
SPECIFICATION FOR APPROVAL

Product	ELECTRET CONDENSER MICROPHONE
Part No.	AHD-304
Customer Approval	

Approved By	Checked By	Made By



A & B Components

<http://www.speaker-tw.com>

SPECIFICATIONS

01	Electret Type	Foil type
02	Sensitivity	-58±3dB (0dB=1V/Pa,1KHz)
03	Output Impedance (Max)	2.2KΩ
04	Directivity	Omnidirectional
05	Frequency Range	200-5KHz
06	Max.Operation Voltage	5V
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 1.5V
10	S/N Ratio	> 45dB
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

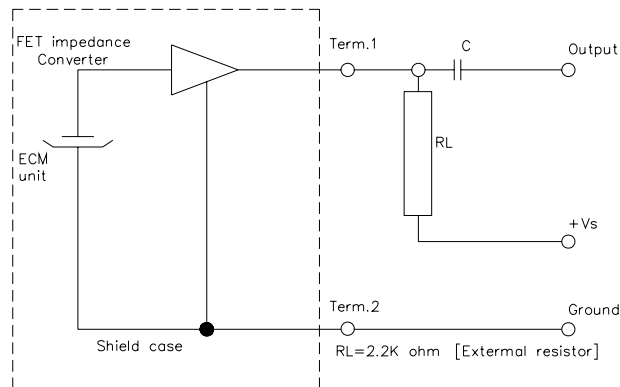
Humidity 60~70%

Generally Atmospheric Pressure 860~1060hpa

Electrical Characteristics Test Condition:

Vs=2.0V RL=2.2KΩ Te=20°C R.H.=60%

Standard Test Circuit



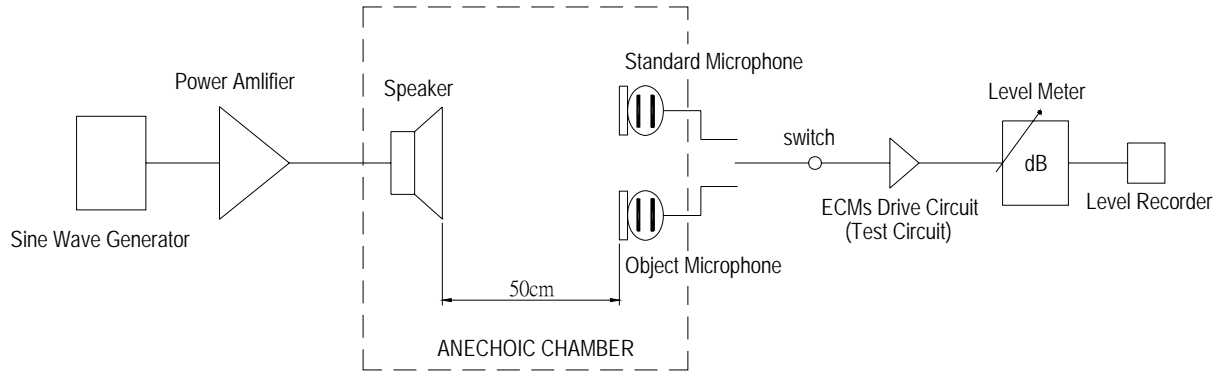
Every Mic. has installed FET.,

The FET. is easy broken by strong heat and static electricity, so when you working on, pls be attention that :

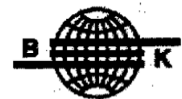
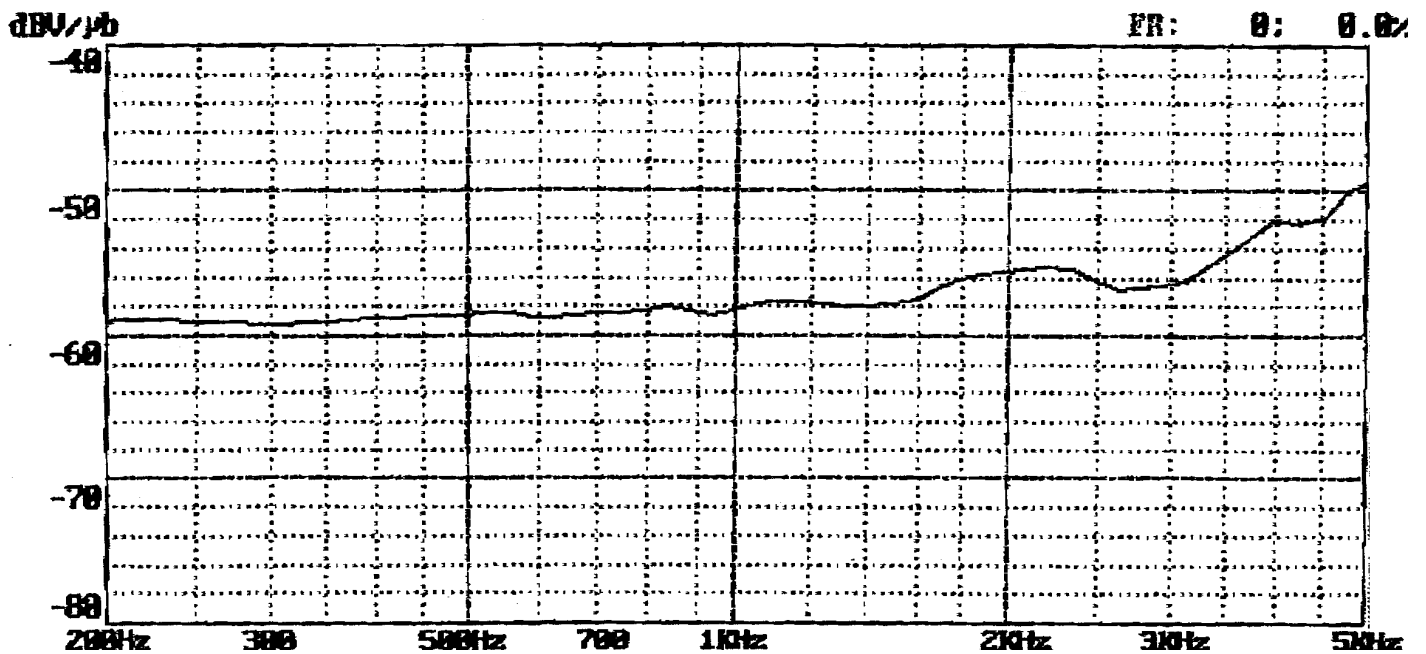
- Recommend using constant branding iron in 15 ~ 30W, and in temperature range 240 ~ 270°C.
- Soldering time not over 3 seconds.
- Don't stay any hole or dust when soldering.
- To avoid the Mic. be broken by static electricity, the people and working station should install prevent static electricity equipment.

Standard Test Condition Of Microphone

MEASUREMENT OF SENSITIVITY



Frequency Response Curve

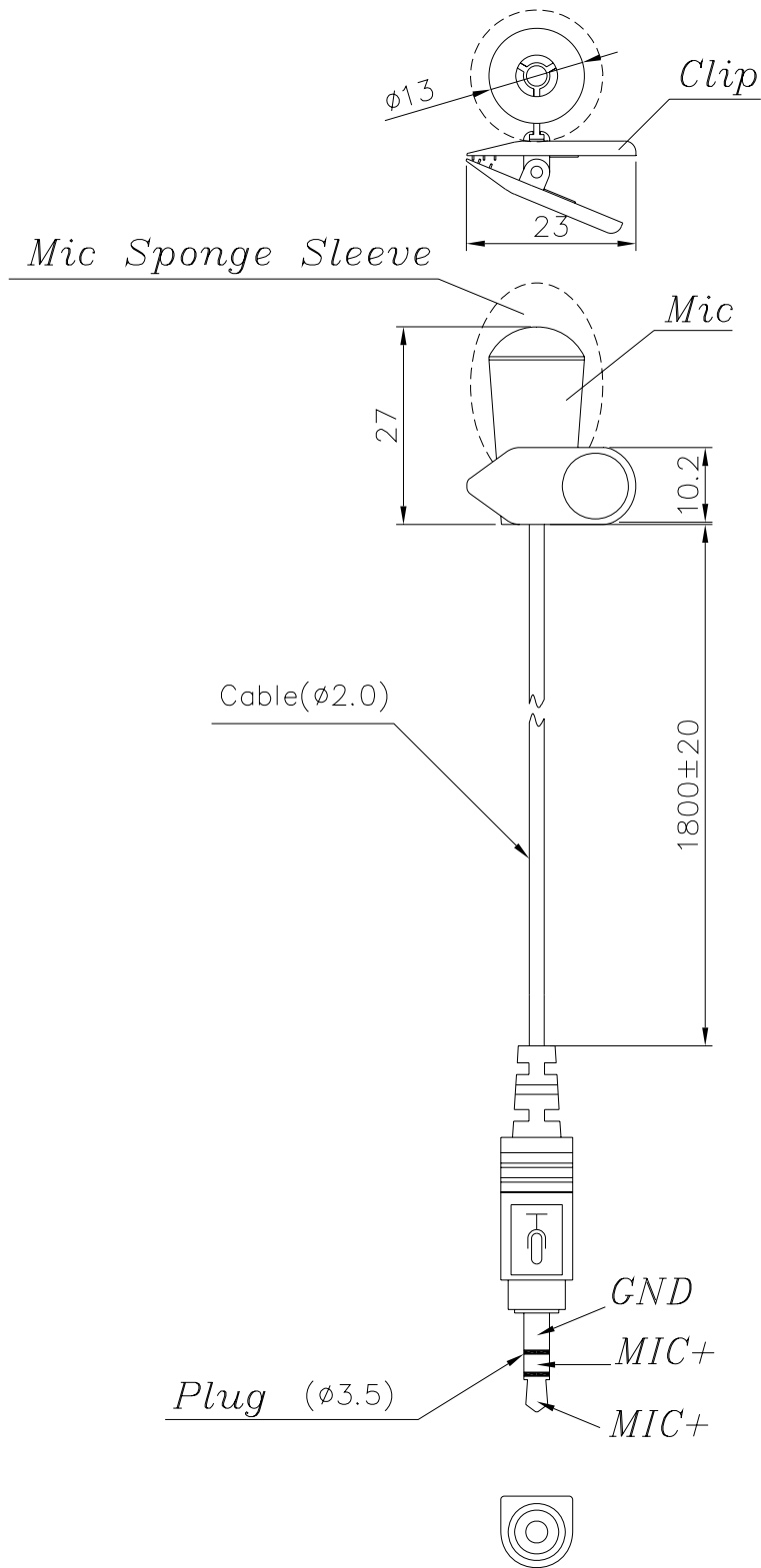


REV NO.

REVISION NOTE

APPROVAL

DATE



TITLE: <i>MICROPHONE</i>		DRAWN: <i>Richard</i> 12/19/2002	SCALE: 1/1	SHEET: 1 : 1
PART NO. <i>AHD-304</i>		DESIGNED: R&D Dep.	UNITS: mm	
DWG NO. <i>DTM-1276</i>		CHECKED:	TOLERANCE ± 0.5	
		APPROVAL:	UNLESS OTHERWISE SPECIFIED:	
REV <i>1</i>		MATERIAL: *****	ONE PLACE DECIMAL \pm ***	
			TWO PLACE DECIMAL \pm ***	
			THREE PLACE DECIMAL \pm ***	

A & B Components

RELIABILITY TEST

AHD-304

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 ± 3 dB from initial sensitivity.	After any tests , the sensitivity to be within ± 3 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 ± 3 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 ± 3 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 ± 3 dB from initial sensitivity.	
05	Vibration Test	The microphone unit must be subjected to each 30 minutes vibrations at three axes 3 mm dynamic rang. 1000cycles/minute.	
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.	Application of the "pin" type

BILL OF MATERIALS

NO	PART NO	QTY	DESCRIPTION
1	CABLE	1	L=1800±20mm (reveal dimension), Φ 2.0mm
2	PLUG	1	Φ 3.5, 3 polarity
3	TOP CLIP	1	Material: PC
4	DOWN CLIP	1	Material: PC
5	SPRING	1	Spring Ni
6	BOLT	1	Material: PC
7	MIC	1	Φ 9.7*6.7mm, -58±3dB
8	MIC SPONGE SLEEVE	1	Black
9	MIC SIDE COVER	1	Material: ABS
10	MIC TOP COVER	1	Material: ABS
11	MIC DOWN COVER	1	Material: ABS
12	MIC BOTTOM COVER	1	Material: ABS

Cable Specification

Item	Conditions	Specifications
Cord	The cable shall be a straight type with a molded strain relief at both ends. Cord Length : Diameter : Color : Conductors - Microphone : Resistance : Continuous current / Conductor : Insulation material : Insulation voltage - Microphone cable : Insulation resistance - Microphone cable :	1800 ± 20mm 2.0 mm(microphone) Black mat. Single Mic+ and Mic- 0.6 Ω/m 0.2A Outer : PVC / Inner : PP AC 500V / min. 20 MΩ / km min.
Tensile Strength	Cord , single cable <i>Strain relief :</i> Plug /cord Microphone housing/cord Permitted changes	1kg/1Min 2kg/1Min 1kg/Min None ; Normal after test With 1 minute static load
Bending Strength	Cord : Cord , single cable <i>Strain relief :</i> Plug /cord Microphone housing/cord Permitted changes Bending angle Permitted changes	250 g load , 30 times/min , 3000 times 250 g load , 30 times/min , 3000 times 250 g load , 30 times/min ,3000 times 120 degrees Max. 200 mΩ change