



Digital Conference System

User Manual

TS-W310A

Before using this system, please read this manual carefully

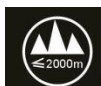
Notification



WARNING

To ensure the reliability of the equipment and the safety of personnel, please observe the following when installing, using and maintaining:

- If any of the following conditions are found, please immediately turn off the power, plug out and quickly contact your nearest dealer. Do not continue using this unit, which may cause a fire or electric shock.
 - If you find smoke or have a strange taste from the machine.
 - If water or metal falls into the machine.
 - If the unit is dropped or the case is damaged.
 - If the wire is damaged (wire core exposure, broken wire, etc.).
- If the machine contains high-pressure parts, in order to avoid the fire or electric shock, absolutely don't open the case, if any questions please inform your nearest dealer.
- Do not place cups, bowls, vases or metal and other water-filled substances on the unit. Serious spilled liquid may cause a fire or electric shock.
- For safety reasons, do not use any volatile solvents (such as toluene, alcohol or gasoline) and keep items clean and dust-free.
- Never expose the unit to rain and any moisture or water, which may cause electric shock or fire.
- Do not place metal objects or flammable materials from the vents on the machine cover, nor place coins, which may cause fire or electric shock.
- Do not place heavy objects on the unit to avoid personal injury or property damage when the unit is slipping.
- Make sure that the volume is turned on at the beginning of the boot, and the high volume of the boot may cause hearing problems.
- The battery must be replaced with the same type of product and the correct installation should be made in order to avoid electrical damage and explosion hazard.
- After use, please press the power switch to turn off the power.
- If you do not use the device for a long time, please charge the battery to at least 80% of the full capacity to prolong the battery lifespan.



- This equipment is only suitable for safe use at altitudes under 2000 meters.

Precautions

1. The installation environment

When installing the unit, in order to ensure the normal cooling of the host, should avoid the poor ventilation of the place or high temperature environment, to avoid direct sunlight.

Recommend to install cabinet or other well-ventilated place indoor. If you use the machine in the outdoors, please pay attention to waterproof, moisture, lightning protection measures.

Avoid installing in a violent place of vibration; do not place other equipment on the machine.

2. To avoid electric shock and fire

Do not touch the hands and the source with wet hands

Do not spill liquid on the machine, so as to avoid short-circuit or fire inside the machine.

Do not place other equipment directly on the top of the unit.

Non-professional service personnel Do not disassemble the unit yourself to avoid damage and electric shock.

3. Transport and handling

The packaging of the machine is designed and tested to ensure that the host will not be accidentally damaged during transport. It is best to use the original packaging when handling the unit.

Do not move the host device between the place or cold or over hot to avoid condensation inside the machine, affecting equipment life.

4. Please follow the warning instructions on this product, the warning signs on behalf of:

	Applicable to 2000 meters above sea level and below safe use
	Safe use only in non-tropical climates

5. Agreement

Please strictly follow the instructions in this manual. The software, hardware and appearance of this product will be upgraded and updated continually. The above changes will be made without notice.

Non-professional maintenance personnel, do not remove the product, to avoid damage and electric shock.

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1. System Overview

The WiFi full digital conference system adopts the original network communication and digital transmission processing technology with completely independent intellectual property rights, and applies digital technology and network technology to conference system products. The perfect combination of wireless network and wired digital products brings a new breakthrough change to the conference field.

2.Product Introduction

TS-W310A 4.3-inch WiFi conference chairman/delegate unit



TS-W310A Delegate Unit

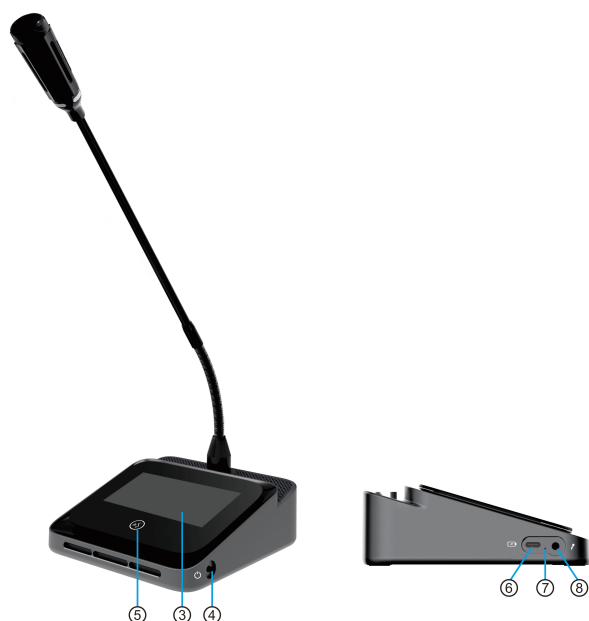
2.1.Feature

- 1.48kHz sampling rate, clear and bright sound, better than CD quality.
- 2.Using advanced processing chip architecture and unique processing algorithm, it only takes 5 seconds to turn on the microphone.
- 3.With smart fault detection function, it can prompt users about AP faults, host communication faults, low signal strength, etc.
- 4.Support charging through the Type-C port, support 18W fast charging, with smart state indicators.
- 5.The SSID can be set through the UI.
- 6.Support Chinese and English display function, and unified setting through PC software.
- 7.Support the functions of speech timekeeping and speech countdown.
- 8.Support voice control function, turn on the microphone intelligently, adjust the voice control sensitivity and set the off time through software.
- 9.Support sign-in function, set and initiate through PC software.

- 10.Support conference voting function, including five-key election and three-key voting, flexible and convenient.
- 11.Adopt 128-bit AES encryption technology, support WPA/WPA2 wireless security technology, prevent eavesdropping and unauthorized access, and provide higher confidentiality of the conference system.
- 12.Using wireless transmission technology, activities can be carried out with very little time for venue arrangement.
- 13.With priority function, the chairman unit can turn off all delegate microphones that are speaking.
- 14.With a 4.3-inch full-color touch screen.
- 15.With a 3.5mm headphone jack, connected to an external microphone.
- 16.Built-in lithium battery supports 14 hours of continuous speech.

2.2.Interface function

TS -W310A Delegate Unit



- ① Chairman microphone switch button;
- ② Button to turn off the delegate microphone;
- ③ 4.3-inch IPS display;
- ④ Power switch (lightly press to turn on, long press for 3S to turn off);
- ⑤ Delegate microphone switch button;
- ⑥ USB charging interface;
- ⑦ Charging indicator light;
- ⑧ Microphone input.

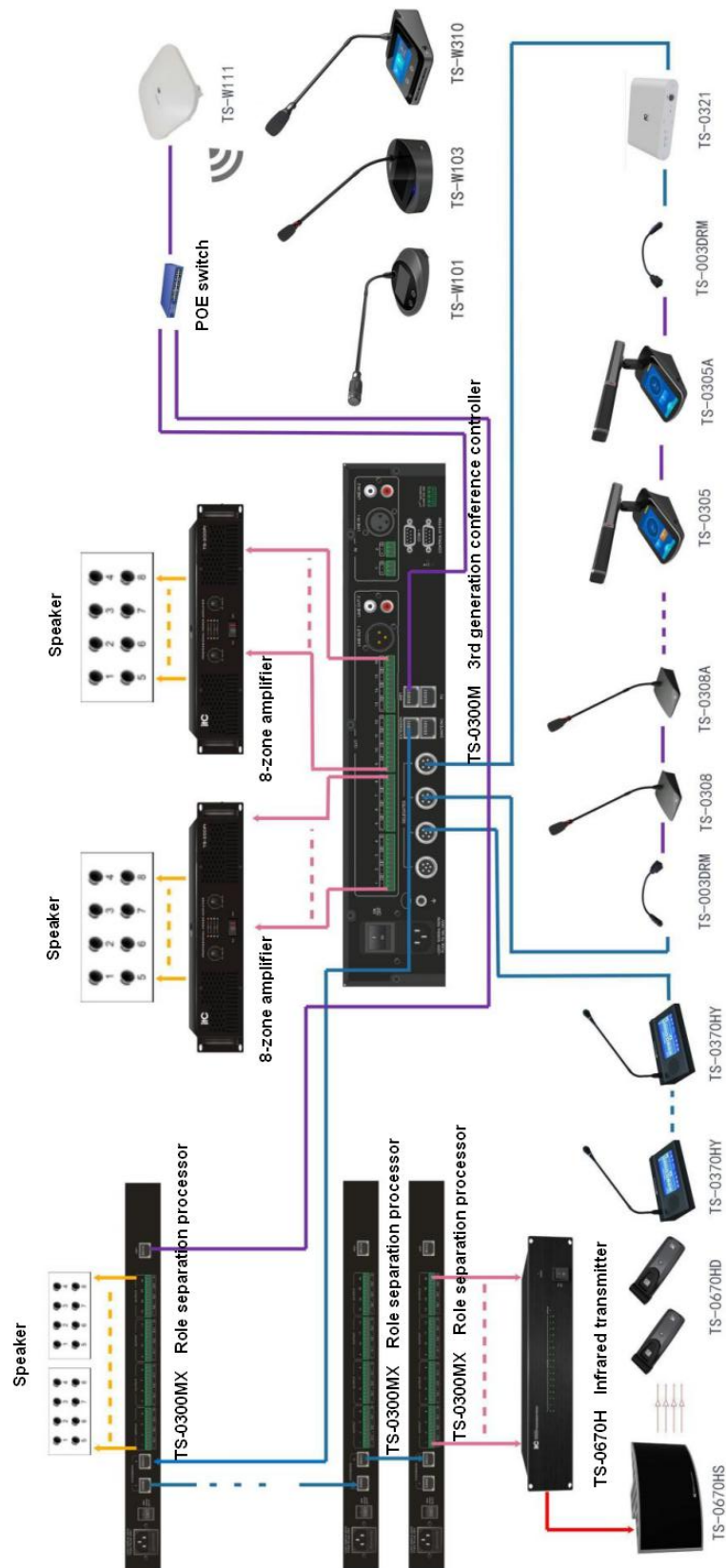
Battery shelf life and instructions for use:

1. The shelf life of the battery is one year from the date of shipment. If the battery is left idle for three months, it should be charged and activated at least once. The company will not be responsible for any damage to the battery performance due to excessive idle time.
2. If the detected battery defect is not caused by customer abuse or misuse, the company will be responsible for replacing the battery within the warranty period.

2.3.Specification

Model	TS-W310A
Microphone type	Cardioid Electret Microphone
Frequency response	80Hz~16KHz
Sensitivity	-41±1.5dB (0dB=1V/Pa, at 1KHz)
Max SPL	120dB(THD>3%)
SNR	>80dB(A)
Crosstalk	>70dB
Dynamic range	>80dB
THD	<0.1%
Max power consumption	3W
Power supply	18650 lithium battery powered
Charging method	Through the Type-C interface, connect the charging box
Color	Graphite gray
Sign-in function	Touch screen sign in
Display screen	IPS screen
Wireless frequency range	5.15~5.85GHz
Battery capacity	9600mAh
Installation method	Desktop installation
Dimension (L×W×H)	140×136×49mm
Weight	0.9Kg
Working time in speech mode	13 hours
Working time in mixed mode	14 hours

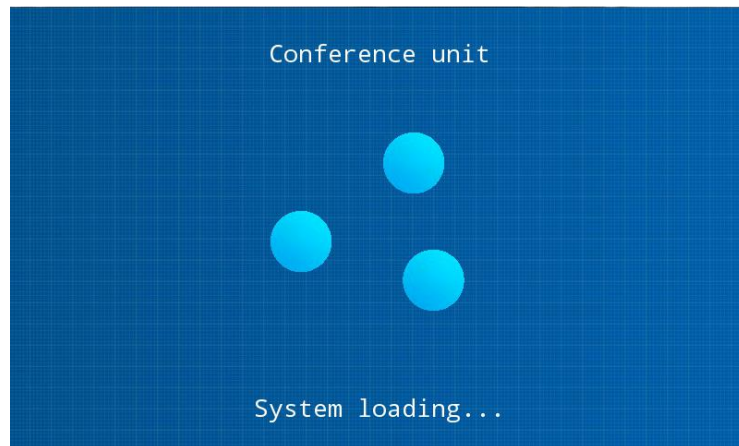
3. System Wiring Diagram



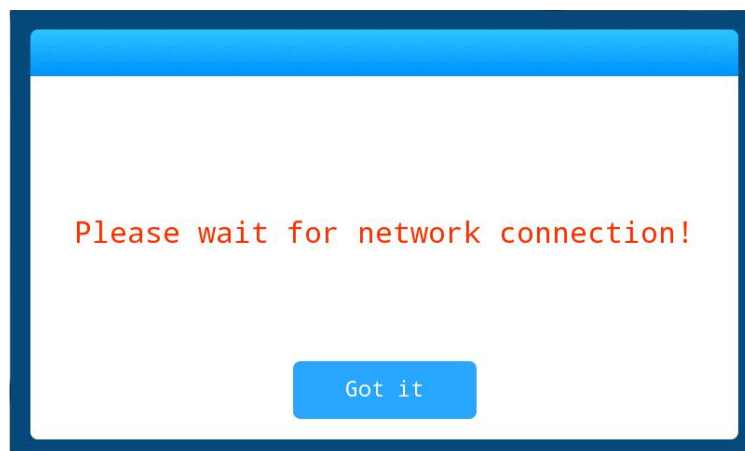
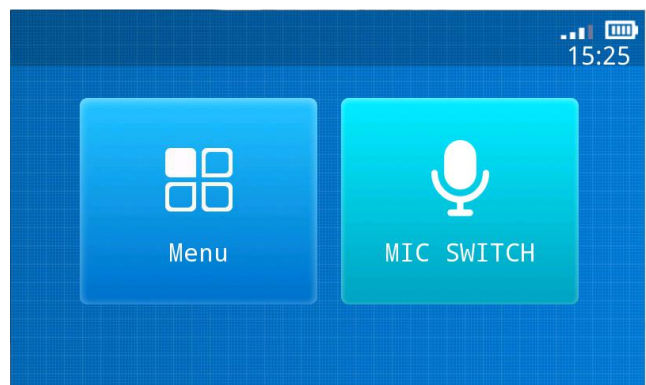
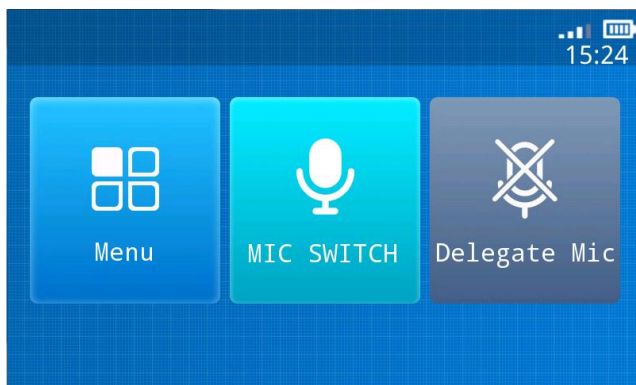
4.Operating Instructions

4.1.Startup

Turn on the power of the unit to start the conference system, the unit screen displays "System Loading...", and the startup page is as follows:



After the startup is completed, the touch screen will display the LOGO interface. After connecting to the host network, enter the homepage, the interface is as follows:



4.2. Unit type

On the touch screen of the chairman unit, you can switch the microphone on and off, turn off all the delegate microphones, switch between Chinese, English, Russian and French, and adjust the brightness.

On the touch screen of the delegate unit, you can switch the microphone on and off, switch between Chinese, English, Russian and French, and adjust the brightness.

4.3. Conference management

The microphone on/off of the unit is controlled by the conference management, and its permissions are configured by the conference controller. Refer to the conference mode description of the controller for the logic of use.

Press the MIC switch button to turn the microphone on and off, and the unit displays as follows:



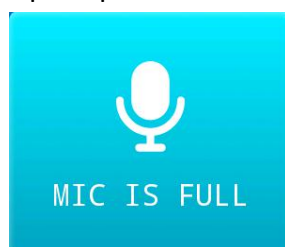
In APPLY mode, when a delegate unit applies to turn on the microphone, the delegate unit will display as follows:



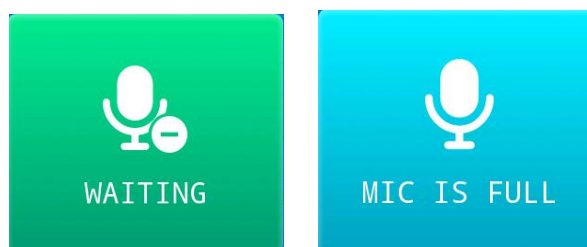
At this time, the chairman unit displays as follows:



When the number of applicants is full, it prompts that the number of mics is full:



In NOMAL mode, the delegate units exceeding the limit of the number of applicants enter the waiting state. When the waiting number is full, the user will be prompted that the waiting number is full:

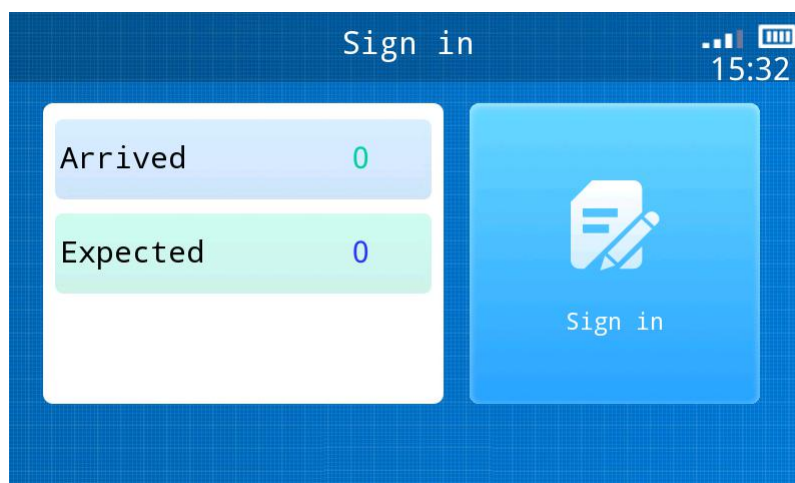


Press the priority button of the chairman unit to turn off all delegate microphones. At this time, the chairman unit turns on its microphone and the delegate unit displays as follows:

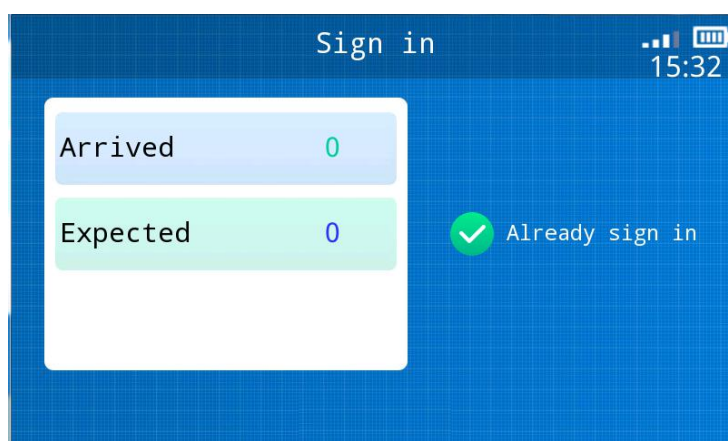


4.4.Sign in

The wired chairman unit or PC software initiates sign-in, and the corresponding light is on, and the display is as follows. If it remains on the main interface, it means that the unit is forbidden to sign in.



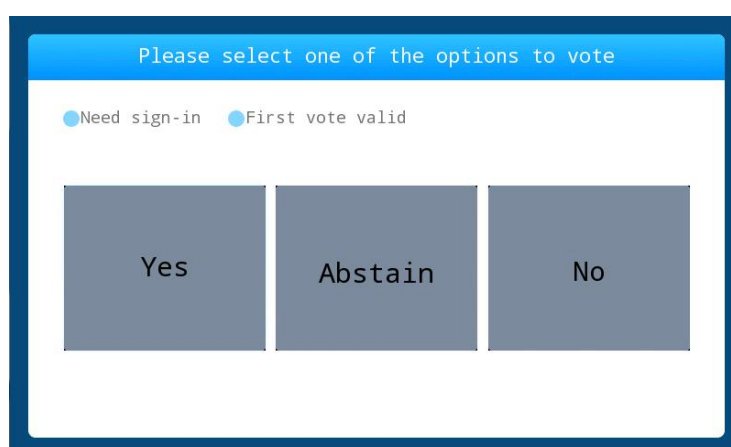
Press the sign-in button on the screen or press the mic switch button to sign in. After sign-in, the indicator light stays on, and the display is as follows:



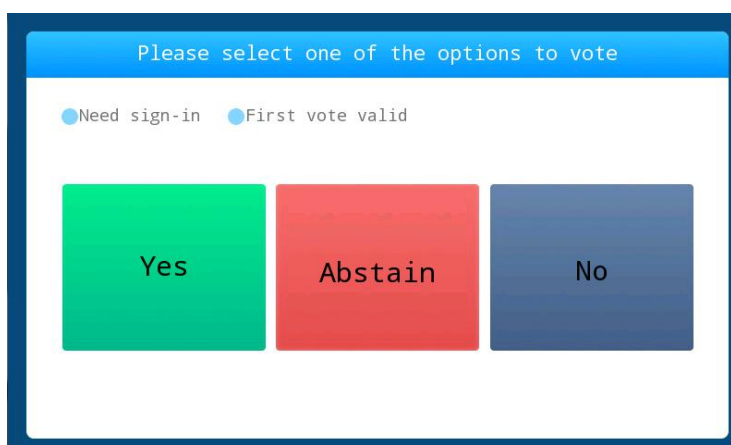
4.5.Voting

The wired chairman unit can initiate 3-key voting with fixed options; PC software can initiate 3-key voting with fixed options, 5-key voting with fixed options, 5-key rating with fixed options, and 2/3/4/5-key voting with custom options. The display is as follows:

3-key voting with fixed options:



In 3-key voting with fixed options, the corresponding display after pressing the key:



5-key voting with fixed options:

The screenshot shows a voting interface with a blue header bar containing the text "Please select one of the options for election". Below the header, there are two status indicators: "Need sign-in" and "First vote valid", each preceded by a small blue circle. The main area contains five grey rectangular buttons arranged in a grid: two in the first row (labeled "1" and "2"), two in the second row (labeled "3" and "4"), and one centered in the third row (labeled "5").

In 5-key voting with fixed options, the corresponding display after pressing the key:

This screenshot shows the same voting interface as the previous one, but with the five buttons (labeled "1" through "5") highlighted in a bright blue color, indicating they are now active or selected.

5-key rating with fixed options:

The screenshot shows a rating interface with a blue header bar containing the text "Select one of the options for rating". Below the header, there are two status indicators: "Need sign-in" and "First vote valid", each preceded by a small blue circle. The main area contains five grey rectangular buttons arranged in a grid: two in the first row ("Poor --" and "Pass -"), two in the second row ("Medium 0" and "Good +"), and one centered in the third row ("Excellent ++").

In 5-key rating with fixed options, the corresponding display after pressing the key:

Select one of the options for rating

☐ Need sign-in ☐ First vote valid

Poor --	Pass -
Medium 0	Good +
Excellent ++	

2/3/4/5-key voting with custom options:

Please select one of the options to vote

☐ Need sign-in ☐ First vote valid

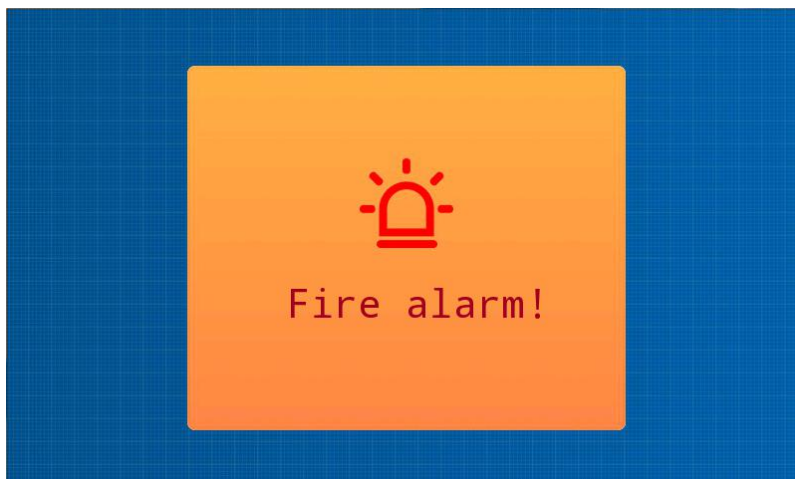
In 2/3/4/5-key voting with custom options, the corresponding display after pressing the key:

Please select one of the options to vote

☐ Need sign-in ☐ First vote valid

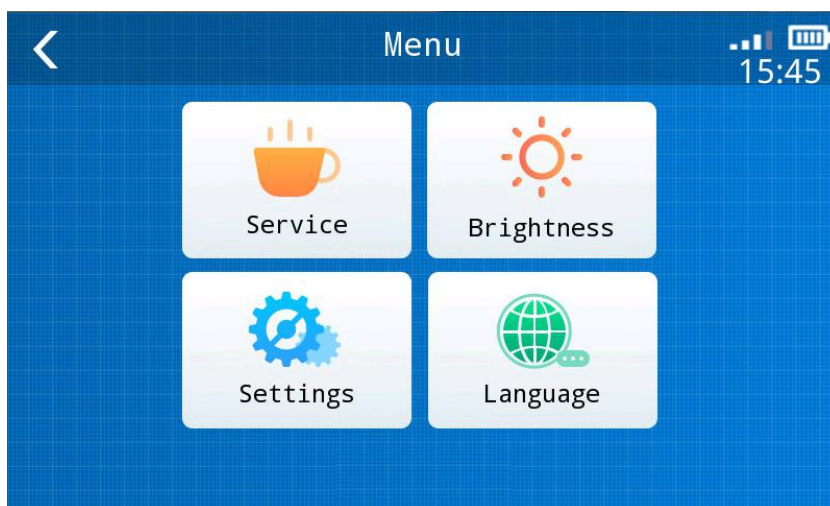
4.6.Fire alarm

When the controller sends out a fire alarm message, the unit screen will display a "Fire Alarm" prompt, and the red light on the microphone pole will flash until the fire alarm is canceled and the unit returns to the previous state. During the fire alarm, the button is invalid.



4.7.Menu page

Enter the menu page, as shown in the figure below, there are system settings, conference services, language settings, and brightness adjustment.



4.8.System settings

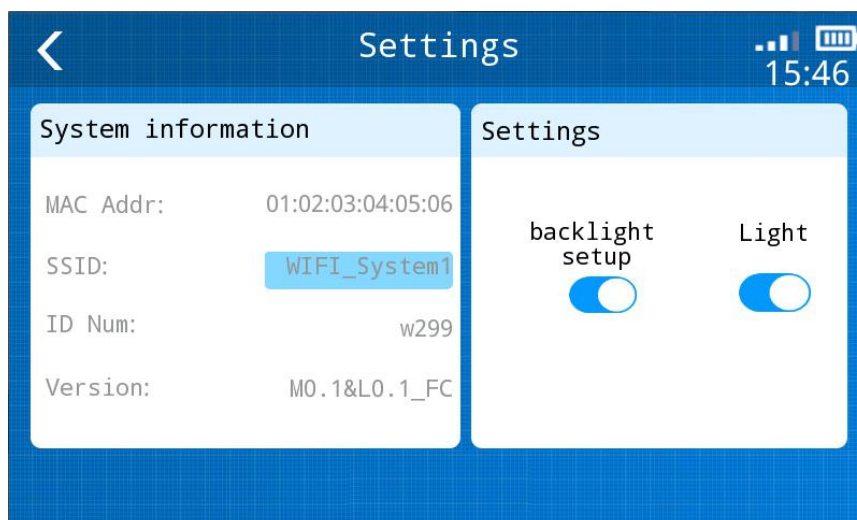
Enter the system setting page, as shown in the figure below, there are system information, backlight setting switch, and ambient light switch.

MAC Address: The MAC address of the wireless network card.

Network Name: SSID of the wireless AP.

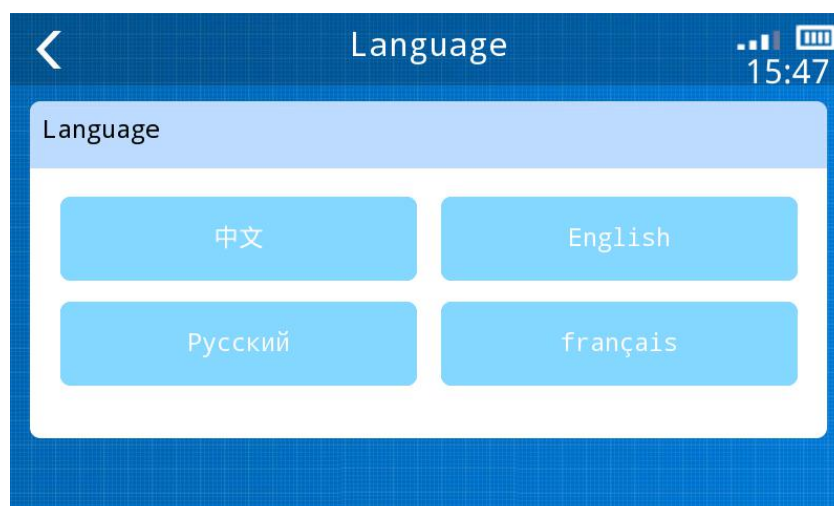
ID number: The ID number assigned by the controller.

Version number: The version number of the native software.



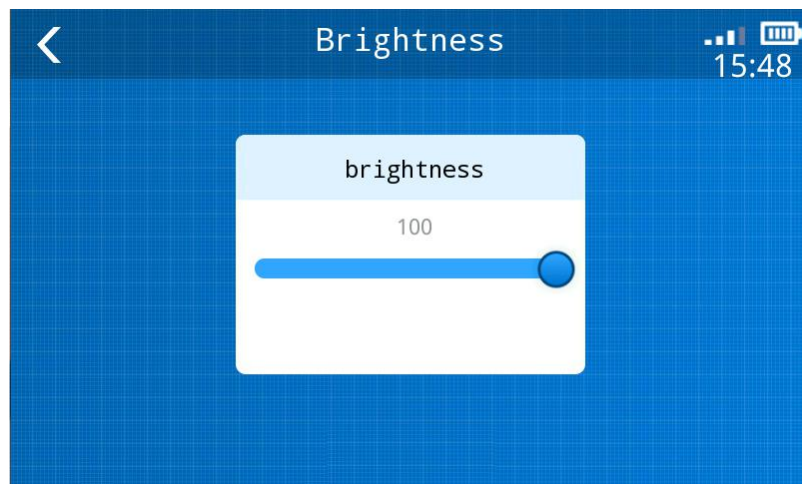
4.9.Language settings

Click the language setting button to enter the language setting page to switch between Chinese, English, Russian and French, which can be saved when power off. The setting page displays as follows:



4.10.Brightness adjustment

Click the brightness adjustment button to enter the menu page, you can adjust the brightness of the device, ranging from 1 to 100, which can be saved when power off.

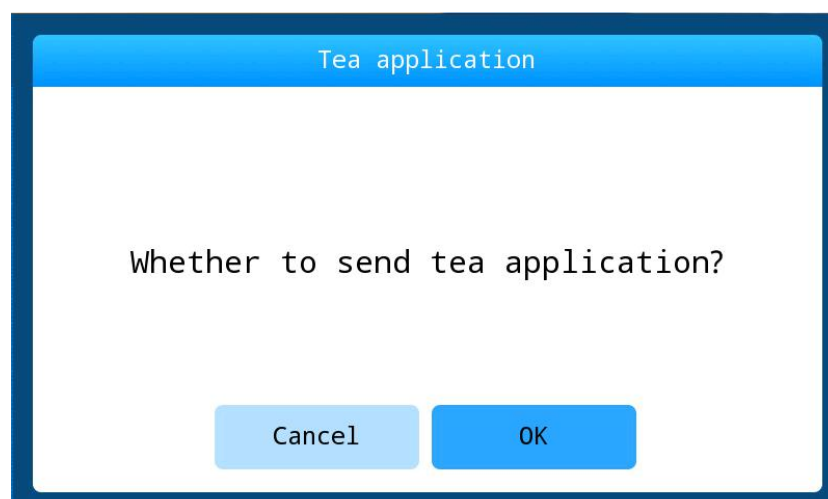


4.11.Conference services

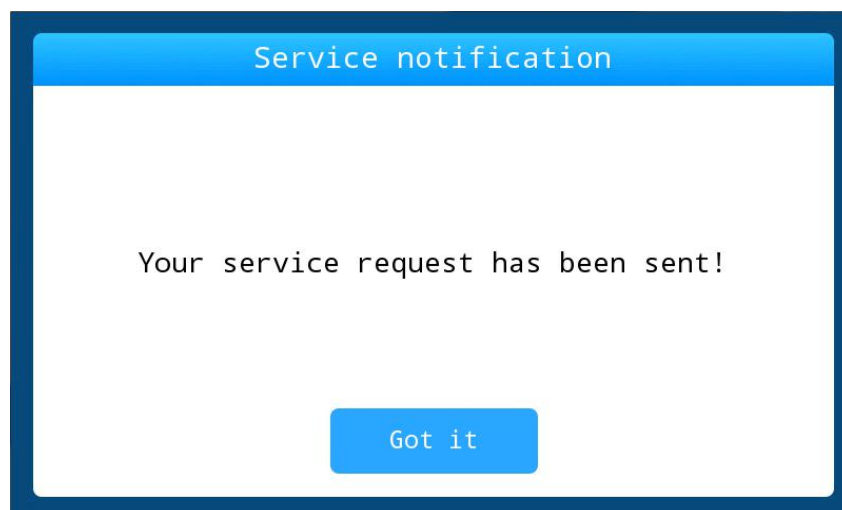
According to their actual needs, participants can click the service item on the menu page to enter the page for sending applications, including "Tea", "Pen and paper", and "Staff". At this time, they can choose the application items to be sent.



After selecting the application item, the software will prompt whether to send the application.

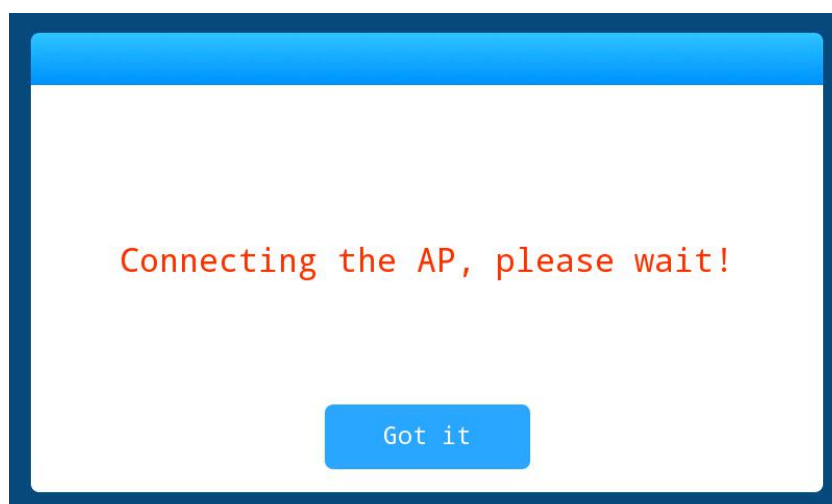


After sending the application, the corresponding prompts can be seen on the PC side, and the unit will also have corresponding prompts. In this interface, click "Get it" to return to the previous interface. If you do not click the "Get it" button, it will automatically return to the previous interface after three seconds.



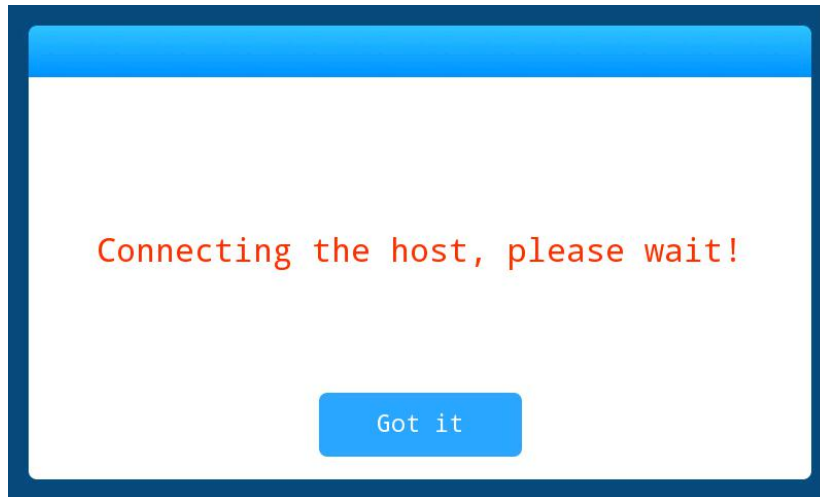
4.12. Wireless AP disconnection detection function

Power off the wireless AP for about 10 seconds, the TS-W310 / TS-W310 A will pop up the following dialog box. If the wireless AP restarts and works normally, the interface will return to the main page.



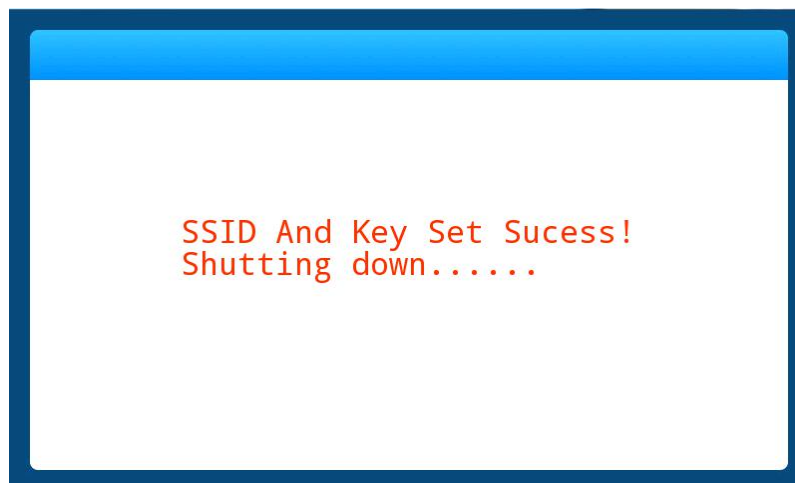
4.13. Host disconnection detection function

After unplugging the network cable or powering off the host for about 60 seconds, the TS-W310 / TS-W310A will pop up the following dialog box. If the host is powered on and works normally, the interface will return to the main page.



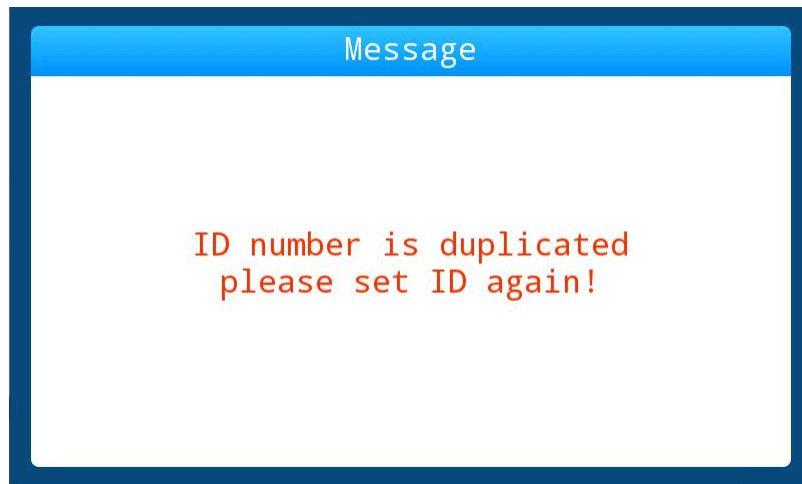
4.14.WIFI SSID and password modification

1. In the system settings of the unit display, click the network name to enter the SSID change page. There are WIFI_System and WIFI_System1~5 to choose from. After selecting, click Set, and the following interface will pop up, and it will automatically shut down after 2 seconds.
2. In the power-on state, the USB port of the wireless unit is connected to the adapter board (provided by R&D), and then connected to the PC. Then use the SSID modification software ComTool.exe; after the modification is done, the wireless unit will prompt the following interface, and it will automatically shut down after 2 seconds.



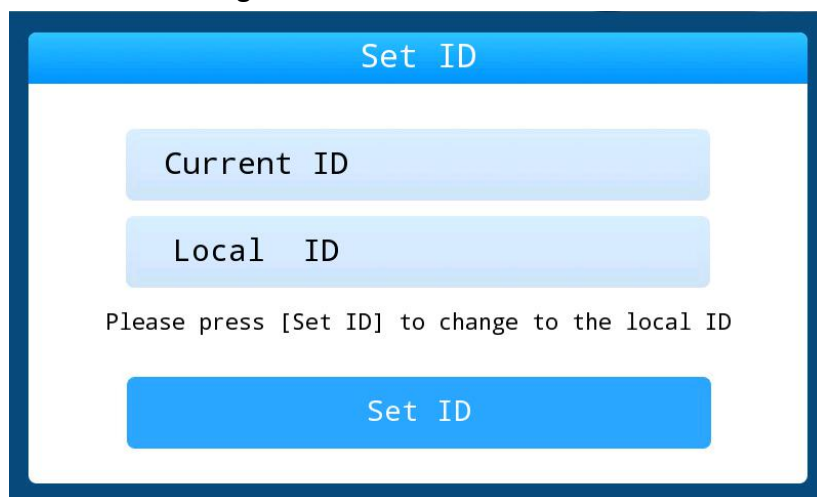
4.15.Duplicate ID detection

If the unit connected to the host has the same ID, it will be displayed as follows. At this time, you need to press the Edit ID button on the host to re-edit the ID.



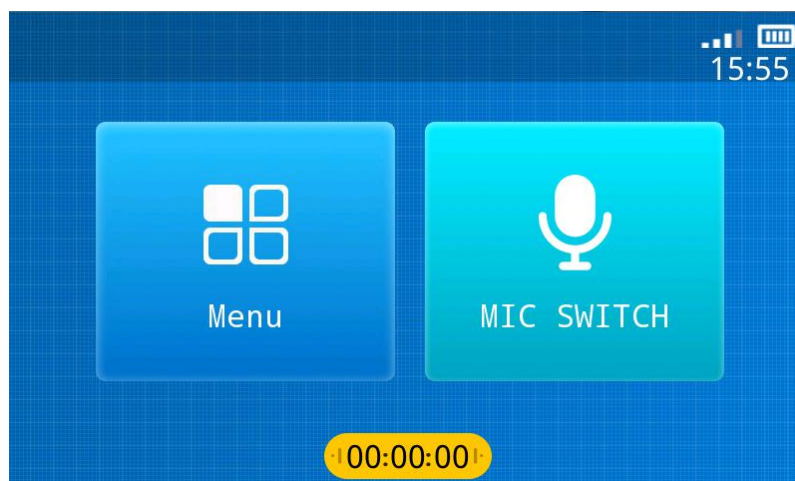
4.16.Edit ID function

After pressing the ID button, it enters the Edit ID mode. At this time, press the Set button or press the MIC button to start the ID setting.



4.17.Speech countdown and Speech timekeeping

This function needs to be controlled and switched by the conference PC software, please refer to the PC instruction for details. Its function starts as soon as the microphone switches on. In speech countdown, the PC will issue the time for the scheduled speech, and the unit will count down to display the remaining speech time. After the time is up, the microphone will be automatically turned off.



During the speech timekeeping, the PC designates the unit to count the speech, and the unit counts the time and displays the speech time.

4.18.Charging plug in, battery level, WIFI signal strength, charging mode indication

WIFI signal strength, a total of 4 white grids, no signal displays gray: 

Power, a total of 4 grids: 

Charging plug in: 

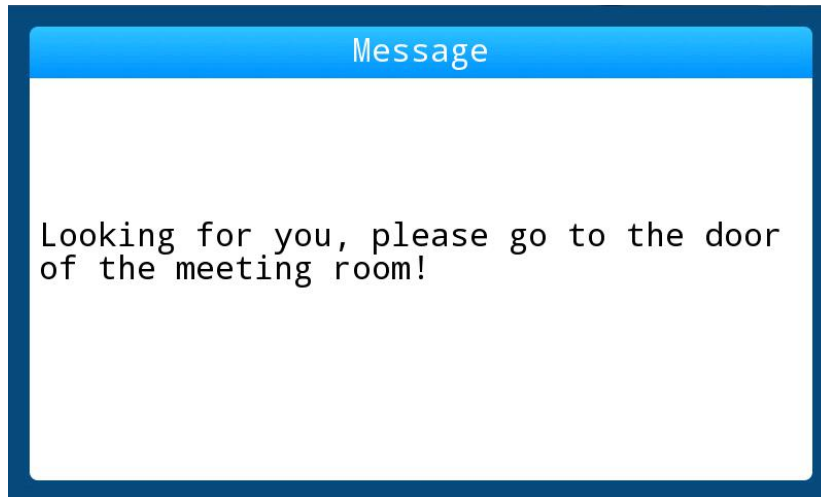
Fast charging indication: 

Normal charging indication: 

4.19.SMS function

This function needs to be controlled and switched by the conference PC software. For details, please refer to the PC instructions. The PC can send/broadcast messages to the display of the unit to remind the user. Examples are as follows:

Fixed message:

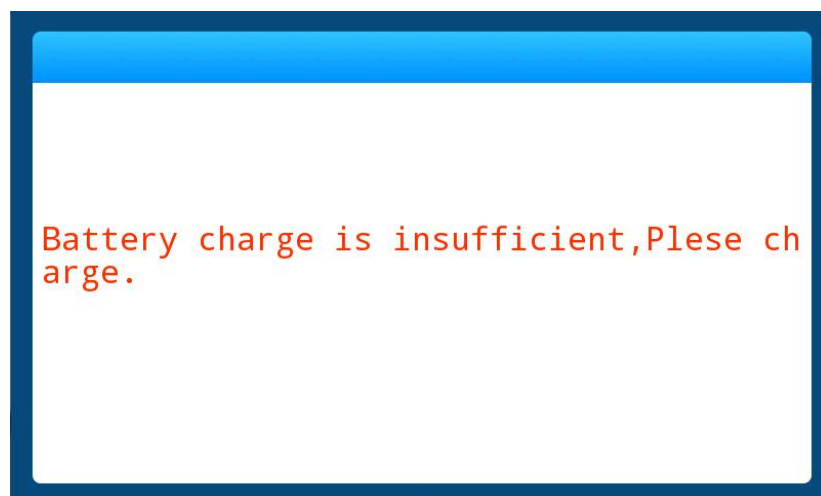


Custom message:



4.20.Auto shutdown when battery is too low

When the power is too low, the wireless unit will automatically shut down after prompting the picture below.

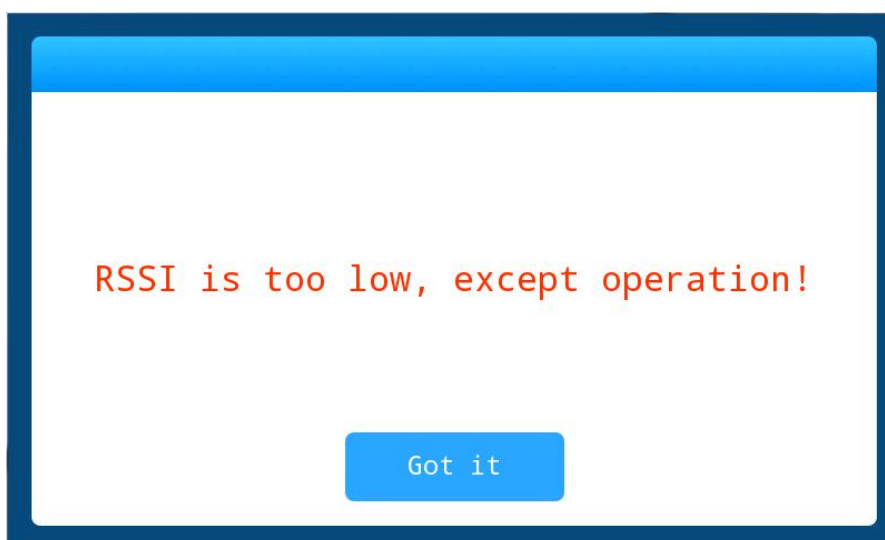


4.21.Power switch

In the power-off state, short press the button to turn on the system,
In the power-on state, long press the button for 3S to turn off the system.

4.22.Low signal strength indication

When the signal strength is too low and the connection to the AP is not disconnected, the following interface will appear. At this time, functions such as the microphone cannot be operated, and the user needs to move closer to the AP, so that the signal becomes ≥ -70 dBm before it can resume normal operation.

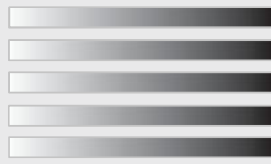


4.23.Fast charging mode

Type-C port supports USB Power Delivery (PD2.0/PD3.0) protocol, supports FCP/AFC/SFCP fast charging protocol, and is compatible with BC1.2, Apple, Samsung mobile phone fast charging, etc.

environment. This equipment should be installed and operated with minimum distance 20cm between the radiator and your body.

WiFi Digital Conference System



FCC Statement

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.

Caution: Any changes or modifications to this device not explicitly approved by manufacturer could void your authority to operate this 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.

RF Exposure Information

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 and your body.

