



HITPOINT

SPECIFICATION

PRODUCT TYPE: **PMOF-9745S-42UQ**
(RoHS)

DSND BY		
CHKD BY		
APVD BY		

光 键 股 份 有 限 公 司

HITPOINT INC.

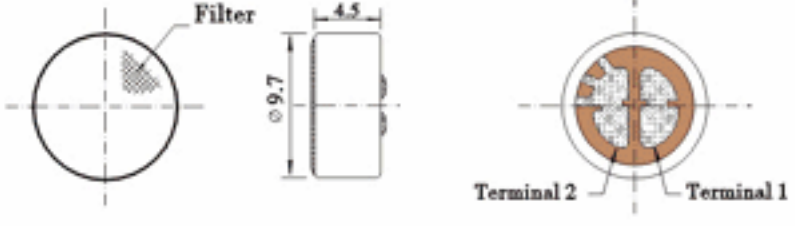
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1	Name: Omnidirectional Electret Condenser Microphone (Foil Electret Type)	
2	TYPE: PMOF-9745S-42U	
3	Electrical Specifications:	
3.1	Sensitivity Range	-42±3dB $R_L=2.2K\ \Omega$ $V_{CC}=4.5V$ (1KHz 0dB=1V/Pa)
3.2	Impedance	Max .2.2K Ω 1KHz ($R_L=2.2K\ \Omega$)
3.3	Frequency	20-16000 Hz
3.4	Current Consumption	Max.0.5mA
3.5	Operation Voltage Range	1.0V-10V
3.6	Max. Sound Pressure Level	120dB S.P.L
3.7	S/N Ratio	More than 60dB
3.8	Sensitivity Reduction	4.5V-3.0V Sensitivity Variation less than 3dB
3.9	Typical Frequency Response Curve:	
	<p>A: Frequency Response, Magn dB re 1.000U/Pa</p> <p>The graph plots Relative Magnitude (dB) on the y-axis against Frequency (Hz) on a logarithmic x-axis. The x-axis ranges from 50 Hz to 50 kHz. The response is flat at approximately 0 dB from 100 Hz to 1 kHz. Above 1 kHz, the response begins to roll off, reaching approximately -20 dB at 50 kHz. There is a small peak or resonance around 10 kHz.</p>	
3.10	Schematic Diagram:	
	<p>The schematic diagram shows the internal circuit of the microphone. It consists of an ECM unit (Electret Condenser Microphone) connected to a FET Impedance Converter. The output of the converter is connected to Terminal 1. Terminal 1 is also connected to a resistor $R_L = 2.2k\ \Omega$ and a capacitor C. Terminal 2 is connected to Ground. The supply voltage is $+V_s$.</p>	
4	Mechanical Specifications:	

	4.1	Drawing 	
	4.2	Weight	0.6g
5. Reliability Tests: After any following tests, the sensitivity of the microphone unit shall not change more than $\pm 3\text{dB}$ from initial value, and shall keep their initial operation and appearance.			
	5.1	Hi-Temp. Test	To be no interference in operation after high temperature test $70\pm 3^\circ\text{C}$ for 48 hours The sensitivity to be within $\pm 3\text{dB}$ from initial sensitivity.
	5.2	Low-Temp. Test	To be no interference in operation after Low temperature test $-20\pm 3^\circ\text{C}$ for 48 hours, the sensitivity to be within $\pm 3\text{dB}$ from initial sensitivity.
	5.3	Isotherm & ISO-humidity Test	To be no interference in operation after storage test at temperature $40\pm 3^\circ\text{C}$ and relative humidity $(93\pm 3\%)$ for 48 hours. The sensitivity to be within $\pm 3\text{dB}$ from initial sensitivity. the test is performed at temperature 20°C after operation for 6 hours.
	5.4	Temperature Cycle Test	After exposure at $+55\pm 2^\circ\text{C}$ for 1 hour, at $20\pm 2^\circ\text{C}$ for 1 hour, at $-10\pm 2^\circ\text{C}$ for 1 hour, at $20\pm 2^\circ\text{C}$ for 1 hour, with 5 cycles. Change of sensitivity within $\pm 3\text{dB}$ from initial measuring should be done after 2 hours exposed to $20\pm 2^\circ\text{C}$.
	5.5	Vibration Test	To be no interference in operation after vibration of full amplitude 2mm for 30 minutes at three axis, the sensitivity to be within $\pm 3\text{dB}$ from initial sensitivity.
	5.6	Dropping Test	To be no interference in operation after dropped to concrete floor each time from 1- meter height of three directions in state of packing, the sensitivity to be within $\pm 3\text{dB}$ from initial sensitivity..
6 Environmental Condition:			
	6.1	Storage condition	$-20^\circ\text{C} \sim +60^\circ\text{C}$ R.H. less than 45%~75%
	6.2	Operation condition	$-10^\circ\text{C} \sim +45^\circ\text{C}$ R.H. less than 85%
	6.3	Arbitration condition	Temperature : $20^\circ\text{C} \pm 1^\circ\text{C}$ Relative humidity: 63%~67% Air pressure : 86~106Kpa
7 Notices:			
	7.1	All the soldering procedures upon microphones must be completed in a metallic device, the temperature of the soldering iron must be limited as $310^\circ\text{C} \pm 20^\circ\text{C}$.	
	7.2	Operators, the solder fixtures and the soldering irons must be statically grounded under each soldering process.	