



SPECIFICATION

CUSTOMER:

PRODUCTS : MICRO SPEAKER

MODEL : XHS151135LN-03-RH

ITEM. NO. :

DATE :2018-12-21



APPROVER	CHECKER	DESIGNER

CUSTOMER APPROVER

SIGNATURE	IMPRINTMENT

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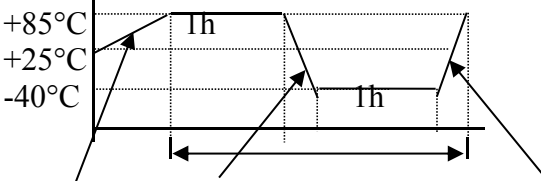
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ZHEJIANG ELECTRONIC CO.,LTD. TEL:86-573-84645930 、 84646197 FAX:86-573-84646190 E-mail: services@xh-haosheng.com.		HAOSHENG TECHNOLOGY SPECIFICATIONS (1/8)		
		TYPE NO.	XHS151135LN-03-RH	Issue:A/0
Revision				
No	Date	Page	Description	Sign
Table of Contents				
No.	Item			Page
1	Product Outline			2/8
2	Electroacoustic Characteristics			2/8
3	General Reliability			3/8
4	Mechanical Layout and Dimensions			4,5/8
5	Measuring Setup			6/8
6	Frequency Response			7/8
7	Total Harmonic Distortion			8/8

ZHEJIANG ELECTRONIC CO.,LTD. TEL:86-573-84645930 、 84646197 FAX:86-573-84646190 E-mail: services@xh-haosheng.com.	HAOSHENG TECHNOLOGY	SPECIFICATIONS (2/8)		
		TYPE NO.	XHS151135LN-03-RH	Issue:A/0
1. Product Outline				
1-1. Scope		This specification is a typical speaker unit for telephone handset		
1-2. Dimensions		As shown in figure 1		
1-3. Net Weight		Approx 1.4 grams		
1-4. Operating Temperature Range		-30°C to +70°C without loss of function		
1-5. Storage Temperature Range		-40 °C to +85 °C (Note: Return to ambient room temperature before using)		
2. Electroacoustic Characteristics				
2-1. Test Setup		Measuring instrument as shown in Figure 3		
2-2. Impedance		AC: 8 ± 15% ohm （at 2 KHz, 2.83V input ）		
2-3.Sound Pressure Level		95.5 ± 3 dB SPL /2.83V/10cm at 2kHz in 1cc box with baffle Speaker shall be mounted in a baffle with minimum dimensions of 80cm x 100cm. See Figure 4.		
2-4.Frequency Response		See Figure 5, Test at 1.0W /10 cm with the speaker mounted in 1cc measure box in a baffle.		
2-5.Bass Resonance Frequency		870±15% Hz in 1cc box input 2.83V;		
2-6. Iput Power (Rated./Max.)		Rated Power: 1.0W （in 1cc box） Maximum Power: 1.3W （in 1cc box）		
2-7.Rub and Buzz:		The input power shall be set at 1.0W. Using an audio oscillator, sweep from 200 to 3.4kHz with the speaker mounted in 1cc measure box and in a baffle.There shall be no buzzes, rattles, nor spurious noises.		
2-8.THd		Test at 1.0W /10 cm with the speaker mounted in 1cc measure box in a baffle. See Figure 6		
2-9.Polarity		When a DC source's “+” polarity is attached to speaker's “+” polarity,“-“ polarity is attached speaker's “-“ polarity ,the membrane will move forward .		

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	TYPE NO.	XHS151135LN-03-RH	Issue:A/0
3. General Reliability			
3-1 General	After any following tests the response at 2 KHz shall not deviate more than ± 3 dB from the initial value		
3-1 Temperature Shock Test	Temperature: $-40^{\circ}\pm 3^{\circ}\text{C}$ $\longleftrightarrow$ $+85^{\circ}\pm 3^{\circ}\text{C}$ Cycle: 10 cycles Duration: 1 hour 1 hour (recovery 2 hours)  (30minutes) (5minutes) 1 cycle (5minutes)		
3-2 Static Humidity Test	Precondition at $+25^{\circ}\text{C}$ for 1 hour. Next expose samples to $+55^{\circ}\text{C}$ with 95% relative humidity for 96 hours with no bias. Finally allow test samples to dry at room ambient temperature for 3 ± 1 hour before taking final measurements.		
3-3 Vibration Test	Secure device using a fixture appropriate for this test. Fixture shall be capable of mounting on vibration table. Vibrate from 10Hz to 2000Hz, 1 octave per minute, 2mm displacement $\pm x$, $\pm y$, $\pm z$ directions with 15 g's force for 2 hrs per each plane.		
3-4 Drop Test	Drop samples 1.5 meters three times in each direction along each of the three mutually perpendicular axes for a total of 18 shocks.(Samples shall be mounted in a 100g fixture)		
3-5 Operating Life Test	1cc box; 25°C ;Pink noise;20Hz-20kHz; 1.0W;Crest factor 3-4;96 H		
3-6.Rated Sweep Power Test	1cc box; 25°C ;Rated Power(1.0W);650-1050Hz; 1 sec;12 H		
3-7 Max Power Test	1cc box; 25°C ;Pink noise;20Hz-20kHz;1.3W;1 sec on/60 sec off;60 cycles		
3-8.High Temperature Test	$85 \pm 2^{\circ}\text{C}$;96H;2H Recovery time		
3-9.Low Temperature Test	$-40 \pm 2^{\circ}\text{C}$;96H;2H Recovery time		

SPECIFICATIONS

(4/8)

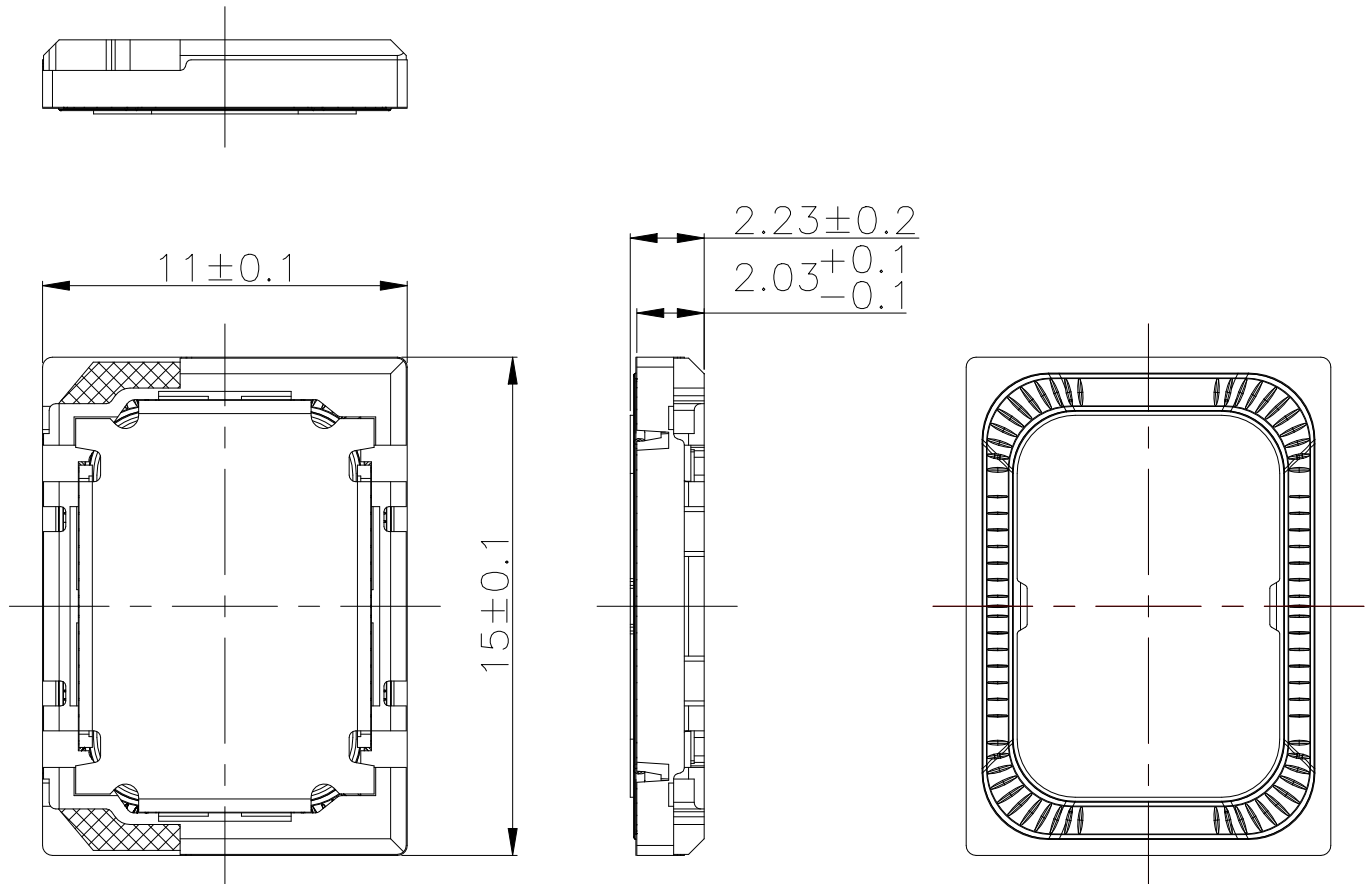
TYPE NO.

XHS151135LN-03-RH

Issue:A/0

4. Mechanical Layout and Dimensions

4.1 Mechanical Layout



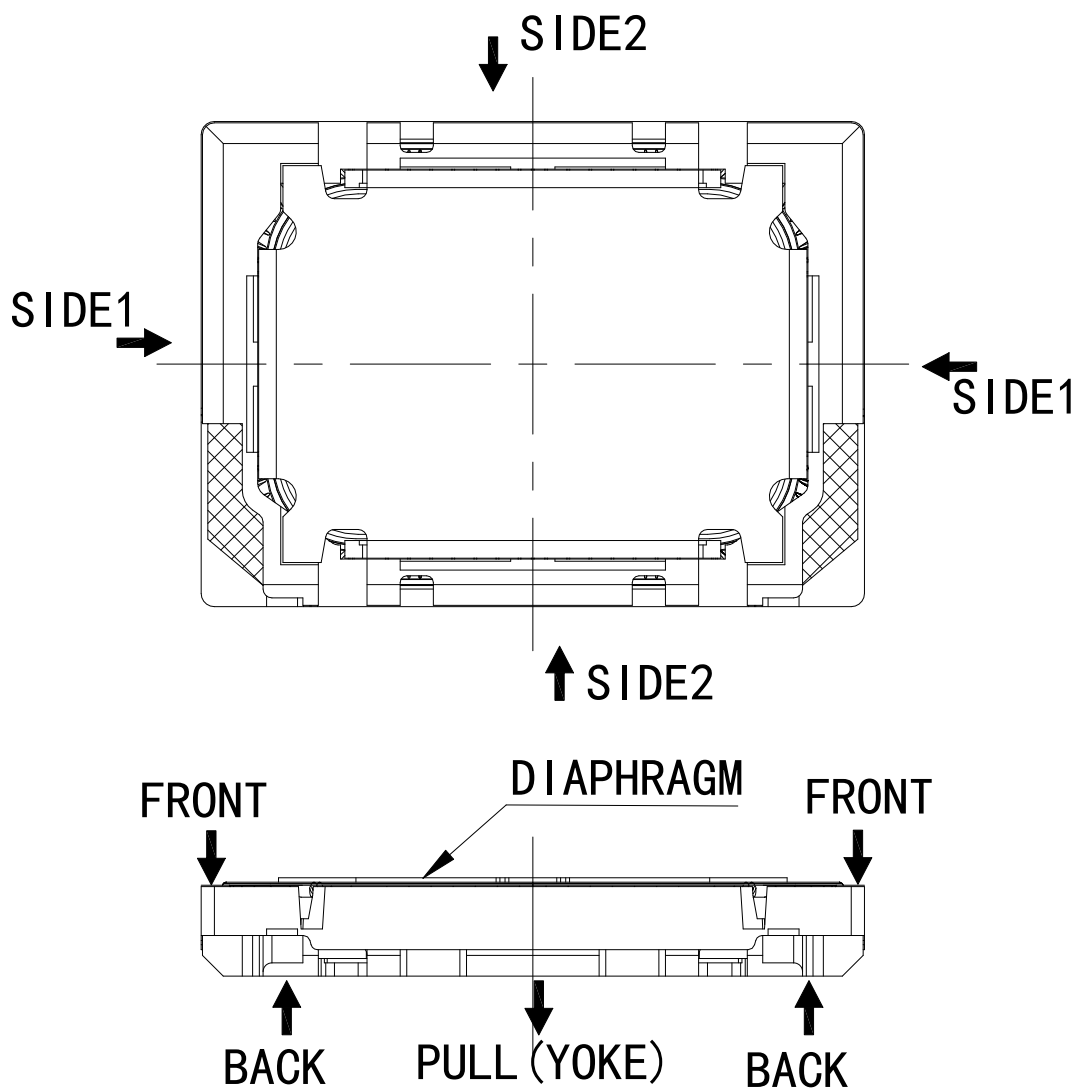
Notes:

1、 General unless otherwise noted $\pm 0.15\text{mm}$.

(Figure 1)

8	Terminal Base	SUS301 0.15t	2	
7	Voice Coil	Copper	1	
6	Dome Type	Polymer	1	
5	Diaphragm	Polymer	1	
4	Pole Piece	Iron	1	
3	Magnet	NdFeB	1	
2	Yoke	Iron	1	
1	Frame	Plastic	1	
No.	Part Name	Material	Q'TY	Remark

4.2 Permitted Force to Speaker



(Figure 2)

Table 1: Max. Permitted compression forces

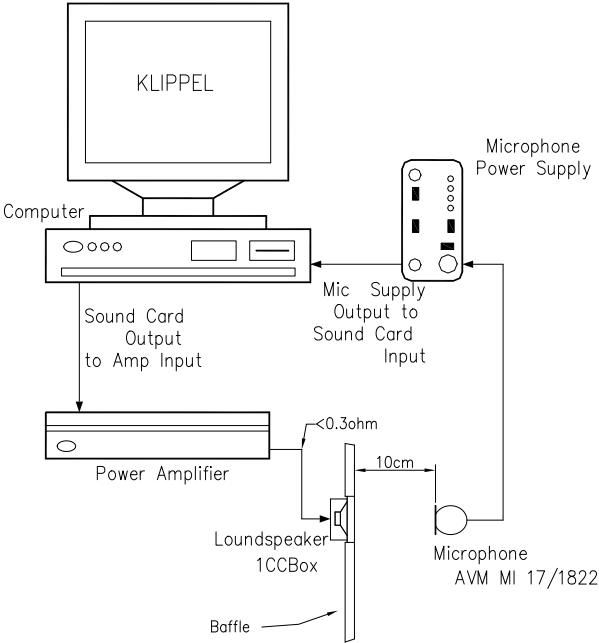
NO.	From	To	Max. Permanent Force(N)
1	Side 1	Side 1	10N
2	Side 2	Side 2	10N
3	Front	Back	5N
4	To Diaphragm		0N
5	Pull of Force(Yoke)		0N

TYPE NO.

XHS151135LN-03-RH

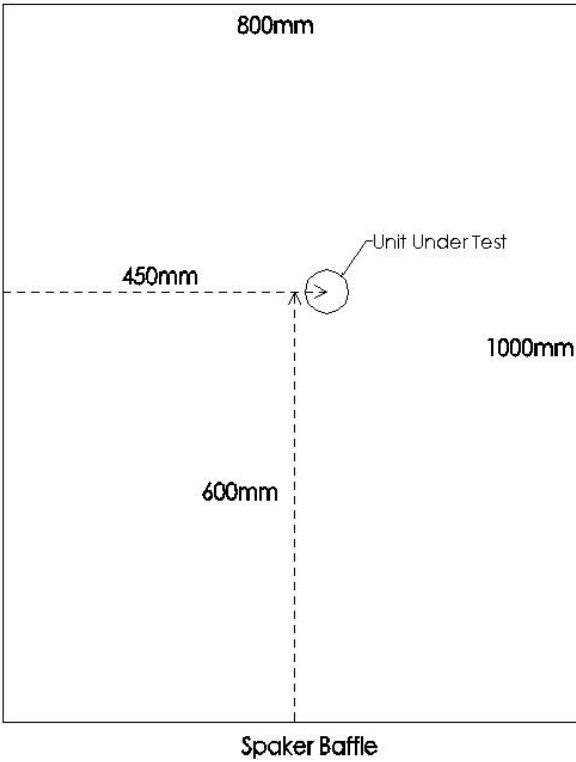
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5. Measuring Setup



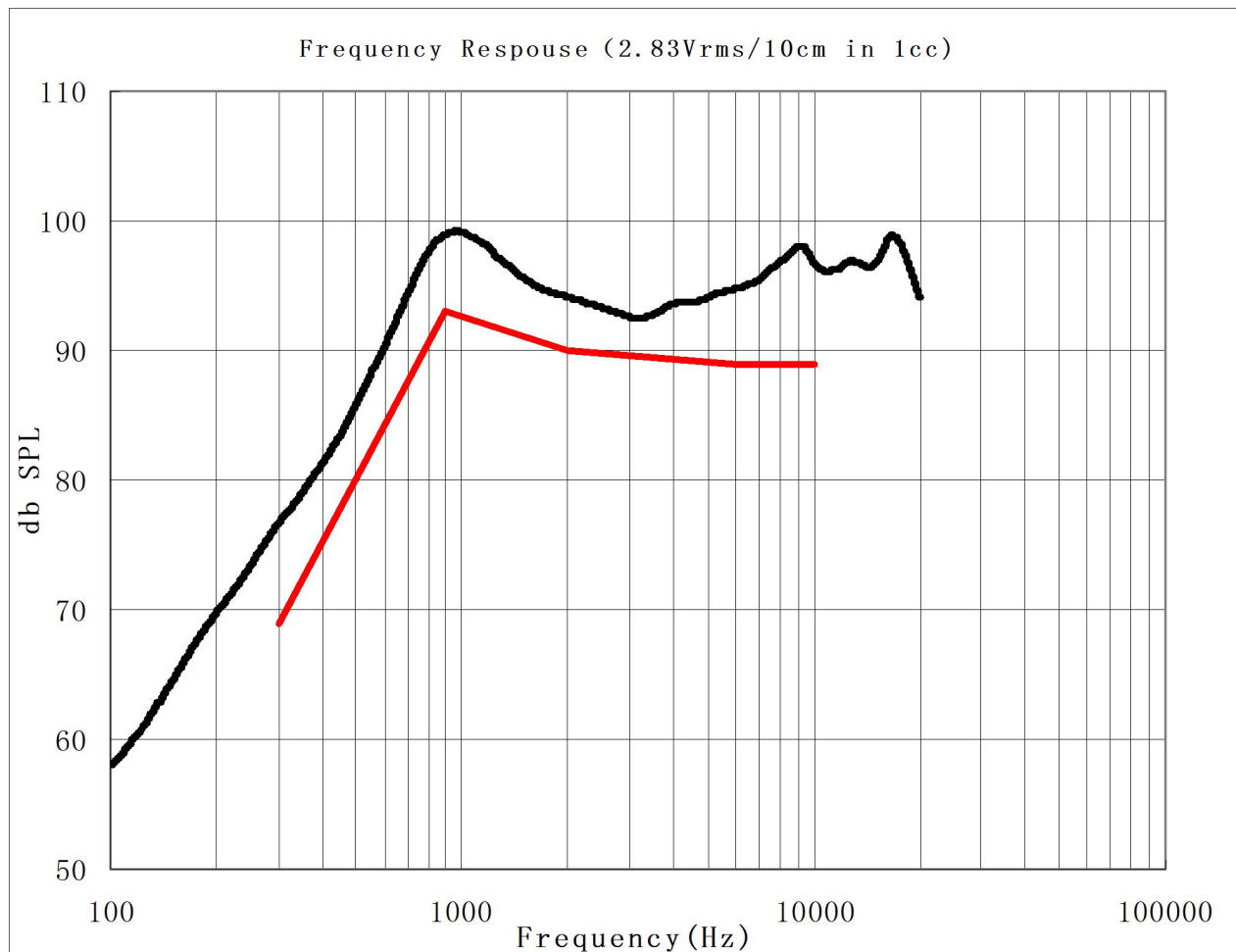
(Figure 3)

Baffle



(Figure 4)

6. Frequency Response

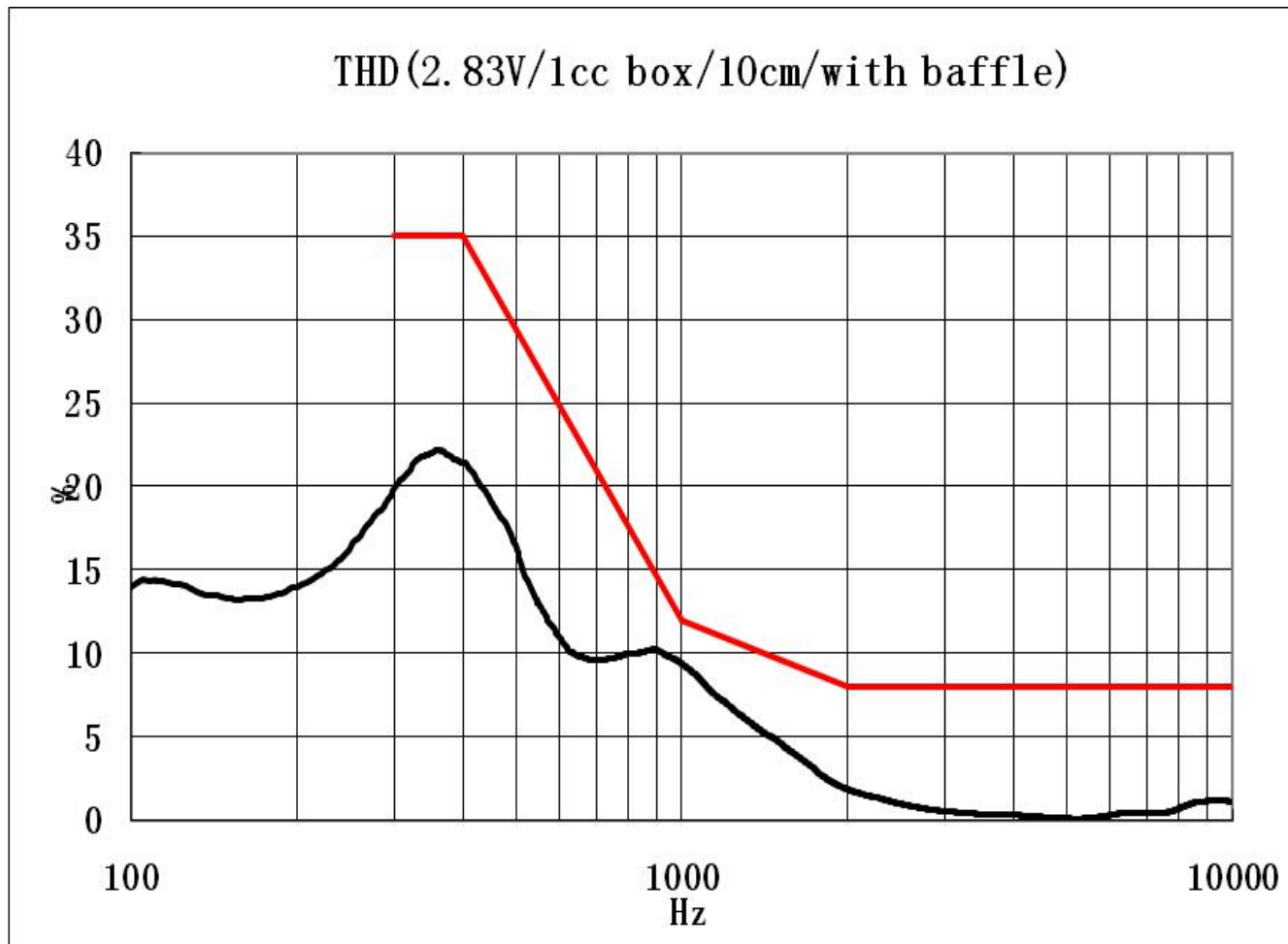


(Figure 5)

Table 2: Limits for SPL

Freq.(Hz)	Limit(dB)
300	69
900	93
2000	90
6000	89
10000	89

7. Total Harmonic Distortion



(Figure 6)

Table 3: Limits for THD

Freq.(Hz)	Limit(%)
300	35
400	35
1000	12
2000	8
10000	8