SONY

DWT-B01N

DWX series digital wireless body-pack transmitter body-pack

Overview

High quality wide-band transmitter with three codec modes providing short audio latency and more reliable transmission

The DWT-B01N body-pack transmitter forms part of the DWX series system, offering high-quality full-digital operation, shorter audio latency and more reliable RF transmission mode – ideal for a variety of high-quality applications, including broadcast studio, theatre and live sound.

The DWX series system delivers superb-quality wireless transmission of 24-bit digital audio. Thanks to its improved codec and new hardware, it can provide higher sound quality with lower audio latency.

The DWX series works with Sony control software Wireless Studio for PC and Wireless Studio Mobile for smartphones* to give users flexible control of the system. Remote control of up to 82 transmitters can be achieved using the Cross Remote™ function combined with the RMU-01 remote control unit.

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**.

Compatibility with DWX series

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

Smartphone control*

Wireless Studio Mobile software gives users remote control of the DWX series system via a smartphone.

Notes

* Wireless Studio Mobile supported OS: iOS Ver.8.0 or later and Android Ver.4.1 or later. Operation is not guaranteed on all smartphones.
**Analogue out, 2.5 msec for digital out

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: 566.125MHz 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)

For customers in North America

The DWT-B01N/30 and DWT-B01N/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

Three codec modes for more reliable RF transmissions and higher quality sound

The Sony codec has been improved to provide three codec modes optimised for a wider variety of applications. MODE1 provides compatibility with DWX series applications, with the same audio latency of 3.4 msec. MODE2 provides higher quality sound with a 96kHz sampling rate A/D converter and very low audio latency of 1.5 msec**. MODE3 provides more reliable RF transmission with an audio latency of 4.0 msec***

Superb quality wireless transmission and reception

The digital wireless microphone system transmits and receives high-quality 24-bit digital audio in a specific frequency bandwidth that meets the Wireless Communication Regulations of each country. Utilising the Sony original codec based on Sony's years of experience in engineering audio products, the system delivers a wide dynamic range of more than 106 dB, a wide frequency response of 20 Hz to 22kHz, and an excellent transient response.

Stable and secure transmission and reception

Incorporating the improved digital modulator, the digital wireless microphone system allows 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

Simultaneous multi-channel operation
The digital wireless microphone system allows for large-scale multi-channel operations. Thanks to the digital modulator, the system realises an intermodulation-free, equally spaced channel allocation. The digital wireless transmission technology used in this system enables a significant increase in the number of simultaneous operations in comparison with current analogue wireless systems. For example, up to16 channels of simultaneous operation is possible in an 8-MHz operating band.

Low noise head amplifier
Low noise head amplifier achieves -128dBu noise floor.

Flexible audio input control
48dB at 3dB steps audio attenuation supported. Line / Microphone input supported. Transmitter audio attenuation can be controlled from receiver side using Sony wireless remote control system.

Flexible battery options
The DWT-B01N is able to accept a variety of AA type battery, such as Alkaline, Lithium, NiMH etc.

Selectable output power
Output power selectable between 1/10/50 mW. Choose the minimum power necessary for a venue, lengthening battery life, and reducing the already low possibility of interference. Allows the microphone to work effectively in a very wide range of venues.

High quality OLED display
A variety of information is obtained at a glance from the high quality OLED display panel, such as the reception channel, Audio

and RF signal status, user name, user group, Lock etc.

Wireless remote control

Remote control of up to 82 transmitters can be achieved using the Cross Remote™ function combined with the RMU-01 remote control unit.

Smartphone control using Wireless Studio Mobile software

The DWX series works with Sony control software Wireless Studio for PC and Wireless Studio Mobile for smartphones* to give users flexible control of the system.

Notes

* Wireless Studio Mobile supported OS: iOS Ver.8.0 or later and Android Ver.4.1 or later.. Operation is not guaranteed on all smartphones.

**Analogue out. 2.5 msec for digital out.

***Analogue out. 4.9 msec for digital out

Specifications

Specifications	
Wireless Interface	WiDIF-HP
Oscillator Type	Crystal-controlled PLL Synthesizer
Antenna Type	λ/4 flexible wire
Type of Emission	G1E or G1D
	14UC: 470.125 MHz to 541.875 MHz (UHF-TV channels 14 to 25)

Carrier Frequencies - UC	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)
Carrier Frequencies - CE7	CE21: 470.025 MHz to 542.000 MHz (TV-21 to TV-29 channels) 25 kHz steps CE33: 566.025 MHz to 630.000 MHz (TV-33 to TV-40 channels), 25 kHz steps CE42: 638.025 MHz to 710.000 MHz (TV-42 to TV-50 channels), 25 kHz steps
Carrier Frequencies - J	WL: 470.150 MHz to 542.000 MHz (TV-13 to TV-24 channels), 25 kHz steps WM: 566.025 MHz to 638.000 MHz (TV-29 to TV-40 channels), 25 kHz steps WH: 638.025 MHz to 713.850 MHz (TV-41 to TV-52 and 53 channels), 25 kHz steps G: 1240.150 MHz to 1251.825 MHz, 1253.175 MHz to 1259.850 MHz, 25 kHz steps

RF Power	1 mW/10 mW/50 mW (e.r.p) selectable
Input Connector	Sony 4-pin (SMC9-4S) (female)
Reference Input Level	MIC: -60 dBV (-58 dBu), 1 kHz (at 0-dB attenuator level) / LINE: +4 dBu, 1 kHz
Maximum Input Level	MIC: -22 dBu (with 0 dB attenuator), LINE: +24 dBu
Audio Attenuator Adjustment Range	0 to 48 dB (3 dB steps, MIC input mode only)
Frequency Response	Transmission: 20Hz to 22kHz (typical)
Dynamic Range	106 dB typical (A-weighted, T.H.D=1%)
Distortion (T.H.D)	MODE1, MODE2: 0.03% or less MODE3: 0.3% or less
Audio Delay	MODE1: 1.5 msec (total: 3.4msec) /MODE2: 1.0 msec (total: 1.5msec)/MODE3: 2.1 msec (total 4.0msec)
Wireless Remote Control	Cross Remote (2.4-GHz IEEE802.15.4 compliant)

Display	OLED
Power Requirements	DC 3.0 V (with two AA-size alkaline (LR6) batteries)
Battery Operating Time	Approx. 5 hours with Sony's AA-size alkaline (LR6) batteries at 25°C(77°F) at 10-mW output (with the wireless remote control function off and DIMMER MODE set to AUTO OFF)
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	63 x 17 x 73 mm (excluding the anntenas) (W x H x D)
Mass	Approx. 125 g (including batteries)
Supplied Accessories	Spare battery case (1) Soft case (1) Microphone cable (4-pin to XLRtype 3-pin) (1) USB adapter cable (1) Carrying case (1) Scribble sheet (1) CD-ROM (1)

Related products

DWR-S02D

Digital wireless receiver

DWR-R02D

Digital wireless receiver

DWR-R02DN

DWX series digital wireless receiver

DWR-S02DN

Digital wireless receiver

DWR-R03D

DWX Series 2-channel digital wireless receiver

ECM-77BC

Discrete omni-directional lavalier Electret condenser microphone

DWR-S03D

DWX Gen3 2-channel digital wireless slot-in receiver

Gallery