Features

- Miniature speaker
- 8ohm
- 2W rated input power
- 5W max. input power
- SPL ≥86dB
- Paper cone
- 70 x 30 x 23mm

RS PRO Miniature Speaker Rectangular, 8ohm, 2W

RS Stock No.: 8179132

RS Professionally Approved Products bring to you professional quality parts across all product categories. Our product range has been tested by engineers and provides a comparable quality to the leading brands without paying a premium price.

Product Description

Miniature speakers are used in products that require voice, music & sound reproduction. They generally have a wide frequency range making them versatile in terms of the sound they produce. This miniature speaker is an 8 ohm device with a paper cone. It has mounting holes within the metal surround and generates an SPL of 86dB. Applications include:

APPLICATIONS:

- Headsets
- Access and security
- Lift panels
- Parking metres
- Medical products
- PDAs
- Computers
- Smart phones
- Model railways
- Toys & games
- Sensing & instrumentation
- Communications equipment
- Remote monitoring systems
- Safety products

Electrical Specifications

1. ELECTRICAL AND ACOUSTICAL SPECIFICATION

	Item	Specifications
1-1	**Dimension**	70.0×30.0×23 t
1-2	**Rated Input Power**	2.0W
1-3	**Max Input Power**	5.0W
1-4	**Rated Impedance**	8±15% Ω /1KHz/1V
1-5	**Resonance Frequency(f0)**	300±20% Hz/1V
1-6	**Sound Pressure Level**	86±3 dB at (AVG 0.8,1.0,1.2,1.5)KHz 1 W/0.5 M
1-7	**Frequency Range**	200HZ ~ 20KHz
1-8	**Total Harmonic Distortion**	10%MAX. at 1KHz, 2W
1-9	**Flux Density**	1.0T
1-10	**Polarity**	When a positive DC Current is applied to the voice coil terminal marked +or red ,the diaphram shall move forward
1-11	**OperationTest**	Must be normal at sine wave and program source2.0W.
1-12	**Buzz,Rattle,etc.**	Should not be audible at4.0 V sine wave between (200 Hz ~ 20KHz)
1-13	**Weight**	34g
1-14	**Voice Coil Diameter**	Φ13.28mm
1-15	**Magnet (NdFeB)**	Φ12.5×2.5t mm
1-16	**Appearance**	Should not exist any obstacle to be harmful to normal operation;damages,cracks,rusts and distortions,etc.

2.ENVIRONMENTAL TEST

	Item	Specifications
2-1	**High temp. Test**	Keep 96 hours at +60℃±3℃ and leave 3 hours in normal temperature and then check
2-2	**Low temp. Test**	Keep 96 hours at -30℃±3℃ and leave 3 hours in normal temperature and then check
2-3	**Humidity test**	Keep 96 hours at + 40℃±3℃ relative humidity 95% and leave 3 hours in normal temperature and then checked.
2-4	**Thermal cycle test.**	Low temperature: -30℃±3℃, temperature:+60℃±3℃, cycle: 1 hour/cycle each, and then keep 96 hours.
2-5	**Vibration**	10~55~10Hz sin-wave sweep 15min. 5G(constant) X,Y, Z 3 direction. 2 hours each, total 6 hours.
2-6	**Drop test**	Free drop a unit from 100cm height to a board of 20mm thick x,y, z 6 direction. 1 times each, total 6 times.
2-7	**Load test**	Rated Power white noise is applied for 96 hours
2-8	**Max Power test**	Max power 1 min on – 2 min off 10 cycles.
2-9	**Terminal strength test**	Capable of withstand 1kg load for 15seconds without resulting in any damage or rejection.
PASS CRITERION : **After these test , the change of S.P.L shall be within ±3 dB .**		

3.MEASURING METHOD

3-1 .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

3-2 . Standard Test Fixture

1.Input Power : 1.0W(2.83V)

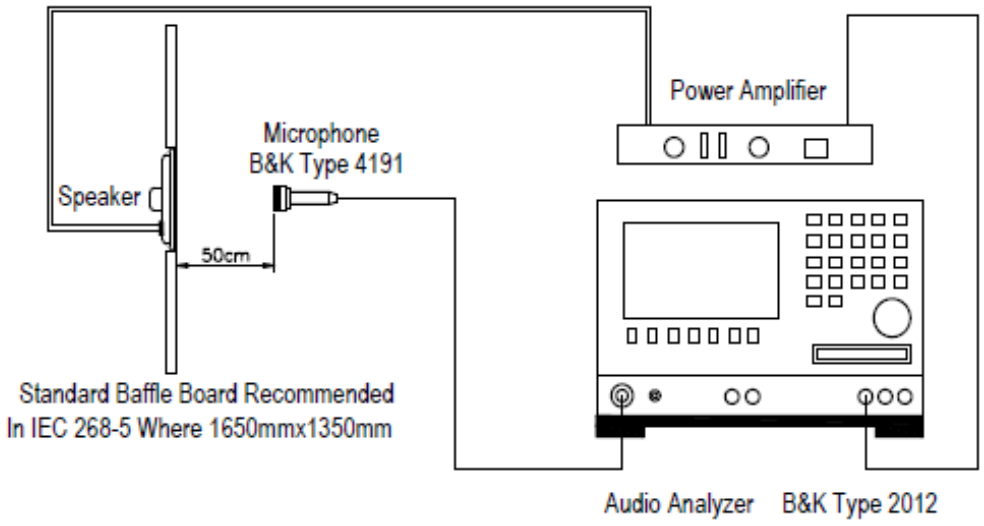
2.Zero Level : -dB

3.Mode : TSR

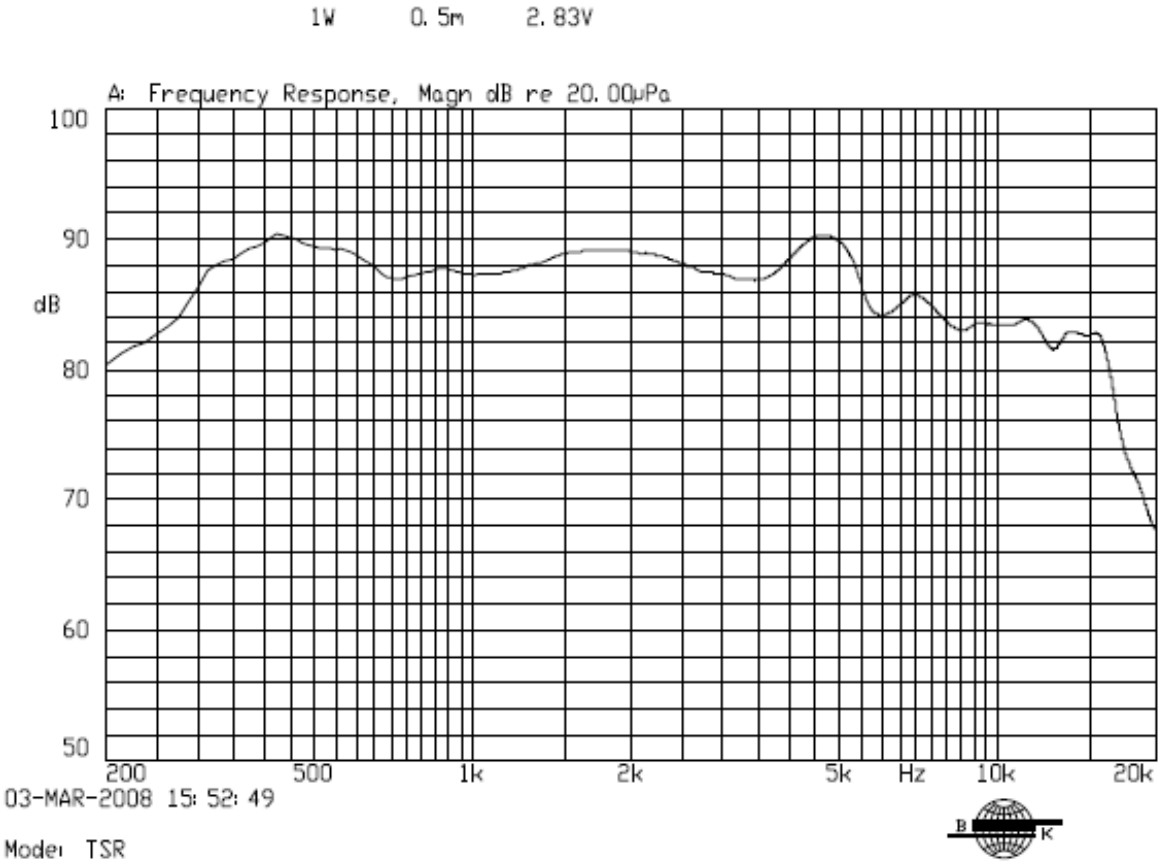
4.potentiometer Range : 50dB

5.Sweep Time : 0.5sec

Standard test condition of speaker

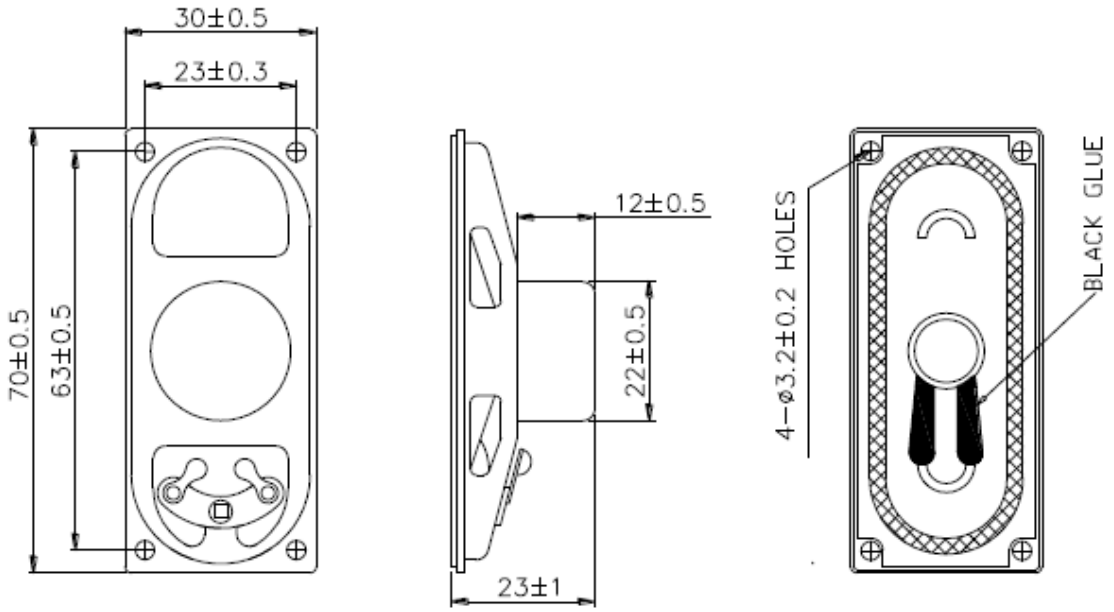


4.FREQUENCY RESPONSE CURVE



5.DIMENSIONS

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



PART NO.	PART NAME	Q'TY	MATERIAL	REMARK
10	Frame	1	SPCC	
8，9	Plate	1	SPCC	
7	Magnet	1	Nd-Fe-B	
6	Shrapne	1	Silk cloth	
5	Dust cap	1	Paper	
4	Conel	1	Paper	
3	Yoke	1	1.5T	
2	Voice coil	1	CU	
1	PCB	1	EPOXY	