

MESSRS.

SPECIFICATION FOR APPROVAL**承 認 书**

PRODUCT	WATERPROOF TYPE RECEIVER
PART NO.	HDR-150632RA-15P1 (ROHS)
CUSTOMER	
CUSTOMER PART NO.	C313

APPROVED BY	CHECKED BY	MADE BY
王台平 JAN-10-2017	曹丽萍 JAN-10-2017	LILY JAN-10-2017

常 州 华 龙 电 子 有 限 公 司*Changzhou Dragon State Electronic Co., Ltd*

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1. Specification

HDR-150632RA-15P1 (RoHS)

ITEMS.		SPECIFICATIONS
01	Type	Dynamic 15 x 6mm receiver unit
02	Sensitivity (S.P.L)	109dB $\pm$ 3 dB at 1kHz 180mV with IEC 318 coupler
03	Impedance.	32 Ohm $\pm$ 15% at 1KHz
04	Resonance Frequency (FO)	450HZ $\pm$ 20% AT FO, 1V
05	Magnet Field Intensity.	Axial – dB , Radial –dB at 1KHz
06	Nominal Input Power	20mW
07	Max. Input Power.	Must be normal at a white noise, 30mW for 1 minute.
08	Total Harmonics Distortion	Max 10 % at 1K Hz.
09	Dustproof And Waterproof	IP67
10	Operation temperature	-30℃ to +70℃
11	Storage temperature	-40℃ to +80℃
12	Weight.	0.5g $\pm$ 5%

2. Measuring method

2-1. Test Condition

Standard

Temperature : 15 ~ 35℃

Relative humidity : 45% ~ 85%,

Atmospheric pressure : 860mbar to 1060mbar.

Judgement

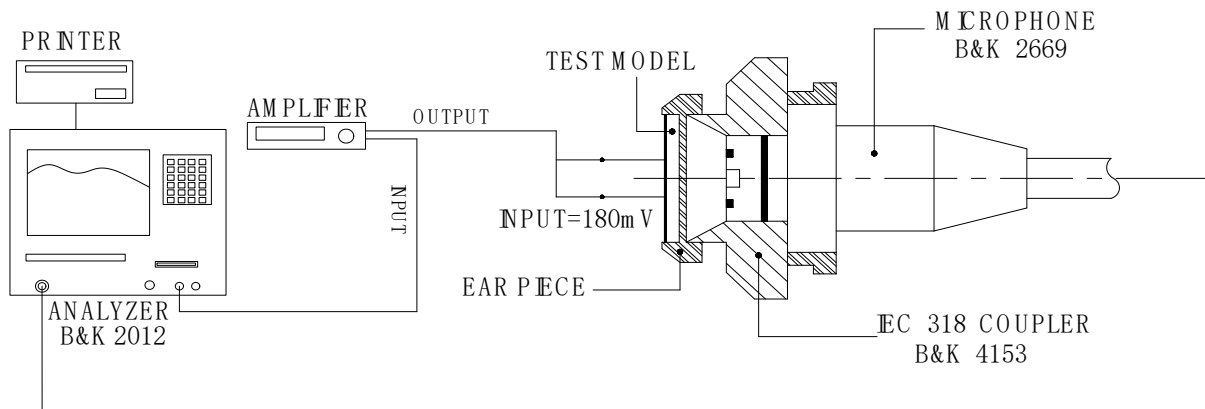
Temperature : 20 $\pm$ 3℃

Relative humidity : 60% ~ 70%,

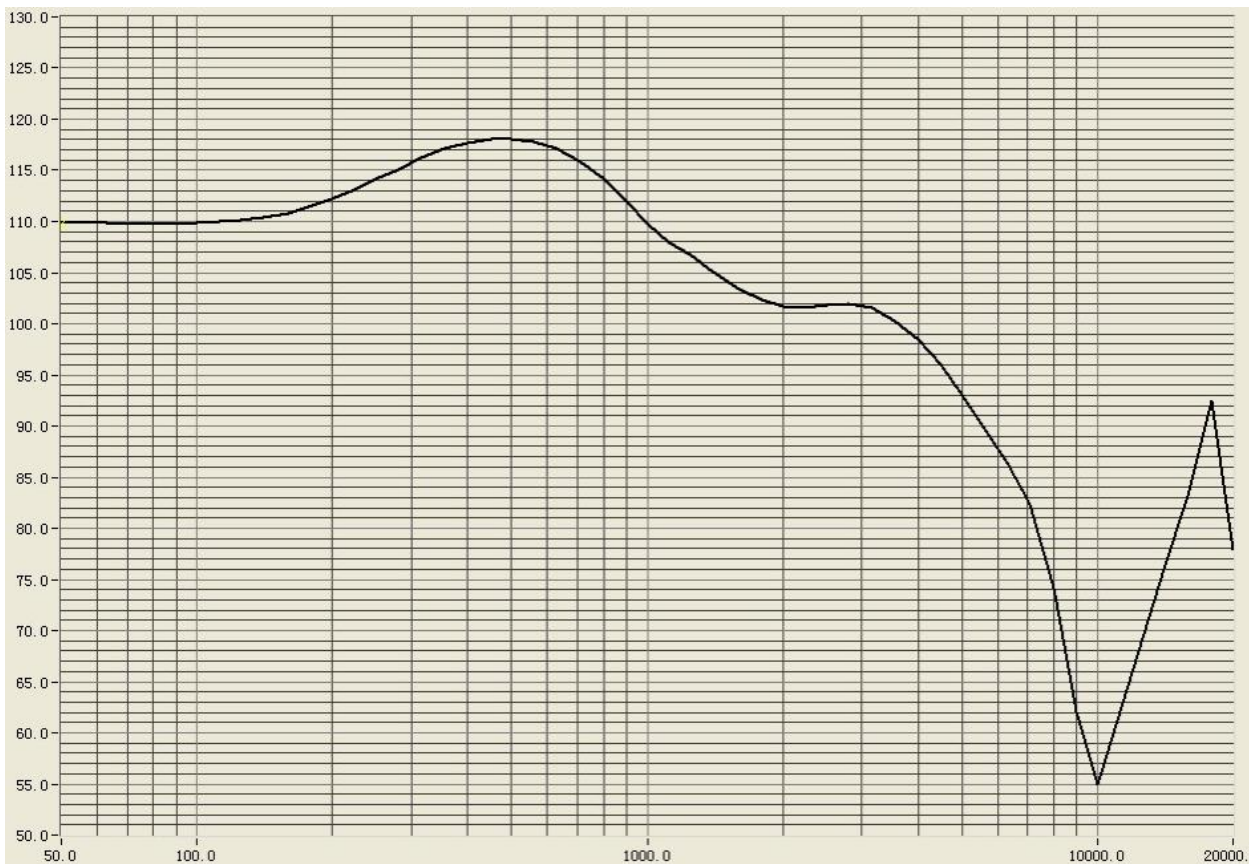
Atmospheric pressure : 860mbar to 1060mbar

2-2. Standard Test Fixture

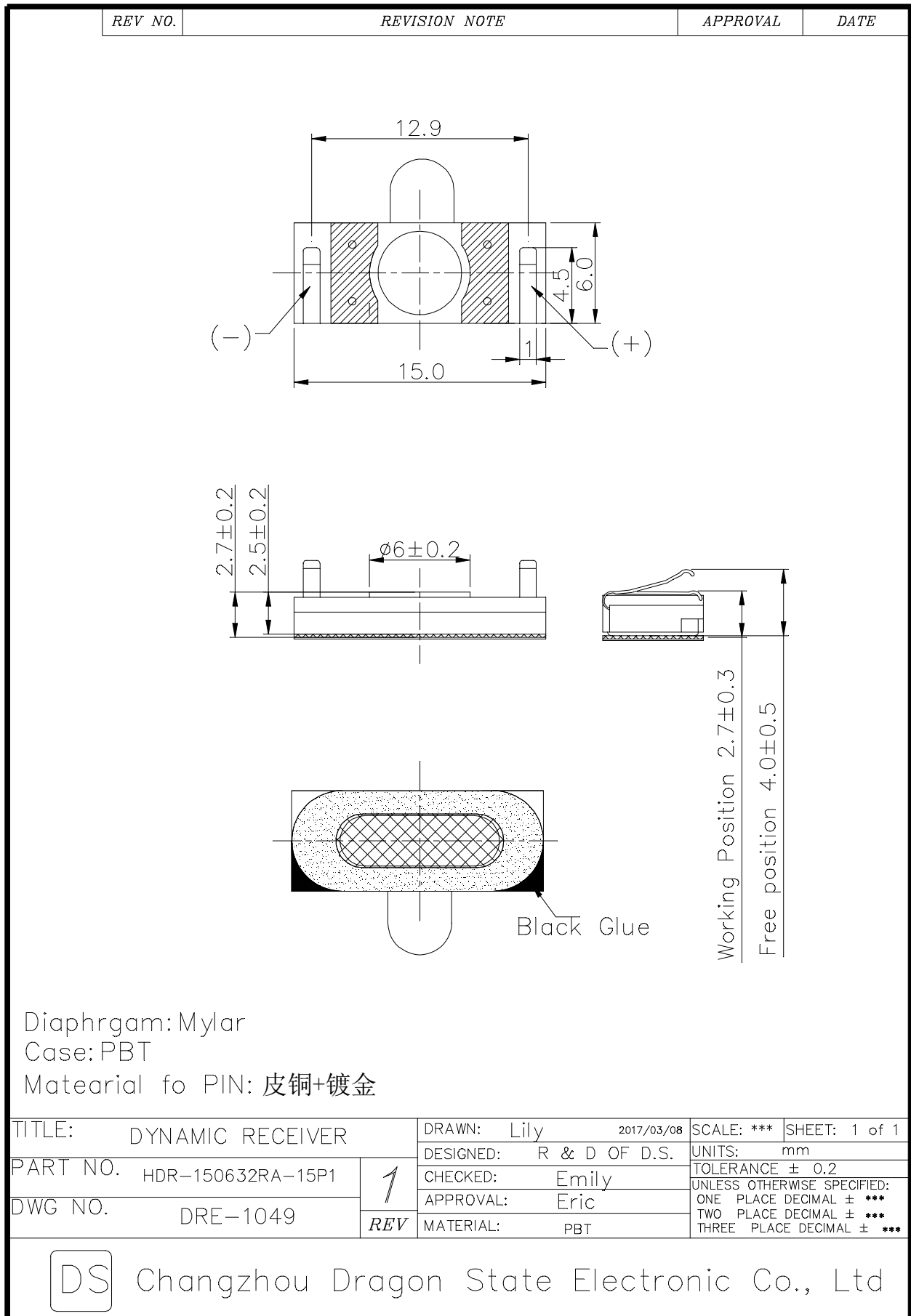
Input signal : 180mV



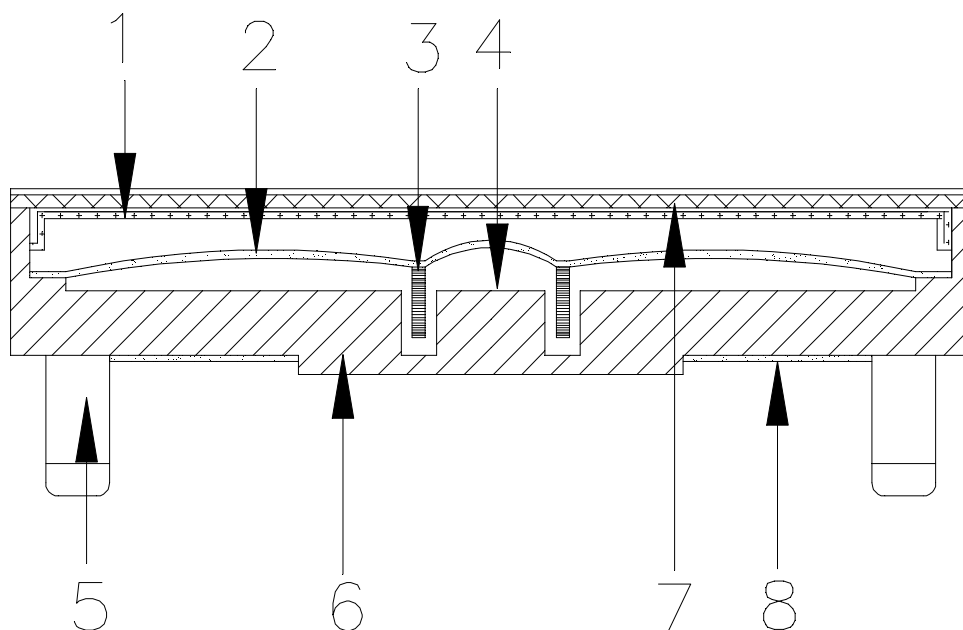
2.3 Frequency Response Curve



3.Dimension

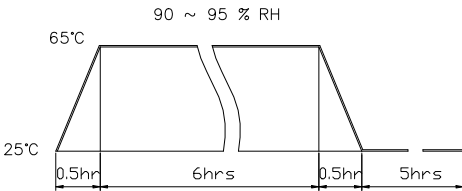


4.Material and Structure

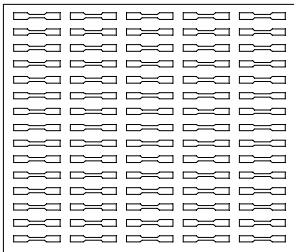
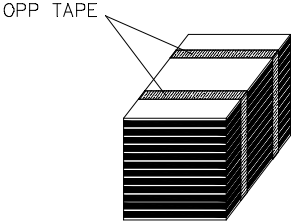
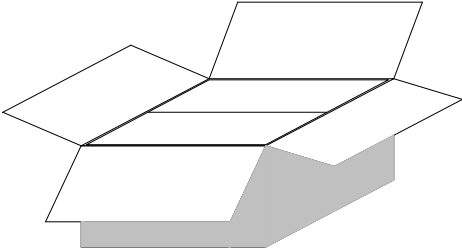


NO	PART NAME	MATERIAL	QTY
1	CAP	SUS304	1
2	DIAPHRAGM	MYLAR	1
3	VOICE COIL	COPPER	1
4	MAGNET	ND-FE-B	1
5	PIN	GOLD-PLATED	2
6	FRAME	PBT	1
7	GASKET	ADHESIVE DUSTROOF NET	1

5. Reliability Test

ITEMS.		SPECIFICATIONS
01	High temp. Test	Keep 96 hours at $+80^{\circ}\text{C} \pm 3^{\circ}\text{C}$ and leave 3 hours in normal temperature and then check
02	Low temp. Test	Keep 96 hours at $-40^{\circ}\text{C} \pm 3^{\circ}\text{C}$ and leave 3 hours in normal temperature and then check
03	Humidity test	Keep 96 hours at $+40^{\circ}\text{C} \pm 3^{\circ}\text{C}$ relative humidity 90% and leave 3 hours in normal temperature and then checked.
04	Temp./humidity cycle	The part shall be subjected 5 cycles. One cycle shall be 12 hours and consist of;  The diagram shows a temperature profile over time. It starts at 25°C, rises to 65°C in 0.5hr, stays at 65°C for 6hrs, then drops back to 25°C in 0.5hr. Above the 65°C plateau, it indicates 90 ~ 95 % RH. The total cycle time is 7hrs (0.5 + 6 + 0.5). A 5hrs period follows the cycle.
05	Thermal Cycle Test.	Low temperature: $-40^{\circ}\text{C} \pm 3^{\circ}\text{C}$, temperature: $+80^{\circ}\text{C} \pm 3^{\circ}\text{C}$, cycle: 1 hour/cycle each, and then keep 5 cycles in a room.
06	Vibration	10~200~10Hz Sin-Wave Sweep 15min. 5G(Constant) X,Y, Z 3 direction. 2 hours each, total 6 hours.
07	Fix Drop test	Fix on Jig. then drop from 152cm height to the concrete floor X,Y, Z 6 direction. 5 times each, total 30 times.
08	Free Drop test	Free drop from 100cm height to the concrete floor X,y, z 6 direction. 1 times each, total 6 times.
09	Load test	Rated power white noise is applied for 96 hours
10	Protection against liquids	Protected against 30 Minutes of immersion under 1 meter pressure
11	Max Power test	Max Power 1 min on – 2 min off 10 cycles.

6.Packing

REV NO.	REVISION NOTE	APPROVAL	DATE
	 Cover(285*235*5mm) Material: Paper		
	 Box(285*230*10mm) 150pcs Material: Paper+Epe		
	 Middle(285*230*120mm) 1500pcs(10*150pcs) Material: Paper+Epe		
	 Outer Box(490*360*350mm) 9000pcs(6*1500pcs) Material: Paper		
	单位: mm		
TITLE: packing		DRAWN: Lily 2013/12/06	
PART NO.		DESIGNED: R&D OF D.S.	
DWG NO.		CHECKED: Emily	
		APPROVAL: Eric	
		MATERIAL: ***	
		SCALE: 2:1	SHEET: 1 of 1
		UNITS: mm	
		TOLERANCE	
		20~11	± 0.3
		10~5	± 0.2
		<4	± 0.1
DS Changzhou Dragon State Electronic Co., Ltd			