

# 規格承認書

PECIFICATION FOR APPROVAL

客戶

CUSTOMER : 通用型規格書

項目

ITEM : 駐極體電容咪頭 (ECM) 全指向

型號

TYPE : GMD09445CST-41~49DB

描述

DESCRIPTION :  $\phi 9.4 \times 4.5$  MM 焊點 1033 範圍 -41~-49+/-2dB  $\leq 2.2K\Omega$  S/N:  $\geq 62$  dBA

客戶料號

CUSTOMER NO. :

規格書號

SPECIFICATION NO.: 會議、頭戴、直播產品專用

版本

EDITION NO. : V1.0

日期

DATE : 2023-2-15

## 客戶承認

### CUSTOMER CONFIRM AND SIGN

檢查 TESTED BY	審核 CHECKED BY	承認 APPROVED BY

東莞市贏海電子有限公司

**DONGUAN INGHAI ELECTRONICS CO.,LTD**

製作 ISSUED BY	審查 CHECKED BY	確認 APPROVED BY
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## 1. Electrical characteristics:

Directivity	Omnidirectional
Pb containation Requirement	Lead free
Charging type	Diaphragm
Sensitivity	-41~-49±2dB (0dB=1V/Pa, 1KHz)
Impedance	1KΩ
Standard operating voltage	4.5V
Operating voltage range	1V-10V
Current consumption	less than 500 μA
Voltage deduction characteristic	Within 3dB at 1.5V
S/N Ratio	More than 62dB (SPL=1Pa, 1KHz, A-weighting)

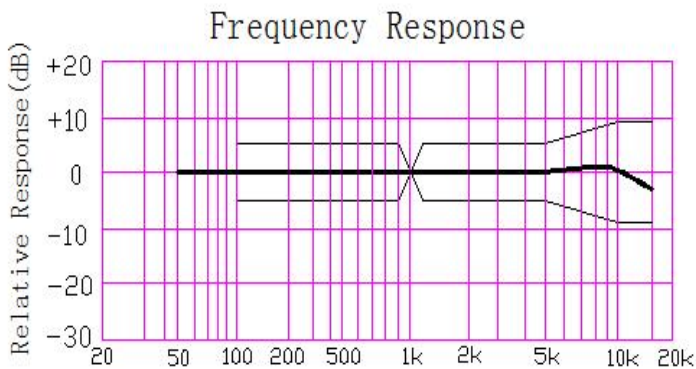
## 2. Frequency Response and Schematic Diagram:

### 2.1 Typical Frequency Response Curve:

Frequency Response

Microphone Response

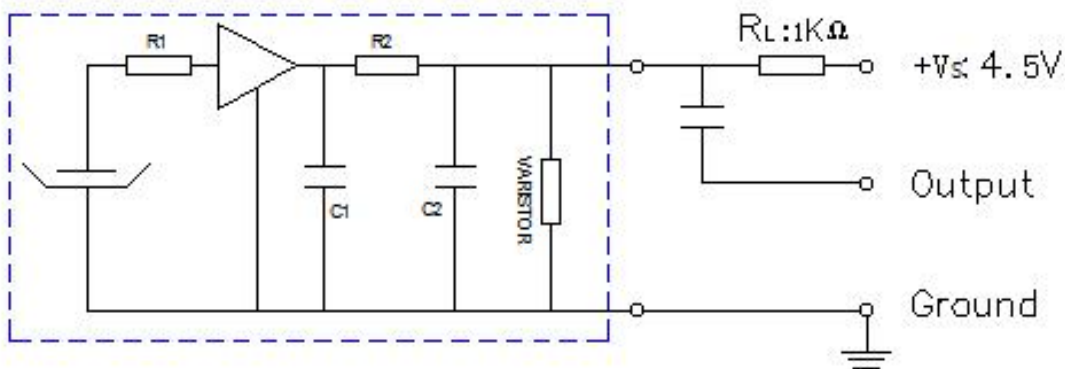
Tolerance Window



Frequency (Hz)	Lower Limit (dB)	Upper Limit (dB)
100	-10	5
200	-5	5
500	-5	5
1000	0	0
1200	-5	5
2000	-5	5
5000	-5	5
10000	-5	5
20000	-5	5

### 2.2 Schematic Diagram: R1=1KΩ R2=100Ω C1=10PF C2=33PF VARISTOR:

MVR0603-8R0G

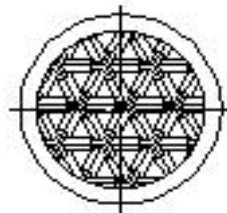
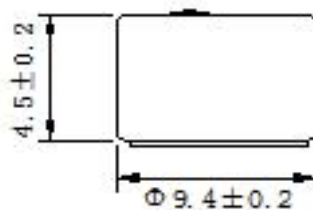
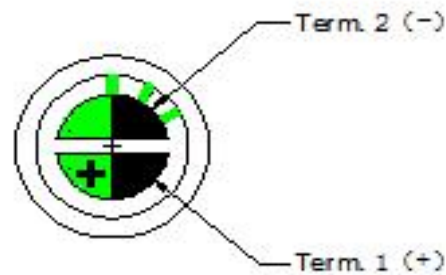


### 3. Mechanical characteristics:

3.1 Weight: Less than 0.8g

3.2 Dimension:

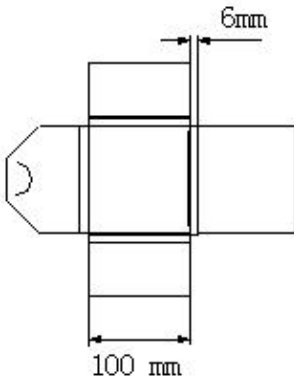
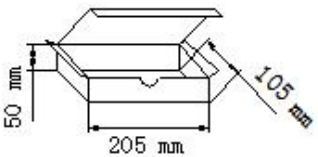
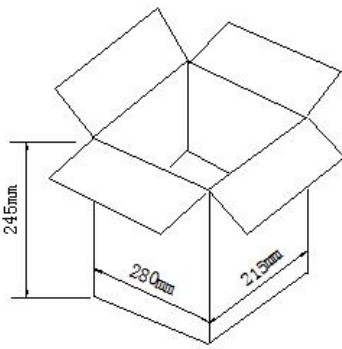
Unit:mm



### 4. Soldering Condition

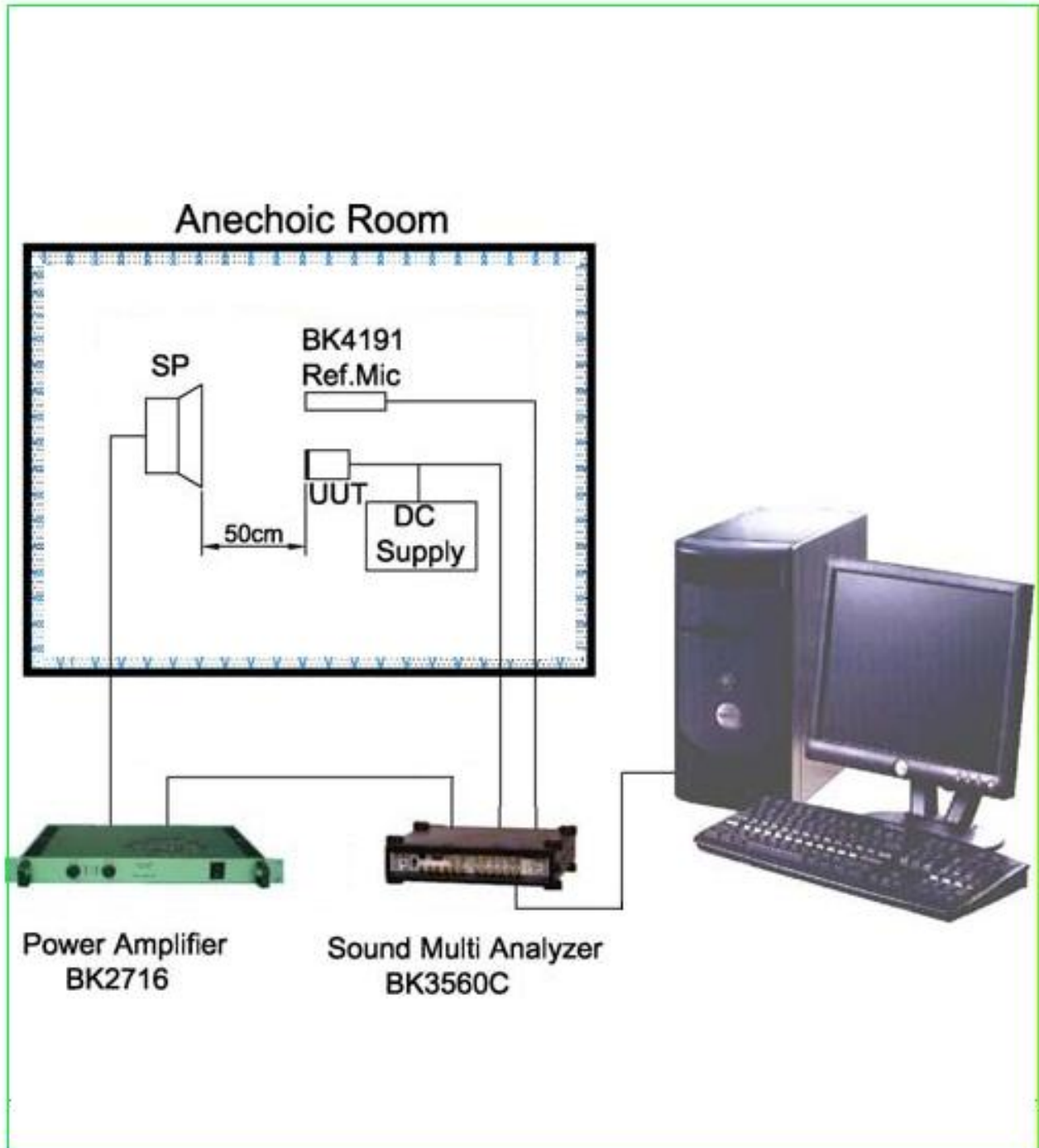
- 4.1 The soldering copper of a small type of 13~20W shall be applied.
- 4.2 The temperature of the working surface of the soldering copper shall be below 320°C.
- 4.3 ECM shall be soldered fixed on the metal block (heat sink), which has the higher radiation effects said heat sink shall contact with of ECM.
- 4.4 The soldering time for each terminal shall be 1~2 sec.
- 4.5 The pinhole after soldering shall be avoided.
- 4.6 ECM may easily destroyed by the static electricity and the countermeasure for eliminating the static electricity (the ground for soldering copper, for worktable and for human body) shall be executed

## 5. PACKAGING:

<p>小包装</p>	<p>SMALL PACKET 100mm*100mm*6mm 100PCS</p>	 <p>6mm 100 mm</p>
<p>中包装</p>	<p>MID PACKET: 205mm*105mm*50mm 1400PCS</p>	 <p>50 mm 205 mm 105 mm 中包装盒 (1400只)</p>
<p>大包装</p>	<p>PAPER CASE: 280mm*215mm*245mm 14000PCS</p>	 <p>245mm 280mm 215mm 大包装箱 (14000只)</p>

## 6. TEST SETUP DRAWING

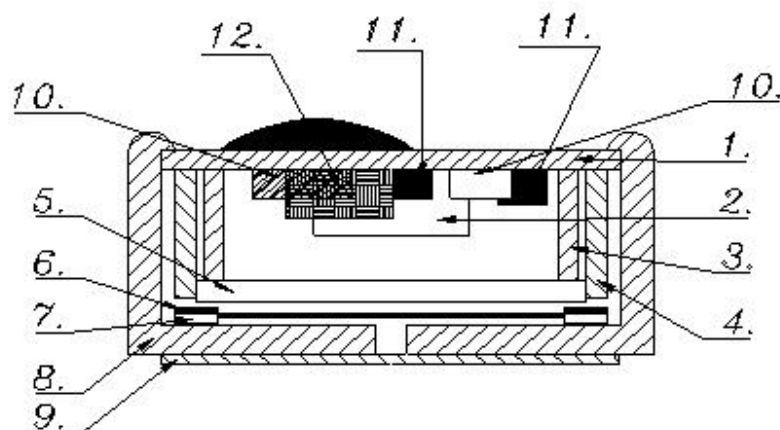
### Standard Frequency Response Test



## 7. Reliability test:

	Item	Test condition	Evaluation
1	High temperature Test	The part shall be capable of with- standing a storage temperature of +70 °C for 200 hours.	After the test the ECM unit shall meet the requirement of no more than $\pm 3$ dB variation from initial sensitivity after 2 hours recovering.
2	Low temperature Test	The part shall be capable of with- standing a storage temperature of -20 °C for 200 hours.	
3	Temperature cycle test	The part shall be subjected to 5 cycle. One cycle shall consist of ( +70 °C ,30min → Room temp(+20°C), 10min→-20°C30min →Room temp(+20°C), 10min)	
4	Humidity Test	The part shall be capable of with- standing a storage of humidity of 90 ~ 95% at the +40°C for 200 hours.	
5	Drop Test	The microphone unit without package must be subjected to each 3 drops at three axes from the height of 1 meter to 20 mm thick hardwood board.	
6	Vibration Test	The microphone unit must be subjected to each 2 hours vibrations at three axes 2mm dynamic range, 10~50Hz/minute.	
7	Soldering Heat Resistance	Soldering iron of +330 $\pm$ 5 °C should be placed on the terminal for 2 $\pm$ 0.5 seconds.	

## 8.Drawing



1	PCB	7	振膜
2	FET	8	外壳
3	连接环	9	防尘网
4	塑环	10	电容
5	极板	11	电阻
6	垫片	12	VARISTOR

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