

The KSL12 loudspeaker



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The KSL12 is a line array module specifically designed for medium to large-scale sound reinforcement. Up to twenty-four KSL12 loudspeakers can be flown in vertical columns producing a 120° constant directivity dispersion pattern in the horizontal plane.

The KSL12 houses two 10" neodymium forward facing LF drivers and two side firing 8" neodymium LF drivers. A coaxial mid-high section contains an MF horn with an 8" driver and two 1.4" exit, 3" voice coil HF compression drivers mounted to a dedicated wave shaping device. Splay angles between cabinets can range from 0° to 10° in 1° increments. The loudspeakers are driven actively by two channels of an appropriate d&b amplifier, one channel powering the 10" LF drivers, the second channel powers all other components, these are passively crossed-over. This component geometry allows for a smooth crossover design with well-defined overlaps between adjacent bands providing consistent, even and very accurate horizontal dispersion. Due to the arrangement of the front and side firing LF drivers, in combination with appropriate processing, constant directivity control is maintained from 54 Hz to above 18 kHz.

The cabinets are constructed from marine plywood and have an impact and weather protected PCP (Polyurea Cabinet Protection) finish. The front and side panels incorporate rigid metal grilles backed by an acoustically transparent and water repellent fabric. Each side panel incorporates a recessed handle, with additional handles are provided at the rear.

d&b amplifiers

The d&b audiotechnik loudspeaker range is designed exclusively for operation with d&b amplifiers. These provide power as well as comprehensive control and protection functions tailored to achieve the performance, reliability and longevity associated with the d&b System approach.

The d&b D80 amplifier is required to drive the KSL12 in 2-Way Active mode using two amplifier channels per loudspeaker when deployed with ArrayProcessing. When small numbers of KSL12 loudspeakers are used and ArrayProcessing is not required, two cabinets can optionally be linked and driven in the Arc / Line mode. This approach would enable one D80 amplifier to power an array of four KSL12 loudspeakers.

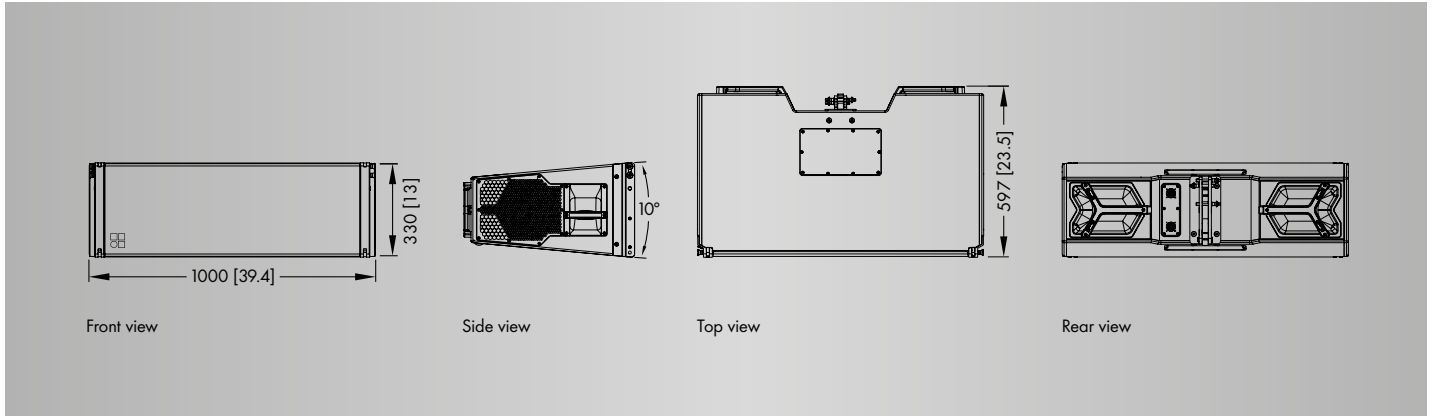
System data

Frequency response (-5 dB standard)	54 Hz - 18 kHz
Frequency response (-5 dB CUT mode)	75 Hz - 18 kHz
Max. sound pressure (1 m, free field)	
with D80	144 dB
..... (SPLmax: Broadband signal IEC 60268)	

Loudspeaker data

Nominal impedance front.....	8 ohms
Nominal impedance side LF/MF/	8 ohms
Power handling capacity front LF (RMS/peak 10 ms)	450/1800 W
Power handling capacity side LF/MF/HF (RMS/peak 10 ms)	
.....	250/1000 W
Nominal dispersion angle (horizontal)	120°
Splay angle setting.....	0 - 10° (1° increment)
Components	2 x 10" front LF driver
.....	2 x 8" side LF driver
.....	1 x 8" MF driver
.....	2 x 1.4" exit compression driver with 3" voice coil
.....	Passive crossover network
Connections	2 x NLT4 F/M
Weight	58 kg / 128 lb

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KSL12 cabinet dimensions in mm [inch]

Features and benefits

- Constant directivity behaviour over the entire operating range using cardioid techniques in the lower range
- Exceptional broadband headroom
- Patented SL-Series flying hardware and method enables rapid deployment of KSL8 and KSL12 arrays directly from the Touring cart in either compression or tension rigging modes
- Requires only two amplifier channels; one channel drives the front facing 10" LF drivers, while the other amplifier channel drives the passively crossed over 8" side firing LF drivers, the 8" MF section and two HF drivers
- ArrayProcessing optimizes the level and tonal balance over the complete audience listening area
- For short arrays where ArrayProcessing is not required, two KSL loudspeakers can be linked and driven in the Arc / Line mode
- Efficient cabling system and amplifier rack assemblies
- Effective transport solutions

Applications

- Medium and large scale sound reinforcement applications
- Stadiums and arenas
- Concert halls
- Houses of Worship
- Theatres
- Clubs and live music venues

The loudspeaker shall be the KSL12 by d&b audiotechnik GmbH & Co. KG.

