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# SPECIFICATION FOR APPROVAL

Product	ELECTRET CONDENSER MICROPHONE
Part No.	AM-O60C42-NT
Customer Approval	

Approved By	Checked By	Made By



**A & B Components**

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

## 1. SPECIFICATIONS

AM-O60C42-NT

01	Electret Type	BACK type
02	Sensitivity	-42±2dB (0dB=1V/Pa,1KHz) Band form 300 to 3K Hz
03	Standard Operation Voltage	2.0V
04	Output Impedance (Max)	2.2KΩ
05	Directivity	Omnidirectional
06	Frequency Range	70 - 20K Hz
07	Max. Operation Voltage	10V
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	-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:

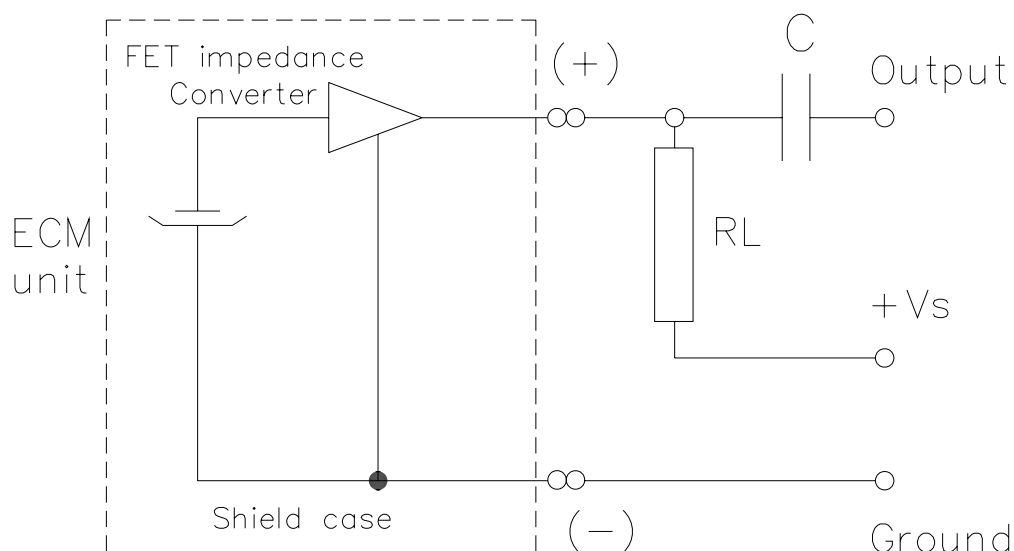
Temperature 20±2°C

Humidity 60~70%

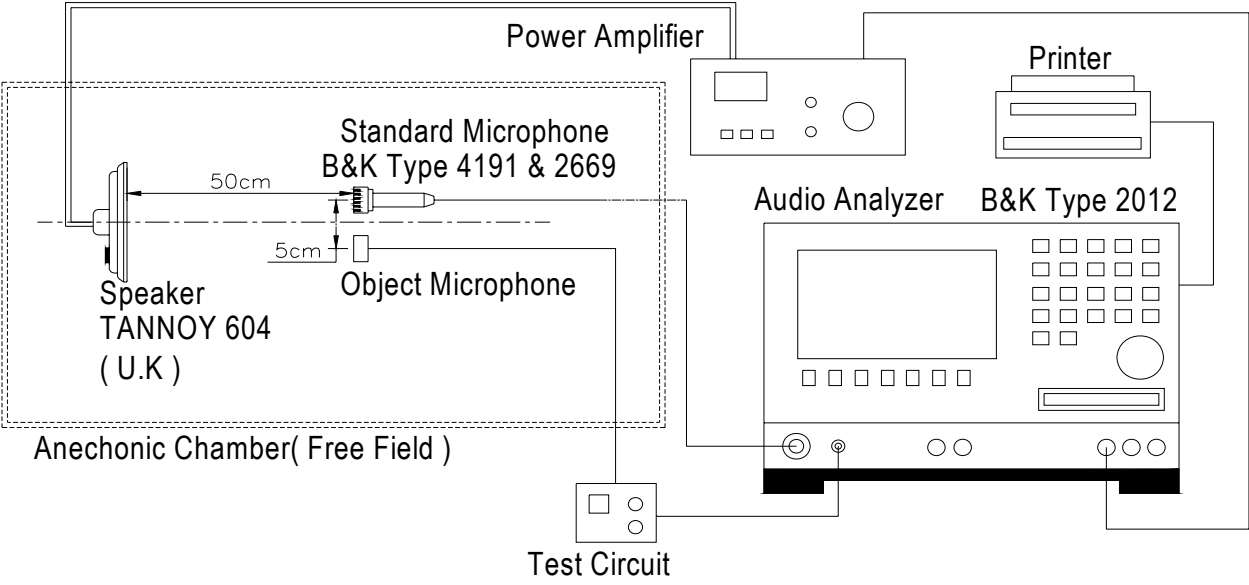
Generally Atmospheric Pressure 860~1060hpa

### 2-2. Standard Test Circuit

Vs=2.0V RL=2.2KΩ Te=20°C R.H.=60%

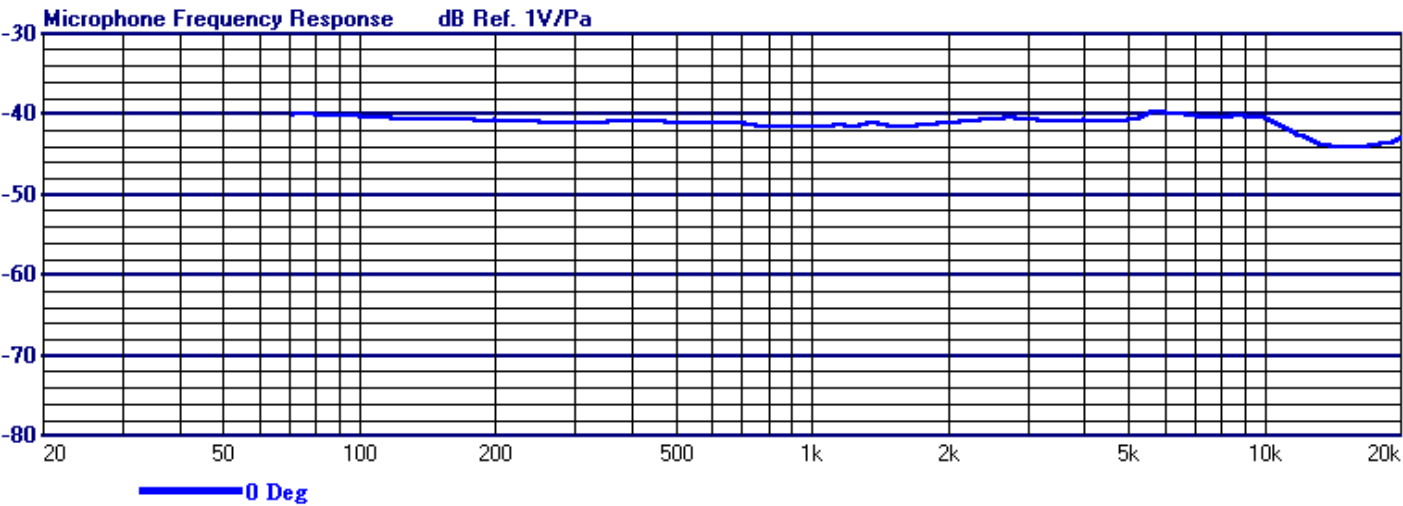


2-3. Standard Test Fixture

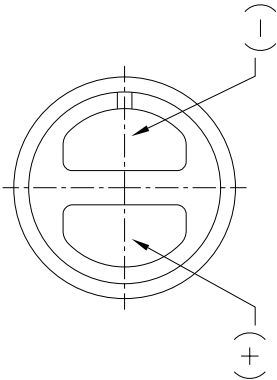
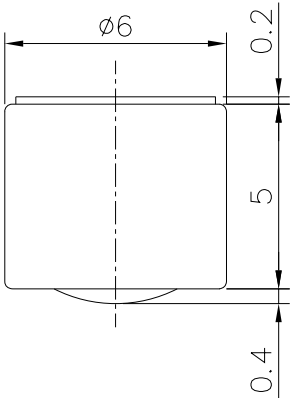
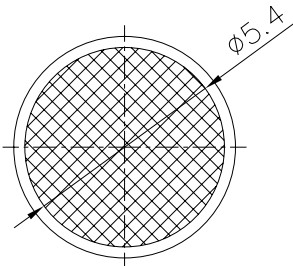


2-4. Frequency Response Curve

**X : 1000 Hz**      **Y : -41.6 dBV/Pa**  
                         **Y : -39.4 dBm/Pa**  
                         **D : 0.0 dB**



REV NO.	REVISION NOTE	APPROVAL	DATE
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TITLE: MICROPHONE		DRAWN: Richard 02/26/2007	SCALE: 5:1	SHEET: 1 of 1
PART NO. AM-060C42-NT	1	DESIGNED: R & D DEP.	UNITS: mm	
		CHECKED:	TOLERANCE ± 0.2	
DWG NO. DTM-1237	REV	APPROVAL:	UNLESS OTHERWISE SPECIFIED:	
		MATERIAL: *****	ONE PLACE DECIMAL ± *** TWO PLACE DECIMAL ± *** THREE PLACE DECIMAL ± ***	

A & B Components

## 4.RELIABILITY TEST

Item		Test Conditions	Evaluation Standard
01	High Temp. Test	After exposure at 70°C for 96 hours	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 -30°C for 96 hours	
03	Temp. Cycle Test	A After exposure at 70°C for 30 minutes, at room temp. for 10 minutes, at -30°C for 30 minutes, at room temp. for 10 minutes, at 5 cycles.	
04	Humidity Test	After exposure at 40°C and 90 $\pm$ 5% relative humidity for 200 hour.	
05	Vibration Test	10~50Hz for 1 minute full amplitude 1.52mm for 2 hours at three axes ..	
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.	

## 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 300 $\pm$ 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.