

# 32043-MK

## SPECIFICATIONS

Electret Condenser Part No. EM-B9760UL

1.	Scope	This specification applies electret condenser microphone (E.C.M)
2.	Model No.	EM-B9760UL
3.	Operation Condition	
3.1	Temperature	-20°C - +70°C
3.2	Rel,Humidity	35%~85%RH
3.3	Pressure	86~106Kpa
3.4	Environmental Noise	36dB (Maximum)
3.5	Operational Voltage	1~10VDC
3.6		
4.	<b>Electrical Characteristics</b>	
4.1	StandardOperationVoltage	4.5VDC
4.2	Impedance	Less than 2.2KΩ
4.3	Current Consumption	0.5mA (Maximum)
4.4	Sensitivity	-50dB±3dB(0dB=1V/Pa,1KHz) Vs=4.5V R1=2.2KΩ
4.5	Directivity	Unidirectional
4.6	S/N Ratio	56dB(Minimum)

WRN	CHKD	APVD	DESCRIPTION

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<p>4.7 Reference Schematic Diagram</p> <p><math>V_s = 1.5V</math>  <math>R_1 = 680\Omega</math>  <math>C = 1\mu F</math></p>		
<p>4.8 Enviromental Test Temperature  Rel.Humidity</p>	<p><math>20^{\circ} C \pm 2^{\circ}</math>  45%~65% RH</p>	
<p>4.9 Frequency Response</p>		
<p>5.</p>	<p style="text-align: center;"><b>Mechanical Characteristics</b></p>	
<p>5.1 Dimension</p>	<p>9.6mm Dia X 6.65mm</p>	
<p>5.2 Mass</p>	<p>0.35g</p>	
<p>5.3 Dimensional Drawing</p>	<p>Leads not Shown  Customer Specify</p>	

6.	<b>Reliability Tests</b>  The sensitivity to be within $\pm 3\text{dB}$ of initial sensitivity after 3 hours conditioning at $20^{\circ}\text{C}$	
6.1	Vibration	Frequency1 10Hz~55Hz Amplitude $\pm 0.15\text{mm}$ Frequency2 55Hz~150Hz Acceleration 20m/s Change of Frequency 1octave/min 2 hrs in each of 3 axes
6.2	Shock	Pulse Shape Half Sinusoidal Puise Duration 11ms Acceleration $150\text{m/s}^2$ Number of Jolts 10 in each of 3 axes
6.3	Dry Heat/Cold	$70^{\circ}\text{C}$ for 72hrs $-20^{\circ}\text{C}$ for 72hrs
6.4	Damp Heat	$90\% \text{RH}, +40^{\circ}\text{C}$ for 120hrs
6.5	Temperature Cycles	$(2\text{h})(1\text{h})(2\text{h})(1\text{h})(2\text{h})$ 10cycles
7.	<b>Cautions</b>	
7.1	A soldering Iron of less than 20W should be used.	
7.2	The temperaure of the working surface of the soldering iron shall be below $270^{\circ}\text{C}$	
7.3	E.C.M shall be heatsinked while soldering Radiation effects. The heat sink shall contact with each of microphone.	
7.4	The soldering time for each terminal shall be 1~2 sec.	
7.5	Solder voids and cold solder joints shall be avoided.	
7.6	E.C.M may easily destroyed by the static electricity and precautions for eliminating static electricity should be used (Grounding of soldering iron, the worktable and operator shall be in place)	