


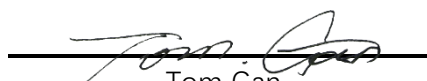
# RF Exposure Report

**Product name** ..... : Remote Controller  
**Trademark** ..... : N.A.  
**Model no.**..... : HS-8G  
**Series Model(s)**..... : N.A.  
**FCC ID** ..... : 2ANM3HS8G  
**IC**..... : 23165-HS8G  
**HVIN**..... : HS-8G  
**Report No** ..... : C240229043-RF02  
**Test Standards**..... : CFR47 FCC Part 2: Section 2.1093  
CFR47 FCC Part 1: Section 1.1310  
RSS-102 Issue 5 February 2021  
**Applicant**..... : Shenzhen Chuangwei-RGB Electronics Co., Ltd.  
**Address of applicant** ..... : 13F-16F, Unit A, Skyworth Building, Shennan Road,Nanshan  
District, Shenzhen, China  
**Manufacturer**..... : Shenzhen Chuangwei-RGB Electronics Co., Ltd.  
**Manufacturer Address**..... : 13F-16F, Unit A, Skyworth Building, Shennan Road,Nanshan  
District, Shenzhen, China  
**Date of Test Date**..... : N.A.  
**Date of issue**..... : Apr 08,2024  
**Test result**..... : Compliance

**Reviewed By** :

  
Adil Yang

**Approved Signatory** :

  
Tom Gan

The test results in the report only apply to the tested sample. The test report shall be invalid without all the signatures of testing engineers, reviewer and approver. Any objections must be raised to CSIC within 15 days since the date when the report is received. It will not be taken into consideration beyond this limit.

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# 1 TEST SUMMARY

## 1.1 Test Facility

Shenzhen Central Standard International Center Co., Ltd. (CSIC)

Room 201, Building 1, Mogen Fashion Industrial Park, No. 10, Shilongzai Road, Xinshi Community, Dalang Street, Longhua District, Shenzhen.

The test facility is recognized, certified or accredited by the following organizations:

CNAS Registration No.: L11671

FCC Registration No.: 0031378433 Designation Number: CN1317

IC CAB identifier: CN0051

A2LA Lab Cert. No.: 6426.01

## 2 GENERAL INFORMATION

### 2.1 General Description of EUT

Product information	
Product Name:	Remote Controller
Trademark:	N.A.
Model No:	HS-8G
Series Model:	N.A.
Power supply:	DC 3V for 2*AAA Battery
Hardware version:	Skyworth-K27-2672C-V1.2.0
Software version:	V0.1.0
Technical Specification of Bluetooth LE	
Frequency Range:	2402 MHz to 2480 MHz
Type of Modulation:	GFSK
Channel Number:	40 channels
Data Rate:	1 Mbps, 2 Mbps
Channel Separation:	2 MHz
Antenna type:	PIFA antenna
Antenna gain:	2.68dBi
Product factory information	
Name of factory 1:	N.A.
Address of factory 1:	N.A.
<b>Remark:</b>	

**Remark: The above information and materials are provided by the Manufacturer. and full tests were applied to the sample(C240229043-Y01/01) only in this document.**

### 3 Maximum Permissible Exposure (MPE)

#### 3.1 RF Exposure

##### 3.1.1 Limit

The limit for Maximum Permissible Exposure (MPE) specified in FCC 1.1310 and RSS-102 is followed. The gain of the antennas used in the product is extracted from the Antenna data sheets provided and also the maximum total power input to the antenna is measured. Through the Friis transmission formula and the maximum gain of the antenna, we can calculate the distance, away from the product, where the limit of MPE is reached. Although the Friis Transmission formula is far field assumption, the calculated result of that is an over-prediction for near field power density. It is taken as worst case to specify the safety range.

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

According to RSS-102: The criteria listed in the following table shall be used to evaluate the environmental impact of the human exposure to radio frequency (RF) radiation as specified in 2.5.2

For FCC:

Frequency Range [MHz]	Electric Field Strength [V/m]	Magnetic Field Strength [A/m]	Power Density [mW/cm <sup>2</sup> ]
Limits for Occupational / controlled Exposures			
300 - 1500	--	--	f/300
1500 - 100000	--	--	5.0
Limits for General population / Uncontrolled Exposure			
300 - 1500	--	--	f/1500
1500 - 100000	--	--	1.0

NOTE: f = Frequency in MHz

For IC:

Frequency [MHz]	Exemption Limits [mW]				
	At separation distance of ≤ 5 mm	At separation distance of ≤ 10 mm	At separation distance of ≤ 15 mm	At separation distance of ≤ 20 mm	At separation distance of ≤ 25 mm
≤ 300	71	101	132	162	193
450	52	70	88	106	123
835	17	30	42	55	67
1900	7	10	18	34	60
2450	4	7	15	30	52
3500	2	6	16	32	55
5800	1	6	15	27	41
Frequency [MHz]	At separation distance of ≤ 30 mm	At separation distance of ≤ 35 mm	At separation distance of ≤ 40 mm	At separation distance of ≤ 45 mm	At separation distance of ≥ 50 mm
≤ 300	223	254	284	315	345
450	141	159	177	195	213
835	80	92	105	117	130
1900	99	153	225	316	431
2450	83	123	173	235	309
3500	86	124	170	225	290
5800	56	71	85	97	106

### 3.1.2 Friss Formula

According to KDB447498 D01 General RF Exposure Guidance V06.

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:

$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] * [\sqrt{f(\text{GHz})}] \leq 3.0$  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;

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.

If we know the maximum gain of the antenna and the total output power to the antenna, through calculation, we will know MPE value at distance 5mm.

### 3.1.3 Classification

The antenna of this product, under normal use condition, is at least 5mm away from the body of the user. Warning statement to the user for keeping at least 5mm or more separation distance from the antenna should be included in the User manual. So, this device is classified as Mobile device.

### 3.1.4 EUT Operating Conditions

EUT was enabled to transmit and receive at lowest, middle and highest channels.

### 3.1.5 Evaluation Result

1) stand-alone transmission MPE

For FCC

Mode	Frequency (GHz)	*Measured RF Output Power (dBm)	Distance (mm)	Result calculation	Limit (1-g)
Bluetooth	2.402	-1.77	5	0.206	3.0

Note:

1. Bluetooth RF Output Power: Refer to test report C240229043-RF01

For IC

The maximum EIRP is 1.2mW and the limit is 4mW at 5mm, thus meeting RF exposure requirements.

Note:

1. Bluetooth RF Output Power: Refer to test report C240229043-RF01

### 3.1.6 Conclusion

Therefore, the maximum calculations result of above are meet the requirement of Radio Frequency Exposure (MPE) limit.

\*\*\*\*\*THE END\*\*\*\*\*