

# **SH7000Series HMI Product Specifications**

Publication Status: Standard Product Edition

V1.00

STATE human-machine interface SH7000 series, as a new generation of IoT human-machine interface, continues the advantages of STEP product line, industrial ABS plastic shell, high reliability; new mold opening settings for the rear cover, and antenna holes are added to the rear cover to improve product quality. The overall design sense, and a variety of resolution models are available to meet the needs of different application scenarios.

At present, the SH7000 series is divided into four models: SH7070W, SH7070WE, SH7100W, and SH7100WE according to the difference in size and function.







## SH7070W Specifications

	display screen	7'16:9 TFT LCD screen
	resolution	1024×600
	color	24 bit
	brightness	350cd/m <sup>2</sup>
	backlight	led
	LCD lifetime	50000 hours
	touch screen	4-wire industrial resistive touch screen
touch screen	CPU	1GHz, quad-core CortexTM-A7
4 wire industrial power	memory	128MB Flash + 128MB DDR3
touch screen	RTC	Real-time clock built-in
CPU	ethernet	none
memory	SD card	not support
	usb port	1 Type-C OTG interface
	Program download method	USB Slave/U disk (compatible with Type-C adapter cable)
		COM1: RS232/RS485/RS422
	serial communication port	COM2:RS485
		COM3:RS232
	LCD viewing angle	
	(T/B/L/R)	85'/85'/85'
	rated power	<10W
	Rated voltage	DC24V, working range DC 9V~28V
	power protection	With lightning surge protection
Electrical Specifications	Allow power loss	<5mS
		Compliant with EN61000-6-2:2005, EN61000-6-4:2007 Compliant
	CE & RoHS	with RoHS Lightning surge ±1KV, group pulse ±2KV; static
		contact 4KV, air discharge 8KV
		0~50°C
	Operating temperature	- 20~60°C
	storage temperature	
Environmental requirement	Anti-UV	Do not work in a strong ultraviolet environment (such as direct sunlight)
	environment humidity	10~90%RH (no condensation)
	Shock resistance	10~25Hz (2G/30 minutes in X, Y, Z direction)
	cooling method	natural air cooling
	Degree of protection	The front panel conforms to IP65 (installed with a flat cabinet), and the rear shell of the fuselage conforms
		to IP20
Mechanical index	Mechanical structure	engineering plastics
	Hole Size	192mm×138mm
	Overall size	204mm×145mm×34mm (tolerance ±0.5mm)
	Total Weight	About 468g





#### SH7070W interface definition

	电源端子 DB9 串口	Type-C 485端口天线第	行		
Power terminals (Pin1~2 from left	to right)				
	Pin1	0V			
	Pin2	DC24V			
DB9 serial terminal (COM1/ CO	DM3)				
	pin	COM1	COM3		
	Pin1	Rx-(B) (RS422/485-)			
	Pin2	RxD (RS232)			
Pin1 Pin5.	Pin3	TxD (RS232)			
<u> </u>	Pin4	Tx- (RS422)			
	Pin5	GND			
Pin6 Pin9	Pin6	Rx+(A) (RS422/485+)			
	Pin7		RxD (RS232)		
	Pin8		TxD (RS232)		
	Pin9	Tx+ (RS422)			
485 terminal (Pin1~2 from left to right) COM2					
r e	Pin1	A+ (COM2 RS485)			
15.0	Pin2	B-(COM2 RS485)			
Type-C OTG interface					
		Slave port function: for downloading programs and debugging			
	Type-C	Main port function: used to connect peripherals such as U disk, code scanner, etc. (Type C and USB			
		Type A conversion cables are required)			
antenna port					
Antenna port (the antenna hole is open for IoT function models)					





## SH7070WE Specifications

resolution 1024×600  color 24 bit 15   15   15   15   15   15   15   15		display screen	7'16:9 TFT LCD screen	
Business   Boundary   Business		resolution	1024×600	
LCD lifetime   50000 hours		color	24 bit	
LCD lifetime 50000 hours  touch streen 4 white industrial resistant screen  CPU 1GHz, quad-core CortexTM-A7  memory 4GB Flash + 128MB DDR3  RTC Resistance clock bulls in  ethernet 1-channel 10Mr/10Ms self-adaptive  SD card not support  USb port 1 Type-C OTG interface  Program downboad method USB Slave/U disk  COM1: RS232/RS485/RS422  COM2:RS485  COM3:RS232  LCD viewing angle  (T/B/L/R) 85'/85'/85'/85'  Com3:RS232  LCD viewing angle  (T/B/L/R) 9000-851/85'/85'/85'  Com3:RS232  COM2:RS485  COM3:RS232  LCD viewing angle  (T/B/L/R) 85'/85'/85'/85'  Compliant units lightning surge protection  Allow power protect  Allow power force  Compliant with EN61000-6-2:2005, EN61000-6-4:2007 Compliant with RoHS Lightning surge ± 1KV, group pulse ± 2KV; static contact 4KV, air discharge 8KV  O-50°C  Anti-UV Do not work in a strong ultraviolete environment (souch as direct sunlight)  Down resistance  Cooling method 10-25Hz (2G/30 minutes in X, Y, Z direction)  The form panel conforms to JPKG (installed with a flat cabinet), and the rear shell of the fuedlage conforms to JPKG (installed with a flat cabinet), and the rear shell of the fuedlage conforms to JPKG (installed with a flat cabinet), and the rear shell of the fuedlage conforms to JPKG (installed with a flat cabinet), and the rear shell of the fuedlage conforms to JPKG (installed with a flat cabinet), and the rear shell of the fuedlage conforms to JPKG (installed with a flat cabinet), and the rear shell of the fuedlage conforms to JPKG (installed with a flat cabinet), and the rear shell of the fuedlage conforms to JPKG (installed with a flat cabinet), and the rear shell of the fuedlage conforms to JPKG (installed with a flat cabinet), and the rear shell of the fuedlage conforms to JPKG (installed with a flat cabinet), and the rear shell of the fuedlage conforms to JPKG (installed with a flat cabinet), and the rear shell of the fuedlage conforms to JPKG (installed with a flat cabinet), and the rear shell of the fuedlage conforms to JPKG (installed with a flat cabinet), and		brightness	350cd/m²	
touch screen CPU 1GHz, quad-core CortexTM-A7 memory 4GB Flash + 128MB DDR3 RTC Real-time clock built in ethernet 1 - hannel 10t/100M self-adaptive SD card not support Usb port 1 Type-C OTG interface Program distribution shallow SS Slave/U disk COM1: RS232/RS485/RS422 COM2:RS485 COM3:RS232 LCD viewing angle (T/B/L/R) rated power < 10W Rated voltage DC24V, working range DC 9V~28V power protection With lightning surge protection CE & ROHS CE ROHS CE ROHS COM5:RS485 Compliant with EN61000-6-2:2005, EN61000-6-4:2007 Compliant with ROHS Lightning surge ± 1KV, group pulse ± 2KV; static contact 4KV, air discharge 8KV  0 ~50°C Anti-UV Do not work in a strong ultraviolet environment (such as direct sunlight)  10-90%RH (no condensation) Stook resizance 10-25-Hz (2G/30 minutes in X, Y, Z direction) Cooling method Requantical index Hole Size 192mm×138mm		backlight	led	
CPU   1GHz, quad-core CortexTM-A7   memory   4GB Flash + 128MB DDR3		LCD lifetime	50000 hours	
memory 4GB Flash + 128MB DDR3  RTC Real-time clock built-in ethernet 1 channel 10M100M self-adaptive  SD card not support 1 Type-C OTG interface Pragram download method USB Slave/U disk COM1: RS232/RS485/RS422 COM2:RS485 COM3:RS232  LCD viewing angle (T/B/L/R)  rated power < <10W  Rated voltage DC 24V, working range DC 9V-28V  power protection With lightning surge protection  Allow power loss		touch screen	4-wire industrial resistive touch screen	
RTC Real-time clock built-in ethernet 1 channel 10M/100M self-adaptive SD card not support USB port 1 Type-C OTG interface Program download method USB Slave/U disk COM1: RS232/RS485/RS422 COM2:RS485 COM3:RS232 LCD viewing angle (T/B/L/R)  rated power < <10W  Rated voltage DC24V, working range DC 9V~28V  power protection With lightning surge protection Allow power loss Compilant with EN61000-6-2:2005, EN61000-6-4:2007 Compilant With RoHS Lightning surge ±1KV, group pulse ±2KV; static contact 4KV, air discharge 8KV  Cyperating interperature 0~50°C  Anti-UV Do not work in a strong ultraviolet environment (such as direct sunlight)  finite remeature frequence the methy cooling method  Mechanical index Hole Size 1920  Mechanical index Hole Size 1920mm×138mm		CPU	1GHz, quad-core CortexTM-A7	
ethernet 1 channel 10M/100M self-adaptive  SD card not support  usb port 1 Type-C OTG interface  Program download method USB Slave/U disk  COM1: RS232/RS485/RS422  COM2:RS485  COM3:RS2322  LCD viewing angle (T/B/L/R) 851/851/851  rated power <10W  Rated voltage DC24V, working range DC 9V~28V  power protection With lightning surge protection  Allow power loss <5mS  Compliant with EN61000-6-2:2005, EN61000-6-4:2007 Compliant with RoHS Lightning surge ±1KV, group pulse ±2KV; static contact 4KV, air discharge 8KV  Operating temperature 0~50°C  dozogat temperature 0~50°C  Anti-UV Do not work in a strong ultraviolet environment (such as direct sunlight)  Protection of protection 10-25Hz (2G/30 minutes in X, Y, Z direction)  Cooling method natural air conling  The front panel conforms to IP65 (installed with a flat cabinet), and the rear shell of the fuselage conforms to IP65 (installed with a flat cabinet), and the rear shell of the fuselage conforms to IP65 (installed with a flat cabinet), and the rear shell of the fuselage conforms to IP65 (installed with a flat cabinet), and the rear shell of the fuselage conforms to IP65 (installed with a flat cabinet), and the rear shell of the fuselage conforms to IP65 (installed with a flat cabinet), and the rear shell of the fuselage conforms to IP65 (installed with a flat cabinet), and the rear shell of the fuselage conforms to IP65 (installed with a flat cabinet), and the rear shell of the fuselage conforms to IP65 (installed with a flat cabinet), and the rear shell of the fuselage conforms to IP65 (installed with a flat cabinet), and the rear shell of the fuselage conforms to IP65 (installed with a flat cabinet), and the rear shell of the fuselage conforms to IP65 (installed with a flat cabinet), and the rear shell of the fuselage conforms to IP65 (installed with a flat cabinet).		memory	4GB Flash + 128MB DDR3	
SD card not support  usb port  1 Type-C OTG interface  Program download method  USB Slave/U disk  COM1: RS232/RS485/RS422  COM2:RS485  COM3:RS232  LCD viewing angle (T/B/L/R)  rated power  Rated voltage  power protection  Allow power loss  Compliant with EN61000-6-2:2005, EN61000-6-4:2007 Compliant with RoHS Lightning surge ±1KV, group pulse ±2KV; static contact 4KV, air discharge 8KV  Operating temperature  - 20~60°C  Anti-UV  Do not work in a strong ultraviolet environment (such as direct sunlight)  for resulting method  natural ar cooling  The front panel conforms to IP65 (installed with a flat cabinet), and the rear shell of the fuselage conforms to IP65 (installed with a flat cabinet), and the rear shell of the fuselage conforms to IP65 (installed with a flat cabinet), and the rear shell of the fuselage conforms to IP65 (installed with a flat cabinet), and the rear shell of the fuselage conforms to IP65 (installed with a flat cabinet), and the rear shell of the fuselage conforms to IP65 (installed with a flat cabinet), and the rear shell of the fuselage conforms to IP65 (installed with a flat cabinet), and the rear shell of the fuselage conforms to IP65 (installed with a flat cabinet), and the rear shell of the fuselage conforms to IP65 (installed with a flat cabinet), and the rear shell of the fuselage conforms to IP65 (installed with a flat cabinet), and the rear shell of the fuselage conforms to IP65 (installed with a flat cabinet), and the rear shell of the fuselage conforms to IP65 (installed with a flat cabinet).	hardware parameters	RTC	Real-time clock built-in	
USB Slave/U disk  COM1: RS232/RS485/RS422  COM2:RS485  COM3:RS232  LCD viewing angle (T/B/L/R)  rated power  Rated voltage  DC24V, working range DC 9V~28V  power protection  Allow power fors  Compliant with EN61000-6-2:2005, EN61000-6-4:2007 Compliant with RoHS Lightning surge ±1KV, group pulse ±2KV; static contact 4KV, air discharge 8KV  Coperating imperature  O~50°C  contact 4KV, air discharge 8KV  Do not work in a strong ultraviolet environment (such as direct sunlight)  10~90%RH (no condensation)  The front panel conforms to IP65 (installed with a flat cabinet), and the rear shell of the fuselage conforms to IP20  Mechanical index  Hole Size  192mm×138mm		ethernet	1 channel 10M/100M self-adaptive	
Program download method  USB Slave/U disk  COM1: R5232/RS485/RS422  COM2:RS485  COM3:RS232  LCD viewing angle (T/B/L/R)  rated power  Rated voltage  DC24V, working range DC 9V~28V  with lightning surge protection  Allow power loss  Compliant with EN61000-6-2:2005, EN61000-6-4:2007 Compliant  with RoHS Lightning surge ±1KV, group pulse ±2KV; static  contact 4KV, air discharge 8KV  Operating temperature  O~50°C  Anti-UV  Do not work in a strong ultraviolet environment (such as direct sunlight)  frow rounced i requirement  cooling method  Degrae of protection  Nechanical index  Mechanical index  Hole Size  1920  1920  1920  Horizona in protection  COM2: R5485  COM3: R5232/RS485/RS422  COM2: R5485  COM3: R5232/RS485/RS422  COM2: R5485  COM3: R5232/RS485/RS422  COM2: R5485  Solve in protection  Vith RoHS Lightning surge DC 9V~28V  With lightning surge protection  Vith RoHS Lightning surge ±1KV, group pulse ±2KV; static  contact 4KV, air discharge 8KV  Operating temperature  1° -20~60°C  Anti-UV  Do not work in a strong ultraviolet environment (such as direct sunlight)  10~90/RH (no condensation)  10~25Hz (2G/30 minutes in X, Y, Z direction)  Degrae of protection  The front panel conforms to IP65 (installed with a flat cabinet), and the rear shell of the fuselage conforms to IP20  Mechanical struture  Response replactics  Hole Size  1920  1		SD card	not support	
Serial communication port  COM1: RS232/RS485/RS422  COM2:RS485  COM3:RS232  LCD viewing angle (T/B/L/R)  Rated voltage  DC24V, working range DC 9V~28V  power protection  With lightning surge protection  Allow power loss  Compliant with EN61000-6-2:2005, EN61000-6-4:2007 Compliant  with RoHS Lightning surge ±1KV, group pulse ±2KV; static  contact 4KV, air discharge 8KV  Operating temperature  O~50°C  storage temperature  - 20~60°C  Anti-UV  Do not work in a strong ultraviolet environment (such as direct sunlight)  Final regulations  Environmental requirement  environment humidsy  10~99%RH (no condensation)  The front panel conforms to 1P65 (installed with a flat cabinet), and the rear shell of the fuselage conforms  to 1P20  Mechanical Index  Hole Size  192mm×138mm		usb port	1 Type-C OTG interface	
COM2:RS485   COM3:RS232		Program download method	USB Slave/U disk	
COM3:RS232  LCD viewing angle (T/B/L/R) 85'/85'/85'  rated power <10W  Rated voltage DC24V, working range DC 9V~28V  power protection With lightning surge protection  Allow power loss <5mS  Compliant with EN61000-6-2:2005, EN61000-6-4:2007 Compliant with RoHS Lightning surge ±1KV, group pulse ±2KV; static contact 4KV, air discharge 8KV  Operating temperature 0~50°C  storage temperature -20~60°C  Anti-UV Do not work in a strong ultraviolet environment (such as direct sunlight)  Environmental requireners anvironment humidity 10~90%RH (no condensation)  Stock resistance 10~25Hz (2G/30 minutes in X, Y, Z direction)  cooling method natural air cooling  The front panel conforms to IP65 (installed with a flat cabinet), and the rear shell of the fuselage conforms to IP20  Mechanical index Hole Size 192mm×138mm			COM1: RS232/RS485/RS422	
LCD viewing angle (T/B/L/R)  rated power  Rated voltage  DC24V, working range DC 9V~28V  power protection  Allow power loss  Compliant with EN61000-6-2:2005, EN61000-6-4:2007 Compliant with RoHS Lightning surge protection  CE & RoHS  Compliant with EN61000-6-2:2005, EN61000-6-4:2007 Compliant with RoHS Lightning surge ±1KV, group pulse ±2KV; static contact 4kV, air discharge 8kV  Operating temperature  0~50°C  storage temperature  - 20~60°C  Anti-UV  Do not work in a strong ultraviolet environment (such as direct sunlight)  Environmental requirement  10~90%RH (no condensation)  10~90%RH (no condensation)  10~25Hz (2G/30 minutes in X, Y, Z direction)  cooling method  natural air cooling  The front panel conforms to IP65 (installed with a flat cabinet), and the rear shell of the fuselage conforms to IP62  Mechanical index  Hole Size  192mm×138mm		serial communication port	COM2:RS485	
(T/B/L/R)  rated power  Rated voltage  power protection  Allow power loss  Compliant with EN61000-6-2:2005, EN61000-6-4:2007 Compliant  with RoHS Lightning surge ±1KV, group pulse ±2KV; static  contact 4KV, air discharge 8KV  Operating temperature  O~50°C  storage temperature  - 20~60°C  Anti-UV  Do not work in a strong ultraviolet environment (such as direct sunlight)  finite ommental requirement  environmental turnsday  10~90%RH (no condensation)  Shock resistance  10~25Hz (2G/30 minutes in X, Y, Z direction)  rotupion  The front panel conforms to IP65 (installed with a flat cabinet), and the rear shell of the fuselage conforms to IP20  Mechanical index  Hole Size  192mm×138mm			COM3:RS232	
T/B/L/R)  rated power  Rated voltage  DC24V, working range DC 9V~28V  with lightning surge protection  Allow power protection  Allow power loss  Compliant with EN61000-6-2:2005, EN61000-6-4:2007 Compliant with RoHS Lightning surge ±1KV, group pulse ±2KV; static contact 4KV, air discharge 8KV  Operating temperature  O~50°C  storage temperature  -20~60°C  Anti-UV  Do not work in a strong ultraviolet environment (such as direct sunlight)  Environmental requirement  environmental unsiday  10~90%RH (no condensation)  shock resistance  10~25Hz (2G/30 minutes in X, Y, Z direction)  cooling method  natural air cooling  The front panel conforms to IP65 (installed with a flat cabinet), and the rear shell of the fuselage conforms to IP20  Mechanical structure  engineering plastics  Hole Size  192mm×138mm		LCD viewing angle	85'/85'/85'/85'	
Rated voltage power protection With lightning surge protection Septimental requirements are protection and the rear shell of the fuselage conforms to IP65 (installed with a flat cabinet), and the rear shell of the fuselage conforms to IP65 (installed with a flat cabinet), and the rear shell of the fuselage conforms to IP65 (installed with a flat cabinet), and the rear shell of the fuselage conforms to IP65 (installed with a flat cabinet), and the rear shell of the fuselage conforms to IP65 (installed with a flat cabinet), and the rear shell of the fuselage conforms to IP20  Mechanical index Hole Size 192mm×138mm		(T/B/L/R)	05705705	
power protection With lightning surge protection  Allow power loss   Compliant with EN61000-6-2:2005, EN61000-6-4:2007 Compliant with RoHS Lightning surge ±1KV, group pulse ±2KV; static contact 4KV, air discharge 8KV  Operating temperature 0~50°C  storage temperature - 20~60°C  Anti-UV Do not work in a strong ultraviolet environment (such as direct sunlight)  Environmental requirement environment humidity 10~90%RH (no condensation)  Shock resistance 10~25Hz (2G/30 minutes in X, Y, Z direction)  cooling method natural air cooling  The front panel conforms to IP65 (installed with a flat cabinet), and the rear shell of the fuselage conforms to IP20  Mechanical structure engineering plastics  Hole Size 192mm×138mm		rated power	<10W	
CE & ROHS   Compliant with EN61000-6-2:2005, EN61000-6-4:2007 Compliant		Rated voltage	DC24V, working range DC 9V~28V	
CE & ROHS  CE & ROHS  CE & ROHS  CE & ROHS  COmpliant with EN61000-6-2:2005, EN61000-6-4:2007 Compliant with ROHS Lightning surge ±1KV, group pulse ±2KV; static contact 4KV, air discharge 8KV  Operating temperature  0~50°C  storage temperature - 20~60°C  Anti-UV  Do not work in a strong ultraviolet environment (such as direct sunlight)  environmental requirement environment humidity  10~90%RH (no condensation)  Shock resistance  10~25Hz (2G/30 minutes in X, Y, Z direction)  natural air cooling  The front panel conforms to IP65 (installed with a flat cabinet), and the rear shell of the fuselage conforms to IP20  Mechanical structure engineering plastics  Hole Size  192mm×138mm		power protection	With lightning surge protection	
CE & RoHS  with RoHS Lightning surge ±1KV, group pulse ±2KV; static contact 4KV, air discharge 8KV  Operating temperature  O~50°C  storage temperature  - 20~60°C  Anti-UV  Do not work in a strong ultraviolet environment (such as direct sunlight)  10~90%RH (no condensation)  shock resistance  10~25Hz (2G/30 minutes in X, Y, Z direction)  cooling method  natural air cooling  The front panel conforms to IP65 (installed with a flat cabinet), and the rear shell of the fuselage conforms to IP20  Mechanical structure  engineering plastics  Hole Size  192mm×138mm	Electrical Specifications	Allow power loss	<5mS	
Contact 4KV, air discharge 8KV  O~50°C  storage temperature -20~60°C  Anti-UV Do not work in a strong ultraviolet environment (such as direct sunlight)  environmental requirement environment humidity 10~90%RH (no condensation)  Shock resistance 10~25Hz (2G/30 minutes in X, Y, Z direction)  cooling method natural air cooling  The front panel conforms to IP65 (installed with a flat cabinet), and the rear shell of the fuselage conforms to IP20  Mechanical index Hole Size 192mm×138mm	Electrical Specifications		Compliant with EN61000-6-2:2005, EN61000-6-4:2007 Compliant	
Operating temperature  or 50°C  storage temperature  - 20~60°C  Anti-UV  Do not work in a strong ultraviolet environment (such as direct sunlight)  10~90%RH (no condensation)  Shock resistance  10~25Hz (2G/30 minutes in X, Y, Z direction)  cooling method  natural air cooling  The front panel conforms to IP65 (installed with a flat cabinet), and the rear shell of the fuselage conforms to IP20  Mechanical index  Hole Size  192mm×138mm		CE & RoHS	with RoHS Lightning surge ±1KV, group pulse ±2KV; static	
storage temperature - 20~60°C  Anti-UV Do not work in a strong ultraviolet environment (such as direct sunlight)  environmental requirements environment humidity 10~90%RH (no condensation)  shock resistance 10~25Hz (2G/30 minutes in X, Y, Z direction)  cooling method natural air cooling  The front panel conforms to IP65 (installed with a flat cabinet), and the rear shell of the fuselage conforms to IP20  Mechanical index Hole Size 192mm×138mm			contact 4KV, air discharge 8KV	
Anti-UV  Do not work in a strong ultraviolet environment (such as direct sunlight)  10~90%RH (no condensation)  shock resistance  10~25Hz (2G/30 minutes in X, Y, Z direction)  cooling method  natural air cooling  The front panel conforms to IP65 (installed with a flat cabinet), and the rear shell of the fuselage conforms to IP20  Mechanical index  Hole Size  192mm×138mm		Operating temperature	0~50°C	
Environmental requirement environment humidity  10~90%RH (no condensation)  10~25Hz (2G/30 minutes in X, Y, Z direction)  cooling method  natural air cooling  The front panel conforms to IP65 (installed with a flat cabinet), and the rear shell of the fuselage conforms to IP20  Mechanical index  Hole Size  192mm×138mm		storage temperature	- 20~60℃	
environment humidity 10~90%RH (no condensation)  Shock resistance 10~25Hz (2G/30 minutes in X, Y, Z direction)  cooling method natural air cooling  The front panel conforms to IP65 (installed with a flat cabinet), and the rear shell of the fuselage conforms to IP20  Mechanical structure engineering plastics  Hole Size 192mm×138mm		Anti-UV	Do not work in a strong ultraviolet environment (such as direct sunlight)	
cooling method  natural air cooling  The front panel conforms to IP65 (installed with a flat cabinet), and the rear shell of the fuselage conforms to IP20  Mechanical index  Hole Size  192mm×138mm	Environmental requirement	environment humidity	10~90%RH (no condensation)	
The front panel conforms to IP65 (installed with a flat cabinet), and the rear shell of the fuselage conforms to IP20  Mechanical structure engineering plastics  Hole Size 192mm×138mm		Shock resistance	10~25Hz (2G/30 minutes in X, Y, Z direction)	
Mechanical index    Degree of protection   to IP20		cooling method	natural air cooling	
Mechanical index    Mechanical structure   engineering plastics			The front panel conforms to IP65 (installed with a flat cabinet), and the rear shell of the fuselage conforms	
Mechanical index Hole Size 192mm×138mm		Degree of protection		
Mechanical index Hole Size 192mm×138mm		Mechanical structure	engineering plastics	
	Mechanical index	Hole Size	192mm×138mm	
			204mm×145mm×34mm (tolerance ±0.5mm)	
Total Weight About 472g		Total Weight	About 472g	





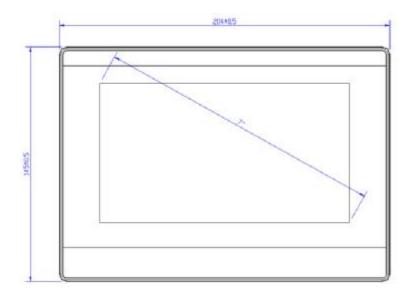
### SH7070WE interface definition

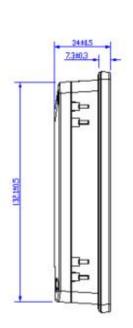
	电源端子 DB9 串口				
Power terminals (Pin1~2 from left	to right)				
F-5	Pin1	0V			
	Pin2	DC24V			
DB9 serial terminal (COM1/ CO	DM3)				
	pin	COM1	COM3		
	Pin1	Rx-(B) (RS422/485-)			
	Pin2	RxD (RS232)			
Pin1 Pin5	Pin3	TxD (RS232)			
	Pin4	Tx- (RS422)			
<u> </u>	Pin5	GND			
Pin6 Pin9	Pin6	Rx+(A) (RS422/485+)			
11107	Pin7		RxD (RS232)		
	Pin8		TxD (RS232)		
	Pin9	Tx+ (RS422)			
485 terminal (Pin1~2 from left to right) COM2					
हिन्दी	Pin1	A+ (COM2 RS485)			
P:0	Pin2	B-(COM2 RS485)			
Ethernet port					
	RJ45	For Ethernet communication with controllers or for linking servers			
Type-C OTG interface					
		Slave port function: for downloading programs and debugging			
	Type-C	Main port function: used to connect peripherals such as U disk, code scanner, etc. (Type C and USB			
		Type A conversion cables are required)			

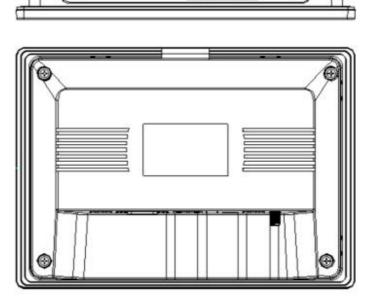


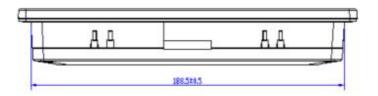


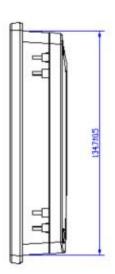
### SH7070W/ SH7070WE Dimensions















## SH7100W Specifications

resolution 1024×600  color 24 bit  bityperiod 400cd/m²  basings led  LCD lifetime 50000 hours  touch screen 4 were industrial resistive touch screen  CPU 1GHz, quad-core CortexTM-A7  memory 128MB Flash + 128MB DDR3  RTC Real-time clock built-in  ethernet none  SD card not support  usb port 1 Type-C OTG interface  Program download method USB Slave/U disk (compatible with Type-C adapter cable)  COM1: RS232/RS485/RS422  com3:RS232  LCD viewing angle (T/B/L/R)  rated power < 10W  Rated voltage DC 24V, working range DC 9V-28V  power protection Allow power loss  Compiliant with EN61000-6-2:2005, EN61000-6-4:2007 Compiliant with ROHS Lightning surge ±1kV, group pulse ±2kV; static contact 4kV, air discharge 8kV  contact 4kV, air discharge 8kV  tous resources  Local special comment (such as direct sunlight)  contact 4kV, air discharge 8kV  contact 4kV, air discharge environment (such as direct sunlight)  contact 4kV, 2 direction)
color 24 bit brigatoress 400cd/m² basklight led  LCD lifetime 50000 hours  touch soreen 4-wire industrial resistive touch soreen  CPU 1GHz, quad-core CortexTM-A7 memory 128MB Flash + 128MB DDR3  RTC Real-time dock build-in ethernet none SD card not support  usb port 1 Type-C OTG interface  roguen download method USB Slave/U disk (compatible with Type-C adapter cable)  COM1: RS232/RS485/RS422  COM2:RS485  COM3:RS232  LCD viewing angle (T/B/L/R) 85/85/85'  rated power <10W  Rated voltage DC24V, working range DC 9V-28V  power protection With lightning surge protection  Allow power loss SmS  Compliant with EN61000-6-2:2005, EN61000-6-4:2007 Compliant with ROHS Lightning surge ± 1KV, group pulse ± 2KV; static contact 4KV, air discharge 8KV  Cperating temperature  -20-60°C  Anti-UV Do not work in a strong ultraviolet environment (such as direct sunlight)  environmental registrence environmental counters and in a strong ultraviolet environment (such as direct sunlight)
hardnare parameters  LCD lifetime  booksignet  LCD lifetime  50000 hours  4 wire industrial resistive touch screen  CPU  1GHz, quad-core CortexTM-A7  memory  128MB Flash + 128MB DDR3  RTC  Real-time clock built-in  ethernet  none  SD card  not support  usb port  1 Type-C OTG interface  Veryame download method  USB Slave/U disk (compatible with Type-C adapter cable)  COM1: RS232/RS485/RS422  COM2:RS485  COM3:RS232  LCD viewing angle  (T/B/L/R)  rated power  Allow power foots  Allow power loss  Compliant with Roh5 Lightning surge protection  CE & ROHS  Comparison with Roh5 Lightning surge ± 1KV, group pulse ± 2KV; static contact 4KV, air discharge 8KV  Cpusing temperature  - 20-60°C  Anti-UV  Do not work in a strong ultraviolet environment (such as direct sunlight)  LCD viewing and requirement  Levanous requirement  Allow power loss  Allow power loss  1 Type-C OTG interface  USB Slave/U disk (compatible with Type-C adapter cable)  COM1: RS232/RS485/RS422  COM2: RS485  COM3: RS232  LCD viewing angle  (T/B/L/R)  85/85/85/85'  COM3: RS232  LCD viewing angle  (T/B/L/R)  rated power  410W  Rated voltage  DC24V, working range DC 9V~28V  With lightning surge protection  CE & ROHS  Compliant with Roh5 Lightning surge ± 1KV, group pulse ± 2KV; static contact 4KV, air discharge 8KV  Cpusing temperature  - 20-60°C  Anti-UV  Do not work in a strong ultraviolet environment (such as direct sunlight)
Inactight led  LCD lifetime 50000 hours  touch screen 4-wire industrial resistive touch screen  CPU 15Hz, quad-core CortexTM-A7  memory 128MB Flash + 128MB DDR3  RTC Real-time clock built-in  ethernet none  SD card not support  usb port 1 Type-C OTG interface  Program downtoed method USB Slave/U disk (compatible with Type-C adapter cable)  COM1: RS232/RS485/RS422  COM2:RS485  COM3:RS232  LCD viewing angle (T/B/L/R) 85'/85'/85'  rated power <10W  Rated voltage DC24V, working range DC 9V-28V  power protection with lightning surge protection  Allow power loss <5mS  Compliant with EN61000-6-2:2005, EN61000-6-4:2007 Compliant with ROHS Lightning surge ±1KV, group pulse ±2KV; static contact 4kV, air discharge 8kV  Operating temperature 0-50°C  Anti-UV Do not work in a strong ultraviolet environment (such as direct sunlight)  10-90%RH (no condensation)
LCD lifetime 50000 hours  touch screen 4-wire industrial resistive touch screen  CPU 1GHz, quad-core CortexTM-A7 memory 128MB Flash + 128MB DDR3  RTC Real-time clock built-in  ethernet None  SD card not support  usb port 1 Type-C OTG interface  Program download method USB SlaverU disk (compatible with Type-C adapter cable)  COM1: RS232/RS485/RS422  COM2:RS485  COM3:RS232  LCD viewing angle (T/B/L/R)  rated power <10W  Rated voltage DC24V, working range DC 9V~28V  power protection With lightning surge protection  Allow power loss  Compliant with EN61000-6-2:2005, EN61000-6-4:2007 Compliant with ROHS Lightning surge ±1KV, group pulse ±2KV; static contact 4kV, air discharge 8kV  Operating temperature 0~50°C  Anti-UV Do not work in a strong ultraviolet environment (such as direct sunlight)  10~90%RH (no condensation)
touch screen  CPU  1GHz, quad-core CortexTM-A7  memory  128MB Flash + 128MB DDR3  RTC  Real-time clock built-in  ethernet  none  SD card  not support  usb port  1 Type-C OTG interface  Program download method  USB Slave/U disk (compatible with Type-C adapter cable)  COM1: RS232/RS485/RS422  COM2: RS485  COM3: RS232  LCD viewing angle  (T/B/L/R)  rated power  410W  Rated voltage  DC24V, working range DC 9V-28V  power protection  Allow power loss  Compliant with EN61000-6-2:2005, EN61000-6-4:2007 Compliant with ROHS Lightning surge ± 1KV, group pulse ± 2KV; static  contact 4KV, air discharge 8KV  Operating temperature  O~50°C  Storage temperature  - 20-60°C  Anti-UV  Do not work in a strong ultraviolet environment (such as direct sunlight)
CPU 1GHz, quad-core CortexTM-A7 memory 128MB Flash + 128MB DDR3  RTC Real-time clock built-in ethernet NONE SD card not support usb port 1 Type-C OTG interface Program download method USB Slave/U disk (compatible with Type-C adapter cable)  COM1: RS232/RS485/RS422  COM2: RS485 COM3: RS232  LCD viewing angle (T/B/L/R) 85'/85'/85' Tated power <10W Rated voltage DC24V, working range DC 9V-28V power protection With lightning surge protection Allow power loss <5mS Compliant with EN61000-6-2:2005, EN61000-6-4:2007 Compliant with ROHS Lightning surge ±1KV, group pulse ±2KV; static contact 4KV, air discharge 8KV  Operating temperature 0~50°C storage temperature 0~50°C Anti-UV Do not work in a strong ultraviolet environment (such as direct sunlight)  10-90%RH (no condensation)
memory 128MB Flash + 128MB DDR3  RTC Real-time clock bullt-in  ethernet NONE  SD card not support  usb port 1 Type-C OTG interface  Program download method USB Slave/U disk (compatible with Type-C adapter cable)  COM1: RS232/RS485/RS422  COM2:RS485  COM3:RS232  LCD viewing angle (T/B/L/R)  rated power < 10W  Rated voltage DC24V, working range DC 9V~28V  power protection With lightning surge protection  Allow power loss <5mS  Compliant with EN61000-6-2:2005, EN61000-6-4:2007 Compliant with ROHS Lightning surge ± 1KV, group pulse ± 2KV; static contact 4KV, air discharge 8KV  Operating temperature - 20~60°C  Anti-UV Do not work in a strong ultraviolet environment (such as direct sunlight)  Environment largurement  environment lumsity 10~90%RH (no condensation)
RTC Real-time clock built-in ethernet NONE SD card not support usb port 1 Type-C OTG interface Program download method USB Slave/U disk (compatible with Type-C adapter cable) COM1: RS232/RS485/RS422 COM2:RS485 COM3:RS232  LCD viewing angle (T/B/L/R) 85'/85'/85'/85'  rated power   <10W Rated voltage   DC24V, working range DC 9V~28V  power protection With lightning surge protection Allow power loss   <5mS Compliant with EN61000-6-2:2005, EN61000-6-4:2007 Compliant with ROHS Lightning surge ±1KV, group pulse ±2KV; static contact 4KV, air discharge 8KV  Operating temperature   0~50°C  storage temperature   -20~60°C Anti-UV   Do not work in a strong ultraviolet environment (such as direct sunlight)  Environmental requirement   10~90%RH (no condensation)
ethernet none  SD card not support  USB port 1 Type-C OTG interface  Program download method USB Slave/U disk (compatible with Type-C adapter cable)  COM1: RS232/RS485/RS422  COM2:RS485  COM3:RS232  LCD viewing angle (T/B/L/R) 85'/85'/85'  rated power <10W  Rated voltage DC24V, working range DC 9V~28V  power protection With lightning surge protection  4llow power loss <5mS  Compliant with EN61000-6-2:2005, EN61000-6-4:2007 Compliant with ROHS Lightning surge ±1KV, group pulse ±2KV; static contact 4kV, air discharge 8kV  Operating temperature 0~50°C  storage temperature 1-20~60°C  Anti-UV Do not work in a strong ultraviolet environment (such as direct sunlight)  10~90%RH (no condensation)
SD card  usb port  1 Type-C OTG interface  Program download method  USB Slave/U disk (compatible with Type-C adapter cable)  COM1: RS232/RS485/RS422  COM2:RS485  COM3:RS232  LCD viewing angle (T/B/L/R)  rated power  Rated voltage  DC24V, working range DC 9V~28V  power protection  With lightning surge protection  Allow power loss  Compliant with EN61000-6-2:2005, EN61000-6-4:2007 Compliant with ROHS Lightning surge ±1KV, group pulse ±2KV; static contact 4KV, air discharge 8KV  Operating temperature  O~50°C  storage temperature  - 20~60°C  Anti-UV  Do not work in a strong ultraviolet environment (such as direct sunlight)  Environmental requirements  environment humsday  10-90%RH (no condensation)
USB Slave/U disk (compatible with Type-C adapter cable)  COM1: RS232/RS485/RS422  COM2:RS485  COM3:RS232  LCD viewing angle (T/B/L/R)  rated power  Rated voltage  DC24V, working range DC 9V~28V  with lightning surge protection  Allow power loss  Compliant with EN61000-6-2:2005, EN61000-6-4:2007 Compliant with RoHS Lightning surge ±1KV, group pulse ±2KV; static contact 4kV, air discharge 8kV  Operating temperature  O~50°C  storage temperature  - 20~60°C  Anti-UV  Do not work in a strong ultraviolet environment (such as direct sunlight)  Environmental requirements  environment humidity  10-90%RH (no condensation)
Program download method  USB Slave/U disk (compatible with Type-C adapter cable)  COM1: RS232/RS485/RS422  COM2:RS485  COM3:RS232  LCD viewing angle (T/B/L/R)  85'/85'/85'  Fated power  Rated voltage  DC24V, working range DC 9V~28V  power protection  With lightning surge protection  Allow power loss  Compliant with EN61000-6-2:2005, EN61000-6-4:2007 Compliant with ROHS Lightning surge ±1KV, group pulse ±2KV; static contact 4KV, air discharge 8KV  Operating temperature  O~50°C  storage temperature  - 20~60°C  Anti-UV  Do not work in a strong ultraviolet environment (such as direct sunlight)  Environmental requirement  environment humidity  10~90%RH (no condensation)
COM1: RS232/RS485/RS422 COM2:RS485 COM3:RS232  LCD viewing angle (T/B/L/R)  rated power  Rated voltage  DC24V, working range DC 9V~28V  power protection  With lightning surge protection  Allow power loss  Compliant with EN61000-6-2:2005, EN61000-6-4:2007 Compliant with RoHS Lightning surge ±1KV, group pulse ±2KV; static contact 4KV, air discharge 8KV  Operating temperature  O~50°C  storage temperature  - 20~60°C  Anti-UV  Do not work in a strong ultraviolet environment (such as direct sunlight)  Environmental requirements environment humidity  10~90%RH (no condensation)
Serial communication port  COM2:RS485 COM3:RS232  LCD viewing angle (T/B/L/R)  Rated power  Rated power  Rated voltage  DC24V, working range DC 9V~28V  power protection  With lightning surge protection  Allow power loss  S5mS  Compliant with EN61000-6-2:2005, EN61000-6-4:2007 Compliant with RoHS Lightning surge ±1KV, group pulse ±2KV; static contact 4KV, air discharge 8KV  Operating temperature  O~50°C  storage temperature  - 20~60°C  Anti-UV  Do not work in a strong ultraviolet environment (such as direct sunlight)  Environmental requirements environment humidity  10–90%RH (no condensation)
COM3:RS232  LCD viewing angle (T/B/L/R)  85'/85'/85'/85'  rated power  Rated voltage  DC24V, working range DC 9V~28V  power protection  With lightning surge protection  4llow power loss  Compliant with EN61000-6-2:2005, EN61000-6-4:2007 Compliant with ROHS Lightning surge ±1KV, group pulse ±2KV; static contact 4KV, air discharge 8KV  Operating temperature  O~50°C  storage temperature  - 20~60°C  Anti-UV  Do not work in a strong ultraviolet environment (such as direct sunlight)  Environmental requirement  environmental humidity  10~90%RH (no condensation)
LCD viewing angle (T/B/L/R)  rated power  Rated voltage  DC24V, working range DC 9V~28V  power protection  Allow power loss  Compliant with EN61000-6-2:2005, EN61000-6-4:2007 Compliant  With RoHS Lightning surge ±1KV, group pulse ±2KV; static contact 4KV, air discharge 8KV  Operating temperature  0~50°C  storage temperature  - 20~60°C  Anti-UV  Do not work in a strong ultraviolet environment (such as direct sunlight)  Environmental requirement environment humidity  10~90%RH (no condensation)
rated power
rated power
rated power  Rated voltage  DC24V, working range DC 9V~28V  power protection  With lightning surge protection  Allow power loss  Compliant with EN61000-6-2:2005, EN61000-6-4:2007 Compliant with RoHS Lightning surge ±1KV, group pulse ±2KV; static contact 4KV, air discharge 8KV  Operating temperature  O~50°C  storage temperature  - 20~60°C  Anti-UV  Do not work in a strong ultraviolet environment (such as direct sunlight)  Environmental requirement  environment humidity  10~90%RH (no condensation)
power protection  Allow power loss  Compliant with EN61000-6-2:2005, EN61000-6-4:2007 Compliant  with RoHS Lightning surge ±1KV, group pulse ±2KV; static  contact 4KV, air discharge 8KV  Operating temperature  operating temperature  operating temperature  storage temperature  - 20~60°C  Anti-UV  Do not work in a strong ultraviolet environment (such as direct sunlight)  Environmental requirement  environment humidity  10~90%RH (no condensation)
Allow power loss  Compliant with EN61000-6-2:2005, EN61000-6-4:2007 Compliant  With RoHS Lightning surge ±1KV, group pulse ±2KV; static contact 4KV, air discharge 8KV  Operating temperature  or 50°C  storage temperature  - 20~60°C  Anti-UV  Do not work in a strong ultraviolet environment (such as direct sunlight)  Environmental requirement environment humidity  10~90%RH (no condensation)
Compliant with EN61000-6-2:2005, EN61000-6-4:2007 Compliant with RoHS Lightning surge ±1KV, group pulse ±2KV; static contact 4KV, air discharge 8KV  Operating temperature  O~50°C  storage temperature  - 20~60°C  Anti-UV  Do not work in a strong ultraviolet environment (such as direct sunlight)  Environmental requirement environment humidity  10~90%RH (no condensation)
CE & RoHS  with RoHS Lightning surge ±1KV, group pulse ±2KV; static  contact 4KV, air discharge 8KV  Operating temperature  0~50°C  storage temperature  - 20~60°C  Anti-UV  Do not work in a strong ultraviolet environment (such as direct sunlight)  Environmental requirement  environment humidity  10~90%RH (no condensation)
CE & RoHS  with RoHS Lightning surge ±1KV, group pulse ±2KV; static  contact 4KV, air discharge 8KV  Operating temperature  0~50°C  storage temperature  - 20~60°C  Anti-UV  Do not work in a strong ultraviolet environment (such as direct sunlight)  Environmental requirement  environment humidity  10~90%RH (no condensation)
contact 4KV, air discharge 8KV  Operating temperature  0~50°C  storage temperature  - 20~60°C  Anti-UV  Do not work in a strong ultraviolet environment (such as direct sunlight)  Environmental requirement:  environment humidity  10~90%RH (no condensation)
Operating temperature  orange temperature  - 20~60°C  Anti-UV  Do not work in a strong ultraviolet environment (such as direct sunlight)  Environmental requirement  environment humidity  10~90%RH (no condensation)
Environmental requirement  environment humidity  - 20~60°C  Do not work in a strong ultraviolet environment (such as direct sunlight)  10~90%RH (no condensation)
Anti-UV  Do not work in a strong ultraviolet environment (such as direct sunlight)  Environmental requirement  environment humidity  10~90%RH (no condensation)
Environmental requirements  environment humidity 10~90%RH (no condensation)
Shock resistance 10°25 mZ (20/30 Hilliattes III A, 1, 2 till ection)
cooling method natural air cooling
The front panel conforms to IP65 (installed with a flat cabinet), and the rear shell of the fuselage conforms  Degree of protection
to IP20
Mechanical structure engineering plastics  Mechanical index
Hole Size 260mm×202mm
Overall size 273mm×213mm×36mm (tolerance ±0.5mm)





#### SH7100W Interface Definition

	电源端子 DB9 串口	Type-C 485端口			
Power terminals (Pin1~2 from left	to viabt)				
Power terminals (Pint ~2 from left	Pin1	OV			
(B.O)	Pin2	DC24V			
DB9 serial terminal (COM1/ CO		1 :			
	pin	COM1	COM3		
	Pin1	Rx-(B) (RS422/485-)			
	Pin2	RxD (RS232)			
Pin1 Pin5	Pin3	TxD (RS232)			
	Pin4	Tx- (RS422)			
	Pin5	GND			
Pin6 Pin9	Pin6	Rx+(A) (RS422/485+)			
111107	Pin7		RxD (RS232)		
	Pin8		TxD (RS232)		
	Pin9	Tx+ (RS422)			
485 terminal (Pin1~2 from left to right) COM2					
हिस्ता	Pin1	A+ (COM2 RS485)			
[5:0]	Pin2	B-(COM2 RS485)			
Type-C OTG interface					
		Slave port function: for downloading programs and debugging			
	Type-C	Main port function: used to connect peripherals such as U	disk, code scanner, etc. (Type C and USB		
		Type A conversion cables are required)			





## SH7100WE Specifications

	display screen	10.1'16:9 TFT LCD screen	
	resolution	1024×600	
	color	2 digits	
	brightness	400cd/m <sup>2</sup>	
	backlight	led	
	LCD lifetime	50000 hours	
	touch screen	4-wire industrial resistive touch screen	
	CPU	1GHz, quad-core CortexTM-A7	
	memory	4GB Flash + 128MB DDR3	
hardware parameters	RTC	Real-time clock built-in	
	ethernet	1 channel 10M/100M self-adaptive	
	SD card	not support	
	usb port	1 Type-C OTG interface	
	Program download method	USB Slave/U disk	
		COM1: RS232/RS485/RS422	
	serial communication port	COM2:RS485	
		COM3:RS232	
	LCD viewing angle	051/051/051	
	(T/B/L/R)	85'/85'/85'	
	rated power	<10W	
	Rated voltage	DC24V, working range DC9V~28V	
	power protection	With lightning surge protection	
Electrical Specifications	Allow power loss	<5mS	
	CE & RoHS	Compliant with EN61000-6-2:2005, EN61000-6-4:2007 Compliant	
		with RoHS Lightning surge ±1KV, group pulse ±2KV; static	
		contact 4KV, air discharge 8KV	
	Operating temperature	0~50°C	
	storage temperature	- 20~60°C	
	Anti-UV	Do not work in a strong ultraviolet environment (such as direct sunlight)	
Environmental requirements	environment humidity	10~90%RH (no condensation)	
	Shock resistance	10~25Hz (2G/30 minutes in X, Y, Z direction)	
	cooling method	natural air cooling	
	<u> </u>	The front panel conforms to IP65 (installed with a flat cabinet), and the rear shell of the fuselage conforms	
	Degree of protection	to IP20	
	Mechanical structure	engineering plastics	
Mechanical index	Hole Size	260mm×202mm	
	Overall size	273mm×213mm×36mm (tolerance ±0.5mm)	
	Total Weight	About 920g	
	Total Weight	, 100 at 320g	





### SH7100WE interface definition

	电源端子 DB9 串口				
Power terminals (Pin1~2 from left	to right)				
F-5	Pin1	0V			
	Pin2	DC24V			
DB9 serial terminal (COM1/ CO	DM3)				
	pin	COM1	COM3		
	Pin1	Rx-(B) (RS422/485-)			
	Pin2	RxD (RS232)			
Pin1 Pin5	Pin3	TxD (RS232)			
	Pin4	Tx- (RS422)			
<u> </u>	Pin5	GND			
Pin6 Pin9	Pin6	Rx+(A) (RS422/485+)			
11107	Pin7		RxD (RS232)		
	Pin8		TxD (RS232)		
	Pin9	Tx+ (RS422)			
485 terminal (Pin1~2 from left to right) COM2					
हिन्दी	Pin1	A+ (COM2 RS485)			
P:0	Pin2	B-(COM2 RS485)			
Ethernet port					
	RJ45	For Ethernet communication with controllers or for linking servers			
Type-C OTG interface					
		Slave port function: for downloading programs and debugging			
	Type-C	Main port function: used to connect peripherals such as U disk, code scanner, etc. (Type C and USB			
		Type A conversion cables are required)			





### SH7100W/ SH7100WE Dimensions

