

VECO VANSONIC ENTERPRISE CO.,LTD.

8F., No7, Lane16, Sec2, Szechwan Road, Panchiao, Taipei Hsien, TAIWAN.

E-mail: Vansonic@ms4.hinet.net Homepage: <http://www.veco.com.tw>

TEL: +886-2-962 6335

FAX: +886-2-962 5220

| | | |
|-----|--------------------------------|--|
| 1. | MODEL: | P20VS08P-3 DYNAMIC SPEAKER |
| 2. | Dimension | Outer Diameter 19.5x13.5 mm. |
| | | Height Refer to Fig 1 mm. Weight 2.2 Grams. |
| 3. | Magnet | Materials NdFeB |
| 4. | Impedance | 8 Ω ± 15 % At 1000 Hz. |
| 5. | Power Rating | Normal 1.0 W. Maximum 1.5 W. |
| 6. | Lowest Resonant Frequency | 700 ± 20% Hz at 1.0V measured by SUNLILAB® 7117C |
| 7. | Output Sound Pressure (S.P.L.) | 80± 3 db / 1.0Watt · 0.5Meter , Measured by B&K Type 2012 |
| | | At 800, 1000, 1200, 1500, HZ Average |
| 8. | Frequency Range | 500 ~ 20,000+ Hz. Average SPL -10db Refer to Fig. 2 |
| 9. | Distortion | 5 % Maximum at 1500 Hz 1.0W . |
| 10. | Abnormal Sound Test | Must be Normal Tested By 2.83 Volts. Sine Wave. |
| 11. | Load Test | White Noise 2.83Volts(RMS.) 24hrs . |
| 12. | Storage Temperature | - 25 ~ +70 |
| 13. | Operating Temperature | - 20 ~ +60 |

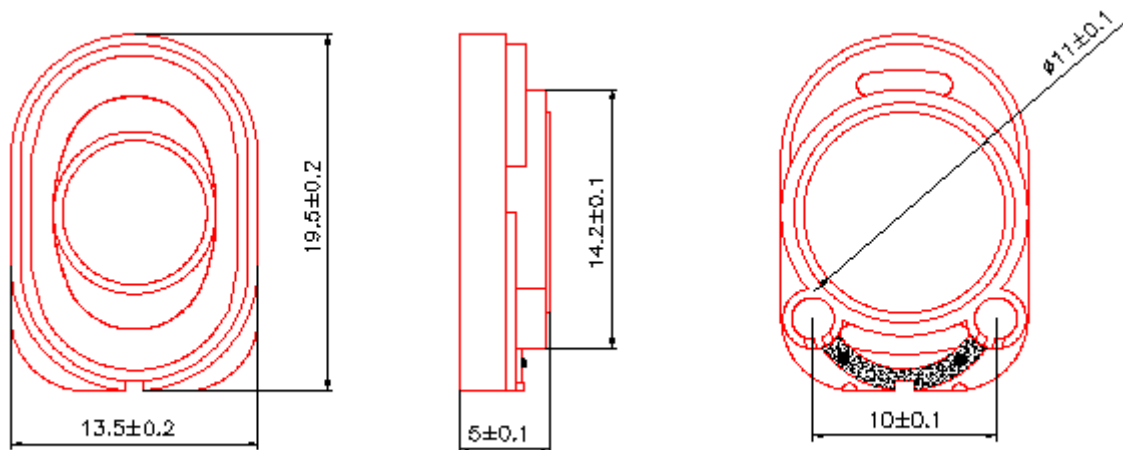
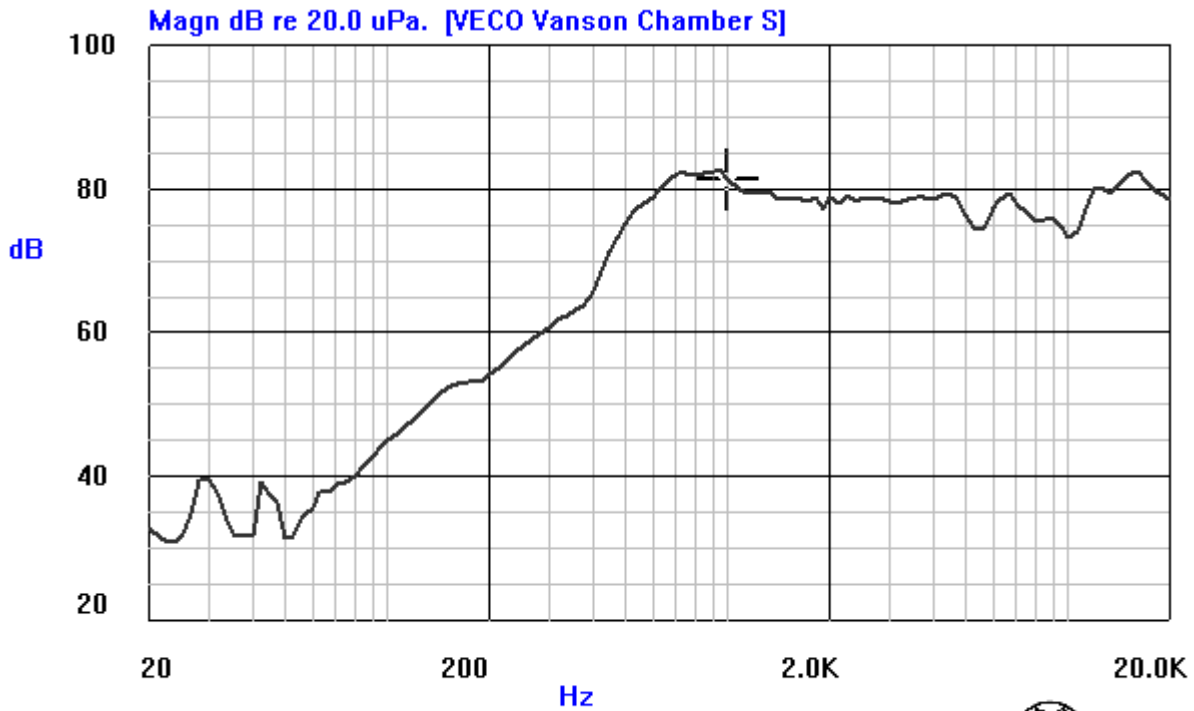


Fig.1

14.Frequency Response Curve.

14.1 Speaker

Sound Pressure Level(SPL) :80± 3dB 1.0W/0.5M at (800,1k,1.2k,1.5k) AV



Current Curve: 0 X: 1000 Hz Y: 81.49 dB

Time[Y/M/D H:M:S]: 2003/ 9/15 0:47:58



INPUT: 1.0W
MIC DIST: 0.5M
BAFFLE: IEC6028-5

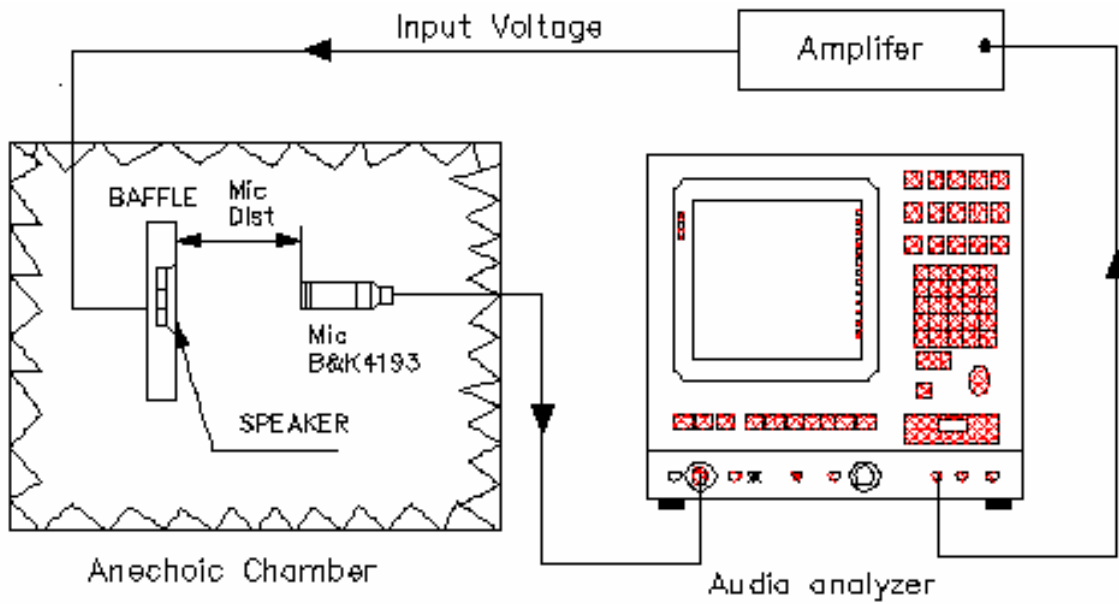


Fig.2

15.Environment Test

15.1 Environment test – High temperature.

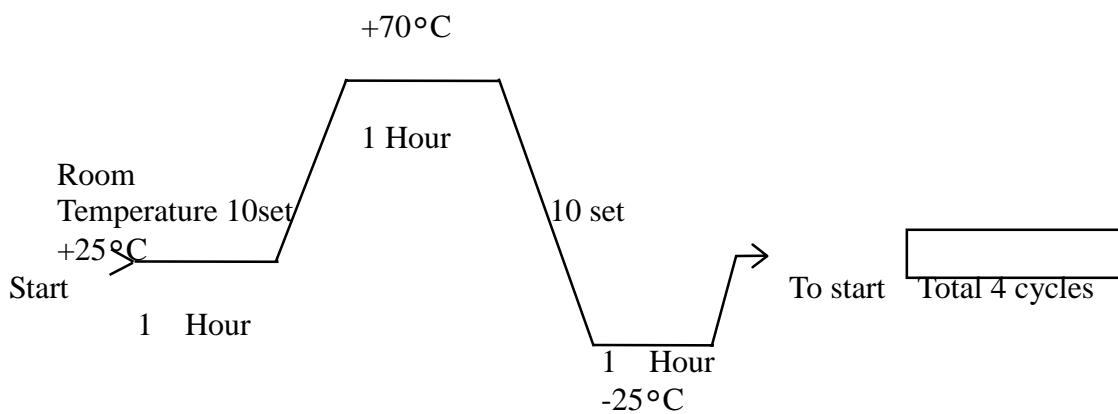
After exposure the speaker in the $+ 70 \pm 3$ °C chamber for 24 hours, then leave the speaker at room temperature for 1 hour, the SPL should not deviate by ± 3 db, compare with pre-test measurement.

15.2 Environment test - Low temperature.

After exposure the speaker in the $- 25 \pm 3$ °C chamber for 24 hours, then leave the speaker at room temperature for 1 hour, the SPL should not deviate by ± 3 db, compare with pre-test measurement.

15.3 Environment test-Temperature cycle.

After exposure the speaker in the chamber, temperature cycle setting as below shows, SPL should not Deviate by ± 4 db,compare with pre-test measurement.



15.4 Environment test – Humidity.

After exposure the speaker in the $+ 40 \pm 3$, relative humidity 90% ~95% chamber for 24 hours, then leave the speaker at room temperature for 6 hours, the SPL should not deviate by ± 3 db, compare with pre-test measurement.