

DWR-S02DN

Digital wireless receiver



Overview

Portable slot-in receiver for Sony camcorders

The DWR-S02DN is a two-channel portable slot-in receiver for Sony camcorders that, as part of the DWX N series digital wireless microphone system, works seamlessly with Sony digital wireless transmitters, such as the DWT-B01N, DWT-P01N and digital wireless microphones, such as the DWM-02N. The receiver operates with a wide bandwidth up to 72 MHz bandwidth (depending on region), giving users a higher probability of finding unoccupied frequencies in congested metropolitan areas.

Ideal for a range of applications including live concert, theatre, opera, broadcast studio, news gathering, field production, and sound recording, the DWR-S02DN offers a truly digital wireless microphone platform. It combines advanced digital technologies, analogue microphone expertise, wireless audio transmission technologies, and an enviable reputation for stability.

- **Three codec modes designed for wide variety of applications**

MODE1 for compatibility with DWX series applications, MODE2 with higher quality sound and low latency ideal for theatre, tour and broadcast applications, and MODE3 with more reliable RF transmission ideal for speech applications.

- **Low audio latency and high quality sound**

MODE2 provides higher quality sound with a 96kHz sampling rate and very low audio latency of 1.5 msec.

- **More reliable RF transmissions expands the operation range**

MODE3 operation optimised for reliable transmission by preventing drop out by interference with additional error correction.

- **Compatibility with DWX series**

MODE1 operation provides the same high quality, reliability and audio latency as the previous DWX series version.

Features

- **Compatible with all DWX Series transmitters and microphones**

Part of the DWX N series digital wireless microphone system, the DWR-S02DN works seamlessly with Sony's digital wireless transmitters, such as the DWT-B01N, DWT-P01N and digital wireless microphones, such as the DWM-02N.

- **Transmits high quality digital audio**

The digital wireless microphone system transmits and receives high-quality 24-bit/48-kHz digital audio in a specific frequency bandwidth. Using Sony's original WiDIF-HP codec, the system delivers a wide dynamic range of more than 106 dB, a wide frequency response of 20 Hz to 22 kHz, and an excellent transient response.

- **Secure and stable wireless transmission**

The DWX N series enables highly stable wireless transmission that is extremely tolerant to unwanted interference. In addition, the system transmits and receives digitally modulated and encrypted data to minimise the risk of interception, providing highly secure transmission and reception.

- **Remote control of transmitter functions from the receiver**

Input attenuation, RF frequency selection, RF power output, Audio Low-pass cut-off frequency and transmitter Sleep Mode can all be controlled remotely from the digital wireless receiver.

- **Pre-programmed wireless channel plans for simultaneous multi-channel operation**

The DWR-S02DN has many pre-programmed channel groups, meaning combination of wireless channels to permit simultaneous operation of multiple channels without intermodulation.

- **Two-channel slot-in wireless receiver**

Despite its dual-channel receiver capability, the DWR-S02DN is small enough to be mounted directly in the slot of the Sony camcorder.

- **Rear mounting to camcorders**

The DWR-S02DN can be rear-mounted to a range of Sony professional camcorders – using the DWA-01D adapter. When used with a camcorder that has AES/EBU inputs, full-digital audio recording is also possible.

- **Auto channel scanning function**

The DWR-S02DN comes with two auto channel scanning functions that allow for fast, easy and safe frequency channel changes.

- **Compact, lightweight, and rugged design**

The DWR-S02DN is highly compact and light weight, maintaining a good balance even when mounted on a camcorder. In addition, it is made of magnesium die-cast and aluminium, making it extremely rugged and suitable for the harsh environment.

- **Easy-to-see, full dot-matrix OLED (Organic Light-Emitting Diode) display**

The quick response of the OLED display enables real-time operating conditions to be displayed clearly and accurately.

Technical Specifications

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

Tuner Section

● Receiving Channels: Americas, Australia (depending on model)	UC14: UHF-TV channels 14-25 (470 - 542 MHz) UC30: UHF-TV channels 30-36 (566-608 MHz) and 38-41 (614-638 MHz) UC42: UHF-TV channels 42-51 (638-698 MHz)
● Receiving Channels: Europe, Middle East, Australia, New Zealand (depending on model)	CE21: UHF-TV channels 21-29 470 MHz to 542 MHz CE33: UHF-TV channels 33-40 566 MHz to 630 MHz CE42: UHF-TV channels 42-50 638 MHz to 710 MHz
● Type of Receiver	Slot-in (2 channels)
● Transmission Method	WiDiF-HP (x2)
● Type of reception	True diversity
● Circuit system	Double superheterodyne
● Local oscillators	Crystal-controlled PLL synthesizer
● RF input terminal	BNC-R, 50 ohms
● Antenna Type	Detachable
● Sensitivity	20 dBμ or less (at ambient temperature 25 °C (77 °F), bit error rate = 1×10^{-5} , no decline in S/N ratio)

Audio section

● Audio output connector	D-sub 15 pin (male) (x1)
● Reference output level	Analog: -40 dBu Digital: -36 dBFS/-20 dBFS (switchable)
● Dynamic range	106 dB or more (A-weighted) T.H.D 0.03% or less (0 dBu = 0.775 Vrms)
● T.H.D	MODE1, MODE2: 0.03% or less. MODE3: 0.3% or less.
● Audio delay	Analog output in combination with the DWA-01D/F01D; MODE1: 2.1 msec, MODE2: 1.7 msec, MODE3: 3.0 msec, ABS/EBU output in combination with the DWA-01D/F01D; MODE1: 1.9 msec, MODE2: 1.5 msec, MODE3: 2.8 msec, Through a digital connection with a camcorder; MODE1: 1.9 msec, MODE2: 1.3 msec, MODE3: 2.7 msec

General

● Operating voltage	7 V DC
● Consumption current	500 mA or less (at 7 V DC)
● Operating temperature	0 °C to 50 °C (32 °F to 122 °F)
● Storage temperature	-20 °C to +60 °C (-4 °F to +140 °F)
● Wireless remote control	2.4-GHz IEEE802.15.4 compliant
● Dimensions (unit: mm (inches))*2	88 x 119 x 31 (3 1/2 x 4 3/4 x 1 1/4)
● Mass	Approx. 280 g (10 oz) (including the supplied antennas)
● Supplied accessories	Antenna (2) CD-ROM (1) Frequency band label (1)

Before Using this Unit (3)

Notes

- *1 0dB μ V= 1 μ V EMF, 0dBu=0.775Vrms, 0dBV=1V, 0dB SPL=2x10⁻⁵ Pa
- *2 The values for dimensions are approximate.