

SPECIFICATIONS

Model No.

WYGD50D-8-03

Page

1/6

1. ELECTRICAL AND ACOUSTICAL SPECIFICATION

	Item	Unit	Specifications
1-1	Dimension	mm	$\phi 50\pm 0.5 \text{ mm} \times 18.5\pm 0.5 \text{ mm}$
1-2	Rated Input Power	W	0.2W
1-3	Max Input Power	W	0.4W
1-4	Rated Impedance	Ω	$8\pm 15\% \Omega / 1\text{KHz}/1\text{V}$
1-5	Resonance Frequency(f0)	Hz	$550\pm 20\% \text{ Hz}/1\text{V}$
1-6	Sound Pressure Level	dB	$90\pm 3 \text{ dB}$ at(AVG0.8,1.0,1.2,1.5)KHz 1W,0.5m baffleboard
1-7	Frequency Range	HZ	f0HZ ~ 4.5KHz
1-8	Total Harmonic Distortion	W	5%MAX. at 1KHz, 0.1W
1-9	Flux Density	T	0.6T
1-10	Polarity		When a positive DC Current is applied to the voice coil terminal marked +or red ,the diaphrag shall move forward
1-11	OperationTest	W	Must be normal at sine wave and program source 0.2W.
1-12	Buzz,Rattle,etc.	V	Should not be audible at1.27 V sine wave between (f0 Hz ~ 20kHz)
1-13	Weight	g	31g
1-14	Voice Coil Diameter	mm	$\phi 13.28 \text{ mm}$
1-15	Magnet (NdFeB)	mm	$\phi 12.5 \times 2.0 \text{ mm(N38)}$
1-16	Appearance		Should not exist any obstacle to be harmful to normal operation;damages,cracks,rusts and distortions,etc.

		04/27/07	TanQanFeng	XingPing	TangHeLing
Issue No	Description	Date	Issue	Check	Approval

Universal (Changzhou) Electronics Co., Ltd.

SPECIFICATIONS

Model No.

WYGD50D-8-03

Page

2/6

2.ENVIRONMENTAL TEST

	Item	Specifications
2-1	High temp. Test	Keep 96 hours at $+60^{\circ}\text{C} \pm 3^{\circ}\text{C}$ and leave 3 hours in normal temperature and then check
2-2	Low temp. Test	Keep 96 hours at $-30^{\circ}\text{C} \pm 3^{\circ}\text{C}$ and leave 3 hours in normal temperature and then check
2-3	Humidity test	Keep 96 hours at $+40^{\circ}\text{C} \pm 3^{\circ}\text{C}$ relative humidity 95% and leave 3 hours in normal temperature and then checked.
2-4	Thermal cycle test.	Low temperature: $-30^{\circ}\text{C} \pm 3^{\circ}\text{C}$, temperature: $+60^{\circ}\text{C} \pm 3^{\circ}\text{C}$, cycle: 1 hour/cycle each, and then keep 5 cycles in a room.
2-5	Vibration	10~55~10Hz sin-wave sweep 15min. 5G(constant) X,Y, Z 3 direction. 2 hours each, total 6 hours.
2-6	Drop test	Free drop a unit from 100cm height to a board of 20mm thick x,y, z 6 direction. 1 times each, total 6 times.
2-7	Load test	Rated Power white noise is applied for 96 hours

PASS CRITERION :

After these tests , the change of S.P.L shall be within $\pm 3\text{dB}$.

		04/27/07	TanQanFeng	XingPing	TangHeLing
Issue No	Description	Date	Issue	Check	Approval

Universal (Changzhou) Electronics Co., Ltd.

SPECIFICATIONS

Model No.

WYGD50D-8-03

Page

3/6

3.MEASURING METHOD(SPEAKER MODE)

3-1 .Test Condition

STANDARD

Temperature : 15 ~ 35°C

Relative humidity : 45% ~ 85%,

Atmospheric pressure : 860mbar to 1060mbar.

JUDGEMENT

Temperature : 20±3°C

Relative humidity : 60% ~ 70%,

Atmospheric pressure : 860mbar to 1060mbar

3-2 . Standard Test Fixture

1.Input Power :1W (2.83)V

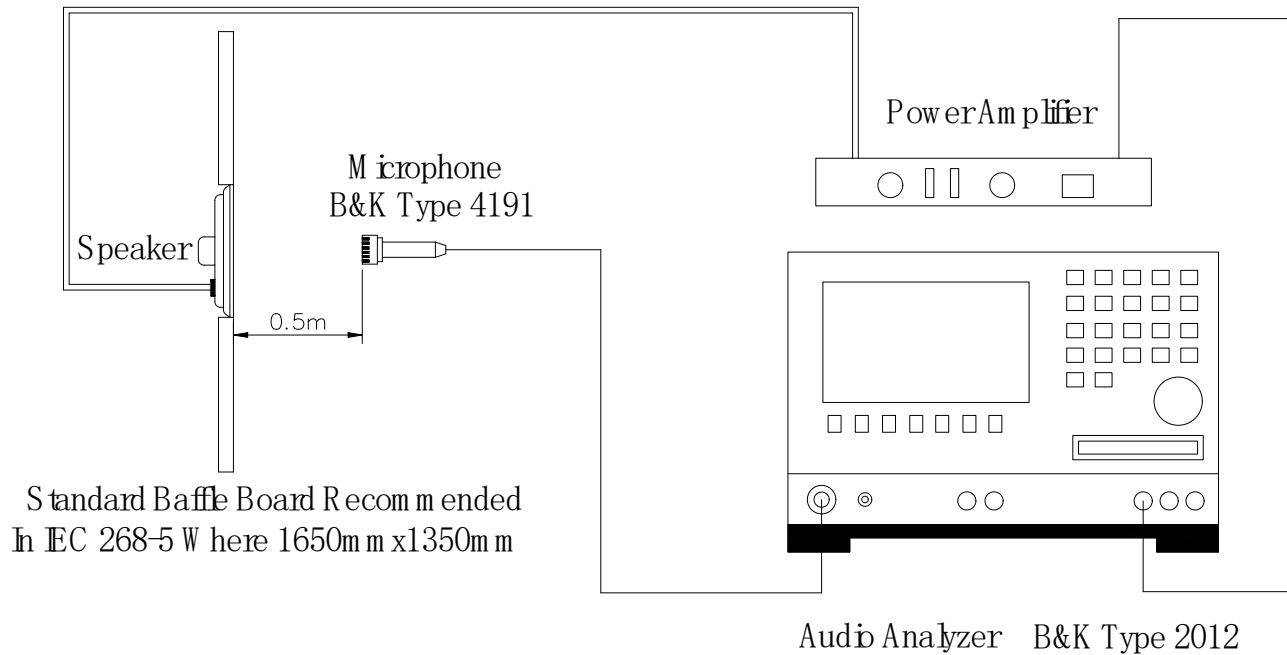
2.Zero Level : -dB

3.Mode : TSR

4.potentiometer Range : 50dB

5.Sweep Time : 0.5sec

Standard test condition of speaker



		04/27/07	TanQanFeng	XingPing	TangHeLing
Issue No	Description	Date	Issue	Check	Approval

Universal (Changzhou) Electronics Co., Ltd.

SPECIFICATIONS

Model No.

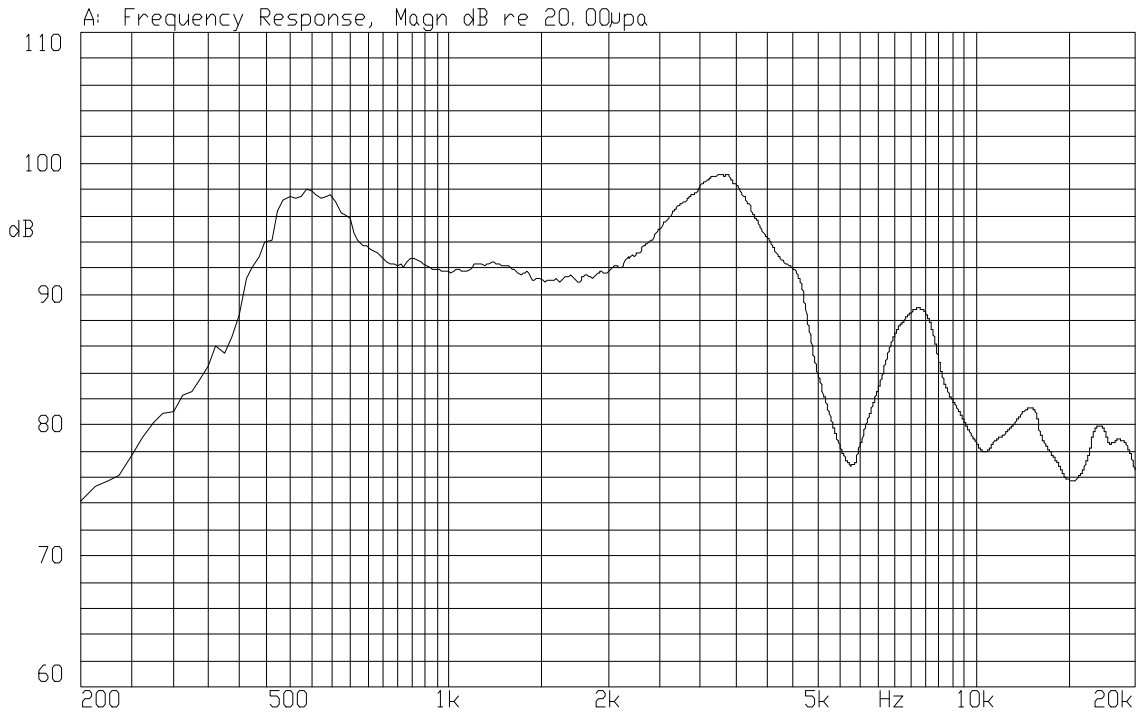
WYGD50D-8-03

Page

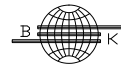
4/6

4.FREQUENCY RESPONSE CURVE

YGD50D-8 1W 0.5m 2.83V



Mode: TSR



		04/27/07	TanQanFeng	XingPing	TangHeLing
Issue No	Description	Date	Issue	Check	Approval

Universal (Changzhou) Electronics Co., Ltd.

SPECIFICATIONS

Model No.

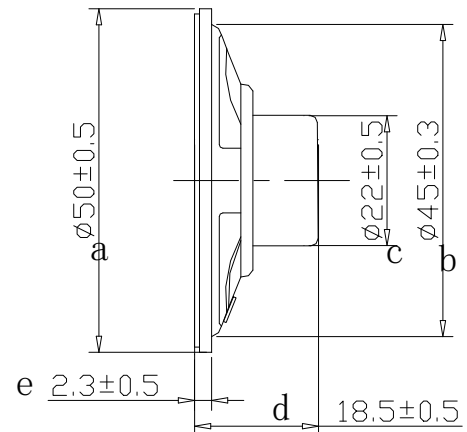
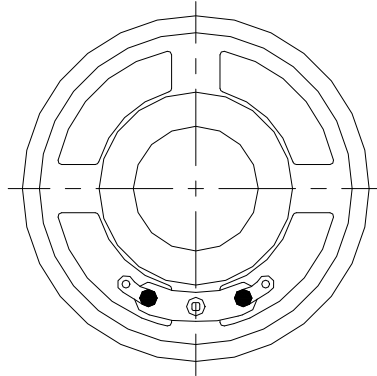
WYGD50D-8-03

Page

5/6

5.DIMENSIONS

DIMENSIONS unit: mm



- 1) All parts must be meet to ROHS.
- 2) Wave solder allowed, wash not allowed.

9	Back gasket	1	Black Paper	
8	Plate	1	SPCC	
7	Magnet	1	NdFeB	
6	Damper	1	cotton	
5	Cap	1	PAPER	
4	Diaphragm	1	PAPER	
3	Frame	1	SPCC	
2	Voice coil	1	Self-bonding wire	
1	PCB	1	Paper	
Part No.	Part Name	Q'TY	Material	Remark

04/27/07

TanQanFeng

XingPing

TangHeLing

Issue No

Description

Date

Issue

Check

Approval

Universal (Changzhou) Electronics Co., Ltd.