

Digital Wireless
Microphone System

DWT-B01
DWR-S01D
DWA-01D

U30/32 U42/44



OUTLINE

Sony is proud to introduce a digital wireless microphone system that offers high-quality full-digital operation and enhanced system performance – a perfect match for high-quality ENG/EFB applications.

The system, which consists of the DWT-B01 bodypack transmitter and the DWR-S01D portable tuner, delivers excellent-quality wireless transmission of 24-bit/48-kHz digital audio. Thanks to the Sony original codec, it realizes low-latency, secure, and reliable operation. In addition, the system allows for an increase of up to 50% in the number of simultaneous multi-channel operations compared to conventional analog systems, which gives users enhanced system flexibility.*

With its excellent audio quality and operational flexibility, the Sony digital wireless microphone system opens up a whole new world of audio applications.

* When operating on a 6-MHz bandwidth TV channel in the USA.

SYSTEM FEATURES

Superb Quality Wireless Transmission

The digital wireless microphone system transmits high-quality 24-bit/48-kHz digital audio in a specific frequency bandwidth that meets the wireless-communication regulations of each country. Utilizing 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 20 kHz, and an excellent transient response.

Stable and Secure Transmission

Incorporating the newly developed digital modulator, the digital wireless microphone system allows highly stable wireless transmission that is extremely tolerant to interference waves. In addition, the system transmits digitally modulated and encrypted data to minimize the risk of interception, providing highly secure transmission.

Simultaneous Multi-channel Operation

The digital wireless microphone system allows for large-scale multi-channel operations. Thanks to the newly developed digital modulator, the system realizes an inter-modulation-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 analog wireless systems. For example, up to 12 channels of simultaneous operation is possible on a 6-MHz bandwidth TV channel in the USA.

DWT-B01 Digital Wireless Transmitter



- Bodypack transmitter that accepts mic or line input (attenuator level: 0 dB to 48 dB in 3-dB steps)
- Selectable output power for stable and long-distance transmission (1/10/50 mW)
- Compact, lightweight, and rugged design
- Up to 12-channel multi-channel operation (at 6-MHz bandwidth)
- Easy-to-see, full dot-matrix OLED (Organic Light-Emitting Diode) display

DWT-B01	
Input connector	SMC9-4S (Sony 4-pin) (x1)
Power requirement	DC 3.0 V (two LR6 AA-size alkaline batteries)
Dimensions (W x H x D)	63 x 73 x 17 mm (2 1/2 x 2 7/8 x 11/16 inches)

DWR-S01D Digital Wireless Receiver



- Two-channel slot-in receiver for camcorders
- Can also be rear-mounted to HDCAM™/XDCAM™/Digital Betacam™/MPEG IMX™ camcorders by use of the DWA-01D adaptor
- Supports analog or AES3 digital audio output
- Compact, lightweight, and rugged design
- Easy-to-see, full dot-matrix OLED display

DWR-S01D	
Antenna connector	BNC-R
Power requirement	DC 7.0 V (supplied from DWA-01D)
Dimensions (W x H x D)	88 x 117.8 x 31.3 mm (1 1/2 x 4 3/4 x 1 1/4 inches)

DWA-01D Digital Wireless Adaptor



- Used to mount DWR-S01D receiver on HDCAM/XDCAM/Digital Betacam/MPEG IMX camcorders
- Also for using the DWR-S01D receiver with digital audio mixers such as Sony DMX-P01
- Two-channel AES3 digital or analog audio output
- Headphone output for monitoring (stereo mini-jack)
- External DC power input via the supplied 4-pin cable
- Word sync input

DWA-01D	
Output connector	SMC9-4S (Sony 4-pin) (x2) (for OUTPUT1 and OUTPUT2)
WORD sync input	BNC-R, 75 Ω, lock range: 32 kHz to 54 kHz
Monitor output connector	3.5 mm (5/32 inch) dia., stereo mini-jack (for headphones)
Monitor output	5 mW (16 Ω loaded)
Power requirement	DC 12 V

SYSTEM SPECIFICATIONS

Digital Wireless Microphone System	
Sampling frequency	48 kHz
Quantization bit length	24 bit
Carrier frequencies	U30/32 model: 566.125 to 589.875 MHz, U42/44 model: 638.125 to 661.875 MHz
Channel step	125 kHz
Reference input level (at 0-dB audio attenuator level)	DWT-B01 transmitter: 1 kHz, -60 dBV, 0 dBV=1 Vrms (1 kHz, -58 dBu, 0 dBu=0.775 Vrms)
Reference output level	DWA-01D adaptor (analog output): -58 dBu
Maximum output level	DWA-01D adaptor (analog output): -22 dBu DWA-01D adaptor (AES/EBU output): 0 dBFS
Frequency response	20 Hz to 20 kHz ±1 dB
Signal-to-noise ratio	70 dB (typical) (A-Weighted, at reference input level)
Audio delay	Less than 4 msec

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