


**APPROVAL SHEET**  
**FOR**  
**SPEAKER**

納入仕様書

CUSTOMER: \_\_\_\_\_

SUNWAY P/N: \_\_\_\_\_ SM1712S109L32

CUSTOMER P/N: \_\_\_\_\_

CUSTOMER	APPROVER	CHECKER
		


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# CONTENTS


★ Alternation History	1
★ Electrical and Acoustical Specification	2
★ Speaker Environment Test	3
★ Speaker Frequency Response	4
★ Environmental Test	5
★ Outline	6
★ Package	7

				Date	2006-10-24	
				Des.	Q.X.M	
				Chk.		
				Apr.	J.G.R	
Issue	Note	Date	Name	SM1712S109L32		061024.02

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## Specification for Speaker

DATE	MARKING	REVISION RECORD	DESIGNER	REMARK

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				Des.	Q.X.M	
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Issue	Note	Date	Name	SM1712S109L32		061024.02      Page: 1 / 7

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## Specification for Speaker

1. Part Number: SM1712S109L32

2. Type: Dynamic Speaker

3. Dimension: 17\*12mm\*2.8H

4. Weight: 1.50g

5. Electrical And Acoustical Characteristics ( at 20℃)

5.1. Speaker Part:

5.1.1 Sound Pressure Level : 86±3dB SPL (at 0.1w,0.1m 0.8,1.0,1.2,1.5kHz average)

5.1.2 Rated Power Input:

Nominal Power : 0.5W

Maximum Power : 1.0W


5.1.3 Rated Impedance : 8±15%Ω

5.1.4 Resonance Frequency : 900±20%Hz ( at 1.0V )

5.1.5 Test method :

The Speaker shall be mounted in a baffle described in the Fig.1, and tested with 0.89V(0.1W);

The measuring microphone shall be placed 10cm from the speaker in an anechoic chamber.

				Date	2006-10-24	
				Des.	Q.X.M	
				Chk.		
X1				Apr.	J.G.R	
Issue	Note	Date	Name	SM1712S109L32		061024.02 Page: 2 / 7

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## Specification for Speaker

### 5.1.6. Block Diagram For Measurement Method.

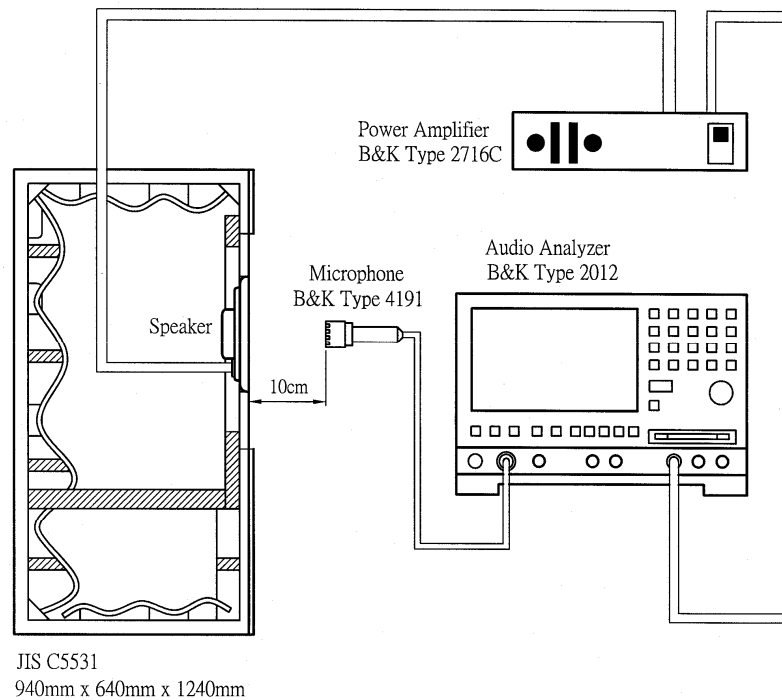



FIG.1 (Speaker Measurement Method)

				Date	2006-10-24	
				Des.	Q.X.M	
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X1				Apr.	J.G.R	
Issue	Note	Date	Name	SM1712S109L32		061024.02 Page: 3 / 7

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## Specification for Speaker

### 5.1.7.Frequency Response :

The swept sine-wave frequency response of a loudspeaker should ideally not deviate more than indicated per Fig.2

At 0.1m 0.1W

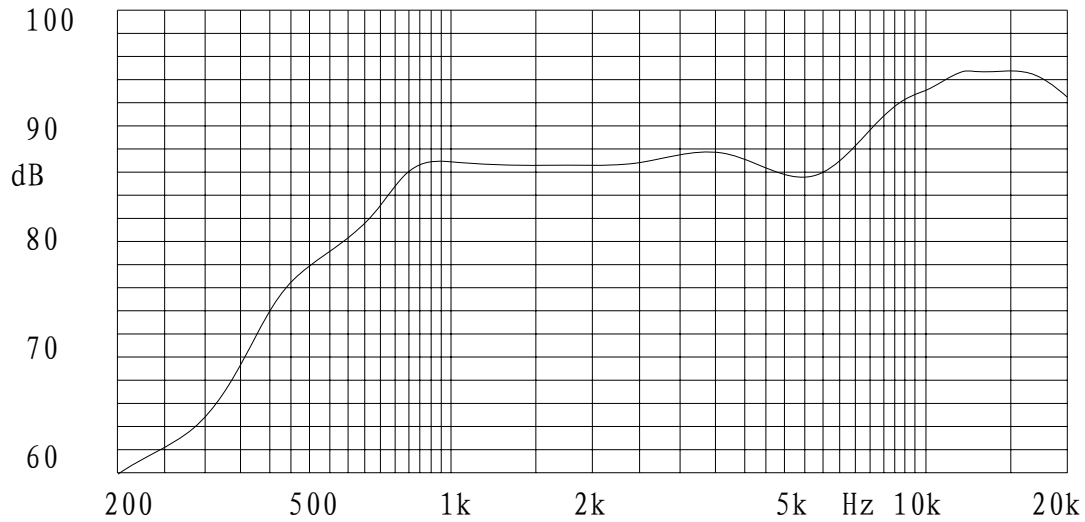



FIG.2(Loud speaker Typical Frequency Response)

				Date	2006-10-24	
				Des.	Q.X.M	
				Chk.		
X1				Apr.	J.G.R	
Issue	Note	Date	Name	SM1712S109L32		061024.02 Page: 4 / 7

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## Specification for Speaker

### 6.Mechanical and Environment Characteristics

Being placed (6.1-6.5) for 6 hours at +25°C, receiver shall be measured. No obstacle to be harmful to normal operation; damages, cracks, rusts, etc.

Should not be audible at 2.8V, sine wave between Fo~20KHzKHz. S.P.L.

deviation of unit should be within  $\pm 3\text{dB}$

#### 6.1 HIGH TEMPERATURE TEST

TEMPERATURE : +80°C

DURATION : 96hours

#### 6.2 LOW TEMPERATURE TEST

TEMPERATURE : -40°C

DURATION : 96hours

#### 6.3 TEMPERATURE CYCLE TEST

TEMPERATURE : -20°C +85°C

DURATION : 2hours 2hours

CYCLE : 5 cycles

#### 6.4 HUMIDITY TEST

TEMPERATURE : +40°C

DURATION : 90% (RH)

CYCLE : 96hours

#### 6.5 LOAD TEST

NOISE : white noise

DURATION : 96hours

INPUT POWER : 0.5W

(6.6-6.7) No obstacle to be harmful to normal operation; damages, cracks, rusts and distortions.

Should not be audible at 2.8V, sine wave between Fo~20KHzKHz. S.P.L. deviation of unit should be within  $\pm 3\text{dB}$

#### 6.6 VIBRATION TEST

AFTER TEST, THE SENSITIVITY DIFFERENCE SHALL BE WITHIN  $\pm 3\text{dB}$  at 1.0KHz, 1.2KHz, 1.5KHz, 2.0KHz AVERAGE

VIBRATION : 10~55Hz/min

AMPLITUDE : 1.5mm


DURATION : 1hour in each of 3 axes

#### 6.7 DROP TEST (under the unit)

AFTER TEST, THE SENSITIVITY DIFFERENCE SHALL BE WITHIN  $\pm 3\text{dB}$  at 1.0KHz, 1.2KHz, 1.5KHz, 2.0KHz AVERAGE

HEIGHT : 1.0m

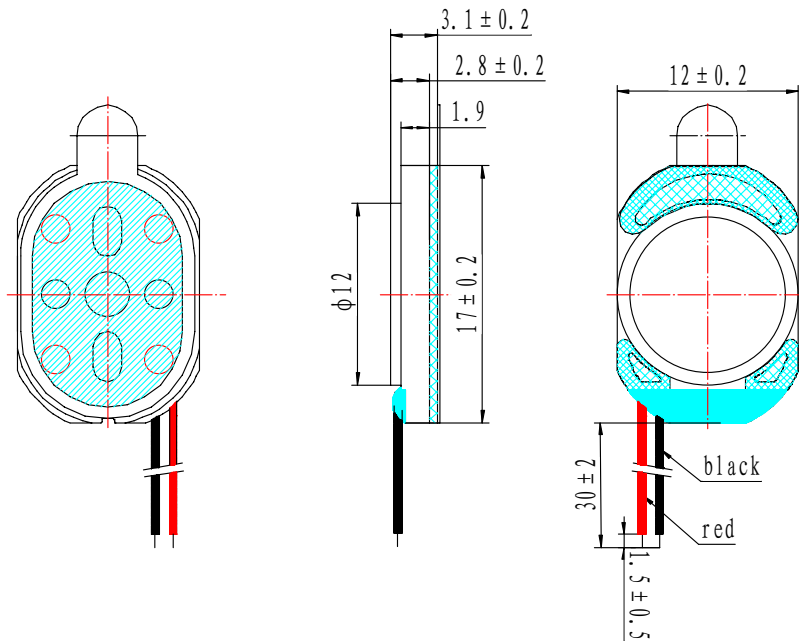
CYCLES : 10cycles

				Date	2006-10-24	
				Des.	Q.X.M	
				Chk.		
				Apr.	J.G.R	
Issue	Note	Date	Name	SM1712S109L32		061024.02 Page: 5 / 7


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## Specification for Speaker

### 7. MECHANICAL DRAWING



6	Front cover	1	SUS304		
5	PCB	1			
4	FRAME	1	PPS		
3	Inner pole plate	1	Fe	φ 5.4*0.3	
2	MAGNET	1	Ne-Fe-B	φ 5.3*0.8	
1	DIAPHRAGM	1	PEI	16.9*11.9	
NO.	Part Name	Q*ty	Type of Material	Treatment	Remark

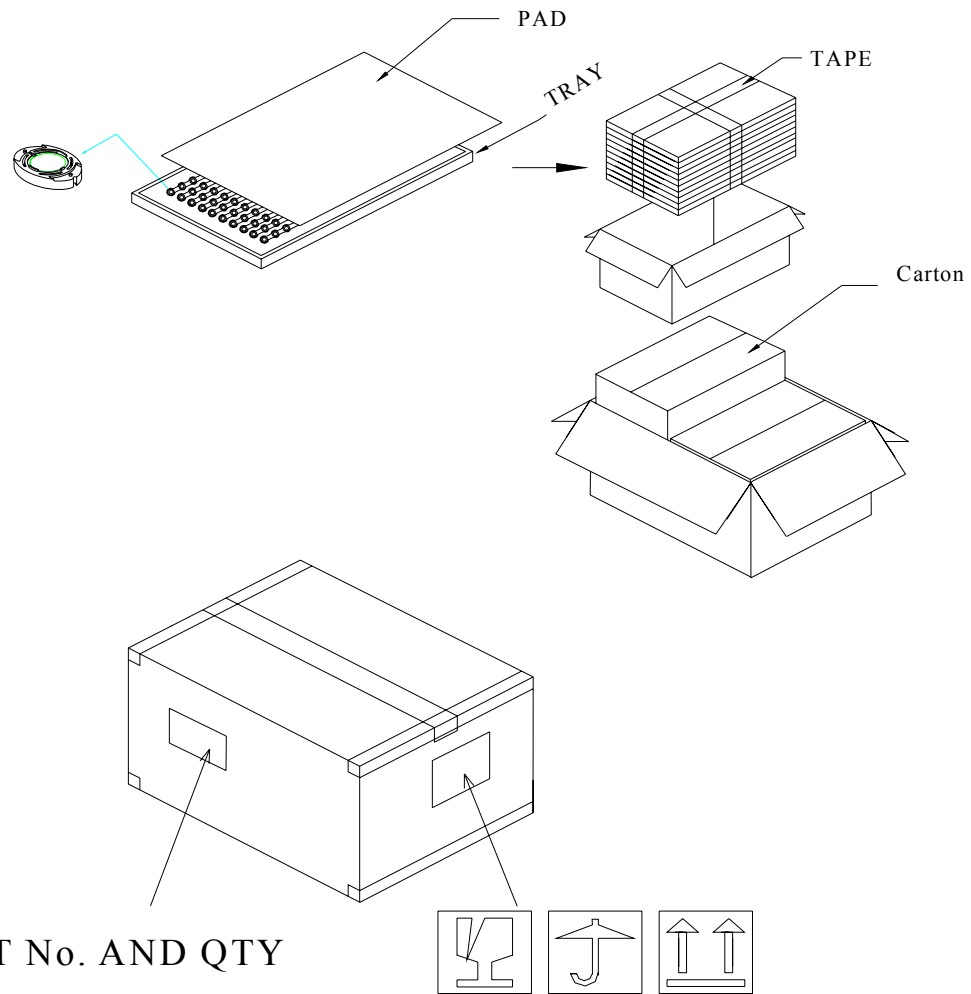
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				Des.	Q.X.M	
				Chk.		
X1				Apr.	J.G.R	
Issue	Note	Date	Name	SM1712S109L32		061024.02 Page: 6 / 7

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## Specification for Speaker

### 8.Package



Package Item	Small box	Internal box	External case
Size	30.55x 22 x 13	30.55x 22 x 13	49 x 35 x17.5
Material	PVC Tray	Paper box	paper board
Quantity	100 pcs/box	1000 pcs/bag	2000 pcs/case
G. Weight	150 g	1.5Kg	3 .0Kg

				Date	2006-10-24	
				Des.	Q.X.M	
				Chk.		
X1				Apr.	J.G.R	
Issue	Note	Date	Name	SM1712S109L32		061024.02      Page: 7 / 7

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