XP/ WES / WEC / Linux	"Windows XP/XPE WES7 Windows CE 6.0 Linux "

Model Name		TPC-651H/650H	TPC-1251H/1250H	TPC-1551H/1550H	TPC-1750H
CPU		651H:Intel® Atom™ Z520 1.33 GHz 650H:Intel® Atom™ N270 1.6 GHz	651H:Intel® Atom™ Z520 1.33 GHz 650H:Intel® Atom™ N270 1.6 GHz	651H:Intel® Atom™ Z520 1.33 GHz 650H:Intel® Atom™ N270 1.6 GHz	Intel® Atom™ N270 1.6 GHz with 512KB cache
Memory		1 GB DDR2 SDRAM	1 GB DDR2 SDRAM	1 GB DDR2 SDRAM	1GB SO-DIMM DDR2 SDRAM
Display	Display Type	VGA TFT LCD	SVGA TFT LCD	XGA TFT LCD	SXGA TFT LCD
	Display Size	5.7"	12.1"	15"	17"
	Max. Resolution	640 x 480	800 x 600	1024 x 768	1280x1024
	Max. Colors	262 K	262 K	262 K	262 K
	Luminance cd/m2	700 nits	420 nits	350 nits	350 nits
	Viewing Angle (H/V°)	160/140	160/140	160/140	170/170
	Backlight MTBF(hrs)	50000 hrs	50000 hrs	50000 hrs	50000 hrs
Touchscreen		Resistive	Resistive	Resistive	Resistive
HDD		651H:2.5" SATA HDD x 1 (SATA, by SATA kit)	1251H:2.5" SATA HDD x 1 (SATA, by SATA kit)	1551H:2.5" SATA HDD x 1 (SATA, by SATA kit)	2.5" SATA HDD x 1 (SATA2)
Network(LAN)		651H:10/100/1000Base-T x 2 650H:10/100/1000Base-T x 1	1251H:10/100/1000Base-T x 2 1250H:10/100/1000Base-T x 1	1551H:10/100/1000Base-T x 2 1550H:10/100/1000Base-T x 1	10/100/1000Base-T x 2
I/O ports		651H: RS-232 x 1, RS-422/485 x 1, USB 2.0 x 2 650H: RS-232 x 2, USB 2.0 x 2 PS/2 x 1	1251H: RS-232 x 1, RS-422/485 x 1, USB 2.0 x 2 1250H: RS-232 x 2, USB 2.0 x 2 PS/2 x 1	1551H: RS-232 x 1, RS-422/485 x 1, USB 2.0 x 2 1550H: RS-232 x 2, USB 2.0 x 2, PS/2 x 1	RS-232 x 1 RS-422/485 x 1 USB 2.0 x 2
CompactFlash		CompactFlash® slot x 1	CompactFlash® slot x 1	CompactFlash® slot x 1	CFast slot x 1
Expansion Slots		N/A	N/A	N/A	N/A
Power Input Voltage		18~28V VDC	18~28V VDC	18~28V VDC	18~28V VDC
Dimension		195 x 148 x 58 mm (7.68" x 5.83" x 2.28")	311 x 237 x 54 mm (12.24" x 9.33" x 2.12")	383 x 307 x 58.1 mm (15.08" x 12.09" x 2.29")	414 x 347.5 x 60 mm (16.3" x 13.68" x 2.36")
Weight		1.43 kg (3.15 lb)	2.5 kg (5.51 lb)	3 kg (5.51 lb)	4 kg (8.8lbs)
Front cover		Front bezel: PC+ABS	Front bezel: die-cast aluminum alloy	Front dezel: bie-cast aluminum alloy	Front bezel: die-cast aluminum alloy
Operating Temperature		0 ~ 45°C (32 ~ 113°F)	0 ~ 45°C (32 ~ 113°F)	0 ~ 45°C (32 ~ 113°F)	0 ~ 45°C (32 ~ 113°F)
Ingress Protection(Front Panel)		NEMA4/IP65	NEMA4/IP65	NEMA4/IP65	NEMA4/IP65
Certification		BSMI, CCC, CE, FCC, UL	BSMI, CCC, CE, FCC, UL	BSMI, CCC, CE, FCC, UL	BSMI, CCC, CE, FCC, UL
Operating System		Windows XP/XPE WES7 Windows CE 6.0 Linux	Windows XP/XPE WES7 Windows CE 6.0 Linux	Windows XP/XPE WES7 Windows CE 6.0 Linux	Windows XP/XPE WES7 Windows CE 6.0 Linux

Rugged & Intelligent Panel PC
IPPC-9000 Series

With latest Intel® Core™ i7 mobile processor, IPPC-9000 series provides high computing performance at the same time supports intelligent iManager with value-added APIs & runtime OS QNX. In addition, design with die-cast bezel and stainless steel housing makes it extremely rugged but compact. Positioned as a rugged & intelligent panel PC, IPPC-9000 series is suitable for monitor and control management or even complicated applications like surveillance systems.

Die-casting Bezel with Stainless Housing
Die-cast bezel with stainless steel housing a for reliable operation

Support Advantech iManager
With Advantech iManager's support, easy to use variety of embedded software APIs and utilities

Power Consumption Saving
LED backlight LCD for 40% power consumption saving

Real Time OS Support
Real time QNX OS support provides quicker boot-up time and more reliable operating system through a simpler procedure

IPPC-9151

15"XGA LED Core™
i7 Rugged Panel PC with PCIe Slot

▶ Supports Intel® Core™ i7 mobile processor with Intel QM67 chipset
▶ System memory supports dual channel DDR3 SDRAM up to 8GB
▶ Die-cast Bezel with stainless steel housing for reliable operation
▶ Offers one expansion slot for half-sized PCIe add-on card
▶ 15" LED backlight LCD with resistive touch screen
▶ Windows 7, WES 2009 and real-time QNX OS support

IPPC-9171

17" XGA LED Core™
i7 Rugged Panel PC with PCIe Slot

▶ Supports Intel® Core™ i7 mobile processor with Intel QM67 chipset
▶ System memory supports dual channel DDR3 SDRAM up to 8GB
▶ Die-cast bezel with stainless steel housing for reliable operation Offers one
▶ Offers one expansion slot for half-sized PCIe add-on card
▶ 17" LED backlight LCD with resistive touch screen
▶ Windows 7, WES 2009 and real-time QNX OS support

Powerful Expansion Panel PC
IPPC-6000 Series

The IPPC-6000 series is a powerful expansion Panel PC with front USB access, supporting the high performance Intel Core 2 Quad/Core 2 Duo and DDR3 memory, two expansion PCI slots and slim type DVD-RW. The processor and chipset combination form the foundation of vPro, which is Intel's next generation digital office platform; offering remote out-of-band manageability, improved security, and energy efficient performance. Two SATA hard drive interfaces with RAID 0,1 support provides data security. The flat-sealed front panel design allows easier cleaning and liquid run off and the control box has a gull-wing design for easy component installation and maintenance.

Easy Maintenance
Gull-wing designed control box for easy component installation and maintenance

High Computing Performance
Supports the powerful Intel® Core ™2 Quad CPU (up to 2.8 GHz) / Core ™2 Duo CPU (up to 3.0 GHz) and high speed DDR3 4GB memory

Remotre Monitor and Management
Intel Q45 chipset with vPro management technology offers remote active management and virtualization functions through Ethernet

Front USB Access
Front accessible USB user friendly design allows easy maintenance in the machine cabinet

IPPC-6152

15" XGA TFT LCD Core ™2 Quad /
Core ™2 Duo Powerful Expansion Computers

▶ Intel® Core ™2 Quad CPU (up to 2.8 GHz) / Core ™2 Duo CPU (up to 3.0 GHz)
▶ System memory supports dual channel DDR3 SDRAM up to 4GB
▶ Offers two expansion slots for PCIe add-on cards
▶ Dual Gigabit Ethernet with Intel vPro technology
▶ Front USB access and system reset function
▶ Control box's gull-wing design for easy component installation and maintenance

IPPC-6172

17" SXGA TFT LCD Core ™2 Quad /
Core ™2 Duo Powerful Expansion Computers

▶ Intel® Core ™2 Quad CPU (up to 2.8 GHz) / Core ™2 Duo CPU (up to 3.0 GHz)
▶ System memory supports dual channel DDR3 SDRAM up to 4GB
▶ Offers two expansion slots for PCIe add-on cards
▶ Dual Gigabit Ethernet with Intel vPro technology
▶ Front USB access and system reset function
▶ Control box's gull-wing design for easy component installation and maintenance

IPPC-6192

19" SXGA TFT LCD Core ™2 Quad /
Core ™2 Duo powerful expansion computers

▶ Intel® Core ™2 Quad CPU (up to 2.8 GHz) / Core ™2 Duo CPU (up to 3.0 GHz)
▶ System memory supports dual channel DDR3 SDRAM up to 4GB
▶ Offers two expansion slots for PCIe add-on cards
▶ Dual Gigabit Ethernet with Intel vPro technology
▶ Front USB access and system reset function
▶ Control box's gull-wing design for easy component installation and maintenance

19" Rack Industrial Panel PC
IPPC-4000/7000 Series

HMI 19" rack Industrial Panel PC series provide highly expansion capability with passive backplane. Designed to be an all-in-one and cost-effective solution for traditional IPC users, it includes a slim keyboard, touch pad drawer and programmable membrane making input trouble-free and varied application access. A wide range of standard computing peripherals from the Advantech IPC family can be integrated into the unit to meet different application development requirements in mission-critical environments.

4U

Integrated Keyboard Drawer
Built in slim type 85 key keyboard and touchpad drawer providing trouble free input and easy maintenance

Programmable Membrane Keys
Easy to configure programmable membrane function keys for varied application access

Highly Expandable and Flexible
Highly expandable and flexible configuration provides customers with greater flexibility for applications with specific requirements

Front USB Access
Front accessible USB user friendly design allows easy maintenance in the machine cabinet

IPPC-4001

5.7" VGA LED LCD 4U 19" Rack Industrial Panel PC with 14 Expansion Slots

▶ 4U height 19" chassis with 5.7" VGA LED backlight display
▶ Slim keyboard & mouse pad drawer with lockable clip
▶ Supports high performance Intel Core 2 Duo processors (and up)
▶ Offers 14 PCI expansion slots, 2 PICMG, 10 PCI, 2 ISA
▶ Membrane function keys (F1~F5) for varied application access
▶ Front accessible USB is friendly to plug-in versatile USB devices

IPPC-4008

5.7" VGA LED LCD 4U 19" Half-sized Rack Industrial Panel PC with 8 Expansion Slots

▶ 4U height 19" half-sized chassis with 5.7" VGA LED backlight display
▶ Slim keyboard & mouse pad drawer with lockable clip
▶ Supports high performance Intel Core 2 Duo processors (and up)
▶ Offers 8 PCI expansion slots, 1 CPU PCI, 3 PCI, 4 SPCI
▶ Membrane function keys (F1~F5) for varied application access
▶ Front accessible USB is friendly to plug-in versatile USB devices

IPPC-7157

15" XGA TFT LCD Pentium® 4 19" Rack Industrial Panel PC with 7 Expansion Slots and Keypad

▶ Pentium® 4 up to 2.8 GHz/Celeron® D up to 2.5 GHz
▶ Offers 7 expansion slots for PCI and PCIe interface
▶ Detachable side-open front panel makes maintenance fast & easy
▶ Programmable membrane function keys for varied application access
▶ Heavy-duty design with anti-rust chassis with aluminum front panel (NEMA4/IP65)
▶ Front accessible USB is friendly to plug-in versatile USB devices

IPPC-7158

15" XGA TFT LCD Passive Backplane 19" Rack Industrial Panel PC with 14 Expansion Slots and Keypad

▶ Supports high performance Intel Core 2 Duo processors (and up)
▶ Offers 14 expansion slots for PCI, PICMG and ISA
▶ Detachable side-open front panel makes maintenance fast & easy
▶ Programmable membrane function keys for varied application access
▶ Heavy-duty design with anti-rust chassis with aluminum front panel (NEMA4/IP65)
▶ Front accessible USB is friendly to plug-in versatile USB devices

IPPC Series Selection Guide

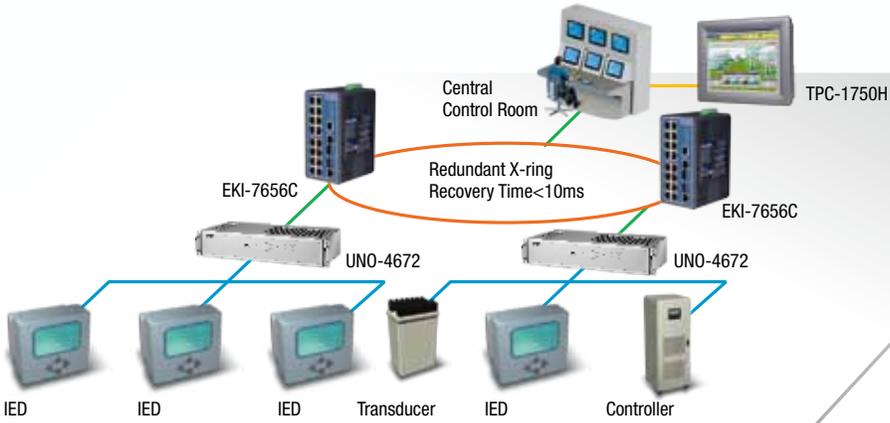| Model	IPPC-9151G	IPPC-9171G	IPPC-6152A	IPPC-6172A
CPU	Socket µFC- PGA988 Intel® Core™ i7, i5 ,i3 ,Celeron Mobile Processor	Socket µFC- PGA988 Intel® Core™ i7, i5 ,i3 ,Celeron Mobile Processor	Socket LGA775 Core 2 Quad / Core 2 Duo up to 3GHz	Socket LGA775 Core 2 Quad / Core 2 Duo up to 3GHz
Memory	Up to 8GB DDR3 SODIMM 1333MHz/1066MHz	Up to 8GB DDR3 SODIMM 1333MHz/1066MHz	Up to 4GB DDR3 SDRAM 1333MHz/1066MHz	Up to 4GB DDR3 SDRAM 1333MHz/1066MHz
Display — Display Type	XGA LED LCD	SXGA LED LCD	XGA TFT LCD	SXGA TFT LCD
Display — Display Size	15"	17"	15"	17"
Display — Max. Resolution	1024 x 768	1280 x 1024	1024 x 768	1280 x 1024
Display — Max. Colors	16.2M / 262K colors	16.7 M (RGB 6-bits + Hi-FRC data)	16.2 M (RGB 6-bit + FRC data)	16.7 M (RGB 6-bit + FRC data)
Display — Luminance cd/m2	350	380	250	380
Display — Viewing Angle (H/V°)	160/140	170/160	160/130	170/160
Display — Backlight MTBF(hrs)	50000 hrs	50000 hrs	50000 hrs	50000 hrs
Touchscreen	Resistive	Resistive	Resistive	Resistive
Network(LAN)	2 x 10/100/1000Bast-T	2 x 10/100/1000Bast-T	2 x 10/100/1000Bast-T	2 x 10/100/1000Bast-T
I/O ports	4 xRS-232,1 x VGA,1 x HDMI,5 x USB 2.0(one at front),1 x CFast slot,1 x keyboard and 1 x mouse,Mic-in, Line-out, Line-in	4 xRS-232,1 x VGA,1 x HDMI,5 x USB 2.0(one at front),1 x CFast slot,1 x keyboard and 1 x mouse,Mic-in, Line-out, Line-in	2 x RS-232, 1 x RS-232/422/485, 1 x VGA port, 2 x PS2 (Keyboard, Mouse), 5 x USB 2.0 (one at front)	2 x RS-232, 1 x RS-232/422/485, 1 x VGA port, 2 x PS2 (Keyboard, Mouse), 5 x USB 2.0 (one at front)
HDD(Optional)	1 x 2.5"SATA	1 x 2.5"SATA	2 x 2.5" SATA	2 x 2.5" SATA
Optical Drive	-	-	1 x SATA Slim Type	1 x SATA Slim Type
CompactFlash Slots	1 x CFast® slot	1 x CFast® slot	-	-
Expansion Slots	1 x Half-length PCI-e	1 x Half-length PCI-e	2 x PCI/PCI-e	2 x PCI/PCI-e
Built in Keyboard/Mouse	-	-	-	-
Power Input Voltage	100~240 Vac	100~240 Vac	100 ~ 240 Vac	100 ~ 240 Vac
Front Cover	Aluminum	Aluminum	Die-cast flat-sealed	Die-cast flat-sealed
Operating temperature	0 ~ 50°C (32 ~ 122°F)	0 ~ 50°C (32 ~ 122°F)	0 ~ 50°C (32 ~ 122°F)	0 ~ 50°C (32 ~ 122°F)
Storage Temperature	-20 ~ 60°C (-4 ~ 140°F)	-20 ~ 60°C (-4 ~ 140°F)	-20 ~ 60°C (-4 ~ 140°F)	-20 ~ 60°C (-4 ~ 140°F)
Ingress Protection(Front Panel)	NEMA4/IP65	NEMA4/IP65	NEMA4/IP65	NEMA4/IP65
Certification	BSMI, CCC, CE, FCC, UL	BSMI, CCC, CE, FCC, UL	BSMI, CCC, CE, FCC, UL	BSMI, CCC, CE, FCC, UL
Operating System	Windows 7/ XP	Windows 7/ XP	Windows 7/ XP	Windows 7/ XP
Dimension	428 x 310 x 96.5 mm (16.35" x 12.2" x 3.79")	482 x 354.8 x 98 mm (18.98" x 13.97" x 3.86")	449.92 x 315.63 x 142.7 mm (17.71" x 12.43" x 5.62")	481.9 x 355.9 x 142.7 mm (18.97" x 14.01" x 5.62")
Weight	10.52 Kg (23.19 lbs)	14 Kg (30.86 lbs)	13 Kg (28.6 lbs)	15 Kg (33.04 lb)

IPPC-6192A	IPPC-4001D	IPPC-4008D	IPPC-7157A	IPPC-7158A
Socket LGA775 Core 2 Quad/ Core 2 Duo up to 3GHz	Optional CPU Card	Optional CPU Card	Pentium 4 (up to 2.8 GHz)/ Celeron D (up to 2.5 GHz)	Optional CPU Card
Up to 4GB DDR3 SDRAM 1333MHz/1066MHz			Up to 2 GB DDR2 SDRAM 240pin, 400/533 MHz	
SXGA TFT LCD	VGA LED LCD	VGA LED LCD	XGA TFT LCD	XGA TFT LCD
19"	5.7"	5.7"	15"	15"
1280 x 1024	640 x 480	640 x 480	1024 x 768	1024 x 768
16.7 M (RGB 6-bit + FRC data)	262 K (RGB 6-bit)	262 K (RGB 6-bit)	16.2 M (RGB 6-bit + FRC data)	16.2 M (RGB 6-bit + FRC data)
300	700	700	250	250
160/160	160/140	160/140	160/130	160/130
50000 hrs	50000 hrs	50000 hrs	50000 hrs	50000 hrs
Resistive	Resistive	Resistive	Resistive	Resistive
2 x 10/100/1000Bast-T	-	-	2 x 10/100/1000Base-T	-
2 x RS-232, 1 x RS-232/422/485, 1 x VGA port, 2 x PS2 (Keyboard, Mouse), 5 x USB 2.0 (one at front)	Optional CPU Card, 1 x USB port at front	Optional CPU Card, 1 x USB port at front	1 x RS-232, 1 x Parallel port, 1 x VGA port, 5 x USB2.0 (one at front)	Optional CPU Card, 1 x USB port at front
2 x 2.5" SATA	-	-	2 x 3.5" SATA	2 x 3.5" SATA
1 x SATA Slim Type	3 x 5.25" CD-ROM Bay(Optional)	3 x 5.25" CD-ROM Bay(Optional)	1 x 5.25" CD-ROM(Optional)	1 x 5.25" CD-ROM(Optional)
-	-	-	-	-
2 x PCI/PCI-e	2 x PICMG, 10 x PCI, 2 x ISA	8 x PCI	5 x PCI, 2 x PCI-e	10 x PCI, 2 x ISA, 2 x PCI/ISA
-	Drawer	Drawer	Front membrane	Front membrane
100 ~ 240 V_{DC}	100 ~ 240 V_{DC}	100 ~ 240 V_{DC}	100 ~ 240 V_{DC}	100-240 V_{DC}
Die-cast flat-sealed	Aluminum	Aluminum	Die-cast	Die-cast
0 ~ 50°C (32 ~ 122°F)	0 ~ 50°C (32 ~ 122°F)	0 ~ 50°C (32 ~ 122°F)	0 ~ 50°C (32 ~ 122°F)	0 ~ 50°C (32 ~ 122°F)
-20 ~ 60°C (-4 ~ 140°F)	-20 ~ 60°C (-4 ~ 140°F)	-20 ~ 60°C (-4 ~ 140°F)	-20 ~ 60°C (-4 ~ 140°F)	-20 ~ 60°C (-4 ~ 140°F)
NEMA4/IP65	NEMA4/IP65	NEMA4/IP65	NEMA4/IP65	NEMA4/IP65
BSMI, CCC, CE, FCC, UL	BSMI, CCC, CE, FCC, UL	BSMI, CCC, CE, FCC, UL	BSMI, CCC, CE, FCC, UL	BSMI, CCC, CE, FCC, UL
Windows 7/ XP	Optional CPU Card	Optional CPU Card	Windows XP	Optional CPU Card
481.92 x 355.87 x 146mm (18.97"x14.01"x5.75")	482 x 174.9 x 486.7 mm (18.97"x6.88"x19.16")	482 x 174 x 360 mm (19" x 7" x 14.2")	482 x 354.8 x 162 mm (18.97"x13.96"x6.37")	482 x 354.8 x 162 mm (18.97"x13.96"x6.37")
16.6 Kg (35.6 lbs)	19.99 kg (44 lbs)	18 kg (39.7 lb)	18Kg (39.7 lbs)	18Kg (39.7 lbs)

HMI Application Story Overview

Surveillance and Monitoring System over Power Substations in Beijing Subway
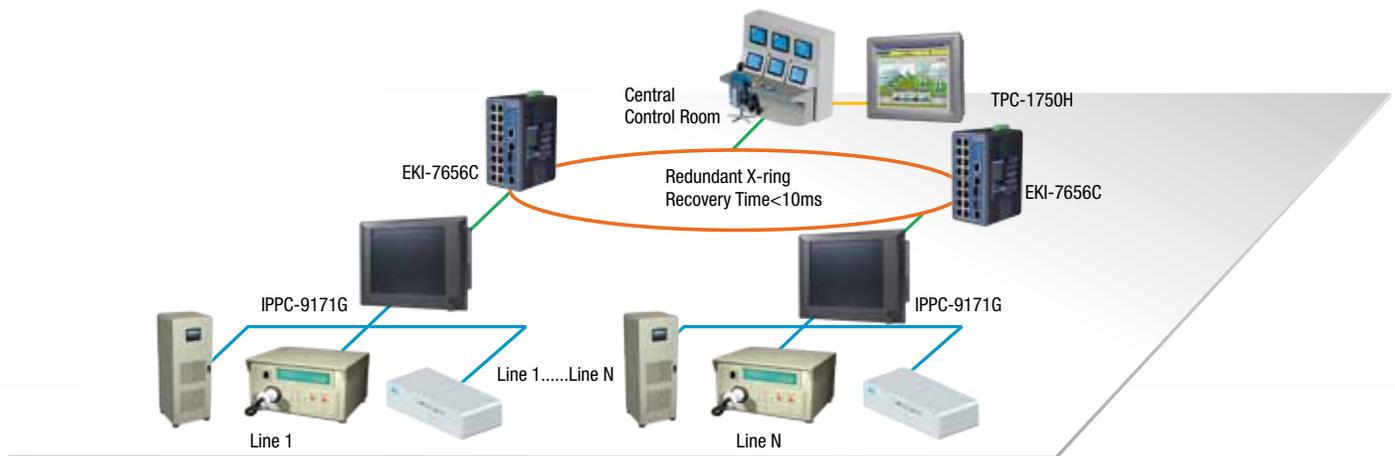

Advantech's Embedded Automation Panel TPC-1750H is used in the power substations of one of the Beijing Subway lines. In each substation, there are meters and other terminal devices monitoring the status of the transformer, the use of power, temperature and pressure. To monitor the substations' activity from a control room, the Advantech TPC-1750H 17" SXGA TFT LCD Intel® Atom™ Thin Client Computer together with EKI-7656C and uno-4672 was proposed, offering remote out-of-band manageability, improved data transmission and security, and energy efficient performance. It is the excellent choice for subway substation monitoring and surveillance systems.

Central Control Room

TPC-1750H

Redundant X-ring
Recovery Time<10ms

EKI-7656C

EKI-7656C

UNO-4672

UNO-4672

IED   IED   IED   Transducer   IED   Controller

MES control system for automotive engine assembling line in China

Foton Cummins is one of China's largest manufacture bases for light-duty diesel engines. Presently, several of Cummins' joint ventured or fully owned companies in China have adopted Advantech's 17" IPPC, totaling over 1000 units. The IPPC-9171G is an Industrial Panel PC with support for Intel Pentium 4 processors to meet the high-demands MES applications. The IPPC-9171G is a rugged unit with an aluminum panel, tempered glass, 17" TFT LCD, a stainless steel structure and two expansion slots. It is rugged enough to handle the toughest industrial operating environments. With optional mounting accessories from panels to racks, it can be mounted almost anywhere.

Central
Control Room

TPC-1750H

EKI-7656C

Redundant X-ring
Recovery Time<10ms

EKI-7656C

IPPC-9171G

IPPC-9171G

Line 1......Line N

Line 1

Line N

Ruggedized Industrial Monitor
FPM-3000 Series

The FPM-3000 series is a particularly rugged and reliable wide temperature industrial monitor for a variety of industry applications. Equipped with a hard anodized coating, stainless steel chassis, and -20 to 60°C operating temperature, it can satisfy demands in a wide range of harsh industrial applications. This model also features enhanced 5-wire resistive touch and system ground isolation protection to enhance the reliability. Lockable OSD keys on front panel with 2 user-defined contrast/brightness settings.

Die-cast Bezel with Stainless Housing
Hard-anodized front bezel design with stainless steel 304 material housing

Wide Temperature
With an operating temperature range of -20ºC ~ 60ºC it is designed for use in the harshest environments

Energy Star Certifie
With 33% power consumption reduction and Energy Star Certification

Grounding Protection
Chassis grounding and power ground protection design to avoid in-rush current damage monitor

FPM-3121G

12.1" SVGA Industrial Monitor with Resistive Touchscreen, Direct-VGA, DVI and Wide Operating Temperature

- ▶ 12.1" SVGA LED backlight LCD with low power consumption
- ▶ Increased reliability with enhanced 5-wire resistive touch sensor
- ▶ Anti-reflective screen with tempered glass
- ▶ Supports VGA/DVI input, dual touch interfaces and two power inputs
- ▶ Front lockable OSD membrane keys with user-defined brightness setting
- ▶ Supports panel, VESA, wall and desktop stand mounting

FPM-3151G

15" XGA Industrial Monitor with Resistive Touchscreen, Direct-VGA, DVI and Wide Operating Temperature

- ▶ 15" XGA LED backlight LCD with low power consumption
- ▶ Increased reliability with enhanced 5-wire resistive touch sensor
- ▶ Anti-reflective screen with tempered glass
- ▶ Supports VGA/DVI input, dual touch interfaces and two power inputs
- ▶ Front lockable OSD membrane keys with user-defined brightness setting
- ▶ Supports panel, VESA, wall and desktop stand mounting

FPM-3171G

17" XGA Industrial Monitor with Resistive Touchscreen, Direct-VGA, DVI and Wide Operating Temperature

- ▶ 17" SXGA LED backlight LCD with low power consumption
- ▶ Increased reliability with enhanced 5-wire resistive touch sensor
- ▶ Anti-reflective screen with tempered glass
- ▶ Supports VGA/DVI input, dual touch interfaces and two power inputs
- ▶ Front lockable OSD membrane keys with user-defined brightness setting
- ▶ Supports panel, VESA, wall and desktop stand mounting

FPM-3191G

19" SXGA Industrial Monitor with Resistive Touchscreen, Direct-VGA, DVI

- ▶ 19" SXGA CCFL backlight LCD with enhanced 5-wire resistive touch sensor
- ▶ Anti-reflective screen with tempered glass
- ▶ Supports VGA/DVI input, dual touch interfaces and two power inputs
- ▶ Front lockable OSD membrane keys with user-defined brightness setting
- ▶ Supports panel, VESA, wall and desktop stand mounting

Multi-function Industrial Monitor
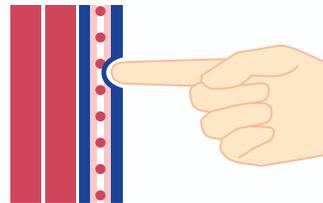## FPM-5000 Series

The FPM-5000G series provides 15", 17" and 19" color TFT LCD flat panel monitors specifically designed for industrial applications. With a viewing size from 15" to 19", they present ample display areas as well as vivid and sharp images. It features Direct-VGA & DVI-D signal transmission, which allows VGA control cards to be used in your system. The onscreen display allows users to adjust the images on the screen with two user-defined settings. The front access USB connector provides easy access the controller, and the industrial 10-30 V_{DC} wide range power support makes this product an excellent option for Factory and Machine Automation display solutions.

Dual Input Functions
Supports VGA/DVI input, dual touch interfaces and two power inputs

Durable Touch Screen
5-wire exclusive enhance touch feature & high activation force increase normal 250g to 750g

Lockable IO Connector
ALL I/O connectors such as USB, VGA, DVI and AC power adapter cables are lockable which reduces the risk of accidental disconnects

Front USB Access
Front accessible USB user friendly design allows easy maintenance in the machine cabinet

FPM-5151G

15" XGA Industrial Monitor with Resistive Touchscreen, Direct-VGA, DVI

▸ 15" XGA TFT LCD with resolution up to 1024 x 768
▸ Lockable OSD keys with 2 user-defined contrast/brightness settings
▸ Flat-sealed front panel
▸ Robust design with anti-rust chassis and aluminum die-cast front panel
▸ Front accessible USB connector
▸ Supports industrial 10-30 V_{DC} power input

FPM-5171G

17" SXGA Industrial Monitor with Resistive Touchscreen, Direct-VGA, DVI

▸ 17" SXGA TFT LCD with resolution up to 1280 x 1024
▸ Lockable OSD keys with 2 user-defined contrast/brightness settings
▸ Flat-sealed front panel
▸ Robust design with anti-rust chassis and aluminum die-cast front panel
▸ Front accessible USB connector
▸ Supports industrial 10-30 V_{DC} power input

FPM-5191G

19" SXGA Industrial Monitor with Resistive Touchscreen, Direct-VGA, DVI

▸ 19" SXGA TFT LCD with resolution up to 1280 x 1024
▸ Lockable OSD keys with 2 user-defined contrast/brightness settings
▸ Flat-sealed front panel
▸ Robust design with anti-rust chassis and aluminum die-cast front panel
▸ Front accessible USB connector
▸ Supports industrial 10-30 V_{DC} power input

Domain-focused Platform

With ultra rugged designs and industrial certifications such as C1D2, DNV and IP66, these products are compact and heavy-duty, enabling them to meet the needs of a diverse range of industrial requirements such as outdoor, F&B and oil & gas applications.

316L Stainless Steel

Provides better anti-oxidation, anti-corrosion and anti-bacterial features than normal 304L stainless steel

Certification

With C1D2, DNV and IP66 certification, domain-focused HMI meets diverse industrial requirements

High Brightness with Optical Bonding

Providing superior sunlight readability with a1000 nits industrial grade LCD display and optical bonding solution is perfect for applications in semi-outdoor or outdoor environments.

User-friendly Design

Use touch gestures to disable or enable touch functionality while cleaning without switching off the power

IPPC-8151S/FPM-3171S/FPM-3191S

15" XGA TFT LCD Celeron® M Fanless Industrial Panel PC with Stainless Steel

▶ 15" XGA TFT LCD with chemical resistance

▶ 316L stainless steel and food-safe sealing materials

▶ Robust and fanless design for reliable operation

▶ Designed with a NEMA4X (IP66) dustproof and waterproof protected touchscreen

17"/19" SXGA Industrial Monitor with Resistive Touchscreen, Direct-VGA and DVI Ports

▶ Robust design with stainless steel chassis and front panel

▶ Supports panel, wall, desktop, VESA arm mounting

▶ Front panel 316L level stainless steel

TPC-1251SR/1551SR

12.1" SVGA / 15" XGA High Brightness LCD Intel® Atom™ Touch Panel PC

▶ Sunlight readable and high luminance solution

▶ 12.1" SVGA / 15" XGA High resolution LED backlight

▶ -20 ~ 60°C wide operating temperature range

▶ Supports Microsoft® Windows WES7/XP/XPe/CE

▶ Energy Star approved

FPM-3151SR

15" XGA High Brightness Industrial Monitor w/ Resistive Touchscreen, Direct-VGA, DVI and Wide Operating Temperature

▶ Sunlight readable and high luminance solution

▶ 15" XGA High resolution LED backlight

▶ -20 ~ 60°C wide operating temperature range

▶ Increased reliability with enhanced 5-wire resistive touch sensor

▶ Supports VGA/DVI input, dual touch interfaces and two power inputs

FPM-8151H

15" XGA Industrial Monitor for Hazardous Location, with 316L Stainless Steel Front Panel

▶ Meets hazardous requirements with UL CID2 certification

▶ 15" XGA TFT LCD with LED backlight

▶ Stainless steel 316L front panel

▶ NEMA4X/IP65 compliant front panel

▶ -20 ~ 60°C (-4 ~ 140°F) wide operating temperature range

FPM Series Selection Guide

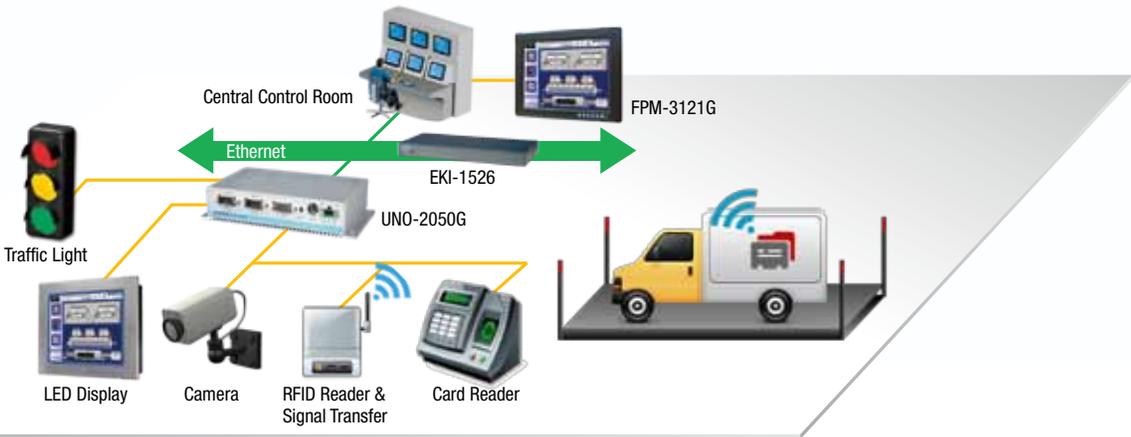| Model		FPM-3121G	FPM-3151G	FPM-3171G	FPM-3191G	FPM-5151G/5171G/5191G
Display	Display Type	SVGA TFT LCD (XGA optional)	XGA TFT LCD with LED Backlight	SXGA TFT LCD	SXGA TFT LCD	XGA/SXGA/SXGA TFT LCD
	Display Size	12.1"	15"	17"	19"	15"/17"/19"
	Max. Resolution	800 x 600 (1024 x 768 optional)	1024 x 768	1280 x 1024	1280 x 1024	1024 x 768
	Max. Colors	16.2M (RGB 8-bit) or 262k colors (RGB 6-bit)	16.2M (RGB 8-bits) or 262k colors (RGB 6-bits)	16.2 M	16.2 M	16.2 M/16.7M/16.2M
	Luminance cd/m2	450 (500 optional)	350	380	300	250/300/300
	Viewing Angle (H/V°)	160 / 140 (160 / 160 optional)	160/140	170/160	178/178	140/120, 160/160, 178/178
	Backlight MTBF(hrs)	50000hrs	50000hrs	50000hrs	50000hrs	50000hrs
Video Port		VGA & DVI-D	VGA & DVI-D Weight (Net) 7.73 kg (17.04 lbs)	VGA & DVI-D Weight (Net) 7.73 kg (17.04 lbs)	VGA & DVI-D	VGA & DVI-D Weight (Net) 6 kg (13.22 lbs)
Touchscreen(optional)		Resistive	Resistive	Resistive	Resistive	Resistive
OSD(onscreen display)		YES	YES	YES	YES	YES
Touchscreen Sensor		AMT	AMT	ELO	ELO	AMT
Touchscreen Driver		Penmount 6000	Penmount 6000	ELOTOUCH	ELOTOUCH	Penmount 6000
Inverter		-	-	TDK	TDK	TDK
Power Adapter(Voltage,AC)		100 ~ 240 V$_{AC}$	100 ~ 240 V$_{AC}$	100 ~ 240 V$_{AC}$	100 ~ 240 V$_{AC}$	100-240V Optional
DC Power Input(voltage)		24V$_{DC}$	24V$_{DC}$	N/A	N/A	10-30V
Ingress Protection(Front Panel)		NEMA4/IP65	NEMA4/IP65	NEMA4/IP65	NEMA4/IP65	NEMA4/IP65
Enclosure		Front panel: Aluminum with hard anodized coating Rear cover: Stainless steel chassis Ground Isolation Protection	Front panel: Aluminum with hard anodizing coating Rear cover: Stainless steel Ground Isolation Protection	Front panel: Aluminum with coating Rear cover: Stainless steel chassis	Front panel: 316L level stainless steel Rear cover: Stainless steel chassis	Front panel: Aluminum and flat-sealed Rear cover: Anti-rust coating
Mounting		Panel, VESA arm, or wall & desktop mount with optional mounting kit	Panel, wall, desktop, VESA arm, or 19"" rackmount with optional mounting kit	Panel, wall, desktop, VESA arm & 19" rackmount	Panel, wall, desktop, VESA arm	Panel, wall, VESA arm, or stand, 19"" rackmount with optional mounting kit
Operating temperature		-20 ~ 60°C (-4 ~ 140°F)	-20 ~ 60°C (-4 ~ 140°F)	0 ~ 50°C (32 ~ 122°F)	0 ~ 50°C (32 ~ 122°F)	0 ~ 50°C (32 ~ 122°F)
Storage Temperature		-20 ~ 60°C (-4 ~ 140°F)	-20 ~ 60°C (-4 ~ 140°F)	-20 ~ 60°C (-4 ~ 140°F)	-20 ~ 60°C (-4 ~ 140°F)	-20 ~ 60°C (-4 ~ 140°F)
Dimension		312 x 224 x 60 mm (12.28" x 9.61" x 2.36")	422 x 310 x 70 mm (16.61" x 12.2" x 2.76")	482 x 354.8 x 63.5 mm (18.98" x 13.97" x 2.5")	482 x 399.2 x 66 mm (18.98" x 15.72" x 2.6")	449.92 x 315.63 x 52.5 mm (17.7" x 12.4" x 2")/ 481.9 x 355.9 x 58.5 mm (18.9" x 14" x 2.3")/ 481.9 x 384.6 x 58.5 mm (18.9" x 15.1" x 2.3")
Weight		4.07 kg (8.975 lbs)	7.73 kg (17.04 lbs)	9.25 kg (20.39 lbs)	15 kg (33.07 lbs)	6 kg (13.22 lbs)/8 kg (17.63 lbs)/10 kg (22.04 lbs)
Certification		CE, FCC , BSMI, CCC, UL	CE, FCC, BSMI, CCC, UL, Energy Star	CE, FCC, BSMI, CCC, UL	CE, FCC, BSMI, CCC, UL	CE, FCC, BSMI, CCC, UL

Domain-focused selection guide

Model		TPC-1251SR/1551SR	IPPC-8151S	FPM-3171S/3191S	FPM-8151H	FPM-8192V
CPU		Intel Atom 1.33 GHz with 512KB cache	Intel Celeron M 1.06GHz 1MB L2 on board	-	-	-
Memory		1GB SO-DIMM DDR2 667 SDRAM	1GB SO-DIMM DDR2 200pin 667MHz (Supports 4GB Maximum)	-	-	-
Display	Display Type	SVGA / XGA LED LCD	XGA TFT LCD	SXGA TFT LCD	XGA LED LCD	SXGA TFT LCD with transflective display
	Display Size	12.1"/15"	15"	17"/19"	15"	19"
	Max. Resolution	800 x 600 / 1024 x 768	1024 x 768	1280 x 1024	1024 x 768	1280 x 1024
	Max. Colors	262K	262k	16.2 M	16.2M (RGB 8-bits) or 262k colors (RGB 6-bits	16.7M
	Luminance cd/m2	1000	350	380/300	350	500 under ambient lighting 10,000 nits 630 under ambient lighting 30,000 nits 830 under ambient lighting 80,000 nits
	Viewing Angle (H/V°)	110/160, 120/140	140/125	170/160, 178/178	160/140	140/135
	Backlight MTBF(hrs)	50000hrs	50000hrs	50000hrs	50000hrs	50000hrs
Video Port		-	-	VGA & DVI-D	VGA & DVI-D	VGA, DVI-D, Composite Video, S-Video
Touchscreen		Resistive	Resistive	Resistive	Resistive	Resistive
Network(LAN)		2 x 10/100/1000Base-T	2 x 10/100/1000Bast-T	-	-	-
I/O ports		1 x RS-232 (with isolation), 1 x RS-422/485 (with isolation), 2 x USB 2.0 (Host)	3 x RS-232;4 x USB 2.0, 2 x PS2 (Keyboard, Mouse), 1 x VGA Port, Mic-in, Line-in, Line-out;	-	-	-
HDD(Optional)		1 x 2.5" SATA HDD	1 x 2.5" SATA HDD	-	-	-
OSD(onscreen display)		-	-	YES	YES	YES
CompactFlash Slots		1 x CompactFlash Slot	1 x CompactFlash Slot	-	-	-
Expansion Slots		-	1 x half-length PCI Slot	-	-	-
Power Input Voltage		18 ~ 32 V_{DC}	10 ~ 30 V_{DC}, 18A	100 ~ 240 V_{AC}	100 ~ 240 V_{AC}	100-240V Optional
DC Power Input(voltage)		24V_{DC}	24V_{DC}	N/A	24V_{DC}	24V_{DC}
Ingress Protection(Front Panel)		NEMA4/IP65	NEMA 4X / IP66	NEMA4/IP65	NEMA4/IP65	NEMA4/IP65
Enclosure		"Front bezel: Die-cast Aluminum alloy Back housing: SECC"	Fanless with 316L stainless steel	"Front panel: Stainless steel with 316L level Rear cover: Stainless steel chassis"	"Front panel: 316L Stainless steel Rear cover : Stainless steel Ground Isolation Protection"	Alumium with coating
Mounting		Desktop, Wall or Panel Mount	Desktop, Wall or Panel Mount	Panel, wall, desktop, VESA arm	"Panel, wall, desktop, VESA arm, or 19"" rackmount with optional mounting kit"	Panel
Operating temperature		-20 ~ 60° C (-4 ~ 140°F)	0 ~ 50° C (32 ~ 122°F)	0 ~ 50° C (32 ~ 122°F)	-20 ~ 60°C (-4 ~ 140°F)	-10 ~ 55°C (14 ~ 131°F)
Storage Temperature		-20 ~ 60° C (-4 ~ 140°F)	-20 ~ 60° C (-4 ~ 140°F)	-20 ~ 60° C (-4 ~ 140°F)	-30 ~ 80°C (-22 ~ 176°F)	-40 ~ 70°C (-40 ~ 140°F)
Dimension		311 x 237 x 54 mm (12.24" x 9.33" x 2.12")/ 383 x 307 x 58.1 mm (15.08" x 12.09" x 2.29")	400.00 x 313.6 x 90.44 mm (15.75" x 12.35" x 3.55")	462.8 x 378.4 x 63.9 mm (18.22" x 14.9" x 2.52")/ 482 x 399.2 x 66 mm (18.98" x 15.72" x 2.6")	422 x 338 x 68 mm (16.61" x 13.31" x 2.68")	483 x 444 x 75 mm (19" x 17.48" x 1.95")
Weight		2.5 kg (5.51 lb) / 3 kg (5.51 lb)	12 Kg (26.45 lbs)	13.1 kg (28.88 lbs)/ 15 kg (33.07 lbs)	7.73 kg (17.04 lbs)	14.5 kg (31.96 lbs)
Certification		BSMI, CCC, CE, FCC Class A, UL	UL, CE, FCC Class A, CCC, BSMI	CE, FCC, BSMI, CCC, UL	CE, FCC, UL, CB, BSMI, CCC	CCC, CE, FCC, DNV, IEC 60945, IACS-E10
Operating System		Windows XP/WES7/XPe/CE/Linux	Windows 2000, XP Professional and WinXPe	-	-	-

HMI Application Story Overview

Coal Mine Automation System of Weight Checking and Fraud Prevention

Coal is transported from the mine to a warehouse therefore, to ensure that the correct weight and products arrive at the warehouse, a method of checking is required. To build the platform for this application, Advantech's industrial touch panel monitor, FPM-3121G which features wide-temperature and sunlight readability making it especially suitable for outdoor applications. All the information is collected and transmitted via the EKI-1526 to the UNO-2050G, and the data is then sent to the central control room, and is shown not only on the FPM-3121G monitor. The design of Advantech's products allows for stable and reliable operation in ultra-harsh outdoor environments such as coal mines

Central Control Room

FPM-3121G

Ethernet

EKI-1526

UNO-2050G

Traffic Light

LED Display   Camera   RFID Reader & Signal Transfer   Card Reader
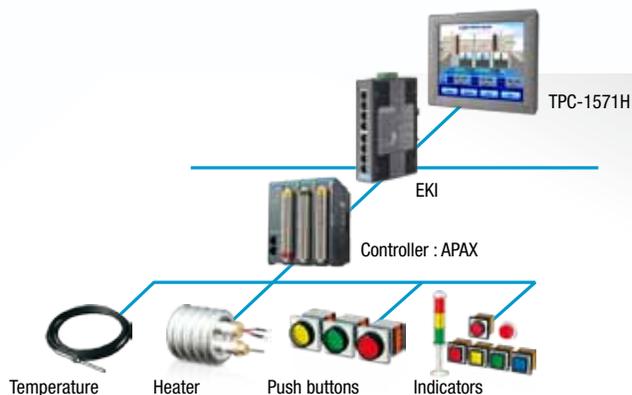
Batch control system in Silicon Crystal grower & Diffusion furnace Application

In order to achieve a high quality solar cell, Silicon crystal material treatment & diffusion furnace are raw material treatment process devices. It is a very high temperature control furnaces, around 1600 degC , and need a high reliable, stability & powerful operation station for operating, monitoring & integration to control center .

For building the platform for this application, Advantech's Embedded Automation Panel TPC-1571H is used as master workstation in control center to monitor the information transmitted via the EKI-1526 and Supervisor s/w WebAccess, to operate the process through APAX-5000 Amonet Network for motion control. This design of Advantech's products allows stable and reliable operation in such ultra-harsh environment for Silicon crystal material treatment & diffusion furnace application.

TPC-1571H

EKI

Controller : APAX

Temperature | Heater | Push buttons | Indicators

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Singapore	65-6442-1000

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Kuala Lumpur	60-3-7724-3555
Penang	60-4-397-3788
	60-4-397-4188

Indonesia
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Europe
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Germany
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Milano	39-02-9544-961

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Roosendaal	31-165-550-505

UK
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