SONY

DWR-S03D

DWX Gen3 2-channel digital wireless slot-in receiver

Overview

This high performance 2-channel portable slot-in receiver is an ideal choice for ENG/EFP and location sound applications. The DWR-S03D is part of Sony's third generation DWX series digital wireless microphone system that combines advanced digital technologies, analogue microphone expertise, wireless audio transmission technologies and an enviable reputation for stability.

The receiver operates with a wide bandwidth up to 148 MHz (depending on region), increasing the probability of finding unoccupied frequencies in congested metropolitan areas.

Light and compact, the DWR-S03D can be mounted in the slot of Sony or other professional camcorders using the optional DWA-SLAS1 or DWA-SLAU1 interface adaptor.

Automatic channel scan and sync permits quick, easy frequency setting, and the high density 375 kHz interval channel plan enables simultaneous multi-channel operation.

Features

Superb audio quality wireless transmission and reception

High quality 24-bit digital audio is transmitted and received within a specific frequency bandwidth meeting Wireless Communication Regulations for each country. Using Sony’s original codec design based on years of audio engineering expertise, the DWX system delivers a wide dynamic range of

more than 106 dB, wide frequency response of 20 Hz to 22 kHz, and excellent transient response.

Flexible interface

Optional interface adaptors are available for flexible use with camcorders by Sony and other manufacturers.
DWA-SLAS1: for Sony professional camcorders, DWA-01D and DWA-F01D
DWA-SLAU1: for products with UniSlot®* and SuperSlot™ **

* UniSlot® is a registered trademark of Ikegami Tsushinki Co., Ltd.
** SuperSlot™ is a registered trademark of Sound Devices LCC.
SuperSlot™ is available from Ver 1.10 or later.

Wide bandwidth

Up to 148 MHz bandwidth (depending on region) enables flexible operation with wide channel selection.

High density multi-channel operation

Ideal for large-scale productions, the DWR-S03D supports high density simultaneous multi-channel operation. 375 kHz spacing accommodates up to 21 channels per 8MHz TV band, or up to 16 simultaneous channels per 6MHz TV band.

Automatic channel scan and sync function

The DWR-S03D comes with automatic channel scan and sync function that allows for fast, easy and safe frequency channel setting. The function starts by short-cut operation which is pressing MENU SELECT button and SET button at once. It scans frequencies, finds clear channels, and applies the top two channels to the both channels on the receiver and also both transmitters via Cross Remote.

Stable RF transmission

Sony X-Dimension Diversity™ reception system* and High Dynamic Range RF circuit dramatically improves transmissions

reliability.

* This unique diversity system combines Sony's advanced digital technology and high accuracy calculation algorithms to dramatically enhance transmission stability.

Cross Remote™ monitor/control functions
Input attenuation, RF frequency selection, RF power output, audio low-pass cut-off frequency and transmitter Sleep Mode can all be controlled remotely.

Advanced integration with XDCAM shoulder camcorder
Advanced integration functions are available when the DWR-S03D is combined with an XDCAM professional camcorder:

- The camcorder synchronises audio latency inherent in digital transmission with video recording latency.
- Wireless audio status can be monitored on the camcorder's LCD or viewfinder.
- Transmitter parameter can be controlled remotely from the camcorder via Cross Remote™.
- The camcorder's assignable switch can remotely control transmitter power save.*
- Transmission power save mode changes automatically to Active or Sleep by switching camcorder's main power on or off.*

* Applicable camcorders: PXW-Z450 Ver.3.0～/PXW-X400 Ver.3.2～/PXW-X500 Ver.5.2～/PXW-Z750

Four codec modes for wide range of applications
MODE1: Compatible with first generation DWX-series devices.
MODE2: Prioritises short latency times while maintaining transmission stability and high audio quality.

MODE3: Additional signal processing suppresses noise caused by unexpected pulse interference.
MODE4: Prioritises audio quality while maintaining transmission stability and low delay time.

Low audio latency and high quality sound

Ideal for live applications, the system achieves an extremely low audio latency time of 1.2 msec, with a 96kHz sampling rate for very high quality sound (codec MODE2, with DWT-B03R or DWT-B30).

Stable, securely encrypted transmission and reception

The system's improved digital modulator ensures highly stable wireless transmission that is extremely tolerant to unwanted interference. In addition, data transmission and reception with AES 256-bit encryption minimises the risk of interception to assure highly secure transmission and reception.

User settings memory

User settings can be easily stored and loaded.

Light, compact and rugged design

When mounted on a camcorder the receiver's compact dimensions and light weight maintain a good balance for operators. Die-cast magnesium and aluminium construction ensures rugged, reliable operation in harsh environments.

Easy-to-read dot-matrix OLED display

The quick-response OLED (Organic Light-Emitting Diode) display ensures clear and accurate real-time display of operational information.

Camcorder rear mounting

The DWR-S03D can be rear mounted to a range of Sony professional camcorders, using the optional DWA-01D adapter that allows four channel wireless mic operation using two

receivers. Full-digital audio recording is also possible when used with a camcorder featuring AES/EBU inputs.

SuperSlot™ compatible

DWR-S03D is compatible with SuperSlot™ * from Ver 1.10 or later. It is possible to operate in cooperation with the compatible equipment.

* SuperSlot™ is a registered trademark of Sound Devices LCC. SuperSlot™ is available from Ver 1.10 or later.

Audio output setting

Audio output can be selected from analog or digital when the DWA-SLAU1 is attached.*

* This function is available from Ver 1.10 or later.

Specifications

General	
Type of Receiver	Slot-in (2 channels)
Transmission Method	WiDIF-HP (x2)
Circuit system	Double superheterodyne
Oscillator type	Crystal-controlled PLL synthesizer
Reception Type	True diversity method
RF input terminal	SMA-R, 50 ohms
Antenna Type	Detachable
	20 dBμ or less (at ambient

Sensitivity	temperature 25 °C (77 °F), bit error rate = 1 x 10 -5, no decline in S/N ratio)
Carrier Frequencies	**UC7** : 470.125 MHz to 607.875 MHz, 614.125 MHz to 615.875 MHz (UHF-TV channels 14 to 36, 38) **L/CE7** : 470.025 MHz to 614.000 MHz (UHF-TV channels 21 to 38) **H/CE7** : 566.025 MHz to 714.000 MHz (UHF-TV channels 33 to 51) **G/J** : 1240.150 MHz to 1251.825 MHz, 1253.175 MHz to 1259.850 MHz
Reference output level	Analog: –40 dBu Digital: –36 dBFS/–20 dBFS (switchable)
Dynamic range	106 dB or more (A-weighted)
Distortion (T.H.D)	MODE1, MODE2, MODE4: 0.03% or less MODE3: 0.3% or less
	Analog output in combination with the DWA-01D/F01D; MODE1: 2.1 msec, MODE2: 1.7 msec, MODE3: 3.0 msec, MODE4: 1.7 msec ABS/EBU output in combination with the DWA-01D/F01D; MODE1:

Audio delay	1.9 msec, MODE2: 1.5 msec, MODE3: 2.8 msec, MODE4: 1.5 msec Through a digital connection with a camcorder; MODE1: 1.9 msec, MODE2: 1.3 msec, MODE3: 2.7 msec, MODE4: 1.4 msec
Audio output connector	D-sub 15 pin (male) (x1) with optional adaptor DWA-SLAS1 D-sub 25 pin (male) (x1) with optional adaptor DWA-SLAU1
Display	OLED
Operating voltage	DC 6 V to 18 V
Consumption current	3.5 W or less with optional adaptor DWA-SLAS1 4.0 W or less with optional adaptor DWA-SLAU1
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
	Approx. 88 x 119 x 32 mm (3 1/2 x 4 3/4 x 1 5/16 in) (W / H / D)

Dimensions	(excluding antennas) with optional adaptor DWA-SLAS1 Approx. 74 x 119 x 31 mm (3 x 4 3/4 x 1 1/4 in) (W / H / D) (excluding antennas) with optional adaptor DWA-SLAU1
Mass	Approx. 193g with optional adaptor DWA-SLAS1 (including antennas) Approx. 196g with optional adaptor DWA-SLAU1 (including antennas)
Supplied accessories	Antenna (2), CD-ROM (1), Frequency band label (1), Before Using this Unit (3)
Notes	*1 0dBμV=1μV EMF, 0dBu=0.775Vrms, 0dBV=1V, 0dB SPL=2x10-5 Pa *2 The values for dimensions are approximate. *3 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.

Related products

DWA-SLAS1

Interface adaptor for Sony professional camcorders

DWA-SLAU1

Interface adaptor for camcorders with UniSlot

DWT-B03R

DWX Series digital wireless microphone bodypack transmitter

DWT-B30

DWX Gen3 digital wireless bodypack transmitter

DWT-B01N

DWX series digital wireless body-pack transmitter body-pack

DWT-P01N

Digital wireless microphone plug-on transmitter

DWM-02N

DWX series digital wireless microphone with interchangeable head mechanism

DWA-01D

Digital wireless receiver adaptor

DWA-F01D

Digital wireless adaptor for DWX system

DWT-P30

DWT-P30 plug-on transmitter

DWA-F03D

Digital Wireless Adaptor

Gallery