

# UHF Multi Channel Wireless Audio Transmitter / Receiver

## WA-TX-03S, WA-RX-03S 863 MHz

The WA-TX-03S / WA-RX-03S are 15ch multichannel audio modules that operate in the European harmonized 863 - 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 - 865 MHz European audio band
- Selectable RF output ( 5 mW and 10 mW )
- 15 channels with 125 kHz
- Built in noise reduction systems
- Built in mute circuit
- Easy installation for user system
- R&TTE ( EN 301 357 )

### Applications

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



### General

Parameter	Specification
Frequency	863 - 865 MHz
Number of RF channels	15
Frequency Type	F3E
Modulation	FM
Distance	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 degree C

### WA-TX-03S (Transmitter)

Parameter	Specification
Oscillation type	Crystal based PLL oscillation
RF power output	5 mW, 10 mW (e.r.p)
Frequency stability	+/- 15 kHz
Noise reduction type	Compander
Spurious emission	1 uW Max.
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 V**
Current consumption	50 mA (5mW), 60 mA (10mW), < 1 mA (Standby)
Dimensions (WxDxH)	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 to 5 V
Current consumption	45 mA
Dimensions (WxDxH)	36 x 26 x 8 mm
Weight	13 g

\*0dBv =0.775V

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

\*\*Supply voltage 3.6 - 7 V, possible operating range without meeting full specifications

Specifications are subject to change without prior notice