



Install Sound



IL 82

A compact cabinet for voice and fullrange applications, the IL 82 delivers exceptional speech intelligibility for background and near-field sound reinforcement, for example, in foyers, lecture halls, bars and clubs.

The IL 82 may be deployed as a fullrange or mid-/high-range cabinet in configurations with a subwoofer such as the compact HK AUDIO® IL 112 Sub or IL 115 Sub. Passive crossover on board.

The IL 82 is an exceedingly compact, two-way, fullrange speaker cabinet driven by a built-in passive crossover. It is loaded with a direct-radiating 8" conical speaker in a bass reflex housing, and a ceramic high-frequency driver with horn. This speaker array delivers the low-frequency response it takes to render speech and background music accurately, even without an additional subwoofer. HK AUDIO® IL 112 Sub and IL 115 Sub subwoofers come highly recommended for applica-

tions requiring enhanced low-frequency response.

Alongside remarkably true response, the IL 82's hallmark qualities are its assertiveness, particularly in rendering speech, and considerable dynamic range. It is the perfect choice for near-field sound reinforcement applications. Courtesy of its compact dimensions, it integrates inconspicuously into every room.

The IL 82 may be operated without a controller. However, for the greatest operating safety, best performance and most convenient handling, we recommend using the HK AUDIO® Digital Field Controller (DFC).

Architectural specifications

The professional two-way full-range loudspeaker system shall incorporate one 8" bass/mid-range loudspeaker and one ceramic high-frequency driver coupled to a 100° x 90° horn. These components shall be mounted in a multi-angular bass-reflex housing constructed of polyurethane and painted with either black or white acrylic enamel. The components shall be protected with an impact-resistant perforated steel grille. Two flush-mounted M8 threaded bushings each shall be flush-mounted in the top, base, left and right sides of the housing for the attachment of mounting accessories.

The enclosure's internal electronics shall include a passive crossover having a crossover frequency of 6 kHz and a slope of 12 dB per octave, and phase and frequency response correction.

The frequency response shall extend from 120 Hz to 18 kHz (+/- 3 dB). The axial sensitivity shall measure 103 dB @ 1W/1m under half-space conditions. The maximum sound pressure level shall be 125 dB at 10% THD under half-space conditions. The cabinet shall have a power-handling capacity of 100 watts RMS and an impedance of 16 ohms.

The input connectors shall consist of one pair of binding posts. The exterior dimensions shall be 23.5 cm wide x 35 cm tall x 23 cm deep, and the unit shall weigh 5.5 kg (12.1 lbs).

The following accessories shall be available: 100-volt transformer, wall-mount bracket, M8 eyebolt.

The cabinet shall be the HK AUDIO model **IL 82**.

Item number:

- black: G 183003
- white: G 183013

Enclosure design and mechanical appointments

The IL 82's housing is made of polyurethane coated with acrylic enamel. It is available in the standard colors black or white.

The front baffle is covered by an impact-resistant protective steel grille.

The multifunctional enclosure is arrayed in two different angles for more flexible setup options and is available in two symmetrical right and left versions. Both versions are easily mounted on walls

and in corners, and readily combined to create 180° and 360° clusters.

The IL 82 weighs 5,5 kg. It is 23,5 cm wide, 35 cm high and 23 cm deep. The enclosure's panels are equipped with a total of nine M8 threaded bits. These accept optional fittings enabling the cabinet to be mounted in various ways. Its connectors are binding posts located on a countersunk panel on the back of the IL 82.

Electrical and acoustical data

The IL 82 features an 8" HK AUDIO® Custom conical chassis speaker and a ceramic high-frequency driver. The two drivers are configured in a twin axial array and addressed by an internal passive crossover. The crossover frequency is 6 kHz at a slope of 12 dB per octave.

The IL 82's nominal power handling capacity is 100 watts RMS at 16 ohms impedance. It delivers 103 dB (1W/1m) SPL, measured under

half-space conditions.

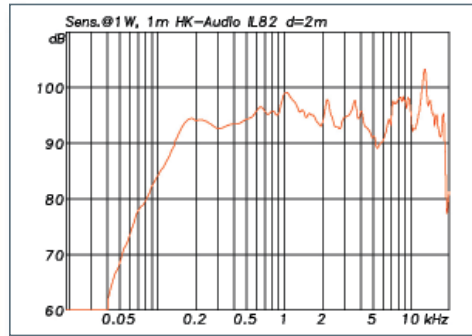
Maximum SPL measured under the same conditions at a distance of one meter is 125 dB at 10% THD.

The IL 82's high-frequency horn's horizontal radiation angle is 60°; its vertical radiation angle is 40°.

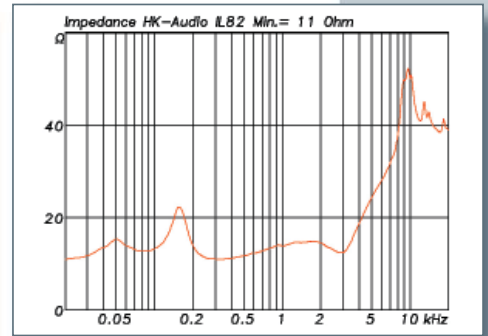
The cabinet's directivity is 6.95 dB; the Q factor is 8.03 (averaged from 100 Hz to 10 kHz). Frequency response ranges from 90 Hz to 22 kHz.

Consequently, the IL 82 is able to provide audio reinforcement for speech and music without requiring a subwoofer for enhanced low-end response (background sound reinforcement).

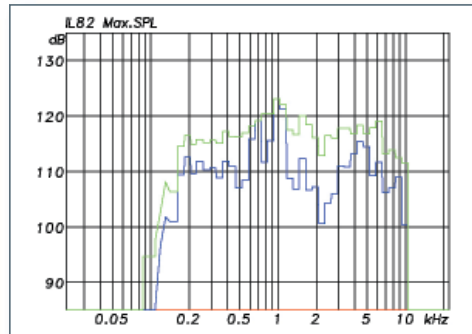
Measurement charts



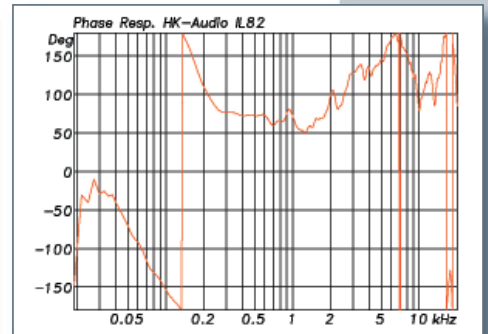
Frequency Response



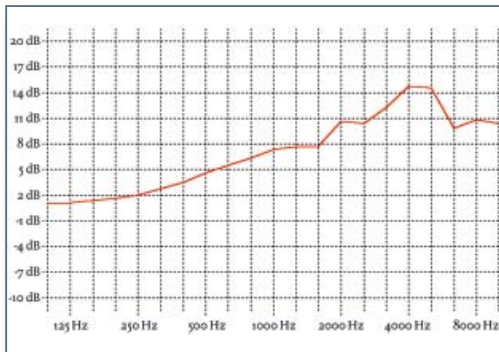
Impedance



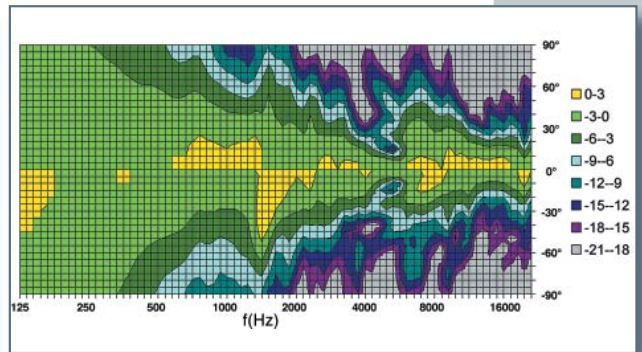
Max. SPL



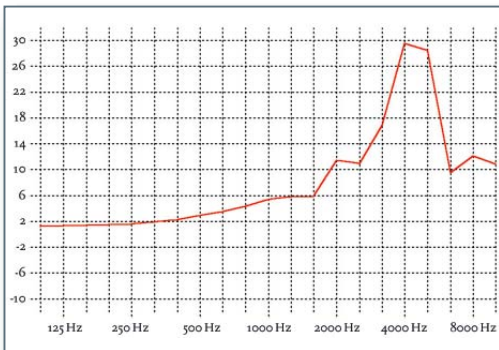
Phase Response



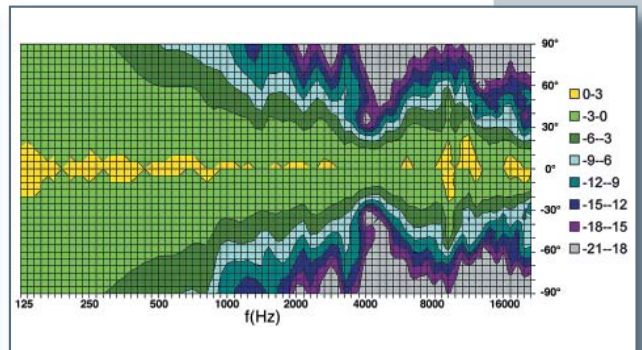
Directivity



Directivity vertical 2D

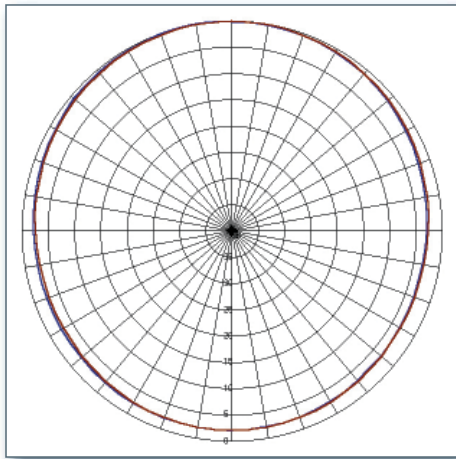


Q-Factor

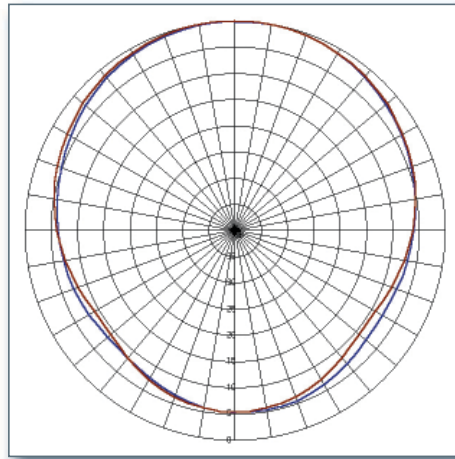


Directivity horizontal 2D

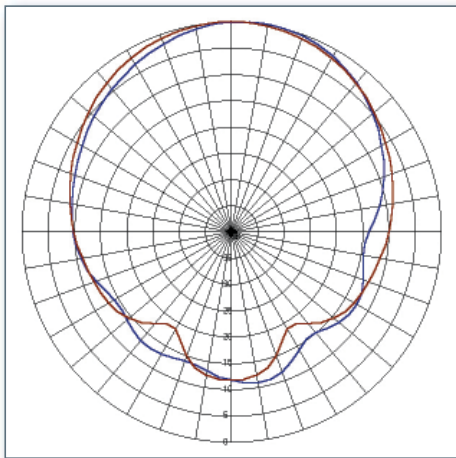
Polar diagrams



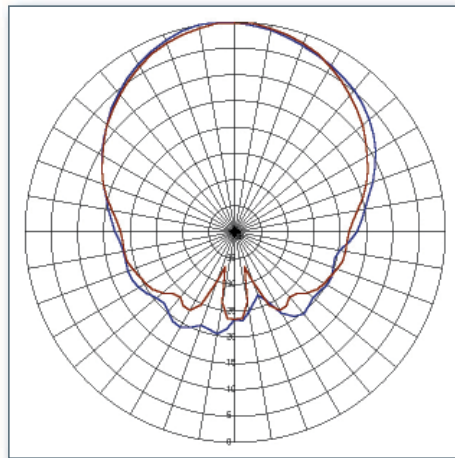
250 Hz



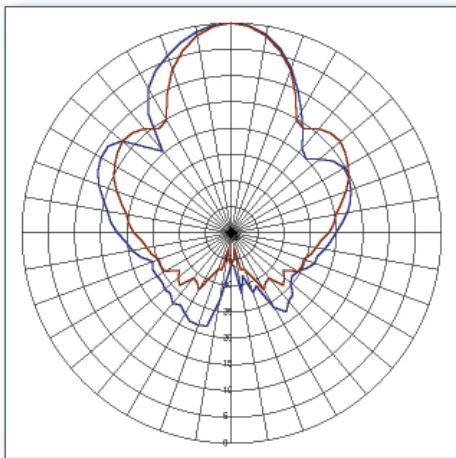
500 Hz



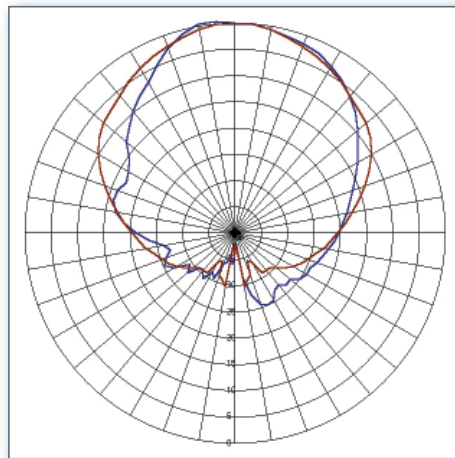
1000 Hz



2000 Hz

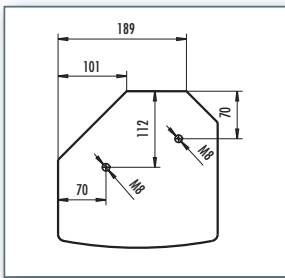
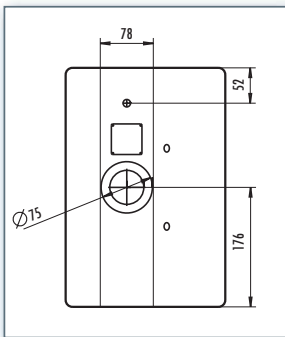
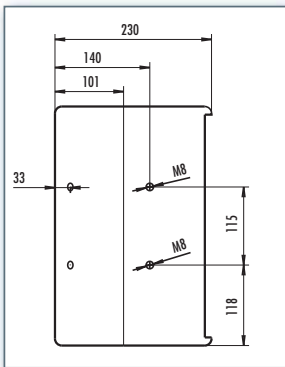
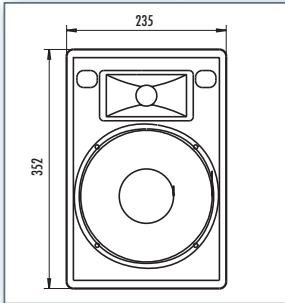


4000 Hz



8000 Hz

— = horizontal
— = vertical



Technical specifications

Loudspeakers

| | |
|--|--------------------------|
| Power handling nominal (RMS): | 100 W |
| Power handling (program): | 200 W |
| Power handling (peak, 10 ms): | 300 W |
| Impedance: | 16 ohms |
| Frequency response (± 3 dB): | 120 Hz to 18 kHz |
| Frequency response (-10 dB): | 90 Hz to 20 kHz |
| Axial sensitivity (1W/1m, half-space): | 103 dB |
| Maximum SPL (3 % THD, half-space): | 116 dB |
| Maximum SPL (10% THD, half-space): | 125 dB |
| Maximum SPL (calculated at peak): | 126 dB |
| Low/midrange frequency speaker: | 8" HK AUDIO® Custom |
| high-frequency driver: | Ceramic |
| Corner frequency, passive crossover: | 6 kHz / 12 dB per octave |
| Horizontal dispersion (-6 dB): | 100 degrees |
| Vertical dispersion (-6 dB): | 90 degrees |
| Directivity: | 6.95 dB |
| Q factor: | 8.03 |

Connectors

| | |
|--------|------------------------|
| Ports: | 1 set of binding posts |
|--------|------------------------|

Housing

| | |
|-------------------------|--|
| Material: | PU (polyurethane) |
| Coating: | black or white acrylic enamel |
| Front cover: | impact-resistant protective steel grille |
| Fittings: | a total of 9 M8 threaded bits for attaching mounting accessories |
| Weight: | 5.5 kg / 12.1 lbs. |
| Dimensions (W x H x D): | 23.5 cm x 35 cm x 23 cm 9 1/4" x 13 3/4" x 9" |
| Housing angle: | 45 degrees |

Accessories

- HK AUDIO® TR 50: 100 V Transformer with 3 power taps: 50 W, 25 W, 12.5 W
- HK AUDIO® Wall-Mount
- HK AUDIO® Speaker Stand, Mounting Bracket
- HK AUDIO® M8 Ringbolt

Service items

- 8" speaker E994089
- Ceramic High-frequency Driver E994088



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