

Iconyx Compact Series and Directivity Control



Big performance. Small footprint.

conyx Compact

Renkus-Heinz introduced its first Iconyx array more than 15 years ago. While other manufacturers have only recently discovered the power of beam steering, Renkus-Heinz continues to expand its offerings in the technology.

Iconyx Compact gives integrators even more flexibility in terms of price, performance, and footprint when addressing their most challenging projects. High-performance 3-inch, full-range drivers and state-of-the-art, multi-channel amplifiers, combined with Renkus-Heinz' world-leading experience in beam steering arrays, leads to stellar performance in sizes and price points previously unattainable.

The Iconyx Compact Series brings the performance and directivity of Iconyx to spaces where even the classic lconyx arrays are too large. The very narrow ICC columns disappear into nearly any venue, while the high vertical directivity of the system can penetrate even the most challenging acoustic environments and deliver the exceptional performance of beam steered line arrays not only to

exactly where it is needed but also with concert-quality, full-range sound.

Of course, designing loudspeakers into a room isn't all about acoustics, it's also about aesthetics. All Iconyx Compact models are available in white or black as a standard finish, with custom color matching available. The included interlocking wall-mount brackets are nearly invisible behind the arrays, reducing necessary man-hours for installation, and eliminating room for error when hanging ICC columns on the wall.

And because we're steering the sound, not the loudspeaker. ICC units are all flat mounted against a wall with no vertical angling. Add to this the system's tall, thin dimensions, and the available custom color paint option, the ICC blends seamlessly into any environment.

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Beam Steering

The Renkus-Heinz RHAON II and Beamware applications offer a simple,

intuitive interface to a complicated mathematical process. This easy-to-use software allows designers to create multiple

UniBeam technology makes it possible to achieve ideal "Half beams of sound specifically tailored to the Horn" coverage, using Iconyx digital beam steering to shape space. Powerthe coverage pattern. Point the top of the beam to the back row, and UniBeam will provide seamless coverage to the ful FIR coefficients are calculated and front of the room, keeping sound away from upper walls downloaded into the loudspeaker's and ceilings. Tune the beam's opening angle and intensity to the room with a few mouse clicks, with consistent level and amplifier module turning the designed beams tonality across the entire room. UniBeam delivers a fast and into reality. easy setup with dramatically better results.

Inside the loudspeaker amplifier module, each driver has its own amplifier and DSP channel, which, when loaded with the FIR filters, EQ and Delay, create the steered 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. In addition, all Renkus-Heinz power amplifiers are deliberately designed with zero overall feedback, avoiding any audible transient distortion.

With conventional point-source loudspeakers, achieving optimal coverage is a trade-off between distance and accuracy. UniBeam (Universal Beam) technology simplifies the setup process while maximizing output potential and directivity.

^{⁽Dante[®])}

RHẠỦN II

BEAMWORE 2

Dante Connectivity and Networking

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.

RHAON II System Manager

The RHAON II System Manager software has been completely redesigned using highly structured modular code for greater stability and expandability. The result is a new, more robust RHAON technology that's faster, more reliable, with a streamlined, intuitive workflow. RHAON II is easy to program, easy to use, and compatible with current Renkus-Heinz products.

RHAON II's new 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.

BeamWare II

Incorporated directly into RHAON II is BeamWare II, the latest iteration in Renkus-Heinz' powerful beam steering calculation and simulation program. BeamWare II takes a new, wizard-driven approach to beam steering. Gathering basic room and mounting information from the user, BeamWare II uses enhanced algorithms to automatically calculate the optimal beam design, acoustic centers, and level profiling to deliver reliable, predictable results — fast.

Iconyx Compact Applications









House of Worship

The Iconyx Compact 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.

Education

Ensure lectures are heard—and understood—by all with the lconyx Compact 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 lconyx Compact Series delivers high-quality sound to students and staff alike.

Transportation

Between wayfinding updates and critical announcements, intelligible sound is essential to bustling public transit centers with challenging acoustics. The Iconyx Compact 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.

Corporate & Business

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



Hospitality & Leisure

Whether it's for a hotel, bar or restaurant, casino, or cruise ship, the Iconyx Compact Series delivers intelligible, controlled sound to intimate spaces and enhances the guest experience. Beam steering technology puts sound directly on guests and patrons and avoids reflective surfaces, while the speaker's compact, low-profile design allows it to seamlessly blend with a space's



Convention Centers

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



Retail

Create an inviting atmosphere in retail spaces with the Iconyx Compact 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.

Willamette University Case Study

When the pandemic hit last year, Willamette University looked for ways to expand and improve its remote learning capabilities. The school's 120-seat Paulus Lecture Hall in the College of Law needed a sound system upgrade to facilitate better remote and limited in-person lectures and discussions. Kyle House, the Audio Video Specialist for Willamette University, worked with Cascade Sound in Salem, Oregon, to upgrade the lecture hall's sound system with powerful loudspeakers from Renkus-Heinz.

"Before we implemented the new system, we were using a pretty rudimentary pair of trapezoid box speakers which were put into an alcove above the screen. It was really primitive and ineffective and caused a lot of issues with reflections and feedback and very low intelligibility," said House. "We needed a way to integrate the students in-person with those who are attending over Zoom. We needed a high-quality, highly-controlled audio solution so that way our microphone arrays can work properly in the space so everyone can be heard."

House and the AV team selected a set of ICONYX Compact ICC12/3 arrays from Renkus-Heinz. The ICC12/3 offers the quality and flexibility of an ICONYX array but with a 40 percent smaller footprint. A 12-channel digital amplifier and DSP system powers the unit's 12, 3-inch, fullrange, high-sensitivity drivers. ICONYX Compact utilizes the full suite of RHAON Il and Beamware, the Renkus-Heinz proprietary beam steering calculation and simulation program.

"We chose these speakers because we needed a solution that gave us extreme control over where the sound was placed in the room. This is an extremely challenging room with a fan-shape orientation, as well as stadium-style seating," said House. "We have a lot of elevation change, and we also have a lot of highly reflective surfaces and even parabolic light soffits that were reflecting sound right back to the front of the room. Lapel mics weren't even able to be used in the space."

The ICC12/3 brings the performance and directivity of ICONYX to spaces where the classic ICONYX arrays may be too large. The reduced footprint allows the ICC to blend into the most architecturally sensitive spaces, while the high vertical directivity of the ICC12/3 can tame the most challenging acoustics environments.

"We used the RHAON software to configure the different steering lobes into the space, and it happened extremely quick. We had high intelligibility, great coverage, really quickly," said House. "Having the ability to integrate the speakers and our microphones over Dante has been a huge benefit. We were able to integrate the Audinate devices to send audio around the room to different locations. It's been extremely beneficial and helpful to make this whole system work seamlessly."

With a slim-profile design, the Renkus-Heinz loudspeakers were able to match the aesthetics of the space and were integrated directly onto a nice, woodwall surface in the lecture hall

Founded in 1842, Willamette University in Salem, Oregon, is the oldest university in the Western United States. This innovative university with nearly 2,200 students offers a range of undergraduate and graduate courses in the arts and sciences, and post-graduate schools of business and law.

> "The professors now can use lapel mics without any concern of feedback in the room itself. The remote students can hear clearly because the audio put into the space is being properly controlled. I would recommend Renkus-Heinz to anyone who has a challenging environment or wants the aesthetics that the Renkus-Heinz speakers offer," added House. "They are an absolute necessity when you have an acoustically challenging space, and it's extremely critical to put sound only where you need it and not on reflective surfaces. It's also an excellent solution anytime that high intelligibility is really important."



For unique projects: The DC12/2

Even more compact and easy to install

The DC12/2 ultra-compact, steerable array shares the basic design elements of the ICC models and is ideal for boardrooms, museums and galleries, black box theaters, restaurants, fitness clubs, and other critical applications.

Easily control sound on a smartphone or tablet through RHAPP, the DC12/2's companion app. Set up is simple: Choose from any of several pre-designed presets using an iOS or Android smartphone or tablet to tailor the system for your environment. Connect to the array via Wi-Fi, then select between different directivity options to deliver consistent coverage that dramatically outshines a typical point source, ceiling, or column loudspeaker. Easily installed with the included wall mount, the DC12/2 requires no vertical aiming.

The Directivity Control Series utilizes a specialized implementation of our UniBeam Beam Steering technology that makes it possible to achieve ideal coverage with consistent level and tonality across the entire room with as little set-up time as possible.















Hospitality & Leisure

The DC12/2 loudspeaker completes any indoor/outdoor restaurant or bar experience with clear, outstanding audio when aided with a subwoofer. Whether sound reinforcement is needed to hear the game on TV, play background music, or host intimate live performances, the DC12/2 can handle it all.

Museums

The DC12/2 helps museums tell engaging and educational stories. Beam steering technology puts exceptional audio on visitors and away from reverberant surfaces and interfering background noise, while the loudspeakers' optional weatherized design protects them from inclement weather, sun, salt air, sand, and more in outdoor installations.

Corporate & Business

As the remote workforce continues to grow—and as companies expand their teams around the globe—conferencing solutions have become one of the most important team communication tools. Ensure remote and in-person teams can communicate and collaborate clearly with the DC12/2. Beam steering technology ensures sound is placed precisely on team members and eliminates feedback.

Education

With beam steering technology and a compact size, the DC12/2 array makes a great addition to any K-12 classroom, hallway or gymnasium. The DC12/2 places sound precisely on students and away from walls and reflective surfaces, so students hear clear, intelligible lessons or administrative announcements and can engage fully in school functions.

House of Worship

The DC12/2 array's compact size and beam steering technology make it an exceptional fit for smaller houses of worship. Its lowprofile design honors both traditional and contemporary worship spaces, while its advanced digital beam steering keeps sound on the congregation and away from reflective surfaces - ensuring intelligibility and engagement with the service.

Iconyx Compact Series: Specifications

DC12/2: Specifications



ICC36/3-RN ICC36-RD1 (Dante)

ICC12/3-RN ICC12-RD1 (Dante)

ICC24/3-RN ICC24-RD1 (Dante)

Transducers 36 x 3 in./77 mm, full-range, high sensitivity, treated paper cone driver Connector 2 x Phoenix, In & Loop-out, Analog and AES 2 x RJ45, primary & secondary Ethernet/RHAON/optional Dante Enclosure Folded aluminum

Aiming Angle Adjustable from -30° to +30° Vertical Opening Angles 10° to 30° (computer adjustable)

Weight 52 lbs/23.6 kg

Grille 16 GA powder-coated, plated steel

Mounting W-WALL-IC3 wall mount bracket.

ICC36/3-RN; ICC36-RD1 (Dante)

135 Hz to 17 kHz (- 3dB) 110 Hz to 20 kHz) (-10 dB) Sensitivity 1.4 volt RMS for rated output, analog Calculated Max. SPL 136 dB Peak SPL @1m, 106 dB @30m

Dimensions

Frequency Response

- Finish Black (RAL9011) or White (RAL9010) paint, standard, custom color available
- Mounting W-WALL-IC3 wall mount bracket.
- Dimensions 4-3/8" (111 mm) w; 118-1/8" (3000 mm) h; 4-3/4" (121 mm) d

Dispersion 120° horizontal below 3 kHz, 90° above 3 kHz. x adjustable vertical Beam Control Steerable from 300 Hz and up, Directivity from 150 Hz and up

4-3/8" (111 mm) w; 79" (2006 mm) h; 4-3/4" (121 mm) d

ICC48/3-RN; ICC48-RD1 (Dante)

Frequency Response	135 HZ to 17 KHZ (- 30B)
	110 Hz to 20 kHz (-10 dB)
Sensitivity	1.4 volt RMS for rated output, analog
Calculated Max. SPL	138 dB Peak SPL @1m, 108 dB @30m
Dispersion	120° horizontal below 3 kHz, 90° above 3 kHz. x adjustable vertical
Beam Control	Steerable from 200 Hz and up, Directivity from 100 Hz and up
Aiming Angle	Adjustable from -30° to +30°
Vertical Opening Angles	10° to 30° (computer adjustable)
Transducers	48 x 3 in. / 77 mm, full-range, high sensitivity, treated paper cone driver
Connector	2 x Phoenix, In & Loop-out, Analog and AES
	2 x RJ45, primary & secondary Ethernet/RHAON/optional Dante
Enclosure	Folded aluminum
Grille	16 GA powder-coated, plated steel
Finish	Black (RAL9011) or White (RAL9010) paint, standard, custom color available
Mounting	W-WALL-IC3 wall mount bracket.
Dimensions	4-3/8" (111 mm) w; 157" (3997 mm) h; 4-3/4" (121 mm) d

130 Hz to 20 kHz (-10 dB) 1.4 volt for rated output, analog Directivity from 500 Hz and up Grille 16 GA powder-coated, plated steel Finish Black (RAL9010) or White (RAL9011) paint Dimensions 3-7/8" w x 30-1/2" h x 3-3/4" d | 99 mm w x 775 mm h x 97 mm d



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