

NINGBO BEST GROUP CO.,LTD

SPECIFICATION**drawing no:2010061201**

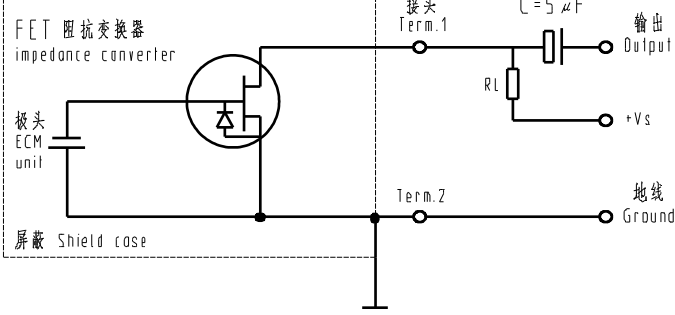
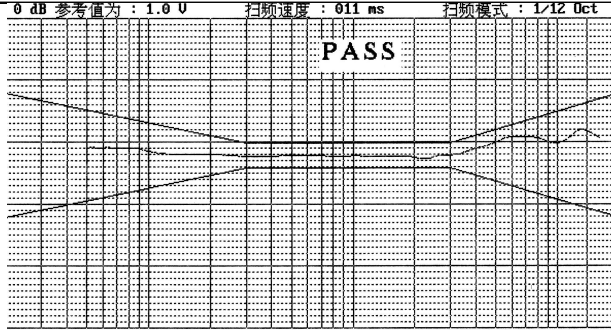
TYPE "FB"Electret Condenser Microphone

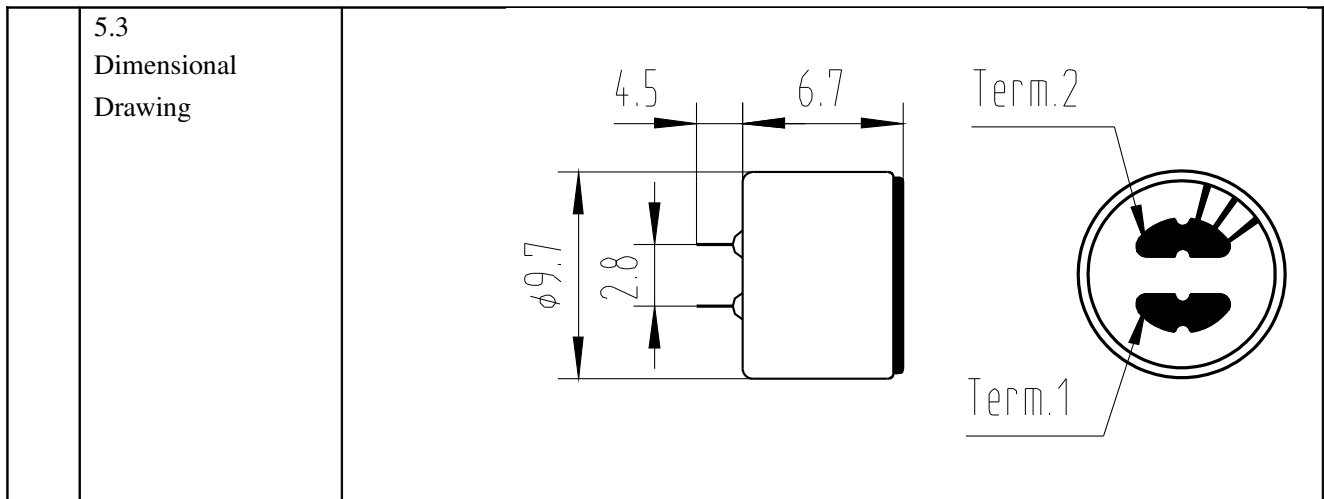
Part No. EM-9767P

1.	Seope	This spccification applies electret condenser microphone (E.C.M)
2.	Model No.	EM-9767P
3.	Operation Condition	
3.1	Temperature	-20~+70°C
3.2	Rel, Humidity	35%~85%RH
3.3	Pressure	86~106Kpa
3.4	Environmental Noise	36dB () 36dB (Maximum)
3.5	Operation Voltage	1~10VDC
3.6	Earth	⊙
4.	Electrical Characteristics	
4.1	Standard Operation Voltage	3VDC
4.2	Impedance	2.2kΩ () 2.2kΩ (Maximum)
4.3	Current Consumption	0.5mA () 0.5mA (Maximum)
4.4	Sensitivity	-60dB±1dB Vs=4.5V R1=2.2kΩ
4.5	Directivity	Omni-directional
4.6	S/N Ratio	40dB() 40dB(Minimum)

WRTN	CHKD	APVD	DESCRIPTION

TYPE "FB" Electret Condenser Microphone
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<p>4.7 Schematic Diagram $V_s = 4.5V$ $R_1 = 2.2k\Omega$ $C = 1\mu F$</p>					
<p>4.8 Test Temperature Rel.Humidity</p>	<p>$20^{\circ}C \pm 2^{\circ}C$ $45\% \sim 65\%RH$</p>				
<p>4.9 Frequency Response</p>					
<p>5. Mechanical Characteristics</p>	<table border="1"> <tr> <td data-bbox="209 1451 472 1529"> <p>5.1 Dimension</p> </td> <td data-bbox="472 1451 1460 1529"> <p>$9.7 \pm 0.1 \times 6.7 \pm 0.2$</p> </td> </tr> <tr> <td data-bbox="209 1529 472 1608"> <p>5.2 Mass</p> </td> <td data-bbox="472 1529 1460 1608"> <p>$\leq 1g$</p> </td> </tr> </table>	<p>5.1 Dimension</p>	<p>$9.7 \pm 0.1 \times 6.7 \pm 0.2$</p>	<p>5.2 Mass</p>	<p>$\leq 1g$</p>
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3-3

<p>6</p>	<p>Reliability Tests 20°C 3 ±3dB The sensitivity to be within ±3dB of initial sensitivity after 3 hours conditioning at 20°C.</p> <table border="1"> <tr> <td data-bbox="220 920 534 1205"> <p>6.1 Vibration</p> </td> <td data-bbox="534 920 1457 1205"> <p>1 Frequency1 10Hz~55Hz Amplitude ±0.15mm 2 Frequency2 55Hz~150Hz Acceleration 20m/s Change of Frequency 1 / 1octave/min 3 2 2 hrs in each of 3 axes</p> </td> </tr> <tr> <td data-bbox="220 1205 534 1413"> <p>6.2 Shocks</p> </td> <td data-bbox="534 1205 1457 1413"> <p>Pulse Shape Half Sinusoidal Pulse Duration 11ms Acceleration 150m/s² Number of Jolts 3 10 10 in each of 3 axes</p> </td> </tr> <tr> <td data-bbox="220 1413 534 1518"> <p>6.3 Dry Heat/Cold</p> </td> <td data-bbox="534 1413 1457 1518"> <p>70°C,72 -20°C,72 70°C for 72hrs -20°C for 72hrs</p> </td> </tr> <tr> <td data-bbox="220 1518 534 1624"> <p>6.4 Damp Heat</p> </td> <td data-bbox="534 1518 1457 1624"> <p>90%RH,+40°C,120 90%RH,+40°C for 120hrs</p> </td> </tr> <tr> <td data-bbox="220 1624 534 1720"> <p>6.5 Temperature Cycles</p> </td> <td data-bbox="534 1624 1457 1720"> <p>-20°C↔25°C↔70°C 10 (2h)(1h)(2h)(1h)(2h) 10cycles</p> </td> </tr> </table>	<p>6.1 Vibration</p>	<p>1 Frequency1 10Hz~55Hz Amplitude ±0.15mm 2 Frequency2 55Hz~150Hz Acceleration 20m/s Change of Frequency 1 / 1octave/min 3 2 2 hrs in each of 3 axes</p>	<p>6.2 Shocks</p>	<p>Pulse Shape Half Sinusoidal Pulse Duration 11ms Acceleration 150m/s² Number of Jolts 3 10 10 in each of 3 axes</p>	<p>6.3 Dry Heat/Cold</p>	<p>70°C,72 -20°C,72 70°C for 72hrs -20°C for 72hrs</p>	<p>6.4 Damp Heat</p>	<p>90%RH,+40°C,120 90%RH,+40°C for 120hrs</p>	<p>6.5 Temperature Cycles</p>	<p>-20°C↔25°C↔70°C 10 (2h)(1h)(2h)(1h)(2h) 10cycles</p>
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<p>7.</p>	<p>Cautions</p> <table border="1"> <tr> <td data-bbox="220 1825 534 1930"> <p>7.1 20W</p> </td> <td data-bbox="534 1825 1457 1930"> <p>The soldering copper of a smaller type of less than 20W shall be applied.</p> </td> </tr> <tr> <td data-bbox="220 1930 534 2020"> <p>7.2 270°C.</p> </td> <td data-bbox="534 1930 1457 2020"> <p>The temperature of the working surface of the soldering copper shall be below 270°C.</p> </td> </tr> </table>	<p>7.1 20W</p>	<p>The soldering copper of a smaller type of less than 20W shall be applied.</p>	<p>7.2 270°C.</p>	<p>The temperature of the working surface of the soldering copper shall be below 270°C.</p>						
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	<p>7.3 E.C.M shall be solderde fixed on the metal block (heat sink)which has the higher Radiation effects heat sink shall contact with each of E.C.M.</p>
	<p>7.4 1~2 The soldering time for each terminal shall be 1~2 sec.</p>
	<p>7.5 The pin hole soldering shall be avoided.</p>
	<p>7.6 E.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.</p>