

## ULX STANDARD

ULX Standard UHF systems represent a breakthrough in performance and price for both working musicians and professional sound installers. Multiple system configurations provide limitless options, each with a choice of legendary Shure microphone transmitters. Over 1400 selectable, pre-programmed frequencies are available, and Automatic Frequency Selection provides a straight shot to a clear channel.

## ULX PROFESSIONAL

Step up to ULX Professional wireless, UHF systems for working musicians and professional sound installers. Multiple system configurations provide limitless options, each with a choice of legendary Shure microphones. Up to 1400 selectable, pre-programmed frequencies are available, and Automatic Frequency Selection provides a straight shot to a clear channel. ULX Professional systems offer more advanced features and controls, including lockable settings and group scan function.

### ULXS4 DIVERSITY RECEIVER

- Automatic Frequency Selection
- Over 1400 selectable frequencies
- Predictive Diversity
- RF presence LED
- 5-segment audio meter
- 3-segment transmitter battery fuel gauge
- Multi-function LCD
- 1/2 rack design
- Detachable 1/4 wave antennas
- Durable plastic chassis
- Locking DC connector on the Power Supply
- XLR and 1/4" outputs
- Mic/line switchable XLR Output
- In line DC Power on Antenna Connections

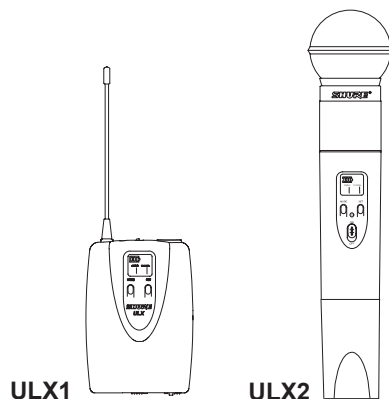
## ULXP4 DIVERSITY RECEIVER

- Automatic Frequency Selection with group scan function
- Over 1400 selectable frequencies
- Predictive Diversity
- 5-segment audio meter
- 5-segment RF meter
- Advanced multi-function LCD
- Squelch adjustment
- 1/2 rack design
- In-line DC power on antenna connections
- Remotable 1/2 wave antenna
- Frequency and volume lockout
- Rugged metal chassis
- Furnished rack hardware
- Locking DC connector on the power supply
- XLR and 1/4" outputs

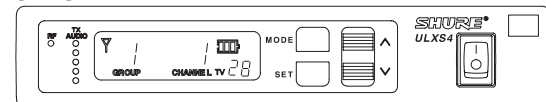
### ULX1 AND ULX2 TRANSMITTERS

- 3-segment battery fuel gauge
- Backlit LCD shows group and channel
- Adjustable Frequency settings
- Up to 1400 selectable frequencies
- Frequency and power lockout
- 8 hour battery life
- 300 ft (92m) operating range **Line of sight**
- -20dB pad switch on ULX1

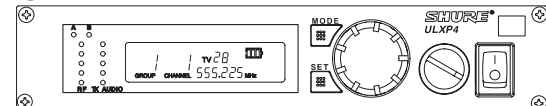
NOTE: Available frequencies depend on the applicable regulations in the country where the system is used.



ULXS4



ULXP4



# SPECIFICATIONS

## RF Carrier Frequency Range

470.000 to 865.000 MHz (Available frequencies depend on the applicable regulations in the country where the system is used). Refer to the frequency supplement supplied with the system.

## Effective Range

100 m (300 ft.) under optimal conditions

**NOTE:** Actual working range depends on RF signal absorption, reflection, and interference

## Audio Frequency Response

25 to 15,000 Hz,  $\pm 2$  dB

**NOTE:** Overall system frequency response depends on the microphone element.

## Transmitter Audio Polarity

Positive pressure on microphone diaphragm (or positive voltage applied to tip of WA302 phone plug) produces positive voltage on pin 2 (with respect to pin 3 of low impedance output) and the tip of the high impedance 1/4-inch output

## Transmitter Gain Adjustment Range

ULX1: 25 dB

ULX2: 25 dB

## Receiver Audio Output Level ( $\pm 38$ kHz deviation, 1 kHz tone)

XLR connector (into 600 ohm load): +3.9 dBV (line), -17 dBV (mic)

1/4 inch connector (into 3000 ohm load): -2 dBV

## Impedance

ULX1 (input): 1 Megohm ULXS4, ULXP4 (output): 50 ohms at line level; 2000 ohms at mic level

## Modulation

$\pm 38$  kHz deviation compressor-expander system with pre- and de-emphasis.

## RF Power Output

ULX1, ULX2: 30 mW maximum

## Dynamic Range

>100 dB, A-weighted

## RF Sensitivity

1.26  $\mu$ V for 12 dB SINAD (typical)

## Image Rejection

80 dB typical

## Spurious Rejection

75 dB typical

## Ultimate Quieting (reference $\pm 38$ kHz deviation)

>105 dB, A-weighted

## System Distortion (reference $\pm 38$ kHz deviation, 1 kHz modulation)

0.3% total harmonic distortion, typical

## Power Requirements

ULX1, ULX2: 9V alkaline battery; 8.4 V NiMH 500 mA optional

ULXS4, ULXP4: 14 - 18 Vdc (negative ground), 550 mA

## Battery Life

8 to 9 hours (with 9V alkaline battery)

## Operating Temperature Range

-20° to 49° C (-4° to 120° F)

**NOTE:** Battery characteristics may limit this range.

## Overall Dimensions

ULX1: 96.5 mm H x 67 mm W x 26.7 mm D (3.86 x 2.68 x 1.10 in.)

ULX2/SM58: 228.6 L x 51 mm Dia. (9 x 2 in.)

ULX2/BETA 58: 220.9 mm L x 51 mm Dia. (8.7 x 2 in.)

ULX2/SM86: 213 mm L x 49 mm Dia. (8.4 in x 1.9 in.)

ULX2/87, ULX2/BETA 87: 223.5 mm L x 51 mm Dia. (8.8 x 2 in.)

ULX4S: 43 mm H x 214 mm W x 163 mm D (1.72 in. x 8.56 in. x 6.52 in.)

ULX4P: 43 mm H x 214 mm W x 172 mm D (1.72 in. x 8.56 in. x 6.88 in.)

## Net Weight

ULX1: 79 g (2.8 oz.) without battery

ULX2/58, ULX2/BETA 58: 289 g (10.2 oz.) without battery

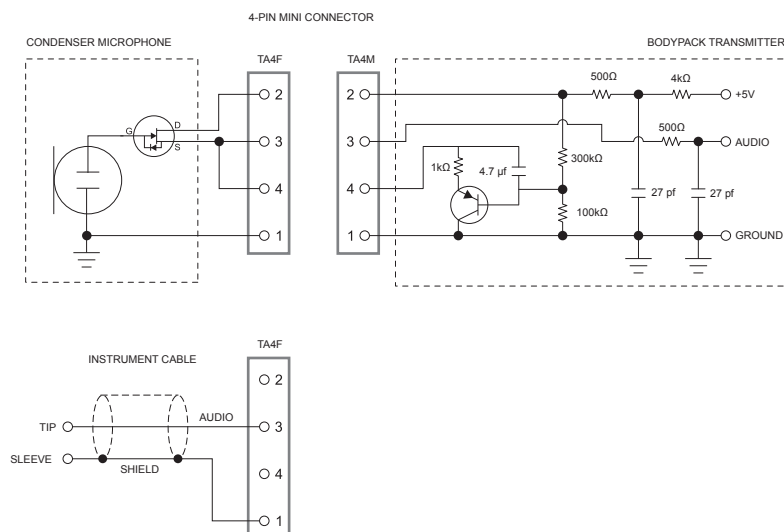
ULX2/SM86: 251 g (8.8 oz.) without battery

ULX2/87, ULX2/BETA 87: 258 g (9.1 oz.) without battery

ULXS4: 1049 g (2 lbs, 5 oz.)

ULXP4: 1105 g (2 lbs, 7 oz.)

## ULX1 Bodypack Transmitter



## ULX1 Transmitter Input

	Microphone (pins 3 and 4 tied together)	Guitar (with WA302)
Connector	TA4M	TA4M
Configuration	Unbalanced, active	Unbalanced, active
Actual Impedance	75 k $\Omega$	1 M $\Omega$
Maximum Input Level	-4 dBV (1.82 Vp-p)	Gain Switch 0 dB: 5 dBV (5 Vp-p)
		Gain Switch -20 dB: 25 dBV (50 Vp-p)
Pin Assignments	1 = Ground 2 = +5V through 4.5 k $\Omega$ (Microphone Bias) 3 = Audio 4 = FET active load	1 = Ground 2 = No Connection 3 = Audio 4 = No Connection

## ULX2 Transmitter Input

Configuration	Unbalanced, active
Actual Impedance	20 k $\Omega$
Maximum Input Level (1 kHz, 1% THD)	12 dBV (10 Vp-p)

## ULXP4, ULXS4 Receiver Audio Output

Connector	Unbalanced (1/4 in.)	Balanced (XLR)
Actual Impedance	3 k $\Omega$	Mic. Level: 1848 $\Omega$ Line Level: 75 $\Omega$
Pin Assignments	Tip = Hot Ring/Sleeve = Ground	1 = Ground 2 = Hot 3 = Cold
Phantom Power Protection?	Yes	Yes

## ULXP4, ULXS4 Receiver Antenna Input

Connector Type	BNC
Actual Impedance	50 $\Omega$
Nominal Input Level	-95 to -30 dBm
Maximum Input Level	+6 dBm (-20 dBm recommended)
Pin Assignments	Shell = Ground, Center = Signal
Voltage for Remote Power	12 Vdc, 150 mA maximum

## Furnished Accessories

Microphone Stand Adapter (ULX2)	WA371
Grip/Switch Cover (ULX2)	WA555
Zipper Bag (ULX1)	95A2313
Zipper Bag (ULX2)	95B2313
Screwdriver (ULX2)	80A498

## Optional Accessories

Passive Antenna Splitter/Combiner Kit	UA221
UHF In-Line Antenna Amplifier	UA830USTV
UHF Passive Omnidirectional Antenna	UA860SWB
Wall-Mounted Wideband Antenna	UA864US
UHF Powered Directional Antenna	UA870USTV
UHF Active Directional Antenna	UA874US
UHF Active Directional Antenna	UA874E
UHF Active Directional Antenna	UA874WB
UHF Active Directional Antenna	UA874X
UHF Antenna Power Distribution Amplifier (U.S.A.)	UA844SWB
UHF Antenna Power Distribution Amplifier (Europe)	UA844SWB-E
UHF Antenna Power Distribution Amplifier (UK)	UA844SWB-UK
33 m (100 ft.) BNC-BNC cable (RG213)	UA8100
1.8 m (6 ft.) BNC-BNC cable (RG58)	UA806
7.6 m (25 ft.) BNC-BNC Cable (RG8X)	UA825
15.2 m (50 ft.) BNC-BNC Cable (RG8X)	UA850
0.6 m (2 ft.) BNC-BNC Cable (RG58)	UA802
Four Antenna Rack Panel	UA440
Front Mount Antenna Kit (Includes 2 cables and 2 bulkhead adapters)	UA600
Remote Antenna Bracket with BNC Bulkhead Adapter	UA505
Rack Mount Antenna Kit for single Receiver	UA506
Rack Mount Kit for Two Receivers	UA507
Carrying Case	WA610
Microphone Adapter Cable (XLR to TA4F)	WA310

## Replacement Parts

AC Adapter (120 VAC, 60 Hz)	PS41
AC Adapter (220 VAC, 50 Hz)	PS41AR
AC Adapter (230 VAC, 50/60 Hz)	PS41AZ
AC Adapter (230 VAC, 50/60 Hz, Europlug)	PS41E
AC Adapter (230 VAC, 50/60 Hz)	PS41UK
AC Adapter (100 VAC, 50/60 Hz)	PS41J
SM58 <sup>®</sup> Cartridge with Grille (ULX2/58)	RPW112
BETA 58A <sup>®</sup> Cartridge with Grille (ULX2/BETA 58)	RPW118
SM86 Cartridge with Grille (ULX2/SM86)	RPW114
SM87A Cartridge with Grille (ULX2/87)	RPW116
BETA 87A Cartridge with Grille (ULX2/BETA 87A)	RPW120
BETA 87C Cartridge with Grille (ULX2/BETA 87C)	RPW122
Matte Silver Grille for SM58 <sup>®</sup>	RK143G
Matte Silver Grille for SM86	RPM226
Matte Silver Grille for BETA 58A <sup>®</sup>	RK265G
Matte Silver Grille for BETA 87A	RK312
Black Grille for SM87A	RK214G
Black Grille for BETA 58A	RPM323G
Black Grille for BETA 87A and BETA 87C	RPM324G
Belt Clip	44A8013A
1/4-Wave Antenna (470 - 752 MHz)	UA400B
1/4-Wave Antenna (774 - 952 MHz)	UA400
1/2-Wave Antenna (638 - 698 MHz)	UA820L3
1/2-Wave Antenna (554 - 590 MHz)	UA820D
1/2-Wave Antenna (740 - 814 MHz)	UA820Q
1/2-Wave Antenna (470 - 530 MHz)	UA820G
1/2-Wave Antenna (746 - 784 MHz)	UA820E
1/2-Wave Antenna (572 - 596 MHz)	UA820F
1/2-Wave Antenna (578 - 638 MHz)	UA820J



[www.shure.com](http://www.shure.com)

**United States, Canada, Latin  
America, Caribbean:**

Shure Incorporated  
5800 West Touhy Avenue  
Niles, IL 60714-4608 USA

Phone: +1-847-600-2000  
Fax: +1-847-600-1212 (USA)  
Fax: +1-847-600-6446  
Email: [info@shure.com](mailto:info@shure.com)

**Europe, Middle East, Africa:**

Shure Europe GmbH  
Jakob-Dieffenbacher-Str. 12,  
75031 Eppingen, Germany

Phone: +49-7262-92490  
Fax: +49-7262-9249114  
Email: [info@shure.de](mailto:info@shure.de)

**Asia, Pacific:**

Shure Asia Limited  
22/F, 625 King's Road  
North Point, Island East  
Hong Kong

Phone: 852-2893-4290  
Fax: 852-2893-4055  
Email: [info@shure.com.hk](mailto:info@shure.com.hk)