

## CORE

WISPEAK – WIRELESS PRO AUDIO

Transmitter Master Unit



## PRODUCT OVERVIEW

WiSpeak CORE is the transmitter device that communicates with all the receiver devices to create a WiSpeak wireless network, and takes the role of the Master Unit.

Its main functions are to pair and send audio contents to all the receivers (TUBE, CUBE), keeping a stable communication with them, and send also individual configuration commands to each receiver if desired. It also takes care of the global configuration of the system: audio inputs in use, equalization, output levels, etc.

CORE is the Master Unit of the Ecler WiSpeak system. Together with TUBE and CUBE, provides a simple and fast wireless installation with up to 500m<sup>2</sup> coverage. It includes a WiSpeak grip app available for Android and iOS, which can be used for an advanced set up and fine tuning of the Wireless Pro Audio system.

## KEY FEATURES

- 3 audio inputs available:
  - Analogue stereo, unbalanced. 2 x RCA connectors
  - Analogue stereo, balanced. 2 x Euroblock 3p connectors
  - Bluetooth®, class 1 (up to 25 meters range, maximum)
- 1x WiSpeak wireless audio signal transmitted (a mono conversion of the selected input)
- 1x AUX OUT analogue signal available (a copy of the transmitted WiSpeak signal). It can be used for linking the unit to external audio devices, like amplifiers, mixers or subwoofer units
- Maximum number of receivers under control per transmitter device = 24 units. The network can be extended by linking a new transmitter to an existing receiver
- Front panel controls for source (input) selection and general (Master) volume control
- Recommended maximum range from a CORE transmitter to any WiSpeak paired receiver: 12 meters, with direct line of sight<sup>1</sup>
- Front panel PAIR key: it allows pairing the receivers to the transmitter quickly and easily, for a basic set up of the WiSpeak system.
- External, universal Power Supply (100-240VAC 50-60Hz)
- Compatible with WiSpeak grip app for set up and control functions (available for Android and iOS), using Bluetooth® connection
- External MUTE port and remote volume control port compatible with WPaVOL wall panel

## APPLICATIONS

- Retail
- Hospitality
- Education
- Corporate
- Sports & Wellness

## ACCESSORIES AND COMPATIBLE DEVICES

- WiSpeak TUBE
- WiSpeak CUBE
- WPaVOL



WiSpeak TUBE



WiSpeak CUBE



WiSpeak grip app



TECHNICAL SPECIFICATIONS

CORE	
<b>Inputs</b>	
Type	IN1: Balanced, Stereo, Euroblock IN2: Unbalanced, Stereo, RCA BT: Bluetooth wireless
Input Sensitivity* / Nominal Impedance	IN1: -10dBV to 0dBV / >20kΩ IN2: -10dBV to 0dBV / >20kΩ BT: -10dBV FS
Gain Control Range <sup>2</sup>	IN 1&2: 10dB
Input Selector (same selection for Ch1&2)	Frontal panel keys / WiSpeak grip control app
CMRR	IN2: >60dB @ 1kHz
Bluetooth Input	Type: Compliant 5.0, Class 1 Range: 25m (ideal conditions) Profiles: A2DP1.3/AVRCP1.6/HFP1.6/HSP1.2 Decoder support: SBC, AAC
Frequency Response (at TX AUX OUT)	IN1: 10Hz – 20kHz (-1dB) IN2: 10Hz – 20kHz (-1dB) BT: 10Hz – 20kHz (-1dB)
THD+D (at TX AUX OUT)	IN 1&2: <0.015%
Signal Nois Ratio (at TX AUX OUT)	IN 1&2: >95dB
<b>Local Output</b>	
Type	AUX OUT: Analog, Mono, Balanced, Euroblock
Input Selection	CH 1&2: WiSpeak grip control app
Nominal Output Level / Min Load	AUX OUT: 0dBV / 10kΩ
<b>WiSpeak Channels (RF Wireless Audio)</b>	
Channel	CH 1&2: Digital, Mono, RF Wireless Audio
General Controls (affects Ch1&2)	Master VOL, MUTE: Frontal panel keys / WiSpeak grip control app
Tone Control <sup>3</sup> (independent for each Ch)	BASS: 100Hz, ±10dB MID: 1k2kHz, ±10dB TREBLE: 10kHz, ±10dB
High Pass Filter <sup>3</sup> (independent for each Ch)	OFF / 120Hz / 150Hz Butterworth 12dB/oct
Low Pass Filter <sup>3</sup> (independent for each Ch)	OFF / 120Hz / 150Hz Butterworth 12dB/oct
<b>RF Wireless Audio</b>	
Frequency Band	U-NII 5.1 – 5.8GHz (supported worldwide) Up to 24 non-overlapping RF channels <sup>4</sup> DFS support
Transmission Recommended Distance	Up to 12m from a TX to any paired RX, direct line of sight <sup>1</sup>
Audio Transmission	24bit uncompressed, 48kHz SR
Audio Channels	WiSpeak CH 1&2
Inter-channel delay error	±1us
Reconnection time	Up to 120s <sup>5</sup>
Pairing time	Up to 120s <sup>5</sup>

Latency	
From TX Analog Audio IN to TX AUX OUT	<700usec
From TX Analog Audio IN to RX AUX OUT	<6ms
From TX Analog Audio IN to RX Speaker	<6ms
DSP	
Processor	25 / 56 bits
Sampling Rate	48kHz
Converters	
Resolution	ADC/DAC: 24 bits
Dynamic Range	ADC: 96dB DAC: 98dB
Miscellaneous	
Remote volume control port	0-10VDC, RJ-45 connector
External Mute	Normally open
Control Port	USB-C: Service & Firmware updates
Supply	
DC Supply	24VDC
Mains (using supplied DC adapter)	100-240AC 50-60Hz
Power Consumption	0.5A at 24V
Mechanical	
Dimensions (WxHxD)	225x120x40mm / 8.9"x4.7"x1.6"
Weight	0.8kg / 1.76 lb.

<sup>1</sup>WiSpeak features a unique & intelligent digital wireless transmission system: a solid and stable main channel is always used for the system's audio and control links, together with an alternative backup channel available. The system continuously monitors among 24 transmission channels to resolve the best backup channel option. In case the main channel's integrity is affected by third-party RF interferences, an instantaneous and clean (free of audio drops) switch to the backup one is performed.

Exceptionally, when working in environments with very high radio-electric contamination (presence of frequency inhibitors, WiFi networks saturation, etc.) WiSpeak might at times suffer disturbances in its proper functioning, like intermittent audio drops. In such circumstances, and along the system's installation and setup period, it might even be necessary to decrease the distance from the transmitter to each receiver to reach a solid and stable system performance along time.

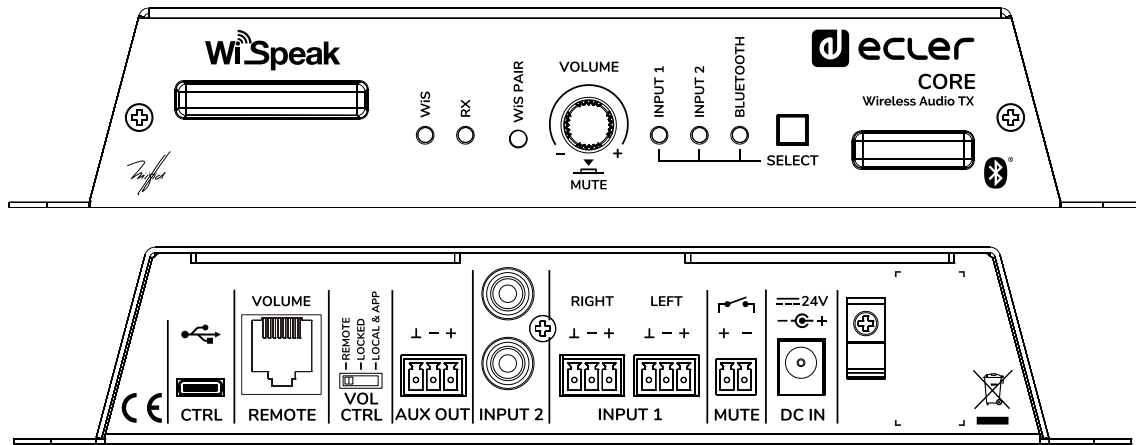
<sup>2</sup>WiSpeak grip app & frontal panel selection.

<sup>3</sup>WiSpeak grip app selection.

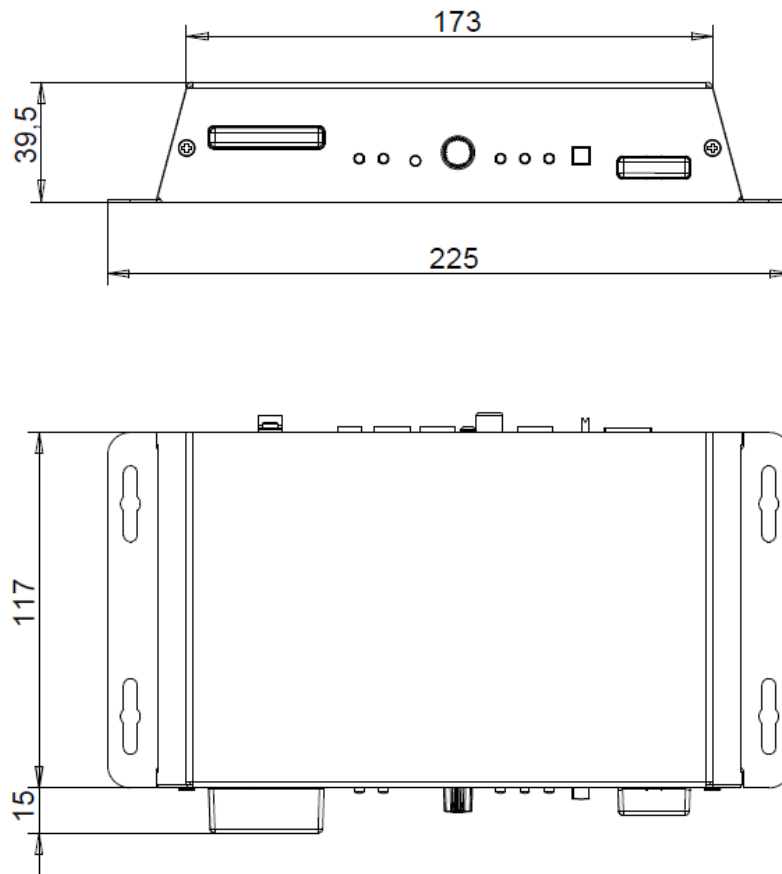
<sup>4</sup>Varies by country.

<sup>5</sup>Reconnection and pairing time also involve stabilization process to guarantee a solid and stable wireless communication. This time varies depending on adverse conditions described in <sup>1</sup>.

MECHANICAL DIAGRAMS



Distances are in millimeters.





All product characteristics are subject to variation due to production tolerances. **NEEC AUDIO BARCELONA S.L.** reserves the right to make changes or improvements in the design or manufacturing that may affect these product specifications.

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