

PRODUCT SPECIFICATION

Doc: MD9745APA-1

This specification applies to the electret condenser microphone outlined within this document.

Model Number: MD9745APA-1

I. Electrical Characteristics Test Condition (Vs= 2.0 V, RL= 3 k ohm, Ta=20°C, RH=65%)

ITEM	SYMBOL	TEST CONDITION	MINIMUM	STANDARD	MAXIMUM	UNITS
Sensitivity	S	f=1kHz, Pin=1Pa	-44	-41	-38	dB 0dB=1V/Pa
Impedance	Zout	f=1kHz, Pin=1Pa			2.2	kΩ
Directivity			OMNI-DIRECTIONAL			
Current Consumption	ı				0.5	mA
S/N Ratio	S/N (A)	f=1kHz, Pin=1Pa A Curve	55			dB
Sensitivity Reduction	ΔS	f=1kHz, Pin=1Pa Vs= 2.0 - 1.5			-3	dB
Frequency Range		2.0 1.0		100-10,000		Hz
	(Bp) esonose (Bp) -10 -20 -30 -30 -30 -30 -30 -30 -30 -30 -30 -3	0 300 500 1000 2000 Frequency (Hz)	3000 5000 100	-		
Schematic Diagram of Circuit	ECM	Capacitor 10pF	Term.1	C Output		

II. Mechanical Characteristics

Dimensions	Ø 9.7 x 4	.5 See Drawing i	n Section IV			
Weight	Less than 1.0g					
Solderering Heat Shock	To be no interferance in operation after soldering temperature exposure at 260°C +/-5°C for 5 +/- 1 seconds.					
Terminal Mechanical Strength	Not Applicable					
Absolute Maximum Ratings	Operating Voltage	Storage Temperature Range	Operation Temperature Range			
	Vs (V)	Tstg °C	Tope °C			
	10	-25°C to +60°C	-25°C to +55°C			



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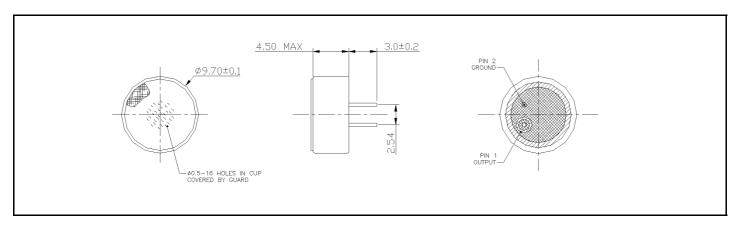
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III. Reliability Tests

Note: After any of the following tests performed, the sensitivity of the microphone unit shall not deviate more than ±3dB from its initial value. The microphone shall maintain its initial operation and appearance. Measurements for tests with thermal requirements are to be done after 2hrs of condistioning at 20°C.

Vibration Test	The microphone to have no interferance in operation after vibrations, 10Hz to 55Hz for 1 minute full amplitude 1.52mm, for 2 hours at three axises.		
Drop Test	The microphone unit must operate when dropped three times once on each axis from a height of 1m onto a metal plate.		
Temperature Test	High The microphone unit must operate within its sensitivity specifications after subjected to the following conditions: +60°C for 240 hrs, and exposed to room temperature for 2 hrs.		
	Low The microphone unit must operate within its sensitivity specifications after subjected to the following conditions: -25°C for 240 hrs, and exposed to room temperature for 2 hrs.		
Humidity Test	+40°C at 95%RH for 240 hrs		
Temperature Cycle Test	After exposure at -25°C for 30 minutes, at+20°C for 10 minutes, at +60°C for 30 minutes, at +20°C for 10 minutes, 5 cycles. (The measurement to be done after 2 hrs of conditioning at +20°C.)		

IV. Dimensional Drawing



V. Other

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