

MODEL: SP-2005S
PRODUCT: Dynamic Speaker
EDITION: B/2017

THIS SPECIFICATION COVERS OUR PRODUCT OF DYNAMIC SPEAKER UNIT FOR MOBILE PHONE USE

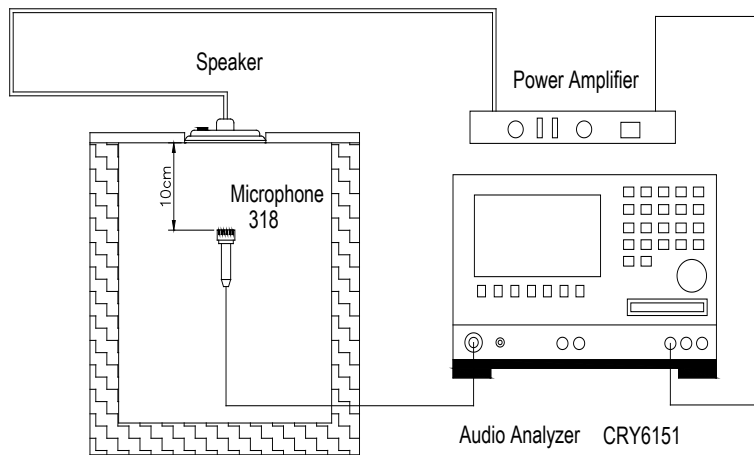
DYNAMIC SPEAKER ELECTROACOUSTIC CHARACTERISTICS

sound pressure level	91±3dB (0.1W/0.1M) @AVE 0.8KHz,1.0KHz,1.5KHz, 2.0KHz (0dB SPL=20μPa)
measuring condition	1W (Sine wave) 10cm measured with baffler shown in Fig.1
ac impedance	8±15%Ω (@ 2 KHz 1V) without baffler
frequency response curve	As shown in Fig.2
resonance frequency	750±20% Hz @1.0V (without Baffler)
rated noise power	0.8W
short-term max. power	1.0W must be at a white noise (F0~20KHz) for one minute
frequency range	F0~ 20KHz
test set up	Measuring conditions and procedures shown in Fig.1
AC impedance	8Ω±15%
distortion	Less Than 10% @1KHz, 10cm, 0.1W
buzz, rattle,etc	Not audible from 300Hz to 8KHz with 2.53V sine wave input
dimension	ø 20.0x7.7mm

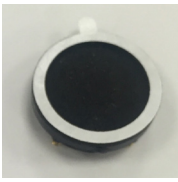
GENERAL SPECIFICATIONS

operating temperature range	-20°C ~ +60°C
storage temperature range	-25°C ~ +65°C
standard test conditions	
temperature	17°C ~ 25°C
relative humidity	45% ~ 80%(RH)

MEASURING METHOD (SPEAKER MODE) (Figure 1)



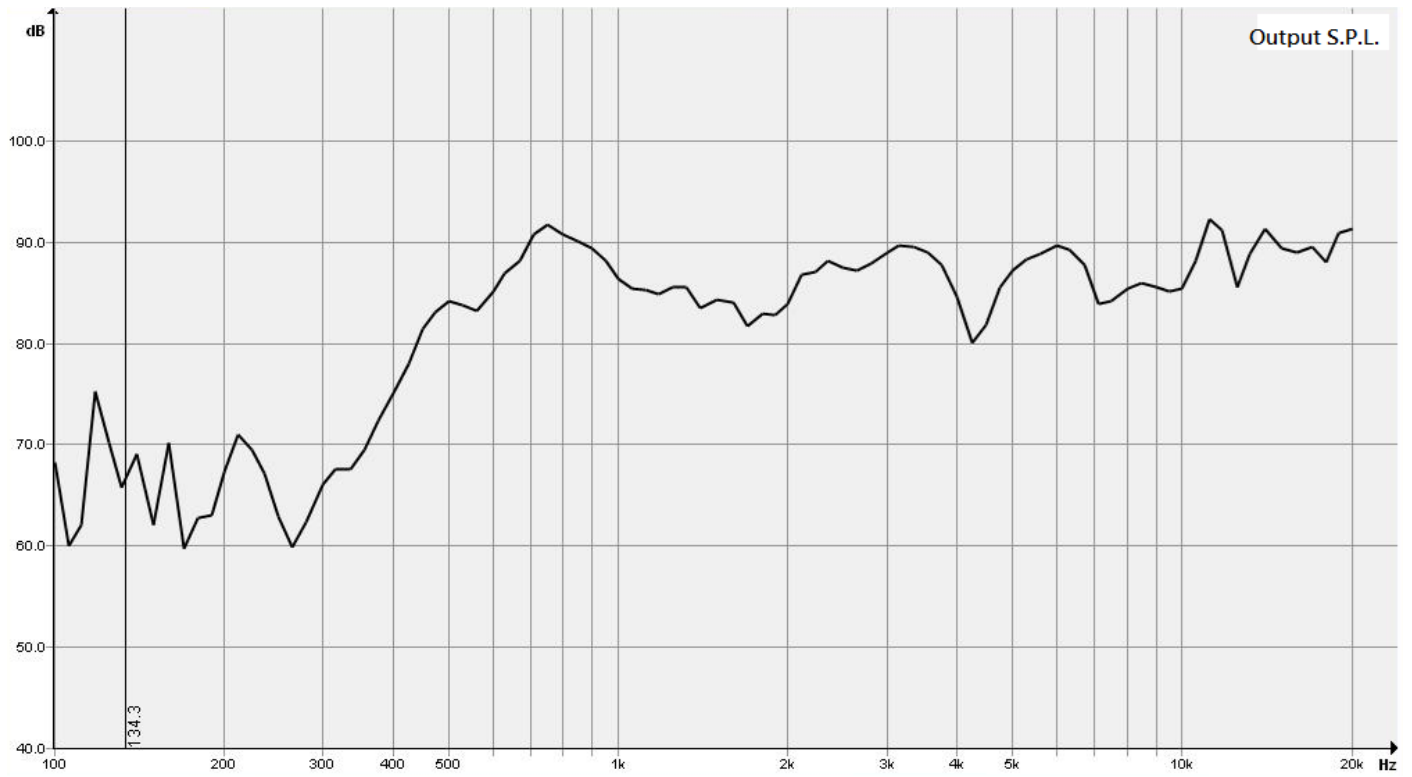
TEST CONDITION	
STANDARD	
temperature	15 ~ 35°C
relative humidity	45% ~ 85%
atmospheric pressure	860mbar to 1060mbar.
STANDARD TEST FIXTURE	
input power	0.1W (0.89V)
zero level	-dB
mode	TSR
potentiometer range	50dB
sweep time	0.5sec

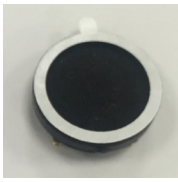


MODEL: SP-2005S
PRODUCT: Dynamic Speaker
EDITION: B/2017

Soberton Inc.

TYPICAL FREQUENCY RESPONSE CURVE (Figure 2)





MODEL: SP-2005S
PRODUCT: Dynamic Speaker
EDITION: B/2017

RELIABILITY TESTS

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

HIGH TEMPERATURE TEST

high temperature	+60 °C $\pm 2^\circ\text{C}$
duration	96 hours

LOW TEMPERATURE TEST

low temperature	-20 °C $\pm 2^\circ\text{C}$
duration	96 hours

HEAT SHOCK TEST

high temperature	+60 °C $\pm 2^\circ\text{C}$
low temperature	-20 °C $\pm 2^\circ\text{C}$
duration	1 hour
changeover time	< 30 seconds
cycle	100

HUMIDITY TEST

temperature	+40 °C $\pm 2^\circ\text{C}$
relative humidity	90~95%
duration	96 hours

TEMPERATURE CYCLE TEST

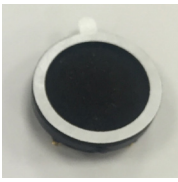
temperature	-20°C	+65°C
duration	45 minutes	45 minutes
temperature gradient	1~3°C/min.	
cycle	25	

DROP TEST

mounted with dummy set mass	100 g
height	1.5 m
cycle	6 (1 each plain) onto the concrete board

LOAD TEST

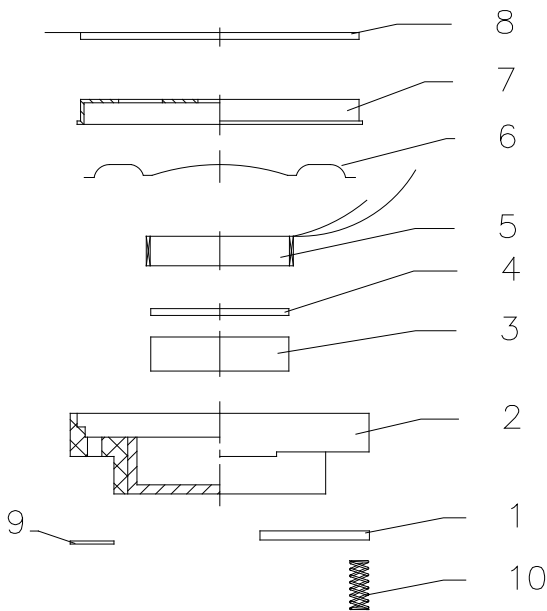
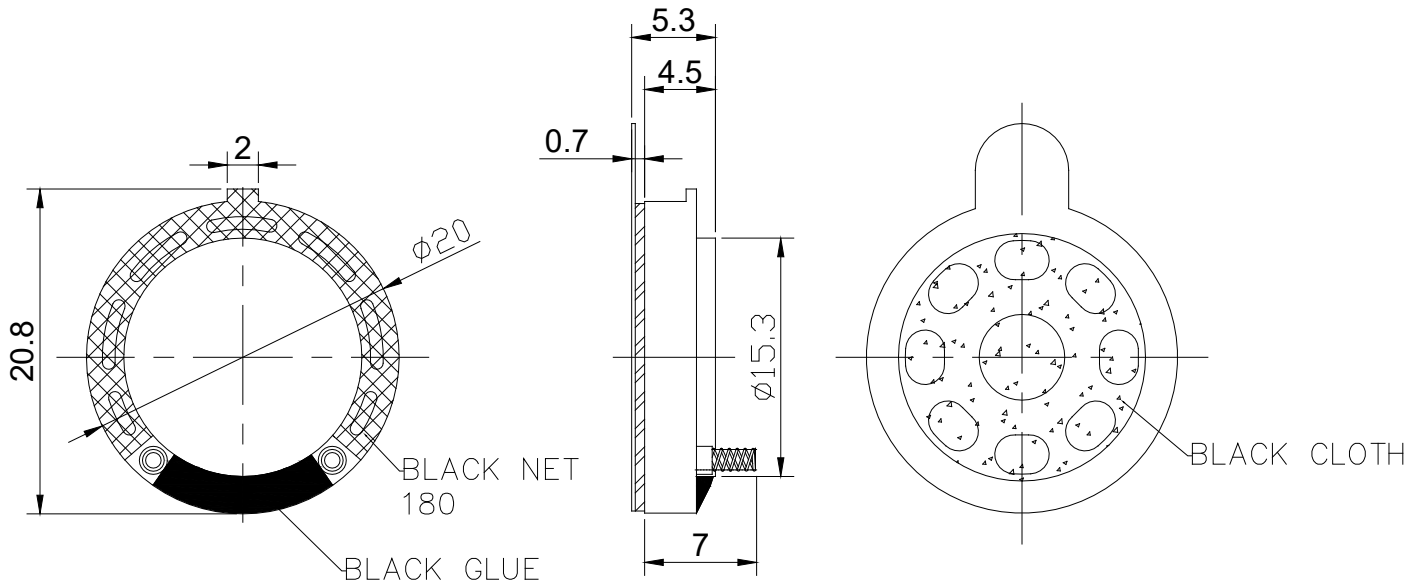
noise signal	White noise (EIA filter)
input power	0.8W
duration	96 hours



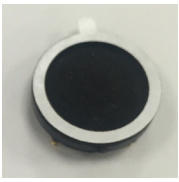
MODEL: SP-2005S
PRODUCT: Dynamic Speaker
EDITION: B/2017

DIMENSIONS

Tolerance: ±0.5 (unit: mm)



no	item	material	quantity
1	PCB	FR-4	1
2	Frame	PBT	1
3	Main Magnet	Nd Fe B	1
4	Plate	SPCC	1
5	Voice Coil	Copper	1
6	Membrane	PEN	1
7	Cap	SUS304	1
8	Screen Gasket	Black Cloth	1
9	Silk Screen	Black Cloth	1
10	Spring	Bronze	2



MODEL: SP-2005S
PRODUCT: Dynamic Speaker
EDITION: B/2017

Soberton Inc.

PACKING

50 pcs per tray
20 trays for unit
2 unit per carton
Total:2000 pcs per box
Size:500×350×330mm

