

APPLICATION CERTIFICATION FCC Part 15C
On Behalf of
AURUM(HK) CO LIMITED

LED MOTION SENSOR TRACKING LIGHT WITH WIFI CAMERA
Model No.: AEC-9332BSD-AC16W-WF

FCC ID: 2AHC59332BSDAC16WWF

Prepared for : AURUM(HK) CO LIMITED
Address : FLAT/RM C, 15/F, SKYLINE TOWER, 18 TONG MI
ROAD, MONGKOK, KOWLOON, HONG KONG

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Report No. : ATE20172197
Date of Test : November 22-28, 2017
Date of Report : November 28, 2017

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Test Report Certification

Applicant : AURUM(HK) CO LIMITED.
Address : FLAT/RM C, 15/F, SKYLINE TOWER, 18 TONG MI ROAD,
MONGKOK, KOWLOON, HONG KONG
Manufacturer : AURUM ELECTRONICS CORP.
Address : Building B Ya Fei industrial, Park, Chun Hua Tree industrial District, Li
Cun Road, Xie Gang Town, Dong Guan City, Guang Dong Province,
China
Product : LED MOTION SENSOR TRACKING LIGHT WITH WIFI CAMERA
Model No. : AEC-9332BSD-AC16W-WF
Trade name : Aurum Electronics Corp.

Measurement Procedure Used:

FCC Rules and Regulations Part 15 Subpart C Section 15.247
ANSI C63.10: 2013

The EUT was tested according to DTS test procedure of Apr 05, 2017 KDB558074 D01 DTS Meas Guidance v04 for compliance to FCC 47CFR 15.247 requirements

The device described above is tested by Shenzhen Accurate Technology Co., Ltd. to determine the maximum emission levels emanating from the device. The maximum emission levels are compared to the FCC Part 15 Subpart C Section 15.247 limits. The measurement results are contained in this test report and Shenzhen Accurate Technology Co., Ltd. is assumed full responsibility for the accuracy and completeness of these measurements. Also, this report shows that the Equipment Under Test (EUT) is to be technically compliant with the FCC requirements. This report applies to above tested sample only. This report shall not be reproduced in part without written approval of Shenzhen Accurate Technology Co., Ltd.

Date of Test : November 22-28, 2017
Date of Report : November 28, 2017

Prepared by : 
(Bob Wang, Engineer)

Approved & Authorized Signer : 
(Sean Liu, Manager)

1. GENERAL INFORMATION

1.1. Description of Device (EUT)

EUT	:	LED MOTION SENSOR TRACKING LIGHT WITH WIFI CAMERA
Model Number	:	AEC-9332BSD-AC16W-WF
Frequency Range	:	802.11b/g/n(20MHz): 2412-2462MHz 802.11n(40MHz): 2422-2452MHz
Number of Channels	:	802.11b/g/n (20MHz):11 802.11n (40MHz): 7
Antenna Gain	:	2.76dBi
Type of Antenna	:	Integral Antenna
Power Supply	:	AC 120V; 60HZ
Data Rate	:	802.11b: 11, 5.5, 2, 1 Mbps 802.11g: 54, 48, 36, 24, 18, 12, 9, 6 Mbps 802.11n: up to 150Mbps
Modulation Type	:	CCK, DQPSK, DBPSK, DSSS, OFDM
Applicant	:	AURUM(HK) CO LIMITED
Address	:	FLAT/RM C, 15/F, SKYLINE TOWER, 18 TONG MI ROAD, MONGKOK, KOWLOON, HONG KONG.
Manufacturer	:	AURUM ELECTRONICS CORP.
Address	:	Building B Ya Fei industrial, Park, Chun Hua Tree industrial District, Li Cun Road, Xie Gang Town, Dong Guan City, Guang Dong Province, China
Date of sample received	:	November 20, 2017
Date of Test	:	November 22-28, 2017
Sample No.	:	1701794

1.2.Carrier Frequency of Channels

802.11b, 802.11g, 802.11n (20MHz)

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

802.11n (40MHz)

Channel	Frequency(MHz)	Channel	Frequency(MHz)
---	---	07	2442
---	---	08	2447
03	2422	09	2452
04	2427	---	---
05	2432	---	---
06	2437	---	---

1.3.Accessory and Auxiliary Equipment

N/A

1.4. Description of Test Facility

EMC Lab	:	Recognition of accreditation by Federal Communications Commission (FCC) The Designation Number is CN1189 The Registration Number is 708358 Listed by Innovation, Science and Economic Development Canada (ISED) The Registration Number is 5077A-2 Accredited by China National Accreditation Service for Conformity Assessment (CNAS) The Registration Number is CNAS L3193 Accredited by American Association for Laboratory Accreditation (A2LA) The Certificate Number is 4297.01
Name of Firm	:	Shenzhen Accurate Technology Co., Ltd.
Site Location	:	1/F., Building A, Changyuan New Material Port, Science & Industry Park, Nanshan District, Shenzhen, Guangdong, P.R. China

1.5. Measurement Uncertainty

Conducted Emission Expanded Uncertainty	=	2.23dB, k=2
Radiated emission expanded uncertainty (9kHz-30MHz)	=	3.08dB, k=2
Radiated emission expanded uncertainty (30MHz-1000MHz)	=	4.42dB, k=2
Radiated emission expanded uncertainty (Above 1GHz)	=	4.06dB, k=2

2. MEASURING DEVICE AND TEST EQUIPMENT

Table 1: List of Test and Measurement Equipment

Kind of equipment	Manufacturer	Type	S/N	Calibrated dates	Calibrated until
EMI Test Receiver	Rohde&Schwarz	ESCS30	100307	Jan. 07, 2017	1 Year
EMI Test Receiver	Rohde&Schwarz	ESPI3	101526/003	Jan. 07, 2017	1 Year
Spectrum Analyzer	Agilent	E7405A	MY45115511	Jan. 07, 2017	1 Year
Pre-Amplifier	Rohde&Schwarz	CBLU118354 0-01	3791	Jan. 07, 2017	1 Year
Loop Antenna	Schwarzbeck	FMZB1516	1516131	Jan. 13, 2017	1 Year
Bilog Antenna	Schwarzbeck	VULB9163	9163-323	Jan. 13, 2017	1 Year
Horn Antenna	Schwarzbeck	BBHA9120D	9120D-655	Jan. 13, 2017	1 Year
Horn Antenna	Schwarzbeck	BBHA9170	9170-359	Jan. 13, 2017	1 Year
LISN	Rohde&Schwarz	ESH3-Z5	100305	Jan. 07, 2017	1 Year
LISN	Schwarzbeck	NSLK8126	8126431	Jan. 07, 2017	1 Year
Highpass Filter	Wainwright Instruments	WHKX3.6/18 G-10SS	N/A	Jan. 07, 2017	1 Year
Band Reject Filter	Wainwright Instruments	WRCG2400/2 485-2375/2510 -60/11SS	N/A	Jan. 07, 2017	1 Year

3. OPERATION OF EUT DURING TESTING

3.1.Operating Mode

The mode is used: **1.802.11b Transmitting mode**

Low Channel: 2412MHz

Middle Channel: 2437MHz

High Channel: 2462MHz

2.802.11g Transmitting mode

Low Channel: 2412MHz

Middle Channel: 2437MHz

High Channel: 2462MHz

3.802.11n (20MHz) Transmitting mode

Low Channel: 2412MHz

Middle Channel: 2437MHz

High Channel: 2462MHz

4.802.11n (40MHz) Transmitting mode

Low Channel: 2422MHz

Middle Channel: 2437MHz

High Channel: 2452MHz

3.2.Configuration and peripherals

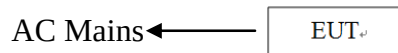


Figure 1 Setup: Transmitting mode

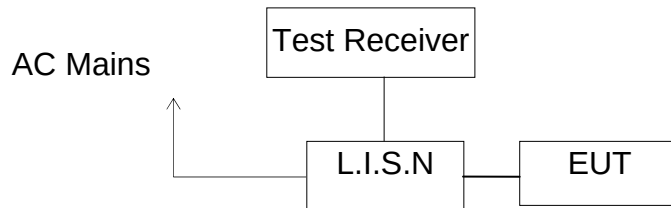
4. TEST PROCEDURES AND RESULTS

FCC Rules	Description of Test	Result
Section 15.207	Power Line Conducted Emission	Compliant
Section 15.247(a)(2)	6dB&20dB Bandwidth Test	Compliant
Section 15.247(e)	Power Spectral Density Test	Compliant
Section 15.247(b)(3)	Maximum Peak Output Power Test	Compliant
Section 15.247(d)	Band Edge Compliance Test	Compliant
Section 15.247(d) Section 15.209	Radiated Spurious Emission Test	Compliant
Section 15.247(d)	Conducted Spurious Emission Test	Compliant
Section 15.203	Antenna Requirement	Compliant

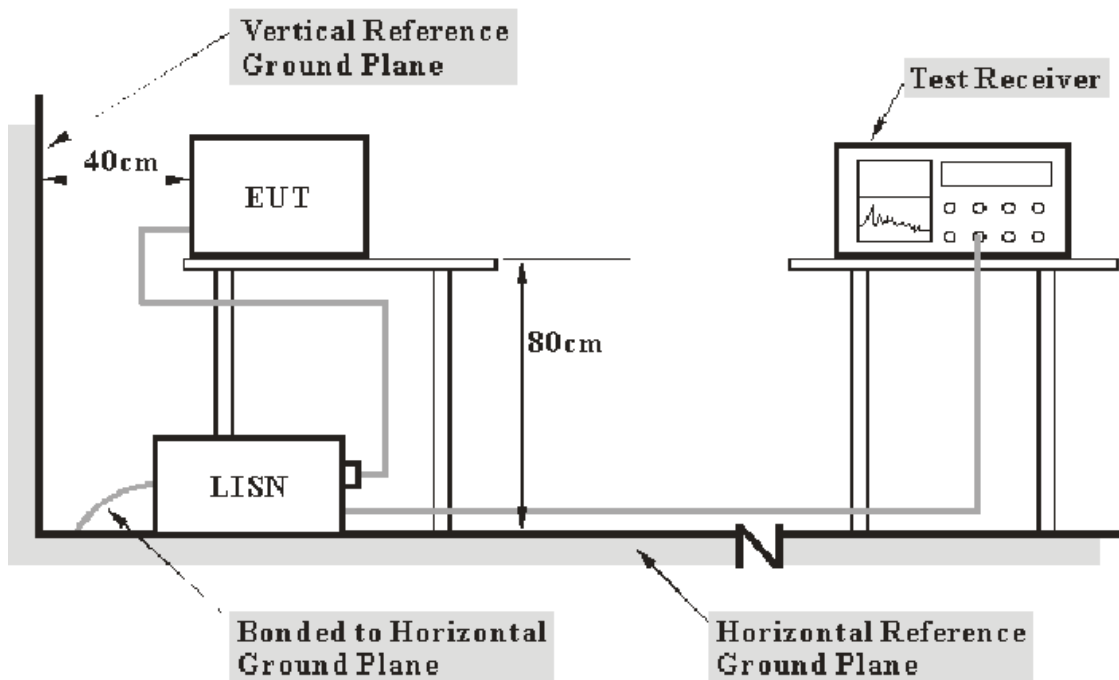
5. POWER LINE CONDUCTED MEASUREMENT

5.1. Block Diagram of Test

5.1.1. Block diagram of connection between the EUT and simulators



5.1.2. Test System Setup



- Note:**
1. Support units were connected to second LISN.
 2. Both of LISNs (AMN) 80 cm from EUT and at the least 80 cm from other units and other metal planes support units.

5.2.Power Line Conducted Emission Measurement Limits

Frequency (MHz)	Limit dB(μ V)	
	Quasi-peak Level	Average Level
0.15 - 0.50	66.0 – 56.0 *	56.0 – 46.0 *
0.50 - 5.00	56.0	46.0
5.00 - 30.00	60.0	50.0
NOTE1: The lower limit shall apply at the transition frequencies.		
NOTE2: The limit decreases linearly with the logarithm of the frequency in the range 0.15MHz to 0.50MHz.		

5.3.Configuration of EUT on Measurement

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

5.4.Operating Condition of EUT

5.4.1.Setup the EUT and simulator as shown as Section 5.1.

5.4.2.Turn on the power of all equipment.

5.4.3.Let the EUT work in test mode and measure it.

5.5.Test Procedure

The EUT is put on the plane 0.8m high above the ground by insulating support and is connected to the power mains through a line impedance stabilization network (L.I.S.N.). This provides a 50ohm coupling impedance for the EUT system. Please refer the block diagram of the test setup and photographs. Both sides of AC lines are checked to find out the maximum conducted emission. In order to find the maximum emission levels, the relative positions of equipment and all of the interface cables shall be changed according to ANSI C63.10 on Conducted Emission Measurement.

The bandwidth of test receiver (R & S ESCS30) is set at 9kHz.

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

5.6.Data Sample

Frequency (MHz)	Transducer value (dB)	QuasiPeak Level (dB μ V)	Average Level (dB μ V)	QuasiPeak Limit (dB μ V)	Average Limit (dB μ V)	QuasiPeak Margin (dB)	Average Margin (dB)	Remark (Pass/Fail)
0.7755	11.1	35.20	31.40	56.0	46.0	-20.8	-14.6	Pass

Frequency(MHz) = Emission frequency in MHz

Transducer value(dB) = Insertion loss of LISN + Cable Loss

Level(dB μ V) = Quasi-peak Reading/Average Reading + Transducer value

Limit (dB μ V) = Limit stated in standard

Margin = Limit (dB μ V) - Level (dB μ V)

Calculation Formula:

Margin = Limit (dB μ V) - Level (dB μ V)

5.7.Power Line Conducted Emission Measurement Results

PASS.

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

Test mode : On (120V/60Hz)								
MEASUREMENT RESULT: "F2196-2_fin"								
2017-11-22 9:56								
Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE	
0.159000	43.00	10.8	66	22.5	QP	N	GND	
0.775500	35.20	11.1	56	20.8	QP	N	GND	
1.455000	32.50	11.2	56	23.5	QP	N	GND	
2.755500	31.10	11.3	56	24.9	QP	N	GND	
7.417500	38.50	11.5	60	21.5	QP	N	GND	
29.998500	22.70	11.8	60	37.3	QP	N	GND	
MEASUREMENT RESULT: "F2196-2_fin2"								
2017-11-22 9:56								
Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE	
0.379500	24.70	10.9	48	23.6	AV	N	GND	
0.775500	31.40	11.1	46	14.6	AV	N	GND	
1.374000	28.00	11.2	46	18.0	AV	N	GND	
2.215500	23.80	11.3	46	22.2	AV	N	GND	
7.345500	23.90	11.5	50	26.1	AV	N	GND	
29.998500	20.80	11.8	50	29.2	AV	N	GND	
MEASUREMENT RESULT: "2196-1_fin"								
2017-11-22 9:41								
Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE	
0.150000	42.50	10.8	66	23.5	QP	L1	GND	
0.748500	40.50	11.1	56	15.5	QP	L1	GND	
1.666500	33.10	11.2	56	22.9	QP	L1	GND	
2.521500	32.10	11.3	56	23.9	QP	L1	GND	
7.359000	38.10	11.5	60	21.9	QP	L1	GND	
29.998500	26.70	11.8	60	33.3	QP	L1	GND	
MEASUREMENT RESULT: "2196-1_fin2"								
2017-11-22 9:41								
Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE	
0.190500	29.00	10.8	54	25.0	AV	L1	GND	
0.780000	29.60	11.1	46	16.4	AV	L1	GND	
1.801500	27.40	11.2	46	18.6	AV	L1	GND	
2.215500	24.80	11.3	46	21.2	AV	L1	GND	
7.602000	28.50	11.5	50	21.5	AV	L1	GND	
29.998500	23.00	11.8	50	27.0	AV	L1	GND	

Emissions attenuated more than 20 dB below the permissible value are not reported.

The spectral diagrams are attached as below.

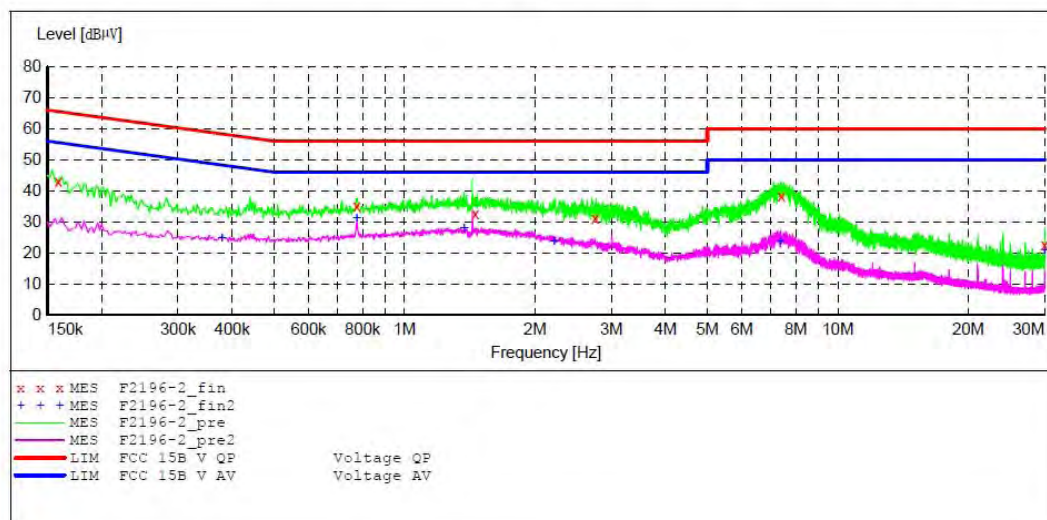
ACCURATE TECHNOLOGY CO.,LTD

CONDUCTED EMISSION STANDARD FCC PART 15B

EUT: LED MOTION SENSOR TRACKING LIGHT WITH WIFI CAMERA
Manufacturer: AURUM
Operating Condition: ON
Test Site: 1#Shielding Room
Operator: Frank
Test Specification: N 120V/60Hz
Comment: Report NO:ATE20172197
Start of Test: 2017-11-22 / 9:52:21
M/N:AEC-9332BSD-AC16W-WF

SCAN TABLE: "V 150K-30MHz fin"

Short Description: _SUB_STD_VTERM2 1.70
Start Stop Step Detector Meas. IF Transducer
Frequency Frequency Width Time Bandw.
150.0 kHz 30.0 MHz 4.5 kHz QuasiPeak 1.0 s 9 kHz NSLK8126 2008
Average



MEASUREMENT RESULT: "F2196-2_fin"

2017-11-22 9:56

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.159000	43.00	10.8	66	22.5	QP	N	GND
0.775500	35.20	11.1	56	20.8	QP	N	GND
1.455000	32.50	11.2	56	23.5	QP	N	GND
2.755500	31.10	11.3	56	24.9	QP	N	GND
7.417500	38.50	11.5	60	21.5	QP	N	GND
29.998500	22.70	11.8	60	37.3	QP	N	GND

MEASUREMENT RESULT: "F2196-2_fin2"

2017-11-22 9:56

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.379500	24.70	10.9	48	23.6	AV	N	GND
0.775500	31.40	11.1	46	14.6	AV	N	GND
1.374000	28.00	11.2	46	18.0	AV	N	GND
2.215500	23.80	11.3	46	22.2	AV	N	GND
7.345500	23.90	11.5	50	26.1	AV	N	GND
29.998500	20.80	11.8	50	29.2	AV	N	GND

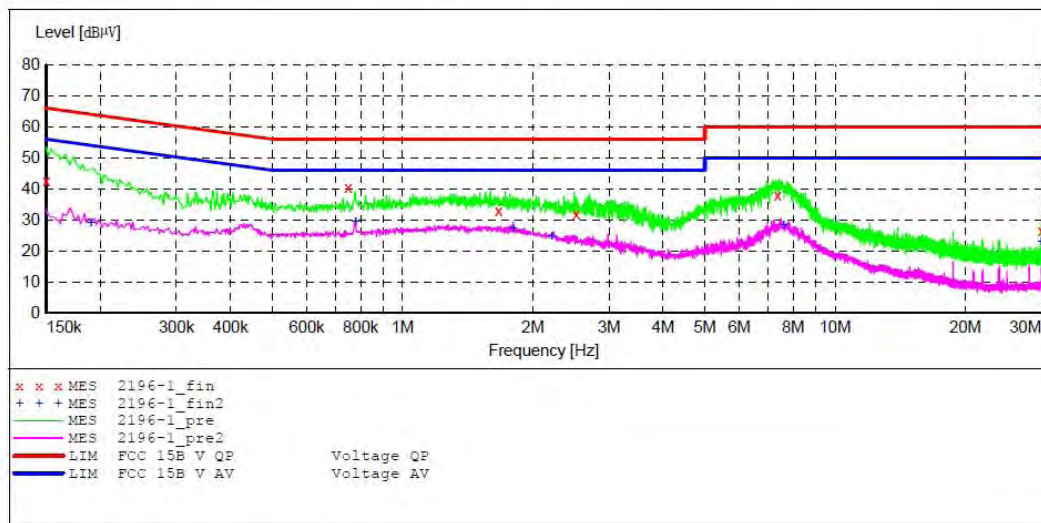
ACCURATE TECHNOLOGY CO.,LTD

CONDUCTED EMISSION STANDARD FCC PART 15B

EUT: LED MOTION SENSOR TRACKING LIGHT WITH WIFI CAMERA
Manufacturer: AURUM
Operating Condition: ON
Test Site: 1#Shielding Room
Operator: Frank
Test Specification: L 120V/60Hz
Comment: Report NO:ATE20172197
Start of Test: 2017-11-22 / 9:40:11
M/N:AEC-9332BSD-AC16W-WF

SCAN TABLE: "V 150K-30MHz fin"

Short Description: _SUB_STD_VTERM2 1.70
Start Stop Step Detector Meas. IF Transducer
Frequency Frequency Width Time Bandw.
150.0 kHz 30.0 MHz 4.5 kHz QuasiPeak 1.0 s 9 kHz NSLK8126 2008
Average



MEASUREMENT RESULT: "2196-1_fin"

2017-11-22 9:41

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.150000	42.50	10.8	66	23.5	QP	L1	GND
0.748500	40.50	11.1	56	15.5	QP	L1	GND
1.666500	33.10	11.2	56	22.9	QP	L1	GND
2.521500	32.10	11.3	56	23.9	QP	L1	GND
7.359000	38.10	11.5	60	21.9	QP	L1	GND
29.998500	26.70	11.8	60	33.3	QP	L1	GND

MEASUREMENT RESULT: "2196-1_fin2"

2017-11-22 9:41

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.190500	29.00	10.8	54	25.0	AV	L1	GND
0.780000	29.60	11.1	46	16.4	AV	L1	GND
1.801500	27.40	11.2	46	18.6	AV	L1	GND
2.215500	24.80	11.3	46	21.2	AV	L1	GND
7.602000	28.50	11.5	50	21.5	AV	L1	GND
29.998500	23.00	11.8	50	27.0	AV	L1	GND

6. 6DB&99% BANDWIDTH MEASUREMENT

6.1. Block Diagram of Test Setup



6.2. The Requirement For Section 15.247(a)(2)

Section 15.247(a)(2): Systems using digital modulation techniques may operate in the 902-928MHz, 2400-2483.5MHz, and 5725-5850MHz bands. The minimum 6 dB bandwidth shall be at least 500 kHz.

ANSI C63.10: The occupied bandwidth is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers are each equal to 0.5% of the total mean power of the given emission.

6.3. EUT Configuration on Measurement

The equipment is installed on the emission measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

6.4. Operating Condition of EUT

6.4.1. Setup the EUT and simulator as shown as Section 6.1.

6.4.2. Turn on the power of all equipment.

6.4.3. Let the EUT work in TX modes measure it. The transmit frequency are 2412-2462 and 2422-2452MHz. We select 2412MHz, 2437MHz, 2462MHz and 2422MHz, 2437MHz, 2452MHz TX frequency to transmit.

6.5. Test Procedure

1. Set resolution bandwidth (RBW) = 100 kHz.
2. Set the video bandwidth (VBW) $\geq 3 \times$ RBW.
3. Detector = Peak.
4. Trace mode = max hold.
5. Sweep = auto couple.
6. Allow the trace to stabilize.
7. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

99% bandwidth

1. Set resolution bandwidth (RBW) = 1%-5% OBW.
2. Set the video bandwidth (VBW) $\geq 3 \times$ RBW.
3. Detector = Peak.
4. Trace mode = max hold.
5. Sweep = auto couple.
6. Allow the trace to stabilize.
7. Use the 99% power bandwidth function of the instrument (if available) and report the measured bandwidth

6.6.Test Result

The test was performed with 802.11b				
Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Limit (MHz)	99% Bandwidth (MHz)
Low	2412	10.072	> 0.5MHz	15.352
Middle	2437	10.072	> 0.5MHz	15.276
High	2462	10.101	> 0.5MHz	14.975

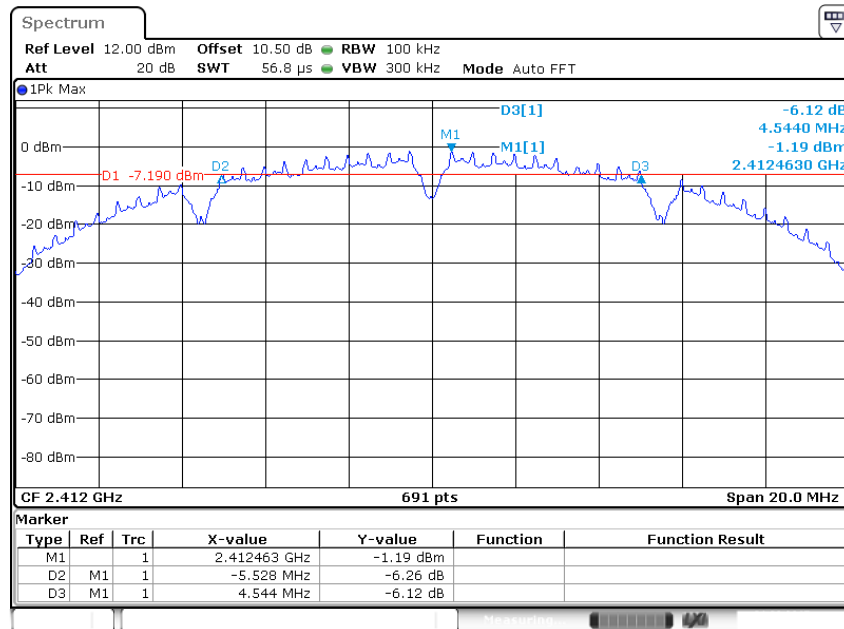
The test was performed with 802.11g				
Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Limit (MHz)	99% Bandwidth (MHz)
Low	2412	16.440	> 0.5MHz	16.614
Middle	2437	16.440	> 0.5MHz	16.614
High	2462	16.440	> 0.5MHz	16.573

The test was performed with 802.11n (Bandwidth: 20 MHz)				
Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Limit (MHz)	99% Bandwidth (MHz)
Low	2412	17.597	> 0.5MHz	17.855
Middle	2437	17.597	> 0.5MHz	17.855
High	2462	17.598	> 0.5MHz	17.855

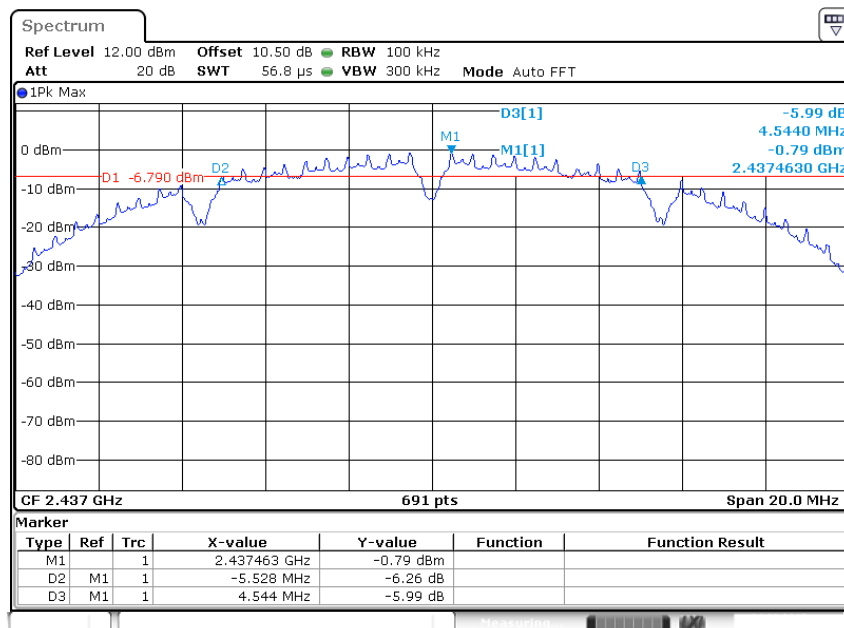
The test was performed with 802.11n (Bandwidth: 40 MHz)				
Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Limit (MHz)	99% Bandwidth (MHz)
Low	2422	35.716	> 0.5MHz	36.295
Middle	2437	35.521	> 0.5MHz	36.295
High	2452	35.745	> 0.5MHz	36.295

The spectrum analyzer plots are attached as below.

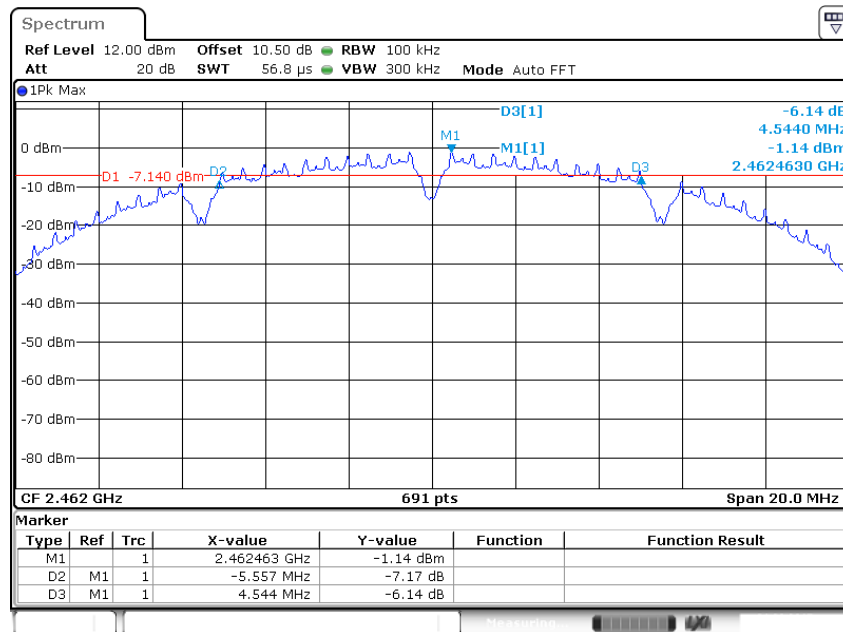
6dB Bandwidth
802.11b Channel Low 2412MHz



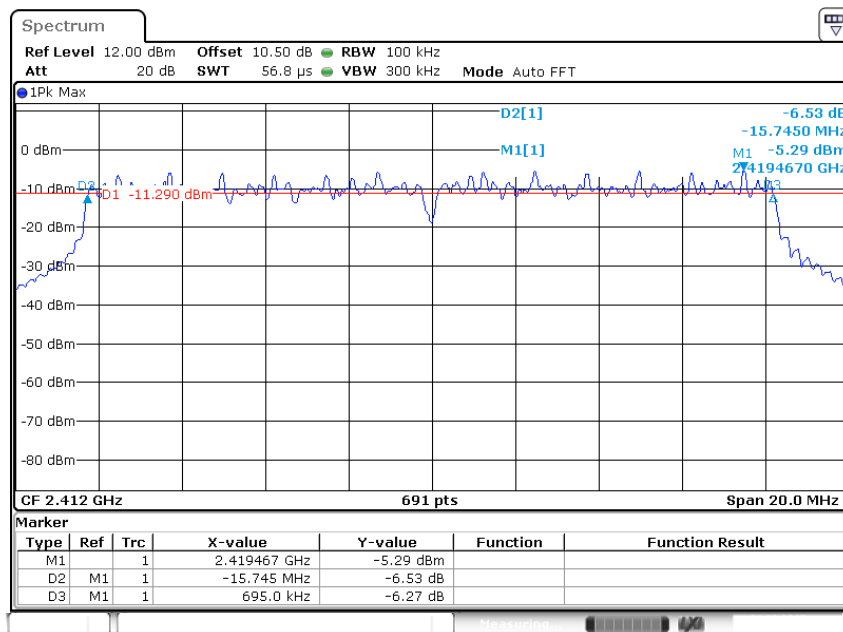
802.11b Channel Middle 2437MHz



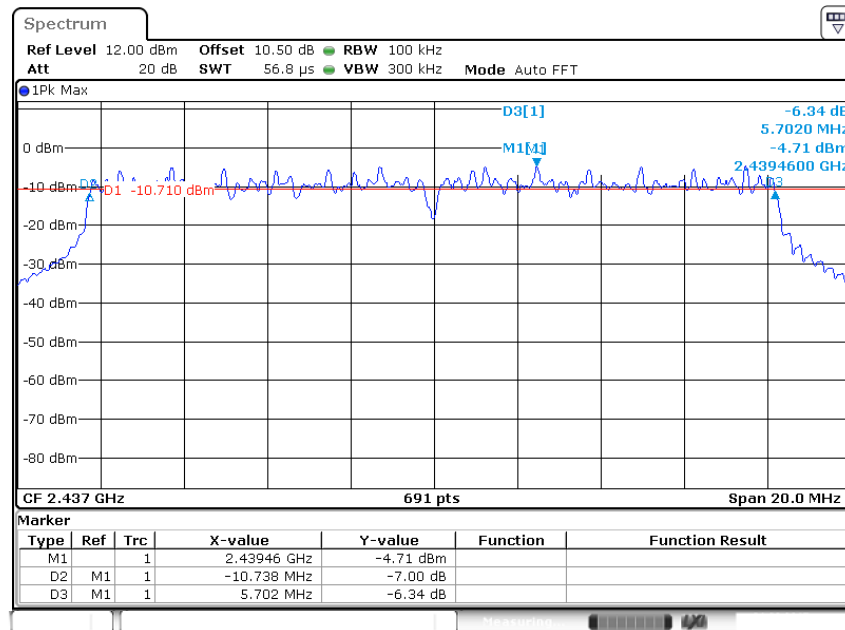
802.11b Channel High 2462MHz



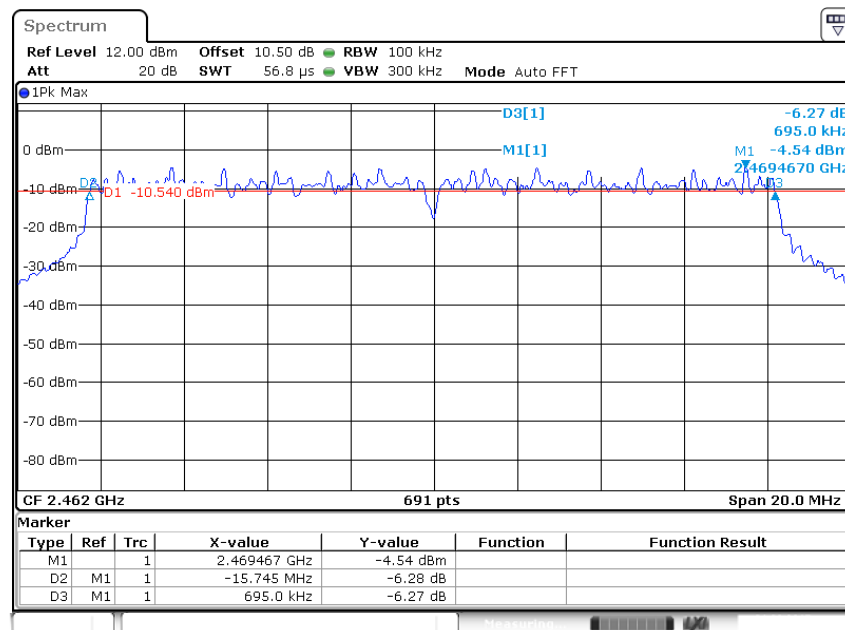
802.11g Channel Low 2412MHz



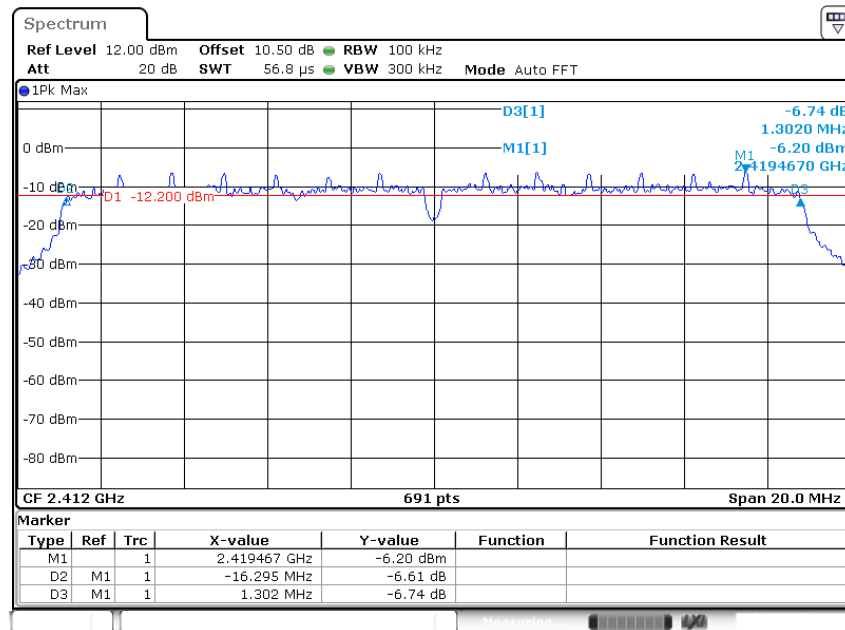
802.11g Channel Middle 2437MHz



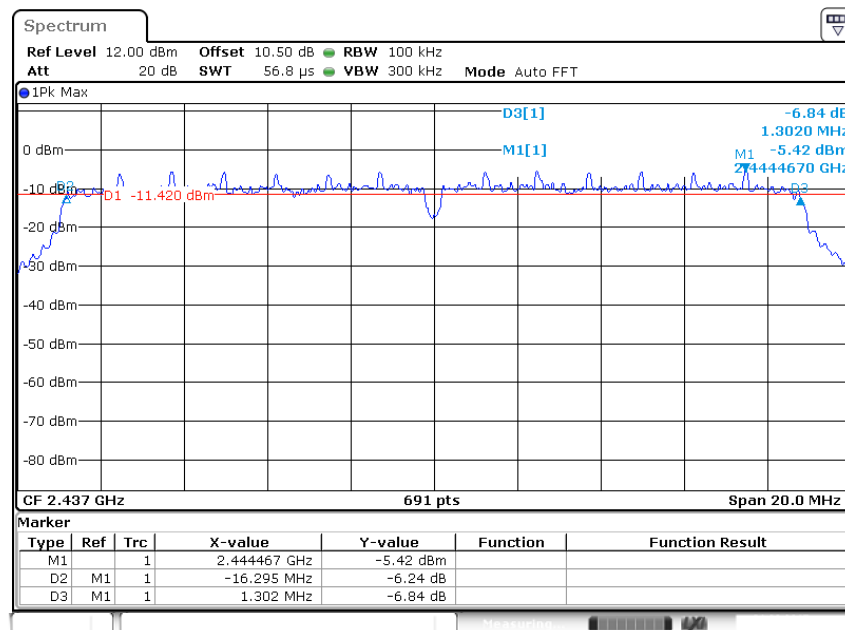
802.11g Channel High 2462MHz



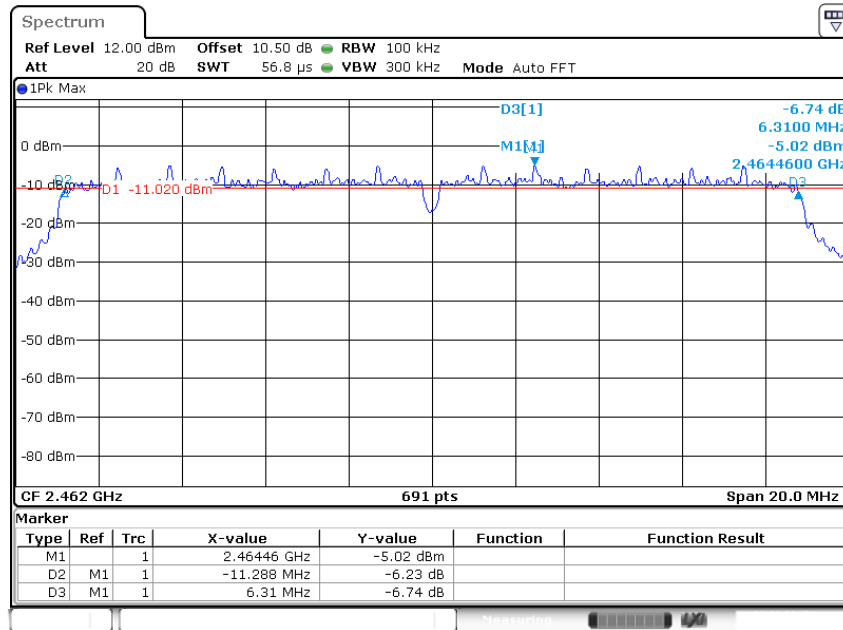
802.11n Channel Low 2412MHz (20MHz)



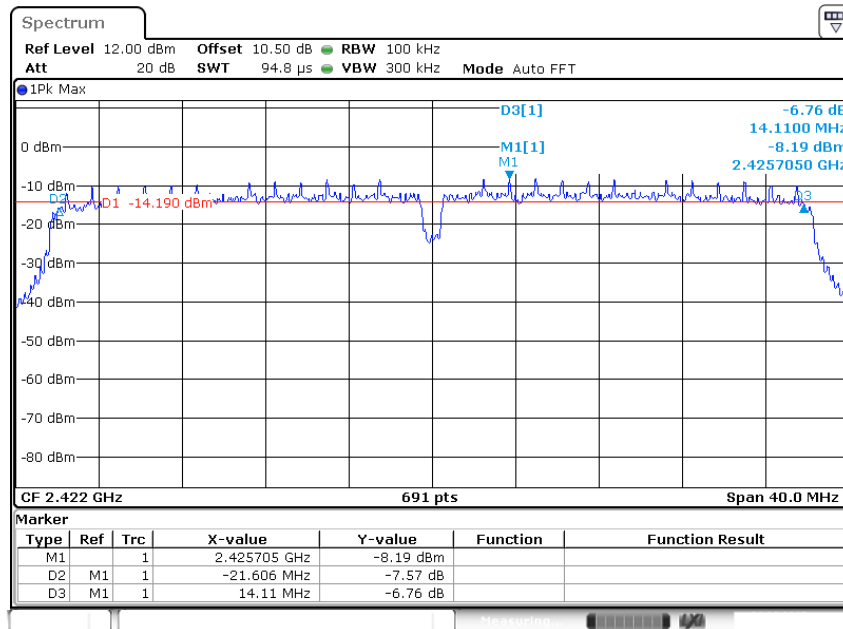
802.11n Channel Middle 2437MHz(20MHz)



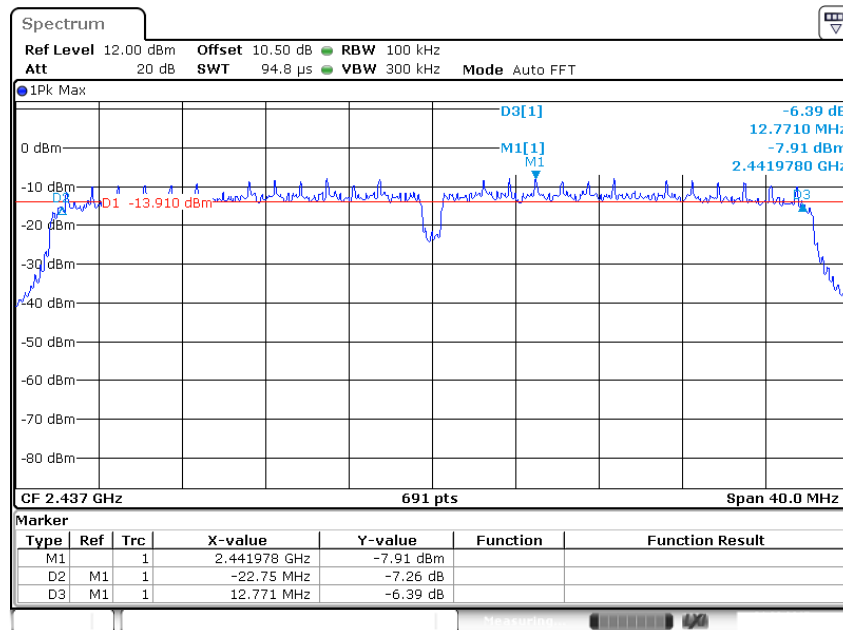
802.11n Channel High 2462MHz(20MHz)



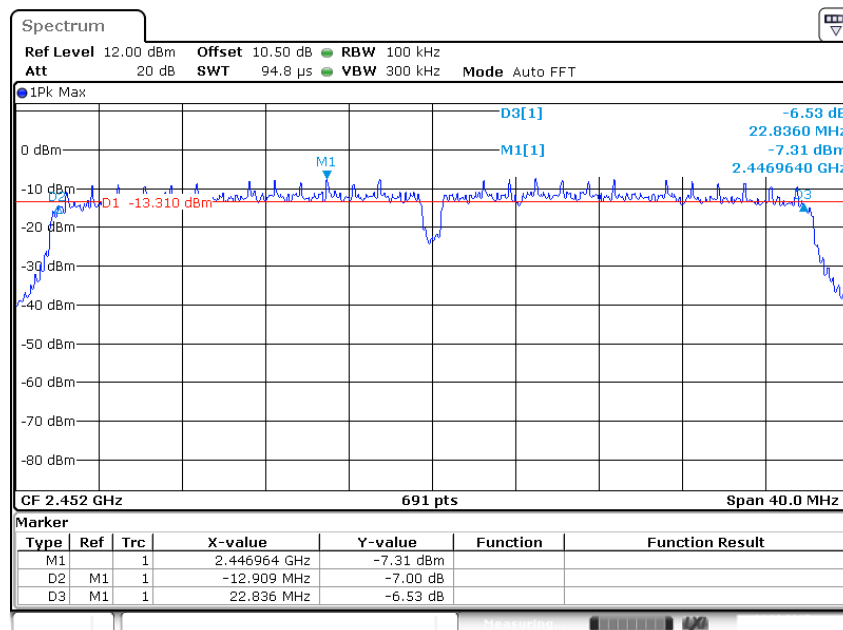
802.11n Channel Low 2422MHz (40MHz)



802.11n Channel Middle 2437MHz(40MHz)

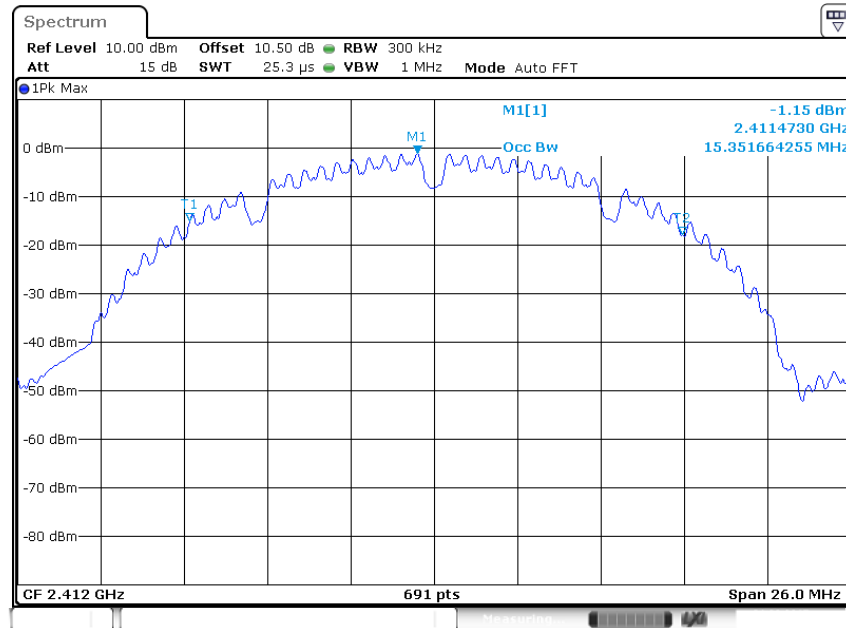


802.11n Channel High 2452MHz(40MHz)

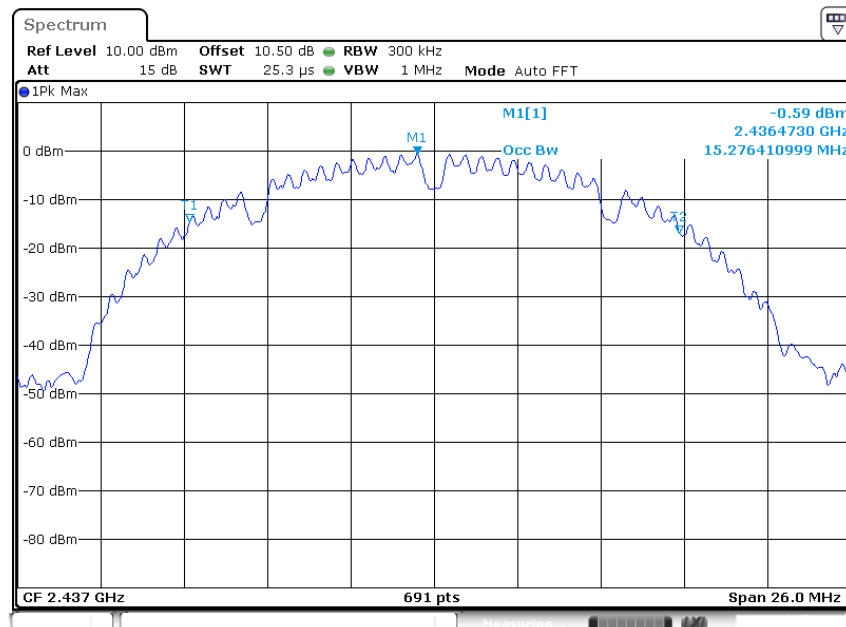


99% Bandwidth

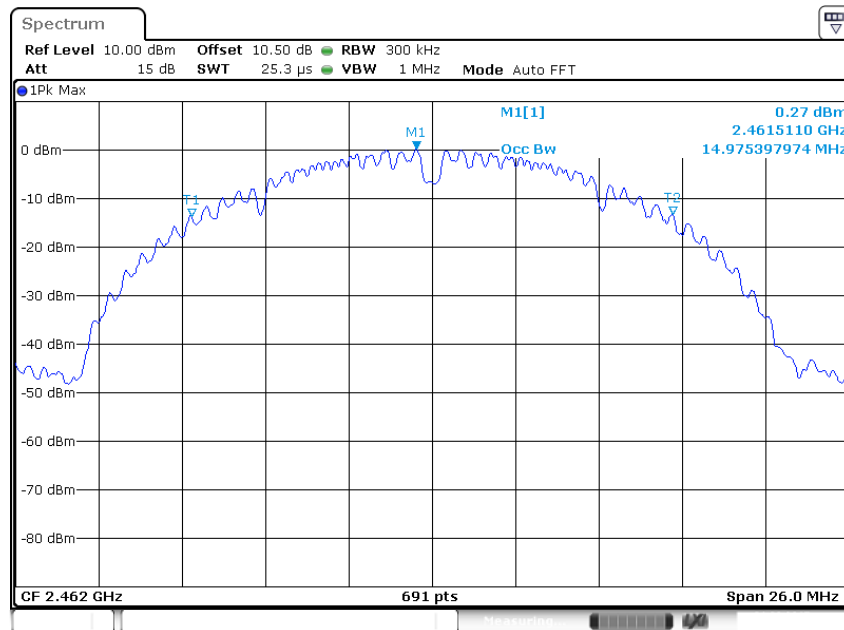
802.11b Channel Low 2412MHz



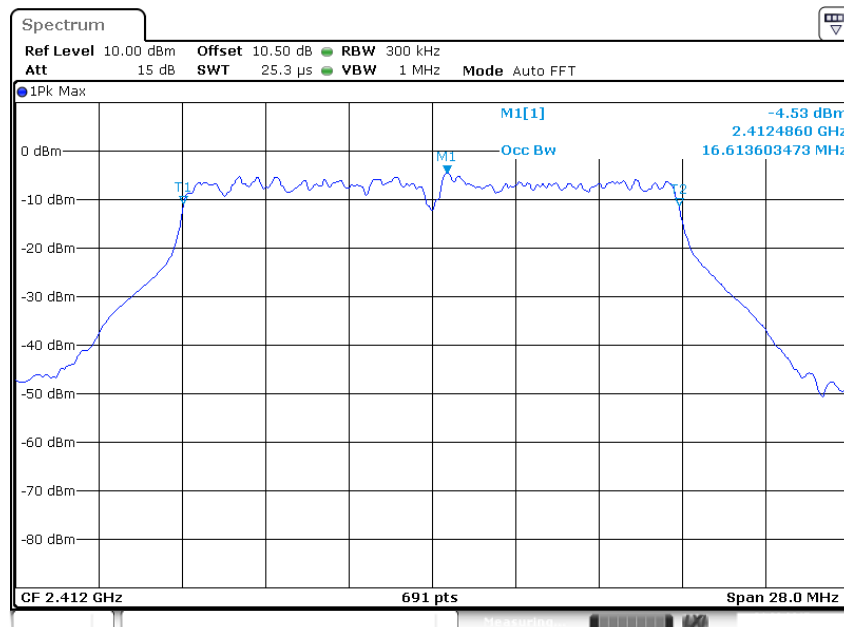
802.11b Channel Middle 2437MHz



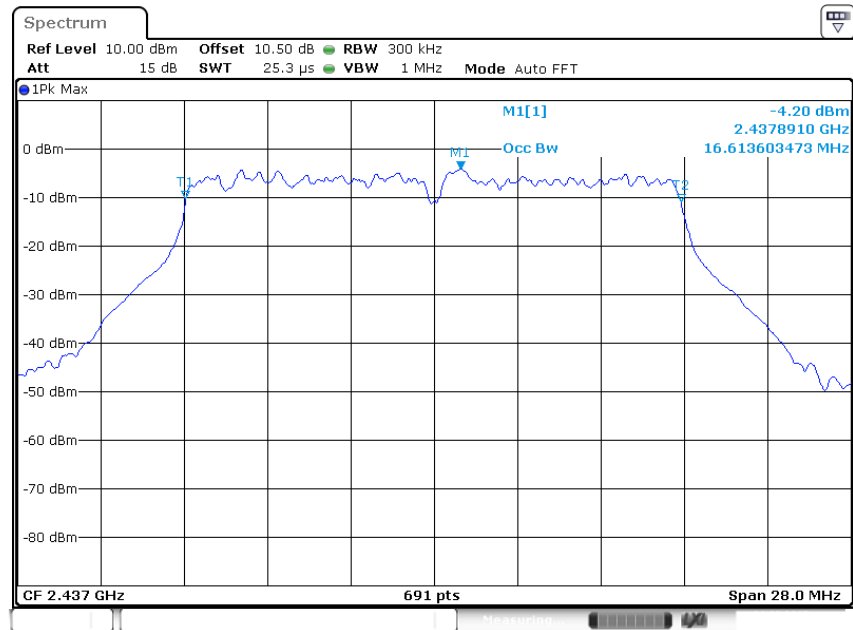
802.11b Channel High 2462MHz



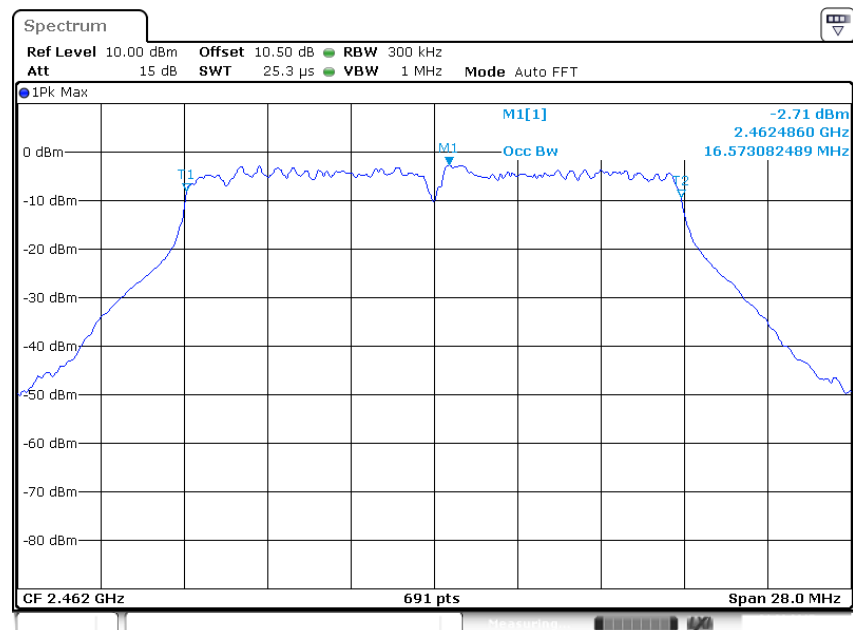
802.11g Channel Low 2412MHz



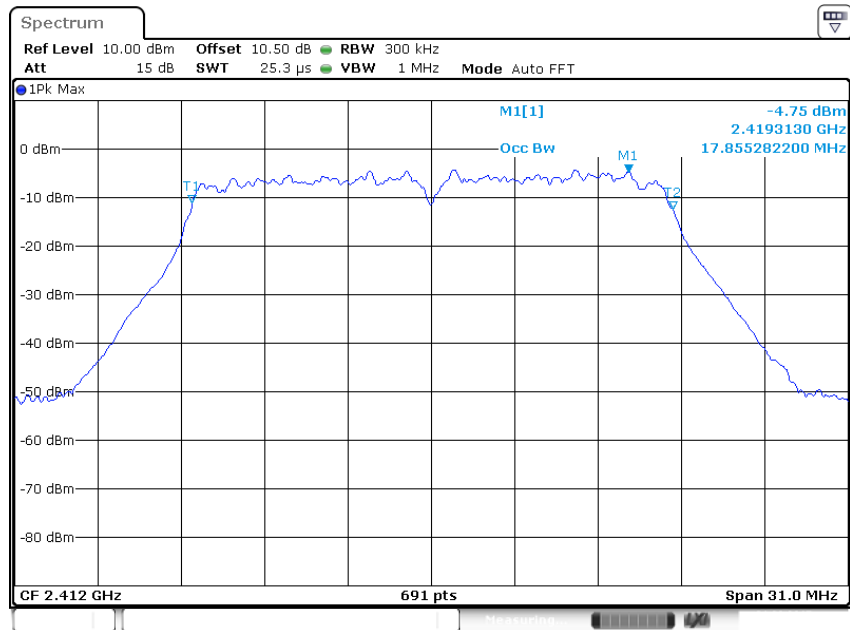
802.11g Channel Middle 2437MHz



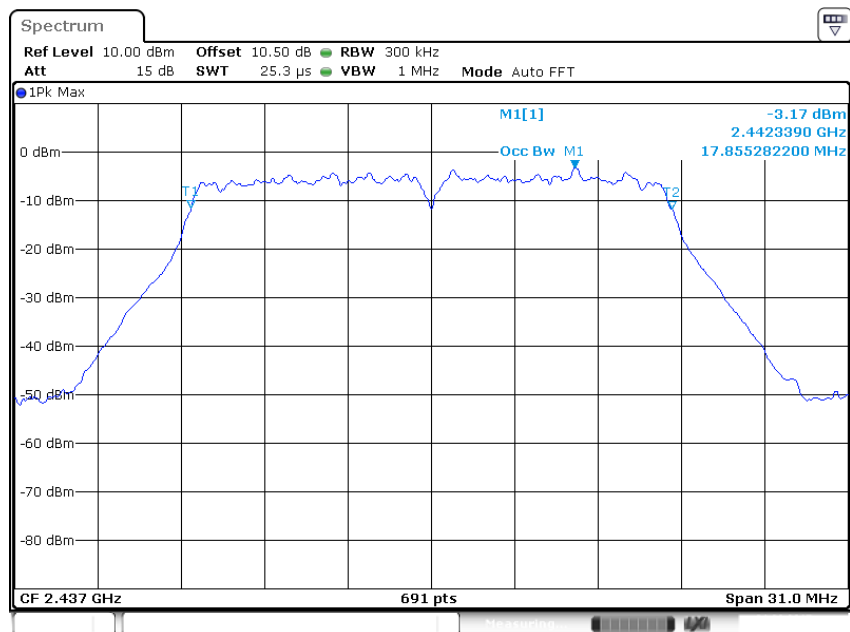
802.11g Channel High 2462MHz



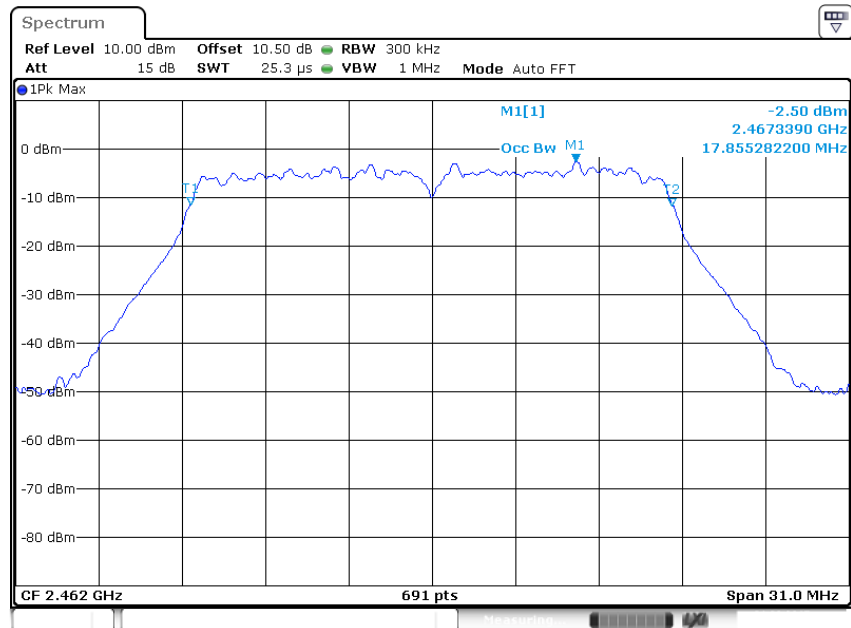
802.11n Channel Low 2412MHz (20MHz)



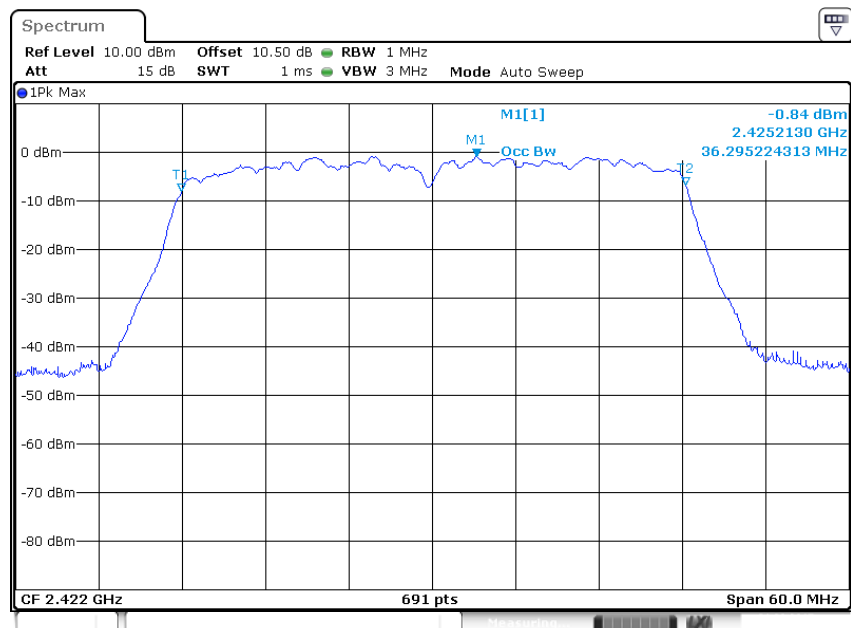
802.11n Channel Middle 2437MHz(20MHz)



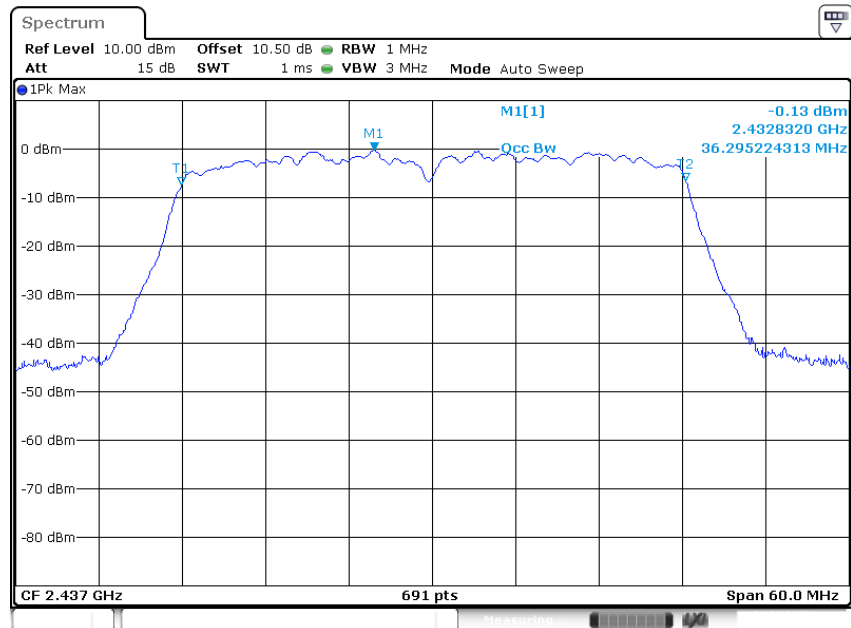
802.11n Channel High 2462MHz(20MHz)



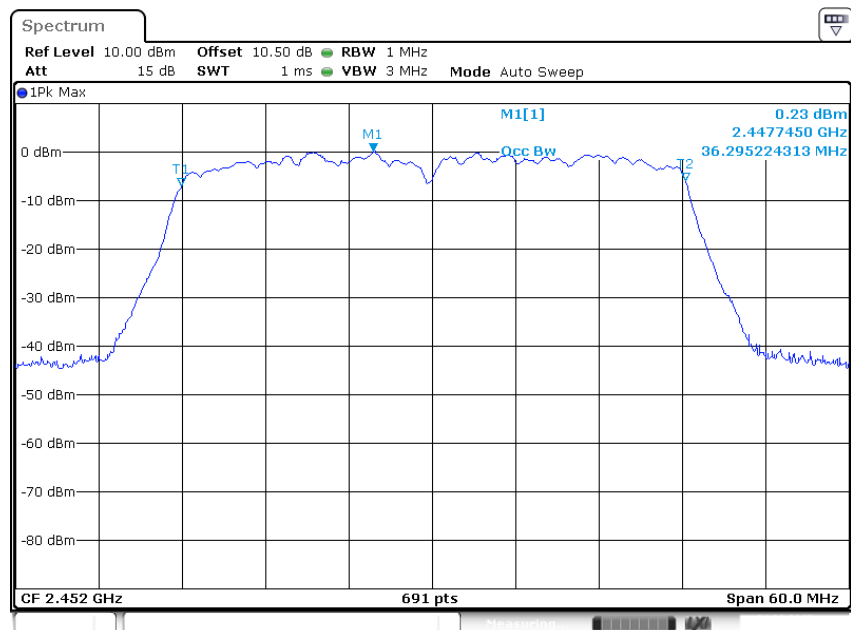
802.11n Channel Low 2422MHz (40MHz)



802.11n Channel Middle 2437MHz(40MHz)



802.11n Channel High 2452MHz(40MHz)



7. MAXIMUM CONDUCTED (AVERAGE) OUTPUT POWER

7.1. Block Diagram of Test Setup



7.2. The Requirement For Section 15.247(b)(3)

Section 15.247(b)(3): For systems using digital modulation in the 902-928MHz, 2400-2483.5MHz, and 5725-5850MHz bands: 1 Watt.

7.3. EUT Configuration on Measurement

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

7.4. Operating Condition of EUT

7.4.1. Setup the EUT and simulator as shown as Section 7.1.

7.4.2. Turn on the power of all equipment.

7.4.3. Let the EUT work in TX modes measure it. The transmit frequency are 2412-2462 and 2422-2452MHz. We select 2412MHz, 2437MHz, 2462MHz and 2422MHz, 2437MHz, 2452MHz TX frequency to transmit.

7.5. Test Procedure

7.5.1. The EUT was tested according to DTS test procedure of Apr 08, 2016

KDB558074 D01 DTS Meas Guidance v03r05 for compliance to

FCC 47CFR 15.247 requirements.

7.5.2. The transmitter output was connected to the spectrum analyzer through a low loss cable.

7.5.3. Set RBW = 1-5% of the OBW, not to exceed 1 MHz, VBW $\geq$ 3 x RBW, Sweep time = auto, Set span to at least 1.5 times the OBW, Detector = RMS.

7.5.4. Measurement the Maximum conducted (average) output power.

7.6. Test Result

The test was performed with 802.11b				
Channel	Frequency (MHz)	Ave output power (dBm)	Ave output power (mW)	Limits dBm / W
Low	2412	12.91	19.543	30 dBm / 1 W
Middle	2437	13.03	20.091	30 dBm / 1 W
High	2462	13.22	20.989	30 dBm / 1 W

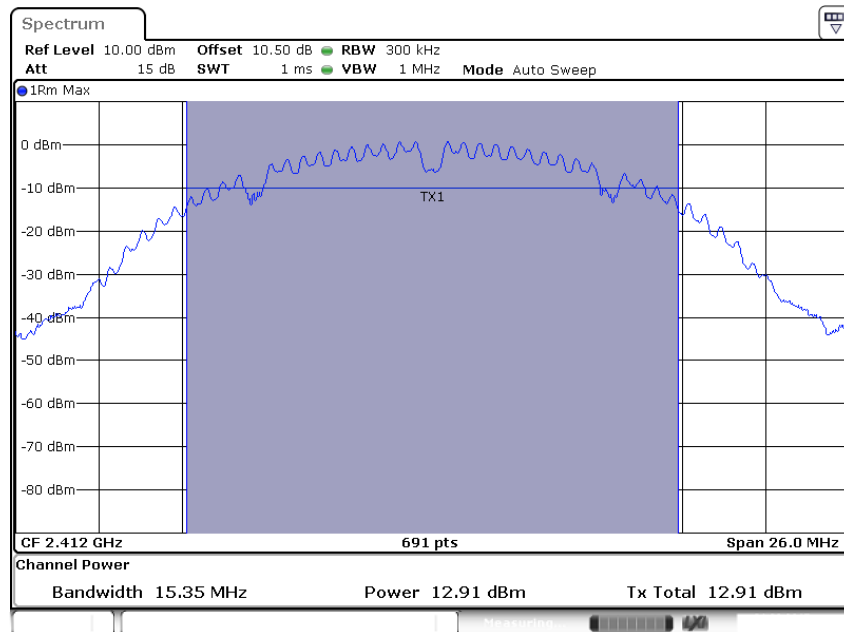
The test was performed with 802.11g				
Channel	Frequency (MHz)	Ave output power (dBm)	Ave output power (mW)	Limits dBm / W
Low	2412	11.02	12.647	30 dBm / 1 W
Middle	2437	11.82	15.205	30 dBm / 1 W
High	2462	10.61	11.508	30 dBm / 1 W

The test was performed with 802.11n (20MHz)				
Channel	Frequency (MHz)	Ave output power (dBm)	Ave output power (mW)	Limits dBm / W
Low	2412	10.90	12.303	30 dBm / 1 W
Middle	2437	11.66	14.655	30 dBm / 1 W
High	2462	10.92	12.359	30 dBm / 1 W

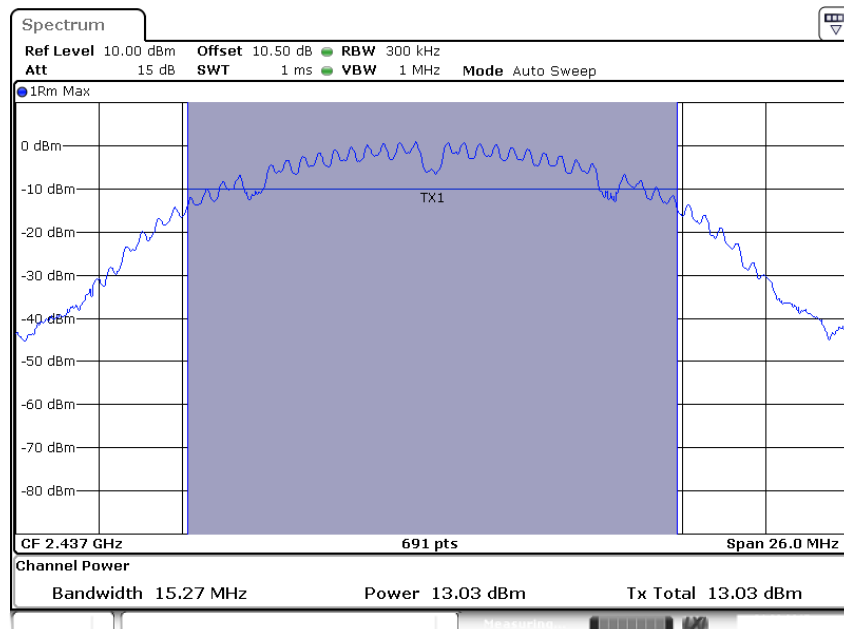
The test was performed with 802.11n (40MHz)				
Channel	Frequency (MHz)	Ave output power (dBm)	Ave output power (mW)	Limits dBm / W
Low	2422	8.16	6.546	30 dBm / 1 W
Middle	2437	8.45	6.998	30 dBm / 1 W
High	2452	8.49	7.063	30 dBm / 1 W

The spectrum analyzer plots are attached as below.

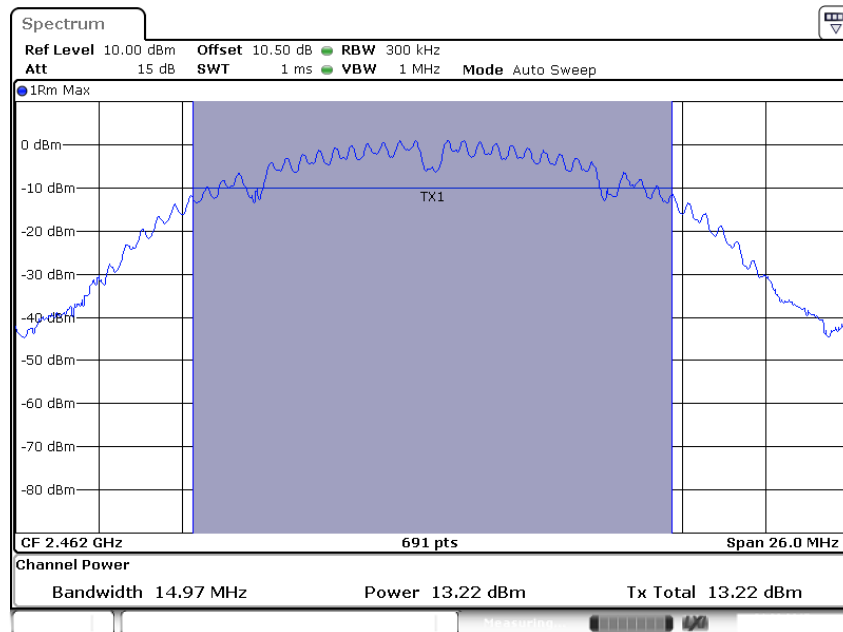
802.11b Channel Low 2412MHz



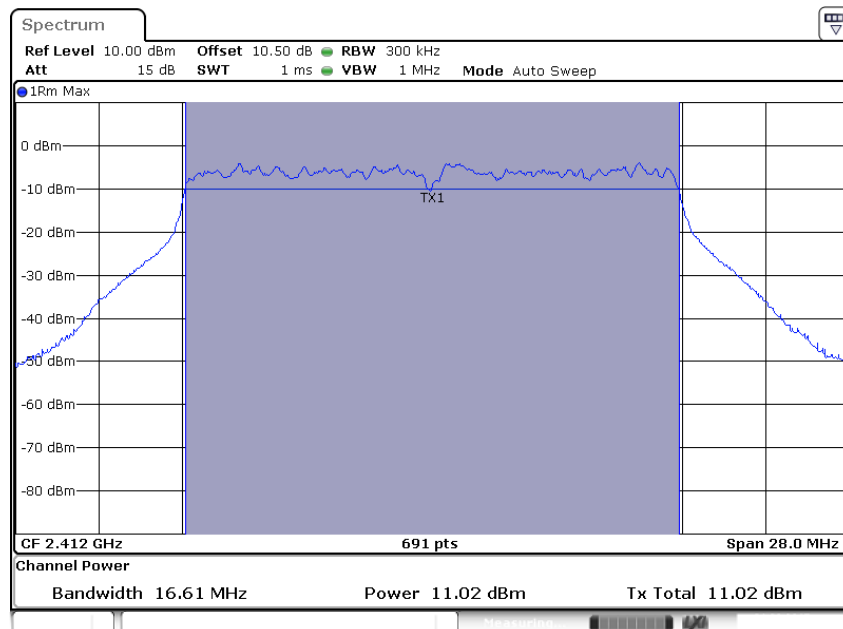
802.11b Channel Middle 2437MHz



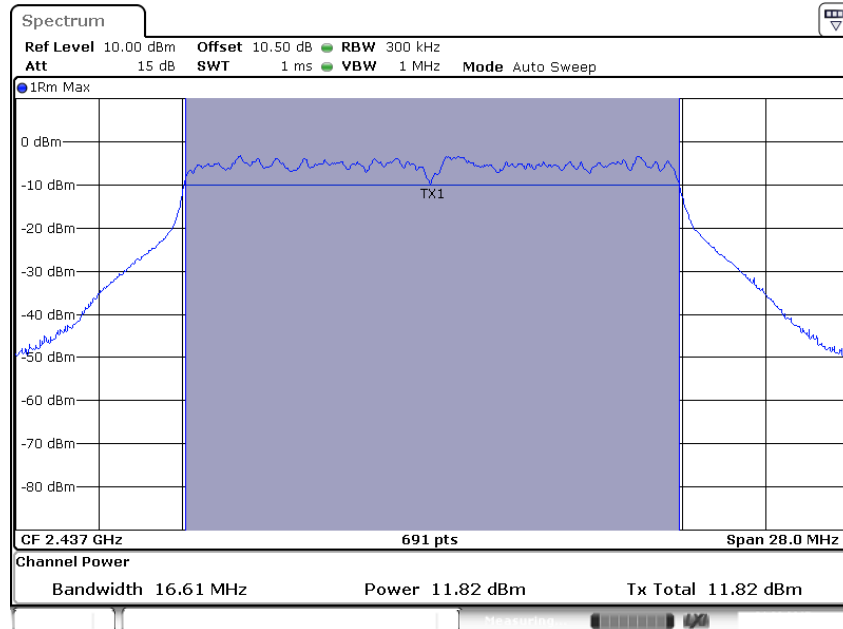
802.11b Channel High 2462MHz



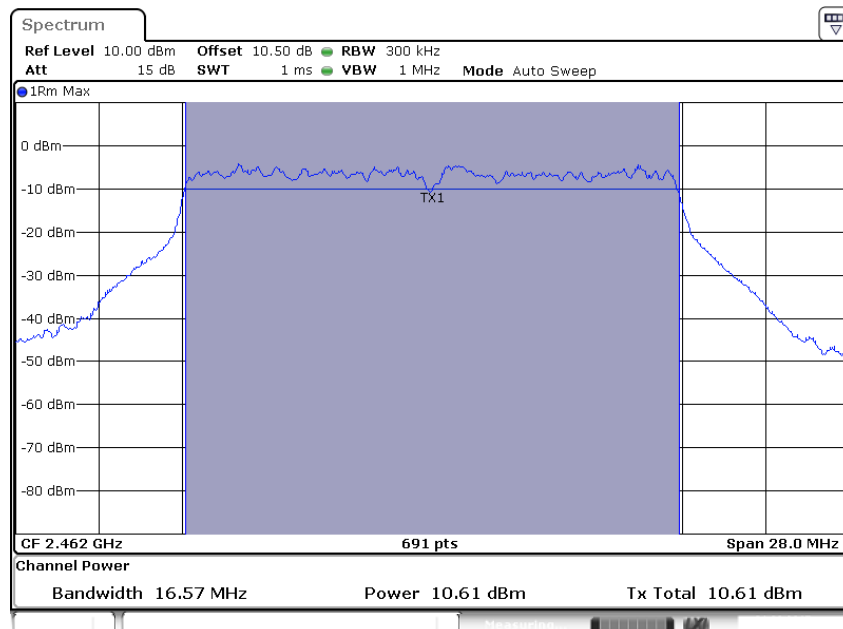
802.11g Channel Low 2412MHz



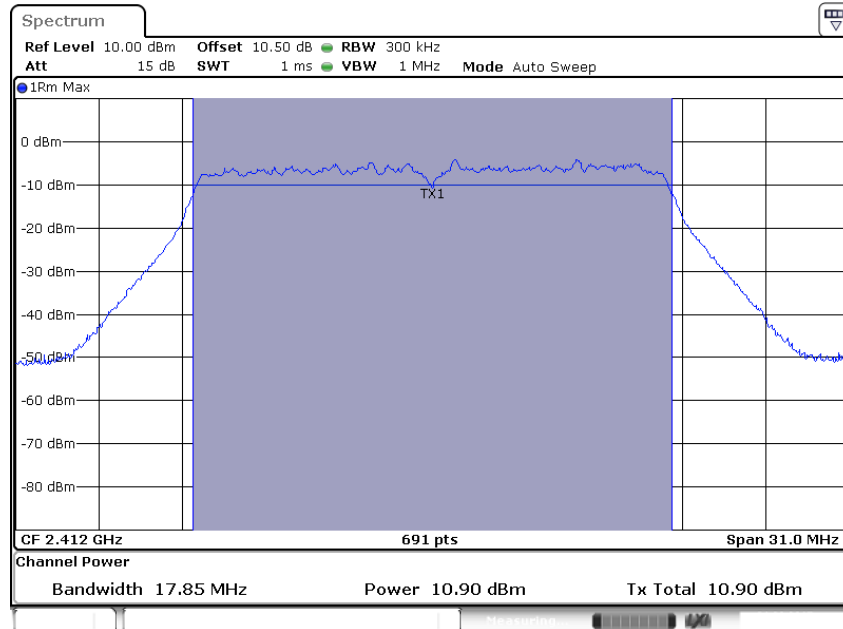
802.11g Channel Middle 2437MHz



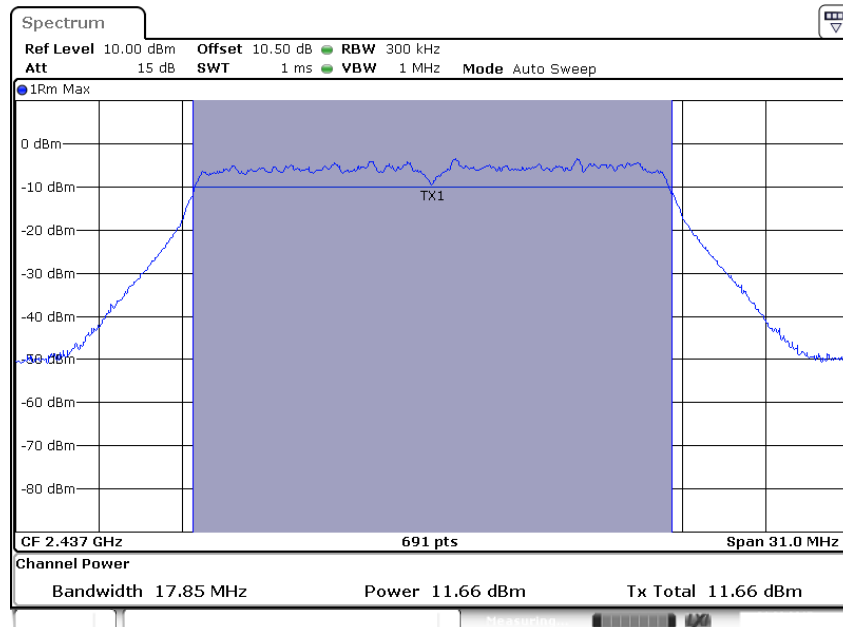
802.11g Channel High 2462MHz



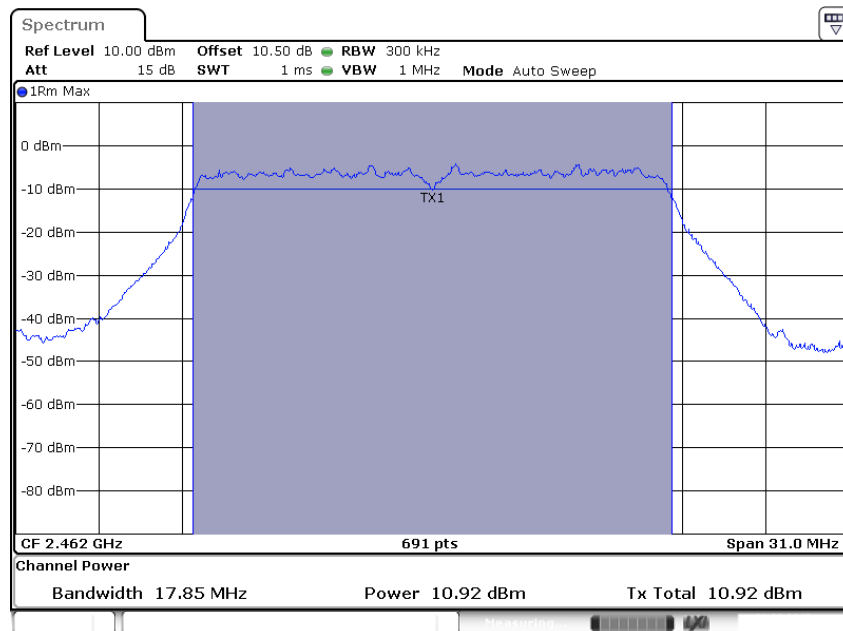
802.11n Channel Low 2412MHz (20MHz)



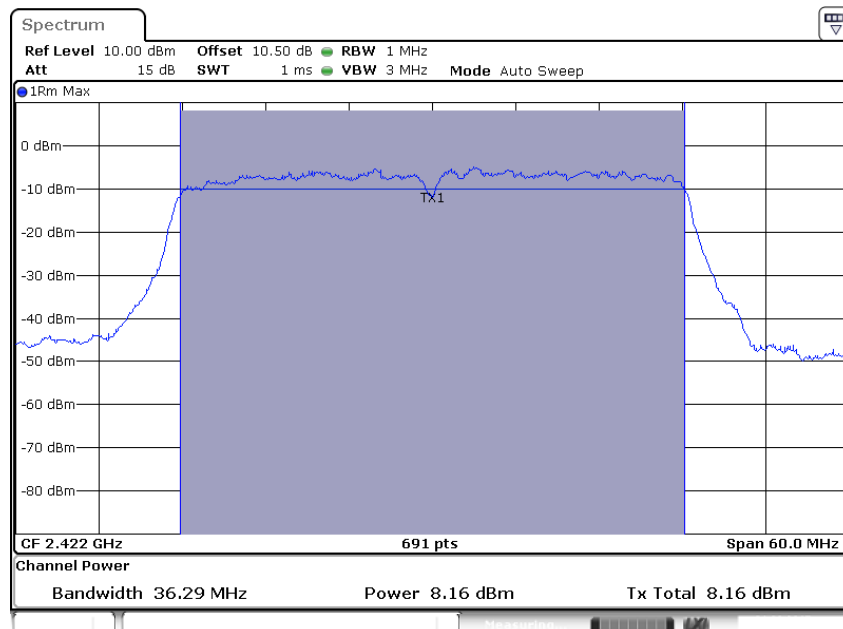
802.11n Channel Middle 2437MHz (20MHz)



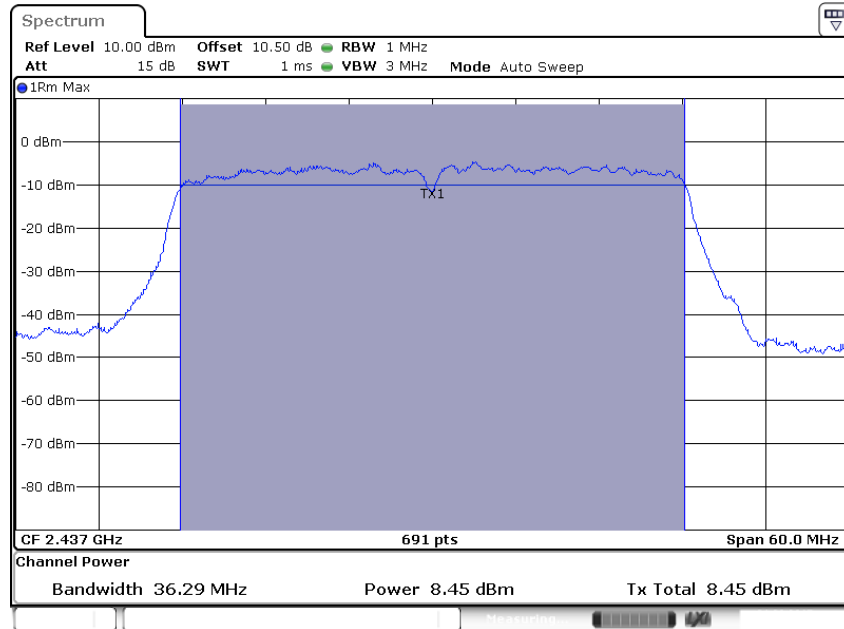
802.11n Channel High 2462MHz (20MHz)



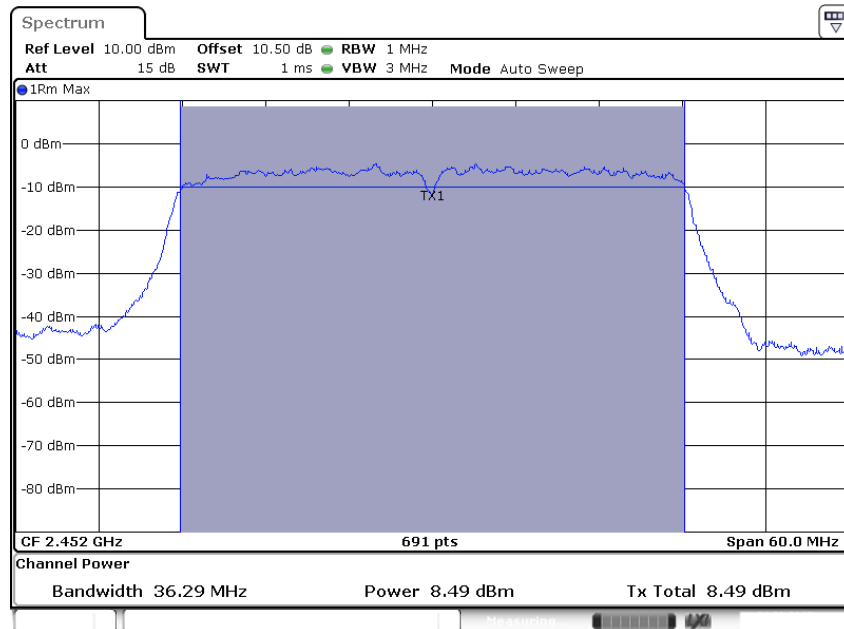
802.11n Channel Low 2422MHz (40MHz)



802.11n Channel Middle 2437MHz (40MHz)



802.11n Channel High 2452MHz (40MHz)



8. POWER SPECTRAL DENSITY MEASUREMENT

8.1. Block Diagram of Test Setup



8.2. The Requirement For Section 15.247(e)

Section 15.247(e): For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

8.3. EUT Configuration on Measurement

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

8.4. Operating Condition of EUT

8.4.1. Setup the EUT and simulator as shown as Section 8.1.

8.4.2. Turn on the power of all equipment.

8.4.3. Let the EUT work in TX modes measure it. The transmit frequency are 2412-2462 and 2422-2452MHz. We select 2412MHz, 2437MHz, 2462MHz and 2422MHz, 2437MHz, 2452MHz TX frequency to transmit.

8.5. Test Procedure

8.5.1. The transmitter output was connected to the spectrum analyzer through a low loss cable.

8.5.2. Measurement Procedure PKPSD:

This procedure must be used if maximum peak conducted output power was used to demonstrate compliance to the fundamental output power limit, and is optional if the maximum (average) conducted output power was used to demonstrate compliance.

1. Set analyzer center frequency to DTS channel center frequency.
2. Set the span to 1.5 times the DTS channel bandwidth.

3. Set the RBW $3 \text{ kHz} \leq \text{RBW} \leq 100 \text{ kHz}$.
4. Set the VBW $\geq 3 \times \text{RBW}$.
5. Detector = peak.
6. Sweep time = auto couple.
7. Trace mode = max hold.
8. Allow trace to fully stabilize.
9. Use the peak marker function to determine the maximum amplitude level.
10. If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.

8.5.3. Measurement the maximum power spectral density.

8.6. Test Result

The test was performed with 802.11b			
Channel	Frequency (MHz)	Power Spectral Density (dBm)	Limits (dBm)
Low	2412	-17.82	8 dBm
Middle	2437	-17.26	8 dBm
High	2462	-17.15	8 dBm

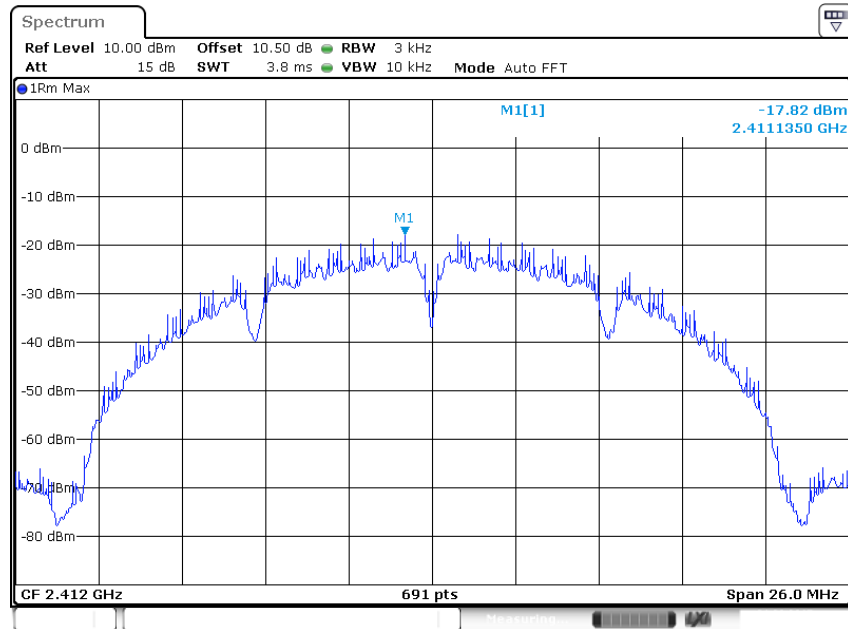
The test was performed with 802.11g			
Channel	Frequency (MHz)	Power Spectral Density (dBm)	Limits (dBm)
Low	2412	-28.21	8 dBm
Middle	2437	-27.92	8 dBm
High	2462	-27.34	8 dBm

The test was performed with 802.11n (20MHz)			
Channel	Frequency (MHz)	Power Spectral Density (dBm)	Limits (dBm)
Low	2412	-27.54	8 dBm
Middle	2437	-27.17	8 dBm
High	2462	-27.28	8 dBm

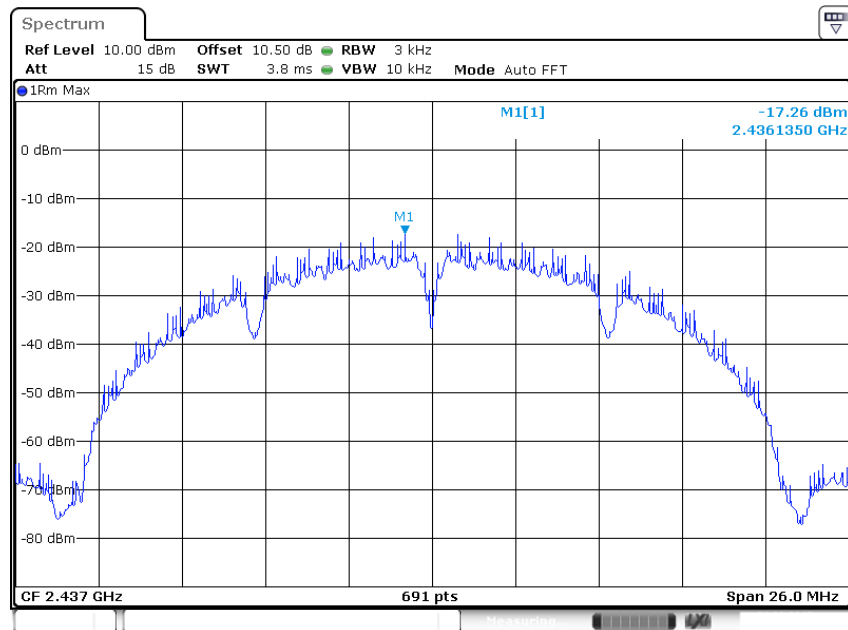
The test was performed with 802.11n (40MHz)			
Channel	Frequency (MHz)	Power Spectral Density (dBm)	Limits (dBm)
Low	2422	-31.69	8 dBm
Middle	2437	-31.52	8 dBm
High	2452	-31.20	8 dBm

The spectrum analyzer plots are attached as below.

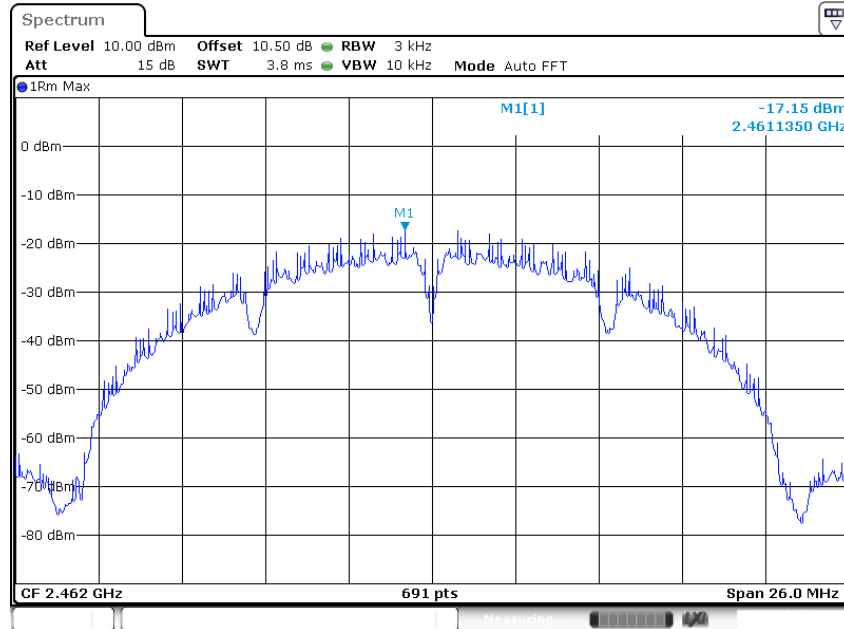
802.11b Channel Low 2412MHz



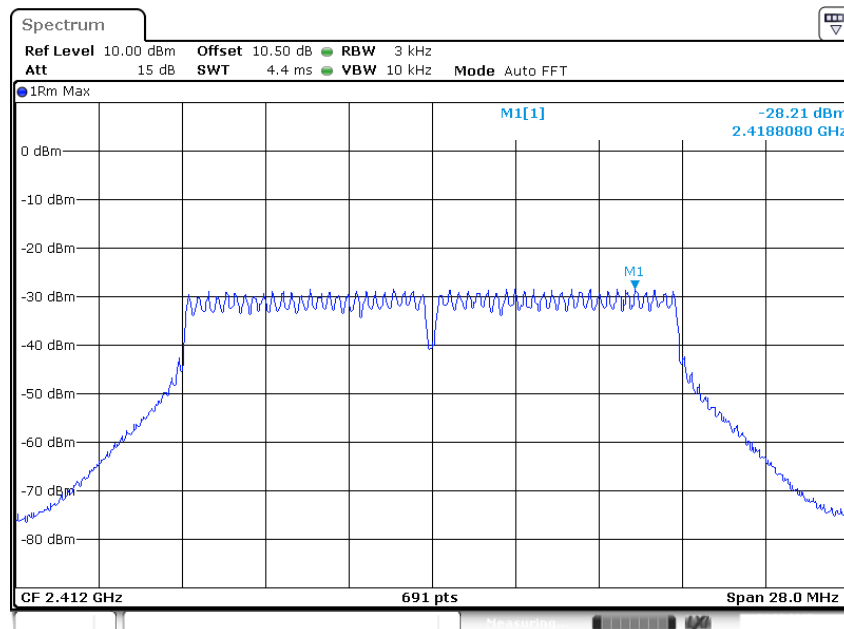
802.11b Channel Middle 2437MHz



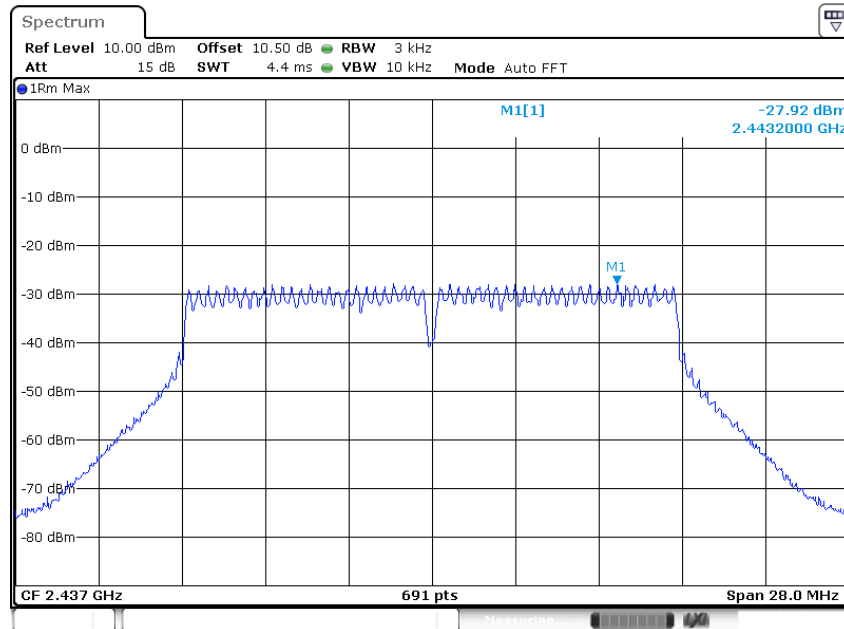
802.11b Channel High 2462MHz



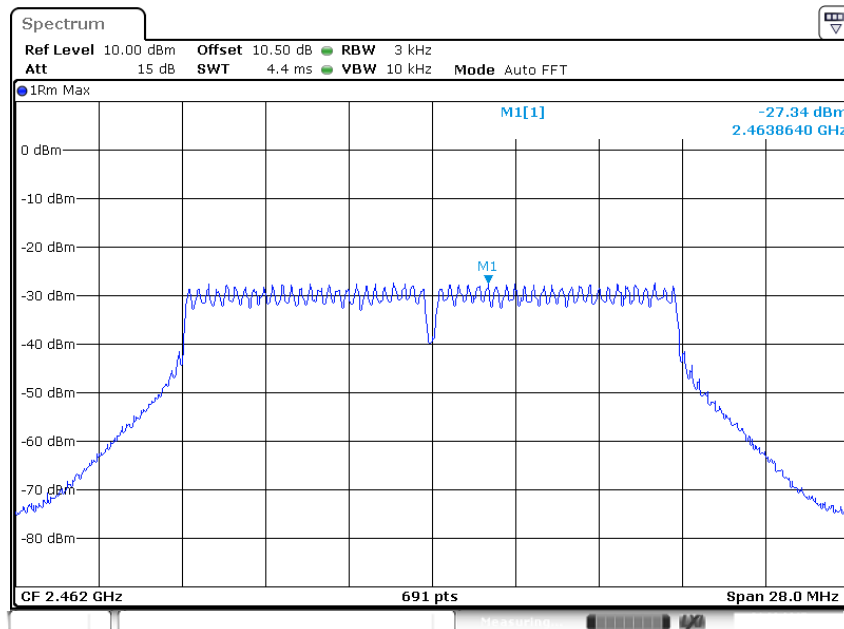
802.11g Channel Low 2412MHz



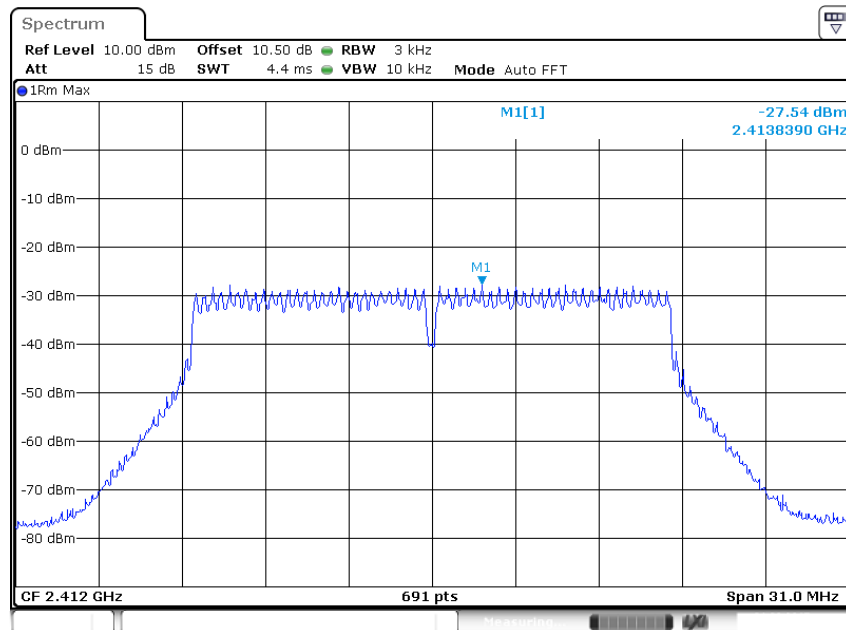
802.11g Channel Middle 2437MHz



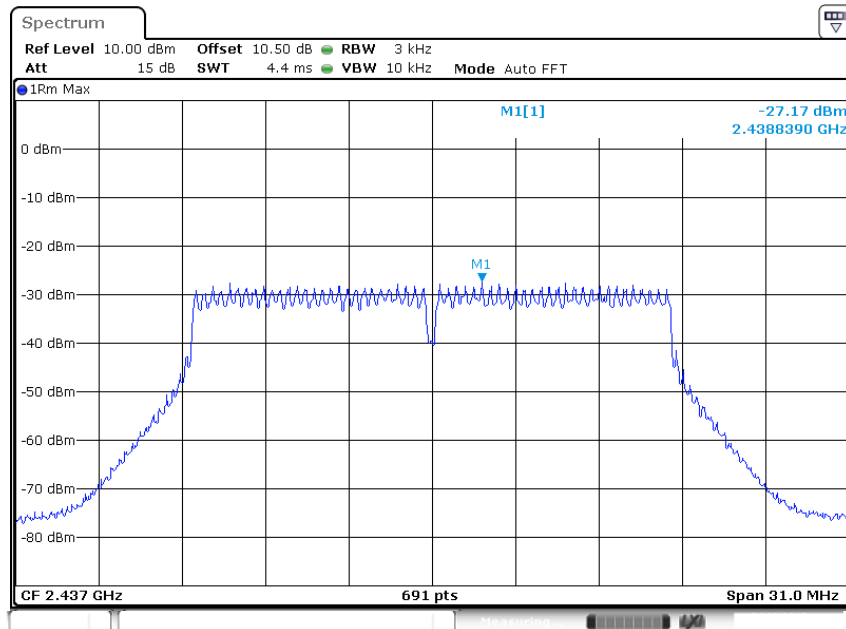
802.11g Channel High 2462MHz



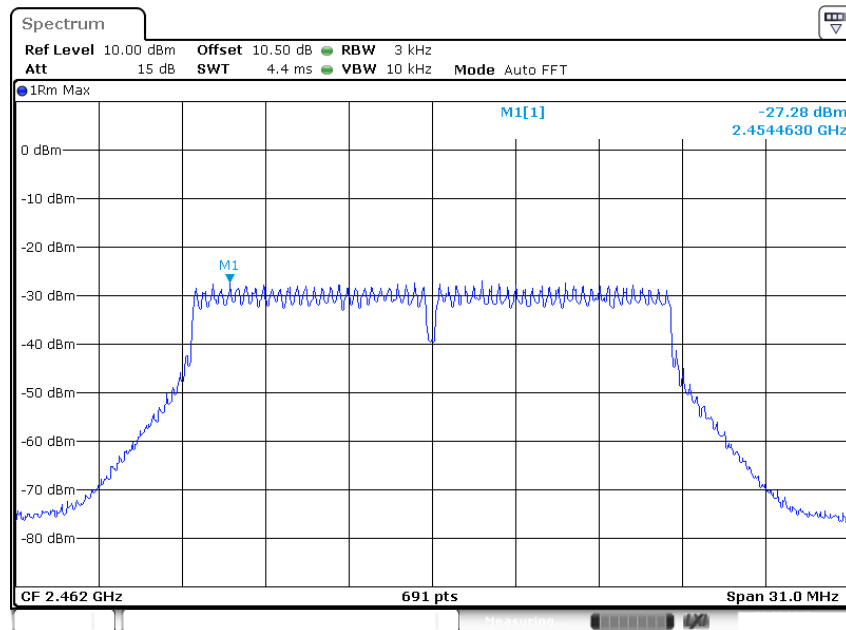
802.11n Channel Low 2412MHz (20MHz)



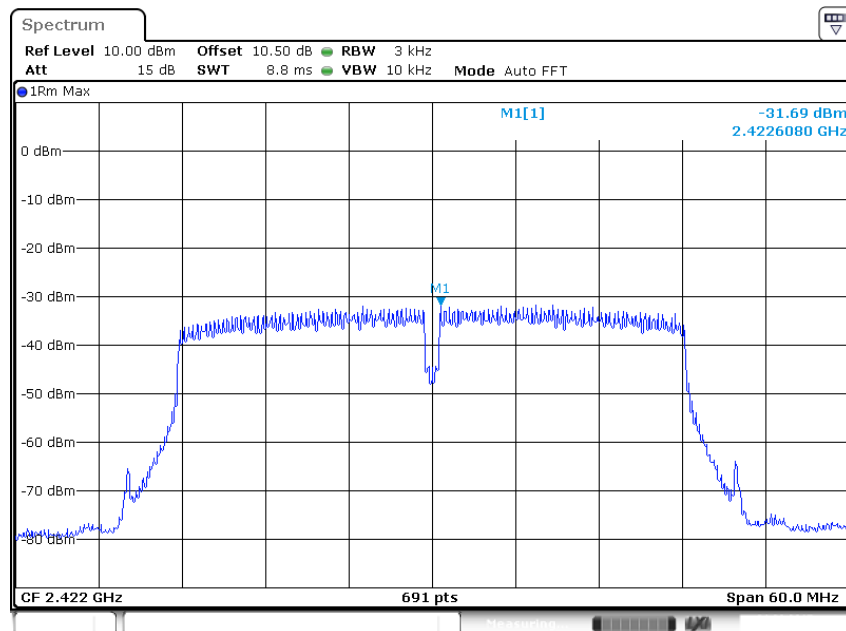
802.11n Channel Middle 2437MHz (20MHz)



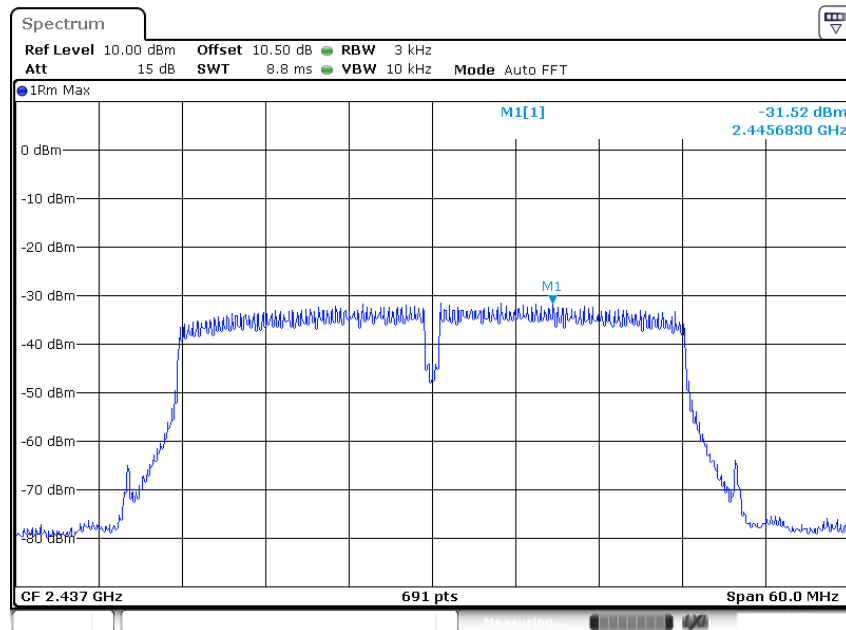
802.11n Channel High 2462MHz(20MHz)



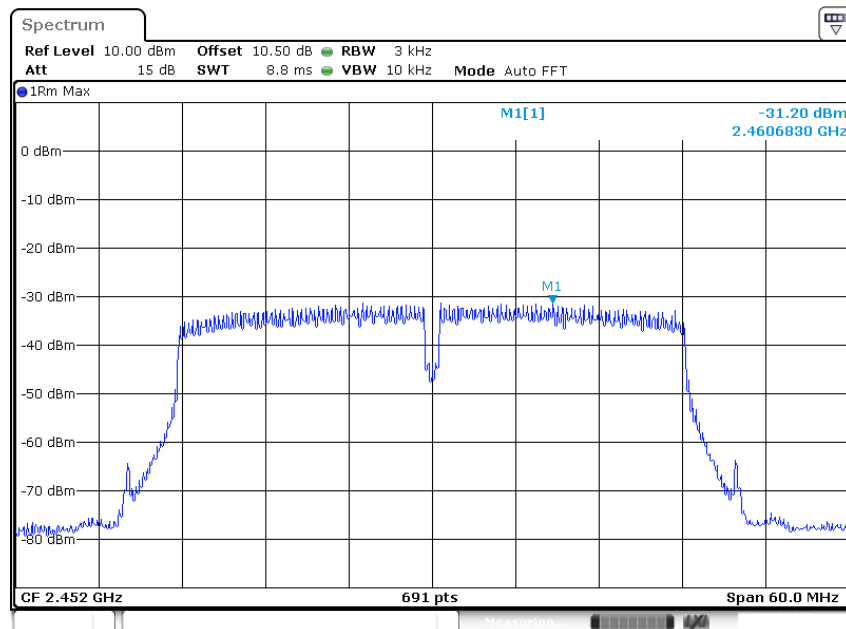
802.11n Channel Low 2422MHz (40MHz)



802.11n Channel Middle 2437MHz(40MHz)



802.11n Channel High 2452MHz(40MHz)



9. BAND EDGE COMPLIANCE TEST

9.1. Block Diagram of Test Setup



9.2. The Requirement For Section 15.247(d)

Section 15.247(d): In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated 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, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. 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).

9.3. EUT Configuration on Measurement

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

9.4. Operating Condition of EUT

9.4.1. Setup the EUT and simulator as shown as Section 9.1.

9.4.2. Turn on the power of all equipment.

9.4.3. Let the EUT work in TX modes measure it. The transmit frequency are 2412-2462 and 2422-2452MHz. We select 2412MHz, 2462MHz and 2422MHz, 2452MHz TX frequency to transmit.

9.5. Test Procedure

Conducted Band Edge:

9.5.1. The transmitter output was connected to the spectrum analyzer via a low loss

cable.

9.5.2.Set RBW of spectrum analyzer to 100kHz and VBW to 300kHz.

Radiate Band Edge:

9.5.3.The EUT is placed on a turntable, which is 0.8m above the ground plane and worked at highest radiated power.

9.5.4.The turntable was rotated for 360 degrees to determine the position of maximum emission level.

9.5.5.EUT is set 3m away from the receiving antenna, which is varied from 1m to 4m to find out the highest emission.

9.5.6.Set the spectrum analyzer in the following setting in order to capture the lower and upper band-edges of the emission:

9.5.7.RBW=1MHz, VBW=1MHz

9.5.8.The band edges was measured and recorded.

9.6.Test Result

The test was performed with 802.11b

channel	Frequency (MHz)	Result of Band Edge (dBc)	Limit of Band Edge (dBc)
1	2400	47.67	> 20dBc
11	2483.5	60.74	> 20dBc

The test was performed with 802.11g

channel	Frequency (MHz)	Result of Band Edge (dBc)	Limit of Band Edge (dBc)
1	2400	42.70	> 20dBc
11	2483.5	51.96	> 20dBc

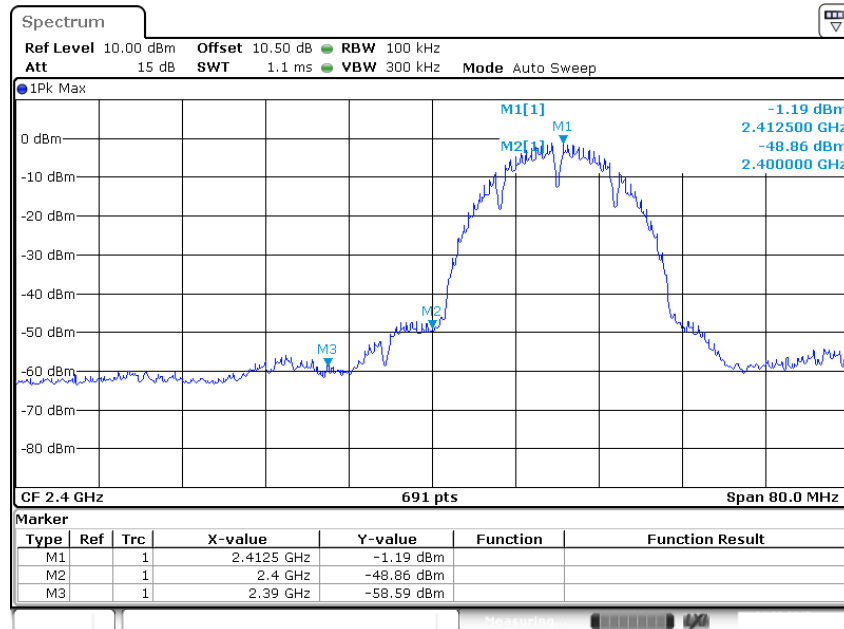
The test was performed with 802.11n (20MHz)

channel	Frequency (MHz)	Result of Band Edge (dBc)	Limit of Band Edge (dBc)
1	2400	39.81	> 20dBc
11	2483.5	53.43	> 20dBc

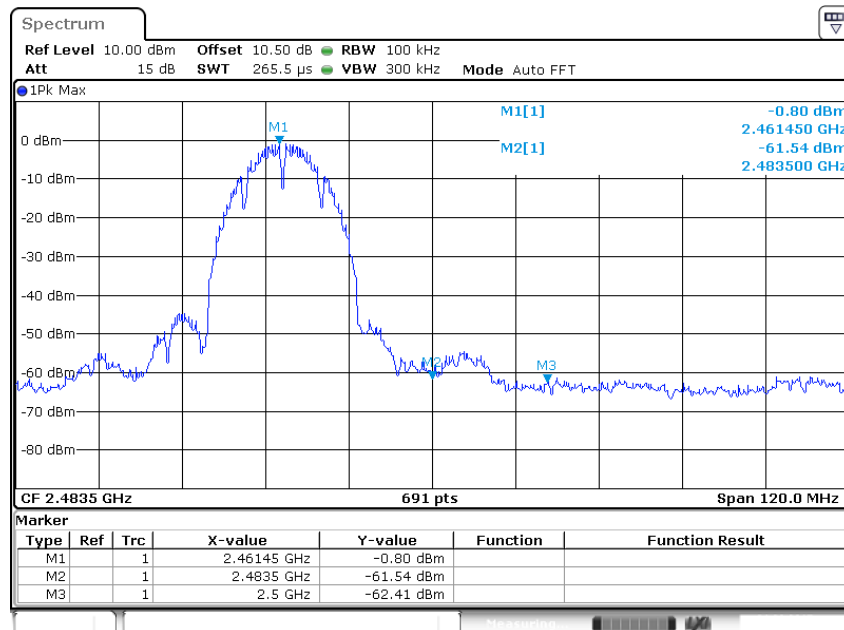
The test was performed with 802.11n (40MHz)

channel	Frequency (MHz)	Result of Band Edge (dBc)	Limit of Band Edge (dBc)
3	2400	36.98	> 20dBc
9	2483.5	49.34	> 20dBc

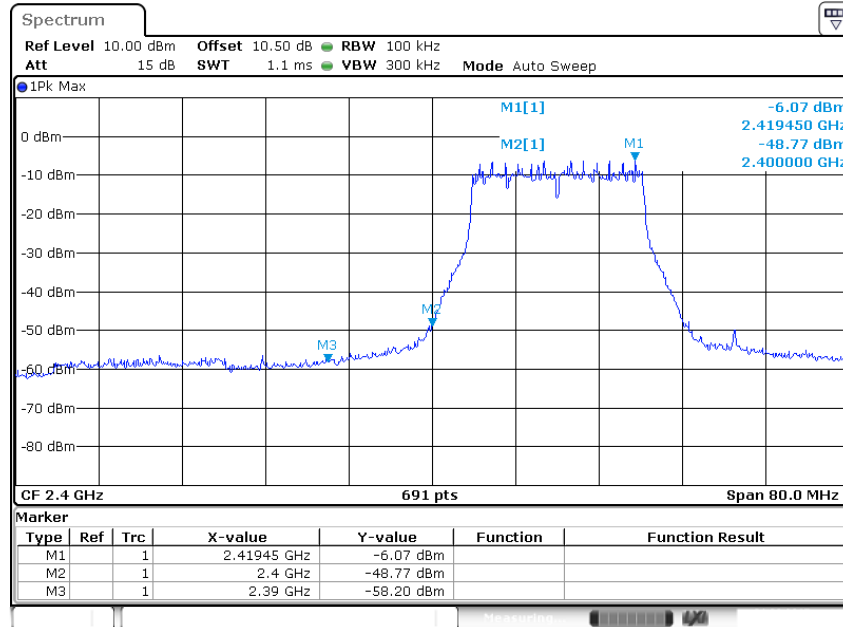
802.11b Channel Low 2412MHz



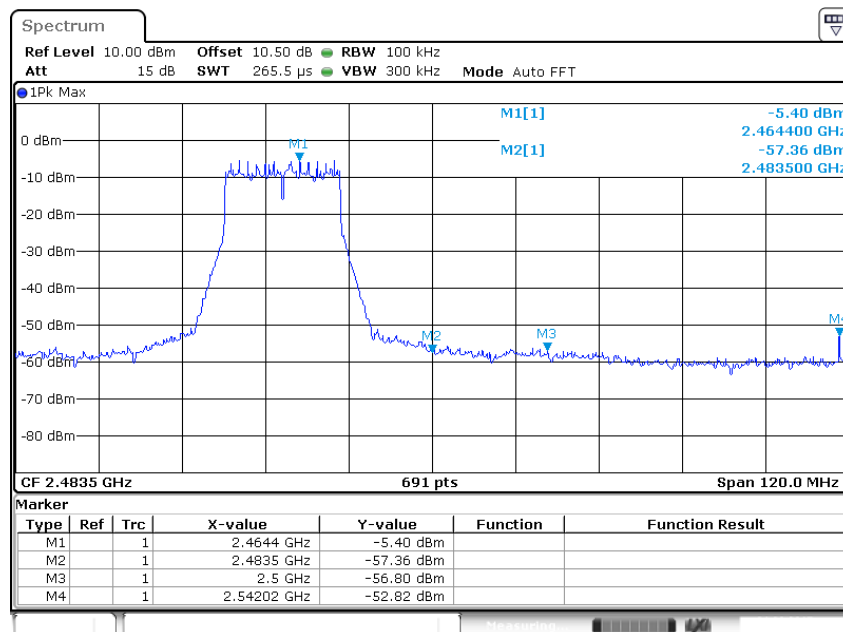
802.11b Channel High 2462MHz



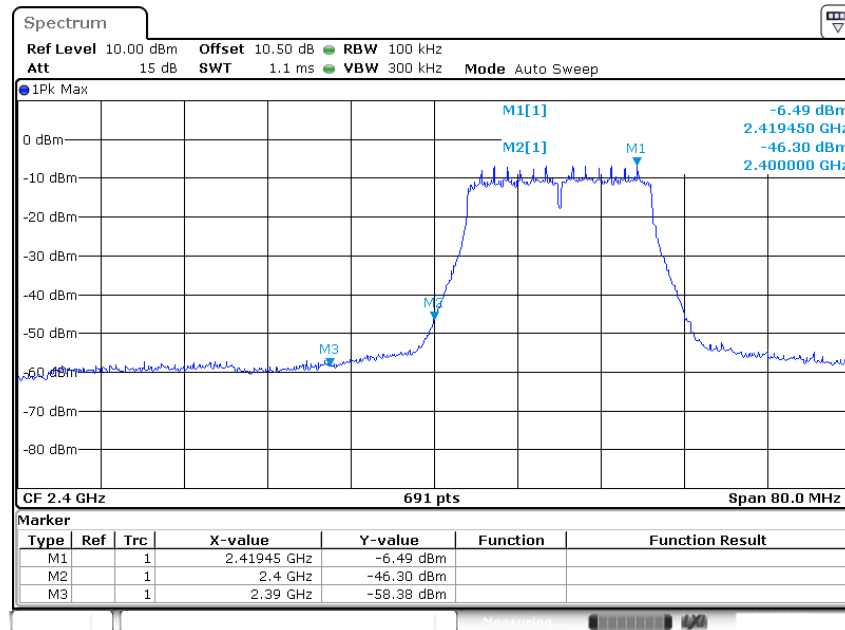
802.11g Channel Low 2412MHz



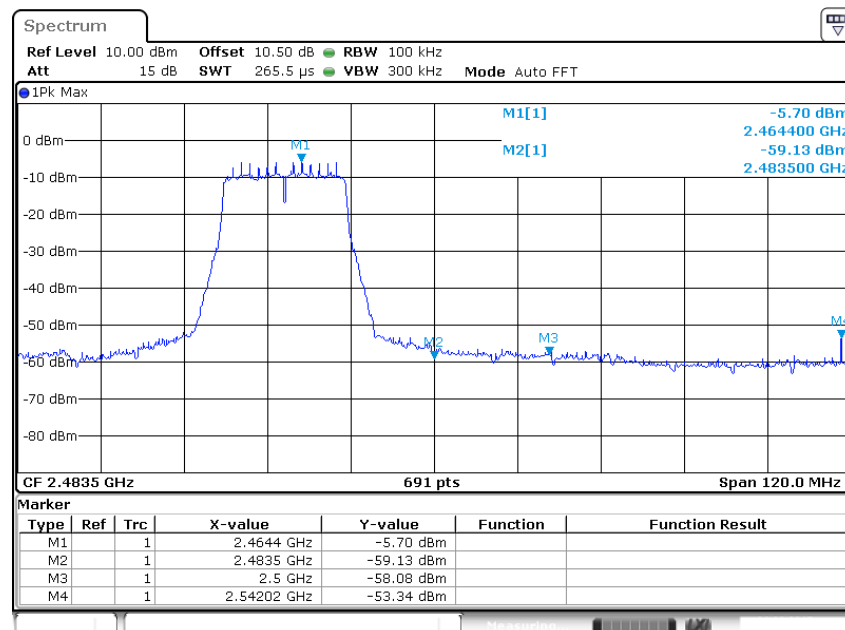
802.11g Channel High 2462MHz



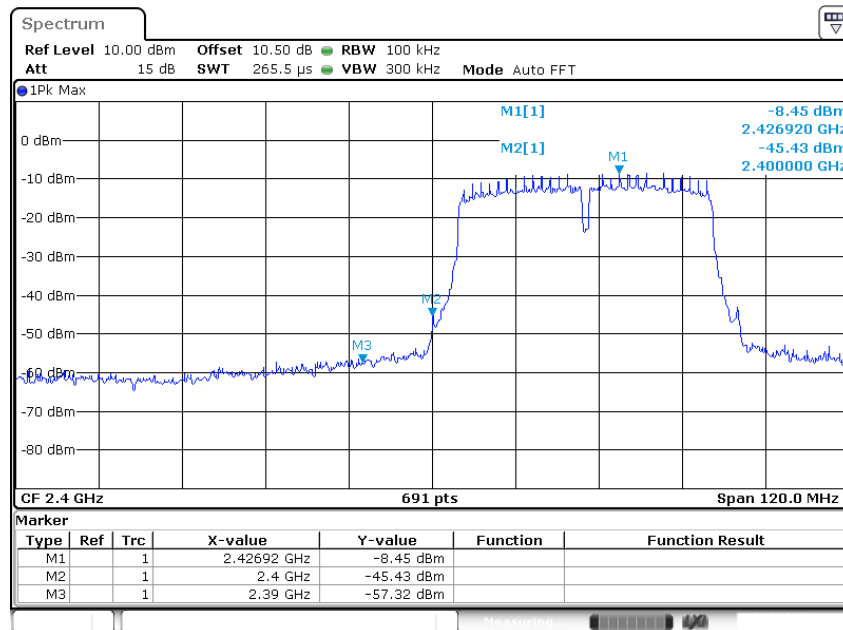
802.11n Channel Low 2412MHz (20MHz)



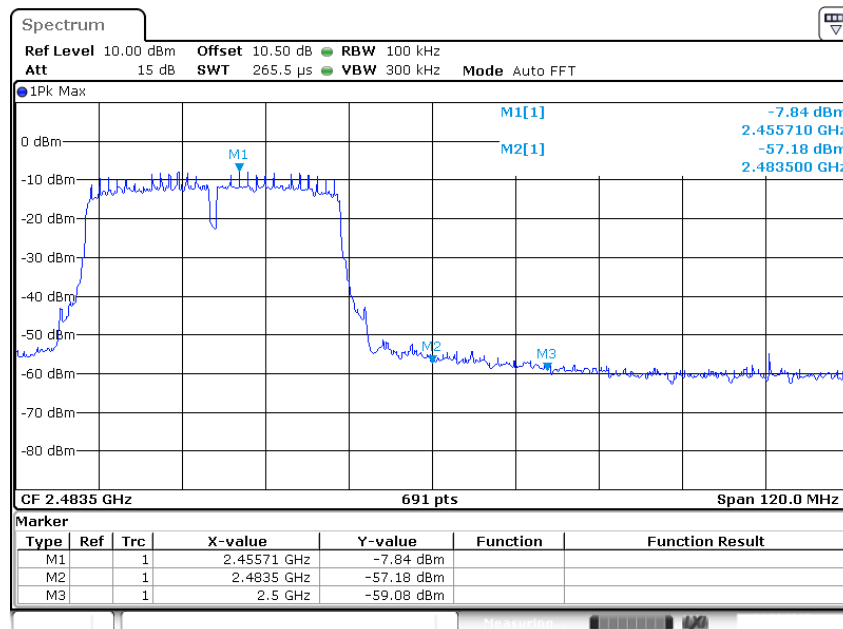
802.11n Channel High 2462MHz (20MHz)



802.11n Channel Low 2422MHz (40MHz)



802.11n Channel High 2452MHz (40MHz)



Radiated Band Edge Result

Note:

1. Emissions attenuated more than 20 dB below the permissible value are not reported.
2. The field strength is calculated by adding the antenna factor, high pass filter loss(if used) and cable loss, and subtracting the amplifier gain(if any)from the measured reading. The basic equation calculation is as follows:

Result = Reading + Corrected Factor

3. Display the measurement of peak values.

Test Procedure:

The EUT and its simulators are placed on a turntable, which is 1.5 meter high above ground(Above 1GHz). The turntable can rotate 360 degrees to determine the position of the maximum emission level. EUT is set 3.0 meters away from the receiving antenna, which is mounted on an antenna tower. The antenna can be moved up and down between 1.0 meter and 4 meters to find out the maximum emission level. Broadband antenna (calibrated bi-log antenna) is used as receiving antenna. Both horizontal and vertical polarizations of the antenna are set on measurement. In order to find the maximum emission levels, all of the EUT location must be manipulated according to ANSI C63.10:2013 on radiated emission measurement. The EUT was tested in 3 orthogonal planes.

Let the EUT work in TX modes then measure it.

We select 2412MHz, 2462MHz TX frequency to transmit(802.11b/g/n20 mode).

We select 2422MHz, 2452MHz TX frequency to transmit(802.11n40 mode).

During the radiated emission test, the spectrum analyzer was set with the following configurations:

- 1.The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for peak measurement with peak detector at frequency above 1GHz.
- 2.The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average measurement with peak detection at frequency above 1GHz.
- 3.All modes of operation were investigated and the worst-case emissions are reported.

Job No.: frank2017 #1662

Standard: FCC PK

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 55 %

EUT: LED MOTION SENSOR TRACKING LIGHT WIFI CAMERA Engineer Signature: star

Mode: TX Channel 1(802.11b)

Distance: 3m

Model: AEC-9332BSD-AC16W-WF

Manufacturer: AURUM

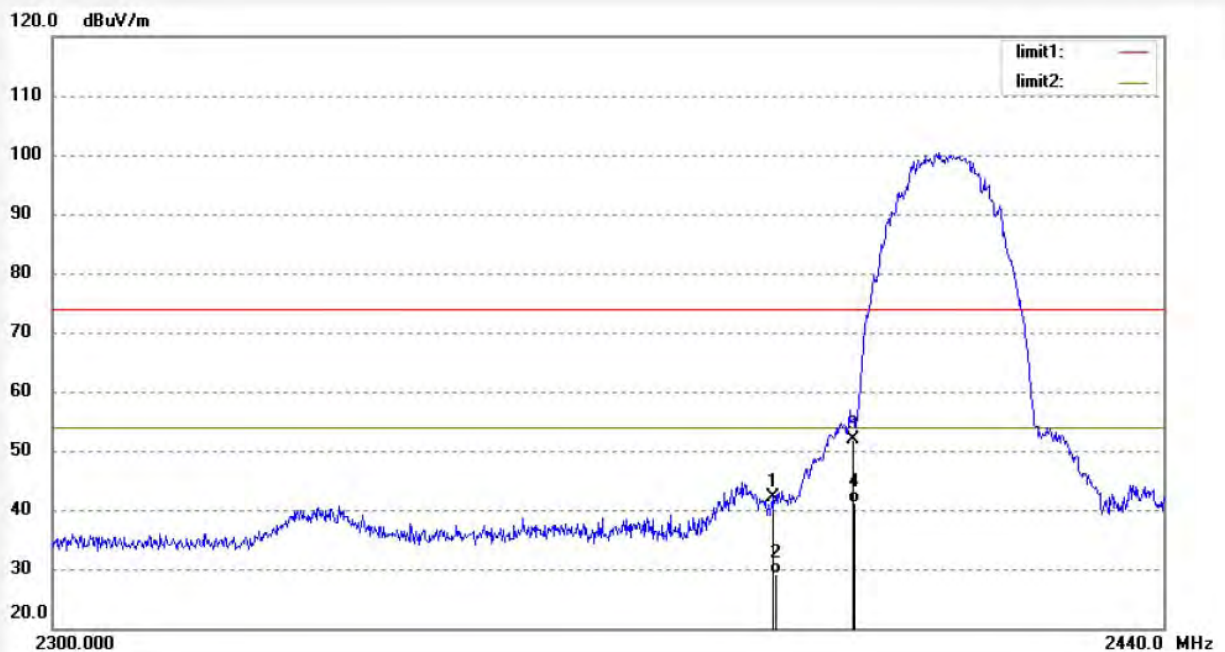
Polarization: Horizontal

Power Source: AC 120V/60Hz

Date: 17/11/28/

Time: 11/07/12

Note: Report No.:ATE20172197



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2390.000	48.12	-5.89	42.23	74.00	-31.77	peak	250	134	
2	2390.000	35.14	-5.89	29.25	54.00	-24.75	AVG	250	134	
3	2400.000	57.74	-5.80	51.94	74.00	-22.06	peak	250	247	
4	2400.000	46.97	-5.80	41.17	54.00	-12.83	AVG	250	247	

Note: Average measurement with peak detection at No.2&4

Job No.: frank2017 #1663

Standard: FCC PK

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 55 %

EUT: LED MOTION SENSOR TRACKING LIGHT WIFI CAMERA Engineer Signature: star

Mode: TX Channel 1(802.11b)

Model: AEC-9332BSD-AC16W-WF

Manufacturer: AURUM

Polarization: Vertical

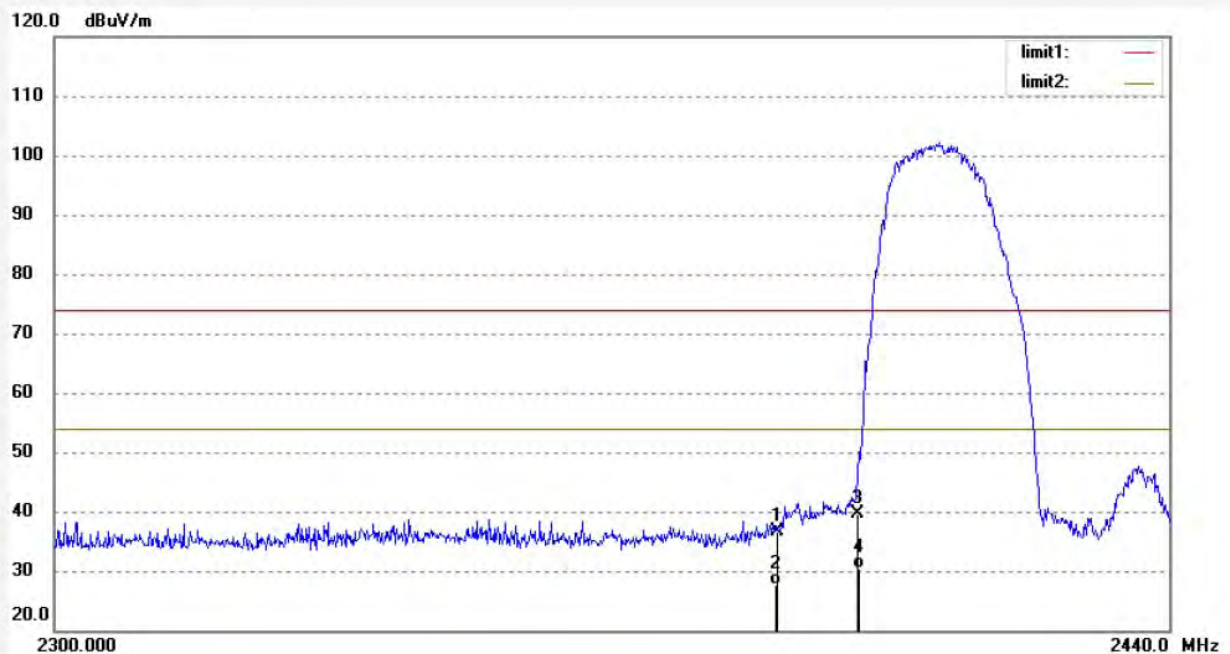
Power Source: AC 120V/60Hz

Date: 17/11/28/

Time: 11/08/41

Distance: 3m

Note: Report No.:ATE20172197



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2390.000	42.58	-5.89	36.69	74.00	-37.31	peak	150	120	
2	2390.000	33.57	-5.89	27.68	54.00	-26.32	AVG	150	120	
3	2400.000	45.36	-5.80	39.56	74.00	-34.44	peak	150	327	
4	2400.000	36.17	-5.80	30.37	54.00	-23.63	AVG	150	327	

Note: Average measurement with peak detection at No.2&4



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Job No.: frank2017 #1664

Polarization: Vertical

Standard: FCC PK

Power Source: AC 120V/60Hz

Test item: Radiation Test

Date: 17/11/28/

Temp.(C)/Hum.(%) 25 C / 55 %

Time: 11/10/41

EUT: LED MOTION SENSOR TRACKING LIGHT WIFI CAMERA Engineer Signature: star

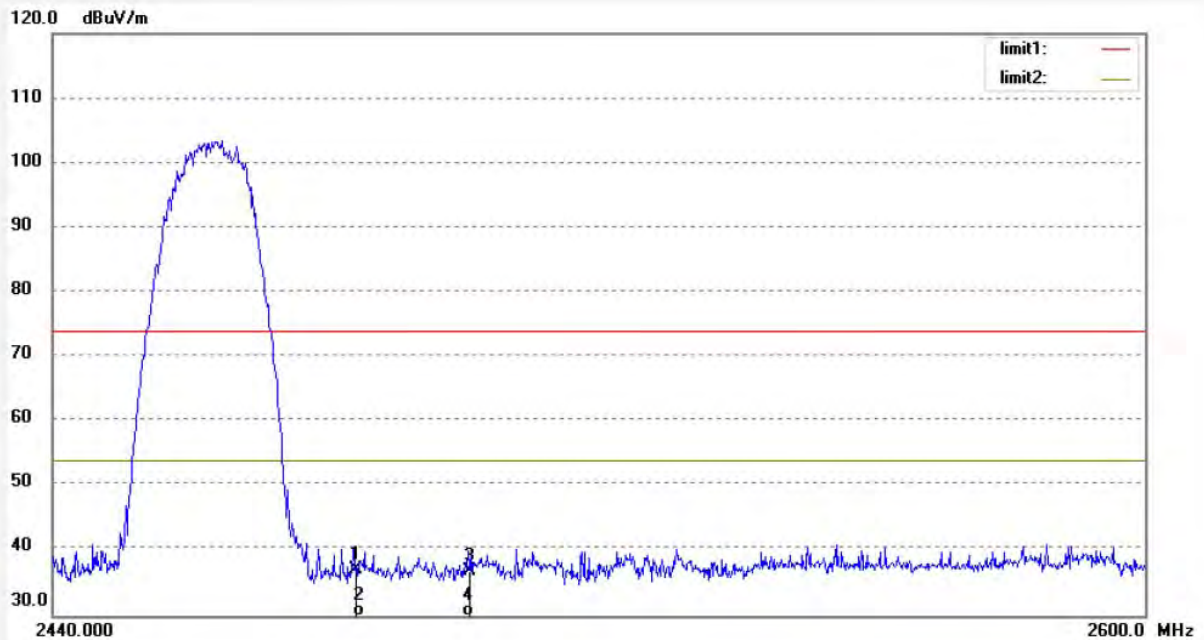
Mode: TX Channel 11(802.11b)

Distance: 3m

Model: AEC-9332BSD-AC16W-WF

Manufacturer: AURUM

Note: Report No.:ATE20172197



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2483.500	42.64	-5.51	37.13	74.00	-36.87	peak	150	278	
2	2483.500	33.70	-5.51	28.19	54.00	-25.81	AVG	150	278	
3	2500.000	42.45	-5.50	36.95	74.00	-37.05	peak	150	215	
4	2500.000	34.72	-5.50	29.22	54.00	-24.78	AVG	150	215	

Note: Average measurement with peak detection at No.2&4



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Job No.: frank2017 #1665

Polarization: Horizontal

Standard: FCC PK

Power Source: AC 120V/60Hz

Test item: Radiation Test

Date: 17/11/28/

Temp.(C)/Hum.(%) 25 C / 55 %

Time: 11/12/06

EUT: LED MOTION SENSOR TRACKING LIGHT WIFI CAMERA Engineer Signature: star

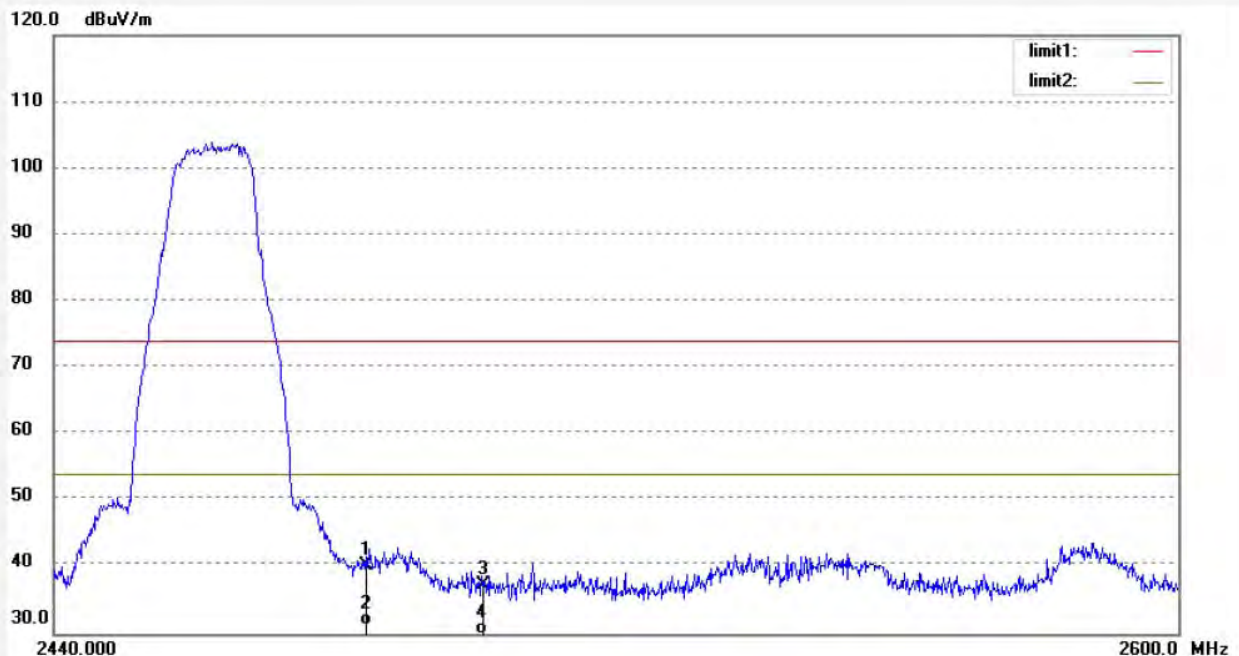
Mode: TX Channel 11(802.11b)

Distance: 3m

Model: AEC-9332BSD-AC16W-WF

Manufacturer: AURUM

Note: Report No.:ATE20172197



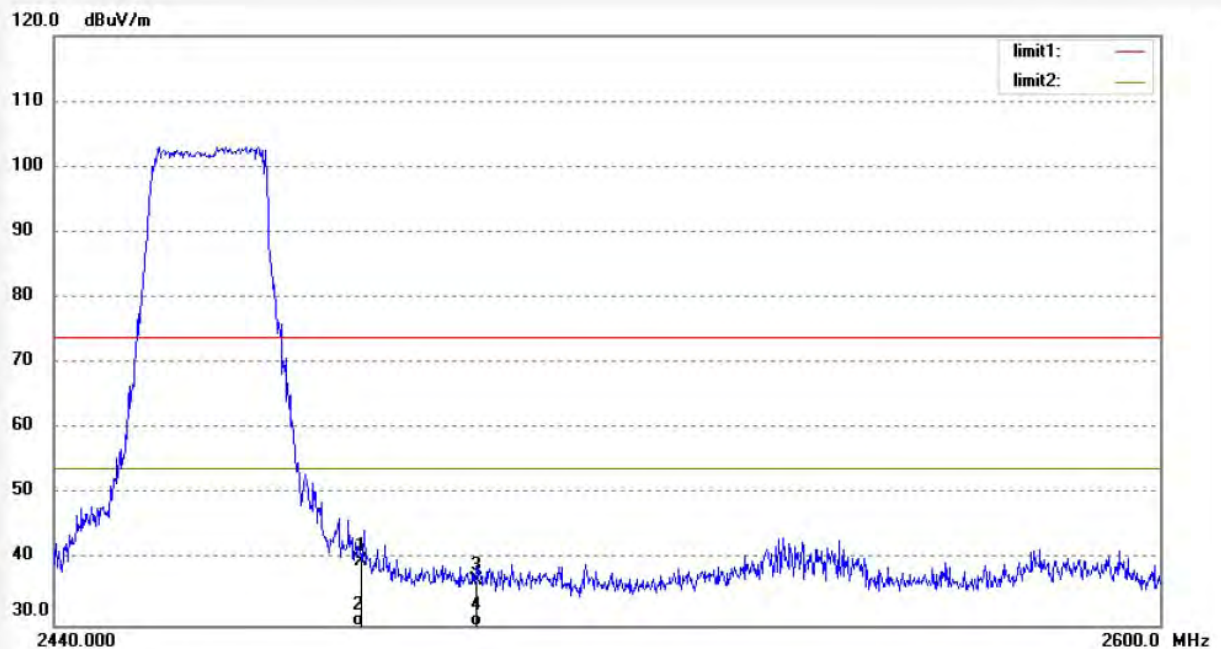
No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2483.500	45.69	-5.51	40.18	74.00	-33.82	peak	250	221	
2	2483.500	36.70	-5.51	31.19	54.00	-22.81	AVG	250	221	
3	2500.000	42.71	-5.50	37.21	74.00	-36.79	peak	300	182	
4	2500.000	33.69	-5.50	28.19	54.00	-25.81	AVG	300	182	

Note: Average measurement with peak detection at No.2&4

Job No.: frank2017 #1666
Standard: FCC PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: LED MOTION SENSOR TRACKING LIGHT WIFI CAMERA
Mode: TX Channel 11(802.11g)
Model: AEC-9332BSD-AC16W-WF
Manufacturer: AURUM

Polarization: Horizontal
Power Source: AC 120V/60Hz
Date: 17/11/28/
Time: 11/13/26
Engineer Signature: star
Distance: 3m

Note: Report No.:ATE20172197



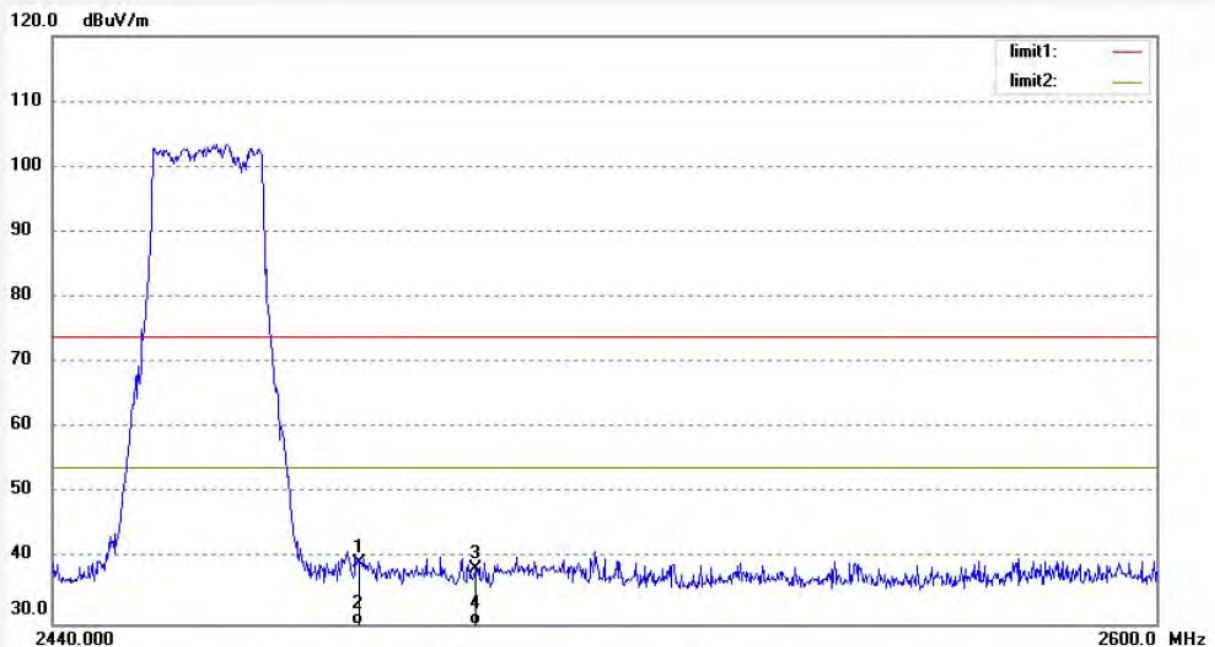
No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2483.500	45.24	-5.51	39.73	74.00	-34.27	peak	250	202	
2	2483.500	34.70	-5.51	29.19	54.00	-24.81	AVG	250	202	
3	2500.000	42.36	-5.50	36.86	74.00	-37.14	peak	250	123	
4	2500.000	32.14	-5.50	26.64	54.00	-27.36	AVG	250	123	

Note: Average measurement with peak detection at No.2&4

Job No.: frank2017 #1667
Standard: FCC PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: LED MOTION SENSOR TRACKING LIGHT WIFI CAMERA
Mode: TX Channel 11(802.11g)
Model: AEC-9332BSD-AC16W-WF
Manufacturer: AURUM

Polarization: Vertical
Power Source: AC 120V/60Hz
Date: 17/11/28/
Time: 11/15/24
Engineer Signature: star
Distance: 3m

Note: Report No.:ATE20172197



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2483.500	44.78	-5.51	39.27	74.00	-34.73	peak	150	212	
2	2483.500	35.14	-5.51	29.63	54.00	-24.37	AVG	150	212	
3	2500.000	43.87	-5.50	38.37	74.00	-35.63	peak	150	348	
4	2500.000	34.68	-5.50	29.18	54.00	-24.82	AVG	150	348	

Note: Average measurement with peak detection at No.2&4



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Job No.: frank2017 #1668

Standard: FCC PK

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 55 %

EUT: LED MOTION SENSOR TRACKING LIGHT WIFI CAMERA Engineer Signature: star

Mode: TX Channel 1(802.11g)

Distance: 3m

Model: AEC-9332BSD-AC16W-WF

Manufacturer: AURUM

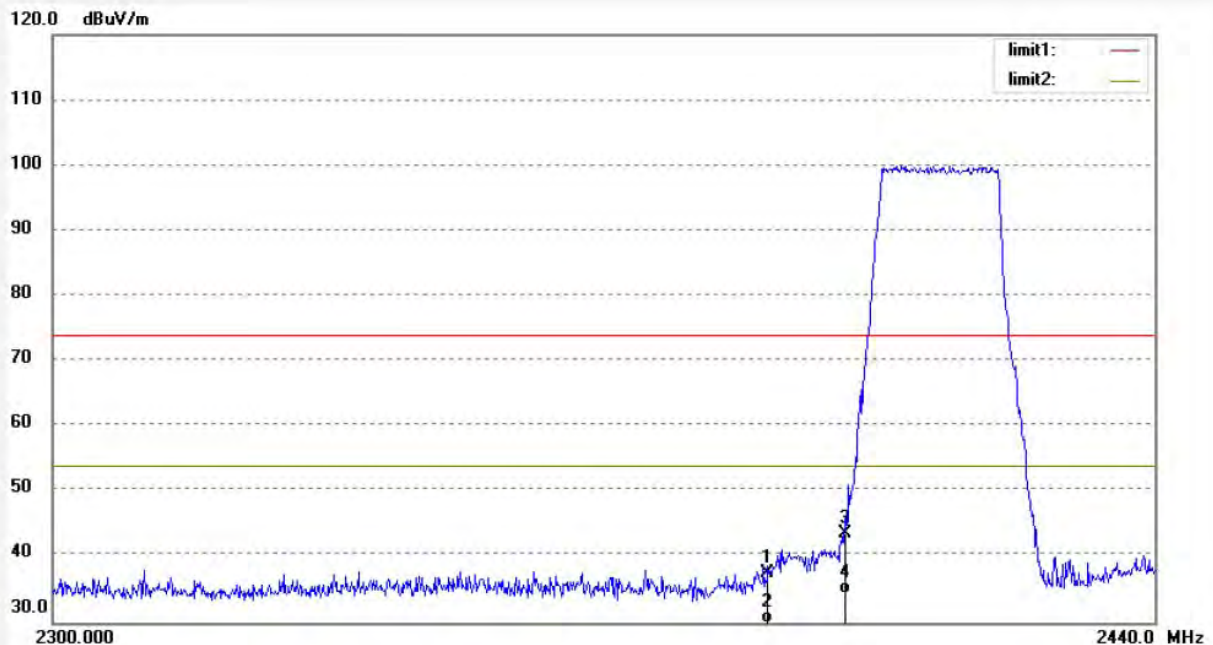
Polarization: Vertical

Power Source: AC 120V/60Hz

Date: 17/11/28/

Time: 11/17/19

Note: Report No.:ATE20172197



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2390.000	43.35	-5.89	37.46	74.00	-36.54	peak	150	212	
2	2390.000	34.67	-5.89	28.78	54.00	-25.22	AVG	150	212	
3	2400.000	49.31	-5.80	43.51	74.00	-30.49	peak	150	222	
4	2400.000	40.10	-5.80	34.30	54.00	-19.70	AVG	150	222	

Note: Average measurement with peak detection at No.2&4



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Job No.: frank2017 #1669

Standard: FCC PK

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 55 %

EUT: LED MOTION SENSOR TRACKING LIGHT WIFI CAMERA

Mode: TX Channel 1(802.11g)

Model: AEC-9332BSD-AC16W-WF

Manufacturer: AURUM

Polarization: Horizontal

Power Source: AC 120V/60Hz

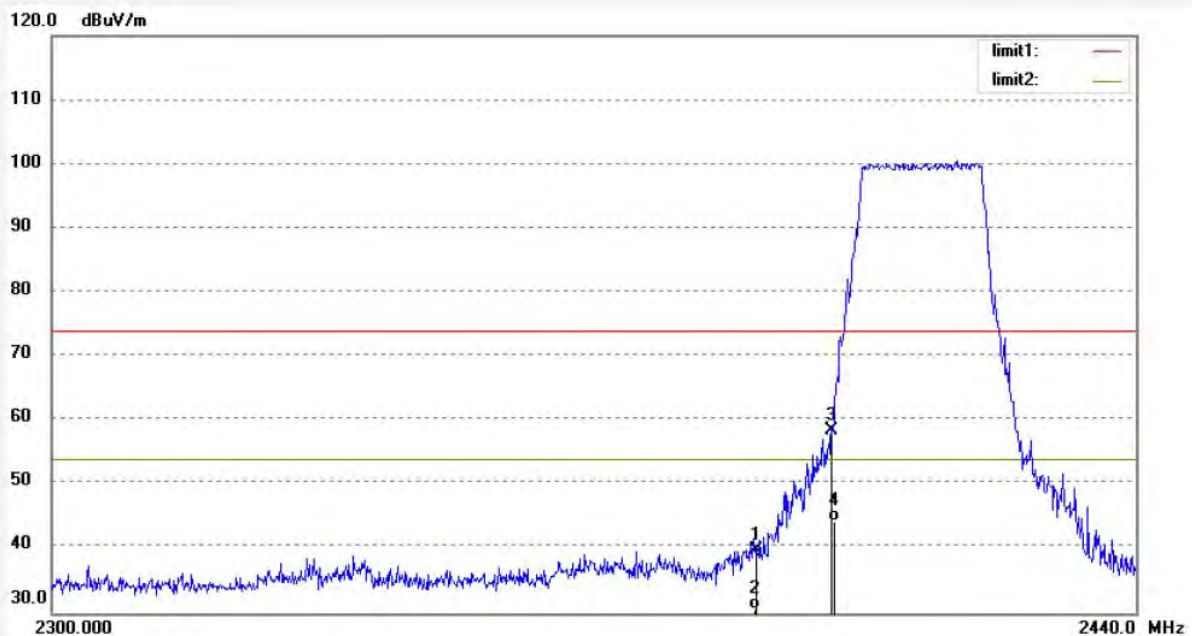
Date: 17/11/28/

Time: 11/18/55

Engineer Signature: star

Distance: 3m

Note: Report No.:ATE20172197



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2390.000	45.62	-5.89	39.73	74.00	-34.27	peak	250	357	
2	2390.000	36.44	-5.89	30.55	54.00	-23.45	AVG	250	357	
3	2400.000	64.19	-5.80	58.39	74.00	-15.61	peak	250	103	
4	2400.000	50.10	-5.80	44.30	54.00	-9.70	AVG	250	103	

Note: Average measurement with peak detection at No.2&4

Job No.: frank2017 #1670

Standard: FCC PK

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 55 %

EUT: LED MOTION SENSOR TRACKING LIGHT WIFI CAMERA Engineer Signature: star

Mode: TX Channel 1(802.11n)

Distance: 3m

Model: AEC-9332BSD-AC16W-WF

Manufacturer: AURUM

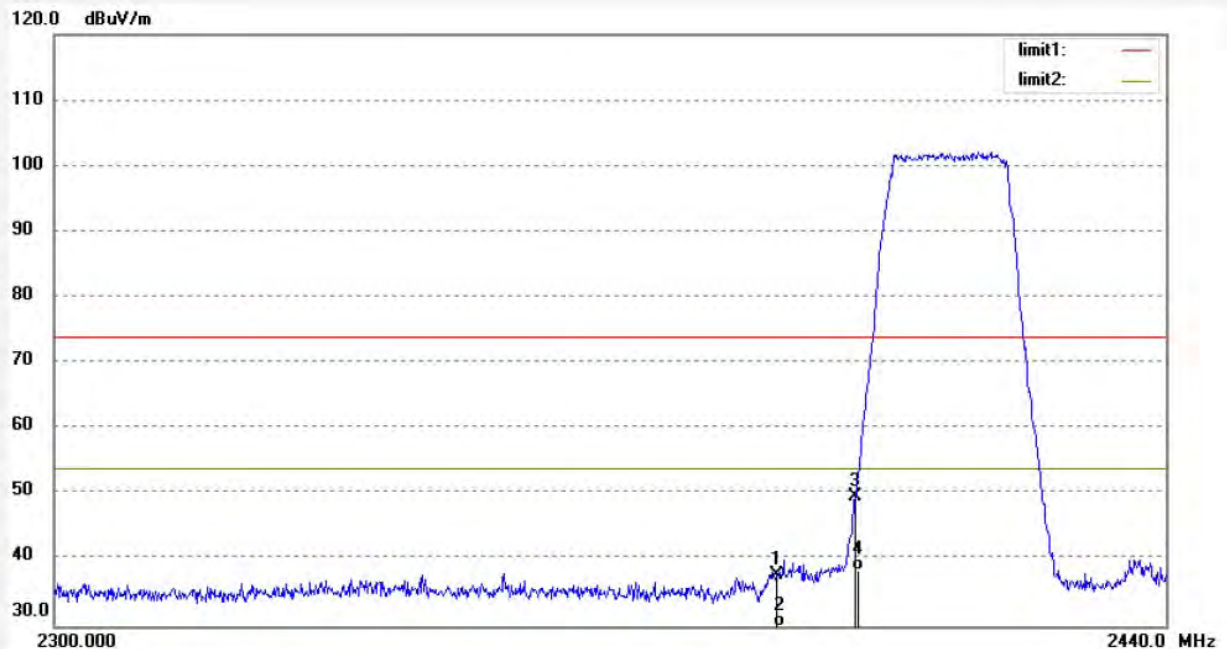
Polarization: Horizontal

Power Source: AC 120V/60Hz

Date: 17/11/28/

Time: 11/21/05

Note: Report No.:ATE20172197



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2390.000	43.63	-5.89	37.74	74.00	-36.26	peak	250	84	
2	2390.000	33.40	-5.89	27.51	54.00	-26.49	AVG	250	84	
3	2400.000	55.57	-5.80	49.77	74.00	-24.23	peak	250	178	
4	2400.000	44.20	-5.80	38.40	54.00	-15.60	AVG	250	178	

Note: Average measurement with peak detection at No.2&4



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Job No.: frank2017 #1671

Standard: FCC PK

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 55 %

EUT: LED MOTION SENSOR TRACKING LIGHT WIFI CAMERA Engineer Signature: star

Mode: TX Channel 1(802.11n)

Distance: 3m

Model: AEC-9332BSD-AC16W-WF

Manufacturer: AURUM

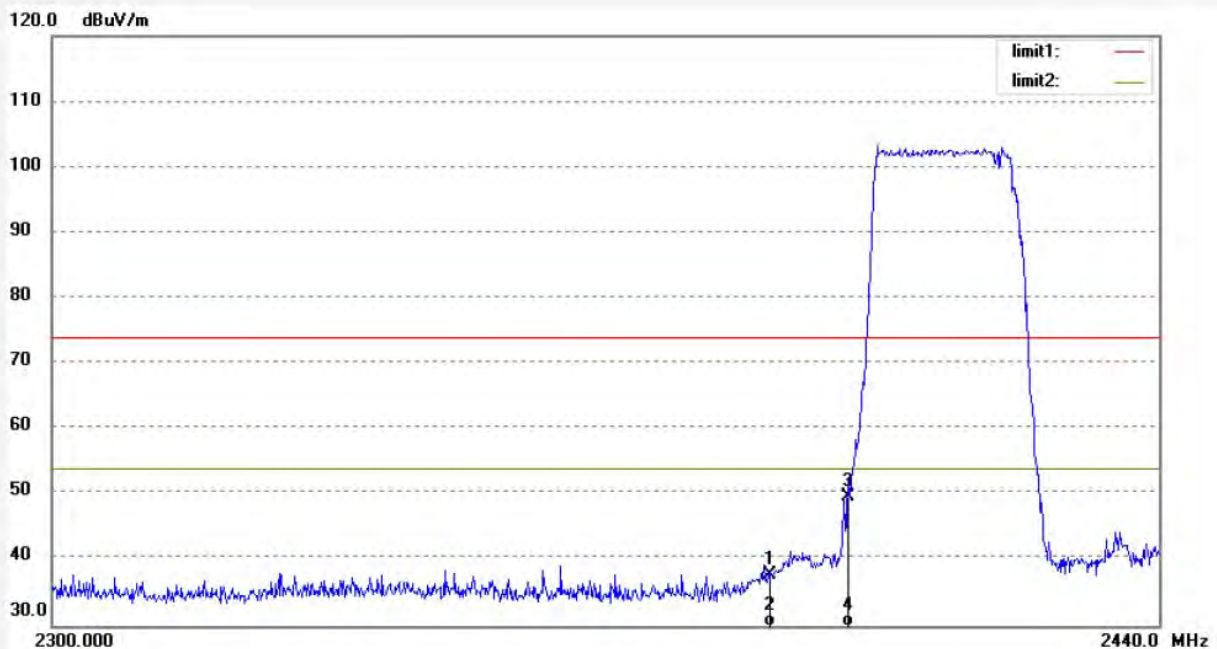
Polarization: Vertical

Power Source: AC 120V/60Hz

Date: 17/11/28/

Time: 11/22/56

Note: Report No.:ATE20172197



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2390.000	43.59	-5.89	37.70	74.00	-36.30	peak	150	357	
2	2390.000	34.68	-5.89	28.79	54.00	-25.21	AVG	150	357	
3	2400.000	55.50	-5.80	49.70	74.00	-24.30	peak	150	278	
4	2400.000	33.14	-5.80	27.34	54.00	-26.66	AVG	150	278	

Note: Average measurement with peak detection at No.2&4



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Job No.: frank2017 #1672

Polarization: Vertical

Standard: FCC PK

Power Source: AC 120V/60Hz

Test item: Radiation Test

Date: 17/11/28/

Temp.(C)/Hum.(%) 25 C / 55 %

Time: 11/24/24

EUT: LED MOTION SENSOR TRACKING LIGHT WIFI CAMERA Engineer Signature: star

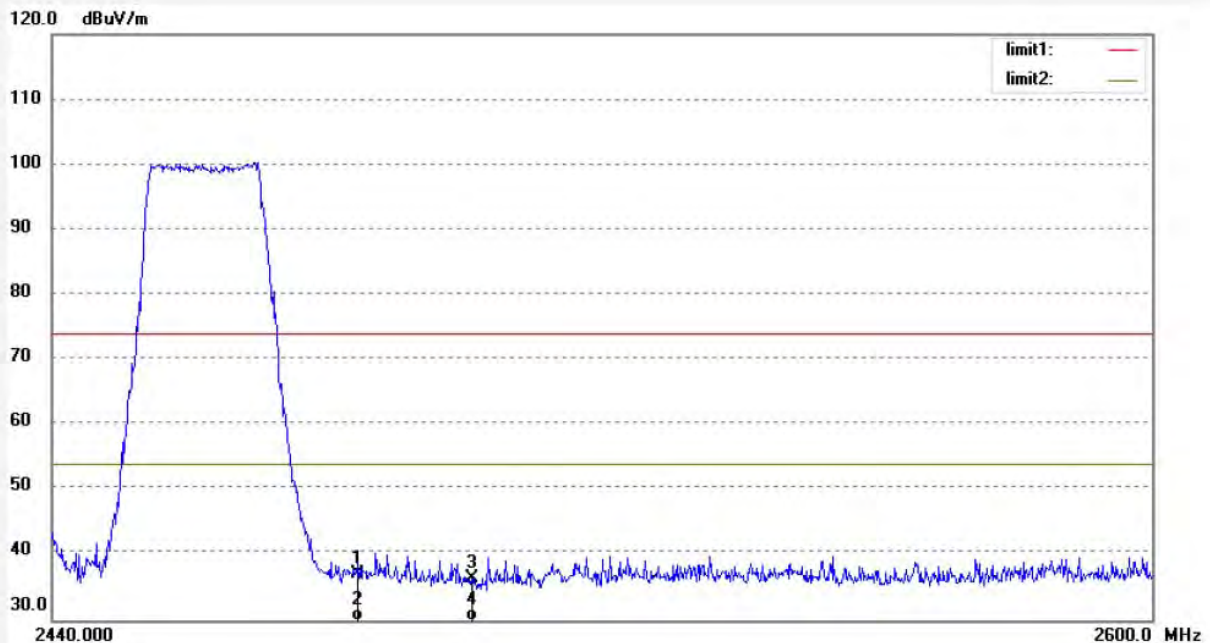
Mode: TX Channel 11(802.11n)

Distance: 3m

Model: AEC-9332BSD-AC16W-WF

Manufacturer: AURUM

Note: Report No.:ATE20172197



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2483.500	42.61	-5.51	37.10	74.00	-36.90	peak	150	247	
2	2483.500	33.10	-5.51	27.59	54.00	-26.41	AVG	150	247	
3	2500.000	41.93	-5.50	36.43	74.00	-37.57	peak	150	237	
4	2500.000	30.80	-5.50	25.30	54.00	-28.70	AVG	150	237	

Note: Average measurement with peak detection at No.2&4



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Job No.: frank2017 #1673

Standard: FCC PK

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 55 %

EUT: LED MOTION SENSOR TRACKING LIGHT WIFI CAMERA Engineer Signature: star

Mode: TX Channel 11(802.11n)

Distance: 3m

Model: AEC-9332BSD-AC16W-WF

Manufacturer: AURUM

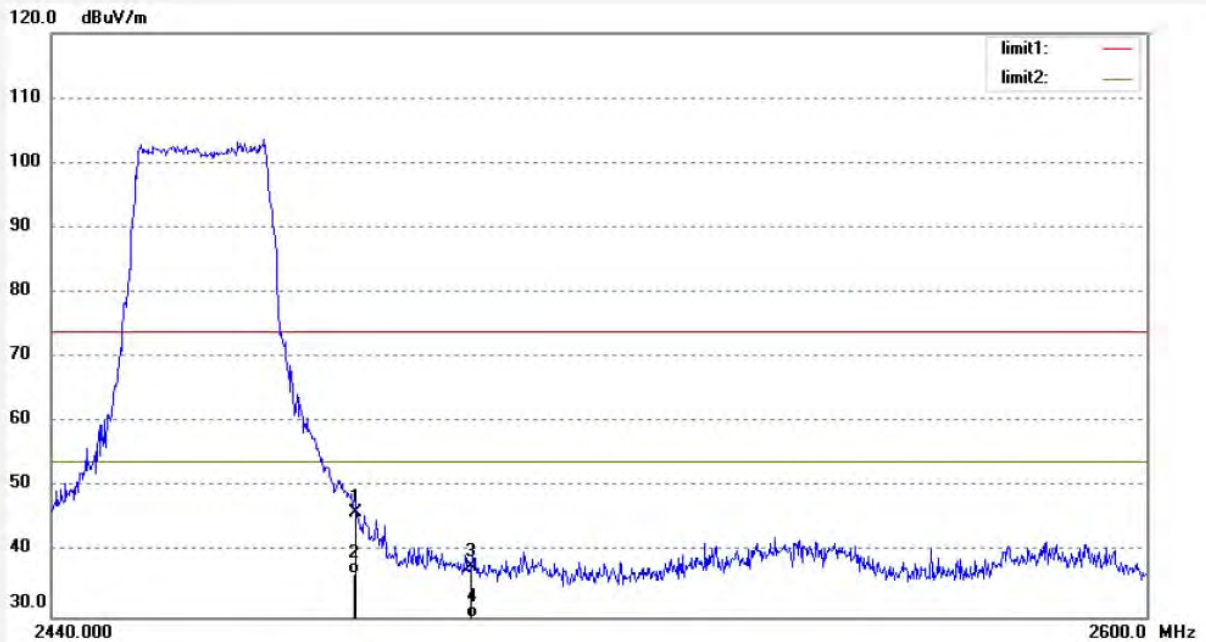
Polarization: Horizontal

Power Source: AC 120V/60Hz

Date: 17/11/28/

Time: 11/26/08

Note: Report No.:ATE20172197



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2483.500	51.61	-5.51	46.10	74.00	-27.90	peak	250	279	
2	2483.500	42.10	-5.51	36.59	54.00	-17.41	AVG	250	279	
3	2500.000	43.20	-5.50	37.70	74.00	-36.30	peak	250	183	
4	2500.000	33.67	-5.50	28.17	54.00	-25.83	AVG	250	183	

Note: Average measurement with peak detection at No.2&4



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Job No.: frank2017 #1674

Standard: FCC PK

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 55 %

EUT: LED MOTION SENSOR TRACKING LIGHT WIFI CAMERA Engineer Signature: star

Mode: TX Channel 3(802.11n)40MHz

Distance: 3m

Model: AEC-9332BSD-AC16W-WF

Manufacturer: AURUM

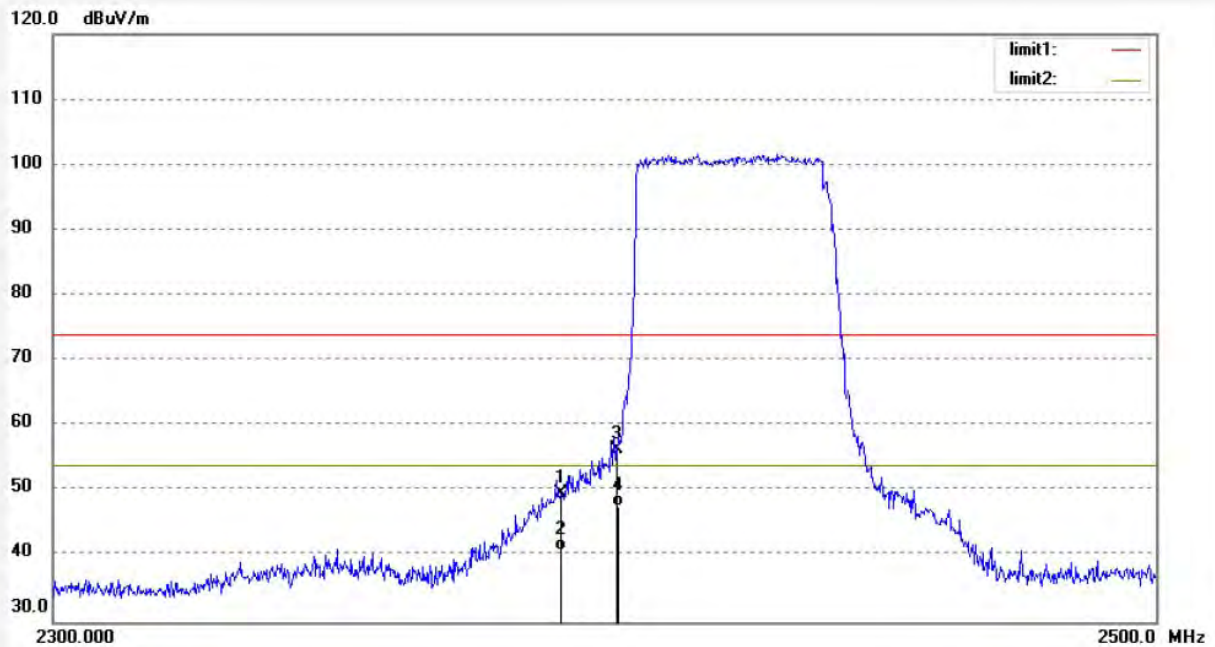
Polarization: Horizontal

Power Source: AC 120V/60Hz

Date: 17/11/28/

Time: 11/28/29

Note: Report No.:ATE20172197



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2390.000	55.65	-5.89	49.76	74.00	-24.24	peak	250	278	
2	2390.000	46.71	-5.89	40.82	54.00	-13.18	AVG	250	278	
3	2400.000	62.18	-5.80	56.38	74.00	-17.62	peak	200	113	
4	2400.000	53.40	-5.80	47.60	54.00	-6.40	AVG	200	113	

Note: Average measurement with peak detection at No.2&4



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Job No.: frank2017 #1675

Standard: FCC PK

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 55 %

EUT: LED MOTION SENSOR TRACKING LIGHT WIFI CAMERA Engineer Signature: star

Mode: TX Channel 3(802.11n)40MHz

Distance: 3m

Model: AEC-9332BSD-AC16W-WF

Manufacturer: AURUM

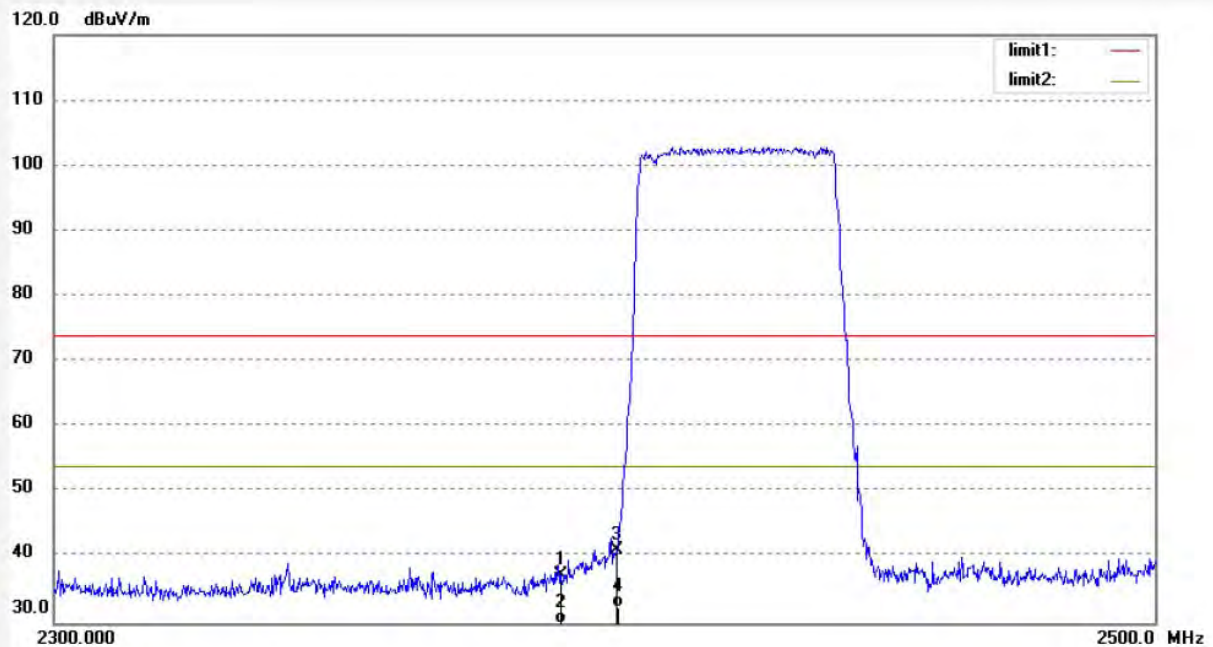
Polarization: Vertical

Power Source: AC 120V/60Hz

Date: 17/11/28/

Time: 11/30/30

Note: Report No.:ATE20172197



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2390.000	43.15	-5.89	37.26	74.00	-36.74	peak	150	304	
2	2390.000	33.65	-5.89	27.76	54.00	-26.24	AVG	150	304	
3	2400.000	47.05	-5.80	41.25	74.00	-32.75	peak	150	122	
4	2400.000	38.10	-5.80	32.30	54.00	-21.70	AVG	150	122	

Note: Average measurement with peak detection at No.2&4

Job No.: frank2017 #1676

Standard: FCC PK

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 55 %

EUT: LED MOTION SENSOR TRACKING LIGHT WIFI CAMERA Engineer Signature: star

Mode: TX Channel 9(802.11n)40MHz

Distance: 3m

Model: AEC-9332BSD-AC16W-WF

Manufacturer: AURUM

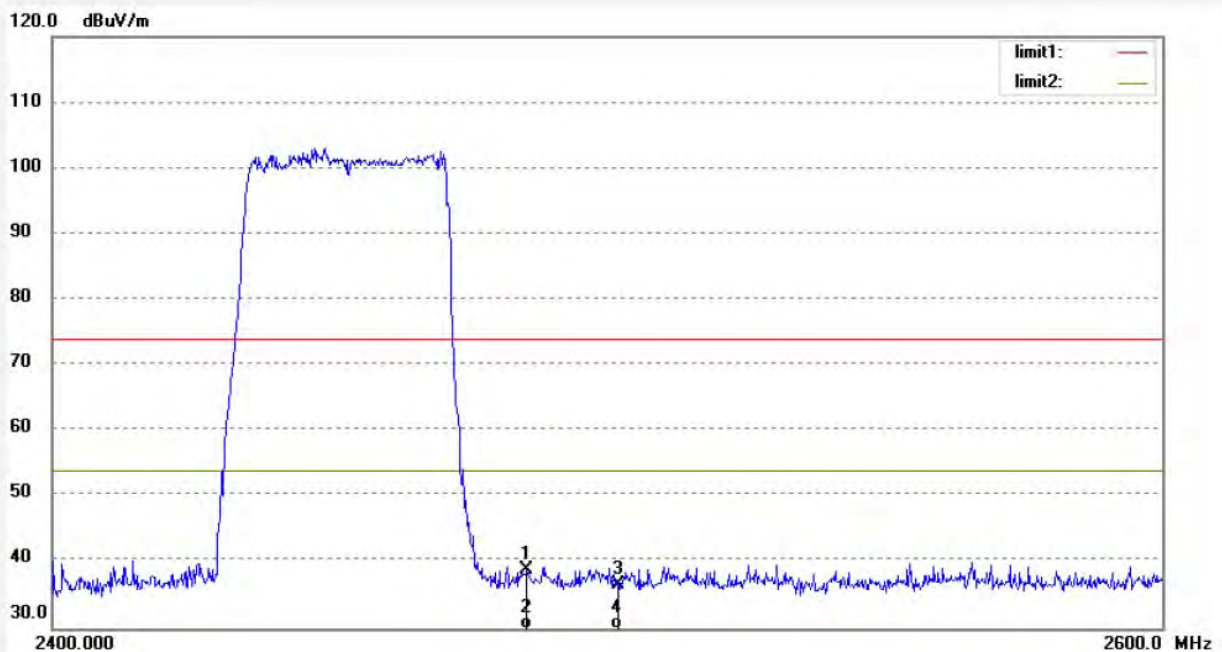
Polarization: Vertical

Power Source: AC 120V/60Hz

Date: 17/11/28/

Time: 11/36/05

Note: Report No.:ATE20172197



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2483.500	44.41	-5.51	38.90	74.00	-35.10	peak	150	74	
2	2483.500	34.70	-5.51	29.19	54.00	-24.81	AVG	150	74	
3	2500.000	42.23	-5.50	36.73	74.00	-37.27	peak	150	123	
4	2500.000	33.67	-5.50	28.17	54.00	-25.83	AVG	150	123	

Note: Average measurement with peak detection at No.2&4



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Job No.: frank2017 #1677

Standard: FCC PK

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 55 %

EUT: LED MOTION SENSOR TRACKING LIGHT WIFI CAMERA Engineer Signature: star

Mode: TX Channel 9(802.11n)40MHz

Distance: 3m

Model: AEC-9332BSD-AC16W-WF

Manufacturer: AURUM

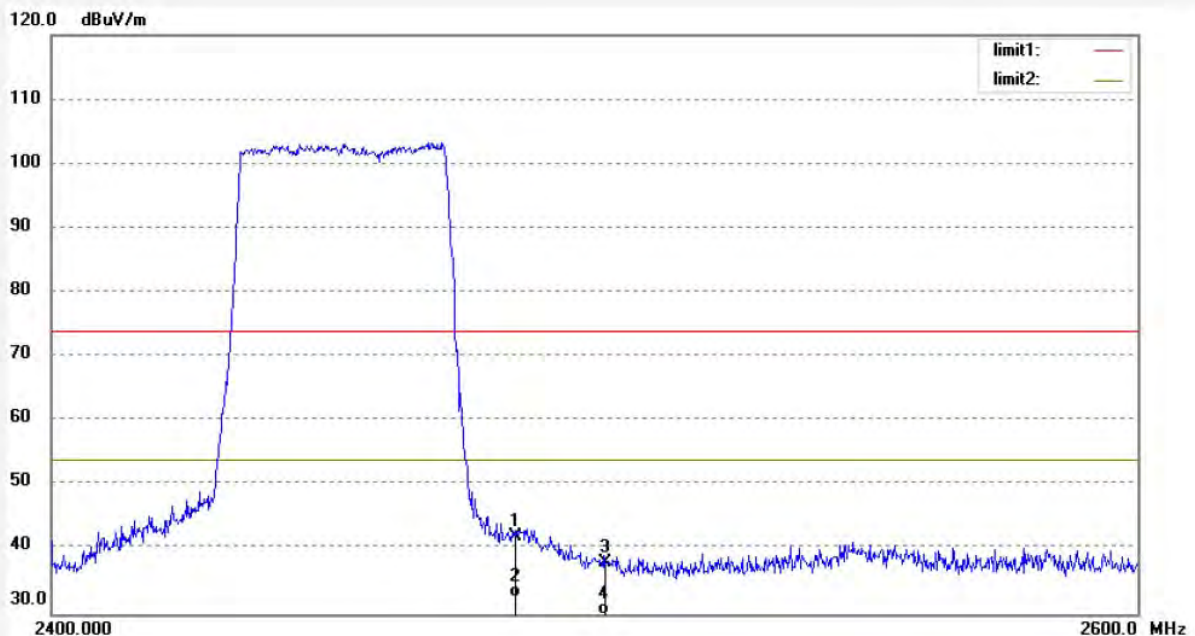
Polarization: Horizontal

Power Source: AC 120V/60Hz

Date: 17/11/28/

Time: 11/38/22

Note: Report No.:ATE20172197



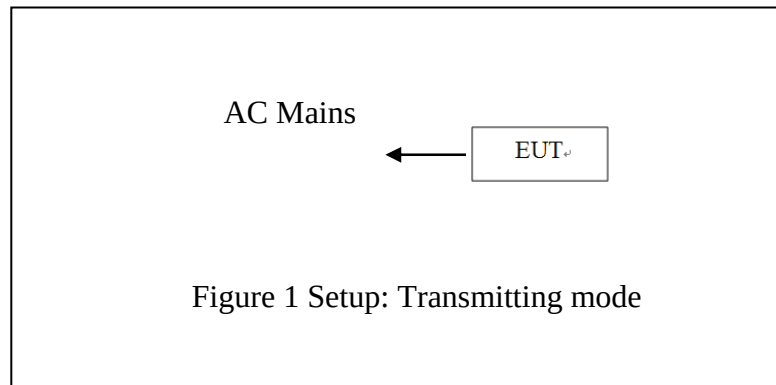
No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2483.500	47.47	-5.51	41.96	74.00	-32.04	peak	250	122	
2	2483.500	38.00	-5.51	32.49	54.00	-21.51	AVG	250	122	
3	2500.000	43.38	-5.50	37.88	74.00	-36.12	peak	300	210	
4	2500.000	34.07	-5.50	28.57	54.00	-25.43	AVG	300	210	

Note: Average measurement with peak detection at No.2&4

10.RADIATED SPURIOUS EMISSION TEST

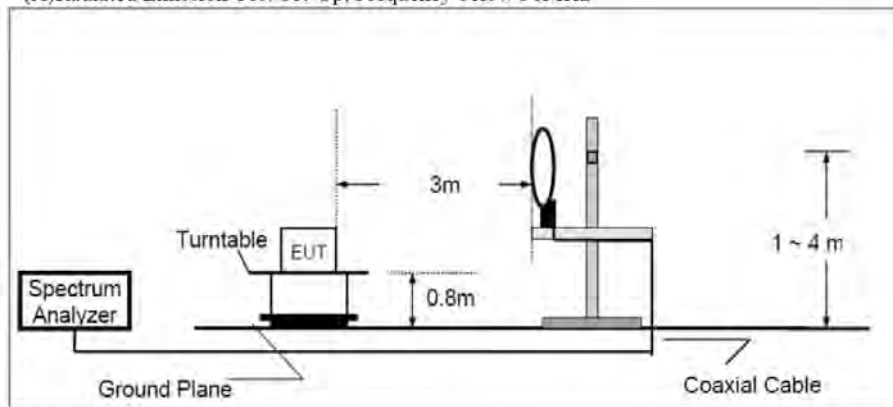
10.1.Block Diagram of Test Setup

10.1.1.Block diagram of connection between the EUT and peripherals



10.1.2.Semi-Anechoic Chamber Test Setup Diagram

(A)Radiated Emission Test Set-Up, Frequency below 30MHz



(B)Radiated Emission Test Set-Up, Frequency 30-1000MHz

