PanKonix® Series - HMI Panel PC

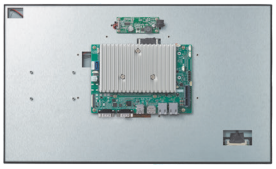
Control/Gateway/Display
All-in-One Industrial Panel PC



7″ 10.1″ 15.6″ 21.5″



PKX-STC2 Series
True Flat HMI



PKX-SP2 Series
Open Frame HMI

Key Features

- Supports various mainstream PLC devices for easy data visualization
- Supports RESTful API, MQTT, OPCUA, Modbus, BACnet
- Built-in library with 100+ images and supports importing external graphics
- Features trend chart, logging, alarms and recipe management
- Glove-usable 10-point PCAP touchscreen
- Up to 21.5“, 1920 x 1080 Full HD 16:9 LED-backlit LCD
- AUO® Display Plus powered 7H hardness with IP65 rating
- Compatible with SuperCAT for up to 8-axis EtherCAT motion control and APS function library capability

Introduction

The PanKonix® series HMI is an Intel® Core™ i3/i5 and Intel Atom® x5/x7-based panel PC equipped with user-friendly, full-featured HMI software. It ensures seamless PLC connectivity through Modbus protocol support and incorporates trend charts, data logging, alarms, and cloud connectivity functions with RESTful API, MQTT, and OPCUA support for efficient data visualization and machine monitoring.

The vector graphics-based HMI software, featuring a built-in library of 100+ graphics, enables easy editing to meet diverse field applications. The device boasts a glove-compatible high-resolution touchscreen up to 21 inches, ensuring an optimized operational experience.

Positioned as a cost-effective, ready-to-use, and highly reliable solution, the PanKonix series HMI is an ideal choice for Industry 4.0 implementation.

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Ordering Information

Open Frame HMI Series

- **PKX-SP2-AL-07**
  7" Intel® Atom™ x5-E3930, Open Frame Panel PC
  7" Intel® Atom™ x5-E3930, Open Frame Panel PC with iFACE HMI
- **PKX-SP2-AL-10**
  10.1" Intel® Atom™ x5-E3930, Open Frame Panel PC
  10.1" Intel® Atom™ x5-E3930, Open Frame Panel PC with iFACE HMI
- **PKX-SP2-AL-15**
  15.6" Intel® Atom™ x5-E3930, Open Frame Panel PC
  15.6" Intel® Atom™ x5-E3930, Open Frame Panel PC with iFACE HMI
- **PKX-SP2-AL-21**
  21.5" Intel® Atom™ x5-E3930, Open Frame Panel PC
  21.5" Intel® Atom™ x5-E3930, Open Frame Panel PC with iFACE HMI
- **PKX-SP2-KL-10**
  10.1" Intel® Core™ i3-7100U, Open Frame Panel PC
  10.1" Intel® Core™ i3-7100U, Open Frame Panel PC with iFACE HMI
  10.1" Intel® Core™ i3-7100U, Open Frame Panel PC with SuperCAT
- **PKX-SP2-KL-15**
  15.6" Intel® Core™ i5-7300U, Open Frame Panel PC
  15.6" Intel® Core™ i5-7300U, Open Frame Panel PC with iFACE HMI
  15.6" Intel® Core™ i5-7300U, Open Frame Panel PC with SuperCAT
- **PKX-SP2-KL-21**
  21.5" Intel® Core™ i5-7300U, Open Frame Panel PC
  21.5" Intel® Core™ i5-7300U, Open Frame Panel PC with iFACE HMI
  21.5" Intel® Core™ i5-7300U, Open Frame Panel PC with SuperCAT

True Flat HMI Series

- **PKX-STC2-AL-10**
  10.1" Intel® Atom™ x7-E3950, True Flat Panel PC
  10.1" Intel® Atom™ x7-E3950, True Flat Panel PC with iFACE HMI
- **PKX-STC2-AL-15**
  15.6" Intel® Atom™ x7-E3950, True Flat Panel PC
  15.6" Intel® Atom™ x7-E3950, True Flat Panel PC with iFACE HMI
- **PKX-STC2-KL-10**
  10.1" Intel® Core™ i3-7100U, True Flat Panel PC
  10.1" Intel® Core™ i3-7100U, True Flat Panel PC with iFACE HMI
  10.1" Intel® Core™ i3-7100U, True Flat Panel PC with SuperCAT
- **PKX-STC2-KL-15**
  15.6" Intel® Core™ i5-7300U, True Flat Panel PC
  15.6" Intel® Core™ i5-7300U, True Flat Panel PC with iFACE HMI
  15.6" Intel® Core™ i5-7300U, True Flat Panel PC with SuperCAT
- **PKX-STC2-KL-21**
  21.5" Intel® Core™ i5-7300U, True Flat Panel PC
  21.5" Intel® Core™ i5-7300U, True Flat Panel PC with iFACE HMI
  21.5" Intel® Core™ i5-7300U, True Flat Panel PC with SuperCAT

Specifications

Intel Atom-based Open Frame HMI

Model Name	PKX-SP2-AL-07	PKX-SP2-AL-10	PKX-SP2-AL-15	PKX-SP2-AL-21
System				
Processor	Intel® Atom™ x7-E3950 1.6/2.0GHz (Turbo), 12W (4C/1866) Intel® Atom™ x5-E3930 1.3/1.8GHz (Turbo), 6W (2C/1866)			
Memory	1 x SODIMM socket, DDR3L 1600MHz (up to 8GB)			
Storage	1 x M.2 SATA 6Gbps port, M key 2280 and 1 x 2.5" SSD/HDD SATA 6Gbps port (optional)			
Display				
Size	7"	10.1"	15.6"	21.5"
Resolution	1024 x 600	1280 x 800	1920 x 1080	
Contrast Ratio	600:1	800:1	1000:1	
Brightness (Nits)	600 cd/m2 (typ)	400 cd/m2 (typ)	420 cd/m2 (typ)	400 cd/m2 (typ)
Touchscreen	5 points	10 points		
External I/O				
Ethernet	2 x GbE (Intel I225). RJ45, WOL, 1Gb/s			
Serial Port	2 x RS-232/422/485 programmable, auto flow			
USB Port	1 x USB 2.0, Type-A, OCP, 1000mA 1 x USB 3.0, Type-A, OCP, 1600mA			
DisplayPort	1 x DP, DP++, supports resolutions up to 4096x2160@60Hz			

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Model Name	PKX-SP2-AL-07	PKX-SP2-AL-10	PKX-SP2-AL-15	PKX-SP2-AL-21
Internal I/O with Wire to Board Connectors				
USB Port	1 x USB 2.0 client			
I^2C	2 x for I^2C client			
Audio	1 x for 2x stereo speaker (2 watts) 1 x Mic-in and Line-out			
Keys	1 x for 32 physical keys (BOM optional). 1 x supports LCD backlight up/down and volume up/down (BOM optional)			
GPIO	1 x supports 8-pin GPI/O			
mPCIe	1 x mPCIe slot (Wi-Fi/BT/4G)			
SIM	1 x SIM slot for 4G/5G communication			
HMI Software				
PLC List	Beckhoff, BACnet, Delta, Hitachi, Keyence, Koyo, Mitsubishi, Omron, Panasonic, Siemens, Toshiba, Yamatake, Yaskawa, Yokogawa, and others			
Vector Graphic Library	Button, Indicator, Numerical, Action Button, Static Text, Bar, Meter, Message Display, List, Table, Slider, Trend, and others			
Trend Chart	Up to 32 curves			
Multi-Language	Supports 16 languages			
Alarm	Alarm notification dialogs, message push			
Data Log Backup	Export to txt, CSV or PDF			
Macro	LUA syntax for programming			
Networking	VNC, VPN, FTP			
Protocol	RESTful API, MQTT, OPCUA, Modbus RTU, Modbus TCP/IP			
Environmental				
Operating Temp.	-10°C to 60°C			0°C to 60°C
Storage Temp.	-20°C to 70°C			-20°C to 60°C
Humidity	10% to 95%, non-condensing			
Vibration	OP 1Grms, 5-500Hz w/ SSD, (IEC60068-2-64), X, Y, Z axes, 60 min/axis			
Shock	OP 20G peak acceleration, 11 ms (IEC60068-2-64), ±X, ±Y, ±Z, 3 shocks/axis			
IP Rating	IP65 for front			
ESD	Air: ±15kV, Contact: ±8kV			
EMC/Safety Compliance	EMI: IEC/EN 6100-3-2, IEC/EN 61000-3-3, EN6100-6-4, EN 55032 EMS: EN 55035, EN 61000-6-2 EMC: CE, FCC Class B, IEC 60601-1-2:2014/EN60601-1-2:2015, UNECE R10, EN 50121-3-2 Safety: Compliant with 60601-1/61010-1/62369-1 *PKX-SP2-KL & PKX-SP2-AL have passed pre-compliance testing of EMI, EMS, EMC, and Safety			
Power Input	AT/ATX (default: AT mode) 12V ±5% / 9-36V, both with OVP/UVP protection			
Mechanical				
Construction	SGCC			
Dimensions (W x L x D)	249.66 x 168.3 x 64.4 ±2mm	249.66 x 168.3 x 64.4 ±2mm	383.15 x 232.79 x 65.1 ±2mm	517.46 x 309.19 x 67.6 ±2mm
Weight	2.06 ±0.2kg		3.02 ±0.2kg	4.85 ±0.2kg
Mounting Kit (optional)	1) Panel Mounting 2) VESA mounting (supported by a rear cover)			

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Intel Atom-based True Flat HMI

Model Name	PKX-STC2-AL-10	PKX-STC2-AL-15
System		
Processor	Intel® Atom™ x7-E3950 Processor	
Memory	4GB DDR3L default (up to 8GB)	
Storage	64GB SSD default (up to 1TB)	
Display		
Size	10.1”	15.6”
Resolution	1280 x 800	1920 x 1080
Aspect Ratio	16:9	
Brightness	400 nits (w/o touch)	
Backlight Life (Hrs)	50,000	
Viewing Angle (U/D/R/L)	89/89/89/89	
Contrast Ratio	800:1	1000:1
Touchscreen	10-point, PCAP, Anti-fingerprint coating	
I/O		
Ethernet	2 x GbE LAN, RJ45	
Serial Port	2 x COM ports, RS-232/422/485	
USB Port	1 x USB 2.0, Type-A 1 x USB 3.0, Type-A	
Expansion	1 x Mini PCIe card with PCIe and USB interface	
Wi-Fi and Bluetooth	802.11 a/b/g/n/ac and Bluetooth 4.0 (Optional with Mini PCIe card)	
4G/LTE	For USA/Europe/TW/NZ/AU regions (Optional)	
Video	1 x DP Port	
Audio	1 x audio port (line out)	
HMI Software		
PLC List	Beckhoff, BACnet, Delta, Hitachi, Keyence, Koyo, Mitsubishi, Omron, Panasonic, Siemens, Toshiba, Yamatake, Yaskawa, Yokogawa, and others	
Vector Graphic Library	Button, Indicator, Numerical, Action Button, Static Text, Bar, Meter, Message Display, List, Table, Slider, Trend, and others	
Trend Chart	Up to 32 curves	
Multi-Language	Supports 16 languages	
Alarm	Alarm notification dialogs, message push	
Data Log Backup	Export to txt, CSV or PDF	
Macro	LUA syntax for programming	
Networking	VNC, VPN, FTP	
Protocol	RESTful API, MQTT, OPCUA, Modbus RTU, Modbus TCP/IP	
Environmental		
Operating Temp.	-10°C to 50°C (SSD)	
Storage Temp.	-20°C to 60°C	
Humidity	10% to 80% @40°C (non-condensing)	
Vibration	Operating: 1G random 5 to 500Hz	
Shock	Operating: 20G/11ms	
IP Rating	Front IP65	
Certifications & Compliance	CE/FCC	
Power Input	9-36V DC input	
Power Consumption	29.4W	39.8W
Mechanical		
Dimensions (H x W x D) (mm)	256 x 174 x 44	390 x 239 x 47
Weight	1.9 kg /2.5 kg	3.16 kg /4.2 kg
Mounting	VESA Mount, MIS-D 75mm x 75mm, 100mm x 100mm	

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Intel Core I-based Open Frame HMI

Model Name	PKX-SP2-KL-10	PKX-SP2-KL-15	PKX-SP2-KL-21
System			
Processor	Intel® Core™ i3-7100U	Intel® Core™ i5-7300U	
Memory	4GB/8GB DDR3L		
Storage	64GB SSD default (up to 1TB)		
Display			
Size	10.1"	15.6"	21.5"
Resolution	1280 x 800	1920 x 1080	
Aspect Ratio	16:9		
Brightness	400 nits (w/o touch)		
Touchscreen	10-point, PCAP, anti-fingerprint coating		
I/O			
Ethernet	2 x GbE LAN, RJ45		
Serial Port	2 x COM ports, RS-232/422/485		
USB Port	1 x USB 2.0 Type-A, 1 x USB 3.0 Type-A		
Expansion	1 x Mini PCIe card with PCIe and USB interface		
Video	1 x DP		
Audio	1 x audio port (line-out)		
HMI Software			
PLC List	Beckhoff, BACnet, Delta, Hitachi, Keyence, Koyo, Mitsubishi, Omron, Panasonic, Siemens, Toshiba, Yamatake, Yaskawa, Yokogawa, and others		
Vector Graphic Library	Button, Indicator, Numerical, Action Button, Static Text, Bar, Meter, Message Display, List, Table, Slider, Trend, and others		
Trend Chart	Up to 32 curves		
Multi-Language	Supports 16 languages		
Alarm	Alarm notification dialogs, message push		
Data Log Backup	Export to txt, csv or PDF		
Macro	LUA syntax for programming		
Networking	VNC, VPN, FTP		
Protocol	RESTful API, MQTT, OPCUA, Modbus RTU, Modbus TCP/IP		
Environmental			
Operating Temp.	-10°C to 60°C		0°C to 60°C
Storage Temp.	-20°C to 70°C		-20°C to 60°C
Humidity	10% to 95%		
Vibration	OP 1Grms, 5-500Hz w/ SSD, (IEC60068-2-64), X, Y, Z axes, 60 min/axis		
Shock	OP 20G peak acceleration, 11 ms (IEC60068-2-64), ±X, ±Y, ±Z, 3 shocks/axis		
EMC/Safety Compliance	EMI: IEC/EN 6100-3-2, IEC/EN 61000-3-3, EN6100-6-4, EN 55032 EMS: EN 55035, EN 61000-6-2 EMC: CE, FCC Class B, IEC 60601-1-2:2014/EN60601-1-2:2015, UNECE R10, EN 50121-3-2 Safety: Compliant with 60601-1/61010-1/62369-1 *PKX-SP2-KL & PKX-SP2-AL have passed pre-compliance testing of EMI, EMS, EMC, and Safety		
Power Input	9-36V DC input		
Mechanical			
Construction	SGCC		
Dimensions (W x L x D)	249.66 x 168.3 x 64.4 ±2mm	383.15 x 232.79 x 65.1 ±2mm	517.46 x 309.19 x 67.6 ±2mm
Weight	2.06 ±0.2kg	3.02 ±0.2kg	4.85 ±0.2kg
Mounting Kit (optional)	1) Panel Mounting 2) VESA mounting (supported by a rear cover)		

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Intel Core I-based True Flat HMI

Model Name	PKX-STC2-KL-10	PKX-STC2-KL-15	PKX-STC2-KL-21
System			
Processor	Intel® Core™ i3-7100U	Intel® Core™ i5-7300U	
Memory	4GB/8GB DDR3L		
Storage	64GB SSD default (up to 1TB)		
Display			
Size	10.1"	15.6"	21.5"
Resolution	1280 x 800	1920 x 1080	
Aspect Ratio	16:9		
Brightness	400 nits (w/o touch)		
Touchscreen	10-point, PCAP, anti-fingerprint coating		
I/O			
Ethernet	2 x GbE LAN, RJ45		
Serial Port	2 x COM ports, RS-232/422/485		
USB Port	1 x USB 2.0 Type-A, 1 x USB 3.0 Type-A		
Expansion	1 x Mini PCIe card with PCIe and USB interface		
Video	1 x DP		
Audio	1 x audio port (line-out)		
HMI Software			
PLC List	Beckhoff, BACnet, Delta, Hitachi, Keyence, Koyo, Mitsubishi, Omron, Panasonic, Siemens, Toshiba, Yamatake, Yaskawa, Yokogawa, and others		
Vector Graphic Library	Button, Indicator, Numerical, Action Button, Static Text, Bar, Meter, Message Display, List, Table, Slider, Trend, and others		
Trend Chart	Up to 32 curves		
Multi-Language	Supports 16 languages		
Alarm	Alarm notification dialogs, message push		
Data Log Backup	Export to txt, CSV or PDF		
Macro	LUA syntax for programming		
Networking	VNC, VPN, FTP		
Protocol	RESTful API, MQTT, OPCUA, Modbus RTU, Modbus TCP/IP		
Environmental			
Operating Temp.	-10°C to 50°C (SSD)		
Storage Temp.	-20°C to 60°C		
Humidity	10% to 80% @ 40°C (non-condensing)		
Vibration	Operating: 1G random 5 to 500Hz		
Shock	Operating: 20G/11ms		
EMC/Safety Compliance	EMI: IEC/EN 6100-3-2, IEC/EN 61000-3-3, EN6100-6-4, EN 55032 EMS: EN 55035, EN 61000-6-2 EMC: CE, FCC Class B, IEC 60601-1-2:2014/EN60601-1-2:2015, UNECE R10, EN 50121-3-2 Safety: Compliant with 60601-1/61010-1/62369-1 *PKX-SP2-KL & PKX-SP2-AL have passed pre-compliance testing of EMI, EMS, EMC, and Safety		
Power Input	9-36V DC input		
Mechanical			
Dimensions (H x W x D)	256 x 174 x 44 mm	390 x 239 x 47 mm	524 x 316 x 51 mm
Weight (Net/Gross)	2.05 kg /2.5 kg	3.4 kg /4.2 kg	6.2 kg /6.9 kg
Mounting	VESA Mount, MIS-D 75mm x 75mm, 100mm x 100mm		

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