

Features

- Electret condenser microphone
- Omni directional
- PCB pins
- Sensitivity -40dB
- Max. operating voltage 10V
- Diameter 9.7mm, Height 6.5mm

RS PRO Omni Directional Condenser Microphone 9.7mm, -40dB, PCB Pins

RS Stock No.: 0737621



RS Professionally Approved Products bring to you professional quality parts across all product categories. Our product range has been tested by engineers and provides a comparable quality to the leading brands without paying a premium price.

Product Description

This 9.7mm diameter, noise cancelling electret microphone has a sensitivity rating of -40dB. Fixing is via PCB pins. Component microphones are widely used for audio recording, voice recognition and audio sensing products. Typical applications for electret condenser microphones include:

APPLICATIONS:

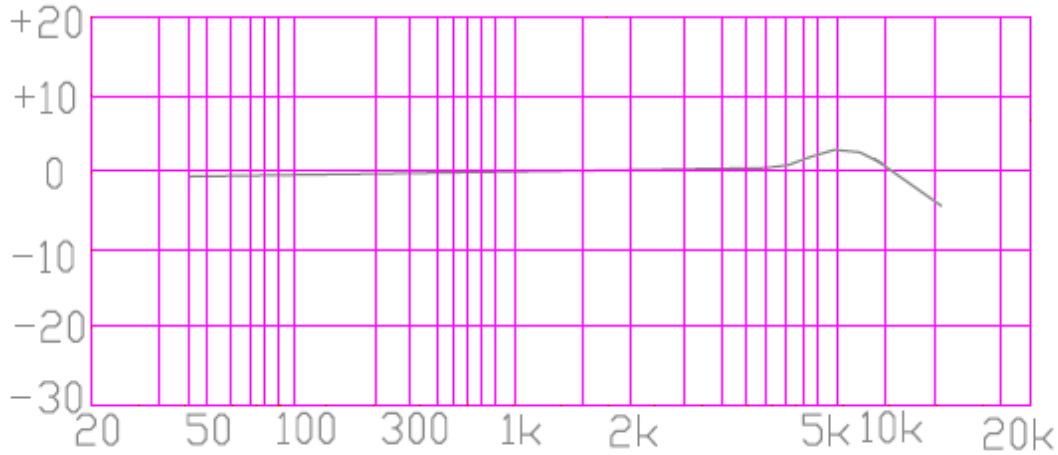
- Access & security
- Entry panels
- PDAs
- Consumer electronics
- Communications equipment
- Recording devices
- Telephones
- Hearing aids
- Computers

Electrical Specifications

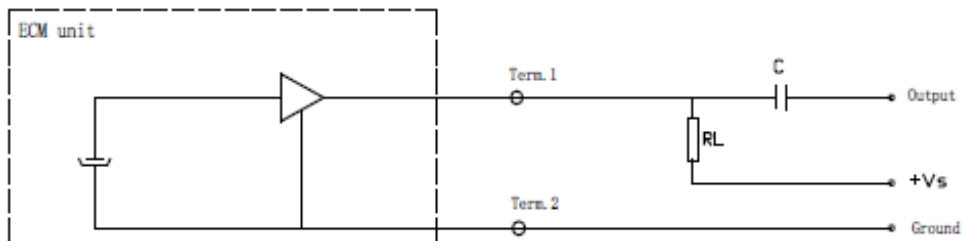
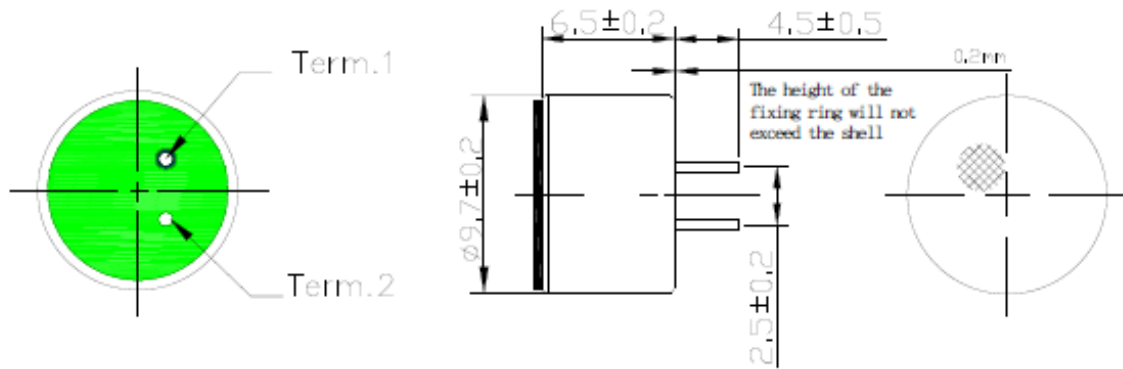
A.SPECIFICATION

No.	Item	Unit	Specification	Condition
1	Directivity		Omni Directional	
2	Sensitivity	dB	$-40 \pm 3\text{dB}$	F=1KHz 0dB=1V/Pa
3	Standard operating voltage	V	3	
4	Output impedance	Ω	2.2K	F=1KHz 1Pa
5	Operating voltage range	V	1.5 - 10	
6	Sensitivity reduction	dB	-3	At 3.0V to 1.5V
7	Frequency	Hz	50~16000Hz	
8	Max.current consumption	mA	0.5	
9	Signal to noise ratio	dB	60	F=1KHz 1Pa A weighted
10	Storage temp	$^{\circ}\text{C}$	$-25^{\circ}\text{C} \sim +70^{\circ}\text{C}$	
11	Operating temp	$^{\circ}\text{C}$	$-20^{\circ}\text{C} \sim +60^{\circ}\text{C}$	
12	Dimension	mm	$\Phi 9.7 \times 6.5$	See appearance drawing
13	Material		AL	
14	Terminal		PCB Pins	See appearance drawing

B. TYPICAL FREQUENCY RESPONSE CURVE



C. APPEARANCE DRAWING & MEASUREMENT CIRCUIT



D. MECHANICAL CHARACTERISTICS

No.	Item	Test condition	Evaluation standard
1	Soldering Heat Resistance	Soldering iron of $+330\pm 5^{\circ}\text{C}$ should be placed on the terminal for 2 ± 0.5 seconds.	No interference in operation
2	Vibration Test	The part shall be measured after being applied vibration of amplitude of 1.5mm with 10 to 55hz band of vibration frequency to each of 3 per-pendicular directions for 2 hours.	After any tests, the sensitivity to be within $\pm 3\text{dB}$ of the initial sensitivity.
3	Drop Test	The microphone unit without packaged must be subjected to each 3 drops at three axes from the height of 1 meter to 20mm thick wooden board.	

E. ENVIRONMENTAL TEST

NO.	Item	Test conditions	Evaluation standard
1	High temp.test	After being placed in a chamber at $+70^{\circ}\text{C}$ for 72 hours.	After any tests, the sensitivity to be within $\pm 3\text{dB}$ of initial sensitivity after 6 hours of conditioning at $+25^{\circ}\text{C}$
2	Low temp. test	After being placed in a chamber at -25°C for 72 hours.	
3	Humidity test	After being placed in a chamber at $+60^{\circ}\text{C}$ and $90\pm 5\%$ relative humidity for 240 hours.	
4	Temp.cyle test	<p>The part shall be subjected to 10 cycles. One cycle shall be consist of:</p>	

TEST CONDITION

Standard Test Condition: a)Temperature: $+5\sim +35^{\circ}\text{C}$ b)Humidity:45-85% c)Pressure:860-1060mbar

Judgement Test Condition: a)Temperature: $+25\pm 5^{\circ}\text{C}$ b)Humidity:60-70% c)Pressure:860-1060mbar