

SPECIFICATION FOR APPROVAL

承认书

Customer (客户) : _____

Product Name (产品名称) : _____ 咪头 _____

Zhenmei Part No. (臻美型号): _____ MIO6050N42-001 _____

Specification (规格) : _____ 6.0*5.0 mm _____

Customer's Model No. (客户型号): _____

Specification No. (规格书编号): _____ SQ06050N42-001 _____

Number of the edition (版本号) : _____ A1 _____

CUSTOMER'S APPROVED SIGNATURE 客户承认盖章		



广东臻美智能电子科技有限公司

Guangdong zhenmei intelligent electronic technology co., ltd.

地址:广东省东莞市塘厦镇华新智慧工业园华新路 22 号

TEL: 400-659-1989 FAX:0769-82196690

Http: www.zhenmeigd.com

E-MAIL: sales888@zhenmeigd.com

Approved by 核准	Checked by 审核	Issued by 制成

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MI06050N42-001

1. Scope

The specifications should be applied to electret condenser microphone of MI06050

2. Storage And Judgement Conditions

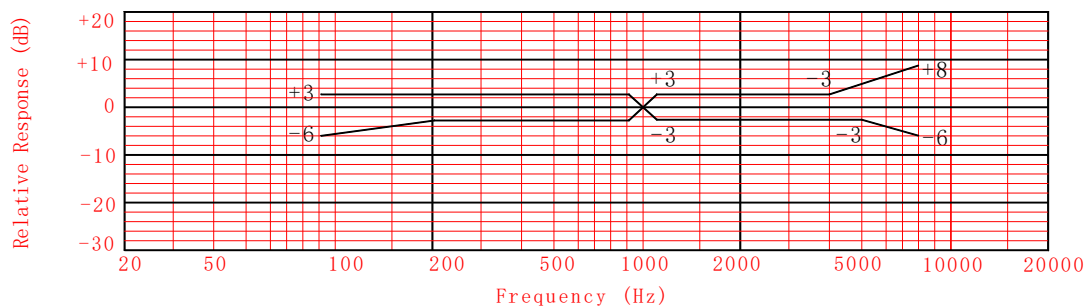
	Temperature Range(° C)	Rel. Humidity (%)	Static Pressure (kPa)
Judgement	19~21	60~70	86~106
Storage	-40~80		
Operating	-20~70		

3. Specifications

Test Conditions: $V_s=4.5V$, $R_L=2.2K\Omega$, $Temp=20\pm 2^\circ C$, $R.H=60\pm 5\%$

ITEM	Symbol	Test Conditions	Min	Standard	Max	Unit
Sensitivity	S	f=1KHz, S. P. L=1Pa	-44	-42	-40	dB 0dB=1V/Pa
Impedance	Z	f=1KHz, S. P. L=1Pa			2.2	K Ω
Directivity		Omni-directional				
Current Consumption	I				500	μA
Operation Voltage Range	VS		1.0	4.5	10	V
S/N Ratio	S/N(A)	f=1KHz, S. P. L=1Pa A Curve	58			dB
Decreasing Voltage Characteristic	ΔS	f=1KHz, S. P. L=1Pa $V_s=4.5-3.0V$			-3	dB
Max. Input Sound Level	MISPL	f=1KHz, Distortion<1%			110	dB

4. Frequency Response



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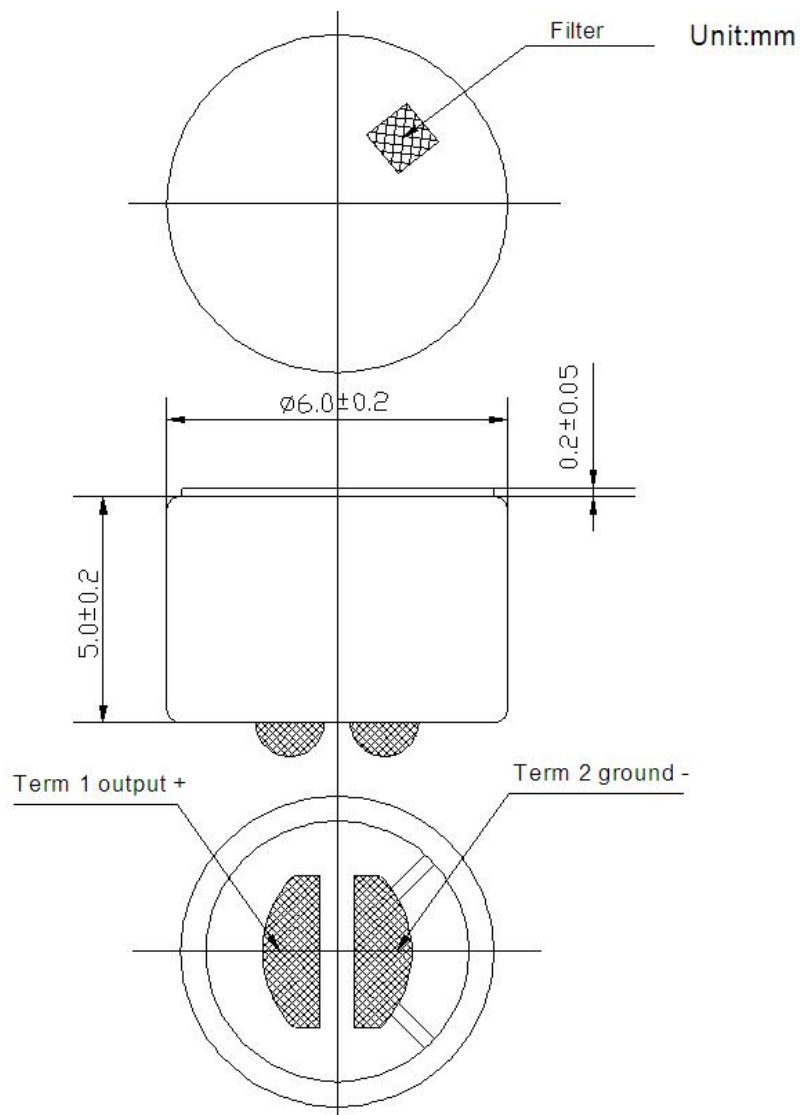
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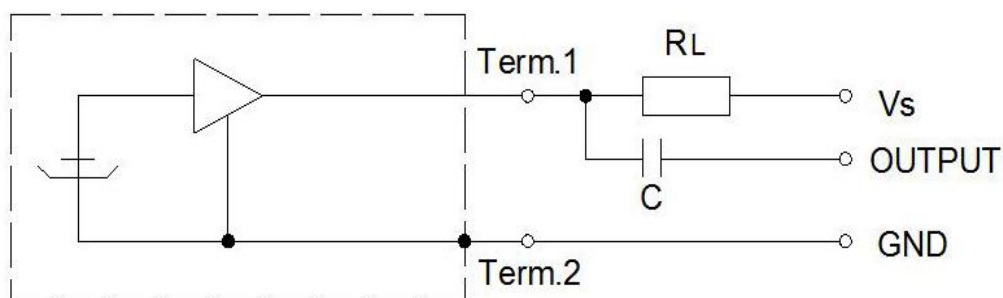
5. APPEARANCE & DIMENSIONS



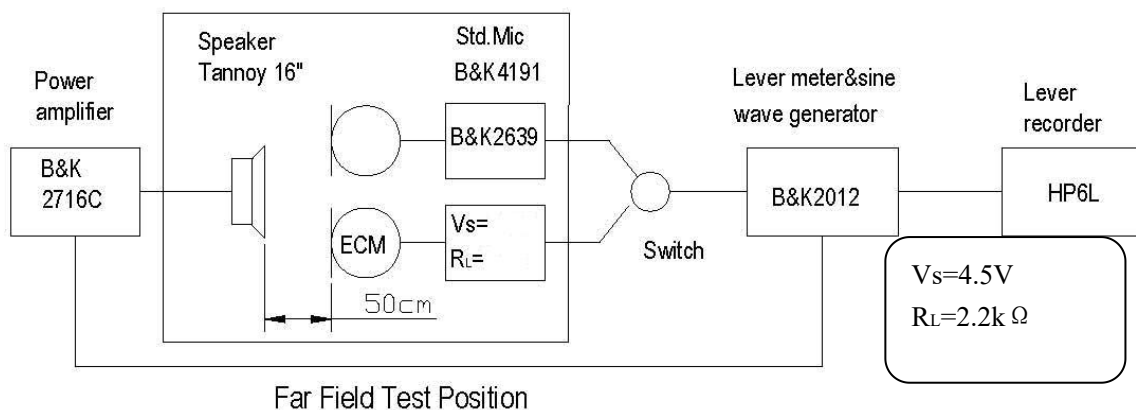
6. Test Circuit

Measurement Circuit

V_s : Source Voltage 4.5V R_L : Load Resistance 2.2K Ω



7. Test Setup Drawing



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8. Reliability Test

All tests should be done after 2 hours of conditioning at 20°C, R. H65% , while the sensitivity is to be within $\pm 3\text{dB}$ from the initial sensitivity after the following experiments.

8.1 High Temperature Test

High temperature: +80°C
Duration: 72 hours

8.2 Low Temperature Test

Low temperature: -40°C
Duration: 72 hours

8.3 Temperature Cycle Test (See in Fig.1)

Low temperature: -40°C
High temperature: +80°C
Changeover time: 10min
Duration: 30min
Cycle: 32

8.4 Statical Humidity Test

Temperature: +40°C
Relative humidity: 90~95%
Duration: 72hours

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8.5 Vibration Test

Amplitude :	1.52mm
Duration:	1minutes /plane
Freq.range:	10~55 Hz
Total time:	2 hours

8.6 Dropping Test

Drop a unit unpacked onto a board of 20mm thick.

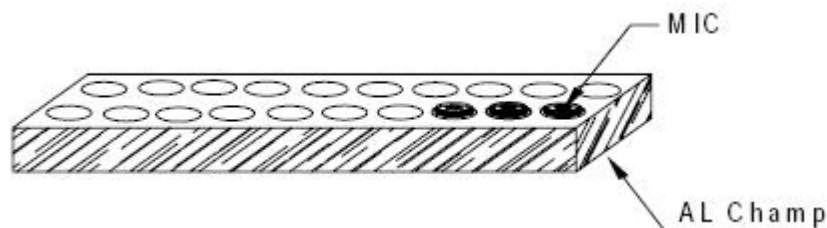
Height:	1.0 m
Cycle:	6

8.7 ESD Test

The microphone under test must be discharged between each ESD exposure without ground.
(contact: $\pm 6KV$, air: $\pm 8KV$) There is no interference in operation after 10 times exposure.

9. Regarding the Soldering operation

- Use 15~ 20W soldering iron and maintain $290^{\circ}C \sim 310^{\circ}C$ in operation.
- Operators who work in the solder fixture and the soldering iron must be statically grounded under each soldering process.
- Soldering should be accomplished within two seconds at each terminal so as not to be overheated.
- Optimal design for heat sink pad is same as below.



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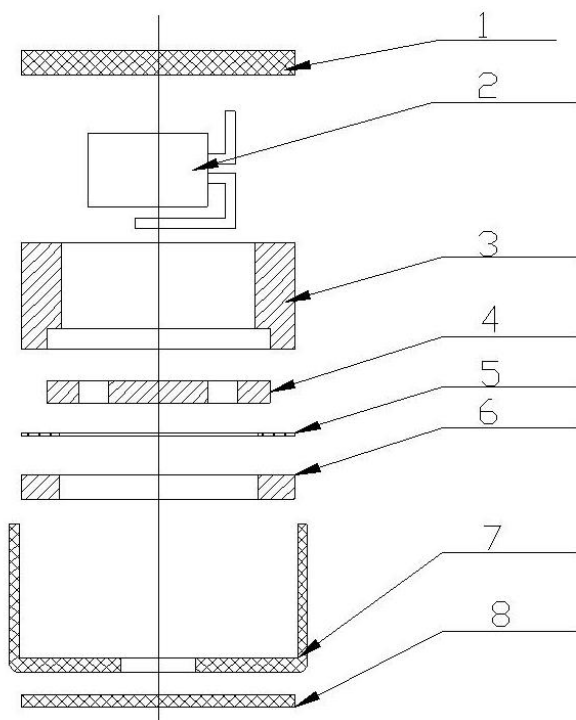
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10. List and Structure of Materials



NO.	PARTS
1	PCB
2	FET
3	Holder
4	Back plate
5	Spacer
6	Film
7	Outer most shell
8	Cloth

NO	Part name	Material Type	Qty	Origin	Manufacture	Remarks
1	PCB	FR-1	1			
2	FET	CSK596	1			
3	Holder	POM	1			
4	Back plate	Cu	1			
5	Spacer	Mylar	1			
6	Film	FEP	1			
7	Outer most shell	AL	1			
8	Cloth	Fabrics	1			

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11. HANDLING INSTRUCTION

1、 Assembly process

a)、 After connector and holder are once disassembled , they should not be re-used.

b)、 Do not touch outer springs directly(except for PCB or proper terminal set at nominal height.

c)、 Do not give any mechanical shocks to the microphone(e.g. dropping to floor)

2、 General information

2-1: This microphone shall not be operated or stored in following environment.

>where liquid(water,solvent and so on)splashes.

>where the air has a high concentration of corrosive gas .

>where is too dusty.

>where temperature changes rapidly.

2-2: Frequency response especially in high frequency region is dependent on the structure of enclosure.

Please remove additional acoustic mass or cavity in front of the microphone to the utmost.

2-3:do not put mechanical pressure more than 2 kg to the microphone.

2-4: microphone should not be in state of outgoing packing for a long-term storage.

2-5: all the soldering procedures upon microphone must be complete in a metallic device,the temperature of the soldering irons must be limited as 320℃ and less 3 s ,the operators、 the solder fixtures and the soldering irons must be statically grounded under each soldering process.