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# **Fully Digital Conference System**

## **User Manual**

**TS-0223/0223A**

**Before using this system, please read this manual carefully**

## Notification

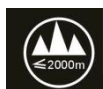


### WARNING

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.



- 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°C~ 60°C.

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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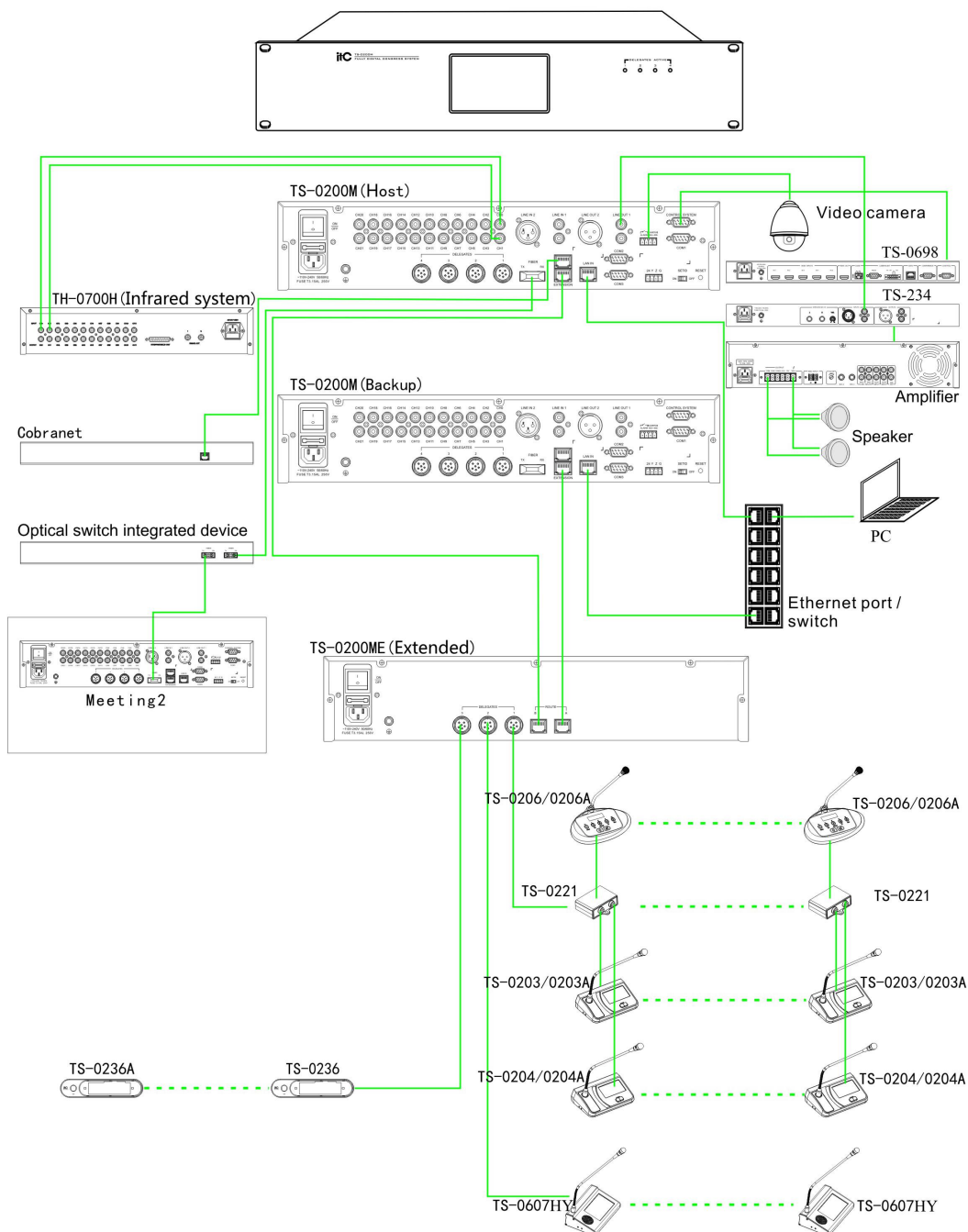
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# 1. System introduction

## 1.1 Brief description

TS-0200 series full digital conference system using ITC's original independent intellectual property rights with network communications and digital transmission processing technology, the digital technology and network technology are applied to conference system products, so that the conference field has a new breakthrough changes.

## 1.2 System connection diagram



## 2. Product description

### 2.1 Fully Digital Conference Embedded Chairman Unit and Delegate Unit TS-0223/TS-0223A



### 2.2 Features

1. It adopts fully digital induction touch embedded design, which looks simple and graceful. With the compact touch panel design and simple operation, it looks more modern-technology.
2. It adopts brand new numerical control design with capacitive touch button and without mechanical press sound. The button life span is longer and it is water-proof design.
3. The microphone adopts 48KHZ sampling rate, whose sound quality is higher than CD level. The internal is with DSP audio processing without any “puff” low frequency impact sound.
4. It is with speech timer and timing speech function.
5. The delegate unit is with application of speech function and the chairman unit has the right to approve speech from the applicant.
6. The chairman unit has the priority function that is able to turn off the delegate units which are making speech.
7. It is with feedback suppression function to avoid any squeal sound.
8. The microphone is with voice-control function to turn on the microphone intelligently.
9. It is with 5-section EQ regulatory function, which can adjust the sound to perfect effect according to the voice feature of the speaker.
10. It adopts 100M network transmission to realize hand-in-hand cascade connection and to avoid any influence by long distance transmission.

## 2.3 Functions

Chairman Unit: TS-0223

Delegate Unit: TS-0223A



- ① Chairman Unit Microphone Key (Touch type)
- ② Chairman Unit Microphone Priority Key (Touch type)
- ③ Delegate Unit Microphone Key (Touch type)

## 2.4 Specification

Model	TS-0223/0223A
Microphone Type	Cardiac directivity electret
Frequency Response	80Hz~16KHz
Microphone Input Impedance	1K $\Omega$
Sensitivity	-46 dBV/Pa
SPL Maximum	125dB(THD>3%)
SNR(Signal to Noise Ratio)	>80dB(A)
Dynamic Range	>80dB
THD	<0.1%
Maximum Power Consumption	1.8W
Standards	IEC60914
Connector	1.8 meter aviation 6-core cable
Power Supply	Power supply is from the main controller
Color	Cool gray
Sign-in function	Touch button to sign in
Weight	0.5Kg
Microphone rod height	409mm
Size (L×W×H)	108*77*129mm
Installation method	Embedded
Table opening hole size	64*54mm (The installation table thickness scope: 10~120mm) Notice: For the table thickness out of this scope, please get in touch with the supplier to order customized installation parts.

### **3. Conference system units TS-0223/0223A operating introduction**

#### **3.1 Power On**

Turn on the power of the main controller to power on the conference system. After several seconds, if the microphone units are turned on normally, the conference system is working normally; if the microphone units are not working normally, you will have to check out the reasons.

#### **3.2 The Unit type**

Chairman unit is with microphone key and priority key; while delegate unit is without priority key but with the other same function as the chairman unit.

#### **3.3 Edited ID**

When turn on TS-0200M (V1.6 version), you can set ID edition either manually or automatically. When you edit ID in TS-0200M manually, dial ID switch or click the ID editing key on the touch screen to edit ID manually. When the unit is in the state of ID editing, please press microphone key on the unit to begin ID editing; after long bright of microphone rod indicator and microphone indicator, ID is edited successfully. Follow the above method to edit all the microphone units and go back to conference mode.

When you edit ID in TS-0200M automatically, dial ID switch or click the ID editing key on the touch screen to edit ID automatically. Then the unit will enter into automatic ID edited state. When all the microphone key indicators and microphone rod indicator turn in red light, it means the ID edited is successful. After all units turn on red light, press microphone key to set individual microphone ID. At this time, you can end editing ID through the controller and go back to the conference mode.

When there is ID repeated in the system, the controller TS-0200M will remind “ID Repeated”. Any operation at that time is invalid. You have to click ID edited on TS-0200M either manually or automatically to edit the ID again.

#### **3.4 Conference Management**

The microphone unit switch is controlled by the conference management and its permission is configured by the main controller. Please refer to the conference mode introduction of the main controller when operating it.

Press MIC switch key to turn on or off the microphone.

In NORMAL mode, the extra microphones will be in standby mode; When the waiting microphone units are full, a reminder will be sent to the user.

Press priority key on the chairman unit and turn off all the delegate units, then chairman unit microphone will be turned on.

### **3.5 Sign In**

- 1) PC starts sign-in function.
- 2) PC starts and forbids sign-in function.
- 3) Turn the microphone on and off in sign-in mode.

### **3.6 Fire Alarm**

When the main controller release the fire alarm message, the red light on the microphone rod will be flashing; the microphone will recover to normal state only after fire alarm canceled by the main controller.

### **3.7 Other Functions**

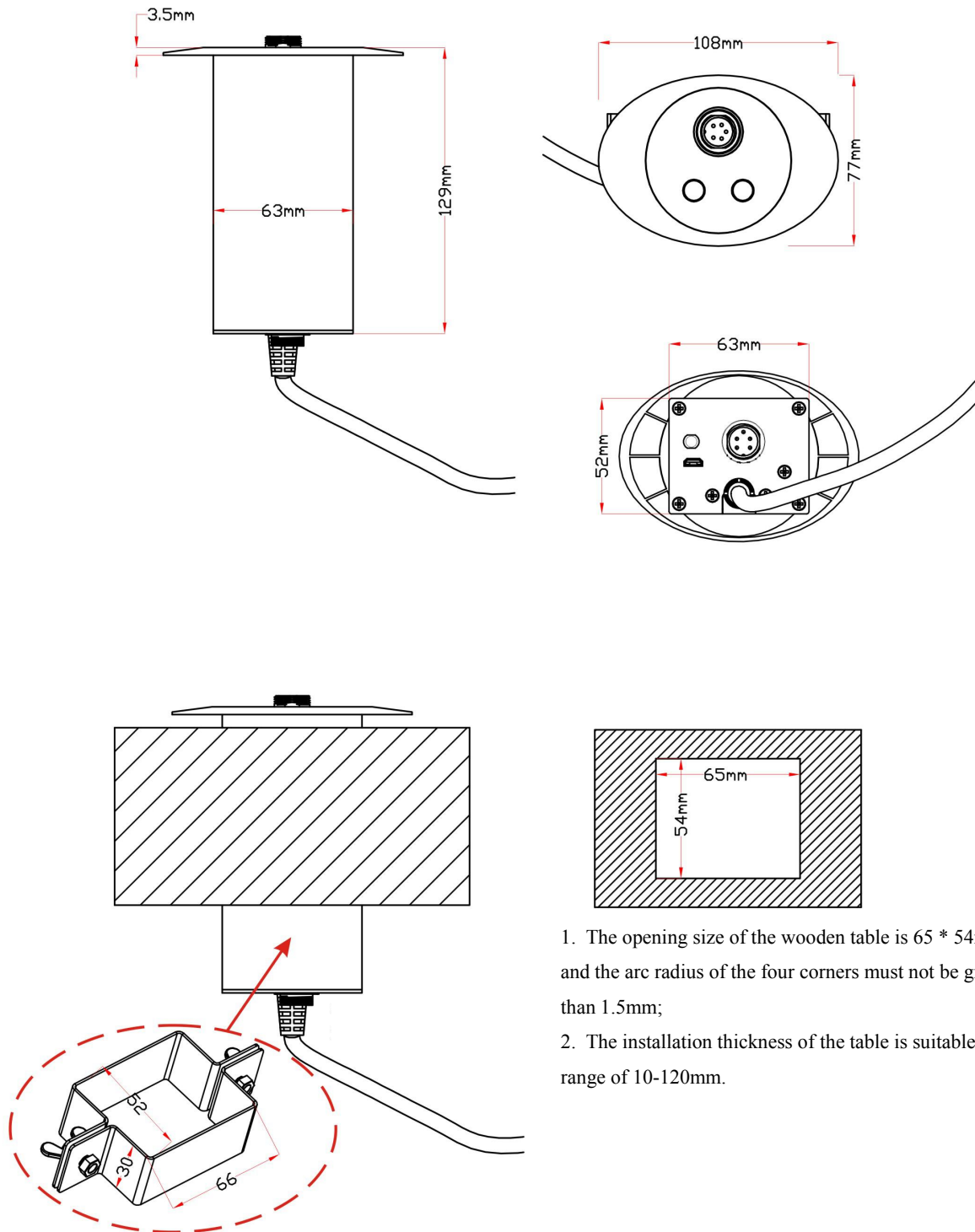
#### **3.7.1 Timing speech and speech timer**

This function should be controlled and switched by conference PC software. For more details, please refer to the PC operating introduction. The function is specific to the microphone switch function. During timing speech, PC will release timing speech period and the microphone will count down speech time. Microphone will be turned off automatically when time' s up. During speech timer, PC will assign the microphone to make speech timing and the microphone will display the speech period.

#### **3.7.2 Audio Frequency Adjustment**

This function should be controlled and switched by PC software. For more details, please refer to the PC operating introduction.

#### 4、 Product size opening hole drawing

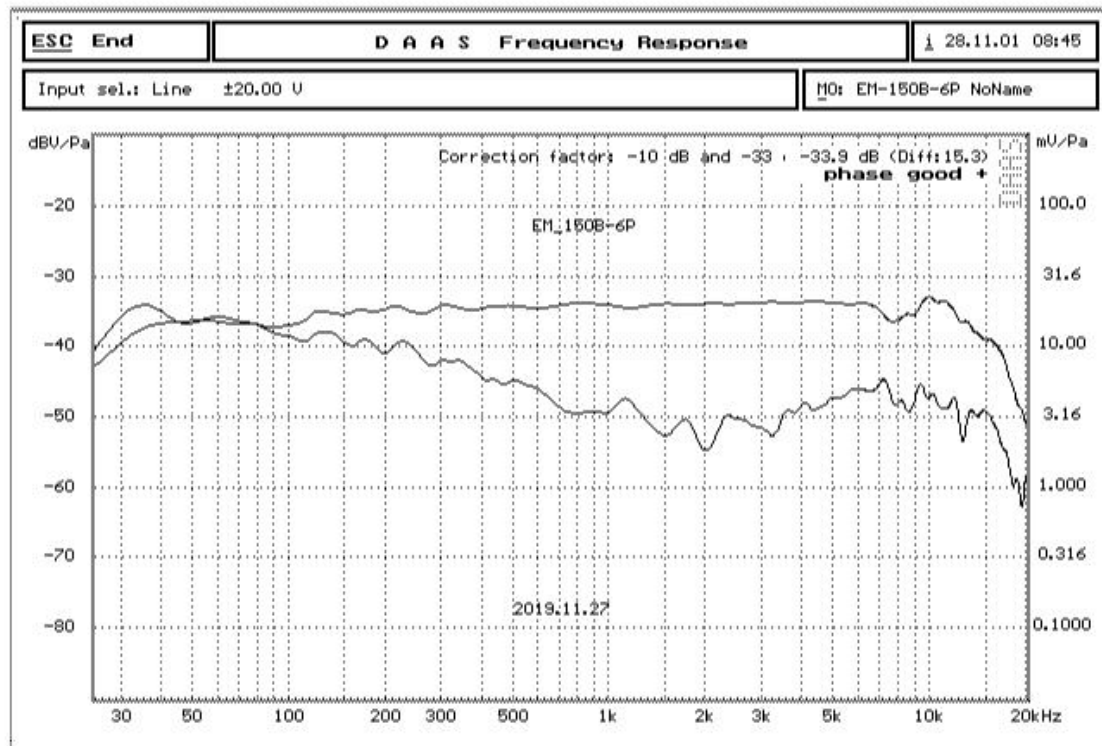


Put the brackets from both sides of the product case, and fix the product with the cooperation of the butterfly screw and the hex nut.

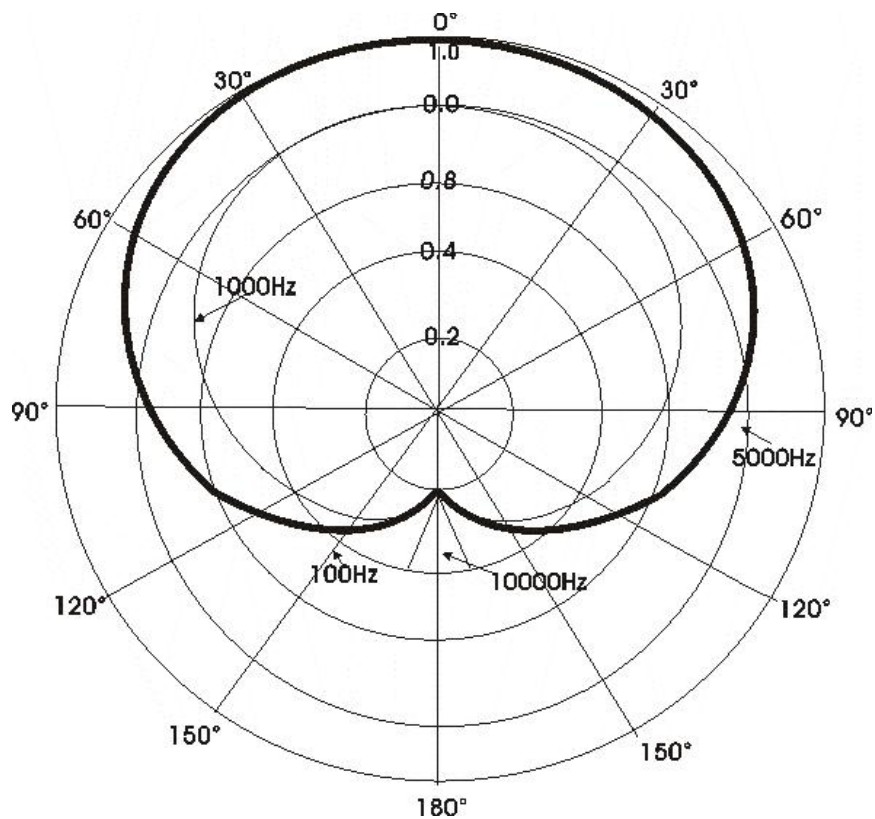
Note: if the microphone is a standard microphone, the microphone opening should be more than 29cm away from the edge of the desktop (except for the special microphone).

## Appendix

### 1. Microphone frequency response curve



### 2. Microphone cardioid curve



# Fully Digital Conference System

