

## 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.) |
|-----------------|------------------|

---

|                       |         |
|-----------------------|---------|
| Occupied RF Bandwidth | 2.5 MHz |
|-----------------------|---------|

---

## Receiving Section

|               |                 |
|---------------|-----------------|
| Receiver Type | Space diversity |
|---------------|-----------------|

---

|              |                       |
|--------------|-----------------------|
| Antenna Type | External whip antenna |
|--------------|-----------------------|

---

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 $\mu$ V or less |
|----------------|-----------------------|

---

## Antenna Section

|                 |                         |
|-----------------|-------------------------|
| Input Connector | BNC-R, 50 $\Omega$ (x2) |
|-----------------|-------------------------|

---

## Audio Section

|              |         |
|--------------|---------|
| Capsule Type | Dynamic |
|--------------|---------|

---

|             |                 |
|-------------|-----------------|
| Directivity | Uni-directional |
|-------------|-----------------|

---

|                     |                                    |
|---------------------|------------------------------------|
| Maximum Input Level | 142 dB SPL (with 12 dB attenuator) |
|---------------------|------------------------------------|

---

|                                   |               |
|-----------------------------------|---------------|
| Audio Attenuator Adjustment Range | 0 / 6 / 12 dB |
|-----------------------------------|---------------|

---

|                    |   |
|--------------------|---|
| Frequency Response | Transmission: 10 Hz to 22 kHz<br>Microphone unit: 70 Hz to 16 kHz |
|--------------------|---|

---

|               |                     |
|---------------|---------------------|
| Dynamic Range | 102 dB (A-weighted) |
|---------------|---------------------|

---

|                    |  |
|--------------------|--|
| Distortion (T.H.D) | 0.03% or less (-38 dBu, 1 kHz input)   |
| Audio Delay        | Narrow band mode: Approx. 3 ms /<br>Wide band mode: Approx. 6 ms<br>(Transmitter + Receiver)               |
|                    | XLR-3-32, balanced (x1)<br>Phone jack, unbalanced (x2)   |
| Analog Output      | Maximum output level<br>-Balanced Output<br>MIC: -22 dBu<br>LINE: +24 dBu<br>-Unbalanced Output: +8 dBu    |
|                    | Reference output level<br>-Balanced Output<br>MIC: -58 dBu<br>LINE: -12 dBu<br>-Unbalanced Output: -28 dBu |

## Other Equipment

|         |     |
|---------|-----|
| Display | LCD |
|---------|-----|

## General

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

|                               |  |
|-------------------------------|--|
| Power Requirements            | AA) alkaline dry cell batteries)<br>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<br>32°F to 122°F   |
| Storage/Transport Temperature | -20°C to +60°C<br>-4°F to +140°F   |
| Dimensions*                   | ZTX-M01: $\phi$ 48 × 258 mm (1 15/16 × 10 1/4 inches) (diameter/length)<br>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)<br>ZRX-HR50: Approx. 510 g (1 lb. 2.0 oz.)   |
| Supplied Accessories          | Mic holder (1)<br>Antenna (2)<br>AC adapter (1)<br>Operating Instructions (1)<br>CD-ROM (1)  |



## Notes

Footnotes

\* The values for dimensions are approximate.

---

## Gallery

