BID

Believe in dreams

SPECIFICATION

SHEET FOR APPROVAL

（Revision：X1）

CUSTOMER:

PRODUCT: DYNAMIC Earphone Receiver

SUPPLIER PART NUMBER: E11C30AP-01
CUSTOMER PART NUMBER:

TITLE: Φ11×H3.0 16 ohms/ROHS/PAD

	PREPARED	CHECKED	APPROVED	R&D CHOP
SIGNATURE (CHOP)				
DATE				

CUSTOMER COMMENT:

SIGNATURE: _____

DATE: _____

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REVISION HISTORY

NO.	Revision	Comment	Page No.	Date
1	X1	Closed release	All involved sheets	2020-11-11

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1. SCOPE

This document contains required，electrical，acoustic，mechanical，package and reliability test requirements.

2.Environmental Requirement

This Earphone Receiver including all components, soldering joints and glue must be halogen free, in ROHS requirements and other banned or restricted substances according to customer's requirements.

3.Electrical Requirements

3.1 DC Resistance	15.0±10% ohms
3.2 Rated Impedance	16Ω ± 10% @ 1KHz，0.126 Vrms
3.3 Power Rating	5mW
3.4 Short Term Max. Power	10mW

4.Acoustical Requirements

4.1 Sound Pressure Level	117±3dB@ 1KHz, 0.126Vrms，IEC711Ear
4.2 Frequency Response	See Figure1

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Typical frequency response

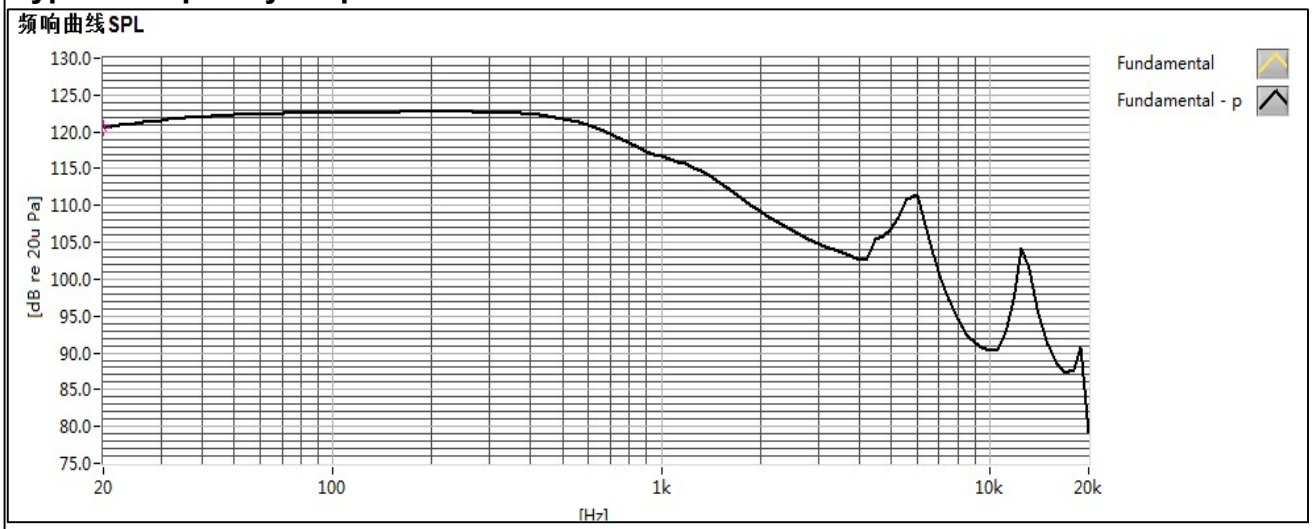

Figure 1

Frequency[hz]	Upper limit	Lower limit

Table1, Test Limit for FR

- Grading principle :(grading with 1KHZ sensitivity)

Grading	**A** (Upper limit)	**B** (Middle limit)	**C** (Lower limit)	Due to machine and test errors range, two adjacent grading are allowed to shift, with a maximum of 1dB
Sensitivity range of 1KHZ （dB）	120~118	117.9~116	115.9~114	

4.3 Total Harmonic Distortion(THD):

Typical THD response(See Figure 2)

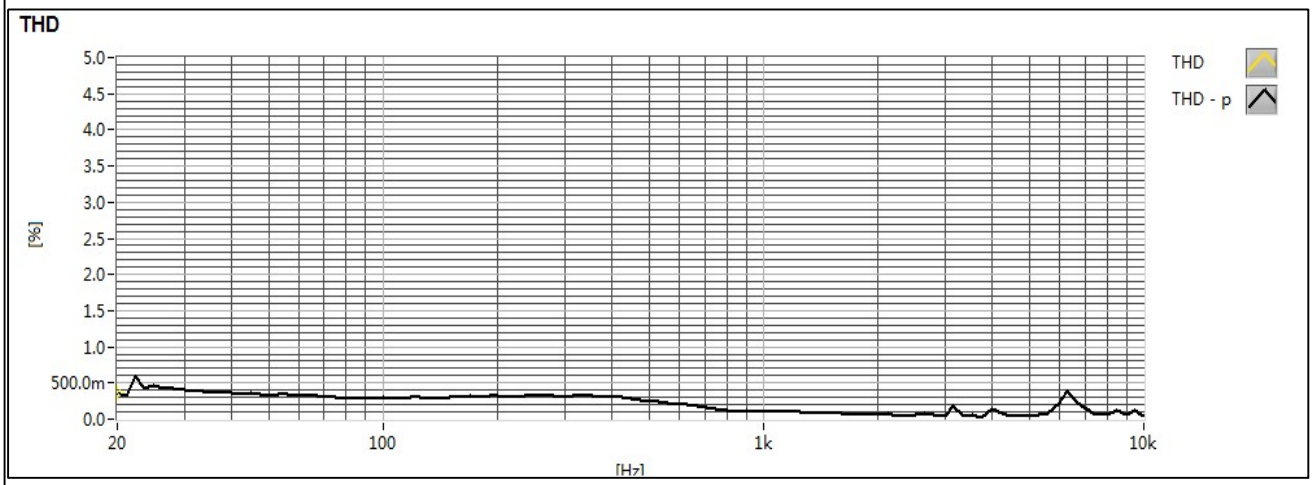

Figure 2 ,Typical THD Response

Frequency[hz]	Upper limit[%]
100	
999	
1000	
1001	
10000	

Table2, Test Limit for THD

4.4 Rub & Buzz

A sine sweep among 20-5K Hz at short term max power will not result in any buzzing or extraneous sound.

5.Polarity Requirements

When a DC source's "+" polarity is attached to Earphone Receiver's "+"polarity,"-"polarity is attached receiver's "-"polarity, the membrane will move forward.

6. Test Climatic Condition

Standard Test Condition :

a) Temperature : +15 ~ +35℃

b) Humidity : 45-85%

c) Pressure : 860-1060mbar

Judgement Test Condition

a) Temperature : +20 ± 3℃

b) Humidity : 60-70%

c) Pressure : 860-1060mbar

7. Test Method

7.1 Sensitivity and Frequency Response Curve:

The Earphone Receiver shall be mounted in a fixture. And the recommended acoustic measuring devices are shown below in fixture3. The swept sine-wave frequency range is 20Hz~10kHz. (Input126mVrms).

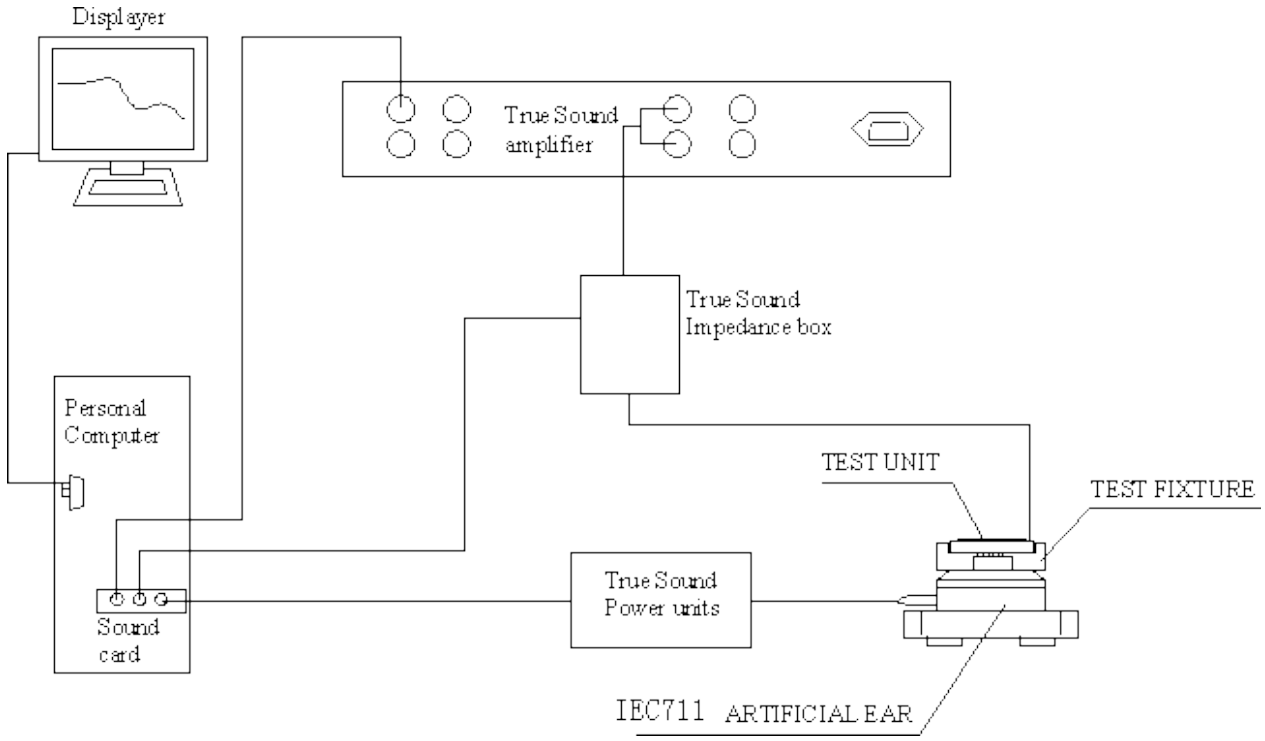

Figure3 Earphone Receiver testing setup

8. General Requirements

8.1 Operation temperature range: -20℃ to +60℃

8.2 Storage temperature range: -30℃ to +65℃

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9. General Reliability

9	9-1 Operation life test	Ear phone Receiver input rated power, carry out 96H continuous power and white noise signal; Test SPL curve and listening before and after comparison; Number of tests: 10pcs		1, after the test of the product, can not appear no sound, noise, small sound problems; 2. The difference of 1KHZ sensitivity before and after the test was within 3dB;
	9-2 Vibration test	Ear phone Receiver was subjected to random vibration test of 10HZ~200HZ for 3H, SPL curve and listening before and after comparison; Number of tests: 10pcs		
	9-3 Drop test	Ear phone Receiver drop samples 1m high, 3 times in each direction, total 9 times. SPL curve and listening before and after comparison; Number of tests: 10pcs		
	9-4 Drum test	1m, 78cycle/min,10 times a curve test and listening; fixed Ear phone Receiver movement with fixture during the test; Number of tests: 10pcs		
	9-5 Cold and hot shock test	No power at -30°C~65°C cycle test, low temperature for 30 minutes, high temperature for 30 minutes, a total of 15 cycles. After being stored at room temperature for 4H; SPL curve and listening before and after comparison; Number of tests: 10pcs		
	9-6 cold operation	-20°C, white noise, rated power, 72H. After Store at room temperature for 4H after test; SPL curve and listening before and after comparison; Number of tests: 10pcs		

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	9-7 Hot operation	Test at 60°C, white noise, rated power, 72H. After being stored at room temperature for 4H; SPL curve and listening before and after comparison; Number of tests: 10pcs		3, the structure part without separation, deformation, dispensing part without glue;
	9-8 Low-temperature storage	No power storage at -20°C. After being stored at room temperature for 4H; SPL curve and listening before and after comparison; Number of tests: 10pcs		
	9-9 High-temperature storage	No power storage at 65°C. After being stored at room temperature for 4H; SPL curve and listening before and after comparison; Number of tests: 10pcs		
	9-10 Salt Spray Test	Test time: 24H; Ambient temperature: 30°C; Humidity: >=70%; Experimental temperature requirements: brine temperature 35°C, experimental chamber temperature: 35°C, compressed air temperature: 47°C; Experimental salt water requirements: USING JIS-S-8150 sodium chloride solution concentration 5% plus or minus 1, where the PH value is 6.5~7.2; Number of tests: 10pcs		

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10. Mechanical Layout and Dimensions

10.1 Mechanical layout for Earphone Receiver (see Figure 4)

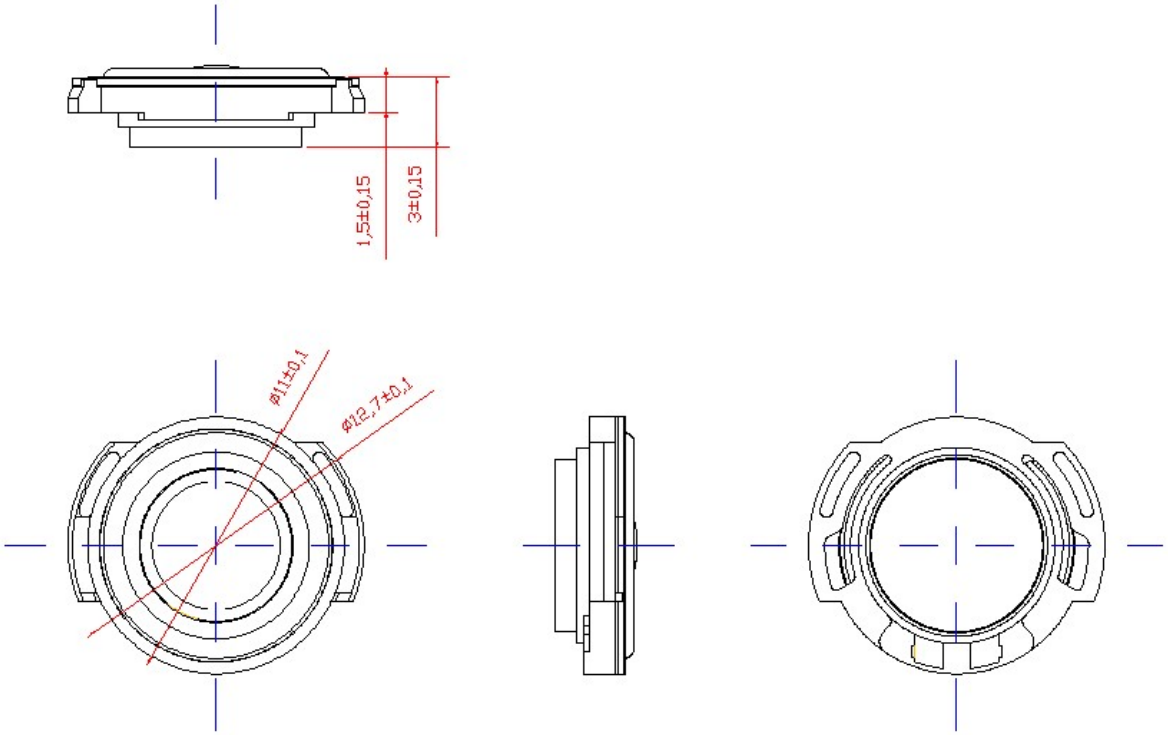

Figure4,Earphone Receiver layout profile

Note:1、General unless otherwise noted : ±0.2mm

11. Package: TBD

Application Notes: TBD