

Infinium[®] R1 Receiver

Bluetooth[®] Auracast[™] Receiver for Infinium Systems



Description

Infinium is a professional Bluetooth Auracast broadcast audio system designed for inclusive, multi-stream audio in commercial and public spaces. It delivers low-latency, high-quality audio to unlimited Auracast compatible devices, including hearing aids, cochlear implants, and headphones, while supporting assistive listening compliance with dedicated handheld receivers.

The ergonomically designed Infinium R1 handheld receiver features the industry's largest OLED display for clear visibility, easy access buttons with tactile feedback, and balance control to adjust audio delivery to the left and right ear to match a user's hearing

profile – enhancing speech clarity and intelligibility.

The Infinium R1 receiver supports secure (private) and open (public) audio modes, and flexible receiver tuning lets users scan Auracast streams or focus only on Infinium streams for a simplified experience. Its rechargeable lithium-ion battery provides all-day operation and can be charged via USB or a multi-unit charging dock.

Venues using the complete Infinium system with receivers can achieve ADA compliance for assistive listening, providing an inclusive, accessible environment for people with hearing impairments.

Features

- **Large screen size** – Largest display in its class for improved visibility and intuitive channel selection.
- **Balance control** – Adjust audio settings for enhanced speech clarity and improved intelligibility.
- **Flexible Receiver Tuning** – Scan for all Auracast audio streams or use Infinium priority mode for a simplified listening experience.
- **Flexible broadcast access** – Supports secure (private) and open (public) audio modes.
- **Extended battery life** – Rechargeable lithium-ion battery provides reliable, all-day operation.

Applications

- Assistive/Augmented Listening
- Language Interpretation
- Audio Description

Markets

- Theater/Performing Arts
- Education - classrooms & lecture halls
- Transportation - airports, train stations
- Fitness Centers & Gyms

Infinium® Receiver – Ergonomic, Intuitive Design

Designed for ease of use, the Infinium receiver provides a superior listening experience with an intuitive interface.



Available in Infinium systems or as single purchase.

- **Large, Easy-to-Read Display** – Simplifies channel selection with enhanced visibility.
- **Flexible Receiver Tuning** – Scan all Auracast streams or only Infinium broadcasts.
- **Custom Balance Control** – Adjust left/right audio to match individual hearing needs for improved speech clarity.
- **Ergonomic Design** – Intuitive layout with tactile buttons for easy, confident use.
- **Secure or Open Audio Modes** – Select public or private broadcast channels.
- **Versatile Connectivity** - Compatible with Auracast headphones or earphones, or T-Coils using a neckloop.
- **All-day Battery Life** - Rechargeable lithium-ion battery for extended use.
- **Flexible Charging Options** - Charge via USB or multi-unit docking stations.

Infinium is available in a base package that includes a controller and transmitter or as a system that includes the base package plus receivers, charging station, CAT cable, and signage.

Infinium Controller – Smart System Management

Effortless local or remote management of your Infinium system.

- **Patented Modular Design** – Rack-mount controller provides convenient system access via front panel or web interface, while remote transmitters allow flexible, discreet placement throughout the venue.
- **Scalable System Control** – Manage up to 150 transmitters via controller or web interface; larger deployments supported through network segmentation and additional controllers.
- **Spaces-Based Organization** – Group and manage transmitters by room, zone, or location.
- **Open API** – Integrates with third-party AV control and smart-building systems.
- **Professional Range** – Delivers up to a 100-meter (328 ft) broadcast range with high-quality, low-latency audio.



Infinium Transmitter – Discreet Form Factor

The Infinium transmitter delivers unmatched audio clarity in a compact design, integrating discreetly into any environment for exceptional broadcast performance.



**Also available in black*

- **Single-Cable Installation** – Power, audio, and control delivered over one CAT5 cable between the controller and transmitter.
- **Coordinated Transmitter Coverage** – Array-based architecture enables receivers to seamlessly move between transmitters across large spaces.
- **Dante Connectivity** – Seamless integration with professional AV networks.
- **Low-Profile Form Factor** – Compact design blends into ceilings, walls, or podiums with minimal visual impact.
- **Secure Audio Distribution** – Managed channel creation ensures private audio through 6-digit PIN code protection.

Specifications | Infinium® R1

Includes	<ul style="list-style-type: none"> • Receiver • Lithium Ion (Li-On) Rechargeable Battery • Belt Clip
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GENERAL		AUDIO	
Wireless Connection	Bluetooth Auracast™	Audio Output Power	35 mW max
Bluetooth Version	5.4 LE	Headphone Impedance	32 ohms
Codec	LC3	Frequency Response (+/- 3 dB relative to 1 kHz)	<ul style="list-style-type: none"> • 16 kHz: 100 Hz to 7 kHz • 24 kHz: 100 Hz to 11 kHz • 48 kHz: 100 Hz to 16 kHz
Operating Frequencies	2400 to 2483.5 MHz	Total Harmonic Distortion	< 1%, at 50% volume with 32 ohm load
Range	Up to 328 ft (100 m) in open space using the Infinium BA R1 Receiver	Signal to Noise Ratio	75 dB
Channels	Mono or Stereo	Receiver Sensitivity	-99 dBm
Channel Security	Open or Password protected		
Encryption	AES128-CCM with 128 bit key		

PROGRAMMING AND STATUS	
Power ON Indicator	Power Button with Programmable LED Indicator
Audio Assist User Controls	<ul style="list-style-type: none"> • Volume up/down • Balance Left/Right
Functional User Controls	<ul style="list-style-type: none"> • Power On/Off • Channel Selection • Display Brightness



Specifications | Infinium® R1

Unit	
Dimensions	<ul style="list-style-type: none"> • 3.9" x 2.48" x 0.85" • 99 x 63 x 21.6 mm
Dimensions with Belt Clip	<ul style="list-style-type: none"> • 3.9" x 2.48" x 1.19" • 99 x 63 x 30.2 mm
Unit Weight	3.8 oz (107.7 g)
Shipping Weight	4.5 oz (127.6 g)
Color	Black
Battery Type	Lithium Ion (Li-ion) Camera Style Rechargeable Battery; Field Replaceable
Battery Size	3.7 Vdc, 1200 mAh
Battery Life	> 20 hours
Temperature Range - Operating	<ul style="list-style-type: none"> • +14° F to +104° F • (-10° C to 40° C)
Temperature Range - Storage	<ul style="list-style-type: none"> • -4° F to +122° F • (-20° C to +50° C)
Temperature Range - Charging	<ul style="list-style-type: none"> • +41° F to +114° F • (+5° C to 40° C)
Charging Connections	<ul style="list-style-type: none"> • Dual contacts for use with Infinium Drop In Chargers or • USB-C Connector
Button Controls	<ul style="list-style-type: none"> • Power, Increment, Decrement, CH/BAL, Menu/Select
Display	<ul style="list-style-type: none"> • OLED display • 1.38 x 0.69 in (35.1 x 17.5 mm) • Diagonal: 1.54" (39.2 mm)
Belt Clip	Removable
Audio Output	3.5 mm stereo jack for wired stereo or mono headphones, earphones or neckloops
Approvals	FCC, RoHS3, WEEE, Industry Canada/ISED, CE, UKCA, RCM, CB Scheme
Warranty	2-year parts and labor
USB-C Connection	<ul style="list-style-type: none"> • Power/change (5V @~500 mA) • Firmware Updates

ACCESSORIES	
Audio	<ul style="list-style-type: none"> • Headphones, Earphones and Neckloops • Stereo and Mono supported
Chargers	<ul style="list-style-type: none"> • 2-Bay Drop-in Charger • 6-Bay Drop-in Charger • 12-Bay Drop-in Charger • USB-C Single Charge Kit