

FCC Test Report

Product Name	Smart Cloud Camera
Model No	SMC-6, clio
FCC ID.	2ABDZSMC6

Applicant	SALIX TECHNOLOGY CO., LTD.
Address	5F, NO. 16, LANE 77, HSING AI RD., NEI-HU, TAIPEI 114, TAIWAN, R.O.C.

Date of Receipt	Jan. 15, 2016
Issue Date	Mar. 15, 2016
Report No.	1610271R-RFUSP26V00
Report Version	V1.0



The test results relate only to the samples tested.

The test results shown in the test report are traceable to the national/international standard through the calibration report of the equipment and evaluated measurement uncertainty herein.

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The test report shall not be reproduced without the written approval of Quietek Corporation.

Test Report

Issue Date: Mar. 15, 2016

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Applicant	SALIX TECHNOLOGY CO., LTD.
Address	5F, NO. 16, LANE 77, HSING AI RD., NEI-HU, TAIPEI 114, TAIWAN, R.O.C.
Manufacturer	BEHAVIOR TECH COMPUTER CORP.
Model No.	SMC-6, clio
FCC ID.	2ABDZSMC6
EUT Rated Voltage	AC 100-240V, 50/60Hz
EUT Test Voltage	AC 120V/60Hz
Trade Name	SALIX, GOVIDEO
Applicable Standard	FCC CFR Title 47 Part 15 Subpart C: 2014 ANSI C63.4: 2014, ANSI C63.10: 2013 KDB 558074 D01 DTS Meas Guidance v03r04
Test Result	Complied

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1. GENERAL INFORMATION

1.1. EUT Description

Product Name	Smart Cloud Camera
Trade Name	SALIX, GOVIDEO
Model No.	SMC-6, clio
FCC ID.	2ABDZSMC6
Frequency Range	802.11b/g/n-20MHz:2412-2462MHz
Number of Channels	802.11b/g/n-20MHz: 11
Data Speed	802.11b: 1-11Mbps, 802.11g: 6-54Mbps, 802.11n: up to 150Mbps
Type of Modulation	802.11b:DSSS (DBPSK, DQPSK, CCK) 802.11g/n:OFDM (BPSK, QPSK, 16QAM, 64QAM)
Antenna Type	Dipole Antenna
Antenna Gain	Refer to the table “Antenna List”
Channel Control	Auto
USB Power Cable	Non-Shielded, 2.1m
Power Adapter	MFR: SALIX, M/N:PA-2 Input: AC 100-240V, 50/60Hz, 0.15A Output: DC 5V, 1A
Contain Module	AMPAK/ AP6181

Antenna List

No.	Manufacturer	Part No.	Antenna Type	Peak Gain
1	KINSUN	6602103081	Dipole Antenna	1.97dBi 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 2.4GHz WLAN transceiver.
2. Regarding to the operation frequency, the lowest, middle and highest frequency are selected to perform the test.

3. The different of the each model is shown as below:

Model Number	Trade Name	Difference
SMC-6	SALIX	Market Segment
clio	GOVIDEO	Market Segment

4. 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 、802.11n(20M-BW) is 7.2Mbps.
5. 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)

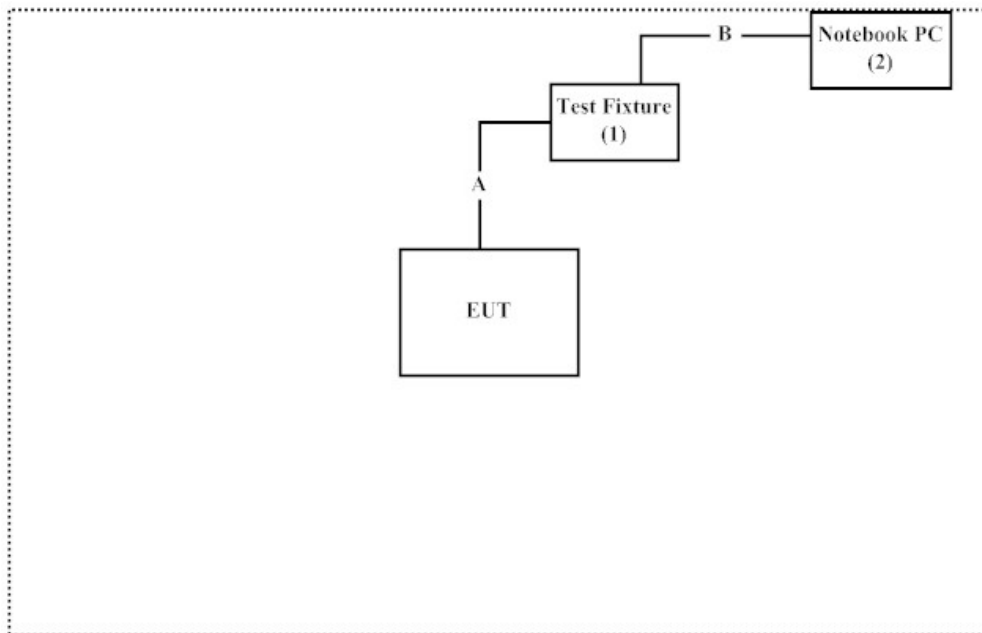
1.3. Tested System Details

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 Test Fixture	SALIX	N/A	N/A	N/A
2 Notebook PC	DELL	M65	CG098	Non-Shielded, 0.8m

Signal Cable Type	Signal cable Description
A Signal Cable	Non-Shielded, 0.3m
B USB Cable	Non-Shielded, 2.1m

1.4. Configuration of Tested System



1.5. EUT Exercise Software

1. Setup the EUT as shown in Section 1.4.
2. Execute software “CMD V1.0” 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
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FCC Accreditation Number: TW1014

2. Conducted Emission

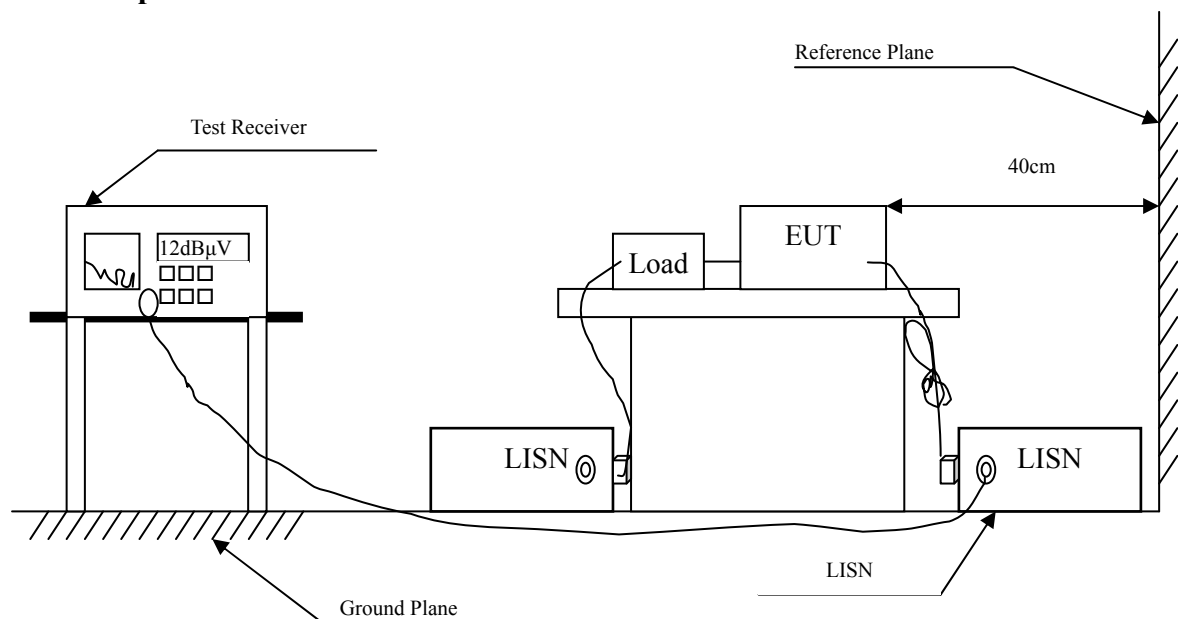
2.1. Test Equipment

	Equipment	Manufacturer	Model No. / Serial No.	Last Cal.	Remark
X	Test Receiver	R & S	ESCS 30 / 825442/018	Sep., 2015	
X	Artificial Mains Network	R & S	ENV4200 / 848411/10	Feb., 2016	Peripherals
X	LISN	R & S	ESH3-Z5 / 825562/002	Feb., 2016	EUT
	DC LISN	Schwarzbeck	8226 / 176	Mar., 2016	EUT
X	Pulse Limiter	R & S	ESH3-Z2 / 357.8810.52	Feb., 2016	
	No.1 Shielded Room				

Note:

1. All equipments are calibrated every one year.
2. The test instruments marked by "X" are used to measure the final test results.

2.2. Test Setup



2.3. 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

2.4. 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.

2.5. Uncertainty

± 2.26 dB

2.6. Test Result of Conducted Emission

Product : Smart Cloud Camera
 Test Item : Conducted Emission Test
 Power Line : Line 1
 Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW) (2437MHz)

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV	Margin dB	Limit dBμV
Line 1					
Quasi-Peak					
0.377	9.778	20.770	30.548	-28.966	59.514
0.634	9.798	29.700	39.498	-16.502	56.000
0.775	9.819	20.980	30.799	-25.201	56.000
1.599	9.893	23.970	33.863	-22.137	56.000
3.107	9.966	23.680	33.646	-22.354	56.000
10.392	10.094	27.820	37.914	-22.086	60.000
Average					
0.377	9.778	13.160	22.938	-26.576	49.514
0.634	9.798	16.690	26.488	-19.512	46.000
0.775	9.819	11.980	21.799	-24.201	46.000
1.599	9.893	15.770	25.663	-20.337	46.000
3.107	9.966	10.800	20.766	-25.234	46.000
10.392	10.094	25.850	35.944	-14.056	50.000

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. “ ” means the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Product : Smart Cloud Camera
Test Item : Conducted Emission Test
Power Line : Line 2
Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW) (2437MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
MHz	Factor	Level	Level		
	dB	dBμV	dBμV	dB	dBμV
Line 2					
Quasi-Peak					
0.201	9.835	25.190	35.025	-29.518	64.543
0.627	9.868	27.810	37.678	-18.322	56.000
1.013	9.898	16.180	26.078	-29.922	56.000
2.677	10.019	17.930	27.949	-28.051	56.000
4.572	10.072	18.670	28.742	-27.258	56.000
10.275	10.183	21.010	31.193	-28.807	60.000
Average					
0.201	9.835	17.990	27.825	-26.718	54.543
0.627	9.868	22.150	32.018	-13.982	46.000
1.013	9.898	11.980	21.878	-24.122	46.000
2.677	10.019	8.580	18.599	-27.401	46.000
4.572	10.072	10.130	20.202	-25.798	46.000
10.275	10.183	13.700	23.883	-26.117	50.000

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. "■" means the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

3. Peak Power Output

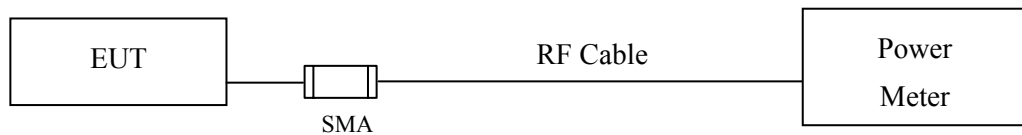
3.1. Test Equipment

	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
X	Power Meter	Anritsu	ML2495A/6K00003357	May, 2015
X	Power Sensor	Anritsu	MA2411B/0738448	Jun., 2015

Note:

1. All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.
2. The test instruments marked with “X” are used to measure the final test results.

3.2. Test Setup



3.3. Limits

The maximum peak power shall be less 1 Watt.

3.4. 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 v03r04 section 9.1.2 PKPM1 Peak power meter method.

3.5. Uncertainty

± 1.27 dB

3.6. Test Result of Peak Power Output

Product : Smart Cloud Camera
 Test Item : Peak Power Output Data
 Test Site : No.3 OATS
 Test Mode : Mode 1: Transmit (802.11b 1Mbps)

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	16.63	--	--	--	19.9	<30dBm	Pass
06	2437	16.62	16.51	16.21	16.01	19.82	<30dBm	Pass
11	2462	16.31	--	--	--	19.53	<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 : No.3 OATS
Test Mode : Mode 2: Transmit (802.11g 6Mbps)

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	14.02	--	--	--	--	--	--	--	23.75	<30dBm	Pass
06	2437	14.17	14.01	13.92	13.79	13.66	13.59	13.38	13.31	23.71	<30dBm	Pass
11	2462	14.03	--	--	--	--	--	--	--	23.4	<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 : No.3 OATS
Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW)

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	13.56	--	--	--	--	--	--	--	23.4	<30dBm	Pass
06	2437	13.44	13.3	13.19	13.18	12.88	12.79	12.74	12.65	23.24	<30dBm	Pass
11	2462	13.33	--	--	--	--	--	--	--	23.34	<30dBm	Pass

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

4. Radiated Emission

4.1. Test Equipment

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

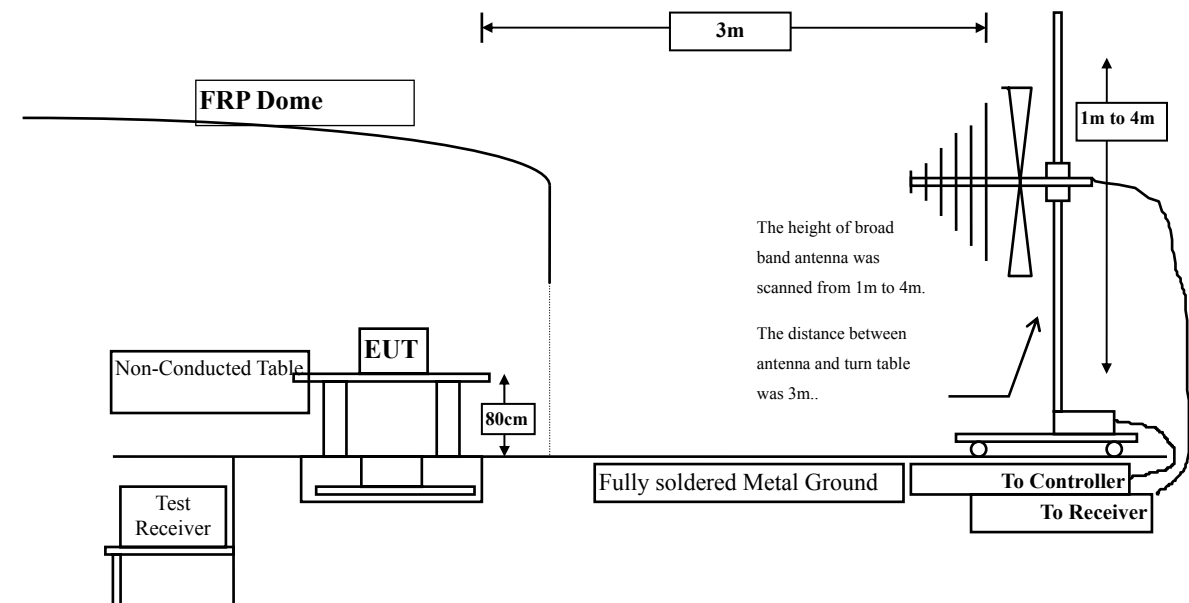
Test Site		Equipment	Manufacturer	Model No./Serial No.	Last Cal.
☒ Site # 3	X	Magnetic Loop Antenna	Teseq	HLA6121/ 37133	Sep., 2015
	X	Bilog Antenna	Schaffner Chase	CBL6112B/ 2707	Jun., 2015
	X	EMI Test Receiver	R&S	ESCS 30/838251/ 001	Jun., 2015
	X	Coaxial Cable	QTK(Arnist)	RG 214/ LC003-RG	Jun., 2015
	X	Coaxial signal switch	Arnist	MP59B/ 6200798682	Jun., 2015

Test Site		Equipment	Manufacturer	Model No./Serial No.	Last Cal.
☒ CB # 8	X	Spectrum Analyzer	R&S	FSP40/ 100339	Oct., 2015
	X	Horn Antenna	ETS-Lindgren	3117/ 35205	Mar., 2016
	X	Horn Antenna	Schwarzbeck	BBHA9170/209	Jan., 2016
	X	Horn Antenna	TRC	AH-0801/95051	Aug., 2015
	X	Pre-Amplifier	EMCI	EMC012630SE/980210	Jan., 2016
	X	Pre-Amplifier	MITEQ	JS41-001040000-58-5P/153945	Jul., 2015
	X	Pre-Amplifier	NARDA	DBL-1840N506/013	Jul., 2015

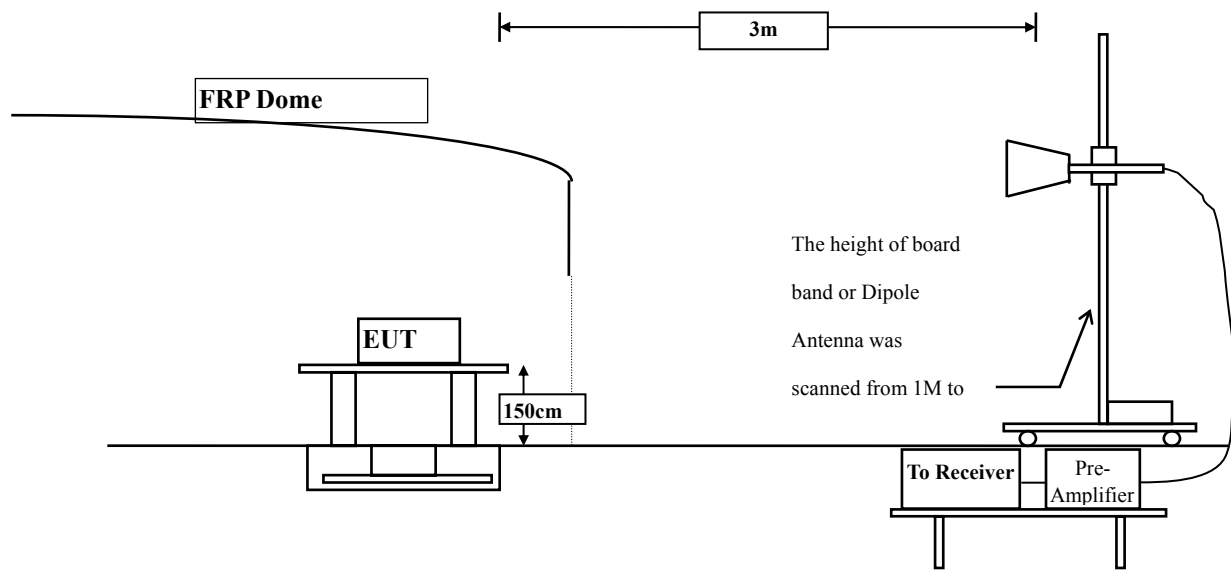
- Note: 1. All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.
2. The test instruments marked with “X” are used to measure the final test results.

4.2. Test Setup

Radiated Emission Below 1GHz



Radiated Emission Above 1GHz



4.3. 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)

4.4. 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 worst radiated emission is measured in the Open Area Test Site on the Final Measurement.

The measurement frequency range from 9kHz - 10th Harmonic of fundamental was investigated.

4.5. Uncertainty

± 3.9 dB above 1GHz

± 3.8 dB below 1GHz

4.6. Test Result of Radiated Emission

Product : Smart Cloud Camera
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2412MHz)

Frequency MHz	Correct Factor dB	Reading Level dB μ V	Measurement Level dB μ V/m	Margin dB	Limit dB μ V/m
Horizontal					
Peak Detector:					
4824.000	2.428	30.000	32.429	-41.571	74.000
7236.000	9.177	29.370	38.547	-35.453	74.000
9648.000	10.019	27.470	37.490	-36.510	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
4824.000	2.836	29.600	32.437	-41.563	74.000
7236.000	9.676	30.830	40.506	-33.494	74.000
9648.000	10.556	27.530	38.087	-35.913	74.000
Average Detector:					
--					

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 : No.3 OATS
Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2437 MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
MHz	Factor	Level	Level		
	dB	dB μ V	dB μ V/m	dB	dB μ V/m
Horizontal					
Peak Detector:					
4874.000	2.076	31.575	33.652	-40.348	74.000
7311.000	9.512	28.122	37.634	-36.366	74.000
9748.000	9.630	28.962	38.592	-35.408	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
4874.000	2.532	31.455	33.987	-40.013	74.000
7311.000	10.089	32.846	42.935	-31.065	74.000
9748.000	10.266	26.922	37.189	-36.811	74.000
Average Detector:					
--					

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 : No.3 OATS
Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2462 MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
MHz	Factor	Level	Level		
	dB	dBμV	dBμV/m	dB	dBμV/m

Horizontal

Peak Detector:

4924.000	2.191	33.008	35.199	-38.801	74.000
7386.000	10.373	26.115	36.489	-37.511	74.000
9848.000	9.964	28.588	38.552	-35.448	74.000

Average Detector:

--

Vertical

Peak Detector:

4924.000	2.805	31.371	34.176	-39.824	74.000
7386.000	11.180	30.059	41.239	-32.761	74.000
9848.000	10.801	27.313	38.114	-35.886	74.000

Average Detector:

--

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 : No.3 OATS
Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2412MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
MHz	Factor	Level	Level		
	dB	dB μ V	dB μ V/m	dB	dB μ V/m

Horizontal

Peak Detector:

4824.000	2.428	33.868	36.297	-37.703	74.000
7236.000	9.177	28.007	37.184	-36.816	74.000
9648.000	10.019	29.753	39.773	-34.227	74.000

Average Detector:

--

Vertical

Peak Detector:

4824.000	2.836	30.332	33.169	-40.831	74.000
7236.000	9.676	28.691	38.367	-35.633	74.000
9648.000	10.556	27.325	37.882	-36.118	74.000

Average Detector:

--

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 : No.3 OATS
Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2437 MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
MHz	Factor	Level	Level		
	dB	dBμV	dBμV/m	dB	dBμV/m

Horizontal

Peak Detector:

4874.000	2.076	32.715	34.792	-39.208	74.000
7311.000	9.512	30.677	40.189	-33.811	74.000
9748.000	9.630	25.498	35.128	-38.872	74.000

Average Detector:

--

Vertical

Peak Detector:

4874.000	2.532	30.737	33.269	-40.731	74.000
7311.000	10.089	29.478	39.567	-34.433	74.000
9648.000	10.556	29.108	39.665	-34.335	74.000

Average Detector:

--

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 : No.3 OATS
Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2462 MHz)

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector:					
4924.000	2.191	35.008	37.199	-36.801	74.000
7386.000	10.373	29.621	39.995	-34.005	74.000
9848.000	9.964	26.214	36.178	-37.822	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
4924.000	2.805	32.364	35.169	-38.831	74.000
7386.000	11.180	30.087	41.267	-32.733	74.000
9848.000	10.801	26.640	37.441	-36.559	74.000

Average Detector:

--

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 : No.3 OATS
Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW)(2412MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
MHz	Factor	Level	Level		
	dB	dB μ V	dB μ V/m	dB	dB μ V/m
Horizontal					
Peak Detector:					
4824.000	2.428	32.498	34.927	-39.073	74.000
7236.000	9.177	29.496	38.673	-35.327	74.000
9648.000	10.019	26.971	36.991	-37.009	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
4824.000	2.836	31.799	34.636	-39.364	74.000
7236.000	9.676	30.326	40.002	-33.998	74.000
9648.000	10.556	27.342	37.899	-36.101	74.000
Average Detector:					
--					

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 : No.3 OATS
Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW) (2437 MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
MHz	Factor	Level	Level		
	dB	dBμV	dBμV/m	dB	dBμV/m

Horizontal

Peak Detector:

4874.000	2.076	33.584	35.661	-38.339	74.000
7311.000	9.512	30.133	39.645	-34.355	74.000
9648.000	10.019	28.501	38.521	-35.479	74.000

Average Detector:

--

Vertical

Peak Detector:

4874.000	2.532	30.261	32.793	-41.207	74.000
7311.000	10.089	31.174	41.263	-32.737	74.000
9748.000	10.266	28.305	38.572	-35.428	74.000

Average Detector:

--

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 : No.3 OATS
Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW) (2462 MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
MHz	Factor	Level	Level		
	dB	dBμV	dBμV/m	dB	dBμV/m

Horizontal

Peak Detector:

4924.000	2.191	30.706	32.897	-41.103	74.000
7386.000	10.373	27.762	38.136	-35.864	74.000
9848.000	9.964	27.221	37.185	-36.815	74.000

Average Detector:

--

Vertical

Peak Detector:

4924.000	2.805	30.886	33.691	-40.309	74.000
7386.000	11.180	28.813	39.993	-34.007	74.000
9848.000	10.801	26.783	37.584	-36.416	74.000

Average Detector:

--

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 : No.3 OATS
Test Mode : Mode 1: Transmit (802.11b 1Mbps)(2437 MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
MHz	Factor	Level	Level		
	dB	dBμV	dBμV/m	dB	dBμV/m
Horizontal					
146.400	-10.318	45.912	35.594	-7.906	43.500
262.800	-5.013	48.708	43.695	-2.305	46.000
396.660	-2.296	45.560	43.264	-2.736	46.000
594.540	3.927	40.137	44.064	-1.936	46.000
726.460	3.469	41.213	44.682	-1.318	46.000
858.380	5.972	38.460	44.432	-1.568	46.000
Vertical					
101.780	-0.021	37.930	37.908	-5.592	43.500
286.080	-8.097	50.178	42.081	-3.919	46.000
528.580	-0.462	38.989	38.527	-7.473	46.000
594.540	-3.773	48.282	44.509	-1.491	46.000
726.460	-0.171	40.117	39.946	-6.054	46.000
932.100	6.152	30.161	36.313	-9.687	46.000

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 : No.3 OATS
Test Mode : Mode 2: Transmit (802.11g 6Mbps)(2437 MHz)

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
146.400	-10.318	45.379	35.061	-8.439	43.500
286.080	-4.687	49.487	44.800	-1.200	46.000
462.620	1.172	43.497	44.669	-1.331	46.000
594.540	3.927	40.656	44.583	-1.417	46.000
726.460	3.469	41.330	44.799	-1.201	46.000
858.380	5.972	38.366	44.338	-1.662	46.000
Vertical					
103.720	-0.151	38.383	38.231	-5.269	43.500
286.080	-8.097	49.948	41.851	-4.149	46.000
462.620	-3.838	41.193	37.355	-8.645	46.000
594.540	-3.773	47.842	44.069	-1.931	46.000
726.460	-0.171	40.120	39.949	-6.051	46.000
955.380	6.657	30.945	37.602	-8.398	46.000

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 : No.3 OATS
Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW)(2437 MHz)

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
146.400	-10.318	44.830	34.512	-8.988	43.500
307.420	-3.301	48.207	44.906	-1.094	46.000
462.620	1.172	43.444	44.616	-1.384	46.000
594.540	3.927	40.428	44.355	-1.645	46.000
726.460	3.469	40.983	44.452	-1.548	46.000
858.380	5.972	38.331	44.303	-1.697	46.000
Vertical					
101.780	-0.021	37.710	37.688	-5.812	43.500
286.080	-8.097	49.925	41.828	-4.172	46.000
462.620	-3.838	41.759	37.921	-8.079	46.000
594.540	-3.773	48.114	44.341	-1.659	46.000
726.460	-0.171	39.686	39.515	-6.485	46.000
858.380	0.632	36.574	37.206	-8.794	46.000

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

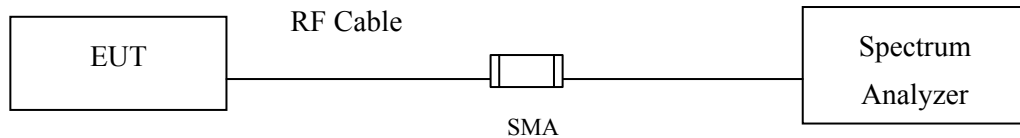
5.1. Test Equipment

	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
	Spectrum Analyzer	R&S	FSP40 / 100170	Jun., 2015
	Spectrum Analyzer	Agilent	E4407B / US39440758	Jun., 2015
X	Spectrum Analyzer	Agilent	N9010A / MY48030495	Apr., 2015

Note: 1. All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.
2. The test instruments marked with "X" are used to measure the final test results.

5.2. Test Setup

RF antenna Conducted Measurement:



5.3. 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)).

5.4. 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.

5.5. Uncertainty

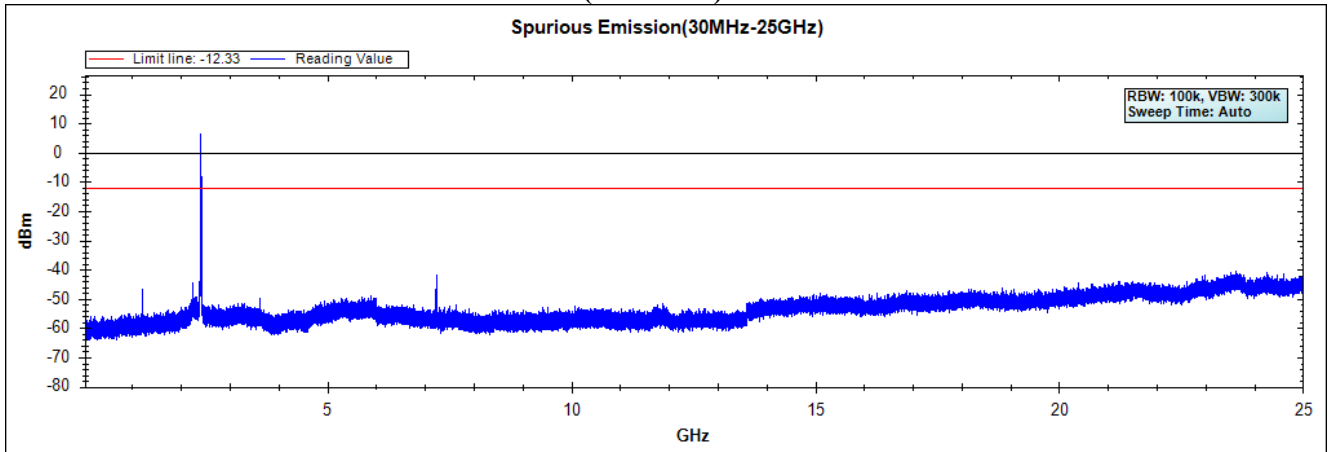
The measurement uncertainty

Conducted is defined as $\pm 1.27\text{dB}$

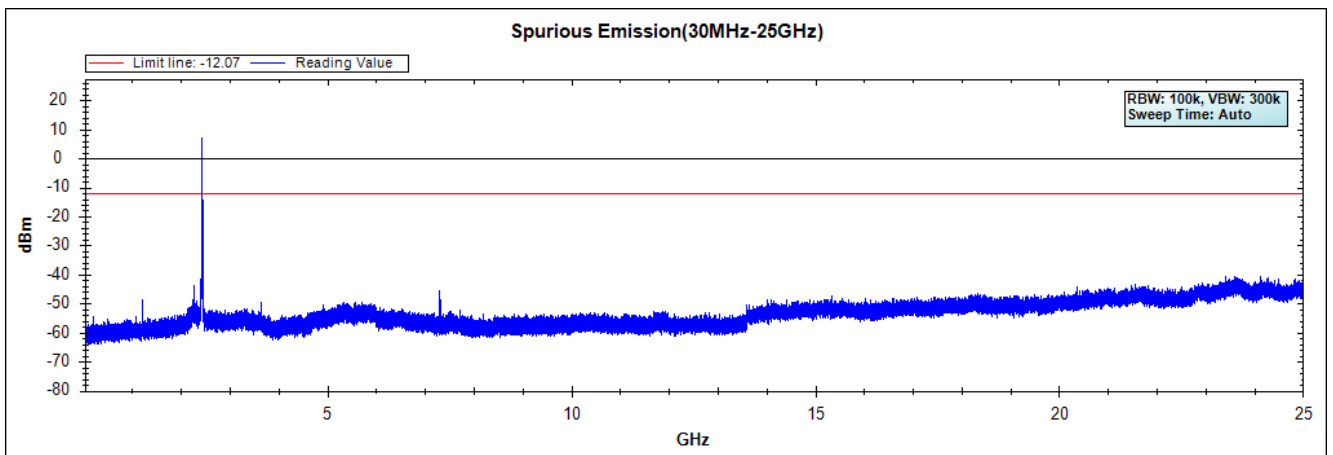
5.6. Test Result of RF antenna conducted test

Product : Smart Cloud Camera
Test Item : RF antenna conducted test
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit (802.11b 1Mbps)

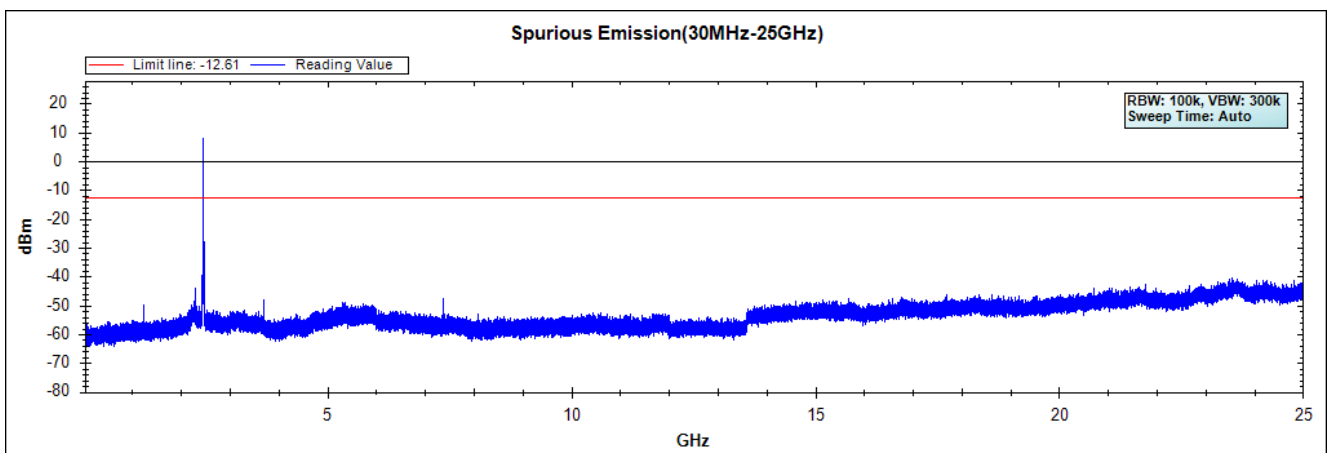
Channel 01 (2412MHz) 30MHz-25GHz



Channel 06 (2437MHz) 30MHz-25GHz



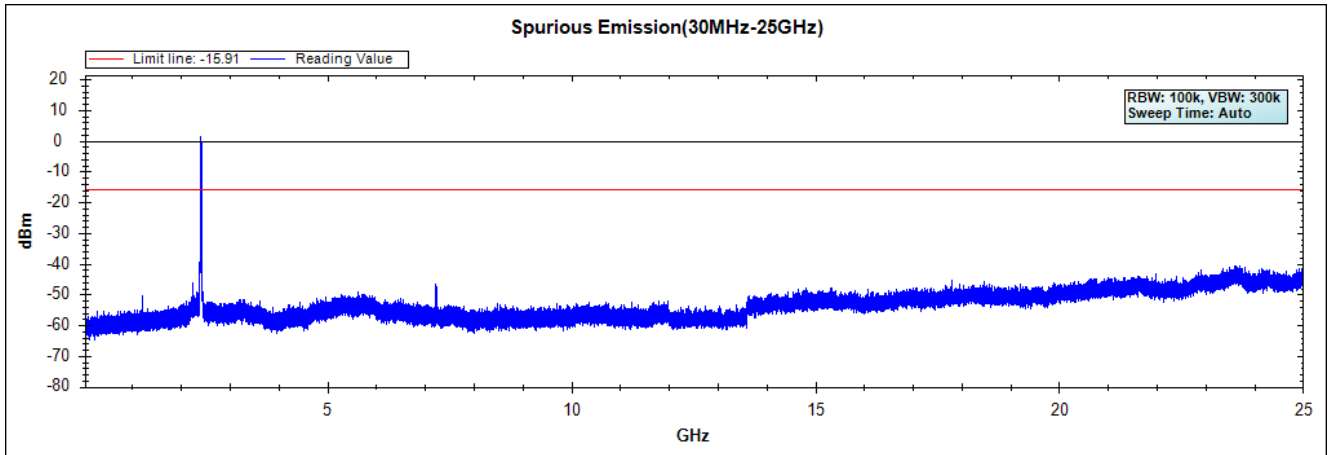
Channel 11 (2462MHz) 30MHz-25GHz



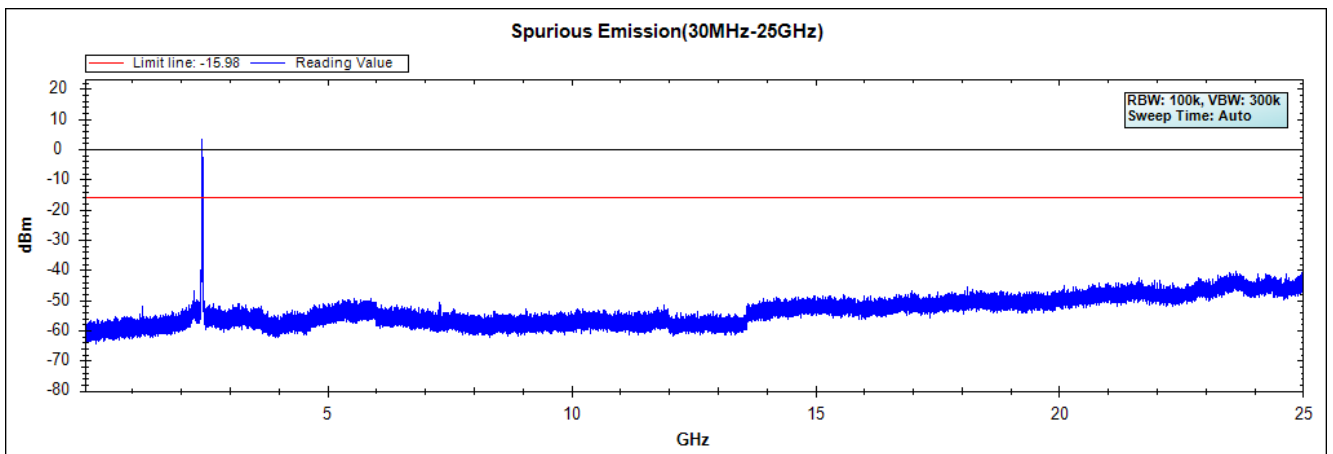
Note: The above test pattern is synthesized by multiple of the frequency range.

Product : Smart Cloud Camera
Test Item : RF Antenna Conducted Spurious
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11g 6Mbps)

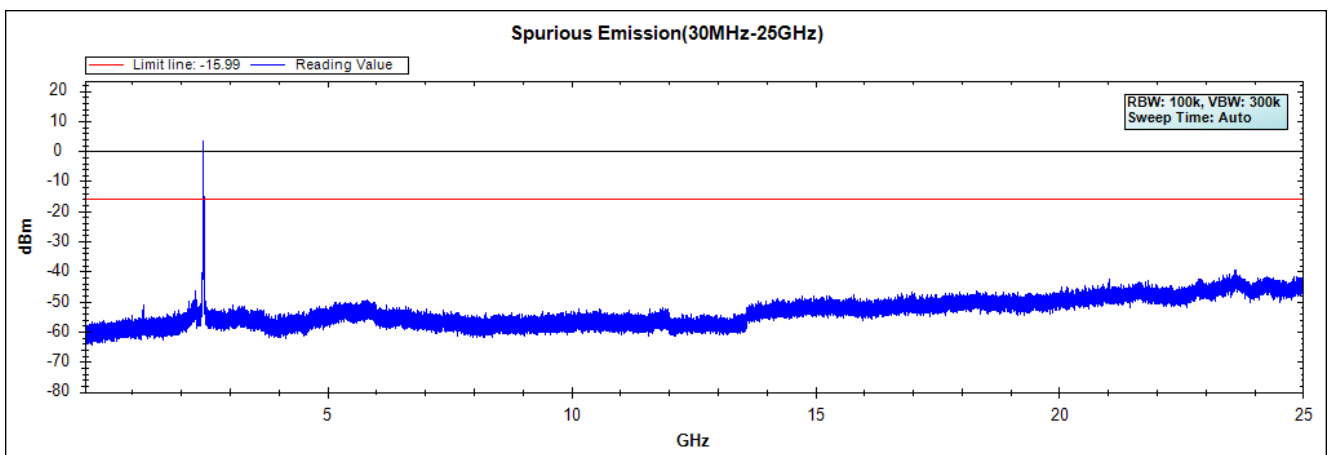
Channel 01 (2412MHz) 30MHz-25GHz



Channel 06 (2437MHz) 30MHz-25GHz



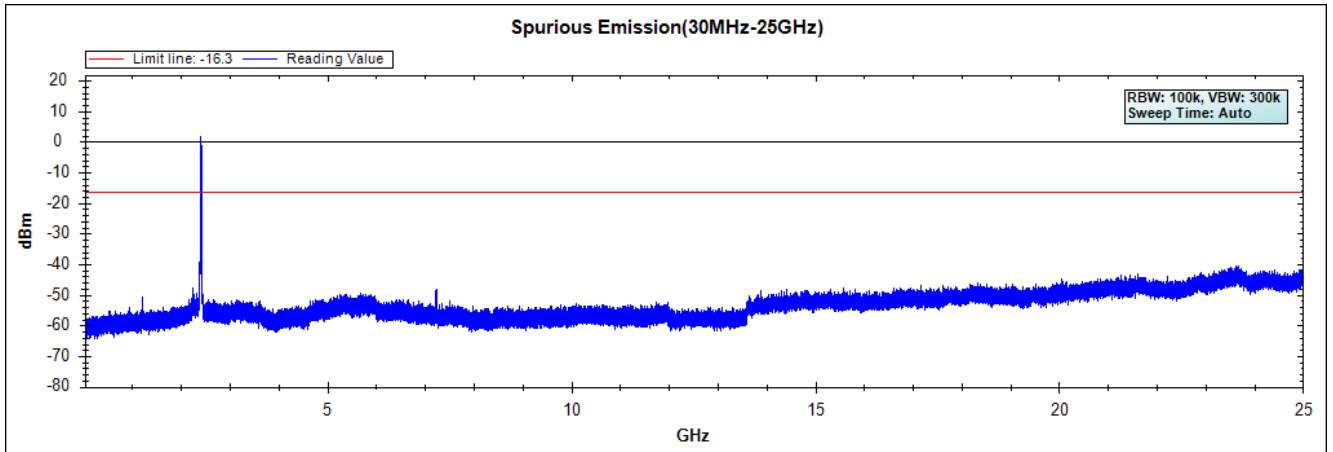
Channel 11 (2462MHz) 30MHz-25GHz



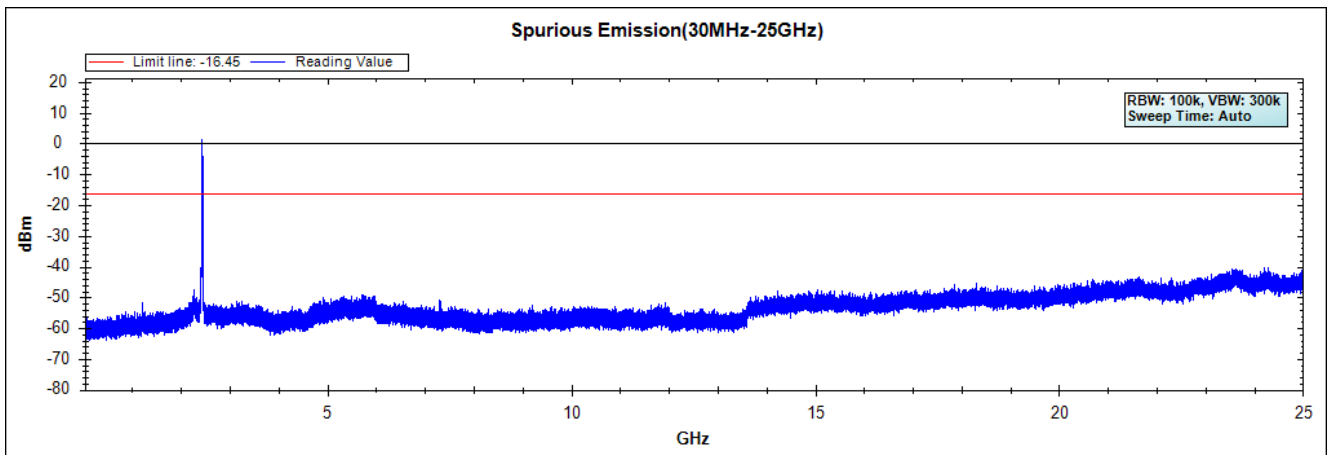
Note: The above test pattern is synthesized by multiple of the frequency range.

Product : Smart Cloud Camera
Test Item : RF Antenna Conducted Spurious
Test Site : No.3 OATS
Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW)

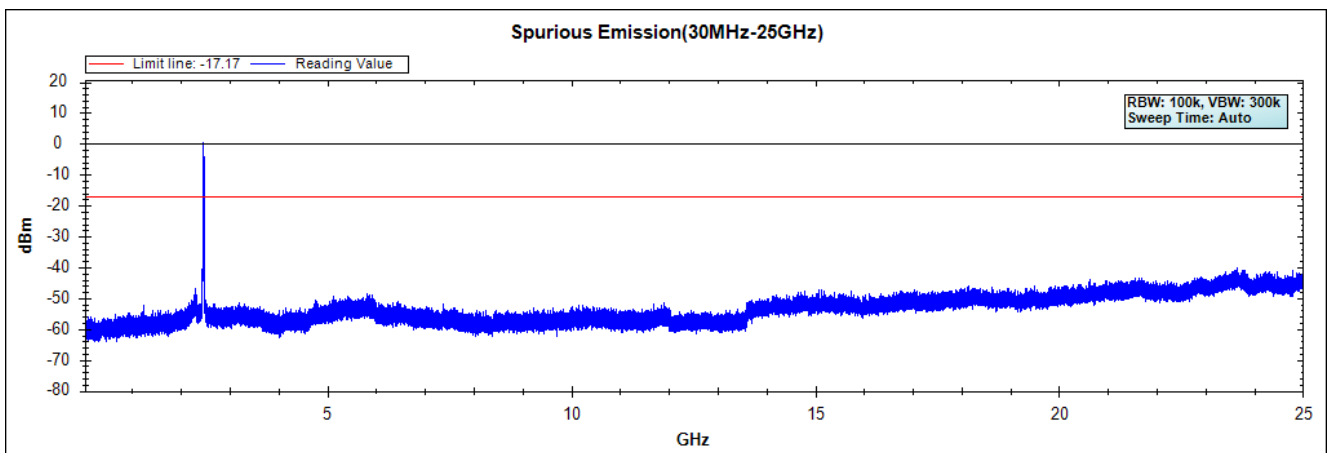
Channel 01 (2412MHz) 30MHz-25GHz



Channel 06 (2437MHz) 30MHz-25GHz



Channel 11 (2462MHz) 30MHz-25GHz



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

6. Band Edge

6.1. Test Equipment

RF Radiated Measurement:

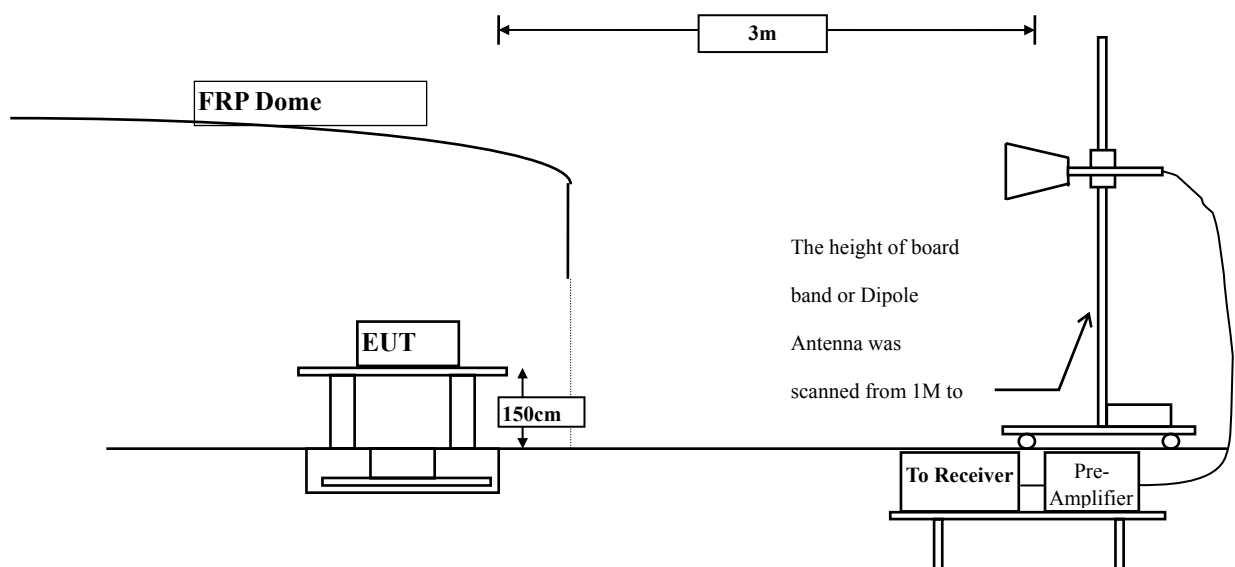
The following test equipments are used during the band edge tests:

Test Site		Equipment	Manufacturer	Model No./Serial No.	Last Cal.
☒ CB # 8	X	Spectrum Analyzer	R&S	FSP40/ 100339	Oct., 2015
	X	Horn Antenna	ETS-Lindgren	3117/ 35205	Mar., 2016
	X	Horn Antenna	Schwarzbeck	BBHA9170/209	Jan., 2016
	X	Horn Antenna	TRC	AH-0801/95051	Aug., 2015
	X	Pre-Amplifier	EMCI	EMC012630SE/980210	Jan., 2016
	X	Pre-Amplifier	MITEQ	JS41-001040000-58-5P/153945	Jul., 2015
	X	Pre-Amplifier	NARDA	DBL-1840N506/013	Jul., 2015

- Note:
1. All instruments are calibrated every one year.
 2. The test instruments marked by "X" are used to measure the final test results.

6.2. Test Setup

RF Radiated Measurement:



6.3. 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.

6.4. 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.

6.5. Uncertainty

± 3.9 dB above 1GHz

± 3.8 dB below 1GHz

6.6. Test Result of Band Edge

Product : Smart Cloud Camera
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2412MHz)

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
01 (Peak)	2390.000	-1.131	38.273	37.142	74.000	54.000	Pass
01 (Peak)	2398.200	-1.092	43.038	41.945	--	--	--
01 (Peak)	2400.000	-1.084	42.526	41.443	--	--	--
01 (Peak)	2411.000	-1.023	80.583	79.560	--	--	--
01 (Average)	2390.000	-1.131	25.742	24.611	74.000	54.000	Pass
01 (Average)	2396.200	-1.103	33.533	32.430	--	--	--
01 (Average)	2400.000	-1.084	32.654	31.571	--	--	--
01 (Average)	2411.200	-1.021	76.843	75.822	--	--	--

Figure Channel 01: Horizontal (Peak)

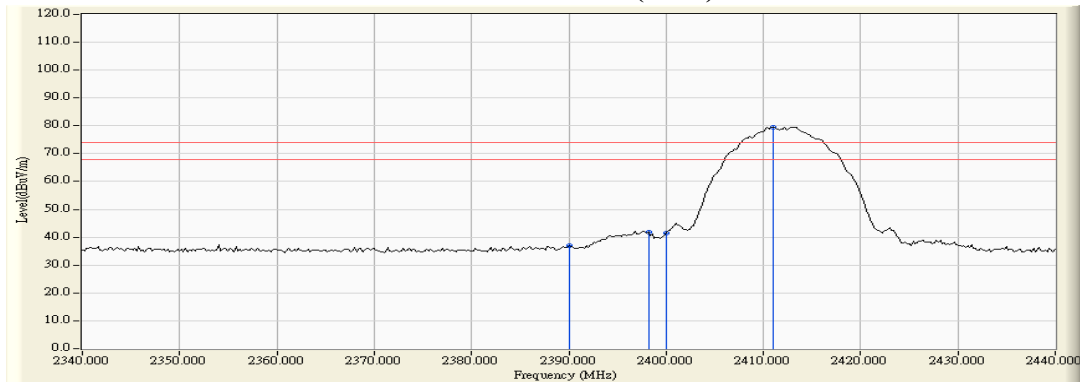
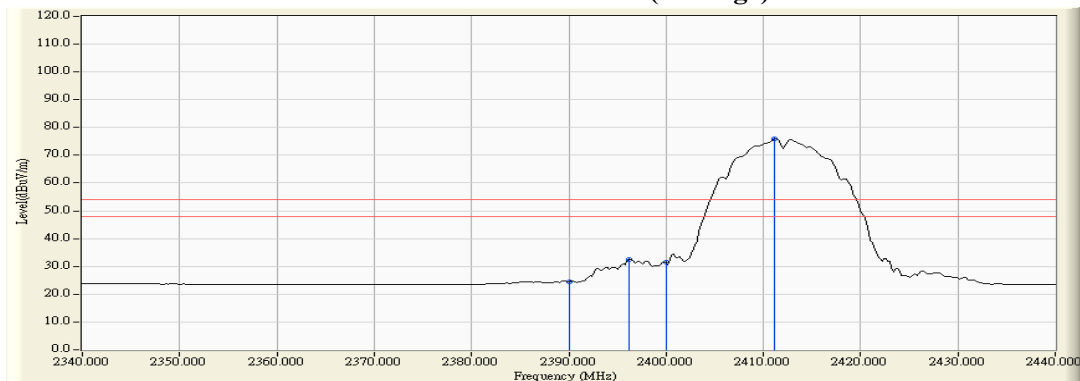


Figure Channel 01: Horizontal (Average)



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 : No.3 OATS
Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2412MHz)

RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
01 (Peak)	2385.600	-1.704	39.775	38.071	74.000	54.000	Pass
01 (Peak)	2390.000	-1.725	39.534	37.809	74.000	54.000	Pass
01 (Peak)	2397.600	-1.737	46.054	44.317	--	--	--
01 (Peak)	2400.000	-1.733	45.178	43.446	--	--	--
01 (Peak)	2411.200	-1.709	85.954	84.245	--	--	--
01 (Average)	2390.000	-1.725	28.263	26.538	74.000	54.000	Pass
01 (Average)	2396.200	-1.739	38.015	36.276	--	--	--
01 (Average)	2400.000	-1.733	37.138	35.406	--	--	--
01 (Average)	2411.400	-1.708	82.213	80.505	--	--	--

Figure Channel 01: Vertical (Peak)

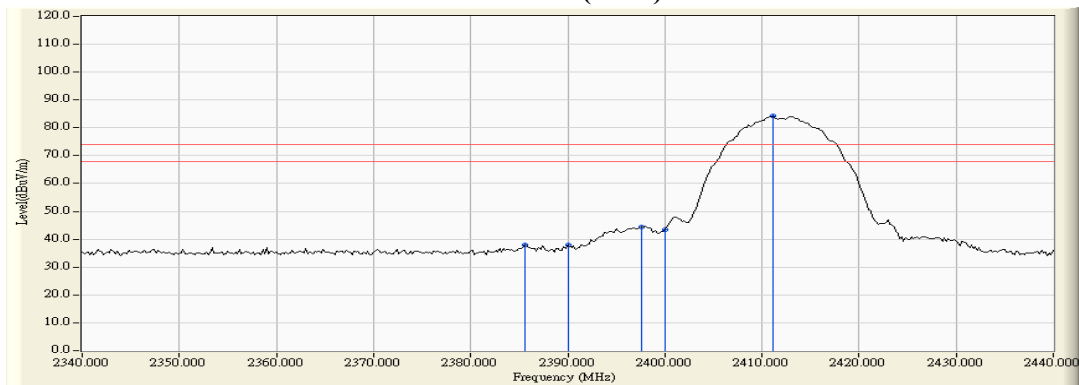
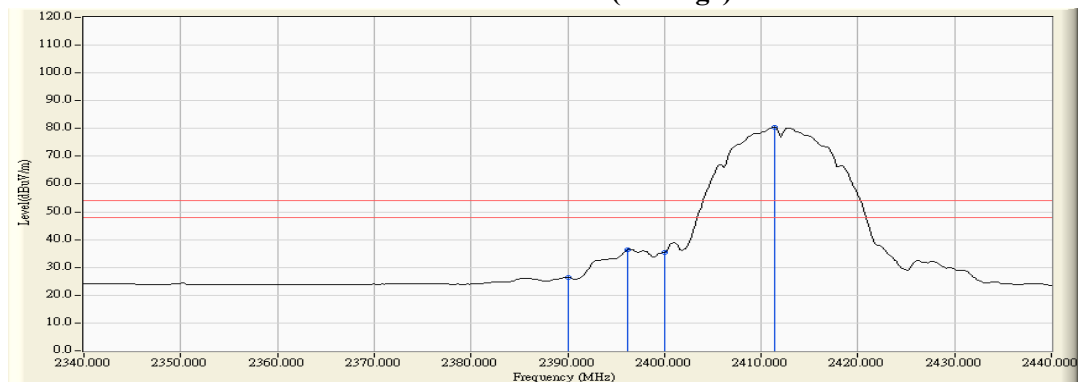


Figure Channel 01: Vertical (Average)



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 : No.3 OATS
Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2462MHz)

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
11 (Peak)	2460.900	-0.701	78.830	78.128	--	--	--
11 (Peak)	2483.500	-0.558	36.381	35.823	74.000	54.000	Pass
11 (Peak)	2486.500	-0.538	37.378	36.839	74.000	54.000	Pass
11 (Average)	2461.300	-0.700	74.901	74.202	--	--	--
11 (Average)	2483.500	-0.558	24.928	24.370	74.000	54.000	Pass

Figure Channel 11: Horizontal (Peak)

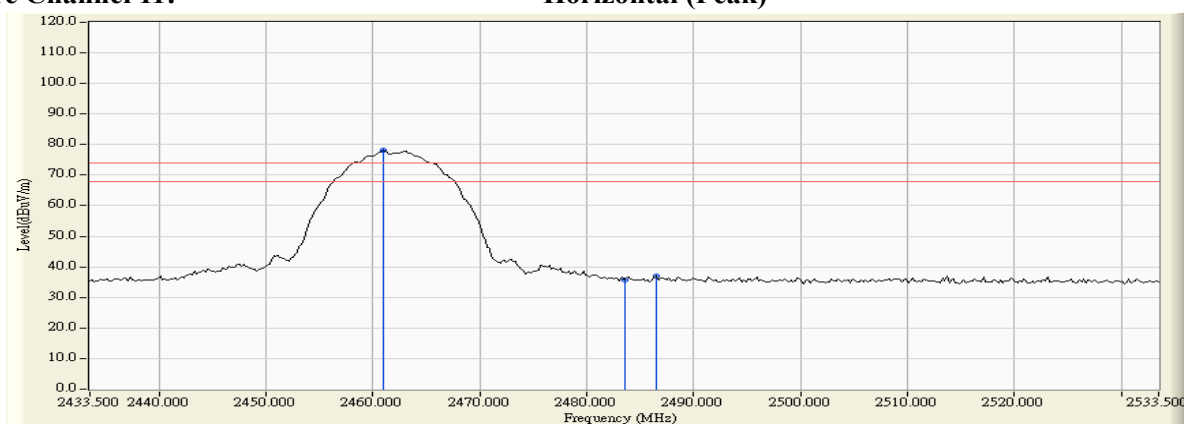


Figure Channel 11: Horizontal (Average)



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 : No.3 OATS
Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2462MHz)

RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
11 (Peak)	2462.900	-1.419	85.342	83.923	--	--	--
11 (Peak)	2483.500	-1.305	39.517	38.212	74.000	54.000	Pass
11 (Average)	2461.100	-1.428	81.530	80.101	--	--	--
11 (Average)	2483.500	-1.305	27.078	25.773	74.000	54.000	Pass

Figure Channel 11: Vertical (Peak)

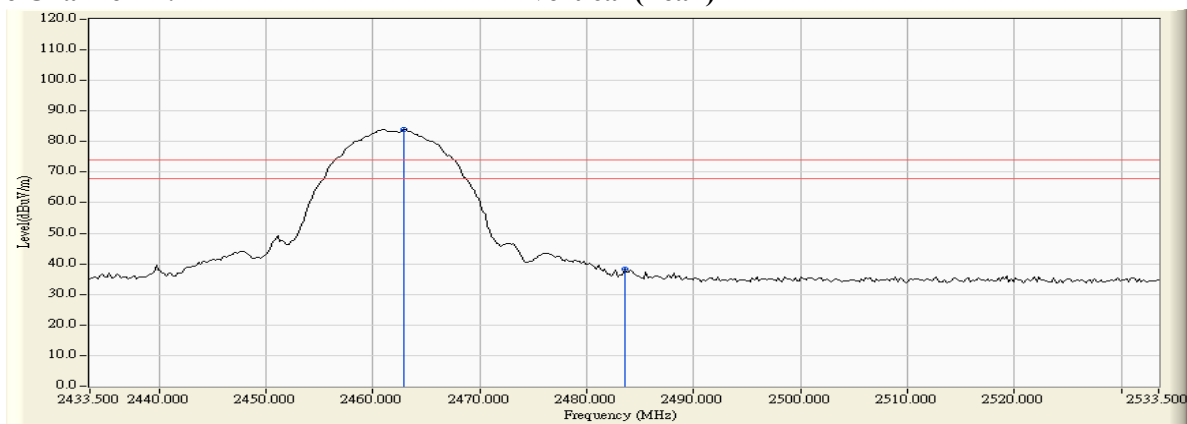
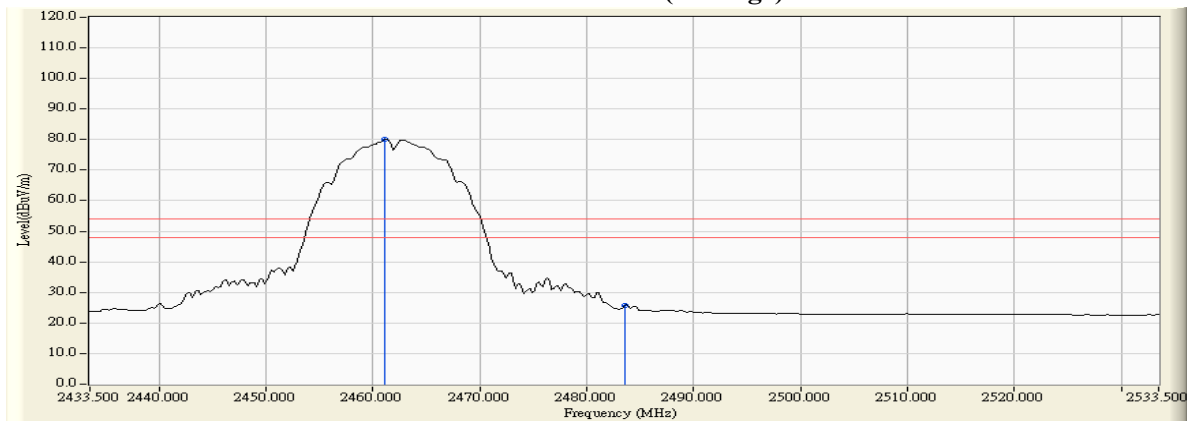


Figure Channel 11: Vertical (Average)



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 : No.3 OATS
Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2412MHz)

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
01 (Peak)	2388.400	-1.137	43.386	42.249	74.000	54.000	Pass
01 (Peak)	2390.000	-1.131	42.726	41.595	74.000	54.000	Pass
01 (Peak)	2400.000	-1.084	54.660	53.577	--	--	--
01 (Peak)	2412.200	-1.015	83.257	82.242	--	--	--
01 (Average)	2390.000	-1.131	27.869	26.738	74.000	54.000	Pass
01 (Average)	2400.000	-1.084	37.534	36.451	--	--	--
01 (Average)	2411.200	-1.021	70.425	69.404	--	--	--

Figure Channel 01: Horizontal (Peak)

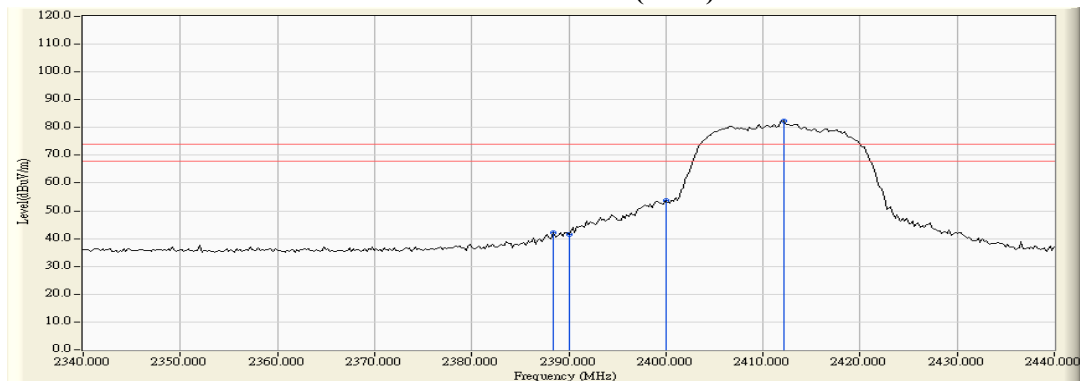
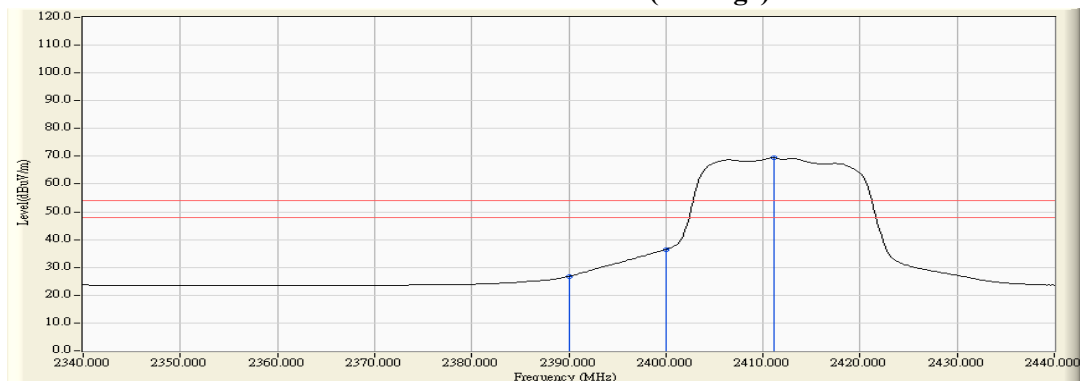


Figure Channel 01: Horizontal (Average)



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 : No.3 OATS
Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2412MHz)

RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
01 (Peak)	2390.000	-1.725	46.529	44.804	74.000	54.000	Pass
01 (Peak)	2400.000	-1.733	58.277	56.545	--	--	--
01 (Peak)	2411.800	-1.706	88.100	86.394	--	--	--
01 (Average)	2390.000	-1.725	30.756	29.031	74.000	54.000	Pass
01 (Average)	2400.000	-1.733	41.864	40.132	--	--	--
01 (Average)	2411.200	-1.709	75.454	73.745	--	--	--

Figure Channel 01: Vertical (Peak)

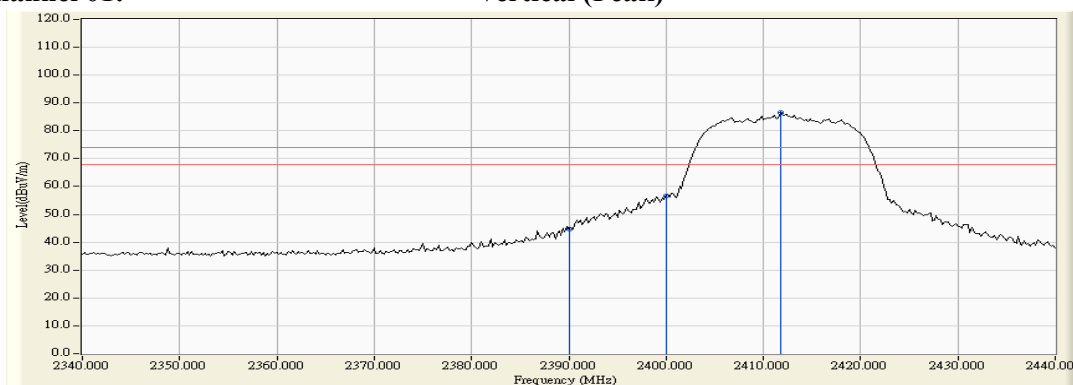
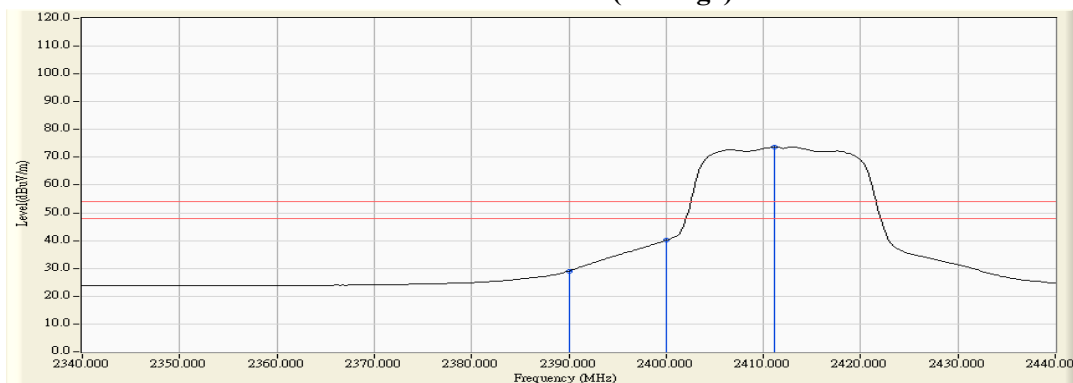


Figure Channel 01: Vertical (Average)



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 : No.3 OATS
Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2462MHz)

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
11 (Peak)	2461.900	-0.696	79.946	79.251	--	--	--
11 (Peak)	2483.500	-0.558	37.786	37.228	74.000	54.000	Pass
11 (Average)	2461.100	-0.700	67.484	66.784	--	--	--
11 (Average)	2483.500	-0.558	25.516	24.958	74.000	54.000	Pass

Figure Channel 11: Horizontal (Peak)

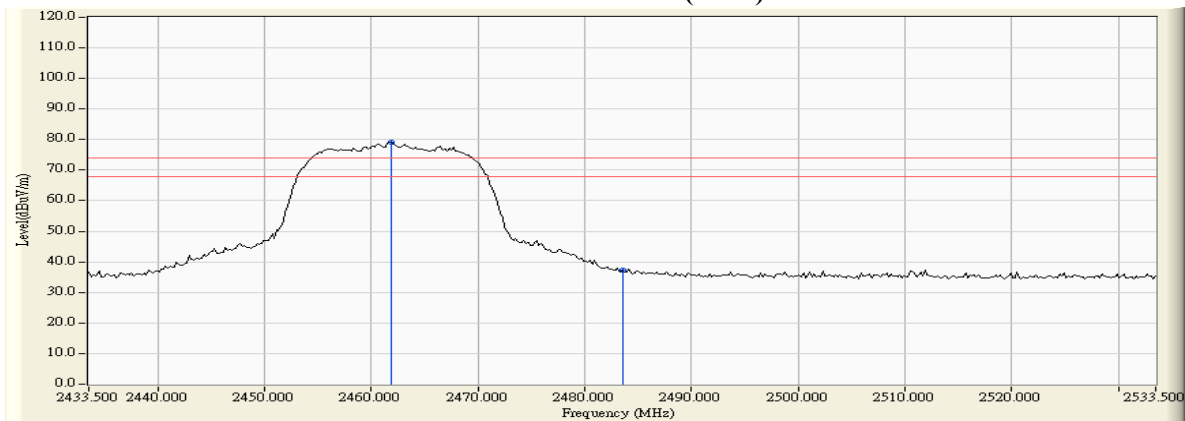
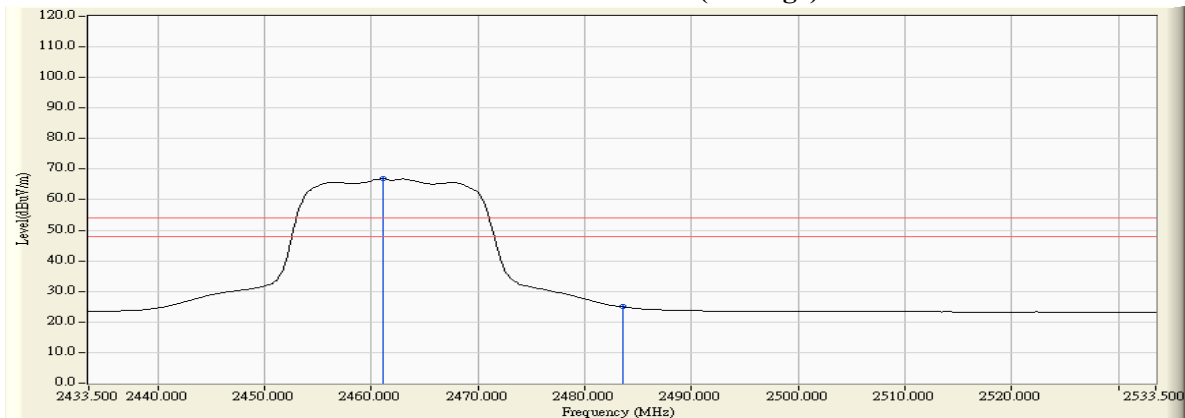


Figure Channel 11: Horizontal (Average)



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 : No.3 OATS
Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2462MHz)

RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
11 (Peak)	2461.900	-1.425	88.204	86.780	--	--	--
11 (Peak)	2483.500	-1.305	42.069	40.764	74.000	54.000	Pass
11 (Average)	2461.100	-1.428	75.082	73.653	--	--	--
11 (Average)	2483.500	-1.305	29.015	27.710	74.000	54.000	Pass

Figure Channel 11: Vertical (Peak)

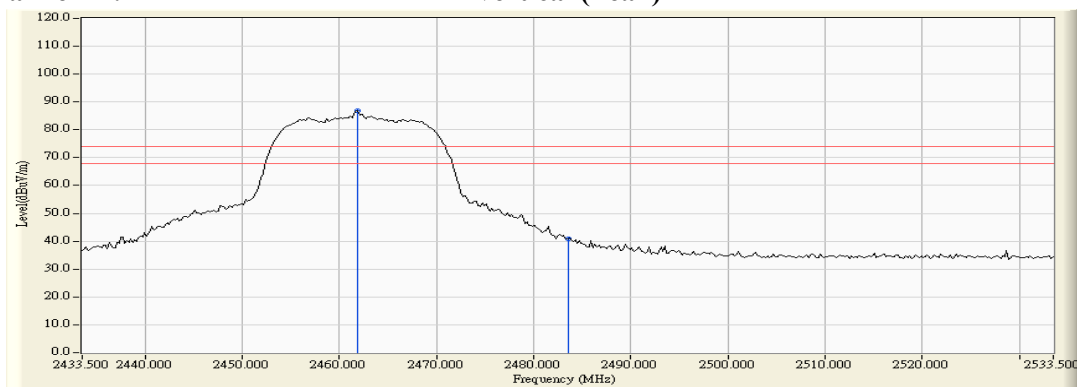
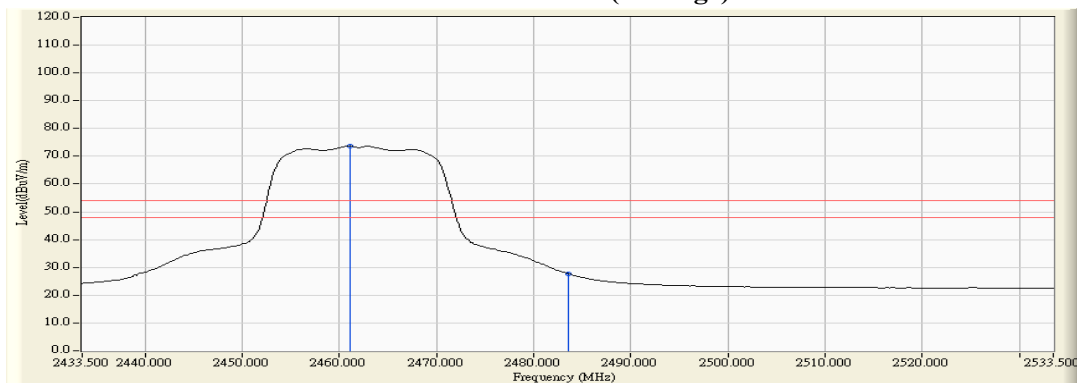


Figure Channel 11: Vertical (Average)



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 : No.3 OATS
Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW) (2412MHz)

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
01 (Peak)	2388.800	-1.135	48.496	47.360	74.000	54.000	Pass
01 (Peak)	2390.000	-1.131	48.267	47.136	74.000	54.000	Pass
01 (Peak)	2399.000	-1.088	59.977	58.889	--	--	--
01 (Peak)	2400.000	-1.084	58.500	57.417	--	--	--
01 (Peak)	2412.000	-1.016	88.945	87.929	--	--	--
01 (Average)	2390.000	-1.131	32.588	31.457	74.000	54.000	Pass
01 (Average)	2400.000	-1.084	41.760	40.677	--	--	--
01 (Average)	2412.200	-1.015	81.755	80.740	--	--	--

Figure Channel 01: Horizontal (Peak)

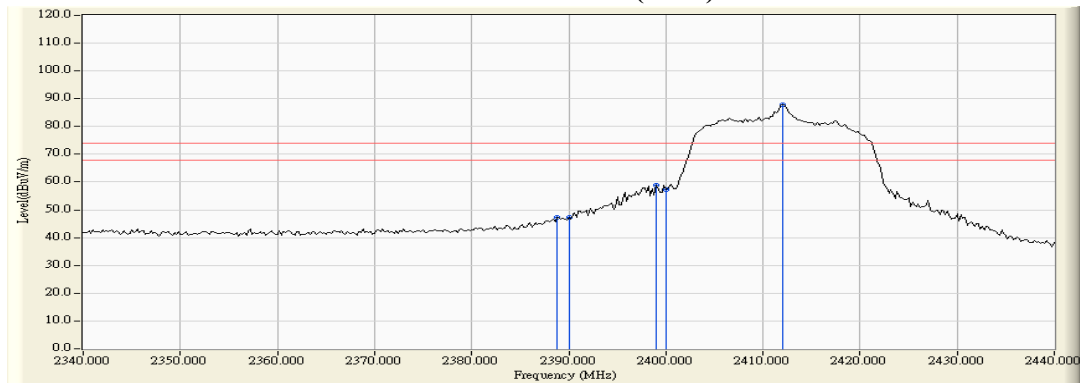
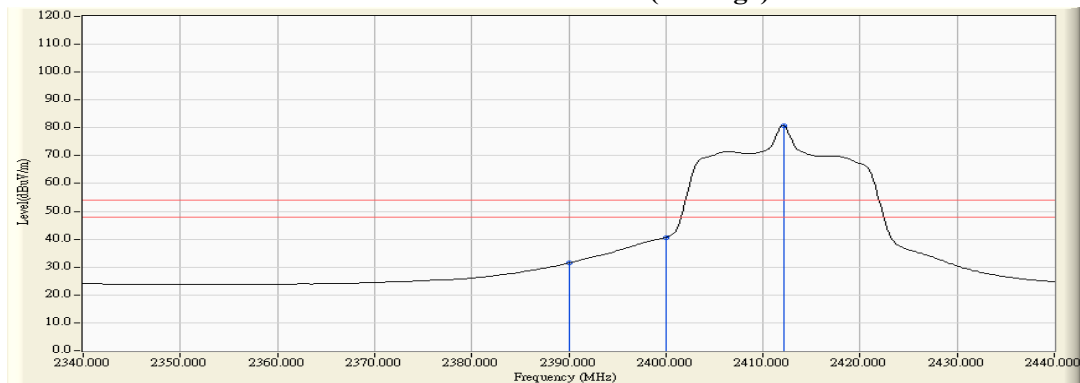


Figure Channel 01: Horizontal (Average)



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 : No.3 OATS
Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW) (2412MHz)

RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
01 (Peak)	2390.000	-1.725	49.135	47.410	74.000	54.000	Pass
01 (Peak)	2398.400	-1.735	60.482	58.747	--	--	--
01 (Peak)	2400.000	-1.733	59.862	58.130	--	--	--
01 (Peak)	2412.000	-1.705	90.435	88.730	--	--	--
01 (Average)	2390.000	-1.725	33.072	31.347	74.000	54.000	Pass
01 (Average)	2400.000	-1.733	42.917	41.185	--	--	--
01 (Average)	2412.000	-1.705	83.820	82.115	--	--	--

Figure Channel 01: Vertical (Peak)

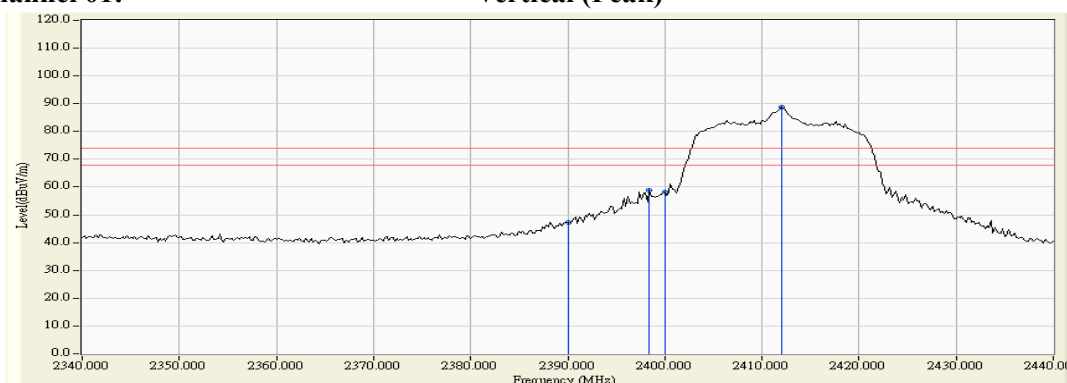
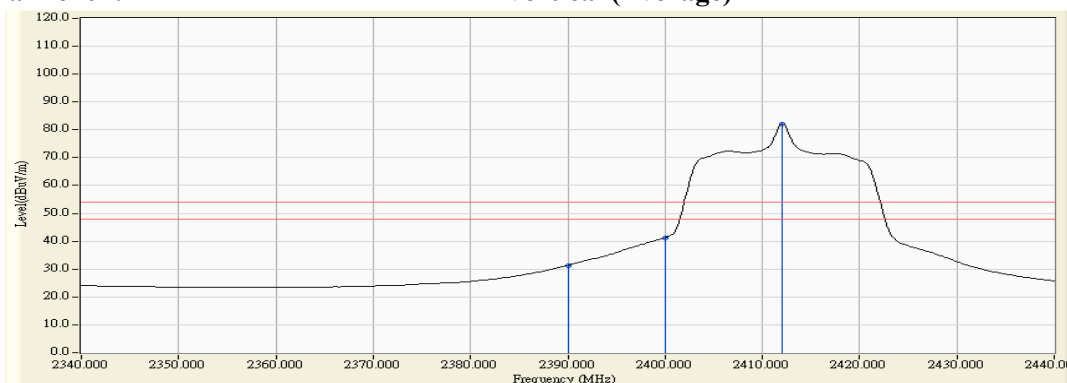


Figure Channel 01: Vertical (Average)



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 : No.3 OATS
Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW) (2462MHz)

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
11 (Peak)	2462.100	-0.694	77.953	77.259	--	--	--
11 (Peak)	2483.500	-0.558	37.714	37.156	74.000	54.000	Pass
11 (Peak)	2489.700	-0.519	38.219	37.700	74.000	54.000	Pass
11 (Average)	2461.100	-0.700	65.616	64.916	--	--	--
11 (Average)	2483.500	-0.558	24.902	24.344	74.000	54.000	Pass

Figure Channel 11: Horizontal (Peak)

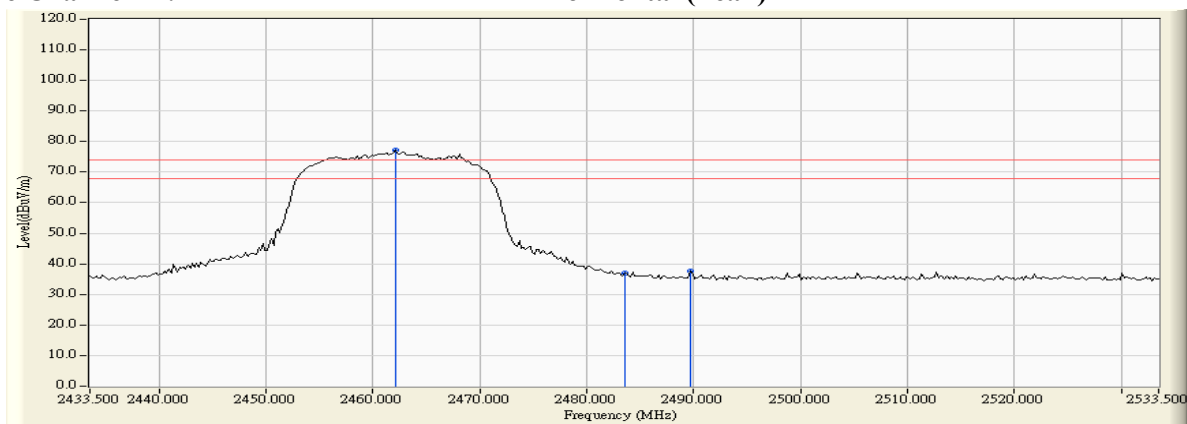
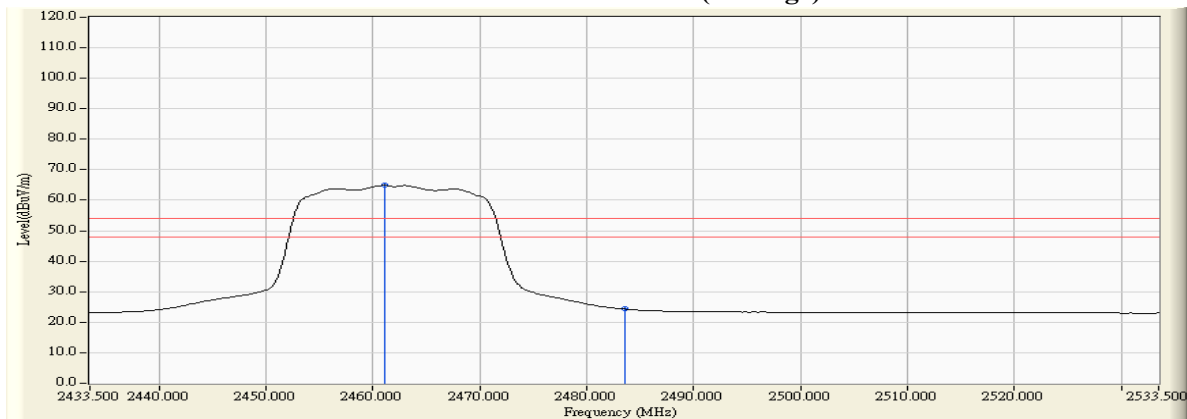


Figure Channel 11: Horizontal (Average)



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 : No.3 OATS
Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW) (2462MHz)

RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
11 (Peak)	2462.700	-1.419	84.970	83.550	--	--	--
11 (Peak)	2483.500	-1.305	39.884	38.579	74.000	54.000	Pass
11 (Average)	2460.900	-1.429	73.456	72.026	--	--	--
11 (Average)	2483.500	-1.305	27.923	26.618	74.000	54.000	Pass

Figure Channel 11: Vertical (Peak)

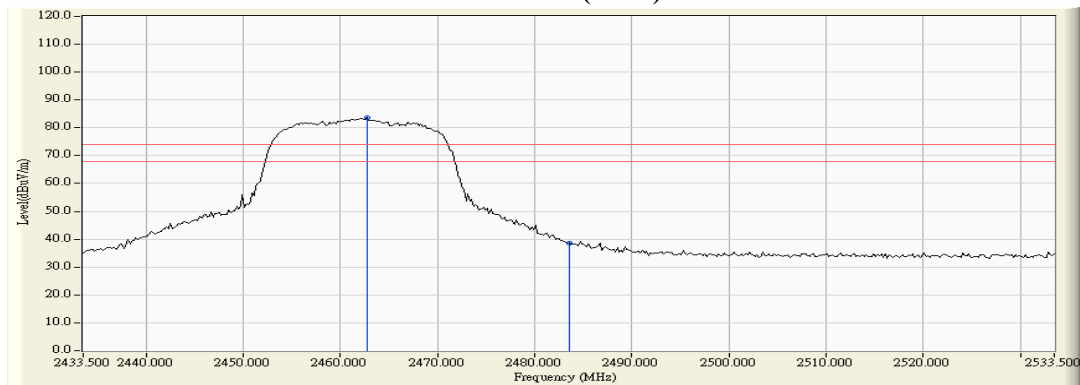
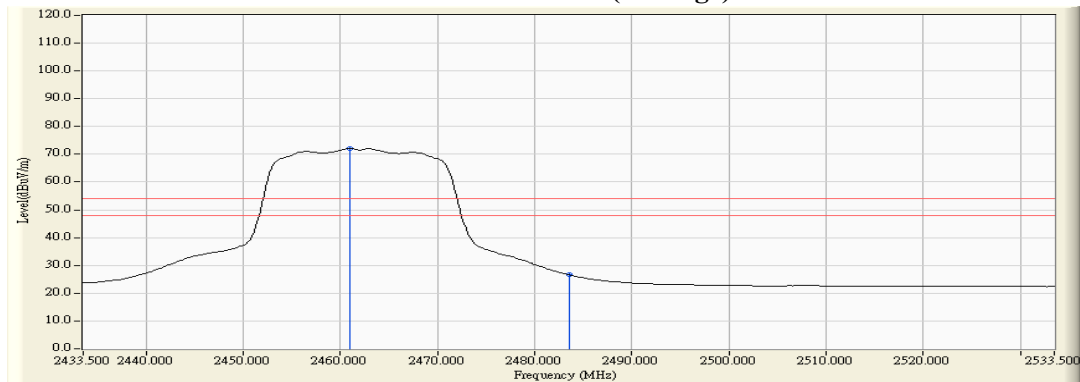


Figure Channel 11: Vertical (Average)



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. Occupied Bandwidth

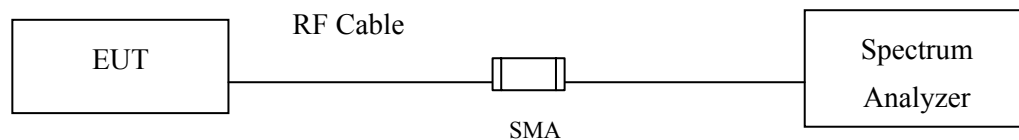
7.1. Test Equipment

	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
	Spectrum Analyzer	R&S	FSP40 / 100170	Jun., 2015
	Spectrum Analyzer	Agilent	E4407B / US39440758	Jun., 2015
X	Spectrum Analyzer	Agilent	N9010A / MY48030495	Apr., 2015

Note:

1. All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.
2. The test instruments marked with “X” are used to measure the final test results.

7.2. Test Setup



7.3. Limits

The minimum bandwidth shall be at least 500 kHz.

7.4. 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.

7.5. Uncertainty

$\pm 150\text{Hz}$

7.6. Test Result of Occupied Bandwidth

Product : Smart Cloud Camera
Test Item : Occupied Bandwidth Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit (802.11b 1Mbps)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
01	2412	8150	>500	Pass
06	2437	8150	>500	Pass
11	2462	8150	>500	Pass

Figure Channel 01:

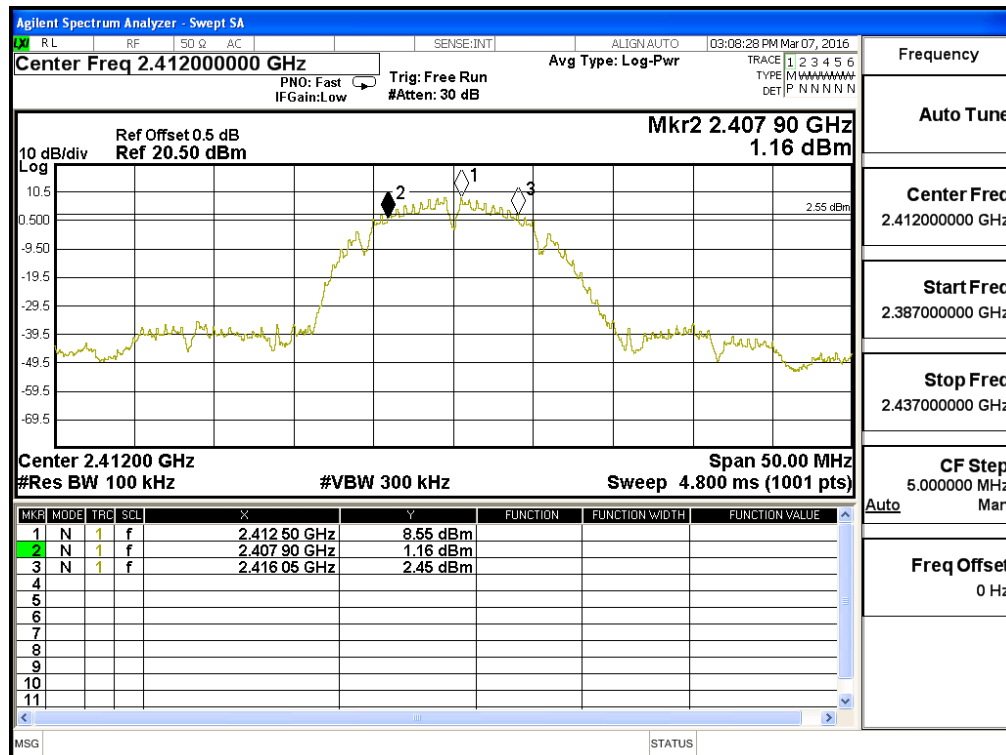


Figure Channel 06:

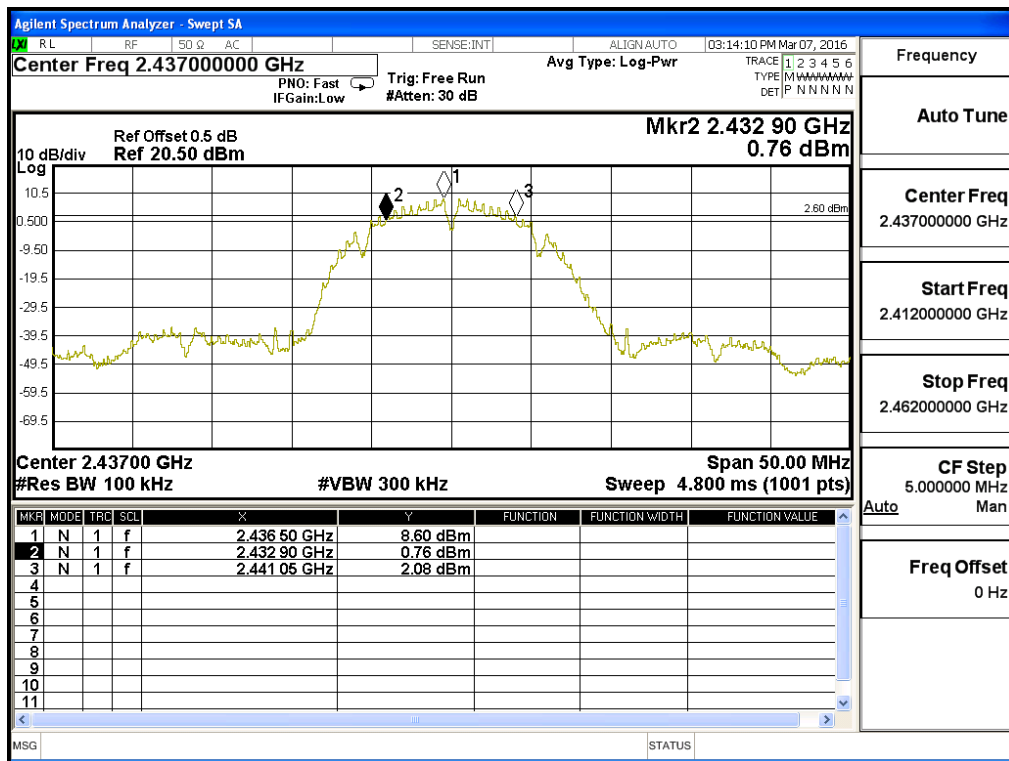
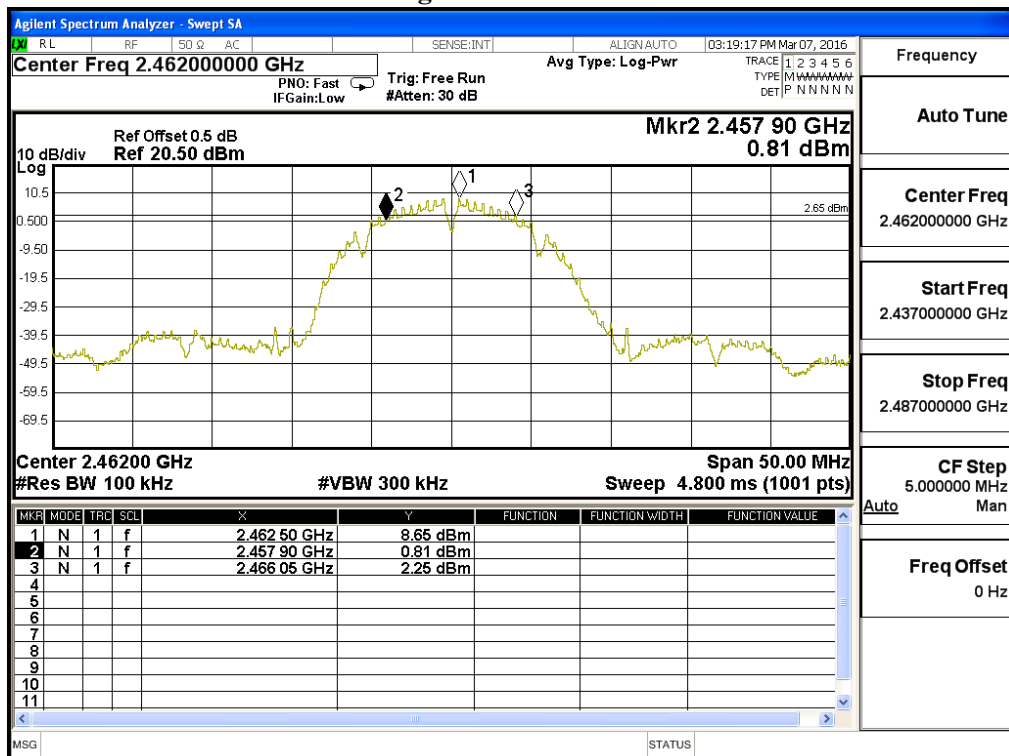


Figure Channel 11:



Product : Smart Cloud Camera
Test Item : Occupied Bandwidth Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2412MHz)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
01	2412	15500	>500	Pass
06	2437	15350	>500	Pass
11	2462	15500	>500	Pass

Figure Channel 01:

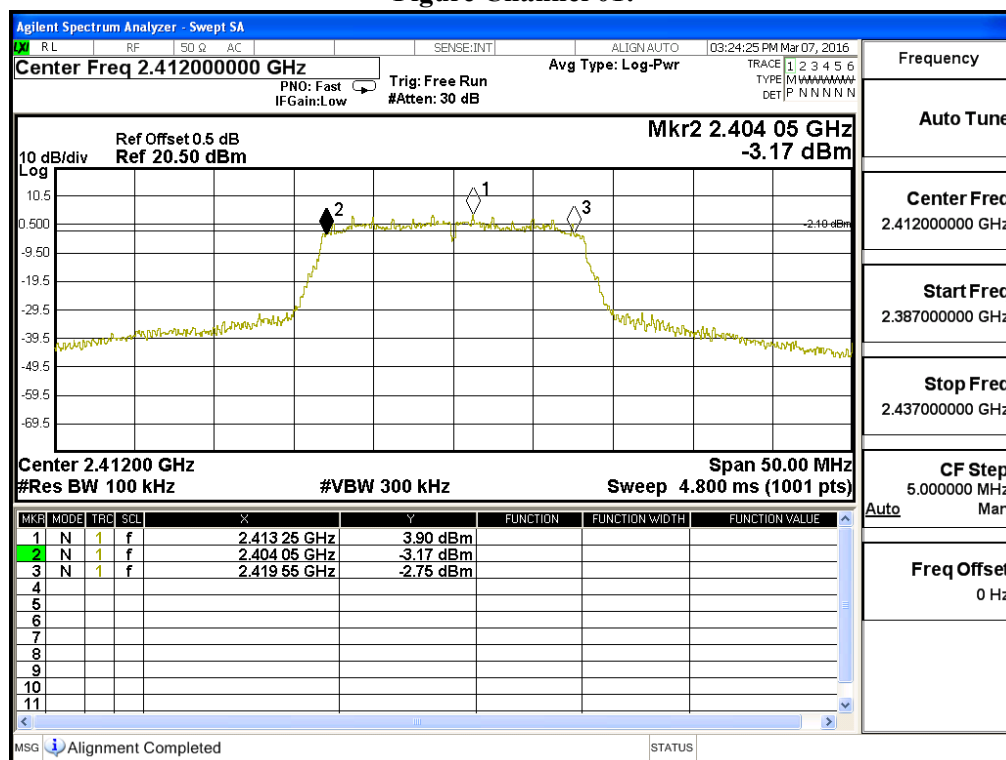


Figure Channel 06:

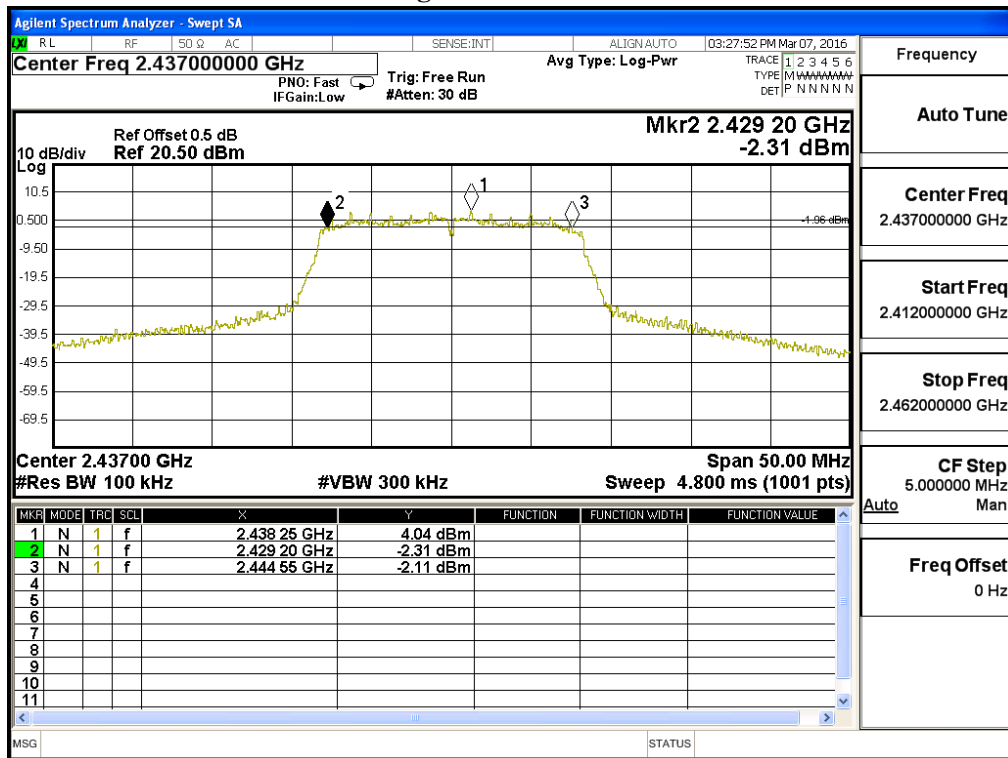
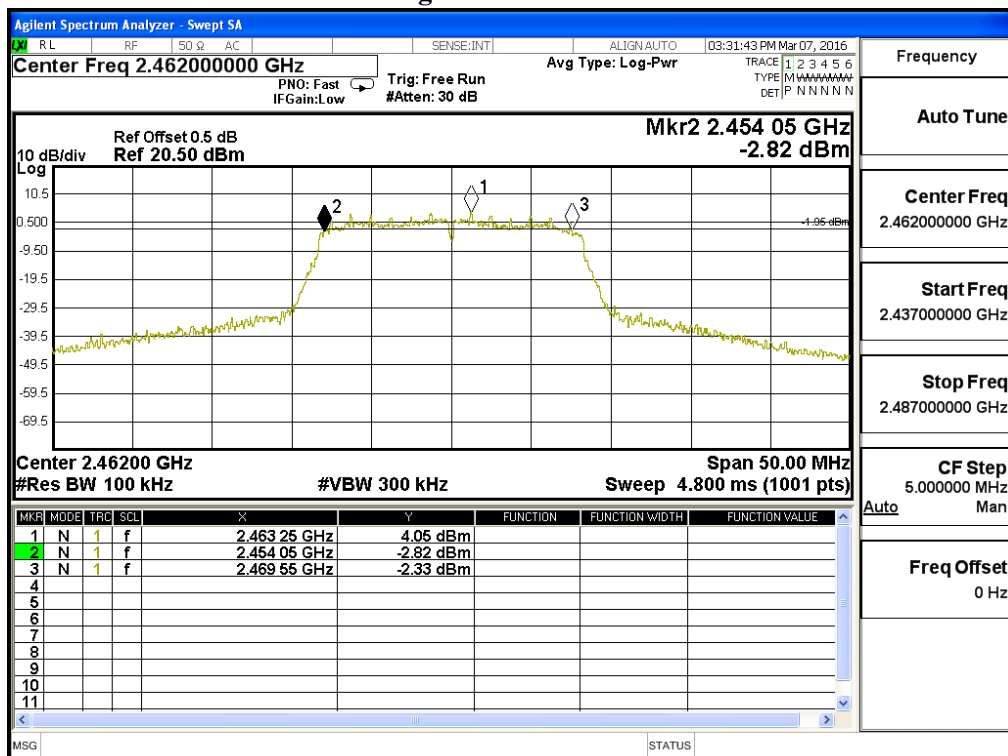


Figure Channel 11:



Product : Smart Cloud Camera
Test Item : Occupied Bandwidth Data
Test Site : No.3 OATS
Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
01	2412	16100	>500	Pass
06	2437	16150	>500	Pass
11	2462	16050	>500	Pass

Figure Channel 01:

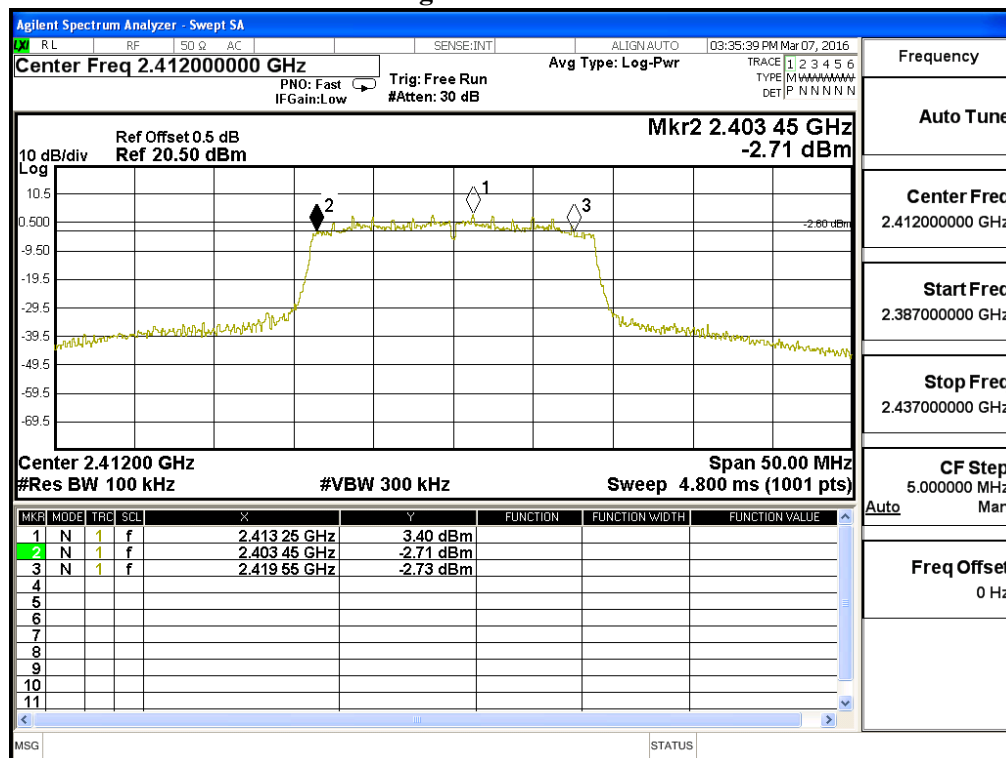


Figure Channel 06:

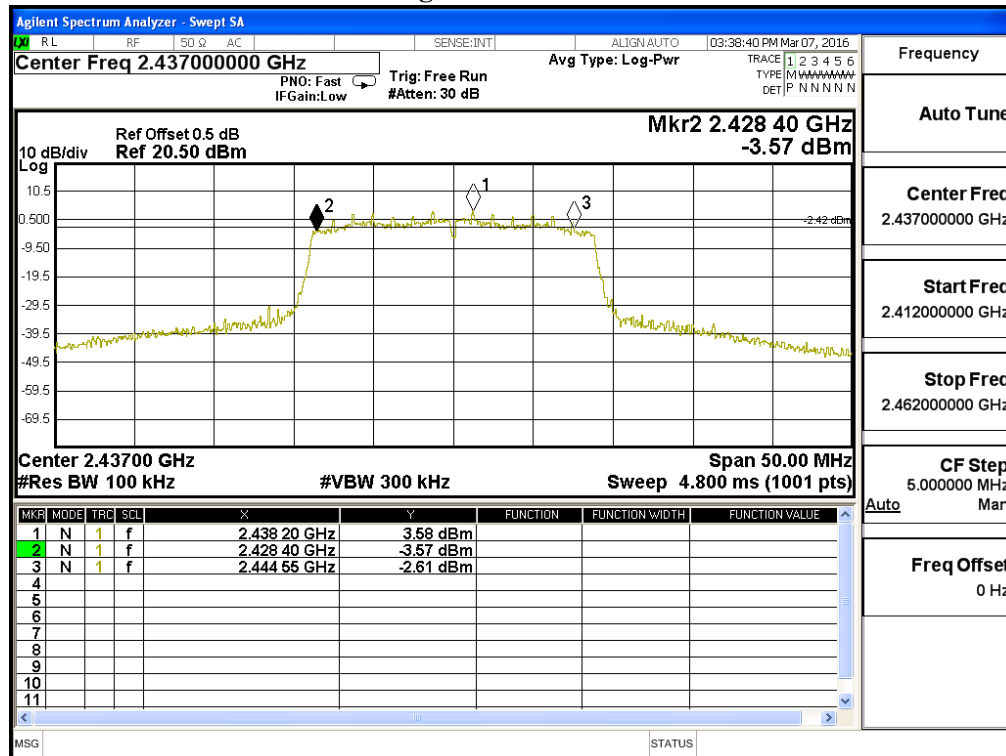
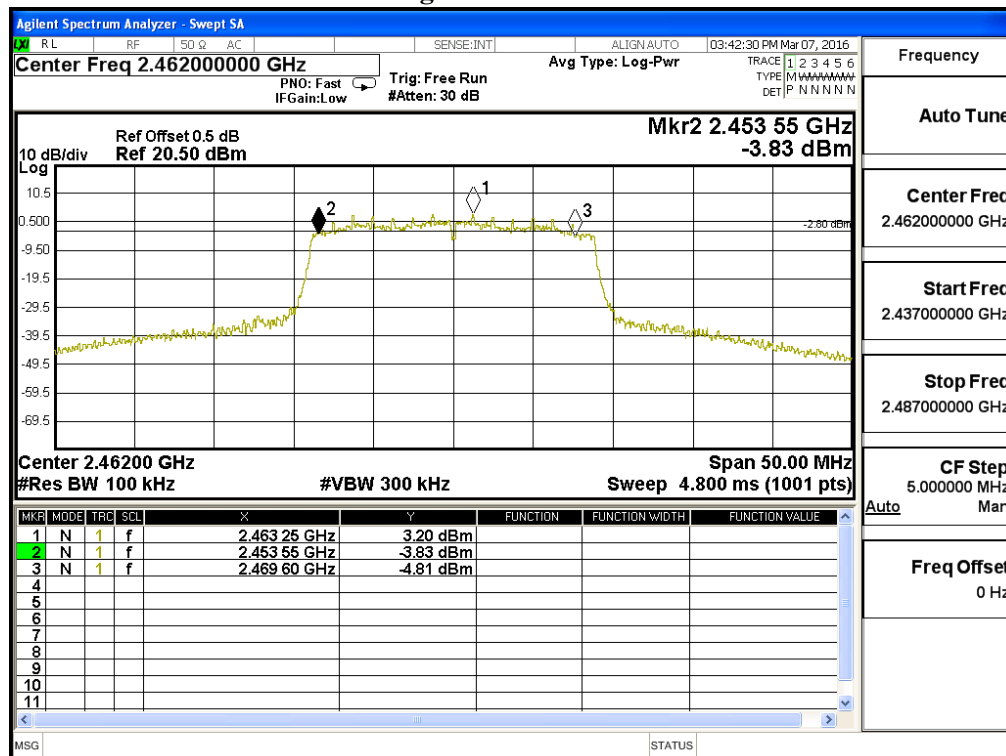


Figure Channel 11:



8. Power Density

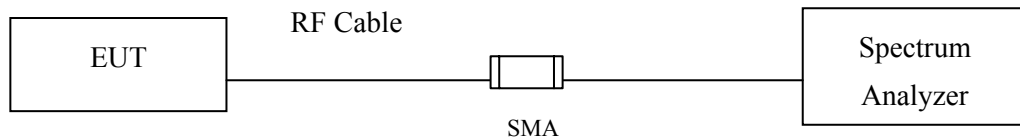
8.1. Test Equipment

	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
	Spectrum Analyzer	R&S	FSP40 / 100170	Jun., 2015
	Spectrum Analyzer	Agilent	E4407B / US39440758	Jun., 2015
X	Spectrum Analyzer	Agilent	N9010A / MY48030495	Apr., 2015

Note:

1. All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.
2. The test instruments marked with "X" are used to measure the final test results.

8.2. Test Setup



8.3. Limits

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

8.4. 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.

8.5. Uncertainty

± 1.27 dB

8.6. Test Result of Power Density

Product : Smart Cloud Camera
Test Item : Power Density Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit (802.11b 1Mbps)

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
01	2412	7.670	< 8dBm	Pass
06	2437	7.930	< 8dBm	Pass
11	2462	7.390	< 8dBm	Pass

Figure Channel 01:

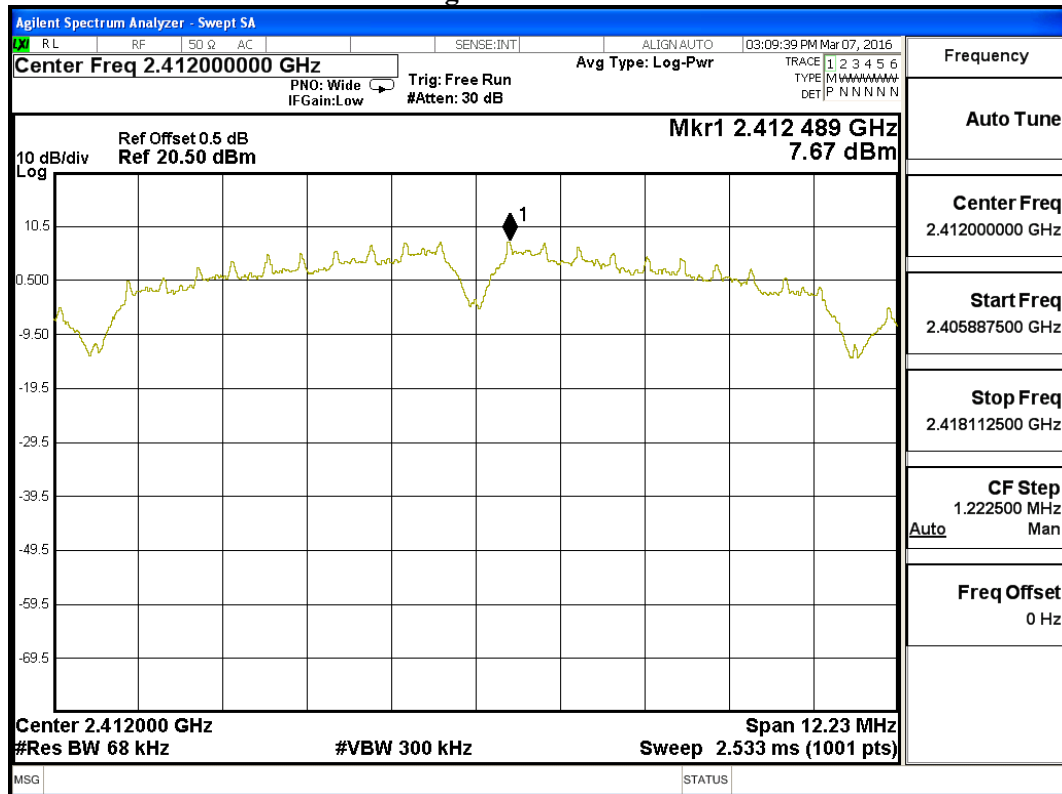


Figure Channel 06:

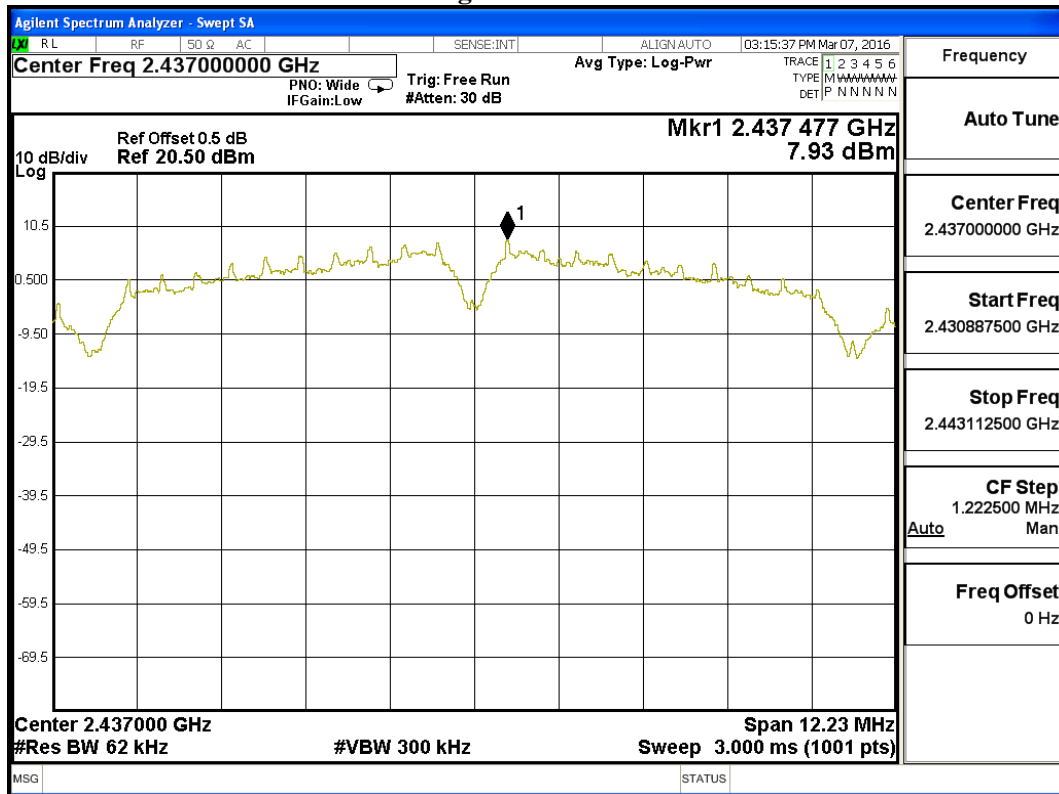
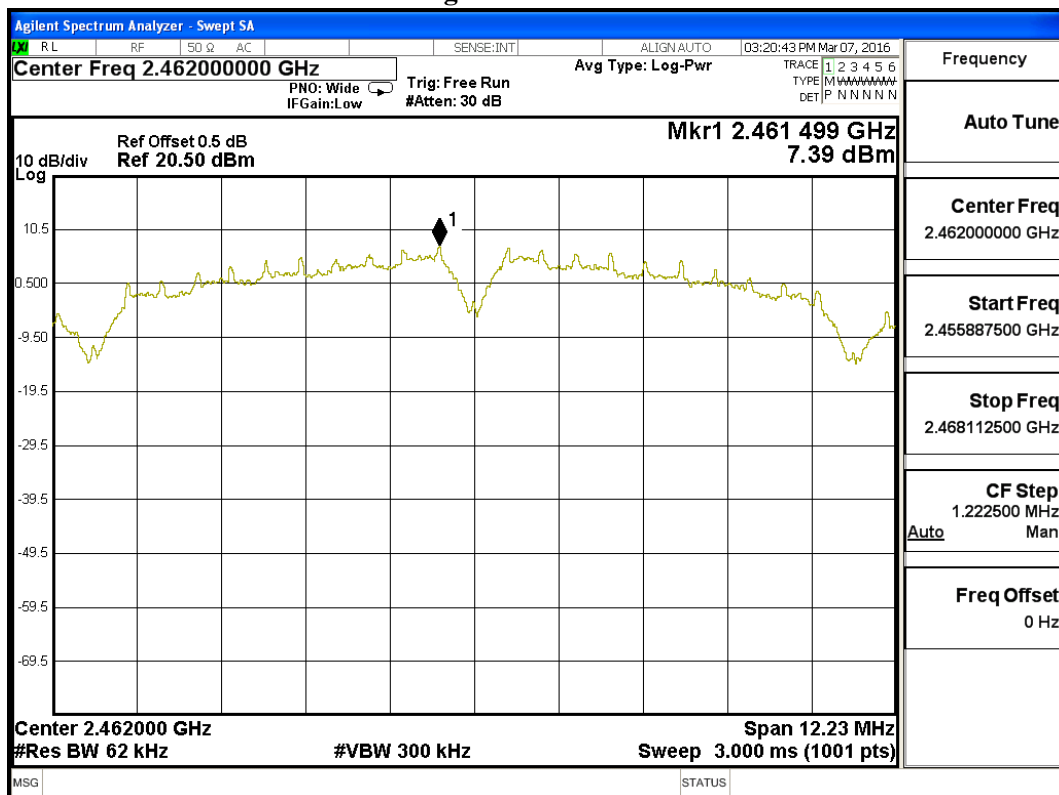


Figure Channel 11:



Product : Smart Cloud Camera
Test Item : Power Density Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11g 6Mbps)

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
01	2412	4.080	< 8dBm	Pass
06	2437	4.020	< 8dBm	Pass
11	2462	4.020	< 8dBm	Pass

Figure Channel 01:

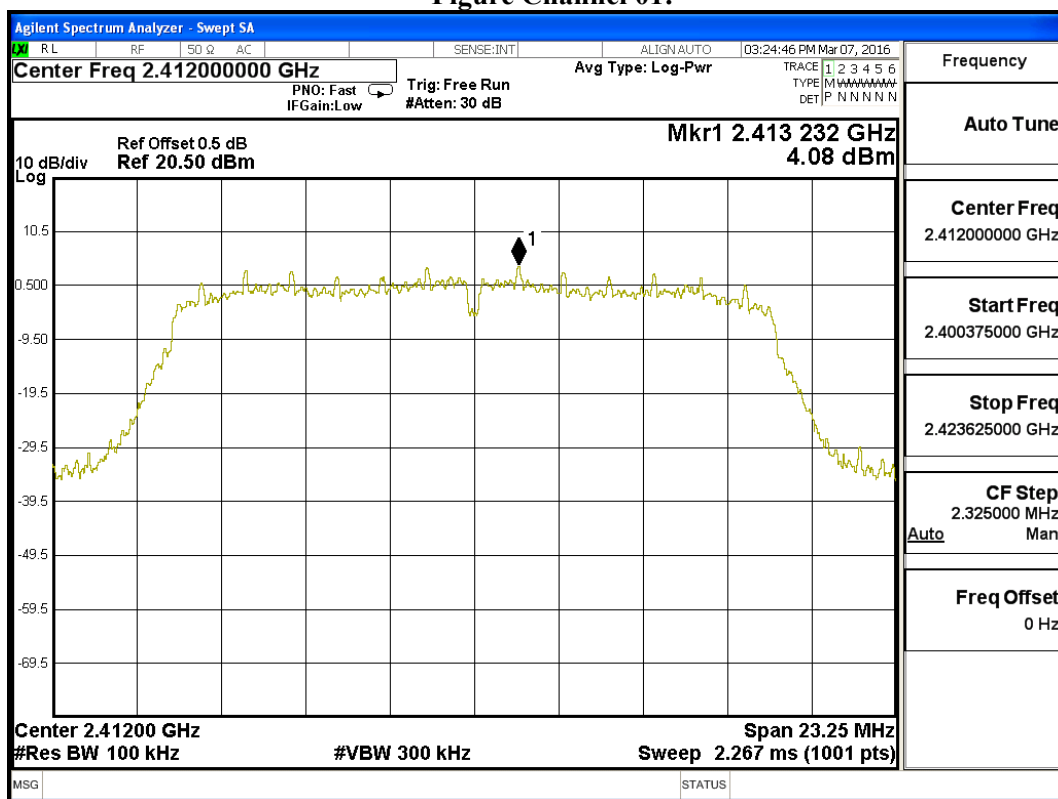


Figure Channel 06:

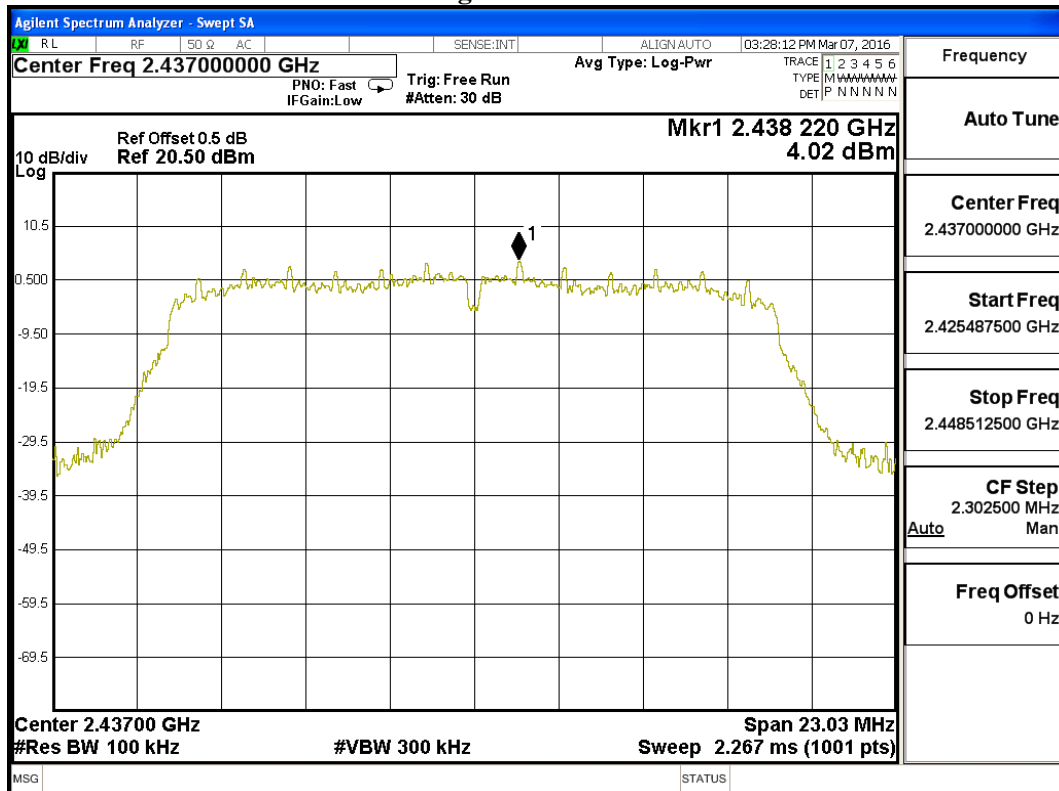
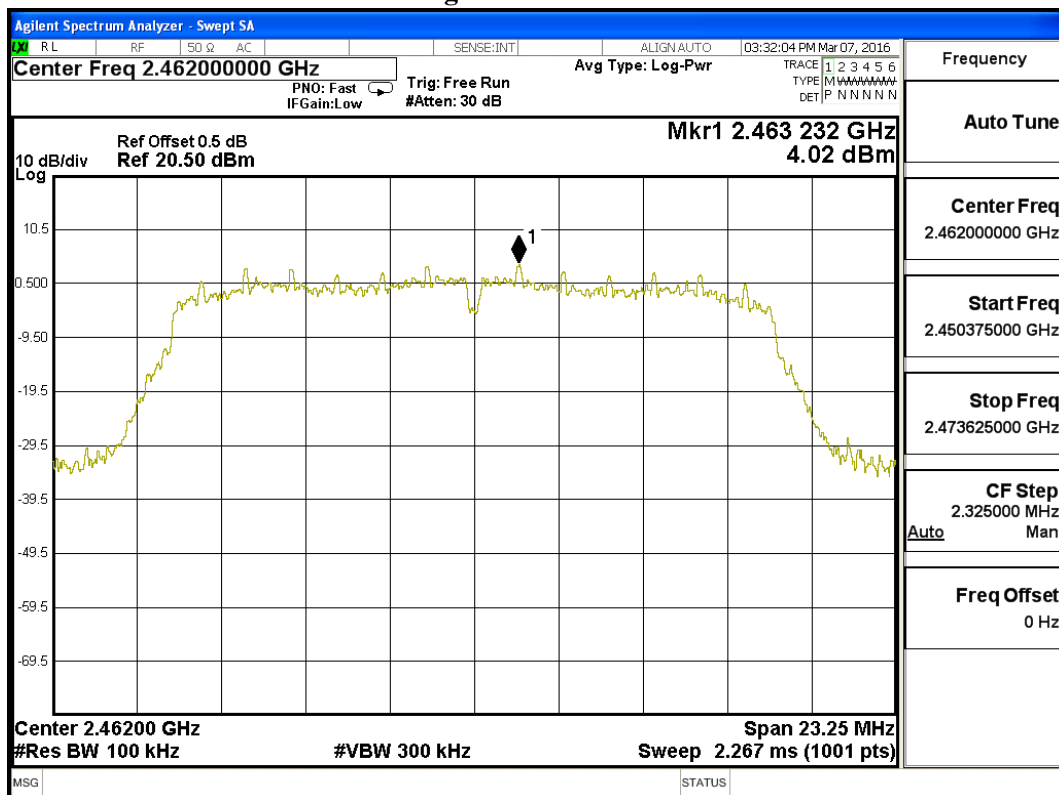


Figure Channel 11:



Product : Smart Cloud Camera
Test Item : Power Density Data
Test Site : No.3 OATS
Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW)

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
01	2412	3.700	< 8dBm	Pass
06	2437	3.550	< 8dBm	Pass
11	2462	2.830	< 8dBm	Pass

Figure Channel 01:

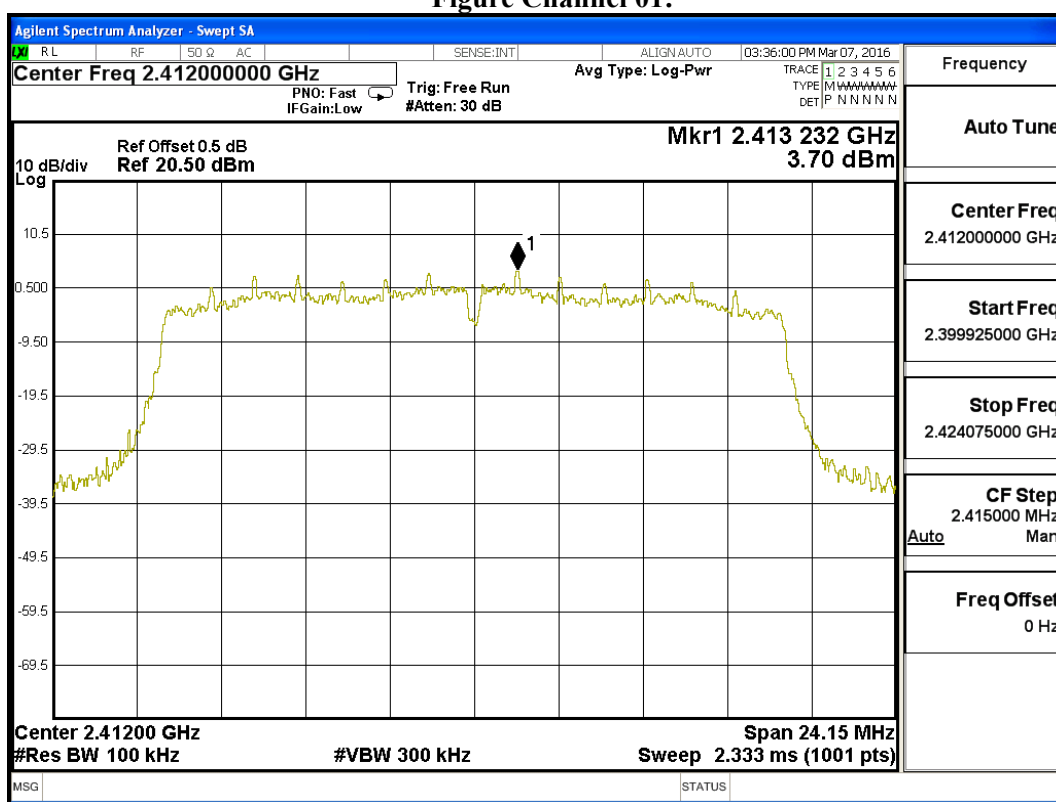


Figure Channel 06:

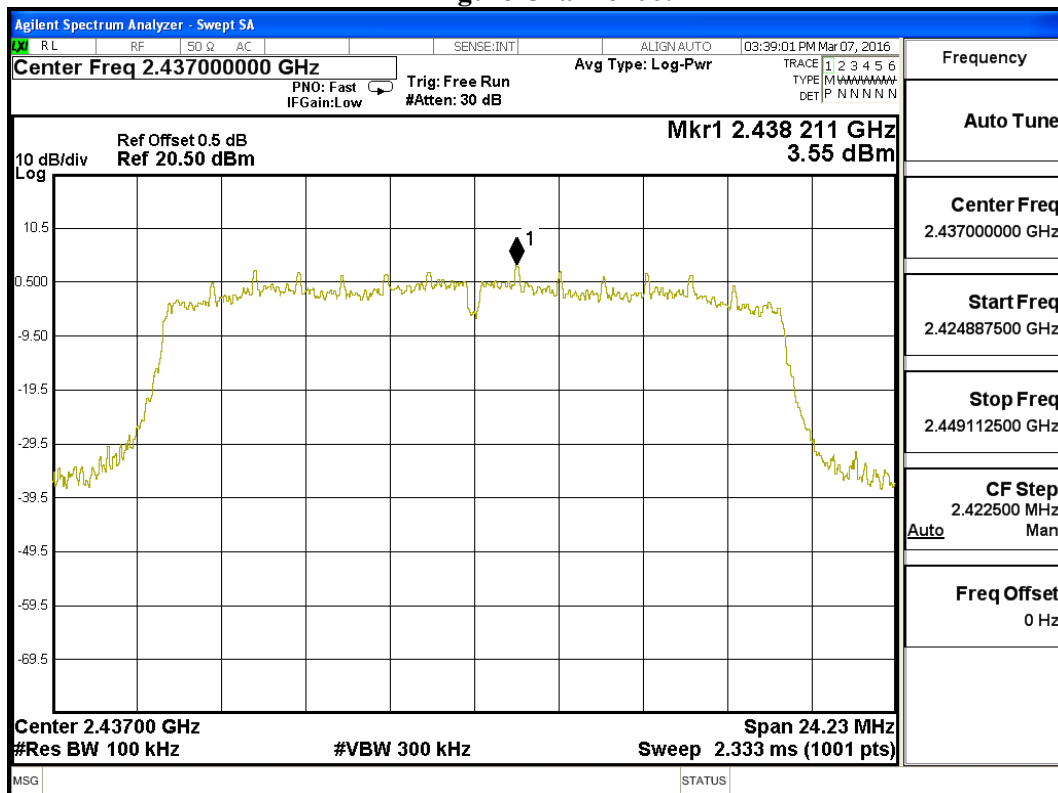
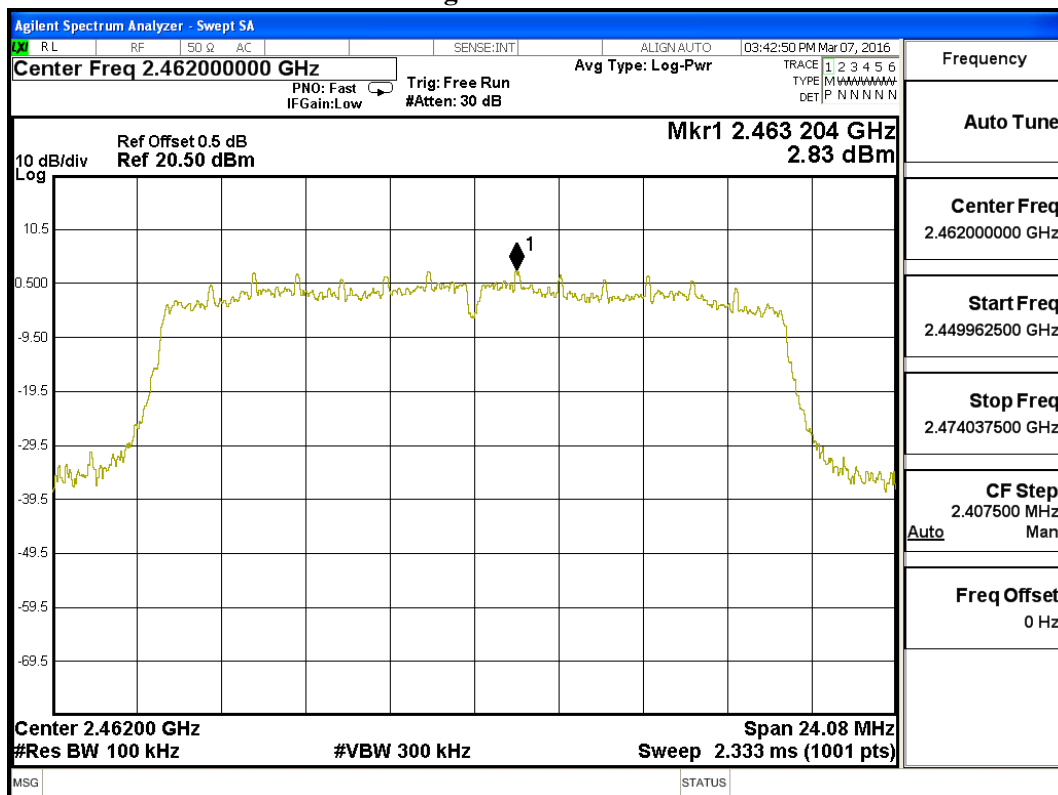


Figure Channel 11:



9. EMI Reduction Method During Compliance Testing

No modification was made during testing.