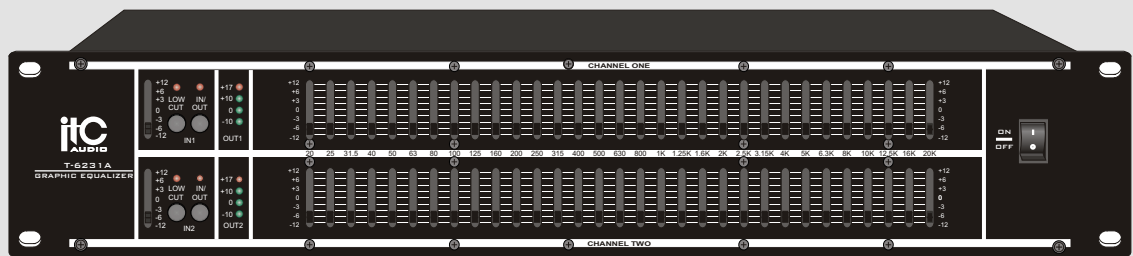




PUBLIC ADDRESS SYSTEM

OPERATION MANUAL

T-6231A GRAPHIC EQUALIZER



Please follow the instructions in this manual to obtain the optimum results from this unit. We also recommend that you keep this manual handy for future reference.

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1. SAFETY PRECAUTIONS

- Be sure to read the instructions in this section carefully before use.
- Make sure to observe the instructions in this manual as the conventions of safety symbols and messages regarded as very important precautions are included.
- We also recommend you keep this instruction manual handy for future reference.

Safety Symbol and Message Conventions

Safety symbols and messages described below are used in this manual to prevent bodily injury and property damage which could result from mishandling. Before operating your product, read this manual first and understand the safety symbols and messages so you are thoroughly aware of the potential safety



WARNING

Indicates a potentially hazardous situation which, if mishandled, could result in death or serious personal injury.



CAUTION

Indicates a potentially hazardous situation which, if mishandled, could result in moderate or minor personal injury, and/or property damage.



WARNING

When Installing the Unit

- Do not expose the unit to rain or an environment where it may be splashed by water or other liquids, as doing so may result in fire or electric shock.
- Use the unit only with the voltage specified on the unit. Using a voltage higher than that which is specified may result in fire or electric shock.
- Do not cut, kink, otherwise damage nor modify the power supply cord. In addition, avoid using the power cord in close proximity to heaters, and never place heavy objects -- including the unit itself -- on the power cord, as doing so may result in fire or electric shock.
- Be sure to replace the unit's terminal cover after connection completion. Because high voltage is applied to the speaker terminals, never touch these terminals to avoid electric shock.
- Be sure to ground to the safety ground (earth) terminal to avoid electric shock. Never ground to a gas pipe as a catastrophic disaster may result.
- Avoid installing or mounting the unit in unstable locations, such as on a rickety table or a slanted surface. Doing so may result in the unit falling down, causing personal injury and/or property damage.

When the Unit is in Use

- Should the following irregularity be found during use, immediately switch off the power, disconnect the power supply plug from the AC outlet and contact your nearest **ITC** dealer. Make no further attempt to operate the unit in this condition as this may cause fire or electric shock.
 - If you detect smoke or a strange smell coming from the unit.
 - If water or any metallic object gets into the unit
 - If the unit falls, or the unit case breaks
 - If the power supply cord is damaged (exposure of the core, disconnection, etc.)
 - If it is malfunctioning (no tone sounds.)
- To prevent a fire or electric shock, never open nor remove the unit case as there are high voltage components inside the unit. Refer all servicing to your nearest **ITC** dealer.
- Do not place cups, bowls, or other containers of liquid or metallic objects on top of the unit. If they accidentally spill into the unit, this may cause a fire or electric shock.
- Do not insert nor drop metallic objects or flammable materials in the ventilation slots of the unit's cover, as this may result in fire or electric shock.

1. SAFETY PRECAUTIONS

CAUTION

When Installing the Unit

- Never plug in nor remove the power supply plug with wet hands, as doing so may cause electric shock.
- When unplugging the power supply cord, be sure to grasp the power supply plug; never pull on the cord itself. Operating the unit with a damaged power supply cord may cause a fire or electric shock.
- When moving the unit, be sure to remove its power supply cord from the wall outlet. Moving the unit with the power cord connected to the outlet may cause damage to the power cord, resulting in fire or electric shock. When removing the power cord, be sure to hold its plug to pull.
- Do not block the ventilation slots in the unit's cover. Doing so may cause heat to build up inside the unit and result in fire.
- Avoid installing the unit in humid or dusty locations, in locations exposed to the direct sunlight, near the heaters, or in locations generating sooty smoke or steam as doing otherwise may result in fire or electric shock.

When the Unit is in Use

- Do not place heavy objects on the unit as this may cause it to fall or break which may result in personal injury and/or property damage. In addition, the object itself may fall off and cause injury and/or damage.
- Make sure that the volume control is set to minimum position before power is switched on. Loud noise produced at high volume when power is switched on can impair hearing.
- Do not operate the unit for an extended period of time with the sound distorting. This is an indication of a malfunction, which in turn can cause heat to generate and result in a fire.
- Contact your **ITC** dealer as to the cleaning. If dust is allowed to accumulate in the unit over a long period of time, a fire or damage to the unit may result.
- If dust accumulates on the power supply plug or in the wall AC outlet, a fire may result. Clean it periodically. In addition, insert the plug in the wall outlet securely.
- Switch off the power, and unplug the power supply plug from the AC outlet for safety purposes when cleaning or leaving the unit unused for 10 days or more. Doing otherwise may cause a fire or electric shock.

An all-pole mains switch with a contact separation of at least 3 mm in each pole shall be incorporated in the electrical installation of the building.

2. GENERAL DESCRIPTION

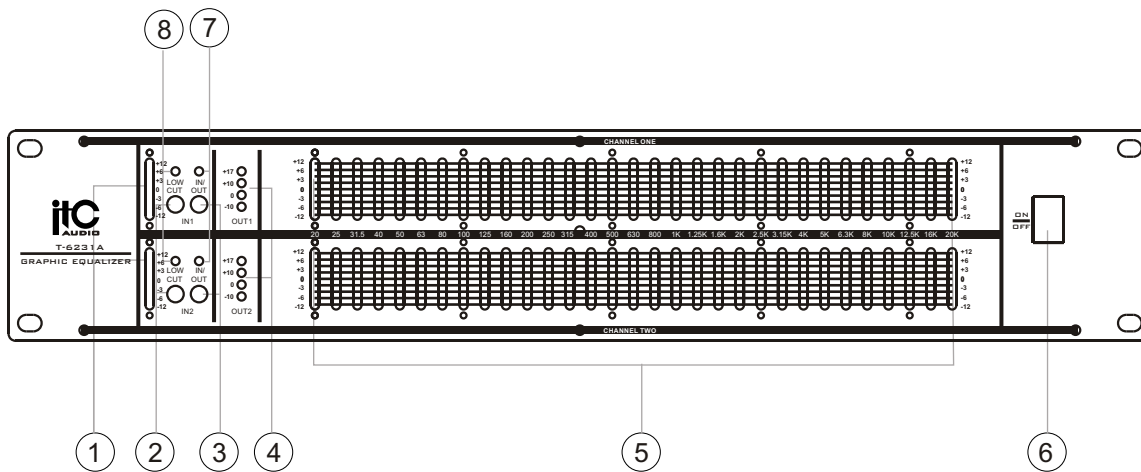
The T-6231A is a public address graphic equalizer which can provide an ideal public address solution from small to big places such as mosques, schools, hotels and factories to train stadium and air stations.

3. FEATURES

1. Ideal for adjusting the overall sound quality of a public address system.
2. 31 independent adjustable frequency bands.
3. XLR and phone jack connectors.
4. Allows fine tuning audio signals to suit the environment.
5. Built-in high and lower signal adjustor.
6. Noise reduction system.
7. Excellent frequency response.
8. Protection indicator and Power LED indicator.

4. NOMENCLATURE AND FUNCTIONS

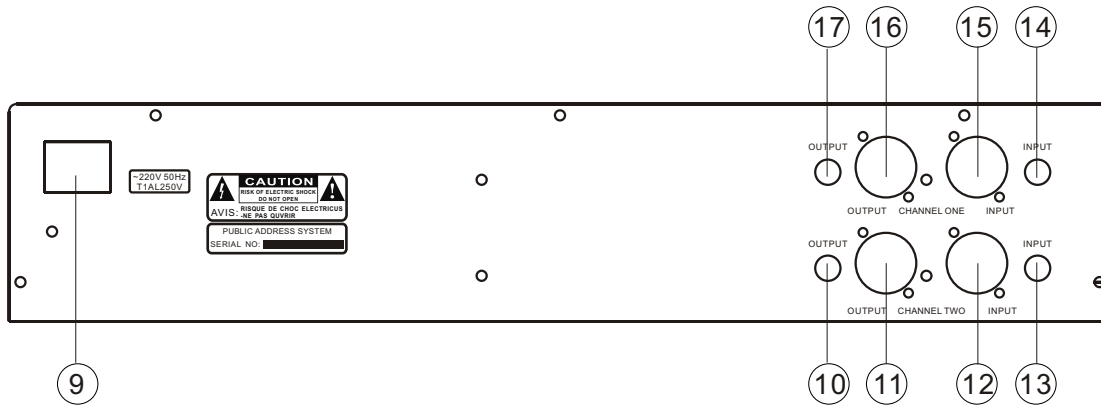
4.1 FRONT PANEL



- 1. SEMAPHORE REGULATE**
Output semaphore regulate
- 2. LOW CUT**
High pass filter ON/OFF switch
- 3. IN/OFF**
Equalizer range selection switch
- 4. OUT**
Level pilot lamp

- 5. EQUALIZER CONTROLS**
- 6. POWER SWITCH**
On top of the opening Power
Press the end, power shut down
- 7. LED INDICATOR**
High pass filter LED indicator
- 8. LED INDICATOR**
Equalizer range led indicators

4.2 REAR PANEL



9. ~220V/50Hz AC POWER INPUT

10.OUTPUT(CHANNEL TWO) 6.3mm

Output connector power amplifier

11.OUTPUT(CHANNEL TWO) XLR

Balanced output power amplifier

12.INPUT(CHANNEL TWO) XLR

Balanced input connector from power amplifier

13.INPUT(CHANNEL TWO) 6.3mm

Input connector from power amplifier

14.INPUT(CHANNEL ONE) 6.3mm

Input connector from power amplifier

15.INPUT(CHANNEL ONE) XLR

Balanced input connector from power amplifier

16.OUTPUT(CHANNEL ONE) XLR

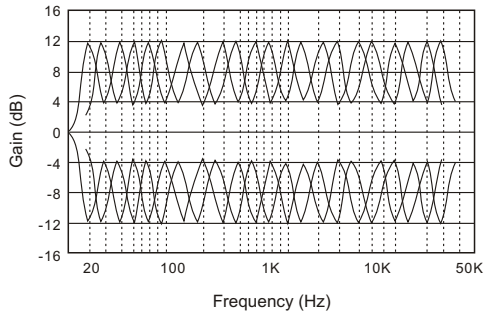
Balanced input connector from power amplifier

17.OUTPUT(CHANNEL ONE) 6.3mm

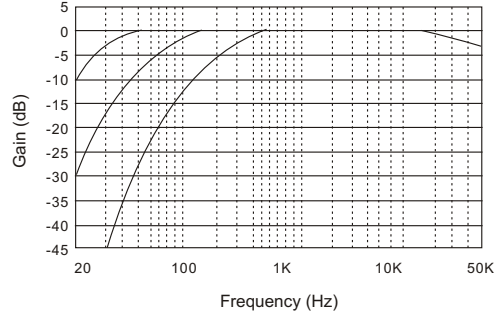
Input connector from power amplifier

5. TYPICAL PERFORMANCE

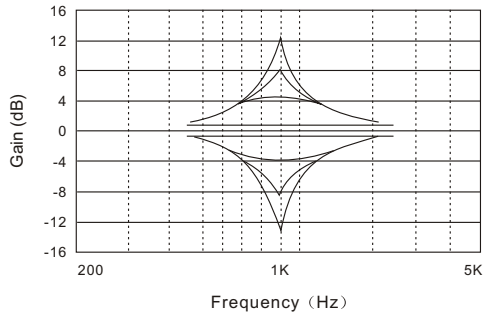
Equalizer Response(± 12 dB)



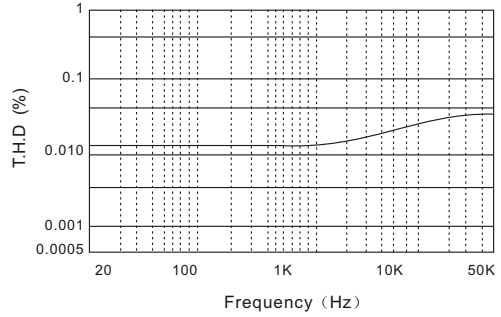
High-pass Filter Response(± 12 dB)



Equalizer Response Change (± 12 dB)

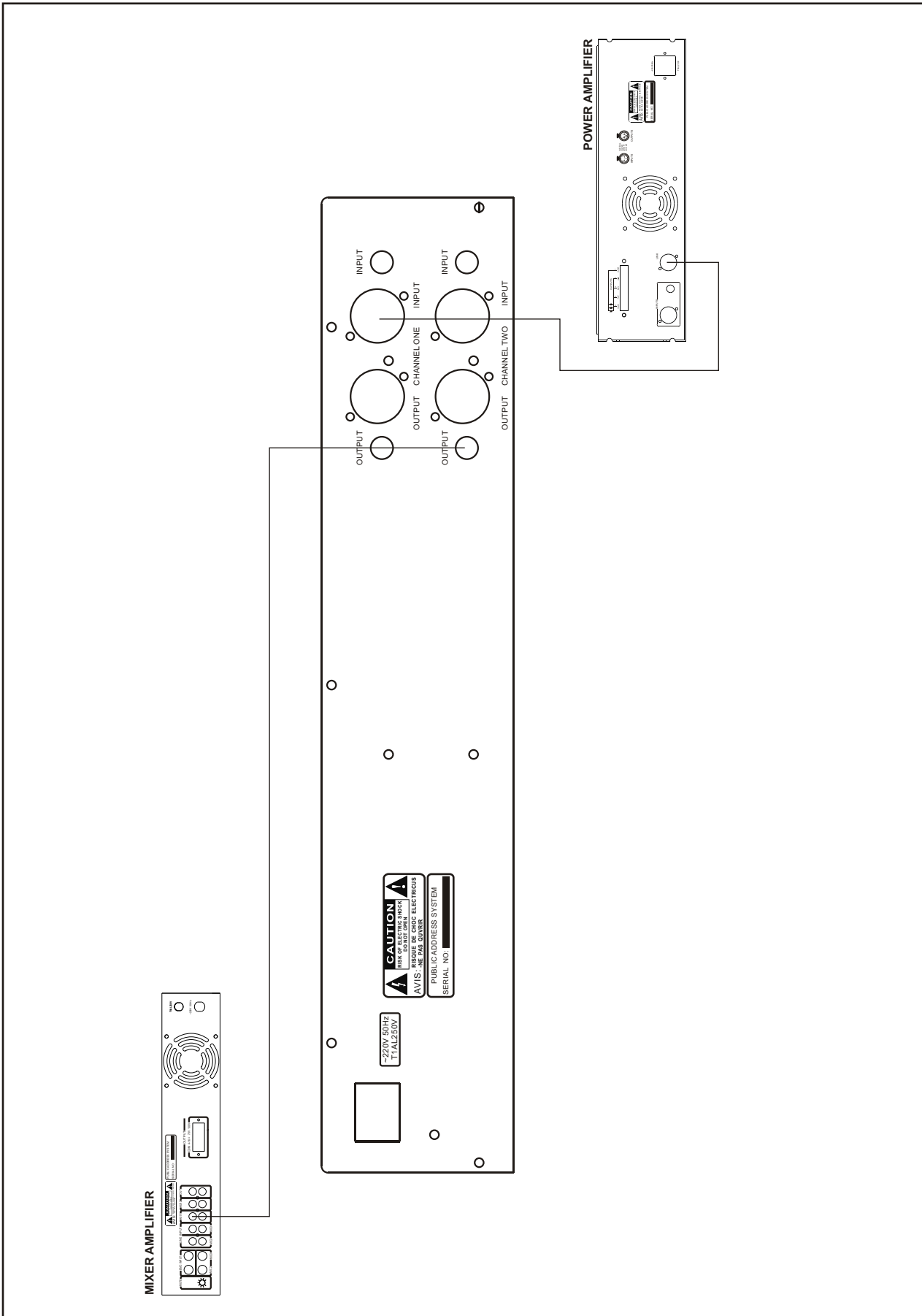


Distortion Characteristics ($+4$ dB/600 ohms)



6. APPLICATIONS

REAR PANEL CONNECTIONS

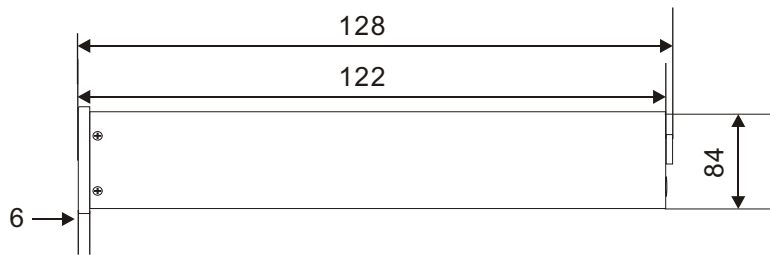
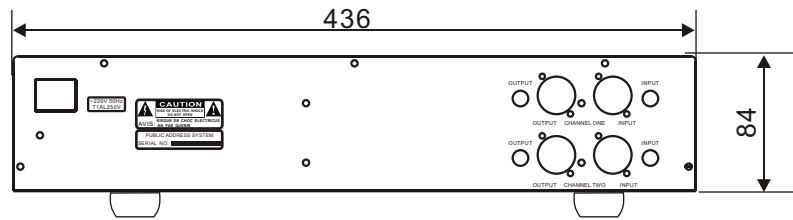
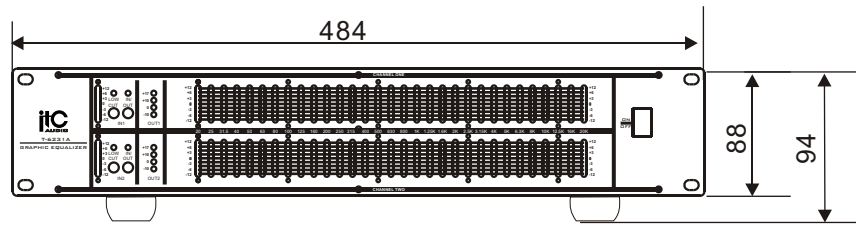


7. SPECIFICATIONS

GRAPHIC EQUALIZER	
MODEL	T-6231A
POWER SUPPLY	~220V/50Hz
POWER CONSUMPTION	17W
INPUT	+4dB,20kohms,balanced 3-pin XLR - type female connector and 1/4" tip-ring sleeve phone jack
OUTPUT	+4dB,10kohms,balanced (Approx,+2.5dB,600 ohms) 3-pin XLR - type female connector and 1/4" tip-ring sleeve phone jack
MAXIMUM INPUT	+24dB
MAXIMUM OUTPUT	+24dB(600 ohms load)
FREQUENCY RESPONSE	20Hz to 20.000Hz, \mathcal{R} 0.5dB(EQ IN, 10k ohms load)
DISTORTION	0.03% or less (20 20.000Hz,+4dB,600 ohms load)
S/N RATIO	90dB (20-20.000Hz Audio Band Fiter Weighted)
EQ GAIN	\mathcal{R} 6dB or \mathcal{R} 12dB Selectable
CENTER FREQUENCY(HZ)	20,25,31.5,40,50,63,80,100,125,160,200,250,315,400,500,630,800,1k,1.25k,1.6k,2k,2.5k,3.15k,4k,5k,6.3k,8k,10k,12.5k,16k,20k
FREQUENCY ALLOWANCE	\mathcal{R} 5%
GAIN ALLOWANCE	\mathcal{R} 12dB range: \mathcal{R} 1.5dB \mathcal{R} 6dB range: \mathcal{R} 1.0dB
HIGH-PASS FILTER	20 - 400Hz,-12dB / octave
MONITOR OUTPUT	+12dB / 7.5k ohms(Specified Output +4dB)
TALLY CONTROL INPUT	Make contact at EQ IN
REMOTE CONTROL INPUT	EQ Bypass Control (Make contact at EQ ON/OFF)
DIMENSIONS(mm)	484(W) X 66(H) X 130(D)mm(including rubber feet)
NET WEIGHT	4.2kg
GROSS WEIGHT	5.4kg

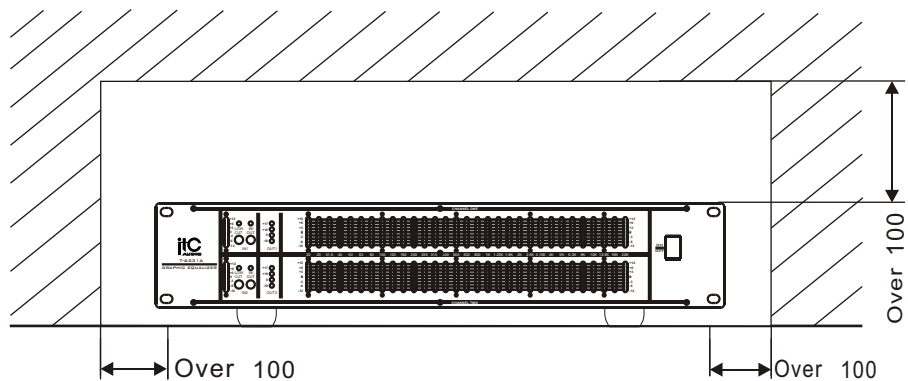
8. DIMENSIONAL DIAGRAM

UNIT :mm



Keep the unit's all sides over 10 cm away from objects that may obstruct air flow to prevent the unit's internal temperature rise.

UNIT :mm



PUBLIC ADDRESS SYSTEM



Guangzhou ITC Electronic Technology Limited
[Http://www.itc-pa.com.cn](http://www.itc-pa.com.cn)