

SPECIFICATION FOR APPROVAL

CUSTOMER	
PRODUCT	SPEAKER
MAKER'S NO.	SP-1813-2
ESTABLISH	08-01-24

DESIGN ENGINEER	ENG DIRECTOR	QA DIRECTOR	APPROVED

CUSTOMER CONFIRMATION

SIGNATURE : _____

DATE : _____

Soberton Inc.

211 N. First Street
Minneapolis, MN. 55401

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1 . SCOPE

This specification covers our product of dynamic speaker unit for mobile telephone use.

2 . MECHANICAL LAYOUT&DIMENSIONS:

Shown in page3/5

3 . GENERAL REQUIREMENTS :

3.1 OPERATING TEMPERATURE RANGE : -30 ~+70

3.2 STANDARD TEST CONDITIONS :

Temperature: 17 ~25

Relative Humidity: 45%~80%(RH)

3.3 JUDGEMENT CONDITIONS:

Temperature: 20±2

Relative Humidity: 60%~70%(RH)

4 . SPEAKER MODE:

4.1 SOUND PRESSURE LEVEL:

90±3dB spl @1.0,1.2,1.5,2.0KHz in average

Measuring condition :0.1W(Sine wave)0.1m measured with baffler shown in Fig.1.

4.2 IMPEDANCE: 8 ±5% /1KHz/1V

4.3 MEASURING DIAGRAM:Shown in Fig.1.

4.4 TYPICAL FREQUENCY RESPONSE CURVE: Shown in Fig.2.

4.5 RATED POWER:0.8W. MAX POWER:1.1W

4.6 RESONANCE FREQUENCY(F0):850±20% Hz/ 1V

4.7 DISTORTION:less than 10% at 1KHz,0.5W

4.8 WEIGHT: 2.1g

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5 . RELIABILITY TESTS :

The sound pressure as specified shall neither devide more than $\pm 3\text{dB}$ form the initial value,nor any significant damage after any of following testing.

5.1 HIGH TEMPERATURE TEST:

High temperature: $+70\pm 2$
Duration: 96 hours

5.2 LOW TEMPERATURE TEST:

Low temperature: -30 ± 2
Duration: 96 hour

5.3 HEAT SHOCK TEST :

High temperature: $+70\pm 2$
Low temperature: -30 ± 2
Changeover time: <30 seconds
Duration: 1 hours
Cycle: 100

5.4 HUMIDITY TEST:

Temperature: $+ 40\pm 2$
Relative Humidity: 90%~95%
Duration: 96 hour

5.5 TEMPERATURE CYCLE TEST:

Temperature: -30 +70
Duration: 45minutes 45minutes
Temperature gradient: 1~3 /min
Cycle: 25

5.6 DROP TEST:

Mounted with dummy set mass: 100 g
Height: 1.5 m
Cycle: 6(1 each plain)
Onto the concrete board

5.7 LOAD TEST:

Speaker mode:white noise(EIA filter)for 96 hour@0.5W input power.

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6.MEASURING METHOD(SPEAKER MODE)

6-1 .Test Condition

STANDARD

Temperature : 15 ~ 35

Relative humidity : 45% ~ 85%,

Atmospheric pressure : 860mbar to 1060mbar.

JUDGEMENT

Temperature : 20 ±

Relative humidity : 60% ~ 70%,

Atmospheric pressure : 860mbar to 1060mbar

6-2 . Standard Test Fixture

1.Input Power : 0.1W(0.89V)

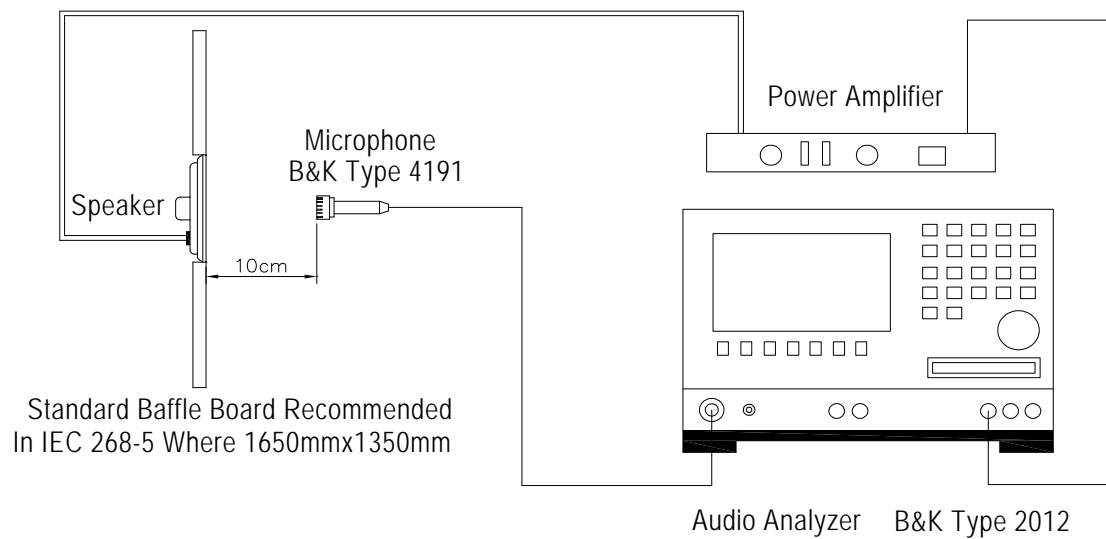
2.Zero Level : -dB

3.Mode : TSR

4.potentiometer Range : 50dB

5.Sweep Time : 0.5sec

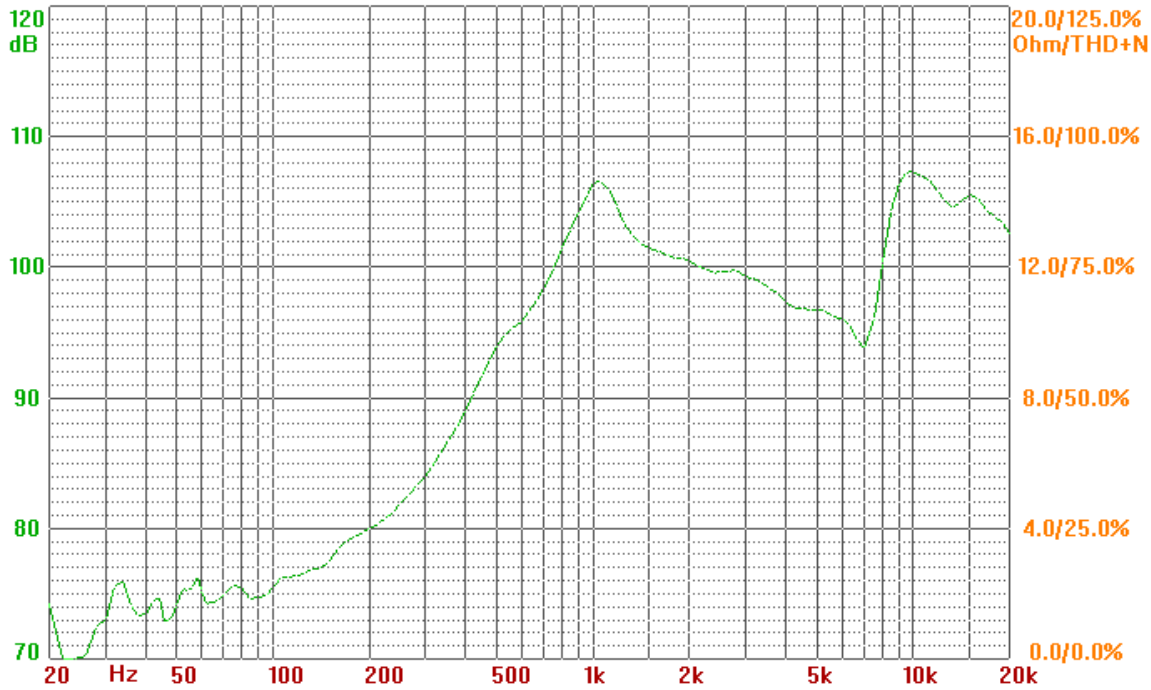
Standard test condition of speaker



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7.FREQUENCY RESPONSE CURVE

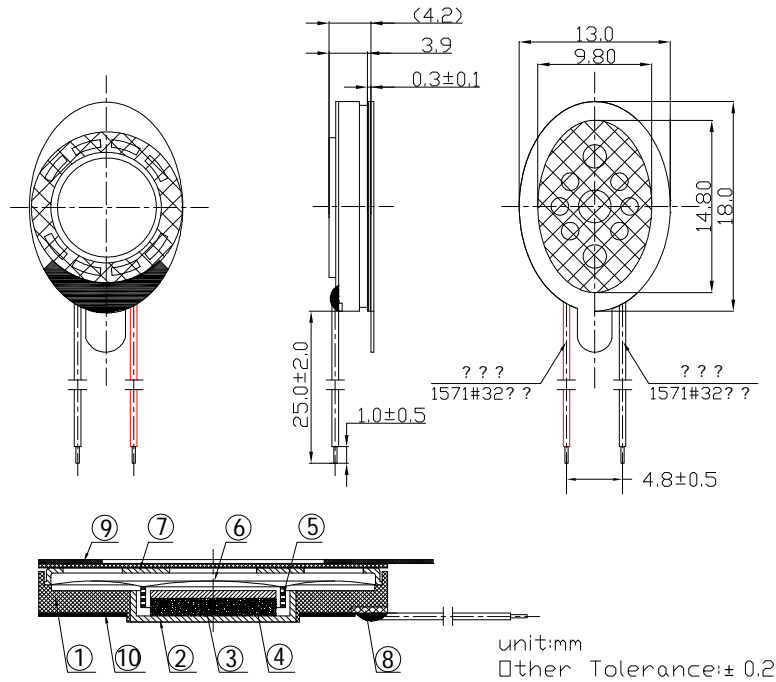


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8.DIMENSIONS

Unless otherwise specified,tolerance: ± 0.3 (unit:mm)



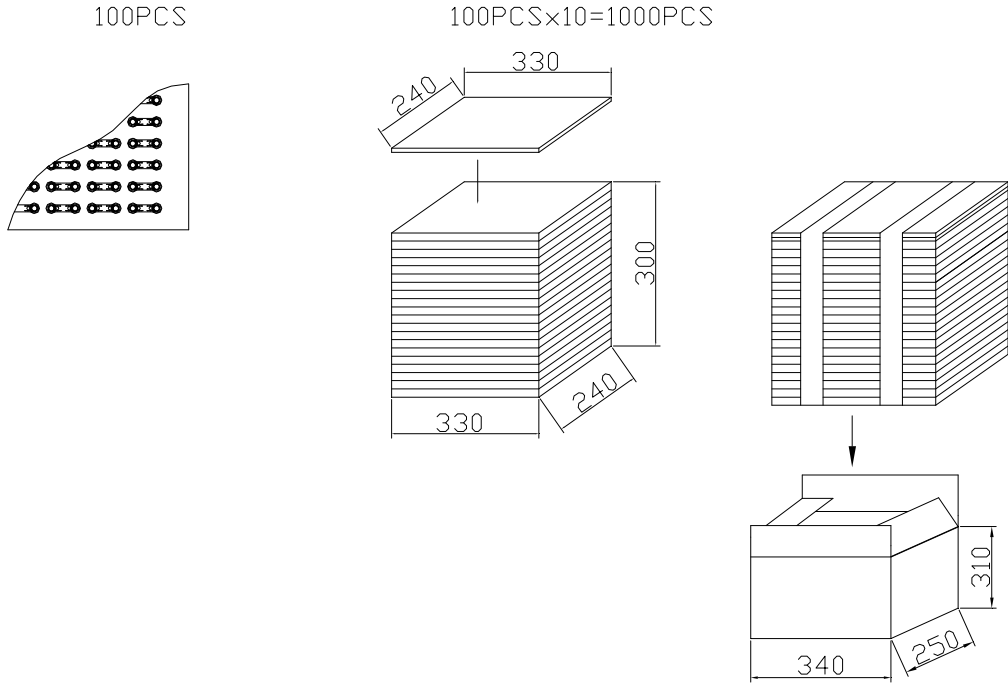
NO.	PART NAME	MATERIAL	Q'TY	TREATMENT	REMARK
11	LEAD WIRE	UL1571 AWG#32	2		RED/BLAC K
10	DAMPER		1		
9	ADHESIVE TAPE	17.5X 12.5XH0.3mm (PORON)	1		
8	TERMINAL BASE	d 0.3mm (FI4)	1		
7	COVER	d 0.15 mm SUS	1		
6	DIAPHRAGM	17.15 X 12.15 X 25 μ (PEN)	1		
5	VOICE COIL	Ø6.55 mm Copper	1		
4	POLE PIECE	Ø6.1 X 0.4mm (SPCC)	1		
3	MAGNET	N40 (Nd-Fe-B)	1		
2	U YOKE	Ø7.1X1.9mm (SPCC)	1		
1	FRAME	18 X 13 X 3.75mm (PBT)	1		

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9.PACKING



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