Fully Digital Conference System

User Manual

TS-0306/0306A

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.

- 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.

- 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.

- For long-term accumulation of dust to be cleaned, please inform your dealer to regularly clean the machine, so as to avoid damage to the machine or cause a fire.

- 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.

- The product is a Class III device. The device must be well connected to ground. The power plug must be connected to a power outlet with a grounding device to ensure that the equipment is fully grounded.

- This product uses a power plug or appliance input socket as a disconnecting device with the power supply, and must be disconnected if necessary for safety reasons.

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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.

Working temperature : -10℃~ 60℃.

Humidity is limited to 5% to 90% (non-condensing).

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. Introduction

It is a third-generation economic microphone with a new solution architecture. It is compact, exquisite and beautiful. Different from the traditional six-pin aviation line, the dual network port network cable is connected hand in hand, which greatly facilitates the construction wiring and gets rid of the limitation of the dedicated wire.

2. Description

TS-0306/TS-0306A Economic conference microphone unit

TS-0306 (chairman microphone unit)

TS-0306A (delegate microphone unit)

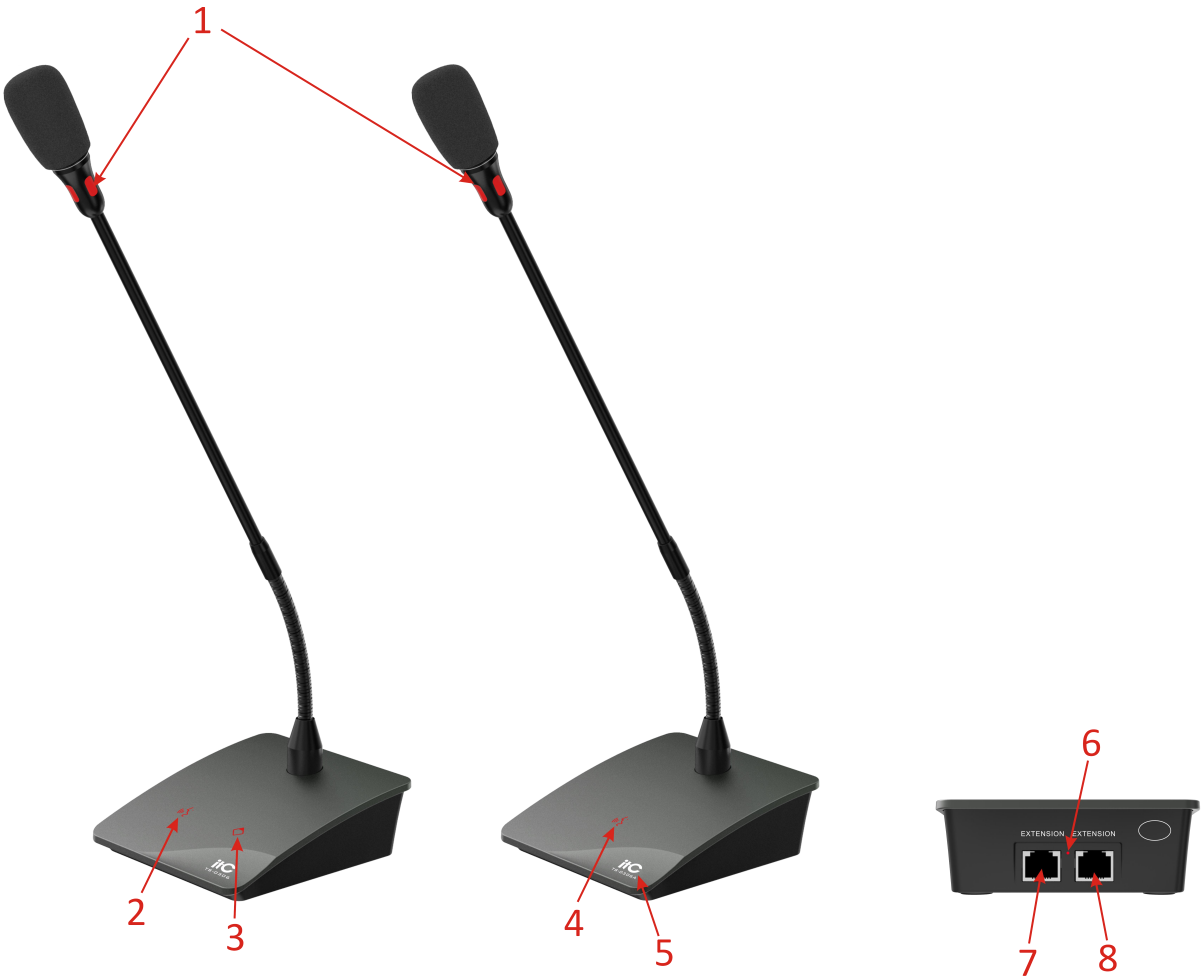
2.1 Features

1. The microphone unit adopts capacitive touch buttons, which can effectively eliminate the key tapping sound for a good conference environment.
2. The touch keys are waterproof and dustproof.
3. Adopt non-compressed audio transmission technology, 48K sampling rate, 80Hz-16KHz bandwidth with perfect sound quality.
4. Adopt double network port design, hand-in-hand connection network cable. Only the network cable is needed for wiring, no special cable is needed.
5. Support sign-in function. You can also block or control sign-in through PC software.
6. You can control microphone by PC software. Support voice control function, voice control sensitivity

adjustment.

7. Support online firmware upgrade on WEB web page.
8. Support microphone unit volume and sensitivity setting by logging on to the web.
9. Support to set the microphone unit ID number, voice control sensitivity, and the voice control shutdown time by logging on to the web.
10. Support to set 5 band EQ adjustment function by logging on to the web, which can adjust different sound effects according to the voice characteristics of the speaker until the perfect effect is achieved.
11. Support IP address sniffing function. Through the PC tool, it can find the unknown ID number, IP address, MAC address information.
12. The chairman microphone unit has the priority to close the speaking of the delegate microphone unit.

2.2. Function Introduction of Product Interfaces



1. Microphone rod light
2. Chairman On/Off key
3. Chairman priority key (VIP button)
4. Delegate On/Off key
5. Laser carving logo and model

6.Network port indicator

7. Cascade network port 1

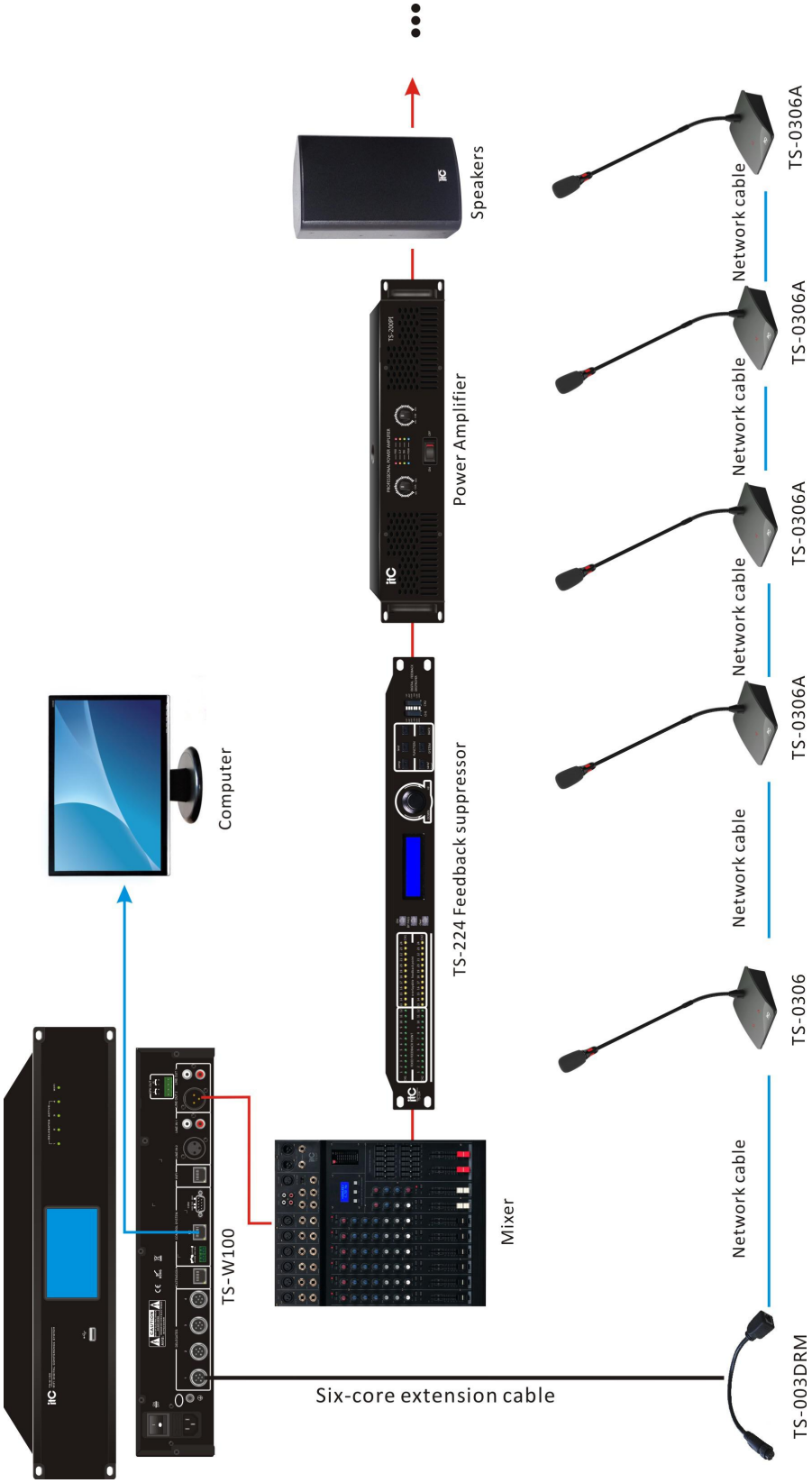
8. Cascade network port 2

(Note: there is no difference between the two network ports, they are fully adaptive)

2.3 Technical Specifications

Model	**TS-0306/TS-0306A**
Microphone type	Electret capacitive
Microphone directionality	Cardioid directionality
Frequency response	80Hz~16KHz
Microphone input impedance	1KΩ
Sensitivity	-36±1.5dB (0dB=1V/Pa, at 1KHz)
Maximum SPL	120dB (THD>3%)
SNR	>80dB(A)
Crosstalk	>70dB
Dynamic Range	>80dB
THD	<0.1%
Maximum power consumption	2 W
Standard	IEC60914
Power supply	Conference controller power supply
Color	Graphite ash
Check-in function	Button check-in
Dimensions (LxWxH)	113mm*100mm*36mm
Microphone length and color	380mm black
Installation method	Desktop
Weight	0.8Kg

3. Connection diagram



4. TS-0306/TS-0306A operating instructions

4.1 Microphone unit type

1) The chairman microphone unit has a On/Off key and a priority key, which can be used to switch the microphone unit, execute priority, sign in, etc.
2) The delegate microphone has a On/Off key and no priority key. And you can switch the microphone and sign in.

4.2 Conference management

(1) The microphone unit switch of the microphone is controlled by the conference management, and its permission is configured by the conference host. For the logic used, refer to the conference mode description of the host.
(2) Press the chairman priority key to turn off all delegate microphone units.

4.3 Sign in

(1) Initiate sign in via PC software. At this time, you can press the On/Off key to sign in, and the result will be displayed on the PC software.
(2) The sign-in function of the microphone can be disabled or enabled through the PC software.

4.4 Fire alarm

When the host sends out a fire alarm, the red light on the unit's microphone rod will flash until the host cancels the fire alarm and the microphone unit returns to normal.

4.5 Timed speech and speech timekeeping

This function needs to be controlled by the conference PC software. For details, refer to the PC user manual. Its function is switching the microphone. For timed speech, the PC sends the speech time. The unit will count down to display the remaining speech time. When the time is up, the microphone unit will be automatically turned off. Timed speech is only valid for the delegate microphone unit and not for the chairman microphone unit. At the speech timekeeping, the PC will count and display the speaking time of designated microphone unit.

4.6 Audio adjustment

This function needs to be controlled by the conference PC software. For details, refer to the PC user manual.

4.7 Microphone unit ID and related IP address

(1) The IP address is based on the current unit ID number. The first two bytes of the IP address are fixed 172.16; the last two bytes will be the upper 8 bits and lower 8 bits of the ID number.
(2) For example: if the ID number is 1, the IP address is 172.16.0.1; if the ID number is 100, the IP address is 172.16.0.100; if the ID number is 300, the IP address is 172.16.1.44; if the ID number is 4090, the IP address is

172.16.15.250;

(3) If you have forgotten the ID number, you can find the ID number and IP address of the current microphone through the provided PC to view the IP address widget.

4.8 The unit supports the ICMP protocol, ping packets,etc.

The PC calls out the CMD and can ping the corresponding unit IP address. Other devices can also ping to check whether the unit is online.

4.9 Camera tracking function

The camera tracking function can be implemented through the conference host, and the VISCA / PELCD_D camera protocol is supported. Users can directly connect a single camera to the conference host through 232/422, or use the camera tracking host to connect multiple cameras. The camera settings need to be implemented by PC software. For specific operations, please refer to the manual of the conference host.

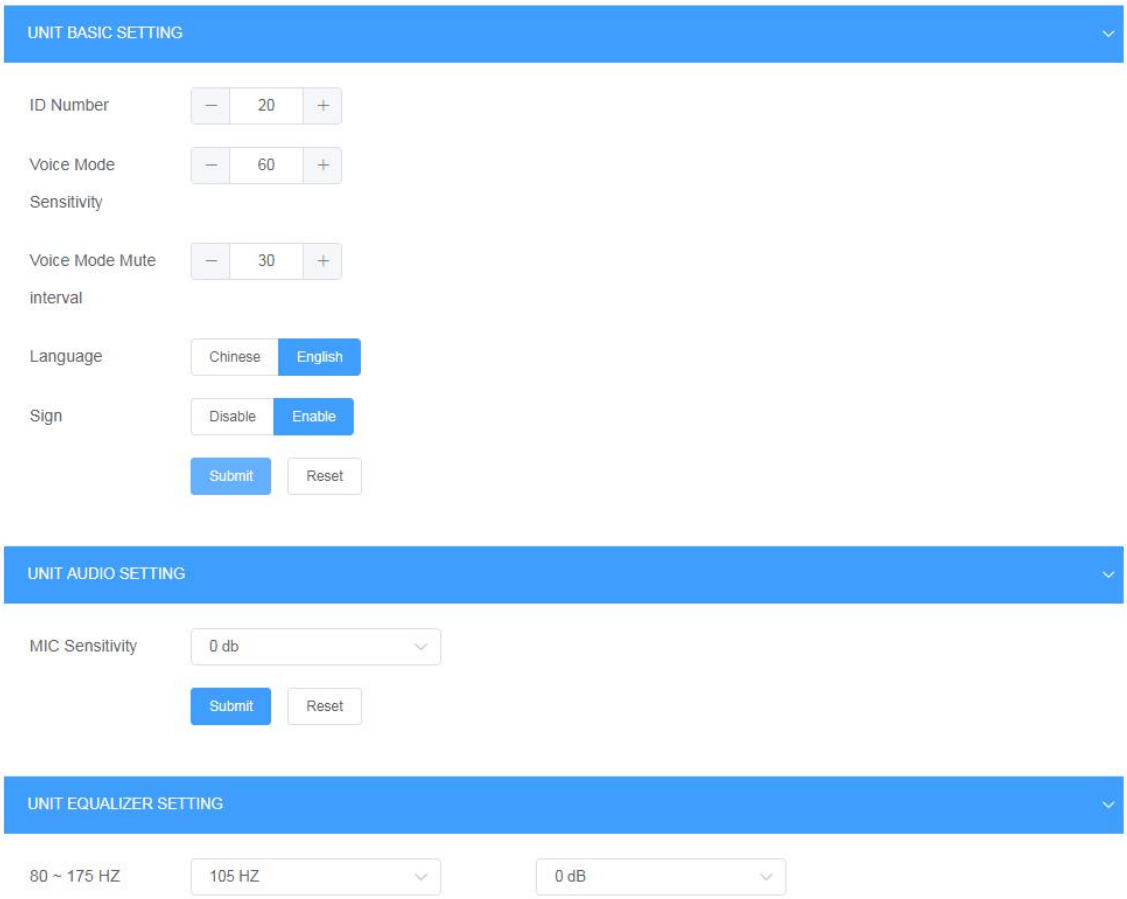
4.10 Unit web page login

(1) Set the PC to the same network segment as the unit;

(2) For the unit IP address, please refer to “7. Microphone unit ID and related IP address”;

(3) The subnet mask is 255.255.0.0;

(4) All settings in the webpage are effective after “Submit”.



4.11 Unit ID number Web setting

(1) Set the unit ID. The IP address of the unit will change after setting.

(2) After setting, you are required to set web parameters with the IP address bound by the new ID.

(3) After setting, the host is required to be powered on again.

4.12 Voice control Web setting

(1) Set the microphone sensitivity of the voice control mode.

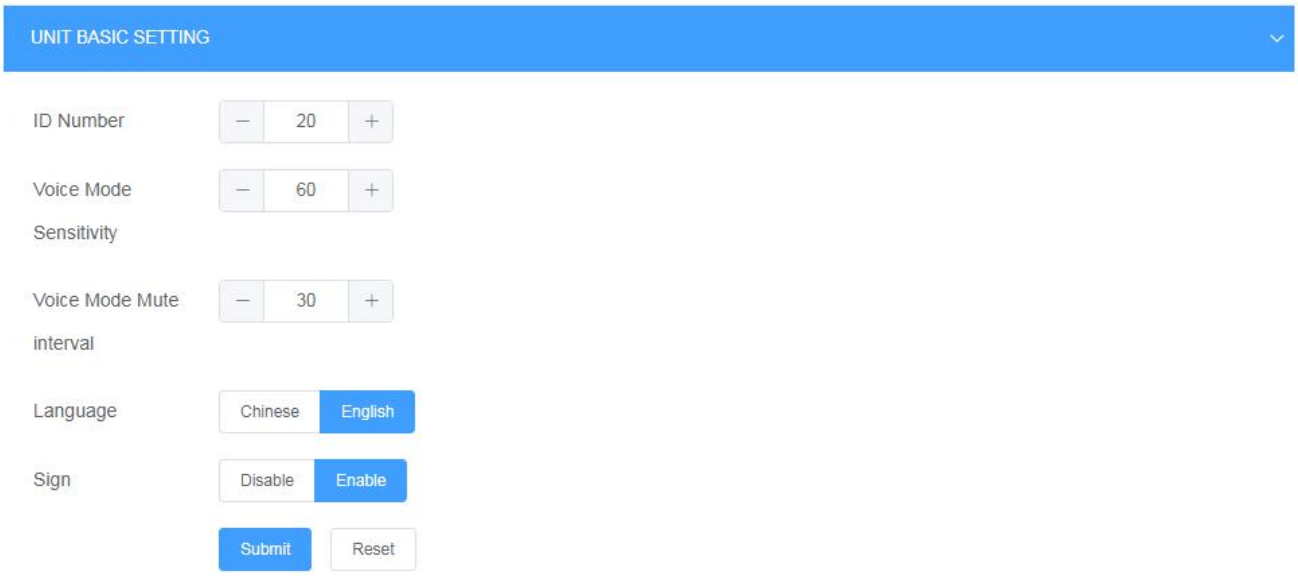
(2) Set the no-signal off time in voice control mode (the chairman unit is not affected).

4.13 Language switch Web setting

Switch Chinese and English on the web.

4.14 Sign-in, voting Web setting

This function is required to be set in non-sign-in mode and non-voting mode. Generally, it is set before the meeting. (TS-0306 doesn't support voting, function reserved)

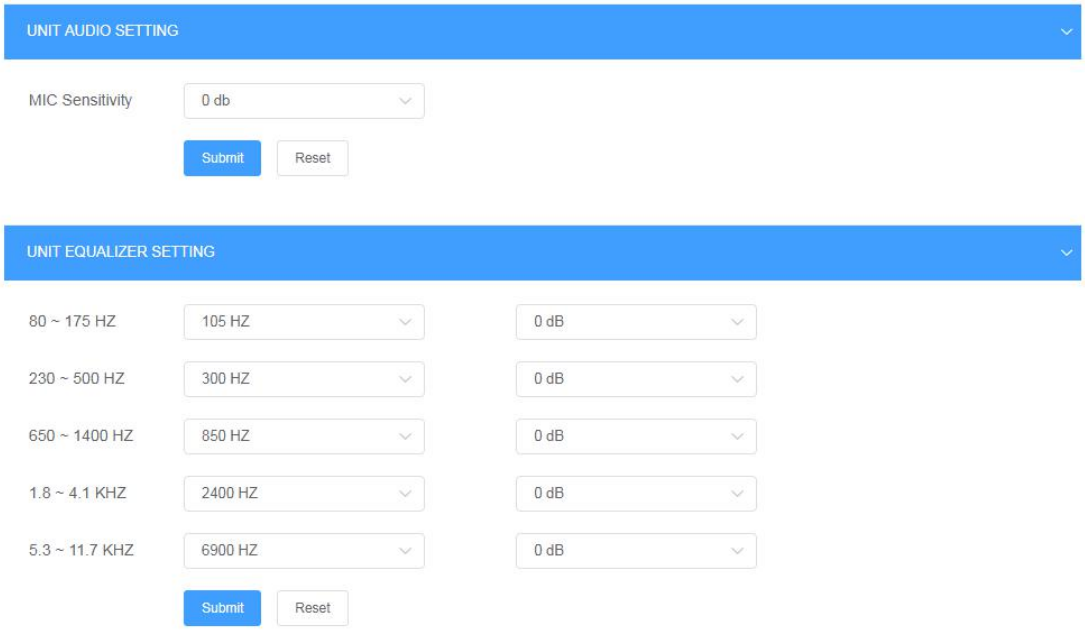


4.15 Unit audio parameters Web setting

(1) Microphone speaker volume (TS-0306 has no speaker, function reserved).

(2) Microphone sensitivity.

(3) Microphone EQ.

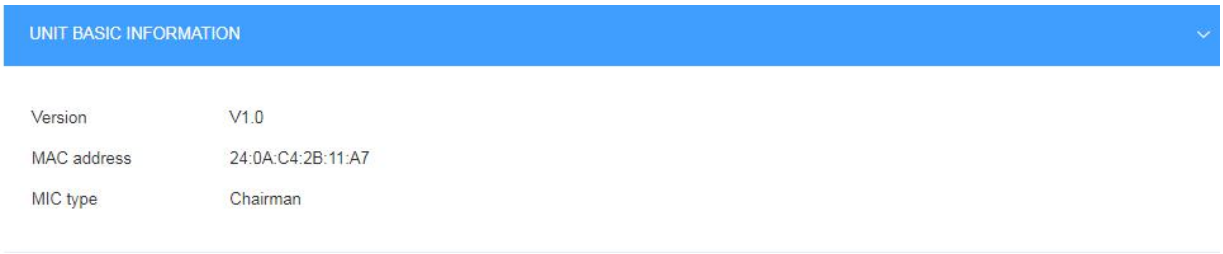


4.16 View unit basic information on Web

(1) Version number.

(2) MAC address.

(3) Microphone unit type



5. Notes

Note: When you search for the device IP address by unit search tool when logging in to the WEB management interface, please note that the TS-0306 unit network port cannot be directly connected to the computer network port, otherwise it will cause computer burn-in.

The TS-0306 microphone unit network port does not support POE power supply. It can only be powered by the conference host. And it is prohibited to connect to the POE switch.

The two network ports are the same and fully adaptive. The microphone units are connected hand in hand with an Cat5e or higher-standard network cable.

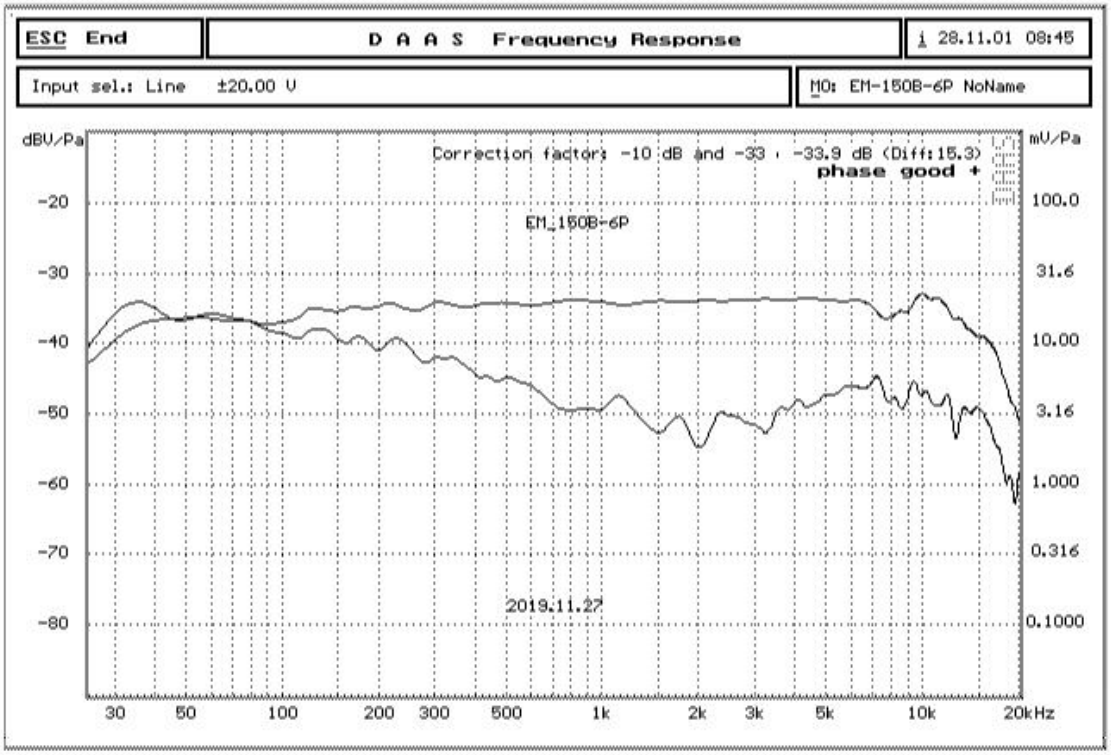
Correct steps: TS-0306 is required to be connected to TS-W100 conference host through the six-pin network port adapter cable TS-003DRM, and the computer is required to be connected to the host extension port EXTESION, and then the PC end Scan Tool is required to be opened to scan the current device ID and IP Address and other information.

6. Remarks

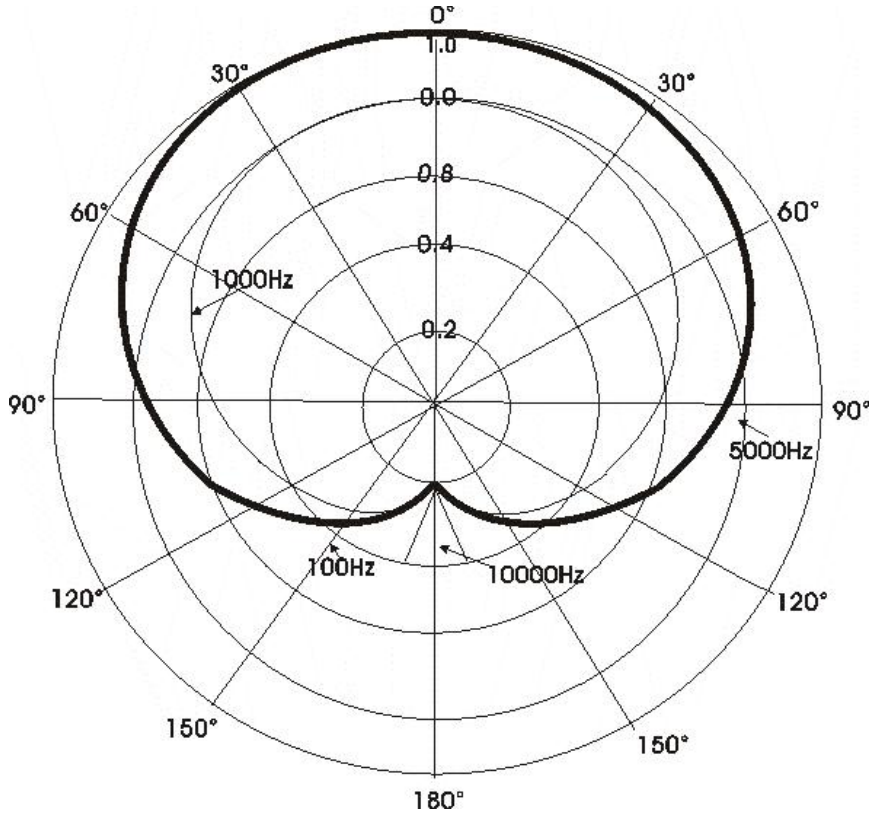
When it is not in use for more than half a year, it is supposed to be taken out and fully charged again to avoid battery damage.

Appendix

1. Microphone frequency response curve



2. Microphone cardioid curve



Fully Digital Conference System

Version0.2