QLX-D™ Digital Wireless delivers defined, streamlined performance with transparent 24-bit digital audio. Combining professional features with simplified setup and operation, QLX-D offers outstanding wireless functionality for demanding live sound events and installations.

**Transparent 24-bit digital audio captures every performance detail**
- Extended 20 Hz to 20 kHz frequency range *
- Over 120 dB of dynamic range eliminates transmitter gain adjustment

**Incredibly Efficient Wireless**
- Wide up to 72 MHz tuning bandwidth **
- Up to 22 compatible systems per 8 MHz TV channel

**Powerful Networking Features**
- Compatible with Shure Wireless Workbench® 6 control software
- Remote control from an iOS device via ShurePlus™ Channels mobile app

**Rugged, secure systems built to match demanding environments**
- AES-256 encryption for secure wireless transmission
- Professional-grade all metal construction

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**APPLICATIONS**
- Musicians
- Presenters
- Houses of Worship
- Education
- Hotels and Conference Centers

**PRODUCT HIGHLIGHTS**
- 24-bit Digital Audio
- 100 meter Range
- Ethernet Networking
- Rechargeable Power Options

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*Microphone dependent  **Region dependent
System Specifications

RF Carrier Range
174 - 216 MHz, 470 - 865 MHz, 1492 - 1525 MHz, 1785 - 1805 MHz, varies by region

Working Range
100 m 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

Latency
<2.9 ms

Audio Frequency Response
QLXD1: 20 Hz – 20 kHz (±1 dB)
QLXD2: Note: Dependent on microphone type

Audio Dynamic Range
System Gain @ +10 dBFS input, System Gain @ +10 dBFS output
>120 dB, A-weighted, typical

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 to 50 °C

Storage Temperature Range
-29 °C to 74 °C

Frequency Range

<table>
<thead>
<tr>
<th>Band</th>
<th>Range (MHz)</th>
<th>Transmitter Output (mW)</th>
</tr>
</thead>
<tbody>
<tr>
<td>V51</td>
<td>174 – 216</td>
<td>1 or 10</td>
</tr>
<tr>
<td>G51</td>
<td>470 – 534</td>
<td>1 or 10</td>
</tr>
<tr>
<td>H51</td>
<td>534 – 598</td>
<td>1 or 10</td>
</tr>
<tr>
<td>L52</td>
<td>632 – 694</td>
<td>1 or 10</td>
</tr>
<tr>
<td>P51</td>
<td>710 – 782</td>
<td>1 or 10</td>
</tr>
<tr>
<td>Q51</td>
<td>794 – 856</td>
<td>1 or 10</td>
</tr>
<tr>
<td>S50</td>
<td>823 – 852, 863 – 865</td>
<td>1 or 10</td>
</tr>
<tr>
<td>Z17</td>
<td>1492 – 1525</td>
<td>1 or 10</td>
</tr>
<tr>
<td>Z18</td>
<td>1785 – 1805</td>
<td>1 or 10</td>
</tr>
</tbody>
</table>

Rechargeable Power Management (sold separately)

SB900A Rechargeable Battery QLX-D transmitters are compatible with the SB900A lithium-ion rechargeable battery, which provides up to 10 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.

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 Runtime (at 10 mW)

<table>
<thead>
<tr>
<th>Battery Type</th>
<th>Runtime</th>
</tr>
</thead>
<tbody>
<tr>
<td>SB900A</td>
<td>up to 10 hours</td>
</tr>
<tr>
<td>Alkaline</td>
<td>up to 9 hours</td>
</tr>
</tbody>
</table>

Furnished Accessories

All Systems
PS23 Power supply
1/2 Wave Receiver Antenna (2)
2' BNC Cable (2)
BNC Bulkhead Adapter (2)
Rackmount Hardware kit
2 x AA batteries (bodypack systems)

Handheld Systems
Microphone Clip (handheld systems)
Handheld Zipper Bag (bodypack systems)

Bodypack Systems
Bodypack Antenna
Bodypack Zipper Bag (bodypack systems)

www.shure.eu
QLXD1 Wireless Bodypack Transmitter

Overview

Featuring transparent 24 bit digital audio quality and incredibly efficient RF spectrum usage, the QLXD1 bodypack transmitter is ideal for wireless vocals and instruments in presentation spaces, music venues, and houses of worship. Easy to use, the QLXD1 quickly syncs with a wireless receiver over IR at the push of a button and maintains clear, uninterrupted signal over its entire 100 m (330 ft.) range. All metal construction ensures durability, and a wide selection of compatible microphone choices offer legendary Shure sound signatures.

- 20 Hz to 20 kHz frequency range with flat response (actual response is microphone dependent)
- Over 120 dB of dynamic range - no transmitter gain adjustments needed
- AES 256-bit encryption for secure transmission
- Up to 9 hours continuous use with 2 x AA alkaline batteries
- Optional Shure SB900A lithium ion rechargeable battery provides up to 10 hours of continuous use and reports remaining runtime in hours and minutes
- External charging contacts for docked charging
- Backlit LCD with easy to navigate menu and controls
- Selectable display mode showing group/channel, frequency, or battery runtime
- 100 meter line-of-sight operating range
- 4-Pin male mini connector (TA4M)
- Rugged metal construction
- Detachable ¼ wave antenna
- Frequency and power lockout

Product Specifications

<table>
<thead>
<tr>
<th>Mic Offset Range</th>
<th>0 to 21 dB (in 3 dB steps)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Battery Type</td>
<td>Shure SB900A Rechargeable Li-Ion or AA batteries 1.5 V</td>
</tr>
<tr>
<td>Battery Runtime</td>
<td>Shure SB900A: up to 10 hours</td>
</tr>
<tr>
<td></td>
<td>Alkaline: up to 9 hours</td>
</tr>
<tr>
<td>Dimensions</td>
<td>86 x 65 x 23 mm, H x W x D</td>
</tr>
<tr>
<td>Weight</td>
<td>134 g, without batteries</td>
</tr>
<tr>
<td>Housing</td>
<td>Cast aluminum</td>
</tr>
<tr>
<td>Audio Input</td>
<td>4-pin male mini connector (TA4M)</td>
</tr>
<tr>
<td>Configuration</td>
<td>Unbalanced</td>
</tr>
<tr>
<td>Impedance</td>
<td>1 MΩ</td>
</tr>
<tr>
<td>Maximum Input Level</td>
<td>8.5 dBV (7.5 Vpp)</td>
</tr>
<tr>
<td>System Gain Setting</td>
<td>&gt; 92dB</td>
</tr>
<tr>
<td>Preamplifier Equivalent Input Noise (EIN)</td>
<td>&gt; 120 dBV, A-weighted, typical</td>
</tr>
<tr>
<td>RF Output</td>
<td>SMA</td>
</tr>
<tr>
<td>Antenna Type</td>
<td>¼ wave</td>
</tr>
<tr>
<td>Impedance</td>
<td>50 Ω</td>
</tr>
<tr>
<td>Occupied Bandwidth</td>
<td>&lt; 200 kHz</td>
</tr>
<tr>
<td>Modulation Type</td>
<td>Shure proprietary digital</td>
</tr>
<tr>
<td>Power</td>
<td>1 mW or 10 mW</td>
</tr>
</tbody>
</table>

See Frequency Range and output power table, varies by region

Microphone Options (see catalog for more)

<table>
<thead>
<tr>
<th>SM35</th>
<th>SM35 Condenser Headset Microphone, Cardioid</th>
</tr>
</thead>
<tbody>
<tr>
<td>MX150D</td>
<td>MX150 Condenser Lavaliier Microphone, Omnidirectional</td>
</tr>
<tr>
<td>MX150C</td>
<td>MX150 Condenser Lavaliier Microphone, Cardioid</td>
</tr>
<tr>
<td>WL183</td>
<td>WL183 Condenser Lavaliier Microphone, Omnidirectional</td>
</tr>
<tr>
<td>WL184</td>
<td>WL184 Condenser Lavaliier Microphone, Supercardioid</td>
</tr>
<tr>
<td>WL185</td>
<td>WL185 Condenser Lavaliier Microphone, Cardioid</td>
</tr>
<tr>
<td>WL93</td>
<td>WL93 Condenser Lavaliier Microphone, Omnidirectional</td>
</tr>
<tr>
<td>WB93H</td>
<td>WB93H HC Condenser Instrument Clip-on Mic, Cardioid</td>
</tr>
<tr>
<td>MX153B</td>
<td>MX153 Condenser Headset Microphone, Omnidirectional, Black</td>
</tr>
<tr>
<td>MX153T</td>
<td>MX153 Condenser Headset Microphone, Omnidirectional, Tan</td>
</tr>
</tbody>
</table>

www.shure.eu
Overview

Featuring transparent 24-bit digital audio quality and incredibly efficient RF spectrum usage, the QLXD2 handheld transmitter is ideal for wireless vocals in presentation spaces, music venues, and houses of worship. Easy to use, the QLXD2 quickly syncs with a wireless receiver over IR at the push of a button and maintains clear, uninterrupted signal over its entire 100 m range. All metal construction ensures durability, and a wide selection of compatible microphone choices offer legendary Shure sound signatures.

- 30 Hz to 20 kHz frequency range with flat response (actual response is microphone dependent)
- Interchangeable Shure microphone capsules, including the legendary SM58®
- AES 256-bit encryption for secure transmission
- Over 120 dB of dynamic range - no transmitter gain adjustment needed
- 1, 10 mW selectable RF output power
- Up to 9 hours continuous use with 2 x AA alkaline batteries
- Optional Shure SB900A lithium ion rechargeable battery provides up to 10 hours of continuous use and reports remaining runtime in hours and minutes
- External charging contacts for docked charging
- Backlit LCD with easy to navigate menu and controls
- Selectable display mode showing group/channel, frequency, or battery runtime
- 100 meter line-of-sight operating range
- Rugged metal construction
- Frequency and power lockout

Product Specifications

<table>
<thead>
<tr>
<th>Mic Offset Range</th>
<th>0 to 21 dB (in 3 dB steps)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Battery Type</td>
<td>Shure SB900A Rechargeable Li-Ion or AA batteries 1.5 V</td>
</tr>
<tr>
<td>Battery Runtime @ 10 mW</td>
<td>Shure SB900A: up to 10 hours</td>
</tr>
<tr>
<td></td>
<td>Alkaline: up to 9 hours</td>
</tr>
<tr>
<td></td>
<td>See Battery Runtime Chart</td>
</tr>
<tr>
<td>Dimensions</td>
<td>256 mm x 51 mm (10.1 in. x 2.0 in.) L x Dia.</td>
</tr>
<tr>
<td>Weight</td>
<td>347 g (12.2 oz.), without batteries</td>
</tr>
<tr>
<td>Housing</td>
<td>Machined aluminum</td>
</tr>
<tr>
<td>Audio Input Configuration</td>
<td>Unbalanced</td>
</tr>
<tr>
<td>Maximum Input Level 1 kHz at 1% THD</td>
<td>145 dB SPL (SM58), typical</td>
</tr>
<tr>
<td></td>
<td>Note: Dependent on microphone type</td>
</tr>
<tr>
<td>RF Output</td>
<td>Integrated Single Band Helical</td>
</tr>
<tr>
<td>Antenna Type</td>
<td>&lt; 200 kHz</td>
</tr>
<tr>
<td>Occupied Bandwidth</td>
<td>Shure proprietary digital</td>
</tr>
<tr>
<td>Modulation Type</td>
<td>1 mW or 10 mW</td>
</tr>
<tr>
<td></td>
<td>See Frequency Range and output power table, varies by region</td>
</tr>
</tbody>
</table>

Microphone Options

QLXD2/SM58® Handheld Transmitter with SM58 Cartridge
QLXD2/SM86 Handheld Transmitter with SM86 Cartridge
QLXD2/SMB7A Handheld Transmitter with SMB7A Cartridge
QLXD2/BETA® 58A Handheld Transmitter with Beta 58A Cartridge
QLXD2/BETA® 87A Handheld Transmitter with Beta 87A Cartridge
QLXD2/BETA® 87C Handheld Transmitter with Beta 87C Cartridge
QLXD2/KSM9 Handheld Transmitter with KSM9 Cartridge
Overview

Featuring transparent 24 bit digital audio quality and incredibly efficient RF spectrum usage, the QLXD4 is a half-rack digital wireless receiver for use with QLX-D™ Digital Wireless Systems. Ideal for presentation spaces, music venues, and houses of worship, the QLXD4 combines professional features with streamlined setup and operation. Automatic scanning quickly finds open frequencies and one-touch sync quickly deploys them to transmitters. Ethernet networking enables networked channel scanning across multiple receivers and Wireless Workbench software integration for remote control of receiver settings from a PC or Mac.

- Up to 72 MHz tuning bandwidth (region dependent)
- Up to 168 compatible channels per frequency band (region dependent)
- Digital predictive switching diversity ensures solid RF connection
- Automatic channel scan quickly finds the cleanest frequency
- IR sync deploys selected frequency to transmitter
- Ethernet networking provides streamlined setup across multiple receivers
- Networked channel scan configures open frequencies for all connected receivers
- AES 256-bit encryption for secure wireless transmission
- Up to 60 dB of adjustable audio gain
- High-contrast LCD menu and controls with lockout feature
- Audio and RF LED meters with peak indicator
- Mic / line switchable XLR output
- ¼” instrument output
- Durable steel construction with brushed finish
- Professional-grade rack hardware included
- Compatible with Shure Wireless Workbench® 6 control software
- Remote monitoring and control from iOS devices via ShurePlus™ Channels app

Product Specifications

Dimensions
41 x 197 x 151 mm, H × W × D

Weight
777 g, without antennas

Housing
Steel

Power requirements
12 V DC, 0.4 A, supplied by external power supply (tip positive)

RF Input
Spurious Rejection
> 80 dB, typical

Connector Type
BNC

Impedance
50 Ω

Audio Output
Gain Adjustment Range
-18 to +42 dB in 1 dB steps

Configuration
1/4” (6.35 mm): Impedance balanced (Tip = audio, Ring = no audio, Sleeve = ground)
XLR: Balanced (1 = ground, 2 = audio +, 3 = audio −)

Impedance
1/4” (6.35 mm): XLR, 100 Ω (50 Ω Unbalanced)
XLR: 100 Ω

Full Scale Output
1/4” (6.35 mm): +12 dBV
XLR: LINE setting = +18 dBV, MIC setting = −12 dBV

Mic/Line Switch
30 dB pad

Phantom Power Protection
1/4” (6.35 mm): Yes
XLR: Yes

Networking
Network Interface
Single Port Ethernet 10/100 Mbps

Network Addressing Capability
DHCP or Manual IP address

Maximum Ethernet Cable Length
100 m

www.shure.eu
Overview

The ULXD6 wireless boundary transmitter combined with ULX-D or QLX-D digital receiver deliver uncompromising digital audio clarity and solid RF performance in a form factor that fits perfectly in business settings.

- Available in UHF TV band
- 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
- SBC450 (4-bay) and SBC850 (8-bay) Networked Charging Stations for docked charging of 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

Product Specifications

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gain Offset Range</td>
<td>0 to 21 dB (in 3 dB steps)</td>
</tr>
<tr>
<td>Battery Type</td>
<td>Shure SB900A Rechargeable Li-Ion or AA/LR6 batteries (1.5 V)</td>
</tr>
<tr>
<td>Battery Runtime @ 10 mW</td>
<td>Shure SB900A, up to 9 hours 20 minutes</td>
</tr>
<tr>
<td></td>
<td>Alkaline, up to 8 hours 40 minutes</td>
</tr>
<tr>
<td>Dimensions</td>
<td>114 mm x 62 mm x 34 mm (4.48 in. x 2.43 in. x 1.35 in.) H x W x D</td>
</tr>
<tr>
<td>Weight</td>
<td>241 g with AA batteries</td>
</tr>
<tr>
<td>Housing</td>
<td>Molded Plastic</td>
</tr>
<tr>
<td>RF Output</td>
<td></td>
</tr>
<tr>
<td>Antenna Type</td>
<td>Integrated PIFA</td>
</tr>
<tr>
<td>Impedance</td>
<td>50 Ω</td>
</tr>
<tr>
<td>Occupied Bandwidth</td>
<td>&lt; 200 kHz</td>
</tr>
<tr>
<td>Modulation Type</td>
<td>Shure Proprietary Digital</td>
</tr>
<tr>
<td>Power</td>
<td>1 mW, 10 mW, 20 mW (See Frequency Range and output power table, varies by region)</td>
</tr>
</tbody>
</table>

Available Models

- ULXD6/O: Wireless Boundary Transmitter, Omnidirectional
- ULXD6/C: Wireless Boundary Transmitter, Cardioid
ULXD8 Wireless Gooseneck Base Transmitter

Overview

The ULXD8 Wireless Gooseneck Base Transmitter combined with ULX-D or QLX-D digital receivers deliver uncompromising digital audio clarity and solid RF performance in a form factor that fits perfectly in business settings.

- Available in UHF TV band
- 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 (1-3 ms only)
- 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
- SBC450 (4-bay) and SBC850 (8-bay) Networked Charging Stations for docked charging of 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

Product Specifications

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gain Offset Range</td>
<td>0 to 21 dB (in 3 dB steps)</td>
</tr>
<tr>
<td>Battery Type</td>
<td>Shure SB900A Rechargeable Li-Ion or AA/LR6 batteries (1.5 V)</td>
</tr>
<tr>
<td>Battery Runtime</td>
<td>Shure SB900A: up to 9 hours</td>
</tr>
<tr>
<td></td>
<td>Alkaline: up to 8 hours 30 minutes</td>
</tr>
<tr>
<td>Dimensions</td>
<td>127 mm x 76 mm x 41 mm (5.89 in. x 3.00 in. x 1.60 in.) H x W x D</td>
</tr>
<tr>
<td>Weight</td>
<td>293 g with AA batteries</td>
</tr>
<tr>
<td>Housing</td>
<td>Molded Plastic</td>
</tr>
</tbody>
</table>

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
  (See Frequency Range and output power table, varies by region)

Microphone Options

- MX405LP/C: Cardioid, 5" (12.7 cm), bi-color status indicator, less preamp
- MX405LP/S: Supercardioid, 5" (12.7 cm), bi-color status indicator, less preamp
- MX405RLP/N: No microphone cartridge, 5" (12.7 cm), light ring, less preamp
- MX410LP/C: Cardioid, 10" (25.4 cm), bi-color status indicator, less preamp
- MX410LP/S: Supercardioid, 10" (25.4 cm), bi-color status indicator, less preamp
- MX410RLP/N: No microphone cartridge, 10" (25.4 cm), light ring, less preamp
- MX410LPDF/C: Cardioid, 10" (25.4 cm), bi-color status indicator, less preamp, dualflex
- MX410LPDF/S: Supercardioid, 10" (25.4 cm), bi-color status indicator, less preamp, dualflex
- MX410LPDF/N: No microphone cartridge, 10" (25.4 cm), light ring, less preamp, dualflex
- MX415LP/C: Cardioid, 15" (38.1 cm), bi-color status indicator, less preamp
- MX415LP/S: Supercardioid, 15" (38.1 cm), bi-color status indicator, less preamp
- MX415RLP/N: No microphone cartridge, 15" (38.1 cm), light ring, less preamp
- MX415LPDF/C: Cardioid, 15" (38.1 cm), bi-color status indicator, less preamp, dualflex
- MX415LPDF/S: Supercardioid, 15" (38.1 cm), bi-color status indicator, less preamp, dualflex
- MX415RLPDF/N: No microphone cartridge, 15" (38.1 cm), light ring, less preamp, dualflex

Overview

Shure Legendary Performance™

www.shure.eu
SBC450 & SBC850 Networked Charging Stations

Overview

4-bay and 8-bay Networked Charging Stations charges up to 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 Chargers are connected to a network, charging status of transmitters can be viewed remotely and settings or firmware can be updated while transmitters are in the charger, using Shure Wireless Workbench, SystemOn software or third-party room control systems.

Product Specifications

<table>
<thead>
<tr>
<th>Feature</th>
<th>SBC450</th>
<th>SBC850</th>
</tr>
</thead>
<tbody>
<tr>
<td>Charge Time</td>
<td>15 minutes = 1 hour runtime; 1 hour = 50% charged; 3 hours = 100% charged</td>
<td></td>
</tr>
<tr>
<td>Network Interface</td>
<td>10/100 Mbps Ethernet</td>
<td></td>
</tr>
<tr>
<td>Power Requirement</td>
<td>15 V DC @ 4.0 A maximum, supplied by external power supply (tip positive)</td>
<td></td>
</tr>
<tr>
<td>Housing</td>
<td>Molded Plastic, Cast Zinc Alloy</td>
<td></td>
</tr>
<tr>
<td>Dimensions</td>
<td>SBC450: 82 mm x 224 mm x 192 mm (3.23 in. x 8.83 in. x 7.56 in.), H x W x D</td>
<td>SBC850: 82 mm x 392 mm x 192 mm (3.23 in. x 15.43 in. x 7.56 in.), H x W x D</td>
</tr>
<tr>
<td>Weight</td>
<td>SBC450: 1.59 kg (3.51 lbs)</td>
<td>SBC850: 2.67 kg (5.89 lbs)</td>
</tr>
<tr>
<td>Operating Temperature Range</td>
<td>0°C (32°F) to 45°C (113°F)</td>
<td></td>
</tr>
<tr>
<td>Storage Temperature Range</td>
<td>-20°C (-4°F) to 74°C (165°F)</td>
<td></td>
</tr>
</tbody>
</table>

Available Models

- SBC450: Networked Charging Station, 4 Ports
- SBC850: Networked Charging Station, 8 Ports