SHURE ®

LEGENDARY
PERFORMANCE™

ULX-D® Digital Wireless Systems

UNCOMPROMISING DIGITAL WIRELESS

GENERATIONS AHEAD

With ULX-D®, Shure has created a breakthrough digital wireless system that incorporates a collection of technological innovations into one easy-to-use professional wireless system. Offering an unparalleled mix of audio quality, RF performance, scalable hardware solutions, and intelligent battery technology, ULX-D defines the next generation of digital wireless excellence.

Transparent 24-Bit Digital Audio

A breakthrough in wireless audio quality, Shure digital processing enables ULX-D to deliver the purest reproduction of source material ever available in a wireless system.

Spectral Efficiency & Signal Stability

An incredible advancement in wireless performance, ULX-D enables rock-solid signal stability and a dramatically increased number of simultaneous active transmitters on one TV channel.

Optional Lithium Ion Rechargeability

Lithium Ion rechargeability provides over 11 hours of use on a single charge, while displaying battery life in hours and minutes accurate to 15 minutes.

Advanced Encryption

ULX-D offers Advanced Encryption Standard (AES) 256-bit encrypted signal for unbreachable privacy.
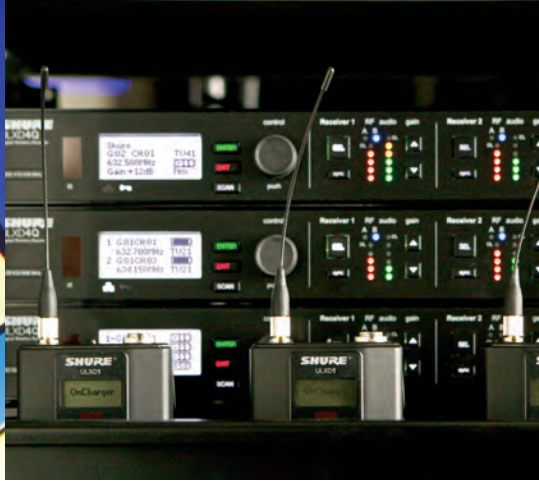
Networked Audio and Control

Ethernet networking enables streamlined setup across multiple receivers, Wireless Workbench® software integration, ShurePlus™ Channels mobile app compatibility and Dante™ digital networked audio.

Scalable Hardware

ULX-D receivers are available in single, dual and quad channel configurations, along with a wide selection of Shure microphones to accommodate any size installation.
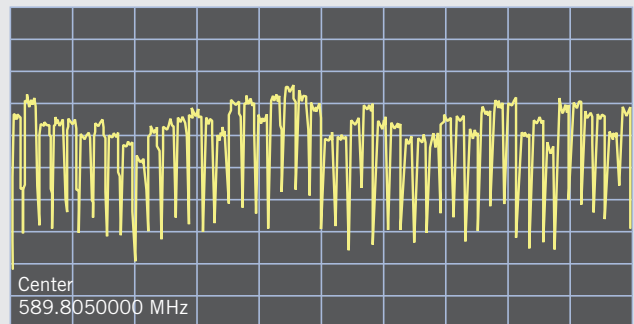
BREAKTHROUGH TECHNOLOGIES

ULX-D® Digital Wireless represents an incredible advancement in wireless performance. Shure innovation brings to market new features and technologies that dramatically increase spectrum efficiency, dependability, and signal routing convenience.

High Density Mode

Specifically designed for high channel count applications, High Density mode optimizes the system by running at 1mW RF transmit power and reducing the modulation bandwidth. The result is nearly three times the number of useable frequencies.

- Enables up to 47 ULX-D systems in an open 6MHz TV channel
- Channels can be tuned directly adjacent to each other in 125 kHz steps
- Operates with a range of up to 30 meters (100 ft) with line of sight

Actual spectrum scan of 47 channels over 6 MHz

Digital Audio Networking Over Ethernet

Dante is a total solution for transporting low latency uncompressed audio over standard IP Ethernet networks with sample accurate synchronization, automatic device discovery, and easy to use signal routing.

- Send multichannel audio from ULX-D receivers to Dante-equipped mixers over a single ethernet cable
- Auto-discovery and easy audio networking with Dante Controller
- Compatible with ULXD4D & ULXD4Q receivers

Bodypack Frequency Diversity

Frequency Diversity enhances the value of "double-packing" - sending the same audio from two transmitters with different radio frequencies. If problems occur with the reception of one frequency, ULX-D dual and quad receivers continue to provide flawless audio by automatically switching to the clean frequency.

- Safeguards against loss of audio signal caused by RF interference or by power loss in a transmitter
- Switching between channels occurs in milliseconds, without interruption to the audio signal
- Selectable option in ULXD4D & ULXD4Q receivers

ULX-D® TRANSMITTERS

ULXD1 WIRELESS
BODYPACK TRANSMITTER

ULXD2 WIRELESS
HANDHELD TRANSMITTER

SB900
Shure Rechargeable Battery

SBC200
Dual Docking Charging Station

SBC800
Eight Battery Charging Station

Transmitter Features

- Flat frequency response (actual response is microphone dependent)
- >120 dB dynamic range
- AES 256-bit encryption for secure transmission
- No transmitter gain adjustments needed - optimized for any input source
- High Density mode enabled via IR sync
- Shure SB900 lithium-ion rechargeable battery provides over 11 hours of battery life, precision metering, and zero memory effect
- External charging contacts for docked charging (with the SBC200 Dual Docking Charger)
- Up to 11 hours continuous use with 2 x AA alkaline batteries
- Backlit LCD with easy to navigate menu and controls
- 100 meter (300 feet) line-of-sight operating range
- Rugged metal construction
- Frequency and power lockout
- Interchangeable Shure microphone cartridges, including the legendary SM58® (ULXD2)
- 4-pin TQG connector (ULXD1)
- Transmitter Mute Mode repurposes the on/off switch into a mute switch, enabling audio muting while preserving RF channel presence
- Detachable ¼ wave antenna (ULXD1)

Rechargeable Features

- Advanced, intelligent Lithium-Ion chemistry
- Transmitters and receivers display remaining battery life in hours and minutes accurate to within 15 minutes
- Full charge within three hours and 50% charge in one hour – charge status LEDs for each battery
- Compatible with ULX-D transmitters, PSM®900 and PSM®1000 bodypack receivers, and the UHF-R® UR5 portable receiver

ULX-D® RECEIVERS

ULXD4 DIGITAL WIRELESS RECEIVER

ULXD4D DUAL CHANNEL DIGITAL WIRELESS RECEIVER

ULXD4Q QUAD CHANNEL DIGITAL WIRELESS RECEIVER
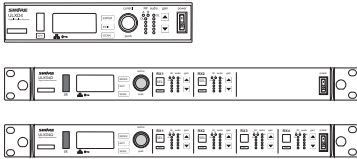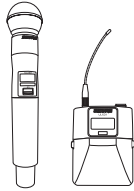

Receiver Features

- 24-bit/48 kHz digital audio
- 20 Hz – 20 kHz frequency range with flat response
- Greater than 120 dB dynamic range
- 60 dB of adjustable system gain per channel
- Digital predictive switching diversity
- Up to 64 MHz overall tuning range (region dependent)
- Up to 17 active transmitters in one 6 MHz TV channel
- High Density mode enables up to 47 active transmitters in one 6 MHz TV channel
- Rock-solid signal stability with no audio artifacts over the entire range

- Optimized scanning automatically prioritizes and delivers the cleanest frequencies
- AES 256-bit encryption equipped for secure wireless transmission
- Ethernet networking for streamlined setup across multiple receivers
- Wireless Workbench 6 Software for advanced coordination and control
- ShurePlus™ Channels mobile app compatible
- Comprehensive 3rd party control and monitoring across subnets
- AXT600 Axient® Spectrum Manager compatibility
- Remoteable ½ wave antennas
- Furnished rack hardware

Dual and Quad Receiver Features

- Two or four receivers in a rugged 1RU metal chassis
- Internal power supply
- RF cascade ports
- Bodypack Frequency Diversity to ensure uninterrupted audio
- Yamaha® device ID allows simplified channel patching on CL consoles

  "YAMAHA" is a registered trademark of Yamaha Corporation.

- Audio summing - routes two or more audio channels to combinations of receiver outputs. Use each channel's gain adjustment to reach the desired mix.
- Dante™ digital networked audio over Ethernet for easy digital connectivity to Dante-enabled mixers

ULX-D® Digital Wireless Specifications (Note: All specifications are subject to change.)

System

RF Carrier Range	470–932 MHz, varies by region
Image Rejection	>70 dB, typical
Latency	<2.9 ms
RF Sensitivity	-98 dBm at 10^{-5} BER
Working Range	100 m (328 ft) line-of-sight *Note: Actual range depends on RF signal absorption, reflection and interference.*
Audio Frequency Range	20 Hz to 20 kHz *Note: Dependent on microphone type*
Audio Dynamic Range (System Gain @ +10)	Analog Output: >120 dB, A-weighted Dante™ Digital Output: 130 dB (typical), A-weighted
Total Harmonic Distortion (–12 dBFS input, System Gain @ +10)	<0.1%
Operating Temperature Range	-18°C (0°F) to 50°C (122°F) *Note: Battery characteristics may limit this range.*

Receivers

Dimensions	ULXD4: 171 x 197 x 42 mm (W x D x H) ULXD4D, ULXD4Q: 482 x 274 x 44 mm (W x D x H)
Weight	ULXD4: 0.9 Kg (2.0 lbs), without antennas ULXD4D: 3.36 Kg (7.4 lbs), without antennas ULXD4Q: 3.45 Kg (7.6 lbs), without antennas
Power Requirements	ULXD4: 15 V DC @ 0.6 A, supplied by external power supply (tip positive) ULXD4D: 100 to 240 V AC, 50-60 Hz, 0.26 A max. ULXD4Q: 100 to 240 V AC, 50-60 Hz, 0.32 A max.
Gain Adjustment Range	-18 to +42 dB in 1 dB steps (plus Mute setting)
Full Scale Output	¼" (6.35 mm): +12 dBV (ULXD4 only) XLR: LINE setting= +18 dBV, MIC setting= -12 dBV (all models)
Network Interface	ULXD4: Single Port Ethernet 10/100 Mbps ULXD4D, ULXD4Q: Dual Port Ethernet 1 Gbps
Network Addressing Capability	DHCP or Manual IP address, with or without gateway
Housing	ULXD4: Galvanized steel ULXD4D, ULXD4Q: Steel; Extruded Aluminum

Transmitters

Dimensions	ULXD1: 86 mm x 66 mm x 23 mm (3.4 in. x 2.6 in. x 0.9 in.) H x W x D ULXD2: 256 mm x 51 mm (10.1 in. x 2.0 in.) L x Dia.
Weight	ULXD1: 142 g (5.0 oz.), without batteries ULXD2: 340 g (12.0 oz.), without batteries
Battery Runtime @ 10 mW	Shure SB900 Rechargeable Li-Ion: >11 hours 2 x AA Alkaline: <11 hours
Power	1 mW, 10 mW, 20 mW *See Frequency Range and Output Power table, varies by region*
Housing	ULXD1: Cast Aluminum ULXD2: Machined Aluminum
Antenna Type	ULXD1: ¼ wave detachable ULXD2: Integrated single band helical