

# SPECIFICATION

Customer : SOLOMON

Applied To :

Product Name : MIC

Model Name : KPCM-45H22P-38dB

Drawing No. : KF3.002.080

Signature of Approval

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Signature of KEPO

Approved by	Checked by	Issued by	Date



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Specification	Page	2/6
Model No. : KPCM-45H22P-38dB	Revision No.	1.0
	Drawing No.	KF3.002.080

## CONTENTS

1. Scope
2. General
3. Electrical and Acoustic Characteristics.
4. Reliability Test
5. Measurement Block Diagram & Response curve
6. Dimensions

Specification		Page	3/6
Model No. :	KPCM-45H22P-38dB	Revision No.	1.0
		Drawing No.	KF3.002.080

## 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 : Ø4.5mm

2.2 Height : 2.2mm

2.3 Weight : 0.1 gr.

2.4 Operating Temperature range:

-10~+45°C without loss of function

2.5 Store Temperature range:

-20~+60°C without loss of function

## 3. Electrical Characteristics.

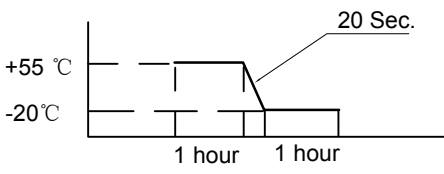
Test condition : 15 ~ 35 °C, 25% ~ 85% RH, 860~1060 mbar

NO.	Items	Specifications
1	Rated Voltage	3.0V
2	Operating Voltage	1.5V~10V
3	Sensitivity	-38± 2dB at 1KHz(0dB=1V/Pa)
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=2.0V, RL=2.2K Ω
10	Shell Material/Color	AL/Silver
Note:		

Specification		Page	4/6
		Revision No.	1.0
Model No. :	KPCM-45H22P-38dB	Drawing No.	KF3.002.080

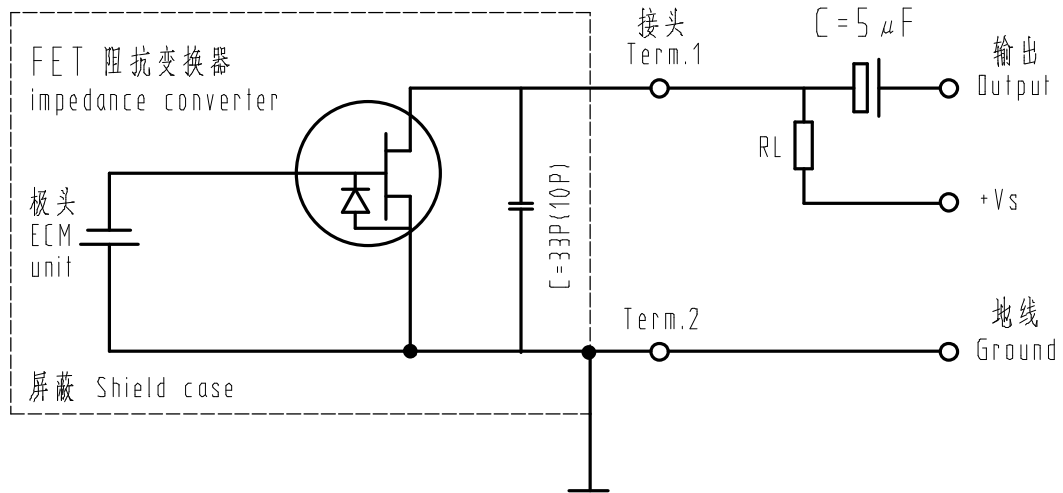
## 4. Reliability Test

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 48hours 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 48 hours and then being placed in natural condition for 1 hour
3	Humidity Test	To be no interference in operation after storage test at temperature $60 \pm 2 \text{ }^\circ\text{C}$ and relative humidity ( $93 \pm 3\%$ ) for 48 hours. the sensitivity to be within +/-3dB from initial sensitivity. the test is performed at temperature $20 \text{ }^\circ\text{C}$ after operation for 6 hours.
4	Thermal Shock Test	<p>After being placed in a chamber at <math>+55 \text{ }^\circ\text{C}</math> for 1 hour, then receiver shall be placed in a chamber at <math>-20 \text{ }^\circ\text{C}</math> for 1 hour(1 cycle is the below diagram).</p> <p>After 5above cycles, receiver shall be measured after being placed in natural condition for 1 hour.</p> 
5	Vibration Test	To be no interference in operation after vibration of full amplitude 2mm for 30minutes at five axis
6	Drop Test	To be no interference in operation after dropped to concrete floor each time from 1 meter height of five directions in state of packing
7	Collision Test	After collided with the acceleration $100 \pm 10 \text{ m/s}$ , at the vertical & horizontal directions for $1000 \pm 10$ times, at the state of packing. Change of sensitivity within +/-3dB from initial.
8		

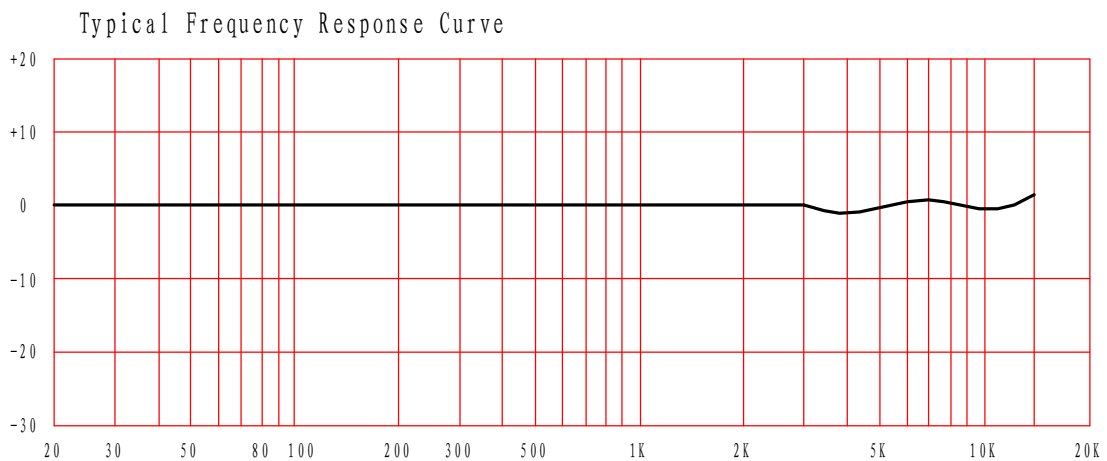
Specification	Page	5/6
	Revision No.	1.0
Model No. : KPCM-45H22P-38dB	Drawing No.	KF3.002.080

**5. Measurement Circuit** (Test Condition VS=2.0V RI=2.2K Ω  
Ta=20°C R.H=65%)



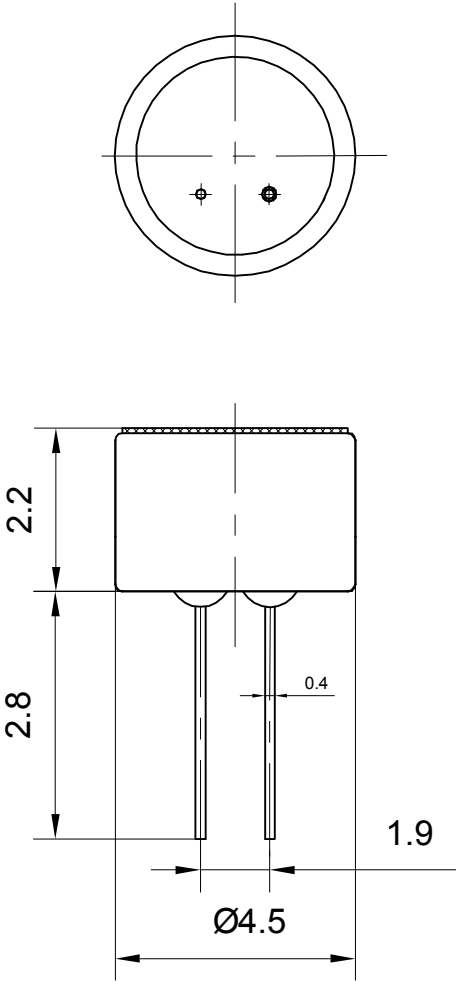
**Typical Frequency Response CU+rve**

Frequency Response



Specification	Page	6/6
	Revision No.	1.0
Model No. : KPCM-45H22P-38dB	Drawing No.	KF3.002.080

### 7. Dimensions



FIRST ANGLE PROJECTION

UNIT : mm  
Tolerance :  $\pm 0.2$