

SPECIFICATION

Customer : AMSI COMPONENTS,CO

Applied To :

Product Name : MIC

Part No : KPCM-97H67-38dB

Drawing No. : KF3.002.637.38

Signature of Approval

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Signature of KEPO

Approved by	Checked by	Issued by	Date



Ningbo Kepo Electronics Co.,Ltd.

*Address: No.25 Baoyuan Road Dongqian Lake Industrial Area
Dongqian Lake, Ningbo315121, China*

Tel: +86(574)88371186, 88370330

Fax: +86(574)88370329

http://www.chinaacoustic.com

E-mail: Sales@kepo.com.cn

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1. Scope

This specification is applied to the MIC which is used all of the electrical acoustic product.

-- applications: mobile phone, PDA, notebook computer, etc.

2. General

2.1 Out-Diameter : Ø9.7mm

2.2 Height : 6.7mm

2.3 Weight : ≦0.3gr.

2.4 Operating Temperature range:

25~+70 °C without loss of function

2.5 Store Temperature range:

-25~+70 °C without loss of function

3. Electrical and Acoustic Characteristics

Test condition : 15 ~ 35 °C , 25% ~ 85% RH, 860~1060 mbar

NO.	Items	Specifications
1	Rated Voltage	4.5V
2	Operating Voltage	1V~10V
3	Sensitivity	-38± 3dB (0dB=1V/Pa 1KHz)
4	Current Consumption	0.5mA Max
5	Frequency	100~16,000Hz
6	S/N Ratio	≥60dB
7	Sensitivity Reduction	within-3dB at 1.5V
8	Directivity	Omnidirectional
9	Testing Condition	1000Hz, Vs=4.5V, RL=2.0K Ω
10	Shell Material/Color	AL/Silver
Note:		

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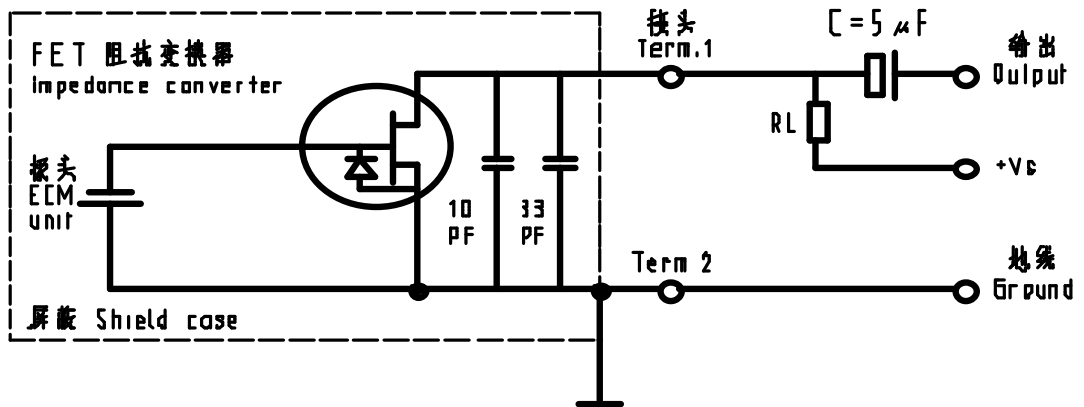
4. Reliability Test

After test (1-5items), MIC being placed in 20 °C for 3 hours, the sensitivity should be within $\pm 3\text{dB}$ from initial sensitivity .

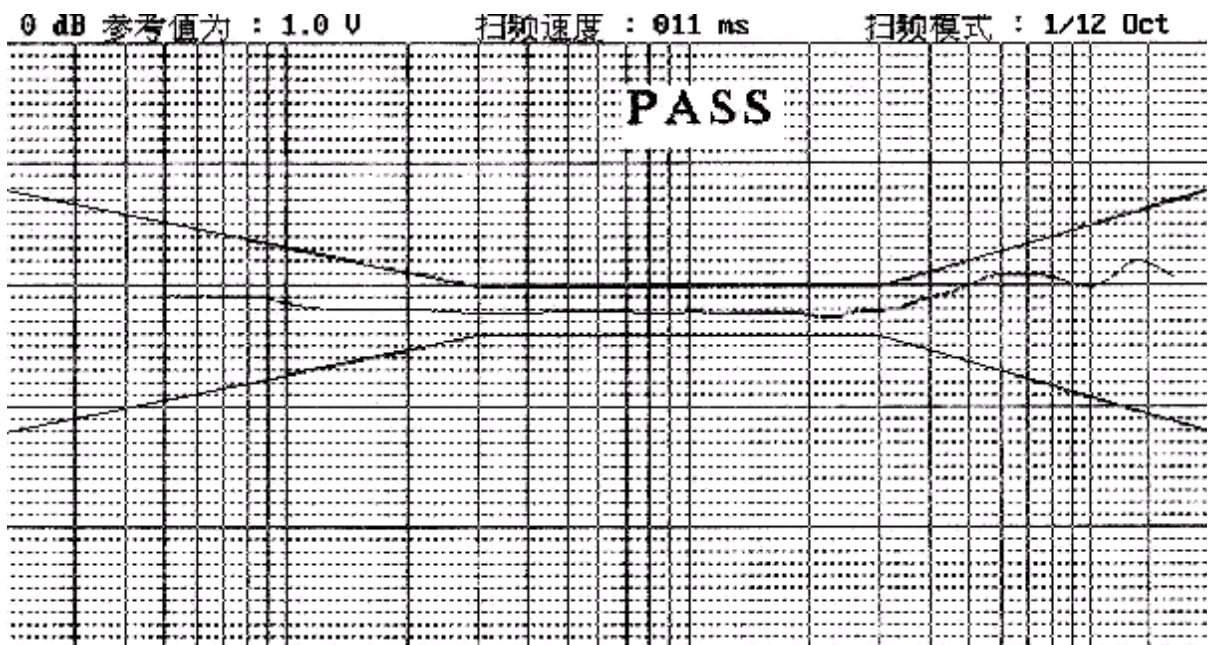
	Item	Specification
1	Vibration test	Amplitude: 1.52mm Duration: 1 minute Frequency range: 10Hz~55Hz 2 hours in each of 3 axes
2	Shocks test	Pulse Shape Half Sinusoidal Pulse Duration 11ms Acceleration 150m/s ² Number of Jolts 10 in each of 3 axes
3	High/Low temperature test	70 °C for 96hrs , -20 °C for 96hrs
4	Damp Heat test	90%RH,+40 °C for 120hrs
5	Temperature Cycles test	-25 °C \leftrightarrow 20 °C \leftrightarrow 70 °C \leftrightarrow 20 °C (30m) (10m) (30m) (10m) 5cycles
6	Temperature Change Test	Low temperature -40 °C High temperature +85 °C Changeover time 30min Duration 60min Cycle 32
7	Drop Test	Drop a unit unpacked onto a board Height: 1m Cycle: 6 (1 each plane)
8	Drop Test	The microphone under test must be discharged between each ESD exposure without ground.(contact: $\pm 8\text{Kv}$,air: $\pm 15\text{Kv}$)There is no interference in operation after 10 times exposure.

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5. Measurement Circuit (Test Condition $V_s=4.5V$ $R_L=2.0K \Omega$
 $T_a=20^\circ C$ R.H=65%)

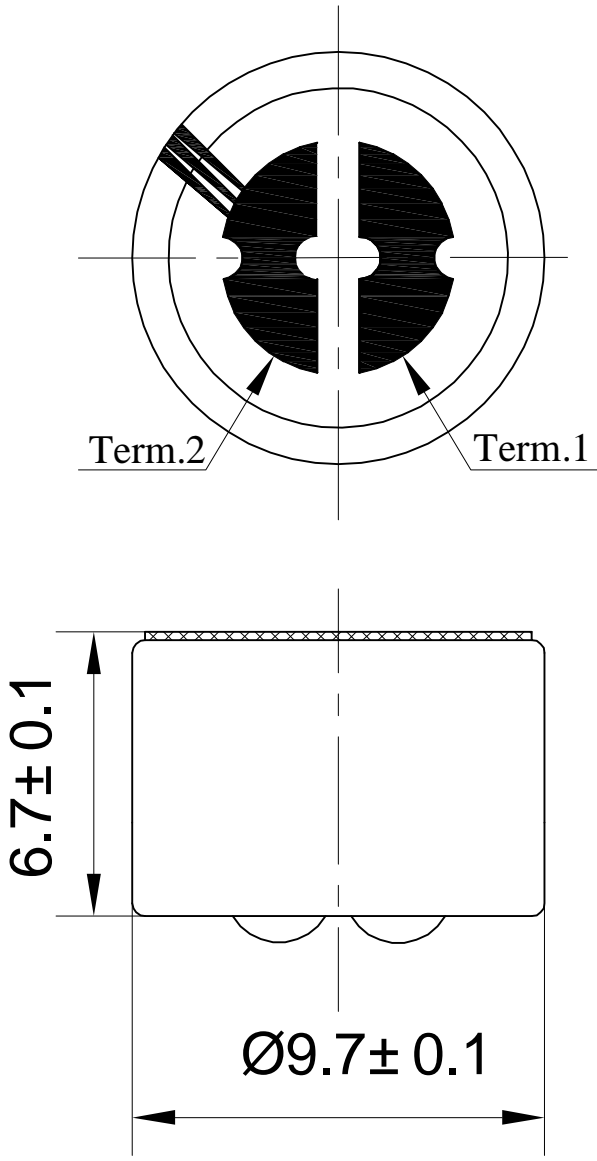


Typical Frequency Response Curve



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6. Dimensions



FIRST ANGLE PROJECTION

UNIT : mm
Tolerance : ± 0.2

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7. Cautions

7.1 Please use the diminutive electric iron less than 20W for the soldering type microphone .

7.2 The temperature of the working surface shall be under 270°C during soldering process.

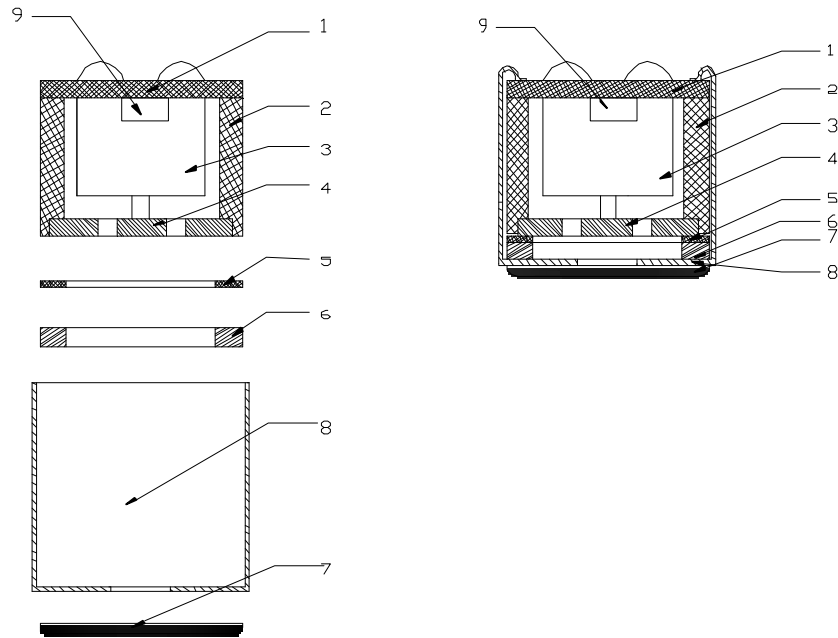
7.3 E.C.M shall be fixed on the device with well Radiation during soldering process.

7.4 The soldering time for each terminal shall be within 1~2 sec.

7.5 The soldering point should not appear any pinholes after soldering.

7.6 E.C.M may easily be destroyed by the static electricity, so some measures against the static electricity shall be adopted (soldering instrument , worktable , body of operator should be grounded)

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No. 序号	Part name 部品名称	Materials Type 材料型号	Qty 数量	Origin 产地	Manufacture 协力厂商	Remarks 备注
1	P.C.B	FR-4	1	China	Shuzhou	
2	PLASTIC RING	ABS	1	China	Changshu	
3	FET	2SK596	1	China	Beijing	
4	ELECTRET BACK	Copper blank	1	China	Changshu	
5	Spacer	Mylar	1	China	Hebei	
6	Diaphragm	FEP50A	1	USA	Dopont	
7	FELT	Fabric cloth	1	China	Dongguan	
8	Case	AL	1	China	Shanghai	
9	CHIP CAPACITOR	33PF 0402 10PF 0402	2	Japan	Murata	