UHF-R[®] Wireless Microphone Systems



PREMIER WIRELESS TECHNOLOGY



UHF-R® Wireless Microphone Systems WIRELESS ON A NEW SCALE

Offering you more productivity, more reliability and more control, UHF-R is premier wireless technology that helps you master the complexities of large-scale wireless installations. UHF-R takes wireless to a completely new level.

Unparalleled control for complex installations.

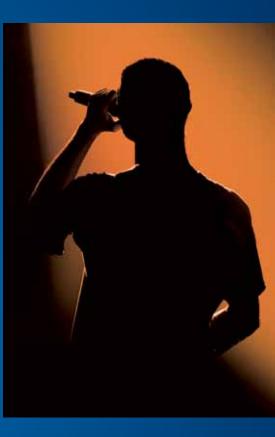
UHF-R automates setup and control operations to save you time and effort on even the most complex networked installations. UHF-R's usability innovations include networked Automatic Frequency Selection with group scan, infrared automatic transmitter sync and smart menu-driven system operation for fast setup and intuitive operation.

Superior RF performance and reliability for every installation.

With 2400 selectable frequencies across 60 MHz of bandwidth, UHF-R provides up to 40 simultaneous compatible systems per band. Advanced Track Tuning Filtering Technology, by shifting the RF filter along with the selected frequency, allows you to deploy this added bandwidth without audio degradation or interference. All UHF-R components – including the compact, sweat-resistant bodypack – are engineered to withstand the abuses of the road. You can rely on UHF-R for consistently reliable performance, always.

Crystal-clear audio that sounds more like wired.

Patented Audio Reference Companding technology delivers crystal-clear audio transmission, far superior to conventional wireless. Unlike other wireless systems, Shure uses a variable companding ratio that responds to the audio level – eliminating wireless artifacts and substantially increasing dynamic range.



SHURE WWB⁵

Scan, plan and command with included Wireless Workbench[®] Software

Wireless Workbench is your wireless command center for networked control of Shure UHF-R[®] series wireless systems. WWB takes the guesswork out of frequency coordination of any Shure Wireless product and provides a graphic display of your RF environment. Scan, plan, and command your wireless systems anywhere with the ultimate system control software from Shure.

Ethernet and USB Compatibility

No additional equipment required to connect to network hub.

Frequency Compatibility Calculator Wizard

Scans the RF environment to assess all networked hardware and recommends frequencies for all specified wireless systems.

Frequency Selection Wizard

Automatically scans and selects open frequencies for all networked UHF-R receivers.

Comprehensive Infrared Sync

Automatically syncs frequencies, custom groups, lockouts and power settings between transmitters and receivers via PC control.

Band Limiting Feature

View custom frequency band parameters to align with any country or regional RF guidelines that might conflict with the available bandwidth.

Custom Frequency Group Creation

Customize and save frequency groups for specific locations.

UHF-R[®] Features and Performance

Shure UHF-R[®] Wireless Systems master the intense pressure and extreme conditions of any touring or installation environment, while delivering unmatched Shure sound.



UR4S+ | UR4D+ Wireless Diversity Receiver

Available in Single Channel and Dual Channel versions.

Up to 3000 selectable frequencies across 75 MHz bandwidth (region dependent)

Track Tuning Filtering Technology

Up to 40 preset compatible systems per band

Up to 160 systems with multiple bands

Networked Automatic Frequency Selection

Infrared automatic transmitter sync (including custom group upload)

Flash memory to store six 60-channel custom frequency groups

Patented Audio Reference Companding technology

Multi-function bit-mapped backlit LCD

USB and Ethernet network control

and monitoring

Remoteable antennas



RF distribution ports allow up to 10 receivers to share a single pair of antennas.

UR5 Portable Diversity Wireless Receiver

Full bandwidth scan & sync at the touch of a button

2400 selectable frequencies across 60 MHz bandwidth

MTx (multi-transmitter) mode – assign and store open frequency information for quick recall across multiple transmitters

Feature-rich, hands-on navigation control

Headphone monitoring output jack

Mic & Aux-level balanced output

Camera shoe and plate mounting options

Full range of power options:

2 AA Batteries (up to 4 hours continuous use)

Shure Lithium Ion Rechargeable Battery (up to 8 hours continuous use)

DC Power



UR2 Handheld Transmitter

Switchable RF Power (10/50 mW, regionally dependent)

Frequency and Power lockout

Bit-mapped Backlit LCD

2 AA Batteries – Up to 8 hours continuous use

Infrared automatic transmitter sync

All-metal die-cast construction

Handheld

SM58[®] Dynamic Cardioid SM86 Condenser Cardioid SM87 Condenser Supercardioid Beta 58[®] Dynamic Supercardioid Beta 87A Condenser Supercardioid Beta 87C Condenser Cardioid KSM9 Condenser Switchable

Multi-function Displays

UHF-R's bitmapped LCD displays provide clear access and control for all integral system functions.





UR3 Plug-on Transmitter

Smart, ergonomic industrial design

Compatible with any wired XLR microphone

Microphone Preset List – Program custom settings per microphone for quick recall

Selectable Mic/Line-level input

Sweepable high-pass filter (35 – 210 Hz)

Switchable 48 V phantom power

2 AA Batteries – Up to 10 hours continuous use (Up to 4 hours with phantom power)



Accessories

A range of durable, tour-tested accessories are available to customize UHF-R systems for every application.

Power supply for UR1H – $\ensuremath{\text{PS22}}$

Passive Antenna Splitter Kit – **UA221** Recommended for 2 receivers.

In-line Antenna Amplifier – UA830

Antenna/Power Distribution System – **UA845** Recommended for 3 or more receivers. ½-Wave Omnidirectional Antenna – UA860
Active Directional Antenna – UA870
SMA to BNC cable for external antenna for UR1H – UA910
3 Pin Mini LEMO3 Conversion Kit for UR1M – WA335

3 Pin Mini LEMO3 Jack for Lavaliers – **WA336** Locking Bodypack Adapter for TQG connector (Included) – **WA340** Cloth Bodypack Pouch – **WA580** Neoprene pouch for UR1M and UR1M-LEMO3 – **WA581** Weather resistant pouch for UR1H – **WA582**

UR1 Bodypack Transmitter UR1H High-Power Bodypack Transmitter

Switchable RF Power (UR1) (10/50 mW or 10/100 mW, regionally dependent) 250 mW RF Power (UR1H) Magnesium construction (3.4 oz/97 g) Frequency and Power lockout Bit-mapped backlit LCD 2 AA batteries (8 hours UR1 / 4 hours UR1H) Infrared automatic transmitter sync Integrated DC power input (UR1H)

UR1M Micro-Bodypack Transmitter

Switchable RF Power (10 mW or 50 mW) Less than half the size of standard bodypacks Lightweight magnesium construction (2.2 oz/62 g) Conformal coated circuitry for enhanced sweat resistance Bit-mapped backlit LCD 2 AAA batteries – Up to 9 hours continuous use Audio level metering TQG or LEMO3 connector options Selectable battery metering by battery type



Front view (97.5 x 60 x 17 mm)



Side Vie



Front view (49 x 60 x 17 mm)

Side view

TA3F to XLR cable for UR5 – **WA451** TA3F to 3.5 mm cable for UR5 – **WA461** Camera Shoe Mount for UR5 – **AFP512** Plate Mounting for UR5 – **AFP522** Plate Mounting with DC Power for UR5 – **AFP522DC** Lithium Ion Rechargeable Battery for UR5 – **SB900**



UHF-R° System

RF Carrier Frequency Range	470–952 MHz (available frequencies depend upon applicable country regulations)			
Working Range	150 m (500 ft.) under typical conditions; 500 m (1640 ft) line of sight			
	(NOTE: Operating range depends on many variables, including RF signal absorption, reflection and interference)			
Audio Frequency Response	40-18,000 Hz, + 1/ -3 dB (NOTE: Overall system frequency response depends on the microphone element)			
System Distortion	0.3% THD typical			
(ref. +/-38 kHz deviation,				
1 kHz modulation)				
Dynamic Range	>102 dB or >110 dB A-weighted, region-dependent			
Ultimate Quieting	>105 dB A-weighted			
(ref. 45 kHz deviation)				
Operating Temperature Range	-18° to 57° C (0° to 135° F) (NOTE: Battery characteristics may limit this range)			

UHF-R® Receivers

	UR4S+ / UR4D+ Diversity Receiver	UR5 Premium Portable Receiver	
Overall Dimensions	43.5 mm H x 482.6 mm W x 365.38 mm D	83 mm H X 65 mm W X 22 mm D	
	(1.718 x 19.000 x 14.385 in.)	(3.26 x 2.559 x .866 in.)	
Net Weight	UR4S+ 5.0 kg (10.9 lbs) UR4D+ 5.1 kg (11.2 lbs)	200 g (with AA batteries)	
Audio Output Level	+24 dBu (-6 dBu mic)	Camera: adjustable -35 dBV to +10 dBV peak. Headphone: 100 mW	
Output Impedance	200 Ω (150 Ω mic)	n/a	
RF Sensitivity	UR4S+: -110 dBm typical for 12 dB SINAD; -106 dBm for 12 dB SINAD, -105 dBm typical for 30 dB SINAD -88 dBm for 30 dB SINAD UR4D+: -107 dBm typical for 12 dB SINAD; -88 dBm for 30 dB SINAD		
Image Rejection	-102 dBm typical for 30 dB SINAD 110 dB typical	(ref. 12 dB SINAD) >100 dB (typical)	
Spurious Rejection	90 dB typical	(ref. 12 dB SINAD) >80 dB (typical)	
Power Requirements	90 to 230 V AC, 50/60 Hz	2 AA batteries / 10-18 V DC [when used with DC power adapter]	
Power Consumption	UR4S+: 9.6 - 13.2 W; UR4D+: 12 - 16 W; UA845: 15 -16 W	5V (12.5 W Max) [when used with DC power adapter]	

UHF-R® Transmitters

	UR1M Micro-Bodypack	UR1 Bodypack / UR1H High Power	UR2 Handheld Transmitter	UR3 Plug-on Transmitter
Gain Adjustment Range	-20 dB to +35 dB	-20 dB to +35 dB	-10 dB to +20 dB	10 to +20 dB (Line Input Setting) -10 to +20 dB (Mic Input Setting)
Maximum Input Level:	+5 dBu (sensitivity 0 dB) +15 dBu (sensitivity -10 dB)	+10 dBu (sensitivity 0 dB), +20 dBu (sensitivity -10 dB)	+4.8 dBu	+24 dBV (Line Input, 0dB gain) -31 dBV (Mic Input, 0dB gain)
Input Impedance	200 kΩ TQG, 8.2 kΩ LEMO3	>1 MΩ	1 ΜΩ	4300 ohms LINE Input Setting 1800 ohms MIC Input Setting
Output Impedance	50 Ω	50 Ω	50 Ω	50 Ω
RF Power Output	10 mW or 10/50 mW (region dependent)	10 mW, 10/50 mW, or 10/100 mW (region dependent)	10 mW or 10/50 mW (region dependent)	10 mW or 50 mW (region dependent)
Housing	Cast magnesium	Cast magnesium	Aluminum die-cast handle and aluminum machined battery cup	Cast magnesium
Connector Types	LEMO3, TQG	—	_	XLR (female)
Power Requirements	2 AAA batteries (alkaline, lithium primary, or NiMH types)	2 AA (alkaline, lithium primary, or NiMH batteries)	2 AA (alkaline, lithium primary, or NiMH batteries)	2 AA (alkaline, lithium primary, or NiMH batteries)
Battery Life	8 hours typical	8 hours typical	8 hours typical	10 hours typical (no phantom power) 10 mW 4 hours typical (with 48 V phantom power) 50 mW
Overall Dimensions	49 mm L x 60 mm W x 17 mm D (1.92 x 2.38 x 0.66 in.)	97.5 mm L x 60 mm W x 17 mm D (3.84 x 2.38 x 0.66 in.)	254 mm L x 51 mm dia. (10 x 2 in.)	117 mm L x 36 mm W x 43 mm D (4.6 x 1.4 x 1.7 in)
Net Weight	62 g (22 oz) without batteries	97 g (3.4 oz) without batteries	Varies by capsule type	198 g (7.0 oz.) (with AA batteries)



PERFORMANCE™

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