



# **Dynamic receiver With spring & HAC**

**15.0 × 6.0 × 2.5 mm**

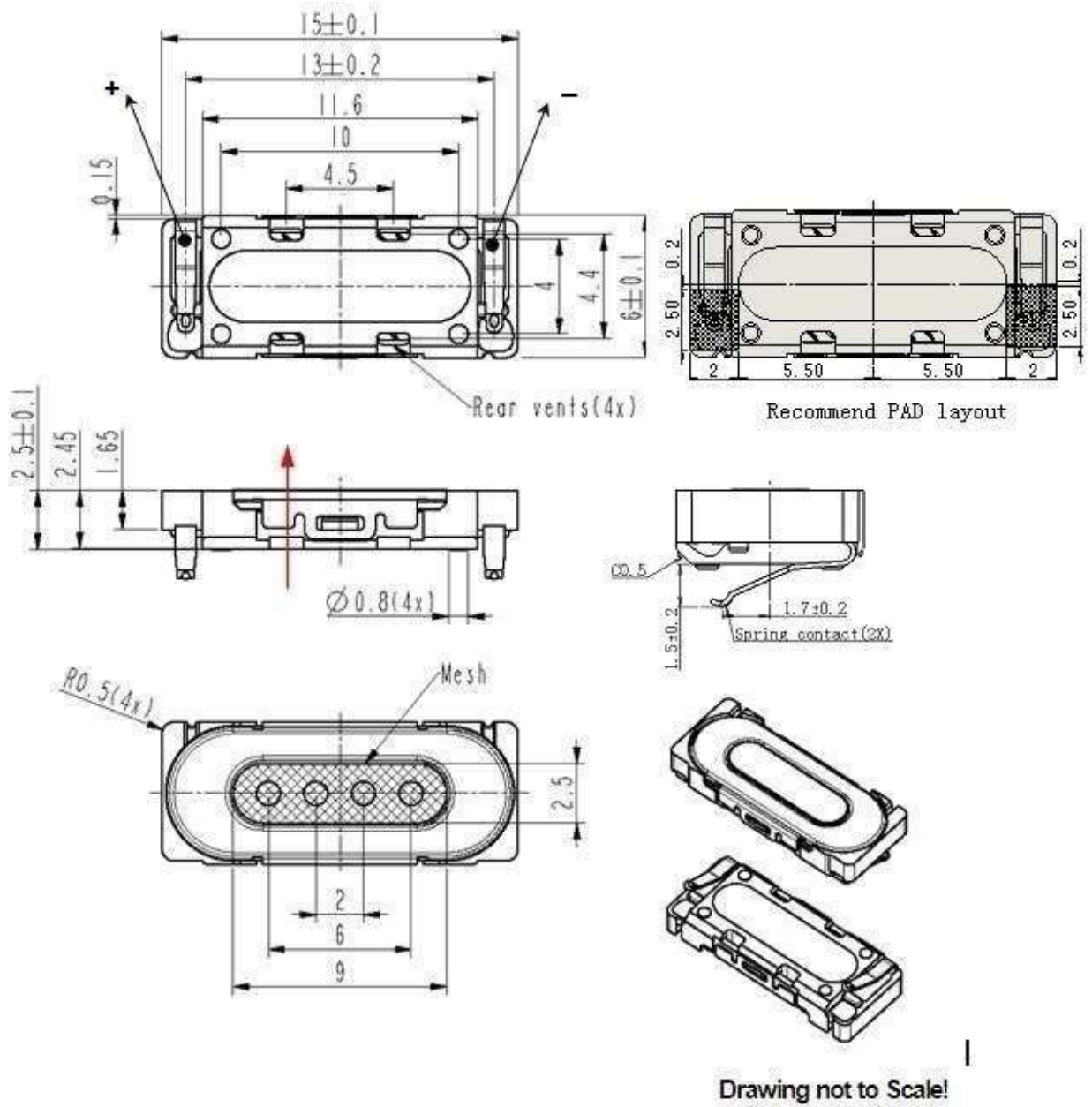
**BR1506L025YN16M**

## **Revision**

<b>Date</b>	<b>Version</b>	<b>Status</b>	<b>Changes</b>	<b>Approver</b>
2019/12/18	V0.1	Draft	Initial release	AX
2020/2/20	V0.2	Draft	Add spring size	AX
2020/8/10	V0.3	Draft	Update date code marking	AX

# 1. Mechanical Characteristics

## 1.1. Mechanical Drawing



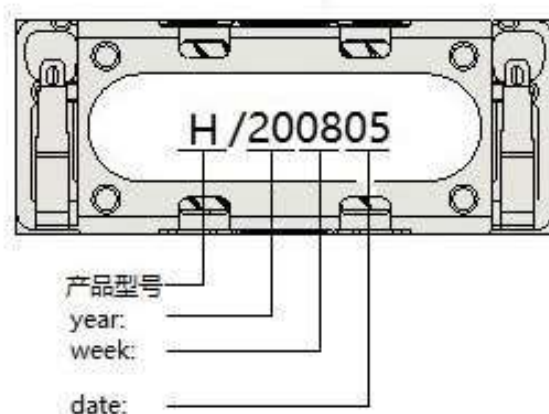
Drawing not to Scale!

Positive voltage on pad '+' moves membrane in direction of red arrow!

## 1.2. Material List

- |    |           |                    |
|----|-----------|--------------------|
| 1) | Basket    | PPA                |
| 2) | Membrane  | PEN                |
| 3) | Cover     | CrNi steel         |
| 4) | Pot       | Soft magnetic iron |
| 5) | Magnet    | Nd-Fe-B            |
| 6) | Top plate | Soft magnetic iron |
| 7) | Spring    | CrNi steel         |
| 8) | Dimension | 06X15X2.5mm        |
| 9) | Weight    | 0.5g               |

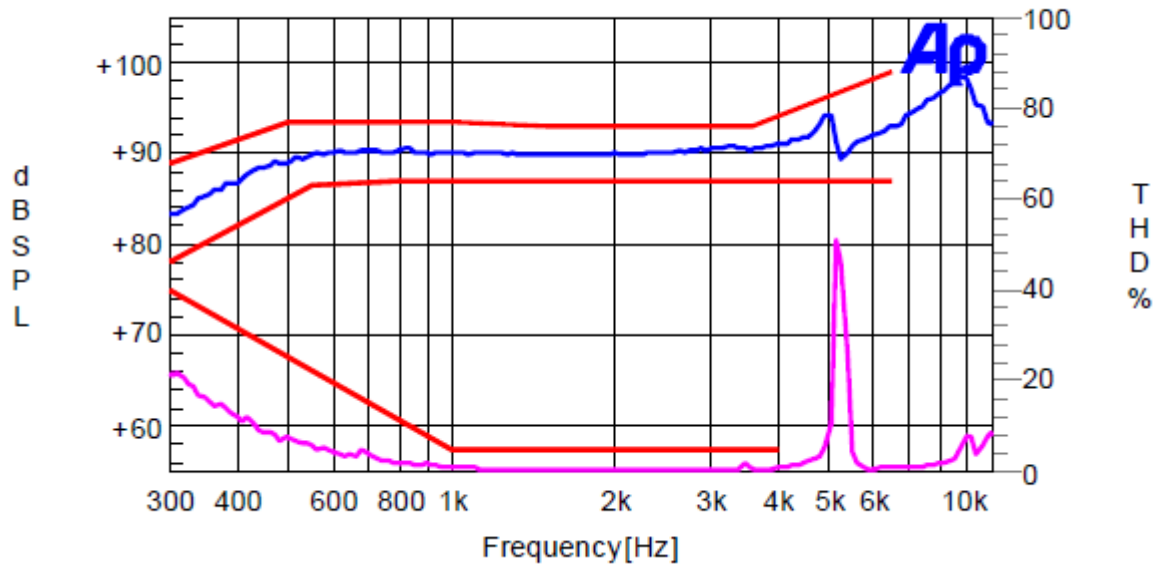
## 1.3. Part Marking/Labeling



## 2. Electro-Acoustic Characteristics

### 2.1. Frequency Response

Typical frequency response measured according to chapter 2.4  
(Baffle at 10mw, in 1cm distance)



f(Hz)	SPL [dB] Lower limit	f(Hz)	SPL [dB] Upper limit	f(Hz)	THD [%] upper limit
300	78	300	89	300	40
550	86.5	500	93.5	1000	5
800	87	1000	93.5	4000	5
6500	87	1500	93		
		3600	93		
		6500	99		

## 2.2. Electro-Acoustic Parameters

Receiver mounted in adapter according to 2.6 measured on ear cap according to 2.4.

- |  |                  |              |
|--|------------------|--------------|
| 1. Rated impedance                                       | Z:               | 16Ω          |
| 2. Voice coil resistance                                 | R:               | 28.8Ω ± 10 % |
| 2.1 ADDITIONAL COIL RESISTANCE                           | R:               | 35.9Ω± 10 %  |
| 3. Resonance frequency                                   | F <sub>0</sub> : | 450Hz ± 15%  |
| (measured at 566mVrms, in free air)                      |                  |              |
| 4. Measured characteristic sensitivity                   |                  | 90 ± 3dB     |
| (measured at 10mw 1cm baffle 2kHz to 3kHz average value) |                  |              |

5. THD according to chapter 2.1

All acoustic measurements at  $23\pm 3^{\circ}\text{C}$

### 2.3. Power Handling

Receiver mounted in life time test device (open rear/open front)

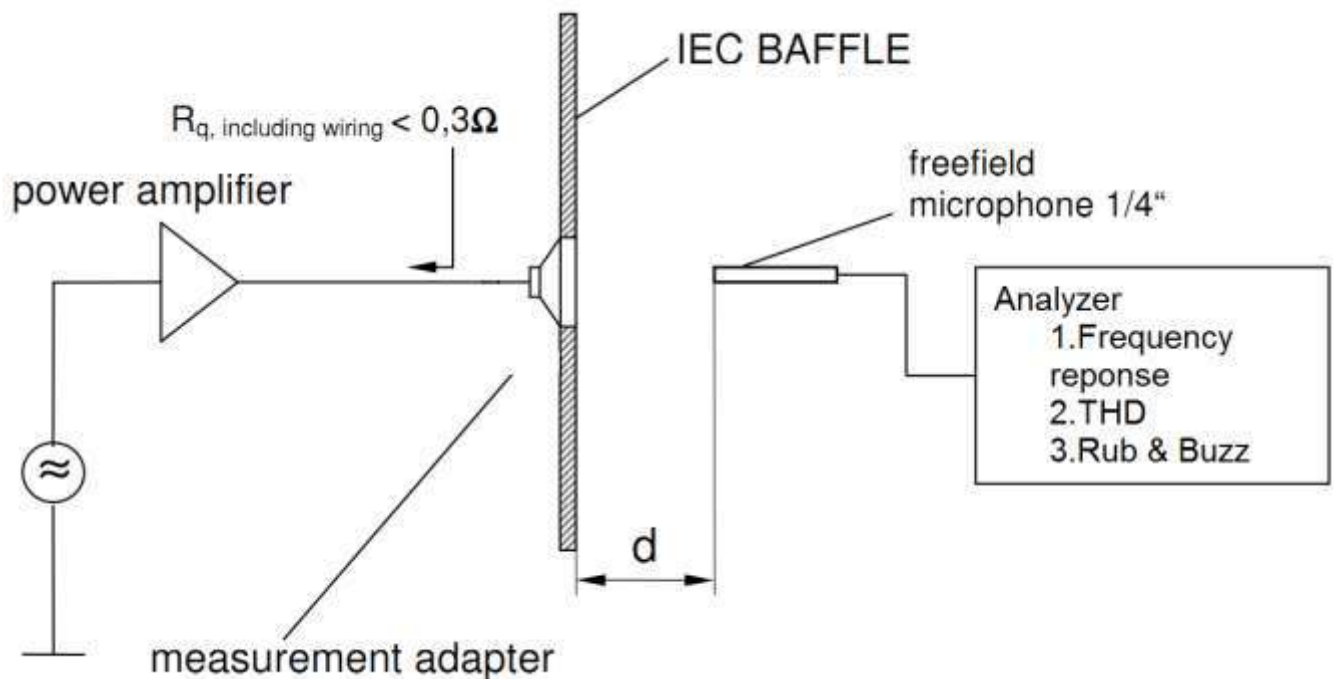
1. MAX.SHORT TERM POWER (1sec. ON / 60sec. OFF) 1.265Vrms (50mW)

(pink noise with band-pass 12dB/Oct. at 200Hz and 4000Hz, crest factor 2)

2. MAX. CONTINUOUS POWER (168h) 0.8Vrms (20mW)

(pink noise with band-pass 12dB/Oct. at 200Hz and 4000Hz, crest factor 2)

## 2.4. Measurement Setup (Acoustics)



## 2.5. Measured Parameters

### 2.5.1. Sensitivity

Unless specified, SPL is expressed in dB ref 20uPa, computed according to IEC 268-5

Measurement set up according to chapter 2.4

### 2.5.2. Frequency Response

Frequency response is measured according to test set up in chapter 2.4 and checked against the tolerance window defined in chapter 2.1.

### 2.5.3. Total Harmonic Distortion (THD)

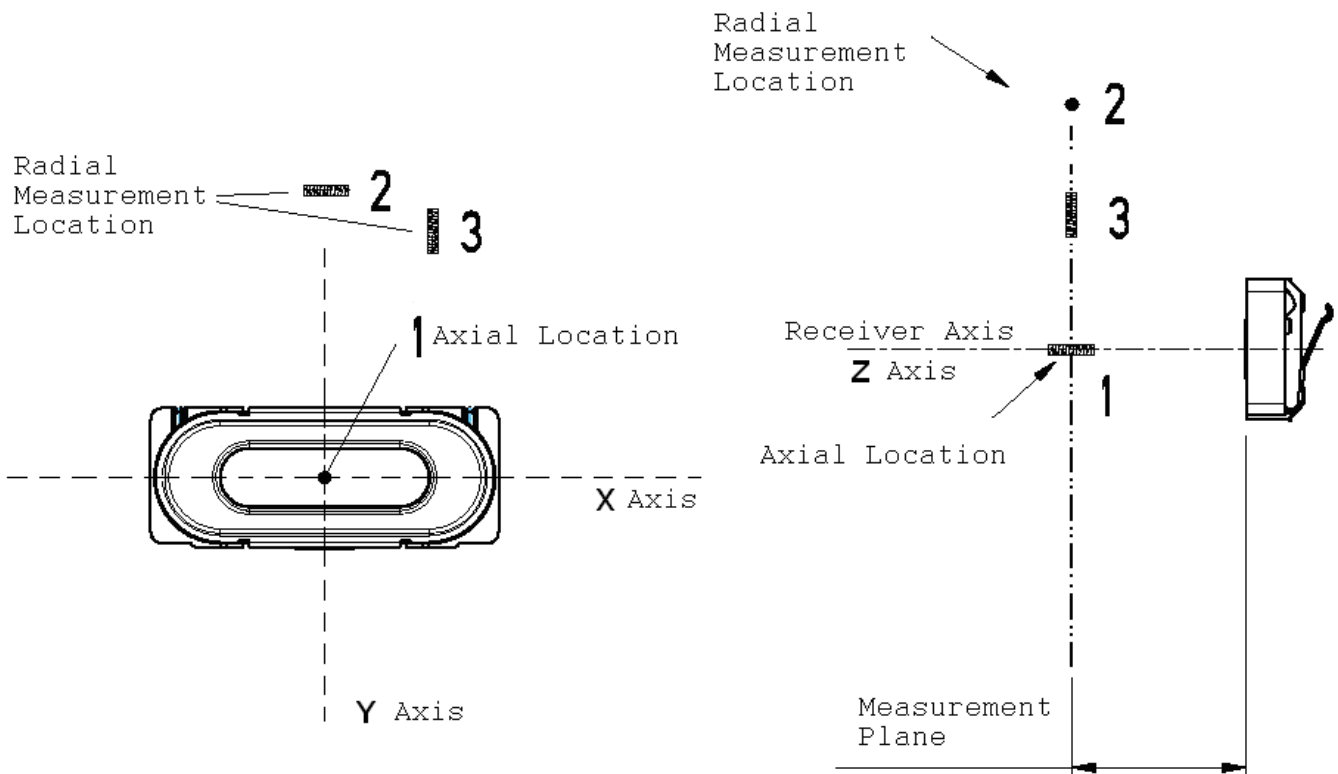
Total harmonic distortion (THD) is measured according to IEC 268-5 (2nd to 5th harmonics) and test set up in chapter 2.4 and checked against the tolerance window defined in chapter 2.1.

### 2.5.4. Rub& Buzz

300-7000Hz at 566mVrms for a period of 1 second will not result in any buzzing or extraneous sound.

### 2.6. Measurement setup for Hearing Aid

Tests are conducted at Z (Axial) direction, X and Y (Radial) directions  
Measurement Positions acc. to ANSI C63.19-2007



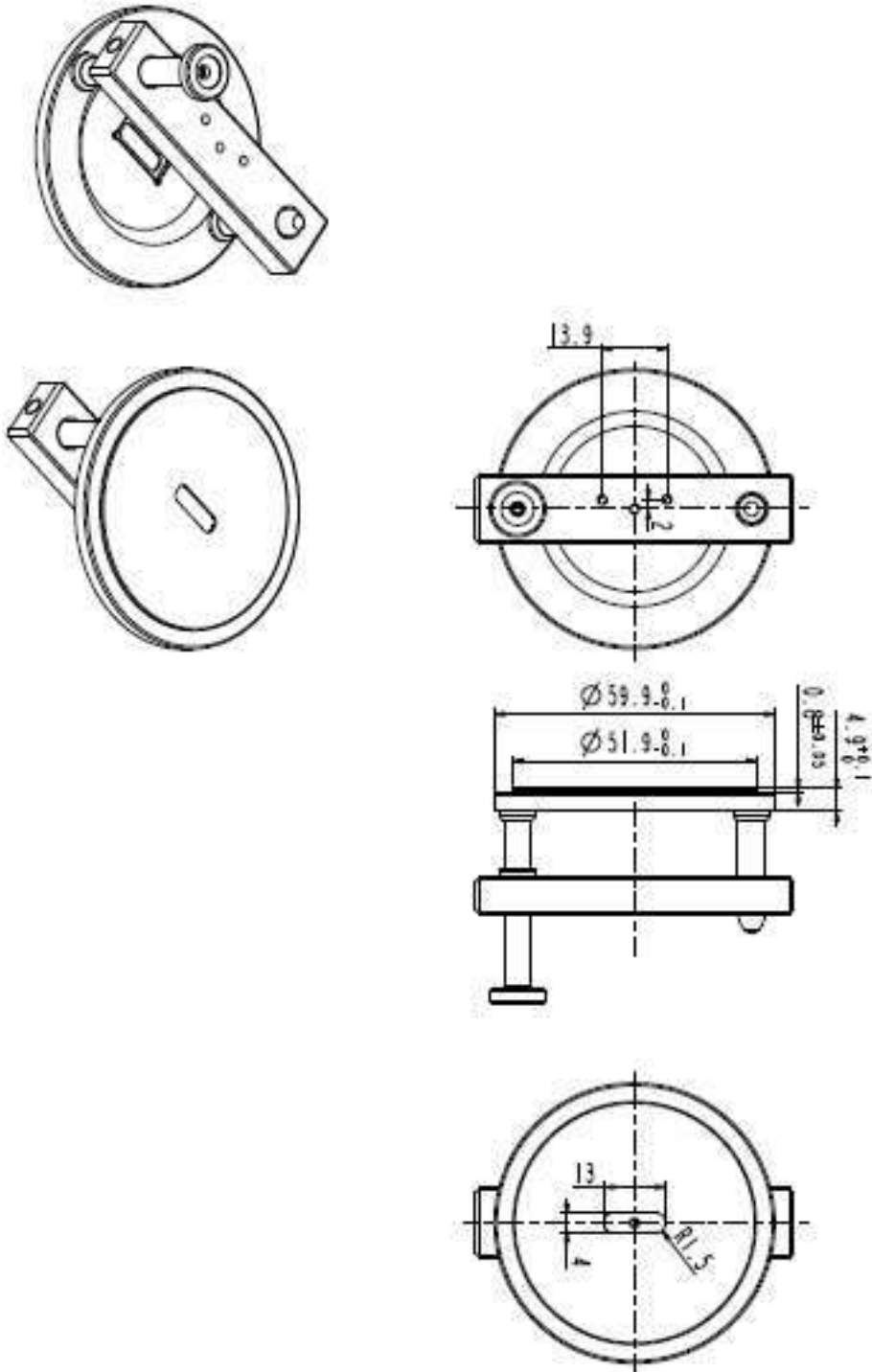
Axial (position 1): maximum value of Z direction

Radial X (position 2): maximum value of X direction

Radial Y (position 3): maximum value of Y direction, the difference between Radial X and Y is within 1dB

*\*Receiver must be mounted on a **plastic** surface, magnetic ambient levels be low as to not significantly affect the measurement, magnetic shielded chamber would be better.*

## 2.7. Acoustic measurement Adapter





## 2.8. Weight

<b>Transducers per tray</b>	70pc
Transducers per box	1820pc
Max. boxes per pallet	48pc
Transducers per max. packing quantity	87360pc
Transducer net weight	0.5g
<b>Net weight per box</b>	0.91kg
Gross weight per box	3kg
Net weight max. packing quantity	40.3kg
Gross weight max. packing quantity (incl. pallet)	158.8kg

### **3. Environmental Tests**

20pcs products for each environmental test.

Immediately after reliability test, products should be stored under room. Unless otherwise noted, the recovery period should be 2 hours at least before performance test.

All products after environmental test should meet the requirements specified in chapter 2.1 and 2.2 with 50% widened tolerances.

#### **3.1. Low Temperature Storage Test**

Ref. EN 60068-2-1,  $-40 \pm 2^{\circ}\text{C}$ , duration 168h, 2 hours recovery time.

#### **3.2. High Temperature Storage Test**

Ref. EN 60068-2-2,  $+85 \pm 2^{\circ}\text{C}$ , duration 168h, 2 hours recovery time.

#### **3.3. Long Term Operation Test**

Ref. IEC60068-2-2. 168h. Open rear/Open front 20mW Signal according to part 2 in chapter 2.3.

#### **3.4. Short Term Maximum Power Test**

60 cycles. Open rear/Open front 50mW Signal according to part 1 in Chapter 2.3.

### **4. Related Documents**

Refer to general terms.

### **5. Legal Information**

Refer to general terms.