

# Infinium™ R1 Receiver

Bluetooth® Auracast™ Receiver for Infinium™ Systems



## Description

Infinium™ is a professional Bluetooth® Auracast™ broadcast audio system designed for commercial AV environments. It delivers low-latency, high-fidelity audio to unlimited Auracast™ enabled devices, including hearing aids, cochlear implants, headphones, and Infinium™ 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 both secure (private) and open (public) audio modes. The receiver's rechargeable lithium-ion battery ensures reliable, 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 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.
- **Ergonomic design** – Comfortable handheld form with large, easy-access buttons with tactile feedback.
- **Flexible broadcast access** – Supports secure (private) and open (public) audio modes.
- **Versatile connectivity** – Compatible with neckloops, headphones, and earphones.
- **Extended battery life** – Rechargeable lithium-ion battery provides reliable, all-day operation.
- **Convenient charging options** – Supports USB charging and multi-unit charging docks.

## 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.

- **Largest display** in its class for easier visibility and channel selection.
- **Ergonomic design** with a large display and easy access buttons with tactile feedback.
- **Balance control** for enhanced listening and audio intelligibility.
- **Secure or open audio modes** – Choose public or private broadcast channels.
- **Compatible with neckloops, headphones, and earphones** for versatile listening.
- **All-day power** with a rechargeable lithium-ion battery.
- **Convenient charging** via USB or multi-unit charging docks.



Available in Infinium™ systems or as single purchase.

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.

- **Flexible Monitoring & Network Management** – Configure and monitor in real-time directly with front panel control or remotely via a web interface.
- **Integrated Dante® Connectivity** – Ensures seamless AV network integration.
- **Secure channel creation** – Provides controlled and reliable audio distribution.
- **Rack-Mount Ready** – Designed for professional installation and easy monitoring.



## 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.



- **Low-profile design** blends discreetly into any space, preserving room aesthetics without disruption.
- **Plug & Play Simplicity, Effortless Setup** – Single CAT cable delivers power and audio, simplifying setup.
- **100-meter (328 ft) range** with the Infinium™ receiver; range may vary for other devices
- **Compatible with Auracast™ enabled headphones, cochlear implants, and earphones** for versatile listening.
- **High-quality, Low-Latency Audio** – Supports stereo and mono transmission.

Specifications | Infinium™ R1

|          |                                                                                                                                   |
|----------|-----------------------------------------------------------------------------------------------------------------------------------|
|          |                                                                                                                                   |
| Includes | <ul style="list-style-type: none"><li>• Receiver</li><li>• Lithium Ion (Li-On) Rechargeable Battery</li><li>• Belt Clip</li></ul> |

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

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

## Specifications | Infinium™ R1

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

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

**NOTE: SPECIFICATIONS ARE SUBJECT TO CHANGE WITH OUT NOTICE**