VERSA SERIES ED

VSH 206

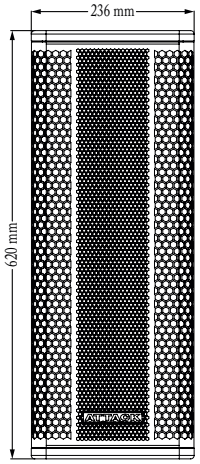
Compact Loudspeaker

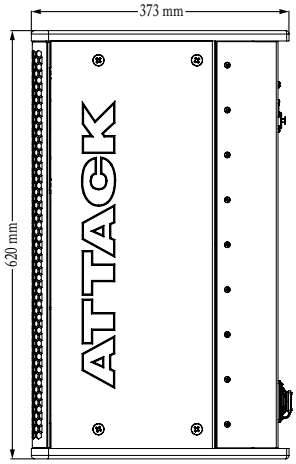
DATASHEET

ATTACK AUDIO SYSTEM

HEAR THE DIFFERENCE

Dimensions	620 mm x 236 mm x 373 mm (HxWxD)
Weight	20.3 kg
Enclosure	MadeFibra®
Finish	Textured black polyester
Protective Grille	Hex-stamped steel Black textured paint coating
Audio connection	Female XLR and Male XLR loop thru
AC connection	IP65-3P with Looping Output NBR14.136 - 20A Output





The VSH206 is a self-powered loudspeaker, compact, practical, flexible and with excellent performance. It was designed for fixed installations of sound of small areas with high performance and exceptional coverage.

The high headroom factor, provides high resolution for signals. It is the ideal for small physical space where reduced size and weight are advantages. Flexibility and practicality in the assembly of the system are guaranteed by the use of materials of high safety standard and mechanical resistance.

The relationship between power, efficiency, size and ease of use makes the VSH206 a surprising and remarkable experience in performance and it can be used in theaters, churches, clubs, sports gyms and shows.

The high frequency section is composed of a compression driver connected to a waveguide, and this assembly coupled to a constant directivity horn with 100º horizontal coverage. It uses a dedicated amplification channel and a digital signal processing system with FIR filters that corrects the frequency and phase response in order to perfectly match the bass section.

Being a self-powered system, the VSH206 incorporates two high-power class-D amplification channels, with a dedicated limiter that protects and extends transducers life at very high power levels and prevents non-linear operating situations. The amplification and processing system is mounted in an individual unit that allows for an extremely easy in-field exchange. The amplifier and processor are powered by a switching mode supply that boasts a PFC circuit capable of providing constant power from 100 to 240 V AC.

Options for the VSH206 include white polyester paint (custom-made) and the wall suport SP-VSH206.

KEY FEATURES

- Exceptional relationship between power, efficiency and size.
- Wide horizontal coverage and good polar pattern.
- Perfect phase coherence enabling coupling with other Versa Red products (it has 4.9 ms of latency).

APPLICATIONS

- Corporate events.
- Sports centers, theaters, churches and clubs.
- Sidefill.

Acoustical

Operating frequency range[1]	100 Hz - 20 kHz
Frequency response[2]	120 Hz - 20 kHz -6dB
Phase response	200 Hz - 20 kHz ±40º
Maximum linear average SPL[3]	
Free field	112 dB (Z) / 111 dB (A) @ 1m
Ground plane	117 dB (Z) / 116 dB (A) @ 1m
Maximum linear peak SPL[4]	
Free field	124 dB (Z) / 123 dB (A) @ 1m
Ground plane	129 dB (Z) / 128 dB (A) @ 1m

Coverage

Horizontal	100º
Vertical	15º

Transducers

LOW frequency	Two 6-inch Speakers / Nominal impedance 4 Ω / Voice coil diameter 1.5-inch
HIGH frequency	Compression driver / Nominal impedance 8 Ω / Voice coil diameter 1.77-inch / Diaphragm diameter 1.77-inch / Throat 1-inch

Audio input

Type	Differential, electronically balanced
Connectors	Female XLR and Male XLR loop thru
Input impedance	10 kΩ Unbal and 20 kΩ Bal
Connection	Pin 2: signal + / Pin 3: signal - / Pin 1: ground
CMRR	>50 dB, typically 70 dB (50 Hz - 500 Hz)
Nominal input sensitivity	+4 dBu (1.23 V rms - 1.74 Vp) continuous is typically the beginning of signal limitation with noise or music
Maximum input level	+20 dBu

Amplifier

Type	Class D
THD - IMD	<0.05%

AC Power

Power supply type	PFC pre-regulator and Flyback converter
Connectors	IP65-3P with Looping Output, NBR14.136-20A Output
Operating range	100 - 240 V AC rms, minimum starting voltage 100 V AC rms
Standby current consumption (mA rms)	300mA@100 V AC / 230mA@127 V AC / 180mA@220 V AC
Maximum continuous current consumption for long periods (A rms)(>10seg)[5]	1.8A@100 V AC / 1.4A@127 V AC / 800mA@220 V AC

General information

Indicators	Led Power / Led Signal / Led Limiter / Led CSD
Protections	Overvoltage, undervoltage, short-circuit, temperature, DC, individual limiter per channel, audio starting fader
Ventilation	Micro ultra silent fan with speed control as a function of temperature

NOTES

[1] Recommended maximum operating frequency response. The frequency response depends on the acoustics conditions of the environment.

[2] Measured with 1/3 octave frequency resolution in semi-anechoic chamber at four meters of distance. Frequency response with maximum variation of ±3dB.

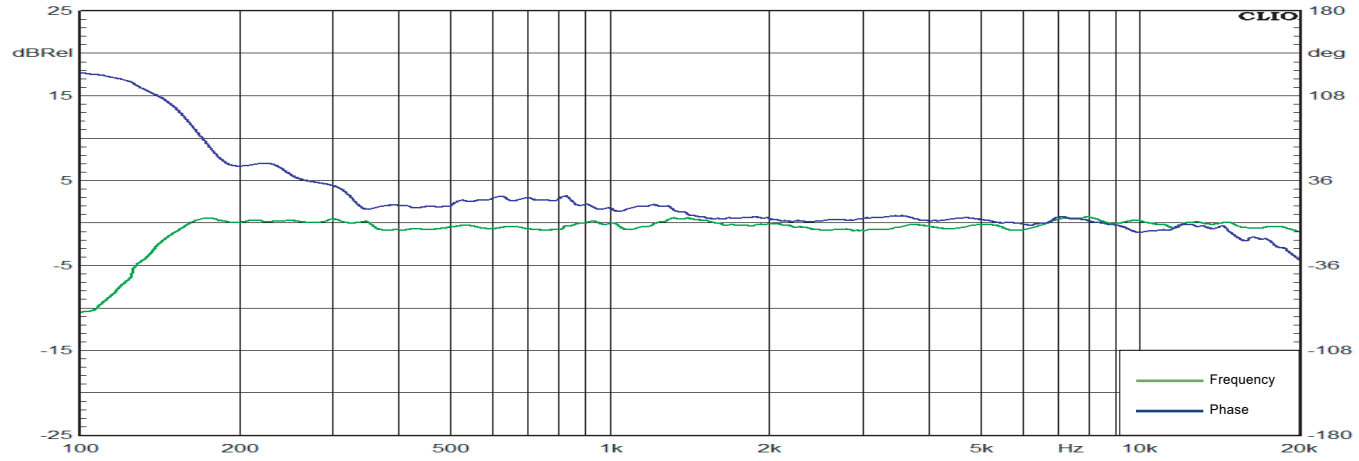
[3] Measured with pink noise (FC=12dB), linear average SPL maintained for at least one hour, microphone on the axis. The average SPL value (measured with Z-weighted curve) in free field is used in the GLL file for use in prediction in the Ease Focus and Ease softwares.

[4] Measured with pink noise (FC=12dB), linear peak SPL maintained for at least one hour, microphone on the axis.

[5] The AC power cable must have a gauge compatible with the current transmission capacity required by the loudspeaker in continuous current consumption regime, otherwise it will not deliver the specified power to the transducers. Maximum current value measured with pink noise (FC≥12dB).

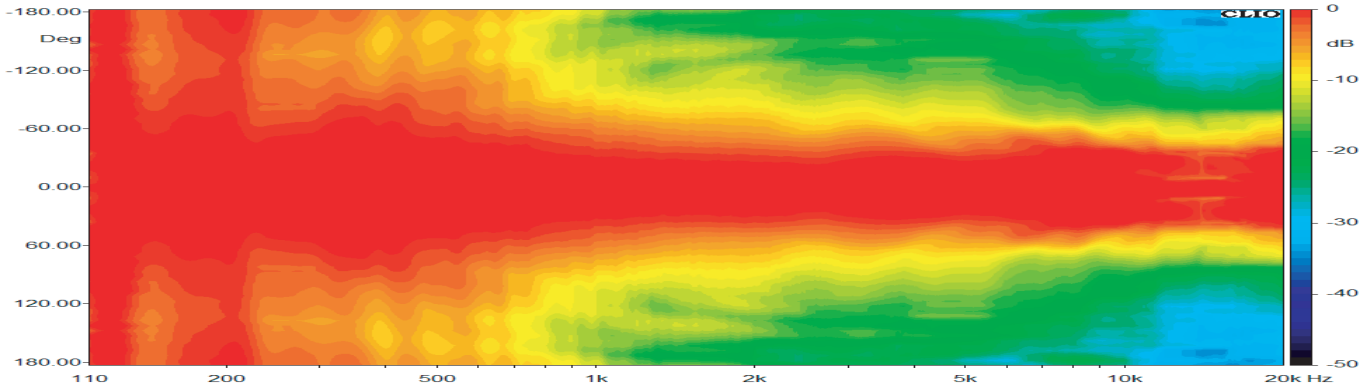
ACOUSTIC CHARACTERISTICS

Frequency and phase response



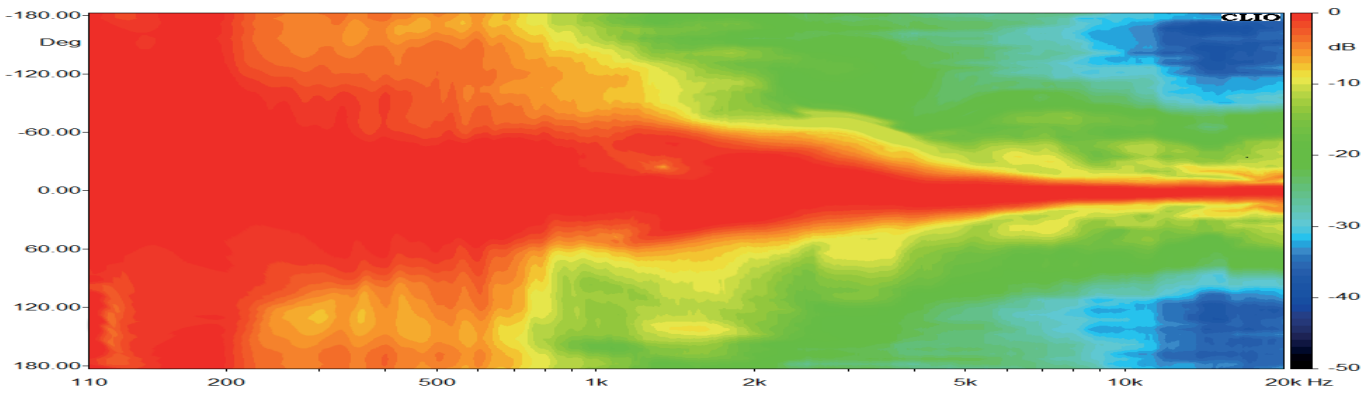
Measured in a semi-anechoic chamber, on axis and 1/3 octave resolution

Horizontal directivity



Measured in a semi-anechoic chamber, on axis and 1/3 octave resolution

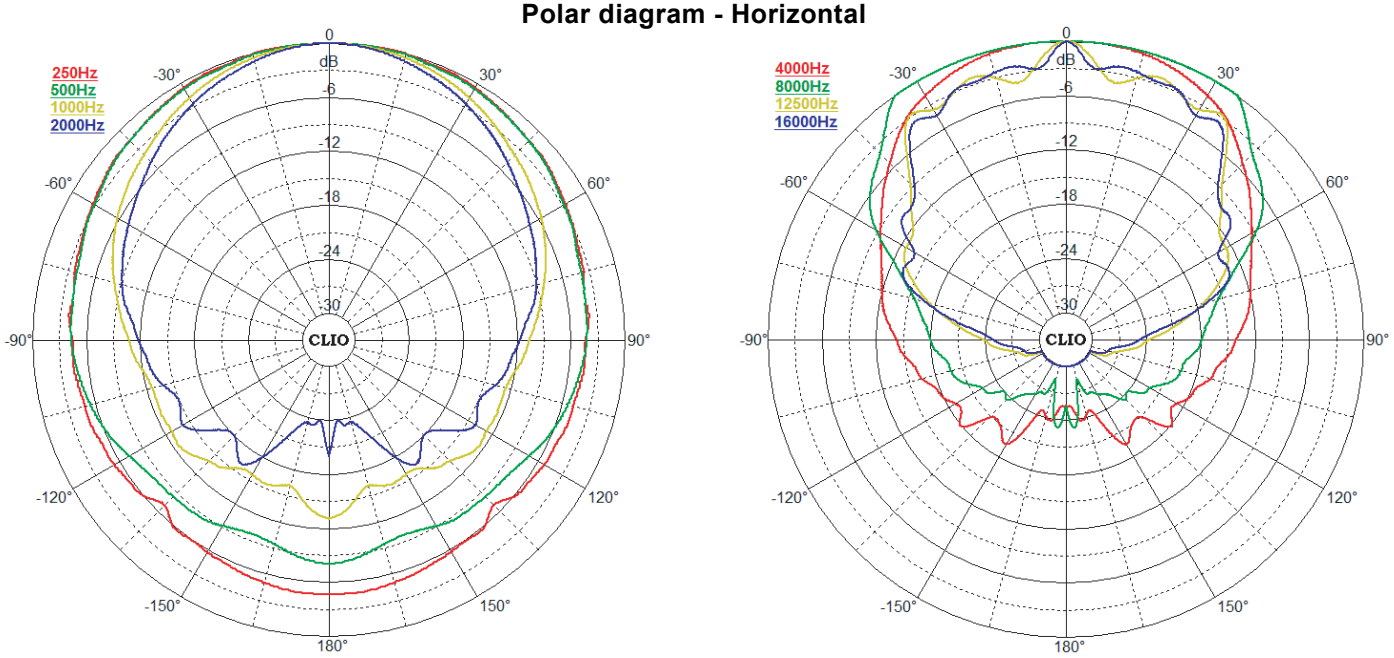
Vertical directivity



Measured in a semi-anechoic chamber, on axis and 1/3 octave resolution

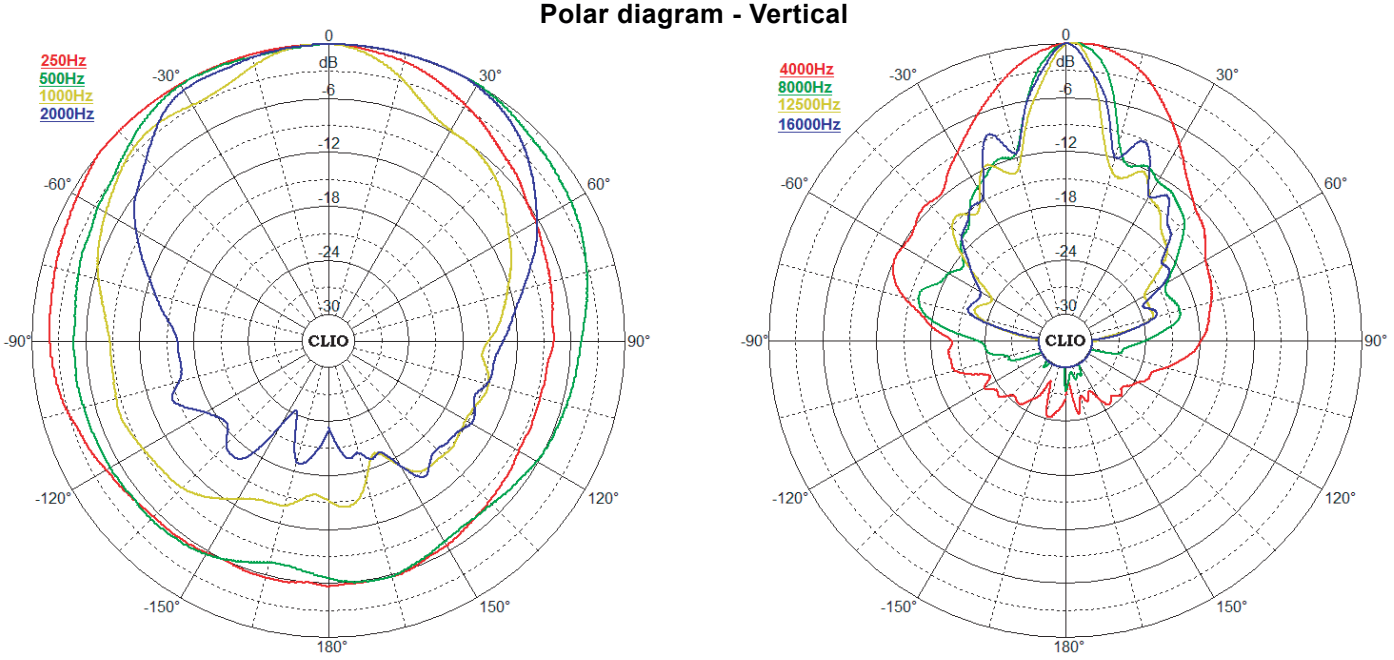
ACOUSTIC CHARACTERISTICS

Polar diagram - Horizontal



Measured in a semi-anechoic chamber, on axis and 1/3 octave resolution

Polar diagram - Vertical



Measured in a semi-anechoic chamber, on axis and 1/3 octave resolution