

**DWZ Series**  
**DWZ-M70 DWZ-B70HL**  
Digital Wireless Microphone Package

**SONY**  
make.believe







**Power to the Wireless,  
Power to your Performance**

# Great Performances for Presenters and Vocalists

Experience stable and reliable sound from Sony. The DWZ-M70 package with a handheld microphone, and the DWZ-B70HL package with a headset and lavalier microphone provide clear voices for your audience by eliminating unwanted acoustic feedback noise, using Sony's advanced integration of DSP functions. With 24-bit linear PCM digital transmission, you get high sound quality with high reliability, utilizing unique transmission technology also developed by Sony. With the support of two RF modes, your audio signal can be captured and transmitted reliably and easily.

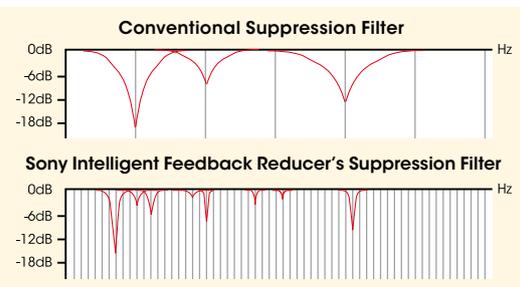
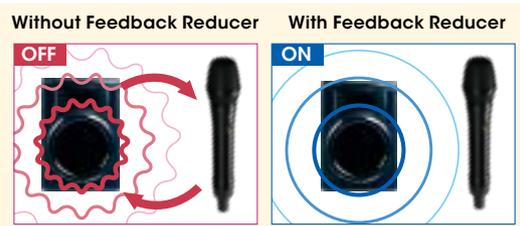


## FEATURES and TECHNOLOGIES

DWZ-M70 DWZ-B70HL

### ● Intelligent Feedback Reducer

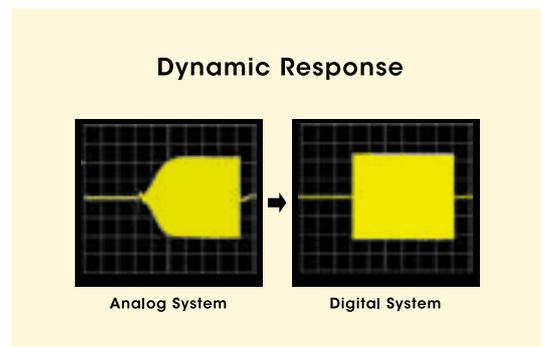
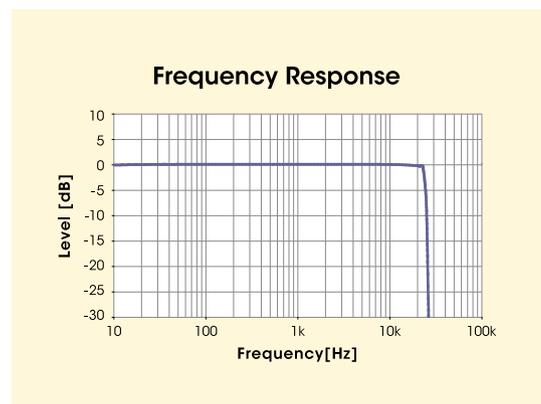
The Sony Intelligent Feedback Reducer can suppress unwanted feedback (howling) with high-performance DSP and Sony's unique algorithms designed to eliminate feedback before it becomes unbearable. Also, the equivalent of maximum 1024-band suppression filters are continuously tuned automatically in real time, eliminating feedback and avoiding deteriorating the original signal; this delivers the highest quality sound that can be enjoyed by presenters, vocalists, and audiences. You can freely select the audio outputs to which you want this feedback reduction filter to apply - for example, you can output original audio to the main PA system, while processed audio is delivered to your monitor speakers.



DWZ-M70 DWZ-B70HL

### ● Superb Digital Sound Quality

High-quality 24-bit linear PCM digital transmission offers a pristine audio experience, and a wide frequency range of 10 Hz to 22 kHz. With these high-quality digital sound packages, you can experience professional performances by presenters and vocalists. The audio performance degradation that's typical with conventional analog wireless systems is avoided, because these digital wireless packages are designed without the need for a compander.



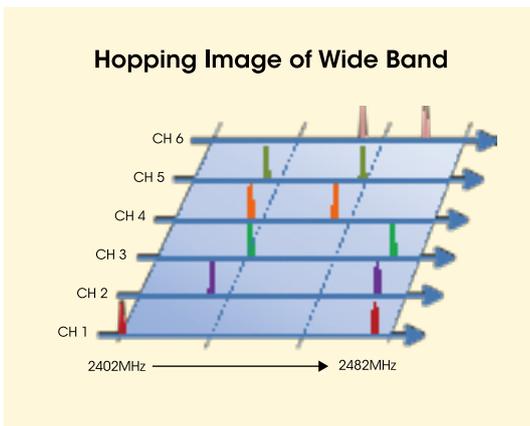
DWZ-M70 DWZ-B70HL

## Two RF Modes for Reliable Transmission

The DWZ-M70 package and DWZ-B70HL package provide two selectable RF modes. Simply choose the one that makes best use of your actual 2.4-GHz RF environment.

### [ Wide Band Hopping Mode ]

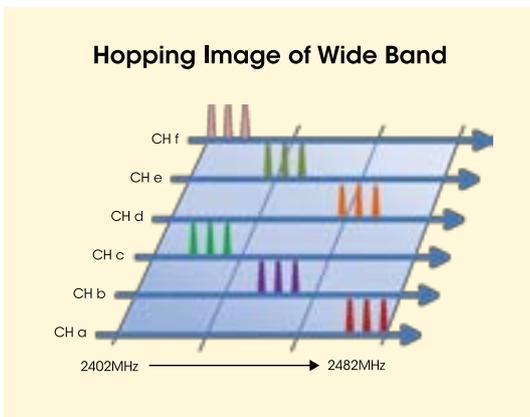
This mode reduces interference with other wireless equipment used in the same environment, such as wi-fi devices. It doesn't require you to have technical knowledge about radio frequencies. Wide Band Hopping Mode also supports additional error correction for more secure transmission\*.



\* Latency of approximately 6 ms.

### [ Narrow Band Hopping Mode ]

This mode helps you to avoid interference from other devices - for example, 2.4-GHz wireless remote controllers that are commonly used for lighting control. This enables you to coordinate frequencies when using multiple wireless systems simultaneously\*\*.



\*\* Latency of approximately 3 ms.

DWZ-M70 DWZ-B70HL

## Stable Transmission

Interruptions in reception (signal dropout) can be a problem with wireless microphone transmission systems. With the DWZ Series, however, the occurrence of signal dropout can be reduced to a minimum. Utilizing a space diversity reception system, this series achieves stable reception by using dual antenna inputs/reception circuits. These receive signals over two different paths and automatically select the stronger RF signal for output.

DWZ-M70 DWZ-B70HL

## Highly Secure Transmission

These two DWZ Series packages both offer 128-bit standard encryption technology to secure transmitted signals and avoid being intercepted by others. By using this encryption feature, users can reduce the worry that confidential information could be intercepted.

DWZ-M70 DWZ-B70HL

## Battery Recharging System

The BC-DWZ1 optional battery charger enables you to recharge NiMH batteries in the ZTX-M02RC and the ZTX-B02RC. The BC-DWZ1 is a contactless recharger; this means that you simply place the handheld microphone and/or bodypack transmitter into the charging station to recharge NiMH-type batteries. You do not need to physically remove the rechargeable batteries to recharge them, which saves you time and reduces wear and tear to the transmitters.



\*BC-DWZ1 and NiMH battery are sold separately.

DWZ-M70 DWZ-B70HL

## Robust Metal Body

The ZTX-M02RC handheld microphone (supplied with the DWZ-M70 package) and the ZTX-B02RC bodypack transmitter (supplied with the DWZ-B70HL package) are made of strong durable metal. Metal construction supports reliable use in rough operating conditions.

DWZ-M70 DWZ-B70HL

## ● Large Color LCD

The ZRX-HR70 half-rack-size receiver (supplied with the DWZ-M70 package and the DWZ-B70HL package) includes a large color LCD display to provide you with a detailed visual status of your selected channel, feedback reducer, signal, and five-band digital equalizer, along with your audio level, and transmitter battery life.



DWZ-M70 DWZ-B70HL

## ● Fast and Easy Setup

The half-rack ZRX-HR70 has Clear Channel Scan and Best Channel Selection features that can detect unoccupied channels and select the most appropriate channel automatically. These features allow you to achieve fast and easy system setup.

DWZ-M70

## ● Interchangeable Capsules

With the handheld transmitter, you can use the supplied high-quality dynamic cardioids microphone capsule. Alternatively, you can select any optional mic capsule from Sony's DWX Series capsules (the thread pitch is 1.25"/28; 31.3 mm/pitch 1.0 mm threading)\*.



\*Use of third-party capsules may cause RFI or EMF noise.

DWZ-B70HL

## ● Fulfilled Microphone Type

The DWZ-B70HL package includes two types of microphones. The ECM-HZ1UBMP is a uni-directional electret condenser lightweight headset that keeps you comfortable and stress-free even when wearing it for long periods of time. Its ear-clip-style design allows you to wear it on either your left or right ear. The ECM-LZ1UBMP is a uni-directional electret condenser lavalier microphone, ideal for commercial sound applications such as presentations, lectures, and conferences.



DWZ-M70 DWZ-B70HL

## ● Adjustable Attenuator

Adjustable transmitter attenuators allow you to select proper audio input levels from the microphone. The bodypack transmitter (included with the DWZ-B70HL package) can also support line level audio input signals, plus it can be used in conjunction with the optional EC-1.5BX XLR input cable when needed.

DWZ-M70 DWZ-B70HL

## ● Five-band Equalizer

With a five-band digital equalizer in the half-rack ZRX-HR70 receiver, you can adjust the sound character of your microphone as desired.

DWZ-B70HL

## ● Selectable Muting Output

The bodypack transmitter muting switch allows you to select specific outputs on the receiver to be muted. You can select to mute all outputs, XLR/Main outputs, or the AUX/Tuner output. This feature provide you with many operational choices – for example, talkback operation.

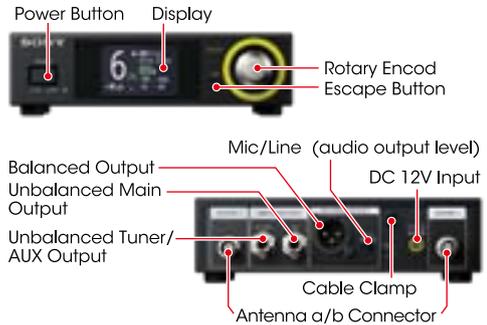
## BUTTONS and INTERFACES



ZTX-M02RC



ZTX-B02RC



ZRX-HR70

## PACKAGE LINEUP



DWZ-M70



DWZ-B70HL



ZRX-HR70  
Half-rack receiver



ZTX-M02RC  
Handheld microphone



ZRX-HR70  
Half-rack receiver



ZTX-B02RC  
Bodypack transmitter



Belt Clip



Antenna



Microphone holder



Antenna



ECM-LZ1UBMP  
Lavalier microphone



ECM-HZ1UBMP  
Headset microphone



AC adaptor



AC adaptor



Microphone holder clip



Cord Clip

### Optional Accessory



BC-DWZ1  
Battery charger



RMM-HRD1  
Rack mount kit



ECM-HZ1UBMP  
Headset microphone



ECM-LZ1UBMP  
Lavalier microphone



SAD-HZ1B  
Microphone holder clip



AD-RX7B  
Windscreen pack



GC-0.7BMP  
Guitar cable



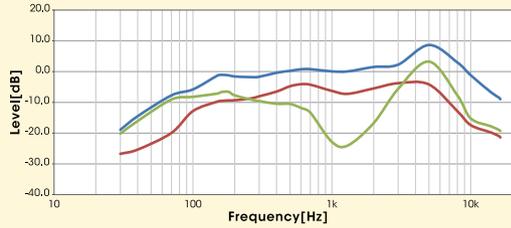
EC-1.5BX XLR  
Input cable

# SPECIFICATIONS

## ZTX-M02RC

### Frequency Response

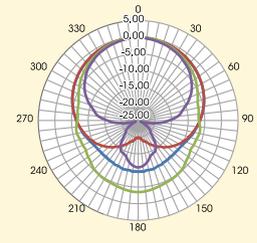
— On axis — 90° — 180°



### Directivity Characteristics

— 400Hz — 1000Hz

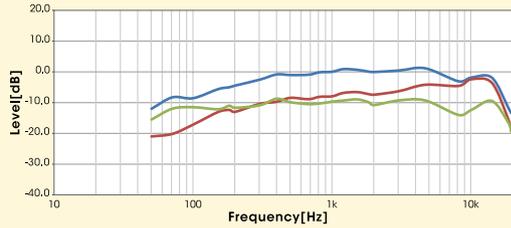
— 4000Hz — 8000Hz



## ECM-HZ1UBMP

### Frequency Response

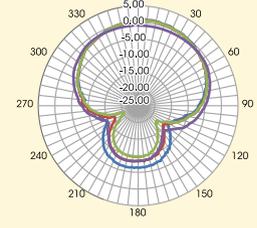
— On axis — 90° — 180°



### Directivity Characteristics

— 400Hz — 1000Hz

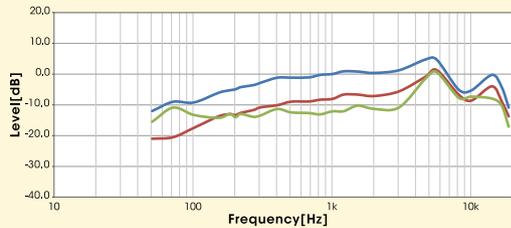
— 2000Hz — 4000Hz



## ECM-LZ1UBMP

### Frequency Response

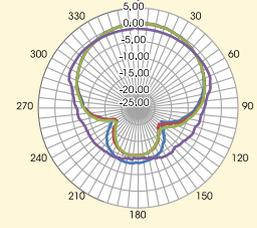
— On axis — 90° — 180°



### Directivity Characteristics

— 400Hz — 1000Hz

— 2000Hz — 4000Hz



Model Code	DWZ-M70		DWZ-B70HL	
Transmitting Section	Transmitter Type	Handheld	Bodypack	
	Carrier Frequencies	2402.0 MHz to 2478.5 MHz	2402.0 MHz to 2478.5 MHz	
	RF Power Output	10 mW (e.i.r.p.)	10 mW (e.i.r.p.)	
Receiving Section	Receiver Type	Rackmount (Half / 1 channel)	Rackmount (Half / 1 channel)	
	Reception Type	Space diversity	Space diversity	
	Antenna Type	External whip antenna	External whip antenna	
	Receiving Frequencies	2402.0 MHz to 2478.5 MHz	2402.0 MHz to 2478.5 MHz	
	RF Sensitivity	24 dB $\mu$ V or less	24 dB $\mu$ V or less	
Audio Section	Capsule Type	Dynamic	Electret condenser	
	Directivity	Uni-directional	Uni-directional	
	Maximum Input Level	142 dB SPL (with 12 dB attenuator)	MIC: -22 dBu INST/LINE: +8 dBu (when attenuator level is 0 dB)	
	Audio Attenuator	0 / 6 / 12 dB	0 / 10 / 20 dB	
	Frequency Response	Transmission: 10 Hz to 22 kHz Microphone unit: 70 Hz to 16 kHz	Transmission: 10 Hz to 22 kHz Headset Microphone: 60 Hz to 18 kHz Lavalier Microphone: 60 Hz to 18 kHz	
	Dynamic Range	102 dB (A-weighted)	MIC: 102 dB (A-weighted) INST/LINE: 98 dB (A-weighted)	
	Audio Delay	Narrow band mode: Approx. 3 ms / Wide band mode: Approx. 6 ms (Transmitter + Receiver) (Additional Audio Delay for Intelligent Feedback Reducer/ Low: 0ms, Mid: 8ms, High: 16ms)	Narrow band mode: Approx. 3 ms / Wide band mode: Approx. 6 ms (Transmitter + Receiver) (Additional Audio Delay for Intelligent Feedback Reducer/ Low: 0ms, Mid: 8ms, High: 16ms)	
	Distortion (T.H.D)	0.03% or less (-38 dBu, 1 kHz input)	0.03% or less (-38 dBu, 1 kHz input)	
	Analog Output	XLR-3-32, balanced (x1) Phone jack, unbalanced (x2) (Intelligent Feedback Reducer is available)	XLR-3-32, balanced (x1) Phone jack, unbalanced (x2) (Intelligent Feedback Reducer is available)	
	Reference Output Level	Balanced output: MIC: -58 dBu / LINE: -12 dBu Unbalanced output: -28 dBu	Balanced output: MIC: -58 dBu / LINE: -12 dBu Unbalanced output: -28 dBu	
Other Equipment	Encryption	AES 128-bit	AES 128-bit	
	Display	LCD	LCD	
General	Power Requirements	TX x1 / RX x1 ZTX-M02RC: 3.0 V DC (two LR6 (size AA) alkaline dry cell batteries) *Rechargeable function is available with two HR6 (size AA) Ni-MH rechargeable batteries ZRX-HR70: External DC input: 1.2 V DC	TX x1 / RX x1 ZTX-B02RC: 3.0 V DC (two LR6 (size AA) alkaline dry cell batteries) *Rechargeable function is available with two HR6 (size AA) Ni-MH rechargeable batteries ZRX-HR70: External DC input: 1.2 V DC	
	Battery Operating Time	Approx. 10 hours of continuous use (25 °C (77 °F) ambient temperature, Sony LR6 (size AA) alkaline dry cell batteries)	Approx. 10 hours of continuous use (25 °C (77 °F) ambient temperature, Sony LR6 (size AA) alkaline dry cell batteries)	
	Operating Temperature	0°C to 50°C / 32°F to 122°F	0°C to 50°C / 32°F to 122°F	
	Storage/Transport Temperature	-20°C to +60°C	-20°C to +60°C	
	Dimensions	ZTX-M02RC: $\phi$ 48 x 258 mm (1 15/16 x 10 1/4 inches) (diameter/length) ZRX-HR70: 168 x 44 x 96 mm (6 5/8 x 1 3/4 x 3 7/8 inches) (w/h/d)	ZTX-B02RC: 63 x 87 x 20 mm (2 1/2 x 3 1/2 x 13/16 inches) (w/h/d) (excluding the antenna) ZRX-HR70: 168 x 44 x 96 mm (6 5/8 x 1 3/4 x 3 7/8 inches) (w/h/d)	
	Mass	ZTX-M02RC: Approx. 308 g (11 oz.) (including batteries) ZRX-HR70: Approx. 510 g (1 lb, 2.0 oz.)	ZTX-B02RC: Approx. 162 g (5.7 oz.) (including batteries) ZRX-HR70: Approx. 510 g (1 lb, 2.0 oz.)	
	Supplied Accessories	ZTX-M02RC (1), ZRX-HR70 (1), Mic holder (1), Antenna (2), AC adapter (1), Quick Start Guide (1), Before Use (1), CD-ROM (1)	ZTX-B02RC (1), ZRX-HR70 (1), Uni-directional Lavalier Microphone (1), Uni-directional Headset microphone (1), Mic holder clip (1), Wind screen (1), Cord clip (1), Wind clip (1), Belt clip (1), Belt clip screw (1), Antenna (2), AC adapter (1), Quick Start Guide (1), Before Use (1), CD-ROM (1)	

\*0dB $\mu$ V=1 $\mu$ V EMF, 0dBu=0.775Vrms, 0dBV=1V, 0dB SPL=2x10<sup>-5</sup> Pa

Distributed by

©2013 Sony Corporation. All rights reserved.  
 Reproduction in whole or in part without written permission is prohibited.  
 Features, design, and specifications are subject to change without notice.  
 The values for mass and dimension are approximate.  
 SONY and make.believe are trademarks of Sony Corporation.  
 All other trademarks are the property of their respective owners.