
SPECIFICATION FOR APPROVAL

| | |
|-------------------|-------------------------------|
| Product | ELECTRET CONDENSER MICROPHONE |
| Part No. | AM-U60C47-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 | -47±3dB (0dB=1V/Pa,1KHz) |
| 03 | Output Impedance (Max) | 2.2KΩ |
| 04 | Directivity | Unidirectional |
| 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

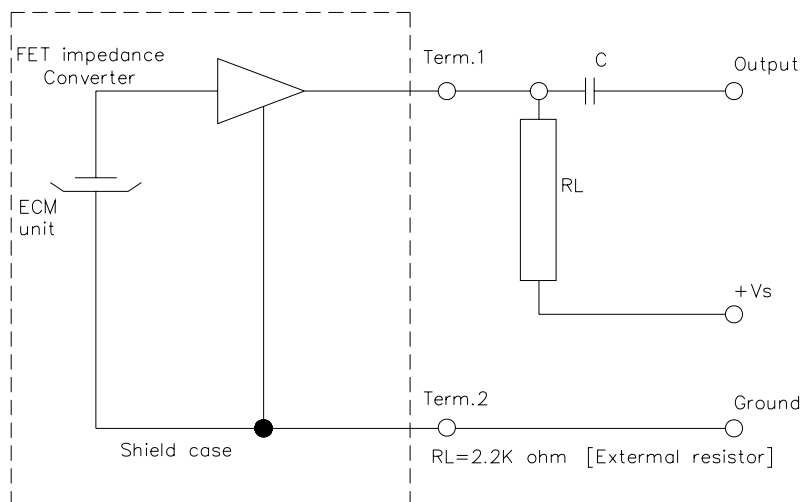
Humidity 60~70%

Generally Atmospheric Pressure 860~1060hpa

Electrical Characteristics Test Condition:

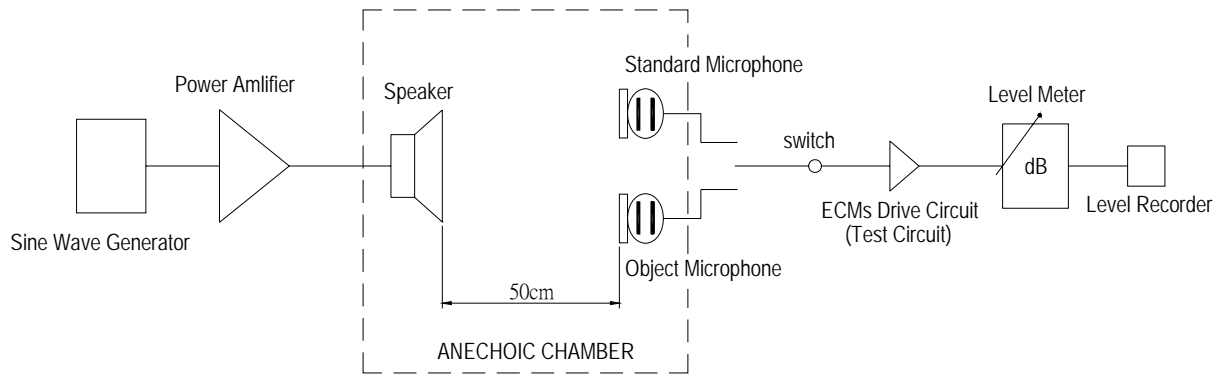
Vs=2.0V RL=2.2KΩ Te=20°C R.H.=60%

Standard Test Circuit

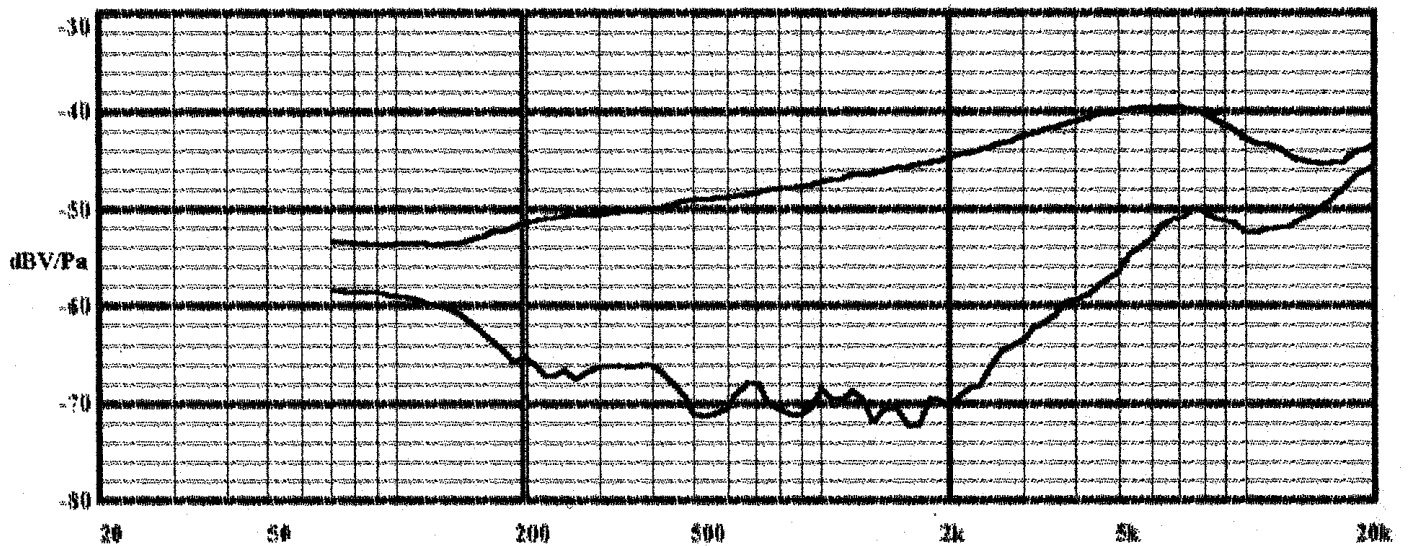


Standard Test Condition Of Microphone

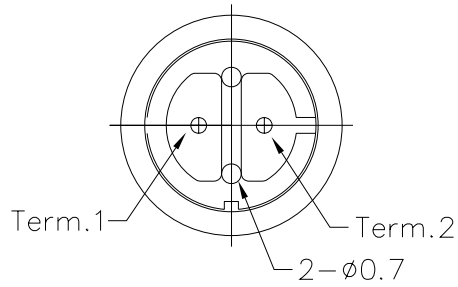
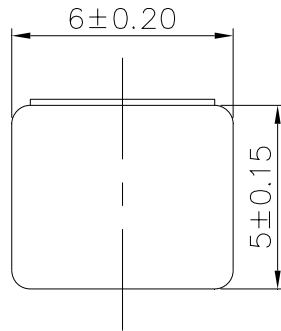
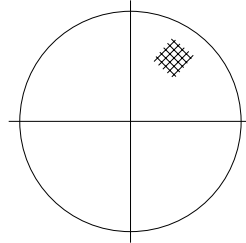
MEASUREMENT OF SENSITIVITY



Frequency Response Curve



| | | | |
|---------|---------------|----------|------|
| REV NO. | REVISION NOTE | APPROVAL | DATE |
|---------|---------------|----------|------|



| | | | | |
|------------------------------|---|----------------------------------|---|--------------|
| TITLE: <i>MICROPHONE</i> | | DRAWN: <i>Richard</i> 06/22/2001 | SCALE: 5/1 | SHEET: 1 : 1 |
| PART NO. <i>AM-U60C47-NT</i> | | DESIGNED: R & D DEP. | UNITS: <i>mm</i> | |
| DWG NO. <i>DTM-1076</i> | | CHECKED: | TOLERANCE ± 0.2 UNLESS OTHERWISE SPECIFIED: ONE PLACE DECIMAL ± *** TWO PLACE DECIMAL ± *** THREE PLACE DECIMAL ± *** | |
| | | APPROVAL: | | |
| REV | 1 | MATERIAL: ***** | | |

A & B Components

RELIABILITY TEST

AM-U60C47-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 $\pm 3\text{dB}$ from initial sensitivity. |
| 02 | Low Temp. Test | After exposure at -25°C for 100 hours, and expose to room temperature for 6 hours, sensitivity to be within $\pm 3\text{dB}$ 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 $\pm 3\text{dB}$ 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 $\pm 3\text{dB}$ 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. |
| <p>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.</p> <p>Application of the "pin" type</p> | | |