



# HITPOINT

## SPECIFICATION

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

DSND BY		
CHKD BY		
APVD BY		

光 键 股 份 有 限 公 司

**HITPOINT INC.**

**Add:** No.4, Lane 505 ,Zhongzheng Road, Linkou Shiang, Taipei,Taiwan24445

**Tel:** + 886-2-2601-3311

**FAX :** + 886-2-2601-3898

<http://www.hitpoint.com.tw/>

1	<b>Name: Omnidirectional Electret Condenser Microphone (Foil Electret Type)</b>	
2	<b>TYPE: PMOF-9745S-42U</b>	
3	<b>Electrical Specifications:</b>	
3.1	Sensitivity Range	-42±3dB RL=2.2K Ω VCC=4.5V (1KHz 0dB=1V/Pa)
3.2	Impedance	Max .2.2K Ω 1KHz (RL=2.2K Ω)
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	<b>Typical Frequency Response Curve:</b>	
	<p><b>A: Frequency Response, Magn dB re 1.000U/Pa</b></p> <p>Relative</p> <p>50 500 Hz 5k 50k</p> <p>Frequency(H)</p>	
3.10	<b>Schematic Diagram:</b>	
	<p>FET Impedance Converter</p> <p>ECM unit</p> <p>Shield Case</p> <p>Terminal 1</p> <p>Terminal 2</p> <p>Output</p> <p>Ground</p> <p>+Vs</p> <p><math>R_L = 2.2k\Omega</math></p> <p>C</p> <p><math>R_L</math></p>	
4	<b>Mechanical Specifications:</b>	

	<b>4.1</b>	Drawing  	
	<b>4.2</b>	<b>Weight</b>	0.6g
<b>5. Reliability Tests:</b> 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.			
	<b>5.1</b>	<b>Hi-Temp. Test</b>	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.
	<b>5.2</b>	<b>Low-Temp. Test</b>	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.
	<b>5.3</b>	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 $20^\circ\text{C}$ after operation for 6 hours.
	<b>5.4</b>	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 $20\pm 2^\circ\text{C}$ .
	<b>5.5</b>	<b>Vibration Test</b>	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.
	<b>5.6</b>	<b>Dropping Test</b>	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..
<b>6 Environmental Condition:</b>			
	<b>6.1</b>	<b>Storage condition</b>	$-20^\circ\text{C} \sim +60^\circ\text{C}$ R.H. less than 45%~75%
	<b>6.2</b>	<b>Operation condition</b>	$-10^\circ\text{C} \sim +45^\circ\text{C}$ R.H. less than 85%
	<b>6.3</b>	<b>Arbitration condition</b>	Temperature : $20^\circ\text{C} \pm 1^\circ\text{C}$ Relative humidity: 63%~67% Air pressure : 86~106Kpa
<b>7 Notices:</b>			
	<b>7.1</b>	All the soldering procedures upon microphones must be completed in a metallic device, the temperature of the soldering iron must be limited as $310^\circ\text{C} \pm 20^\circ\text{C}$ .	
	<b>7.2</b>	Operators, the solder fixtures and the soldering irons must be statically grounded under each soldering process.	