

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 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.

Wide frequency coverage with choice of channels available

The extra wide switching bandwidth covers a wide area, with a wide choice of channels available across multiple models—please refer to product specifications for more information.
14UC: 470.125 MHz to 541.875 MHz (UHF-TV channels 14 to 25)
30A UC: 566.125 MHz to 607.875 MHz (UHF-TV channels 30 to 36),
25 kHz steps
42LA: 638.125 MHz to 697.875 MHz (UHF-TV channels 42 to 51),
25 kHz steps (not available in the US or Canada)

For customers in North America

The DWR-S02DN/30 and DWR-S02DN/42 models operates in portions of the 617-652 MHz or 663-698 MHz frequencies. As of 2017, these frequencies are being transitioned by the Federal Communications Commission (FCC) to the 600 MHz service to meet increasing demand for wireless broadband services. Users of these models must cease operating on these frequencies no later than July 13, 2020. In addition, users may be required to cease operations before that date if their operations could cause harmful interference to a 600 MHz service licensee's wireless operations on these frequencies. For more information, contact

the FCC.

For customers in Canada, please consult ISED's Spectrum Advisory Bulletin for recent information related to the 600 MHz band transition.

Features

Compatible with all DWX Series transmitters and microphones

Part of the DWX series digital wireless microphone system, the DWR-S02DN works seamlessly 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 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 minimize 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, allowing for a 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 allows 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.

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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)

14UC: 470.125 MHz to 541.875 MHz
(UHF-TV channels 14 to 25)
30A UC: 566.125MHz to 607.875MHz
(UHF-TV channels 30-36) 25kHz
steps
42LA: 638.125 MHz to 697.875 MHz
(UHF-TV channels 42-51), 25 kHz
steps (not available in US or
Canada)

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 (×2)
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) (×1)
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	<p>Analog output in combination with the DWA-01D/F01D; MODE1: 2.1 msec, MODE2: 1.7 msec, MODE3: 3.0 msec,</p> <p>ABS/EBU output in combination with the DWA-01D/F01D; MODE1: 1.9 msec, MODE2: 1.5 msec, MODE3: 2.8 msec,</p> <p>Through a digital connection with a camcorder; MODE1: 1.9 msec, MODE2: 1.3 msec, MODE3: 2.7 msec</p>
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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)	88 x 119 x 31

(inches))*2	(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.

Related products



DWT-B01N

DWX series digital wireless body-pack transmitter body-pack



DWM-02N

DWX series digital wireless microphone with interchangeable head mechanism



DWA-F01D

Digital wireless adaptor for DWX system



DWT-B30

DWX Gen3 digital wireless bodypack transmitter



DWT-P30

DWT-P30 plug-on

transmitter

Gallery

