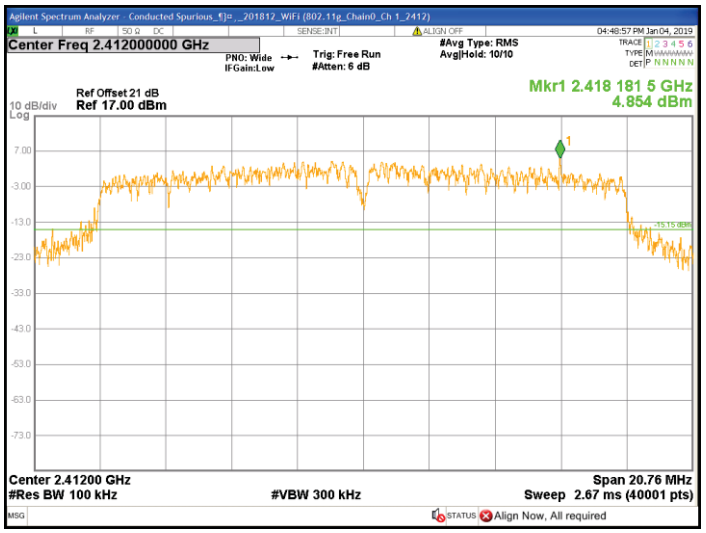
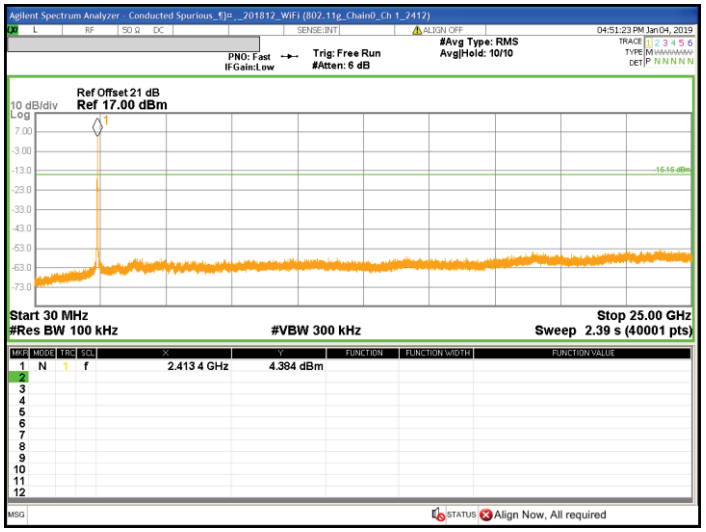
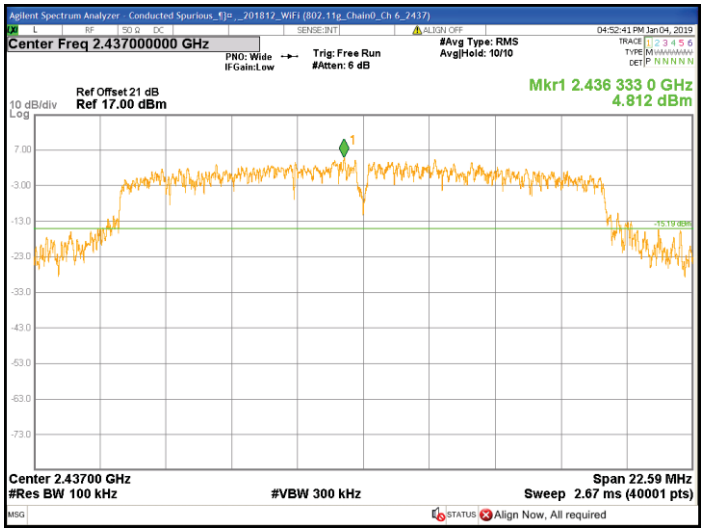
Chain0 : Conducted Spurious @ 802.11g Mode Ch 1



Chain0 : Conducted Spurious @ 802.11g Mode Ch 1



Chain0 : Conducted Spurious @ 802.11g Mode Ch 6



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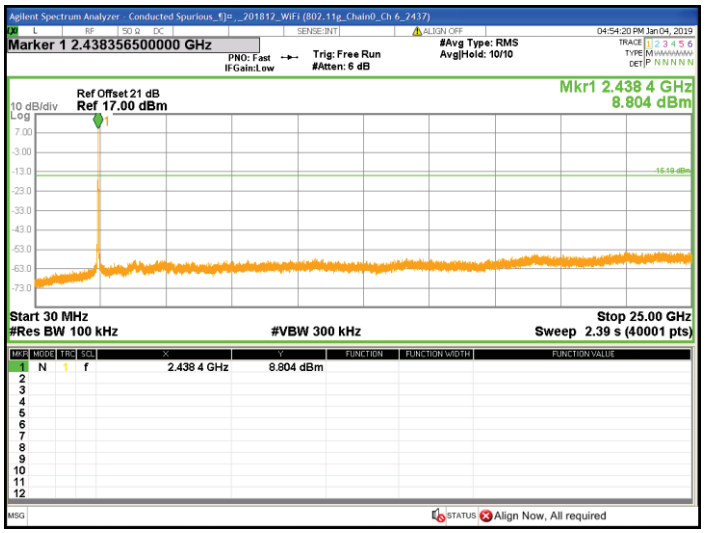
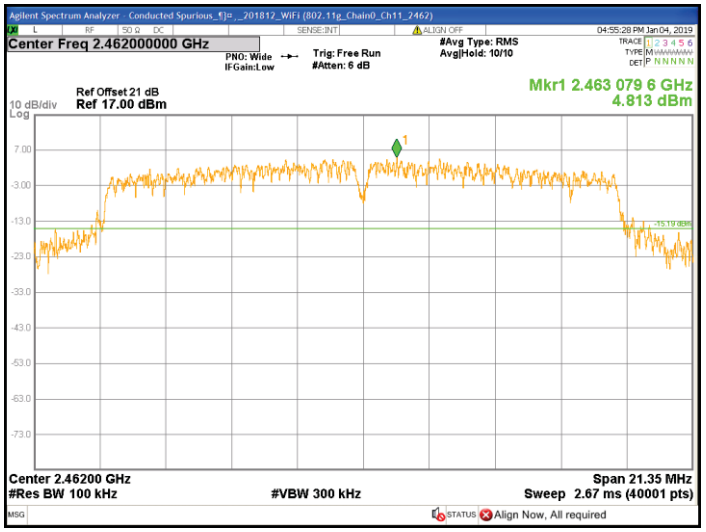


Chain0 : Conducted Spurious @ 802.11g Mode Ch11



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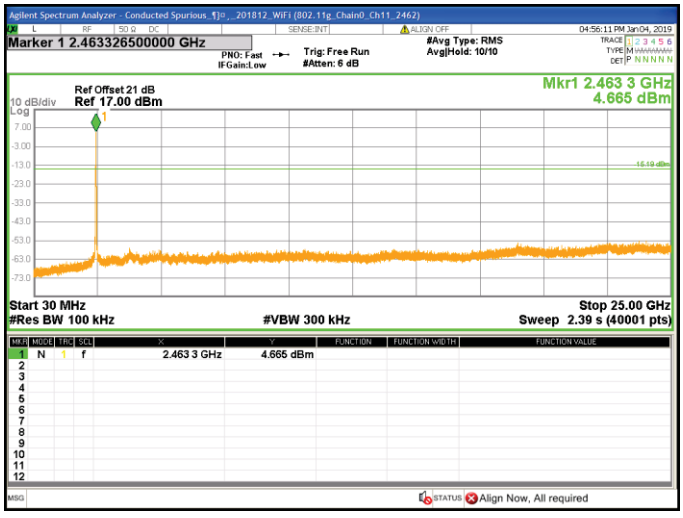
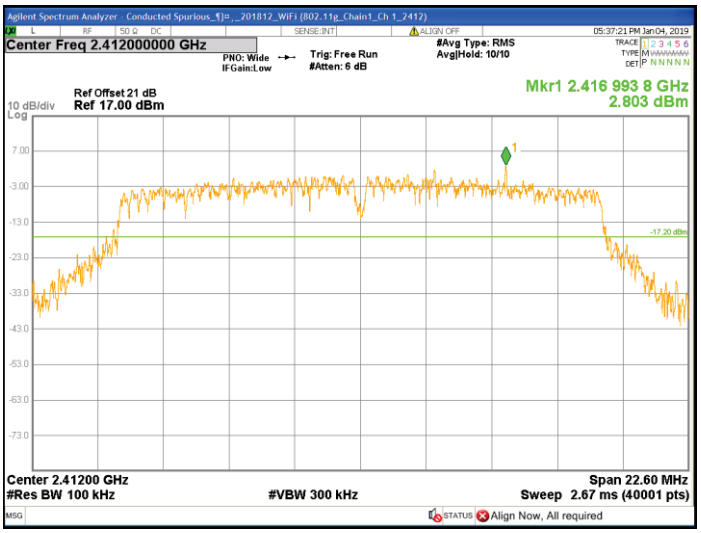
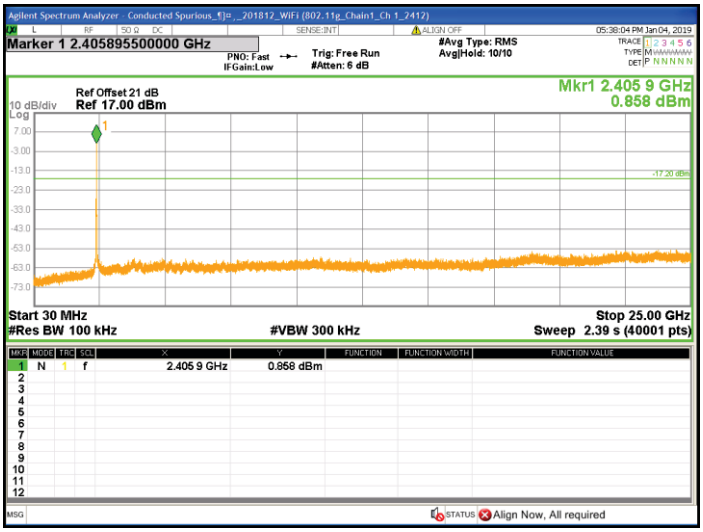


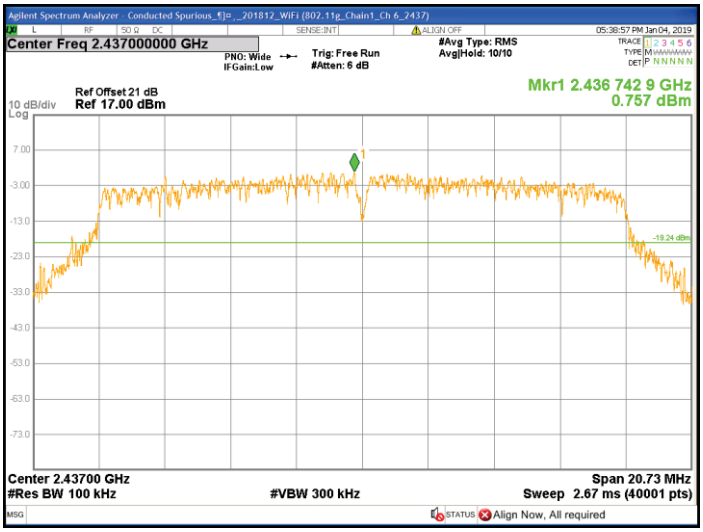
Chain1 : Conducted Spurious @ 802.11g Mode Ch 1



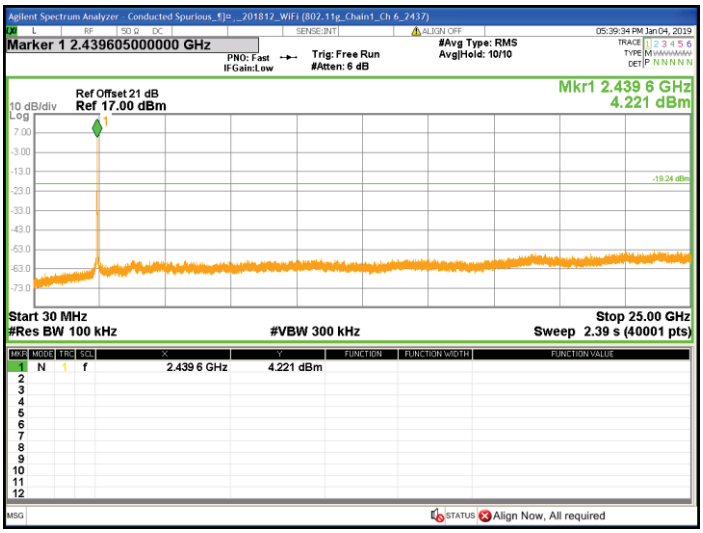
Chain1 : Conducted Spurious @ 802.11g Mode Ch 1



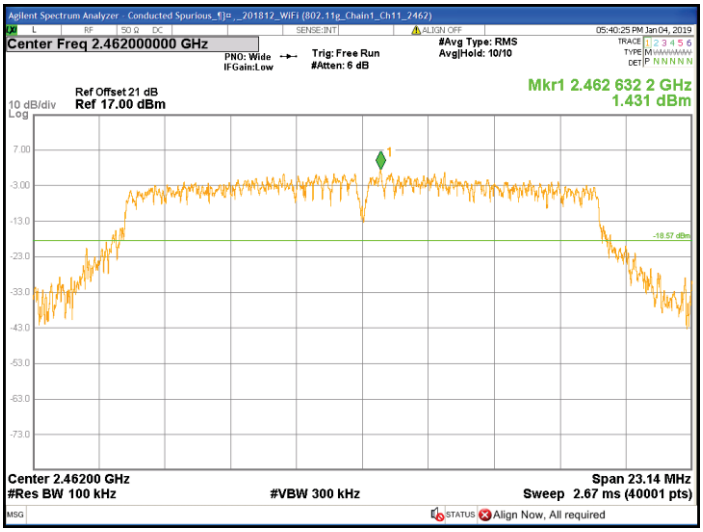
Chain1 : Conducted Spurious @ 802.11g Mode Ch 6



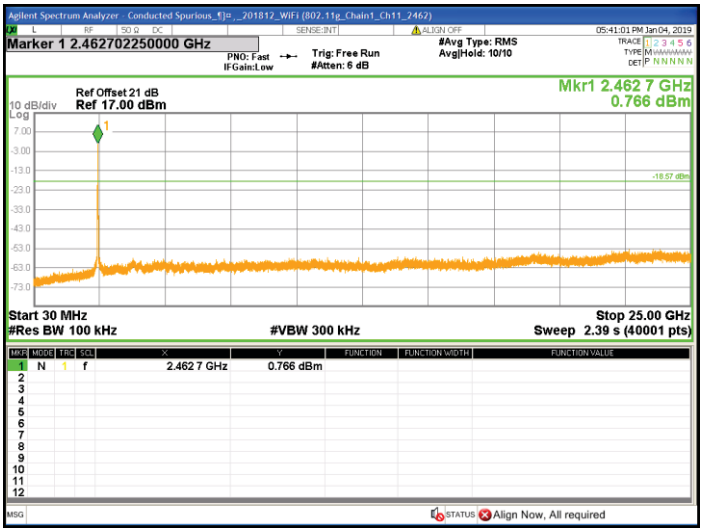
Chain1 : Conducted Spurious @ 802.11g Mode Ch 6



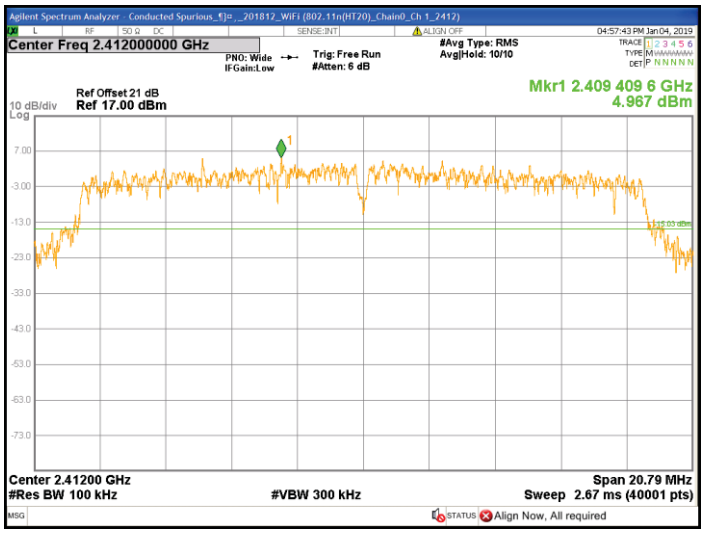
Chain1 : Conducted Spurious @ 802.11g Mode Ch11



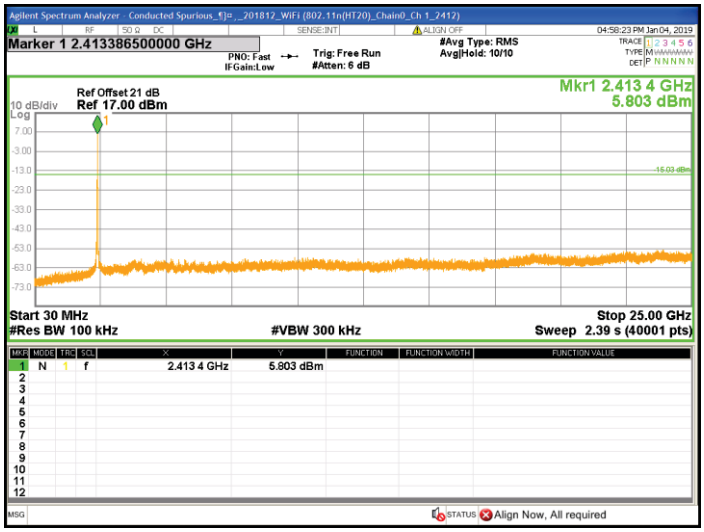
Chain1 : Conducted Spurious @ 802.11g Mode Ch11



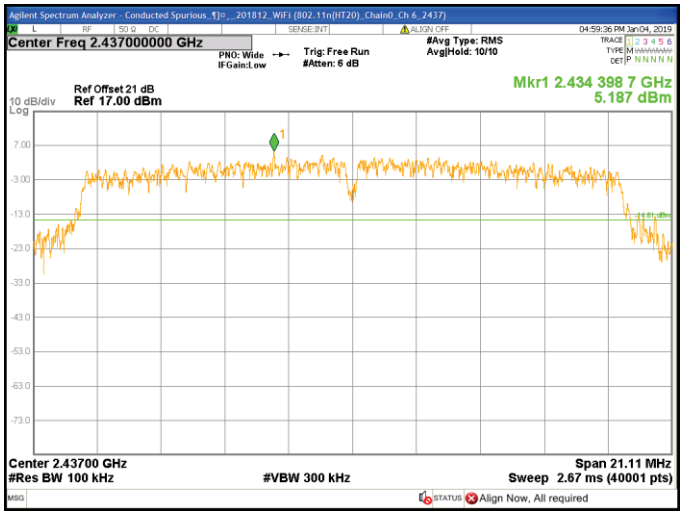
Chain0 : Conducted Spurious @ 802.11n(HT20) Mode Ch 1



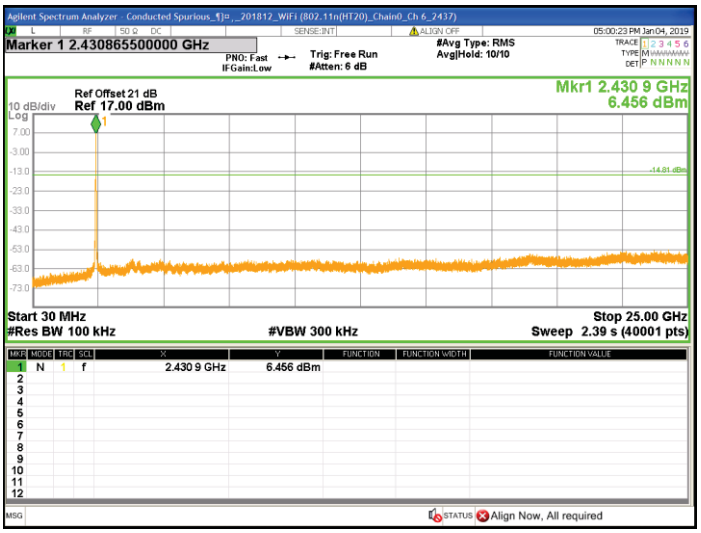
Chain0 : Conducted Spurious @ 802.11n(HT20) Mode Ch 1



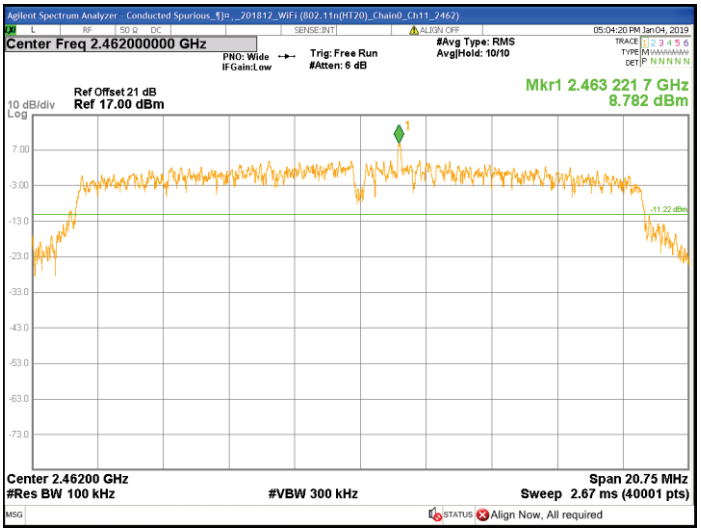
Chain0 : Conducted Spurious @ 802.11n(HT20) Mode Ch 6



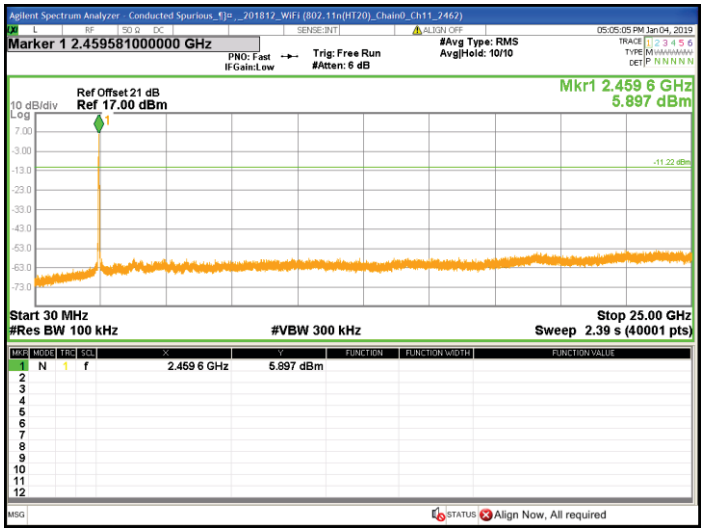
Chain0 : Conducted Spurious @ 802.11n(HT20) Mode Ch 6



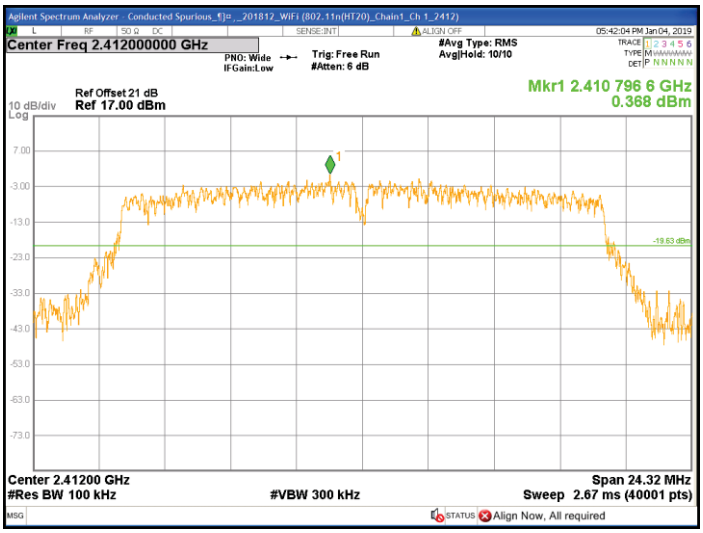
Chain0 : Conducted Spurious @ 802.11n(HT20) Mode Ch11



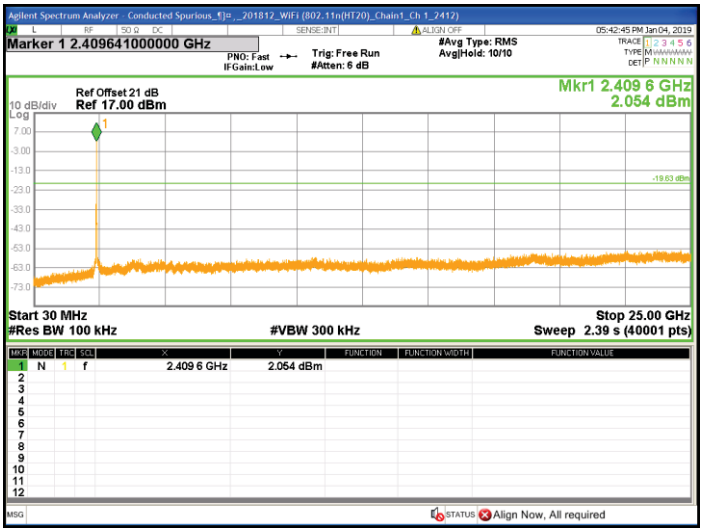
Chain0 : Conducted Spurious @ 802.11n(HT20) Mode Ch11



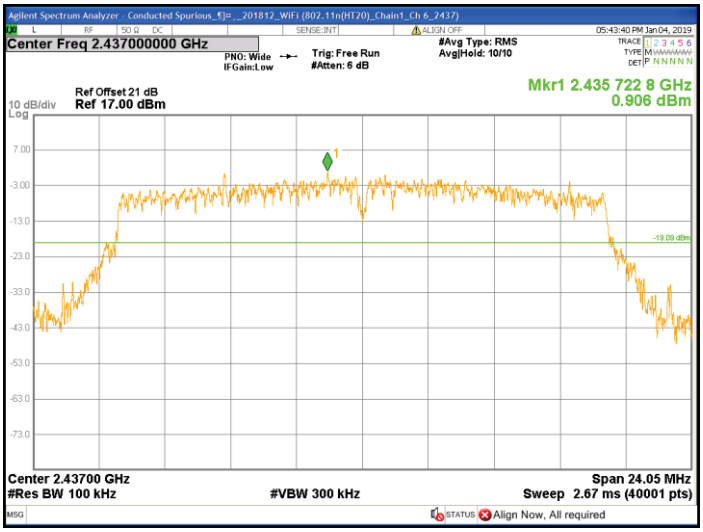
Chain1 : Conducted Spurious @ 802.11n(HT20) Mode Ch 1



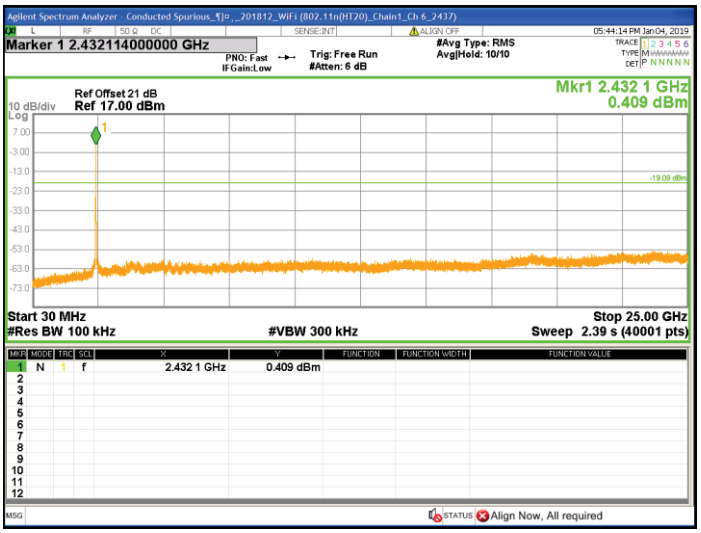
Chain1 : Conducted Spurious @ 802.11n(HT20) Mode Ch 1



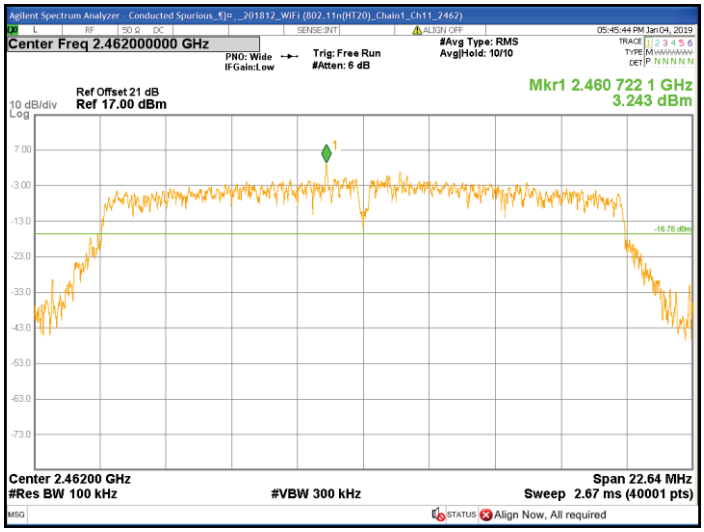
Chain1 : Conducted Spurious @ 802.11n(HT20) Mode Ch 6



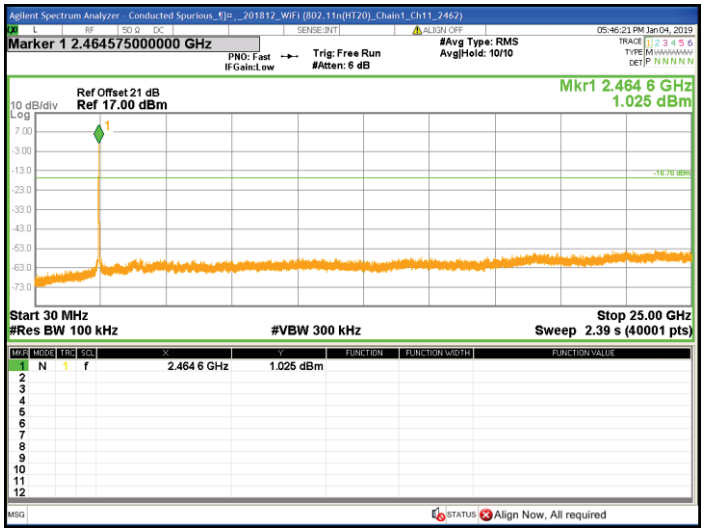
Chain1 : Conducted Spurious @ 802.11n(HT20) Mode Ch 6



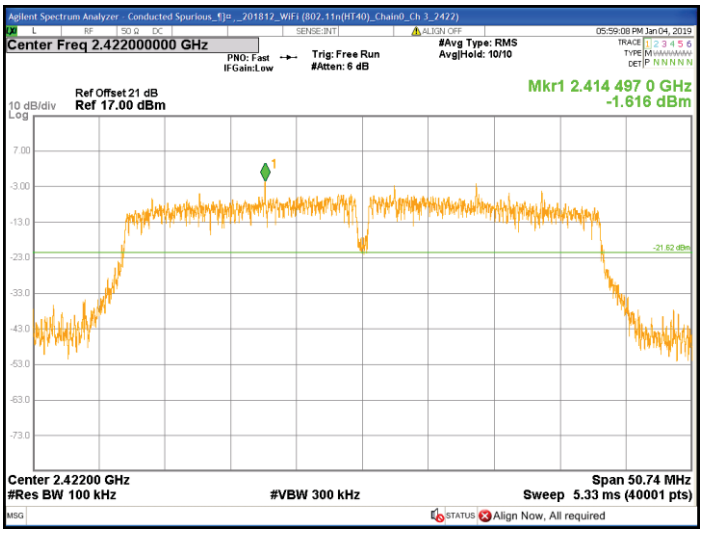
Chain1 : Conducted Spurious @ 802.11n(HT20) Mode Ch11



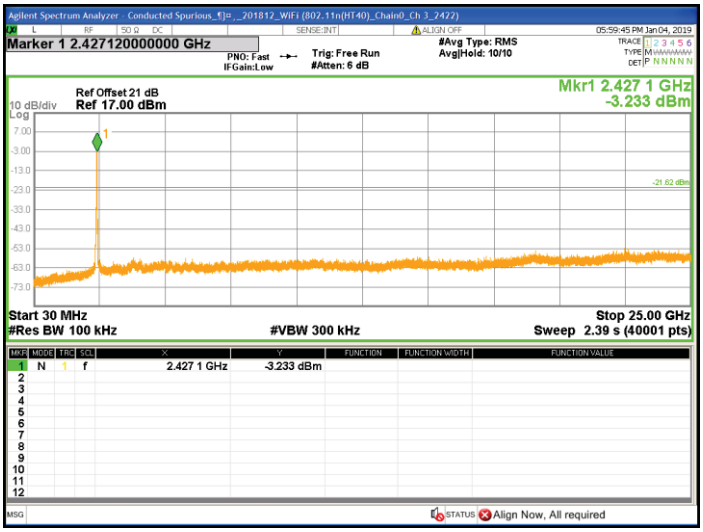
Chain1 : Conducted Spurious @ 802.11n(HT20) Mode Ch11



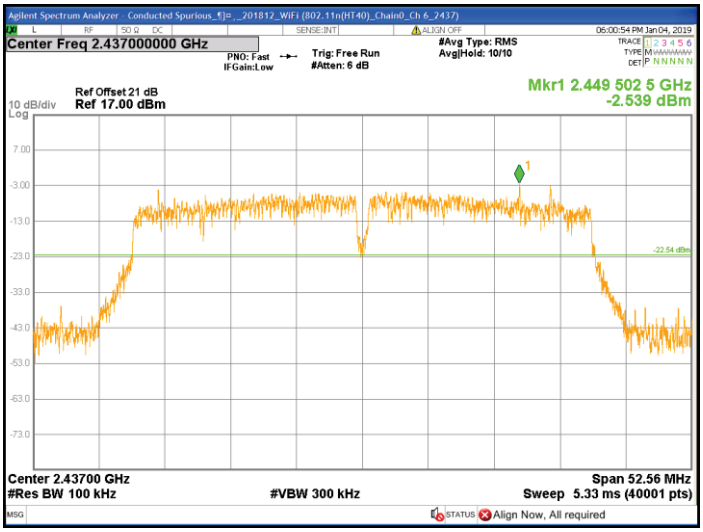
Chain0 : Conducted Spurious @ 802.11n(HT40) Mode Ch3



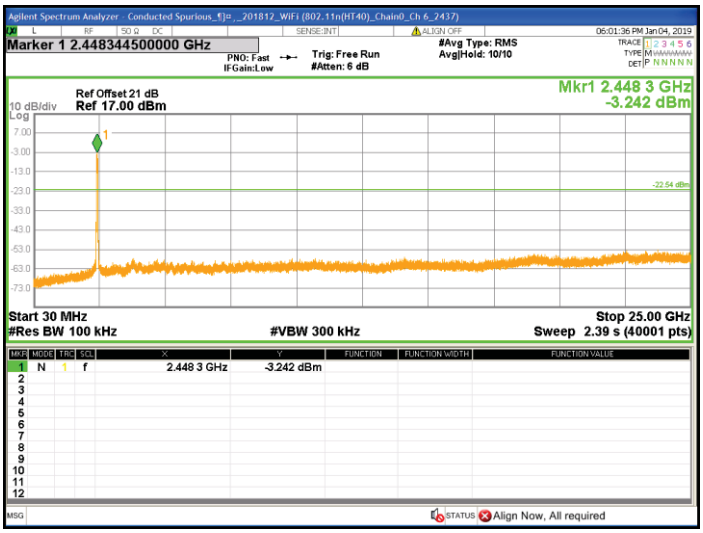
Chain0 : Conducted Spurious @ 802.11n(HT40) Mode Ch3



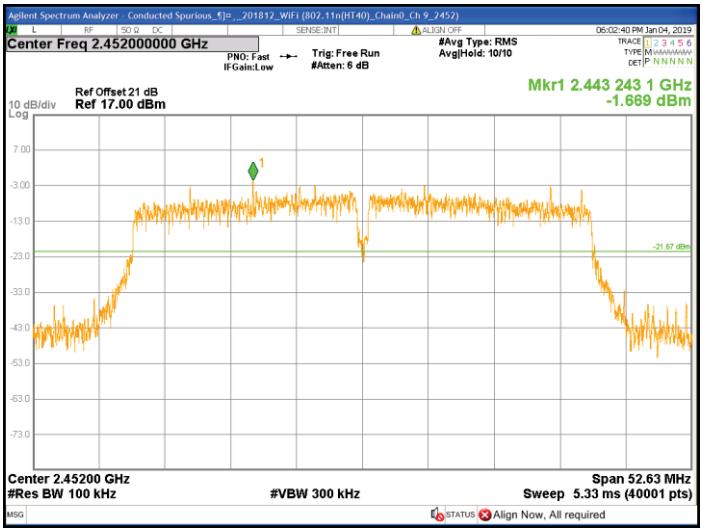
Chain0 : Conducted Spurious @ 802.11n(HT40) Mode Ch6



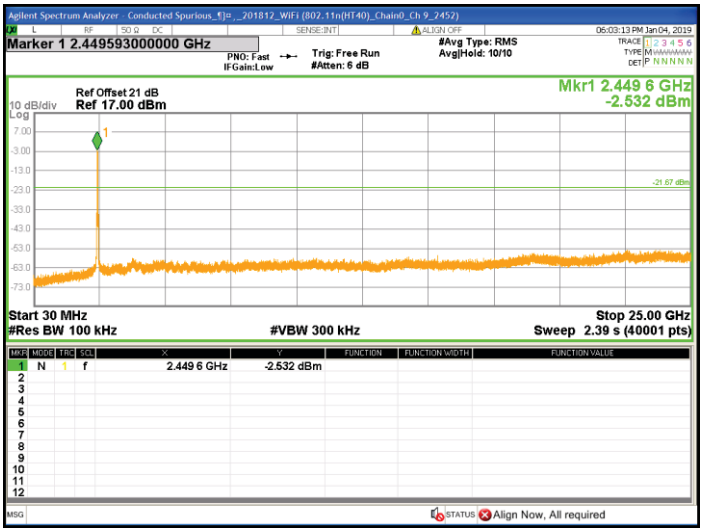
Chain0 : Conducted Spurious @ 802.11n(HT40) Mode Ch6



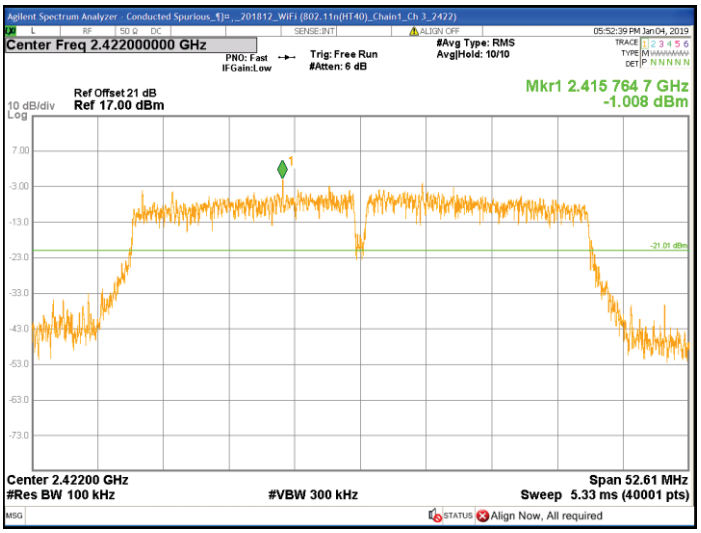
Chain0 : Conducted Spurious @ 802.11n(HT40) Mode Ch9



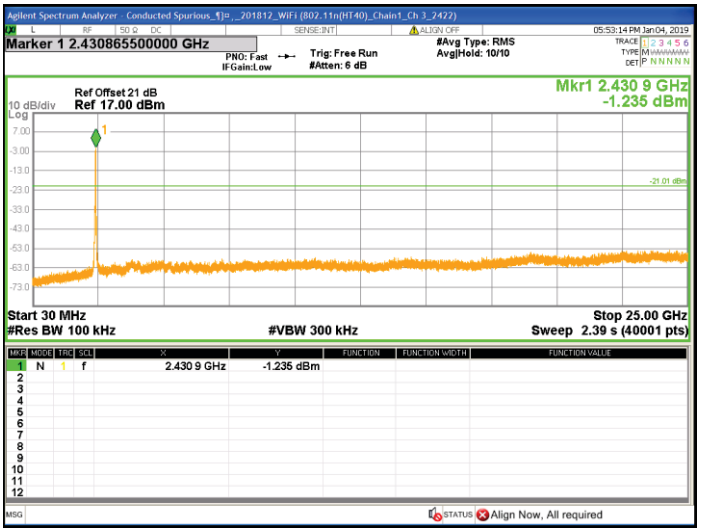
Chain0 : Conducted Spurious @ 802.11n(HT40) Mode Ch9



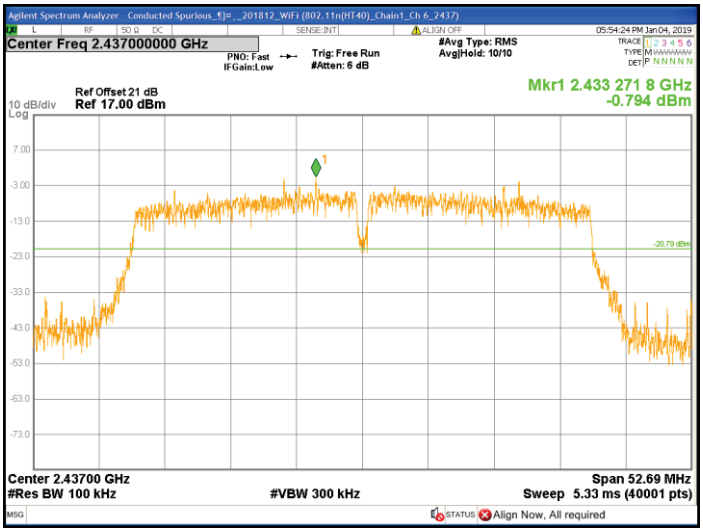
Chain1 : Conducted Spurious @ 802.11n(HT40) Mode Ch3



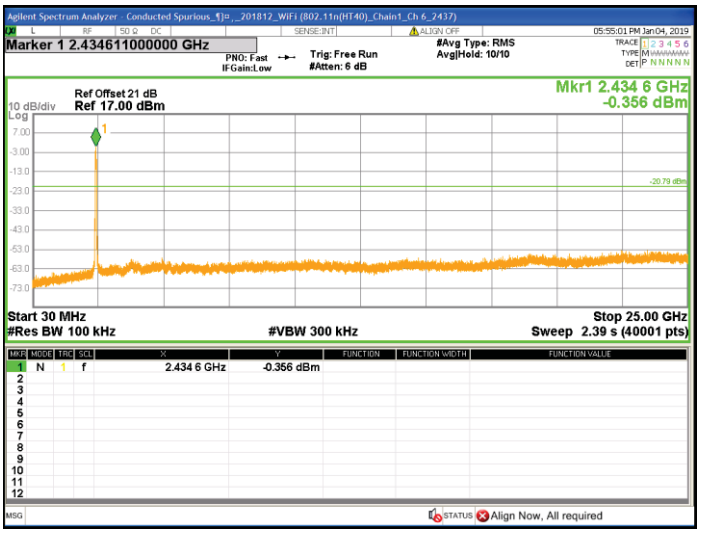
Chain1 : Conducted Spurious @ 802.11n(HT40) Mode Ch3



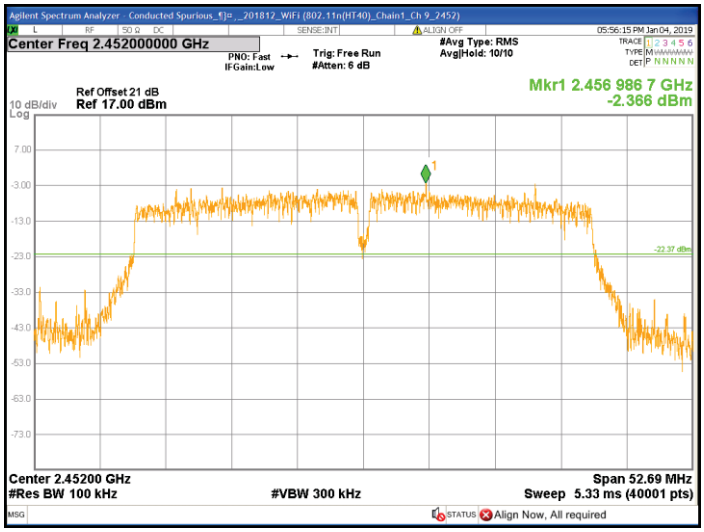
Chain1 : Conducted Spurious @ 802.11n(HT40) Mode Ch6



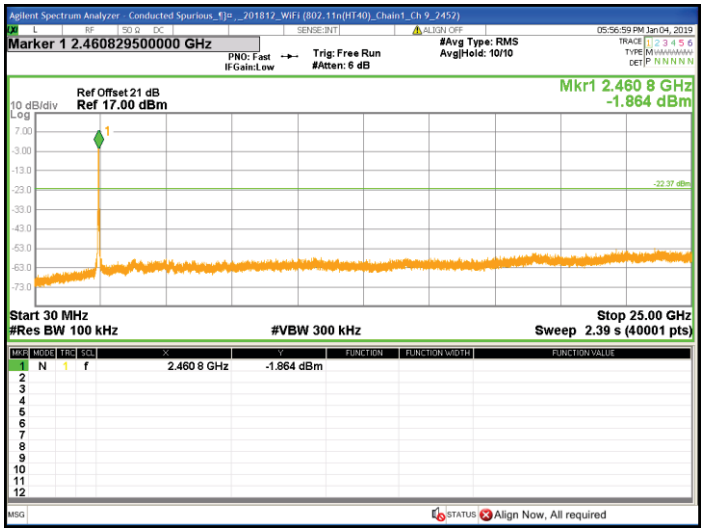
Chain1 : Conducted Spurious @ 802.11n(HT40) Mode Ch6



Chain1 : Conducted Spurious @ 802.11n(HT40) Mode Ch9



Chain1 : Conducted Spurious @ 802.11n(HT40) Mode Ch9



6.Emissions in Restricted Frequency Bands (Radiated emission measurements)

6.1 Instrument Setting

Receiver Function	Setting (Below 1GHz)	Setting (Above 1GHz)
Detector	QP	Peak and Average
RBW	9-150 kHz ; 200-300 Hz 0.15-30 MHz; 9-10 kHz 30-1000 MHz; 100-120 kHz	1MHz
VBW	≧ 3 x RBW	3MHz
Sweep	Auto couple	Auto couple
Start Frequency	9 kHz	1GHz
Stop Frequency	1 GHz	Tenth harmonic
Attenuation	Auto	Auto

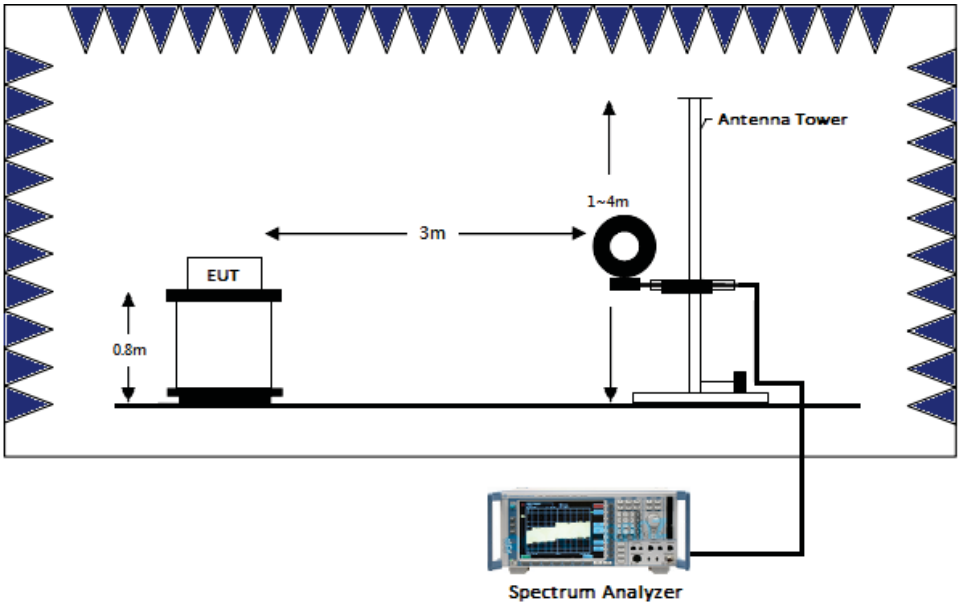
6.2 Test Procedure

Step 1	Configure the EUT according to ANSI C63.10:2013. The EUT was placed on the top of the turntable 0.8 meter (below 1GHz) and 1.5 meter (above 1GHz) above ground. The center of the receiving antenna mounted on the top of a height-variable antenna tower was placed 3 meters far away from the turntable.
Step 2	Power on the EUT and all the companion devices. The turntable was rotated by 360 degree to find the position of the maximum emission level.
Step 3	The height of the receiving antenna was varied between one meter and four meters above ground to find the maximum emission field strength of the both horizontal and vertical polarization.
Step 4	If find the frequencies above the limit or below within 3dB, the antenna tower was scan (from 1m to 4m) and then the turntable was rotated to find the maximum reading.
Step 5	Set the test-receiver system to peak or CISPR quasi-peak detector with specified bandwidth under maximum hold mode.
Step 6	For emissions above 1GHz, use 1MHz VBW and 3MHz RBW for reading in spectrum analyzer. Place the measurement antenna away from each area of the EUT determined to be a source of emissions at the specified measurement distance, while keeping the measurement antenna aimed at the source of emissions at each frequency of significant emissions, with polarization oriented for maximum response.
Step 7	If the emissions level of the EUT in peak mode was 3dB lower than the average limit specified then testing will be stopped and peak values of the EUT will be reported. Otherwise, the emissions which do not have 3dB margin will be measured using the quasi-peak method for below 1GHz.
Step 8	For testing above 1GHz, The emissions level of the EUT in peak mode was lower than average limit, then testing will be stopped and peak values of the EUT will be reported, otherwise, the emission will be measured in average mode again and

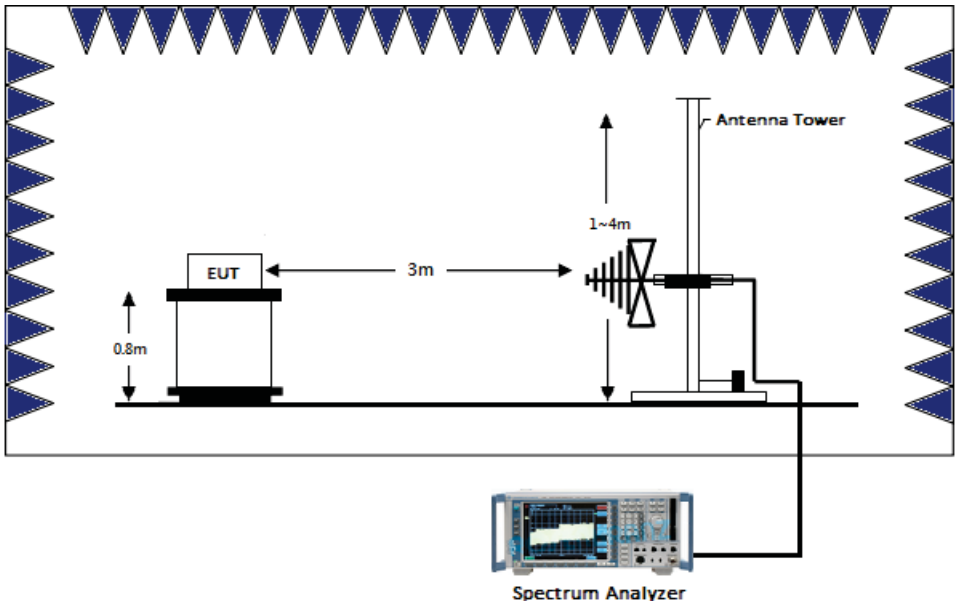
	reported.
Step 9	In case the emission is lower than 30MHz, loop antenna has to be used for measurement and the recorded data should be quasi-peak measured by receiver.

6.3 Test Diagram

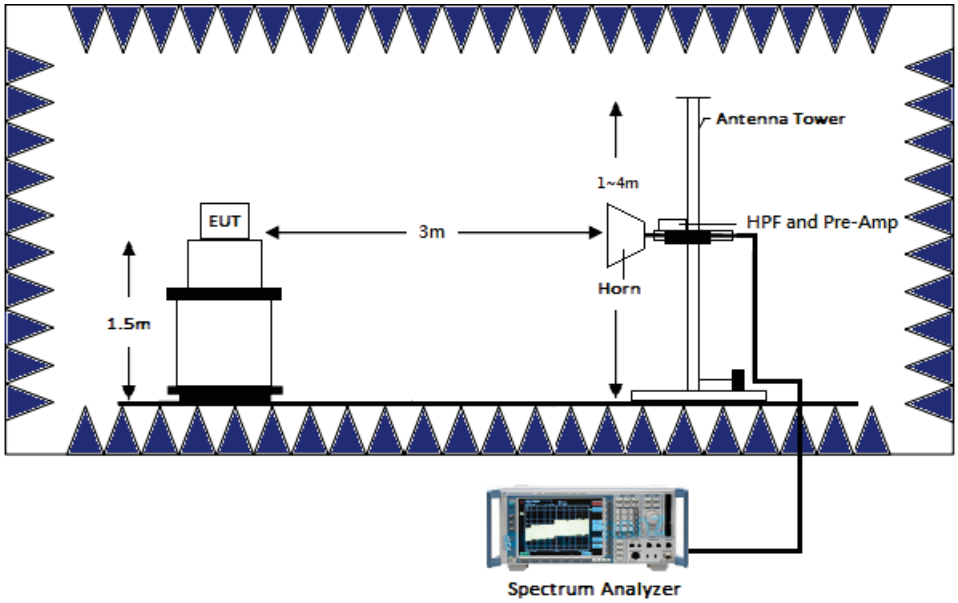
6.3.1 Radiated emission from 9kHz to 30MHz uses Loop Antenna:



6.3.2 Radiated emission below 1GHz using Bilog Antenna



6.3.3 Radiated emission above 1GHz using Horn Antenna



6.4 Limit

Frequency(MHz)	Field Strength(uV/m)	Measurement distance(m)
0.009~0.490	2400/F(kHz)	300
0.490~1.705	24000/F(kHz)	30
1.705~30	30	30
30-88	100	3
88-216	150	3
216-960	200	3
Above 960	500	3

Remark:

1. In the above table, the tighter limit applies at the band edges.
2. Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system

6.5 Operating Environment Condition

Temperature (℃) :	25
Relative Humidity (%) :	50
Atmospheric Pressure (hPa) :	1008
Test Date :	2019/1/4~2019/1/8

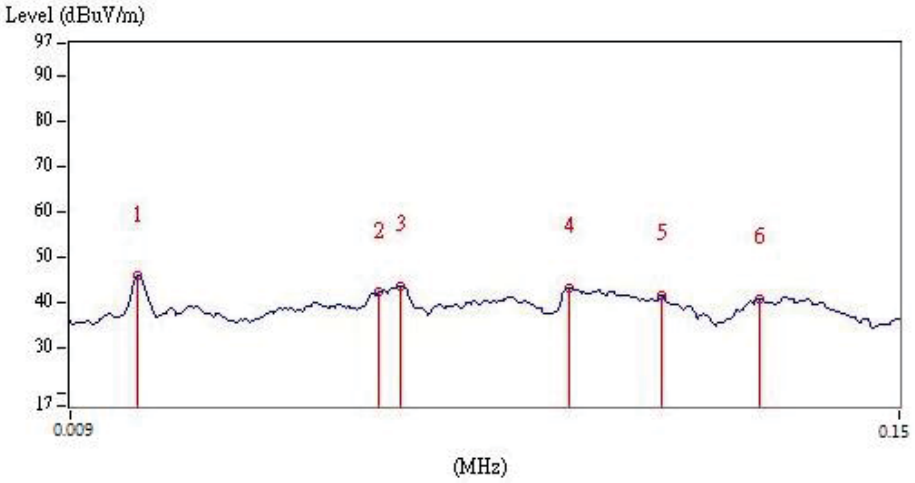
6.6 Test Result

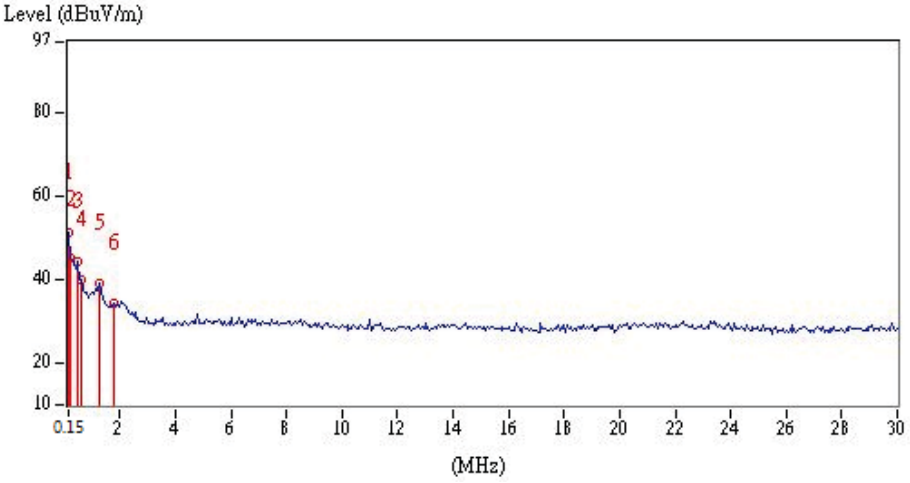
6.6.1 Measurement results: frequencies 9kHz to 30MHz

The test was performed on EUT under 802.11b/g/n continuously transmitting mode. The worst case occurred at 802.11b ch1, Chain0

Frequency (MHz)	Detector	Factor (dB/m)	Reading(dBuV)	Corrected Reading (dBuV/m)	Limit (dBµV/m)	Margin (dB)
0.02	PK	19.27	26.48	45.75	121.58	-75.83
0.06	PK	18.99	23.09	42.08	112.04	-69.96
0.07	PK	18.97	24.59	43.56	110.70	-67.14
0.09	PK	18.80	24.29	43.09	108.52	-65.43
0.11	PK	18.76	22.73	41.49	106.78	-65.29
0.13	PK	18.77	21.98	40.75	105.33	-64.58
0.15	PK	18.77	32.55	51.32	104.08	-52.76
0.21	PK	18.79	26.33	45.12	101.16	-56.04
0.51	QP	18.69	25.76	44.45	73.45	-29.00
0.63	QP	18.69	21.33	40.02	71.62	-31.60
1.28	QP	18.68	20.50	39.18	65.46	-26.28
1.76	QP	18.67	15.70	34.37	69.54	-35.17

Remark: Corr. Factor = Antenna Factor + Cable Loss

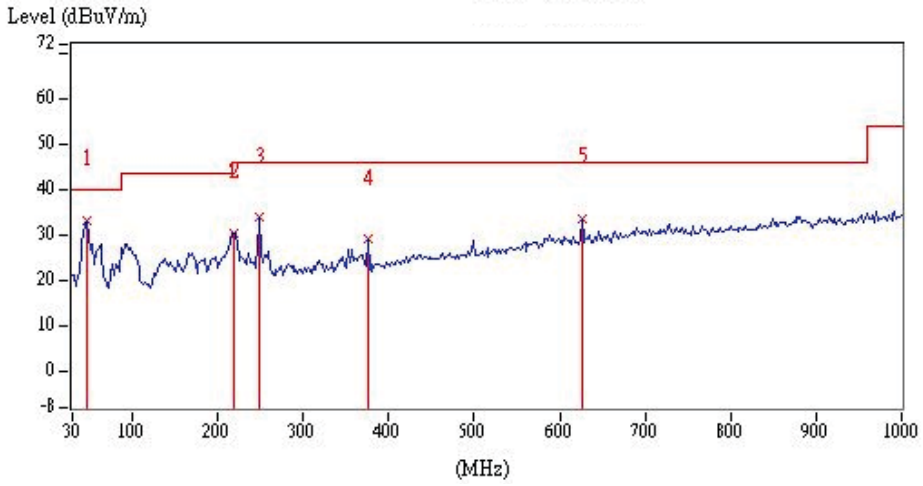

Level (dBuV/m)
97
90
80
70
60
50
40
30
17
1
2
3
4
5
6
0.009
0.15
(MHz)


Level (dBuV/m)
97
80
60
40
20
10
1
2
3
4
5
6
0.15
2
4
6
8
10
12
14
16
18
20
22
24
26
28
30
(MHz)

6.6.1 Measurement results: frequencies below 1 GHz

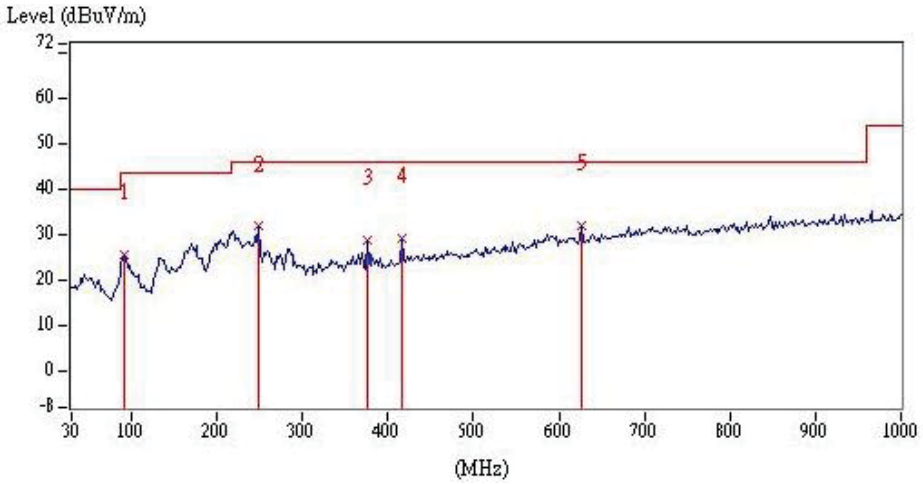
The test was performed on EUT under 802.11b/g/n continuously transmitting mode. The worst case occurred at 802.11b ch1, Chain0

Ant Polarity	Frequency (MHz)	Detector	Factor (dB/m)	Reading (dBµV)	Corrected Reading (dBµV/m)	Limit @ 3m (dBµV/m)	Margin (dB)
Vertical	47.46	QP	20.37	12.86	33.23	40.00	-6.77
Vertical	218.18	QP	18.84	11.73	30.57	46.00	-15.43
Vertical	249.22	QP	20.36	13.53	33.89	46.00	-12.11
Vertical	375.32	QP	23.32	5.80	29.12	46.00	-16.88
Vertical	625.58	QP	28.66	5.07	33.73	46.00	-12.27
Vertical	47.46	QP	20.37	12.86	33.23	40.00	-6.77



Ant Polarity	Frequency (MHz)	Detector	Factor (dB/m)	Reading (dBµV)	Corrected Reading (dBµV/m)	Limit @ 3m (dBµV/m)	Margin (dB)
Horizontal	156.10	QP	14.73	20.59	35.32	43.50	-8.18
Horizontal	224.00	QP	12.67	26.07	38.74	46.00	-7.26
Horizontal	297.72	QP	15.80	20.38	36.18	46.00	-9.82
Horizontal	392.78	QP	18.22	17.35	35.57	46.00	-10.43
Horizontal	598.42	QP	23.50	11.71	35.21	46.00	-10.79
Horizontal	747.80	QP	26.15	17.27	43.42	46.00	-2.58

Remark: Corr. Factor = Antenna Factor + Cable Loss



6.6.2 Measurement results: frequency above 1GHz to 25GHz

Chain0

Mode	Frequency (MHz)	Spectrum Analyzer Detector	Ant. Pol. (H/V)	Correction Factor (dB/m)	Reading (dBµV)	Corrected Reading (dBµV/m)	Limit @ 3 m (dBµV/m)	Margin (dB)
802.11b_Ch1	1348	PK	V	29.64	15.16	44.80	74.00	-29.20
	2124	PK	V	34.41	17.44	51.85	74.00	-22.15
	4824	PK	V	5.87	44.19	50.06	74.00	-23.94
	4824	PK	H	5.87	40.58	46.45	74.00	-27.55
802.11b_Ch6	1880	PK	V	33.39	14.81	48.20	74.00	-25.80
	2184	PK	V	34.40	16.22	50.62	74.00	-23.38
	4874	PK	V	6.09	44.27	50.36	74.00	-23.64
	4874	PK	H	6.09	40.01	46.10	74.00	-27.90
802.11b_Ch11	1968	PK	V	34.15	16.26	50.41	74.00	-23.59
	2104	PK	V	34.41	17.73	52.14	74.00	-21.86
	4924	PK	V	6.31	40.52	46.83	54.00	-7.17
	4924	PK	H	6.31	35.96	42.27	74.00	-31.73
802.11g_Ch1	2100	PK	V	34.41	18.04	52.45	74.00	-21.55
	2144	PK	V	34.41	19.25	53.66	74.00	-20.34
	4824	PK	V	5.87	40.86	46.73	74.00	-27.27
	4824	PK	H	5.87	35.26	41.13	74.00	-32.87
802.11g_Ch6	1908	PK	V	33.63	14.87	48.50	74.00	-25.50
	1996	PK	V	34.40	15.15	49.55	74.00	-24.45
	2152	PK	V	34.41	15.64	50.05	74.00	-23.95
	4874	PK	V	6.09	39.53	45.62	74.00	-28.38
	4874	PK	H	6.09	34.22	40.31	74.00	-33.69
802.11g_Ch11	1828	PK	V	32.94	15.21	48.15	74.00	-25.85
	1912	PK	V	33.67	16.72	50.39	74.00	-23.61
	2100	PK	V	34.41	16.56	50.97	74.00	-23.03
	4924	PK	V	6.31	36.20	42.51	74.00	-31.49
	4924	PK	H	6.31	33.03	39.34	74.00	-34.66

Remark: Correction Factor = Antenna Factor + Cable Loss + High Pass Filter Loss - Pre_Amplifier Gain

Chain1

Mode	Frequency (MHz)	Spectrum Analyzer Detector	Ant. Pol. (H/V)	Correction Factor (dB/m)	Reading (dBµV)	Corrected Reading (dBµV/m)	Limit @ 3 m (dBµV/m)	Margin (dB)
802.11b_Ch1	2076	PK	V	34.42	17.19	51.61	74.00	-22.39
	2128	PK	V	34.41	17.81	52.22	74.00	-21.78
	4824	PK	V	5.87	34.77	40.64	74.00	-33.36
	7236	PK	V	13.96	28.49	42.45	74.00	-31.55
	9648	PK	V	18.89	26.22	45.11	74.00	-28.89
	4824	PK	H	5.87	32.08	37.95	74.00	-36.05
	7236	PK	H	13.96	28.66	42.62	74.00	-31.38
	9648	PK	H	18.89	24.04	42.93	74.00	-31.07
802.11b_Ch6	1912	PK	V	33.67	18.01	51.68	74.00	-22.32
	2084	PK	V	34.42	15.71	50.13	74.00	-23.87
	4874	PK	V	6.09	33.52	39.61	74.00	-34.39
	7311	PK	V	14.33	29.32	43.65	74.00	-30.35
	9748	PK	V	19.12	25.50	44.62	74.00	-29.38
	4874	PK	H	6.09	31.04	37.13	74.00	-36.87
	7311	PK	H	14.33	28.32	42.65	74.00	-31.35
	9748	PK	H	19.12	24.10	43.22	74.00	-30.78
802.11b_Ch11	2108	PK	V	34.41	17.14	51.55	74.00	-22.45
	4924	PK	V	6.31	31.95	38.26	74.00	-35.74
	7386	PK	V	14.69	29.55	44.24	74.00	-29.76
	9648	PK	V	19.35	24.12	43.47	74.00	-30.53
	4924	PK	H	6.31	30.31	36.62	74.00	-37.38
	7386	PK	H	14.69	28.05	42.74	74.00	-31.26
	9648	PK	H	19.35	24.98	44.33	74.00	-29.67
802.11g_Ch1	2024	PK	V	34.43	14.87	49.30	74.00	-24.70
	2084	PK	V	34.42	17.38	51.80	74.00	-22.20
	4824	PK	V	5.87	33.52	39.39	74.00	-34.61
	7236	PK	V	13.96	28.34	42.30	74.00	-31.70
	9648	PK	V	18.89	25.27	44.16	74.00	-29.84
	4824	PK	H	5.87	33.28	39.15	74.00	-34.85
	7236	PK	H	13.96	28.45	42.41	74.00	-31.59
	9648	PK	H	18.89	24.39	43.28	74.00	-30.72

Remark: Correction Factor = Antenna Factor + Cable Loss + High Pass Filter Loss – Pre Amplifier Gain

Mode	Frequency (MHz)	Spectrum Analyzer Detector	Ant. Pol. (H/V)	Correction Factor (dB/m)	Reading (dBµV)	Corrected Reading (dBµV/m)	Limit @ 3 m (dBµV/m)	Margin (dB)
802.11g_Ch6	1836	PK	V	33.01	14.90	47.91	74.00	-26.09
	2112	PK	V	34.41	16.13	50.54	74.00	-23.46
	4874	PK	V	6.09	31.64	37.73	74.00	-36.27
	7311	PK	V	14.33	29.53	43.86	74.00	-30.14
	9748	PK	V	19.12	25.04	44.16	74.00	-29.84
	4874	PK	H	6.09	33.36	39.45	74.00	-34.55
	7311	PK	H	14.33	28.20	42.53	74.00	-31.47
	9748	PK	H	19.12	24.41	43.53	74.00	-30.47
802.11g_Ch11	2100	PK	V	34.41	16.90	51.31	74.00	-22.69
	4924	PK	V	6.31	32.13	38.44	74.00	-35.56
	7386	PK	V	14.69	27.46	42.15	74.00	-31.85
	9848	PK	V	19.35	25.52	44.87	74.00	-29.13
	4924	PK	H	6.31	31.54	37.85	74.00	-36.15
	7386	PK	H	14.69	27.31	42.00	74.00	-32.00
	9848	PK	H	19.35	25.58	44.93	74.00	-29.07

Remark: Correction Factor = Antenna Factor + Cable Loss + High Pass Filter Loss – Pre Amplifier Gain

Chain0+1

Mode	Frequency (MHz)	Spectrum Analyzer Detector	Ant. Pol. (H/V)	Correction Factor (dB/m)	Reading (dBµV)	Corrected Reading (dBµV/m)	Limit @ 3 m (dBµV/m)	Margin (dB)
802.11n (HT20)_Ch1	1992	PK	V	34.36	17.63	51.99	74.00	-22.01
	2080	PK	V	34.42	18.53	52.95	74.00	-21.05
	4824	PK	V	5.87	40.52	46.39	74.00	-27.61
	7236	PK	V	13.96	37.67	51.63	74.00	-22.37
	9648	PK	V	18.89	32.11	51.00	74.00	-23.00
	4824	PK	H	5.87	41.94	47.81	74.00	-26.19
	7236	PK	H	13.96	38.17	52.13	74.00	-21.87
	9648	PK	H	18.89	33.55	52.44	74.00	-21.56
802.11n (HT20)_Ch6	1600	PK	V	30.97	13.84	44.81	74.00	-29.19
	2060	PK	V	34.42	15.89	50.31	74.00	-23.69
	4874	PK	V	6.09	42.66	48.75	74.00	-25.25
	7311	PK	V	14.33	39.07	53.40	74.00	-20.60
	9748	PK	V	19.12	30.64	49.76	74.00	-24.24
	4874	PK	H	6.09	36.58	42.67	74.00	-31.33
	7311	PK	H	14.33	36.27	50.60	74.00	-23.40
	9748	PK	H	19.12	27.20	46.32	74.00	-27.68
802.11n (HT20)_Ch11	1996	PK	V	34.40	15.10	49.50	74.00	-24.50
	2072	PK	V	34.42	18.88	53.30	74.00	-20.70
	4924	PK	V	6.31	42.27	48.58	74.00	-25.42
	7386	PK	V	14.69	37.95	52.64	74.00	-21.36
	9848	PK	V	19.35	27.01	46.36	74.00	-27.64
	4924	PK	H	6.31	36.82	43.13	74.00	-30.87
	7386	PK	H	14.69	34.08	48.77	74.00	-25.23
	9848	PK	H	19.35	27.07	46.42	74.00	-27.58
802.11n (HT40)_Ch3	1932	PK	V	33.84	15.80	49.64	74.00	-24.36
	2144	PK	V	34.41	16.82	51.23	74.00	-22.77
	2204	PK	V	34.40	16.08	50.48	74.00	-23.52
	4844	PK	V	5.96	38.91	44.87	74.00	-29.13
	7266	PK	V	14.11	37.54	51.65	74.00	-22.35
	9688	PK	V	18.98	31.13	50.11	74.00	-23.89
	4844	PK	H	5.96	34.72	40.68	74.00	-33.32
	7266	PK	H	14.11	34.39	48.50	74.00	-25.50
	9688	PK	H	18.98	27.64	46.62	74.00	-27.38

Remark: Correction Factor = Antenna Factor + Cable Loss + High Pass Filter Loss – Pre Amplifier Gain

Mode	Frequency (MHz)	Spectrum Analyzer Detector	Ant. Pol. (H/V)	Correction Factor (dB/m)	Reading (dBµV)	Corrected Reading (dBµV/m)	Limit @ 3 m (dBµV/m)	Margin (dB)
802.11n (HT40)_Ch6	2072	PK	V	34.42	15.87	50.29	74.00	-23.71
	2164	PK	V	34.40	16.44	50.84	74.00	-23.16
	4874	PK	V	6.09	40.51	46.60	74.00	-27.40
	7311	PK	V	14.33	37.61	51.94	74.00	-22.06
	9748	PK	V	19.12	28.70	47.82	74.00	-26.18
	4874	PK	H	6.09	35.00	41.09	74.00	-32.91
	7311	PK	H	14.33	33.05	47.38	74.00	-26.62
	9748	PK	H	19.12	26.43	45.55	74.00	-28.45
802.11n (HT40)_Ch9	1924	PK	V	33.77	16.32	50.09	74.00	-23.91
	2032	PK	V	34.42	15.70	50.12	74.00	-23.88
	2100	PK	V	34.41	17.81	52.22	74.00	-21.78
	4904	PK	V	6.22	39.75	45.97	74.00	-28.03
	7356	PK	V	14.55	37.97	52.52	74.00	-21.48
	9808	PK	V	19.26	27.48	46.74	74.00	-27.26
	4904	PK	H	6.22	34.39	40.61	74.00	-33.39
	7356	PK	H	14.55	32.14	46.69	74.00	-27.31
	9808	PK	H	19.26	27.24	46.50	74.00	-27.50

Remark: Correction Factor = Antenna Factor + Cable Loss + High Pass Filter Loss – Pre Amplifier Gain

7.Emission on Band Edge

7.1 Instrument Setting

Spectrum Function	Setting
Detector	Peak and Average
RBW	1MHz
VBW	3MHz
Sweep	Auto couple
Restrict bands	2310 MHz ~ 2390 MHz 2483.5 MHz ~ 2500 MHz
Attenuation	Auto

7.2 Test Procedure

The test procedure is the same as Emissions in Restricted Frequency Bands (Radiated emission measurements).

7.3 Operating Environment Condition

Temperature (℃) :	25
Relative Humidity (%) :	50
Atmospheric Pressure (hPa) :	1008
Test Date :	2018/1/5 ~2018/1/8

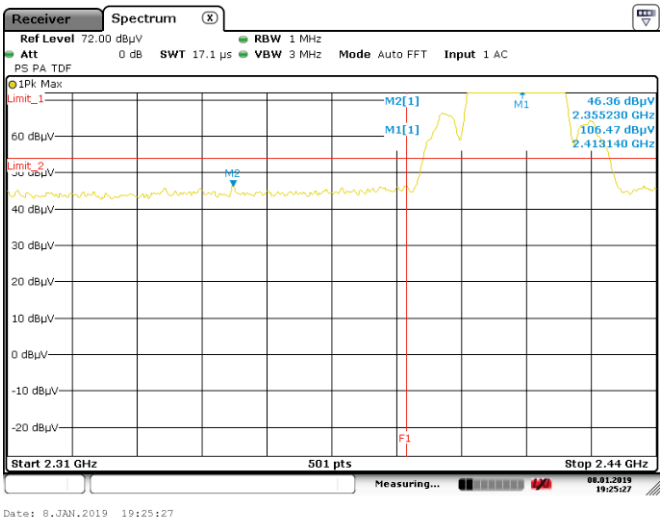
7.4 Test Results

Mode	Frequency (MHz)	Spectrum Analyzer Detector	Ant. Pol. (H/V)	Correction Factor (dB/m)	Reading (dBμV)	Corrected Reading (dBμV/m)	Limit @ 3 m (dBμV/m)	Margin (dB)	Restricted band (MHz)
802.11b Chain0	2355.23	PK	V	34.37	11.99	46.36	74	-27.64	2310~2390
	2385.33	AV	V	34.37	0.79	35.16	54	-18.84	
	2484.97	PK	V	34.35	25.17	59.52	74	-14.48	2483.5~2500
	2484.61	AV	V	34.35	4.27	38.62	54	-15.38	
802.11b Chain1	2318.12	PK	V	34.38	11.45	45.83	74	-28.17	2310~2390
	2339.66	AV	V	34.38	-2.74	31.64	54	-22.36	
	2496.07	PK	V	34.35	10.90	45.25	74	-28.75	2483.5~2500
	2487.21	AV	V	34.35	-2.38	31.97	54	-22.03	
802.11g Chain0	2390.00	PK	V	34.37	33.72	68.09	74	-5.91	2310~2390
	2390.00	AV	V	34.37	13.89	48.26	54	-5.74	
	2483.50	PK	V	34.35	30.24	64.59	74	-9.41	2483.5~2500
	2483.50	AV	V	34.35	16.78	51.13	54	-2.87	
802.11g Chain1	2390.00	PK	V	34.37	11.75	46.12	74	-27.88	2310~2390
	2390.00	AV	V	34.37	-1.90	32.47	54	-21.53	
	2483.50	PK	V	34.35	13.55	47.90	74	-26.10	2483.5~2500
	2483.50	AV	V	34.35	-1.53	32.82	54	-21.18	
802.11n (HT20) Chain0+1	2390.00	PK	V	34.37	33.47	67.84	74	-6.16	2310~2390
	2390.00	AV	V	34.37	13.88	48.25	54	-5.75	
	2483.50	PK	V	34.35	30.40	64.75	74	-9.25	2483.5~2500
	2483.50	AV	V	34.35	16.46	50.81	54	-3.19	
802.11n (HT40) Chain0+1	2390.00	PK	V	34.37	28.12	62.49	74	-11.51	2310~2390
	2390.00	AV	V	34.37	16.63	51.00	54	-3.00	
	2483.50	PK	V	34.35	34.78	69.13	74	-4.87	2483.5~2500
	2483.50	AV	V	34.35	17.13	51.48	54	-2.52	

Remark1: Correction Factor = Antenna Factor + Cable Loss

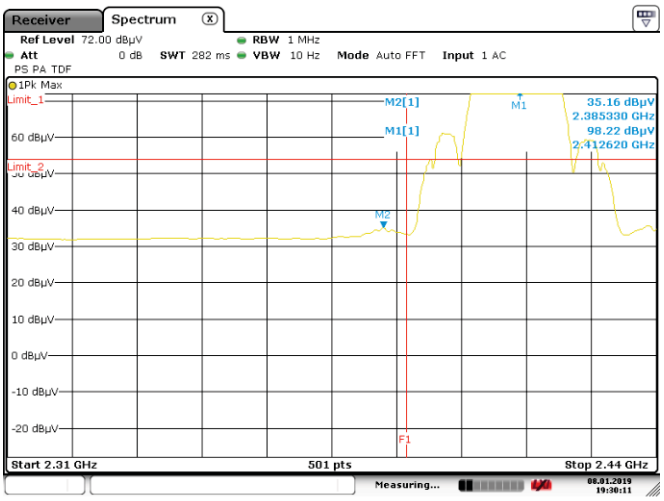
Remark2: According to the result of fundamental emission test, the worst case is 802.11b Ch11 in vertical plane of receive antenna. So we test band edge in vertical-plane situation.

Chain0 : Restricted Band Bandedge @ 802.11b Mode Ch1 PK



Date: 8.JAN.2019 19:25:27

Chain0 : Restricted Band Bandedge @ 802.11b Mode Ch1 AV



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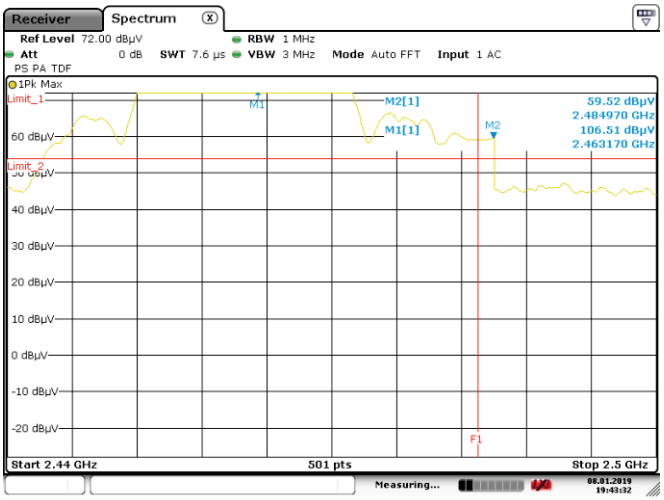
Chain0 : Restricted Band Bandedge @ 802.11b Mode Ch11 PK



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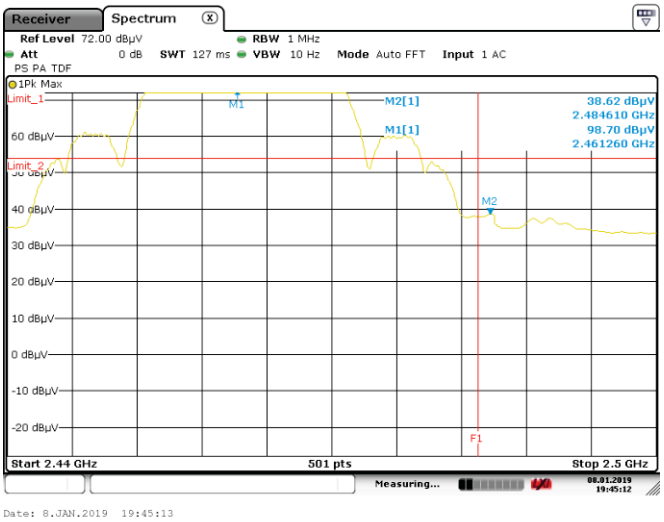
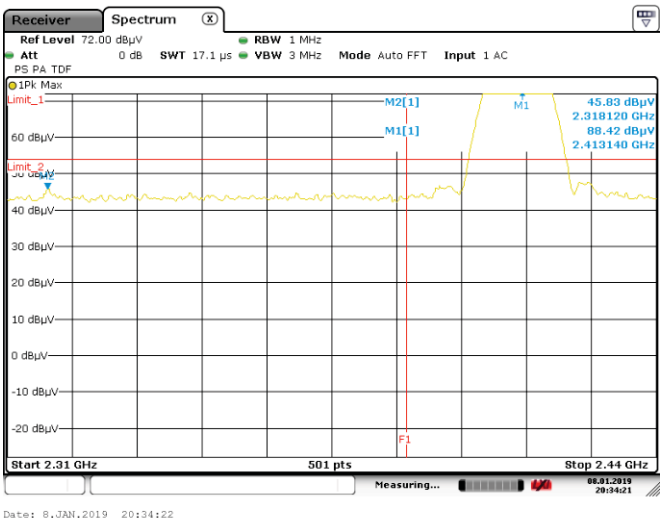
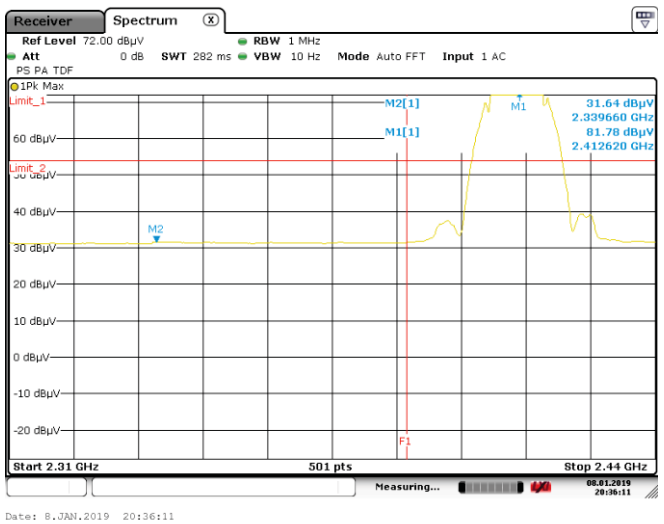
Chain0 : Restricted Band Bandedge @ 802.11b Mode Ch11 AV



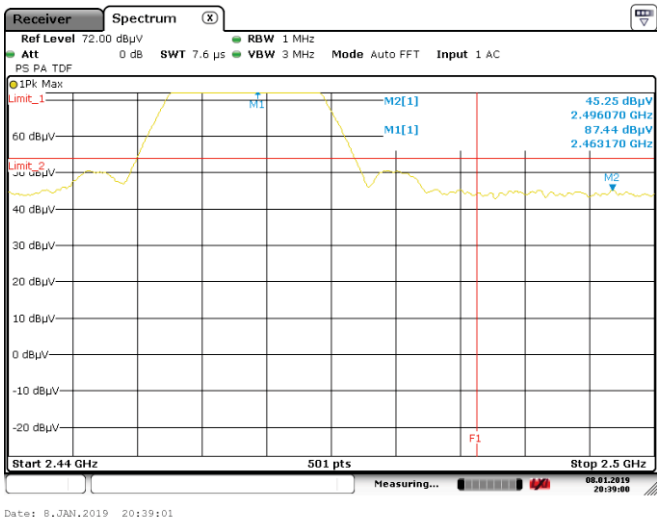
Chain1 : Restricted Band Bandedge @ 802.11b Mode Ch1 PK



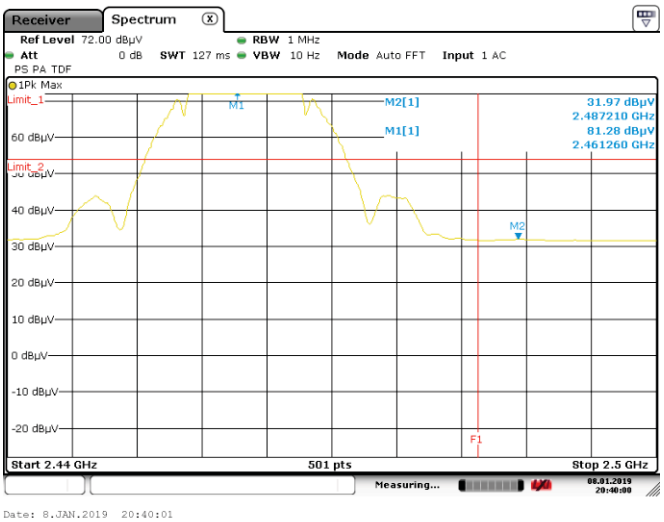
Chain1 : Restricted Band Bandedge @ 802.11b Mode Ch1 AV



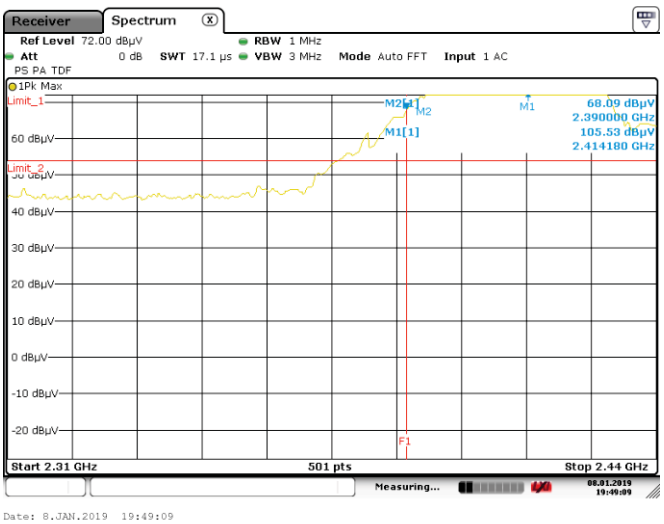
Chain1 : Restricted Band Bandedge @ 802.11b Mode Ch11 PK



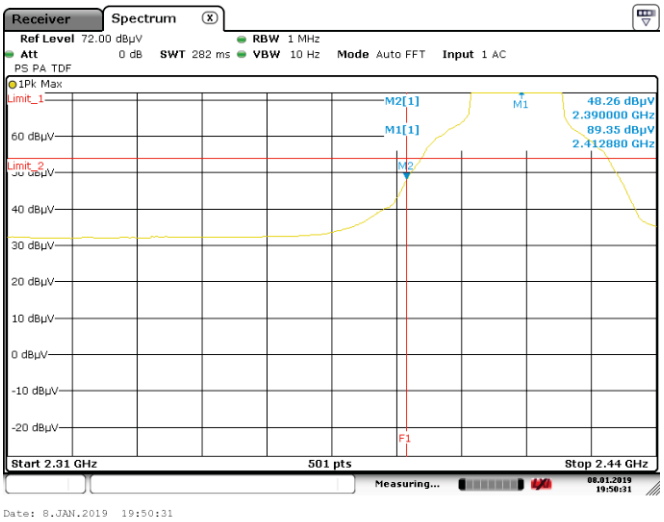
Chain1 : Restricted Band Bandedge @ 802.11b Mode Ch11 AV



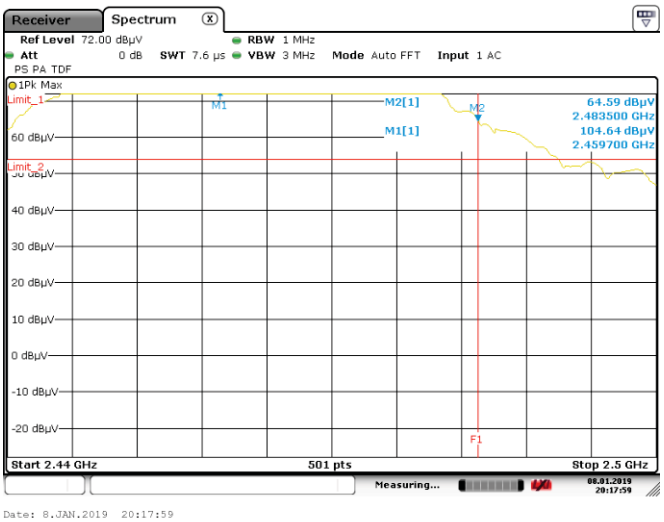
Chain0 : Restricted Band Bandedge @ 802.11g Mode Ch1 PK



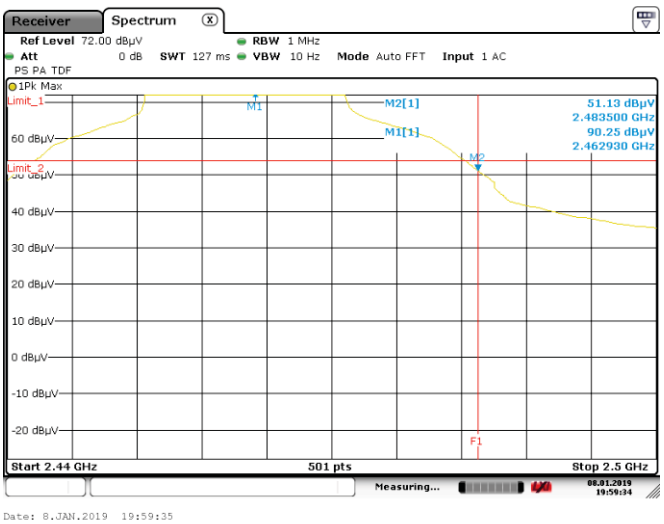
Chain0 : Restricted Band Bandedge @ 802.11g Mode Ch1 AV



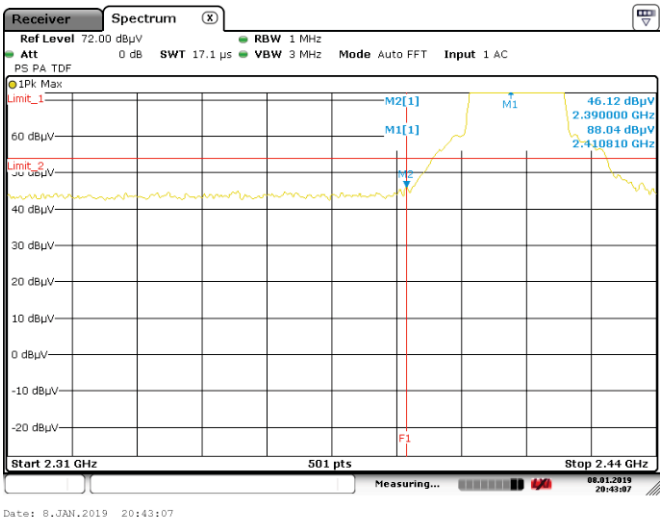
Chain0 : Restricted Band Bandedge @ 802.11g Mode Ch11 PK



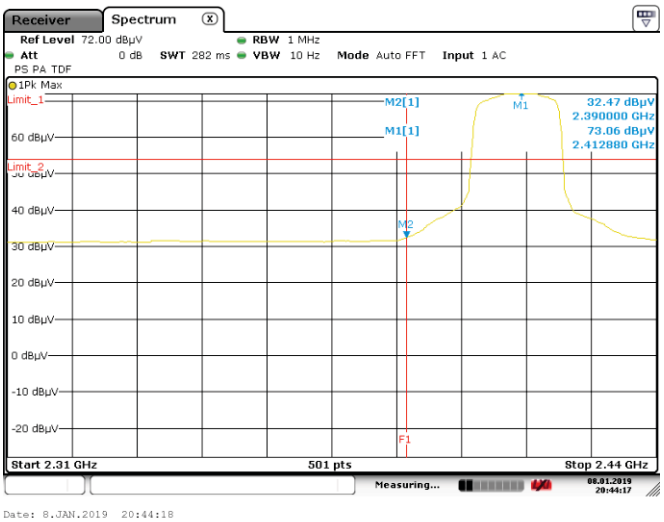
Chain0 : Restricted Band Bandedge @ 802.11g Mode Ch11 AV



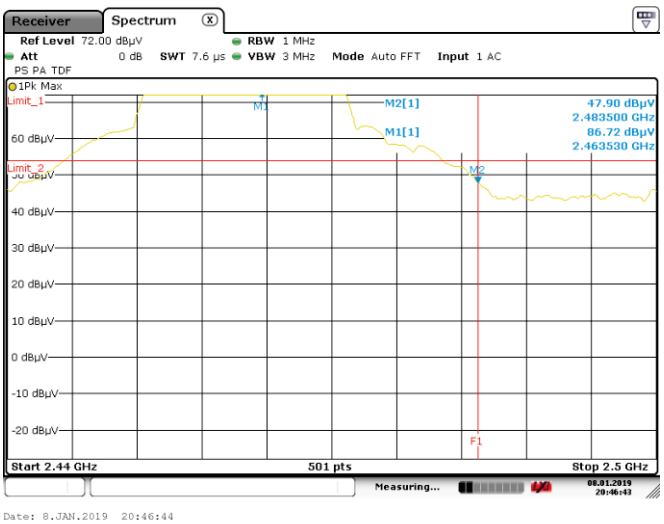
Chain1 : Restricted Band Bandedge @ 802.11g Mode Ch1 PK



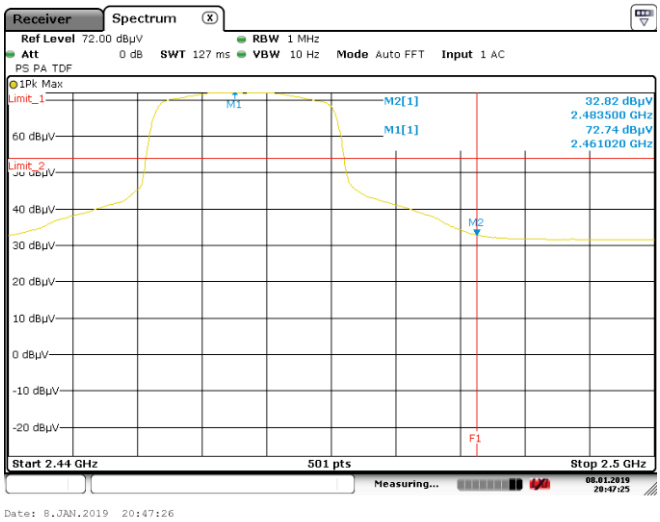
Chain1 : Restricted Band Bandedge @ 802.11g Mode Ch1 AV



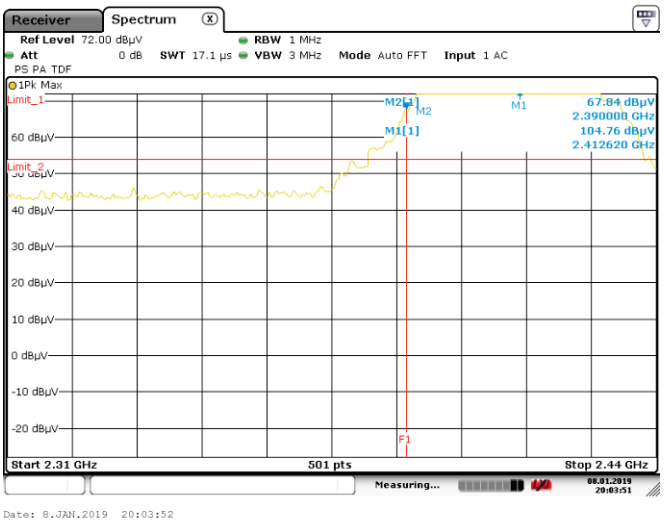
Chain1 : Restricted Band Bandedge @ 802.11g Mode Ch11 PK



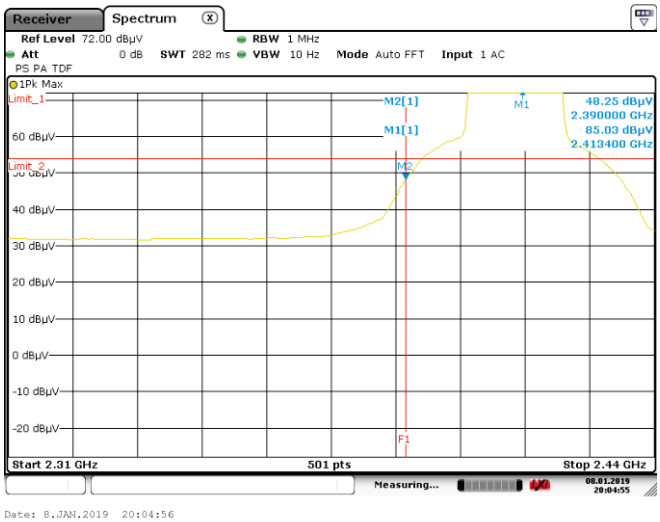
Chain1 : Restricted Band Bandedge @ 802.11g Mode Ch11 AV



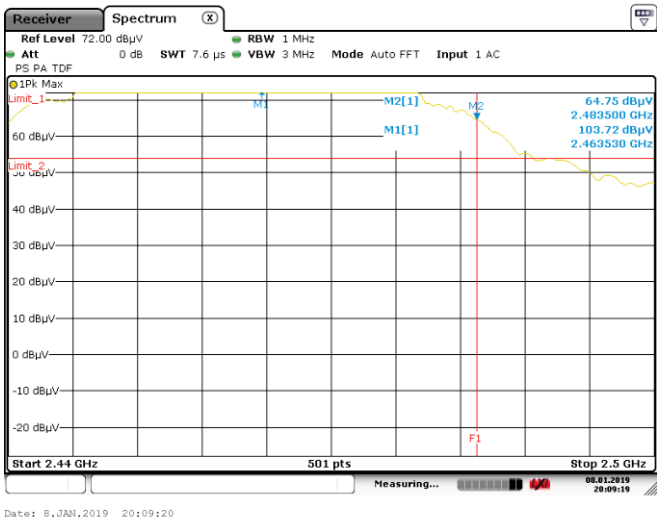
Chain0+1 : Restricted Band Bandedge @ 802.11n(HT20) Mode Ch1 PK



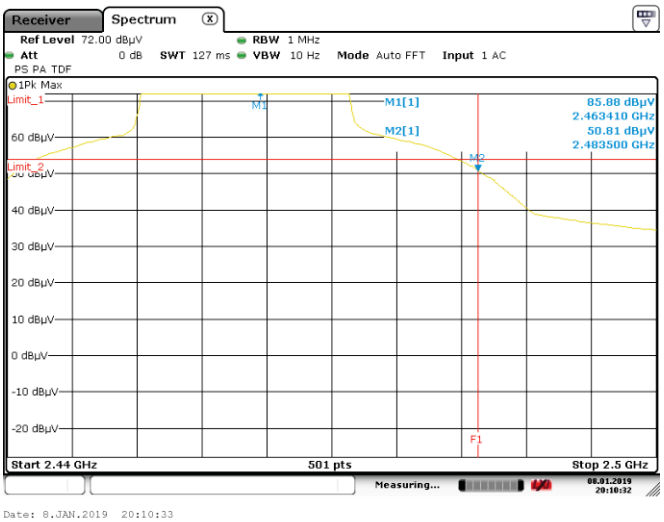
Chain0+1 : Restricted Band Bandedge @ 802.11n(HT20) Mode Ch1 AV



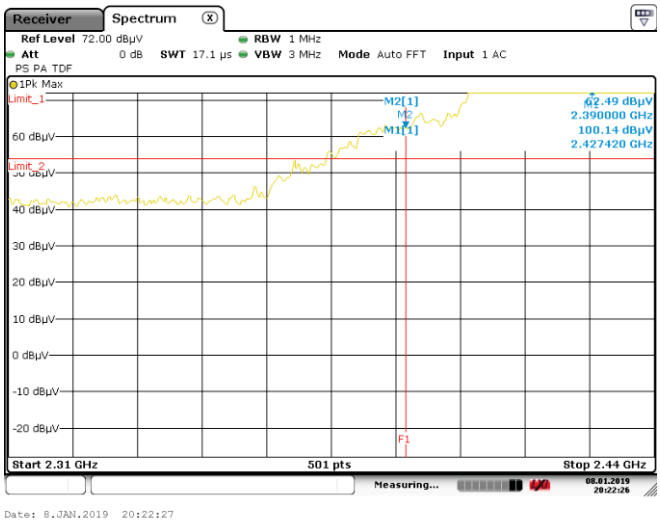
Chain0+1 : Restricted Band Bandedge @ 802.11n(HT20) Mode Ch11 PK



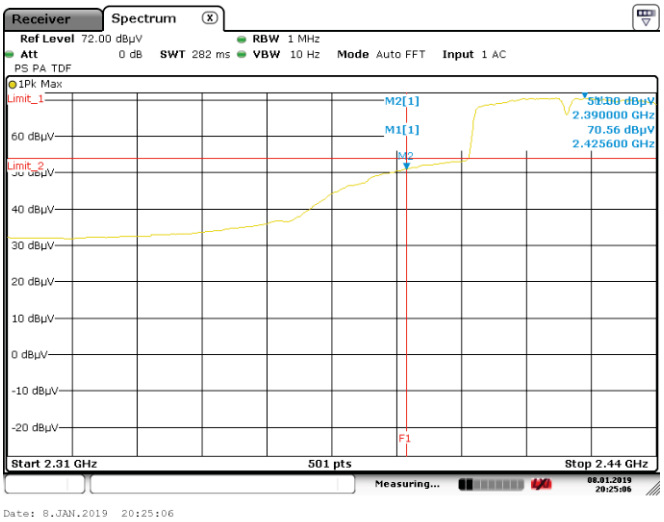
Chain0+1 : Restricted Band Bandedge @ 802.11n(HT20) Mode Ch11 AV



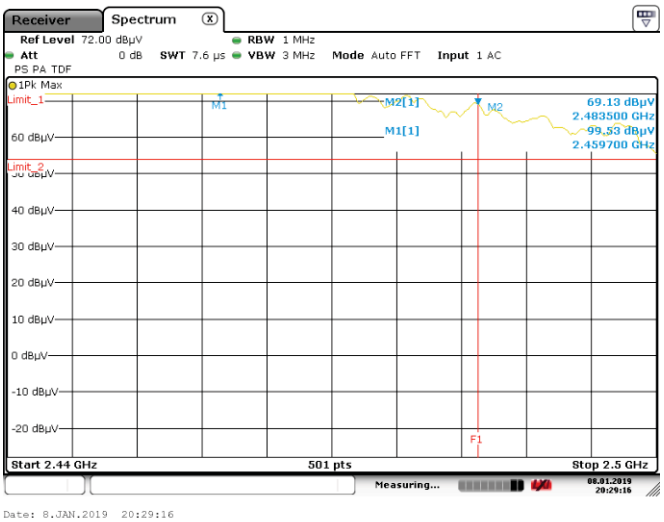
Chain0+1 : Restricted Band Bandedge @ 802.11n(HT40) Mode Ch1 PK



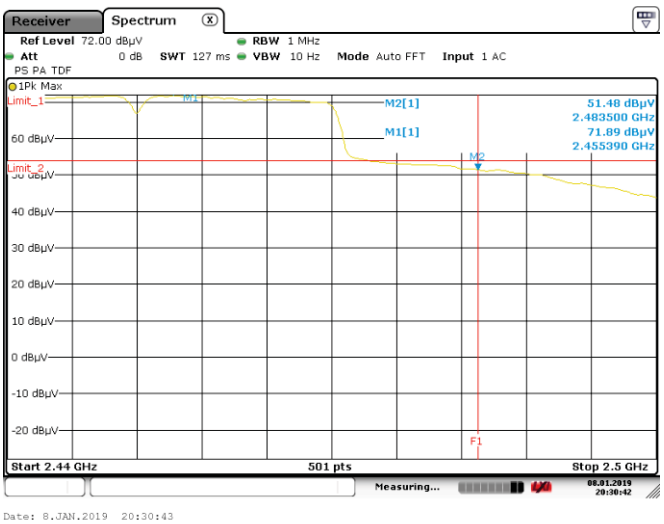
Chain0+1 : Restricted Band Bandedge @ 802.11n(HT40) Mode Ch1 AV



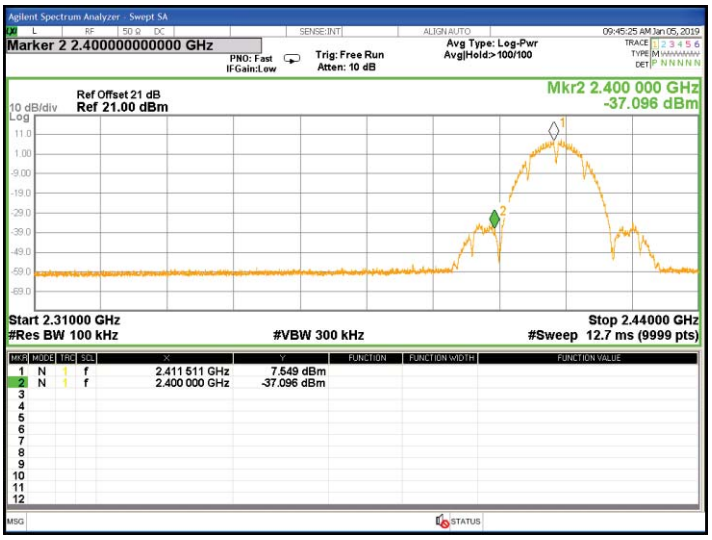
Chain0+1 : Restricted Band Bandedge @ 802.11n(HT40) Mode Ch11 PK



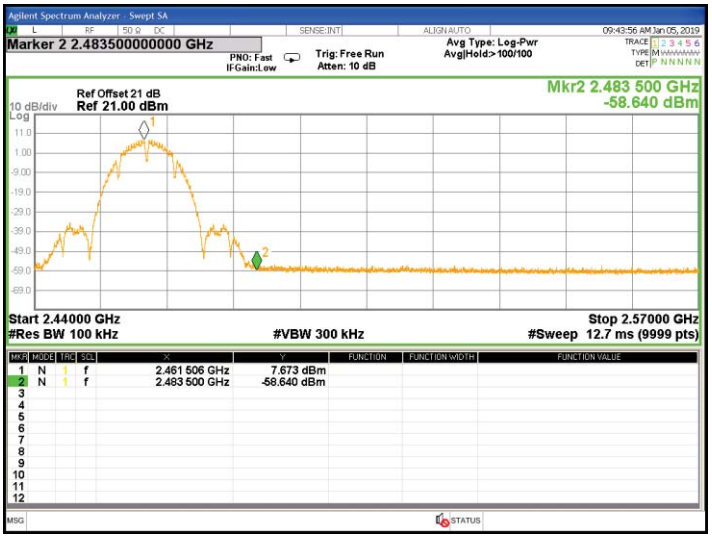
Chain0+1 : Restricted Band Bandedge @ 802.11n(HT40) Mode Ch11 AV



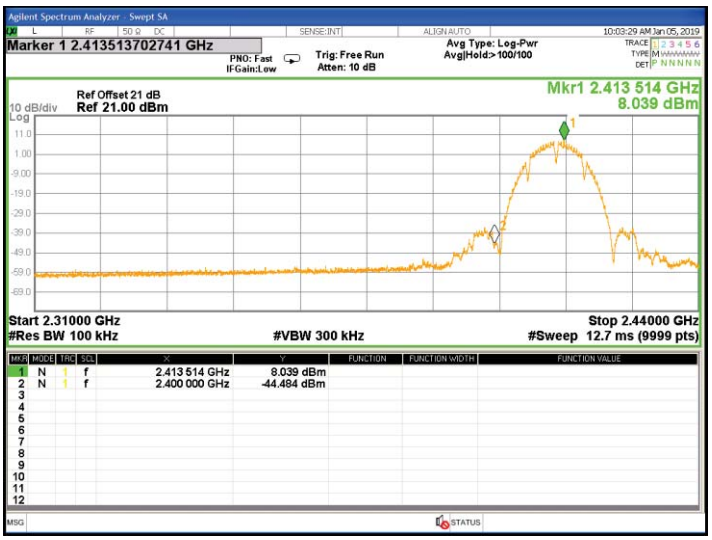
Chain0 : Authorized Band Bandedge @ 802.11b Mode Ch1



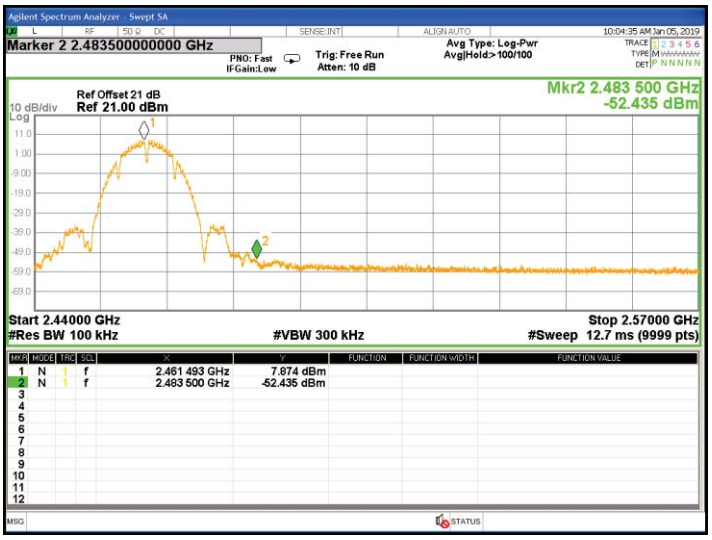
Chain0 : Authorized Band Bandedge @ 802.11b Mode Ch11



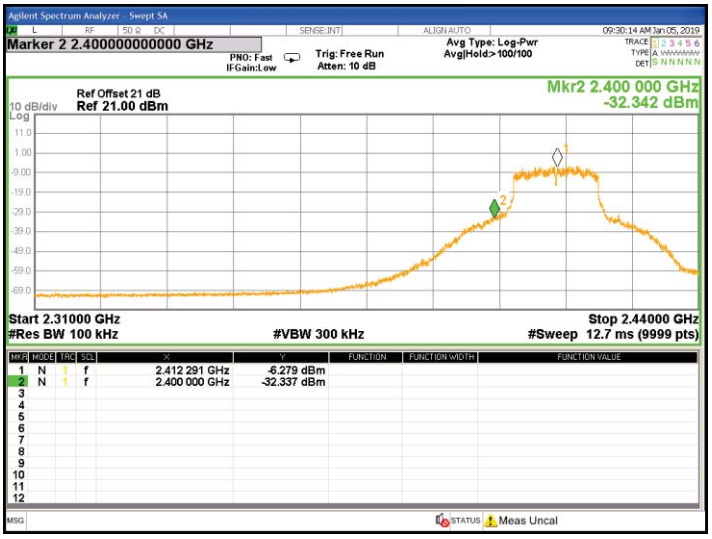
Chain1 : Authorized Band Bandedge @ 802.11b Mode Ch1



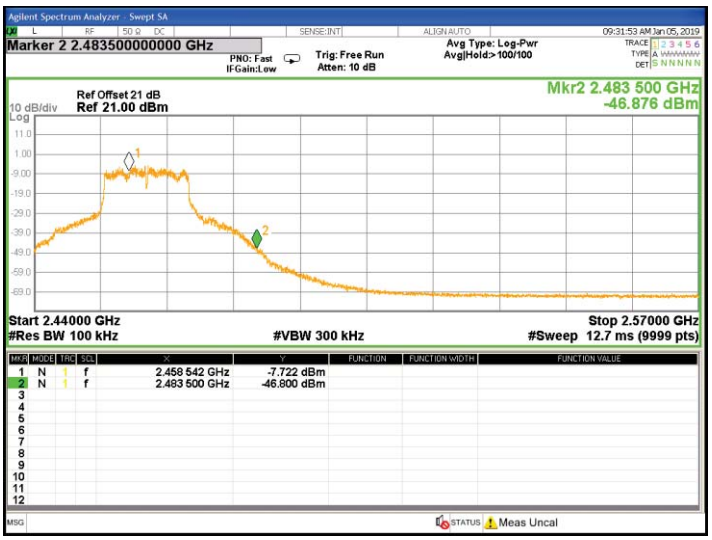
Chain1 : Authorized Band Bandedge @ 802.11b Mode Ch11



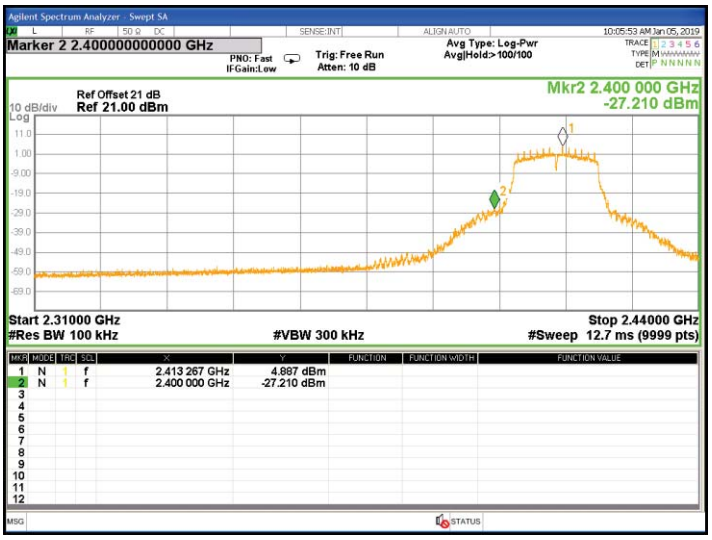
Chain0 : Authorized Band Bandedge @ 802.11g Mode Ch1



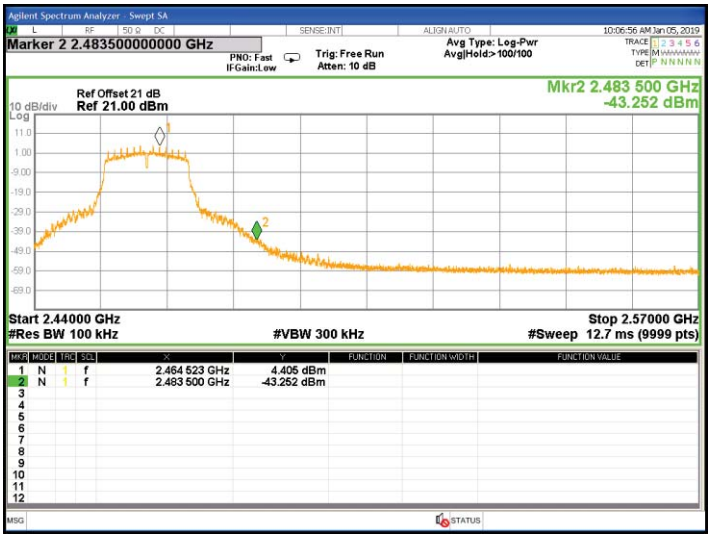
Chain0 : Authorized Band Bandedge @ 802.11g Mode Ch11



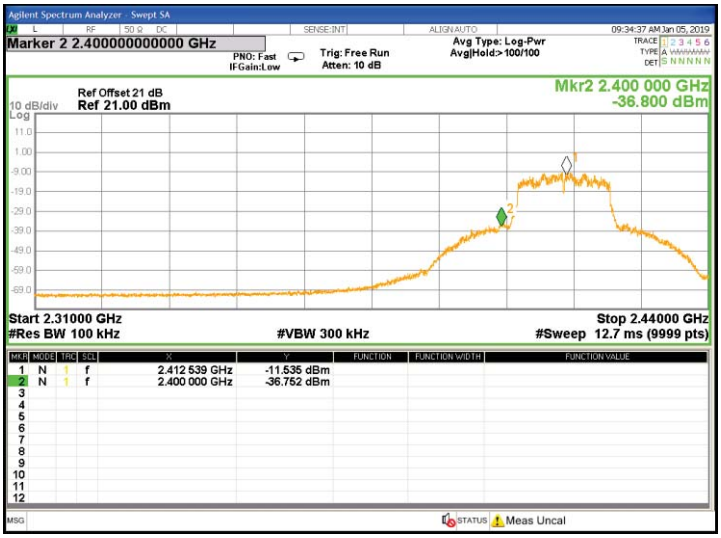
Chain1 : Authorized Band Bandedge @ 802.11g Mode Ch1



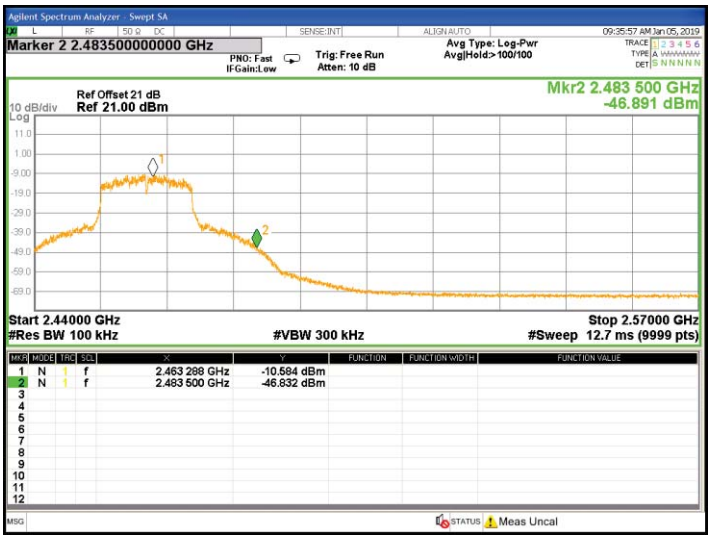
Chain1 : Authorized Band Bandedge @ 802.11g Mode Ch11



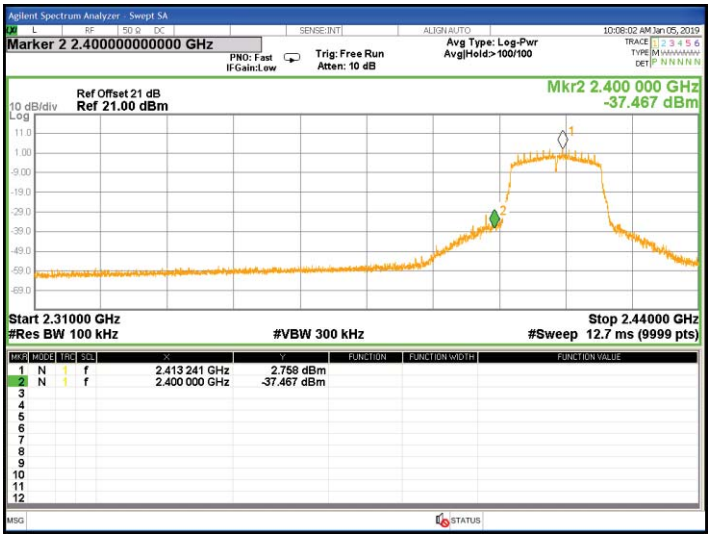
Chain0 : Authorized Band Bandedge @ 802.11n(HT20) Mode Ch1



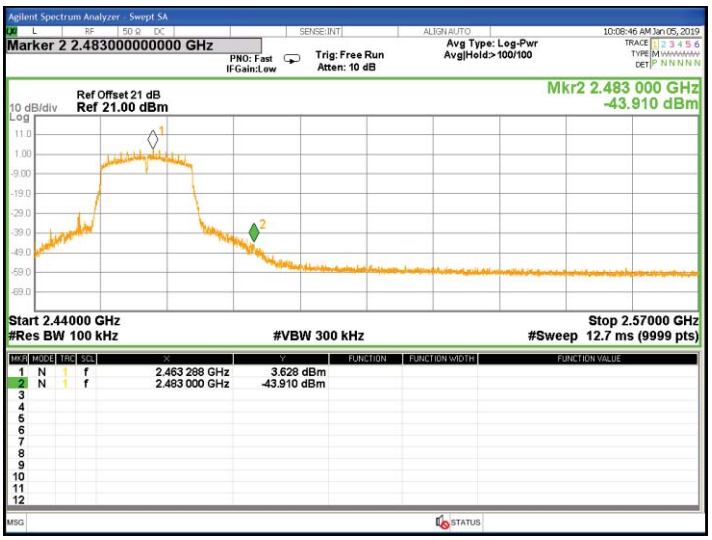
Chain0 : Authorized Band Bandedge @ 802.11n(HT20) Mode Ch11



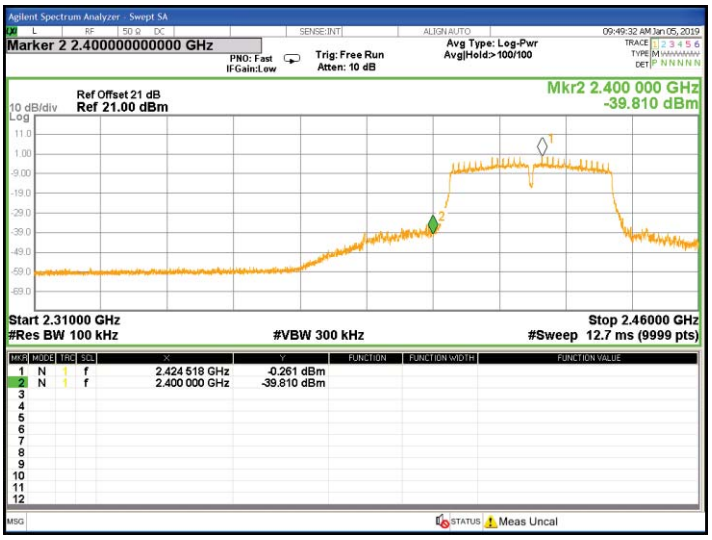
Chain1 : Authorized Band Bandedge @ 802.11n(HT20) Mode Ch1



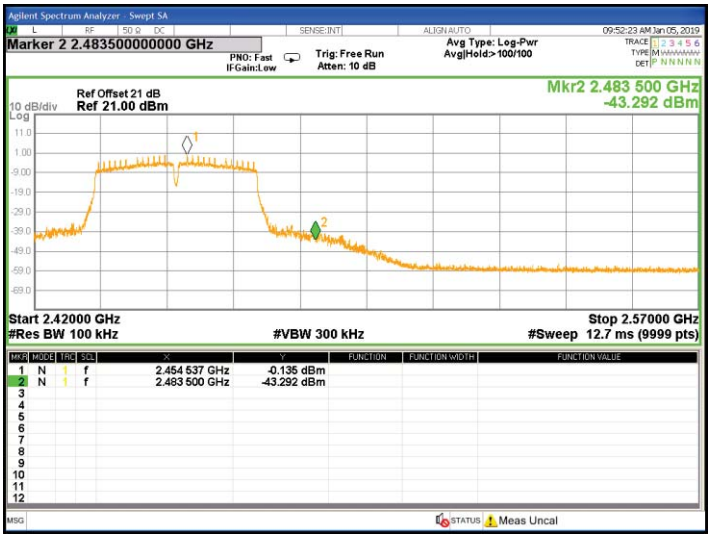
Chain1 : Authorized Band Bandedge @ 802.11n(HT20) Mode Ch11



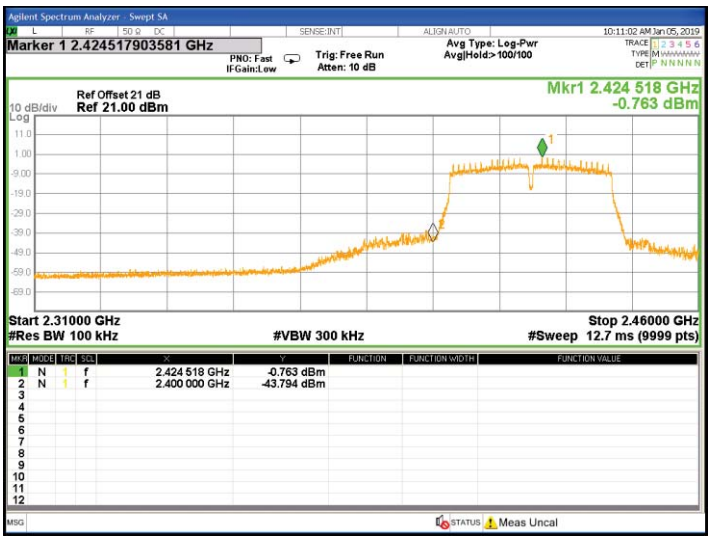
Chain0 : Authorized Band Bandedge @ 802.11n(HT40) Mode Ch3



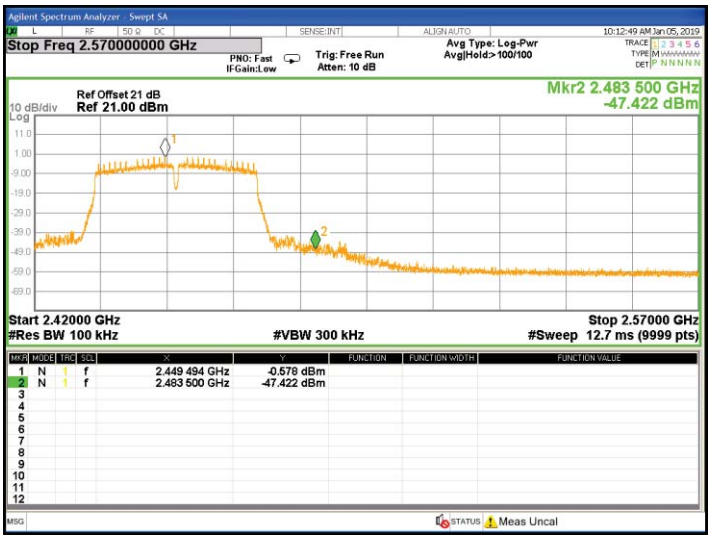
Chain0 : Authorized Band Bandedge @ 802.11n(HT40) Mode Ch9



Chain1 : Authorized Band Bandedge @ 802.11n(HT40) Mode Ch3



Chain1 : Authorized Band Bandedge @ 802.11n(HT40) Mode Ch9



8.AC Power Line Conducted Emission

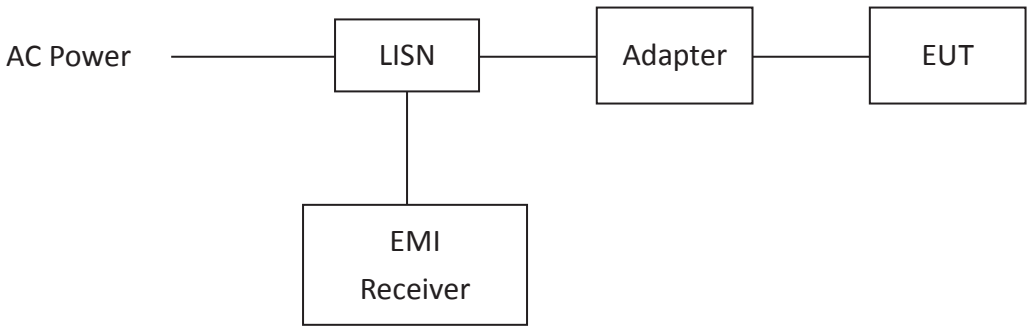
8.1 Measuring instrument setting

Receiver Function	Setting
Detector	QP
Start frequency	0.15MHz
Stop frequency	30MHz
IF bandwidth	9 kHz
Attenuation	10dB

8.2 Test Procedure

Step 1	Configure the EUT according to ANSI C63.10:2013. The EUT or host of EHT has to be placed 0.4 meter far from the conducting wall of the shielding room and at least 80 centimeters from any other grounded conducting surface.
Step 2	Connect EUT or host of EUT to the power mains through a line impedance stabilization network.
Step 3	All the companion devices are connected to the other LISN. The LISN should provide 50Uh/50ohms coupling impedance.
Step 4	The frequency range from 150 kHz to 30MHz was searched.
Step 5	Set the test-receiver system to peak detector and specified bandwidth with maximum hold mode.
Step 6	The measurement has to be done between each power line and ground at the power terminal.

8.3 Test Diagram



8.4 Limit

Frequency (MHz)	Conducted Limit (dBuV)	
	Q.P.	Ave.
0.15~0.50	66 – 56	56 – 46
0.50~5.00	56	46
5.00~30.0	60	50

8.5 Operating Environment Condition

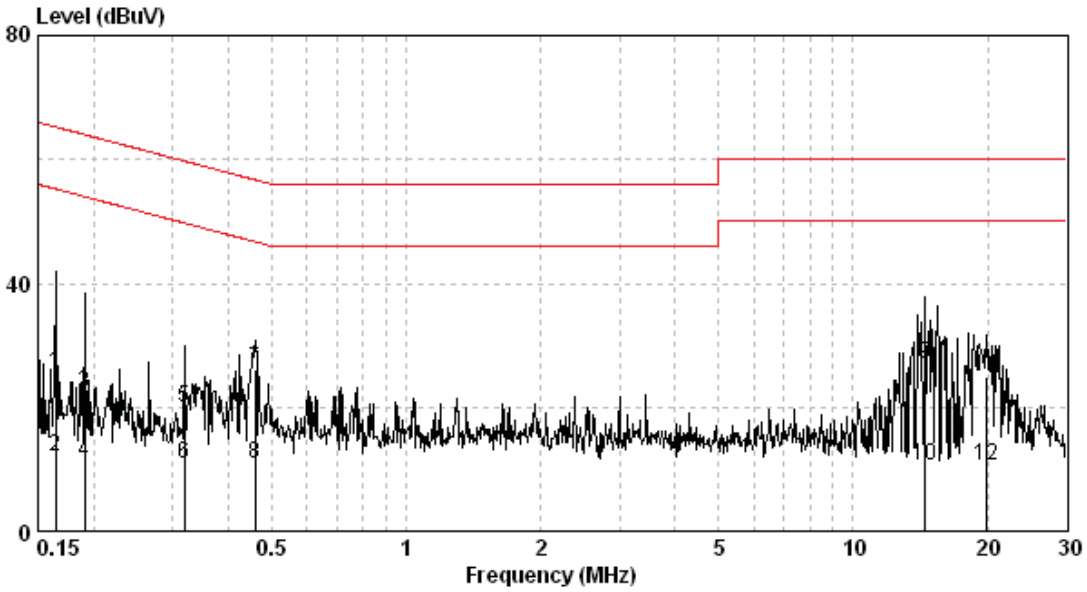
Temperature (℃) :	26
Relative Humidity (%) :	68
Atmospheric Pressure (hPa) :	1010
Test Date :	2019/01/22

8.6 Test Results

Phase: Live Line
Model No.: Foenix_AN
Test Condition: Tx mode

Frequency (MHz)	Corr. Factor (dB)	Reading QP (dBuV)	Level QP (dBuV)	Limit QP (dBuV)	Reading AV (dBuV)	Level AV (dBuV)	Limit AV (dBuV)	Margin (dB) QP	Margin (dB) AV
0.164	9.73	15.84	25.57	65.25	2.26	11.99	55.25	-39.68	-43.26
0.190	9.73	12.51	22.24	64.02	1.42	11.15	54.02	-41.78	-42.87
0.318	9.73	10.11	19.85	59.75	1.09	10.82	49.75	-39.90	-38.93
0.459	9.74	16.20	25.94	56.71	1.06	10.80	46.71	-30.77	-35.91
14.517	9.90	16.91	26.82	60.00	0.51	10.42	50.00	-33.18	-39.58
19.845	9.90	14.91	24.81	60.00	0.51	10.41	50.00	-35.19	-39.59

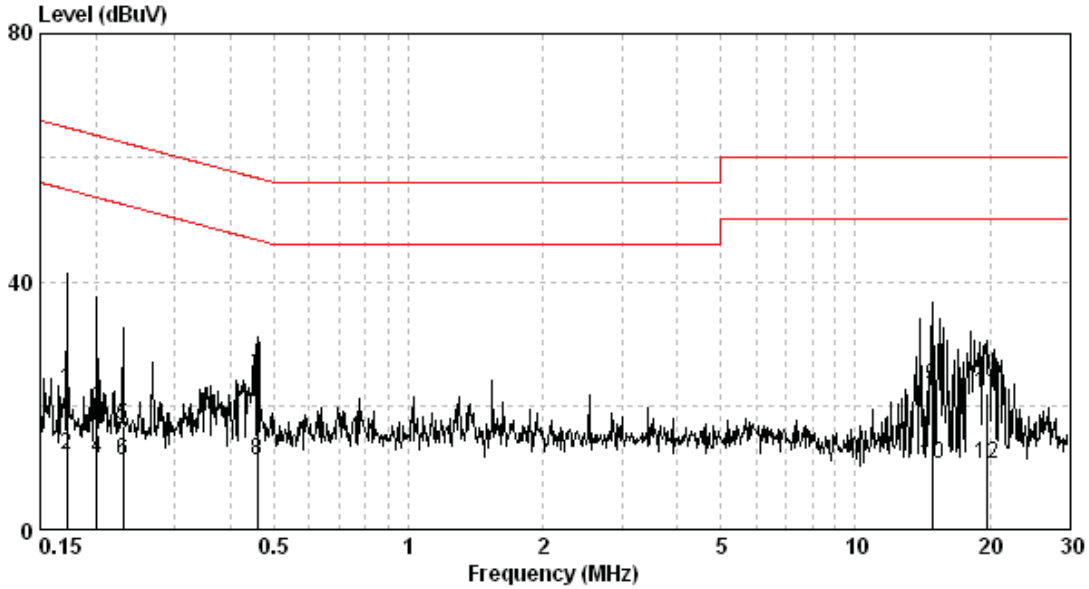
Remark:
1. Corr. Factor (dB) = LISN Factor (dB) + Cable Loss (dB)
2. Level (dBuV) = Corr. Factor (dB) + Reading (dBuV)
3. Margin (dB) = Level (dBuV) – Limit (dBuV)



Phase: Neutral Line
Model No.: Foenix_AN
Test Condition: Tx mode

Frequency (MHz)	Corr. Factor (dB)	Reading QP (dBuV)	Level QP (dBuV)	Limit QP (dBuV)	Reading AV (dBuV)	Level AV (dBuV)	Limit AV (dBuV)	Margin (dB) QP	Margin (dB) AV
0.172	9.74	12.68	22.42	64.86	2.25	11.99	54.86	-42.43	-42.87
0.201	9.74	9.66	19.40	63.58	1.55	11.29	53.58	-44.18	-42.29
0.230	9.74	6.82	16.56	62.44	1.48	11.22	52.44	-45.88	-41.22
0.459	9.75	14.79	24.54	56.71	1.32	11.07	46.71	-32.18	-35.64
14.828	9.95	13.11	23.06	60.00	0.61	10.56	50.00	-36.94	-39.44
19.635	9.97	11.88	21.85	60.00	0.65	10.62	50.00	-38.15	-39.38

Remark:
1. Corr. Factor (dB) = LISN Factor (dB) + Cable Loss (dB)
2. Level (dBuV) = Corr. Factor (dB) + Reading (dBuV)
3. Margin (dB) = Level (dBuV) – Limit (dBuV)



Appendix A: Test equipment list

Test Equipment/ Test site	Brand	Model No.	Serial No.	Calibration Date	Next Calibration Date
ESCI EMI Test Receiver	Rohde & Schwarz	ESCI	100018	2018/11/14	2019/11/13
Spectrum Analyzer	Rohde & Schwarz	FSP30	100245	2018/02/23	2019/02/22
Horn Antenna (1-18G)	SHWARZBECK	BBHA 9120 D	9120D-456	2018/01/23	2019/01/22
Horn Antenna (14-42G)	SHWARZBECK	BBHA 9170	BBHA9170159	2017/09/04	2020/09/02
Broadband Antenna	SHWARZBECK	VULB 9168	9168-172	2018/04/23	2019/04/22
Pre-Amplifier	EMC Co.	EMC12635SE	980205	2018/12/10	2019/12/09
Pre-Amplifier	MITEQ	JS4-26004000--27-8A	828825	2018/08/28	2019/08/27
Power Meter	Anritsu	ML2495A	0844001	2018/10/29	2019/10/28
Power Sensor	Anritsu	MA2411B	0738452	2018/10/29	2019/10/28
Signal Analyzer	Agilent	N9030A	MY51380492	2018/08/24	2019/08/23
966-2(A) Cable 9kHz~26.5GHz	SUHNER	SMA / EX 100	N/A	2018/08/07	2019/08/06
966-2(B) Cable 9kHz~26.5GHz	SUHNER	SUCOFLEX 104P	CB0005	2018/08/07	2019/08/06
RF Cable 9kHz~26.5GHz	SUHNER	SUCOFLEX 102	CB0006	2018/05/03	2019/05/02
966-2_3m Semi-Anechoic Chamber	966_2	CEM-966_2	N/A	2018/03/05	2019/03/04
High Pass Filter	Wainwright	WHKX3.0/ 18G-12SS	N/A	2018/06/01	2019/05/31
Active Loop Antenna	SCHWARZBECK MESS-ELEKTRONIC	FMZB1519	1519-067	2018/04/17	2019/04/16
Wideband Radio Communication Tester	Rohde & Schwarz	CMW500	124781	2018/09/21	2019/09/20

Note: No Calibration Required (NCR)

Test Equipment/ Test site	Brand	Model No.	Serial No.	Calibration Date	Next Calibration Date
EMI Receiver	R&S	ESCI	100059	2018/11/07	2019/11/06
Two-Line V-Network	R&S	ENV216	101159	2018/06/01	2019/05/31
Two-Line -V-Network	R&S	ESH3-Z5	825562/003	2018/09/03	2019/09/02
CON-1 Shielded Room	N/A	N/A	N/A	NCR	NCR
CON-1 Cable	SUHNER	SUCOFLEX-104	26438414	2018/05/03	2019/05/02
Test software	Audix	e3	4.20040112L	NCR	NCR

Note: No Calibration Required (NCR).

Appendix B: Measurement Uncertainty

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

Item	Uncertainty
Vertically polarized radiated disturbances from 30MHz~1GHz in a semi-anechoic chamber at a distance of 3m	5.14 dB
Horizontally polarized radiated disturbances from 30MHz~1GHz in a semi-anechoic chamber at a distance of 3m	5.22 dB
Vertically polarized Radiated disturbances from 1GHz~18GHz in a semi-anechoic chamber at a distance of 3m	3.64 dB
Horizontally polarized Radiated disturbances from 1GHz~18GHz in a semi-anechoic chamber at a distance of 3m	3.64 dB
Vertically polarized Radiated disturbances from 18GHz~40GHz in a semi-anechoic chamber at a distance of 3m	2.68 dB
Horizontally polarized Radiated disturbances from 18GHz~40GHz in a semi-anechoic chamber at a distance of 3m	2.68 dB
Radiated disturbances from 9kHz~30MHz in a semi-anechoic chamber at a distance of 3m	3.54 dB
Emission on the Band Edge Test	3.64 dB
Minimum 6dB Bandwidth	0.85 dB
Maximum Conducted Output Power	0.42 dB
Power Spectral Density	0.85 dB
Emissions In Non-Restricted Frequency Bands	0.85 dB
AC Power Line Conducted Emission	2.48 dB