
SPECIFICATION FOR APPROVAL

Product	ELECTRET CONDENSER MICROPHONE
Part No.	AM-097A44-NP
Customer Approval	

Approved By	Checked By	Made By



A & B Components

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

SPECIFICATIONS

01	Electret Type	Foil type
02	Sensitivity	-44±3dB (0dB=1V/Pa,1KHz)
03	Output Impedance (Max)	1.0KΩ
04	Directivity	Omnidirectional
05	Frequency Range	70-20,000Hz
06	Max. Operation Voltage	10V
07	Standard Operation Voltage	4.5V
08	Current Consumption	Max.0.5mA
09	Sensitivity Reduction	Within -3dB 0dB=1V/Pa,1KHz Vs=4.5 to 4.0V
10	S/N Ratio	> 58dB
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

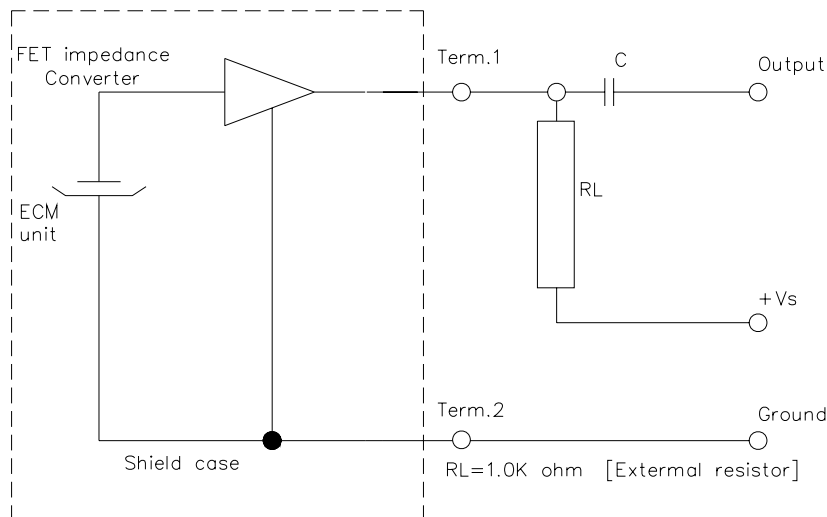
Humidity 60~70%

Generally Atmospheric Pressure 860~1060hpa

Electrical Characteristics Test Condition:

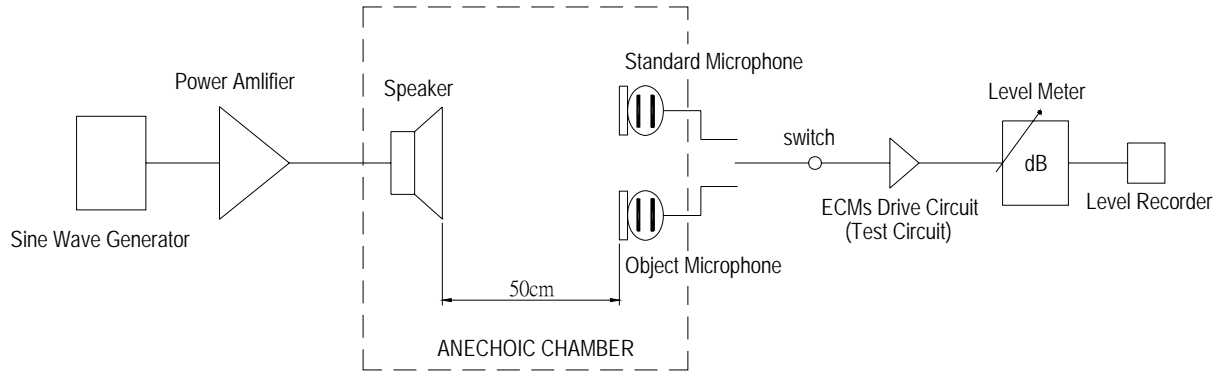
Vs=4.5V RL=1.0KΩ Te=20°C R.H.=60%

Standard Test Circuit

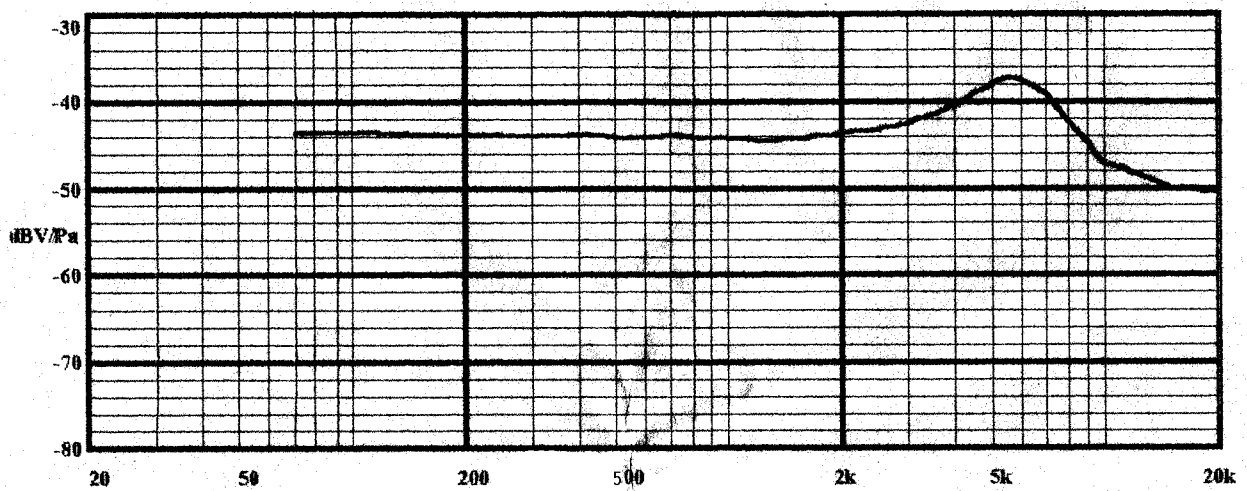


Standard Test Condition Of Microphone

MEASUREMENT OF SENSITIVITY



Frequency Response Curve

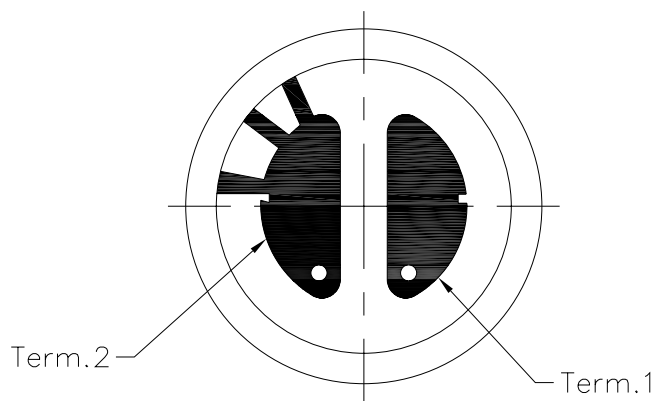
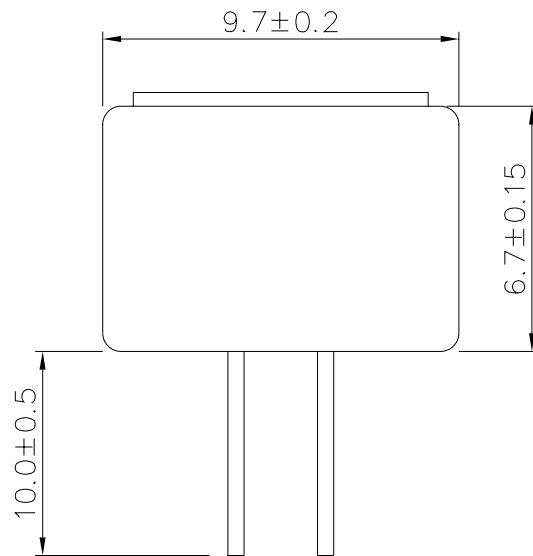
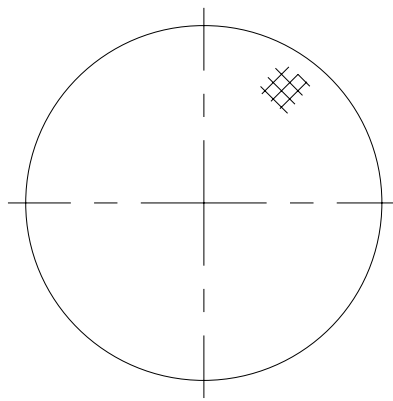


REV NO.

REVISION NOTE

APPROVAL

DATE



TITLE: MICROPHONE

DRAWN: Richard 05/31/2001

SCALE: 5/1 SHEET: 1 : 1

PART NO. AM-097A44-NP

DESIGNED: R & D DEP.

UNITS: mm

1

CHECKED:

TOLERANCE ± 0.2

DWG NO. DTM-1071

REV

APPROVAL:

UNLESS OTHERWISE SPECIFIED:

ONE PLACE DECIMAL ± ***

TWO PLACE DECIMAL ± ***

THREE PLACE DECIMAL ± ***

MATERIAL: *****

A & B Components

RELIABILITY TEST

AM-O97A44-NP

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 ± 3 dB from initial sensitivity.	After any tests , the sensitivity to be within ± 3 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 ± 3 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 ± 3 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 ± 3 dB from initial sensitivity.	
05	Vibration Test	The microphone unit must be subjected to each 30 minutes vibrations at three axis 3 mm dynamic rang. 1000cycles/minute.	
06	Drop test	The microphone unit without packaged must be subjected to each 3 drops at three axis 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