



### Preliminary Technical Information

- 3 RF channels to minimize interference from other devices
- Each channel contains 3 bands, alternating between them to preemptively counteract interference, keeping the signal clear and latency less than 20 ms.
- Uncompressed 2-channel audio for maximum fidelity
- Multiple receiver/amplifier units may be used with a single transmitter.
- Up to 12 receivers may be used for each transmitter. For more than 12, use an additional transmitter on another frequency.
- USB, stereo mini or 1/4" balanced input connections at the transmitter
- Push-On or 1/4" connections speaker level outputs at the receiver. Also includes stereo line output for connecting auxiliary audio components, such as ADA (Americans with Disabilities Act) adapters.
- Local Audio source at the receiver via stereo mini (mutes the wireless signal when connected)
- High/Low power selector switch on transmitter limits RF range where needed

### WLL-TX1 (TRANSMITTER)

System Type	Uncompressed 2-channel audio wireless transmitter
RF Band	2.4 GHz
Operating Range (full power) <sup>1</sup>	150 ft indoors / 210 ft line of sight
Operating Range (low power) <sup>1</sup>	50 ft indoors / 70 ft line of sight
Audio Frequency Response	20 Hz - 20 kHz
Modulation	Digital
Dynamic Range	90 dB
Antenna Impedance	50 ohm
Power Supply/Requirements	5V, 1.2 A
Height	1.75 in
Width	6.1875 in
Depth	6.5 in
Housing material	Powder coated metal
Weight	1.85 lbs
Regulatory - CE	CE, UL, FCC, CCC
RoHS	Approved



### WLL-RX1P (RECEIVER)

System Type	Uncompressed 2-channel audio wireless receiver
RF Band	2.4 GHz
Operating Range Full power	150 ft indoors / 210 ft line of sight
Operating Range Low Power	50 ft indoors / 70 ft line of sight
Audio Frequency Response	20 Hz - 20 kHz
Amplifier output power	50w/ch @ 8 ohms 65w/ch@ 4ohms
Modulation	Digital
Dynamic Range	90dB
Antenna Impedance	50 ohm
Latency	< 20 ms
Power Requirements	32V, 4.0 A
Height	1.75 in
Width	6.1875 in
Depth	6.5 in
Housing material	Powder coated metal
Weight	1.85 lbs
Regulatory - CE	CE UL FCC CCC ec
RoHS	Approved

### Description

The WLL-TR-1p wireless transmitter/receiver system is composed of two units, one WLL-TX1 transmitter and one WLL-RX1p receiver. Additional receivers may be ordered to accompany a single transmitter.

### Applications

Designed to work with all SoundTube speakers (as well as other brands), the WLL-TR-1p system enables the placement of speaker in locations where running speaker wire may be difficult or impossible. Utilizing uncompressed streaming digital audio over 2.4 GHz and requiring only AC power for operation, the SoundTube wireless system provides two 50W channels of audio.

### Receiver Amplification

The WLL-RX1p receiver utilizes the exact amplification system of the SA502 mini amplifier unit. For additional technical information on the built in amplification provided by the WLL-RX1p, please refer to the SA502 technical data sheet.

<sup>1</sup> Actual working range depends on RF signal absorption, reflection and interference



## Architectural Specifications

The WLL-TR-1p wireless system shall consist of one WLL-TX1 transmitter and one WLL-RX1p receiver.

Performance specifications of a typical WLL-TR-1p wireless system shall be as follows: Operating range at full power will reach 150 ft (45.7 meters) indoors and 210 ft (64 meters) line of sight. At low power, operating range will be reduced to 50 ft (15.2 meters) indoors or 70 ft (21.3 meters) line of sight. Dynamic range shall be 90 dB with an audio frequency ranging from 20 Hz - 20 kHz. The system will transmit in uncompressed audio signal over a 2.4 GHz RF Band with three selectable RF channels to minimize interference. Antennae impedance shall be 50 ohms.

The WLL-TX1 transmitter unit housing material shall be constructed of powder coated metal. Power requirements for the unit will be a 5 v, 1.2 A power supply. Input options at the transmitter include USB, stereo mini or 1/4" balanced input connections. Overall dimensions shall be no more than 44.45 mm (1.75 in.) in height by 157.16 mm (6.1875 in.) in width by 165.1 mm (6.5 in.) in depth. The unit shall include two removable antennae.

The WLL-RX1p receiver unit housing material shall be constructed of powder coated metal. Power requirements for the unit will be a 32 v, 4.0 A power supply. Output options at the receiver include Push-On or 1/4" connections speaker level output. Latency 20 ms. Receiver amplifier power output shall be 50 w per channel at 8 ohms or 65 w per channel at 4 ohms. Stereo line output included at receiver for connecting auxiliary audio components. Receiver shall include a stereo mini jack to select local audio, muting wireless signal when connected. Overall dimensions shall be no more than 44.45 mm (1.75 in.) in height by 157.16 mm (6.1875 in.) in width by 165.1 mm (6.5 in.) in depth. The unit shall include two removable antennae.

The system shall be the SoundTube WLL-TR-1p for both low- and high-impedance applications.

## SoundTube Entertainment

6430 North Business Park Loop

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Park City, Utah 84098  
Phone 435.647.9555  
Fax 435.647.9666  
Toll Free 800.647.TUBE  
www.soundtube.com

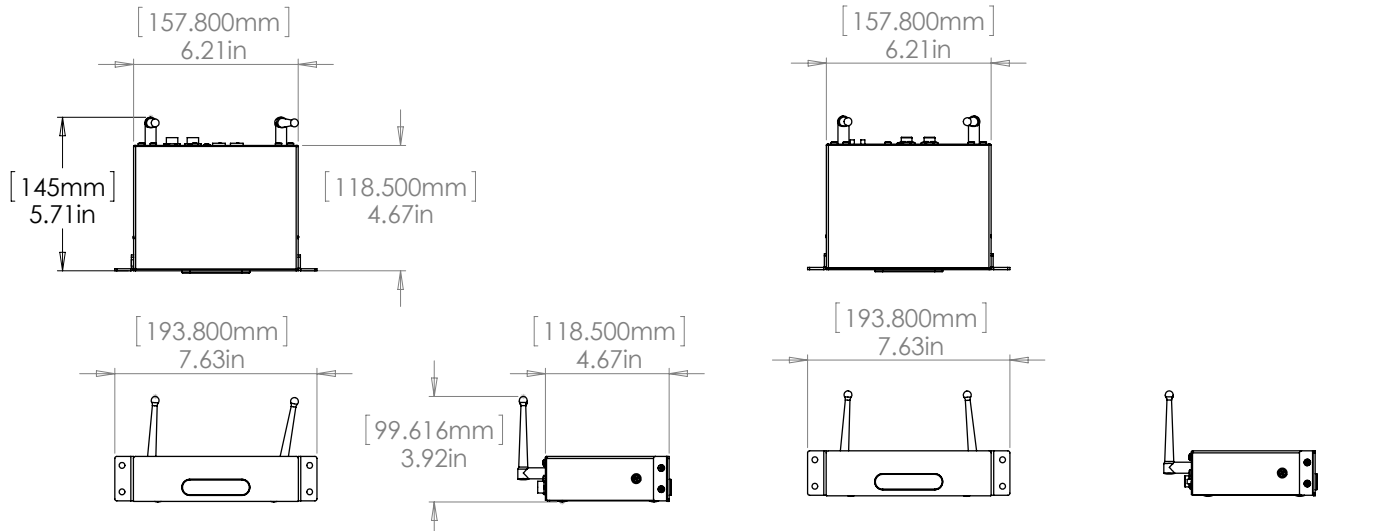
All SoundTube products come with a 5-year limited warranty.



**Mechanical Drawings**

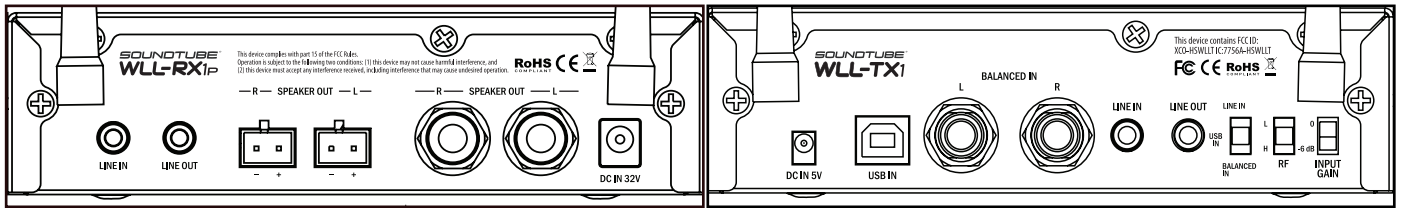
WLL-RX1 RECIEVER

WLL-TX1 TRANSMITTER



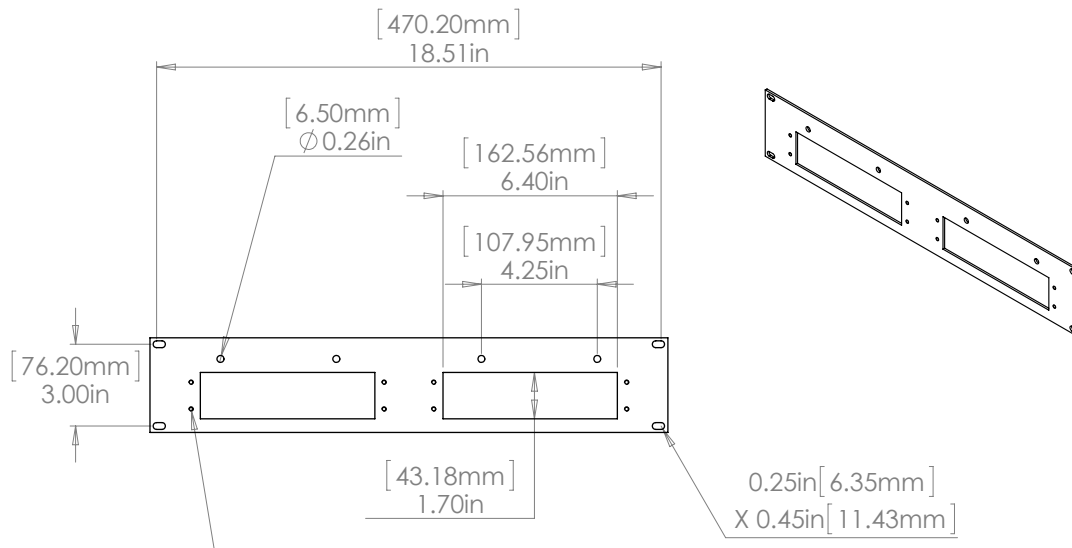
WLL-RX1 RECIEVER

WLL-TX1 TRANSMITTER



**Optional Accessories**

**RackMountAdapter(AC-WLL-RMA)**



SoundTube Entertainment manufactures a complete line of speakers for:  
**Open-Ceiling • In-Ceiling • Surface-Mount • Outdoor • Sound-Focusing**

All SoundTube products are designed and engineered in the USA.