

The T10 loudspeaker



T10 loudspeaker

The T10 is a very compact loudspeaker system which can be used both, as a line array and as a high directivity point source speaker. For these applications, the T10 cabinet provides two different dispersion characteristics which can be swapped over without any tools.

The core of the design is a unique combination of a rotatable waveguide with horn and an acoustic lens. The horn natively provides a vertical line source with 90° horizontal dispersion. The lens is part of the front grill and widens the HF dispersion in line array mode to 105°. When used upright as a point source, the lens curves the wavefront of the line source providing a 90° x 35° dispersion pattern.

The T10 is a two way design, employing dual 6.5" drivers, a 1.4" exit compression driver and a passive crossover network. The low drivers are positioned in a dipolar arrangement providing an exceptional dispersion control towards low frequencies. Its frequency response extends from 68 Hz to above 18 kHz.

The cabinet is constructed from polyurethane integral hard foam with an impact and weather resistant black paint finish. The cabinet shape allows the system to be set up as a single unit in upright orientation or as a line array in user defined vertical configurations.

The front of the loudspeaker cabinet is protected by a rigid metal grill in front of an acoustically transparent foam.

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.

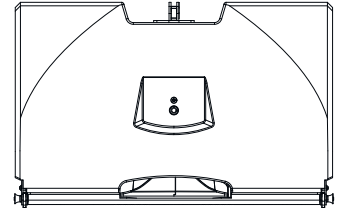
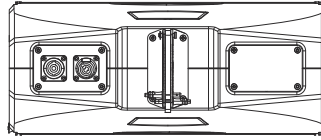
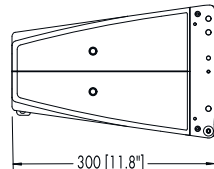
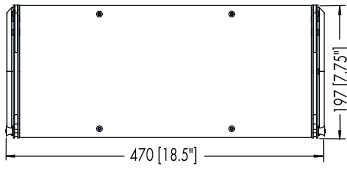
System data

| | |
|---|-----------------|
| Frequency response (-5 dB standard) | 68 Hz - 18 kHz |
| Frequency response (-5 dB CUT mode)..... | 120 Hz - 18 kHz |
| Max. sound pressure (Line/Arc setups, 1 m, free field) | |
| D6/10D | 129 dB |
| D80/D40/D20/D12/40D/30D | 132 dB |
| Max. sound pressure (PS setup, 1 m, free field) | |
| D6/10D | 127 dB |
| D80/D40/D20/D12/40D/30D | 130 dB |
|(SPLmax peak, pink noise test signal with crest factor of 4) | |

Loudspeaker data

| | |
|--|---|
| Nominal impedance | 16 ohms |
| Power handling capacity (RMS/peak 10 ms) | 200/800 W |
| Nominal dispersion angle (line source, horizontal) | 105° |
| Splay angle settings | 0 ... 15° (1° increment) |
| Nominal dispersion angle (point source, h x v) | 90° x 35° |
| Components | 2 x 6.5" driver with neodymium magnet |
| | 1.4" exit compression driver on rotatable waveguide |
| | Passive crossover network |
| Connections | 2 x NLT4 F/M |
| | optional EP5 |
| Pin assignment | NLT4 F/M: 1+/1- |
| | EP5: 1: + / 2: - |
| Weight | 11 kg (24 lb) |

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T10 cabinet dimensions in mm [inch]

Architectural specifications

The 2-way dipolar, passive loudspeaker shall consist of two 6.5" low frequency driver with a neodymium magnet assembly and one 1.4" exit neodymium compression driver mounted to a dedicated wave shaping device and a passive crossover network.

From the outside, the wave shaping device shall be mechanically rotatable through 90° to allow either line or point source configurations in connection with an acoustic lense which shall be integrated in the front grill.

The loudspeaker shall only be operated by a dedicated, compatible controller amplifier.

The cabinet enclosure shall be made from polyurethane integral hard foam with an impact and weather protected PCP (Polyurea Cabinet Protection) finish.

The drivers shall be protected by a rigid metal grill backed by an acoustically transparent foam.

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The cabinet shall incorporate a three point rigging system for the assembly of vertical line source arrays of up to 24 cabinets in connection with a dedicated flying frame.

The connection panel on the back shall be recessed and fitted with speakon NLT4 F/M sockets. NL4 or EP5 connectors shall be available upon request.

In Line source configuration the loudspeaker shall have a nominal horizontal dispersion angle of 105°. The vertical dispersion angle of the assembled array shall be determined by the geometry of the splay angles between the cabinets, which shall be adjustable in a range of 0° to 15° in 1° increments.

In Point source configuration the loudspeaker shall have a nominal dispersion angle of 90° x 35° (hor x ver).

The power handling capacity shall be 200 W RMS and 800 W peak (10 ms). The frequency response (-5 dB) measured on axis shall be 68 Hz to 18 kHz with a maximum sound pressure of at least 132 dB (line source mode) resp. 130 dB (point source mode). The dimensions (W x H x D) shall not exceed 470 x 197 x 300 mm (18.5" x 7.75" x 11.8") and shall weigh no more than 11 kg (24 lb).

The loudspeaker shall be the T10 by:
d&b audiotechnik GmbH & Co. KG.