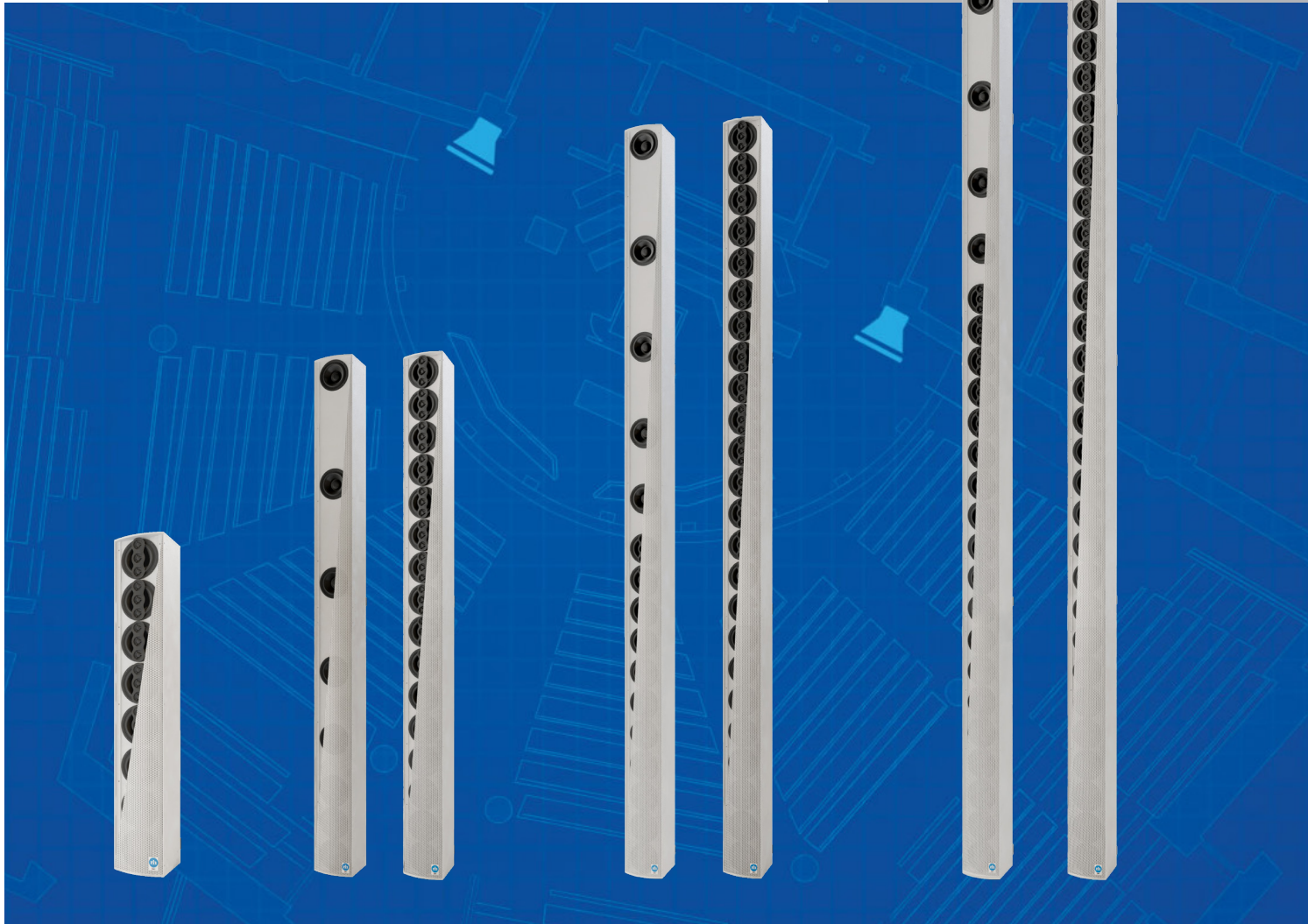


# ICONYX Gen5 Series



The Standard in Digitally Steered Arrays





# ICONYX Gen5

Renkus-Heinz introduced the first ICONYX array in 2004, revolutionizing the audio industry with steerable technology. While others have only recently discovered the power of beam steering, Renkus-Heinz continues to refine and perfect the technology. The ICONYX Gen5 represents the latest in beam steering technology, integrating the power of advanced beam steering algorithms with the intuitive control of our RHAON II System Designer software.

Truly the most flexible, powerful and architecturally seamless, digitally steerable column array on the market, ICONYX brings intelligible sound to even the most demanding acoustic environments. The Renkus-Heinz ICONYX Gen5 Series provides reliable, powerful, steerable sound for larger applications.

ICONYX digitally steerable loudspeaker arrays combine digital control and steering with exceptional audio fidelity. They integrate high-performance acoustic components, advanced audiophile-quality digital electronics, and powerful software in practical,

modular systems that virtually disappear in most applications. Thousands of installations around the world have proven that ICONYX digitally steerable arrays enable both effective communication and expressive musical artistry, even in highly reverberant acoustic environments.

The 5th generation ICONYX arrays introduce faster, more accurate steering, more robust and flexible networking, API control from third-party devices and a new construction reduces system costs.

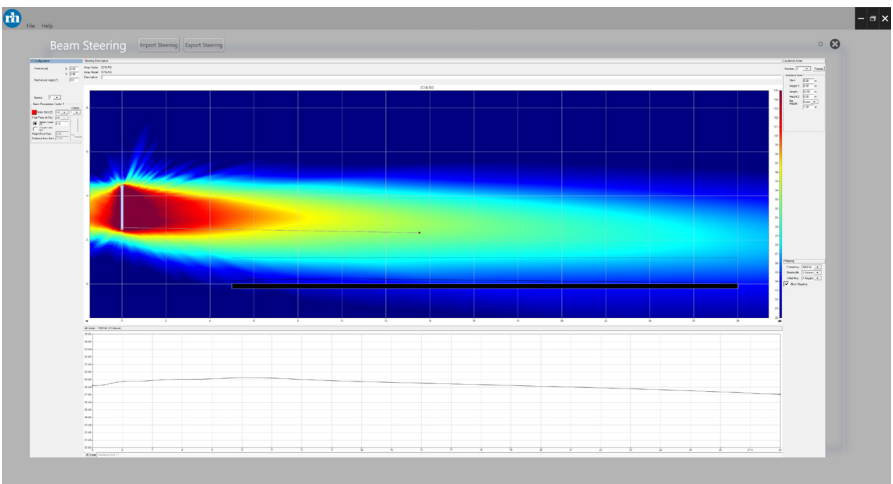


## Beam Steering

Beam Steering technology allows the ICONYX Gen5 Series loudspeakers to tightly control the sound and place it just where it's needed — on the audience — while keeping sound away from other surfaces that may cause echoes and reverberation. Intelligibility is key, and the Renkus-Heinz ICONYX system ensures that every listener receives the best sound possible.

The Renkus-Heinz RHAON II application, which includes Beamware, offers a simple application offers a simple, intuitive interface to a complicated mathematical process. This easy-to-use software allows designers to create multiple beams of sound specifically tailored to a space. Powerful FIR coefficients are calculated and downloaded into the loudspeaker's amplifier module turning the designed beams into reality.

Each driver has its own dedicated amplifier and DSP channel, which, when loaded with the FIR filters, EQ and Delay, create the steerable beams. Beam Steering is a flexible, robust solution that meets the needs of sound system designers and architects alike. No longer is there a compromise between sound quality and visual appeal.





## “Array Within an Array” Triple Tweeter Design

ICONYX Gen5 arrays use state-of-the-art, multichannel digital amplifiers to power advanced, purpose-designed coaxial transducers, each one with its own triple tweeter high-frequency array. The triple tweeter “array within an array” design reduces the distance between high-frequency sources for greatly improved high-frequency performance with consistent broad horizontal dispersion.



## UniBeam technology and algorithms

UniBeam technology makes it possible to achieve ideal “half horn” coverage, using ICONYX digital beam steering to shape the coverage pattern. UniBeam provides seamless coverage to the audience, keeping sound away from walls and ceilings. Tune the beam’s opening angle and intensity to the room with a few mouse clicks to deliver consistent sound level and tonality across the entire room. UniBeam delivers a fast and easy setup with dramatically better results.

## RHAON II System Manager

The RHAON II System Manager software is designed using highly structured modular code for great stability and expandability. RHAON II technology is fast and reliable, with a streamlined, intuitive workflow. RHAON II is easy to program, easy to use, and fully compatible with Gen5 Renkus-Heinz products.

RHAON II’s network-agnostic interface has been designed to work with today’s networking protocols as well as those of tomorrow. Currently supporting AVDECC IEEE1722.1, Dante and AES67, RHAON II has been structured to allow easy implementation of new and emerging protocols. Support for multiple NICs and (where supported) wireless operation makes RHAON II easy to integrate into an existing network infrastructure.

## Dante® Connectivity and Networking

ICONYX-RD versions include Dual Redundant Dante connectivity with audio transport and RHAON II control over the same Dante™ network interface. A Dante audio network replaces the point-to-point analog and digital connections with a standard IP network that delivers completely lossless audio, massive channel counts and near-infinite signal routing flexibility, all while being incredibly easy to deploy and use.





# ICONYX Gen5 Applications



## House of Worship

The ICONYX Gen5 Series helps keep congregation members attentive and engaged in house of worship spaces. Intelligible sound and minimal architectural intrusion keep congregations fully engaged with services, while beam steering technology ensures the sound stays on worshippers in both traditional and contemporary settings.



## Corporate & Government

Collaboration and communication are essential for productive and effective teams. Make better connections—both in-person and remotely—with the ICONYX Gen5 Series. Beam steering technology focuses sound on team members and away from walls, ceilings, and other reflective surfaces for maximum intelligibility and no feedback.



## Transportation

Between wayfinding updates and critical announcements, intelligible sound is essential to bustling public transit centers with challenging acoustics. The ICONYX Gen5 Series provides precise, intelligible sound to train stations, bus centers and airports, so guests can understand important and time-sensitive information. Its optional weather proofing ensures the loudspeaker can operate, even when placed in harsh outdoor environments.



## Performance Spaces

The ICONYX Gen5 Series delivers full-coverage, high-quality sound, enhancing an already moving performance that can be heard by everyone in the audience. ICONYX Gen5 loudspeakers place sound precisely on audience members and away from reflective surfaces and performers, greatly reducing echoes and feedback.



## Education

Ensure lectures are heard—and understood—by all with the ICONYX Gen5 Series. Beam steering technology places sound precisely on students and away from walls and reflective surfaces, so students hear clear, intelligible lessons and instructors don't get feedback. Whether it's in the classroom, lecture hall or the gymnasium, the ICONYX Gen5 Series delivers high-quality sound to students and staff alike.



## Retail

Create an inviting atmosphere in retail spaces with the ICONYX Gen5 Series. Clear, intelligible audio enhances the customer experience by ensuring they receive important alerts and enjoy the store's background music, while beam steering technology guarantees sound is placed directly where it's needed and away from reflective floors and surfaces.



## Convention Centers

Provide visitors with clear, intelligible sound with the ICONYX Gen5 Series. Even in large spaces frequented by hundreds or thousands of visitors, the ICONYX Gen5 Series directs announcements and important information where they're needed for successful event gatherings.



# LAX is ready for takeoff with Renkus-Heinz’ Iconyx Loudspeakers For Controlled Audio Coverage And Intelligibility

After more than six years of design and construction, the new West Gates at Tom Bradley International Terminal at Los Angeles International Airport (LAX) opened in June 2021. The new concourse is located in the central area of the airfield, west of Tom Bradley International Terminal.

The \$1.6 billion addition to LAX features 15 aircraft gates and an interior that’s organized into a series of “neighborhoods,” which each include multiple aircraft gates, a restroom core, and a wide selection of various retail and concession spaces. It also sounds sensational thanks to loudspeaker solutions from Renkus-Heinz.

The audio portion of the 750,000-square-foot concourse construction was critical to LAX as crisp and intelligible sound helps the airport’s millions of annual travelers stay on the move and up to date with important announcements and communications. LAX officials worked with California-based systems integrator, Direct AV, to design and install the gate announcement system for the terminal.

“This is a huge new terminal with the characteristic high ceilings, reflective glass walls, hard reflective floors, and a lot of ambient noise expected from a transportation hub,” said Jeff Barrett, System Design Engineer at Direct AV and

lead point person for the project. “We needed loudspeaker technology that could give us precise beam control and a high level of speech intelligibility while offering a discreet footprint to fit the architectural requirements and constraints; and for that, we turned to the Iconyx beam steering system from Renkus-Heinz.”

The Iconyx Gen 5 arrays from Renkus-Heinz provide an elegant solution to long-standing acoustical challenges — with slim, attractive enclosures that blend into any environment. The system delivers unsurpassed full frequency pattern control via Renkus-Heinz proprietary Unibeam algorithms, which is essential for providing intelligible speech in acoustically challenging spaces.

The Iconyx system’s 4-inch low-frequency transducers and triple 1-inch high-frequency drivers produce more than enough headroom allowing for significant levels above the ambient noise floor. Specifically, the Direct AV team installed a mix of more than 30 Iconyx IC8, IC16 and IC32 arrays within the West Gates. Additional installations of the Iconyx Gen 5 arrays are also planned. Barrett says the system was specifically designed for terminal-wide passenger announcements and gate announcements.

With fine-tuning through Renkus-Heinz software, the system covers all common areas within the terminal, including all gate seating areas and all retail, restaurant, restroom, and concession areas of the concourse.

“Due to architectural constraints, the Iconyx loudspeakers had to be mounted relatively high on the adjacent walls at around 12 feet above the finished floor level. Using conventional loudspeakers would have compromised the direct to reverberant sound – which was not an acceptable compromise – thus, the Iconyx digitally steerable loudspeakers were the perfect solution for this challenging space,” said Garrison Parkin, Western Regional Sales Manager for Renkus-Heinz who worked closely with Barrett on this project. “With Iconyx, we can digitally steer the sound down to the travelers giving them the direct sound element rather than reflected to the walkways— and deliver remarkable sound quality right to where the people are and away from the reflective surfaces.”

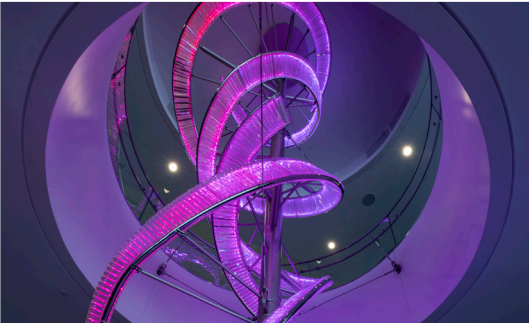
The result of this digitally steerable capability is crisp, intelligible, and perfectly positioned sound solution from Renkus-Heinz – ensuring everyone who needs to hear the sound in the concourse, hears it with clarity.



**Location**  
Los Angeles, CA


**Products Used**  
IC8, IC16, IC32


**Design & Installation**  
Direct AV





# ICONYX Gen5 Series Specifications

				
<b>Frequency Response</b> <b>Sensitivity</b> <b>Horiz. Coverage</b> <b>Vertical Steering</b> <b>Vertical Opening Angles</b> <b>Coverage</b> <b>Peak SPL @30m</b> <b>Beam Control LF Limit</b> <b>Transducers</b> <b>Amp Channels</b> <b>Height</b>  <b>Width</b> <b>Depth</b>  <b>Weight</b> <b>Amplifier</b> <b>Input Impedance</b>  <b>Max Input</b> <b>Power Rating</b> <b>Power</b> <b>Idle</b> <b>1/8 Power</b> <b>1/3 Power</b> <b>Connections</b>	<b>IC8-RN/-RD</b>	<b>IC16-8-RN/-RD</b>	<b>IC16-RN/-RD</b>	<b>IC24-16-RN/-RD</b>
	80 Hz to 20 kHz (-10 dB)	120Hz-18kHz	80 Hz to 20 kHz (-10 dB)	80 Hz to 20 kHz (-10 dB)
	1.4 V (for rated power output)	1.4 V (for rated power output)	1.4 Volt for Rated Power Output	1.4 Volt for Rated Power Output
	150° up to 3kHz, 120° above 3kHz	150° up to 3kHz, 120° above 3kHz	150° up to 3kHz, 120° above 3kHz	150° up to 3kHz, 120° above 3kHz
	+30° to -30°	+30° to -30°	+30° to -30°	+30° to -30°
	20°, 25° & 30°	10°, 15° & 20°	10°, 15° & 20°	10°, 15° & 20°
	65ft / 20m	100ft / 30m	130ft / 40mv	165ft / 50m
	130 dB Peak SPL @1m, 100 dB @30m	130 dB Peak SPL @1m, 100 dB @30m	136 dB Peak SPL @1m, 106 dB @30m	136 dB Peak SPL @1m, 106 dB @30m
	800Hz	400Hz	400Hz	250Hz
	8x4" Coax	3x 4" Coax	16x 4" Coax	11x 4" Coax 5x4"
<b>Indicators &amp; Controls</b>  <b>Finish</b>  <b>Mounting</b>     <b>Options</b> <b>Temperature Limits</b>	8	8	16	16
	37 11/16"	74 3/4"	74 3/4"	111 13/16"
	957mm	1898mm	1898mm	2840mm
	6 1/8" 156mm	6 1/8" 156mm	6 1/8" 156mm	6 1/8" 156mm
	6 1/4" 159mm excluding hinge kit, 7 5/16" 186mm including hinge kit	6 1/4" 159mm excluding hinge kit, 7 5/16" 186mm including hinge kit	6 1/4" 159mm excluding hinge kit, 7 5/16" 186mm including hinge kit	6 1/4" 159mm excluding hinge kit, 7 5/16" 186mm including hinge kit
	36lbs 16.3kg	51lbs 23.1kg	72lbs 32.6kg	87 lbs 39.5kg
	8 channel Class D amplifier with DSP	8 channel Class D amplifier with DSP	8 channel Class D amplifier with DSP	8 channel Class D amplifier with DSP
	Analog Inputs 1&2 > 20K Ohm balanced differential	Analog Inputs 1&2 > 20K Ohm balanced differential	Analog Inputs 1&2 > 20K Ohm balanced differential	Analog Inputs 1&2 > 20K Ohm balanced differential
	+24 dBU, +14 dBU with Boost Engaged	+24 dBU, +14 dBU with Boost Engaged	+24 dBU, +14 dBU with Boost Engaged	+24 dBU, +14 dBU with Boost Engaged
	50W RMS per channel	50W RMS per channel	50W RMS per channel	50W RMS per channel
<b>Indicators &amp; Controls</b>  <b>Finish</b>  <b>Mounting</b>     <b>Options</b> <b>Temperature Limits</b>	Universal 90-260 Volt AC, 50/60Hz	Universal 90-260 Volt AC, 50/60Hz	Universal 90-260 Volt AC, 50/60Hz	Universal 90-260 Volt AC, 50/60Hz
	115V: 0.5A 230V: .25A	115V: 0.5A 230V: .2A	115V: 2.0A 230V: 1.0A	115V: 1.0A 230V: 0.5A
	115V: 1.0A 230V: 0.5A	115V: 1.0A 230V: 0.5A	115V: 1.0A 230V: 0.5A	115V: 2.0A 230V: 1.0A
	115V: 3.5A 230V: 1.75A	115V: 3.5A 230V: 1.75A	115V: 7.0A 230V: 3.5A	115V: 7.0A 230V: 3.5A
	Analog 1 & Analog 2 - Phoenix 6-pin Connector AES\EBU - Phoenix Connector	Analog 1 & Analog 2 - Phoenix 6-pin Connector AES\EBU - Phoenix Connector	Analog 1 & Analog 2 - Phoenix 6-pin Connector AES\EBU - Phoenix Connector	Analog 1 & Analog 2 - Phoenix 6-pin Connector AES\EBU - Phoenix Connector
	Fault Relay - Phoenix Connector	Fault Relay - Phoenix Connector	Fault Relay - Phoenix Connector	Fault Relay - Phoenix Connector
	Ethernet Network - RJ45 Connectors for Control and Dante™ IEC Power Connector	Ethernet Network - RJ45 Connectors for Control and Dante™ IEC Power Connector	Ethernet Network - RJ45 Connectors for Control and Dante™ IEC Power Connector	Ethernet Network - RJ45 Connectors for Control and Dante™ IEC Power Connector
	Network Activity and Link LED indicators Power, Fault, Pad, AES, Signal Preset, Input Clip LED indicators Column Reset Button	Network Activity and Link LED indicators Power, Fault, Pad, AES, Signal Preset, Input Clip LED indicators Column Reset Button	Network Activity and Link LED indicators Power, Fault, Pad, AES, Signal Preset, Input Clip LED indicators Column Reset Button	Network Activity and Link LED indicators Power, Fault, Pad, AES, Signal Preset, Input Clip LED indicators Column Reset Button
	White paint standard, black and custom color options available	White paint standard, black and custom color options available	White paint standard, black and custom color options available	White paint standard, black and custom color options available
	To Wall Mount use the appropriate included Hinge Kit (HK) Suspension via 4x M6 threaded eyebolt points	To Wall Mount use the appropriate included Hinge Kit (HK) Suspension via 4x M6 threaded eyebolt points	To Wall Mount use the appropriate included Hinge Kit (HK) Suspension via 4x M6 threaded eyebolt points	To Wall Mount use the appropriate included Hinge Kit (HK) Suspension via 4x M6 threaded eyebolt points
<b>Indicators &amp; Controls</b>  <b>Finish</b>  <b>Mounting</b>     <b>Options</b> <b>Temperature Limits</b>	Flush and In-Wall mounting guide available	Flush and In-Wall mounting guide available	Flush and In-Wall mounting guide available	Flush and In-Wall mounting guide available
	IP54 Weather Resistant option	IP54 Weather Resistant option	IP54 Weather Resistant option	IP54 Weather Resistant option
	Max.: 140° F/60° C, with no direct sun exposure; Min.: -22° F/-30° C; leave unit on to keep interior warm below 32° F/0° C.	Max.: 140° F/60° C, with no direct sun exposure; Min.: -22° F/-30° C; leave unit on to keep interior warm below 32° F/0° C.	Max.: 140° F/60° C, with no direct sun exposure; Min.: -22° F/-30° C; leave unit on to keep interior warm below 32° F/0° C.	Max.: 140° F/60° C, with no direct sun exposure; Min.: -22° F/-30° C; leave unit on to keep interior warm below 32° F/0° C.

			
<b>Frequency Response</b> <b>Sensitivity</b> <b>Horiz. Coverage</b> <b>Vertical Steering</b> <b>Vertical Opening Angles</b> <b>Coverage</b> <b>Peak SPL @30m</b> <b>Beam Control LF Limit</b> <b>Transducers</b> <b>Amp Channels</b> <b>Height</b>  <b>Width</b> <b>Depth</b>  <b>Weight</b> <b>Amplifier</b> <b>Input Impedance</b>  <b>Max Input</b> <b>Power Rating</b> <b>Power</b> <b>Idle</b> <b>1/8 Power</b> <b>1/3 Power</b> <b>Connections</b>	<b>IC24-RN/-RD</b>	<b>IC32-24-RN/-RD</b>	<b>IC32-RN/-RD</b>
	80 Hz to 20 kHz (-10 dB)	80 Hz to 20 kHz (-10 dB)	80 Hz to 20 kHz (-10 dB)
	1.4 Volt for Rated Power Output	1.4 Volt for Rated Power Output	1.4 Volt for Rated Power Output
	150° up to 3kHz, 120° above 3kHz	150° up to 3kHz, 120° above 3kHz	150° up to 3kHz, 120° above 3kHz
	+30° to -30°	+30° to -30°	+30° to -30°
	5°, 10° & 15°	5°, 10° & 15°	5°, 10° & 15°
	195ft / 60m	230ft / 70m	270ft / 80m
	137 dB Peak SPL @1m, 107 dB @30m	137 dB Peak SPL @1m, 107 dB @30m	139 dB Peak SPL @1m, 109 dB @30m
	250Hz	200Hz	200Hz
	24x 4" Coax	19x 4" Coax	32x 4" Coax
	24	24	32
	111 13/16"	148 7/8"	148 7/8"
	2840mm	3781mm	3781mm
	6 1/8" 156mm	6 1/8" 156mm	6 1/8" 156mm
	6 1/4" 159mm excluding hinge kit, 7 5/16" 186mm including hinge kit	6 1/4" 159mm excluding hinge kit, 7 5/16" 186mm including hinge kit	6 1/4" 159mm excluding hinge kit, 7 5/16" 186mm including hinge kit
	108lbs 48.9kg	123lbs 55.8kg	144lbs 65.3kg
	8 channel Class D amplifier with DSP	8 channel Class D amplifier with DSP	8 channel Class D amplifier with DSP
	Analog Inputs 1&2 > 20K Ohm balanced differential	Analog Inputs 1&2 > 20K Ohm balanced differential	Analog Inputs 1&2 > 20K Ohm balanced differential
	+24 dBU, +14 dBU with Boost Engaged	+24 dBU, +14 dBU with Boost Engaged	+24 dBU, +14 dBU with Boost Engaged
	50W RMS per channel	50W RMS per channel	50W RMS per channel
	Universal 90-260 Volt AC, 50/60Hz	Universal 90-260 Volt AC, 50/60Hz	Universal 90-260 Volt AC, 50/60Hz
	115V: 1.0A 230V: 0.5A	115V: 1.5A 230V: .75A	115V: 2.0A 230V: 1.0A
	115V: 2.0A 230V: 1.0A	115V: 3.0A 230V: 1.5A	115V: 4.0A 230V: 2.0A
	115V: 7.0A 230V: 3.5A	115V: 10.5A 230V: 5.25A	115V: 14.0A 230V: 7.0A
	Analog 1 & Analog 2 - Phoenix 6-pin Connector AES\EBU - Phoenix Connector	Analog 1 & Analog 2 - Phoenix 6-pin Connector AES\EBU - Phoenix Connector	Analog 1 & Analog 2 - Phoenix 6-pin Connector AES\EBU - Phoenix Connector
	Fault Relay - Phoenix Connector	Fault Relay - Phoenix Connector	Fault Relay - Phoenix Connector
	Ethernet Network - RJ45 Connectors for Control and Dante™ IEC Power Connector	Ethernet Network - RJ45 Connectors for Control and Dante™ IEC Power Connector	Ethernet Network - RJ45 Connectors for Control and Dante™ IEC Power Connector
	Network Activity and Link LED indicators Power, Fault, Pad, AES, Signal Preset, Input Clip LED indicators Column Reset Button	Network Activity and Link LED indicators Power, Fault, Pad, AES, Signal Preset, Input Clip LED indicators Column Reset Button	Network Activity and Link LED indicators Power, Fault, Pad, AES, Signal Preset, Input Clip LED indicators Column Reset Button
	White paint standard, black and custom color options available	White paint standard, black and custom color options available	White paint standard, black and custom color options available
	To Wall Mount use the appropriate included Hinge Kit (HK) Suspension via 4x M6 threaded eyebolt points	To Wall Mount use the appropriate included Hinge Kit (HK) Suspension via 4x M6 threaded eyebolt points	To Wall Mount use the appropriate included Hinge Kit (HK) Suspension via 4x M6 threaded eyebolt points
	Flush and In-Wall mounting guide available	Flush and In-Wall mounting guide available	Flush and In-Wall mounting guide available
	IP54 Weather Resistant option	IP54 Weather Resistant option	IP54 Weather Resistant option
	Max.: 140° F/60° C, with no direct sun exposure; Min.: -22° F/-30° C; leave unit on to keep interior warm below 32° F/0° C.	Max.: 140° F/60° C, with no direct sun exposure; Min.: -22° F/-30° C; leave unit on to keep interior warm below 32° F/0° C.	Max.: 140° F/60° C, with no direct sun exposure; Min.: -22° F/-30° C; leave unit on to keep interior warm below 32° F/0° C.



19201 Cook Street, Foothill Ranch, CA 92610-3501, USA

Tel: +1 949-588-9997 • Fax: +1 949-588-9514

Sales@renkus-heinz.com • [www.renkus-heinz.com](http://www.renkus-heinz.com)