

# MESSRS.

---

## SPECIFICATION FOR APPROVAL

## 承 認 書

Product	ELECTRET CONDENSER MICROPHONE
Part No.	AMF-O97A38-NWH2-LF (RoHS)
Customer Approval	

Approved By	Checked By	Made By
工程部 王台平 JUN-22-2007	工程部 劉民祥 JUN-22-2007	工程部 許俊程 JUN-22-2007



ADVANCED ACOUSTIC TECHNOLOGY CORP.

苙翔科技股份有限公司



ISO 9001 Certified

2F, No.207, Sec. 6, Chung Shan N. Rd., Taipei, Taiwan

Tel: +886-2-88665255

Fax: +886-2-88665250

<http://www.aatc.com.tw>

# 1. SPECIFICATIONS

AMF-097A38-NWH2-LF

01	Electret Type	FOIL type
02	Sensitivity	-38±3dB (0dB=1V/Pa,1KHz) Band form 300 to 3K Hz
03	Output Impedance (Max)	2.2KΩ
04	Standard Operation Voltage	4.5V
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=4.5 to 4.0V
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:

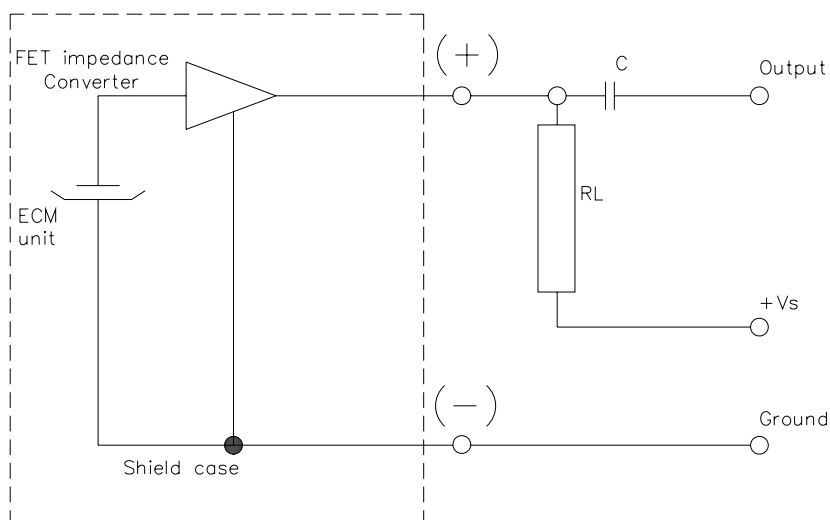
Temperature 20±2°C

Humidity 60~70%

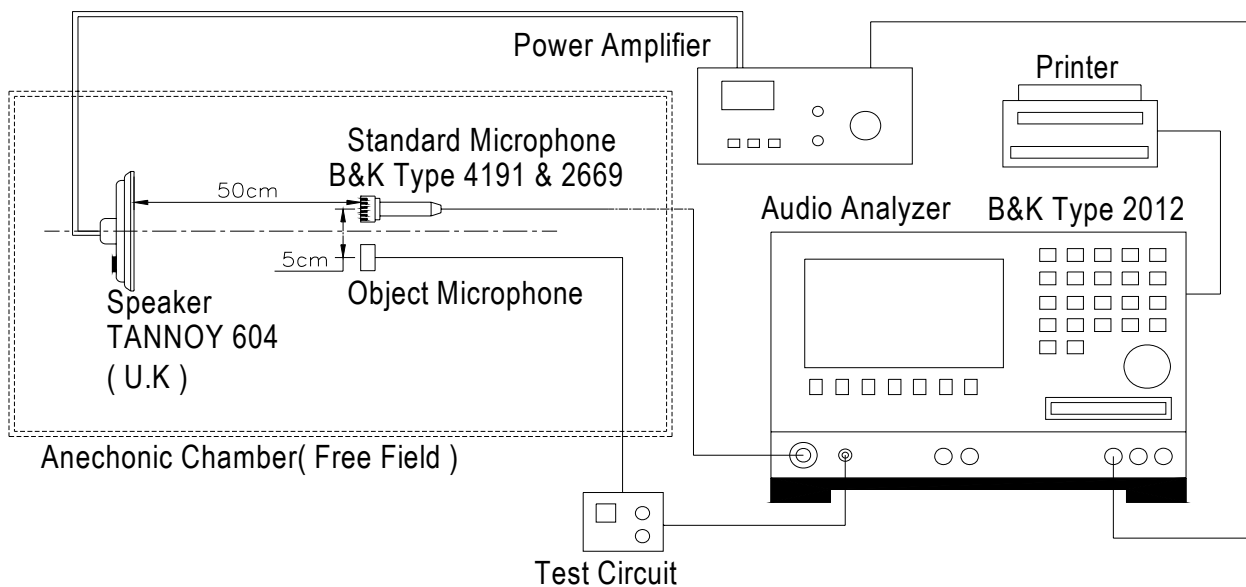
Generally Atmospheric Pressure 860~1060hpa

## 2-2. Standard Test Circuit

Vs=4.5V RL=2.2KΩ Te=20°C R.H.=60%

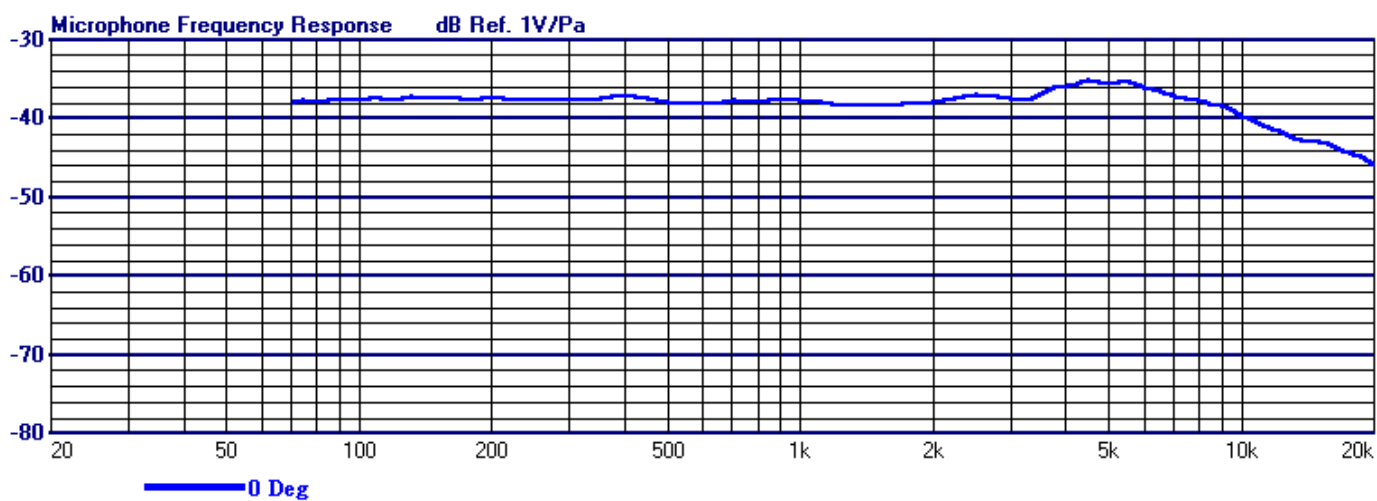


## 2-3. Standard Test Fixture

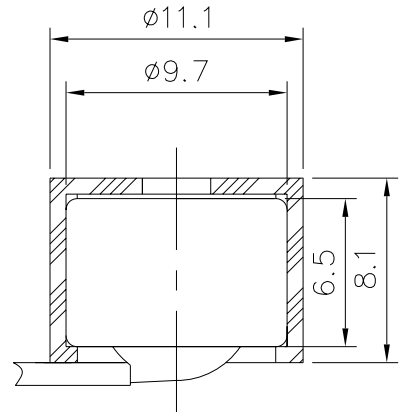
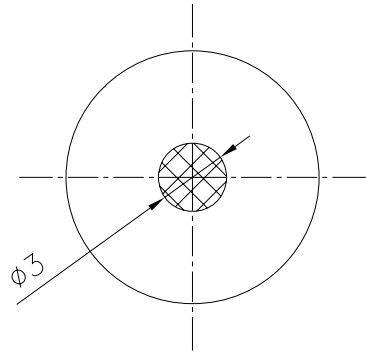


## 2-4. Frequency Response Curve

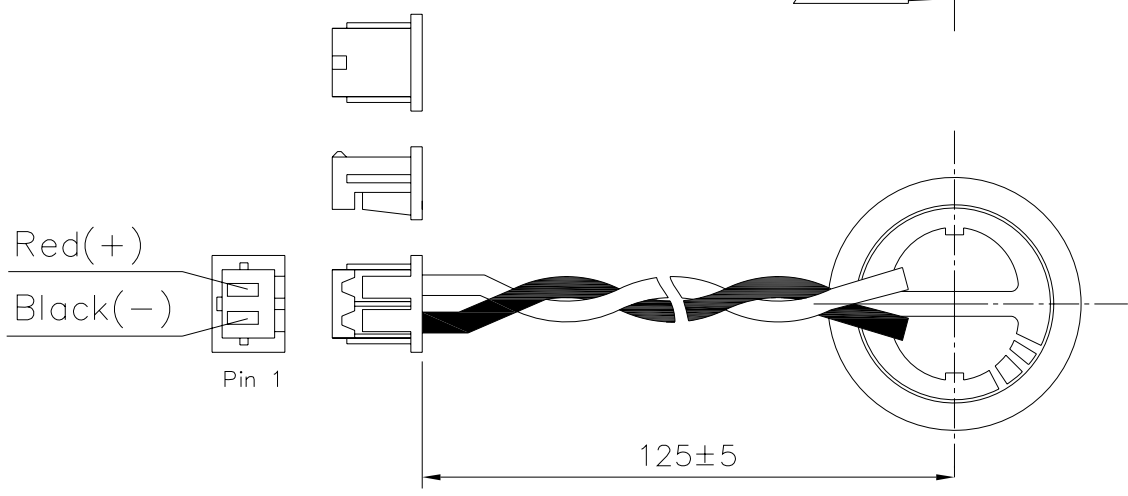
**X : 1000 Hz**      **Y : -37.7 dBV/Pa**  
**Y : -35.5 dBm/Pa**  
**D : 0.0 dB**



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



HOLDER : HLM-JT-008 .  
 MIC. :  $\phi 9.7 * 6.5$  mm .  
 WIRE : UL 1571 , 28 AWG .  
 CONNECTOR : MOLEX 51021-02 Equivalent .



TITLE: MICROPHONE	DRAWN: JOAN 07/11/2007	SCALE: 3:1	SHEET: 1 : 1
PART NO. AMF-097A38-NWH2-LF	DESIGNED: R & D OF AAT	UNITS: mm	TOLERANCE $\pm 0.2$ UNLESS OTHERWISE SPECIFIED: ONE PLACE DECIMAL $\pm$ *** TWO PLACE DECIMAL $\pm$ *** THREE PLACE DECIMAL $\pm$ ***
DWG NO. DTM-1289	CHECKED:	APPROVAL:	
REV 2	MATERIAL: *****		



苙翔科技股份有限公司  
 ADVANCED ACOUSTIC TECHNOLOGY CORPORATION

## 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 96 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.