

## RF Exposure Evaluation Report

**Report Reference No.**.....: **MTWG22040262-H**

**FCC ID**.....: **2AJA3- LY-S228**

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Date of issue.....: **March 24,2022**

**Representative Laboratory Name**..: **Shenzhen Most Technology Service Co., Ltd.**

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**Applicant's name**.....: **GUANGDONG LEIYON INTELLIGENCE TECHNOLOGY CORP.**

Address .....: BBK Road of Wusha, Changan Town, Dongguan City, Guangdong  
Province, China.

**Test specification/ Standard** .....: **47 CFR Part 1.1307**

**47 CFR Part 2.1093**

TRF Originator.....: Shenzhen Most Technology Service Co., Ltd.

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**Test item description** .....: Bluetooth Karaoke System

Trade Mark .....: Leiyon, Vocopro

Manufacturer .....: **GUANGDONG LEIYON INTELLIGENCE TECHNOLOGY CORP.**

Model/Type reference.....: LY-S228

Listed Models .....: KaraokePal

Modulation Type .....: GFSK,  $\pi/4$ DQPSK, 8DPSK

Operation Frequency.....: From 2402MHz to 2480MHz

Hardware Version.....: V5.0

Software Version .....: V1.0

Rating .....: DC 5V by Adapter  
DC7.4V by Battery

**TEST REPORT**

Equipment under Test : Bluetooth Karaoke System

Model /Type : LY-S228

Listed Models : KaraokePal

Remark : Only with different model names and trade Mark

Applicant : **GUANGDONG LEIYON INTELLIGENCE TECHNOLOGY CORP.**

Address : BBK Road of Wusha, Changan Town, Dongguan City,  
Guangdong Province, China.

Manufacturer : **GUANGDONG LEIYON INTELLIGENCE TECHNOLOGY CORP.**

Address : BBK Road of Wusha, Changan Town, Dongguan City,  
Guangdong Province, China.

<b>Test Result:</b>	<b>PASS</b>
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The test report merely corresponds to the test sample.

It is not permitted to copy extracts of these test result without the written permission of the test laboratory.

## 1. Revision History

Revision	Issue Date	Revisions	Revised By
00	2022.04.24	Initial Issue	Alisa Luo

## **2. SAR Evaluation**

### **2.1 RF Exposure Compliance Requirement**

#### **2.1.1 Standard Requirement**

According to KDB447498D01 General RF Exposure Guidance v06

##### **4.3.1. Standalone SAR test exclusion considerations**

Unless specifically required by the published RF exposure KDB procedures, standalone 1-g head or body and 10-g extremity SAR evaluation for general population exposure conditions, by measurement or numerical simulation, is not required when the corresponding SAR Exclusion Threshold condition, listed below, is satisfied.

#### **2.1.2 Limits**

The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances  $\leq 50$  mm are determined by:

$$\left[ \frac{\text{max. power of channel, including tune-up tolerance, mW}}{\text{min. test separation distance, mm}} \right] \cdot \left[ \sqrt{f(\text{GHz})} \right]$$
  
 $\leq 3.0$  for 1-g SAR and  $\leq 7.5$  for 10-g extremity SAR, where

$f(\text{GHz})$  is the RF channel transmit frequency in GHz

Power and distance are rounded to the nearest mW and mm before calculation<sup>17</sup>

The result is rounded to one decimal place for comparison

The test exclusions are applicable only when the minimum test separation distance is  $\leq 50$  mm and for transmission frequencies between 100 MHz and 6 GHz. When the minimum test separation distance is  $< 5$  mm, a distance of 5 mm is applied to determine SAR test exclusion

**2.1.3 EUT RF Exposure**

## Measurement Data

## BT classic

GFSK			
Test channel	Peak Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune-up Power
			(dBm)
Lowest(2402MHz)	1.23	$1.23 \pm 1$	2.23
Middle(2440MHz)	0.22	$0.22 \pm 1$	1.22
Highest(2480MHz)	-1.12	$-1.12 \pm 1$	-0.12

$\pi$ /4DQPSK			
Test channel	Peak Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune-up Power
			(dBm)
Lowest(2402MHz)	-0.52	$-0.52 \pm 1$	0.48
Middle(2440MHz)	-1.41	$-1.41 \pm 1$	-0.41
Highest(2480MHz)	0.10	$0.10 \pm 1$	1.10

8DPSK			
Test channel	Peak Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune-up Power
			(dBm)
Lowest(2402MHz)	-0.23	$-0.23 \pm 1$	0.77
Middle(2440MHz)	-1.44	$-1.44 \pm 1$	-0.44
Highest(2480MHz)	-1.56	$-1.56 \pm 1$	-0.56

Worst case: GFSK						
Channel	Maximum Peak Conducted Output Power (dBm)	Maximum tune-up Power		Calculated value	Exclusion threshold	SAR Test Exclusion
		(dBm)	(mW)			
Middle(2402MHz)	1.23	2.23	1.67	0.52	3.0	Yes

.....**THE END OF REPORT**.....