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# SPECIFICATION FOR APPROVAL

Product	ELECTRET CONDENSER MICROPHONE
Part No.	AM-O60H42-NT
Customer Approval	

Approved By	Checked By	Made By



**A & B Components**

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

# SPECIFICATIONS

01	Electret Type	Back type
02	Sensitivity	-42±3dB (0dB=1V/Pa,1KHz)
03	Output Impedance (Max)	2.2K Ω
04	Directivity	Omnidirectional
05	Frequency Range	70-20,000Hz
06	Max.Operation Voltage	10V
07	Standard Operation Voltage	2.0V
08	Current Consumption	Max.0.5mA
09	Sensitivity Reduction	Within -3dB 0dB=1V/Pa,1KHz Vs=2.0 to 1.5V
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

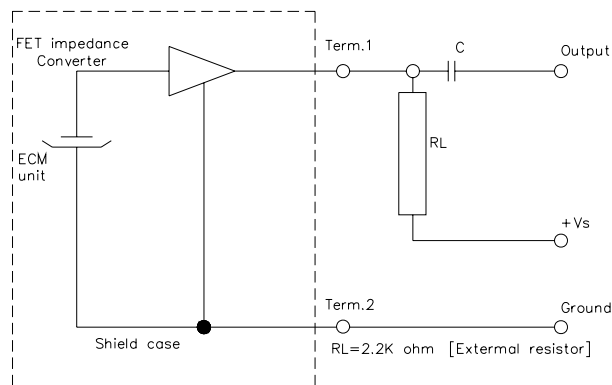
Humidity 60~70%

Generally Atmospheric Pressure 860~1060hpa

## Electrical Characteristics Test Condition:

Vs=2.0V RL=2.2K Ω Te=20°C R.H.=60%

## Standard Test Circuit



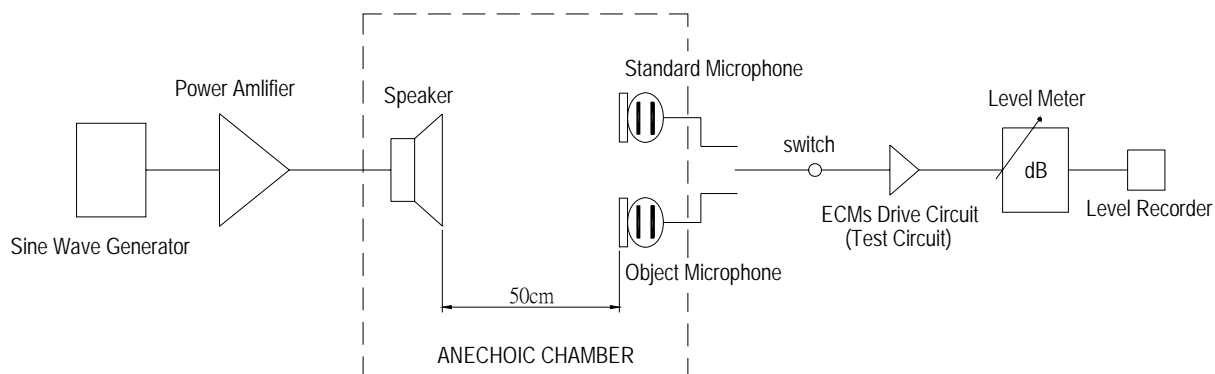
## Every Mic. has installed FET.,

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

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

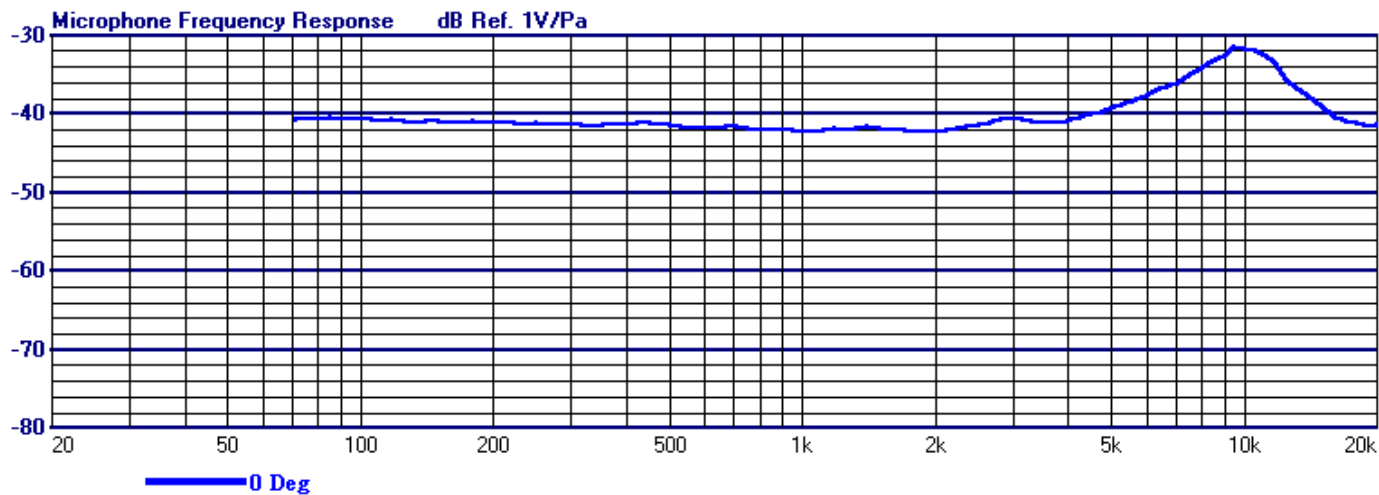
# Standard Test Condition Of Microphone

## MEASUREMENT OF SENSITIVITY



## Frequency Response Curve

X : 1000 Hz  
Y : -42.1 dBV/Pa  
Y : -39.9 dBm/Pa  
D : 0.0 dB

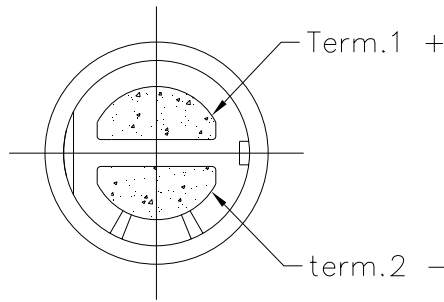
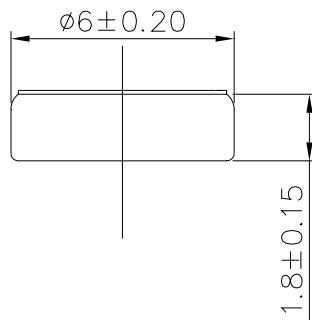
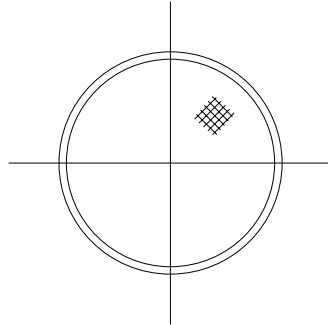


REV NO.

REVISION NOTE

APPROVAL

DATE



TITLE: <i>MICROPHONE</i>		DRAWN: <i>Richard</i> 11/25/2003	SCALE: 5/1	SHEET: 1 : 1
PART NO. <i>AM-060H42-NT</i>		DESIGNED: R & D DEP.	UNITS: mm	
DWG NO. <i>DTM-1290</i>		CHECKED:	TOLERANCE ± 0.2	
		APPROVAL:	UNLESS OTHERWISE SPECIFIED:	
REV	1	MATERIAL: *****	ONE PLACE DECIMAL ± ***	
			TWO PLACE DECIMAL ± ***	
			THREE PLACE DECIMAL ± ***	

*A & B Components*

# RELIABILITY TEST

## AM-O60H42-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 $\pm 3$ dB from initial sensitivity.	After any tests , the sensitivity to be within $\pm 3$ 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 $\pm 3$ 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 $\pm 3$ 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 $\pm 3$ 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