SHURE®

LEGENDARY
PERFORMANCE™


GLX-D® ADVANCED DIGITAL WIRELESS

# THE EASIEST MULTI-SYSTEM WIRELESS SOLUTION

GLX-D® Advanced Digital Wireless

# EXCEPTIONAL MULTI-SYSTEM RELIABILITY.

With exceptional audio clarity and award-winning features, GLX-D® Advanced Digital Wireless is the best choice to provide Houses of Worship, schools and music venues with seamless setup, intelligent rechargeability and superior multi-system wireless performance.

SYSTEM COMPONENTS

## Frequency Manager


### UA846Z2 GLX-D Frequency Manager

- Provides advanced frequency management to a linked receiver community for improved RF performance and increased channel count
- Link multiple receivers via RF ports for patented data communication and traditional antenna distribution
- Revolutionary intelligent frequency management quickly identifies the best frequencies
- Identifies and assigns optimal frequencies to receiver/transmitter pairs
- In case of interference, automatically and seamlessly transitions to backup frequencies
- Provides power to the GLXD4R receivers, eliminating need for power strips or multiple outlets.
- Globally-unlicensed 2.4 GHz frequency band

## Wireless Receiver

### GLXD4R Rack Mount Receiver

- Integrated battery charge port for intelligent Shure lithium-ion transmitter batteries, two-color charge indicator LED
- Detachable antennas for remote mounting
- Remote adjustable transmitter gain control
- Hi-res LCD screen status display
- XLR and ¼″ output connectors
- Rugged metal chassis design
- Included rack mount hardware


## Wireless Transmitters

### GLXD1 Bodypack Transmitter
### GLXD2 Handheld Transmitter

- Automatically links to GLXD4R receiver
- Microphone Options

  GLXD1 accommodates a variety of Shure microphone options including instrument, lavalier and head-worn options

  GLXD2 provides legendary Shure microphone options including the industry-standard SM58®
- Operating Range

  Indoors: Up to 100 feet (30 m) typical, with a maximum of 200 feet (60 m) under ideal conditions

  Outdoors: Up to 65 feet (20 m) typical, with a maximum of 165 feet (50 m) under ideal conditions
- Up to 16 hours of use from a full charge
- Sophisticated design with durable, lightweight construction

## Advanced Frequency Management

GLX-D® Advanced Digital Wireless products and accessories unlock and expand key GLX-D frequency management features making it easy to rely on seamless, crystal-clear audio.

### 1. Using One GLX-D Frequency Manager

- Connect up to six GLXD4R Rack Mount Receivers via the RF ports
- Remote mounted antennas should be connected to the system to minimize interference
- 2.4 GHz band is scanned to locate the best frequencies available
- Best frequencies are assigned to the receivers and transmitters, updating automatically if interference is detected

### 2. Using two GLX-D Frequency Managers

- Connect the antenna inputs of the second Frequency Manager to the corresponding cascade ports of the first Frequency Manager
- Enables confident operation of up to 9 simultaneous systems in typical conditions (11 in optimal conditions)
- Once set up correctly, a system of GLX-D Advanced Wireless products is ready to go at the flick of the power switch

REMOTE MOUNTING ACCESSORIES

## Passive Directional Antenna


### PA805Z2-RSMA

- Improved wireless reception: 8 dB of passive directional antenna gain
- Improved rejection of interference from 2.4GHz sources: 24dB front-to-back ratio for improved rejection of off access signals
- Includes 10' RMSA cable

## Mounting Kit

### UA505 Mounting Kit

Remote mount PA805Z2-RSMA and UA8-Z2 antennas in permanent installations

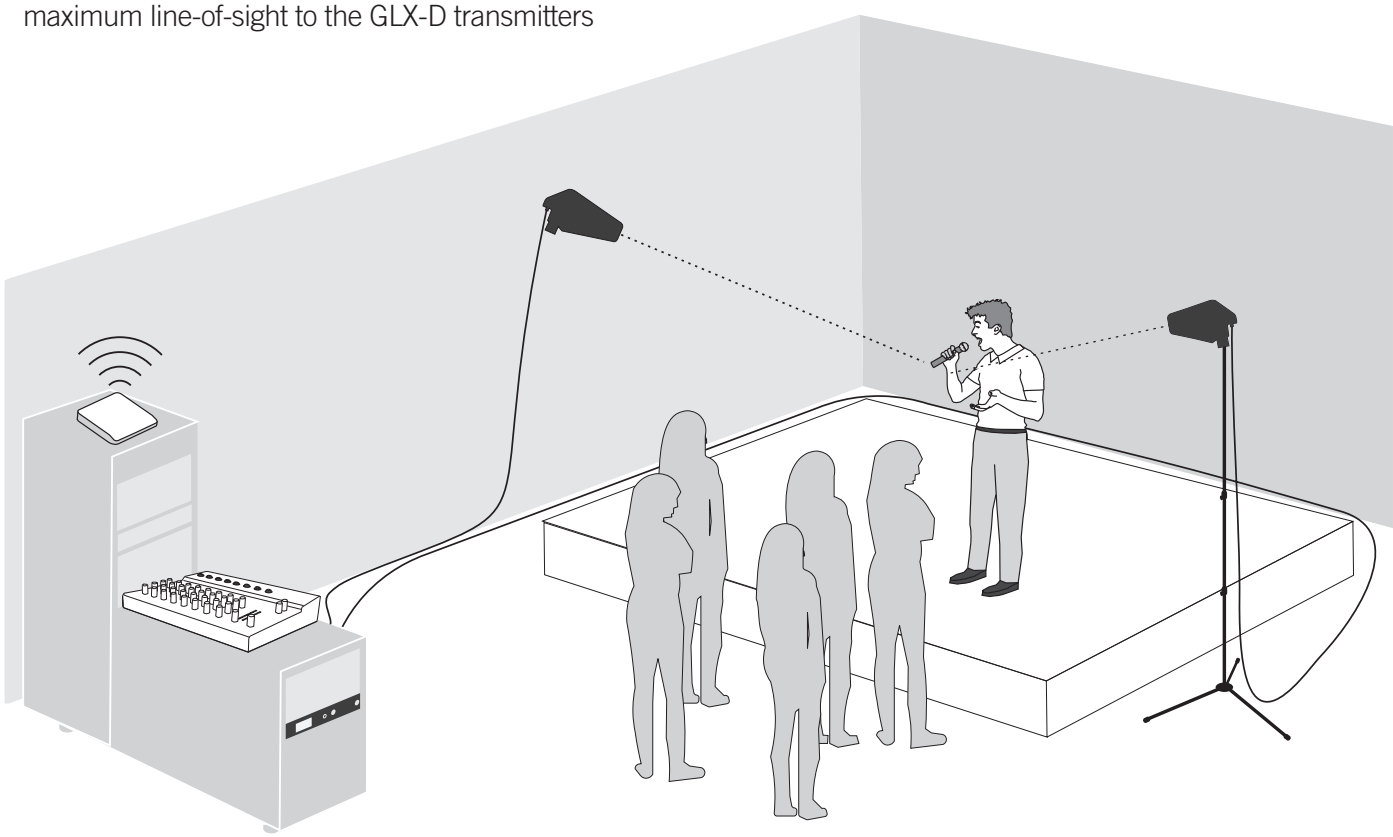
## Antenna Cables

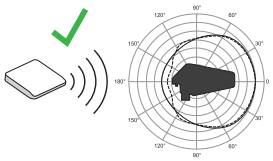
### RSMA Cables

50 Ω coaxial RF cables available in lengths of 6, 25, 50 and 100 feet for installation-specific antenna placement

## 3. Remote Mount Placement

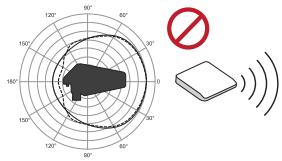
Remote mounted antennas should be positioned for maximum line-of-sight to the GLX-D transmitters





## 4. Directional Antenna Positioning

Position the rear of the antenna to a known wireless access point, with the front pointing to the transmitters.



RECHARGEABLE POWER MANAGEMENT

GLX-D transmitters feature best-in-class lithium-ion batteries that quickly recharge using the charging port on the receiver, or a variety of optional USB connectors. Staying ready for the show has never been simpler.

**More performing, less recharging.**
Get up to 16 hours of use from a single full charge.

**Ready to go when time is tight.**
Connect for a 15-minute quick charge and count on up to 1.5 hours of performance.

**An accurate pulse on battery life.**
Precision metering displays in hours and minutes on the GLXD4R receiver's LCD screen.

**The power to waste less.**
Each rechargeable battery delivers up to 10,000 hours of regular use, the equivalent of up to 2,500 disposable alkaline batteries.

**Charge battery in-transmitter with:**

- USB charge cable
- USB wall charger (available separately)
- USB car charger (available separately)

**Charge battery separately with:**

- GLXD4R integrated charge port
- USB battery dock charger (available separately)


## GROUNDBREAKING WIRELESS TECHNOLOGY— THIS IS NOTHING SHORT OF A REVOLUTION.

GLX-D® Advanced Digital Wireless is the best-sounding, easiest to use multi-system solution for small-to-medium houses of worship, education facilities and music performance venues.

## System Specifications

**Compatibility**
Operate up to 9 compatible systems in typical setting, up to 11 maximum under ideal conditions

**System Operating Range**
Indoors: Up to 100 feet (30 m) typical, with a maximum of 200 feet (60 m) under ideal conditions
Outdoors: Up to 65 feet (20 m) typical, with a maximum of 165 feet (50 m) under ideal conditions

**Transmit Mode**
Shure GLX-D Proprietary Digital

**Audio Frequency Response**
20 Hz – 20 kHz
Note: Dependent on microphone type

**Dynamic Range**
120 dB, A-weighted

**Latency**
Groups 1 and A: 4.0 ms
Groups 2, 3, 4 and B: 7.3 ms

**RF Sensitivity**
-88 dBm, typical

**Total Harmonic Distortion**
0.2%, typical

**RF Output Power**
10 mW E.I.R.P. max

**Operating Temperature Range**
–18 °C (0 °F) to 57 °C (135 °F)
Note: Battery characteristics may limit this range.

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

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

**Battery Life**
Up to 16 hours

NOTE: All Specifications are subject to change. Performance may vary depending on country regulations and operating environment.

## Frequency Manager, Receiver & Antenna Specifications

(Note: All preliminary specifications are subject to change.)

### UA846Z2 Frequency Manager

**Power Requirements**
15 VDC

**DC Output**
15 VDC (×6)

**Output Current**
Combined total from all DC outputs
3.8 A, maximum

**Operating Temperature Range**
–18 °C to 63 °C (0 °F to 145 °F)

**Dimensions**
45 × 483 × 192 mm
(1.8 × 19 × 7.6 in) H × W × D

**Net Weight**
1.63 kg (3.6 lbs)

**RF Input**
*Connector Type*
Reverse SMA
*RF Frequency Range*
2400 to 2483.5 MHz
*Receiver Port Isolation*
35 dB, typical
*Impedance*
50 Ω
*Maximum Antenna Input Power*
–10 dBm
*Maximum Receiver Port Input Power*
+15 dBm

**RF Output**
*Connector Type*
Reverse SMA
*RF Frequency Range*
2400 to 2483.5 MHz
*Output Intercept Point (OIP3)*
48 dBm, typical
*Impedance*
50 Ω
*Reverse Isolation*
Output to Input
35 dB, typical
*Gain*
Input to any output port
–3 to 0 dB

### GLXD4R Rack Mount Receiver

**Dimensions**
42 × 197 × 163 mm
(1.7 × 7.8 × 6.4 in.)
H × W × D

**Weight**
907.2 g (32 oz.) without batteries

**Housing**
Steel

**Power Requirements**
14 to 18 VDC (tip positive with respect to ring) 550 mA

**Spurious Rejection**
>35 dB, typical

**Gain Adjustment Range**
–18 to 42 dB in 1 dB steps

**Phantom Power Protection**
Yes

**Mic/Line Switch**
30 dB Pad

**Receiver Antenna Input**
*Impedance*
50 Ω
*Antenna Type*
½ Wave Sleeve Dipole
*Maximum Input Level*
–20 dBm

| Audio Output | XLR Output | 6.35 mm (1/4") Output |
|---|---|---|
| Configuration | Balanced | Impedance balanced |
| Impedance | 100 Ω | 100 Ω (50 Ω, Unbalanced) |
| Full-Scale Output | LINE setting +18 dBV, MIC setting –12 dBV | +12 dBV |
| Pin Assignments | 1=ground 2=hot 3=cold | Tip=audio Ring=no audio Sleeve=ground |

### PA805Z2-RSMA Passive Directional Antenna

**Frequency Range**
*<2:1 Voltage Standing Wave Ration (VSWR)*
2050 to 2700 MHz

**Antenna Gain**
@ 2.45 GHz, typical
8 dBi

**3 dB Horizontal Beam Width**
100 degrees

**Efficiency**
*@2.45 GHz, typical*
89%

**Impedance**
50 Ω

**Polarization**
Linear

**Front-to-back ratio**
*@2.45 GHz, typical*
24 dB

**Connector Type**
Reverse SMA

**Dimensions**
105 × 164 × 27.5 mm
(4.1 × 6.5 × 1.1 in.) H × W × D

**Net Weight**
2.5 oz. (70 g)

## Transmitter Specifications

### GLXD1 Bodypack Transmitter

**Dimensions**
90.4 × 64.5 × 22.9 mm
(3.56 × 2.54 × 0.90 in.), H × W × D

**Power Requirements**
3.7 V Rechargeable Li-Ion

**Housing**
Cast Metal, Black Powdercoat

**Input Impedance**
900 kΩ

**RF Output Power**
10 mW E.I.R.P. max

**Transmitter Input**
*Connector*
4-Pin male mini connector (TA4M)
*Configuration*
Unbalanced
*Maximum Input Level*
(1 kHz at 1% THD) +8.4 dBV (7.5 Vp-p)
*Antenna Type*
Internal Monopole
*Pin Assignments*
TA4M
1: Ground (cable shield)
2: +5 V Bias
3: Audio
4: Tied through active load to ground
(On instrument adapter cable, pin 4 floats)

### GLXD2 Handheld Transmitter

**Dimensions**
(SM58)
252 × 51 mm (9.9 × 2.0 in.) L × Dia.

**Weight**
(SM58, without batteries)
267 g (9.4 oz.)

**Power Requirements**
3.7 V Rechargeable Li-Ion

**RF Output Power**
10 mW E.I.R.P. max

**Maximum Input Level**
145 dB SPL

**Housing**
Molded Plastic

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