

SPECIFICATION FOR APPROVAL

Customer :

Description : Micro Speaker

Soberton Part No. : SP-1304

Date : 2012-07-31

Customer Model No. :

Date of Approval	
Authorization Signature	

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Approved	Checked	Design
Ryan 2012/07/31	Andy 2012/07/31	Gary 2012/07/31

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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 : -20°C~+55°C

3.2 STANDARD TEST CONDITIONS :

Temperature: 17°C~25°C

Relative Humidity: 45%~80%(RH)

3.3 JUDGEMENT CONDITIONS:

Temperature: 20±2°C

Relative Humidity: 60%~70%(RH)

4 • ELECTROACOUSTIC CHARACTERISTICS

4.1.1 TEST SET UP : Measuring conditions and procedures shown in fig(2)

4.1.2 IMPEDANCE : 8±15%Ω(@2KHz 1V) without baffler.

4.1.3 DC RESISTANCE : 7.4±10%Ω

4.1.4 SOUND PRESSURE LEVEL

82±3dB SPL @1.0.1.2,1.5and2.0KHz in average (0dB SPL=20μPa)

Measuring condition: 0.1W (Sine wave) 10cm measured with baffler shown in Fig.1.

4.1.5 FREQUENCYRESPONSE CURVE : As shown in fig(3)

4.1.6 RESPONSE FREQUENCY: 1300±20%Hz @ 1V. (Without Baffler)

4.1.7 INPUT POWER (NOM./MAX.) :

0.5W /0.8W must be normal at a white noise (1W,F₀-20KHz) for one minute

4.1.8 AUDIBLE NOISE :

Must be free audible noise (buzzes and rattles)(300 ~ 8KHz frequency range ,input level up to 2.0Vrms)

4.1.9 DISTORTION: Less than 10% @1KHz,0.1M,0.8W

frequency range ,input level up to 2.53Vrms)

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5. RELIABILITY TESTS :

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

5.1 HIGH TEMPERATURE TEST:

High temperature: $+70\pm 2^{\circ}\text{C}$
Duration: 96 hours

5.2 LOW TEMPERATURE TEST:

Low temperature: $-40\pm 2^{\circ}\text{C}$
Duration: 96 hour

5.3 HEAT SHOCK TEST :

High temperature: $+70\pm 2^{\circ}\text{C}$
Low temperature: $-40\pm 2^{\circ}\text{C}$
Changeover time: <30 seconds
Duration: 1 hours
Cycle: 100

5.4 HUMIDITY TEST:

Temperature: $+40\pm 2^{\circ}\text{C}$
Relative Humidity: 90%~95%
Duration: 96 hour

5.5 TEMPERATURE CYCLE TEST:

Temperature: -40°C $+70^{\circ}\text{C}$
Duration: 45 minutes 45 minutes
Temperature gradient: $1\sim 3^{\circ}\text{C}/\text{min}$
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.

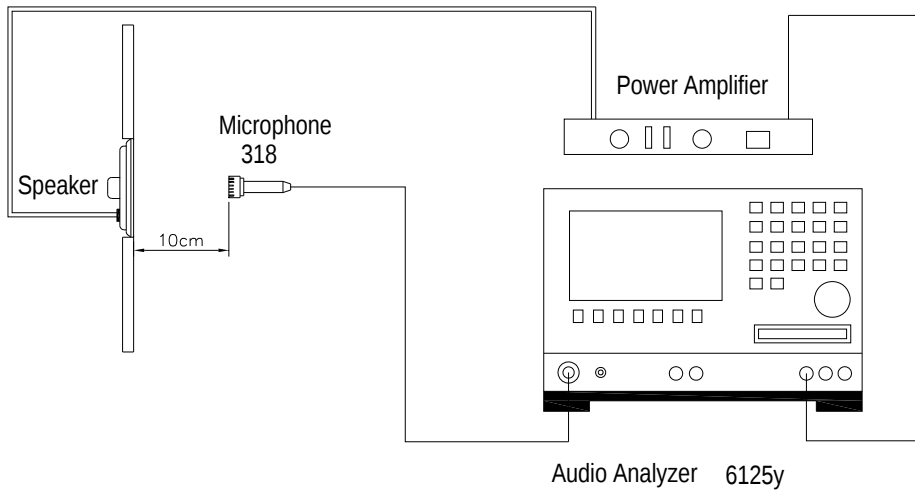
JUDGEMENT

Temperature : 20±3℃
 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

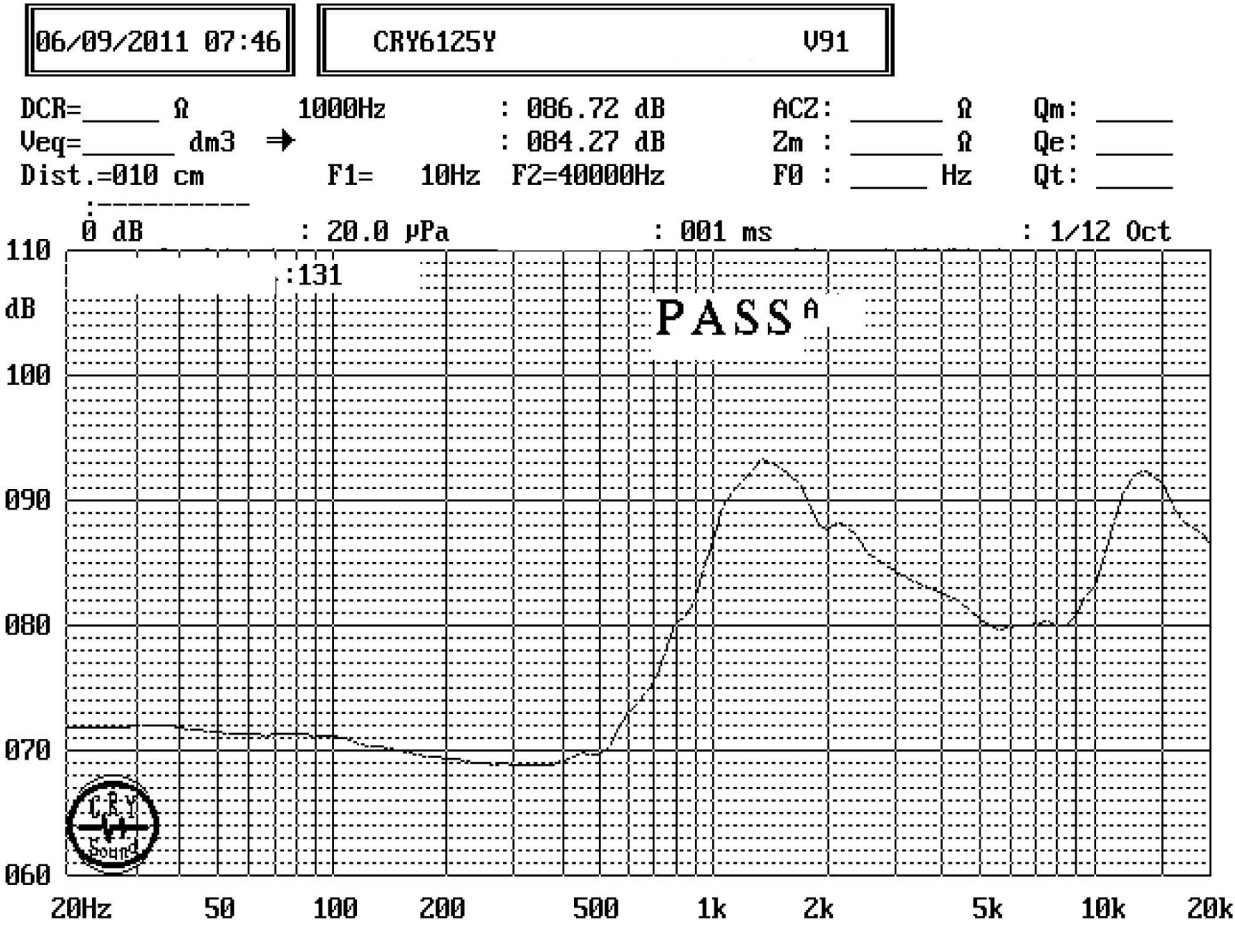
Standard test condition of speaker



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7.FREQUENCY RESPONSE CURVE

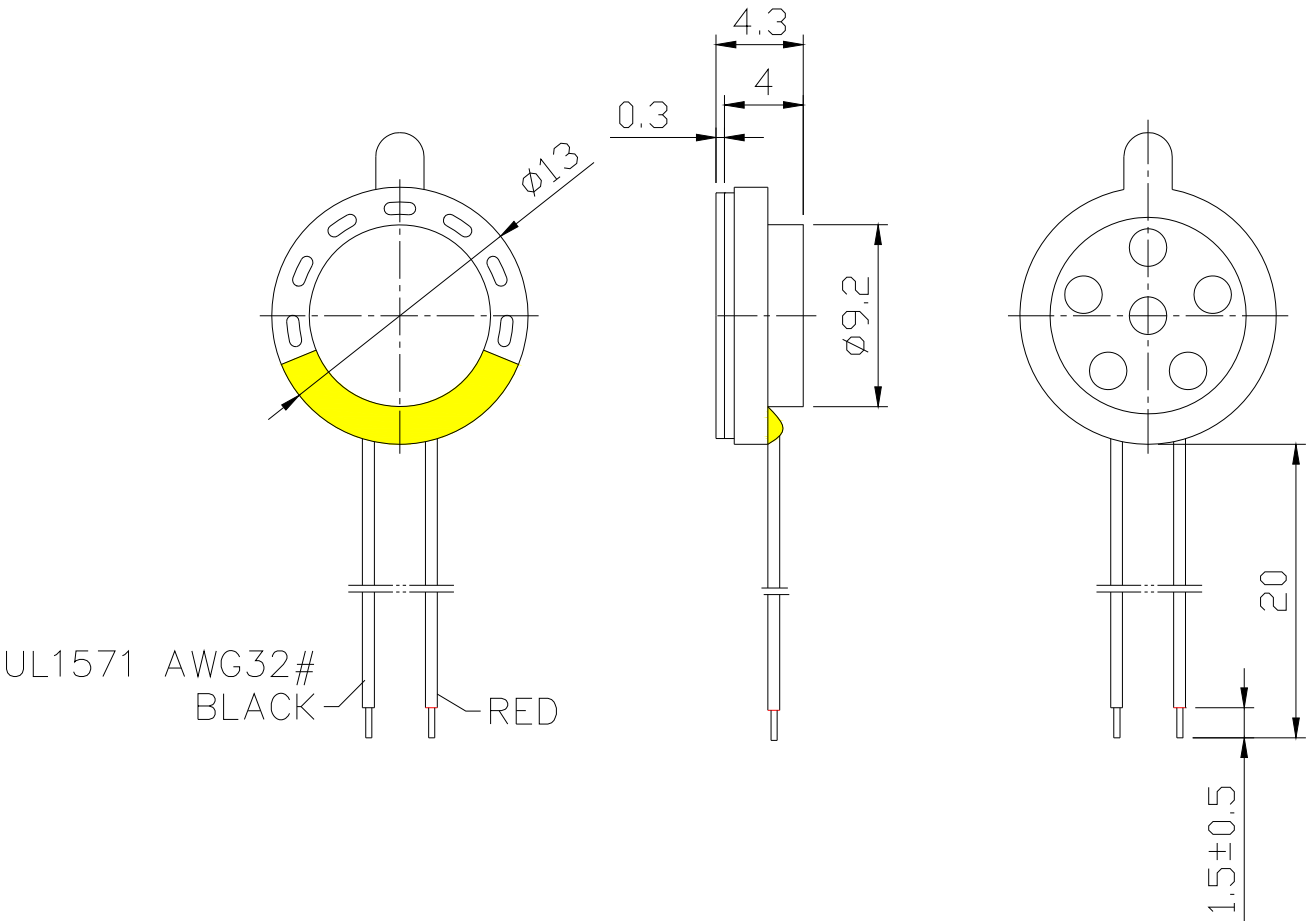


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8.DIMENSIONS

Unless otherwise specified,tolerance:±0.5 (unit: mm)



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