IPX7 Lautsprecher ***LSF-S1506A-IPX7*** *Art.-Nr.: 106125*

Specification :

1. Product Outline	
1.1 Scope	This specification is a typical receiver unit for telephone handset
1.2 Dimensions	As shown in figure 1
1.3 Net Weight	Approx 0.5 grams
1.4 Operating Temperature Range	-30°C to +70°C without loss of function
1.5 Storage Temperature Range	-40°C to +85°C (Note: Return to ambient room temperature before using)
2. Electroacoustic Characteristics	
2.1 Impedance	32 ± 15% ohm (at 1 KHz，179mVrms input)
2.2 Sound Pressure Level	111± 3 dB SPL (at 1 KHz, 0dBSPL = 20 μ Pa) Input 179mVrms, with B&K artificial ear 4153
2.3 Bass Resonance Frequency	400±100 Hz in free air
2.4 Rated Frequency Range	300 Hz- 7.0 kHz
2.5 Frequency Response	See Figure 1, Table 1
2.6 Iput Power (Rated./Max.)	Rated Power: 10mW Maximum Power: 30mW
2.7 Rub and Buzz:	A sine sweep among rate frequency range at 800mVrms for a period of 1 second will not result in any buzzing or extraneous sound
2.8 THD	See Figure2 , Table 2

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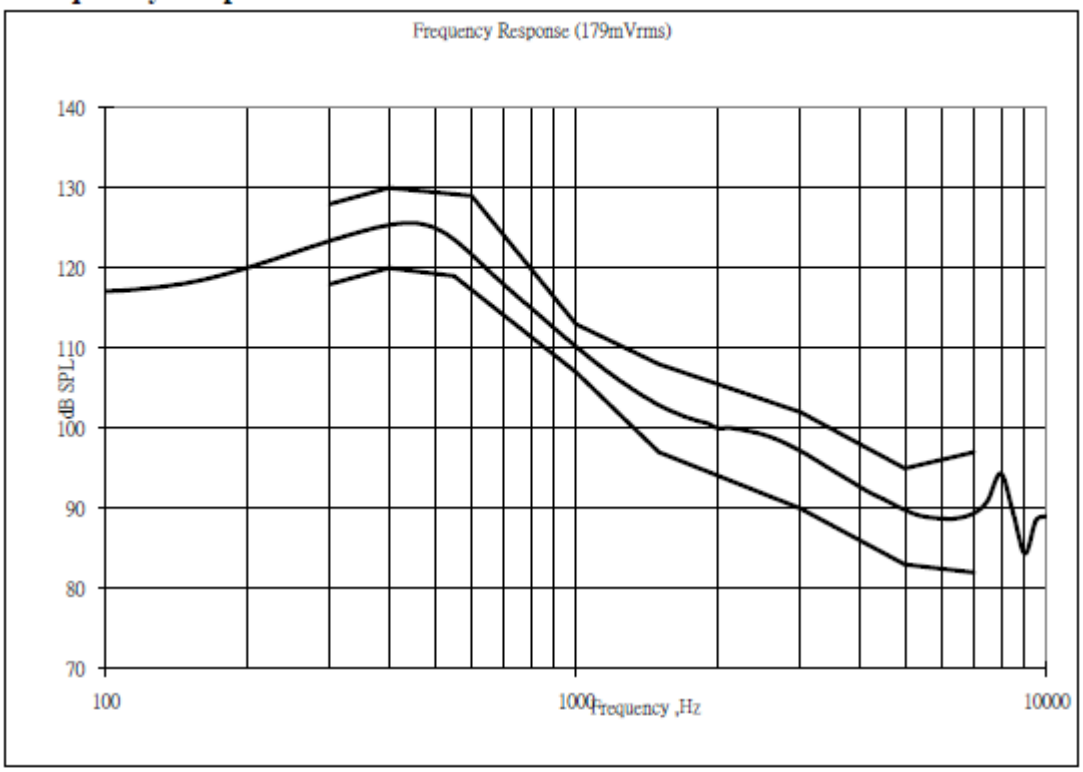
3. Frequency Response



(Figure 1)

Table 1:Tolerance Limits Date for FR

Frequency(Hz)	Upper Limits(dB)	Frequency(Hz)	Lower Limits(dB)
300	128	300	118
400	130	400	120
600	129	550	119
1000	113	1000	107
1500	108	1500	97
3000	102	3000	90
5000	95	5000	83
7000	97	7000	82

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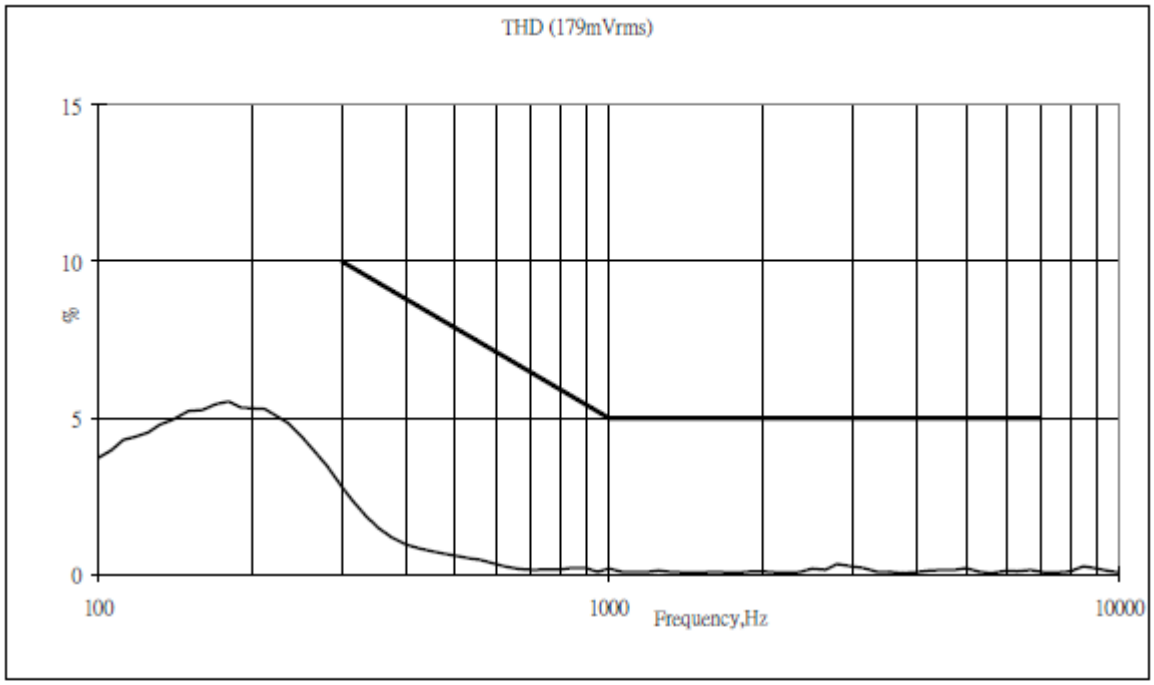
4. Total Harmonic Distortion



(Figure 2)

Table 2: Limits Date for THD

Frequency(Hz)	Limits
300	10
1000	5
7000	5

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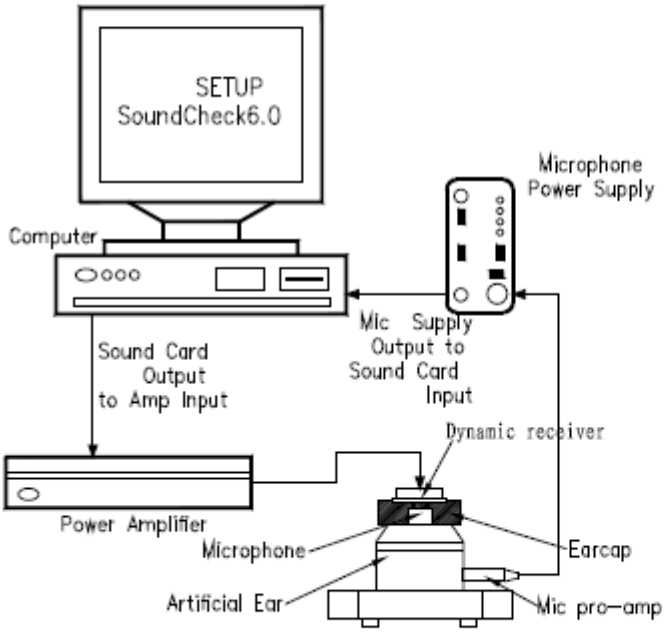
5.Test Method

5.1 Sensitivity and Frequency Response Curve:

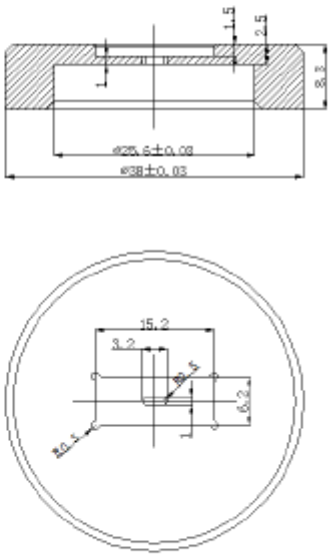
The receiver shall be mounted in a fixture shown in Figure 6 .and the recommended acoustic measuring devices are shown below in figure5. The swept sine-wave frequency range is 100-10kHz(input 179mVrms) .

5.2 T.H.D:

The receiver shall be mounted in a fixture shown in Figure 6 .and the recommended acoustic measuring devices are shown below in figure 5. The swept sine-wave frequency range is 100-10kHz(input 179mVrms).



(Figure 3)



(Figure 4)

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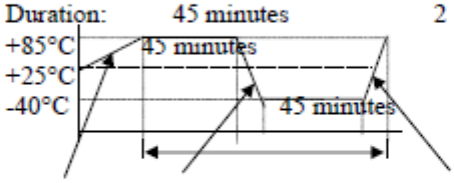
6. General Reliability	
6.1 General	After any following tests the response at 1 KHz shall not deviate more than ±3 dB from the initial value
6.2 Temperature Shock Test	Temperature: -40°±3°C ⟷ +85°±3°C Cycle: 12 cycles Duration: 45 minutes 2 hours (recovery 2 hours)  (30minutes) (5minutes) 1 cycle (5minutes)
6.3 Static Humidity Test	Temperature: +40°C±3°C Relative Humidity: 90%~95%RH Duration: 96 hours (recovery 6 hours)
6.4 Vibration Test	Secure device using a fixture appropriate for this test. Fixture shall be capable of mounting on vibration table. Vibrate from 10Hz to 2000Hz, 1 octave per minute,2mm displacement ±x, ±y, ±z directions with 15 g's force for 2 hrs per each plane.
6.5 Drop Test	Height: 1.5m Cycle: 1 cycles drop samples 1.5m 2 drops on side(2*6), 2 drops on each corner(2*4). Total 20 drops
6.6 Operating Life Test	25℃;Pink noise;20Hz-20kHz;10mW;Crest factor 1.8-2.2;96 H
6.7 Max Power Test	25℃;Pink noise; 20Hz-20kHz;30mW;1 sec on/60 sec off;60 cycles
6.8 High Temperature Test	85 +/-3℃;96H;2H Recovery time
6.9 Low Temperature Test	-40 +/-3℃;96H;2H Recovery time
6.10 Waterproof Requiremer	IPX-7 Test Condition:Depth of water： 1 Meters Time of duration： 30 Minutes
6.11 Air Leak Test Conditions	Air pressure 10KPa, Back side pressure 0.5Kg, Continuous time 7 Seconds, Less than 1 SCCM

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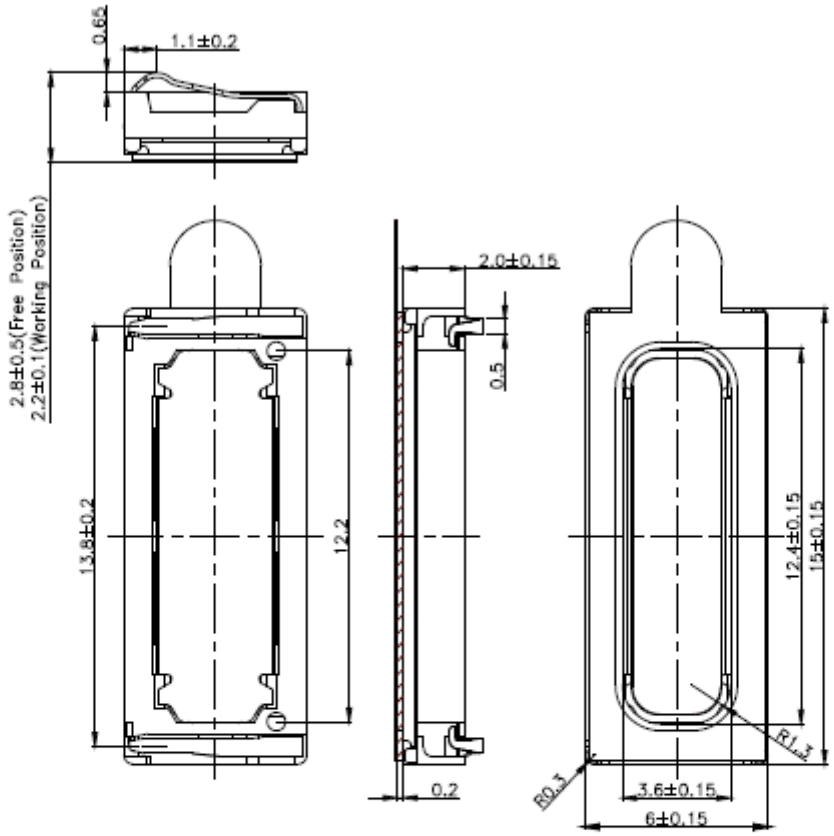
7. Mechanical Layout and Dimensions

7.1 Mechanical Layout



Notes:

1、General unless otherwise noted ±0.2mm.

(Figure 5)

No.	Part Name	Material	Q'TY	Remark
9	Gasket	14.6*5.6-12.8*4.0-0.25T	1	
8	Spring	Stainless Steel	2	
7	Cover	Brass	1	
6	Voice Coil	Copper	1	
5	Diaphragm	Polymer	1	
4	Pole Piece	Iron	1	
3	Magnet	NdFeB	1	
2	Yoke	Iron	1	
1	Frame	Plastic	1	

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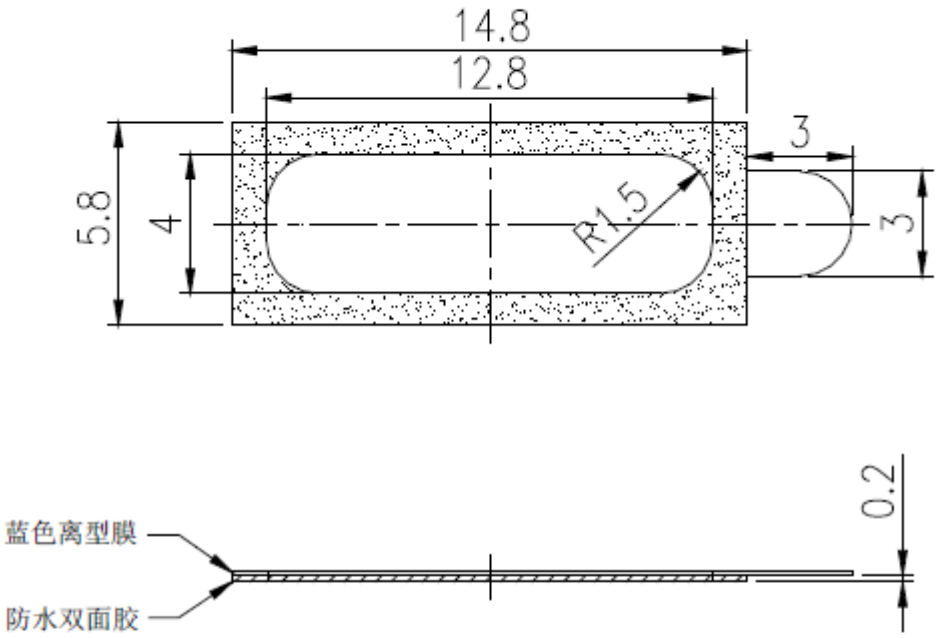
7.2 Dimensions Of Gasket



Notes:
1、Working position of gasket is 0.25mm
2、General unless otherwise noted ±0.2mm.

(Figure 6)

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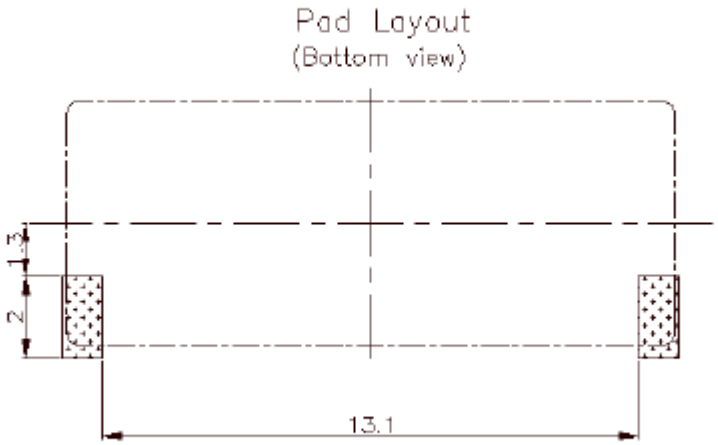
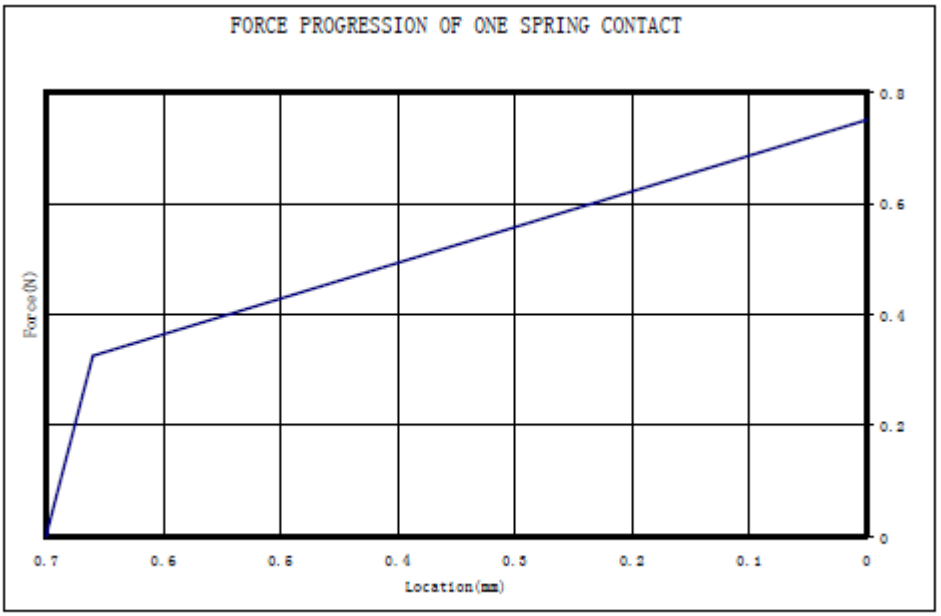
7.2 Pad Layout of Spring contact



(Figure 7)

7.3 Force Diagram



(Figure 8)

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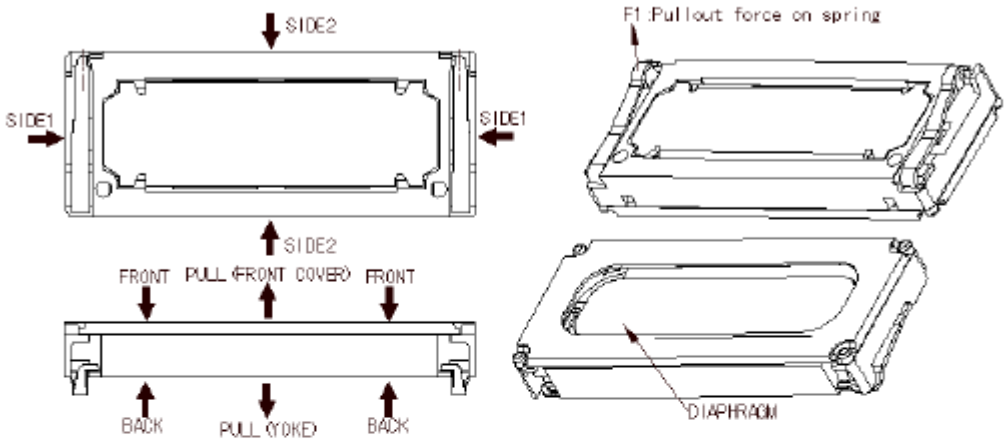
7.4 Permitted Force to Receiver



(Figure 9)

Table 3: Max. Permited compression forces

NO.	From	To	Max. Permanent Force(N)
1	Side 1	Side 1	10N
2	Side 2	Side 2	10N
3	Front	Back	5N
4	To Diaphragm		0N
5	Pull of Force(Cover/Yoke)		0N
6	F1		0N

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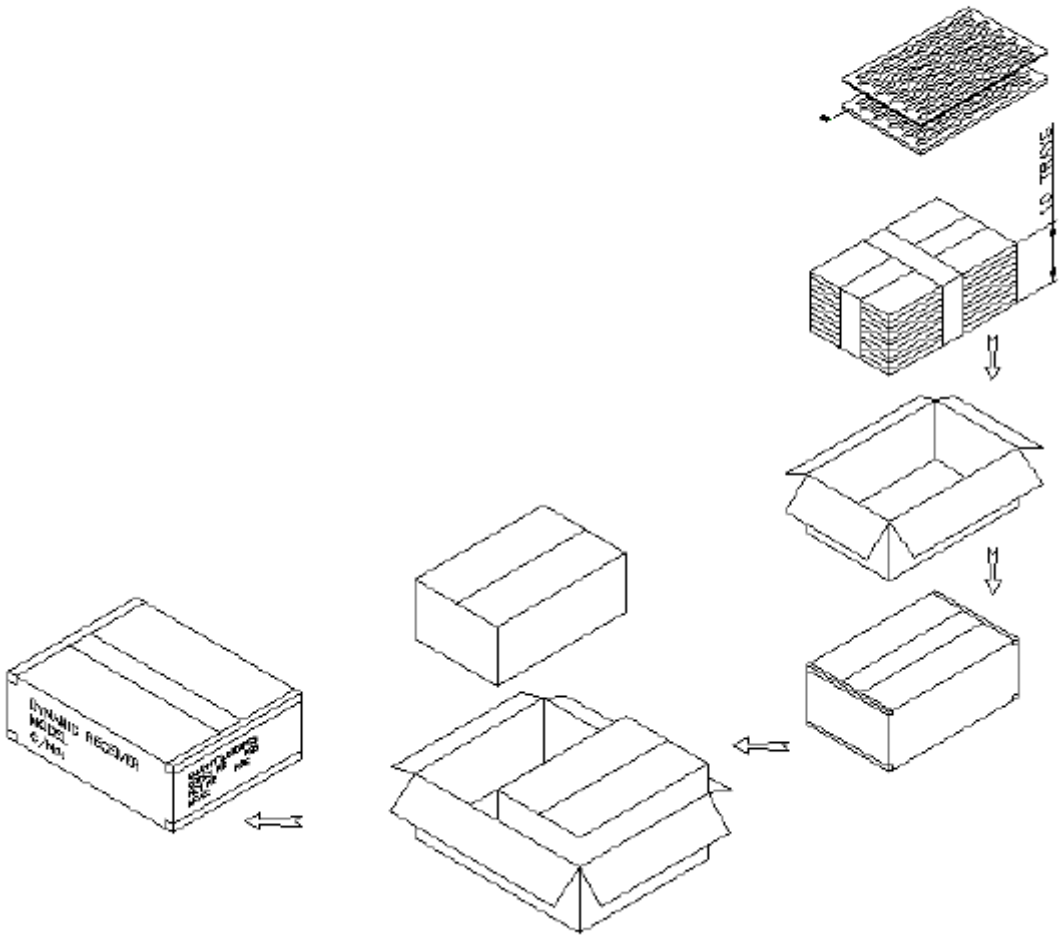
8. Package

1、100pcs of speaker in each tray
2、20 trays in one carton
3、Total:2000 pcs / 1 carton
4、Gross Weight:3.0KGS
5、Net Weight: 1.0KGS



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