
SPECIFICATION FOR APPROVAL

Product	ELECTRET CONDENSER MICROPHONE
Part No.	AM-O97L42-NT
Customer Approval	

Approved By	Checked By	Made By



A & B Components

<http://www.speaker-tw.com>

SPECIFICATIONS

01	Electret Type	Foil type
02	Sensitivity	-42±3dB (0dB=1V/Pa,1KHz)
03	Output Impedance (Max)	680 Ω
04	Directivity	Omnidirectional
05	Frequency Range	70-20,000Hz
06	Max.Operation Voltage	10V
07	Standard Operation Voltage	3.0V
08	Current Consumption	Max.0.5mA
09	Sensitivity Reduction	Within -3dB 0dB=1V/Pa,1KHz Vs=3.0 to 2.5V
10	S/N Ratio	> 60dB
11	Operating Temperature	-25~+70°C
12	Storage Temperature	-40~+70°C

Standard Conditions:

Generally Temperature 15~35°C

Generally Humidity 45~85%

Generally Atmospheric Pressure 860~1060hpa

Basic Test Conditions:

Temperature 20±2°C

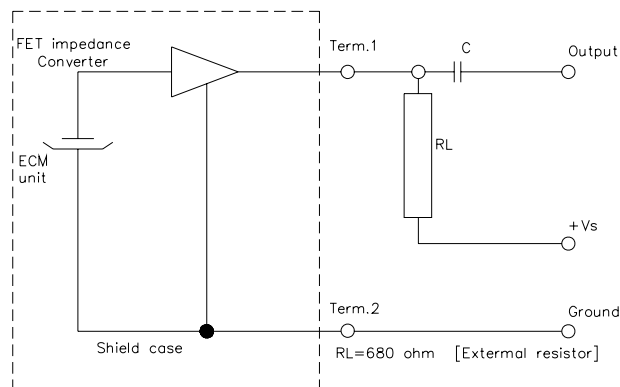
Humidity 60~70%

Generally Atmospheric Pressure 860~1060hpa

Electrical Characteristics Test Condition:

Vs=3.0V RL=680Ω Te=20°C R.H.=60%

Standard Test Circuit

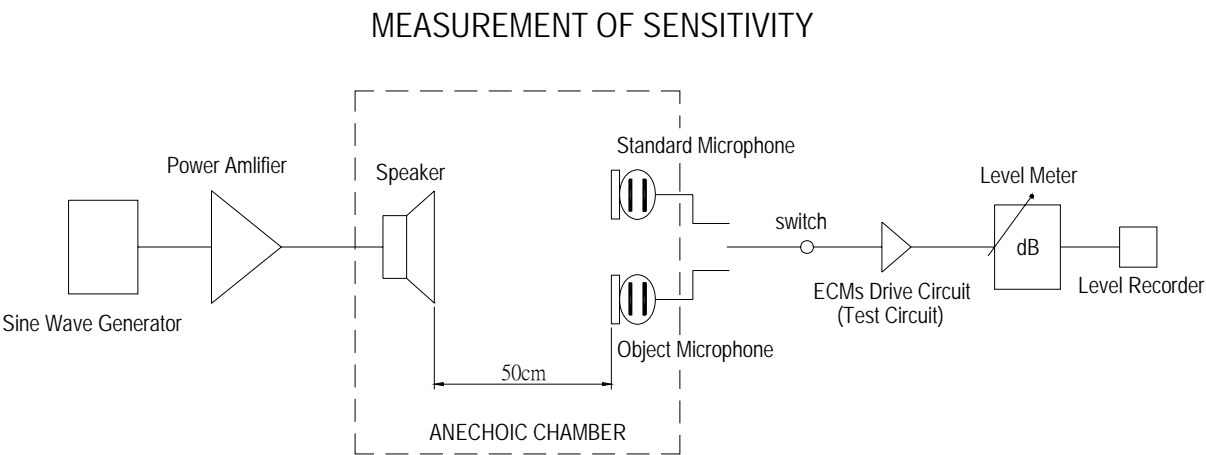


Every Mic. has installed FET.,

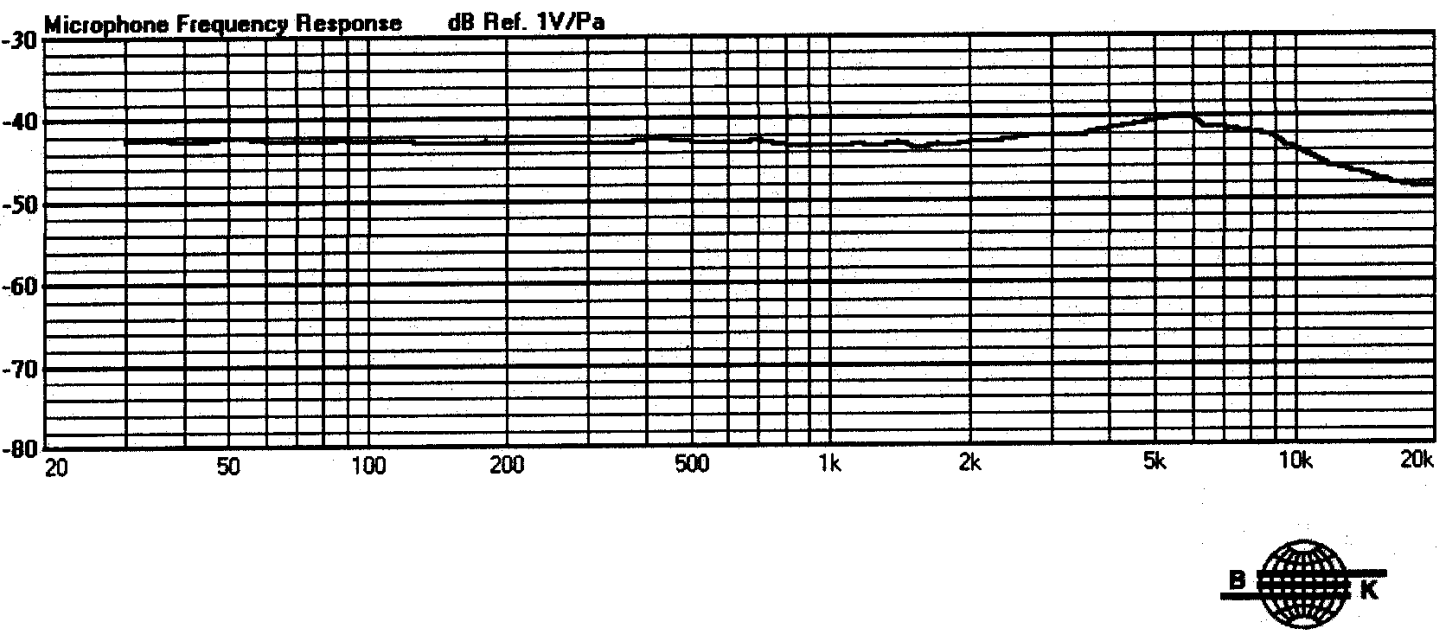
The FET. is easy broken by strong heat and static electricity, so when you working on, pls be attention that :

- Recommend using constant branding iron in 15 ~ 30W, and in temperature range 240 ~ 270°C.
- Soldering time not over 3 seconds.
- Don't stay any hole or dust when soldering.
- To avoid the Mic. be broken by static electricity, the people and working station should install prevent static electricity equipment.

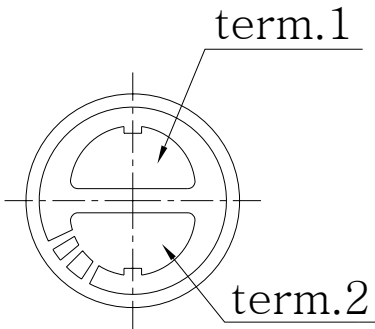
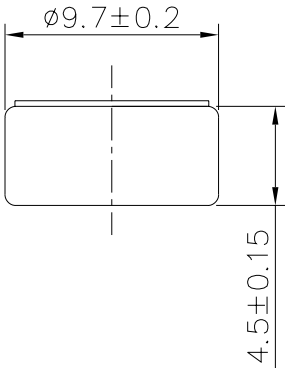
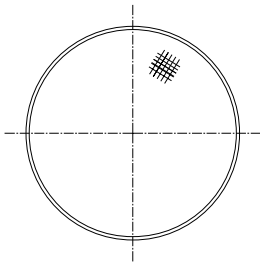
Standard Test Condition Of Microphone



Frequency Response Curve



REV NO.	REVISION NOTE	APPROVAL	DATE
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TITLE: <i>MICROPHONE</i>		DRAWN: <i>Richard</i> 12/18/2002	SCALE: 3:1	SHEET: 1 : 1
PART NO. <i>AM-097L42-NT</i>	1	DESIGNED: <i>R & D DEP.</i>	UNITS: <i>mm</i>	
DWG NO. <i>DTM-1275</i>		CHECKED:	TOLERANCE ± 0.2	
		APPROVAL:	UNLESS OTHERWISE SPECIFIED:	
	REV	MATERIAL: <i>*****</i>	ONE PLACE DECIMAL \pm ***	
			TWO PLACE DECIMAL \pm ***	
			THREE PLACE DECIMAL \pm ***	

A & B Components

RELIABILITY TEST

AM-O97L42-NT

Item		Test Conditions	Evaluation Standard
01	High Temp. Test	After exposure at 70°C for 100 hours, and expose to room temperature for 6 hours, sensitivity to be within $\pm 3\text{dB}$ from initial sensitivity.	After any tests , the sensitivity to be within $\pm 3\text{dB}$ of initial sensitivity after 3 hours of conditioning at 20°C and shall keep their initial operation and appearance.
02	Low Temp. Test	After exposure at -25°C for 100 hours, and expose to room temperature for 6 hours, sensitivity to be within $\pm 3\text{dB}$ from initial sensitivity.	
03	Temp.Cycle Test	After exposure at 70°C for 1 hour, at room temp. for 1 hour, at -25°C for 1 hour, at room temp. for 1 hour, at 10 cycles, and expose to room temp. for 6 hours, sensitivity to be within $\pm 3\text{dB}$ from initial sensitivity.	
04	Humidity Test	After exposure at 40°C and 90 \pm 5% relative humidity for 240 hours, and expose to room temperature for 6 hours, sensitivity to be within $\pm 3\text{dB}$ from initial sensitivity.	
05	Vibration Test	The microphone unit must be subjected to each 30 minutes vibrations at three axes 3 mm dynamic rang. 1000cycles/minute.	
06	Drop test	The microphone unit without packaged must be subjected to each 3 drops at three axes from the height of 1 meter to 20mm thick hardwood.	
07	Pull Strength Test	The microphone assembly shall suffer no change from a pull strength of 0.5 kg for 3 seconds applied between the connector and the microphone.	Application of the "pin" type