

C 12 HDSP™



The **C 12** compliments the KS AUDIO C-Series compact 2-way systems with its small dimensions, and the unique directivity of HDSP technology. The result is consistently even hi quality audio dispersion with the highest sound pressure level, while simultaneously having the lightest weight possible. The power capacity equals this quality: The 10"-long excursion low-mid speaker can handle 800Wrms and the 1.4" driver 100Wrms.

With the **C 12**, particular attention has been paid to a correct transition in dispersion of the HF unit and the 12" woofer. Within the entire dispersion range of the **C 12**, the listener experiences a flat frequency response over the entire bandwidth of the speaker. This is unique for any speaker but very special with the complicated dispersion behaviour of the **C 12**.

Both the 12" LF driver and the 1.4" HF driver have strong but light Neodymium Magnets. The 3" diaphragm of the compression driver consist of a special aluminum alloy that has a clearly reduced distortion factor in comparison to a titanium diaphragm. With the **C 12**, KS AUDIO has responded to the demanding needs of the professional sound engineer with a universally usable 2-way sound system with the highest audio quality, yet in a compact size. There are many applications in which it can be used: Theatre, Live-stage Music, in large rooms or tents, as a delay system for far away areas, or as a compact mid/high system in conjunction with any KS AUDIO sub woofer.

The **C 12** is equally suitable for a normal stand as well as a flying assembly.

The loudspeaker is preferably driven by a 4-channel TA 4D with F MOD DSP in 2-channel bi-amp mode. As an economical solution, the C 12 also works very well in its passive mode where one amplifier channel from a TA 4D or TA 2D is sufficient. For those who want maximum sound quality but do not need the maximum speaker power, we recommend the 4-channel CA 4D amplifier with F MOD DSP in 2-channel bi-amp mode.

For the lower octave you can choose to use the **C 12** in combination with one or two 1x 15" KS C W1 or KS C WH subwoofers, creating an unparalleled compact PA system.



HDSP™ High Definition Sound Projector



120° nearfield and 60° farfield coverage



Linear phase and frequency response



Optimized impuls-response



1800W power handling



136dB peak SPL

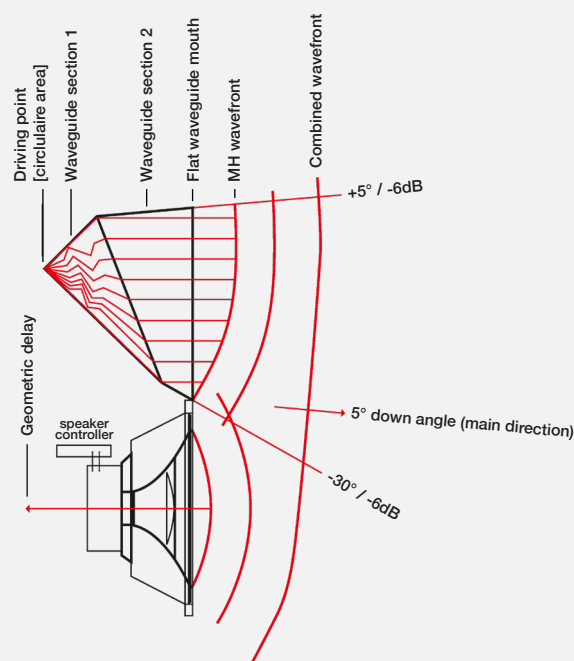


The speaker cabinet construction is, like all KS AUDIO systems, built from birch plywood with an extremely robust charcoal colored Polyurethane coating. At your request the finish can be changed to any desired color from the RAL color charts. Another special feature are the two

multipurpose fittings on the back of the speaker. Allowing the installation of different fly-ware and connectors, which are safely interlocked by means of quick release ball-lock-pins. There is a pole mount in the bottom of the cabinet and a protective steel grill on the front, with acoustic foam.

HDSP™

Figure A

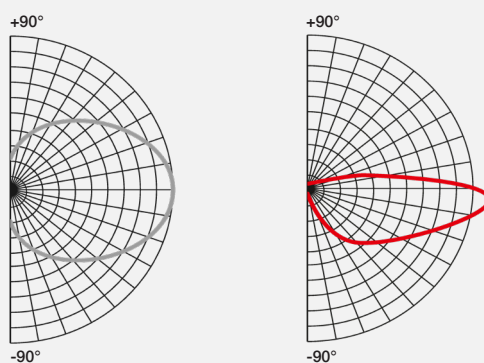


HDSP - High Definition Sound Projector is a unique development in the dispersion behaviour of a compact loudspeaker. Although the optical focus is on the waveguide of the tweeter unit, the dispersion behaviour of the entire loudspeaker is additionally optimised by electronic adjustments.

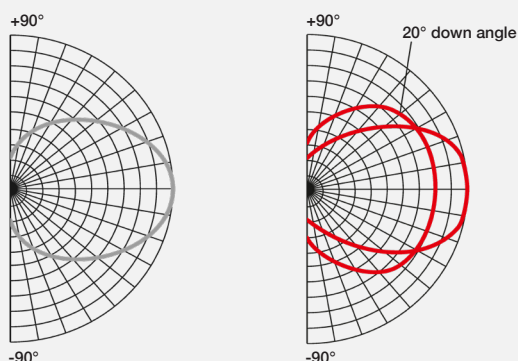
A good principle is easily explained: Figure A shows how the waveguide, Section 1, converts the energy of the driver into a cylindrical wavefront, as seen in line arrays. However, the HDSP™ waveguide does this more in the upper part than in the lower part, causing the wavefront to slope downwards.

The flatter wavefront in the upper part carries the sound further, so that the energy is transmitted there at a greater distance from

VERTICAL POLAR PATTERNS



HORIZONTAL POLAR PATTERNS



the loudspeaker remains higher. On the other hand, the more curved wavefront at the bottom of the waveguide ensures that the energy is lower directly in front of the speaker. This effect is amplified by the difference in horizontal dispersion.

The horizontal dispersion is determined in section 2 of the waveguide. Here the waveguide is deeper and narrower in the upper part, resulting in a narrower radiation of 60°. The waveguide opens up towards the bottom, resulting in a wider dispersion of 120°.

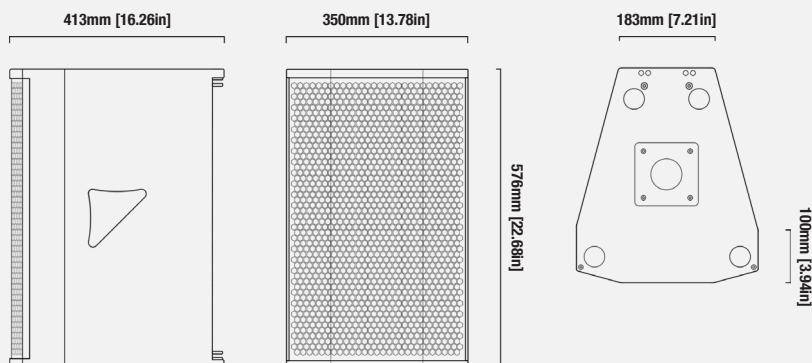
The 12" woofer is frequency-adjusted so that it forms one unit with the HF driver/waveguide. This results in a very even dispersion over the entire frequency range of the loudspeaker.

C 12 HDSP™

SPECIFICATIONS

Frequency response	58 - 19.000Hz ± 3 dB
F MOD / D MOD low cut modes	OFF / 70 / 100 / 120Hz
Max. SPL - 1m. free field	136dB
Nominal horizontal dispersion	120° nearfield down to 60° into the farfield
Nominal vertical dispersion	35° with 5° down-angle
Transducers	LF: one 12" ND cone 4" voice-coil HF: one 3" aluminium diaphragm 1.4" throat compression driver
Acoustic Principle	LF: bass-reflex HF: HDSP™ High Definition Sound Projector
Power handling AES RMS / peak	LF: 800W / 1600W HF: 100W / 200W
Cross-over	Passive/Active switchable 1200Hz Phase Linear Bessel
Nominal impedance	LF: 8 Ω HF: 8 Ω
Connectors	Two speakON NL4

DIMENSIONS AND WEIGHTS



21kg | 46lb