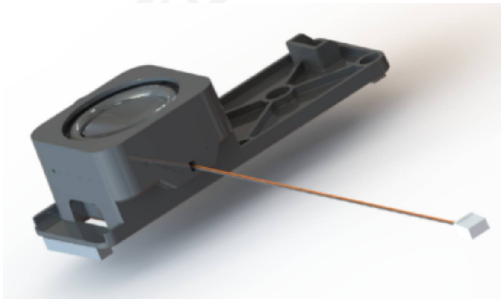
MULTIMEDIA SPEAKER

Product No. 121424

BLS32-11-08H15-BOX

Issue no. BS/TES01.1921



Features:

- Large power
- Audio exchange
- Loud sound output
- RoHS

Drawn by	Checked by	Approved by	
Judy.Yang	Emma.Ren	Jason.Zhang	

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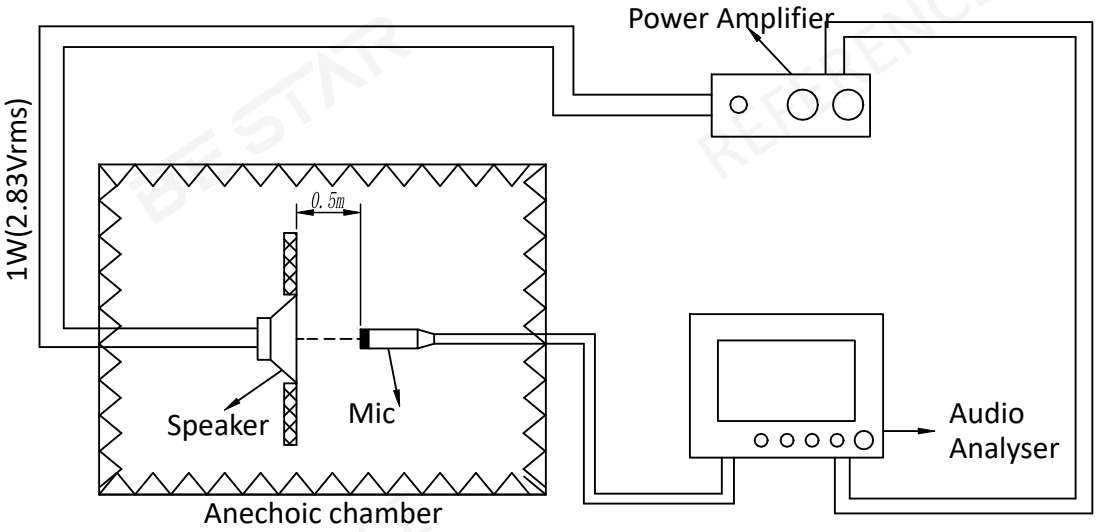
1.Characteristics

1.1Technical terms

1. Size	See Product drawing
2. Impedance (at 1KHz)	8±15%Ω
3. Rated input power	3W
4. Maximum input power	4W
5.Resonance frequency	450±20%Hz
6. Frequency response	F0~16KHz
7. Buzz & Rattle(at sine wave 2.83Vrms)	must be normal
8. SPL(0.5m/1W)	82±3(at 0.8,1.0,1.2,1.5KHz AVE)
9. THD	Max 3%(1W/0.5m,at 1KHz)
10. IP rating	IPX3
11. Operating temperature	-30...+85℃
12. Storage temperature	-30...+85℃

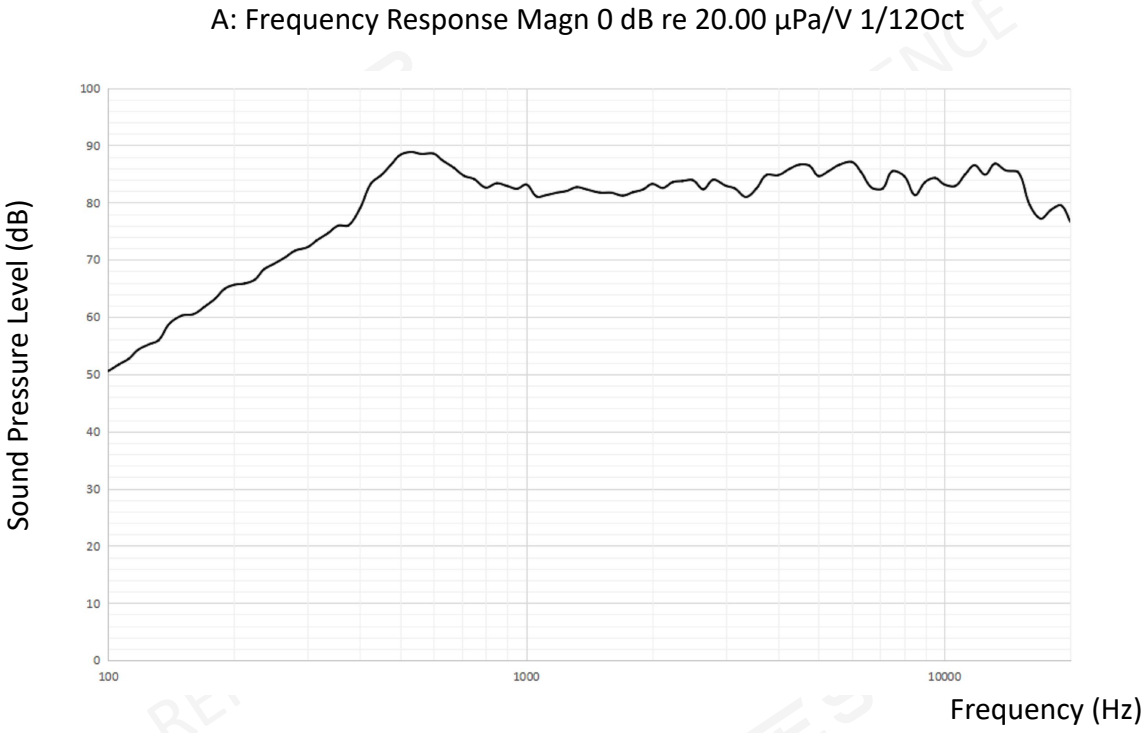
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1.2 Test method:



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1.3 Frequency Response Curve (only for reference)

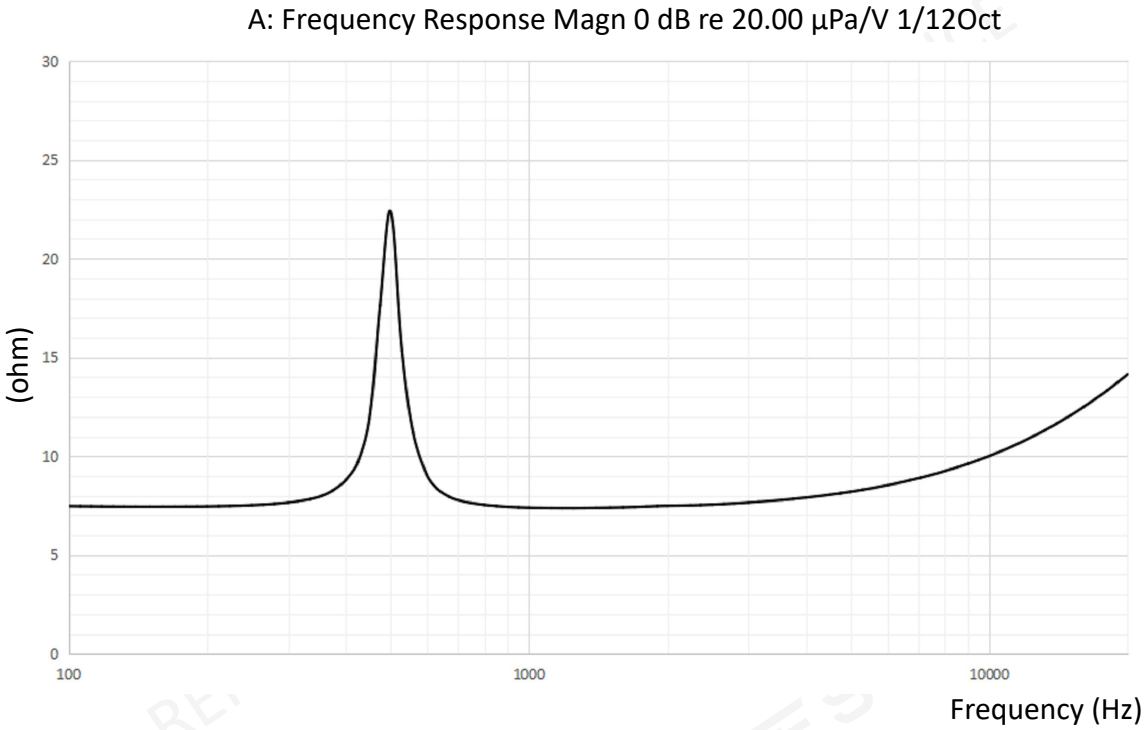


1.3.1 Sensitivity

SPL is expressed in dB rel 20 µPa,computed according to IEC 268-5.
Measurement set up according chapter 1.2 and parameters according chapter 1.3.

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1.4 F0 Curve (only for reference)

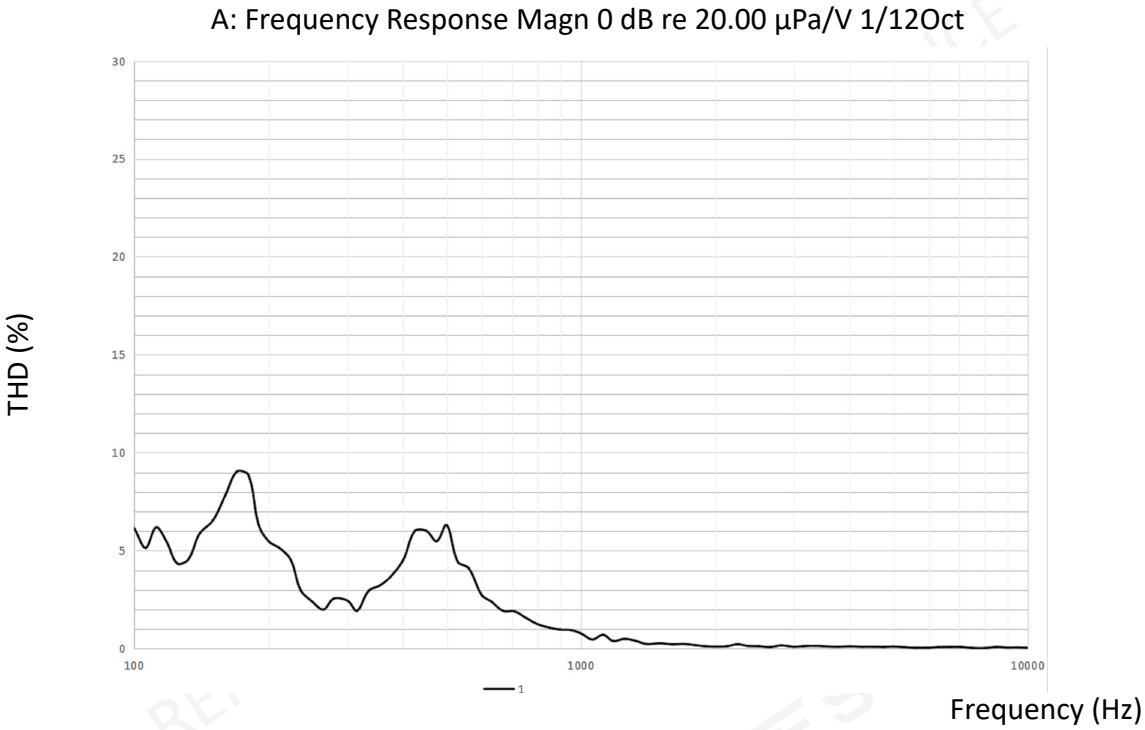


1.4.1 Resonance Frequency

Resonance frequency is measured according test set up in chapter 1.2 and parameters according chapter 1.4

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1.5 Total Harmonic Distortion (only for reference)

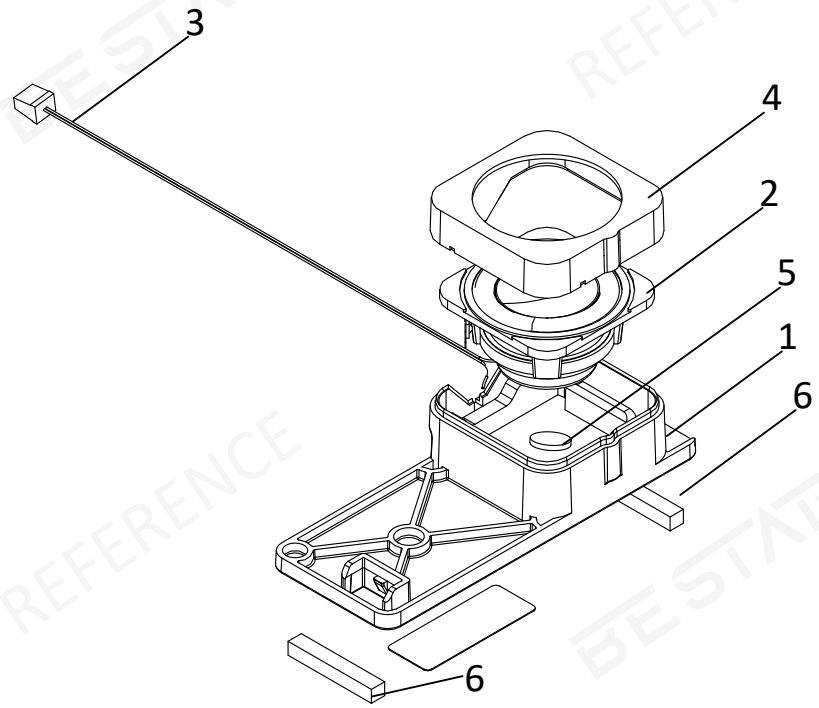


1.5.1 THD

THD is measured according test set up in chapter 1.2 and parameters according chapter 1.5

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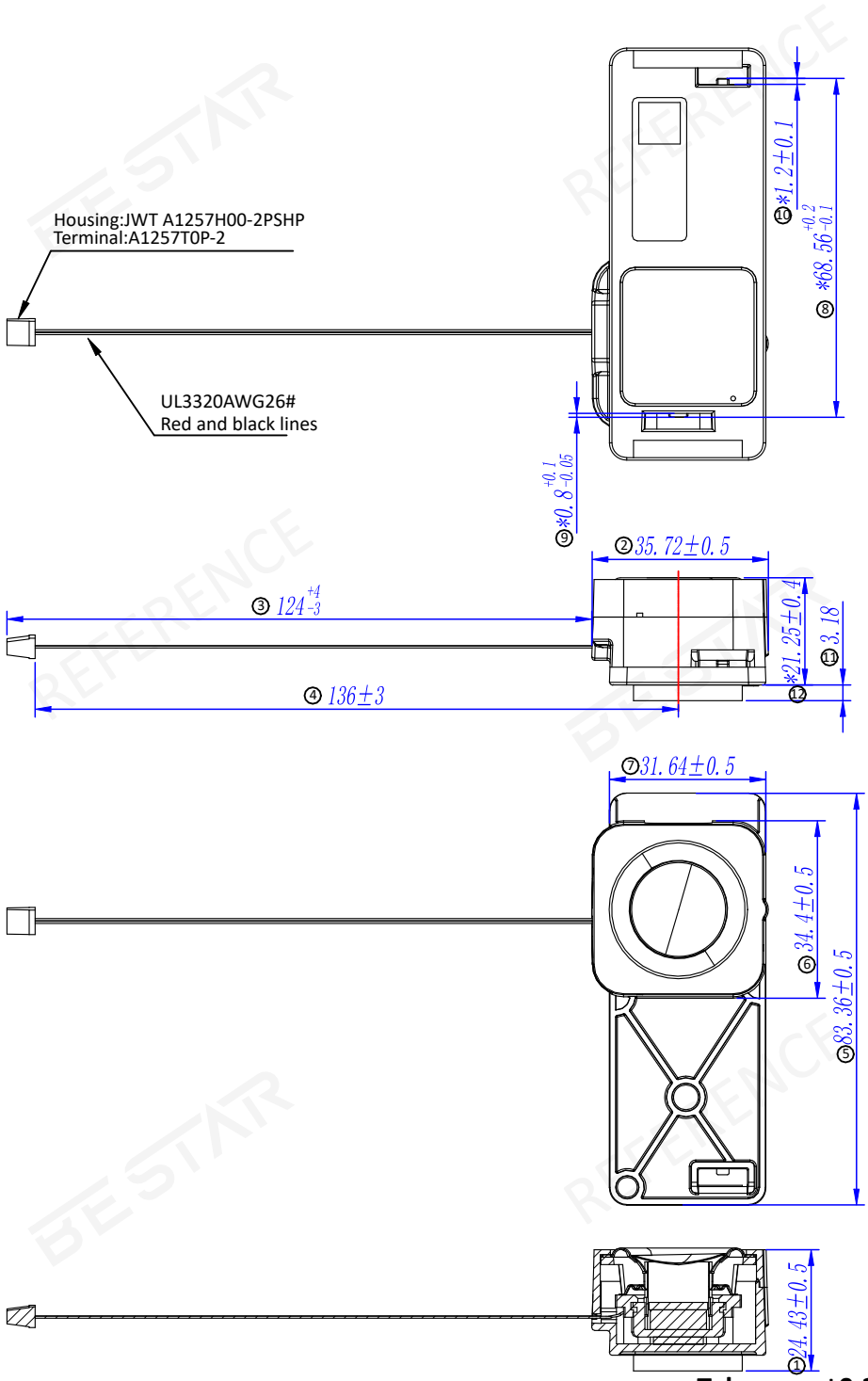
2.Part List



6. Foam	Poron
5. Foam	EPDM
4. Cover	PC
3. Wire Leads	JWTA1257H00-2PSHP/UL3320 AWG26#Red and black lines
2. Speaker	BLS32-11-08H15
1. Lower cover	PC

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3. Dimension



Tolerance:±0.3mm
"*"Important size

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4. Reliability test

4.1 High temp preservation test

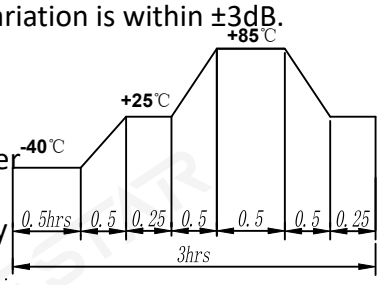
The product was placed in an environment of +85℃ for 96 hours. After the end of the experiment, the product was placed in room temperature for 4 hours and then tested for abnormal sound frequency sweep and acoustic parameters. Sinusoidal wave 4.89Vrms (100~10KHz) sweeps without abnormal sound, F0 should meet the original specification requirements, and the output sound pressure variation is within ±3dB.

4.2 Low temp preservation test

The product was placed in an environment of -40℃ for 96 hours. After the end of the experiment, the product was placed in room temperature for 4 hours and then tested for abnormal sound frequency sweep and acoustic parameters. Sinusoidal wave 4.89Vrms (100~10KHz) sweeps without abnormal sound, F0 should meet the original specification requirements, and the output sound pressure variation is within ±3dB.

4.3 Thermal shock test

The product is subjected to 5 times of temperature cycling impact, and the cycling content is as shown in the figure. After the end of the experiment, the product is placed at room temperature for 4 hours, and then abnormal sound frequency sweep and acoustic parameters are tested. Sinusoidal wave 4.89Vrms (100~10KHz) sweeps without abnormal sound, F0 should meet the original specifications, and the output sound pressure variation is within ±3dB.



4.4 Humidity Endurance

The product was placed in an environment of +40℃ and 90±5%RH for 96 hours. After the end of the experiment, the product was placed in room temperature for 4 hours, and then the abnormal sound frequency and acoustic parameters were tested. Sinusoidal wave 4.89Vrms (100~10KHz) sweeps without abnormal sound, F0 should meet the original specification requirements, and the output sound pressure variation is within ±3dB.

4.5 Vibration test

1.5mm，10~55Hz sine wave, Vibration magnitude 5G time. 3 hours in X, Y and Z, so that's 3 hours. After the test, part of the product mechanism has no appearance defects such as separation, deformation, gap and cracking, etc., and the sinusoidal wave sweeps 4.89Vrms (100~10KHz) without abnormal sound. F0 should meet the original specification requirements, and the output sound pressure variation is within ±3dB.

4.6 Drop test

Free fall on concrete 75 cm high once every 3 surfaces for a total of 3 times. After the test, there is no separation, deformation, clearance or cracking in part of the product. The sinusoid wave sweeps 4.89Vrms (100~10KHz) without abnormal sound. F0 should meet the original specifications and the variation of output sound pressure is within ±3dB.

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4.7 Ordinary temp life

Under the condition of high temperature 85℃ sine wave 450-5000Hz 3W(4.89Vrms，Pink noise) input 96 hours frequency scanning speed 1.5s.At the end of the experiment, the product was placed at room temperature for 4 hours, and then the abnormal sound frequency sweep and acoustic parameters were tested. Sinusoidal wave4.89Vrms (100~10KHz) sweeps without abnormal sound, F0 should meet the original specification requirements, and the output sound pressure variation is within ±3dB.

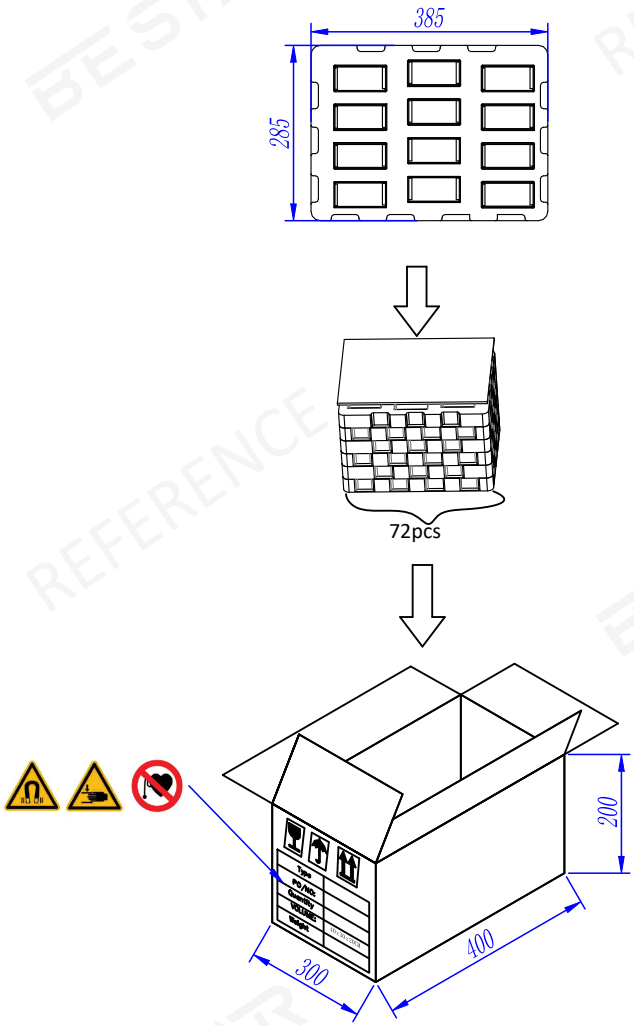
4.8 Intermittent life test

At room temperature, the frequency band 450-5000Hz was set, and the sine wave signal of 3W(4.89Vrms) was input into the product, and the frequency was swept according to 1min/ on-1min/off for 5000 cycles. After the experiment, the sinusoidal wave swep 4.89Vrm(100~10KHz) without abnormal sound.

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5. Packing

5.1 Packing drawing (unit:mm)



5.2 Packing quantity

1)12 pcs per tray
2)6 trays for unit
3)Total 72 pcs per carton
4)Size: 400×300×200(mm)

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6. History change record

Version	Change Items	Date	Drawn	Checked	Approved
A0	First Edition	2020.02.25	Litra.Yang	Peter.Huang	Jason.zhang
A1	Change of SPL(84±3 into 82±3)	2020.08.17	Litra.Yang	Peter.Huang	Jason.zhang
A2	Without Protective cover & Cover foam	2020.11.16	Ronnie.Li	Litra.Yang	Peter.Huang
A3	Add the outer box label according to customer's requirement.	2022.11.05	Emma. Ren	Judy.Yang	Jason.Zhang
B0	Customer changes plug cable lengt	2023.09.20	Judy.Yang	Emma. Ren	Jason.Zhang

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7.Important Notice

7.1 The products mustn't be washed

7.2 Store Condition (Packaging)

The products should be stored in the room ,where the temperature/humidity is stable. And avoid suchplaces where there are large temperature changes. Please store the products at the following conditions:

Temperature: -10 to + 40 ℃ Humidity: 15 to 85% R.H.

7.3 Expire Date on Storage

Expire date (Shelf life) of the products is six months after deliveried under the conditions of a sealed and an unopened package. Please use the products within six months after deliveried.

If you store the products for a long time (more than six months), use carefully because the products may be degraded in the solderability and/or rusty.Please confirm solderability and characteristics for the products regularly.

7.4 Notice on Product Storage

(1) Please do not store the products in a chemical atmosphere (Acids, Alkali, Bases, Organic gas, Sulfides and so on), because the characteristics may be reduced at quality, and/or be degraded in the solderability due to the storage in a chemical atmosphere.

(2) Please use the products immediately after the package is opened, because the characteristics may be reduced at quality, and/or be degraded in the solderability due to storage under the poor condition.

7.5 Rated and Max input power

Rated input power

Rated input power is the maximum (limit) value which can be input to the component intentionally. If the actual input power to component keeps exceeding Rated Input power, it will damage the component acoustic performances and reliability. In the worst case, the component will get broken and no sound.

Max input power

Max input power is the maximum (limit) value for unexpected input power which is caused in the customer's circuit like surge voltage. If the actual input power to component keeps exceeding Maximum input power, it will break the component and cause no sound in a short time. Please note that component will have a risk to get broken if the unexpected input power continues.

The value of input power is set based on the sinusoidal power in the normal speaker use. If the special signal is input to component, the values of Rated and Max input power will be different. Please make a well-investigation at your laboratory in the case of the special signal input.

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