

# *MESSRS.*

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## SPECIFICATION FOR APPROVAL

## 承 認 書

Product	ELECTRET CONDENSER MICROPHONE
Part No.	AMB-O40J46-NA
Customer Approval	

Approved By	Checked By	Made By
		工程部 許俊程 2003-SEP-02



**ADVANCED ACOUSTIC TECHNOLOGY CORP.**

**荳 翔 科 技 股 份 有 限 公 司**



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# SPECIFICATIONS

01	Electret Type	Back type
02	Sensitivity	-46±3dB (0dB=1V/Pa,1KHz)
03	Output Impedance (Max)	2.2K Ω
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 1.5 V
10	S/N Ratio	> 56dB
11	Operating Temperature	-25~+70°C
12	Storage Temperature	-40~+70°C

## Standard Conditions:

Generally Temperature 15~35°C

Generally Humidity 45~85%

Generally Atmospheric Pressure 860~1060hpa

## Basic Test Conditions:

Temperature 20±2°C

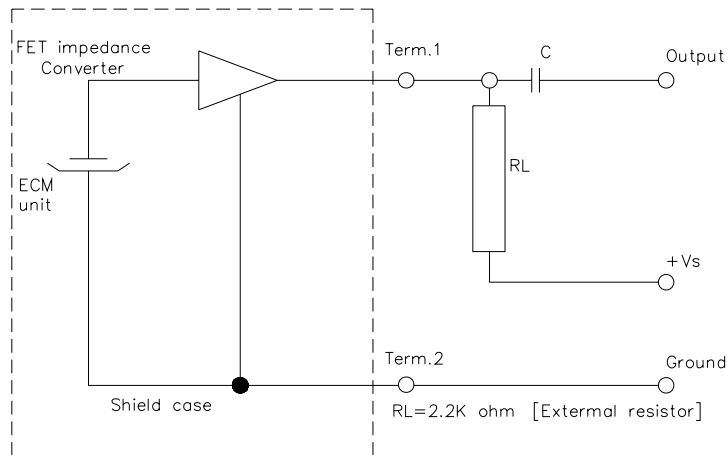
Humidity 60~70%

Generally Atmospheric Pressure 860~1060hpa

## Electrical Characteristics Test Condition:

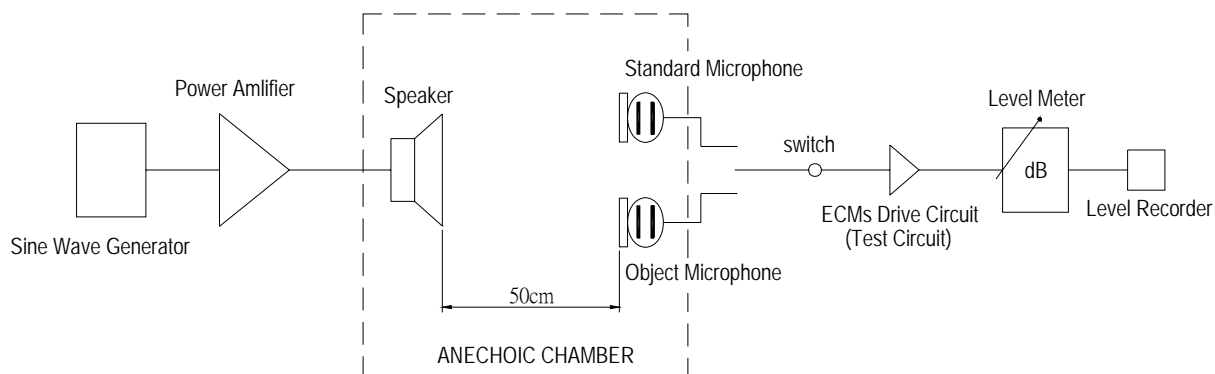
Vs=2.0 V      RL=2.2 KΩ      Te=20°C      R.H.=60%

## Standard Test Circuit



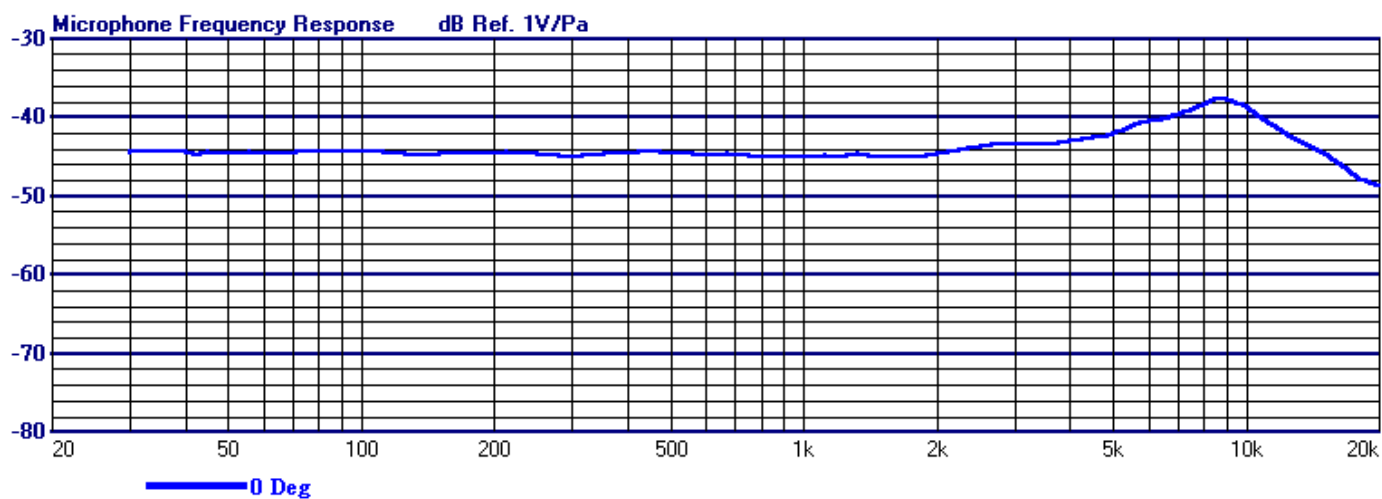
# Standard Test Condition Of Microphone

## MEASUREMENT OF SENSITIVITY



## Frequency Response Curve

X : 1000 Hz  
Y : -45.1 dBV/Pa  
Y : -42.9 dBm/Pa  
D : 0.0 dB

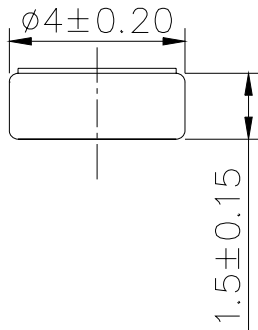
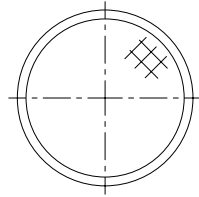


REV NO.

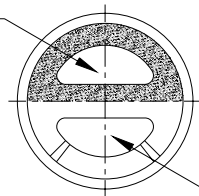
REVISION NOTE

APPROVAL

DATE



Term.1 (+)



Term.2 (-)

TITLE: MICROPHONE		DRAWN: JOYEN 08/06/2003	SCALE: 5:1	SHEET: 1 of 1
PART NO. AMB-040J46-NA		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		MATERIAL: *****		



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

# ADVANCED ACOUSTIC TECHNOLOGY CORP.

## 苙翔科技股份有限公司

### RELIABILITY TEST

#### AMB-O40J46-NA

Item		Test Conditions	Evaluation Standard
01	High Temp. Test	After exposure at 70°C for 100 hours, and expose to room temperature for 6 hours, sensitivity to be within $\pm 3\text{dB}$ from initial sensitivity.	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 100 hours, and expose to room temperature for 6 hours, sensitivity to be within $\pm 3\text{dB}$ from initial sensitivity.	
03	Temp. Cycle Test	After exposure at 70°C for 1 hour, at room temp. for 1 hour, at -25°C for 1 hour, at room temp. for 1 hour, at 10 cycles, and expose to room temp. for 6 hours, sensitivity to be within $\pm 3\text{dB}$ from initial sensitivity.	
04	Humidity Test	After exposure at 40°C and 90 $\pm$ 5% relative humidity for 240 hours, and expose to room temperature for 6 hours, sensitivity to be within $\pm 3\text{dB}$ from initial sensitivity.	
05	Vibration Test	The microphone unit must be subjected to each 30 minutes vibrations at three axis 3 mm dynamic rang. 1000cycles/minute.	
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.	
			Application of the "pin" type