

KPT-435-B/M

3-WAY BEHIND THE SCREEN CINEMA SYSTEM WITH BUILT-IN PASSIVE PROCESSOR



KLIPSCH PROFESSIONAL | CINEMA | DATA SHEET



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-435-B/M

Includes passive processor for either Bi-amp or Mono-amp operation

SYSTEM COMPONENTS

	KPT-435-B/M
HF/MF	KPT-335-HF/MF-N*
LF	KPT-904-LF

* Includes Passive Processor

SYSTEM SPECIFICATIONS

FREQUENCY RESPONSE ¹ (+/- 3 dB)	45 Hz - 20 kHz
FREQUENCY RANGE (-10 dB)	32 Hz - 20 kHz
SENSITIVITY ²	105 dB
MAXIMUM SPL ⁴	127 dB
HORIZONTAL COVERAGE	90° +/- 20° 250 Hz - 16 kHz
VERTICAL COVERAGE	60° +/- 20° 2 kHz - 19 kHz
DIRECTIVITY INDEX (DI)	8 dB
DIRECTIVITY FACTOR (Q)	6.3
HEIGHT	62.75" (159.4cm)
WIDTH	27.25" (69.2cm)
DEPTH	17.75" (45.1cm)
WEIGHT	167 lbs. (76 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 USE



UP TO 250 SEATS (approximately 3500 ft² or 325 m²)

PRODUCT OVERVIEW

As the first full 3-way passive behind the screen system on the market, the KPT-435-B/M affords the ultimate in audio performance for small and medium sized venues. Less than 20" in depth, it is also one of the smallest speakers in its performance category.

Based on the proven KPT-904-LF dual 15" bass unit, the KPT-435-B/M delivers powerful bass from a shallow cabinet that is just 17.75" deep. In order to reproduce the critical dialogue range, this system also features the new KPT-335-HF/MF-N, which consists of a K-510 Tractrix[®] Horn, 2" throat compression driver and the K-703 Tractrix horn with a 1.75" titanium diaphragm.

Perfect for exhibitors who want to utilize a fully passive or bi-amplified system, the KPT-435-B/M can be utilized as a bi-amp configured 3-way system or, by simply changing the crossover network wiring, as a fully passive 3-way mono-amp configuration.

RECOMMENDED MINIMUM AMPLIFIER POWER



TRANSDUCER	AMPLIFIER POWER RATING
MONO-AMP	650W into 4 ohms
LF (BI-AMP)	800W into 4 ohms
HF (BI-AMP)	400W into 5.5 ohms

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	KPT-435-B		KPT-435-M																		
	HF/MF	LF	HF/MF/LF																		
SENSITIVITY²	105 dB	105.5 dB	105 dB																		
POWER HANDLING³	200W (33V)	800W (58V)	325W (26V)																		
POWER HANDLING (PEAK)	800W	3200W	1300W																		
MAXIMUM SPL⁴	126 dB	131 dB	127 dB																		
MAXIMUM SPL (PEAK)	132 db	137 dB	133 db																		
NOMINAL IMPEDANCE	5.5 ohm	4 ohm	4 ohm																		
	<div style="text-align: center;">  KPT-335-HF/MF </div> <table border="1"> <tr> <td>HIGHPASS CROSSOVER</td> <td colspan="2">1 kHz Linkwitz Riley 24 dB</td> </tr> <tr> <td>PEQ1</td> <td>8 kHz</td> <td>Q: 2 Gain: +2 dB</td> </tr> <tr> <td>PEQ2</td> <td>3 kHz</td> <td>Q: 4 Gain: +2 dB</td> </tr> <tr> <td>PEQ3</td> <td>2 kHz</td> <td>Q: 5 Gain: -2 dB</td> </tr> <tr> <td>HF DELAY</td> <td colspan="2">0 ms</td> </tr> <tr> <td>OUTPUT GAIN</td> <td colspan="2">+3 dB</td> </tr> </table>		HIGHPASS CROSSOVER	1 kHz Linkwitz Riley 24 dB		PEQ1	8 kHz	Q: 2 Gain: +2 dB	PEQ2	3 kHz	Q: 4 Gain: +2 dB	PEQ3	2 kHz	Q: 5 Gain: -2 dB	HF DELAY	0 ms		OUTPUT GAIN	+3 dB		ACTIVE PROCESSOR SETTINGS ARE NOT REQUIRED FOR MONO-AMP OPERATION
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RECOMMENDED ACTIVE PROCESSOR SETTINGS

- 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

Digital Signal Processing (DSP) equipment is required for the Bi-amp configuration of the KPT-435-B/M. Digital Signal Processing is not required for proper operation of the mono-amp configuration, as the passive processor takes care of all the equalization/crossover requirements for the system.

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.

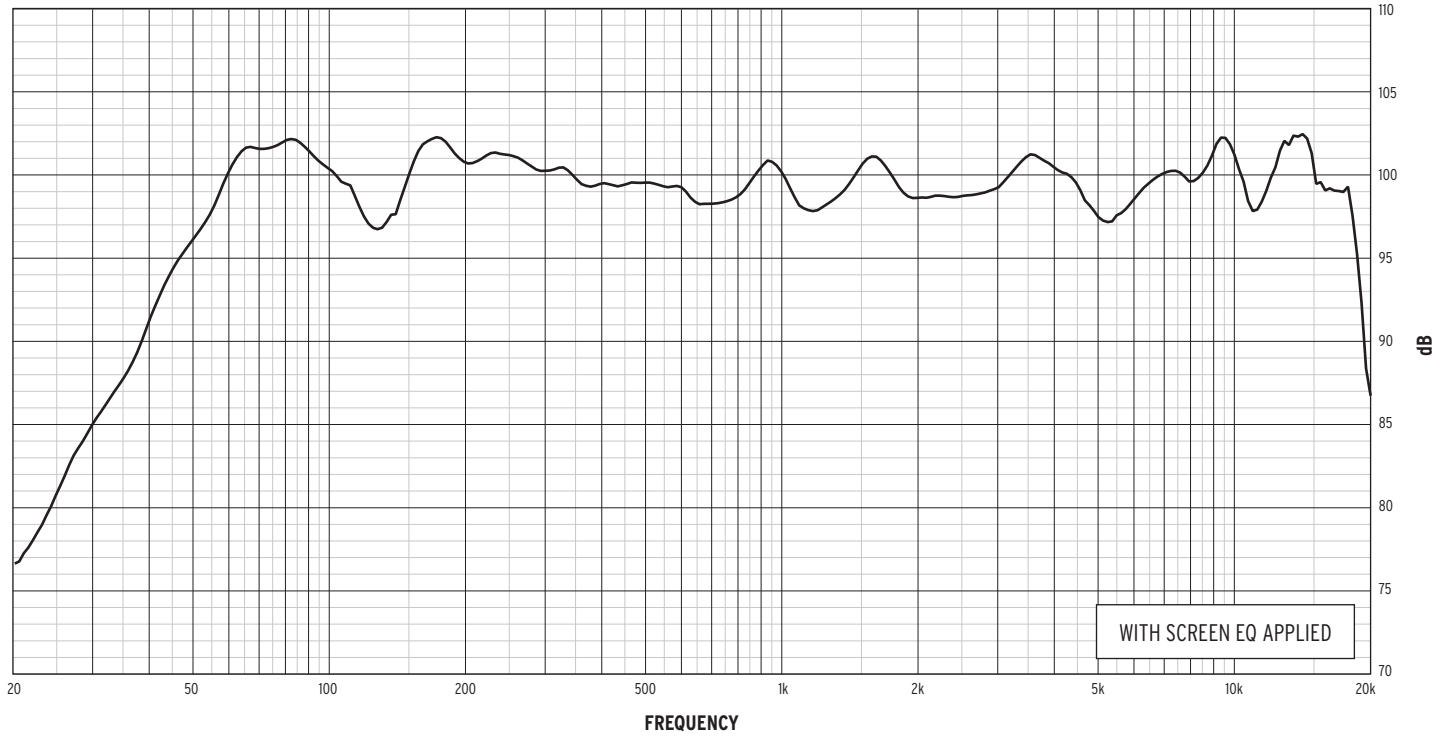
KPT-435-B/M

3-WAY BEHIND THE SCREEN CINEMA SYSTEM WITH BUILT-IN PASSIVE PROCESSOR

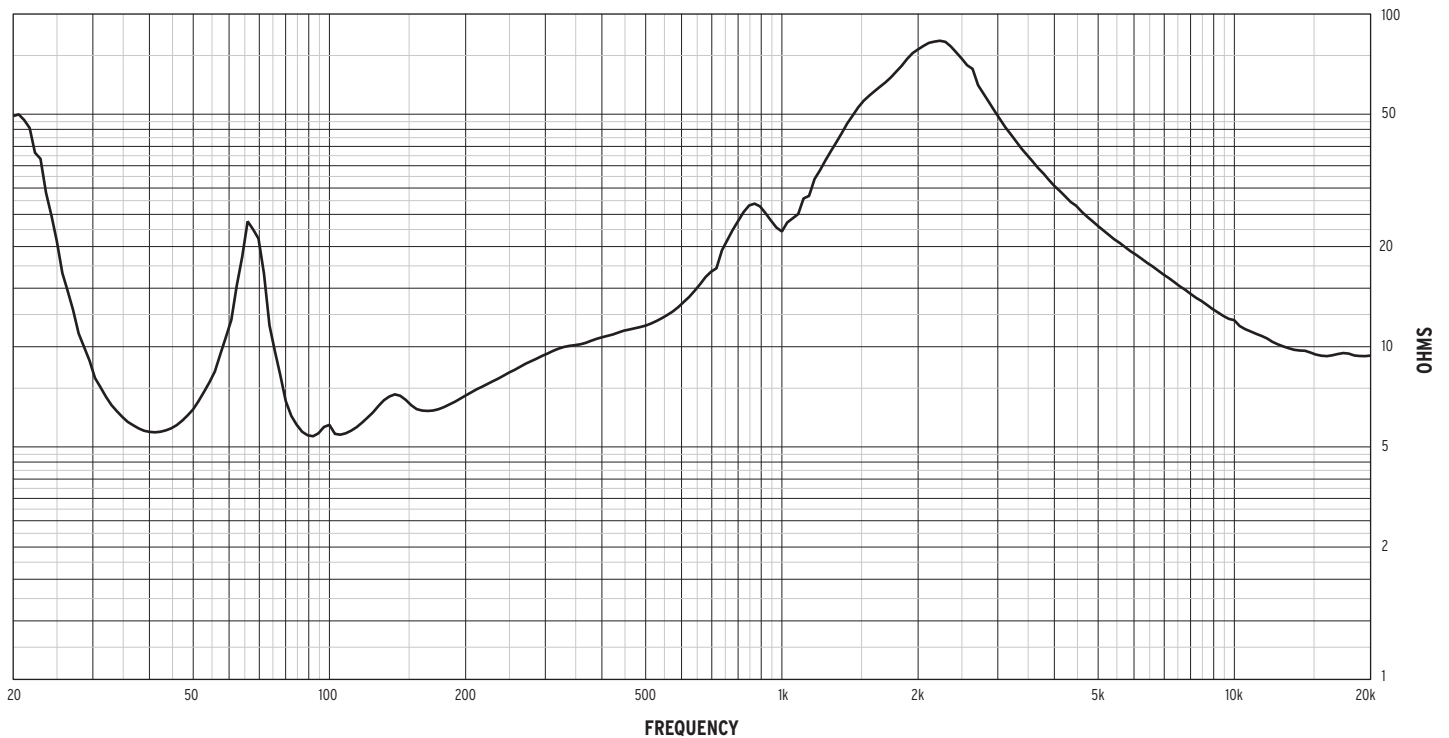


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FREQUENCY RESPONSE



IMPEDANCE



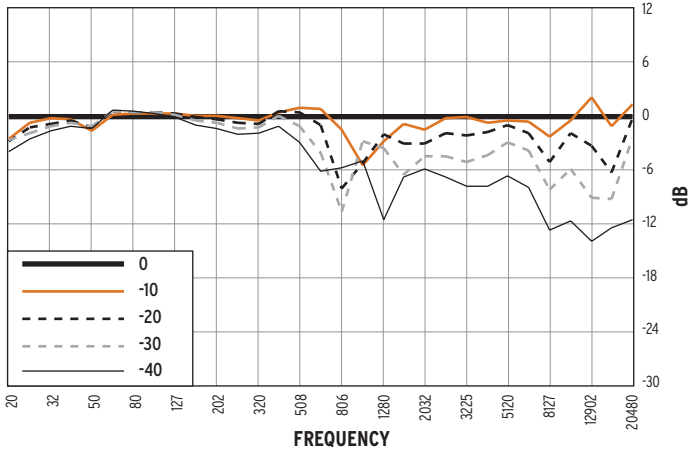
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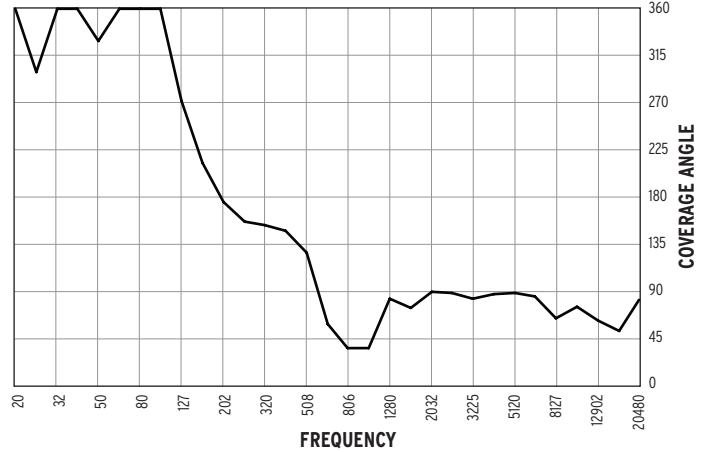


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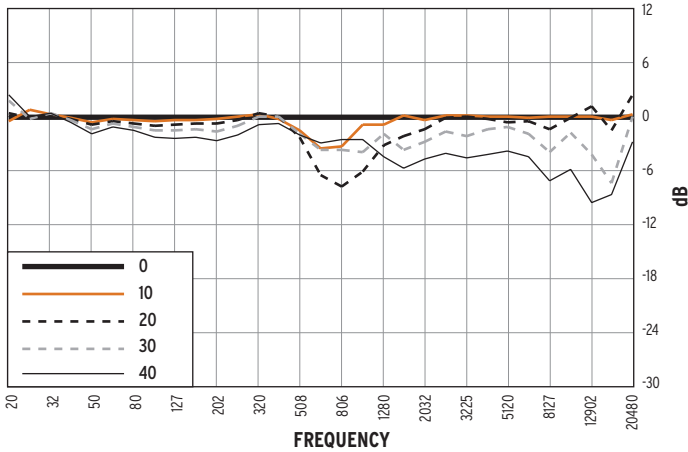
HORIZONTAL OFF AXIS TRANSFER FUNCTION LEFT



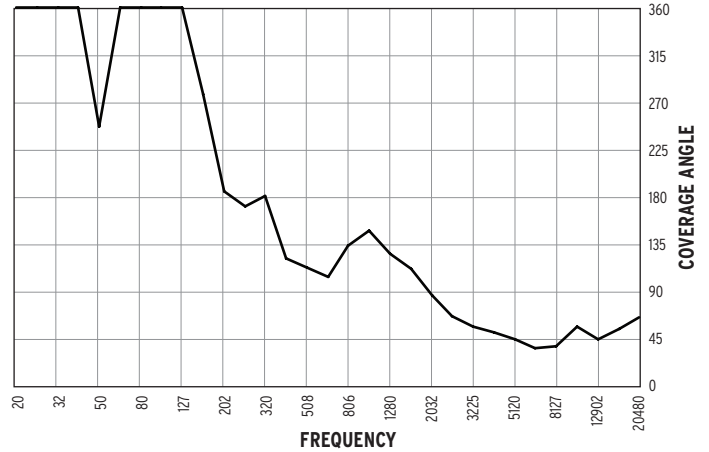
HORIZONTAL COVERAGE (-6dB)



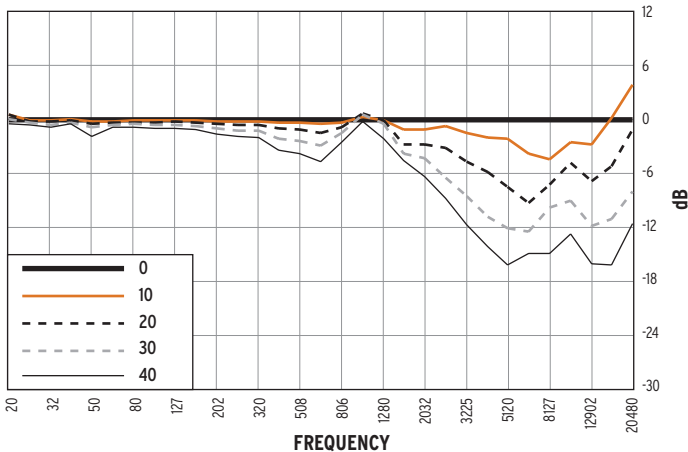
HORIZONTAL OFF AXIS TRANSFER FUNCTION RIGHT



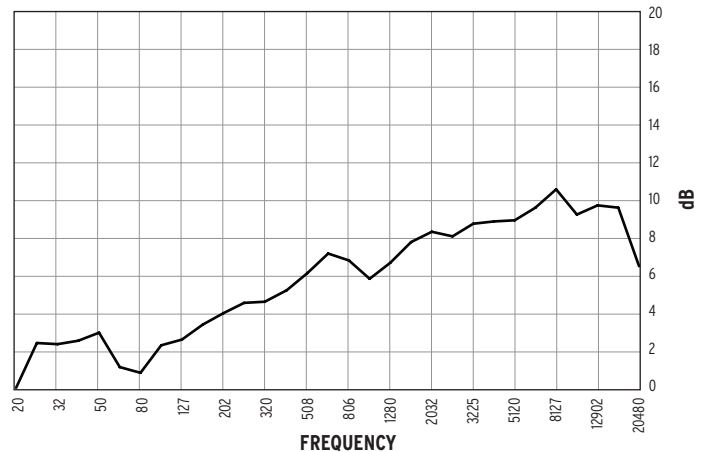
VERTICAL COVERAGE (-6dB)



VERTICAL OFF AXIS TRANSFER FUNCTION



DIRECTIVITY INDEX



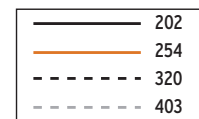
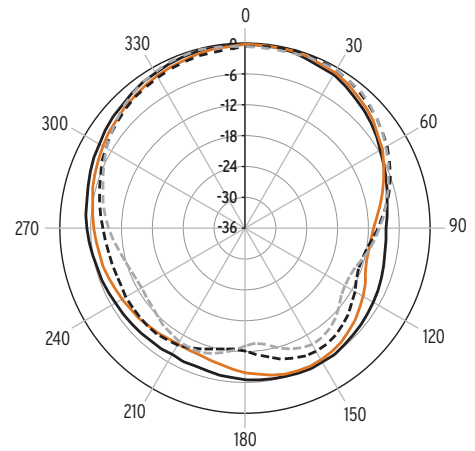
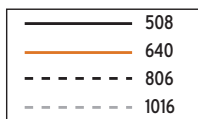
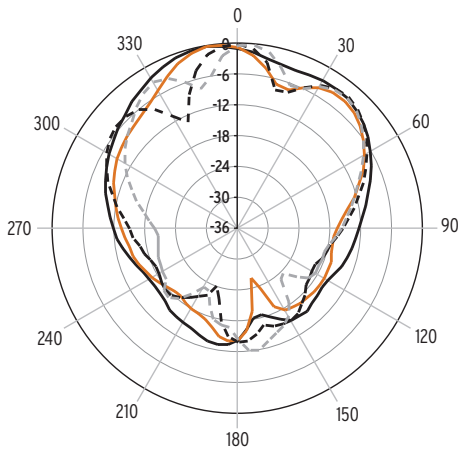
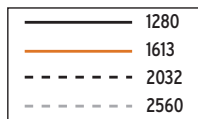
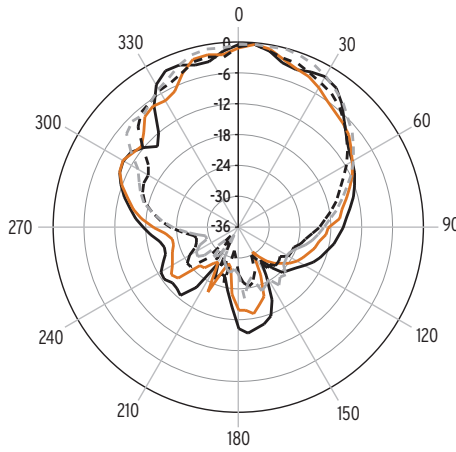
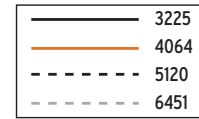
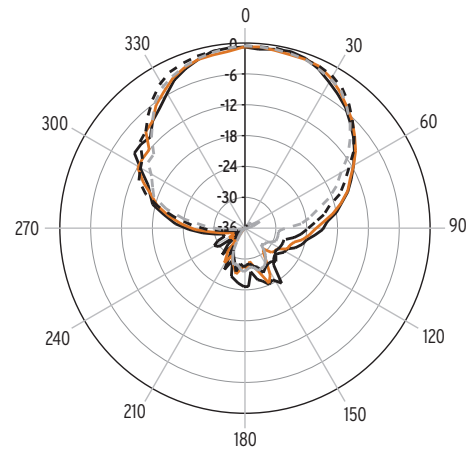
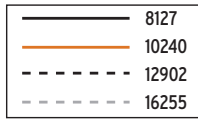
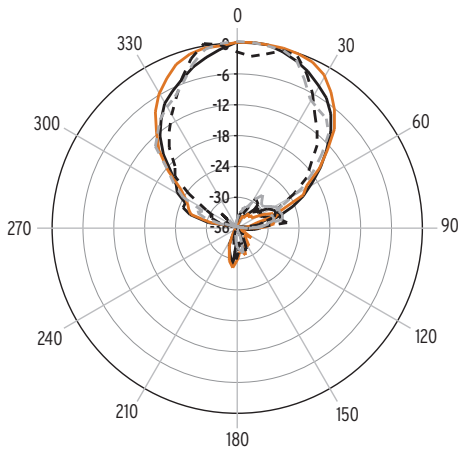
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HORIZONTAL 1/3 OCTAVE POLARS



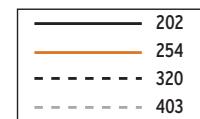
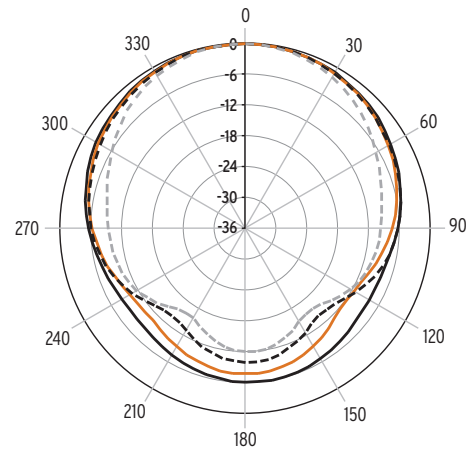
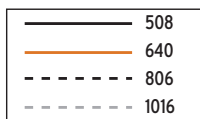
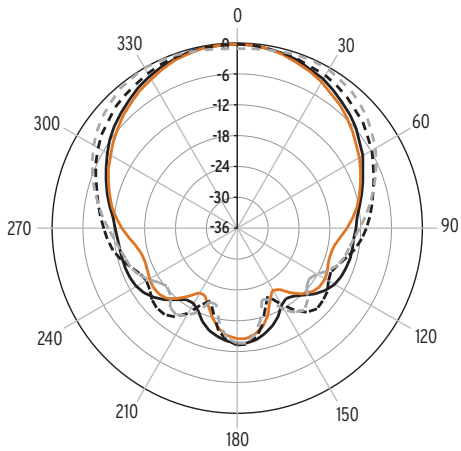
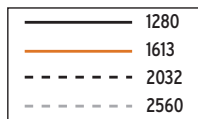
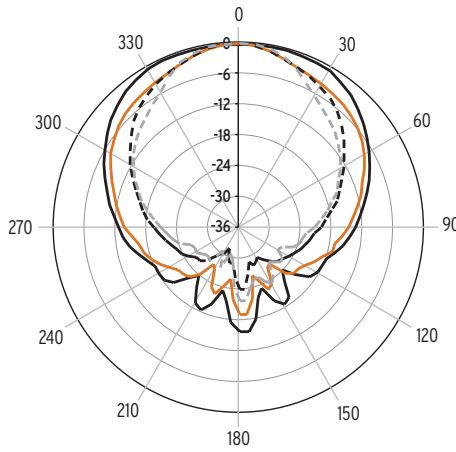
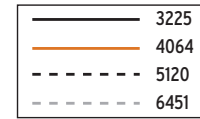
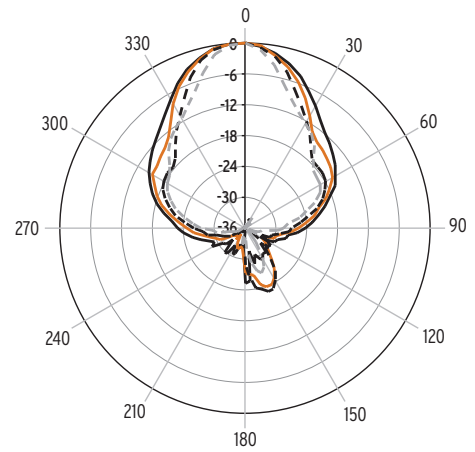
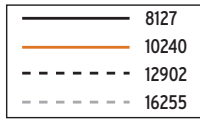
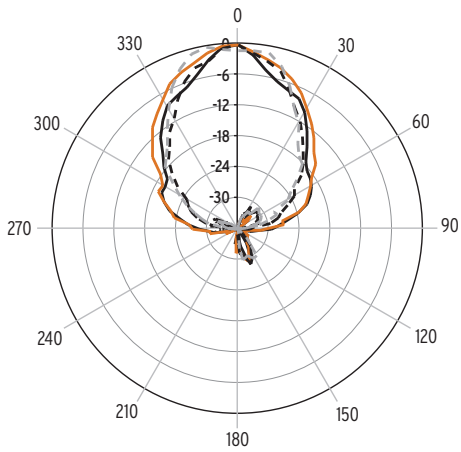
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VERTICAL 1/3 OCTAVE POLARS



KPT-435-B/M

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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?

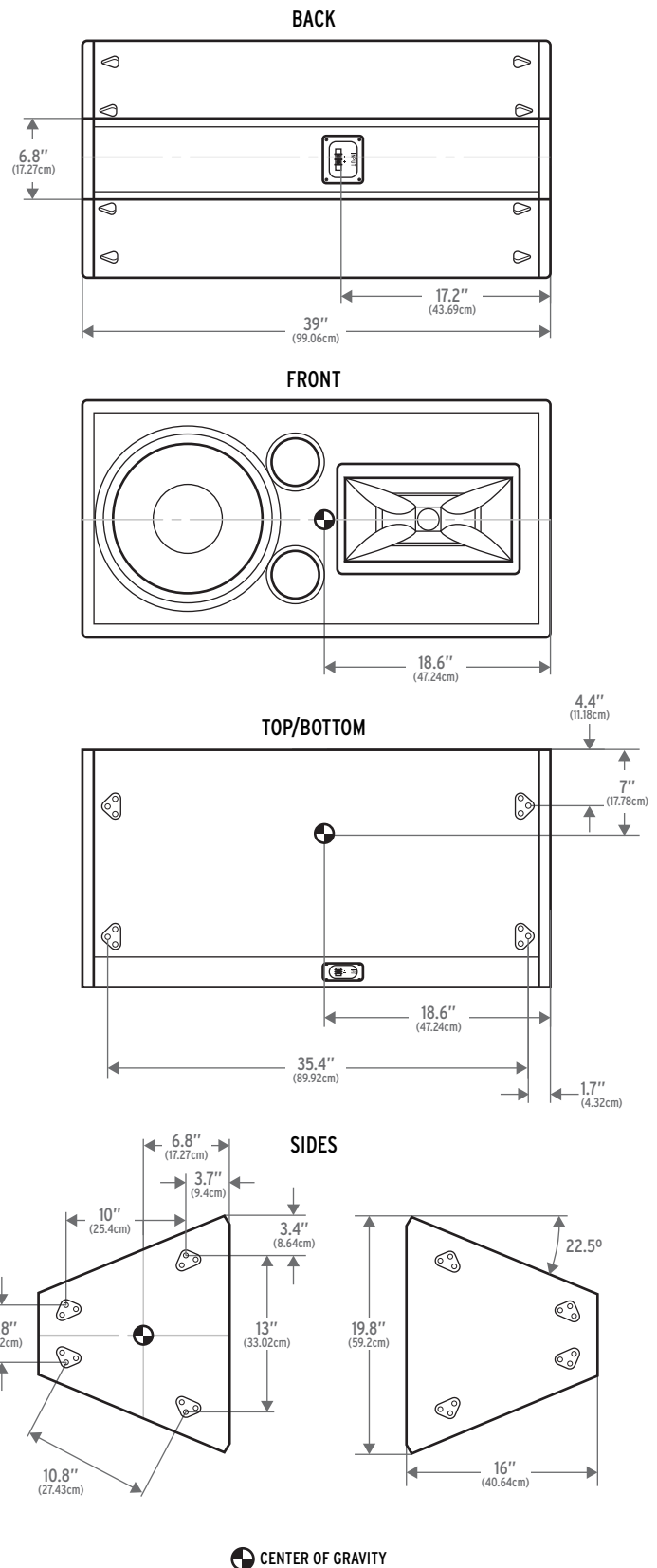
You need to make the best impression, from the initial job quote through the completed installation. We can help choose the best Klipsch speakers for the application and help design a system that unleashes your venue's full potential.

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)