

# Samkoon®

Human Machine Interface

Industry Panel Computer

Samkoon Technology

Industry Pioneer of HMI and IPC



## Samkoon Sdn Bhd

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# IPC Series

## Specifications:

BIOS AMI 1MB

Cooling System: Fanless

Mechanical Structure: Front/back panels: Aluminum alloy; Side frame: sheet metal

Installation: desktop, wall-mounted, plane-mounted

Operating System: Windows XP/XPE/CE

Power Consumption: 30W

Power Input: 24V DC

Safety Certificates: CCC, CE, FCC, UL



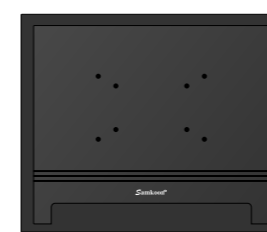
17"



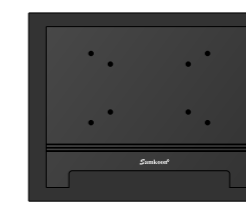
15"



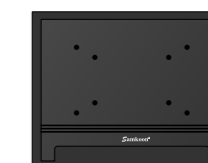
12"



17"



15"



12"

IPC1701-S/IPC1701-D/IPC1501-S/IPC1501-D/IPC1201-S/IPC1201-D

**CPU:** IPC1701-S/IPC1501-S/IPC1201-S  
Intel (Atom) N450 1.66GHZ Core Solo, 512KB  
IPC1701-D/IPC1501-D/IPC1201-D  
Intel (Atom) D510 1.66GHZ Dual-core, 1MB.

**Chipset:** Intel ICH8M

**Memory:** Onboard 1GB DDRII, one SO-DIMM slot to extend 1G DDRII optional.

**Network:** One onboard 10/100/1000Mbps self-adaption Ethernet interface

**Display:** One VGA port, the highest resolution: 1400X1050@60Hz

**Memory:** 2.5" 320G SATA harddisk, support CF Type II

**Audio:** Onboard HD Audio, support MIC-IN/Speaker-OUT




## External IO Port:

1. One VGA port, one RJ45 network port, support 10/100/1000Mbps
2. One set of audio jack: MIC-IN, Speaker-out
3. One PS/2 keyboard/mouse port
4. Four RS-232 COMs, COM2 is RS-232/RS-422/RS-485 optional;
5. Four USB 2.0 ports, one DC power connector

**Screen:** IPC1701-S/-D: 1280X1024 TFT LCD  
IPC1501-S/-D: 1024X768 TFT LCD  
IPC1201-S/-D: 800X600 TFT LCD

**Interface:** LVDS

# IPC Series Specifications

Product Images								Product Images	
Specifications	Items	IPC1701-S / IPC1701-D		IPC1501-S / IPC1501-D		IPC1201-S / IPC1201-D		Items	Specifications
Display	Dimension	17 Inch		15 Inch		12 Inch		Dimension	Display
	Resolution	1280x1024		1024x768		800x600		Resolution	
	Touch Panel	5-wire resistive touch screen						Touch Panel	
	Backlight unit	CCFL						Backlight unit	
	Contrast	450:1		400:1		450:1		Contrast	
	Brightness	350						Brightness	
CPU	IPC1701-S/IPC1501-S/IPC1201-S Intel (Atom) N450 1.66GHZ Core Solo, 512KB				IPC1701-D/IPC1501-D/IPC1201-D Intel (Atom) D510 1.66GHZ Dual-core, 1MB.				CPU
OS	support Windows XP/XPE/CE						Support Windows XP/XPE/CE		OS
Chipset	Intel ICH8M						Intel ICH8M		Chipset
Memory	Onboard 1GB DDRII, one SO-DIMM slot to extend 1G DDRII optional.						Onboard 1GB DDRII, one SO-DIMM slot to extend 1G DDRII optional.		Memory
Network	One onboard 10/100/1000Mbps self-adaption Ethernet interface						One onboard 10/100/1000Mbps self-adaption Ethernet interface		Network
Audio	Onboard HD Audio, support MIC-IN/Speaker-OUT						Onboard HD Audio, support MIC-IN/Speaker-OUT		Audio
Storage	2.5" 320G SATA hardisk, support CF Type II						2.5" 320G SATA hardisk, support CF Type II		Storage
Safety certificates	CCC, CE, FCC, UL						CCC, CE, FCC, UL		Safety certificates
BIOS	AMI 1MB						AMI 1MB		BIOS
Power Supply	Input voltage	24V				24V		Input voltage	Power Supply
	Power consumption	30w				30w		Power consumption	
Interface	VGA Port	One				One		VGA Port	Interface
	RJ45 Network Port	One				One		RJ45 Network Port	
	Audio port	One				One		Audio port	
	serial port	Four				Three		serial port	
	USB2.0 Port	Four				Four		Port	
	DC Power interface	One				One		DC Power interface	
	keyboard/mouse port	One				One		keyboard/mouse port	
Environment	Operation Environment Temperature	0~50°C				0~50°C		Operation Environment Temperature	Environment
	Operation Environment Humidity	10~95%RH				10~95%RH		Operation Environment Humidity	
	Anti-Vibration	5-17Hz/1.0mm Amplitude				5-17Hz/1.0mm Amplitude		Anti-Vibration	
Mechanical	Dimension (width x height x depth, mm)	438X365X51 (mm)		395X320X48 (mm)		335X248X47 (mm)		Dimension (width x height x depth, mm)	Mechanical
	Cut-out (width x height, mm)	410X337 (mm)		367X292 (mm)		318X230 (mm)		Cut-out (width x height, mm)	
	Weight	7kg		5.9kg		3.9kg		Weight	
AC-DC Adaptor	Input	AC 220V 50Hz		AC 220V 50Hz		AC 220V 50Hz		Input	AC-DC Adaptor
	Output	DC 24V 3A		DC 24V 3A		DC 24V 3A		Output	

# SK Series (HMI)



Dimension: 3. 5  
Resolution: 320X240  
Colors: 262144  
USB download port  
CPU Speed: RISC 400MHz  
128M FLASH+64M DDR2 (SDRAM)  
COM1: RS232/422/485

**SK-035AE**



Dimension: 4  
Resolution: 320X240  
Colors: 262144  
USB download port/USB  
CPU Speed: RISC 400MHz  
128M FLASH+64M DDR2 (SDRAM)  
COM1: RS232/422/485

**SK-040AE**



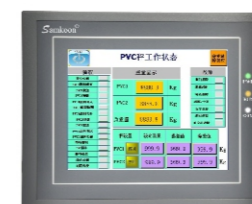
Dimension: 4. 3  
Resolution: 480X272  
Colors: 262144  
USB download port/USB (AE; AE/B)  
USB download port/USB/RJ45 (AS/B)  
CPU Speed: RISC 400MHz  
128M FLASH+64M DDR2 (SDRAM)  
COM1: RS232/422/485

**SK-043AE**  
**SK-043AE/B**  
**SK-043AS/B**



Dimension: 5  
Resolution: 480X272  
Colors: 262144  
USB download port/USB (AE)  
USB download port/USB/RJ45 (AS)  
CPU Speed: RISC 400MHz  
128M FLASH+64M DDR2 (SDRAM)  
COM1: RS232/422/485

**SK-050AE**  
**SK-050AS**



Dimension: 5. 7  
Resolution: 320X234  
Colors: 262144  
USB download port/USB (AE)  
USB download port/USB/RJ45/SD card (AS)  
CPU Speed: RISC 400MHz  
128M FLASH+64M DDR2 (SDRAM)  
COM1: RS232/422/485  
COM2: RS232/422/485

**SK-057AE**  
**SK-057AS**



Dimension: 7  
Resolution: 800X480  
Colors: 262144  
USB download port/USB (AE/BE)  
USB download port/USB/RJ45/SD card (AS)  
CPU Speed: RISC 400MHz  
128M FLASH+64M DDR2 (SDRAM)  
COM1: RS232/422/485  
COM2: RS232/422/485

**SK-070AE** **SK-070BE**  
**SK-070AS** **SK-070BS**



Dimension: 7. 2  
Resolution: 800X600  
Colors: 262144  
USB download port/USB (AE)  
USB download port/USB/RJ45/SD card (AS)  
CPU Speed: RISC 400MHz  
128M FLASH+64M DDR2 (SDRAM)  
COM1: RS232/422/485  
COM2: RS232/422/485

**SK-072AE**  
**SK-072AS**



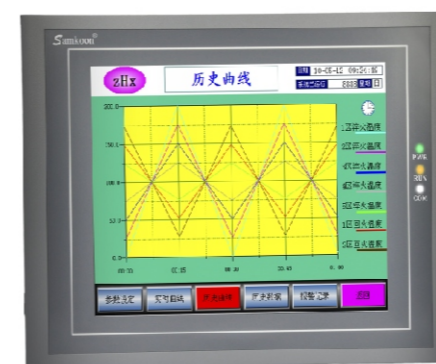
Dimension: 8  
Resolution: 800X600  
Colors: 262144  
USB download port/USB (AE)  
USB download port/USB/RJ45/SD card (AS)  
CPU Speed: RISC 400MHz  
128M FLASH+64M DDR2 (SDRAM)  
COM1: RS232/422/485  
COM2: RS232/422/485

**SK-080AE**  
**SK-080AS**



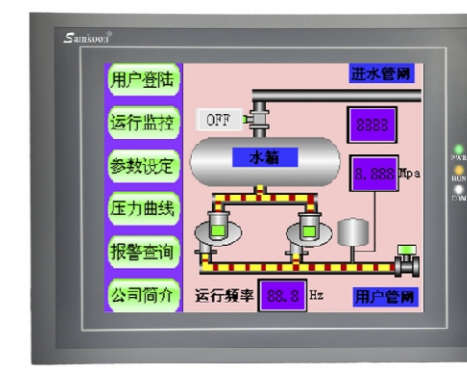
Dimension: 10. 2  
Resolution: 800X480  
Colors: 262144  
USB download port/USB (AE)  
USB download port/USB/RJ45/SD card (AS)  
CPU Speed: RISC 400MHz  
128M FLASH+64M DDR2 (SDRAM)  
COM1: RS232/422/485  
COM2: RS232/422/485

**SK-102AE**  
**SK-102AS**



Dimension: 10. 4  
Resolution: 800X600  
Colors: 262144  
USB download port/USB (AE)  
USB download port/USB/RJ45/SD card (AS)  
CPU Speed: RISC 400MHz  
128M FLASH+64M DDR2 (SDRAM)  
COM1: RS232/422/485  
COM2: RS232/422/485

**SK-104AE**  
**SK-104AS**



Dimension: 12. 1  
Resolution: 800X600  
Colors: 262144  
USB download port/USB (AE)  
USB download port/USB/RJ45/SD card (AS)  
CPU Speed: RISC 400MHz  
128M FLASH+64M DDR2 (SDRAM)  
COM1: RS232/422/485  
COM2: RS232/422/485







**SK-121AE**  
**SK-121AS**

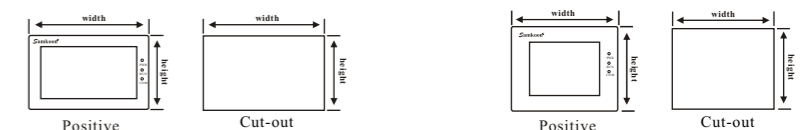
# SK Series Specifications

Product Images								Product Images	
Specifications	Items	SK-035AE	SK-040AE	SK-043AE; SK-043AE/B; SK-043AS/B	SK-050AS; SK-050AE	SK-057AS; SK-057AE	SK-070AS; SK-070AE	Items	Specifications
Display	Dimension	3.5" (Length X Width=4:3)	4" (Length X Width=4:3)	4.3" (Length X Width=16:9)	5" (Length X Width=16:9)	5.7" (Length X Width=4:3)	7" (Length X Width=16:9)	Dimension	Display
	Resolution	320x240	320x240	480x272	480x272	320x234	800x480	Resolution	
	Touch Panel	4-wire high precision touch panel				4-wire high precision touch panel		Touch Panel	
	Display Color	262, 144				262, 144		Display Color	
	Backlight Unit	LED				LED		Backlight Unit	
	Contrast	400:1	450:1	400:1	400:1	400:1	400:1	Contrast	
Brightness	350cd/m <sup>2</sup>	400cd/m <sup>2</sup>	400cd/m <sup>2</sup>	400cd/m <sup>2</sup>	400cd/m <sup>2</sup>	400cd/m <sup>2</sup>	450cd/m <sup>2</sup>	Brightness	
SD Card		N/A	N/A	N/A	N/A	Yes / N/A	Yes / N/A	SD Card	
Memory		128M/FLASH+64M DDR				128M/FLASH+64M DDR		Memory	
CPU		32-bit 400MHz RISC				32-bit 400MHz RISC		CPU	
FCC Compatibility		Compliances FCC, Class A				Compliances FCC, Class A		FCC Compatibility	
Dielectric Strength Test		1000V AC, one minute				1000V AC, one minute		Dielectric Strength Test	
CE certification		Compliances EN55022 and En55024				Compliances EN55022 and En55024		CE certification	
Protection Grade		Ip65 Front panel				Ip65 Front panel		Protection Grade	
Housing Material		Engineering Plastics: ABS + PC				Engineering Plastics: ABS + PC		Housing Material	
Configuration Software		SKWorkshop				SKWorkshop		Configuration Software	
Power Supply	Power supply	DC24V (+/-15%)				DC24V (+/-15%)		Power supply	Power Supply
	Power consumption	3w	3w	3w	3w	4w	6w	Power consumption	
Interface	Serial interface	COM1: RS232/422/485	COM1: RS232/422/485	COM1: RS232/422/485	COM1: RS232/422/485	COM1: RS232/422/485 COM2: RS232/422/485	COM1: RS232/422/485 COM2: RS232/422/485	Serial interface	Interface
	USB download port	Yes	Yes	Yes / Yes / Yes	Yes / Yes	Yes / Yes	Yes / Yes	USB download port	
	USB	N/A	Yes	Yes / Yes / Yes	Yes / Yes	Yes / Yes	Yes / Yes	USB	
	RJ 45	N/A	N/A	N/A / N/A / Yes	N/A / N/A	Yes / N/A	Yes / N/A	RJ 45	
Environment	Operation Environment Temperature	-10~65°C				-10~65°C		Operation Environment Temperature	Environment
	Operation Environment Humidity	10~90%RH				10~90%RH		Operation Environment Humidity	
	Anti-Vibration	10-25Hz (XYZ direction 2G/30 minute)				10-25Hz (XYZ direction 2G/30 minute)		Anti-Vibration	
Mechanical	Dimension (width x height x depth, mm)	136X89X39 (mm)	123X99X39 (mm)	AE: 151X93X39 (mm) AE/B: AS/B: 173X96X39 (mm)	165X103X39 (mm)	202X144X40 (mm)	228X154X41 (mm)	Dimension (width x height x depth, mm)	Mechanical
	Cut-out (width x height, mm)	124X81 (mm)	114X90 (mm)	AE: 142X85 (mm) AE/B: AS/B: 165X86 (mm)	157X95 (mm)	192X138 (mm)	211X145 (mm)	Cut-out (width x height, mm)	
	Weight	0.2kg	0.2kg	0.2kg	0.8kg	0.8kg	1.5kg	Weight	



# SK Series Specifications

Product Images								Product Images	
Specifications	Items	SK-070BS; SK-070BE	SK-072AS; SK-072AE	SK-080AS; SK-080AE	SK-102AS; SK-102AE	SK-104AS; SK-104AE	SK-121AS; SK-121AE	Items	Specifications
Display	Dimension	7" (Length X Width=16:9)	7.2" (Length X Width=4:3)	8" (Length X Width=4:3)	10.2" (Length X Width=16:9)	10.4" (Length X Width=4:3)	12.1" (Length X Width=4:3)	Dimension	Display
	Resolution	800x480	800x600	800x600	800x480	800x600	800x600	Resolution	
	Touch Panel	4-wire high precision touch panel						Touch Panel	
	Display Color	262, 144						Display Color	
	Backlight Unit	LED						Backlight Unit	
	Contrast	400:1	450:1	450:1	450:1	450:1	450:1	Contrast	
	Brightness	450cd/m <sup>2</sup>	450cd/m <sup>2</sup>	450cd/m <sup>2</sup>	500cd/m <sup>2</sup>	500cd/m <sup>2</sup>	500cd/m <sup>2</sup>	Brightness	
SD Card	Yes / N/A		Yes / N/A		Yes / N/A		SD Card		
Memory	128M/FLASH+64M DDR						Memory		
CPU	32-bit 400MHz RISC						CPU		
FCC Compatibility	Compliances FCC, Class A						FCC Compatibility		
Dielectric Strength Test	1000V AC, one minute						Dielectric Strength Test		
CE certification	Compliances EN55022 and En55024						CE certification		
Protection Grade	Ip65 Front panel						Protection Grade		
Housing Material	Engineering Plastics: ABS + PC						Housing Material		
Configuration Software	SKWorkshop						Configuration Software		
Power Supply	Power supply	DC24V (+/-15%)						Power supply	
	Power consumption	6w	6w	7w	8w	8w	12w	Power consumption	
Interface	Serial interface	COM1: RS232/422/485 COM2: RS232/422/485	COM1: RS232/422/485 COM2: RS232/422/485	COM1: RS232/422/485 COM2: RS232/422/485	COM1: RS232/422/485 COM2: RS232/422/485	COM1: RS232/422/485 COM2: RS232/422/485	COM1: RS232/422/485 COM2: RS232/422/485	Serial interface	
	USB download port	Yes / Yes	Yes / Yes	Yes / Yes	Yes / Yes	Yes / Yes	Yes / Yes	USB download port	
	USB	Yes / Yes	Yes / Yes	Yes / Yes	Yes / Yes	Yes / Yes	Yes / Yes	USB	
	RJ 45	Yes / N/A	Yes / N/A	Yes / N/A	Yes / N/A	Yes / N/A	Yes / N/A	RJ 45	
Environment	Operation Environment Temperature	-10~65°C						Operation Environment Temperature	
	Operation Environment Humidity	10~90%RH						Operation Environment Humidity	
	Anti-Vibration	10-25Hz (XYZ direction 2G/30 minute)						Anti-Vibration	
Mechanical	Dimension (width x height x depth, mm)	203X145X40 (mm)	203X165X40 (mm)	239X192X49 (mm)	266X208X40 (mm)	312X225X54 (mm)	338X253X65 (mm)	Dimension (width x height x depth, mm)	
	Cut-out (width x height, mm)	192X138 (mm)	186X156 (mm)	235X188 (mm)	261X203 (mm)	286X214 (mm)	330X246 (mm)	Cut-out (width x height, mm)	
	Weight	1.5kg	1.5kg	1.8kg	2kg	2.05kg	2.26kg	Weight	



# SK Software Overview

## System Brief

1. Humanized configuration design
2. Support of customized screensaver
3. File up/down load password protection
4. Support of customized startup screen
5. NAND FLASH, storage of data and pictures
6. Support of communication with various PLC, MCU and Intelligent modules

## Added module function

1. Sliding analog switch, realizing sliding data input
2. Dropdown boxes, choice list framed by displayed multi-items
3. Various tendency chart as display element
4. Others

## Text Font

1. Support of multi-languages, free shift for five language fonts
2. Support True type(TTF) font
3. Support font editors with complex properties, Unicode and international standard

## Basic Graph

1. Support of basic graphics drawing
2. Support of graphics drawing with table and scaling
3. Rich graphics drawing effects

## Safety Use

1. Brand new password mechanism, more safe and reliable

## Chart Gallery

1. Providing lots of vector graphics for various industries
2. Support of customized vector graphics, painting available
3. Support BMP and JPG as graphics library
4. Outline border of standard commonly used vector graphics provided

## Macro instruction,

1. Support of C programming script
2. Support of manual setting for function library
3. Support of FreePort communication protocol
4. Support of C standard arithmetic functions, more convenient for use
5. Multiple executive modes

## USB Flash Disk

1. Support of USB updated
2. Support of USB data's import and export
3. Support of USB's formula updated

## Printer, Serial Network

1. Support of USB printer for printing pictures and data etc.
2. To communicate by RS485, achieve maximum connection as 32 PLC or smart device communication

## Penetrating Communication

1. PC communicate with PLC or connecting equipments via HMI
2. Two HMIS can communicate with same one PLC

## Ethernet Communication

1. Through ethernet, communications between HMI to HMI or HMI to control devices are realized.

## On-line simulation

1. In use of computer to connect PLC for simulating configuration project, data obtained by PLC

## Imgaes

1. Support of BMP, JPG, GIF and PNG etc.
2. Support of dynamic pictures as format GIF.

## Others

1. Alert functional expansion
2. System function port provided
3. Import and export of data

As we all known, quality is the foundation that enterprises depend on for existence and development. Samkoon strictly follows the requirements of ISO9001:2008 to do the comprehensive quality management. With our outstanding professionals, advanced producing and testing equipments and spacious bright clean room etc which to substantial support for our product's quality control. All in all, Samkoon will always adhere to our operation philosophy as "First-Class Products Technology Leads, Top Company Integrity Manages" to provide great services for all our customers.

## Alternative accessories are available



USB Communication Cable

Communication Cable

Mounting Fixing Parts

1. Of USB communication cable for project files' up/downloading, connecting PC to HMI.
  2. Of communication cable connect to PLC and HMI, depending on the used PLC type to choose the correct cable.
- Note: Please read the product manual carefully prior to use.

Specifications are subject to change without notice. Please contact Samkoon for any enquires.