Sonus faber

ADVANCED TECHNICAL DATASHEET – ARENA 2

·Sf·

TABLE OF CONTENTS

01 Introduction

02 Specifications

03 Measurements

04 Technologies

05 Mounting System

01. INTRODUCTION

Arena is Sonus faber's custom installation speaker collection designed for reference-level private cinema environments.

Combining the brand's signature Natural Sound with powerful dynamics and seamless architectural integration, Arena delivers an immersive listening experience while elegantly blending into the design of the space.

Handcrafted in Italy by the Artisans of Sound, the collection brings together acoustic innovation, refined design and installation flexibility, enabling integrators to create high-performance private cinema systems tailored to each project and environment.

The name Arena evokes a space created for powerful shared experiences. Inspired by the architecture of ancient amphitheaters — where sound and spectacle surrounded the audience — the collection translates this concept into the modern private cinema environment.

02. SPECIFICATIONS

System

Speaker type	3,0 Way
Enclosure type	Sealed Box
Mounting Depth	100,0 mm
Weight	21,0 kg
Depth	100,0 mm
Width	300,0 mm
Height	900,0 mm

Loudspeakers

Low frequency transducer	2x	6,5"
Cone	Paper	
Magnet	Neodymium	
Demodulation	None	
Mid frequency transducer	1x	5,25"
Cone	Paper	
Magnet	Ferrite	
Demodulation	None	
High frequency transducer	1x	1,1" (28mm)
Dome	Silk	
Magnet	Neodymium	
Demodulation	Copper Cap	

Frequency response (-3dB on-axis)*	62,6 Hz	40000,0 Hz
Frequency Response (-6dB on-axis)*	52,6 Hz	40000,0 Hz
Sensitivity @2.83Vrms @1m**	88,7 dB	
Electrical crossover frequencies***	400Hz / 3000Hz	
Acoustical crossover frequencies	550Hz / 2350Hz	
Nominal Impedance	4,0 Ω	
Minimal impedance	5,6 Ω	

Electronics

Speaker Connectivity	Mono wiring
Recommended maximum amplifier output power	280,0 W

Cabinet

Shape	Squared
Materials	Wood - Aluminum

** Note : The f-3dB and f-6dB are computed based on the average sensitivity of the merged speaker on the [100-1000]Hz bandwidth*

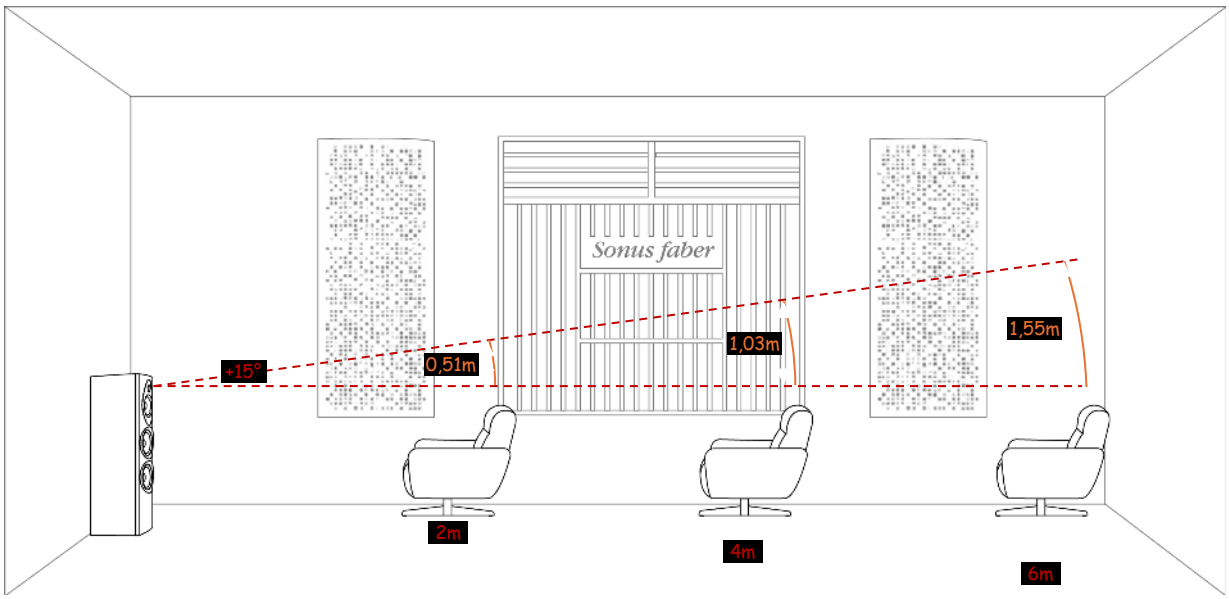
*** Note : The average sensitivity of the speaker is computed on the merged response of the speaker measured on the wall @2,83V and @1m. It is defined as the arithmetic average on 1/3rd octave bands according to the IEC 61260-1, centered on the ISO 266 frequencies, from f-3dB to 20kHz*

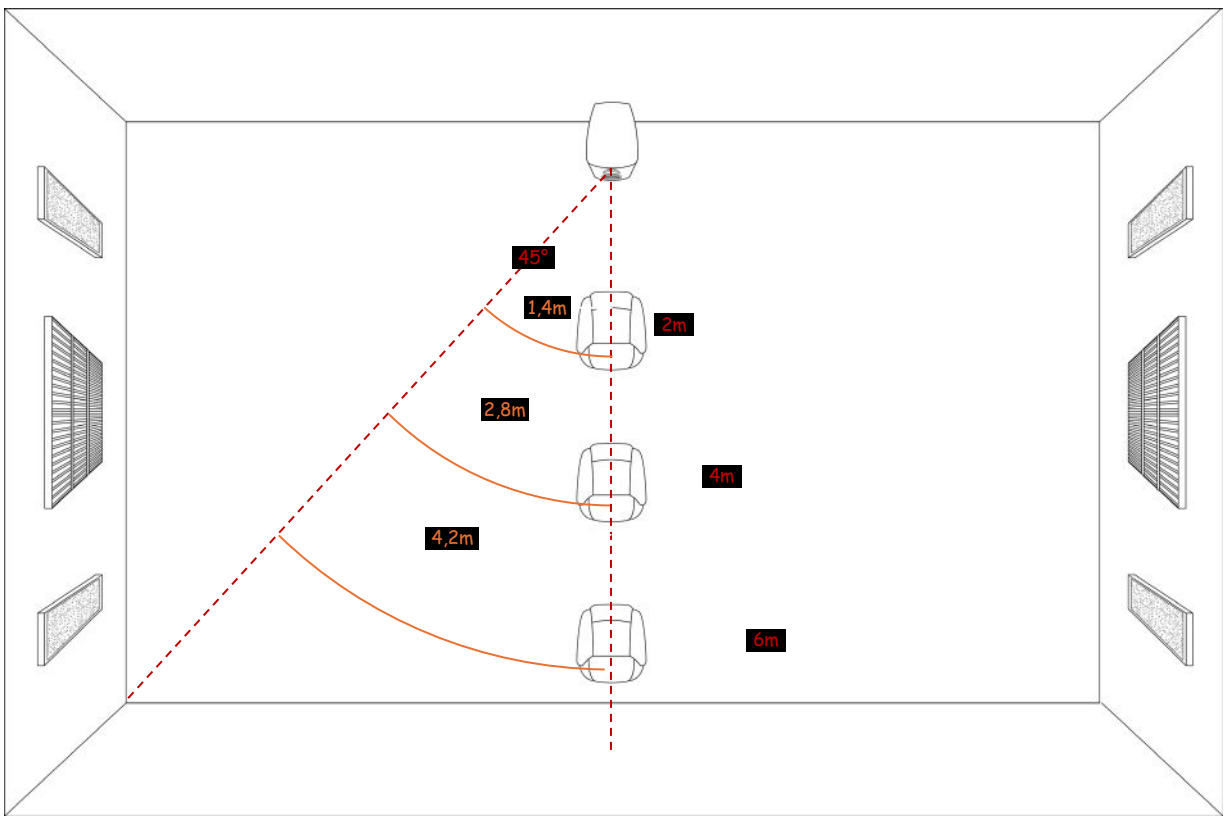
**** Note : Measured on realistic resistive loads*

03. MEASUREMENTS

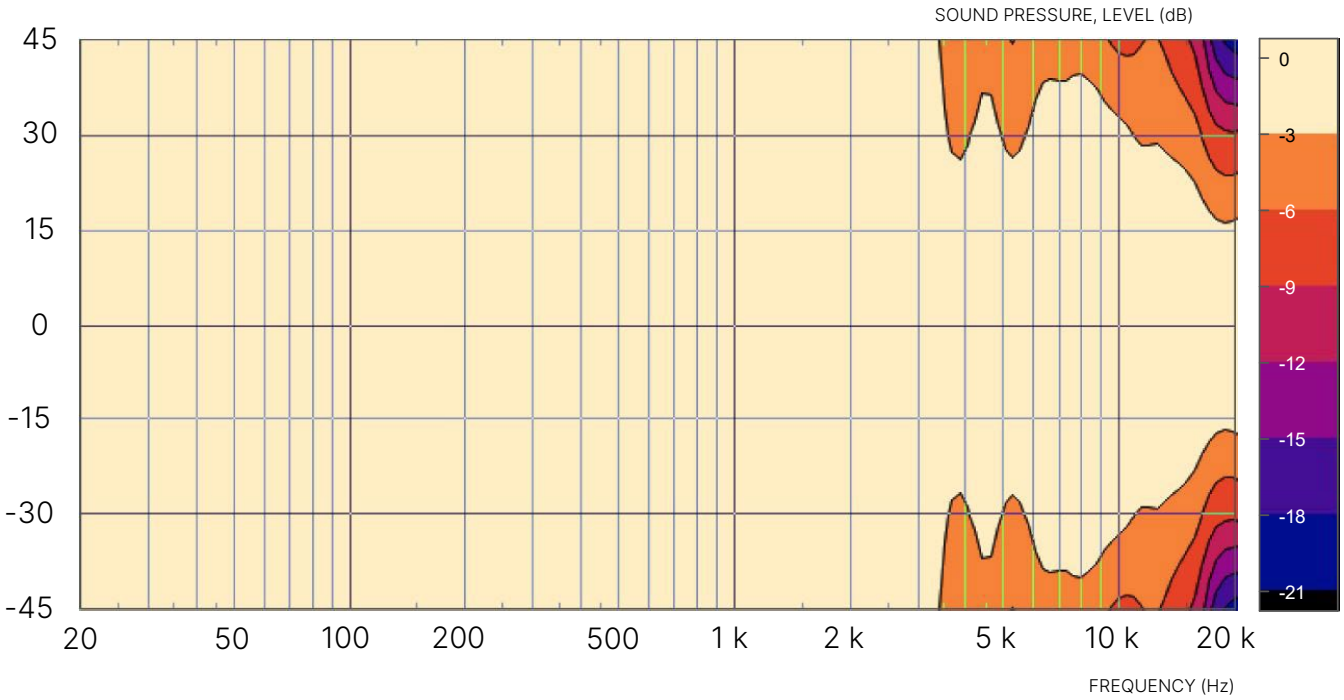
OUT OF AXIS METHOD :

The out of axis measurements are limited to ±15° vertically and ±45° horizontally. A graphic representation is shown below to convert these values in understandable distances compared to the listener's head at different positions.

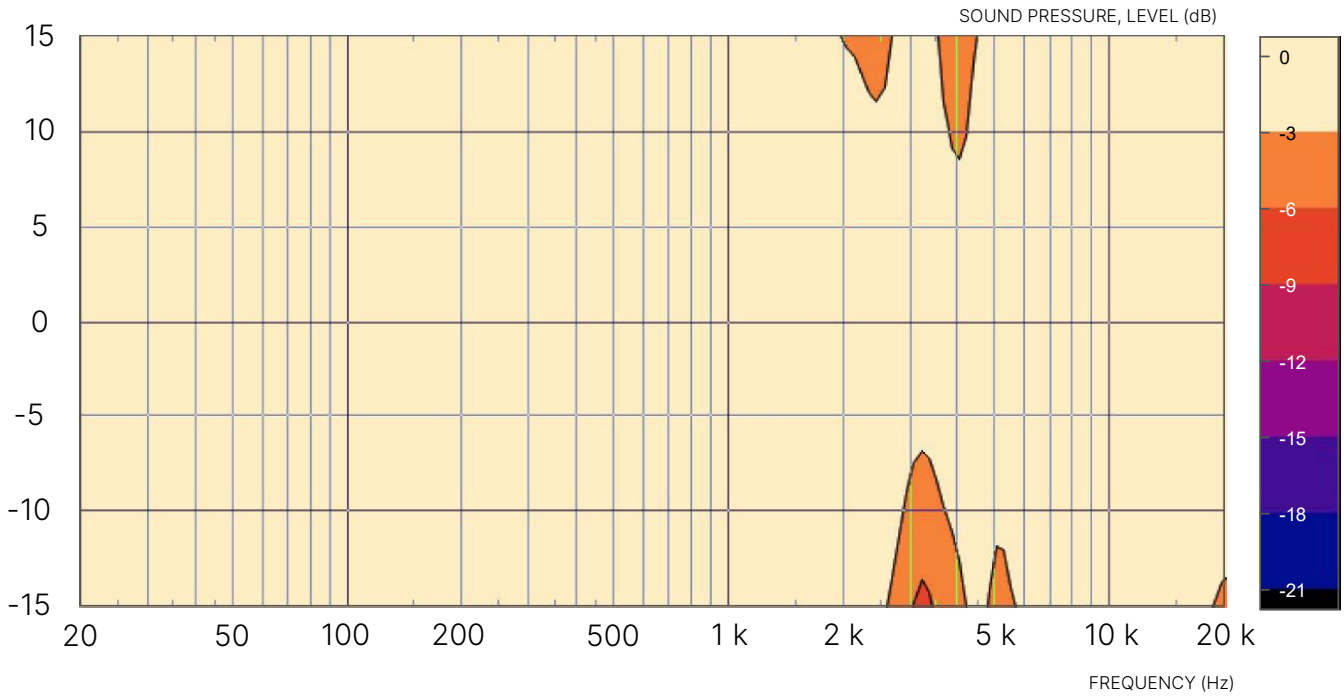




HORIZONTAL POLAR MAP NORMALIZED TO 00°

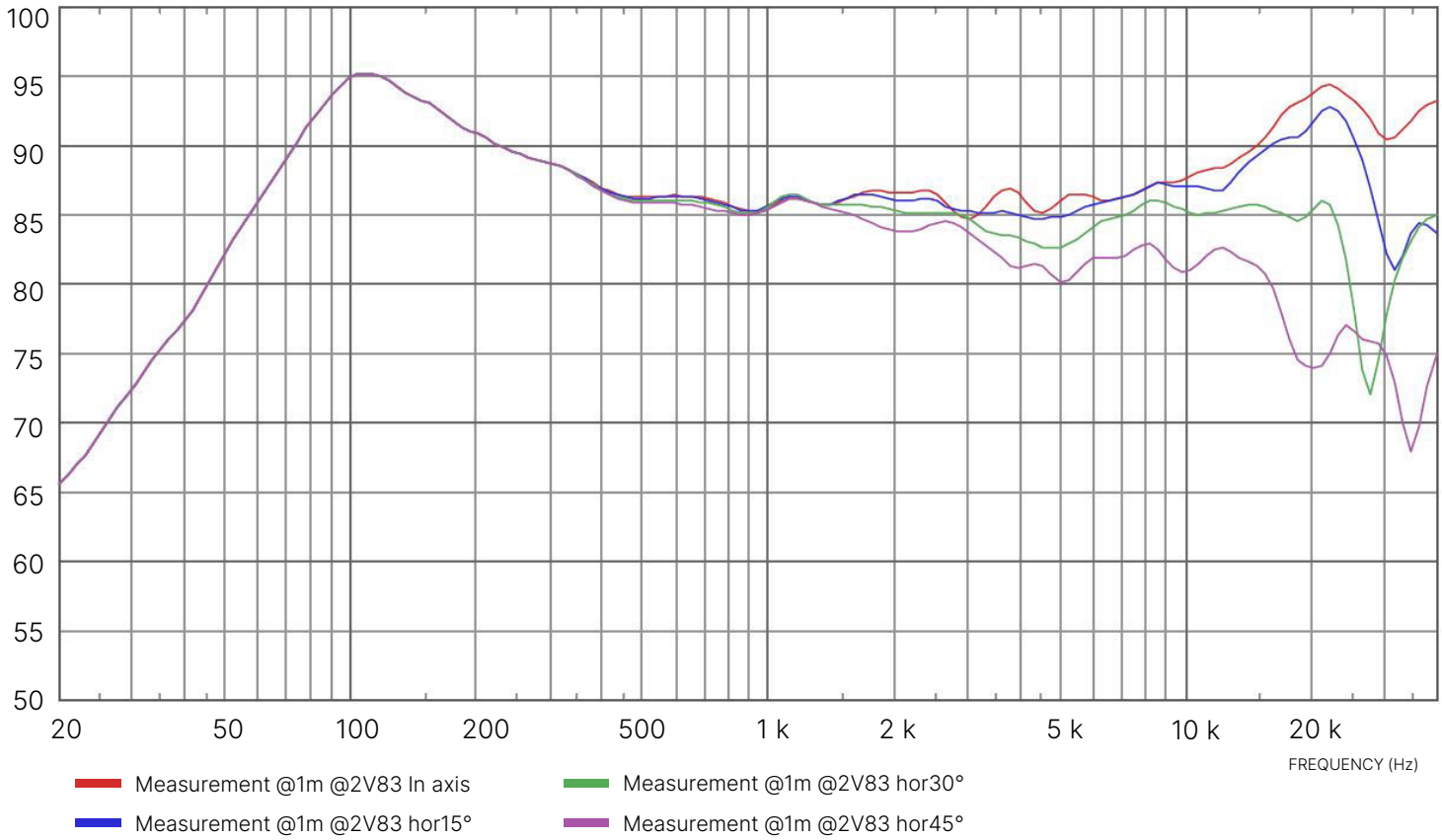


VERTICAL POLAR MAP NORMALIZED TO 00°



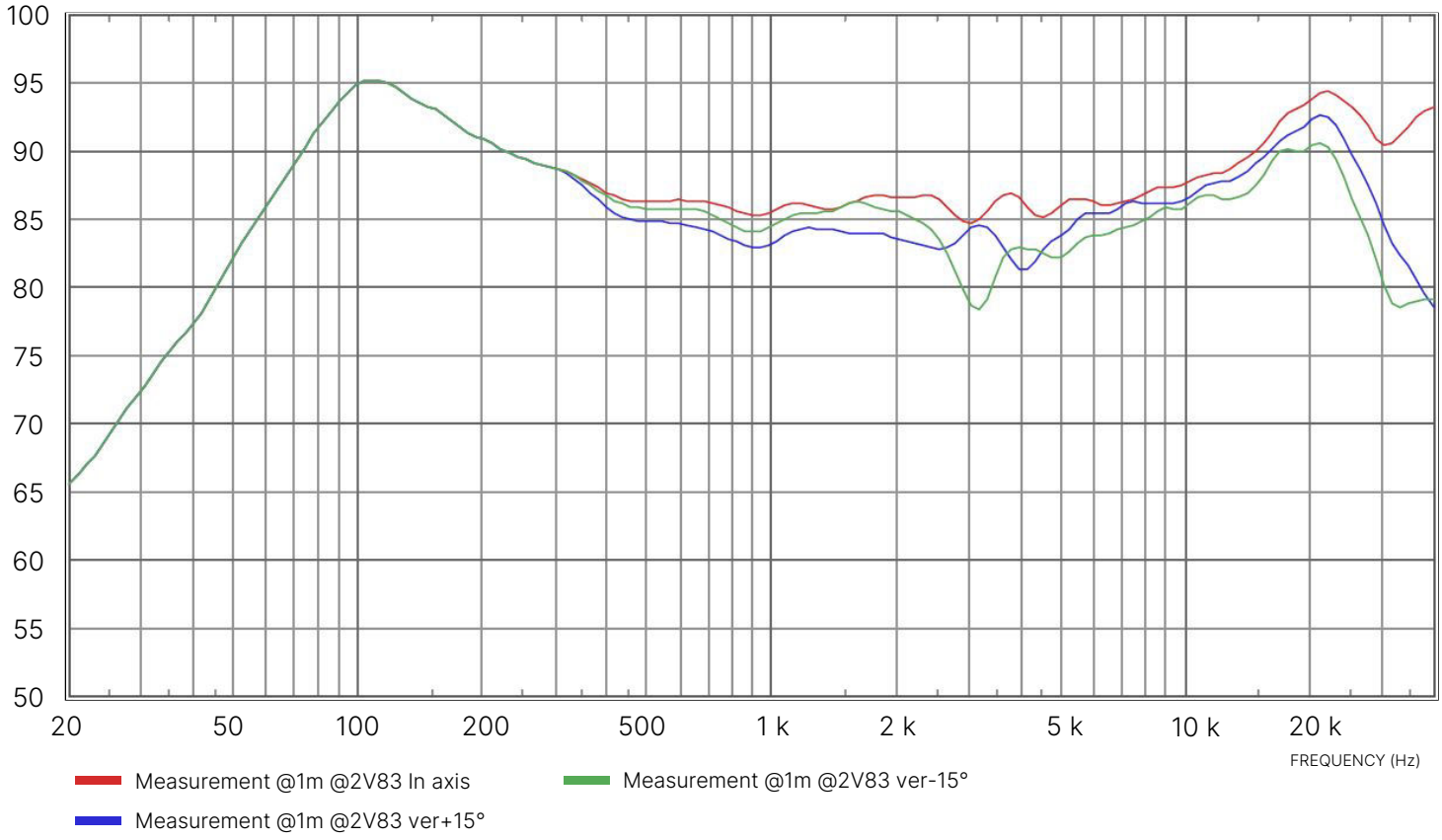
HORIZONTAL - FREQUENCY RESPONSE

(dB) Level, Sound pressure



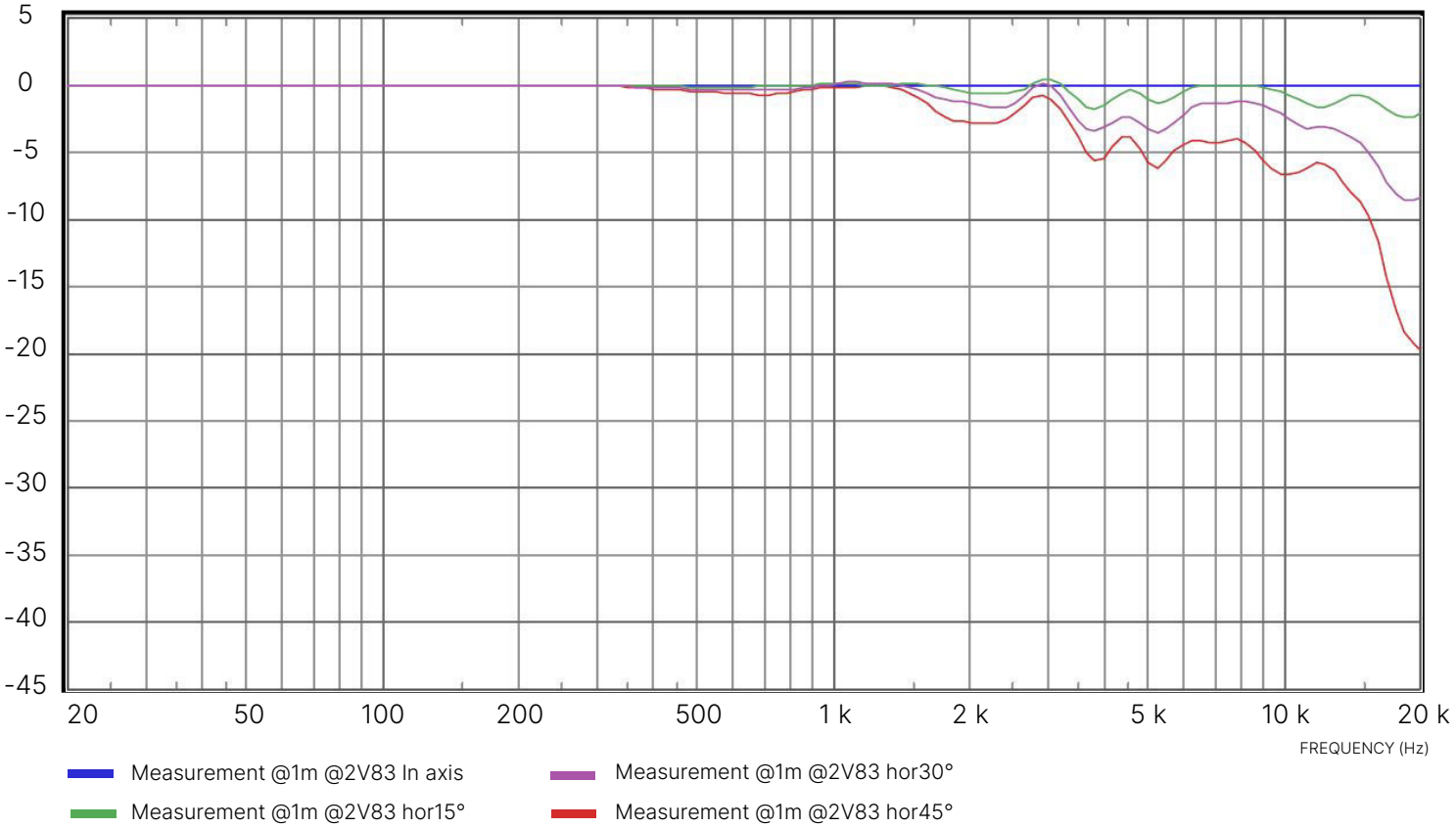
VERTICAL - FREQUENCY RESPONSE

(dB) Level, Sound pressure



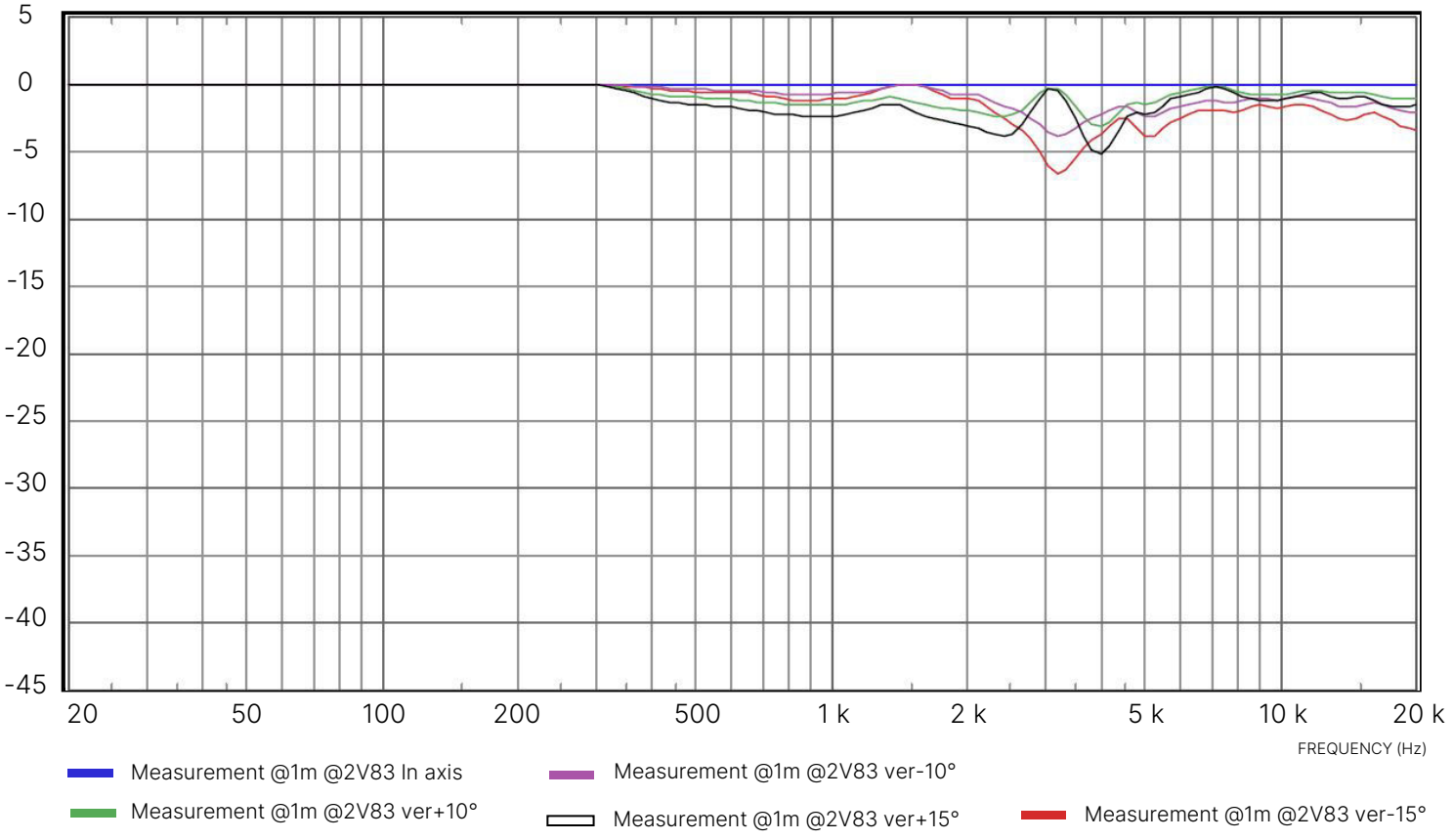
HORIZONTAL OUT OF AXIS FREQUENCY RESPONSE NORMALIZED TO 00°

(dB) Level, Sound pressure



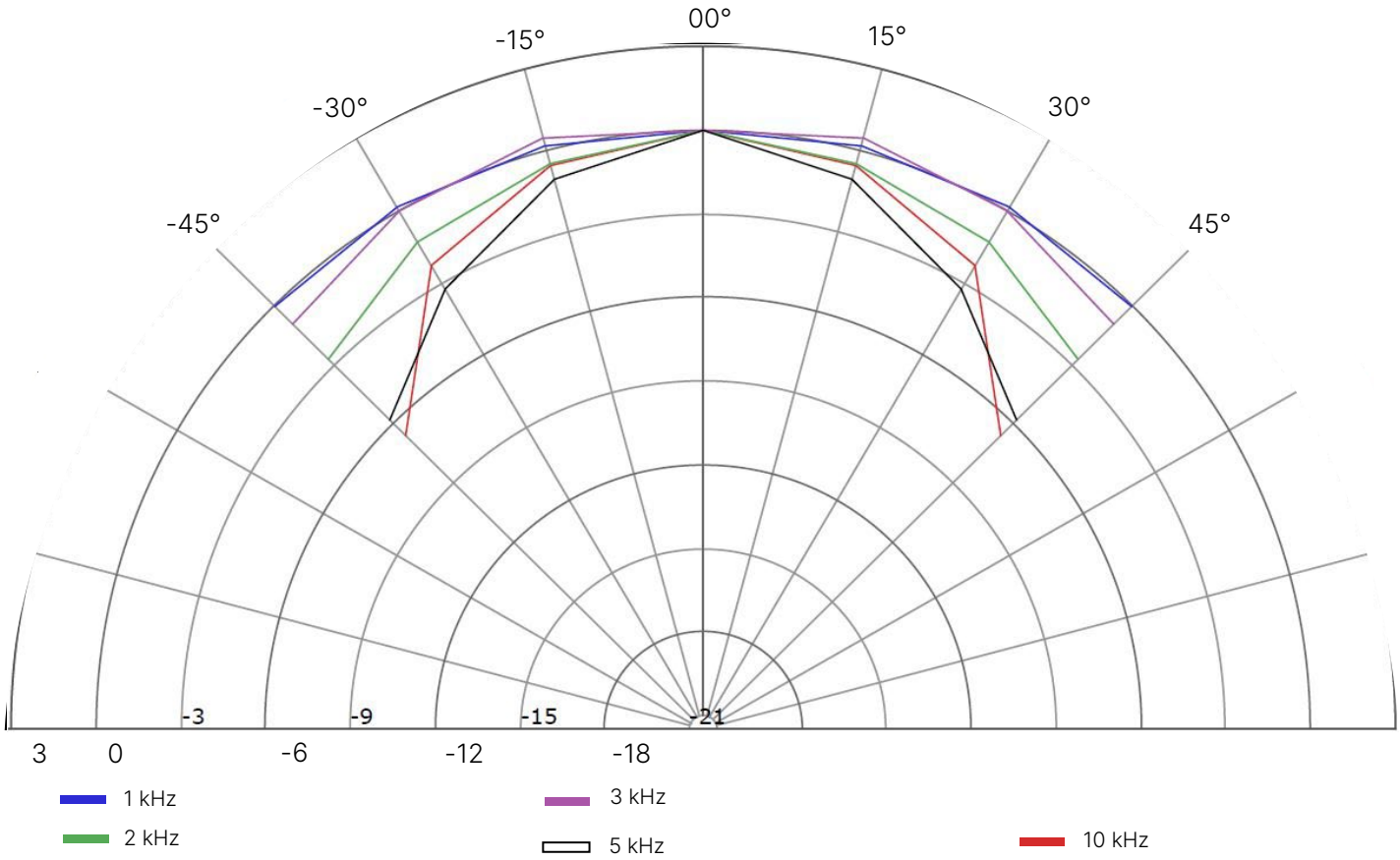
VERTICAL OUT OF AXIS FREQUENCY RESPONSE NORMALIZED TO 00°

(dB) Level, Sound pressure



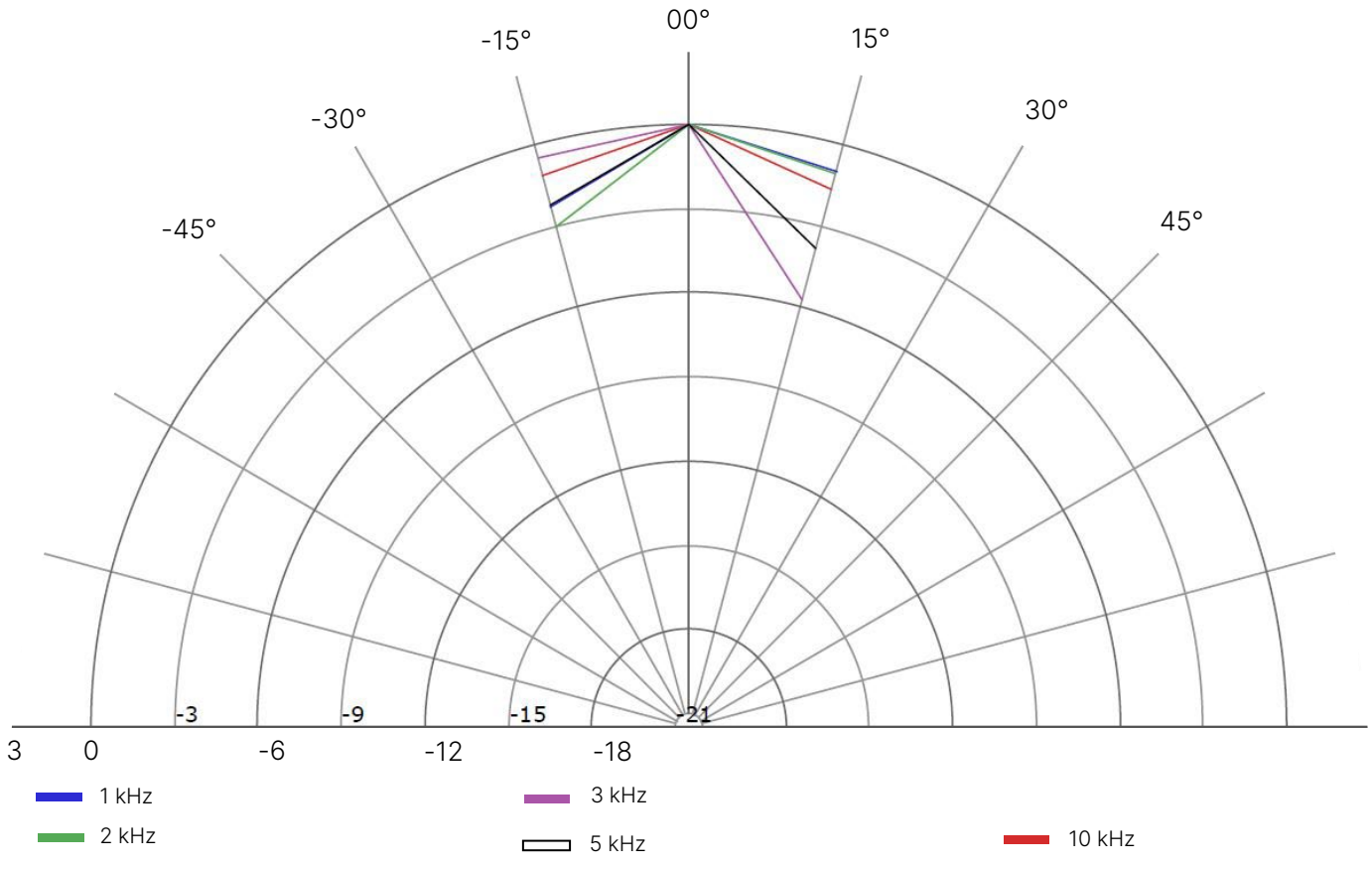
HORIZONTAL POLAR PLOT FOR DIFFERENT FREQUENCIES

Level (dB)



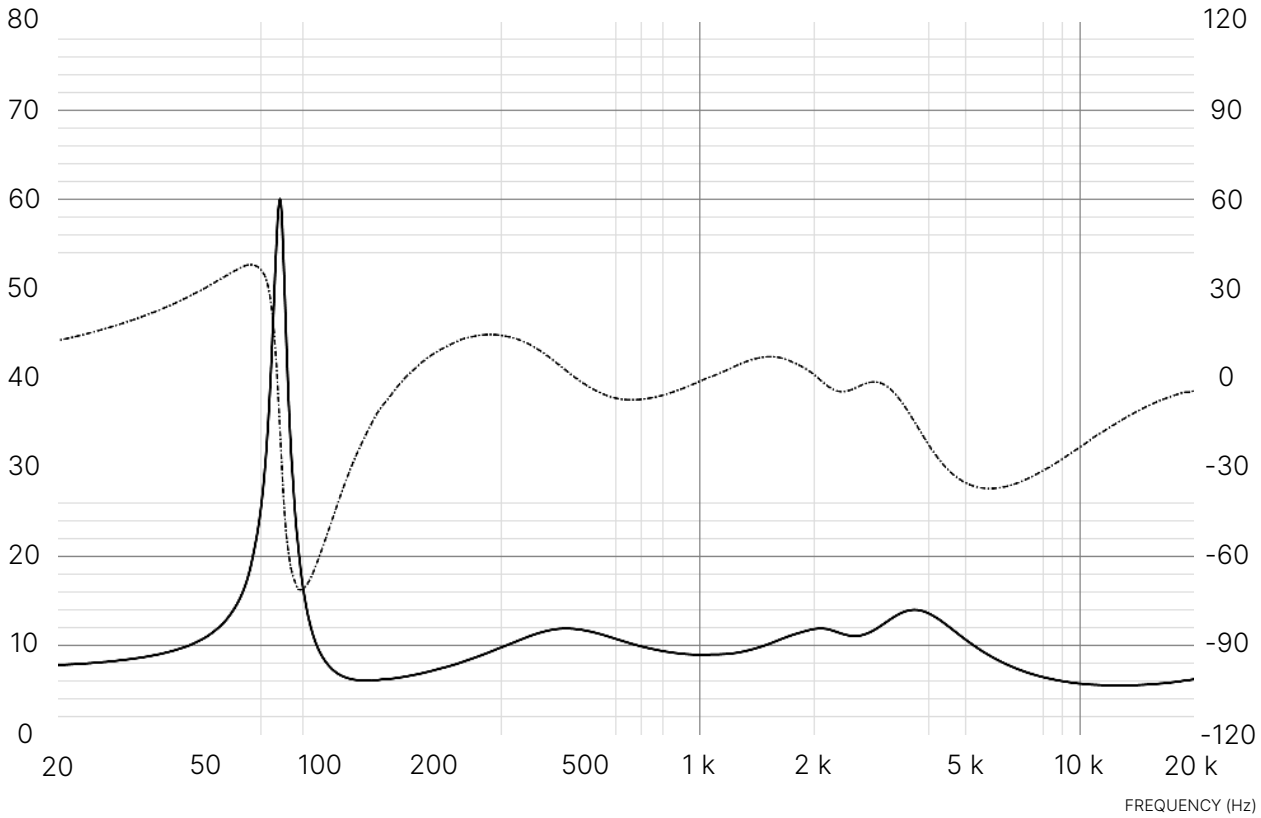
VERTICAL POLAR PLOT FOR DIFFERENT FREQUENCIES

Level (dB)

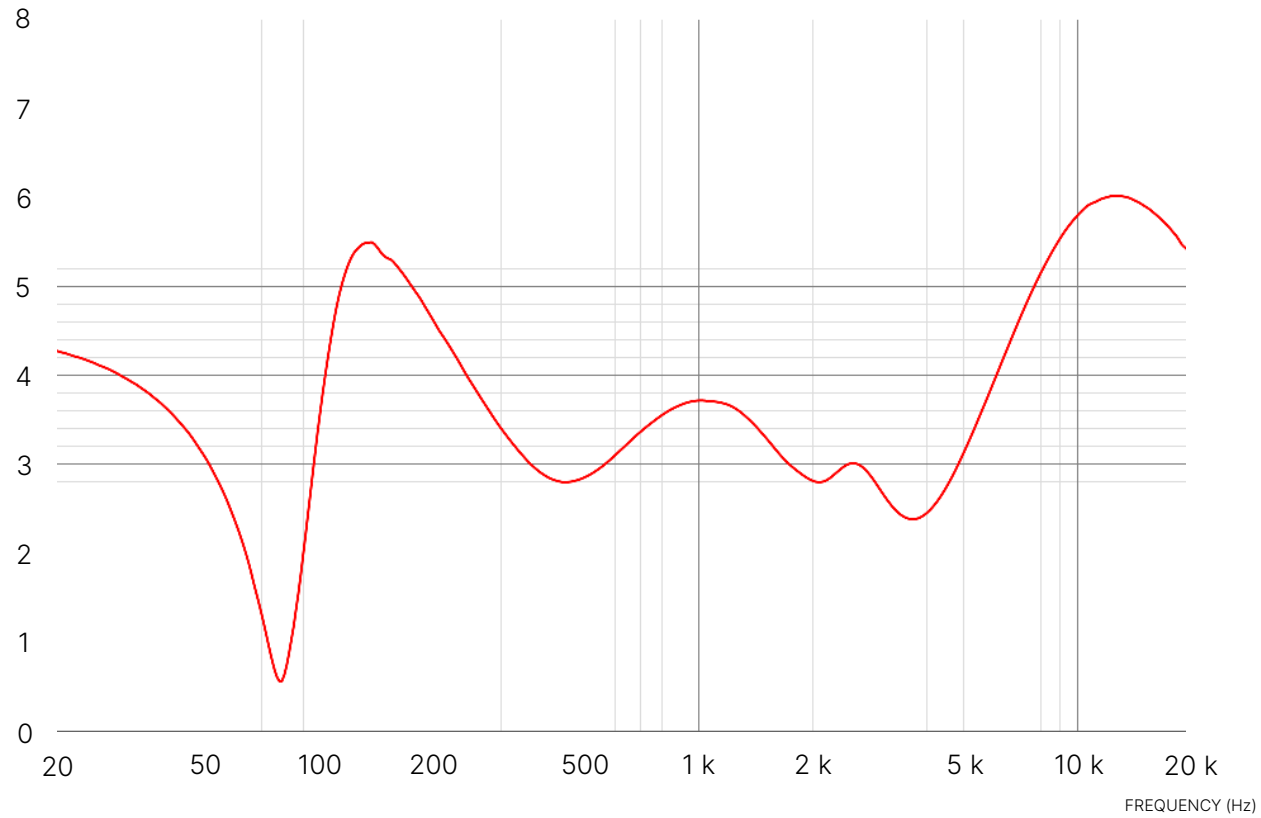


ELECTRIC MEASUREMENTS

Impedance modulus (Ω), Phase (°)



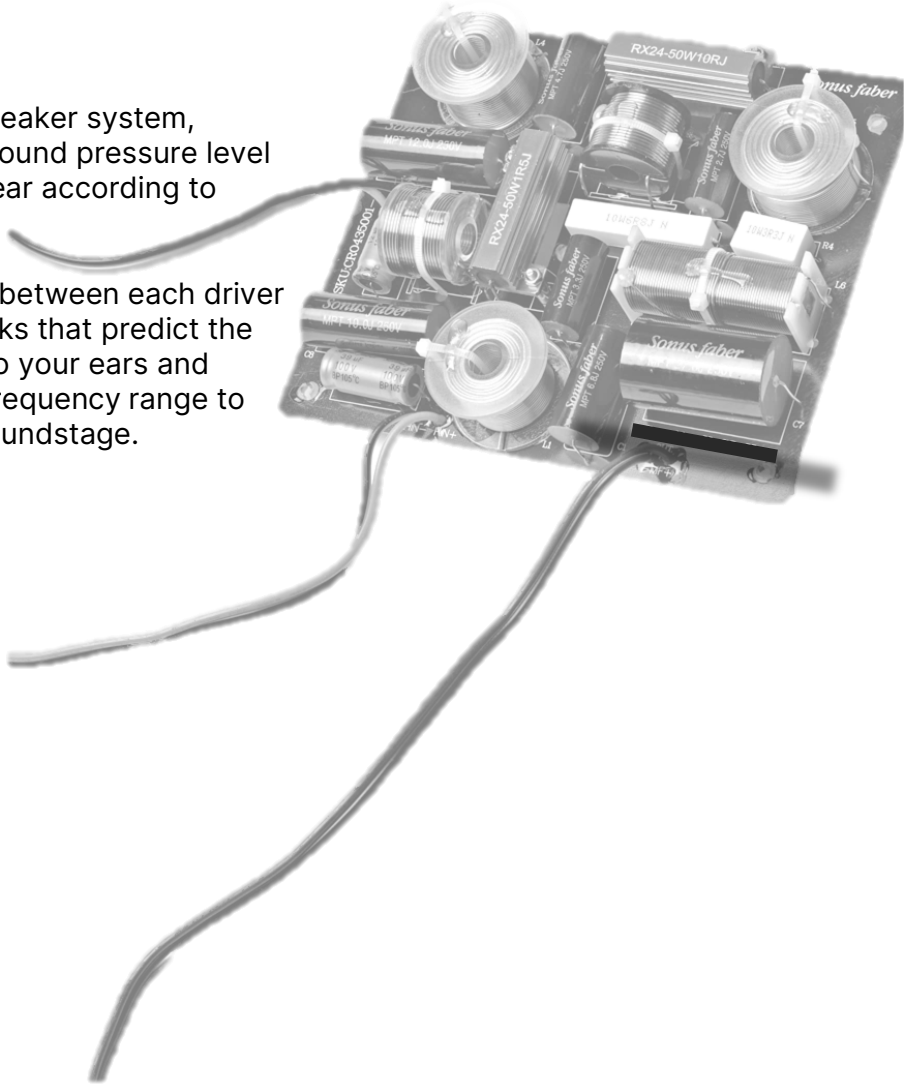
Apparent Current (A) at Maximum Power Rating



04. TECHNOLOGIES
Phase Coherent Design

Doing measurements of a loudspeaker system, focusing on the modulus of the sound pressure level ie. how many dB will catch your ear according to frequency is not enough.

If analyzed the acoustical phase between each driver too, we can design xover networks that predict the timing difference of the drivers to your ears and adjust their behavior on a wide frequency range to get a wider and more detailed soundstage.

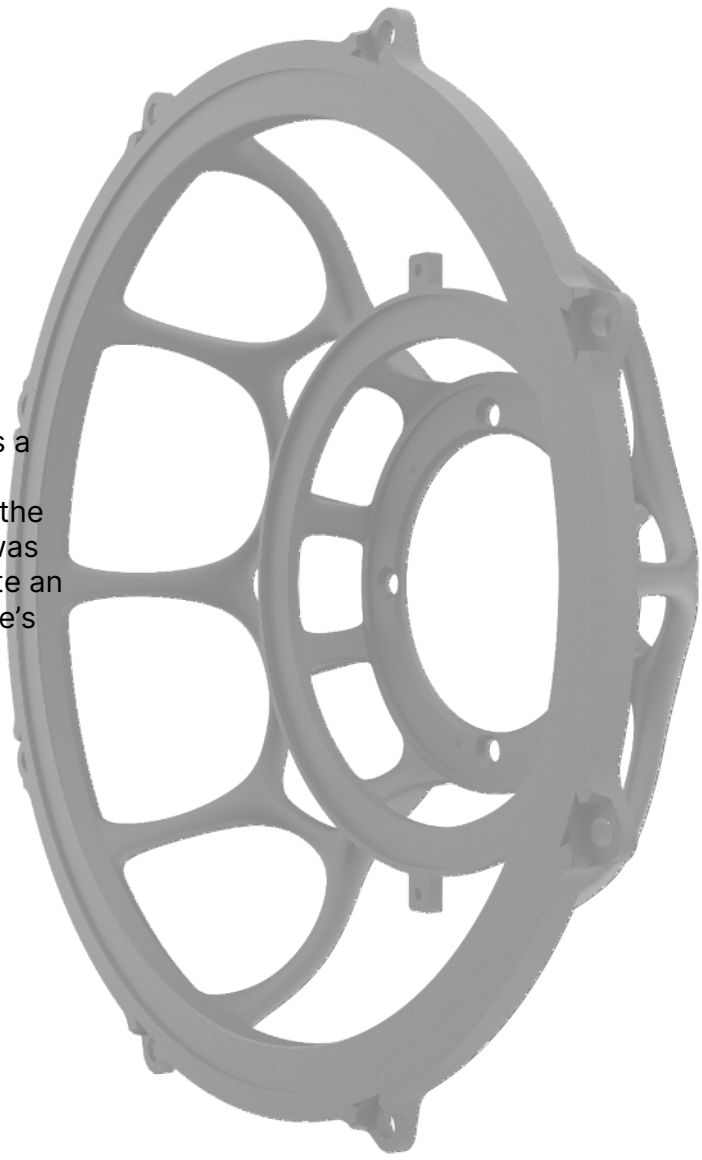


04. TECHNOLOGIES
Phase Plug

The phase-plug is designed to improve the out-of-axis response of the midrange, linearizing its frequency response on the highest frequencies of its useful bandwidth

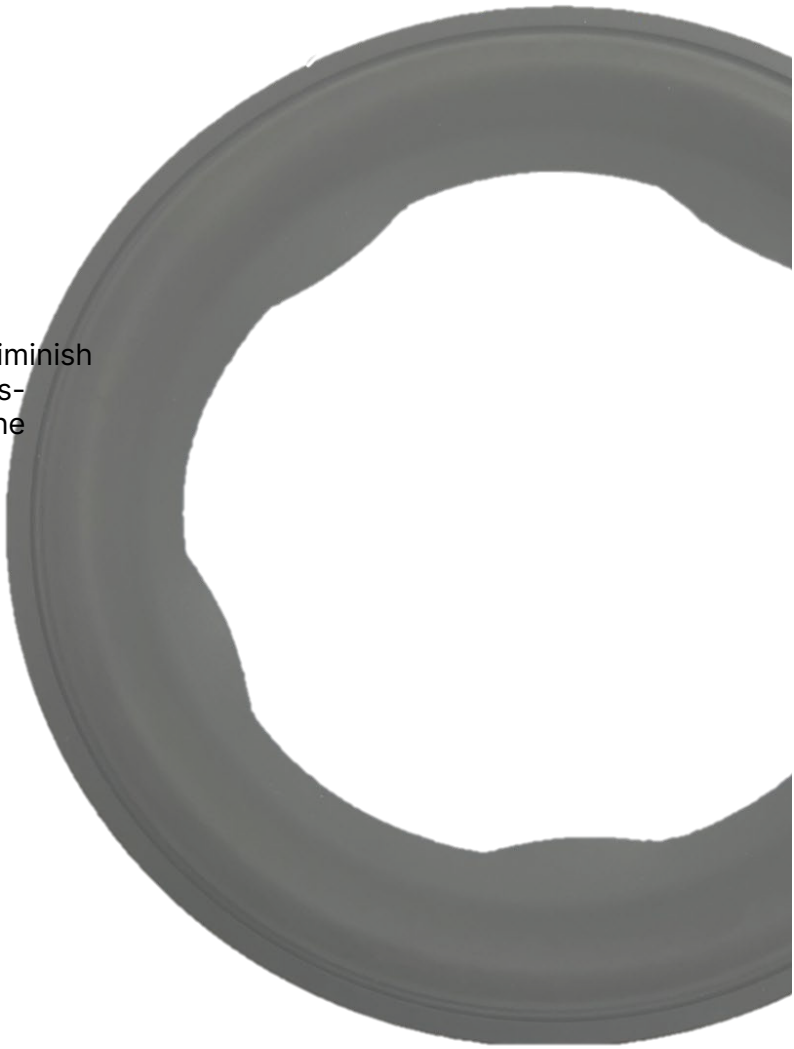
04. TECHNOLOGIES
Organic Basket

The organic basket fully designed in Italy, follows a non symmetric pattern that gives more structural stiffness to the basket and at the same time lets the cone free to move as it should be. If the basket was too closed at the rear of the driver, it would create an additional air stiffness and would disturb the cone's movement. This issue is solved with the pattern created on the organic basket.



04. TECHNOLOGIES
Camelia Surround pattern

The non-circular surround pattern allows to diminish the radial vibrations modes caused by the axis-symmetric coupling of the surround to the cone



05. MOUNTING SYSTEM

Thank you