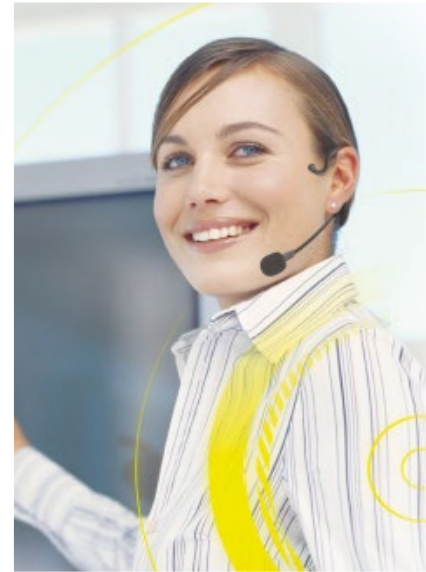


SONY



Pro Audio General Catalogue

The history of the Sony microphone began in 1950 when, for the first time, Sony microphones and tape recorders were introduced to the world. Now, more than 60 years later, Sony is synonymous with the production and distribution of high quality professional audio products for news gathering, video production, live events and broadcast.

Sony innovations continued with the development of electret condenser microphones in the 1960s, appealing to audiophiles who needed condenser performance with the simplicity of a dynamic mic. This was followed by the introduction of the Sony Lavalier mic in the 1970s.

During the 1960s, the first wireless mic was also developed, offering systems for field and studio applications and offering the ideal combination of performance, reliability and versatility. From the 1970s, Sony developed the first Worldwide diversity system. And in the 1980s, we expanded into UHF systems, Diversity ENG camera receivers, wireless handheld mics and systems for music reproduction. More recently, Dual Diversity & rack mount tuners plus UHF diversity wireless systems were introduced to the market and, coming out of our work with digital audio on CD & DAT formats from the 1980s, the Oxford Console and the DMX-R100 followed in the 1990s.

Our fully Digital Wireless DWX system provides the best sound quality and stability of any digital wireless on the market, providing high end audio solutions in a range of applications from ENG to live music and fixed installations in studios and OBs, providing Sony audio solutions available for everyone.

With our UWP-D wireless microphone series Sony also provides a digital audio processing system for ENG use with portable receiver, providing the user with full channel access and up to 72MHz bandwidth, the perfect audio solution for shooting on the go.



the power to move us

Experience superb performance, long-lasting reliability and seamless system integration with Sony superior digital and analogue professional audio

With over 60 years' experience of continually redefining the creative and technical possibilities for live and recorded sound, our professional audio solutions range from leading-edge digital and analogue wireless systems to shotgun microphones, headphones and more. In fact, everything you need to create, share and enjoy perfect sound.



Wireless Microphone

contents

World-leading professional digital wireless microphone systems offering superb quality 24-bit AES/EBU digital audio for the highest quality applications.

DWX Series 4

Ground-breaking entry-level analogue wireless microphone packages with a range of robust, all-metal transmitters and portable and fixed receivers for professional and semi-professional applications.

UWP-D/UWP Series 30

Affordable high-quality 24-bit digital audio microphone packages with a range of robust, all-metal transmitters and portable and fixed receivers for a wide range of applications.

DWZ Series 52

Wired Microphone

Professional Electret condenser microphones delivering excellent sound and noise handling performance for location and studio applications.

ECM Series 59

Professional Dynamic microphones delivering excellent sound and noise handling performance for location and studio applications.

F Series 78

Professional studio microphones for the new Hi-Res era with high frequency characteristics going out to 50 kHz.

100 Series 81

Mixer/Recorder/Headphone

Professional Mixer for location and Recorder and Headphone for general purpose applications

DMX/PCM/MDR Series 86

“

The Sony solution proved
again that it's top notch

*Markus Lempesch,
Ryan Leslie European Stage Manager*

”

**Superior digital sound quality
and multi-channel operation**

Created for use in live events and
in broadcast TV studios, the DWX
range seamlessly brings UHF
wireless microphone technology
into the digital domain. DWX is the
no-compromise, ultimate quality
choice, whatever your gig.

High-quality sound with

Sony's original codec

WiDIF-HP

High RF stability and minimized interference

RF remote control

supports improved workflow

∞ Cross Remote

Greater flexibility with multi-channel operation

Secure audio transmission

DWX

**The digital wireless system
for the digital moment**

DWX

DIGITAL WIRELESS

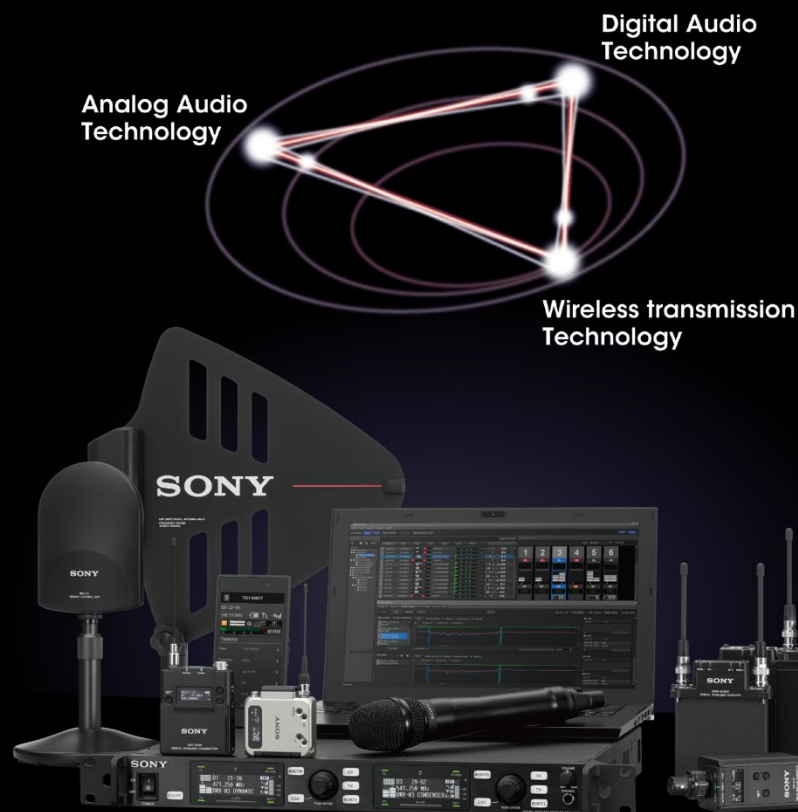
Sony's New DWX™ Boosts Sound Quality and Operational Convenience

With its new, cutting-edge digital wireless microphone system, Sony combines advanced digital technologies, world-leading analog microphone expertise, wireless audio transmission technologies, and an enviable reputation for stability.

By incorporating the very latest digital technologies, the DWX is set to revolutionize live stage performances...in much the same way as the music recording industry changed when Sony applied advanced digital technologies to recorders, mixing consoles, and signal processing equipment.

The DWX ensures superb sound quality, convenient multi-channel operation, and innovative workflow without compromise.

Once again, Sony opens new doors to the digital world.



WiDIF-HP

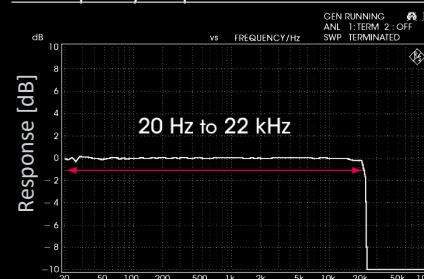
Sony's Original Wireless Interface, WiDIF™-HP

A new high-profile format for the digital audio interface on UHF - WiDIF-HP – has been developed for the DWX.

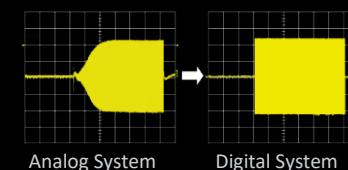
Superb Quality Wireless Transmission

WiDIF-HP transmits high-quality 24-bit/48-kHz sampling digital audio signals in real time, with a wide dynamic range of more than 106 dB, a wide frequency response of 20 Hz to 22 kHz, and a low system latency of 1.2 ms. Additionally, there is no compander, a device commonly used in conventional analog wireless systems which can degrade audio performance.

Frequency Response Characteristics



Dynamic Response



Greater Flexibility with Multi-Channel Operation

WiDIF-HP enables large-scale multi-channel operation. Thanks to a digital modulator, this wireless interface realizes inter-modulation-free, equally spaced channel allocation. This enables a significant increase in the number of simultaneous digital wireless systems in comparison with current analog wireless systems.

500-kHz spacing channel plan :

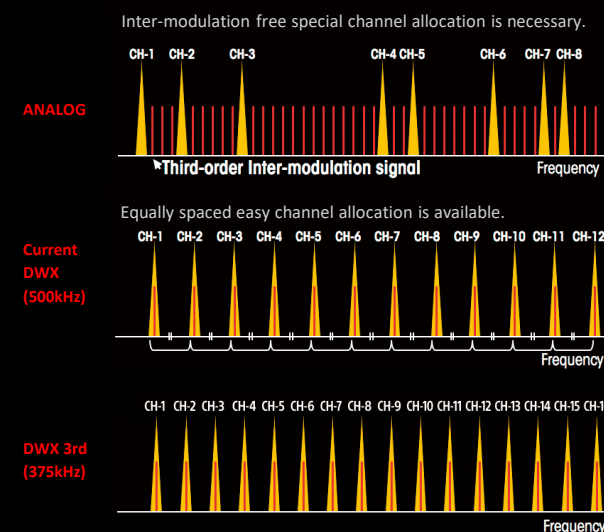
- Up to 12 channels of simultaneous operation are supported using a 6-MHz bandwidth TV channel, and 16 channels are supported using an 8-MHz TV channel.

375-kHz spacing high-density channel plan :

- Up to 16 channels of simultaneous operation are supported using a 6-MHz bandwidth TV channel, and 21 channels are supported using an 8-MHz TV channel.

This format also allows the use of existing WL-800 Series analog wireless channel plans. In this configuration, the DWX reliably operates along with WL-800 Series analog wireless systems, with no risk of analog/digital wireless system interference.

More Simultaneous Multi-channel Operations



Technologies

Stable and Secure Transmission

WiDIF-HP allows highly stable wireless transmission without audio degradation - transmission that is both secure and extremely tolerant to interference waves.

The format is digitally modulated and encrypted to minimize any risk of interception, providing highly secure transmission. For confidential communication, WiDIF-HP provides two communication modes:

AES256 mode / Secure key mode:

Wireless communication between a transmitter and receiver can be established by exchanging an encryption key that is generated by the transmitter.

Password mode:

Multiple transmitters and receivers can be configured by setting all devices with the same user-designated password.

In addition, password mode is for broadcast communication, enabling multiple receivers to receive audio signals from a single transmitter.

WiDIF-HP Specifications

Sampling frequency	48 kHz
Quantization bit length	24 bit
Frequency response	20 Hz to 22 kHz
Dynamic range	106 dB typical (A-weighted)
Distortion (T.H.D)	0.03% or less
Occupied RF bandwidth	192 kHz or less
Modulation method	$\pi/4$ Shift QPSK
Audio delay	1.2 msec*

*1.2 msec when DWT-B03R or DWT-B30 is used in mode2.
1.5msec when other transmitters are used in mode2.

Innovative Monitor/Control Function, Cross Remote™

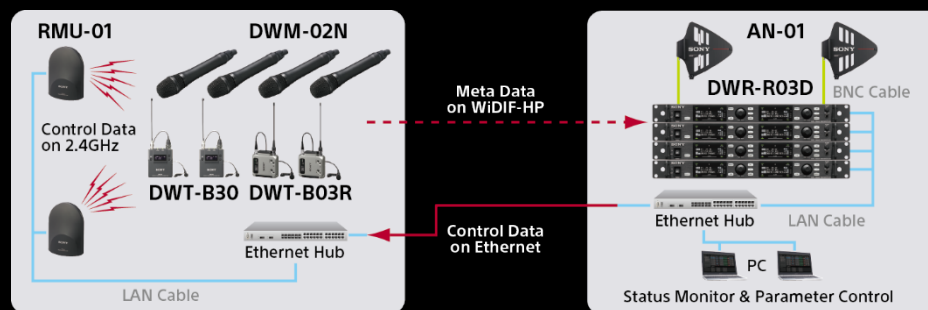
Cross Remote allows up to 82 transmitters to be managed centrally by establishing a remote network system.

The Cross Remote function of the DWX is one of the most distinctive features made possible by digital transmission technology.

It allows monitoring of the transmitter's status (such as the remaining battery capacity, RF level, and transmitter name) and control of its parameters (such as power on/sleep, attenuator level, low-cut filter frequency, and RF power output level) from a remote receiver.

This is achieved by combining metadata on the WiDIF-HP and 2.4-GHz IEEE802.15.4 communication technology. Audio RF signals of digital and analog wireless microphone systems are unaffected by 2.4-GHz communication. These remote monitoring and control capabilities are ideal for large-scale multi-channel system management, and effectively lower power consumption.

Cross Remote



Products

Sony is renowned for innovation in digital audio. Now, all of this expertise and legendary performance is available in a digital wireless microphone system using UHF frequency range.

DWM-02N

Handheld digital wireless microphone



- Superb audio quality by using 24bit/48KHz high class AD - convertor
- Simultaneous multi-channel operation
- Three interchangeable heads and third party support
- 1.25"/28 thread pitch(31.3 mm/pitch 1.0 mm threading) interchangeable mechanism for quick change (Over 50 capsules from various manufacturers will work on the DWM-02)
- OLED display
- Remote control of transmitter functions from the receiver
- Selectable RF output power (1/10/50 mW)
- Digital low-cut filter
- Up to 72MHz bandwidth
- Three codec modes designed for wide variety of applications

DWT-P01N

Plug-on digital wireless transmitter



- Superb audio quality by using 24bit/48KHz high class AD – convertor
- Simultaneous multi-channel operation
- Lightweight and rugged design
- Switchable mic or line input level and adjustable attenuator
- +48 V Power supply
- OLED display
- RF remote for all functions by Wireless Studio remote software
- Up to 72MHz bandwidth
- Three codec modes designed for wide variety of applications



CU-C31
Capsule Unit

- Condenser type
- Cardioid
- 60 Hz - 20 kHz



CU-F31
Capsule Unit

- Dynamic type
- Super cardioid
- 60 Hz - 18 kHz



CU-F32
Capsule Unit

- Dynamic type
- Wide cardioid
- 70 Hz - 18 kHz



DWA-CU01NM
Microphone adapter

- Microphone adapter for 3rd party capsule

Products

Sony is renowned for innovation in digital audio. Now, all of this expertise and legendary performance is available in a digital wireless microphone system using UHF frequency range.



DWT-B30

Bodypack digital
wireless transmitter

- High quality sound with 1.2 msec low latency
- Four codec modes designed for wide variety of applications
- 148MHz*1 wideband
- Selectable 375-kHz spacing high-density channel plan
- Remote control of transmitter settings with Cross Remote function
- Selectable RF output power (2 mW / 10 mW / 25 mW)
- AES 256-bit encryption
- Transmitter / Receiver identifying function
- Switchable mic or line input level and adjustable attenuator
- Phase reverse mode
- Setting lock function
- User setting memory
- 6.5H Long battery life with AA alkaline
- Lightweight and rugged design
- High resolution OLED display

*1 Depends on version

DWT-B01N

Bodypack digital
wireless transmitter

- Superb audio quality by using 24bit/48KHz high class AD - convertor
- Simultaneous multi-channel operation
- Lightweight and rugged design
- Switchable mic or line input level and adjustable attenuator
- OLED display
- RF remote for all functions by Wireless Studio remote software
- Up to 72MHz bandwidth
- Selectable RF output power (1/10/50 mW)
- Digital low-cut filter
- Three codec modes designed for wide variety of applications



ECM-90BC
Lavalier
Microphone



ECM-77BC
Lavalier
Microphone



ECM-66BC
Lavalier
Microphone



ECM-FT5BC
Flat Lavalier
Microphone



ECM-44BC
Lavalier
Microphone

Products

DWT-B03R

Bodypack digital
wireless transmitter



- High quality sound with 1.2 msec low latency
- Small, lightweight, and robust magnesium body
- Splash-proof ready for rain, sweat and spray (IPX4/IPX5*1)
- Long battery life with rechargeable Li-ion battery (NP-BX1)
- 148MHz*2 wideband
- Remote control of transmitter settings with Cross Remote function
- Selectable RF output power (2 mW / 10 mW / 25 mW)
- Transmitter / Receiver identifying function
- Selectable 375-kHz spacing high-density channel plan
- AES 256-bit encryption
- Setting lock function
- User setting memory
- Phase reverse mode
- High resolution OLED display

*1 IPX4 / IPX5 is based on standard testing by Sony

*2 Depends on version



NP-BX1

Rechargeable
Battery Pack



ECM-90LM

Omni-directional
Lavalier Microphone
with Lemo connector
For DWT-B03R

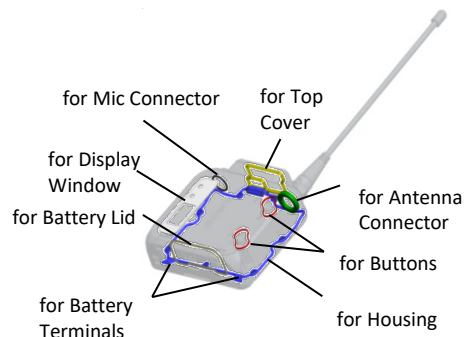


ECM-77LM

Omni-directional
Lavalier Microphone
with Lemo connector
For DWT-B03R

Splash-proof

Ideal for musical, film production, and outdoor operation, the DWT-B03R features a tough magnesium body with a moisture-resistant housing gasket and splash-proof connector that resists rain, sweat, and spray.



* Requires a third party conversion cable (XLR-LEMO 3-pin)

Products

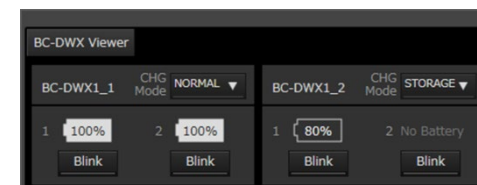
BC-DWX1

Dual battery charger for
DWT-B03R



- Dual battery charger for DWT-B03R and NP-BX1
- 2-way powering (AC adaptor*¹ / PoE)
- Status monitoring and setting control from PC software
- Storage charging mode is available for long-term battery storage
- Multiple units can be connected with tie wraps

*1 AC adaptor not included



Charging status monitoring and setting control (requires Wireless Studio PC software and network connection)

Cable pocket for storing lavalier microphone



Transmitter holding mechanism prevents dropout during transportation



Tie wraps can be used for cable management or fixing units



Perfect fit for the 19-inch rack (needs tray or drawer with slits)

Products

DWR-R03D

2 channel rack-mount
digital wireless receiver



- Dante® interface for audio-over-IP networking
- Reliable transmission with X-Dimension Diversity™ reception system and high dynamic range RF circuit
- 4 antenna diversity reception for wide operation coverage or extremely stable RF transmission
- 244-MHz wideband*1
- Remote control of transmitter settings with Cross Remote function
- AC power output for cascade connection
- Switchable analog (balanced) and AES / EBU digital audio sub outputs
- Headphone monitoring among receivers in Dante network
- Supports redundant networks with two Dante ports
- Transmitter / Receiver identifying function
- Setting lock function
- Label function for naming each channel on receiver
- User setting memory
- 1-dB step adjustable output level
- 2-channel separated OLED displays
- Operation status monitoring and remote control of devices using Wireless Studio software

*1 Depends on version

X-Dimension Diversity™

The X-Dimension Diversity reception system is Sony's original diversity method which dramatically improves transmission reliability. It combine multiple dimensions of diversity with Sony's digital technology and highly accurate calculation algorithm.

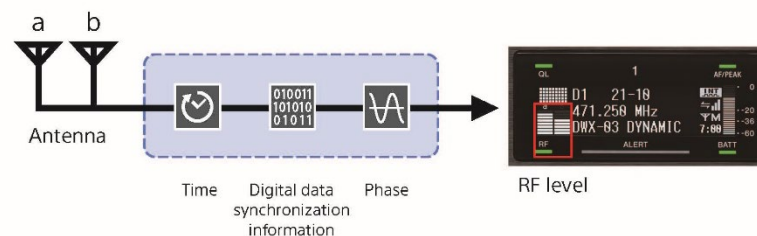
Technology

- In addition to current space diversity which uses the RF signal level, the following elements are also considered:
 - Time
 - Digital data synchronization information
 - Phase

Blending these elements with Sony's original technology and highly accurate calculation algorithm prevents burst error by synchronization loss.

(Burst error is a typical cause of audio drop-out.)

- This reception system works with 2- to 4- antenna operation.



4-diversity reception

The DWR-R03D has the option of 4-diversity reception for wide operation coverage or extremely stable RF transmission.



Products

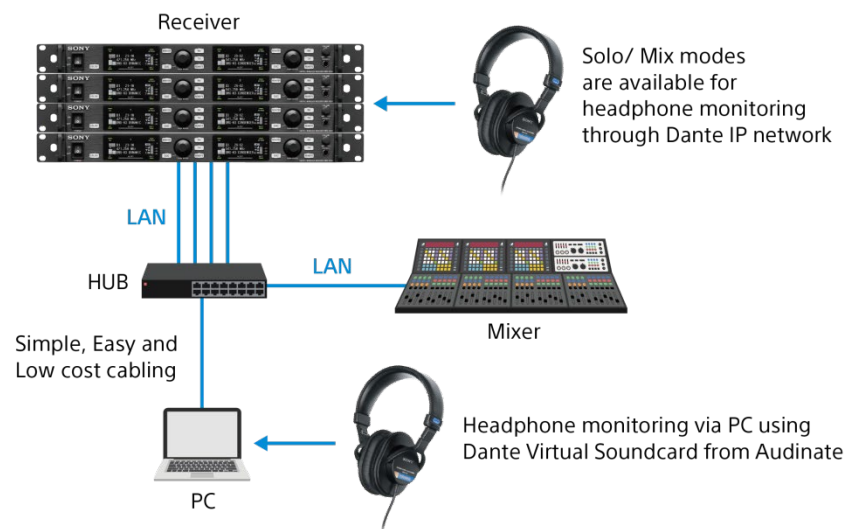
Codec modes

You can realize a minimum of 1.2 msec low latency with the DWT-B03R and DWT-B30.

CODEC MODE	MODE 1	MODE 2	MODE 3	MODE4
Features	Codec Mode for 1 st generation DWX	Low Latency Reliable RF transmission High Quality Sound	Prevents noise by specific pulse shaping interference	High Quality Sound Reliable RF transmission Low Latency
Suitable application	Customer who wants compatibility with current DWX	-Tour -Theatre -BC	-ENG -Speech	-Tour -Theatre -BC
Audio Latency with DWT-B03R or DWT-B30	2.7 msec 0 msec with XDCAM	1.2 msec (analog out) 2.2 msec (digital out) 0 msec with XDCAM	3.7 msec (analog out) 4.6 msec (digital out) 0 msec with XDCAM	1.3 msec (analog out) 2.3 msec (digital out) 0 msec with XDCAM
Audio Latency with other transmitters	3.4 msec (analog/digital) 0 msec with XDCAM	1.5 msec (analog out) 2.5 msec (digital out) 0 msec with XDCAM	4.0 msec (analog out) 4.9 msec (digital out) 0 msec with XDCAM	1.6 msec (analog out) 2.6 msec (digital out) 0 msec with XDCAM

Dante® interface for audio-over-IP networking

The DWR-R03D supports the Dante format which is widely adopted as standard. It allows many channels of audio to be transmitted over a single Ethernet cable without the complexities and limitations of earlier solutions. It is easy to setup and configure, is low cost, and can provide a flexible audio monitoring environment.



Products

DWR-R02DN

2 channel rack-mount
digital wireless receiver



- Three codec modes designed for wide variety of applications
- Low audio latency of 1.5 msec*¹
- Superb quality 24bit/48kHz sampling digital audio
- Simultaneous multi-channel operation
- Remote control of transmitter functions from the receiver
- Full control over cross-remote via Wireless Studio software
- 1U-size rack-mountable design
- Supports a variety of output functions with four AES3/EBU outputs up to 24-bit/96 kHz plus World Sync input/output
- Flexible AC/DC power options
- Wideband receiving (US: 470-698 MHz / EU: 470-710 MHz)

*¹ In mode 2, Analog out. 2.5 msec for digital out.

WD-850

Antenna divider



- Antenna signal output to up to four receivers
- Cascade output connectors allowing simultaneous use of up to two WD-850 channel dividers
- 2-channel antenna input connectors
- Power supplied to the Sony UHF antenna

Accessories



AN-01
UHF Antenna

- Log-periodic antenna
- Uni-directional
- Built-in booster



AN-57
UHF ground plane antenna

- Ground plane antenna
- Horizontal omni-direction



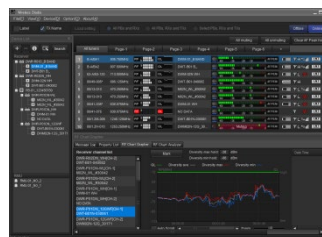
AN-820
UHF Antenna

- Dipole antenna
- Horizontal omni-direction
- Built-in booster



RMU-01
Remote Control Unit

- Extension of Cross Remote function
- Control of up to 82ch transmitter
- Two-way powering



Wireless Studio
PC Software

- Bundled application for PC
- Device monitoring and control
- Channel plan advisor for easy set-up of a mixed system
- Status recorder to check or review RF strength
- Error logging function
- Pairing-assist function
- Spectrum Analyzer
- Muting control function
- Network interface setting function (Ver5.30 or later)



GC-0.7CP
/S: Straight plug
/R: Right-angle plug



EC-1.5CF
Microphone cable



DWR-S03D

2-channel Digital Wireless Slot-in Receiver

- Full digital workflow with Sony XDCAM camcorders
- Flexible interface with optional interface adaptors for use with camcorders by Sony and other manufacturers
- 148MHz*¹ wideband
- Selectable 375-kHz spacing high-density channel plan
- Automatic channel scan and sync function
- Stable RF transmissions with Sony X-Dimension Diversity™ reception system and High Dynamic Range RF circuit
- Superb audio quality by AES3 out and 24Bit/48kHz D/A conversion
- Four codec modes designed for wide variety of applications

- AES 256-bit encryption
- Remote control of transmitter settings with Cross Remote function
- Advanced integration with XDCAM shoulder camcorder
- User setting memory
- Compact, lightweight, and rugged design
- High resolution OLED display
- SuperSlot™ *² compatible (Ver1.10 or later)

*¹ Depends on version.

*² SuperSlot™ is a registered trademark of Sound Devices LCC.



DWA-SLAS1

Digital wireless adapter

- Adaptor for digital wireless receiver DWR-S03D to use with Sony shoulder camcorders, DWA-F01D or DWA-01D wireless adaptors.
- The adaptor features a collar and an interface connector with D-sub 15 pin.



DWA-SLAU1

Digital wireless adapter

- Adaptor for digital wireless receiver DWR-S03D to use with professional shoulder-mounted camcorders equipped with a UniSlot®*³ interface.
- The adaptor features a collar and an interface with D-sub 25 pin connector.

*³ UniSlot® is a registered trademark of Ikegami Tsushinki Co., Ltd.



Products



DWR-S02DN

2-channel Digital Wireless Slot-in Receiver

- Superb audio quality by AES3 out and 24Bit/48kHz D/A conversion
- Various viewfinder functions with Sony XDCAM camcorders
- Full digital workflow with Sony XDCAM camcorders
- Up to 72MHz bandwidth
- Active/Free channel scan
- Three codec modes designed for wide variety of applications



DWA-01D

Digital wireless adapter

- For use with DWR-S01D, DWR-S02D , DWR-S02DN, DWR-S03D or URX-S03D receiver
- Stand-alone wireless receiver operation
- Wide array of interfaces including two-channel AES3 digital or analogue output
- Unique lock-together mechanism to allow two DWA-01D adaptors to be easily combined
- Supports V-mount attachment
- Hirose 4-pin DC powering



DWA-F01D

Digital wireless adapter

- For use with DWR-S01D, DWR-S02D , DWR-S02DN, DWR-S03D or URX-S03D receiver
- Stand-alone wireless receiver operation
- Top-panel operation for mixer bag
- Three-way powering (Hirose 4-pin DC powering, DC In and NP-Batteries)
- Three-parallel audio output, including XLR analogue output, BNC AES/EBU digital output and mini-phone analogue output

LCS-F01D

Soft Carrying Case

- Soft case for DWA-F01D
- Shoulder strap is included
- Support V-mount attachment



XDCA-FX9

Extension Unit for FX9

- Additional interface for the FX9
- Supports Wireless slot-in audio receiver (WRR-855S/DWR-S01D/DWR-S02D/DWR-S02DN/DWR-S03D/URX-S03D)



XDCA-FX9 with PXW-FX9 & DWR-S03D

CBK-FS7BK

ENG Style Buildup Kit for FS7 and FS7 II

- Shoulder pad and additional interface for the FS7 and FS7 II
- Supports Wireless slot-in audio receiver (WRR-855S/DWR-S01D/DWR-S02D/DWR-S02DN/DWR-S03D/URX-S03D)



CBK-FS7BK with PXW-FS7 & DWR-S02DN

CBK-55BK

EFP-Style Buildup Kit for F55/F5

- Shoulder pad and additional interface for the PMW-F55/F5
- Supports Wireless slot-in audio receiver (WRR-855S/DWR-S01D/DWR-S02D/DWR-S02DN/DWR-S03D/URX-S03D)



CBK-55BK with PMW-F55 & WRR-855S

For Shoulder Camcorders

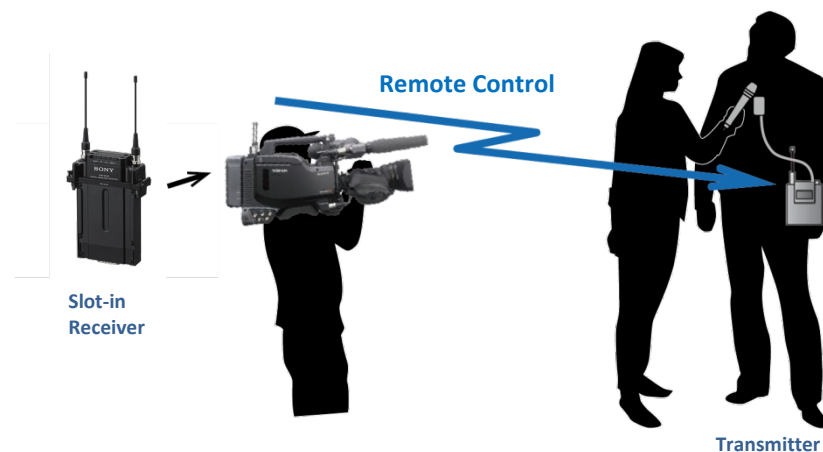
When the DWR-S02DN or DWR-S03D is combined with an XDCAM camcorder, the following functions are available.

- The camcorder synchronizes the audio latency - inherent in digital transmission - with the video latency so there are no delays in their recordings.

- The RF levels of the wireless transmission and sound condition can be monitored in the viewfinder.



- Using the Cross Remote function, various parameters of the transmitter can be remotely controlled from the camcorder.



For Shoulder Camcorders

Changing the transmitter settings from the camcorder menu



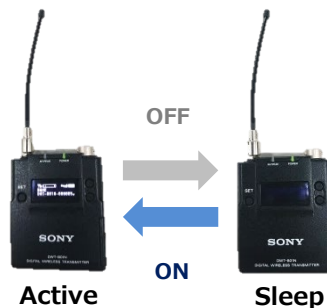
< Menus that the camcorder can control >

Item	Setting	Description
WRR Valid CH Sel	All/CH1	Selects whether to enable channels 1 and 2 of the wireless tuner (All) or channel 1 only (CH1).
WRR CH Select	TX1/TX2	Selects the reception channel for display in the menu. TX1: Displays channel 1. TX2: Displays channel 2.
WRR Delay Comp	On/Off	Selects whether to enable (On) or disable (Off) the delay compensation function for wireless input audio. (When On is selected, all E-E output audio is delayed by about 8 ms.)
TX	---	Displays the name of the transmitter whose signals are being received on the channel selected by WRR CH Select.
TX Audio Peak	---/Peak	Displays whether the AF level of the transmitter whose signals are being received on the channel selected by WRR CH Select are over peak.
TX Input Level	---/Mic/Line	Displays whether the input level of the transmitter whose signals are being received on the channel selected by WRR CH Select is set to microphone (Mic) or line (Line).
TX ATT Level	---	Sets the ATT level of the transmitter whose signals are being received on the channel selected by WRR CH Select. (The setting range varies depending on the transmitter.)
TX LCF Frequency	---	Sets the low cut filter frequency of the transmitter whose signals are being received on the channel selected by WRR CH Select. (The setting range varies depending on the transmitter.)
TX System Delay	Auto/0.0ms to 8.0ms	Sets the amount of audio delay. Auto: Automatically corrects for the amount of delay so that the delay in the audio from the wireless tuner is zero. 0.0ms to 8.0ms: Sets the amount of estimated wireless system delay, for cases in which several wireless systems are being used via a device such as an audio mixer.
TX RF Power	High (Power value) mW/ Mid (Power value) mW/ Low (Power value) mW	Sets the RF power level of the transmitter communicating on the channel selected by WRR CH Select. (The setting range varies depending on the transmitter.)
TX Power Save	Active/Sleep	Sets the power saving mode of the transmitter whose signals are being received on the channel selected by WRR CH Select. Active: Set the transmitter to startup mode. Sleep: Set the transmitter to power saving mode.
TX-Cam Power Sync	Off/On	Sets whether the transmitter power-save state is also switched in sync with the POWER switch of the camcorder.

For Shoulder Camcorders

Assignable switch can remotely control TX power save*1

Just push the assign button to change the TX power save mode



Wireless transmitter-camcorder power sync mode*1

The TX power save mode changes to Active or Sleep automatically by switching the camcorder's main power switch ON or OFF.



*1 Applicable Camcorder

- PXW-Z450 Ver.3.0~
- PXW-X400 Ver.3.2~
- PXW-X500 Ver.5.2~
- PXW-Z750

The DWR-S02D can be inserted into wireless slot of Shoulder camcorders or mounted on top the Battery.



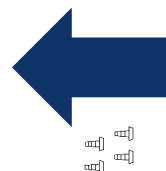
On Top of the Battery



A-8278-057-B
Mounting Bracket



A-1999-908-B
Mounting Bracket
for PMW-F5 /F55, PMW-400/580



Supplied accessories



DWA-01D

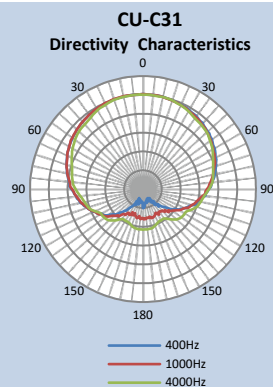
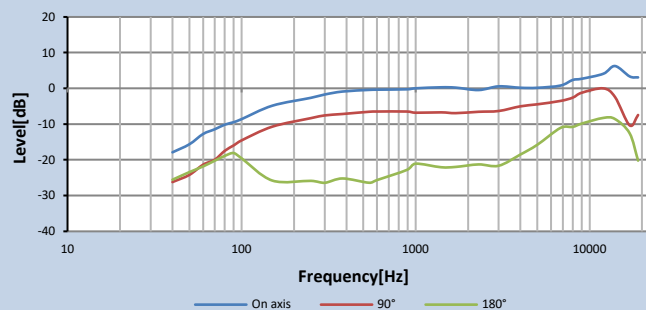
Frequencies

Operating Frequencies		470 MHz to 542 MHz	566 MHz to 608 MHz	566 MHz to 630 MHz	638 MHz to 694 MHz	638 MHz to 698 MHz	638 MHz to 710 MHz
UC/LA	TV channel		TV14-25	TV30-36		TV42-51	
	DWM-02N	Version	14/UC	30A/UC		42/LA	
	DWT-B01N						
	DWT-P01N	Selectable	2772	1617		2310	
	DWR-S02DN	Frequencies	(in 25 kHz steps)	(in 25 kHz steps)		(in 25 kHz steps)	
	DWR-R02DN	Version	UC7	UC7		UC7	
CE	TV channel		TV21-29		TV33-40		TV42-50
	DWM-02N	Version	21/CE		33/CE		42/CE
	DWT-B01N						
	DWT-P01N	Selectable	2880		2560		2880
	DWR-S02DN	Frequencies	(in 25 kHz steps)		(in 25 kHz steps)		(in 25 kHz steps)
	DWR-R02DN	Version	CEZ		CEZ		CEZ
CN	TV channel				TV29-35		
	DWM-02N	Version			29/CN		
	DWT-B01N						
	DWT-P01N	Selectable			2240		
	DWR-S02DN	Frequencies			(in 25 kHz steps)		
	DWR-R01D	Version			29/CN		

Operating Frequencies		470 MHz to 616 MHz 614 MHz to 616 MHz	470 MHz to 614 MHz	566 MHz to 714 MHz
UC	TV channel		TV14-36, TV38	
	DWT-B03R	Version	UC	
	DWT-B30		5344	
	DWR-R03D	Selectable	(in 25 kHz steps)	
		Frequencies		
	DWR-R03D	Version	UC7	
CE	TV channel		TV21-38	TV33-51
	DWT-B03R	Version	L/CE	H/CE
	DWT-B30		5503	5920
	DWR-R03D	Selectable	(in 25 kHz steps)	(in 25 kHz steps)
		Frequencies		
	DWR-R03D	Version	CEZ	

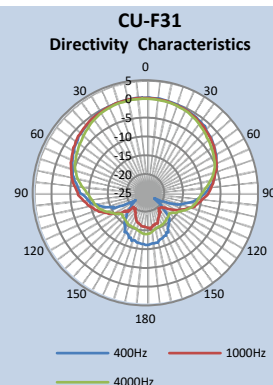
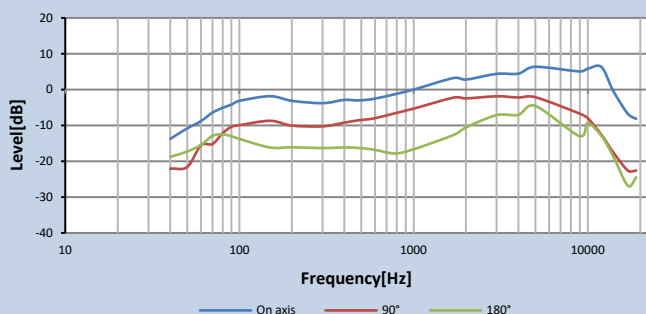
Specifications

CU-C31



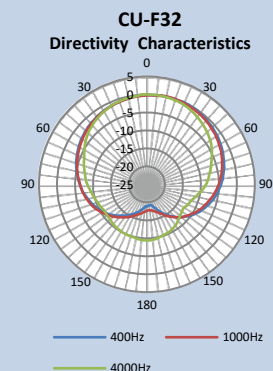
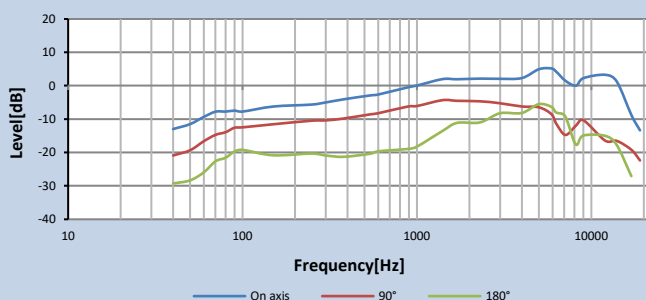
	CU-C31
Capsule type	Electret condenser
Directivity	Uni-directional (Cardioid)
Sensitivity	-48 dB (0 dB=1 V/Pa, 1 kHz)
Frequency response	60 Hz to 20 kHz
Operating temperature	0 °C to 50 °C (32 °F to 122 °F)
Storage temperature	-20 °C to +60 °C (-4 °F to +140 °F)
Dimensions	Φ47.6 mm x 61.5 mm
Mass	Approx. 130 g

CU-F31



	CU-F31
Capsule type	Dynamic
Directivity	Uni-directional (Super cardioid)
Sensitivity	-54 dB (0 dB=1 V/Pa, 1 kHz)
Frequency response	60 Hz to 18 kHz
Operating temperature	0 °C to 50 °C (32 °F to 122 °F)
Storage temperature	-20 °C to +60 °C (-4 °F to +140 °F)
Dimensions	Φ47.6 mm x 77.4 mm
Mass	Approx. 150 g

CU-F32



	CU-F32
Capsule type	Dynamic
Directivity	Uni-directional (Cardioid)
Sensitivity	-54 dB (0 dB=1 V/Pa, 1 kHz)
Frequency response	70 Hz to 18 kHz
Operating temperature	0 °C to 50 °C (32 °F to 122 °F)
Storage temperature	-20 °C to +60 °C (-4 °F to +140 °F)
Dimensions	Φ47.6 mm x 77.4 mm
Mass	Approx. 150 g

Specifications

		DWM-02N Handheld wireless microphone	DWT-P01N Plug-on transmitter
Wireless Interface		WiDIF-HP	
Oscillator Type		Crystal-controlled PLL Synthesizer	
Antenna Type		$\lambda/4$ flexible wire	
Type of Emission		G1E or G1D	
Carrier Frequencies	UC/LA	14/UC: 470.125 MHz to 541.875 MHz (TV-14 to TV-25 channels), 25 kHz steps	
		30A/UC: 566.125 MHz to 607.875 MHz (TV 30 to TV 36 channels), 25 kHz steps	
		42/LA: 638.125 MHz to 697.875 MHz (TV-42 to TV-51 channels), 25 kHz steps	
	CE7	21/CE: 470.025 MHz to 542.000 MHz (TV-21 to TV-29 channels), 25 kHz steps	
		33/CE: 566.025 MHz to 630.000 MHz (TV-33 to TV-40 channels), 25 kHz steps	
		42/CE: 638.025 MHz to 710.000 MHz (TV-42 to TV-50 channels), 25 kHz steps	
RF Power	CN	29/CN: 638.025 MHz to 694.000 MHz (TV 29 to TV 35 channels), 25 kHz steps	-
	UC	1 mW/10 mW/50 mW (e.r.p) selectable	
	CE7		
		-	
Input Connector		-	XLR-3-11C (female)
+48 V Power Supply		-	Yes
Reference Input Level		-	MIC: -60 dBV (-58 dBu), 1 kHz (at 0-dB attenuator level) / LINE: +4 dBu, 1 kHz
Maximum Input Level		-16 dBu (with 0 dB attenuator)	MIC: -22 dBu (with 0 dB attenuator) / LINE: +24 dB
Audio Attenuator Adjustment Range		0 dB to 21 dB (in 3-dB steps)	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 (at 25 °C (77 °F), 10-mW output using Sony LR6 (AA)- size alkaline batteries with CODEC MODE set to MODE1, the wireless remote control function off and DIMMER MODE set to AUTO OFF)	Approx. 5 hours (at 25 °C (77 °F), 10-mW output using Sony LR6 (AA)-size alkaline batteries with CODEC MODE set to MODE1, the wireless remote control function off, DIMMER MODE set to AUTO OFF, and +48 V set to 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		Ø37.1 x 194 mm	44 x 78 x 44 mm (excluding protrusions) (W x H x D)
Mass		Approx. 235 g (including batteries)	Approx. 245 g (including batteries)
Supplied Accessories		Identification ring (1 set), Microphone holder (1), USB adapter cable (1), Carrying case (1), Stand adaptor (1), For the model available in the U.S.A.: PF1/2 to W5/8 type, For the model available in Europe.: PF1/2 to W3/8 type, CD-ROM (1)	Spare battery case (1), Soft case (1), USB adapter cable (1), CD-ROM (1)

*0dB μ V= 1 μ V EMF, 0dBu=0.775Vrms, 0dBV=1V, 0dB SPL=2x10⁻⁵ Pa

		DWT-B30 Bodypack transmitter	DWT-B01N Bodypack transmitter	DWT-B03R Bodypack transmitter
Wireless Interface		WiDiF-HP		
Oscillator Type		Crystal-controlled PLL synthesizer		
Antenna Type		1/4 λ wavelength wire antenna	λ/4 flexible wire	
Type of Emission		G1E or G1D		
Carrier Frequencies	UC /LA	470.125 MHz to 607.875 MHz, 614.125 MHz to 615.875 MHz (UHF-TV channels 14 to 36, 38)	14/UC: 470.125 MHz to 541.875 MHz (TV-14 to TV-25 channels), 25 kHz steps	470.125 MHz to 607.875 MHz, 614.125 MHz to 615.875 MHz (TV-14 to TV-38 channels, except TV-37), 25 kHz steps
			30A/UC: 566.125 MHz to 607.875 MHz (TV 30 to TV 36 channels), 25 kHz steps	
			42/LA: 638.125 MHz to 697.875 MHz (TV-42 to TV-51 channels), 25 kHz steps	
	CE7	L : 470.025 MHz to 614.000 MHz (UHF-TV channels 21 to 38) H : 566.025 MHz to 714.000 MHz (UHF-TV channels 33 to 51)	21/CE: 470.025 MHz to 542.000 MHz (TV-21 to TV-29 channels), 25 kHz steps	L: 470.025 MHz to 614.000 MHz (TV-21 to TV-38 channels), 25 kHz steps H: 566.025 MHz to 714.000 MHz (TV-33 to TV-51 channels), 25 kHz steps
			33/CE: 566.025 MHz to 630.000 MHz (TV-33 to TV-40 channels), 25 kHz steps	
			42/CE: 638.025 MHz to 710.000 MHz (TV-42 to TV-50 channels), 25 kHz steps	
CN	29/CN: 638.025 MHz to 694.000 MHz (TV 29 to TV 35 channels)	29/CN: 638.025 MHz to 694.000 MHz (TV 29 to TV 35 channels), 25 kHz steps	-	
RF Power	UC	2 mW/10 mW/25 mW (e.r.p) selectable	1 mW/10 mW/50 mW (e.r.p) selectable	2 mW/10 mW/25 mW (e.r.p) selectable
	CE7			
	CN			
Input Connector		UC7, Jn CN : Sony 4-pin (SMC9-4S) (female) CE7: Small 3-pin connector with lock	Sony 4-pin (SMC9-4S) (female)	Small 3-pin connector with lock
Reference Input Level		MIC: -60 dBV (-58 dBu), 1 kHz (at 0-dB attenuator level) / LINE: +4 dBu, 1 kHz	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		20Hz to 22kHz (typical)		
Dynamic Range		106 dB typical (A-weighted, T.H.D=1%)		
Distortion (T.H.D)		MODE1, MODE2, MODE4: 0.03% or less, MODE3: 0.3% or less	MODE1, MODE2: 0.03% or less, MODE3: 0.3% or less	
Audio Delay		MODE1: 0.8 msec/ MODE2: 0.7 msec/ MODE3: 1.8 msec/ MODE4: 0.7 msec	MODE1: 1.5 msec (total: 3.4msec) /MODE2: 1.0 msec (total: 1.5msec)/MODE3: 2.1 msec (total 4.0msec)	MODE1: 0.8 msec / MODE2: 0.7 msec / MODE3: 1.8 msec
Wireless Remote Control		Cross Remote (2.4-GHz IEEE802.15.4 compliant)		
Display		OLED		
Power Requirements		DC 3.0 V (two LR6/AA size alkaline batteries) DC 5.0 V (supplied from USB connector)	DC 3.0 V (with two AA-size alkaline (LR6) batteries)	DC 3.6 V (with Rechargeable Battery Pack: NP-BX1)
Battery Operating Time		Approx. 6.5 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)	Approx. 5 hours (at 25° C (77° F), 10-mW output using Sony LR6 (AA)- size alkaline batteries with CODEC MODE set to MODE1, the wireless remote control function off and DIMMER MODE set to AUTO OFF)	Approx. 7 hours with Sony's NP-BX1 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		Approx. 63 x 17 x 73 mm (2 1/2 x 11/16 x 2 7/8 in) (W x H x D) (excluding the antenna)	63 x 17 x 73 mm (excluding the antennas) (W x H x D)	Approx. 53 x 60 x 17 mm (60 x 60 x 17 mm with the projection parts) (excluding the antennas)
Mass		Approx. 125 g (including batteries)	Approx. 125 g (including batteries)	Approx. 99 g (including battery)
Supplied Accessories		Spare battery case (1), Soft case (1), Microphone cable (4-pin to XLR-type 3-pin) (1) (except CE7 model), Carrying case (1), Scribble sheet (1), Before Using this Unit (3)	Spare battery case (1), Soft case (1), USB adapter cable (1), Carrying case (1), Microphone cable (4-pin to XLRtype 3-pin) (1), Scribble sheet (1), CD-ROM (1)	Belt Clip (1), Carrying case (1), NP-BX1 (1), Scribble sheet (1), Operating Instructions (CD-ROM) (1)

Specifications

		DWR-R03D Rack-mount receiver
Wireless Interface		WiDIF-HP
Oscillator Type		Crystal-controlled PLL Synthesizer
Reception Type		True diversity
Circuit system		Double Superheterodyne
Antenna Type		Detachable
Antenna Connector		2 diversity mode: Input BNC-R, 50 Ω (x2), Cascaded Output BNC-R, 50 Ω (x2) 4 diversity mode: Input BNC-R, 50 Ω (x4)
Antenna Input Connector		-
Antenna Cascaded Output		-
Carrier Frequencies	UC7	470.125 MHz to 607.875 MHz, 614.125 MHz to 615.875 MHz(TV-14 to TV-38 channels, except TV-37), 25 kHz steps
	CEZ	470.025 MHz to 714.000 MHz(TV-21 to TV-51 channels), 25 kHz steps
	CN	-
Frequency Response		20Hz to 22kHz (typical)
Dynamic Range		106 dB or more typical (A-weighted, T.H.D=1%)
Distortion (T.H.D)		MODE1, MODE2, MODE4: 0.03% or less, MODE3: 0.3% or less
Audio Delay		MODE1; 1.9 msec (total: 2.7*/3.4**msec) (Analog output), 1.9 msec (total: 2.7*/3.4**msec) (Digital output) MODE2: 0.5 msec (total: 1.2*/1.5**msec) (Analog output), 1.5 msec (total: 2.2*/2.5**msec) (Digital output) MODE3: 1.9 msec (total: 3.7*/4.0**msec) (Analog output), 2.8 msec (total: 4.6*/4.9**msec) (Digital output) MODE4: 0.6 msec (total: 1.3*msec) (Analog output), 1.6 msec (total: 2.3*msec) (Digital output) *with DWT-B03R ** with other transmitters
Analog Output		BAL: XLR-3-32 (male) (xMain 2, Sub 2), Output level (0 dBu = 0.775 Vrms) Main BAL: +24 dBu maximum/-58 dBu to -12 dBu (1dB step adjustable) reference Sub BAL: +24 dBu maximum/-12 dBu reference
Digital Output		XLR-3-32 (male), 110 Ω (x2) BNC-R, 75 Ω (x1) Reference output level: -36 dBfs
Headphone Output		$\varnothing$ 6.3 mm (1/4 inch) stereo jack
WORD SYNC IN/OUT connectors		Input connector: BNC-R with a 75 Ω termination switch / Output connector: BNC-R / External Word Sync: 32 kHz to 96 kHz
Wireless Remote Control		Cross Remote (2.4-GHz IEEE802.15.4 compliant)
LAN Connector		RJ-45 modular jack 1000BASE-T: IEEE802.3ab compliant (x 2)
Display		OLED (x2)
Power Requirements		AC: 100 V to 240 V
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		482 x 44 x 335 mm (W x H x D)
Mass		Approx. 3.9 kg (including the attached antenna)
Supplied Accessories		Whip antenna (2), AC power cord (1), AC cascade cord (1), Foot (4), Operating Instructions (CD-ROM) (1)

* 0dB μ V= 1 μ V EMF, 0dBu=0.775Vrms, 0dBV=1V, 0dB SPL=2x10⁻⁵ Pa

Specifications

DWR-R02DN Rack-mount receiver	
Wireless Interface	WiDIF-HP
Oscillator Type	Crystal-controlled PLL Synthesizer
Reception Type	True diversity
Circuit system	Double Superheterodyne
Antenna Type	Detachable
Antenna Input Connector	BNC-R, 50 Ω (x2)
Antenna Cascaded Output	BNC-R, 50 Ω (x2)
Carrier Frequencies	UC/LA
	14/UC: 470.125 MHz to 541.875 MHz (TV-14 to TV-25 channels), 25 kHz steps
	30A/UC: 566.125 MHz to 607.875 MHz (TV-30 to TV-36 channels), 25 kHz steps
	42/LA: 638.125 MHz to 697.875 MHz (TV-42 to TV-51 channels), 25 kHz steps
	CEZ
	21/CE: 470.025 MHz to 542.000 MHz (TV-21 to TV-29 channels), 25 kHz steps
	33/CE: 566.025 MHz to 630.000 MHz (TV-33 to TV-40 channels), 25 kHz steps
	42/CE: 638.025 MHz to 710.000 MHz (TV-42 to TV-50 channels), 25 kHz steps
	CN
	638.025 MHz to 694.000 MHz (TV-29 to TV-35 channels), 25 kHz steps
Frequency Response	20Hz to 22kHz (typical)
Dynamic Range	106 dB or more typical (A-weighted, T.H.D=1%)
Distortion (T.H.D)	0.03% or less (0 dBu = 0.775 Vrms)
Audio Delay	MODE1: 1.9 msec (total: 3.4msec) (Analog output) , 1.9 msec (total: 3.4msec) (Digital output) MODE2: 0.5 msec (total: 1.5msec) (Analog output) , 1.5 msec (total: 2.5msec) (Digital output) MODE3: 1.9 msec (total: 4.0msec) (Analog output) , 2.8 msec (total: 4.9msec) (Digital output)
Analog Output	XLR-3-32 (male), 47 Ω or less (x2) / Output level (0 dBu = 0.775 Vrms) -22 dBu maximum/-58 dBu reference (when MIC output) +24 dBu maximum/-12 dBu reference (when LINE output)
Digital Output	XLR-3-32 (male), 110 Ω (x2) / BNC-R, 75 Ω (x2) / Reference output level: -36 dBFs
Headphone Output	$\varnothing$ 6.3 mm (1/4 inch) stereo jack
WORD SYNC IN/OUT connectors	Input connector: BNC-R with a 75 Ω termination switch / Output connector: BNC-R / External Word Sync: 32 kHz to 96 kHz
Wireless Remote Control	Cross Remote (2.4-GHz IEEE802.15.4 compliant)
LAN Connector	RJ-45 modular jack 100BASE-TX: IEEE802.3u compliant
Display	OLED
Power Requirements	AC: 100 V to 240 V 0.4 A or less / DC: 12 V 1.6 A or less
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	482 x 44 x 335 mm (W x H x D)
Mass	Approx. 3.6 kg (including the attached antenna)
Supplied Accessories	Whip antenna (2), AC power cord (1), Foot (4), Operating Instructions (CD-ROM) (1), PC control software (CD-ROM) (1)

*0dB μ V= 1 μ V EMF, 0dBu=0.775Vrms, 0dBV=1V, 0dB SPL=2x10⁻⁵ Pa

Specifications

		DWR-S02DN Slot-in receiver	DWR-S03D Slot-in receiver
Wireless Interface		WiDIF-HP	WiDIF-HP (× 2)
Oscillator Type		Crystal-controlled PLL Synthesizer	
Reception Type		True diversity	
Circuit system		Double Superheterodyne	
Antenna Type		Detachable	
Antenna Input Connector		BNC-R, 50 Ω (x2)	SMA-R, 50 ohms
Carrier Frequencies	UC /LA	14/UC: 470.125 MHz to 541.875 MHz (TV-14 to TV-25 channels), 25 kHz steps 30A/UC: 566.125 MHz to 607.875 MHz (TV-30 to TV-36 channels), 25 kHz steps 42/LA: 638.125 MHz to 697.875 MHz (TV-42 to TV-51 channels), 25 kHz steps	470.125 MHz to 607.875 MHz, 614.125 MHz to 615.875 MHz (UHF-TV channels 14 to 36, 38)
	CE7	21/CE: 470.025 MHz to 542.000 MHz (TV-21 to TV-29 channels) 25 kHz steps 33/CE: 566.025 MHz to 630.000 MHz (TV-33 to TV-40 channels), 25 kHz steps 42/CE: 638.025 MHz to 710.000 MHz (TV-42 to TV-50 channels), 25 kHz steps	L : 470.025 MHz to 614.000 MHz (UHF-TV channels 21 to 38) H : 566.025 MHz to 714.000 MHz (UHF-TV channels 33 to 51)
Reference output level		Analog: -40 dBu / Digital: -36 dBFS/-20 dBFS (switchable)	
Dynamic Range		106 dB or more typical (A-weighted, T.H.D=1%)	106 dB or more (A-weighted)
Distortion (T.H.D)		MODE1, MODE2: 0.03% or less, MODE3: 0.3% or less	MODE1, MODE2, MODE4: 0.03% or less MODE3: 0.3% or less
Audio Delay		Analog output in combination with the DWA-01D/F01D; MODE1: 2.1 msec, MODE2: 1.7 msec, MODE3: 3.0 msec, ABS/EBU output in combination with the DWA-01D/F01D; MODE1: 1.9 msec, MODE2: 1.5 msec, MODE3: 2.8 msec, Through a digital connection with a camcorder; MODE1: 1.9 msec, MODE2: 1.3 msec, MODE3: 2.7 msec	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: 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) (× 1)	D-sub 15 pin (male) (× 1) with optional adaptor DWA-SLAS1 D-sub 25 pin (male) (× 1) with optional adaptor DWA-SLAU1
Wireless Remote Control		Cross Remote (2.4-GHz IEEE802.15.4 compliant)	
Display		OLED	
Power Requirements		DC 7 V	DC 6 V to 18 V
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 (W x H x D)		88 x 119 x 31 mm	Approx. 88 x 119 x 32 mm (3 1/2 x 4 3/4 x 1 5/16 in) (W / H / D) (excluding antennas) with optional adaptor DWA-SLAS1 Approx. 74x 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. 280 g (including the supplied antennas)	Approx. 193g with optional adaptor DWA-SLAS1 (including antennas) Approx. 196g with optional adaptor DWA-SLAU1 (including antennas)
Supplied Accessories		Whip antenna (2), CD-ROM (1), Frequency band label (1)	Antenna (2), Frequency band label (1), Before Using this Unit (3)

*0dBμV= 1μV EMF, 0dBu=0.775Vrms, 0dBV=1V, 0dB SPL=2x10⁻⁵ Pa

Specifications

		WD-850 UHF Antenna Divider
Input / Output	Frequency Range	US : 470 to 806 MHz CE : 470 to 862 MHz J : 770 to 810 MHz
	Antenna Input	BNC-R, 50 Ω (x4), (2 inputs 2 channels)
	Supply Voltage For Booster	DC 9V/OFF switchable (supplied through the antenna input connectors)
	Output Connector	BNC-R, 50 Ω (x8), (4 outputs 2 channels)
	Cascaded Output	BNC-R, 50 Ω (x2), (1 input 2 channels)
	RF Transmission Loss	± 3 dB (between antenna input to output)
	Inter-Connector Connection Loss	15 dB or more
	Input/Output VSWR	3.0 or less
General	Power Requirements	US: 120 V AC, 60 Hz CE: 230 V, 50 Hz J: AC 100V, 50Hz/60Hz
	Power Consumption	18 W (when 100 mA is being supplied to the antenna booster)
	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 (W x H x D)	Approx. 482 x 44 x 285 mm
		Approx. 19 x 1 3/4 x 11 1/4 inches
	Mass	Approx. 4.4 kg
		Approx. 9 lb 11 oz
	Supplied Accessories	50 Ω terminator (6)
		AC power cord (1) Operating Instructions (1)

	BC-DWX1 Dual battery charger
Power requirements	When the PoE device is used: 48 V DC
	When the AC adapter is used: 12 V DC
Current consumption	When the PoE device is used: 260 mA or less
	When the AC adapter is used: 1.2 A or less
Rated output (Charging)	DC 4.2V, 0.86A (per 1 slot)
LAN Connector	RJ45-type (1) 100BASE-TX: Conforms to IEEE802.3u 10BASE-T: Conforms to IEEE802.3
PoE power reception	Conforms to IEEE802.3af
Operating temperature	0 °C to 40 °C (32 °F to 104 °F) (unit only)
Storage/Transport Temperature	-20 °C to +60 °C (-4 °F to +140 °F)
Dimensions	Approx. 186x71x91 mm
Mass	Approx. 290 g
Supplied accessories	Before Using this Unit (1), CD-ROM (1)

Ultimate Sound with Digital Audio Processing

High-quality Sound
Superior Operability
Low Profile and Lightweight

UWP

UHF Wireless microphone
package

Innovation in Sound - - Introducing the new UWP-D Series wireless microphone system, which realizes high-quality sound and stable wireless transmission utilizing true diversity reception system

High-quality Sound with Digital Audio Processing

As high-resolution content, including 4K, becomes more prevalent in the video production industry, demand increases for high-quality audio solutions to match this content and deliver a fully immersive viewing experience. And modern content professionals are faced with the challenge of capturing high-quality audio within a short period of time and with access to only a limited amount of resources. The new UWP-D Series is a perfect fit not only for ENG (electronic news gathering) and EFP (electronic field production) but also for sporting events, documentaries, and weddings offering high-quality sound with a digital compander, reliable RF transmission with a true diversity reception system, and a lot of easy-to-use features.

High-Quality Sound

Sony's Digital Audio Processing technology improves transient response performance and realizes high-quality sound. Also, the new UWP-D Series supports the Multi Interface Shoe™ (MI shoe) with digital audio interface. This enables direct digital audio recording and delivers high sound quality with low noise by skipping the D/A and A/D process in combination with the new SMAD-P5 MI shoe adaptor and Sony's XDCAM camcorders*.

*For details on cameras that support this function, visit the Sony's website.

Superior Operability

The new UWP-D Series includes a unique and user-friendly NFC SYNC feature which enables easy and fast frequency setting.

Low Profile And Lightweight

The small body size and lightweight design are ideal for use in small camcorders and interchangeable-lens digital cameras.



UWP-D21

Wireless Microphone
Package



UWP-D22

Wireless Microphone
Package



UWP-D26

Wireless Microphone
Package



SMAD-P5

MI Shoe adaptor with
Digital Audio I/F



URX-P03D

2-channel Portable
Receiver



URX-S03D

2-channel slot-in
Portable Receiver



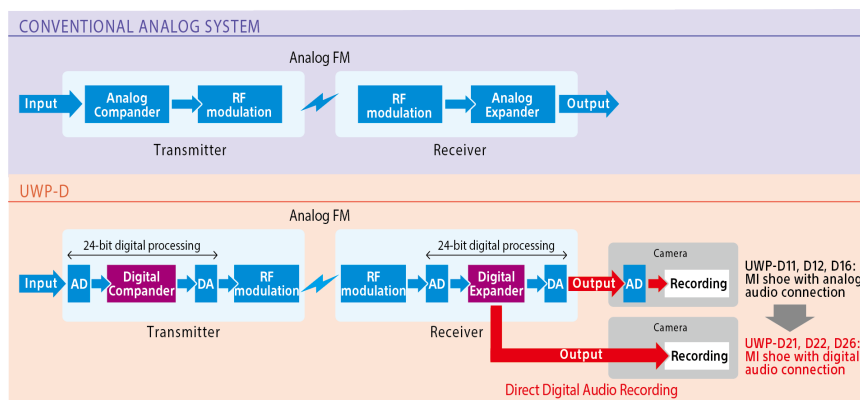
UTX-B03HR

Bodypack
Transmitter

Sony's Digital Audio Processing

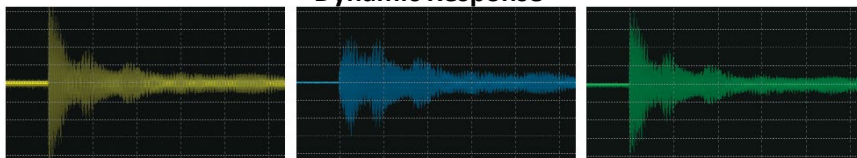
Sound quality is the most important issue in wireless transmission. Conventional analog systems make use of companders to provide the required dynamic range. However, while compander systems have improved over time, their inherent problems with sound quality and transient response performance have yet to be completely resolved.

Sony's newly developed Digital Audio Processing system, which uses DSP (digital signal processing) for digital companding, realizes high sound quality. This technology improves transient response performance and realizes high-quality sound.



DSP optimizes a time-constant range between the transmitter and receiver. It provides superb transient response performance. While analog companding systems cannot reproduce sounds such as a bell or tee shot with precision, Sony's Digital Audio Processing technology can reproduce them very accurately.

Dynamic Response



Original Sound

Analog System

Digital Audio Processing

DSP also can correct characteristics of frequency response in the transmission process for precise reproduction of original sounds.

Moreover, URX-P40 supports Multi Interface Shoe™ (MI shoe) with digital audio interface. It enables direct digital audio recording and delivers high sound quality with low noise by skipping the D/A and A/D process in combination with the new SMAD-P5 MI shoe adaptor and Sony's XDCAM camcorders.*1

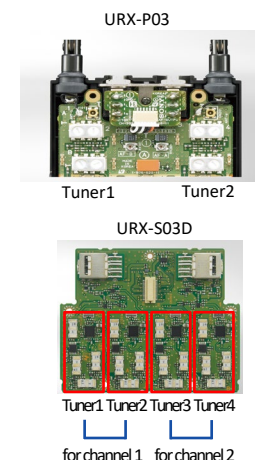
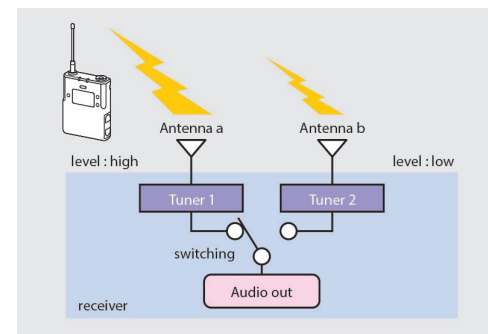
*1 For details on cameras that support this function, visit the Sony's website.

True Diversity Reception System For Stable RF Transmission

Typically, wireless microphone transmission systems are subject to interruptions in reception (RF signal dropout), but the UWP-D Series reduces this to a minimum. Utilizing a true diversity reception system*2, it achieves highly stable reception because of its two receiving antennas, each with RF circuits.

RF signals from the two antennas are compared and the stronger signal is automatically selected for output. The angle of the antennas on the portable receiver can also be adjusted, which helps to further eliminate signal dropout.

*2 URX-P03D: True Diversity for 1-channel use / Dynamic Switching Diversity for 2-channel use



Wide Frequency Coverage

The system's operating bandwidth (up to 72 MHz*3) achieves great mobility to cover a wide area and provide more channel options.

*3 Depends on the country or frequency version.

UTX-B40 UTX-P40 UTX-M40 URX-P40

NFC SYNC Function For Quick And Easy Secure Channel Setting



As one-person operation by videographers increases in popularity, simple and quick channel setting for reliable RF transmission is becoming crucial. Delivering enhanced usability, the unique NFC SYNC feature is designed for easy and fast frequency setting. The operator simply holds the NFC SYNC button on the receiver for a few seconds and the system automatically scans the appropriate frequency. Thereafter, the user just needs to touch the receiver with the transmitter to switch the channel, achieving optimum speed and efficiency.

UTX-B40 UTX-P40 UTX-M40 URX-P40

Low Profile And Light Weight

Reduced size and a light weight allow the high levels of mobility required for a wide range of applications and assist with versatile operation. The UTX-B40 bodypack transmitter has been reduced in size by approximately 20% compared to the previous model; the UTX-P40 plug-on transmitter has been reduced in size by approximately 20% compared to the previous model; and the length of the URX-P40 receiver with the SMAD-P5 MI shoe adaptor has been drastically shortened, making it easy to use with compact camcorders and smaller digital interchangeable lens cameras.



UTX-B40 UTX-P40 UTX-M40 URX-P40

Auto Gain Mode Volume Control

This sets the gain moderately high, and uses a limiter to help prevent distortion. Make this mode your first choice when the volume of the voice is unknown.

UTX-B40 UTX-P40 UTX-M40 URX-P40

+15 dB Gain Volume Boost Mode For Off-Mic Audio

This boosts the gain by 15 dB for when the microphone is not near the person's mouth and the audio level is insufficient. It's convenient for interviews.

UTX-B40 UTX-P40 UTX-M40 URX-P40

Line Input Available

Switchable MIC and LINE input levels and adjustable attenuators allow you to select appropriate audio input levels.

UTX-B40 UTX-P40 UTX-M40 URX-P40

Channel Memory Function For Fast Switching Between Two Receiver Frequencies

The channel memory function enables quick switching between the previously set channel and the current channel. This is useful when using one tuner in combination with two transmitters.



UTX-B40 UTX-P40 UTX-M40 URX-P40

Transmitter Frequency Sent To Receiver

Transmitter settings such as the frequency and compander mode on the tuner are transmitted via NFC communication. This is useful when using multiple tuners in combination with one transmitter.

UTX-B40 UTX-P40 UTX-M40 URX-P40 URX-P03D

Headphone Output For Monitoring

Sound can be monitored directly from the receiver. This is especially convenient when using a camera that does not have a headphone output.

UTX-B40 UTX-P40 UTX-M40 URX-P40

Monitor Mode For Using A Receiver As An Ear Monitor

When this function is enabled, the display shows the monitor audio level screen (fixed). Using the + or – button changes the monitor audio level only. This is useful when using the receiver for in-ear monitoring.

UTX-B40 UTX-P40 UTX-M40 URX-P40

Variable Muting Function

Pressing the MUTE button while transmitting mutes the audio. This means that audio from the tuner is not output. This function sets whether the audio is muted for various operations of the MUTE button.

UTX-B40 UTX-P40 UTX-M40 URX-P40 URX-P03D

Output Level Control For Receiver

This receiver function enables control of the receiver output sound level: ± 12 dB.

This is useful because some video cameras don't offer manual input level control.

UTX-B40 UTX-P40 UTX-M40 URX-P40

High-Visibility OLED Display

The quick response of the OLED (organic light-emitting diode) display enables real-time operating conditions to be displayed clearly and accurately.

UTX-B40 UTX-P40 UTX-M40 URX-P40 URX-P03D UTX-B03HR

USB For Power Supply

A DC power drive can be utilized for long-term use or as an emergency power supply^{*1}. A charging Ni-MH battery^{*2} function is also available for the UTX-B03HR and URX-P03D.

^{*1} Excludes the UTX-M03.

^{*2} Not supplied.

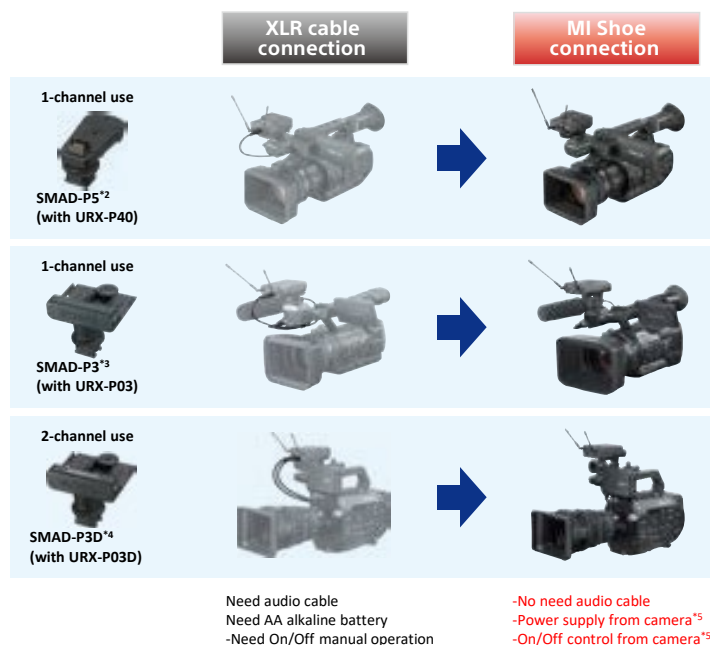
Multi-Interface Shoe-Mount Adaptor With Digital Audio Interface (option)*1



The wireless receiver of the UWP-D Series can be attached to camcorders and interchangeable-lens cameras that have an MI (multi-interface) shoe using the MI shoe adaptor. This eliminates the need for connecting cables. By using the MI shoe adaptor, audio signals can be transmitted from the wireless receiver to a camera. The wireless receiver can get power from the camera, and the camera can control power ON/OFF, unifying power management.

In addition, the combination of the URX-P40 and SMAD-P5 supports the digital audio interface which delivers high sound quality with low noise by direct digital audio recording. It also achieves advanced integration with camcorders and can show audio information on the viewfinder for enhanced usability in the field.

*1 For details on cameras that support this function, visit the Sony's website.



*2 The SMAD-P5 cannot be used with the URX-P03 nor the URX-P03D.

*3 The SMAD-P3 cannot be used with the URX-P03D nor the URX-P40.

*4 The SMAD-P3D cannot be used with the URX-P03 nor the URX-P40.

*5 Excludes the UTX-M03.

UTX-B40

UTX-P40

UTX-M40

URX-P40

Interchangeable Head For Wide Choice of Microphone Capsule

The supplied high-quality dynamic cardioid microphone capsule can be used with the handheld microphone. Alternatively, any of Sony's DWX Series capsules such as the CU-C31, F31, or F32 can also be used (the thread pitch is 1.25"/28 (31.3 mm/pitch 1.0 mm threading)).



UTX-B40

UTX-P40

UTX-M40

URX-P40

+48V Power Supply

This function enables direct connection of dynamic microphones and condenser microphones requiring DC 48 V powering.

Compatibility with UWP Series / WL-800 Series

DSP enables a digital compander to match Sony's analog wireless system. The UWP-D transmitter can be used with a UWP Series or WL-800 Series receiver, and a UWP Series or WL-800 Series transmitter can be used with a UWP-D receiver. The UTX-B40, UTX-M40, and UTX-P40 have an IR port. So the channel setting and compander mode are transferred from the URX-P03 or URX-P03D via this IR port. The AUTO SET function can be used as well.



URX-S03D Slot-in Receiver For Shoulder Camcorders

with XDCAM

- 2-channel digital connection directly from the DSP digital output of the URX-S03D via a D-sub 15-pin interface
- Camcorder can show each wireless microphone's RF/AF level in the viewfinder
- Camcorder corrects for the amount of system delay (0.725msec), ensuring zero audio delay

with HDCAM

- Single-channel analog connection from the URX-S03D via a D-sub 15-pin interface
- Two audio signals from two transmitters can be output in the single channel as a 2-channel mixing function
- Camcorder can show each wireless microphone's RF/AF level in the viewfinder



High-Quality Audio

The URX-S03D adopts a high-quality audio amplifier which features a large-capacity electrolytic capacitor to deliver high electric power to the amplifier.



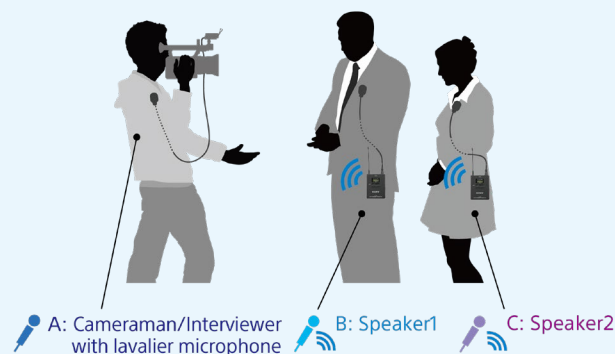
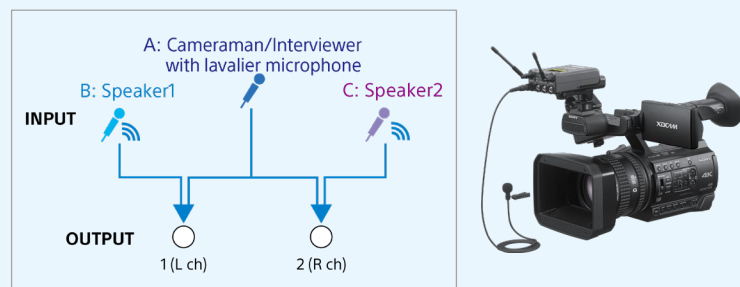
URX-P03D External Microphone Input And 3-Channel Mixing Function

The URX-P03D is equipped with an external input connector that supports plug-in power external microphones and Sony BMP-type lavalier microphones.

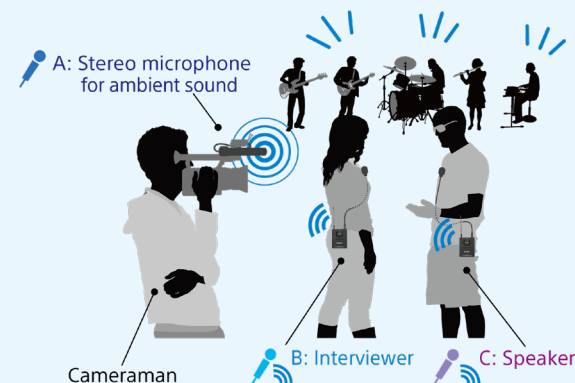
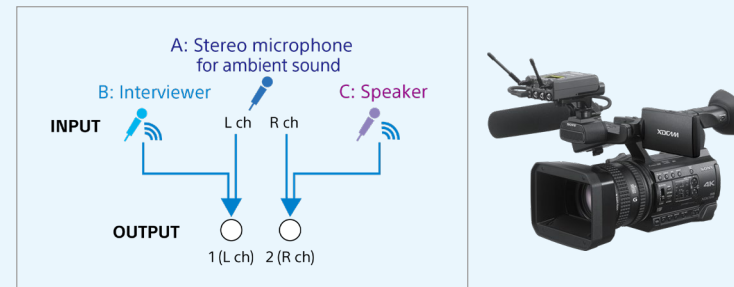
You can individually assign the audio signal inputs from tuner 1, tuner 2, and the external microphone to OUTPUT 1 (L channel), OUTPUT 2 (R channel), or both via menu settings. This allows you to freely mix audio signals and achieve stereo or monaural output.



Example 1: Using Lavalier Microphone



Example 2: Using Stereo Microphone



Package Lineup

							Frequencies as follows				
UWP-D21 							14/UC	25/UC	42/LA	90/U	
	UTX-B40 : Bodypack Transmitter	URX-P40 : Portable Receiver					21/CE	33/CE	42/CE		
UWP-D22 							14/UC	25/UC	42/LA	90/U	
	UTX-M40 : Handheld Wireless Microphone	URX-P40 : Portable Receiver					21/CE	33/CE	42/CE		
UWP-D26 								14/UC	25/UC	42/LA	90/U
	UTX-P40 : Plug-on Transmitter	UTX-B40 : Bodypack Transmitter	URX-P40 : Portable Receiver					21/CE	33/CE	42/CE	

Frequencies

	Operating frequencies	470 MHz to 542 MHz	536 MHz to 608 MHz	566 MHz to 630 MHz	638 MHz to 694 MHz	638 MHz to 698 MHz	710 MHz to 782 MHz	794 MHz to 806 MHz	806 MHz to 810 MHz	925 MHz to 937 MHz	941 MHz to 960 MHz
UC/LA	version	14/UC	25/UC			42/LA					90/U
	Selectable frequencies	2772 (in 25-kHz steps)	2772 (in 25-kHz steps)			2310 (in 25-kHz steps)					654 (in 25-kHz steps)
CE	version	21/CE		33/CE	42/CE						
	Selectable frequencies	2880 (in 25-kHz steps)		2560 (in 25-kHz steps)	2240 (in 25-kHz steps)						
CN	version					38/CN					
	Selectable frequencies					2880 (in 25-kHz steps)					
E	version							E			
	Selectable frequencies							94 (in 125-kHz steps)			
J	version								JB		
	Selectable frequencies								94 (in 125-kHz steps)		
KR	version									KR3	
	Selectable frequencies									94 (in 125-kHz steps)	

*1 566 MHz to 608 MHz and 614 MHz to 638 MHz

Products



UTX-B40 Bodypack Transmitter

- High quality sound with Sony Digital Audio Processing
- NFC SYNC function for quick and easy secure channel setting
- Auto gain mode volume control
- +15 dB gain volume boost mode for off-mic audio
- Line input available
- Transmitter frequency sent to receiver
- Variable muting function
- Compatibility with UWP Series / WL-800 Series
- High visibility OLED display (indoor/outdoor use)
- USB for power supply
- ECM-V1BMP Electret Condenser Microphone is supplied



UTX-P40 Plug-on Transmitter

- High quality sound with Sony Digital Audio Processing
- NFC SYNC function for quick and easy secure channel setting
- Auto gain mode volume control
- +15 dB gain volume boost mode for off-mic audio
- Line input available
- +48V power supply
- Transmitter frequency sent to receiver
- Variable muting function
- Compatibility with UWP Series / WL-800 Series
- High visibility OLED display (indoor/outdoor use)
- USB for power supply



UTX-M40 Handheld Wireless Microphone

- High quality sound with Sony Digital Audio Processing
- NFC SYNC function for quick and easy secure channel Setting
- Interchangeable head for wide choice of microphone capsule
- Auto gain mode volume control
- +15 dB gain volume boost mode for off-mic audio
- Transmitter frequency sent to receiver
- Variable muting function
- Compatibility with UWP Series / WL-800 Series
- High visibility OLED display (indoor/outdoor use)



UTX-B03HR Bodypack Transmitter

- Sony's Digital Audio Processing
- Reliable and proven SMC9-4S (HIROSE) connector
- Compatibility with UWP Series / WL-800 Series
- Extremely compact, lightweight, and robust metal body
- USB for power supply or charging batteries
- Switchable MIC/LINE input level and adjustable attenuator (0 dB to 21 dB, 3-dB steps)

Products



URX-P40 Portable Receiver

- High quality sound with Sony Digital Audio Processing
- NFC SYNC function for quick and easy secure channel setting
- True diversity for stable signal reception
- Channel memory function for fast switching between two receiver frequencies
- Headphone output for monitoring
- Monitor mode for using a receiver as an ear monitor
- Compatibility with UWP Series / WL-800 Series
- Output level control for receiver
- High visibility OLED display (indoor/outdoor use)
- USB for power supply
- Digital audio interface support using SMAD-P5 Multi-Interface Shoe Adaptor (option)*¹

*¹ For details on cameras that support this function, visit the Sony's website.

Supplied Output Cable



XLR-BMP
Cable (1)



Stereo Mini-
BMP Cable (1)



URX-P03D 2-channel Portable Receiver

- Sony's Digital Audio Processing
- External microphone input for additional wired microphone
- 3-channel mixing function included
- Easy-to-use Automatic Channel Setting mode
- True Diversity Reception System*² for stable reception
- Compatibility with UWP Series / WL-800 Series
- Headphone output for monitoring
- Extremely compact, lightweight, and robust metal body
- USB for power supply or charging batteries
- Output level control

*² True Diversity for 1-channel use / Dynamic Switching Diversity for 2-channel use

Supplied Output Cable



XLR-BMP
Cable (2)



Stereo Mini-Dual
BMP Cable (1)

Products



URX-S03D 2 channel slot-in portable wireless receiver

- Sony's Digital Audio Processing
- High quality audio amplifier adopted
- Portable Wireless ReceiverCAM camcorders
- Direct digital connection to XDCAM, DWA-01D or DWA-F01D
- Easy-to-use Automatic Channel Setting mode
- True Diversity Reception System for stable reception
- Compatibility with UWP Series / WL-800 Series
- Robust metal body
- Weatherproof structure
- Selectable squelch

How to attach cameras (Option)

URX-S03D



On the Battery



On Top of the Battery



A-8278-057-B*
Mounting Bracket



A-1528-515-A
Mounting Plate



SMAD-V1
V-Shoe
Mount
Adaptor



DWA-01D
Digital
wireless
Adaptor

For mixer bag
application



DWA-F01D
Digital wireless Adaptor

Accessories UWP-D Series



SMAD-P2
Shoe Mount Adaptor for
URX-P03/URX-P03D



SMAD-P3
Multi Interface Shoe (MI
Shoe) adaptor for URX-P03



SMAD-P3D
Multi Interface Shoe (MI
Shoe) adaptor for URX-P03D
(Dual Channel)



SMAD-P4
Shoe Mount Adaptor
for URX-P40



SMAD-P5
Multi Interface Shoe (MI
Shoe) adaptor for URX-P40



ECM-V1BMP
Omni-directional Lavalier
Microphone



ECM-X7BMP
Uni-directional, Lavalier
Microphone



ECM-77BMP
Omni-directional Lavalier
Microphone



ECM-44BMP
Omni-directional Lavalier
Microphone



ECM-FT5BMP
Omni-directional Lavalier
Microphone



ECM-LZ1UBMP
Uni-directional Lavalier
Microphone



ECM-77BC
Omni-directional Lavalier
Microphone



ECM-44BC
Omni-directional Lavalier
Microphone



ECM-322BMP
Omni-directional
Headset Microphone



ECM-HZ1UBMP
Uni-directional Headset
Microphone



AD-RV1B2
Windscreen Pack (5PCS)



SAD-HV1B2
Holder Clip Pack (4PCS)



BATC-3AA
Battery Case for UTX-
B03/UTX-B03HR/UTXP03/
URX-P03/URX-P03D



BATC-4AA
Battery Case for UTX-
B40/URX-P40



EC-0.46BX
3-pole Locking Mini Plug-
XLR(M) Cable



EC-1.5BX
3-pole Locking Mini Plug-
XLR(F) Cable



EC-0.8BM
3-pole Locking Mini Plug-
Stereo Mini Plug Cable



EC-1.5CF
SMC9-4P Plug-XLR(F) Cable



BLC-BP2
Belt Clip (2PCS)



SAD-M01
Microphone Holder



LCS-URXP3
Soft Case
For URX-P03/URX-P03D



CU-C31
Capsule Unit
• Condenser type
• Cardioid
• 60 Hz - 20 kHz

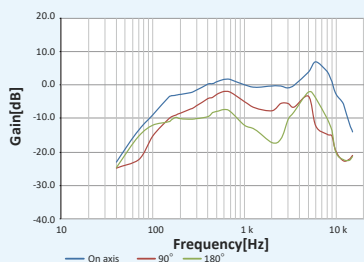
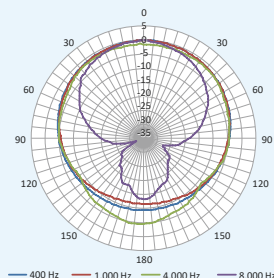
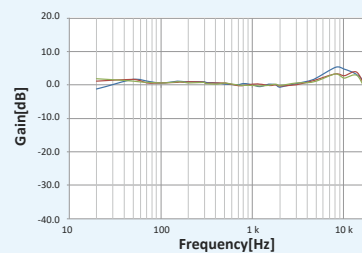
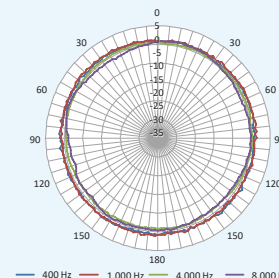


CU-F31
Capsule Unit
• Dynamic type
• Super cardioid
• 60 Hz - 18 kHz



CU-F32
Capsule Unit
• Dynamic type
• Wide cardioid
• 70 Hz - 18 kHz

SPECIFICATIONS

UTX-M40
Frequency Response Characteristics

Directivity
Characteristics (1 kHz)

ECM-V1BMP
Frequency Response Characteristics

Directivity
Characteristics (1 kHz)


Model Code	ECM-V1BMP
Frequency Response	40 Hz to 20 kHz
Directivity	Omni-directional
Capsule Type	Condenser
Sensitivity	-43.0 dB $\pm$ 3.0 dB (1 kHz/Pa)
Dynamic Range	86 dB or more
Maximum Input Sound Pressure Level	120 dB SPL
Microphone Head	Φ 6.8 x 19.5 mm (9/32 x 25/32 inches) (diameter/length)
Mic Cable	1.2 m (3.9 feet)
Power Requirements	DC 5 V
Supplied Accessories	Windscreen (1) Horizontal Clip (1)

	UTX-B40 Bodypack Transmitter	UTX-M40 Handheld Transmitter	UTX-P40 Plug-on Transmitter	UTX-B03HR Bodypack Transmitter
Oscillator Type	Crystal-controlled PLL synthesizer			
Antenna Type	1/4 λ wavelength wire antenna		-	1/4 λ wave length wire
Carrier Frequencies	14UC : 470.125 MHz to 541.875 MHz(UHF-TV channels 14 to 25)			
Carrier Frequencies	25UC : 536.125 MHz to 607.875 MHz (UHF-TV channels 25 to 36)			
	42LA : 638.125 MHz to 697.875 MHz(UHF-TV channels 42 to 51)			
	90U : 941.625 MHz to 951.875 MHz, 953.000 MHz to 956.125 MHz, and 956.625 MHz to 959.625 MHz			
	21CE : 470.025 MHz to 542.000 MHz(UHF-TV channels 21 to 29)			
	33CE : 566.025 MHz to 630.000 MHz(UHF-TV channels 33 to 40)			
	42CE : 638.025 MHz to 694.000 MHz (UHF-TV channels 42 to 48)			
	38CN : 710.025 MHz to 782.000 MHz(UHF-TV channels 38 to 46)			
	E : 794.125 MHz to 805.875 MHz			
	BJ: 806.125 MHz to 809.750 MHz			
	KR : 925.125 MHz to 937.500 MHz			
RF Output Power	30 mW/5 mW selectable (UC, U, CE, LA, CN models) 10 mW/2 mW selectable (J, E, KR models)		40 mW/5 mW selectable (UC, U, LA models) 30 mW/5 mW selectable (CE, CN models) 10 mW/2 mW selectable (J, E, KR models)	30 mW/5 mW selectable (UC, U, CE, LA, CN models) 10 mW/2 mW selectable (J, E, KR models)
Capsule Type	Electret condenser	Dynamic	-	-
Directivity	Omni-directional	Uni-directional	-	-

SPECIFICATIONS

	UTX-B40 Bodypack Transmitter	UTX-M40 Handheld Transmitter	UTX-P40 Plug-on Transmitter	UTX-B03HR Bodypack Transmitter
Input Connector	3.5mm diameter 3-pole locking mini jack	-	XLR-3-11C type (female)	Sony SMC9-4S (female)
Reference Audio Input Level	-60 dBV (MIC input, GAIN MODE set to NORMAL, 0 dB attenuation) +4 dBu (LINE input)	-55 dBV (GAIN MODE set to NORMAL, 0 dB attenuation)	-60 dBV (MIC input, GAIN MODE set to NORMAL, 0 dB attenuation)	MIC: -60 dBV (at 0-dB attenuator level) / LINE: +4 dBu
Maximum Audio Input Level	-	151 dB SPL (21 dB attenuation, using supplied microphone unit)	-	-
Audio Attenuator Adjustment Range	0 dB to 27 dB (3dB steps)	0 dB to 21 dB (3 dB steps)	0 dB to 48 dB (3 dB steps)	0 dB to 27 dB (3 dB steps)
Frequency Response	23 Hz to 18 kHz (Typical) (UC, U, CE, LA, CN, E, KR models)	70 Hz to 18 kHz (Typical) (UC, U, CE, LA, CN, E, KR models)	23 Hz to 18 kHz (Typical) (UC, U, CE, LA, CN, E, KR models)	
	40 Hz to 15 kHz (Typical) (J model)	70 Hz to 15 kHz (Typical) (J model)	40 Hz to 15 kHz (Typical) (J model)	
Signal-to-Noise Ratio	60 dB (-60 dBV, 1 kHz sine wave input) 102 dB (GAIN MODE set to AUTO GAIN, max deviation, A-weighted) 96 dB (GAIN MODE set to NORMAL, max deviation, A-weighted)			60 dB (-60 dBV, 1 kHz sine wave input) 96 dB (max deviation, A-weighted)
Distortion	0.9% or less (-60 dBV, 1 kHz input)			-
Audio Delay	Approx. 0.35 ms			
Tone signal frequency	In UWP-D compander mode: 32.382 kHz / In UWP compander mode: 32 kHz / In WL800 compander mode: 32.768 kHz			
Display	OLED			LCD
Power Requirements	DC 3.0 V (two LR6/AA size alkaline batteries) DC 5.0 V (supplied from USB Type-C connector)			DC 3.0 V (with two AA-size alkaline (LR6) batteries) DC 5.0 V (via USB micro-B)
Battery Life (measured with two Sony LR6/AA size alkaline batteries at 25 ° C (77 ° F), DISPLAY MODE set to AUTO OFF)	Approx. eight hours with output power of 30 mW (UC, U, CE, LA, CN models)		During +48V OFF: Approx. seven hours with output power of 40 mW (UC, U, LA models) Approx. eight hours with output power of 30 mW (CE, CN models) Approx. 10 hours with output power of 10 mW (J, E, KR models)	Approx. eight hours with output power of 30 mW (UC, U, CE, LA, CN models)
	Approx. 10 hours with output power of 10 mW (J, E, KR models)		During +48V ON and ECM-673 connection: Approx. six hours with output power of 40 mW (UC, U, LA models) Approx. six hours with output power of 30 mW (CE, CN models) Approx. seven hours with output power of 10 mW (J, E, KR models)	Approx. 10 hours with output power of 10 mW (J, E, KR models)

SPECIFICATIONS

	UTX-B40 Bodypack Transmitter	UTX-M40 Handheld Transmitter	UTX-P40 Plug-on Transmitter	UTX-B03HR Bodypack Transmitter
Operating Temperature	0 ° C to 50 ° C (32 ° F to 122 ° F)			
Storage/Transport Temperature	-20 ° C to +55 ° C (-4 ° F to +131 ° F)			
Dimensions	63 × 73 × 19 mm (2 1/2 × 2 7/8 × 3/4 in.) (W / H / D) (excluding antenna)	∅48 × 258 mm (1 15/16 × 10 1/4 in.) (diameter / length)	38 × 98 × 38 mm (1 1/2 × 3 7/8 × 1 1/2 in.) (W / H / D) (including the audio input connector)	63 x 92.6 x 20 mm (2 1/2 × 3 3/4 × 13/16 in.) (excluding the antenna) (W x H x D)
Mass	Approx. 83 g (2.9 oz) (excluding batteries)	Approx. 255 g (9.0 oz) (excluding batteries)	Approx. 139 g (4.9 oz) (excluding batteries)	Approx. 105 g (3.7 oz.) (excluding batteries)

SPECIFICATIONS

	URX-P40 Portable Receiver	URX-P03D 2-channel Portable Receiver	URX-S03D Slot-in Portable Receiver
Oscillator Type	Crystal-controlled PLL synthesizer		
Reception Type	True diversity method	Space diversity*1	True diversity
Antenna Type	1/4 λ wavelength wire antenna (angle-adjustable)		Detachable
Carrier Frequencies	14UC : 470.125 MHz to 541.875 MHz(UHF-TV channels 14 to 25)		
	25UC : 536.125 MHz to 607.875 MHz (UHF-TV channels 25-36)		
	42LA : 638.125 MHz to 697.875 MHz(UHF-TV channels 42-51)		
	90U : 941.625 MHz to 951.875 MHz, 953.000 MHz to 956.125 MHz, and 956.625 MHz to 959.625 MHz		
	21CE : 470.025 MHz to 542.000 MHz(UHF-TV channels 21-29)		
	33CE : 566.025 MHz to 630.000 MHz(UHF-TV channels 33-40)		
	42CE : 638.025 MHz to 694.000 MHz (UHF-TV channels 42-48)		
	38CN : 710.025 MHz to 782.000 MHz(UHF-TV channels 38-46)		
	E : 794.125 MHz to 805.875 MHz		
	JB: 806.125 MHz to 809.750 MHz		
	KR : 925.125 MHz to 937.500 MHz		
Frequency Response	23 Hz to 18 kHz (Typical) (UC, U, CE, LA, CN, E, KR models)		
	40 Hz to 15 kHz (Typical) (J model)		
Signal-to-Noise Ratio	60 dB (1 kHz sine wave, 5 kHz modulation) 96 dB (max deviation, A-weighted)	60 dB (1 kHz sine wave, 5 kHz modulation) 96 dB (max deviation, A-weighted)	
Distortion (T.H.D)	0.9% or less (1 kHz sine wave, 5 kHz modulation)		
Audio Delay	Approx. 0.35 ms (analog output) Approx. 0.24 ms (digital output)	Approx. 0.375 ms	
Analog Input	-	3-pole mini jack, unbalanced	-
Analog Input Level	-	-50 dBV (±12dB Adjustable, 3-dB step)	-
Audio output connector	3.5mm diameter 3-pole locking mini jack, external connection	3-pole mini jack, unbalanced	D-sub 15pin, unbalanced
Analog Output Level*2	−60 dBV (3.5 mm diameter 3-polelocking mini jack, analog output,0 dB audio output level) −20 dBFS (external connection, digitaloutput, 0 dB audio output level) −50 dBFS (external connection, analog output, 0 dB audio output level)	-60 dBV (at ±5 kHz deviation)	-40 dBu (at ±5kHz deviation)

SPECIFICATIONS

	URX-P40 Portable Receiver	URX-P03D 2-channel Portable Receiver	URX-S03D Slot-in Portable Receiver
Analog Audio Output Adjustment Range	-12 dB to +12 dB (3-dB step)		-
Headphone output connector	3.5 mm diameter mini jack	ø3.5 mm (5/32 inch) stereo mini jack	-
Headphone Output Level	Max. 10mW (16-ohm)	5 mW (16-ohm)	-
Tone signal frequency	In UWP-D compander mode: 32.382 kHz / In UWP compander mode: 32 kHz / In WL800 compander mode: 32.768 kHz		
Display	OLED	LCD	LCD
Power Requirements	DC 3.0 V (two LR6/AA size alkaline batteries) DC 5.0 V (supplied from USB Type-C connector)	DC 3.0 V (with two AA-size alkaline (LR6) batteries) DC 5.0 V (via USB micro-B connector)	DC 7.0 V
Battery Life	Approx. six hours (measured with two Sony LR6/AA size alkaline batteries at 25 ° C (77 ° F), DISPLAY MODE set to AUTO OFF)	Approx. five hours with Sony's AA-size alkaline (LR6) batteries at 25 ° C (77 ° F)	-
Operating Temperature	0 ° C to 50 ° C (32 ° F to 122 ° F)		
Storage/ Transport Temperature	-20 ° C to +55 ° C (-4 ° F to +131 ° F)		
Dimensions (W x H x D)	63 × 70 × 31 mm (2 1/2 × 2 7/8 × 1 1/4 in.) (excluding antenna)	63 × 82 × 28.4 mm (2 1/2 × 3 1/4 × 1 1/8 inches) (excluding the antennas)	88 × 116.2 × 31.2mm (3 1/2 × 4 5/8 × 1 1/4 in.) (excluding the antennas)
Mass	Approx. 131 g (4.6 oz) (excluding batteries)	Approx. 210 g (7.4 oz) (including batteries)	Approx. 303g (10.7 oz.) (with supplied antennas attached)

*1 True Diversity for 1-channel use / Dynamic Switching Diversity for 2-channel use.

*2 0dBμV= 1μV EMF, 0dBu=0.775Vrms, 0dBV=1V, 0dB SPL=2x10⁻⁵ Pa.

	SMAD-P5 Multi Interface (MI) Shoe Adaptor
Output impedance	1 kΩ or less
Voice delay	1.16 ms (Digital)
Operating temperature	0 ° C to 50 ° C (32 ° F to 122 ° F)
Storage temperature	-20 ° C to +55 ° C (-4 ° F to +131 ° F)
Dimensions (W/H/D)	Approx. 34 mm × 35 mm × 65 mm (1 3/8 in. × 1 7/16 in. × 2 5/8 in.)
Mass	Approx. 27 g (1.0 oz.) (excluding terminal cap)
Supplied accessories	Operating Instructions (1) (this document), Warranty card (1)

Compatibility with UWP Series / WL-800 Series



DWA-01D

Digital wireless adapter

- For use with DWR-S01D, DWR-S02D, DWR-S03D, URX-S03D or WRR-855S receiver
- Stand-alone wireless receiver operation
- Wide array of interfaces including two-channel AES3 digital or analogue output
- Unique lock-together mechanism to allow two DWA-01D adaptors to be easily combined
- Supports V-mount attachment
- Hirose 4-pin DC powering

DWA-F01D

Digital wireless adapter



- For use with DWR-S01D, DWR-S02D, DWR-S03D, URX-S03D or WRR-855S receiver
- Stand-alone wireless receiver operation
- Top-panel operation for mixer bag
- Three-way powering (Hirose 4-pin DC powering, DC In and NP-Batteries)
- Three-parallel audio output, including XLR analogue output, BNC AES/EBU digital output and mini-phone analogue output

Accessories



LCS-F01D

Soft Carrying Case

- Soft case for DWA-F01D
- Shoulder strap is included
- Support V-mount attachment

Products UWP B&I System



UTX-B40

Bodypack transmitter

- High quality sound with Sony Digital Audio Processing
- NFC SYNC function for quick and easy secure channel setting
- Auto gain mode volume control
- +15 dB gain volume boost mode for off-mic audio
- Line input available
- Transmitter frequency sent to receiver
- Variable muting function
- Compatibility with UWP Series / WL-800 Series
- High visibility OLED display (indoor/outdoor use)
- USB for power supply
- ECM-V1BMP Electret Condenser Microphone is supplied



URX-M2

Tuner module

- Installed in the MB-X6 tuner unit or the SRP-X500P all-in-one type presentation mixer/amplifier
- Can use up to six receivers in MB-X6 mainframe



UTX-M40

Handheld Wireless Microphone

- High quality sound with Sony Digital Audio Processing
- NFC SYNC function for quick and easy secure channel setting
- Interchangeable head for wide choice of microphone capsule
- Auto gain mode volume control
- +15 dB gain volume boost mode for off-mic audio
- Transmitter frequency sent to receiver
- Variable muting function
- Compatibility with UWP Series / WL-800 Series
- High visibility OLED display (indoor/outdoor use)

Products UWP B&I System

MB-X6 Tuner Base Unit



Front Panel: MB-X6 with six WRU-806A/806B tuner units installed



Rear Panel

- Accommodates up to six WRU-806A/806B for up to six channels of simultaneous operation
- Addition of the WD-850 allows multi-channel operation with even more channels
- Easy mechanism for attaching and detaching tuner modules
- RF input attenuator switch (10 dB/0 dB)
- Balanced XLR output connector for each tuner and mix output
- Selectable output level: -58 dBu (for MIC) or -20 dBu (for LINE) at ± 5 kHz deviation at 1 kHz modulation
- Auto channel search function automatically selects unoccupied channels
- Supplied with passive antennas
- Modular, 1U high, 19-inch rack unit

Accessories UWP B&I System



AD-RV1B2
Windscreen Pack (5PCS)



AD-RX7B
Windscreen Pack (5PCS)



SAD-HV1B
Holder Clip Pack (4PCS)



BATC-4AA
Battery Case
*Batteries are not included.



BATC-2AA
Battery Case



SAD-M01
Microphone Holder



ECM-X7BMP
Lavalier Microphone



ECM-V1BMP
Lavalier Microphone



ECM-166BMP
Uni-directional
Lavalier Microphone



ECM-LZ1UBMP
Uni-directional
Lavalier Microphone



ECM-322BMP
Omni-directional
Headset Microphone



ECM-HZ1UBMP
Uni-directional
Headset Microphone



AN-820
UHF Antenna



AN-57
UHF ground
plane antenna

Frequencies UWP-X Series

	Operating Frequencies	566 MHz to 590 MHz	566 MHz to 590 MHz	606 MHz to 630 MHz	638 MHz to 662 MHz	638 MHz to 662 MHz	758 MHz to 782 MHz	794 MHz to 806 MHz	806 MHz to 810MHz	925 MHz to 932MHz
UC	version		UC3032			UC4244* ¹				
	Selectable Frequencies		188 (in 125kHz steps)			188 (in 125kHz steps)				
CE	version	CE33		CE38	CE42					
	Selectable Frequencies	189 (in 125kHz steps)		189 (in 125kHz steps)	189 (in 125kHz steps)					
CN	version						CN			
	Selectable Frequencies						188 (in 125kHz steps)			
E	version							E		
	Selectable Frequencies							94 (in 125kHz steps)		
J	version								JB	
	Selectable Frequencies								30 (in 125kHz steps)	
KR	version									KR
	Selectable Frequencies									55 (in 125kHz steps)

* 1 Not available in US/Canada

Specifications

UTX-B2X Bodypack Transmitter		
Oscillator	Crystal-controlled PLL Synthesizer	
Type of emission	F3E	
Carrier frequencies	U3032	566 MHz to 590 MHz, selectable from 188 frequencies (in 125-kHz steps)
	U4244	638 MHz to 662 MHz, selectable from 188 frequencies (in 125-kHz steps)
	CE33	566 MHz to 590 MHz, selectable from 189 frequencies (in 125-kHz steps) / 960 frequencies (in 25-kHz steps)
	CE38	606 MHz to 630 MHz, selectable from 189 frequencies (in 125-kHz steps) / 960 frequencies (in 25-kHz steps)
	CE42	638 MHz to 662 MHz, selectable from 189 frequencies (in 125-kHz steps) / 960 frequencies (in 25-kHz steps)
	CN	758 MHz to 782 MHz, selectable from 188 frequencies (in 125-kHz steps)
	E	794 MHz to 806 MHz, selectable from 94 frequencies (in 125-kHz steps)
	J	806 MHz to 810MHz, selectable from 30 frequencies (in 125-kHz steps)
	KR	925 MHz to 932MHz, selectable from 55 frequencies (in 125-kHz steps)
RF power output	30mW/5mW selectable (U,CE7,CN models) 10mW/2mW selectable (E, J, KR3 model)	
Antenna	1/4 wave length wire	
Pilot tone signal	32 kHz	
RF squelch level	-	
Frequency response	40 Hz to 18 kHz (typical) (U,CE7,CN,E,KR) 50 Hz to 15 kHz (typical) (J)	
Reference deviation	± 7 kHz (-60 dBV, 1-kHz input) (U,CE7,CN,E,KR) ± 5 kHz (-66 dBV, 1-kHz input) (J)	
Signal-to-noise ratio	60 dB or more (± 7 -kHz deviation at 1-kHz modulation, A-weighted)	
Microphone capsule	Electret condenser, uni-directional (UTX-B2X)	
Audio attenuator adjustment range	0 dB to 21 dB (in 3-dB steps): Mic input	
Audio input level	MIC: -60 dBV (at 0-dB attenuator level) LINE: +4 dBu	
Audio connector	Input: 3-pole mini jack	
Indicators	LCD	Operating channel number/frequency, attenuator level, RF output level (High/Low), audio input status, transmitter battery status, and accumulated operating time
	LED	Audio input status
Power requirements	DC 3.0 V (with two AA-size alkaline (LR6) batteries)	
Battery life	Approx. eight hours with Sony's AA-size alkaline (LR6) batteries at 25° C(77° F) at 30-mW output (except E model)	
	Approx. ten hours with Sony's AA-size alkaline (LR6) batteries at 25° C(77° F) at 10-mW output (E model)	
Dimensions (W x H x D)	63 × 82.5 × 18.7 mm (2 1/2 × 3 1/4 × 3/4 inches) excluding the antennas	
Mass	Approx. 145 g (5.1 oz), including batteries	

*0dBμV= 1μV EMF, 0dBu=0.775Vrms, 0dBV=1V, 0dB SPL=2x10⁻⁵ Pa

MB-X6 Tuner Base Unit	
Receiving channels	6 channels when accommodating 6 URX-M2 tuner modules
Receiving frequency range	566 MHz to 862 MHz
Audio output level	-20 dBu* (LINE)/-58 dBu* (MIC) at reference deviation
Audio output connector	XLR-3-32 (7), balanced
Antenna attenuator level	0 dB or 10 dB
Antenna connector	Inputs: BNC-R type (2), 50 Ω (nominal)
Operating voltage	AC 120 V, 60 Hz (USA-type) AC 230 V, 50/60 Hz (AU-type)
Current (power) consumption	30 W when accommodating six WRU-806A/806B tuner modules
Dimensions (W x H x D)	482 x 44 x 285 mm (19 x 1 3/4 x 11 1/4 inches)
Mass	Approx. 5.5 kg (12 lb 2 oz)
Supplied accessories	AC power cord (1), Antennas (1 pair), Operating instructions (1)

Digital wireless audio
packages using 2.4GHz
ISM band, for musicians
and presenters

High quality digital sound
and reliable RF transmission
providing superior
performance from Sony.

DWZ

**Epic digital wireless
technology, amazingly
affordable**



“

My opinion of Sony has actually been turned around
by this product. It is a very impressive and adaptable
system which I would definitely recommend.

Ashley Riggs, Pro Mobile, Issue 59

”

Great Performances for Presenters and Vocalists

Experience stable and reliable sound from Sony. 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.



DWZ-B70HL



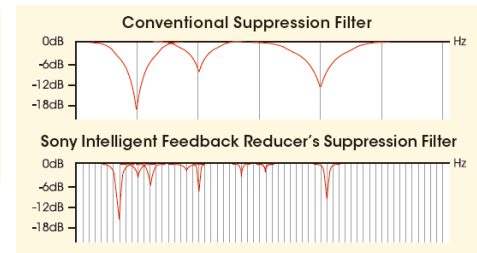
DWZ-M70

Technologies

Intelligent Feedback Reducer

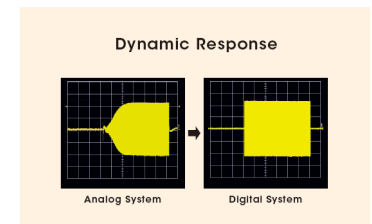
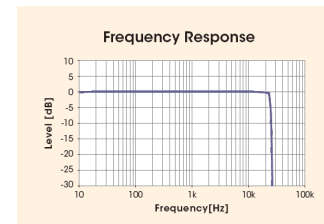
The Sony Intelligent Feedback Reducer can suppress unwanted feedback (howling) with high-performance DSP and Sony's unique algorithms designed to eliminate feedback before it becomes unbearable. Also, the equivalent of maximum 1024-band suppression filters are continuously tuned automatically in real 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.



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.



Technologies

Two RF Modes for Reliable Transmission

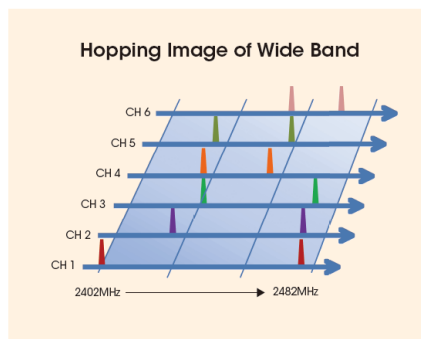
The DWZ-M70 package and WZ-B70HL package provide two selectable RF modes. Simply choose the one that makes best use of your actual 2.4-GHz RF environment.

[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*¹.

* 1 Audio delay : Approx. 5 ms

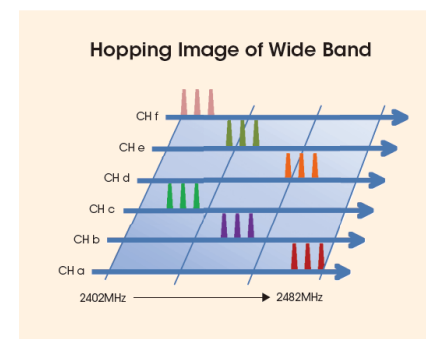


[Narrow Band Hopping Mode]

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*².

*2 Audio delay : Approx. 3 ms



Battery Recharging System*³

The BC-DWZ1 optional battery charger enables you to recharge NiHM 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.

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



Package Lineup

DWZ-B70HL

Digital wireless headset/lavalier microphone set for presenters and vocalists



ZRX-HR70
Half-rack receiver



ZTX-B02RC
Bodypack transmitter



ECM-HZ1UBMP
Headset microphone



Microphone
holder clip



Cord Clip



Belt Clip



ECM-LZ1UBMP
Lavalier microphone



Antenna



AC adaptor

DWZ-M70

Digital wireless set for presenters and vocalists



ZRX-HR70
Half-rack receiver



ZTX-M02RC
Handheld microphone



Microphone holder



Antenna



AC adaptor

Products



ZRX-HR70

Digital wireless half-rack receiver

- Intelligent Feedback reducer function
- AES 128-bit Encryption function
- 3-way parallel audio output .” TS phone (x2), Balanced XLR (x1)
- 5-Band graphic digital equalizer
- Colour LCD for simple operation and status monitoring for TX & RX
- Clear channel scan for easy set up
- Rack mountable 1U half-rack size
(with optional RMM-HRD1 rack mount kit)
- Detachable whip antenna



ZTX-M02RC

Digital wireless handheld microphone

- AES 128-bit Encryption function
- Sony's original high-quality cardioid dynamic capsule
- Interchangeable capsule design, with a flexible choice of capsules
- Latch switch for power on/off for conventional operation
- Two AA battery operation with contactless rechargeable function (with optional BC-DWZ1 battery charger)
- Robust metal body

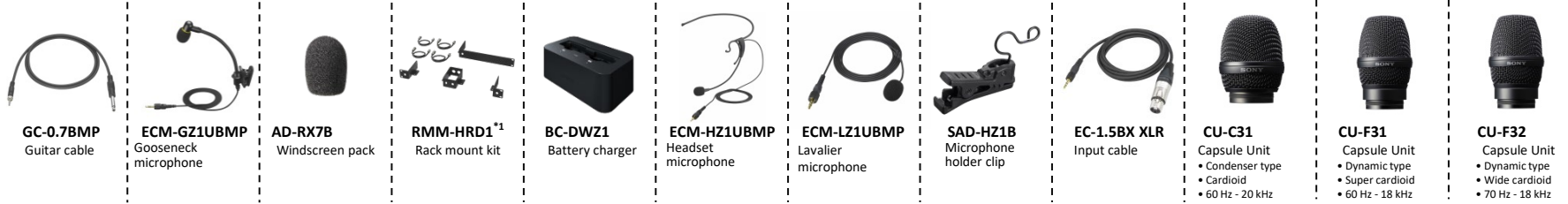


ZTX-B02RC

Bodypack transmitter

- AES 128-bit Encryption function
- Both cardioid condenser headset microphone and cardioid condenser Lavalier microphone are included
- Momentary switch for muting or talk-back application
- Two AA battery operation with contactless rechargeable function
(with optional BC-DWZ1 battery charger)
- Robust metal body

Accessories

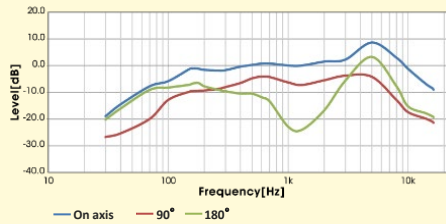


*1 For single/double use

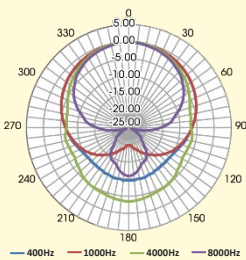
Specifications

ZTX-M02RC

Frequency Response Characteristics

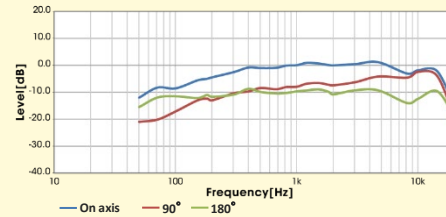


Directivity Characteristics

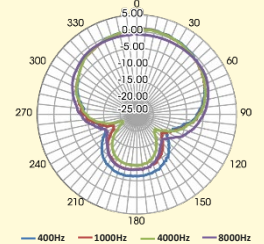


ECM-HZ1UBMP

Frequency Response Characteristics

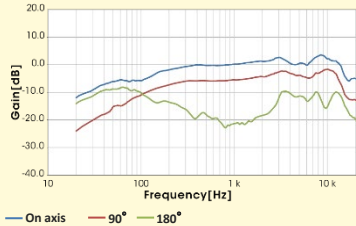


Directivity Characteristics

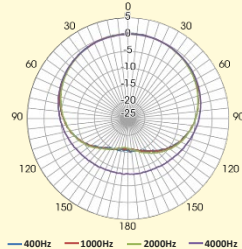


ECM-GZ1UBMP

Frequency Response Characteristics

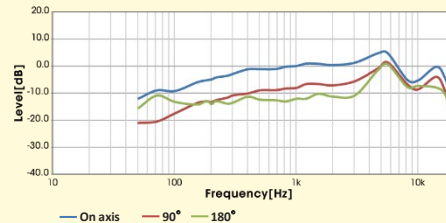


Directivity Characteristics

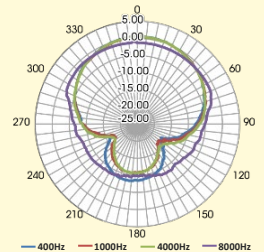


ECM-LZ1UBMP

Frequency Response Characteristics



Directivity Characteristics



Specifications

		DWZ-B70HL	DWZ-M70
Transmitting Section	Transmitter Type	Bodypack	Handheld
	Carrier Frequencies	2402.0 MHz to 2478.5 MHz	
	RF Power Output	10 mW (e.i.r.p.)	
Receiving Section	Receiver Type	rack-mount (Half / 1 channel)	
	Reception Type	Space diversity	
	Antenna Type	External whip antenna	
	Receiving Frequencies	2402.0 MHz to 2478.5 MHz	
	RF Sensitivity	24 dBμV or less	
Audio Section	Capsule Type	Electret condenser	Dynamic
	Directivity	Uni-directional	
	Maximum Input Level	MIC: -22 dBu INST/LINE: +8 dBu (when attenuator level is 0 dB)	142 dBSPL (with 12 dB attenuator)
	Audio Attenuator Adjustment Range	0 / 10 / 20 dB	0 / 6 / 12 dB
	Frequency Response	Transmission: 10 Hz to 22 kHz Headset Microphone: 60 Hz to 18 kHz Lavalier Microphone: 60 Hz to 18 kHz	Transmission: 10 Hz to 22 kHz Microphone unit: 70 Hz to 16 kHz
	Dynamic Range	MIC: 102 dB (A-weighted) INST/LINE: 98 dB (A-weighted)	102 dB (A-weighted)
	Audio Delay	Narrow band mode: Approx. 3 ms / Wide band mode: Approx. 5 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. 5 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)	
	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	ASE 128-bit	
	Display	LCD	
	USB Port(for firmware update)	TX x1 / RX x 1	
General	Power Requirements	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: 12 V DC	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: 12 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	
	Storage/Transport Temperature	-20° C to +60° C (-4° F to +140° F)	
	Dimensions	ZTX-B02RC: 63 × 87 × 20 mm (2 1/2 × 3 1/2 × 13/16 inches) (w/h/d) (excluding the antenna) ZRX-HR70: 168 × 44 × 96 mm (6 5/8 × 1 3/4 × 3 7/8 inches) (w/h/d)	ZTX-M02RC: φ 48 × 258 mm (1 15/16 × 10 1/4 inches) (diameter/length) ZRX-HR70: 168 × 44 × 96 mm (6 5/8 × 1 3/4 × 3 7/8 inches) (w/h/d)
	Mass	ZTX-B02RC: Approx. 162 g (5.7 oz.) (including batteries) ZRX-HR70: Approx. 510 g (1 lb. 2.0 oz.)	ZTX-M02RC: Approx. 308 g (11 oz.) (including batteries) ZRX-HR70: Approx. 510 g (1 lb. 2.0 oz.)
	Supplied Accessories	ZTX-B02RC(1), ZRX-HR70(1), Uni-directional Lavalier Microphone (1), Uni-directional Headset microphone (1), Mic holder clip (1), Cord clip (1), Wind screen (1), Belt clip (1), Belt clip screw (1), Antenna (2), AC adapter (1), Quick Start Guide (1), Before Use (1), CD-ROM (1)	ZTX-M02RC(1), ZRX-HR70(1), Mic holder (1), Antenna (2), AC adapter (1), Quick Start Guide (1), Before Use (1), CD-ROM (1)

ECM

Delivering excellent sound
and noise handling
performance

Comprehensive choice of high sensitivity
shotgun Electret condenser-type microphones

Recording engineers the world over are immensely
protective of their own personal collection of microphones,
regarding them as an essential part of their sonic signature.

Building on decades of experience in audio acquisition,
Sony offers a comprehensive choice of wired shotgun
microphones that offers musicians, broadcasters and
producers of audio-visual presentations uncompromised
audio, as well as utterly dependable performance.

Shotgun microphone

When You Need Superior Quality and Excellent Versatility in the Most Demanding Sound Gathering Applications

Since Sony introduced the ECM-678 Electret Condenser Shotgun Microphone in 2003, the shotgun microphone family having already been well-accepted for field production and broadcast studio applications.

Sony's expertise and knowledge, accumulated over decades as a world-leading supplier of broadcast equipment, are consolidated in these compact, lightweight microphones. Despite their slim body, Sony's shotgun microphones offer excellent sensitivity, low inherent noise, flat-and-wide frequency response, superb sound quality, and extreme durability.

These microphones are optimally designed for use with Sony's professional camcorders, which are globally playing active roles in video acquisition with their excellent video quality.

As well as operating with camcorders, Sony's shotgun microphones are also suitable in other sound-gathering configurations; they can be used, for example, as boom microphones.

The versatile shotgun microphone family from Sony provides the ideal choice for virtually all quality-conscious sound gathering applications requiring extremely smooth and natural sound reproduction.

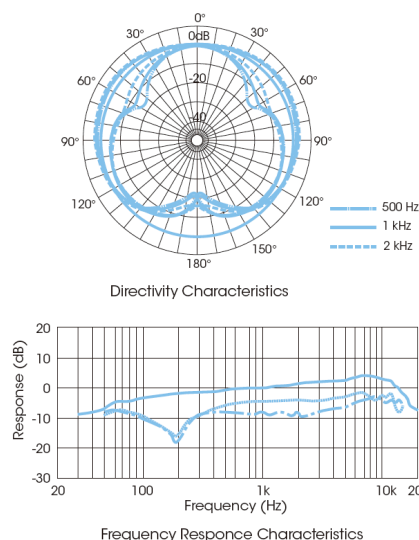


ECM-680S

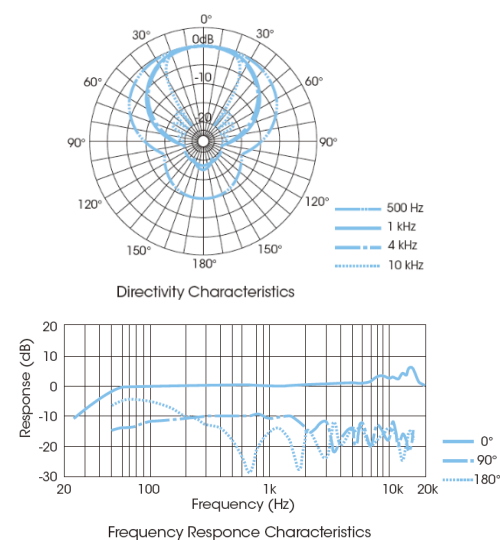
MS stereo shotgun
Electret condenser microphone

- Superb sensitivity of -28dB*2 (stereo)/- 32dB*2 (monaural) and extremely low inherent noise of less than 20dB SPL (stereo/monaural).
- Flat-and-wide frequency response: 50Hz to 20kHz (stereo), 40Hz to 20kHz (monaural)
- Built-in low-cut filter
- Compact and lightweight design

ECM-680S Stereo



ECM-680S Monoral



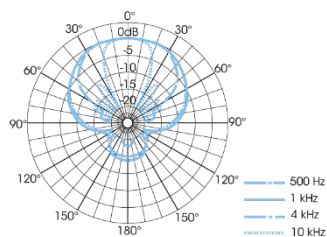
Shotgun microphone



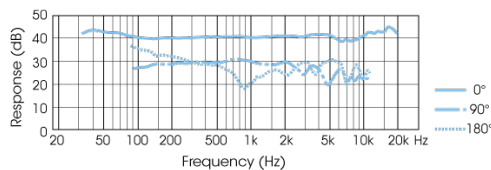
ECM-678

Shotgun Electret condenser microphone

- Superb sensitivity of -28dB (0dB=1 V/Pa.) and an extremely low inherent noise of less than 16dB SPL
- Flat-and-wide frequency response (40Hz to 20kHz)
- Compact design
- High-durability and reliability
- Built-in low-cut filter



Directivity Characteristics



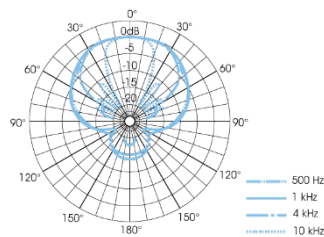
Frequency Response Characteristics



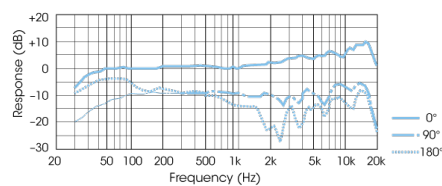
ECM-674

Affordable shotgun Electret condenser microphone

- Excellent sensitivity of -36dB (0dB=1 V/Pa.) and low inherent noise level of less than 17dB SPL
- Flat-and-wide frequency response (40Hz to 20kHz)
- Compact and lightweight design
- Two-way powering (+48V Power supply and 1,5V AA battery)
- Built-in low-cut filter
- Built-in battery liquid leakage protection circuit



Directivity Characteristics



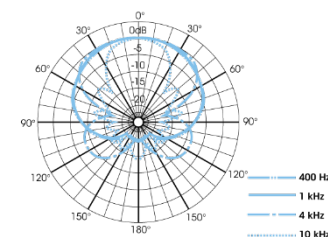
Frequency Response Characteristics



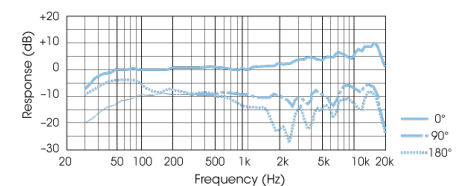
ECM-673

Shotgun Electret condenser microphone

- Excellent sensitivity of -36dB (0dB=1 V/Pa.) and a low inherent noise level of less than 17dB SPL
- Flat-and-wide frequency response (40Hz to 20kHz)
- Compact and lightweight design
- High-durability and reliability
- Built-in low-cut filter



Directivity Characteristics



Frequency Response Characteristics

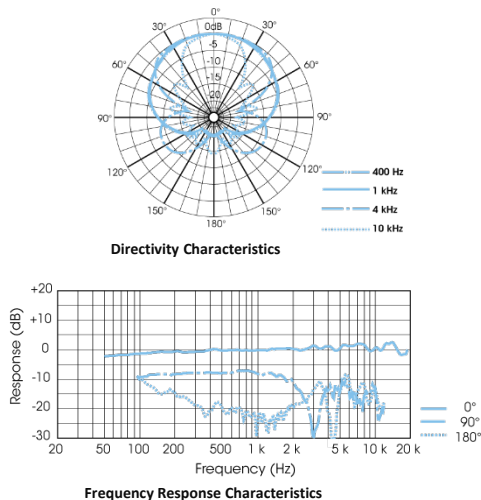
Shotgun microphone



ECM-VG1

Shotgun Electret
condenser microphone

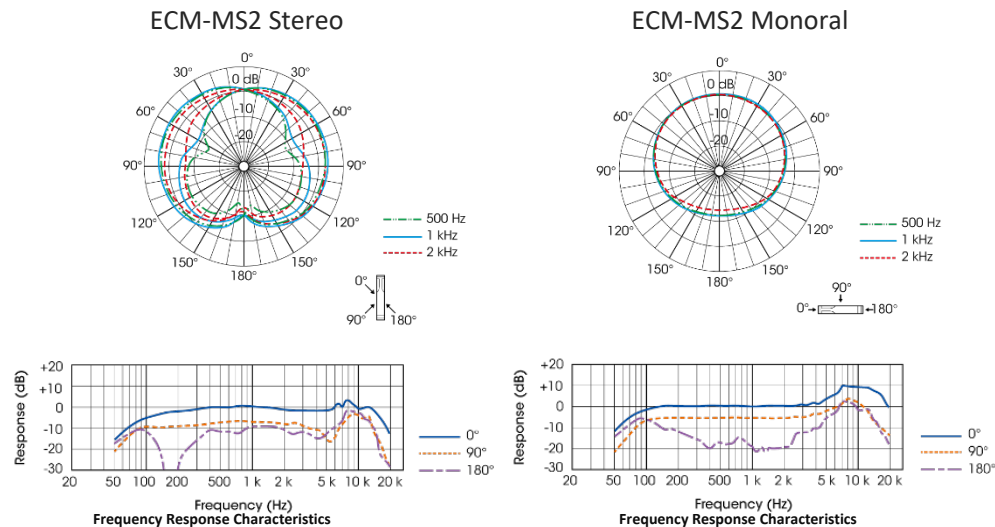
- Excellent sensitivity of -33 dB (0 dB=1 V/Pa), and a low inherent noise level of less than 18 dB SPL
- Flat-and-wide frequency response (40 Hz to 20 kHz), excellent sensitivity of -33 dB (0 dB=1 V/Pa), and a low inherent noise level of less than 18 dB SPL
- Compact and extremely lightweight design with metal body
- Built-in low-cut filter
- External DC (40 to 52 V) operation
- Newly Developed windscreen



ECM-MS2

Compact MS stereo back
Electret condenser shotgun microphone

- Compact lightweight design ideal for use with handheld camcorders
- Stereo and mono operations
- Professional quality sound reproduction
- Metal body reduces external noise
- External DC (40 to 52 V) operation
- Original windscreen protects from contact noise
- Cable tie for bundling and fastening the microphone cable



Accessories



EC-0.5X3F5M
XLR-3P - XLR-5P
cable



EC-0.5X5F3M
XLR-5P - XLR-3P (2)
cable

Specifications

	ECM-680S		ECM-678	ECM-674	ECM-673
Mode	Stereo	Monaural	–	–	–
Capsule type	Electret condenser		Electret condenser	Electret condenser	Electret condenser
Stereo type	MS (Mid-Side) stereo microphone		–	–	–
Directivity	Uni-directional	Super-cardioid	Super-cardioid	Super-cardioid	Super-cardioid
Frequency response	50 Hz to 20 kHz	40 Hz to 20 kHz	40 Hz to 20 kHz	40 Hz to 20 kHz	40 Hz to 20 kHz
Sensitivity (at 1 kHz)	-28 dB ^{*1} ± 3 dB(39.8 mV)	-32 dB ^{*1} ± 3 dB(25.1 mV)	-28 dB ^{*1} ± 3 dB(39.8 mV)	-36 dB ^{*1} ± 3 dB(15.8 mV)	-36 dB ^{*1} ± 3 dB(15.8 mV)
Output impedance (at 1 kHz)	100 Ω ± 20%		200 Ω ± 20%	220 Ω ± 20%	220 Ω ± 20%
Dynamic range	103 dB (typ.)	104 dB (typ.)	111 dB or more	107 dB (typ.)	107 dB (typ.)
Signal-to-noise ratio (IEC179, A-weighted, 1 kHz, 1Pa)	73 dB (typ.)	74 dB (typ.)	78 dB or more	77 dB (typ.)	77 dB (typ.)
Inherent noise	21 dB SPL ^{*2} (typ.)	20 dB SPL ^{*2} (typ.)	16 dB SPL ^{*2} or less	17 dB SPL ^{*2} (typ.)	17 dB SPL ^{*2} (typ.)
Wind noise ^{*3} (with windscreen)	55 dB SPL ^{*2} or less		60 dB SPL ^{*2} or less	45 dB SPL ^{*2} or less	45 dB SPL ^{*2} or less
Maximum input sound pressure level	124 dB SPL ^{*2*4} (typ.)		127 dB SPL ^{*2*4} or more	+48 V Power supply : 124 dB SPL ^{*2*5} (typ.), AA Battery: 115 dB SPL ^{*2*5}	124 dB SPL ^{*2*4} (typ.)
Power requirements	External, DC 40 V to 52 V		External, DC 40 V to 52 V	External: DC 40 to 52 V, AA Battery: 1.5 V	External, DC 40 V to 52 V
Dimensions	ø20 x 250 mm (ø13/16 x 9 7/8 inches)		ø20 x 250 mm (ø13/16 x 9 7/8 inches)	ø20 x 268 mm (ø13/16 x 10 5/8 inches)	ø20 x 200 mm (ø13/16 x 7 7/8 inches)
Mass	Approx. 105 g (3.7 oz)		200 g (7 oz)	Approx. 185 g (6.5 oz) without battery Approx. 208 g (7.3 oz) with battery	Approx. 135 g (4.8 oz)
Supplied Accessories	Windscreen (x1), Microphone holder (x1), Microphone spacer (x2), Microphone cable, XLR-5P - XLR-5P (x1), Stand Adaptor (x2), Carrying case (x1), Operating instructions (x1)		Windscreen (x1), Microphone holder (x1), Microphone spacer (x2), Microphone cable, XLR-3P - XLR-3P (x1), Stand Adaptor (x2), Carrying case (x1), Operating instructions (x1)	Windscreen (x1), Microphone holder (x1), Microphone spacer (x2), Microphone cable, XLR-3P - XLR-3P (x1), Stand Adaptor (x2), Operating instructions (x1)	Windscreen (x1), Microphone holder (x1), Microphone spacer (x2), Microphone cable, XLR-3P - XLR-3P (x1), Stand Adaptor (x2), Operating instructions (x1)

*1 0 dB=1 V/Pa, 1 kHz *2 0dB SPL=2×10⁻⁵ Pa

*3 Wind noise is the value measured by applying a wind velocity of 2 m/sec. (6.6 ft/s) to the microphone from all directions.

*4 Input level for 1% waveform distortion at 1 kHz. *5 Input level for 3% waveform distortion at 1 kHz,

Specifications

	ECM-VG1	ECM-MS2
Mode	—	—
Capsule type	Electret Condenser	—
Stereo type	—	MS (Mid-Side) stereo microphone
Directivity	Super-cardioid	Uni-directional
Frequency response	40 Hz to 20 kHz	Stereo: 80 Hz to 20,000 Hz Monaural: 70 Hz to 20,000 Hz
Sensitivity (at 1 kHz)	$-33 \text{ dB}^{*1} \pm 3 \text{ dB}$ (22.4 mV)	Stereo: $-32 \text{ dB}^{*1} 1$ Monaural: -36 dB 1) Stereo: $-32 \text{ dB}^{*1} \pm 3 \text{ dB}$ (25.1 mV) Monaural: $-36 \text{ dB}^{*1} \pm 3 \text{ dB}$ (15.8 mV)
Output impedance(at 1 kHz)	$60\Omega \pm 20\%$, Balanced	$60\Omega \pm 20\%$, Balanced
Output connector	-	Cannon XLR-3-12C type x2
Dynamic range	109 dB (typ.)	100 dB or more
Signal-to-noise ratio (IEC179, A-weighted, 1 kHz, 1Pa)	76 dB (typ.)	69 dB or more
Inherent noise	18 dB SPL ^{*2} (typ.)	25 dB SPL ^{*2} or less
Wind noise ^{*3} (with windscreen)	45 dB SPL ^{*2} or less	45 dB SPL ^{*2} or less (with wind screen) 65 dB SPL or less (without wind screen)
Maximum input sound pressure level	127 dB SPL ^{*2*4} (typ.)	125 dB SPL ^{*2*4}
Power requirements	External, DC 40 V to 52 V	External, DC 40 V to 52 V
Dimensions	ø20 x 210 mm (ø13/16 x 8 3/8 inches)	ø24 x 137 mm (ø24 31/32 x 5 1/2 inches)
Mass	Approx. 66g (2.3 oz.)	Approx. 160g (5.6 oz.)
Supplied Accessories	Windscreen (x1), Mic holder (1), Mic spacer (1), Stand adaptor (2), Operating instructions (1)	Windscreen (1), Cable tie (1), Operating instructions (1), Warranty booklet (1)

*1 0 dB=1 V/Pa, 1 kHz *2 0dB SPL=2×10⁻⁵ Pa

*3 Wind noise is the value measured by applying a wind velocity of 2 m/sec. (6.6 ft/s) to the microphone from all directions.

*4 Input level for 1% waveform distortion at 1 kHz,

Lavalier microphone

Sony is a leading provider of professional lavalier microphones.

The ECM-50, Sony’s first lavalier microphone released in 1969, was an epoch-making product that achieved a perfect balance between compact size and excellent performance. The ECM-50 led on to the development of the broadcast-standard ECM-30, a smaller and less expensive lavalier released a few years later.

More than four decades on, Sony still leads the lavalier microphone market with nine models and 22 variations, including the ECM-55 which is the successor of the legendary ECM-50, and the ECM-44 which is the successor of the ECM-30.

Sony’s ECM-88 is a series of ultra-miniature, omni-directional lavalier microphones, whose performance is highly acclaimed within broadcast, production, and theatrical circles. The ECM-77 is also very well regarded, especially by broadcasters. The ECM-66 is another top-of-the-line model with uni-directional directivity, which provides good isolation and resistance to feedback. The ECM-FT5 is a new flat-shape ,omni-directional and ultra-miniature lavalier microphone which is designed to be easily concealed under clothing for studio and EFP applications.

Sony is also a leading provider of the digital wireless microphone system*1. Recently, the ECM-66, ECM-55, and ECM-44 series have been qualified for use with digital wireless by enhancing the capsule shielding to reduce radio frequency interference susceptibility, as well as the ECM-77 series*2. In addition to superb sound quality, digital transmission offers various advantages such as stable transmission and a more flexible channel plan. The lavalier microphones from Sony make an ideal choice for virtually all quality-conscious sound-gathering applications, such as public address, ENG/EFP, studio, theater, and use with musical instruments.

VARIATION OF THE INTERFACE

B type*3	BC type	BMP type	LM type	BPT type*4 *5	FPT type
Supplied with an in-line battery unit, or a DC-78 DC power supply unit. Two-way powering possible - internal AA-size (LR6) alkaline-battery operation or external DC (12 to 48 V) operation.  B	Supplied with a Sony 4-pin connector (SMC9-4P).  BC	Supplied with a 3-pole locking mini plug.  BMP	Supplied with a 3-pin Lemo type connector.  LM	Supplied without a connector (pigtail), enabling users to choose connectors according to their transmitter.  BPT	Beige-colored model supplied without a connector (pigtail), enabling users to choose connectors according to their transmitter.  FPT

Note: /9X version shown (bottom microphone image in each box) includes a different color strain relief at the top of the connector.

Legend:

B **BC** **BMP** **LM** **BPT** **FPT**

Type of applicable interface.

For Digital

Digital wireless model

*1 The digital wireless microphone system is not available in some countries.
 *2 Digital wireless system requires use of the /9X version lavalier microphones.
 The ECM-77, ECM-66, ECM-55, and ECM-44 series have already been switched to the /9X version.
 *3 The ECM-44B does not support external DC operation.
 *4 There is no difference in appearance between the conventional BPT type and “/9X” BPT type.
 *5 Radio-frequency interference from the digital wireless system may occur if the self-prepared connector has not been grounded sufficiently.
 *6 The ECM-FT5 series can be used with Digital wireless system

Lavalier microphone

ECM-90 series

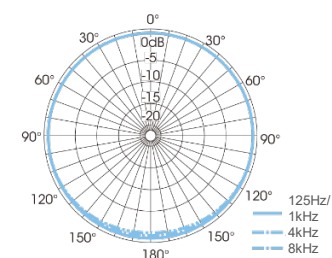
For Digital



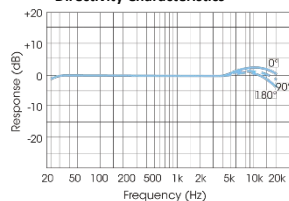
B	BC	BMP	LM	BPT	FPT
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FEATURES

- Ultra-miniature, omni-directional electret condenser microphone.
- Designed for quality-critical applications in broadcasting, theater, and field productions.
- Flat-and-wide frequency response provides natural sound reproduction.
- Dual-diaphragm structure contributes to high sensitivity, wide dynamic range, low noise and reduces cable noise.
- Rain-proof construction (microphone head)
- Miniature design makes it easy to conceal in a stage costume.



Directivity Characteristics



Frequency Response Characteristics

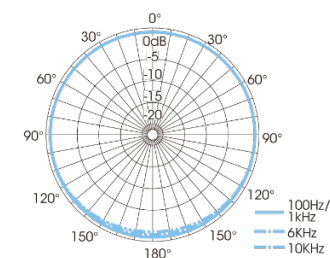
ECM-88 series



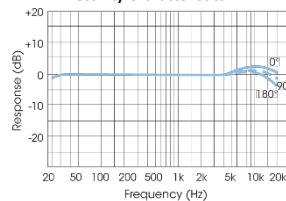
B	BC	BMP	LM	BPT	FPT
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FEATURES

- Ultra-miniature, omni-directional electret condenser microphone.
- Designed for quality-critical applications in broadcasting, theater, and field productions.
- Choice of model variations to suit specific user requirements.
- Flat-and-wide frequency response provides natural sound reproduction.
- Water-resistant design maintains sound clarity in almost any application or environment.
- Dual-diaphragm mechanism contributes to high sensitivity, wide dynamic range, and low noise.
- Low cable-noise characteristics.
- Miniature design makes it easy to conceal in a stage costume.



Directivity Characteristics



Frequency Response Characteristics

ECM-77 series

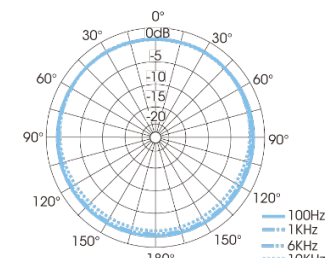
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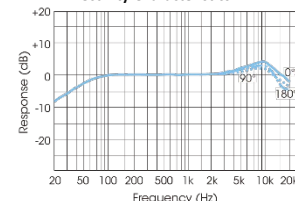
B	BC	BMP	LM	BPT	FPT
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FEATURES

- Miniature, omni-directional electret condenser microphone.
- Worldwide-acclaim for performance and reliability in studio, ENG, and EFP applications.
- Choice of model variations to suit specific user requirements.
- Wide frequency response, high sensitivity, and low-noise characteristics.
- Miniature design makes it easy to conceal in a costume.



Directivity Characteristics



Frequency Response Characteristics

ECM-66 series

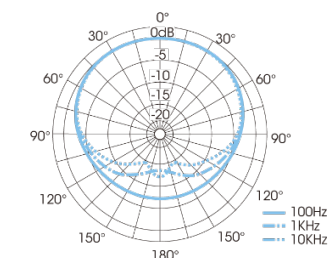
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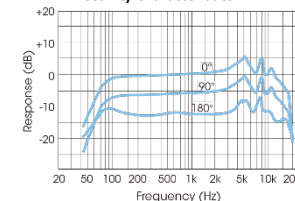
B	BC	BMP	LM	BPT	FPT
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FEATURES

- Uni-directional, electret condenser microphone.
- Resistant to howling by rejecting indirect sound.
- Ideal for institutional use and sound-contracting applications such as speeches, lectures, and conferences.
- Designed for a wide range of applications from voice to instrumental recording.
- Wide dynamic range (101 dB), and high maximum input-sound-pressure level (130 dB SPL).
- Low inherent-noise characteristics.



Directivity Characteristics



Frequency Response Characteristics

Lavalier microphone

ECM-55 series

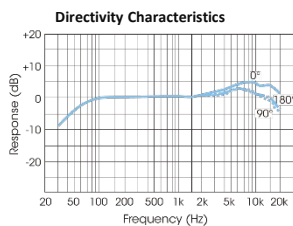
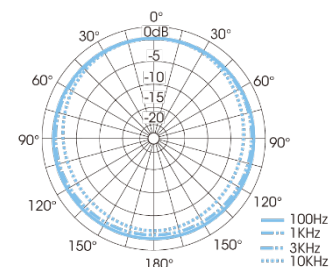
For Digital



B	BC	BMP	LM	BPT	FPT
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FEATURES

- Omni-directional, electret condenser microphone.
- High signal-to-noise ratio and low inherent-noise characteristics.
- Large microphone head of 10.6 mm (7/16 inch) diameter offers rich sound reproduction.



Frequency Response Characteristics

ECM-44 series

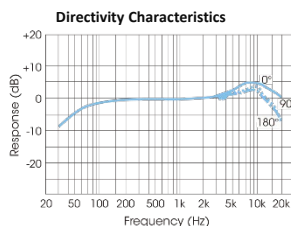
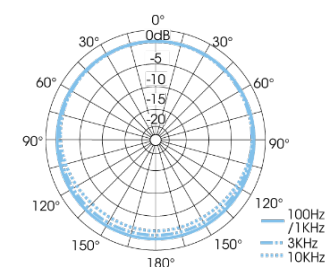
For Digital



B	BC	BMP	LM	BPT	FPT
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FEATURES

- Omni-directional, electret condenser microphone.
- Choice of model variations to suit specific user requirements.
- Cost-effective miniature microphone provides superb sound quality. ECM-44B does not support external DC operation.



Frequency Response Characteristics

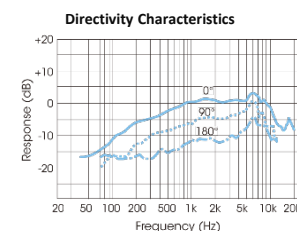
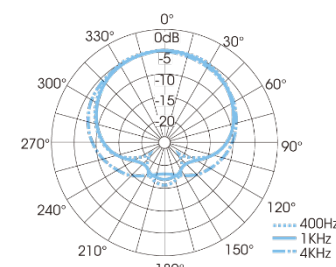
ECM-166 series



B	BC	BMP	LM	BPT	FPT
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FEATURES

- Uni-directional, electret condenser microphone.
- Resistant to howling by rejecting indirect sound.
- Reasonably priced lavalier microphone, ideal for institutional use and sound-contracting applications such as speeches, lectures, and conferences.



Frequency Response Characteristics

Lavalier microphone

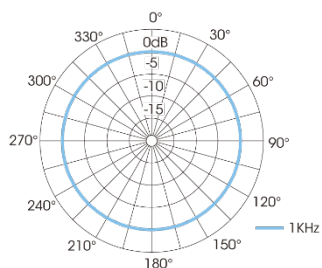
ECM-V1BMP



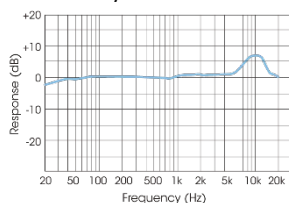
B	BC	BMP	LM	BPT	FPT
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FEATURES

- The lavalier microphone supplied with the UWP package is available as an individual microphone.
- Omni-directional, electret condenser microphone.
- Reasonably priced lavalier microphone, ideal for ENG and EFP uses.



Directivity Characteristics



Frequency Response Characteristics

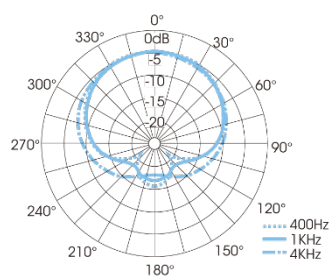
ECM-X7BMP



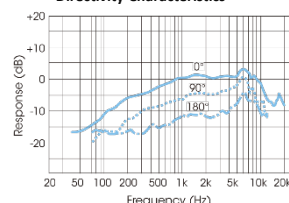
B	BC	BMP	LM	BPT	FPT
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FEATURES

- The lavalier microphone supplied with the UWP package is available as an individual microphone.
- Uni-directional, electret condenser microphone.
- Resistant to howling by rejecting indirect sound.
- Reasonably priced lavalier microphone, ideal for institutional use and sound- contracting applications such as speeches, lectures, and conferences.



Directivity Characteristics



Frequency Response Characteristics

ECM-FT5

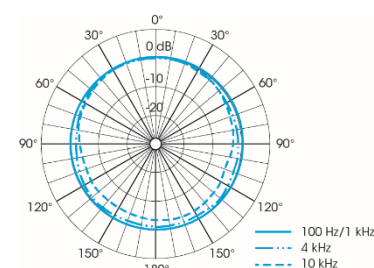
For Digital



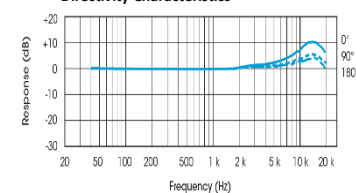
B	BC	BMP	LM	BPT	FPT
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FEATURES

- Flat-shape and ultra-miniature, omni-directional electret condenser microphone.
- Water-resistant design maintains sound clarity in almost any application or environment.
- Easily concealed under clothing, for studio and EFP applications.
- Wide frequency response, high sensitivity, and low-noise characteristics.
- Choice of model variations to suit specific user requirements.



Directivity Characteristics



Frequency Response Characteristics

Lavalier / Headset microphone

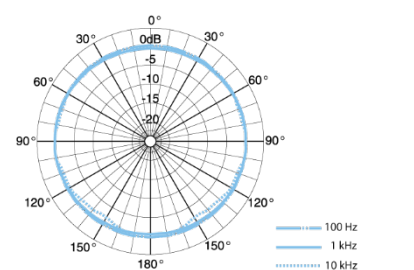
ECM-322 series



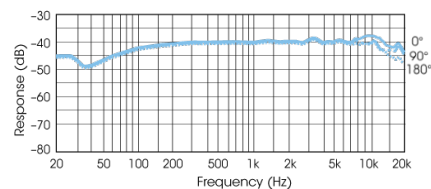
B	BC	BMP	LM	BPT	FPT
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FEATURES

- Omni-directional, electret condenser microphone.
- Headset microphone, ideal for a variety of multimedia presentation applications ranging from seminars and conferences to lectures and workshops.
- Ear-clip-style design, wearable on either the left or right ear.
- The position of the microphone is adjustable.
- With the adjustable soft-texture ear hook and detachable headband, the headset microphone is comfortable to wear and fits stably on the ear, even during lengthy presentations.



Directivity Characteristics



Frequency Response Characteristics

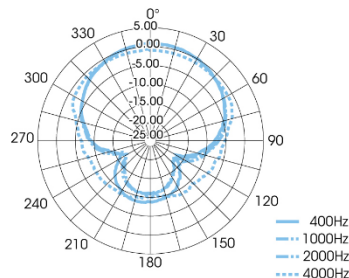
ECM-LZ1UBMP



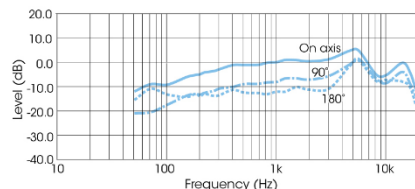
B	BC	BMP	LM	BPT	FPT
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FEATURES

- The lavalier microphone supplied with the UWP package is available as an individual microphone.
- Omni-directional, electret condenser microphone.
- Reasonably priced lavalier microphone, ideal for ENG and EFP uses.



Directivity Characteristics



Frequency Response Characteristics

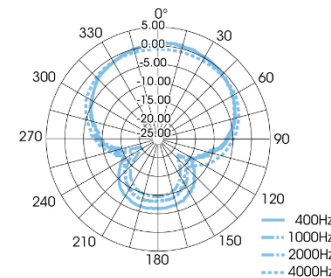
ECM-HZ1UMB



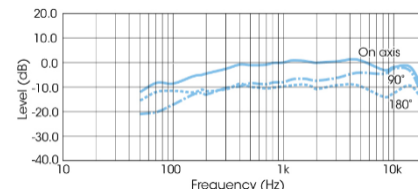
B	BC	BMP	LM	BPT	FPT
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FEATURES

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Directivity Characteristics



Frequency Response Characteristics

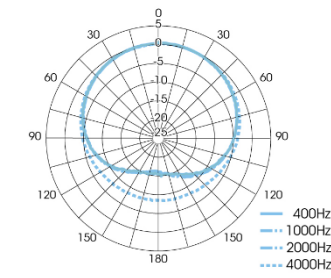
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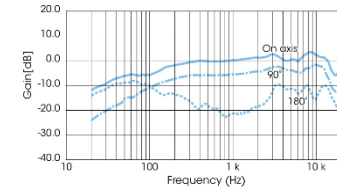
B	BC	BMP	LM	BPT	FPT
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FEATURES

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- Omni-directional, electret condenser microphone.
- Reasonably priced lavalier microphone, ideal for ENG and EFP uses.



Directivity Characteristics



Frequency Response Characteristics

Specifications

		ECM-90 Series	ECM-88 Series	ECM-77 Series	ECM-66 Series	ECM-55 Series	ECM-44 Series
Model Variations	XLR type (Supplied with a battery unit and XLR-3-12C type connector.)	—	ECM-88B with supplied DC-78	ECM-77B	ECM-66B	ECM-55B	ECM-44B
	SMC type (Supplied with a Sony 4-pin <SMC9-4P> connector.)	ECM-90BC	—	ECM-77BC	ECM-66BC	—	ECM-44BC
	BMP type (Supplied with a 3.5 mm diameter, 3-pole mini plug.)	—	—	ECM-77BMP	—	—	ECM-44BMP
	Pigtail type (Supplied without a connector <pigtail>.)	—	—	ECM-77BPT	—	—	ECM-44BPT
	LM type (Supplied with a 3-pin Lemo type connector)	ECM-90LM	—	ECM-77LM	—	—	—
Capsule type		Electret Condenser	Electret Condenser	Electret Condenser	Electret Condenser	Electret Condenser	Electret Condenser
Frequency response		20 Hz to 20 kHz	20 Hz to 20 kHz	40 Hz to 20 kHz	70 Hz to 14 kHz	30 Hz to 18 kHz	40 Hz to 15 kHz
Directivity		Omni-directional	Omni-directional	Omni-directional	Uni-directional	Omni-directional	Omni-directional
Sensitivity (0 dB=1 V/Pa, at 1 kHz)	XLR type (typ.)	—	-52 dB (2.5mV) *1	-52 dB (2.5mV)	-50 dB (3.2mV)	-52 dB (2.5mV)	-53 dB (2.2mV)
	SMC/BMP/Pigtail (5V) (typ.)	-38 dB (12.6mV)	—	-39 dB (11.2mV)	-36.5 dB (14.9mV)	—	-40 dB (10mV)
	LM type (typ.)	-40 dB (10mV)	—	-39 dB (11.2mV)	—	—	—
Output impedance at 1 kHz	XLR type (typ.)	—	100 Ω ± 20% (balanced)*1	150 Ω ± 20% (balanced)	100 Ω ± 20% (balanced)	100 Ω ± 20% (balanced)	250 Ω ± 20% (balanced)
	SMC/BMP/Pigtail (5V) (typ.)	2.5 kΩ ± 30% (unbalanced)	—	2.5 kΩ ± 30% (unbalanced)	2.5 kΩ ± 30% (unbalanced)	—	2.5 kΩ ± 30% (unbalanced)
	LM type (typ.)	6.3 kΩ ± 30% (unbalanced)	—	6.3 kΩ ± 30% (unbalanced)	—	—	—
Dynamic Range	XLR type (typ.)	—	99 dB	90 dB	101 dB	98 dB	90 dB
	SMC/BMP/Pigtail (5V) (typ.)	99 dB	—	90 dB	93 dB	—	90 dB
	LM type (typ.)	99 dB	—	95 dB	—	—	—
Signal-to-noise ratio (A-weighted, 1 kHz, 1 Pa.)	XLR type (typ.)	—	68 dB	64 dB	65 dB	66 dB	62 dB
	SMC/BMP/Pigtail (5V) (typ.)	68 dB	—	64 dB	65 dB	—	62 dB
	LM type (typ.)	66dB	—	62 dB	—	—	—

Specifications

			ECM-90 Series	ECM-88 Series	ECM-77 Series	ECM-66 Series	ECM-55 Series	ECM-44 Series
Inherent noise (0dB SPL = 2E-5 Pa.)	XLR type (typ.)		—	26 dB SPL	30 dB SPL	29 dB SPL	28 dB SPL	32 dB SPL
	SMC/BMP/Pigtail (5V) (typ.)		26 dB SPL	—	30 dB SPL	29 dB SPL	—	32 dB SPL
	LM type (typ.)		28 dB SPL	—	32 dB SPL	—	—	—
Wind noise (with windscreen, at 2m/s) (0 dB SPL = 2E-5 Pa.)			45 dB SPL or less	45 dB SPL or less	40 dB SPL or less	50 dB SPL or less	40 dB SPL or less	40 dB SPL or less
Maximum input sound pressure level (0 dB SPL = 2E-5 Pa.)	XLR type (typ.)		—	125 dB SPL	120 dB SPL	130 dB SPL	126 dB SPL	122 dB SPL
	SMC/BMP/Pigtail (5V) (typ.)		125 dB SPL	—	120 dB SPL	122 dB SPL	—	122 dB SPL
	LM type (typ.)		127 dB SPL	—	127 dB SPL	—	—	—
Power requirements	XLR type (Battery life with LR6)		—	IEC R6 or LR6 (Approx. 6000 h):1.5V ^{*1}	IEC R6 or LR6 (Approx. 6000 h):1.5V	IEC R6 or LR6 (Approx. 6000 h):1.5V	IEC R6 or LR6 (Approx. 6000 h):1.5V	IEC R6 or LR6 (Approx. 6000 h):1.5V
	XLR type (External power)		—	DC 12 to 48 V ^{*1}	DC 12 V to 48 V	DC 24 V to 48 V	DC 12 V to 48 V	—
	SMC/BMP/Pigtail type		DC 3.0 V to 10.0 V Rated load resistance: 10 kΩ (at DC 5 V)	—	DC 1.1 V to 10.0 V	DC 1.1 V to 10.0 V	—	DC 1.1 V to 10.0 V
	LM type		DC 3.0 V to 10.0 V Rated load resistance: 8.2 kΩ (at DC 5 V)	—	DC 3.0 V to 10.0 V Rated load resistance: 8.2 kΩ (at DC 5 V)	—	—	—
Cable length	XLR type		—	2.5 m (8.2 feet)	3.0 m (10 feet)	3.0 m (10 feet)	3.0 m (10 feet)	3.0 m (10 feet)
	SMC/BMP type		1.2 m (3.9 feet)	—	1.2 m (3.9 feet)	1.2 m (3.9 feet)	—	1.2 m (3.9 feet)
	Pigtail type		—	—	3.0 m (10 feet)	—	—	3.0 m (10 feet)
	LM type		1.6 m (5.2 feet)	—	1.6 m (5.2 feet)	—	—	—
Dimensions	Microphone head	Approx.	3.5 x 3.5 x 20.5 mm (5/32 x 5/32 x 21/26 inch) Clip attachment area: 3.9 mm (5/32 inch) diameter	3.5 x 3.5 x 16.8 mm (5/32 x 5/32 x 11/16 inch) Clip attachment area: 3.9 mm (5/32 inch) diameter	5.6 diameter x 12.5 mm (1/4 diameter x 1/2 inch)	10.6 diameter x 24.2 mm (7/16 diameter x 31/32 inch)	10.6 diameter x 21 mm (7/16 diameter x 27/32 inch)	8.5 diameter x 14.5 mm (11/32 diameter x 19/32 inch)
	Power unit (XLR type only)	Approx.	—	20.0 diameter x 144 mm (13/16 diameter x 5 3/4 inches)	20.0 diameter x 126 mm (13/16 diameter x 5 1/4 inches)	20.0 diameter x 163 mm (13/16 diameter x 6 1/2 inches)	20.0 diameter x 126 mm (13/16 diameter x 5 1/4 inches)	20.0 diameter x 126 mm (13/16 diameter x 5 inches)

Specifications

		ECM-90 Series	ECM-88 Series	ECM-77 Series	ECM-66 Series	ECM-55 Series	ECM-44 Series
Mass	Microphone head only	1 g (0.04 oz)	0.6 g (0.02 oz)	1.5 g (0.053 oz)	7 g (0.247 oz)	6.5 g (0.23 oz)	2 g (0.07 oz)
	Total XLR type	—	141 g (4.97 oz)	122 g (4.3 oz)	167 g (5.9 oz)	127 g (4.5 oz)	121 g (4.3 oz)
	Total SMC type	22 g (0.7 oz)	—	23 g (0.8 oz)	30 g (1.1 oz)	—	24 g (0.8 oz)
	Total BMP type	—	—	17 g (0.6 oz)	—	—	18 g (0.6 oz)
	Total Pigtail type	—	—	26 g (0.9 oz)	—	—	29 g (1.0 oz)
	Total LM type	18 g (0.63 oz)	—	20 g (0.7 oz)	—	—	—
Supplied accessories	XLR type	Single/Horizontal type tie clip (1), Single/Vertical type tie clip (1), Urethane type windscreen (1), Operating instructions (1)	Single/Horizontal type tie clip (1) ^{*2} , Single/Vertical type tie clip (1) ^{*2} , Double/Horizontal type tie clip (1) ^{*3} , Urethane type windscreen (1) ^{*2} , Microphone case (1) ^{*3} , Ferrite clamp (1), Operating instructions (1)	Single/Horizontal type tie clip (1), Single/Vertical type tie clip (1) ^{*4} , Double/Horizontal type tie clip (1) ^{*4} , Metal-mesh type windscreen (1), Microphone case (1) ^{*4} , Operating instructions (1)	Single/Horizontal type tie clip (1), Single/Vertical type tie clip (1) ^{*5} , Urethane type windscreen (1), Microphone case (1) ^{*5} , Operating instructions (1)	Single/Horizontal type tie clip (1), Single/Vertical type tie clip (1), Urethane type windscreen (1), Microphone case (1), Operating instructions (1)	Single/Horizontal type tie clip (1), Urethane type windscreen (1), Microphone case (1) ^{*6} , Operating instructions (1)

*1 ECM-88B used with the supplied DC-78 battery unit.

*2 ECM-88FPT is not supplied with mic accessories.

*3 Double / Horizontal type tie clip and microphone case are supplied with ECM-88B only.

*4 Single / Vertical type tie clip, Double / Horizontal type tie clip, and microphone case are supplied with ECM-77B only.

*5 Single / Vertical type tie clip and microphone case are supplied with ECM-66B only.

*6 The microphone case is supplied with ECM-44B only.

Specifications

		ECM-166 Series	ECM-V1 Series ^{*1}	ECM-X7 Series ^{*2}	ECM-FT5 Series
Model Variations	XLR type (Supplied with a battery unit and XLR-3-12C type connector.)	—	—	—	ECM-FT5B
	SMC type (Supplied with a Sony 4-pin <SMC9-4P> connector.)	ECM-166BC	—	—	ECM-FT5BC
	BMP type (Supplied with a 3.5 mm diameter, 3-pole mini plug.)	ECM-166BC	ECM-V1BMP	ECM-X7BMP	ECM-FT5BMP
	Pigtail type (Supplied without a connector <pigtail>.)	—	—	—	—
Capsule type		Electret Condenser	Electret Condenser	Electret Condenser	Electret Condenser
Frequency response		100 Hz to 10 kHz	40 Hz to 20 kHz	100 Hz to 15 kHz	40 Hz to 20 kHz
Directivity		Uni-directional	Omni-directional	Uni-directional	Omni-directional
Sensitivity (0 dB=1 V/Pa, at 1 kHz)	XLR type (typ.)	—	—	—	-56 dB (1.6mV)
	SMC/BMP/Pigtail type (typ.)	-45 dB (5.6mV)	-43 dB (7.1mV)	-44 dB (6.3mV)	-43 dB (7.1mV)
Output impedance at 1 kHz	XLR type (typ.)	—	—	—	150Ω±20% (balanced)
	SMC/BMP/Pigtail type (typ.)	2.5 kΩ±30% (unbalanced)	1.2 kΩ ±20%(unbalanced)	1.2 kΩ ±20%(unbalanced)	1.2 kΩ ±20%(unbalanced)
Dynamic Range	XLR type (typ.)	—	—	—	94 dB
	SMC/BMP/Pigtail (5V) (typ.)	96 dB	86 dB	88 dB	108 dB
	LM type (typ.)	—	—	—	—
Signal-to-noise ratio (A-weighted, 1 kHz, 1 Pa.)	XLR type (typ.)	—	—	—	65 dB
	SMC/BMP/Pigtail (5V) (typ.)	60 dB	60 dB	62 dB	68 dB
	LM type (typ.)	—	—	—	—
Inherent noise (0dB SPL = 2E-5 Pa.)	XLR type (typ.)	—	—	—	29 dB SPL
	SMC/BMP/Pigtail type (typ.)	34 dB SPL	34 dB SPL	32 dB SPL	26 dB SPL
	LM type (typ.)	—	—	—	—
Wind noise (with windscreen, at 2m/s) (0 dB SPL = 2E-5 Pa.)		—	—	—	45 dB SPL or less (with windscreen) 65 dB SPL or less (without windscreen)

Specifications

		ECM-166 Series	ECM-V1 Series ^{*1}	ECM-X7 Series ^{*2}	ECM-FT5 Series
Maximum input sound pressure level (0 dB SPL = 2E-5 Pa.)	XLR type (typ.)	—	—	—	123 dB SPL ^{*3}
	SMC/BMP/Pigtail (5V) (typ.)	130 dB SPL	120 dB SPL	120 dB SPL	134 dB SPL ^{*4}
	LM type (typ.)	—	—	—	—
Power requirements	XLR type (Battery life with LR6)	—	—	—	IEC R6 or LR6 (Approx. 6000 h):1.5V ^{*1}
	XLR type (External power)	—	—	—	DC 11 V to 52 V
	SMC/BMP/Pigtail type	DC 3.0 V to 10.0 V	DC 5 V	DC 5 V	DC 1.1 V to 10.0 V
Cable length	XLR type	—	—	—	3.0 m (10 feet)
	SMC/BMP type	1.2 m (3.9 feet)	1.2 m (3.9 feet)	1.2 m (3.9 feet)	1.2 m (3.9 feet)
	Pigtail type	—	—	—	—
Dimensions	Microphone head (typ.)	12.5 diameter x 23.5 mm (1/2 diameter x 15/16 inch)	6.8 diameter x 19.5 mm (9/32 diameter x 25/32 inch)	11.5 diameter x 20.5 mm (15/32 diameter x 13/16 inch)	4.9 x 7.6 x 14 mm (7/32 x 5/16 x 9/16 inch)
	Power unit (XLR type only) (typ.)	—	—	—	20.0 diameter x 126 mm (13/16 diameter x 5 1/4 inches)
Mass	Microphone head only	3.5 g (0.12 oz)	3.5 g (0.12 oz)	5.5g (0.19 oz)	1.7 g (0.06 oz.)
	Total XLR type	—	—	—	137g (4.9 oz.) without battery
	Total SMC type	25 g (1.0 oz)	—	—	24.5g (0.86 oz)
	Total BMP type	19 g (0.7 oz)	18.5 g (0.65 oz)	20.5 g (0.72 oz)	24.5g (0.86 oz)
	Total Pigtail type	—	—	—	—
Supplied accessories		Single/Horizontal type tie clip (1), Urethane type windscreen (1), Operating instructions (1)	Single/Horizontal type tie clip (1), Urethane type windscreen (1), Operating instructions (1)	Single/Horizontal type tie clip (1), Urethane type windscreen (1), Operating instructions (1)	Single/Horizontal type tie clip (1), Taping mount (1), Urethane type windscreen (1), Microphone case (1), Operating instructions (1)

*1 The characteristics are measured as UTX-B2V.

*2 The characteristics are measured as UTX-B2X.

*3 Input level for 1% waveform distortion at 1 kHz.

*4 Input level for 3% waveform distortion at 1 kHz,

Specifications

		ECM-322 Series	ECM-LZ1UBMP	ECM-HZ1UBMP	ECM-GZ1UBMP
Model Variations	XLR type (Supplied with a battery unit and XLR-3-12C type connector.)	—	—	—	—
	SMC type (Supplied with a Sony 4-pin <SMC9-4P> connector.)	ECM-322BC	—	—	—
	BMP type (Supplied with a 3.5 mm diameter, 3-pole mini plug.)	ECM-322BMP	ECM-LZ1UBMP	ECM-HZ1UBMP	ECM-GZ1UBMP
	Pigtail type (Supplied without a connector <pigtail>.)	—	—	—	—
Capsule type		Electret Condenser	Electret Condenser	Electret Condenser	Electret Condenser
Frequency response		50 Hz to 18 kHz	60 Hz to 18 kHz	60 Hz to 18 kHz	20 Hz to 22 kHz
Directivity		Omni-directional	Uni-directional	Uni-directional	Uni-directional
Sensitivity (0 dB=1 V/Pa, at 1 kHz)	XLR type (typ.)	—	—	—	—
	SMC/BMP/Pigtail type (typ.)	-42 dB (7.94mV)	-31 dB (28.2mV)	-31 dB (28.2mV)	-55dB (1.8mV)
Output impedance at 1 kHz	XLR type (typ.)	—	—	—	—
	SMC/BMP/Pigtail type (typ.)	1.4 kΩ ± 30% (unbalanced)	1.4 kΩ ± 30% (unbalanced)	1.4 kΩ (unbalanced)	600 Ω
Dynamic Range	XLR type (typ.)	—	—	—	—
	SMC/BMP/Pigtail (5V) (typ.)	81 dB	94 dB	94 dB	120 dB
	LM type (typ.)	—	—	—	—
Signal-to-noise ratio (A-weighted, 1 kHz, 1 Pa.)	XLR type (typ.)	—	—	—	—
	SMC/BMP/Pigtail (5V) (typ.)	60 dB	68 dB	68 dB	64 dB
	LM type (typ.)	—	—	—	—
Inherent noise (0dB SPL = 2E-5 Pa.)	XLR type (typ.)	—	—	—	—
	SMC/BMP/Pigtail type (typ.)	34 dB SPL	26 dB SPL	28 dB SPL	30 dB SPL
	LM type (typ.)	—	—	—	—
Wind noise (with windscreen, at 2m/s) (0 dB SPL = 2E-5 Pa.)		—	—	—	—

Specifications

		ECM-322 Series	ECM-LZ1UBMP	ECM-HZ1UBMP	ECM-GZ1UBMP
Maximum input sound pressure level (0 dB SPL = 2E-5 Pa.)	XLR type (typ.)	—	—	—	—
	SMC/BMP/Pigtail (5V) (typ.)	115 dB SPL	120 dB SPL	120 dB SPL	150 dB SPL
	LM type (typ.)	—	—	—	—
Power supply (XLR type only)	Battery	—	—	—	—
	Battery life (LR6)	—	—	—	—
	External power	—	—	—	—
Power requirements	XLR type	—	—	—	—
	SMC/BMP/Pigtail type	DC 2 V to 10.0 V	DC 1.5 V to 10 V	DC 1.5 V to 10 V	DC 3 V to 10 V
Cable length	XLR type	—	—	—	—
	SMC/BMP type	1.2 m (3.9 feet)	1.2 m (3.9 feet)	1.2 m (3.9 feet)	1.8 m (5.9 feet)
	Pigtail type	—	—	—	—
Dimensions	Microphone head Approx.	8.4 diameter (capsule case) x 168 mm (11/32 diameter x 6 5/6 inch)	15 diameter (capsule case) x 25 mm (19/32 diameter x 1 inch)	15 diameter (capsule case) x 170 mm (19/32 diameter x 6 3/4 inch)	13 diameter (capsule case) x 29 mm (17/32 diameter x 1 3/16 inch)
	Power unit (XLR type only) Approx.	—	—	—	—
Mass	Microphone head only	—	—	—	—
	Total XLR type	—	—	—	—
	Total SMC type	10 g (0.4 oz) without connector	—	—	—
	Total BMP type	10 g (0.4 oz) without connector	5 g (0.18 oz) without cable/connector	10 g (0.35 oz) without cable/connector	25 g (0.9 oz) without cable/connector
	Total Pigtail type	—	—	—	—
Supplied accessories		Headband (1), clip (1), Microphone case (1), Operating instructions (1)	Mic holder clip (1), Urethane type windscreen (1), Operating instructions (1)	Headband (1), Cord clip (1), Urethane type windscreen (1), Operating instructions (1)	Urethane type windscreen (1), Carrying pouch (1), Operating instructions (1)

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F Series

Dynamic Microphones

Dynamic microphones

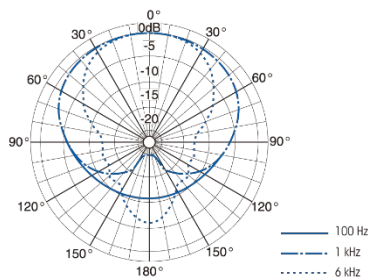


F-780

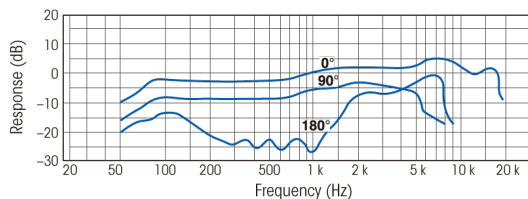
Uni-directional Dynamic Microphone

- For critical vocal recording, professional sound reinforcement and broadcast production
- Rugged capsule in a resilient body structure
- Special AlNiCo magnet provides excellent sensitivity, powerful and accurate sound reproduction.
- Edgewise winding voice coil with lightweight CCAW (Copper Clad Aluminum Wire) provides powerful, crisp, clean sound in the mid and high frequency range.

Directivity Characteristics



Frequency Response Characteristics

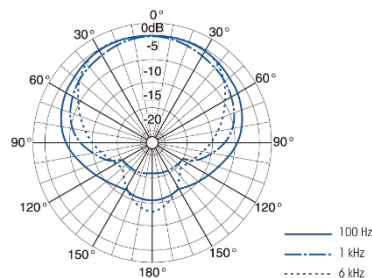


F-720

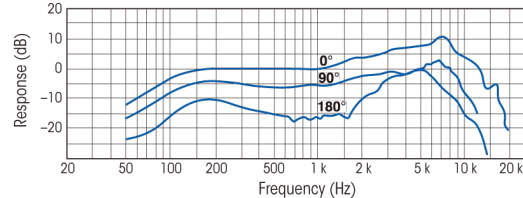
Uni-directional Dynamic Microphone

- For general presentation and speech use in schools, halls, churches and other industrial applications
- Virtually impervious to handling noise and vibration because of efficient, one-piece capsule shock mount
- Convenient TALK switch to turn the microphone on and off

Directivity Characteristics



Frequency Response Characteristics

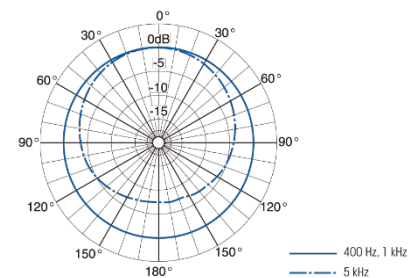


F-115B

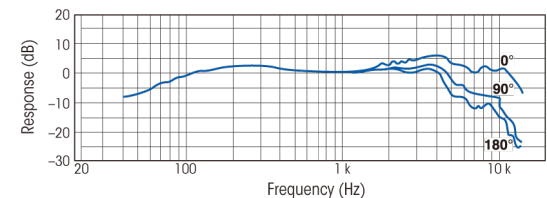
Omni-directional Dynamic Microphone

- Ideal for sound pick-up, especially under adverse weather conditions such as rain or heavy wind thanks to its water-shedding, double-layered windscreen
- Newly developed omni-directional microphone capsule for clear sound pick-up from any direction
- Metal body offers a high level of durability to withstand severe conditions encountered in demanding sound pick-up environments, and a special rubber at the core of the microphone reduces shocks and vibrations
- The directly connected microphone cable is water-resistant-limiting deterioration of internal parts
- Ideal for security and observation applications in various outdoor environments

Directivity Characteristics



Frequency Response Characteristics

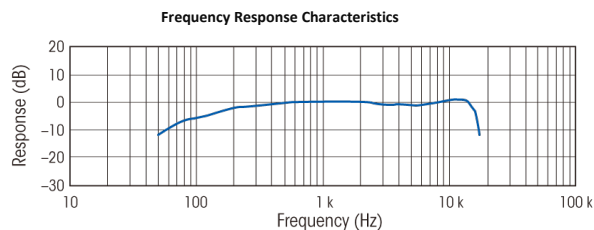
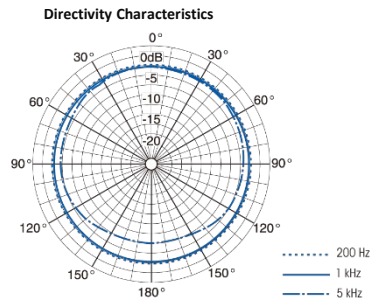


Dynamic microphones



F-112 Omni-directional Dynamic Microphone

- Ideal for field production and news gathering application, especially for interviews
- Newly-developed omni-directional microphone capsule for clear voice pick-up from any directions
- Metal body offers a high level of durability to withstand severe conditions encountered in demanding sound pick-up environments.
- Robust brass connector for repeating cable connections
- Optimized balance when combined with the wireless plug-on transmitter included in the Sony UWP-V6 package (UTX-P1), WRT-8P, and DWT-P01



Specifications

	F-780	F-720	F-115B	F-112
Capsule type	Dynamic			
Frequency response	50 Hz to 18 kHz	50 Hz to 18 kHz	40 Hz to 12 kHz	60 Hz to 18 kHz
Directivity	Uni-directional		Omni-directional	
Sensitivity (0 dB=1 V/Pa at 1 kHz)	-53 dB $\pm$ 3 dB	-57 dB $\pm$ 3 dB	-54 dB $\pm$ 2 dB	-52 dB $\pm$ 3 dB
Output impedance	400 Ω $\pm$ 20%	500 Ω $\pm$ 20%	400 Ω $\pm$ 20%	
Induction noise from an external magnetic field	Less than 5 dB SPL/1 x 10 ⁻⁷ T (1 mG)	Less than 10 dB SPL/1 x 10 ⁻⁷ T (1 mG)	Less than 5 dB SPL/1 x 10 ⁻⁷ T (1 mG)	
Wind noise	Less than 50 dB SPL	Less than 55 dB SPL	Less than 40 dB SPL	Less than 40 dB SPL
Connector	XLR-3-12C type			
Dimensions	ϕ 51 x 165 mm (ϕ 2 1/8 x 6 1/2 inches)	ϕ 37.6 x 160 mm (ϕ 1 1/2 x 6 3/8 inches)	ϕ 62 x 203 mm (ϕ 2 1/2 x 8 inches)	ϕ 41.4 x 220 mm (ϕ 1 11/16 x 8 3/4 inches)
Mass	290 g (10.2 oz)	260 g (9.2 oz)	330 g (11.6 oz)	215 g (7.6 oz)
Supplied accessories	Microphone holder (PF 1/2) (x1), stand adaptor (PF 1/2 to NS 5/8, PF 1/2 to W 3/8) (x1 each), Operating instructions (x1)		Operating instructions (x1)	

*1 Pa=1x10⁻⁵ bar

*0 dB SPL=2x10⁻⁵ Pa

Setting new standards for the 100 series:
Music production standards have been around for a while since these
exceeded the CD sampling rate.
Giving creators and artists new wide-range microphones that meet
production standards(24bit/96kHz). It is the beginning of the 100 series

A man with short brown hair is shown in profile, facing right. He is wearing large, black Sony headphones. He is singing into a professional studio microphone that is mounted on a stand and has a black pop filter in front of it. The background is a soft, out-of-focus blue and purple light. The overall mood is professional and artistic.

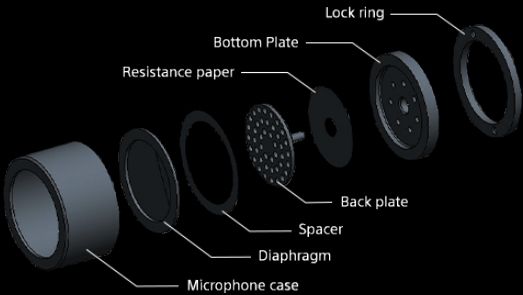
100 Series

Studio Microphones

Technology

Unprecedented miking characteristics from a quest for super wide-range mics that come alive in any format.

Development of capsule in pursuit of the conflicting goals of unattenuated 20 Hz–50 kHz frequency response and ample sensitivity led to unprecedented characteristics. Transient response is excellent, and feels consistent across the vast range, and both lows and highs are clear and open. Sound also feels more substantial, thanks to the addition of a large, newly developed 25 mm diaphragm in the C-100.



Diaphragm

The 17 mm capsule incorporates a film diaphragm similar to those found in ribbon mics. In testing, eight combinations of material and sputtering were compared in pursuit of an ideal balance of timbre and substantiality.

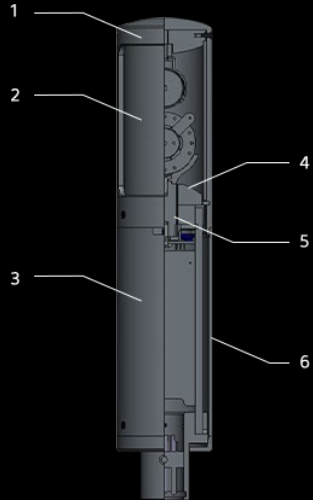
Backplate

Repeated testing, including studio evaluation, was conducted to adopt a sophisticated structure for lower impedance without sacrificing efficient conversion of sound to electrical signal, as a combination of range, sensitivity, and audio quality was sought.

Featuring the same construction as C800G to eliminate noise

Construction with various metal materials of different resonant frequencies reduces unwanted vibration.

	Material	Notes
1	Zinc alloy	High rigidity and large attenuation rate of vibration
2	SWRM:Steel Wire Rods Mild (Φ0.6×12MESH)	Considering effect on high range sound and muffling
3	Aluminum alloy	Same as C-800G body structure preventing acoustic vibration
4	PSU	Minimize sound effect from unnecessary reflection wave
5	C2600+CR Rubber(70°)	Realize energetic sound having core ensuring vibration prevention. Shock damper with rubber as same as C-800G
6	CAC403	Integrate internal chassis considering strength, rigidity and mechanical earth



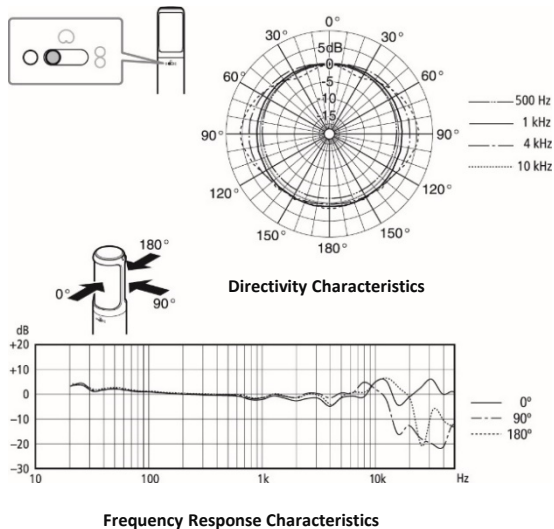
Studio microphone



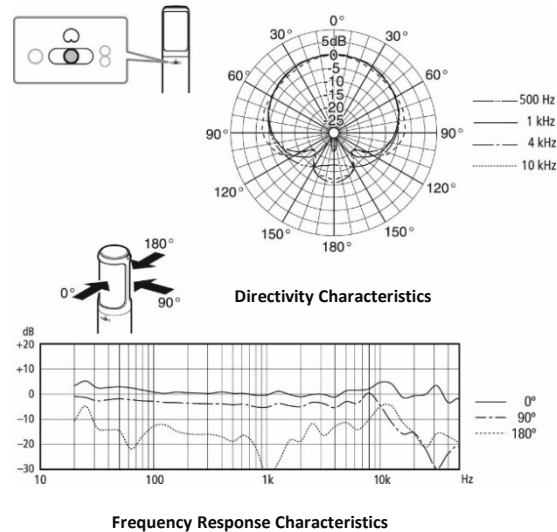
C-100 Two way Condenser Microphone

- Excellent Sound Quality
- Wide Frequency Response
- Noise Elimination Construction
- Switchable Polar Patterns
- Low-Cut Filter
- Pad Switch

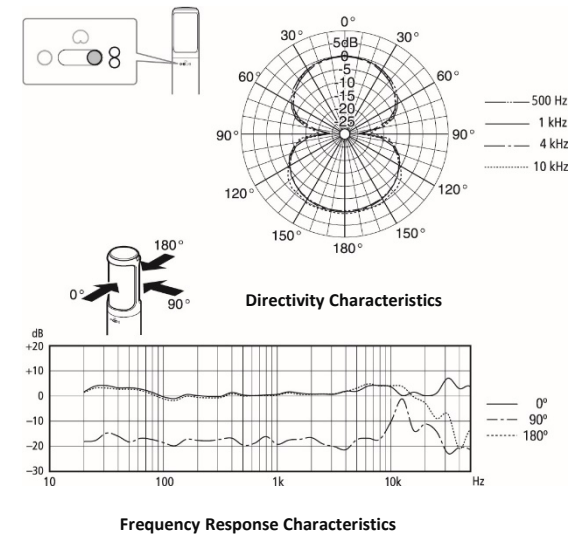
< Omni-directional >



< Uni-directional



< Bi-directional >



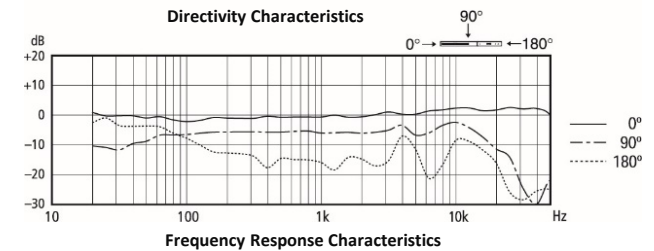
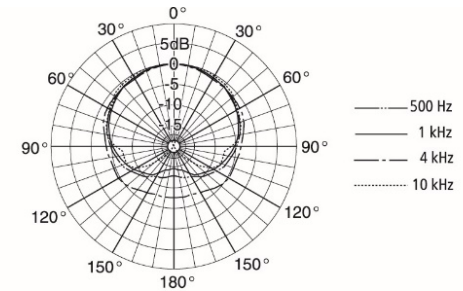
Studio microphone



ECM-100U

Uni-directional Electret Condenser Microphone

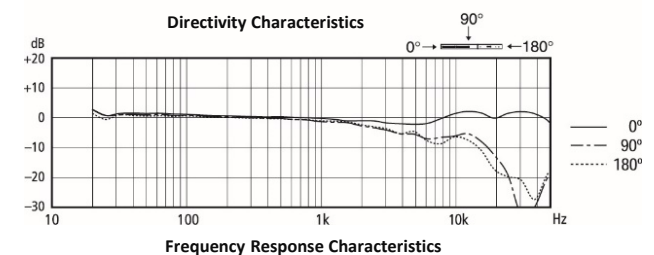
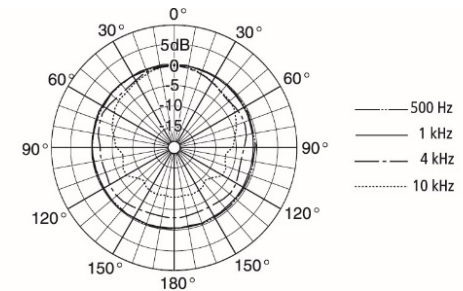
- Excellent Sound Quality
- Flat and Wide Frequency Response
- Noise Elimination Construction
- Low-Cut Filter
- Pad Switch



ECM-100N

Omni-directional Electret Condenser Microphone

- Excellent Sound Quality
- Flat and Wide Frequency Response
- Noise Elimination Construction
- Low-Cut Filter
- Pad Switch



Specifications

	C-100	ECM-100U	ECM-100N
Capsule Type	2 Way Microphone (Condenser + Back electret condenser)	Electret Condenser	Electret Condenser
Frequency Response	20 Hz to 50 kHz	20 Hz to 50 kHz	20 Hz to 50 kHz
Directivity	Uni-directional/Omni-directional/Bi-directional	Cardioid	Omni-directional
Sensitivity ^{*1}	(Uni-directional) -31 dB (Omni-directional) -37 dB (Bi-directional) -35 dB	-41 dB	-36 dB
Output Impedance ^{*2}	90Ω ± 15%, Balanced	100Ω ± 15%, Balanced	100Ω ± 15%, Balanced
Dynamic Range	(Uni-directional) 113 dB or more (Omni-directional) 114 dB or more (Bi-directional) 114 dB or more	121 dB or more	124 dB or more
Signal-to-Noise Ratio ^{*3}	(Uni-directional) 75 dB or more (Omni-directional) 70 dB or more (Bi-directional) 72 dB or more	73 dB or more	73 dB or more
Inherent Noise ^{*4}	(Uni-directional) 19 dB SPL or less (Omni-directional) 24 dB SPL or less (Bi-directional) 22 dB SPL or less	21 dB SPL or less	21 dB SPL or less
Maximum Input Sound Pressure Level ^{*5}	(Uni-directional) 132 dB SPL (Omni-directional) 138 dB SPL (Bi-directional) 136 dB or SPL	142 dB SPL	145 dB SPL
Connector	XLR-3-12C (male)	XLR-3-12C (male)	XLR-3-12C (male)
Mic Cable	XLR 3-pin Cable Required (Not Supplied)	XLR 3-pin Cable Required (Not Supplied)	XLR 3-pin Cable Required (Not Supplied)
Power Requirements	DC 44 V to 52 V	DC 44 V to 52 V	DC 44 V to 52 V
Dimensions ^{*6}	40dia. × 175mm (1.57dia. × 6.89in.)	19dia. × 130mm (0.75dia. × 5.12in.)	19dia. × 130mm (0.75dia. × 5.12in.)
Mass	Approx. 290g (10.2oz.)	Approx. 130g (4.6oz.)	Approx. 130g (4.6oz.)
Supplied Accessories	Cradle suspension (1), Wind screen (1), Stand screw adaptor (W3/8 to NS5/8) (1), Operating instructions (1), Carrying case (1)	Mic holder (1), Wind screen (1), Stand screw adaptor (W3/8 to NS5/8) (1), Operating instructions (1), Carrying case (1)	Mic holder (1), Wind screen (1), Stand screw adaptor (W3/8 to NS5/8) (1), Operating instructions (1), Carrying case (1)

*1 0 dB = 1 V/Pa, at 1 kHz.

*2 Output impedance at 1 kHz.

*3 A-weighted, 1 kHz, 1 Pa.

*4 0dB SPL = 20μPa.

*5 0 dB SPL = 20μPa.

*6 The values for dimensions are approximate.



Mixer Recorder Headphones

Mixer

DMX-P01

Digital Portable Mixer



LEFT PANEL



RIGHT PANEL



- Portable, digital field-mixer designed for ENG/EPF application
- 24-bit A/D and D/A converters and internal 32-bit DSP for excellent sound quality
- 4 microphone/line inputs with +48 V mic power (on/off)
- 2 channels of balanced analog output and AES/EBU digital output (stereo)
- Digital cascade input with phono connector
- Coaxial output connector for mix-bus output or S/PDIF digital output
- Selectable sampling rate: 48 kHz or 96 kHz
- Full control of every parameter from the front panel
- Digital limiters on both inputs and outputs, and digital compressors on outputs
- A scene memory recall feature to instantly recall
- A power-on memory function recalls parameters in three different ways
- Easy-to-read backlit LCD panel displays output levels and setup menus
- Camera-audio return-level check via 12-pin connector
- Panel lock and parameter lock function
- Operates on eight AA-size alkaline (LR6) batteries or external DC 10 to 15 V power

Specifications

DMX-P01 Digital Portable Mixer	
Mic Input	Four XLR-3-31 (female) connectors Selectable mic -70 dBu to -30 dBu (max 0 dBu) or line level -30 dBu to +10 dBu (max. +24 dBu)
Line Input	Four XLR-3-31 (female) connectors Selectable mic -70 dBu to -30 dBu (max 0 dBu) or line level -30 dBu to +10 dBu (max. +24 dBu)
Line Output	Master output (analog) 2 ch: +4 dBu, -10 dBu, -60 dBu, (max. +24 dBu) , XLR-3-32 (male) (x2) Digital output 2 ch: AES/EBU / XLR-3-32 (male) (x1), S/PDIF (or Cascade output) (x1)/ IEC 60958 coaxial phono connector, unbalanced Tape output (analog) 2 ch: -10 dBu, (max. -10 dBu) O1/8" TRS jack, unbalanced, 10 kohms or more
Frequency Response	20 Hz to 40 kHz +0.5/-3.0 db (@ 96 kHz)
Total Harmonic Distortion (Line Input to Line Output)	Less than 0.05%
Signal Processing	Digital limiter and LCF on each input, digital limiter and compressor on main output
Power Consumption	Internal: DC 12 V (eight AA-size alkaline batteries) External: DC 12 V via DC jack or DC 10 V to 15 V via XLR-4-32 (female)
Power Requirements	DC 12V
Dimensions (W x H x D)	266 x 68 x 206 mm (10 1/2 x 2 3/4 x 8 1/8 inches)
Mass	Approx. 2.2 kg (Approx. 4lb 13 oz)
Supplied Accessories	12-pin multi-connector (1), Meter scale sheets (6 types), Battery holders (2), Feet (4), Operation instruction CD-ROM (1), Operation manual (x1)

Products



PCM-D100

Portable High Resolution Audio Recorder

- DSD, PCM, and MP3 recording
 - Built-in high-quality Electret Condenser Microphones, adjustable from 90° -120°
 - Built-in 32GB internal Flash Memory and Optional SD Card slot
 - 5-Second Pre-record Buffer*¹
 - Divide/Combine during playback*¹
 - Track Mark Support*²
 - Dual Signal Path Mic Pre and ADC*³
 - Fade-in, Fade-Out for LPCM self recordings
 - Super Bit Mapping for LPCM 16 bit self recording
- *¹ For PCM+MP3+DSD self recordings
 *² For PCM+MP3 self recordings
 *³ Optional modes for PCM+MP3 self recordings



MDR-7506

Professional Headphones

- 40mm Driver Unit
- Closed-Ear Design
- Folding Construction
- Stereo Unimatch Plug
- Gold Connectors and OFC Cord
- Supplied Soft Case

Specifications

	PCM-D100
Audio Formats Supported	Record: DSD, WAV and MP3; Playback: DSD, WAV, FLAC, MP3, WMA (Non DRM), AAC-LC (Non-DRM)
Built-in Mic	Electret condenser microphones. Max input level: 128 dB SPL. Frequency response 20 Hz to 20 kHz
Mic Input	(Stereo Mini Jack) Input impedance: 22 k ohm, Rated input level: 2.5 mV; Minimum input level: 0.7 mV
Line Input (Analog)	(Stereo Mini Jack) Input impedance: 22k ohm; Minimum input level: 450mV; Rated input level: 2.0V
Line Input (Optical)	Optical Digital Input: Input level: -27 dBm to -14 dBm; Emission wavelength: 660 nm
Line Output (Analog)	Output impedance: 220 ohms; Output level: 1.7V; Load impedance 22k ohms
Line Output (Optical)	Output level: -21dBm to -15 dBm
Headphone Output	Stereo Mini Jack; Maximum output: 25 mW + 25 mW or more; Load impedance: 16 ohms
Frequency Response	20Hz - 50kHz (Line In) @ DSD2.8 ; 20Hz - 45kHz (Line In) @ LPCM 192kHz/24bit
Sampling Frequency	DSD 2.8MHz; LPCM 192kHz/176.4kHz/96kHz/88.2kHz/48kHz/44.1kHz
Quantization	16-bit LPCM, 24-bit PCM and 1-bit DSD
S/N Ratio	DSD 98dB or greater; LPCM 24 bit 96dB or greater
Total Harmonic Distortion (Line Input to Line Output)	DSD: 0.008% or below (1kHz, 22kHz LPF) LPCM: 0.006% or below (1kHz, 22kHz LPF)
Wow and Flutter	Below measurable limit (less than +/-0.001%W.Peak)
USB	High-speed USB, mass storage class
Power Consumption	0.75w
Power Requirements	Four AA size Alkaline batteries (supplied). Four AA NiMH Rechargeable batteries (optional)
DC Input Jack	6V
Battery Life	25 hrs @44.1kHz/16 bit; 18 hrs @192kHz/24bit or 12 hrs @ DSD2.8
Memory Stick Slot	Accepts SD, SD-HC, SD-XC, Memory Stick Pro Duo and Memory Stick Pro-HG
Dimensions	"2 7/8" x 6 1/8" x 1 1/4" (w x h x d) not including projecting parts and controls"
Weight	13.9 oz (including batteries)

	MDR-7506
Headphone Type	Dynamic, closed
Magnet Type	Neodymium
Driver Size	40.0 mm
Frequency Response	10-20kHz
Impedance	63 Ohms
Sensitivity	106 dB/W/m
Power Handling	1,000mW
Plug Type	Gold, Stereo Unimatch plug 1/4" and 1/8"
Cord Length	9.8 ft
Weight	8.1 oz
Supplied Accessories	Carrying Bag, UniMatch Plug

SONY

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