




MESSRS.

SPECIFICATION FOR APPROVAL

| | |
|-------------------|-------------------------------|
| Product | ELECTRET CONDENSER MICROPHONE |
| Part No. | AMF-O97L42-1CWH1 |
| Customer Approval | |
| Customer Part No. | |

| | | |
|---|---|---|
| Approved By | Checked By | Made By |
|  |  |  |



Advanced Acoustic Technology Corporation



ISO 9001 Certified

ISO 14001 Certified

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RoHS



REV.7

1. SPECIFICATIONS

AMF-097L42-1CWH1

| | | |
|----|----------------------------|--|
| 01 | Sensitivity | -42±3dB (0dB=1V/Pa,1KHz) |
| 02 | Standard Operation Voltage | 1.5 V |
| 03 | Output Impedance | 1.5KΩ |
| 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=2.0to 1.5V |
| 09 | S/N Ratio | ≥58dB |
| 10 | Sound Pressure Level | 110 dB |
| 11 | Operating Temperature | -20~+60℃ |
| 12 | Storage Temperature | -25~+70℃ |

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

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:

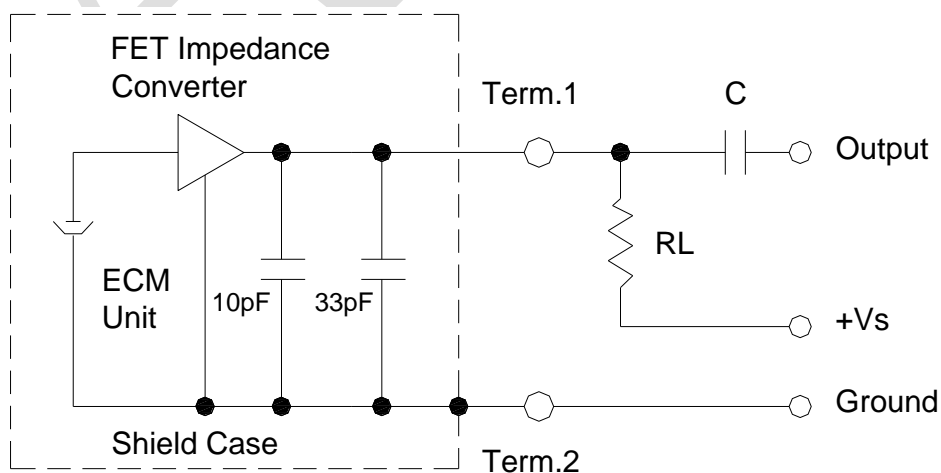
Temperature 20±2℃

Humidity 60~70%

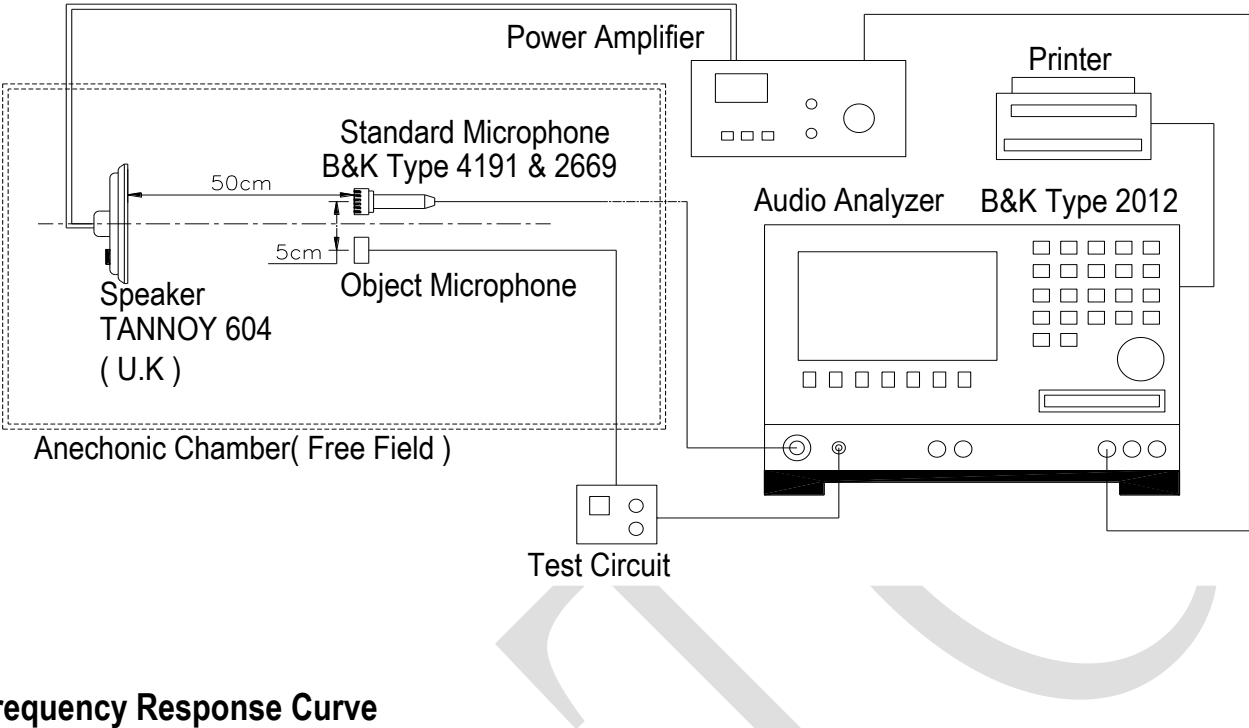
Generally Atmospheric Pressure 860~1060hpa

2-2. Standard Test Circuit

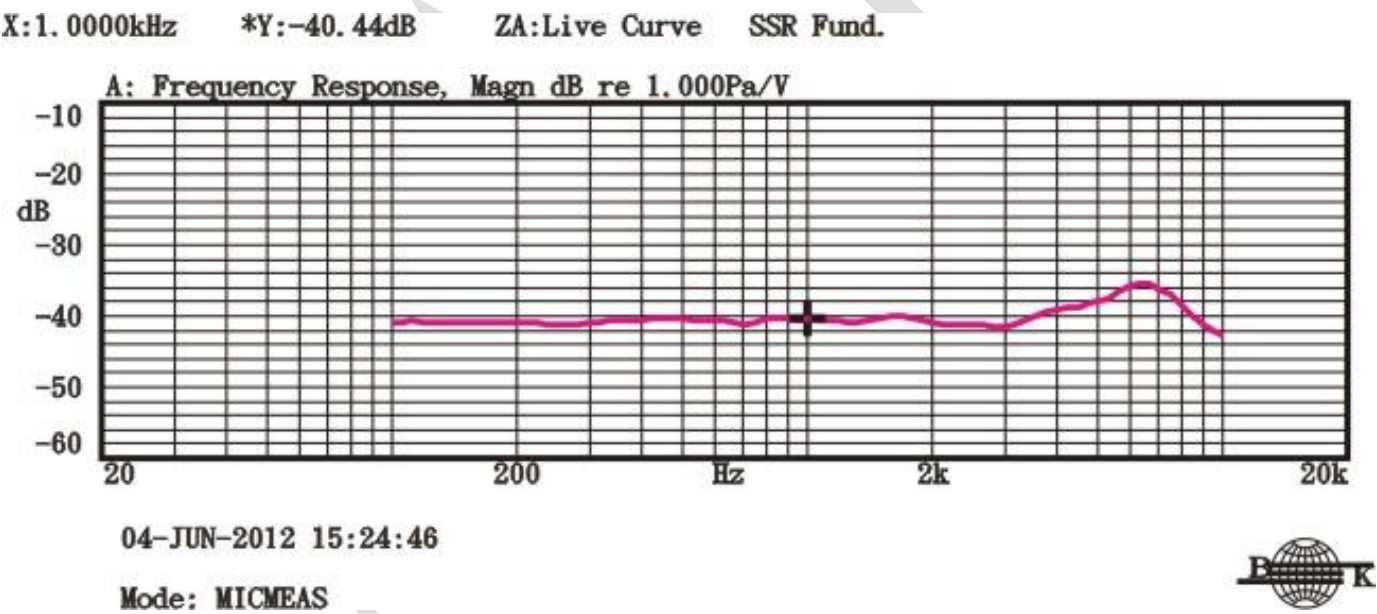
Vs=1.5V RL=1.5KΩ Te=20℃ R.H.=60%



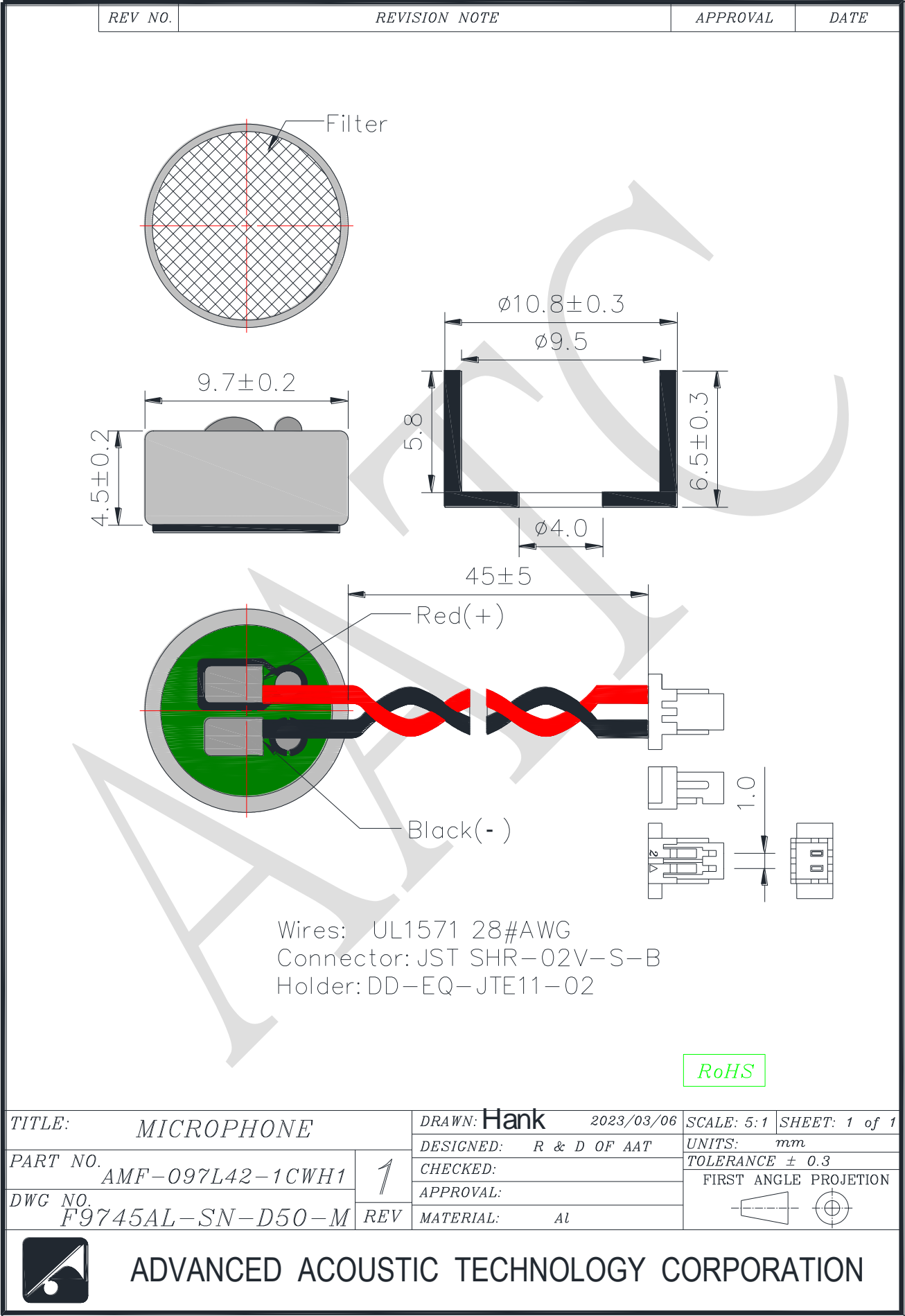
2-3. Standard Test Fixture



2-4. Frequency Response Curve



3. DIMENSIONS



4. RELIABILITY TEST

| Item | | Test Conditions | Evaluation Standard |
|------|------------------|---|---|
| 01 | High Temp. Test | After exposure at +70°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 -25°C for 96 hours | |
| 03 | Temp. Cycle Test | A After exposure at +70°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. | |
| 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 :


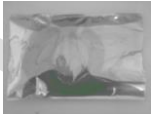

- AATC reserves the right to change product material without prior notice, guaranteeing the same specification. Materials are subject to change due to environmental regulations, sourcing, and process improvements.**
- If you need more information, please contact our technology department, thank you.**

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:

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

6. PACKING

| | DRAWING | QTY(PC S) | SIZE(MM) | MATERIAL | MARKIN G |
|-----------|---|-----------|-------------|-----------------|-----------|
| PACKING |  | 25 | | Tie wire | |
| PACKING |  | 500 | 287×187 | Anti-static bag | PACKING |
| OUTER BOX |  | 5000 | 230×230×275 | Paper | OUTER BOX |