



Shenzhen Huaxia Testing Technology Co., Ltd

1F., Block A of Tongsheng Technology Building, Huahui Road, Dalang Street, Longhua District, Shenzhen, China

Telephone: +86-755-26648640

Fax: +86-755-26648637

Website: www.cqa-cert.com

Report Template Version: V04

Report Template Revision Date: 2018-07-06

RF Exposure Evaluation Report

Report No.: CQASZ20210400399E-02
Applicant: Meizhou Guo Wei Electronics Co., Ltd.
Address of Applicant: AD1 Section, Economic Development Area, Dongsheng Industrial District, Meizhou, Guangdong, China.
Equipment Under Test (EUT):
EUT Name: Wireless Portable Party Speaker
Model No.: ROKR 820
Brand Name: MOTOROLA
FCC ID: 2ARRB-SM820
Standards: 47 CFR Part 1.1307
47 CFR Part 2.1093
KDB447498D01 General RF Exposure Guidance v06
Date of Receipt: 2021-4-1
Date of Test: 2021-4-1 to 2021-4-14
Date of Issue: 2021-6-18
Test Result: PASS*

*In the configuration tested, the EUT complied with the standards specified above

Tested By:

Lewis Zhou

(Lewis Zhou)

Reviewed By:

Jun Li

(Jun Li)

Approved By:

Sheek Luo

(Sheek Luo)



1 Version

Revision History Of Report

Report No.	Version	Description	Issue Date
CQASZ20210400399E-02	Rev.01	Initial report	2021-6-18

2 Contents

	Page
1 VERSION.....	2
2 CONTENTS.....	3
.....	3
3 GENERAL INFORMATION.....	4
3.1 CLIENT INFORMATION.....	4
3.2 GENERAL DESCRIPTION OF EUT.....	4
4 SAR EVALUATION.....	5
4.1 RF EXPOSURE COMPLIANCE REQUIREMENT.....	5
4.1.1 <i>Standard Requirement</i>	5
4.1.2 <i>Limits</i>	5
4.1.3 <i>EUT RF Exposure</i>	6

3 General Information

3.1 Client Information

Applicant:	Meizhou Guo Wei Electronics Co., Ltd.
Address of Applicant:	AD1 Section, Economic Development Area, Dongsheng Industrial District, Meizhou, Guangdong, China.
Manufacturer:	Meizhou Guo Wei Electronics Co., Ltd.
Address of Manufacturer:	AD1 Section, Economic Development Area, Dongsheng Industrial District, Meizhou, Guangdong, China.
Factory:	Dongguan Jiadian Electronics Technology. Co., Ltd.
Address of Factory:	Xiacao Industrial Zone, Wangniudun Town, Dongguan City

3.2 General Description of EUT

Product Name:	Wireless Portable Party Speaker
Test Model No.:	ROKR 820
Trade Mark:	MOTOROLA
Hardware Version:	V1.0
Software Version:	V1.0
Operation Frequency:	2402MHz~2480MHz
Bluetooth Version:	V5.0
Modulation Technique:	Frequency Hopping Spread Spectrum(FHSS)
Modulation Type:	GFSK, $\pi/4$ DQPSK
Transfer Rate:	1Mbps/2Mbps
Number of Channel:	79
Hopping Channel Type:	Adaptive Frequency Hopping systems
Product Type:	☐ Mobile ☒ Portable ☐ Fix Location
Antenna Type:	PCB antenna
Antenna Gain:	1.3 dBi
EUT Power Supply:	lithium battery: Manufacturer:Guangdong Greenway Technology Co.,Ltd Model:M820 Ratings: 7.2V---5.1 Ah, 36.72Wh Adapter: Model:BQ18B-1201500-G Input: 100-240V~, 50/60Hz, Max. 500mA Output: DC12V, 1.5A, 18W

4 SAR Evaluation

4.1 RF Exposure Compliance Requirement

4.1.1 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.

4.1.2 Limits

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

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

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

Power and distance are rounded to the nearest mW and mm before calculation¹⁷

The result is rounded to one decimal place for comparison

The test exclusions are applicable only when the minimum test separation distance is ≤ 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

4.1.3 EUT RF Exposure

1) For BT

Measurement Data

GFSK mode				
Test channel	Peak Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune-up Power	
			(dBm)	(mW)
Lowest(2402MHz)	-0.470	-1.5±1	-0.5	0.891
Middle(2441MHz)	0.200	-1±1	0	1
Highest(2480MHz)	0.040	-1±1	0	1
π/4DQPSK mode				
Test channel	Peak Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune-up Power	
			(dBm)	(mW)
Lowest(2402MHz)	0.020	-1±1	0	1
Middle(2441MHz)	0.690	0±1	1	1.259
Highest(2480MHz)	0.590	0±1	1	1.259

Worst case: $\pi/4$ DQPSK mode						
Channel	Maximum Peak Conducted Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune- up Power		Calculated value	Exclusion threshold
			(dBm)	(mW)		
Lowest (2402MHz)	0.020	-1±1	0	1	0.00027	3.0
Middle (2441MHz)	0.690	0±1	1	1.259	0.00034	
Highest (2480MHz)	0.590	0±1	1	1.259	0.00034	
Conclusion: the calculated value ≤ 3.0 , SAR is exempted.						

Remark: The Max Conducted Peak Output Power data refer to report Report No.:CQASZ20210400399E-01