

# UHF Multi Channel Wireless Audio Transmitter and Receiver WA-TX-03S, WA-RX-03S 863 MHz

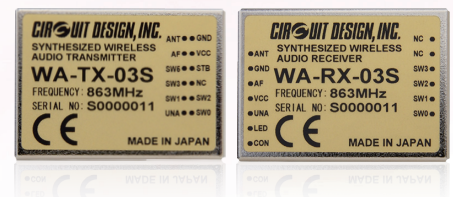
The WA-TX-03S and WA-RX-03S are 15 ch multichannel audio modules for analogue audio transmission. They operate in the European harmonized 863 to 865 MHz band with RF power selection of 5 and 10 mW. In addition to offering a frequency response range sufficient for voice transmission, the compander noise reduction system has a wide dynamic range, enabling transmission of clear audio signals. As embedded devices, they include nearly all the parts necessary for audio transmission in a small shielding case, making it possible to develop audio transmission equipment in a short time.

## Features

- 863 to 865 MHz European audio band
- Selectable RF output (5 mW and 10 mW)
- 15 RF channels with 125 kHz step
- Built in noise reduction systems
- Built in mute circuit
- Easy installation for user system
- CE / UKCA marking

## Applications

- Audio guiding at museum
- Tour guide system
- Wireless conference system
- Wireless microphone system for amateur users
- Various audio transmissions



## General

Parameter	Specification
Applicable standard	EN 301 357
Communication method	One way
Emission type	F3E (FM)
Number of RF channels	15 ch
Frequency	863.125 to 864.875 MHz
Communication range	50 m (Line of sight)
Dynamic range	90 dB or more (W/IHF-A Filter)
Audio frequency response	50 Hz to 13 kHz +/-3.5 dB
T.H.D	2% or less (@AF 1 kHz, Dev. = 20 kHz)
Emphasis	50 us
Operating temperature	0 to 50 C

## WA-TX-03S

Transmitter

Parameter	Specification
Oscillation system	Crystal based PLL oscillation
RF output power	5 mW, 10 mW (e.r.p)
Frequency stability	+/-15 kHz or less
Noise reduction type	Compander
Spurious emission	< 1 uW
Deviation	20 kHz (1 kHz @ -25 dBv)
Audio input level	-113 to -13 dBv (1 kHz)
Audio input impedance	12 kohm or more
Max. DC input to audio input	7 V DC max.
Supply voltage	4.2 to 6.0 V**
Supply current	50 mA (5 mW), 60 mA (10 mW), < 1 mA (Standby)
Dimensions	36 x 26 x 8 mm
Weight	13 g

## WA-RX-03S

Receiver

Parameter	Specification
Receiving method	Single superheterodyne
Local oscillation type	Crystal based PLL oscillation
IF frequency	10.7 MHz
Noise reduction type	Expander
Sensitivity	S/N 55 dB at 21 dBuV (-92 dBm)
Squelch sensitivity	Adjustable
Audio output level	-10 dBv (Dev. 20 kHz)
Audio output impedance	20 kohm or less
Supply voltage	3.0 to 5.0 V
Supply current	45 mA
Dimensions	36 x 26 x 8 mm
Weight	13 g

\*0 dBv = 0.775 V

\* Data of specification is measured at 25 C unless otherwise specified.

\*\* Supply voltage 3.6 to 7.0 V, possible operating range without meeting full specifications

Specifications are subject to change without prior notice