MynTahl
CORPORATION

43154 Osgood Road
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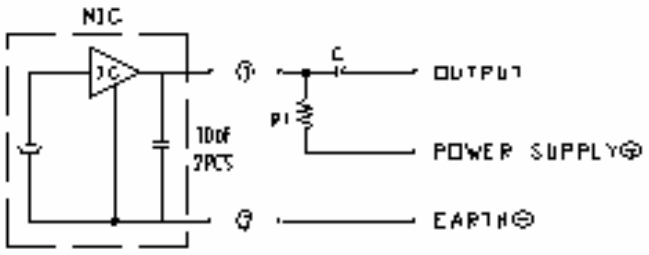
SPECIFICATION

FOR MICROPHONE P/N MTM-946AKKE

1.	Scope	This specification applies electret condenser microphone(E.C.M)
2.	Model No.	MTM-946AKKE
3.	Operation Condition	
	3.1Temperature	-20~+70℃
	3.2Rel. Humidity	35%~85%RH
	3.3Pressure	86~106KPa
	3.4Environmental Noise	36dB(Maximum)
	3.5Operation Voltage	+1~+10VDC
	3.6Earth	⊖
4.	Electrical Characteristics	
	4.1Standard Operation Voltage	+1.5VDC
	4.2Impedance	2.2kΩ(Maximum)
	4.3Current Consumption	0.6mA(Maximum)
	4.4Sensitivity	(0dB=1V/0.1Pa,1KHz) -54dB~-66dB ±3dB or ±2dB
	4.5Directivity	Omni-directional
	4.6S/N Ratio	40dB(Minimum)(A-Curve at 1KHz,0.1Pa)
	4.7Test Temperature Test Rel. Humidity	20℃±2℃ 45%~65%RH
	4.8Schematic Diagram C=1μF Rl=2.2kΩ	

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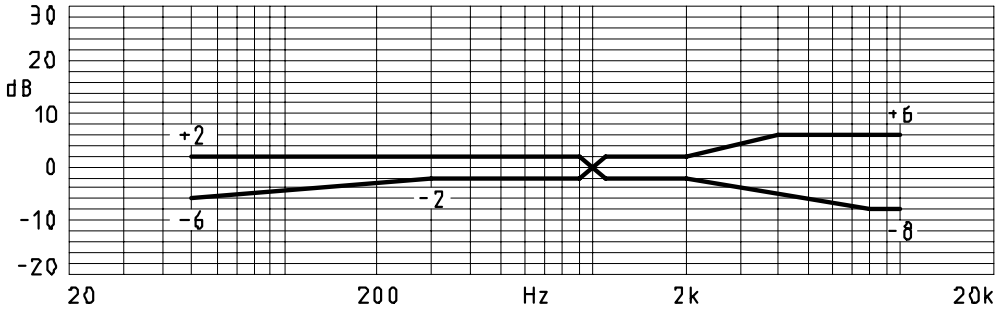
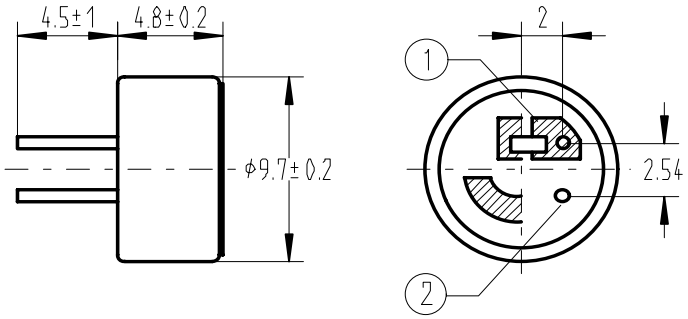
	4.9Frequency Response	
5.	Mechanical Characteristics	
	5.1Dimension	ϕ9.7×4.8
	5.2Mass	≤1.0g
	5.3Dimensional Drawing	
	5.4Soldering Heat Shock	To be no interference in operation after soldering heat shock. Temperature 260℃±5℃ for 5±1 seconds.
	5.5Terminal Mechanical Strength	To be no interference in operation after pulled the terminals With 1kg weight for 1 minute.
6.	Reliability Tests The sensitivity to be within ±3dB of initial sensitivity after 3 hours of conditioning at 20℃.	
	6.1Vibration Test	Frequency 1 10Hz~55Hz Amplitude ±0.15mm Frequency 2 55Hz~150Hz Acceleration 20m/s^2 Change of Frequency 1octave/min 2 hrs in each of 3 axes

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	6.2Shocks Test	Pulse Shape Half Sinusoidal Pulse Duration 11ms Acceleration 150m/s^2 Number of Jolts 10 in each of 3 axes
	6.3Drop Test	Dropped to concrete floor each time from 1 mater height at three directions in state of packing.
	6.3Dry Heat/Cold Test	70℃ for 72 hrs -20℃ for 72 hrs
	6.4Damp Heat Test	90%RH,+40℃ for 120 hrs
	6.5Temperature Cycles Test	(2h) (1h) (2h) (1h) (2h) 10cycles
7.	Cautions	
	7.1The soldering copper of a smaller type of less than 20W shall be applied.	
	7.2The temperature of the working surface of the soldering copper shall be below 270℃.	
	7.3E.C.M shall be soldered fixed on the metal block (heat sink) which has the higher radiation effects. Said heat sink shall contact with each of E.C.M.	
	7.4The soldering time for each terminal shall be 1~2 sec.	
	7.5The pin hole soldering shall be avoided.	
	7.6E.C.M may easily destroyed by the static electricity, and the countermeasure for eliminating the static electricity (the ground for soldering copper, for worktable and for human body) shall be executed.	

WRTN	CHKD	APVD	DESCRIPTION