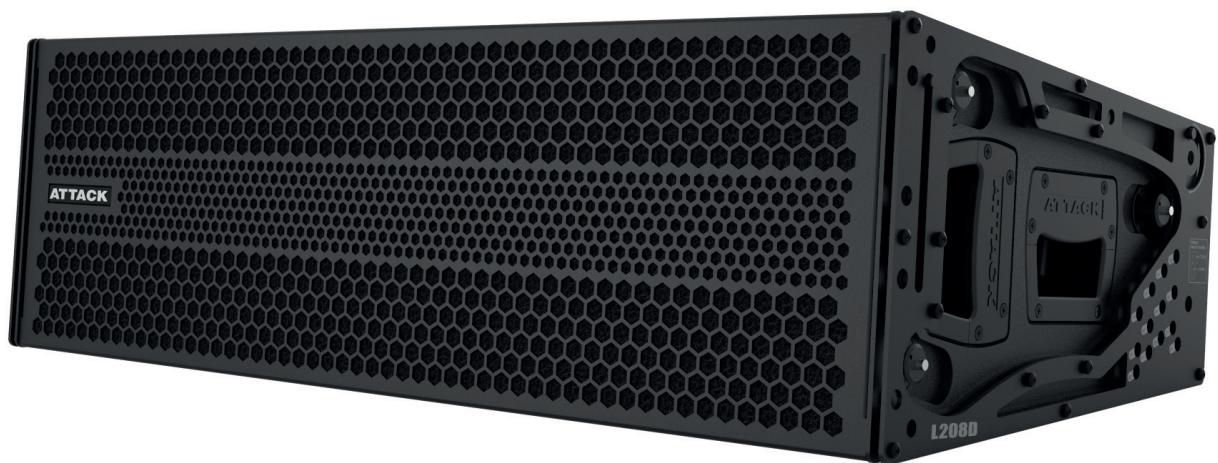


VERTCON
SERIES

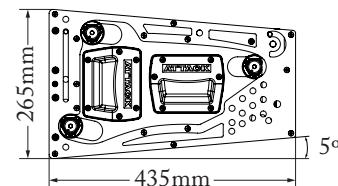
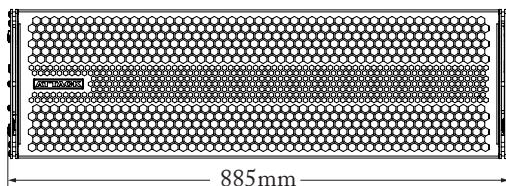
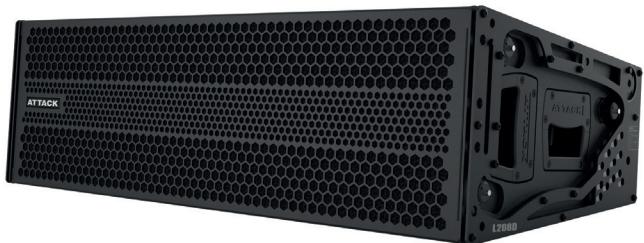


DATASHEET

L208D Compact High Power
Vertical Array Loudspeaker

ATTACK
AUDIO SYSTEM
THEARTHEDIFFERENCE

Dimensions	265mm x 885mm x 435mm (HxWxD)
Weight	45.2 kg
Enclosure	MadeFibra®
Finish	Textured black polyester
Protective Grille	Hex-stamped steel
Audio connection	Black textured paint coating
AC connection	Female XLR and Male XLR loop thru
	IP65-3P with Looping Output
	NBR14.136 - 20A Output



The L208D is a self powered, compact and high performance two-way loudspeaker. Member of the Vertcon family, it was designed for medium and large areas with high performance and exceptional coverage. The extended headroom for high frequency ensures flat response for a wide range from 90 Hz to 18 kHz. The combination of 100° horizontal coverage with the high headroom factor provides detailed resolution for signals with delicate transients throughout the coverage area.

The L208D is the choice for arrays in locations that offer few space and for applications that not require high power and wide distance or 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 Flown mode system is made of steel and is laser cut ensuring maximum precision in the fittings and the possibility of stacking up to 20 units in a single Bumper.

The relationship between power, efficiency, size and ease of use makes the L208D 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 with an 1.4-inch throat, 3-inch voice coil with a titanium diaphragm, coupled to a waveguide and this assembly coupled to a constant directivity horn with 100° horizontal coverage. It uses a dedicated amplification channel and a digital signal processing system that corrects the frequency and phase response in order to perfectly match the bass section.

The low frequency section has two loudspeakers with an 8-inch cone

and a 3-inch voice coil coupled to a phase plug capable of creating two acoustic centers, ensuring perfect coupling at the highest frequencies of the actuation range. It has a dedicated amplification channel and a proper digital processing system with specific adjustments that enable an extended frequency response.

Being a self powered system, the L208D 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.

The L208D is ideal for applications as Frontfill or Sidefill using the SPU-L208D accessory or the BUMPER L208D accessory. Gallery coverings can also be performed using the SPU-L208D accessory. Application as Downfill for the L212D system is possible with the use of the BUMPER L212D, since the architecture of this loudspeaker was designed for perfect phase response coherence between all Vertcon line models.

Options for the L208D include white polyester paint (custom-made) and the EMV-L208D which is a structure for stacking and transporting multiple units.

KEY FEATURES

- Exceptional relationship between power, efficiency, size.
- Wide horizontal coverage and good polar pattern.
- Compact and low profile front view.
- Perfect integration with the L212D system.
- Practical and versatile connection hardware system with possibility of mounting in line arrays, frontfill, sidefill and downfill.
- Perfect phase coherence enabling coupling with other Vertcon line products.

APPLICATIONS

- Shows.
- Corporate events.
- Sports centers, theaters, churches and clubs.
- Downfill or Sidefill using the L212D system.
- Frontfill and under galleries.

Acoustical

Operating frequency range ¹	90 Hz - 18 kHz
Frequency response ²	100 Hz - 18 kHz -6 dB
Phase response	200 Hz - 12 kHz ±40°
Maximum linear average SPL ³	
Free field	116 dB (Z) / 114 dB (A) @ 1m
Ground plane	122 dB (Z) / 120 dB (A) @ 1m
Maximum linear peak SPL ⁴	
Free field	128 dB (Z) / 126 dB (A) @ 1m
Ground plane	134 dB (Z) / 132 dB (A) @ 1m

Coverage

Horizontal	100°
Vertical	Variable, dependent on stacking height and configuration

Transducers

LOW frequency	Two 8" Speakers/Nominal impedance 4 Ω/Voice coil diameter 3"
HIGH frequency	Compression driver/Nominal impedance 8 Ω/Voice coil diameter 3"/Diaphragm diameter 3"/Throat 1.4"

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) constant 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 Half-bridge converter
Connectors	IP65-3P with Looping Output, NBR14.136-20A Output
Operating range	100-240 V AC rms, maximum 275 V AC rms, minimum starting voltage 100 V AC rms
Standby current consumption (mA rms)	270mA@100 V AC / 210mA@127 V AC / 130mA@220 V AC
Maximum continuous current consumption for long periods (A rms)(>10seg) ⁵	1.75A@100 V AC / 1.3A@127 V AC / 0.8A@220 V AC

General information

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

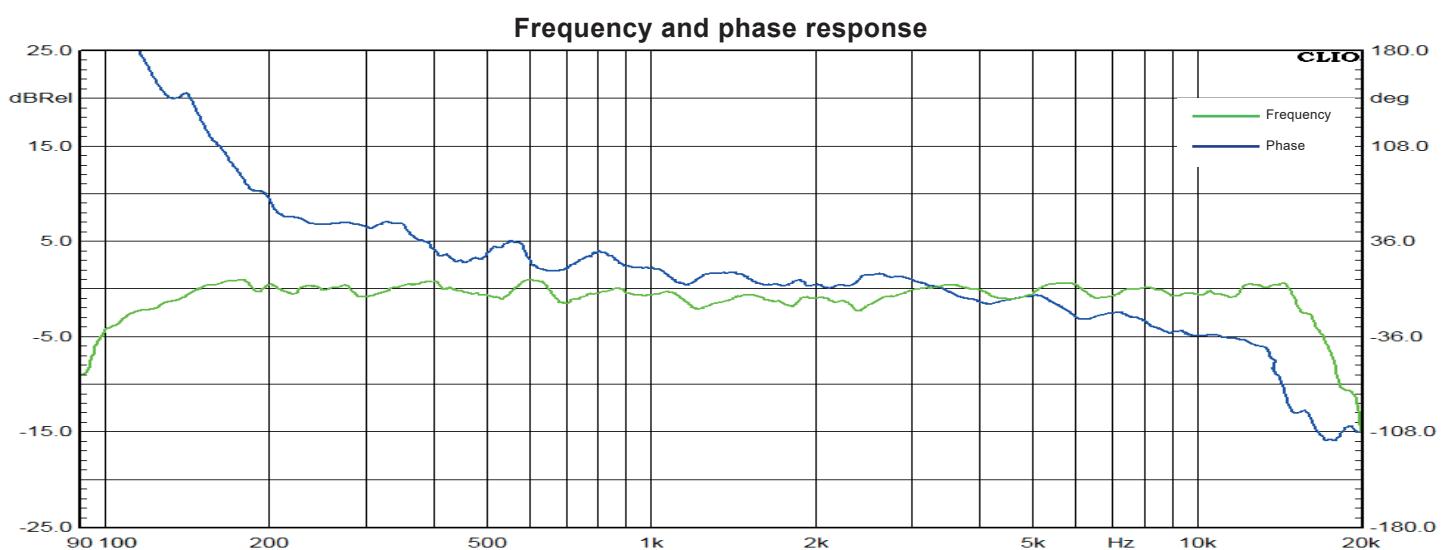
³ Measured with pink noise (FC=12dB), linear average SPL maintained for at least one hour, microphone on the axis.

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.

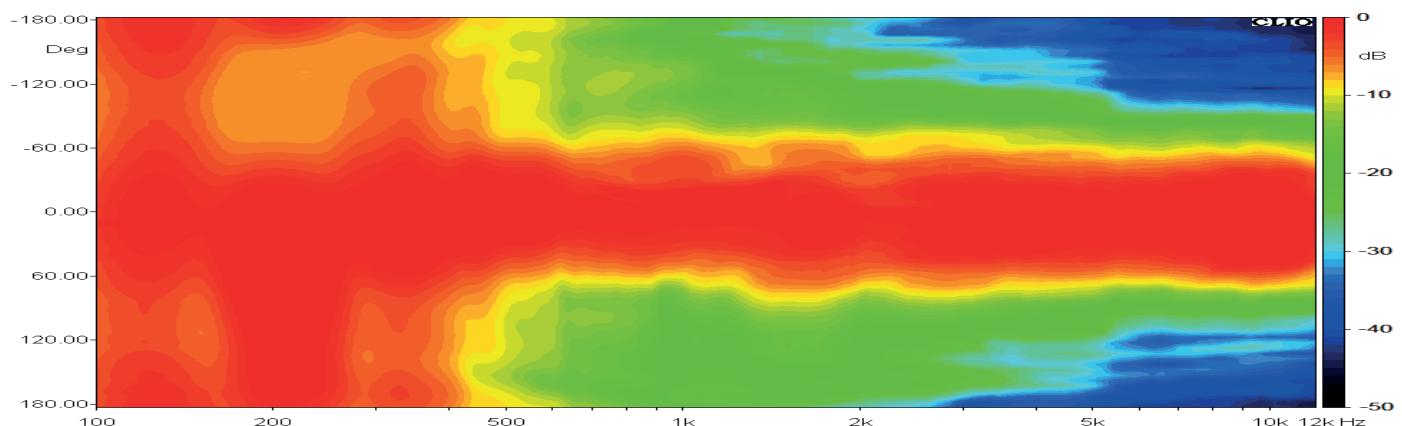
⁵ The AC power cable must have a gauge compatible with the current transmission capacity required by the loudspeaker in continuous current consumption regime, otherwise it will not deliver the specified power to the transducers. Maximum current value measured with pink noise (FC=12dB).

ACOUSTIC CHARACTERISTICS



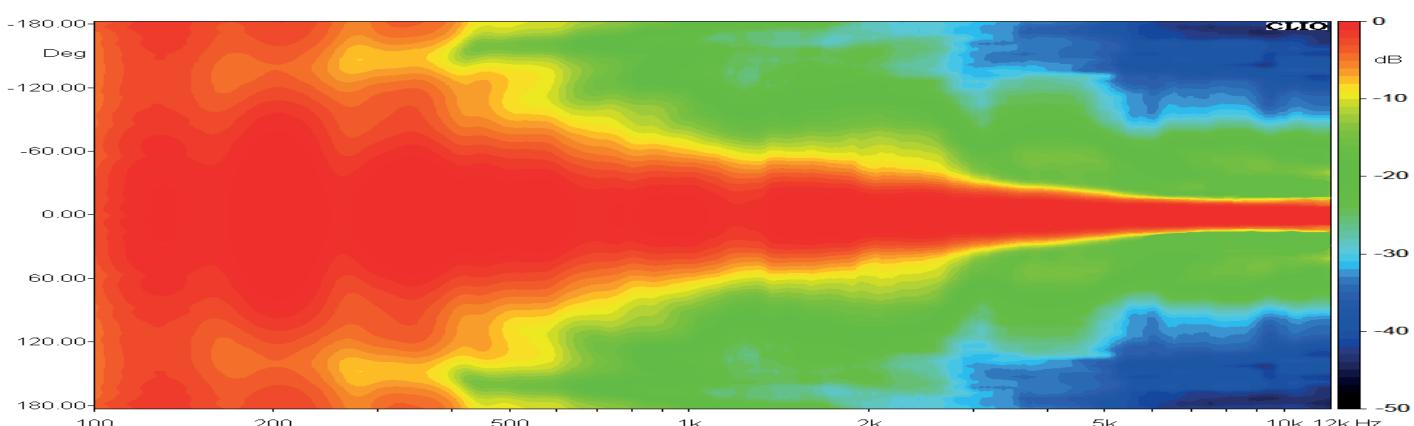
Measured in semi-anechoic chamber, on axis and 1/3 octave resolution

Horizontal directivity



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

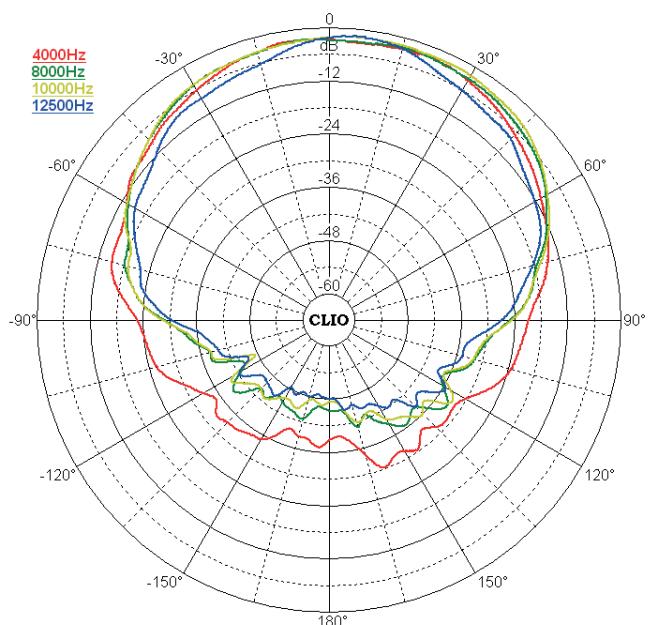
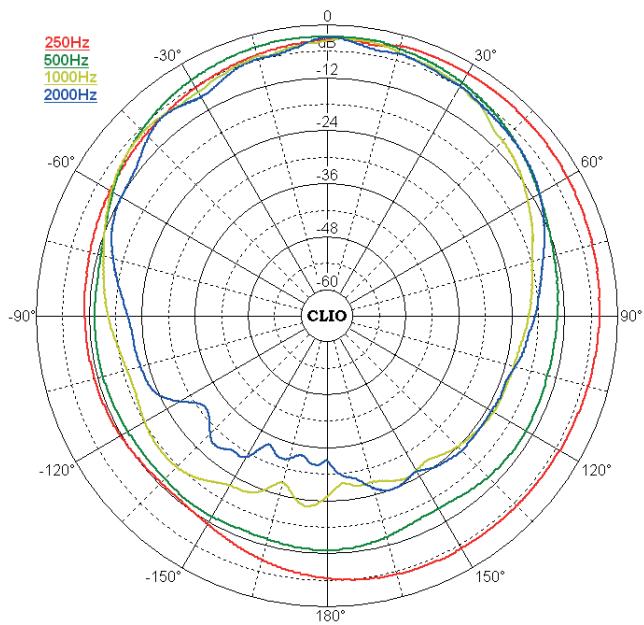
Vertical directivity



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

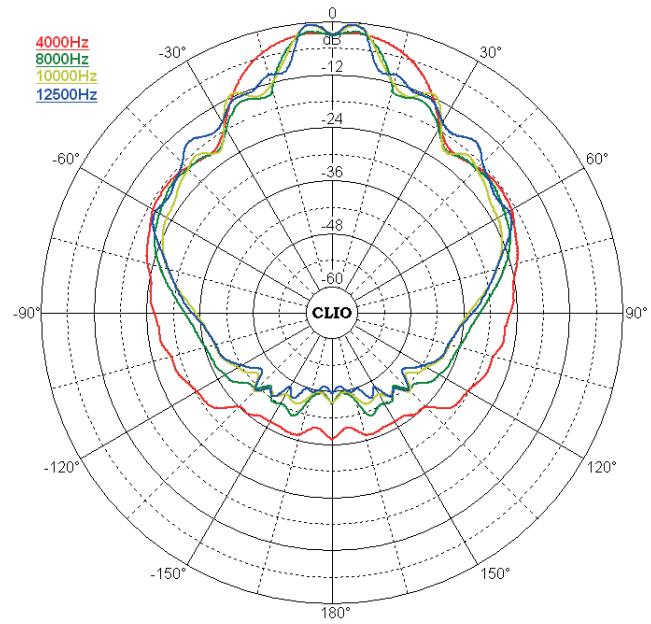
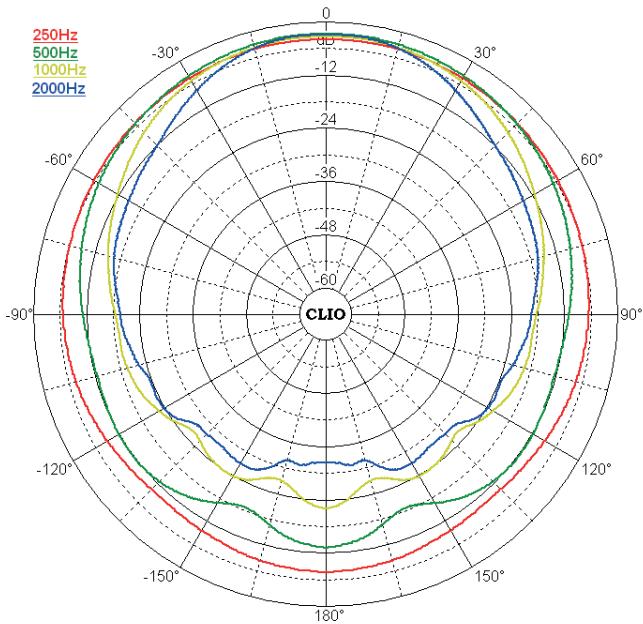
ACOUSTIC CHARACTERISTICS

Polar diagram - Horizontal



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

Polar diagram - Vertical



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

CONNECTION DIAGRAM OF A TYPICAL SOUND SYSTEM

