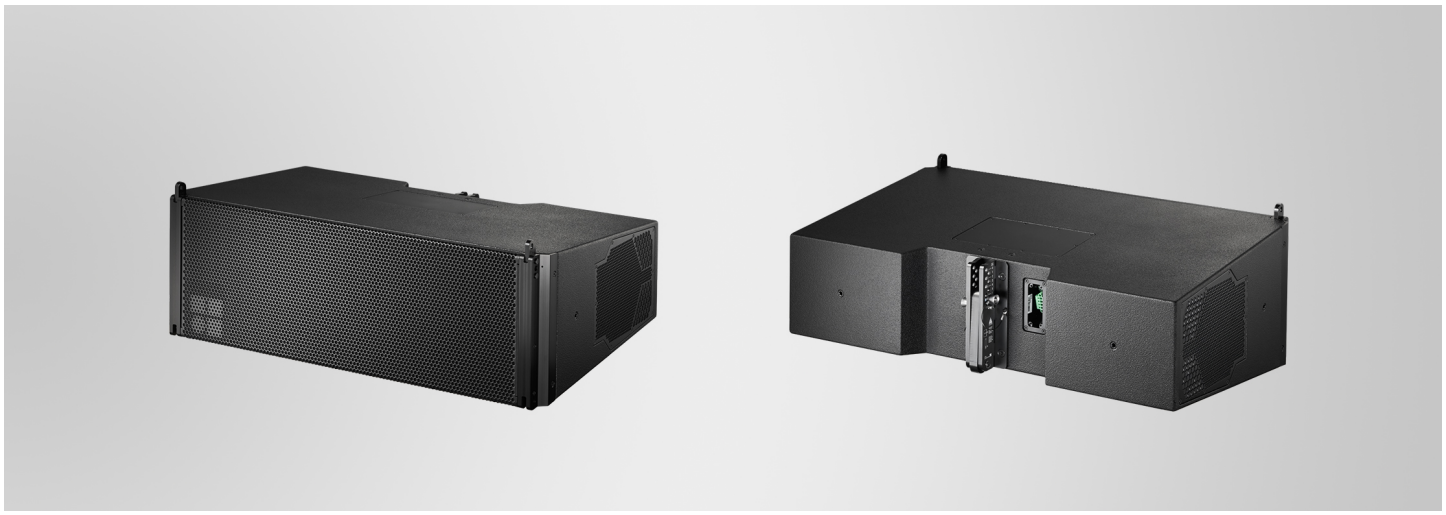
The KSLi8 loudspeaker



KSLi8 loudspeaker

The KSLi8 is a installation specific line array loudspeaker for medium to large-scale sound reinforcement applications providing a horizontal dispersion of 80°.

The cabinet is a 3-way design, housing 2 x 10" neodymium forward LF drivers, 2 x 8" neodymium side firing LF drivers, one horn-loaded 8" MF driver and 2 x 1.4" exit HF compression drivers with 3" coils mounted to a dedicated wave shaping device. The cylindrical wave segments of each cabinet couple without gaps and sum up coherently. Splay angles between adjacent cabinets can be set in the range from 0° to 10° in 1° increments.

The cabinet is driven by two channels of the applicable d&b amplifier which provides dedicated processing functions for the front LF and passively crossed-over side LF and MF/HF sections.

All components are arranged symmetrically around the center axis of the cabinet to produce a perfectly symmetrical dispersion pattern. This setup allows for a very smooth crossover design with a well defined overlap of adjacent frequency bands resulting in a very consistent and accurate horizontal dispersion.

Due to the arrangement of the forward and sideward LF drivers in combination with their processing functions, the directivity is maintained across the entire frequency range.

The frequency response extends from 54 Hz to above 18 kHz.

The cabinet enclosure is constructed from marine plywood with an impact and weather protected PCP (Polyurea Cabinet Protection) finish. The front and side panels of the cabinet incorporates a rigid metal grill backed by an acoustically transparent and water repellent fabric.

Each side panel incorporates a slot while on the rear two slots are provided to accept dedicated lifting pins (T-handles). During setup, these pins serve as a temporary lifting aid and can be inserted and locked when needed.

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 40D amplifier is recommended to drive the KSLi8 loudspeaker with the appropriate loudspeaker setup selected. The d&b D80 amplifiers can also be used.

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)	145/ dB
	(SPLmax: Broadband signal IEC 60268)

Loudspeaker data

Nominal impedance front LF	8 ohms
Nominal impedance side LF/MF/HF	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)	80°
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" coil
	Passive crossover network
Connections	NLT4 F/M
Pin assignment	1+: Front LF+/1–: Front LF–
	2+: Side LF/MF/HF+/2–: Side LF/MF/HF–
Phoenix option	Phoenix socket (Type: DFK PC 4/4 GF)
Weight	57 kg (126 lb)

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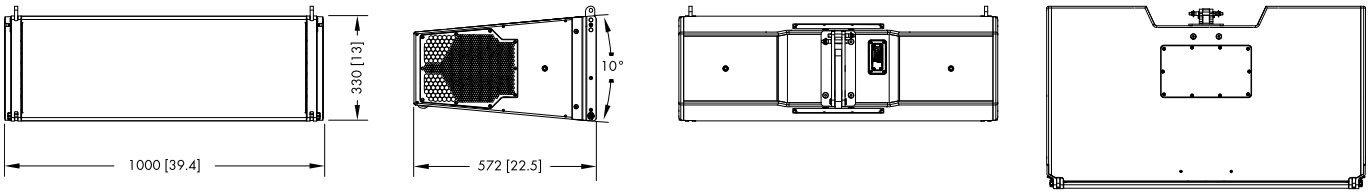

KSLi8 cabinet dimensions in mm [inch]

Features and benefits

- Constant directivity behavior over the entire operating range using cardioid techniques in the lower range
- Exceptional broadband headroom
- KSLi rigging hardware enables either vertical arrays of KSLi-TOP cabinets or mixed arrays with KSLi-SUB cabinets on top of the array
- Requires only two amplifier channels; one channel drives the front facing LF drivers, while the other amplifier channel drives the passively crossed over side firing LF drivers, the 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 KSLi loudspeakers can be linked and driven in the Line/Arc mode
- Dedicated custom variants for either special color (SC), weather resistant (WR), stadium variant (SVS) or sea water resistant (SWR) options

Applications

- Medium and large scale installed sound reinforcement applications
- Stadiums and arenas
- Concert halls
- Houses of Worship
- Theaters
- Clubs and live music venues
- Cruise ships

Architectural specifications

The loudspeaker system shall consist of two forward 10" LF neodymium drivers in a vented enclosure radiating to the front, two sideward 8" LF neodymium drivers, one hornloaded 8" midrange driver and two coaxially mounted 1.4" exit compression drivers with 3" voicecoils coupled to a waveshaping device.
The loudspeaker system shall be 3-way, actively driven between the forward LF drivers and the sideward LF driver with mid/high sections. Passive crossovers shall be used between the sideward LF driver and the mid/high sections.
The loudspeaker shall only be operated by a dedicated, compatible controller amplifier.
The enclosure shall be constructed from marine plywood with an impact resistant and weather protecting PCP (Polyurea Cabinet Protection) finish. The cabinet front and side shall be protected by a perforated steel grill backed with acoustically transparent and water repellent fabric.
Each side panel shall incorporate a slot while on the rear two slots shall be provided to accept dedicated lifting pins (T-handles) acting as a temporary lifting aid during setup.
The cabinet shall incorporate a three point rigging system for the assembly of vertical line source arrays of up to 10 cabinets in connection with a dedicated mounting frame.
The power handling of the forward LF section shall be 450/1800 W while the power handling of the sideward LF drivers and MF/HF section shall be 250/1000 W (RMS/peak 10 ms).
The frequency response (–5 dB) measured on axis shall extend from 54 Hz - 18 kHz with maximum sound pressure level (SPLmax peak/1 m) of at least 145 dB. The horizontal dispersion shall be 80°, while the vertical splay angle shall be adjustable in a range of 0° - 10° in 1° increments.
The connection panel on the back shall be recessed and fitted with speakON NLT4 F/M sockets. A 4-pin Phoenix Euroblock connector option shall be available upon request.
The dimensions (W x H x D) shall not exceed 1000 x 330 x 572 mm (39.4" x 13" x 22.5") and shall weigh no more than 57 kg (126 lb).

The loudspeaker shall be the KSLi8 by:
d&b audiotechnik GmbH & Co. KG.