

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: ≥ 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 containment 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)

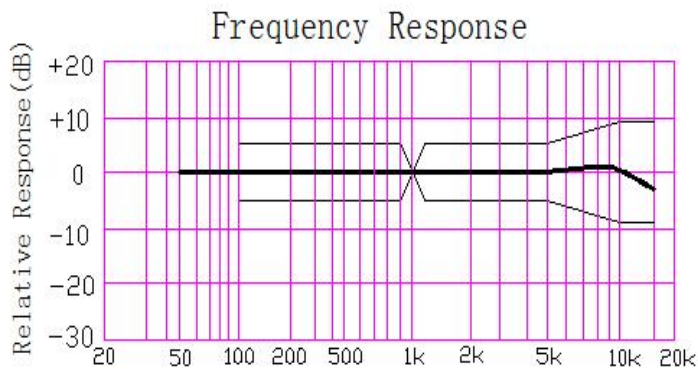
2. Frequency Response and Schematic Diagram:

2.1 Typical Frequency Response Curve:

Frequency Response

Microphone Response

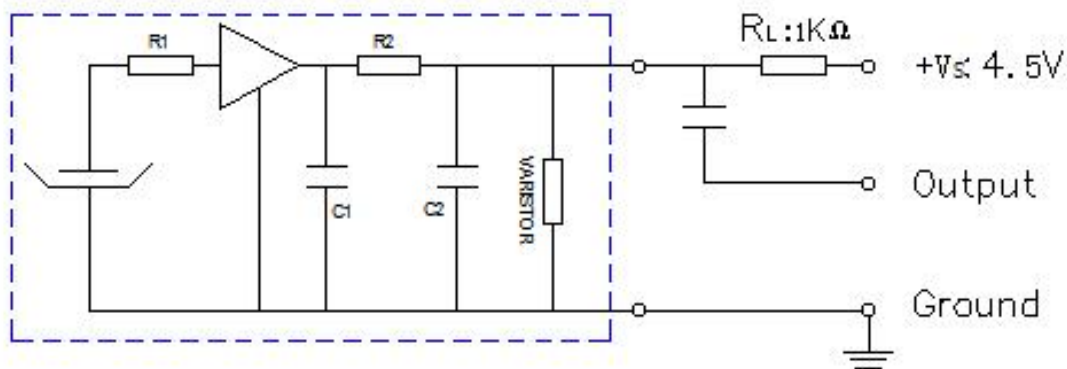
Tolerance Window



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

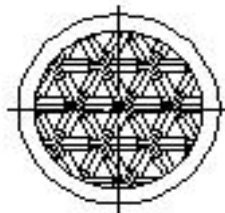
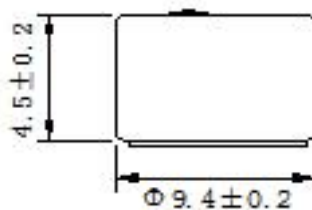
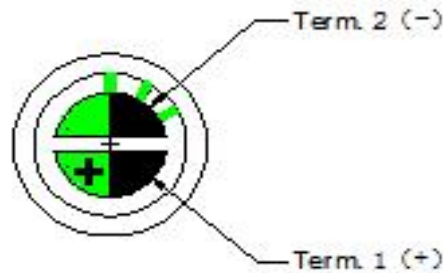


3. Mechanical characteristics:

3.1 Weight: Less than 0.8g

3.2 Dimension:

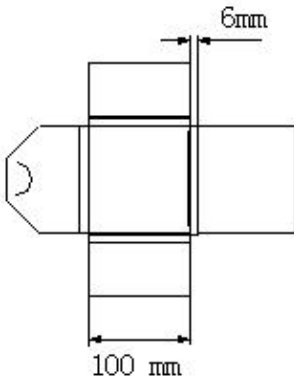
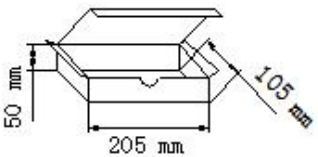
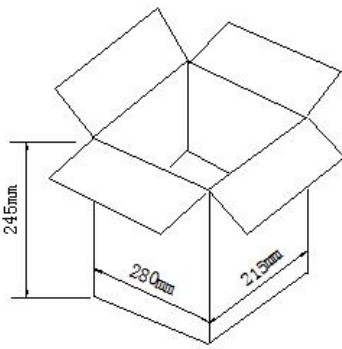
Unit:mm



4. Soldering Condition

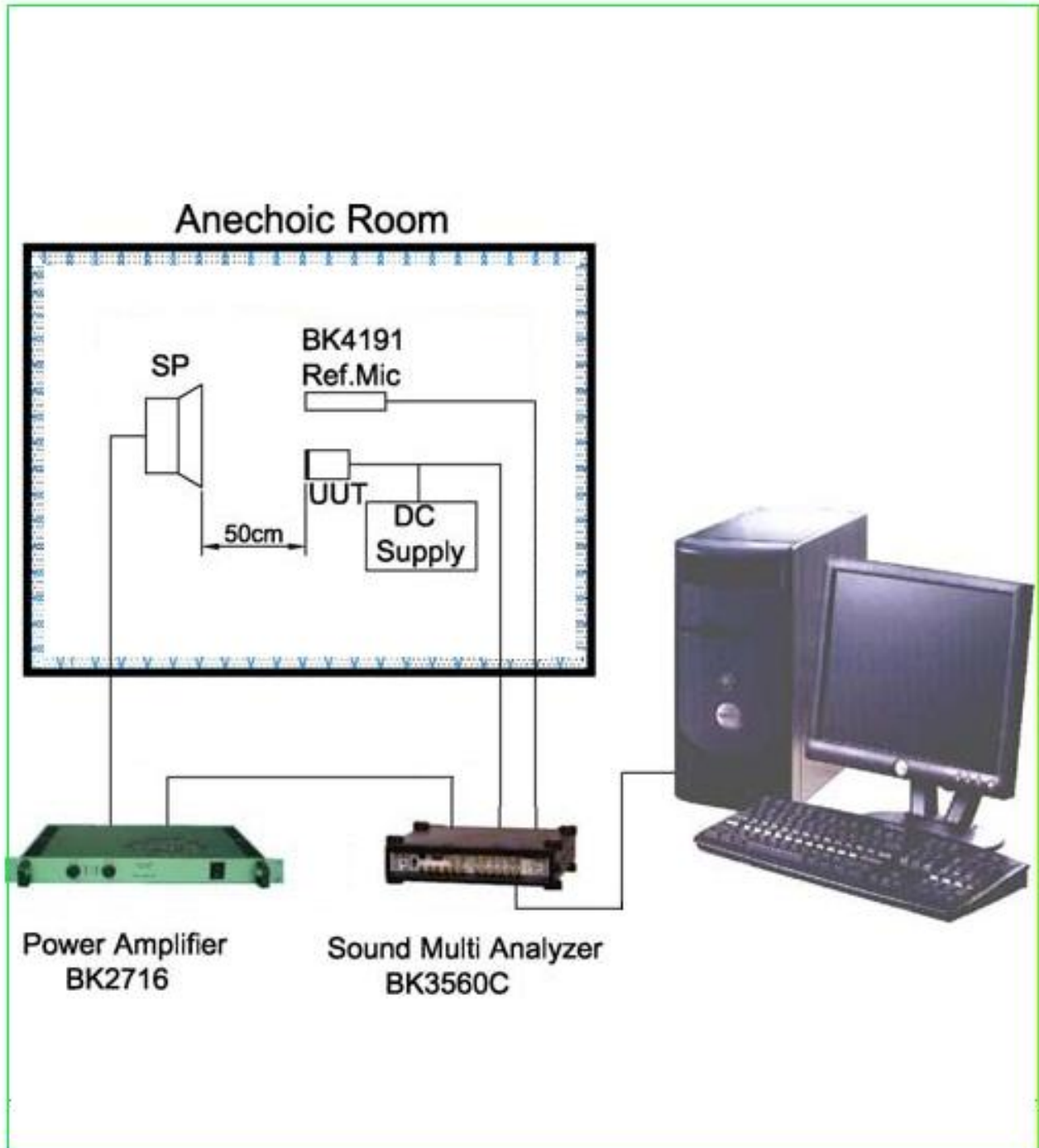
- 4.1 The soldering copper of a small type of 13~20W shall be applied.
- 4.2 The temperature of the working surface of the soldering copper shall be below 320°C.
- 4.3 ECM shall be soldered fixed on the metal block (heat sink), which has the higher radiation effects said heat sink shall contact with 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>The diagram shows a flat net of a small packet. It consists of a central rectangular panel with a width of 100 mm. On the left side, there is a semi-circular flap. On the right side, there is a rectangular flap. The thickness of the packet is indicated as 6 mm.</p>
<p>中包装</p>	<p>MID PACKET: 205mm*105mm*50mm 1400PCS</p>	 <p>The diagram shows a perspective view of a mid packet. The length is 205 mm, the width is 105 mm, and the height is 50 mm. The top flaps are shown partially open.</p> <p>中包装盒(1400只)</p>
<p>大包装</p>	<p>PAPER CASE: 280mm*215mm*245mm 14000PCS</p>	 <p>The diagram shows a perspective view of a paper case with its top flaps open. The length is 280 mm, the width is 215 mm, and the height is 245 mm.</p> <p>大包装箱(14000只)</p>

6. TEST SETUP DRAWING

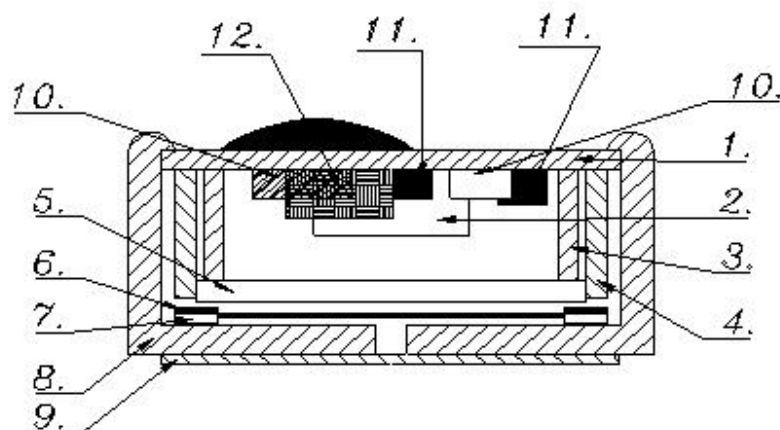
Standard Frequency Response Test



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 ± 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 ± 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