

SPECIFICATION

FOR APPRONAL

Customer : _____

Product Name : Dynamic Speaker _____

Model Name : VS50x30R8F450P2 _____

Drawing No. : VS20190619006 _____

Signature of Voise

Approved by	Checkde by	Issued by	Date



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Specification for Dynamic Speaker		Page	3/8
		Revision No.	1.0
Model No.:	VS50x30R8F450P2	Drawing No.	VS20190619006

2. Scope

This document contains required environmental, electrical, acoustic, mechanical, package and reliability test requirement

3. General Characteristics

- 2.1 Out-Diameter : 50x30 mm
- 2.2 Height : 12 mm
- 2.3 Weight : 12.5 g
- 2.4 Operating Temperature : -20~+60°C without loss of function
- 2.5 Store Temperature : -30~+70°C without loss of function

4. Electrical and Acoustic Characteristics.

Test condition : 15 ~ 35 °C Temp., 25% ~ 75% RH, 86~106 kPa Refer to IEC60268-1

No	Items	Specification
1	Impedance	8 Ω ± 15% (1Vrms at 0.8KHz)
2	Sound Pressure Level	85 dB ± 3dB (1m/1w at 0.6,0.8,1.0,1.2kHz Average)
3	Resonance Frequency(f_0)	450 Hz ± 20% at 1V
4	Frequency Range	f_0 ~20KHz
5	Input Power	Rated 2 W / Max. 3 W
6	Distortion	Less than 5% at 1kHz 1.0W
7	Buzz and Rattle	Should not be audible buzzes, rattles when the 4V sine wave signal swept at frequency range.
8	Polarity	When a positive DC current is applied to the voice coil terminal marked (+), the diaphragm shall move to forward.

Specification for Dynamic Speaker		Page	4/8
		Revision No.	1.0
Model No.:	VS50x30R8F450P2	Drawing No.	VS20190619006

5. Reliability Test

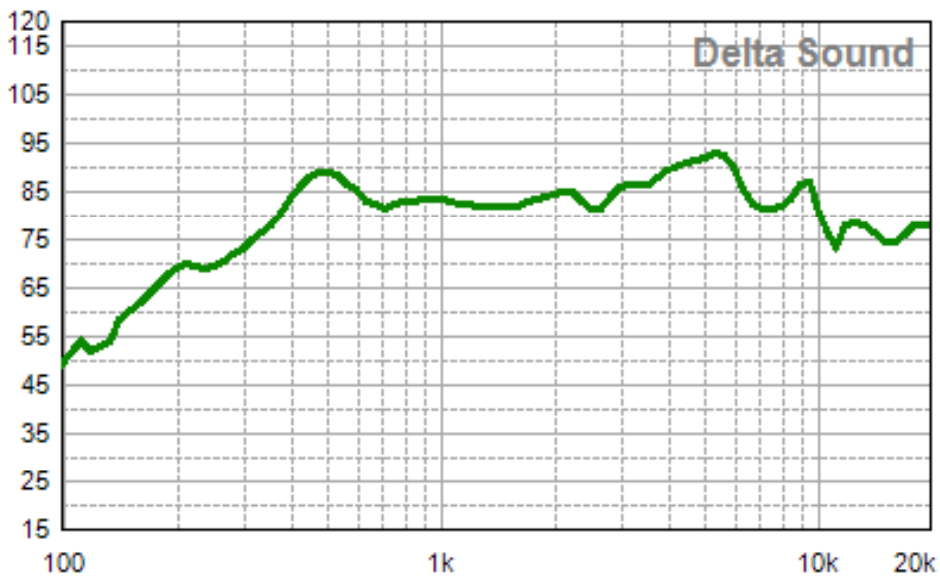
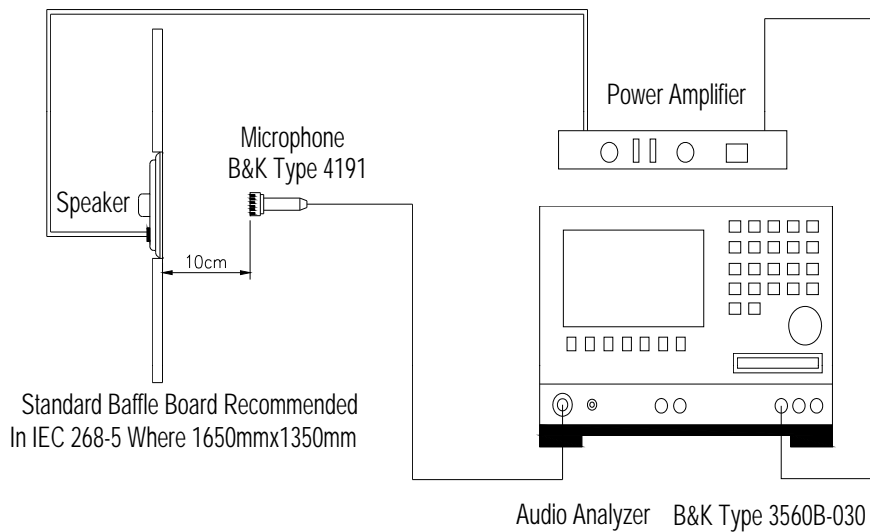
After test(1~7item), the speaker S.P.L . difference shall be within $\pm 3\text{dB}$, and the appearance not exist any change to be harmful to normal operation

No	Items	Specification
1	High Temp.Test	Keep 100 hours at $+60\pm 3\text{ }^{\circ}\text{C}$,and leave 4 hours in normal temperature and then check.
2	Low Temp.Test	Keep 100 hours at $-30\pm 3\text{ }^{\circ}\text{C}$,and leave 4 hours in normal temperature and then check.
3	Humidity Test	Keep 100 hours at $-30\pm 3\text{ }^{\circ}\text{C}$,relative humidity 85 to 90% and leave 4 hours in normal temperature and then check.
4	Thermal Shock Test	Each temperature cycle shall consist of 2 hours at $+25\pm 3\text{ }^{\circ}\text{C}$ followed by 2hours at $+60\pm 3\text{ }^{\circ}\text{C}$,and followed by 2hours at $-30\pm 3\text{ }^{\circ}\text{C}$ with a 20 to 40 minutes transition time between each 2 temperature extremes. The test duration is for 10 cycle.
5	Vibration Test	Being applied vibration of amplitude of 1.5mm with 10-55-10Hz band of vibration frequency,X.Y.Z.3 direction.2 hours each, total 6 hours.
6	Drop Test	Free drop fram 1.0 meter height to a board 20mm thick hard wood board. and be nothing mechanical damage. tatol 6 times.
7	Load test	Loading white noise with input rate power for 100 hours, then placed in natural condition for 1 hour and then check.
8	Insulation test	When they are measured with DC 100V the insulation resistance between v.c. terminal and frame must be more than 1 M Ω

Specification for Dynamic Speaker		Page	5/8
		Revision No.	1.0
Model No.:	VS50x30R8F450P2	Drawing No.	VS20190619006

6. Measurement Method & Frequency Response curve

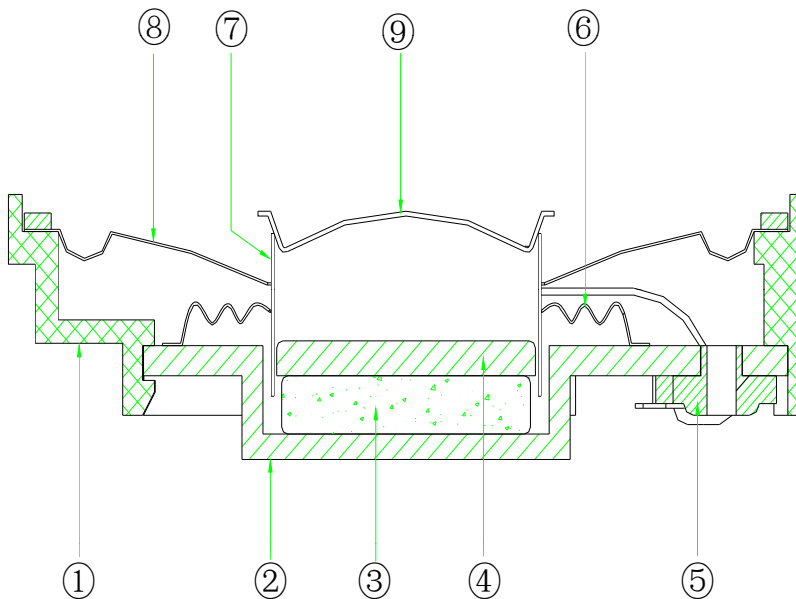
Standard test condition of speaker



Brüel & Kjær

Specification for Dynamic Speaker		Page	6/8
		Revision No.	1.0
Model No.:	VS50x30R8F450P2	Drawing No.	VS20190619006

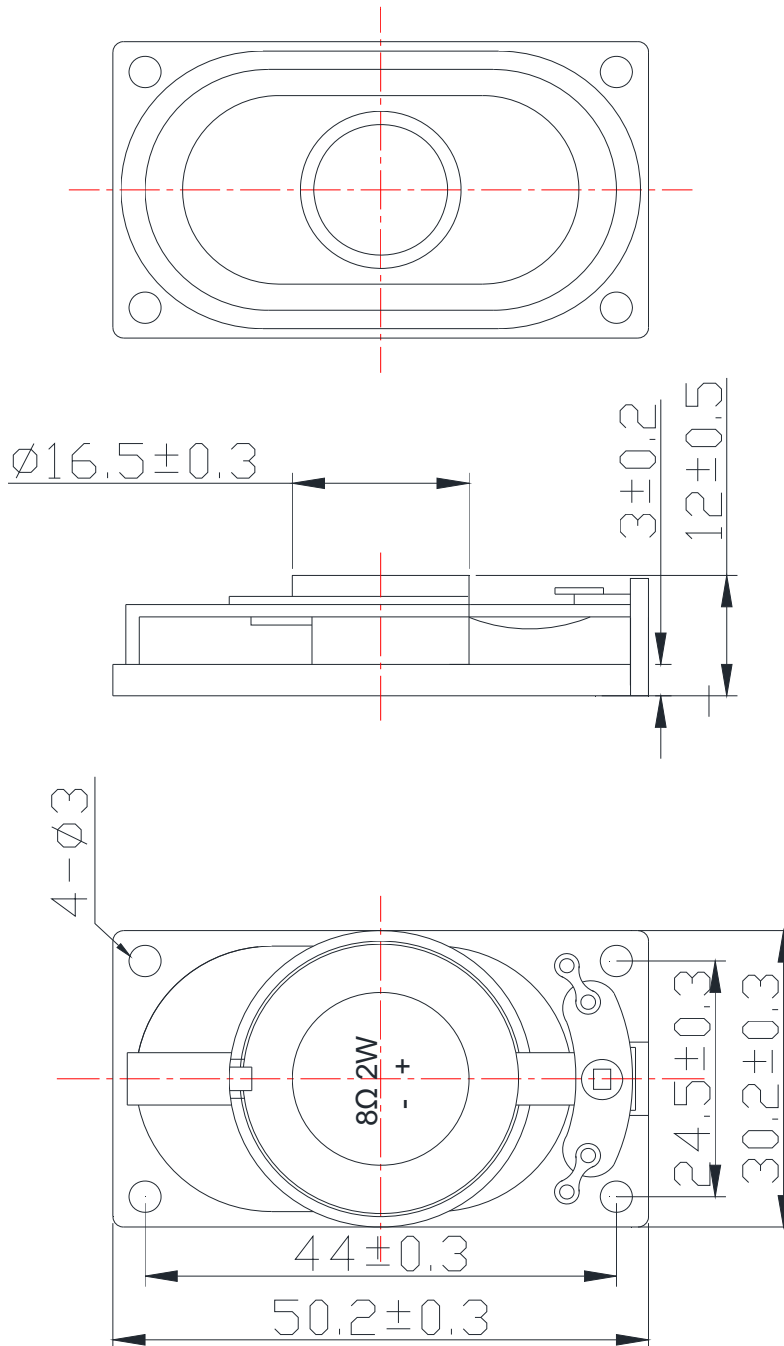
7. Mechanical layout



9	Dust cap	1	PAPER	
8	Diaphragm	1	Cloth + PAPER	
7	Voice Coil	1	Paper+Copper	
6	Damper	1	CLOTH	
5	Terminal	1	MylarFe+PAPER	
4	Plate	1+1	SPCC	
3	Magnet	1	Nd-Fe-B	
2	Yoke	1	SPCC	
1	Frame	1	ABS	
No.	Part Name	Q'ty	Material	Remarks

Specification for Dynamic Speaker		Page	7/8
		Revision No.	1.0
Model No.:	VS50x30R8F450P2	Drawing No.	VS20190619006

8. Dimensions



FIRST ANGLE PROJECTION

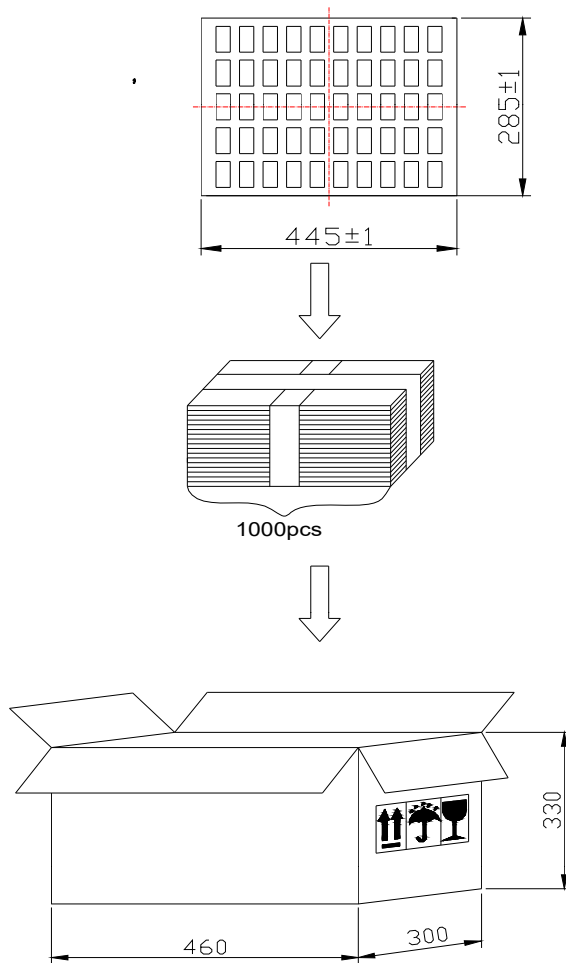


UNIT : mm

Tolerance : ± 0.2

Specification for Dynamic Speaker		Page	8/8
		Revision No.	1.0
Model No.:	VS50x30R8F450P2	Drawing No.	VS20190619006

9. Packing



50 pcs per tray

20 trays for unit

Total:1000 pcs per carton

Size:46×30×33cm