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Report No.: SHEM160300099003

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1 Cover Page

FCC MPE REPORT

Application No.:	on No.: SHEM1603000990CR				
Applicant:	Zhejiang Dahua Vision Technology Co., Ltd.				
FCC ID:	SVNDH-PFM88				
Equipment Under Tes	t (EUT):				
NOTE: The following sa	ample(s) submitted was/were identified on behalf of the client as				
Product Name:	5G Wireless Video Transmission Device CPE				
Model No.(EUT):	Model No.(EUT): DH-PFM881				
Add Model No.: PFM881, DHI-PFM881					
Standards: FCC Rules 47 CFR §2.1091					
KDB447498 D01 General RF Exposure Guidance v06					
Date of Receipt:	2016-03-16				
Date of Test: 2016-04-12 to 2016-04-18					
Date of Issue:	2016-05-03				
Test Result: Pass*					

* In the configuration tested, the EUT detailed in this report complied with the standards specified above.

Parlam Zhan E&E Section Manager SGS-CSTC (Shanghai) Co., Ltd.

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 s used in any configuration other than that detailed in the report, the manufacturer must ensure the new system complies with all relevant standards.

The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government. All test results in this report can be traceable to National or International Standards.

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2 Version

Revision Record							
Version	Chapter Date		Modifier	Remark			
00	/	2016-05-03	/	Original			

Authorized for issue by:		
Engineer	Eddy Zong	Eddy Zong
	Print Name	
Clerk	Susie Liu	Suite Liv
	Print Name	
Reviewer	Parlam Zhan	Parlam Zhan
	Print Name	



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4 General Information

4.1 Client Information

Applicant:	Zhejiang Dahua Vision Technology Co., Ltd.			
Address of Applicant:	The 1st Floor, Building F, No.1199 Binan Road, Changhe Street, Binjiang District, Hangzhou, Zhejiang, P.R.China			
Manufacturer:	Zhejiang Dahua Vision Technology Co., Ltd.			
Address of Manufacturer:	The 1st Floor, Building F, No.1199 Binan Road, Changhe Street, Binjiang District, Hangzhou, Zhejiang, P.R.China			
Factory:	Zhejiang Dahua Vision Technology Co., Ltd.			
Address of Factory:	No.1199 Binan Road, Changhe Street, Binjiang District, Hangzhou, Zhejiang, P.R.China			

4.2 General Description of E.U.T.

Product Description:		Portable product with WiFi function			
Rated Input:		DC 24V 0.5A PoE			
Adapter:	Model No.:	GRT-24005	GRT-240050		
	Rated Input:	AC 100V-240V 50/60Hz			
	Rated Output:	DC 24V 500mA			
	Cable length:	AC port:	2 wires		
		DC port:	90 cm		
Test Voltage:	AC 120V 60Hz f	OV 60Hz for adapter			

4.3 Technical Specifications

Operation Frequency:	5745-5825MHz
Modulation Technique:	OFDM(64QAM, 16QAM, QPSK, BPSK)
Data Rate:	802.11a: 6/9/12/18/24/36/48/54Mbps 802.11n: MCS0-15 up to 300Mbps
Antenna Type	Integral
Antenna Gain	15dBi
Number of Channel:	802.11 a/n(HT20): 5 Channel 149, 153, 157, 161, 165 802.11 n(HT40): 2 Channel 151, 159

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4.4 Test Location

All tests were performed at:

SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd.

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

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

4.5 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.

FCC – Registration No.: 402683

SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. has been registered and fully described in a report filed with the Federal Communications Commission (FCC). The acceptance letter from the FCC is maintained in our files. Registration No.: 402683.

Industry Canada (IC) – IC Assigned Code: 8617A

The 3m Semi-anechoic chamber of SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 8617A-1.

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-3868, C-4336, T-2221, G-830 respectively.



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5 Test Standards and Limits

According to §1.1310 Radiofrequency radiation exposure limits:

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		



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6 Measurement and Calculation

6.1 Maximum transmit power

The Powe Data is based on the RF Test Report SHEM160300099002.

Test Mode	CH No.	Freq (MHz)	Reading (dBm)		Conducted Power (dBm)		
1 est iviode			Ant A	Ant B	Ant A	Ant B	MIMO
	149	5745	8.53	8.47	9.03	8.97	12.01
802.11a	157	5785	9.00	8.01	9.50	8.51	12.04
	165	5825	10.21	8.06	10.71	8.56	12.78
000.44	149	5745	8.38	8.60	8.88	9.10	12.00
802.11n	157	5785	8.89	7.74	9.39	8.24	11.86
(HT20)	165	5825	10.16	7.91	10.66	8.41	12.69
802.11n	151	5755	9.74	7.99	10.24	8.49	12.46
(HT40)	159	5795	9.68	8.45	10.18	8.95	12.62



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6.2 MPE Calculation

According to the formula S= $\frac{PG}{4R^2\pi}$, we can calculate S which is MPE.

Note:

dBm

- 1) P (Watts) = Power Input to antenna = 10^{10} / 1000
- 2) G (Antenna gain in numeric) = 10[^] (Antenna gain in dBi /10)
- 3) R = distance to the center of radiation of antenna (in meter) = 20cm
- 4) MPE limit = 1mW/cm²

The Max Conducted Peak Output Power is 18.97mW in highest channel;

The best case gain of the antenna is 15dBi. 15dB logarithmic terms convert to numeric result is nearly 31.62

$$S = \frac{PG}{4R^2\pi} = \frac{18.97 \times 31.62}{4 \times 400 \times 3.14} = 0.119 \text{ mW/cm}^2$$

So the device is exclusion from SAR test.

7 EUT Constructional Details

Refer to the < DH-PFM881_External Photos > & < DH-PFM881_Internal Photos>.

-- End of the Report--