



SPECIFICATION

CUSTOMER:

PRODUCTS : MICRO SPEAKER

MODEL : XHS201601LN-02-RH

ITEM. NO. :

DATE : 2018-7-31



APPROVER	CHECKER	DESIGNER

CUSTOMER APPROVER

SIGNATURE	IMPRINTMENT

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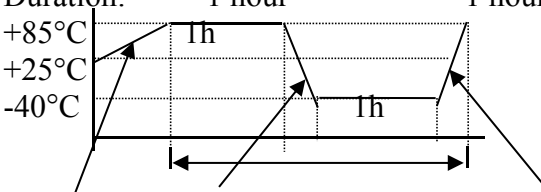
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ZHEJIANG ELECTRONIC CO.,LTD. TEL:86-573-84645930 、 84646197 FAX:86-573-84646190 E-mail: services@xh-haosheng.com.		HAOSHENG TECHNOLOGY SPECIFICATIONS (1/8)		
		TYPE NO.	XHS201601LN-02-RH	Issue:A/0
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ZHEJIANG ELECTRONIC CO.,LTD. TEL:86-573-84645930 、 84646197 FAX:86-573-84646190 E-mail: services@xh-haosheng.com.	HAOSHENG TECHNOLOGY	SPECIFICATIONS (2/9)		
		TYPE NO.	XHS201601LN-02-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 2.6 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		8 ± 15% ohm （ at 2 KHz, 2.83V input ）		
2-3.Sound Pressure Level		95 ± 3 dB SPL /1.0W/10cm at 2kHz in 1.5cc box Speaker shall be mounted in a baffle with minimum dimensions of 80cm x 100cm. See Figure 4.		
2-4.Frequency Response		See Figure 5, Table 2 Test at 1.0W/10 cm with the speaker mounted in 1.5cc measure box in a baffle.		
2-5.Bass Resonance Frequency		850±10% Hz in 1.5cc box		
2-6. Iput Power (Rated./Max.)		Rated Power: 1.0W （in 1.5cc box） Maximum Power: 1.5W （in 1.5cc box）		
2-7.Rub and Buzz:		The input power shall be set at 1.0W. Using an audio oscillator, sweep from 500 to 6kHz with the speaker mounted in 1.5cc measure box and in a baffle.There shall be no buzzes, rattles, nor spurious noises.		
2-8.THd		See Figure6 , Table 3 Test at 1.0W /10 cm with the speaker mounted in 1.5cc measure box in a baffle.		
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.	XHS201601LN-02-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		
3-2 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)		
3-3 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.		
3-4 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.		
3-5 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)		
3-6 Operating Life Test	1.5cc box; 25°C ;Pink noise;20Hz-20kHz; 1.0W;Crest factor 3-4;96 H		
3-7.Rated Sweep Power Test	1.5cc box; 25°C ;Rated Power(1.0W);650-1050Hz; 1 sec;12 H		
3-8 Max Power Test	1.5cc box; 25°C ;Pink noise;20Hz-20kHz;1.5W;1 sec on/60 sec off;60 cycles		
3-9.High Temperature Test	$85 \pm 2^{\circ}\text{C}$;96H;2H Recovery time		
3-10.Low Temperature Test	$-40 \pm 2^{\circ}\text{C}$;96H;2H Recovery time		

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SPECIFICATIONS (4/9)

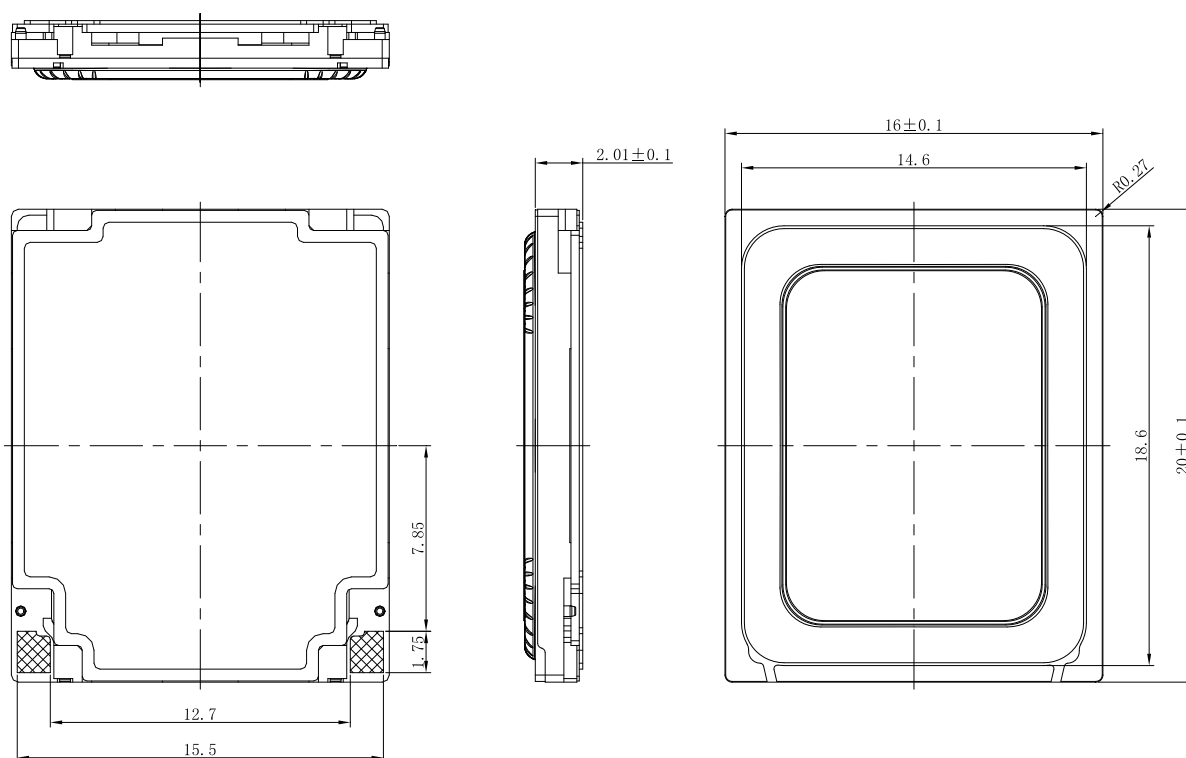
**TYPE
NO.**

XHS201601LN-02-RH

Issue:A/0

4. Mechanical Layout and Dimensions

4.1 Mechanical Layout



Notes:

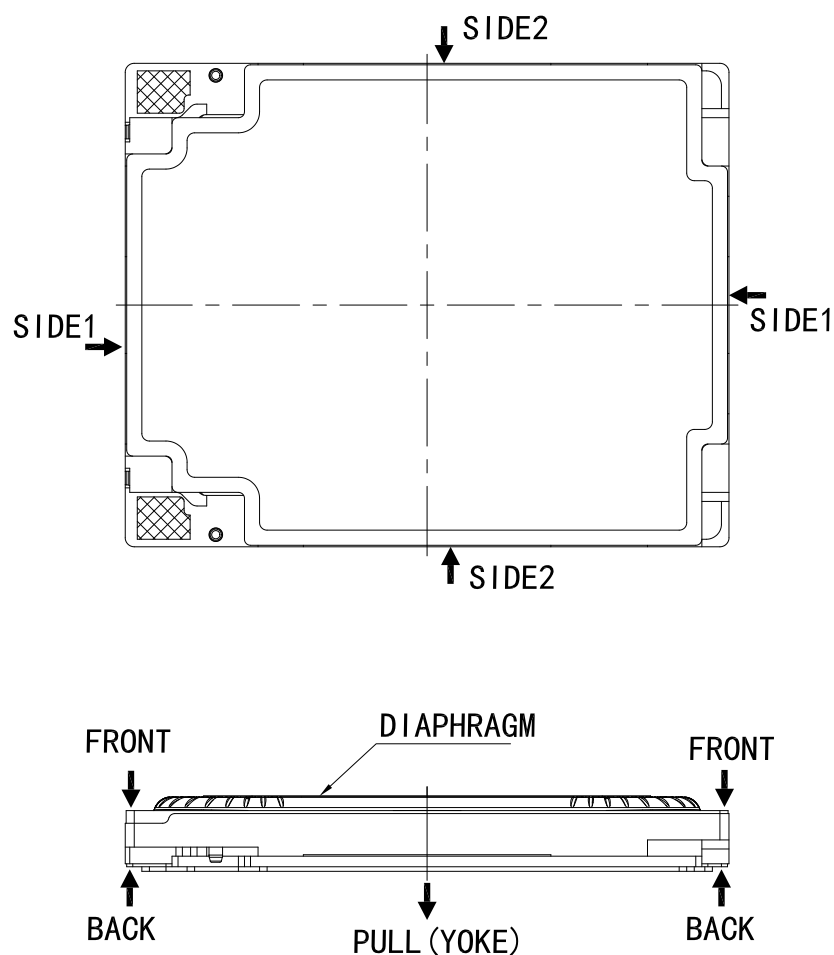
1、 General unless otherwise noted $\pm 0.15\text{mm}$.

(Figure 1)

8	Terminal Base	SUS301 3/4H	2	
7	Voice Coil	Copper	1	
6	Dome Type	Mcpet	1	
5	Diaphragm	Polymer	1	
4	Pole Piece	Iron	2	
3	Magnet	NdFeB	5	
2	Yoke	Iron	1	
1	Frame	Plastic	1	
No.	Part Name	Material	Q'TY	Remark

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4.2 Permitted Force to Speaker

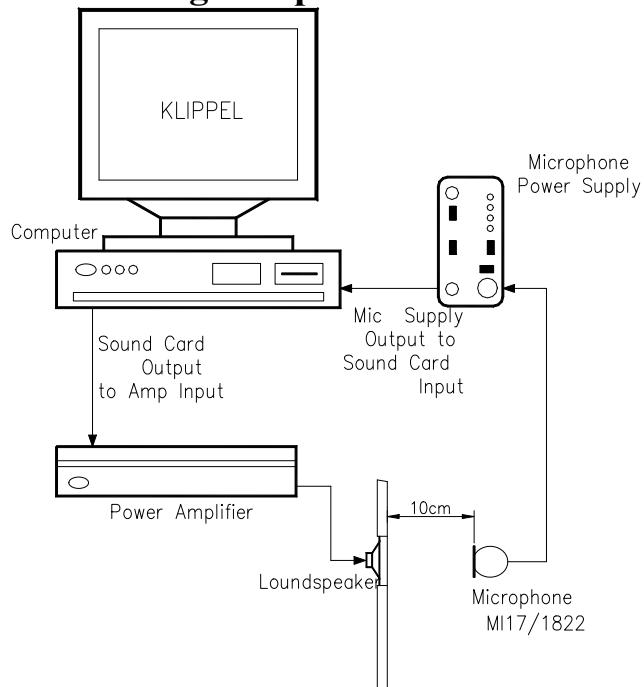


(Figure 2)

Table 1: Max. Permitted compression forces

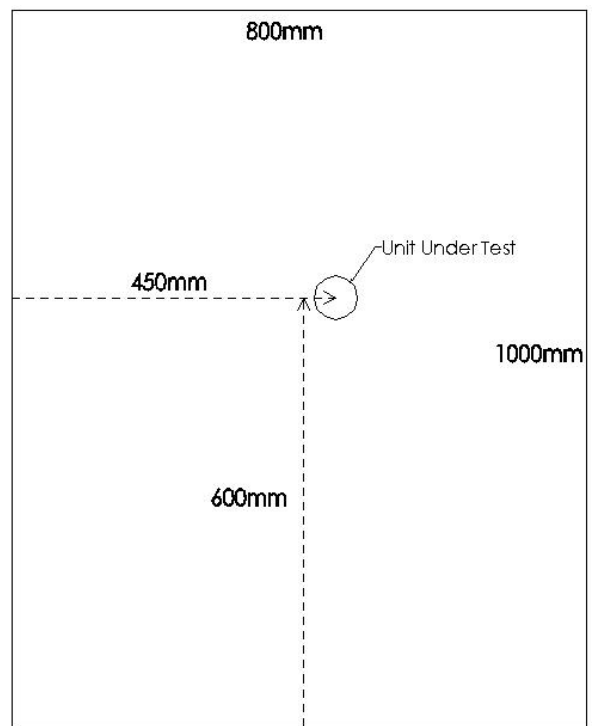
NO.	From	To	Max. Permanent Force(N)
1	Side 1	Side 1	10N
2	Side 2	Side 2	10N
3	Front	Back	5N
4	To Diaphragm		0N
5	Pull of Force(Yoke)		0N

5. Measuring Setup



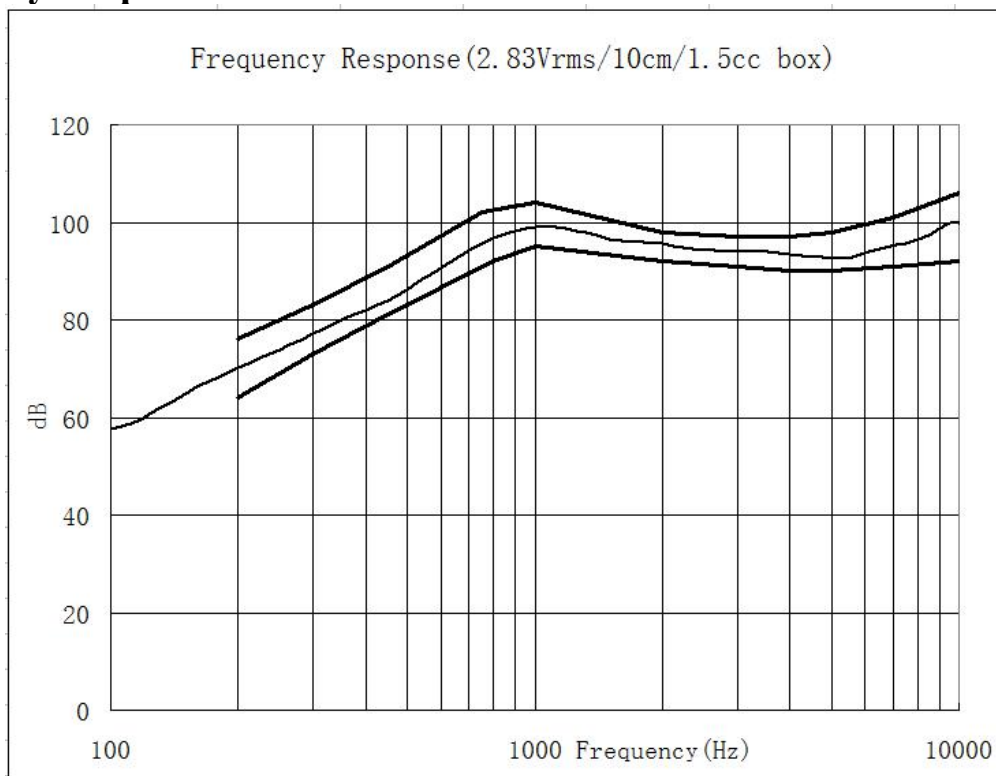
(Figure 3)

Baffle



**Spaker Baffle
(Figure 4)**

6. Frequency Response

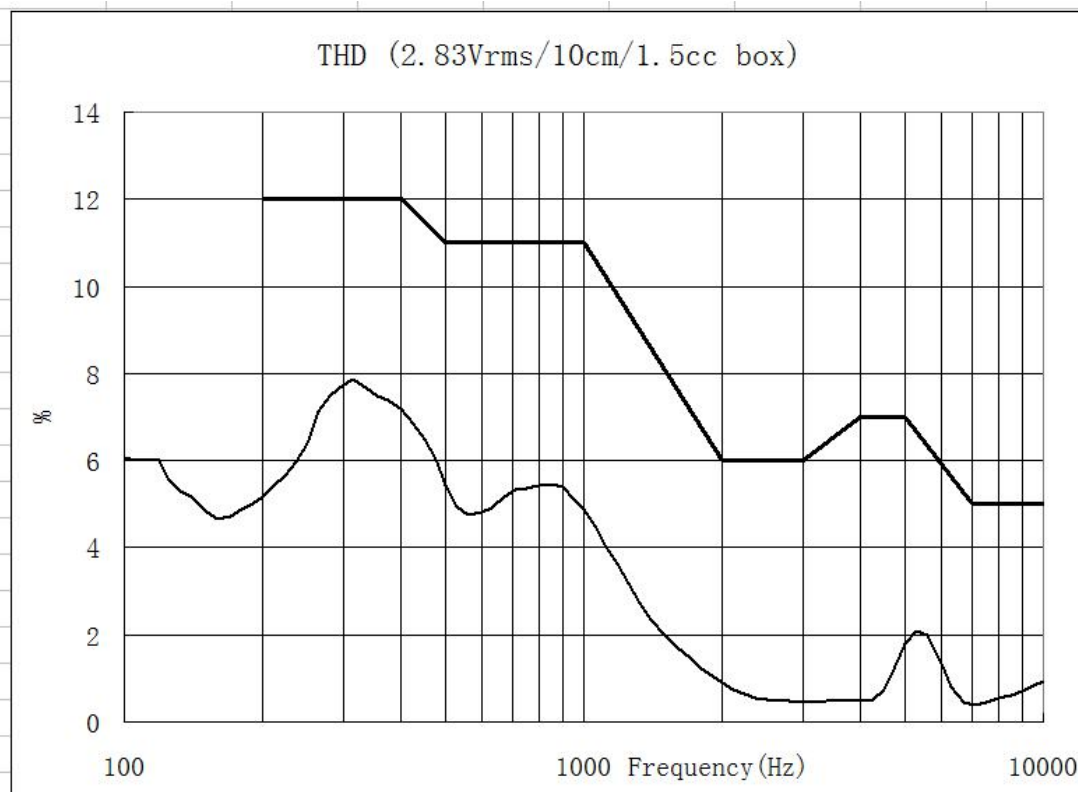


(Figure 5)

Table 1:Tolerance Limits Data for FR

Frequency(Hz)	Upper Limits(dB)	Frequency(Hz)	Lower Limits(dB)
200	76	200	64
300	83	300	73
450	91	450	81
750	102	800	92
1000	104	1000	95
2000	98	2000	92
3000	97	3000	91
4000	97	4000	90
5000	98	5000	90
7000	101	7000	91
10000	106	10000	92

7. Total Harmonic Distortion

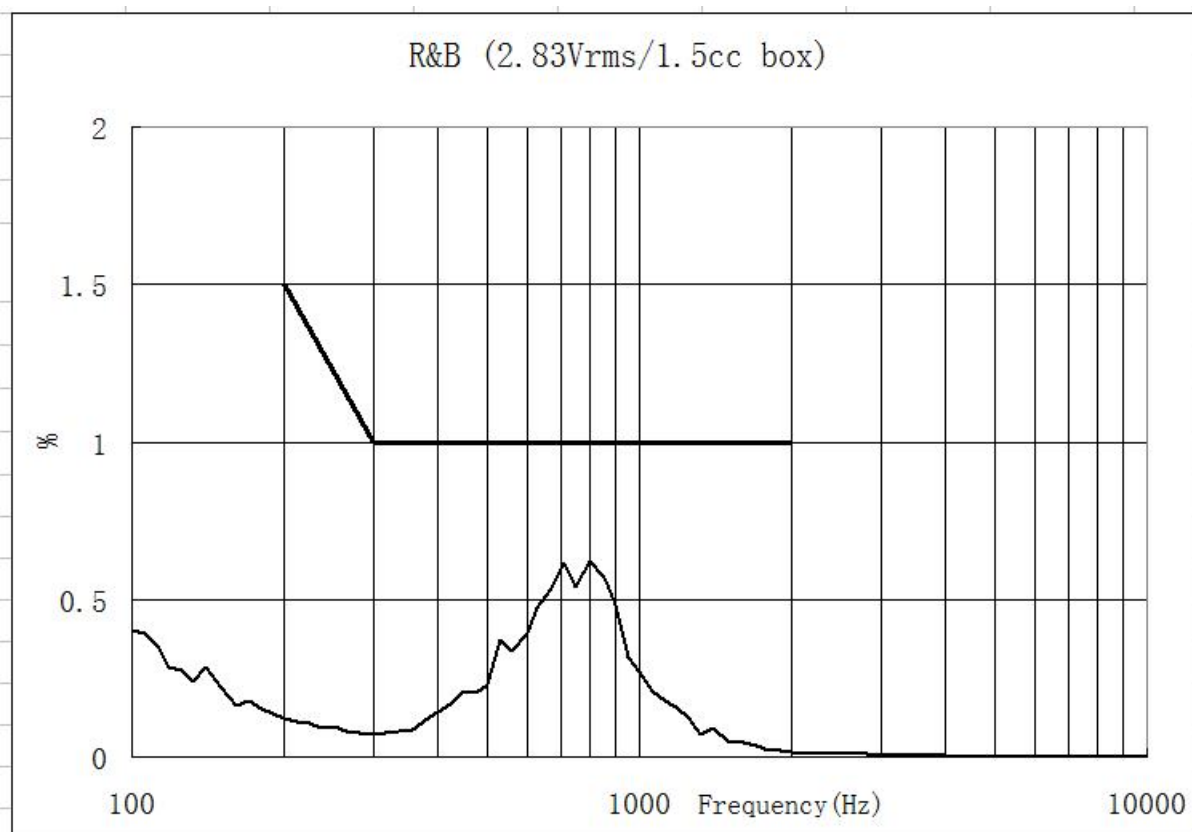


(Figure 6)

Table 2: Limits Data for THD

Frequency(Hz)	Limits
200	12
400	12
500	11
1000	11
2000	6
3000	6
4000	7
5000	7
7000	5
10000	5

9. Rub and Buzz



(Figure 7)

Table 3: Limits Data for R&B

Frequency(Hz)	Limits
200	1.5
300	1
1000	1
2000	1