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# SPECIFICATION FOR APPROVAL

Product	ELECTRET CONDENSER MICROPHONE
Part No.	AM-N60F51-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	-51±3dB (0dB=1V/Pa,1KHz)
03	Output Impedance (Max)	2.2KΩ
04	Directivity	Noise Canceling
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	> 50dB
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

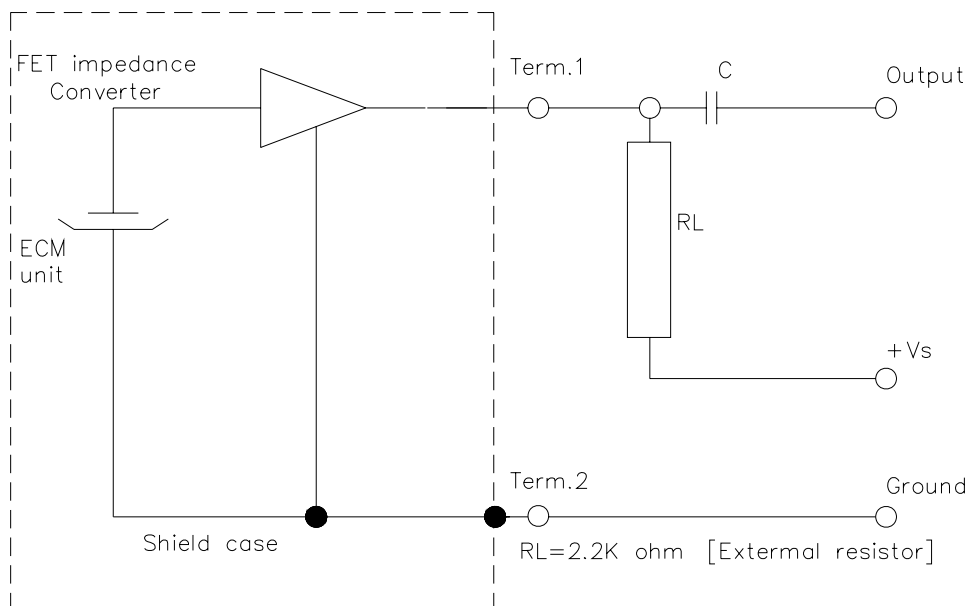
Humidity 60~70%

Generally Atmospheric Pressure 860~1060hpa

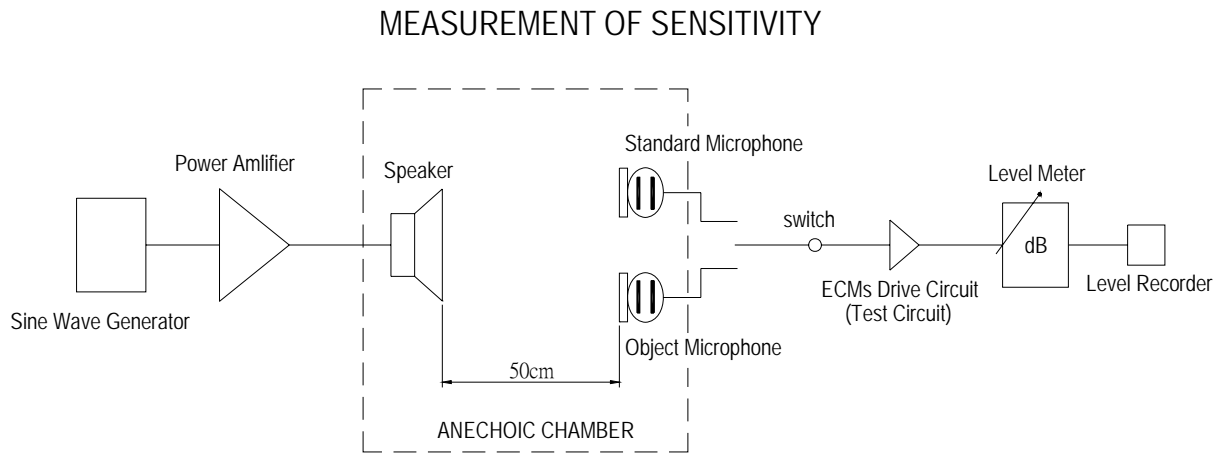
## Electrical Characteristics Test Condition:

Vs=2.0V RL=2.2KΩ Te=20°C R.H.=60%

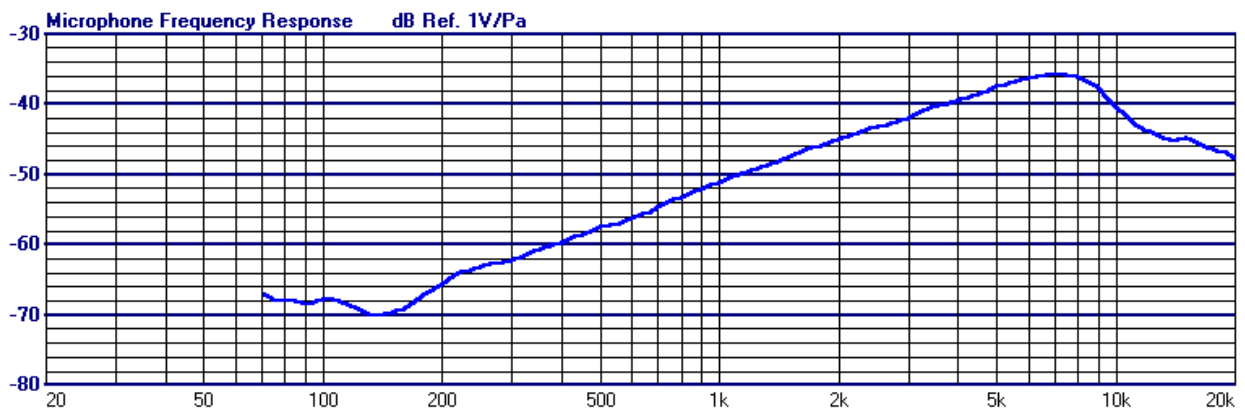
## Standard Test Circuit



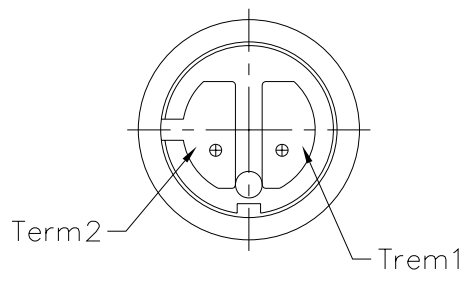
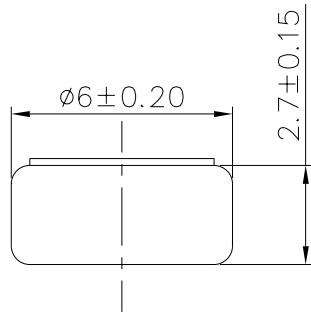
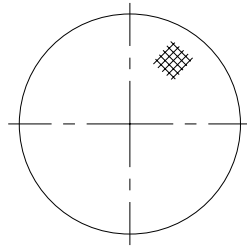
# Standard Test Condition Of Microphone



## Frequency Response Curve



REV NO.	REVISION NOTE	APPROVAL	DATE
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TITLE: <i>MICROPHONE</i>		DRAWN: <i>Richard</i> 09/23/2002	SCALE: 5/1	SHEET: 1 : 1
PART NO. <i>AM-N60F51-NT</i>	<b>1</b>	DESIGNED: R & D DEP.	UNITS: <i>mm</i>	
DWG NO. <i>DTM-1259</i>		CHECKED:	UNLESS OTHERWISE SPECIFIED:	
	REV	APPROVAL:	ONE PLACE DECIMAL ± ***	
		MATERIAL: *****	TWO PLACE DECIMAL ± ***	
			THREE PLACE DECIMAL ± ***	

*A & B Components*

# RELIABILITY TEST

## AM-N60F51-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 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