

specification



Table of Contents

1 . Product introduction-----	1
2 . Interface description and hardware specifications-----	1
2.1 Interface Description-----	1
2.2 hardware specifications-----	2
2.3 Camera parameter-----	2
2.4 Swipe card module-----	2
3. Bluetooth RF Specifications and WiFi RF Specification-----	3
4. Declaration of Conformity and matters need attention -----	4

1. Product introduction

This is a digital industrial PC equipped with the Android 11 system. It features two power supply options - PoE power and adapter power. The device includes a 10.1-inch display screen, a camera, a card reader, as well as door magnetic interface and 485/232 protocol interfaces. It can connect to wireless networks/Ethernet and enables facial recognition and digital control of industrial machinery products. With a wide range of applications, this device offers convenient and efficient solutions for industrial use.

2. Interface description and hardware specifications

2.1 Interface Description

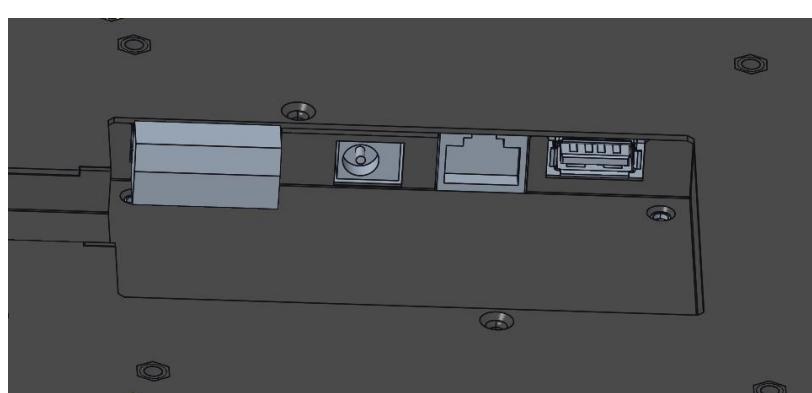
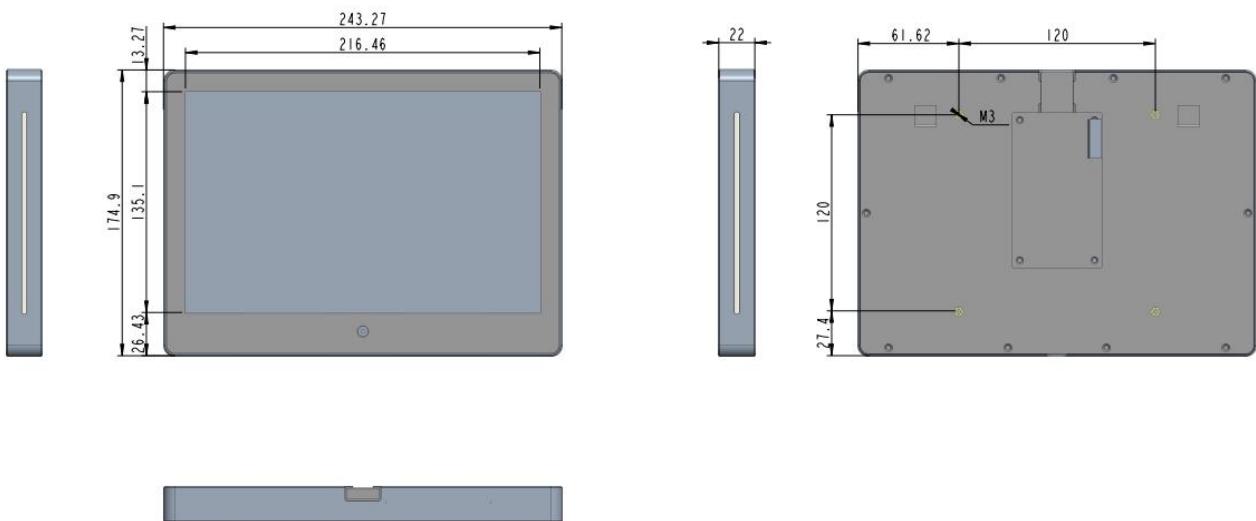
USB: A device or USB flash drive connected to a USB port

LAN interface/POE supply port: 10/100M TCP/IP, POE48-56V= 0.52A

COM: 485 agreement

Door status sensor port: Connects to the door status sensor switch

DC interface: 12V-3A



2.2 Hardware specifications

Product name	industrial pc	
Product model	SIN-M01	
LCD screen size	10.1	
System parameter	System version	Android 11
	CPU	Cortex-A55x4, 2.0GHz
	GPU	Mali-T764
	RAM (Specifications optional)	2GB
	ROM (Specifications optional)	16GB
	Resolution	1280 * 800
Power supply parameter	luminance	300cd/m2
	Operating voltage	DC 12V/POE48-56V= 0.52A
	Working current	3A
	power	15W-36W
	Standby power	≤0.5W

2.3 Camera parameter

Camera		<input type="checkbox"/> Regular camera	<input type="checkbox"/> Wide motion camera
	Aperture	The 2.4 mm	The 2.4 mm
	Focal length	The 1.7 mm	The 4.3 mm
	Field Angle	65 °	73 °
	TV Distortion	< 1%	0.5% or less
	Sensitive area size	1/4inch	1/2.7 inch
	Pixels	Monocular 100W	Monocular width dynamic 200W

2.4 Swipe card module

Parameter entry	Parameter value
Support protocol	ISO14443A
Support card	Mifare (1K/4K) ; NXP S50,NXP S70
Communication interface	TTL
Communication rate	9600bps
Card reading distance	0~60mm

3. Bluetooth RF Specifications and WiFi RF Specification

2.4G WiFi RF Specification

Features		Description	
WLAN Standard		IEEE 802.11b/g/n CSMA/CA	
Frequency Range		2.4~2.4835GHz(2.4GHz ISM Band)	
Channels		Ch1~Ch13 (For 20MHz Channels)	
Modulation		802.11b (DSSS): DBPSK, DQPSK, CCK; 802.11g (OFDM): BPSK, QPSK, 16QAM, 64QAM; 802.11n (OFDM): BPSK, QPSK, 16QAM, 64QAM;	
Date Rate		802.11b: 1, 2, 5.5, 11Mbps; 802.11g: 6, 9, 12, 18, 24, 36, 48, 54Mbps; 802.11n (HT20): MCS0~MCS7(1T1R_SISO) 6.5~72.2Mbps; 802.11n (HT40): MCS0~MCS7(1T1R_SISO) 13.5~150Mbps;	
Frequency Tolerance		$\leq \pm 15\text{ppm}$	
2.4G Transmitter Specifications			
RX Rate	TX Power	TX Power Tolerance	EVM
802.11b@1~11Mbps	17dBm	$\pm 2.0\text{dBm}$	$\leq -10\text{dB}$
802.11g@6Mbps	17dBm	$\pm 1.5\text{dBm}$	$\leq -10\text{dB}$
802.11g@54Mbps	14dBm	$\pm 1.5\text{dBm}$	$\leq -25\text{dB}$
802.11n@HT20_MCS0	16dBm	$\pm 1.5\text{dBm}$	$\leq -10\text{dB}$
802.11n@HT20_MCS7	14dBm	$\pm 1.5\text{dBm}$	$\leq -28\text{dB}$
802.11n@HT40_MCS0	16dBm	$\pm 1.5\text{dBm}$	$\leq -10\text{dB}$
802.11n@HT40_MCS7	13dBm	$\pm 1.5\text{dBm}$	$\leq -28\text{dB}$
2.4G Receiver Specifications			
RX Rate	Min Input Level(Typ)	Max InputLevel(Typ)	PER
802.11b@1Mbps	-93dBm	-10dBm	< 8%
802.11b@11Mbps	-86dBm	-10dBm	< 8%
802.11g@6Mbps	-90dBm	-15dBm	< 10%
802.11g@54Mbps	-72dBm	-15dBm	< 10%
802.11n@HT20_MCS0	-88dBm	-15dBm	< 10%
802.11n@HT20_MCS7	-67dBm	-15dBm	< 10%
802.11n@HT40_MCS0	-86dBm	-15dBm	< 10%
802.11n@HT40_MCS7	-66dBm	-15dBm	< 10%

Bluetooth RF Specifications

Features		Description
Bluetooth Specification		Bluetooth v2.1+EDR/3.0+HS (Bluetooth Classic_BT BR/EDR), Bluetooth 4.2 (Bluetooth Low Energy _ BT_LE) FHSS
Frequency Range		2.4~2.4835GHz(2.4GHz ISM Band)
Channels		Bluetooth Classic: Ch0~Ch78 (For 1MHz Channels); Bluetooth Low Energy: Ch0~Ch39 (For 2MHz Channels);
Power Classes		Bluetooth Classic: Class1; Bluetooth Low Energy: Class1.5;

Date Rate & Modulation		BR_1Mbps: GFSK; EDR_2Mbps: $\pi/4$ -DQPSK; EDR_3Mbps: 8DPSK; LE_1Mbps: GFSK;		
Bluetooth Transmitter Specifications				
Items	Min	Typ	Max	
TX Power				
BR_1M TX Power	1	6	8	
EDR_2/3M TX Power	1	6	8	
LE_125K~1M TX Power	1	6	8	
1DH1 TX Power	1	6	8	
2DH3 TX Power	1	6	8	
3DH5 TX Power	1	6	8	
Bluetooth Receiver Specifications				
Items	Sensitivity		Maximum Input Level	
	Maximum Input Level	BER	Input Level(Typ)	BER
BR_1M	-92dBm	$\leq 0.1\%$	-20dBm	$\leq 0.1\%$
EDR_2M	-90dBm	$\leq 0.01\%$	-20dBm	$\leq 0.1\%$
EDR_3M	-96dBm	$\leq 0.01\%$	-20dBm	$\leq 0.1\%$
LE_1M	-92dBm	$\leq 30.8\%$	-20dBm	$\leq 0.1\%$
1DH1	-92dBm	$\leq 30.8\%$	-20dBm	$\leq 0.1\%$
2DH3	-90dBm	$\leq 30.8\%$	-20dBm	$\leq 0.1\%$
3DH5	-86dBm	$\leq 30.8\%$	-20dBm	$\leq 0.1\%$

4. Declaration of Conformity and matters need attention

Declaration of Conformity

Hereby, Guangdong Sinmar Electronic Science and Technology Co.,Ltd declares that this industrial pc is in compliance with essential requirements and other relevant provisions of Directive 2014/53/EU.

FCC Caution.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the

following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

Please read the following safety precautions carefully before using this computer

1. Do not use accessories not recommended by the manufacturer. Improper use of accessories may cause accidents
2. Please use the power adapter provided with the industrial computer. Before connecting the power cable to the power socket, check whether the voltage specified by the industrial computer is suitable for the local power supply conditions.
3. Please use the power adapter provided with the industrial computer. Before connecting the power cable to the power socket, check whether the voltage specified by the industrial computer is suitable for the local power supply conditions.
4. Please unplug the power when no one is indoors or not in use for a long time.
5. When you need to clean, please turn off the machine and unplug the power plug. Please wipe the screen with a soft cloth that cannot dry. Do not wash the screen directly with water or detergent.
6. Do not place the equipment in an unstable and easy toppling place; Do not place the device in direct sunlight, heavy wind and sand, heavy oil smoke, electric heater, boiler and other high temperature heat source or strong light source. Do not place the device in places where strong electricity, strong magnetic field, and strong radiation directly affect the device. Do not use the device in harsh environments such as damp, liquid dripping, strong corrosive gas, or flammable gas leakage. Do not place heavy objects on the device. Otherwise, the device may not work properly due to excessive pressure.
7. Do not place the device near the electric heater or heater. When the equipment is transferred from the low temperature area to the high temperature area, in order to make the inner condensation fully volatilize, please place for a period of time and then turn on the power;
8. Do not place the device near the electric heater or heater. When the equipment is transferred from the low temperature area to the high temperature area, in order to make the inner condensation fully volatilize, please place for a period of time and then turn on the power;
9. Place the device in a well-ventilated place to ensure good heat dissipation.