



## RF Exposure Evaluation Declaration

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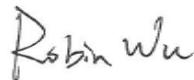
**FCC ID:** DD4GLXD4Z3  
**APPLICANT:** Shure Incorporated  
**Application Type:** Certification  
**Product:** Wireless Portable Receiver  
**Model No.:** GLXD4+ Z3  
**Brand Name:**   
**FCC Rule Part(s):** FCC Part 2 (Section 2.1091)  
**Test Date:** November 22, 2020 ~ April 07, 2021

Reviewed By:



Jame Yuan

Approved By:



Robin Wu



The test results relate only to the samples tested.

The test results shown in the test report are traceable to the national/international standards through the calibration of the equipment and evaluated measurement uncertainty herein.

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### Revision History

Report No.	Version	Description	Issue Date	Note
2103RSU001-U3	Rev. 01	Initial Report	04-13-2021	Valid

## 1. PRODUCT INFORMATION

### 1.1. Equipment Description

Product Name	Wireless Portable Receiver
Model No.	GLXD4+ Z3
Test Device Label No.	Radiated Sample: 20210301Sample#16 Conducted Sample: 20210301Sample#18
Radio Specification	2.4GHz & 5.8GHz
Operating Temperature	0 ~ 45 °C
Power Type	AC/DC Adapter
<b>Accessories</b>	
AC/DC Adapter	Model No.: PS43US Input Power: 100 - 240V ~ 50/60Hz, Max. 250mA Output Power: 15VDC 600mA

### 1.2. RF Specification

Frequency Range	2404 ~ 2478MHz 5729 ~ 5846MHz
Declared Channel Bandwidth	Full Bandwidth Mode: 2 MHz Half Bandwidth Mode: 1 MHz
Channel Number	2.4GHz: 36 5.8GHz: 55
Channel Spacing	1MHz
Type of Modulation	2-level CPM with Gaussian shaping (basically GFSK)
Antenna Number	2

Note 1: Total working frequencies refer to operation description.

Note 2: Two RF paths and antenna are the same and only one antenna can work during normal operation, it is switchable.

Note 3: All product information is provided by the manufacturer.

### 1.3. Antenna Details

Antenna Type	Frequency Band (MHz)	Max Peak Gain (dBi)
Dipole Antenna	2404	1.86
	2442	2.56
	2478	3.46
	5729	4.70
	5788	3.93
	5846	3.57

### 1.4. Applied Standards

KDB 447498 D01v06

## 2. RF Exposure Evaluation

### 2.1. Test Limit

According to FCC 1.1310: The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency (RF) radiation as specified in 1.1307(b)

#### LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm <sup>2</sup> )	Average Time (Minutes)
(A) Limits for Occupational/ Control Exposures				
300-1500	--	--	f/300	6
1500-100,000	--	--	5	6
(B) Limits for General Population/ Uncontrolled Exposures				
300-1500	--	--	f/1500	6
1500-100,000	--	--	1	30

f= Frequency in MHz

Calculation Formula:  $P_d = (P_{out} * G) / (4 * \pi * r^2)$

Where

$P_d$  = power density in mW/cm<sup>2</sup>

$P_{out}$  = output power to antenna in mW

G = gain of antenna in linear scale

$\pi$  = 3.1416

r = distance between observation point and center of the radiator in cm

$P_d$  is the limit of MPE, 1mW/cm<sup>2</sup>. If we know the maximum gain of the antenna and the total power input to the antenna, through the calculation, we will know the distance r where the MPE limit is reached.

## 2.2. Test Result

Product	Wireless Portable Receiver
Test Item	RF Exposure Evaluation

Frequency Band (MHz)	Maximum Turn-up E.I.R.P (dBm)	Power Density at R = 20 cm (mW/cm <sup>2</sup> )	Limit (mW/cm <sup>2</sup> )
2404 ~ 2478	10	0.0020	1
5729 ~ 5846	10	0.0020	1

Note: 2.4GHz band and 5.8GHz band can't work simultaneously.

### CONCLUSION:

The Max Power Density at R (20 cm) = 0.0020mW/cm<sup>2</sup> < 1mW/cm<sup>2</sup>.

So the EUT complies with the requirement.

\_\_\_\_\_ The End \_\_\_\_\_

## **Appendix - EUT Photograph**

Refer to "2103RSU001-UE" file.