



1 Cover Page

RF Exposure Evaluation Report

Application No.: SHEM2103001856CR
FCC ID: 2ADTD-K1T804BEF
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. Hangzhou Hikvision Digital Technology Co., Ltd.
Address of Factory: 1. No. 700, Dongliu Road, Binjiang District, Hangzhou City, Zhejiang, 310052, China
2. No. 299, Qiushi Road, Tonglu Economic Development Zone, Tonglu County, Hangzhou, Zhejiang, 310052, China
3. No. 555, Qianmo Road, Binjiang District, Hangzhou City, Zhejiang Province, China
Equipment Under Test (EUT):
EUT Name: Fingerprint Access Control Terminal
Model No.: DS-K1T804BEF
Add Model No.: DS-K1T804BEFUHK, DS-K1T804BEFCKV, DS-K1T804BEFUVS, DS-K1T804BEFKVO, DS-K1T804BEFHUN
Trade Mark: HIKVISION
Standard(s) : FCC Rules 47 CFR §2.1091
KDB447498 D01 General RF Exposure Guidance v06
Date of Receipt: 2021-03-13
Date of Test: 2021-03-29 to 2021-04-02
Date of Issue: 2021-04-09

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

Parlan Zhan

Parlan Zhan
E&E Section Manager

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Revision Record			
Version	Description	Date	Remark
00	Original	2021-04-09	/

Authorized for issue by:			
			
		Micheal Niu / Project Engineer	
			
		Parlam Zhan /Reviewer	



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3 General Information

3.1 General Description of E.U.T.

Power supply:	DC 12V by adapter
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3.2 Technical Specifications

2.4G WiFi

Antenna Gain:	2.42dBi(Provided by the manufacturer)
Antenna Type:	PCB antenna
Channel Spacing:	5MHz
Modulation Type:	802.11b: DSSS (CCK, DQPSK, DBPSK) 802.11g/n: OFDM (64QAM, 16QAM, QPSK, BPSK)
Number of Channels:	802.11b/g/n(HT20):11 802.11n(HT40):7
Operation Frequency:	802.11b/g/n(HT20): 2412MHz to 2462MHz 802.11n(HT40): 2422MHz to 2452MHz

125kHz:

Antenna Type	Loop Antenna
Modulation Type	ASK
Number of Channels	1
Operation Frequency	125kHz



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

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.

Company Number: 2324E

- **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-1600, C-1707, T-1499, G-10216 respectively.

4 Test Standards and Limits

4.1 FCC Radiofrequency radiation exposure limits:

According to §1.1310, the limit for general population/uncontrolled exposures

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm ²)	Averaging time (minutes)
Limits for General Population/Uncontrolled Exposure				
0.3-1.34	614	1.63	*(100)	30
1.34-30	824/f	2.19/f	*(180/f ²)	30
30-300	27.5	0.073	0.2	30
300-1500	/	/	f/1500	30
1500-100,000	/	/	1.0	30

Note: Limit for 2.4GHz is 1.0 mW/cm²

5 Measurement and Calculation

5.1 Maximum transmit power

The Power Data is based on the RF Test Report SHEM210300185602

Test Mode	Test Channel	Ant	Power [dBm]	Power [mW]
11B	2412	Ant1	16.45	44.16
11B	2437	Ant1	17.73	59.29
11B	2462	Ant1	17.08	51.05
11G	2412	Ant1	16.40	43.65
11G	2437	Ant1	17.74	59.43
11G	2462	Ant1	17.33	54.08
11N20SISO	2412	Ant1	16.13	41.02
11N20SISO	2437	Ant1	17.87	61.24
11N20SISO	2462	Ant1	16.82	48.08
11N40SISO	2422	Ant1	17.60	57.54
11N40SISO	2437	Ant1	17.44	55.46
11N40SISO	2452	Ant1	17.66	58.34

5.2 MPE Calculation

For WiFi:

According to the formula $S = P / 4\pi R^2$, we can calculate S which is MPE.

Note:

- 1) P (mW)
- 2) R = distance to the center of radiation of antenna (in meter) = 20cm
- 3) MPE limit = 1mW/cm²

The max. antenna gain is 2.42 dBi

Max. Conducted Power P(mW)	Gain in Linear Scale G	Operation Distance R(cm)	Power Density (mW/cm ²)	Limit (mW/cm ²)	Result
61.24	1.746	20	0.02127	1	Pass

According to the KDB447498 section 7.2 determine the device is exclusion from SAR test.

--End of the Report--