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# PRELIMINARY SPECIFICATION

## Receiver

Part Number	OWR-1340T-38A
Note	This item was compliance with the following requirements: 1. RoHS directive 2. REACH
Customer P/N	

Ole Wolff	Signature / Date	Prepared	Checked	Approved
		Allen Wang 2020.06.16		Nathan Chen 2020.06.16

Customer	Signature / Date	Confirmation		

### REVISION NOTES:

Date	Rev.	Description of Revision
2020.06.16	00	Initial version

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## 1. SCOPE

THIS SPECIFICATION IS APPLIED FOR A DYNAMIC RECEIVER FOR HEADPHONE.

## 2. TEST CONDITIONS

TEMPERATURE : 18°C ~ 22°C

HUMIDITY : 65% +/-5% (R.H.)

ATMOSPHERE : 860 ~ 1060 hPa

## 3. GENERAL REQUIREMENTS

OPERATING TEMPERATURE RANGE: -25° C ~ 60° C

STORAGE TEMPERATUR RANGE: -25° C ~ 60° C

## 4. MECANICAL LAYOUT & DIMENSIONS

DIMENSIONS : SHOWN IN FIGURE.5

NET WEIGHT: 0.82g± 10%

## 5. ELECTRICAL AND ACOUSTICAL CHARACTERISTICS

1	Impedance in free field	38Ω ± 10% at 1000Hz with 0.195V/1mW
2	Sound Pressure Level in free field	84.0dB at 1000Hz with input 0.195V/1mW (0dB=20μPa) Measure setup as shown in Fig.1 Bin A: 87dB~85dB, dot mark = Red; Bin B: 84.99dB~83dB, dot mark =Blue; Bin C: 82.99dB~81dB, dot mark = Black;
3	Resonance frequency in free field	200Hz± 20% with input 0.195V/1mW
4	Frequency response in free field	Typical performance as shown in Fig.4. (Test input 0.195V/1mW)
5	Total Harmonic Distortion in free field	THD as shown in Fig.5 (Test input 0.195V/1mW)
6	Input Power	(Nom./Max.): 2mW /5mW
7	Rub & Buzz	Speaker must be free of audible noise at 0.276v sine wave between 50Hz-10KHz

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## 6. RELIABILITY TEST REQUIREMENTS

Sensitivity difference at 1000Hz shall be within  $\pm 3\text{dB}$  from initial value after each test. The measurement shall be done after minimum 1hour and maximum 2 hours with conditioning of  $18^\circ\text{C} \sim 25^\circ\text{C}$ .

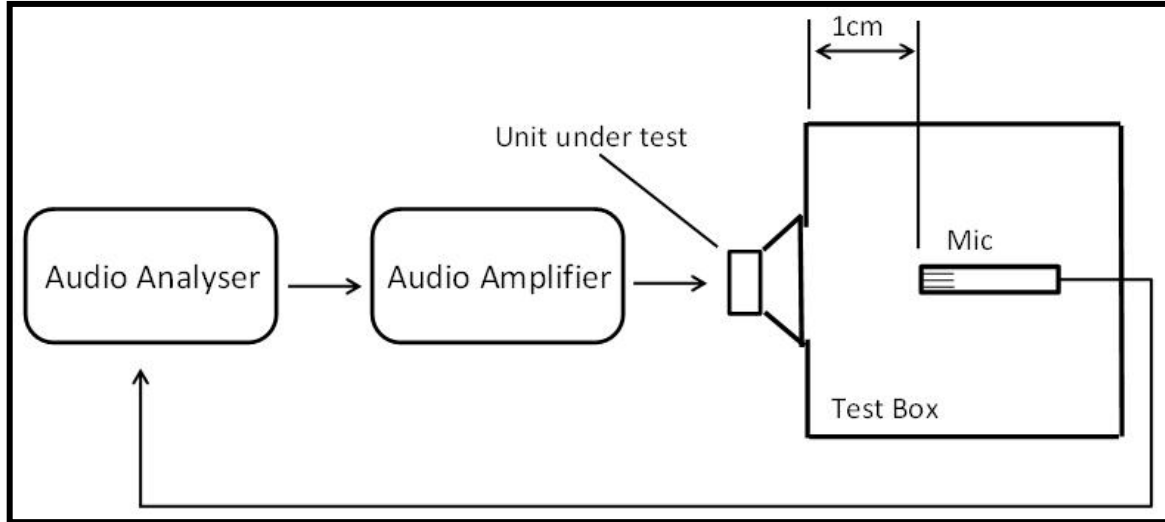
No.	ITEMS	TEST CONDITION	
1	HIGH TEMPERATURE TEST STORAGE	Temperature	$60 \pm 3^\circ\text{C}$
		Duration	96hrs
2	LOW TEMPERATURE TEST STORAGE	Temperature	$-25 \pm 3^\circ\text{C}$
		Duration	96hrs
3	HIGH TEMPERATURE HUMIDITY TEST	Temperature	$40 \pm 3^\circ\text{C}$
		Humidity	90%--95%(RH)
		Duration	96hrs
4	DROP TEST	Height	With protector grill 0.75m to concrete
		Total times	10 times
5	TEMPERATURE CYCLE TEST	Temperature	$-25 \pm 3^\circ\text{C} \leftrightarrow 60 \pm 3^\circ\text{C}$
		Duration	2hours, 5mins, 2hours
		Cycles	5 cycles
6	SHORT TERM MAX INPUT TEST	Test signal and Temperature	Pink noise / $25^\circ\text{C}$
		Test input power	5mW
		Cycles	1sec On, 1min Off, 60cycles
7	LONG TERM MAX INPUT TEST	Test signal and Temperature	Pink noise / $25^\circ\text{C}$
		Test input power	2mW
		Cycles	1min On/ 2min Off, 10 cycles
8	RATED POWER TEST	Test signal and Temperature	Pink Noise / $25^\circ\text{C}$
		Test input power	2mW/0.276Vrms
		Duration	96hrs

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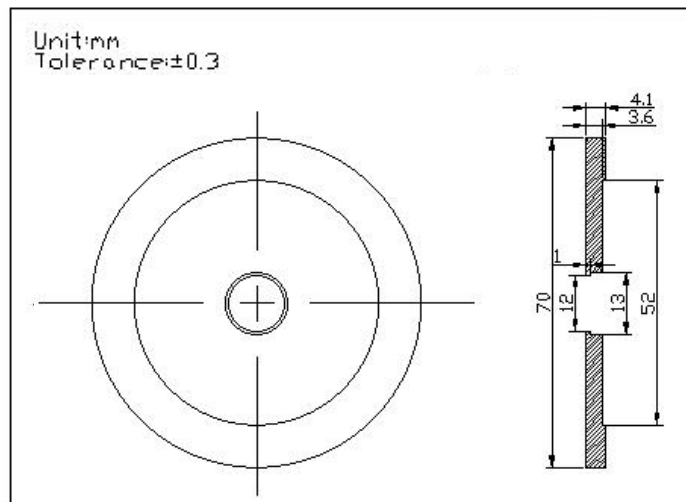
## 7. TEST SET UP AND TEST JIG FOR FREE FIELD

### 7.1 FREE FIELD MEASUREMENT CIRCUIT FOR DYNAMIC SPEAKER (Fig.1)



NO	EQUIPMENT	REMARKS
1	UNIT UNDER TEST	RECEIVER
2	TEST BOX	OLE WOLFF STANDARD BOX
3	AUDIO POWER AMPLIFIER	LEM DPA300
4	ANALYZER	LISTEN SOUNDCHECK

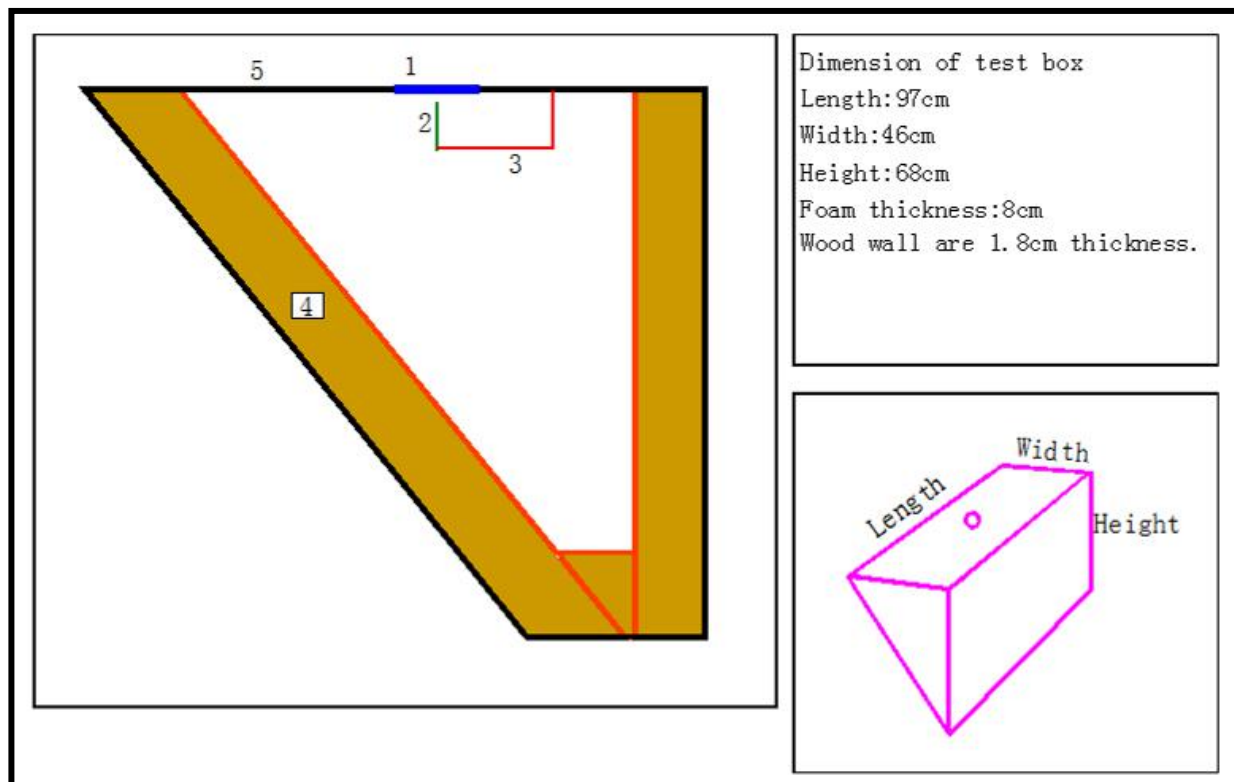
### 7.2 FREE FIELD TEST JIG (Fig.2)



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### 7.3 FREE FIELD TEST BOX: OWBOX (Fig.3)



NO.	EQUIPMENT	REMARKS
1	TEST JIG	Fig.2
2	MICROPHONE	1/2 INCH MICROPHONE (46AF)
3	MICROPHONE HOLDER	
4	DAMPING MATERIAL	FOAM RUBBER
5	BOX	WOOD
6	TEST DISTANCE MEASURED FROM FRONT OF SPEAKER FRAME TO FRONT OF TEST MICROPHONE	1cm

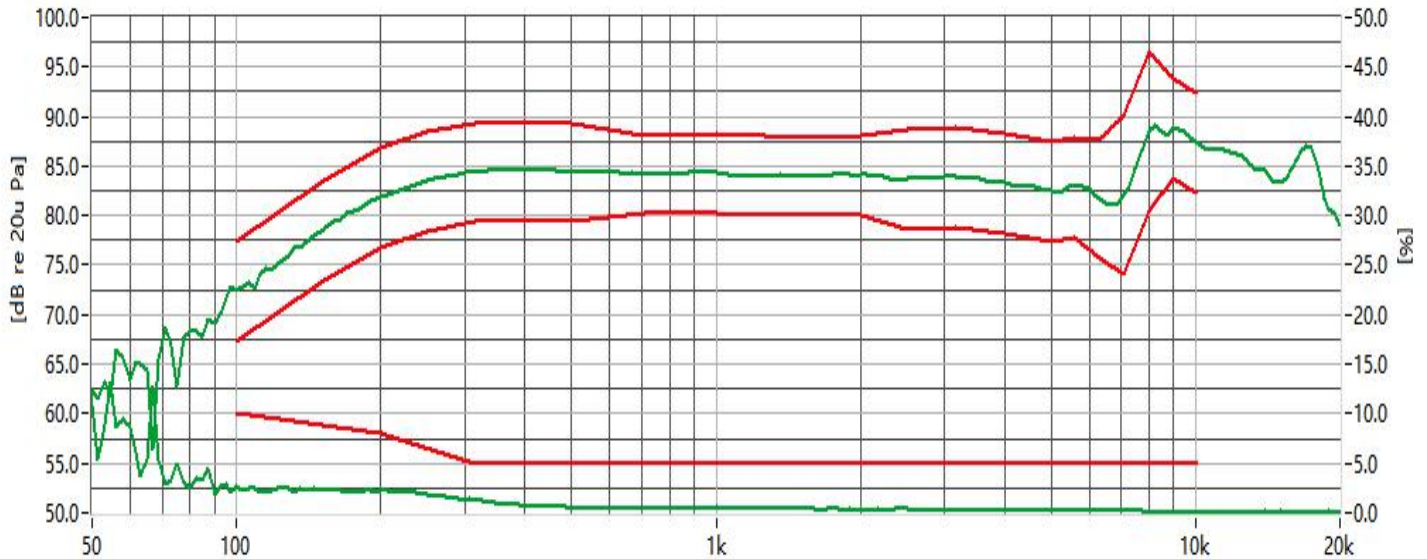
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## 8. STANDARD FREQUENCY RESPONSE CURVE & STANDARD THD

### 8.1 FREE FIELD TEST (Fig.4)

Test input 0.195V, 10mm in free filed.



### FR Mask

F. POINT	100	150	200	250	315	400	500	710	1k	1.6k	2k	Hz
Upper limit	+5	+5	+5	+5	+5	+5	+5	+4	+4	+4	+4	dB
Lower limit	-5	-5	-5	-5	-5	-5	-5	-4	-4	-4	-4	dB

F. POINT	2.5k	3.15k	4k	4.5k	5k	5.6k	6.3k	7.1k	8k	9k	10k	Hz
Upper limit	+5	+5	+5	+5	+5	+5	+6	+8	+8	+5	+5	dB
Lower limit	-5	-5	-5	-5	-5	-5	-6	-8	-8	-5	-5	dB

### THD Mask

F.POINT	100	200	315	10000	Hz
UPPER LIMITS	10	8	5	5	%

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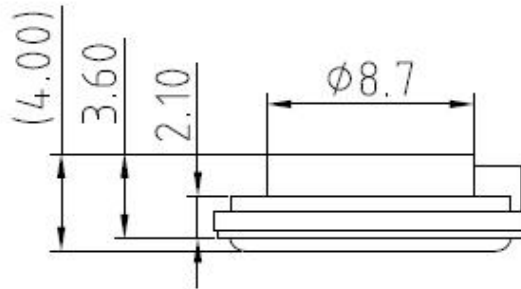
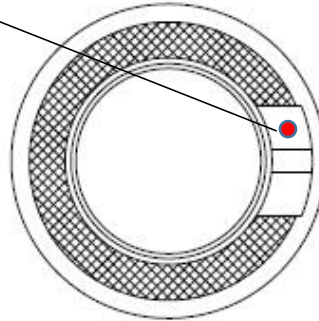
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### 9.DIMENSION (Fig.6)

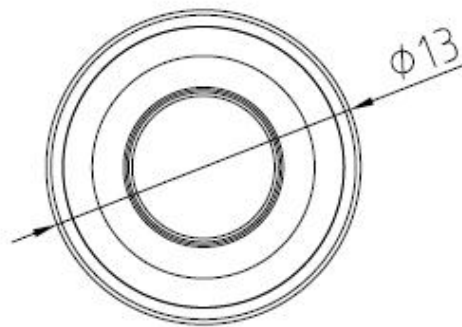
Unit: mm

Tolerance: +/-0.2

Binning  
 Marking: Bin A = Red dot,  
 Bin B = Blue dot,  
 Bin C = Black dot,



注：带“（）”为参考尺寸



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## 10. Marking (TBD)

## 11. Packing (TBD)

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