

# ULX-D®

# DIGITAL WIRELESS SYSTEMS



## UHF VERSION

Shure ULX-D® Digital Wireless offers uncompromising 24-bit audio clarity and extremely efficient RF performance with single, dual, and quad channel receivers for any size professional sound reinforcement application. Generations ahead of any other available system in its class, ULX-D brings a new level of performance to professional sound reinforcement.

### UNCOMPROMISING PROFESSIONAL DIGITAL WIRELESS

24-bit/48 kHz digital audio that delivers incredibly clear and accurate sound reproduction  
20 Hz – 20 kHz frequency range with flat response  
Greater than 120 dB dynamic range  
Wide selection of trusted Shure Microphones  
Available in UHF and VHF

### EXTREMELY EFFICIENT AND RELIABLE RF PERFORMANCE

Rock-solid signal stability with no audio artifacts over the entire 100 meter range  
Optimized scanning automatically finds, prioritizes, and selects the cleanest frequencies available

### SCALABLE, INTELLIGENT HARDWARE

Single (half-rack), Dual and Quad (full-rack) receiver form factors  
AES 256-bit encryption equipped for secure wireless transmission  
Dante Domain Manager compatible  
Wireless Workbench® 6 compatible for advanced coordination, monitoring and control; features Site Survey tool for scanning frequencies  
Compatible with the Shure SB900A Rechargeable Battery and SBC chargers

## APPLICATIONS

Installed Audio

Critical Audio Performances

High channel counts

Secure presentations

## PRODUCT HIGHLIGHTS

24-bit/48 kHz Digital Wireless Audio

High Density Mode

Single, Dual, and Quad Channel Receivers

Available in 9 MHz tuning bandwidth (694 - 703 MHz) and 10 MHz tuning bandwidth (748 - 758 MHz)

694 - 703 MHz band : up to 24 preset compatible systems in Standard mode and up to 66 compatible systems in High Density mode

748 - 758 MHz band : up to 27 preset compatible systems in Standard mode and up to 76 compatible systems in High Density mode

Advanced Rechargeability

Dante Domain Manager Compatible

Boundary and Gooseneck Base Transmitters are available in black and white color options

**SHURE**

# ULX-D® DIGITAL WIRELESS SYSTEMS

## SPECIFICATIONS

(SUBJECT TO CHANGE)

|                                                                |                                                                                                                                                                  |
|----------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| RF Carrier Range                                               | 694-703MHz (M19 Band for Thailand)<br>748-758MHz (Q12 Band for Thailand)                                                                                         |
| Working Range                                                  | 100 m (328 ft)<br>Note: Actual range depends on RF signal absorption, reflection and interference.                                                               |
| RF Tuning Step Size                                            | 25 kHz, varies by region                                                                                                                                         |
| Image Rejection                                                | >70 dB, typical                                                                                                                                                  |
| RF Sensitivity                                                 | -98dBm at 10 <sup>-5</sup> BER                                                                                                                                   |
| Latency                                                        | <2.9 ms                                                                                                                                                          |
| Audio Frequency Response                                       | ULXD1: 20 Hz – 20 kHz (±1 dB) ULXD2: 30 Hz – 20 kHz (±1 dB)<br>Note: Dependent on microphone type                                                                |
| Audio Dynamic Range System Gain @ +10                          | XLR Analog Output: >120 dB, A-weighted<br>Dante Digital Output (Dual and Quad receivers): 130 dB (typical), A-weighted                                           |
| Total Harmonic Distortion<br>–12 dBFS input, System Gain @ +10 | <0.1%                                                                                                                                                            |
| System Audio Polarity                                          | Positive pressure on microphone diaphragm produces positive voltage on pin 2 (with respect to pin 3 of XLR output) and the tip of the 6.35 mm (1/4-inch) output. |
| Operating Temperature Range                                    | –18 °C (0 °F) to 50 °C (122 °F) Note: Battery characteristics may limit this range.                                                                              |
| Storage Temperature Range                                      | –29°C (–20°F) to 74°C (165°F) Note: Battery characteristics may limit this range.                                                                                |

## FREQUENCY RANGE

| Band           | Range (MHz)              | Transmitter Output (mW)                                                 |
|----------------|--------------------------|-------------------------------------------------------------------------|
| V50            | 174 to 216               | 1/10/20                                                                 |
| V51            | 174 to 216               | 1/10/20                                                                 |
| G50            | 470 to 534               | 1/10/20                                                                 |
| G51            | 470 to 534               | 1/10/20                                                                 |
| G52            | 479 to 534               | 1/10                                                                    |
| H50            | 534 to 598               | 1/10/20                                                                 |
| H51            | 534 to 598               | 1/10/20                                                                 |
| H52            | 534 to 565               | 1/10                                                                    |
| J50            | 572 to 636               | 1/10/20                                                                 |
| K51            | 606 to 670               | 1/10                                                                    |
| L50            | 632 to 696               | 1/10/20                                                                 |
| L51            | 632 to 696               | 1/10/20                                                                 |
| M19            | 694 to 703               | 1/10/20                                                                 |
| P51            | 710 to 782               | 1/10/20                                                                 |
| R51            | 800 to 810               | 1/10/20                                                                 |
| JB (Tx only)   | 806 to 810               | 1/10                                                                    |
| AB (Rx and Tx) | 770 to 810               | "A" band (770.250-805.750): 1/10/20<br>"B" band (806.125-809.750): 1/10 |
| Q12            | 748 to 758               | 1/10/20                                                                 |
| X52            | 902 to 928               | 1/10/20                                                                 |
| X50            | 925 to 932               | 1/10                                                                    |
| X51            | 925 to 937.5             | 1/10                                                                    |
| X52            | 902 to 928               | 0.25/10/20                                                              |
| X53            | 902 to 907.5; 915 to 928 | 0.25/10/20                                                              |
| X54            | 915 to 928               | 0.25/10/20                                                              |
| Z16            | 1240 to 1260             | 1/10/20                                                                 |

\*Note: Not all frequencies available in all regions. Contact your authorized Shure dealer for availability.

### NOTE:

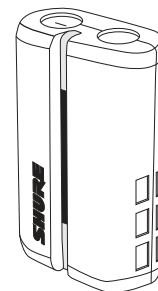
This Radio equipment is intended for use in musical professional entertainment and similar applications. This Radio apparatus may be capable of operating on some frequencies not authorized in your region. Please contact your national authority to obtain information on authorized frequencies and RF power levels for wireless microphone products.

## RECHARGEABLE POWER MANAGEMENT

(sold separately)

### SB900A RECHARGEABLE BATTERY

ULX-D transmitters are compatible with the SB900A lithium-ion rechargeable battery, which provides over 9 hours of continuous use and precise tracking of remaining life and charge cycle details.



### SBC200 DUAL DOCKING RECHARGING STATION

This compact and portable unit charges batteries while in transmitters or out. Up to 4 SBC200's can be chained together to run off one power supply.

### SBC220 2-BAY NETWORKED CHARGING STATION

Enables docked charging and storage for any combination of two SB900A batteries or ULXD1, ULXD2 wireless transmitters. When connected to a network, the charging status of each transmitter can be viewed remotely. Up to four SBC220 units can be linked together to share power and network connectivity.

### SBC800 EIGHT BATTERY RECHARGING STATION

This compact and portable unit charges up to 8 SB900A batteries to full capacity within 3 hours, with status LEDs to indicate power levels. SB900A batteries fit securely in the charger for easy, efficient storage and transport.

## BATTERY RUNTIMES

(Note: Frequency Band Dependent)

| BATTERY TYPE | 1 MW        | 10 MW       | 20 MW     |
|--------------|-------------|-------------|-----------|
| SB900A       | > 9 hours   | > 9 hours   | > 7 hours |
| Alkaline     | > 8 hours   | > 8 hours   | < 6 hours |
| NiMH         | > 8 hours   | > 8 hours   | < 6 hours |
| Li-primary   | 10-16 hours | 10-16 hours | 7-9 hours |

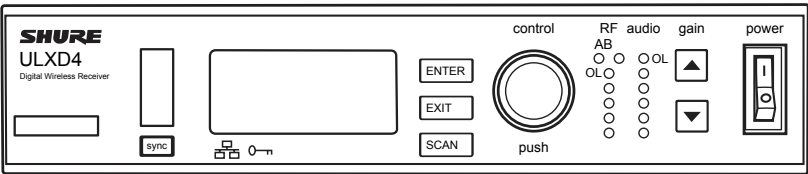
# ULXD4 DIGITAL WIRELESS RECEIVER

## OVERVIEW

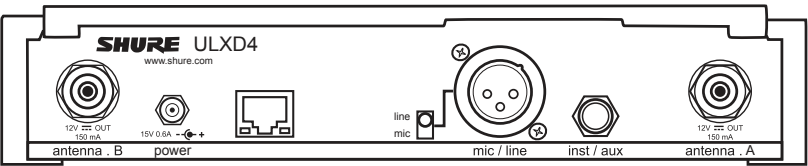
The Shure ULXD4 is a half-rack wireless receiver for use with ULX-D® Digital Wireless Systems. With an expansive set of professional features, including 24-bit/48kHz digital audio quality, efficient and intelligent RF performance, and AES 256-bit encryption, ULX-D offers uncompromising wireless tailored for professional sound reinforcement.

## FEATURES

- Predictive switching diversity
- Intelligent scanning automatically finds and deploys the cleanest frequencies to transmitters over IR sync
- Interference detection and alerts provided on both the receiver and WWB6
- Front panel gain adjustment buttons provide up to 60 dB additional gain
- AES 256-bit encryption-enabled for applications where secure transmission is needed
- Ethernet networking for streamlined setup across multiple receivers, WWB6 integration (coming soon), and AMX/Crestron control
- Support for frequency coordination with Axient Spectrum Manager (coming soon)
- Rugged metal chassis
- Intuitive front panel LCD menu and controls
- Easily readable Upgraded LCD with adjustable contrast and brightness
- Audio and RF LED meters with peak indicator
- Front panel lockout
- XLR and ¼" outputs
- Remoteable ½ wave antennas
- Furnished rack hardware



ULXD4  
Front Panel



ULXD4  
Back Panel

## AVAILABLE MODELS

|             |                                  |
|-------------|----------------------------------|
| ULXD4A==M19 | Wireless Receiver Single Channel |
| ULXD4A==Q12 |                                  |

## SPECIFICATIONS

(SUBJECT TO CHANGE)

|            |                                                                           |
|------------|---------------------------------------------------------------------------|
| Dimensions | 197 mm × 171 mm × 42 mm<br>(7.75 in. × 6.75 in. × 1.65 in.),<br>H × W × D |
| Weight     | 913 g (2.0 lbs), without antennas                                         |
| Housing    | Galvanized Steel                                                          |

### RF OUTPUT

|                    |                                              |
|--------------------|----------------------------------------------|
| Spurious Rejection | >80 dB, typical                              |
| Connector Type     | BNC                                          |
| Impedance          | 50 Ω                                         |
| Bias Voltage       | 12 - 13 V DC, 170 mA maximum,<br>per antenna |

### AUDIO INPUT

|                          |                                                                                                                                         |
|--------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| Gain Adjustment Range    | -18 to +42 dB in 1 dB steps (plus Mute setting)                                                                                         |
| Configuration            | 1/4" (6.35 mm):<br>Impedance balanced (Tip=audio,<br>Ring=no audio, Sleeve=ground)<br>XLR: Balanced<br>(1=ground, 2=audio +, 3=audio -) |
| Impedance                | 1/4" (6.35 mm):<br>100 Ω (50 Ω Unbalanced)<br>XLR: 100 Ω                                                                                |
| Full Scale Output        | 1/4" (6.35 mm): +12 dB<br>XLR: LINE setting= +18 dBV, MIC setting= -12 dBV                                                              |
| Mic/Line Switch          | 30 dB pad                                                                                                                               |
| Phantom Power Protection | 1/4" (6.35 mm): Yes<br>XLR: Yes                                                                                                         |

### NETWORKING

|                               |                                  |
|-------------------------------|----------------------------------|
| Power Over Ethernet (PoE)     | No, protected                    |
| Network Interface             | Single Port Ethernet 10/100 Mbps |
| Network Addressing Capability | DHCP or Manual IP address        |
| Maximum Ethernet Cable Length | 100 m (328 ft)                   |



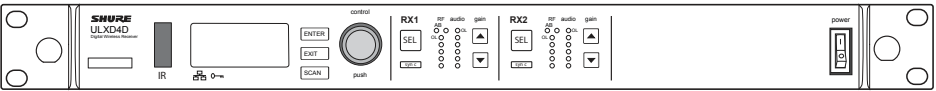
# COMPONENT SPECIFICATIONS

## ULXD4D DUAL CHANNEL DIGITAL WIRELESS RECEIVER

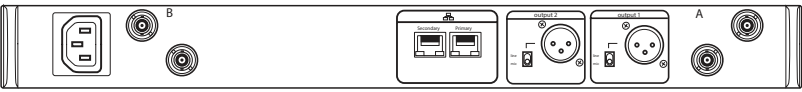
### OVERVIEW

The Shure ULXD4D Dual Channel Digital Wireless Receiver offers two channels of uncompromising audio quality, RF signal stability, and advanced setup features in a space-efficient single rack unit. Digital wireless processing delivers premium 24-bit/48 kHz audio and RF spectrum efficiencies that dramatically increase the number of available compatible channels. With an expansive set of enhanced features including AES 256-bit encryption for security and Dante™ digital networking for audio over Ethernet, the ULXD4D brings a new level of performance to professional sound reinforcement.

- Two receivers in a rugged 1RU metal chassis with internal power supply
- Individual gain controls, LED meters, and XLR outputs for each channel
- Digital predictive switching diversity
- High Density mode optimizes ULX-D systems to simultaneously operate significantly more channels in applications up to 30 meters
- RF cascade ports allow distribution of RF signal to another unit
- Optimized scanning automatically finds, prioritizes, and deploys the cleanest frequencies to transmitters over IR sync
- Bodypack Frequency Diversity ensures uninterrupted audio for mission-critical applications
- AES 256-bit encryption-enabled for secure transmission
- Audio summing routes both audio channels to each XLR receiver output
- Dante Domain Manager compatible
- Up to 60 dB independently adjustable gain for each channel
- Ethernet networking for streamlined frequency coordination and deployment across multiple receivers
- Wireless Workbench® 6 (WWB6) software integration for advanced coordination, monitoring, and control
- Interference detection and alerts provided on both the receiver and WWB6
- AMX®/Crestron® control
- AXT600 Axient® Spectrum Manager compatible
- Intuitive front panel LCD menu and controls with lockout feature
- Audio and RF LED meters with peak indicator
- XLR connectors with switchable mic/line output level
- Remoteable ½ wave antennas



ULXD4D  
Front Panel



ULXD4D  
Back Panel

### AVAILABLE MODELS

|             |                                |
|-------------|--------------------------------|
| ULXD4DA=M19 | Wireless Receiver Dual-Channel |
| ULXD4DA=Q12 |                                |

### SPECIFICATIONS

(SUBJECT TO CHANGE)

|                    |                                                                       |
|--------------------|-----------------------------------------------------------------------|
| Dimensions         | 44 mm × 482 mm × 274 mm (1.73 in. × 18.97 in. × 10.79 in.), H × W × D |
| Weight             | 3.36 kg (7.4 lbs), without antennas                                   |
| Housing            | Steel; Extruded Aluminum                                              |
| Power Requirements | 100 to 240 V AC, 50-60 Hz, 0.26 A max.                                |

#### RF OUTPUT

|                    |                                         |
|--------------------|-----------------------------------------|
| Spurious Rejection | >80 dB, typical                         |
| Connector Type     | BNC                                     |
| Impedance          | 50 Ω                                    |
| Bias Voltage       | 12–13 V DC, 150 mA maximum, per antenna |

#### AUDIO INPUT

|                          |                                                 |
|--------------------------|-------------------------------------------------|
| Gain Adjustment Range    | –18 to +42 dB in 1 dB steps (plus Mute setting) |
| Configuration            | XLR: Balanced (1=ground, 2=audio +, 3=audio –)  |
| Impedance                | 100 Ω                                           |
| Full Scale Output        | LINE setting= +18 dBV, MIC setting= –12 dBV     |
| Mic/Line Switch          | 30 dB pad                                       |
| Phantom Power Protection | Yes                                             |

#### NETWORKING

|                               |                                        |
|-------------------------------|----------------------------------------|
| Network Interface             | Dual Port Ethernet 10/100 Mbps, 1 Gbps |
| Network Addressing Capability | DHCP or Manual IP address              |
| Maximum Ethernet Cable Length | 100 m (328 ft)                         |

#### CASCADE OUTPUT

|                |                                              |
|----------------|----------------------------------------------|
| Connector Type | BNC: For connection of 1 additional receiver |
| Configuration  | Unbalanced, passive                          |
| Impedance      | 50 Ω                                         |
| Insertion Loss | 0 dB                                         |



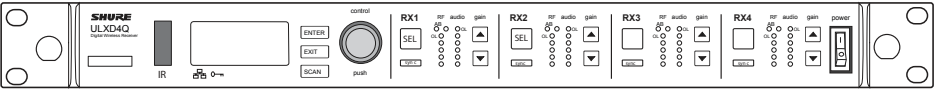
# COMPONENT SPECIFICATIONS

## ULXD4Q QUAD CHANNEL DIGITAL WIRELESS RECEIVER

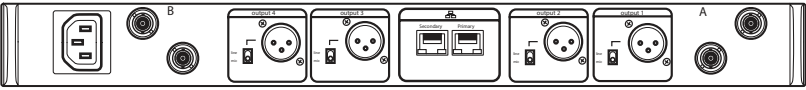
### OVERVIEW

The Shure ULXD4Q Quad Channel Digital Wireless Receiver offers four channels of uncompromising audio quality, RF signal stability, and advanced setup features in a space-efficient single rack unit. Digital wireless processing delivers premium 24-bit/48 kHz audio and RF spectrum efficiencies that dramatically increase the number of available compatible channels. With an expansive set of enhanced features including AES 256-bit encryption for security and Dante™ digital networking for audio over Ethernet, the ULXD4D delivers the most wireless performance per square inch.

- Four receivers in a rugged 1RU metal chassis with internal power supply
- Individual gain controls, LED meters, and XLR outputs for each channel
- Digital predictive switching diversity
- High Density mode optimizes ULX-D systems to simultaneously operate significantly more channels in applications up to 30 meters
- RF cascade ports allow distribution of RF signal to another unit
- Optimized scanning automatically finds, prioritizes, and deploys the cleanest frequencies to transmitters over IR sync
- Bodypack Frequency Diversity ensures uninterrupted audio for mission-critical applications
- AES 256-bit encryption-enabled for secure transmission
- 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 Domain Manager compatible
- Two receivers in a rugged 1RU metal chassis with internal power supply
- Individual gain controls, LED meters, and XLR outputs for each channel
- Ethernet networking for streamlined frequency coordination and deployment across multiple receivers
- Interference detection and alerts provided on both the receiver and WWB6
- Up to 60 dB independently adjustable gain for each channel
- Wireless Workbench® 6 software integration for advanced coordination, monitoring, and control AMX/Crestron control
- Compatible with the AXT600 Axient™ Spectrum Manager
- Intuitive front panel LCD menu and controls with lockout feature
- Upgraded LCD with adjustable contrast and brightness
- Audio and RF LED meters with peak indicator
- Switchable mic/line output level
- Remoteable ½ wave antennas



ULXD4Q  
Front Panel



ULXD4Q  
Back Panel

### AVAILABLE MODELS

|              |                                |
|--------------|--------------------------------|
| ULXD4QA--M19 | Wireless Receiver Quad-Channel |
| ULXD4QA--Q12 |                                |

### SPECIFICATIONS

|                          |                                                                             |
|--------------------------|-----------------------------------------------------------------------------|
| (SUBJECT TO CHANGE)      |                                                                             |
| Dimensions               | 44 mm x 482 mm x 274 mm<br>(1.73 in. x 18.97 in. x 10.79 in.),<br>H x W x D |
| Weight                   | 3.45 Kg (7.6 lbs), without antennas                                         |
| Housing                  | Steel; Extruded Aluminum                                                    |
| Power Requirements       | 100 to 240 V AC, 50–60 Hz, 0.32 A max.                                      |
| RF OUTPUT                |                                                                             |
| Spurious Rejection       | >80 dB, typical                                                             |
| Connector Type           | BNC                                                                         |
| Impedance                | 50 Ω                                                                        |
| Bias Voltage             | 12 - 13 V DC, 150 mA maximum, per antenna                                   |
| AUDIO INPUT              |                                                                             |
| Gain Adjustment Range    | –18 to +42 dB in 1 dB steps (plus Mute setting)                             |
| Configuration            | XLR: Balanced<br>(1=ground, 2=audio +, 3=audio –)                           |
| Impedance                | 100 Ω                                                                       |
| Full Scale Output        | LINE setting= +18 dBV,<br>MIC setting= –12 dBV                              |
| Mic/Line Switch          | 30 dB pad                                                                   |
| Phantom Power Protection | Yes                                                                         |
| CASCADE OUTPUT           |                                                                             |
| Connector Type           | BNC: For connection of 1 additional receiver                                |
| Configuration            | Unbalanced, passive                                                         |
| Impedance                | 50 Ω                                                                        |
| Insertion Loss           | 0 dB                                                                        |



# COMPONENT SPECIFICATIONS

## ULXD2 WIRELESS HANDHELD TRANSMITTER

### OVERVIEW

The Shure ULXD2 is a handheld wireless transmitter compatible with ULX-D® Digital Wireless Systems. Offering premium 20 Hz – 20 kHz audio quality, advanced rechargeability options, and a wide selection of interchangeable Shure microphone heads, the ULXD2 delivers uncompromising wireless performance for professional sound reinforcement applications. The ULXD2 is offered with SM58®, SM86, SM87A, Beta 58A®, Beta 87A, and Beta 87C.

- 20 Hz to 20 kHz range with flat frequency response (actual response is microphone dependent)
- AES 256-bit encryption-enabled for applications where secure transmission is needed
- >120 dB dynamic range
- 1, 10, and 20 mW selectable RF output power
- 5 segment battery fuel gauge
- Shure lithium-ion rechargeable battery pack provides up to 9 hours of battery life, precision metering, and zero memory effect
- Up to 8 hours continuous use with 2 x AA batteries
- Backlit LCD with easy to navigate menu and controls
- 100 meter (300 ft) operating range
- Rugged metal construction
- Frequency and power lockout

### SPECIFICATIONS (SUBJECT TO CHANGE)

|                         |                                                                                                              |
|-------------------------|--------------------------------------------------------------------------------------------------------------|
| Gain Offset Range       | 0 to 21 dB (in 3 dB steps)                                                                                   |
| Battery Type            | Shure SB900A Rechargeable Li-Ion or LR6 AA batteries 1.5 V                                                   |
| Battery Runtime @ 10 mW | Shure SB900A: up to 9<br>Alkaline: 8 hours<br>See Battery Runtime Chart                                      |
| Dimensions              | 256 mm x 51 mm (10.1 in. x 2.0 in.) L x Dia.<br>V50, V51 Bands: 278 mm x 51 mm (10.9 in. x 2.0 in.) L x Dia. |
| Weight                  | 340 g (12.0 oz.), without batteries<br>V50, V51 Bands: 348 g (12.3 oz.), without batteries                   |
| Housing                 | Machined aluminum                                                                                            |

#### AUDIO INPUT

|                                                                        |                                                                  |
|------------------------------------------------------------------------|------------------------------------------------------------------|
| Configuration                                                          | Unbalanced                                                       |
| Maximum Input Level 1 kHz at 1% THD                                    | 145 dB SPL (SM58), typical<br>Note: Dependent on microphone type |
| Preamplifier Equivalent Input Noise (EIN)<br>System Gain Setting ≥ +20 | 120 dBV, A-weighted, typical                                     |

#### RF OUTPUT

|                    |                                                                                    |
|--------------------|------------------------------------------------------------------------------------|
| Antenna Type       | Integrated Single Band Helical                                                     |
| Occupied Bandwidth | <200 kHz                                                                           |
| Modulation Type    | Shure Proprietary Digital                                                          |
| Power              | 1 mW, 10 mW, 20 mW<br>See Frequency Range and Output Power table, varies by region |



ULXD2  
Wireless Handheld Transmitter

### AVAILABLE MODELS

|                                      |                                                                      |
|--------------------------------------|----------------------------------------------------------------------|
| ULXD2/SM58=M19<br>ULXD2/SM58=Q12     | SM58 dynamic capsule, cardioid handheld mic                          |
| ULXD2/SM86=M19<br>ULXD2/SM86=Q12     | SM86 condenser capsule, cardioid handheld mic                        |
| ULXD2/SM87=M19<br>ULXD2/SM87=Q12     | SM87 condenser capsule, supercardioid handheld mic                   |
| ULXD2/B58=M19<br>ULXD2/B58=Q12       | BETA 58A dynamic capsule, supercardioid handheld mic                 |
| ULXD2/B87A=M19<br>ULXD2/B87A=Q12     | BETA 87A condenser capsule, supercardioid handheld mic               |
| ULXD2/B87C=M19<br>ULXD2/B87C=Q12     | BETA 87C condenser capsule, cardioid handheld mic                    |
| ULXD2/K8B=M19<br>ULXD2/K8B=Q12       | KSM8/B dynamic capsule, cardioid handheld mic black color            |
| ULXD2/K8N=M19<br>ULXD2/K8N=Q12       | KSM8/N dynamic capsule, cardioid handheld mic nickel color           |
| ULXD2/KSM9=M19<br>ULXD2/KSM9=Q12     | KSM9 condenser capsule, cardioid / supercardioid handheld mic        |
| ULXD2/KSM9HS=M19<br>ULXD2/KSM9HS=Q12 | KSM9HS condenser capsule, supercardioid / hypercardioid handheld mic |

# COMPONENT SPECIFICATIONS

## ULXD1 WIRELESS BODYPACK TRANSMITTER

### OVERVIEW

The ULXD1 is a wireless bodypack transmitter compatible with ULX-D® Digital Systems. With a rugged yet lightweight aluminum case, the ULXD1 delivers uncompromising audio quality and RF performance, AES 256-bit encryption for secure transmission, and advanced rechargeability options for professional sound reinforcement applications.

- 20 Hz to 20 kHz range with flat frequency response (actual response is microphone dependent)
- AES 256-bit encryption-enabled for applications where secure transmission is needed
- >120 dB dynamic range
- 1, 10, and 20 mW selectable RF output power
- 5 segment battery fuel gauge
- Shure lithium-ion rechargeable battery pack provides up to 9 hours of battery life, precision metering, and zero memory effect
- Up to 8 hours continuous use with 2 x AA batteries
- Backlit LCD with easy to navigate menu and controls
- Available with TA4M and LEMO3 input connectors
- 100 meter (300 ft) operating range
- Rugged metal construction
- Frequency and power lockout

### SPECIFICATIONS (SUBJECT TO CHANGE)

|                         |                                                                         |
|-------------------------|-------------------------------------------------------------------------|
| Gain Offset Range       | 0 to 21 dB (in 3 dB steps)                                              |
| Battery Type            | Shure SB900A Rechargeable Li-Ion or AA batteries                        |
| Battery Runtime @ 10 mW | Shure SB900A: up to 9<br>Alkaline: 8 hours<br>See Battery Runtime Chart |
| Dimensions              | 86 mm × 66 mm × 23 mm (3.4 in. × 2.6 in. × 0.9 in.) H × W × D           |
| Weight                  | 142 g (5.0 oz.), without batteries                                      |
| Housing                 | Cast aluminum                                                           |

#### AUDIO INPUT

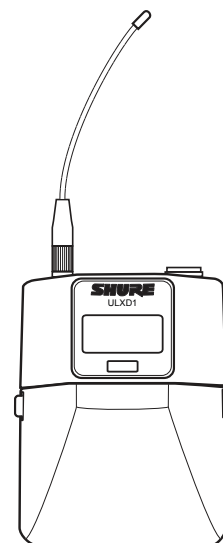
|                                                                        |                                                      |
|------------------------------------------------------------------------|------------------------------------------------------|
| Connector                                                              | 4-Pin male mini connector (TA4M) LEMO3 connector     |
| Configuration                                                          | Unbalanced                                           |
| Impedance                                                              | 1 MΩ                                                 |
| Maximum Input Level 1 kHz at 1% THD                                    | Pad Off: 8.5 dBV (7.5 Vpp) Pad On: 20.5 dBV (30 Vpp) |
| Preamplifier Equivalent Input Noise (EIN)<br>System Gain Setting ≥ +20 | 120 dBV, A-weighted, typical                         |

#### RF OUTPUT

|                    |                                                                                    |
|--------------------|------------------------------------------------------------------------------------|
| Connector          | SMA                                                                                |
| Antenna Type       | 1/4 wave                                                                           |
| Impedance          | 50 Ω                                                                               |
| Occupied Bandwidth | <200 kHz                                                                           |
| Modulation Type    | Shure Proprietary Digital                                                          |
| Power              | 1 mW, 10 mW, 20 mW<br>See Frequency Range and Output Power table, varies by region |

### AVAILABLE MODELS

|                                  |                                               |
|----------------------------------|-----------------------------------------------|
| ULXD1=M19<br>ULXD1=Q12           | Wireless Bodypack Transmitter, TA4M Connector |
| ULXD1LEMO3=M19<br>ULXD1LEMO3=Q12 | Wireless Bodypack Transmitter, LEMO Connector |



ULXD1  
Wireless Bodypack Transmitter

#### MICROPHONE OPTIONS (See [shure.com](https://www.shure.com) for more)

|         |                                                                   |
|---------|-------------------------------------------------------------------|
| WL93    | WL93 condenser capsule, omnidirectional lavalier mic              |
| WL183   | WL183 condenser capsule, omnidirectional lavalier mic             |
| WL184   | WL184 condenser capsule, super-cardioid lavalier mic              |
| WL185   | WL185 condenser capsule, cardioid lavalier mic                    |
| WL50    | WL50 condenser capsule, omnidirectional lavalier mic              |
| WL51    | WL51 condenser capsule, cardioid lavalier mic                     |
| SM31FH  | SM31FH condenser capsule, moisture repellant cardioid headset mic |
| SM35    | SM35 condenser capsule, cardioid headset mic                      |
| WCM16   | WCM16 condenser capsule, hyper-cardioid headworn mic              |
| WBH53   | WBH53 condenser capsule, omnidirectional headworn mic             |
| WBH54   | WBH54 condenser capsule, super-cardioid headworn mic              |
| WB98H/C | WB98H/C condenser capsule, cardioid instrument clip mic           |



# COMPONENT SPECIFICATIONS

## ULXD8 WIRELESS GOOSENECK BASE TRANSMITTER

### OVERVIEW

The ULXD8 Gooseneck Base Transmitter offers a low-profile boundary form factor that is ideal for meetings and events where quick setup and teardown is important. With long transmission range (up to 300 feet/91 meters) and a wide selection of antenna distribution components, the ULXD8 is easily and efficiently scalable for use in very large meetings at conference and convention centers. A choice of rechargeable battery pack or standard AA batteries provide all-day runtime.

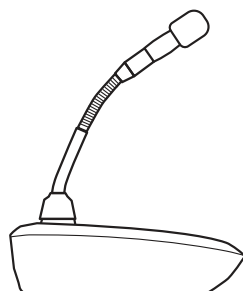
- Available in UHF band
- Available in black (ULXD8) or white (ULXD8W)
- AES 256-bit encryption for secure transmission
- Convenient gooseneck form factor for meetings and events where quick setup and teardown is important
- Designed for use with Shure Microflex MX405, MX410 and MX415 gooseneck microphones
- Very short latency (<3 msec)
- Long transmission range (up to 300 feet / 100 meters)
- Rechargeable SB900A battery pack provides up to 9 hours of battery life
- Standard AA alkaline batteries are additional power options
- SBC250 (2-bay), SBC450 (4-bay) and SBC850 (8-bay) Networked Charging Stations for docked charging of 2, 4 or 8 ULXD8 transmitters
- Configurable Mute button (Toggle, Push-to-Mute, Push-to-Talk, disabled) and Mute LED behavior
- Adjustable RF power, high-pass filter, and power lock settings

### SPECIFICATIONS (SUBJECT TO CHANGE)

|                         |                                                                                                      |
|-------------------------|------------------------------------------------------------------------------------------------------|
| Gain Offset Range       | 0 to 21 dB (in 3 dB steps)                                                                           |
| Battery Type            | Shure SB900A Rechargeable Li-Ion or AA batteries                                                     |
| Battery Runtime @ 10 mW | Shure SB900A: Up to 9 hours<br>Alkaline: Up to 8 hours 20 minutes<br>Note: See Battery Runtime chart |
| Dimensions              | 137 mm × 78 mm × 41 mm (5.4 in. × 3.1 in. × 1.6 in.) H × W × D                                       |
| Weight                  | 293 g (10.3 oz.), with 2 AA batteries                                                                |
| Housing                 | Molded Plastic                                                                                       |
| AUDIO INPUT             |                                                                                                      |
| Connector               | 6-pin connector for Shure MX405/MX410/MX415                                                          |
| Configuration           | Unbalanced                                                                                           |
| Impedance               | >20 kΩ                                                                                               |
| RF OUTPUT               |                                                                                                      |
| Antenna Type            | Integrated PIFA                                                                                      |
| Impedance               | 50 Ω                                                                                                 |
| Occupied Bandwidth      | <200 kHz                                                                                             |
| Modulation Type         | Shure Proprietary Digital                                                                            |
| Power                   | 1 mW, 10 mW, 20 mW<br>See Frequency Range and Output Power table, varies by region                   |

### AVAILABLE MODELS

|                          |                                            |
|--------------------------|--------------------------------------------|
| ULXD8=M19<br>ULXD8=Q12   | Wireless Gooseneck Base Transmitter, Black |
| ULXD8W=M19<br>ULXD8W=Q12 | Wireless Gooseneck Base Transmitter, White |



ULXD8  
Wireless Gooseneck Base Transmitter

### MICROPHONE OPTIONS

(See [shure.com](https://www.shure.com) for more)

|               |                                                                                                          |
|---------------|----------------------------------------------------------------------------------------------------------|
| MX405LP/C     | 5" Cardioid Gooseneck Microphone                                                                         |
| MX405LP/S     | 5" Supercardioid Gooseneck Microphone                                                                    |
| MX405RLP/N    | 5" Gooseneck with Red Top LED (no cartridge)                                                             |
| MX410LP/C     | 10" Cardioid Gooseneck Microphone                                                                        |
| MX410LP/S     | 10" Supercardioid Gooseneck Microphone                                                                   |
| MX410RLP/N    | 10" Gooseneck with Red Top LED (no cartridge)                                                            |
| MX410LPDF/C   | 10" Cardioid Dualflex Gooseneck Microphone                                                               |
| MX410LPDF/S   | 10" Supercardioid Dualflex Gooseneck Microphone                                                          |
| MX410RLPDF/N  | 10" Dualflex Gooseneck with Red Top LED (no cartridge)                                                   |
| MX410RLPDF/C  | 10" Cardioid Dualflex Gooseneck Microphone with Red Top LED                                              |
| MX410RLPDF/S  | 10" Supercardioid Dualflex Gooseneck Microphone with Red Top LED                                         |
| MX415LP/C     | 15" Cardioid Gooseneck Microphone                                                                        |
| MX415LP/S     | 15" Supercardioid Gooseneck Microphone                                                                   |
| MX415RLP/N    | 15" Gooseneck with Red Top LED (no cartridge)                                                            |
| MX415LPDF/C   | 15" Cardioid Dualflex Gooseneck Microphone                                                               |
| MX415LPDF/S   | 15" Supercardioid Dualflex Gooseneck Microphone                                                          |
| MX415RLPDF/N  | 15" Dualflex Gooseneck with Red Top LED (no cartridge)                                                   |
| MX415RLPDF/C  | 15" Cardioid Dualflex Gooseneck Microphone with Red Top LED                                              |
| MX415RLPDF/S  | 15" Supercardioid Dualflex Gooseneck Microphone with Red Top LED                                         |
| MX405WLP/N    | No microphone cartridge, 5" (12.7cm) Gooseneck, bi-color status indicator, less preamp, white            |
| MX405WRLP/N   | No microphone cartridge, 5" (12.7cm) Gooseneck, light ring, less preamp, white                           |
| MX410WLP/N    | No microphone cartridge, 10" (25.4cm) Gooseneck, bi-color status indicator, less preamp, white           |
| MX410WRLP/N   | No microphone cartridge, 10" (25.4cm) Gooseneck, light ring, less preamp, white                          |
| MX415WLP/N    | No microphone cartridge, 15" (38.1cm) Gooseneck, bi-color status indicator, less preamp, white           |
| MX415WRLP/N   | No microphone cartridge, 15" (38.1cm) Gooseneck, light ring, less preamp, white                          |
| MX410WLPDF/N  | No microphone cartridge, 10" (25.4cm) Dual Flex Gooseneck, bi-color status indicator, less preamp, white |
| MX410WRLPDF/N | No microphone cartridge, 10" (25.4cm) Dual Flex Gooseneck, light ring, less preamp, white                |
| MX415WLPDF/N  | No microphone cartridge, 15" (38.1cm) Dual Flex Gooseneck, bi-color status indicator, less preamp, white |
| MX415WRLPDF/N | No microphone cartridge, 15" (38.1cm) Dual Flex Gooseneck, light ring, less preamp, white                |



# COMPONENT SPECIFICATIONS

## ULXD6 WIRELESS BOUNDARY TRANSMITTER

### OVERVIEW

The ULXD6 Boundary Microphone Transmitter offers a low-profile boundary form factor that is ideal for meetings and events where quick setup and teardown is important. With long transmission range (up to 300 feet/91 meters) and a wide selection of antenna distribution components, the ULXD6 is easily and efficiently scalable for use in very large meetings at conference and convention centers. A choice of rechargeable battery pack or standard AA batteries provide all-day runtime.

- Available in UHF band
- Available in black (ULXD6) or white (ULXD6W)
- AES 256-bit encryption for secure transmission
- Low-profile boundary form factor for meetings and events where quick setup and teardown is important
- Very short latency (<3 msec)
- Long transmission range (up to 300 feet / 100 meters)
- SB900A rechargeable battery pack provides up to 9 hours of battery life
- Standard AA alkaline batteries are additional power options
- SBC250 (2-bay), SBC450 (4-bay) and SBC850 (8-bay) Networked Charging Stations for docked charging of 2, 4 or 8 ULXD6 transmitters
- Configurable Mute button (Toggle, Push-to-Mute, Push-to-Talk, disabled) and Mute LED behavior
- Adjustable RF power, high-pass filter, and power lock settings

### SPECIFICATIONS (SUBJECT TO CHANGE)

|                         |                                                                                                              |
|-------------------------|--------------------------------------------------------------------------------------------------------------|
| Gain Offset Range       | 0 to 21 dB (in 3 dB steps)                                                                                   |
| Battery Type            | Shure SB900A Rechargeable Li-Ion or AA batteries 1.5 V                                                       |
| Battery Runtime @ 10 mW | Shure SB900: Up to 9 hours 20 minutes<br>AA batteries: Up to 8 hours 40 minutes<br>See Battery Runtime Chart |
| Dimensions              | 114 mm × 62 mm × 34 mm (4.5 in. × 2.4 in. × 1.4 in.) H × W × D                                               |
| Weight                  | 241 g with AA batteries                                                                                      |
| Housing                 | Molded Plastic                                                                                               |

#### AUDIO INPUT

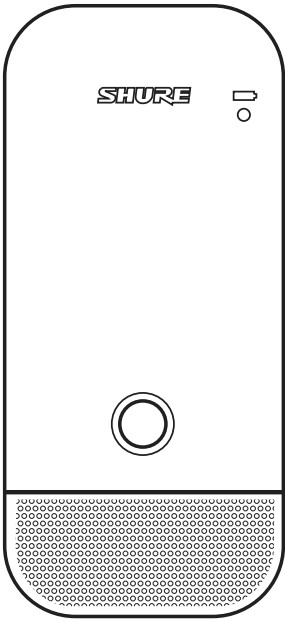
|               |            |
|---------------|------------|
| Configuration | Unbalanced |
| Impedance     | >20 kΩ     |

#### RF OUTPUT

|                    |                                                                                    |
|--------------------|------------------------------------------------------------------------------------|
| Antenna Type       | Integrated PIFA                                                                    |
| Impedance          | 50 Ω                                                                               |
| Occupied Bandwidth | <200 kHz                                                                           |
| Modulation Type    | Shure proprietary digital                                                          |
| Power              | 1 mW, 10 mW, 20 mW<br>See Frequency Range and Output Power table, varies by region |

### AVAILABLE MODELS

|                              |                                                       |
|------------------------------|-------------------------------------------------------|
| ULXD6/C=M19<br>ULXD6/C=Q12   | Wireless Boundary Transmitter, Cardioid, Black        |
| ULXD6/O=M19<br>ULXD6/O=Q12   | Wireless Boundary Transmitter, Omnidirectional, Black |
| ULXD6W/C=M19<br>ULXD6W/C=Q12 | Wireless Boundary Transmitter, Cardioid, White        |
| ULXD6W/O=M19<br>ULXD6W/O=Q12 | Wireless Boundary Transmitter, Omnidirectional, White |



ULXD6  
Wireless Boundary Transmitter



# COMPONENT SPECIFICATIONS

## SBC250, SBC450 & SBC850 NETWORKED DOCKING STATIONS

### OVERVIEW

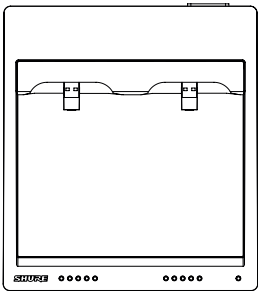
2-bay, 4-bay, and 8-bay Networked Docking Stations charges up to 2, 4, or 8 ULXD6 or ULXD8 transmitters that are equipped with the SB900A rechargeable battery. The transmitters simply slide into the charger; no need to remove the SB900A battery. When the stations are connected to a network, charging status of transmitters can be viewed remotely and settings or firmware can be updated while transmitters are docked, using Shure Wireless Workbench, SystemOn software or third-party room control systems.

### SPECIFICATIONS (SUBJECT TO CHANGE)

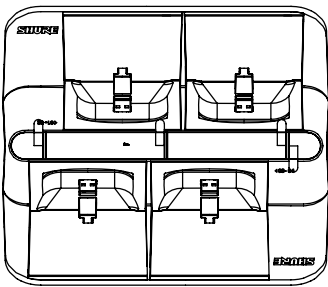
|                             |                                                                                                                                                                                                                                                 |
|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Charge Time                 | ULXD6 and ULXD8 15 minutes = 1 hour runtime; 1 hour = 50% charged; 3 hours = 100% charged.                                                                                                                                                      |
| Network Interface           | 10/100 Mbps Ethernet;                                                                                                                                                                                                                           |
| Power Requirement           | SBC250 100 - 240V AC @ 0.35 A maximum, 50/60 Hz<br>SBC450/SBC850 15 V DC @ 4.0 A maximum, supplied by external power supply (tip positive)                                                                                                      |
| Housing                     | SBC250 Molded Plastic, Sheet Metal<br>SBC450/SBC850 Molded Plastic, Cast Zinc Alloy                                                                                                                                                             |
| Dimensions                  | SBC250 215 mm × 191 mm × 62.5 mm (8.46 in. × 7.52 in. × 2.44 in.), H × W × D<br>SBC450 82.1 mm × 224.4 mm × 192 mm (3.23 in. × 8.83 in. × 7.56 in.), H × W × D<br>SBC850 82.1 mm × 392 mm × 192 mm (3.23 in. × 15.43 in. × 7.56 in.), H × W × D |
| Weight                      | SBC250 2.7 kg (5.95 lbs)<br>SBC450 1.59 kg (3.51 lbs)<br>SBC850 2.67 kg (5.89 lbs)                                                                                                                                                              |
| Operating Temperature Range | 0 °C (32 °F) to 45 °C (113 °F)                                                                                                                                                                                                                  |
| Storage Temperature Range   | -29 °C (-20 °F) to 74 °C (165 °F)                                                                                                                                                                                                               |

### AVAILABLE MODELS

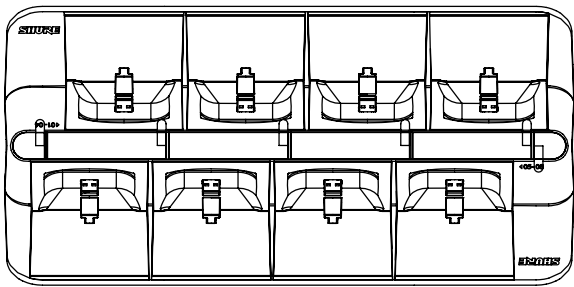
|        |                                    |
|--------|------------------------------------|
| SBC250 | Networked Docking Station, 2 Ports |
| SBC450 | Networked Docking Station, 4 Ports |
| SBC850 | Networked Docking Station, 8 Ports |



SBC250  
Networked Docking Station



SBC450  
Networked Docking Station



SBC850  
Networked Docking Station

