



PUI audio



Data Sheet

AR01532MS-SC15-WP-R

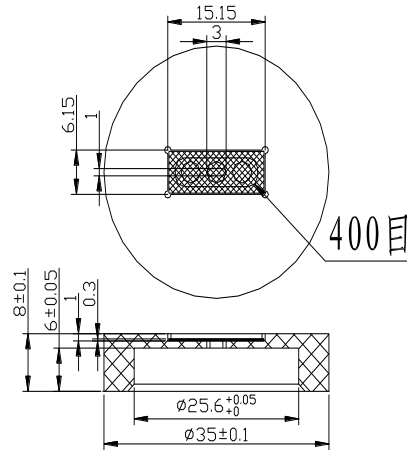
Features:

- Custom-molded poly cone designed for voice articulation
- High 108 dB output with 179mV in Artificial Ear (1cm)
- High energy neodymium motor
- Only 2 mm thick
- Dustproof and waterproof IP67-rated face

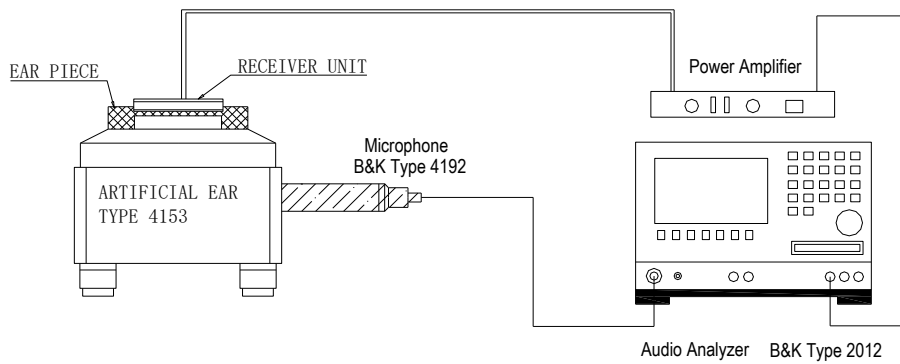
Specifications

| Parameters | Values | Units |
|--|--|---------|
| Rated Input Power | 20 | mWatts |
| Max Input Power | 30 | mWatts |
| Impedance | 32 ± 15% | Ohms |
| Sensitivity (SPL @ 1kHz) 179mV in Type 3.2 HL Ear | 108 ± 3 | dB Pa/V |
| Resonant Frequency (179mV in free air) | 400 ± 20% | Hz |
| Frequency Range | 300 ~ 7,000 | Hz |
| Frame Material | PPA | - |
| Magnet Material | NdFeB | - |
| Diaphragm Material | Mylar | - |
| Weight | 0.5 | Grams |
| Environmental Protection Rating | ROHS/REACH | - |
| Ingress Protection | IP67 | - |
| Buzz, Rattle, etc. | Should not be audible with 20mW sine wave from 300 Hz to 7 kHz | - |
| Polarity | When positive voltage is applied to the positive terminal, the diaphragm will move outward | - |
| Operating Temperature | -40 ~ +80 | °C |

Measurement Method (measured with 179mV, Temperature: 15 ~ 35°C, Relative Humidity: 45%~85%)

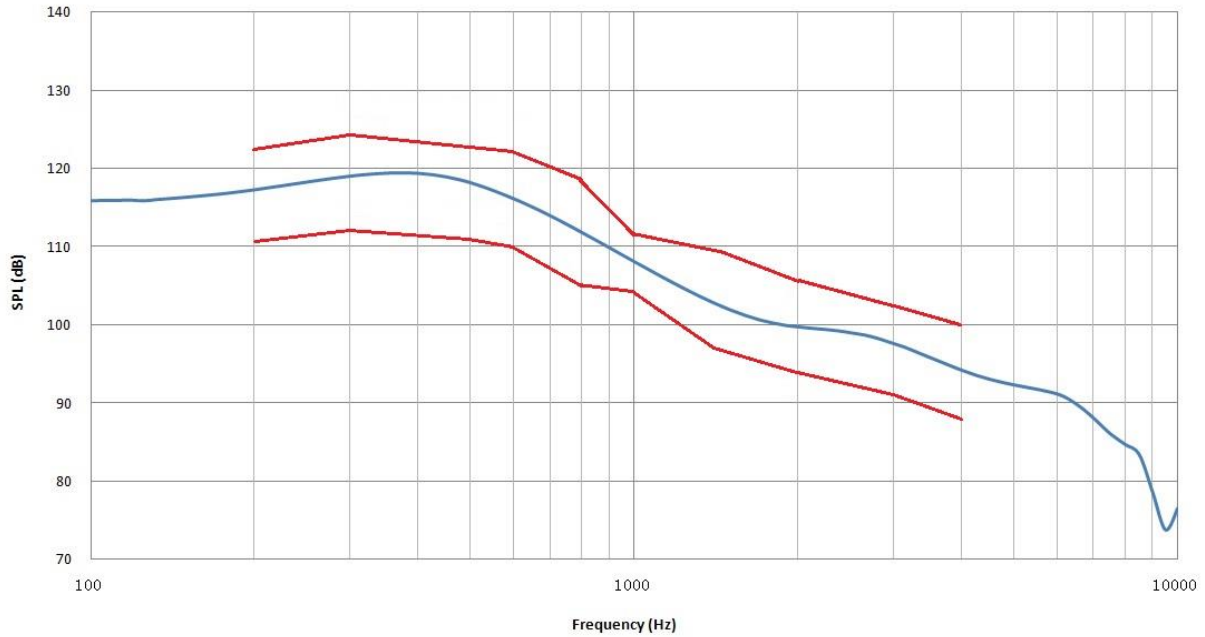


Receiver Test Baffle



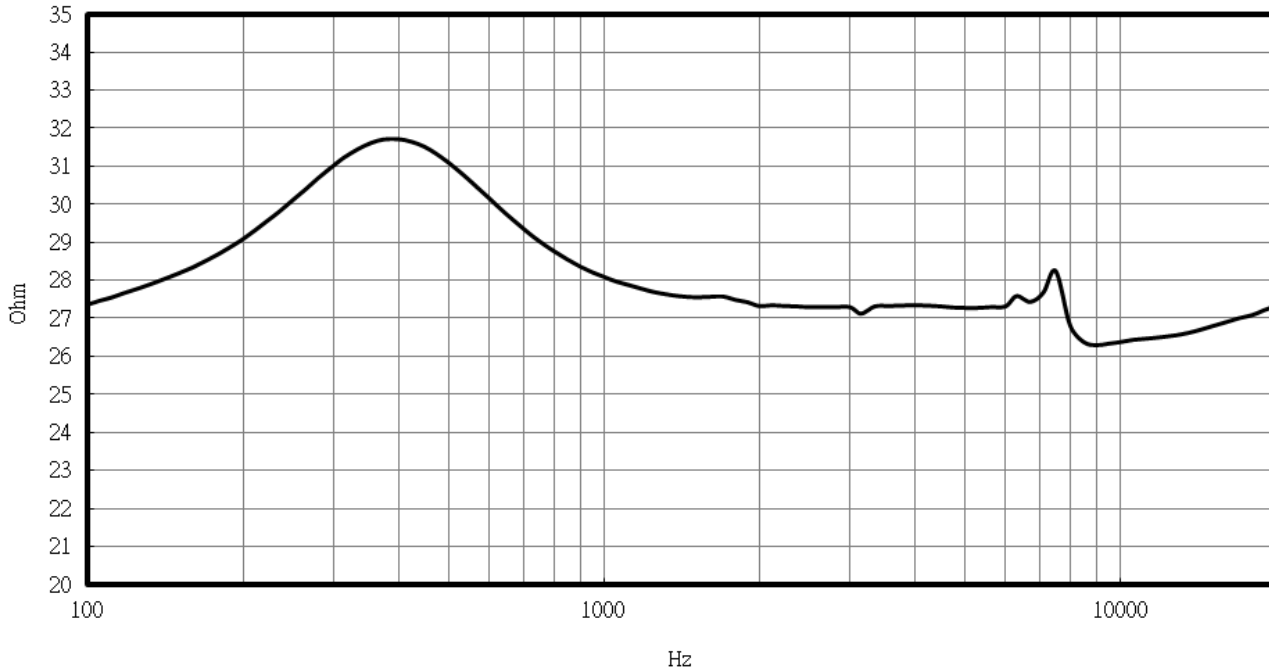
Measurement System

Frequency Response (measured at 179 mV in Type 3.2HL Ear)



| Frequency (Hz) | Lower limit (dB) | Upper Limit (dB) |
|----------------|------------------|------------------|
| 200 | 111 | 123 |
| 300 | 112 | 124 |
| 500 | 111 | 123 |
| 600 | 110 | 122 |
| 800 | 106 | 118 |
| 1000 | 105 | 111 |
| 1500 | 97 | 109 |
| 2000 | 94 | 106 |
| 3000 | 91 | 103 |
| 4000 | 88 | 100 |

Impedance Response (measured at 179 mV in Type 3.2HL Ear)

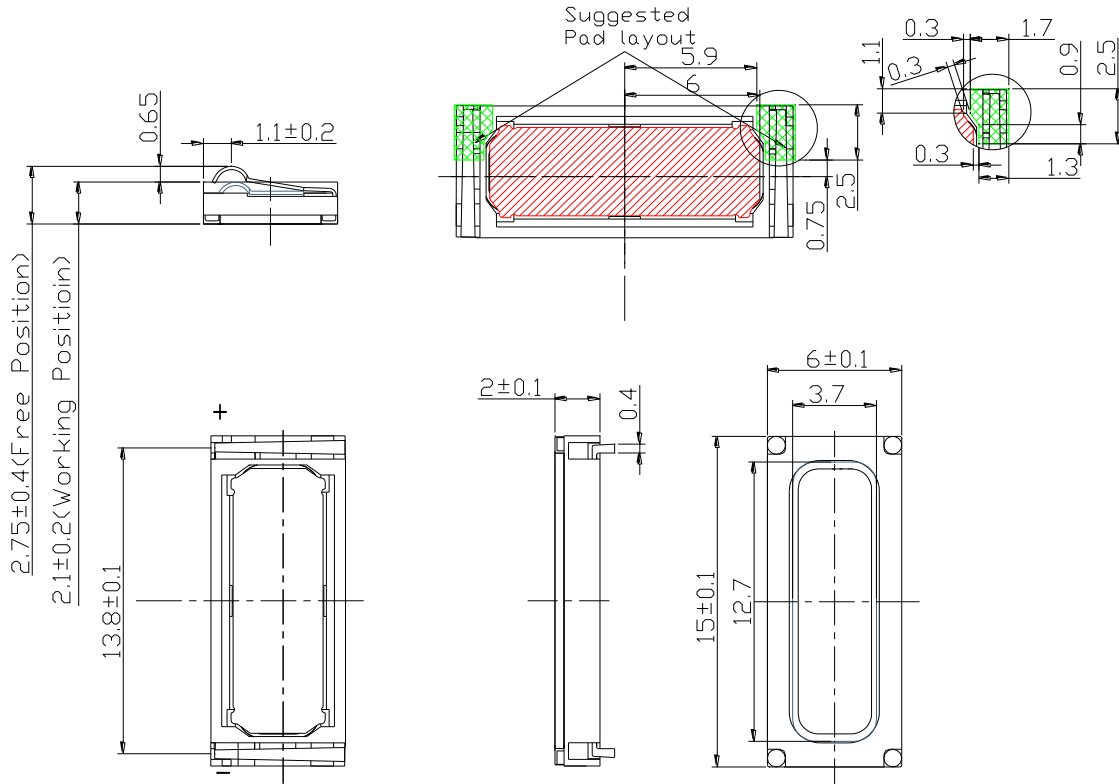


Reliability Testing

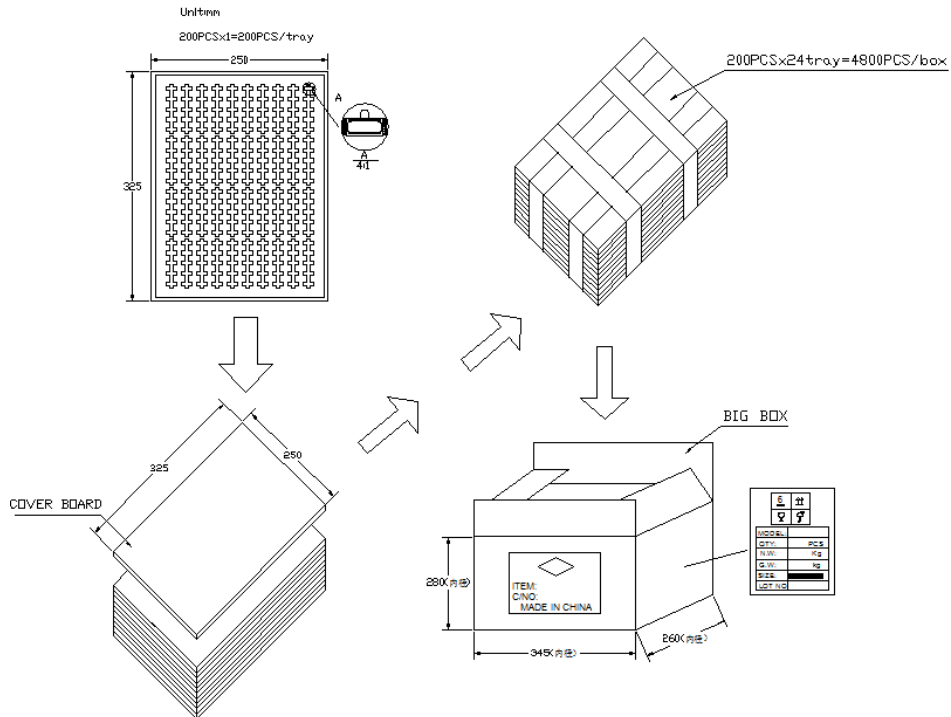
| Type of Test | Test Specifications |
|------------------------------|---|
| High Temperature Test | 96 hours at +80°C ± 3°C followed by three hours in normal room temperature |
| Low Temperature Test | 96 hours at -40°C ± 3°C followed by three hours in normal room temperature |
| Humidity Test | 96 hours at +40°C ± 3°C with relative humidity at 95% followed by 3 hours in normal room temperature |
| Temperature Cycle Testing | The part shall be subjected to 5 cycles using the following procedure: Low temperature: -40°C±3°C High temperature: +80°C±3°C Cycle: 1 hour/cycle each |
| Vibration Test | 10 to 55 to 10 Hz sine sweep, 15 minutes per cycle @ 5G constant. 2 hours in each axis X, Y, and Z. |
| Drop Test | Drop the speakers onto a 20mm thick board 10 times from a height of 100cm, once each side |
| Load Test and Max Power Test | White noise is applied at the speakers rated power for 96 hours at room temperature; max power is applied for 1 minute on, 2 minutes off; 10 cycles. |

After each test, the speaker's SPL shall be ±3 dB of the original SPL

Dimensions



Packaging



Specifications Revisions

| Revision | Description | Date |
|-----------------|----------------------------|-------------|
| - | Released from Engineering | 11/20/2017 |
| A | Revised Frequency Response | 2/27/2020 |
| | | |

Note:

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