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.

our pro audio
heritage

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.

contents

Wireless Microphone

Wired Microphone

Mixer/Recorder/Headphone

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.

◢ Technologies

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 1.5 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

Analog System   Digital System

Greater Flexibility with Multi-channel Operation

WiDIF-HP enables large-scale multi-channel operation. Thanks to a digital modulator, WiDIF-HP realizes inter-modulation-free, equally spaced channel allocation, which enables a significant increase in the number of simultaneous digital wireless systems in comparison with current analog wireless systems. For example, up to 12 channels of simultaneous operation are supported using a 6-MHz bandwidth TV channel in the USA. WiDIF-HP supports approximately 50 percent more systems simultaneously than current analog wireless systems.
This format 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:
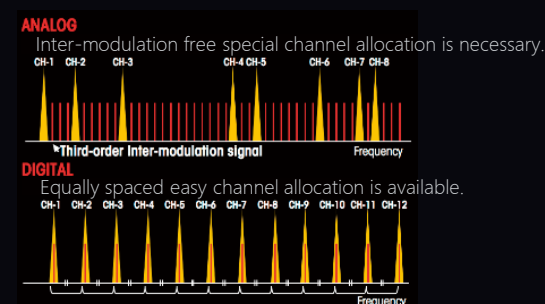
Secure key mode: Wireless communication between a transmitter and receiver can be established by exchanging an encryption key that is generated by the transmitter.

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	π/4 Shift QPSK
Audio delay	1.5 ms

* When DWM-01N/DWT-B01N and DWR-R02DN are used in combination in mode 2.

⟨X⟩ Cross Remote

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.
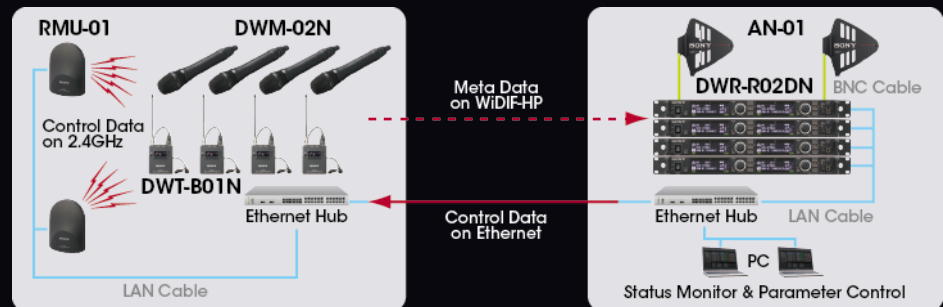
Products

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-02 / 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 *
  *Only for DWM-02N

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

DWT-B01 / 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 *
  *Only for DWT-B01N

ECM-77BC
Lavalier Microphone

ECM-FT5BC
Flat Lavalier Microphone

ECM-66BC
Lavalier Microphone

ECM-44BC
Lavalier Microphone

DWT-P01

Plug-on digital wireless transmitter

• Superb audio quality by using 24bit/48KHz high class AD - convertor
• Unlimited 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

*Bandwidth of the device is limiting the number of simultaneous channels.

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

DWR-R02D
2 channel rack-mount digital wireless receiver

• 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 such as XLR and BNC for AES3 digital, and GND lift function for analogue BAL output
• Supports a variety of output functions with two AES3/EBU outputs up to 24-bit/96 kHz plus World Sync input/output
• Flexible AC/DC power options
• Up to 72MHz bandwidth

DWR-R01D
2 channel rack-mount digital wireless receiver

• 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

Products

DWR-S02D
2 channel slot-in portable digital wireless 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

DWA-01D
Digital wireless adapter

• For use with DWR-S01D, DWR-S02D 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

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

DWA-F01D
Digital wireless adapter

• For use with DWR-S01D, DWR-S02D 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

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
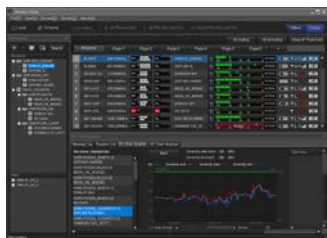
Wireless Studio
PC Software

- 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

LCS-F01D
Soft Carrying Case

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

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

EC-1.5CF
Microphone cable

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)

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

For Shoulder Camcorders

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

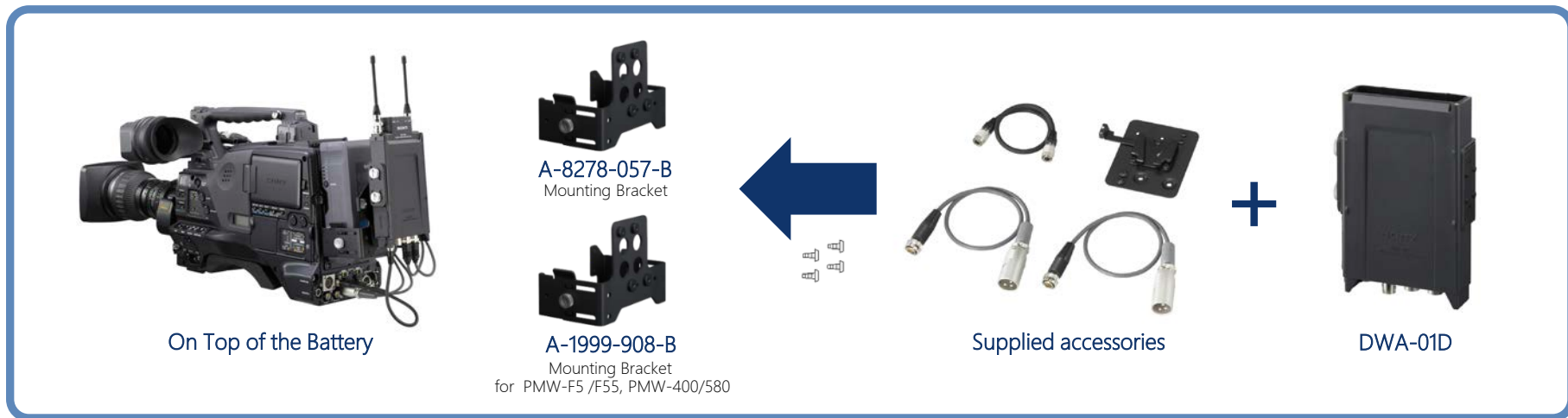|		Operating Frequencies	470 MHz to 542 MHz	566 MHz to 630 MHz	566 MHz to 638 MHz	638 MHz to 694 MHz	638 MHz to 698 MHz	638 MHz to 710 MHz	710 MHz to 782 MHz
UC	DWM-02 DWM-02N DWT-B01 DWT-B01N DWT-P01 DWR-R02D DWR-S02D	version	UC14		UC30 [*1]		UC42		
		Selectable Frequencies	564 (in 125kHz steps) 2772 (in 25kHz steps)		517 (in 125kHz steps) 2541 (in 25kHz steps)		470 (in 125kHz steps) 2310 (in 25kHz steps)		
	DWR-R02DN	version	UC7		UC7		UC7		
CE	DWM-02 DWT-B01 DWT-P01 DWR-R02D DWR-S02D	version		CE33				CE42	CE51
		Selectable Frequencies		504 (in 125kHz steps) 2560 (in 25kHz steps)				567 (in 125kHz steps) 2880 (in 25kHz steps)	567 (in 125kHz steps) 2880 (in 25kHz steps)
	DWM-02N DWT-B01N	version	CE21	CE33				CE42	
		Selectable Frequencies	567 (in 125kHz steps) 2880 (in 25kHz steps)	504 (in 125kHz steps) 2560 (in 25kHz steps)				567 (in 125kHz steps) 2880 (in 25kHz steps)	
	DWR-R02DN	version	CEZ	CEZ				CEZ	
CN	DWM-02 DWT-B01 DWR-R01D	version				CN29			
		Selectable Frequencies				441 (in 125kHz steps) 2240 (in 25kHz steps)			

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

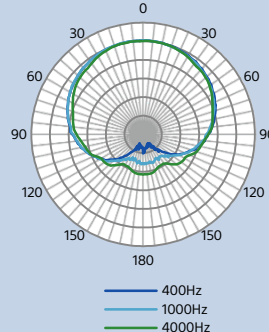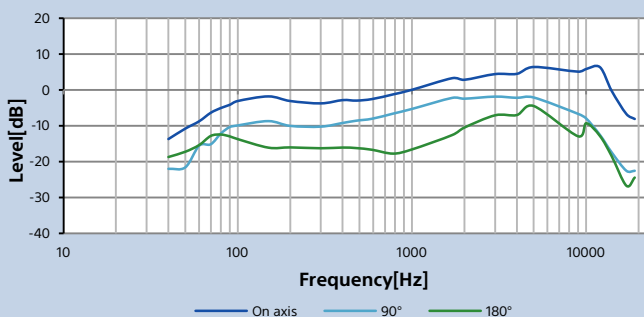# Specifications

CU-C31

CU-C31 Directivity Characteristics

Legend: On axis, 90°, 180°

Polar legend: 400Hz, 1000Hz, 4000Hz

	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
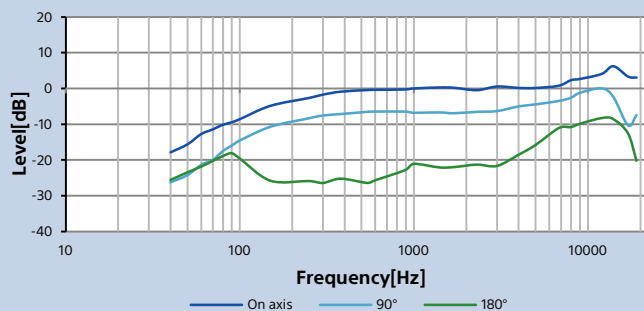
CU-F31

CU-F31 Directivity Characteristics

Legend: On axis, 90°, 180°

Polar legend: 400Hz, 1000Hz, 4000Hz

	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
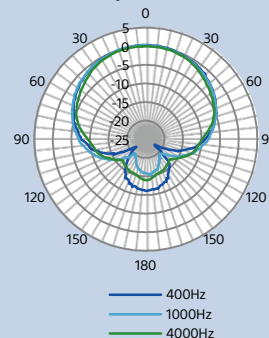
CU-F32

CU-F32 Directivity Characteristics

Legend: On axis, 90°, 180°

Polar legend: 400Hz, 1000Hz, 4000Hz

	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

Products

		DWT-B01 Bodypack transmitter	DWT-B01N Bodypack transmitter
Wireless Interface		WiDIF-HP	
Oscillator Type		Crystal-controlled PLL Synthesizer	
Antenna Type		λ/4 flexible wire	
Type of Emission		G1E or G1D	
Carrier Frequencies	UC	U1424: 470.125 MHz to 541.875 MHz (TV-14 to TV-25 channels), 125 kHz steps	U14: 470.125 MHz to 541.875 MHz (TV-14 to TV-25 channels), 25 kHz steps
		U3040: 566.125 MHz to 637.875 MHz (TV-30 to TV-41 channels, except TV-37channel), 125 kHz steps	U30: 566.125 MHz to 637.875 MHz (TV-30 to TV-41 channels, except TV-37channel), 25 kHz steps
		U4250: 638.125 MHz to 697.875 MHz (TV-42 to TV-51 channels), 125 kHz steps	U42: 638.125 MHz to 697.875 MHz (TV-42 to TV-51 channels), 25 kHz steps
	CE7	CE3338: 566.025 MHz to 630.000 MHz (TV-33 to TV-40 channels), 25 kHz steps	CE21: 470.025 MHz to 542.000 MHz (TV-21 to TV-29 channels), 25 kHz steps
		CE4248: 638.025 MHz to 710.000 MHz (TV-42 to TV-50 channels), 25 kHz steps	CE33: 566.025 MHz to 630.000 MHz (TV-33 to TV-40 channels), 25 kHz steps
		CE5157: 710.025 MHz to 782.000 MHz (TV-42 to TV-50 channels), 25 kHz steps	CE42: 638.025 MHz to 710.000 MHz (TV-42 to TV-50 channels), 25 kHz steps
	CN	CN2935: 638.025 MHz to 694.000 MHz (TV-29 to TV-35 channels), 25 kHz steps	-
RF Power	UC	1 mW/10 mW/50 mW (e.r.p) selectable	
	CE7	1 mW/10 mW/50 mW (e.r.p) selectable	
	CN	1 mW/10 mW (e.r.p) selectable	-
Input Connector		Sony 4-pin (SMC9-4S) (female)	
+48 V Power Supply		-	
Reference Input Level		MIC: -60 dBV (-58 dBu), 1 kHz (at 0-dB attenuator level) LINE: +4 dBu, 1 kHz	
Maximum Input Level		MIC: -22 dBu (with 0 dB attenuator) LINE: +24 dB	
Audio Attenuator Adjustment Range		0 to 48 dB (3 dB steps, MIC input mode only)	
Frequency Response		Transmission: 20Hz to 22kHz (typical)	
Dynamic Range		106 dB typical (A-weighted, T.H.D=1%)	
Distortion (T.H.D)		0.03% or less (0 dBu = 0.775 Vrms)	MODE1, MODE2: 0.03% or less, MODE3: 0.3% or less
Audio Delay		Approx. 1.5 msec	MODE1: 1.5 msec (total: 3.4msec) /MODE2: 1.0 msec (total: 1.5msec)/MODE3: 2.1 msec (total 4.0msec)
Wireless Remote Control		Cross Remote (2.4-GHz IEEE802.15.4 compliant)	
Display		OLED	
Power Requirements		DC 3.0 V (with two AA-size alkaline (LR6) batteries)	
Battery Operating Time		Approx. 5 hours with Sony's AA-size alkaline (LR6) batteries at 25°C(77° F) at 10-mW output (with the wireless remote control function off and DIMMER MODE set to AUTO OFF)	
Operating Temperature		0° C to 50° C (32° F to 122° F)	
Storage/Transport Temperature		-20° C to +60° C (-4° F to +140° F)	
Dimensions		63 x 17 x 73 mm (excluding the anntenas) (W x H x D)	
Mass		Approx. 125 g (including batteries)	
Supplied Accessories		Spare battery case (1), Soft case (1), Microphone cable (4-pin to XLRtype 3-pin) (1), Carrying case (1), Scribble sheet (1), CD-ROM (1)	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)

*0dBμV= 1μV EMF, 0dBu=0.775Vrms, 0dBV=1V, 0dB SPL=2x10^{-5} Pa

Specifications

		DWM-02 Handheld wireless microphone	DWM-02N Handheld wireless microphone	DWT-P01 Plug-on transmitter
Wireless Interface		WiDIF-HP		
Oscillator Type		Crystal-controlled PLL Synthesizer		
Antenna Type		λ/4 flexible wire		
Type of Emission		G1E or G1D		
Carrier Frequencies	UC	U1424: 470.125 MHz to 541.875 MHz (TV-14 to TV-25 channels), 125 kHz steps	U14: 470.125 MHz to 541.875 MHz (TV-14 to TV-25 channels), 25 kHz steps	U1424: 470.125 MHz to 541.875 MHz (TV-14 to TV-25 channels), 125 kHz steps
		U3040: 566.125 MHz to 637.875 MHz (TV-30 to TV-41 channels, except TV-37channel), 125 kHz steps	U30: 566.125 MHz to 637.875 MHz (TV-30 to TV-41 channels, except TV-37channel), 25 kHz steps	U3040: 566.125 MHz to 637.875 MHz (TV-30 to TV-41 channels, except TV-37channel), 125 kHz steps
		U4250: 638.125 MHz to 697.875 MHz (TV-42 to TV-51 channels), 125 kHz steps	U42: 638.125 MHz to 697.875 MHz (TV-42 to TV-51 channels), 25 kHz steps	U4250: 638.125 MHz to 697.875 MHz (TV-42 to TV-51 channels), 125 kHz steps
	CE7	CE3338: 566.025 MHz to 630.000 MHz (TV-33 to TV-40 channels), 25 kHz steps	CE21: 470.025 MHz to 542.000 MHz (TV-21 to TV-29 channels) 25 kHz steps	CE3338: 566.025 MHz to 630.000 MHz (TV-33 to TV-40 channels), 25 kHz steps
		CE4248: 638.025 MHz to 710.000 MHz (TV-42 to TV-50 channels), 25 kHz steps	CE33: 566.025 MHz to 630.000 MHz (TV-33 to TV-40 channels), 25 kHz steps	CE4248: 638.025 MHz to 710.000 MHz (TV-42 to TV-50 channels), 25 kHz steps
		CE5157: 710.025 MHz to 782.000 MHz (TV-42 to TV-50 channels), 25 kHz steps	CE42: 638.025 MHz to 710.000 MHz (TV-42 to TV-50 channels), 25 kHz steps	CE5157: 710.025 MHz to 782.000 MHz (TV-42 to TV-50 channels), 25 kHz steps
	CN	CN2935: 638.025 MHz to 694.000 MHz (TV-29 to TV-35 channels), 25 kHz steps	-	
RF Power	UC	1 mW/10 mW/50 mW (e.r.p) selectable		
	CE7	1 mW/10 mW/50 mW (e.r.p) selectable		
	CN	1 mW/10 mW (e.r.p) selectable	-	
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)		Transmission: 20Hz to 22kHz (typical)
Dynamic Range		-		106 dB typical (A-weighted, T.H.D=1%)
Distortion (T.H.D)		-		0.03% or less (0 dBu = 0.775 Vrms)
Audio Delay		Approx. 1.5 msec	MODE1: 1.5 msec (total: 3.4msec) /MODE2: 1.0 msec (total: 1.5msec)/MODE3: 2.1 msec (total 4.0msec)	Approx. 1.5 msec
Wireless Remote Control		Cross Remote (2.4-GHz IEEE802.15.4 compliant)		
Display		OLED		
Power Requirements		DC 3.0 V (with two AA-size alkaline (LR6) batteries)		
Battery Operating Time		Approx. 5 hours with Sony's AA-size alkaline (LR6) batteries at 25℃(77° F) at 10-mW output (with the wireless remote control function off and DIMMER MODE set to AUTO OFF)		Approx. 5 hours with Sony's AA-size alkaline (LR6) batteries at 25℃(77° F) at 10-mW output (with the wireless remote control function off and 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)	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)

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

Specifications

		DWR-R02DN Rack-mount receiver	DWR-R02D Rack-mount receiver	DWR-R01D 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	UC7	470.125 MHz to 541.875 MHz (TV-14 to TV-25 channels), 25 kHz steps	U1424: 470.125 MHz to 541.875 MHz (TV-14 to TV-25 channels), 125 kHz steps	
		566.125 MHz to 637.875 MHz (TV-30 to TV-41 channels, except TV-37channel), 25 kHz steps	U3040: 566.125 MHz to 637.875 MHz (TV-30 to TV-41 channels, except TV-37channel), 125 kHz steps	
		638.125 MHz to 697.875 MHz (TV-42 to TV-51 channels), 25 kHz steps	U4250: 638.125 MHz to 697.875 MHz (TV-42 to TV-51 channels), 125 kHz steps	
	CEZ	470.025 MHz to 542.000 MHz (TV-21 to TV-29 channels) 25 kHz steps	CE3338: 566.025 MHz to 630.000 MHz (TV-33 to TV-40 channels), 25 kHz steps	
		566.025 MHz to 630.000 MHz (TV-33 to TV-40 channels), 25 kHz steps	CE4248: 638.025 MHz to 710.000 MHz (TV-42 to TV-50 channels), 25 kHz steps	
		638.025 MHz to 710.000 MHz (TV-42 to TV-50 channels), 25 kHz steps	CE5157: 710.025 MHz to 782.000 MHz (TV-42 to TV-50 channels), 25 kHz steps	
	CN	-	-	CN2935: 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)	Approx. 1.9 ms (analog output) Approx. 1.9 ms (digital output)	
Analog Output		XLR-3-32 (male), 47 Ω or less (×2) 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)	BAL: XLR-3-32 (male), 47 Ω or less (×2) UNBAL: Ø6.3 mm (1/4 inch) mono jack, 220 Ω or less (×2) Output level (0 dBu = 0.775 Vrms) BAL: −22 dBu maximum/−58 dBu reference (when MIC output) BAL: +24 dBu maximum/−12 dBu reference (when LINE output) UNBAL: +8 dBu maximum/−28 dBu reference (when UNBAL ATT =0 dB)	XLR-3-32 (male), 47 Ω or less (×2), 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 (×2) BNC-R, 75 Ω (×2) Reference output level: −36 dBFs	XLR-3-32 (male), 110 Ω (×1) BNC-R, 75 Ω (×1) Reference output level: −36 dBFs	
Headphone Output		Ø6.3 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 to 240 V 0.4 A or less / DC: 12 V 1.6 A or less		US models: 120 V AC / European model: 230 V AC
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)	Approx. 4.1 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)	Whip antenna (2), AC power cord (1), Foot (4), Operating Instructions (CD-ROM) (1), PC control software (CD-ROM) (1)	Whip antenna (2), AC power cord (1), Foot (4), Operating Instructions (1), Operating Instructions (CD-ROM) (1), PC control software (CD-ROM) (1)

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

Specifications

		DWR-S02D Slot-in 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		-
Carrier Frequencies	U	U1424: 470.125 MHz to 541.875 MHz (TV-14 to TV-25 channels), 125 kHz steps
		U3040: 566.125 MHz to 637.875 MHz (TV-30 to TV-41 channels, except TV-37channel), 125 kHz steps
		U4250: 638.125 MHz to 697.875 MHz (TV-42 to TV-51 channels), 125 kHz steps
	CE7	CE3338: 566.025 MHz to 630.000 MHz (TV-33 to TV-40 channels), 25 kHz steps
		CE4248: 638.025 MHz to 710.000 MHz (TV-42 to TV-50 channels), 25 kHz steps
		CE5157: 710.025 MHz to 782.000 MHz (TV-42 to TV-50 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		Approx. 2.1 msec (Analog output in combination with the DWA-01D/F01D)
		Approx. 1.9 msec (AES/EBU output in combination with the DWA-01D/F01D and through a digital connection with a camcorder)
Analog Output		D-sub 15 pin (male) (×1) Analog: Reference output level: −40 dBu
Digital Output		Digital: Reference output level: −36 dBFS/−20 dBFS (switchable)
Headphone Output		-
WORD SYNC IN/OUT connectors		-
Wireless Remote Control		Cross Remote (2.4-GHz IEEE802.15.4 compliant)
LAN Connector		-
Display		OLED
Power Requirements		7 V DC
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		88 x 119 x 31 mm (W x H x D)
Mass		Approx. 280 g (including the supplied antennas)
Supplied Accessories		Whip antenna (2), CD-ROM (1), Frequency band label (1)

		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 l00V, 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	Approx. 482 × 44 × 285 mm (W x H x D)
		Approx. 19 x 1 3/4 x 11 1/4 inches (W x H x D)
	Mass	Approx. 4.4 kg
		Approx. 9 lb 11 oz
	Supplied Accessories	50 Ω terminator (6)
		AC power cord (1)
		Operating Instructions (1)

*0dBμV= 1μV EMF, 0dBu=0.775Vrms, 0dBV=1V, 0dB SPL=2x10^{-5} Pa

Specifications

	DWA-01D Wireless Adapter	DWA-F01D Wireless Adapter
Audio output connector	Analog/Digital: SMC9-4S (female) (OUTPUT1/2)	Analog: XLR-3-32 type (OUTPUT 1/OUTPUT 2) Digital: BNC-R
Analog output impedance	150 ohms or less	150 ohms or less
AES3-id output impedance	110 ohms	75 ohms
WORD SYNC IN connector	BNC-R, 75 ohms (when the DWR-S02D is attached to the adapter and 75-ohm termination is added)	BNC-R, 75 ohms (when the DWR-S02D is attached to the adapter and 75-ohm termination is added)
OUTPUT 1/2 or Phones connector	Ø 3.5 mm TRS jack	Ø 3.5 mm TRS jack
OUTPUT 1/2 or Phones level	50 mW (16-ohm load, at T.H.D = 1%)	MIC LEVEL selected: −52 dBu PHONES selected: 50 mW (16-ohm load, at T.H.D = 1%)
Power requirements	12 V DC	12 V DC (DC IN), 7.2 V DC (battery)
Operating voltage	10 V DC to 17 V DC	10 V DC to 17 V DC (DC IN), 6 V DC to 8.4 V DC (battery)
Maximum continuous operation	-	Approx. 5 hours (ambient temperature of 25 ° C (77 ° F), fully charged Sony NP-F570 lithium-ion battery, OUTPUT 1/2 unused, DWR-S01D CH1/CH2 ON, wireless remote control function OFF, auto switch for display set to AUTO DIMMER)
Operating temperature	0 ° C to 50 ° C (32 ° F to 122 ° F)	0 ° C to 50 ° C (32 ° F to 122 ° F)
Storage temperature	−20 ° C to +60 ° C (−4 ° F to +140 ° F)	−20 ° C to +60 ° C (−4 ° F to +140 ° F)
Dimensions	Approx. 88 × 144 × 31.5 mm (W x H x D)	Approx. 142 × 125 × 39 mm (W x H x D)
Mass	Approx. 330 g	Approx. 400 g (excluding receiver and battery)
Supplied accessories	DC power cable (for 4-pin connector) (1), Mount plate (1), Audio cable (2)	DC power cable (for 4-pin connector) (1), Operating Instructions (1), CD-ROM (1)

	AN-01 UHF Antenna	AN-57 Ground Plane Antenna
Frequency range	470 to 862 MHz	638 MHz to 810 MHz (When supplied elements are attached: 470 MHz to 638 MHz)
Antenna gain	5 dBi or more	0 dBi (from center frequency)
Voltage standing wave ratio	2.5 or less	3 or less (from center frequency)
Directivity	Half power angle: 150 degrees or less Front to back ratio: 12 dB or more	Horizontal, omnidirectional
Booster Frequency range	470 to 862 MHz	-
Booster gain	18 dB/10 dB/0 dB, switchable	-
Output impedance	50 ohms	Impedance 50 Ω (representative value)
Booster Voltage standing wave ratio	3 or less	-
Noise figure	6 dB or less	-
Third order intermodulation	60 dB or more (95 dBμVEMF input)	-
Output connector	BNC-R type	BNC-R type
Supply voltage	9 V/12 V DC	-
Current consumption	100 mA or less	-
Operation temperature	0 ° C to 50 ° C (32 ° F to 122 ° F)	-
Storage temperature	−20 ° C to +60 ° C (−4 ° F to +140 ° F)	-
Dimensions	Approx. 343 × 341 × 36 mm (W x H x D)	Ø121 × 288 mm (When supplied elements are attached: Ø153 × 320 mm)
Mass	Approx. 530 g	Approx. 280 g
Supplied accessories	Microphone stand attachment pole/ grip (1 set), Stand Adapter, PF1/2 to W5/8 type (1), PF1/2 to W3/8 type (1), Operating Instructions (1)	Antenna Elemens (4), Operating Instructions (1)

	RMU-01 Remote Control Unit
Radio system	Conforms to IEEE802.15.4
Frequency range of transmission/ Reception	2405 MHz to 2480 MHz
Antenna gain	2 dB
Antenna power	1 mW
Remote control distance	10 m (33 feet) at maximum (per unit)
LAN transmission speed	10 M/100 Mbps (automatic detection)
Connectors	LAN connector: RJ45-type, eightpin (accepts PoE power)
Supply voltage	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: 50 mA or less When the AC adapter is used: 100 mA or less
PoE power reception	Conforms to IEEE802.3af (supports mode A and B)
Operation temperature	When the PoE device is used: 0 ° C to 50 ° C (32 ° F to 122 ° F) When the AC adapter is used: 0 ° C to 45 ° C (32 ° F to 113 ° F)
Storage temperature	−20 ° C to +60 ° C (−4 ° F to +140 ° F)
Dimensions	107 × 151 × 30 mm (W x H x D)
Mass	Approx. 300 g (10.5 oz)
Supplied accessories	AC adapter (1), Bracket (2), Screw adapter (2), Screws (1 set), Safety wire (1), Operating Instructions (1), CD-ROM (1)

Ultimate Sound with Digital Audio Processing

High-quality Sound
Superior Operability
Low Profile and Lightweight
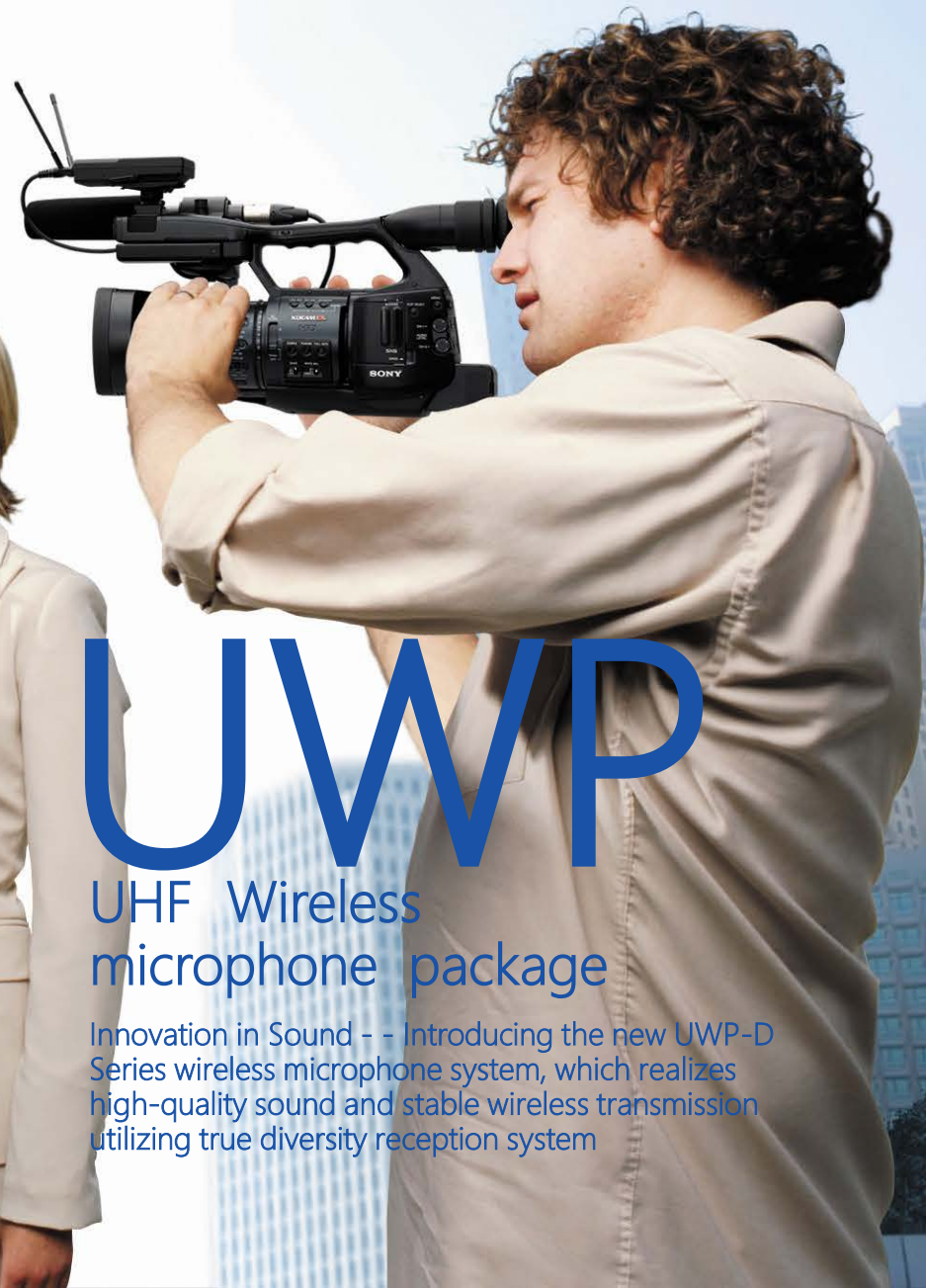
UWP

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

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.
Since its introduction in 2003, the UWP Series has been widely used in a broad range of applications,
not only for ENG (electronic news gathering) and EFP (electronic field production), but also for live concerts, sporting events,
documentaries, and weddings.

High-quality Sound
Sony's Digital Audio Processing technology improves transient response performance, and realizes high-quality sound.

Superior Operability
Performs channel settings via Automatic Channel Setting mode.

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

UWP-D11   UWP-D12   UWP-D16

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 solved. Sony's newly developed Digital Audio Processing, which uses DSP (digital signal processing) for digital companding, realizes high sound quality.
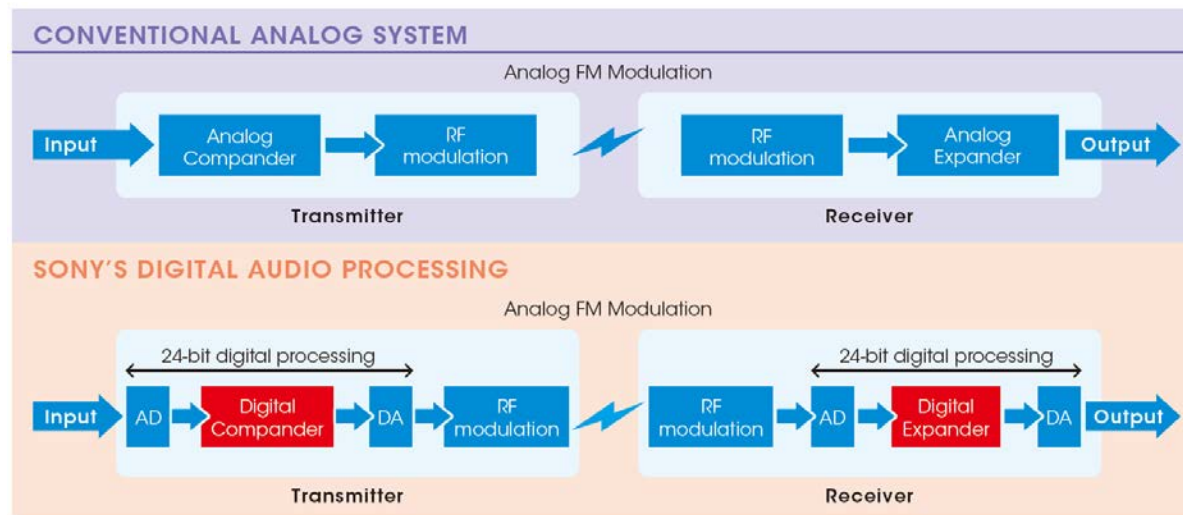
DSP optimizes a time-constant range between the transmitter and receiver. It provides superb transient response performance. While analog companding systems cannot reproduce sounds such as a bell or tee shot with precision, Sony's Digital Audio Processing can reproduce them very accurately.

Dynamic Response
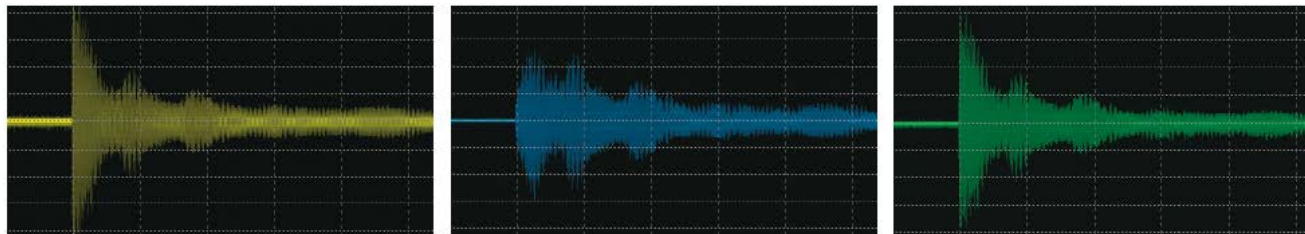
Original Sound   Analog System   Digital Audio Processing

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

Easy-to-use Automatic Channel Setting Mode

Choose the AUTO SET menu on the receiver

▼

Scans and determines available channel

▼

Then automatically sends setting information to the transmitter via IR (infrared) connection

▼

Complete the channel setting of transmitter and Receiver

Clear Channel Scan & Active Channel Scan

The Clear Channel Scan function searches for a channel that is not being used by another wireless device or by a TV station. This makes it easy to find an available channel so the wireless microphone can be used without interference. The Active Channel Scan function detects Sony's wireless transmitter from the channel lists within a selected group.

IR Sync

The receiver can transfer the desired frequency to the transmitter via IR connection, and allows for quick and simple setup.

Wide Frequency Coverage

The system's operating bandwidth (up to 72 MHz*[1]) achieves great mobility to cover a wide area and provide more channel options.
*1 Depends on the country or frequency version.

True Diversity Reception System for Stable Reception

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, 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.

URX-P03

Tuner1   Tuner2

URX-S03D

Tuner 1   Tuner 2   Tuner 3   Tuner 4

for channel1   for channel2
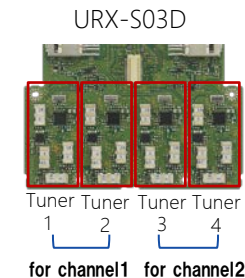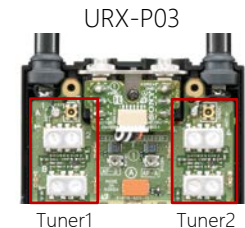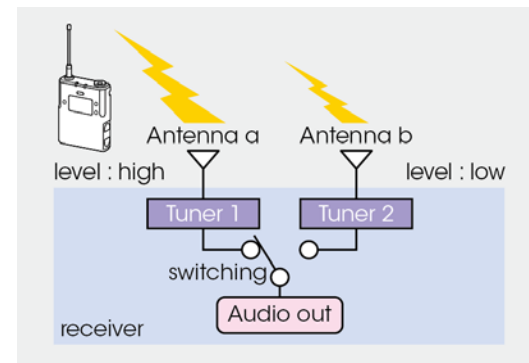
High-Quality Audio

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

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.

Headphone Output for Monitoring

Sound can be monitored directly from the receiver*[1]. This is especially convenient when using a camera that does not have a headphone output.

*1 For the URX-P03 only.

Smart Battery Operation

USB for Power Supply or Charging Batteries

A DC power drive can be utilized for long-term use or as an emergency power supply*[2]. Rechargeable battery operation is also available with Ni-MH batteries*[3].

*2 Excludes the UTX-M03. *3 Not supplied.

Cartridge-type Battery Case*[4]

The supplied battery cartridge is compatible with Sony's DWZ Series, and al lows for quick and easy battery exchange.

*4 For the UTX-B03, UTX-B03HR, UTX-P03, and URX-P03 only.

Output Level Control

This receiver function enables control of the receiver output sound level: ±12 dB*[5]. This is useful because some video cameras don't offer manual input level control.

*5 For the URX-P03 only.

Line Input Available for Body Pack Transmitter

Switchable MIC or LINE input level and adjustable attenuators allow the user to select proper audio input levels.

Interchangeable Microphone Capsules (Option)

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))*[6].

CU-C31   CU-F31, F32

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

+48 V Power Supply for Plug-on Transmitter

This function enables direct connection of dynamic microphones and condenser microphones requiring DC 48 V powering*[7].

*7 For the UTX-P03 only.

Large Display and Advanced Selectable Menu

An easy-to-read large LCD and sophisticated yet easy-to-operate menu allows for secure and speedy settings.

11.5mm (15/32 inch)

00 3001
566.125MHz

27.8mm (1 1/8 inches)
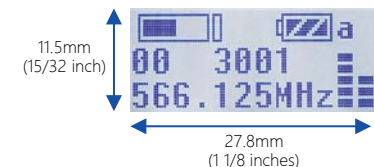
Compact, Lightweight, and Robust Design

All components of the UWP-D Series – the body pack transmitter, handheld microphone, plug-on transmitter, and portable receiver – utilize an extremely robust metal chassis that is ideal for heavy-duty wireless operation. The metal body also allows for an extremely compact and lightweight design, providing the high level of mobility required for ENG and EFP operations.

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

Multi Interface Shoe Adaptor (Option)

The wireless receiver of the UWP-D Series can be attached to camcorders or 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. In addition, the wireless receiver can get power from the camera, and the camera can control power ON/OFF, unifying power management*[1].

XLR cable connection	MI Shoe connection

Multi Interface Shoe

-Need audio cable
-Need AA alkaline battery
-Need On/Off manual operation

-No need audio cable
-Power supply from camera*[1]
-On/Off control from camera*[1]

*1 For details on cameras that support this unit, visit the Sony website.

Package Lineup

Frequencies as follows

UWP-D11

UTX-B03 : Bodypack Transmitter
URX-P03 : Portable Receiver

Omni-directional Lavalier Microphone | Microphone Holder Clip | XLR-BMP Cable | Stereo Mini-BMP Cable

Belt Clip | Shoe Mount Adaptor | Windscreen

UC14	UC30	UC42	
CE21	CE33	CE42	CE51
CN38	E	JB	KR3

UWP-D12

UTX-M03 : Handheld Wireless Microphone
URX-P03 : Portable Receiver

Microphone Holder Clip | XLR-BMP Cable | Stereo Mini-BMP Cable | Belt Clip

Shoe Mount Adaptor

UC14	UC30	UC42	
CE21	CE33	CE42	CE51
CN38	E	JB	KR3

UWP-D16

UTX-P03 : Plug-on Transmitter
UTX-B03 : Bodypack Transmitter
URX-P03 : Portable Receiver

Omni-directional Lavalier Microphone | Microphone Holder Clip | XLR-BMP Cable | Stereo Mini-BMP Cable

Belt Clip | Shoe Mount Adaptor | Windscreen | Soft Case

UC14	UC30	UC42	
CE21	CE33	CE42	CE51
	E		KR3

Products

UTX-B03
Bodypack Transmitter

・Sony's Digital Audio Processing
・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)
・Supplied with omni-directional lavalier microphone

UTX-B03HR
Bodypack Transmitter

・Sony's Digital Audio Processing
・SMC9-4S microphone input 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)
・Applicable lavalier microphone :
　 ECM-77BC, ECM-44BC (Optional accessory)

 *Lavalier microphone is not included

UTX-M03
Handheld Wireless Microphone

・Sony's Digital Audio Processing
・Incorporates an all-metal, robust, uni-directional dynamic
・microphone capsule with minimized popping and wind
 noise
・Compatibility with UWP Series / WL-800 Series
・USB for charging batteries
・Interchangeable microphone capsule

UTX-P03
Plug-on Transmitter

・Sony's Digital Audio Processing
・Converts a wired microphone to a wireless microphone
・via an XLR-type connector
・Compatibility with UWP Series / WL-800 Series
・USB for power supply or charging batteries
・Extremely compact, lightweight, and robust metal body
・+48 V power supply

Products

URX-P03
Portable Receiver

・Sony's Digital Audio Processing
・Easy-to-use Automatic Channel Setting mode
・True Diversity Reception System 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

URX-S03D
2 channel slot-in portable wireless receiver

・Sony's Digital Audio Processing
・ High quality audio amplifier adopted
・Great usability with Sony XDCAM and HDCAM 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

Accessories

ECM-V1BMP	AD-RV1B2	SAD-HV1B2	BATC-3AA	BLC-BP2	SMAD-P2	SMAD-P3	SAD-M01	EC-0.46BX	EC-1.5BX	EC-0.8BM
Omni-directional Lavalier Microphone	Windscreen Pack (5PCS)	Holder Clip Pack (4PCS)	Battery Case	Belt Clip (2PCS)	Shoe Mount Adaptor	MI Shoe Mount Adaptor	Microphone Holder	3-pole Locking Mini Plug-XLR(M) Cable	3-pole Locking Mini Plug-XLR(F) Cable	3-pole Locking Mini Plug-Stereo Mini Plug Cable

LCS-URXP3	ECM-X7BMP	ECM-77BMP	ECM-44BMP	ECM-166BMP	ECM-FT5BMP	ECM-LZ1UBMP	ECM-77BC	ECM-44BC	ECM-322BMP	ECM-HZ1UBMP
Soft Case	Uni-directional, Lavalier Microphone	Omni-directional Lavalier Microphone	Omni-directional Lavalier Microphone	Uni-directional Lavalier Microphone	Omni-directional Lavalier Microphone	Uni-directional Lavalier Microphone	Omni-directional Lavalier Microphone	Omni-directional Lavalier Microphone	Omni-directional Headset Microphone	Uni-directional Headset Microphone

CU-C31	CU-F31	CU-F32
Capsule Unit	Capsule Unit	Capsule Unit
• Condenser type • Cardioid • 60 Hz - 20 kHz	• Dynamic type • Super cardioid • 60 Hz - 18 kHz	• Dynamic type • Wide cardioid • 70 Hz - 18 kHz

How to attach cameras (Option)

URX-S03D

For mixer bag application

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

DWA-F01D
Digital wireless adaptor

URX-P03

On the Grip Belt

LCS-URXP3
Soft Case

On Top of the Battery

V-Shoe Mount

Direct Mount

A-8278-057-B*
Mounting Bracket

A-1528-515-A
Mounting Plate

SMAD-V1
V-Shoe Mount Adaptor

LCS-URXP3
Soft Case

A-8278-057-B*
Mounting Bracket

SMAD-V1
V-Shoe Mount Adaptor*
Remove the V-Shoe part

LCS-URXP3
Soft Case

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

Frequencies

	Operating Frequencies	470 MHz to 542 MHz	566 MHz to 630 MHz	566 MHz to 638 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
UC	version	UC14		UC30*1		UC42				
	Selectable Frequencies	564 (in 125-kHz steps) 2772 (in 25-kHz steps)		517 (in 125-kHz steps) 2541 (in 25-kHz steps)		470 (in 125-kHz steps) 2310 (in 25-kHz steps)				
CE	version	CE21	CE33		CE42		CE51			
	Selectable Frequencies	567 (in 125-kHz steps) 2880 (in 25-kHz steps)	504 (in 125-kHz steps) 2560 (in 25-kHz steps)		441 (in 125-kHz steps) 2240 (in 25-kHz steps)		567 (in 125-kHz steps) 2880 (in 25-kHz steps)			
CN	version						CN38			
	Selectable Frequencies						567 (in 125-kHz steps) 2880 (in 25-kHz steps)			
E	version							E		
	Selectable Frequencies							94 (in 125-kHz steps)		
J	version								J	
	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

Specifications

UTX-M03
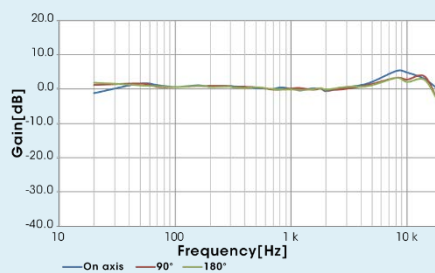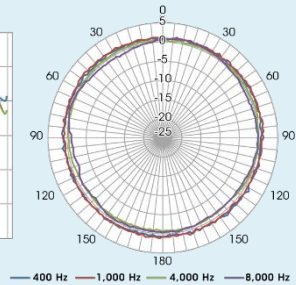### Frequency Response Characteristics
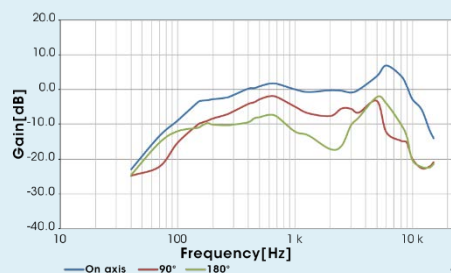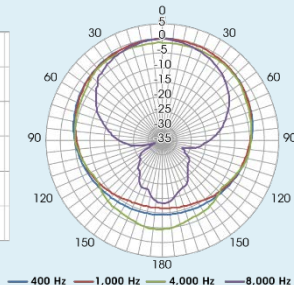
Directivity Characteristics

— On axis   — 90°   — 180°

— 400 Hz   — 1,000 Hz   — 4,000 Hz   — 8,000 Hz

ECM-V1BMP
Frequency Response Characteristics

Directivity Characteristics

— On axis   — 90°   — 180°

— 400 Hz   — 1,000 Hz   — 4,000 Hz   — 8,000 Hz

Model Code	ECM-V1BMP
Frequency Response	40 Hz to 20 kHz
Directivity	Omni-directional
Capsule Type	Condenser
Sensitivity	−43.0 dB ±3.0 dB (1 kHz/Pa)
Dynamic Range	86 dB or more
Maximum Input Sound Pressure Level	120 dB SPL
Microphone Head	Φ6.8 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)

Specifications

		UTX-B03 Bodypack transmitter	UTX-B03HR Bodypack transmitter	UTX-M03 Handheld wireless microphone	UTX-P03 Plug-on transmitter
Oscillator Type		Crystal-controlled PLL Synthesizer			
Antenna Type		1/4λ wave length wire	1/4λ wave length wire	1/4λ wave length wire (internal)	Integral type
Type of Emission		F3E			
Carrier Frequencies	UC	UC14 : 470.125 MHz to 541.875 MHz			
		UC30 : 566.125 MHz to 607.875 MHz and 614.125 MHz to 637.875 MHz			
		UC42 : 638.125 MHz to 697.875 MHz			
	CE7	CE21 : 470.025 MHz to 542.000 MHz			
		CE33 : 566.025 MHz to 630.000 MHz			
		CE42 : 638.025 MHz to 694.000 MHz			
		CE51 : 710.025 MHz to 782.000 MHz	-		CE51 : 710.025 MHz to 782.000 MHz
	CN	CN38 : 710.025 MHz to 782.000 MHz			-
	E	E: 794.125 MHz to 805.875 MHz			
	J	JB: 806.125 MHz to 809.750 MHz			-
	KR	KR3: 925.125 MHz to 937.500 MHz			
RF Power	UC	30 mW / 5 mW			40 mW / 5 mW
	CE7				30 mW / 5 mW
	CN				-
	J	10 mW / 2 mW			-
	KR/E				10 mW / 2 mW
Capsule Type		Electret condenser	-	Dynamic	-
Directivity		Omni-directional	-	Uni-directional	-
Input Connector		3-pole locking mini jack	Sony SMC9-4S (female)	-	XLR-3-11C (female)
+48 V Power Supply		-	-	-	Yes
Reference Input Level		MIC: -60 dBV (at 0-dB attenuator level) / LINE: +4 dBu	MIC: -60 dBV (at 0-dB attenuator level) / LINE: +4 dBu	-	MIC: -60 dBV (at 0-dB attenuator level) / LINE: +4 dBu
Maximum Input Level		-	-	151 dB SPL (at 21-dB attenuator level)	-
Audio Attenuator Adjustment Range		0 dB to 21 dB (in 3-dB steps): Mic input	0 dB to 27 dB (in 3-dB steps)	0 dB to 21 dB (in 3-dB steps)	0 dB to 21 dB (in 3-dB steps): Mic input
Frequency Response	UC/CE7/ CN/KR/E	Transmission: 23 Hz to 18 kHz (typical)	Transmission: 23 Hz to 18 kHz (typical)	Transmission: 23 Hz to 18 kHz (typical)	Transmission: 23 Hz to 18 kHz (typical)
				Capsule Unit: 70 Hz to 18 kHz	
	J	Transmission: 40 Hz to 15 kHz (typical)	Transmission: 40 Hz to 15 kHz (typical)	Transmission: 23 Hz to 15 kHz (typical)	-
				Capsule Unit: 70 Hz to 18 kHz	
Signal-to-Noise Ratio		96 dB (max deviation, A-weighted)			
Audio Delay		Approx. 0.35 msec			
Pilot Tone Signal		32 kHz / 32.382 kHz / 32.768 kHz			
Display		LCD			
Power Requirements		DC 3.0 V (with two AA-size alkaline (LR6) batteries)			
		DC 5.0 V (via USB micro-B)			
Battery Operating Time		UC/CE7/CN: Approx. eight hours with Sony's AA-size alkaline (LR6) batteries at 25ºC (77ºF) at 30-mW output E/KR3/J: Approx. 10 hours with Sony's AA-size alkaline (LR6) batteries at 25ºC (77ºF) at 10-mW output			UC: Approx. six hours with Sony's AA-size alkaline (LR6) batteries at 25ºC (77ºF) at 50-mW output CE7: Approx. eight hours with Sony's AA-size alkaline (LR6)batteries at 25ºC (77ºF) at 30-mW output E/KR3: Approx. 10 hours with Sony's AA-size alkaline (LR6)batteries at 25ºC (77ºF) at 10-mW output
Storage/ Transport Temperature		-20ºC to +55ºC (-4ºF to +131ºF)			
Dimensions		63 x 82 x 20 mm (2 1/2 x 3 1/4 x 13/16 inches) (excluding the anntenas) (W x H x D)	63 x 92.6 x 20 mm(2 1/2 × 3 3/4 × 13/16 in.) (excluding the antenna) (W x H x D)	ø48 x 260 mm (1 15/16 x 10 1/4 inches) (diameter / length)	42 x 42 x 102 mm (1 11/16 x 1 11/16 x 4 1/8 inches) (W x H x D)
Mass		Approx. 149 g (5.3 oz) (including batteries)	Approx. 105 g (3.7 oz.) (excluding batteries)	Approx. 296 g (10 oz) (including batteries)	Approx. 197 g (6.9 oz) (including batteries)

Specifications

			URX-P03 Portable receiver	URX-S03D Slot-in Portable receiver
Oscillator Type			Crystal-controlled PLL Synthesizer	
Reception Type			True diversity	
Antenna Type			1/4 λ wave length wire	Detachable
Type of Emission			F3E	
Carrier Frequencies	UC		UC14 : 470.125 MHz to 541.875 MHz	
			UC30 : 566.125 MHz to 607.875 MHz and 614.125 MHz to 637.875 MHz	
			UC42 : 638.125 MHz to 697.875 MHz	
	CE7		CE21 : 470.025 MHz to 542.000 MHz	
			CE33 : 566.025 MHz to 630.000 MHz	
			CE42 : 638.025 MHz to 694.000 MHz	
			CE51 : 710.025 MHz to 782.000 MHz	-
	CN		CN38 : 710.025 MHz to 782.000 MHz	
	E		E: 794.125 MHz to 805.875 MHz	
	J		JB: 806.125 MHz to 809.750 MHz	
	KR		KR3: 925.125 MHz to 937.500 MHz	
Frequency Response			23 Hz to 18 kHz (tyipcal)	
Signal-to-Noise Ratio			96 dB (max deviation, A-weighted)	
Distortion (T.H.D)			0.9% or less (-60 dBV, 1 kHz input)	
Audio Delay			Approx. 0.35 msec	Approx. 0.375 msec
Analog Output			3-pole mini jack, unbalanced	D-sub 15pin, unbalanced
Analog Output Level			-60 dBV (at ±5 kHz deviation)	-40dBu (at ±5kHz deviation)
Audio Attenuator Adjustment Range			-12 dB to +12 dB (3-dB step)	-
Headphone Output			ø3.5 mm (5/32 inch) stereo mini jack	-
Headphone Output Level			5 mW (at 16-ohm load)	-
Pilot Tone Signal			32 kHz / 32.382 kHz / 32.768 kHz	
Display			LCD	
Power Requirements			DC 3.0 V (with two AA-size alkaline (LR6) batteries)	DC 7.0 V
			DC 5.0 V (via USB micro-B)	
Battery Operating Time			Approx. six hours with Sony's AA-size alkaline (LR6) batteries at 25ºC (77ºF)	-
Operating Temperature			0ºC to 50ºC (32ºF to 122ºF)	
Storage/ Transport Temperature			-20ºC to +55ºC (-4ºF to +131ºF)	
Dimensions (W x H x D)			63 x 82 x 23.8 mm (2 1/2 x 3 1/4 x 15/16 inches) (excluding the anntenas)	88 x 116.2 x 31.2mm (3 1/2 × 4 5/8 × 1 1/4 in.) (excluding the antennas)
Mass			Approx. 176 g (6.2 oz) (including batteries)	Approx. 303g (10.7 oz.) (with supplied antennas attached)

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

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

Transmitter	Receiver	COMPANDER MODE
UWP-D	UWP-D	UWP-D
UWP	UWP-D	UWP
UWP-D	UWP	UWP
WL800	UWP-D	WL800
UWP-D	WL800	WL800

UWP-D: High speech quality mode supported incombination with UWP-D series devices.
UWP: Mode supported in combination with Sony UWPseries transmitters.
WL800: Mode supported in combination with Sony 800-series transmitters.

DWA-01D
Digital wireless adapter
• For use with DWR-S01D, DWR-S02D, 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

BTA-801
Portable Tuner Mount Adapter
• Allows a WRR-855S portable tuner to be mounted on a Sony professional camcorder
• External DC power input via the supplied 4-pin cable

WRR-855S
UHF Synthesized Diversity Tuner
• Space Diversity Tuner for camcorder use
• Easily mounts onto Sony HDCAM™/XDCAM™ HD422/ Digital Betacam™/XDCAM SD/ MPEG IMX™ camcorders without need for audio/power cables or a mounting dapter
• Compact and lightweight design: 280 g (11 oz)
• A D-sub 15-pin connector for audio output to a Sony professional camcorder and for receiving its power supply from the camcorder
• A LCD provides various information such as RF input level and audio output status

DWA-F01D
Digital wireless adapter
• For use with DWR-S01D, DWR-S02D, 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

Specifications

WRR-855S UHF Synthesized Diversity Tuner	
Receiving channels	1 channel
Receiving frequency range	566 MHz to 590 MHz (U30/32) 638 MHz to 662 MHz (U42/44) 606 MHz to 630 MHz (CE38) 758 MHz to 782 MHz(CN) 782 MHz to 806MHz (U6668) 806 MHz to 810MHz (JB) 925 MHz to 932MHz(KR)
Local oscillators	1st: PLL synthesizer 2nd: PLL synthesizer
De-emphasis	50 µs
Reference deviation	±5 kHz deviation at 1 kHz modulation (Maximum deviation: ±40 kHz deviation at 1 kHz modulation)
Selectivity	60 dB or more at ±250 kHz
Spurious rejection	80 dB or more
Frequency range	40 Hz to 18 kHz (typical)
Signal-to-noise ratio	60 dB or more at 60 dBµ RF input at reference deviation, A-weighted
RF muting (squelch) level	10 dBµ or OFF
Audio output level	-40 dBu at reference deviation
Audio output connector	D-sub 15-pin (1), unbalanced
Antenna connector	BNC-R type (2), 50 Ω (nominal)
Operating voltage	External: DC 7 V
Current (power) consumption	200 mA or less at external DC 7 V
Dimensions (W x H x D)	88.0 x 119.0 x 31.3 mm (3 1/2 x 4 3/4 x 1 1/4 inches)
Mass	Approx. 280 g (10.0 oz)
Supplied accessories	Antennas (1 pair), Operating instructions (1)

*The WRR-855S receives power from a camcorder via the D-sub 15-pin connector.
**0dBµV= 1µV EMF, 0dBu=0.775Vrms, 0dBV=1V, 0dB SPL=2x10^{-5} Pa

Products UWP-X Series

UWP-X7
Fixed all-metal bodypack UHF wireless microphone package

- UTX-B2 bodypack transmitter
- URX-M2 tuner module
- Supplied accessories: Lavalier microphone (x1), windscreen (x1), microphone holder clip (x1), belt clip (x1)

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
- UWP is available in CH33, CH38, CH42 and CH51 with 24MHz Bandwidth*

UTX-B2
Bodypack transmitter

- Extremely compact, lightweight and robust metal body
- Switchable MIC/LINE input level and adjustable attenuator (0 to 21dB, 3dB steps)
- Supplied with omni-directional Lavalier microphone
- UWP is available in CH33, CH38, CH42 and CH51 with 24MHz Bandwidth*
- Output power is 5/30mW

UTX-M03
Handheld Wireless Microphone

- Sony's Digital Audio Processing
- Incorporates an all-metal, robust, uni-directional dynamic
- microphone capsule with minimized popping and wind noise
- Compatibility with UWP Series / WL-800 Series
- USB for charging batteries
- Interchangeable microphone capsule

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

SRP-X500P Digital Powered Mixer

SRP-X500P with two URX-M2 tuner modules installed

SRP-X700P Digital Powered Mixer

SRP-X700P with two URX-M2 tuner modules installed

Accessories UWP-X Series

AD-RX7B
Windscreen Pack (5PCS)

SAD-HV1B
Holder Clip Pack (4PCS)

BATC-2AA
Battery Case

SAD-M01
Microphone Holder

ECM-X7BMP
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				
	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)

Specifications

		UTX-B2X Bodypack Transmitter	URX-M2 Tuner Module
Oscillator		Crystal-controlled PLL Synthesizer	Crystal-controlled PLL Synthesizer
Type of emission		F3E	Space diversity
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		-	25 dB μ
Frequency response		40 Hz to 18 kHz (typical) (U,CE7,CN,E,KR) 50 Hz to 15 kHz (typical) (J)	40 Hz to 18 kHz (typical) (U,CE7,CN,E,KR) 50 Hz to 15 kHz (typical) (J)
Reference deviation		$\pm$7 kHz (-60 dBV, 1-kHz input) (U,CE7,CN,E,KR) $\pm$5 kHz (-66 dBV, 1-kHz input) (J)	$\pm$5 kHz (at 1-kHz modulation)
Signal-to-noise ratio		60 dB or more ($\pm$7-kHz deviation at 1-kHz modulation, A-	60 dB or more ($\pm$5-kHz deviation at 1-kHz modulation, A-weighted)
Microphone capsule		Electret condenser, omni-directional (UTX-B2V) 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	Output: 3-pole mini jack, unbalanced
Indicators	LCD	Operating channel number/frequency, attenuator level, RF level (High/Low), audio input status, transmitter battery status, accumulated operating time	Operating channel number/frequency, audio status, RF input level
	LED	Audio input status	RF input status
Power requirements		DC 3.0 V (with two AA-size alkaline (LR6) batteries)	DC 9.0 V
Battery life		Approx. eight hours with Sony's AA-size alkaline (LR6) batteries 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	57 x 26 x 121 mm (2 1/4 x 1 1/16 x 4 7/8 inches)
Mass		Approx. 145 g (5.1 oz), including batteries	Approx. 150 g (5.3 oz)

*0dBµV= 1µV EMF, 0dBu=0.775Vrms, 0dBV=1V, 0dB SPL=2x10^{-5} Pa

	MB-X6 Tuner Base Unit
Receiving channels	6 channels when accommodating 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 fiIters 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.
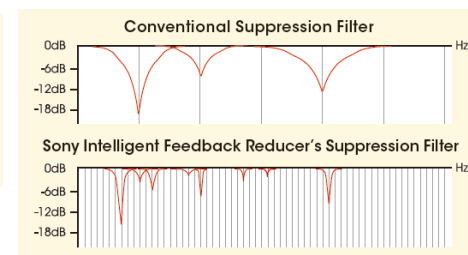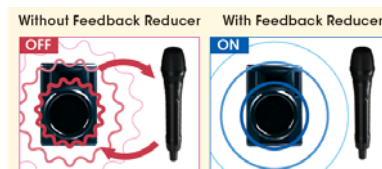
Superb Digital Sound Quality

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.
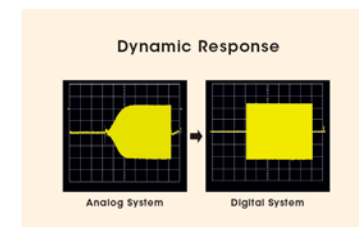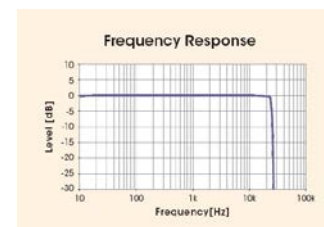
Technologies

⊙ Two RF Modes for Reliable Transmission

The DWZ-M70 package and WZ-B70HL package provide two selectable RF odes. 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*.

Hopping Image of Wide Band

CH 6
CH 5
CH 4
CH 3
CH 2
CH 1
2402MHz ⟶ 2482MHz
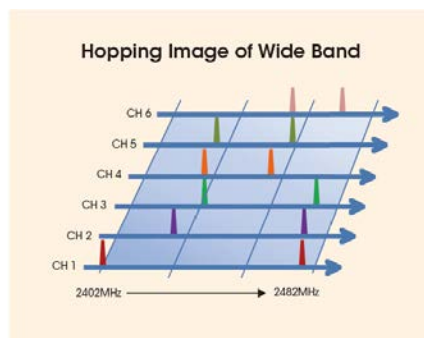
* Audio delay : Approx. 5 ms

[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**.

Hopping Image of Wide Band

CH f
CH e
CH d
CH c
CH b
CH a
2402MHz ⟶ 2482MHz
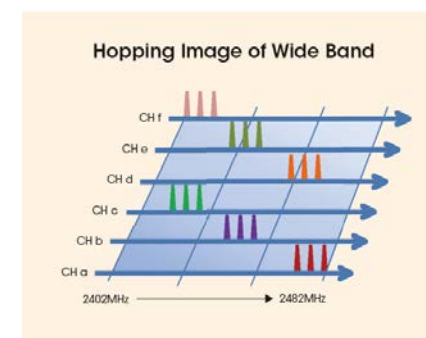
** Audio delay : Approx. 3 ms

⊙ Battery Recharging System

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.

*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

GC-0.7BMP
Guitar cable

ECM-GZ1UBMP
Gooseneck
microphone

AD-RX7B
Windscreen pack

RMM-HRD1[*1]
Rack mount kit

BC-DWZ1
Battery charger

ECM-HZ1UBMP
Headset
microphone

ECM-LZ1UBMP
Lavalier
microphone

SAD-HZ1B
Microphone
holder clip

EC-1.5BX XLR
Input cable

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

*1 For single/double use

Specifications

ZTX-M02RC
Frequency Response Characteristics
Directivity Characteristics
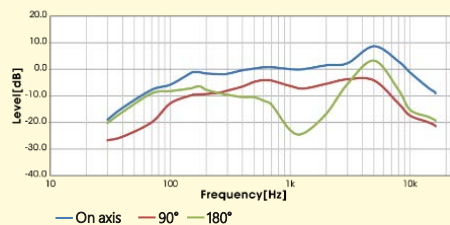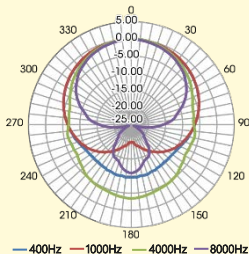
ECM-HZ1UBMP
Frequency Response Characteristics
Directivity Characteristics
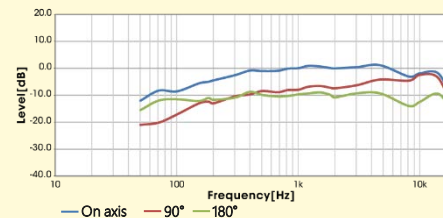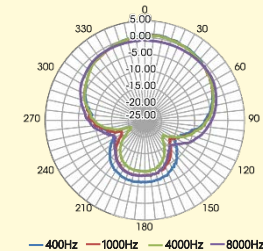
ECM-GZ1UBMP
Frequency Response Characteristics
Directivity Characteristics
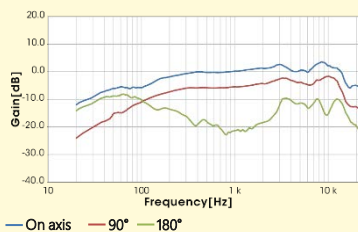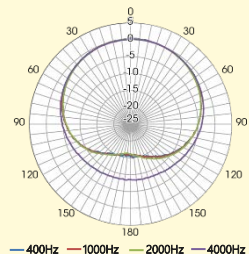
ECM-LZ1UBMP
Frequency Response Characteristics
Directivity Characteristics
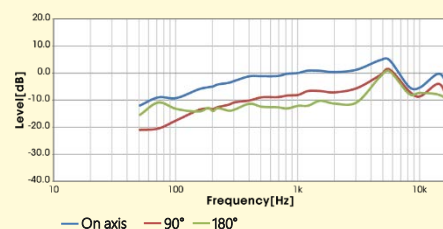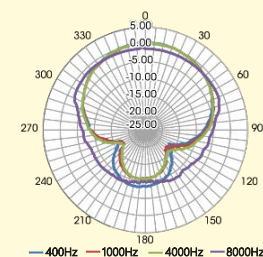
Specifications

		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 kH 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)

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

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

500 Hz
1 kHz
2 kHz

Directivity Characteristics

Response (dB)

0°
90°
180°

Frequency (Hz)

Frequency Response Characteristics

ECM-680S Monoral

500 Hz
1 kHz
4 kHz
10 kHz

Directivity Characteristics

Response (dB)

0°
90°
180°

Frequency (Hz)

Frequency Response Characteristics
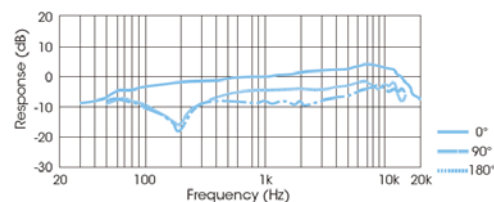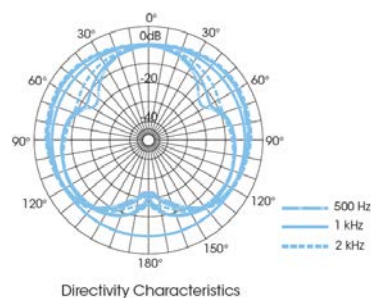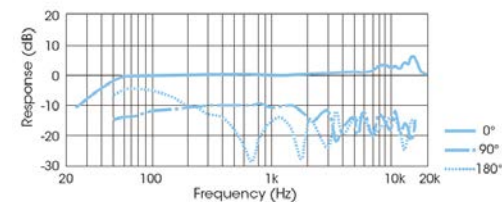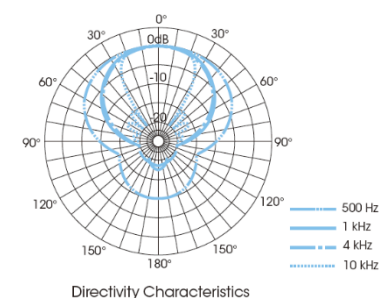
Shotgun microphone

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
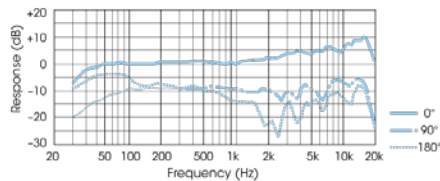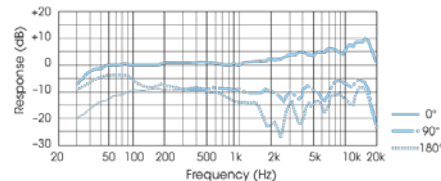- High-durability and reliability
- Built-in low-cut filter
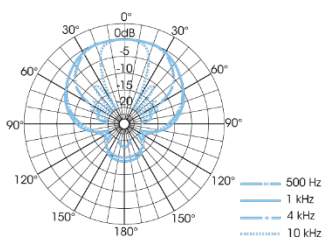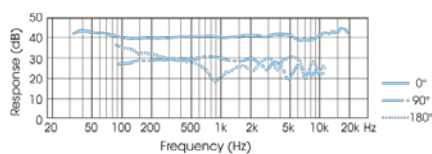
ECM-674

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
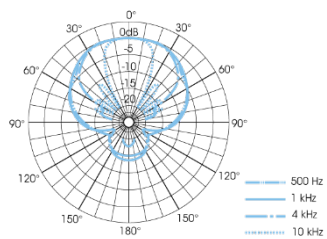
ECM-673

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
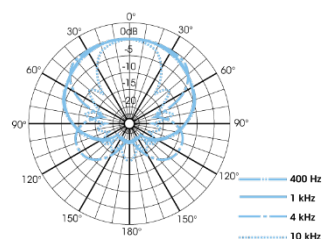
ECM-VG1

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
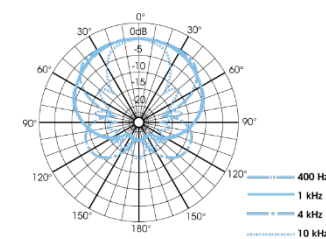
Directivity Characteristics | Directivity Characteristics | Directivity Characteristics | Directivity Characteristics

Frequency Response Characteristics | Frequency Response Characteristics | Frequency Response Characteristics | Frequency Response Characteristics
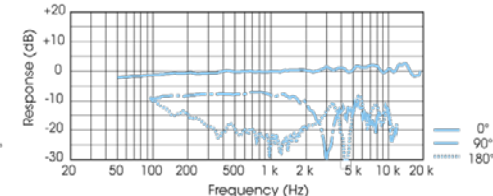
▌Shotgun microphone

ECM-MS2

Compact MS stereo back
Electret condenser shotgun microphone

- Compact lightweight design ideal for use with handheld camcorders
- Stereo and mono operation
- 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

ECM-CG50BP

Shotgun Microphone

- Light wight Shotgun Microphone with Ø 3.5 gold coating L type stereo mini plug for small camcorders or DSLR camera.
- Built-in Low-cut Filter
- Power Supplied by Camera or Alkaline AA Battery
- Original windscreen protect from contact noise

▌Accessories

ECM-MS2 Stereo

ECM-MS2 Monoral

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

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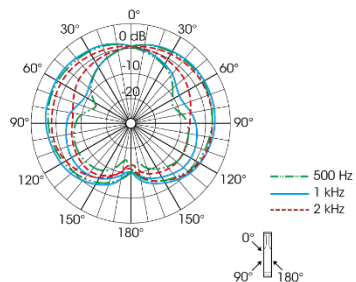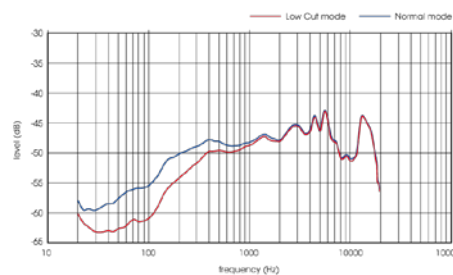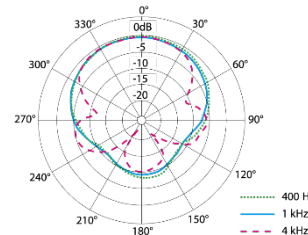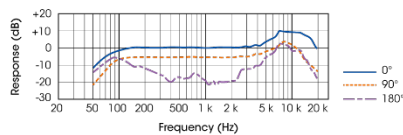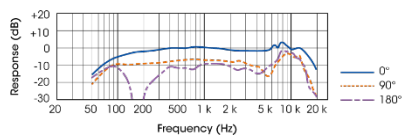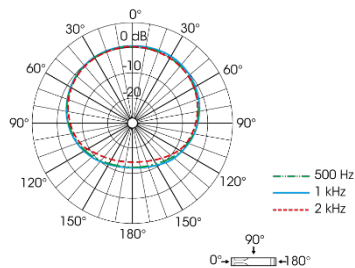
Specifications

	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] $\pm$3 dB	-32 dB[*1] $\pm$3 dB	-28 dB[*1] $\pm$3 dB	-36 dB[*1] $\pm$3 dB	-36 dB[*1] $\pm$3 dB
Output impedance (at 1 kHz)	100 Ω $\pm$20%		200 Ω $\pm$20%	220 Ω $\pm$20%	220 Ω $\pm$20%
Dynamic range	103 dB or more	104 dB or more	111 dB or more	+48 V Power supply : 107 dB or more, Battery: 98 dB or more	107 dB or more
Signal-to-noise ratio (IEC179A-weighted, 1 kHz, 1Pa)	73 dB or more	74 dB or more	78 dB or more	77 dB or more	77 dB or more
Inherent noise	21 dB SPL[*2] or less	20 dB SPL[*2] or less	16 dB SPL[*2] or less	17 dB SPL[*2] or less	17 dB SPL[*2] or less
Wind noise	55 dB SPL[*2] or less (with windscreen) 60 dB SPL[*2] (without windscreen)		60 dB SPL[*2] or less (without windscreen)	45 dB SPL[*2] or less (with windscreen), 50 dB SPL[*2] (without windscreen)	45 dB SPL[*2] or less (with windscreen), 50 dB SPL[*2] (without windscreen)
Induction noise from external magnetic field	0 dB SPL[*2] or less		0 dB SPL[*2] or less	0 dB SPL[*2] or less	0 dB SPL[*2] or less
Maximum input sound pressure level	124 dB SPL[*2]		127 dB SPL[*2]	+48 V Power supply : 124 dB SPL[*2], Battery: 115 dB SPL[*2]	124 dB SPL[*2]
Power requirements	External, DC 40 V to 52 V		External, DC 40 V to 52 V	External: DC 40 to 52 V, 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$\times$10^{-5} P

Specifications

	ECM-VG1	ECM-MS2	ECM-CG50BP
Mode	–	–	Monaural
Capsule type	Mono Electret Condenser	–	Electret condenser
Stereo type	–	MS (Mid-Side) stereo microphone	–
Directivity	Uni-directional (super-cardioid)	Uni-directional	Super-cardioid
Frequency response	40 Hz to 20 kHz	Stereo: 80 Hz to 20,000 Hz Monaural: 70 Hz to 20,000 Hz	40 Hz to 20 kHz
Sensitivity (at 1 kHz)	-33 dB[*1] ±3 dB	Stereo: -32 dB[*1] 1) Monaural: -36 dB 1)	-48 dB/Pa±4 dB *Specially tuned to be used with the camcorders AGC function
Output impedance(at 1 kHz)	60Ω±20%, Balanced	60Ω±20%, Balanced	–
Output connector	-	Cannon XLR-3-12C type x2	ø 3.5 gold coating L type stereo mini plug cable length Approx. 35 cm (13 7/8 in.)
Dynamic range	107 dB or more	100 dB or more	80 dB or more
Signal-to-noise ratio (IEC179A-weighted, 1 kHz, 1Pa)	76 dB or more	69 dB or more	76 dB or more
Inherent noise	18 dB SPL[*2] or less	25 dB SPL[*2] or less 2)	18 dB SPL[*2] (Average)
Wind noise	45 dB SPL[*2] or less (with windscreen)	45 dB SPL[*2] or less (with wind screen) 65 dB SPL or less (without wind screen)	–
Induction noise from external magnetic field	0 dB SPL[*2]	0 dB SPL[*2] /1 x 10-7 T (1 mG) or less	–
Maximum input sound pressure level	125 dB SPL[*2]	125 dB SPL[*2] or more (input level for 1% waveform distortion at 1 kHz, converted into equivalent input sound pressure level) 2)	100 dB SPL[*2] or more
Power requirements	External, DC 40 V to 52 V	External, DC 40 V to 52 V	Approx. 900 hours with one alkaline AA battery or plug-in power from audio jack of compatible camcorder
Dimensions	ø20 x 210 mm (ø13/16 x 8 3/8 inches)	ø20 x 137 mm (ø20 31/32 x 5 1/2 inches)	Approx. ø 21 mm × 261 mm (Ø 27/32 in × 10 3/8 in.) (excluding cord)
Mass	Approx. 66g (2.3 oz.)	Approx. 160g (5.6 oz.)	Approx. 85 g (3 oz.) (excluding battery)
Supplied Accessories	Windscreen (x1), Mic holder (1), Mic spacer (1), Stand adaptor (2), Operating instructions (1)	Wind screen (1), Cable tie (1), Operating instructions (1), Warranty booklet (1)	Shotgun microphone (1), Wind screen (1), Microphone holder (1), Microphone spacer(1), Set of printed documentation

*1 0 dB=1 V/Pa, 1 kHz
*2 0dB SPL=2×10^{-5} P

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	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.	Supplied with a Sony 4-pin connector (SMC9-4P), for use with the WRT-8B/822A/822B, UHF-synthesized transmitter, or DWT-B01 bodypack transmitter.	Supplied with a 3-pole locking mini plug for use with the bodypack transmitter included in the UWP series.	Supplied without a connector (pigtail), enabling users to choose connectors according to their transmitter.	Beige-colored model supplied without a connector (pigtail), enabling users to choose connectors according to their transmitter.
B	BC	BMP	BPT	FPT

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

Legend:

| B | BC | BMP | BPT | FPT |

Type of applicable interface.

/9X   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
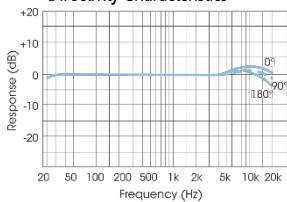
Lavalier microphone

ECM-88 series

B	BC	BMP	BPT	FPT

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.
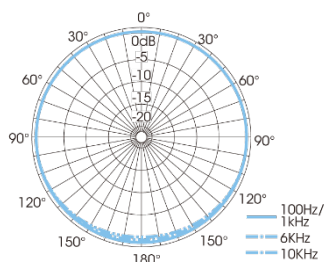
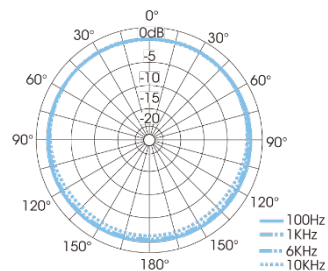Directivity Characteristics

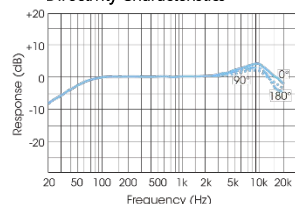Frequency Response Characteristics

ECM-77 series /9X

B	BC	BMP	BPT	FPT

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.
- Ideal for use with DWT-B01.

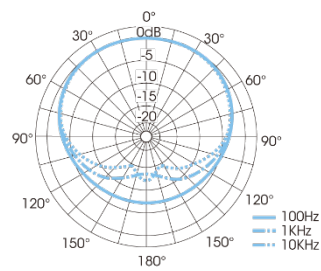Directivity Characteristics

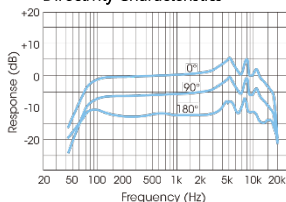Frequency Response Characteristics

ECM-66 series /9X

B	BC	BMP	BPT	FPT

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

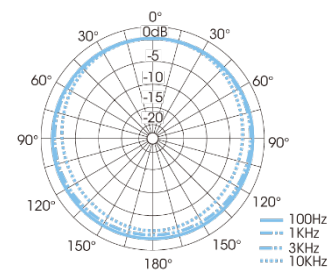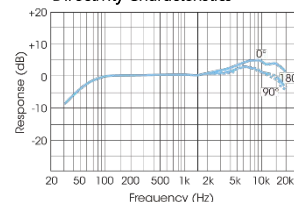Frequency Response Characteristics

ECM-55 series /9X

B	BC	BMP	BPT	FPT

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.
- Successor to the ECM-50 microphone, the world's first electret condenser lavalier microphone

Directivity Characteristics

Frequency Response Characteristics

ECM-44 series /9X

B	BC	BMP	BPT	FPT

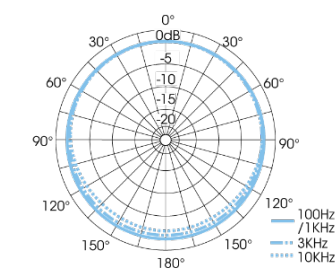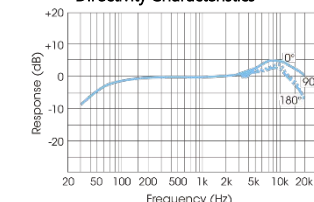### FEATURES

- 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.

Directivity Characteristics
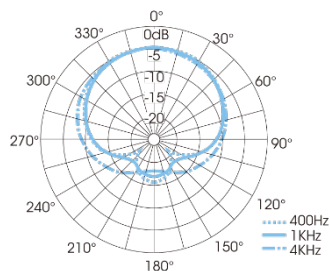
Frequency Response Characteristics
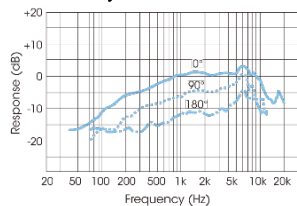
Lavalier microphone

ECM-166 series

B	BC	BMP	BPT	FPT

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.

ECM-V1BMP

B	BC	BMP	BPT	FPT

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.

ECM-X7BMP

B	BC	BMP	BPT	FPT

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.

ECM-FT5   For Digital

B	BC	BMP	BPT	FPT

FEATURES

- Flat-shape and ultra-miniaturel, 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.
- Ideal for use with DWT-B01.

Directivity Characteristics

Frequency Response Characteristics

Directivity Characteristics

Frequency Response Characteristics

Directivity Characteristics

Frequency Response Characteristics
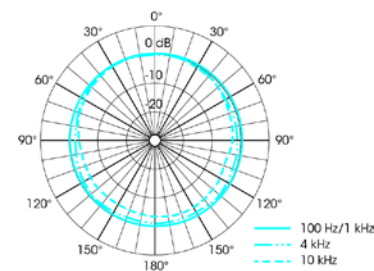
Directivity Characteristics
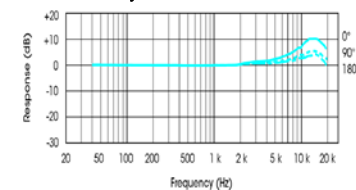
Frequency Response Characteristics

Lavalier / Headset microphone

ECM-322 series

B	BC	BMP	BPT	FPT

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.
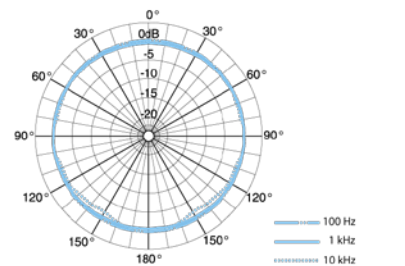
Directivity Characteristics
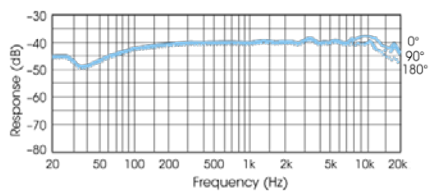
Frequency Response Characteristics
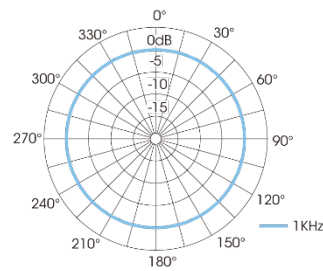
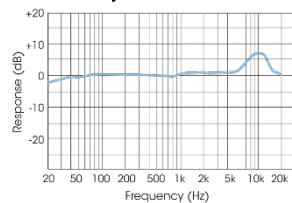## ECM-LZ1UBMP

B	BC	BMP	BPT	FPT

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.
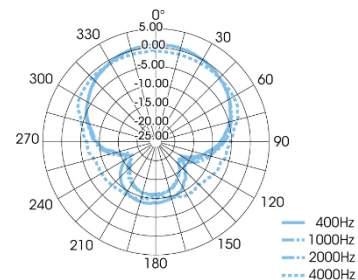
Directivity Characteristics
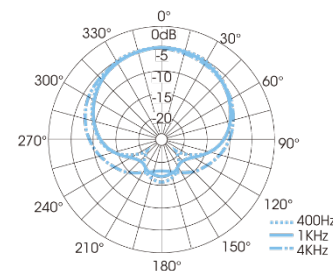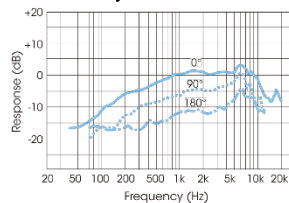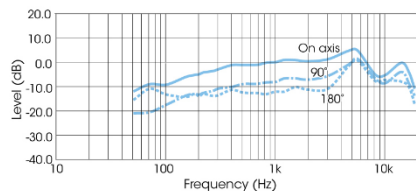
Frequency Response Characteristics

ECM-HZ1UMBP

B	BC	BMP	BPT	FPT

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.
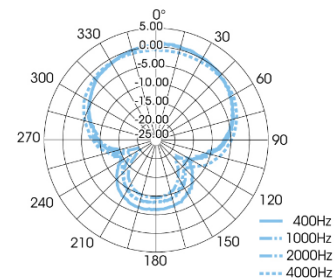
Directivity Characteristics
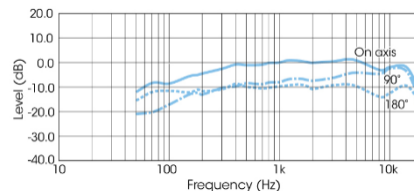
Frequency Response Characteristics

ECM-GZ1UBMP

B	BC	BMP	BPT	FPT

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

Specifications

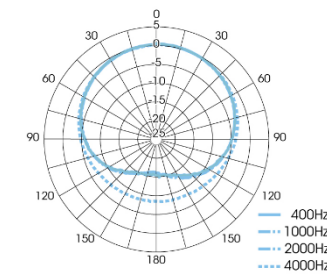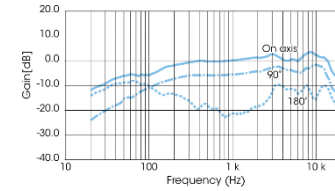|		ECM-88 Series	ECM-77 Series	ECM-66 Series	ECM-55 Series	ECM-44 Series
Model Variations	XLR type (Supplied with a battery unit and XLR-3-12C type connector.)	ECM-88B with supplied DC-78	ECM-77B	ECM-66B	ECM-55B	ECM-44B
	SMC type (Supplied with a Sony 4-pin <SMC9-4P> connector.)	ECM-88BC	ECM-77BC	ECM-66BC	—	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-88BPT ECM-88FPT	ECM-77BPT	—	—	ECM-44BPT
Capsule type		Electret Condenser	Electret Condenser	Electret Condenser	Electret Condenser	Electret Condenser
Frequency response		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	Uni-directional	Omni-directional	Omni-directional
Sensitivity (0 dB=1 V/Pa, at 1 kHz)	XLR type	−52.0 dB ± 2 dB[*1]	−52.0 dB ± 2 dB	−50.0 dB ± 2 dB	−52.0 dB ± 2 dB	−53.0 dB ± 3 dB
	SMC/BMP/Pigtail type	−39.0 dB ± 2 dB	−39.0 dB ± 2 dB	−36.5 dB ± 2 dB	—	−40.0 dB ± 3 dB
Output impedance at 1 kHz	XLR type	100 Ω ± 20% (balanced)[*1]	150 Ω ± 20% (balanced)	100 Ω ± 20% (balanced)	100 Ω ± 20% (balanced)	250 Ω ± 20% (balanced)
	SMC/BMP/Pigtail type	2.5 kΩ ± 30% (unbalanced)	2.5 kΩ ± 30% (unbalanced)	2.5 kΩ ± 30% (unbalanced)	—	2.5 kΩ ± 30% (unbalanced)
Dynamic Range		99 dB or more	90 dB or more	101 dB or more	98 dB or more	90 dB or more
Signal-to-noise ratio (A-weighted, 1 kHz, 1 Pa.)		68 dB or more	64 dB or more	65 dB or more	66 dB or more	62 dB or more
Inherent noise (0dB SPL = 2E-5 Pa.)		26 dB SPL or less	30 dB SPL or less	29 dB SPL or less	28 dB SPL or less	32 dB SPL or less
Wind noise (with windscreen, at 2m/s) (0 dB SPL = 2E-5 Pa.)		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
Induction noise from external magnetic field (dB SPL/1E-7 T, 0 dB SPL = 2E-5 Pa.)		5 dB SPL or less	5 dB SPL or less	5 dB SPL or less	5 dB SPL or less	5 dB SPL or less
Maximum input sound pressure level (0 dB SPL = 2E-5 Pa.)		125 dB SPL	120 dB SPL	130 dB SPL	126 dB SPL	122 dB SPL
Power supply (XLR type only)	Battery	IECR6 or LR6[*1]	IECR6 or LR6	IECR6 or LR6	IECR6 or LR6	IECR6 or LR6
	Battery life (LR6)	Approx. 6000 h[*1]	Approx. 6000 h	Approx. 400 h	Approx. 6000 h	Approx. 6000 h
	External power	DC 12 to 48 V[*1]	DC 12 to 48 V	DC 24 to 48 V	DC 12 to 48 V	—
Power requirements	XLR type	DC 1.5 V[*1]	DC 1.5 V	DC 1.5 V	DC 1.5 V	DC 1.5 V
	SMC/BMP/Pigtail type	DC 1.1 to 10.0 V	DC 1.1 to 10.0 V	DC 1.1 to 10.0 V	—	DC 1.1 to 10.0 V
Current drain	XLR type (internal battery)	0.3 mA or less[*1]	0.3 mA or less	3.5 mA or less	0.3 mA or less	0.3 mA or less
	XLR type (external battery)	2 mA or less[*1]	2 mA or less	2 mA or less	2 mA or less	—
	SMC/BMP/Pigtail type	0.4 mA or less	0.4 mA or less	0.4 mA or less	—	0.4 mA or less
Cable length	XLR type	2.5 m (8.2 feet)	3.0 m (9.8 feet)	3.0 m (9.8 feet)	3.0 m (9.8 feet)	3.0 m (9.8 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	2.5 m (8.2 feet)	3.0 m (9.8 feet)	—	—	3.0 m (9.8 feet)
Dimensions	Microphone head	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)	20.0 diameter x 144 mm (13/16 diameter x 5 3/4 inches)	20.0 diameter x 133 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 133 mm (13/16 diameter x 5 1/4 inches)	20.0 diameter x 126 mm (13/16 diameter x 5 inches)
Mass	Microphone head only	0.6 g (0.02 oz)	1.5 g (0.05 oz)	7 g (0.25 oz)	6.5 g (0.23 oz)	2 g (0.07 oz)
	Total XLR type	162 g (5.7 oz)	122 g (4.3 oz)	167 g (5.9 oz)	127 g (4.5 oz)	121 g (4.3 oz)
	SMC type	22 g (0.7 oz)	23 g (0.8 oz)	30 g (1.1 oz)	—	24 g (0.8 oz)
	BMP type	—	17 g (0.6 oz)	—	—	18 g (0.6 oz)
	Pigtail type	20 g (0.7 oz)	26 g (0.9 oz)	—	—	29 g (1.0 oz)
Supplied accessories		Single/Horizontal type tie clip (x1)[*2], Single/Vertical type tie clip (x1)[*2], Double/Horizontal type tie clip (x1)[*3], Urethane type windscreen (x1)[*2], Microphone case (x1)[*3], Operating instructions (x1), Operating instructions (x1), Ferrite clamp (x1)	Single/Horizontal type tie clip (x1)[*4], Single/Vertical type tie clip (x1)[*4], Double/Horizontal type tie clip (x1), Metal-mesh type windscreen (x1), Microphone case (x1)[*4], Operating instructions (x1)	Single/Horizontal type tie clip (x1)[*5], Single/Vertical type tie clip (x1)[*5], Urethane type windscreen (x1), Microphone case (x1), Operating instructions (x1)	Single/Horizontal type tie clip (x1), Single/Vertical type tie clip (x1), Double/Horizontal type tie clip (x1), Metal-mesh type windscreen (x1), Microphone case (x1), Operating instructions (x1)	Single/Horizontal type tie clip (x1), Urethane type windscreen (x1), Microphone case (x1)[*6], Operating instructions (x1)

*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-166BMP	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	Uni-directional	Uni-directional	Omni-directional
Sensitivity (0 dB=1 V/Pa, at 1 kHz)	XLR type	—	—	—	−56.0 ± 3 dB
	SMC/BMP/Pigtail type	−45.0 dB ± 3 dB	−43.0 dB ± 3 dB	−44.0 dB ± 3 dB	−43.0 dB ± 3 dB
Output impedance at 1 kHz	XLR type	—	—	—	150Ω±20% (balanced)
	SMC/BMP/Pigtail type	2.5 kΩ ± 30% (unbalanced)	1.2 kΩ ± 30% (unbalanced)	1.2 kΩ ± 30% (unbalanced)	1.2 kΩ ± 20% (unbalanced)
Dynamic Range		96 dB or more	86 dB or more	88 dB or more	108 dB or more
Signal-to-noise ratio (A-weighted, 1 kHz, 1 Pa.)		60 dB or more	60 dB or more	62 dB or more	68 dB or more
Inherent noise (0dB SPL = 2E-5 Pa.)		—	34 dB SPL or less	32 dB SPL or less	26 dB SPL or less
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)
Induction noise from external magnetic field (dB SPL/1E-7 T, 0 dB SPL = 2E-5 Pa.)		—	—	—	26 dB SPL or less
Maximum input sound pressure level (0 dB SPL = 2E-5 Pa.)		130 dB SPL	120 dB SPL	120 dB SPL	134 dB SPL (typ) (input level for 3% waveform distortion at 1 kHz, converted into equivalent input sound pressure level: 0 dB SPL=2x10-5 Pa)
Power supply (XLR type only)	Battery	—	—	—	IECR6 or LR6
	Battery life (LR6)	—	—	—	Approx. 9000 h
	External power	—	—	—	DC 11 to 52 V
Power requirements	XLR type	—	—	—	DC 1.5 V
	SMC/BMP/Pigtail type	DC 1.1 to 10.0 V	DC 5 V	DC 5 V	DC 1.1 to 10.0 V
Current drain	XLR type (internal battery)	—	—	—	0.2 mA or less
	XLR type (external battery)	—	—	—	2 mA or less
	SMC/BMP/Pigtail type	0.4 mA or less	0.2 mA or less	0.2 mA or less	0.2 mA or less
Cable length	XLR type	—	—	—	3.0 m (9.8 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	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)	—	—	—	20.0 diameter x 133 mm (13/16 diameter x 5 1/4 inches)
Mass	Microphone head only	3.5 g (0.12 oz)	—	—	1.7 g (0.06 oz.)
	Total — XLR type	—	—	—	137g(4.9 oz.) without battey
	SMC type	25 g (1.0 oz)	—	—	1.7 g (0.06 oz.)without cable and connector
	BMP type	19 g (0.7 oz)	16.2 g (0.57 oz)	18.0 g (0.63 oz)	1.7 g (0.06 oz.)without cable and connector
	Pigtail type	—	—	—	—
Supplied accessories		Single/Horizontal type tie clip (x1), Urethane type windscreen (x1), Operating instructions (x1	Single/Horizontal type tie clip (x1), Urethane type windscreen (x1), Operating instructions (x1)	Single/Horizontal type tie clip (x1), Urethane type windscreen (x1), Operating instructions (x1)	Wind screen (x1), Tie clip (x1), Taping mount (x1), Carrying case (x1), Operating instructions (x1)

*1 The characteristics are measured as UTX-B2V.

*2 The characteristics are measured as UTX-B2X.

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	—	—	—	—
	SMC/BMP/Pigtail type	−42 dB ± 3 dB	−31.0 dB ±3.0 dB	−31.0 dB ±3.0 dB	-55.0 dB ±3.0 dB
Output impedance at 1 kHz	XLR type	—	—	—	—
	SMC/BMP/Pigtail type	1.4 kΩ ± 30% (unbalanced)	1.4 kΩ ± 30% (unbalanced)	1.4 kΩ ± 30% (unbalanced)	600Ω±30%
Dynamic Range		81 dB or more	94dB or more	94dB or more	120dB or more
Signal-to-noise ratio (A-weighted, 1 kHz, 1 Pa.)		60 dB or more	68dB or more	68dB or more	64dB or more
Inherent noise (0dB SPL = 2E-5 Pa.)		34 dB SPL or less	26dB SPL or less	28dB SPL or less	30dBSPL or less
Wind noise (with windscreen, at 2m/s) (0 dB SPL = 2E-5 Pa.)		55 dB SPL or less (without windscreen)	—	—	—
Induction noise from external magnetic field (dB SPL/1E-7 T, 0 dB SPL = 2E-5 Pa.)		—	—	—	—
Maximum input sound pressure level (0 dB SPL = 2E-5 Pa.)		115 dB SPL	120dB SPL	120dB SPL	150dB SPL
Power supply (XLR type only)	Battery	—	—	—	—
	Battery life (LR6)	—	—	—	—
	External power	—	—	—	—
Power requirements	XLR type	—	—	—	—
	SMC/BMP/Pigtail type	DC 1.1 to 10.0 V	DC 1.5 to 10 V	DC 1.5 to 10 V	DC 3 to 10 V
Current drain	XLR type (internal battery)	—	—	—	—
	XLR type (external battery)	—	—	—	—
	SMC/BMP/Pigtail type	1.3 mA or less	0.6mA or less	0.6mA or less	0.6mA or less
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	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)	—	—	—	—
Mass	Microphone head only	—	—	—	—
	Total XLR type	—	—	—	—
	SMC type	10 g (0.4 oz) without connector	—	—	—
	BMP type	10 g (0.4 oz) without connector	5 g (0.18 oz) without connector	10 g (0.35 oz) without connector	25 g (0.9 oz) without connector
	Pigtail type	—	—	—	—
Supplied accessories		Headband (x1), clip (x1), Carrying case (x1), Operating instructions (x1)	Mic holder clip (x1), Windscreen (x1), Operating instructions (x1)	Headband (x1), Cord clip (x1), Windscreen (x1), Operating instructions (x1)	Windscreen (x1), Carrying pouch (x1), Operating instructions (x1)

Optional Accessories

|	ECM-88	ECM-77	ECM-66	ECM-55	ECM-44	ECM-166	ECM-V1	ECM-X7	ECM-LZ1UBMP	ECM-LZ1UBMP	ECM-LZ1UBMP
Single/Horizontal type tie clip	SAD-H88B (x 6)	SAD-H77B (x 10)	SAD-H55B (x 10)	SAD-H55B (x 10)	SAD-H44B (x 10)	—	SAD-HV1B2 (x 4)	SAD-HV1B (x 4)	SAD-HZ1B (x 4)	—	—
Single/Vertical type tie clip	SAD-V88B (x 6)	SAD-V77B (x 10)	—	—	—	—	—	—	—	—	—
Double/Horizontal Type tie clip	SAD-W88BL (x 6)	SAD-W77BL (x 6)	—	—	—	—	—	—	—	—	—
Safety-pin type microphone holder	SAD-S88B (x 6)	SAD-S77 (x 6)	—	—	—	—	—	—	—	—	—
Metal-mesh windscreen	—	AD-R77B (x 6)	—	AD-R55B (x 6)	—	—	—	—	—	—	—
Urethane windscreen	AD-R88B (x 12)	AD-C77B (x 12)	AD-R66B (x 12)	—	AD-R44B (x 12)	—	AD-RV1B2 (x 5)	AD-RX7 (x 6)	AD-RX7 (x 6)	AD-RX7 (x 6)	AD-RX7 (x 6)
Color windscreens	AD-C88 (x 2 sets)	AD-C77 (x 2 sets)	—	—	—	—	—	—	—	—	—
DC power supply unit (SMC9-4S to XLR 3-pin)	DC-78 Supplied with ECM-88B	DC-78	DC-78	—	DC-78	DC-78	—	—	—	—	—
Microphone accessory kit	AD-KIT88B	AD-KIT77	—	—	—	—	—	—	—	—	—

# 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.
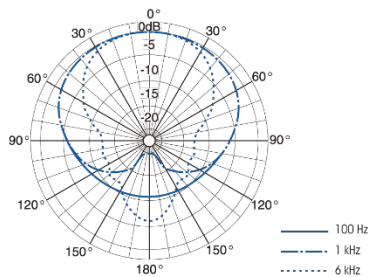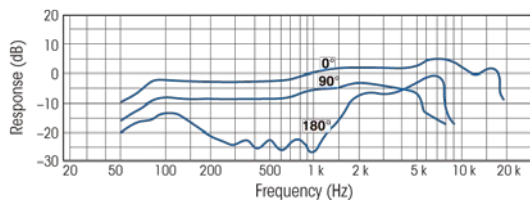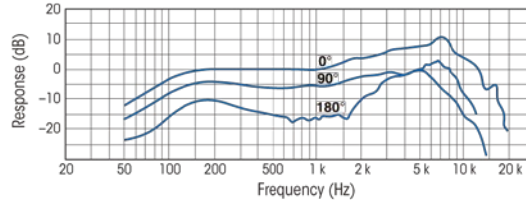
F-720
Uni-directional Dynamic Microphone

- 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
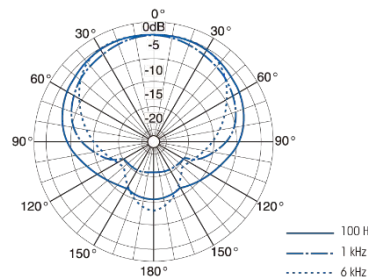
F-115B
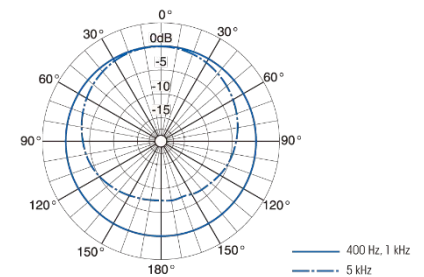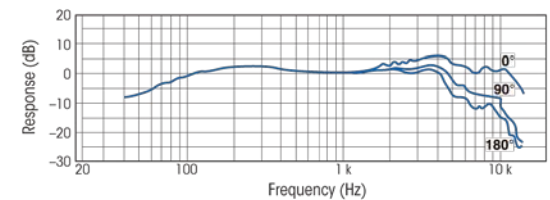### Omni-directional Dynamic Microphone

- 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

100 Hz
1 kHz
6 kHz

Frequency Response Characteristics

Directivity Characteristics

100 Hz
1 kHz
6 kHz

Frequency Response Characteristics

Directivity Characteristics

400 Hz, 1 kHz
5 kHz

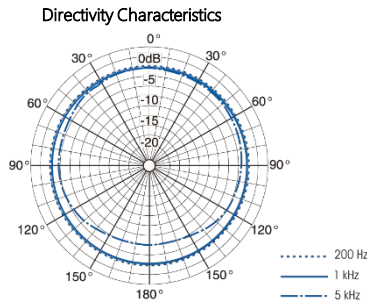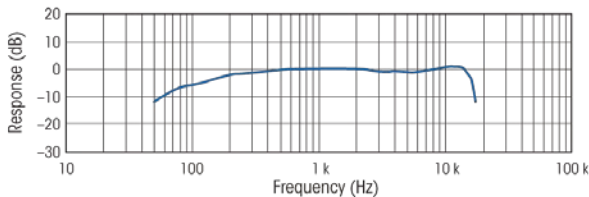**Frequency Response Characteristics**

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

Directivity Characteristics

- - - - - - 200 Hz
———— 1 kHz
—·—·— 5 kHz

Frequency Response Characteristics

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 at1 kHz)	-53 dB ±3 dB	-57 dB ±3 dB	-54 dB ±2 dB	-52 dB ±3 dB
Output impedance	400 Ω ±20%	500 Ω ±20%	400 Ω ±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	ø51 x 165 mm (ø2 1/8 x 6 1/2 inches)	ø37.6 x 160 mm (ø1 1/2 x 6 3/8 inches)	ø62 x 203 mm (ø2 1/2 x 8 inches)	ø41.4 x 220 mm (ø1 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

Mixer
Recorder
Headphones

Mixer

SRP-X700P Digital Powered Mixer

SRP-X700P with two URX-M2 tuner modules installed

- 6 x 1-AV switcher contains two RGB/component video inputs (with 5.1 surround sound), one RGB input (with stereo audio), and three composite/S-video inputs (with stereo audio)
- Integrated high-quality six-input mixer comprised of four microphone, two microphone/line, and two line inputs
- Mounting slots built in for two URX-M2 or WRU-806A/806B diversity receiver modules
- Audio-signal processing includes digital equalizer and dynamics processing for each microphone channel, plus on-board digital feedback reducer
- Built-in 200 W + 200 W (4 Ω), 150 W + 150 W (8 Ω), max. 150 W (70 V line) digital power amplifier

SRP-X500P Digital Powered Mixer

SRP-X500P with two URX-M2 tuner modules installed

- 5 x 1-AV switcher contains two RGB/component video inputs and three composite video inputs (each with stereo audio)
- Integrated high-quality audio mixer with four microphone inputs and one stereo line input
- Mounting slots built in for two URX-M2 or WRU-806A/806B diversity receiver modules
- Audio-signal processing includes digital equalizer and dynamics processing for each microphone channel, plus on-board digital feedback reducer
- Built-in four-channel digital power amplifier

SRP-X100 Rack Mount Audio Mixer

- 19-inch rack-mountable design
- Two microphone inputs (channel 1 to 2)
- Four mono inputs (channels 3 to 6, MIC/LINE switchable)
- Three stereo line inputs (channel 7 to 9)
- Master L and R outputs, switchable to mono outputs
- L/R Rec output carries all inputs (except channel 9 input to avoid feedback)
- Two mono sub outputs

Specifications

	SRP-X500P	SRP-X700P	SRP-X100P
Receiving channels	Two channels when accommodating two URX-M2 tuner modules included in the UWP-X7/X8 package		—
Receiving frequencies	566 MHz to 862 MHz	566 MHz to 862 MHz	—
Power requirements	AC 120/230 V, 50/60 Hz (CED/U2)	AC 120 V, 60 Hz (for U.S.A and Canada) AC 220 V, 50/60 Hz (for China) AC 230 V, 50/60 Hz (for other countries)	AC 120/230 V, 50/60 Hz (CED/U2)
Power consumption	150 W	120 W	19 W
Dimensions (W x H x D)	482 x 132 x 350 mm (19 x 5 1/4 x 13 7/8 inches)	482 x 132 x 357 mm (19 x 5 1/4 x 14 inches)	482 x 44 x 175 mm (19 x 1 3/4 x 7 inches)
Mass	Approx. 13 kg (28 lb 11 oz)	Approx.12 kg (26 lb 3 oz)	Approx. 2.6 kg (5 lb 12 oz)

Mixer

DMX-P01
Digital Portable Mixer

- Portable, digital field-mixer designed for ENG/EFP 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

LEFT PANEL

RIGHT PANEL

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 duuring playback*1
- Track Mark Support*2
- Dual Signal Path Mic Pre and ADC*3
- Cfade-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

PCM-M10
Portable Linear PCM Recorder

- User-friendly Operation
- 96kHz 24bit Recording
- 4GB Built-in Flash Memory
- 5 Second Pre-Record Buffer
- microSD / Memory Srick Micro (M2) Slot
- WAV and MP3 Format Record / Play
- Digital Pitch Control
- Sound Forge Audio Studio LE Software Included

Specifications

	PCM-D100	PCM-M10
Audio Formats Supported	Record: DSD, WAV and MP3; Playback: DSD, WAV, FLAC, MP3, WMA (Non DRM), AAC-LC (Non-DRM)	Record: .WAV and MP3; Playback: .WAV, .MP3, .WMA (Non DRM), .M4A (AAC-LC, Non-DRM)
Built-in Mic	Electret condenser microphones. Max input level: 128 dB SPL. Frequency response 20 Hz to 20 kHz	Electret condenser microphones. Max input level: 123 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	(Stereo Mini Jack) Input impedance: 22 k ohm, Rated input level: 2.5 mV; Minimum input level: 0.9 mV
Line Input (Analog)	(Stereo Mini Jack) Input impedance: 22k ohm; Minimum input level: 450mV; Rated input level: 2.0V	(Stereo Mini Jack) Input impedance: 22k ohms; Minimum input level: 500mV; Rated input level: 2.0V
Line Input (Optical)	Optical Digiital Input: Input level: -27 dBm to -14 dBm; Emission wavelength: 660 nm	NA
Line Output (Analog)	Output impedance: 220 ohms;Output level: 1.7V; Load impedance 22k ohms	Line out available from headphone jack (menu selectable)
Line Output (Optical)	Output level: -21dBm to -15 dBm	NA
Headphone Output	Stereo Mini Jack; Maximum output: 25 mW + 25 mW or more; Load impedance: 16 ohms	Stereo Mini Jack; Maximum output: 20 mW + 20 mW; Load impedance: 16 ohms
Frequency Response	20Hz - 50kHz (Line In) @ DSD2.8 ; 20Hz - 45kHz (Line In) @ LPCM 192kHz/24bit	20 Hz to 40 kHz (Line in) @ 96KHz
Sampling Frequency	DSD 2.8MHz; LPCM 192kHz/176.4kHz/96kHz/88.2kHz/48kHz/44.1kHz	22.05kHz, 44.1kHz, 48kHz and 96kHz
Quantization	16-bit LPCM, 24-bit PCM and 1-bit DSD	16-bit linear, 24-bit linear
S/N Ratio	DSD 98dB or greater; LPCM 24 bit 96dB or greater	87dB or greater (1KHz IHF-A) when set to 24-bit
Total Harmonic Distortion (Line Input to Line Output)	DSD: 0.008% or below (1kHz, 22kHz LPF)	0.03% 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)	Below measurable limit (less than +/- 0.001%W.Peak)
USB	High-speed USB,mass storage class	High-speed USB,mass storage class
Power Consumption	0.75w	0.27w
Power Requirements	Four AA size Alkaline batteries (supplied). Four AA NiMH Rechargable batteries (optional)	Two AA size Alkaline batteries (supplied). Two AA NiMH Rechargable batteries (optional)
DC Input Jack	6V	3V
Battery Life	25 hrs @44.1kHz/16 bit; 18 hrs @192kHz/24bit or 12 hrs @ DSD2.8	24 hrs @ 44.1KHz/16-bit or 19 hrs @ 96KHz/24-bit
Memory Stick Slot	Accepts SD, SD-HC,SD-XC, Memory Stick Pro Duo and Memory Stick Pro-HG	Accepts Memory Stick Micro (M2) and microSD
Dimensions	"2 7/8" x 6 1/8" x 1 1/4" (w x h x d) not including projecting parts and controls"	2 1/2" x 4 1/2" x 7/8" (w x h x d) not including projecting parts and controls
Weight	13.9 oz (including batteries)	6.6 oz (including batteries)

Products

MDR-7550
Professional In-Ear Headphones

- 16mm Driver Unit with ML Diaphragm
- In-Ear Monitor (IEM) Design
- Flexible Ear Hanger Ensures Superior Fit
- Hybrid Silicone/Rubber Earbuds, 3 Sizes Supplied
- Supplied Soft Case

MDR-7520
Professional Headphones

- 50mm Driver Unit with LCP Diaphragm
- Closed-Ear Design
- Wide Frequency Response
- High Power Handling Capacity 4,000mW
- Stereo Unimatch Plug
- Gold Connectors and OFC Cord
- Supplied Soft Case

MDR-7510
Professional Headphones

- 50mm Driver Unit with PET Diaphragm
- Closed-Ear Design
- Wide Frequency Response
- High Power Handling Capacity 2,000mW
- Stereo Unimatch Plug
- Gold Connectors and OFC Cord
- Supplied Soft Case

MDR-7506
Professional Headphones

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

MDR-7502
Professional Headphones

- 30mm Driver Unit
- Closed-Ear Design
- Stereo Unimatch Plug
- Gold Connectors and OFC Cord

Specifications

	MDR-7550	MDR-7520	MDR-7510	MDR-7506	MDR-7502
Headphone Type	Dynamic, In-Ear	Dynamic. Closed	Dynamic, Closed	Dynamic, closed	Dynamic, closed
Magnet Type	Neodymium	Neodymium	Neodymium	Neodymium	Neodymium
Driver Size	16.0 mm	50.0mm	50.0mm	40.0 mm	30.0 mm
Frequency Response	3-28kHz	5-80kHz	5-40kHz	10-20kHz	60-16kHz
Impedance	16 Ohms	24 Ohms	24 Ohms	63 Ohms	24 Ohms
Sensitivity	108 dB/mW	108 dB/mW	108 dB/mW	106 dB/W/m	102 dB/mW
Power Handling	500mW	4,000mW	2,000mW	1,000mW	500mW
Plug Type	Gold, Stereo Unimatch plug 1/4" and 1/8"	Gold, Stereo Unimatch plug 1/4" and 1/8"	Gold, Stereo Unimatch plug 1/4" and 1/8""	Gold, Stereo Unimatch plug 1/4" and 1/8"	Gold, Stereo Unimatch plug 1/4" and 1/8"
Cord Length	5.25 ft	9.8 ft	9.8 ft	9.8 ft	6.5 ft
Weight	.25 oz	9.5 oz	9.2 oz	8.1 oz	5.1 oz
Supplied Accessories	Carrying Case, UniMatch Plug, Silicone/Rubber Hybrid Earbuds, 3 Sizes	Carrying Pouch, Unimatch Plug	Carrying Pouch, Unimatch Plug	Carrying Bag, UniMatch Plug	Carrying Bag, UniMatch Plug

SONY

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