

Auri[™] Architectural Specification

General

The system shall provide a complete assistive listening system, utilising Auracast[™] Broadcast Audio technology and allowing an unlimited number of users to receive the audio stream.

The system components shall include an installed transmitter, dedicated receivers and docking stations under a single brand.

The Auracast[™] transmitter and Auracast[™] receivers shall be qualified to the Public Broadcast Profile (PBP) specification through the Bluetooth[®] Qualification Process.

There shall be a PC based system management application capable of discovering and configuring all transmitters and docking stations over the network. Receivers shall be capable of being configured via the network attached docking station.

All network communication shall be encrypted and require authentication prior to modifying any device settings.

The system shall support both open and encrypted streams, with options for Standard and High Quality audio, as well as mono and stereo configurations.

The end-to-end latency of the system with dedicated receivers shall be less than 40 milliseconds in all Auracast[™] Standard Quality configurations.

The system shall support configuration of multiple transmitters for larger spaces in a way that allows for receivers to connect to alternate transmitters without any user interaction.

The system shall be Auri[™], powered by Ampetronic and Listen Technologies.



Transmitter

The transmitter shall have two (2) Euroblock connectors, providing balanced analogue inputs, selectable between microphone or line level with individually switchable 24V phantom power.

The transmitter shall have an RJ45 connector to support PoE, network discovery, configuration and firmware updates from the system management application. The network interface shall also support sending and receiving of proprietary network audio streams between multiple transmitters.

The transmitter shall have a factory Dante option, enabling the two inputs to be individually switched between analogue and Dante. Dante shall be supported by a separate RJ45 connector.

The transmitter shall support configuration of the two audio inputs in either single mono, mono sum, or stereo pair per stream.

The transmitter shall have a third Euroblock connector, providing a mono, line level, balanced analogue output.

The transmitter shall have two BLE radios capable of broadcasting separate audio streams with individual control over broadcast name, encryption, mono or stereo and sample rate.

The transmitter shall support broadcast of 16kHz, 24kHz and 48kHz sample rates.

The transmitter shall have the ability to attenuate output power to improve privacy and coexistence when used in smaller coverage areas.

Each stream shall have individually switchable AGC and low-cut controls.

The transmitter shall include a detachable bracket with mounting holes that support standard North American and European electrical boxes as well as VESA 75x75.

The transmitter shall be capable of being powered by both PoE IEEE 802.3af and USB-C.

The transmitter shall be an Auri TX2N.

Receiver

The system shall include dedicated receivers for users without Auracast™ enabled devices.

The receiver shall have the option of being lanyard or belt clip worn and the lanyard shall incorporate an integrated neck loop for compatibility with T-coil hearing aids. The receiver shall be intelligent and provide customized audio to either earphones or the integrated neck loop based upon which is connected.

The receivers shall have two (2) 3.5mm TRRS connectors to drive the integrated neck loop lanyard or up to two (2) standard mono or stereo earphones.

The receiver shall use a rechargeable Lithium Polymer battery and support charging via USB-C or docking station.

The receiver shall support configuration and firmware updates by the system management application via the docking station.

The receiver shall be able to store predefined connection information including broadcast name and encryption key for up to 32 Auracast™ streams.

The receiver shall have a 128 x 64 pixel OLED display that supports scanning and selection of stream, display of connected stream information and display of receiver information such as battery status and volume level.

The receiver shall measure no more than 90 x 52 x 16mm (without belt clip) and weigh no more than 90g.

The receivers shall be an Auri RX1.

Docking Stations

There shall be docking stations available to support either 4 or 16 receivers.

The docking stations shall be capable of charging and programming all docked receivers.

The docking stations shall have an RJ45 connector to support network discovery, configuration and firmware updates of both the docking station itself and any docked receivers from the system management application.

The docking stations shall store receiver configuration information and support transfer of this to docked receivers from the system management application or from a button press on the docking station.

The unit's power supply shall accept an input voltage of 100 to 240 VAC, 50/60 Hz and shall deliver 12 VDC, 5 A at 60 watts to the docking station.

The docking stations shall be Auri D4 or Auri 16.

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