

# SPECIFICATION

Customer : QUARTZ

Applied To :

Product Name : MIC

Model Name : KPCM-60H13P-58dB

Drawing No. : KF3.002.289

Signature of Approval

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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 :  $\varnothing 60\text{mm}$

2.2 Height : 1.5mm

2.3 Weight :  $\leq 0.3\text{gr.}$

2.4 Operating Temperature range:

20~+70 °C without loss of function

2.5 Store Temperature range:

-20~+70 °C without loss of function

## 3. Electrical Characteristics.

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

NO.	Items	Specifications
1	Rated Voltage	2.0V
2	Operating Voltage	1~10VDC
3	Sensitivity	-58± 2dB at 1KHz(0dB=1V/u bar)
4	Current Consumption	0.5mA Max
5	Frequency	100~16,000Hz
6	S/N Ratio	$\geq 40\text{dB}$
7	Directivity	Omnidirectional
8	Testing Condition	1000Hz, $V_s=2.0\text{V}$ , $R_L=2.2\text{K } \Omega$
9	Shell Material/Color	AL/Silver
Note:		

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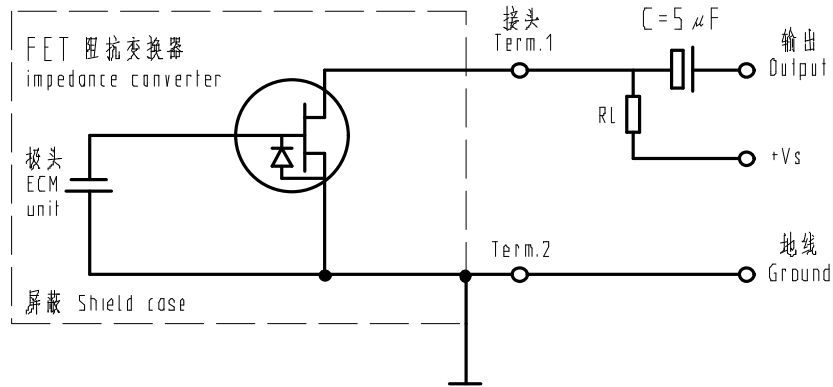
## 4. Reliability Test

After test(1~7item), the MIC sensitivity to be within +/-3dB from initial sensitivity.

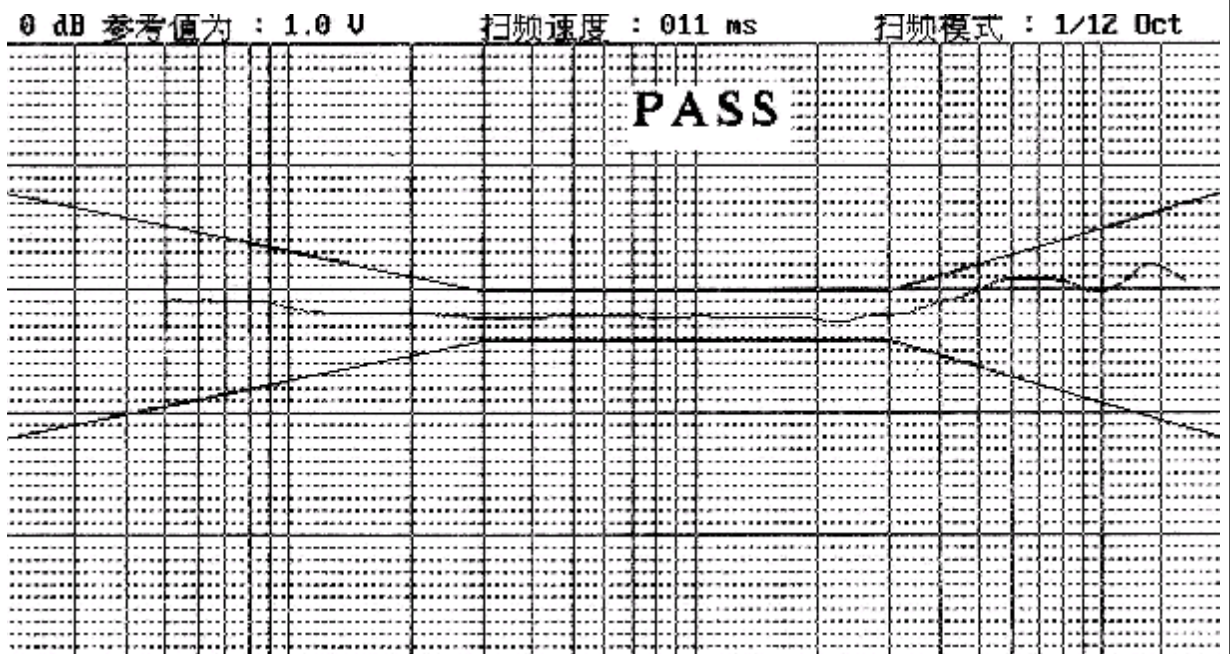
	Item	Specification
1	High Temperature Test	After being placed in a chamber with $+70\pm 3\text{ }^{\circ}\text{C}$ for 72hours and then being placed in natural condition for 1 hour
2	Low Temperature Test	After being placed in a chamber with $-20\pm 3\text{ }^{\circ}\text{C}$ for 72 hours and then being placed in natural condition for 1 hour
3	Damp Heat	After being placed in a chamber with 90%R.H. at $+40\pm 2\text{ }^{\circ}\text{C}$ for 96 hours and then being placed in natural condition for 120 hour, receiver shall be measured.
4	Temperature Cycles	$-20^{\circ}\text{C} \leftrightarrow 25^{\circ}\text{C} \leftrightarrow 70^{\circ}\text{C}$ 10次 (2h)(1h)(2h)(1h)(2h) 10cycles
5	Shocks	Pulse Shape Half Sinusoidal Pulse Duration 11ms Acceleration $150\text{m/s}^2$ Number of Jolts 10 in each of 3 axes
6	Vibration	Frequency1 10Hz~55Hz Amplitude $\pm 0.15\text{mm}$ Frequency2 55Hz~150Hz Acceleration $20\text{m/s}^2$ Change of Frequency 1octave/min 2 hrs in each of 3 axes
7		
8		

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**5. Measurement Circuit** (Test Condition  $V_S=2.0V$   $R_I=2.2K \Omega$   
 $T_a=20^\circ C$   $R.H=65\%$ )

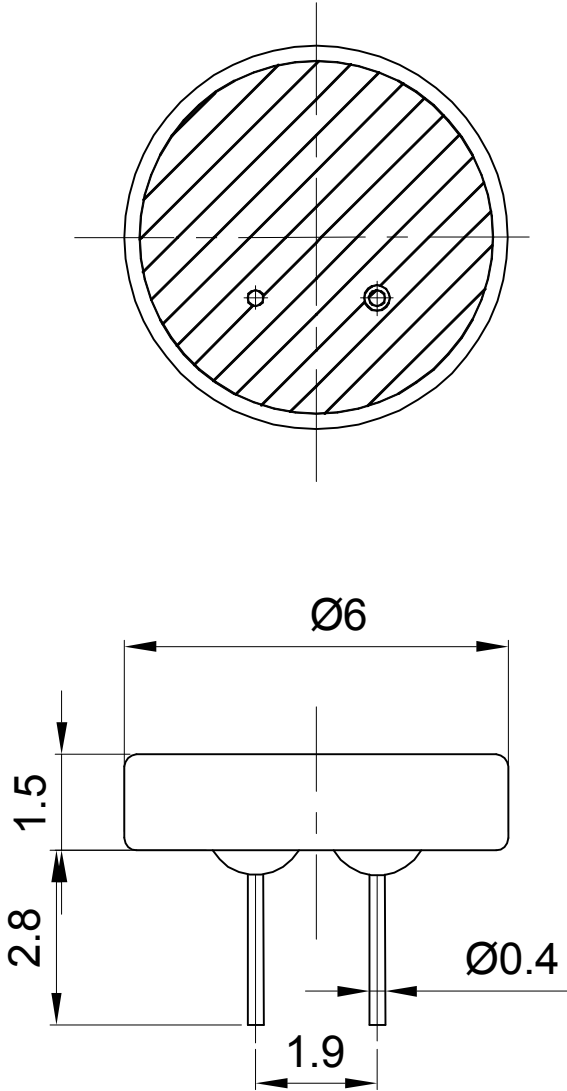


**Typical Frequency Response CU+rve**



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### 7. Dimensions



FIRST ANGLE PROJECTION

UNIT : mm  
Tolerance :  $\pm 0.2$

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## 8. Cautions

8.1 The soldering copper of a smaller type of less than 20W shall be applied.

8.2 The temperature of the working surface of the soldering copper shall be below 270 °C.

8.3 E.C.M shall be soldered fixed on the metal block (heat sink) which has the higher Radiation effects heat sink shall contact with each of E.C.M.

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

8.5 The pin hole soldering shall be avoided.

8.6 E.C.M may easily be 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.