

<b>Prüfbericht-Nr.:</b> <i>Test Report No.:</i>	<b>50089521 002</b>	<b>Auftrags-Nr.:</b> <i>Order No.:</i>	<b>164096020</b>	Seite 1 von 56 Page 1 of 56	
<b>Kunden-Referenz-Nr.:</b> <i>Client Reference No.:</i>	N/A	<b>Auftragsdatum:</b> <i>Order date:</i>	08.06.2017		
<b>Auftraggeber:</b> <i>Client:</i>	Lightcomm Technology Co., Ltd. RM 1808 18F, FO TAN INDUSTRIAL CENTRE, NOS. 26-28 AU PUI WAN STREET, FO TAN SHATIN NEW TERRITORIES, HONGKONG				
<b>Prüfgegenstand:</b> <i>Test item:</i>	Insignia Flex Window 10" Tablet with Keyboard				
<b>Bezeichnung / Typ-Nr.:</b> <i>Identification / Type No.:</i>	NS-P10W8100, NS-P10W8100-C, xxxxxxP10W81xxxxxx, NB1028-IJ (x=0-9, A-Z, a-z, - or blank, for market purpose only) (Trademark: INSIGNIA)				
<b>Auftrags-Inhalt:</b> <i>Order content:</i>	FCC/IC Certification				
<b>Prüfgrundlage:</b> <i>Test specification:</i>	CFR47 FCC Part 15: Subpart C Section 15.247 CFR47 FCC Part 15: Subpart C Section 15.207 CFR47 FCC Part 15: Subpart C Section 15.209 RSS-247 Issue 2 February 2017 RSS-Gen Issue 4 November 2014				
<b>Wareneingangsdatum:</b> <i>Date of receipt:</i>	08.06.2017				
<b>Prüfmuster-Nr.:</b> <i>Test sample No.:</i>	A000561697-001 to 003				
<b>Prüfzeitraum:</b> <i>Testing period:</i>	16.06.2017 - 10.07.2017				
<b>Ort der Prüfung:</b> <i>Place of testing:</i>	EMTEK (Shenzhen) Co., Ltd.				
<b>Prüflaboratorium:</b> <i>Testing laboratory:</i>	TÜV Rheinland (Shenzhen) Co., Ltd.				
<b>Prüfergebnis*:</b> <i>Test result*:</i>	Pass				
<b>geprüft von / tested by:</b>		<b>kontrolliert von / reviewed by:</b>			
12.07.2017 Alex Lan / Project Engineer		12.07.2017 Owen Tian/Technical Certifier			
<b>Datum</b> <i>Date</i>	<b>Name / Stellung</b> <i>Name / Position</i>	<b>Unterschrift</b> <i>Signature</i>	<b>Datum</b> <i>Date</i>	<b>Name / Stellung</b> <i>Name / Position</i>	<b>Unterschrift</b> <i>Signature</i>
<b>Sonstiges / Other:</b> FCC ID: XMF-NB1028 IC: 20064-NB1028 HVIN: NS-P10W8100					
<b>Zustand des Prüfgegenstandes bei Anlieferung:</b> <i>Condition of the test item at delivery:</i>			Prüfmuster vollständig und unbeschädigt <i>Test item complete and undamaged</i>		
* Legende: 1 = sehr gut 2 = gut 3 = befriedigend 4 = ausreichend 5 = mangelhaft P(ass) = entspricht o.g. Prüfgrundlage(n) F(ail) = entspricht nicht o.g. Prüfgrundlage(n) N/A = nicht anwendbar N/T = nicht getestet Legend: 1 = very good 2 = good 3 = satisfactory 4 = sufficient 5 = poor P(ass) = passed a.m. test specification(s) F(ail) = failed a.m. test specification(s) N/A = not applicable N/T = not tested					
Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens. <i>This test report only relates to the a. m. test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any test mark.</i>					

## TEST SUMMARY

**5.1.1 ANTENNA REQUIREMENT**

RESULT: Pass

**5.1.2 PEAK OUTPUT POWER**

RESULT: Pass

**5.1.3 6dB BANDWIDTH AND 99% BANDWIDTH**

RESULT: Pass

**5.1.4 CONDUCTED SPURIOUS EMISSIONS MEASURED IN 100kHz BANDWIDTH**

RESULT: Pass

**5.1.5 POWER SPECTRAL DENSITY**

RESULT: Pass

**5.1.6 SPURIOUS EMISSION**

RESULT: Pass

**5.1.7 CONDUCTED EMISSIONS**

RESULT: Pass

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## 1. General Remarks

### 1.1 Complementary Materials

All attachments are integral parts of this test report. This applies especially to the following appendixes:

Appendix A: Test data of 2.4G Wi-Fi.

## 2. Test Sites

### 2.1 Test Facilities

EMTEK (Shenzhen) Co., Ltd.

**(FCC Registration No.: 709623)**  
**(Test site Industry Canada No.: 4480A-2)**

Bldg 69, Majialong Industry Zone, Nanshan District,  
Shenzhen, Guangdong, P.R. China

The tests at the test site have been conducted under the supervision of a TÜV engineer.

## 2.2 List of Test and Measurement Instruments

**Table 1: List of Test and Measurement Equipment**

Kind of Equipment	Manufacturer	Type	S/N	Calibrated until
<b>Transmitter spurious emissions</b>				
EMI Test Receiver	Rohde & Schwarz	ESU	1302.6005.26	2018-05-20
Loop Antenna	Schwarzbeck	FMZB 1519	1519-012	2018-05-20
Cable	H+B	3M SF104-26.5	295838/4	2018-05-21
Cable	H+B	6M SF104-26.5	295840/4	2018-05-21
Pre-Amplifier	HP	8447F	2944A07999	2018-05-20
Bilog Antenna	Schwarzbeck	VULB9163	142	2018-05-21
Cable	Schwarzbeck	AK9513	ACRX1	2018-05-20
Cable	Rosenberger	N/A	FP2RX2	2018-05-20
Cable	Schwarzbeck	AK9513	CRPX1	2018-05-21
Cable	Schwarzbeck	AK9513	CRRX2	2018-05-21
Pre-Amplifier	A.H.	PAM-0126	1415261	2018-05-20
Horn Antenna	Schwarzbeck	BBHA 9120	707	2018-05-21
Pre-Amplifier	A.H.	PAM-0126	1415261	2018-05-20
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA91703 99	2018-05-20
EMI Test Receiver	Rohde & Schwarz	FSV40	132.1- 3008K39- 100967-AP	2018-05-20
Pre-Amplifier	Lunar EM	LNA26G40-40	J101313102 8001	2018-05-20
Horn Antenna	AHS/USA	SAS-573	184	2018-05-20
Cable	H+B	0.5M SF104- 26.5	289147/4	2018-05-20
Cable	H+B	3M SF104-26.5	295838/4	2018-05-20
Cable	H+B	6M SF104-26.5	295840/4	2018-05-20
<b>Radio Spectrum Test</b>				
EMI Test Receiver	Rohde & Schwarz	ESCI	101045	2018-05-21
Vector Signal Generater	Agilent	N5182B	My53050553	2018-05-20
Analog Signal Generator	Agilent	N5171B	My53050878	2018-05-20
Signal Analyzer	Agilent	N9010A	My53470879	2018-05-21
Power Meter	Agilent	PS-X10-100	N/A	2018-05-21
Temp. / Humidity Chamber	Kingson	THS-M1	242	2018-05-20
<b>Conducted Emission</b>				
Test Receiver	Rohde & Schwarz	ESCI	26115-010- 0027	2018-05-20
L.I.S.N.	Rohde & Schwarz	ENV216	101161	2018-05-20
50Ω Coaxial Switch	Anritsu	MP59B	6100175589	2018-05-21
Voltage Probe	Rohde & Schwarz	ESH2-Z3	100122	2018-05-21

## 2.3 Traceability

All measurement equipment calibrations are traceable to NIST or where calibration is performed outside the United States, to equivalent nationally recognized standards organizations.

## 2.4 Calibration

Equipment requiring calibration is calibrated periodically by the manufacturer or according to manufacturer's specifications. Additionally all equipment is verified for proper performance on a regular basis using in house standards or comparisons.

## 2.5 Measurement Uncertainty

**Table 2: Measurement Uncertainty**

Parameter	Uncertainty
Radio Frequency	$\pm 1 \times 10^{-5}$
Maximum Peak Output Power Test	$\pm 1.0\text{dB}$
Conducted Emissions Test	$\pm 2.0\text{dB}$
Radiated Emission Test	$\pm 2.0\text{dB}$
Power Density	$\pm 2.0\text{dB}$
Occupied Bandwidth Test	$\pm 1.0\text{dB}$
Band Edge Test	$\pm 3\text{dB}$
All emission, radiated	$\pm 3\text{dB}$
Antenna Port Emission	$\pm 3\text{dB}$
Temperature	$\pm 0.5^\circ\text{C}$
Humidity	$\pm 3\%$

## 2.6 Location of Original Data

The original copies of all test data taken during actual testing were retained in the TÜV Rheinland (Shenzhen) file for certification follow-up purposes.

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## 2.7 Status of Facility Used for Testing

EMTEK (Shenzhen) Co., Ltd. test facility located at Bldg 69, Majialong Industry Zone, Nanshan District, Shenzhen, Guangdong, P.R. China is listed on the US Federal Communications Commission list of facilities approved to perform measurements.

### 3. General Product Information

#### 3.1 Product Function and Intended Use

The EUTs are window 10" tablet with Wi-Fi, Bluetooth function.  
 All models are identical except the model name.  
 The EUTs have two antennas, two antennas cannot transmitter simultaneously.  
 For details refer to the User Manual and Circuit Diagram.

#### 3.2 Ratings and System Details

**Table 3: Technical Specification of EUT**

Technical Specification	Value
Kind of Equipment	Insignia Flex Window 10" Tablet with Keyboard
Type Designation	NS-P10W8100, NS-P10W8100-C, xxxxxxP10W81xxxxxx, NB1028-IJ (x=0-9, A-Z, a-z, - or blank, for market purpose only)
FCC ID	XMF-NB1028
IC	20064-NB1028
HVIN	NS-P10W8100
Operating Frequency band	2412 – 2462MHz
Extreme Temperature Range	0~+45°C
Operation Voltage	DC 3.7V, 6800mAh via built-in lithium-ion battery DC 5V via AC/DC adapter
Antenna Gain	Ant1: 2.83dBi, Ant2: 2.83dBi

**Table 4: Technical Specification of Wi-Fi**

Item	Description			
	IEEE 802.11b	IEEE 802.11g	IEEE 802.11n (HT20)	IEEE 802.11n (HT40)
Operating Frequency band (MHz)	2412 ~ 2462	2412 ~ 2462	2412 ~ 2462	2422 ~ 2452
Channel Number	11	11	11	7
Modulation	DSSS (DBPSK, DQPSK), CCK)	OFDM (DBPSK, DQPSK)	OFDM (BPSK, QPSK, 16-QAM, 64-QAM)	OFDM (BPSK, QPSK, 16-QAM, 64-QAM)
Data Rate (Mbps)	1, 2, 5, 11	6, 9, 12, 18, 24, 36, 48, 54	MCS0 ~ MCS7	MCS0 ~ MCS7
Output Power Setting level	16	15	15	14
Media Access Protocol	CSMA/CA with ACK	CSMA/CA with ACK	CSMA/CA with ACK	CSMA/CA with ACK
Remark: Reduce power setting of 802.11g/n due to power setting of SAR and retest Peak output power.				



**Table 5: Carrier Frequency**

Frequency Band	Channel No.	Frequency	Channel No.	Frequency
2400 – 2483.5 MHz	1	2412 MHz	8	2447 MHz
	2	2417 MHz	9	2452 MHz
	3	2422 MHz	10	2457 MHz
	4	2427 MHz	11	2462 MHz
	5	2432 MHz		
	6	2437 MHz		
	7	2442 MHz		

### 3.3 Independent Operation Modes

The basic operation modes are:

- A. On, Wi-Fi mode (2.4GHz)
  - 1. Transmitting
    - a. Low Channel
    - b. Middle Channel
    - c. High Channel
- B. Standby
- C. Off

### 3.4 Noise Generating and Noise Suppressing Parts

Refer to the Circuit Diagram.

### 3.5 Submitted Documents

- Bill of Material
- Constructional Drawing
- PCB Layout
- Photo Document
- Circuit Diagram
- Instruction Manual
- Rating Label

## 4. Test Set-up and Operation Modes

### 4.1 Principle of Configuration Selection

The equipment under test (EUT) was configured to measure its maximum power level. The test modes were adapted accordingly in reference to the instructions for use.

### 4.2 Test Operation and Test Software

Test operation refers to test setup in chapter 5. All testing were performed according to the procedures in ANSI C63.10: 2013.

### 4.3 Special Accessories and Auxiliary Equipment

The EUT was tested together with the following accessories:

Description	Manufacturer	Part No.	Rating
AC/DC Adapter	SHENZHEN TEKA TECHNOLOGY CO., LTD.	TEKA024-0503000UK	Input: AC 100-240V, 50/60Hz, 0.7A; Output: DC 5V, 3.0A

### 4.4 Countermeasures to Achieve ERM Compliance

The test sample which has been tested contained the noise suppression parts as described in the Technical Construction File (TCF). No additional measures were employed to achieve compliance.

## 4.5 Test Setup Diagram

Diagram of Measurement Configuration for Radiation Test

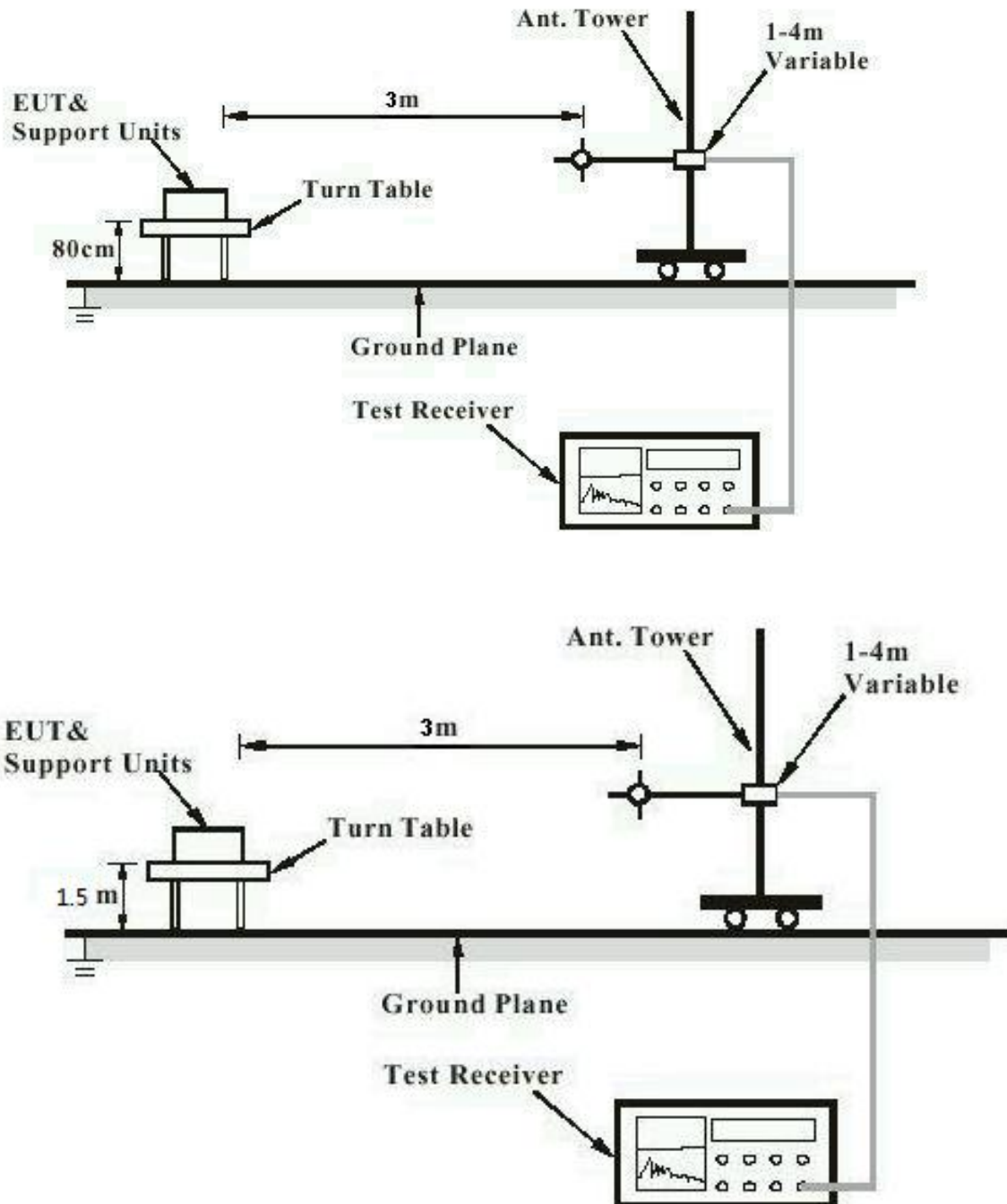


Diagram of Measurement Equipment Configuration for Conduction Measurement

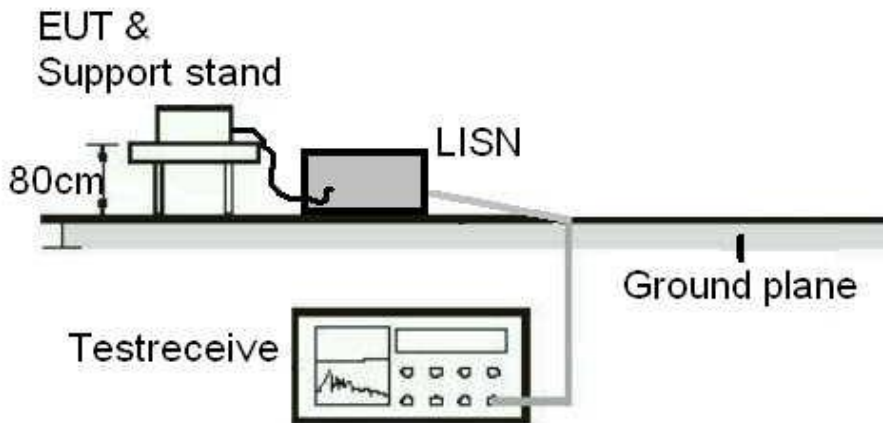
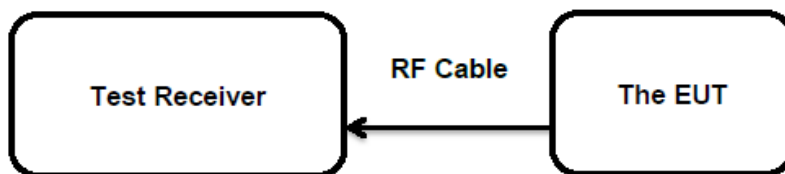


Diagram of Measurement Equipment Configuration for Transmitter Measurement



## 5. Test Results

### 5.1 Transmitter Requirement & Test Suites

#### 5.1.1 Antenna Requirement

**RESULT:****Pass**

Test standard : FCC Part 15.247(b)(4) & FCC Part 15.203  
RSS-Gen Clause 8.3  
Limit The use of antennas with directional gains that do not exceed 6dBi

According to the manufacturer declared, the EUT has an internal antenna, the directional gain of antenna is 2.83 dBi, and the antenna connector is designed with permanent attachment and no consideration of replacement. Therefore the EUT is considered sufficient to comply with the provision.

Refer to EUT Photo for further details.

### 5.1.2 Peak Output Power

**RESULT:**
**Pass**

Test date : 2017-07-03  
 Test standard : FCC Part 15.247(b)(3)  
                   : RSS-247 clause 5.4(4)  
 Basic standard : ANSI C63.10: 2013  
                   : Clause 9.1 of KDB 558074 v04  
 Limit : < 1 Watt (30dBm) (Maximum peak  
           : < 4 Watt (36dBm) (e.i.r.p.)  
 Kind of test site : Shielded room

**Test setup**

Test Channel : Low/ Middle/ High  
 Operation Mode : A.1  
 Ambient temperature : 25°C  
 Relative humidity : 50%  
 Atmospheric pressure : 101kPa

**Table 6: Test result of Peak Output Power of 802.11b**

Channel	Channel Frequency (MHz)	Peak Output Power		Limit (dBm)
		(dBm)		
		ANT1	ANT2	
Low Channel	2412	17.87	17.44	30
Middle Channel	2437	17.33	14.43	30
High Channel	2462	17.34	17.30	30

**Table 7: Test result of Peak Output Power of 802.11g**

Channel	Channel Frequency (MHz)	Peak Output Power		Limit (dBm)
		(dBm)		
		ANT1	ANT2	
Low Channel	2412	16.35	16.52	30
Middle Channel	2437	16.33	16.47	30
High Channel	2462	16.41	16.53	30

**Table 8: Test result of Peak Output Power of 802.11n (HT20)**

Channel	Channel Frequency (MHz)	Peak Output Power		Limit (dBm)
		(dBm)		
		ANT1	ANT2	
Low Channel	2412	15.70	15.79	30
Middle Channel	2437	15.94	15.98	30
High Channel	2462	15.92	15.96	30

**Table 9: Test result of Peak Output Power of 802.11n (HT40)**

Channel	Channel Frequency (MHz)	Peak Output Power		Limit (dBm)
		(dBm)		
		ANT1	ANT2	
Low Channel	2422	14.83	14.87	30
Middle Channel	2437	15.26	15.32	30
High Channel	2452	15.41	15.44	30

Note: The max e.r.i.p is 20.7 dBm less than 4W (36dBm).

### 5.1.3 6dB Bandwidth and 99% Bandwidth

**RESULT:**
**Pass**

Date of testing : 2017-07-03  
 Test standard : FCC Part 15.247(a)(2)  
                   : RSS-247 clause 5.2(1)  
                   : RSS-Gen clause 6.6  
 Basic standard : ANSI C63.10: 2013  
                   : Clause 8 of KDB 558074 v04  
 Kind of test site : Shielded room

**Test setup**

Test Channel : Low/ Middle/ High  
 Operation Mode : A.1  
 Ambient temperature : 25°C  
 Relative humidity : 50%  
 Atmospheric pressure : 101kPa

**Table 10: Test result of 6dB Bandwidth and 99% Bandwidth of 802.11b**

Channel	Channel Frequency (MHz)	6dB Bandwidth (MHz)		Limit (MHz)	99% Bandwidth (MHz)	
		ANT1	ANT2		ANT1	ANT2
Low Channel	2412	9.18	9.17	≥0.5	12.655	12.667
Mid Channel	2437	9.79	9.16	≥0.5	12.688	12.690
High Channel	2462	9.17	9.17	≥0.5	12.729	12.728

**Table 11: Test result of 6dB Bandwidth and 99% Bandwidth of 802.11g**

Channel	Channel Frequency (MHz)	6dB Bandwidth (MHz)		Limit (MHz)	99% Bandwidth (MHz)	
		ANT1	ANT2		ANT1	ANT2
Low Channel	2412	15.13	15.16	≥0.5	16.521	16.546
Mid Channel	2437	15.15	15.15	≥0.5	16.489	16.510
High Channel	2462	15.14	15.16	≥0.5	16.503	16.523

**Table 12: Test result of 6dB Bandwidth and 99% Bandwidth of 802.11n (HT20)**

Channel	Channel Frequency (MHz)	6dB Bandwidth (MHz)		Limit (MHz)	99% Bandwidth (MHz)	
		ANT1	ANT2		ANT1	ANT2
Low Channel	2412	15.17	15.16	≥0.5	17.676	17.663
Mid Channel	2437	15.15	15.16	≥0.5	17.636	17.634
High Channel	2462	15.14	15.16	≥0.5	17.650	17.659



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Test Report No.Seite 17 von 56  
Page 17 of 56**Table 13: Test result of 6dB Bandwidth and 99% Bandwidth of 802.11n (HT40)**

Channel	Channel Frequency (MHz)	6dB Bandwidth (MHz)		Limit (MHz)	99% Bandwidth (MHz)	
		ANT1	ANT2		ANT1	ANT2
Low Channel	2422	35.19	35.20	≥0.5	36.243	36.246
Mid Channel	2437	35.20	35.20	≥0.5	36.182	36.222
High Channel	2452	33.91	35.19	≥0.5	36.197	36.187

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**5.1.4 Conducted Spurious Emissions measured in 100kHz Bandwidth****RESULT:****Pass**

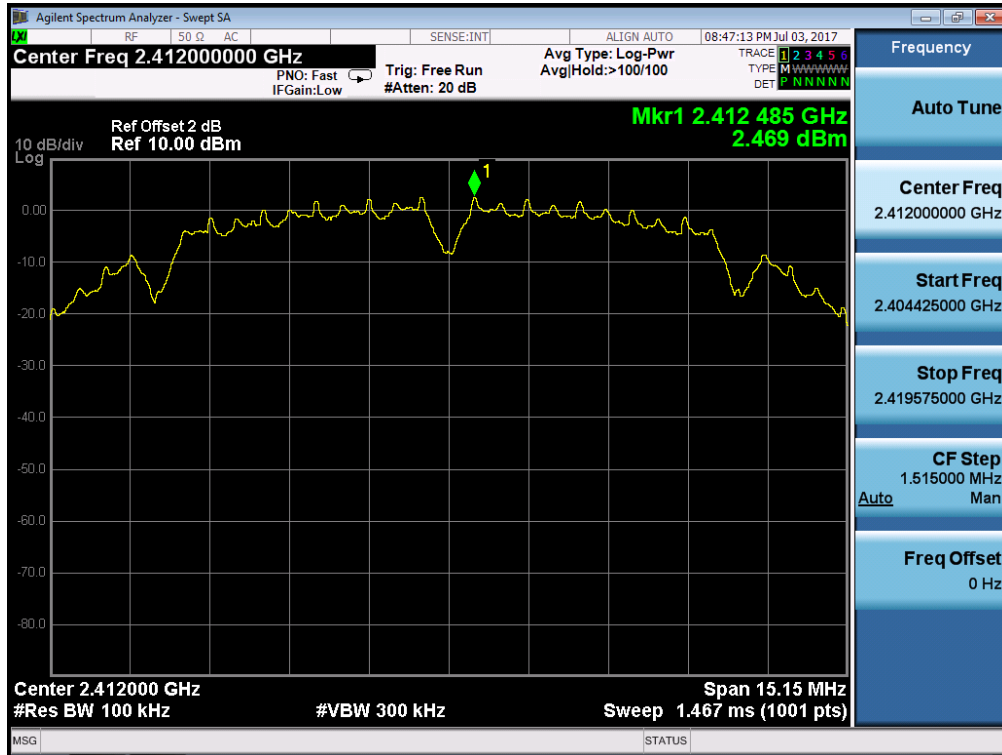
Date of testing : 2017-07-10  
Test standard : FCC part 15.247(d)  
RSS-247 clause 5.5  
Basic standard : ANSI C63.10: 2013  
Clause 13 of KDB 558074 v04  
Limit : 20dB (below that in the 100kHz bandwidth within  
the band that contains the highest level of the  
desired power)  
Kind of test site : Shield room

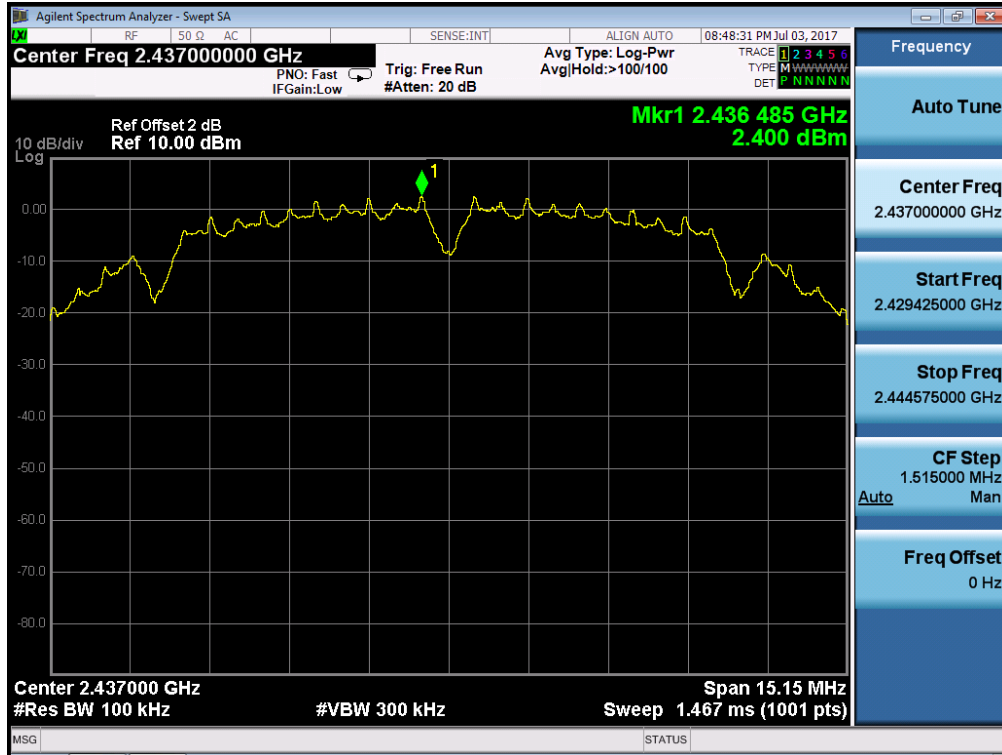
**Test setup**

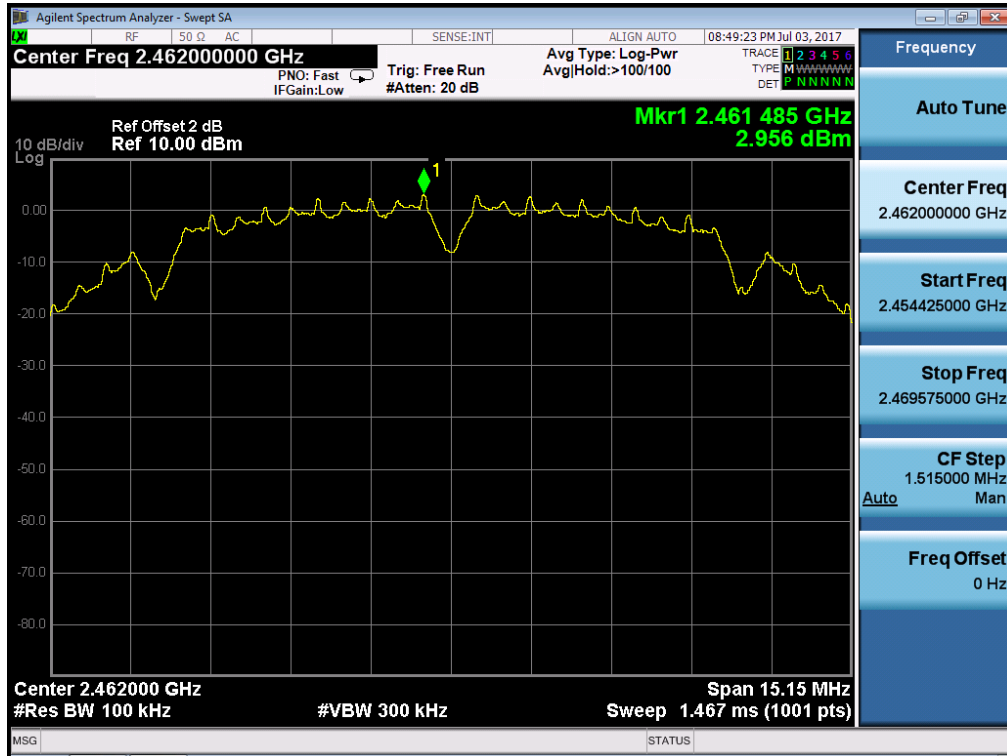
Test Channel : Low/ Middle/ High  
Operation mode : A.1  
Ambient temperature : 25°C  
Relative humidity : 50%  
Atmospheric pressure : 101kPa

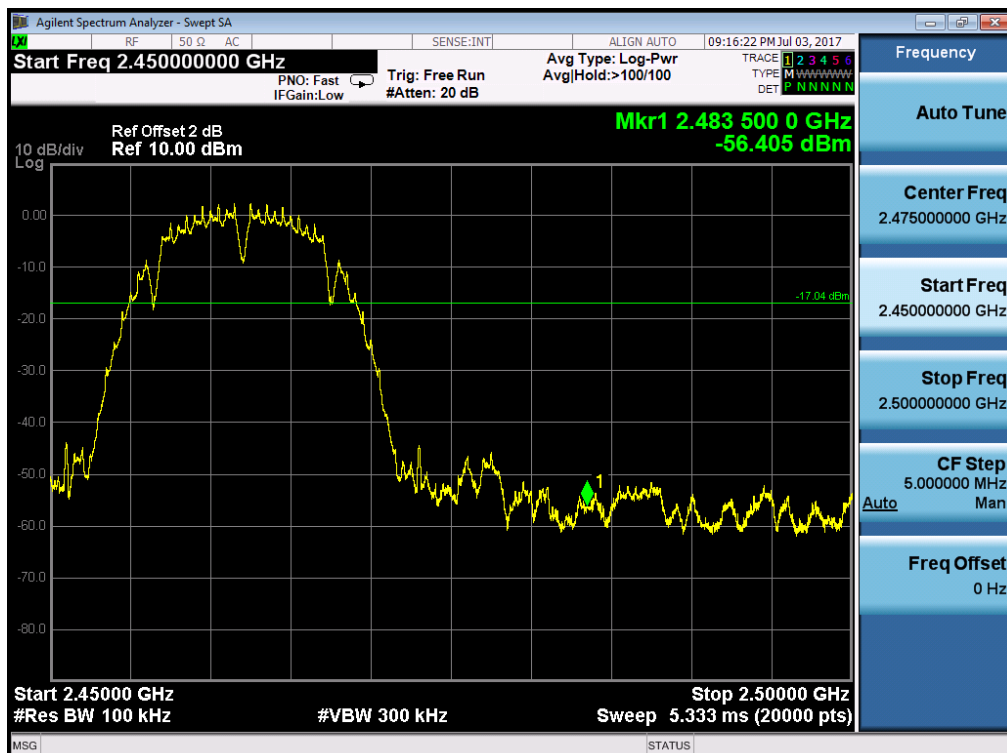
For details refer to following test plot.

## Test Plot of Conducted spurious emissions measured in 100kHz Bandwidth of 802.11b ANT1 Low Channel

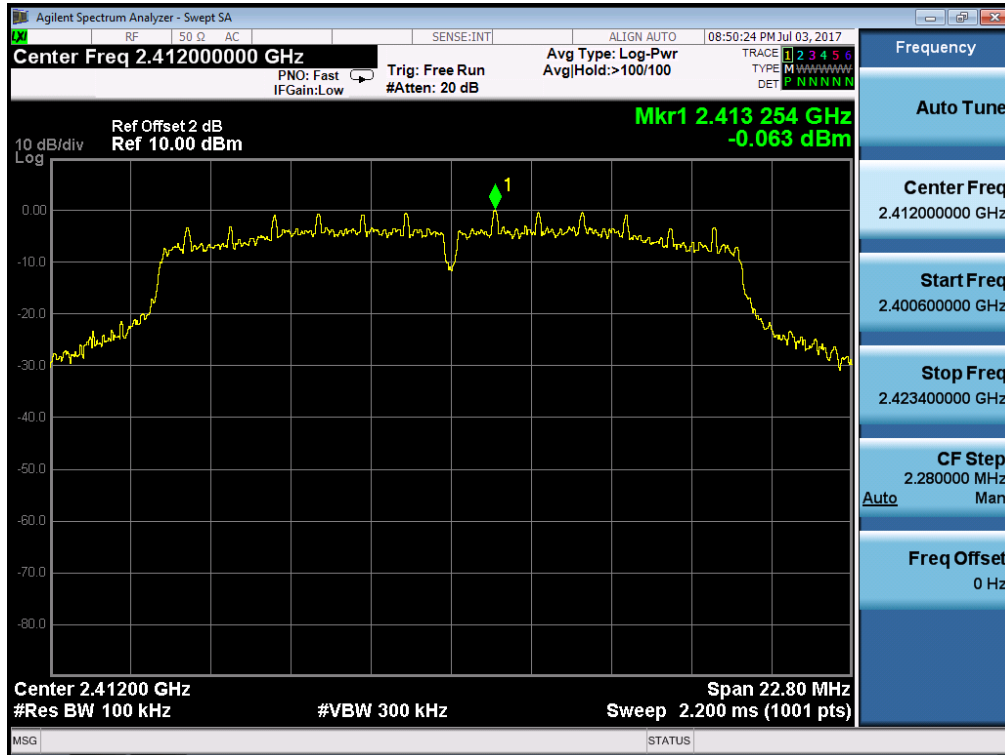


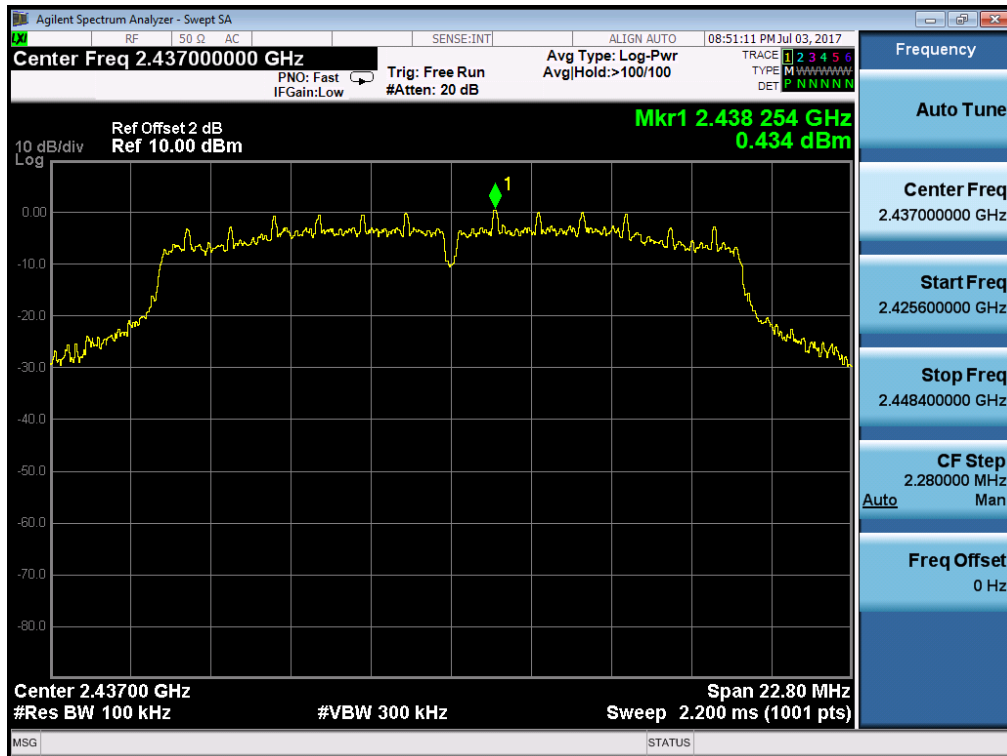
**Middle Channel**


**High Channel**


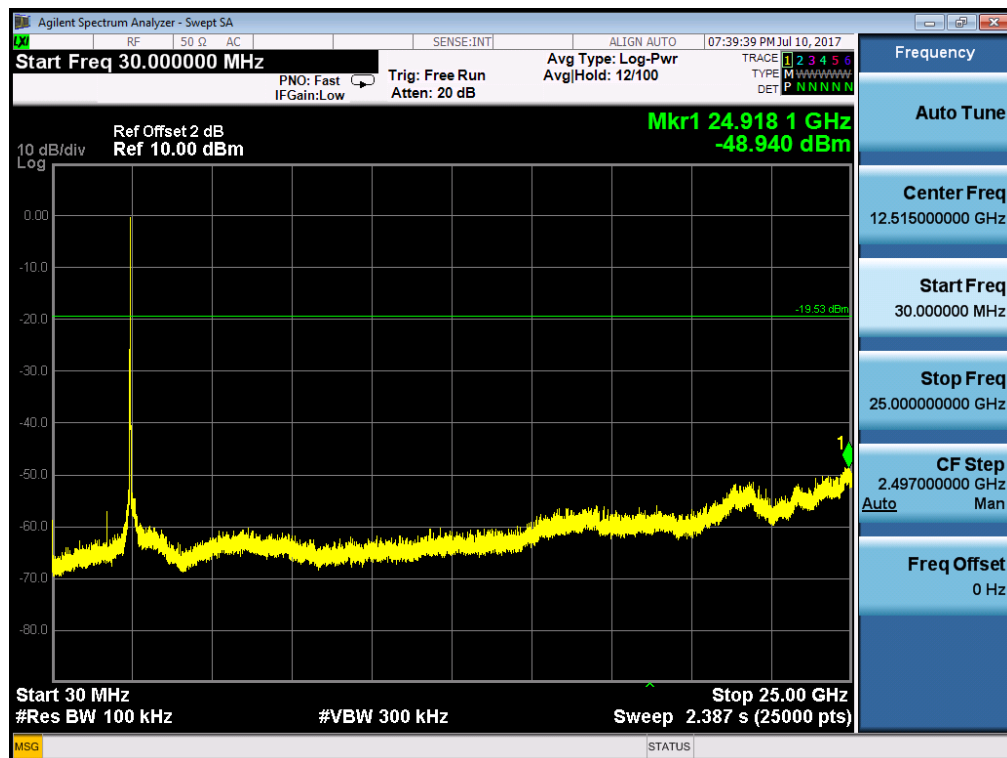
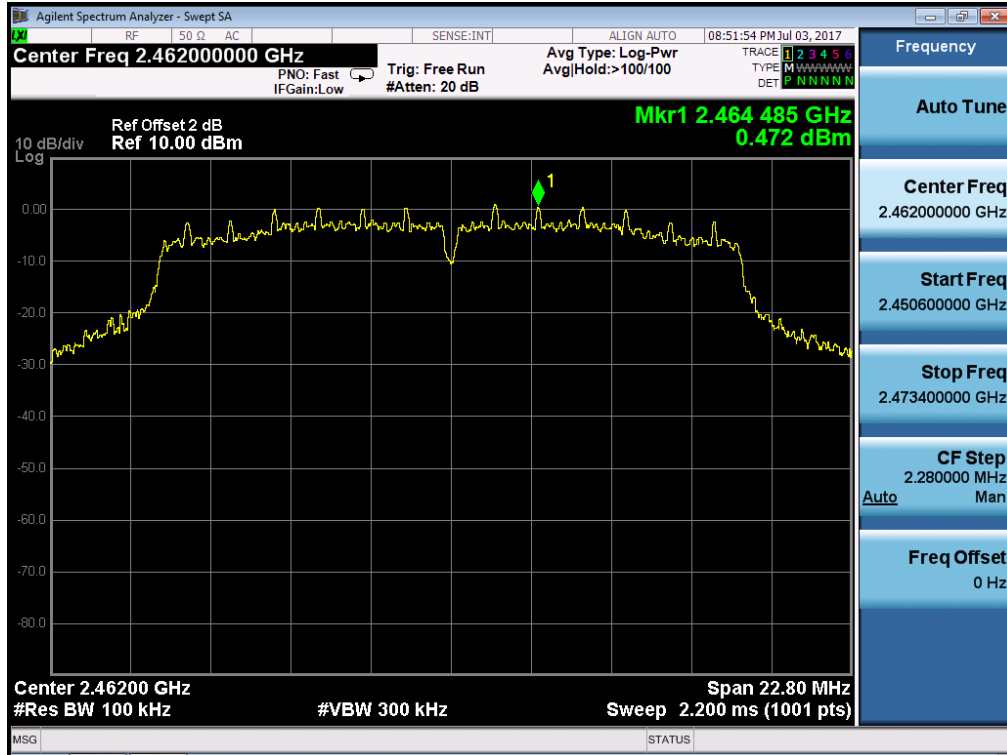
**Band Edge**


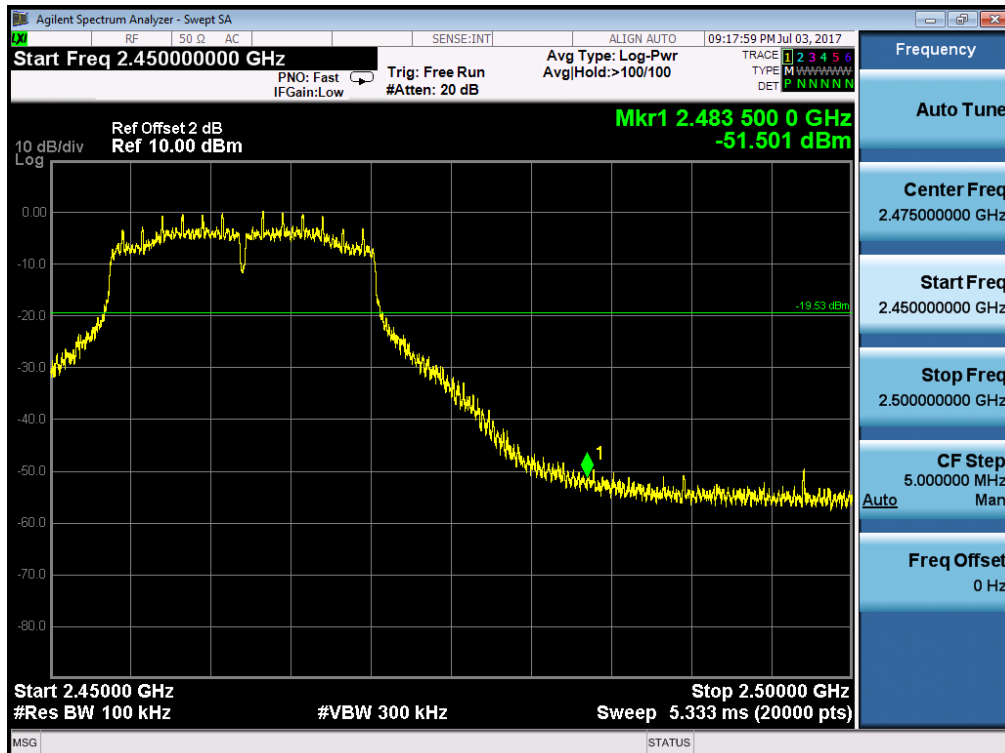
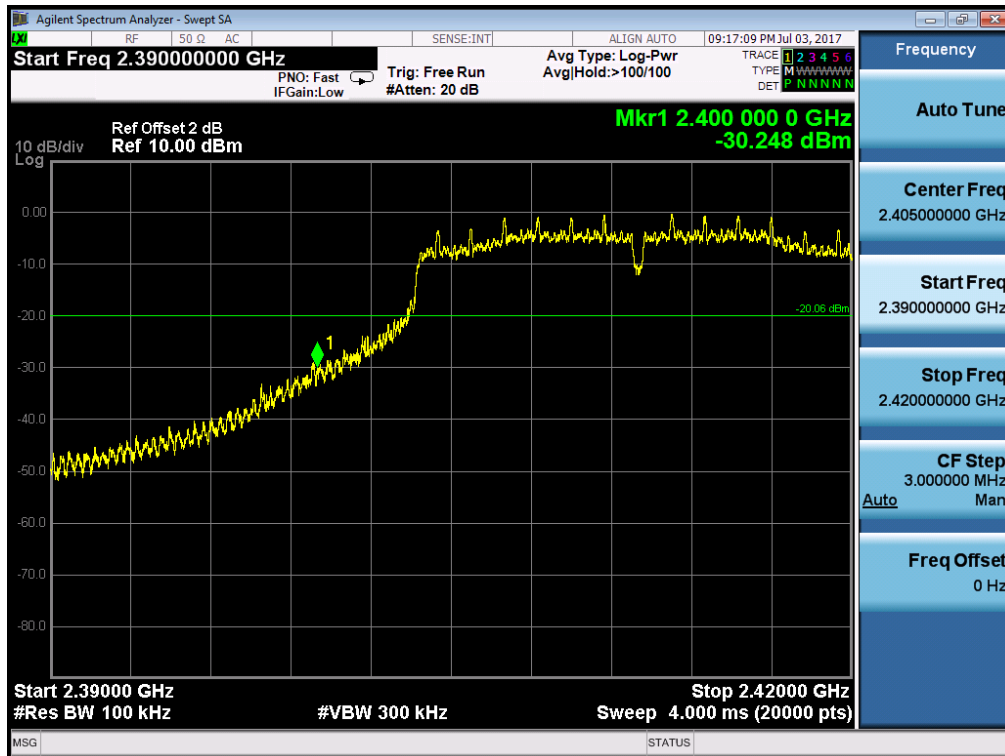
## Test Plot of Conducted spurious emissions measured in 100kHz Bandwidth of 802.11g ANT1 Low Channel



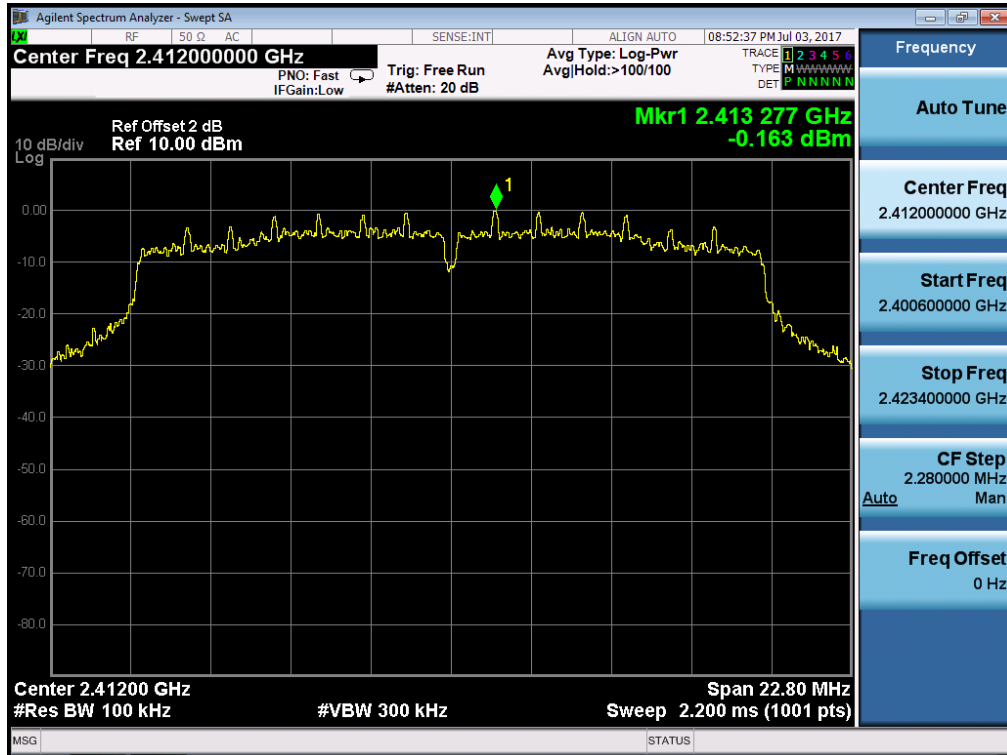
**Middle Channel**


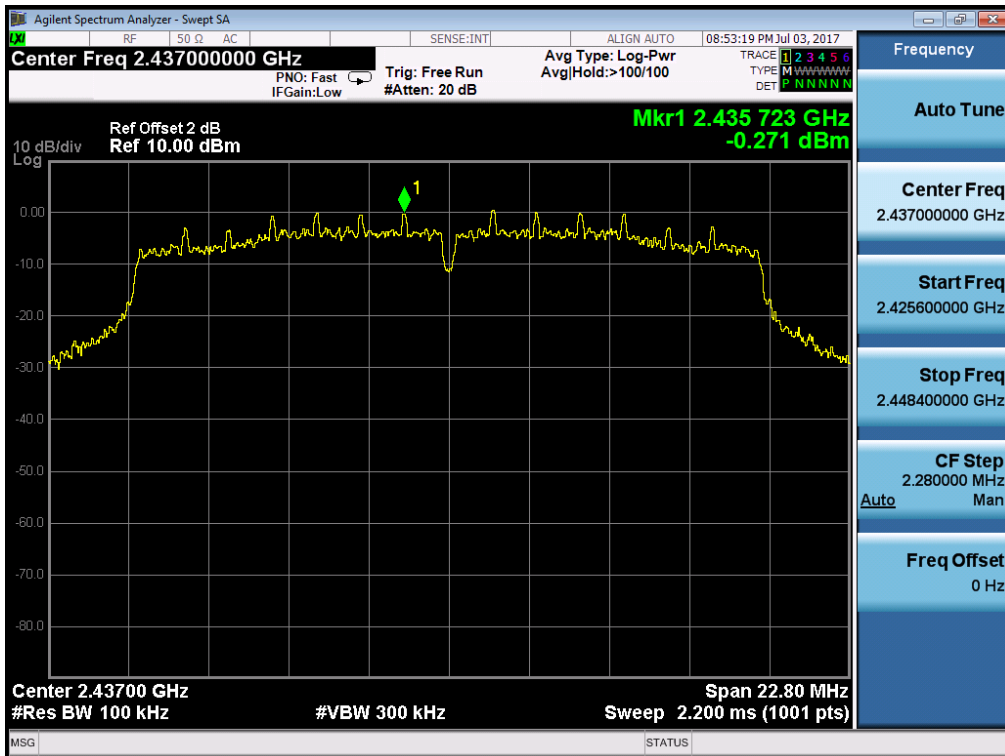


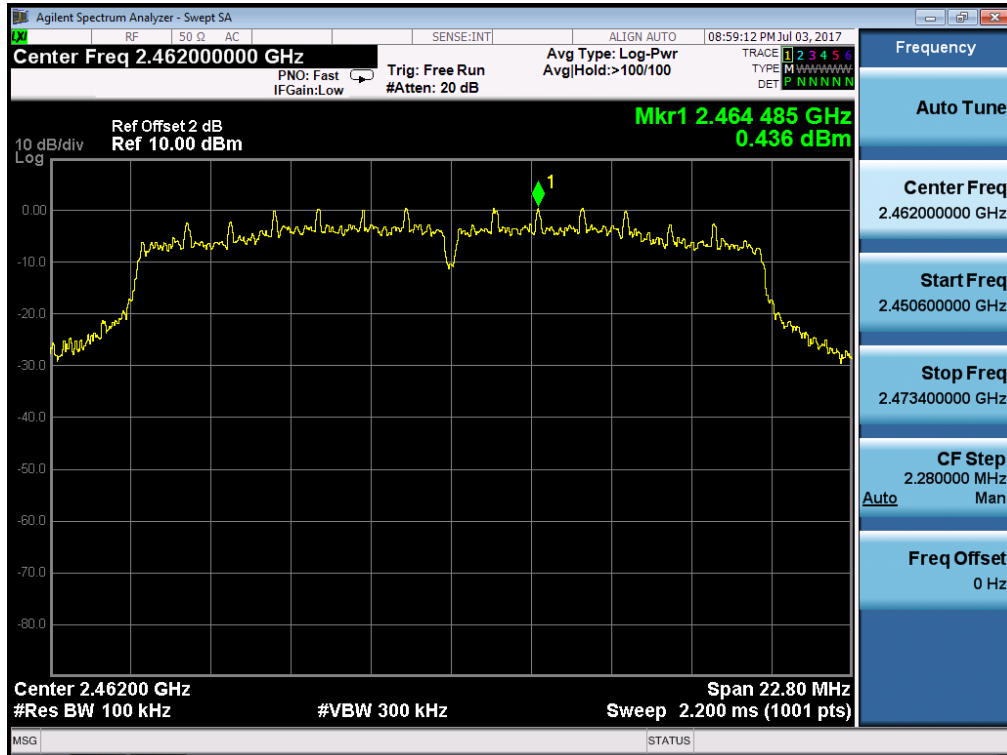
**High Channel**


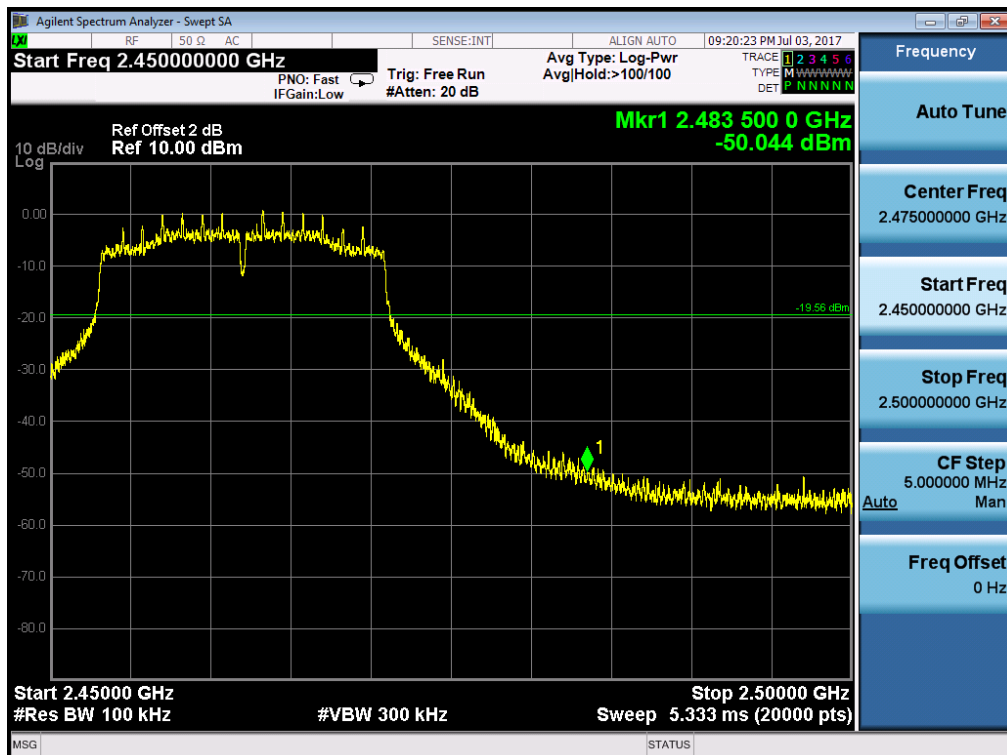
**Band Edge**


### Test Plot of Conducted spurious emissions measured in 100kHz Bandwidth of 802.11n (HT20) ANT1 Low Channel

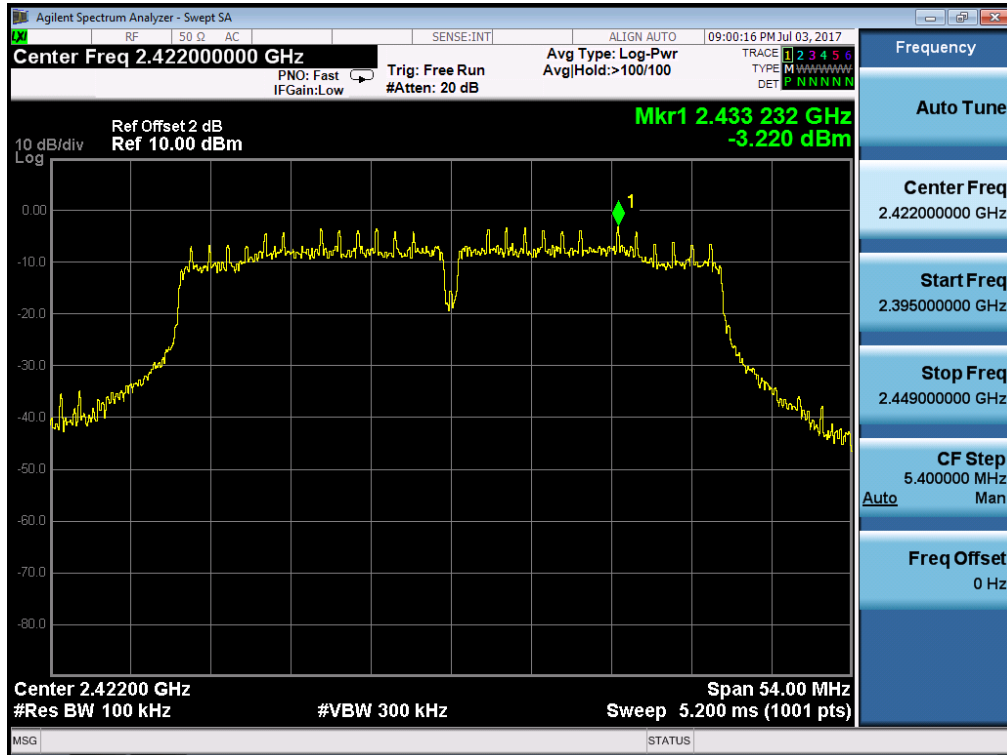


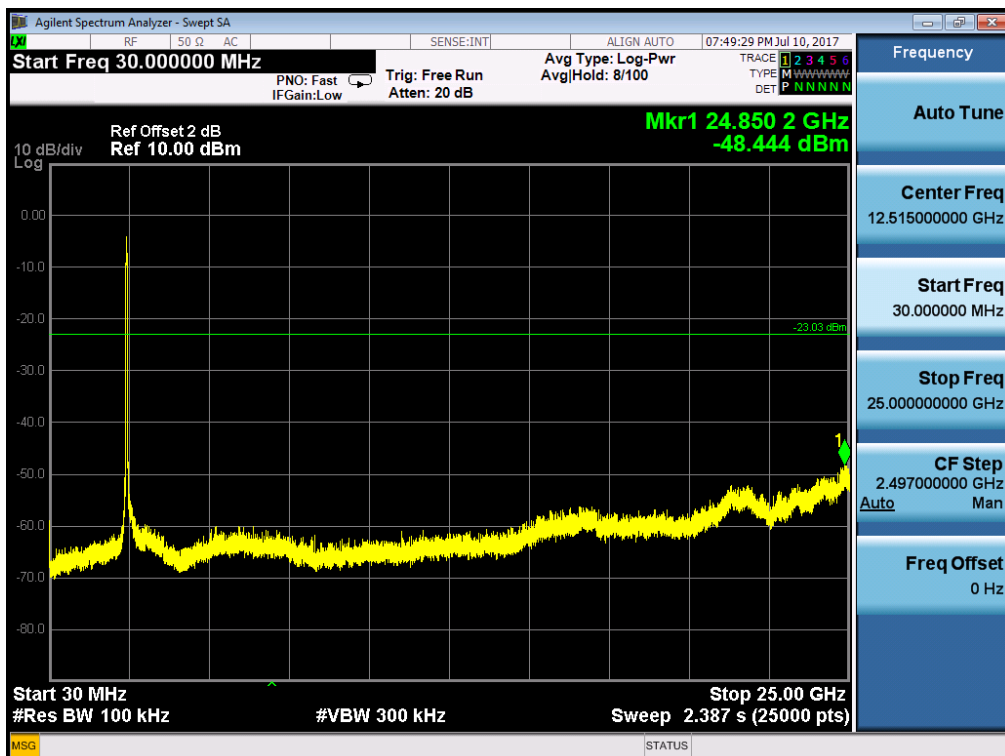
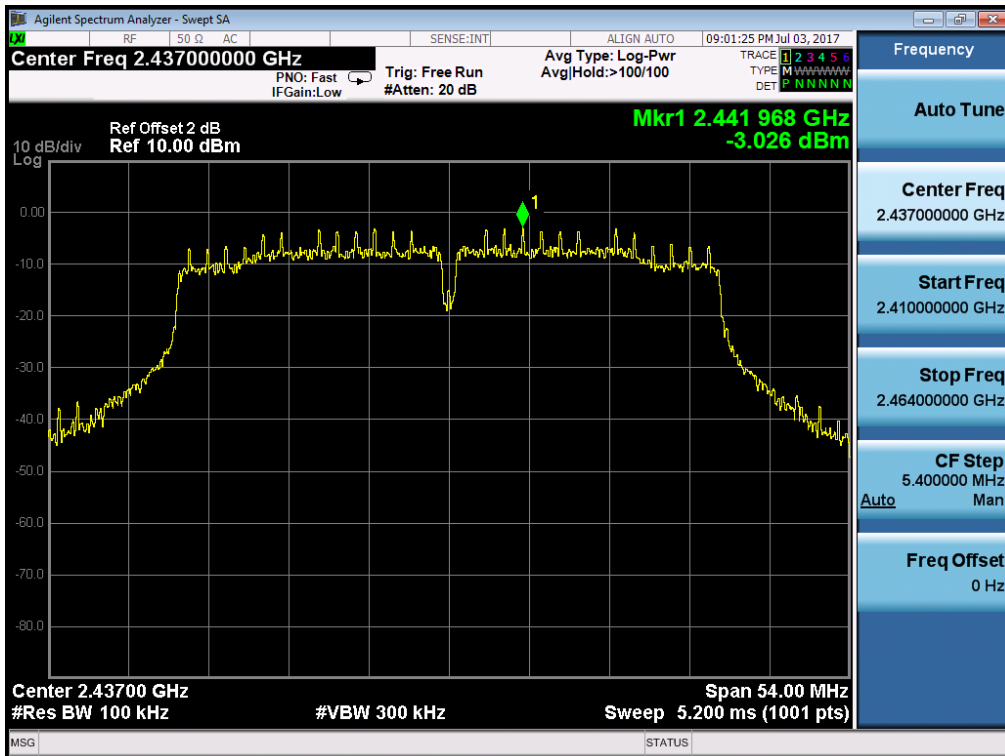
**Middle Channel**


**High Channel**


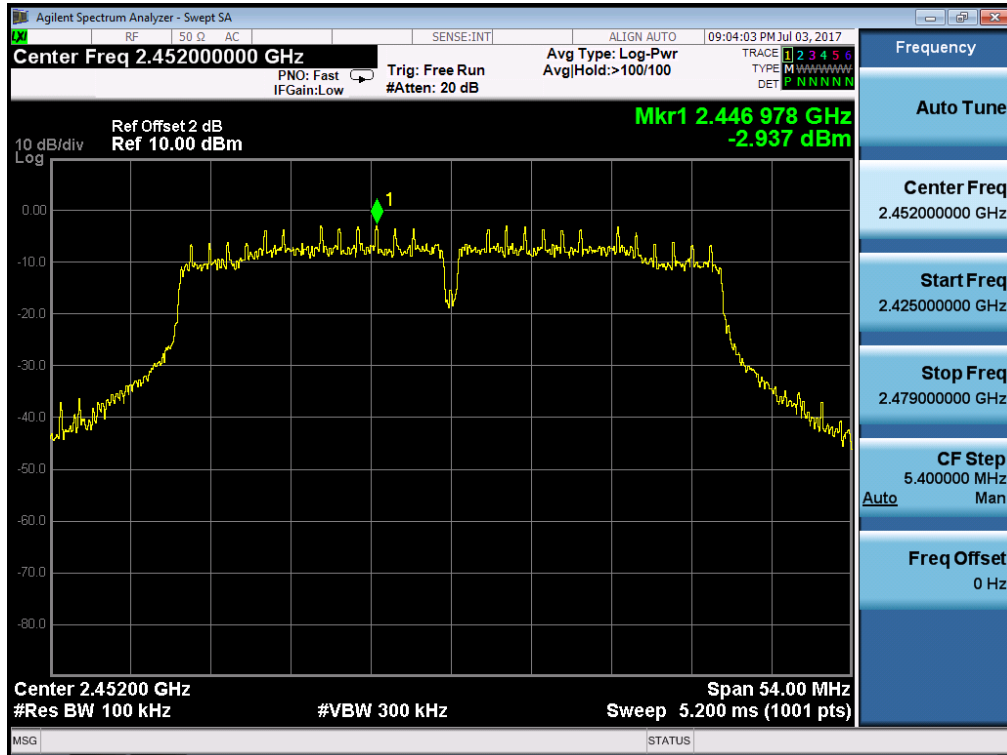
**Band Edge**


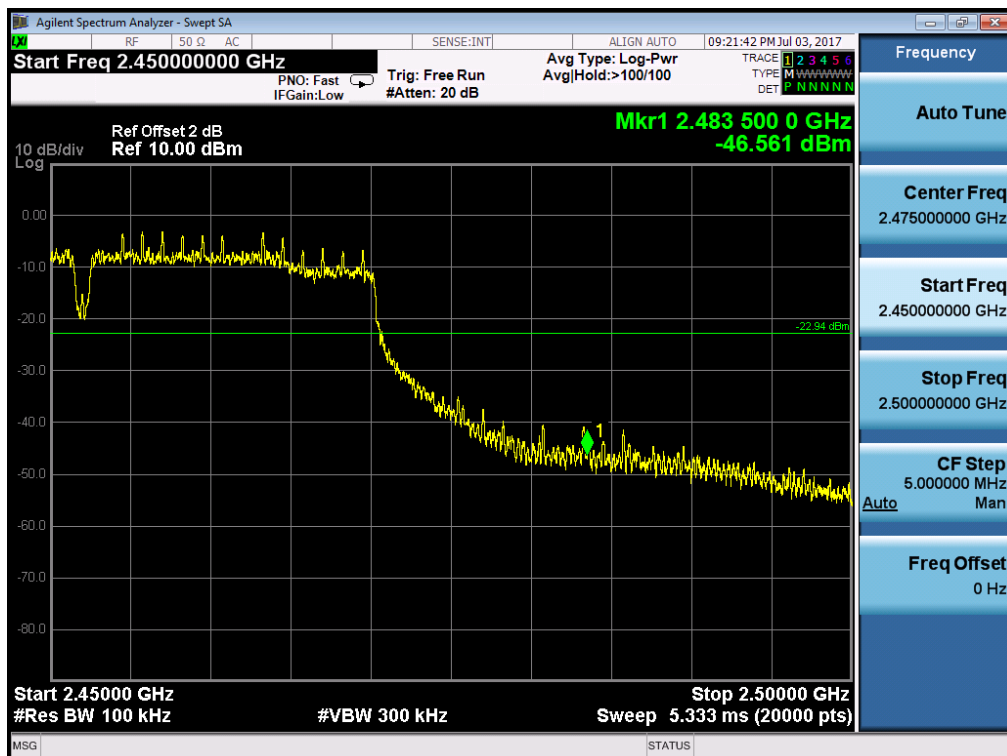
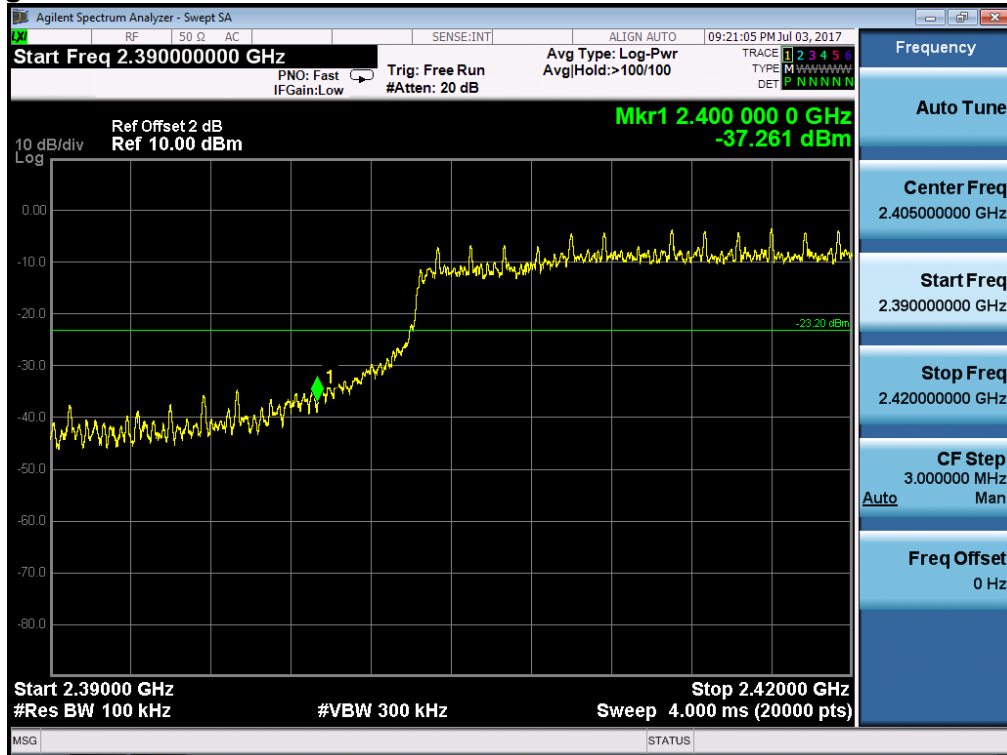
### Test Plot of Conducted spurious emissions measured in 100kHz Bandwidth of 802.11n (HT40) ANT1 Low Channel



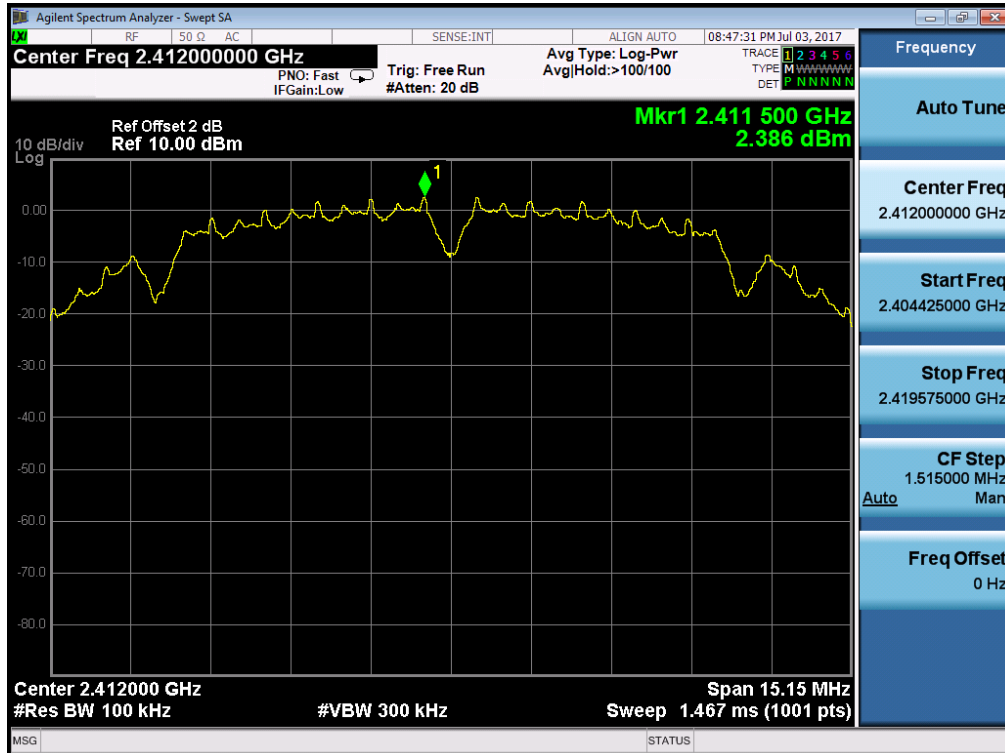
**Middle Channel**


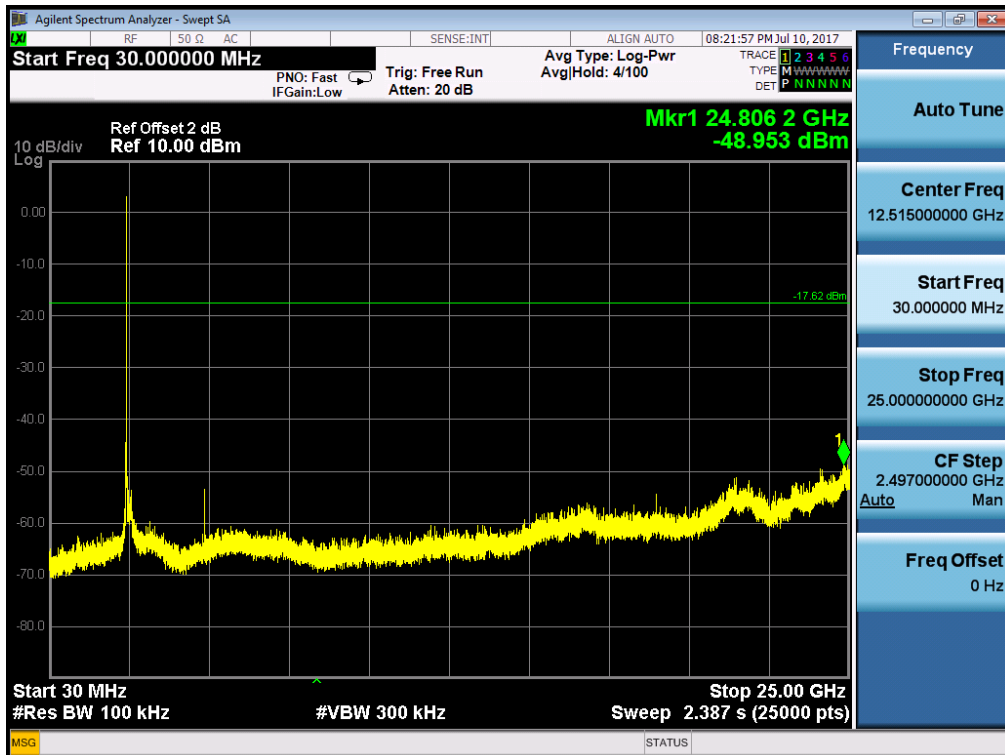
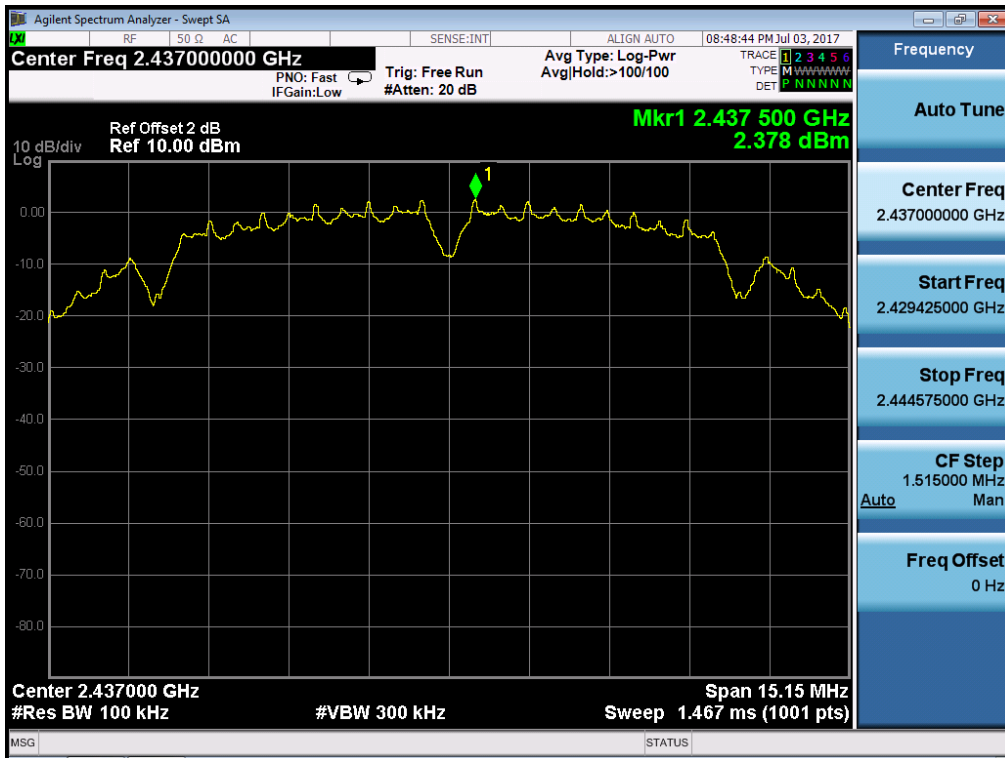


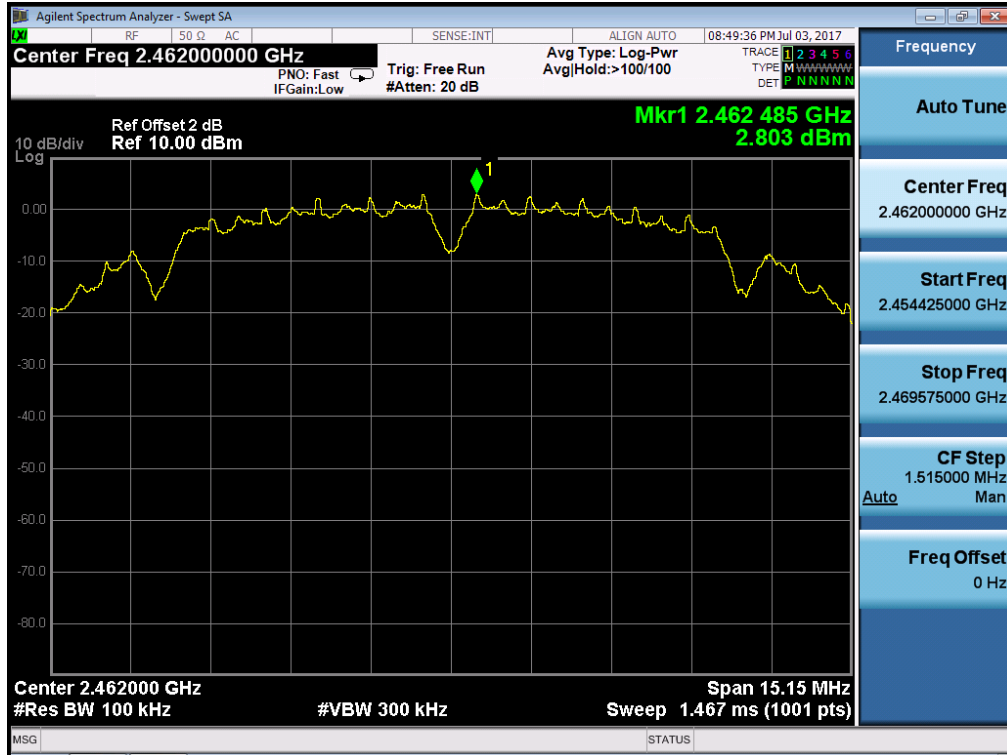
**High Channel**


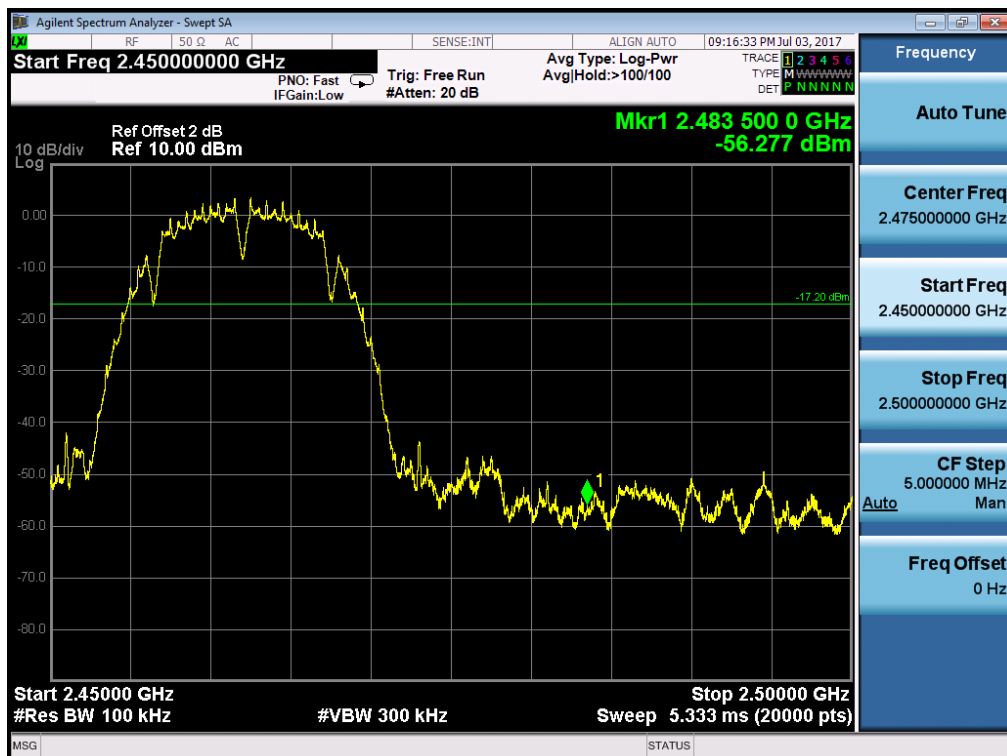
**Band Edge**


## Test Plot of Conducted spurious emissions measured in 100kHz Bandwidth of 802.11b ANT2 Low Channel

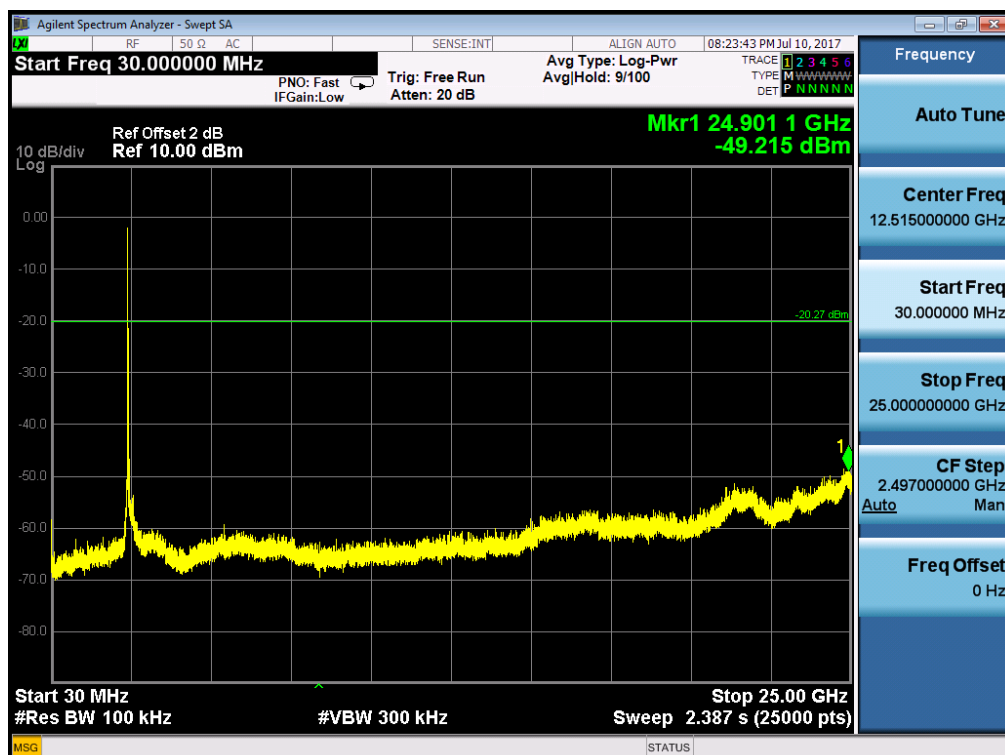
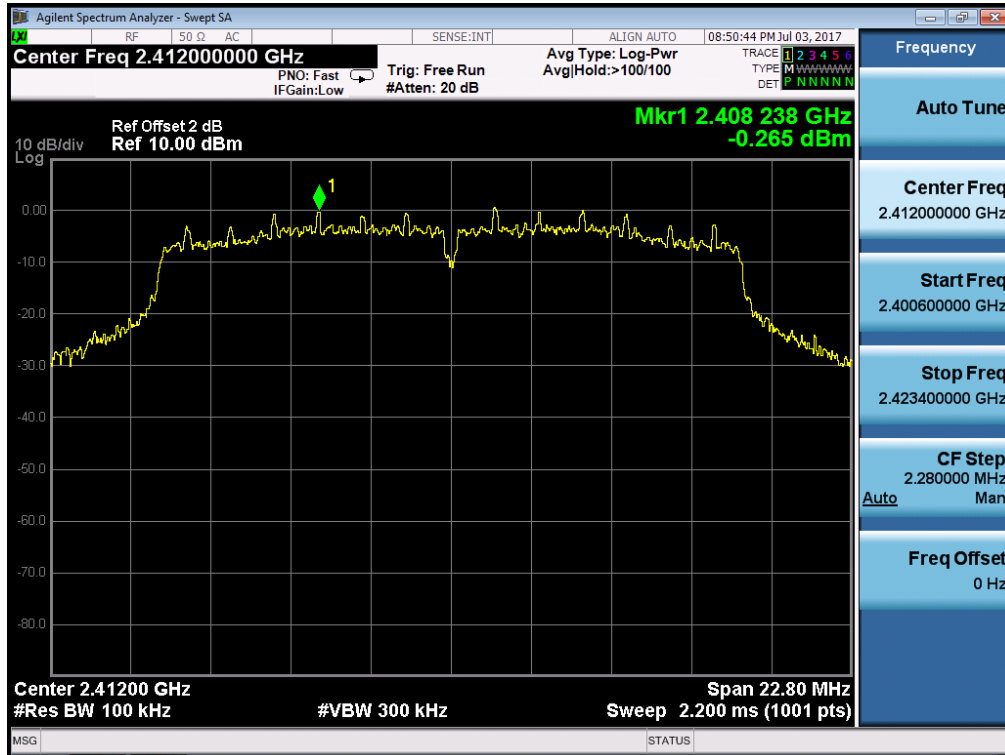


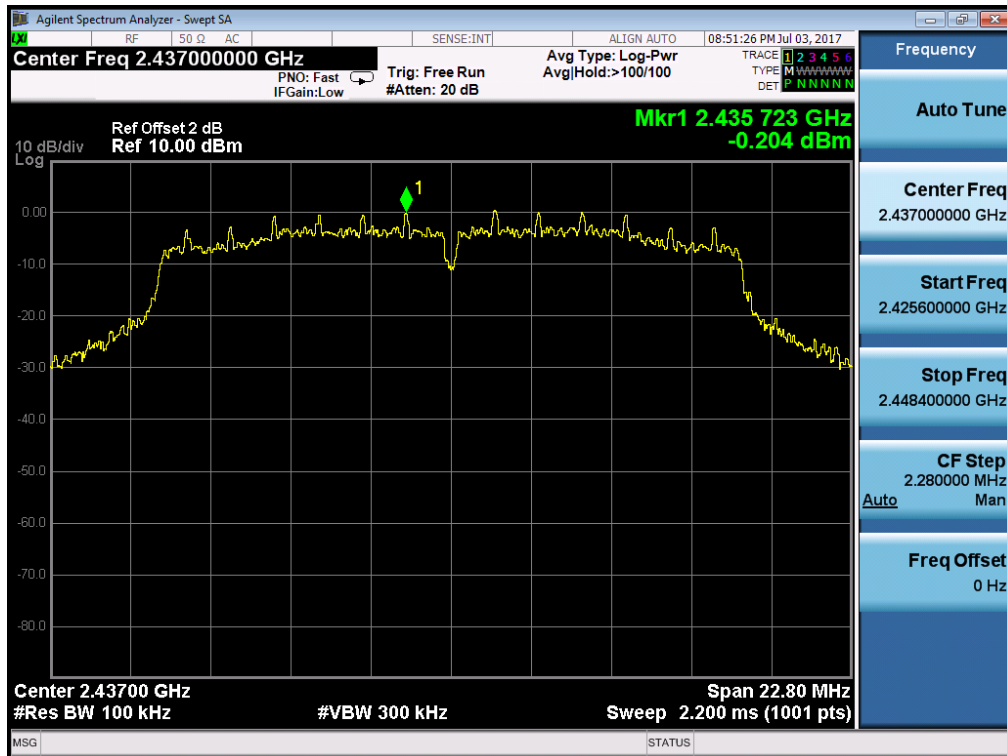
**Middle Channel**


**High Channel**


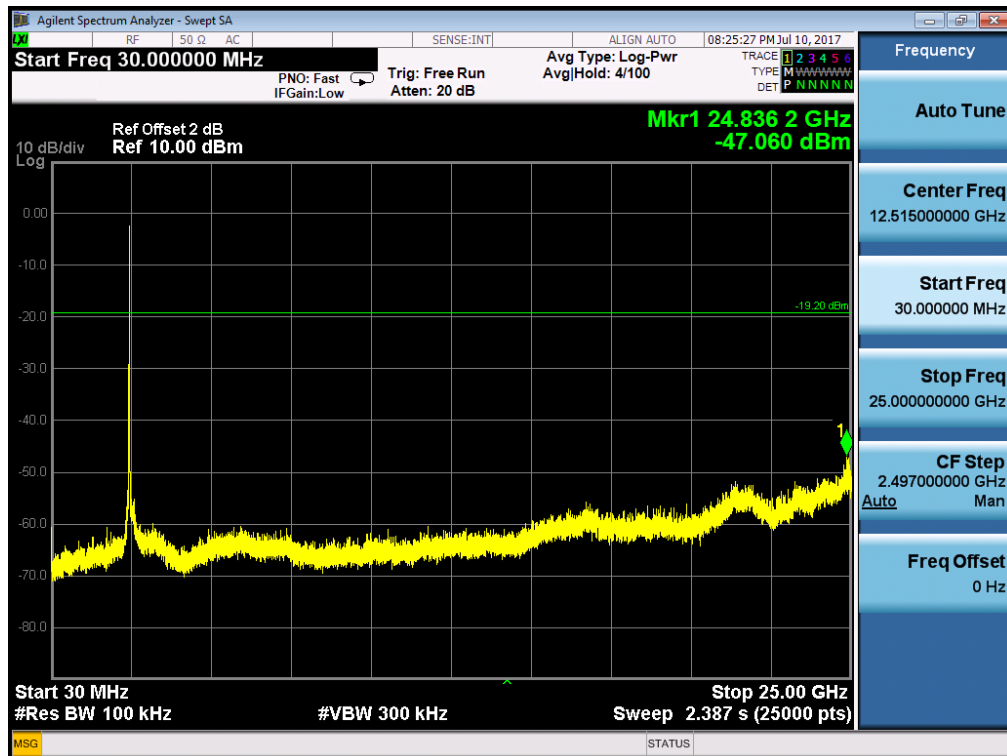
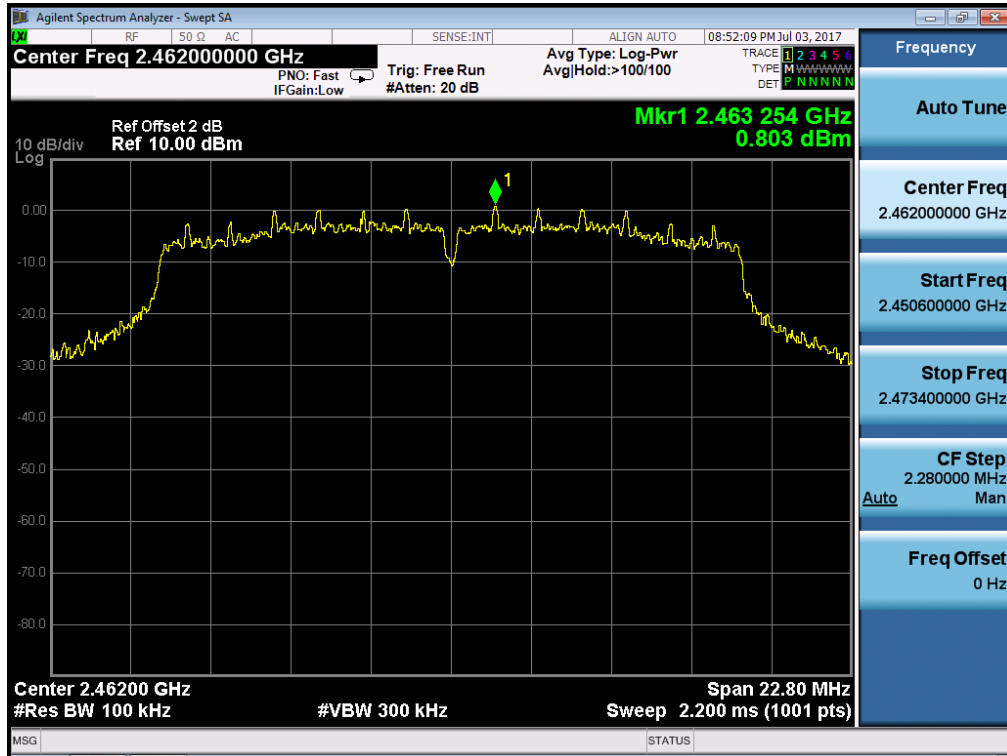
**Band Edge**


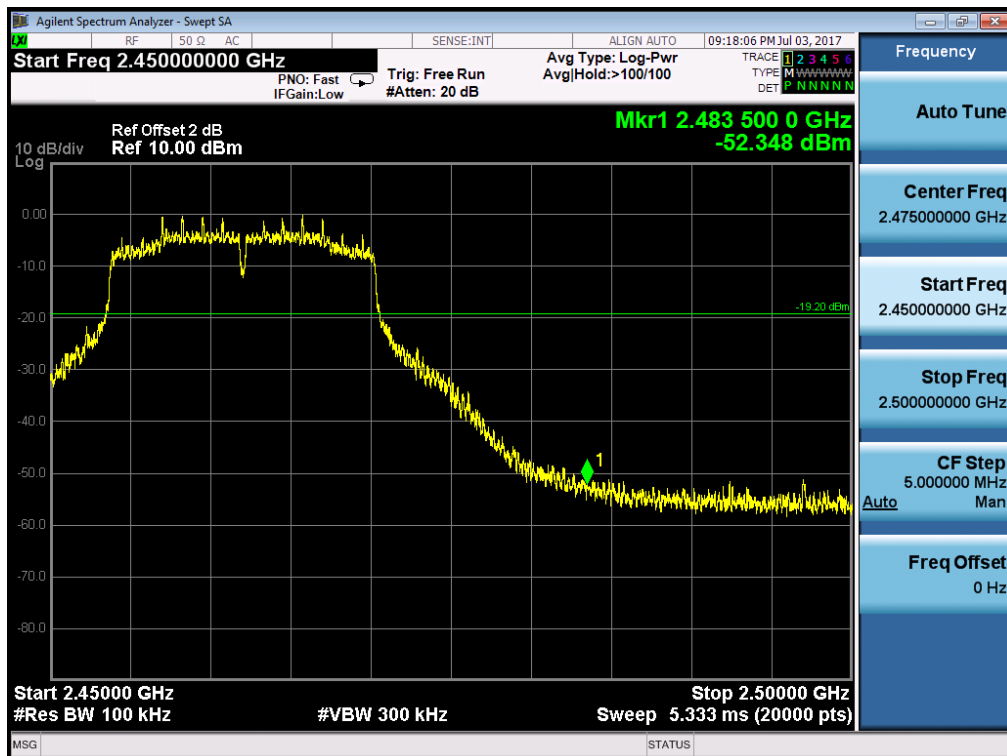
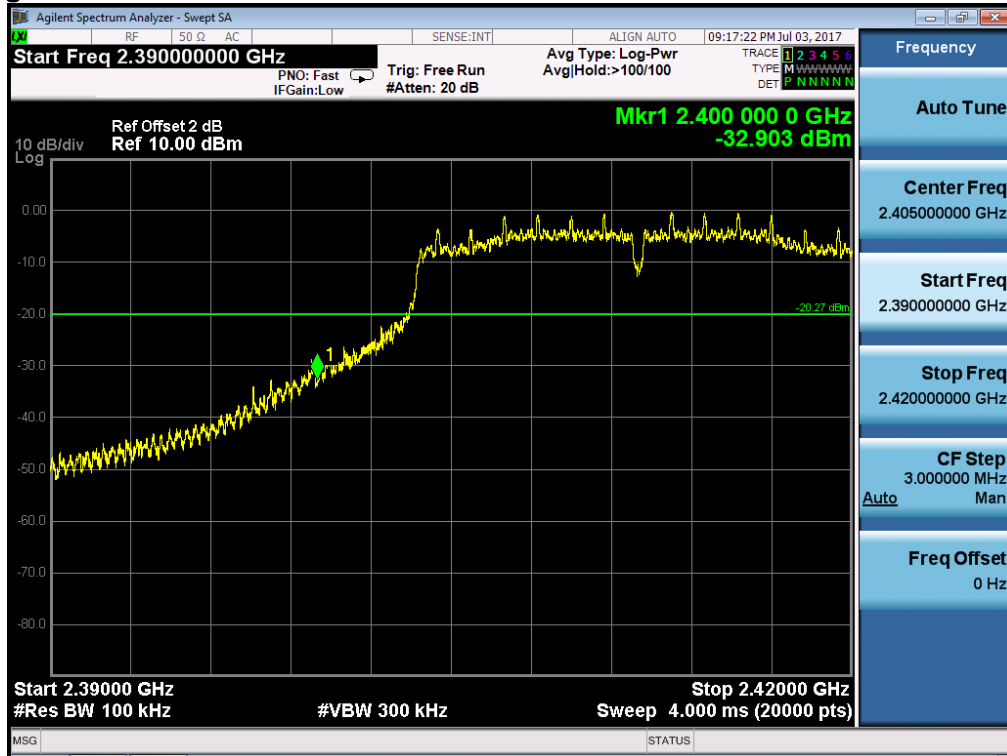
## Test Plot of Conducted spurious emissions measured in 100kHz Bandwidth of 802.11g ANT2 Low Channel



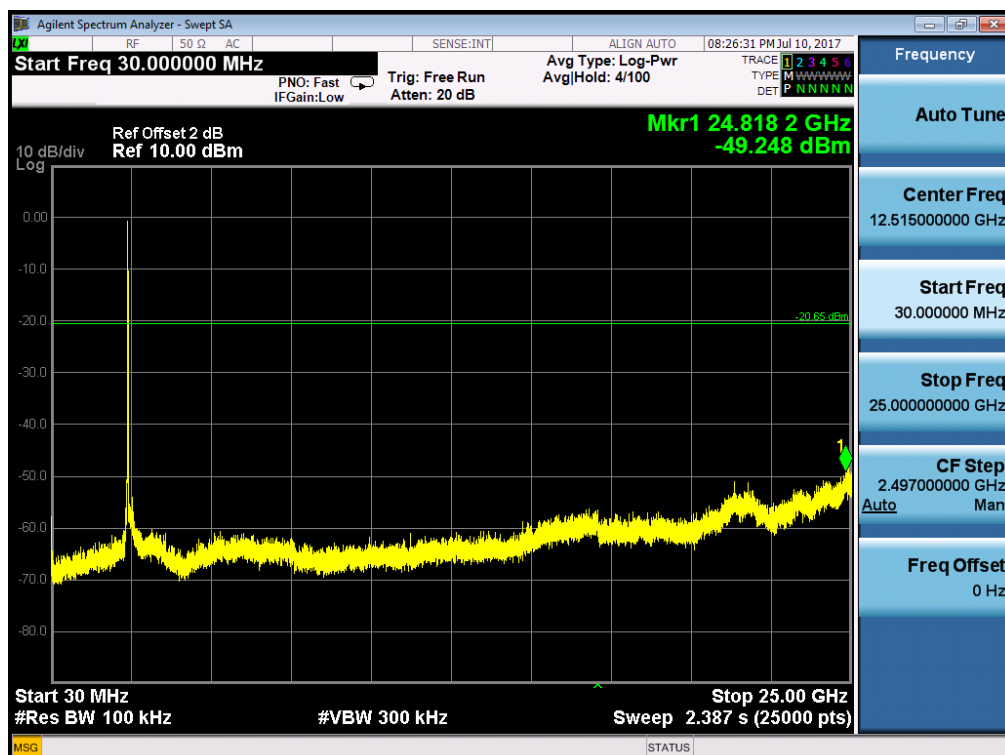
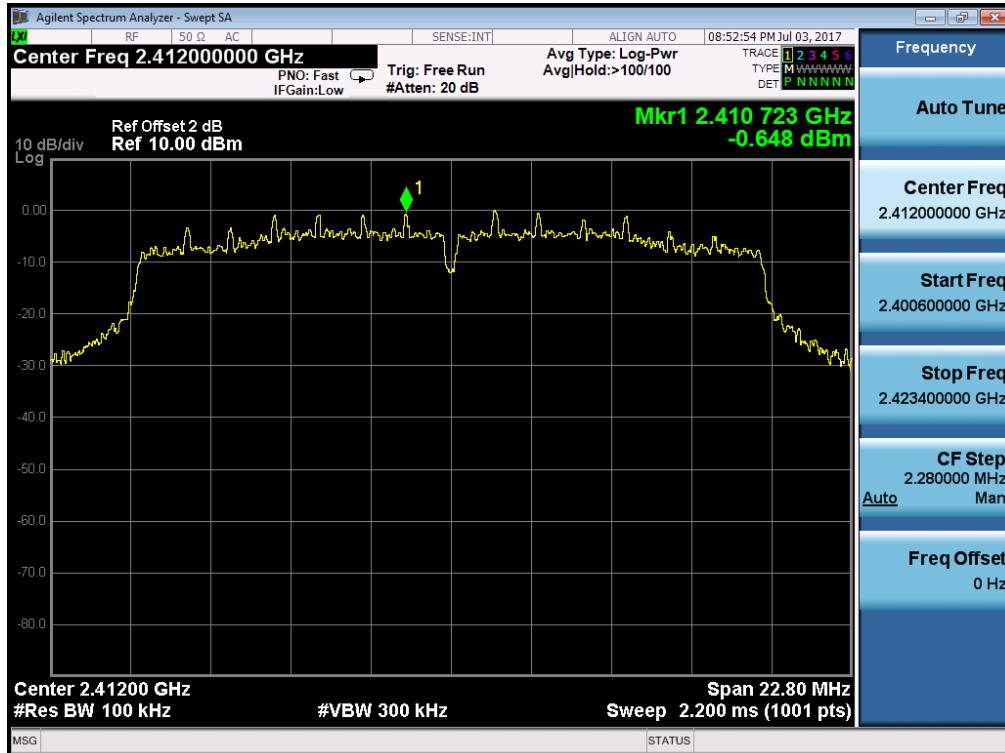
**Middle Channel**




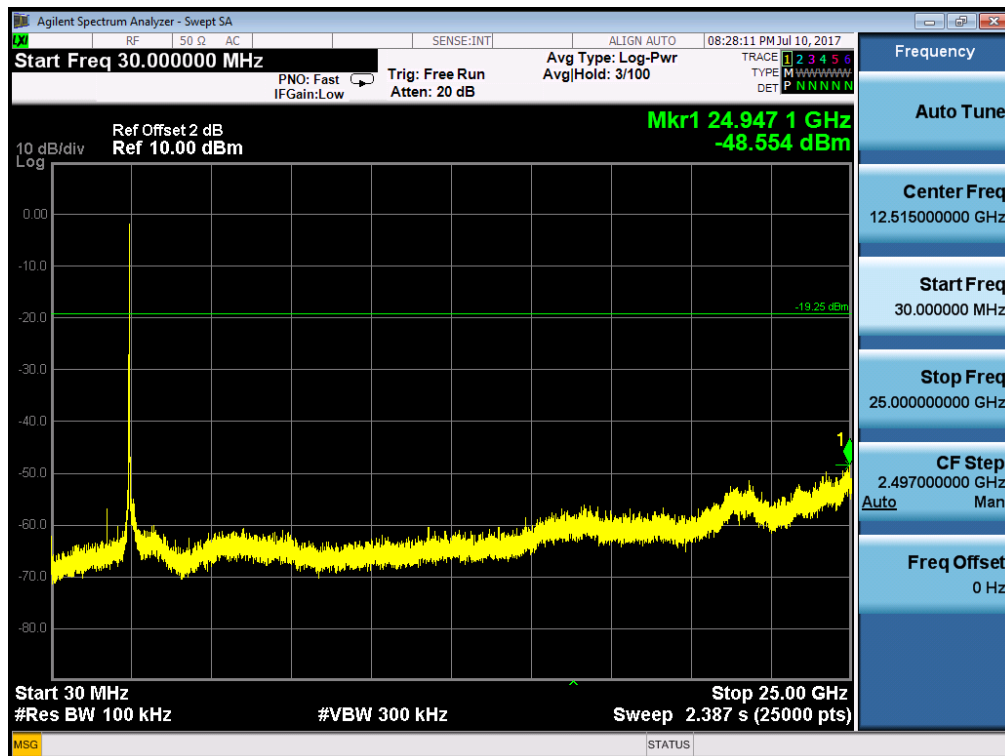
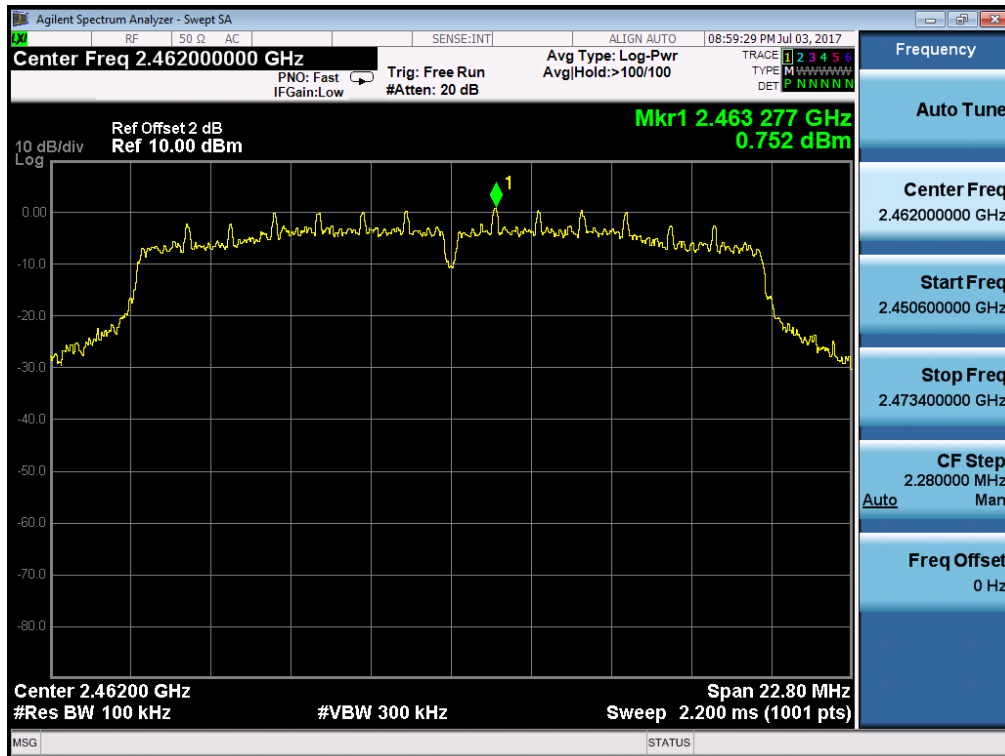
**High Channel**


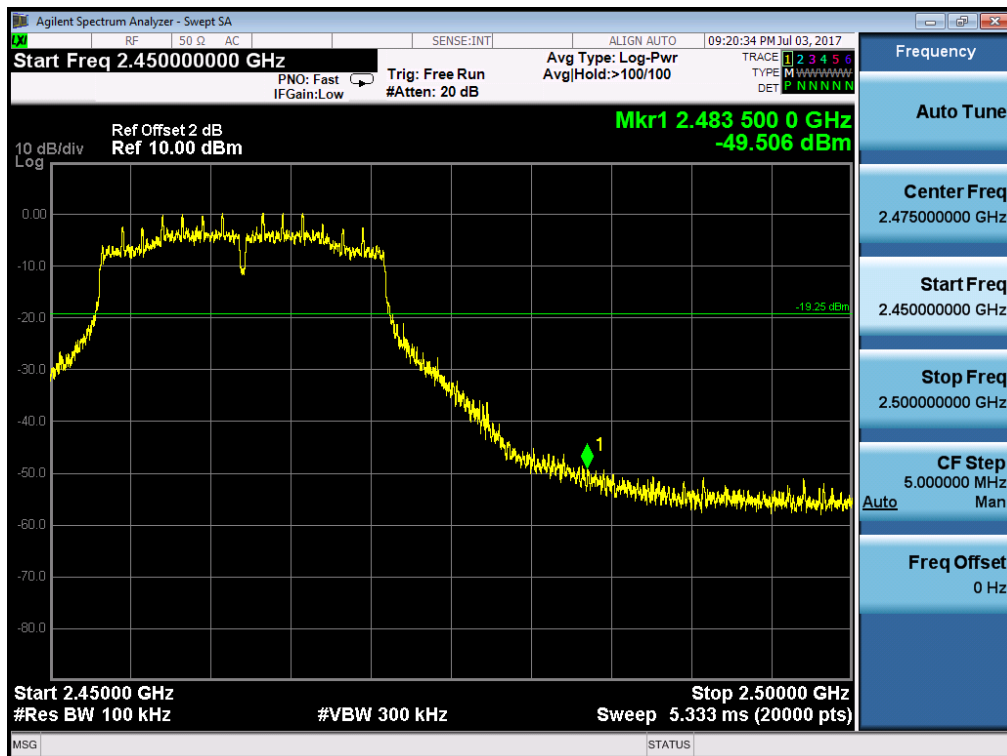
**Band Edge**


## Test Plot of Conducted spurious emissions measured in 100kHz Bandwidth of 802.11n (HT20) ANT2 Low Channel

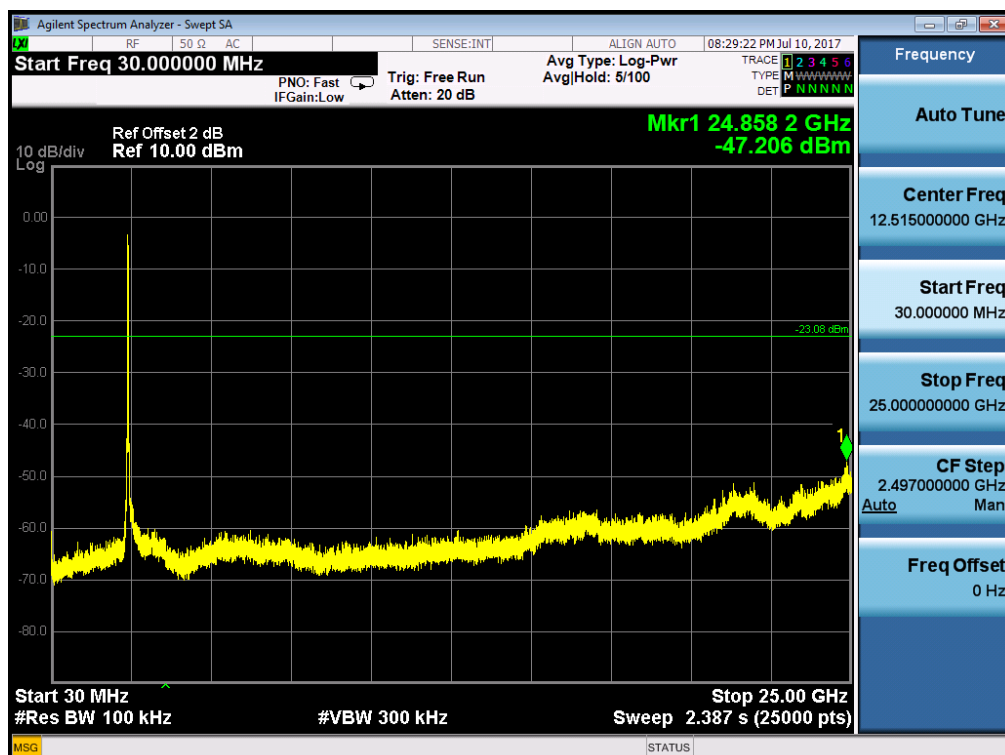
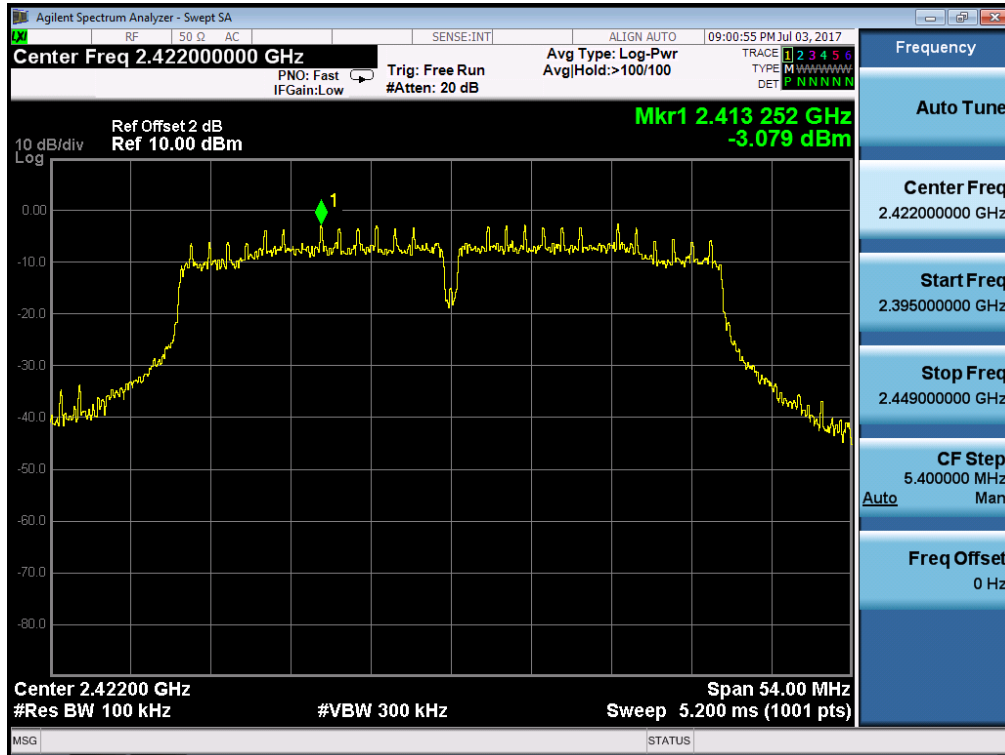


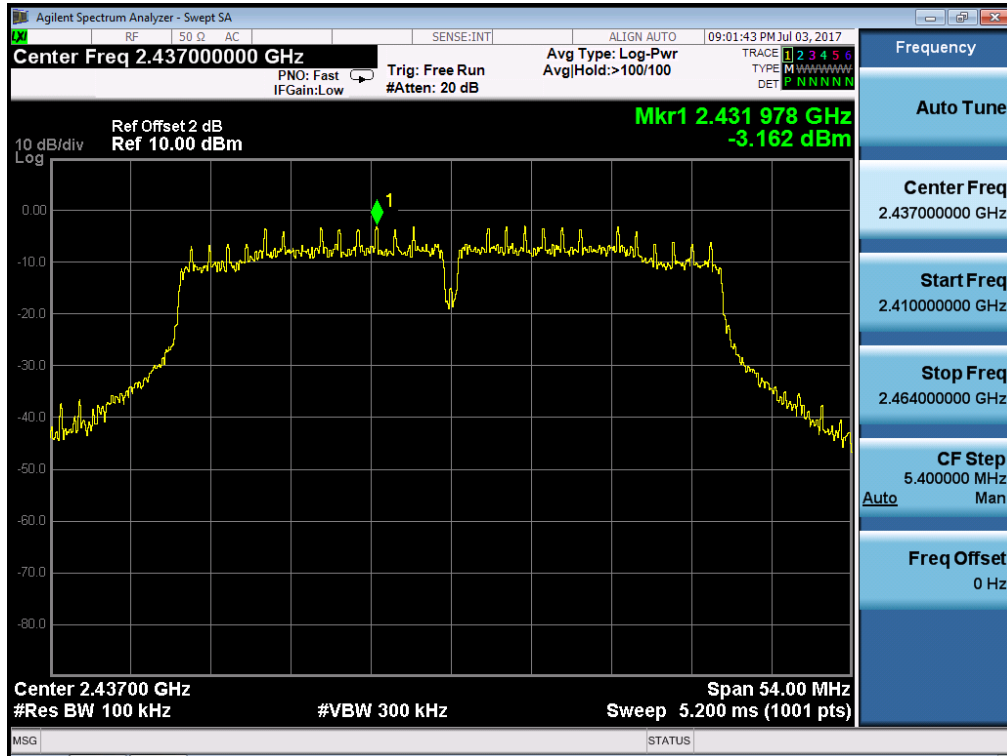
**Middle Channel**


**High Channel**


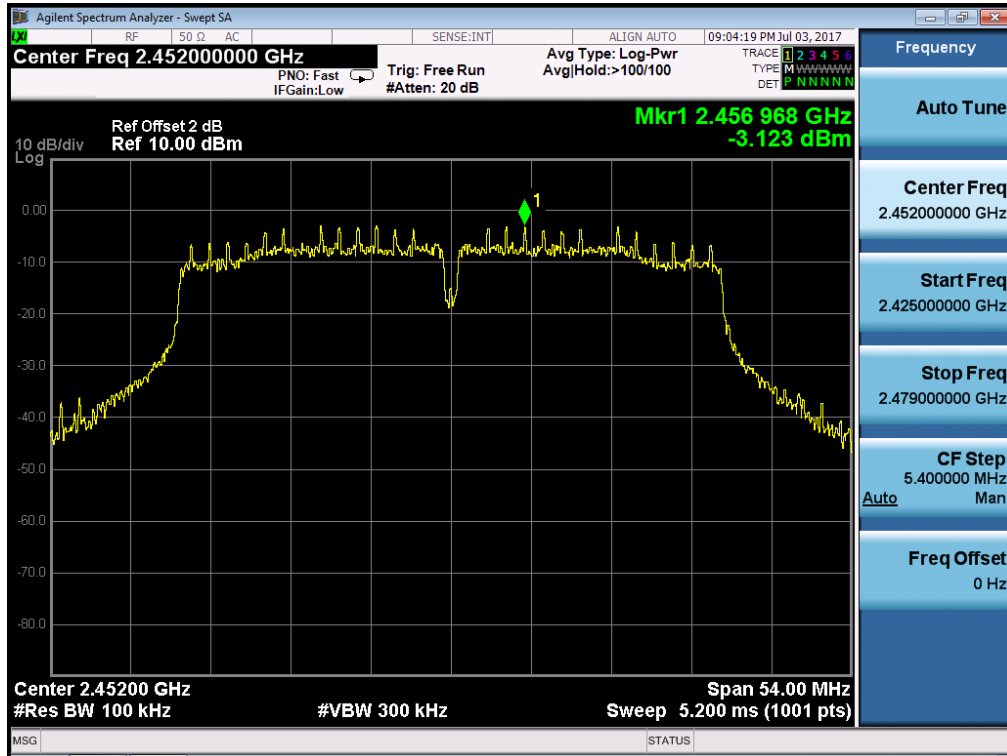
**Band Edge**


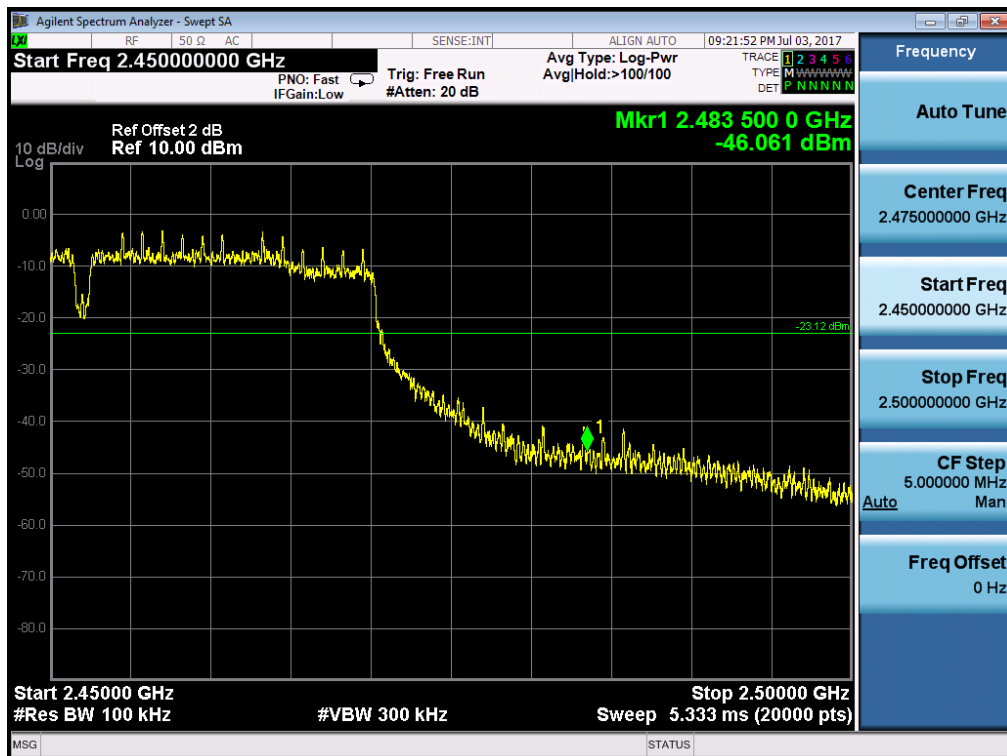
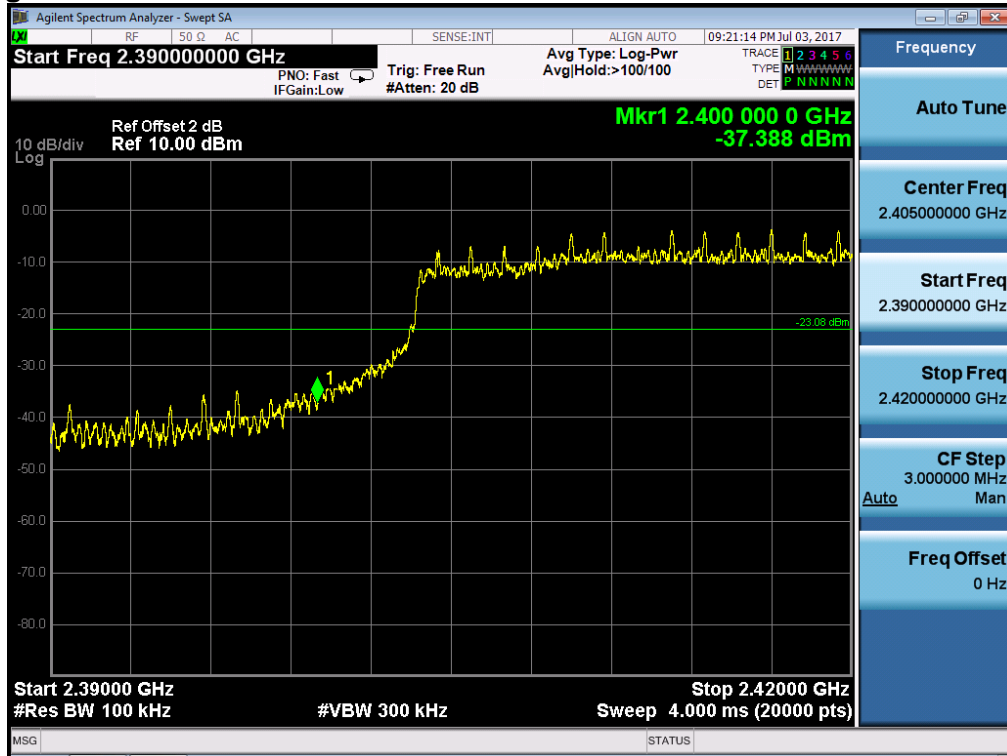
## Band Edge Test Plot of Conducted spurious emissions measured in 100kHz Bandwidth of 802.11n (HT40) ANT2 Low Channel



**Middle Channel**




**High Channel**


**Band Edge**


### 5.1.5 Power spectral density

**RESULT:**
**Pass**

Date of testing : 2017-07-03  
 Test standard : FCC part 15.247(e)  
 RSS-247 clause 5.2(2)  
 Basic standard : ANSI C63.10: 2013  
 Clause 10 of KDB 558074 v04  
 Limit : 8dBm/3kHz  
 Kind of test site : Shield room

**Test setup**

Test Channel : Low/ Middle/ High  
 Operation mode : A.1  
 Ambient temperature : 25°C  
 Relative humidity : 50%  
 Atmospheric pressure : 101kPa

**Table 14: Test result of power spectral density:**

Mode	Channel (MHz)	Result (dBm/3kHz)		Limit (dBm/3kHz)	Conclusion
		ANT1	ANT2		
802.11b	2412	-13.737	-12.958	8	Pass
	2437	-13.014	-12.924	8	Pass
	2462	-12.571	-13.983	8	Pass
802.11g	2412	-14.793	-15.953	8	Pass
	2437	-15.224	-13.513	8	Pass
	2462	-15.402	-14.826	8	Pass
802.11n (HT20)	2412	-14.880	-14.968	8	Pass
	2437	-15.015	-15.305	8	Pass
	2462	-14.494	-15.121	8	Pass
802.11n (HT40)	2422	-16.372	-18.086	8	Pass
	2437	-16.507	-18.675	8	Pass
	2452	-17.106	-16.045	8	Pass

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Test Report No.

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### 5.1.6 Spurious Emission

**RESULT:****Pass**

Date of testing : 2017-07-03  
Test standard : FCC part 15.247(d)  
RSS-Gen  
Basic standard : ANSI C63.10: 2013  
Clause 11 of KDB 558074 v04  
Limits : FCC part 15.209(a)  
Kind of test site : 3m Semi-Anechoic Chamber & Anechoic Chamber

**Test setup**

Test Channel : Low/ Middle/ High  
Operation mode : A.1  
Ambient temperature : 22°C  
Relative humidity : 55%  
Atmospheric pressure : 101kPa

For details refer to appendix A.

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Test Report No.

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### 5.1.7 Conducted emissions

**RESULT:****Pass**

Date of testing : 2017-06-16  
Test standard : FCC Part 15.207  
RSS-Gen Clause 8.8  
Basic standard : ANSI C63.10: 2013  
Frequency range : 0.15 – 30MHz  
Limits : FCC Part 15.207  
Table 3 of RSS-Gen  
Kind of test site : Shield room

**Test setup**

Input Voltage : AC 120V, 60Hz  
Operation Mode : A  
Earthing : Not Connected  
Ambient temperature : 21°C  
Relative humidity : 53%  
Atmospheric pressure : 101kPa

For details refer to appendix A.

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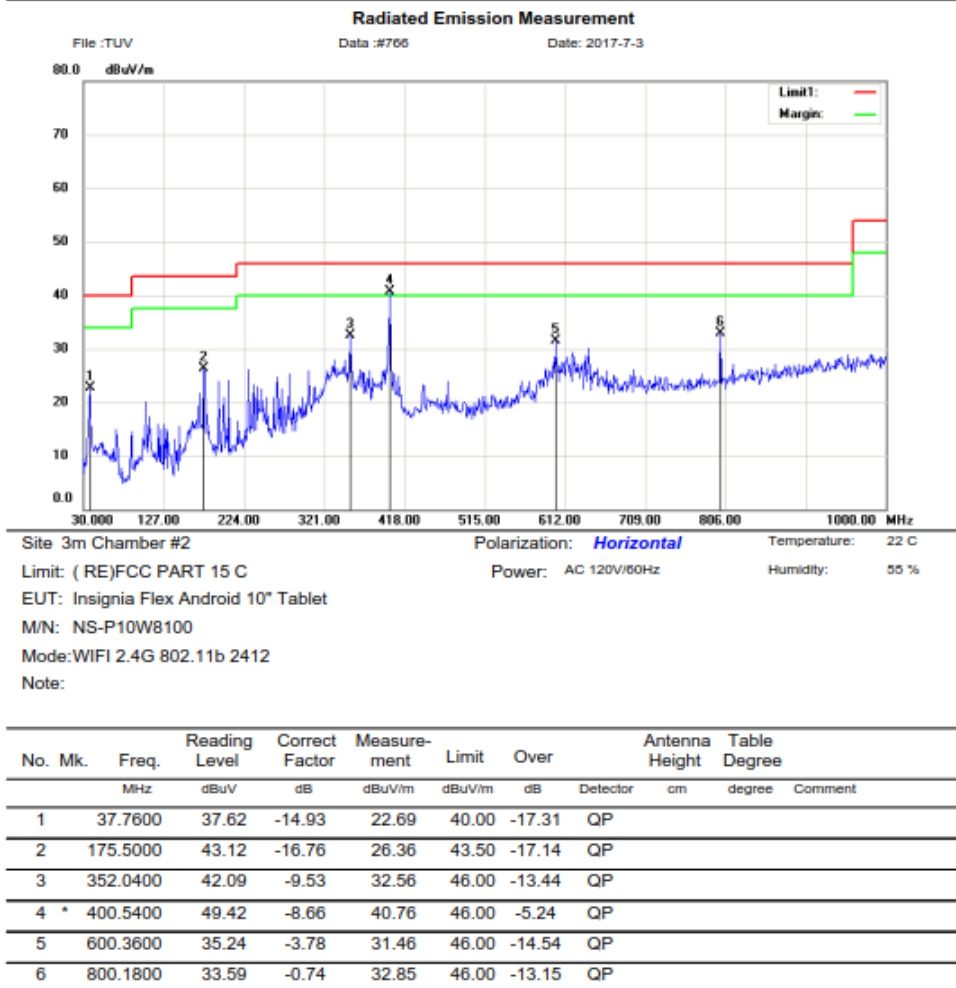
Note 1: Testing was carried out within frequency range 9 kHz to the tenth harmonics. The measurement results below 30MHz and above 18GHz were greater than 20dB below the limit, so only the radiated spurious emissions from 30MHz to 18GHz were reported.

Note 2: Testing was carried out on the antenna which with the higher output power.

## 1. Transmitter Spurious Emissions of 802.11b mode

### 1.1 Transmitter Spurious Emissions, 30MHz - 1GHz

Shenzhen EMTEK Co., Ltd.  
Bldg. 69, Majialong Industry Zone, Nanshan District, Shenzhen, Guangdong, 518052 P. R. China  
www.emtek.com.cn Tel: +86-755-2695 4280 Fax: +86-755-2695 4282



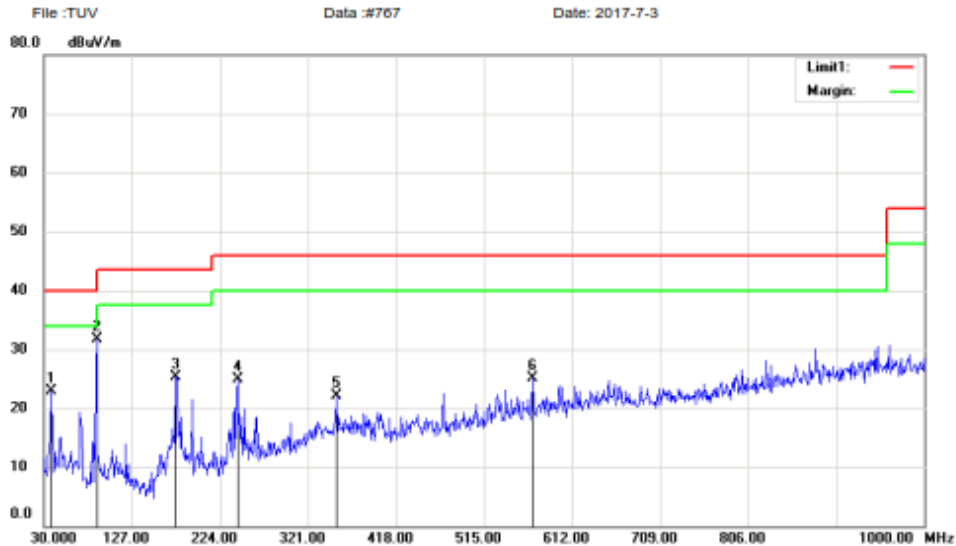


Produkte  
 Products

Shenzhen EMTEK Co., Ltd.  
 Bldg. 69, Majialong Industry Zone, Nanshan District, Shenzhen, Guangdong, 518052 P. R. China  
 www.emtek.com.cn Tel:+86-755-2695 4280 Fax:+86-755-2695 4282



**Radiated Emission Measurement**



Site 3m Chamber #2 Polarization: **Vertical** Temperature: 22 C  
 Limit: ( RE)FCC PART 15 C Power: AC 120V/60Hz Humidity: 55 %  
 EUT: Insignia Flex Android 10" Tablet  
 M/N: NS-P10W8100  
 Mode:WIFI 2.4G 802.11b 2412  
 Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	cm	degree	Comment
1		37.7600	37.79	-14.93	22.86	40.00	-17.14	QP		
2	*	88.2000	49.28	-17.52	31.76	43.50	-11.74	QP		
3		175.5000	42.01	-16.76	25.25	43.50	-18.25	QP		
4		243.4000	37.79	-12.90	24.89	46.00	-21.11	QP		
5		352.0400	31.55	-9.53	22.02	46.00	-23.98	QP		
6		568.3500	29.82	-4.66	25.16	46.00	-20.84	QP		

\*:Maximum data x:Over limit !:over margin

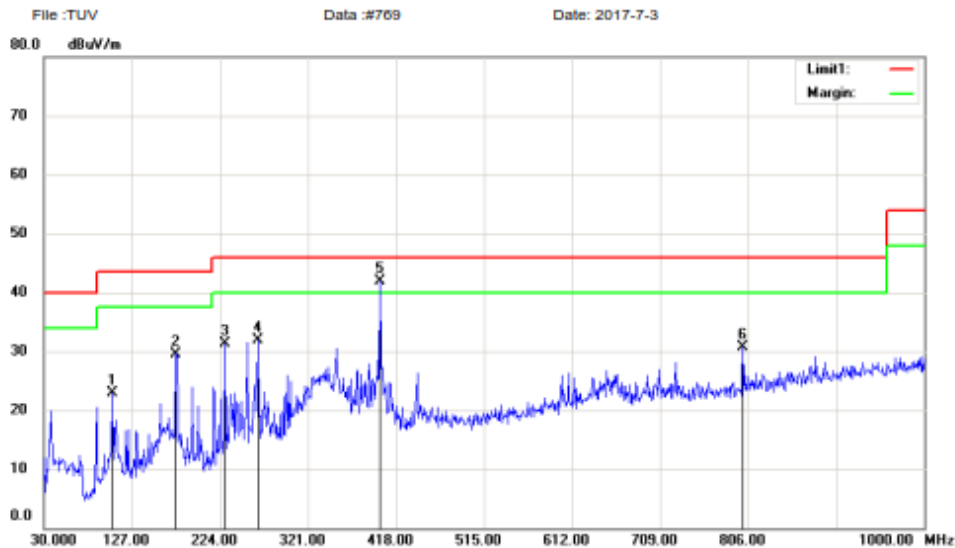
Operator: KK

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 www.emtek.com.cn Tel:+86-755-2695 4280 Fax:+86-755-2695 4282



**Radiated Emission Measurement**



Site 3m Chamber #2 Polarization: **Horizontal** Temperature: 22 C  
 Limit: ( RE)FCC PART 15 C Power: AC 120V/60Hz Humidity: 55 %  
 EUT: Insignia Flex Android 10" Tablet  
 M/N: NS-P10W8100  
 Mode:WIFI 2.4G 802.11b 2437  
 Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	cm	degree	Comment
1		105.6600	37.87	-14.96	22.91	43.50	-20.59	QP		
2		175.5000	46.36	-16.76	29.60	43.50	-13.90	QP		
3		229.8200	44.81	-13.44	31.37	46.00	-14.63	QP		
4		265.7100	44.34	-12.43	31.91	46.00	-14.09	QP		
5	*	400.5400	50.61	-8.66	41.95	46.00	-4.05	QP		
6		800.1800	31.49	-0.74	30.75	46.00	-15.25	QP		

\*:Maximum data x:Over limit !:over margin

Operator: KK

File :TUVData :#769

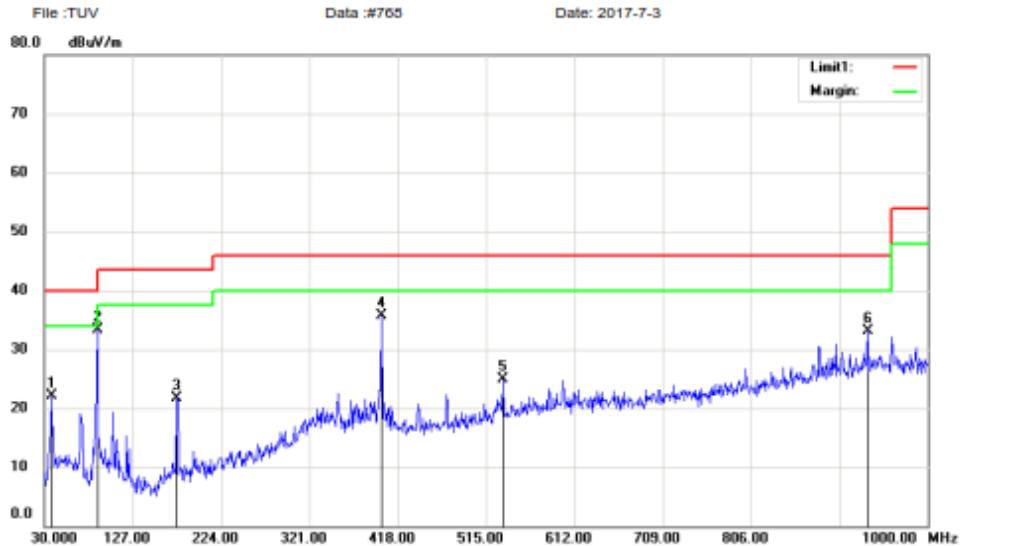
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 www.emtek.com.cn Tel:+86-755-2695 4280 Fax:+86-755-2695 4282



**Radiated Emission Measurement**



Site 3m Chamber #2 Polarization: **Vertical** Temperature: 22 C  
 Limit: (RE)FCC PART 15 C Power: AC 120V/60Hz Humidity: 55 %  
 EUT: Insignia Flex Android 10" Tablet  
 M/N: NS-P10W8100  
 Mode:WIFI 2.4G 802.11b 2437  
 Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	cm	degree	Comment
1		37.7600	37.06	-14.93	22.13	40.00	-17.87	QP		
2	*	88.2000	50.92	-17.52	33.40	43.50	-10.10	QP		
3		175.5000	38.43	-16.76	21.67	43.50	-21.83	QP		
4		400.5400	44.34	-8.66	35.68	46.00	-10.32	QP		
5		533.4300	30.44	-5.58	24.86	46.00	-21.14	QP		
6		934.0400	31.36	1.84	33.20	46.00	-12.80	QP		

\*:Maximum data x:Over limit !:over margin

Operator: KK