

### MESSRS.

# SPECIFICATION FOR APPROVAL 承 认 书

PRODUCT	WATERPROOF TYPE RECEIVER		
PART NO.	HDR-150632RA-13P (ROHS)		
CUSTOMER			
CUSTOMER PART NO.			

CHECKED BY	MADE BY	
曹丽萍	LILY	
AUG-19-2016	AUG-19-2016	
	曹丽萍	

# 常州华龙电子有限公司 DRAGONSTATE ELECTRONIC CORPORATION

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EDITION:1.1



#### 1. Specification

#### HDR-150632RA-13P (RoHS)

ITEMS.		SPECIFICATIONS	
01	Туре	Dynamic 15 x 6mm receiver unit	
02	Sensitivity (S.P.L)	109dB ±3 dB at 1kHz 180mV with IEC 318 coupler	
03	Impedance.	32 Ohm ±15% at 1KHz	
04	Resonance Frequency (FO)	450HZ ± 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°C to +70°C	
11	Storage temperature	-40°C to +80°C	
12	Weight.	0.5g ±5%	

#### 2. Measuring method

#### 2-1. Test Condition

**STANDARD** 

Temperature :  $15 \sim 35^{\circ}$ C

Relative humidity: 45% ~ 85%,

Atmospheric pressure: 860mbar to 1060mbar.

**JUDGEMENT** 

Temperature :  $20\pm3^{\circ}$ C

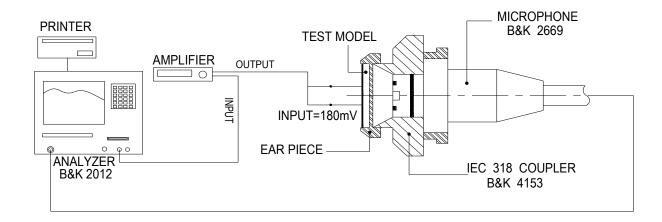
Relative humidity: 60% ~ 70%,

Atmospheric pressure: 860mbar to 1060mbar

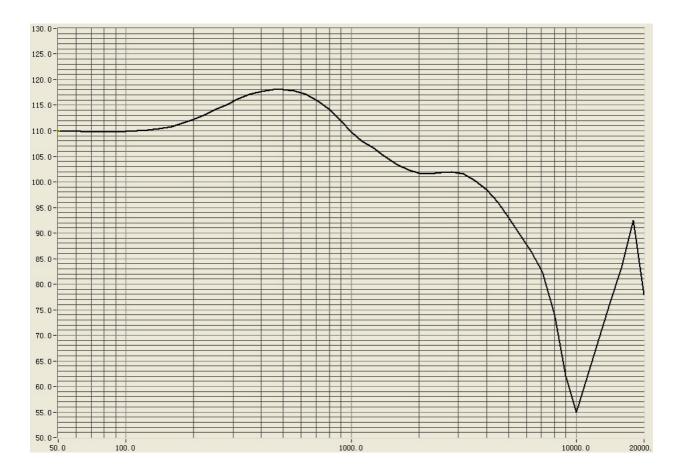


#### 2-2. Standard Test Fixture

Input signal: 180mV

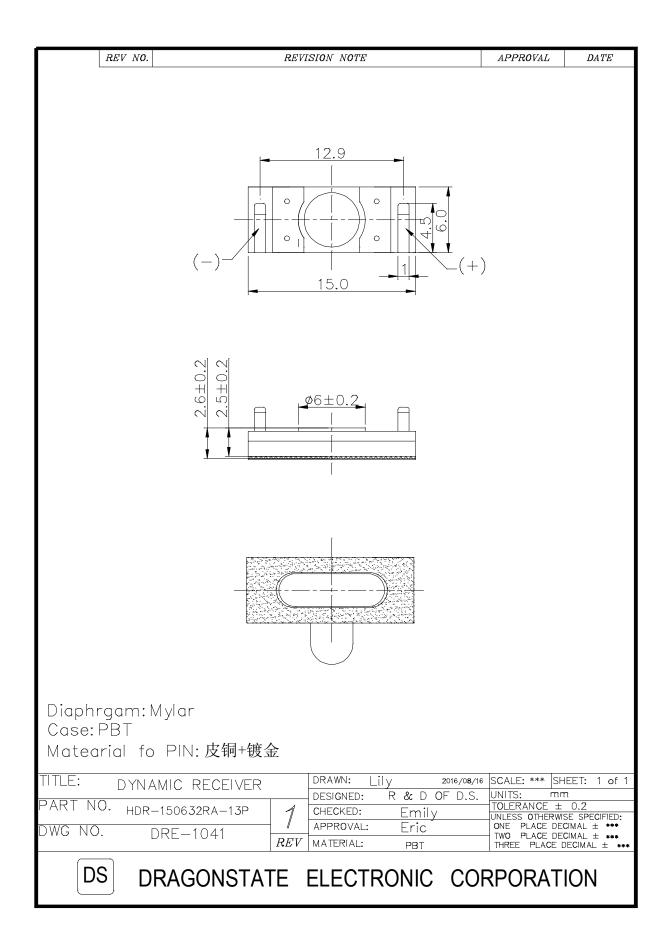


#### 2.3 Frequency Response Curve





#### 3.DIMENSION



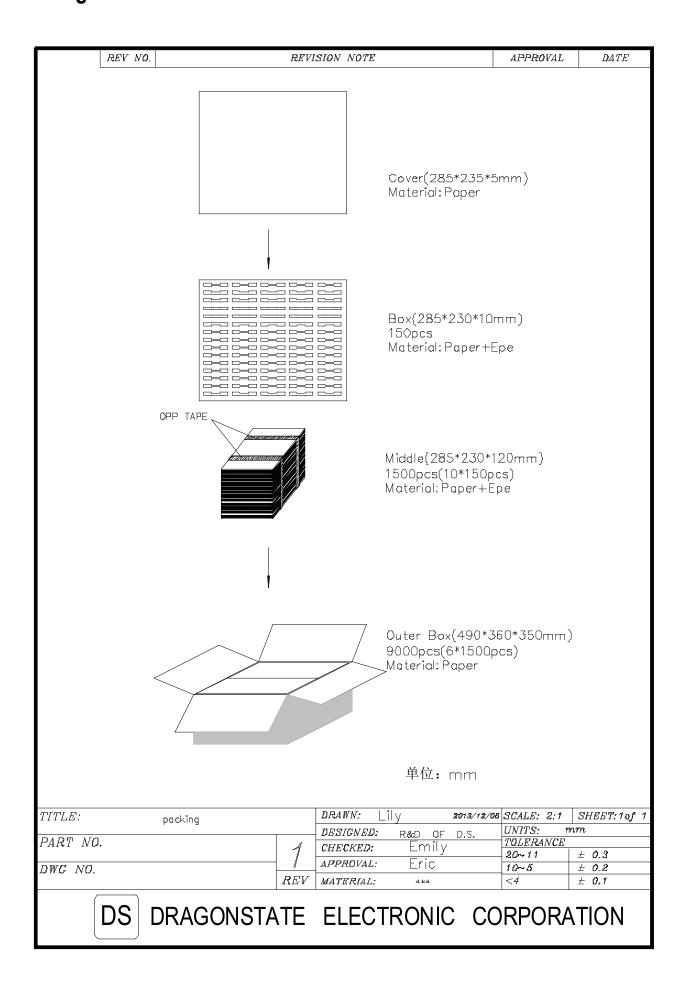


# 4. Reliablity Test

ITEMS.		SPECIFICATIONS		
01	High temp. Test	Keep 96 hours at +80°C±3°C and leave 3 hours in normal temperature and then check		
02	Low temp. Test	Keep 96 hours at -40°C±3°C and leave 3 hours in normal temperature and then check		
03	Humidity test	Keep 96 hours at + 40°C±3°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;		
05	Thermal Cycle Test.	Low temperature: -40°C ±3°C, temperature:+80°C ±3°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	<b>Drop test</b> 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 30mins of immersion under 1m pressure Product without leakage		
11	Max Power test	Max Power 1 min on – 2 min off 10 cycles.		



#### 5.Packing





# 6. History change record

CHANGE ITEMS	DATE	NOTE	DRAWN BY	CHECKED BY
	2016-08-19	FIRST ISSUE	LILY	王台平 2016-08-19