

## DWR-R03D

DWX Series 2-channel digital wireless receiver



### Overview

#### **Superb audio quality and stable operation in a wide range of environments**

The third generation of Sony's acclaimed DWX series, this high performance digital wireless receiver is an ideal choice for live sound applications including theatre and concerts, as well as studio based TV production and EFP.

The two-channel 1U rack-mountable wireless receiver features Sony's advanced digital audio processing, encryption and RF transmission technologies to assure secure, stable transmission and reception of very high quality audio with low latency.

The DWR-R03D is ideal for use in large-scale multi-channel productions, supporting up to 21 simultaneous channels per 8MHz TV band or up to 16 simultaneous channels per 6MHz TV band.

Support for the Dante® audio-over-IP standard enables networked multi-channel operation.

The DWR-R03D is compatible with Sony Wireless Studio control software for PC (Ver 5.0 or later), allowing flexible remote operation. Remote control of up to 82 transmitters is possible using the Cross Remote™ function combined with the RMU-01

remote control unit (available separately).

## Features

### **Very high quality wireless audio**

Advanced Sony codec design assures superb audio quality, with a high dynamic range of more than 106 dB, plus a wide frequency response of 20 Hz - 22 kHz and excellent transient response.

### **Low-latency audio**

Advanced Sony codec design reduces audio latency to as little as 1.2msec\*

\* DWT-B03R and DWR-R03D total delay with codec mode2 and analog output

### **Dante® interface for audio-over-IP networking**

The DWR-R03D is compatible with the Dante digital audio-over-IP networking standard for professional AV and sound reinforcement environments. Allows headphone monitoring with other receivers in Dante network. Two Dante ports support redundant network operation.

### **Reliable transmission**

X-Dimension Diversity™ technology, high dynamic range RF circuits and 4 antenna diversity reception system enhance RF transmission stability.

### **Easy, versatile remote control**

The DWR-R03D is compatible with Sony's Wireless Studio control software for PC (Version 5.0 or later) and up to 82 transmitters can be controlled using the Cross Remote™ function and RMU-01 remote control unit (available separately).

### **AUTO FREQUENCY CHANGE function\***

This function minimizes audio dropouts by automatically changing to a better frequency when the existing frequency is

congested or reception is poor. It scans for a frequency on channel 1 of the host receiver and maintains a list of safe frequencies. If the quality of the received data on another channel drops, it changes the frequency used by the corresponding receiver and paired transmitter to a better frequency.

\* Available via firmware update (Ver. 1.20~)

### **High density multi-channel operation**

Ideal for large-scale productions, the DWR-R03D supports high-density simultaneous multi-channel operation: 375kHz spacing accommodates up to 21 channels per 8MHz TV band or up to 16 simultaneous channels per 6MHz TV band.

### **AUTO CHANNEL COORDINATE function\***

This function coordinates channel selection by communicating with the receiver to build a channel plan in response to the RF environment without using a computer. The channel setting is also applied to the transmitter paired with the receiver.

\* Available via firmware update (Ver. 1.20~)

### **Four audio codec modes\***

Switch between audio codec modes based on your operational needs.

\* Available via firmware update (Ver. 1.20~)

### **244MHz\* wideband**

Contributes to the reduction of equipment and burden of maintenance.

\*Depending on version

### **AES 256bit encryption**

For secure encrypted transmission.

### **Spectrum analyzer function\***

This functions scans frequencies and displays the congestion/interference as a graph, allowing the user to visualize

the RF conditions. You can also select and set a safe frequency from the scan results.

\* Available via firmware update (Ver. 1.20~)

### **OUTPUT SWAP function\***

This function swaps the audio outputs of two tuners when a button on the unit is operated. This provides redundancy, enabling a user who is using two transmitters to quickly swap the outputs when trouble arises on one of those transmitters, without having to reconnect audio cables.

\* Available via firmware update (Ver. 1.20~)

### **AC power cascade**

AC power output simplifies implementation of multiple receivers in large multi-channel applications.

### **Dual OLED displays**

Easy-to-read dual OLED displays give visual confirmation of operating information and status for each channel.

### **User setting memory**

Settings can be easily stored to the memory of DWR-R03D.

### **Setting lock**

Receiver settings can be locked to prevent accidental operation during performance.

### **Transmitter/receiver identify function**

Paired transmitters/receivers are identified by blinking display.

### **Switchable analogue (balanced) and AES/EBU digital audio sub output**

### **Adjustable audio output level (1 dB step)**

## Specifications

|                           |   |
|---------------------------|---|
| Wireless Interface        | WiDIF-HP  |
| Oscillator Type           | Crystal-controlled PLL Synthesizer  |
| Reception Type            | True diversity  |
| Circuit system            | Double Superheterodyne  |
| Antenna Type              | Detachable  |
| Antenna Connector         | 2 diversity mode: Input BNC-R, 50 $\Omega$ (x2), Cascaded Output BNC-R, 50 $\Omega$ (x2)<br>4 diversity mode: Input BNC-R, 50 $\Omega$ (x4)   |
| Carrier Frequencies - UC7 | 470.125 MHz to 607.875 MHz, 614.125 MHz to 615.875 MHz, 25 kHz steps  |
| Carrier Frequencies - CEZ | 470.025 MHz to 714.000 MHz, 25 kHz steps  |
| Carrier Frequencies - J   | W: 470.150 MHz to 713.850 MHz, 25 kHz steps<br>G: 638.025 MHz to 713.850 MHz, 1240.150 MHz to 1251.825 MHz, 1253.175 MHz to 1259.850 MHz, 25 kHz steps, 806.125 MHz to 809.750 MHz, 125 kHz steps |

|                    |   |
|--------------------|---|
| Frequency Response | 20Hz to 22kHz (typical)   |
| Dynamic Range      | 106 dB or more typical (A-weighted, T.H.D=1%)   |
| Distortion (T.H.D) | MODE1, MODE2: 0.03% or less,<br>MODE3: 0.3% or less   |
| Audio Delay        | MODE1; 1.9 msec (total:<br>3.1*/3.4**msec) (Analog output),<br>1.9 msec (total: 3.1*/3.4**msec)<br>(Digital output)<br>MODE2: 0.5 msec (total:<br>1.2*/1.5**msec) (Analog output),<br>1.5 msec (total: 2.2*/2.5**msec)<br>(Digital output)<br>MODE3: 1.9 msec (total:<br>3.7*/4.0**msec) (Analog output),<br>2.8 msec (total: 4.6*/4.9**msec)<br>(Digital output)<br>*with DWT-B03R ** with other<br>transmitters |
| Analog Output      | BAL: XLR-3-32 (male) (× Main 2,<br>Sub 2), Output level (0 dBu = 0.775<br>Vrms)<br>Main BAL: +24 dBu maximum/-58<br>dBu to -12 dBu (1dB step<br>adjustable) reference<br>Sub BAL: +24 dBu maximum/-12   |

|                               |  |
|-------------------------------|--|
|                               | dBu reference  |
| Digital Output                | XLR-3-32 (male), 110 Ω (×2) / BNC-R, 75 Ω (×1), Reference output level: -36 dBFs                                     |
| Headphone Output              | φ6.3 mm (1/4 inch) stereo jack   |
| WORD SYNC IN/OUT connectors   | Input connector: BNC-R with a 75 Ω termination switch, Output connector: BNC-R, External Word Sync: 32 kHz to 96 kHz |
| Wireless Remote Control       | Cross Remote (2.4 GHz IEEE802.15.4 compliant)  |
| LAN Connector                 | RJ-45 modular jack 1000BASE-T: IEEE802.3ab compliant (x 2)   |
| Display                       | OLED (x2)  |
| Power Requirements            | AC: 100 to 240 V   |
| 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                    | Approx. 482×44×335mm   |
| Mass                          | Approx. 3.9 kg   |

## Supplied Accessories

|                      |  |
|----------------------|--|
| Supplied Accessories | Whip antenna (2)<br>AC power cord (1)<br>AC cascade cord (1)<br>Foot (4)<br>Operating Instructions (CD-ROM)<br>(1) |
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## Notes

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| Important note | This product is available in a variety of different frequency range models to suit the regulatory requirements of individual countries. Please contact your Sony reseller for more information on which product will best suit your specific needs. |
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## Related products



### **DWT-B01N**

DWX series digital wireless body-pack transmitter body-pack



### **DWM-02N**

DWX series digital wireless microphone with interchangeable head mechanism



### **DWT-B03R**

DWX Series digital wireless microphone bodypack transmitter



### **DWT-P01N**

Digital wireless microphone plug-on transmitter





## Wireless Studio



## WD-850

UHF Antenna Divider



## AN-01

Uni-directional UHF Antenna



## AN-57

Ground plane antenna



## DWT-B30

DWX Gen3 digital wireless bodypack transmitter



## DWT-P30

DWT-P30 plug-on transmitter

## Gallery

