

DWZ-M50

DWZ Series digital wireless vocal set for musicians and bands



Overview

Package features ZRX-HR50 digital wireless half-rack receiver and ZTX-M01 digital wireless handheld transmitter

The vocal set version of the DWZ digital wireless microphone system offers high quality 24-bit / 48kHz linear PCM digital transmission with up to six simultaneous channels for use on the road. It has customisable sound quality with a 5-band equalizer for increased control and features an easy-to-use large colour LCD for improved visibility.

Superb digital sound

With 24-bit linear PCM digital, you get high sound quality with reliable RF transmission, utilising unique transmission technology developed by Sony. Also, with support for two RF modes, your experiences can be shared over WiFi.

Features

Superb digital sound quality

High-quality 24-bit linear PCM digital transmission offers pristine audio and a wide frequency range of 10 Hz to 22 kHz. Audio performance degradation that's typical of conventional analogue wireless systems is avoided, as these packages are designed without the need for a compander.

Two RF modes for reliable transmission

The DWZ Series provides two selectable RF modes. Simply choose the one that makes best use of your actual 2.4 GHz RF environment:

Wide Band Hopping mode

This mode reduces interference to other wireless equipment used in the same environment such as WiFi. There's no need for advanced technical knowledge about radio frequency. Wide Band Hopping mode also supports additional error correction for more secure transmission*1.

Narrow Band Hopping mode

This mode helps to avoid interference from other devices – for example, 2.4 GHz wireless remote controllers that are commonly used for lighting control. This enables frequencies to be coordinated when using multiple wireless systems simultaneously*2.

*1 Audio delay: Approx. 6 ms

*2 Audio delay: Approx. 3 ms

Stable transmission

Interruptions in reception (signal dropout) can be a problem with wireless microphone transmission systems. With the DWZ Series, however, dropouts are reduced to a minimum. Utilizing a space diversity reception system, stable reception is achieved by using dual-antenna inputs / reception circuits. These receive signals over two different paths and automatically select the stronger RF signal for output.

Large colour LCD

The ZRX-HR50 half-rack size receiver includes a large colour LCD

display to provide detailed visual status of your selected channel, signal, and five-band digital equalizer, along with audio level, and transmitter battery life.

Fast and easy setup

With its Clear Channel Scan and Best Channel Selection features, the half-rack ZRX-HR50 detects unoccupied channels and selects the most appropriate channel automatically, for fast and easy system setup.

Interchangeable capsule design, with a flexible choice of capsules, including CU-C31, CU-F31 and CU-F32

With the ZTX-M01 handheld transmitter, you can use the supplied high-quality dynamic cardioid microphone capsule. Alternatively, you can select any of Sony's DWX Series capsules (the thread pitch is 1.25"/28 (31.3 mm/pitch 1.0 mm threading))^{*}.

^{*}Use of third-party capsules may cause RFI or EMF noise.

Wired / wireless seamless operation

The ZRX-HR50 is equipped with a Cable Tone Generator feature to simulate a wired tone when using wireless. There's no need to adjust the equalizer setting on your amplifier when switching between wired and wireless. Simply set the Cable Tone Generator menu on the ZRX-HR50 display to match the desired wired tone.

Five-band equaliser

With the five-band digital equalizer in the half-rack ZRX-HR50 receiver, you'll find it's easy to adjust the sound character of your handheld microphone as desired.

Tuner out interface

Tuner output is available for tuning. The ZRX-HR50 also has a transmitter-muting selector which provides a choice of connectors that can be muted.

Rack-mountable 1 U half-rack size with detachable whip antenna

The ZRX-HR50 is mountable with optional RMM-HRD1 rack mount kit.

Variety of interfaces

The ZRX-HR50 features 3-way parallel audio output, ¼” TS phone (x2), and balanced XLR (x1).

Robust metal body

The ZTX-M01 is made of strong durable metal. Metal construction supports reliable use in rough operating conditions.

Easy-to-use operation

The ZTX-M01 features a momentary switch for muting or talk-back applications. In addition, a lock function protects from inadvertent setting changes.

Two AA battery operation

The ZTX-M01 is powered by standard AA batteries to maximise flexibility and mobility.

Specifications

Transmitting Section

Transmitter Type	Handheld
Antenna Type	Internal monopole antenna
Type of Emission	F1D and F1E
Modulation Method	GFSK
	2402.0 MHz to 2478.5 MHz

Carrier Frequencies	Ch1: 2402/2478.5 MHz
	Ch2: 2421.5/2472.5 MHz
	Ch3: 2427.5/2475.5 MHz
	Ch4: 2424.5/2446.5 MHz
	Ch5: 2449.5/2469.5 MHz
	Ch6: 2405/2452.5 MHz
	Ch a: 2469.5/2474/2478.5 MHz
	Ch b: 2442.5/2447/2451.5 MHz
	Ch c: 2415.5/2420/2424.5 MHz
	Ch d: 2456/2460.5/2465 MHz
	Ch e: 2429/2433.5/2438 MHz
Ch f: 2402/2406.5/2411 MHz	

RF Power Output	10 mW (e.i.r.p.)
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Occupied RF Bandwidth	2.5 MHz
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Receiving Section

Receiver Type	Space diversity
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Antenna Type	External whip antenna
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2402.0 MHz to 2478.5 MHz

Ch1: 2402/2478.5 MHz
 Ch2: 2421.5/2472.5 MHz
 Ch3: 2427.5/2475.5 MHz

Receiving Frequencies	Ch4: 2424.5/2446.5 MHz
	Ch5: 2449.5/2469.5 MHz
	Ch6: 2405/2452.5 MHz
	Ch a: 2469.5/2474/2478.5 MHz
	Ch b: 2442.5/2447/2451.5 MHz
	Ch c: 2415.5/2420/2424.5 MHz
	Ch d: 2456/2460.5/2465 MHz
Ch e: 2429/2433.5/2438 MHz	
Ch f: 2402/2406.5/2411 MHz	

RF Sensitivity	24 dB μ V or less
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Antenna Section

Input Connector	BNC-R, 50 Ω (x2)
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Audio Section

Capsule Type	Dynamic
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Directivity	Uni-directional
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Maximum Input Level	142 dB SPL (with 12 dB attenuator)
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Audio Attenuator Adjustment Range	0 / 6 / 12 dB
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Frequency Response	Transmission: 10 Hz to 22 kHz Microphone unit: 70 Hz to 16 kHz
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Dynamic Range	102 dB (A-weighted)
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Distortion (T.H.D)	0.03% or less (-38 dBu, 1 kHz input)
Audio Delay	Narrow band mode: Approx. 3 ms / Wide band mode: Approx. 6 ms (Transmitter + Receiver)
	XLR-3-32, balanced (x1) Phone jack, unbalanced (x2)
Analog Output	Maximum output level -Balanced Output MIC: -22 dBu LINE: +24 dBu -Unbalanced Output: +8 dBu
	Reference output level -Balanced Output MIC: -58 dBu LINE: -12 dBu -Unbalanced Output: -28 dBu

Other Equipment

Display	LCD
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General

ZTX-M01: 3.0 V DC (two LR6 (size

Power Requirements	AA) alkaline dry cell batteries) ZRX-HR50: External DC input: 12 V DC
Battery Operating Time	Approx. 10 hours of continuous use (25 °C (77 °F) ambient temperature, Sony LR6 (size AA) alkaline dry cell batteries)
Operating Temperature	0°C to 50°C 32°F to 122°F
Storage/Transport Temperature	-20°C to +60°C -4°F to +140°F
Dimensions*	ZTX-M01: ϕ 48 × 258 mm (1 15/16 × 10 1/4 inches) (diameter/length) ZRX-HR50: 168 × 44 × 96 mm (6 5/8 × 1 3/4 × 3 7/8 inches) (w/h/d)
Mass	ZTX-M01: Approx. 305 g (11 oz.) (including batteries) ZRX-HR50: Approx. 510 g (1 lb. 2.0 oz.)
Supplied Accessories	Mic holder (1) Antenna (2) AC adapter (1) Operating Instructions (1) CD-ROM (1)

Notes

Footnotes

* The values for dimensions are approximate.

Gallery

