

# MESSRS.

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## SPECIFICATION FOR APPROVAL

## 承 認 書

Product	ELECTRET CONDENSER MICROPHONE
Part No.	AMB-N60G51-NA-LF (RoHS)
Customer Approval	

Approved By	Checked By	Made By
工程部 王台平 AUG-29-2006	工程部 劉民祥 AUG-29-2006	工程部 許俊程 AUG-29-2006



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# 1. SPECIFICATIONS

AMB-N60G51-NA-LF

01	Electret Type	Back type
02	Sensitivity	-51±4.5dB (0dB=1V/Pa,1KHz)Band form 300 to 3K Hz
03	Output Impedance (Max)	2.2KΩ
04	Directivity	Noise Cancelling
05	Frequency Range	70 - 20K Hz
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=2.5 to 2.0V
10	S/N Ratio	> 55dB
11	Operating Temperature	-20~+60°C
12	Storage Temperature	-30~+70°C

# 2. MEASURING METHOD

## 2-1. Test Condition

Standard Conditions:

Generally Temperature 15~35°C

Generally Humidity 45~85%

Generally Atmospheric Pressure 860~1060hpa

Basic Test Conditions:

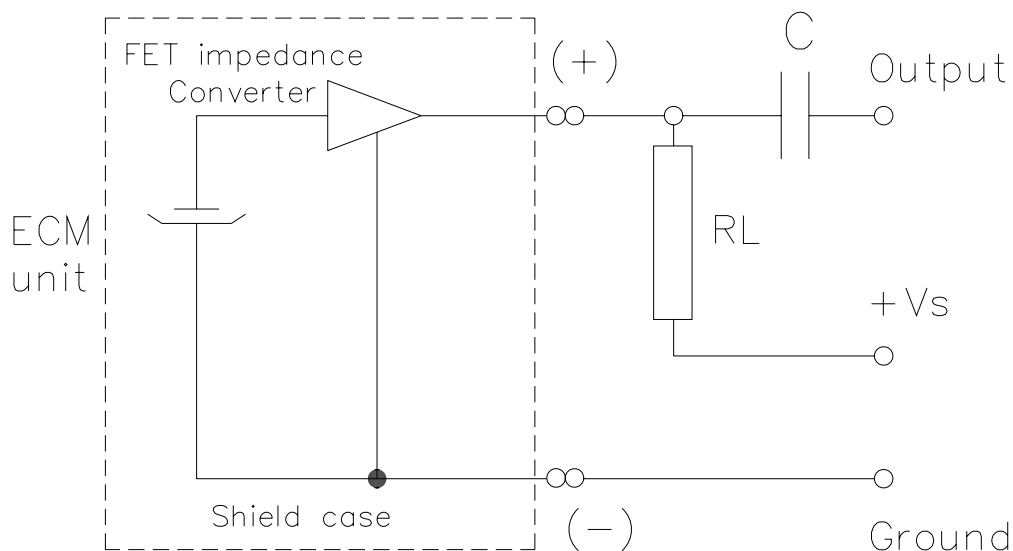
Temperature 20±2°C

Humidity 60~70%

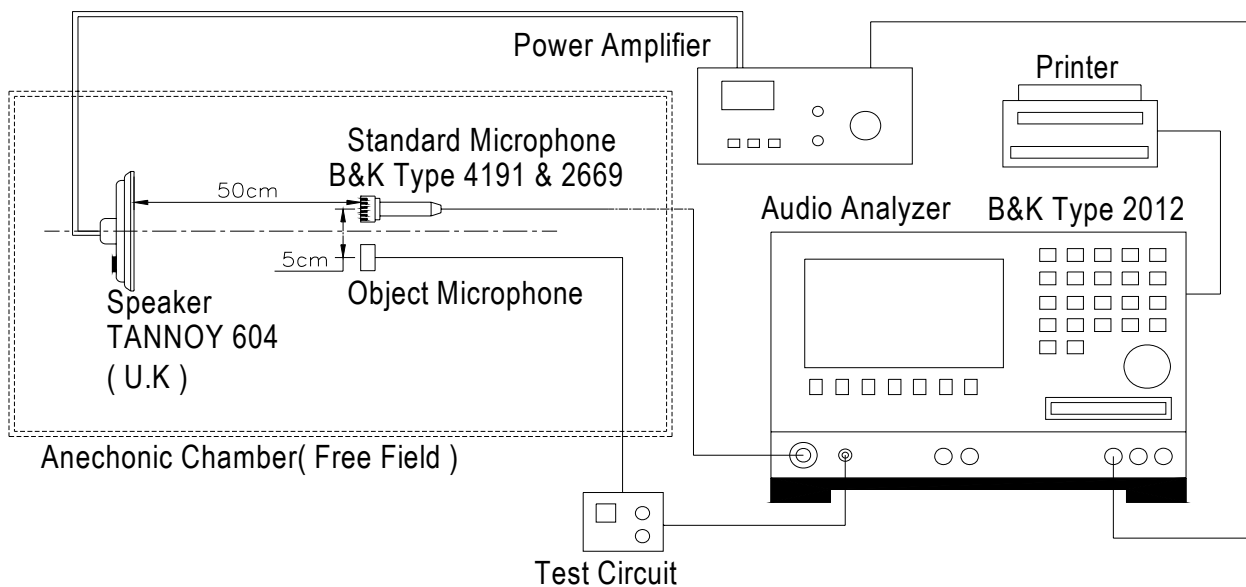
Generally Atmospheric Pressure 860~1060hpa

## 2-2. Standard Test Circuit

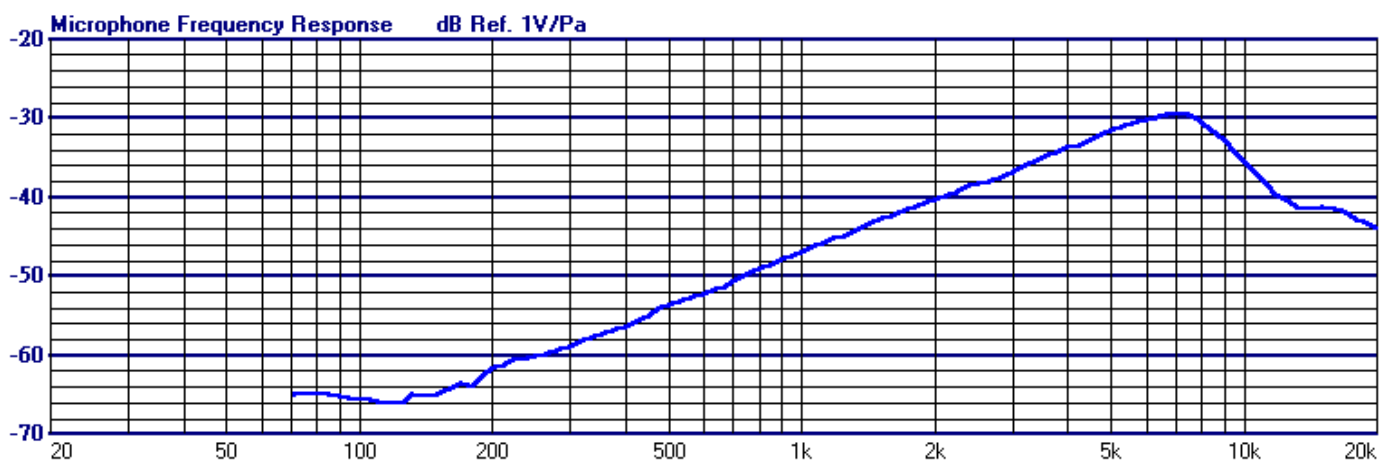
Vs=2.0V RL=2.2KΩ Te=20°C R.H.=60%



## 2-3. Standard Test Fixture



## 2-4. Frequency Response Curve



## 2-5. Noise Cancelling Characteristic

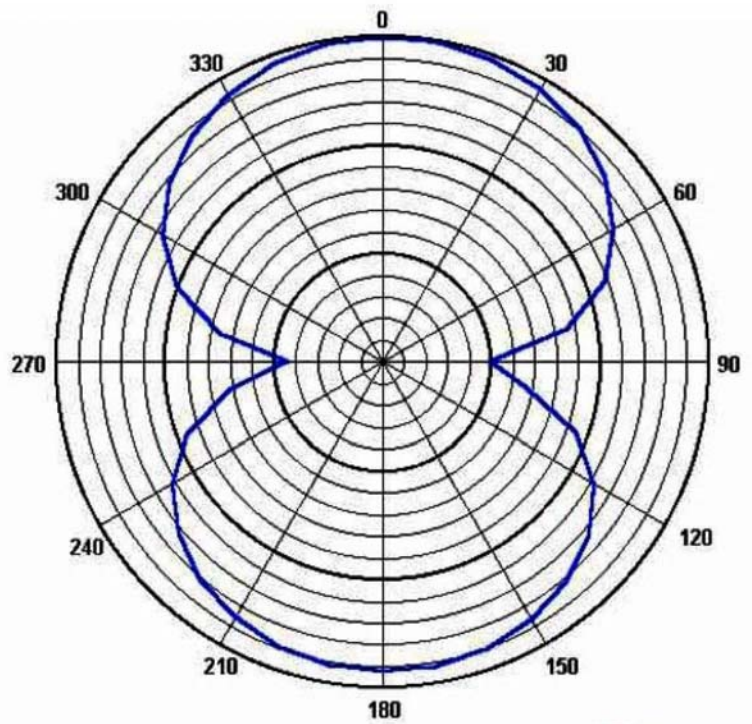
Frequency : 1000 Hz

### Microphone Directional Characteristic

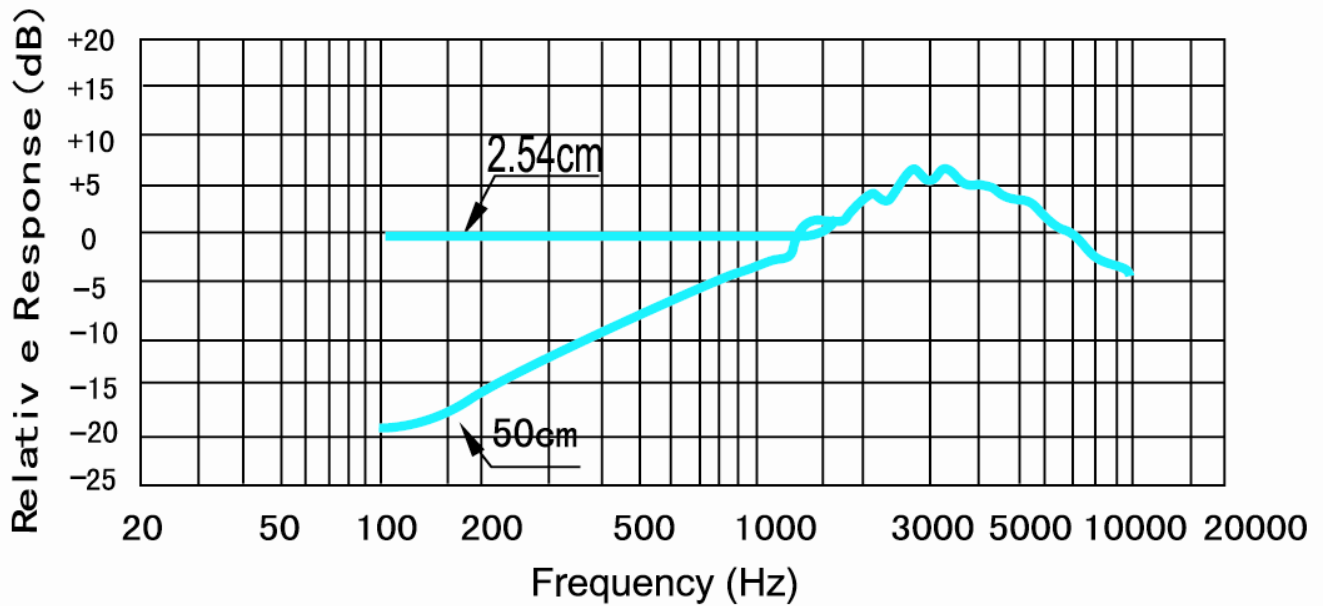
Range : 30 dB

Frequency : 1000 Hz

Source Level : 0.1 Pa



Measure Distance : 50 cm  
Test Instrument : Bruel & Kjaer 2012 & 9640

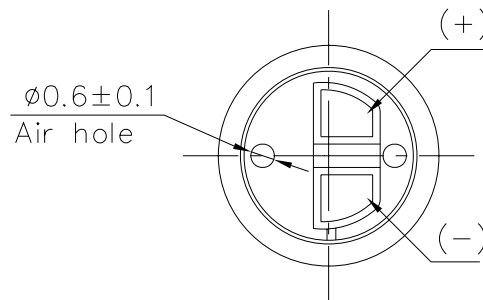
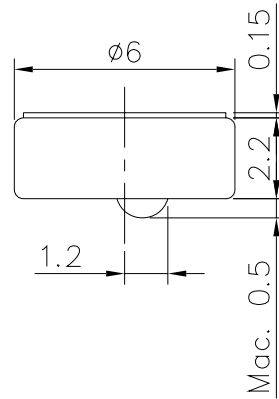
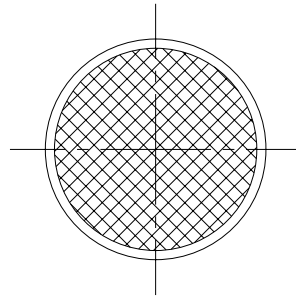


REV NO.

REVISION NOTE

APPROVAL

DATE



TITLE: <i>MICROPHONE</i>		DRAWN: <i>JOHN</i> 08/18/2006	SCALE: 5:1	SHEET: 1 of 1
PART NO. <i>AMB-N60G51-NA-LF</i>	1 REV	DESIGNED: <i>R &amp; D OF AAT</i>	UNITS: <i>mm</i>	
DWG NO. <i>DTM-1300</i>		CHECKED:	TOLERANCE ± 0.2	
		APPROVAL:	UNLESS OTHERWISE SPECIFIED: ONE PLACE DECIMAL ± *** TWO PLACE DECIMAL ± *** THREE PLACE DECIMAL ± ***	
		MATERIAL: <i>*****</i>		



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## 4.RELIABILITY TEST

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 -30°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 -30°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

## 5. SOLDERING CONDITION

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 30W, and in temperature range 320 $\pm$ 10°C.
- Soldering time 2 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.