MODEL: SP-1609S-2
PRODUCT: Dynamic Speaker
EDITION: A/2016

Soberton Inc.

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

SPEAKER ELECTROACOUSTIC CHARACTERISTICS

sound pressure level	82±3dB SPL @0.6,0.8 ,1.0,1.5and2.0KHz in average (0dB SPL=20μPa)
measuring condition	0.5W (Sine wave) 10cm in 1cc closed box measured with baffler shown in Fig.1.
frequency response curve	As shown in fig(3)
response frequency	670±20%Hz @ 1V in free air 900±20%Hz @ 1V in 1cc closed box
rated noise power	0.5W (in 1cc closed box)
short term max. power	0.8W (in 1cc closed box)
operation test	Must be free of audible noise (buzzes and rattles) (300 ~ 5KHz frequency range ,input level up to 2.0Vrms in 1cc box)
distortion	Less than 10% @1KHz,0.1M,0.1W frequency range ,input level up to 0.1W

GENERAL SPECIFICATIONS

operating temperature range	-20°C ~+60°C	
standard test conditions		
	temperature	17°C ~25°C
	relative humidity	45%~80%(RH)
ac impedance	8Ω ±15%(@2KHz 1V) without baffler	
dimension	16 x 9 x 4.5 mm	

RELIABILITY TESTS

The sound pressure as specified shall neither deviate more than ±3dB form the initial value, nor have any significant damage after any of following testing.

HIGH TEMPERATURE TEST	
high temperature	+60±2°C
duration	96 hours
LOW TEMPERATURE TEST	
low temperature	-20±2°C
duration	96 hours
HEAT SHOCK TEST	
high temperature	+60±2°C
low temperature	-20±2°C
changeover time	<30 seconds
duration	1 hour
cycle	100

RELIABILITY TESTS (Continued)

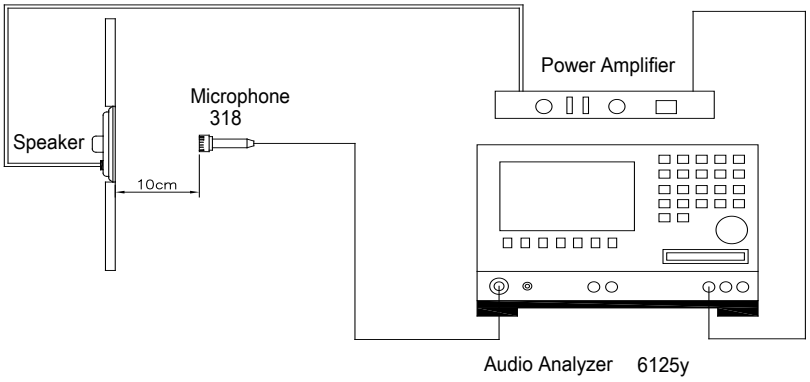
HUMIDITY TEST	
temperature	+ 40±2°C
relative humidity	90%~95%
duration	96 hours
TEMPERATURE CYCLE TEST	
temperature	-20°C +60°C
duration	45minutes 45minutes
temperature gradient	1~3°C/min
cycle	25
DROP TEST	
mounted with dummy set mass	100 g
height	1.5 m
cycle	6(1 each plain) Onto the concrete board
LOAD TEST	
Speaker mode	white noise(EIA filter)for 1 hour@0.5W(in 1CC box) input power

MEASURING METHOD (SPEAKER MODE)

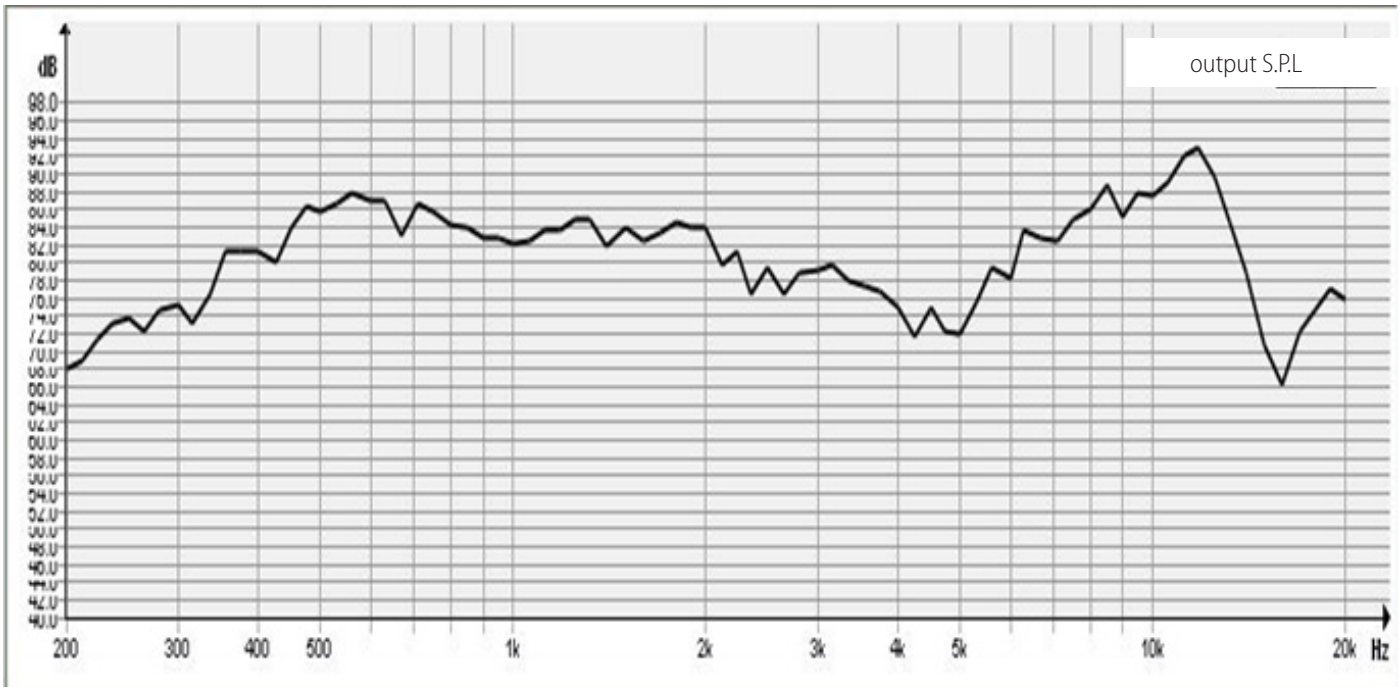
TEST CONDITION	
STANDARD	
temperature	15 ~ 35°C
relative humidity	45% ~ 85%
atmospheric pressure	860mbar to 1060mbar
STANDARD TEST FIXTURE	
input power	0.1W(0.89V)
zero level	-dB
mode	TSR
potentiometer range	50dB
sweep time	0.5sec

(Fig. 1)

Standard test condition of speaker



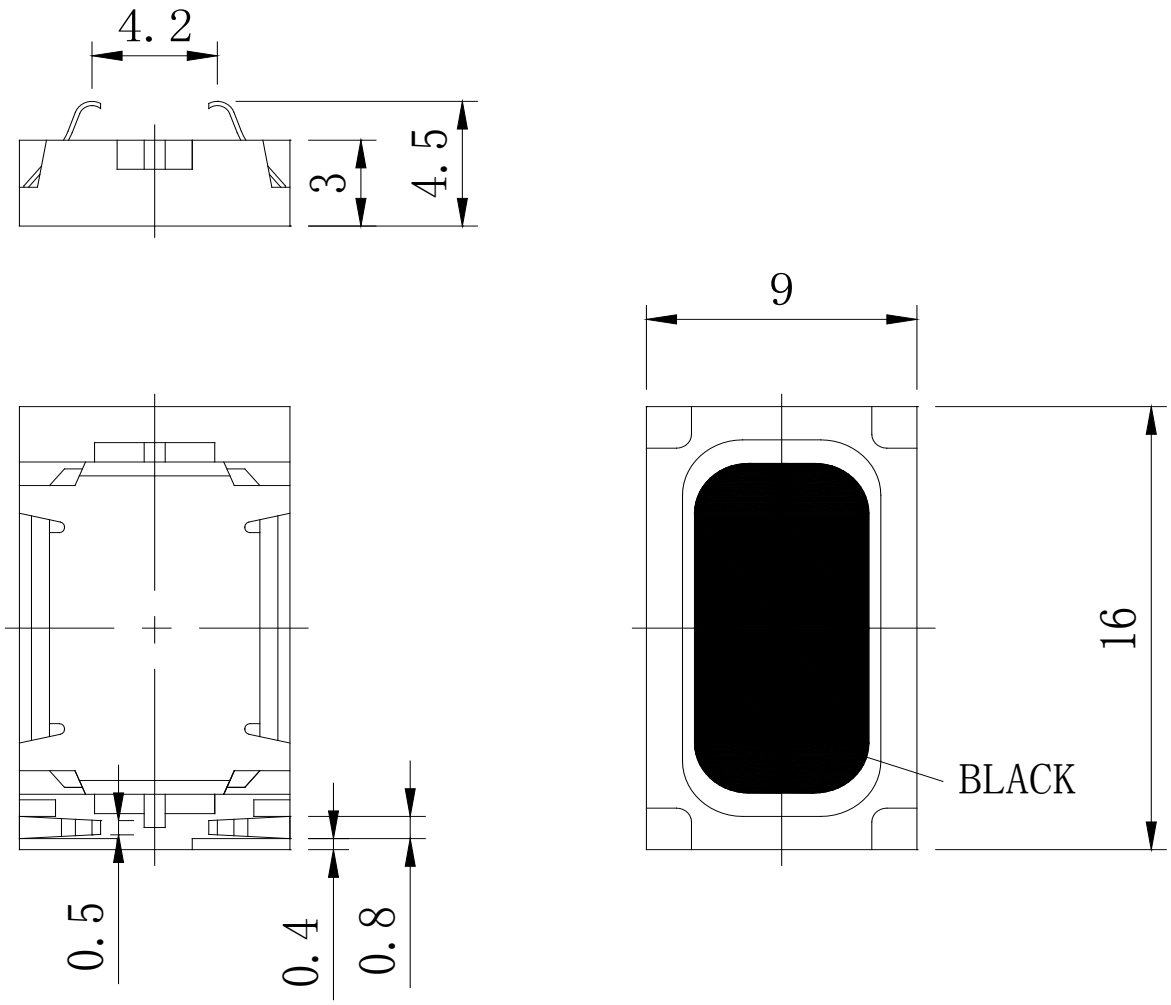
FREQUENCY RESPONSE CURVE (Fig. 2)



32 Ω dynamic speaker test

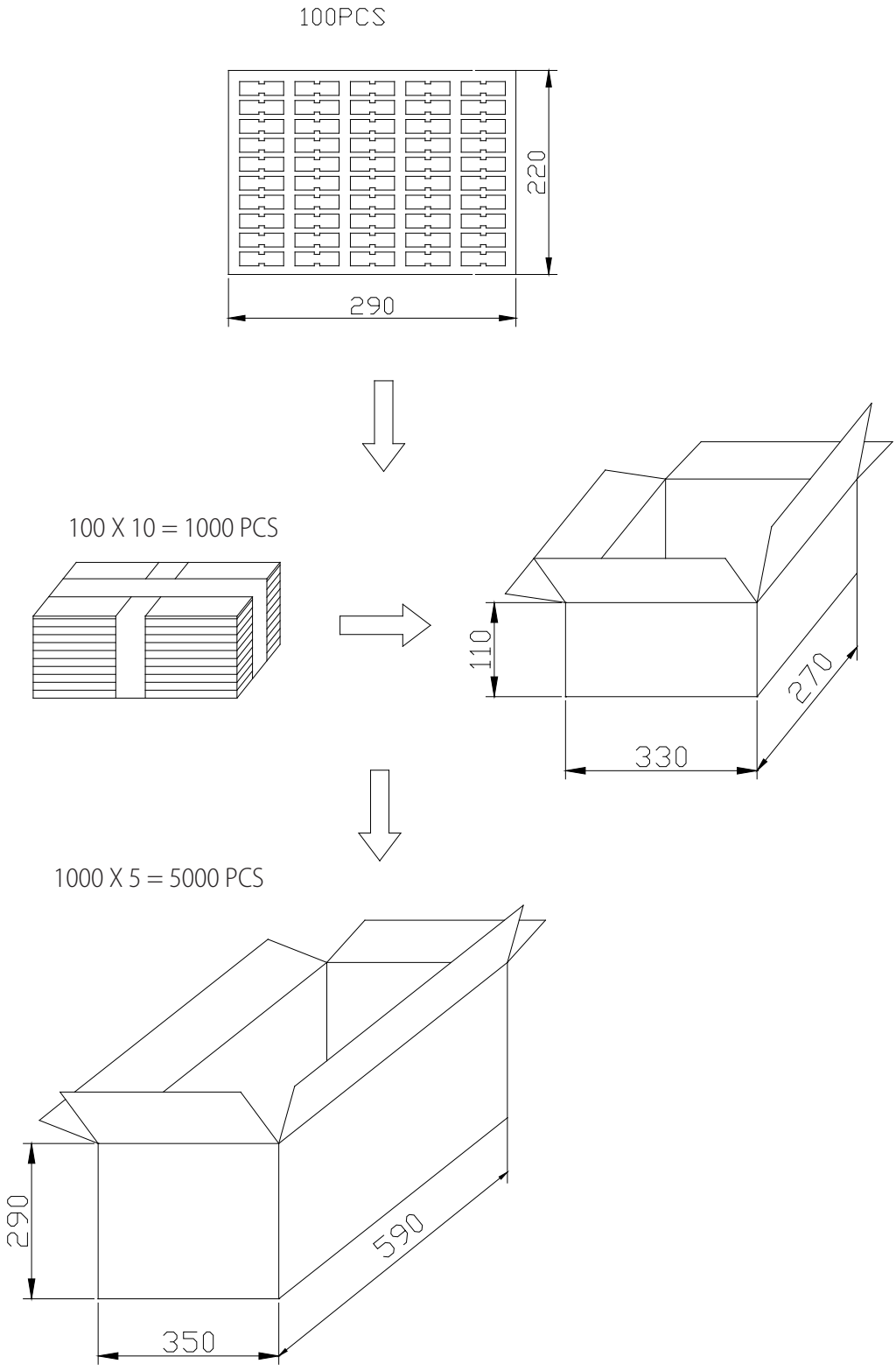
DIMENSIONS

Tolerance: ±0.5 (unit: mm)



no.	part name	material	quantity
1	Cap	Scotch ABS	1
2	Diaphragm	PEEK	1
3	Magnet	Nd Fe B 9.15*5*1	1
4	Plate3	SPCC 9.2*5.1*0.4	1
5	Voice Coil	POLYURETHANEENAMELLED	1
6	Frame	BLACK PBT	1

PACKING


100PCS
220
290
100 X 10 = 1000 PCS
110
270
330
1000 X 5 = 5000 PCS
290
590
350