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 64 MHz tuning bandwidth**
- Up to 17 compatible systems per 6 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

---

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

**PRODUCT HIGHLIGHTS**
- 24-bit Digital Audio
- 100 meter (330 ft.) Range
- Ethernet Networking
- Rechargeable
- Power Options

---

*Microphone dependent
**Region dependent
System Specifications

RF Carrier Range 174–216; 470–937.5 MHz, varies by region (See Frequency Range and Output Power table)

Working Range 100 m (328 ft)

RF Tuning Step Size 25 kHz, varies by region

Image Rejection >70 dB, typical

Latency <2.9 ms

Audio Dynamic Range QLXD1: 20 Hz – 20 kHz (±1 dB)

Audio Frequency Response QLXD2: Note: Dependent on microphone type

System Gain @ +10 >120 dB, A-weighted, typical

Total Harmonic Distortion <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)

Storage Temperature Range -29 °C (-20 °F) to 74 °C (165 °F)

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
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 SBC200s 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
5” ethernet cable
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)
Component Specifications

QLXD4 Digital Wireless Receiver

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.

- 64 MHz tuning bandwidth (region dependent)
- More than 60 preset compatible channels per frequency band (region dependent)
- Up to 17 compatible systems per 6 MHz TV channel, 23 systems per 8 MHz channel
- 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
- Detachable ½ wave antennas
- Mic / line switchable XLR output
- ¼” instrument output
- Durable aluminum 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 mm × 197 mm × 151 mm (1.63 in. × 7.75 in. × 5.94 in.), H × W × D

Weight 777 g (1.71 lbs), 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): Unbalanced (Tip=audio, Ring=no audio, Sleeve=ground)

XLR: Balanced (1=ground, 2=audio + , 3=audio −)

Impedance 1/4” (6.35 mm): 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 (328 ft)
Component Specifications

QLXD2 Wireless Handheld Transmitter

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 (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)
- 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 S8900A lithium ion rechargeable 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 (330 ft.) 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 S8900A Rechargeable Li-Ion or AA batteries 1.5 V</td>
</tr>
<tr>
<td>Battery Runtime @ 10 mW</td>
<td>Shure S8900A: up to 10 hours Alkaline: up to 9 hours (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>
</tbody>
</table>

Audio Input

<table>
<thead>
<tr>
<th>Configuration</th>
<th>Unbalanced</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum Input Level 1 kHz at 1% THD</td>
<td>145 dB SPL (SM58®), typical Note: Dependent on microphone type</td>
</tr>
</tbody>
</table>

RF Output

<table>
<thead>
<tr>
<th>Antenna Type</th>
<th>Integrated Single Band Helical</th>
</tr>
</thead>
<tbody>
<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 See Frequency Range and Output Power table, varies by region</td>
</tr>
</tbody>
</table>

Microphone Options

QLXD2/SM58®
QLXD2/SM86
QLXD2/SM87A
QLXD2/BETA® 58A
QLXD2/BETA® 87A
QLXD2/BETA® 87C
QLXD2/KSM9
QLXD2/KSM9HS
QLXD2/K8B

© 2017 Shure Incorporated
Component Specifications

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 SBR00A 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 (300 feet) line-of-sight operating range
- 4-Pin male mini connector (TA4M)
- Rugged metal construction
- Detachable ¼ wave antenna
- Frequency and power lockout

Product Specifications

Mic Offset Range 0 to 21 dB (in 3 dB steps)
Battery Type Shure SBR00A Rechargeable Li-ion or AA batteries 1.5 V
Battery Runtime Shure SBR00A: up to 10 hours
Alkaline: up to 9 hours
Dimensions 86 mm x 65 mm x 23 mm (3.38 in. x 2.57in. x 0.92 in.) H x W x D
Weight 138 g (4.9 oz.), without batteries
Housing Cast aluminum
Audio Input
Connector 4-pin male min connector (TA4M)
Configuration Unbalanced
Impedance 1 MΩ
Maximum Input Level 8.5 dBV (7.5 Vpp)
Preamp equivalant Input Noise (EIN) −120 dBV, A-weighted, typical
System Gain Setting ≥ +20
RF Output
Connector SMA
Antenna Type 1/4 wave
Impedance 50 Ω
Occupied Bandwidth <200 kHz
Modulation Type Shure proprietary digital
Power 1 mW or 10 mW
See Frequency Range and Output Power table, varies by gain

Microphone Options (see catalog for more)

- SM35 SM35 Performance Headset Condenser Microphone
- MX150/C MX150 Subminiature Lavaliier Microphone, Omnidirectional
- MX150/C MX150 Subminiature Lavaliier Microphone, Cardioid
- WL183 WL183 Condenser Capsule Lavaliier Microphone, Omnidirectional
- WL184 WL184 Condenser Capsule Lavaliier Microphone, Supercardioid
- WL185 WL185 Condenser Capsule Lavaliier Microphone, Cardioid
- WL93 WL93 Condenser Capsule Lavaliier Microphone, Omnidirectional
- WB98H/C WB98H/C Condenser Capsule Instrument Clip Microphone, Cardioid
- MX1538 MX153 Omnidirectional Earset Headworn Microphone, Black
- MX153H MX153 Omnidirectional Earset Headworn Microphone, Tan