



HITPOINT

SPECIFICATION

PRODUCT TYPE: **PMO-4015PN-42UQ**

(RoHS)

DSND BY		
CHKD BY		
APVD BY		

光 键 股 份 有 限 公 司

HITPOINT INC.

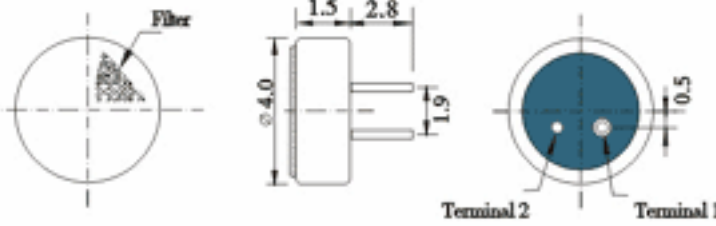
Add: No.4, Lane 505 ,Zhongzheng Road, Linkou Shiang, Taipei,Taiwan24445

Tel: + 886-2-2601-3311

FAX : + 886-2-2601-3898

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

1	Name: Omnidirectional Electret Condenser Microphone (BACK Electret Type)	
2	TYPE: PMO-4015PN-42U	
3	Electrical Specifications:	
3.1	Sensitivity Range	$-42 \pm 3\text{dB}$ $R_L=2.2\text{K}\Omega$ $V_{CC}=2.0\text{V}$ (1KHz 0dB=1V/Pa)
3.2	Impedance	Max $.2.2\text{K}\Omega$ 1KHz ($R_L=2.2\text{K}\Omega$)
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	Typical Frequency Response Curve:	
	<p>A: Frequency Response, Magn dB re 1.000U/Pa</p> <p>Relative</p> <p>Frequency(H)</p>	
3.10	Schematic Diagram:	
	<p>$C_1=10\text{pF}; C_2=33\text{pF}$ $R_L=2.2\text{k}\Omega$</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> <p>C</p> <p>R_L</p> <p>C_1 C_2</p>	
4	Mechanical Specifications:	

	4.1	Drawing 	
	4.2	Weight	0.2g
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.	