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# SPECIFICATION FOR APPROVAL

Product	ELECTRET CONDENSER MICROPHONE
Part No.	AG-1500
Customer Approval	

Approved By	Checked By	Made By



**A & B Components**

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

## 1. SPECIFICATIONS

AG-1500

01	Electret Type	Back type
02	Sensitivity	-42±3dB (0dB=1V/Pa,1KHz)Band form 300 to 3K Hz
03	Output Impedance (Max)	2.2KΩ
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 1.5V
10	S/N Ratio	> 58dB
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:

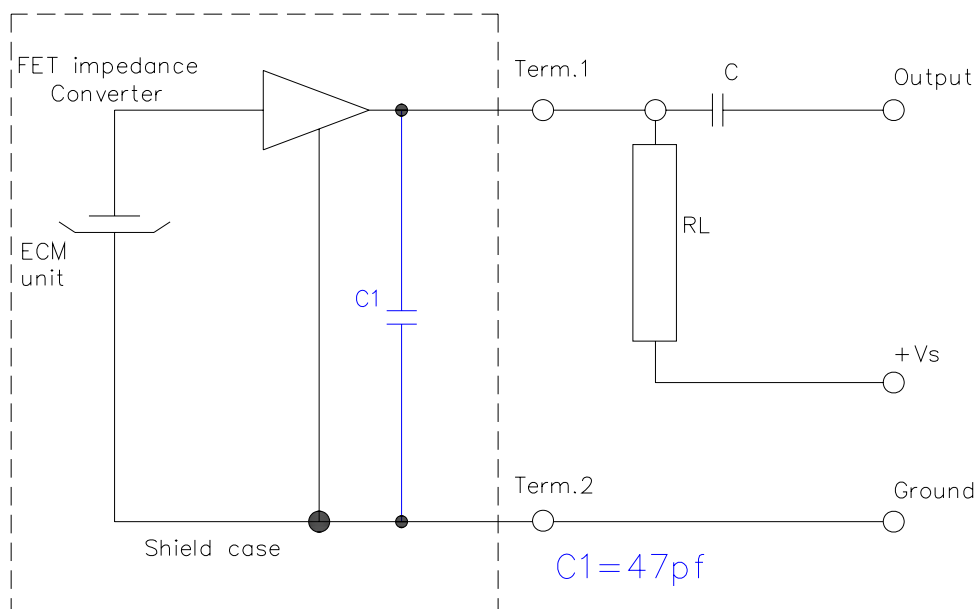
Temperature 20±2°C

Humidity 60~70%

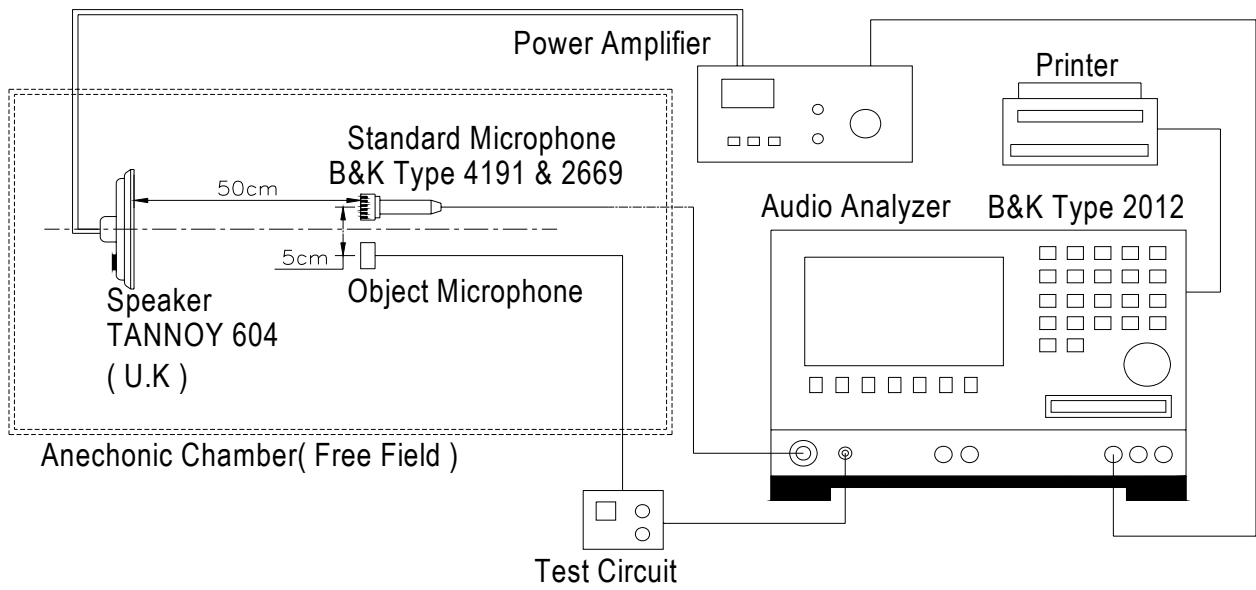
Generally Atmospheric Pressure 860~1060hpa

## 2-2. Standard Test Circuit

Vs=2.0V RL=2.2KΩ Te=20°C R.H.=60%

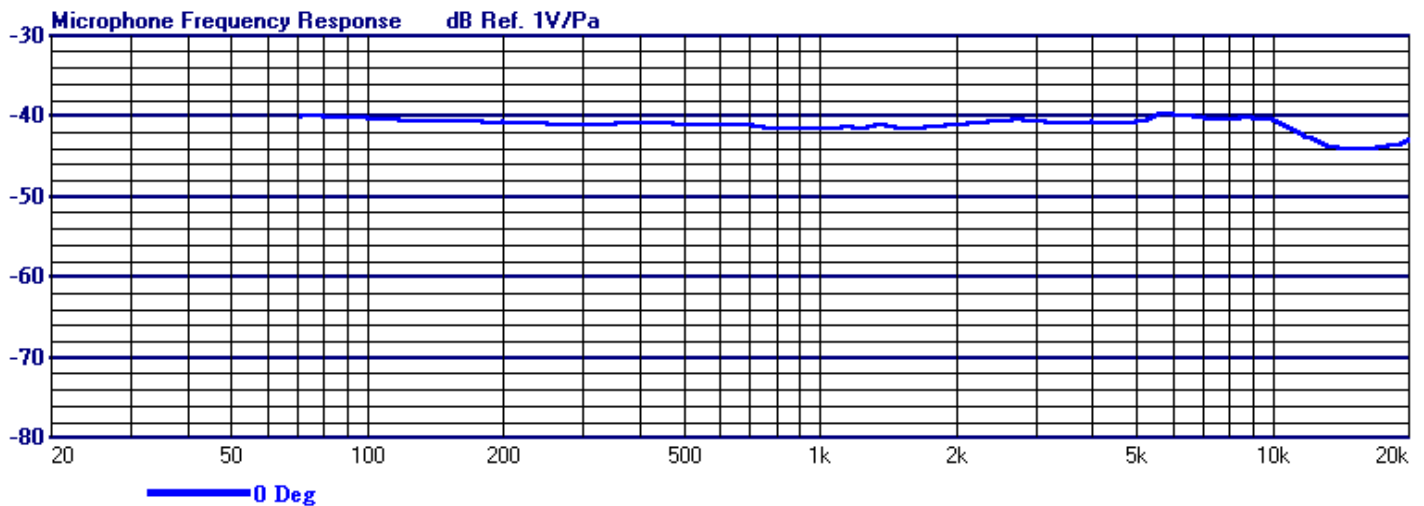


## 2-3. Standard Test Fixture

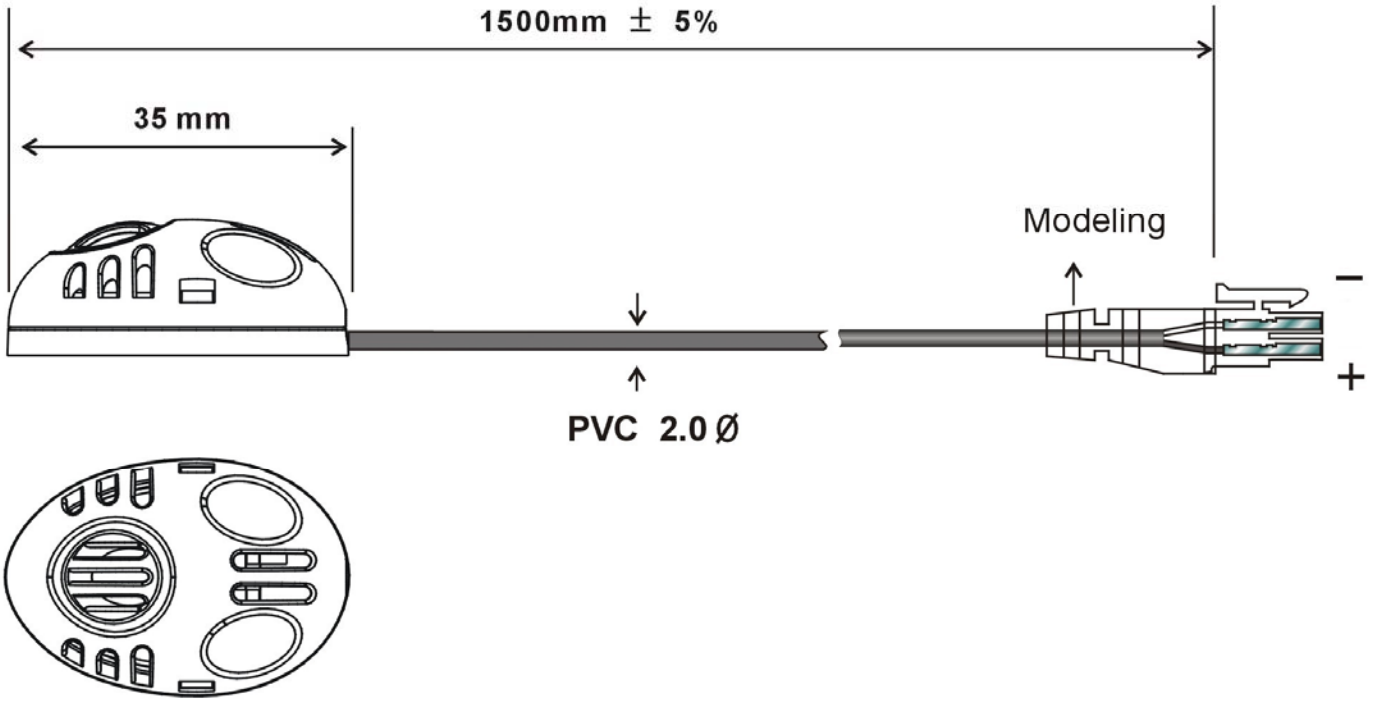


## 2-4. Frequency Response Curve

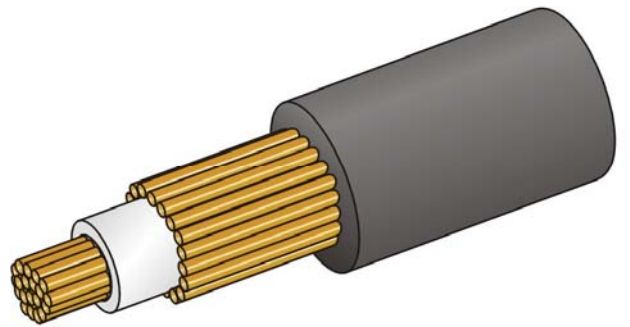
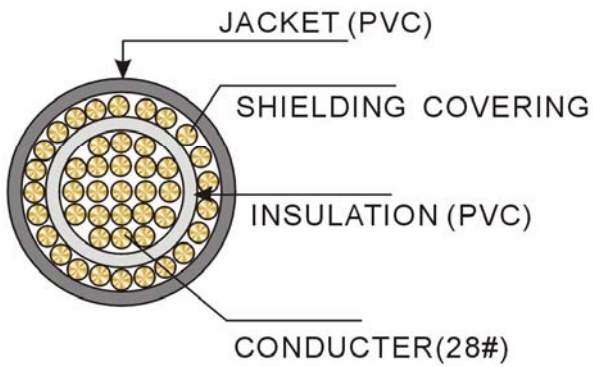
**X : 1000 Hz**      **Y : -41.6 dBV/Pa**  
**Y : -39.4 dBm/Pa**  
**D : 0.0 dB**



# DRAWING



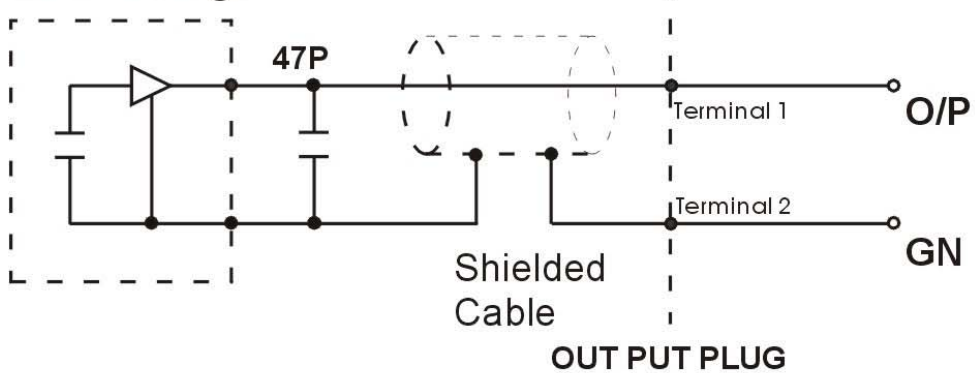
## PVC OD 2.0 Ø SINGLE INSULATED WIRE



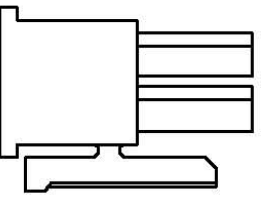
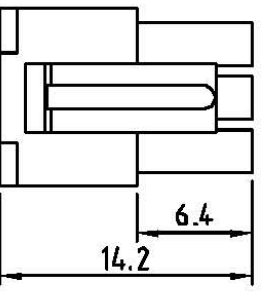
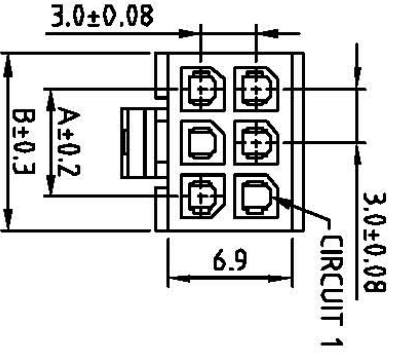
9.7Ø X 5mm



### ECM cartridge



A B C D E



SPECIFICATION:  
 PITCH BETWEEN POLES : 3.0mm  
 CURRENT RATING : 5A AC/DC  
 VOLTAGE RATING : 250V AC/DC  
 CONTACT RESISTANCE : 10m  $\Omega$ (max)  
 INSULATION RESISTANCE : 1,000M  $\Omega$ MIN  
 WITHSTAND VOLTAGE : 1,500V AC/MINUTE  
 TEMPERATURE RANGE : -25° C TO +85° C  
 FEATURES:  
 AVAILABLE NUMBER OF CIRCUITS : 2x1 TO 2x12  
 MATERIAL : NYLON 66 UL 94V-0  
 ACCEPTS : TY3085T CRIMP TERMINAL  
 MATES WITH TY3086 SERIES HOUSING

Dimensional and Order Information

Poles	Part No	DIM:(mm)		Poles	Part No	DIM:(mm)	
		A	B			A	B
2	TY3085HNO-2x01	3.85	14	TY3085HNO-2x07	18.00	21.85	
4	TY3085HNO-2x02	3.00	6.85	16	TY3085HNO-2x08	21.00	24.85
6	TY3085HNO-2x03	6.00	9.85	18	TY3085HNO-2x09	24.00	27.85
8	TY3085HNO-2x04	9.00	12.85	20	TY3085HNO-2x10	27.00	30.85
10	TY3085HNO-2x05	12.00	15.85	22	TY3085HNO-2x11	30.00	33.85
12	TY3085HNO-2x06	15.00	18.85	24	TY3085HNO-2x12	33.00	36.85

TARNG YU ENTERPRISE CO LTD

TEL:102129914592 , FAX:102129914589

DESCRIPTION: 3.0mm PITCH WIRE TD WIRE  
 MALE HOUSING

PART NO: TY3085HNO-2xnp

UNIT: mm

GENERAL TOLERANCE

ANGLE

±5°

DIM: ±0.31  
 XXX ±0.15  
 XXXX ±0.18

DRAWN: Wang Sheng Sheng

CHECKED: Sheng Sheng Wei

A/0 NEW DRAWING

REV REVISION RECORD

DATE

SCALE:

SHEET: 1 OF 1

FILE: TY3085HND-2xnp

DATE: 2005-11-07

DATE

6 SIZE

A4

5

4

3

2

1

## 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 :

- 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.