



PN: A0100008FP299AKR

DWG #:DB25-015 Rev0.1

SPECIFICATION

PRODUCT: Loudspeaker

STETRON PART NUMBER: A0100008FP299AKR

DESCRIPTION: 102 x102mm / Black Frame/8 ohms/RoHS

RFQ: QB25100

STETRON APPROVALS	PREPARED BY	CHECKED BY	APPROVED BY
SIGNATURE	<i>RS</i>	<i>CS</i>	<i>CS</i>
DATE	5-June -2025	5-June-2025	5-June-2025

CUSTOMER APPROVAL	SIGNATURE	DATE

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REVISION HISTORY

Rev Level	Date	Description	Page #	Changed By
0.0	15-May -2025	Original	All Pages	RS
0.1	5-June-2025	General spec update and add production stamp	All pages	RS

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**1. Scope**

This document contains the required electrical, acoustic, mechanical and reliability information for a loudspeaker.

2. Environmental Requirements

This loudspeaker including all components, solder joints and glue must be RoHS compliant and meet the customer's known requirements for banned or restricted substances.

3. Environmental test conditions

	Standard Conditions	Preferred Conditions
Temperature	15 to 35°C	20 ± 2°C
Humidity	25 to 75%	63 to 67%
Air Pressure	86 to 106kPa	86 to 106kPa

Note: Conditions for Acoustic tests only

4. Electrical Requirements**4.1 Rated Impedance**

8Ω ±20% (@500Hz/1Vrms)

4.2 Rated Power

6.0W (RMS)

4.3 Max Power

8.0W (RMS)

4.4 Polarity

When a positive DC current is applied to the positive terminal of the speaker the diaphragm shall move forward.

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5. Acoustical Requirements

5.1 Sound Pressure Level

$90 \pm 3\text{dB}$ (on IEC 268-5 Baffle in anechoic chamber @ 1W/1m avg. @ 0.2, 0.4, 0.6, and 1.0 kHz)

5.2 Resonant Frequency (F_0)

$170 \pm 20\%$ Hz @ 1Vrms constant voltage – free air

5.3 Frequency Range

F_0 to 10 kHz (SPL -10dB) @ 1W/1m

5.4 Buzz and Rattle

No audible buzzing shall occur at $\geq 0.3\text{m}$ distance when 6W power (6.9Vrms) sine wave from F_0 to 2kHz is applied to the speaker.

*See Test circuit (Fig 1), Frequency Response (Fig 2), and Impedance (Fig 3) below.

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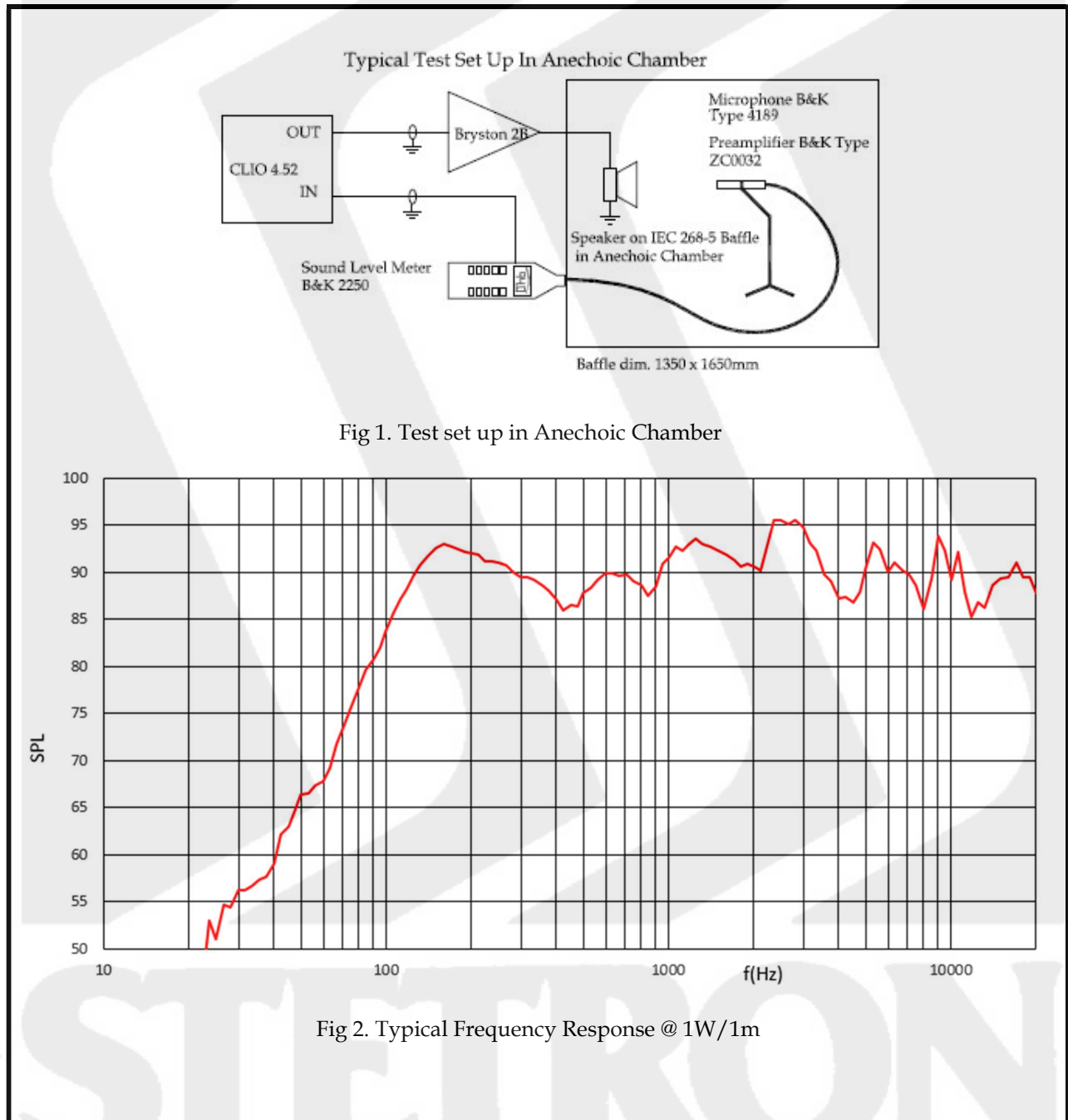
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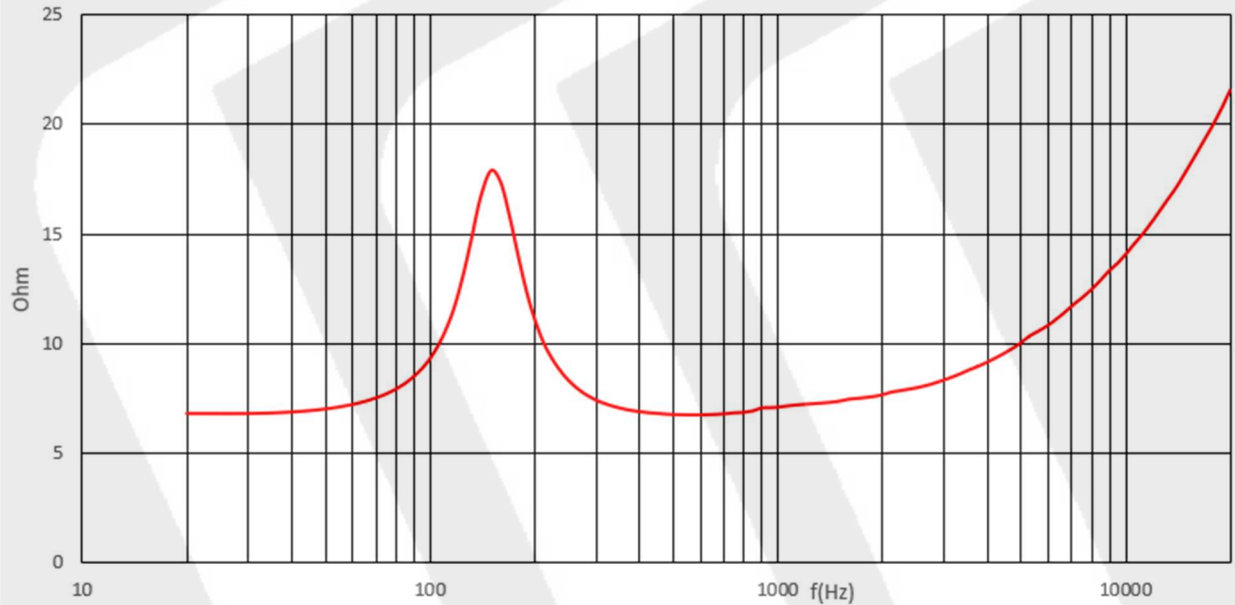


Fig 3. Typical Free air impedance with 1Vrms

6. Reliability

6.1 High Temperature

Speakers are exposed in the high temperature chamber at $+70 \pm 2^\circ\text{C}$, R.H $25\% \pm 5\%$ for 16 hrs.

6.2 Low Temperature

Speakers are exposed in the low temperature chamber at $-25 \pm 2^\circ\text{C}$ (humidity random) for 16 hrs.

6.3 Humidity

Speakers are exposed to $+25 \pm 2^\circ\text{C}$, R.H $95\% \pm 5\%$ for 16 hrs.

*Note: After any of tests 6.1 to 6.3 leave speakers for 1 hr at room temperature.

Speakers must pass pure sound listening and appearance tests.

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**6.4 Rated Power**

Speakers are exposed continuously to 6W pink noise with 200 Hz low cut filter for 8 hrs.

6.5 Max Power

Speakers are exposed to 8W pink noise (with 200 Hz low cut filter) for 1 minute on and 2 minutes off for a total of 10 cycles.

Note: After test 6.4-6.5 leave speakers at room temperature for 1 hour. Speakers must pass pure sound listening, appearance test and the SPL should not deviate by more than $\pm 3\text{dB}$.

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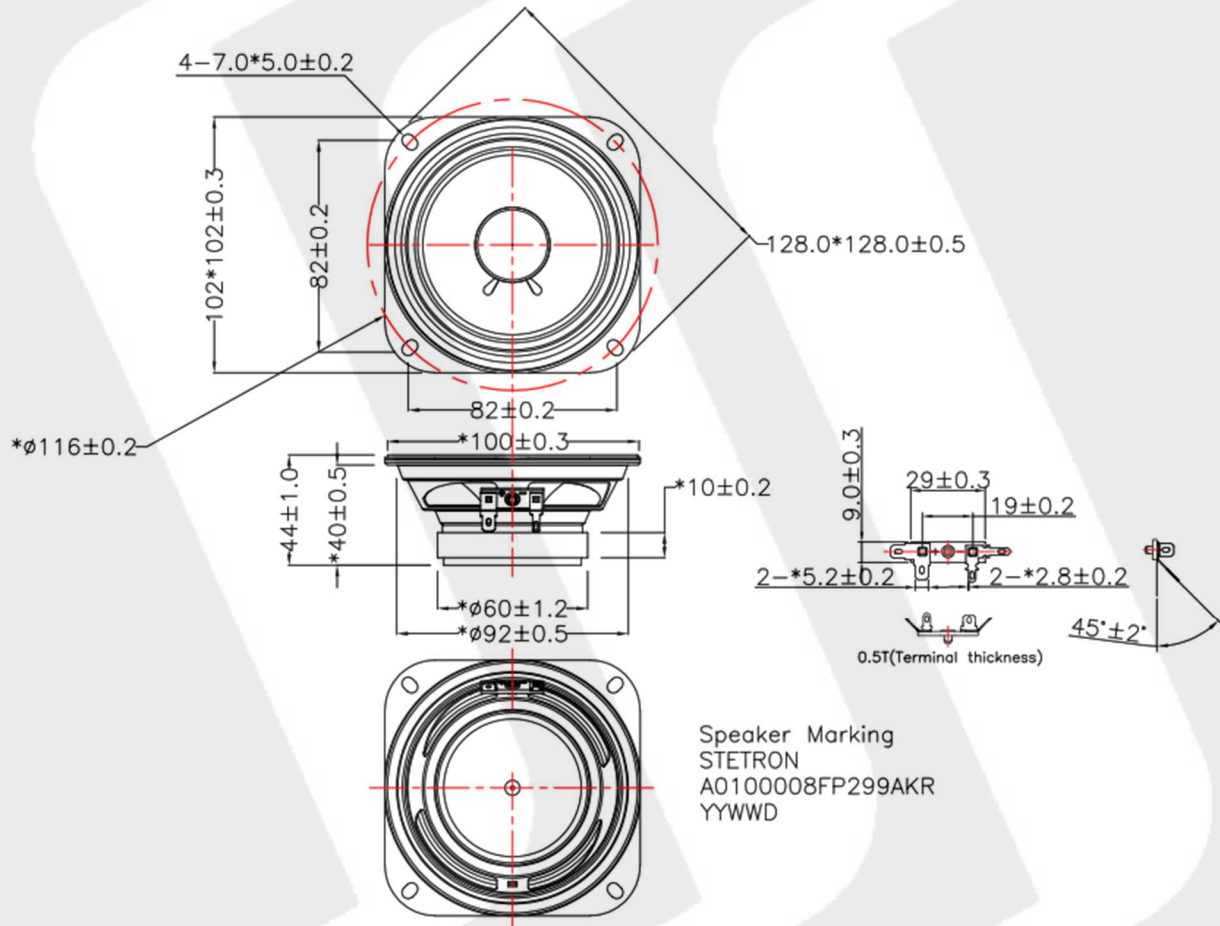
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7. Mechanical Layout and Dimensions



All dimensions in mm

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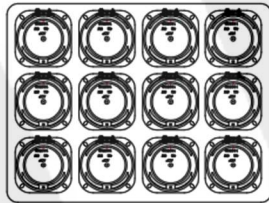
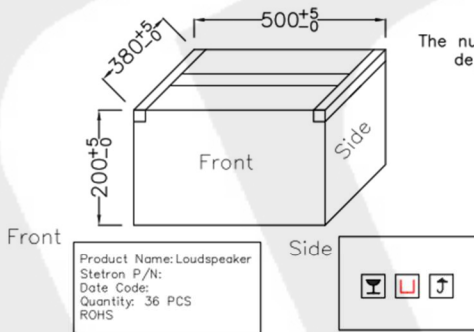
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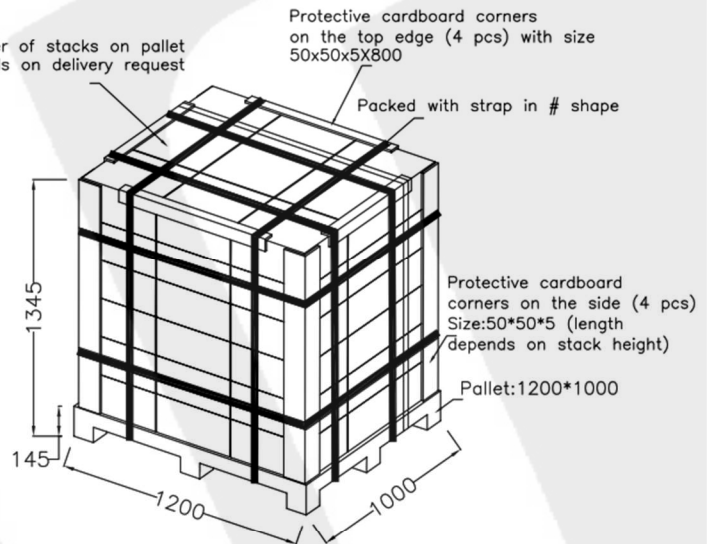
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8. Packaging



Speakers to be packed in PVC layer with above arrangement
12 pcs per layer
3 layers (36 pcs) per carton



Notes about the Pallet:
6 carton boxes/layer, 6 layers/pallet, 36 boxes in total
Gross weight is 13kg per box. One pallet weighs 500kg+/-10%, with 1,296pcs in total.
When stacking, gaps (between boxes) for upper layer and lower layer should stagger.
plastic film should be wrapped firmly with 3 rounds at least on the 4 sides and the top
Protective "corners" are used on the edges of pallet. pack the pallet with packing straps in "# shape.

All dimensions in mm

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