

Infinium™ CT1 Controller & Transmitter Package

Bluetooth® Auracast™ Broadcast Audio System



Description

Infinium™ by Williams AV is a professional Bluetooth® Auracast™ broadcast audio solution that redefines assistive listening and real-time audio distribution. 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.

Ideal for lecture halls, transportation stations, theaters, and other large venues, the Infinium™ CT1 is a modular system with a discreet transmitter and a rack-mount-ready controller.

The controller integrates smoothly into AV networks, with an analog input and one Dante® input supporting

two Dante® channels. It supports stereo and mono transmission, and users can easily configure, monitor, and troubleshoot via the front panel or web interface.

The transmitter is engineered for effortless installation, requiring just a single CAT cable for power and audio. Its compact, low-profile design preserves room aesthetics without compromising performance, and a 100-meter (328 ft) broadcast range with Infinium™ receivers ensures reliable coverage while secure channel creation protects audio integrity.

With Infinium™, reliable coverage and seamless AV integration deliver professional-grade, inclusive audio for any space.

Features

- **Real-Time Management** – Configure and monitor at the controller or remotely via a web interface.
- **Seamless Transmitter Deployment** – A single CAT cable for both power and audio.
- **Versatile Transmitter Mounting** – Ceiling, wall, or podium installation with omnidirectional audio coverage
- **Multi-Device Compatibility** – Works with Auracast™ enabled hearing aids, cochlear implants, headsets, and Infinium™ handheld receivers
- **Dante® Integration** – Effortlessly connects with professional AV networks.

Applications

- Assistive/Augmented Listening
- Language Interpretation
- Audio Description

Markets

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

Infinium™ Controller – Smart System Management

Effortless local or remote management of your Infinium™ system.

- **Flexible Monitoring & Network Management** – Program and monitor in real-time directly at the controller or remotely via online access.
- **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) broadcast 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.

Infinium™ Receiver – Ergonomic, Intuitive Design

(Not included in Infinium CT1 Package)

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

- **Largest display in its class** for improved visibility and channel selection.
- **Ergonomic design** with a large display and easy access buttons with tactile feedback.
- **Balance control** for enhanced speech clarity
- **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.



Specifications | Infinium CT1 Controller and Transmitter Package

System Components	<ul style="list-style-type: none"> • Controller • Transmitter • Ethernet Cable
Network Connection	<ul style="list-style-type: none"> • Ethernet with digital audio, control and PoE. • Supports direct or network connection with transmitter.

GENERAL	
Wireless Connection	Bluetooth Auracast™
Bluetooth Version	5.4 LE
Codec	LC3
Operating Frequencies	<ul style="list-style-type: none"> • 2400 to 2483.5 MHz • (ISM spectrum band)
Range	<ul style="list-style-type: none"> • Up to 328 ft (100 m) • in open space using the Infinium BA R1 Receiver
Latency (End to End)	<ul style="list-style-type: none"> • < 40 ms using Infinium BA-R1. Other receivers may vary
Channels	2 Mono, 1 Stereo
Channel Security	Open or Password protected
Encryption	AES128-CCM with 128 bit key

User Interfaces	<ul style="list-style-type: none"> • (1x) Hosted Web page via Ethernet Control Port • (1x) 3.12" High Resolution Front Panel OLED Display with push navigation and entry 	DSP Programmable Audio Processor Functions	<ul style="list-style-type: none"> • Compression • High-pass Filter Frequency • Low-pass Filter Frequency • Audio Presets
Audio Input Types	<ul style="list-style-type: none"> • Mic In (Combination XLR & 1/4", Terminal Block) • Line In (Terminal Block x 2, Combination XLR & 1/4") • Dante (Dante Source) 	Compression	Off, 1:1, 1.5:1, 2:1
Audio Output	(1x) 1/4" Headphone/Audio Output jack	High-pass Filter Frequency control	Adjustable Step functions
Sample rates	<ul style="list-style-type: none"> • 16 kHz (Auracast™ Standard) • 24 kHz (Auracast™ Standard) • 48 kHz (Auracast™ High) 	Low-pass Filter Frequency control	Adjustable Step functions
Frequency Response (+/- 3 dB relative to 1 kHz)	40 Hz to 16 KHz	Audio Presets	Music, Voice, and Hearing Assistance



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CONTROLLER	
Dimensions	<ul style="list-style-type: none"> 8.45" W x 5.75" D x 1.72"H (21.5 cm x 14.6 cm x 4.4 cm)
Weight	2.3 lbs (1.04 kg)
Color	Black
Installation Configurations	<ul style="list-style-type: none"> Rack Mount: Standard 19" Rack, one EIA rack space high, 1/2 space wide. 1–2 units can be mounted in a single rack space with optional RPK 005 (single) or RPK 006 (double) Rack Mount Kits Shelf: Can sit on shelf, table, podium, etc.
Temperature Range - Operating	<ul style="list-style-type: none"> +32° F to +122° F (0° C to 50° C)
Temperature Range - Storage	<ul style="list-style-type: none"> -4° F to +158° F (-20° C to 70° C)
Power Button	Push On/Push Off latching power button.
Ethernet Control Port	<ul style="list-style-type: none"> (1x) RJ-45 used for web UI, programming, and status display. Supports CAT 5e cable lengths up to 328 feet (100 meters); 10/100 Base-T
Front Panel Display	<ul style="list-style-type: none"> 3.12" High Resolution OLED Direct Entry UI with button entry programming and status indicator selections.
Dante	(1x) RJ-45 jack
Power Supply	<ul style="list-style-type: none"> Desktop Power Supply; Input: 100-240 VAC, 50/60 Hz. Output: 24 VDC, 750 mA, 18W. 2.5mm ID center positive barrel connector
PoE Power Out	PoE
Compliance Approvals	<ul style="list-style-type: none"> FCC, RoHS3, WEEE, Industry Canada/ISED, CE, UKCA, RCM, CB Scheme
Warranty	2-year parts and labor

TRANSMITTER	
Dimensions	<ul style="list-style-type: none"> 4.7" W x 5.0" D x 1.19"H (11.9 cm x 12.7 cm x 3 cm)
Weight	0.4 lbs (0.18 kg)
Color	White
Installation Configurations	<ul style="list-style-type: none"> Ceiling Mount Wall Mount Shelf
Temperature Range - Operating	+32° F to +122° F (0° C to 50° C)
Temperature Range - Storage	<ul style="list-style-type: none"> -4° F to +158° F (-20° C to 70° C)
Power	PoE (Input)
Connection	RJ-45 (1x) for audio, control and PoE
Power ON Indicator	Programmable LED
Transmitter Power Output	Programmable
Compliance Approvals	<ul style="list-style-type: none"> FCC, RoHS3, WEEE, Industry Canada/ISED, CE, UKCA, RCM, CB Scheme, Gitecki (Japan)
Warranty	2-year parts and labor

Cable	
Ethernet Cable	<ul style="list-style-type: none"> 10' - CAT 5e Ethernet; 10/100 Base-T IEEE 802.3 compliant

NOTE: SPECIFICATIONS ARE SUBJECT TO CHANGE WITH OUT NOTICE