



# SPECIFICATION FOR DYNAMIC Speaker

TOTAL PAGE 08 [www.bestargroups.com](http://www.bestargroups.com) ROHS

## Preliminary Specification For The Acoustic Characteristics of Dynamic Speaker

Customer		Model Name	BLS2828-12-08H11 LF
Customer P/N		Product No.	124911
Date	18 Jun. 13	Issue No.	BS/TES01.1249A
Page	01 of 08	Issue Date	2013/6/18

### Approval:

1. Technical Terms
2. Drawing
3. Reliability Test
4. Packing
5. History Change Record

Drawn by	Checked by	Approved by	Customer approved

### **BESTAR ACOUSTICS CO.,LTD**

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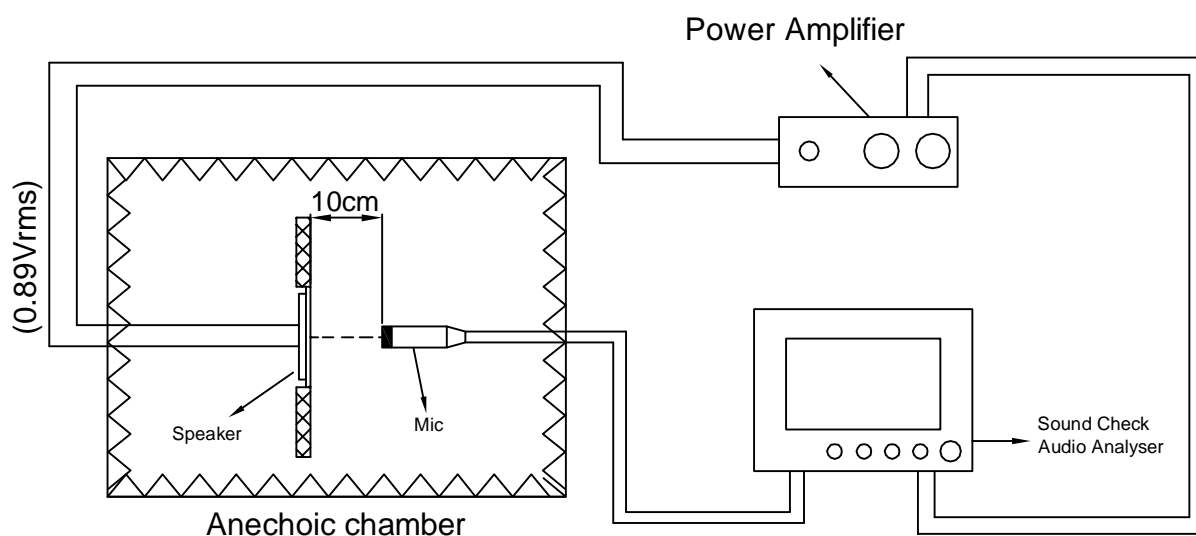
**E-mail:** [wu@be-star.com](mailto:wu@be-star.com) **<http://www.bestargroups.com>**

# BLS2828-12-08H11 LF

## 1. Technical Terms

No.	Item	Specification
1.	Dimension	28X28X11(mm)
2.	AC Impedance(at 1kHz)	$8 \pm 15\% \Omega$
3.	Rated Input Power	2.0W
4.	Maximum Input Power	2.5W
5.	Resonance Frequency	$400 \pm 20\% \text{Hz}$
6.	Frequency Response	$F_0 \sim 20\text{KHz}$
7.	Output SPL	$84 \pm 3\text{dB}$ (0.1W /0.1m) at 0.8~1.5KHz average
8.	Distortion	$\leq 5\%$ ( at 1kHz,2.0W )
9.	Buzzes & Rattles	must be normal at 2.83Vrms (sine wave)
10.	Operating Temperature	$-30 \sim +70^\circ\text{C}$
11.	Storage Temperature	$-40 \sim +85^\circ\text{C}$
12.	Weight	$\sim 11.8\text{g}$

## 1.2 Test Method

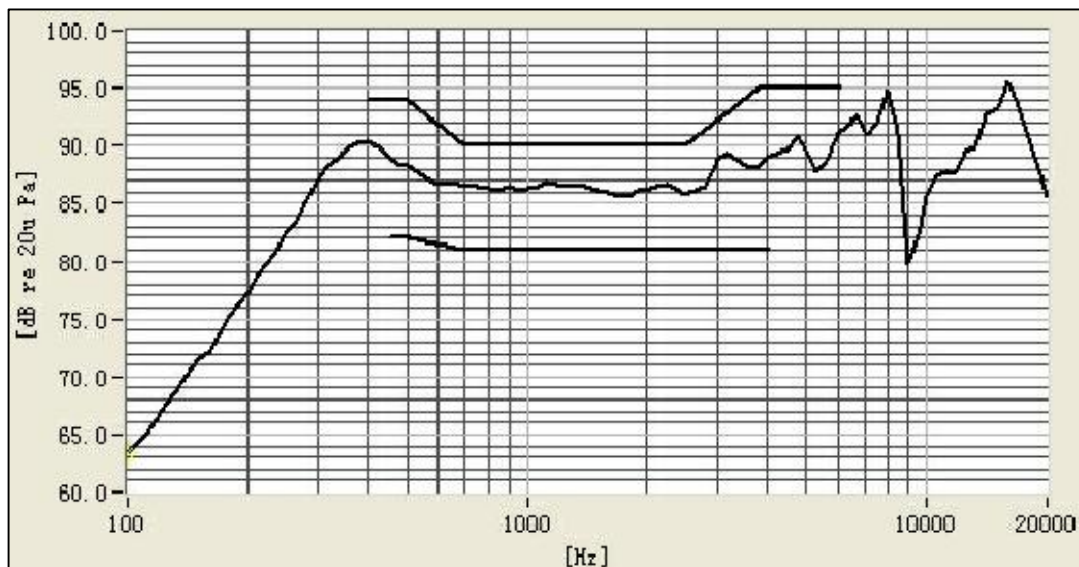


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A	2013/6/18	张小红		Checked by:	汪凤声	Speaker	
Rev.	Date	Drawn	Note	Approved by:	王平		
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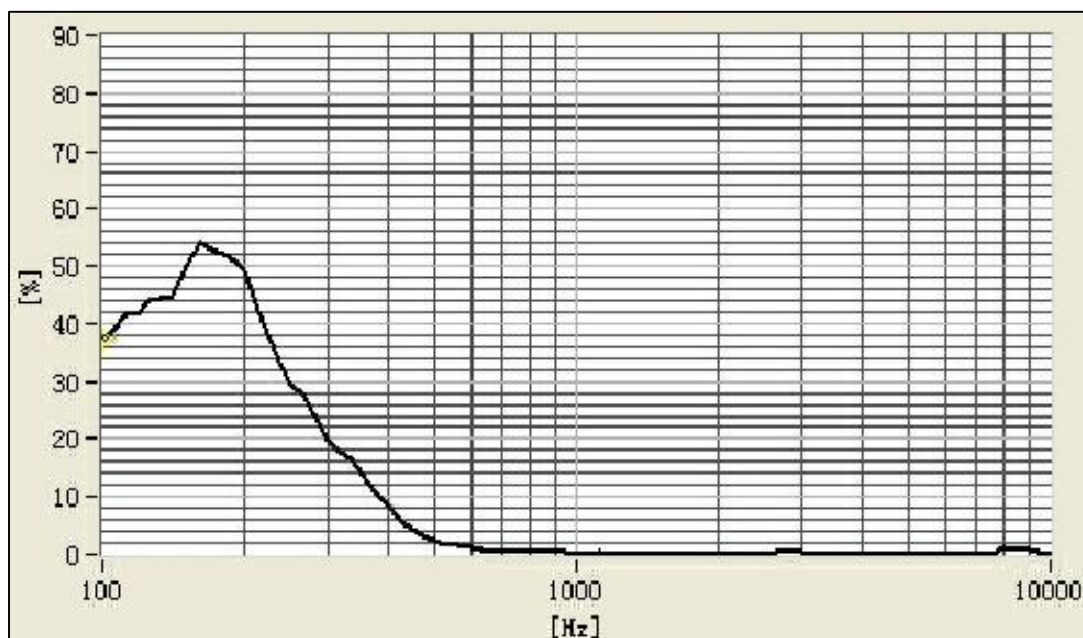
# BLS2828-12-08H11 LF

1.3 Frequency Response Curve (only for reference)



Frequency (Hz)

1.4 Total Harmonic Distortion Curve (only for reference)

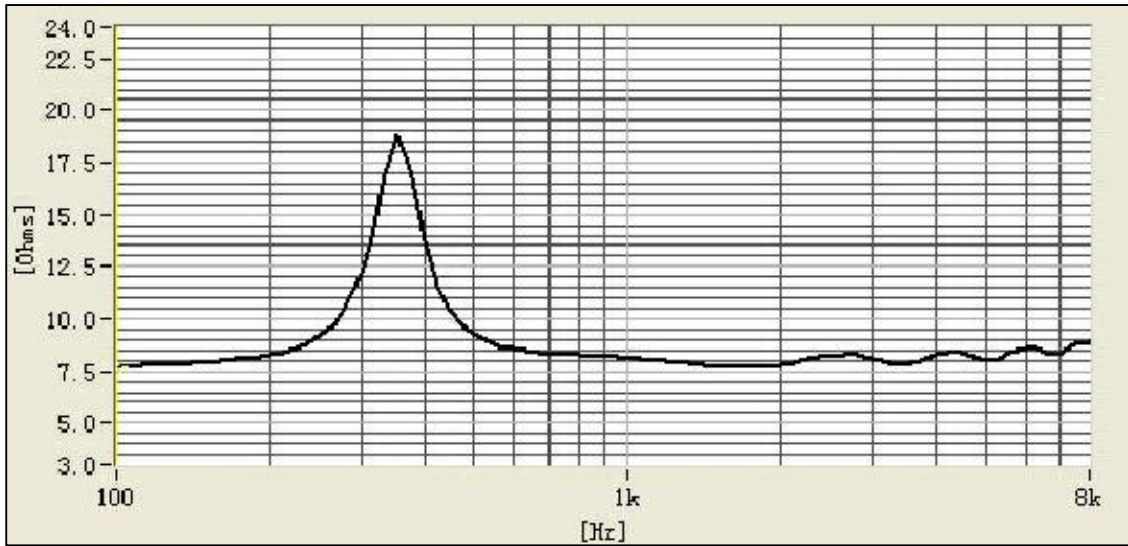


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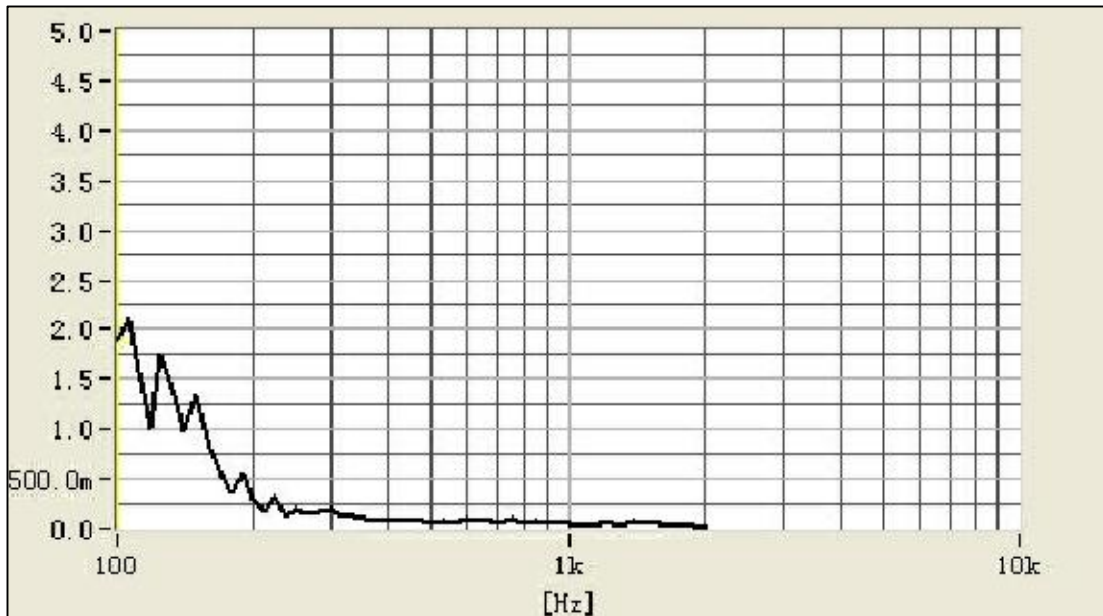
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# BLS2828-12-08H11 LF

1.5 Impedance Response Curve (only for reference)



1.6 RUB Response Curve (only for reference)



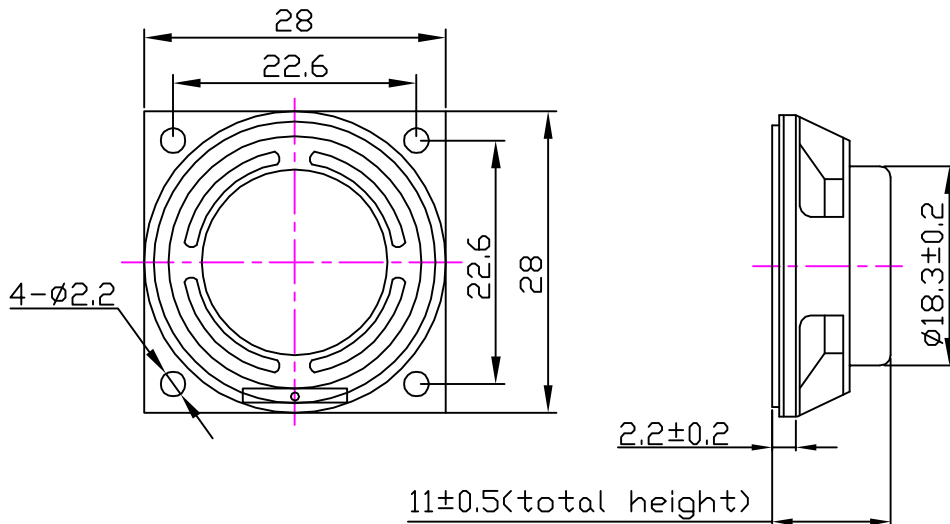
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# BLS2828-12-08H11 LF

## 2.Drawing

Unit:mm  
tolerance:±0.5



### ☆.T/S parameter

$F_s=312.1576\text{Hz}$	$V_{AS}=0.0216\text{L}$	$R_e=3.710\Omega$
$Q_{MS}=4.7069$	$Q_{ES}=3.2375$	$Q_{TS}=1.9181$
$B.L=0.7254\text{T.m}$	$\text{dB}_{SPL}=82.0961$	$S_D=0.0004\text{m}^2$
$C_{MS}=1.1102\text{mm/N}$	$M_{MS}=0.2341\text{g}$	$R_{MS}=0.0976\Omega_M$
$C_{AS}=1.55\text{E-}0010\text{m}^5/\text{N}$	$M_{AS}=1680.62\text{kg/m}^4$	$R_{AS}=700313\Omega_A$
$C_{MES}=444.9135\mu\text{F}$	$L_{CES}=0.5843\text{mH}$	$R_{ES}=5.3939\Omega$
$R_{AT}=1718481\Omega_A$	$R_{MT}=0.2394\Omega_M$	$M_{MD}=0.2301\text{g}$
$Z_{MIN}=4.0899\Omega$	$Z_{MAX}=9.1039\Omega$	$Z_{AVD}=4.5815\Omega$
$\eta_0=0.0195\%$	$L_{1\text{KHZ}}=0.0103\text{mH}$	$L_{10\text{KHZ}}=0.0327\text{mH}$

Date: 2013/6/18  
 Drawn by: 张小红  
 Checked by: 汪凤声  
 Approved by: 王平

BLS2828-12-08H11 LF

Speaker

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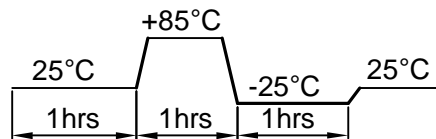
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Page:05 of 08

# BLS2828-12-08H11 LF

## 3. Reliability Test

3.1 Load Test	
Power	2W ( sine wave)
Duration	96hrs
3.2 High Temperature Test	
Temperature	+85±3°C
Relative Humidity	20%-50%RH
Duration	16hrs
3.3 Low Temperature Test	
Temperature	-25±3 °C
Duration	16hrs
3.4 Damp Heat	
Temperature	40±3°C
Relative Humidity	90%-95%RH
Duration	16hrs
3.5 Temperature Cycle Test	
Cycle	4



3.6 Drop Test	
Height	100cm (in state of packing)
Times	10 (Drop onto hardwood board)

**Notice:**

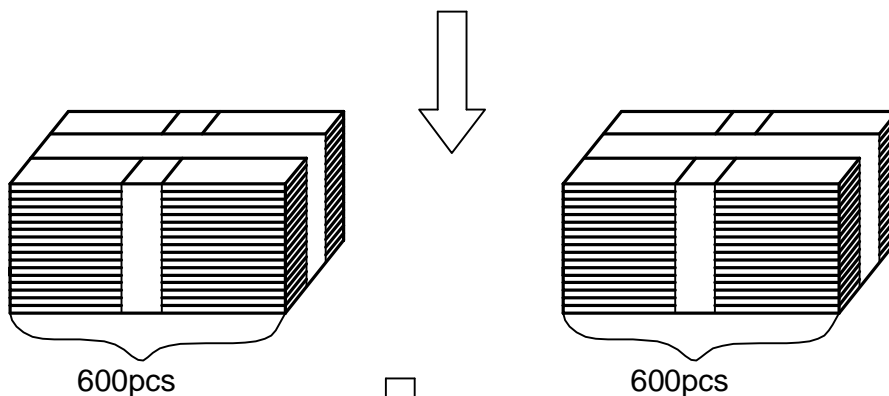
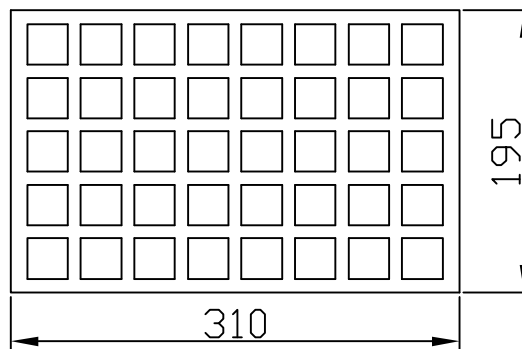
- All these tests above should be measured after leaving normal temperature for 2hrs.
- sensitivity difference at 1kHz shall be within ±3dB from initial value after test.

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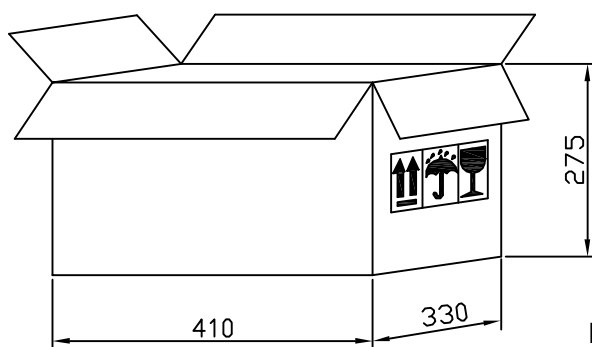
# BLS2828-12-08H11 LF

## 4. Packing



600pcs

600pcs



Remark:  
 40 pcs per tray  
 15 trays for unit, 2 units per carton  
 Total 1200pcs per carton  
 Size: 41×33×27.5(cm)

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BLS2828-12-08H11 LF

5. History change record

version No.	Change Items		Date	Drawn	Approved
	Before	After			
A			13/6/18	张小红	李红元

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