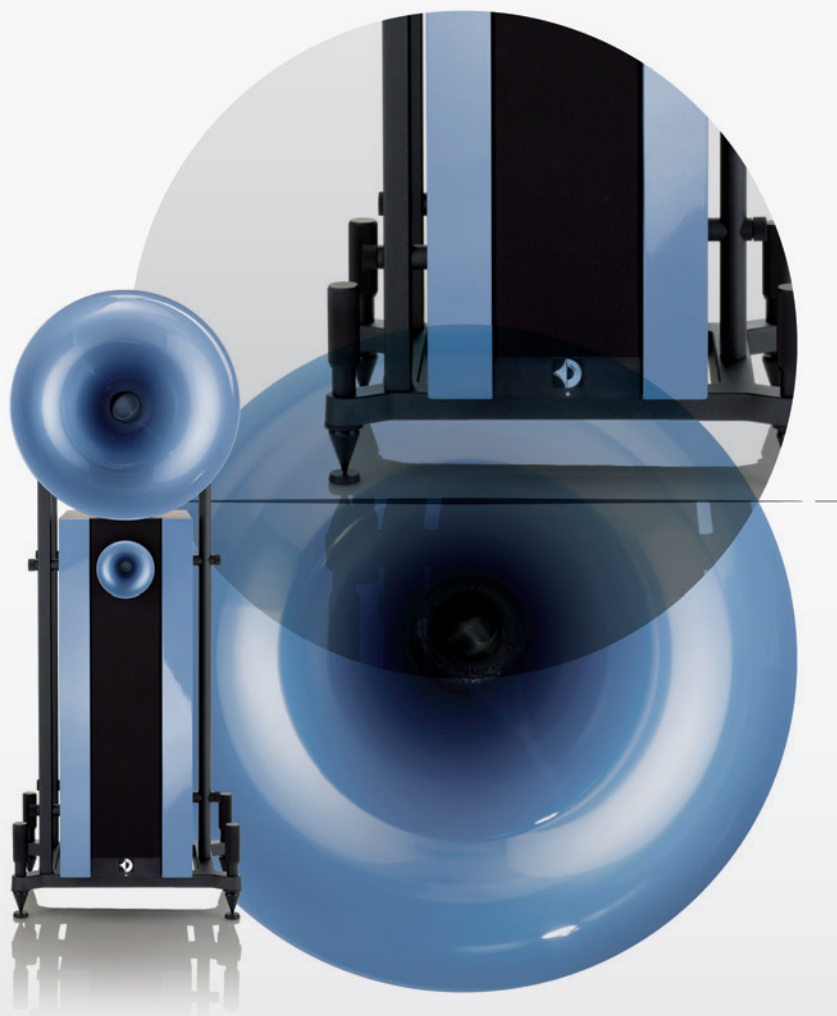


UNO | FACT SHEET

Your entry into the world of spherical horns



avantgarde
ACOUSTIC

UNO | FACT SHEET

Your entry into the world of spherical horns

UNO

104 dB sensitivity

8 ohm drivers

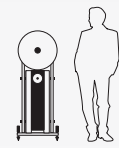
20 inch spherical midrange horn

CDC system with no crossover

Bass with active feedback control

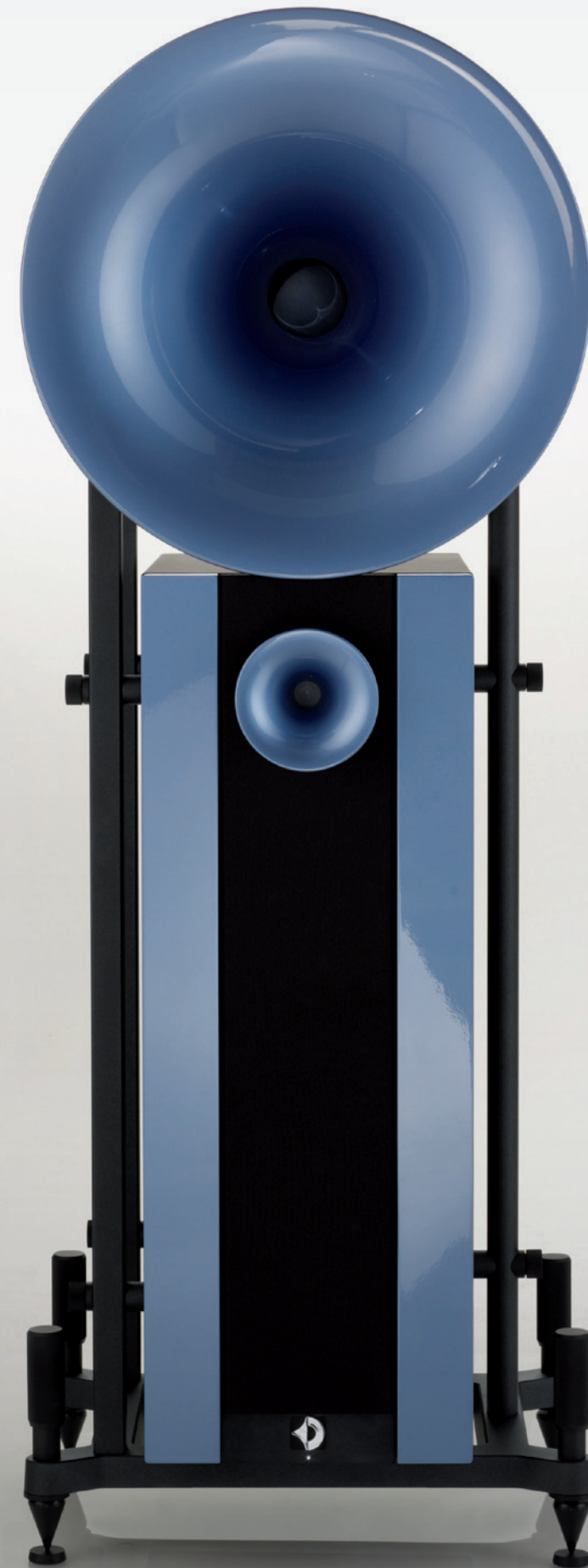
2 x 10 inch neodymium bass drivers

250 watt subwoofer amplifier with 60.000 μ F



THE SYSTEM

The Uno is a 2-way spherical horn system with integrated active subwoofer Sub 225 . Its high sensitivity (104 dB/W/m) and its hybrid concept with self-powered subwoofer makes it easy to drive with any amplifier. Even with low powered tube amps the Uno is able to deliver a powerful, dynamic and three-dimensional sound, because the power-demanding work at low frequencies is managed by the self-amplified Sub 225.



UNO DRIVERS

Your entry into the world of spherical horns



THE MIDRANGE HORN DRIVER

The utmost care at choosing the drivers is the key to successfully transforming the theoretical advantages of the horn technology into an outstanding High End speaker. As mostly people focus on treble and bass response, Avantgarde Acoustic™ considers the midrange as the “heart” of each speaker system.

The M1 is a 130 mm (5 in) midrange driver with a 75 mm (3 inch) dome especially developed for the Uno and optimized for a large, linear excursion. A double ferrite magnet assembly is used to generate a powerful magnetic field which homogeneously controls the movement of the voice coil. The M1 has a very low cut-off frequency with seamless and crossover-less integration to the subwoofer. The design of the dome ensures a phase-neutral radiation of the sound waves into the midrange horn SH5002 and wide bandwidth of the extended midrange down to 290 Hz.

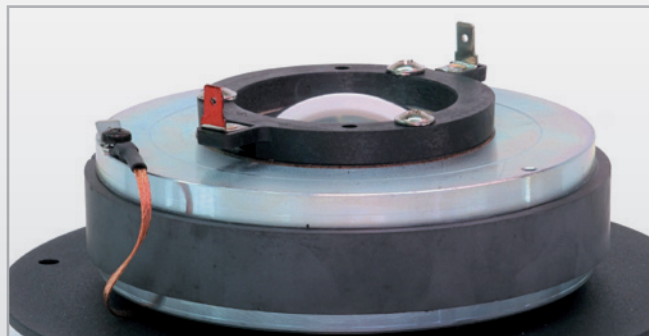
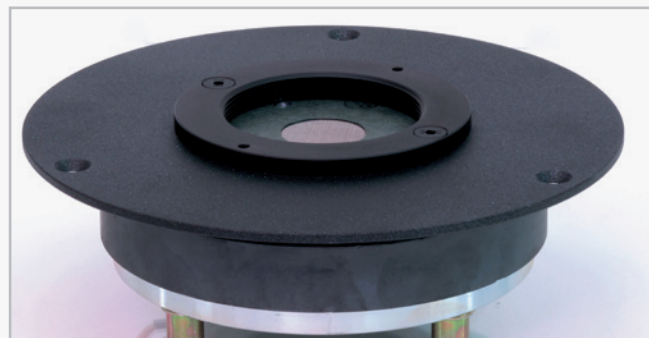
The carbon midrange cone of the M1 is coated with trillions of tiny microfibrils generating a “*Velours Damping Effect*”. This incrementally small fur of the VDE technology cone effectively reduces partial resonances of the cone itself. Furthermore the microscopic fibres of the VDE technology help to effectively absorb high frequency distortions.



The Avantgarde Acoustic™ proprietary CDC system features a controlled roll-off at 3,000 Hz, and allows us to completely eliminate all passive crossover components in the signal path. This way the M1 gets the pure and non-distorted full-range signal directly from the amplifier! The nominal impedance of the M1 is 8 ohm and the M1 sensitivity is 104 dB (1Watt/1m).

UNO DRIVERS

Your entry into the world of spherical horns



THE TWEETER HORN DRIVER

H1 is a high-frequency tweeter providing an extremely wide frequency range acoustically reaching down to 1,5 kHz. Based upon the same design principle of the nearly „legendary“ Trio tweeter H3, the H1 offers very low distortion and excellent transient characteristics. The over-dimensioned magnet structure of the tweeter, weighing 3 kg (6.5 lb), results in a sound pressure level of 104 dB (1Watt/1m) at very high power rating. The nominal impedance of the H1 is 16 ohm.



UNO DRIVERS

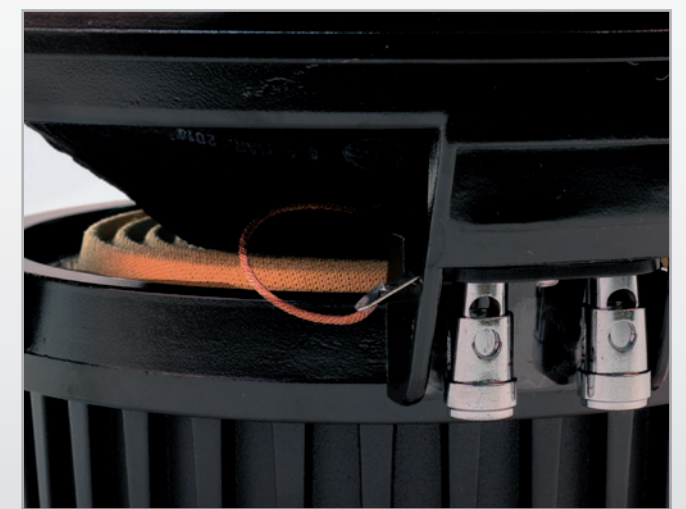
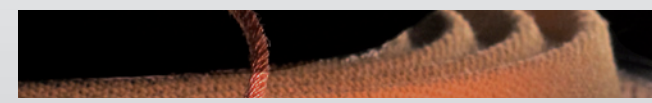
Your entry into the world of spherical horns



THE SUBWOOFER DRIVER

The Uno is supplied with the active subwoofer Sub 225, which is driven by two powerful 25 cm (10 inch) long-excursion drivers.

The 10-ND500 long excursion drive unit is characterized by its extremely high efficiency and utmost power handling capabilities. The extended controlled excursion is ± 7 mm. Exclusive neodym magnets with a special under-pole magnet topology are used to maximize the flux density in the air gap and to eliminate energy leakage of the magnetic field. The powerful neodym magnet with a very strong BL power factor and the very stiff but light membrane will ensure highest resolution and authority even with complex signals at extreme sound pressure levels.



UNO | AMPLIFIER

Your entry into the world of spherical horns



THE SUBWOOFER AMPLIFIER

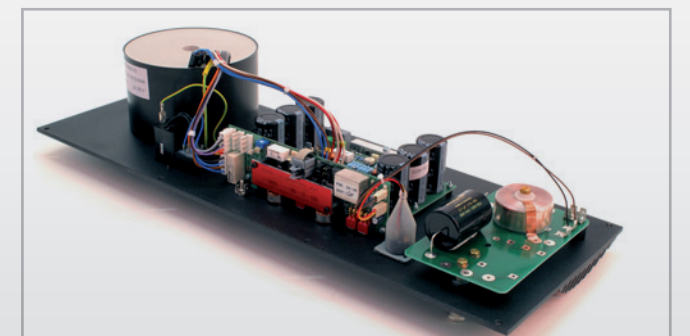
The integrated active PA 106 electronics consists of a powerful 250 watt amplifier and an active frequency crossover. A forceful 330VA toroidal transformer and an energy reservoir of 60.000 μ F providing ample energy reserves and dynamic headroom.

In order to achieve full control to overcome the inertia of the driver mass, the PA 106 is equipped with Avantgarde's genuine adaptive motional feedback circuitry. These ultrafast analogue electronics compensate for signal deviations induced by the circuit and drivers in real-time. As a result the Sub 225 achieves an astonishingly flat frequency response down to 18 Hz! Furthermore, even at very low listening levels – when the music signal is too weak to overcome the inertia of the bass driver mass – the adaptive motional feedback circuitry will seamlessly increase its power output for a full and rich bass response.

The active crossover allows the adjustment of a number of parameters thus ensuring a very easy and fast installation of the system even in acoustically critical situations. A 3-position subsonic switch, variable settings for the input sensitivity and crossover frequencies make the Sub 225 extremely versatile. The Sub 225 can be remotely switched on/off using the 12V trigger signal.

The Sub 225 is driven via high power speaker terminals for direct connection to integrated amps, power amplifiers or receivers or alternatively via XLR terminals. The signal take-off is not only at high impedance, but is also balanced and transformer coupled. This floats the subwoofer ground, avoiding hum loops and eases connection to balanced and bridged amplifier designs.

The enclosure of the Sub 225 is constructed from 1.2 inch MDF (28 mm). Designed with a centrally located reinforcing stabilizer, the box construction is very rigid, avoiding resonances.



UNO CONSTRUCTION

Your entry into the world of spherical horns

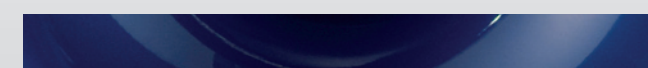
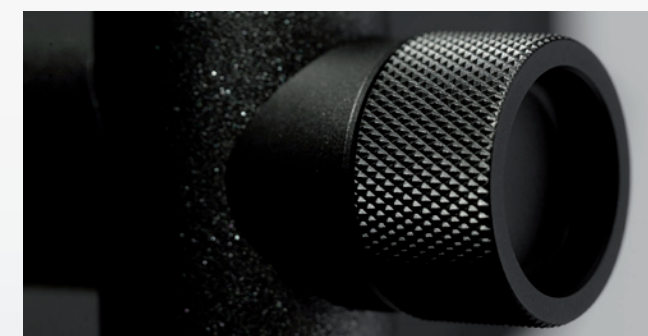
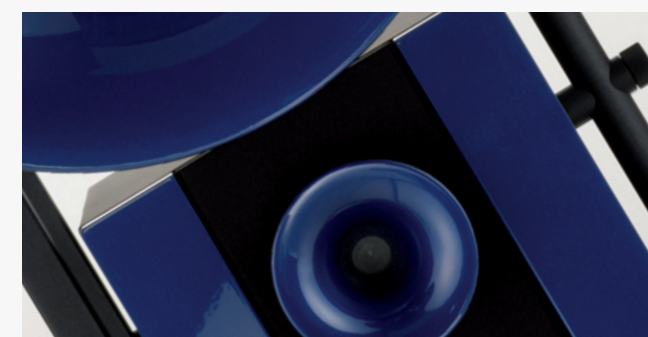


avantgarde
ACOUSTIC

MECHANICAL CONSTRUCTION

The midrange horn is mounted into a circular housing cylinder with a solid cast aluminium back cover on its back end. The tweeter is located in a sealed compartment in the upper part of the subwoofer enclosure.

The entire loudspeaker system is placed on a solid cast aluminium base frame. The spike assembly of the base frame – featuring solid 55 mm spikes and massive adjusting handles – are easily accessible from the top. Newly designed aluminium spacers with knurled head screws, connecting the frame rails with midrange housing cylinder and subwoofer.



UNO | COLORS

Your entry into the world of spherical horns



EXAMPLES



COLORS FOR THE HORNS AND PANELS

Stealth Nocturne Black <small>(panel only)</small>	Turmaline Vivid Black
Stealth Nocturne Grey	Shiny Citrine Orange ¹⁾
Diamond Crystal Silver	Ruby Brilliant Red
Akoya Pearl White	Sapphire Burma Blue
Light Amber Bronze	Light Topas Blue
Saona Beach Cream	Smaragd Pearl Green

A selection of ten standard colors is available for the horns. This includes eight metallic lacquer finishes, the uni-color „*Saona Beach Cream*“ finish and the moderne „*Stealth Nocturne Grey*“ finish. The special „*Shiny Citrine Orange*“ multi-layer coating is available as an option.

The front panels can be ordered in any of the above horn colors, plus the elegant „*Stealth Nocturne Black*“ finish. Four different wooden veneers are available. As standard with matte surface and optional in shiny piano lacquer finish.

On this page you will only find a small selection of thumbnails of the color combinations possible. For a better overview you should visit our website www.avantgarde-acoustic.com.

Here you can download a special *Color & Finishes.pdf* for each product. In this document you can find a nice overview of all front-panel combinations available for each of the horn colors. This will quickly guide you to your favorite horn-panel combinations.

COLOR CONFIGURATOR

On our website www.avantgarde-acoustic.com you will find as well a comprehensive color selection tool. Just go to the respective product within the *HORN*-section. Under *DESIGN* you can select the color of the horn and the color and veneer of the front panel. If you have found your favorite color combination, simply click on the download-button for a high resolution picture (6 mb).

WOODEN VENEERS FOR THE PANELS

Flower Birdseye Maple ²⁾	Tianshan Mystic Walnut ²⁾
Hanami Lucent Cherrywood ²⁾	Jacaranda Aura Rosewood ²⁾

1) optional customized color
2) optional available in high gloss piano lacquer finish

UNO | REVIEWS

Your entry into the world of spherical horns



TEST REVIEWS*

“The UNO offer an impressive sense of immediacy and dynamic range. Add that to their deft touch and effortless sense of weight and scale and the result is a powerful and impressive performance that’s full of life, presence and detail. Murray Perahia playing Bach create wonderful patterns and contrasts. It is this effortless separation and organization, the way the speakers reveal the juxtaposition between phrases, between notes within phrases that makes the Avantgardes’ musical delivery so compelling.” (HIFI+, Chris Beeching, UK)

“The Uno was superb in its ability to unleash the music’s emotional content. And the UNO was able to generate a wide and deep soundstage that convincingly flooded the front of the room. Image outlines were tightly focused in space with excellent palpability.” (FI MAGAZINE, D. Olsher, USA)

“Separation between the instruments is spectacular, with the UNO’s presenting the members of her band singly - so you can follow each instrument with barely any interference from the others, or let the focus of your ears glaze over and enjoy the whole track, coherently presented.” (WHAT HIFI?, D. Houston, UK)

“The most formidable horns ever built! The relative perspective of the musical instruments size and relative distance is excellent. Each instrument has a sense of space and air around it. Horn colorations have definately been excorcised. I can almost imagine if you would bring these speakers home, you would spend days if not weeks rediscovering all you favorite recordings in a way your former speaker will not be able to. That alone is all to confince me, that we have something pretty extraordinary here!” (MARQUES OF DISTINCTION, Terence Wong, SINGAPORE)

“In combination with one of the best active-controlled subwoofers on the market the UNO - smallest classical hornspeaker from Avantgarde Acoustic - really gets it going. A magic transducer which impressively reveals the fascination of big horn systems. Watch out – highest risk of becoming addicted!” (IMAGE HIFI, U. Ratai, GERMANY)

“We immediately hear very expressive sound, palpable three dimensional music vista, a rare transparency of musical image. The speakers play music in a wide manner and they do not hide delicate sound patterns. The soundstage is so close that you feel getting drawn inside. The UNO plays any kind of music with clear contours and expression. It seems that the door to the music is wide open all the time. This is truly the front line - the avantgarde - of acoustical high end. (STEREO & VIDEO, Artiom Avatinian, RUSSIA)



TEST REVIEWS*

“The sense that these singers and musicians had somehow appeared in my listening room and were performing for me was quite spooky... The UNO created the illusion of “liveness” better than any other speaker I’ve had in my listening room. In fact, I can think of few speakers I’ve heard anywhere at any price that sounded as convincingly “live” as the Uno. It is simply that good. “ (STEREOPHILE, R. Deutsch, USA)

“The UNO is a top performer, eradicating all dreams of lusting after bigger systems. You buy a relatively affordable superspeaker. I’m more than prepared to disavow any erroneously held preconceptions and petition for forgiveness. Beyond the familiar audiophile garden of Eden, there exists another Eden for horn systems, one no less compelling or magical.” (HÖRERLEBNIS, R. Schmitz-Niehaus, GERMANY)

“This kind of speaker is calling for dynamic and rythmic music - for example the drum set of the band “Die Fantastischen 4”. The mix of bass drum and timbal had an incredible punch and rythmic precision. The UNO achieved the almost unbelievable challenge to punch the low bass notes harder and faster into our listening room, than even a high performance headphone could do. How they managed this we don’t know. We simply couldn’t believe it.” (AUDIO, Malte Ruhnke, GERMANY)

“The instruments seemed to fill the room as it might in life, with no sense of strain, and without distorting the apparent size of the Cello itself. Tiny key-clacking and breathing noises were crystal clear, and it was possible to feel that you were hearing details that the producer had not intended you to be able to detect, and in fact was probably unaware of himself.” (HIFI NEWS & RECORDS, S. Harris, UK)

“I must confess. The UNO has changed my point of view. The experience to listen to this speaker is difficult to describe by just using words. You simply have to listento them by yourself. Avantgarde Acoustic has designed a speaker which beats the competition right into their heart.” (AUDIO VIDEO, Filip Kulpa, POLEN)

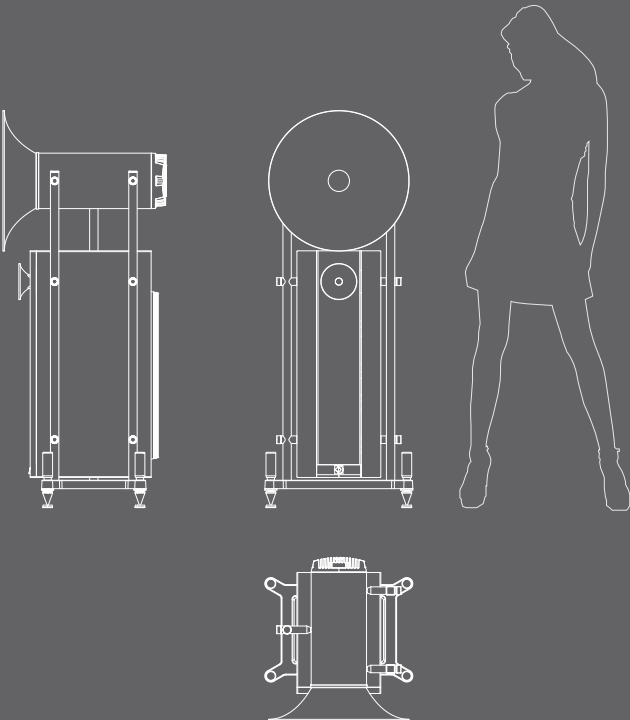
“These UNO midrange horns handle even the subtlest musical material with the skill and proficiency of a point-source. Consequently, when the midrange is combined with the high frequency horn, the speakers render not only imaging to die for, but also allow an enunciated perspective of a musical performance.” (INNER EAR, Ernie Fisher, CANADA)



*) This is just a small selection of reviews. More quotes from international reviews for each product, can be downloaded on our website.

TECHNICAL SPECIFICATIONS

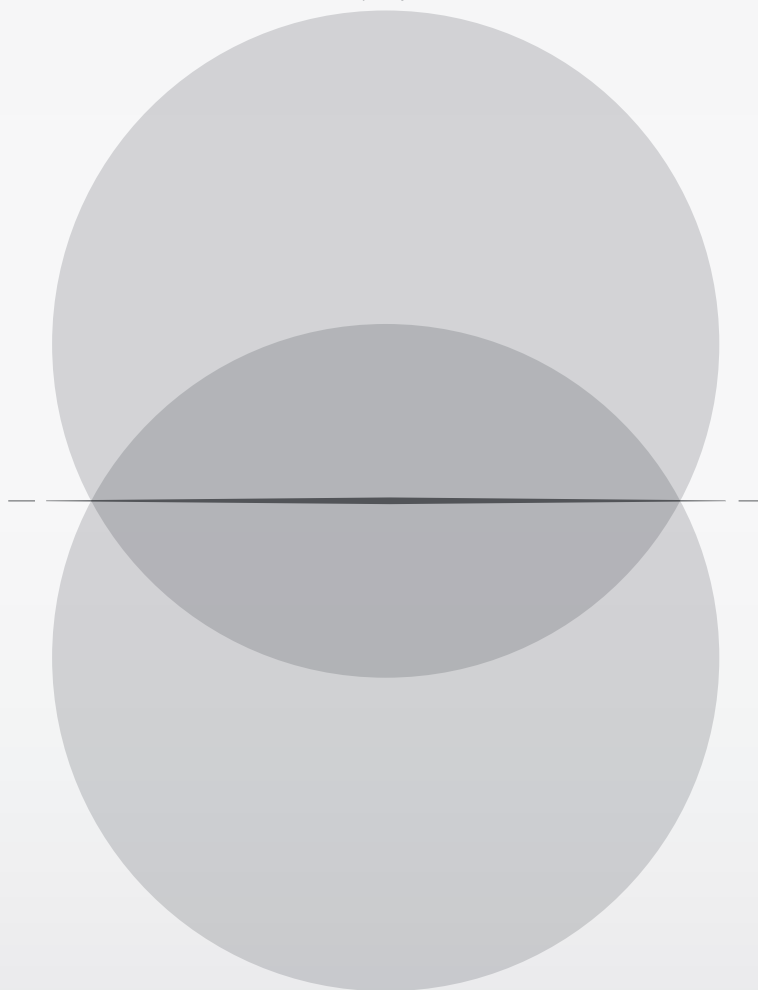




SYSTEM DATA	
Frequency response	satellite subwoofer
Power capacity	
Sensitivity (1 Watt / 1 m)	
Crossover frequencies	
Nominale Impedance	
Recommended amplification	
Recommended room size	
CDC (Controlled Dispersion Characteristic)	
CPC crossover (patent pend.)	
HORN	
Horn type	
Horn material	
Horn finish	
Dispersion type	
Horn mouth area	low mid range mid range high range
Horn mouth diameter	low mid range mid range high range
Horn length	low mid range mid range high range
HORN DRIVERS	
Diameter	low mid range mid range high range
Magnet material	low mid range mid range high range
SUBWOOFER	
Power Output (RMS)	
Power capacitance	
Toroidal transformer	
REAL TIME feedback control	
ADRIC circuit (patent pend.)	
Active frequency crossover	
Subsonic filter, 3-positions	
Automatic 12V remote On/Off	
Smart Limiter	
SoftStart circuit	
Driver diameter	
Number of drivers per module	
Magnet material	
DIMENSIONS/WEIGHT	
Dimensions	width depth height (+/- 15 mm)
Weight	

	290 – 20.000 Hz 18 – 350 Hz 50 Watts > 104 dB 290 / 3.000 Hz 8 Ohm > 10 Watts > 16 m² / 170 ft² Yes No
	Spherical horn ABS injection mold polished 180 degree
	n/a 0,196 m² / 304 in² 0,013 m² / 20 in²
	n/a 500 mm / 20 in 130 mm / 5 in
	n/a 280 mm / 11 in 65 mm / 2.6 in
	n/a 127 mm / 5 in 25 mm / 1 in
	n/a Ferrite Ferrite
	250 Watts 60.000 µF 330 VA Yes n/a variable 60 – 350 Hz 20 / 30 / 40 Hz Yes Yes Yes
	250 mm / 10 in 2 Neodym
	529 mm / 21 in 584 mm / 23 in 1.425 mm / 56 in 71 kg / 156 lbs

purity



performance



avantgarde
ACOUSTIC

Avantgarde Acoustic GmbH
Nibelungenstraße 349
D-64686 Lautertal
Germany

Tel: +49.6254.306100
info@avantgarde-acoustic.de
www.avantgarde-acoustic.de