

KPT-942-4-B

2-WAY EXTENDED BASS BEHIND THE SCREEN CINEMA SYSTEM



Klipsch®

KLIPSCH PROFESSIONAL | CINEMA | DATA SHEET

THX



RECOMMENDED USE



UP TO **400 SEATS** (approximately 6000 ft² or 557 m²)

PRODUCT OVERVIEW

With its high efficiency, low distortion, controlled directivity and flat frequency response, the THX®-certified KPT-942-4-B 2-way cinema and stage system delivers the unbridled dynamics and intense realism required for today's most exacting soundtracks.

Based on the KPT-415-LF quad 15" bass unit, the KPT-942-4-B provides enhanced low frequency output while retaining the 24" depth of smaller systems.

The higher frequencies are handled by a KPT-402-HF Tractrix® horn with a K-1132 2" exit titanium compression driver. This advanced Tractrix horn geometry and compression driver technology creates a large soundstage with well-defined imaging, resulting in a more genuine, lifelike sound.

The KPT-942-4-B's high efficiency, very high output and excellent coverage characteristics make it an outstanding, cost-effective solution for medium and large auditoriums.

DESIGNED AND MADE IN THE USA USING DOMESTIC AND IMPORTED COMPONENTS

In 1946, Paul W Klipsch, genius & maverick, hand-built his first loudspeaker in a tin shed with the intention of bringing live music into his living room. Remember great sound? We do, too. Today, Klipsch's cinema series speaker enclosures are made in the USA, by proud craftsmen in Hope, Arkansas. Just like PWK intended.

AVAILABLE VERSIONS

KPT-942-4-B THX

Bi-amp version without passive processor

SYSTEM COMPONENTS

| | KPT-942-4-B |
|----|-------------|
| HF | KPT-402-HF |
| LF | KPT-415-LF |

SYSTEM SPECIFICATIONS

| | |
|--|-----------------------------|
| FREQUENCY RESPONSE ¹ (+/- 3 dB) | 43 Hz - 18 kHz |
| FREQUENCY RANGE (-10 dB) | 26 Hz - 20 kHz |
| SENSITIVITY ² | 113 dB |
| MAXIMUM SPL ⁴ | 129 dB |
| HORIZONTAL COVERAGE | 90° +/- 30° 200 Hz - 14 kHz |
| VERTICAL COVERAGE | 60° +/- 30° 300 Hz - 18 kHz |
| DIRECTIVITY INDEX (DI) | 8 dB |
| DIRECTIVITY FACTOR (Q) | 6.3 |
| HEIGHT | 76" (193cm) |
| WIDTH | 39.75" (101cm) |
| DEPTH | 23.75" (60.3cm) |
| WEIGHT | 260 lbs. (118 kg) |

¹ Frequency response behind a screen relative to X-curve and with active processing applied

² SPL at 1M, half-space anechoic with 2.83V input

³ AES standard, continuous pink noise, 6 dB peaks

⁴ Calculated at 1M half-space at power handling input

RECOMMENDED MINIMUM AMPLIFIER POWER

| TRANSDUCER | AMPLIFIER POWER RATING |
|------------|------------------------|
| LF Input 1 | 800W into 4 ohms |
| LF Input 2 | 800W into 4 ohms |
| HF | 100W into 8 ohms |

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| | KPT-942-4-B | |
|-----------------------------------|-------------|-------------|
| | HF | LF |
| SENSITIVITY² | 109 dB | 109 dB |
| POWER HANDLING³ | 50W (20V) | 1600W (56V) |
| POWER HANDLING (PEAK) | 200W | 6400W |
| MAXIMUM SPL⁴ | 126 dB | 135 dB |
| MAXIMUM SPL (PEAK) | 132 dB | 141 dB |
| NOMINAL IMPEDANCE | 8 ohm | 2 ohm |

| HF KPT-402-HF | |
|---------------------------|-----------------------------|
| HIGHPASS CROSSOVER | 580 Hz Linkwitz Riley 24 dB |
| PEQ1 | 1.08 kHz Q:1 Gain: -4 dB |
| PEQ2 | 2.4 kHz Q:4 Gain: -7 dB |
| PEQ3 | 7.4 kHz Q:4 Gain: +3 dB |
| PEQ4 | 15.2 kHz Q:2 Gain: +3 dB |
| HF DELAY | 0 ms |
| OUTPUT GAIN | +2 dB |

| LF KPT-415-LF | |
|--------------------------|-----------------------------|
| LOWPASS CROSSOVER | 580 Hz Linkwitz Riley 24 dB |
| PEQ1 | 230 Hz Q:5 Gain: +3 dB |
| PEQ2 | 290 Hz Q:8 Gain: -2 dB |
| PEQ3 | 740 Hz Q:3.2 Gain: -7 dB |
| PEQ4 | 480 Hz Q:7 Gain: +2 dB |
| LF DELAY | 0.167 ms |
| OUTPUT GAIN | 0 dB |

- 1 Frequency response behind a screen relative to X-curve and with active processing applied
- 2 SPL at 1M, half-space anechoic with 2.83V input
- 3 AES standard, continuous pink noise, 6 dB peaks
- 4 Calculated at 1M half-space at power handling input

RECOMMENDED ACTIVE PROCESSOR SETTINGS

Digital Signal Processing (DSP) equipment is required for Bi-amp operation of the KPT-942-4-B.

The DSP parameters listed above are to establish crossover, gain, equalization and delay. They are recommended for the initial set-up evaluation and will yield the corresponding component specifications at the top of this page.

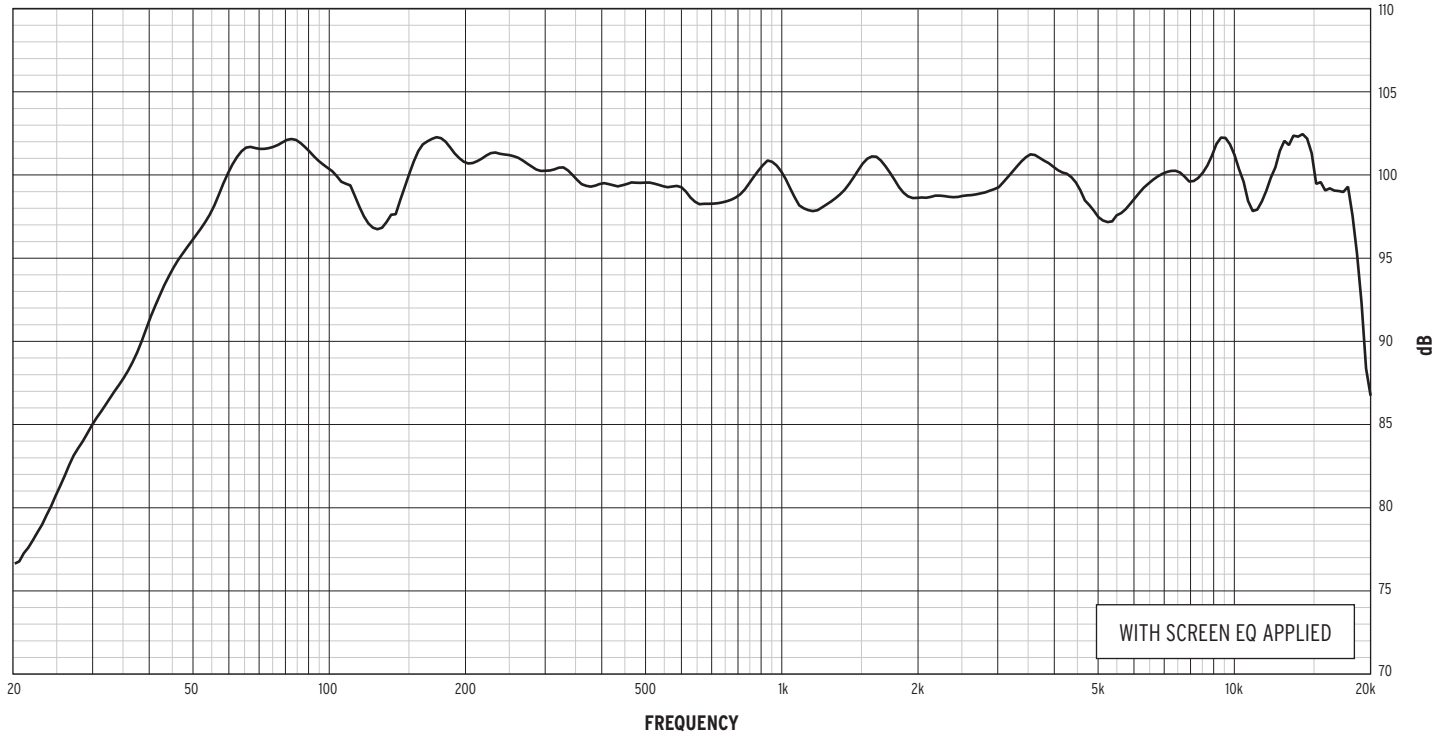
KPT-942-4-B

2-WAY EXTENDED BASS BEHIND THE SCREEN CINEMA SYSTEM

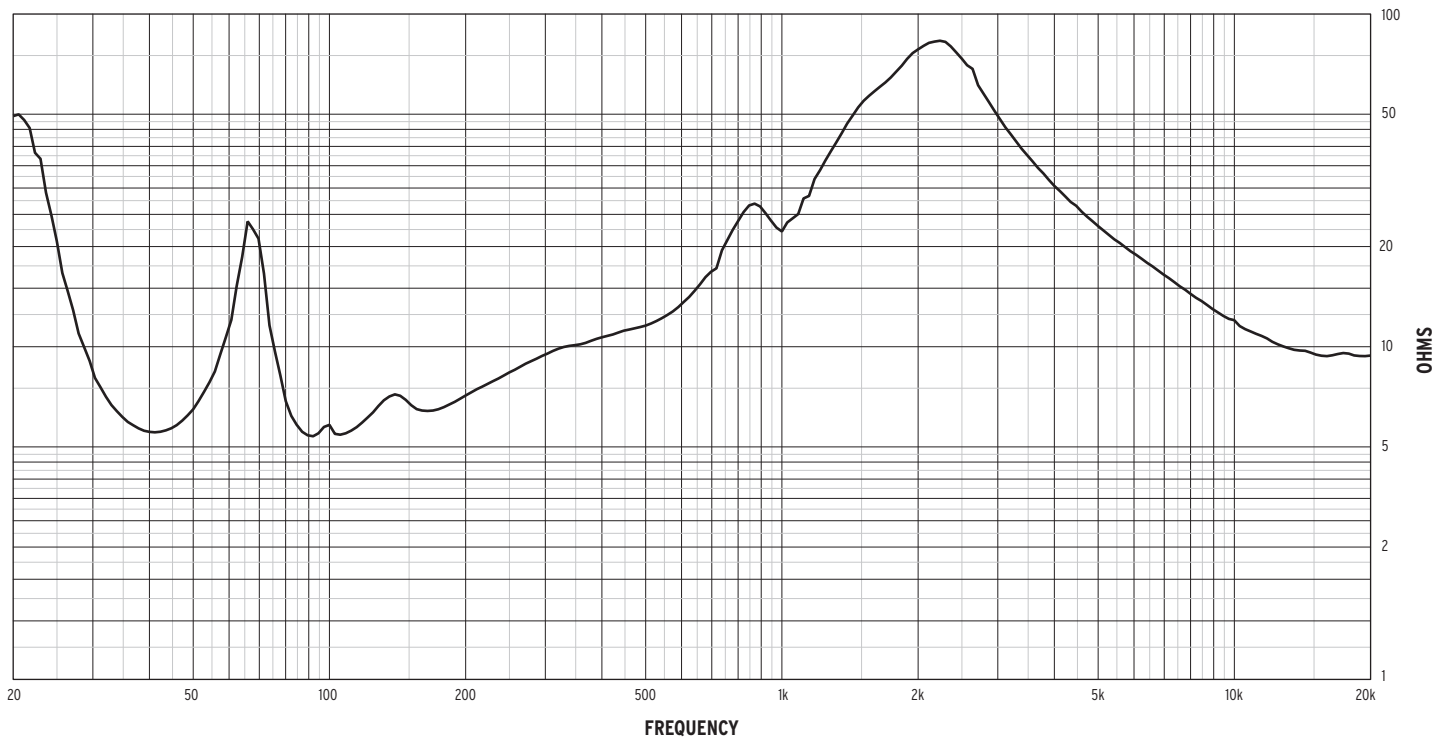


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FREQUENCY RESPONSE



IMPEDANCE



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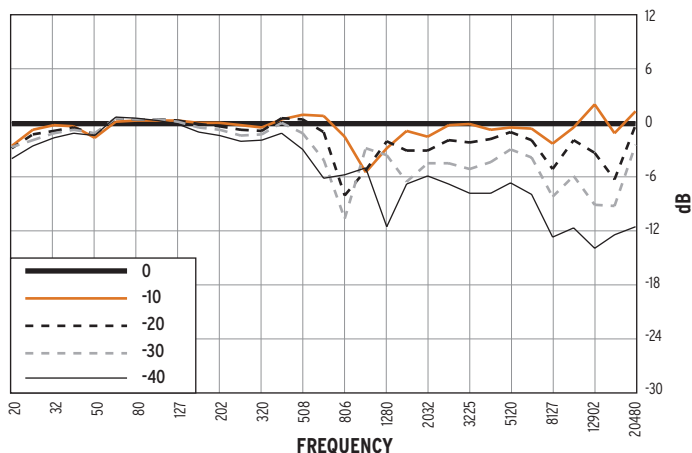
2-WAY EXTENDED BASS BEHIND THE SCREEN CINEMA SYSTEM



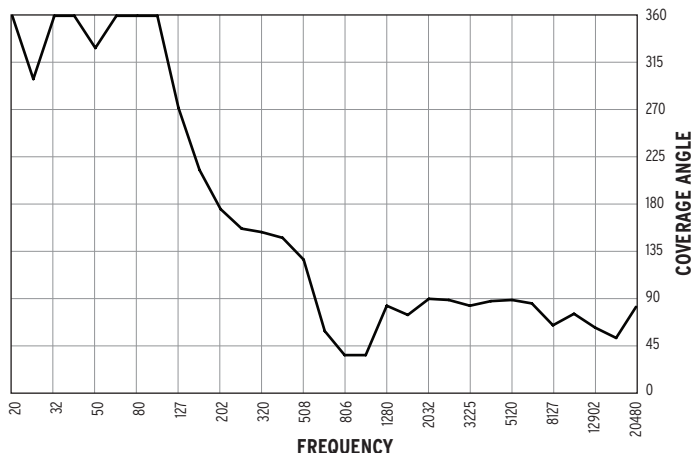
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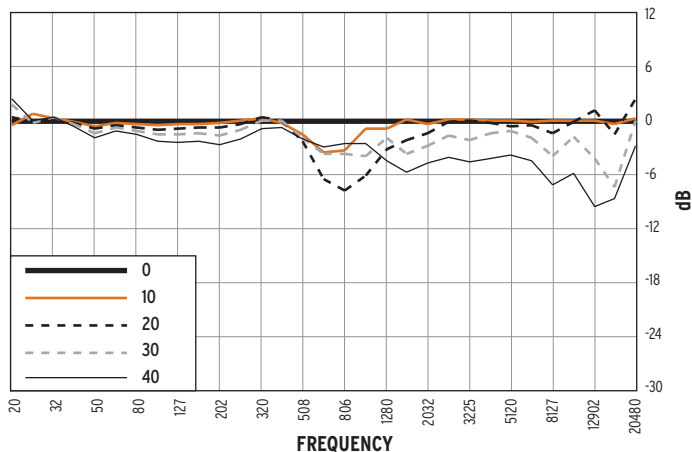
HORIZONTAL OFF AXIS TRANSFER FUNCTION LEFT



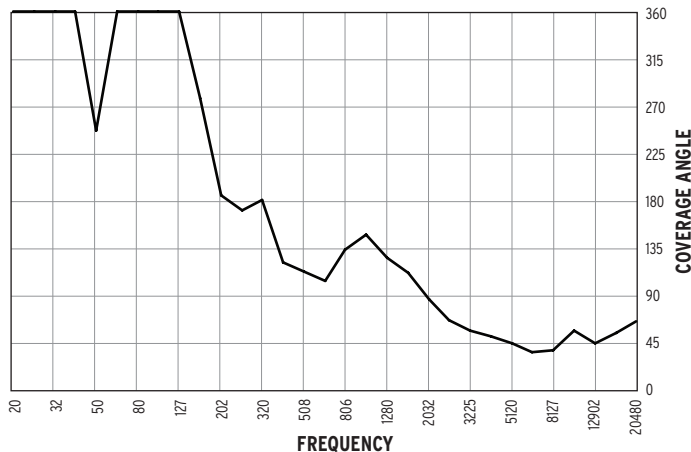
HORIZONTAL COVERAGE (-6dB)



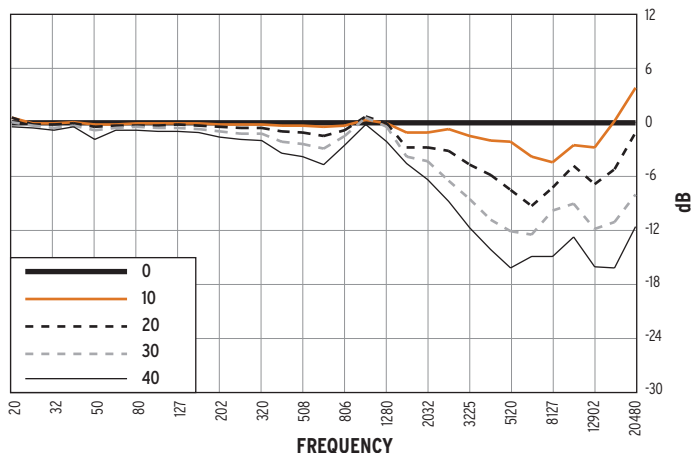
HORIZONTAL OFF AXIS TRANSFER FUNCTION RIGHT



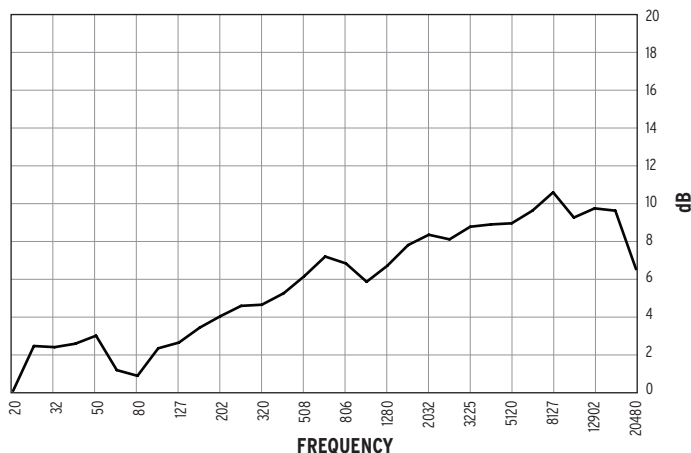
VERTICAL COVERAGE (-6dB)



VERTICAL OFF AXIS TRANSFER FUNCTION



DIRECTIVITY INDEX



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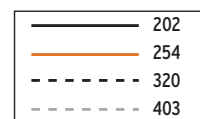
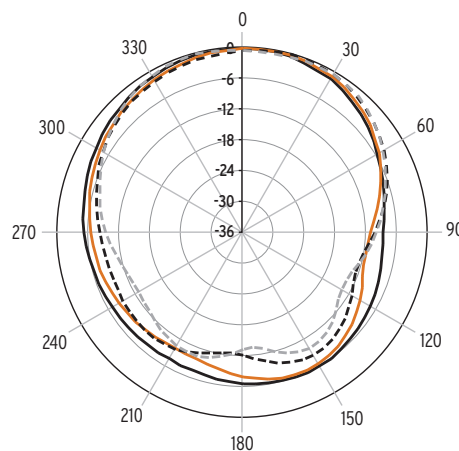
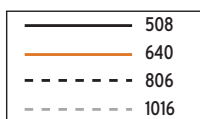
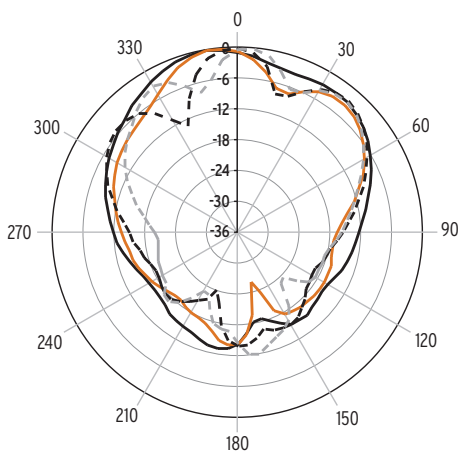
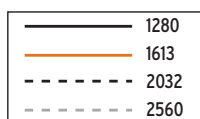
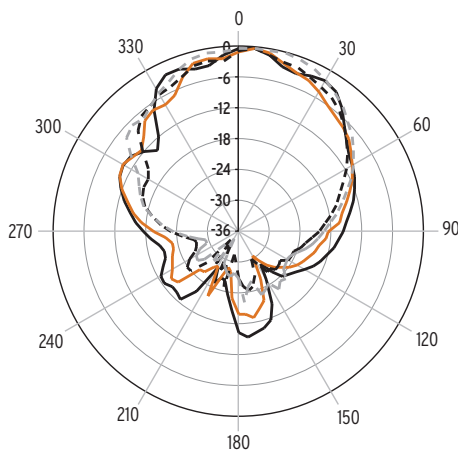
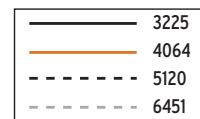
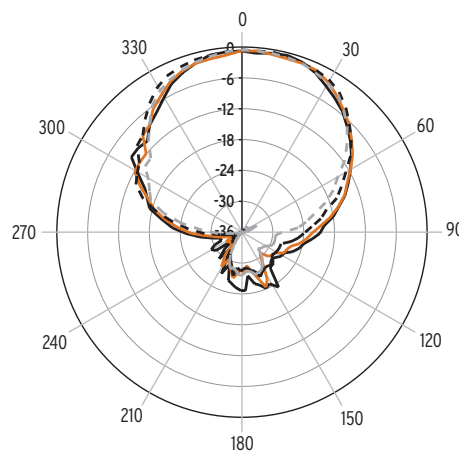
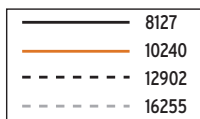
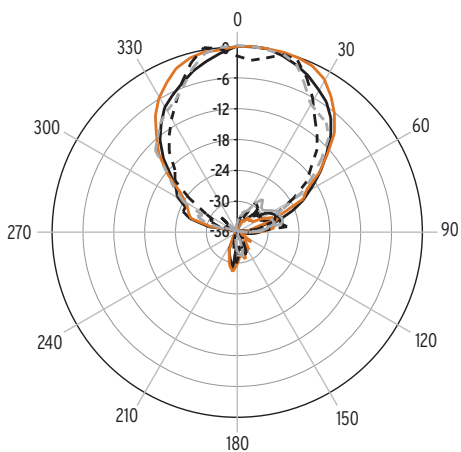
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HORIZONTAL 1/3 OCTAVE POLARS



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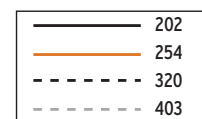
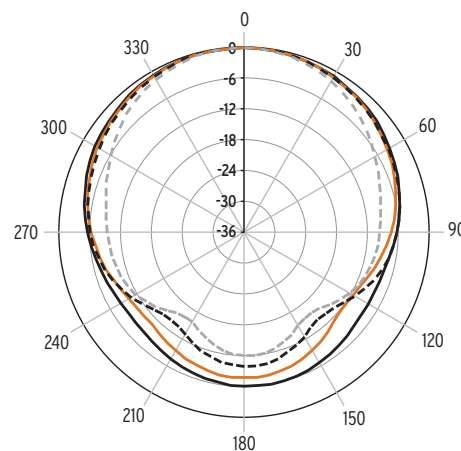
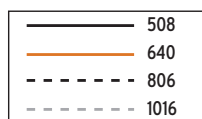
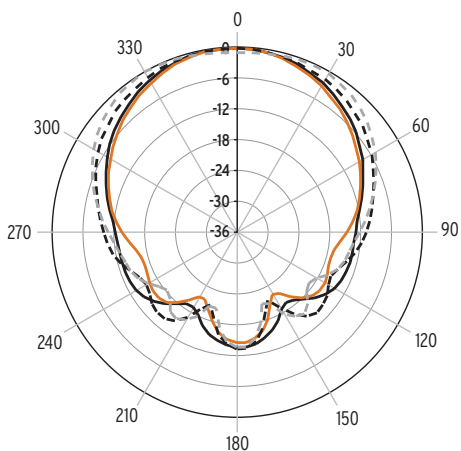
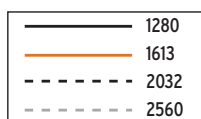
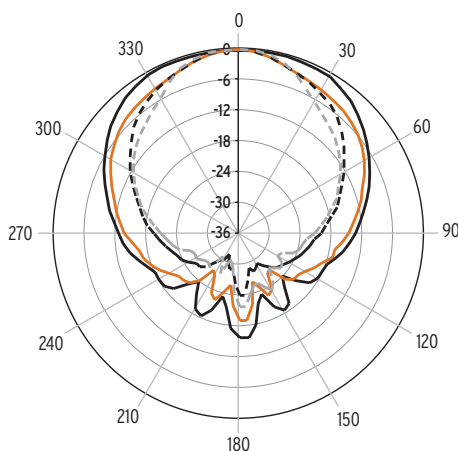
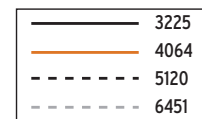
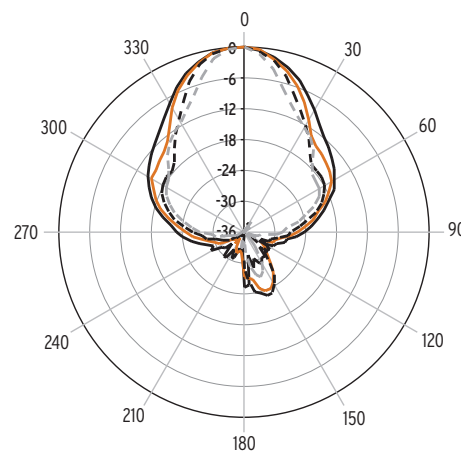
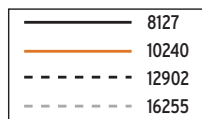
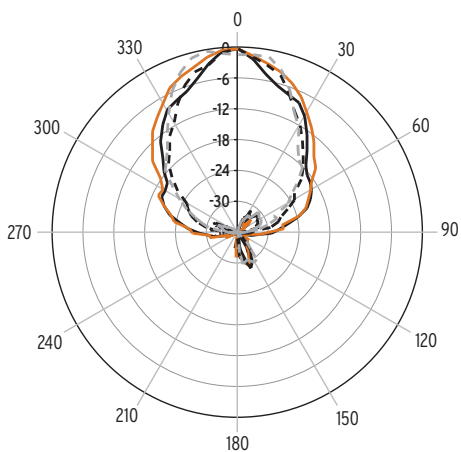
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VERTICAL 1/3 OCTAVE POLARS



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ARCHITECTURAL SPECIFICATIONS

The KI-398-RGL two-way professional cinema surround speaker system shall include an 15" (380 mm) K-48-ST low-frequency transducer utilizing a 3" (75 mm) voice coil, 104 ounce (2.95 kg) magnet and motor magnet assembly and a KDE-75-8P 3" (76.2 mm) titanium diaphragm high-frequency 60-ounce (1.70 kg) magnet compression driver mounted on a 90° X 50° injection molded modified Tractrix Horn. Signal shall be applied to the transducers via a full-range frequency-dividing network. The enclosure tuning shall be of a vented design.

Frequency response shall be 51 Hz to 18 kHz, +/- 3 dB, with the -10dBpoint at 38Hz, measured at three meters, half-space anechoic. The high-frequency dispersion angle shall be 90° X 50° nominal. Directivity shall be 8 dB. Sensitivity shall be 100dB SPL, measured at one meter, half-space anechoic, with a 2.83V input. Power handling shall be 600 watts (57 volts), to AES standards, continuous pink noise, 40 Hz to 10 kHz, 6 dB peaks. Calculated maximum continuous output at one meter shall be 126dB SPL. Nominal impedance shall be 8 ohms, with 5.5 ohms minimum at 90 Hz.

The internal passive crossover frequency shall be 750Hz with a slope of 24dB/octave on the low frequency and 24dB/octave on the high- frequency. Signal connections shall be made via a two point barrier strip.

The enclosure panels shall be CNC-fabricated using .75" (19mm) 7-ply natural hardwood plywood, assembled using rabbet and dado joinery. The motorboard baffle shall be 1" (2.54cm) molding grade MDF. Dimensions for the enclosure shall be 39" (99.1 cm) high by 16.0" (40.04 cm) deep by 19.8" (50.2cm) front width and 6.8" (17.2cm) rear width in a symmetrical trapezoidal shape, with both side panels angled at 22.5° Net weight shall be 78 lbs. (35.5kg).

Enclosure flying capability shall be provided via sixteen internal 3/8"-16 thread mounting points, 4 points per panel with additional compatibility with readily available commercial flying hardware.

The system shall be a Klipsch KI-398-RGL loudspeaker.

NEED HELP WITH YOUR PRO SYSTEM DESIGN?

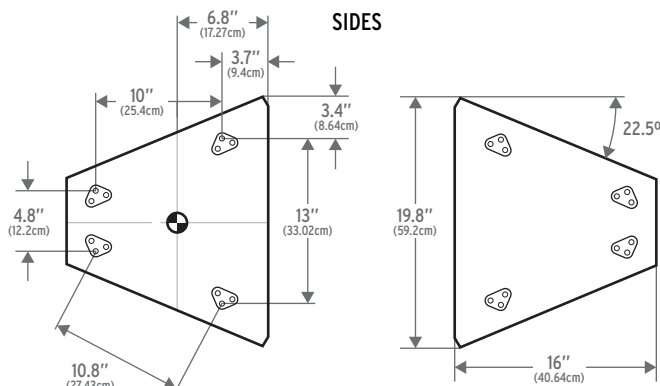
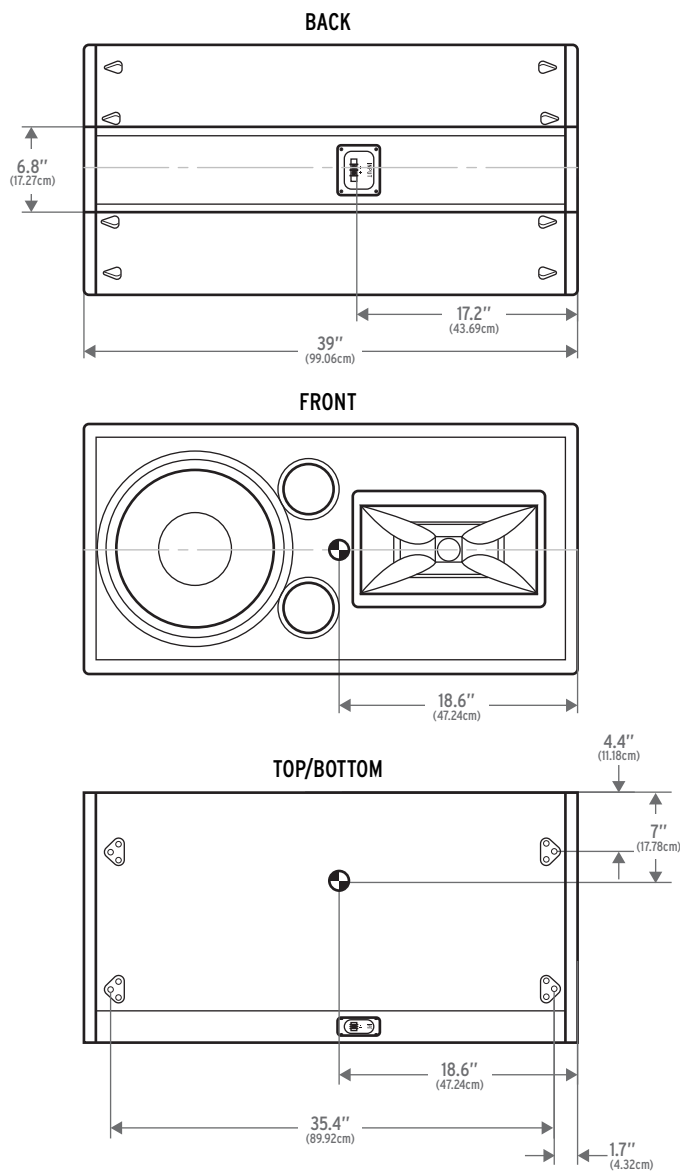
You need to make the best impression, from the initial job quote through the completed installation. We can help choose the best Klipsch speakers for the application and help design a system that unleashes your venue's full potential.

Send us your plans or questions to us at:

PROSYSTEMDESIGN@KLIPSCH.COM

NOT A SUSPENSION POINT! 8 PLCS on each side and 8 PLCS on each top and bottom panels

3/8"-16 threaded hole suspension point 4 PLCS on each side panel and 4 PLCS on top and bottom panels



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ORDERING INFORMATION

KI-398-RGL

| PART NUMBER | MODEL NAME | FINISH | PACKED QUANTITY | DESCRIPTION | UPC |
|-------------|--------------|--------|-----------------|------------------------|--------------|
| 1015031 | KI-398-B-RGL | Black | 1 | Standard 8 ohm speaker | 743878027792 |

KI-398 SIDE-PLATE MOUNTING KIT

| PART NUMBER | MODEL NAME | FINISH | PACKED QUANTITY | DESCRIPTION | UPC |
|-------------|-----------------------------|--------|-----------------|-----------------------------|-----|
| 1061616 | KI-398-RGL PLT Mounting Kit | Black | 1 | 2 Side-Plates plus hardware | NA |

KI-398-RGL CARTON DIMENSIONS

| | |
|--------|-----------------|
| HEIGHT | 41.5" (105.4cm) |
| WIDTH | 21.0" (53.3cm) |
| DEPTH | 17.0" (43.2cm) |

KI-398 SIDE-PLATE MOUNTING KIT CARTON DIMENSIONS

| | |
|--------|----------------|
| HEIGHT | 1" (2.5cm) |
| WIDTH | 18.5" (33.0cm) |
| DEPTH | 12.5" (31.8cm) |