

MESSRS.

SPECIFICATION FOR APPROVAL

Product	ELECTRET CONDENSER MICROPHONE
Part No.	AMF-O97A43-1NB1
Customer Approval	
Customer Part No.	

Approved By	Checked By	Made By
Engineering Dept. ERIC CHEN NOV-02-2023	Engineering Dept. ZACK KUO NOV-02-2023	Engineering Dept. HANK CHEN NOV-02-2023



Advanced Acoustic Technology Corporation



ISO 9001 Certified

ISO 14001 Certified

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

Tel: +886-2-8866-5255

Fax: +886-2-8866-5250

RoHS



ADVANCED ACOUSTIC TECHNOLOGY CORP.

01	Sensitivity	-43±3dB (0dB=1V/Pa,1KHz)
02	Standard Operation Voltage	3.0 V
03	Output Impedance	2.2 KΩ
04	Directivity	Omni directional
05	Frequency Range	100 - 10K Hz
06	Max. Operation Voltage	10V
07	Current Consumption	Max.0.5mA
08	Sensitivity Reduction	Within -3dB 0dB=1V/Pa,1KHz Vs=2.0 reduce to 1.5V
09	S/N Ratio	≥60dB
10	Sound Pressure Level	110 dB
11	Operating Temperature	-20~+60°C
12	Storage Temperature	-25~+70°C

※ For noise-cancelling use, please refer to unidirectional or bidirectional types.

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:

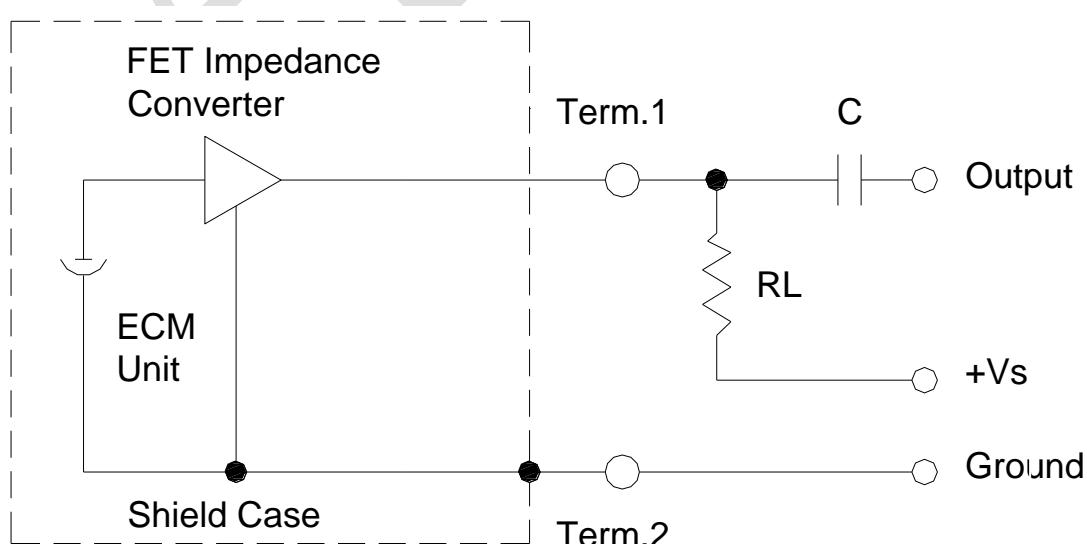
Temperature 20±2°C

Humidity 60~70%

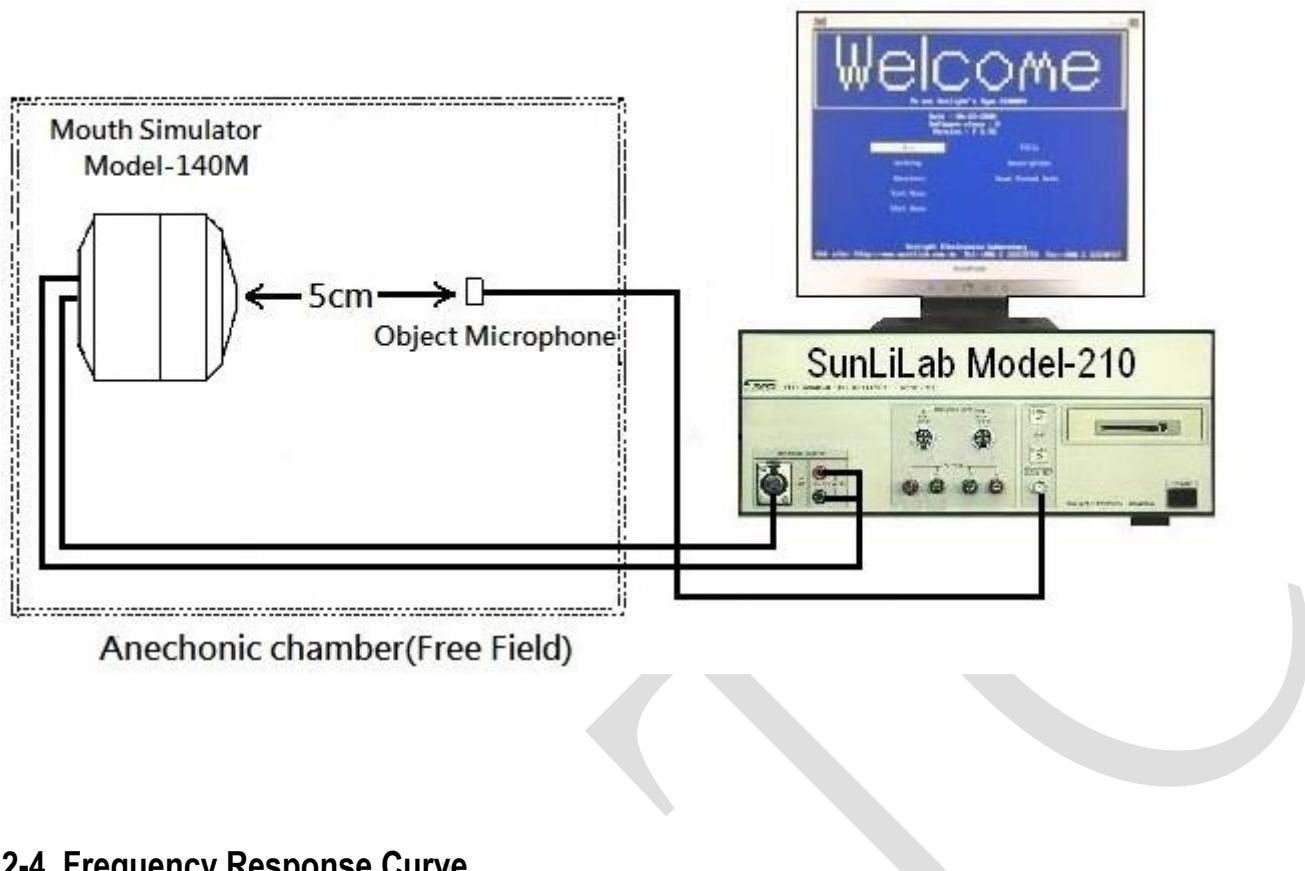
Generally Atmospheric Pressure 860~1060hpa

2-2. Standard Test Circuit

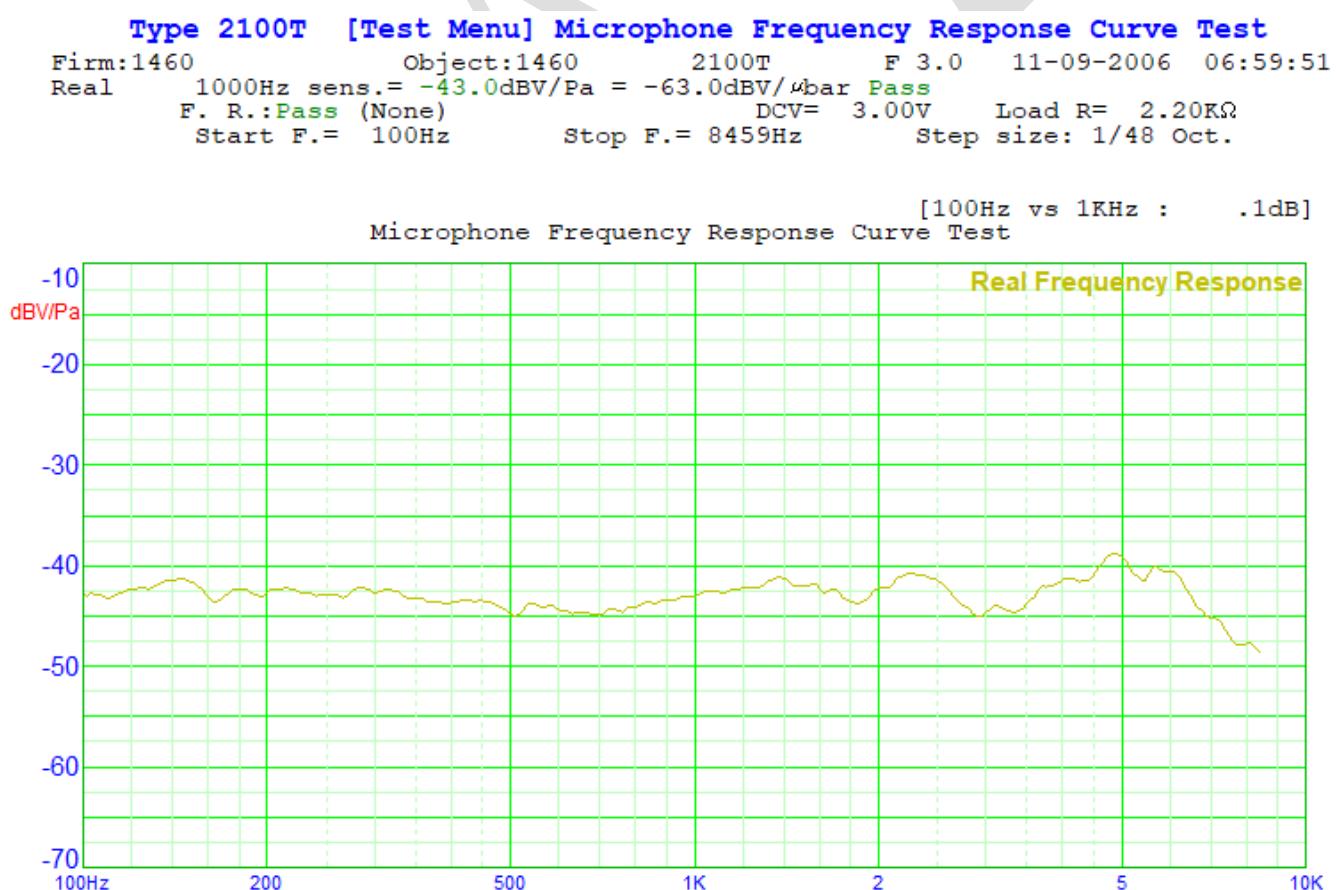
Vs=3.0V RL=2.2KΩ Te=20°C R.H.=60%



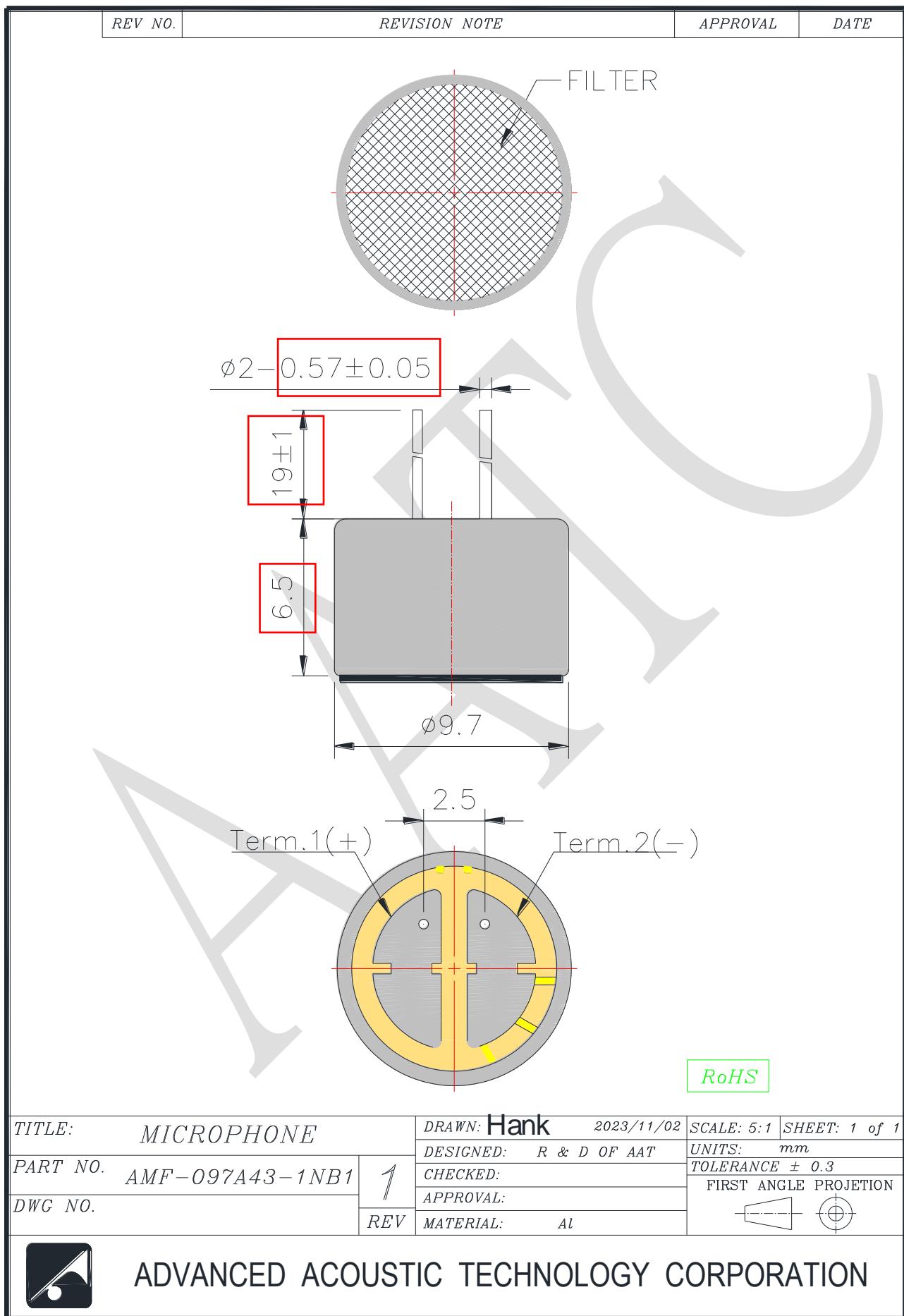
2-3. Standard Test Fixture



2-4. Frequency Response Curve



3. DIMENSIONS



4. RELIABILITY TEST

Item		Test Conditions	Evaluation Standard
01	High Temp. Test	After exposure at $+70^{\circ}\text{C}$ for 96 hours	
02	Low Temp. Test	After exposure at -25°C for 96 hours	
03	Temp. Cycle Test	A After exposure at $+70^{\circ}\text{C}$ for 30 minutes, at room temp. for 10 minutes, at -25°C for 30 minutes, at room temp. for 10 minutes, at 5 cycles.	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.
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 axis.	
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.	
Criterion :			
<p>1. AATC reserves the right to change product material without prior notice, guaranteeing the same specification. Materials are subject to change due to environmental regulations, sourcing, and process improvements.</p> <p>2. If you need more information, please contact our technology department, thank you.</p>			

5. SOLDERING CONDITION

Every microphone 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 searing-iron in temperature range **330±5°C**.
- b. Soldering time **2 seconds**.
- c. Don't stay any hole or dust when soldering.
- d. To avoid the microphone be broken by static electricity, the people and working station should install prevent static electricity equipment.

6. PACKING

