

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