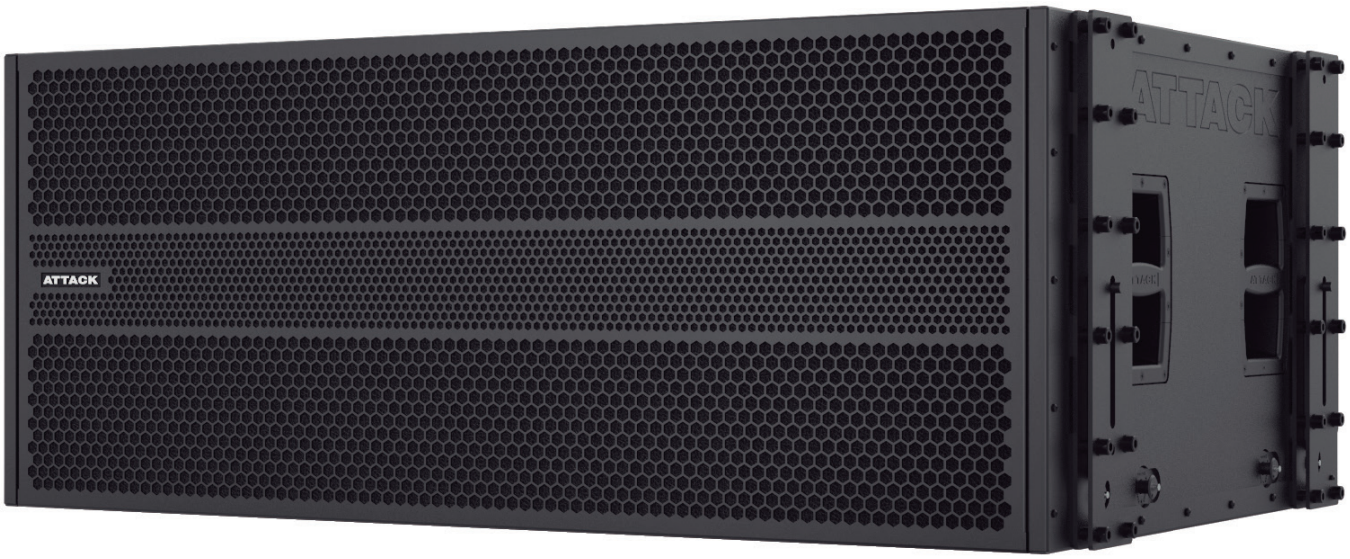
VERTCON

SERIES



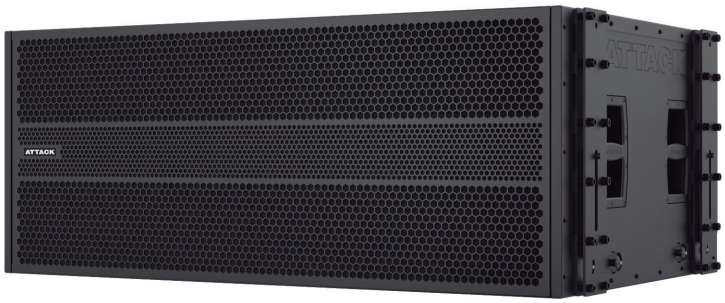
DATASHEET

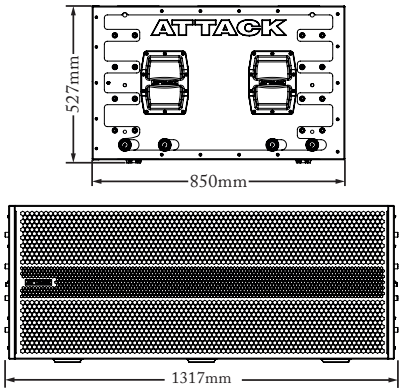
S218D Ultra High Power Subwoofer

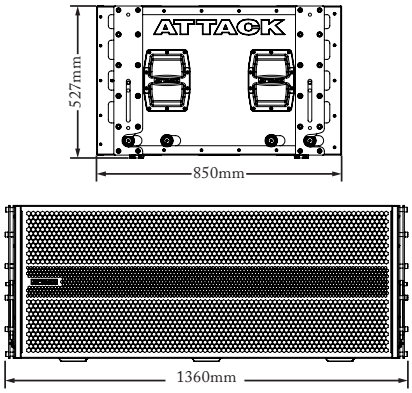
ATTACK AUDIO SYSTEM

HEARTHEDIFFERENCE

Dimensions	527mm x 1317mm x 850mm (HxWxD)
Dimensions with the connection hardware	527mm x 1360mm x 850mm (HxWxD)
Weight	118.6 kg
Weight with the connection hardware	136 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 S218D is a self powered high performance subwoofer. Member of the Vertcon family, it was designed for large areas with high performance and exceptional coverage. The extended headroom, continuous operation with high pressure levels, and high transient information capability with minimal distortion make the S218D the ideal choice for low-frequency reproduction in large systems.

It was designed to achieve the highest efficiency of each part of the system, resulting in a subwoofer capable of reproducing extreme low frequencies without much effort. The transducers, amplifiers and processing were designed as a single set to optimize performance and achieve the extreme power and SPL. Flexibility and practicality in the assembly of the system are guaranteed by the use of materials of high safety standard and mechanical resistance. It has a optional hardware connection for Flown mode mounting, built in steel and laser cut ensuring maximum precision in the fittings and the possibility of stacking up to 12 units in a single Bumper.

The frequency range from 28 Hz to 150 Hz complements other Attack products, such as the Vertcon L208D and L212D models.

The S218D subwoofer features two efficiently tuned enclosures with two 18" speakers designed for great excursion capability.

Each speaker has a 4 " voice coil and 1200W AES power capacity.

These transducers have been developed to have extreme efficiency, maximizing the magnetic field to obtain greater sensitivity, as well as to keep the heat dissipation within the operating tolerances.

Being a self powered system, the S218D incorporates a high-power class-D amplifier, 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 enclosure is built with a special humidity resistant fiberboard "Madefibra®" coated with highly robust polyester painting that ensures great durability. It has a hex-stamped steel protective grille, coated with electrostatic paint. In the bottom has plastic feet that allow to lock one box in the other when stacked.

Options for the S218D include white polyester paint (custom-made) and the EMV-S218D which is a structure for stacking and transporting multiple units.

KEY FEATURES

- Possibility of stacking.
- Possibility of suspended assembly.
- Extremely low distortion and high sound clarity.
- Extreme peak power with excellent transient reproduction.
- Possibility of transporting multiple units using the accessory EMV-S218D.

APPLICATIONS

- Shows, stadiums and large concert halls.
- Sports centers, theaters, churches and clubs.
- Movie theaters.

Acoustical

Operating frequency range[1]	25 Hz - 150 Hz
Frequency response[2]	28 Hz - 115 Hz -6 dB
Phase response	40 Hz - 100 Hz ±36º
Maximum linear average SPL[3]	
Free field	118 dB (Z) @ 1m
Ground plane	124 dB (Z) @ 1m
Maximum linear peak SPL[4]	
Free field	130 dB (Z) @ 1m
Ground plane	136 dB (Z) @ 1m

Coverage

360º (One unit). Varies according to the quantity and configuration

Transducers

Two 18" speakers/Nominal impedance 4 Ω/
Voice coil diameter 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	<0.1%

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, max
Standby current consumption (mA rms)	570mA@100 V AC / 480mA@127 V AC / 380mA@220 V AC
Maximum continuous current consumption for long periods (A rms)(>10seg)[5]	9A@100 V AC / 7.8A@127 V AC / 4A@220 V AC

General information

Indicators	Led Power/Led Signal/Led Limiter/Led CSD/LedTC/Led DC/Led PS
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 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.

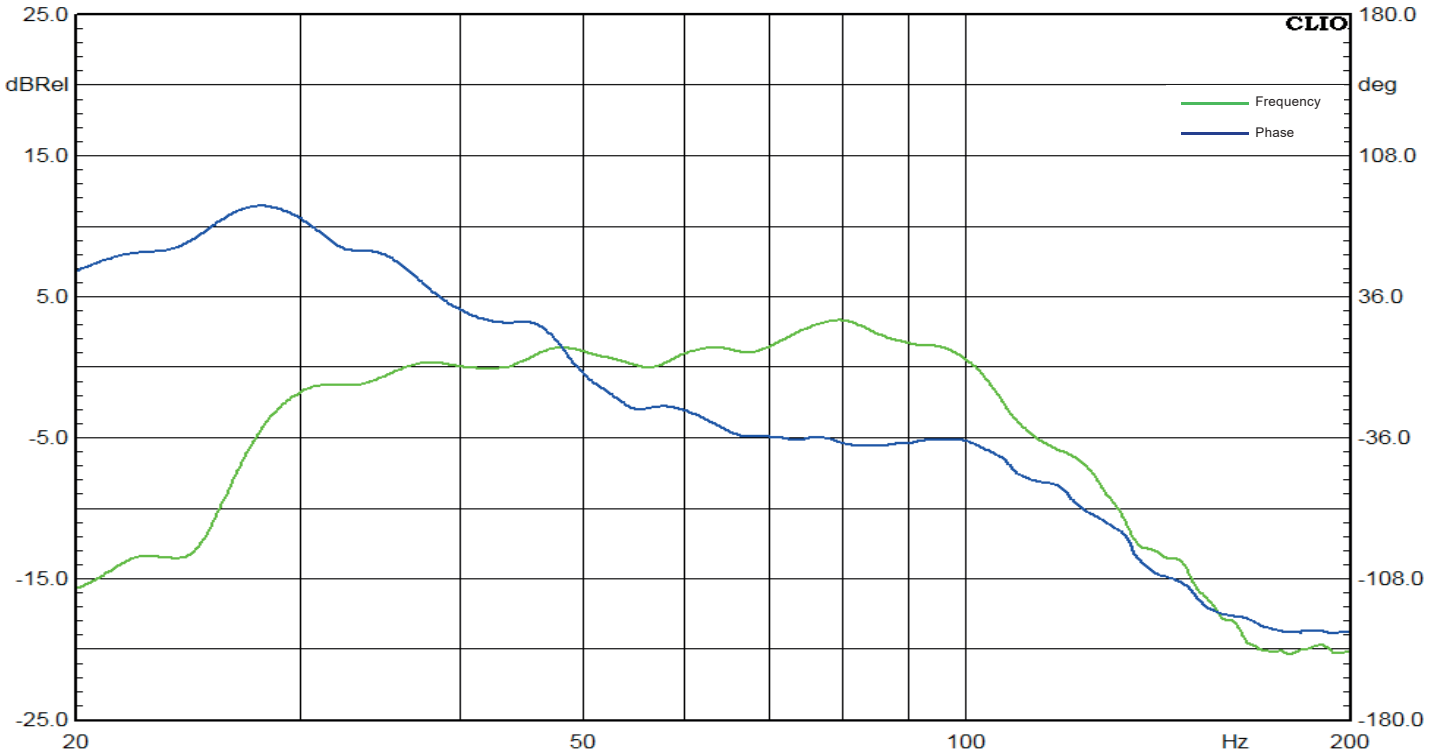
[3] Measured with pink noise (FC=12dB), linear average SPL maintained for at least one hour, microphone on the axis.
The average SPL value (measured with Z-weighted curve) in free field is used in the GLL file for use in prediction in the Ease Focus and Ease softwares.

[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 subwoofer 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).

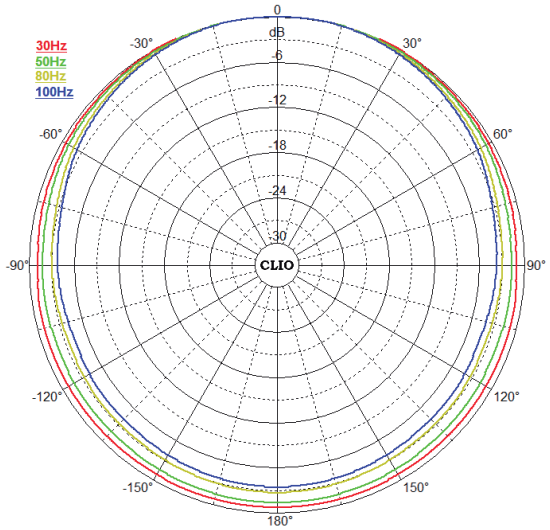
ACOUSTIC CHARACTERISTICS

Frequency and phase response



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

Directivity



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

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