



**MODEL:** SP-1508  
**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     | 85±3dB SPL @0.7,0.8 ,1.0,1.5and2.0KHz in average (0dB SPL=20μPa)                                                         |
| measuring condition      | 0.1W (Sine wave) 10cm measured with baffler shown in Fig.1                                                               |
| frequency response curve | As shown in Fig. 2                                                                                                       |
| response frequency       | 700±20%Hz @ 1V in free air<br>900±20%Hz @ 1V in 1cc box                                                                  |
| rated noise power        | 0.5W (in 1cc box)                                                                                                        |
| short term max. power    | 0.7W (in 1cc box)                                                                                                        |
| operation test           | Must be free of audible noise (buzzes and rattles)<br>(300 ~ 5KHz frequency range, input level up to 2.0Vrms in 1cc box) |
| distortion               | Less than 10% @1KHz,0.1M,0.5W frequency range ,input level up to 0.5W)                                                   |
| ac impedance             | 7±15%Ω(@1.5KHz 1V) without baffler                                                                                       |

### GENERAL SPECIFICATIONS

|                             |                   |             |
|-----------------------------|-------------------|-------------|
| operating temperature range | -20°C ~+60°C      |             |
| standard test conditions    | temperature       | temperature |
|                             | relative humidity | 45%~80%(RH) |
| dimension                   | 15 x 8 x 2.6 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         |



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**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)**

**STANDARD**

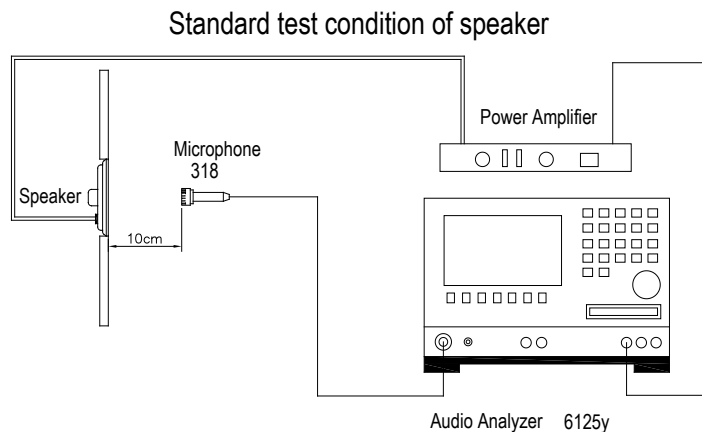
**TEST CONDITION**

|                      |                     |
|----------------------|---------------------|
| 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      |

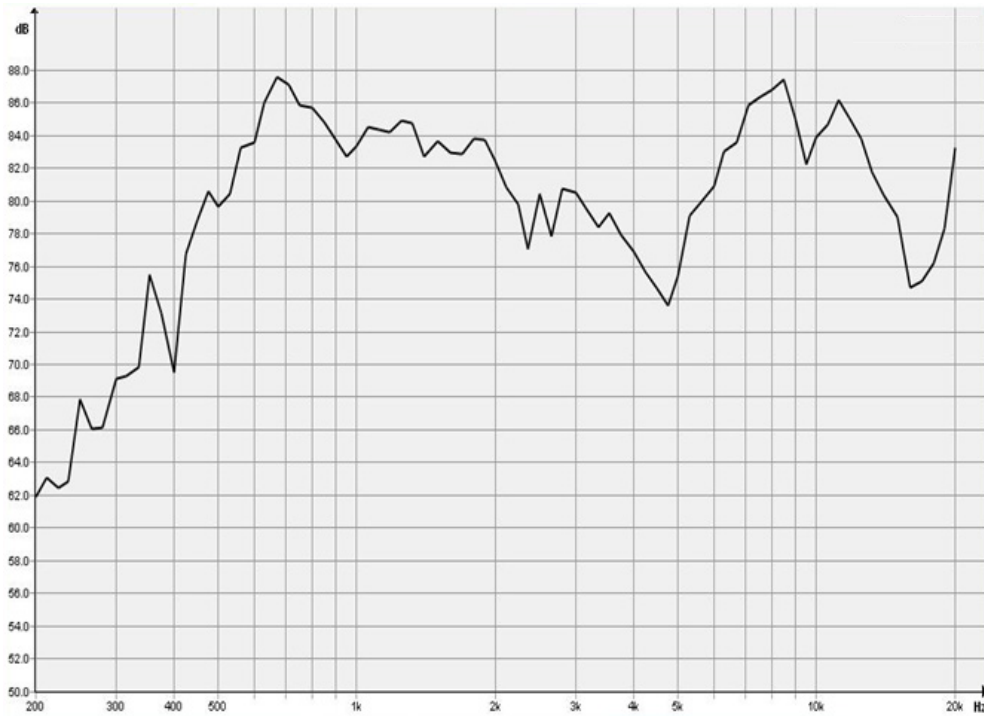
(Fig. 1)





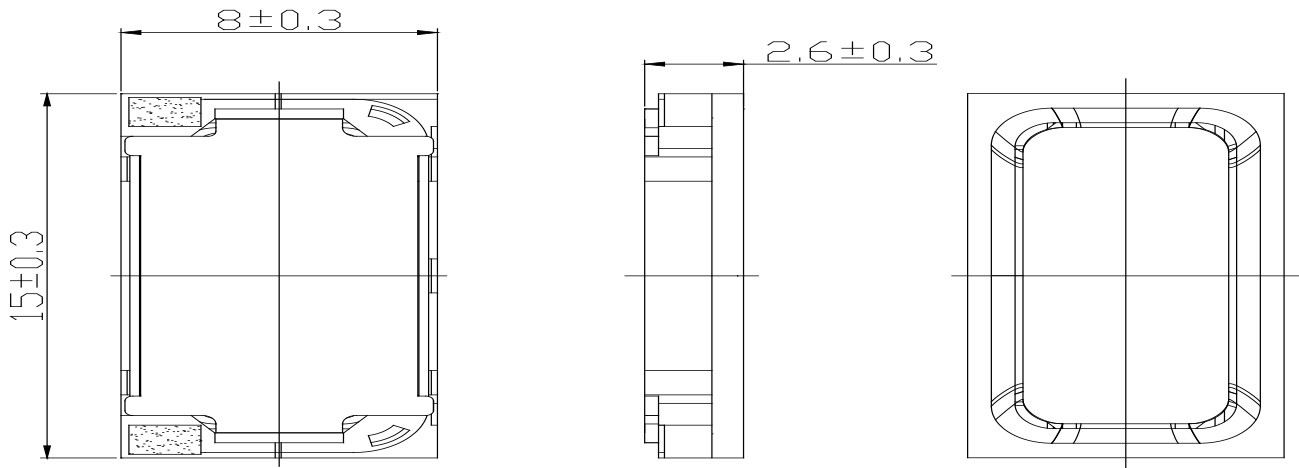
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**FREQUENCY RESPONSE CURVE** (Fig. 2)



**DIMENSIONS**

Tolerance:±0.5 (unit: mm)



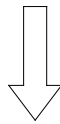
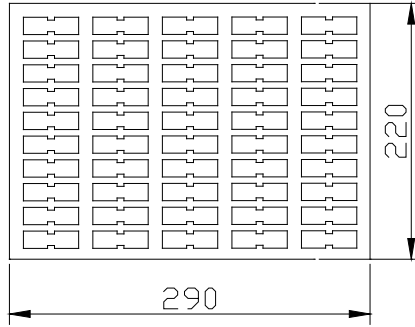
| no. | part name  | material                                   | quantity |
|-----|------------|--------------------------------------------|----------|
| 1   | Cap        | Scotch ABS                                 | 1        |
| 2   | Diaphragm  | PEEK                                       | 1        |
| 3   | Magnet     | Nd Fe B10.6*6.6*1.0                        | 1        |
| 4   | Plate3     | SPCC10.65*6.65*0.4                         | 1        |
| 5   | Voice Coil | POLYURETHANEENAMELLED WIRE 10.95*6.95*1.05 | 1        |
| 6   | Frame      | BLACK PBT                                  | 1        |
| 7   | Gasket     |                                            | 1        |



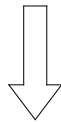
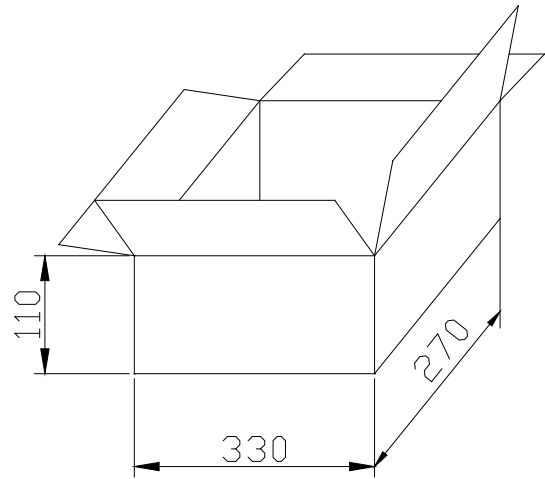
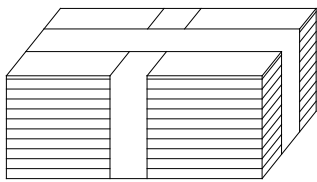
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**PACKING**

100PCS



100 X 10 = 1000 PCS



1000 X 5 = 5000 PCS

