

KPT-535

3-WAY BEHIND THE SCREEN CINEMA SYSTEM



KLIPSCH PROFESSIONAL | CINEMA | DATA SHEET



RECOMMENDED USE

 **UP TO 350 SEATS** (approximately 5000 ft² or 465 m²)

PRODUCT OVERVIEW

Once movie goes experience the unbridled dynamics and intense realism of the KPT-535, they will have a new favorite theater for life. This THX[®]-certified high-performance screen and stage loudspeaker system, with its 24" depth, allows for more real estate where it matters - in the auditorium.

Embracing the concept of a 3-way system, with direct radiated bass cabinet in a behind the screen application, the KPT-535 utilizes the KPT-904-LF double, 15" low-frequency system.

Reproducing the critical dialogue range is the KPT-402-MF Tractrix[®] horn coupled to the Klipsch K-1133 two inch exit titanium compression driver. The high-frequencies are easily handled by the KPT-Grand HF-T Tractrix horn. 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-535 is available with a passive processor for Bi-amp or Mono-amp operation.

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-535-T

Tri-amp version without passive processor

KPT-535-B

Includes a passive processor for Bi-amp operation

KPT-535-M

Includes a passive processor for Mono-amp operation

SYSTEM COMPONENTS

	KPT-535	KPT-535	KPT-535
HF	KPT-Grand HF-T	KPT-Grand HF-N*	KPT-Grand HF-T
MF	KPT-402-MF	KPT-402-MF	KPT-402-MF
LF	KPT-904-LF	KPT-904-LF	KPT-904-LF
NETWORK	-	-	KPT-535 N2

* Includes passive processor for bi-amp operation

SYSTEM SPECIFICATIONS

FREQUENCY RESPONSE ¹ (+/- 3 dB)	45 Hz - 19 kHz
FREQUENCY RANGE (-10 dB)	32 Hz - 20 kHz
SENSITIVITY ²	106 dB
MAXIMUM SPL ⁴	129 dB
HORIZONTAL COVERAGE	90° +/- 30° 200 Hz - 16 kHz
VERTICAL COVERAGE	60° +/- 30° 300 Hz - 16 kHz
DIRECTIVITY INDEX (DI)	8 dB
DIRECTIVITY FACTOR (Q)	6.3
HEIGHT	81" (206cm)
WIDTH	40.25" (102.2cm)
DEPTH	23.25" (59.1cm)
WEIGHT	215 lbs. (97.6 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

KPT-535

3-WAY BEHIND THE SCREEN CINEMA SYSTEM



KLIPSCH PROFESSIONAL | CINEMA | DATA SHEET

	KPT-535-T			KPT-535-B		KPT-535-M																											
	HF	MF	LF	HF/MF	LF	HF/MF/LF																											
SENSITIVITY²	111 dB	111 dB	105.5 dB	107.5 dB	105.5 dB	106 dB																											
POWER HANDLING³	50W (20V)	90W (27V)	800W (58V)	225W (34V)	800W (58V)	500W (40V)																											
POWER HANDLING (PEAK)	200W	360W	3200W	900W	3200W	2000W																											
MAXIMUM SPL⁴	128 dB	130 dB	131 dB	129 dB	131 dB	129 dB																											
MAXIMUM SPL (PEAK)	133 dB	136 dB	137 dB	135 dB	137 dB	135 dB																											
NOMINAL IMPEDANCE	8 ohm	8 ohm	4 ohm	5 ohm	4 ohm	3 ohm																											
	<p>HF KPT-Grand HF-T</p> <table border="1"> <tr><td>HIGHPASS CROSSOVER</td><td>4.2 kHz Linkwitz Riley 24 dB</td></tr> <tr><td>PEQ1</td><td>3.6 kHz Q: 2.2 Gain: -4 dB</td></tr> <tr><td>PEQ2</td><td>2.5 kHz Q: 2 Gain: -4 dB</td></tr> <tr><td>PEQ3</td><td>3.8 kHz Q: 5 Gain: -3 dB</td></tr> <tr><td>HF DELAY</td><td>0.81 ms</td></tr> <tr><td>OUTPUT GAIN</td><td>0 dB</td></tr> </table>			HIGHPASS CROSSOVER	4.2 kHz Linkwitz Riley 24 dB	PEQ1	3.6 kHz Q: 2.2 Gain: -4 dB	PEQ2	2.5 kHz Q: 2 Gain: -4 dB	PEQ3	3.8 kHz Q: 5 Gain: -3 dB	HF DELAY	0.81 ms	OUTPUT GAIN	0 dB	<p>HF/MF KPT-Grand HF-N MF KPT-402-MF</p> <table border="1"> <tr><td>HIGHPASS CROSSOVER</td><td>500 Hz Linkwitz Riley 24 dB</td></tr> <tr><td>PEQ1</td><td>620 Hz Q: 2 Gain: -1 dB</td></tr> <tr><td>PEQ2</td><td>1.48 kHz Q: 5 Gain: -3 dB</td></tr> <tr><td>PEQ3</td><td>2.3 kHz Q: 7 Gain: -3 dB</td></tr> <tr><td>PEQ4</td><td>3.5 kHz Q: 7 Gain: -2 dB</td></tr> <tr><td>HF DELAY</td><td>0.375 ms</td></tr> <tr><td>OUTPUT GAIN</td><td>+1 dB</td></tr> </table>		HIGHPASS CROSSOVER	500 Hz Linkwitz Riley 24 dB	PEQ1	620 Hz Q: 2 Gain: -1 dB	PEQ2	1.48 kHz Q: 5 Gain: -3 dB	PEQ3	2.3 kHz Q: 7 Gain: -3 dB	PEQ4	3.5 kHz Q: 7 Gain: -2 dB	HF DELAY	0.375 ms	OUTPUT GAIN	+1 dB	<p>ACTIVE PROCESSOR SETTINGS ARE NOT REQUIRED FOR MONO-AMP OPERATION</p>	
HIGHPASS CROSSOVER	4.2 kHz Linkwitz Riley 24 dB																																
PEQ1	3.6 kHz Q: 2.2 Gain: -4 dB																																
PEQ2	2.5 kHz Q: 2 Gain: -4 dB																																
PEQ3	3.8 kHz Q: 5 Gain: -3 dB																																
HF DELAY	0.81 ms																																
OUTPUT GAIN	0 dB																																
HIGHPASS CROSSOVER	500 Hz Linkwitz Riley 24 dB																																
PEQ1	620 Hz Q: 2 Gain: -1 dB																																
PEQ2	1.48 kHz Q: 5 Gain: -3 dB																																
PEQ3	2.3 kHz Q: 7 Gain: -3 dB																																
PEQ4	3.5 kHz Q: 7 Gain: -2 dB																																
HF DELAY	0.375 ms																																
OUTPUT GAIN	+1 dB																																
	<p>MF KPT-402-MF</p> <table border="1"> <tr><td>HIGHPASS CROSSOVER</td><td>400 Hz Linkwitz Riley 24 dB</td></tr> <tr><td>LOWPASS CROSSOVER</td><td>7.6 kHz Linkwitz Riley 24 dB</td></tr> <tr><td>PEQ1</td><td>620 Hz Q: 2 Gain: -1 dB</td></tr> <tr><td>PEQ2</td><td>1.2 kHz Q: 5 Gain: -3 dB</td></tr> <tr><td>PEQ3</td><td>2.4 kHz Q: 6.5 Gain: -4 dB</td></tr> <tr><td>PEQ4</td><td>6 kHz Q: 5 Gain: -3 dB</td></tr> <tr><td>MF DELAY</td><td>0.21 ms</td></tr> <tr><td>OUTPUT GAIN</td><td>-4.5 dB</td></tr> </table>			HIGHPASS CROSSOVER	400 Hz Linkwitz Riley 24 dB	LOWPASS CROSSOVER	7.6 kHz Linkwitz Riley 24 dB	PEQ1	620 Hz Q: 2 Gain: -1 dB	PEQ2	1.2 kHz Q: 5 Gain: -3 dB	PEQ3	2.4 kHz Q: 6.5 Gain: -4 dB	PEQ4	6 kHz Q: 5 Gain: -3 dB	MF DELAY	0.21 ms	OUTPUT GAIN	-4.5 dB	<p>LF KPT-904-LF</p> <table border="1"> <tr><td>LOWPASS CROSSOVER</td><td>450 Hz Linkwitz Riley 24 dB</td></tr> <tr><td>PEQ1</td><td>270 Hz Q: 2.2 Gain: +3 dB</td></tr> <tr><td>PEQ2</td><td>540 Hz Q: 5.5 Gain: -4 dB</td></tr> <tr><td>PEQ3</td><td>700 Hz Q: 4 Gain: -3 dB</td></tr> <tr><td>LF DELAY</td><td>0 ms</td></tr> <tr><td>OUTPUT GAIN</td><td>0 dB</td></tr> </table>		LOWPASS CROSSOVER	450 Hz Linkwitz Riley 24 dB	PEQ1	270 Hz Q: 2.2 Gain: +3 dB	PEQ2	540 Hz Q: 5.5 Gain: -4 dB	PEQ3	700 Hz Q: 4 Gain: -3 dB	LF DELAY	0 ms	OUTPUT GAIN	0 dB
HIGHPASS CROSSOVER	400 Hz Linkwitz Riley 24 dB																																
LOWPASS CROSSOVER	7.6 kHz Linkwitz Riley 24 dB																																
PEQ1	620 Hz Q: 2 Gain: -1 dB																																
PEQ2	1.2 kHz Q: 5 Gain: -3 dB																																
PEQ3	2.4 kHz Q: 6.5 Gain: -4 dB																																
PEQ4	6 kHz Q: 5 Gain: -3 dB																																
MF DELAY	0.21 ms																																
OUTPUT GAIN	-4.5 dB																																
LOWPASS CROSSOVER	450 Hz Linkwitz Riley 24 dB																																
PEQ1	270 Hz Q: 2.2 Gain: +3 dB																																
PEQ2	540 Hz Q: 5.5 Gain: -4 dB																																
PEQ3	700 Hz Q: 4 Gain: -3 dB																																
LF DELAY	0 ms																																
OUTPUT GAIN	0 dB																																
	<p>LF KPT-904-LF</p> <table border="1"> <tr><td>LOWPASS CROSSOVER</td><td>450 Hz Linkwitz Riley 24 dB</td></tr> <tr><td>PEQ1</td><td>270 Hz Q: 2.2 Gain: +3 dB</td></tr> <tr><td>PEQ2</td><td>540 Hz Q: 5.5 Gain: -4 dB</td></tr> <tr><td>PEQ3</td><td>700 Hz Q: 4 Gain: -3 dB</td></tr> <tr><td>LF DELAY</td><td>0 ms</td></tr> <tr><td>OUTPUT GAIN</td><td>0 dB</td></tr> </table>			LOWPASS CROSSOVER	450 Hz Linkwitz Riley 24 dB	PEQ1	270 Hz Q: 2.2 Gain: +3 dB	PEQ2	540 Hz Q: 5.5 Gain: -4 dB	PEQ3	700 Hz Q: 4 Gain: -3 dB	LF DELAY	0 ms	OUTPUT GAIN	0 dB																		
LOWPASS CROSSOVER	450 Hz Linkwitz Riley 24 dB																																
PEQ1	270 Hz Q: 2.2 Gain: +3 dB																																
PEQ2	540 Hz Q: 5.5 Gain: -4 dB																																
PEQ3	700 Hz Q: 4 Gain: -3 dB																																
LF DELAY	0 ms																																
OUTPUT GAIN	0 dB																																

RECOMMENDED ACTIVE PROCESSOR SETTINGS

Digital Signal Processing (DSP) equipment is required for the Tri-amp and Bi-amp versions of the KPT-535. Digital Signal Processing is not required for proper operation of the mono-amp version (KPT-535-M), 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.

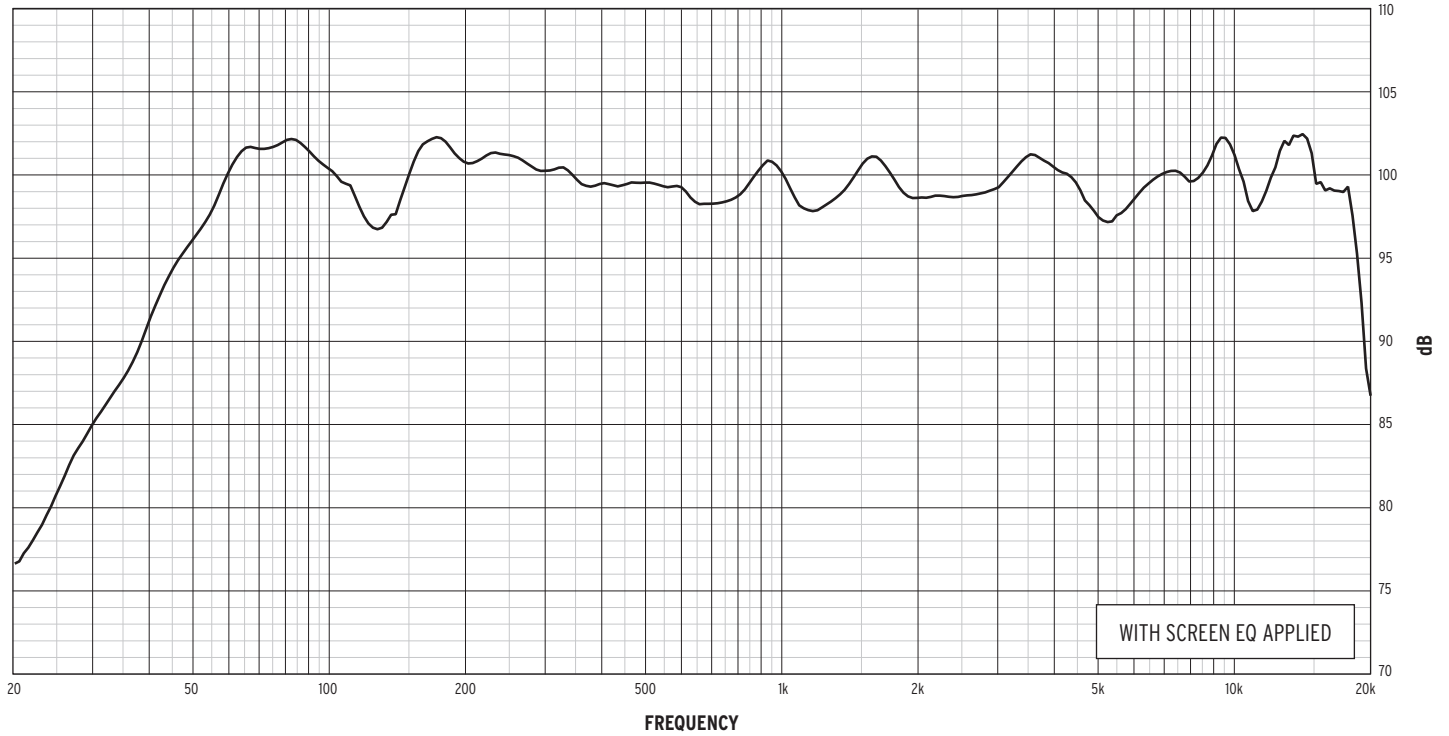
KPT-535

3-WAY BEHIND THE SCREEN CINEMA SYSTEM

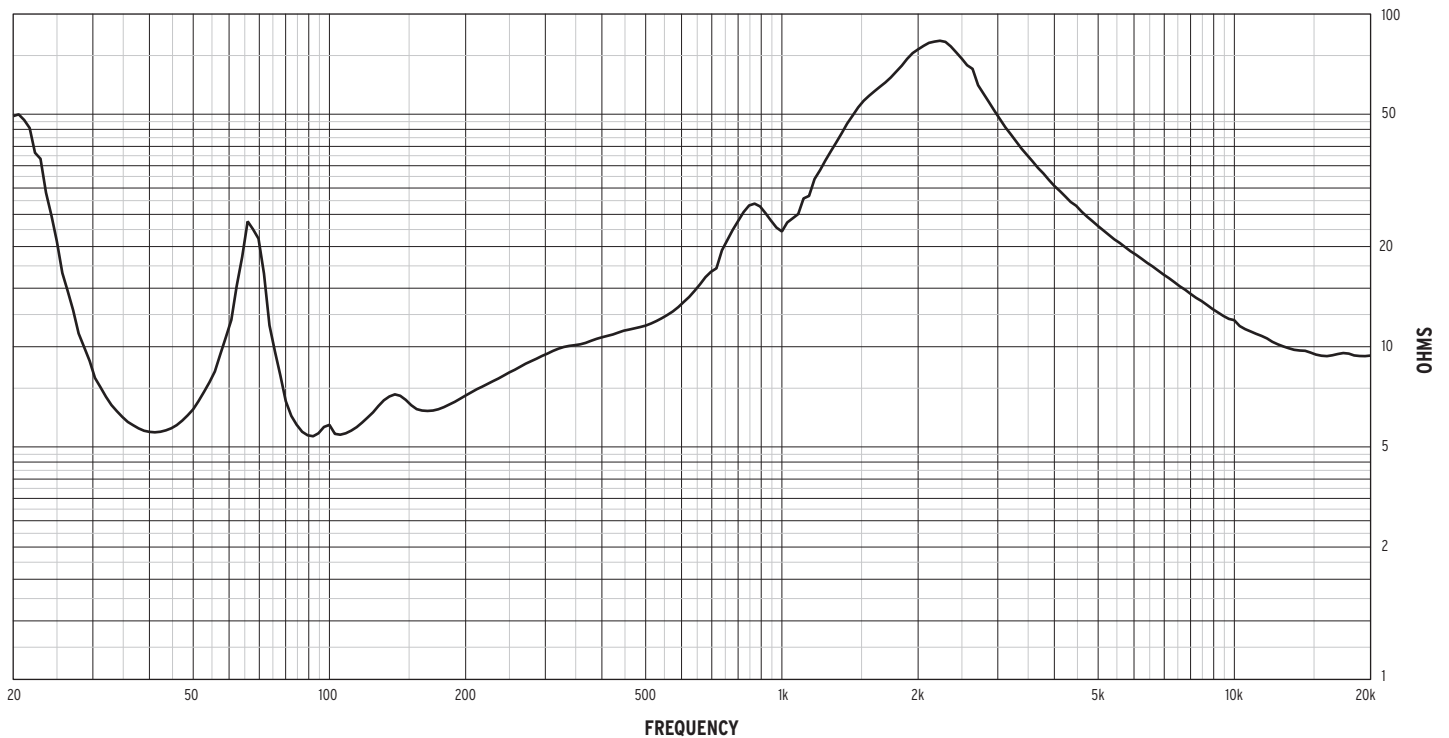


KLIPSCH PROFESSIONAL | CINEMA | DATA SHEET

FREQUENCY RESPONSE



IMPEDANCE



KPT-535

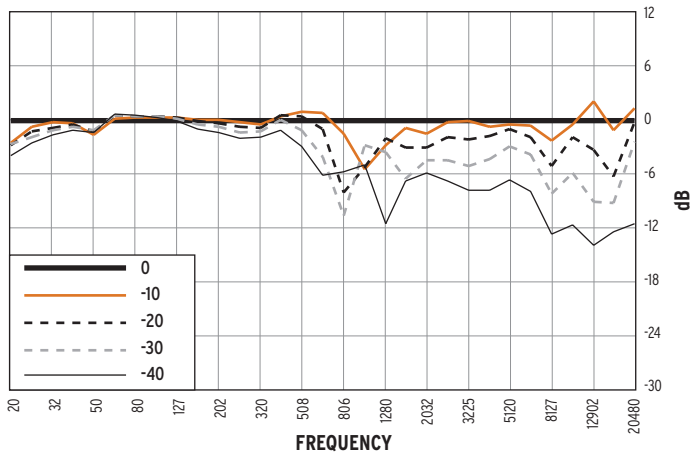
3-WAY BEHIND THE SCREEN CINEMA SYSTEM



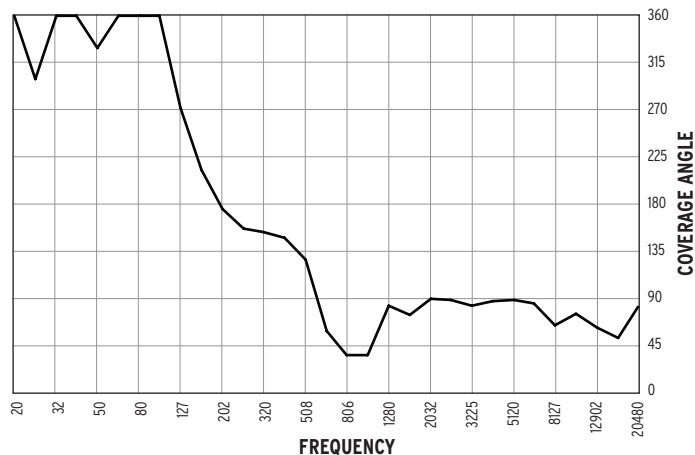
Klipsch

KLIPSCH PROFESSIONAL | CINEMA | DATA SHEET

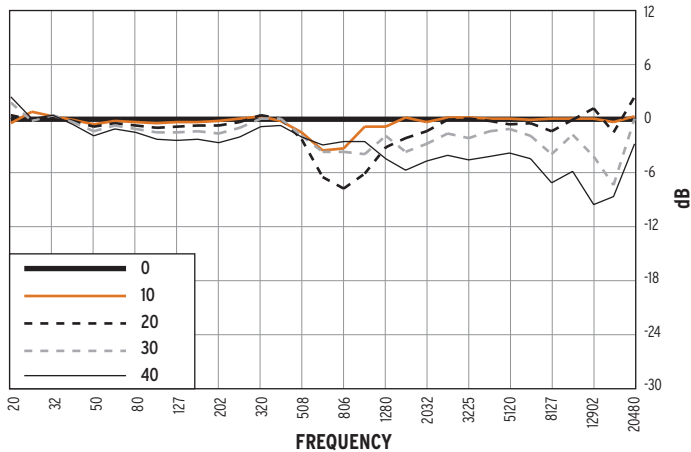
HORIZONTAL OFF AXIS TRANSFER FUNCTION LEFT



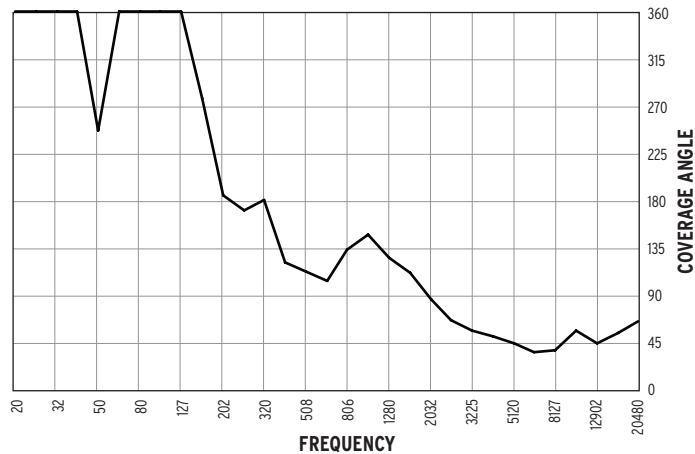
HORIZONTAL COVERAGE (-6dB)



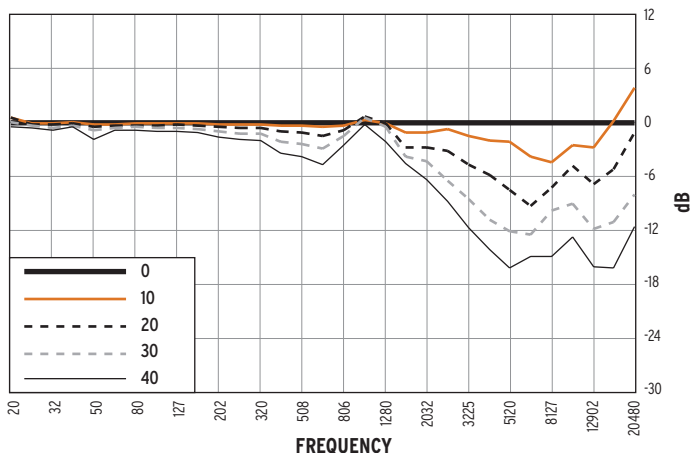
HORIZONTAL OFF AXIS TRANSFER FUNCTION RIGHT



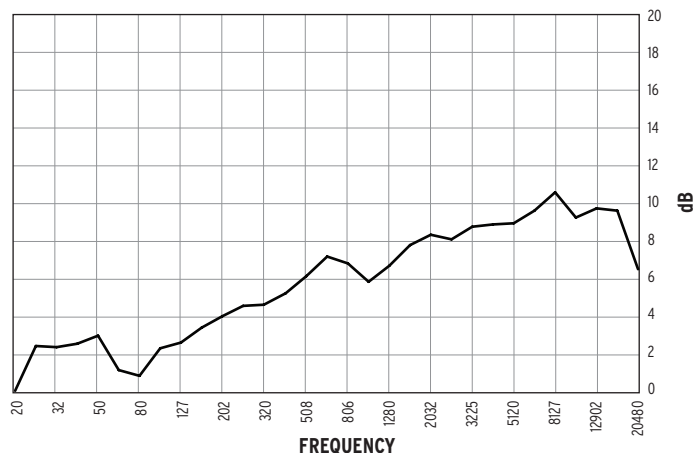
VERTICAL COVERAGE (-6dB)



VERTICAL OFF AXIS TRANSFER FUNCTION



DIRECTIVITY INDEX



KPT-535

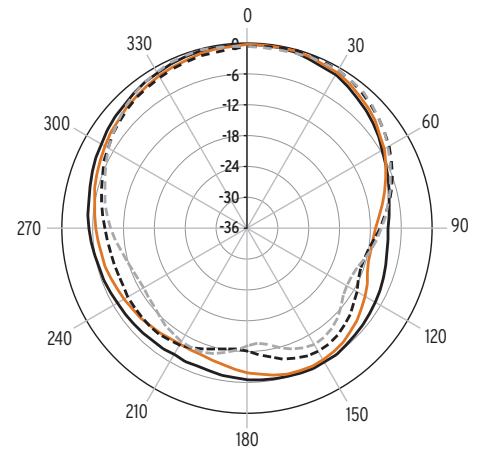
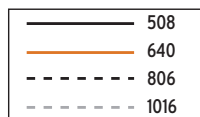
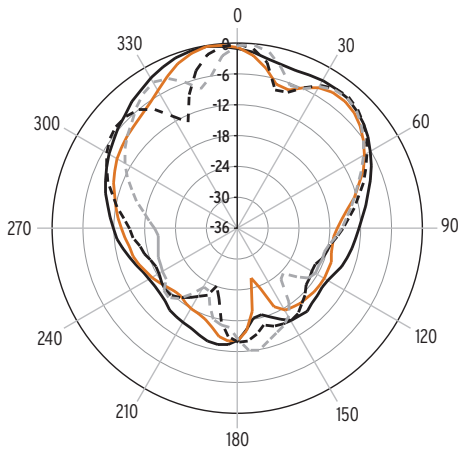
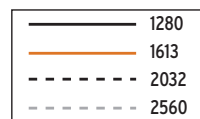
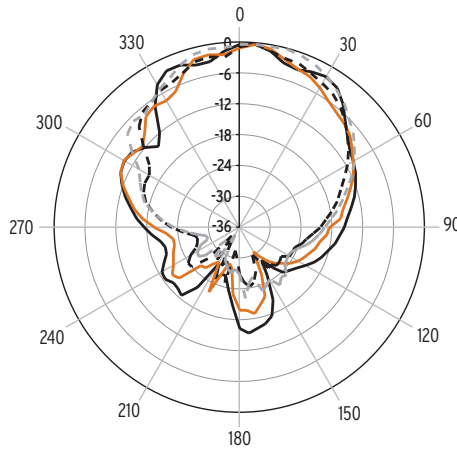
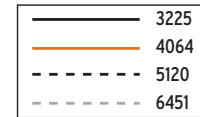
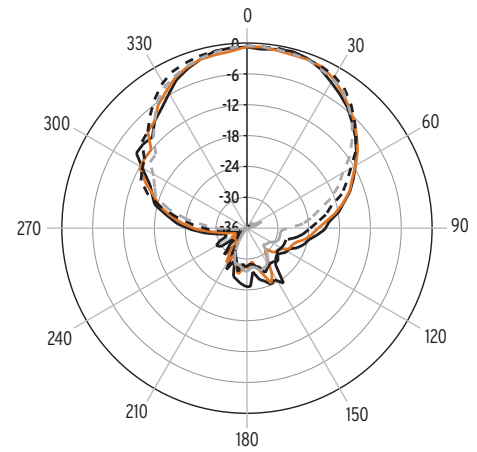
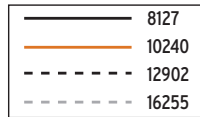
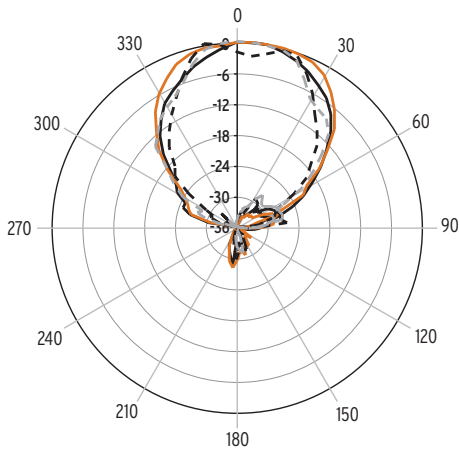
3-WAY BEHIND THE SCREEN CINEMA SYSTEM



Klipsch

KLIPSCH PROFESSIONAL | CINEMA | DATA SHEET

HORIZONTAL 1/3 OCTAVE POLARS



KPT-535

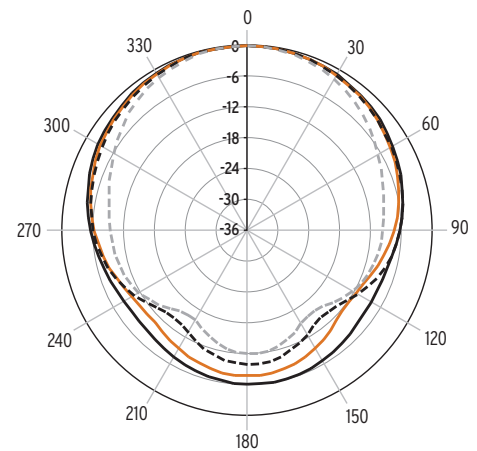
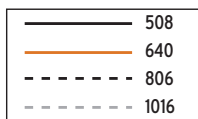
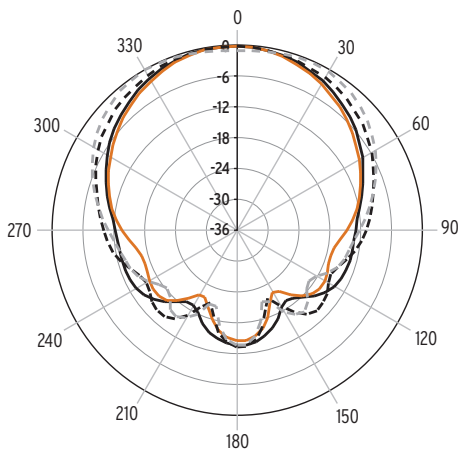
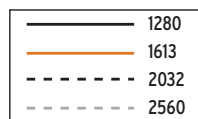
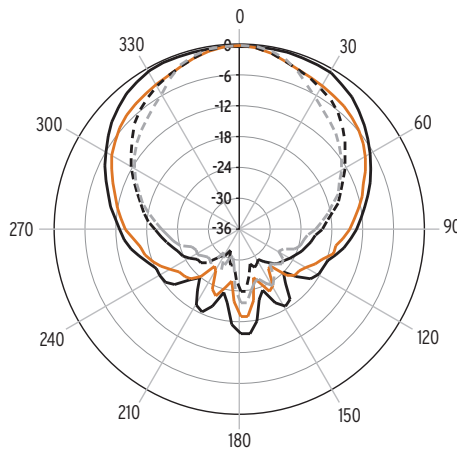
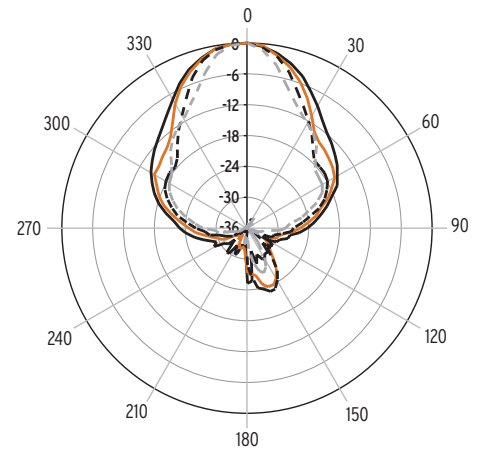
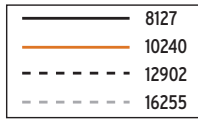
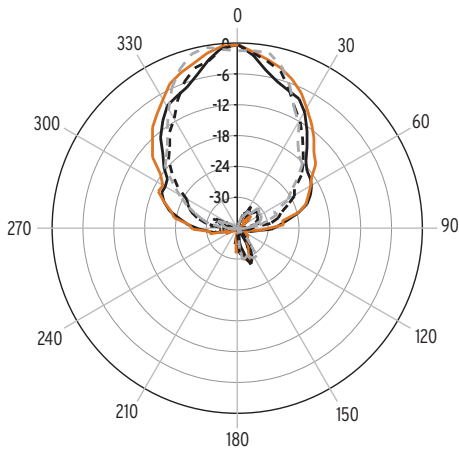
3-WAY BEHIND THE SCREEN CINEMA SYSTEM



Klipsch

KLIPSCH PROFESSIONAL | CINEMA | DATA SHEET

VERTICAL 1/3 OCTAVE POLARS



KPT-535

3-WAY BEHIND THE SCREEN CINEMA SYSTEM



KLIPSCH PROFESSIONAL | CINEMA | DATA SHEET

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?

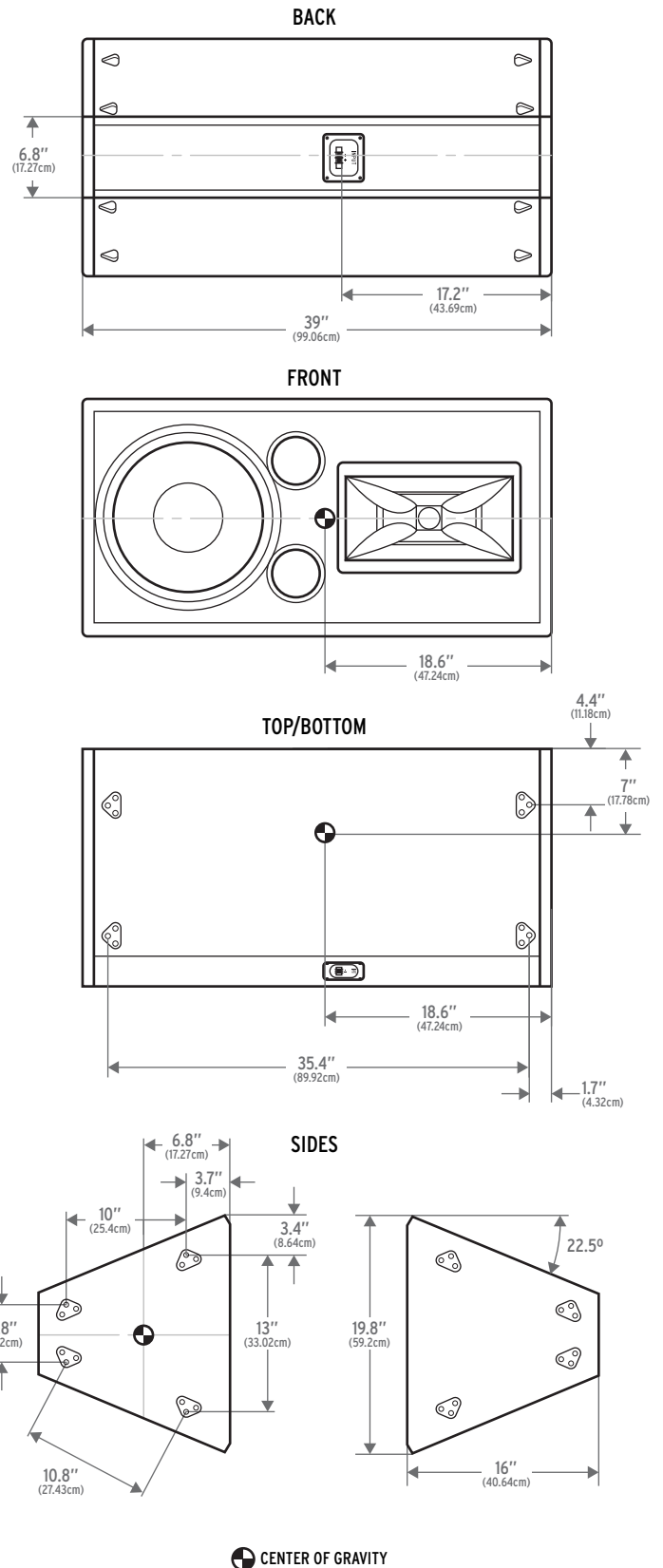
You need to make the best impression, from the initial job quote through the completed installation. We can help choose the best Klipsch speakers for the application and help design a system that unleashes your venue's full potential.

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-535

3-WAY BEHIND THE SCREEN CINEMA SYSTEM



KLIPSCH PROFESSIONAL | CINEMA | DATA SHEET

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)