

# 1 Cover Page

## RF Exposure Evaluation Report

**Application No.:** KSCR2111000219AT  
 2ADTD-M010301113

**Applicant:** Hangzhou Hikvision Digital Technology Co.,Ltd.

**Address of Applicant:** No. 555, Qianmo Road, Binjiang District, Hangzhou

**Manufacturer:** Hangzhou Hikvision Digital Technology Co.,Ltd.

**Address of Manufacturer:** No. 555, Qianmo Road, Binjiang District, Hangzhou

**Factory:** 1.Hangzhou Hikvision Electronics Co., Ltd.  
 2.Hangzhou Hikvision Technology Co., Ltd.  
 3.CHONGQING HIKVISION TECHNOLOGY CO.,LTD  
 1.No.299,Qiushi Road,Tonglu Economic Development Zone,Tonglu County, Hangzhou,Zhejiang.

**Address of Factory:** 2.No.700 Dongliu Road, Binjiang District, Hangzhou 310052, China  
 3.No. 118, Haikang Road, Area C, Jianqiao Industrial Park, Dadukou District, Chongqing, 401325,China

**Equipment Under Test (EUT):**

**EUT Name:** Relay Module

**Model No.:** DS-PM1-O1L-WA

**Add Model No.:** DS-PM1-O1L-WAUHK,DS-PM1-O1L-WACKV,DS-PM1-O1L-WAUVS,DS-PM1-O1L-WAKVO,DS-PM1-O1L-WAHUN

**Standard(s) :** FCC Rules 47 CFR §2.1091

**Date of Receipt:** 2021-11-08

**Date of Test:** 2021-11-09 to 2021-11-29

**Date of Issue:** 2021-11-30

<b>Test Result:</b>	<b>Pass*</b>
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\* In the configuration tested, the EUT complied with the standards specified above.

Eric Lin  
 Laboratory 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.



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Revision Record			
Version	Description	Date	Remark
00	Original	2021-11-30	/

Authorized for issue by:			
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		Eric Lin	
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		Eric Lin / Reviewer	



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## 2 Contents

	Page
1 COVER PAGE.....	1
2 CONTENTS .....	3
3 GENERAL INFORMATION .....	4
3.1 GENERAL DESCRIPTION OF E.U.T. ....	4
3.2 TECHNICAL SPECIFICATIONS .....	4
3.3 TEST LOCATION .....	5
3.4 TEST FACILITY.....	5
4 TEST STANDARDS AND LIMITS .....	6
4.1 FCC RADIOFREQUENCY RADIATION EXPOSURE LIMITS:.....	6
5 MEASUREMENT AND CALCULATION .....	7
5.1 MAXIMUM TRANSMIT POWER .....	7
5.2 MPE CALCULATION .....	7



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### 3 General Information

#### 3.1 General Description of E.U.T.

Power supply:	DC 7-24V,200mA Max
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#### 3.2 Technical Specifications

Operation Frequency:	912.5MHz ~ 917.4MHz
Number of Channels:	50
Channel Spacing:	100kHz
Modulation Type:	FSK
Antenna Gain:	0.5 dBi (Provided by manufacturer)
Antenna Type:	Monopole Antenna
Spectrum Spread:	Frequency Hopping Spread Spectrum (FHSS)



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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.

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-20134, R-11600,C-11707, T-11499, G-10216 respectively.



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## 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/cm <sup>2</sup> )	Averaging time(minutes)
300MHz~1.5GHz	f/1500	30
1.5GHz~100GHz	1.0	30



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## 5 Measurement and Calculation

### 5.1 Maximum transmit power

The Power Data is based on the RF Test Report KSCR211100021901

Test Mode	Channel	Antenna Power[dBm]	Antenna Power[mW]
FSK	912.5	12.21	16.63
	917.4	12.05	16.03

### 5.2 MPE Calculation

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) For 912.5MHz ~ 917.4MHz, the limit: 912.5MHz / 1500 = 0.608mW/cm<sup>2</sup>.

The max. antenna gain is		0.5	dBi		
Max. Conducted Power P(mW)	Gain in Linear Scale G	Operation Distance R(cm)	Power Density (mW/cm <sup>2</sup> )	Limit (mW/cm <sup>2</sup> )	Result
16.63	1.122	20	0.00371	0.608	Pass

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

**--End of the Report--**



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