

Report No.: SHEM191001835901

Page: 1 of 7

# 1 Cover Page

**Factory:** 

# RF Exposure Evaluation Report

**Application No.**: SHEM1910018359CR **FCC ID:** 2ADTD-KH9300A

**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

1.Hangzhou Hikvision Technology Co., Ltd. 2.Hangzhou Hikvision Electronics Co., Ltd.

3.Hangzhou Hikvision Digital Technology Co., Ltd.

1. No.700, Dongliu Road, Binjiang District, Hangzhou City, Zhejiang,

310052, China

Address of Factory:

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):** 

Add Model No.:

**EUT Name:** IP Video Intercom Indoor Station

Model No.: DS-KH9300-A

DS-KH9300-AUHK, DS-KH9300-ACKV, DS-KH9300-AUVS, DS-KH9300-

AKVO, DS-KH9300-AHUN, DS-KH9300-WT, DS-KH9300-WTUHK, DS-

KH9300-WTCKV, DS-KH9300-WTUVS, DS-KH9300-WTKVO, DS-

KH9300-WTHUN;

Trade Mark: HIKVISION

FCC Rules 47 CFR §2.1091

Standard(s): KDB447498 D01 General RF Exposure Guidance v06

**Date of Receipt:** 2019-10-29

**Date of Test:** 2019-10-31 to 2019-11-07

**Date of Issue:** 2019-11-07

Test Result: Pass\*

Parlam Zhan E&E Section Manager

The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report. If the product in this report is used in any configuration other than that detailed in the report, the manufacturer must ensure the new system complies with all relevant standards. Any mention of SGS International Electrical Approvals or testing done by SGS International Electrical Approvals in connection with, distribution or use of the product described in this report must be approved by SGS International Electrical Approvals in writing.

Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions.aspx</a> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="https://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx">https://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

NO.588 West Jindu Road,Songjiang District,Shanghai,China 201612 中国・上海・松江区金都西路588号 邮编: 201612 t(86-21) 61915666 f(86-21)61915678 www.sgsgroup.com.cn t(86-21) 61915666 f(86-21)61915678 e sgs.china@sgs.com

<sup>\*</sup> In the configuration tested, the EUT complied with the standards specified above.



Report No.: SHEM191001835902

Page: 2 of 7

Revision Record					
Version	Description	Date	Remark		
00	Original	2019-11-07	/		

Authorized for issue by:		
	Vincent Zhu	
	Vincent Zhu /Project Engineer	
	Parlam Zhan	
	Parlam Zhan /Reviewer	



Report No.: SHEM181100065502

Page: 3 of 7

## 2 Contents

			Page
1	CO	VER PAGE	1
2	CON	NTENTS	3
3	GEN	NERAL INFORMATION	4
	3.1	GENERAL DESCRIPTION OF E.U.T.	4
	3.2	TEST LOCATION	5
	3.3	TEST FACILITY	5
4	TES	ST STANDARDS AND LIMITS	<del>6</del>
	4.1	FCC RADIOFREQUENCY RADIATION EXPOSURE LIMITS:	<i>6</i>
5 MEASUREMENT AND CALCULATION			<del>6</del>
	5.1	MAXIMUM TRANSMIT POWER	<i>6</i>
	5.2	MPE CALCULATION	-



Report No.: SHEM181100065502

Page: 4 of 7

## 3 General Information

# 3.1 General Description of E.U.T.

Power supply:	DC 12V by adapter	
Test voltage:	AC 120V 60Hz	
Antenna Gain	2.61dBi	
Antenna Type	PCB Antenna	
Channel Spacing	5MHz	
Madulatian Tons	802.11b: DSSS (CCK, DQPSK, DBPSK)	
Modulation Type	802.11g/n: OFDM (64QAM, 16QAM, QPSK, BPSK)	
Ni wah an af Oh ann ala	802.11b/g/n(HT20):11	
Number of Channels	802.11n(HT40):7	
On a matical Francisco	802.11b/g/n(HT20): 2412MHz to 2462MHz	
Operation Frequency	802.11n(HT40): 2422MHz to 2452MHz	



Report No.: SHEM181100065502

Page: 5 of 7

#### 3.2 Test Location

All tests were performed at:

SGS-CSTC Standards Technical Services Co., Ltd. Shanghai Branch

588 West Jindu Road, Xinqiao, Songjiang, 201612 Shanghai, China.

Tel: +86 21 6191 5666 Fax: +86 21 6191 5678

## 3.3 Test Facility

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

#### CNAS (No. CNAS L0599)

CNAS has accredited SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. to ISO/IEC 17025:2005 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.

#### • NVLAP (Certificate No. 201034-0)

SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. is accredited by the National Voluntary Laboratory Accreditation Program(NVLAP). Certificate No. 201034-0.

#### FCC –Designation Number: CN5033

SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. has been recognized as an accredited testing laboratory.

Designation Number: CN5033. Test Firm Registration Number: 479755.

#### Innovation, Science and Economic Development Canada

SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. EMC Laboratory has been recognized by ISED as an accredited testing laboratory.

IC Registration No.: 8617A-1. CAB Identifier: CN0020.

#### VCCI (Member No.: 3061)

The 3m Semi-anechoic chamber and Shielded Room of SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. has been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: R-13868, C-14336, T-12221, G-10830 respectively.



Report No.: SHEM181100065502

Page: 6 of 7

### 4 Test Standards and Limits

## 4.1 FCC Radiofrequency radiation exposure limits:

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

Frequency	Power density(mW/cm²)	Averaging time(minutes)
300MHz~1.5GHz	f/1500	30
1.5GHz~100GHz	1.0	30

### 5 Measurement and Calculation

### 5.1 Maximum transmit power

The Power Data is based on the RF Test Report SHEM191001835901

Test Mode	Test Channel	Ant	Power [dBm]	Power [mW]
11B	2412	Ant1	14.04	25.35
11B	2442	Ant1	15.15	32.73
11B	2472	Ant1	16.05	40.27
11G	2412	Ant1	13.47	22.23
11G	2442	Ant1	14.42	27.67
11G	2472	Ant1	14.98	31.48
11N20SISO	2412	Ant1	13.45	22.13
11N20SISO	2442	Ant1	14.46	27.93
11N20SISO	2472	Ant1	14.81	30.27
11N40SISO	2422	Ant1	12.80	19.05
11N40SISO	2437	Ant1	13.31	21.43
11N40SISO	2452	Ant1	13.40	21.88



Report No.: SHEM181100065502

Page: 7 of 7

### 5.2 MPE Calculation

For FCC:

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
- MPE limit = 1mW/cm²

The max. antenna gain is

2.61 dBi

Max. Conducted Power P(mW)	Gain in Linear Scale G	Operation Distance R(cm)	Power Density (mW/cm <sup>2</sup> )	Limit (mW/cm²)	Result
40.27	1.824	20	0.01461	1	Pass

So the device is exclusion from SAR test.

-- End of the Report--