

# MESSRS.

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## SPECIFICATION FOR APPROVAL

## 承 認 書

Product	ELECTRET CONDENSER MICROPHONE
Part No.	AMB-U40H50-CA
Customer Approval	

Approved By	Checked By	Made By
工程部 王台平 DEC-13-2005	工程部 劉民祥 DEC-13-2005	工程部 許俊程 DEC-13-2005



**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

AMB-U40H50-CA

01	Electret Type	Back type
02	Sensitivity	-50±3dB (0dB=1V/Pa,1KHz)
03	Output Impedance (Max)	2.2KΩ
04	Directivity	Unidirectional
05	Frequency Range	100 - 16K Hz
06	Max. Operation Voltage	10V
07	Standard Operation Voltage	3.0V
08	Current Consumption	Max.0.5mA
09	Sensitivity Reduction	Within -3dB 0dB=1V/Pa,1KHz Vs=3.0 to 2.5V
10	S/N Ratio	> 55dB
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:

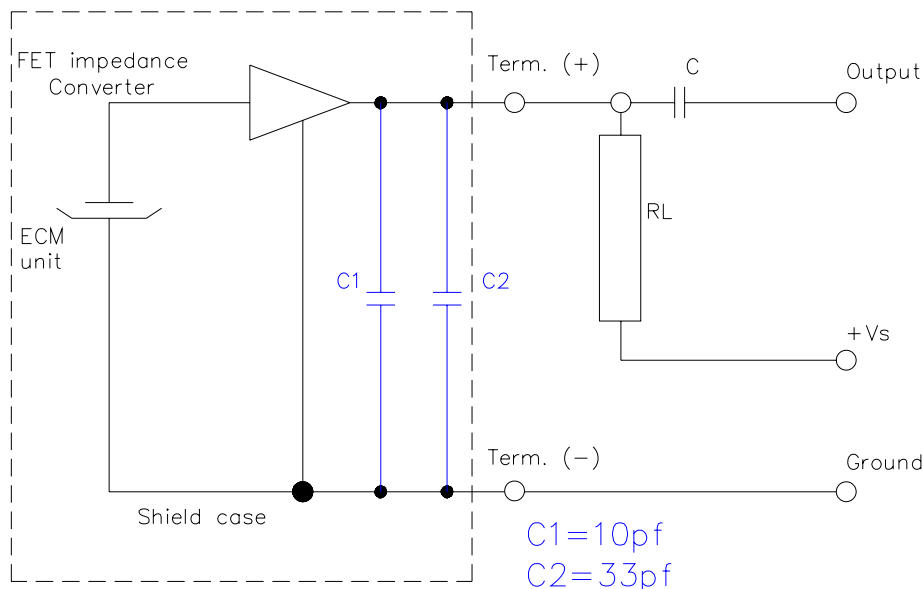
Temperature 20±2°C

Humidity 60~70%

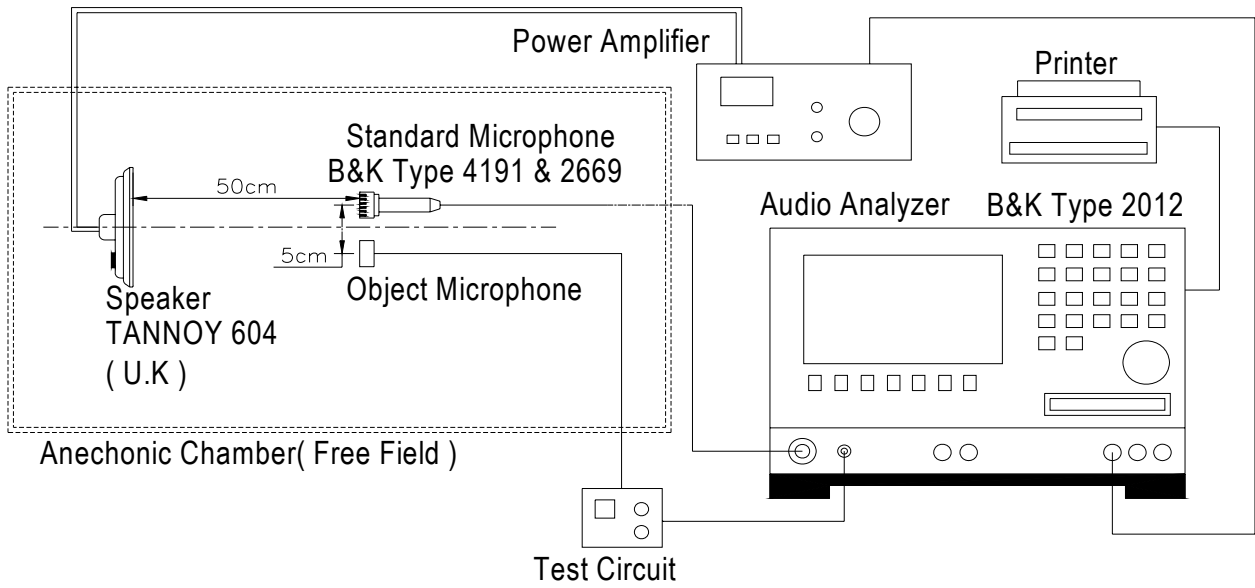
Generally Atmospheric Pressure 860~1060hpa

### 2-2. Standard Test Circuit

Vs=3.0V RL=2.2KΩ Te=20°C R.H.=60%

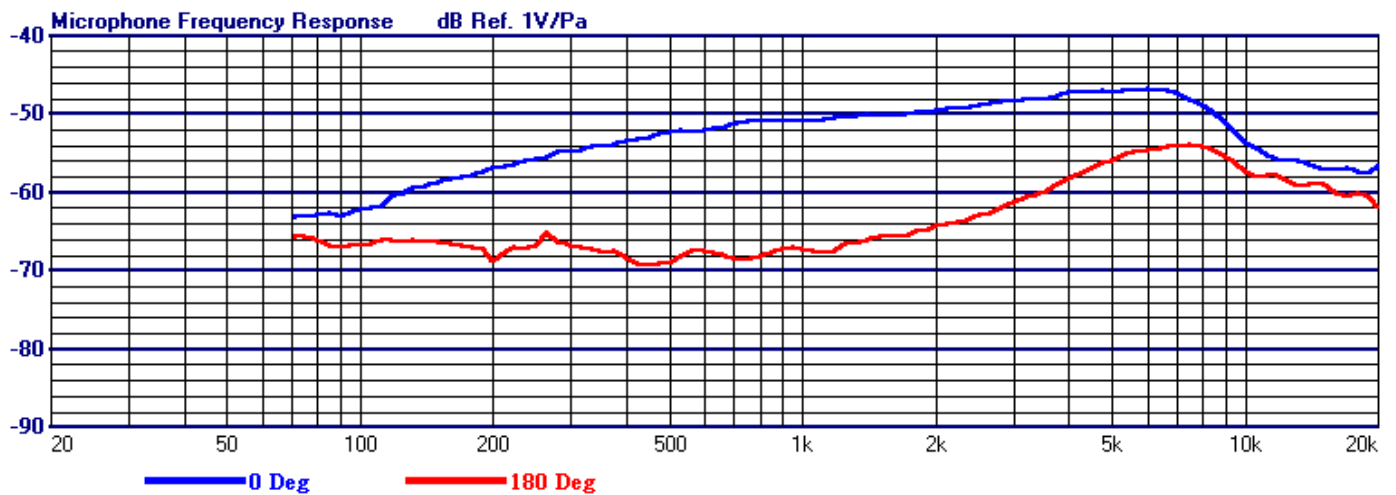


## 2-3. Standard Test Fixture

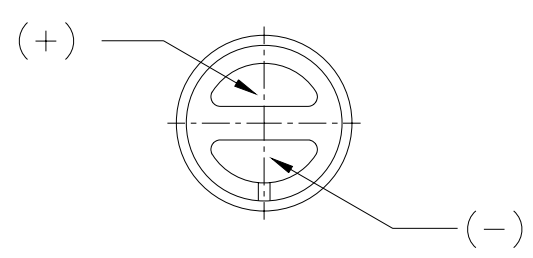
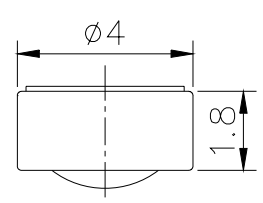
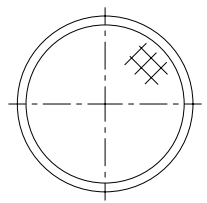


## 2-4. Frequency Response Curve

**X : 1000 Hz**  
**Y : -50.9 dBV/Pa**      **Y : -67.1 dBV/Pa**  
**Y : -48.7 dBm/Pa**      **Y : -64.9 dBm/Pa**  
**D : 0.0 dB**              **D : 0.0 dB**  
**Z : -16.1 dB**



REV NO.	REVISION NOTE	APPROVAL	DATE
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TITLE: MICROPHONE		DRAWN: JOLIN 12/13/2005	SCALE: 5:1	SHEET: 1 of 1
PART NO. AMB-U40H50-CA		DESIGNED: R & D OF AAT	UNITS: mm	
DWG NO. DTM-1294		CHECKED:	TOLERANCE $\pm 0.2$	
		APPROVAL:	UNLESS OTHERWISE SPECIFIED: ONE PLACE DECIMAL $\pm$ *** TWO PLACE DECIMAL $\pm$ *** THREE PLACE DECIMAL $\pm$ ***	
REV 1		MATERIAL: *****		



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## 4. RELIABILITY TEST

Item		Test Conditions	Evaluation Standard
01	High Temp. Test	After exposure at 70°C for 200 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 200 hours	
03	Temp. Cycle Test	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 200 hours.	
05	Vibration Test	10~50Hz for 1minute full amplitude 1.52mm ,for 2 horous at three axes .	
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.	

## 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 270 ~ 300°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.