



## FCC 47 CFR PART 15 SUBPART C

for

**802.11ac Gigabit Router**

**Model: SR905acv, SR905ac**

**Brand: SmartRG**

**Test Report Number:**

**C171214Z01-RP1-1**

**Issued Date: August 13, 2018**

Issued for

**SmartRG Inc.**

**501 SE Columbia Shores Boulevard, Suite 500 Vancouver, Washington  
98661**

Issued by:

**Compliance Certification Services (Shenzhen) Inc.**

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Certificate Number: 2861.01

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## Revision History

Rev.	Issue Date	Revisions	Effect Page	Revised By
00	August 13, 2018	Initial Issue	ALL	Sinphy Xie



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## 1 TEST CERTIFICATION

Product	802.11ac Gigabit Router
Model	SR905acv, SR905ac
Brand	SmartRG
Tested	December 14, 2017~ August 13, 2018
Applicant	<b>SmartRG Inc.</b> 501 SE Columbia Shores Boulevard, Suite 500 Vancouver, Washington 98661
Manufacturer	<b>SmartRG Inc.</b> 501 SE Columbia Shores Boulevard, Suite 500 Vancouver, Washington 98661
Factory	<b>Taicang T&amp;W Electronics Co., Ltd.</b> Jiangnan Road 89, Ludu Town, Taicang SUZHOU Jiangsu

### APPLICABLE STANDARDS

Standard	Test Type	Standard	Test Type
15.207(a)	Power Line Conducted Emissions	15.247(d) 15.209(a)	● Spurious Emissions ● Conducted Measurement ● Radiated Emissions
15.247(a)(2)	6dB Bandwidth Measurement	15.247(b)(3) 15.247(b)(4)	Peak Power Measurement
15.247(d)	Band Edges Measurement	15.247(e)	Peak Power Spectral Density

### We hereby certify that:

The above equipment was tested by Compliance Certification Services (Shenzhen) Inc. The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in **ANSI C63.10: 2013** and the energy emitted by the sample EUT tested as described in this report is in compliance with the requirements of FCC Rules Part 15.207, 15.209, 15.247.

The test results of this report relate only to the tested sample EUT identified in this report.

Approved by:

Reviewed by:

Eve Wang  
Supervisor of EMC Dept.  
Compliance Certification Services (Shenzhen) Inc.

Nancy Fu  
Supervisor of Report Dept.  
Compliance Certification Services (Shenzhen) Inc.



## 2 TEST RESULT SUMMARY

APPLICABLE STANDARDS			
Standard	Test Type	Result	Remark
15.247(a)(2)	6dB Bandwidth Measurement	Pass	Meet the requirement of limit.
15.247(b)(3) 15.247(b)(4)	Peak Power Measurement	Pass	Meet the requirement of limit.
15.247(d)	Band Edges Measurement	Pass	Meet the requirement of limit.
15.247(e)	Peak Power Spectral Density	Pass	Meet the requirement of limit.
15.247(d) 15.209(a)	● Spurious Emissions ● Conducted Measurement ● Radiated Emissions	Pass	Meet the requirement of limit.
15.207(a)	Power line Conducted Emissions	Pass	Meet the requirement of limit.

Note: 1. The statements of test result on the above are decided by the request of test standard only; the measurement uncertainties are not factored into this compliance determination.  
2. The information of measurement uncertainty is available upon the customer's request.



### 3 EUT DESCRIPTION

<b>Product</b>	802.11ac Gigabit Router
<b>Model Number</b>	SR905acv, SR905ac
<b>Brand</b>	SmartRG
<b>Model Discrepancy</b>	The model SR905acv of product name is "802.11ac Gigabit VoIP Router", the model SR905ac of product name is "802.11ac Gigabit Router", "SR905ac" is less VOIP ports than mode "SR905acv".
<b>Identify Number</b>	C171214Z01-RP1-1
<b>Received Date</b>	December 14, 2017
<b>Power Supply</b>	DC 12V supply by the adapter
<b>Adapter Specification</b>	Shenzhen Gongjin Electronics Co., Ltd. S36B52-120A300-04 INPUT:100-240V,50/60Hz Max 1.0A OUTPUT: 12V,3A DC Cable: Unshielded, 1.50m
<b>RJ45 Cable</b>	Unshielded, 2.00m
<b>RJ11 Cable</b>	Unshielded, 2.00m
<b>Transmit Power</b>	IEEE 802.11b mode: 26.26dBm (Antenna 0) IEEE 802.11b mode: 26.38dBm (Antenna 1) IEEE 802.11b mode: 25.70dBm (Antenna 2) IEEE 802.11b mode: 25.83dBm (Antenna 3) IEEE 802.11g mode: 26.26dBm (Antenna 0) IEEE 802.11g mode: 26.38dBm (Antenna 1) IEEE 802.11g mode: 26.23dBm (Antenna 2) IEEE 802.11g mode: 26.28dBm (Antenna 3) IEEE 802.11n HT20 MHz mode: 26.86dBm (Combine with antenna 0 , antenna 1, antenna 2 and Antenna 3) IEEE 802.11n HT40 MHz mode: 26.81dBm (Combine with antenna 0 , antenna 1, antenna 2 and Antenna 3)
<b>Modulation Technique</b>	IEEE 802.11b mode: DSSS(CCK,QPSK, BPSK) IEEE 802.11g mode: OFDM (BPSK/QPSK/16QAM/64QAM) IEEE 802.11n HT20 MHz mode: OFDM (BPSK/QPSK/16QAM/64QAM) IEEE 802.11n HT40 MHz mode: OFDM (BPSK/QPSK/16QAM/64QAM)
<b>Transmit Data Rate</b>	IEEE 802.11b: 11Mbps(CCK) with fall back rates of 5.5/2/1Mbps IEEE 802.11g: 54Mbps with fall back rates of 48/36/24/18/12/9/6Mbps IEEE 802.11n HT20: 260Mbps with fall back rates of 260/231.1/188.9/179.3/115.6/ 86.7/57.8/28.9Mbps IEEE 802.11n HT40: 600Mbps with fall back rates of 600/540/480/360/240/180/120/ 60Mbps
<b>Number of Channels</b>	IEEE 802.11b mode: 11 Channels IEEE 802.11g mode: 11 Channels IEEE 802.11n HT20 MHz mode: 11 Channels IEEE 802.11n HT40 MHz mode: 7 Channels
<b>Antenna Specification</b>	Internal antenna with 3.38dBi gain (Max)
<b>Channels Spacing</b>	IEEE 802.11b/g ,802.11n HT20/HT40 : 5MHz
<b>Temperature Range</b>	0°C ~ +45°C



Hardware Version	B3
Software Version	v10.5.2.1

- Note:**
1. The sample selected for test was engineering sample that approximated to production product and was provided by manufacturer.
  2. Client consigns one model sample to test (Model Number: SR905acv). Therefore, the testing Lab. just guarantees the unit, which has been tested.
  3. This submittal(s) (test report) is intended for FCC ID: VW7SR900 filing to comply with Section 15.207, 15.209 and 15.247 of the FCC Part 15, Subpart C Rules.



## 4 TEST METHODOLOGY

### 4.1. DESCRIPTION OF TEST MODES

The EUT has been tested under operating condition.

Use “Lantiq DUT” to control the EUT for staying in continuous transmitting and receiving mode.

Test Item	Test mode	Worse mode
Conducted Emission	<b>Mode 1:</b> Full system (AC120V/60Hz)	<input checked="" type="checkbox"/>
	<b>Mode 2:</b> Full system (AC240V/50Hz)	<input checked="" type="checkbox"/>
Radiated Emission	<b>Mode 1:</b> Continuously Transmitting	<input checked="" type="checkbox"/>

After verification, all tests were carried out with the worst case test modes as shown below except radiated spurious emission below 1GHz, which worst case was in normal link mode only, and power line conducted emission below 30MHz, which worst case was in normal link mode.

IEEE802.11b mode: Channel Low (2412MHz), Channel Mid (2437MHz) and Channel High (2462MHz) with 1Mbps data rate were chosen for full testing.

IEEE802.11g mode: Channel Low (2412MHz), Channel Mid (2437MHz) and Channel High (2462MHz) with 6Mbps data rate were chosen for full testing.

IEEE 802.11n HT20 MHz mode: Channel Low (2412MHz), Channel Mid (2437MHz) and Channel High (2462MHz) with 28.9Mbps data rate were chosen for full testing.

IEEE 802.11n HT40 MHz mode: Channel Low (2422MHz), Channel Mid (2437MHz) and Channel High (2452MHz) with 60Mbps data rate were chosen for full testing.



## 5 SETUP OF EQUIPMENT UNDER TEST

### 5.1. DESCRIPTION OF SUPPORT UNITS

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

No.	Equipment	Model No.	Serial No.	FCC ID	Brand	Data Cable	Power Cord
1	Notebook	TianYi 310-14ISK	MP18DLC6	DoC	LENOVO	N/A	N/A
2	Adapter	ADLX65NC C3A	N/A	N/A	LENOVO	Unshielded 2.00m  Shielded 1.80m  (DC Cable)	Unshielded 1.00m (AC Cable)

**Note:**

Grounding was established in accordance with the manufacturer's requirements and conditions for the intended use.

### 5.2. CONFIGURATION OF SYSTEM UNDER TEST

See test photographs attached in Appendix II for the actual connections between EUT and support equipment.



### 5.3. TEST INSTRUMENTS

Conducted Emission Test Site					
Name of Equipment	Manufacturer	Model Number	Serial Number	Last Calibration	Due Calibration
EMI TEST RECEIVER	ROHDE&SCHWARZ	ESCI	100783	01/27/2018	01/26/2019
LISN(EUT)	ROHDE&SCHWARZ	ENV216	101543-WX	01/27/2018	01/26/2019
LISN	EMCO	3825/2	8901-1459	01/27/2018	01/26/2019
Temp. / Humidity Meter	VICTOR	HTC-1	N/A	01/29/2018	01/28/2019
Test S/W	FARAD	EZ-EMC/ CCS-3A1-CE			

Radiated Emission Test Site 966 (2)					
Name of Equipment	Manufacturer	Model Number	Serial Number	Last Calibration	Due Calibration
Spectrum Analyzer	Agilent	N9010A	MY52221469	01/27/2018	01/26/2019
EMI TEST RECEIVER	ROHDE&SCHWARZ	ESCI	100783	01/27/2018	01/26/2019
Amplifier	EMEC	EM330	060661	01/27/2018	01/26/2019
High Noise Amplifier	Agilent	8449B	3008A01838	01/27/2018	01/26/2019
Loop Antenna	COM-POWER	AL-130	121044	01/30/2018	01/29/2019
Bilog Antenna	SCHAFFNER	CBL6143	5082	02/21/2018	02/20/2019
Horn Antenna	SCHWARZBECK	BBHA9120	D286	01/27/2018	01/26/2019
Board-Band Horn Antenna	Schwarzbeck	BBHA 9170	9170-497	01/24/2018	01/23/2019
Turn Table	N/A	N/A	N/A	N.C.R	N.C.R
Antenna Tower	SUNOL	TLT2	N/A	N.C.R	N.C.R
Controller	Sunol Sciences	SC104V	022310-1	N.C.R	N.C.R
Controller	CT	N/A	N/A	N.C.R	N.C.R
Temp. / Humidity Meter	Anymetre	JR913	N/A	01/29/2018	01/28/2019
Test S/W	FARAD	LZ-RF / CCS-SZ-3A2			

Antenna Conducted Spurious Emission					
Name of Equipment	Manufacturer	Model Number	Serial Number	Last Calibration	Due Calibration
Spectrum Analyzer	Agilent	N9010A	MY52221469	01/27/2018	01/26/2019

6dB Bandwidth					
Name of Equipment	Manufacturer	Model Number	Serial Number	Last Calibration	Due Calibration
Spectrum Analyzer	Agilent	N9010A	MY52221469	01/27/2018	01/26/2019



Antenna Gain					
Name of Equipment	Manufacturer	Model Number	Serial Number	Last Calibration	Due Calibration
Spectrum Analyzer	Agilent	N9010A	MY52221469	01/27/2018	01/26/2019

Peak Output Power					
Name of Equipment	Manufacturer	Model Number	Serial Number	Last Calibration	Due Calibration
Power Meter	Anritsu	ML2495A	1204003	01/27/2018	01/26/2019
Power Sensor	Anritsu	MA2411B	1126150	01/27/2018	01/26/2019

Band edges					
Name of Equipment	Manufacturer	Model Number	Serial Number	Last Calibration	Due Calibration
Spectrum Analyzer	Agilent	N9010A	MY52221469	01/27/2018	01/26/2019

Peak Power Spectral Density					
Name of Equipment	Manufacturer	Model Number	Serial Number	Last Calibration	Due Calibration
Spectrum Analyzer	Agilent	N9010A	MY52221469	01/27/2018	01/26/2019

Note: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

2. N.C.R = No Calibration Request.



## 6 FACILITIES AND ACCREDITATIONS

### 6.1. FACILITIES

All measurement facilities used to collect the measurement data are located at  
**No.10-1 Mingkeda Logistics park, No.18, Huanguan South Rd., Guan Lan Town,  
Baoan District, Shenzhen, China**

The sites are constructed in conformance with the requirements of ANSI C63.10, ANSI C63.7 and CISPR Publication 22. All receiving equipment conforms to CISPR Publication 16-1, "Radio Interference Measuring Apparatus and Measurement Methods."

### 6.2. ACCREDITATIONS

Our laboratories are accredited and approved by the following accreditation body according to ISO/IEC 17025.

<b>USA</b>	<b>A2LA</b>
<b>China</b>	<b>CNAS</b>

The measuring facility of laboratories has been authorized or registered by the following approval agencies.

<b>USA</b>	<b>FCC</b>
<b>Japan</b>	<b>VCCI (C-4815,R-4320,T-2317, G-10624)</b>
<b>Canada</b>	<b>INDUSTRY CANADA</b>

Copies of granted accreditation certificates are available for downloading from our web site, <http://www.ccssz.com>

### 6.3. MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

Parameter	Uncertainty
Radiated Emission, 30 to 200 MHz Test Site : 966(2)	+/-3.6880dB
Radiated Emission, 200 to 1000 MHz Test Site : 966(2)	+/-3.6695dB
Radiated Emission, 1 to 8 GHz	+/-5.1782dB
Radiated Emission, 8 to 18 GHz	+/-5.2173dB
Conducted Emissions	+/-3.6836dB
Band Width	178kHz
Peak Output Power MU	+/-1.906dB
Band Edge MU	+/-0.182dB
Channel Separation MU	416.178Hz
Duty Cycle MU	0.054ms
Frequency Stability MU	226Hz

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

The measured result is above (below) the specification limit by a margin less than the measurement uncertainty; it is therefore not possible to state compliance based on the 95% level of confidence. However, the result indicates that compliance (non-compliance) is more probable than non-compliance) with the specification limit.



## 7 FCC PART 15.247 REQUIREMENTS

### 7.1. POWER LINE CONDUCTED EMISSIONS MEASUREMENT

#### 7.1.1. LIMITS OF CONDUCTED EMISSIONS MEASUREMENT

According to §15.207(a), except as shown in paragraphs (b) and (c) of this section, for an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed the limits in the following table, as measured using a 50  $\mu$ H/50 ohms line impedance stabilization network (LISN). Compliance with the provisions of this paragraph shall be based on the measurement of the radio frequency voltage between each power line and ground at the power terminal. The lower limit applies at the boundary between the frequency ranges.

Frequency Range (MHz)	Limits (dB $\mu$ V)	
	Quasi-peak	Average
0.15 to 0.50	66 to 56*	56 to 46*
0.50 to 5	56	46
5 to 30	60	50

**NOTE:**

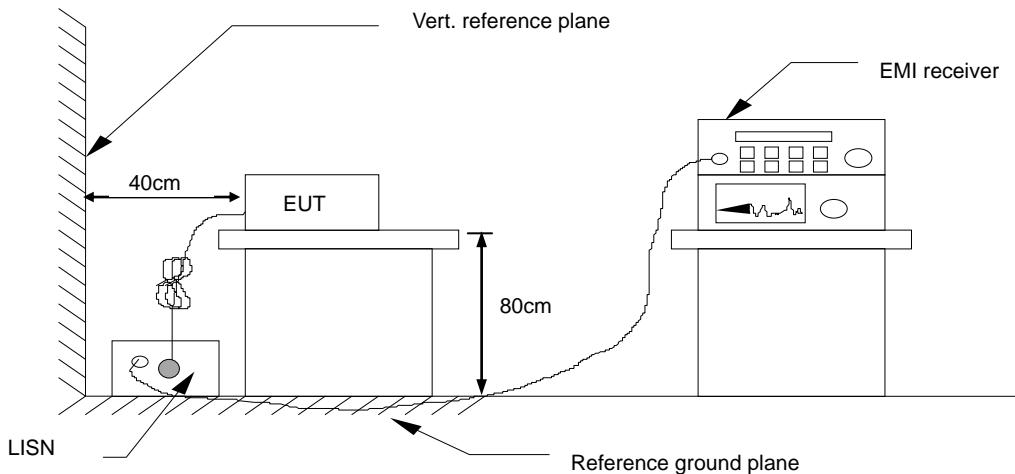
- (1) The lower limit shall apply at the transition frequencies.
- (2) The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50 MHz.
- (3) All emanations from a class A/B digital device or system, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strengths specified above.

#### 7.1.2. TEST PROCEDURES (please refer to measurement standard)

- The EUT and Support equipment, if needed, was placed on a non-conducted table, which is 0.8m above the ground plane and 0.4m away from the conducted wall.
- The test equipment EUT installed received AC main power, through a Line Impedance Stabilization Network (LISN), which supplied power source and was grounded to the ground plane. All support equipment power received from a second LISN. The two LISNs provide 50 ohm/ 50uH of coupling impedance for the measuring instrument.
- The EUT test program was started. Emissions were measured on each current carrying line of the EUT using an EMI Test Receiver connected to the LISN powering the EUT.
- The frequency range from 150 kHz to 30 MHz was searched. The test data of the worst-case condition(s) was recorded. Emission levels under limit 20dB were not recorded.



### 7.1.3. TEST SETUP



For the actual test configuration, please refer to the related item – Photographs of the Test Configuration.

### 7.1.4. DATA SAMPLE

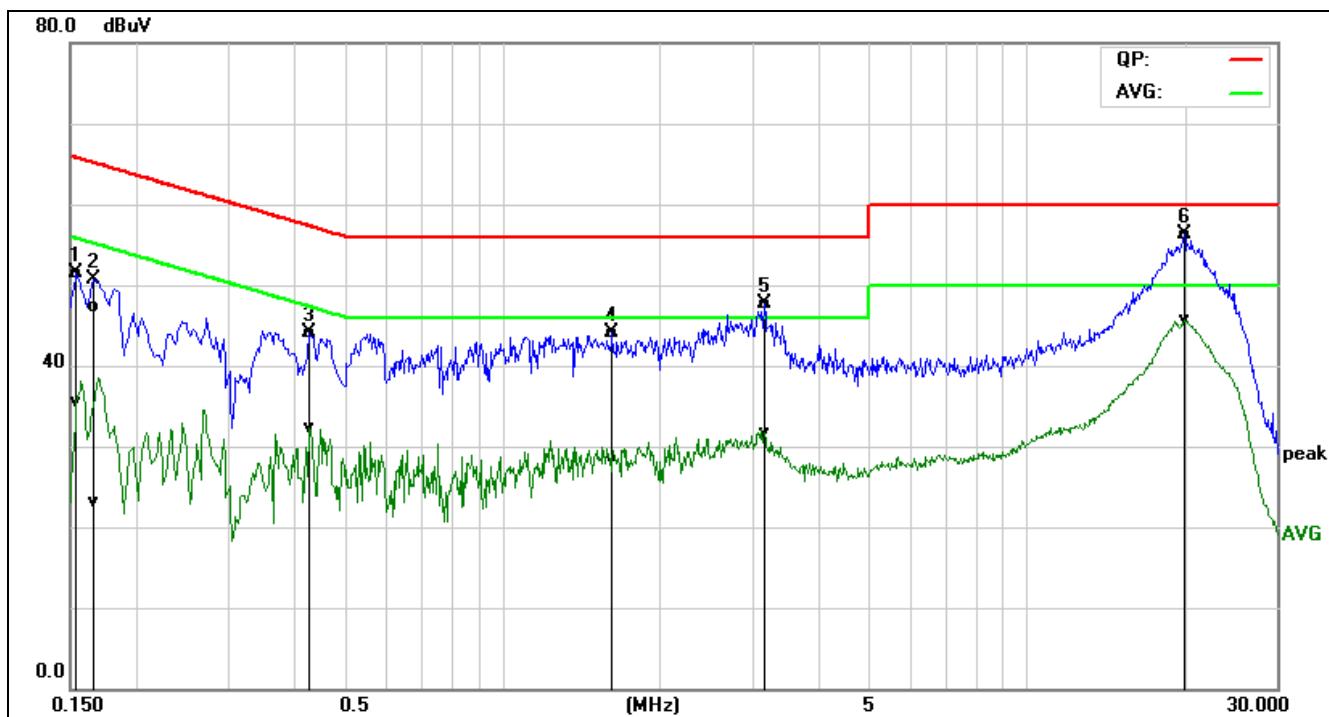
Frequency (MHz)	QuasiPeak Reading (dBuV)	Average Reading (dBuV)	Correction Factor (dB)	QuasiPeak Result (dBuV)	Average Result (dBuV)	QuasiPeak Limit (dBuV)	Average Limit (dBuV)	QuasiPeak Margin (dB)	Average Margin (dB)	Remark (Pass/Fail)
XXX.XXXX	32.69	25.65	11.52	44.21	37.17	65.78	55.79	-21.57	-18.62	Pass

- Factor = Insertion loss of LISN + Cable Loss  
Result = Quasi-peak Reading/ Average Reading + Factor  
Limit = Limit stated in standard  
Margin = Result (dBuV) – Limit (dBuV)



### 7.1.5. TEST RESULTS

Model No.	SR905acv	RBW,VBW	9 kHz
Environmental Conditions	22°C, 45% RH	Test Mode	Mode 1
Tested by	Luja Huang	Line	L
Test Date	August 13, 2018	Test Voltage	AC120V/60Hz

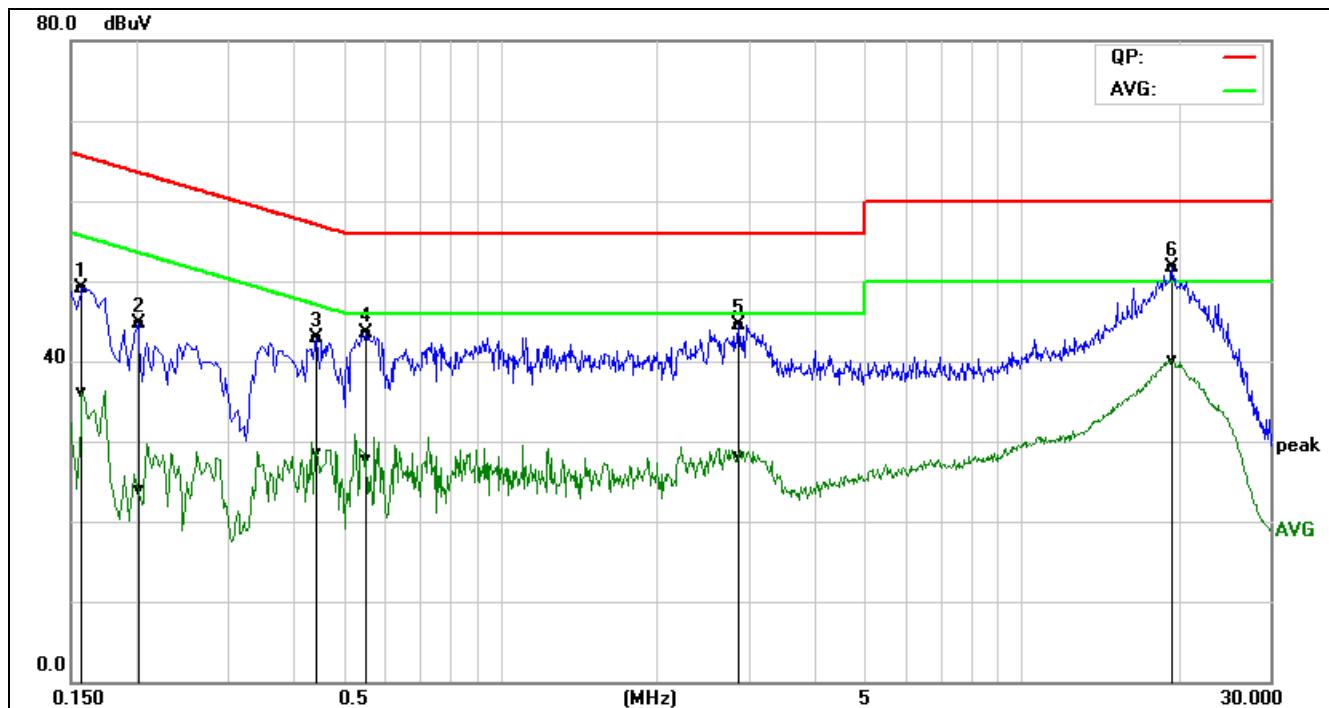


Frequency (MHz)	QuasiPeak Reading (dBuV)	Average Reading (dBuV)	Correction Factor (dB)	QuasiPeak Result (dBuV)	Average Result (dBuV)	QuasiPeak Limit (dBuV)	Average Limit (dBuV)	QuasiPeak Margin (dB)	Average Margin (dB)	Remark (Pass/Fail)	Line
0.1539	31.96	15.90	19.62	51.58	35.52	65.78	55.79	-14.20	-20.27	Pass	L
0.1677	27.60	3.45	19.63	47.23	23.08	65.07	55.07	-17.84	-31.99	Pass	L
0.4300	24.48	12.84	19.55	44.03	32.39	57.25	47.25	-13.22	-14.86	Pass	L
1.6260	24.39	8.67	19.65	44.04	28.32	56.00	46.00	-11.96	-17.68	Pass	L
3.1660	28.06	11.98	19.72	47.78	31.70	56.00	46.00	-8.22	-14.30	Pass	L
19.9580	35.92	25.35	20.32	56.24	45.67	60.00	50.00	-3.76	-4.33	Pass	L

**REMARKS:** L = Live Line



<b>Model No.</b>	SR905acv	<b>RBW,VBW</b>	9 kHz
<b>Environmental Conditions</b>	22°C, 45% RH	<b>Test Mode</b>	Mode 1
<b>Tested by</b>	Luja Huang	<b>Line</b>	N
<b>Test Date</b>	August 13, 2018	<b>Test Voltage</b>	AC120V/60Hz

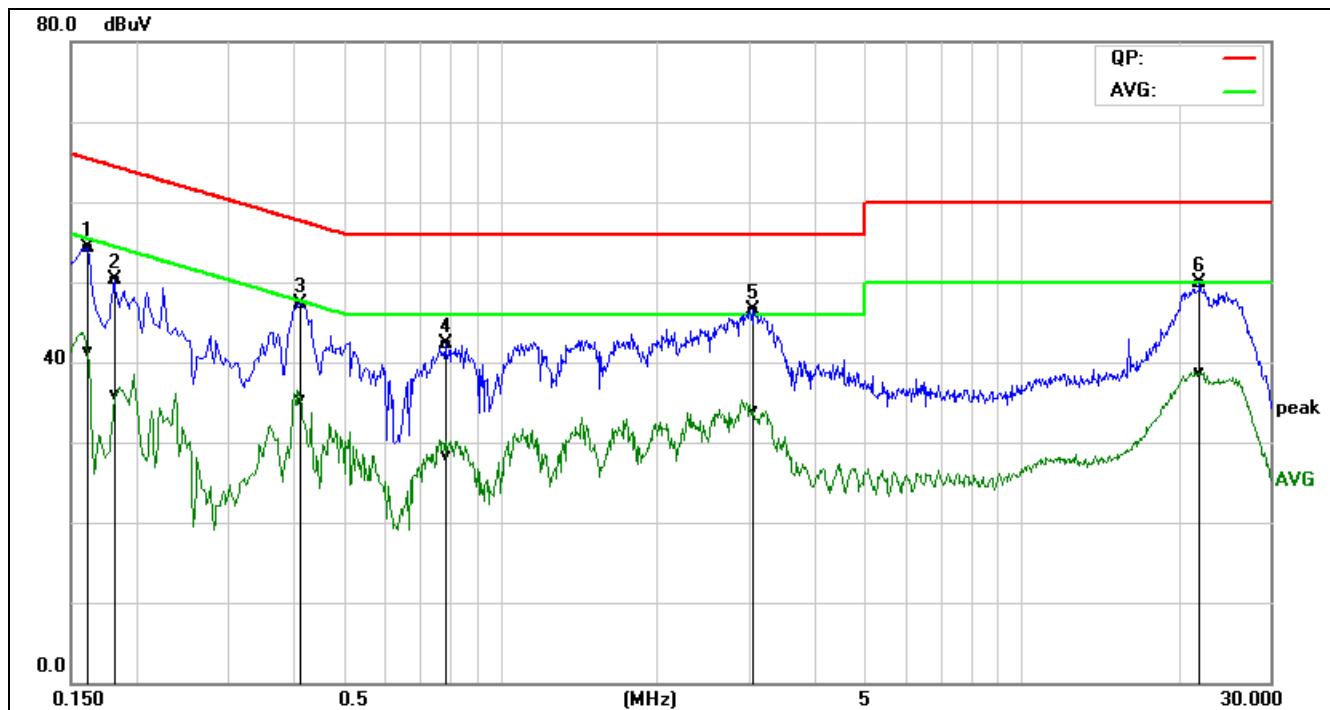


Frequency (MHz)	QuasiPeak Reading (dBuV)	Average Reading (dBuV)	Correction Factor (dB)	QuasiPeak Result (dBuV)	Average Result (dBuV)	QuasiPeak Limit (dBuV)	Average Limit (dBuV)	QuasiPeak Margin (dB)	Average Margin (dB)	Remark (Pass/Fail)	Line
0.1580	29.56	16.62	19.52	49.08	36.14	65.56	55.57	-16.48	-19.43	Pass	N
0.2020	25.24	4.45	19.54	44.78	23.99	63.52	53.53	-18.74	-29.54	Pass	N
0.4460	23.32	8.98	19.53	42.85	28.51	56.95	46.95	-14.10	-18.44	Pass	N
0.5540	23.92	8.11	19.55	43.47	27.66	56.00	46.00	-12.53	-18.34	Pass	N
2.8820	24.81	8.31	19.75	44.56	28.06	56.00	46.00	-11.44	-17.94	Pass	N
19.4500	31.56	19.94	20.20	51.76	40.14	60.00	50.00	-8.24	-9.86	Pass	N

**REMARKS:** N = Neutral Line



<b>Model No.</b>	SR905acv	<b>RBW,VBW</b>	9 kHz
<b>Environmental Conditions</b>	22°C, 45% RH	<b>Test Mode</b>	Mode 2
<b>Tested by</b>	Luja Huang	<b>Line</b>	L1
<b>Test Date</b>	August 13, 2018	<b>Test Voltage</b>	AC240V/50Hz

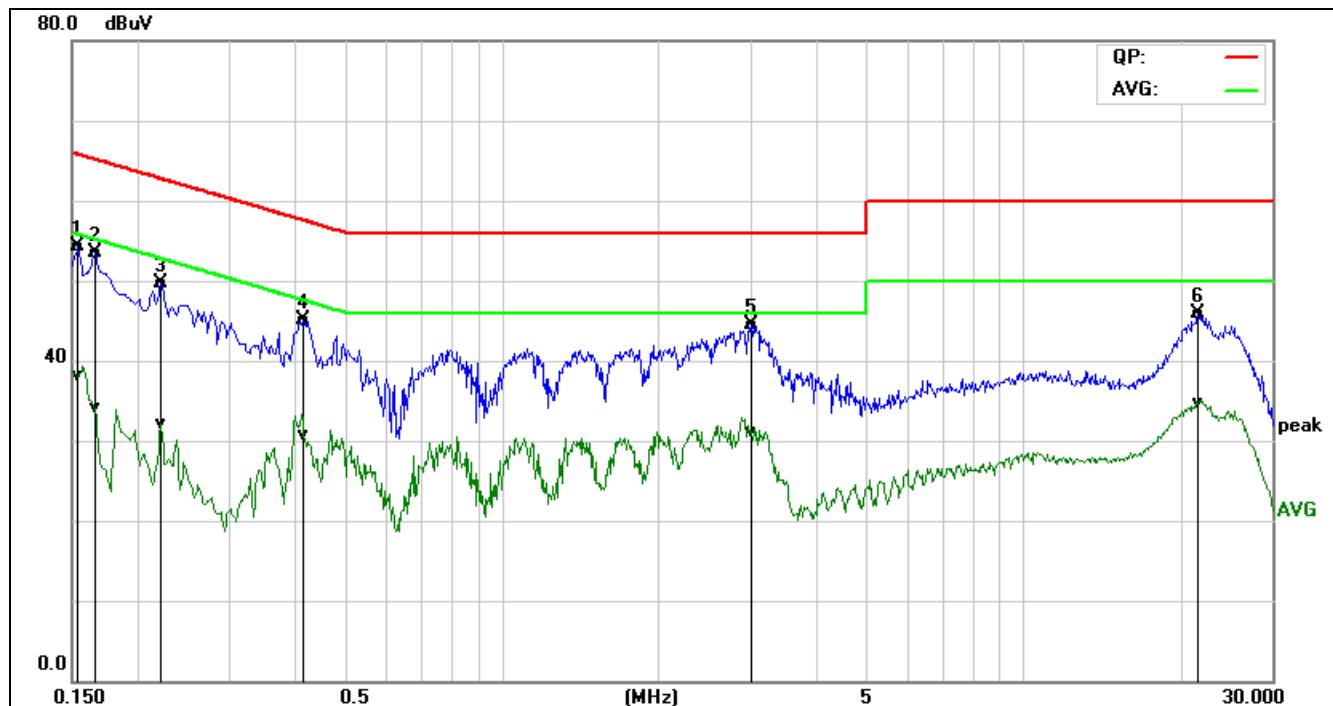


Frequency (MHz)	QuasiPeak Reading (dBuV)	Average Reading (dBuV)	Correction Factor (dB)	QuasiPeak Result (dBuV)	Average Result (dBuV)	QuasiPeak Limit (dBuV)	Average Limit (dBuV)	QuasiPeak Margin (dB)	Average Margin (dB)	Remark (Pass/Fail)	Line
0.1620	34.65	21.64	19.62	54.27	41.26	65.36	55.36	-11.09	-14.10	Pass	L
0.1819	30.61	16.18	19.63	50.24	35.81	64.39	54.40	-14.15	-18.59	Pass	L
0.4140	27.70	15.67	19.56	47.26	35.23	57.57	47.57	-10.31	-12.34	Pass	L
0.7860	22.62	8.72	19.59	42.21	28.31	56.00	46.00	-13.79	-17.69	Pass	L
3.0620	26.79	14.28	19.72	46.51	34.00	56.00	46.00	-9.49	-12.00	Pass	L
22.0220	29.48	18.41	20.37	49.85	38.78	60.00	50.00	-10.15	-11.22	Pass	L

**REMARKS:** L = Live Line



<b>Model No.</b>	SR905acv	<b>RBW,VBW</b>	9 kHz
<b>Environmental Conditions</b>	22°C, 45% RH	<b>Test Mode</b>	Mode 2
<b>Tested by</b>	Luja Huang	<b>Line</b>	N
<b>Test Date</b>	August 13, 2018	<b>Test Voltage</b>	AC240V/50Hz



Frequency (MHz)	QuasiPeak Reading (dBuV)	Average Reading (dBuV)	Correction Factor (dB)	QuasiPeak Result (dBuV)	Average Result (dBuV)	QuasiPeak Limit (dBuV)	Average Limit (dBuV)	QuasiPeak Margin (dB)	Average Margin (dB)	Remark (Pass/Fail)	Line
0.1539	34.87	18.55	19.52	54.39	38.07	65.78	55.79	-11.39	-17.72	Pass	N
0.1660	33.91	14.67	19.53	53.44	34.20	65.15	55.16	-11.71	-20.96	Pass	N
0.2220	30.16	12.59	19.54	49.70	32.13	62.74	52.74	-13.04	-20.61	Pass	N
0.4180	25.52	11.19	19.53	45.05	30.72	57.49	47.49	-12.44	-16.77	Pass	N
3.0220	24.75	11.28	19.75	44.50	31.03	56.00	46.00	-11.50	-14.97	Pass	N
21.6860	25.63	14.44	20.36	45.99	34.80	60.00	50.00	-14.01	-15.20	Pass	N

**REMARKS:** N = Neutral Line



## 7.2. SPURIOUS EMISSIONS MEASUREMENT

### 7.2.1. CONDUCTED EMISSIONS MEASUREMENT

#### 7.2.1.1. LIMITS OF CONDUCTED EMISSIONS MEASUREMENT

§15.247(d) specifies that in any 100 kHz bandwidth outside of the authorized frequency band, the power shall be attenuated according to the following conditions:

If the peak output power procedure is used to measure the fundamental emission power to demonstrate compliance to 15.247(b)(3) requirements, then the peak conducted output power measured within any 100 kHz outside the authorized frequency band shall be attenuated by at least 20 dB relative to the maximum measured in-band peak PSD level. If the average output power procedure is used to measure the fundamental emission power to demonstrate compliance to 15.247(b) (3) requirements, then the power in any 100 kHz outside of the authorized frequency band shall be attenuated by at least 30 dB relative to the maximum measured in-band average PSD level.

In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in 15.209(a) (see Section 15.205(c)).

#### 7.2.1.2. TEST PROCEDURE (please refer to measurement standard)

Conducted RF measurements of the transmitter output were made to confirm that the EUT antenna port conducted emissions meet the specified limit and to identify any spurious signals that require further investigation or measurements on the radiated emissions site.

The transmitter output is connected to the spectrum analyzer. The resolution bandwidth is set to 100 kHz. The video bandwidth is set to 300 kHz.

Measurements are made over the 9 kHz to 26GHz range with the transmitter set to the lowest, middle, and highest channels. No emission found between lowest internal used/generated frequency to 10MHz, it is only recorded 10MHz to 26GHz.

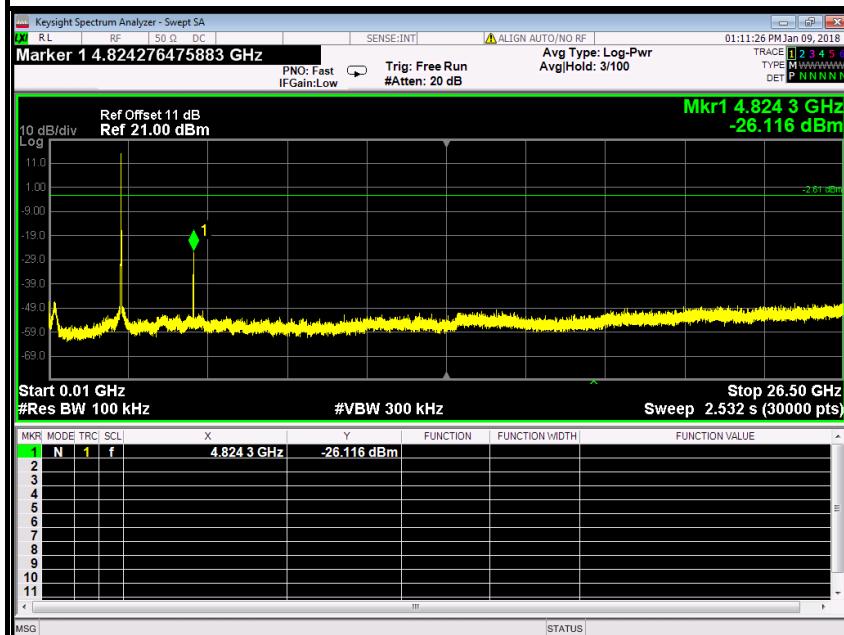


### 7.2.1.3. TEST RESULTS

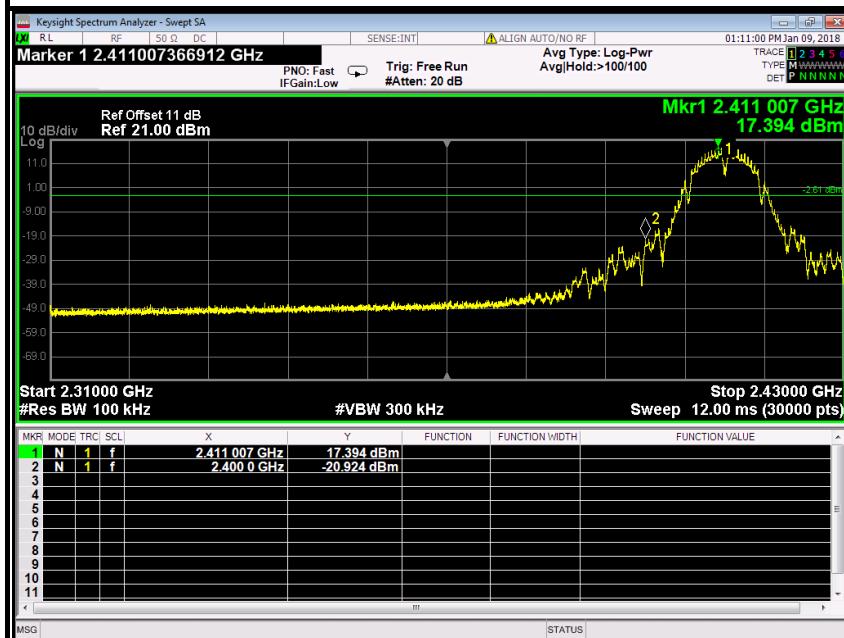
#### Test Plot

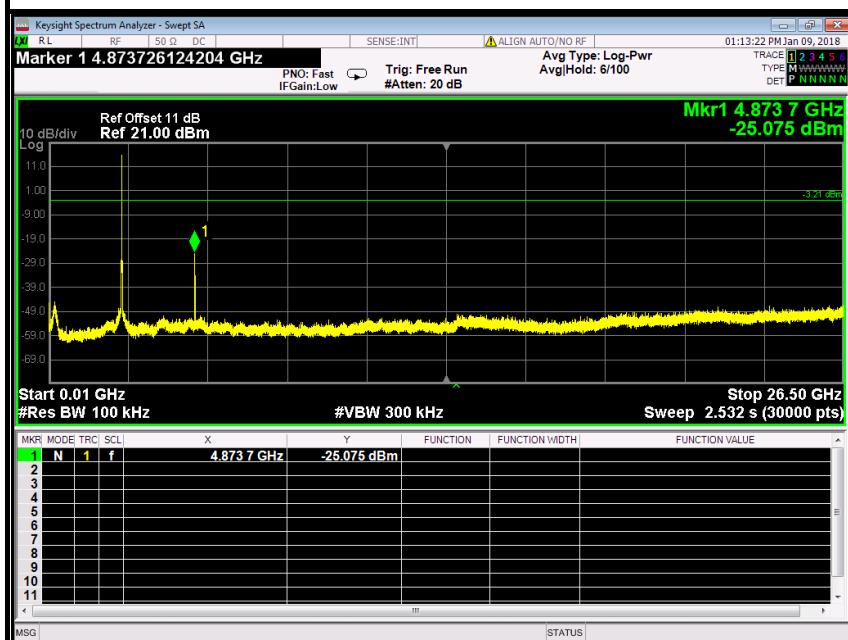
##### IEEE 802.11b mode (antenna 0)

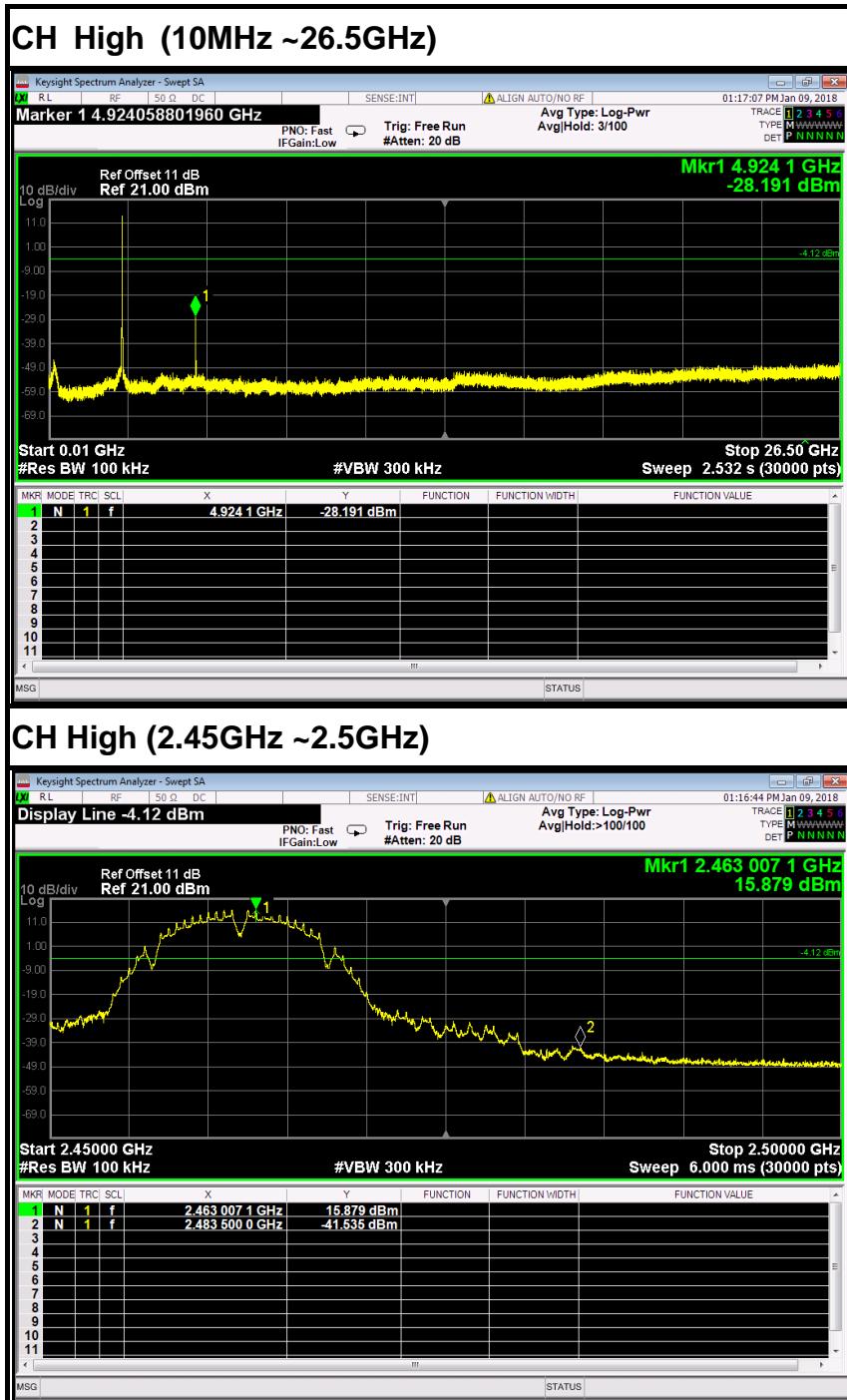
###### **CH Low (10MHz ~26.5GHz)**

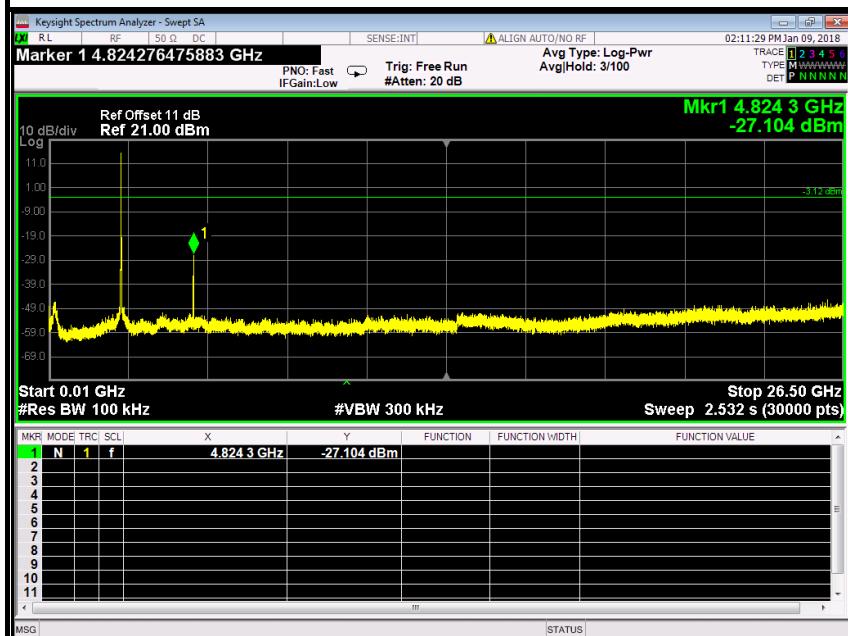
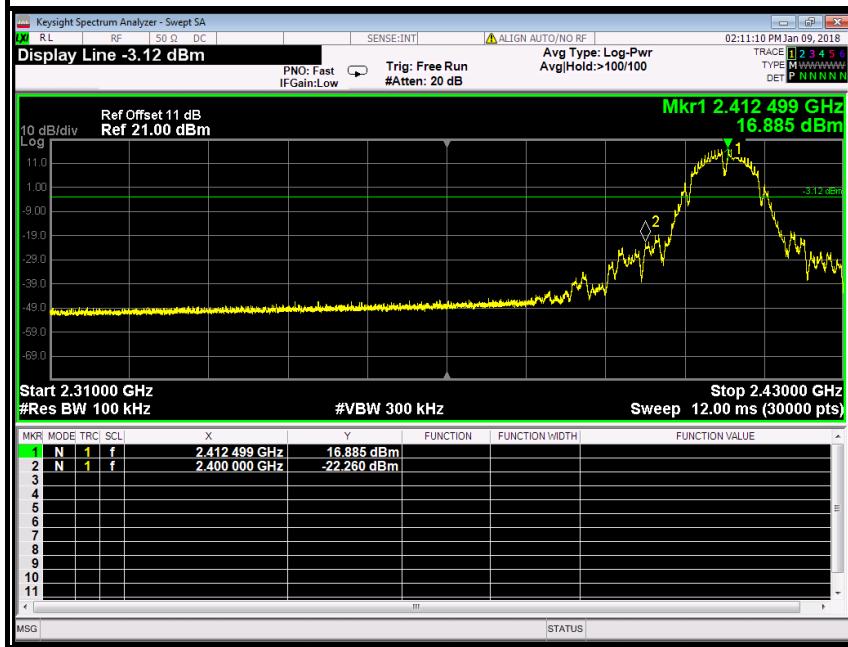


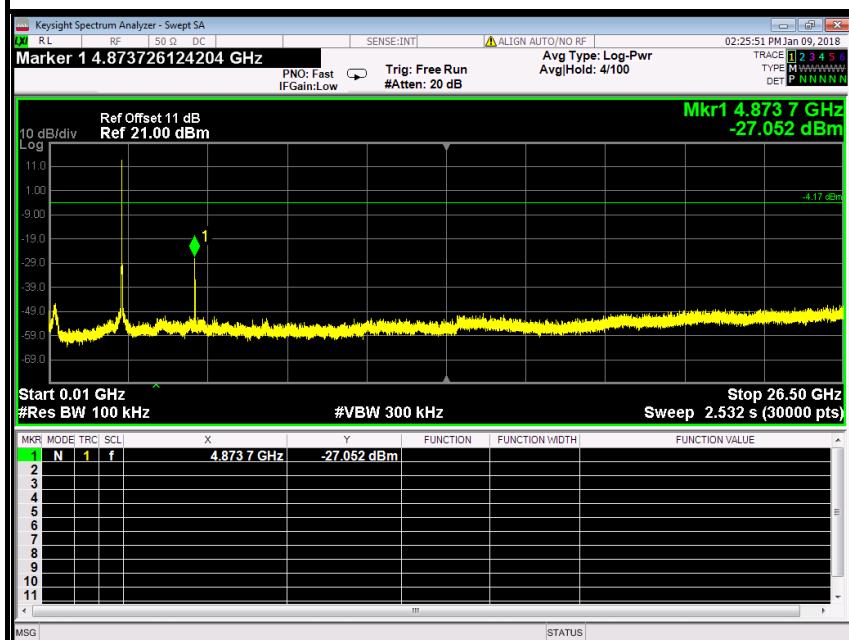
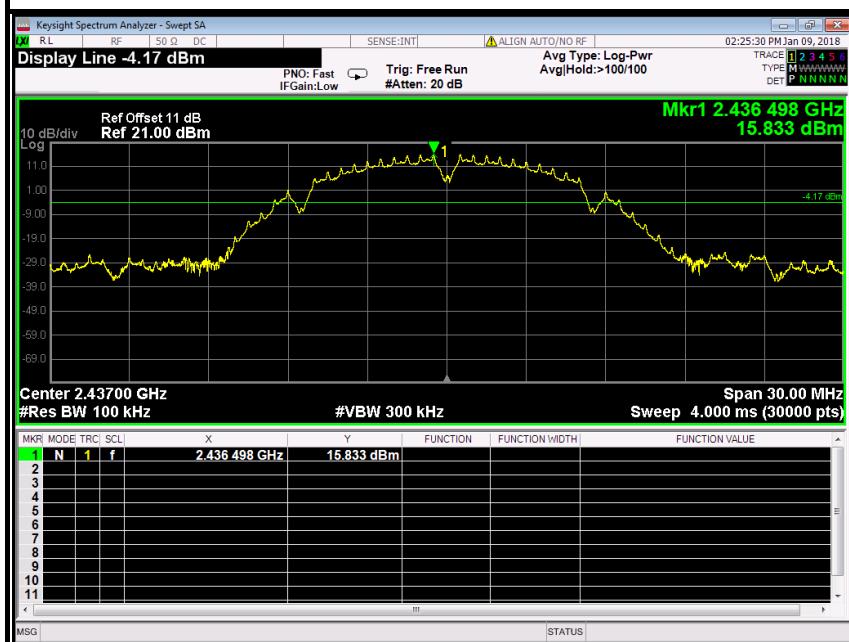
###### **CH Low (2.31GHz ~2.43GHz)**

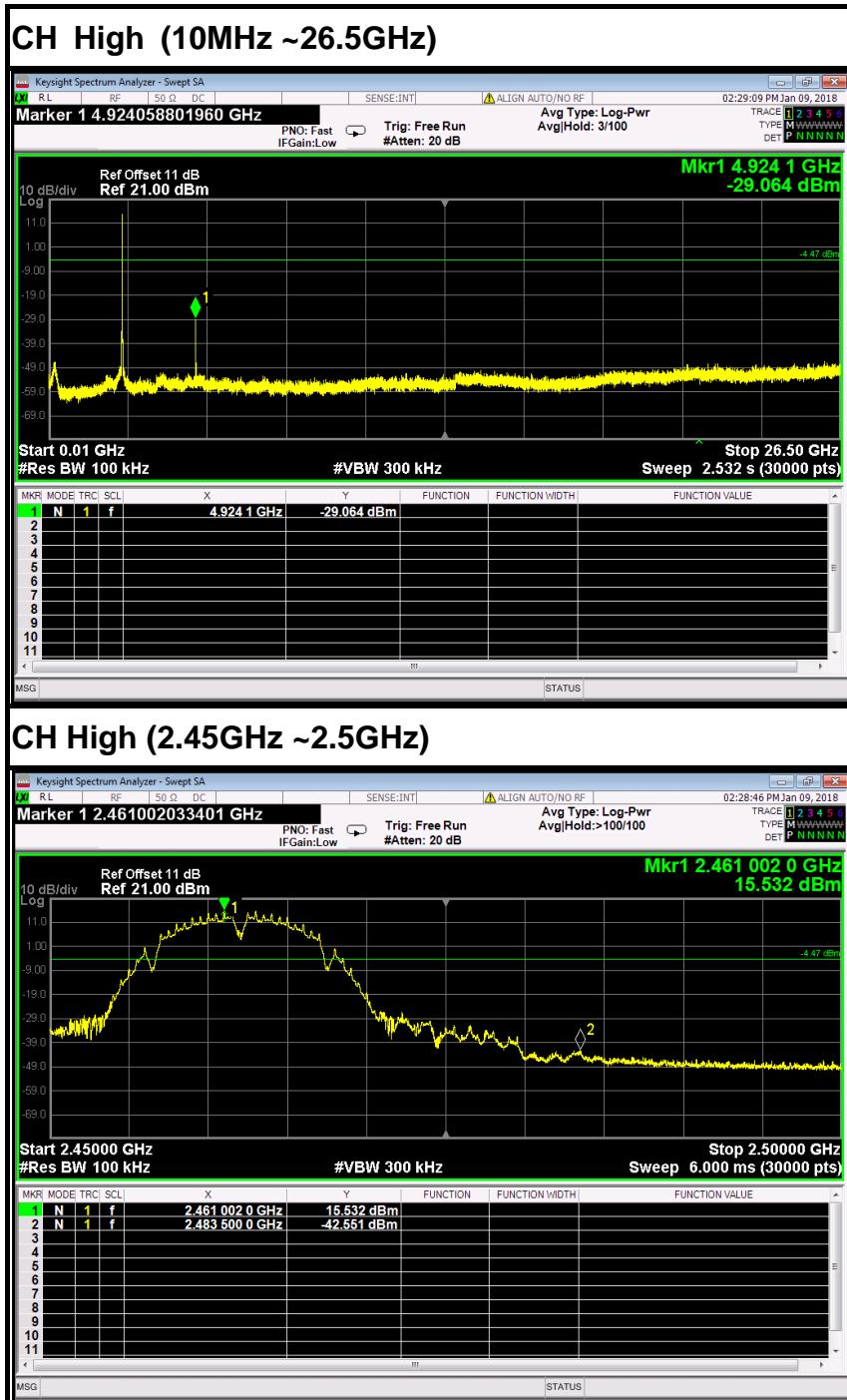


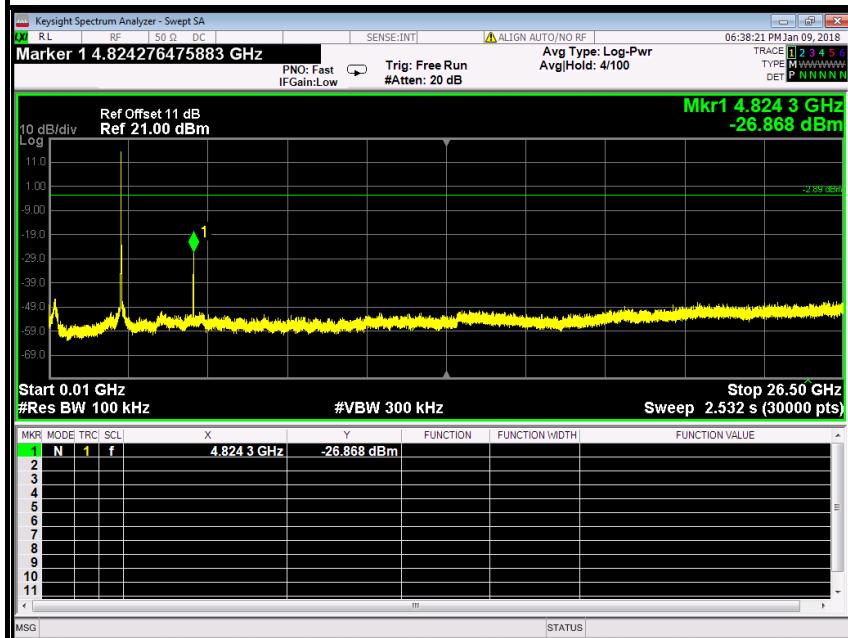
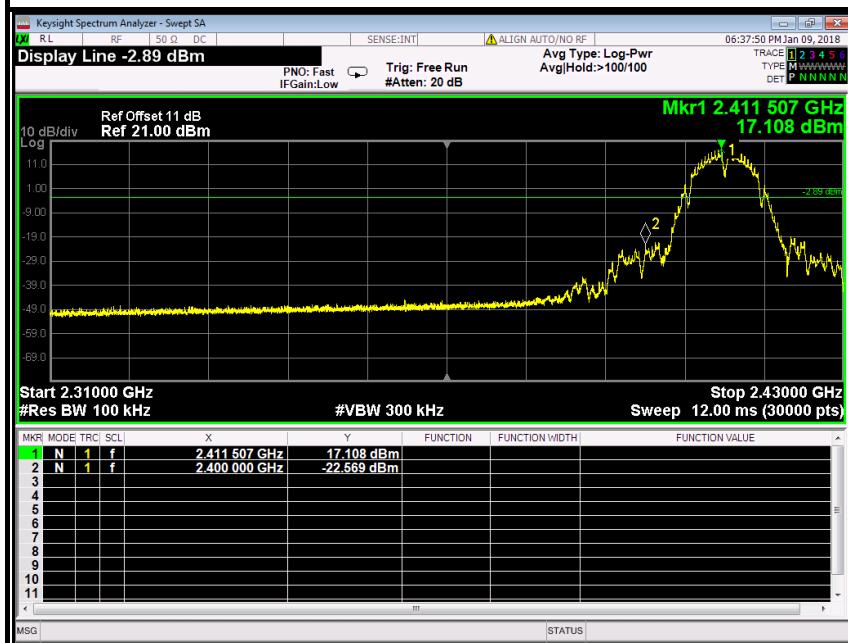
**CH Mid (10MHz ~26.5GHz)****CH Mid**

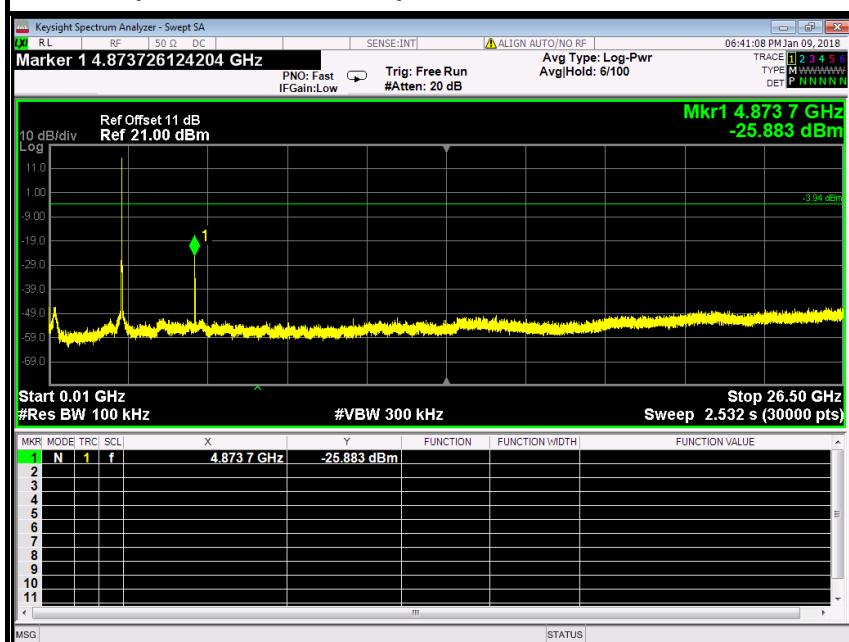


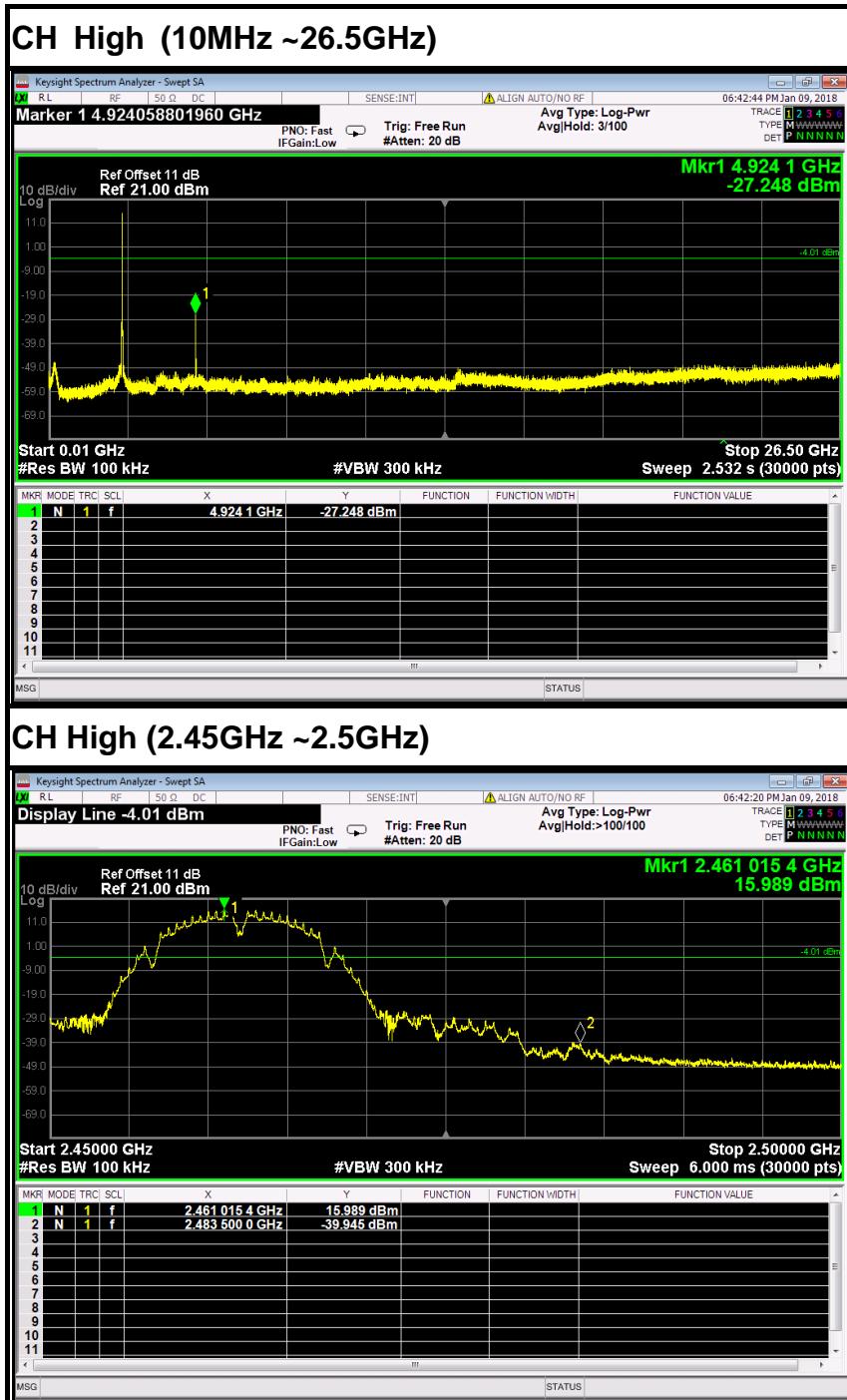
**IEEE 802.11b mode (antenna 1)****CH Low (10MHz ~26.5GHz)****CH Low (2.31GHz ~2.43GHz)**

**CH Mid (10MHz ~26.5GHz)****CH Mid**



**IEEE 802.11b mode (antenna 2)****CH Low (10MHz ~26.5GHz)****CH Low (2.31GHz ~2.43GHz)**

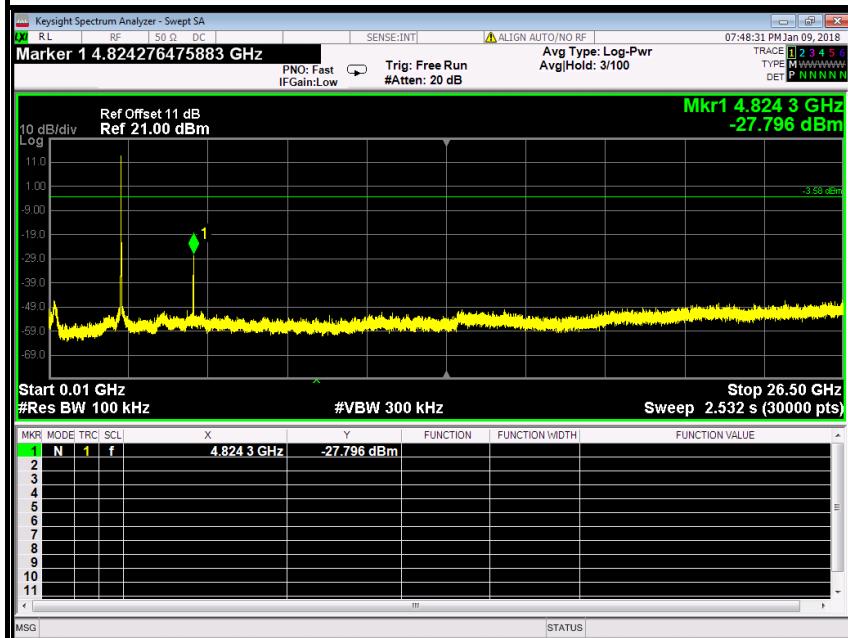
**CH Mid (10MHz ~26.5GHz)****CH Mid**



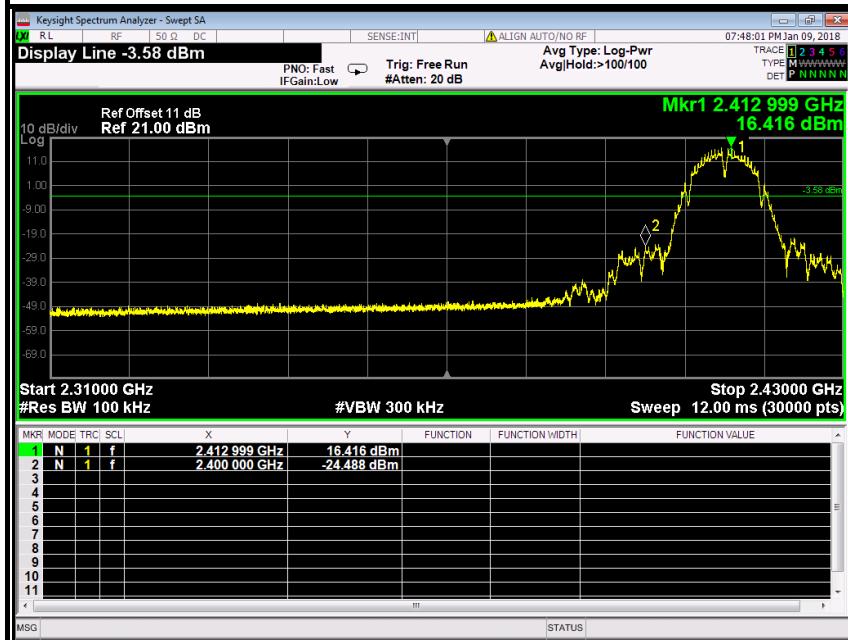


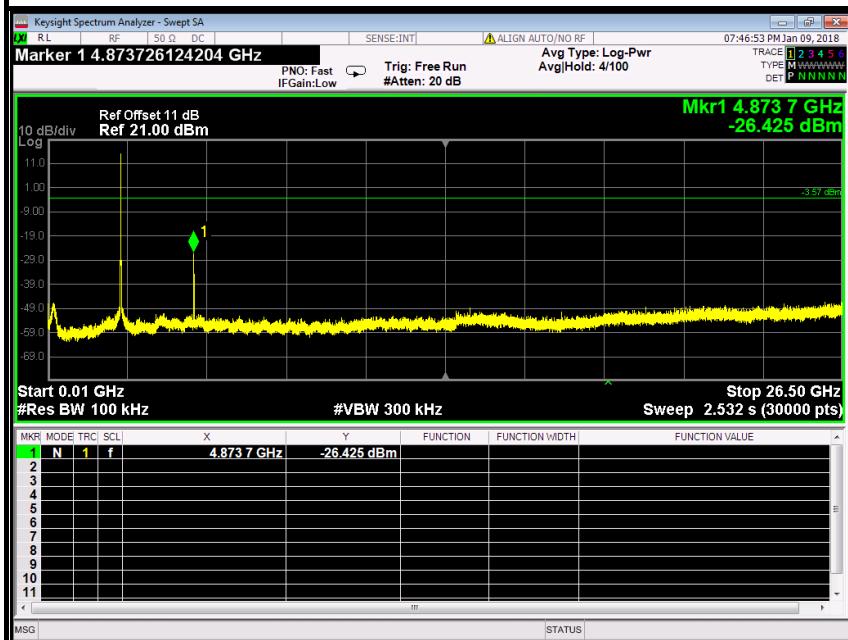
### IEEE 802.11b mode (antenna 3)

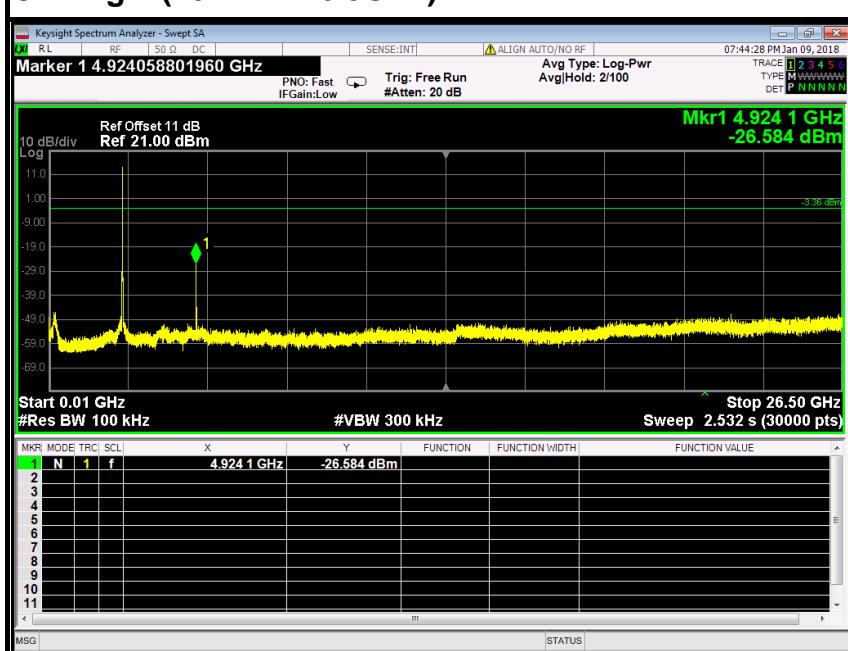
#### CH Low (10MHz ~26.5GHz)



#### CH Low (2.31GHz ~2.43GHz)



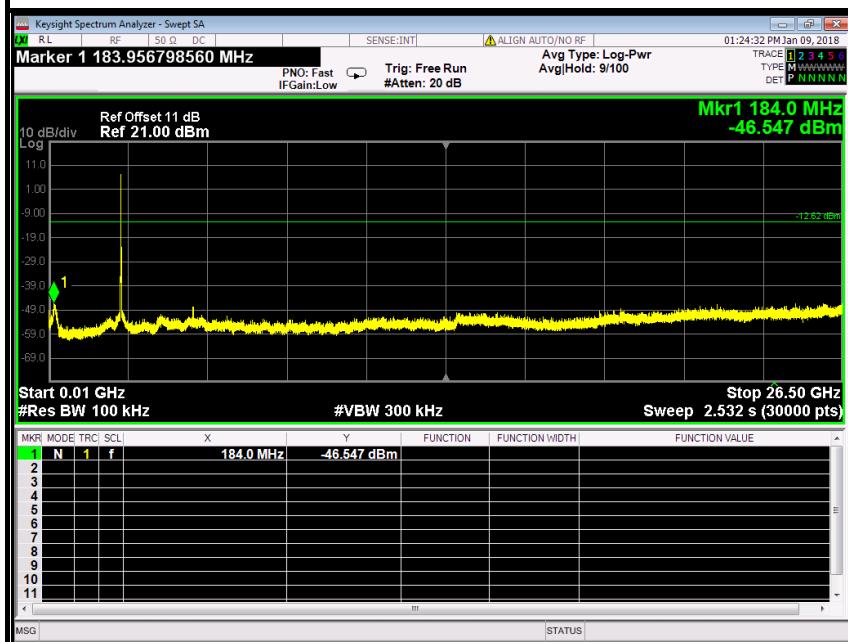
**CH Mid (10MHz ~26.5GHz)****CH Mid**

**CH High (10MHz ~26.5GHz)****CH High (2.45GHz ~2.5GHz)**

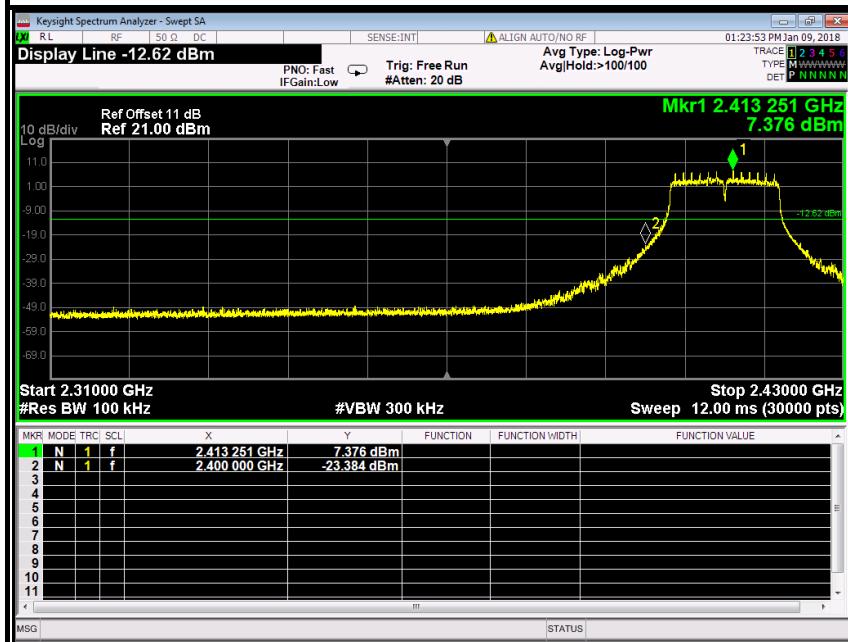


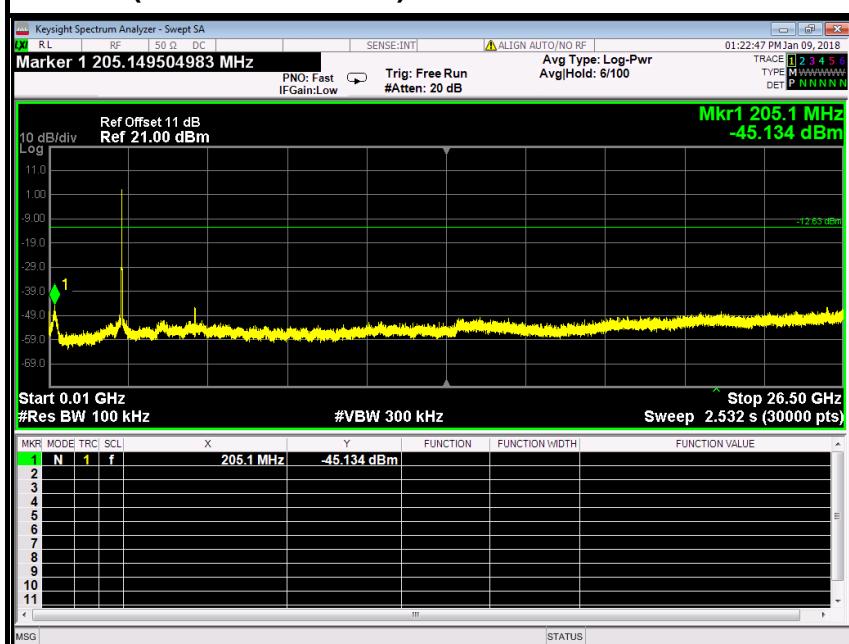
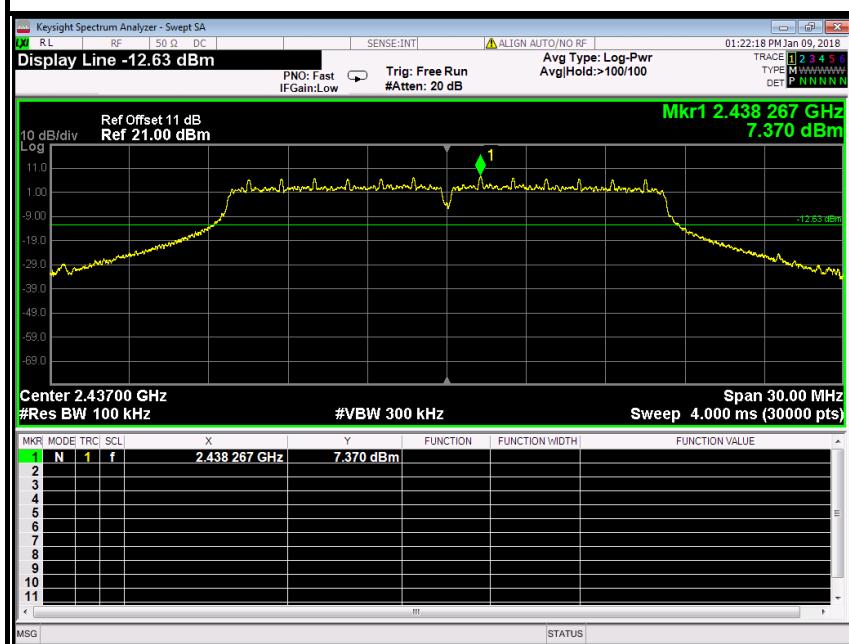
### IEEE 802.11g mode (antenna 0)

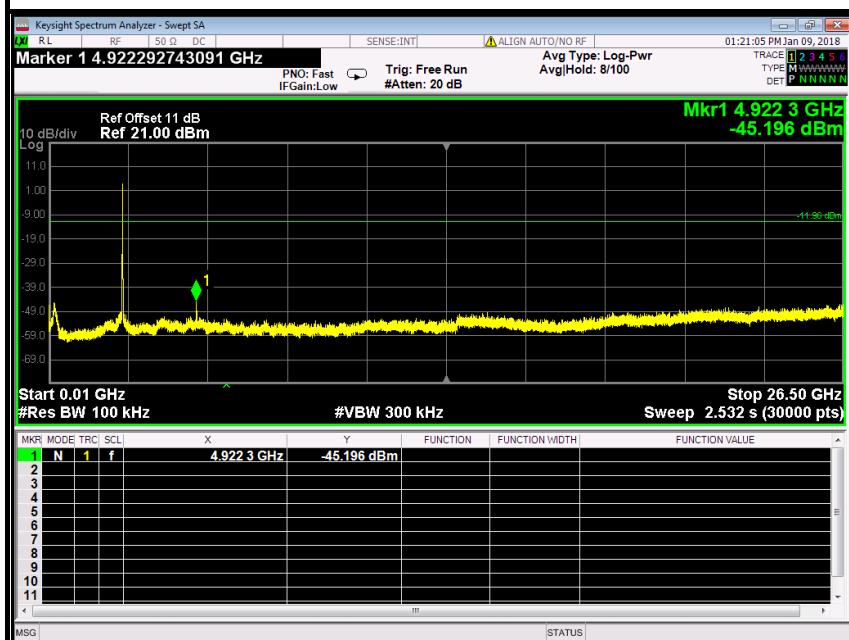
#### **CH Low (10MHz ~26.5GHz)**



#### **CH Low (2.31GHz ~2.43GHz)**



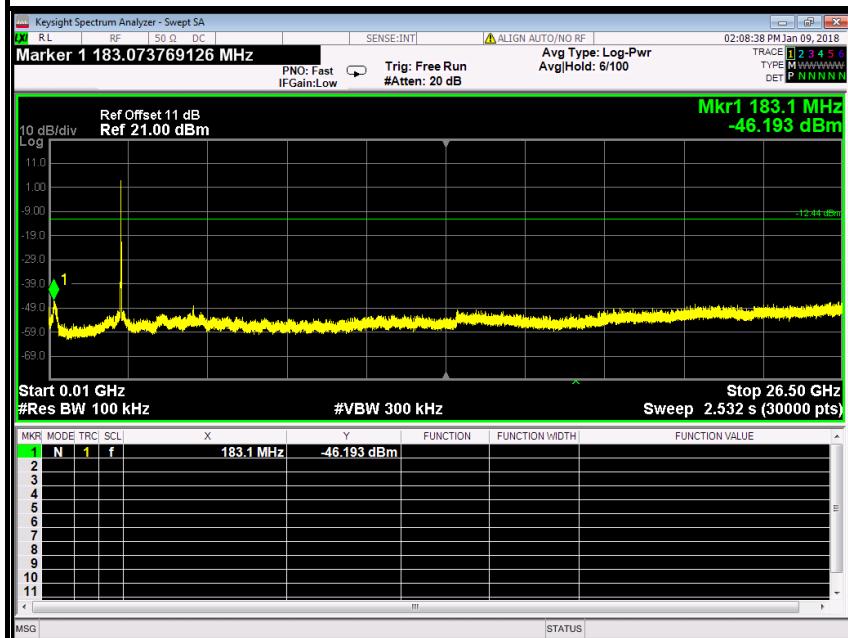
**CH Mid (10MHz ~26.5GHz)****CH Mid**

**CH High (10MHz ~26.5GHz)****CH High (2.45GHz ~2.5GHz)**

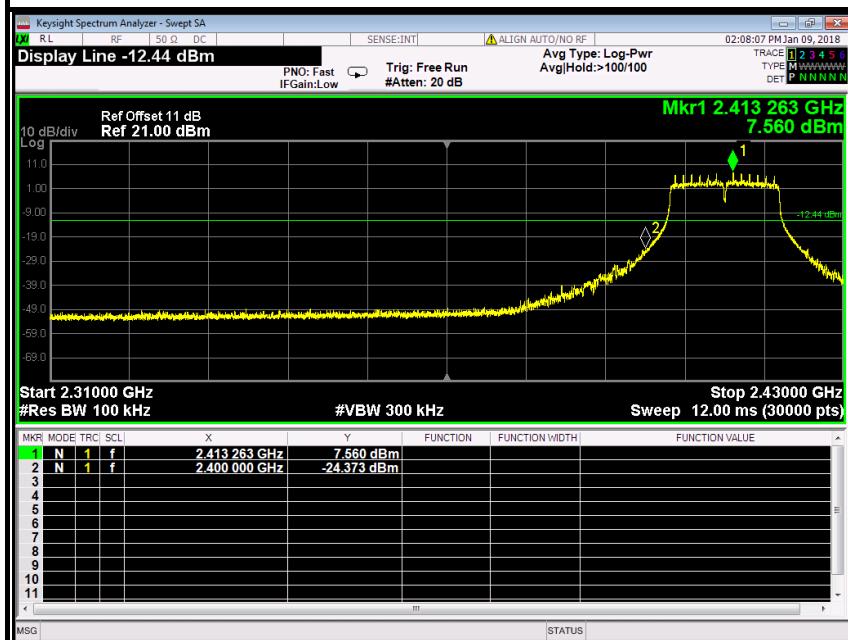


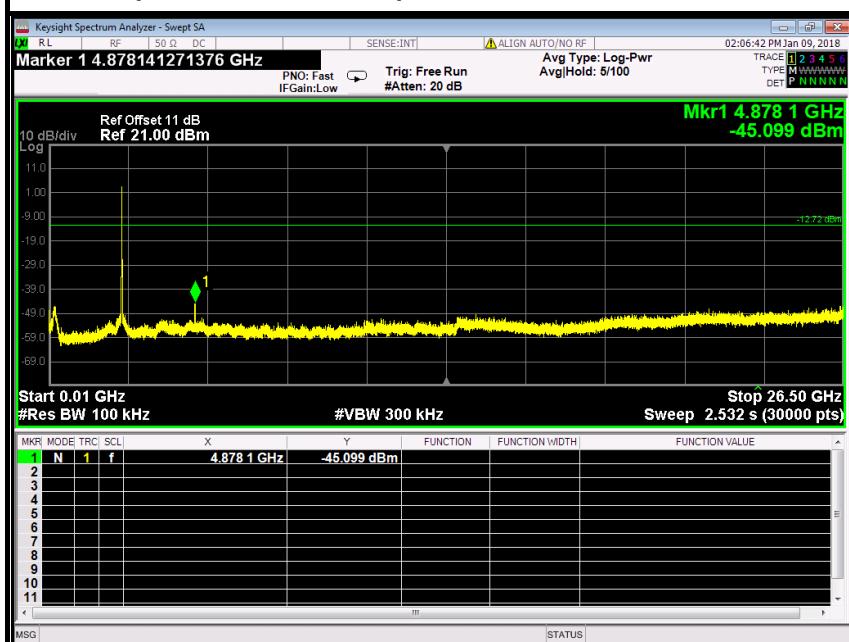
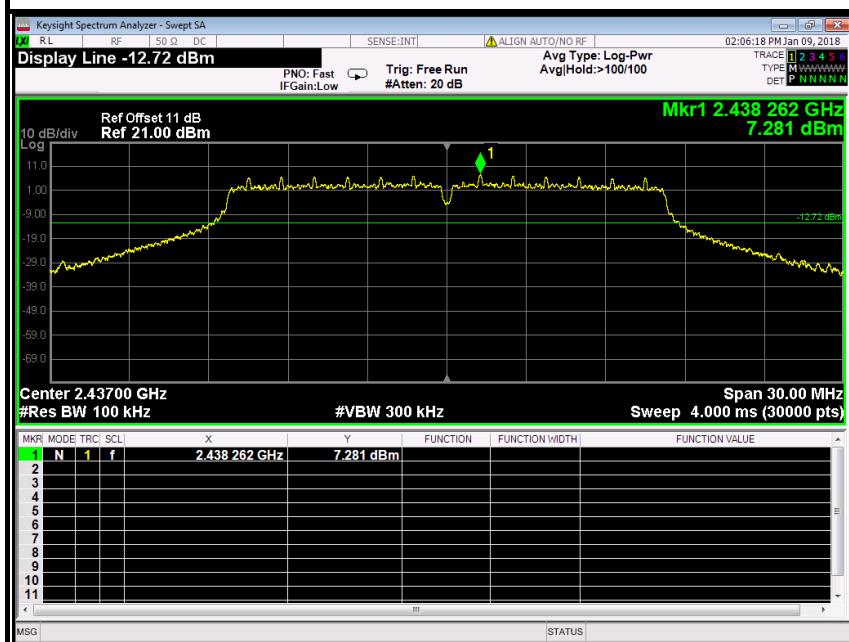
### IEEE 802.11g mode (antenna 1)

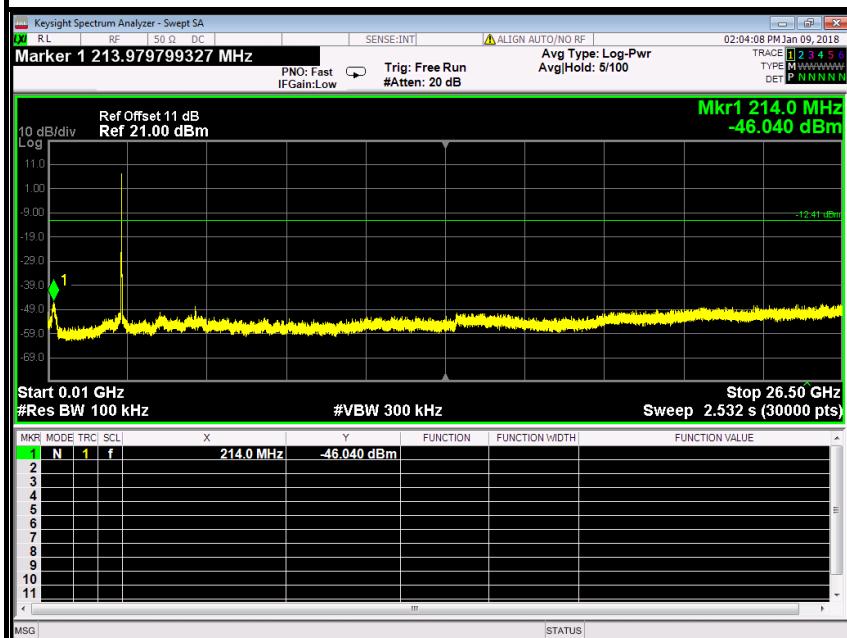
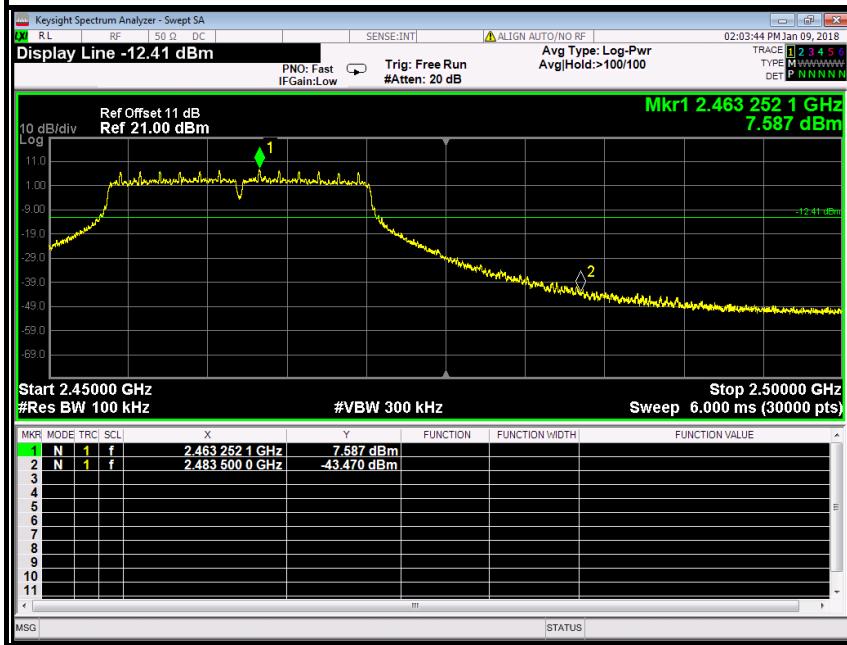
#### CH Low (10MHz ~26.5GHz)



#### CH Low (2.31GHz ~2.43GHz)



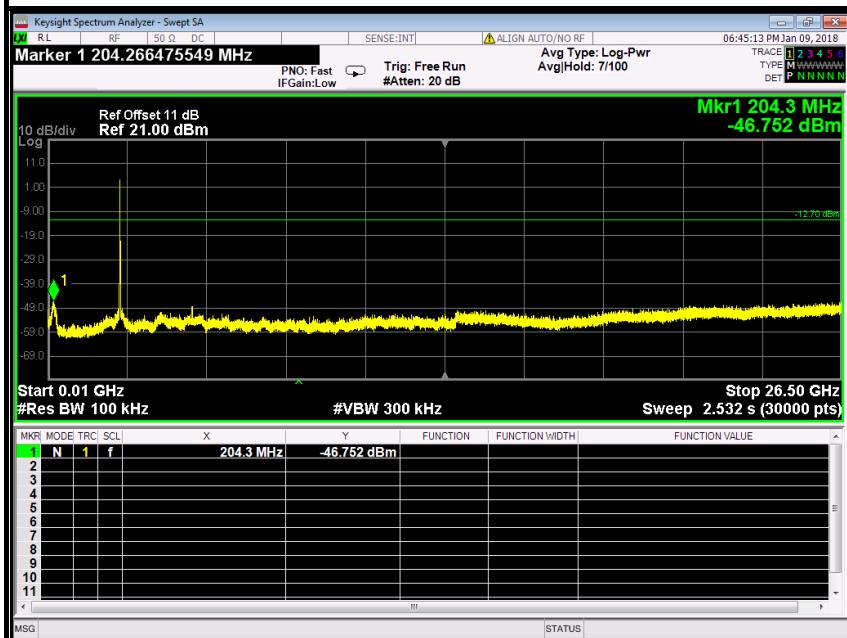
**CH Mid (10MHz ~26.5GHz)****CH Mid**

**CH High (10MHz ~26.5GHz)****CH High (2.45GHz ~2.5GHz)**

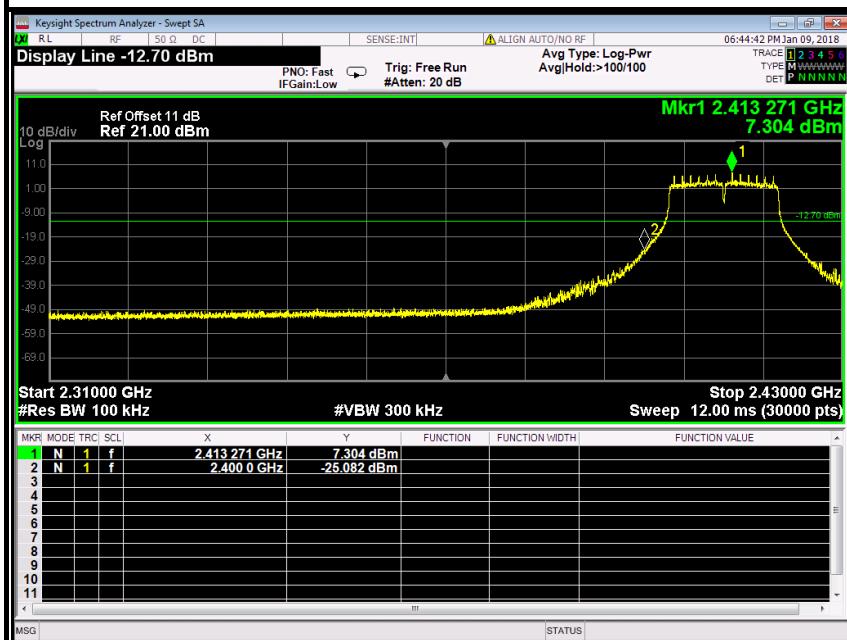


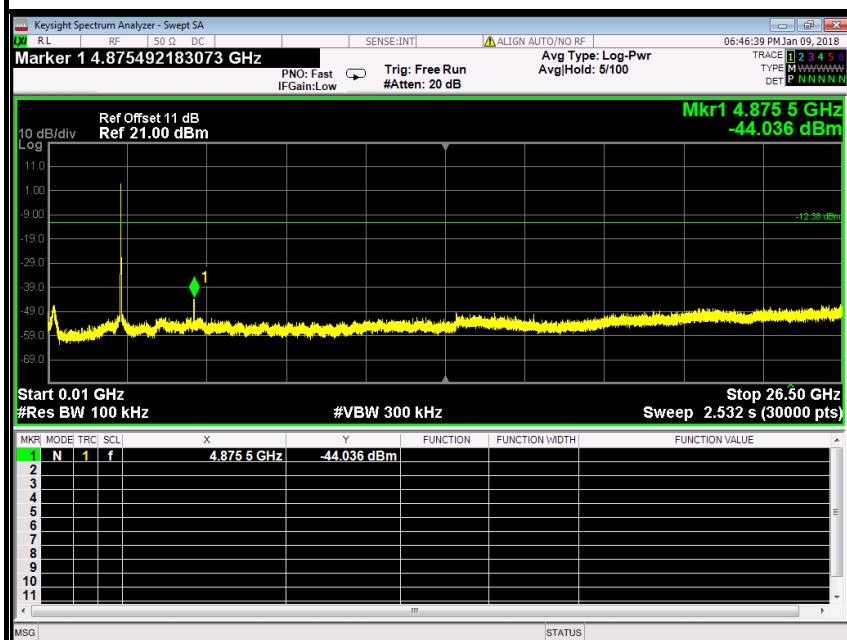
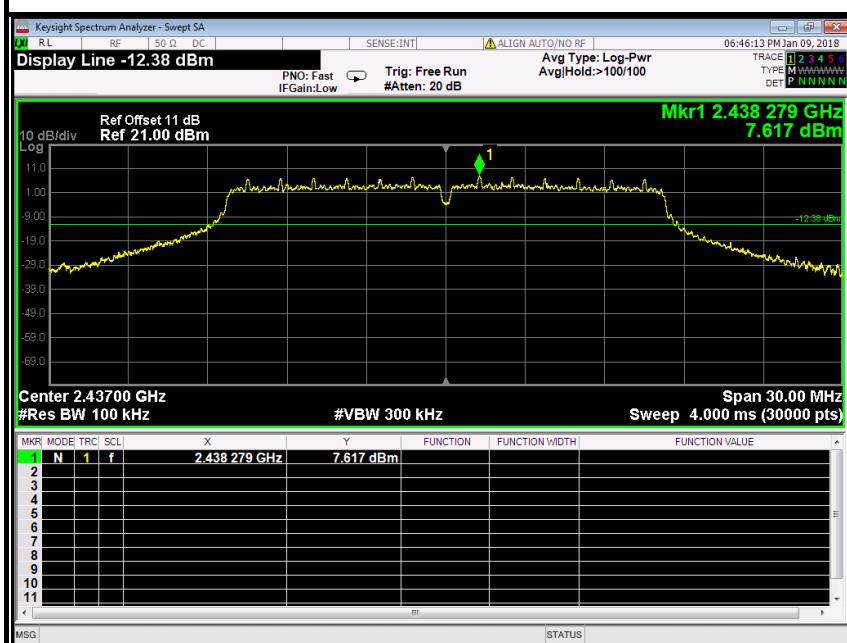
### IEEE 802.11g mode (antenna 2)

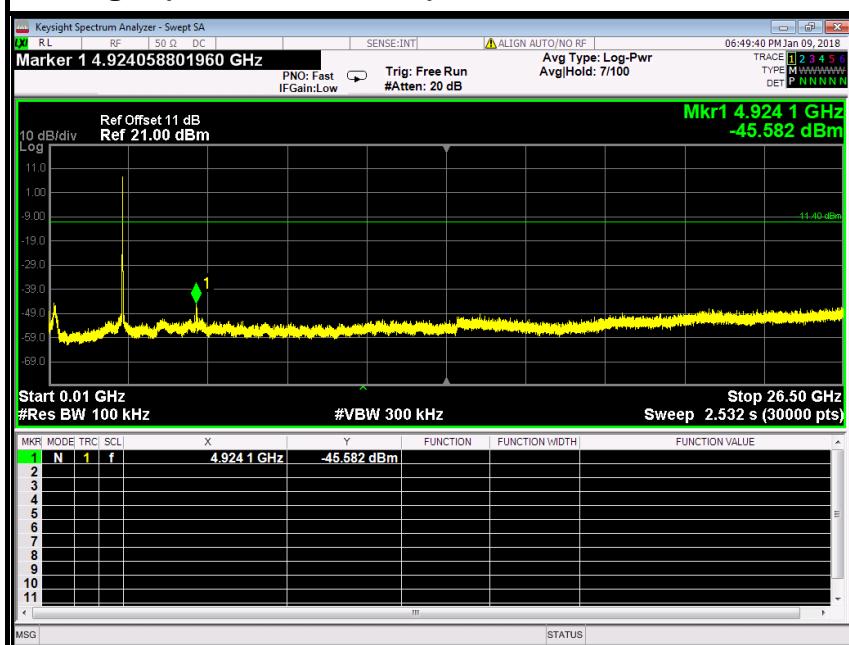
#### CH Low (10MHz ~26.5GHz)

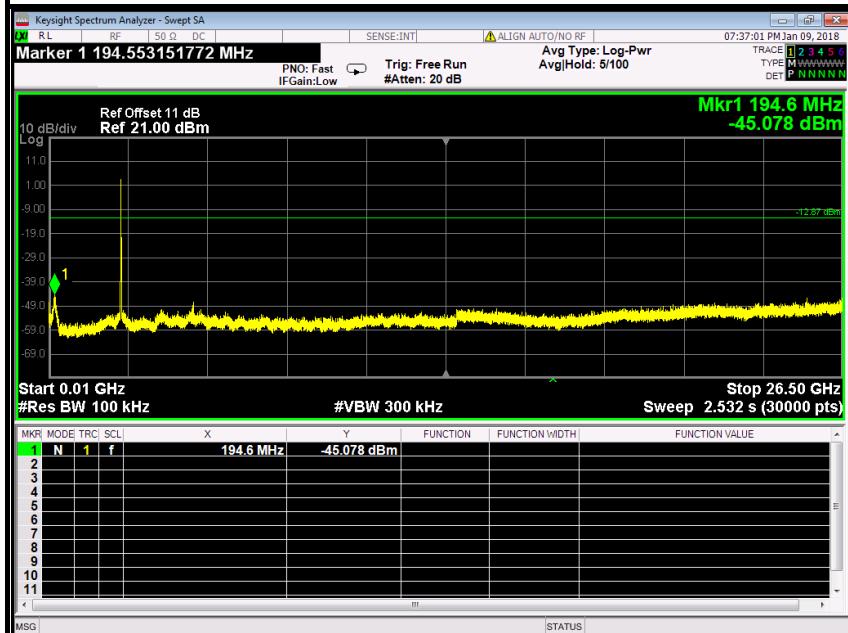
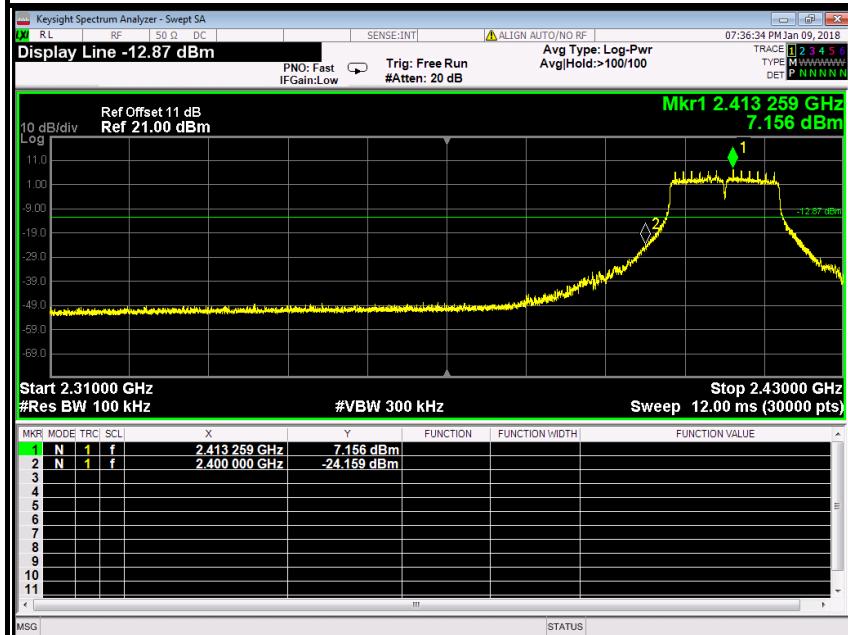


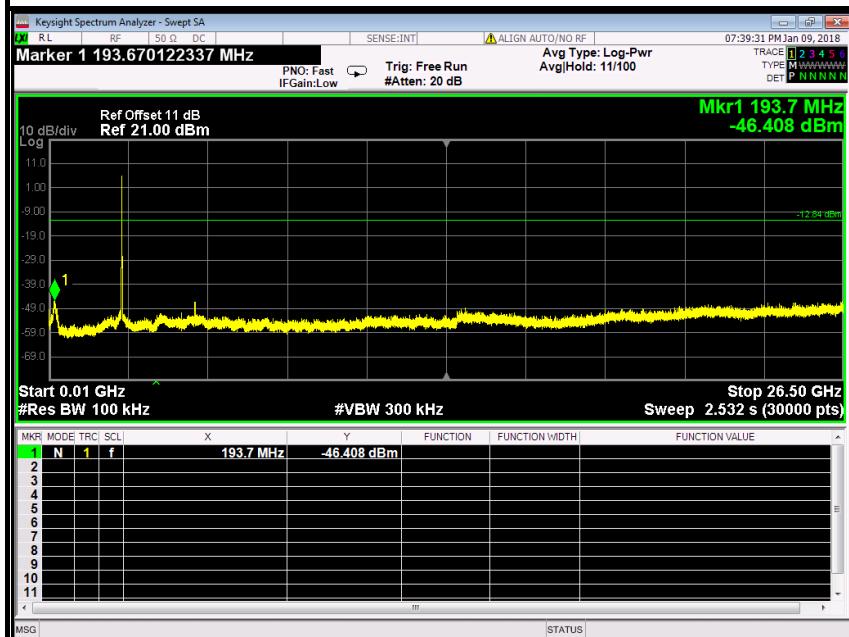
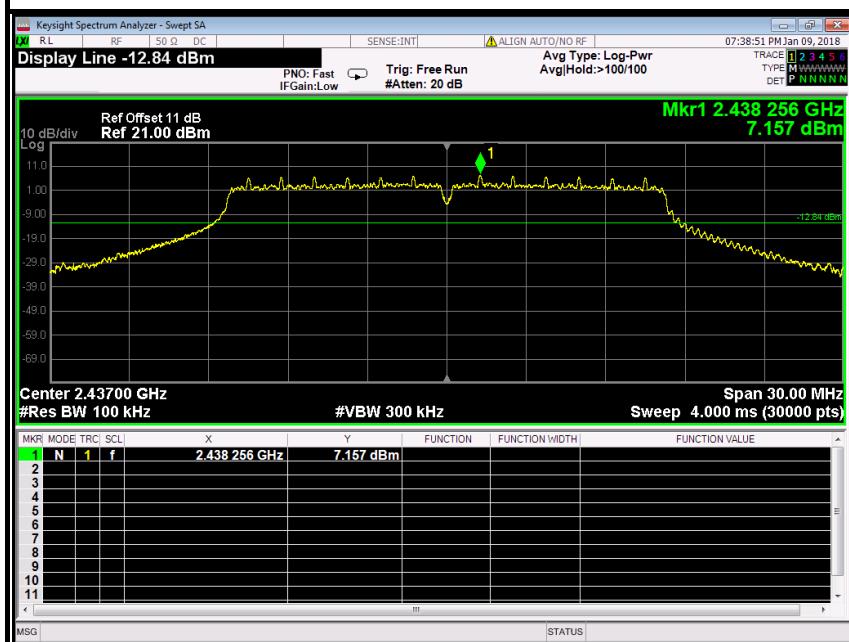
#### CH Low (2.31GHz ~2.43GHz)

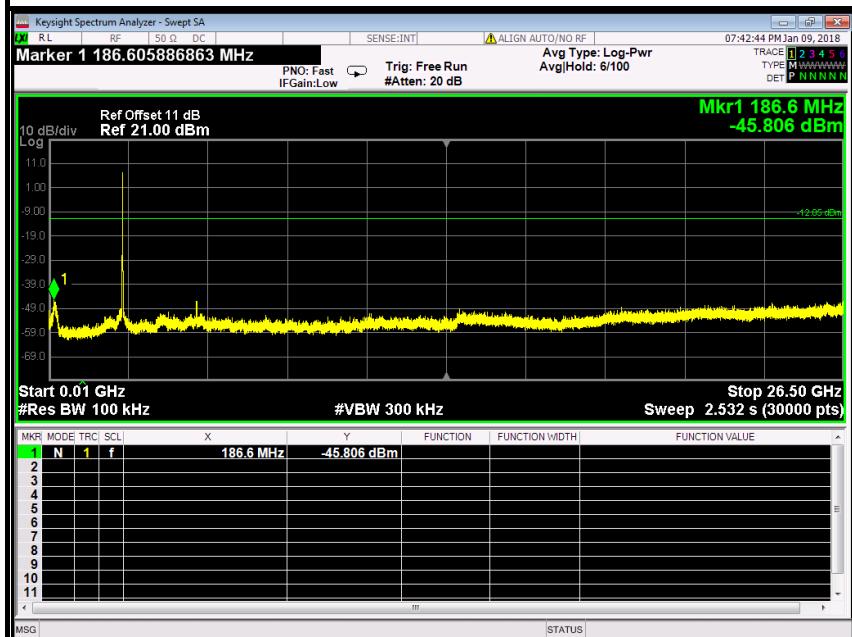


**CH Mid (10MHz ~26.5GHz)****CH Mid**

**CH High (10MHz ~26.5GHz)****CH High (2.45GHz ~2.5GHz)**

**IEEE 802.11g mode (antenna 3)****CH Low (10MHz ~26.5GHz)****CH Low (2.31GHz ~2.43GHz)**

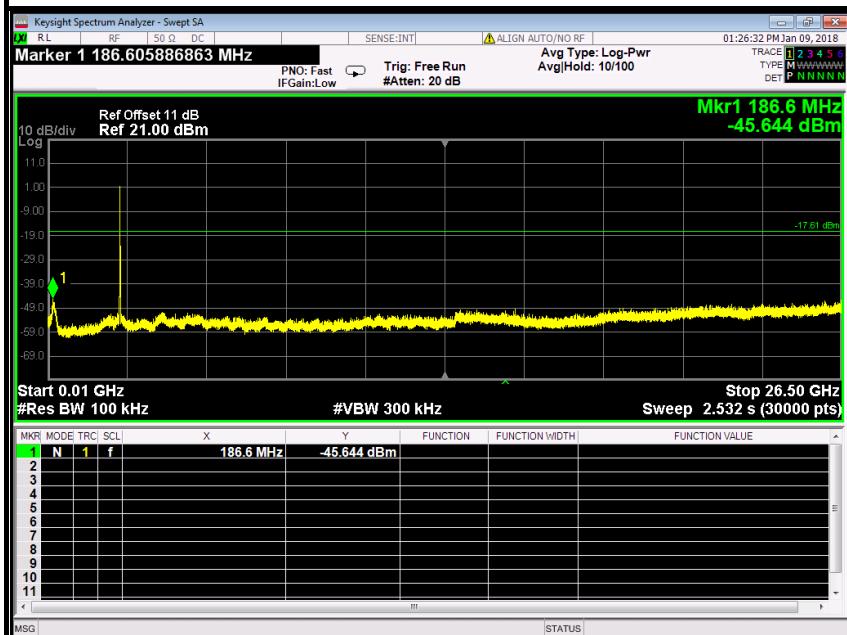
**CH Mid (10MHz ~26.5GHz)****CH Mid**

**CH High (10MHz ~26.5GHz)****CH High (2.45GHz ~2.5GHz)**

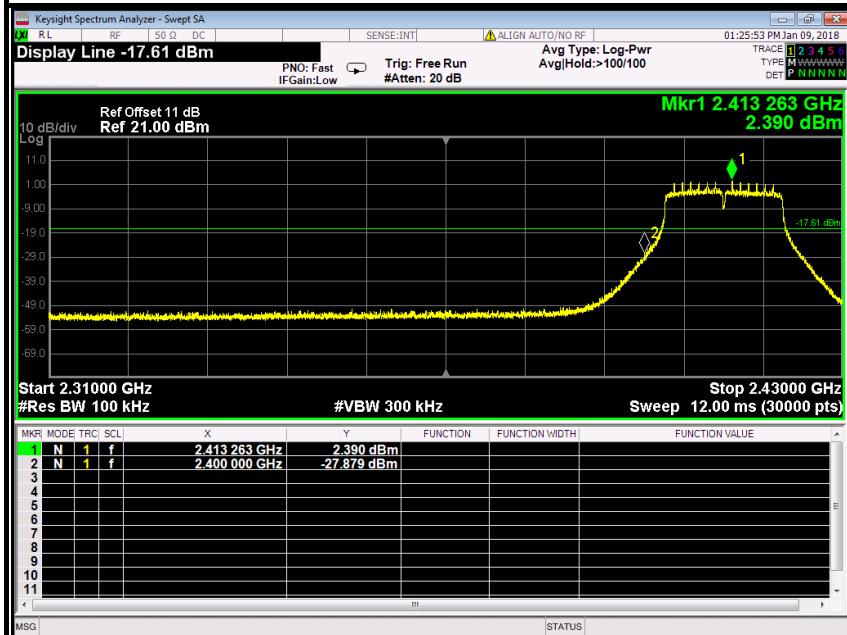


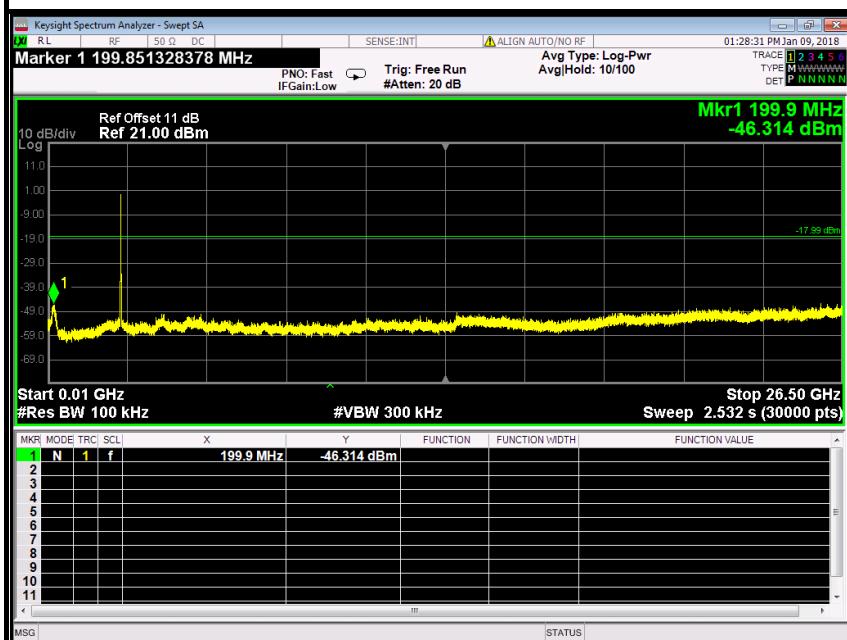
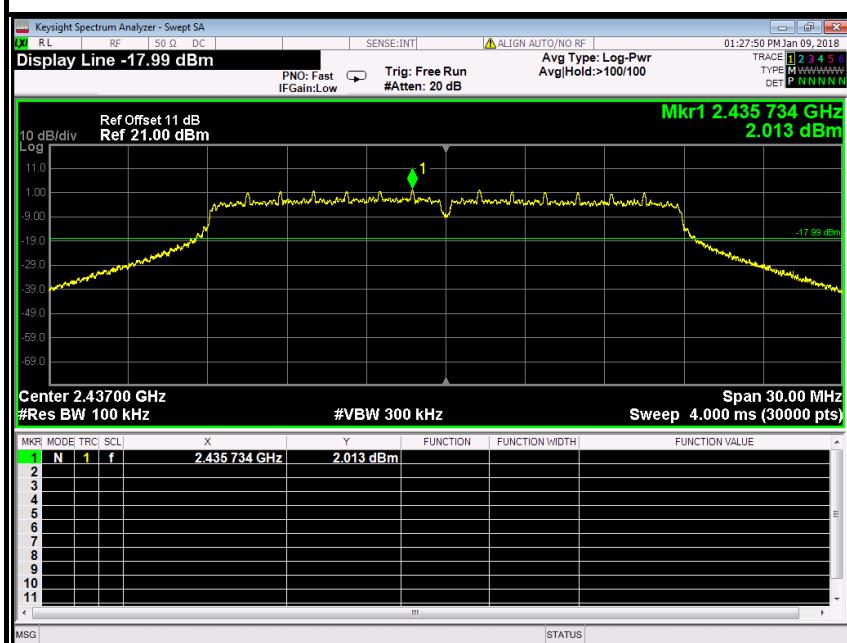
### IEEE 802.11n HT20 MHz mode (antenna 0)

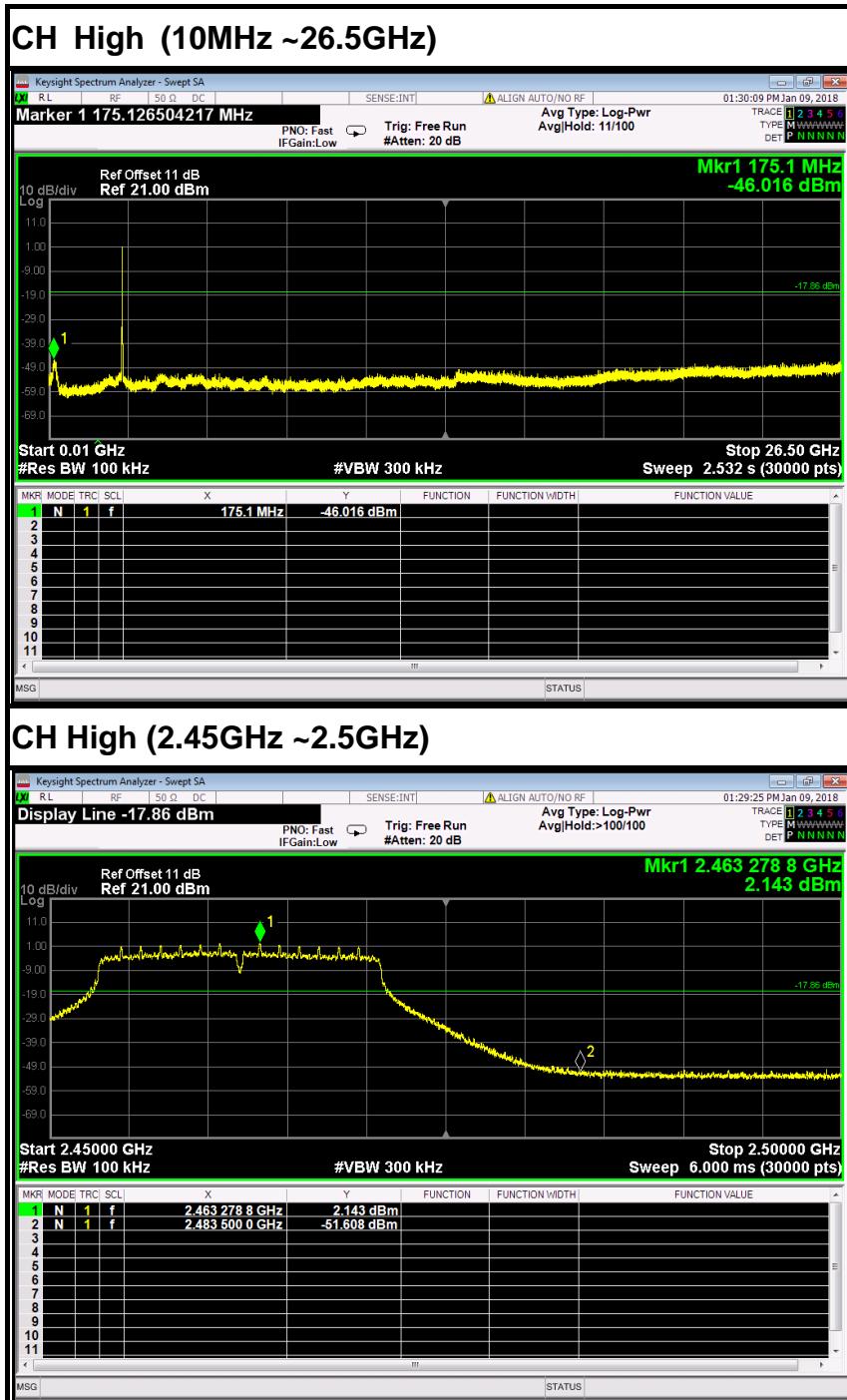
#### CH Low (10MHz ~26.5GHz)

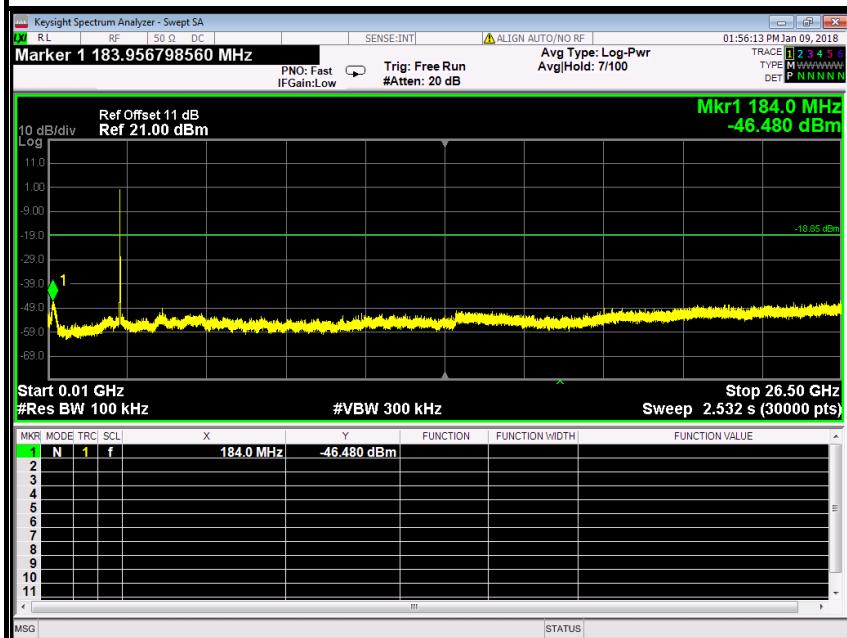
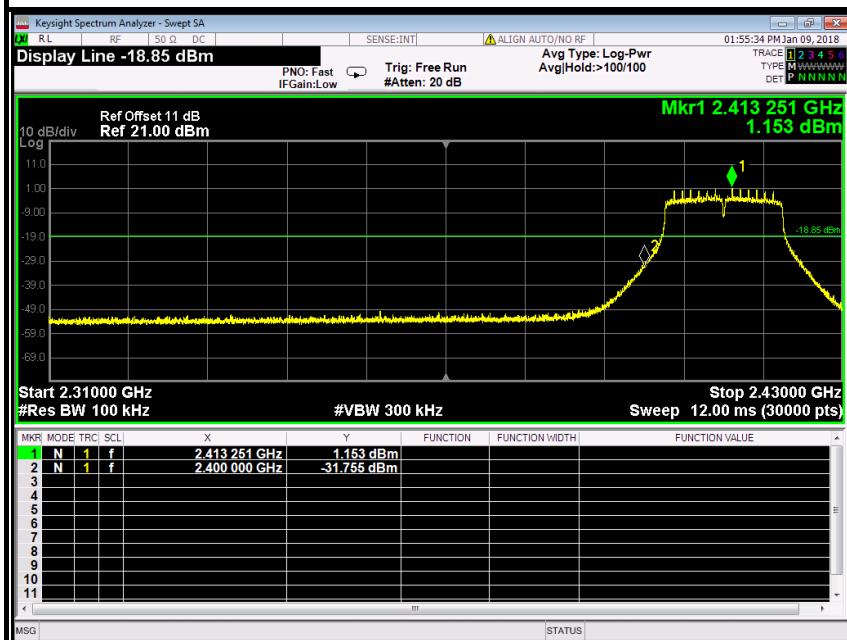


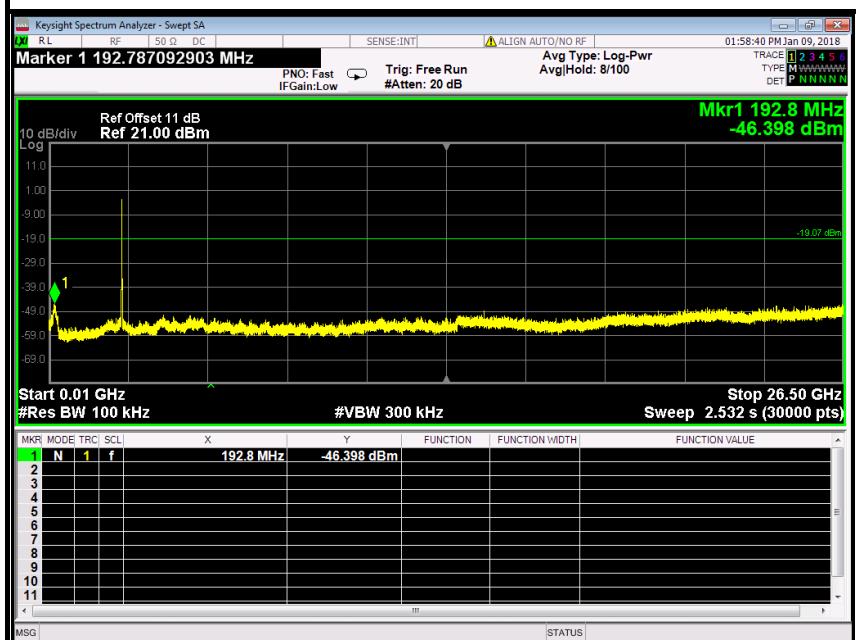
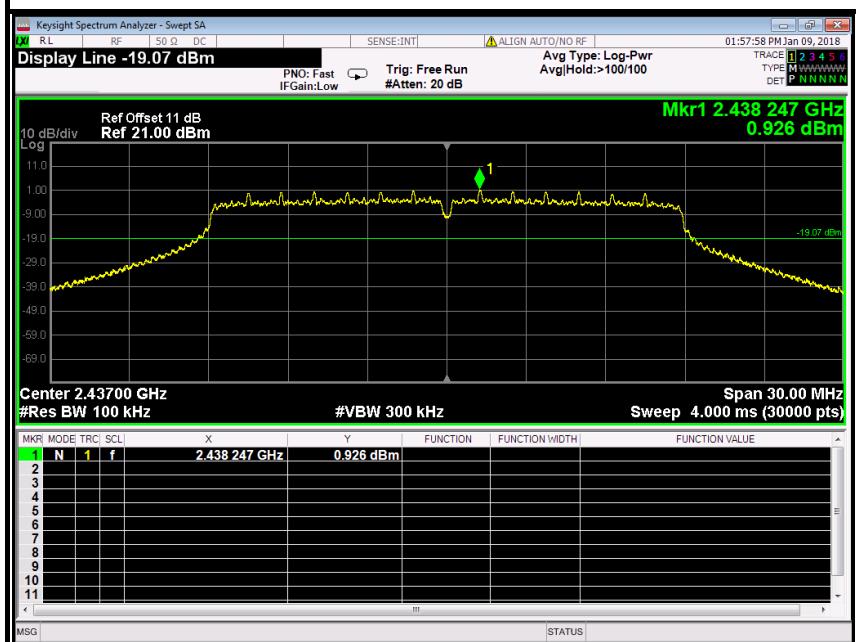
#### CH Low (2.31GHz ~2.43GHz)

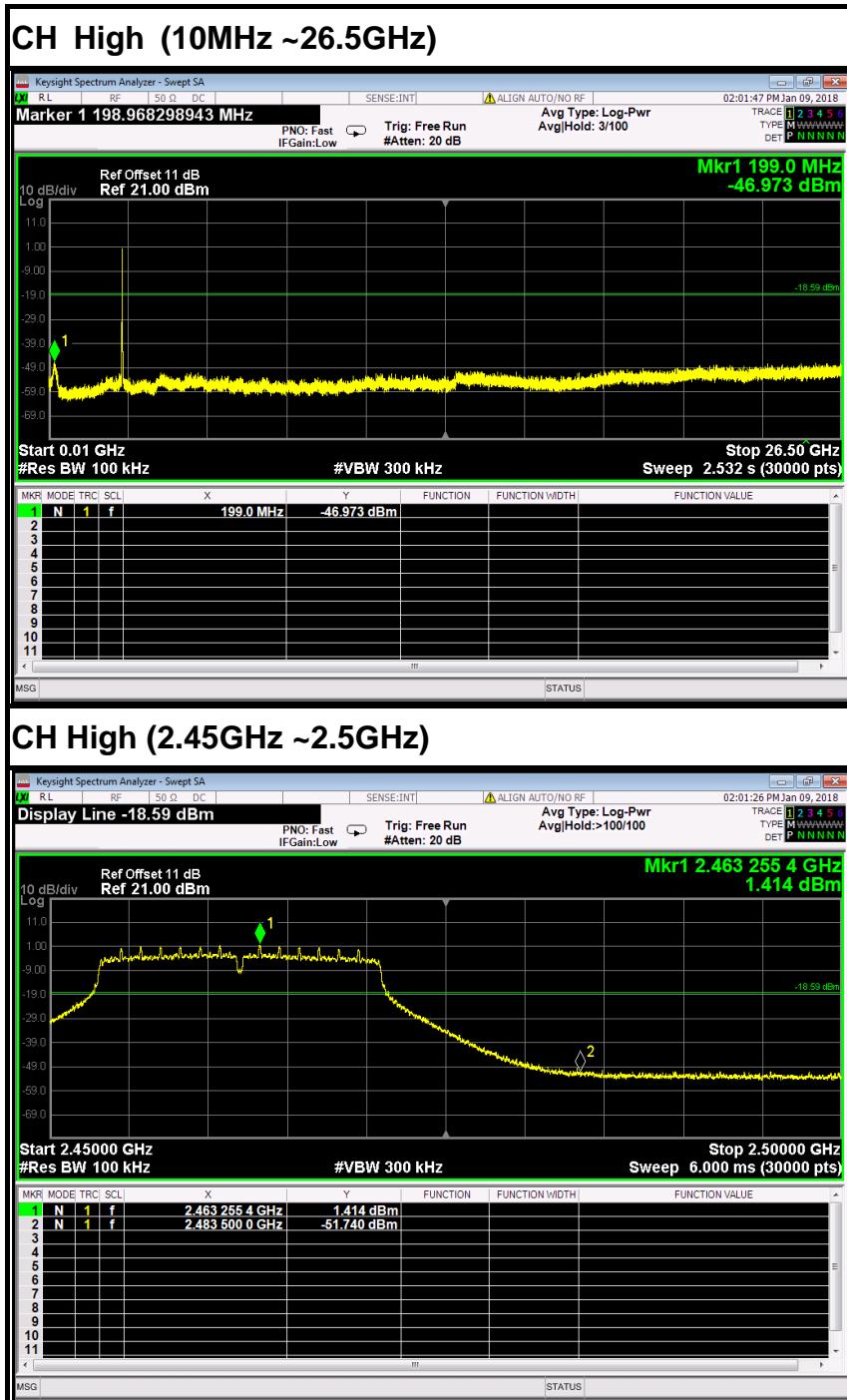


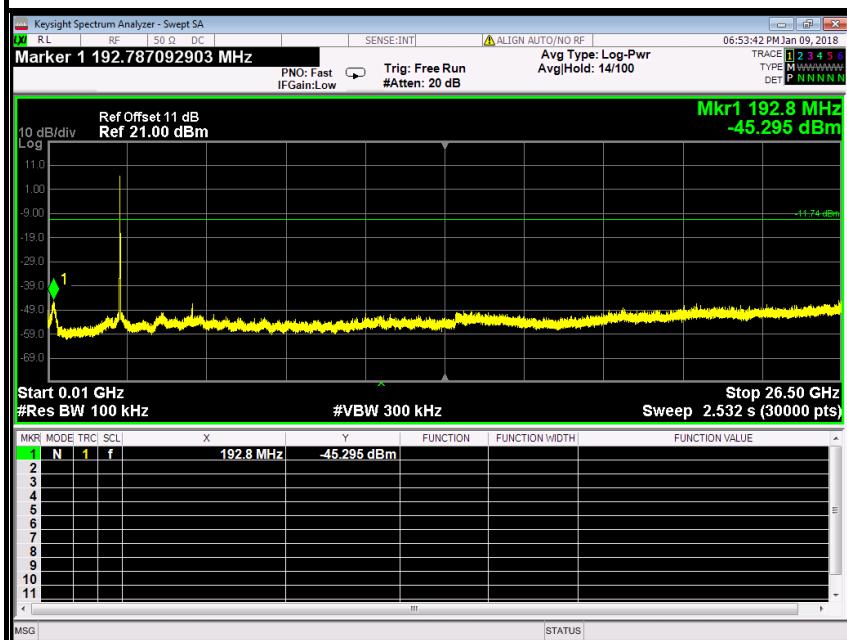
**CH Mid (10MHz ~26.5GHz)****CH Mid**



**IEEE 802.11n HT20 MHz mode (antenna 1)****CH Low (10MHz ~26.5GHz)****CH Low (2.31GHz ~2.43GHz)**

**CH Mid (10MHz ~26.5GHz)****CH Mid**



**IEEE 802.11n HT20 MHz mode (antenna 2)****CH Low (10MHz ~26.5GHz)****CH Low (2.31GHz ~2.43GHz)**