

# FCC TEST REPORT

For

Shen Zhen Sai Xing Industrial Co., Ltd

Product Name: IP CAMERA

Model No.: Reference page 3

Prepared for : Shen Zhen Sai Xing Industrial Co., Ltd  
Address : Floor 4, Building 28, Beifang Yongfa Technology Garden,  
Gonghe No. 1 Industrial Area, Shajing, Baoan Area, Shenzhen,  
Guangdong, China.

Prepared by : SHENZHEN POCE TECHNOLOGY CO., LTD.  
Address : H Building, Hongfa Science And Technology Park, Tangtou,  
Shiyan, Bao'an District, Shenzhen, China

Date of receipt of test sample : Nov. 26, 2015  
Number of tested samples : 1  
Serial number : Prototype  
Date of Test : Nov. 26, 2015 – Dec. 04, 2015  
Date of Report : Dec. 04, 2015

***Note:** This test report is limited to the above client company and the product model only. It may not be duplicated without prior written consent of Shenzhen POCE Technology Co., Ltd.*

**FCC TEST REPORT**

FCC Part 15B: 2014

Report Reference No. .... : POCE15112033URF

Date of Issue..... : Dec. 04, 2015

Testing Laboratory Name..... : SHENZHEN POCE TECHNOLOGY CO., LTD.

Address..... : H Building, Hongfa Science And Technology Park, Tangtou,  
Shiyan, Bao'an District, Shenzhen, ChinaTesting Location/ Procedure..... : Full application of Harmonised standards   
Partial application of Harmonised standards   
Other standard testing method 

Applicant's Name..... : Shen Zhen Sai Xing Industrial Co., Ltd

Address..... : Floor 4, Building 28, Beifang Yongfa Technology Garden,  
Gonghe No. 1 Industrial Area, Shajing, Baoan Area, Shenzhen,  
Guangdong, China.

## Test Specification

Standard..... : FCC Part 15B: 2014

Test Report Form No. .... : POCEEMC-1.0

TRF Originator..... : SHENZHEN POCE TECHNOLOGY CO., LTD.

Master TRF ..... : Dated 2015-06-11

**SHENZHEN POCE TECHNOLOGY CO., LTD.**

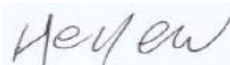
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Test Item Description. .... : IP C-601

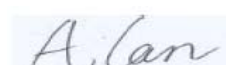
Trade Mark..... : N/A

Model/ Type Reference ..... : IP C-602, IP C-603, IP C-604, IP C-605, IP C-606, IP C-607,  
IP C-608, IP C-609, IP C-610, IP C-611, IP C-612, IP C-613, IP  
C-614, IP C-615Ratings..... : Input: AC 110-240V, 50/60Hz, 0.1A  
Output: DC 5V, 0.1A

Result ..... : Positive

**Compiled by:**

Hellen Hu/ File administrators

**Supervised by:**

Alan Cao/ Technique principal

**Approved by:**

Machael Mo/ Manager

Traceability of Device	
EUT.....	: IP CAMERA
Type / Model.....	: IP C-601, IP C-602, IP C-603, IP C-604, IP C-605, IP C-606, IP C-607, IP C-608, IP C-609, IP C-610, IP C-611, IP C-612, IP C-613, IP C-614, IP C-615
Applicant.....	: Shen Zhen Sai Xing Industrial Co., Ltd
Address.....	: Floor 4, Building 28, Beifang Yongfa Technology Garden, Gonghe No. 1 Industrial Area, Shajing, Baoan Area, Shenzhen, Guangdong, China.
Telephone.....	: /
Fax.....	: /
Manufacturer.....	: Shen Zhen Sai Xing Industrial Co., Ltd
Address.....	: Floor 4, Building 28, Beifang Yongfa Technology Garden, Gonghe No. 1 Industrial Area, Shajing, Baoan Area, Shenzhen, Guangdong, China.
Telephone.....	: /
Fax.....	: /
Factory.....	: Shen Zhen Sai Xing Industrial Co., Ltd
Address.....	: Floor 4, Building 28, Beifang Yongfa Technology Garden, Gonghe No. 1 Industrial Area, Shajing, Baoan Area, Shenzhen, Guangdong, China.
Telephone.....	: /
Fax.....	: /

<b>Test Result:</b>	<b>Positive</b>
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*The test report merely corresponds to the test sample.  
It is not permitted to copy extracts of these test result without the written permission of the test laboratory.*

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## 1. GENERAL INFORMATION

### 1.1. Client Details

Applicant:	Shen Zhen Sai Xing Industrial Co., Ltd
Address:	Floor 4, Building 28, Beifang Yongfa Technology Garden, Gonghe No. 1 Industrial Area, Shajing, Baoan Area, Shenzhen, Guangdong, China.
Manufacturer:	Shen Zhen Sai Xing Industrial Co., Ltd
Address:	Floor 4, Building 28, Beifang Yongfa Technology Garden, Gonghe No. 1 Industrial Area, Shajing, Baoan Area, Shenzhen, Guangdong, China.

### 1.2. Test Lab Details

Name :	Shenzhen POCE Technology Co., Ltd.
Address:	H Building, Hongfa science and Technology Park, Tangtou, Shiyan, Bao'an District, Shenzhen, China
Telephone:	86-755-29113252
Fax:	86-755-29113135

Site Listed with Federal Communication Commission

Registration Number: 222278

For 3m chamber

### 1.3. Description of E.U.T.

Product:	IP CAMERA
Model No.:	IP C-601
Brand Name:	N/A
Power supply:	AC 110-240V

### 1.4. AE used during the test

Equipment type	Model	Manufacturer	FCC Approval	Remark
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### 1.5. Description of test facility

All measurement required was performed at laboratory of Shenzhen POCE Technology Co., Ltd. H Building, Hongfa Science and Technology Park, Tangtou, Shiyan, Bao'an District,

Shenzhen, China

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

FCC – Registration No.: 222278

Shenzhen POCE Technology Co., Ltd. EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Registration 222278, June 08, 2010.

### 1.6. Test Standards

The following Declaration of Conformity report of EUT is prepared in accordance with 47CFR Part 15(2014): Radio Frequency Device: Subpart B; Unintentional radiators Class B ANSI C63.4(2009): Interim Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9KHz to 40GHz.

### 1.7. Test Summary

TEST ITEMS	RESULT	NOTE
Disturbance voltage at a.c. mains terminal	PASS	
Radiated emission	PASS	

### 1.8. Measurement Uncertainty

	Item	Uncertainty
1	Conducted Emission Test	±1.38dB
2	All emissions, radiated(<1G)	±4.68dB
3	All emissions, radiated(>1G)	±4.89dB

## 2. POWER LINE CONDUCTED MEASUREMENT

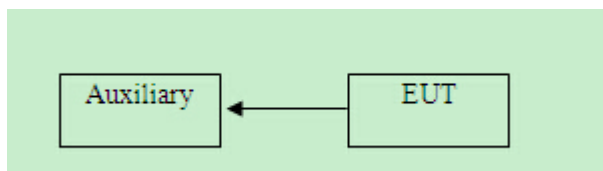
### 2.1. Test Equipment

The following test equipments are used during the power line conducted measurement:

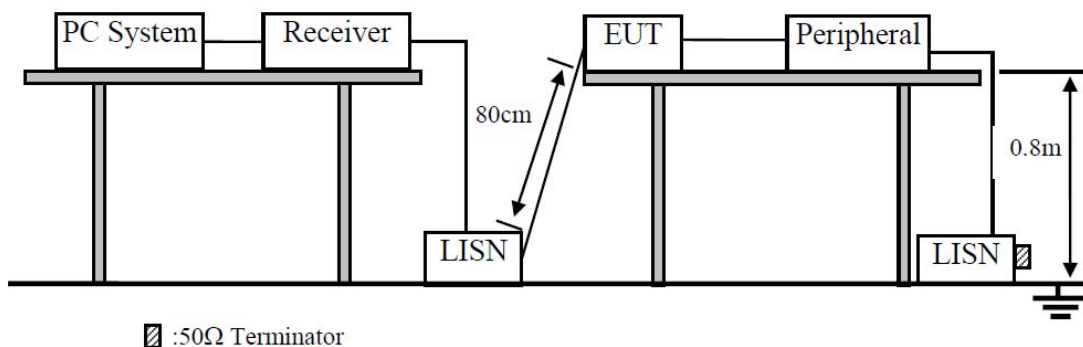
Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Test Receiver	Rohde & Schwarz	ESCI 3	101431	Oct. 09, 2015	1 Year
2.	L.I.S.N.	Rohde & Schwarz	ESH3-Z5	831.5518.52	Oct. 09, 2015	1 Year
3.	Pulse Limiter	SCHWARZ BECK	VTSD 9561-F	100006	Oct. 09, 2015	1 Year
4.	RF Cable	FUJIKURA	RG-55/U	LISN Cable	Oct. 09, 2015	1 Year

### 2.2. Block Diagram of Test Setup

#### 2.2.1. Block diagram of connection between the EUT and simulators



#### 2.2.2. Block diagram of test setup



### 2.3. Power Line Conducted Emission Measurement Limits (Class B)

Frequency MHz	Limits dB(μV)	
	Quasi-peak Level	Average Level
0.15 ~ 0.50	66 ~ 56*	56 ~ 46*
0.50 ~ 5.00	56	46
5.00 ~ 30.00	60	50

Notes: 1. \*Decreasing linearly with logarithm of frequency.

2. The lower limit shall apply at the transition frequencies.

## 2.4. Configuration of EUT on Measurement

The following equipments are installed on Power Line Conducted Emission Measurement to meet the commission requirement and operating regulations in a manner, which tends to maximize its emission characteristics in a normal application.

EUT : IP CAMERA  
Model Number : IP C-601

## 2.5. Operating Condition of EUT

2.5.1. Setup the EUT and simulator as shown as Section 2.2.

2.5.2. Turn on the power of all equipment.

2.5.3. Let the EUT work in test mode (Normal) and measure it.

## 2.6. Test Procedure

The EUT system is connected to the power mains through a line impedance stabilization network (L.I.S.N.). This provides 50ohm-coupling impedance for the EUT system. Please refer the block diagram of the test setup and photographs. Both sides of AC line are checked to find out the maximum conducted emission. In order to find the maximum emission levels, the relative positions of equipment and all of the interface cables shall be changed according to FCC/ANSI C63.4-2009 on Conducted Emission Measurement.

The bandwidth of test receiver (R & S ESCI 3) is set at 9KHz.

The frequency range from 150KHz to 30MHz is checked.

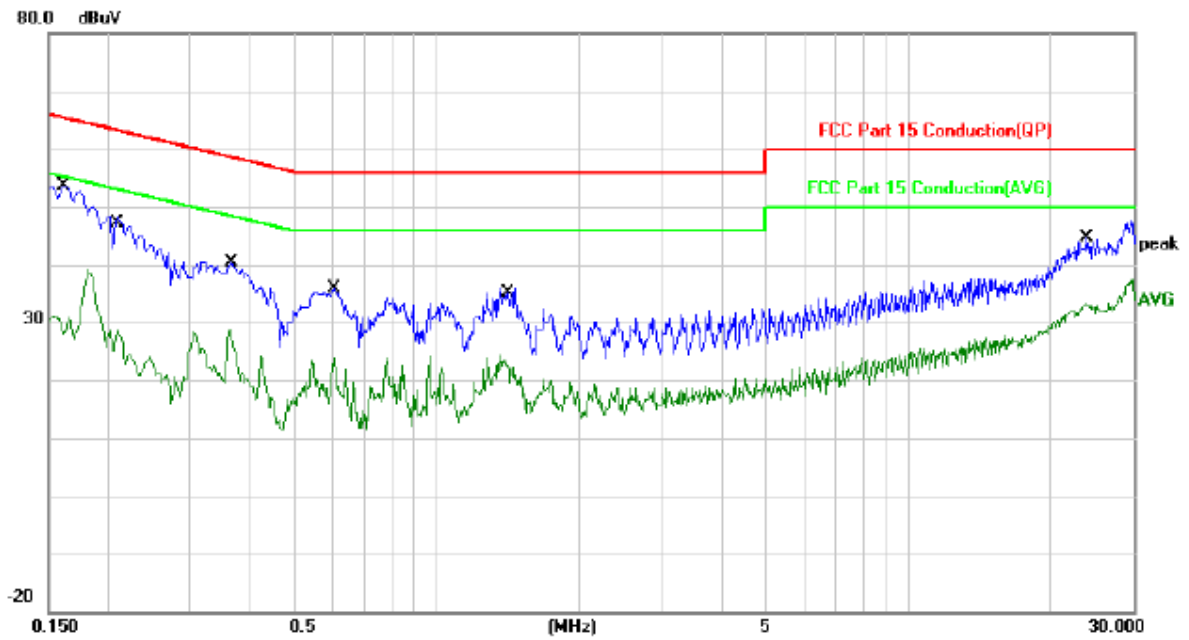
The test result is reported on Section 2.7.

## 2.7. Power Line Conducted Emission Measurement Results

PASS

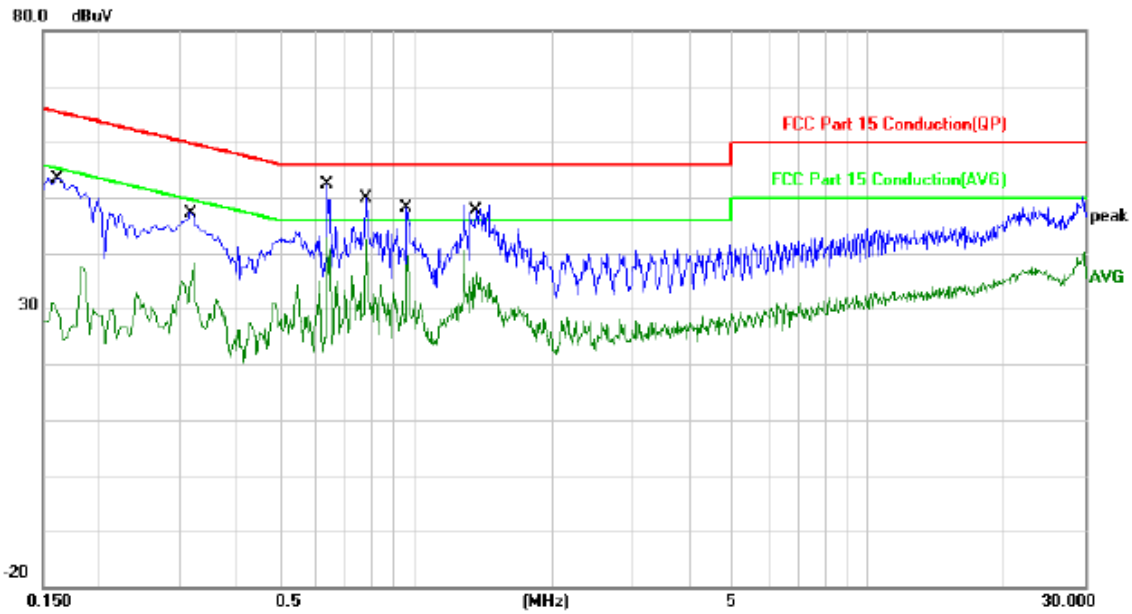
Please reference to the following pages





Site Chamber #1 Phase: **L1** Temperature: 25  
 Limit: FCC Part 15 Conduction(QP) Power: AC 120V/60Hz Humidity: 41 %

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1	*	0.1597	49.17	-0.13	49.04	65.47	-16.43	QP	
2		0.1597	28.84	-0.13	28.71	55.47	-26.76	AVG	
3		0.2060	42.72	-0.13	42.59	63.36	-20.77	QP	
4		0.2060	25.87	-0.13	25.74	53.36	-27.62	AVG	
5		0.3627	38.97	-0.02	38.95	58.66	-19.71	QP	
6		0.3627	26.13	-0.02	26.11	48.66	-22.55	AVG	
7		0.6080	33.69	-0.04	33.65	56.00	-22.35	QP	
8		0.6080	21.26	-0.04	21.22	46.00	-24.78	AVG	
9		1.4140	30.41	-0.18	30.23	56.00	-25.77	QP	
10		1.4140	22.37	-0.18	22.19	46.00	-23.81	AVG	
11		23.8914	37.06	-0.42	36.64	60.00	-23.36	QP	
12		23.8914	29.48	-0.42	29.06	50.00	-20.94	AVG	



Site Chamber #1 Phase: **N** Temperature: 25  
 Limit: FCC Part 15 Conduction(QP) Power: AC 120V/60Hz Humidity: 41 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Detector	Comment
		MHz	dBuV	dB	dBuV	dBuV	dB		
1		0.1594	48.23	-0.13	48.10	65.49	-17.39	QP	
2		0.1594	27.52	-0.13	27.39	55.49	-28.10	AVG	
3		0.3225	44.43	-0.01	44.42	59.64	-15.22	QP	
4		0.3225	35.79	-0.01	35.78	49.64	-13.86	AVG	
5	*	0.6413	53.01	-0.05	52.96	56.00	-3.04	QP	
6		0.6413	42.36	-0.05	42.31	46.00	-3.69	AVG	
7		0.7790	48.23	-0.07	48.16	56.00	-7.84	QP	
8		0.7790	38.40	-0.07	38.33	46.00	-7.67	AVG	
9		0.9626	46.21	-0.11	46.10	56.00	-9.90	QP	
10		0.9626	39.35	-0.11	39.24	46.00	-6.76	AVG	
11		1.3689	43.13	-0.17	42.96	56.00	-13.04	QP	
12		1.3689	33.48	-0.17	33.31	46.00	-12.69	AVG	

### 3. RADIATED EMISSION MEASUREMENT

#### 3.1. Test Equipment

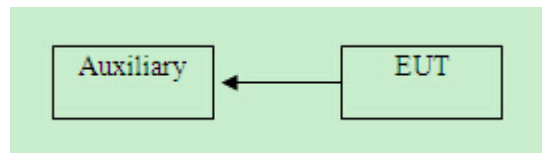
The following test equipments are used during the radiated emission measurement:

##### 3.1.1. For Anechoic Chamber

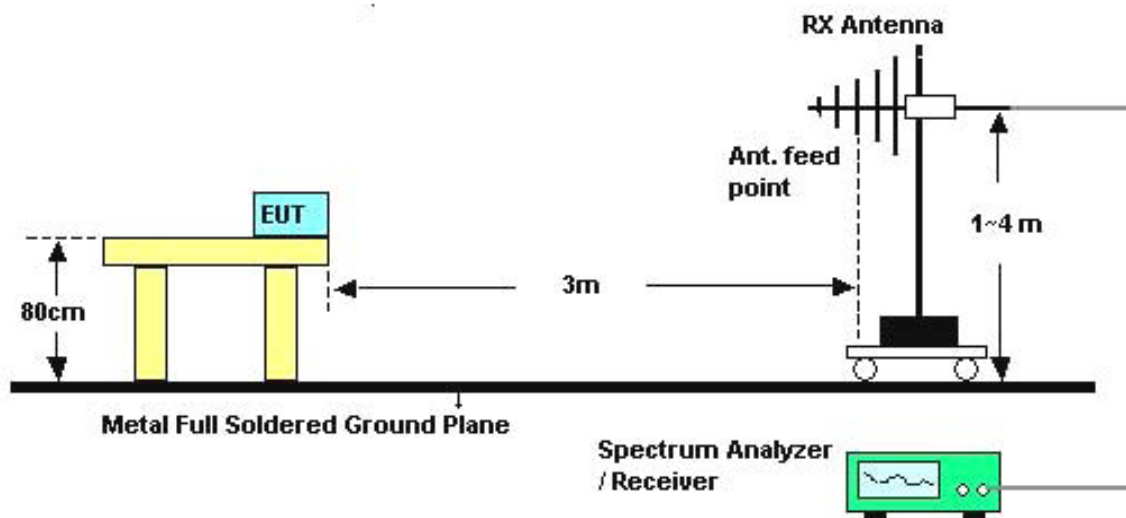
Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Spectrum Analyzer	Agilent	E4408B	CFG006	Oct. 09, 2015	1 Year
2.	Test Receiver	R&S	ESCI	101431	Oct. 09, 2015	1 Year
3.	Bilog Antenna	Model JB6	CBL6111D	A090414	Oct. 09, 2015	1 Year
4.	50 Coaxial Switch	Anritsu Corp	MP59B	6100237248	Oct. 09, 2015	1 Year
5.	Horn Ant	Schwarzbeck	Model DRH-118	A091114	Oct. 09, 2015	1 Year
6.	Cable	Schwarzbeck	AK9513	ACRX1	Oct. 09, 2015	1 Year
7.	Cable	Rosenberger	N/A	FP2RX2	Oct. 09, 2015	1 Year
8.	Cable	Schwarzbeck	AK9513	CRPX1	Oct. 09, 2015	1 Year
9.	Cable	Schwarzbeck	AK9513	CRRX2	Oct. 09, 2015	1 Year

#### 3.2. Block Diagram of Test Setup

##### 3.2.1. Block diagram of connection between the EUT and simulators



##### 3.2.2. Anechoic Chamber Test Setup Diagram



### 3.3. Radiated Emission Limit (Class B)

FREQUENCY MHz	DISTANCE Meters	FIELD STRENGTHS LIMIT	
		μV/m	dB(μV)/m
30 ~ 88	3	100	40.0
88 ~ 216	3	150	43.5
216 ~ 960	3	200	46.0
960 ~ 1000	3	500	54.0

Remark: (1) Emission level (dB)μV = 20 log Emission level μV/m

(2) The smaller limit shall apply at the cross point between two frequency bands.

(3) Distance is the distance in meters between the measuring instrument, antenna and the closest point of any part of the device or system.

### 3.4. EUT Configuration on Measurement

The following equipment are installed on Radiated Emission Measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

IP CAMERA (EUT)

Model Number : IP C-601

Serial Number : N/A

### 3.5. Operating Condition of EUT

3.5.1. Setup the EUT as shown in Section 3.2.

3.5.2. Let the EUT work in test mode (Normal) and measure it.

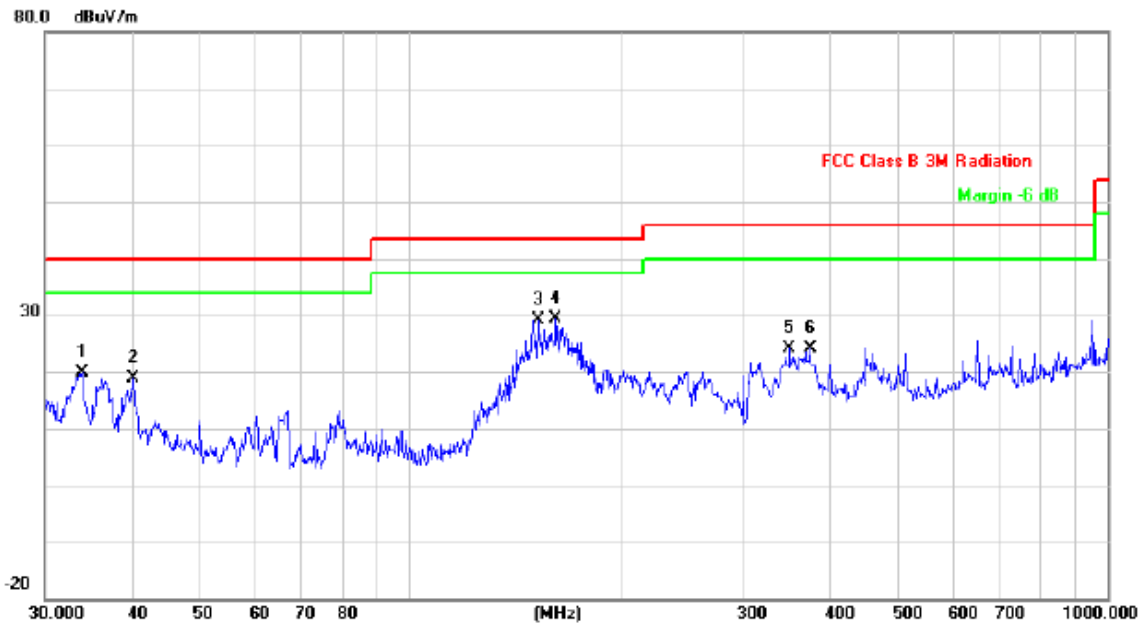
### 3.6. Test Procedure

EUT and its simulators are placed on a turntable, which is 0.8 meter high above ground. The turntable can rotate 360 degrees to determine the position of the maximum emission level. EUT is set 3.0 meters away from the receiving antenna, which is mounted on an antenna tower. The antenna can be moved up and down between 1.0 meter and 4 meters to find out the maximum emission level. Broadband antenna (calibrated bilog antenna) is used as receiving antenna. Both horizontal and vertical polarization of the antenna is set on measurement. In order to find the maximum emission levels, all of the interface cables must be manipulated according to ANSI C63.4-2009 on radiated emission measurement.

The bandwidth of the EMI test receiver (R&S ESCI 3) is set at 120KHz.

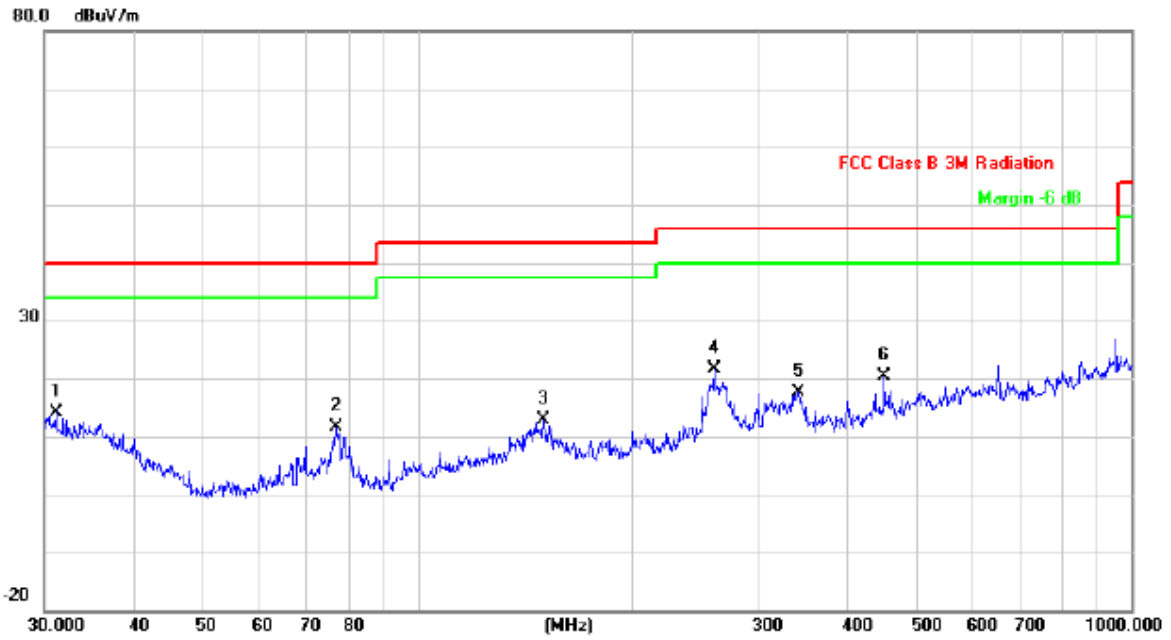
The frequency range from 30MHz to 1000MHz is investigated.

### 3.7. Radiated Emission Measurement Results



Site Chamber #1 Polarization: *Vertical* Temperature:  
 Limit: FCC Class B 3M Radiation Power: AC 120V/60Hz Humidity: %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	degree	Comment
1		33.9174	29.61	-9.67	19.94	40.00	-20.06	peak		
2		40.1347	32.81	-13.96	18.85	40.00	-21.15	peak		
3		153.2004	43.11	-13.91	29.20	43.50	-14.30	peak		
4	*	162.0414	43.69	-14.39	29.30	43.50	-14.20	peak		
5		350.4768	36.10	-12.07	24.03	46.00	-21.97	peak		
6		374.6225	35.73	-11.50	24.23	46.00	-21.77	peak		



Site Chamber #1

Polarization: *Horizontal*

Temperature:

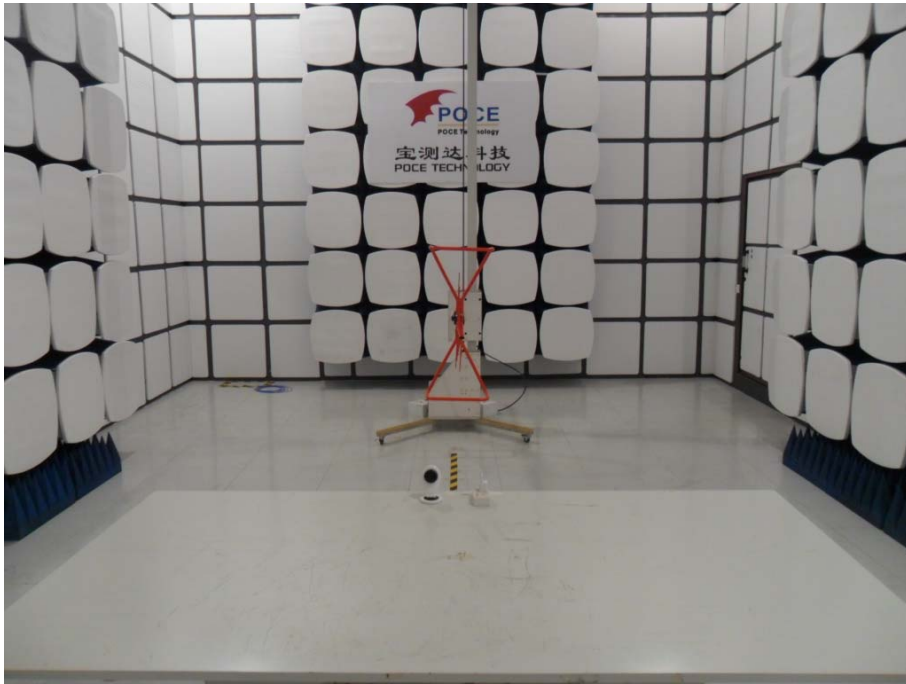
Limit: FCC Class B 3M Radiation

Power: AC 120V/60Hz

Humidity: %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	degree	Comment
1		31.1798	22.47	-8.22	14.25	40.00	-25.75			peak
2		77.0505	32.54	-20.83	11.71	40.00	-28.29			peak
3		150.0108	26.65	-13.67	12.98	43.50	-30.52			peak
4	*	260.1444	36.31	-14.67	21.64	46.00	-24.36			peak
5		341.9786	29.60	-12.04	17.56	46.00	-28.44			peak
6		451.1350	30.22	-9.93	20.29	46.00	-25.71			peak

## 4. TEST SETUP PHOTO





**FIGURE**  
GENERAL APPEARANCE OF EUT



Fig.1

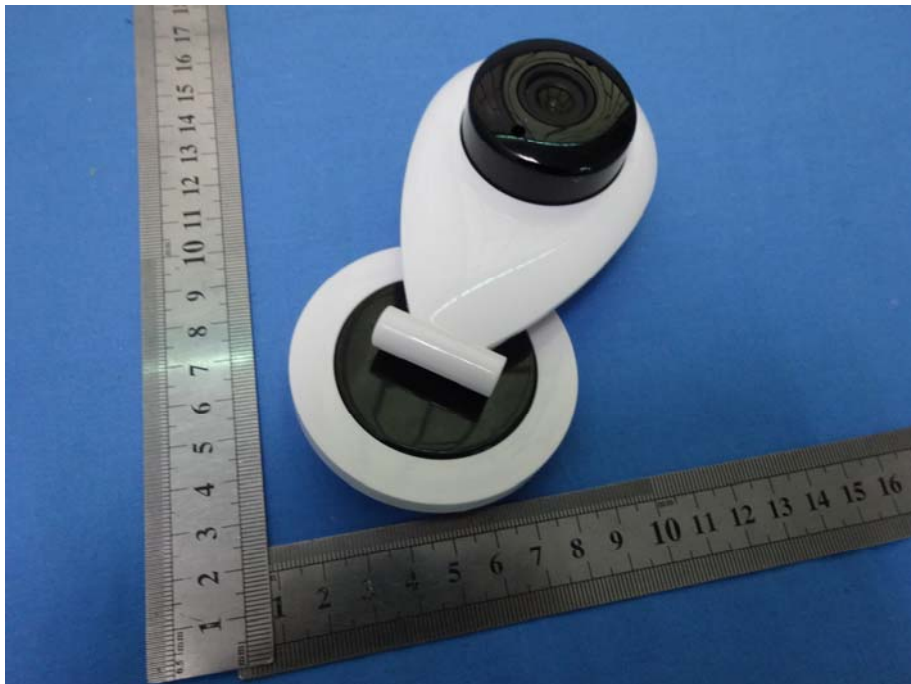


Fig.2



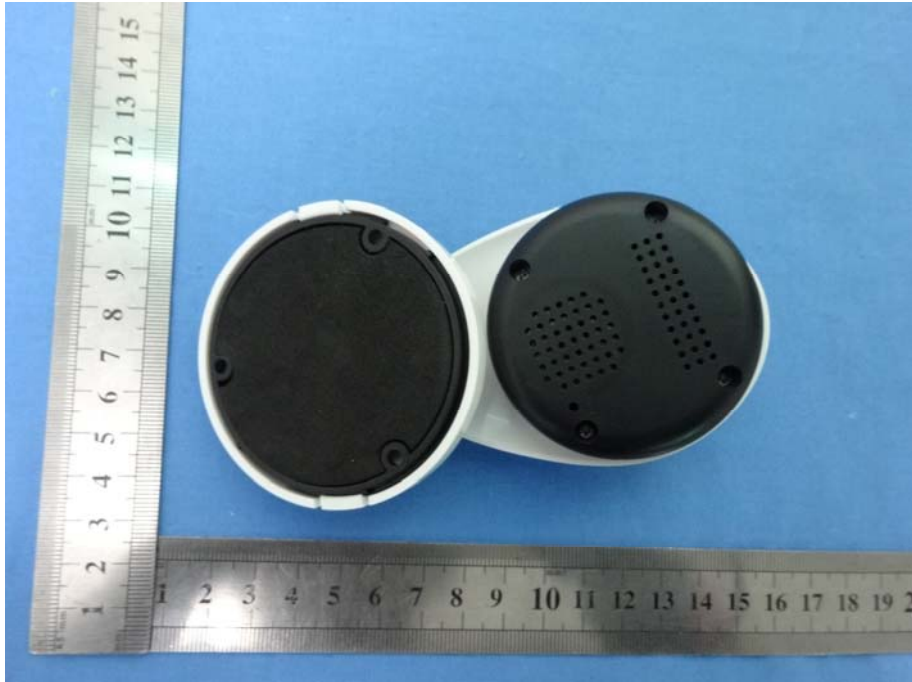


Fig.3

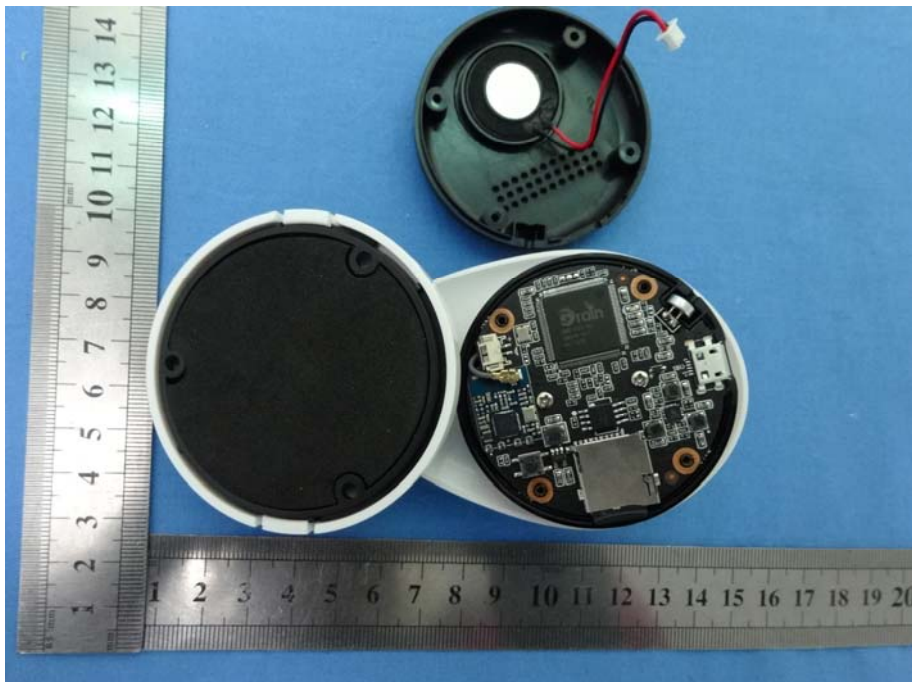


Fig.4

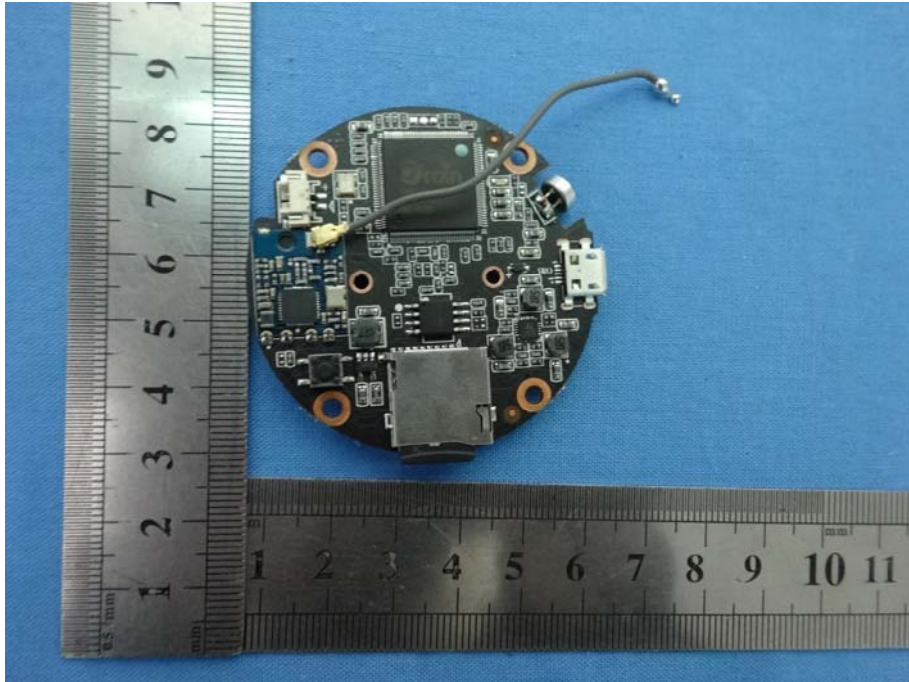


Fig.5

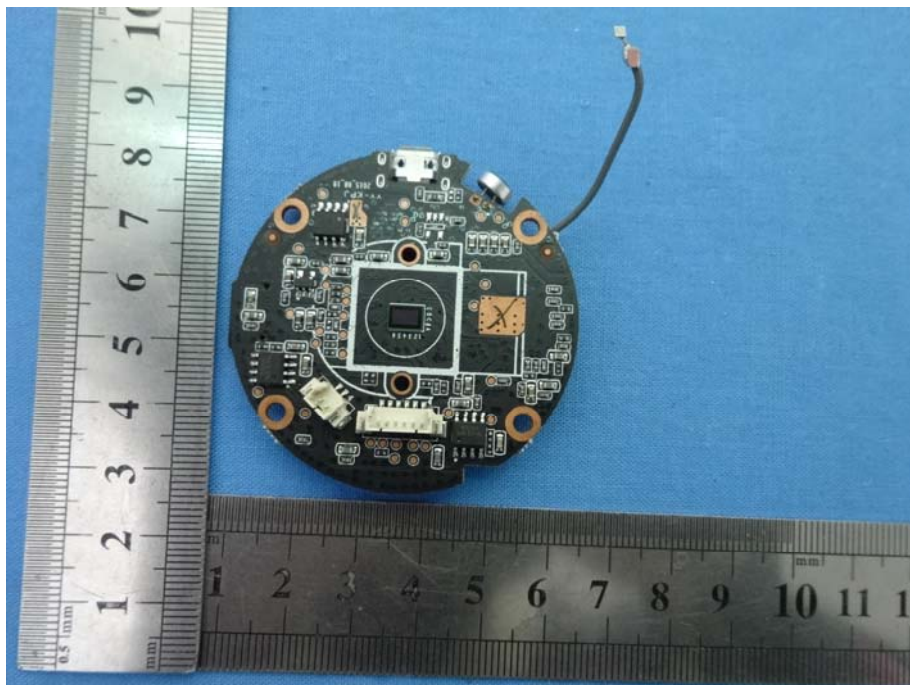


Fig.6

\*\*\*\*\*THE END\*\*\*\*\*