

UHF Wireless Audio Transmitter/Receiver

WA-TX-01 / WA-RX-01A

Transmitter WA-TX-01 and receiver WA-RX-01A are RF modules that transfer audio (analog) signal in 863-865MHz European audio bands. All necessary circuits from RF part to noise reduction system are in a compact case for easy integration to user applications. WA-TX-01 and WA-RX-01A has wide dynamic range (100dB) to realize high quality sound transmission. The system adopts a compander/expander noise reduction system. In addition, outstanding feature of WA-TX-01 is low voltage, low current and compact size. It is achieved by a high stability SAW resonator technology. WA-TX-01 is optimal transmitter for integration into a user system requiring a small space and battery powered portable operation. 4 channels are available for simultaneous system operation in one site.

Feature

- 100dB wide dynamic range with noise reduction system
- Frequency response from 50Hz to 15kHz
- Fixed frequency in 863-865MHz European audio band
- Low current for longer battery life (TX-01: 25mA Max.)
- Single UM4 (1.5V) battery operation with DC/DC converter
- Built in mute circuit
- All functions in a compact case (TX: 27X19X5.5mm)
- Easy installation for user system
- Conforms to EN 300 422 and EN 301 489

Application

- Wireless microphone system
- Wireless portable sound system
- Audio guidance system (Museum tour guide etc.)
- Wireless conference system
- Hall sound reinforcement system
- Sound/voice monitor



Common	Item	Specification
	Frequency	863.125, 863.625, 864.500, 864.875MHz
	Number of RF channels	Single (Fixed)
	Frequency Type	F3E
	Distance	50m (line of sight)
	S/N ratio	90dB (W/IHF-A Filter)
	Audio Frequency response	50Hz to 15kHz +/-3.5dB (Output level -50dBv+/-3dB)
	T.H.D	2% (@AF1kHz, Dev.=15kHz or 7.5kHz)
	Emphasis	50u/sec
	Operating temperature	0 to 50 degree C

WA-TX-01		WA-RX-01A	
Item	Specification	Item	Specification
Oscillation type	SAW Oscillator crystal based	Receiving method	Single super heterodyne
RF power	2mW	Local oscillation type	Crystal controlled
Modulation	Variable reactance modulation	Oscillation frequency	(f0-10.7MHz)/10
Frequency stability	+/-10kHz	IF frequency	10.7MHz
Pre-emphasis	50u/sec	Noise reduction type	Expander
Noise reduction type	Compander	Sensitivity	21dBuV (@THD2%)
Spurious emission	1uW Max.	Squelch sensitivity	17dBuV +/- 4dB
Deviation	15kHz (1kHz@-25dBv)	Audio output level	-20 dBv (Dev. 15kHz), Max-10dBv (Dev.30kHz)
Audio input level	-115 to -15 dBv (1kHz)	Audio output impedance	10 kohm (Unbalanced output)
Audio input impedance	5 kohm	I/O connector	6P connector
I/O connector	4P connector	Supply voltage	3 to 12V
Max.DC input voltage to audio input	0V DC Max.	Current consumption	30mA
Supply voltage	3 to 9V	Dimensions	W36 x D26 x H8 mm
Current consumption	25mA Max.	Weight	15g
Dimensions	W27 x D19 x H5.5mm		
Weight	5 g		

*0dBv =0.775V

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

Specifications are subject to change without prior notice

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WA-TX/RX-01DS ver1.4

DS_WA-01_v14e

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