



## APPROVAL SPECIFICATION

AuraSound P/N: NDW15-074-8-S1  
Model No: NDW15-074-8-S1  
Description: 15MM 8ohm cellphone speaker  
Document No:  
Customer:  
Customer P/N:

**Rev: 0**

Prepared by: W.huang                      Date: 05/06/2008  
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Approved by: YC.Leung                      Date: 05/06/2008

## CUSTOMER SIGNATURE

Approved by:                                      Date:  
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## 1. Scope

This specification covers our product of dynamic speaker unit for mobile telephone use.

Operating temperature: -20°C--+70°C

Storage temperature: -40°C--+80°C

## 2. Mechanical layout&dimensions

Shown in Fig.3

Items	Technical Specifications
1.Frequency Range	500-10kHz
2.Resonance Frequency	1000Hz±20%
3.DC Resistance	7.4±10% ohm
4.Impedance	8.0±10% ohm @2kHz,1V
5.Measuring Diagram	Shown in Fig.1
6.Frequency Response	Shown in Fig.2
7.Sensitivity	85±3dB @2kHz,0.1W/0.1M
8.Rated Input	0.7W RMS
9.Max Input	0.9W MAX

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## 3. Reliability Test

### Items

### Technical Specifications

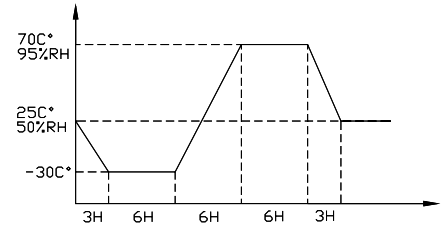
General After any following tests the response at 2KHZ shall not deviate more than  $\pm 3\text{dB}$  from initial value

1. Operating High Temp. Input Rated power to driver the speaker: pink noise  $+70\text{dB}$ , 96H.

2. Operating low Temp. Input rated power to driver the speaker: Pink noise  $-20\text{dB}$ , 96H.

3. Storage High Temp.  $70\text{dB}$ , 96H.

4. Storage Low Temp.  $-20\text{dB}$ , 96H.



1 cycle=24H (total: 6 cycles)  
 Temperature Tolerance:  $\pm 2\text{dB}$   
 Temperature change rate:  $\leq 1\text{dB}/1\text{min}$ ,  
 Default  $20\text{dB}/\text{hours}$

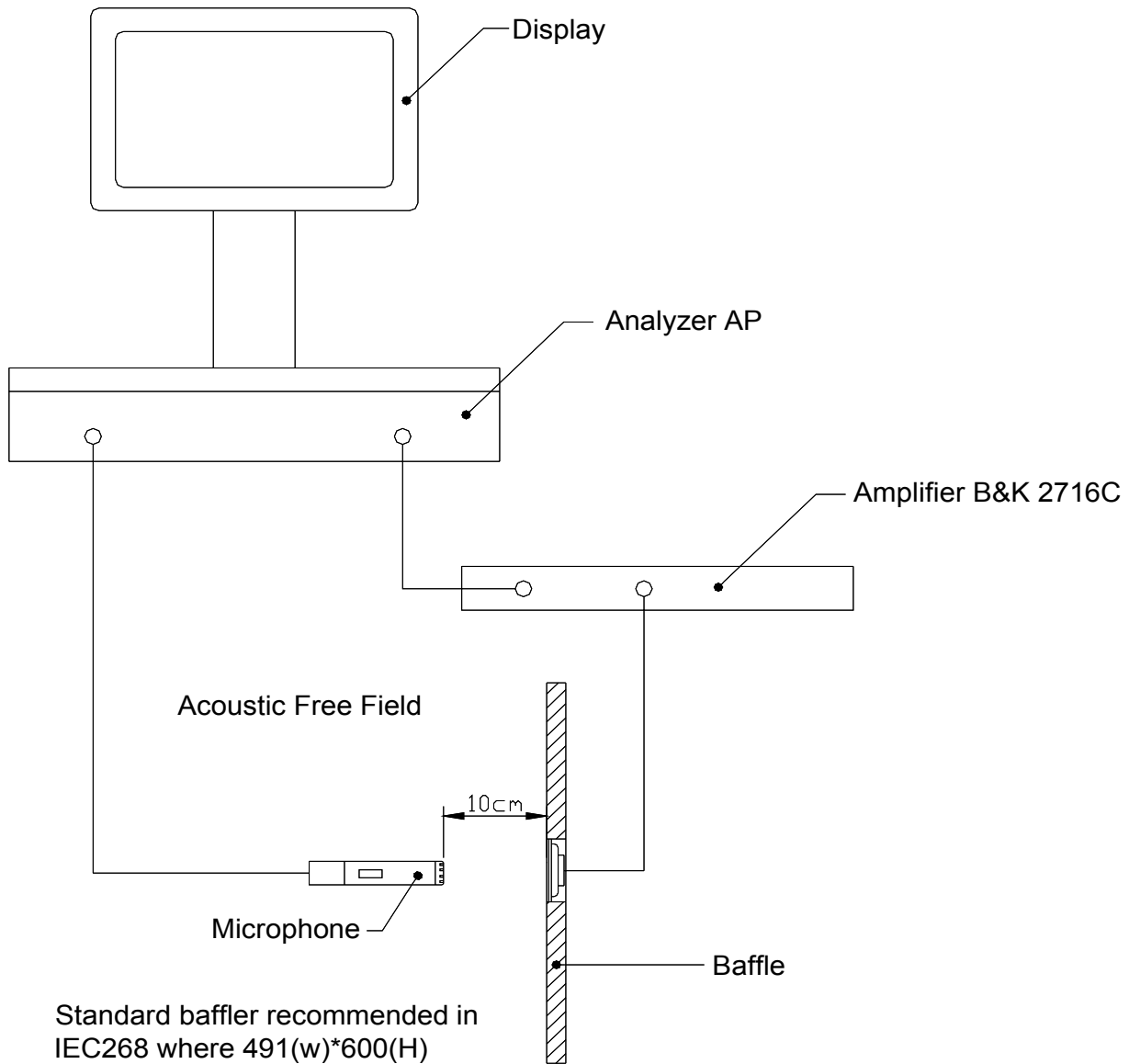
4. Non-Operating Temp./Humidity test 150CM (on the 1cm steel plan), Direction of drop 6 faces.  
 5. Drop Test Weight: according to the products.

Amplitude 1.5mm  
 Frequency 10-55HZ, 1oct/min. 55-150HZ: 1oct/min  
 Amplitude 1.5mm.  
 Minutes per Axis (X, Y and Z-axis)  
 Acceleration:  $60\text{M}/\text{S}^2$   
 2 hours for each directions.

6. Vibration Test

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● **Frequency response measuring diagram(fig.1)**

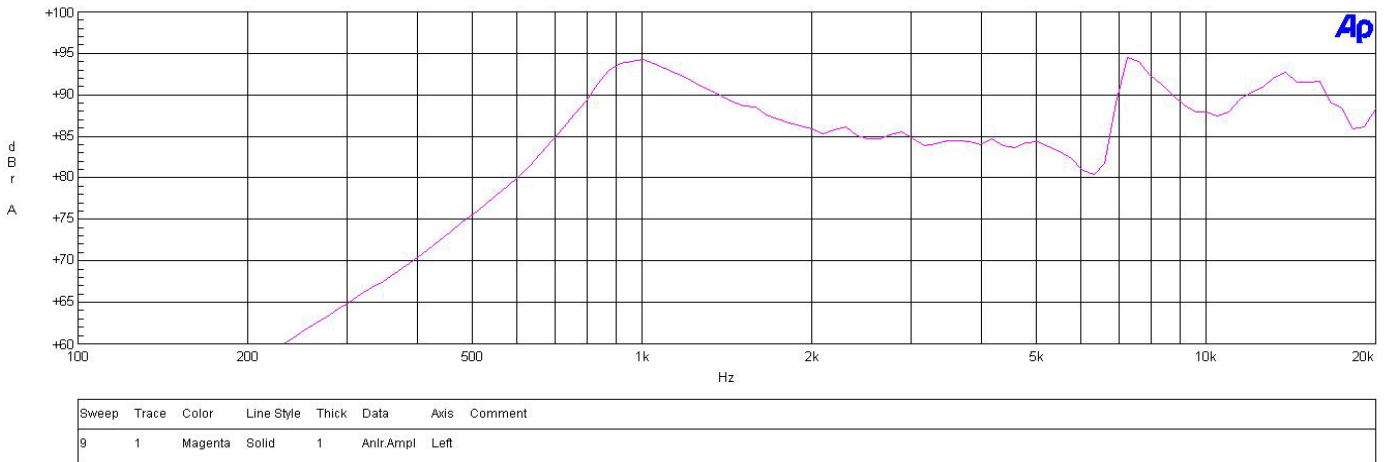


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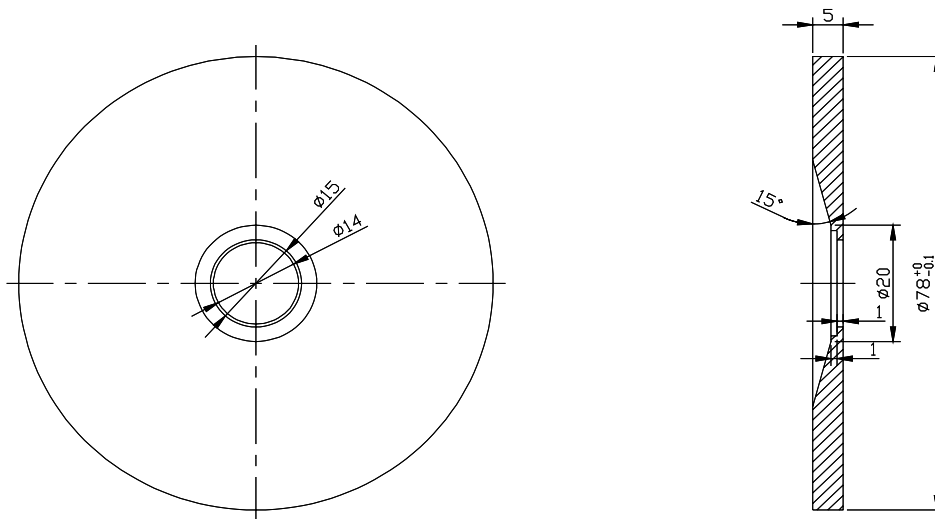
● **Frequency response.(fig.2)**

Audio Precision

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● **measure fixture.**



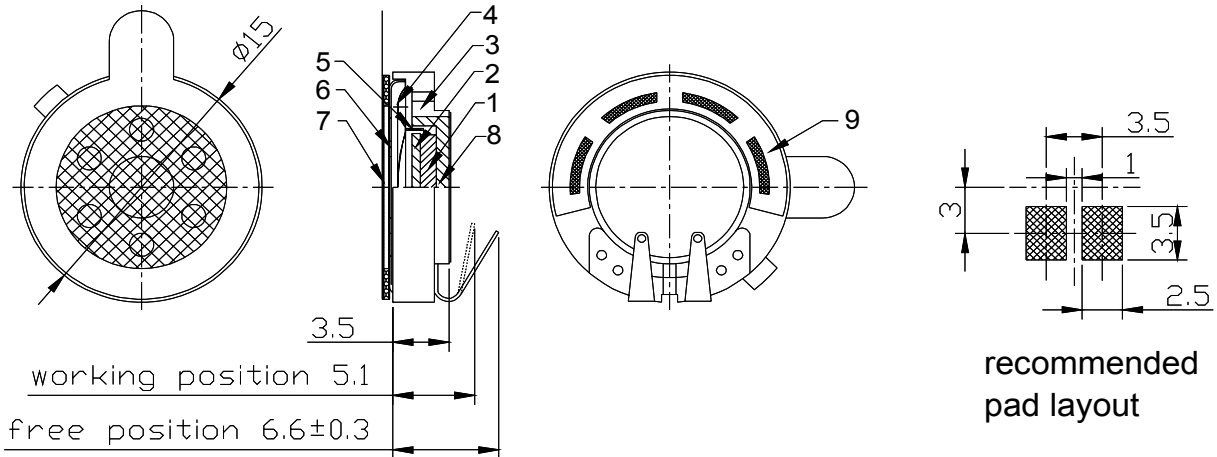
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## 5.Shape Drawing .(fig.3)

Note:General unless otherwise noted:±0.2



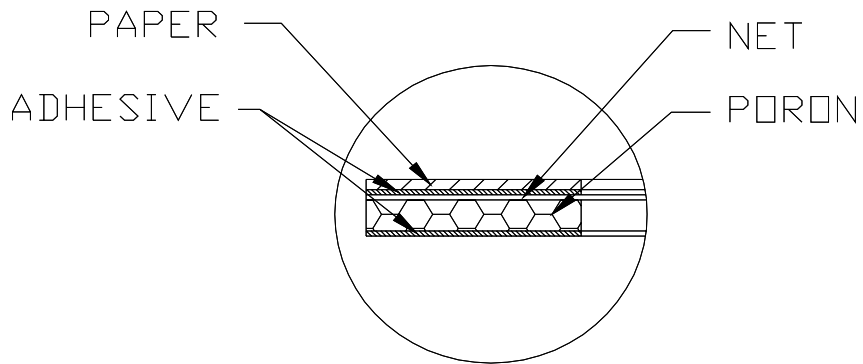
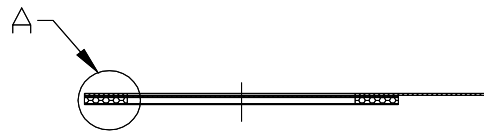
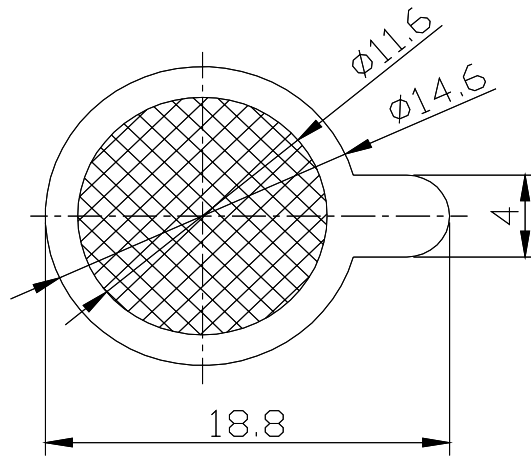
## Bill of Material

ITEM	DESCRIPTIONS	SPEC	QTY	REMARK
1	Magnet	$\phi 6.8 * 1.0T$	1	Nd-Fe-B
2	Top plate	$\phi 7.0 * 0.5$	1	SPC
3	Frame	$15 * 3.5H$	1	ABS757
4	Diaphragm	$15 * 0.5H$ 0.02PEN	1	PEN 0.02T
5	Voice Coil	$\phi 7.4$ 7.4ohm	1	Copper
6	Cover	$\phi 14 * 1.0H * 0.1T$	1	Stainless
7	Dust Screen	$\phi 14.6 * 0.45t$	1	Non-Woven
8	Gasket	$\phi 9.5 * 0.1H$	1	PE
9	Mesh	0.1T	1	Spun Silk

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NOTES:

- 1.unit:mm
- 2.tolerance:±0.3

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