

SPECIFICATION

受 控

Customer : QUARTZ-1

Applied To :

Product Name : SPEAKER



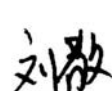
Model Name : KP1320SP1-5297

Drawing No. : KFC5297

Signature of Appraisal

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Signature of KEPO

Approved by	Checkde by	Issued by	Date
			



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Specification for Speaker	Page	2/9
	Revision No.	1.0
Model No. : KP1320SP1-5297	Drawing No.	KFC5297

CONTENTS

1. Scope
2. General
3. Electrical and Acoustic Characteristics.
4. Reliability Test
5. Measurement Block Diagram & Response curve
6. Structure
7. Dimensions
8. Packing
9. Revision

Specification for Speaker

Page

3/9

Model No. : KP1320SP1-5297

Revision No.

1.0

Drawing No.

KFC5297

1. Scope

This specification is applied to the dynamic speaker which is used all of the electrical acoustic product.

-- compact, rich sound

-- applications: mobile phone, PDA, notebook computer, etc. ...

2. General

2.1 Out-Diameter : 12.8 mm

2.2 Height : 2 mm

2.3 Weight : 1 g

2.4 Operating Temperature range:

-20~+70°C without loss of function

2.5 Store Temperature range:

-40~+85°C without loss of function

3. Electrical and Acoustic Characteristics.

Test condition : 15 ~ 35 °C, 25% ~ 85% RH, 860~1060 mbar

No	Items	Specification
1	Impedance	8 Ω ± 15% (1Vrms at 1KHz)
2	Sound Pressure Level	81 dB ± 3dB (0.1W/0.1M at 2kHz)
3	Resonance Frequency	1.3k Hz ± 20%
4	Frequency Range	Fo ~20KHz
5	Input Power	Rated 0.5 W / Max. 0.7 W
6	Distortion	<10% Max. at 2kHz/2Vrms
7	Buss and Rattle	Should not be audible buzzes,rattles when the 2V sine wave signal swept at frequency range.
8	Polarity	When supplied plus D.C. voltage to (+) terminal, the cone diaphragm must move to forward.

Specification for Speaker

Page

4/9

Revision No.

1.0

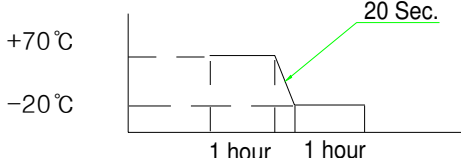
Model No. : KP1320SP1-5297

Drawing No.

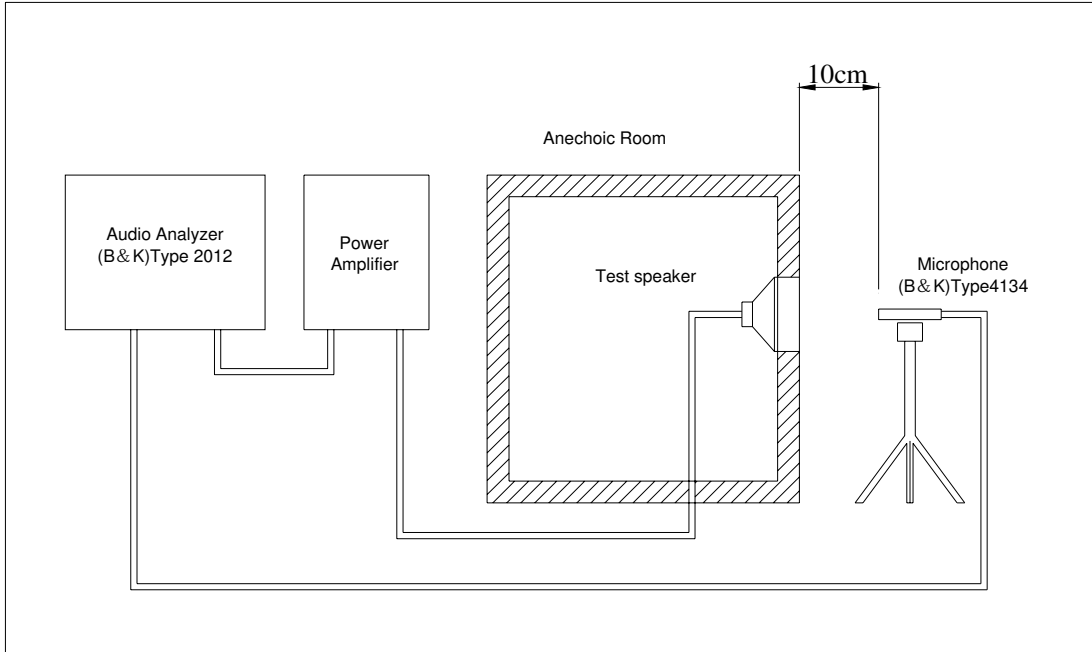
KFC5297

4. 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 (e.g. cracks,rusts,damages and especially distortion).

No	Items	Specification
1	High Temperature Test	After being placed in a chamber with $+85\pm 3\text{ }^\circ\text{C}$ for 96 hours and then being placed in natural condition for 1 hour, speaker shall be measured.
2	Low Temperature Test	After being placed in a chamber with $-40\pm 3\text{ }^\circ\text{C}$ for 96 hours and then being placed in natural condition for 1 hour, speaker shall be measured.
3	Humidity Test	After being placed in a chamber with 85 to 90%R.H. at $+40\pm 2\text{ }^\circ\text{C}$ for hours and then being placed in natural condition for 1 hour, speaker shall be measured.
4	Thermal Shock Test	<p>After being placed in a chamber at $+70^\circ\text{C}$ for 1 hour, then speaker shall be placed in a chamber at -20°C for 1 hour(1 cycle is the below diagram). After 6 above cycles, speaker shall be measured after being placed in natural condition for 1 hour.</p>  <p style="text-align: center;"> $+70^\circ\text{C}$ -20°C 1 hour 1 hour </p>
5	Vibration Test	After being applied vibration of amplitude of 1.5mm with 10 to 55Hz band of vibration frequency to each of 3 perpendicular directions for 1 hour, then placed in natural condition for 1 hour, speaker shall be measured.
6	Drop Test	The speaker when mounted in the jig which weight 85g~100g, shall with stand 15 times random drops from a height of 1.5 meter to a concrete floor faced with 5mm thick hard wood board.and be nothing mechanical damage.
7	Load test	After being applied loading white noise with input power 0.5W(2Vrms.) for 96 hours, then placed in natural condition for 1 hour, speaker shall be measured.
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

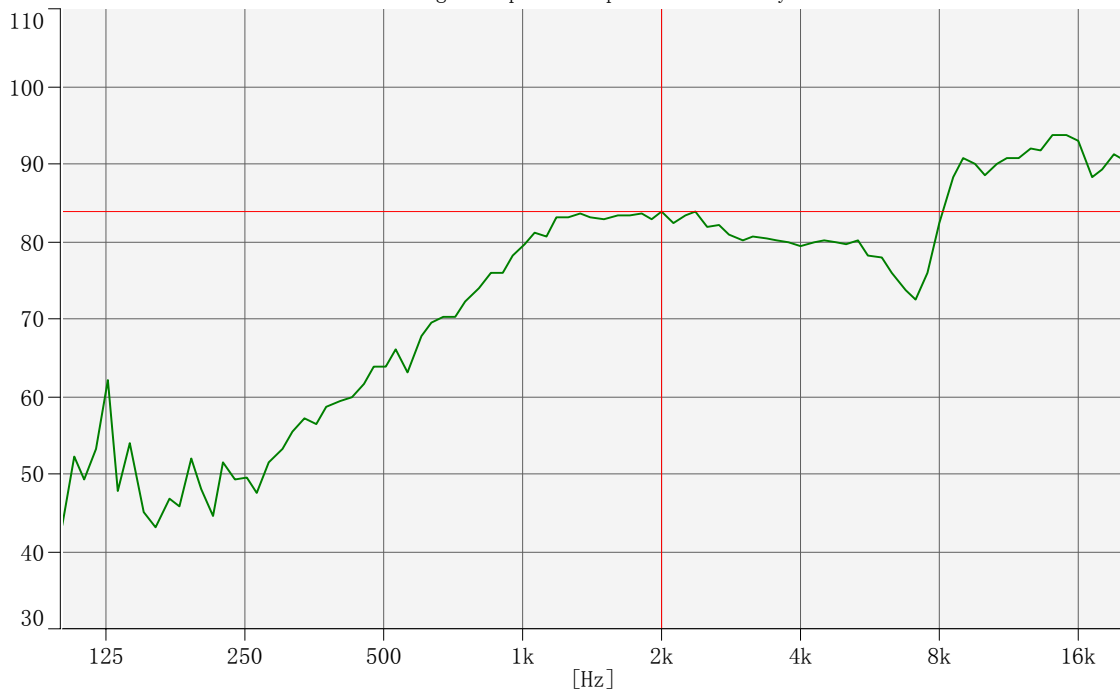
5. Measurement Block Diagram & Response curve



[dB/20.0u Pa]

Output Response(Signal 1) - Input (Magnitude)

Working : Input : Input : SSR Analyzer



Specification for Speaker

Page

6/9

Revision No.

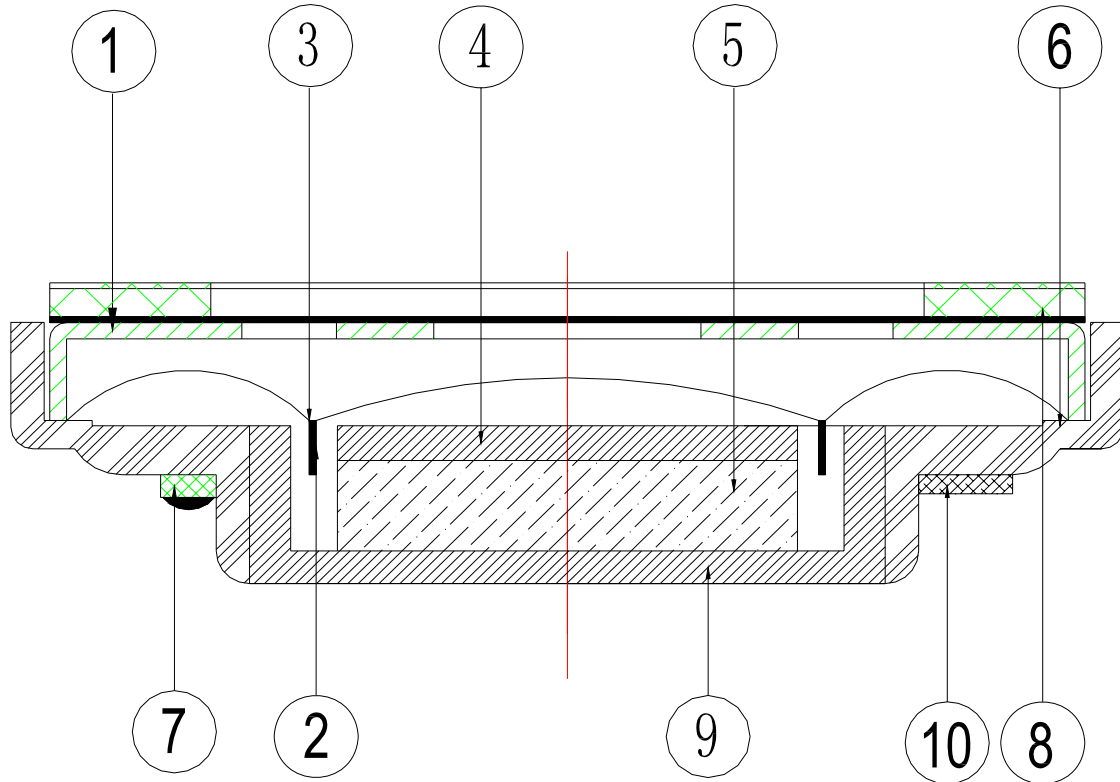
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Model No. : KP1320SP1-5297

Drawing No.

KFC5297

6. Structure



10	Screen	1	NET	
9	Yoke	1	SPC	
8	Gasket	1	PORON	
7	Terminal	1	Epoxy PCB	
6	Frame	1	PBT	
5	Magnet	1	Nd-Fe-B	
4	Plate	1	SPC	
3	Diaphragm	1	PEN	
2	Voice Coil	1	Copper	
1	Cap	1	SUS304	
No.	Part Name	Q'ty	Material	Remarks

Specification for Speaker

Page

7/9

Model No. : KP1320SP1-5297

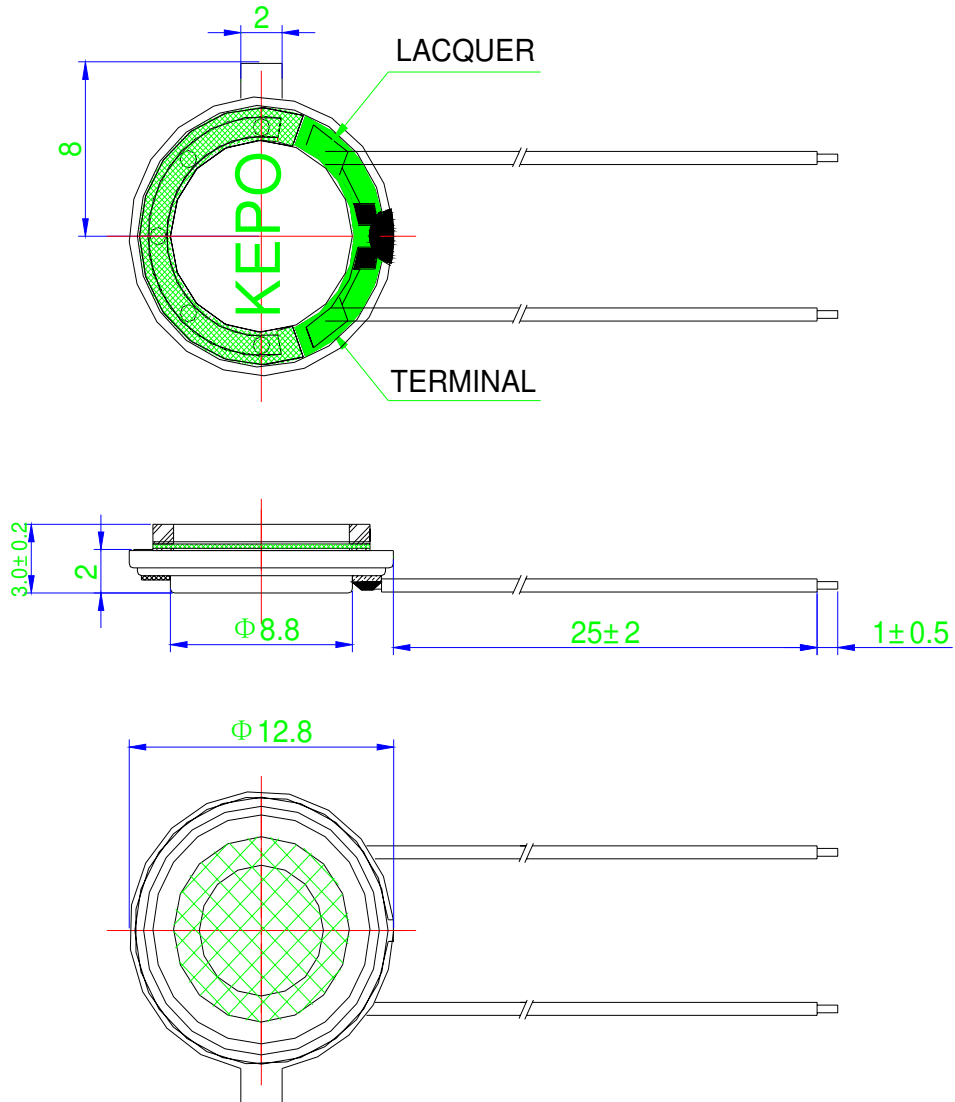
Revision No.

1.0

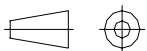
Drawing No.

KFC5297

7. Dimensions



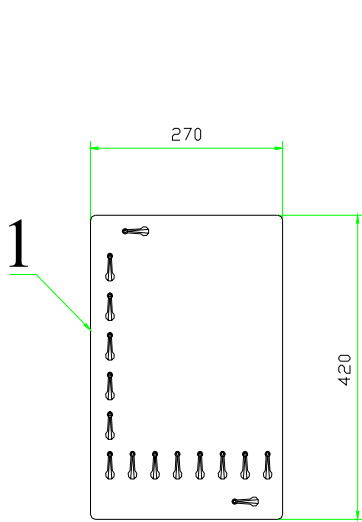
FIRST ANGLE PROJECTION



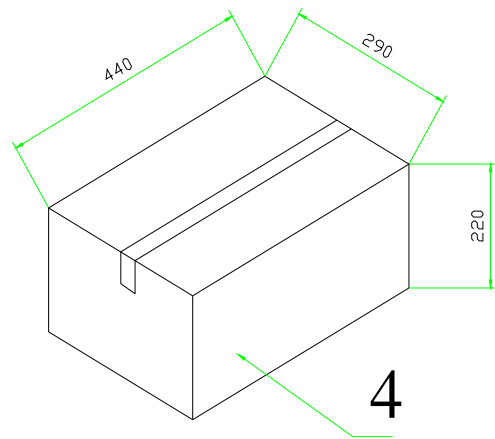
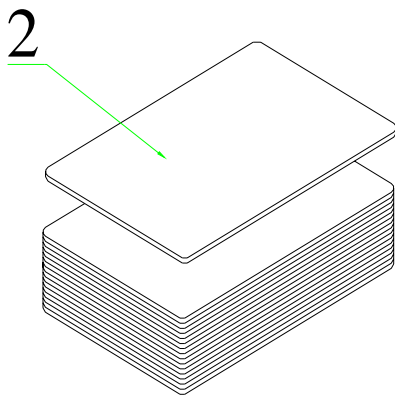
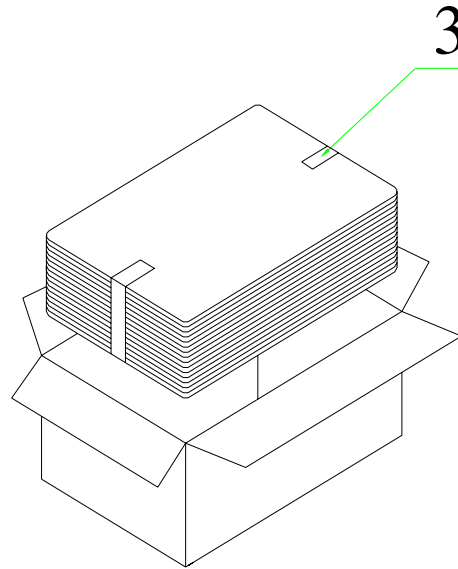
UNIT : mm

Tolerance : ± 0.2

8. Packing



100Pcs



QTY: 2000Pcs

440 x290 x220

Specification for Speaker

Page

9/9

Revision No.

1.0

Model No. : KP1320SP1-5297

Drawing No.

KFC5297

9. Revision

Rev. No.	DATE	PAGE	DESCRIPTION	BOM
1.0	2009-8-19		Primary	