



# PUI audio



## Datasheet

AS03704PS

The **AS03704PS** is designed for applications that require robust low-frequency response and low THD in compact designs.

### Features:

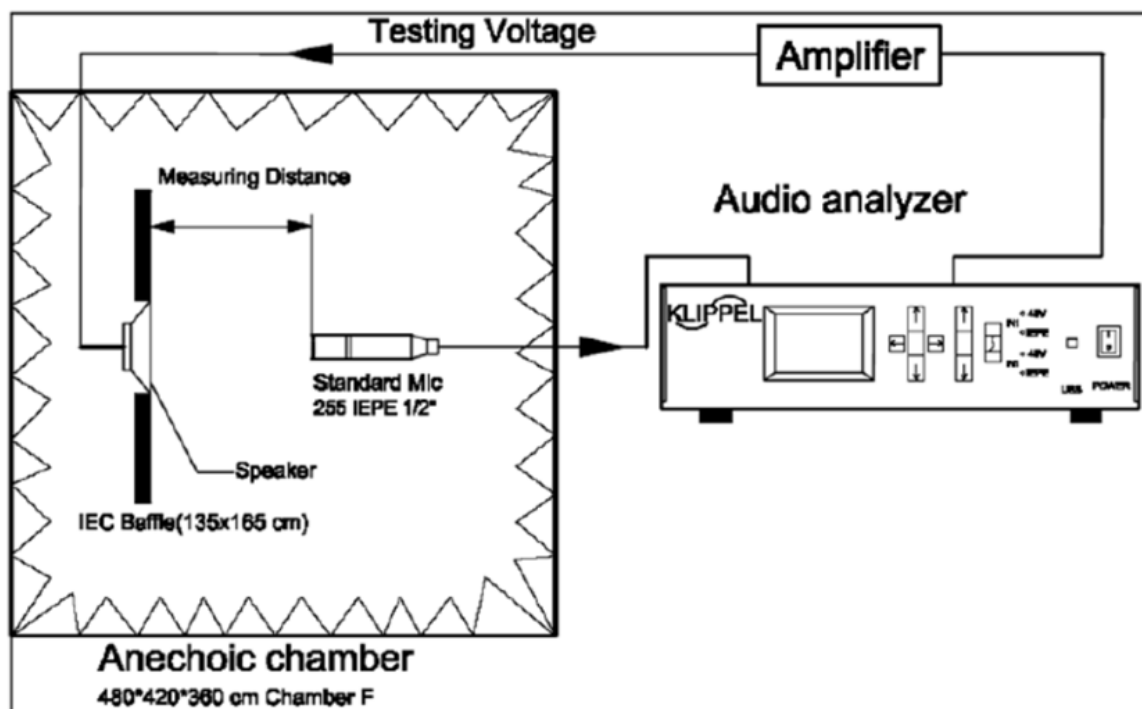
- 76dB SPL: 1W dissipation, distance = 1.0m
- 6W continuous dissipation
- 170Hz free-air resonance
- 37.0mm diameter x 24.0mm dimensions

### Specifications

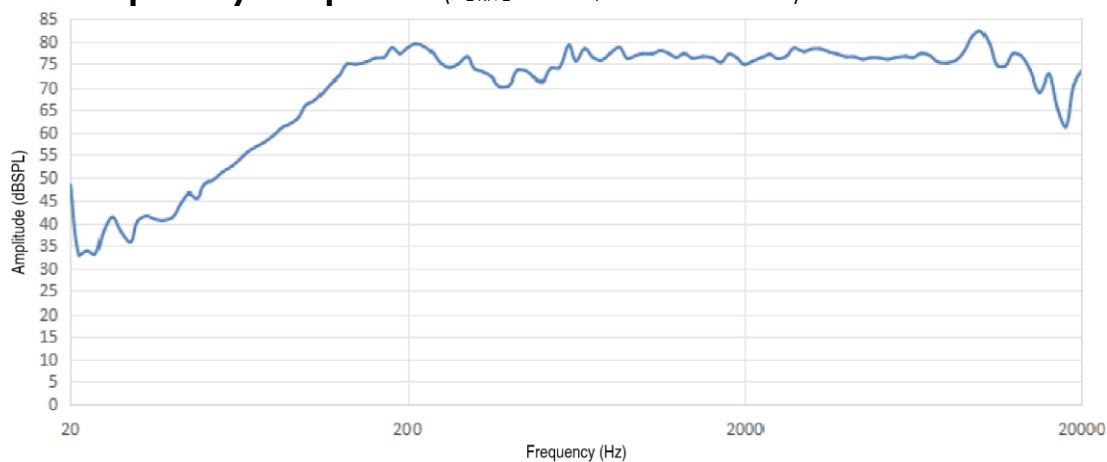
(Specifications measured with following conditions: ambient temperature;  $15^{\circ}\text{C} \leq T_A \leq 35^{\circ}\text{C}$ , relative humidity;  $25\% \leq RH_A \leq 75\%$ , according to standard GB/T9396-1996, unless otherwise stated. Judgement Condition: ambient temperature;  $20 \pm 2^{\circ}\text{C}$ ; relative humidity;  $63\% \leq RH_A \leq 67\%$ . Product shelf life valid for 12 months.

| Parameters                                                                                                                                | Values                                                               | Units              |
|-------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|--------------------|
| Rated Input Power                                                                                                                         | 6.0                                                                  | Watts              |
| Max Input Power                                                                                                                           | 8.0                                                                  | Watts              |
| Impedance                                                                                                                                 | $4 \pm 15\%$                                                         | Ohms               |
| Sensitivity (SPL)<br>$P_{\text{DRIVE}} = 1.0\text{W}$ , distance = 1.0m<br>$f = \text{ave. } 1.0\text{kHz}, 1.2\text{kHz}, 1.5\text{kHz}$ | $76 \pm 3$                                                           | dB                 |
| Resonant Frequency ( $f_0$ )                                                                                                              | $170 \pm 20\%$                                                       | Hz                 |
| Frequency Range (-10dB SPL)                                                                                                               | $100 \leq f \leq 20,000$                                             | Hz                 |
| THD<br>$f = 1\text{kHz}$<br>$P_{\text{DRIVE}} = 1.0\text{W}$                                                                              | $\leq 5$                                                             | %                  |
| Buzz, Rattle, etc.                                                                                                                        | Not audible with $V_{\text{DRIVE}} = 4.89V_{\text{RMS}}$ , sine wave | -                  |
| Polarity                                                                                                                                  | Applying positive dc current to "+" terminal moves diaphragm forward | -                  |
| Frame Material                                                                                                                            | SPCC                                                                 | -                  |
| Magnet Material                                                                                                                           | NdFeB                                                                | -                  |
| Diaphragm Material                                                                                                                        | NBR + Paper                                                          | -                  |
| Weight                                                                                                                                    | 33                                                                   | gm                 |
| Operating Temperature                                                                                                                     | $-20 \leq T_O \leq 55$                                               | $^{\circ}\text{C}$ |
| Storage Temperature                                                                                                                       | $-20 \leq T_S \leq 70$                                               | $^{\circ}\text{C}$ |
| Environmental Compliances                                                                                                                 | ROHS/REACH                                                           | -                  |

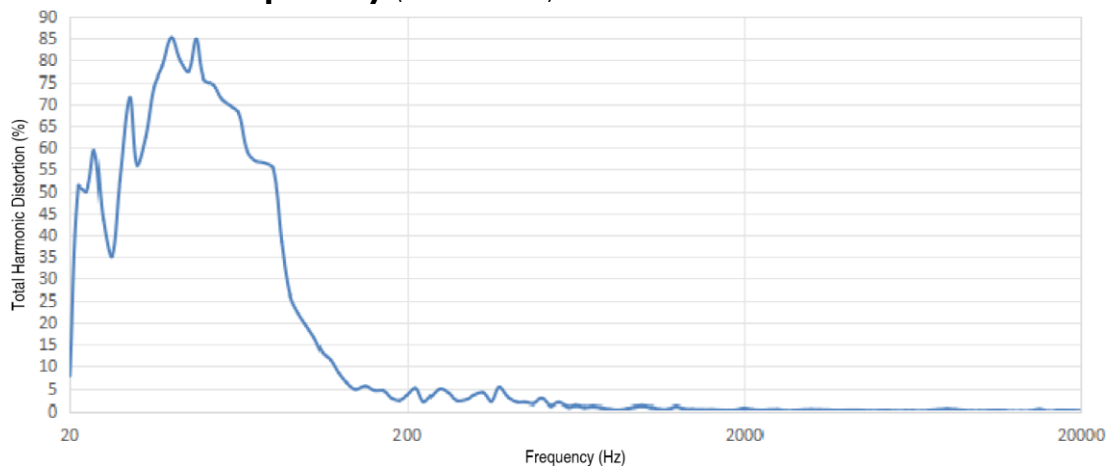
**Measurement Method** (Measured with  $P_{\text{DRIVE}} = 1.0\text{W}$ , distance = 0.5m, Temperature: 23 ~ 25°C, Relative Humidity: 55% (max).)



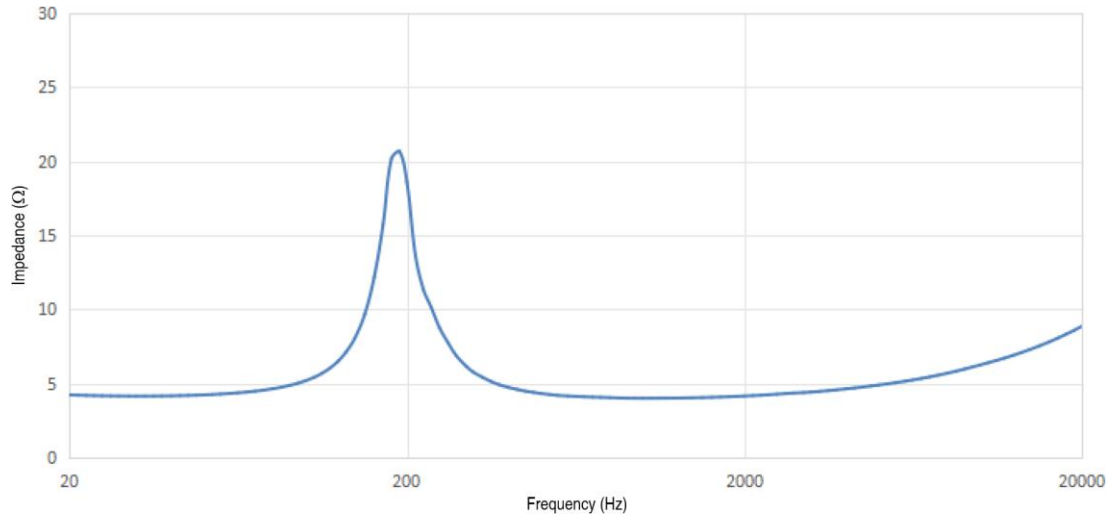
**Typical Frequency Response** ( $P_{\text{DRIVE}} = 1.0\text{W}$ , distance = 1.0m)



**Typical THD vs. Frequency** ( $P_{\text{DRIVE}} = 1.0\text{W}$ )



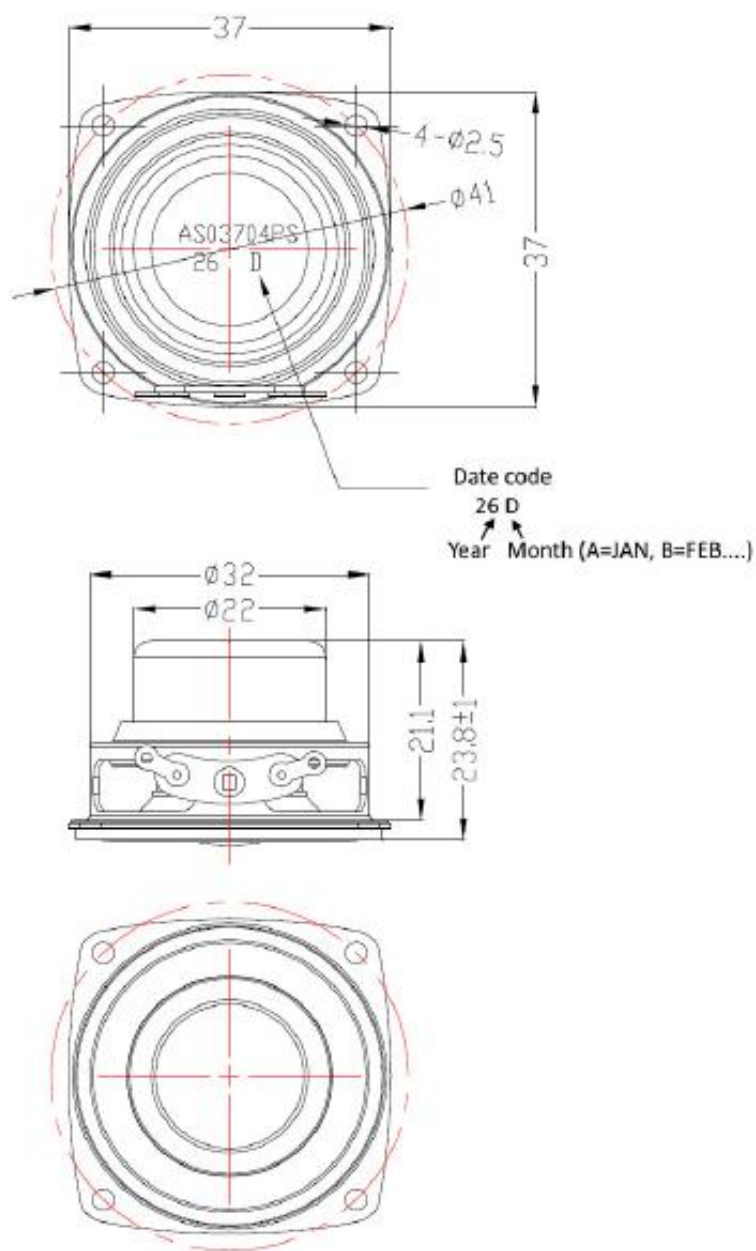
## Impedance Curve



## Reliability Testing

| Type of Test                              | Test Specifications                                                                                               | Judgement                                                                                                          |
|-------------------------------------------|-------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|
| High Temperature Test<br>GB2423.2-81      | 96 hours at +70°C ± 3°C followed by one hour in normal room temperature                                           | SPL shall not deviate by ±3dB. Resonant frequency shall not deviate by ±50Hz. (compared with pre-test measurement) |
| Low Temperature Test<br>GB2423.1-81       | 96 hours at -20°C ± 3°C followed by one hour in normal room temperature                                           |                                                                                                                    |
| Humidity Test<br>GB5170.18-87             | 96 hours at +40°C ± 3°C with relative humidity between 92% and 95% followed by 6 hours in normal room temperature |                                                                                                                    |
| Temperature Cycle Testing<br>GB5170.18-87 | <p>The part shall be subjected to 5 cycles. One cycle shall be 6 hours and consist of:</p>                        | SPL shall not deviate by ±4dB. Resonant frequency shall not deviate by ±80Hz. (compared with pre-test measurement) |
| Vibration Test<br>GB11606.8-89            | Frequency 10~55~10 Hz, Amplitude 1.5 mm for 2 Hours each of 3 perpendicular directions.                           | SPL shall not deviate by ±3dB. (compared with pre-test measurement)                                                |
| Drop Test<br>GB2423.8-81                  | 75 cm free falling on concrete floor, 10 times.                                                                   |                                                                                                                    |
| Load Test<br>GB/T12060.5-2011             | Speaker should not fail after applying 20Hz ~ 20kHz pink noise with HPF rated power input (RMS), 96 hours.        |                                                                                                                    |

## Dimensions (Tolerance: $\pm 0.5\text{mm}$ , unless otherwise specified.)



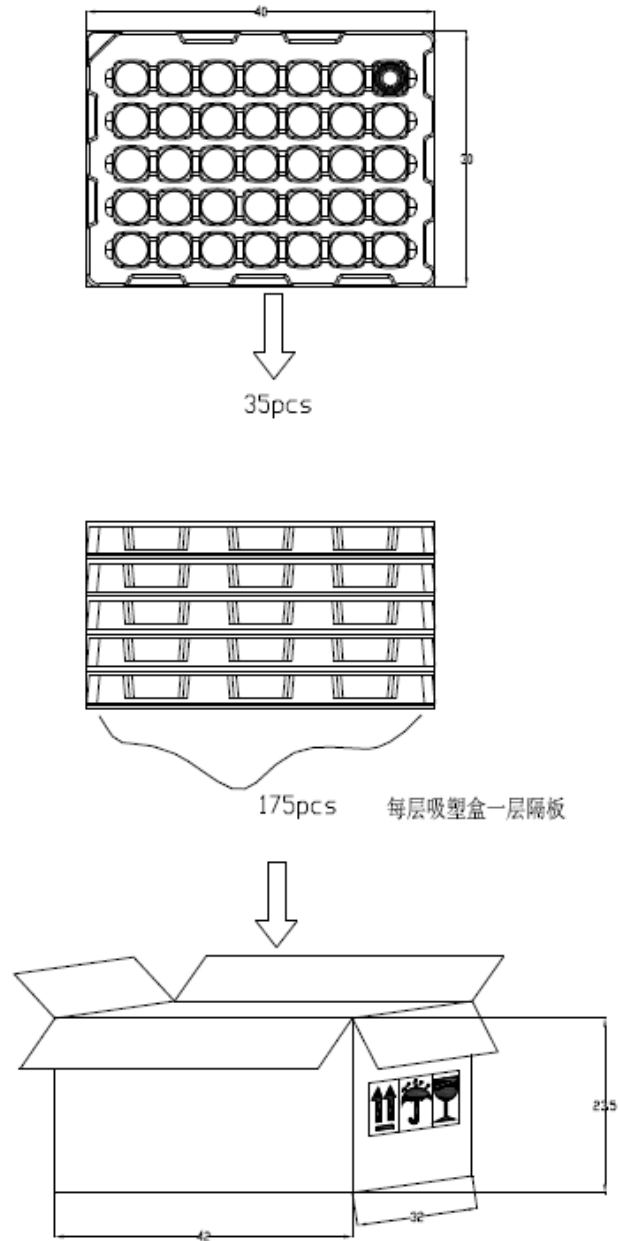
## Packaging

35 pcs per tray

1 tray for unit: 5 units per carton

Total: 175 pcs per box

Size: 42x32x23.5 cm



## Measurement & Standard Reference

Abstract from GB/T 9396-1996 and IEC 268-5:1989: methods of measurement for main characteristics of loudspeakers.

### 5.1 Rated sine voltage.

A sinusoidal signal voltage specified by the manufacturer which makes the speaker work continuously in the rated frequency range, without causing electrical or mechanical damage to the speaker. The continuous voltage time is 1 hour.

### 5.2 Rated sine power.

The rated sine power corresponding with the rated sine voltage defined by:  $U_s^2/R$ , where  $U_s$  indicates the rated sin voltage and R indicates the rated impedance of the speaker.

### 5.3 Rated noise power.

The rated sine power corresponding with the rated sine voltage defined by:  $U_n^2/R$ , where  $U_n$  indicates the rated sin voltage and R indicates the rated impedance of the speaker.

Specifications Revisions

| Revision | Description                         | Date       | Approved |
|----------|-------------------------------------|------------|----------|
| A        | Datasheet released from Engineering | 03/19/2026 | KH       |
| B        | Updated Height and Packaging        | 7/15/2026  | KH       |

Notes:

- Unless otherwise specified:
  - All dimensions are in millimeters.
  - Default tolerances are  $\pm 0.5\text{mm}$  and angles are  $\pm 3^\circ$ .
- Specifications subject to change or withdrawal without notice.