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

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1 Cover Page

FCC MPE REPORT

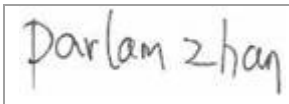
Application No.:	SHEM1606003842CR
Applicant:	Wirepath Home Systems. DBA SnapAV
FCC ID:	2AJAC-300CUB
Equipment Under Test (EUT): **NOTE:** The following sample(s) was/were submitted and identified by the client as	
Product Name:	IP Camera
Model No.(EUT):	LUM-300-CUB-IPW-WH
Standards:	FCC Rules 47 CFR §2.1091 KDB447498 D01 General RF Exposure Guidance v05r02
Date of Receipt:	2016-06-23
Date of Test:	2016-06-23 to 2016-07-12
Date of Issue:	2016-07-12
Test Result:	**Pass***

* In the configuration tested, the EUT complied with the standards specified above.

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

2 Version

Revision Record				
Version	**Chapter**	**Date**	**Modifier**	**Remark**
00	/	2016-07-12	/	Original

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

3 Contents

4 General Information

4.1 Client Information

Applicant:	Wirepath Home Systems. DBA SnapAV
Address of Applicant:	1800 Continental Blvd Suite 200 Charlotte, NC 28273
Manufacturer:	Wirepath Home Systems. DBA SnapAV
Address of Manufacturer:	1800 Continental Blvd Suite 200 Charlotte, NC 28273
Factory:	Wirepath Home Systems. DBA SnapAV
Address of Factory:	1800 Continental Blvd Suite 200 Charlotte, NC 28273

4.2 General Description of E.U.T.

Product Description:	Fixed product with Enternet port and WiFi monitor function
Brand Name:	LUMA

Power Supply:

Rated Input:	DC 12V or PoE		
Test Voltage:	AC 230V 50Hz for adapter		
Adapter:	Model No.:	DSA-12PFT-12 FUS 120100	
	Rated Input:	AC 100V-240V 50/60Hz 500mA	
	Rated Output:	DC 12V 1A	
	Cable length:	AC port:	2 wires
		DC port:	140 cm

4.3 Details of E.U.T.

Operation Frequency:	802.11 b/g/n(HT20): 2412MHz~2462MHz 802.11 n(HT40): 2422MHz~2452MHz
Modulation Technique:	802.11 b: DSSS(CCK, DQPSK, DBPSK) 802.11 g/n(HT20/n(HT40): OFDM(64QAM, 16QAM, QPSK, BPSK)
Data Rate:	802.11 b: 1/2/5.5/11Mbps 802.11 g: 6/9/12/18/24/36/48/54Mbps 802.11 n(HT20): 13/26/39/52/78/104/117/135Mbps 802.11 n(HT40): 27/54/81/108/162/216/243/270Mbps
Number of Channel:	802.11 b/g/n(HT20): 11 802.11 n(HT40): 7
Antenna Type:	Integral
Antenna Gain:	2.4 dBi

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. Date of expiry: 2017-07-14.

- **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, Expiry Date: 2017-09-16.

- **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. Expiry Date: 2017-06-18.

- **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. Date of Expiry: 2017-11-16.

5 Test Standards and Limits

5.1 FCC Radiofrequency radiation exposure limits:

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

Frequency	Power density(mW/cm^2)	Averaging time(minutes)
300MHz~1.5GHz	f/1500	30
1.5GHz~100GHz	1.0	30

6 Measurement and Calculation

6.1 Maximum transmit power

The Power Data is based on the RF Test Report SHEM160600384202.

Test mode	Test Frequency (MHz)	Output Power (dBm)	Output Power (mW)
802.11b	2412	18.11	64.71
	2437	18.61	72.61
	2462	18.79	**75.68**
802.11g	2412	15.86	38.55
	2437	16.30	42.66
	2462	16.59	45.60
802.11 n(HT20)	2412	15.46	35.16
	2437	15.96	39.45
	2462	16.21	41.78
802.11 n(HT40)	2422	15.16	32.81
	2437	15.40	34.67
	2452	15.55	35.89

6.2 MPE Calculation

The Max Conducted Peak Output Power is 75.68mW in highest channel;
The best case gain of the antenna is 2.4dBi. 2.4dB logarithmic terms convert to numeric result is nearly 1.74.

For FCC:

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

Note:

1) P (Watts) =Power Input to antenna $=10^{\frac{dBm}{10}}$ / 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

$S=\frac{PG}{4R^2\pi}=\frac{75.68\times1.74}{4\times400\times3.14}$ =0.02621 mW/cm^2

7 EUT Constructional Details

Refer to the < LUM-300-CUB-IPW-WH _External Photos > & < LUM-300-CUB-IPW-WH _Internal Photos>.

--End of the Report--