



# HITPOINT

## SPECIFICATION

PRODUCT TYPE: **PMOF-6027SN-42UQ**

(RoHS)

DSND BY		
CHKD BY		
APVD BY		

光 键 股 份 有 限 公 司

**HITPOINT INC.**

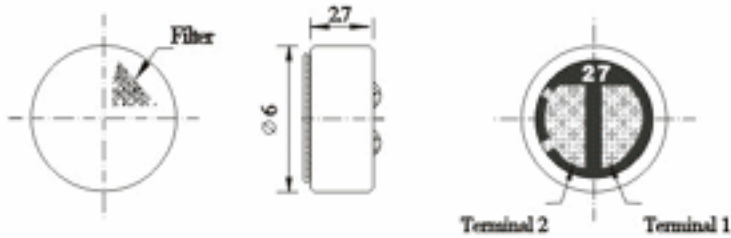
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<http://www.hitpoint.com.tw/>

1	<b>Name: Omnidirectional Electret Condenser Microphone (Foil Electret Type)</b>	
2	<b>TYPE: PMOF-6027SN-42U</b>	
3	<b>Electrical Specifications:</b>	
3.1	Sensitivity Range	-42±3dB $R_L=2.2K\ \Omega$ $V_{CC}=2.0V$ (1KHz 0dB=1V/Pa)
3.2	Impedance	Max .2.2K $\Omega$ 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 58dB
3.8	Sensitivity Reduction	2.0V-1.5V 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>Frequency(H)</p>	
3.10	<b>Schematic Diagram:</b>	
	<p><math>C_1=10pF</math>; <math>C_2=33pF</math>      <math>R_L=2.2k\ \Omega</math></p> <p>FET Impedance Converter</p> <p>ECM unit</p> <p>Shield Case</p> <p>Terminal 1</p> <p>Terminal 2</p> <p>Ground</p> <p>Output</p> <p>+VS</p>	
4	<b>Mechanical Specifications:</b>	

	<b>4.1</b>	<b>Drawing</b> 																			
	<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.																					
			<table border="1"> <tr> <td data-bbox="252 813 347 891"><b>5.1</b></td> <td data-bbox="347 813 614 891"><b>Hi-Temp. Test</b></td> <td data-bbox="614 813 1457 891">To be no interference in operation after high temperature test <math>70\pm 3^\circ\text{C}</math> for 48 hours The sensitivity to be within <math>\pm 3\text{dB}</math> from initial sensitivity.</td> </tr> <tr> <td data-bbox="252 891 347 969"><b>5.2</b></td> <td data-bbox="347 891 614 969"><b>Low-Temp. Test</b></td> <td data-bbox="614 891 1457 969">To be no interference in operation after Low temperature test <math>-20\pm 3^\circ\text{C}</math> for 48 hours, the sensitivity to be within <math>\pm 3\text{dB}</math> from initial sensitivity.</td> </tr> <tr> <td data-bbox="252 969 347 1115"><b>5.3</b></td> <td data-bbox="347 969 614 1115">Isotherm &amp; ISO-humidity Test</td> <td data-bbox="614 969 1457 1115">To be no interference in operation after storage test at temperature <math>40\pm 3^\circ\text{C}</math> and relative humidity <math>(93\pm 3\%)</math> for 48 hours. The sensitivity to be within <math>\pm 3\text{dB}</math> from initial sensitivity. the test is performed at temperature <math>20^\circ\text{C}</math> after operation for 6 hours.</td> </tr> <tr> <td data-bbox="252 1115 347 1261"><b>5.4</b></td> <td data-bbox="347 1115 614 1261">Temperature Cycle Test</td> <td data-bbox="614 1115 1457 1261">After exposure at <math>+55\pm 2^\circ\text{C}</math> for 1 hour, at <math>20\pm 2^\circ\text{C}</math> for 1 hour, at <math>-10\pm 2^\circ\text{C}</math> for 1 hour, at <math>20\pm 2^\circ\text{C}</math> for 1 hour, with 5 cycles. Change of sensitivity within <math>\pm 3\text{dB}</math> from initial measuring should be done after 2 hours exposed to <math>20\pm 2^\circ\text{C}</math>.</td> </tr> <tr> <td data-bbox="252 1261 347 1373"><b>5.5</b></td> <td data-bbox="347 1261 614 1373"><b>Vibration Test</b></td> <td data-bbox="614 1261 1457 1373">To be no interference in operation after vibration of full amplitude 2mm for 30 minutes at three axis, the sensitivity to be within <math>\pm 3\text{dB}</math> from initial sensitivity.</td> </tr> <tr> <td data-bbox="252 1373 347 1485"><b>5.6</b></td> <td data-bbox="347 1373 614 1485"><b>Dropping Test</b></td> <td data-bbox="614 1373 1457 1485">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 <math>\pm 3\text{dB}</math> from initial sensitivity..</td> </tr> </table>	<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..
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<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.																			