



# F32G20 Product Specification



Version Number	Release Date
V-2.0	2022-2

Affordable Hot Food  
Vending Machine  
X1

## **Environment and Precautions for Use**

- The power supply must not be overloaded and the operating power supply requires a ripple noise of  $<120\text{mV}$ .
- Working ambient temperature range  $-10^{\circ}\text{C} \leq t \leq 60^{\circ}\text{C}$ , working ambient humidity less than 90% RH, and storage ambient temperature range  $-20^{\circ}\text{C} \leq t \leq 70^{\circ}\text{C}$ .
- It should be kept out of uncovered outdoor areas and out of direct sunlight and rain.
- It is strictly forbidden to put a cover on the touch surface of the equipment to avoid the touch function being disabled.
- It is strictly forbidden to place the antenna inside the metal casing to avoid network disconnection or instability.
- Applications should avoid frequent writes of large amounts of data to prevent the EMMC memory cells from reaching their life limit and rendering the system inoperable.
- It should be avoided in vehicles and in all types of vibrating environments to avoid poor contact of the port.
- Unauthorized private dismantling for repairs is strictly prohibited.

### **FCC Requirement**

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

**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.**

**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:

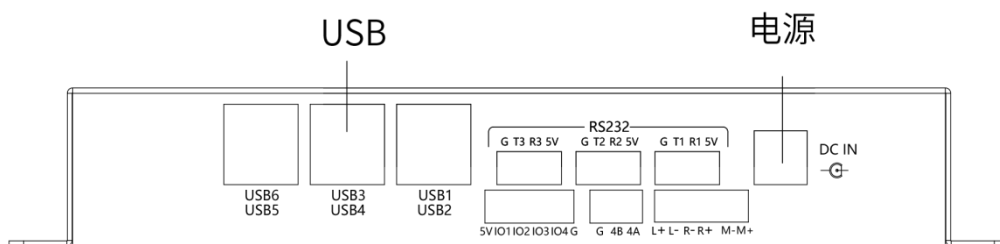
- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20cm between the radiator & your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

**“ CAUTION: Any changes or modifications not expressly approved could void the user’s authority to operate the equipment.”**

## F32G20 Product Description :

F32G20 is equipped with Android 5.1 (7.1) mainstream operating system, with a 32" full-view LCD display and capacitive touch screen to form a powerful human-machine interaction system. The product has the advantages of slim, beautiful, flat appearance, high overall fit, easy installation and IP65 protection level of the touch surface, which can meet the indoor and semi-outdoor environment use.



## F32G20 Product Parameters

F32G20 Core Parameters	
<b>CPU processor</b>	RK3288/4-core at 1.6GHz
<b>Running memory</b>	2GB
<b>EMMC</b>	8GB (16G,64G optional)
<b>GPU</b>	ARM Mali-T764
<b>Screen size</b>	32
<b>Brightness</b>	400cd/m²
<b>Resolution</b>	1920*1080
<b>Perspectives</b>	Full view
<b>Touch form</b>	Fully laminated capacitive 10 points
<b>Whole machine size</b>	767.1*461.7*66.5 mm, overall weight about 14.75KG

Brightness parameters	Min	Typ	Max
Brightness (cd/m²)	-	400	-

F32G20 Port Parameters	
<b>Serial port</b>	3-channel RS232, 1-channel RS485
<b>USB</b>	6-channel USB HOST, 1-channel USB DEVICE
<b>Audio</b>	1-channel Mono MIC, 1-channel Dual SPK
<b>HDMI</b>	1-channel HDMI 2.0 universal port
<b>Ethernet</b>	1-channel 10/100Mbps adaptive network port
<b>GPIO</b>	4-channel, 5V level bidirectional IO
<b>WIFI/BT</b>	Optional WiFi 2.4G support for BT5.0

<b>SIM card</b>	1-channel standard SIM card
<b>TF</b>	1v TF card port
<b>LED</b>	1-channel power indicator, 1-channel system indicator
<b>Power supply</b>	1-channel, DC12V±5%
<b>Keystrokes</b>	1-channel, -channel burn/return

\* Prices and delivery times for all optional items in the list are subject to consultation with the sales manager.

# Description of F32G20 Hardware Port

## Serial Port

- RS232 uses XH2. 54-4P connector.
- RS485 uses XH2. 54-3P connector,
- The RS232-1 and RS232-2 standard configuration is RS232, which can be optionally configured as TTL. TTL uses XH2. 54-4P connector.

Note: UART2 serial port is a debug port, it will have a print message when booting. It can be used as a normal serial port after booting.

Port	Pin	Definition of pin	Equipment Nodes	Level	Serial port number
RS232					
RS232-1	1	5V	ttyS1	RS232	UART1
	2	R1			
	3	T1			
	4	G			
RS232-2	1	5V	ttyS2	RS232	UART2
	2	R2			
	3	T2			
	4	G			
RS232-3	1	5V	ttyS3	RS232	UART3
	2	R3			
	3	T3			
	4	G			
RS485					
RS232-3 (reuse)	1	5V	ttyS3	RS485	UART3
	2	R3_3A			
	3	T3_3B			
	4	G			
RS485	1	G	ttyS4	RS485	UART4
	2	4B			
	3	4A			
TTL					
RS232-1 (optional)	1	5V	ttyS1	RS232	UART1
	2	RXD1_TTL			
	3	TXD1_TTL			
	4	G			
RS232-2 (optional)	1	5V	ttyS2	RS232	UART2
	2	RXD2_TTL			
	3	TXD2_TTL			

	4	G			
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## USB Port

- Integrated 6-channel USB-HOST, 6-channel with dual-layer USB TYPEA holders.
- The USB-HOST is powered by a 5V output and the total current must not exceed 3A.
- 1-channel USB-DEV port uses Type-C port. This port can only be used for system burn and ADB debugging.

## Audio Port

- MIC for microphone port, mono MIC input with PH2.0-2P connector
- SPK for speaker port, amplifier circuit for dual channel 8Ω/10W with PH2.0-4P connector

Port	Pin	Definition of pin
MIC	M+	MIC positive
	M-	MIC negative
SPK	R+	Right channel positive
	R-	Right channel negative
	L-	Left channel positive
	L+	Left channel negative

## HDMI Port

- HDMI 2.0 HD screen port

## Ethernet Port

- 1-channel 100 Gigabit adaptive Ethernet port via RJ45.
- DHCP method of assigning IP is used by default. If you need to configure the IP address manually, you can configure it in the advanced settings.

## GPIO Port

- GPIO with XH2.54-6P connector, only 5V signal pins supported

Port	Pin	Pin definition	GPIO No.	IO level	Default level	Input/output
GPIO	1	5V	/	/	/	/
	2	I01	GP103_D0_U	5V	5V	Bidirectional
	3	I02	GP104_B1_U	5V	5V	Bidirectional
	4	I03	GP103_D1_U	5V	5V	Bidirectional
	5	I04	GP103_D2_U	5V	5V	Bidirectional
	6	G				

## WIFI/BT Modules

- Standard configuration 2.4G WiFi, 1-channel BT4.2, WiFi standard IEEE802.11 b/g/n
- Optional 2.4GWiFi, 1-channel BT5.0, WiFi standard IEEE802.11 a/b/g/n/ac



## **SIM Card Holder**

- The SIM card holder is a standard drawer port.
- It does not support hot-swapping, plugging and unplugging requires power-off and reboot.

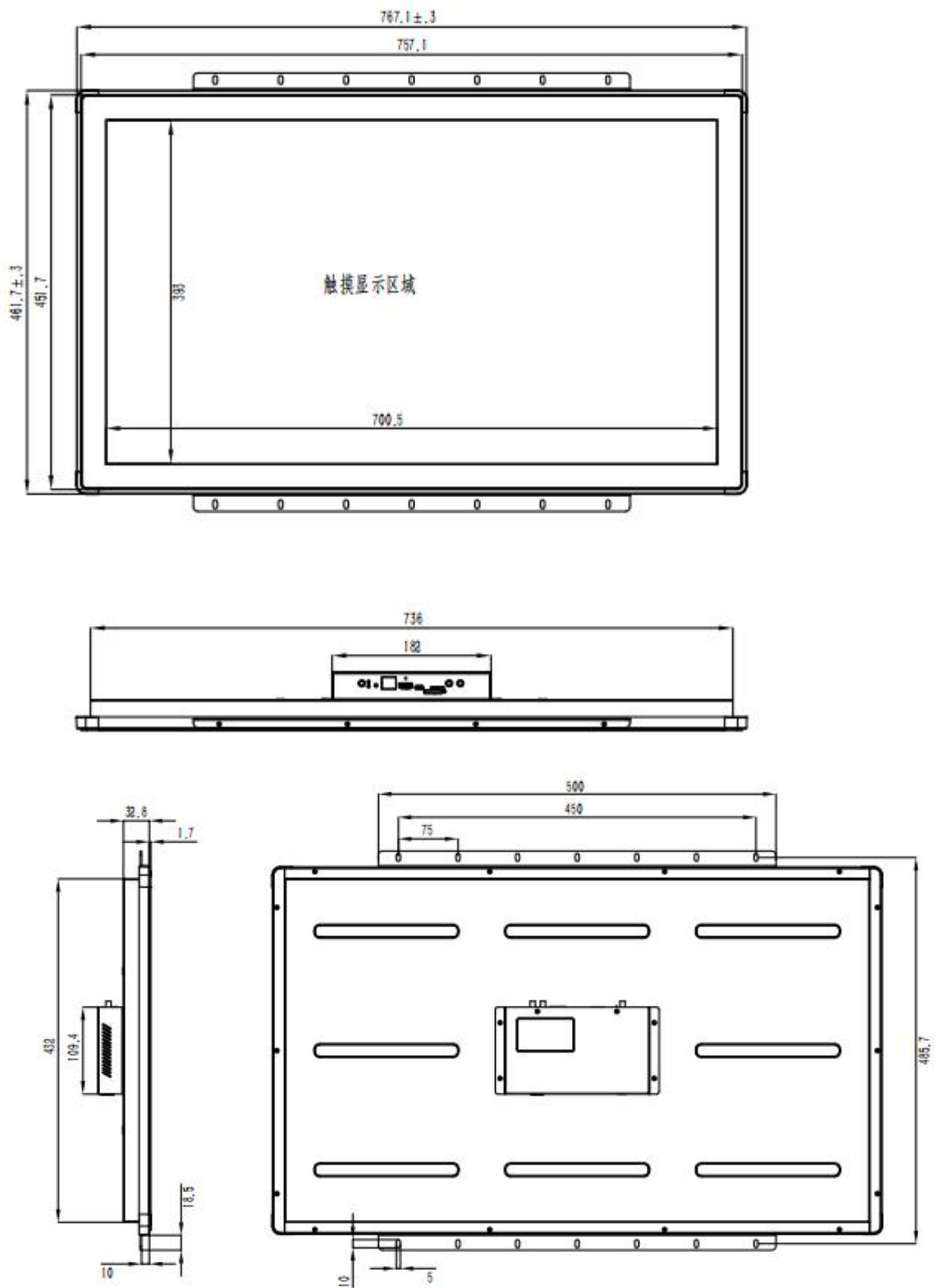
## **TF Card Holder**

- It supports hot-swap detection.
- It supports MMC Protocol V4.5 and SD Memory Card Protocol V3.0.

## **LED Port**

- POWER is the power indicator and stays on during normal power supply.
- USR blinks during normal system operation and stops blinking when abnormal.

## F32G20 Complete Machine Size :



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