

# KPT-335

3-WAY BEHIND THE SCREEN CINEMA SYSTEM



# Klipsch®

KLIPSCH PROFESSIONAL | CINEMA | DATA SHEET



## RECOMMENDED USE



UP TO  
**175 SEATS** (approximately 2250 ft<sup>2</sup> or 209 m<sup>2</sup>)

## PRODUCT OVERVIEW

Unlike many 3-way behind the screen systems, the KPT-335 is only 12.25" in depth, making it one of the most compact performers in its class. Engineered to save space and deliver superior sound to smaller sized venues, the KPT-335 serves as a high output single 15" 3-way system. It features the KPT-314-LF for enhanced bass output. In order to reproduce the critical dialogue range, this system also features the KPT-335-HF/MF, 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 3-way system in their auditoriums, the KPT-335 lets movie-goers experience the unbridled dynamics and intense realism only Klipsch cinema stage loudspeakers can deliver.

## 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 speaker enclosures are made in the USA, by proud craftsmen in Hope, Arkansas. Just like PWK intended.

## AVAILABLE VERSIONS

### KPT-335-T

Includes passive processor for Tri-amp operation

### KPT-335-B/M

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

## SYSTEM COMPONENTS

	KPT-335-T	KPT-335-B/M
HF/MF	KPT-335-HF/MF-T	KPT-335-HF/MF-N*
LF	KPT-314-LF	KPT-314-LF

\* Includes Passive Processor

## SYSTEM SPECIFICATIONS

FREQUENCY RESPONSE <sup>1</sup> (+/- 3 dB)	50 Hz - 20 kHz
FREQUENCY RANGE (-10 dB)	42 Hz - 20 kHz
SENSITIVITY <sup>2</sup>	103 dB
MAXIMUM SPL <sup>4</sup>	125 dB
HORIZONTAL COVERAGE	90° +/- 20° 1 kHz - 16 kHz
VERTICAL COVERAGE	60° +/- 20° 2 kHz - 19 kHz
DIRECTIVITY INDEX (DI)	8 dB
DIRECTIVITY FACTOR (Q)	6.3
HEIGHT	58" (147cm)
WIDTH	27.25" (69.2cm)
DEPTH	12.25" (31.1cm)
WEIGHT	112 lbs. (51 kg)

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

<sup>2</sup> SPL at 1M, half-space anechoic with 2.83V input

<sup>3</sup> AES standard, continuous pink noise, 6 dB peaks

<sup>4</sup> Calculated at 1M half-space at power handling input

## 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 4 ohms

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RECOMMENDED ACTIVE  
PROCESSOR SETTINGS

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	HF	MF	LF	HF/MF	LF	HF/MF/LF																																																																																													
SENSITIVITY <sup>2</sup>	102 dB	111 dB	102 dB	105 dB	102 dB	103 dB																																																																																													
POWER HANDLING <sup>3</sup>	50W (20V)	50W (20V)	400W (40V)	200W (33V)	400W (40V)	325W (36V)																																																																																													
POWER HANDLING (PEAK)	200W	200W	1600W	800W	1600W	1300W																																																																																													
MAXIMUM SPL <sup>4</sup>	119 dB	128 dB	125 dB	126 dB	125 dB	125 dB																																																																																													
MAXIMUM SPL (PEAK)	125 dB	134 dB	131 dB	132 dB	131 dB	131 dB																																																																																													
NOMINAL IMPEDANCE	8 ohm	8 ohm	4 ohm	5.5 ohm	4 ohm	4 ohm																																																																																													
<div><div><div>HF</div><div>KPT-335-HF</div><table><tr><td>HIGHPASS CROSSOVER</td><td colspan="2">7 kHz Linkwitz Riley 24 dB</td></tr><tr><td>PEQ1</td><td>9 kHz</td><td>Q: 2.2 Gain: +4 dB</td></tr><tr><td>PEQ2</td><td>4.5 kHz</td><td>Q: 4 Gain: -4 dB</td></tr><tr><td>PEQ3</td><td>7.6 kHz</td><td>Q: 4 Gain: +2 dB</td></tr><tr><td>HF DELAY</td><td colspan="2">.23 ms</td></tr><tr><td>OUTPUT GAIN</td><td colspan="2">0 dB</td></tr></table></div><div><div>MF</div><div>KPT-315-MF</div><table><tr><td>HIGHPASS CROSSOVER</td><td colspan="2">1 kHz Linkwitz Riley 24 dB</td></tr><tr><td>LOWPASS CROSSOVER</td><td colspan="2">6.0 kHz Linkwitz Riley 24 dB</td></tr><tr><td>PEQ1</td><td>5.4 kHz</td><td>Q: 3 Gain: +6 dB</td></tr><tr><td>PEQ2</td><td>4.5 kHz</td><td>Q: 6 Gain: +2 dB</td></tr><tr><td>PEQ3</td><td>1.6 kHz</td><td>Q: 3 Gain: -3 dB</td></tr><tr><td>MF DELAY</td><td colspan="2">.04 ms</td></tr><tr><td>OUTPUT GAIN</td><td colspan="2">-5 dB</td></tr></table></div><div><div>LF</div><div>KPT-314-LF</div><table><tr><td>LOWPASS CROSSOVER</td><td colspan="2">1.25 kHz Linkwitz Riley 24 dB</td></tr><tr><td>PEQ1</td><td>600 Hz</td><td>Q: 1.0 Gain: +3 dB</td></tr><tr><td>PEQ2</td><td>1.6 kHz</td><td>Q: 2.4 Gain: -8 dB</td></tr><tr><td>PEQ3</td><td>900 Hz</td><td>Q: 2.0 Gain: +3 dB</td></tr><tr><td>LF DELAY</td><td colspan="2">0 ms</td></tr><tr><td>OUTPUT GAIN</td><td colspan="2">0 dB</td></tr></table></div></div> <div><div><div>HF MF</div><div>KPT-335-HF/MF</div><table><tr><td>HIGHPASS CROSSOVER</td><td colspan="2">880 Hz 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">+1 dB</td></tr></table></div><div><div>LF</div><div>KPT-314-LF</div><table><tr><td>LOWPASS CROSSOVER</td><td colspan="2">980 Hz Linkwitz Riley 24 dB</td></tr><tr><td>PEQ1</td><td>540 Hz</td><td>Q: 2.4 Gain: +3 dB</td></tr><tr><td>PEQ2</td><td>800 Hz</td><td>Q: 2 Gain: +3 dB</td></tr><tr><td>PEQ3</td><td>900 Hz</td><td>Q: 5.5 Gain: +3 dB</td></tr><tr><td>LF DELAY</td><td colspan="2">0.542 ms</td></tr><tr><td>OUTPUT GAIN</td><td colspan="2">0 dB</td></tr></table></div></div>							HIGHPASS CROSSOVER	7 kHz Linkwitz Riley 24 dB		PEQ1	9 kHz	Q: 2.2 Gain: +4 dB	PEQ2	4.5 kHz	Q: 4 Gain: -4 dB	PEQ3	7.6 kHz	Q: 4 Gain: +2 dB	HF DELAY	.23 ms		OUTPUT GAIN	0 dB		HIGHPASS CROSSOVER	1 kHz Linkwitz Riley 24 dB		LOWPASS CROSSOVER	6.0 kHz Linkwitz Riley 24 dB		PEQ1	5.4 kHz	Q: 3 Gain: +6 dB	PEQ2	4.5 kHz	Q: 6 Gain: +2 dB	PEQ3	1.6 kHz	Q: 3 Gain: -3 dB	MF DELAY	.04 ms		OUTPUT GAIN	-5 dB		LOWPASS CROSSOVER	1.25 kHz Linkwitz Riley 24 dB		PEQ1	600 Hz	Q: 1.0 Gain: +3 dB	PEQ2	1.6 kHz	Q: 2.4 Gain: -8 dB	PEQ3	900 Hz	Q: 2.0 Gain: +3 dB	LF DELAY	0 ms		OUTPUT GAIN	0 dB		HIGHPASS CROSSOVER	880 Hz 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	+1 dB		LOWPASS CROSSOVER	980 Hz Linkwitz Riley 24 dB		PEQ1	540 Hz	Q: 2.4 Gain: +3 dB	PEQ2	800 Hz	Q: 2 Gain: +3 dB	PEQ3	900 Hz	Q: 5.5 Gain: +3 dB	LF DELAY	0.542 ms		OUTPUT GAIN	0 dB	
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ACTIVE PROCESSOR SETTINGS  
ARE NOT REQUIRED FOR  
MONO-AMP OPERATION

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 Tri-amp and Bi-amp versions of the KPT-335. Digital Signal Processing is not required for proper configuration of the mono-amp version, 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.

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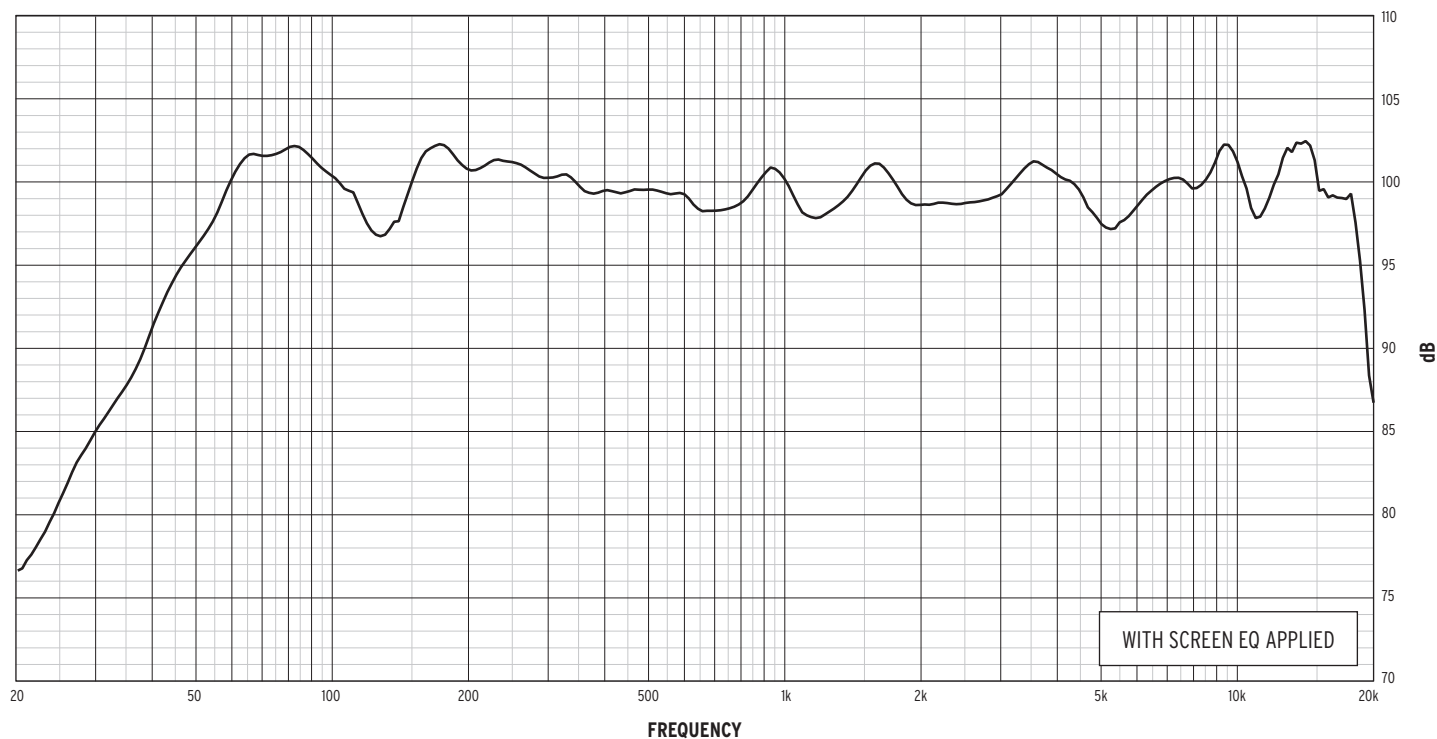
3-WAY BEHIND THE SCREEN CINEMA SYSTEM



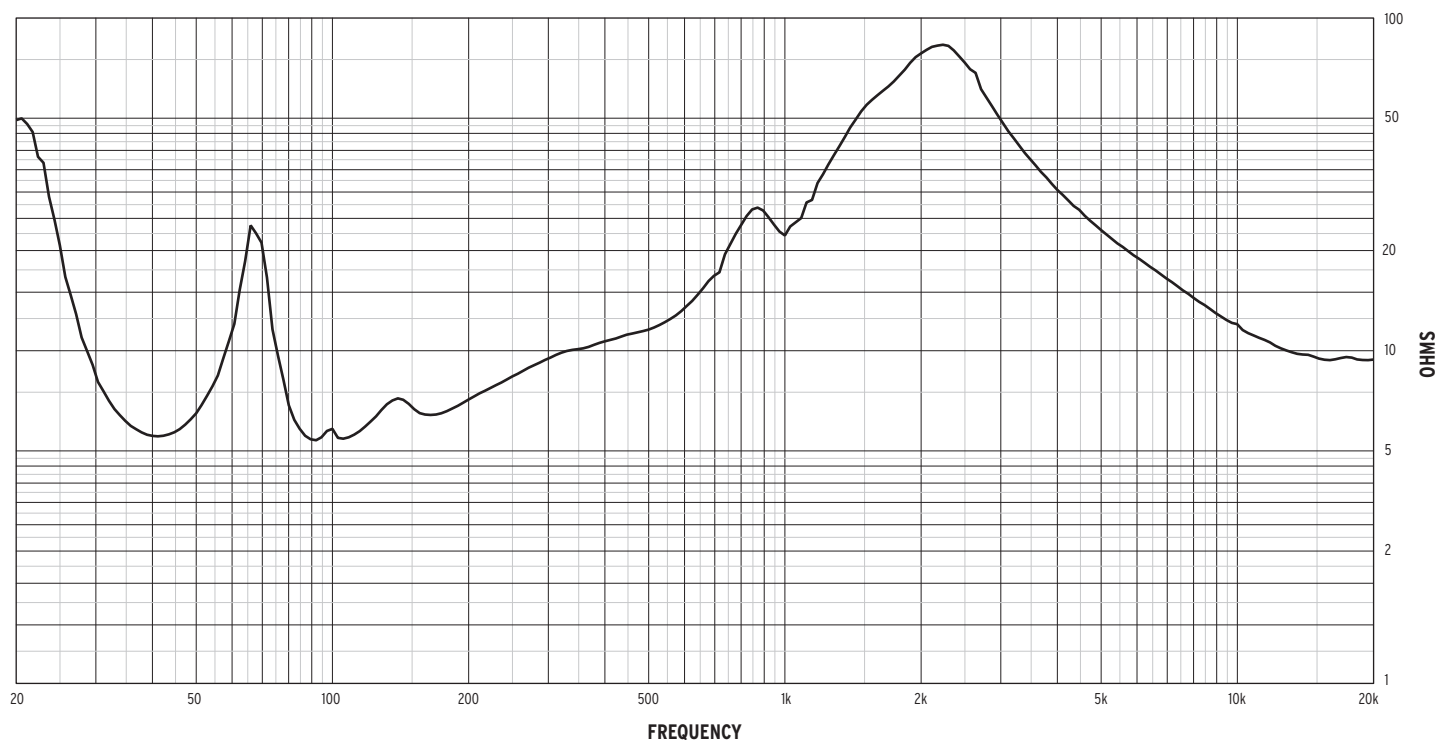
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## FREQUENCY RESPONSE



## IMPEDANCE



# KPT-335

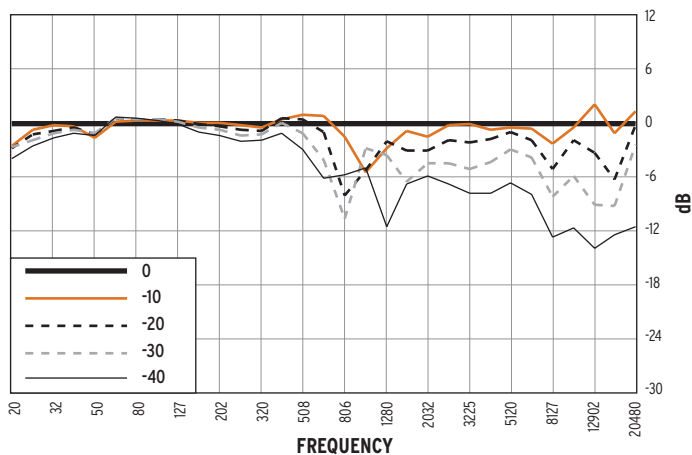
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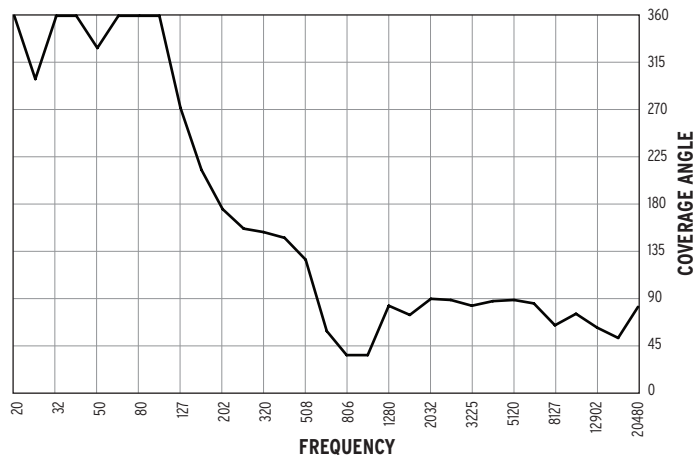
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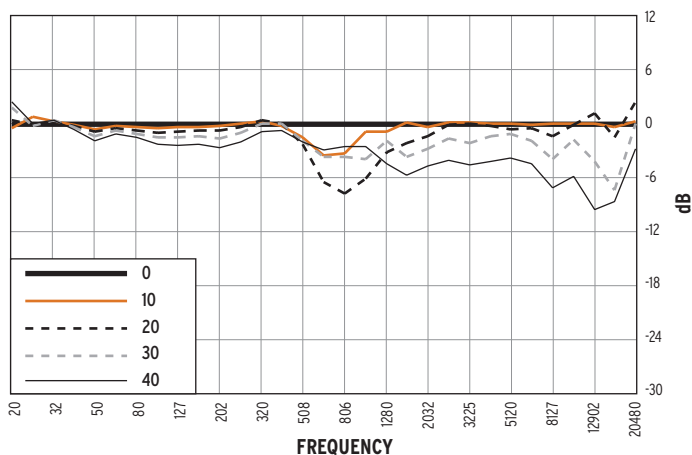
## HORIZONTAL OFF AXIS TRANSFER FUNCTION LEFT



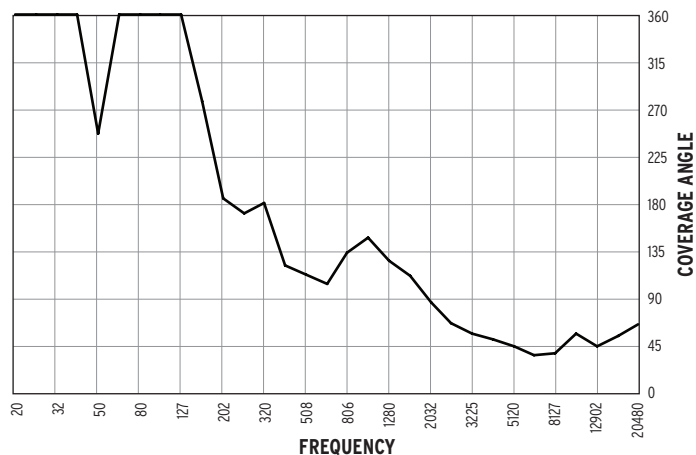
## HORIZONTAL COVERAGE (-6dB)



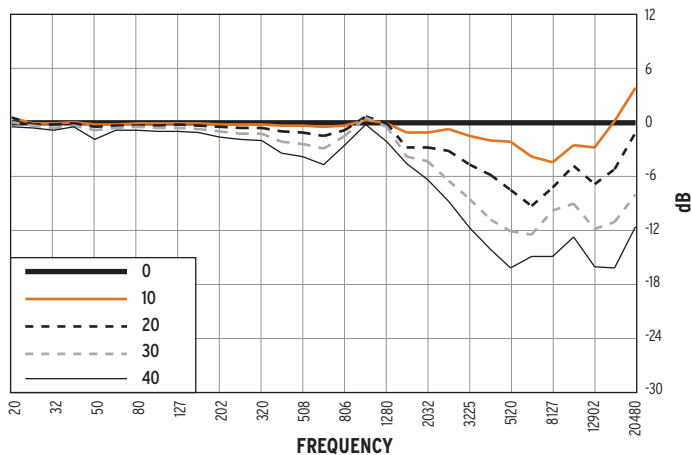
## HORIZONTAL OFF AXIS TRANSFER FUNCTION RIGHT



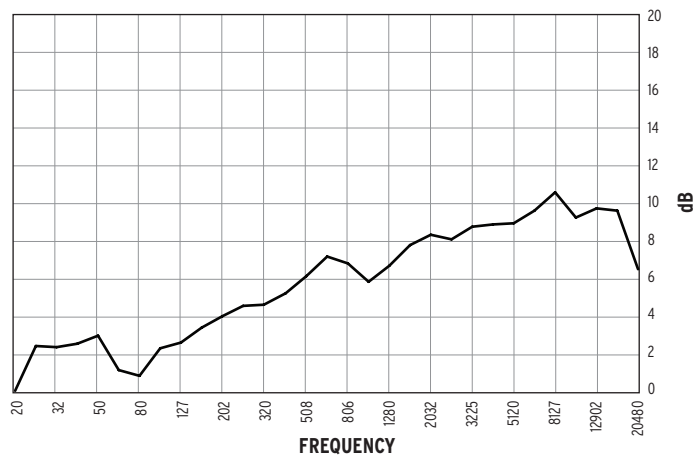
## VERTICAL COVERAGE (-6dB)



## VERTICAL OFF AXIS TRANSFER FUNCTION



## DIRECTIVITY INDEX



# KPT-335

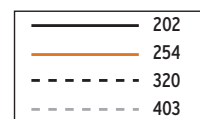
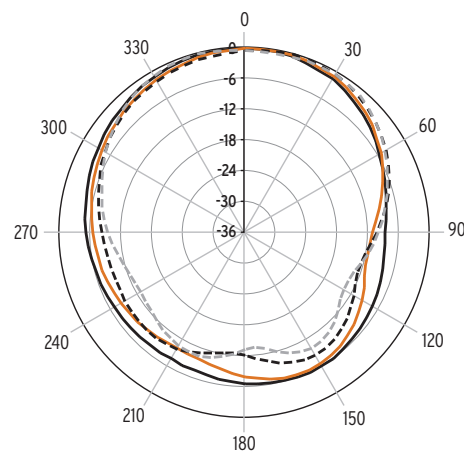
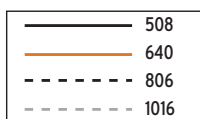
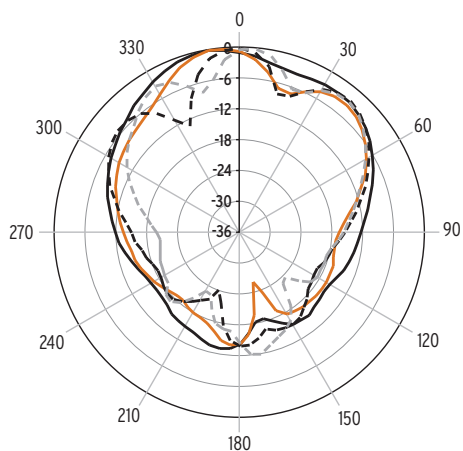
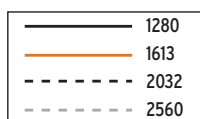
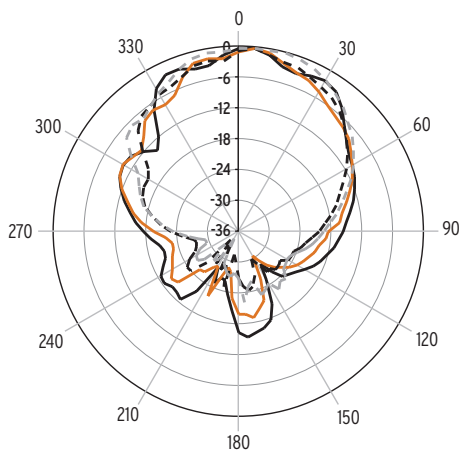
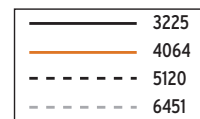
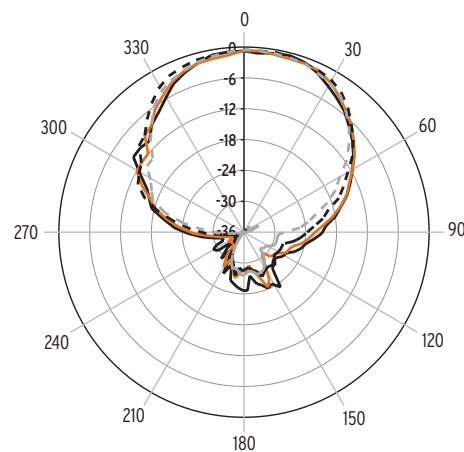
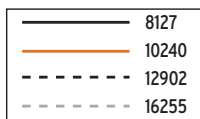
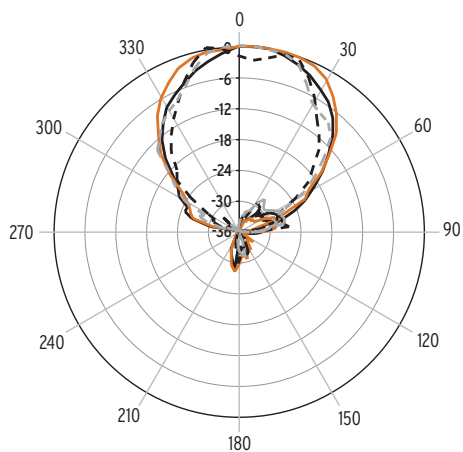
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## HORIZONTAL 1/3 OCTAVE POLARS





# KPT-335

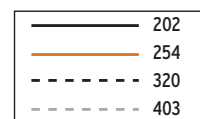
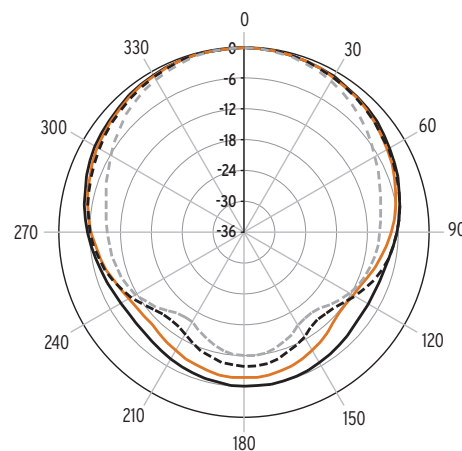
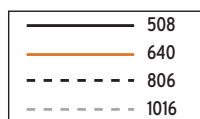
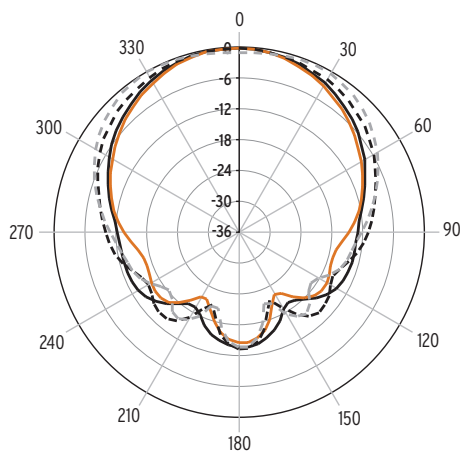
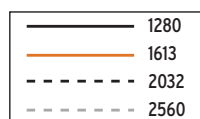
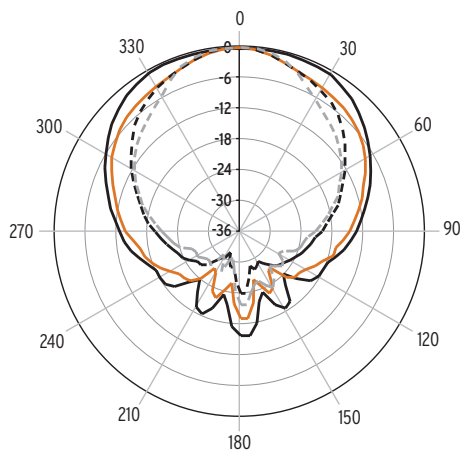
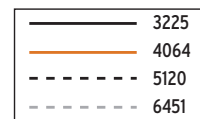
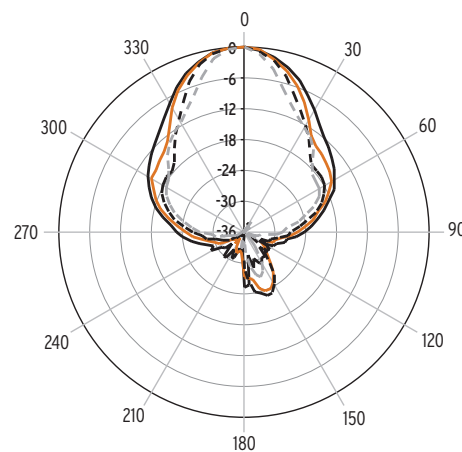
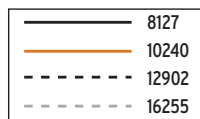
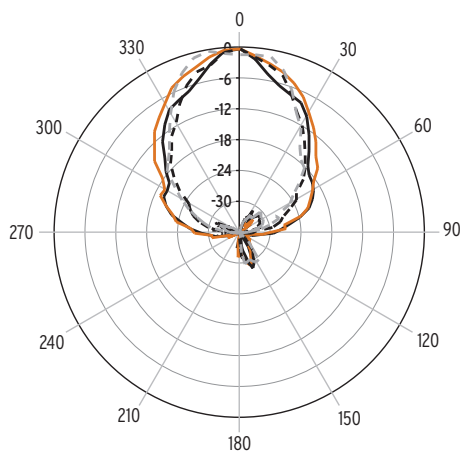
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## VERTICAL 1/3 OCTAVE POLARS



# KPT-335

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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?

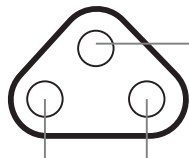
You need to make the best impression, from the initial job quote through the completed installation. We can help choose the best Klipsch speakers for the application and help design a system that unleashes your venue's full potential.

Send us your plans or questions to us at:

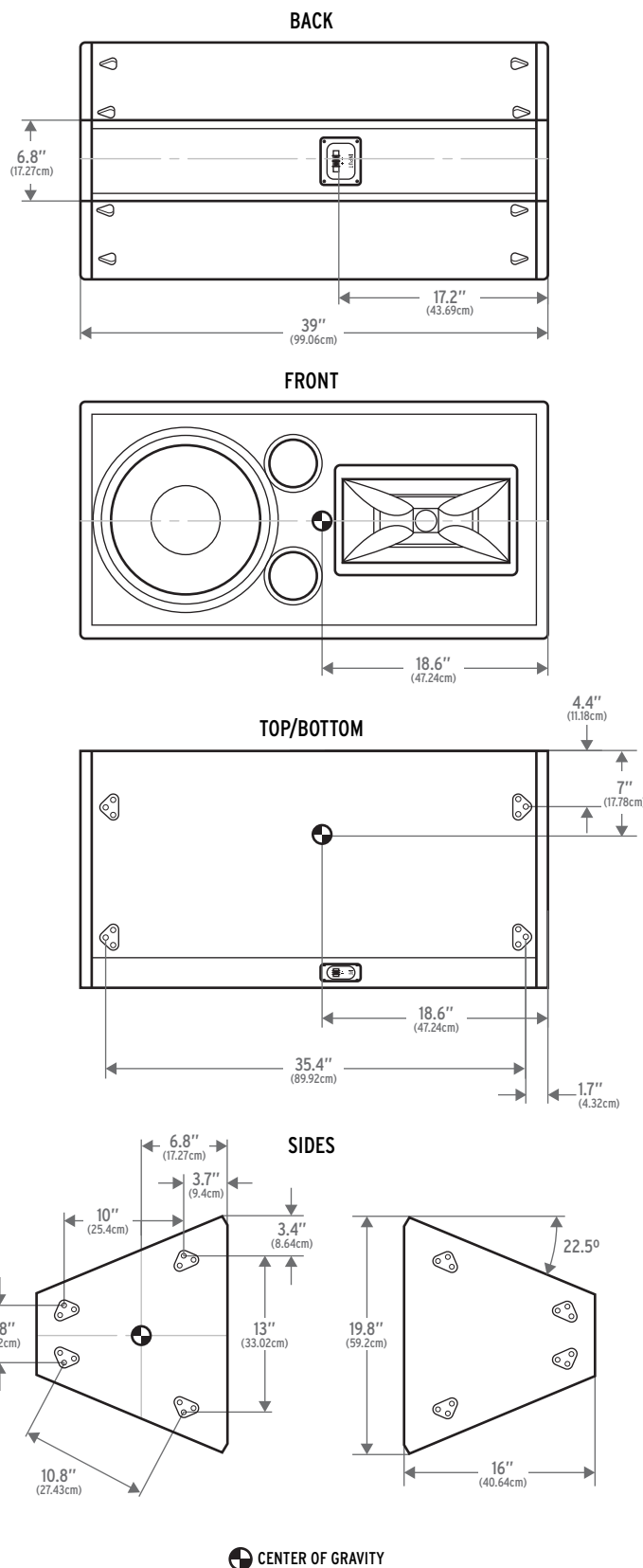
**PROSYSTEMDESIGN@KLIPSCH.COM**

**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



# KPT-335

3-WAY BEHIND THE SCREEN CINEMA SYSTEM



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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)