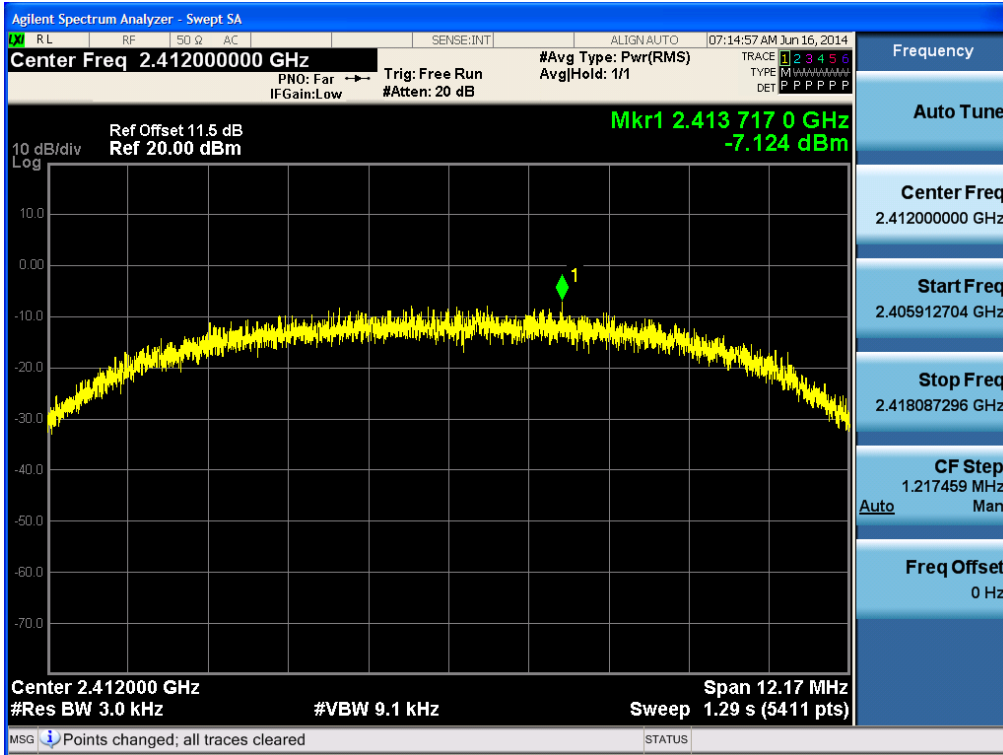


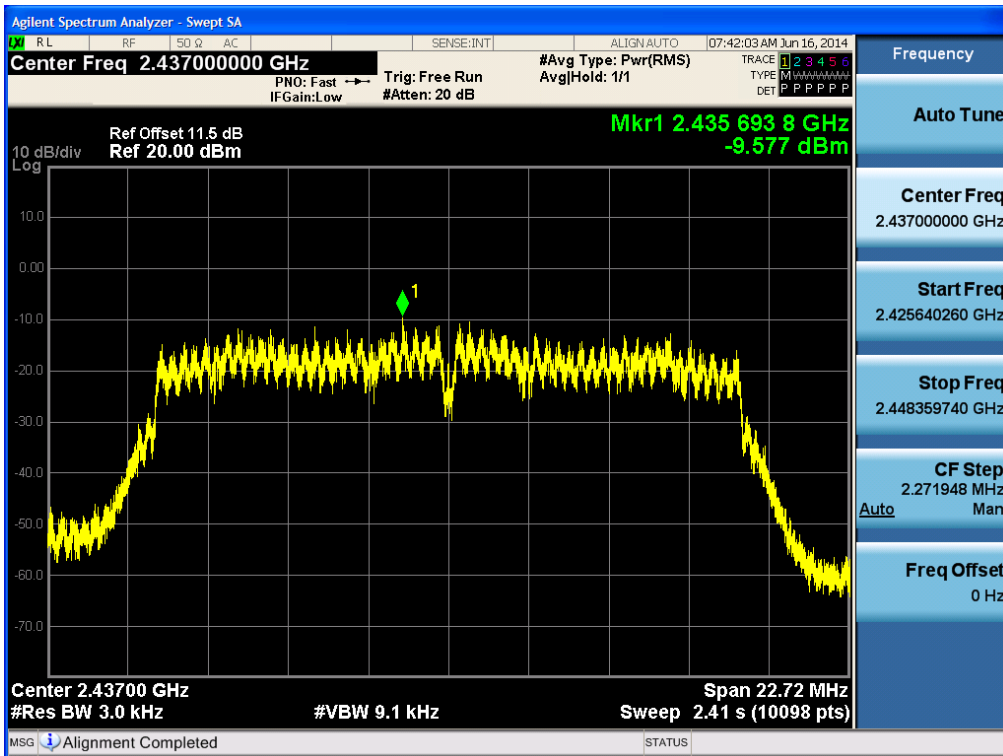
RESULT PLOTS Ant.1

2.4 GHz Band

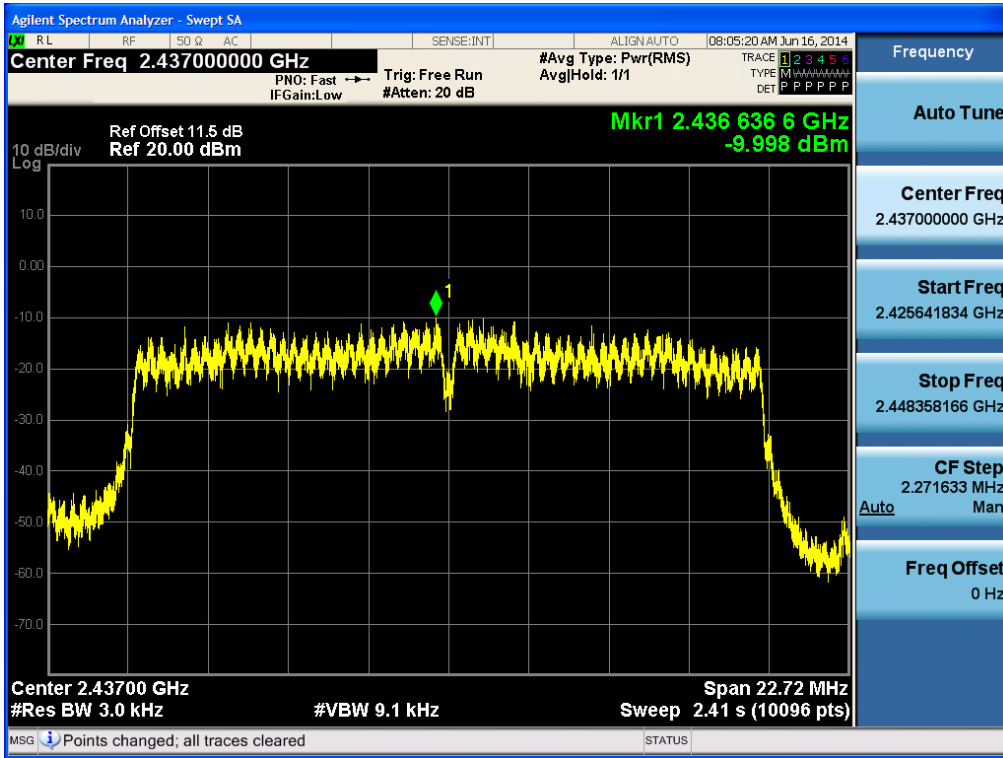
Power Spectral Density (802.11b-CH 1)



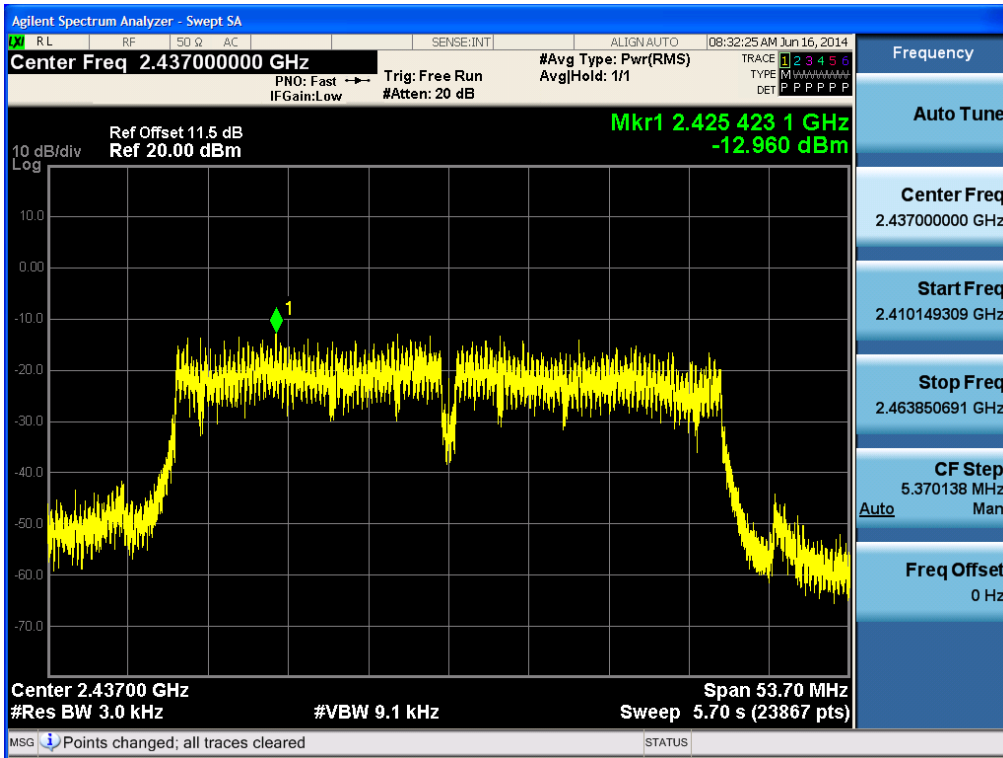
Power Spectral Density (802.11g-CH 6)



Power Spectral Density (802.11n-CH 6) _ 20 MHz BW

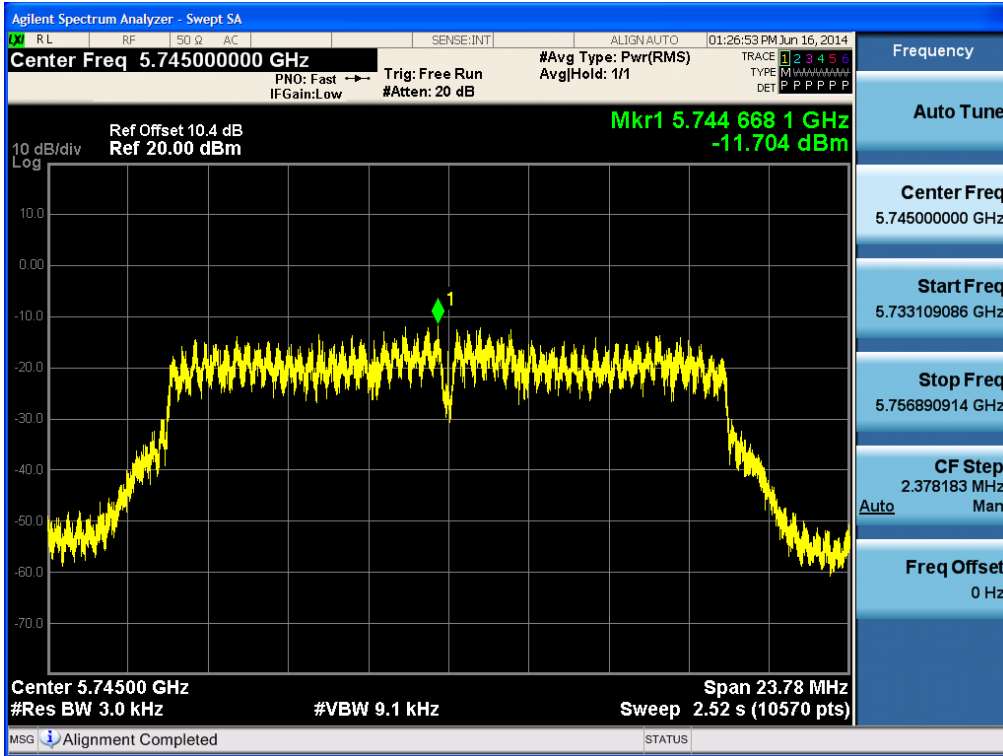


Power Spectral Density (802.11n-CH 6) _ 40 MHz BW

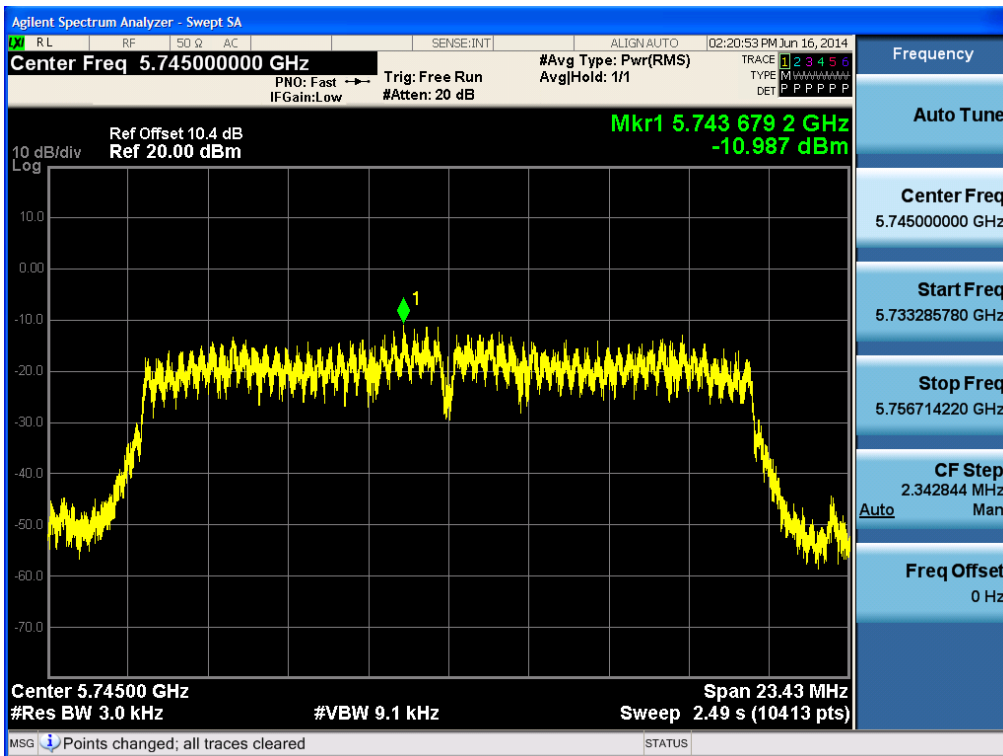


5.8 GHz Band

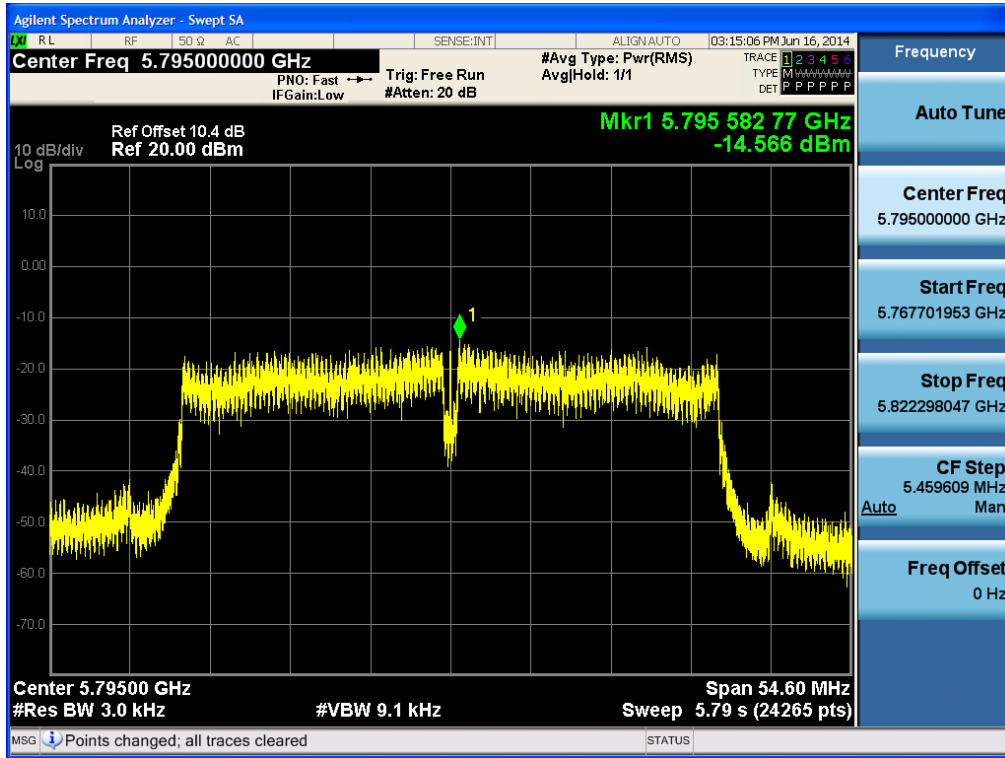
Power Spectral Density (802.11a-CH 149)



Power Spectral Density (802.11n -CH 149) _20 MHz BW



Power Spectral Density (802.11n -CH 159) _40 MHz BW



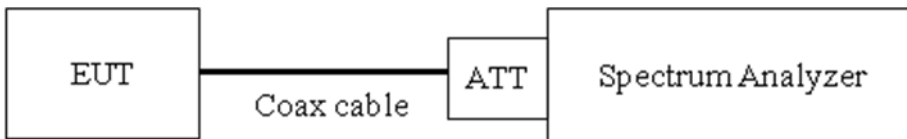
8.6 OUT OF BAND EMISSIONS AT THE BAND EDGE/ CONDUCTED SPURIOUS EMISSIONS

Test Requirements and limit, §15.247(d)

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in § 15.209(a) is not required. 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 § 15.205(c)).

Limit : 20 dBc

■ TEST CONFIGURATION



■ TEST PROCEDURE

The transmitter output is connected to the spectrum analyzer. (Procedure 11.0 in KDB 558074, issued 06/05/2014)

RBW = 100 kHz

VBW ≥ 3 x RBW

Set span to encompass the spectrum to be examined

Detector = Peak

Trace Mode = max hold

Sweep time = auto couple

Ensure that the number of measurement points ≥ Span/RBW

Allow trace to fully stabilize.

Use peak marker function to determine the maximum amplitude level.

Measurements are made over the 30 MHz to 10th harmonic range with the transmitter set to the lowest, middle, and highest channels.

Note :

1. The band edge results in plot is already including the actual values of loss for the attenuator and cable combination.

2. Spectrum offset = Attenuator loss + Cable loss

3. We apply to the offset in the 2.4 GHz and 5.8 GHz range that was rounded off to the closest tenth dB.

Actual value of loss for the attenuator and cable combination is below table.

Band	Loss(dB)
2.4 GHz	10.2
5.8 GHz	10.4

(Actual value of loss for the attenuator and cable combination)

4. In order to simplify the report, attached plots were only the worst case channel and data rate.

5. In order to simplify the report, attached plots were only the worst case channel and data rate.

■ FACTORS FOR FREQUENCY

Freq(MHz)	Factor(dB)
30	9.95
100	10.01
200	10.03
300	10.04
400	10.05
500	10.04
600	10.03
700	10.09
800	10.10
900	10.08
1000	10.11
2000	10.25
2400*	10.19
2500*	10.24
3000	10.27
4000	10.22
5000	10.48
5700*	10.42
5800*	10.44
6000	10.48
7000	10.57
8000	10.45
9000	10.50
10000	10.64

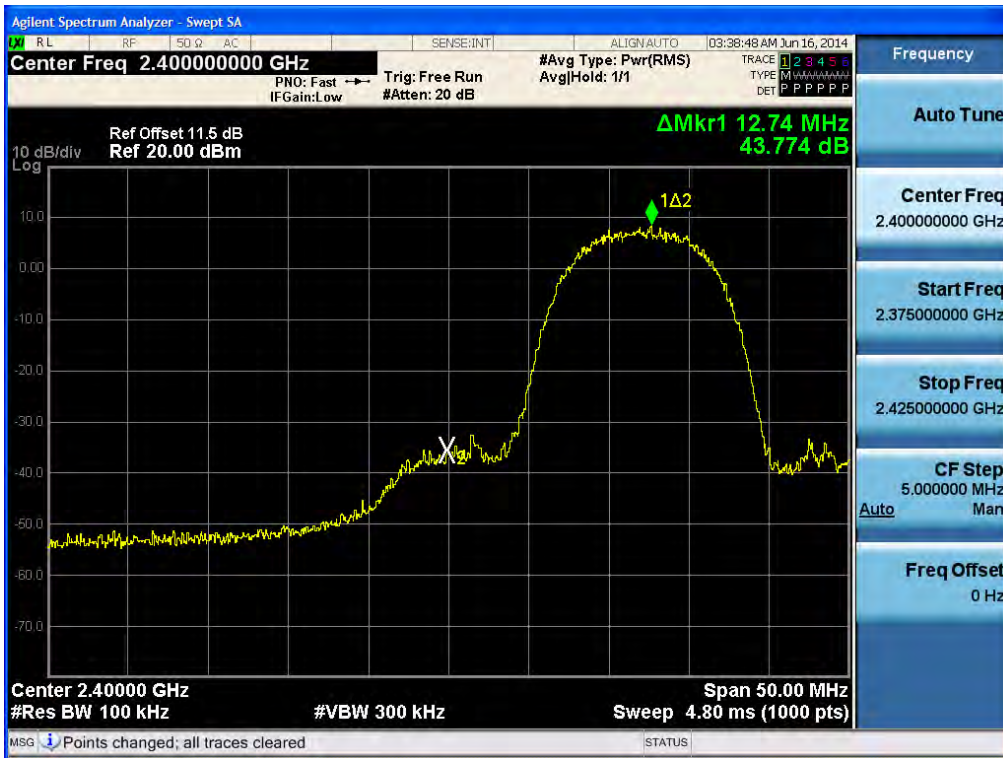
11000	10.69
12000	10.75
13000	10.92
14000	11.90
15000	11.00
16000	11.03
17000	10.93
18000	10.96
19000	10.85
20000	12.11
21000	11.17
22000	10.99
23000	11.12
24000	11.10
25000	11.42
26000	11.28
27000	10.83
28000	11.03
29000	10.99
30000	12.08
31000	10.99
32000	11.32
33000	11.33
34000	12.62
35000	14.85
36000	14.78
37000	15.73
38000	15.81
39000	13.47
40000	14.89

Note : 1. ** is fundamental frequency range.
 2. Factor = Cable loss + Attenuator loss

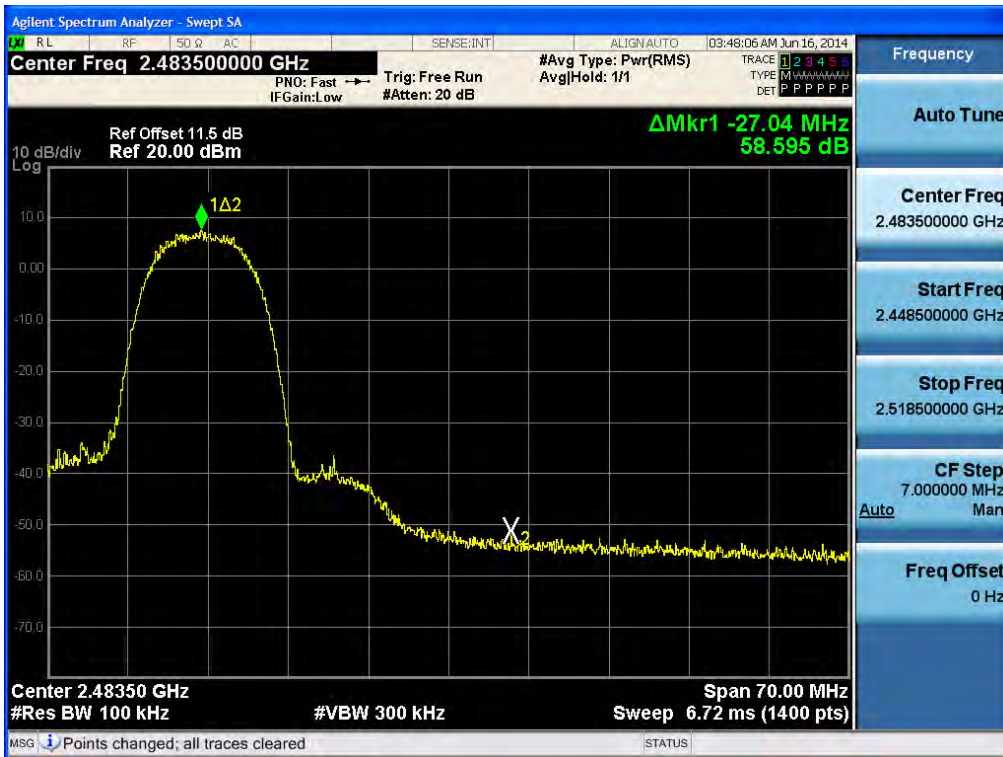
RESULT PLOTS Ant.0

2.4 GHz Band

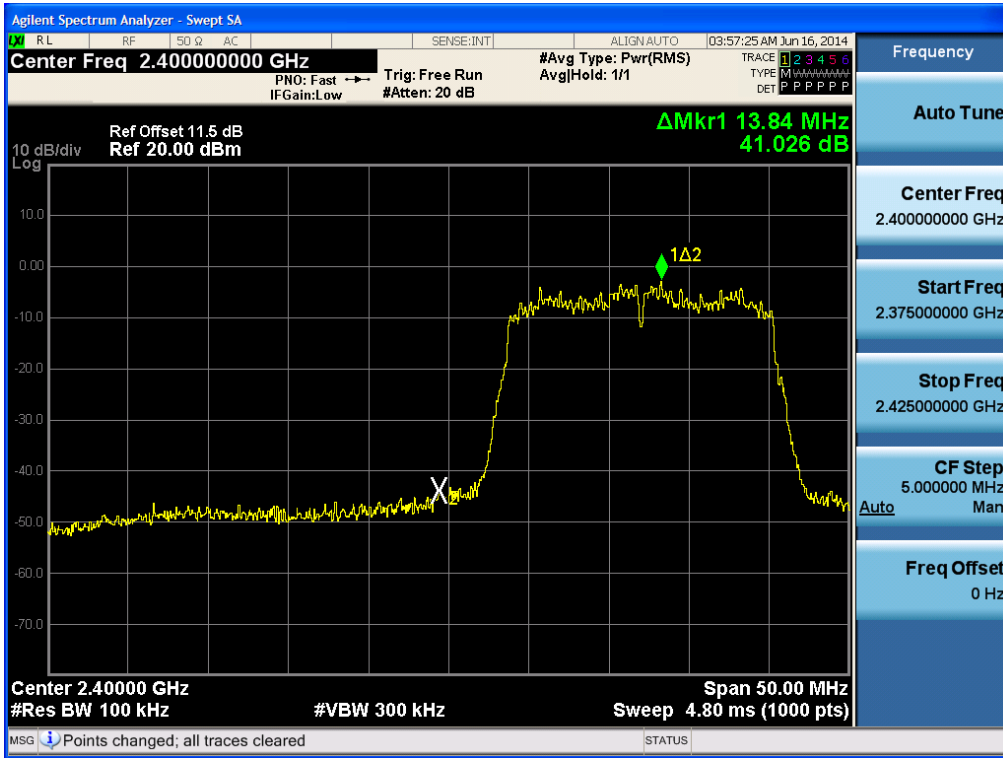
BandEdge (802.11b-CH1)



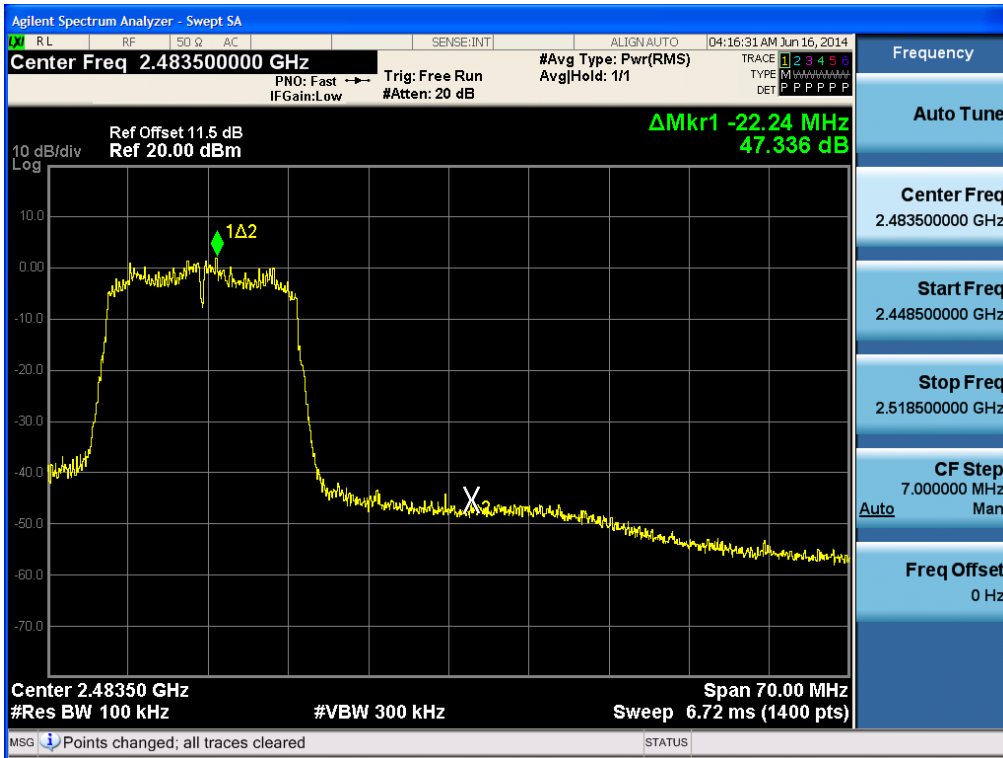
BandEdge (802.11b-CH11)



BandEdge (802.11g-CH1)



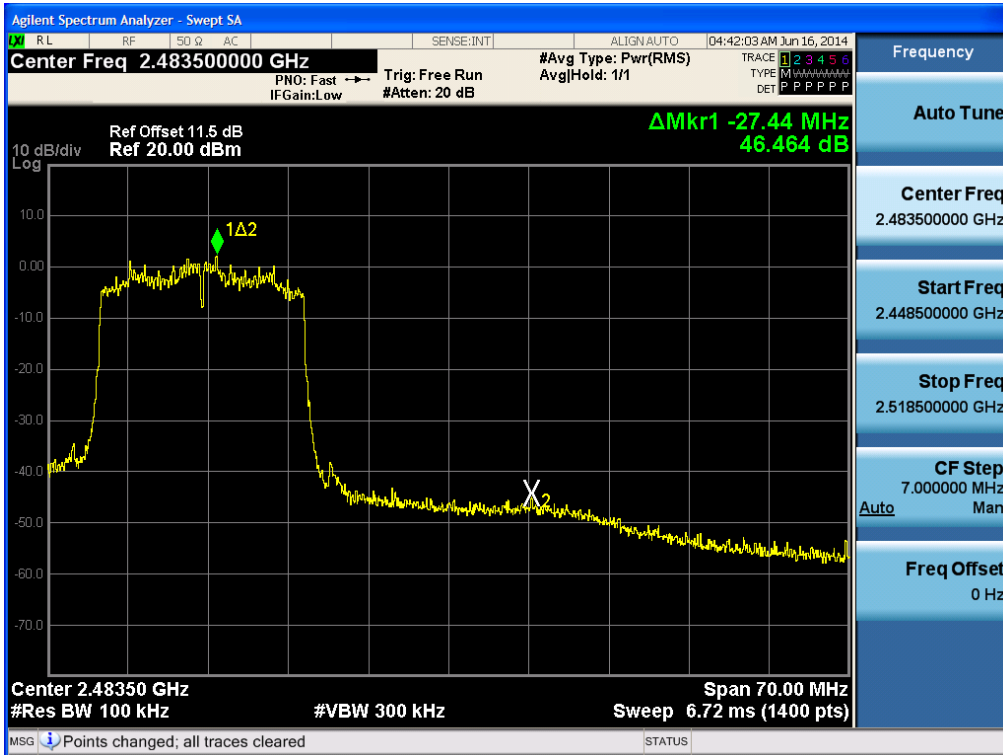
BandEdge (802.11g-CH11)



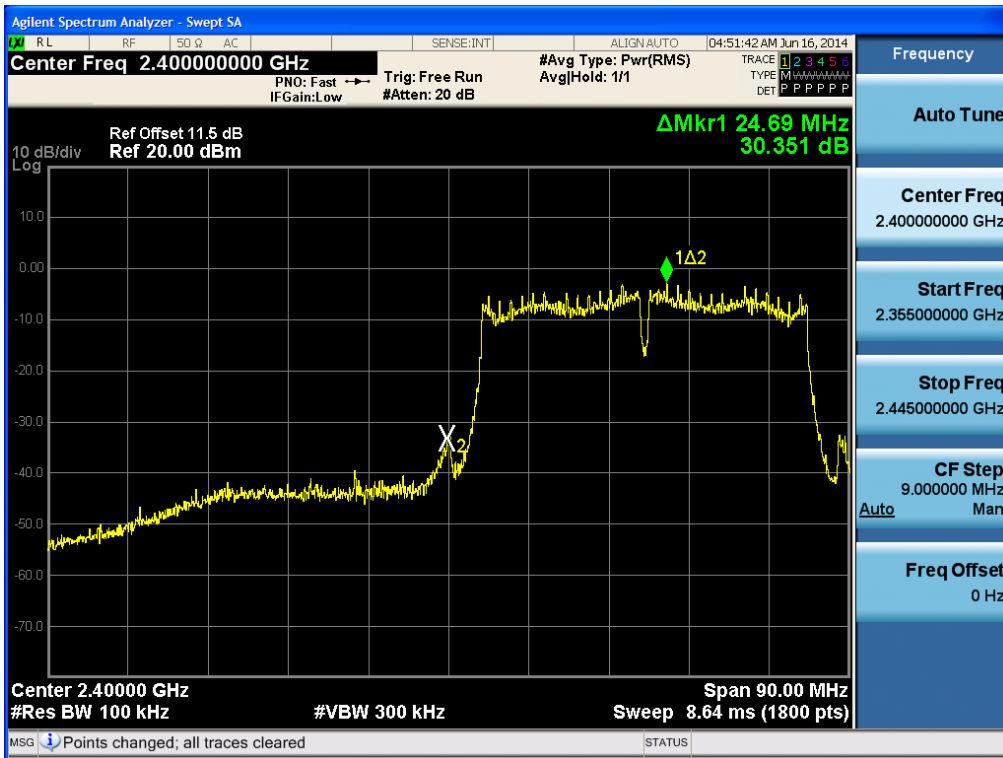
Band Edge (802.11n-CH1) _ 20 MHz BW



Band Edge (802.11n-CH11) _ 20 MHz BW



Band Edge (802.11n-CH1) _ 40 MHz BW

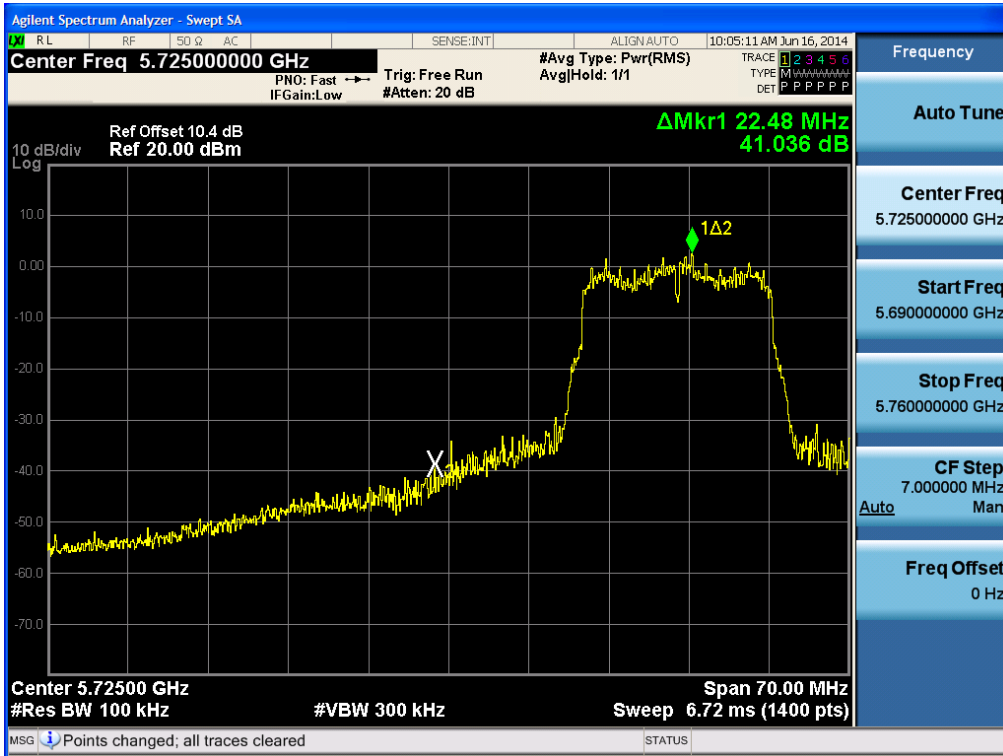


Band Edge (802.11n-CH11) _ 40 MHz BW



5.8 GHz Band

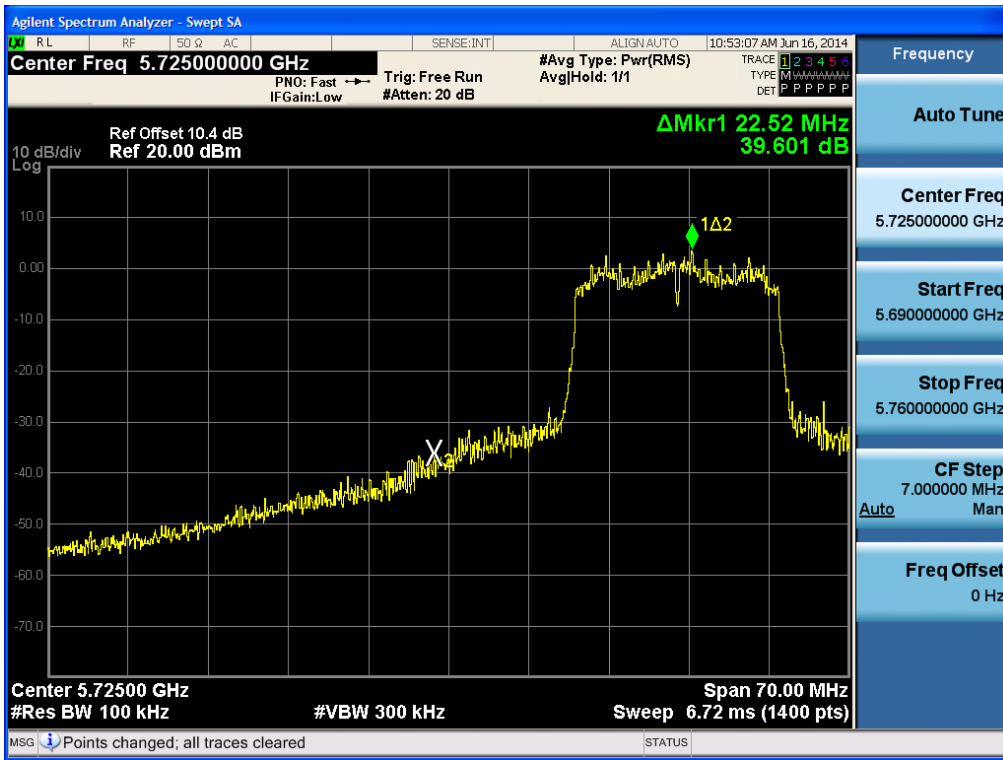
BandEdge (802.11a-CH 149)



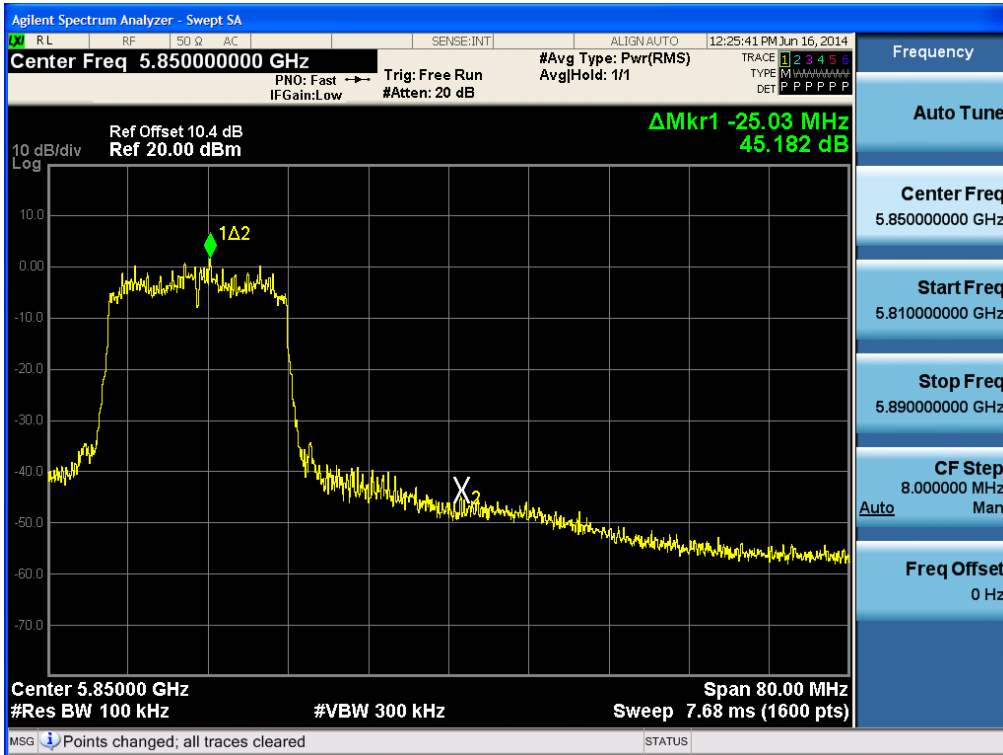
BandEdge (802.11a-CH 165)



BandEdge (802.11n-CH 149) _20 MHz BW



BandEdge (802.11n-CH 165) _20 MHz BW



BandEdge (802.11n-CH 151) _40 MHz BW



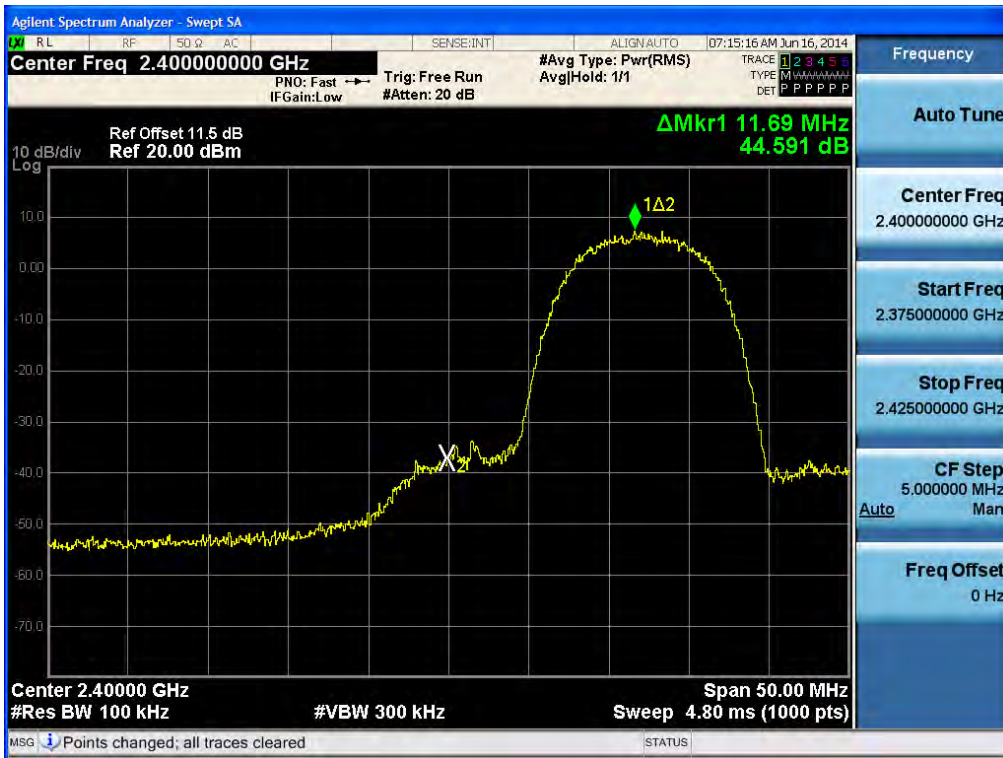
BandEdge (802.11n-CH 159) _40 MHz BW



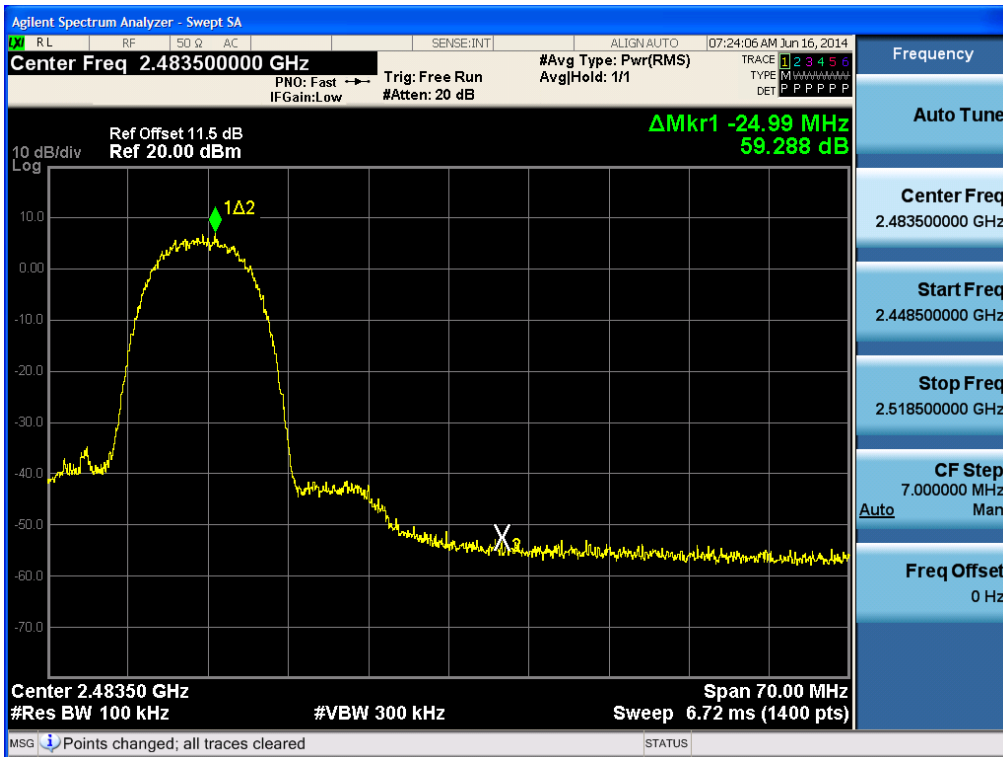
RESULT PLOTS Ant.1

2.4 GHz Band

BandEdge (802.11b-CH1)



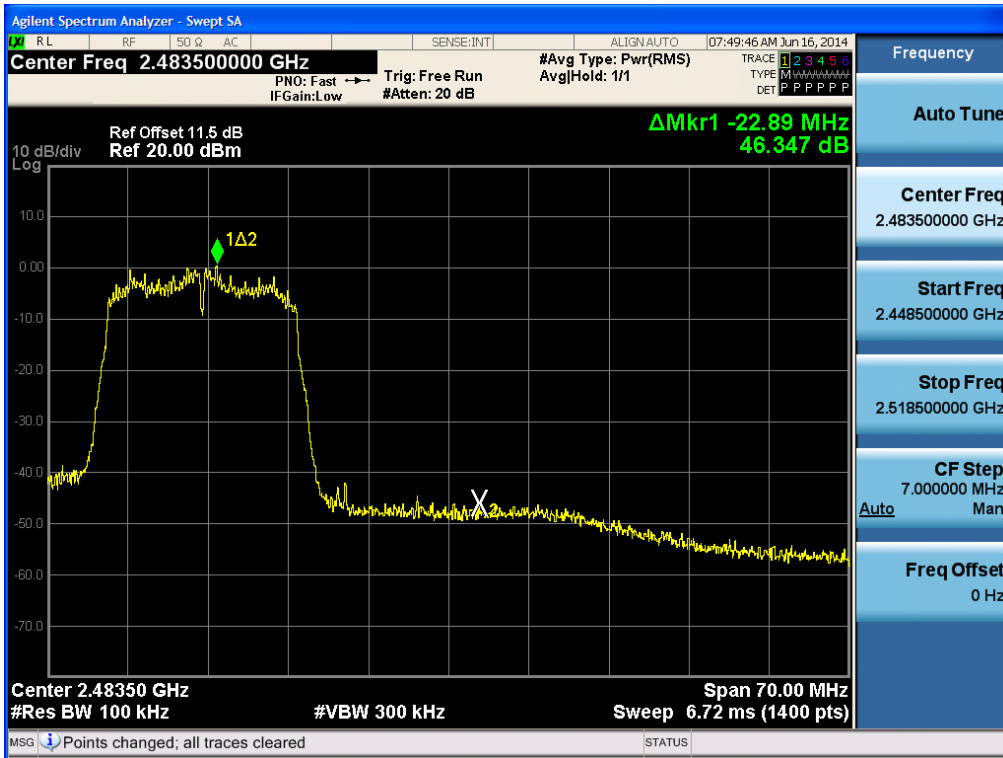
BandEdge (802.11b-CH11)



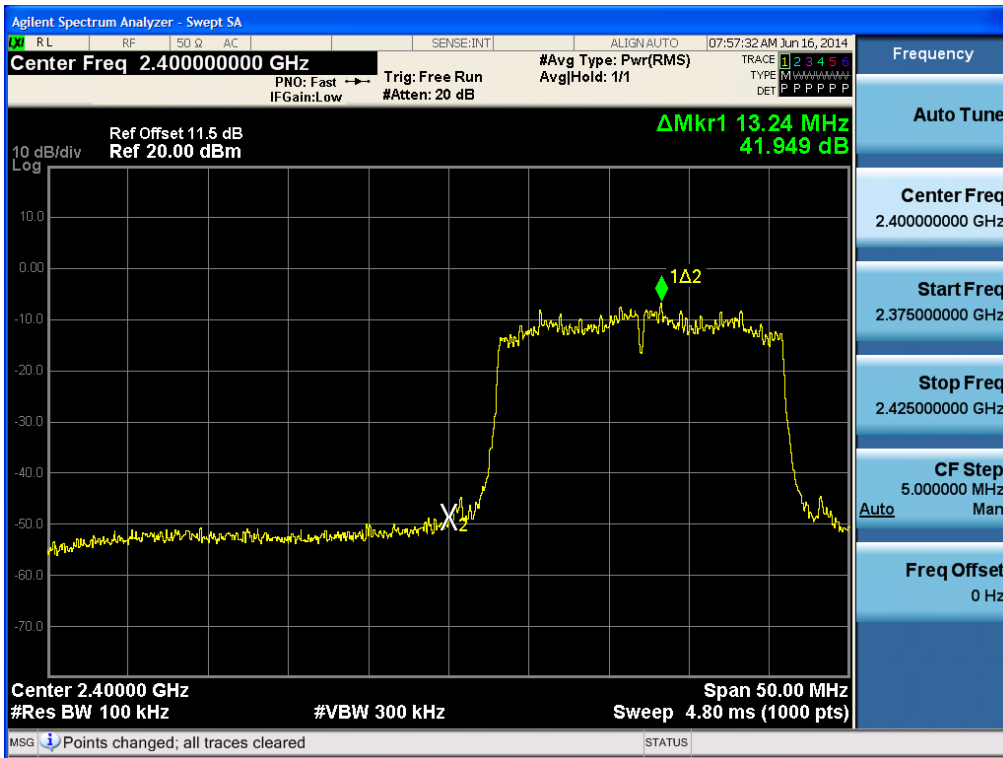
BandEdge (802.11g-CH1)



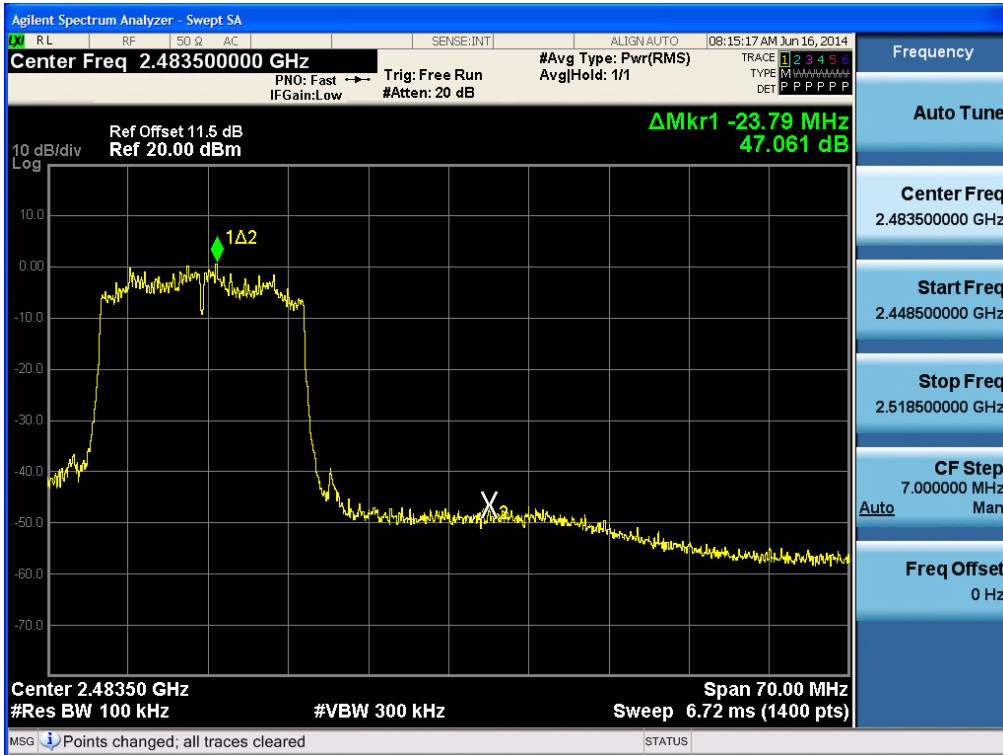
BandEdge (802.11g-CH11)



Band Edge (802.11n-CH1) _ 20 MHz BW



Band Edge (802.11n-CH11) _ 20 MHz BW



Band Edge (802.11n-CH1) _ 40 MHz BW

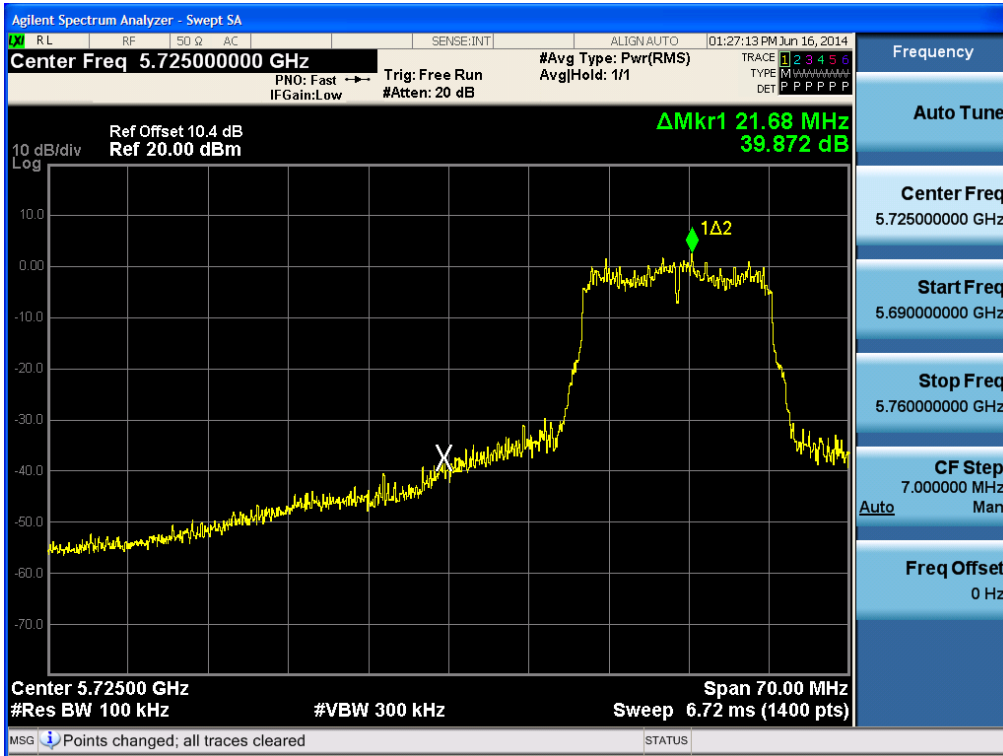


Band Edge (802.11n-CH11) _ 40 MHz BW



5.8 GHz Band

BandEdge (802.11a-CH 149)



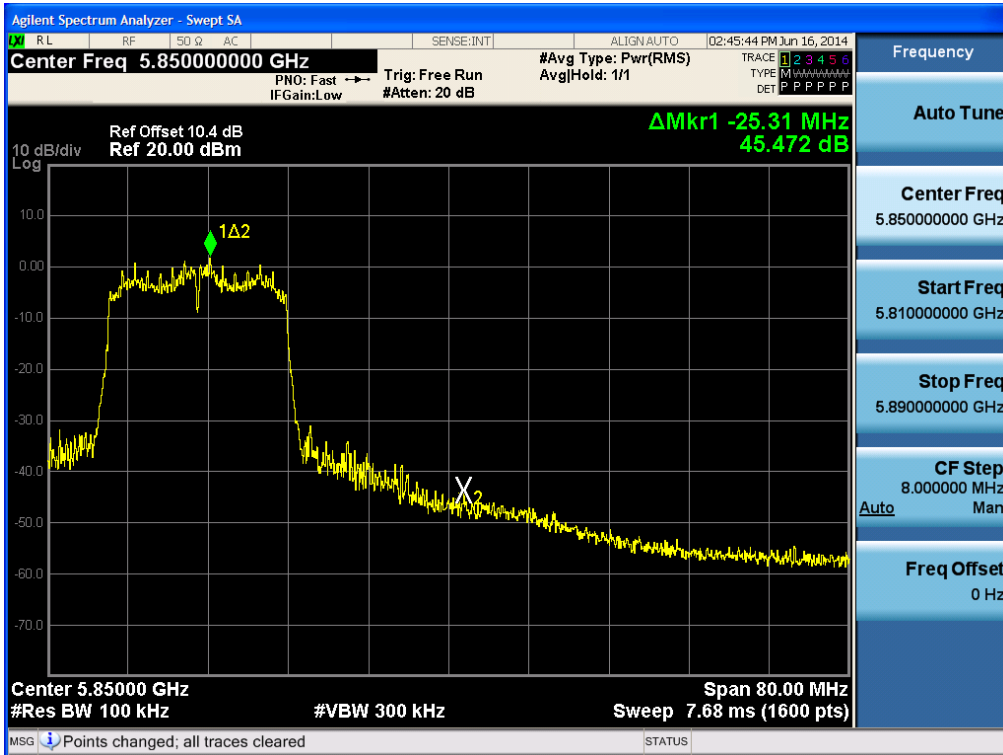
BandEdge (802.11a-CH 165)



BandEdge (802.11n-CH 149) _20 MHz BW



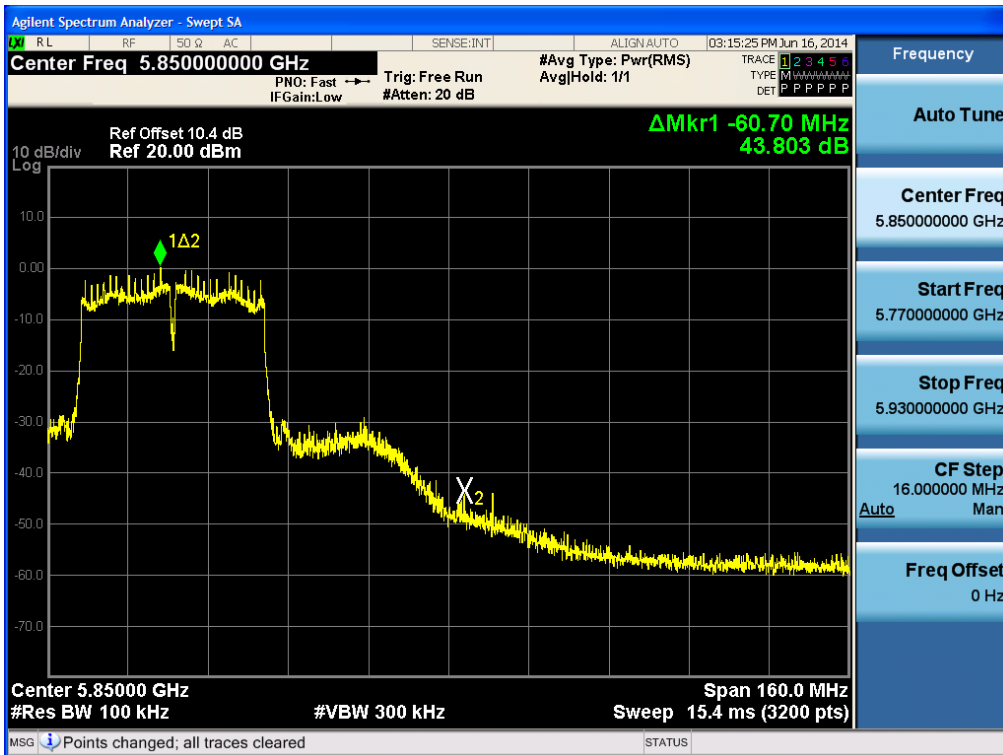
BandEdge (802.11n-CH 165) _20 MHz BW



BandEdge (802.11n-CH 151) _40 MHz BW

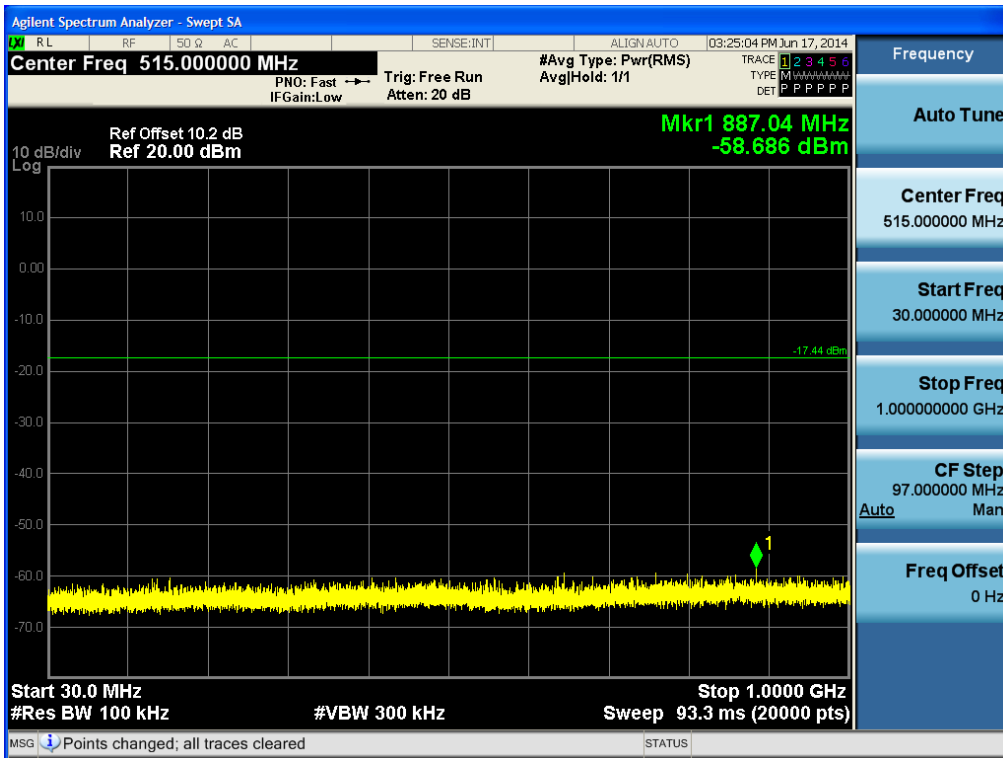


BandEdge (802.11n-CH 159) _40 MHz BW



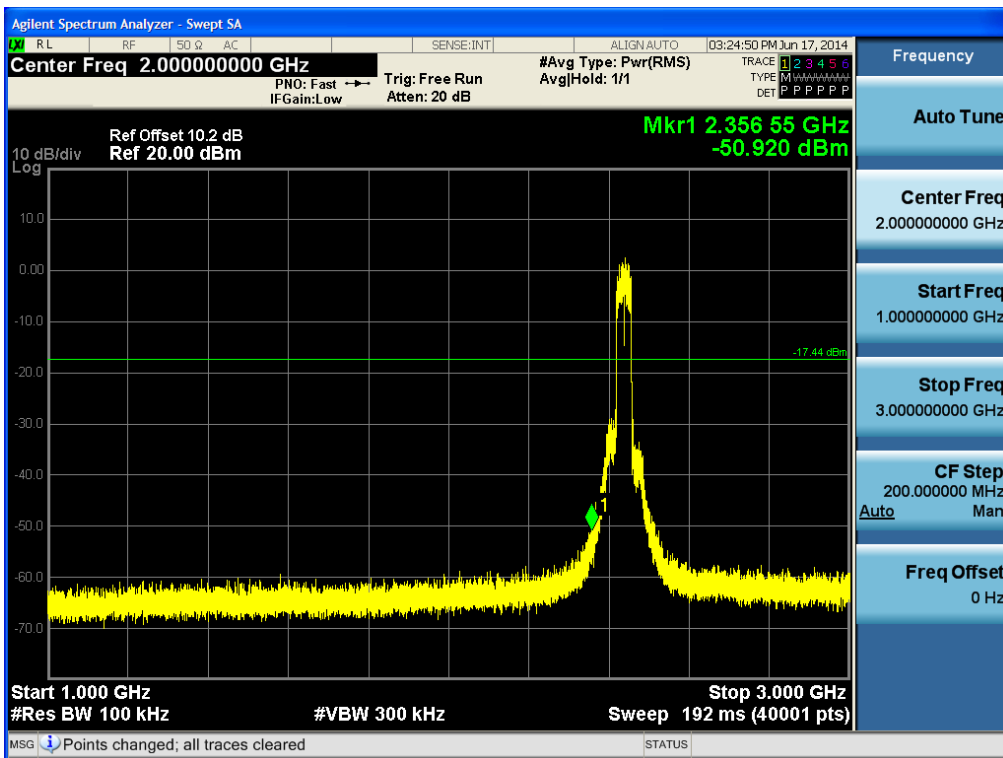
2.4 GHz Band Ant.0
30 MHz ~ 1 GHz

Conducted Spurious Emission (802.11n-CH6) 40 MHz BW_2.4G



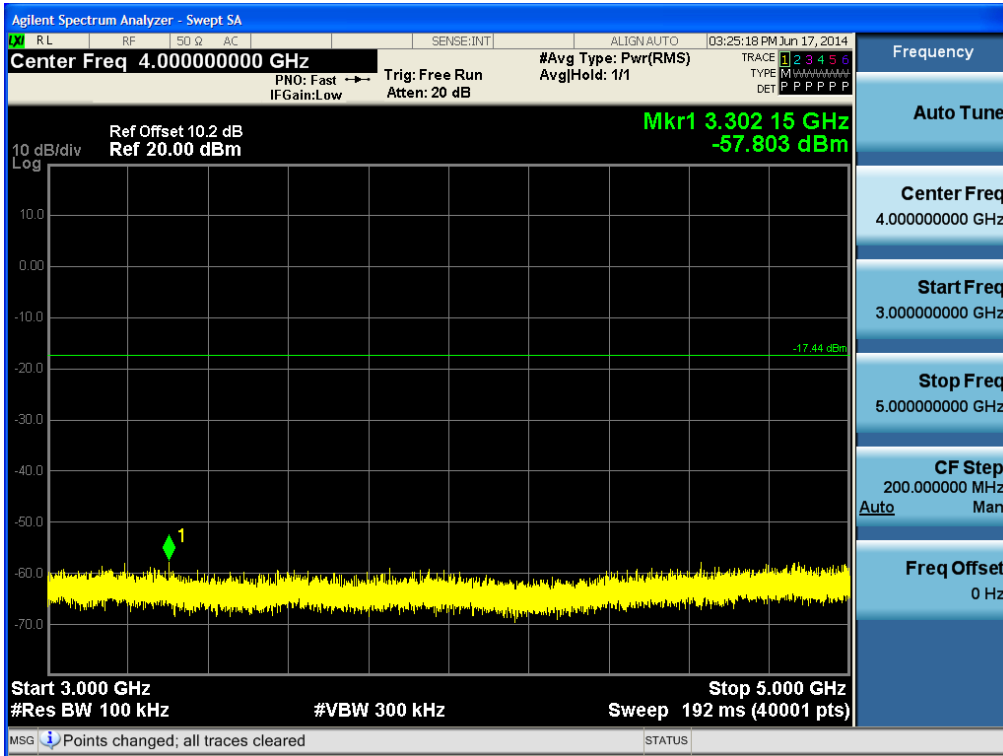
1 GHz ~ 3 GHz

Conducted Spurious Emission (802.11n-CH6) 40 MHz BW_2.4G



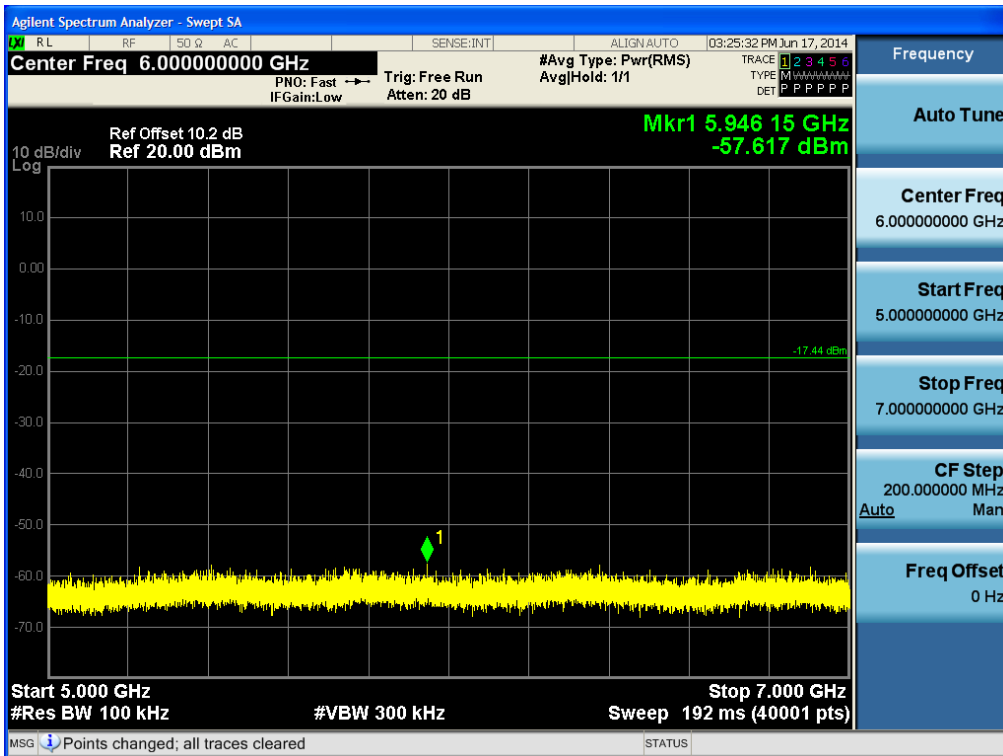
3 GHz ~ 5 GHz

Conducted Spurious Emission (802.11n-CH6) 40 MHz BW_2.4G



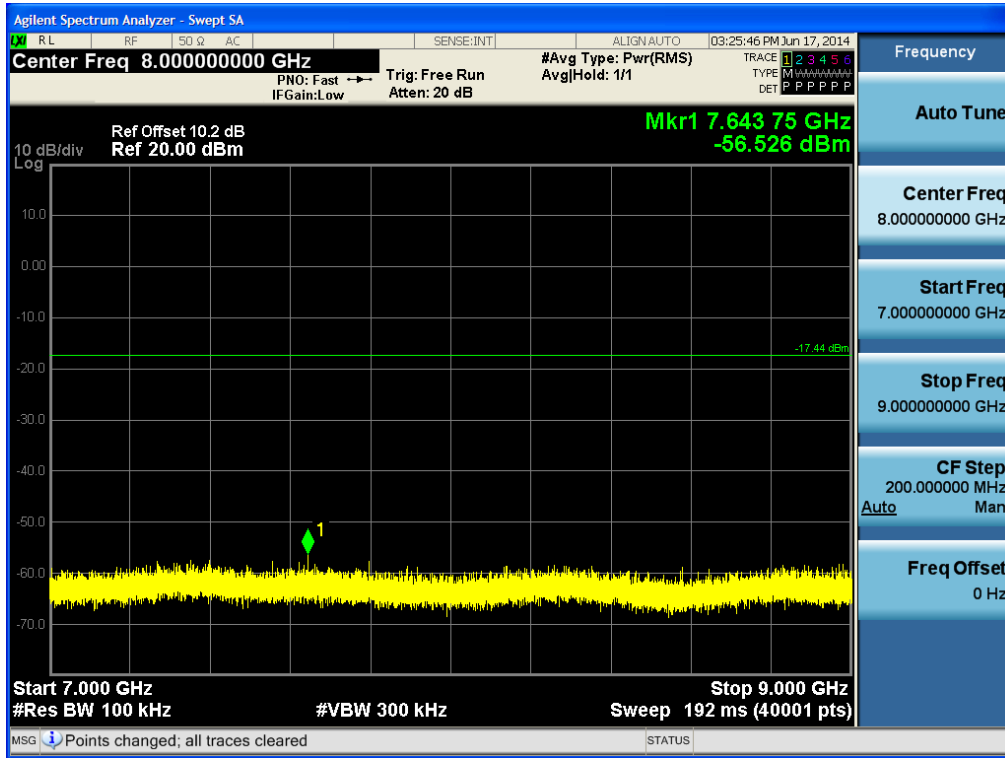
5 GHz ~ 7 GHz

Conducted Spurious Emission (802.11n-CH6) 40 MHz BW_2.4G



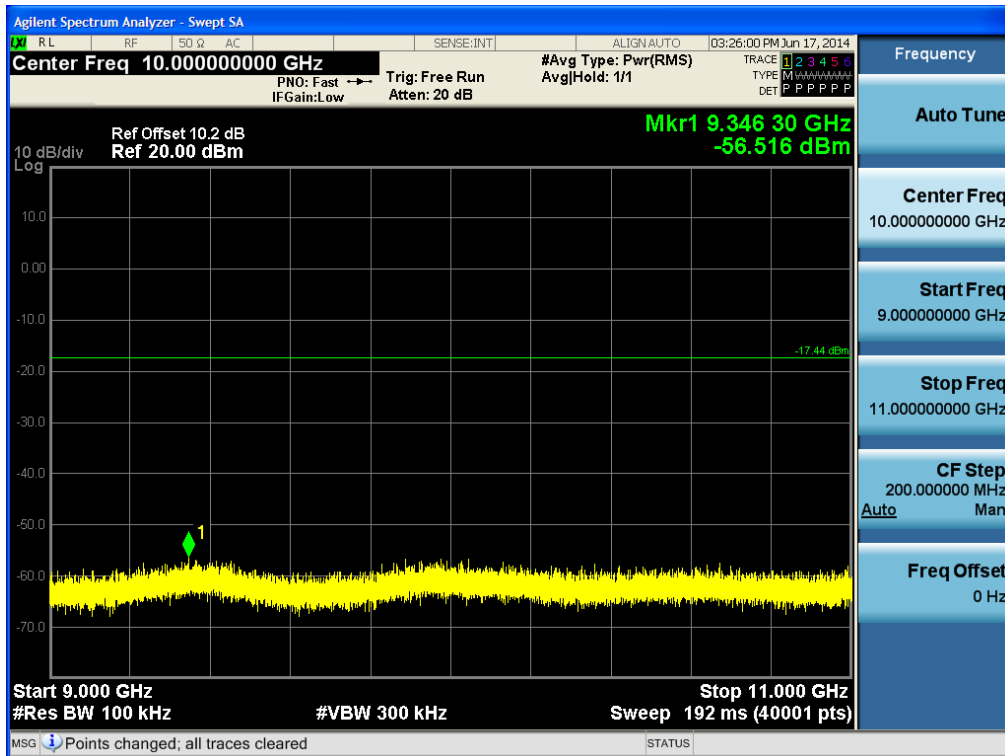
7 GHz ~ 9 GHz

Conducted Spurious Emission (802.11n-CH6) 40 MHz BW_2.4G



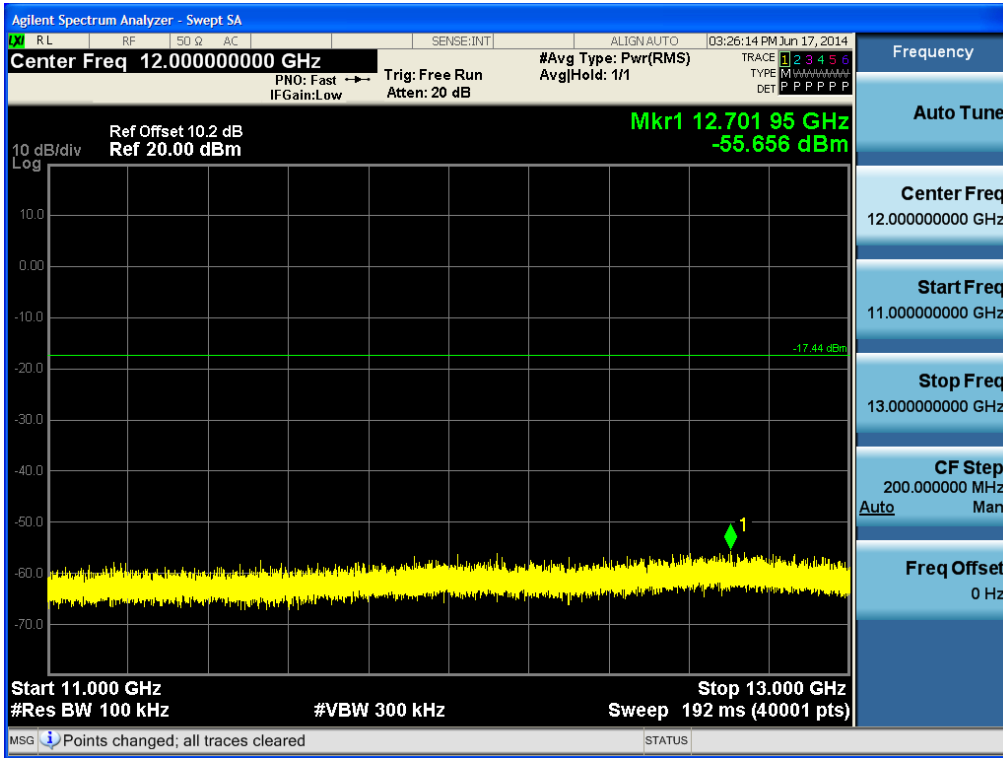
9 GHz ~ 11 GHz

Conducted Spurious Emission (802.11n-CH6) 40 MHz BW_2.4G



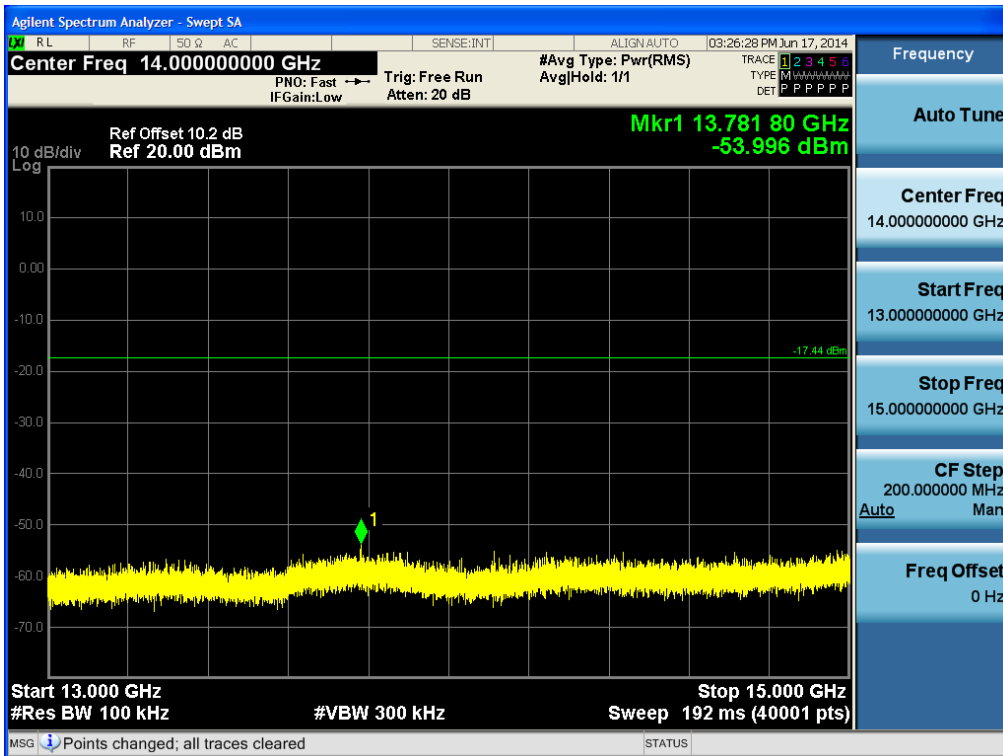
11 GHz ~ 13 GHz

Conducted Spurious Emission (802.11n-CH6) 40 MHz BW_2.4G



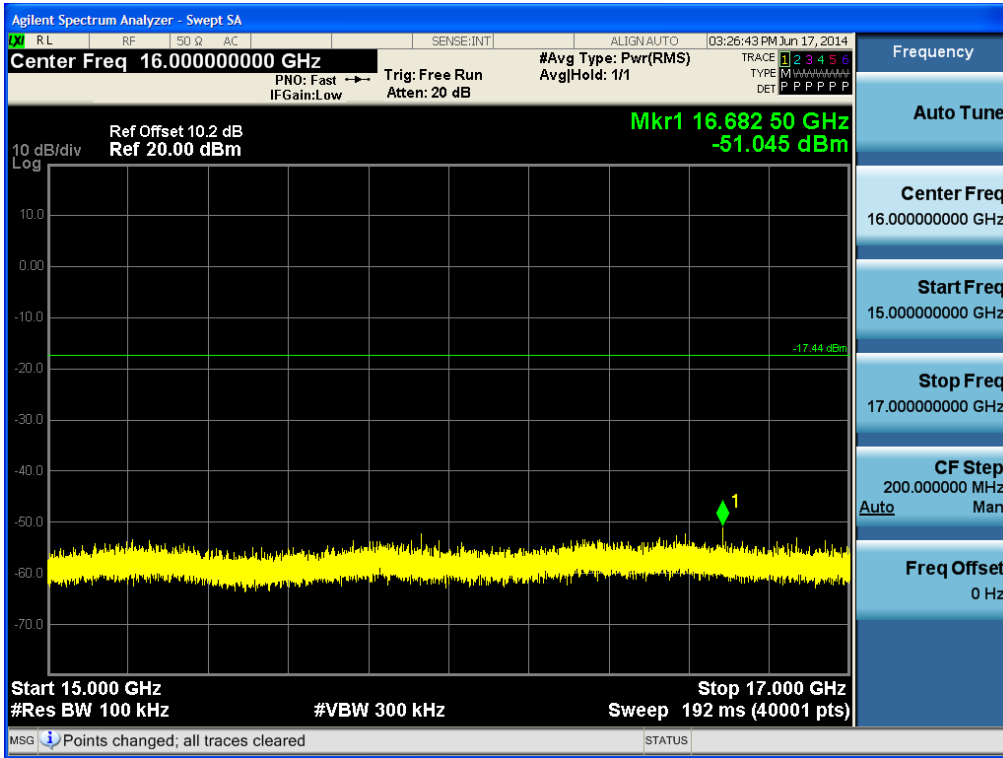
13 GHz ~ 15 GHz

Conducted Spurious Emission (802.11n-CH6) 40 MHz BW_2.4G



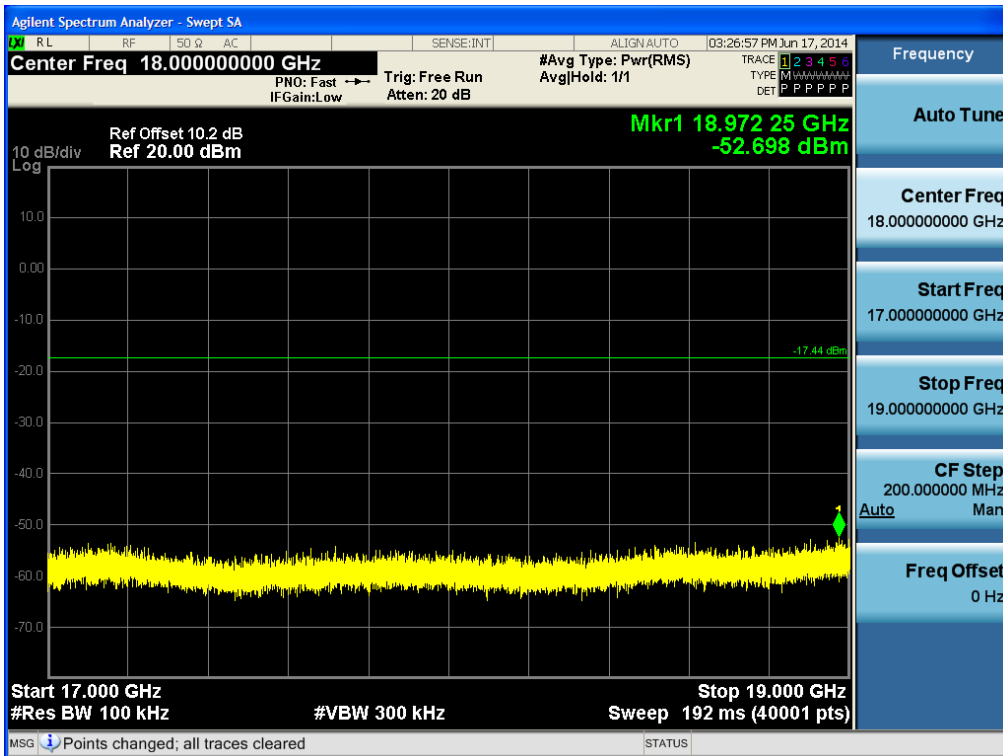
15 GHz ~ 17 GHz

Conducted Spurious Emission (802.11n-CH6) 40 MHz BW_2.4G



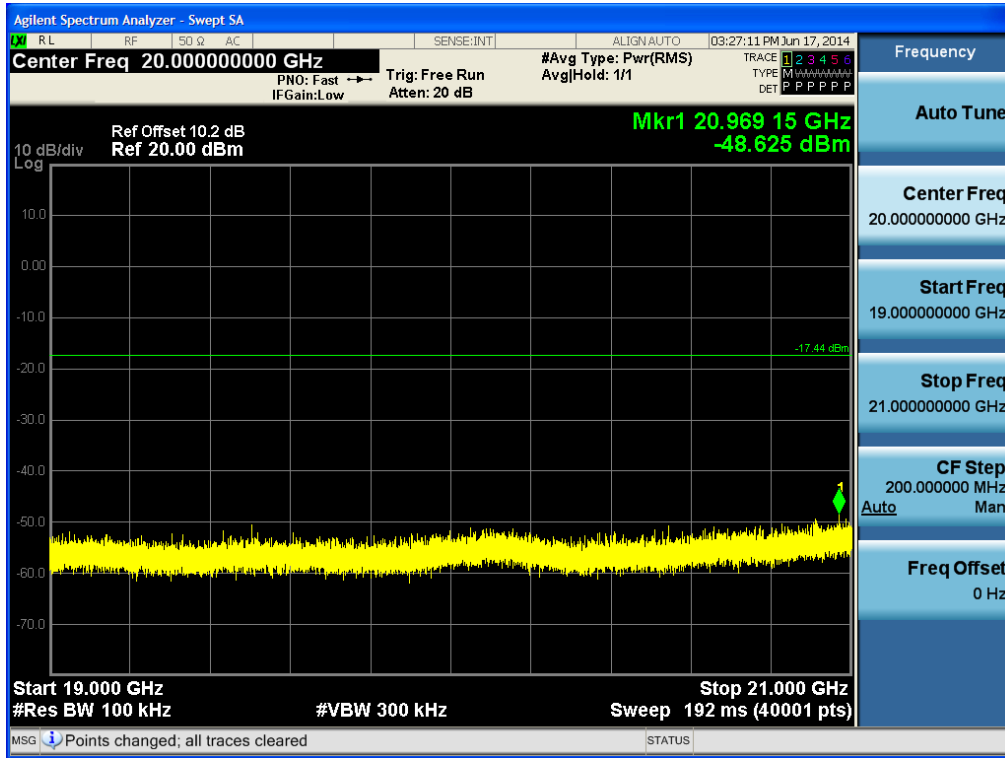
17 GHz ~ 19 GHz

Conducted Spurious Emission (802.11n-CH6) 40 MHz BW_2.4G



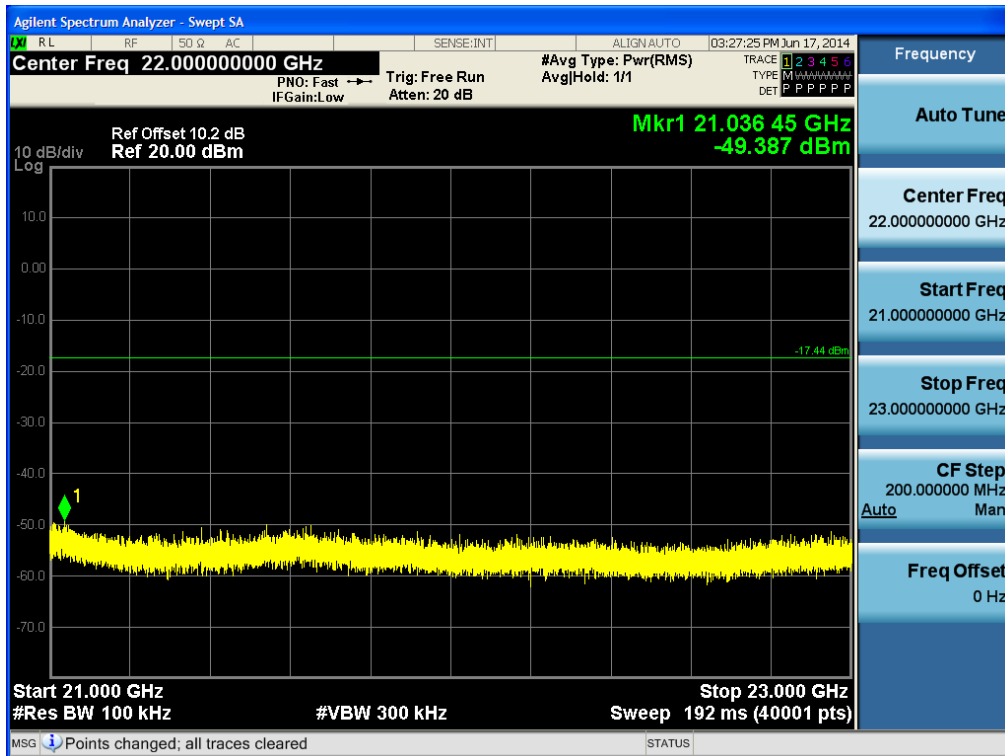
19 GHz ~ 21 GHz

19inducted Spurious Emission (802.11n-CH6) 40 MHz BW_2.4G



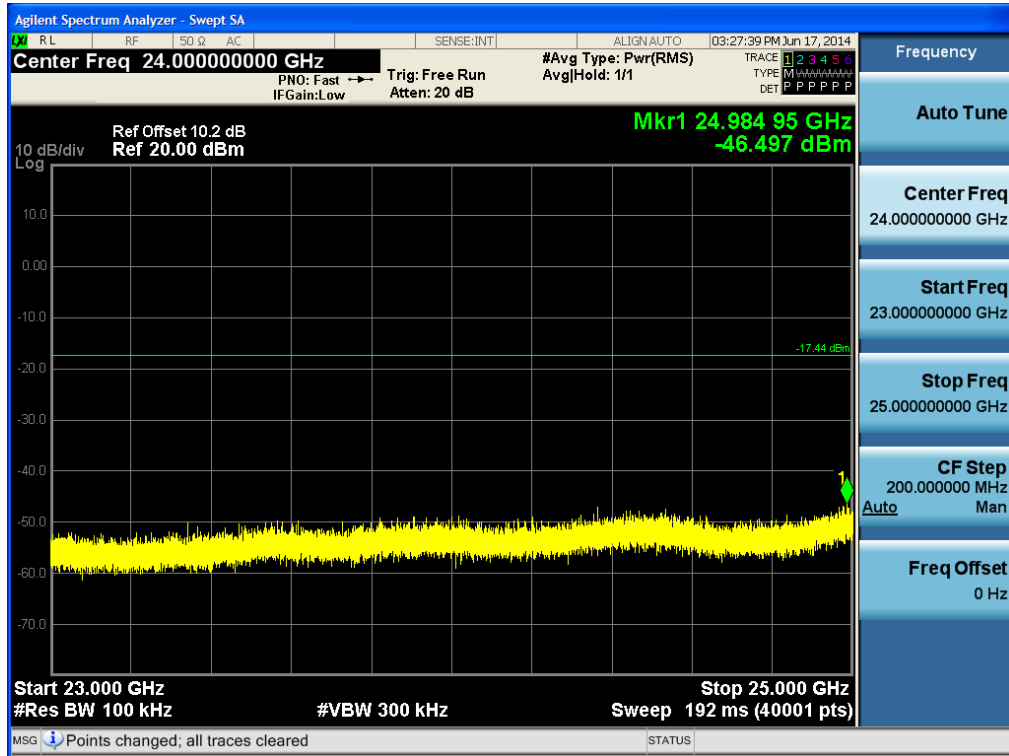
21 GHz ~ 23 GHz

Conducted Spurious Emission (802.11n-CH6) 40 MHz BW_2.4G



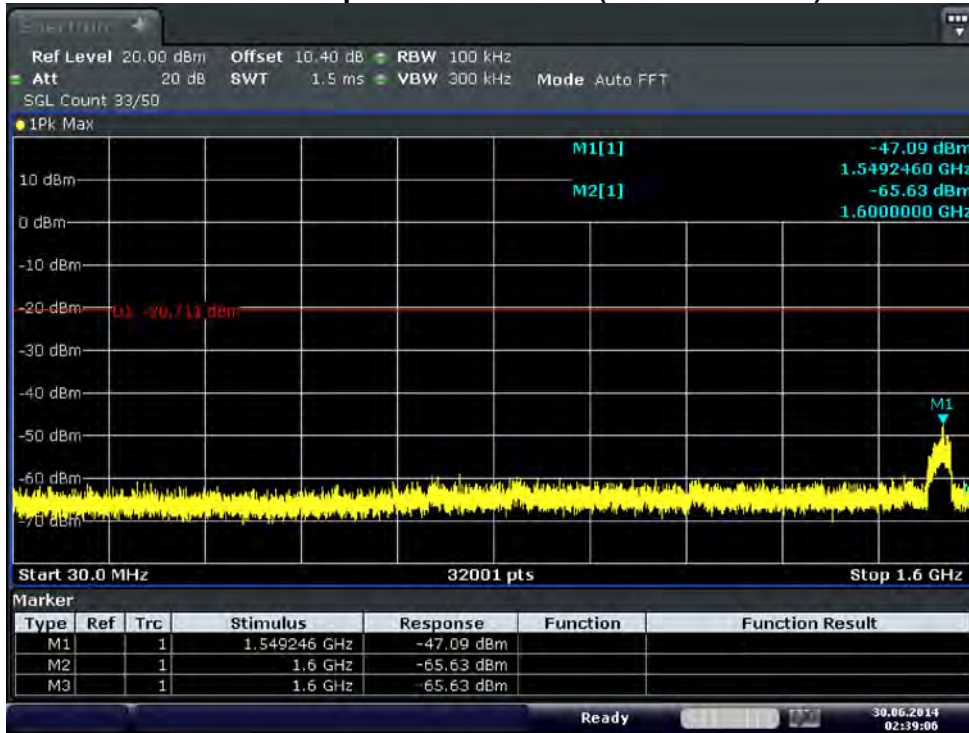
23 GHz ~ 25 GHz

Conducted Spurious Emission (802.11n-CH6) 40 MHz BW_2.4G



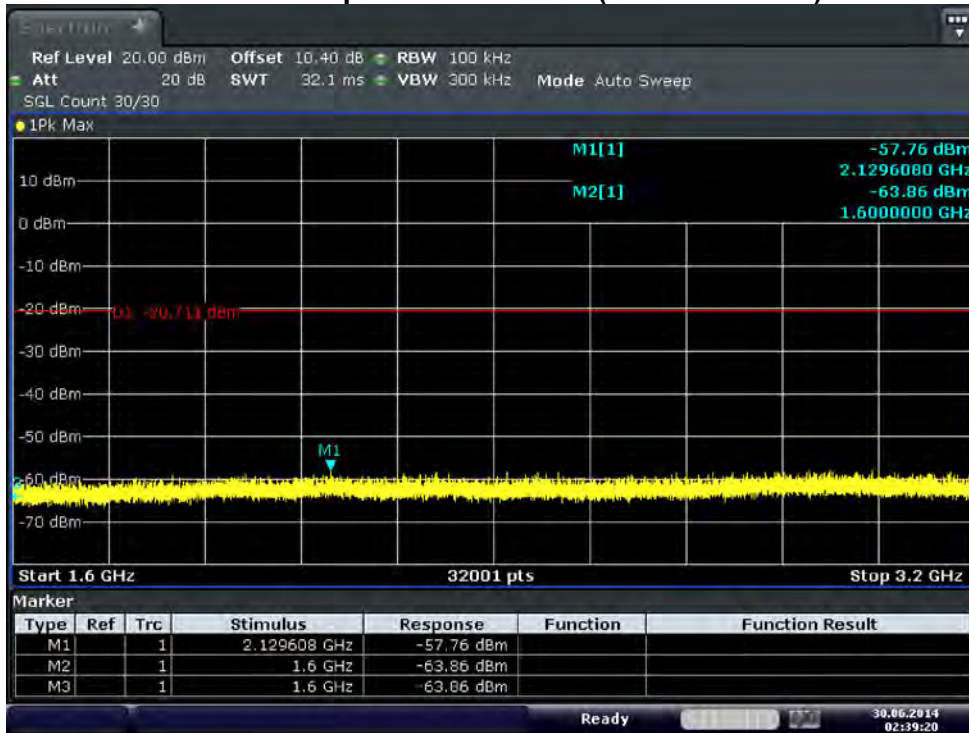
5.8 GHz Band Ant.0
30 MHz ~ 1.6 GHz

Conducted Spurious Emission (802.11a-CH165)



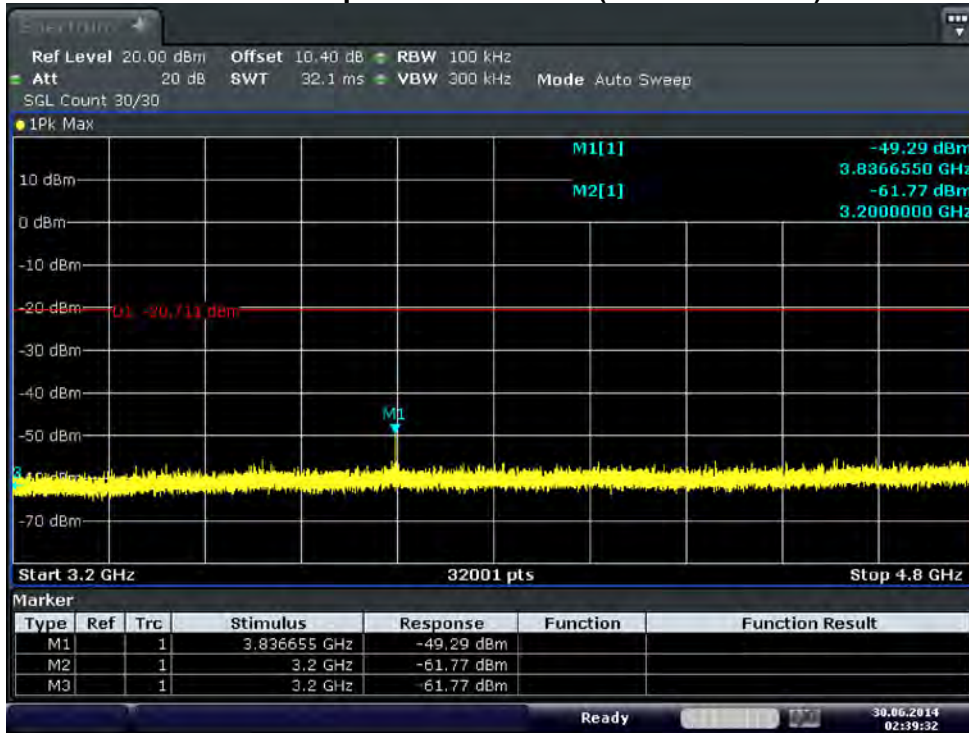
1.6 GHz ~ 3.2 GHz

Conducted Spurious Emission (802.11a-CH165)



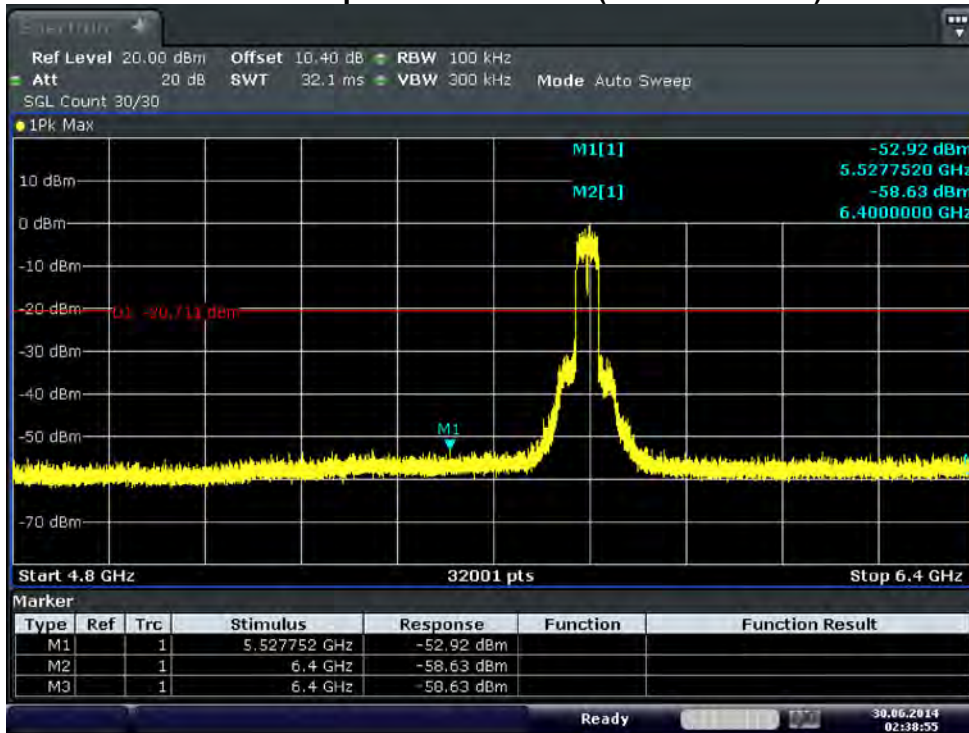
3.2 GHz ~ 4.8 GHz

Conducted Spurious Emission (802.11a-CH165)



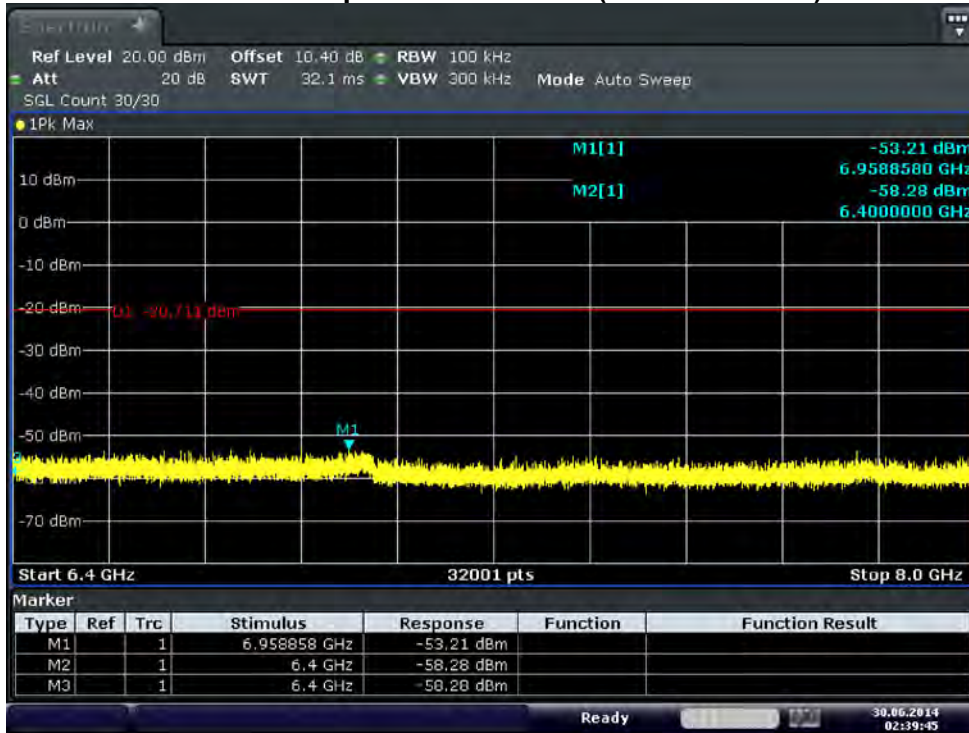
4.8 GHz ~ 6.4 GHz

Conducted Spurious Emission (802.11a-CH165)



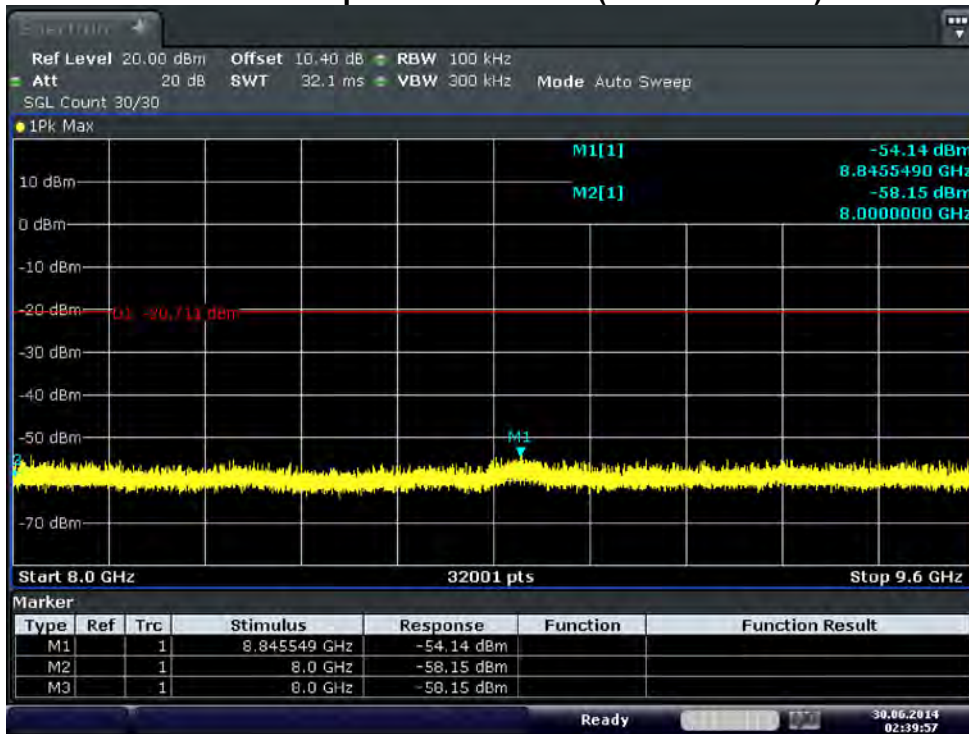
6.4 GHz ~ 8 GHz

Conducted Spurious Emission (802.11a-CH165)



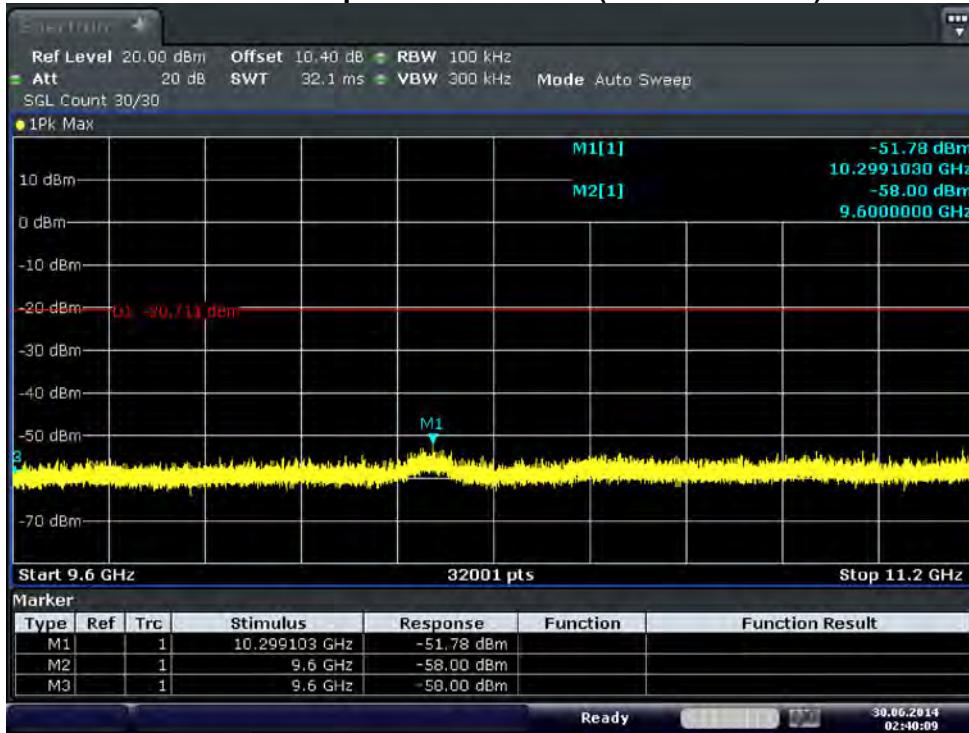
8 GHz ~ 9.6 GHz

Conducted Spurious Emission (802.11a-CH165)



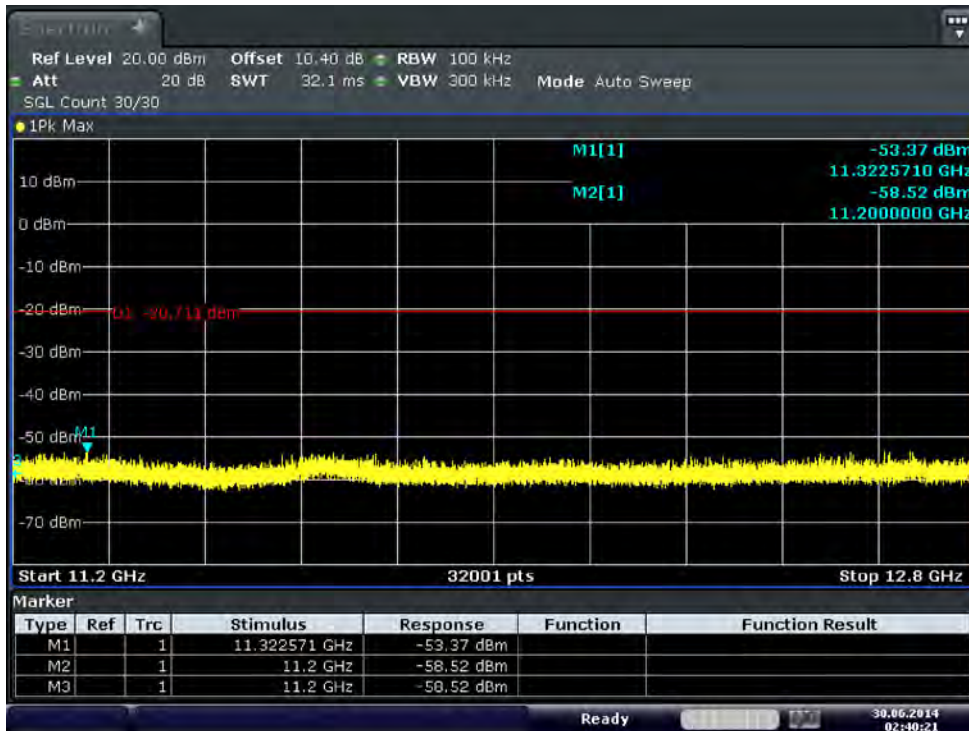
9.6 GHz ~ 11.2 GHz

Conducted Spurious Emission (802.11a-CH165)



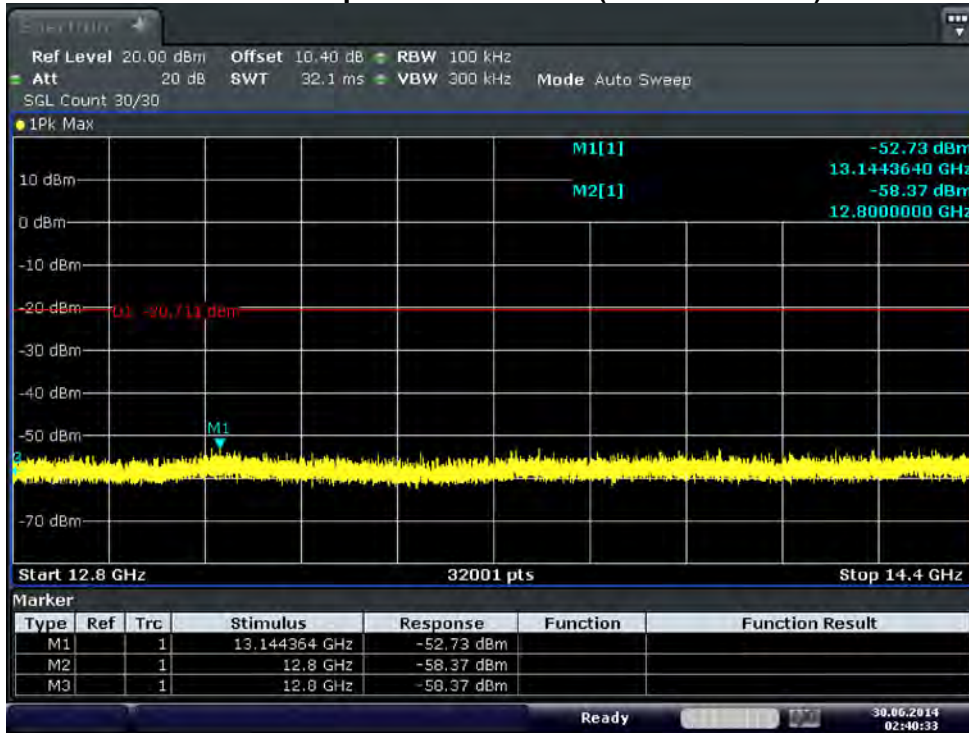
11.2 GHz ~ 12.8 GHz

Conducted Spurious Emission (802.11a-CH165)



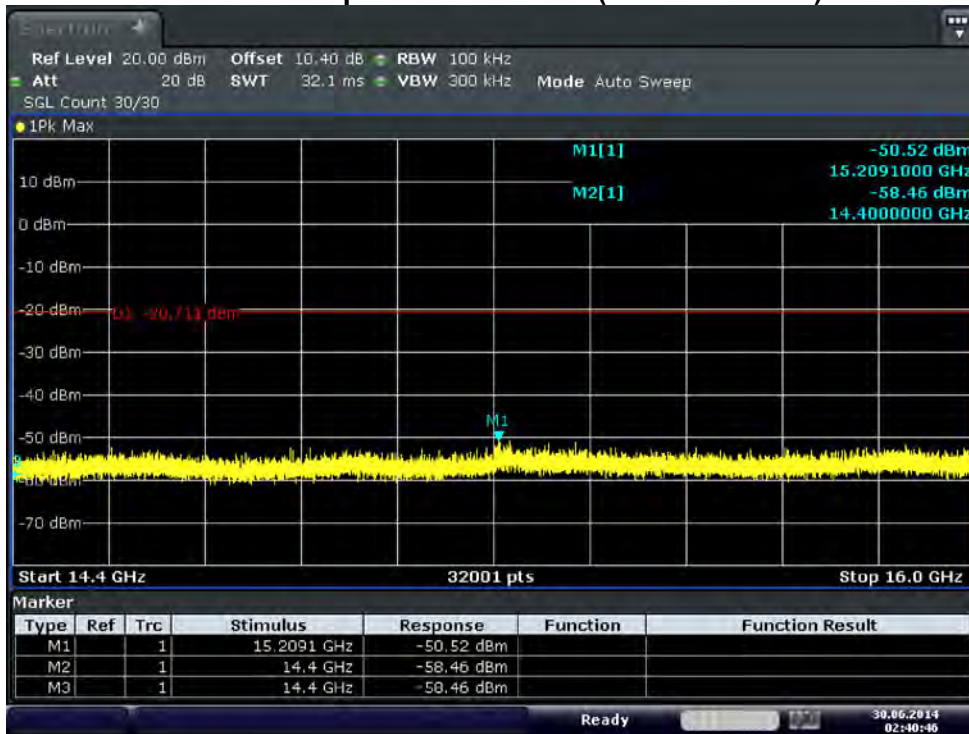
12.8 GHz ~ 12.8 GHz

Conducted Spurious Emission (802.11a-CH165)



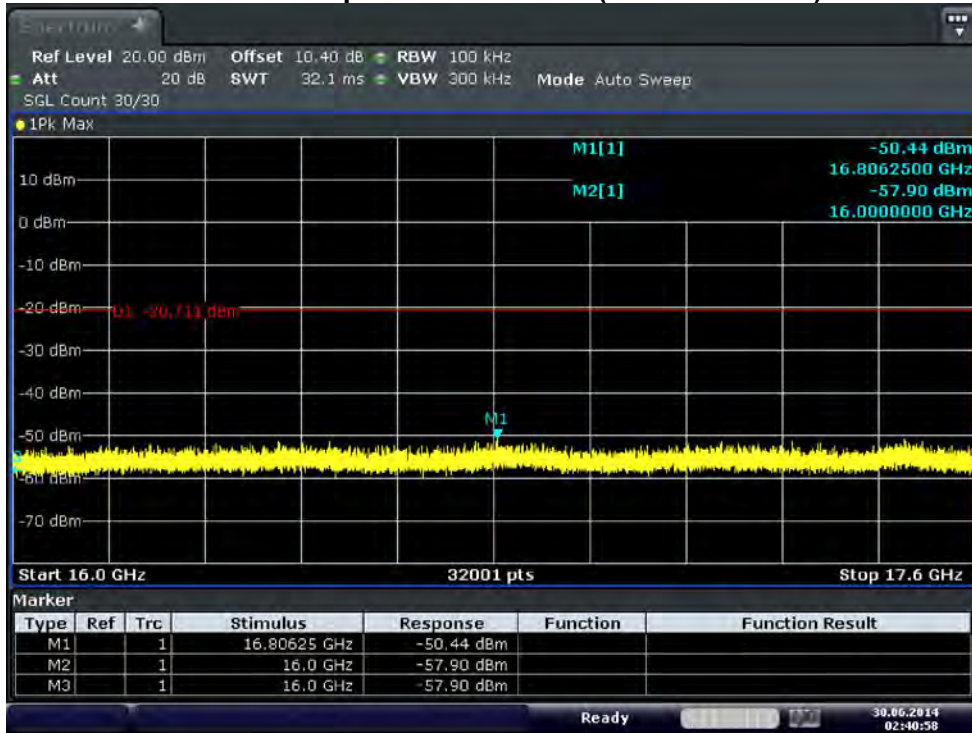
14.4 GHz ~ 16 GHz

Conducted Spurious Emission (802.11a-CH165)



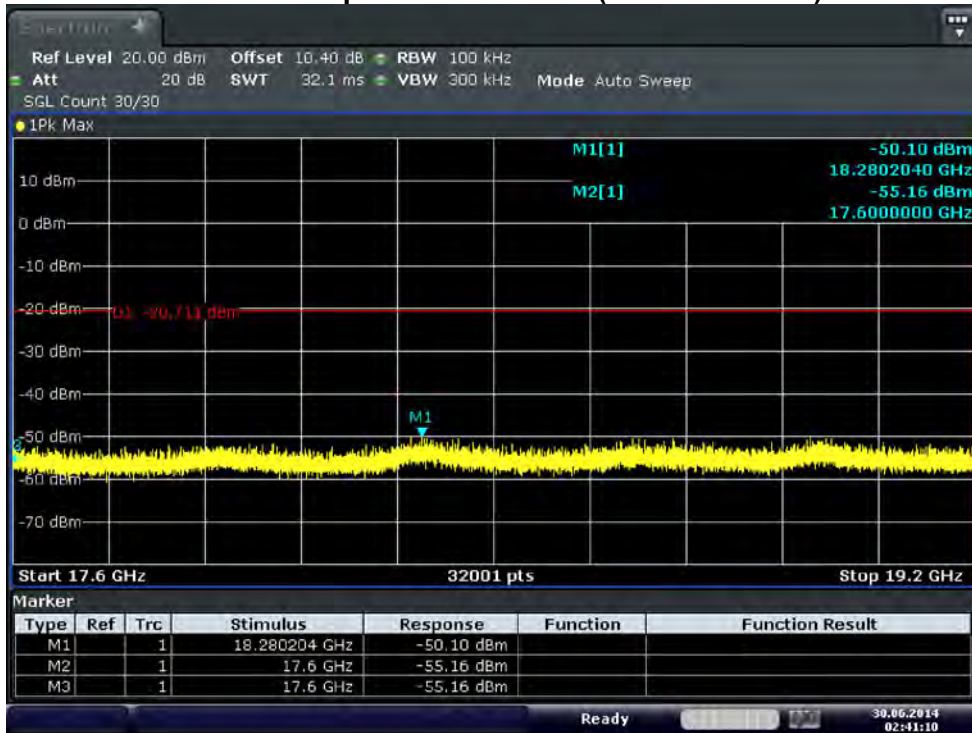
16 GHz ~ 17.6 GHz

Conducted Spurious Emission (802.11a-CH165)



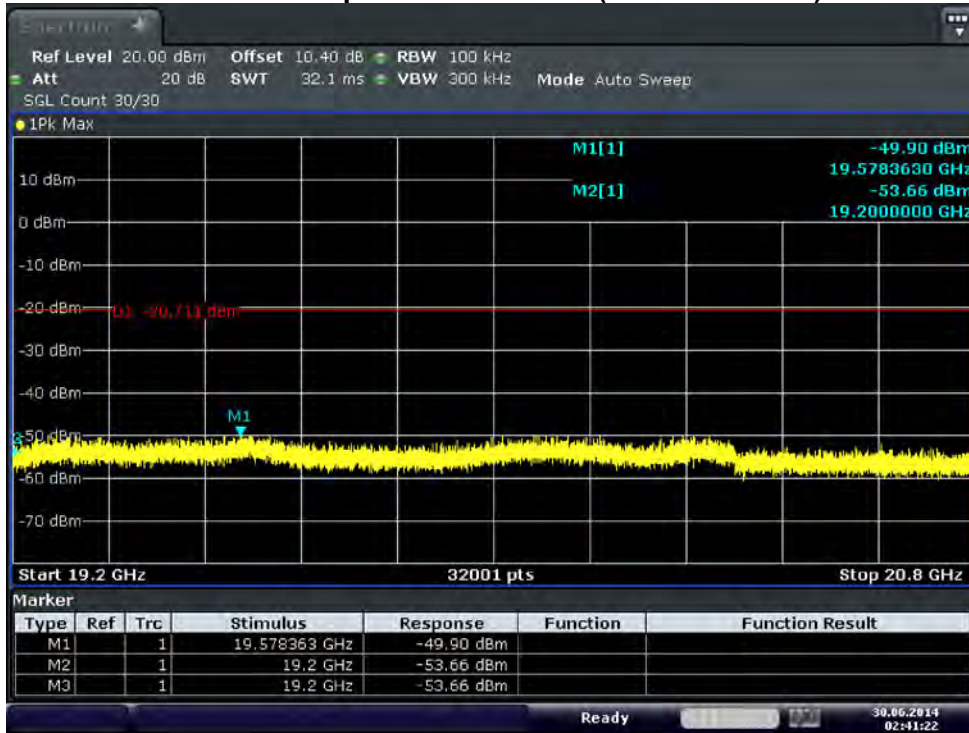
17.6 GHz ~ 19.2 GHz

Conducted Spurious Emission (802.11a-CH165)



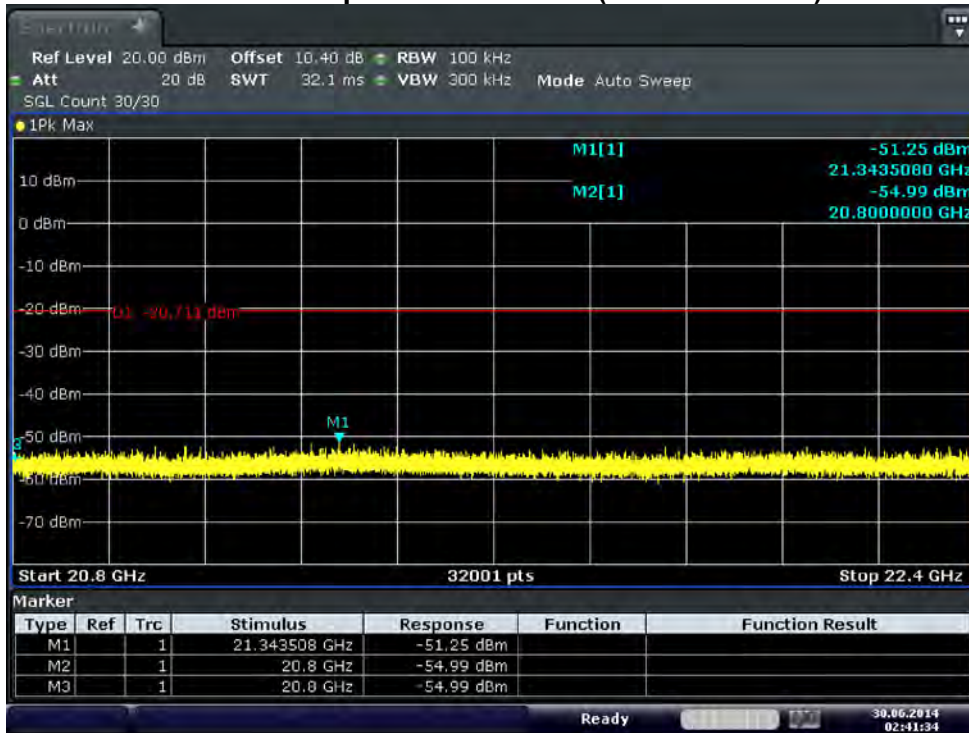
19.2 GHz ~ 20.8 GHz

Conducted Spurious Emission (802.11a-CH165)



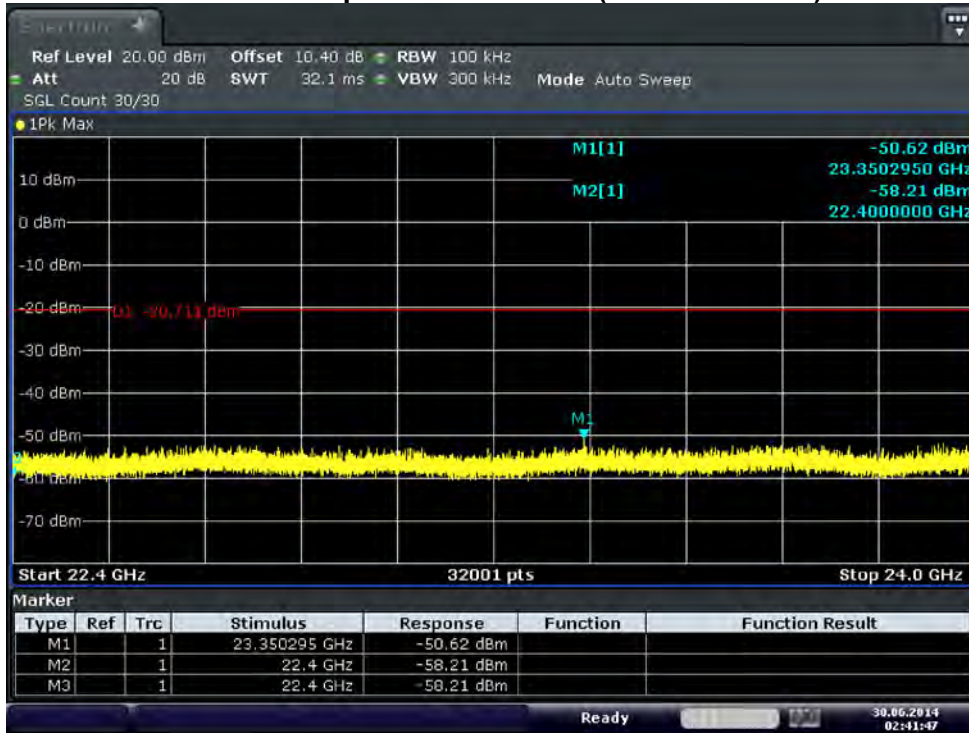
20.8 GHz ~ 22.4 GHz

Conducted Spurious Emission (802.11a-CH165)



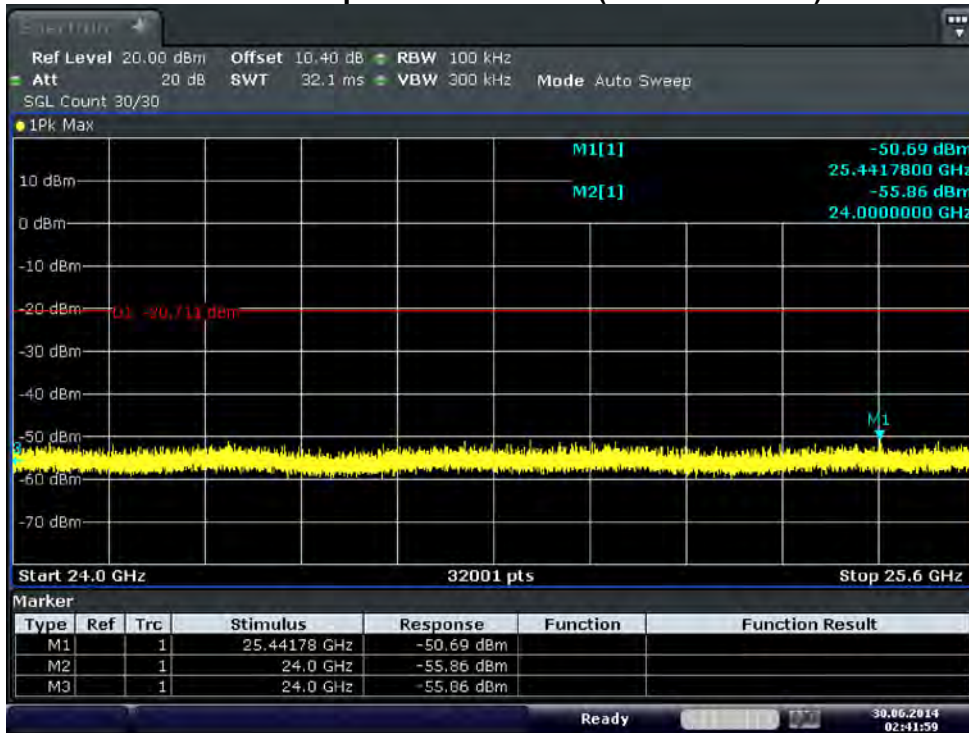
22.4 GHz ~ 24 GHz

Conducted Spurious Emission (802.11a-CH165)



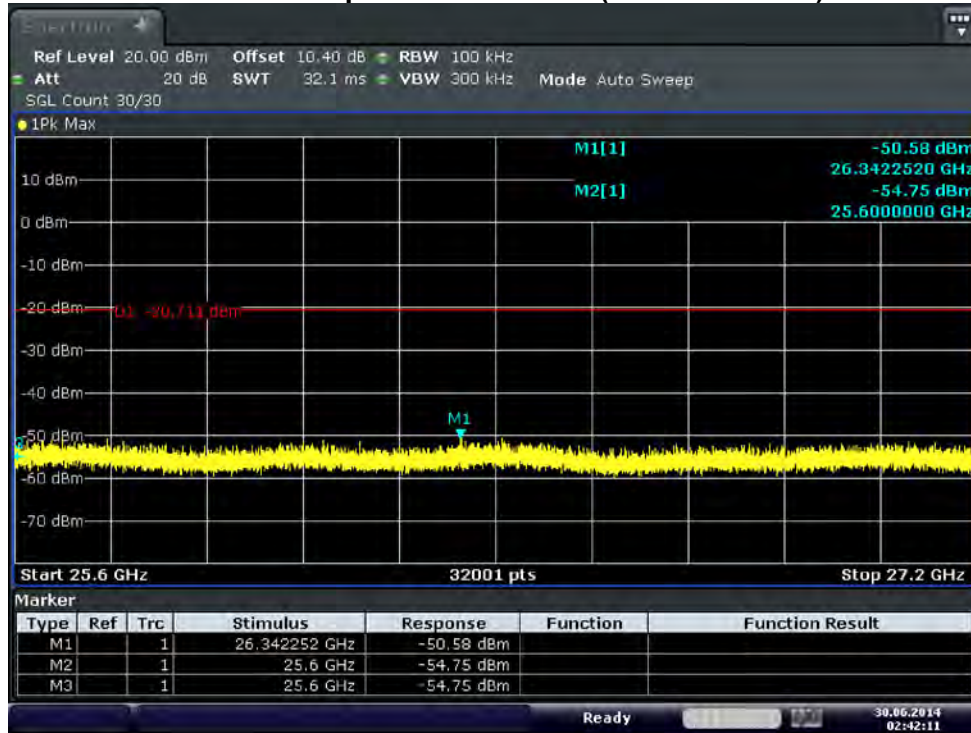
24 GHz ~ 25.6 GHz

Conducted Spurious Emission (802.11a-CH165)



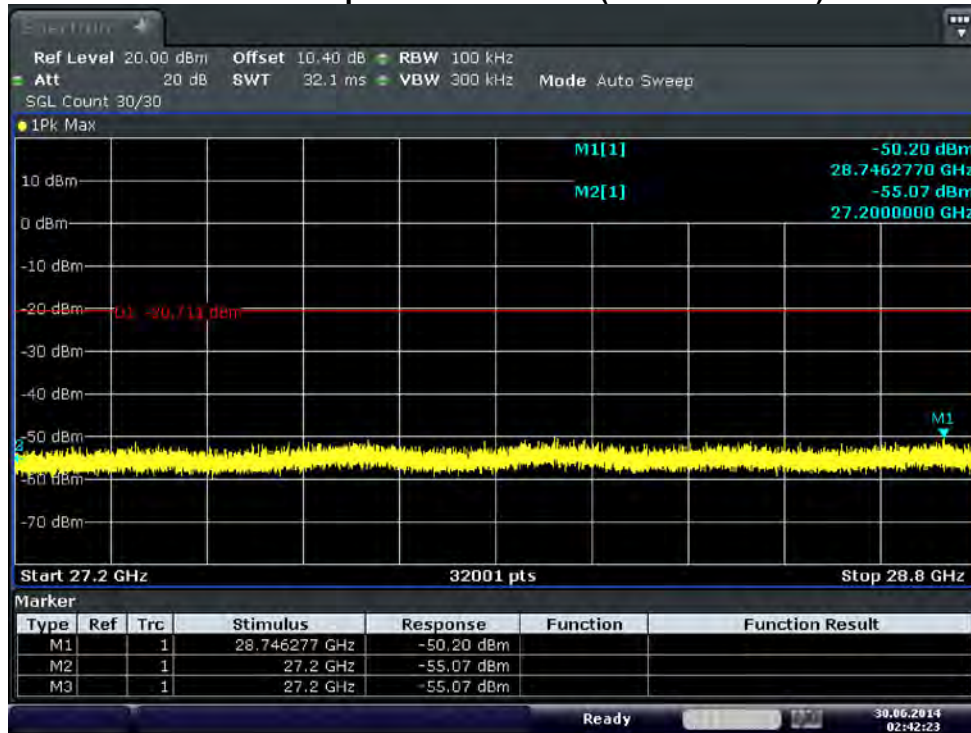
25.6 GHz ~ 27.2 GHz

Conducted Spurious Emission (802.11a-CH165)



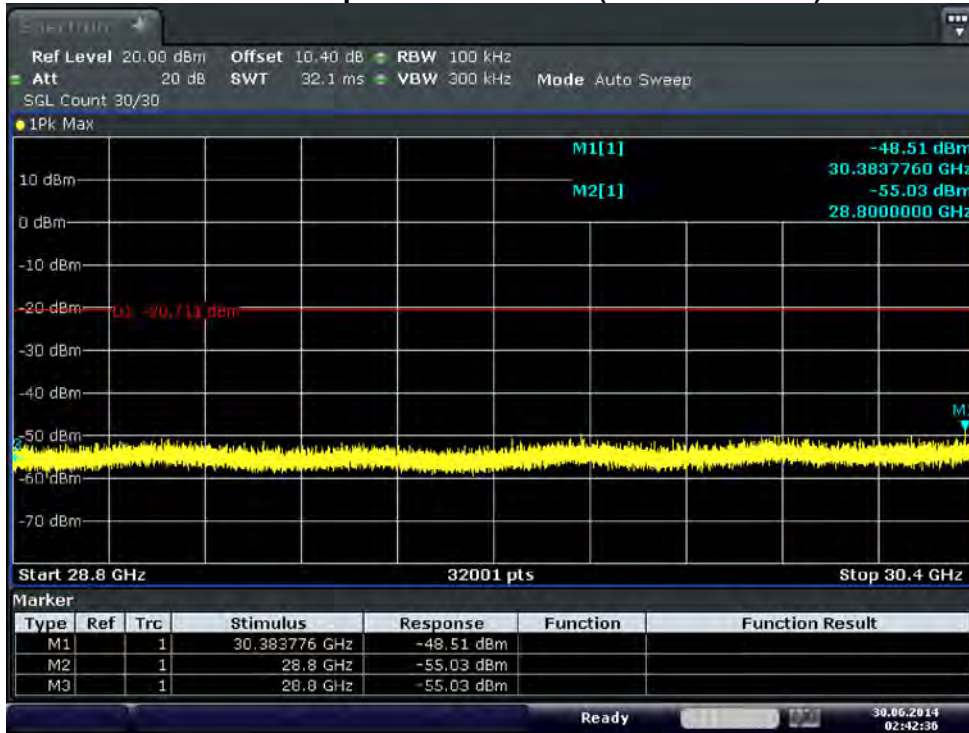
27.2 GHz ~ 28.8 GHz

Conducted Spurious Emission (802.11a-CH165)



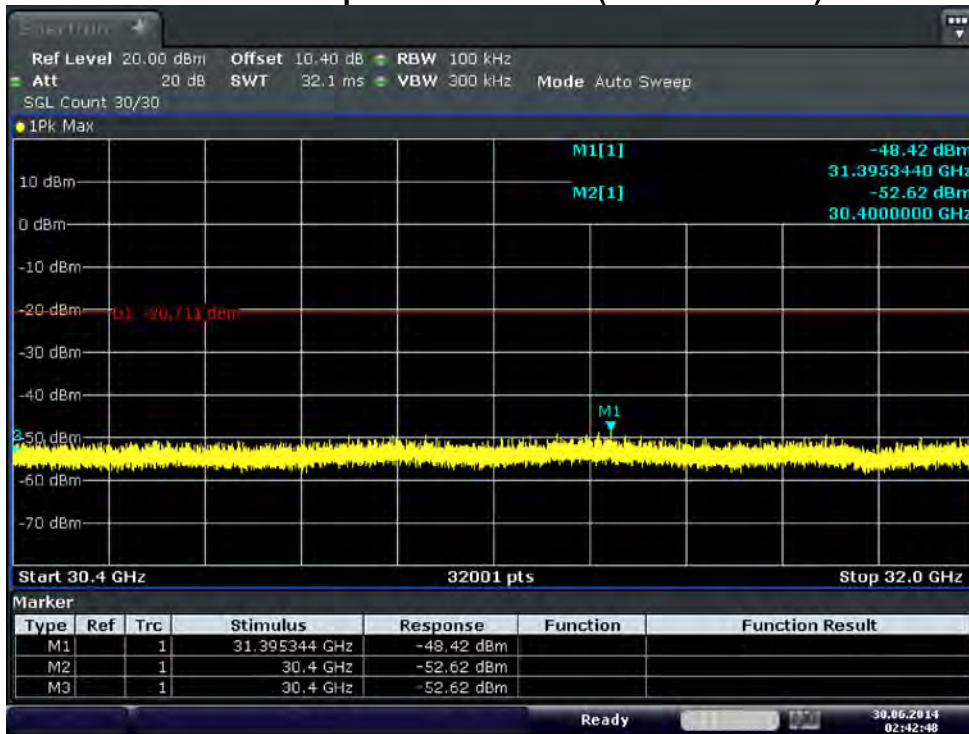
28.8 GHz ~ 30.4 GHz

Conducted Spurious Emission (802.11a-CH165)



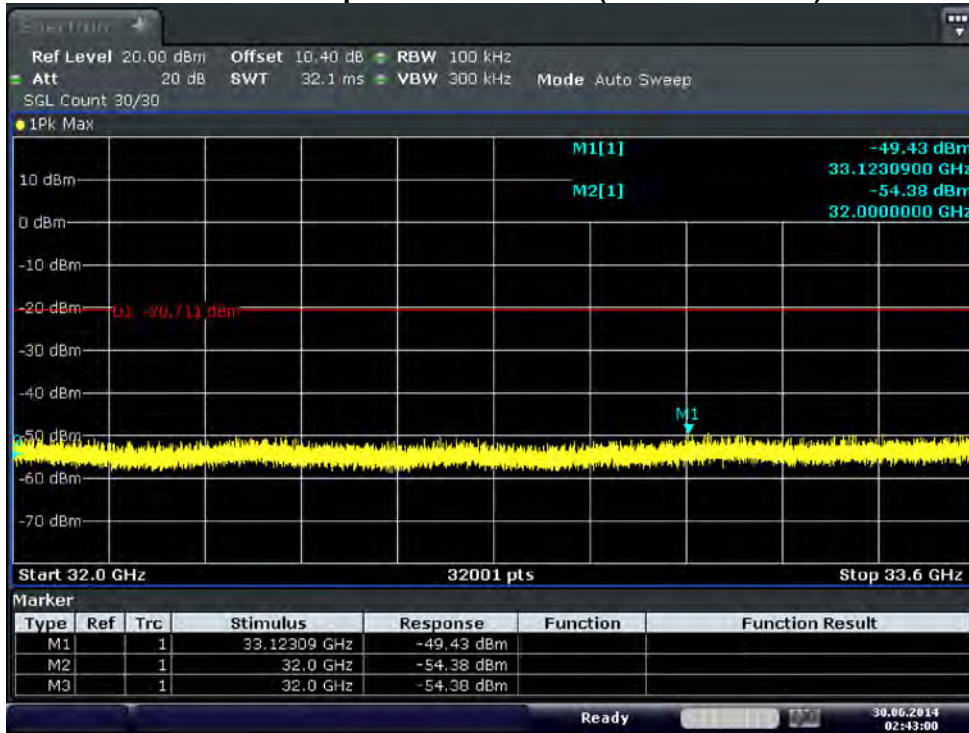
30.4 GHz ~ 32 GHz

Conducted Spurious Emission (802.11a-CH165)



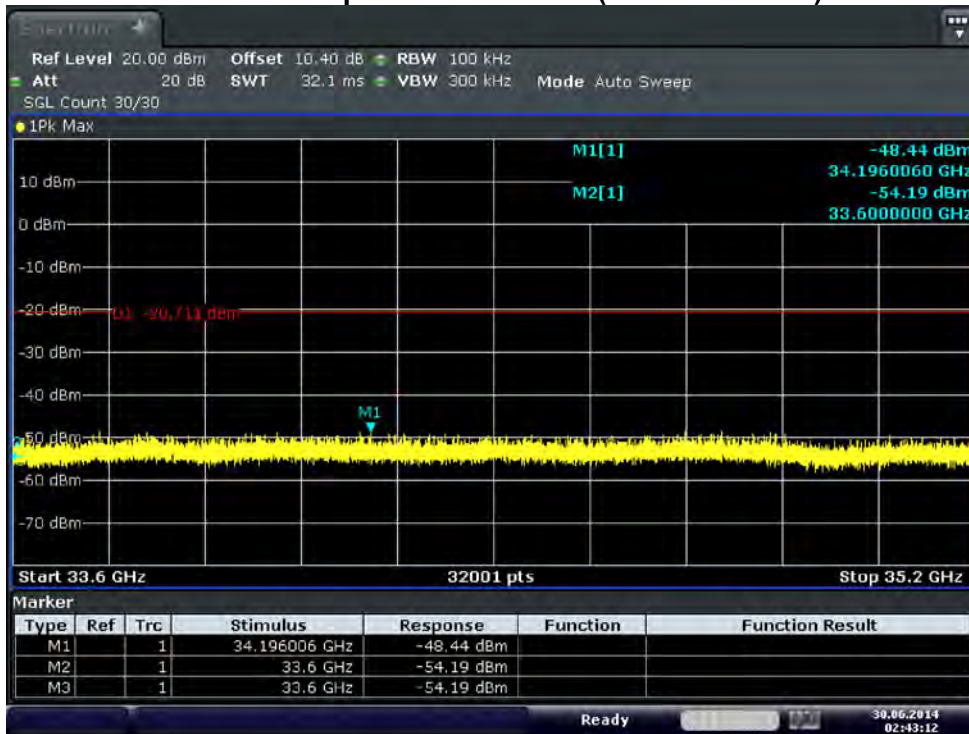
32 GHz ~ 33.6 GHz

Conducted Spurious Emission (802.11a-CH165)



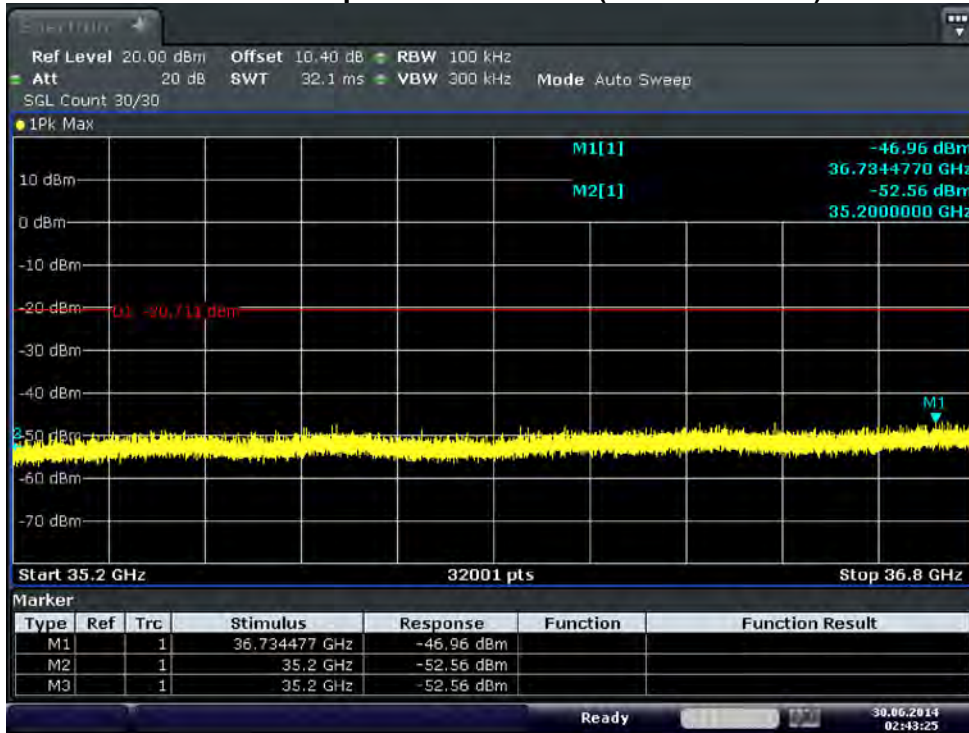
33.6 GHz ~ 35.2 GHz

Conducted Spurious Emission (802.11a-CH165)



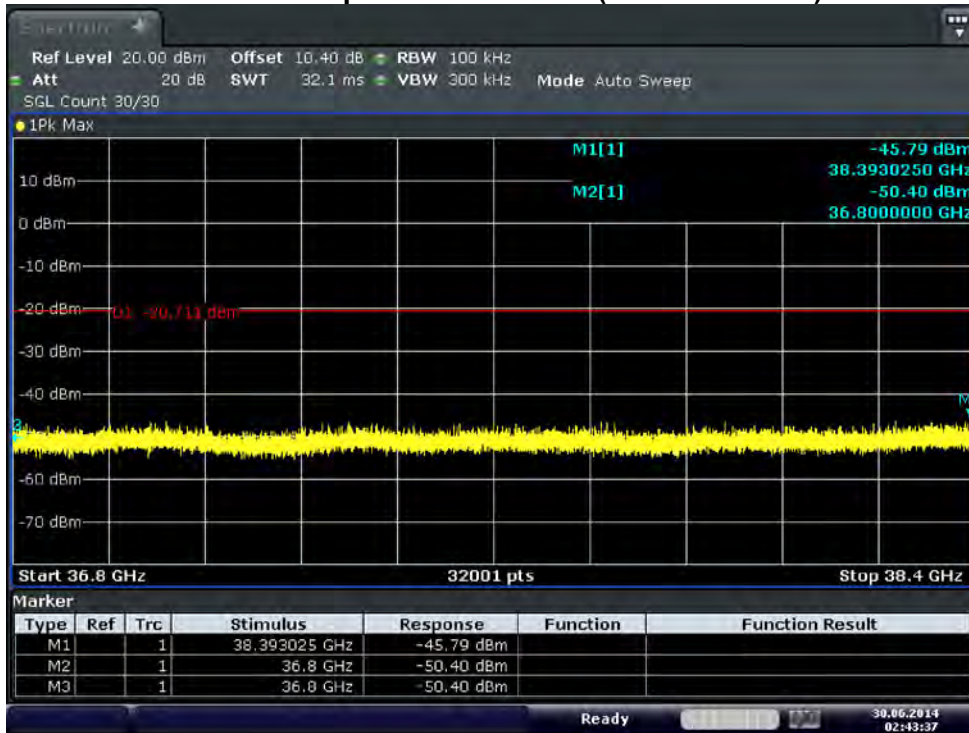
35.2 GHz ~ 36.8 GHz

Conducted Spurious Emission (802.11a-CH165)



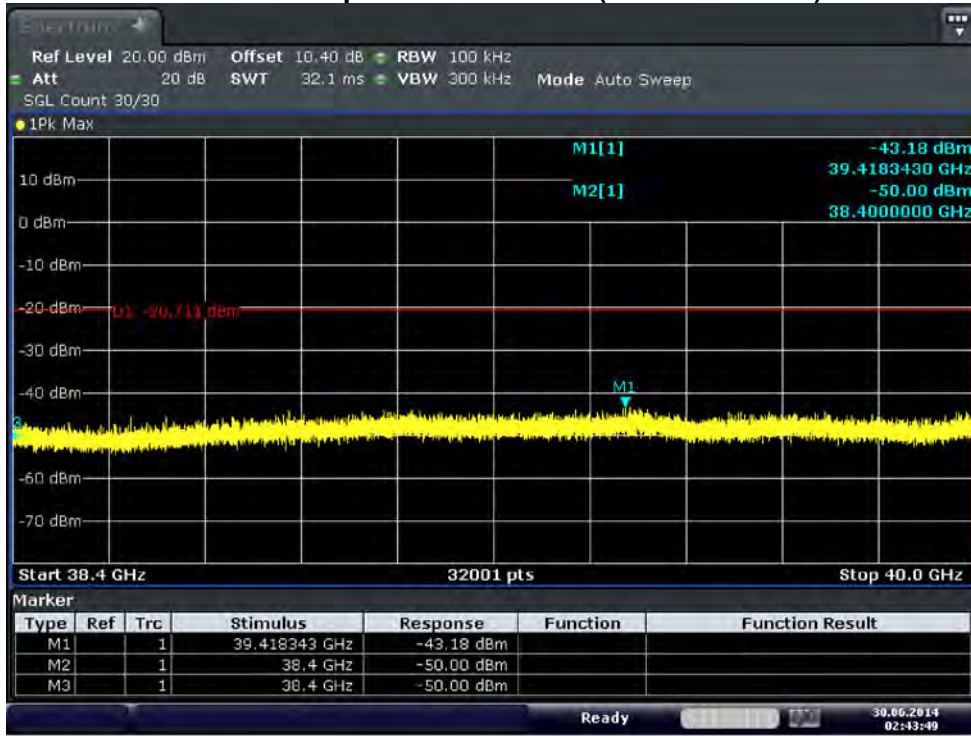
36.8 GHz ~ 38.4 GHz

Conducted Spurious Emission (802.11a-CH165)



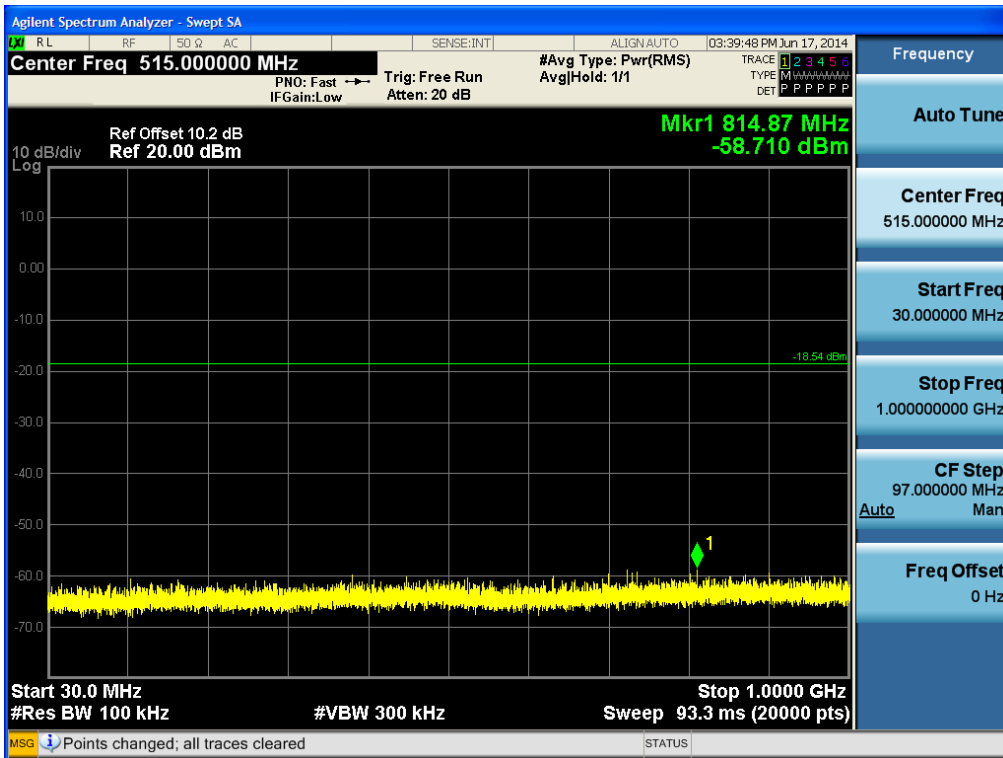
38.4 GHz ~ 40 GHz

Conducted Spurious Emission (802.11a-CH165)



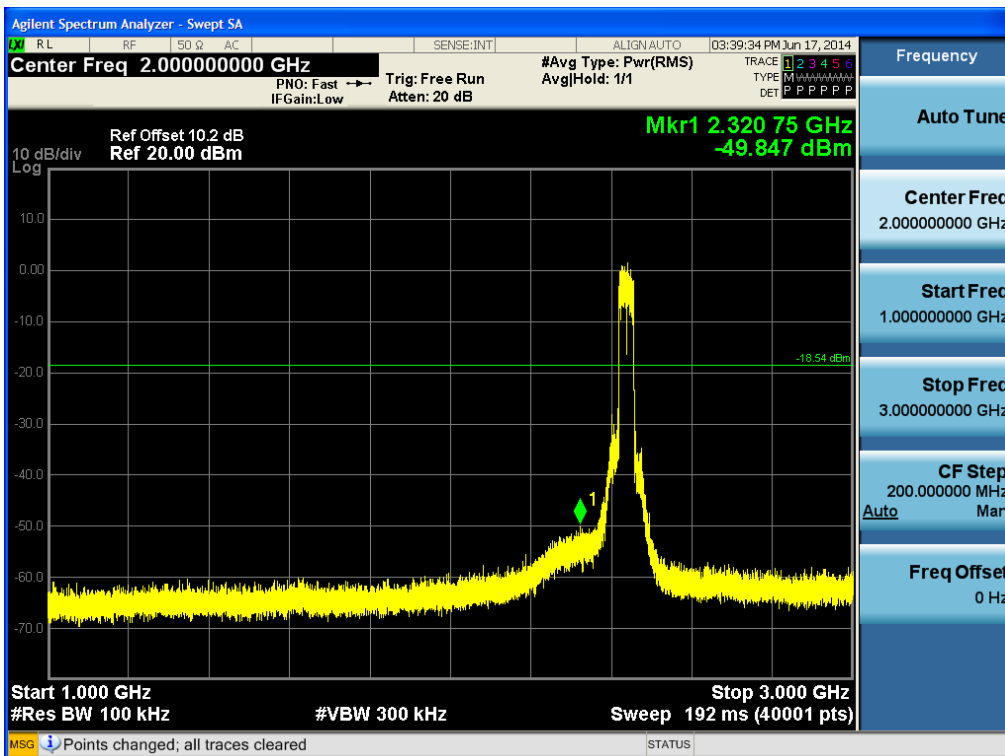
2.4 GHz Band Ant.1
30 MHz ~ 1 GHz

Conducted Spurious Emission (802.11n-CH6) 40 MHz BW_2.4G



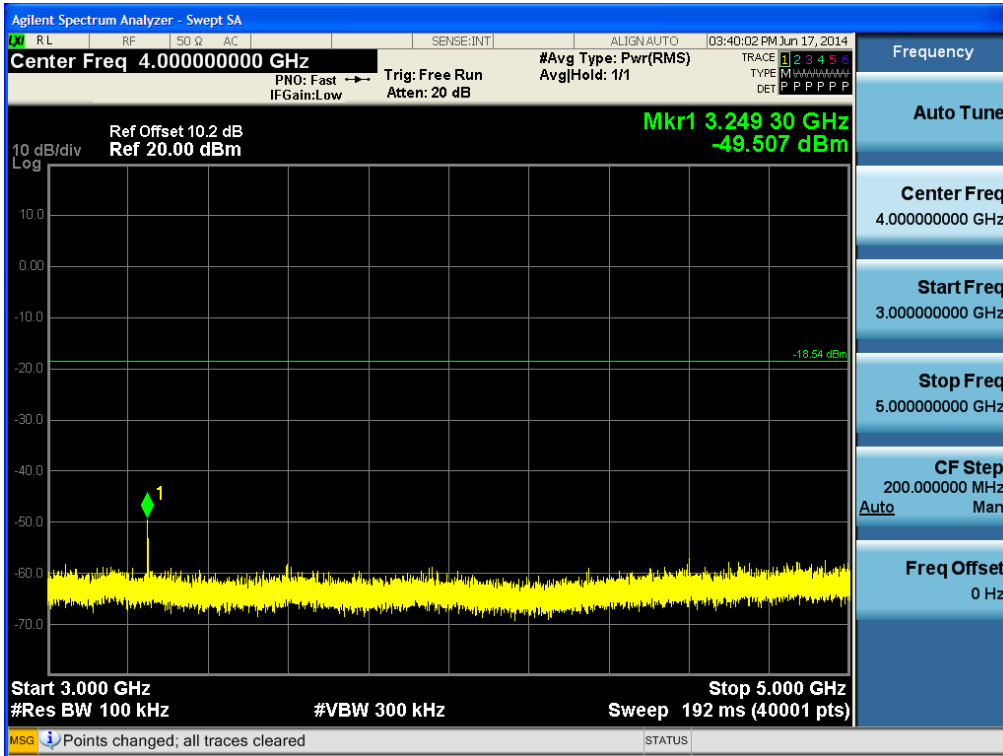
1 GHz ~ 3 GHz

Conducted Spurious Emission (802.11n-CH6) 40 MHz BW_2.4G



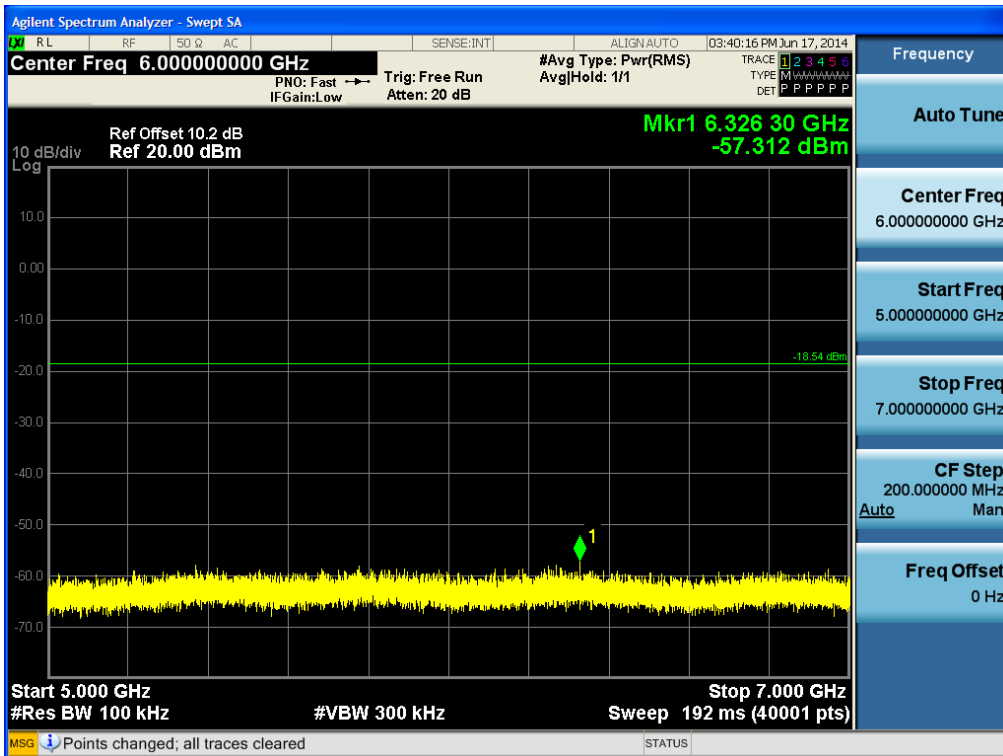
3 GHz ~ 5 GHz

Conducted Spurious Emission (802.11n-CH6) 40 MHz BW_2.4G



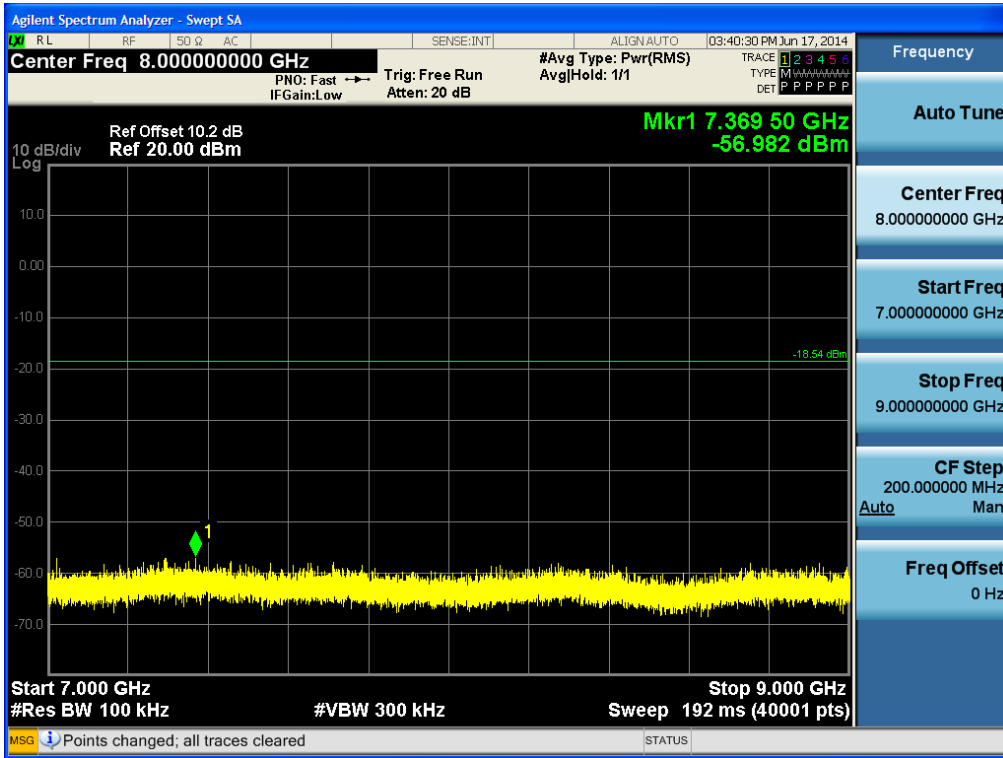
5 GHz ~ 7 GHz

Conducted Spurious Emission (802.11n-CH6) 40 MHz BW_2.4G



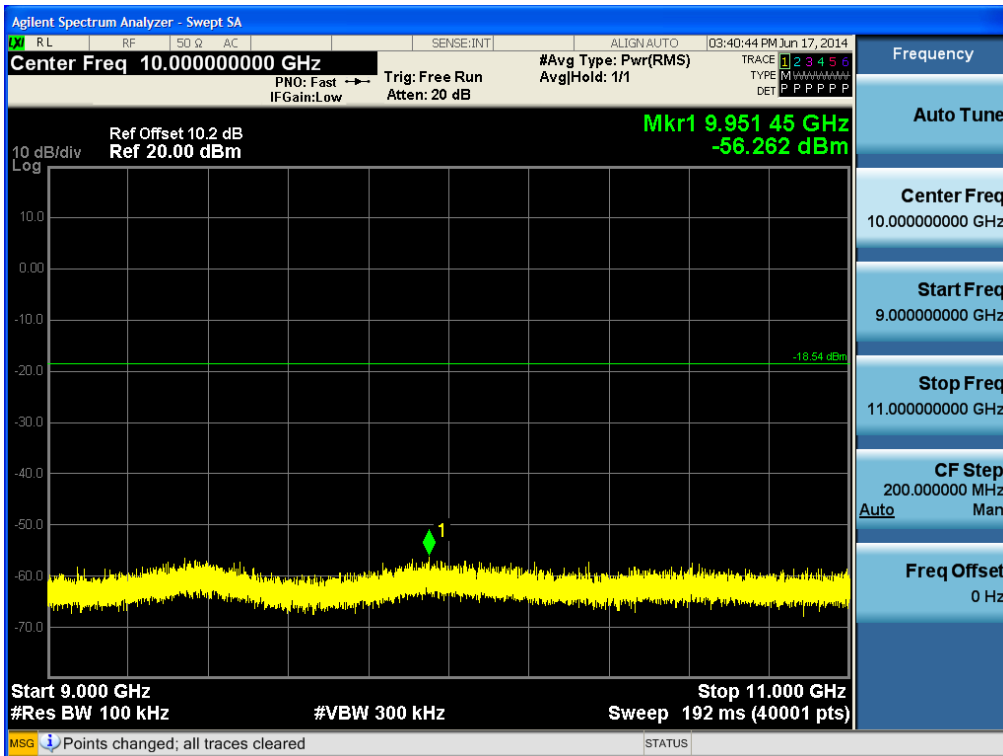
7 GHz ~ 9 GHz

Conducted Spurious Emission (802.11n-CH6) 40 MHz BW_2.4G



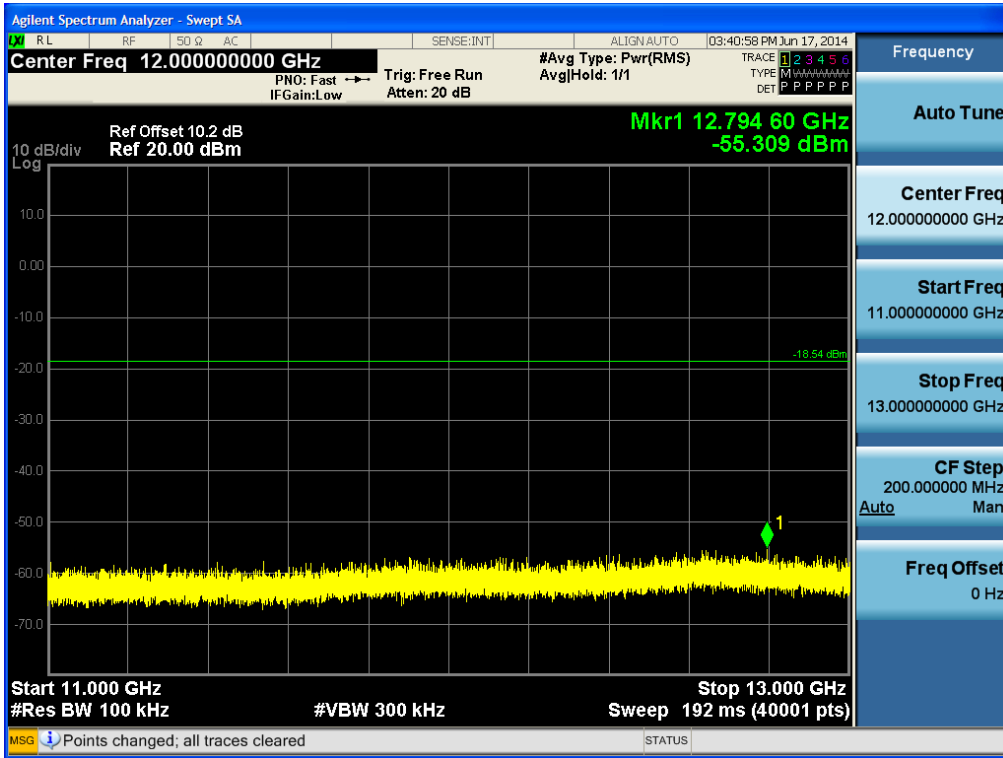
9 GHz ~ 11 GHz

Conducted Spurious Emission (802.11n-CH6) 40 MHz BW_2.4G



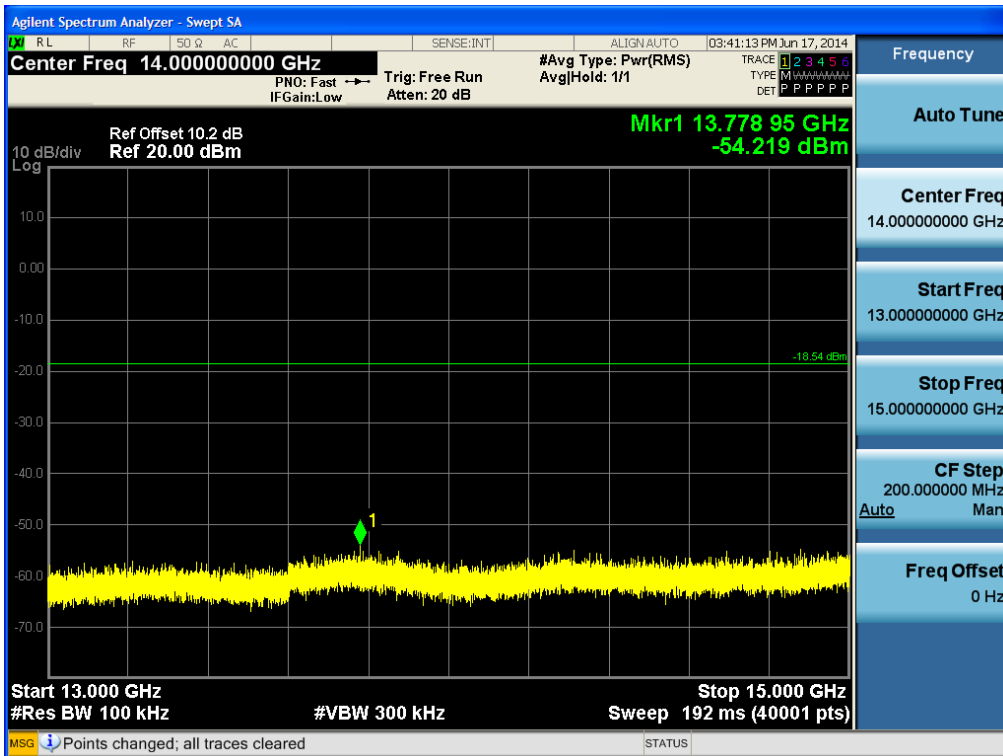
11 GHz ~ 13 GHz

Conducted Spurious Emission (802.11n-CH6) 40 MHz BW_2.4G



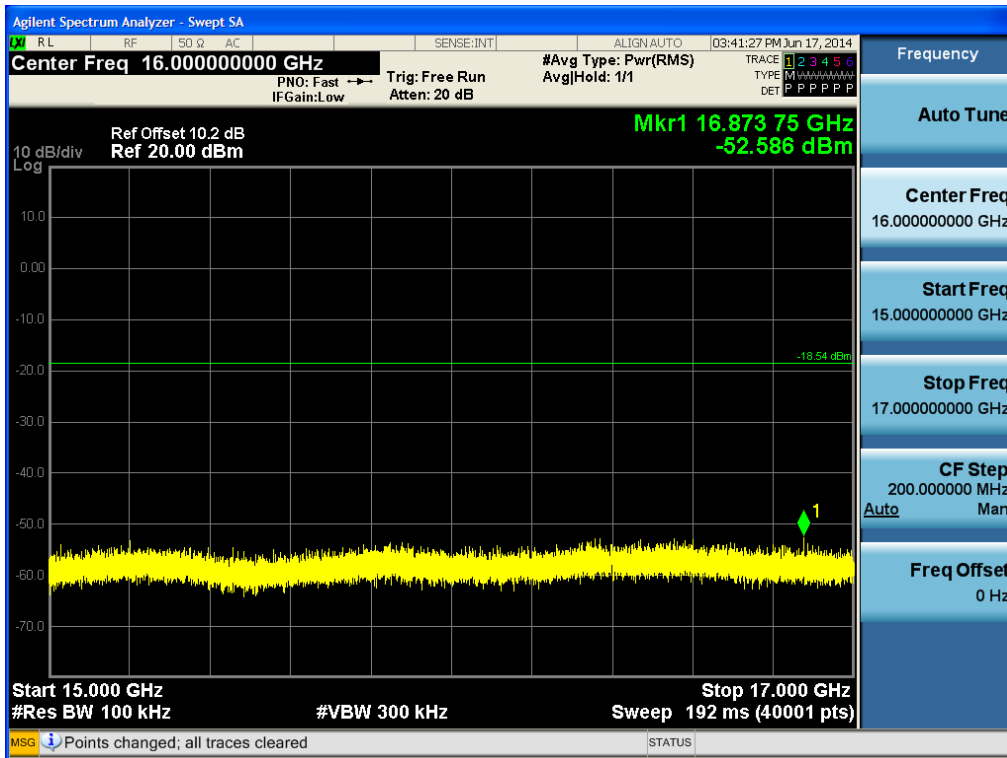
13 GHz ~ 15 GHz

Conducted Spurious Emission (802.11n-CH6) 40 MHz BW_2.4G



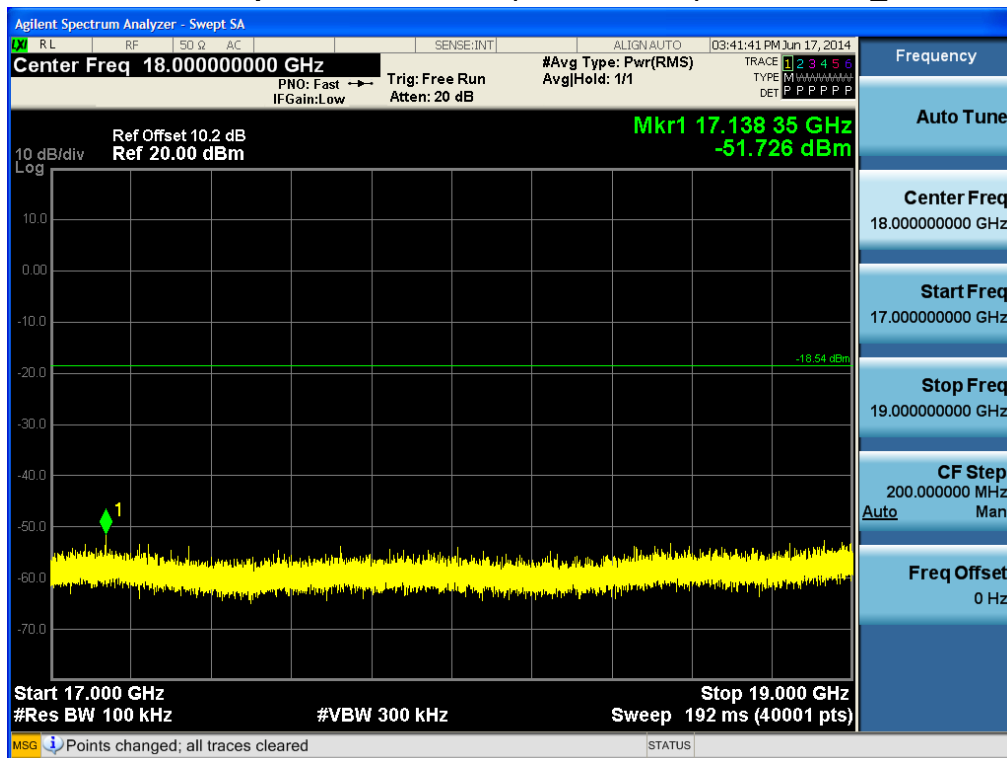
15 GHz ~ 17 GHz

Conducted Spurious Emission (802.11n-CH6) 40 MHz BW_2.4G



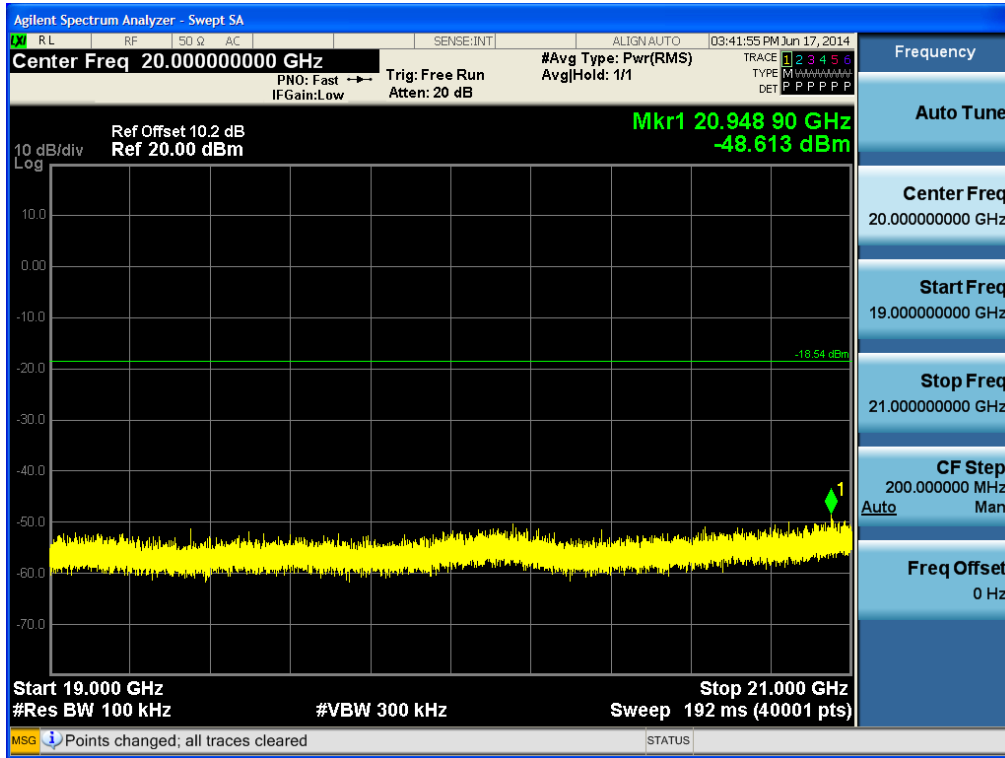
17 GHz ~ 19 GHz

Conducted Spurious Emission (802.11n-CH6) 40 MHz BW_2.4G



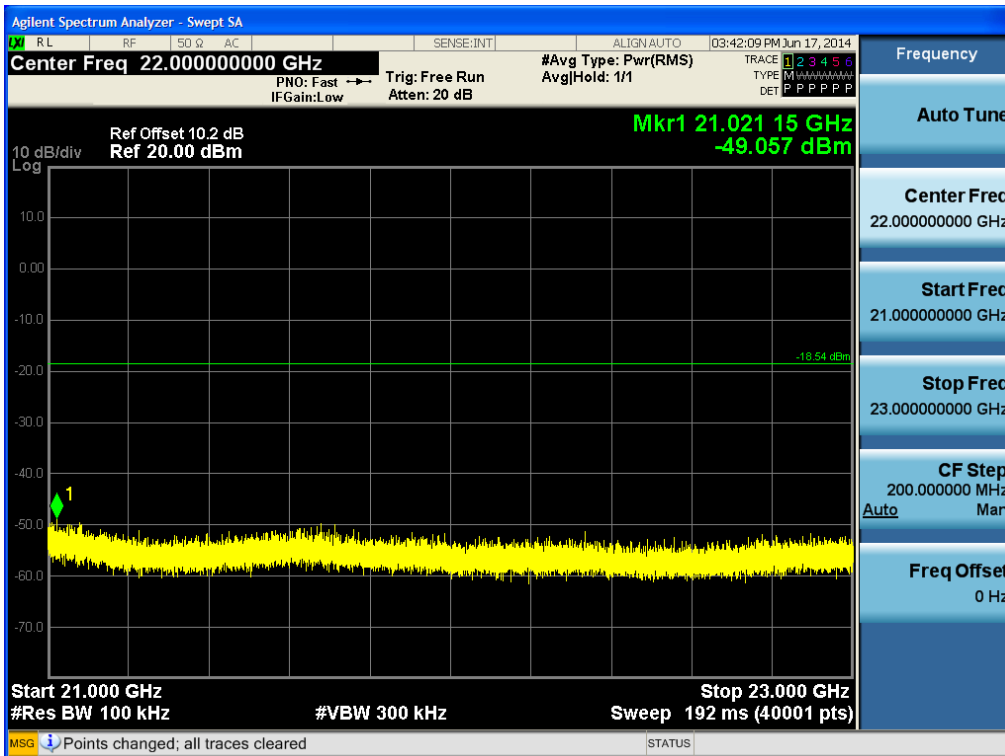
19 GHz ~ 21 GHz

19inducted Spurious Emission (802.11n-CH6) 40 MHz BW_2.4G



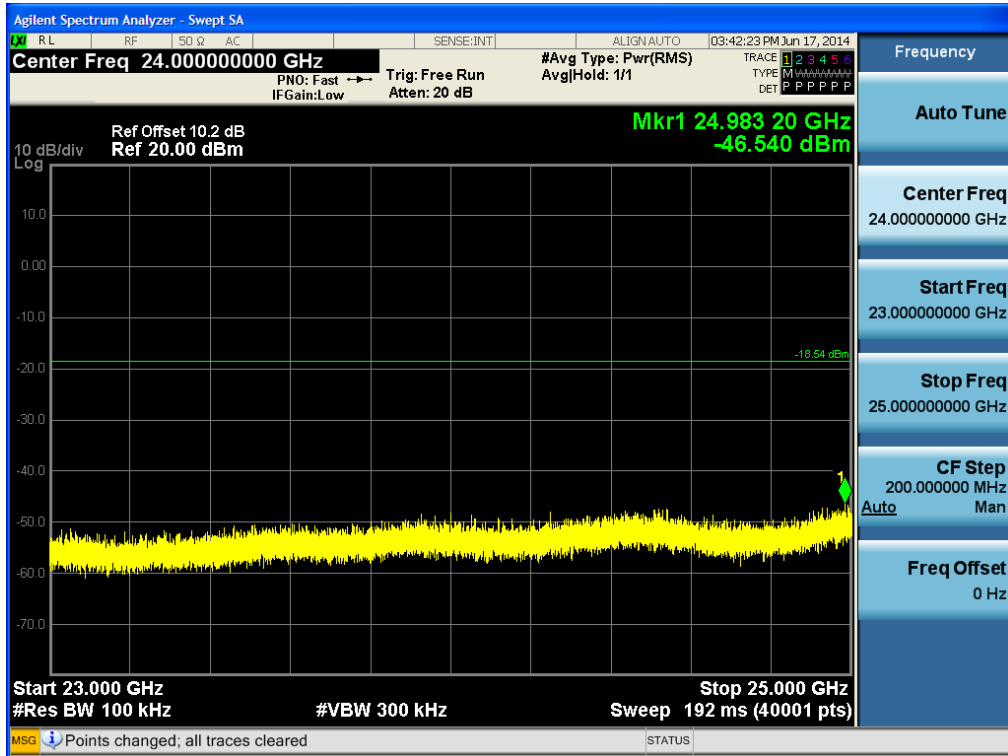
21 GHz ~ 23 GHz

Conducted Spurious Emission (802.11n-CH6) 40 MHz BW_2.4G



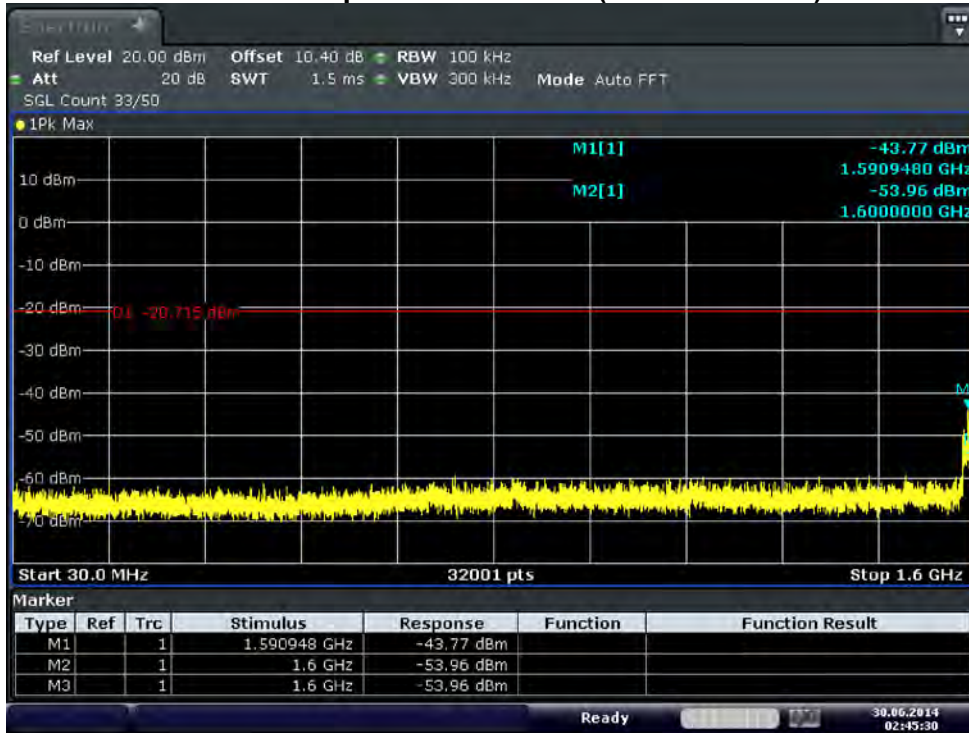
23 GHz ~ 25 GHz

Conducted Spurious Emission (802.11n-CH6) 40 MHz BW_2.4G



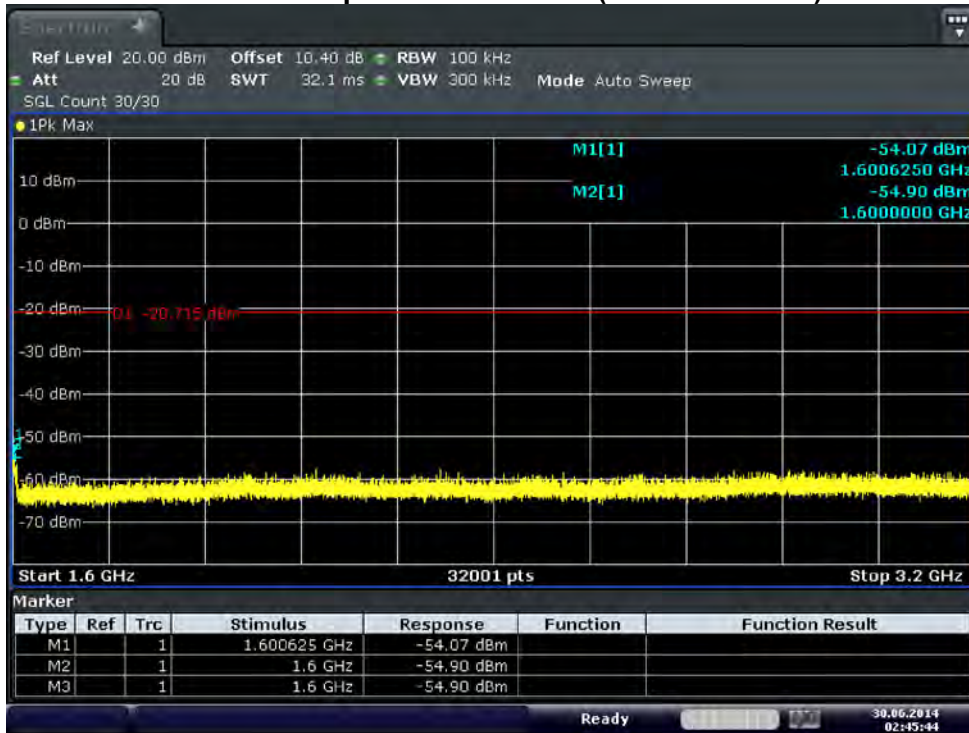
5.8 GHz Band Ant.1
30 MHz ~ 1.6 GHz

Conducted Spurious Emission (802.11a-CH165)



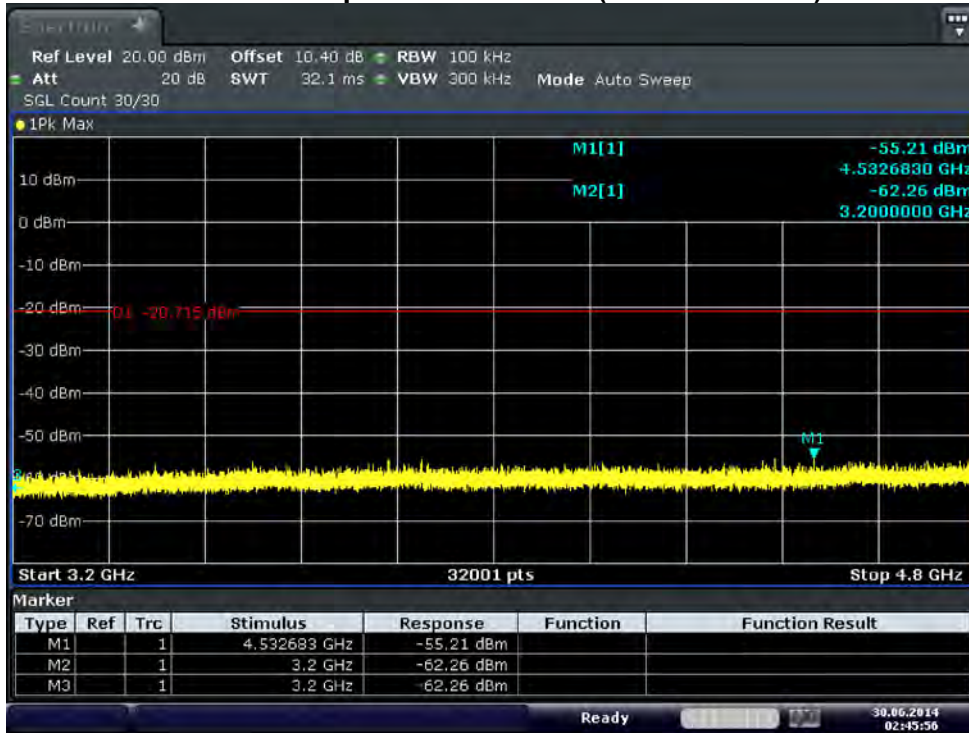
1.6 GHz ~ 3.2 GHz

Conducted Spurious Emission (802.11a-CH165)



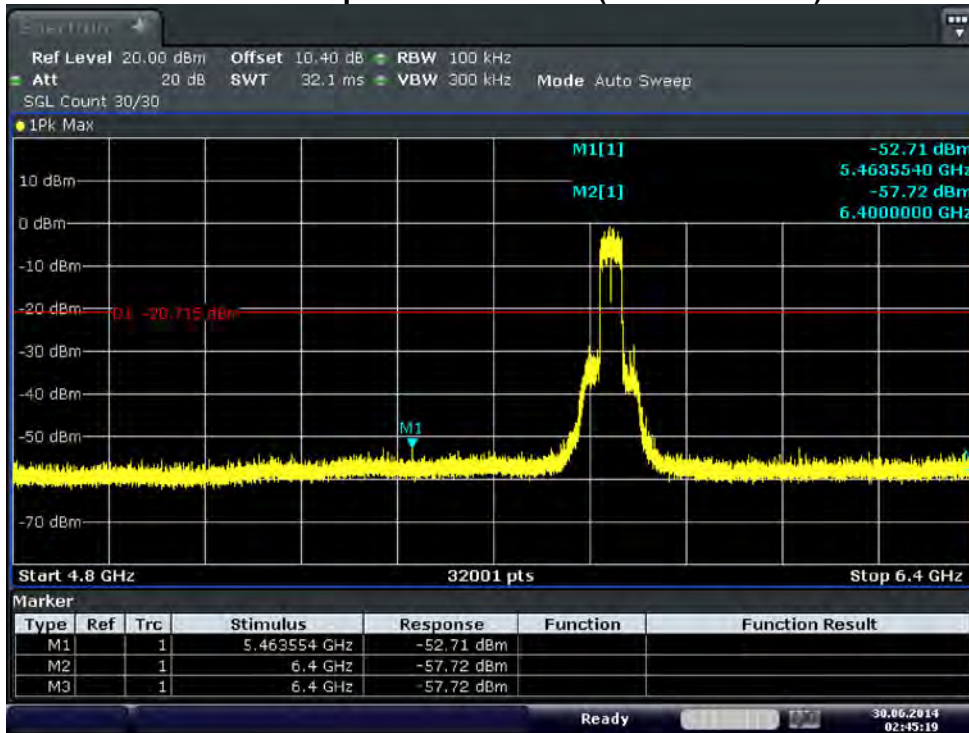
3.2 GHz ~ 4.8 GHz

Conducted Spurious Emission (802.11a-CH165)



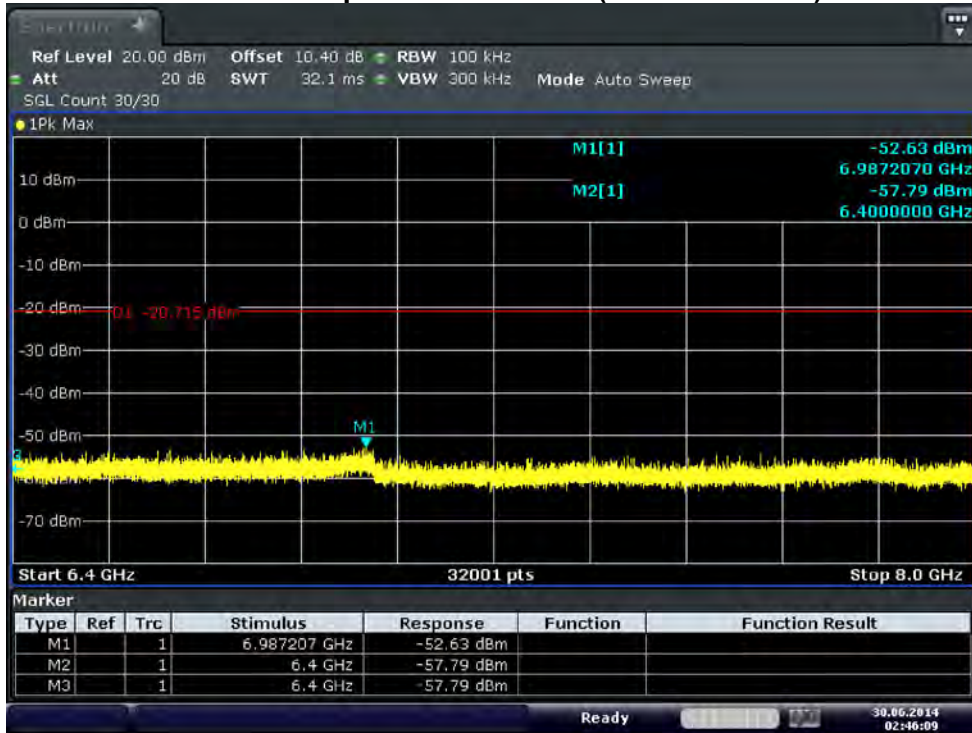
4.8 GHz ~ 6.4 GHz

Conducted Spurious Emission (802.11a-CH165)



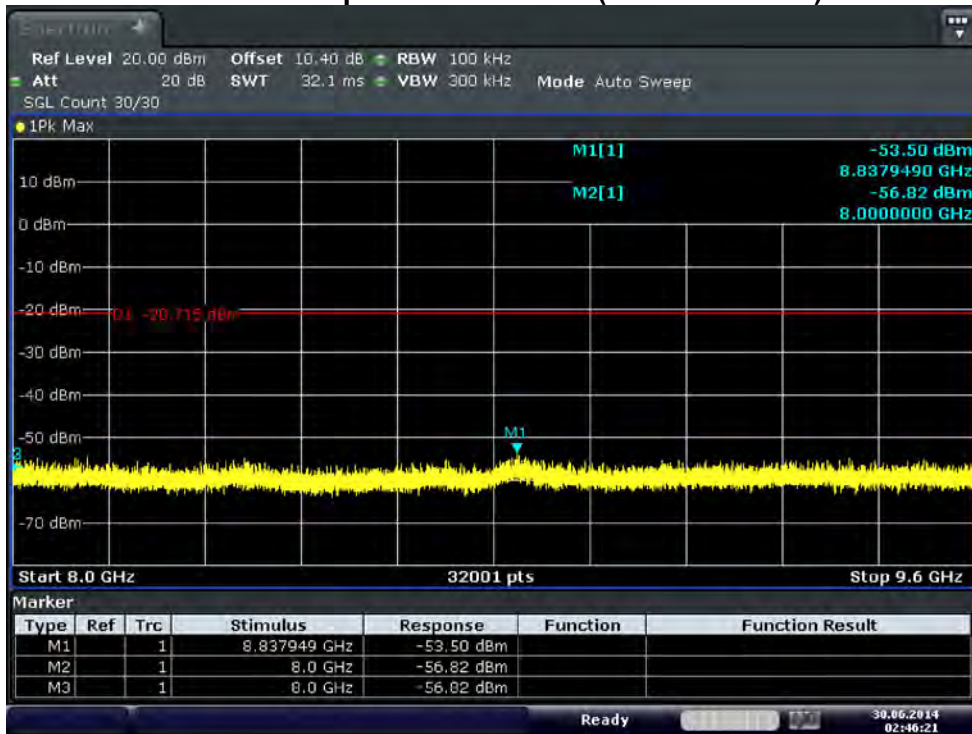
6.4 GHz ~ 8 GHz

Conducted Spurious Emission (802.11a-CH165)



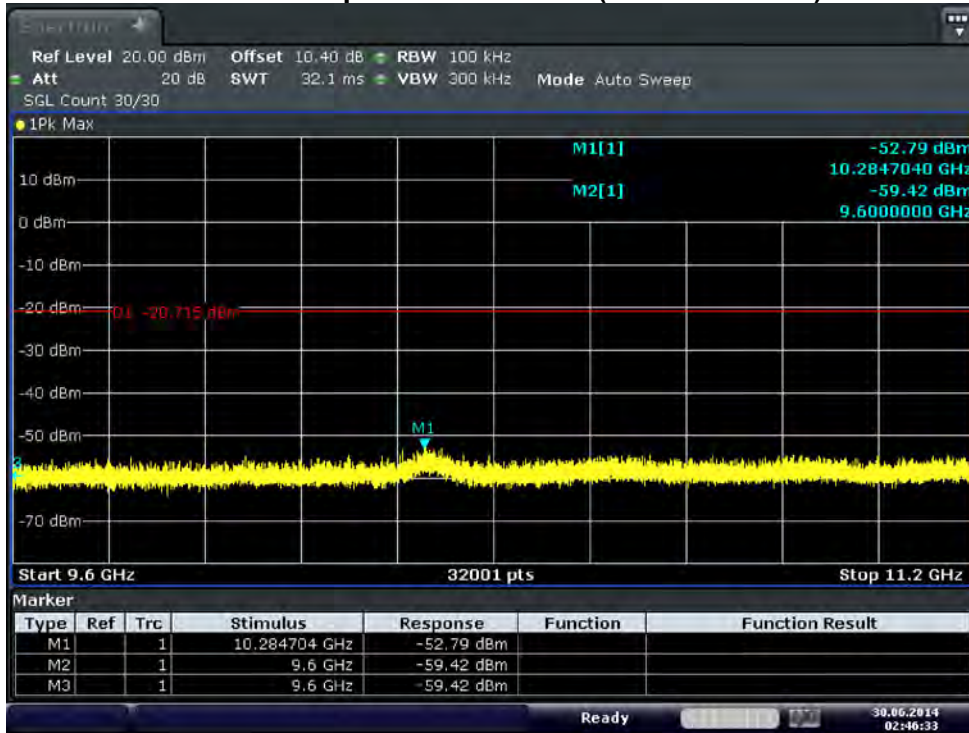
8 GHz ~ 9.6 GHz

Conducted Spurious Emission (802.11a-CH165)



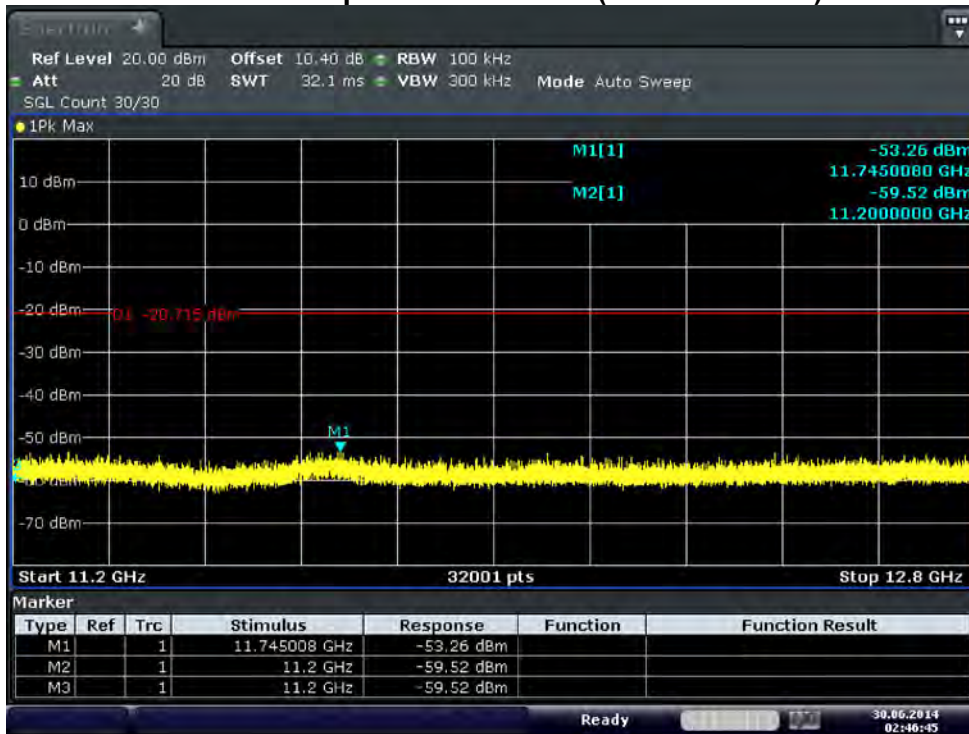
9.6 GHz ~ 11.2 GHz

Conducted Spurious Emission (802.11a-CH165)



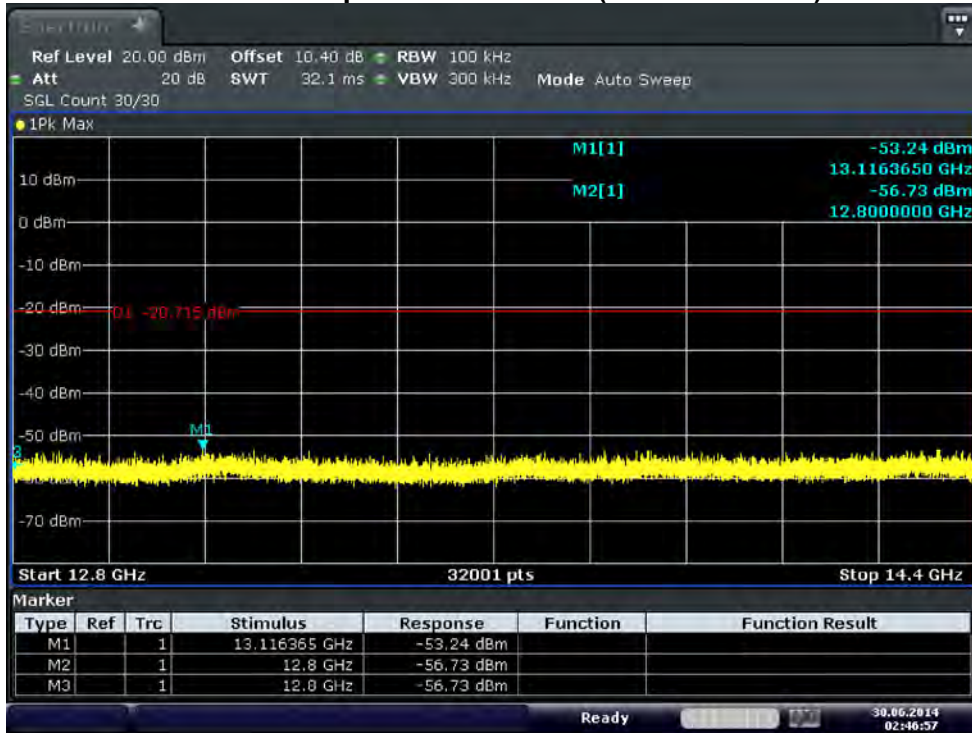
11.2 GHz ~ 12.8 GHz

Conducted Spurious Emission (802.11a-CH165)



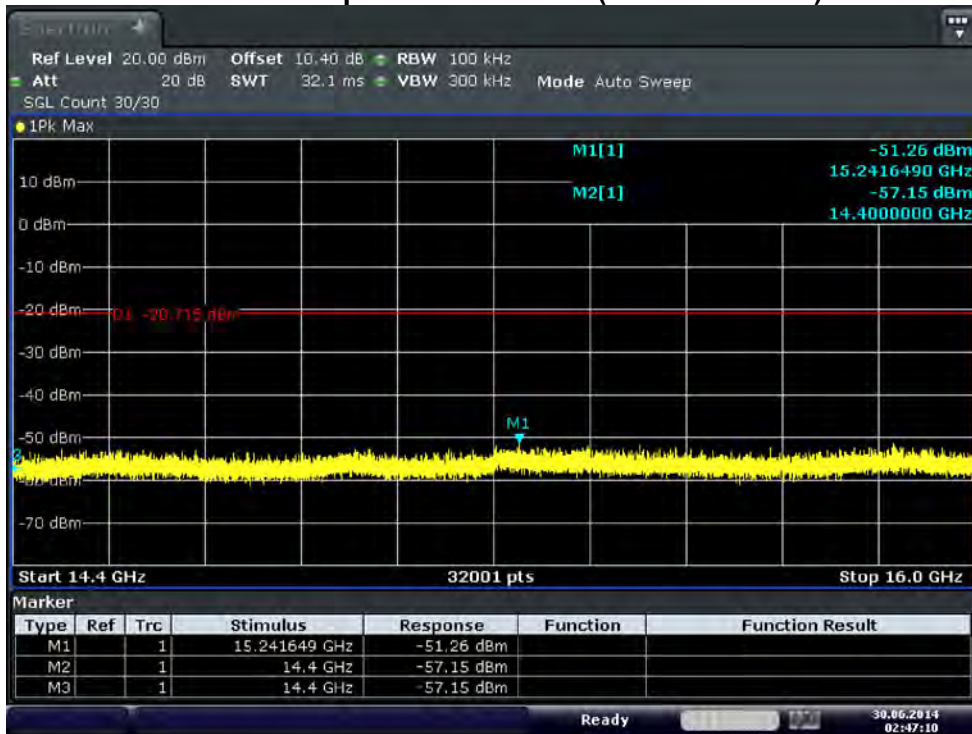
12.8 GHz ~ 12.8 GHz

Conducted Spurious Emission (802.11a-CH165)



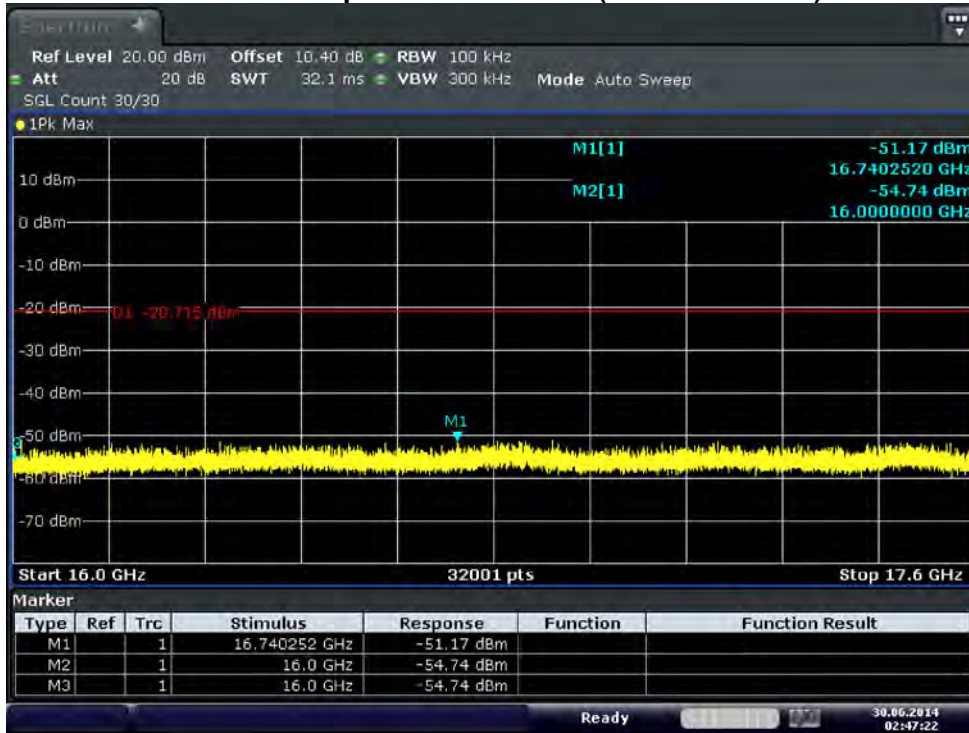
14.4 GHz ~ 16 GHz

Conducted Spurious Emission (802.11a-CH165)



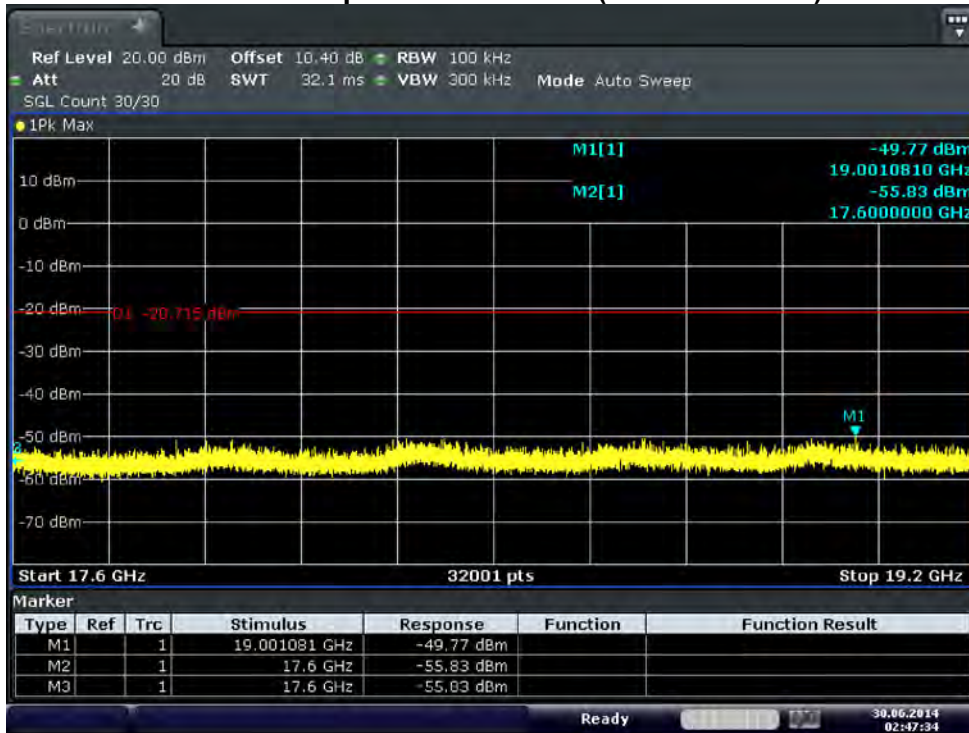
16 GHz ~ 17.6 GHz

Conducted Spurious Emission (802.11a-CH165)



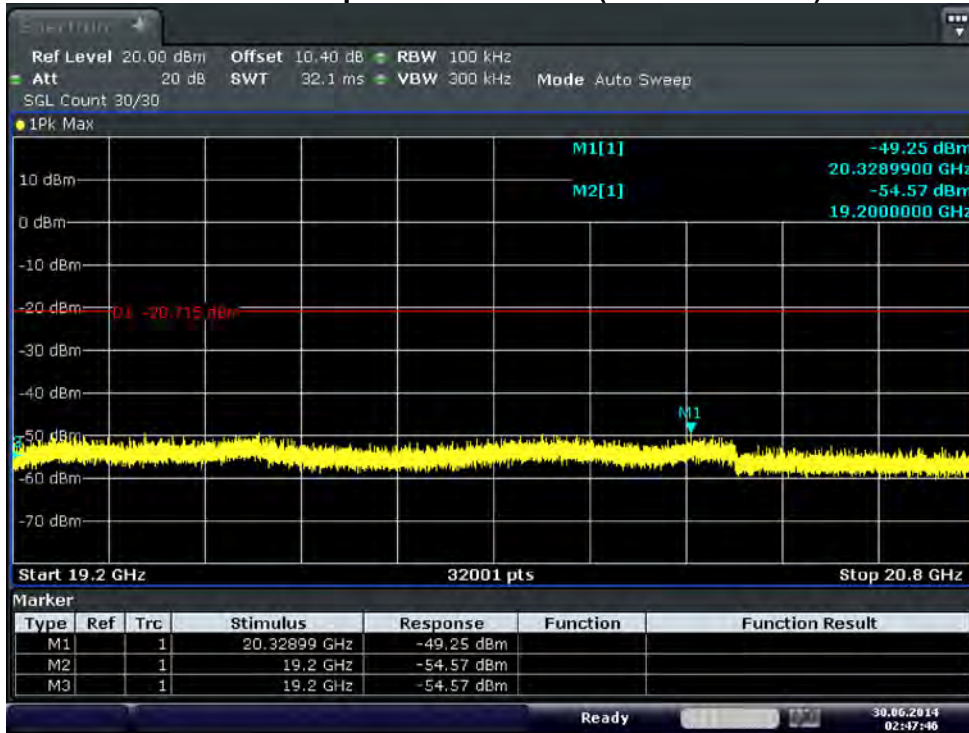
17.6 GHz ~ 19.2 GHz

Conducted Spurious Emission (802.11a-CH165)



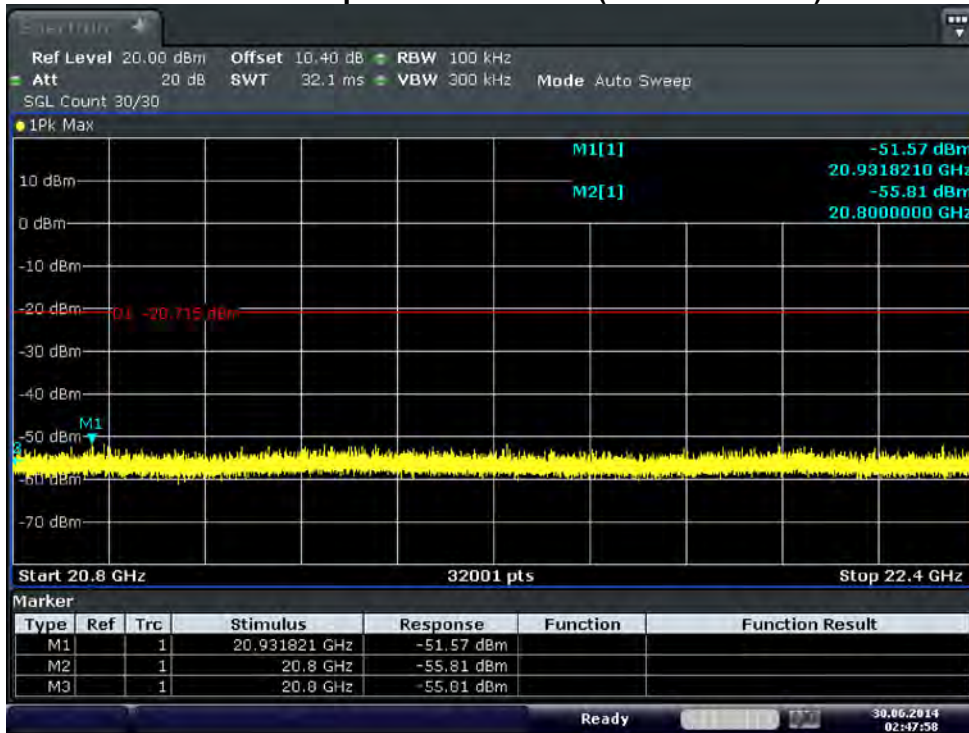
19.2 GHz ~ 20.8 GHz

Conducted Spurious Emission (802.11a-CH165)



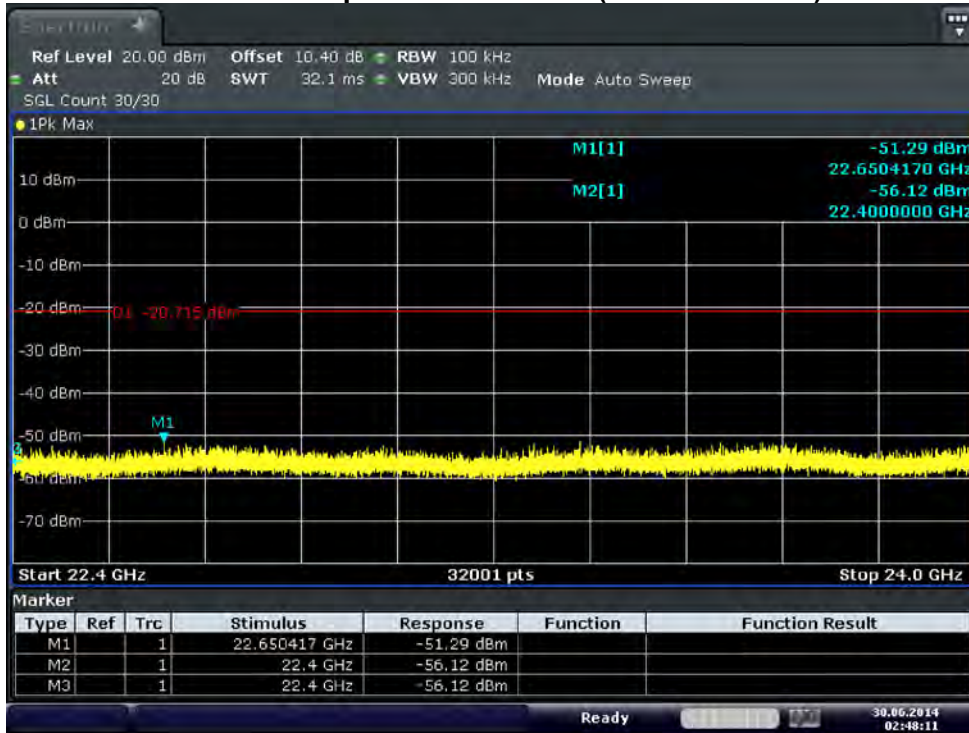
20.8 GHz ~ 22.4 GHz

Conducted Spurious Emission (802.11a-CH165)



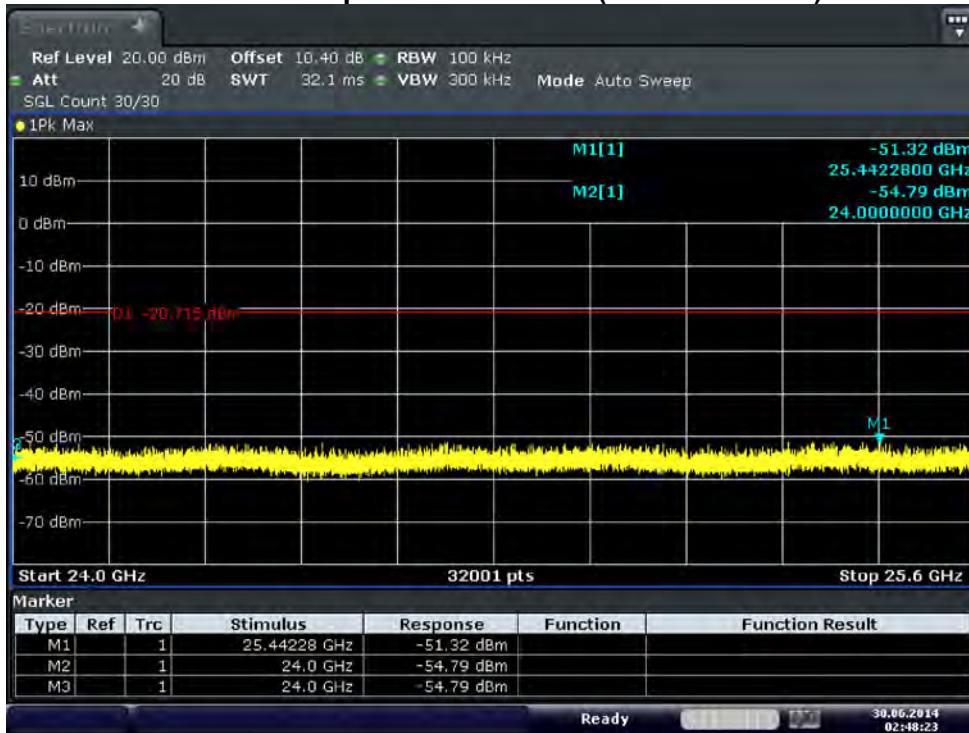
22.4 GHz ~ 24 GHz

Conducted Spurious Emission (802.11a-CH165)



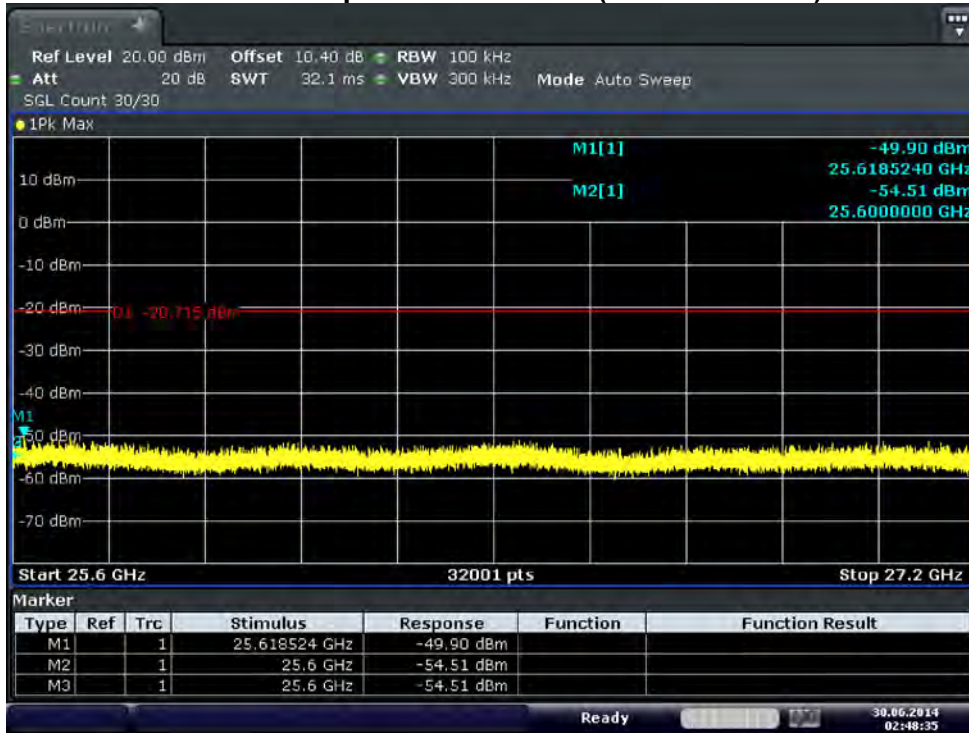
24 GHz ~ 25.6 GHz

Conducted Spurious Emission (802.11a-CH165)



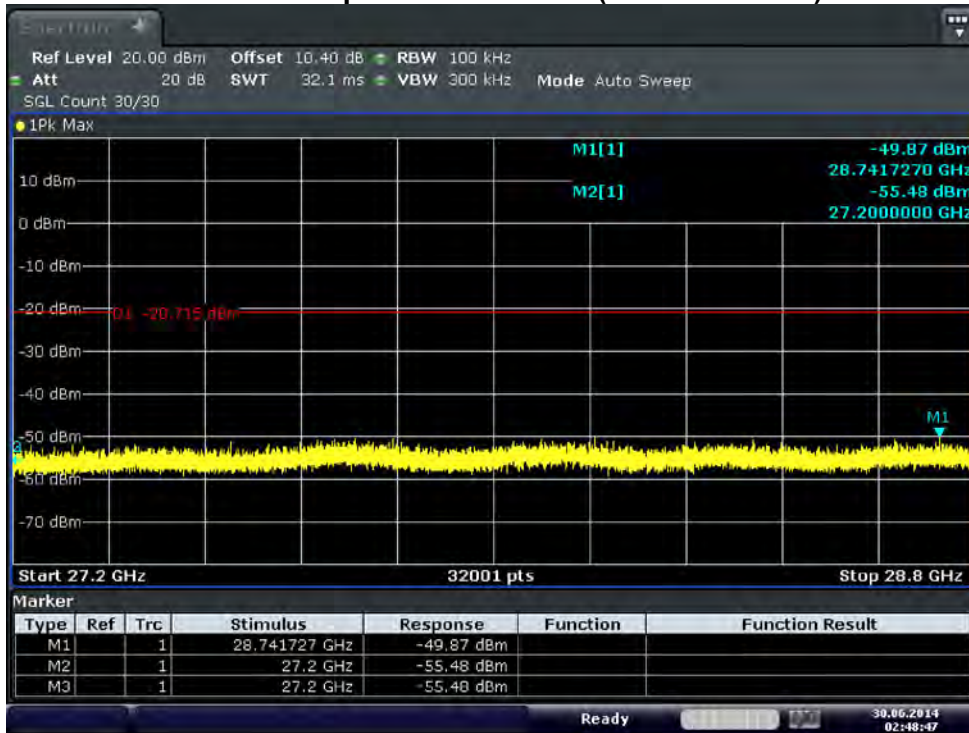
25.6 GHz ~ 27.2 GHz

Conducted Spurious Emission (802.11a-CH165)



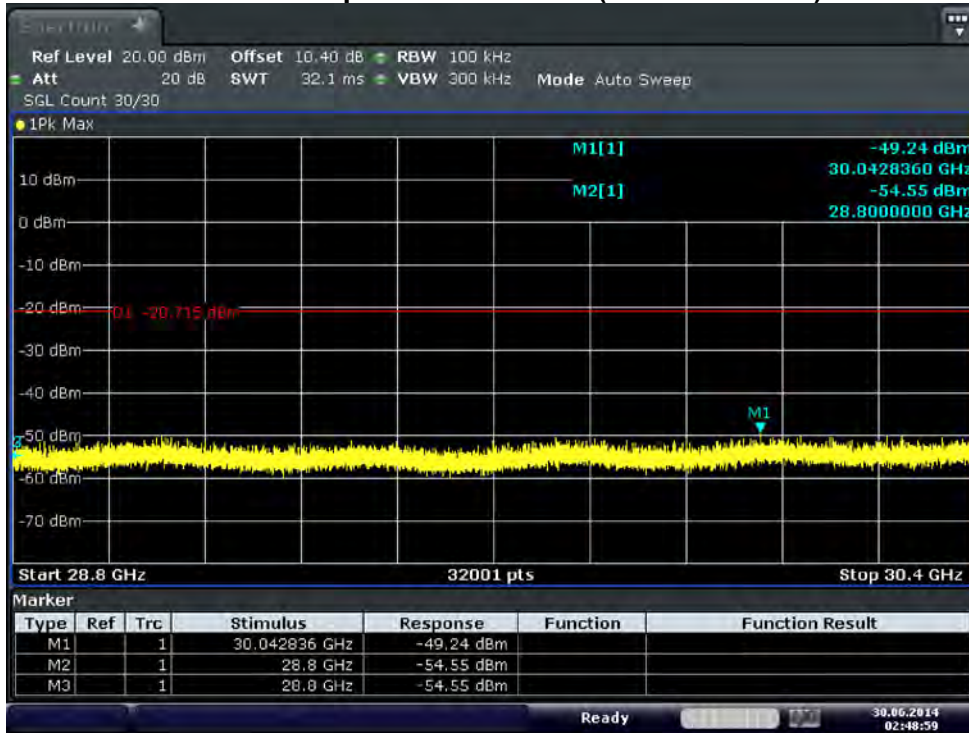
27.2 GHz ~ 28.8 GHz

Conducted Spurious Emission (802.11a-CH165)



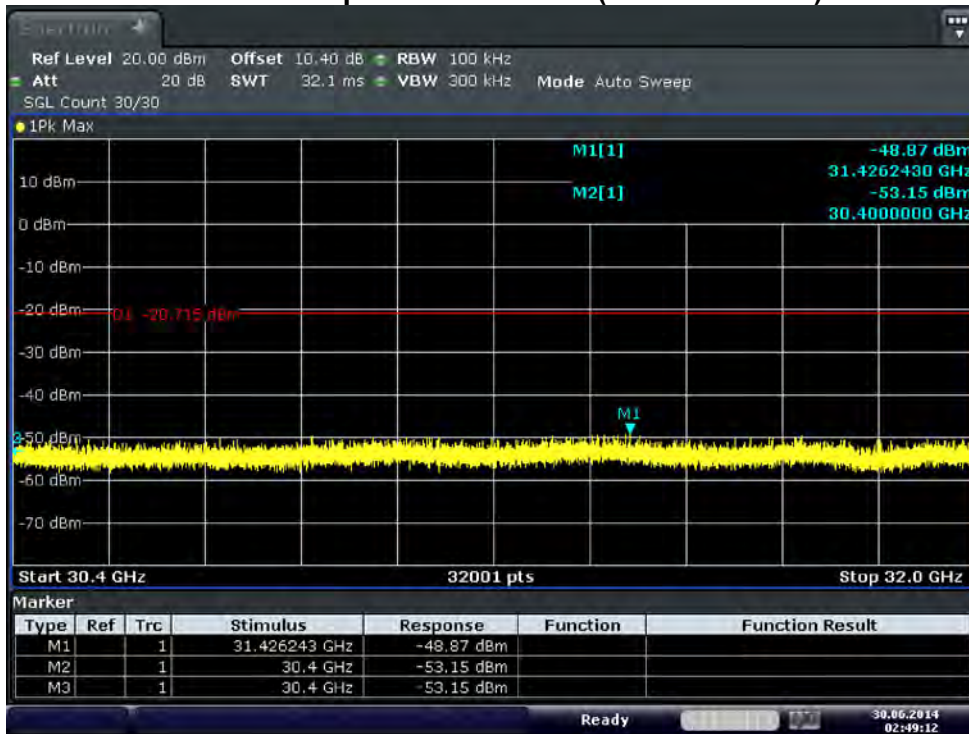
28.8 GHz ~ 30.4 GHz

Conducted Spurious Emission (802.11a-CH165)



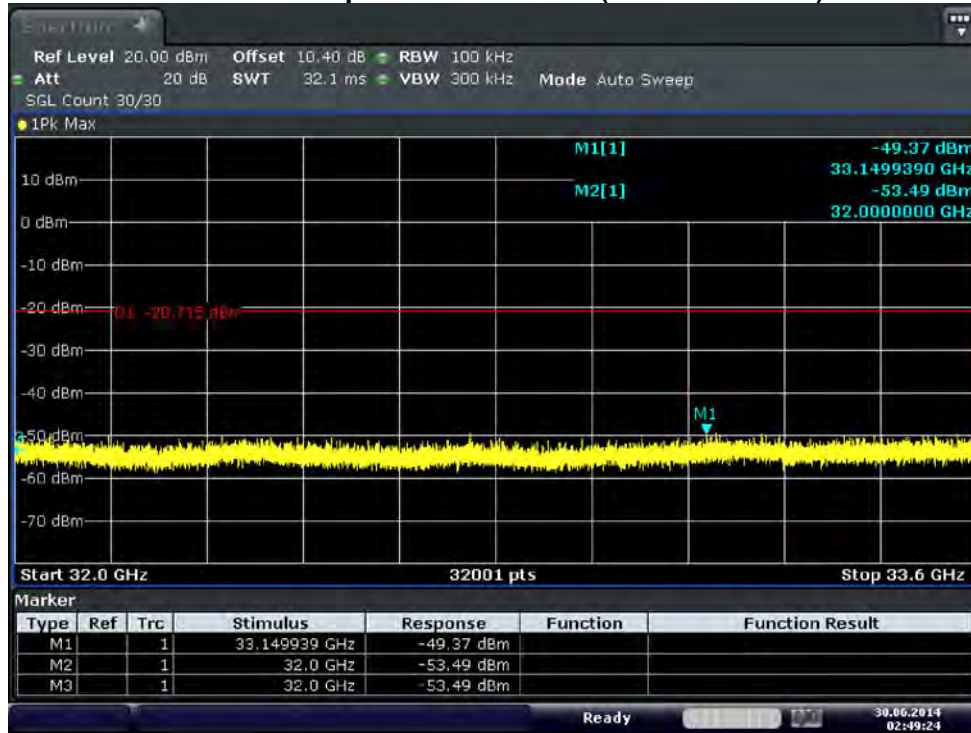
30.4 GHz ~ 32 GHz

Conducted Spurious Emission (802.11a-CH165)



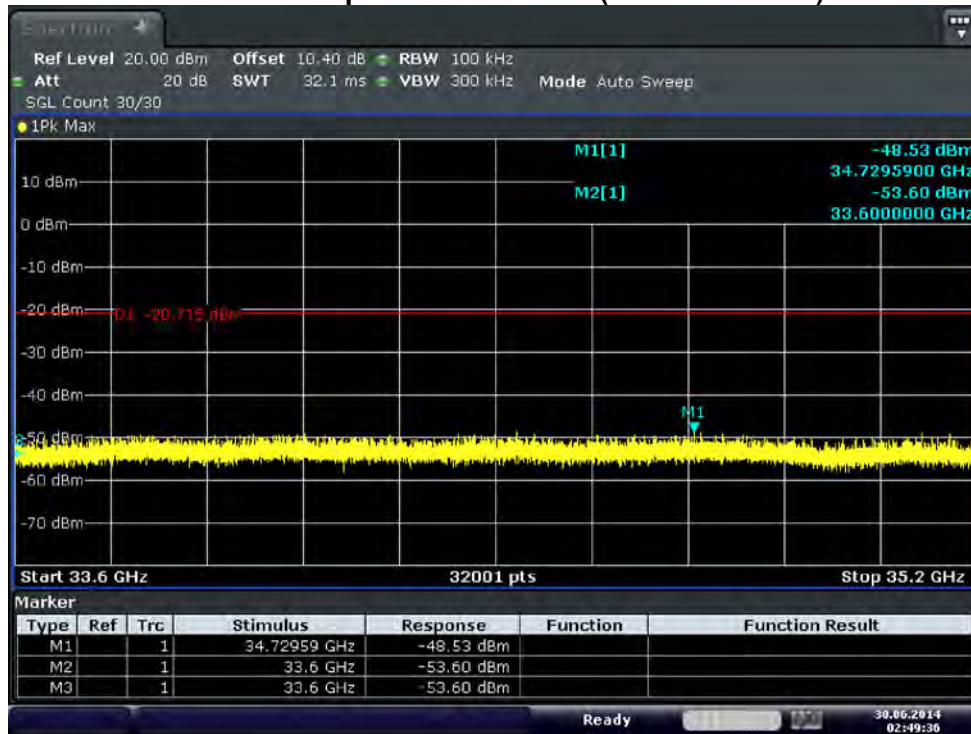
32 GHz ~ 33.6 GHz

Conducted Spurious Emission (802.11a-CH165)



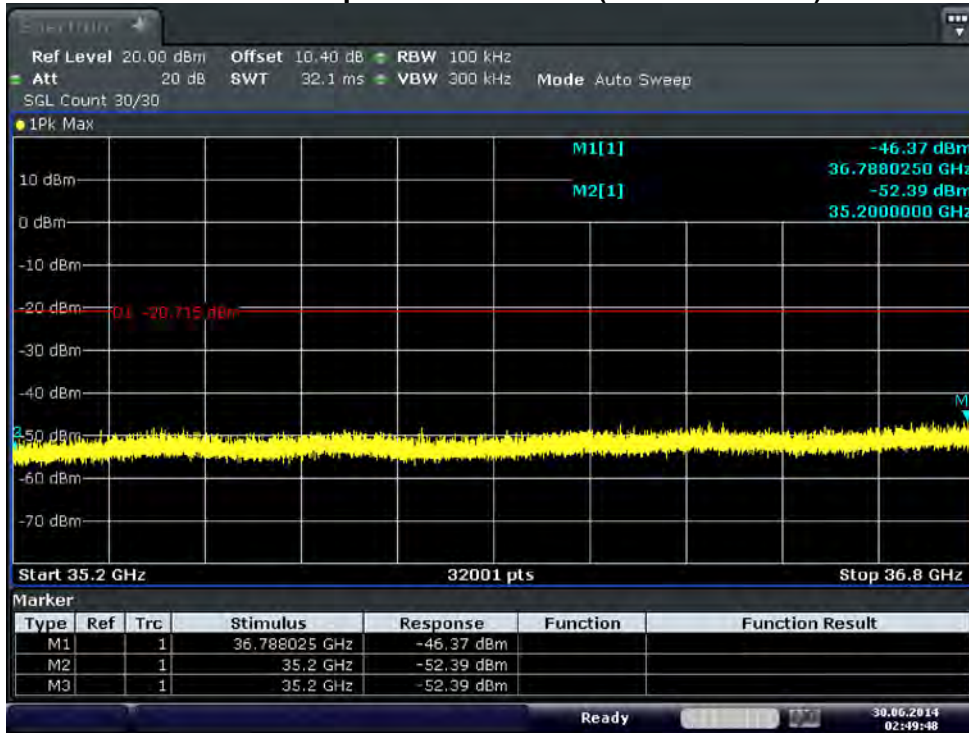
33.6 GHz ~ 35.2 GHz

Conducted Spurious Emission (802.11a-CH165)



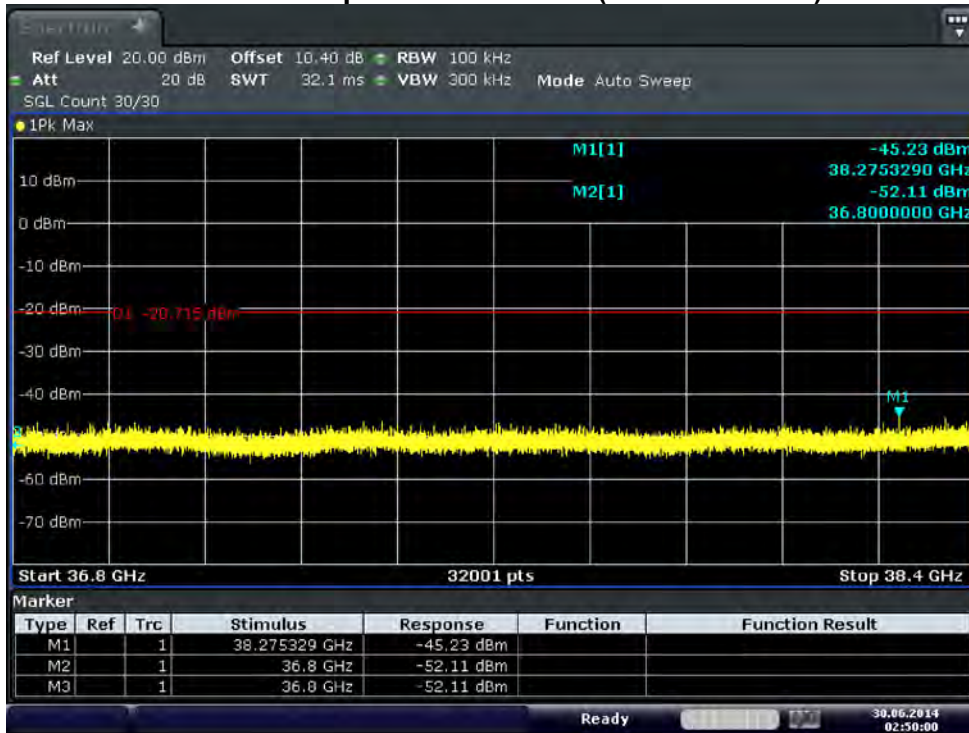
35.2 GHz ~ 36.8 GHz

Conducted Spurious Emission (802.11a-CH165)



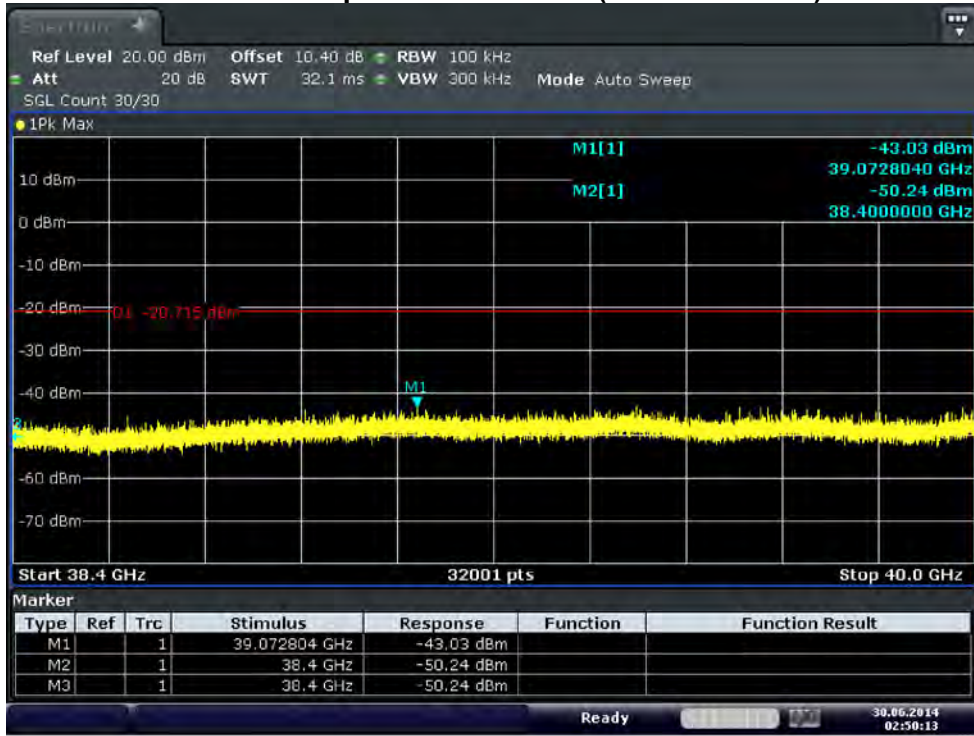
36.8 GHz ~ 38.4 GHz

Conducted Spurious Emission (802.11a-CH165)



38.4 GHz ~ 40 GHz

Conducted Spurious Emission (802.11a-CH165)



8.7 RADIATED MEASUREMENT.

8.7.1 RADIATED SPURIOUS EMISSIONS.

Test Requirements and limit, §15.205, §15.209

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

■ Test case

2.4 GHz Band

Mode	Operating Mode	Operating Ant.
802.11b/g/n	SISO	Ant 0
	SISO	Ant 1
802.11g/n	MIMO	Ant 0 & 1(Worst Case)

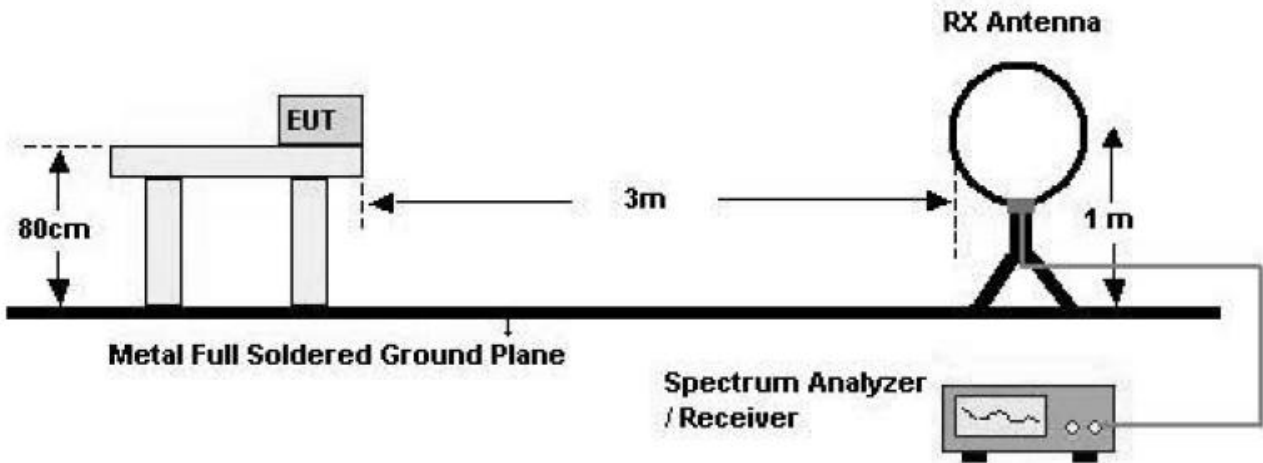
5.8 GHz Band

Mode	Operating Mode	Operating Ant.
802.11a/n	SISO	Ant 0
		Ant 1
	MIMO	Ant 0 & 1(Worst Case)

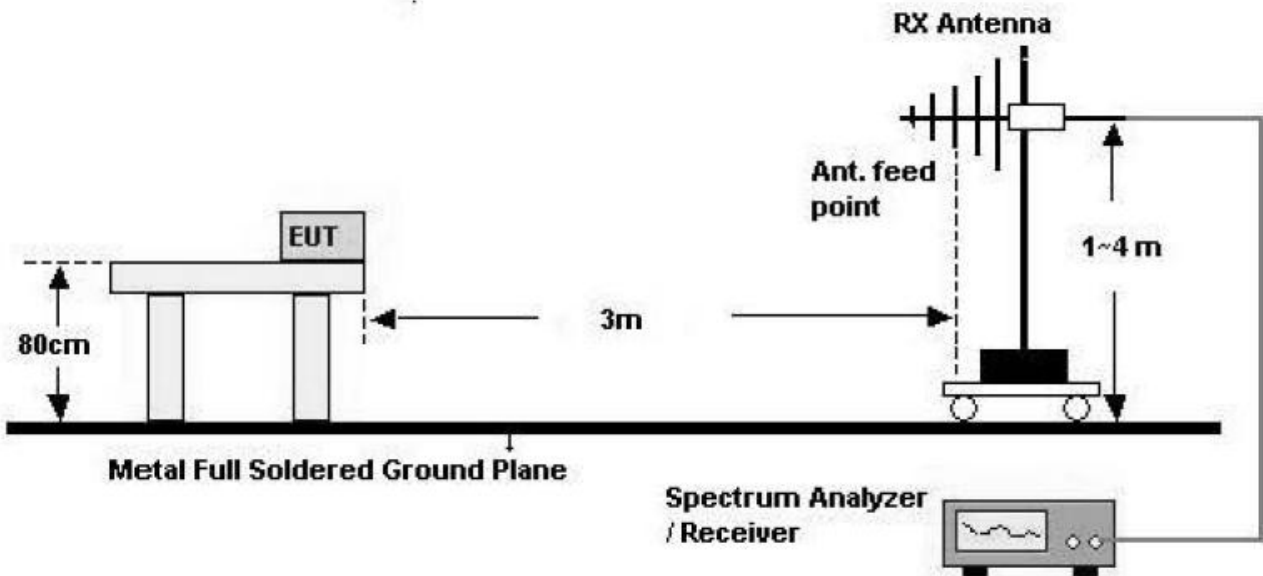
Note : In case of radiation test, we have done all test case. Worst case is Ant 0 & 1 for 802.11a/g/n. And in case of 802.11b, worst case is Ant 0. So, we attached the results of only worst case.

Test Configuration

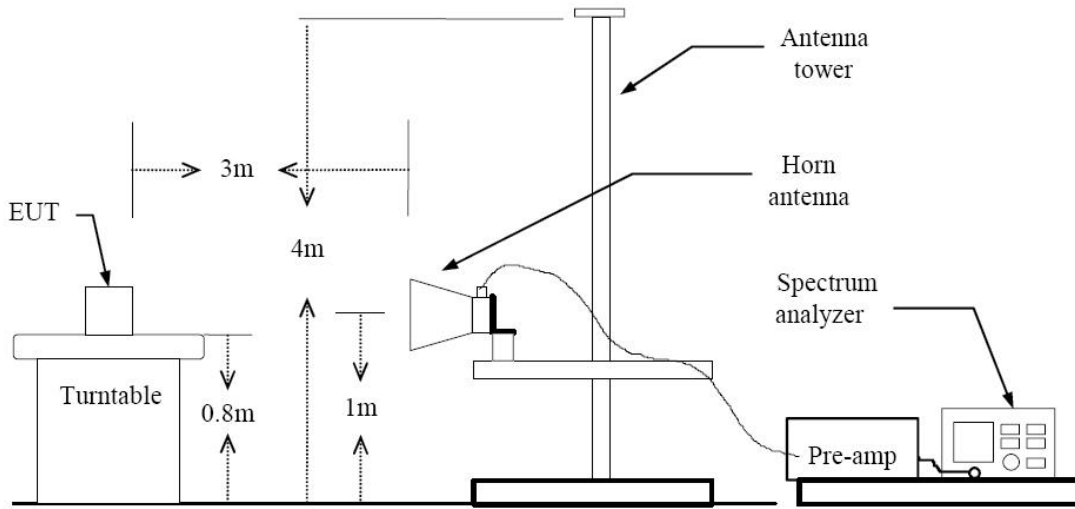
Below 30 MHz



30 MHz - 1 GHz



Above 1 GHz



TEST PROCEDURE USED

Method 12.1 in KDB 558074, issued 06/05/2014

Spectrum Setting

- Peak

Peak emission levels are measured by setting the instrument as follows:

RBW = cf. Table 1.

VBW \geq 3 x RBW.

Detector = Peak.

Sweep time = auto.

Trace mode = max hold.

Allow sweeps to continue until the trace stabilizes.

(Note that the required measurement time may be longer for low duty cycle applications).

Table 1 —RBW as a function of frequency

Frequency	RBW
9-150 kHz	200-300 Hz
0.15-30 MHz	9-10 kHz
30-1000 MHz	100-120 kHz
> 1000 MHz	1 MHz

- Average

Set RBW = 1 MHz

Set VBW $\geq 1/T$. (at least 100 times less than the resolution bandwidth, but no less than 10 Hz.)

Select spectrum analyzer linear display mode.

Detector = Peak.

Sweep time = auto.

Trace mode = max hold.

Note :

1. We used the case 1 for 802.11b mode and the case 2 for 802.11a/g/n_20/n_40 to perform the average filed strength measurements for RSE and radiated band edge test.
2. The actual setting value of VBW for 802.11a/g/n_20/n_40.

Mode	Worst Data rate (Mbps)	T _{on} (ms)	T _{total} (ms)	Duty Cycle (%)	VBW(1/T) (Hz)	The actual setting value of VBW (Hz)
b	1	12.420	13.070	95.03	81	1000
a	6	2.057	2.177	94.49	486	1000
g	6	2.057	2.177	94.49	486	1000
n_20 MHz BW	6.5	1.902	2.007	94.77	526	1000
n_40 MHz BW	13.5	0.927	1.029	90.09	1079	3000

TEST RESULTS

9 kHz – 30MHz

Operation Mode: Normal Mode

Frequency	Reading	Ant. factor	Cable loss	Ant. POL	Total	Limit	Margin
MHz	dB μ V/m	dBm /m	dBm	(H/V)	dB μ V/m	dB μ V/m	dB
No Critical peaks found							

Notes:

1. Measuring frequencies from 9 kHz to the 30MHz.
2. The reading of emissions are attenuated more than 20 dB below the permissible limits or the field strength is too small to be measured.
3. Distance extrapolation factor = 40 log (specific distance / test distance) (dB)
4. Limit line = specific Limits (dBuV) + Distance extrapolation factor
5. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

TEST RESULTS

Below 1 GHz

Operation Mode: Normal Mode

Frequency	Reading	Ant. factor	Cable loss	Ant. POL	Total	Limit	Margin
MHz	$\text{dB}\mu\text{V}/\text{m}$	dBm/m	dBm	(H/V)	$\text{dB}\mu\text{V}/\text{m}$	$\text{dB}\mu\text{V}/\text{m}$	dB
No Critical peaks found							

Notes:

1. Measuring frequencies from 30 MHz to the 1 GHz.
2. Radiated emissions measured in frequency range from 30 MHz to 1000 MHz were made with an instrument using Quasi peak detector mode.
3. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

Above 1 GHz

SISO (Ant 0)

Operation Mode: 802.11 b
 Transfer Rate: 1 Mbps
 Operating Frequency 2412
 Channel No. 01 Ch

Frequency [MHz]	Reading [dBuV/m]	AN.+CL-AMP G [dBm]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
4824	56.23	-1.98	V	54.25	73.98	19.73	PK
4824	51.62	-1.98	V	49.64	53.98	4.34	AV
7236	50.95	7.60	V	58.55	73.98	15.43	PK
7236	42.81	7.60	V	50.41	53.98	3.57	AV
4824	56.83	-1.98	H	54.85	73.98	19.13	PK
4824	52.68	-1.98	H	50.70	53.98	3.28	AV
7236	50.58	7.60	H	58.18	73.98	15.80	PK
7236	41.84	7.60	H	49.44	53.98	4.54	AV

Operation Mode: 802.11 b
 Transfer Rate: 1 Mbps
 Operating Frequency 2437
 Channel No. 06 Ch

Frequency [MHz]	Reading [dBuV/m]	AN.+CL-AMP G [dBm]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
4874	53.55	-1.92	V	51.63	73.98	22.35	PK
4874	46.20	-1.92	V	44.28	53.98	9.70	AV
7311	49.64	7.38	V	57.02	73.98	16.96	PK
7311	40.21	7.38	V	47.59	53.98	6.39	AV
4874	53.88	-1.92	H	51.96	73.98	22.02	PK
4874	47.23	-1.92	H	45.31	53.98	8.67	AV
7311	49.45	7.38	H	56.83	73.98	17.15	PK
7311	39.38	7.38	H	46.76	53.98	7.22	AV

Operation Mode: 802.11 b
 Transfer Rate: 1 Mbps
 Operating Frequency: 2462
 Channel No.: 11 Ch

Frequency [MHz]	Reading [dBuV/m]	AN.+CL-AMP G [dBm]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
4924	53.21	-1.93	V	51.28	73.98	22.70	PK
4924	47.09	-1.93	V	45.16	53.98	8.82	AV
7386	47.45	7.28	V	54.73	73.98	19.25	PK
7386	35.73	7.28	V	43.01	53.98	10.97	AV
4924	53.64	-1.93	H	51.71	73.98	22.27	PK
4924	48.04	-1.93	H	46.11	53.98	7.87	AV
7386	47.20	7.28	H	54.48	73.98	19.50	PK
7386	34.89	7.28	H	42.17	53.98	11.81	AV

Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done 802.11b mode and all data rate. Worst data rate is the lowest data of each mode.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

MIMO (Ant 0 & 1)

Operation Mode: 802.11 g
 Transfer Rate: 6 Mbps
 Operating Frequency: 2412
 Channel No.: 01 Ch

Frequency [MHz]	Reading [dBuV/m]	AN.+CL-AMP G [dBm]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
4824	48.99	-1.98	V	47.01	73.98	26.97	PK
4824	34.86	-1.98	V	32.88	53.98	21.10	AV
7236	47.03	7.60	V	54.63	73.98	19.35	PK
7236	31.98	7.60	V	39.58	53.98	14.40	AV
4824	49.97	-1.98	H	47.99	73.98	25.99	PK
4824	34.88	-1.98	H	32.90	53.98	21.08	AV
7236	46.37	7.60	H	53.97	73.98	20.01	PK
7236	31.96	7.60	H	39.56	53.98	14.42	AV

Operation Mode: 802.11 g
 Transfer Rate: 6 Mbps
 Operating Frequency: 2437
 Channel No.: 06 Ch

Frequency [MHz]	Reading [dBuV/m]	AN.+CL-AMP G [dBm]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
4874	55.90	-1.92	V	53.98	73.98	20.00	PK
4874	39.16	-1.92	V	37.24	53.98	16.74	AV
7311	61.58	7.38	V	68.96	73.98	5.02	PK
7311	42.60	7.38	V	49.98	53.98	4.00	AV
4874	56.33	-1.92	H	54.41	73.98	19.57	PK
4874	39.93	-1.92	H	38.01	53.98	15.97	AV
7311	60.96	7.38	H	68.34	73.98	5.64	PK
7311	41.59	7.38	H	48.97	53.98	5.01	AV

Operation Mode: 802.11 g
 Transfer Rate: 6 Mbps
 Operating Frequency 2462
 Channel No. 11 Ch

Frequency [MHz]	Reading [dBuV/m]	AN.+CL-AMP G [dBm]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
4924	54.20	-1.93	V	52.27	73.98	21.71	PK
4924	38.51	-1.93	V	36.58	53.98	17.40	AV
7386	50.93	7.28	V	58.21	73.98	15.77	PK
7386	33.05	7.28	V	40.33	53.98	13.65	AV
4924	54.96	-1.93	H	53.03	73.98	20.95	PK
4924	40.50	-1.93	H	38.57	53.98	15.41	AV
7386	50.06	7.28	H	57.34	73.98	16.64	PK
7386	32.12	7.28	H	39.40	53.98	14.58	AV

Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done 802.11g mode and all data rate. Worst data rate is the lowest data of each mode.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

Operation Mode: 802.11 n_20 MHz BW
 Transfer Rate: 6.5 Mbps
 Operating Frequency: 2412
 Channel No.: 01 Ch

Frequency [MHz]	Reading [dBuV/m]	AN.+CL-AMP G [dBm]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
4824	48.45	-1.98	V	46.47	73.98	27.51	PK
4824	34.74	-1.98	V	32.76	53.98	21.22	AV
7236	45.94	7.60	V	53.54	73.98	20.44	PK
7236	32.15	7.60	V	39.75	53.98	14.23	AV
4824	48.80	-1.98	H	46.82	73.98	27.16	PK
4824	34.77	-1.98	H	32.79	53.98	21.19	AV
7236	45.86	7.60	H	53.46	73.98	20.52	PK
7236	31.96	7.60	H	39.56	53.98	14.42	AV

Operation Mode: 802.11 n_20 MHz BW
 Transfer Rate: 6.5 Mbps
 Operating Frequency: 2437
 Channel No.: 06 Ch

Frequency [MHz]	Reading [dBuV/m]	AN.+CL-AMP G [dBm]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
4874	54.31	-1.92	V	52.39	73.98	21.59	PK
4874	38.63	-1.92	V	36.71	53.98	17.27	AV
7311	59.51	7.38	V	66.89	73.98	7.09	PK
7311	42.79	7.38	V	50.17	53.98	3.81	AV
4874	55.08	-1.92	H	53.16	73.98	20.82	PK
4874	39.24	-1.92	H	37.32	53.98	16.66	AV
7311	59.12	7.38	H	66.50	73.98	7.48	PK
7311	41.81	7.38	H	49.19	53.98	4.79	AV

Operation Mode: 802.11 n_20 MHz BW
 Transfer Rate: 6.5 Mbps
 Operating Frequency: 2462
 Channel No.: 11 Ch

Frequency [MHz]	Reading [dBuV/m]	AN.+CL-AMP G [dBm]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
4924	52.12	-1.93	V	50.19	73.98	23.79	PK
4924	38.99	-1.93	V	37.06	53.98	16.92	AV
7386	48.03	7.28	V	55.31	73.98	18.67	PK
7386	32.75	7.28	V	40.03	53.98	13.95	AV
4924	52.75	-1.93	H	50.82	73.98	23.16	PK
4924	39.90	-1.93	H	37.97	53.98	16.01	AV
7386	47.56	7.28	H	54.84	73.98	19.14	PK
7386	32.05	7.28	H	39.33	53.98	14.65	AV

Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done 802.11n mode and all data rate. Worst data rate is the lowest data of each mode.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

Operation Mode: 802.11 n_40 MHz BW
 Transfer Rate: 13.5 Mbps
 Operating Frequency: 2422
 Channel No.: 03 Ch

Frequency [MHz]	Reading [dBuV/m]	AN.+CL-AMP G [dBm]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
4844	48.85	-2.12	V	46.73	73.98	27.25	PK
4844	35.18	-2.12	V	33.06	53.98	20.92	AV
7266	46.07	7.44	V	53.51	73.98	20.47	PK
7266	32.82	7.44	V	40.26	53.98	13.72	AV
4844	49.22	-2.12	H	47.10	73.98	26.88	PK
4844	35.71	-2.12	H	33.59	53.98	20.39	AV
7266	45.97	7.44	H	53.41	73.98	20.57	PK
7266	32.80	7.44	H	40.24	53.98	13.74	AV

Operation Mode: 802.11 n_40 MHz BW
 Transfer Rate: 13.5 Mbps
 Operating Frequency: 2437
 Channel No.: 06 Ch

Frequency [MHz]	Reading [dBuV/m]	AN.+CL-AMP G [dBm]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
4874	52.64	-1.92	V	50.72	73.98	23.26	PK
4874	39.28	-1.92	V	37.36	53.98	16.62	AV
7311	57.82	7.38	V	65.20	73.98	8.78	PK
7311	43.45	7.38	V	50.83	53.98	3.15	AV
4874	53.14	-1.92	H	51.22	73.98	22.76	PK
4874	40.20	-1.92	H	38.28	53.98	15.70	AV
7311	57.33	7.38	H	64.71	73.98	9.27	PK
7311	42.61	7.38	H	49.99	53.98	3.99	AV

Operation Mode: 802.11 n_40 MHz BW
 Transfer Rate: 13.5 Mbps
 Operating Frequency: 2452
 Channel No.: 09 Ch

Frequency [MHz]	Reading [dBuV/m]	AN.+CL-AMP G [dBm]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
4904	50.06	-1.95	V	48.11	73.98	25.87	PK
4904	38.98	-1.95	V	37.03	53.98	16.95	AV
7356	46.21	7.23	V	53.44	73.98	20.54	PK
7356	33.14	7.23	V	40.37	53.98	13.61	AV
4904	50.55	-1.95	H	48.60	73.98	25.38	PK
4904	39.86	-1.95	H	37.91	53.98	16.07	AV
7356	45.77	7.23	H	53.00	73.98	20.98	PK
7356	33.05	7.23	H	40.28	53.98	13.70	AV

Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done 802.11n mode and all data rate. Worst data rate is the lowest data of each mode.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

Band : 5.8 GHz
 Operation Mode: 802.11 a
 Transfer Rate: 6 Mbps
 Operating Frequency 5745 MHz
 Channel No. 149 Ch

Frequency [MHz]	Reading [dBuV/m]	AN.+CL-AMP G [dBm]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
11490	72.31	-6.10	V	66.21	73.98	7.77	PK
11490	56.73	-6.10	V	50.63	53.98	3.35	AV
11490	65.99	-6.10	H	59.89	73.98	14.09	PK
11490	52.04	-6.10	H	45.94	53.98	8.04	AV

Band : 5.8 GHz
 Operation Mode: 802.11 a
 Transfer Rate: 6 Mbps
 Operating Frequency 5785 MHz
 Channel No. 157 Ch

Frequency [MHz]	Reading [dBuV/m]	AN.+CL-AMP G [dBm]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
11570	72.16	-5.57	V	66.59	73.98	7.39	PK
11570	56.44	-5.57	V	50.87	53.98	3.11	AV
11570	67.92	-5.57	H	62.35	73.98	11.63	PK
11570	51.72	-5.57	H	46.15	53.98	7.83	AV

Band : 5.8 GHz
 Operation Mode: 802.11 a
 Transfer Rate: 6 Mbps
 Operating Frequency 5825 MHz
 Channel No. 165 Ch

Frequency [MHz]	Reading [dBuV/m]	AN.+CL-AMP G [dBm]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
11650	72.92	-6.63	V	66.29	73.98	7.69	PK
11650	57.35	-6.63	V	50.72	53.98	3.26	AV
11650	67.55	-6.63	H	60.92	73.98	13.06	PK
11650	52.55	-6.63	H	45.92	53.98	8.06	AV

Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done 802.11a mode and all data rate. Worst data rate is the lowest data of each mode
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

Band : 5.8 GHz
 Operation Mode: 802.11 n_20 MHz BW
 Transfer Rate: 6.5 Mbps
 Operating Frequency 5745 MHz
 Channel No. 149 Ch

Frequency [MHz]	Reading [dBuV/m]	AN.+CL-AMP G [dBm]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
11490	72.86	-6.10	V	66.76	73.98	7.22	PK
11490	56.22	-6.10	V	50.12	53.98	3.86	AV
11490	67.95	-6.10	H	61.85	73.98	12.13	PK
11490	51.95	-6.10	H	45.85	53.98	8.13	AV

Band : 5.8 GHz
 Operation Mode: 802.11 n_20 MHz BW
 Transfer Rate: 6.5 Mbps
 Operating Frequency 5785 MHz
 Channel No. 157 Ch

Frequency [MHz]	Reading [dBuV/m]	AN.+CL-AMP G [dBm]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
11570	71.27	-5.57	V	65.70	73.98	8.28	PK
11570	55.98	-5.57	V	50.41	53.98	3.57	AV
11570	66.41	-5.57	H	60.84	73.98	13.14	PK
11570	51.26	-5.57	H	45.69	53.98	8.29	AV

Band : 5.8 GHz
 Operation Mode: 802.11 n_20 MHz BW
 Transfer Rate: 6.5 Mbps
 Operating Frequency 5825 MHz
 Channel No. 165 Ch

Frequency [MHz]	Reading [dBuV/m]	AN.+CL-AMP G [dBm]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
11650	74.05	-6.63	V	67.42	73.98	6.56	PK
11650	57.07	-6.63	V	50.44	53.98	3.54	AV
11650	69.70	-6.63	H	63.07	73.98	10.91	PK
11650	53.36	-6.63	H	46.73	53.98	7.25	AV

Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done 802.11n_20 MHz BW mode and all data rate. Worst data rate is the lowest data of each mode
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna

Band : 5.8 GHz
 Operation Mode: 802.11 n_40 MHz BW
 Transfer Rate: 13.5 Mbps
 Operating Frequency 5755 MHz
 Channel No. 151 Ch

Frequency [MHz]	Reading [dBuV/m]	AN.+CL-AMP G [dBm]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
11510	68.85	-6.26	V	62.59	73.98	11.39	PK
11510	54.67	-6.26	V	48.41	53.98	5.57	AV
11510	67.03	-6.26	H	60.77	73.98	13.21	PK
11510	50.11	-6.26	H	43.85	53.98	10.13	AV

Band : 5.8 GHz
 Operation Mode: 802.11 n_40 MHz BW
 Transfer Rate: 13.5 Mbps
 Operating Frequency 5795 MHz
 Channel No. 159 Ch

Frequency [MHz]	Reading [dBuV/m]	AN.+CL-AMP G [dBm]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
11590	69.87	-5.92	V	63.95	73.98	10.03	PK
11590	55.61	-5.92	V	49.69	53.98	4.29	AV
11590	66.81	-5.92	H	60.89	73.98	13.09	PK
11590	51.80	-5.92	H	45.88	53.98	8.10	AV

Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done 802.11n_40 MHz BW mode and all data rate. Worst data rate is the lowest data of each mode
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

8.7.2 RECEIVER SPURIOUS EMISSIONS

IC Rule(s) RSS-GEN
Test Requirements: Blow the table
Operating conditions: Under normal test conditions
Method of testing: Radiated

S/A. Settings: F < 1 GHz: RBW: 120 kHz, VBW: 300 kHz (Quasi Peak)
 F > 1 GHz: RBW: 1 MHz, VBW: 1 MHz (Peak)
Mode of operation: Receive

Frequency (MHz)	Field Strength (microvolts/m at 3 meters)
30 – 88	100
88 - 216	150
216 – 960	200
Above 960	500

Operation Mode: Receive:

30 MHz ~ 1 GHz

Frequency	Reading	Ant. factor	Cable loss	Ant. POL	Total	Limit	Margin
MHz	dB μ V	dB /m	dB	(H/V)	dB μ V/m	dB μ V/m	dB
No Critical peaks found							

Above 1 GHz

Frequency	Reading	Ant. factor	Cable loss	Ant. POL	Total	Limit	Margin
MHz	dB μ V	dB /m	dB	(H/V)	dB μ V/m	dB μ V/m	dB
No Critical peaks found							

8.7.3 RADIATED RESTRICTED BAND EDGES

Test Requirements and limit, §15.247(d) §15.205, §15.209

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement. Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in section 15.209(a) (See section 15.205(c)).

SISO (Ant 0)

Operation Mode:	802.11b
Transfer Rate:	1 Mbps
Operating Frequency	2412 MHz, 2462 MHz
Channel No.	01 Ch, 11 Ch

Frequency [MHz]	Reading [dBuV/m]	AN.+CL [dBm]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
2390.0	29.48	31.47	H	60.95	73.98	13.03	PK
2390.0	15.39	31.47	H	46.86	53.98	7.12	AV
2390.0	28.96	31.47	V	60.43	73.98	13.55	PK
2390.0	14.88	31.47	V	46.35	53.98	7.63	AV
2483.5	28.08	31.46	H	59.54	73.98	14.44	PK
2483.5	13.96	31.46	H	45.42	53.98	8.56	AV
2483.5	26.21	31.46	V	57.67	73.98	16.31	PK
2483.5	13.51	31.46	V	44.97	53.98	9.01	AV

MIMO (Ant 0 & 1)

Operation Mode: 802.11g
 Transfer Rate: 6 Mbps
 Operating Frequency: 2412 MHz, 2462 MHz
 Channel No.: 01 Ch, 11 Ch

Frequency [MHz]	Reading [dBuV/m]	AN.+CL [dBm]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
2390.0	31.77	31.47	H	63.24	73.98	10.74	PK
2390.0	18.40	31.47	H	49.87	53.98	4.11	AV
2390.0	30.97	31.47	V	62.44	73.98	11.54	PK
2390.0	17.86	31.47	V	49.33	53.98	4.65	AV
2483.5	39.17	31.46	H	70.63	73.98	3.35	PK
2483.5	18.58	31.46	H	50.04	53.98	3.94	AV
2483.5	38.32	31.46	V	69.78	73.98	4.20	PK
2483.5	17.95	31.46	V	49.41	53.98	4.57	AV

Operation Mode: 802.11n_20 MHz
 Transfer Rate: 6.5 Mbps
 Operating Frequency: 2412 MHz, 2462 MHz
 Channel No.: 01 Ch, 11 Ch

Frequency [MHz]	Reading [dBuV/m]	AN.+CL [dBm]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
2390.0	31.43	31.47	H	62.90	73.98	11.08	PK
2390.0	18.36	31.47	H	49.83	53.98	4.15	AV
2390.0	29.77	31.47	V	61.24	73.98	12.74	PK
2390.0	17.81	31.47	V	49.28	53.98	4.70	AV
2483.5	38.73	31.46	H	70.19	73.98	3.79	PK
2483.5	18.93	31.46	H	50.39	53.98	3.59	AV
2483.5	36.34	31.46	V	67.80	73.98	6.18	PK
2483.5	18.49	31.46	V	49.95	53.98	4.03	AV

Operation Mode: 802.11n_40 MHz
 Transfer Rate: 13.5 Mbps
 Operating Frequency 2422 MHz, 2452 MHz
 Channel No. 03 Ch, 09 Ch

Frequency [MHz]	Reading dBuV	AN.+CL [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
2390.0	27.40	31.47	H	58.87	73.98	15.11	PK
2390.0	14.16	31.47	H	45.63	53.98	8.35	AV
2390.0	26.05	31.47	V	57.52	73.98	16.46	PK
2390.0	13.64	31.47	V	45.11	53.98	8.87	AV
2483.5	36.36	31.46	H	67.82	73.98	6.16	PK
2483.5	18.99	31.46	H	50.45	53.98	3.53	AV
2483.5	35.50	31.46	V	66.96	73.98	7.02	PK
2483.5	18.51	31.46	V	49.97	53.98	4.01	AV

Notes:

1. Total = Reading Value + Antenna Factor + Cable Loss
2. We have done 802.11b/g/n mode and all data rate. Worst data rate is the lowest data of each mode.
3. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

8.8 POWERLINE CONDUCTED EMISSIONS

Test Requirements and limit, §15.207

For an intentional radiator which 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 250 microvolts (The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.50 MHz). The limits at specific frequency range is listed as follows:

Frequency Range (MHz)	Limits (dBµV)	
	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

Compliance with this provision shall be based on the measurement of the radio frequency voltage between each power line (LINE and NEUTRAL) and ground at the power terminals.

Test Configuration

See test photographs attached in Appendix 1 for the actual connections between EUT and support equipment.

TEST PROCEDURE

1. The EUT is placed on a wooden table 80 cm above the reference ground plane.
2. The EUT is connected via LISN to a test power supply.
3. The measurement results are obtained as described below:
4. Detectors – Quasi Peak and Average Detector.

Note: We don't perform powerline conducted emission test. Because this EUT is used DC voltage.

9. LIST OF TEST EQUIPMENT

9.1 LIST OF TEST EQUIPMENT(Conducted Test)

Manufacturer	Model / Equipment	Calibration Date	Calibration Interval	Calibration Due	Serial No.
Rohde & Schwarz	ENV216/ LISN	01/29/2014	Annual	01/29/2015	100073
Agilent	E4440A/ Spectrum Analyzer	04/09/2014	Annual	04/09/2015	US45303008
Rohde & Schwarz	FSV40/Spectrum Analyzer	06/09/2014	Annual	06/09/2015	1307.9002K40-100931-NK
Agilent	N9020A/ SIGNAL ANALYZER	05/23/2014	Annual	05/23/2015	MY51110063
Agilent	N1911A/Power Meter	01/24/2014	Annual	01/24/2015	MY45100523
Agilent	N1921A /POWER SENSOR	07/11/2013	Annual	07/11/2014	MY45241059
Hewlett Packard	11636B/Power Divider	10/22/2013	Annual	10/22/2014	11377
Agilent	87300B/Directional Coupler	12/18/2013	Annual	12/18/2014	3116A03621
Hewlett Packard	11667B / Power Splitter	01/27/2014	Annual	01/27/2015	10545
DIGITAL	EP-3010 /DC POWER SUPPLY	10/29/2013	Annual	10/29/2014	3110117
ITECH	IT6720 / DC POWER SUPPLY	11/05/2013	Annual	11/05/2014	0100021562870011 99
TESCOM	TC-3000C / BLUETOOTH TESTER	04/11/2014	Annual	04/11/2015	3000C000276
Rohde & Schwarz	CBT / BLUETOOTH TESTER	05/07/2014	Annual	05/07/2015	100422
Agilent	8493C / Attenuator(10 dB)	07/24/2013	Annual	07/24/2014	76649
WEINSCHTEL	2-3 / Attenuator(3 dB)	10/28/2013	Annual	10/28/2014	BR0617

9.2 LIST OF TEST EQUIPMENT(Radiated Test)

Manufacturer	Model / Equipment	Calibration Date	Calibration Interval	Calibration Due	Serial No.
Schwarzbeck	VULB 9160/ TRILOG Antenna	12/17/2012	Biennial	12/17/2014	3150
Rohde & Schwarz	ESCI / EMI TEST RECEIVER	01/24/2014	Annual	01/24/2015	100584
Rohde & Schwarz	FSV40/Spectrum Analyzer	06/09/2014	Annual	06/09/2015	1307.9002K40-100931-NK
HD	MA240/ Antenna Position Tower	N/A	N/A	N/A	556
EMCO	1050/ Turn Table	N/A	N/A	N/A	114
HD GmbH	HD 100/ Controller	N/A	N/A	N/A	13
HD GmbH	KMS 560/ SlideBar	N/A	N/A	N/A	12
Rohde & Schwarz	SCU-18/ Signal Conditioning Unit	09/10/2013	Annual	09/10/2014	10094
CERNEK	CBL18265035 / POWER AMP	07/24/2013	Annual	07/24/2014	22966
CERNEK	CBL26405040 / POWER AMP	04/04/2014	Annual	04/04/2015	19660
Schwarzbeck	BBHA 9120D/ Horn Antenna	07/05/2013	Biennial	07/05/2015	1151
Schwarzbeck	BBHA9170 / Horn Antenna(15 GHz ~ 40 GHz)	10/30/2012	Biennial	10/30/2014	BBHA9170124
Rohde & Schwarz	FSP / Spectrum Analyzer	01/24/2014	Annual	01/24/2015	839117/011
Wainwright Instrument	WHF3.0/18G-10EF / High Pass Filter	02/03/2014	Annual	02/03/2015	F6
Wainwright Instrument	WHNX6.0/26.5G-6SS / High Pass Filter	04/09/2014	Annual	04/09/2015	1
Wainwright Instrument	WHNX7.0/18G-8SS / High Pass Filter	04/04/2014	Annual	04/04/2015	29
TESCOM	TC-3000C / BLUETOOTH TESTER	04/11/2014	Annual	04/11/2015	3000C000276
Rohde & Schwarz	CBT / BLUETOOTH TESTER	05/07/2014	Annual	05/07/2015	100422
Rohde & Schwarz	LOOP ANTENNA	08/14/2012	Biennial	08/14/2014	100179
CERNEK	CBL06185030 / POWER AMP	07/24/2013	Annual	07/24/2014	22965
CERNEK	CBLU1183540 / POWER AMP	07/24/2013	Annual	07/24/2014	22964