# *MESSRS.*

# SPECIFICATION FOR APPROVAL

# 承 認 書

| | |
|---|---|
| Product | ELECTRET CONDENSER MICROPHONE |
| Part No. | AMF-O97A44-NA-LF(RoHS) |
| Customer Approval | |

| Approved By | Checked By | Made By |
|---|---|---|
| 工程部<br>王台平<br>APR-19-2005 | 工程部<br>劉民祥<br>APR-19-2005 | 工程部<br>許俊程<br>APR-19-2005 |


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ISO 9001 Certified

File Name:

## 1. SPECIFICATIONS

AMF-O97A44-NA-LF

| | | |
|---|---|---|
| 01 | Electret Type | Foil type |
| 02 | Sensitivity | -44±2dB (0dB=1V/Pa,1KHz) Band form 300 to 3K Hz |
| 03 | Output Impedance (Max) | 2.2KΩ |
| 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 | > 60dB |
| 11 | Operating Temperature | -20~+60℃ |
| 12 | Storage Temperature | -30~+70℃ |

## 2. MEASURING METHOD

2-1. Test Condition

Standard Conditions:

Generally Temperature 15~35℃

Generally Humidity 45~85%

Generally Atmospheric Pressure 860~1060hpa

Basic Test Conditions:

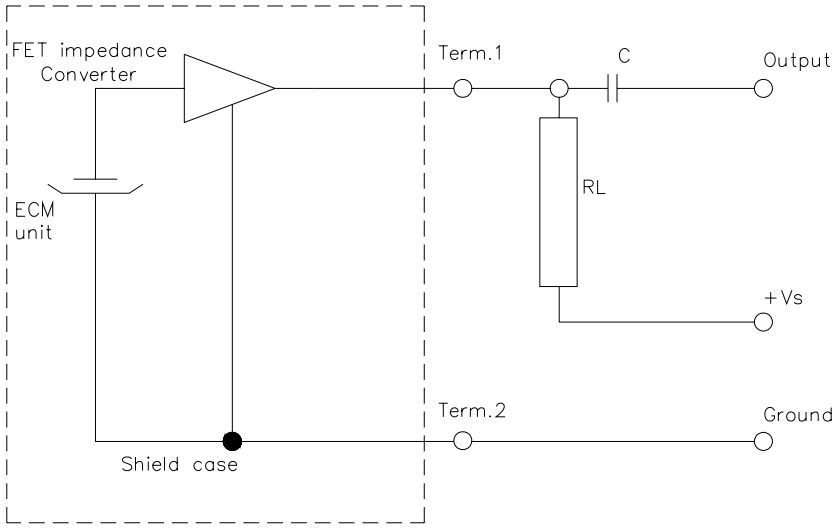
Temperature 20±2℃

Humidity 60~70%

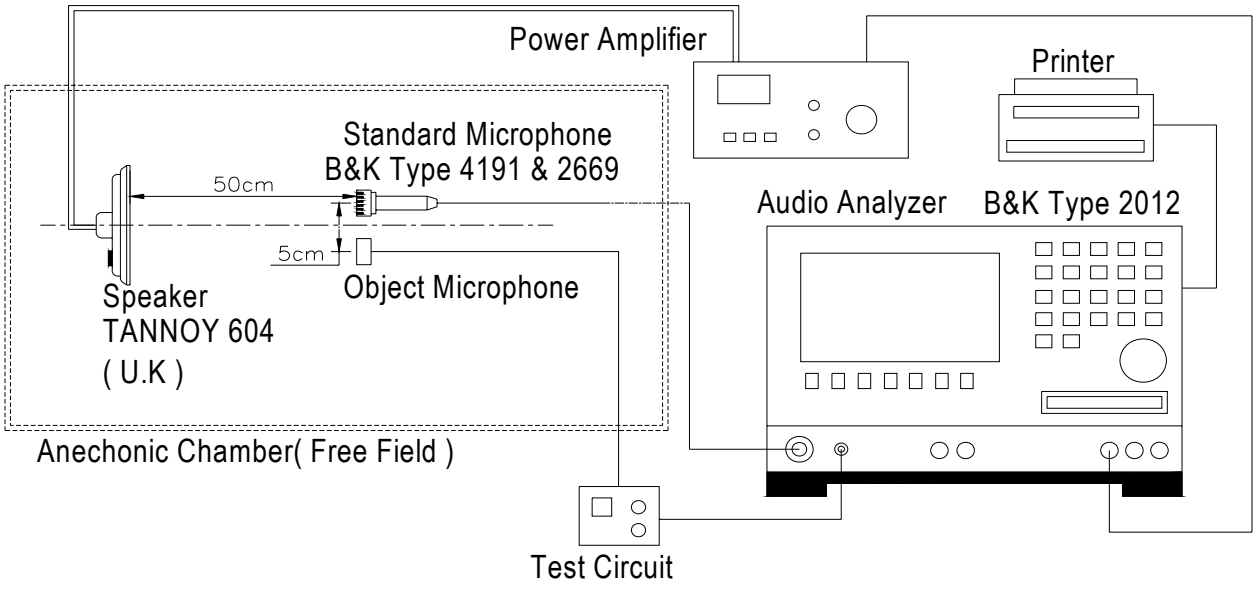
Generally Atmospheric Pressure 860~1060hpa

2-2. Standard Test Circuit

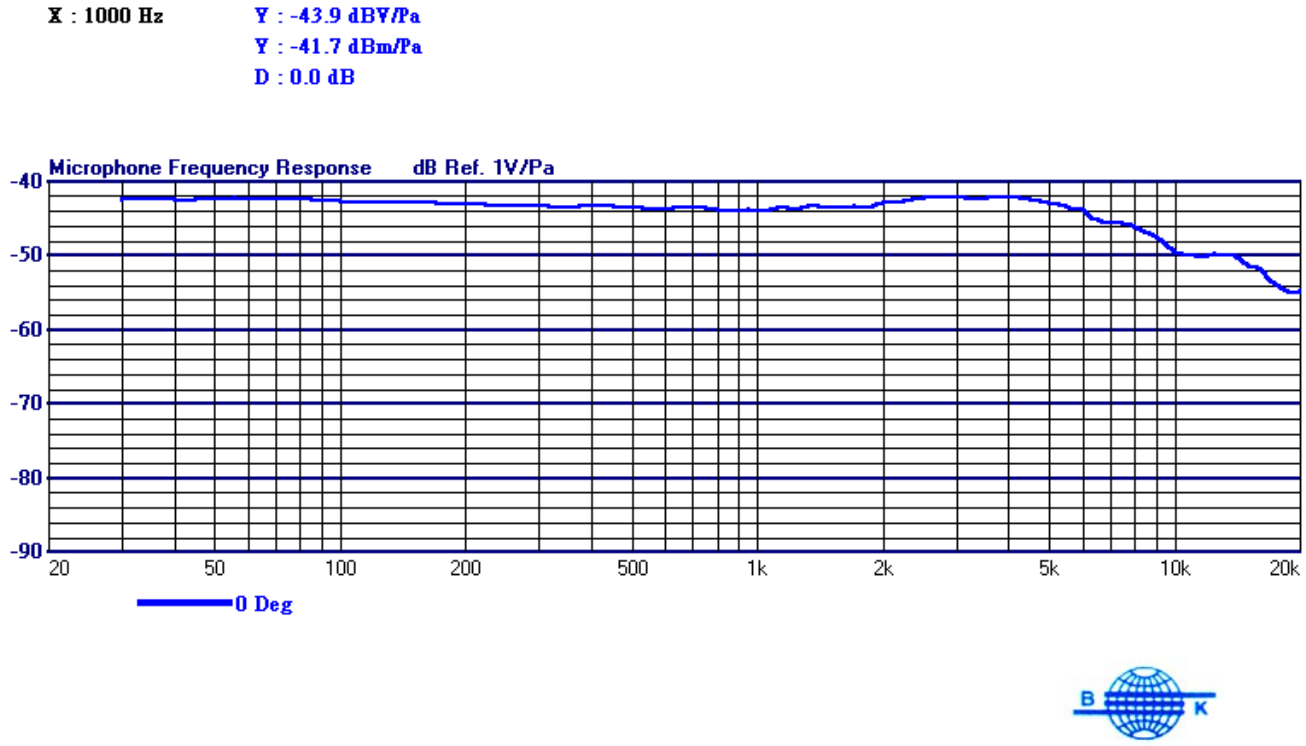
Vs=2.0V RL=2.2KΩ Te=20℃ R.H.=60%



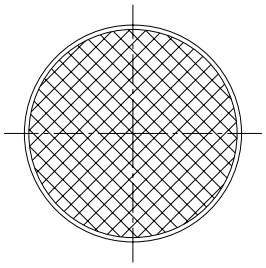
## 2-3. Standard Test Fixture

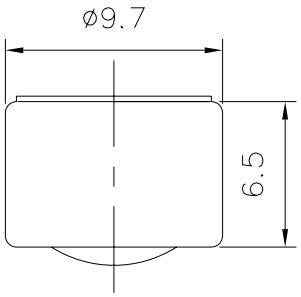


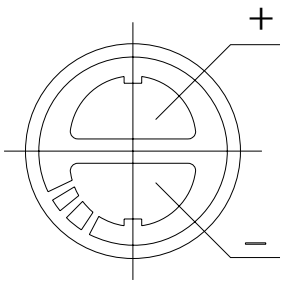

## 2-4. Frequency Response Curve



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






| | | | | | |
|---|---|---|---|---|---|
| TITLE: MICROPHONE | | DRAWN: JOHN 04/19/2005 | SCALE: 3:1 | SHEET: 1 : 1 |
| PART NO. AMF-097A44-NA-LF | 1 | DESIGNED: R & D OF AAT | UNITS: mm | |
| DWG NO. DTM-1279 | REV | CHECKED: | TOLERANCE ± 0.2 | |
| | | APPROVAL: | UNLESS OTHERWISE SPECIFIED: ONE PLACE DECIMAL ± *** TWO PLACE DECIMAL ± *** THREE PLACE DECIMAL ± *** | |
| | | MATERIAL: ***** | | |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## 4. RELIABILITY TEST

| Item | | Test Conditions | Evaluation Standard |
|---|---|---|---|
| 01 | High Temp. Test | After exposure at 70℃ for 200 hours | After any tests , the sensitivity to be within ±3dB of initial sensitivity after 3 hours of conditioning at 20℃ and shall keep their initial operation and appearance. |
| 02 | Low Temp. Test | After exposure at -30℃ for 200 hours | |
| 03 | Temp. Cycle Test | After exposure at 70℃ for 30 minutes, at room temp. for 10 minutes, at -30℃ for 30 minutes, at room temp. for 10 moniutes, at 5 cycles | |
| 04 | Humidity Test | After exposure at 40℃ and 90±5% relative humidity for 200 hours. | |
| 05 | Vibration Test | 10~50Hz for 1minute full amplitude 1.52mm ,for 2 horous at three axises . | |
| 06 | Drop test | The microphone unit without packaged must be subjected to each 3 drops at three axises 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 :

a. Recommend using constant branding iron in 15 ~ 30W, and in temperature range 300 ~ 320°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.