

FCC Test Report

Product Name	VUZE+ Camera
Model No	HETVZ-P
FCC ID.	2AKDRHETVZ-P

Applicant	Humaneyes Technologies Ltd.
Address	Communication Center, Neve Ilan D.N. Harey Jerusalem , 9085000

Date of Receipt	Sep. 18, 2017
Issue Date	Oct. 18, 2017
Report No.	1790233R-RFUSP73V00-A
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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Test Report

Issue Date: Oct. 18, 2017

Report No.: 1790233R-RFUSP73V00-A



Product Name	VUZE+ Camera
Applicant	Humaneyes Technologies Ltd.
Address	Communication Center, Neve Ilan D.N. Harey Jerusalem , 9085000
Manufacturer	ABILITY ENTERPRISE CO., LTD.
Model No.	HETVZ-P
FCC ID.	2AKDRHETVZ-P
EUT Rated Voltage	AC 100-240V, 50/60Hz or DC 3.8V By Battery
EUT Test Voltage	AC 120V/60Hz
Trade Name	VUZE+
Applicable Standard	FCC CFR Title 47 Part 15 Subpart C: 2016 ANSI C63.4: 2014, ANSI C63.10: 2013 KDB 558074 D01 DTS Meas Guidance v04
Test Result	Complied

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1. GENERAL INFORMATION

1.1. EUT Description

Product Name	VUZE+ Camera
Trade Name	VUZE+
Model No.	HETVZ-P
FCC ID.	2AKDRHETVZ-P
Frequency Range	2412-2462MHz for 802.11b/g/n-20BW
Number of Channels	802.11b/g/n-20MHz: 11, n-40MHz: 7
Data Speed	802.11b: 1-11Mbps, 802.11g: 6-54Mbps, 802.11n: 6.5-65Mbps
Type of Modulation	802.11b:DSSS (DBPSK, DQPSK, CCK) 802.11g/n:OFDM (BPSK, QPSK, 16QAM, 64QAM)
Antenna Type	PIFA Antenna
Antenna Gain	Refer to the table “Antenna List”
Channel Control	Auto
USB Cable	Shielded, 0.8m
Power Adapter	MFR: U, M/N: KSA29B0500200D5 Input: AC 100-240V, 50/60Hz, 0.5A Output: DC 5V, 2A
Contain Module	Broadcom / BCM43340

Antenna List

No.	Manufacturer	Part No.	Antenna Type	Peak Gain
1	LYNwane	HE2011W	PIFA Antenna	-7.71 dBi for 2.4 GHz

Note:

1. The antenna of EUT conforms to FCC 15.203.

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

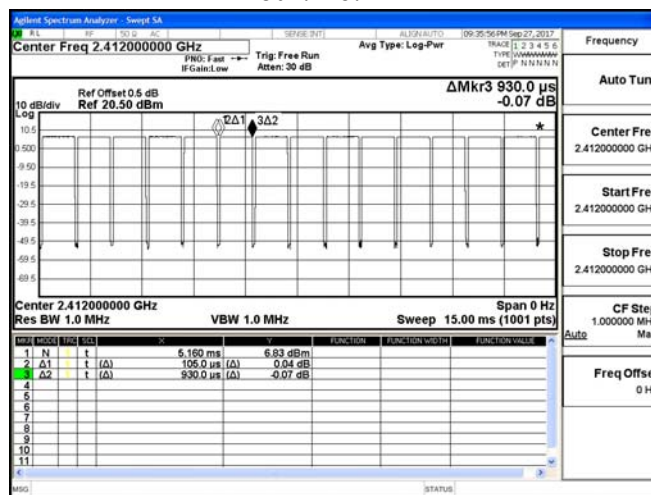
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
Channel 01:	2412 MHz	Channel 02:	2417 MHz	Channel 03:	2422 MHz	Channel 04:	2427 MHz
Channel 05:	2432 MHz	Channel 06:	2437 MHz	Channel 07:	2442 MHz	Channel 08:	2447 MHz
Channel 09:	2452 MHz	Channel 10:	2457 MHz	Channel 11:	2462 MHz		

Duty Cycle:

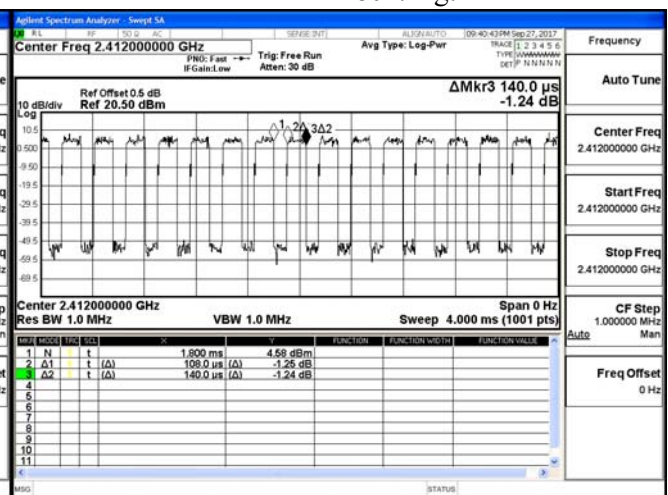
802.11b	0.899
802.11g	0.565
802.11n-20	0.578

*Duty cycle = Ton / (Ton + Toff)

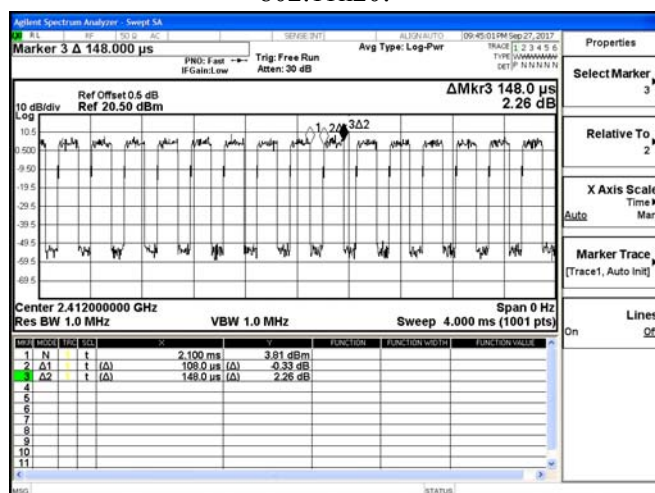
802.11b:



802.11g:



802.11n20:



Note:

1. The EUT is a VUZE+ Camera with a built-in WLAN and Bluetooth transceiver, this report for WLAN.
2. Regarding to the operation frequency, the lowest, middle and highest frequency are selected to perform the test.
3. At result of pretests, module supports dual-channel transmission, only the worst case is shown in the report.
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 6.5Mbps.
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.
6. The radiation measurements are performed in X, Y, Z axis positioning. Only the worst case is shown in the report.

Test Mode:	Mode 1: Transmit (802.11b 1Mbps)
	Mode 2: Transmit (802.11g 6Mbps)
	Mode 3: Transmit (802.11n MCS0 6.5Mbps 20M-BW)

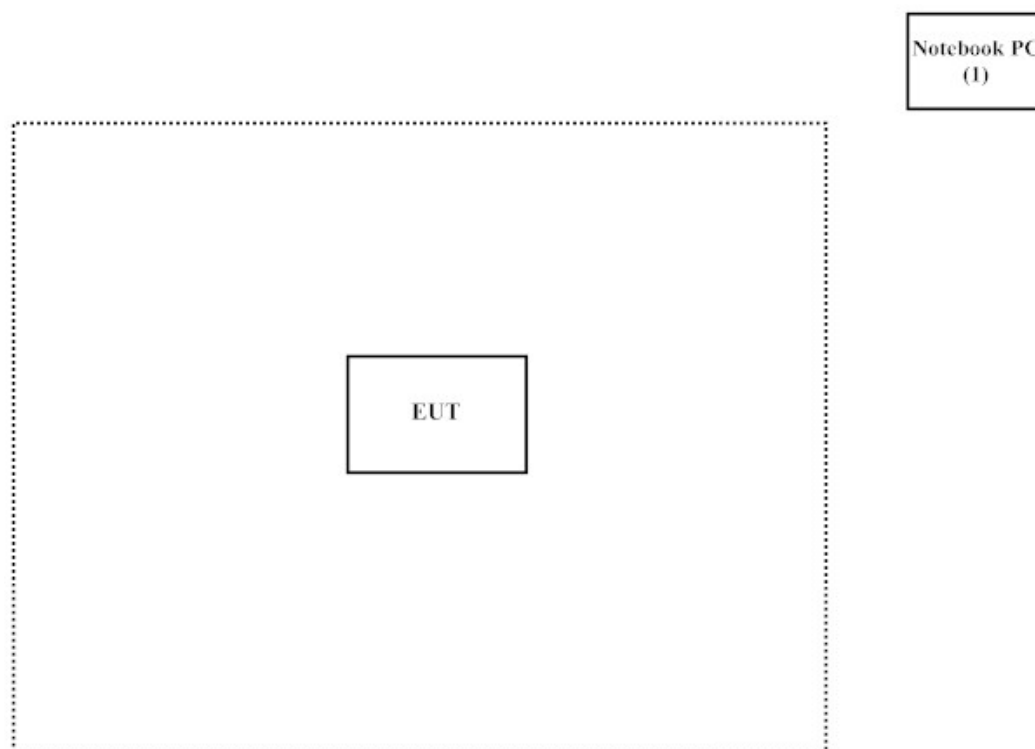
1.3. Tested System Details

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	Latitude E5440	B6TYTZ1	Non-Shielded, 0.8m

Signal Cable Type	Signal cable Description
N/A	

1.4. Configuration of Tested System



1.5. EUT Exercise Software

1. Setup the EUT as shown in Section 1.4.
2. Execute software "Hevu Mobile Emulator" on the Notebook PC.
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 DEKRA Testing and Certification Co., Ltd. Web Site:

<http://www.dekra.com.tw/english/about/certificates.aspx?bval=5>

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E-Mail : info.tw@dekra.com

FCC Accreditation Number: TW3023

1.7. List of Test Equipment

For Conducted measurements /CB3/SR8

	Equipment	Manufacturer	Model No.	Serial No.	Cali. Date	Due. Date
	Temperature Chamber	WIT GROUP	TH-1S-B	EQ-201-00146	2016/11/28	2017/11/27
X	Spectrum Analyzer	Agilent	N9010A	MY48030495	2017/7/22	2018/7/21
X	Power Meter	Anritsu	ML2495A	6K00003357	2017/6/23	2018/6/22
X	Pulse power sensor	Anritsu	MA2411B	0846193	2017/6/23	2018/6/22
X	EMI Test Receiver	R&S	ESCS 30	100369	2017/10/13	2018/10/12
X	LISN	R&S	ESH3-Z5	836679/017	2017/1/18	2018/1/17
X	LISN	R&S	ENV216	100097	2017/1/18	2018/1/17
X	Coaxial Cable	QTK(Arnist)	RG 400	LC018-RG	2017/6/25	2018/6/24

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 Conduction Test System V8.0.110

For Radiated measurements /Site3/CB8

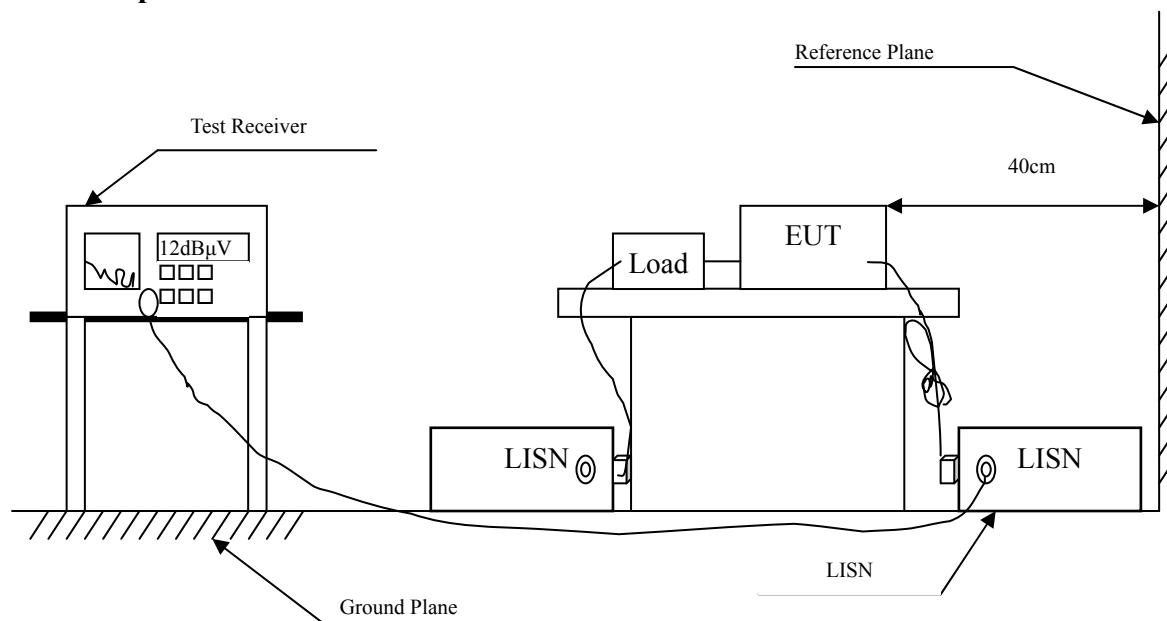
	Equipment	Manufacturer	Model No.	Serial No.	Cali. Date	Due. Date
X	Spectrum Analyzer	R&S	FSP40	100170	2017/1/18	2018/1/17
X	Loop Antenna	Teseq	HLA6121	37133	2017/3/18	2018/3/17
X	Bi-Log Antenna	Schaffner Chase	CBL6112B	2707	2017/6/11	2018/6/10
X	Horn Antenna	ETS-Lindgren	3117	00135205	2017/4/6	2018/4/5
X	Horn Antenna	Schwarzbeck	BBHA9170	9170430	2017/4/14	2018/4/13
X	Pre-Amplifier	QTK	AP/0100A	CHM/0901069	2017/6/23	2018/6/22
X	Pre-Amplifier	EMCI	EMC012630SE	980210	2017/1/26	2018/1/24
X	Pre-Amplifier	NARDA WE	DBL-1840N506	013	2017/9/30	2018/9/29
X	Filter	MicroTRON	BRM50701	019	2016/11/2	2017/11/1
X	Filter	Microwave Circuits	N0257881	36681	2017/1/3	2018/1/2
X	EMI Test Receiver	R&S	ESR26	101385	2017/9/29	2018/9/28
X	Coaxial Cable	QTK(Arnist)	SUCOFLEX 106	L1606-015C	2017/6/23	2018/6/22
X	EMI Test Receiver	R&S	ESCS 30	838251/001	2017/7/21	2018/7/20
X	Coaxial Cable	QTK(Arnist)	RG 214	LC003-RG	2017/6/16	2018/6/15
X	Coaxial signal switch	Anritsu	MP59B	6201415889	2017/6/16	2018/6/15

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 investigated over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9kHz.

2.4. Uncertainty

± 2.26 dB

2.5. Test Result of Conducted Emission

Product : VUZE+ Camera
 Test Item : Conducted Emission Test
 Power Line : Line 1
 Test Date : 2017/10/11
 Test Mode : Mode 3: Transmit (802.11n MCS0 6.5Mbps 20M-BW)(2437MHz)

Frequency MHz	Correct Factor dB	Reading Level dB μ V	Measurement Level dB μ V	Margin dB	Limit dB μ V
Line 1					
Quasi-Peak					
0.166	9.683	35.350	45.033	-20.510	65.543
0.619	9.689	25.770	35.459	-20.541	56.000
1.384	9.714	24.930	34.644	-21.356	56.000
2.646	9.754	23.720	33.474	-22.526	56.000
4.162	9.778	21.420	31.198	-24.802	56.000
16.795	9.969	19.290	29.259	-30.741	60.000
Average					
0.166	9.683	22.540	32.223	-23.320	55.543
0.619	9.689	19.750	29.439	-16.561	46.000
1.384	9.714	14.770	24.484	-21.516	46.000
2.646	9.754	14.430	24.184	-21.816	46.000
4.162	9.778	12.640	22.418	-23.582	46.000
16.795	9.969	13.450	23.419	-26.581	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 : VUZE+ Camera
 Test Item : Conducted Emission Test
 Power Line : Line 2
 Test Date : 2017/10/11
 Test Mode : Mode 3: Transmit (802.11n MCS0 6.5Mbps 20M-BW)(2437MHz)

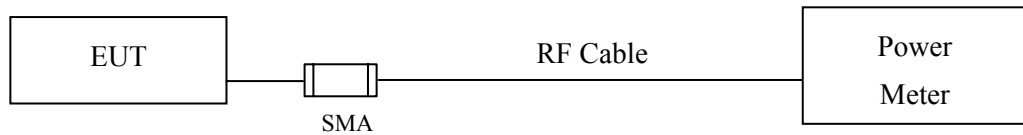
Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dB μ V	dB μ V	dB	dB μ V
Line 2					
Quasi-Peak					
0.158	9.665	32.840	42.505	-23.266	65.771
0.283	9.659	21.000	30.659	-31.541	62.200
0.986	9.691	20.620	30.311	-25.689	56.000
2.373	9.731	19.620	29.351	-26.649	56.000
4.334	9.769	16.120	25.889	-30.111	56.000
19.416	10.123	17.020	27.143	-32.857	60.000
Average					
0.158	9.665	19.360	29.025	-26.746	55.771
0.283	9.659	11.460	21.119	-31.081	52.200
0.986	9.691	14.050	23.741	-22.259	46.000
2.373	9.731	12.810	22.541	-23.459	46.000
4.334	9.769	9.140	18.909	-27.091	46.000
19.416	10.123	10.400	20.523	-29.477	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 Setup



3.2. Limits

The maximum peak power shall be less 1 Watt.

3.3. Test Procedure

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 section 9.1.3 PKPM1 Peak power meter method.

3.4. Uncertainty

± 1.19 dB

3.5. Test Result of Peak Power Output

Product : VUZE+ Camera
 Test Item : Peak Power Output Data
 Test Site : No.3 OATS
 Test Date : 2017/09/28
 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	12.8				16.48	<30dBm	Pass
06	2437	12.79	12.68	12.59	12.47	16.49	<30dBm	Pass
11	2462	12.83				16.51	<30dBm	Pass

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

Product : VUZE+ Camera
 Test Item : Peak Power Output Data
 Test Site : No.3 OATS
 Test Date : 2017/09/28
 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	11.32								23.01	<30dBm	Pass
06	2437	11.25	11.12	11.01	10.94	10.88	10.72	10.68	10.51	23.21	<30dBm	Pass
11	2462	11.21								23.06	<30dBm	Pass

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

Product : VUZE+ Camera
 Test Item : Peak Power Output Data
 Test Site : No.3 OATS
 Test Date : 2017/09/28
 Test Mode : Mode 3: Transmit (802.11n MCS0 6.5Mbps 20M-BW)

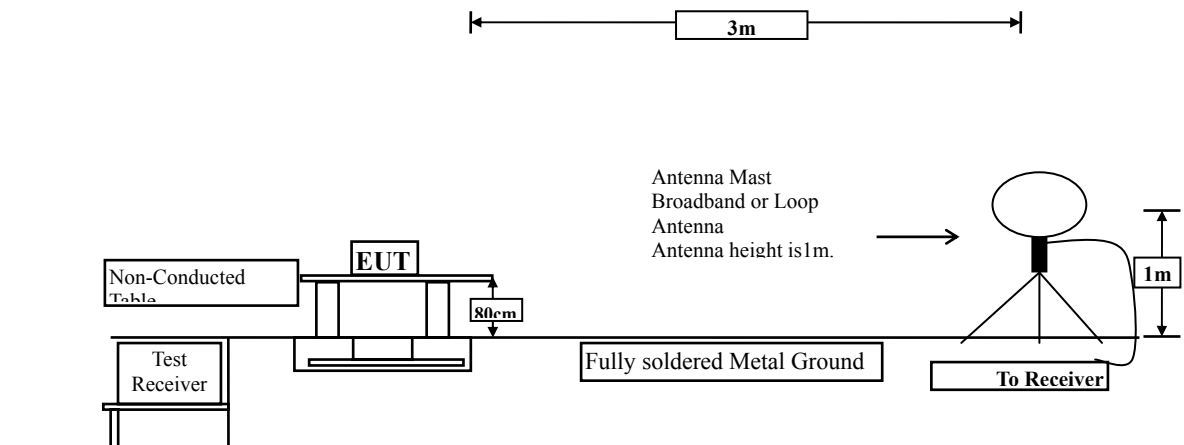
Channel No	Frequency (MHz)	Average Power For different Data Rate (Mbps)								Peak Power	Required Limit	Result
		6.5	13	19.5	26	39	52	58.5	65			
		Measurement Level (dBm)										
01	2412	11.25								23.23	<30dBm	Pass
06	2437	11.22	11.17	11.06	10.94	10.85	10.79	10.69	10.52	23.06	<30dBm	Pass
11	2462	11.09								22.93	<30dBm	Pass

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

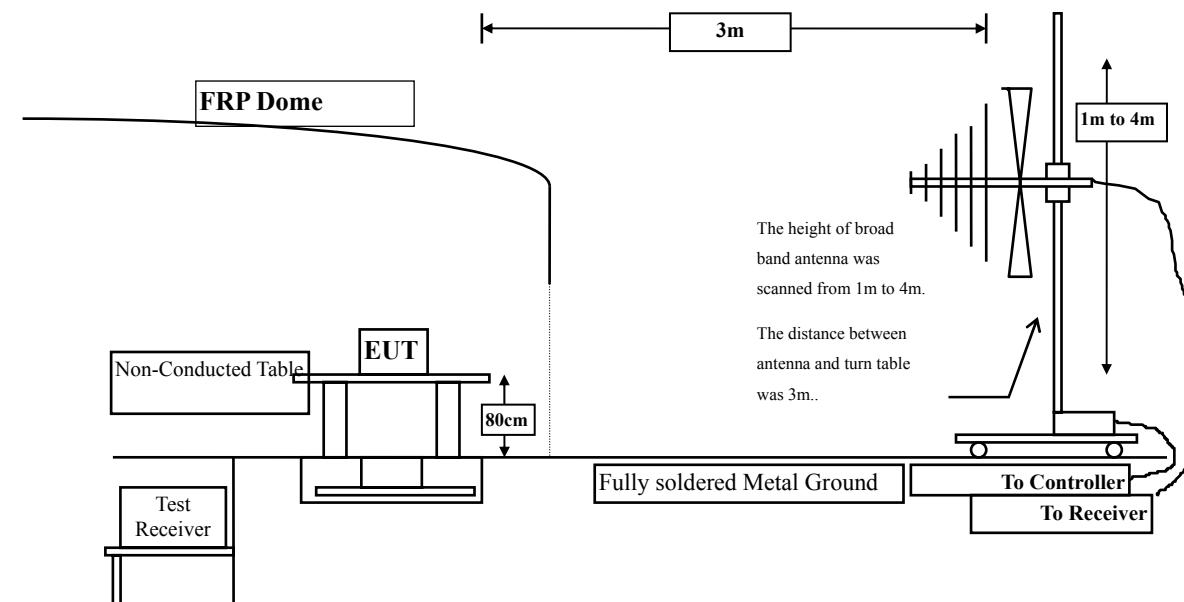
4. Radiated Emission

4.1. Test Setup

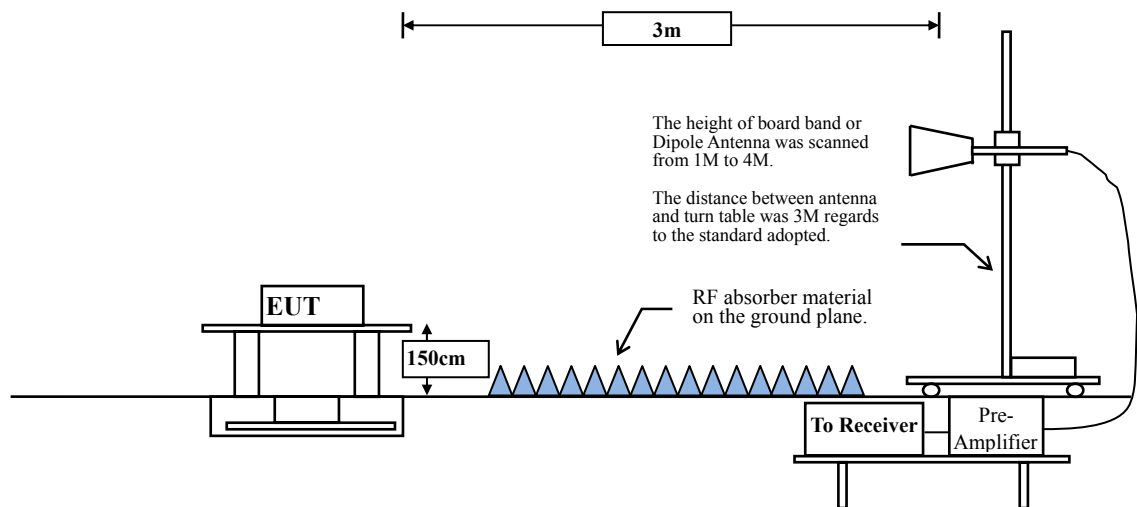
Radiated Emission Under 30MHz



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 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.

The average measurement tested according to KDB 558074 section 12.2.5.3. Reduced VBW averaging across on- and off-times of the EUT transmissions with max hold.

$VBW \geq 1/T$:

Mode	Duty Cycle	T	1/T	VBW Setting
802.11b	0.899	0.93 ms	1075 Hz	1 KHz
802.11g	0.565	0.14 ms	7143 Hz	10 KHz
802.11n20	0.578	0.148 ms	6757 Hz	10 KHz

4.4. Uncertainty

± 4.08 dB above 1GHz

± 4.22 dB below 1GHz

4.5. Test Result of Radiated Emission

Product : VUZE+ Camera
 Test Item : Harmonic Radiated Emission Data
 Test Site : No.3 OATS
 Test Date : 2017/10/11
 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	-9.979	53.531	43.552	-30.448	74.000
7236.000	-4.641	53.272	48.632	-25.368	74.000
9648.000	-1.835	51.061	49.225	-24.775	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
4824.000	-6.819	50.069	43.251	-30.749	74.000
7236.000	-3.796	51.310	47.514	-26.486	74.000
9648.000	-1.365	49.889	48.524	-25.476	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 = 1 KHz, 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 : VUZE+ Camera
 Test Item : Harmonic Radiated Emission Data
 Test Site : No.3 OATS
 Test Date : 2017/10/11
 Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2437 MHz)

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector:					
4874.000	-10.271	52.486	42.214	-31.786	74.000
7311.000	-3.853	51.485	47.631	-26.369	74.000
9748.000	-2.526	50.145	47.619	-26.381	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
4874.000	-7.497	48.761	41.263	-32.737	74.000
7311.000	-3.018	50.560	47.541	-26.459	74.000
9748.000	-2.035	49.949	47.914	-26.086	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 = 1 KHz, 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 : VUZE+ Camera
 Test Item : Harmonic Radiated Emission Data
 Test Site : No.3 OATS
 Test Date : 2017/10/11
 Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2462 MHz)

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:					
4924.000	-10.519	52.636	42.116	-31.884	74.000
7386.000	-3.876	51.523	47.647	-26.353	74.000
9848.000	-2.581	49.740	47.159	-26.841	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
4924.000	-7.856	49.875	42.018	-31.982	74.000
7386.000	-2.749	51.693	48.944	-25.056	74.000
9848.000	-2.066	49.759	47.693	-26.307	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 = 1 KHz, 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 : VUZE+ Camera
 Test Item : Harmonic Radiated Emission Data
 Test Site : No.3 OATS
 Test Date : 2017/10/11
 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	-9.979	52.108	42.129	-31.871	74.000
7236.000	-4.641	51.976	47.336	-26.664	74.000
9648.000	-1.835	49.250	47.414	-26.586	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
4824.000	-6.819	49.326	42.508	-31.492	74.000
7236.000	-3.796	51.493	47.697	-26.303	74.000
9648.000	-1.365	50.329	48.964	-25.036	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 KHz, 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 : VUZE+ Camera
 Test Item : Harmonic Radiated Emission Data
 Test Site : No.3 OATS
 Test Date : 2017/10/11
 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					
Peak Detector:					
4874.000	-10.271	51.916	41.644	-32.356	74.000
7311.000	-3.853	50.491	46.637	-27.363	74.000
9748.000	-2.526	49.581	47.055	-26.945	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
4874.000	-7.497	49.508	42.010	-31.990	74.000
7311.000	-3.018	49.983	46.964	-27.036	74.000
9748.000	-2.035	50.031	47.996	-26.004	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 KHz, 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 : VUZE+ Camera
 Test Item : Harmonic Radiated Emission Data
 Test Site : No.3 OATS
 Test Date : 2017/10/11
 Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2462 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:					
4924.000	-10.519	51.703	41.183	-32.817	74.000
7386.000	-3.876	50.205	46.329	-27.671	74.000
9848.000	-2.581	49.814	47.233	-26.767	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
4924.000	-7.856	49.955	42.098	-31.902	74.000
7386.000	-2.749	49.748	46.999	-27.001	74.000
9848.000	-2.066	49.587	47.521	-26.479	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 KHz, 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 : VUZE+ Camera
 Test Item : Harmonic Radiated Emission Data
 Test Site : No.3 OATS
 Test Date : 2017/10/11
 Test Mode : Mode 3: Transmit (802.11n MCS0 6.5Mbps 20M-BW)(2412MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dB μ V	dB μ V/m	dB	dB μ V/m
Horizontal					
Peak Detector:					
4824.000	-9.979	52.093	42.114	-31.886	74.000
7236.000	-4.641	51.271	46.631	-27.369	74.000
9648.000	-1.835	48.880	47.044	-26.956	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
4824.000	-6.819	48.459	41.641	-32.359	74.000
7236.000	-3.796	50.644	46.848	-27.152	74.000
9648.000	-1.365	48.886	47.521	-26.479	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 KHz, 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 : VUZE+ Camera
 Test Item : Harmonic Radiated Emission Data
 Test Site : No.3 OATS
 Test Date : 2017/10/11
 Test Mode : Mode 3: Transmit (802.11n MCS0 6.5Mbps 20M-BW) (2437 MHz)

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector:					
4874.000	-10.271	52.586	42.314	-31.686	74.000
7311.000	-3.853	50.489	46.635	-27.365	74.000
9748.000	-2.526	49.518	46.992	-27.008	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
4874.000	-7.497	48.850	41.352	-32.648	74.000
7311.000	-3.018	51.260	48.241	-25.759	74.000
9748.000	-2.035	49.619	47.584	-26.416	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 KHz, 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 : VUZE+ Camera
 Test Item : Harmonic Radiated Emission Data
 Test Site : No.3 OATS
 Test Date : 2017/10/11
 Test Mode : Mode 3: Transmit (802.11n MCS0 6.5Mbps 20M-BW) (2462 MHz)

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:					
4924.000	-10.519	52.661	42.141	-31.859	74.000
7386.000	-3.876	51.030	47.154	-26.846	74.000
9848.000	-2.581	50.244	47.663	-26.337	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
4924.000	-7.856	50.604	42.747	-31.253	74.000
7386.000	-2.749	50.573	47.824	-26.176	74.000
9848.000	-2.066	51.120	49.054	-24.946	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 KHz, 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 : VUZE+ Camera
 Test Item : General Radiated Emission Data
 Test Site : No.3 OATS
 Test Date : 2017/10/11
 Test Mode : Mode 1: Transmit (802.11b 1Mbps)(2437 MHz)

Frequency MHz	Correct Factor dB	Reading Level dB μ V	Measurement Level dB μ V/m	Margin dB	Limit dB μ V/m
Horizontal					
194.478	-20.239	50.981	30.742	-12.758	43.500
318.188	-13.774	47.470	33.696	-12.304	46.000
437.681	-11.596	44.560	32.965	-13.035	46.000
588.101	-6.359	38.446	32.087	-13.913	46.000
761.014	-5.740	39.832	34.092	-11.908	46.000
918.464	-3.622	39.004	35.382	-10.618	46.000
Vertical					
111.536	-10.330	38.711	28.381	-15.119	43.500
301.319	-16.261	45.102	28.841	-17.159	46.000
384.261	-12.121	42.258	30.137	-15.863	46.000
531.870	-10.336	42.191	31.855	-14.145	46.000
680.884	-8.745	36.259	27.515	-18.485	46.000
794.754	-7.297	36.858	29.561	-16.439	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 = 1 KHz, 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 : VUZE+ Camera
 Test Item : General Radiated Emission Data
 Test Site : No.3 OATS
 Test Date : 2017/10/11
 Test Mode : Mode 2: Transmit (802.11g 6Mbps)(2437 MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dB μ V	dB μ V/m	dB	dB μ V/m
Horizontal					
169.174	-19.932	52.671	32.739	-10.761	43.500
305.536	-12.419	44.708	32.290	-13.710	46.000
384.261	-10.823	43.021	32.198	-13.802	46.000
555.768	-7.545	40.964	33.419	-12.581	46.000
655.580	-7.812	40.989	33.177	-12.823	46.000
828.493	-3.806	37.831	34.025	-11.975	46.000
Vertical					
152.304	-15.565	47.403	31.838	-11.662	43.500
392.696	-13.075	44.421	31.345	-14.655	46.000
499.536	-10.579	44.201	33.622	-12.378	46.000
676.667	-9.792	42.717	32.926	-13.074	46.000
784.913	-7.133	41.704	34.571	-11.429	46.000
880.507	-7.584	38.843	31.259	-14.741	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 KHz, 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 : VUZE+ Camera
 Test Item : General Radiated Emission Data
 Test Site : No.3 OATS
 Test Date : 2017/10/11
 Test Mode : Mode 3: Transmit (802.11n MCS0 6.5Mbps 20M-BW)(2437 MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dB μ V	dB μ V/m	dB	dB μ V/m
Horizontal					
169.174	-19.932	50.771	30.839	-12.661	43.500
257.739	-14.475	45.919	31.444	-14.556	46.000
304.130	-12.477	46.611	34.134	-11.866	46.000
408.159	-12.420	47.089	34.669	-11.331	46.000
669.638	-7.969	42.719	34.750	-11.250	46.000
772.261	-5.904	39.470	33.566	-12.434	46.000
Vertical					
198.696	-17.564	49.754	32.189	-11.311	43.500
346.304	-12.609	46.878	34.270	-11.730	46.000
499.536	-10.579	43.701	33.122	-12.878	46.000
609.188	-11.459	41.999	30.540	-15.460	46.000
727.275	-10.227	42.708	32.480	-13.520	46.000
918.464	-5.964	40.177	34.212	-11.788	46.000

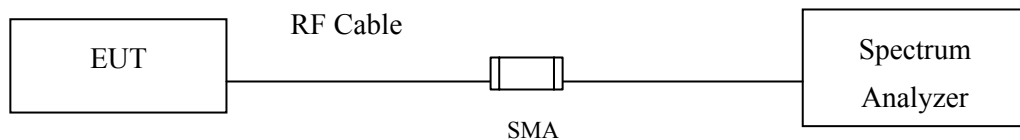
Note:

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 KHz, 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

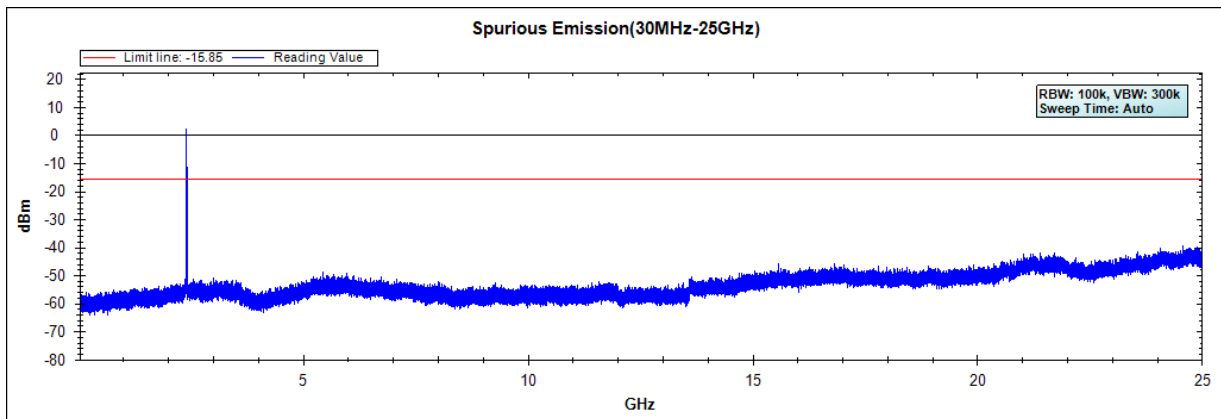
The measurement uncertainty

Conducted is defined as $\pm 1.20\text{dB}$

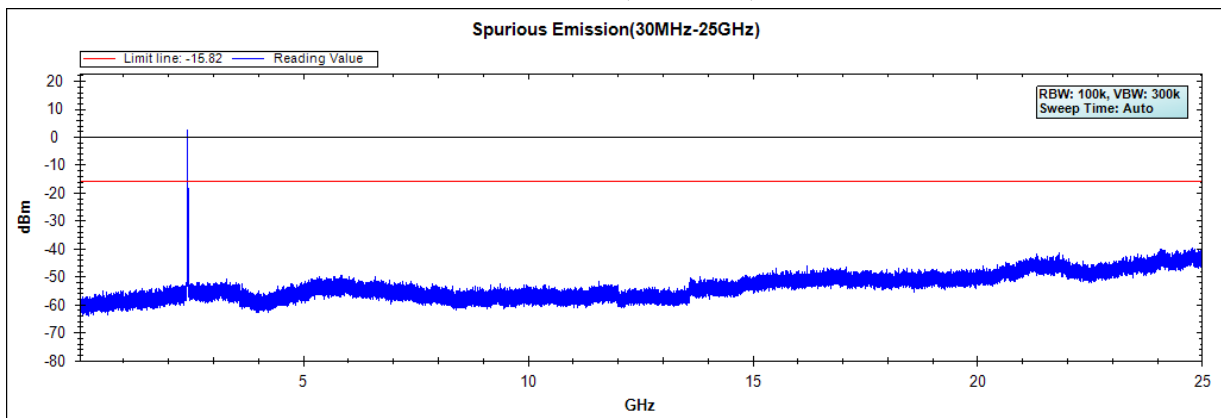
5.5. Test Result of RF antenna conducted test

Product : VUZE+ Camera
Test Item : RF antenna conducted test
Test Site : No.3 OATS
Test Date : 2017/10/11
Test Mode : Mode 1: Transmit (802.11b 1Mbps)

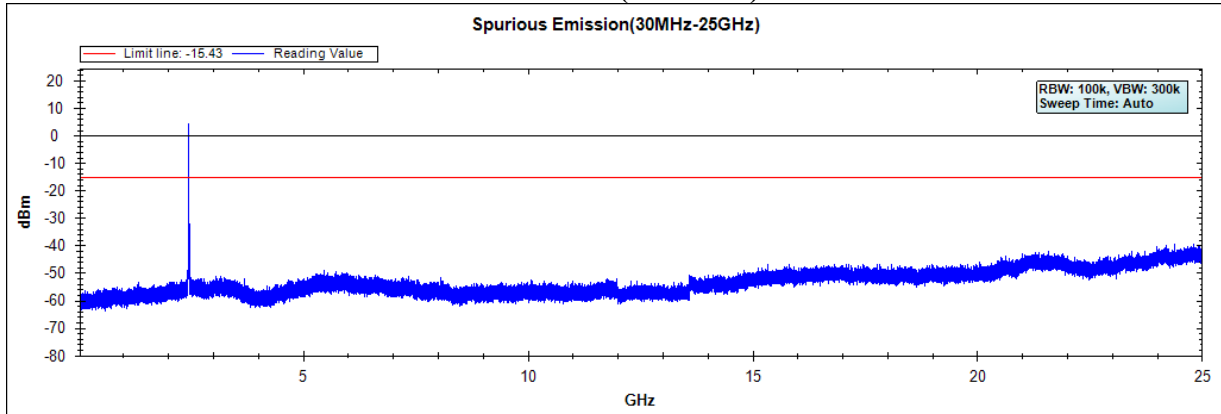
Channel 01 (2412MHz)



Channel 06 (2437MHz)



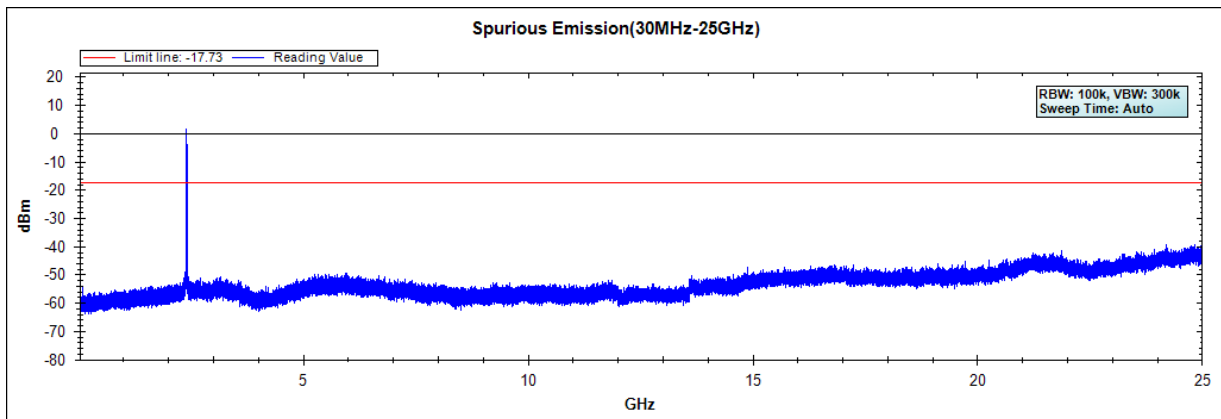
Channel 11 (2462MHz)



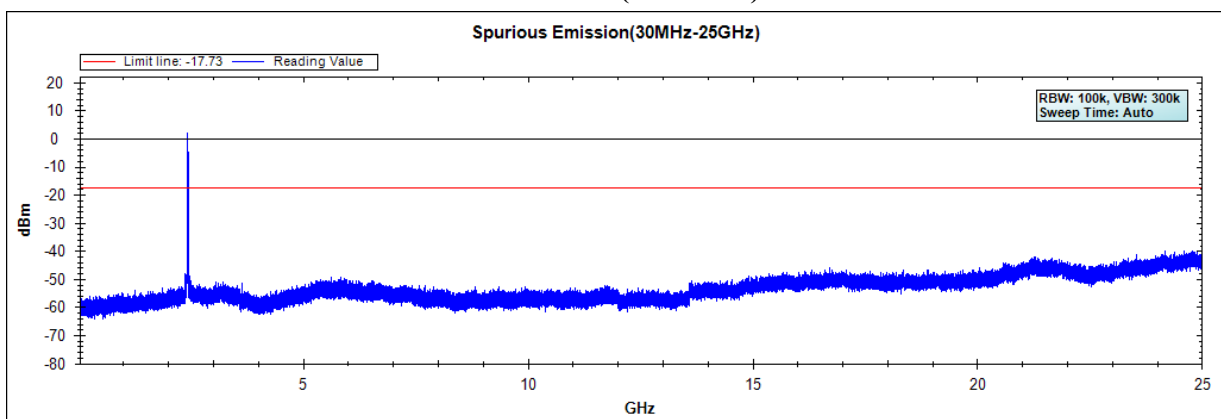
Note: The above test pattern is synthesized by multiple of the frequency range.

Product : VUZE+ Camera
Test Item : RF Antenna Conducted Spurious
Test Site : No.3 OATS
Test Date : 2017/10/11
Test Mode : Mode 2: Transmit (802.11g 6Mbps)

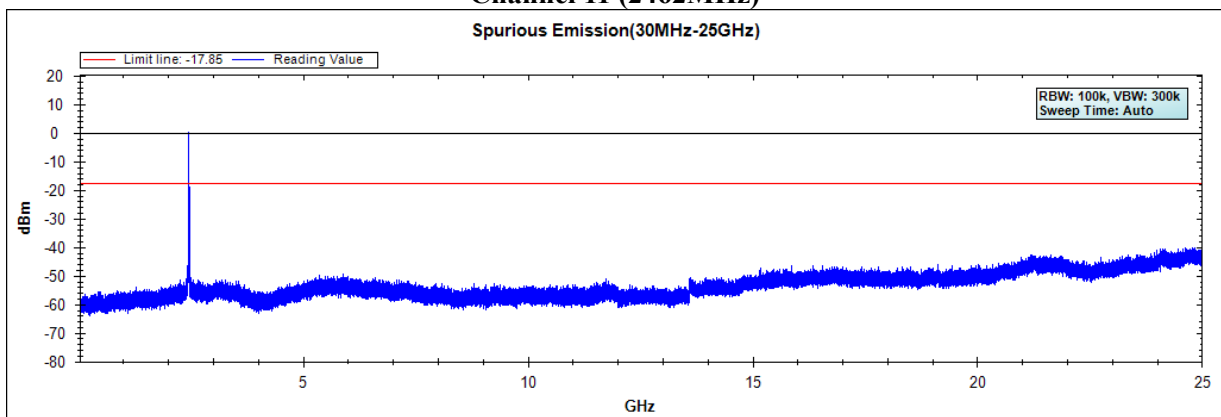
Channel 01 (2412MHz)



Channel 06 (2437MHz)



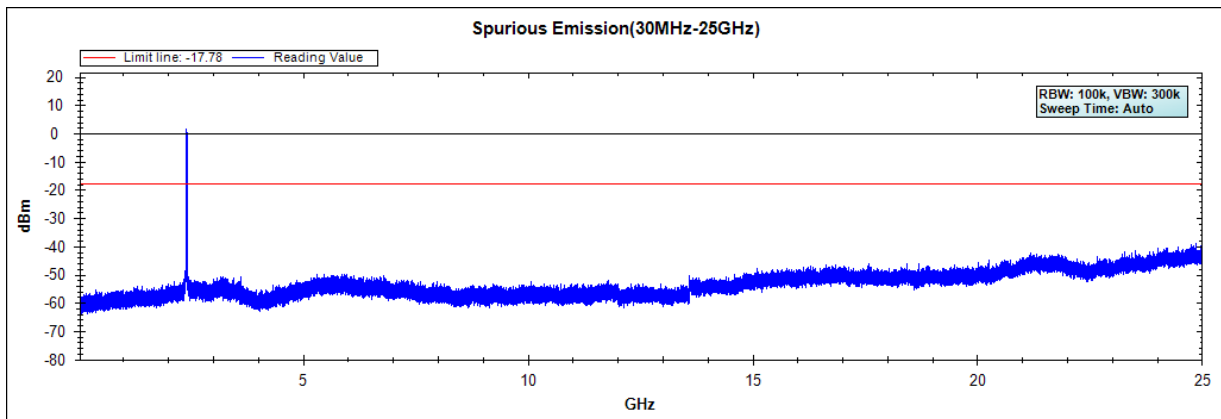
Channel 11 (2462MHz)



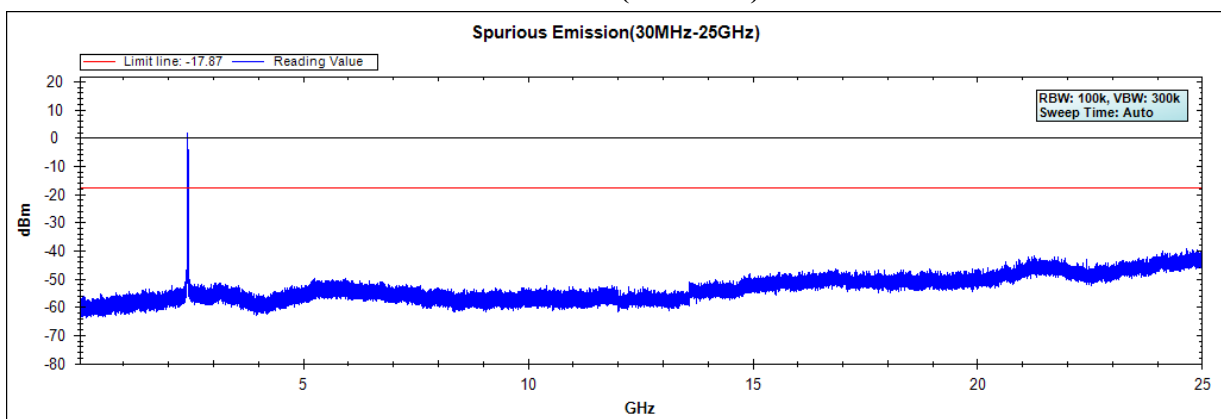
Note: The above test pattern is synthesized by multiple of the frequency range.

Product : VUZE+ Camera
Test Item : RF Antenna Conducted Spurious
Test Site : No.3 OATS
Test Date : 2017/10/11
Test Mode : Mode 3: Transmit (802.11n MCS0 6.5Mbps 20M-BW)

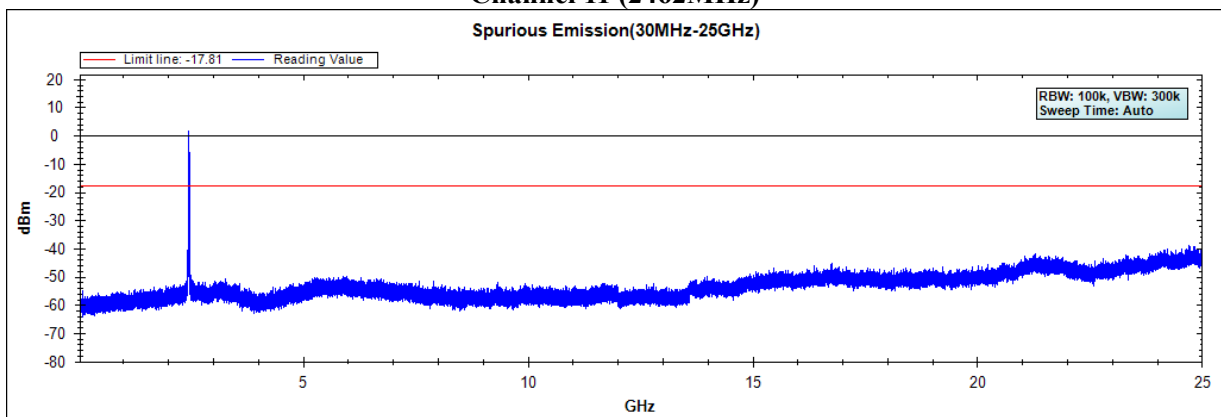
Channel 01 (2412MHz)



Channel 06 (2437MHz)



Channel 11 (2462MHz)

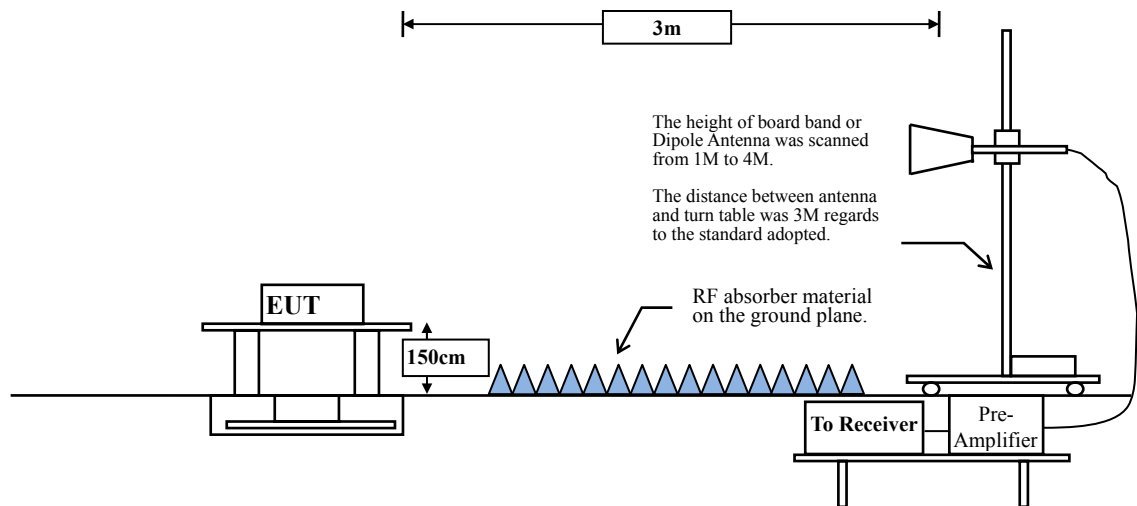


Note: The above test pattern is synthesized by multiple of the frequency range.

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.

The average measurement tested according to KDB 558074 section 12.2.5.3. Reduced VBW averaging across on- and off-times of the EUT transmissions with max hold.

$\text{VBW} \geq 1/T$:

Mode	Duty Cycle	T	1/T	VBW Setting
802.11b	0.899	0.93 ms	1075 Hz	1 KHz
802.11g	0.565	0.14 ms	7143 Hz	10 KHz
802.11n20	0.578	0.148 ms	6757 Hz	10 KHz

6.4. Uncertainty

± 4.08 dB above 1GHz

± 4.22 dB below 1GHz

6.5. Test Result of Band Edge

Product : VUZE+ Camera
 Test Item : Band Edge Data
 Test Site : No.3 OATS
 Test Date : 2017/09/28
 Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2412MHz)

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)	2369.420	6.383	42.680	49.063	74.00	54.00	Pass
01 (Peak)	2390.000	6.474	41.562	48.037	74.00	54.00	Pass
01 (Peak)	2399.275	6.524	46.272	52.796	--	--	--
01 (Peak)	2400.000	6.528	46.144	52.672	--	--	--
01 (Peak)	2413.043	6.610	85.069	91.679	--	--	--
01 (Average)	2349.565	6.295	24.030	30.325	74.00	54.00	Pass
01 (Average)	2390.000	6.474	23.715	30.190	74.00	54.00	Pass
01 (Average)	2398.406	6.519	34.908	41.427	--	--	--
01 (Average)	2400.000	6.528	32.133	38.661	--	--	--
01 (Average)	2412.754	6.608	82.730	89.338	--	--	--

Figure Channel 01: Horizontal (Peak)

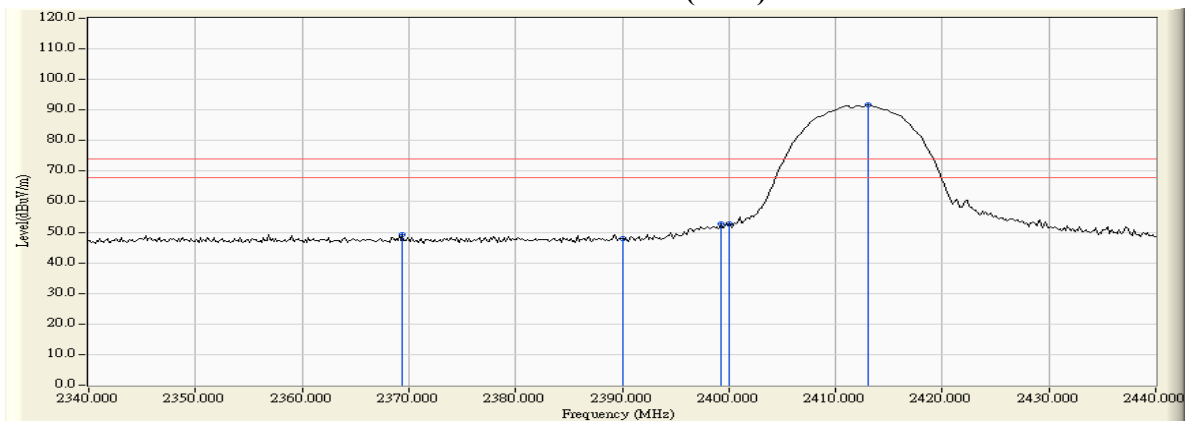
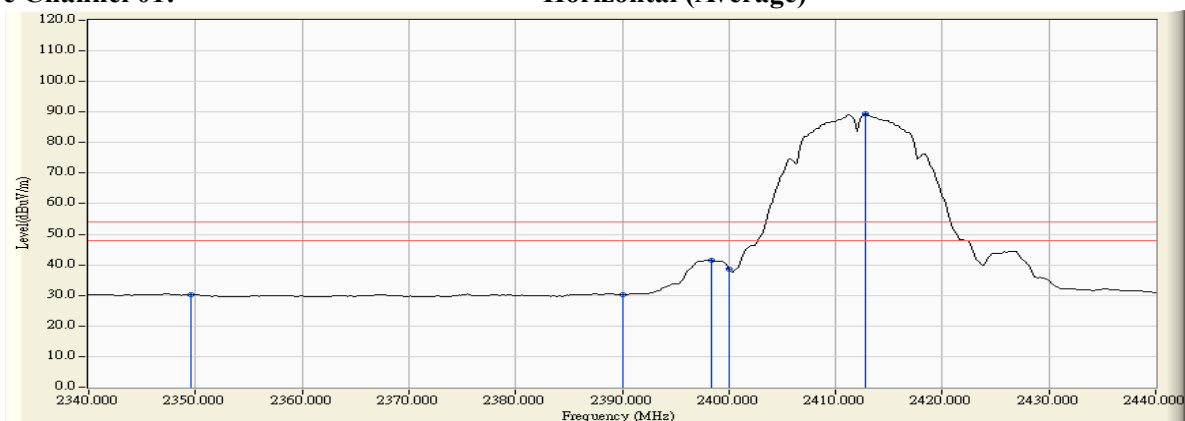


Figure Channel 01: Horizontal (Average)

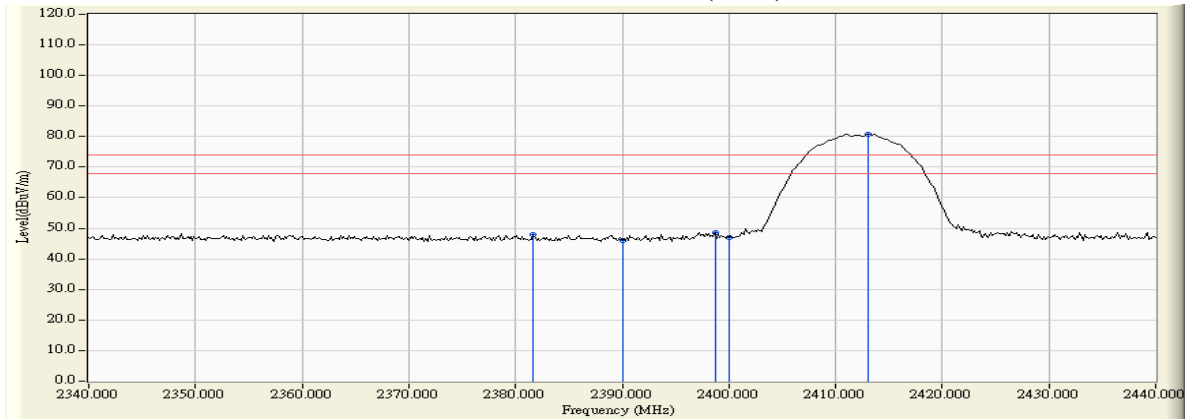
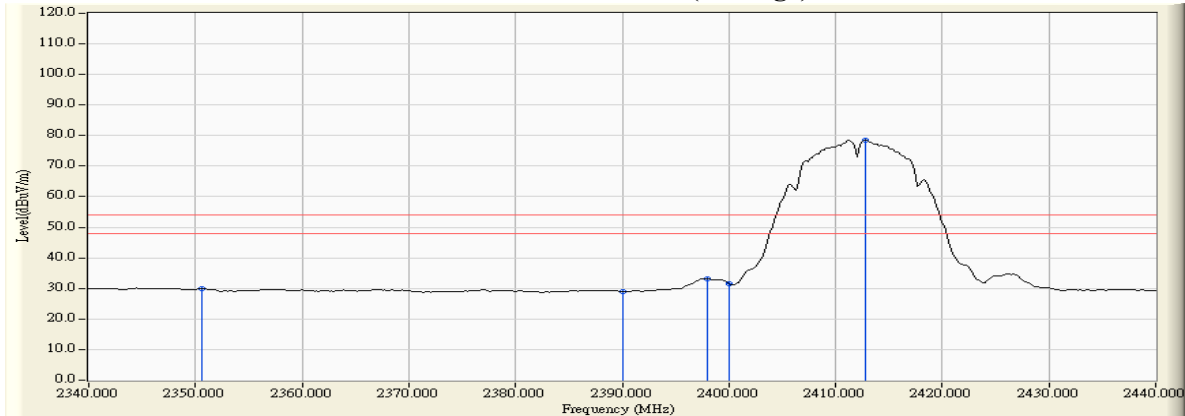


- Note:1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
 3. Average measurements: RBW = 1MHz, VBW = 1 KHz, Sweep: Auto.
 4. “ * ”, means this data is the worst emission level.
 5. Measurement Level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

Product : VUZE+ Camera
 Test Item : Band Edge Data
 Test Site : No.3 OATS
 Test Date : 2017/09/28
 Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2412MHz)

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)	2381.594	5.915	41.875	47.790	74.00	54.00	Pass
01 (Peak)	2390.000	5.880	40.087	45.968	74.00	54.00	Pass
01 (Peak)	2398.696	5.876	42.641	48.517	--	--	--
01 (Peak)	2400.000	5.879	40.931	46.810	--	--	--
01 (Peak)	2413.043	5.921	74.977	80.897	--	--	--
01 (Average)	2350.580	6.043	23.895	29.938	74.00	54.00	Pass
01 (Average)	2390.000	5.880	23.087	28.968	74.00	54.00	Pass
01 (Average)	2397.971	5.874	27.416	33.290	--	--	--
01 (Average)	2400.000	5.879	25.645	31.524	--	--	--
01 (Average)	2412.754	5.919	72.719	78.637	--	--	--

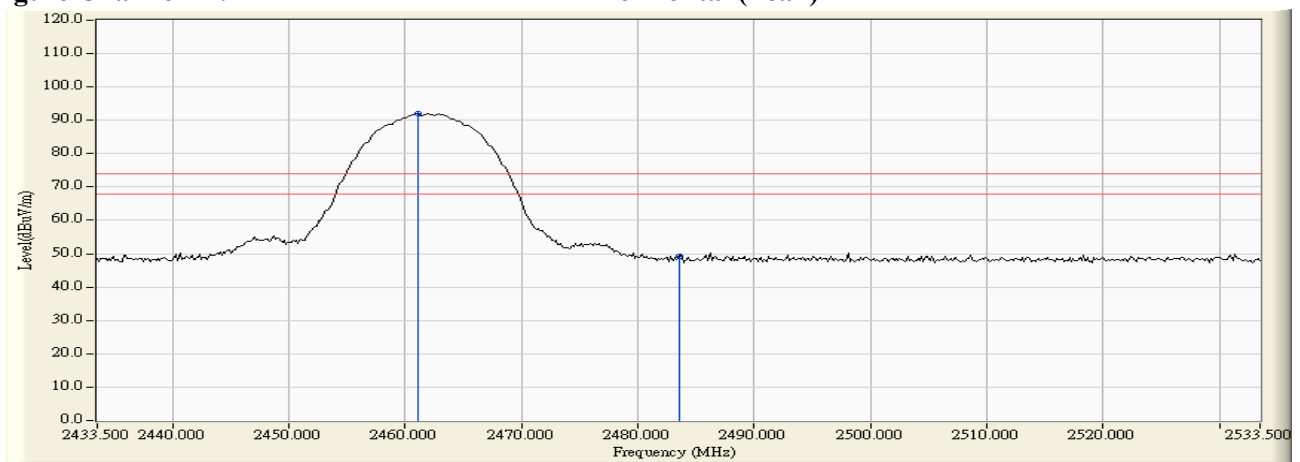
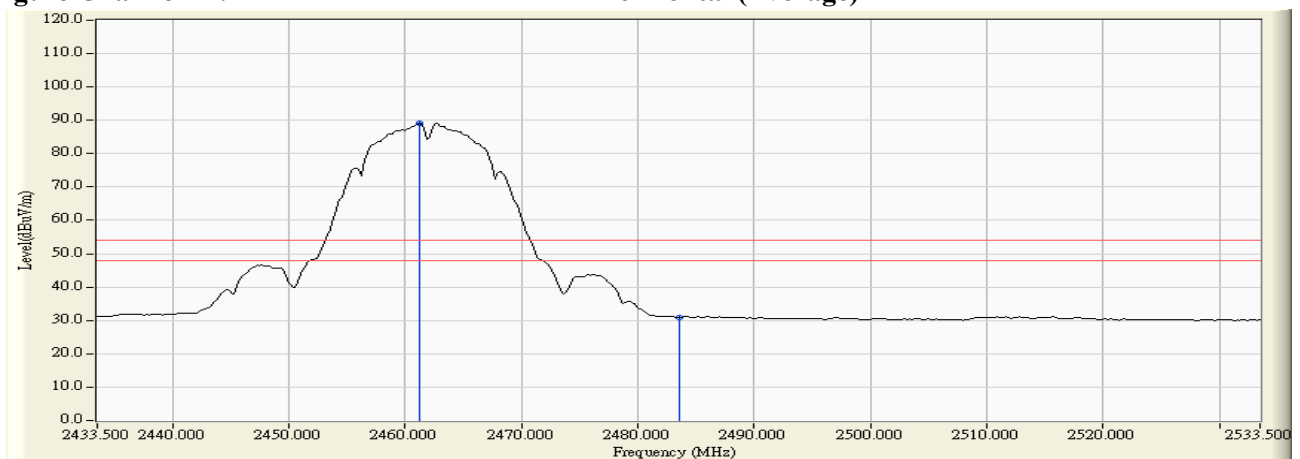
Figure Channel 01:**VERTICAL (Peak)****Figure Channel 01:****VERTICAL (Average)**

- 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 = 1 KHz, 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 : VUZE+ Camera
 Test Item : Band Edge Data
 Test Site : No.3 OATS
 Test Date : 2017/09/28
 Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2462MHz)

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)	2461.036	6.952	84.965	91.917	--	--	--
11 (Peak)	2483.500	7.110	42.263	49.373	74.00	54.00	Pass
11 (Average)	2461.181	6.953	82.101	89.054	--	--	--
11 (Average)	2483.500	7.110	23.754	30.864	74.00	54.00	Pass

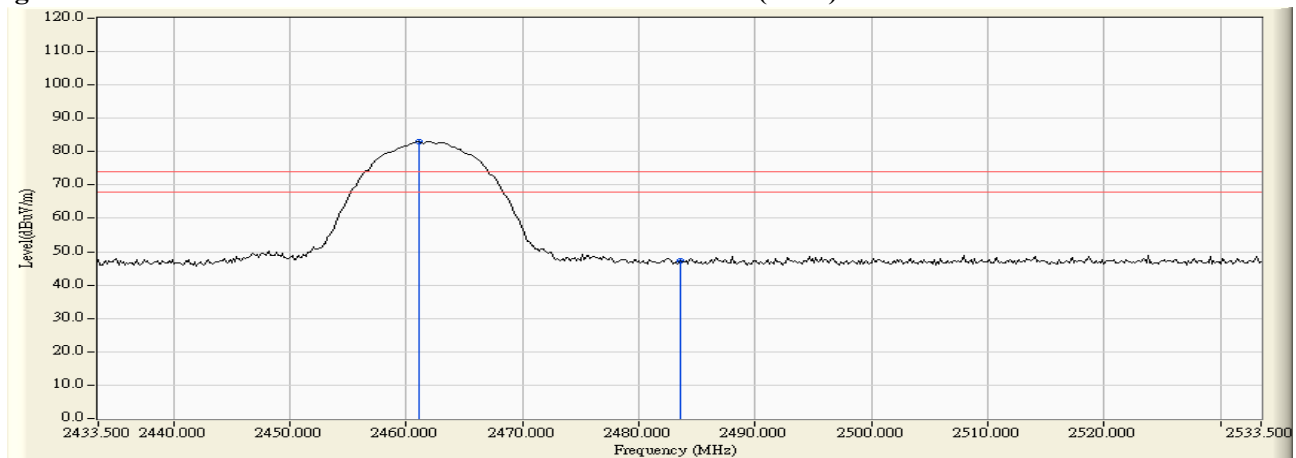
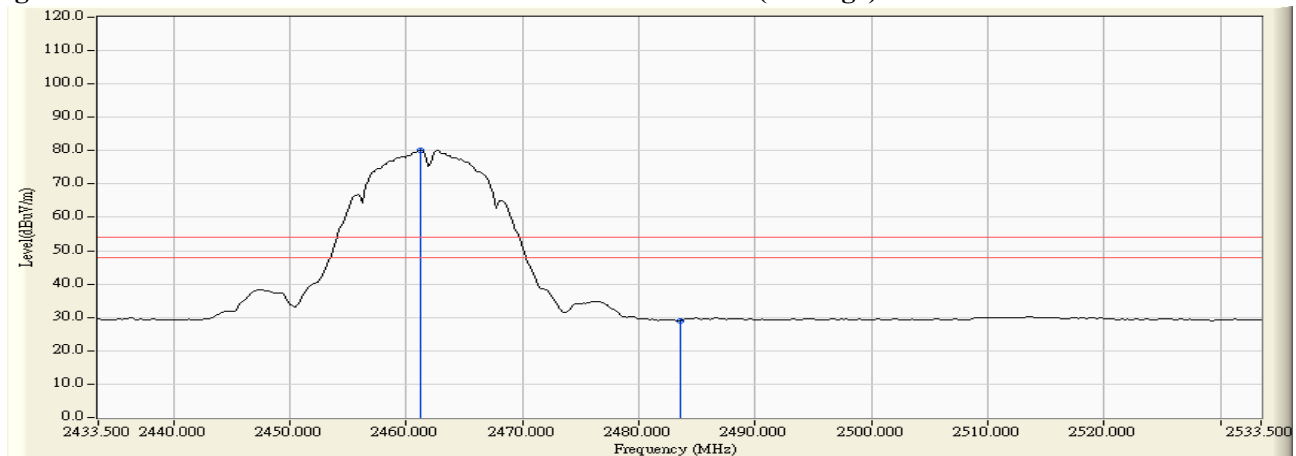
Figure Channel 11: Horizontal (Peak)**Figure Channel 11: Horizontal (Average)**

- 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 = 1 KHz, 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 : VUZE+ Camera
 Test Item : Band Edge Data
 Test Site : No.3 OATS
 Test Date : 2017/09/28
 Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2462MHz)

RF Radiated Measurement (VERTICAL):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dB μ V)	Emission Level (dB μ V/m)	Peak Limit (dB μ V/m)	Average Limit (dB μ V/m)	Result
11 (Peak)	2461.036	6.223	76.726	82.949	--	--	--
11 (Peak)	2483.500	6.363	40.908	47.271	74.00	54.00	Pass
11 (Average)	2461.181	6.224	73.968	80.192	--	--	--
11 (Average)	2483.500	6.363	22.737	29.100	74.00	54.00	Pass

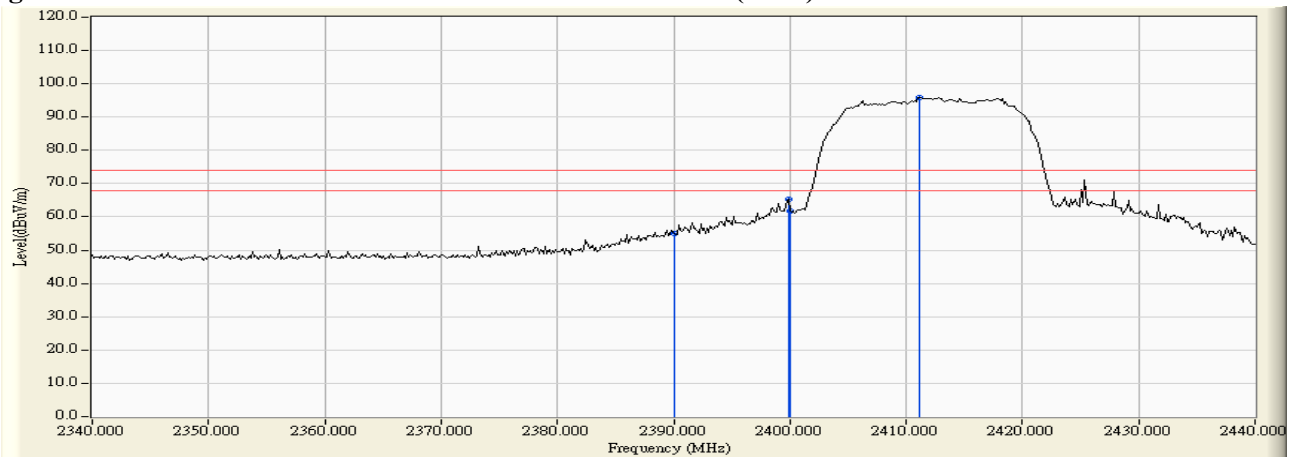
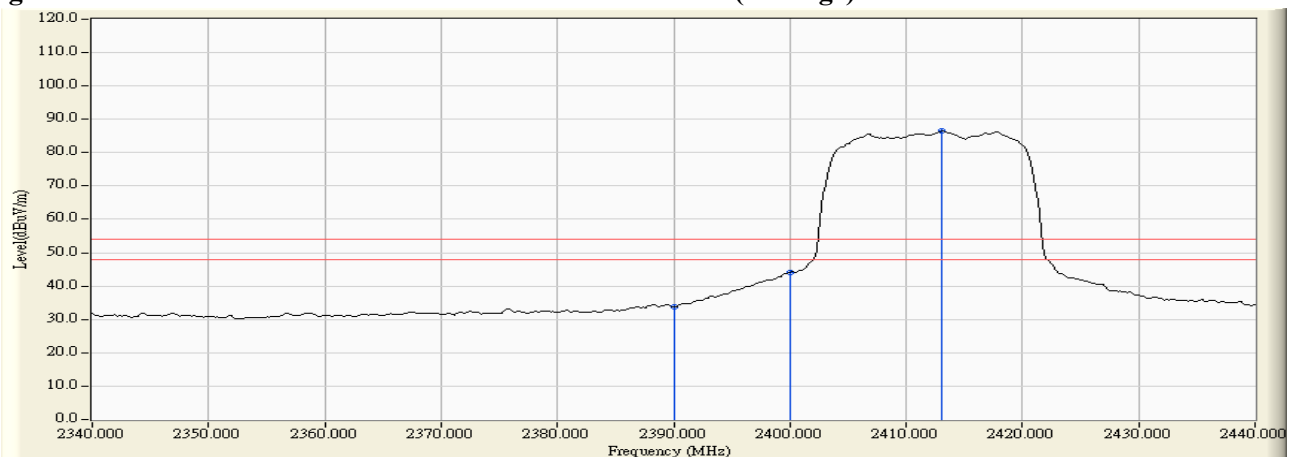
Figure Channel 11:**VERTICAL (Peak)****Figure Channel 11:****VERTICAL (Average)**

- 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 = 1 KHz, 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 : VUZE+ Camera
 Test Item : Band Edge Data
 Test Site : No.3 OATS
 Test Date : 2017/09/28
 Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2412MHz)

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dB μ V)	Emission Level (dB μ V/m)	Peak Limit (dB μ V/m)	Average Limit (dB μ V/m)	Result
01 (Peak)	2390.000	6.474	48.386	54.861	74.00	54.00	Pass
01 (Peak)	2399.855	6.527	58.738	65.266	--	--	--
01 (Peak)	2400.000	6.528	55.084	61.612	--	--	--
01 (Peak)	2411.159	6.597	89.390	95.987	--	--	--
01 (Average)	2390.000	6.474	27.253	33.728	74.00	54.00	Pass
01 (Average)	2400.000	6.528	37.688	44.216	--	--	--
01 (Average)	2413.043	6.610	79.782	86.392	--	--	--

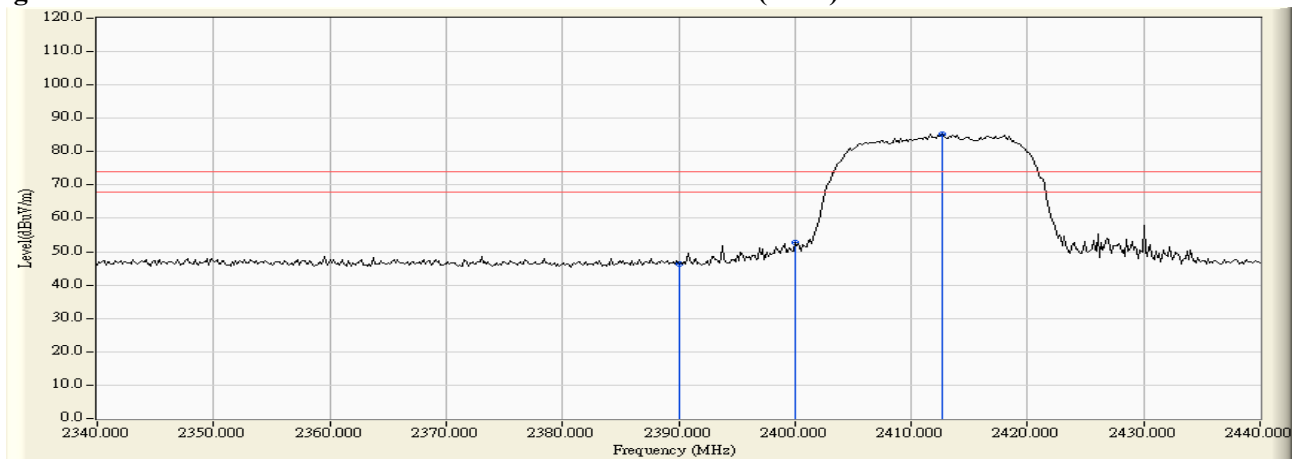
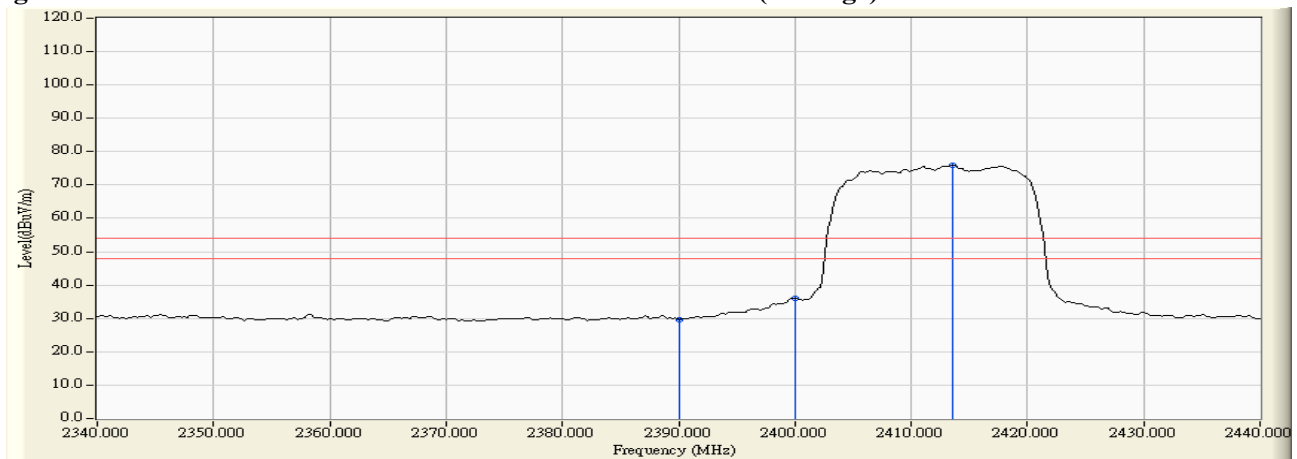
Figure Channel 01:**Horizontal (Peak)****Figure Channel 01:****Horizontal (Average)**

- 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 KHz, 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 : VUZE+ Camera
 Test Item : Band Edge Data
 Test Site : No.3 OATS
 Test Date : 2017/09/28
 Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2412MHz)

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)	2390.000	5.880	40.396	46.277	74.00	54.00	Pass
01 (Peak)	2400.000	5.879	46.759	52.638	--	--	--
01 (Peak)	2412.609	5.917	79.276	85.194	--	--	--
01 (Average)	2390.000	5.880	23.791	29.672	74.00	54.00	Pass
01 (Average)	2400.000	5.879	30.255	36.134	--	--	--
01 (Average)	2413.623	5.924	70.076	76.000	--	--	--

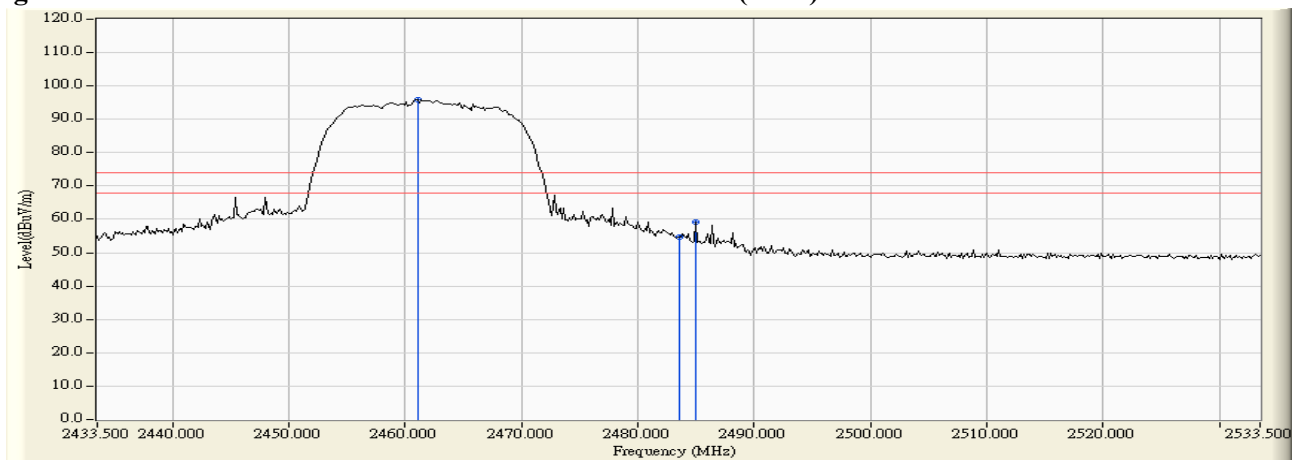
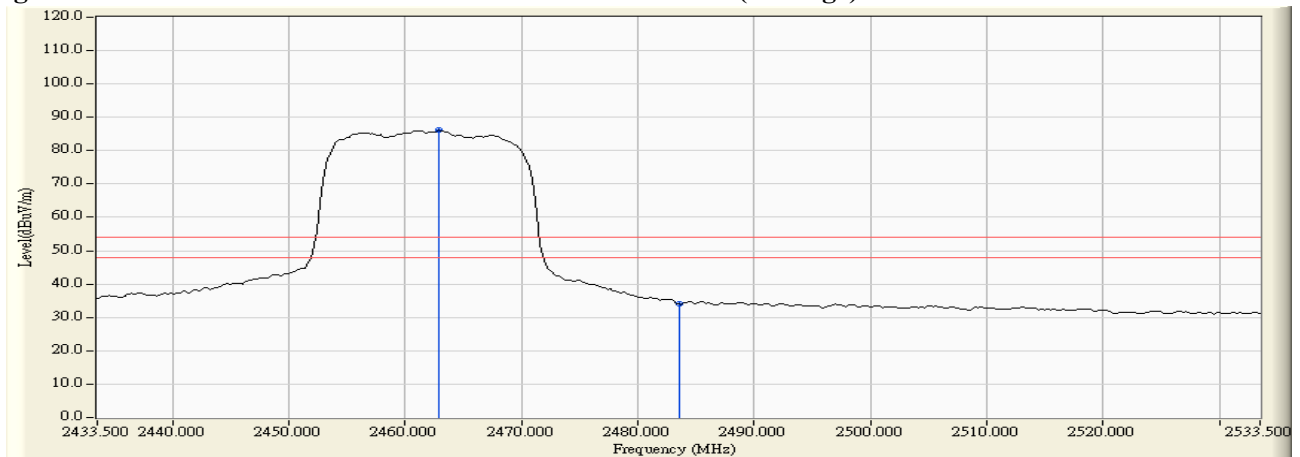
Figure Channel 01:**VERTICAL (Peak)****Figure Channel 01:****VERTICAL (Average)**

- 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 KHz, 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 : VUZE+ Camera
 Test Item : Band Edge Data
 Test Site : No.3 OATS
 Test Date : 2017/09/28
 Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2462MHz)

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dB μ V)	Emission Level (dB μ V/m)	Peak Limit (dB μ V/m)	Average Limit (dB μ V/m)	Result
11 (Peak)	2461.036	6.952	89.022	95.974	--	--	--
11 (Peak)	2483.500	7.110	47.709	54.819	74.00	54.00	Pass
11 (Peak)	2484.949	7.120	52.013	59.133	74.00	54.00	Pass
11 (Average)	2462.920	6.965	79.105	86.070	--	--	--
11 (Average)	2483.500	7.110	26.898	34.008	74.00	54.00	Pass

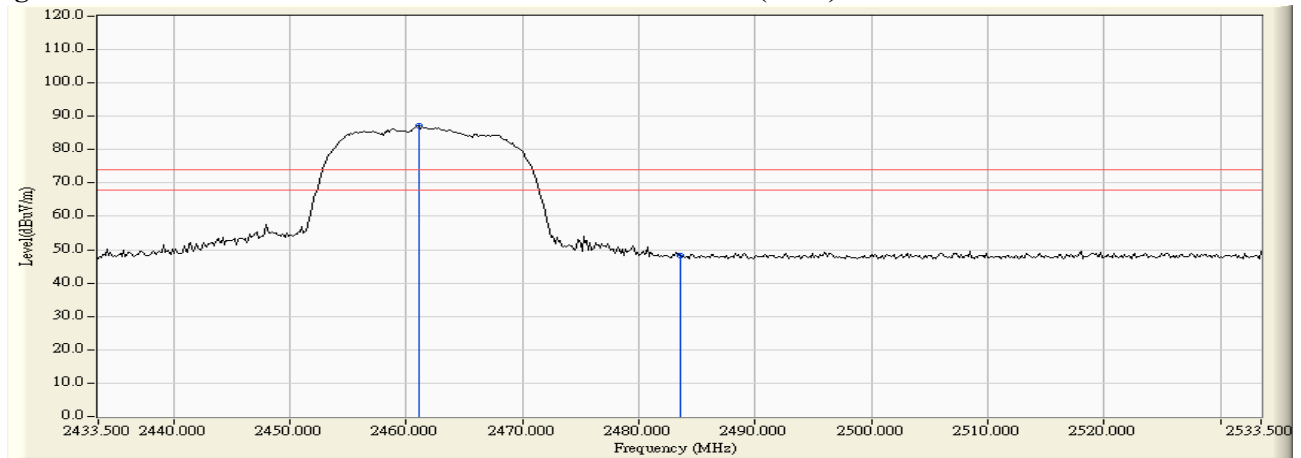
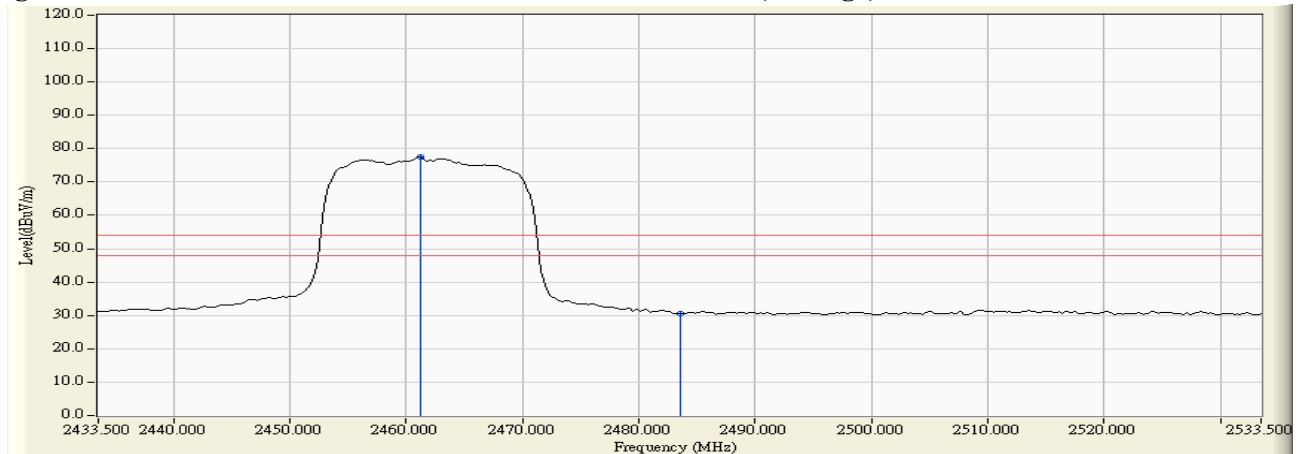
Figure Channel 11: Horizontal (Peak)**Figure Channel 11: Horizontal (Average)**

- 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 KHz, 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 : VUZE+ Camera
 Test Item : Band Edge Data
 Test Site : No.3 OATS
 Test Date : 2017/09/28
 Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2462MHz)

RF Radiated Measurement (VERTICAL):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dB μ V)	Emission Level (dB μ V/m)	Peak Limit (dB μ V/m)	Average Limit (dB μ V/m)	Result
11 (Peak)	2461.036	6.223	81.002	87.225	--	--	--
11 (Peak)	2483.500	6.363	42.047	48.410	74.00	54.00	Pass
11 (Average)	2461.181	6.224	71.269	77.493	--	--	--
11 (Average)	2483.500	6.363	24.197	30.560	74.00	54.00	Pass

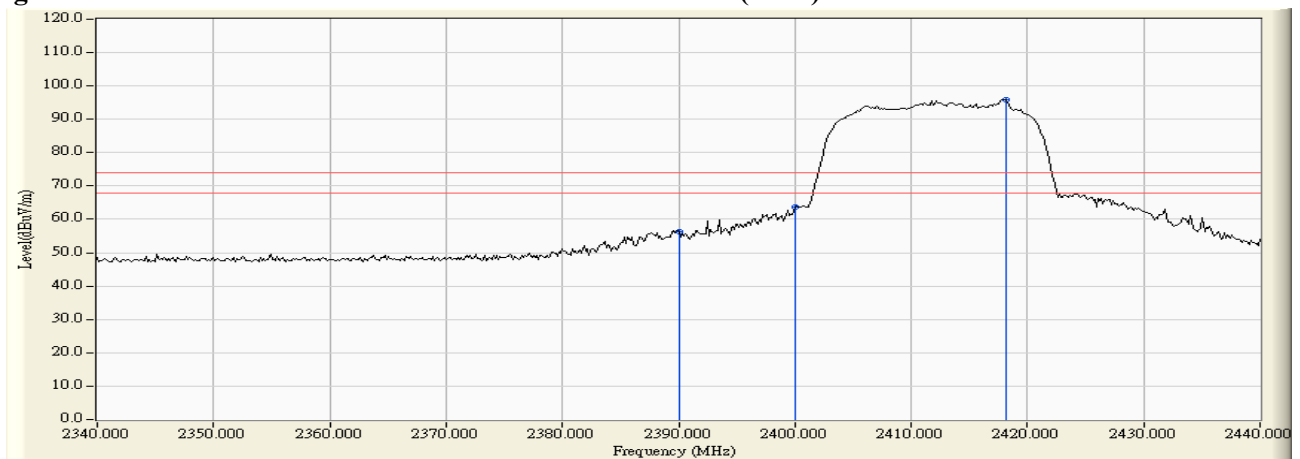
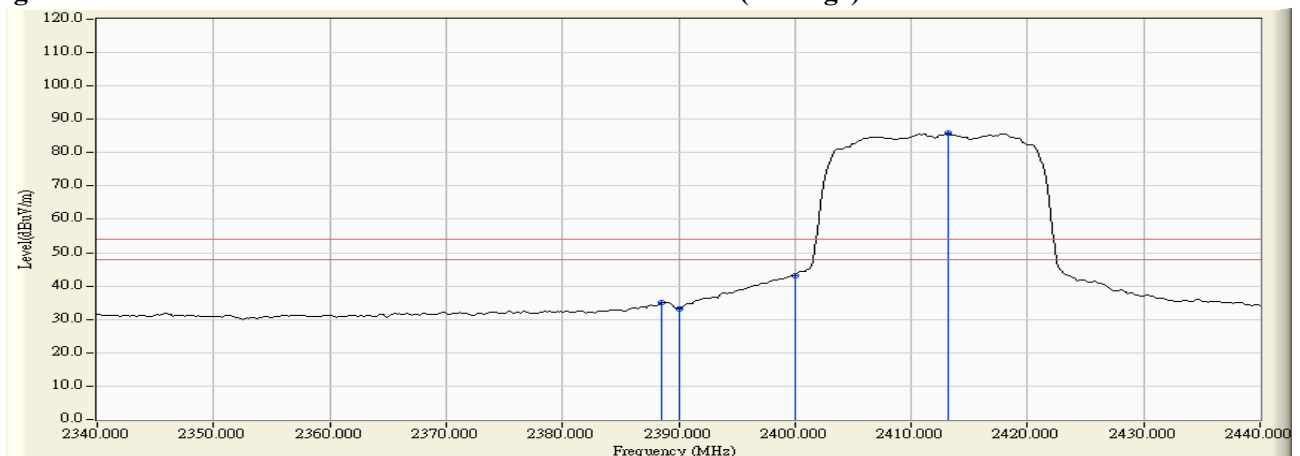
Figure Channel 11:**VERTICAL (Peak)****Figure Channel 11:****VERTICAL (Average)**

- 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 KHz, 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 : VUZE+ Camera
 Test Item : Band Edge Data
 Test Site : No.3 OATS
 Test Date : 2017/09/28
 Test Mode : Mode 3: Transmit (802.11n MCS0 6.5Mbps 20M-BW) (2412MHz)

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	6.474	49.749	56.224	74.00	54.00	Pass
01 (Peak)	2400.000	6.528	57.088	63.616	--	--	--
01 (Peak)	2418.116	6.646	89.255	95.901	--	--	--
01 (Average)	2388.551	6.469	28.443	34.911	74.00	54.00	Pass
01 (Average)	2390.000	6.474	26.622	33.097	74.00	54.00	Pass
01 (Average)	2400.000	6.528	36.634	43.162	--	--	--
01 (Average)	2413.188	6.611	79.138	85.749	--	--	--

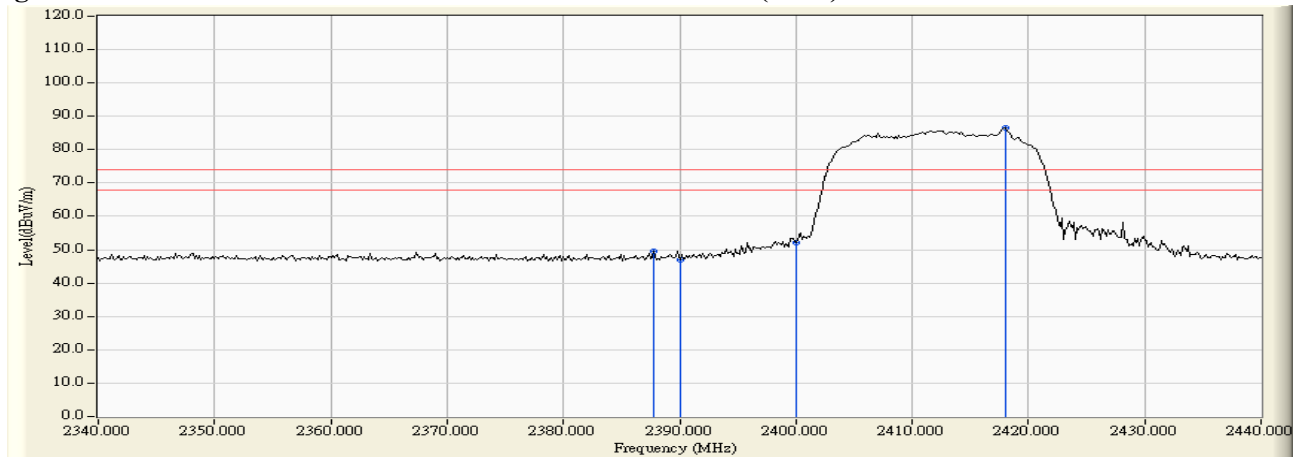
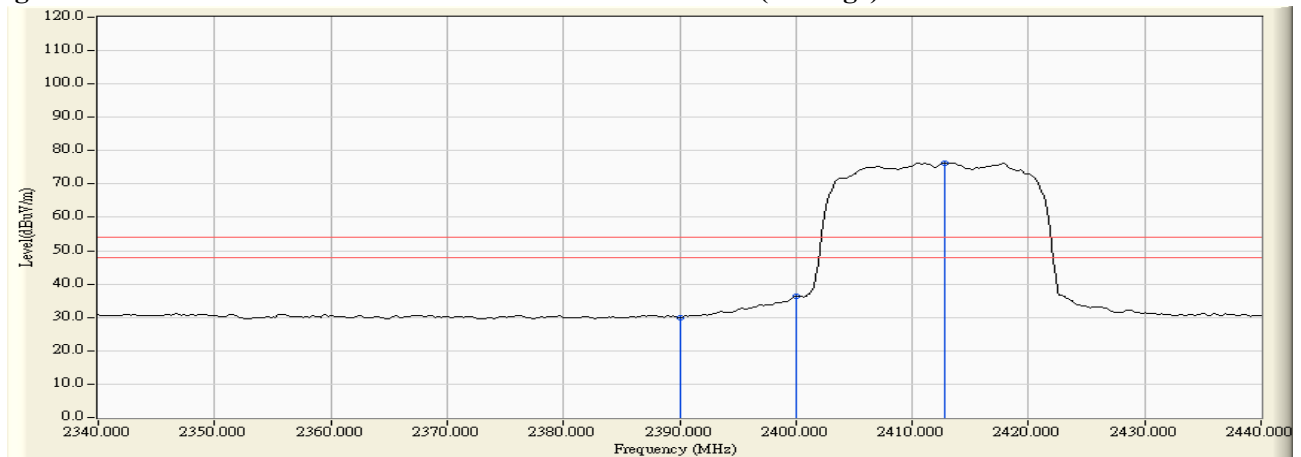
Figure Channel 01: Horizontal (Peak)

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 KHz, 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 : VUZE+ Camera
 Test Item : Band Edge Data
 Test Site : No.3 OATS
 Test Date : 2017/09/28
 Test Mode : Mode 3: Transmit (802.11n MCS0 6.5Mbps 20M-BW) (2412MHz)

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)	2387.826	5.889	43.587	49.477	74.00	54.00	Pass
01 (Peak)	2390.000	5.880	41.179	47.060	74.00	54.00	Pass
01 (Peak)	2400.000	5.879	46.238	52.117	--	--	--
01 (Peak)	2417.971	5.951	80.450	86.401	--	--	--
01 (Average)	2390.000	5.880	24.074	29.955	74.00	54.00	Pass
01 (Average)	2400.000	5.879	30.520	36.399	--	--	--
01 (Average)	2412.754	5.919	70.382	76.300	--	--	--

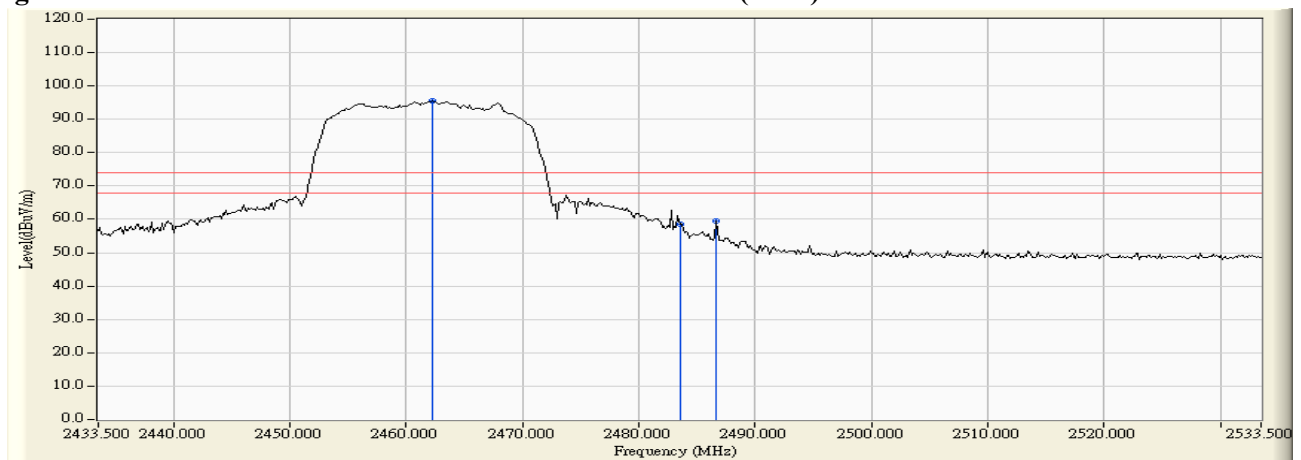
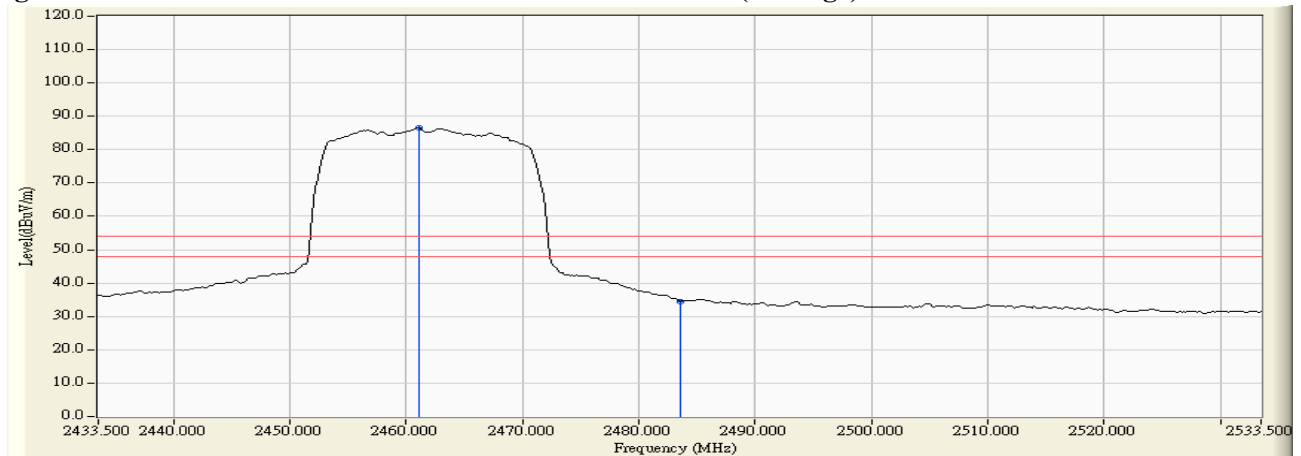
Figure Channel 01:**VERTICAL (Peak)****Figure Channel 01:****VERTICAL (Average)**

- 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 KHz, 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 : VUZE+ Camera
 Test Item : Band Edge Data
 Test Site : No.3 OATS
 Test Date : 2017/09/28
 Test Mode : Mode 3: Transmit (802.11n MCS0 6.5Mbps 20M-BW) (2462MHz)

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dB μ V)	Emission Level (dB μ V/m)	Peak Limit (dB μ V/m)	Average Limit (dB μ V/m)	Result
11 (Peak)	2462.196	6.959	88.493	95.453	--	--	--
11 (Peak)	2483.500	7.110	51.404	58.514	74.00	54.00	Pass
11 (Peak)	2486.688	7.133	52.471	59.604	74.00	54.00	Pass
11 (Average)	2461.036	6.952	79.694	86.646	--	--	--
11 (Average)	2483.500	7.110	27.408	34.518	74.00	54.00	Pass

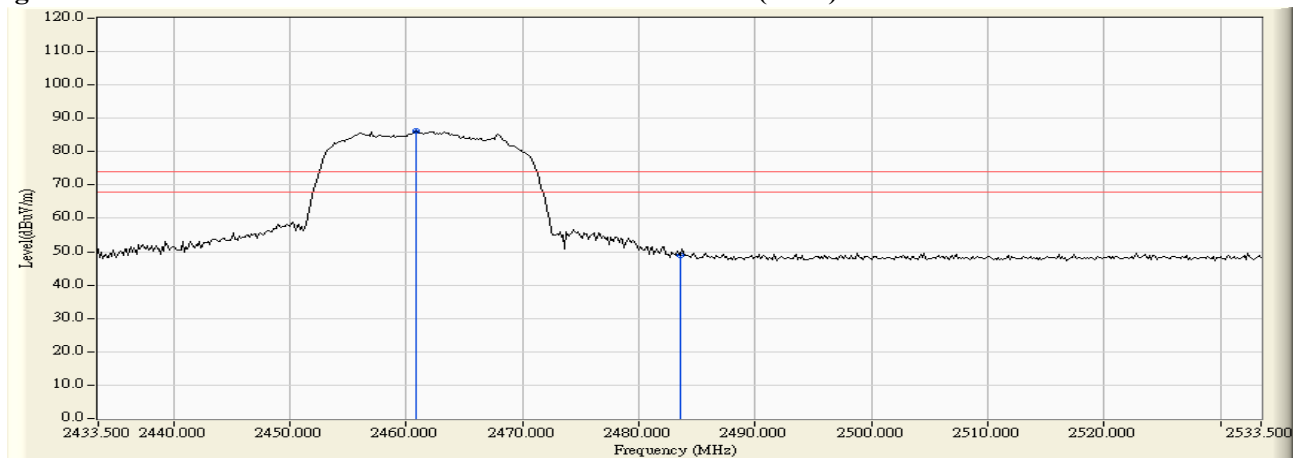
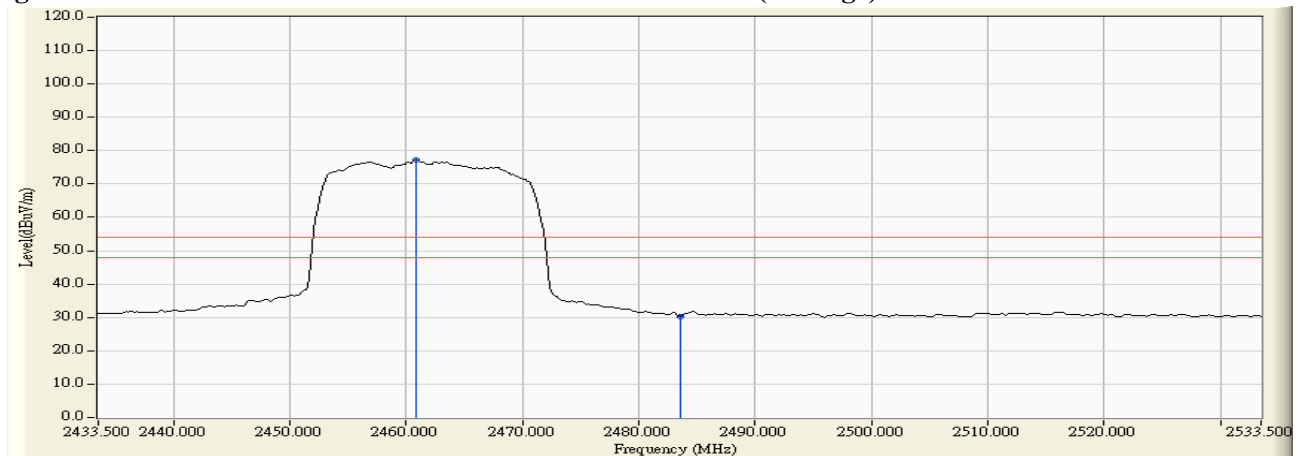
Figure Channel 11: Horizontal (Peak)**Figure Channel 11: Horizontal (Average)**

- 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 KHz, 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 : VUZE+ Camera
 Test Item : Band Edge Data
 Test Site : No.3 OATS
 Test Date : 2017/09/28
 Test Mode : Mode 3: Transmit (802.11n MCS0 6.5Mbps 20M-BW) (2462MHz)

RF Radiated Measurement (VERTICAL):

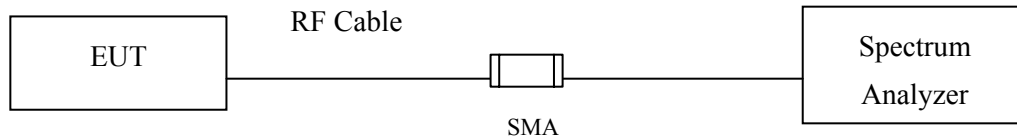
Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dB μ V)	Emission Level (dB μ V/m)	Peak Limit (dB μ V/m)	Average Limit (dB μ V/m)	Result
11 (Peak)	2460.891	6.223	80.024	86.246	--	--	--
11 (Peak)	2483.500	6.363	42.632	48.995	74.00	54.00	Pass
11 (Average)	2460.891	6.223	70.943	77.165	--	--	--
11 (Average)	2483.500	6.363	23.914	30.277	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 KHz, 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

$\pm 283\text{Hz}$

7.5. Test Result of 6dB Bandwidth

Product : VUZE+ Camera
 Test Item : 6dB 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	8200	>500	Pass
06	2437	8200	>500	Pass
11	2462	8200	>500	Pass

Figure Channel 01:

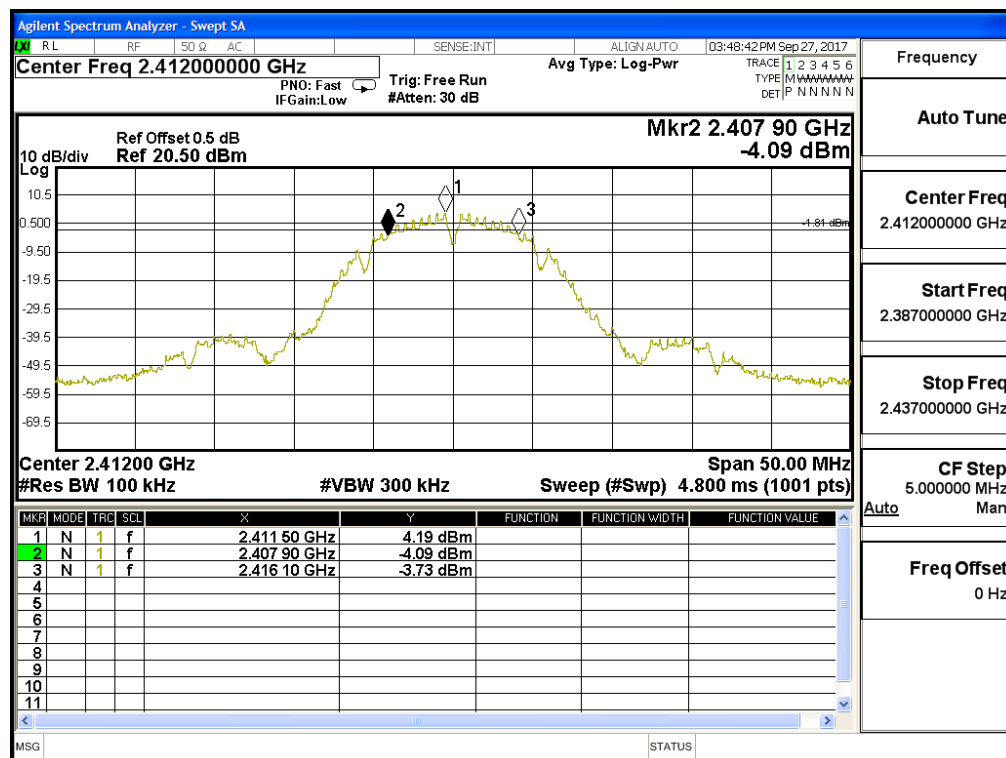


Figure Channel 06:

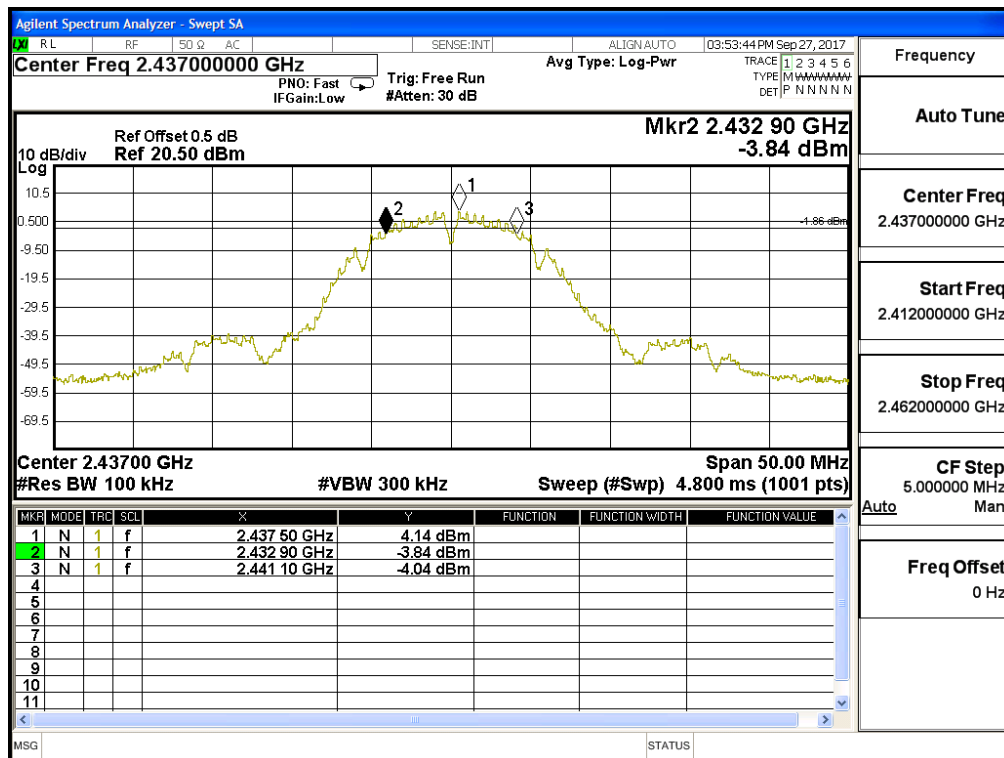
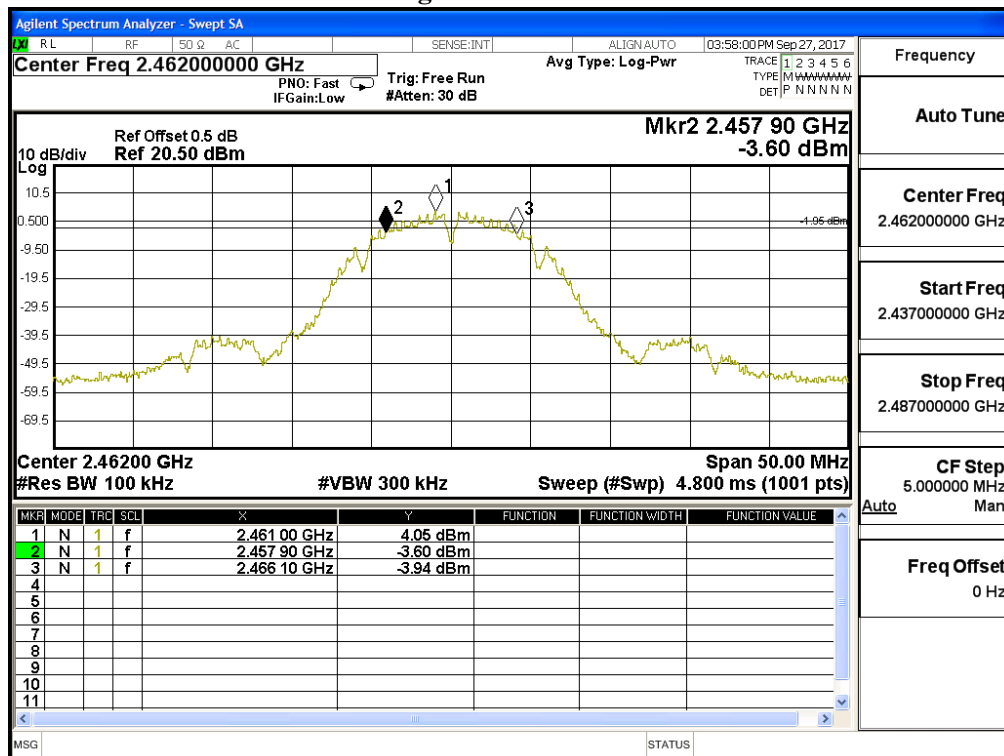


Figure Channel 11:



Product : VUZE+ Camera
 Test Item : 6dB 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	15200	>500	Pass
06	2437	15200	>500	Pass
11	2462	15200	>500	Pass

Figure Channel 01:

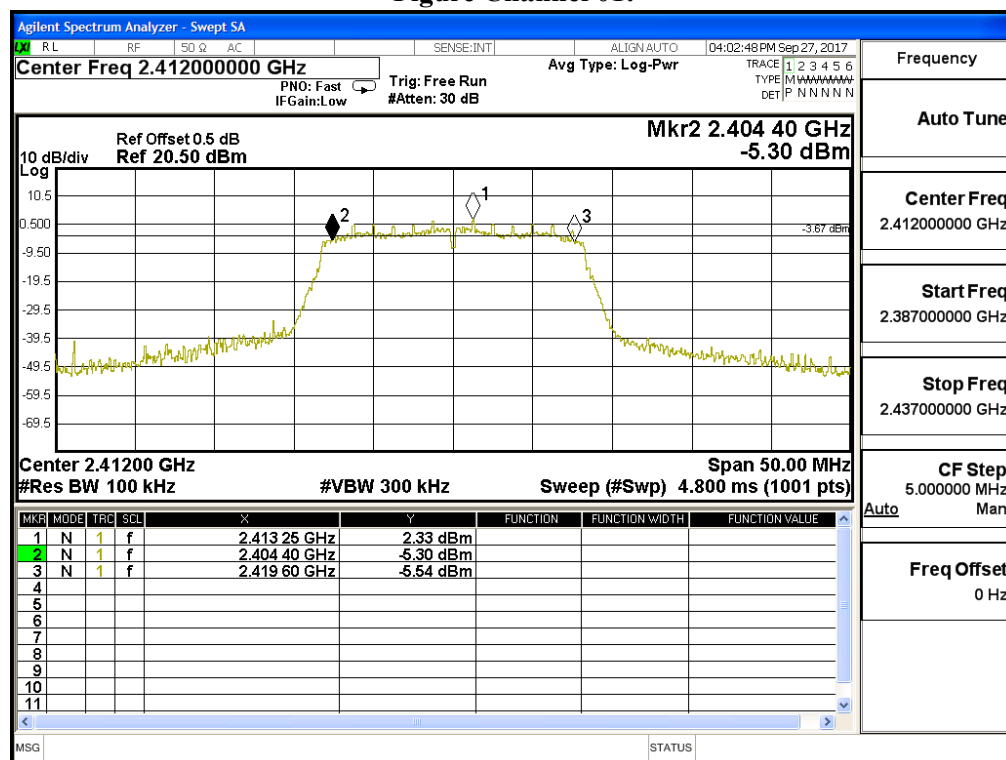


Figure Channel 06:

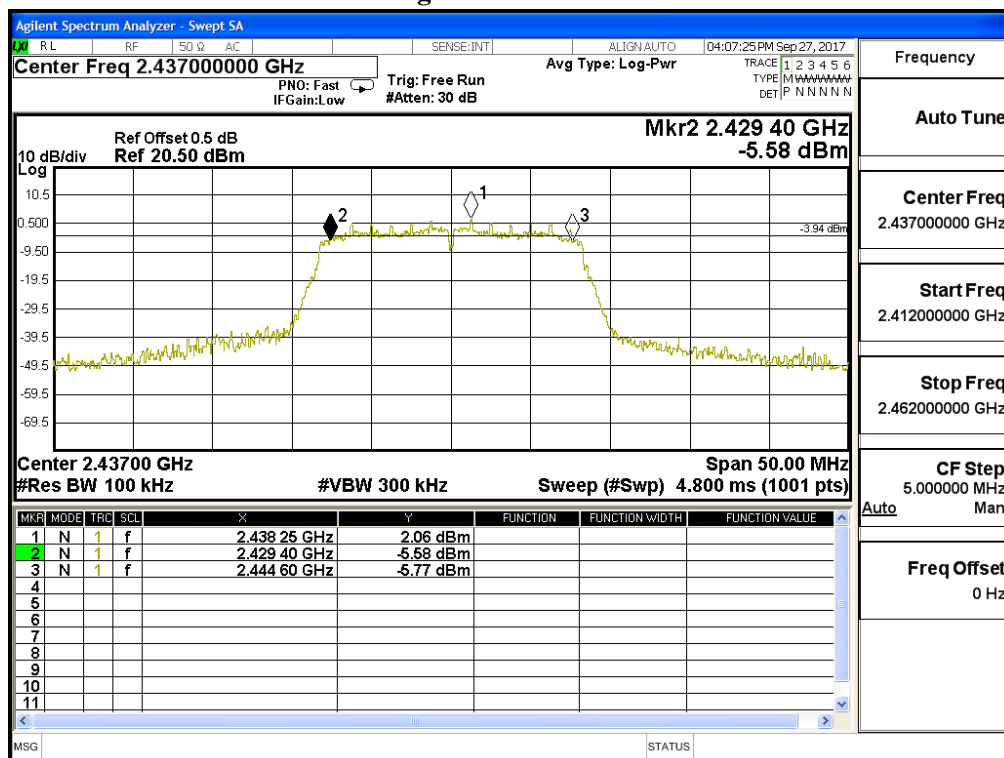
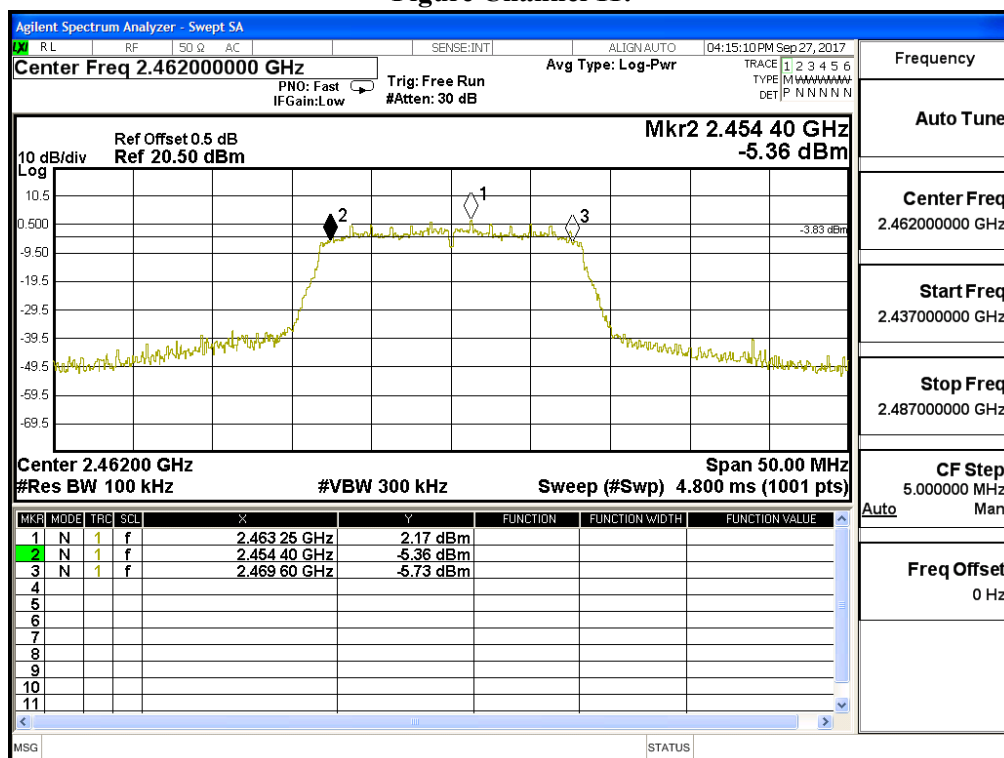


Figure Channel 11:



Product : VUZE+ Camera
 Test Item : 6dB Bandwidth Data
 Test Site : No.3 OATS
 Test Mode : Mode 3: Transmit (802.11n MCS0 6.5Mbps 20M-BW)

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

Figure Channel 01:

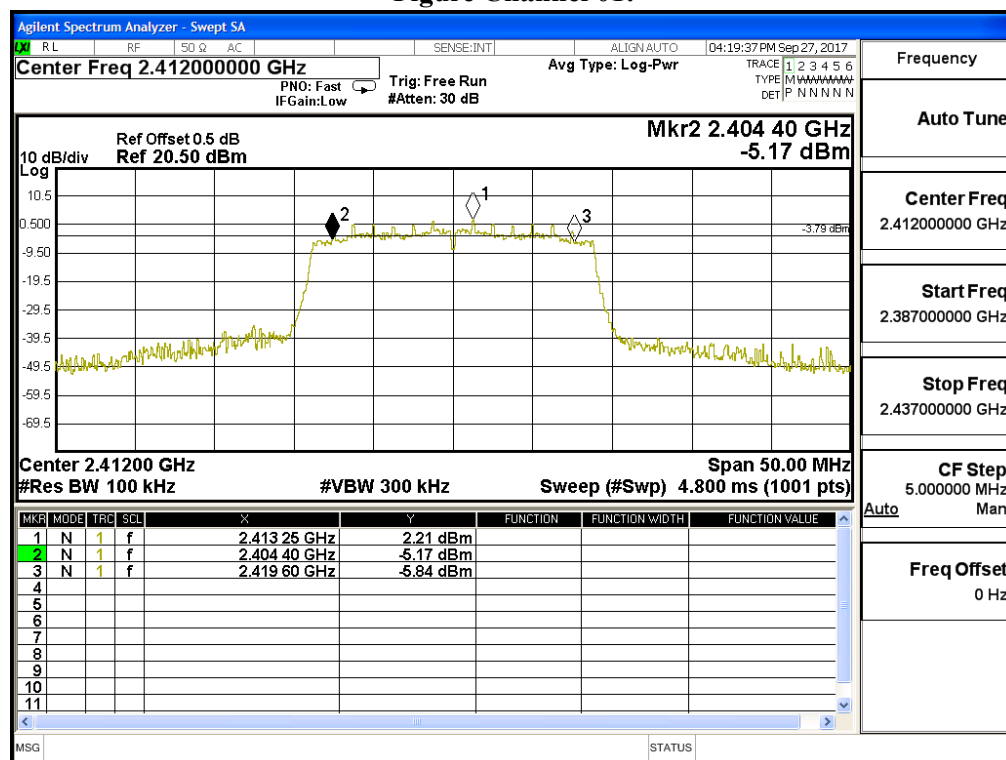


Figure Channel 06:

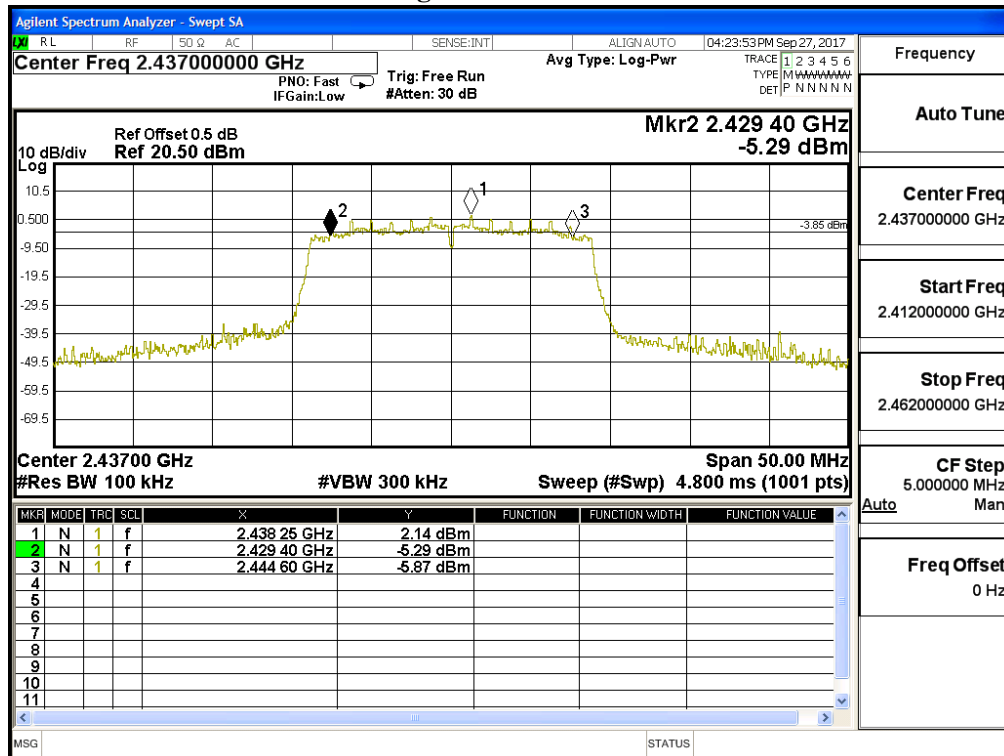
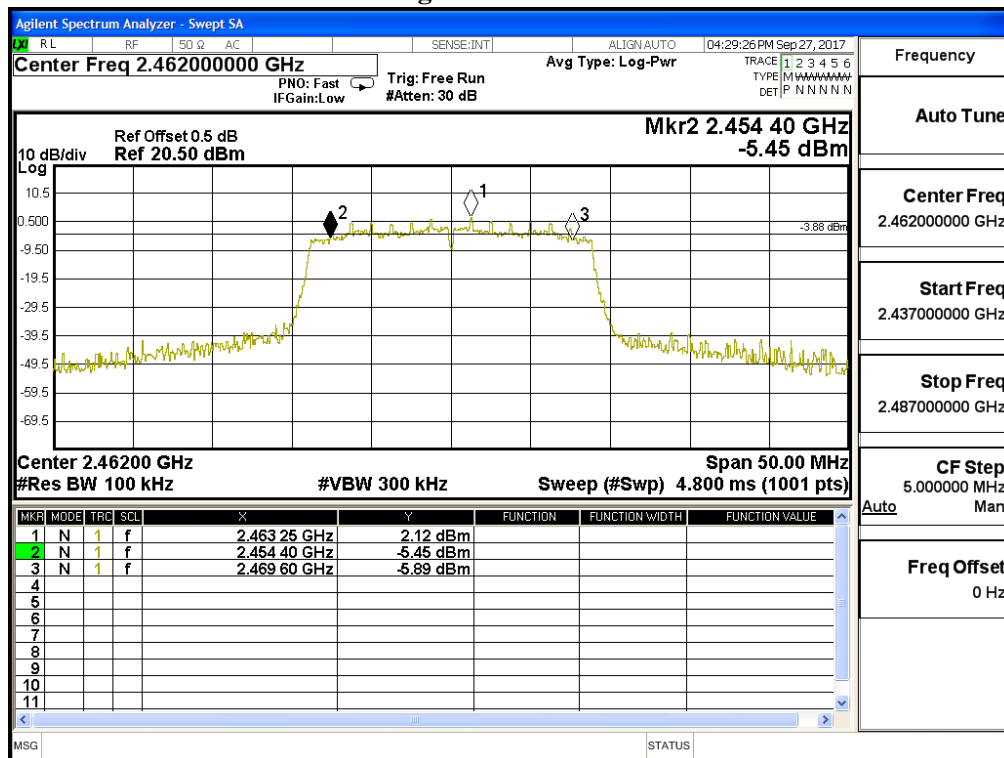
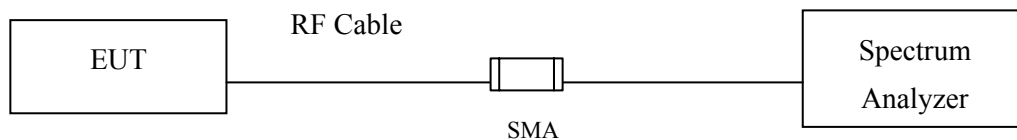


Figure Channel 11:



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

± 1.20 dB

8.5. Test Result of Power Density

Product : VUZE+ 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	4.150	$\leq 8\text{dBm}$	Pass
06	2437	4.170	$\leq 8\text{dBm}$	Pass
11	2462	4.570	$\leq 8\text{dBm}$	Pass

Figure Channel 01:

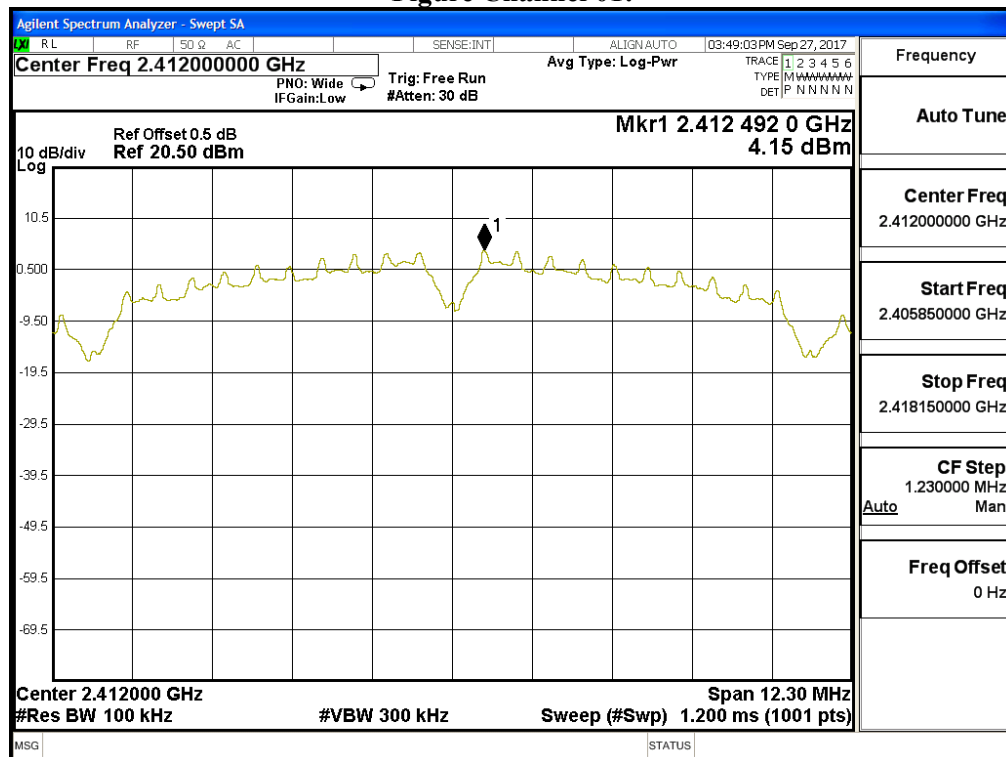


Figure Channel 06:

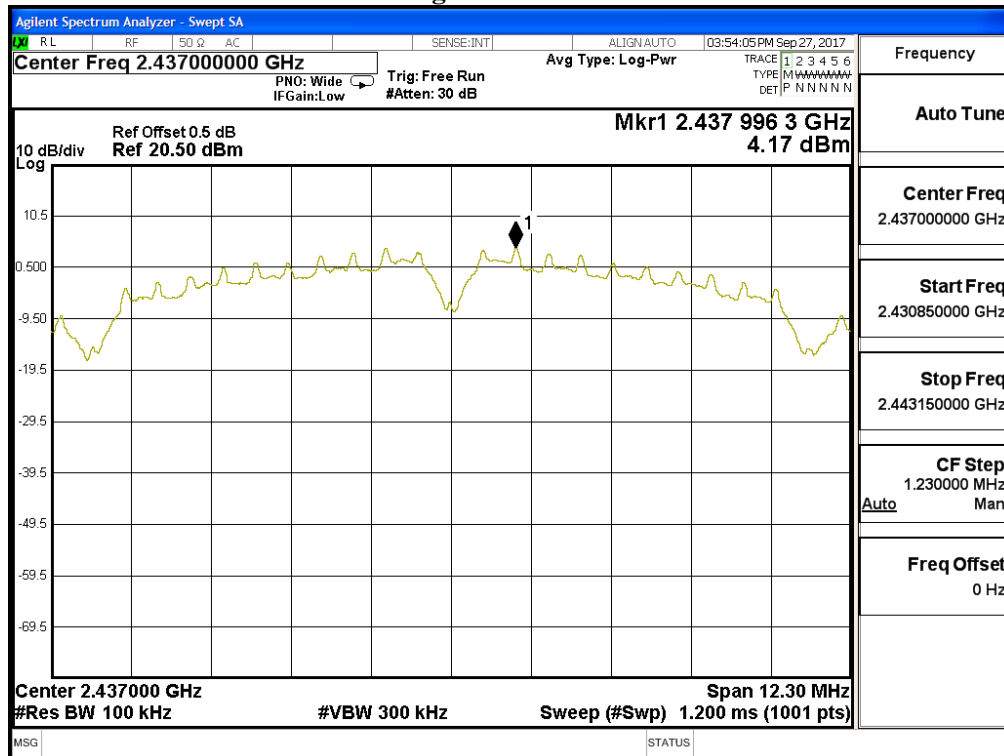
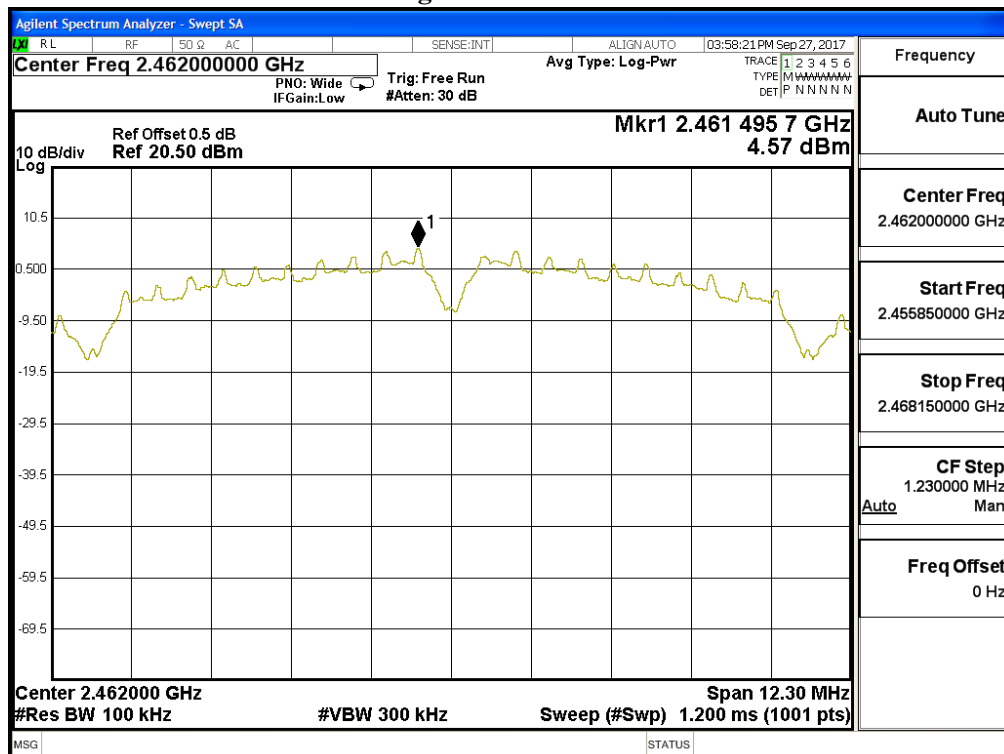


Figure Channel 11:



Product	:	VUZE+ 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	2.270	≤ 8dBm	Pass
06	2437	2.270	≤ 8dBm	Pass
11	2462	2.150	≤ 8dBm	Pass

Figure Channel 01:

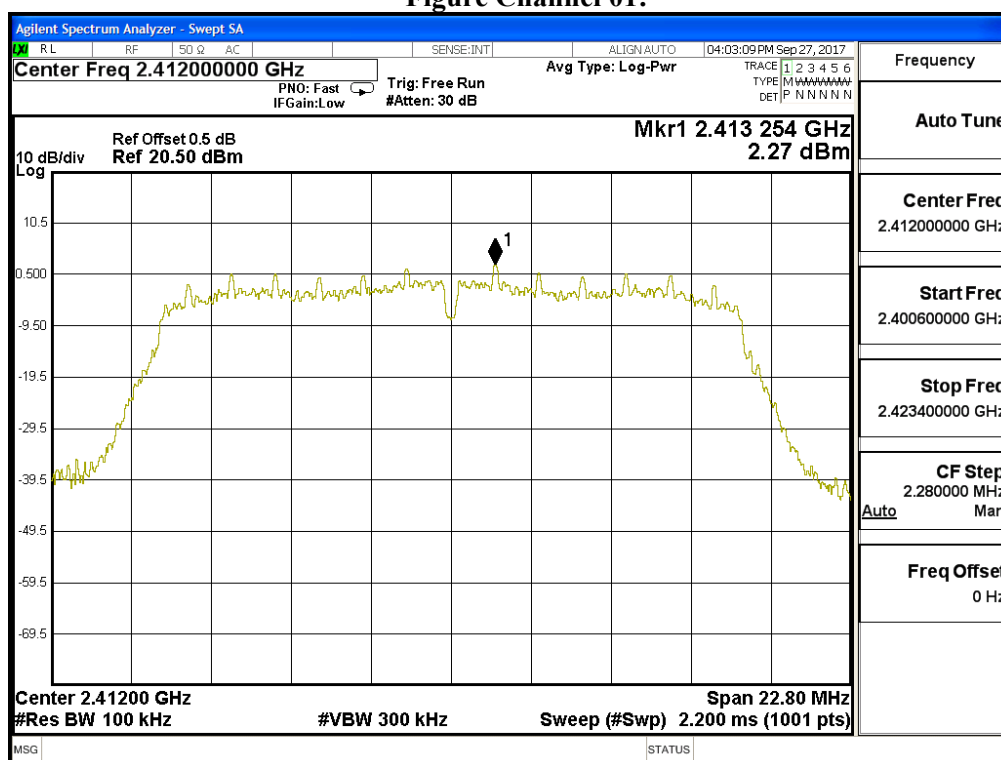


Figure Channel 06:

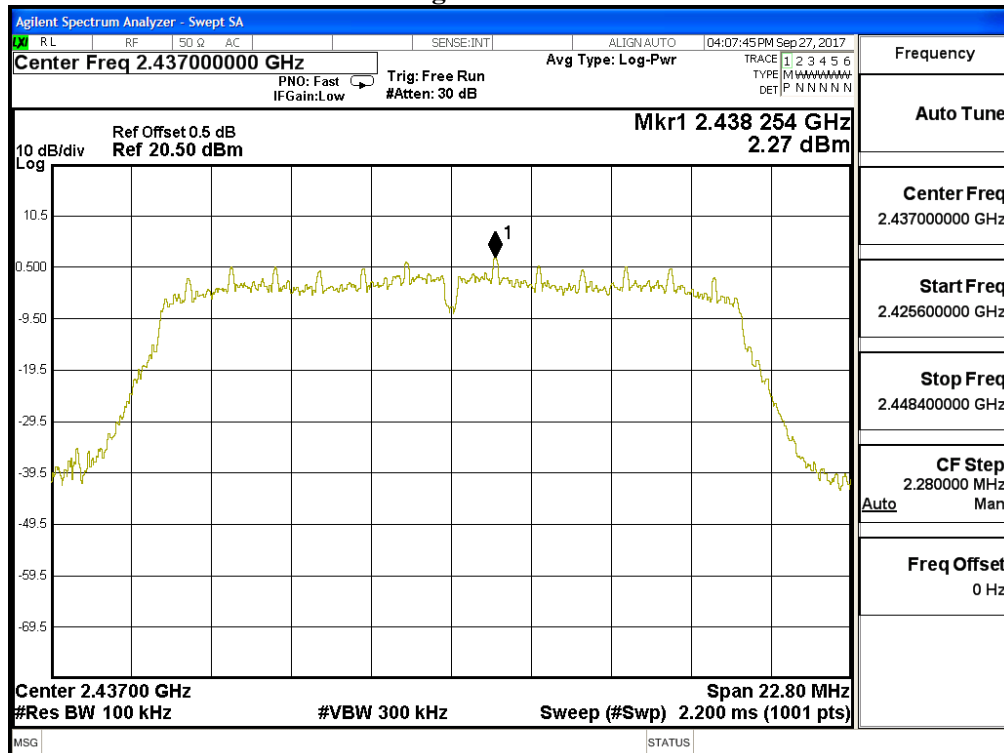
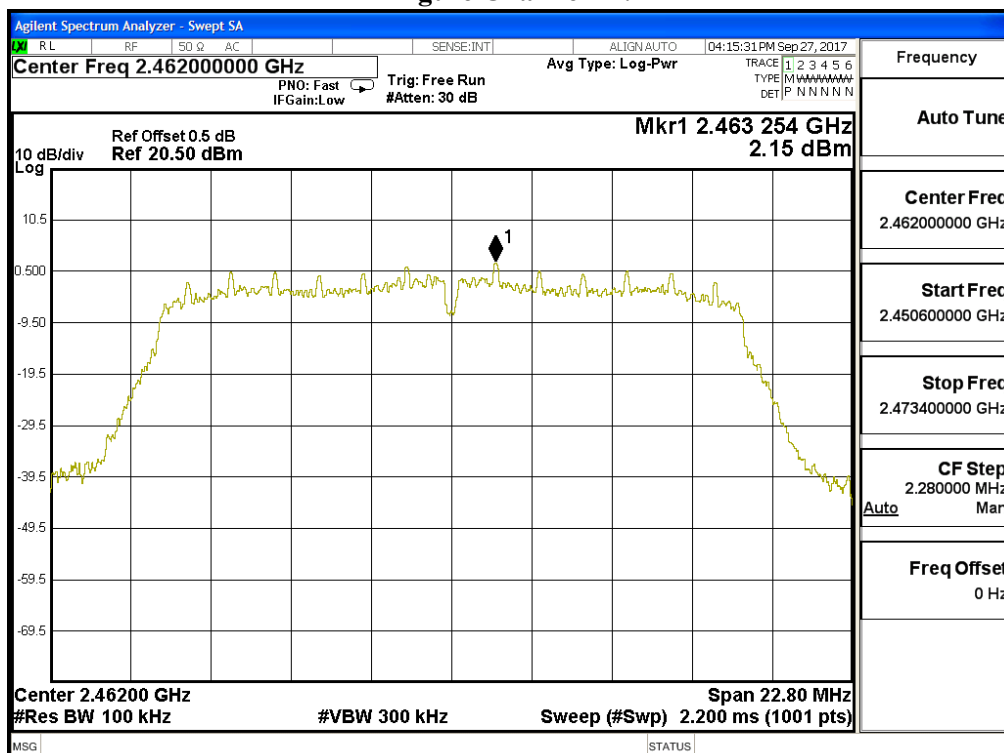


Figure Channel 11:



Product : VUZE+ Camera
 Test Item : Power Density Data
 Test Site : No.3 OATS
 Test Mode : Mode 3: Transmit (802.11n MCS0 6.5Mbps 20M-BW)

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
01	2412	2.220	≤ 8 dBm	Pass
06	2437	2.130	≤ 8 dBm	Pass
11	2462	2.190	≤ 8 dBm	Pass

Figure Channel 01:

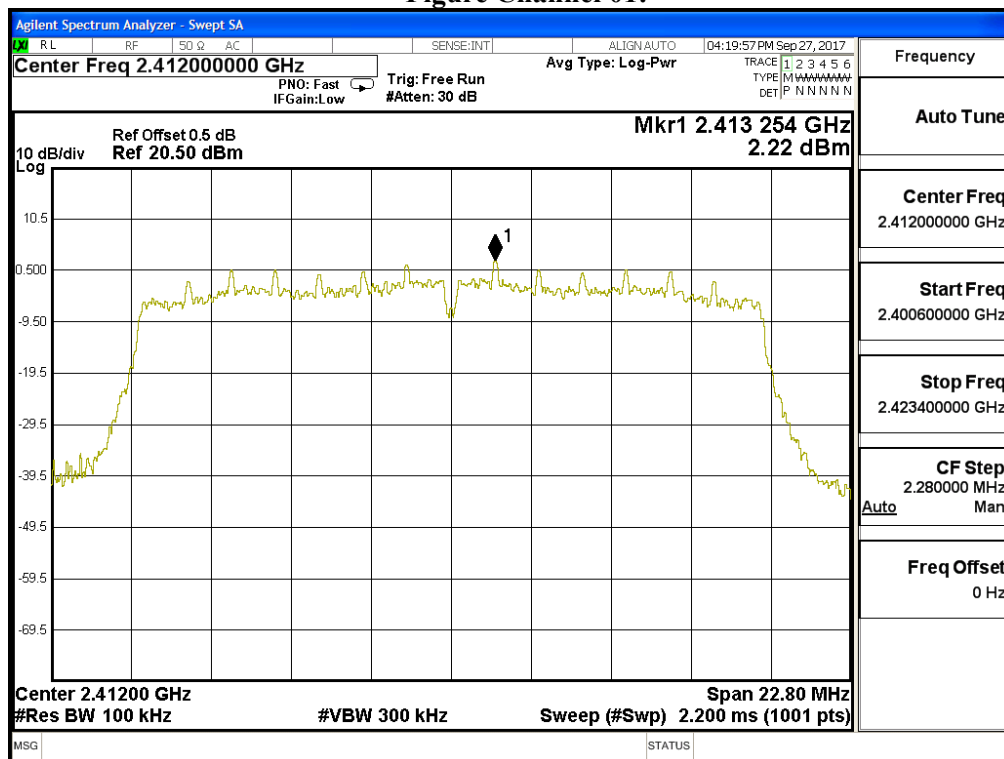


Figure Channel 06:

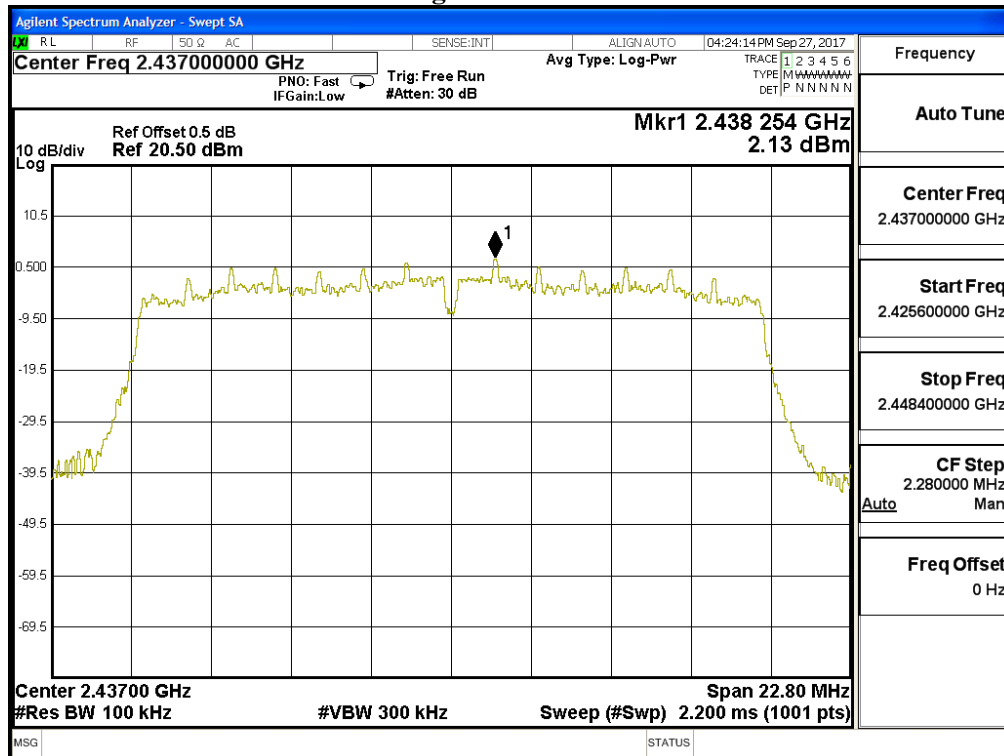
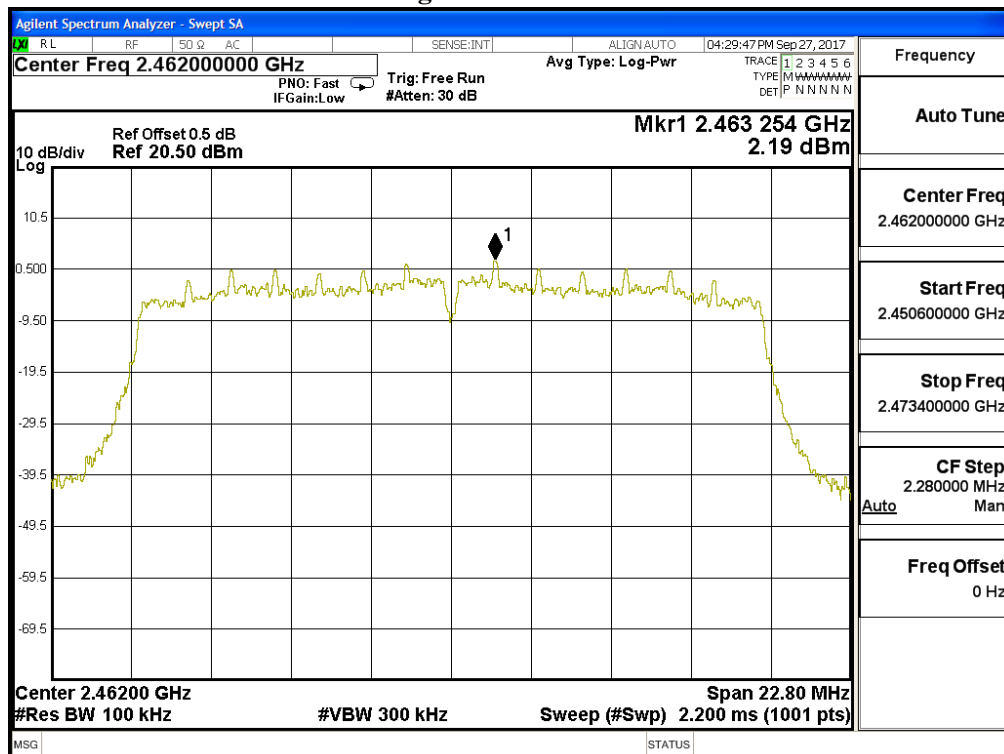


Figure Channel 11:



9. EMI Reduction Method During Compliance Testing

No modification was made during testing.