

SPECIFICATION

Customer : QUARTZ-1

Applied To :

Product Name : MIC

Part No : KPCM-15E-P

Drawing No. : KF3.002.472.56

Signature of Approval

Signature of KEPO

Approved by	Checked by	Issued by	Date



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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 : ≤1gr.

2.4 Operating Temperature range:

-25~+55℃ without loss of function

2.5 Store Temperature range:

-25~+55℃ without loss of function

3. Electrical and Acoustic Characteristics

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

NO.	Items	Specifications
1	Rated Voltage	4.5V
2	Operating Voltage	1.5V~10V
3	Sensitivity	-56 ± 2dB at 1KHz(0dB=1V/ μ bar)
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=2.2K Ω
10	Shell Material/Color	AL/Silver
Note:		

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4. Reliability Test

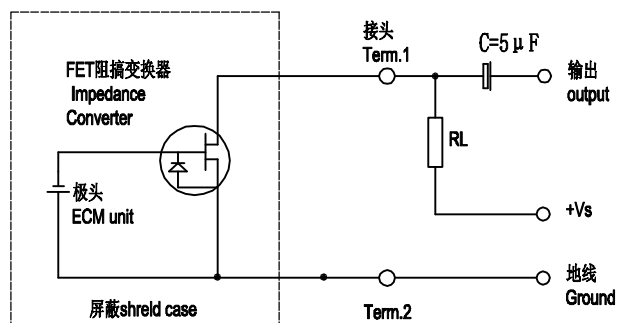
After test (1-5items), MIC being placed in 20 °C for 3 hours, the sensitivity should be within $\pm 3\text{dB}$ from initial sensitivity .

	Item	Specification
1	Vibration test	Frequency1 : 10Hz~55Hz Amplitude : $\pm 0.15\text{mm}$ Frequency2 : 55Hz~150Hz Acceleration : 20m/s Change of Frequency : 1 octave/min, each 2 hrs in 3 axes
2	Shocks test	Pulse wave Shape : Half sine wave Pulse Duration : 11ms Acceleration: 150m/s ² Number of shock : each 10 times in 3 axes
3	High/Low temperature test	70°C for 72hrs , -20 °C for 72hrs
4	Damp Heat test	90%RH,+40°C for 120hrs
5	Temperature Cycles test	-20°C $\longleftrightarrow$ 25°C $\longleftrightarrow$ 70°C 10cycles (2h)(1h)(2h)(1h)(2h) 10cycles

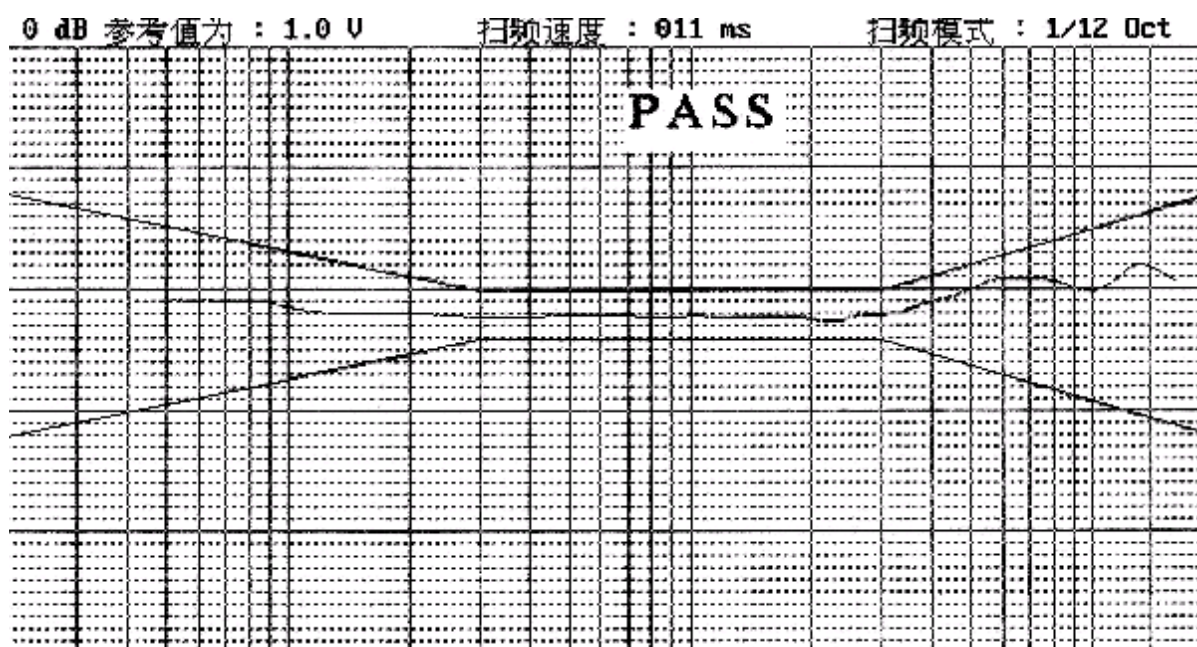
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5.Measurement Circuit (Test Condition Vs=4.5V RL=2.2K Ω Ta=20°C R.H=65%)

原理图

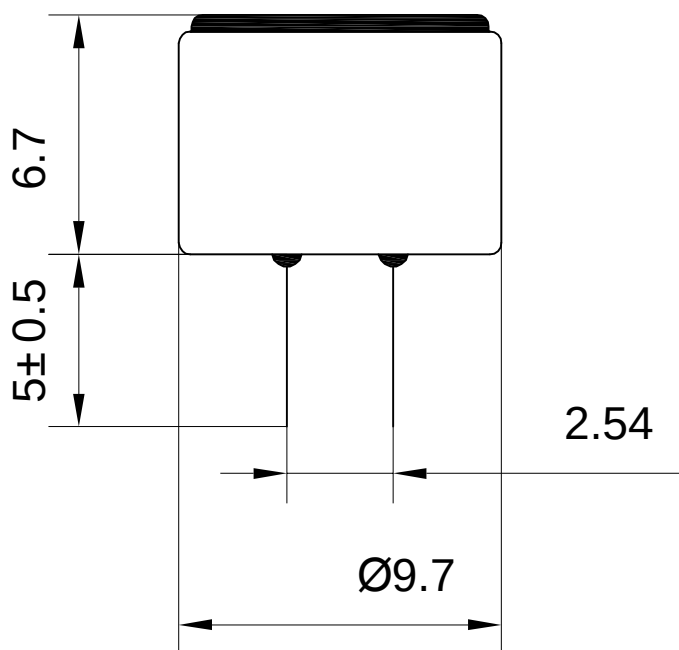
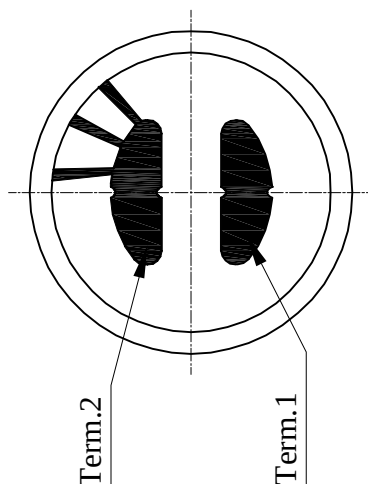


Typical Frequency Response Curve

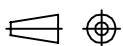


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6. Dimensions



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℃ 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)