

1 Cover Page

RF Exposure Evaluation Report

Application No.: KSCR2111000242AT
FCC ID: 2ADTD-2CSR200
Applicant: Hangzhou Hikvision Digital Technology Co., Ltd.
Address of Applicant: No.555 Qianmo Road,Binjiang District Hangzhou 310052,China
Manufacturer: Hangzhou Hikvision Digital Technology Co., Ltd.
Address of Manufacturer: No.555 Qianmo Road,Binjiang District Hangzhou 310052,China
Factory: 1.Hangzhou Hikvision Technology Co., Ltd.
 2.Hangzhou Hikvision Electronics Co., Ltd.
 3.Chongqing Hikvision technology Co., LTD.
Address of Factory: 1.No.700,Dongliu Road, Binjiang District, Hangzhou Cty,Zhejiang, 310052, China
 2.No.299,Qiushi Road,Tonglu Economic Development Zone,Tonglu County, Hangzhou,Zhejiang,310052,China
 3.No. 118,Haikang Road,Area C, Jinqiao Industrial Park, Dadukou District, Chongqing, 401325, China

Equipment Under Test (EUT):

EUT Name: Remote
Model No.: DS-2CS-R200
Standard(s) : FCC Rules 47 CFR §2.1093
 KDB447498 D01 General RF Exposure Guidance v06
Date of Receipt: 2021-11-12
Date of Test: 2021-11-15 to 2021-12-15
Date of Issue: 2021-12-16

Test Result:	Pass*
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* In the configuration tested, the EUT complied with the standards specified above.

Eric Lin
EMC Lab Manager



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Revision Record			
Version	Description	Date	Remark
00	Original	2021-12-16	/

Authorized for issue by:			
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		Eric Lin / Reviewer	



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3 General Information

3.1 General Description of E.U.T.

Power supply:	DC 3V by two DC1.5V battery
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3.2 Technical Specifications

BLE

Antenna Gain:	1dBi (Provided by manufacturer)
Antenna Type:	PCB Antenna
Bluetooth Version:	V5.0 LE
Data Rate:	1Mbps & 2 Mbps
Channel Spacing:	2MHz
Modulation Type:	GFSK
Number of Channels:	40
Operation Frequency:	2402MHz to 2480MHz



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3.3 Test Location

All tests were performed at:

Compliance Certification Services (Kunshan) Inc.

No.10 Weiye Rd, Innovation park, Eco&Tec, Development Zone, Kunshan City, Jiangsu, China.

Tel: +86 512 5735 5888 Fax: +86 512 5737 0818

No tests were sub-contracted.

3.4 Test Facility

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

• **CNAS (No. CNAS L4354)**

CNAS has accredited Compliance Certification Services (Kunshan) Inc. to ISO/IEC 17025:2017 General Requirements for the Competence of Testing and Calibration Laboratories (CNAS-CL01 Accreditation Criteria for the Competence of Testing and Calibration Laboratories) for the competence in the field of testing.

• **A2LA (Certificate No. 2541.01)**

Compliance Certification Services (Kunshan) Inc. is accredited by the American Association for Laboratory Accreditation (A2LA). Certificate No. 2541.01.

• **FCC (Designation Number: CN1172)**

Compliance Certification Services Inc. has been recognized as an accredited testing laboratory. Designation Number: CN1172.

• **ISED (CAB identifier: CN0072)**

Compliance Certification Services (Kunshan) Inc. has been recognized by Innovation, Science and Economic Development Canada (ISED) as an accredited testing laboratory.

CAB Identifier: CN0072.

• **VCCI (Member No.: 1938)**

The 3m and 10m Semi-anechoic chamber and Shielded Room of Compliance Certification Services (Kunshan) Inc. has been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: R-20134, R-11600,C-11707, T-11499, G-10216 respectively.



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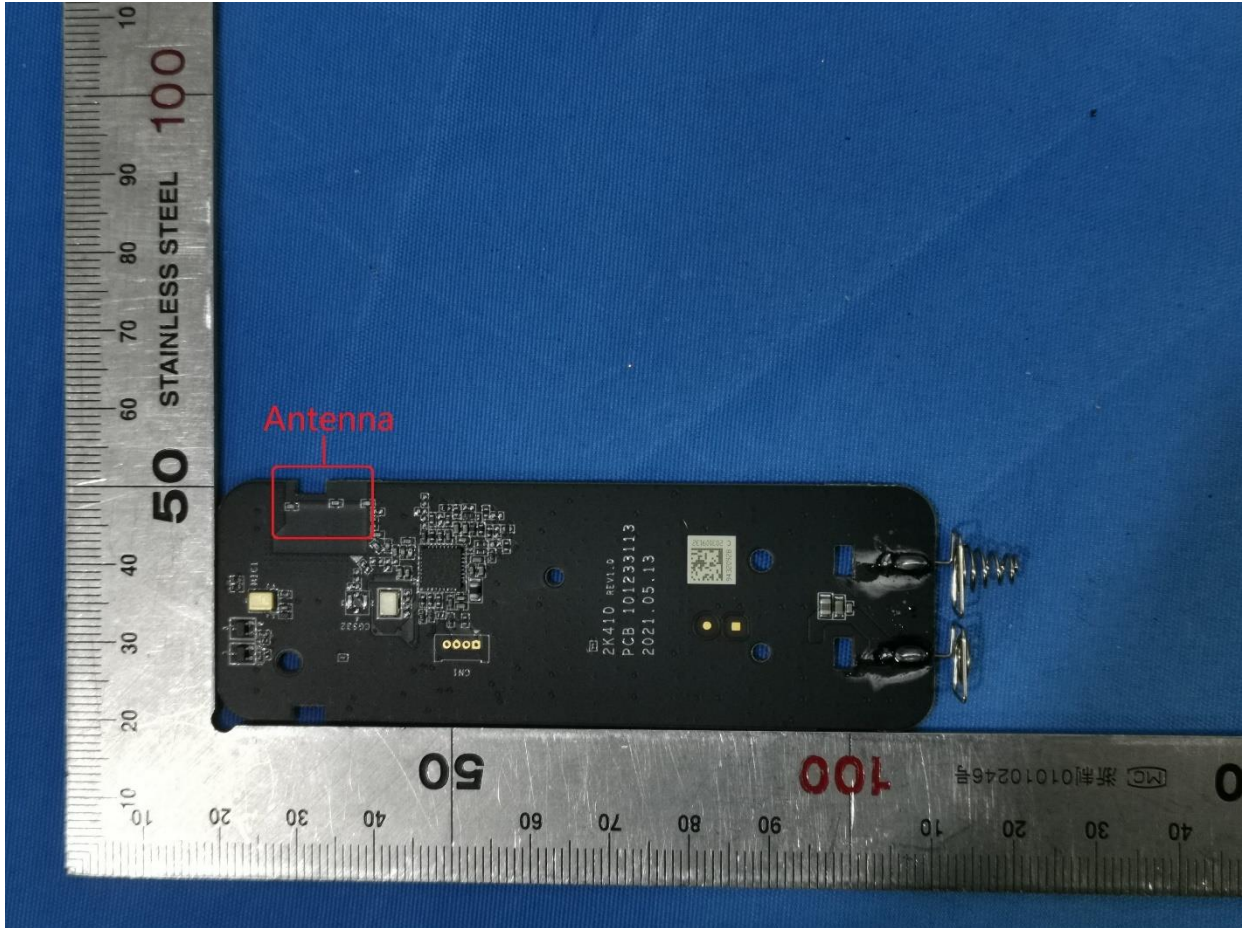
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4 Test Standards and Limits

4.1 DUT Antenna Locations



Note 1) The smallest distance between BT antenna and surface of the EUT is <math><5\text{mm}</math>.



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4.2 FCC Radiofrequency radiation exposure limits:

a) 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:

$[(\text{max power of channel})/(\text{min test separation distance})] \cdot [\sqrt{f(\text{GHz})}] \leq 3.0$ for 1-g SAR and ≤ 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
- The result is rounded to one decimal place for comparison
- 3.0 and 7.5 are referred to as the numeric thresholds

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 according to 4.1 f) is applied to determine SAR test exclusion.

b) For 100 MHz to 6 GHz and test separation distances $>$ 50 mm, the 1-g and 10-g SAR test exclusion thresholds are determined by the following (also illustrated in Appendix B):

1) $\{[\text{Power allowed at numeric threshold for 50 mm in step a)}] + [(\text{test separation distance} - 50 \text{ mm}) \cdot (f(\text{MHz})/150)]\}$ mW, for 100 MHz to 1500 MHz

2) $\{[\text{Power allowed at numeric threshold for 50 mm in step a)}] + [(\text{test separation distance} - 50 \text{ mm}) \cdot 10]\}$ mW, for $>$ 1500 MHz and \leq 6 GHz

The practical use condition for this device is as a handheld device. So the applicable limit is both 10-g SAR.

The practical use condition for this device is as a hand hold. So the applicable limit is

$$P_{\text{max} \leq 7.5 \cdot D_{\text{min}} / \sqrt{f}} = 7.5 \cdot 5 / \sqrt{2.480} = 23.81 \text{ mW}$$



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5 Measurement and Calculation

5.1 Maximum transmit power

The Power Data is based on the RF Test Report KSCR211100024201

Test Mode	Test Frequency (MHz)	Output Power (dBm)	Reading Power (mW)
1M	2402	7.98	6.28
	2440	7.93	6.21
	2480	7.95	6.24
2M	2402	7.94	6.22
	2440	7.89	6.15
	2480	7.94	6.22

5.2 MPE Calculation

The Max Conducted Peak Output Power is 6.28mW. The best case gain of the antenna is 1dBi. 1dBi logarithmic terms convert to numeric result is nearly 1.26

The E.I.R.P.= P*G=6.28×1.26 = 7.91mW< 23.81mW

So the device is exclusion from SAR test.

--End of the Report--



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