FCC Test Report

Product Name	Smart Cloud Camera
Model No	SMC-87, E5, TX-55, Noa
FCC ID.	2ABDZSMC87

Applicant	SALIX TECHNOLOGY CO., LTD.
Address	18F, No.116,Sec.1, Xintai5 Road, XiZhi Dist., New Taipei City 221, Taiwan R.O.C.

Date of Receipt	Jul. 15, 2016
Issue Date	Sep. 22, 2016
Report No.	1670293R-RFUSP26V00
Report Version	V1.0

Testing Laboratory
3023

Test Report

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Report No.: 1670293R-RFUSP26V00

Product Name	Smart Cloud Camera
Applicant	SALIX TECHNOLOGY CO., LTD.
Address	18F, No.116,Sec.1, Xintai5 Road, XiZhi Dist., New Taipei City 221, Taiwan R.O.C.
Manufacturer	BEHAVIOR TECH COMPUTER CORP.
Model No.	SMC-87, E5, TX-55, Noa
FCC ID.	2ABDZSMC87
EUT Rated Voltage	DC 6V by battery
EUT Test Voltage	DC 6V by battery
Trade Name	DP, TECHNAXX, GOVIDEO
Applicable Standard	FCC CFR Title 47 Part 15 Subpart C: 2015 ANSI C63.4: 2014, ANSI C63.10: 2013 KDB 558074 D01 DTS Meas Guidance v03r05
Test Result	Complied

Documented By : Jinn Chen

(Senior Adm. Specialist / Jinn Chen)

Tested By : Bill Lin

(Engineer / Bill Lin)

Approved By :

(Director / Vincent Lin)

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1. GENERAL INFORMATION

1.1. EUT Description

Product Name	Smart Cloud Camera
Trade Name	DP, TECHNAXX, GOVIDEO
Model No.	SMC-87, E5, TX-55, Noa
FCC ID.	2ABDZSMC87
Frequency Range	2412-2462MHz for 802.11b/g/n-20BW
Number of Channels	802.11b/g/n-20MHz: 11
Data Speed	802.11b: 1-11Mbps, 802.11g: 6-54Mbps, 802.11n: up to 72.2Mbps
Type of Modulation	802.11b:DSSS (DBPSK, DQPSK, CCK) 802.11g/n:OFDM (BPSK, QPSK, 16QAM, 64QAM)
Antenna Type	Chip Antenna
Antenna Gain	Refer to the table “Antenna List”
Channel Control	Auto

Antenna List

No.	Manufacturer	Part No.	Antenna Type	Peak Gain
1	Magic Wireless Technology CO., LTC.	PCA2450-502010(MW 2412)	Chip Antenna	2.82dBi for 2.4 GHz

Note: The antenna of EUT conforms to FCC 15.203.

802.11b/g/n-20MHz Center Frequency of Each Channel:

Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
Channel 01:	2412 MHz	Channel 02:	2417 MHz	Channel 03:	2422 MHz	Channel 04:	2427 MHz
Channel 05:	2432 MHz	Channel 06:	2437 MHz	Channel 07:	2442 MHz	Channel 08:	2447 MHz
Channel 09:	2452 MHz	Channel 10:	2457 MHz	Channel 11:	2462 MHz		

Note:

1. The EUT is a Smart Cloud Camera with a built-in WLAN and Bluetooth transceiver, this report for WLAN.
2. The different of each model is shown as below:

Model Number	Trade Name
SMC-87, E5	DP
TX-55	TECHNAXX
Noa	GOVIDEO

3. Regarding to the operation frequency, the lowest, middle and highest frequency are selected to perform the test.
4. At result of pretests, module supports dual-channel transmission, only the worst case is shown in the report.
5. Lowest and highest data rates are tested in each mode. Only worst case is shown in the report. (802.11b is 1Mbps、802.11g is 6Mbps and 802.11n(20M-BW) is 7.2Mbps.
6. These tests are conducted on a sample for the purpose of demonstrating compliance of 802.11b/g/n transmitter with Part 15 Subpart C Paragraph 15.247 of spread spectrum devices.

Test Mode:	Mode 1: Transmit (802.11b 1Mbps)
	Mode 2: Transmit (802.11g 6Mbps)
	Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW)

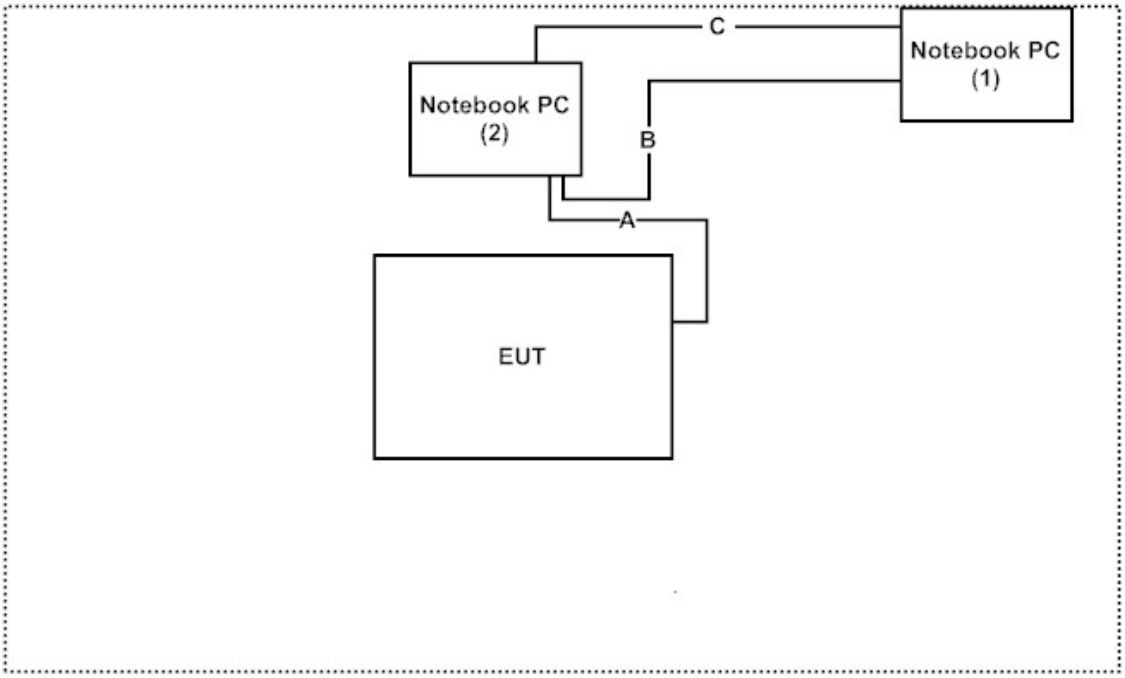
1.3. Tested System Details

The types for all equipment, plus descriptions of all cables used in the tested system (including inserted cards) are:

Product		Manufacturer	Model No.	Serial No.	Power Cord
1	Notebook PC	DELL	P62G	9TSGJC2	Non-Shielded, 0.8m
2	Test Fixture	N/A	N/A	N/A	N/A

Signal Cable Type		Signal cable Description
A	Fixture Cable	Non-shielded, 0.13m
B	Micro to SUB Cable	Shielded, 1m, 1.8m
C	RS-232 to SUB Cable	Shielded, 1m, 2.2m

1.4. Configuration of Tested System



1.5. EUT Exercise Software

1. Setup the EUT as shown in Section 1.4.
2. Execute software “Oracle VM Virtual Box” on the EUT.
3. Configure the test mode, the test channel, and the data rate.
4. Press “OK” to start the continuous Transmit.
5. Verify that the EUT works properly.

1.6. Test Facility

Ambient conditions in the laboratory:

Items	Required (IEC 68-1)	Actual
Temperature (°C)	15-35	20-35
Humidity (%RH)	25-75	50-65
Barometric pressure (mbar)	860-1060	950-1000

The related certificate for our laboratories about the test site and management system can be downloaded from QuieTek Corporation's Web Site: http://www.quietek.com/chinese/about/certificates.aspx?bval=5
The address and introduction of QuieTek Corporation's laboratories can be founded in our Web site: http://www.quietek.com/

Site Description: File on
Federal Communications Commission
FCC Engineering Laboratory
7435 Oakland Mills Road
Columbia, MD 21046
Registration Number: 92195

Site Name: Quietek Corporation
Site Address: No.159, Sec. 2, Wenhua 1st Rd., Linkou Dist.,
New Taipei City 24457, Taiwan.
TEL: 886-2-2602-7968 / FAX : 866-2-2602-3286
E-Mail : service@quietek.com

FCC Accreditation Number: TW1014

1.7. Test Equipment

For Conduction measurements /ASR1

	Equipment	Manufacturer	Model No.	Serial No.	Cali. Data	Due. Data
X	EMI Test Receiver	R&S	ESR7	161601	2015.12.17	2016.12.16
X	Two-Line V-Network	R&S	ENV216	101306	2016.02.09	2017.02.08
X	Two-Line V-Network	R&S	ENV216	101307	2016.02.09	2017.02.08
X	Coaxial Cable	Quietek	RG400_BNC	RF001	2016.05.25	2017.05.24

Note:
1. All equipments are calibrated every one year.
2. The test instruments marked with "X" are used to measure the final test results.
3. Test Software version : QuieTek EMI 2.0 V2.1.113

For Conducted measurements /ASR4

	Equipment	Manufacturer	Model No.	Serial No.	Cali. Data	Due. Data
X	Spectrum Analyzer	R&S	FSV30	103464	2015.12.04	2016.12.03
X	Power Meter	Anritsu	ML2496A	1548003	2015.12.04	2016.12.03
X	Power Sensor	Anritsu	MA2411B	1531024	2015.12.10	2016.12.09
X	Power Sensor	Anritsu	MA2411B	1531025	2015.12.09	2016.12.08
	Bluetooth Tester	R&S	CBT	101238	2015.12.18	2016.12.17

Note:
1. All equipments are calibrated every one year.
2. The test instruments marked with "X" are used to measure the final test results.
3. Test Software version : QuieTek Conduction Test System V8.0.110

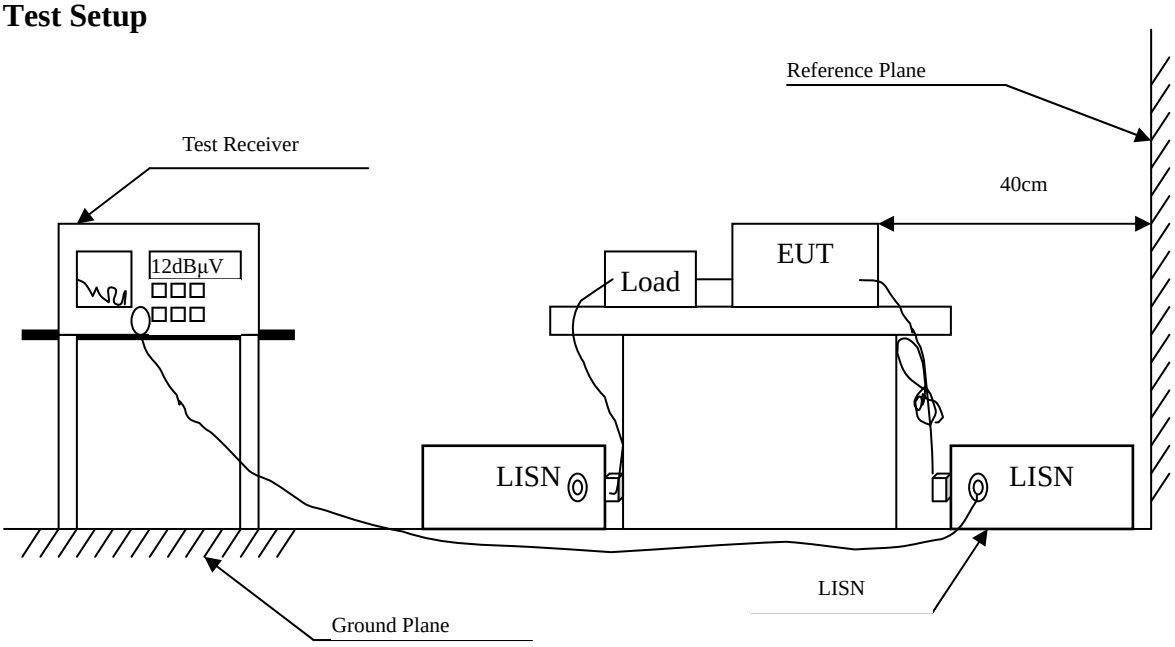
For Radiated measurements /ACB1

	Equipment	Manufacturer	Model No.	Serial No.	Cali. Data	Due. Data
X	Loop Antenna	A.H.	SAS-562B	272	2016.07.21	2017.07.20
X	Bi-Log Antenna	SCHWARZBECK	VULB9168	9168-674	2016.02.20	2017.02.19
X	Horn Antenna	ETS-Lindgren	3117	00203799	2015.10.15	2016.10.14
X	Horn Antenna	Com-Power	AH-840	101087	2016.05.03	2017.05.02
X	Pre-Amplifier	EMCI	EMC001330	980316	2016.04.27	2017.04.26
X	Pre-Amplifier	EMCI	EMC051835SE	980311	2016.04.27	2017.04.26
X	Pre-Amplifier	EMCI	EMC05820SE	980310	2016.04.28	2017.04.27
X	Pre-Amplifier	EMCI	EMC184045SE	980314	2016.05.12	2017.05.11
X	Filter	MICRO TRONICS	BRM50702	G251	2016.08.11	2017.08.10
	Filter	MICRO TRONICS	BRM50716	G188	2016.08.11	2017.08.10
X	EMI Test Receiver	R&S	ESR7	101602	2015.12.16	2016.12.15
X	Spectrum Analyzer	R&S	FSV40	101149	2015.12.04	2016.12.03
X	Coaxial Cable	SUHNER	SUCOFLEX 106	RF002	2016.05.25	2017.05.24
X	Mircoflex Cable	HUBER SUHNER	SUCOFLEX 102	MY3381/2	2016.08.11	2017.08.10

Note:
1. All equipments are calibrated every one year.
2. The test instruments marked with "X" are used to measure the final test results.
3. Test Software version : QuieTek EMI 2.0 V2.1.113

2. Conducted Emission

2.1. Test Setup



2.2. Limits

FCC Part 15 Subpart C Paragraph 15.207 (dBµV) Limit		
Frequency MHz	Limits	
	QP	AVG
0.15 - 0.50	66-56	56-46
0.50-5.0	56	46
5.0 - 30	60	50

2.3. Test Procedure

The EUT and simulators are connected to the main power through a line impedance stabilization network (L.I.S.N.). This provides a 50 ohm /50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm /50uH coupling impedance with 50ohm termination. (Please refers to the block diagram of the test setup and photographs.)
Both sides of A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.4: 2014 on conducted measurement.
Conducted emissions were invested over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9kHz.

2.4. Uncertainty

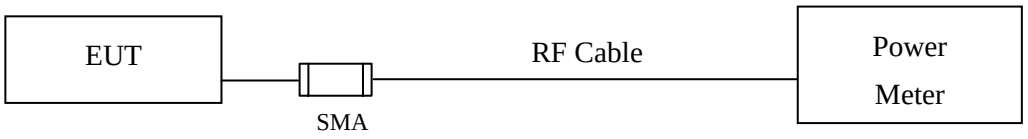
± 2.35 dB

2.5. Test Result of Conducted Emission

Owing to the EUT use battery supply voltage, this test item is not performed.

3. Peak Power Output

3.1. Test Setup



3.2. Limits

The maximum peak power shall be less 1 Watt.

3.3. Test Procedure

The EUT was tested according to DTS test procedure of KDB 558074 for compliance to FCC 47CFR 15.247 requirements. The maximum peak conducted output power using KDB 558074 D01 DTS Meas Guidance v03r05 section 9.1.2 PKPM1 Peak power meter method.

3.4. Uncertainty

± 0.86 dB

3.5. Test Result of Peak Power Output

Product : Smart Cloud Camera
Test Item : Peak Power Output Data
Test Site : ASR4
Test Mode : Mode 1: Transmit (802.11b 1Mbps)
Test Date : 2016/09/06

Channel No	Frequency (MHz)	Average Power For different Data Rate (Mbps)				Peak Power	Required Limit	Result
		1	2	5.5	11	1		
		Measurement Level (dBm)						
01	2412	15.98	--	--	--	19.22	<30dBm	Pass
06	2437	15.93	15.88	15.71	15.62	18.97	<30dBm	Pass
11	2462	16.14	--	--	--	18.95	<30dBm	Pass

Note: Peak Power Output Value =Reading value on power meter + cable loss

Product : Smart Cloud Camera
Test Item : Peak Power Output Data
Test Site : ASR4
Test Mode : Mode 2: Transmit (802.11g 6Mbps)
Test Date : 2016/09/06

Channel No	Frequency (MHz)	Average Power For different Data Rate (Mbps)								Peak Power	Required Limit	Result
		6	9	12	18	24	36	48	54	6		
		Measurement Level (dBm)										
01	2412	14.37	--	--	--	--	--	--	--	23.86	<30dBm	Pass
06	2437	15.41	15.32	15.15	15.01	14.86	14.73	14.64	14.52	23.66	<30dBm	Pass
11	2462	14.61	--	--	--	--	--	--	--	23.80	<30dBm	Pass

Note: Peak Power Output Value =Reading value on power meter + cable loss

Product : Smart Cloud Camera
Test Item : Peak Power Output Data
Test Site : ASR4
Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW)
Test Date : 2016/09/06

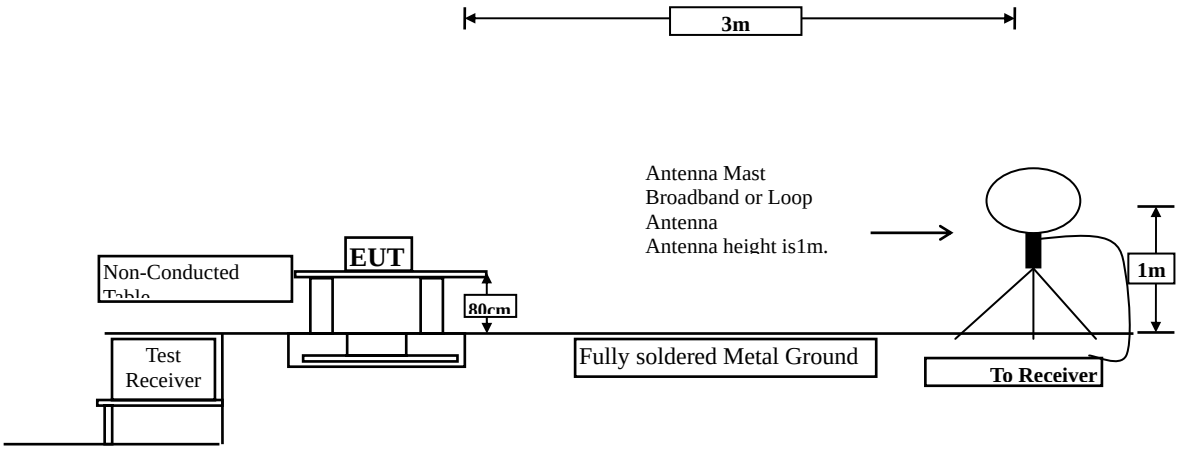
Channel No	Frequency (MHz)	Average Power For different Data Rate (Mbps)								Peak Power	Required Limit	Result
		7.2	14.4	21.7	28.9	43.3	57.8	65	72.2	7.2		
		Measurement Level (dBm)										
01	2412	13.94	--	--	--	--	--	--	--	23.24	<30dBm	Pass
06	2437	14.01	13.78	13.61	13.53	13.42	13.34	13.25	13.11	23.37	<30dBm	Pass
11	2462	14.16	--	--	--	--	--	--	--	23.57	<30dBm	Pass

Note: Peak Power Output Value =Reading value on power meter + cable loss

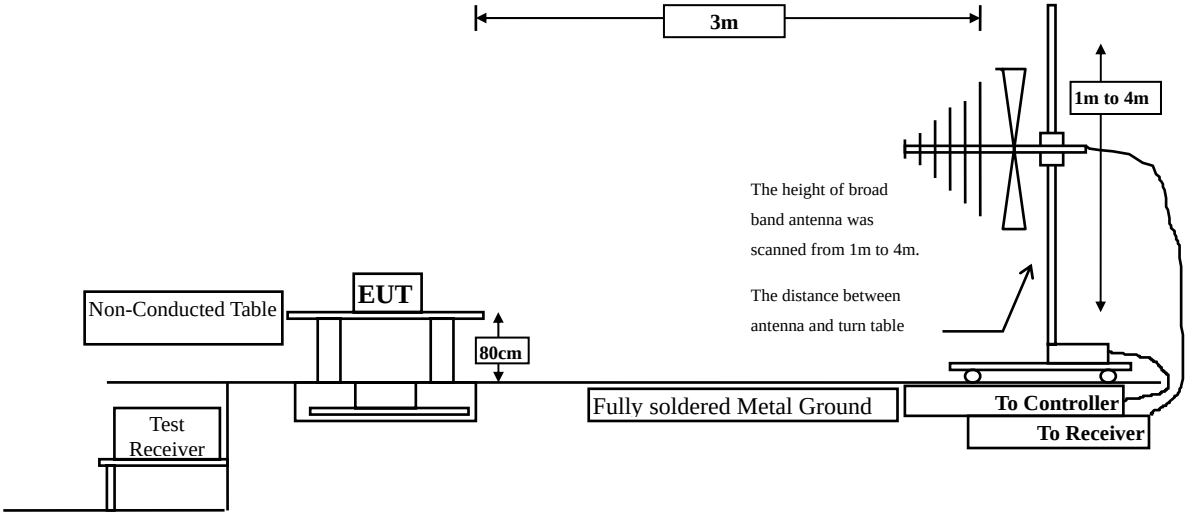
4. Radiated Emission

4.1. Test Setup

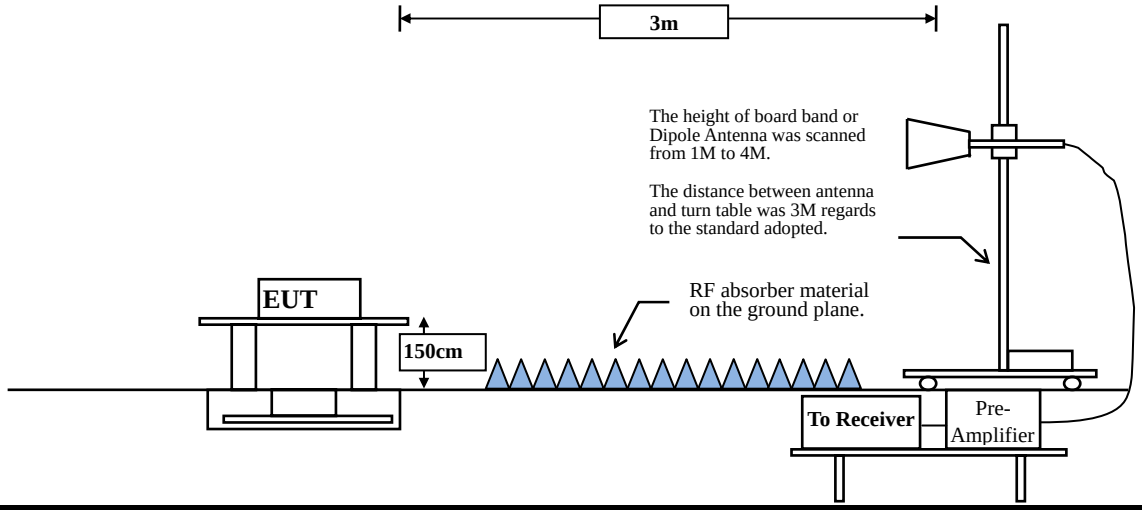
Radiated Emission Under 30MHz



Radiated Emission Below 1GHz



Radiated Emission Above 1GHz



4.2. Limits

Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 20dB below the level of the fundamental or to the general radiated emission limits in paragraph 15.209, whichever is the lesser attenuation.

FCC Part 15 Subpart C Paragraph 15.209(a) Limits		
Frequency MHz	Field strength (microvolts/meter)	Measurement distance (meter)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30	30	30
30-88	100	3
88-216	150	3
216-960	200	3
Above 960	500	3

Remarks: E field strength (dBμV/m) = 20 log E field strength (uV/m)

4.3. Test Procedure

The EUT was setup according to ANSI C63.10: 2013 and tested according to DTS test procedure of KDB558074 for compliance to FCC 47CFR 15.247 requirements.
Measuring the frequency range below 1GHz, the EUT is placed on a turn table which is 0.8 meter above ground,when measuring the frequency range above 1GHz, the EUT is placed on a turn table which is 1.5 meter above ground.
The turn table is rotated 360 degrees to determine the position of the maximum emission level.
The EUT was positioned such that the distance from antenna to the EUT was 3 meters.
The antenna is scanned between 1 meter and 4 meters to find out the maximum emission level.
This is repeated for both horizontal and vertical polarization of the antenna. In order to find the maximum emission, all of the interface cables were manipulated according to ANSI C63.10: 2013 on radiated measurement.
The resolution bandwidth below 30MHz setting on the field strength meter is 9kHz and 30MHz~1GHz is 120kHz and above 1GHz is 1MHz.
Radiated emission measurements below 30MHz are made using Loop Antenna and 30MHz~1GHz are made using broadband Bilog antenna and above 1GHz are made using Horn Antennas.
The measurement is divided into the Preliminary Measurement and the Final Measurement.
The suspected frequencies are searched for in Preliminary Measurement with the measurement antenna kept pointed at the source of the emission both in azimuth and elevation, with the polarization of the antenna oriented for maximum response. The antenna is pointed at an angle towards the source of the emission, and the EUT is rotated in both height and polarization to maximize the measured emission. The emission is kept within the illumination area of the 3 dB bandwidth of the antenna.
The measurement frequency range form 9kHz - 10th Harmonic of fundamental was investigated.

4.4. Uncertainty

Horizontal：
30-300MHz: ±4.08dB；300M-1GHz: ±3.86dB；1-18GHz: ±3.77dB；18-40GHz: ±3.98dB。
Vertical：
30-300MHz: ±4.81dB；300M-1GHz: ±3.87dB；1-18GHz: ±3.83dB；18-40GHz: ±3.98dB。

4.5. Test Result of Radiated Emission

Product : Smart Cloud Camera
Test Item : Harmonic Radiated Emission Data
Test Site : ACB1
Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2412MHz)
Test Date : 2016/09/01

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBμV	dBμV/m	dB	dBμV/m
Horizontal					
Peak Detector:					
4824.000	-4.612	46.530	41.918	-32.082	74.000
7236.000	-1.027	45.490	44.463	-29.537	74.000
9648.000	1.529	43.380	44.909	-29.091	74.000
Average Detector:					
--	--	--	--	--	54.000
Vertical					
Peak Detector:					
4824.000	-4.612	46.940	42.328	-31.672	74.000
7236.000	-1.027	46.040	45.013	-28.987	74.000
9648.000	1.529	44.170	45.699	-28.301	74.000
Average Detector:					
--	--	--	--	--	54.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Smart Cloud Camera
Test Item : Harmonic Radiated Emission Data
Test Site : ACB1
Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2437 MHz)
Test Date : 2016/09/01

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBμV	dBμV/m	dB	dBμV/m
Horizontal					
Peak Detector:					
4874.000	-4.550	46.550	42.000	-32.000	74.000
7311.000	-0.952	45.810	44.858	-29.142	74.000
9748.000	1.634	44.840	46.474	-27.526	74.000
Average Detector:					
--	--	--	--	--	54.000
Vertical					
Peak Detector:					
4874.000	-4.550	47.230	42.680	-31.320	74.000
7311.000	-0.952	45.640	44.688	-29.312	74.000
9748.000	1.634	46.010	47.644	-26.356	74.000
Average Detector:					
--	--	--	--	--	54.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Smart Cloud Camera
Test Item : Harmonic Radiated Emission Data
Test Site : ACB1
Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2462 MHz)
Test Date : 2016/09/01

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBμV	dBμV/m	dB	dBμV/m
Horizontal					
Peak Detector:					
4924.000	-4.477	47.040	42.563	-31.437	74.000
7386.000	-0.888	45.940	45.052	-28.948	74.000
9848.000	1.766	44.150	45.916	-28.084	74.000
Average Detector:					
--	--	--	--	--	54.000
Vertical					
Peak Detector:					
4924.000	-4.477	46.930	42.453	-31.547	74.000
7386.000	-0.888	47.360	46.472	-27.528	74.000
9848.000	1.766	46.040	47.806	-26.194	74.000
Average Detector:					
--	--	--	--	--	54.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Smart Cloud Camera
Test Item : Harmonic Radiated Emission Data
Test Site : ACB1
Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2412MHz)
Test Date : 2016/09/01

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBμV	dBμV/m	dB	dBμV/m
Horizontal					
Peak Detector:					
4824.000	-4.612	47.950	43.338	-30.662	74.000
7236.000	-1.027	45.720	44.693	-29.307	74.000
9648.000	1.529	43.840	45.369	-28.631	74.000
Average Detector:					
--	--	--	--	--	54.000
Vertical					
Peak Detector:					
4824.000	-4.612	47.590	42.978	-31.022	74.000
7236.000	-1.027	46.020	44.993	-29.007	74.000
9648.000	1.529	44.010	45.539	-28.461	74.000
Average Detector:					
--	--	--	--	--	54.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Smart Cloud Camera
Test Item : Harmonic Radiated Emission Data
Test Site : ACB1
Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2437 MHz)
Test Date : 2016/09/01

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBμV	dBμV/m	dB	dBμV/m
Horizontal					
Peak Detector:					
4874.000	-4.550	47.480	42.930	-31.070	74.000
7311.000	-0.952	46.380	45.428	-28.572	74.000
9748.000	1.634	44.680	46.314	-27.686	74.000
Average Detector:					
--	--	--	--	--	54.000
Vertical					
Peak Detector:					
4874.000	-4.550	46.770	42.220	-31.780	74.000
7311.000	-0.952	45.470	44.518	-29.482	74.000
9748.000	1.634	45.240	46.874	-27.126	74.000
Average Detector:					
--	--	--	--	--	54.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Smart Cloud Camera
Test Item : Harmonic Radiated Emission Data
Test Site : ACB1
Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2462 MHz)
Test Date : 2016/09/01

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBμV	dBμV/m	dB	dBμV/m
Horizontal					
Peak Detector:					
4924.000	-4.477	47.260	42.783	-31.217	74.000
7386.000	-0.888	45.910	45.022	-28.978	74.000
9848.000	1.766	44.990	46.756	-27.244	74.000
Average Detector:					
--	--	--	--	--	54.000
Vertical					
Peak Detector:					
4924.000	-4.477	46.740	42.263	-31.737	74.000
7386.000	-0.888	45.470	44.582	-29.418	74.000
9848.000	1.766	44.200	45.966	-28.034	74.000
Average Detector:					
--	--	--	--	--	54.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Smart Cloud Camera
Test Item : Harmonic Radiated Emission Data
Test Site : ACB1
Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW)(2412MHz)
Test Date : 2016/09/01

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBμV	dBμV/m	dB	dBμV/m
Horizontal					
Peak Detector:					
4824.000	-4.612	47.050	42.438	-31.562	74.000
7236.000	-1.027	47.100	46.073	-27.927	74.000
9648.000	1.529	43.690	45.219	-28.781	74.000
Average Detector:					
--	--	--	--	--	54.000
Vertical					
Peak Detector:					
4824.000	-4.612	46.900	42.288	-31.712	74.000
7236.000	-1.027	45.970	44.943	-29.057	74.000
9648.000	1.529	43.790	45.319	-28.681	74.000
Average Detector:					
--	--	--	--	--	54.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Smart Cloud Camera
Test Item : Harmonic Radiated Emission Data
Test Site : ACB1
Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW) (2437 MHz)
Test Date : 2016/09/01

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBμV	dBμV/m	dB	dBμV/m
Horizontal					
Peak Detector:					
4874.000	-4.550	46.420	41.870	-32.130	74.000
7311.000	-0.952	46.370	45.418	-28.582	74.000
9748.000	1.634	44.950	46.584	-27.416	74.000
Average Detector:					
--	--	--	--	--	54.000
Vertical					
Peak Detector:					
4874.000	-4.550	47.060	42.510	-31.490	74.000
7311.000	-0.952	45.350	44.398	-29.602	74.000
9748.000	1.634	45.510	47.144	-26.856	74.000
Average Detector:					
--	--	--	--	--	54.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Smart Cloud Camera
Test Item : Harmonic Radiated Emission Data
Test Site : ACB1
Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW) (2462 MHz)
Test Date : 2016/09/01

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBμV	dBμV/m	dB	dBμV/m
Horizontal					
Peak Detector:					
4924.000	-4.477	47.140	42.663	-31.337	74.000
7386.000	-0.888	46.560	45.672	-28.328	74.000
9848.000	1.766	44.260	46.026	-27.974	74.000
Average Detector:					
--	--	--	--	--	54.000
Vertical					
Peak Detector:					
4924.000	-4.477	46.160	41.683	-32.317	74.000
7386.000	-0.888	46.600	45.712	-28.288	74.000
9848.000	1.766	44.890	46.656	-27.344	74.000
Average Detector:					
--	--	--	--	--	54.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Smart Cloud Camera
Test Item : General Radiated Emission Data
Test Site : ACB1
Test Mode : Mode 1: Transmit (802.11b 1Mbps)(2437 MHz)
Test Date : 2016/09/07

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBμV	dBμV/m	dB	dBμV/m
Horizontal					
169.174	-10.996	34.293	23.297	-20.203	43.500
318.188	-9.751	34.101	24.351	-21.649	46.000
484.072	-6.098	32.550	26.451	-19.549	46.000
648.551	-3.247	32.922	29.676	-16.324	46.000
804.594	-1.001	34.611	33.611	-12.389	46.000
921.275	0.659	33.028	33.686	-12.314	46.000
Vertical					
160.739	-10.706	35.062	24.356	-19.144	43.500
318.188	-9.751	35.918	26.168	-19.832	46.000
441.899	-6.817	34.266	27.449	-18.551	46.000
624.652	-3.446	33.241	29.795	-16.205	46.000
806.000	-0.978	33.164	32.187	-13.813	46.000
981.725	1.386	36.098	37.483	-16.517	54.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.
8. No emission found between lowest internal used/generated frequency to 30MHz.

Product : Smart Cloud Camera
Test Item : General Radiated Emission Data
Test Site : ACB1
Test Mode : Mode 2: Transmit (802.11g 6Mbps)(2437 MHz)
Test Date : 2016/09/07

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBμV	dBμV/m	dB	dBμV/m
Horizontal					
190.261	-13.416	36.023	22.606	-20.894	43.500
339.275	-9.242	35.849	26.607	-19.393	46.000
499.536	-5.861	35.342	29.481	-16.519	46.000
628.870	-3.409	32.987	29.578	-16.422	46.000
762.420	-1.354	36.649	35.295	-10.705	46.000
953.609	1.015	36.772	37.787	-8.213	46.000
Vertical					
202.913	-13.496	34.621	21.125	-22.375	43.500
351.928	-8.935	34.495	25.559	-20.441	46.000
499.536	-5.861	32.624	26.763	-19.237	46.000
671.043	-2.900	32.320	29.420	-16.580	46.000
822.870	-0.704	33.088	32.384	-13.616	46.000
969.072	1.216	36.361	37.577	-16.423	54.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.
8. No emission found between lowest internal used/generated frequency to 30MHz.

Product : Smart Cloud Camera
Test Item : General Radiated Emission Data
Test Site : ACB1
Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW)(2437 MHz)
Test Date : 2016/09/07

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBμV	dBμV/m	dB	dBμV/m
Horizontal					
159.333	-10.697	34.699	24.001	-19.499	43.500
321.000	-9.682	32.214	22.532	-23.468	46.000
481.261	-6.141	36.267	30.126	-15.874	46.000
619.029	-3.490	34.900	31.410	-14.590	46.000
777.884	-1.238	35.207	33.970	-12.030	46.000
938.145	0.840	37.010	37.850	-8.150	46.000
Vertical					
150.899	-10.916	35.182	24.266	-19.234	43.500
298.507	-10.227	32.921	22.694	-23.306	46.000
437.681	-6.915	33.183	26.268	-19.732	46.000
623.246	-3.457	34.166	30.708	-15.292	46.000
798.971	-1.080	33.007	31.926	-14.074	46.000
994.377	1.547	35.922	37.469	-16.531	54.000

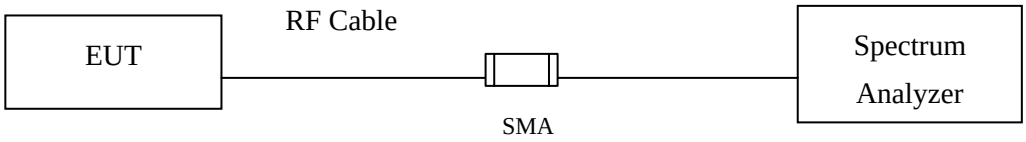
Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.
8. No emission found between lowest internal used/generated frequency to 30MHz.

5. RF antenna conducted test

5.1. Test Setup

RF antenna Conducted Measurement:



5.2. Limits

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement. Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

5.3. Test Procedure

The EUT was tested according to DTS test procedure of KDB558074 for compliance to FCC 47CFR 15.247 requirements.
Set RBW = 100 kHz, Set VBW> RBW, scan up through 10th harmonic.

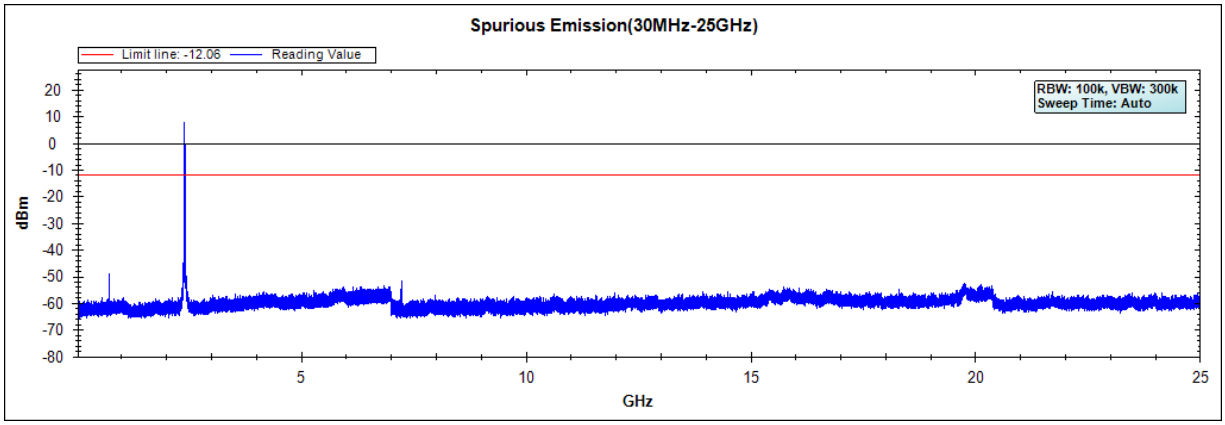
5.4. Uncertainty

±1.23dB

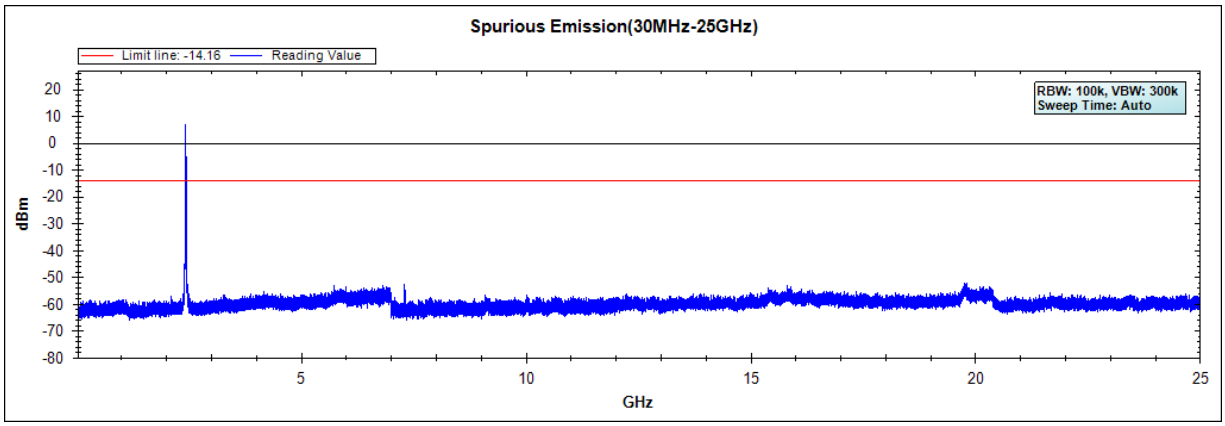
5.5. Test Result of RF antenna conducted test

Product : Smart Cloud Camera
Test Item : RF antenna conducted test
Test Site : ASR4
Test Mode : Mode 1: Transmit (802.11b 1Mbps)
Test Date : 2016/08/26

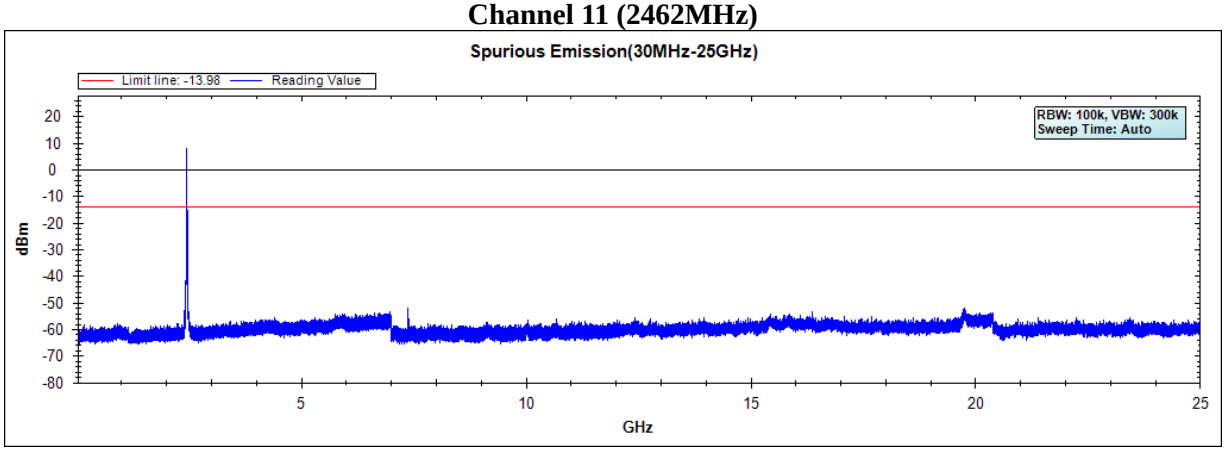
Channel 01 (2412MHz)



Channel 06 (2437MHz)



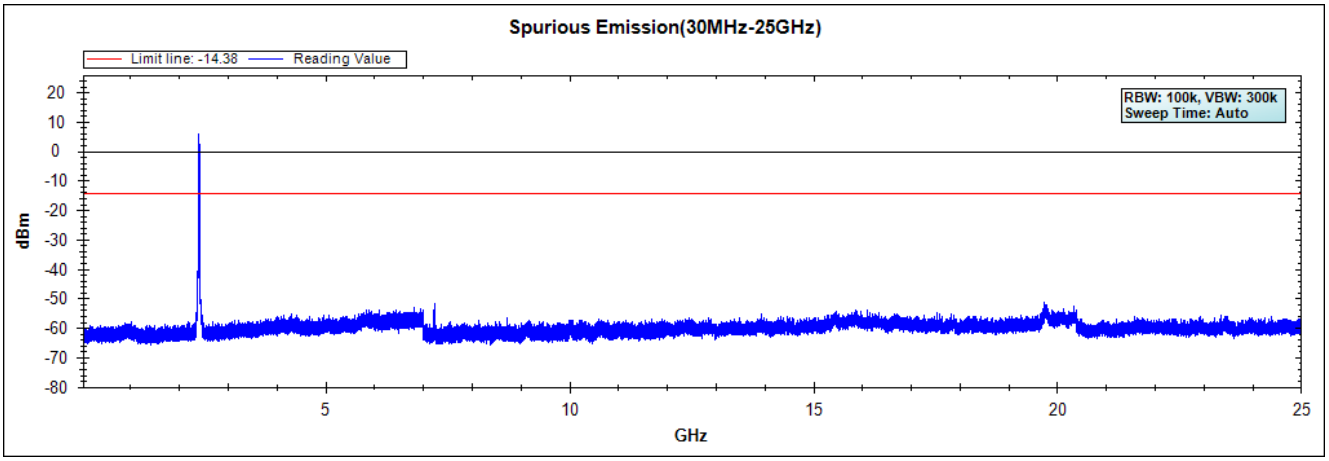
Channel 11 (2462MHz)



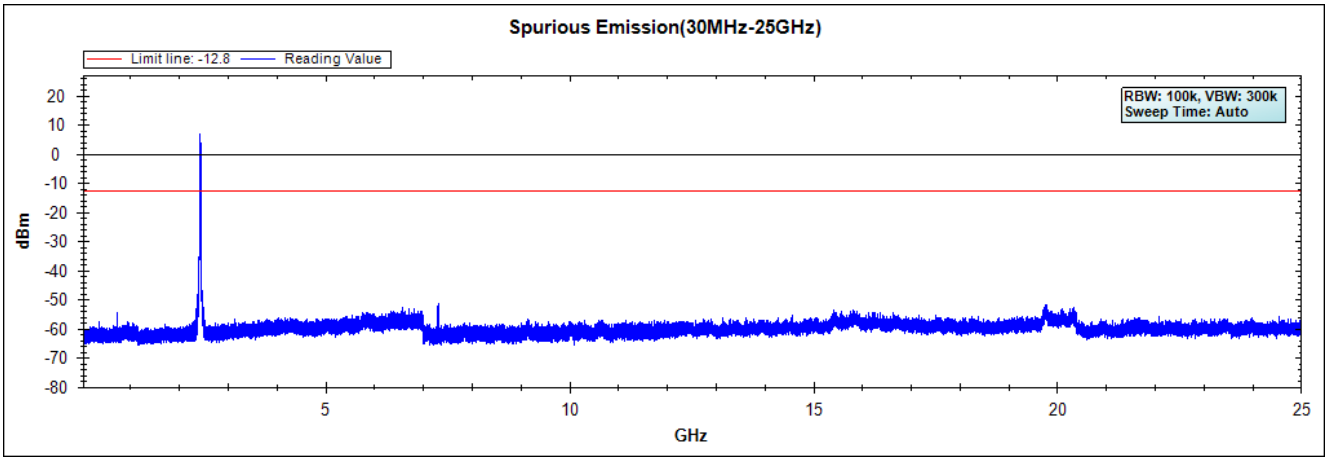
Note: The above test pattern is synthesized by multiple of the frequency range.

Product : Smart Cloud Camera
Test Item : RF Antenna Conducted Spurious
Test Site : ASR4
Test Mode : Mode 2: Transmit (802.11g 6Mbps)
Test Date : 2016/08/26

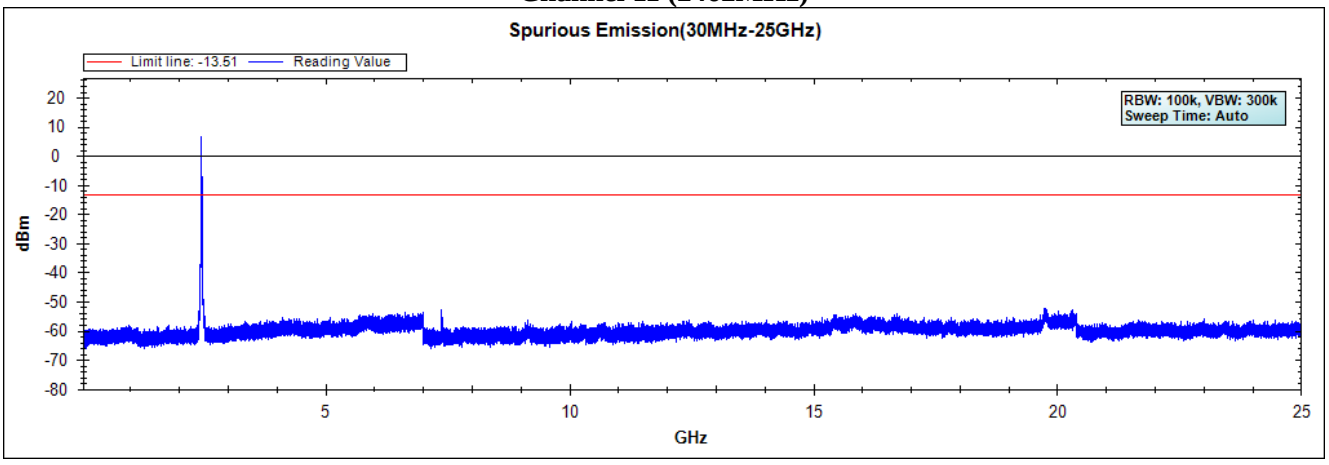
Channel 01 (2412MHz)



Channel 06 (2437MHz)



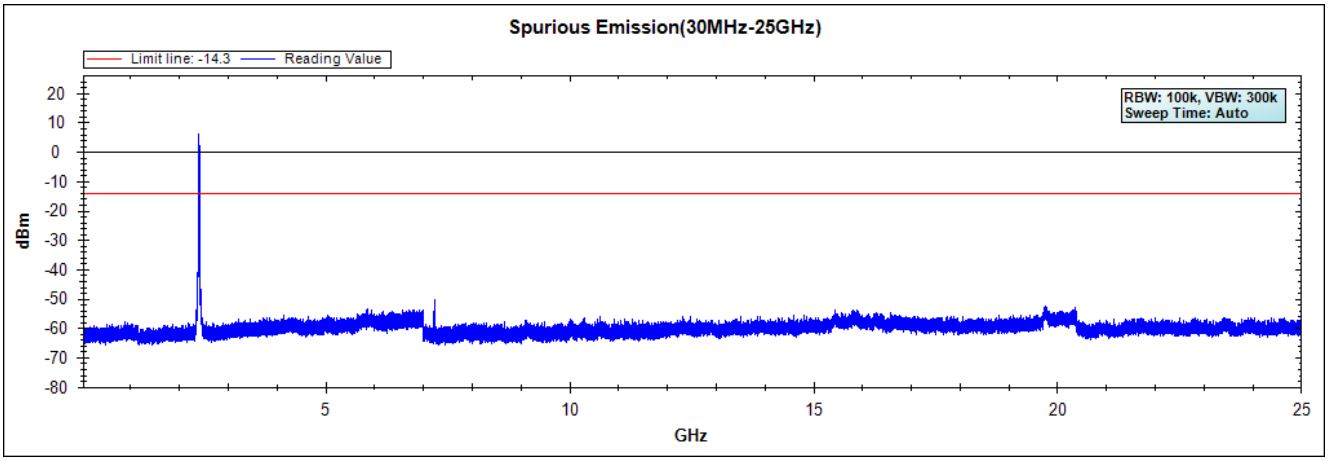
Channel 11 (2462MHz)



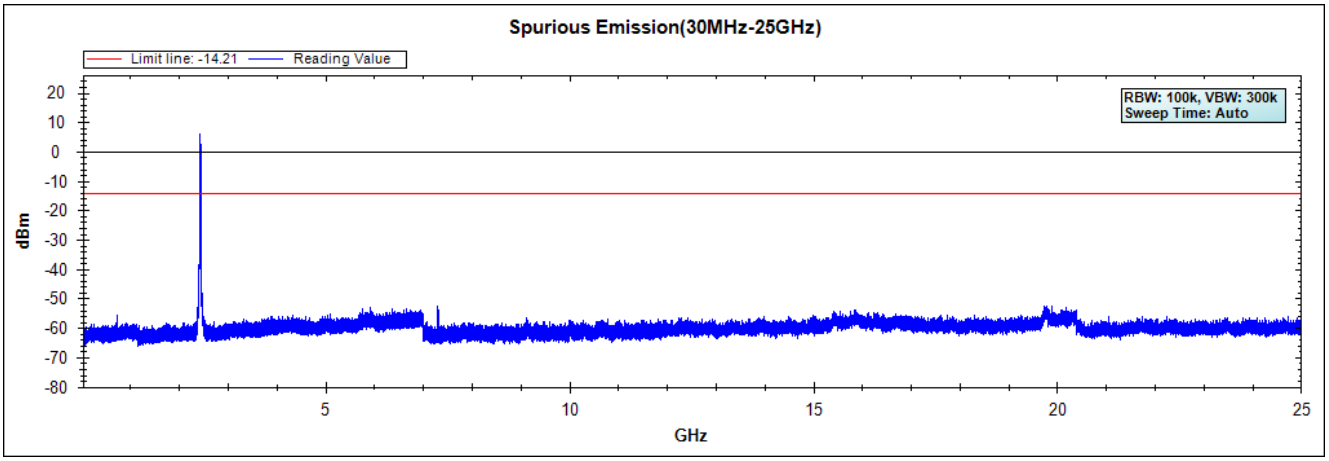
Note: The above test pattern is synthesized by multiple of the frequency range.

Product	:	Smart Cloud Camera
Test Item	:	RF Antenna Conducted Spurious
Test Site	:	ASR4
Test Mode	:	Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW)
Test Date	:	2016/08/26

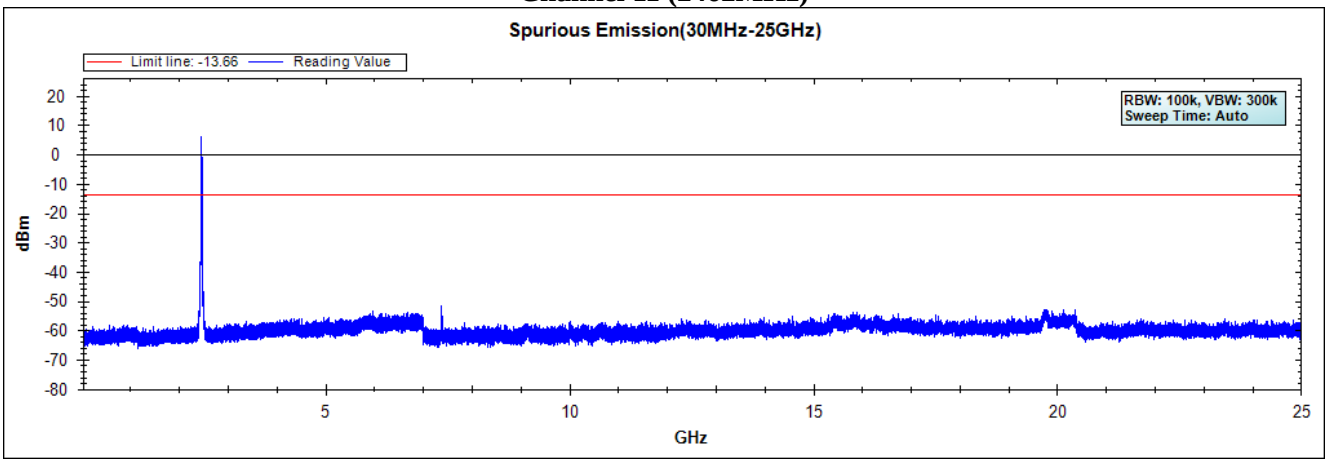
Channel 01 (2412MHz)



Channel 06 (2437MHz)



Channel 11 (2462MHz)

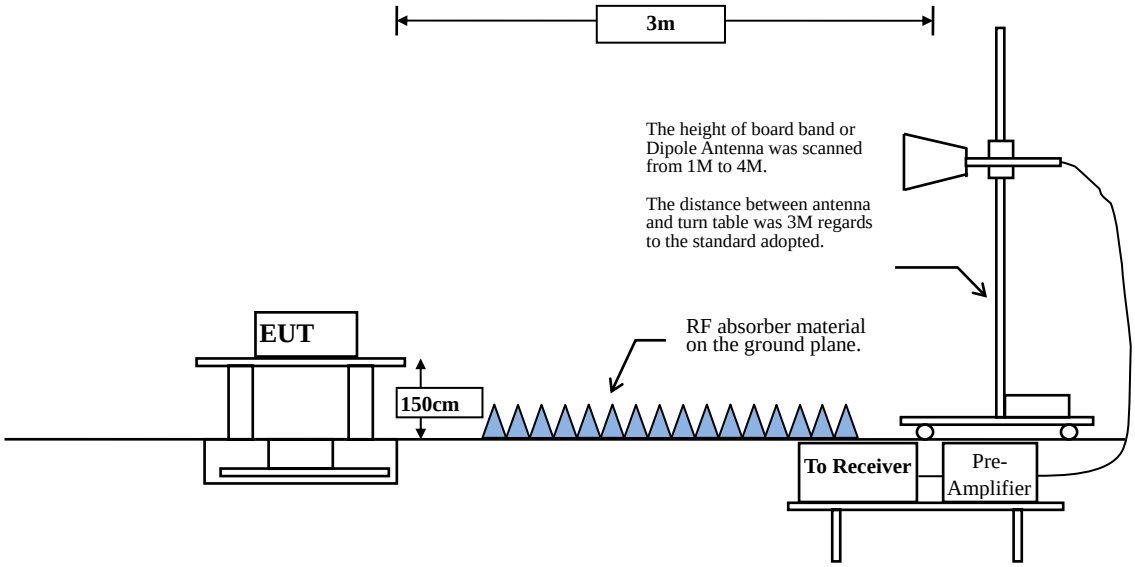


Note: The above test pattern is synthesized by multiple of the frequency range.

6. Band Edge

6.1. Test Setup

RF Radiated Measurement:



6.2. Limits

Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 20dB below the level of the fundamental or to the general radiated emission limits in paragraph 15.209, whichever is the lesser attenuation.

6.3. Test Procedure

The EUT was setup according to ANSI C63.10, 2013 and tested according to DTS test procedure of KDB558074 for compliance to FCC 47CFR 15.247 requirements.
The EUT is placed on a turn table which is 1.5 meter above ground. The turn table is rotated 360 degrees to determine the position of the maximum emission level. The EUT was positioned such that the distance from antenna to the EUT was 3 meters.
The antenna is scanned from 1 meter to 4 meters to find out the maximum emission level. This is repeated for both horizontal and vertical polarization of the antenna. In order to find the maximum emission, all of the interface cables were manipulated according to ANSI C63.10:2013 on radiated measurement.

6.4. Uncertainty

Horizontal：1-18GHz 為±3.77dB
Vertical：1-18GHz 為±3.83dB

6.5. Test Result of Band Edge

Product : Smart Cloud Camera
Test Item : Band Edge Data
Test Site : ACB1
Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2412MHz)
Test Date : 2016/08/31

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Peak Limit (dBμV/m)	Average Limit (dBμV/m)	Result
01 (Peak)	2383.188	11.870	47.706	59.576	74.00	54.00	Pass
01 (Peak)	2390.000	11.897	46.956	58.853	74.00	54.00	Pass
01 (Peak)	2400.000	11.935	55.728	67.663	--	--	--
01 (Peak)	2411.884	11.980	96.709	108.690	--	--	--
01 (Average)	2384.928	11.877	29.987	41.865	74.00	54.00	Pass
01 (Average)	2390.000	11.897	29.471	41.368	74.00	54.00	Pass
01 (Average)	2400.000	11.935	43.736	55.671	--	--	--
01 (Average)	2412.609	11.983	82.619	94.602	--	--	--

Figure Channel 01: Horizontal (Peak)

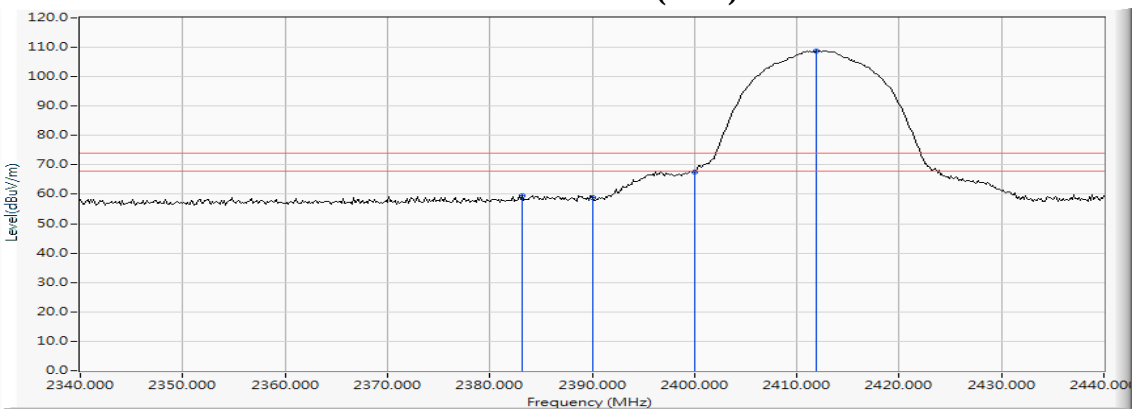
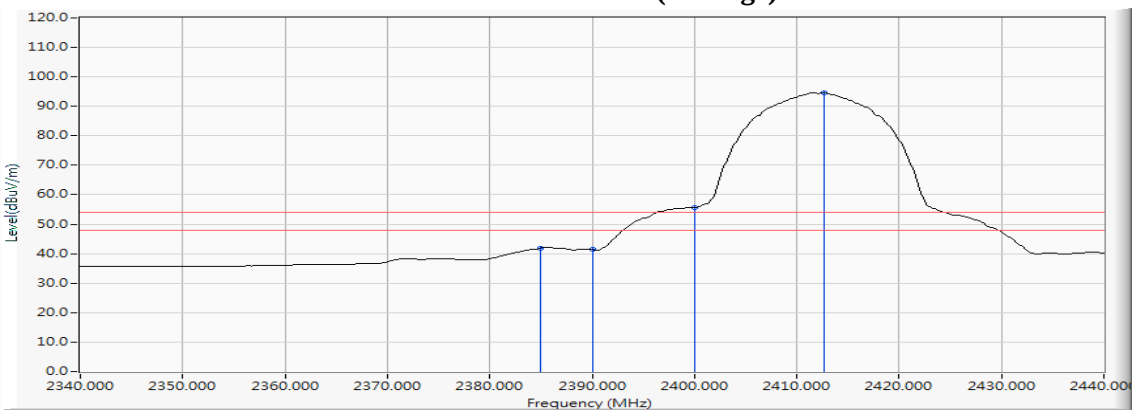


Figure Channel 01: Horizontal (Average)



Note:1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Smart Cloud Camera
Test Item : Band Edge Data
Test Site : ACB1
Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2412MHz)
Test Date : 2016/08/31

RF Radiated Measurement (VERTICAL):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Peak Limit (dBμV/m)	Average Limit (dBμV/m)	Result
01 (Peak)	2385.942	11.882	49.372	61.254	74.00	54.00	Pass
01 (Peak)	2390.000	11.897	48.400	60.297	74.00	54.00	Pass
01 (Peak)	2400.000	11.935	58.178	70.113	--	--	--
01 (Peak)	2412.174	11.982	98.542	110.524	--	--	--
01 (Average)	2385.507	11.881	34.087	45.967	74.00	54.00	Pass
01 (Average)	2390.000	11.897	32.863	44.760	74.00	54.00	Pass
01 (Average)	2400.000	11.935	46.011	57.946	--	--	--
01 (Average)	2411.594	11.980	84.251	96.230	--	--	--

Figure Channel 01: VERTICAL (Peak)

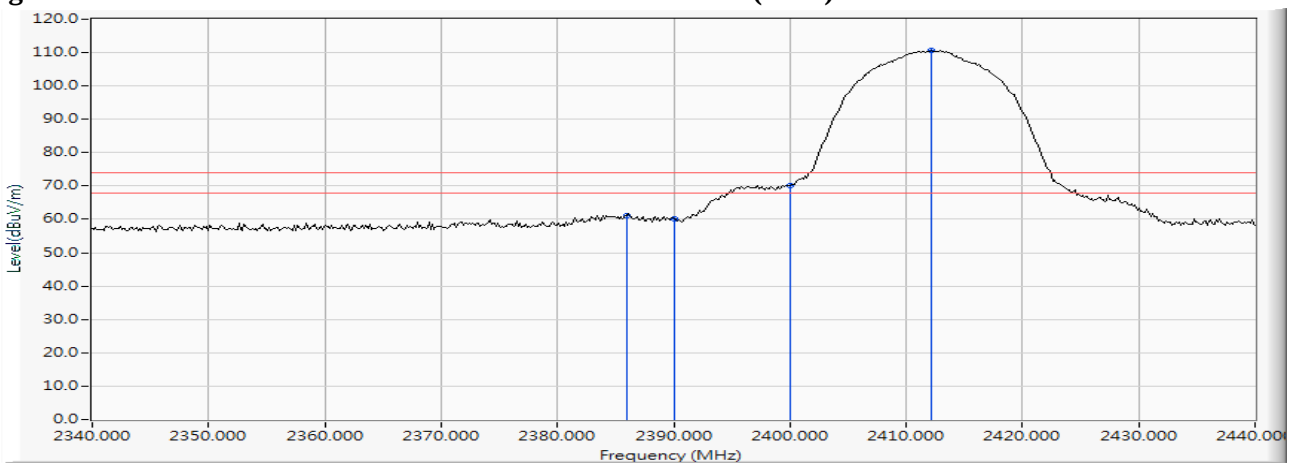
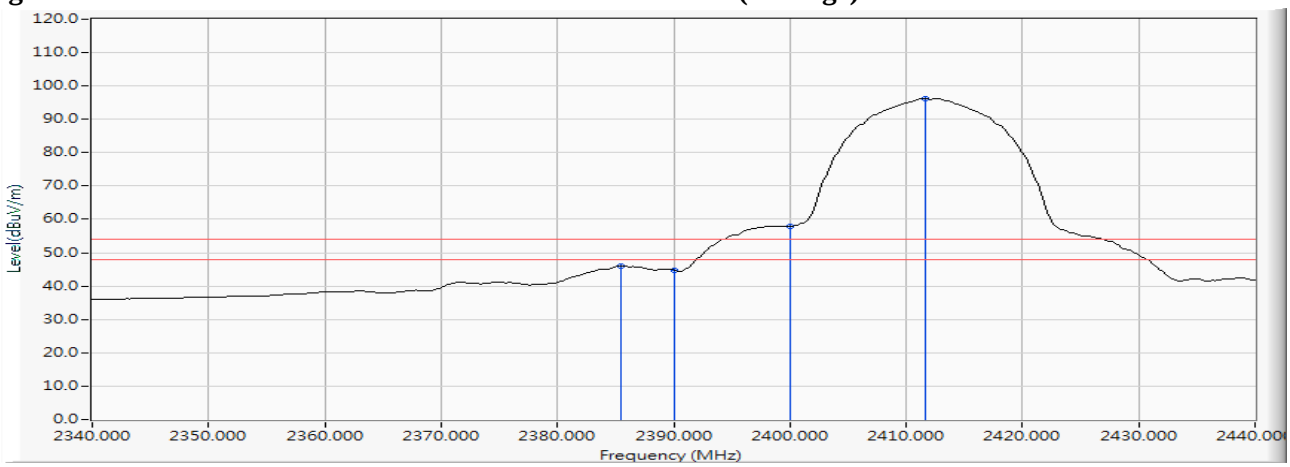


Figure Channel 01: VERTICAL (Average)



Note:1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Smart Cloud Camera
Test Item : Band Edge Data
Test Site : ACB1
Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2462MHz)
Test Date : 2016/08/31

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Peak Limit (dBμV/m)	Average Limit (dBμV/m)	Result
11 (Peak)	2461.471	12.182	96.142	108.324	--	--	--
11 (Peak)	2483.500	12.272	45.176	57.448	74.00	54.00	Pass
11 (Peak)	2514.080	12.362	47.506	59.867	74.00	54.00	Pass
11 (Average)	2461.616	12.182	81.901	94.083	--	--	--
11 (Average)	2483.500	12.272	27.128	39.400	74.00	54.00	Pass

Figure Channel 11: Horizontal (Peak)

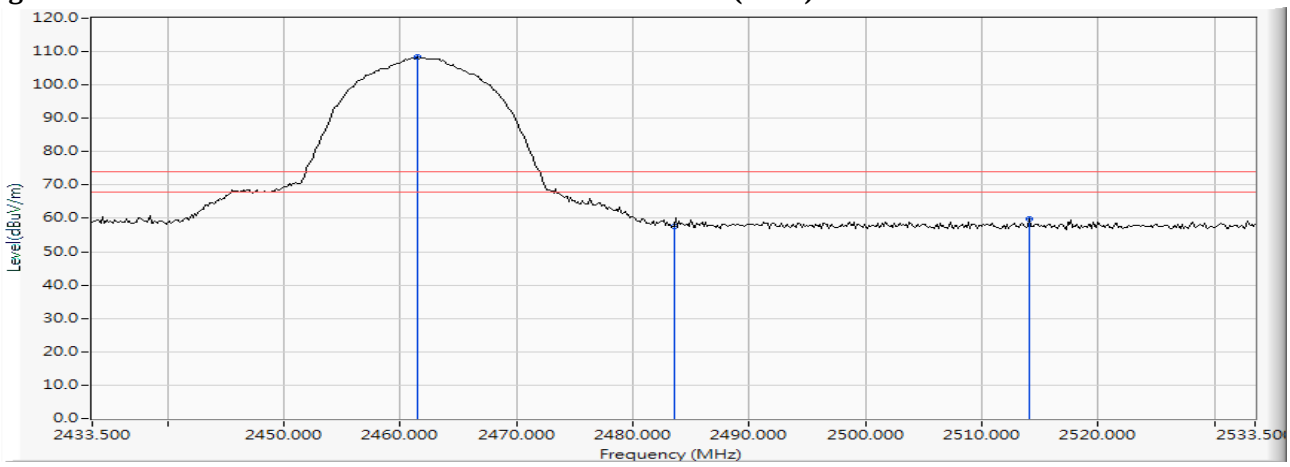
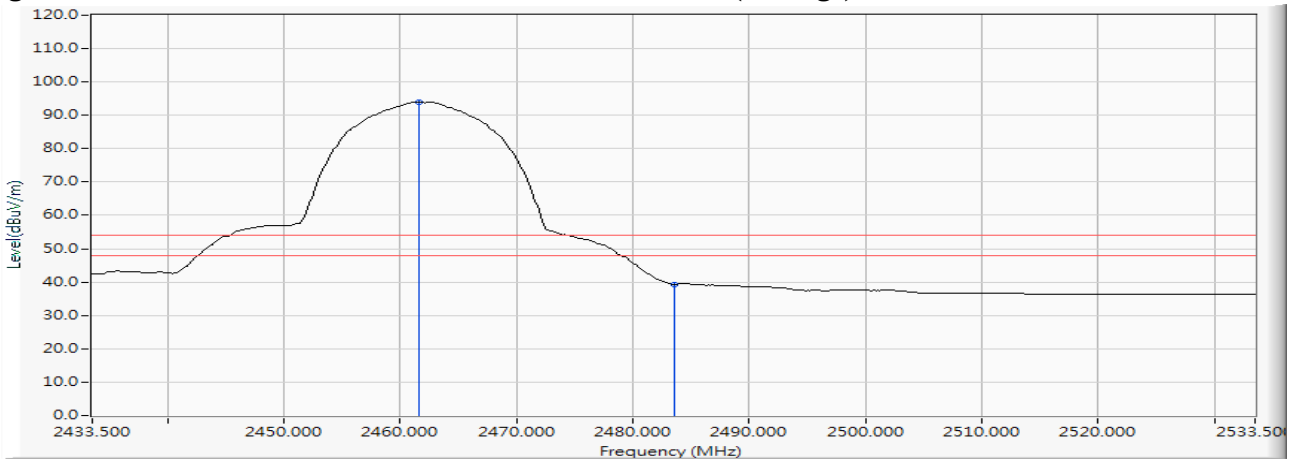


Figure Channel 11: Horizontal (Average)



Note:1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Smart Cloud Camera
Test Item : Band Edge Data
Test Site : ACB1
Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2462MHz)
Test Date : 2016/08/31

RF Radiated Measurement (VERTICAL):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Peak Limit (dBμV/m)	Average Limit (dBμV/m)	Result
11 (Peak)	2462.920	12.189	97.719	109.907	--	--	--
11 (Peak)	2483.500	12.272	46.111	58.383	74.00	54.00	Pass
11 (Peak)	2484.225	12.275	46.996	59.271	74.00	54.00	Pass
11 (Average)	2461.616	12.182	83.441	95.623	--	--	--
11 (Average)	2483.500	12.272	28.391	40.663	74.00	54.00	Pass
11 (Average)	2485.094	12.278	28.497	40.775	74.00	54.00	Pass

Figure Channel 11: VERTICAL (Peak)

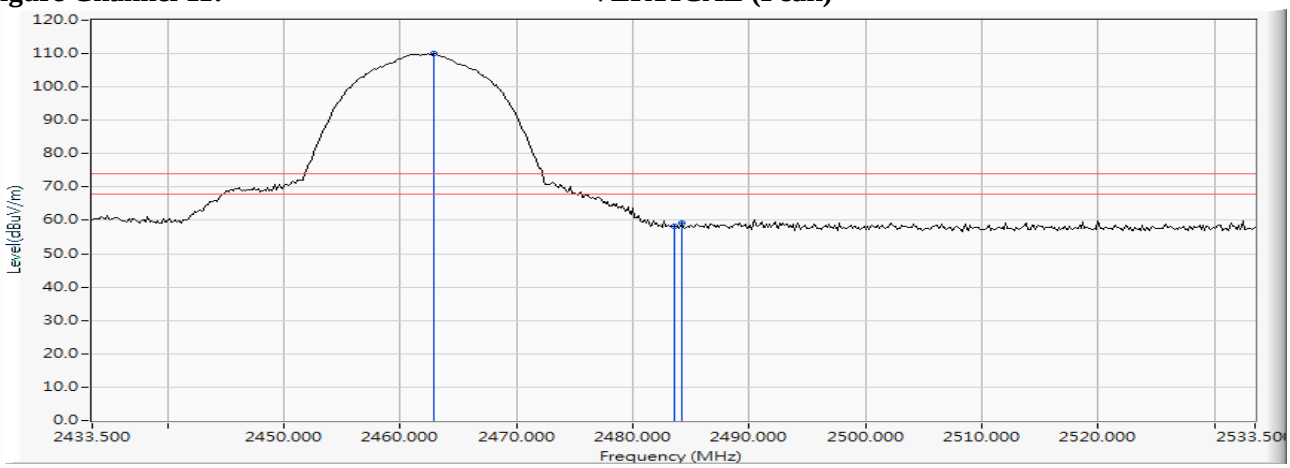
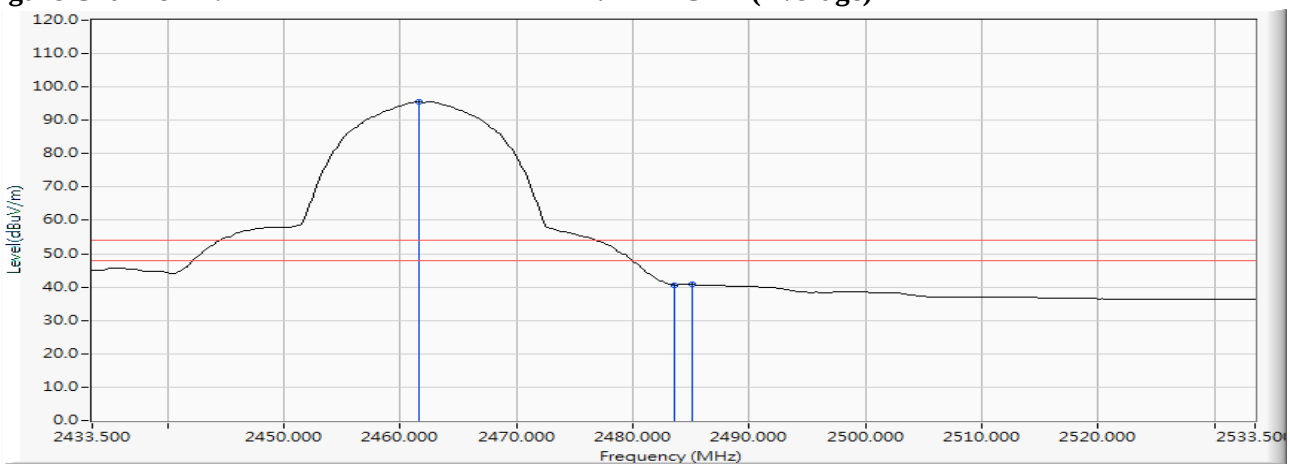


Figure Channel 11: VERTICAL (Average)



Note:1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Smart Cloud Camera
Test Item : Band Edge Data
Test Site : ACB1
Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2412MHz)
Test Date : 2016/08/31

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Peak Limit (dBμV/m)	Average Limit (dBμV/m)	Result
01 (Peak)	2390.000	11.897	57.502	69.399	74.00	54.00	Pass
01 (Peak)	2400.000	11.935	73.080	85.015	--	--	--
01 (Peak)	2410.725	11.976	97.384	109.360	--	--	--
01 (Average)	2390.000	11.897	34.368	46.265	74.00	54.00	Pass
01 (Average)	2400.000	11.935	45.017	56.952	--	--	--
01 (Average)	2410.725	11.976	64.121	76.097	--	--	--

Figure Channel 01: Horizontal (Peak)

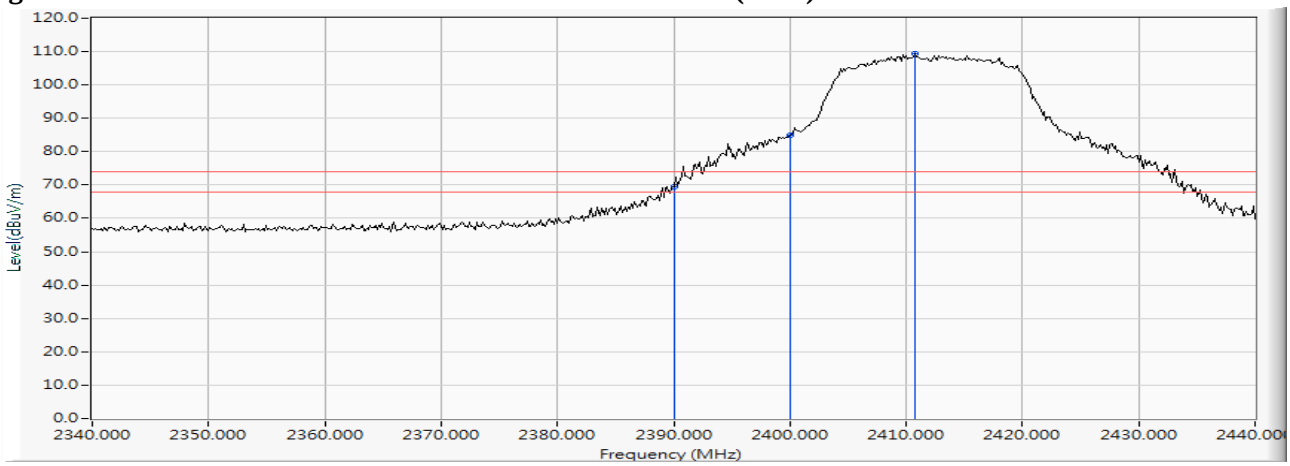
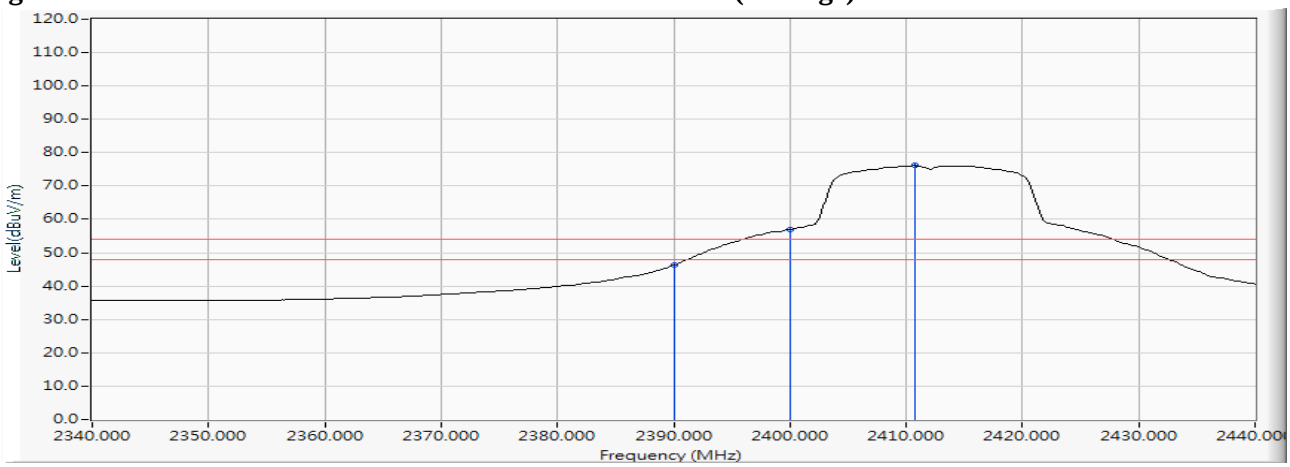


Figure Channel 01: Horizontal (Average)



Note:1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Smart Cloud Camera
Test Item : Band Edge Data
Test Site : ACB1
Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2412MHz)
Test Date : 2016/08/31

RF Radiated Measurement (VERTICAL):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Peak Limit (dBμV/m)	Average Limit (dBμV/m)	Result
01 (Peak)	2389.710	11.896	59.245	71.141	74.00	54.00	Pass
01 (Peak)	2390.000	11.897	57.790	69.687	74.00	54.00	Pass
01 (Peak)	2400.000	11.935	72.837	84.772	--	--	--
01 (Peak)	2409.420	11.971	99.143	111.114	--	--	--
01 (Average)	2390.000	11.897	34.625	46.522	74.00	54.00	Pass
01 (Average)	2400.000	11.935	43.575	55.510	--	--	--
01 (Average)	2410.725	11.976	65.376	77.352	--	--	--

Figure Channel 01: VERTICAL (Peak)

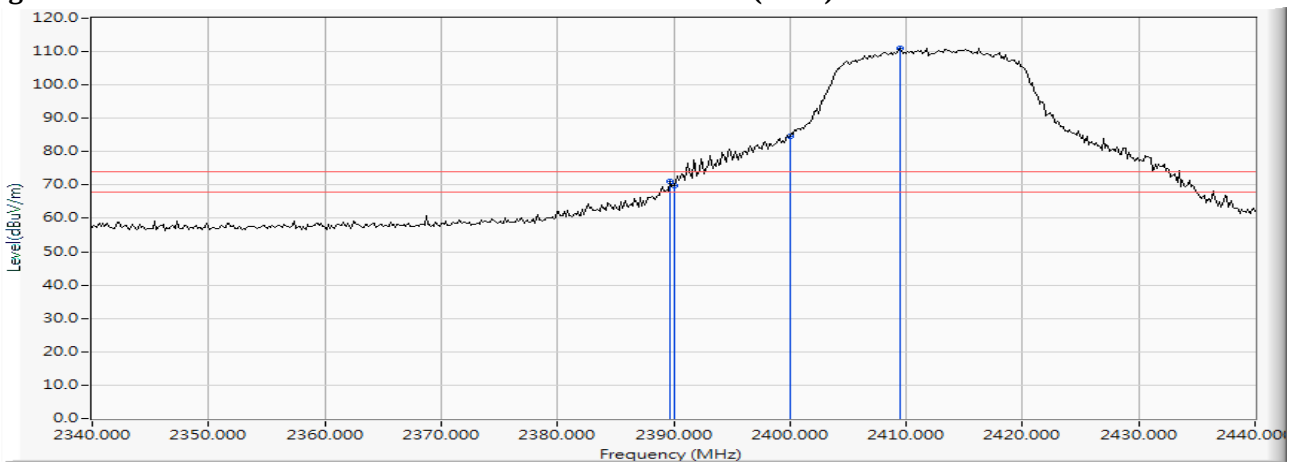
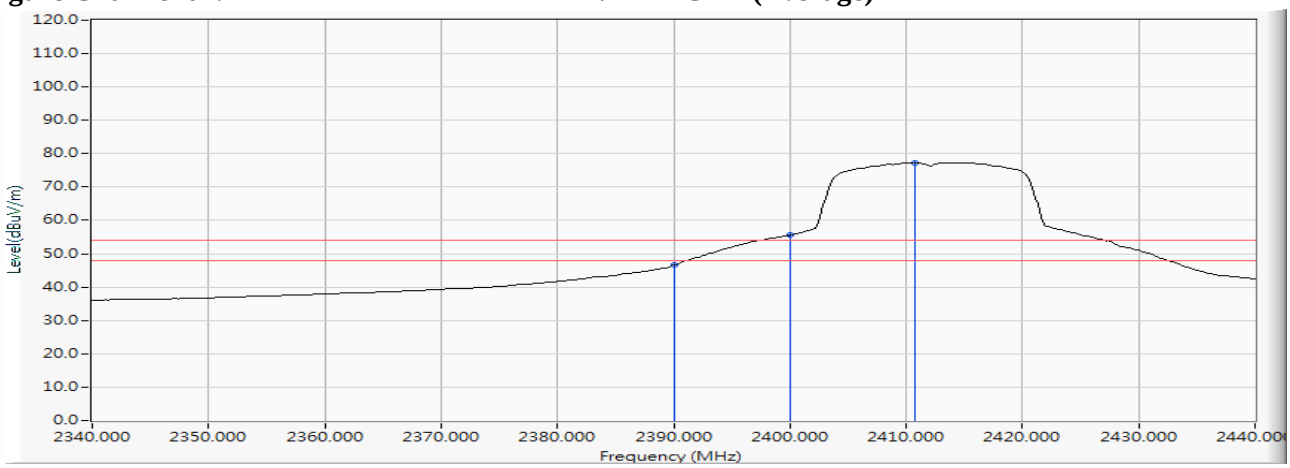


Figure Channel 01: VERTICAL (Average)



Note:1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Smart Cloud Camera
Test Item : Band Edge Data
Test Site : ACB1
Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2462MHz)
Test Date : 2016/08/31

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Peak Limit (dBμV/m)	Average Limit (dBμV/m)	Result
11 (Peak)	2460.457	12.178	96.968	109.145	--	--	--
11 (Peak)	2483.500	12.272	60.619	72.891	74.00	54.00	Pass
11 (Average)	2460.746	12.178	64.035	76.214	--	--	--
11 (Average)	2483.500	12.272	34.778	47.050	74.00	54.00	Pass

Figure Channel 11: Horizontal (Peak)

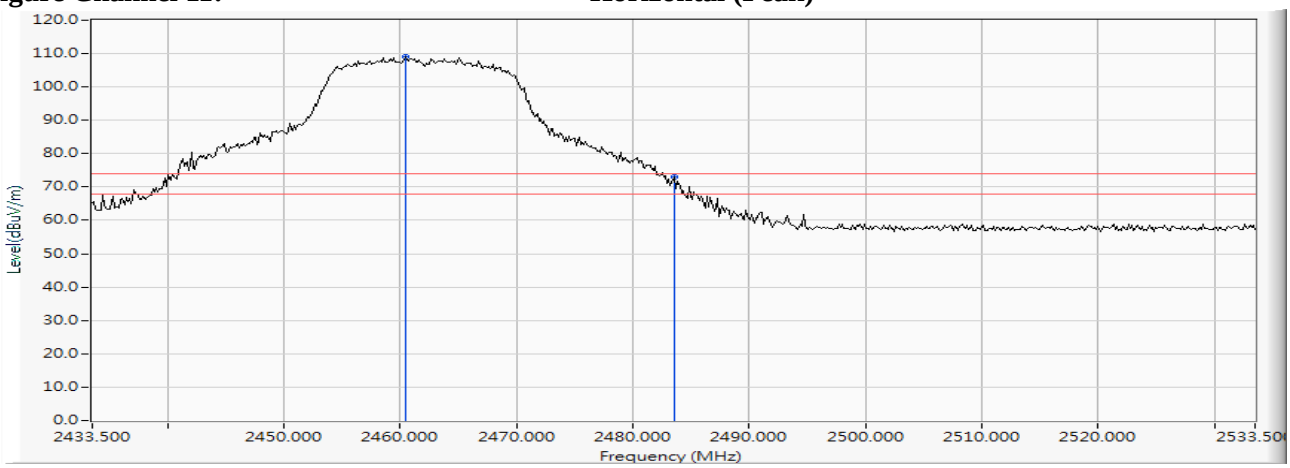
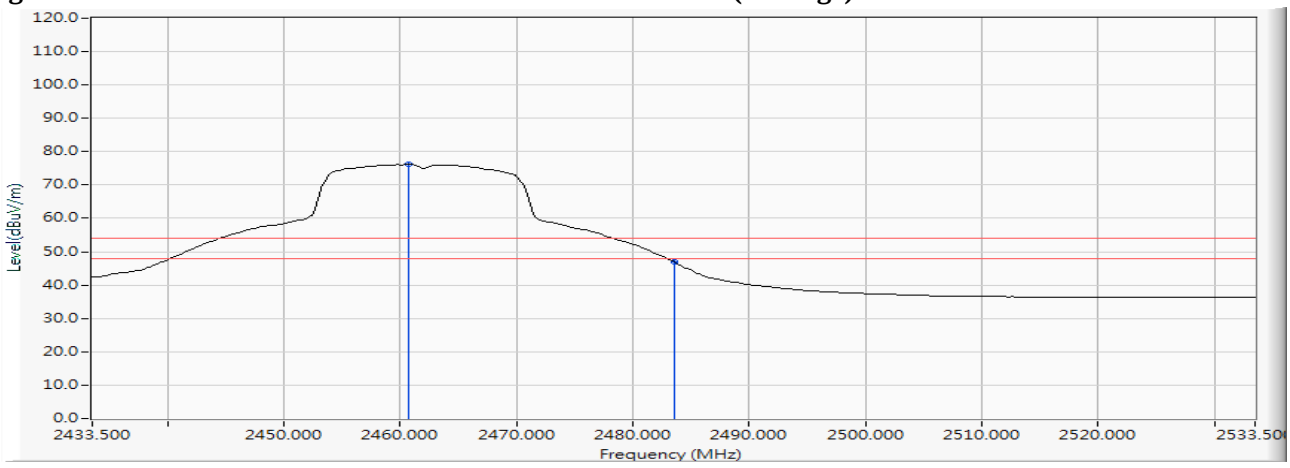


Figure Channel 11: Horizontal (Average)



Note:1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Smart Cloud Camera
Test Item : Band Edge Data
Test Site : ACB1
Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2462MHz)
Test Date : 2016/08/31

RF Radiated Measurement (VERTICAL):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Peak Limit (dBμV/m)	Average Limit (dBμV/m)	Result
11 (Peak)	2460.602	12.178	96.795	108.973	--	--	--
11 (Peak)	2483.500	12.272	56.726	68.998	74.00	54.00	Pass
11 (Peak)	2483.645	12.272	59.464	71.736	74.00	54.00	Pass
11 (Average)	2460.746	12.178	63.914	76.093	--	--	--
11 (Average)	2483.500	12.272	33.114	45.386	74.00	54.00	Pass

Figure Channel 11: VERTICAL (Peak)

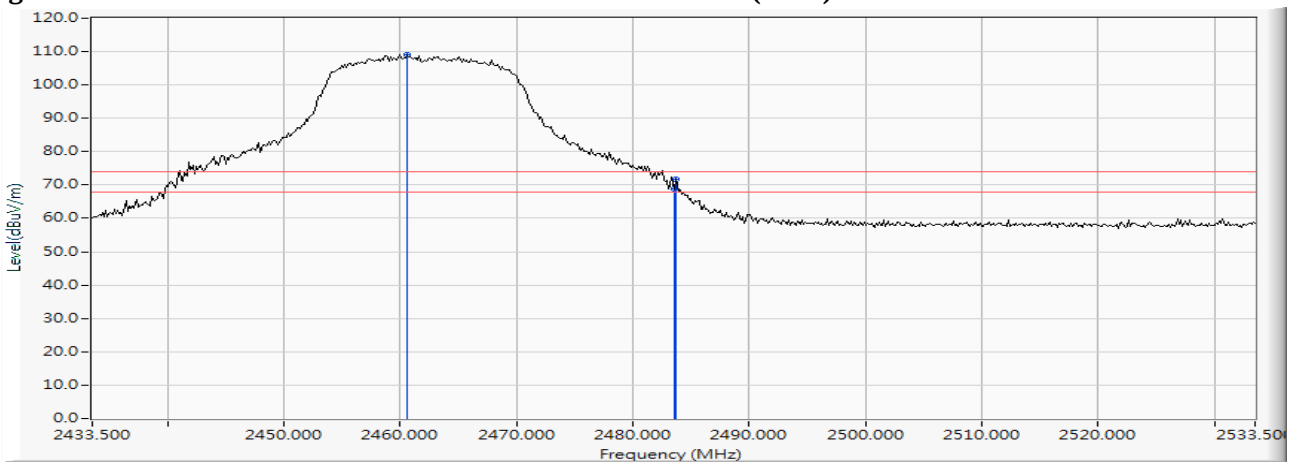
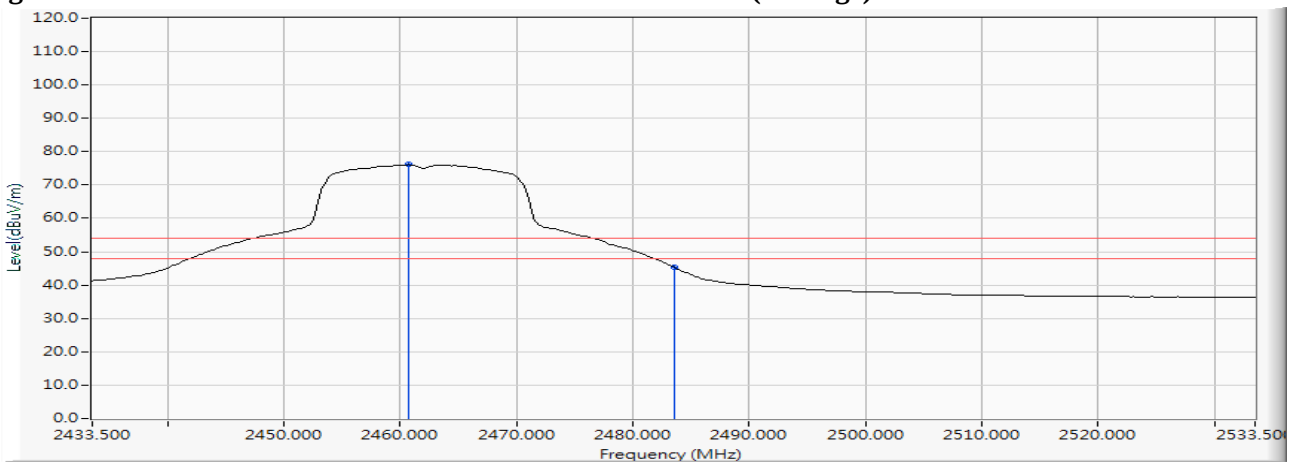


Figure Channel 11: VERTICAL (Average)



Note:1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Smart Cloud Camera
Test Item : Band Edge Data
Test Site : ACB1
Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW) (2412MHz)
Test Date : 2016/08/31

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Peak Limit (dBμV/m)	Average Limit (dBμV/m)	Result
01 (Peak)	2389.420	11.895	55.979	67.874	74.00	54.00	Pass
01 (Peak)	2390.000	11.897	54.937	66.834	74.00	54.00	Pass
01 (Peak)	2400.000	11.935	69.775	81.710	--	--	--
01 (Peak)	2409.275	11.970	95.404	107.374	--	--	--
01 (Average)	2390.000	11.897	32.024	43.921	74.00	54.00	Pass
01 (Average)	2400.000	11.935	40.559	52.494	--	--	--
01 (Average)	2413.623	11.986	62.101	74.088	--	--	--

Figure Channel 01: Horizontal (Peak)

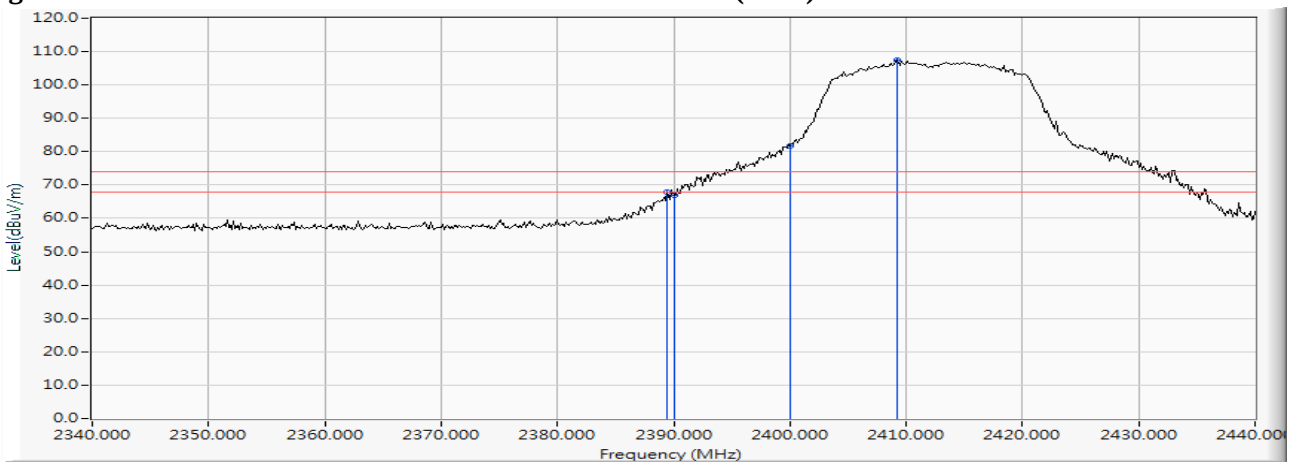
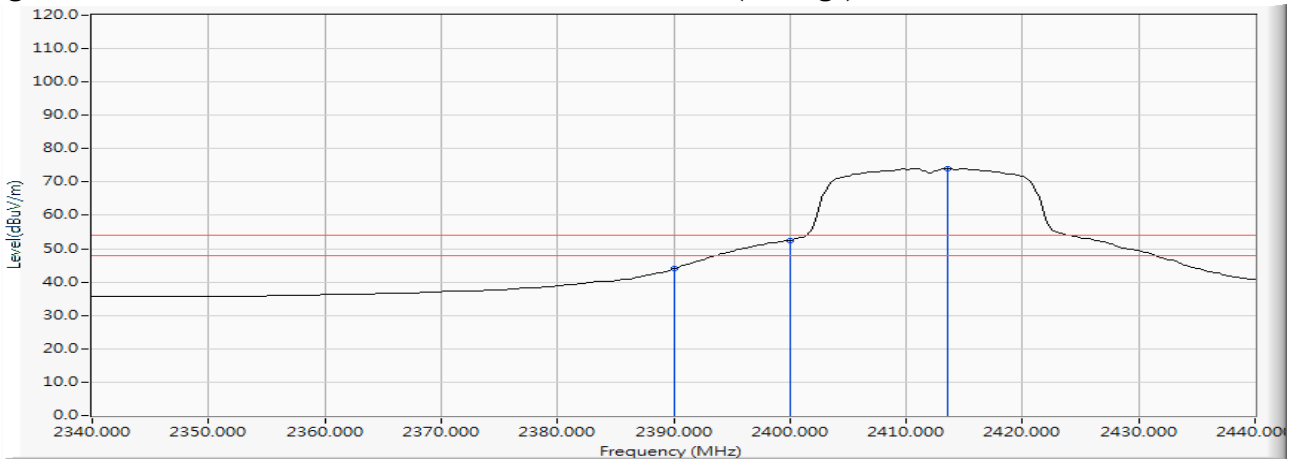


Figure Channel 01: Horizontal (Average)



Note:1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Smart Cloud Camera
Test Item : Band Edge Data
Test Site : ACB1
Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW) (2412MHz)
Test Date : 2016/08/31

RF Radiated Measurement (VERTICAL):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Peak Limit (dBμV/m)	Average Limit (dBμV/m)	Result
01 (Peak)	2389.420	11.895	59.944	71.839	74.00	54.00	Pass
01 (Peak)	2390.000	11.897	59.477	71.374	74.00	54.00	Pass
01 (Peak)	2400.000	11.935	72.479	84.414	--	--	--
01 (Peak)	2410.145	11.975	97.586	109.560	--	--	--
01 (Average)	2390.000	11.897	34.866	46.763	74.00	54.00	Pass
01 (Average)	2400.000	11.935	42.459	54.394	--	--	--
01 (Average)	2410.870	11.977	63.534	75.511	--	--	--

Figure Channel 01: VERTICAL (Peak)

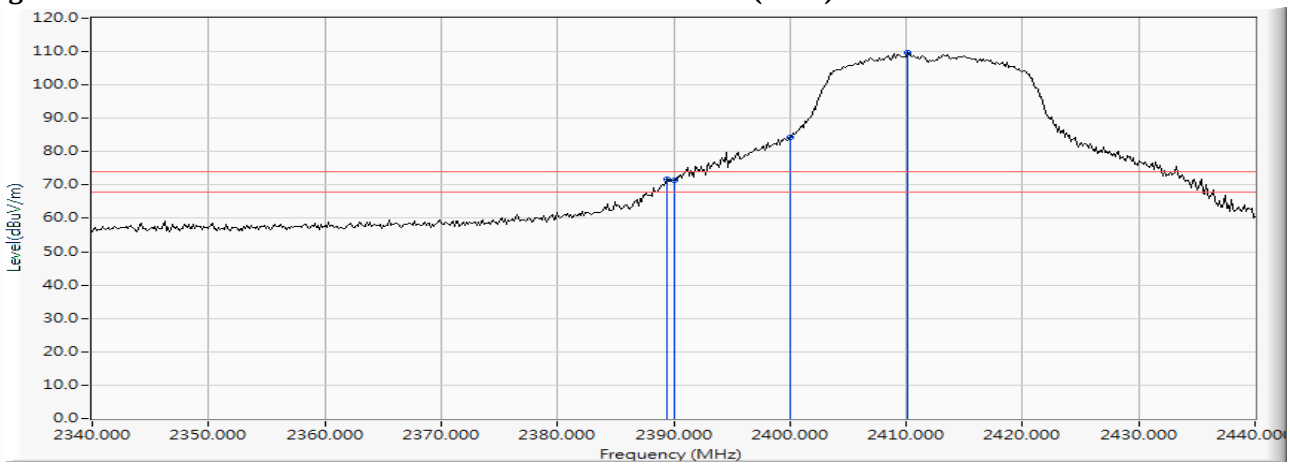
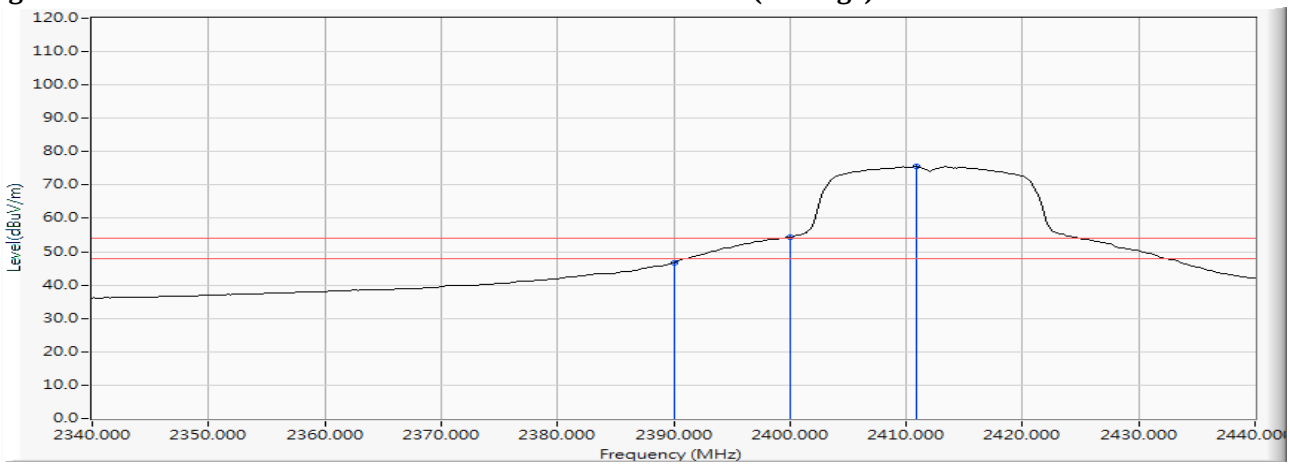


Figure Channel 01: VERTICAL (Average)



Note:1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Smart Cloud Camera
Test Item : Band Edge Data
Test Site : ACB1
Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW) (2462MHz)
Test Date : 2016/08/31

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Peak Limit (dBμV/m)	Average Limit (dBμV/m)	Result
11 (Peak)	2459.442	12.173	94.669	106.842	--	--	--
11 (Peak)	2483.500	12.272	57.851	70.123	74.00	54.00	Pass
11 (Average)	2460.601	12.178	61.698	73.876	--	--	--
11 (Average)	2483.500	12.272	32.437	44.709	74.00	54.00	Pass

Figure Channel 11: Horizontal (Peak)

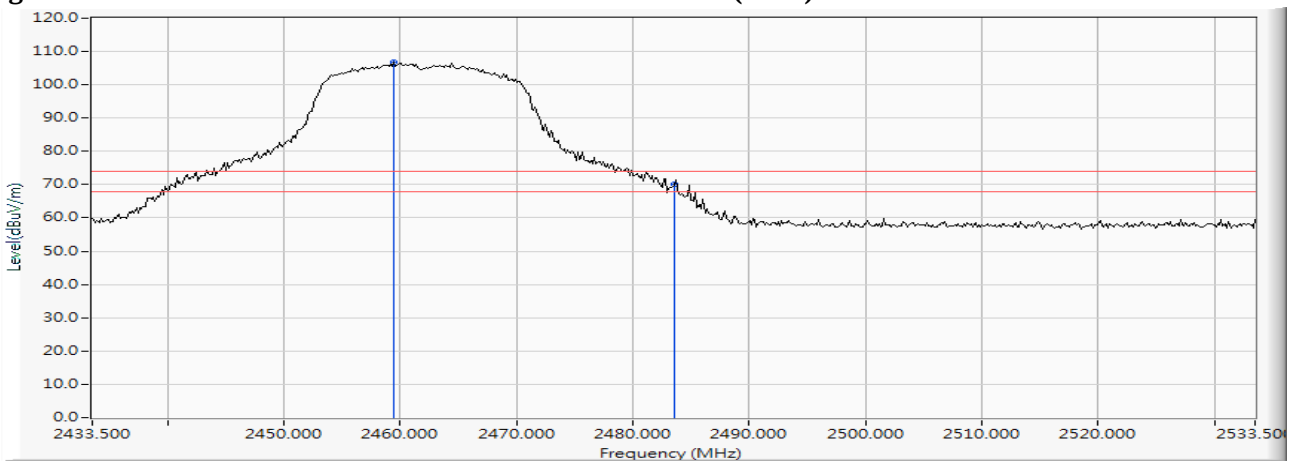
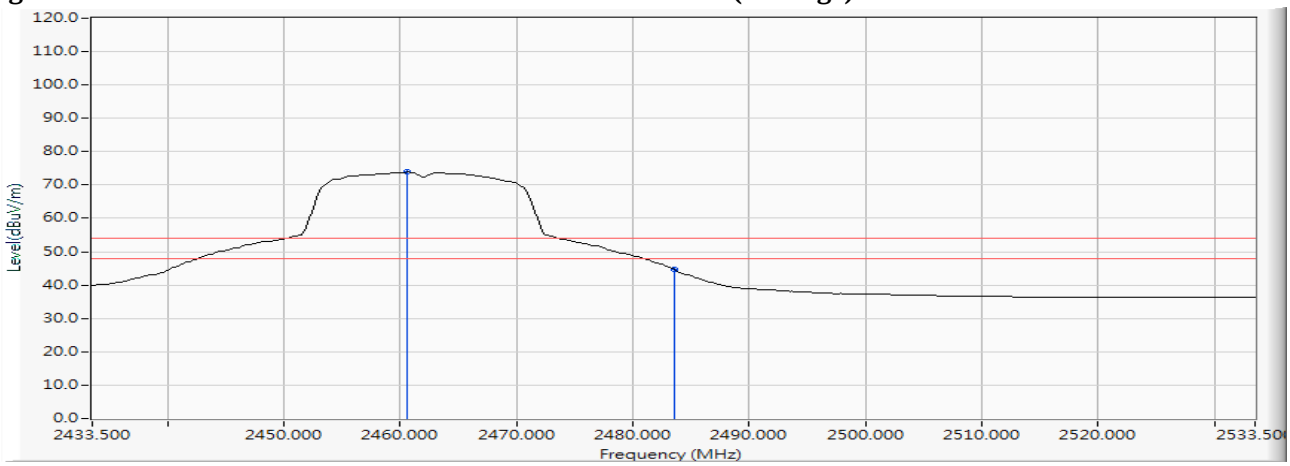


Figure Channel 11: Horizontal (Average)



Note:1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Smart Cloud Camera
Test Item : Band Edge Data
Test Site : ACB1
Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW) (2462MHz)
Test Date : 2016/08/31

RF Radiated Measurement (VERTICAL):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Peak Limit (dBμV/m)	Average Limit (dBμV/m)	Result
11 (Peak)	2460.022	12.175	96.497	108.672	--	--	--
11 (Peak)	2483.500	12.272	60.317	72.589	74.00	54.00	Pass
11 (Average)	2460.746	12.178	62.924	75.103	--	--	--
11 (Average)	2483.500	12.272	33.228	45.500	74.00	54.00	Pass

Figure Channel 11: VERTICAL (Peak)

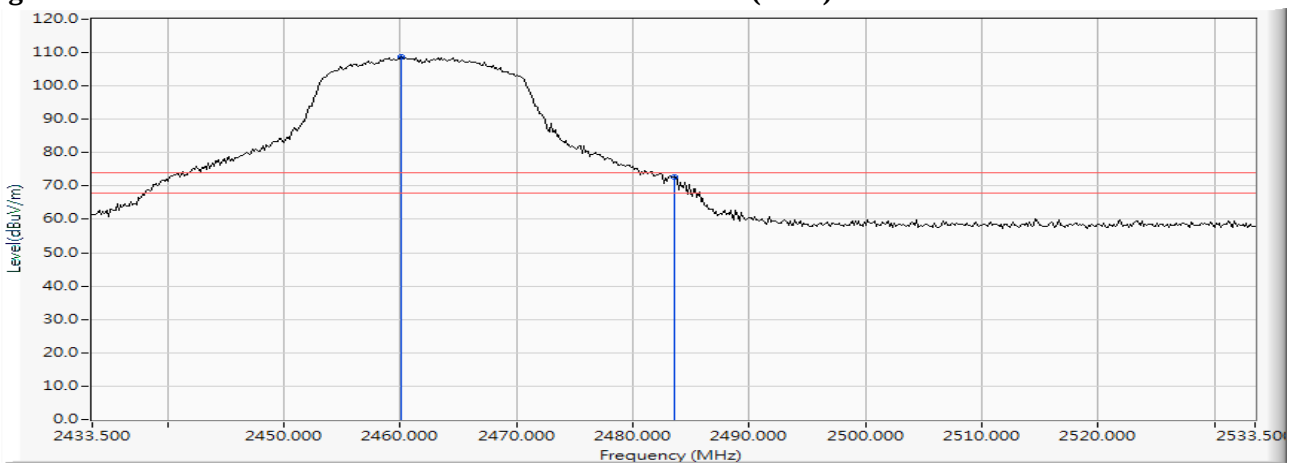
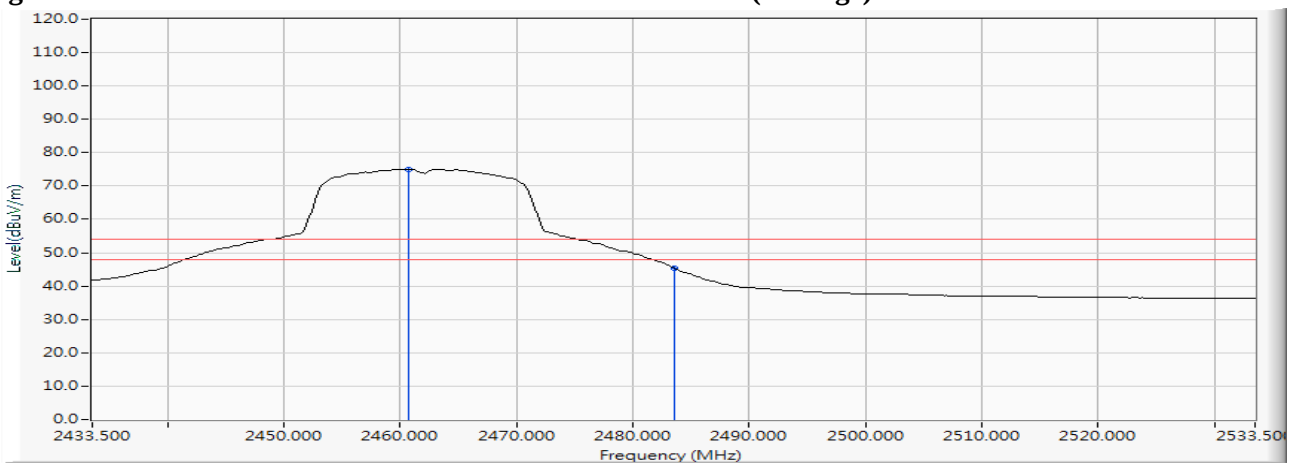


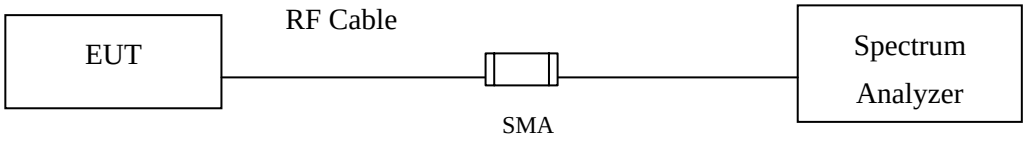
Figure Channel 11: VERTICAL (Average)



Note:1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

7. 6dB Bandwidth

7.1. Test Setup



7.2. Limits

The minimum bandwidth shall be at least 500 kHz.

7.3. Test Procedure

The EUT was setup according to ANSI C63.4: 2014; tested according to DTS test procedure of Jan KDB558074 for compliance to FCC 47CFR 15.247 requirements.

7.4. Uncertainty

± 279.2Hz

7.5. Test Result of 6dB Bandwidth

Product : Smart Cloud Camera
Test Item : 6dB Bandwidth Data
Test Site : ASR4
Test Mode : Mode 1: Transmit (802.11b 1Mbps)
Test Date : 2016/09/06

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
01	2412	9150	>500	Pass
06	2437	8500	>500	Pass
11	2462	9100	>500	Pass

Figure Channel 01:

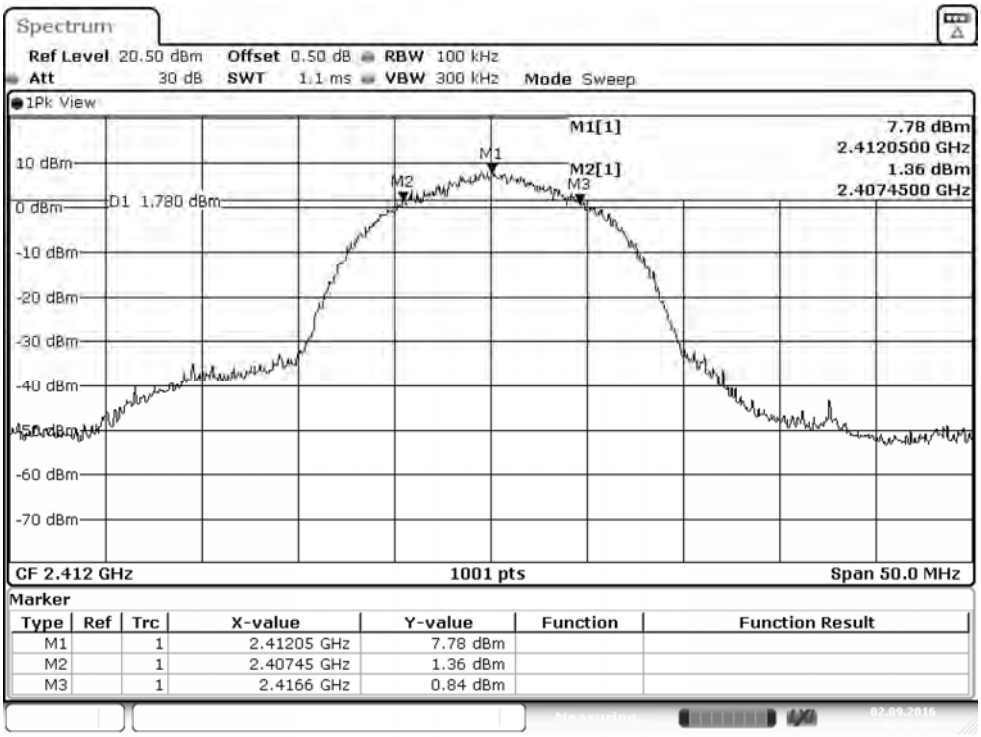


Figure Channel 06:

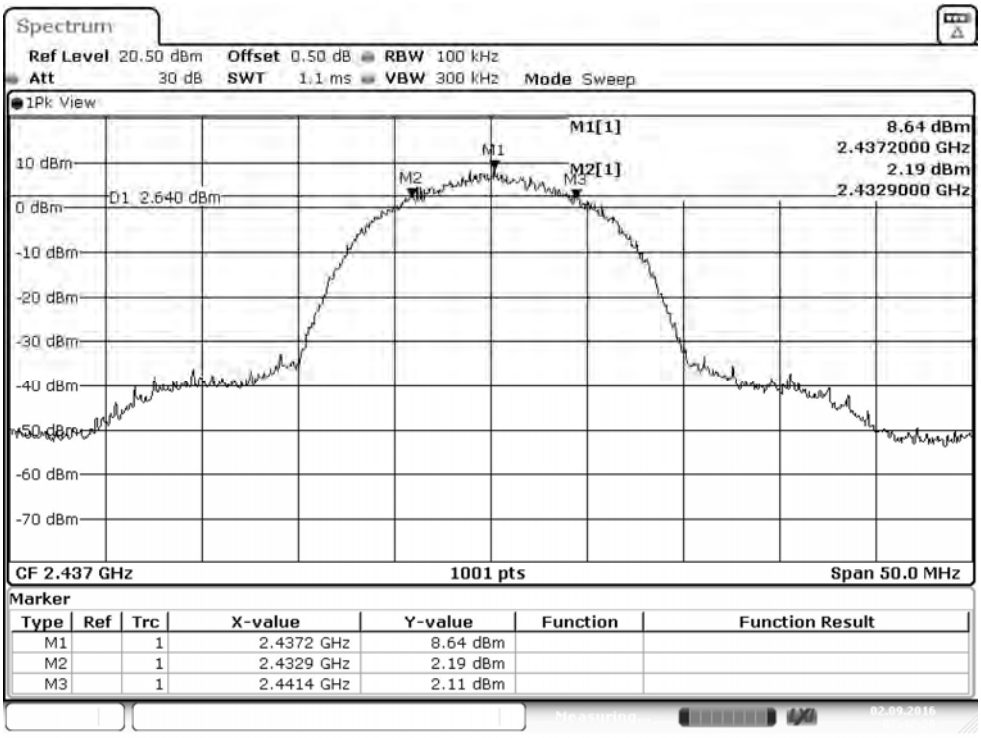
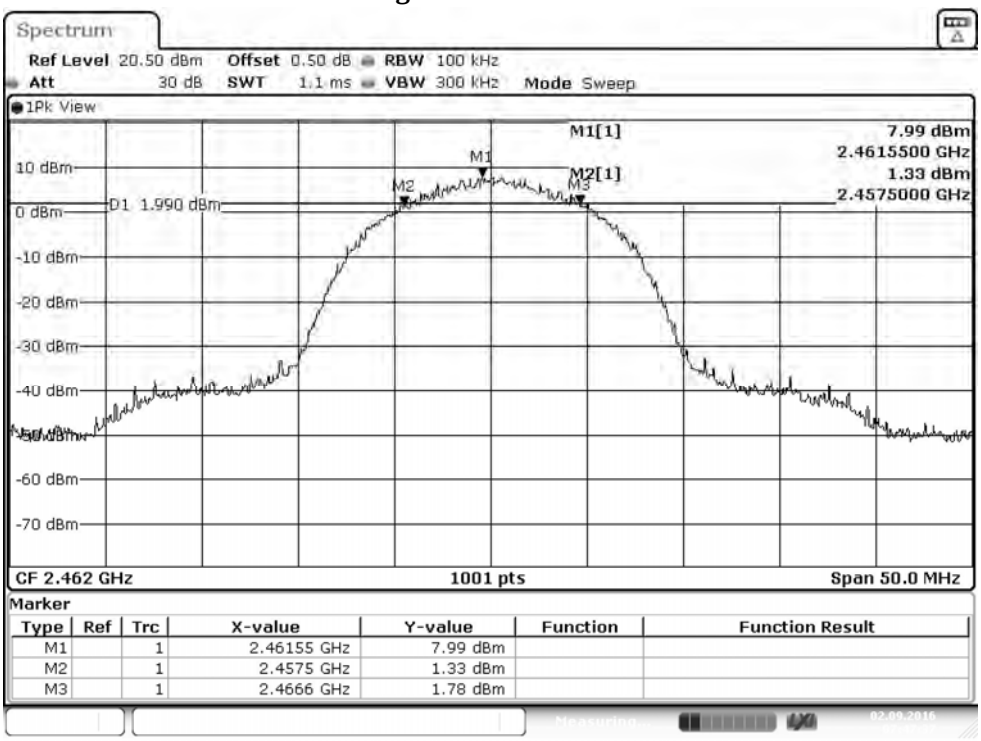


Figure Channel 11:



Product : Smart Cloud Camera
Test Item : 6dB Bandwidth Data
Test Site : ASR4
Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2412MHz)
Test Date : 2016/09/06

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
01	2412	15200	>500	Pass
06	2437	15550	>500	Pass
11	2462	15200	>500	Pass

Figure Channel 01:

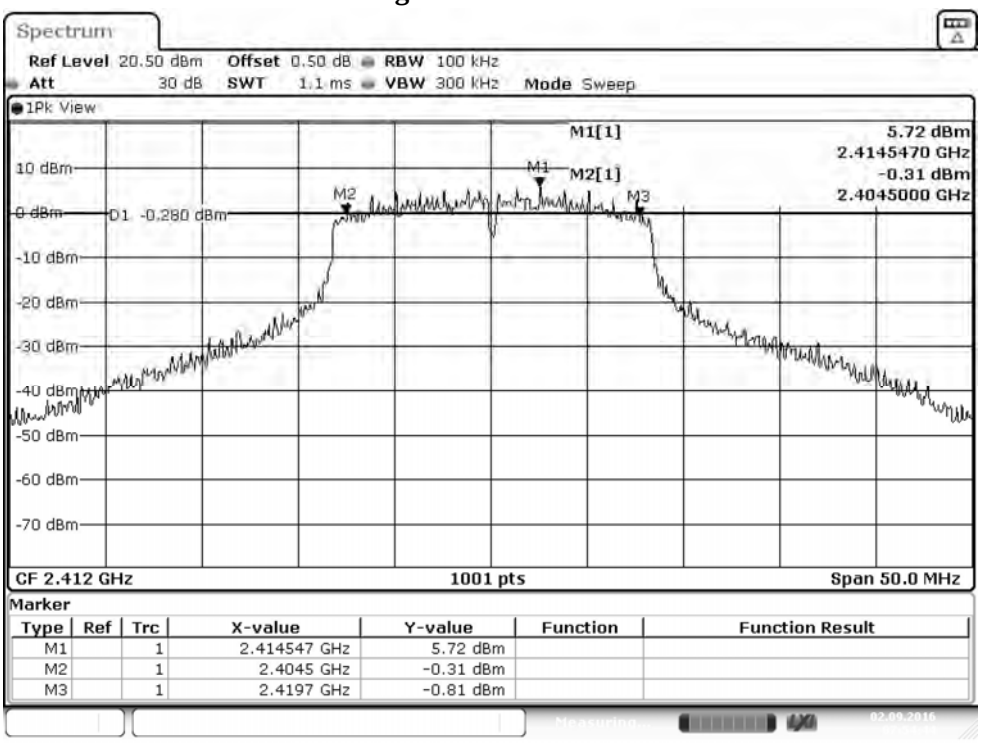


Figure Channel 06:

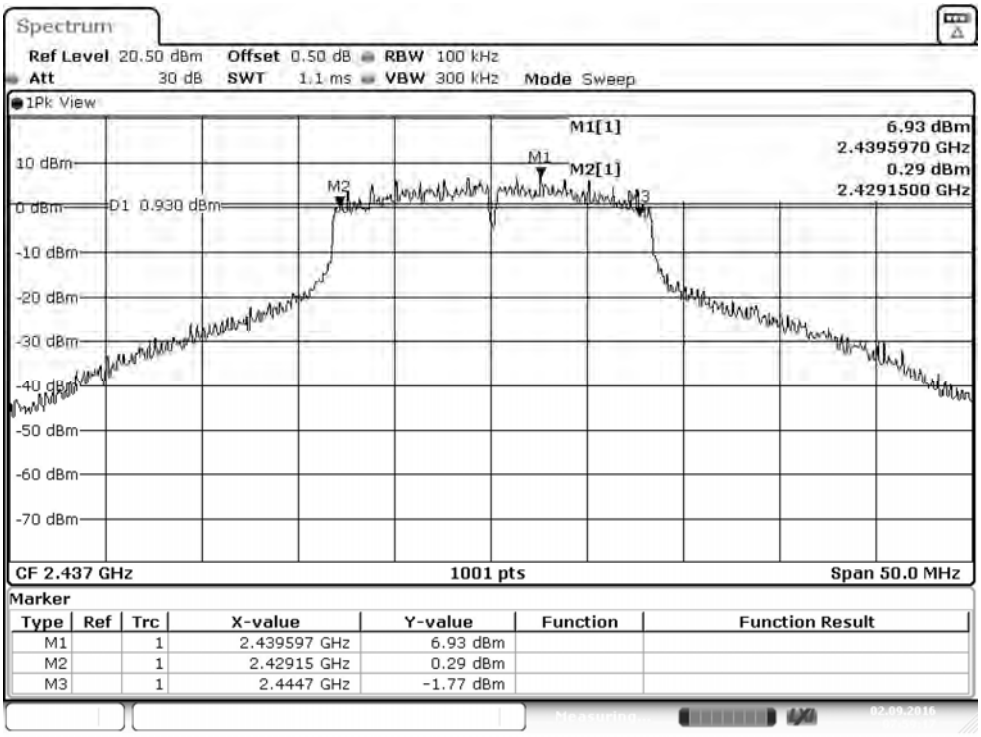
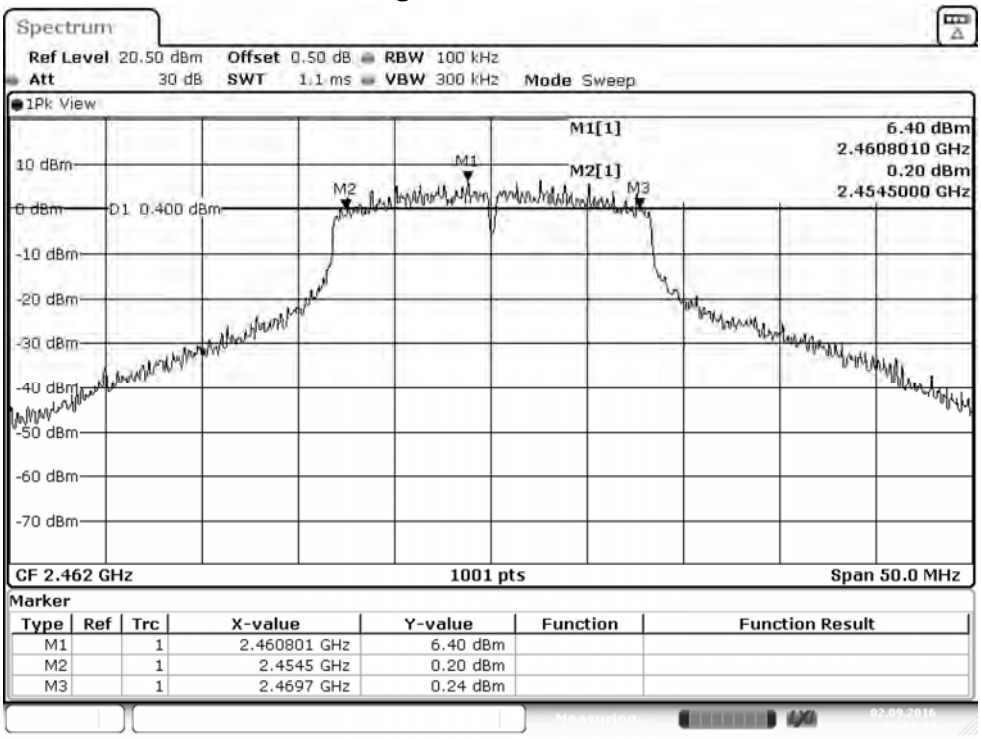


Figure Channel 11:



Product : Smart Cloud Camera
Test Item : 6dB Bandwidth Data
Test Site : ASR4
Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW)
Test Date : 2016/09/06

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
01	2412	15450	>500	Pass
06	2437	15500	>500	Pass
11	2462	15250	>500	Pass

Figure Channel 01:

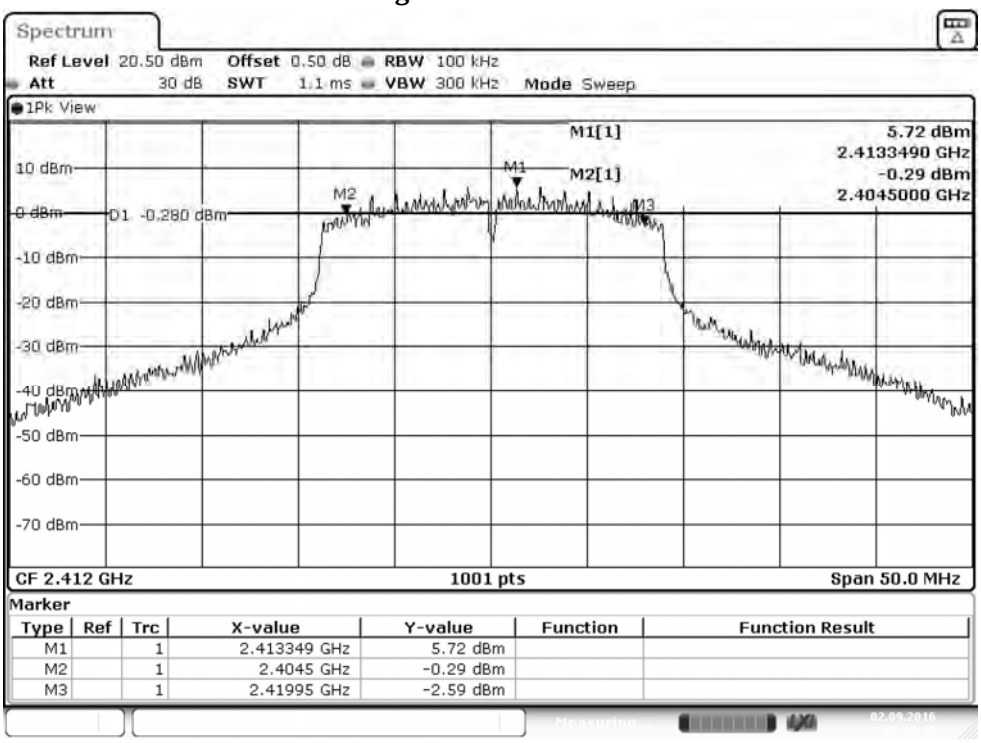


Figure Channel 06:

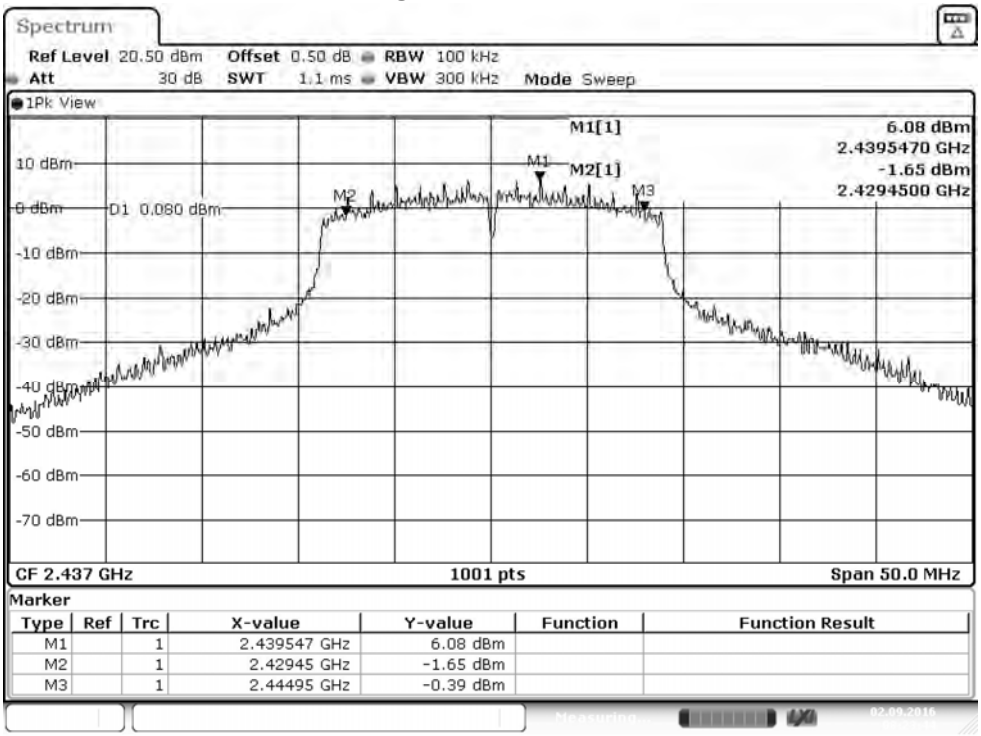
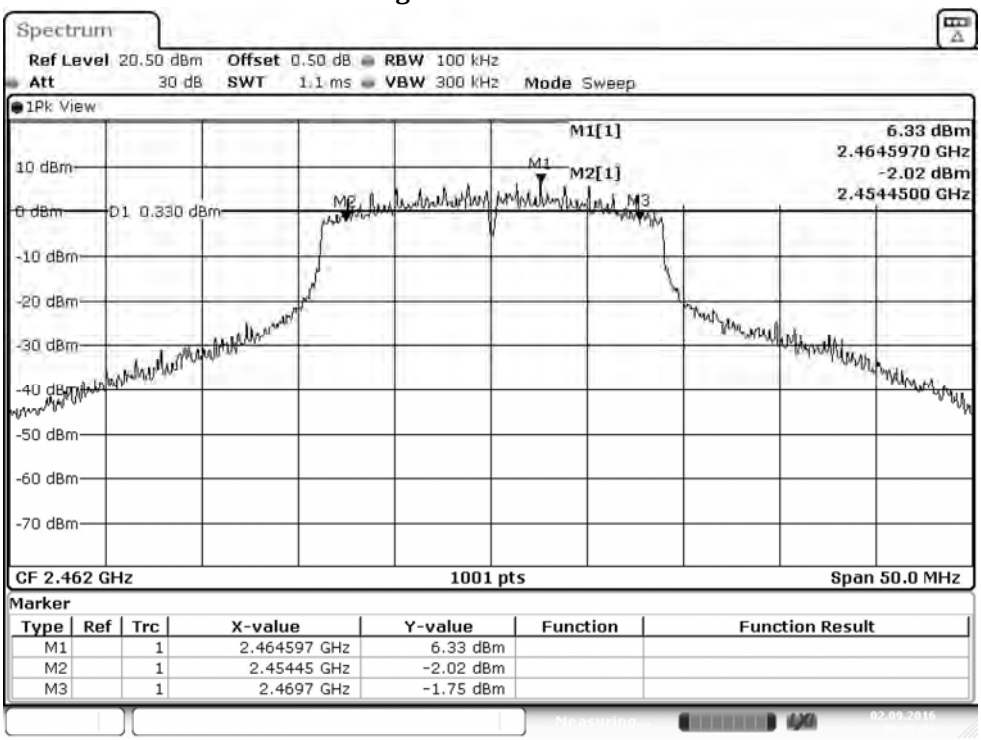
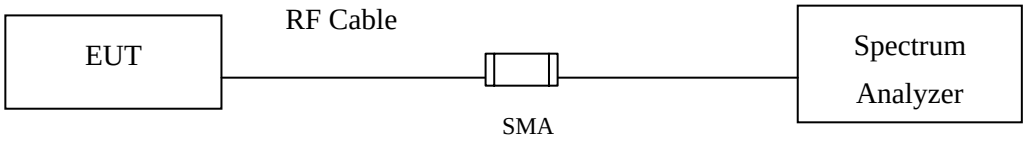


Figure Channel 11:



8. Power Density

8.1. Test Setup



8.2. Limits

The transmitted power density averaged over any 1 second interval shall not be greater +8dBm in any 3kHz bandwidth.

8.3. Test Procedure

The EUT was setup according to ANSI C63.10, 2013; tested according to DTS test procedure of KDB 558074 for compliance to FCC 47CFR 15.247 requirements.
The maximum power spectral density using KDB 558074 section 10.2 PKPSD (peak PSD) method.

8.4. Uncertainty

± 1.23 dB

8.5. Test Result of Power Density

Product : Smart Cloud Camera
Test Item : Power Density Data
Test Site : ASR4
Test Mode : Mode 1: Transmit (802.11b 1Mbps)
Test Date : 2016/09/06

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
01	2412	7.940	≦8dBm	Pass
06	2437	5.840	≦8dBm	Pass
11	2462	6.020	≦8dBm	Pass

Figure Channel 01:

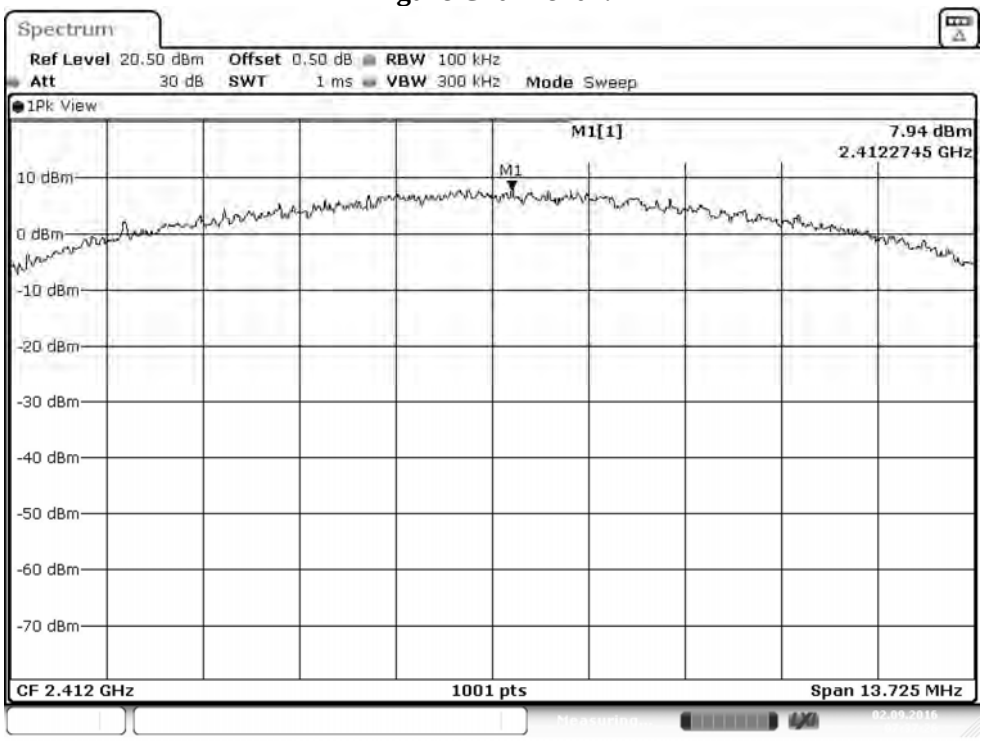


Figure Channel 06:

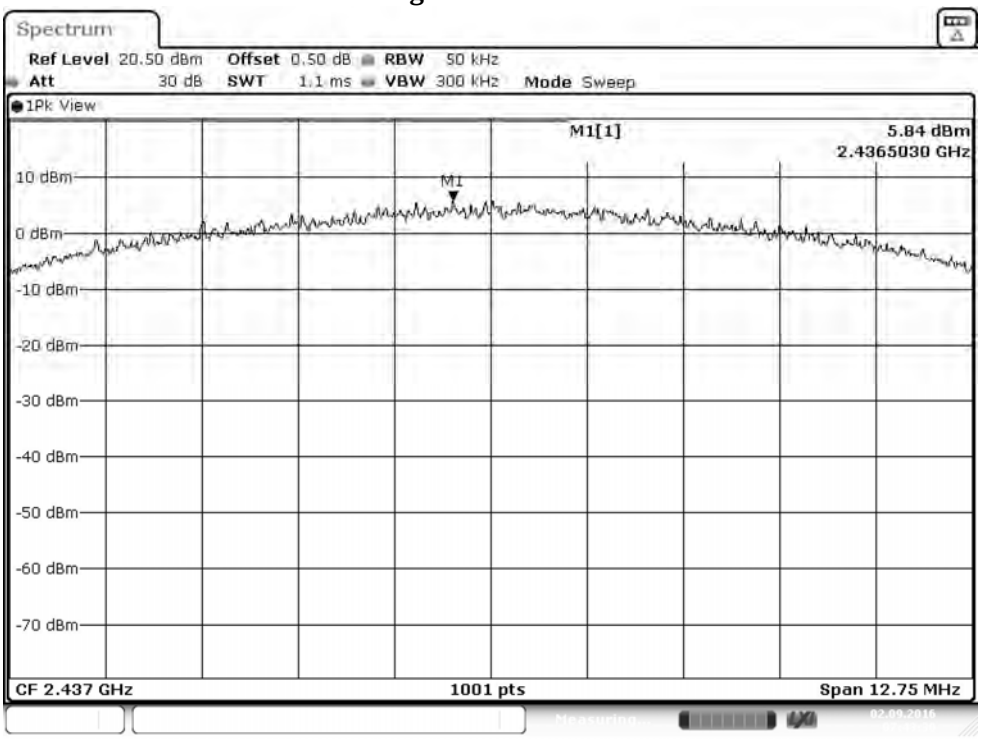
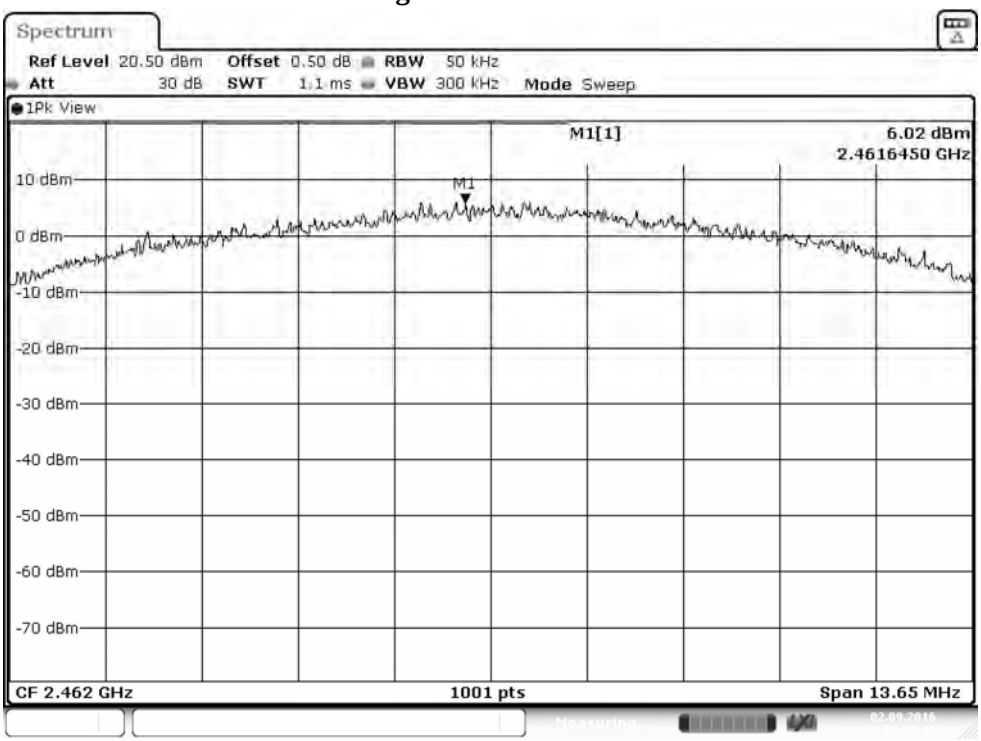


Figure Channel 11:



Product : Smart Cloud Camera
Test Item : Power Density Data
Test Site : ASR4
Test Mode : Mode 2: Transmit (802.11g 6Mbps)
Test Date : 2016/09/06

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
01	2412	5.620	≦8dBm	Pass
06	2437	7.200	≦8dBm	Pass
11	2462	6.490	≦8dBm	Pass

Figure Channel 01:

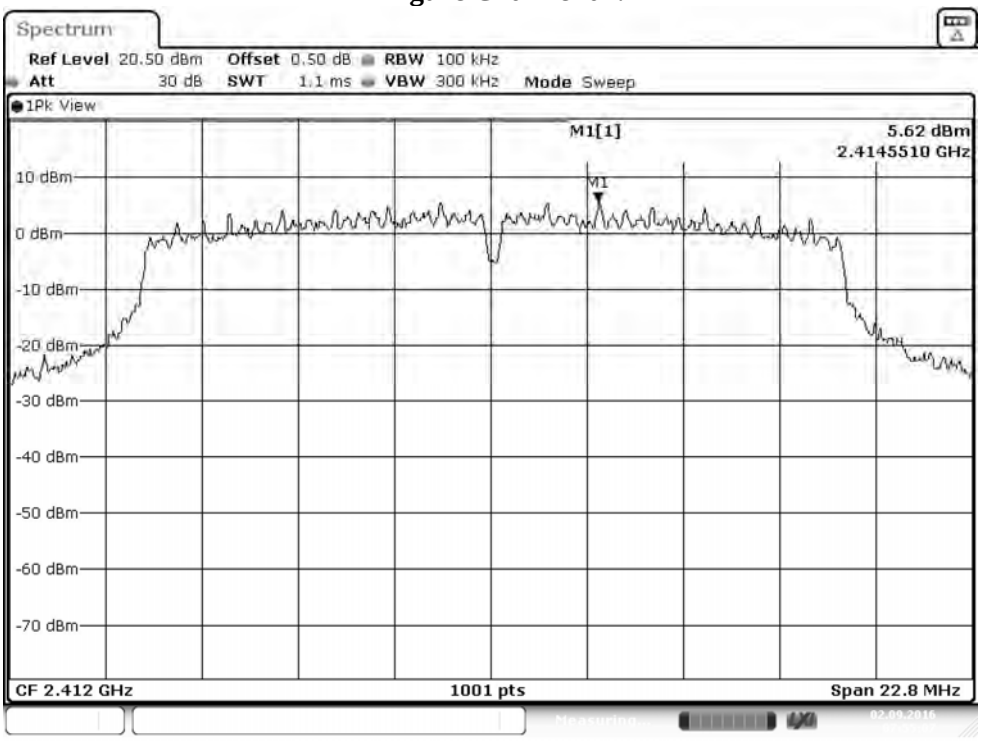


Figure Channel 06:

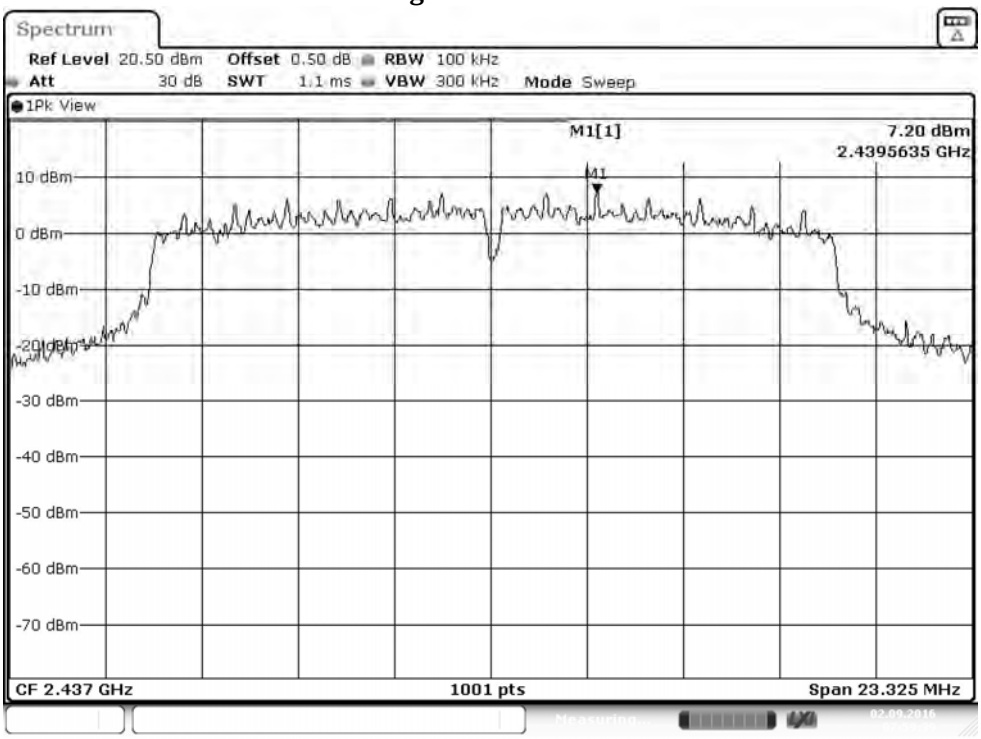
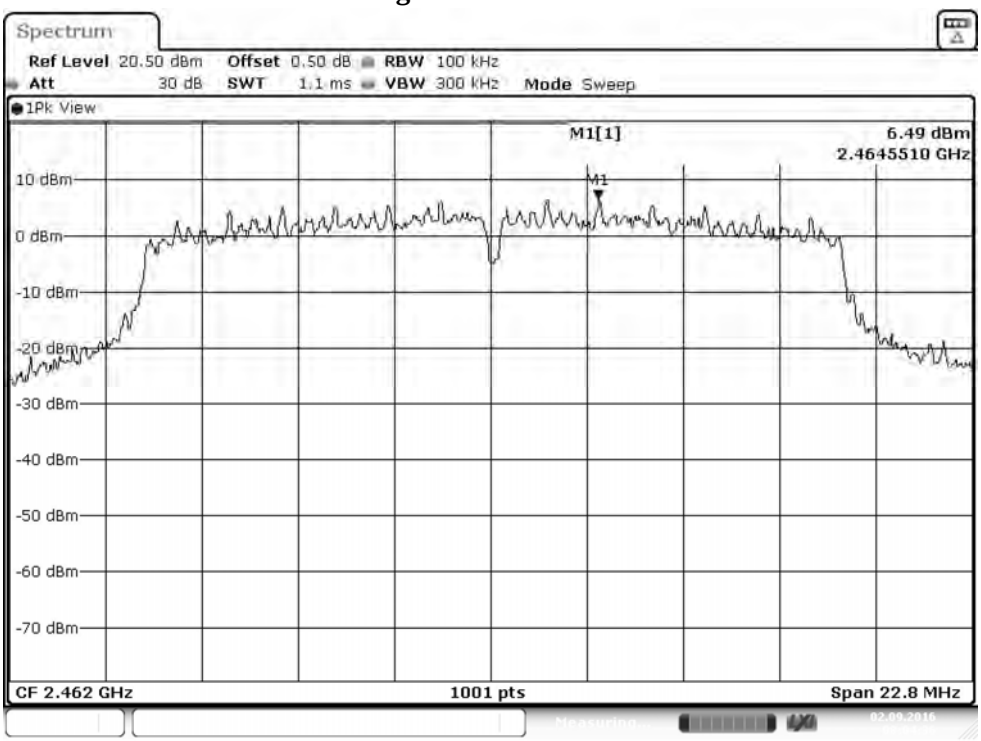


Figure Channel 11:



Product : Smart Cloud Camera
Test Item : Power Density Data
Test Site : ASR4
Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW)
Test Date : 2016/09/06

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
01	2412	5.700	≦8dBm	Pass
06	2437	5.790	≦8dBm	Pass
11	2462	6.340	≦8dBm	Pass

Figure Channel 01:

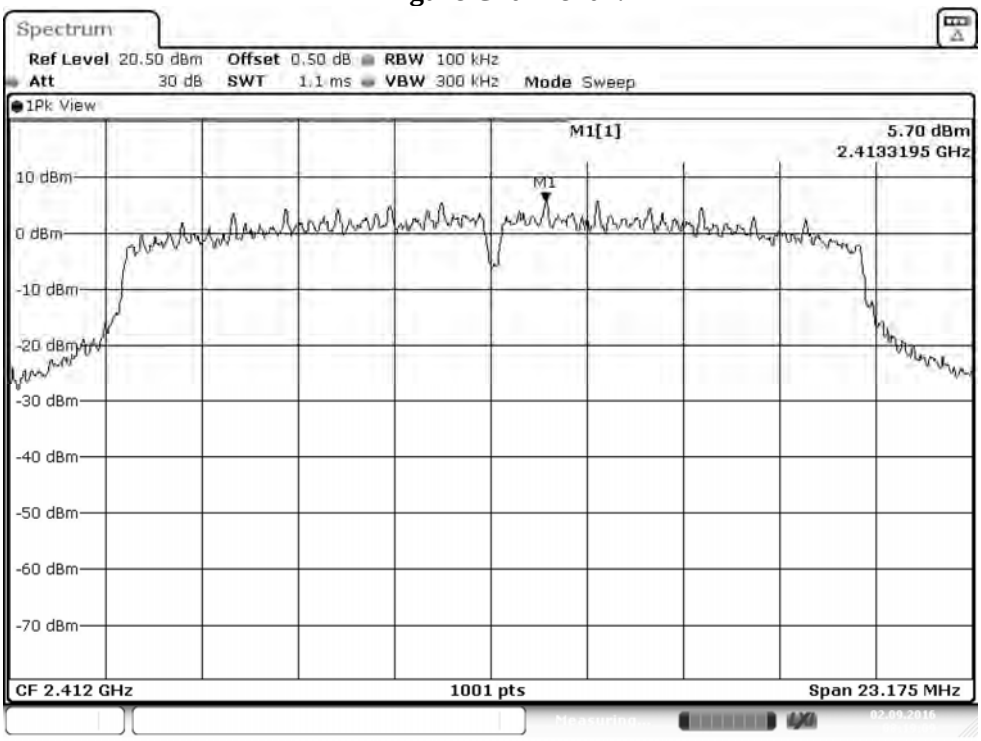


Figure Channel 06:

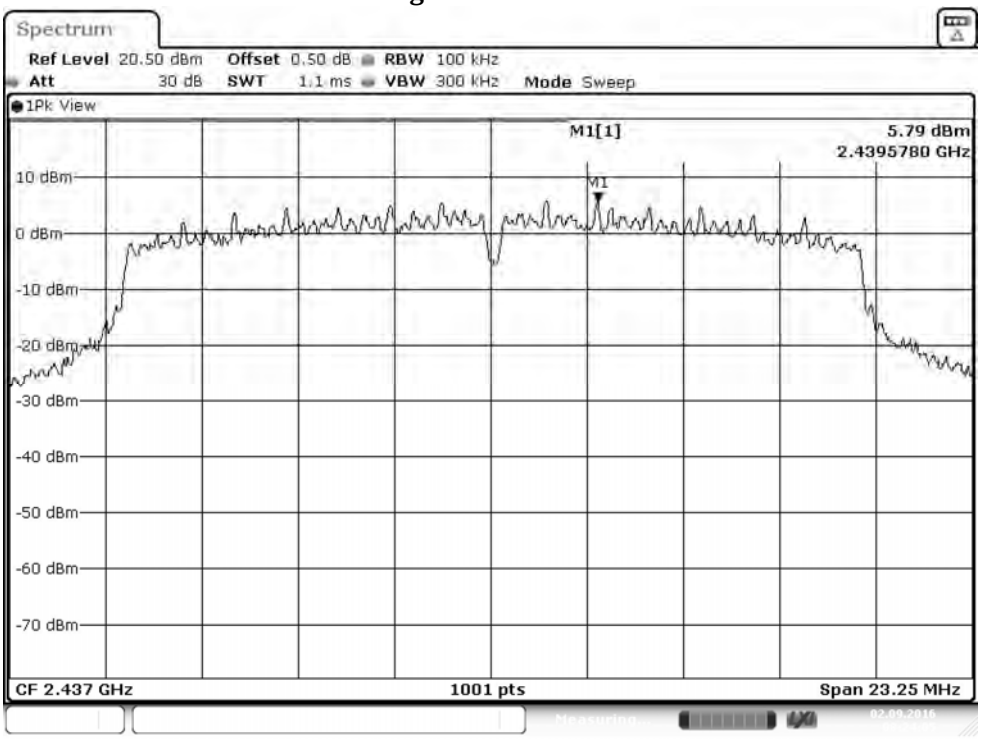
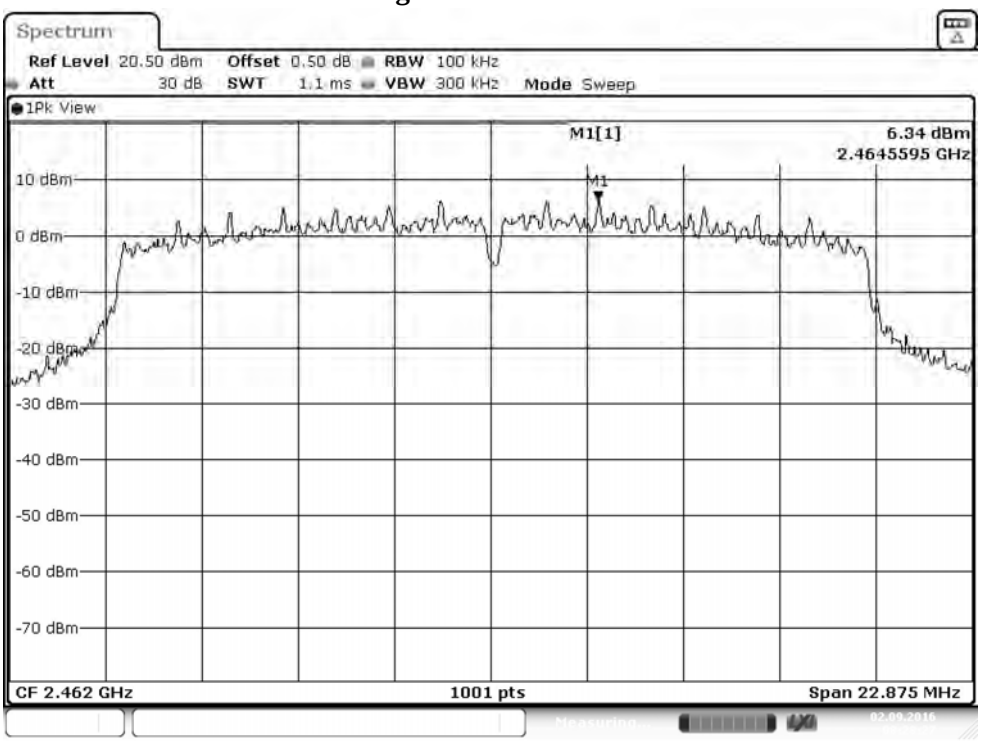


Figure Channel 11:



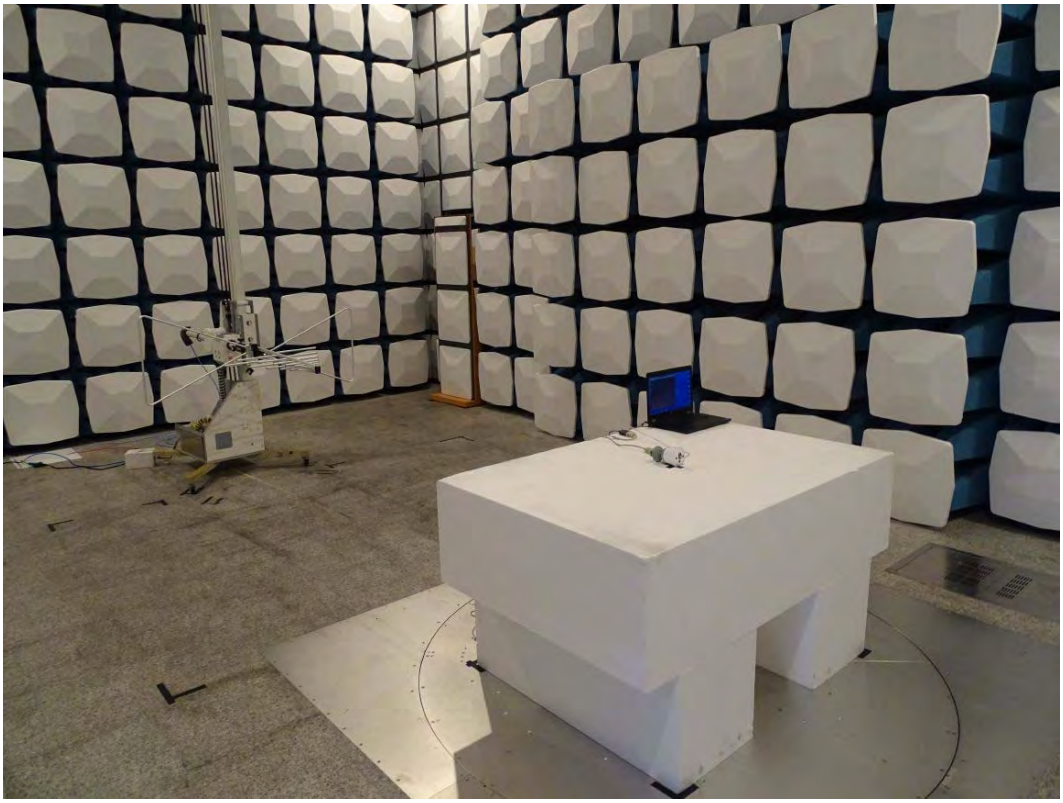
9. EMI Reduction Method During Compliance Testing

No modification was made during testing.

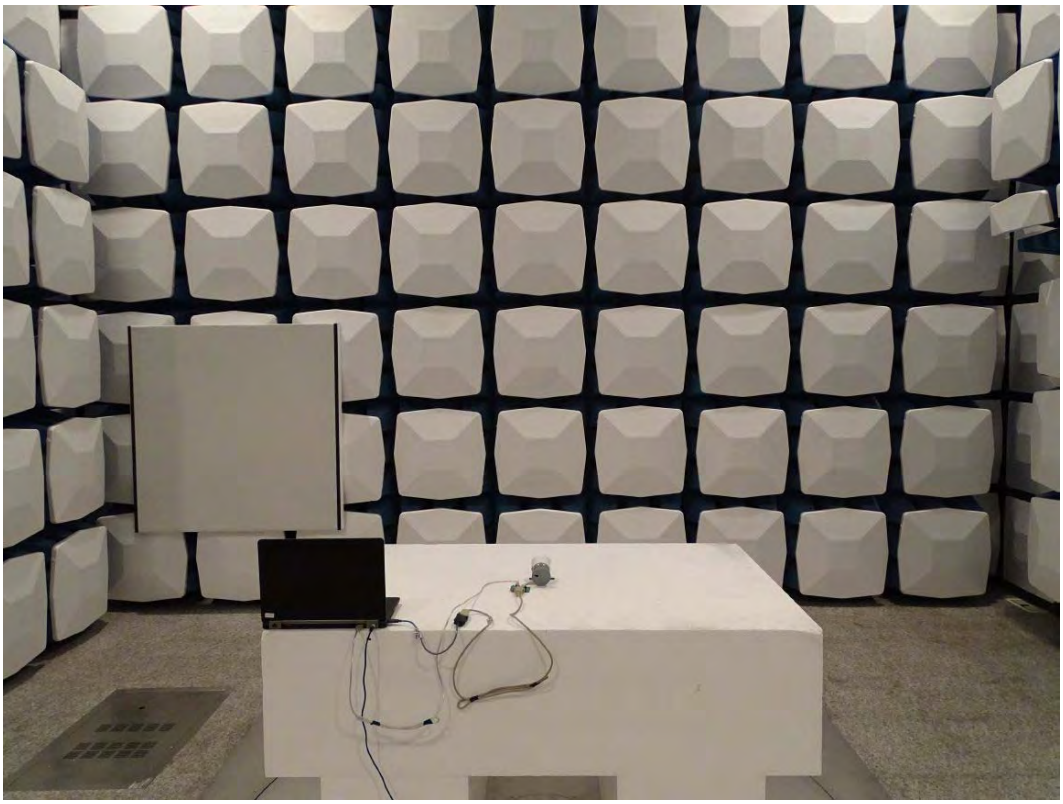
Attachment 1: EUT Test Photographs

Attachment 1: EUT Test Setup Photographs

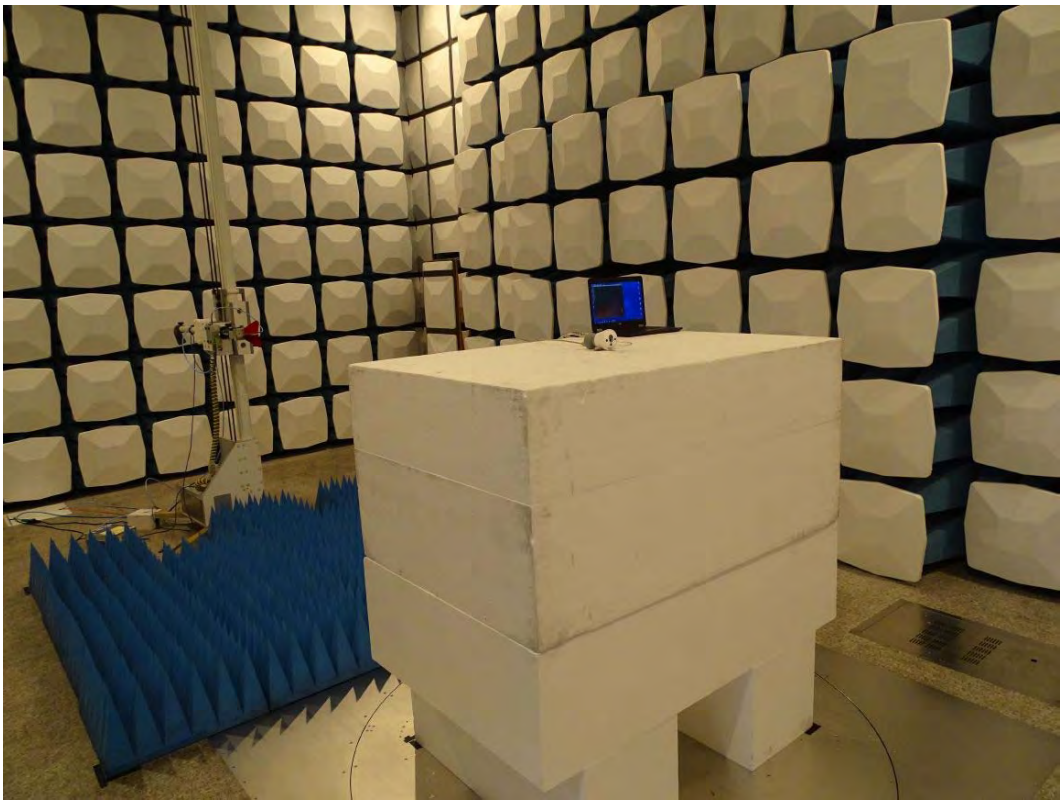
Front View of Radiated Test



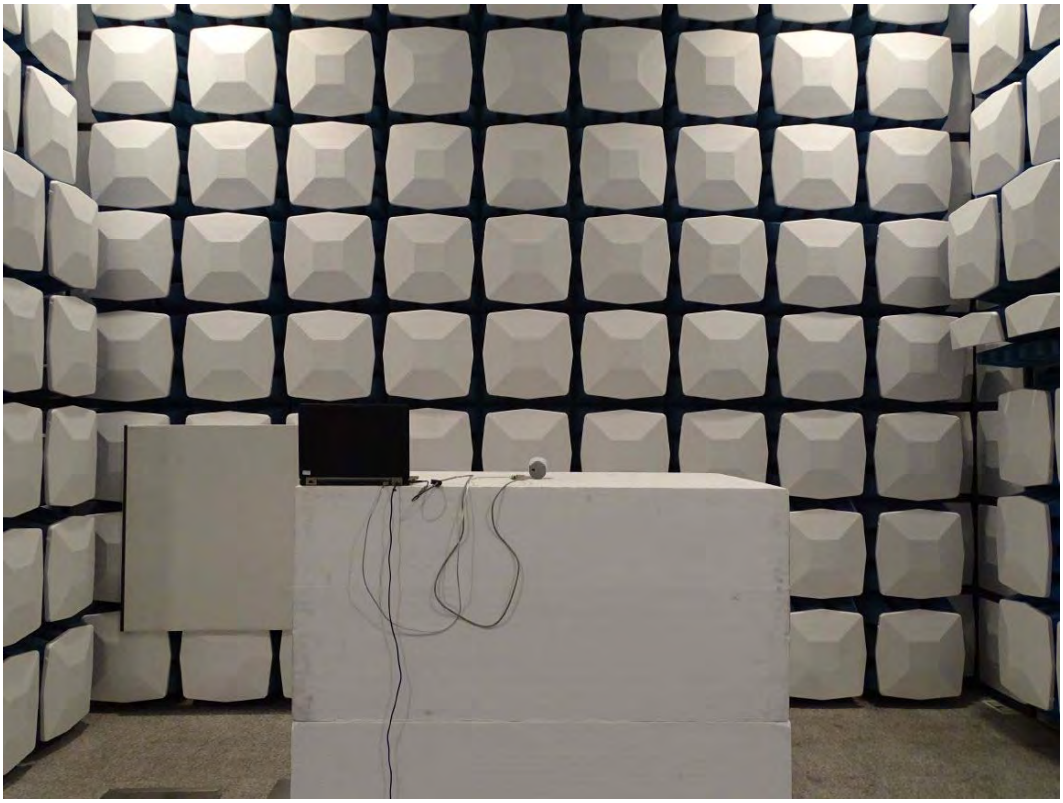
Back View of Radiated Test



Front View of Radiated Test (Horn)



Back View of Radiated Test (Horn)



Attachment 2: EUT Detailed Photographs

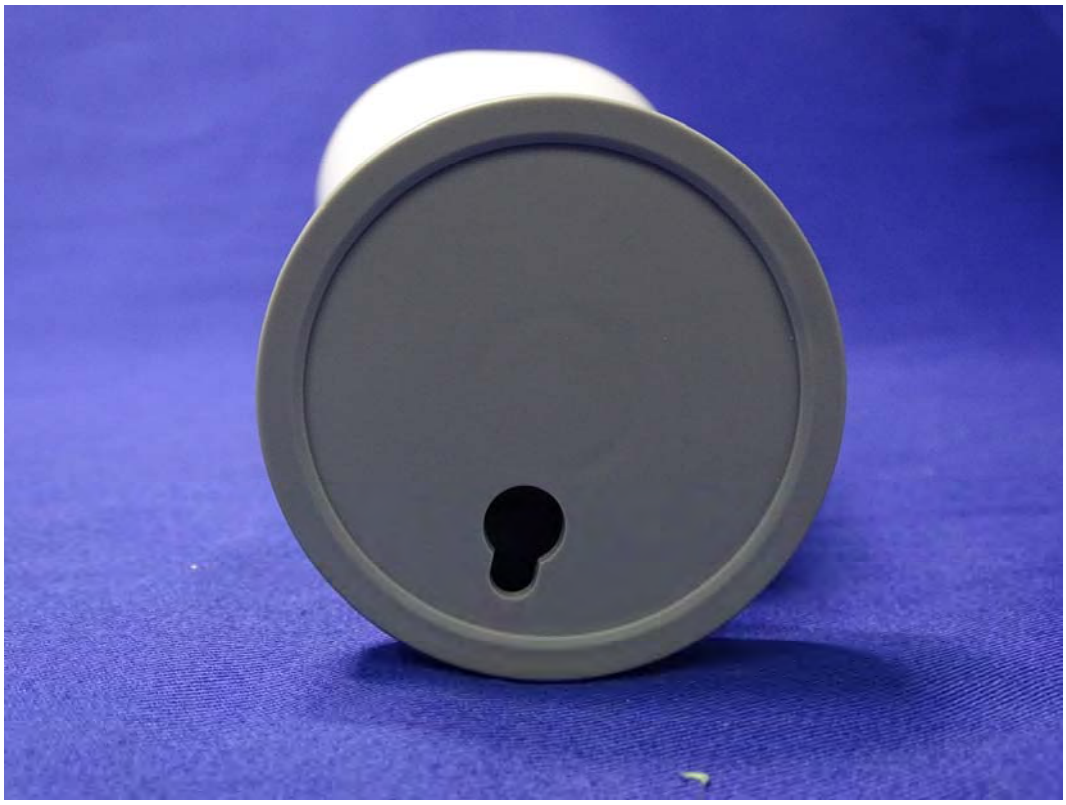
Attachment 2 : EUT Detailed Photographs

(1) EUT Photo

(2) EUT Photo

(3) EUT Photo

(4) EUT Photo

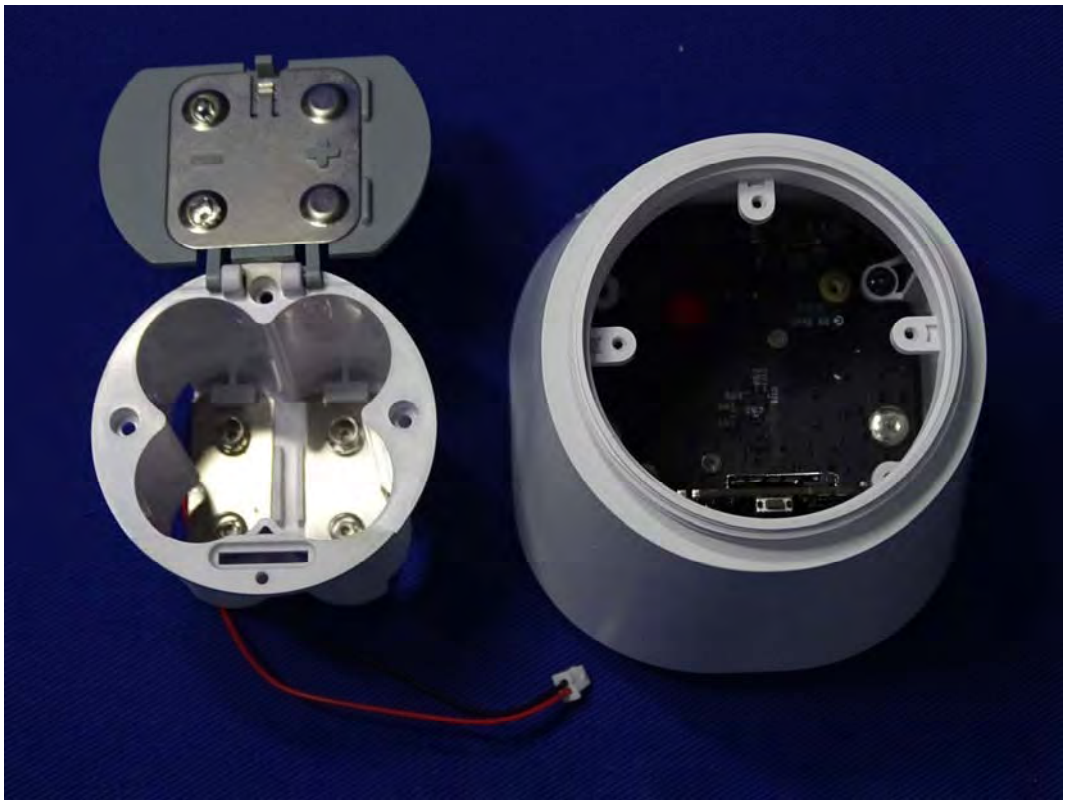


(5) EUT Photo

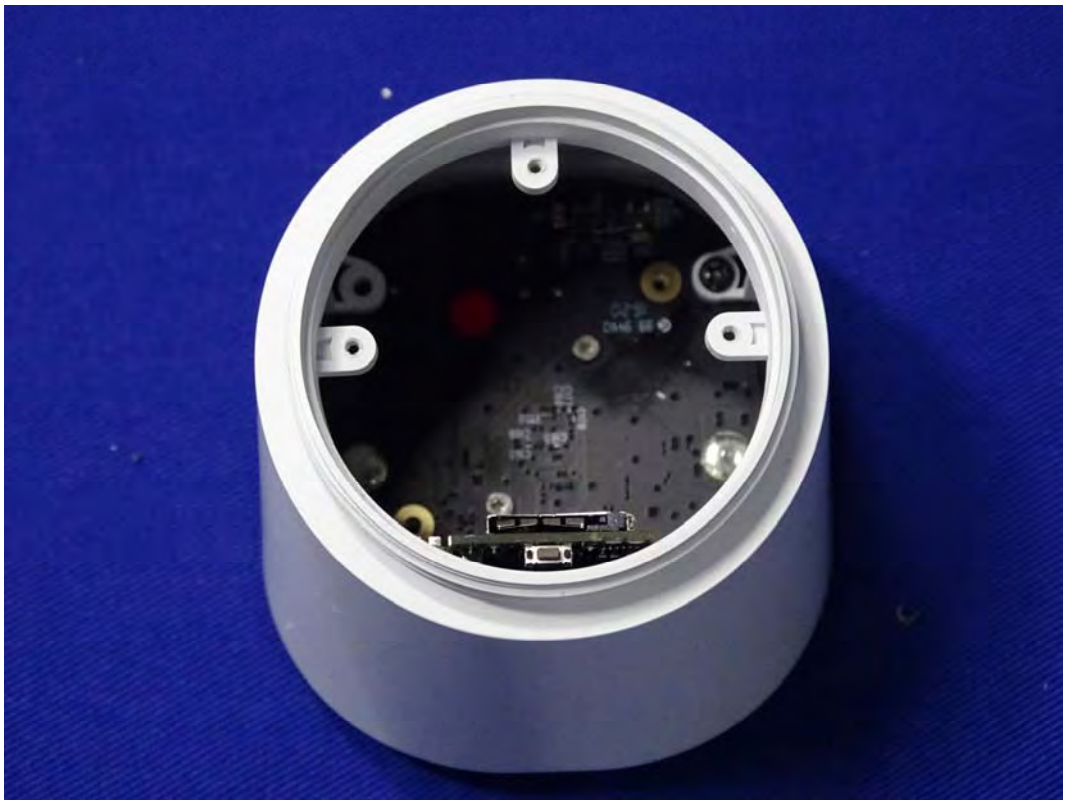
(6) EUT Photo

(7) EUT Photo

(8) EUT Photo

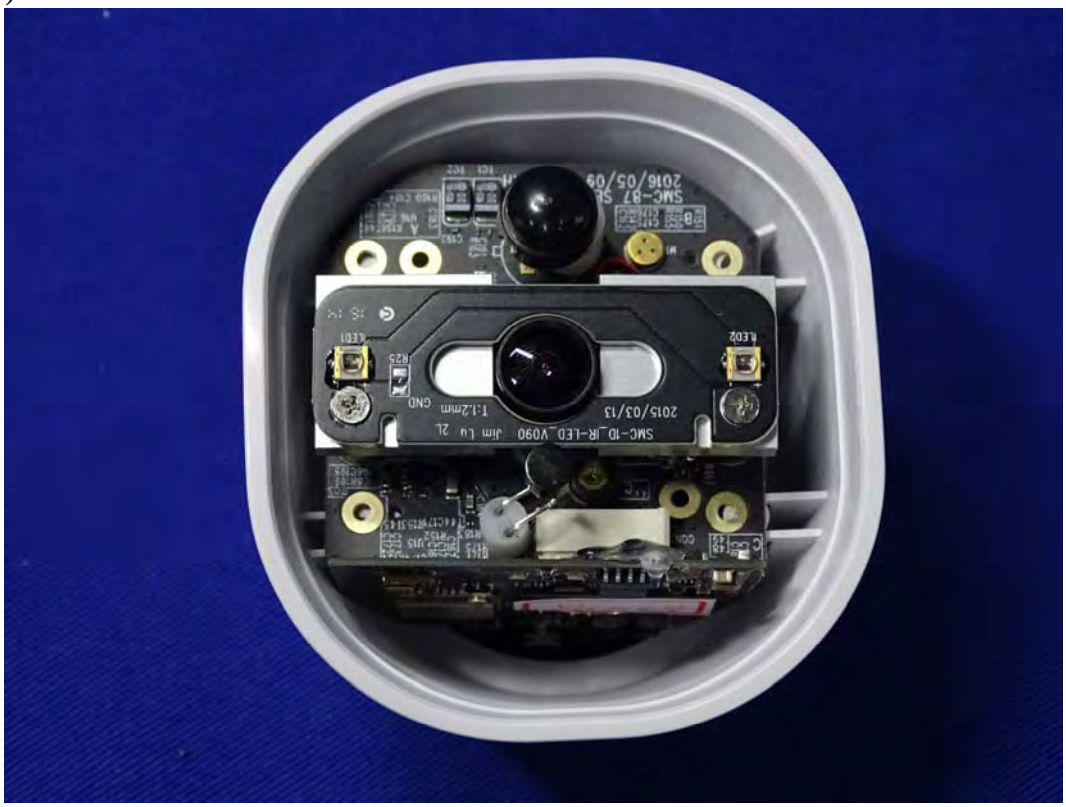


(9) EUT Photo

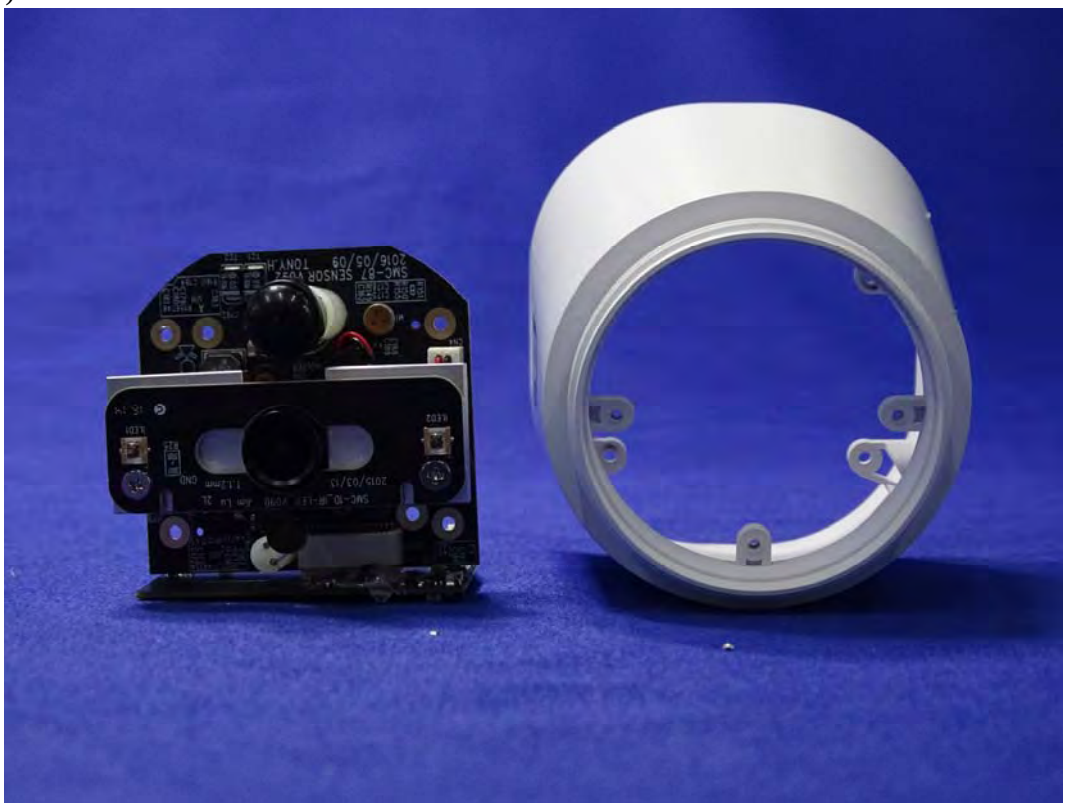


(10) EUT Photo

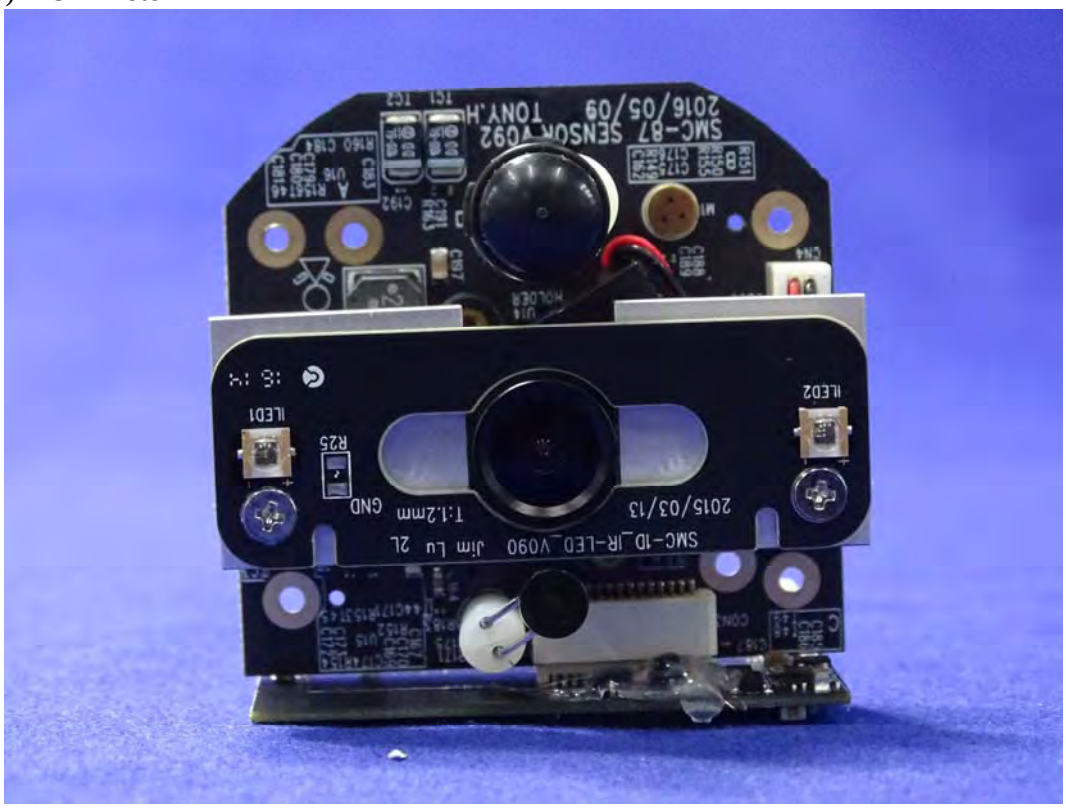
(11) EUT Photo



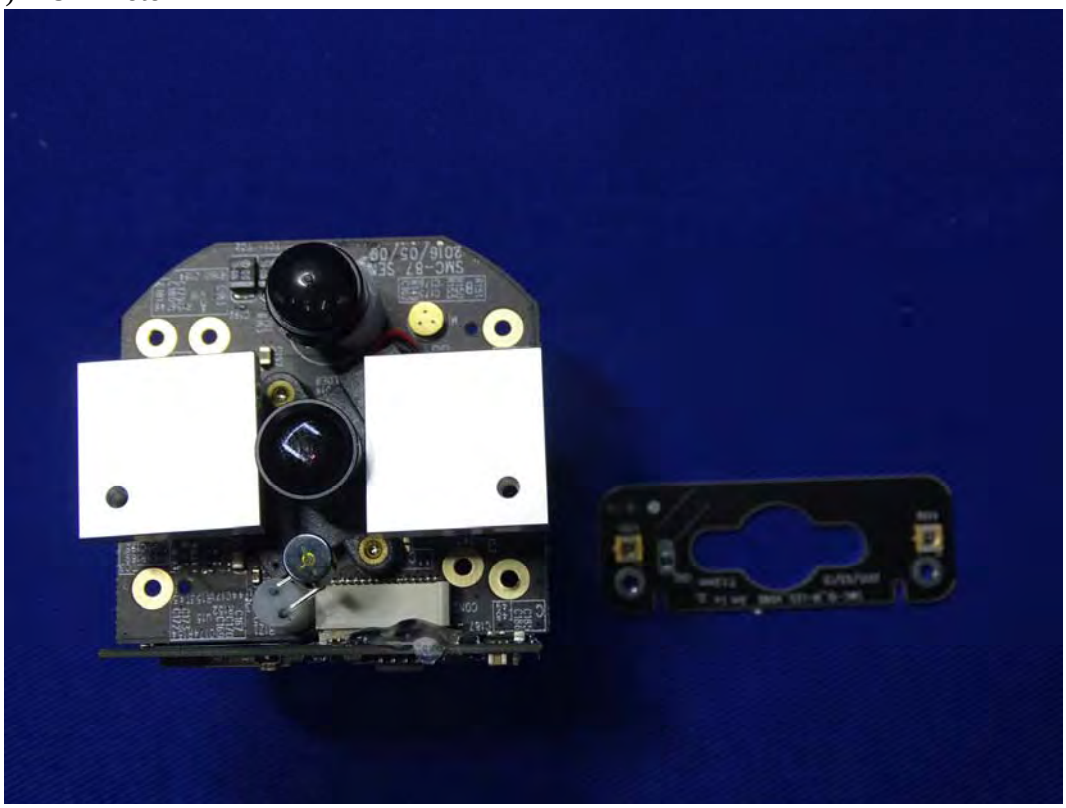
(12) EUT Photo



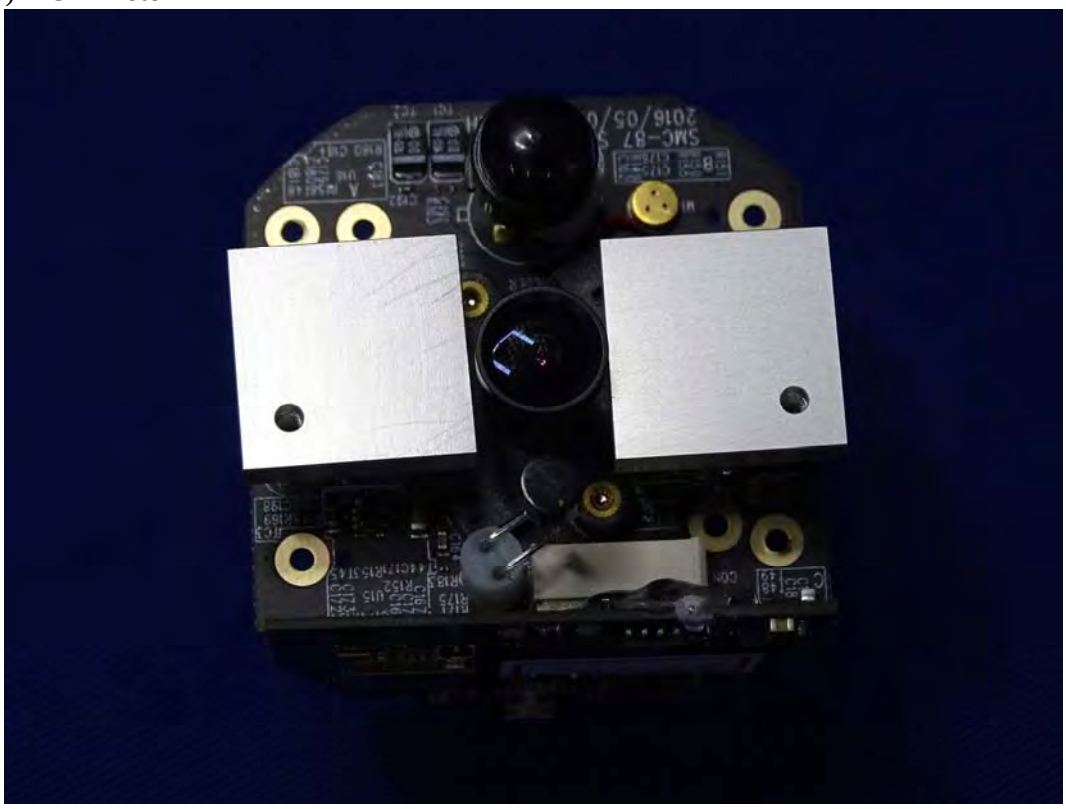
(13) EUT Photo



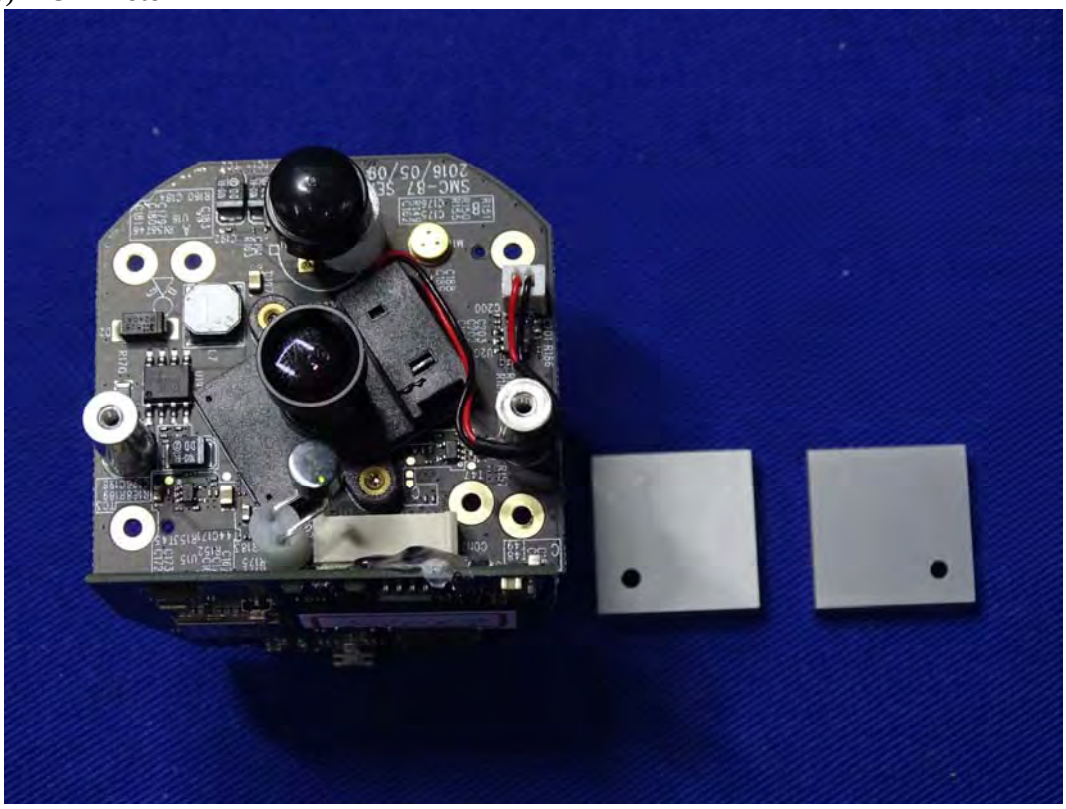
(14) EUT Photo



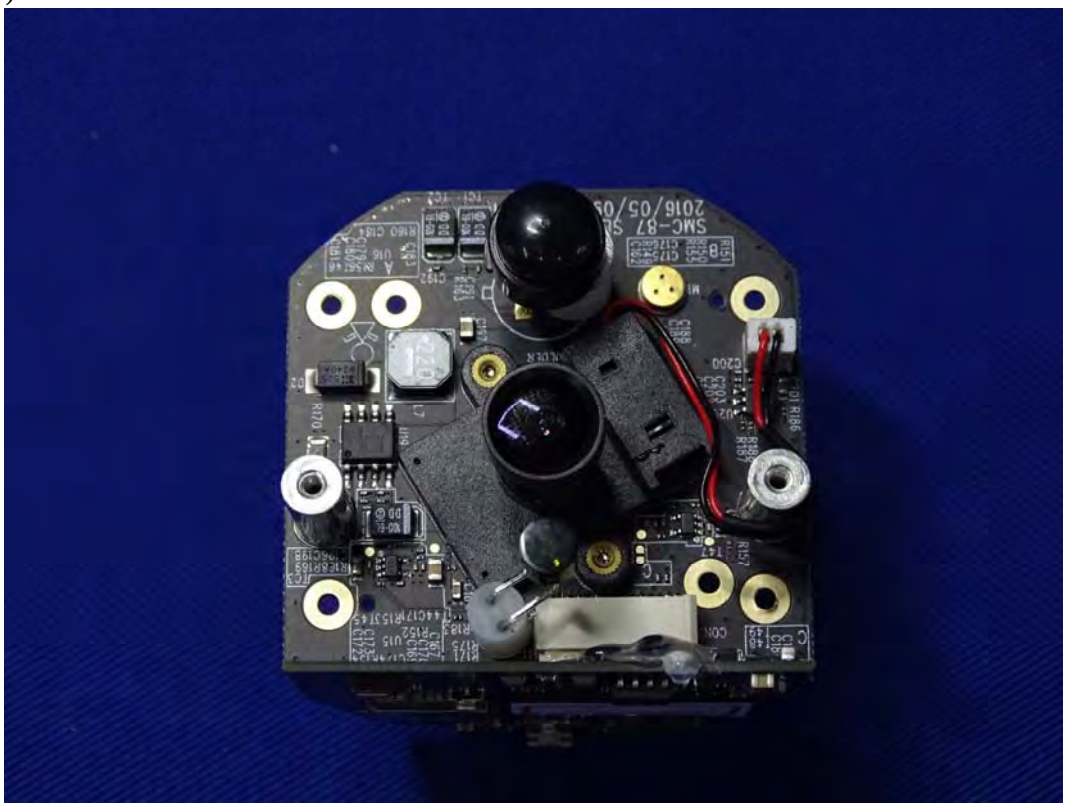
(15) EUT Photo



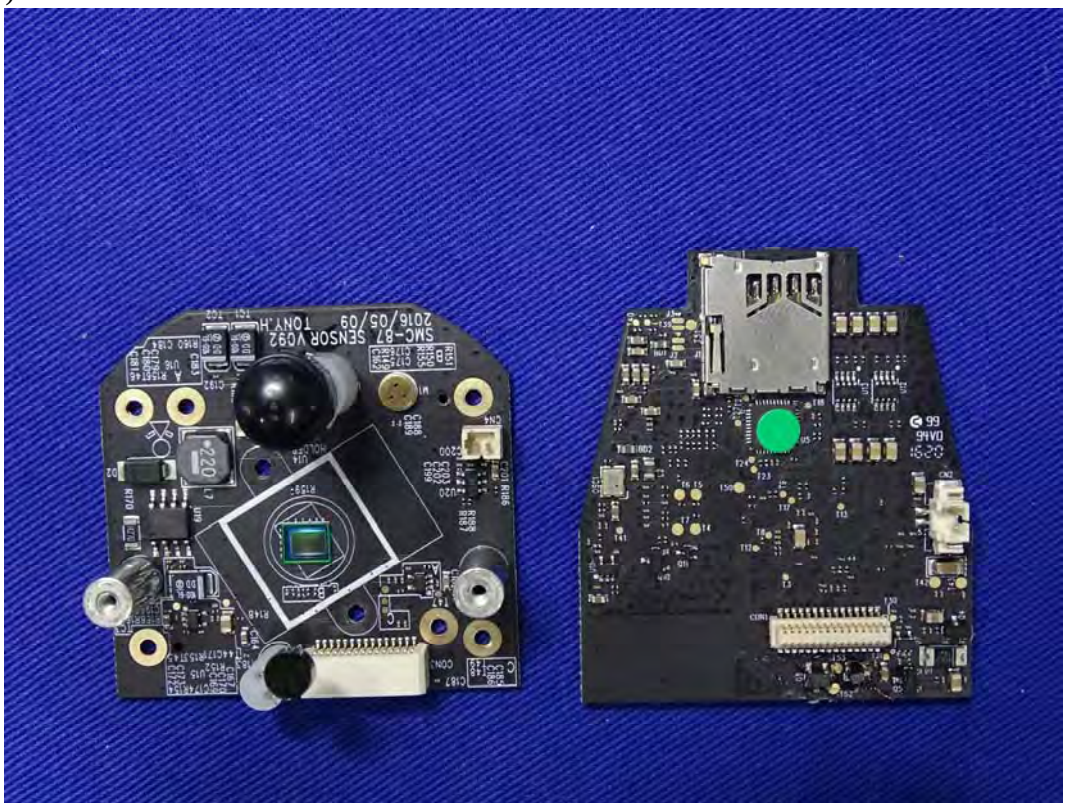
(16) EUT Photo



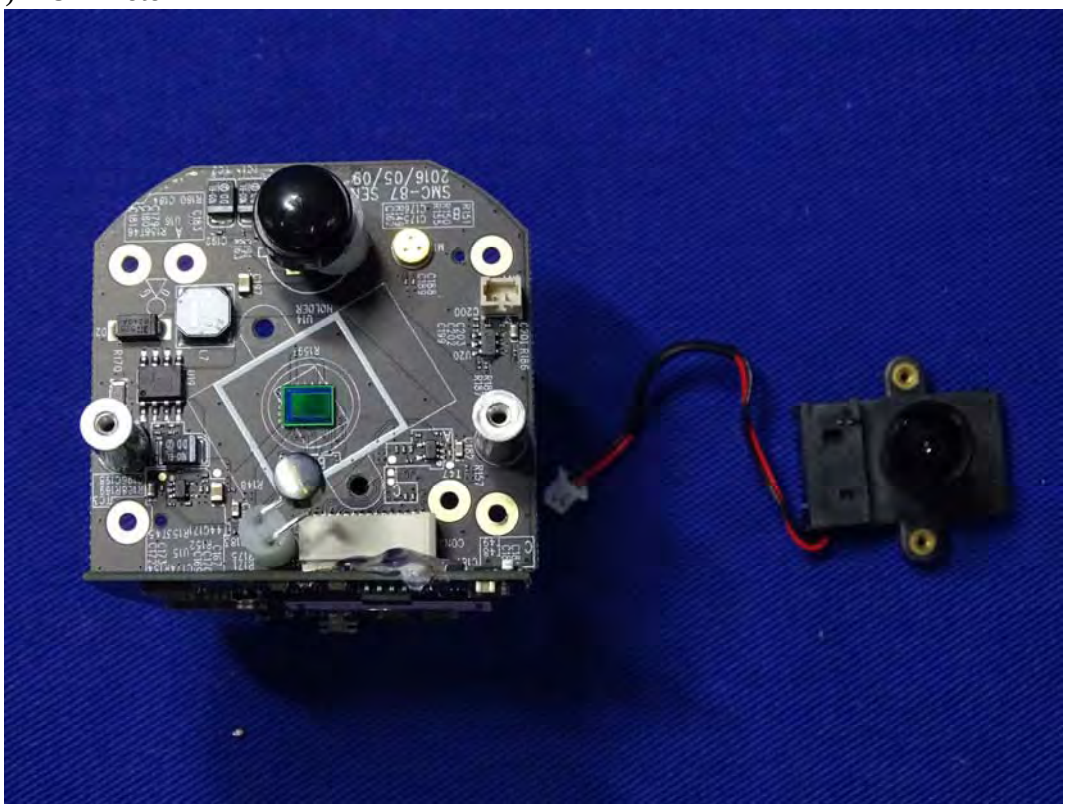
(17) EUT Photo



(18) EUT Photo



(19) EUT Photo

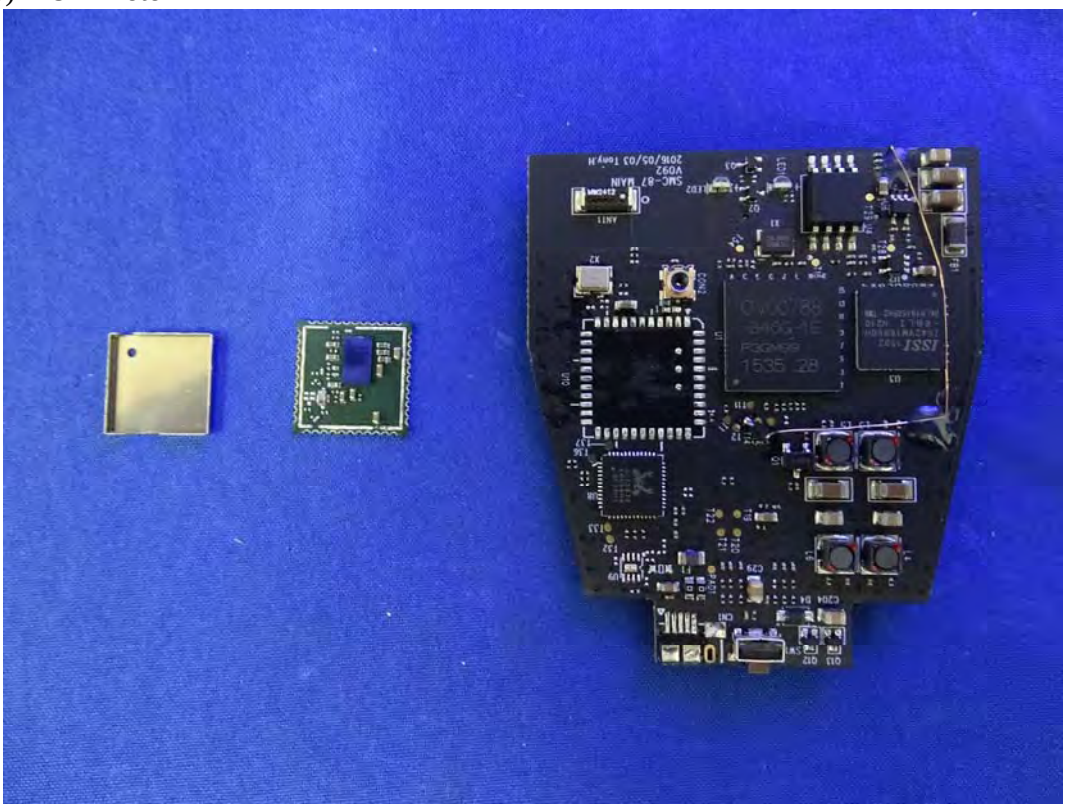


(20) EUT Photo

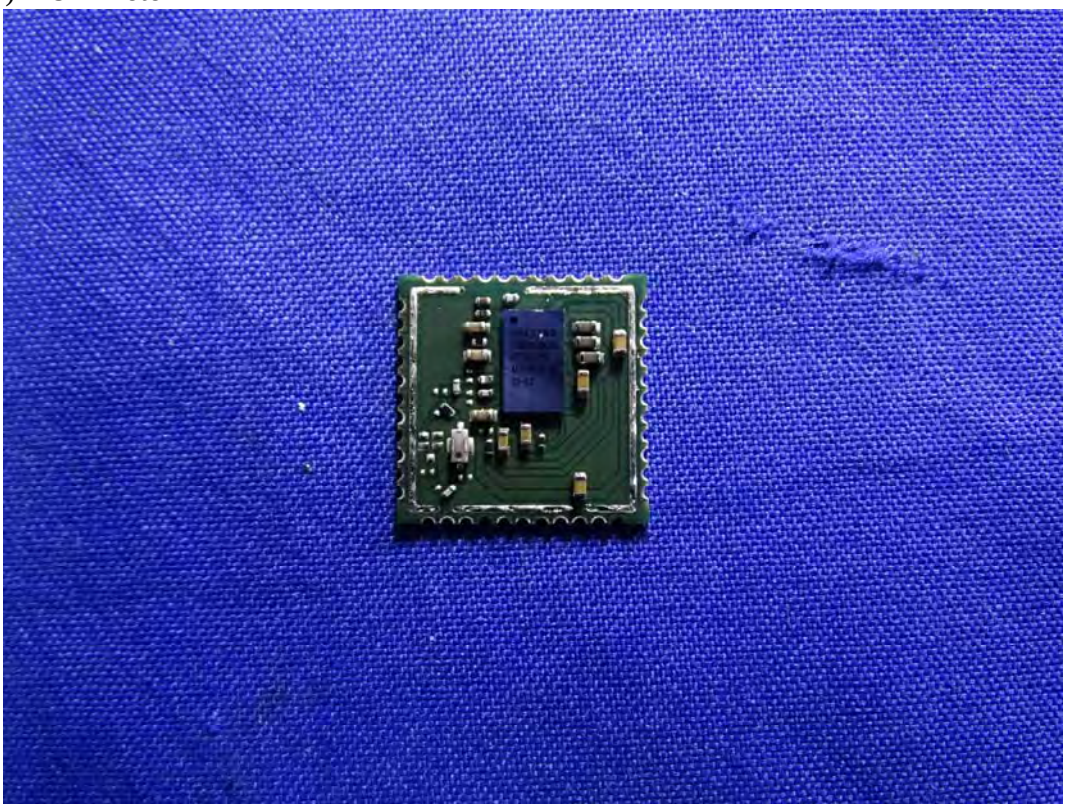
(21) EUT Photo

(22) EUT Photo

(23) EUT Photo



(24) EUT Photo



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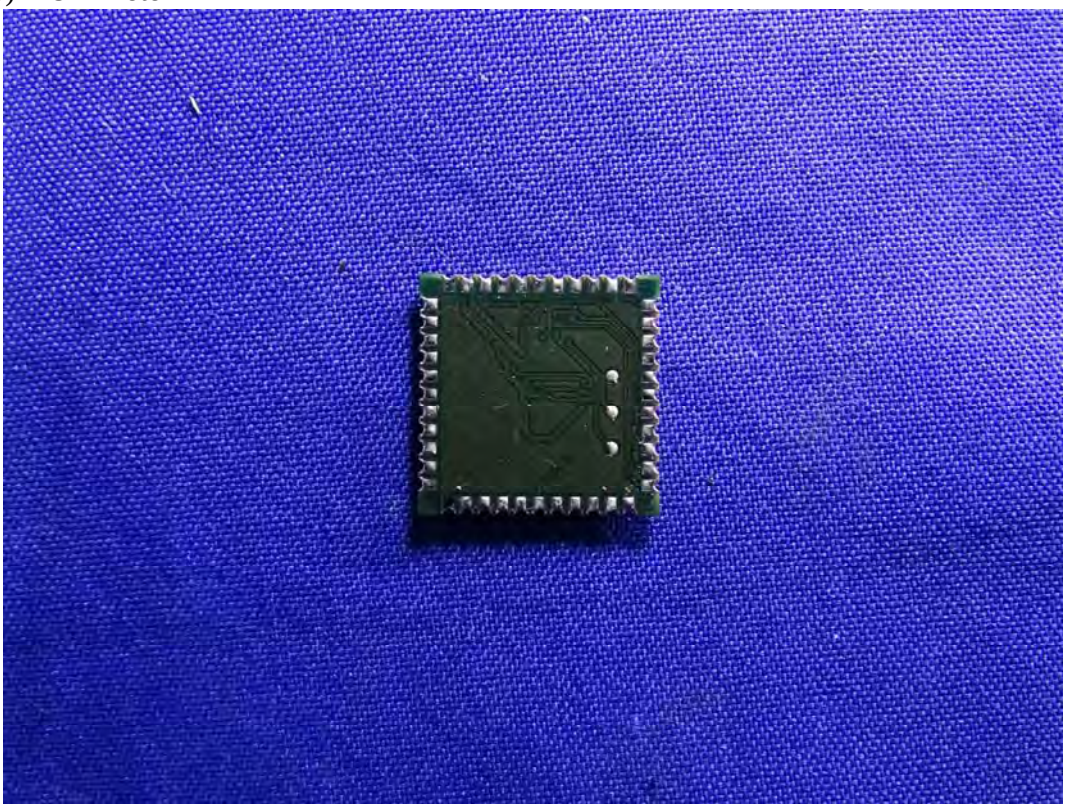

(26) EUT Photo