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SPECIFICATION FOR APPROVAL

Receiver

Part Number	OWR-061220LA-32
Note	This item was compliance with the following requirements: 1. RoHS directive 2. REACH
Customer P/N	

		Prepared	Checked	Approved
Ole Wolff	Signature / Date	YanRui 2019.12.21		

		Confirmation
Customer	Signature / Date	

REVISION NOTES:

Date	Rev.	Description of Revision
2019.07.10	00	Initial Release
2019.11.30	01	Modify HAC parameters
2019.12.21	02	Revise the IPX8 test pressure to be 20Kpa.

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1. SCOPE

THIS SPECIFICATION IS APPLIED FOR A DYNAMIC RECEIVER.

2. TEST CONDITIONS

TEMPERATURE : 15°C ~ 35°C

HUMIDITY : 45%~85% (R.H.)

ATMOSPHERE : 860 ~ 1060 hPa

3. GENERAL REQUIREMENTS

OPERATING TEMPERATURE RANGE: -20° C ~ 70° C

STORAGE TEMPERATURE RANGE: -40° C ~ 85° C

4. MECHANICAL LAYOUT & DIMENSIONS

DIMENSIONS : SHOWN IN FIGURE.4

NET WEIGHT: approx 0.4g

5. ELECTRICAL AND ACOUSTICAL CHARACTERISTICS

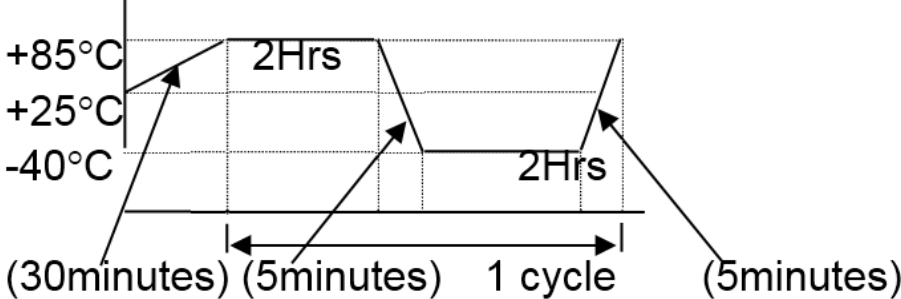
1	IMPEDANCE	$32 \pm 15\% \Omega$
2	SOUND PRESSURE LEVEL	$113 \pm 3\text{dB Pa/V}$ at 1KHz with Type3.2 HL Ear,566mV, MEASUREMENT AS SHOWN IN FIGURE.1
3	FREQUENCY RESPONSE CURVE	SHOW IN FIGURE 3
4	RESONANCE FREQUENCY	$450 \pm 20\% \text{ Hz}$, 566mV in free air
5	TOTAL HARMONIC DISTORTION (THD)	SHOW IN FIGURE 4
6	BUZZ & RATTLE	DYNAMIC SPEAKER MUST BE FREE AUDIBLE NOISE AT 0.566Vrms, SINE WAVE BETWEEN 300Hz AND 7000KHz FREQUENCY RANGE.
7	INPUT POWER	(Nom./Max.): 10mW / 20mW
8	Axial Field Strength Sensitivities	$12.5 \pm 1.5\text{dB(A/m)}$, 566mVrms 10mm,1kHz
9	Radial Field Strength Sensitivities	$4.2 \pm 1.5\text{dB(A/m)}$, 566mVrms 10mm,1kHz

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6. RELIABILITY TEST REQUIREMENTS.

After any following tests the S.P.L should not deviate more than $\pm 3\text{dB}$ from initial value.

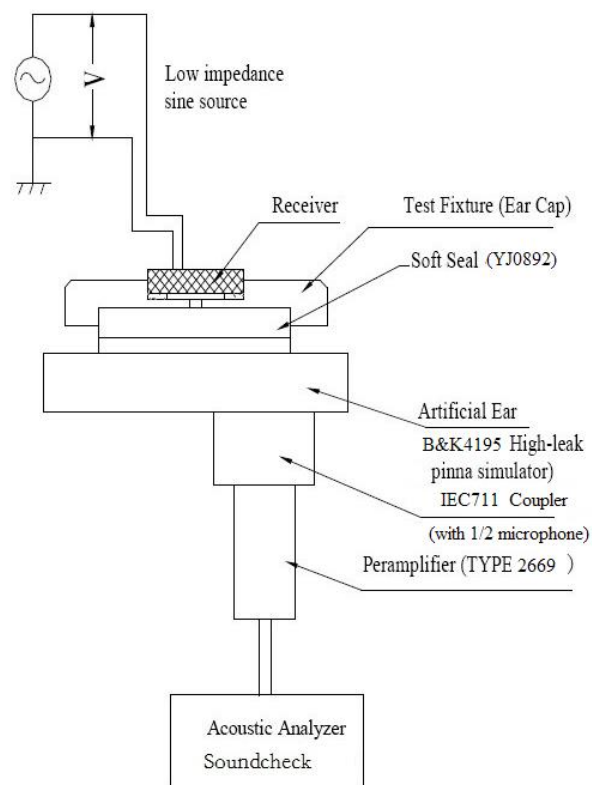
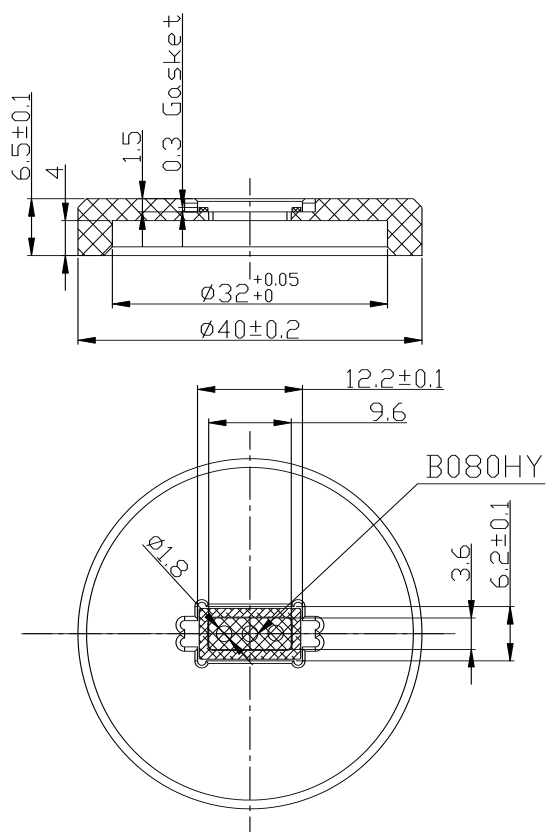
No.	ITEMS	TEST CONDITION
1.	High temp. Test	Temperature: $+85\text{ }^{\circ}\text{C} \pm 3^{\circ}\text{C}$ Duration: 96 hours
2.	Low temp. Test	Temperature: $-40\text{ }^{\circ}\text{C} \pm 3^{\circ}\text{C}$ Duration: 96 hours
3.	Humidity Test	Temperature: $+40\text{ }^{\circ}\text{C} \pm 3^{\circ}\text{C}$ Relative Humidity: 90-95% RH Duration: 96 hours (recovery 6 hours)
4.	Thermal cycle test.	Temperature: $-40^{\circ}\text{C} \pm 3^{\circ}\text{C}$ $+85^{\circ}\text{C} \pm 3^{\circ}\text{C}$ Duration: 2 hour 2 hour Cycle: 12cycles (recovery 2hours) 
5.	Vibration Test	Frequency: 10 ~ 55 ~ 10Hz Oct/min Amplitude: 1.5mm Duration: 2hours in each 3axes
6.	Drop Test	Height: 1.5m Mounted in a 100g fixture, drop samples 1.5m 2 drops on side(2*6), , 2 drops on each corner(2*4). Total 20 drops
7.	Load test	Input power: 10mW, Pink noise 96hours .
8.	Terminal Strength	Load: 1.0 Kg Duration: 15sec.(Shall be normal)
9.	Waterproof grade	IT Should be IPX8 Waterproofing; Test standard :2M, 30minutes, no leakage of water. Test method: Mount product in the fixture and input 20Kpa pressure to blow the diaphragm surface and keep the pressure for not less than 5seconds. To pass the leakage is less than 0.05Kpa.

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7. ELECTRICAL CHARACTERISTICS MEASUREMENT (FIGURE.1)

MEASUREMENT CIRCUIT FOR DYNAMIC RECEIVER



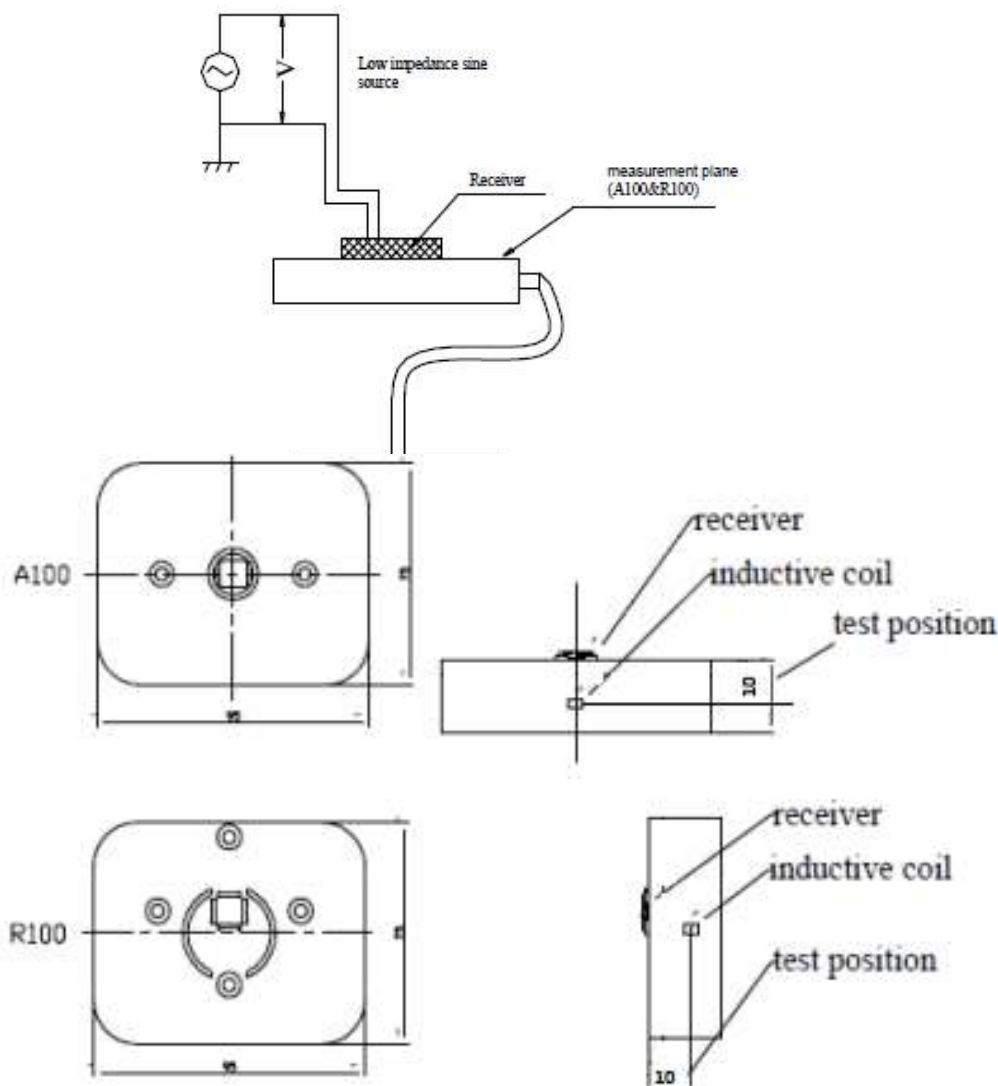
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8. HAC Test Method and Test Fixture(FIGURE.2)

8.1 Axial Field Intensity: The axial component of the magnetic field, directed along the measurement axis and located at the measurement plane(Figure5), in 1/3 octave band filter. (Input 566mVrms)

8.2 Radial Field Intensity: The radial components of the magnetic field, as measured at all radial measurement max point, in 1/3 octave band filter. (Input 566mVrms)

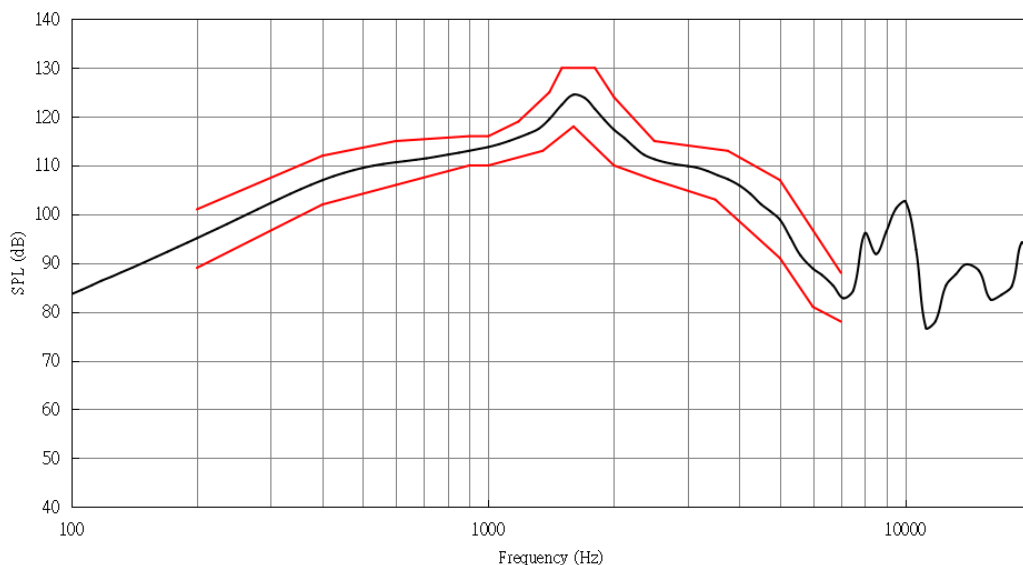


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9. STANDARD FREQUENCY RESPONSE CURVE(FIGURE.3)

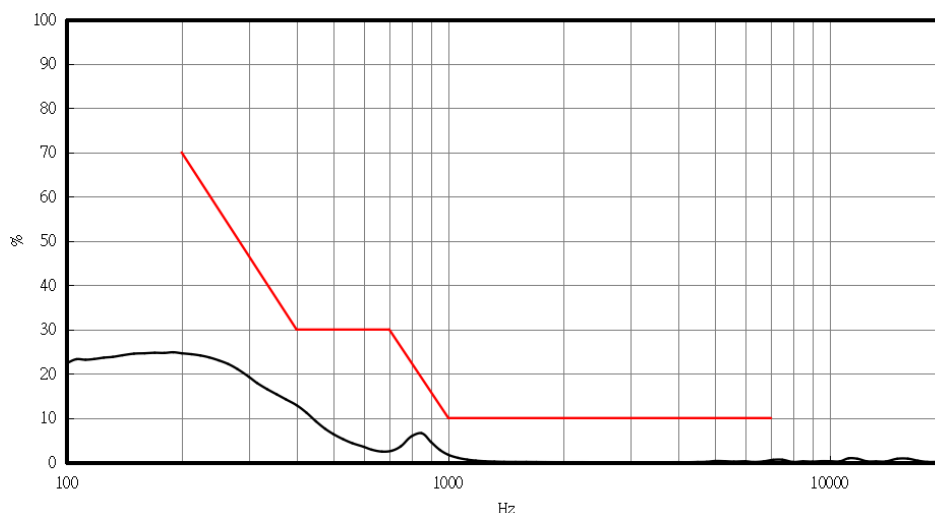
Type3.2 HL Ear,566Vrms



Frequency (Hz)	200	400	600	900	1000	1180	1400	1500	1800	2000	2500	3750	5000	7000
Upper limit (db)	101	112	112	116	116	119	125	130	130	124	115	113	107	88
Frequency (Hz)	200	400	600	900	1000	1350	1600	2000	2500	3500	5000	6000	7000	
Lower limit (db)	89	102	106	110	110	113	118	110	107	103	91	81	78	

10. STANDARD THD CURVE (FIGURE.4)

Type3.2 HL Ear,566Vrms

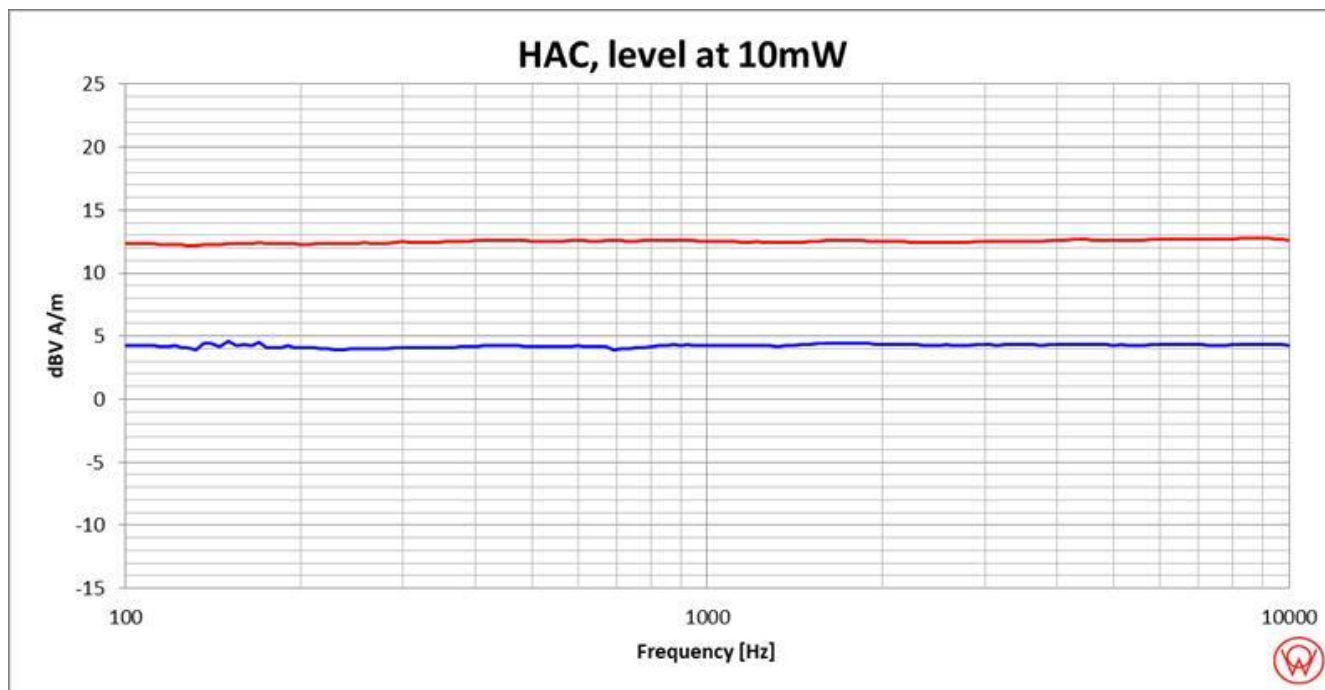


Hz	200	400	700	1000	7000
THD	70	30	30	10	10

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11.HAC Frequency Response(FIGURE.5)



Red is HAC level for A100 at 10mm, input 10mW 12.5 ± 1.5 dB A/m

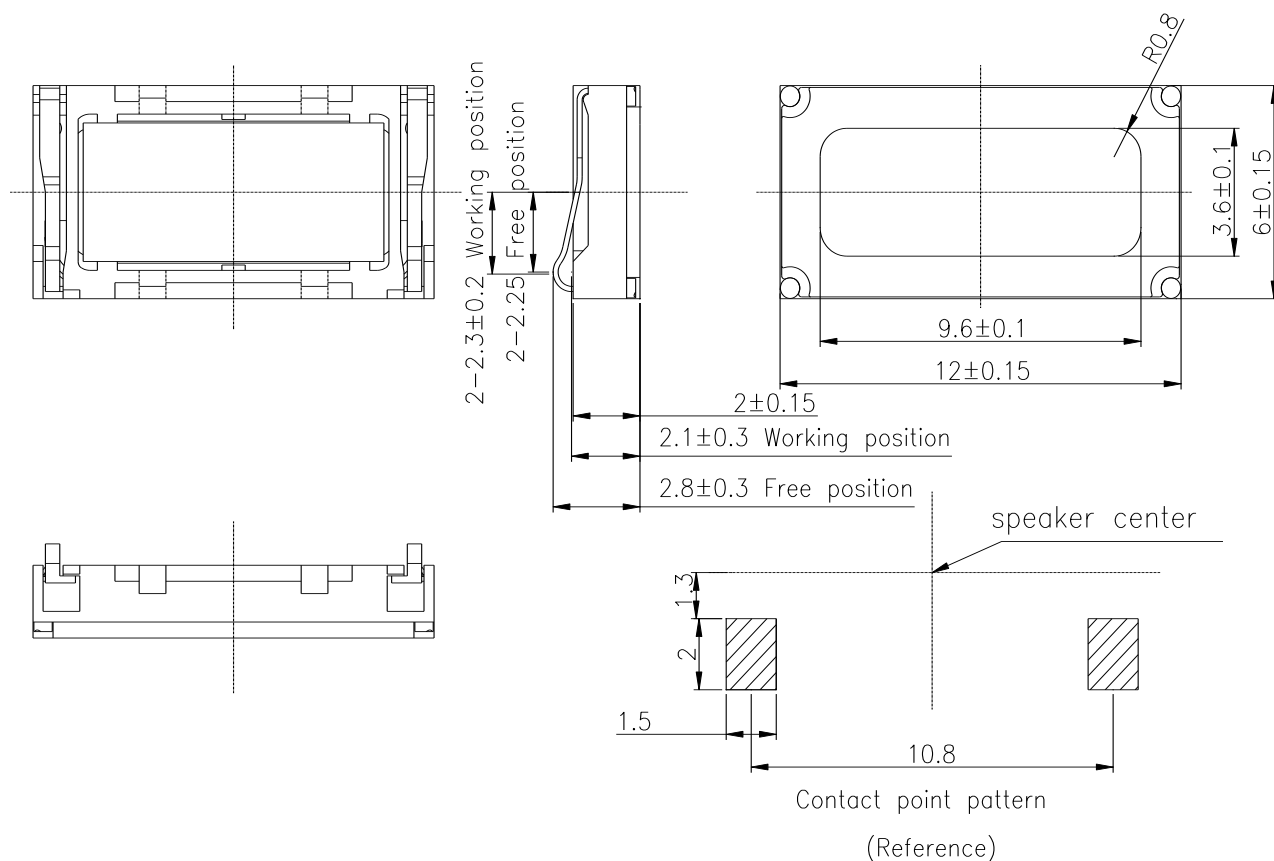
Blue is HAC level for R100 at 10mm, input 10mW 4.2 ± 1.5 dB A/m

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12.OUTVIEW (FIGURE.6)

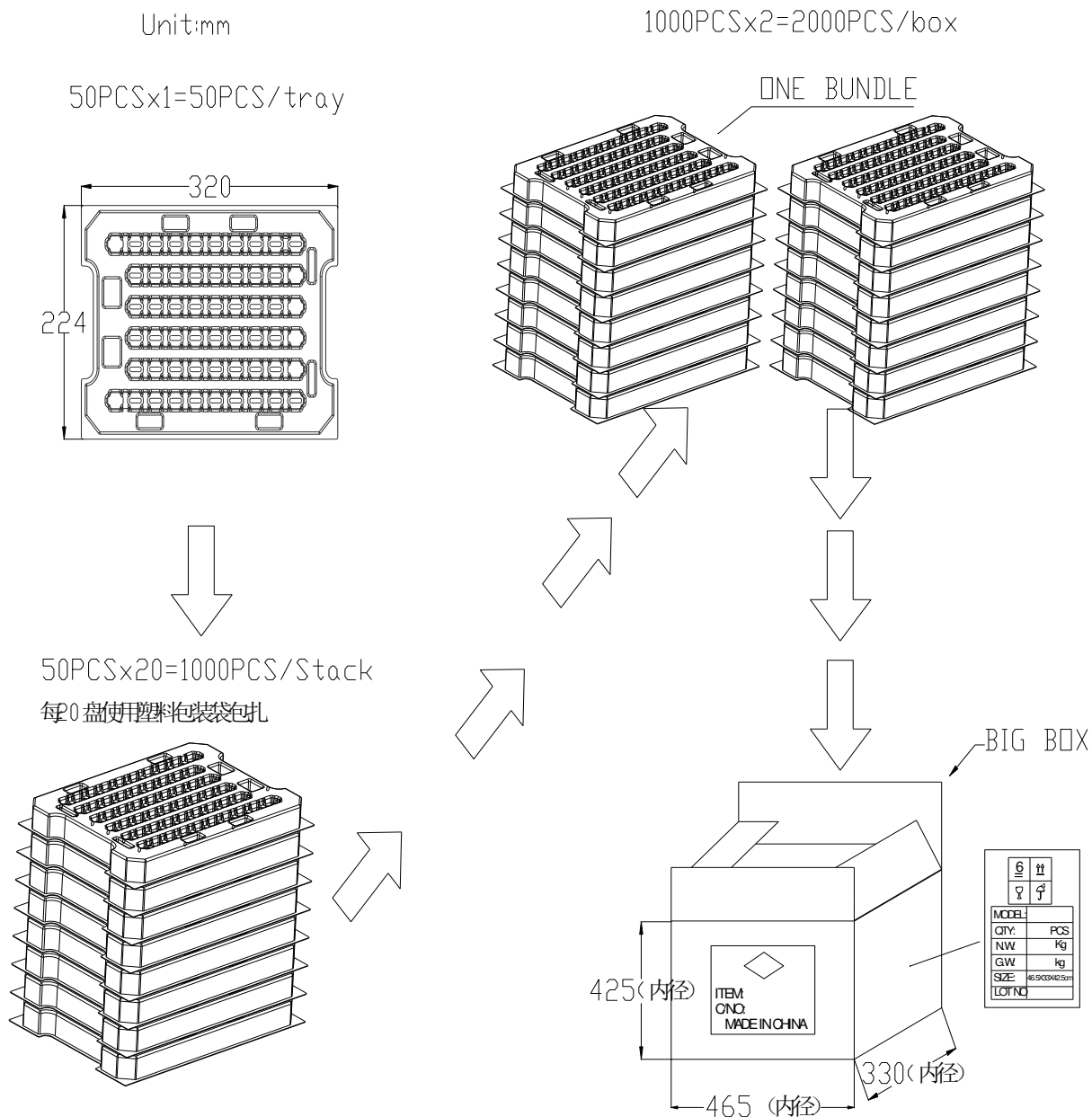
Unless otherwise specified,tolerance:±0.2(unit:mm)



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13.PACKING(Figure.8)



Unless otherwise specified,tolerance:±10(unit:mm)

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