Data Sheet	AS02804PR-N50-R

Introducing the N50 Mini Speaker Series from PUI Audio. High-grade neodymium magnetic motors are employed in each N50 Series speaker to create the highest output possible, in the smallest form factor.

The 28mm diameter **AS02804PR-N50-R** features a paper cone and foam surround for classic HiFi sound quality. Four openings on the back plate create forced-air cooling to dissipate heat from the voice coil.

Features:

- Paper cone and foam surround
- High 76 dB output at 3W/1m
- N50 neodymium motor
- Only 7.5mm thick
- 2mm of excursion

Specifications

Parameters	Values	Units
Rated Input Power	3	Watts
Max Input Power	4	Watts
Impedance	4 ± 15%	Ohms
Sensitivity (SPL @ 3W/1m) (800, 1000, 1200, and 1500 Hz)	76.5 ± 3	dBA
Distortion (Max @ 1W, 1 kHz)	<5%	
Resonant Frequency	350 ± 20%	Hz
Frequency Range	250 ~ 20,000	Hz
Housing Material	ABS	
Magnet Material	NdFeB	
Weight	10.8	Grams

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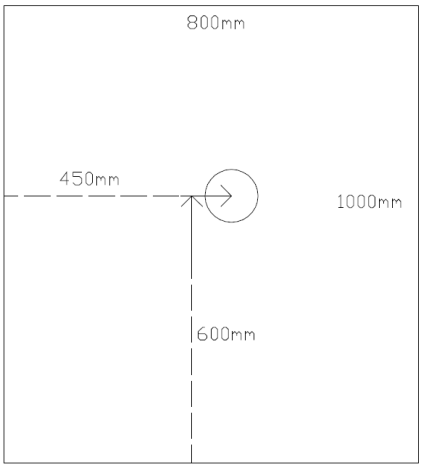
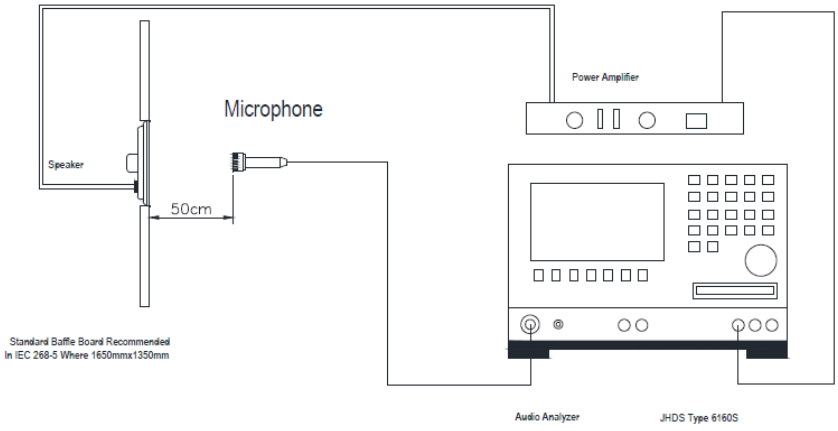
Specifications (continued)

Buzz, Rattle, etc.	Should not be audible with 3.46Vpk sine wave from 280 Hz to 10 kHz	
Polarity	When positive voltage is applied to the positive terminal, the diaphragm will move outward	
Operating Temperature	-20 ~ +60	°C
Storage Temperature	-30 ~ +70	°C

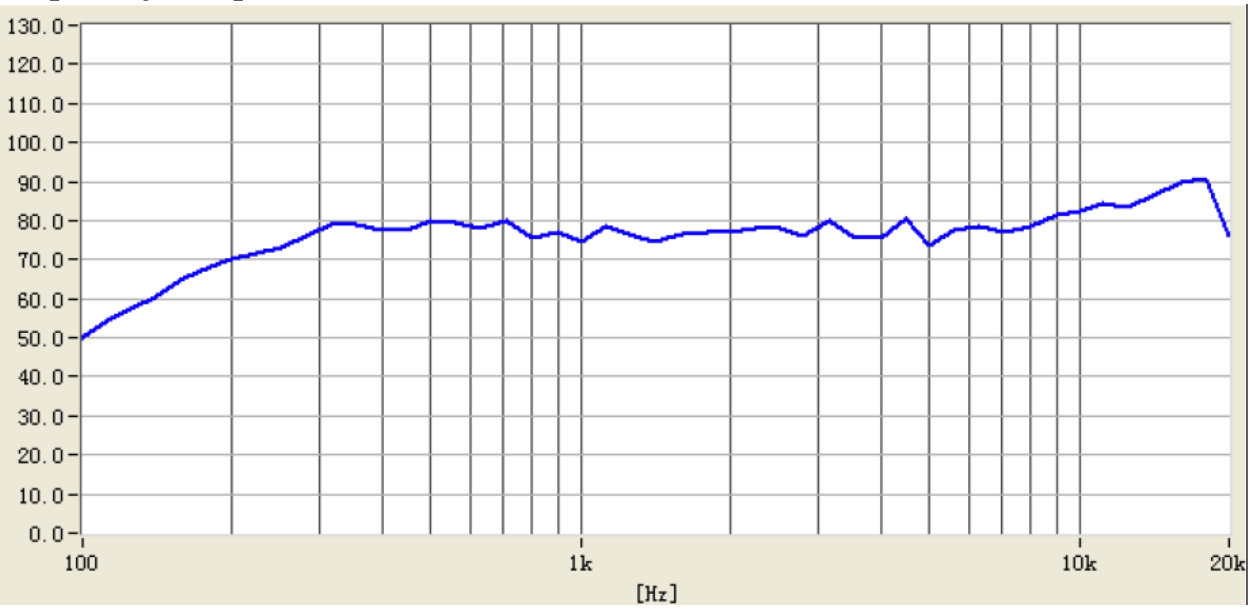
Measurement Method



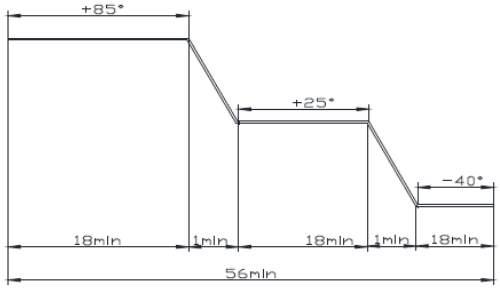
Test Baffle (speaker mounted in circle)



Frequency Response (measured at 1m with 3W of input power)



Reliability Testing

Type of Test	Test Specifications
High Temperature Test	96 hours at +85°C ± 3°C followed by six hours in normal room temperature
Low Temperature Test	96 hours at -40°C ± 3°C followed by six hours in normal room temperature
Humidity Test	96 hours at +40°C ± 3°C with relative humidity at 92% to 95% followed by 3 hours in normal room temperature
Temperature Cycle Testing	The part shall be subjected to 20 cycles using the following procedure: 
Vibration Test	10 to 55 to 10 Hz cycles, 15 minutes per cycle. 2 hours in each axis X, Y, and Z.
Drop Test	Drop the speakers onto a 40mm thick board 10 times from a height of 75cm.
Load Test	Pink noise is applied at the speakers rated power for 96 hours at room temperature

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

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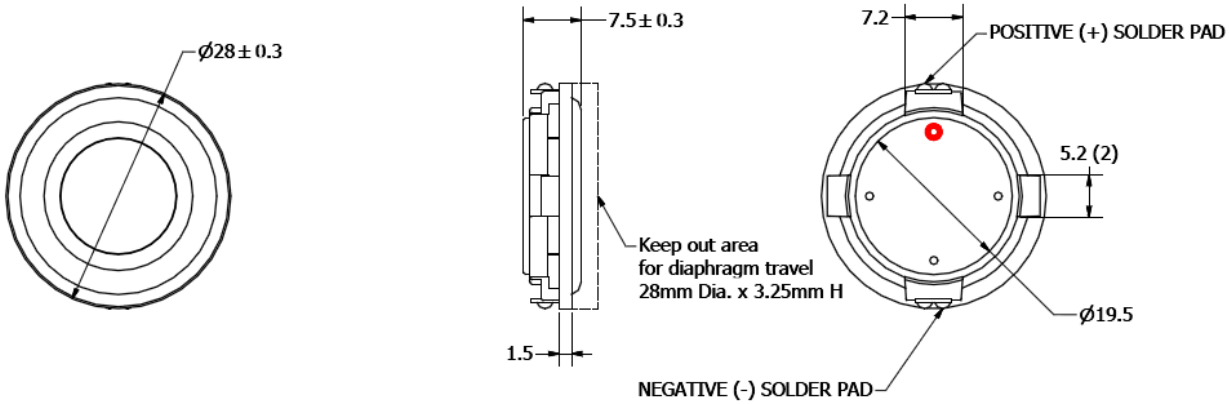
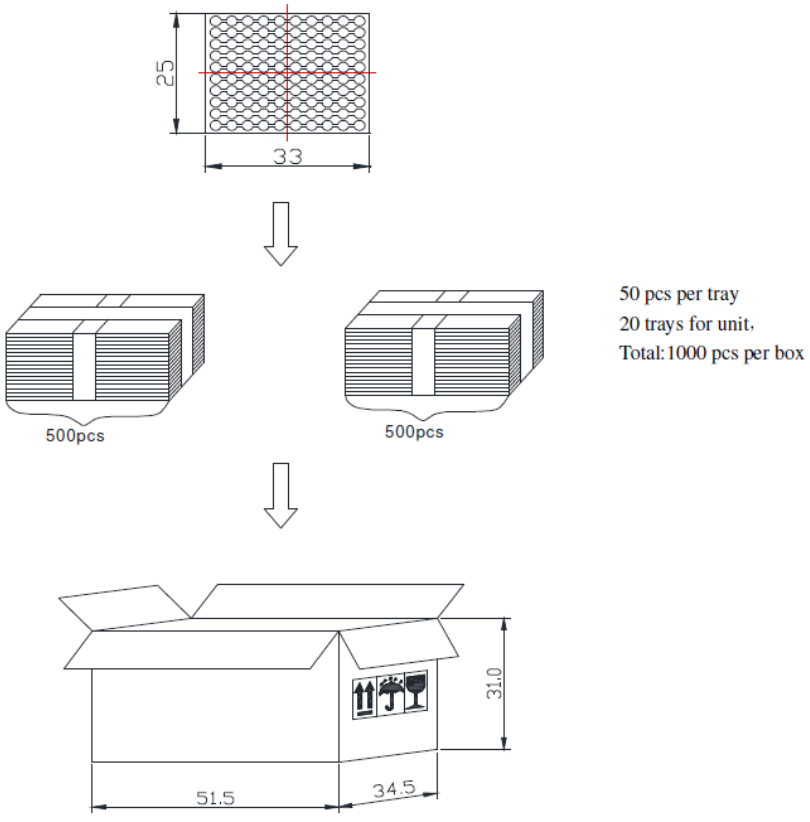
Dimensions



Packaging



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