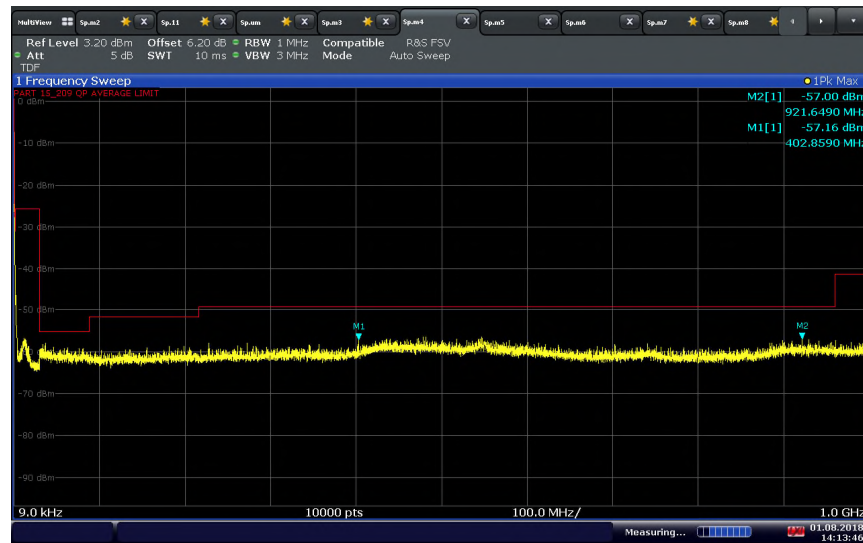
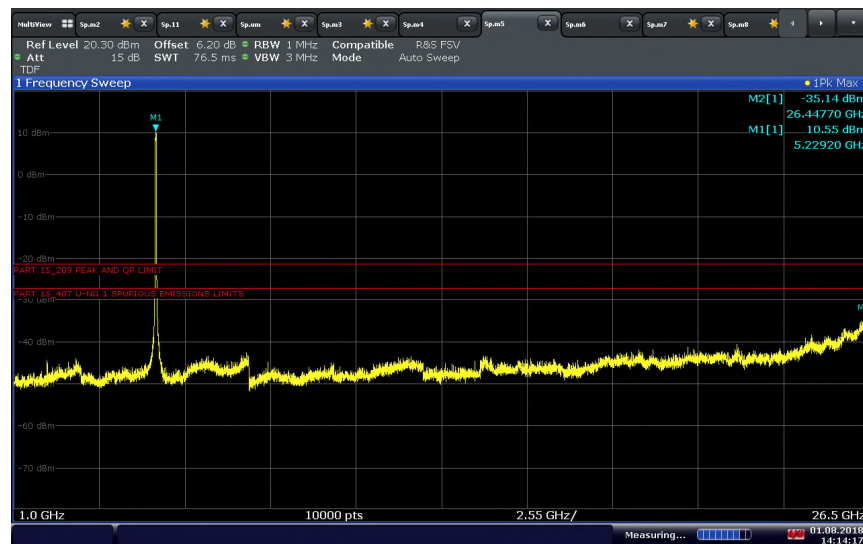




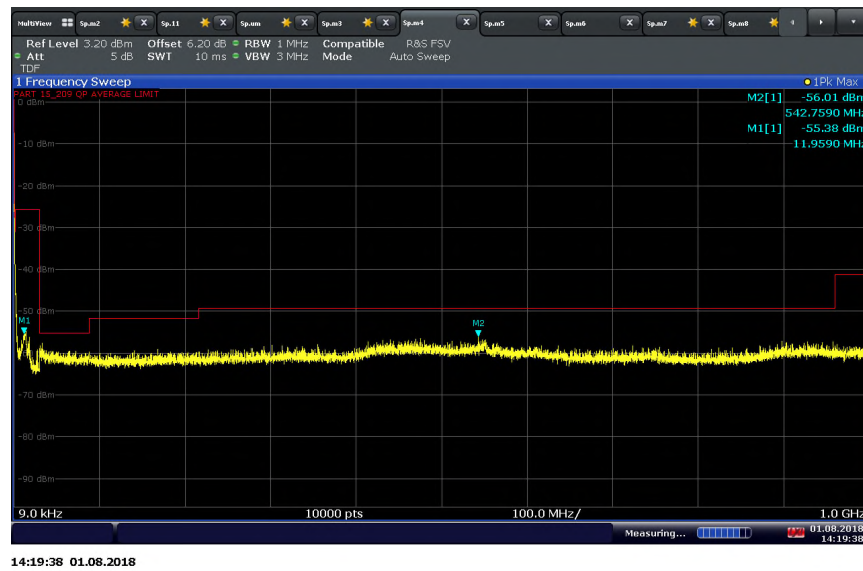
14:13:47 01.08.2018

802.11 ac (40 MHz) U-NII 1 High Channel below 1GHz

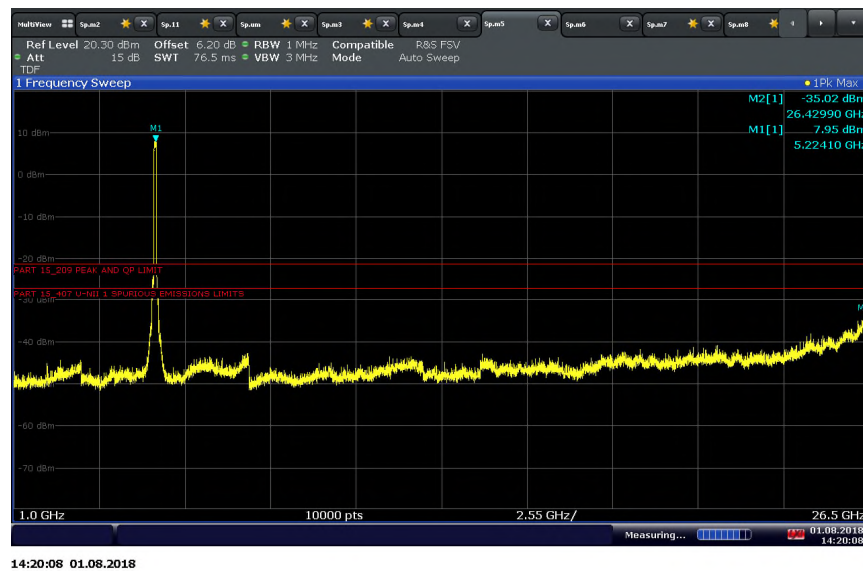


14:14:18 01.08.2018

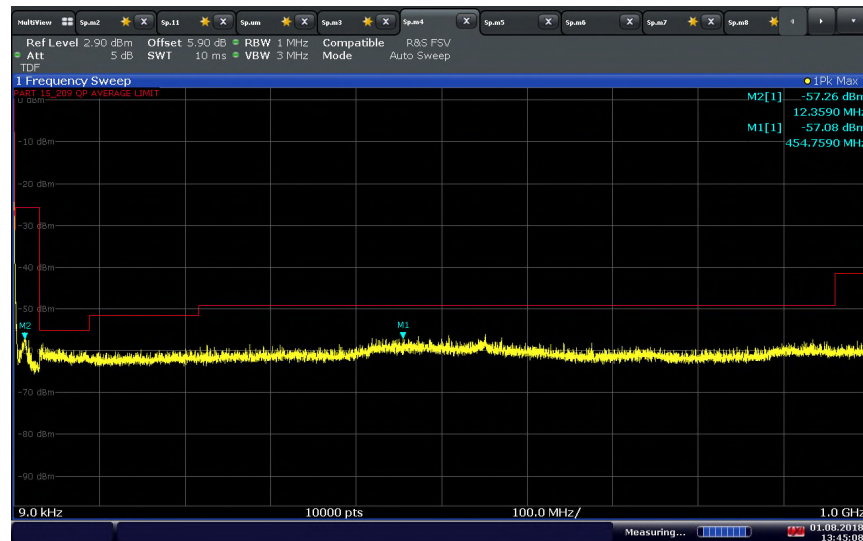
802.11 ac (40 MHz) U-NII 1 High Channel above 1GHz



802.11 ac (80 MHz) U-NII 1 Middle Channel below 1GHz

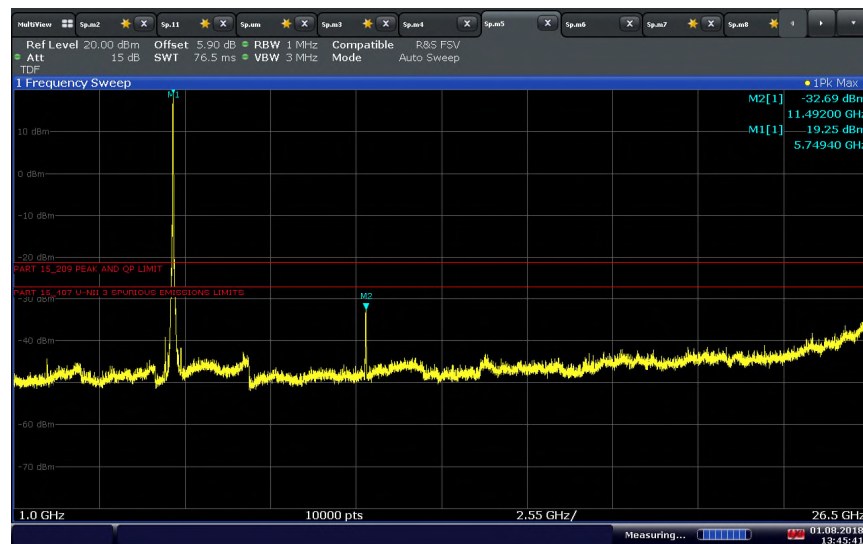


802.11 ac (80 MHz) U-NII 1 Middle Channel above 1GHz



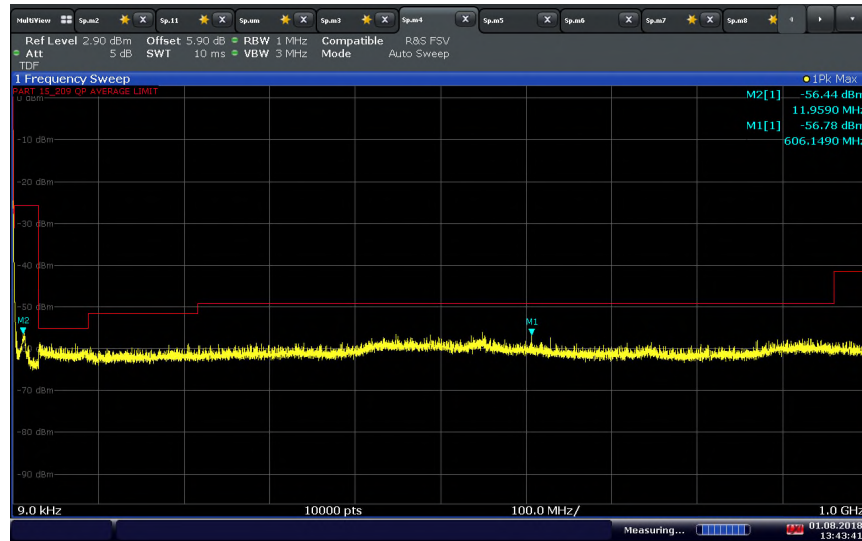
13:45:08 01.08.2018

802.11 a U-NII 3 Low Channel below 1GHz



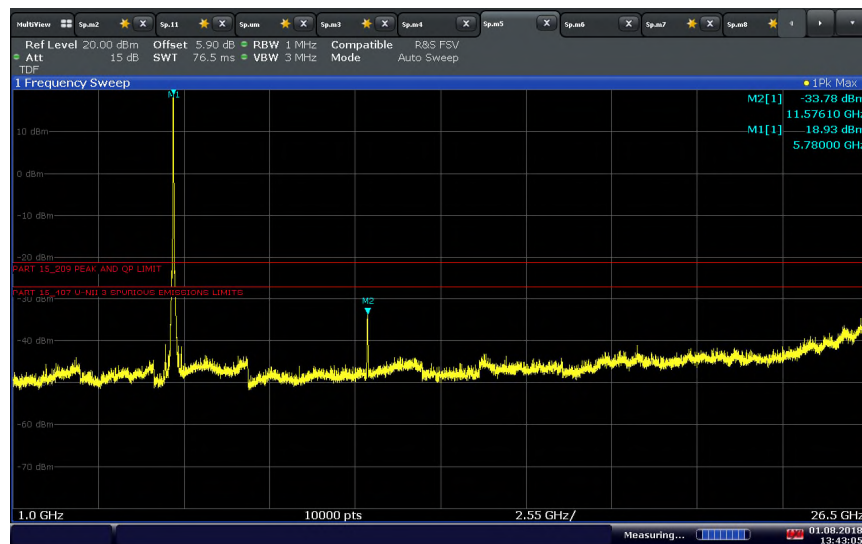
13:45:42 01.08.2018

802.11a U-NII 3 Low Channel above 1GHz



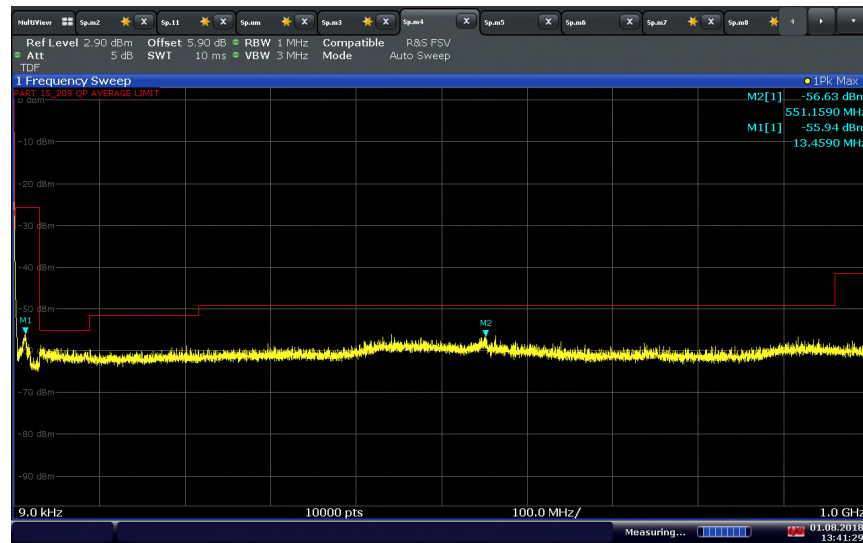
13:43:42 01.08.2018

802.11 a U-NII 3 Middle Channel below 1GHz



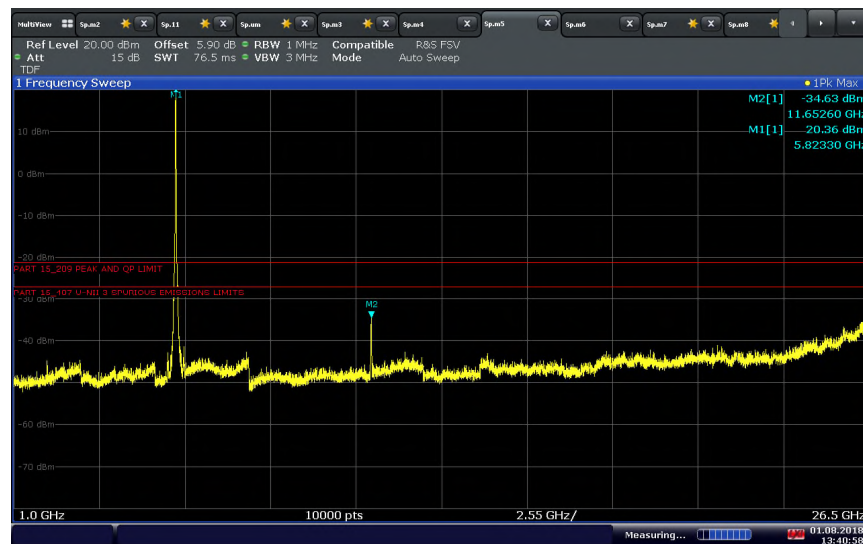
13:43:06 01.08.2018

802.11a U-NII 3 Middle Channel above 1GHz



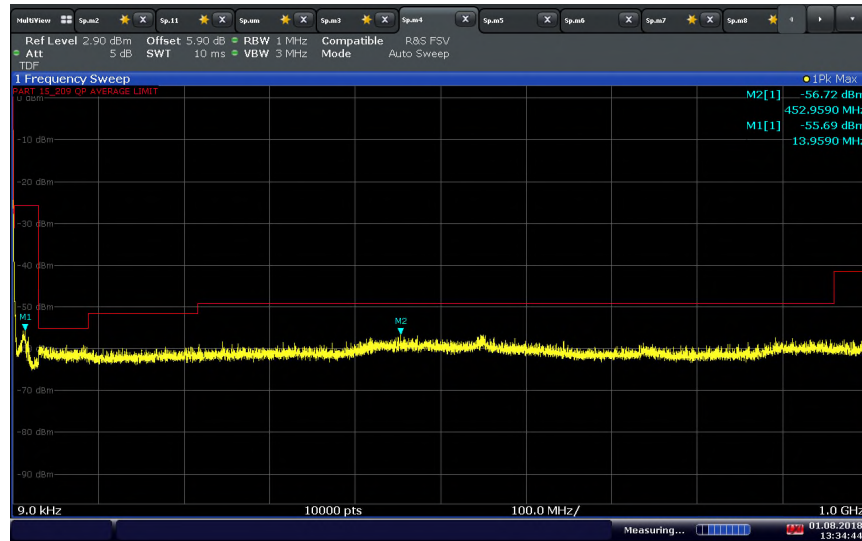
13:41:29 01.08.2018

802.11 a U-NII 3 High Channel below 1GHz

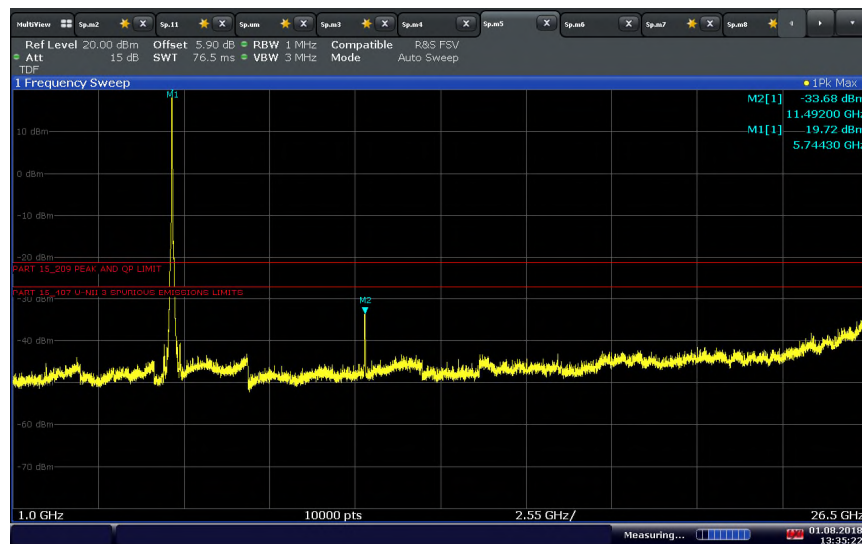


13:40:58 01.08.2018

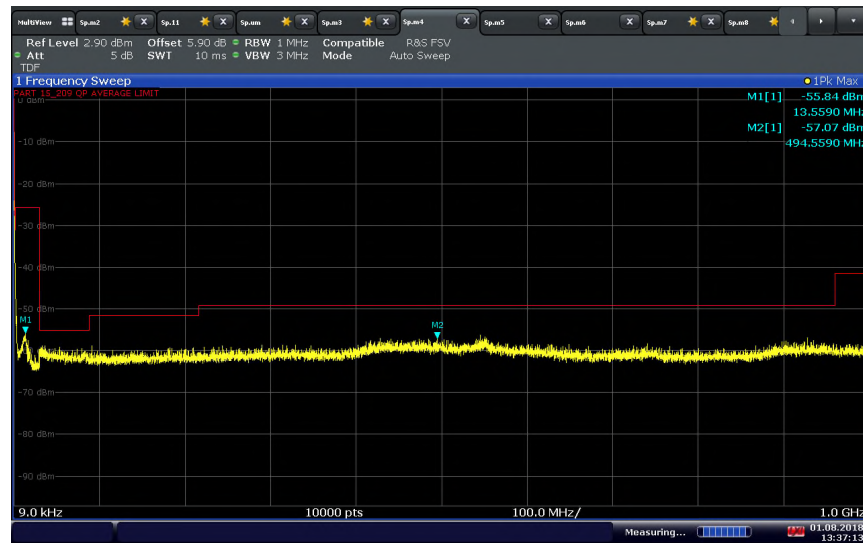
802.11a U-NII 3 High Channel above 1GHz



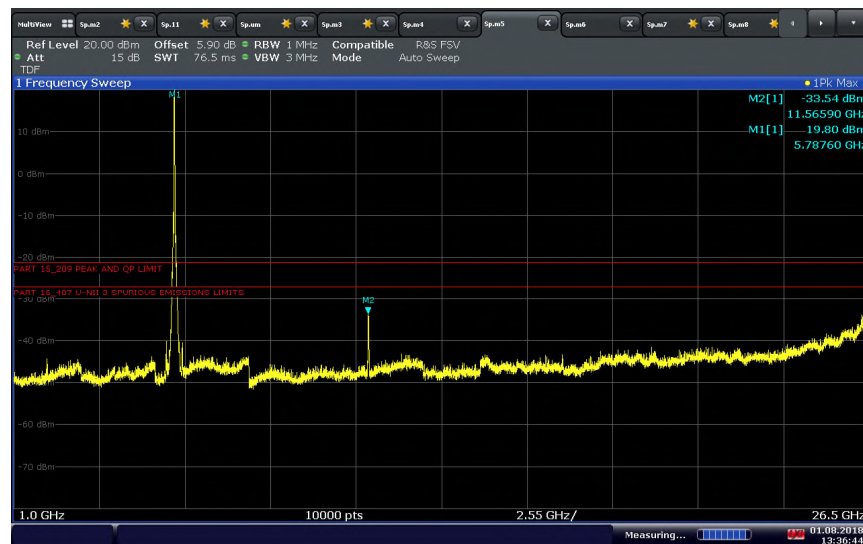
802.11 n (20 MHz) U-NII 3 Low Channel below 1GHz



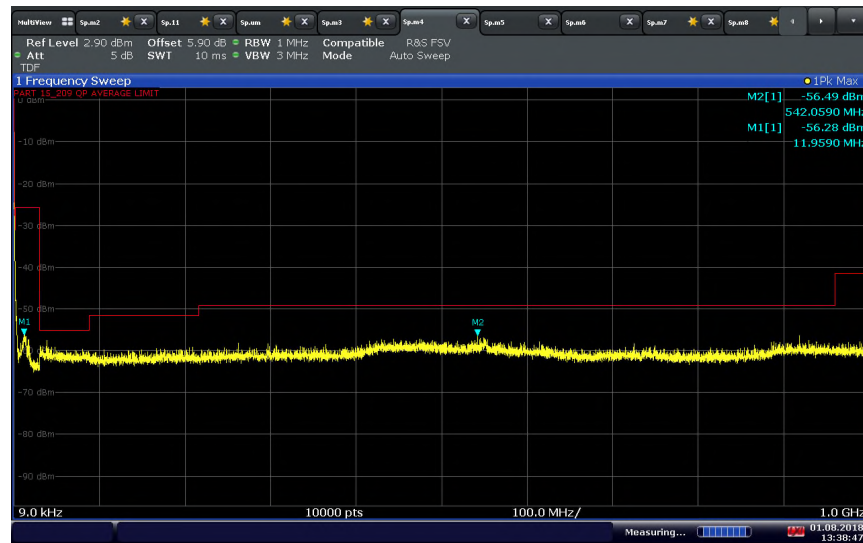
802.11 n (20 MHz) U-NII 3 Low Channel above 1GHz



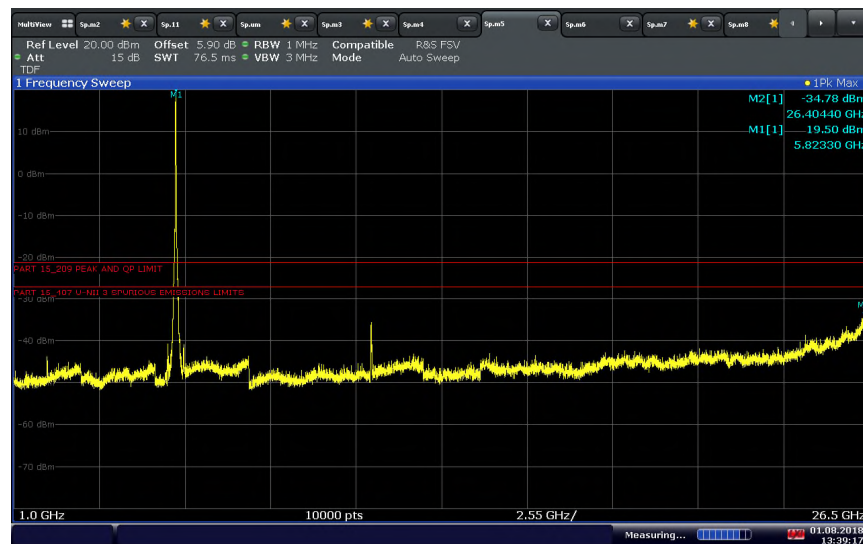
802.11 n (20 MHz) U-NII 3 Middle Channel below 1GHz



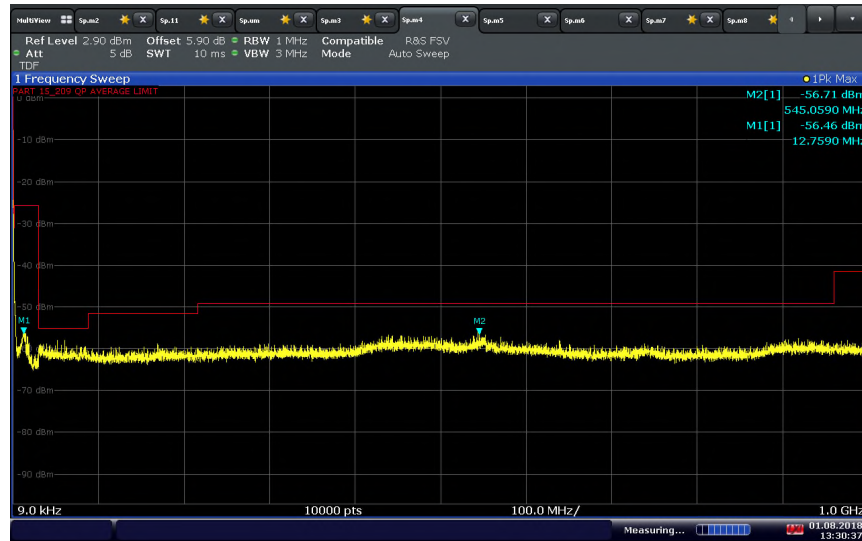
802.11 n (20 MHz) U-NII 3 Middle Channel above 1GHz



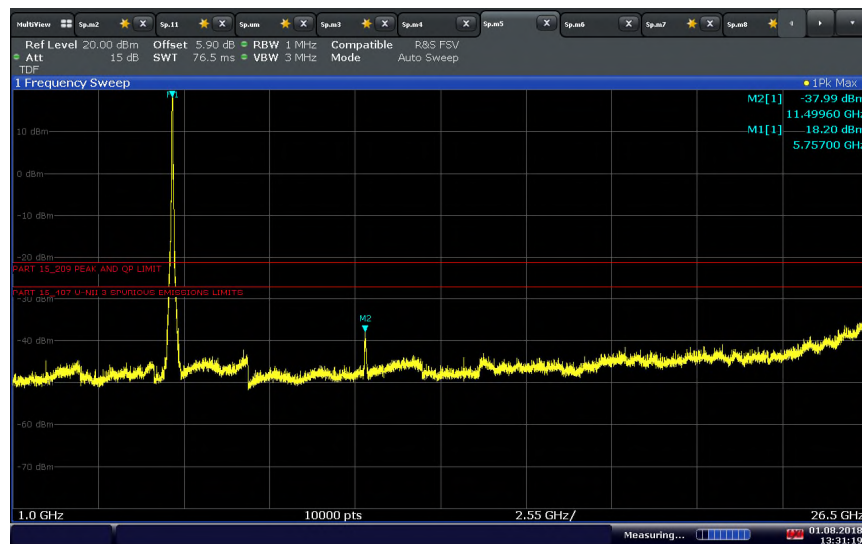
802.11 n (20 MHz) U-NII 3 High Channel below 1GHz



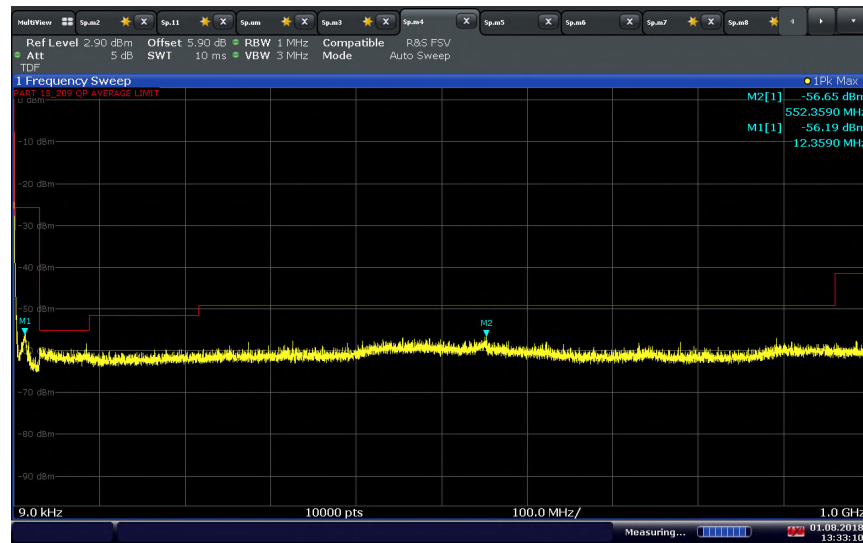
802.11 n (20 MHz) U-NII 3 High Channel above 1GHz



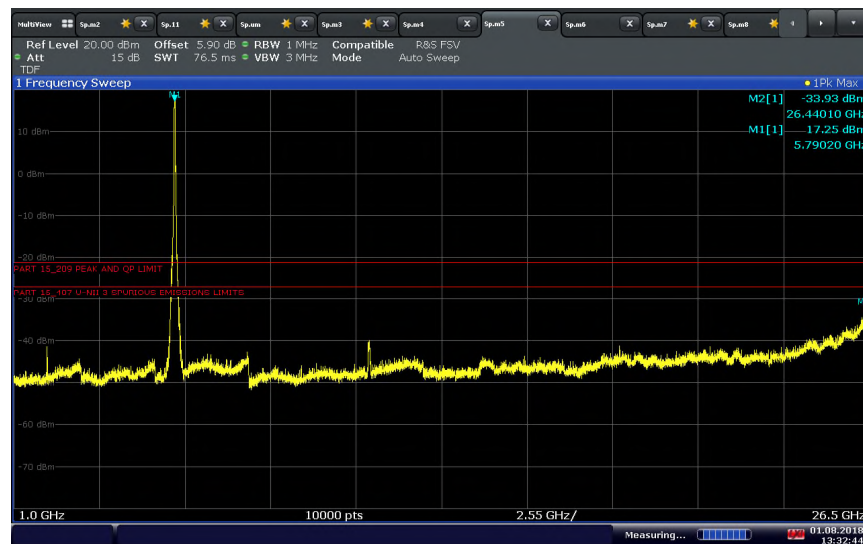
802.11 n (40 MHz) U-NII 3 Low Channel below 1GHz



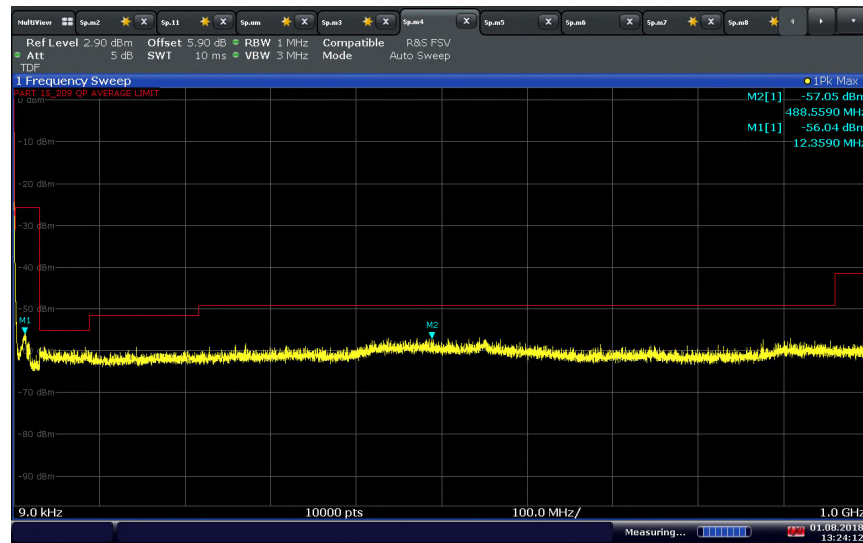
802.11 n (40 MHz) U-NII 3 Low Channel above 1GHz



802.11 n (40 MHz) U-NII 3 High Channel below 1GHz

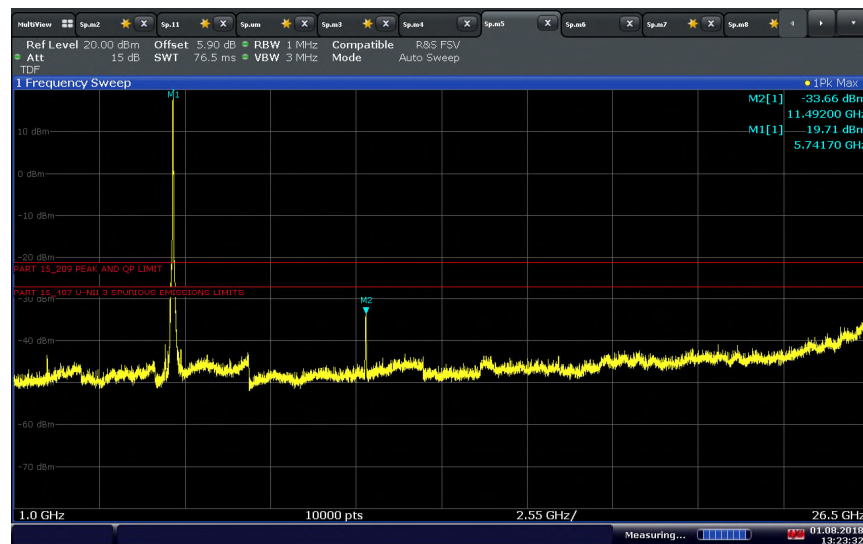


802.11 n (40 MHz) U-NII 3 High Channel above 1GHz



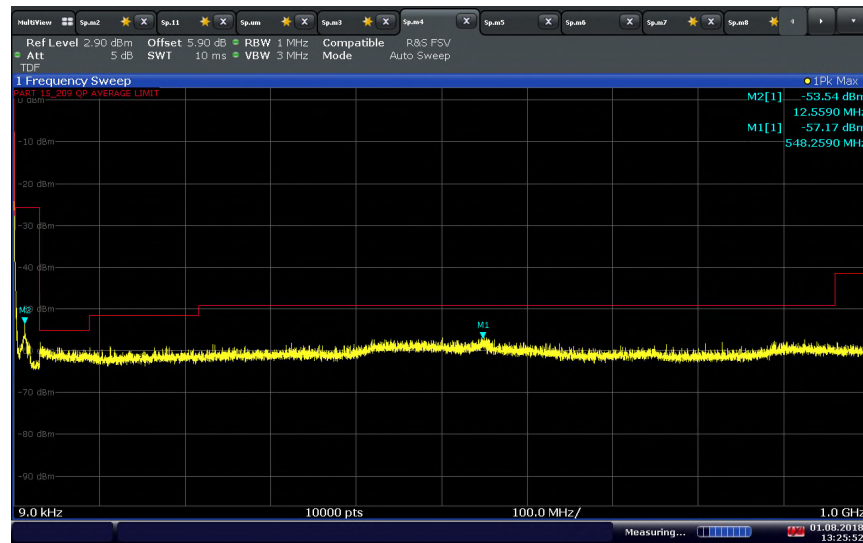
13:24:12 01.08.2018

802.11 ac (20 MHz) U-NII 3 Low Channel below 1GHz

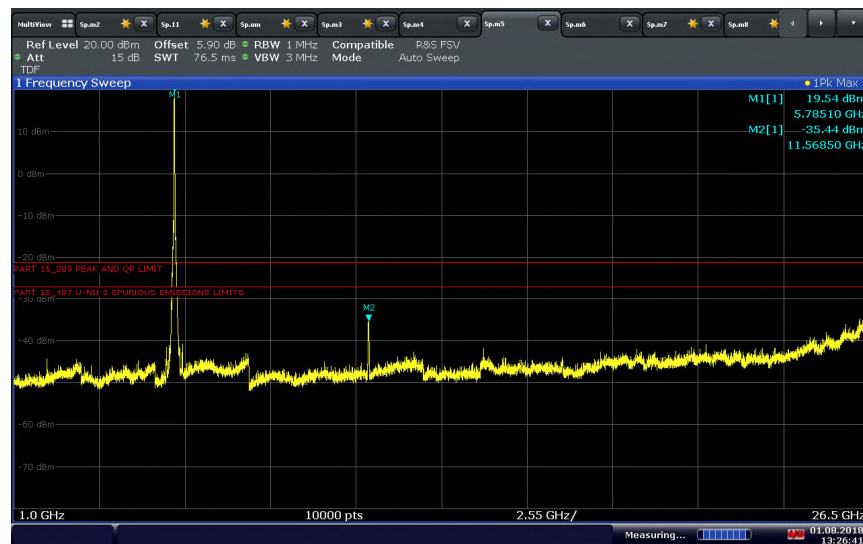


13:23:33 01.08.2018

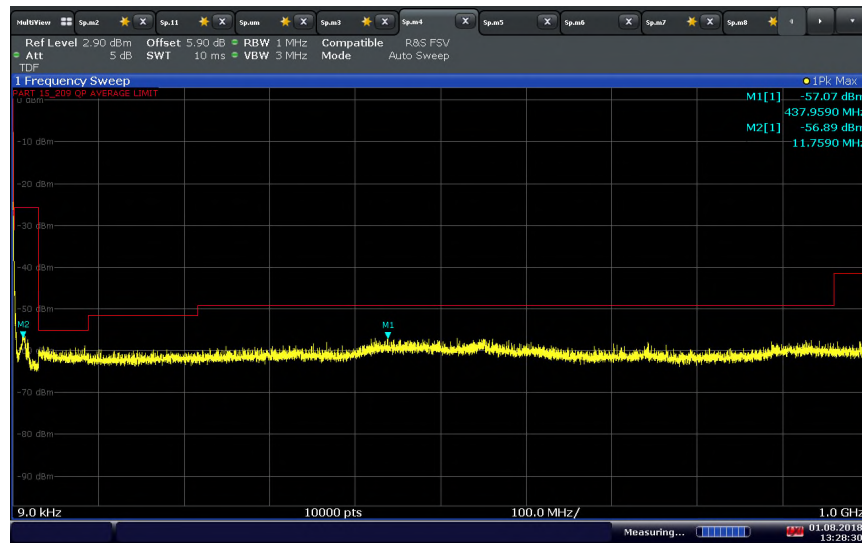
802.11 ac (20 MHz) U-NII 3 Low Channel above 1GHz



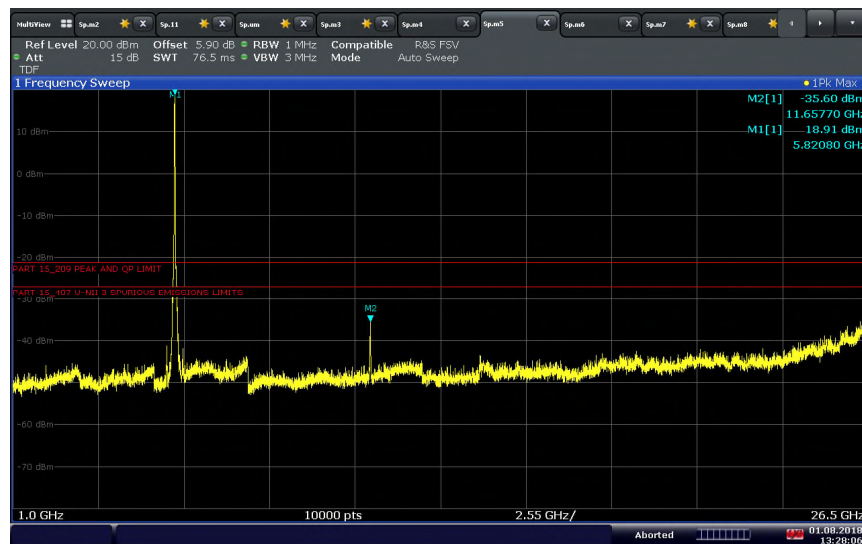
802.11 ac (20 MHz) U-NII 3 Middle Channel below 1GHz



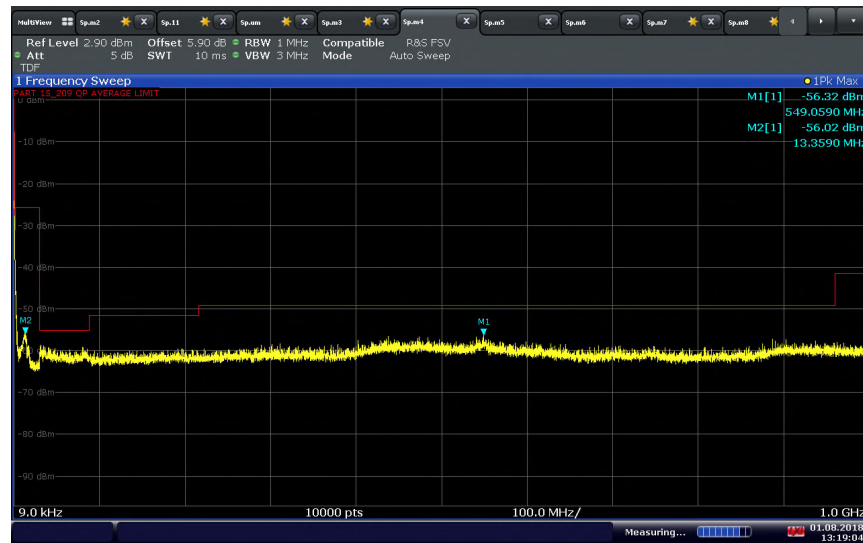
802.11 ac (20 MHz) U-NII 3 Middle Channel above 1GHz



802.11 ac (20 MHz) U-NII 3 High Channel below 1GHz

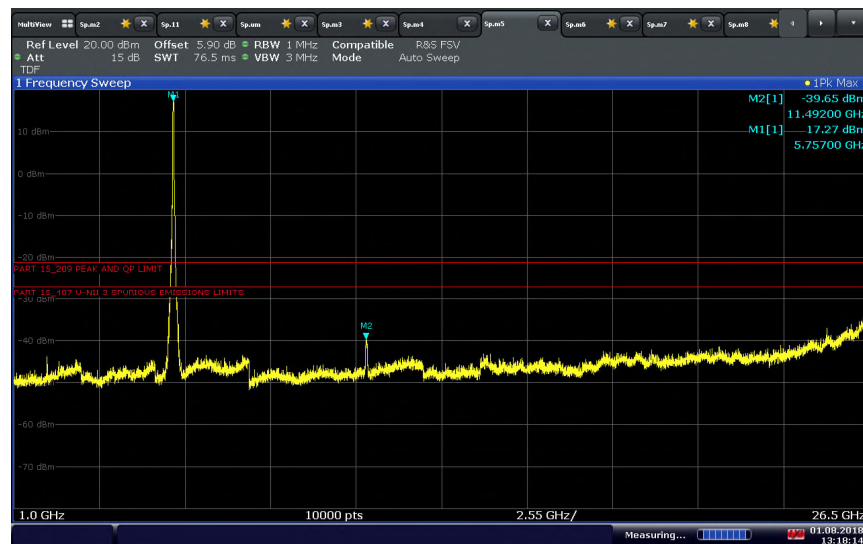


802.11 ac (20 MHz) U-NII 3 High Channel above 1GHz



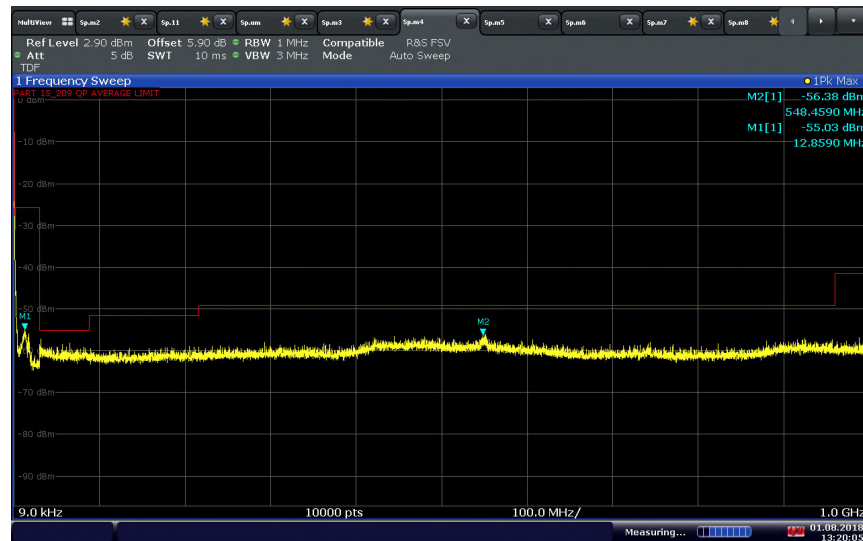
13:19:05 01.08.2018

802.11 ac (40 MHz) U-NII 3 Low Channel below 1GHz

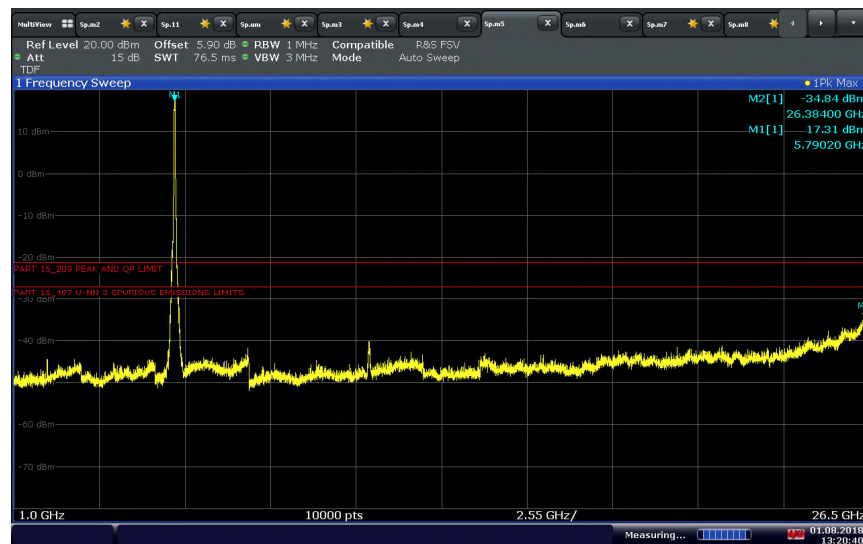


13:18:15 01.08.2018

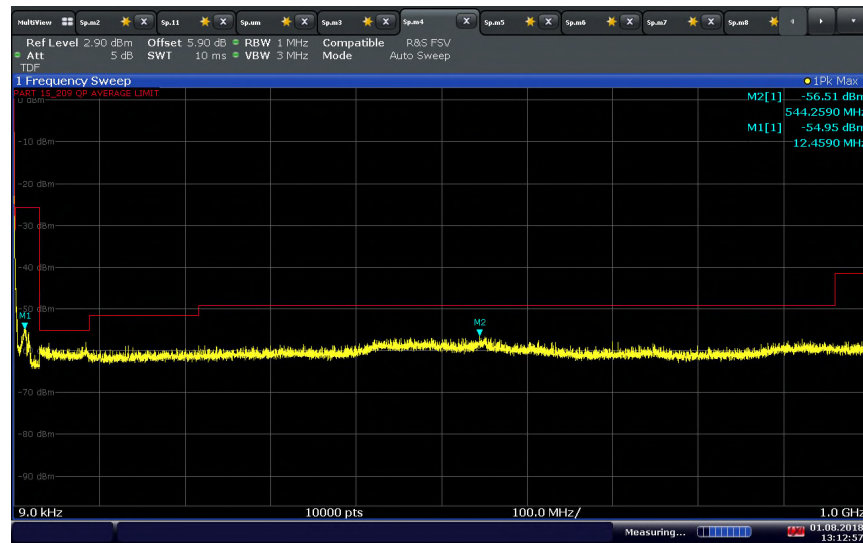
802.11 ac (40 MHz) U-NII 3 Low Channel above 1GHz



802.11 ac (40 MHz) U-NII 3 High Channel below 1GHz

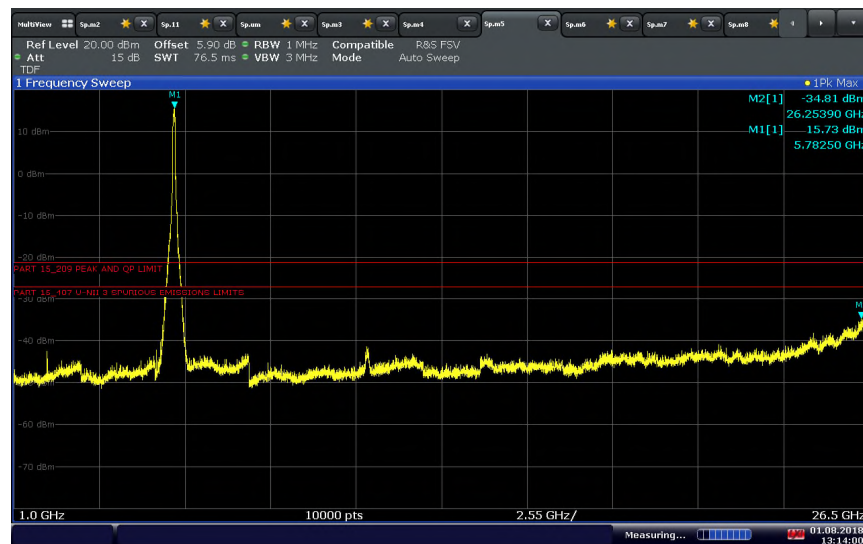


802.11 ac (40 MHz) U-NII 3 High Channel above 1GHz



13:12:58 01.08.2018

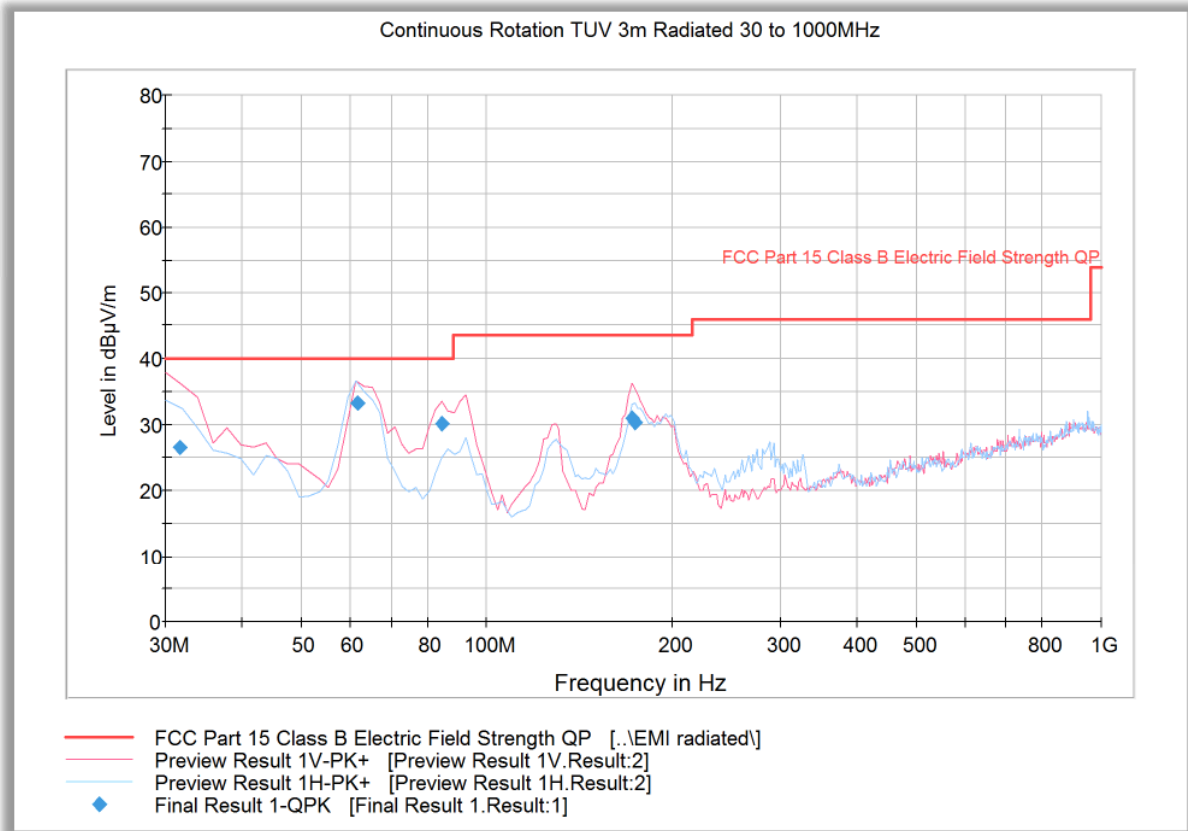
802.11 ac (80 MHz) U-NII 3 Middle Channel below 1GHz



13:14:01 01.08.2018

802.11 ac (80 MHz) U-NII 3 Middle Channel above 1GHz

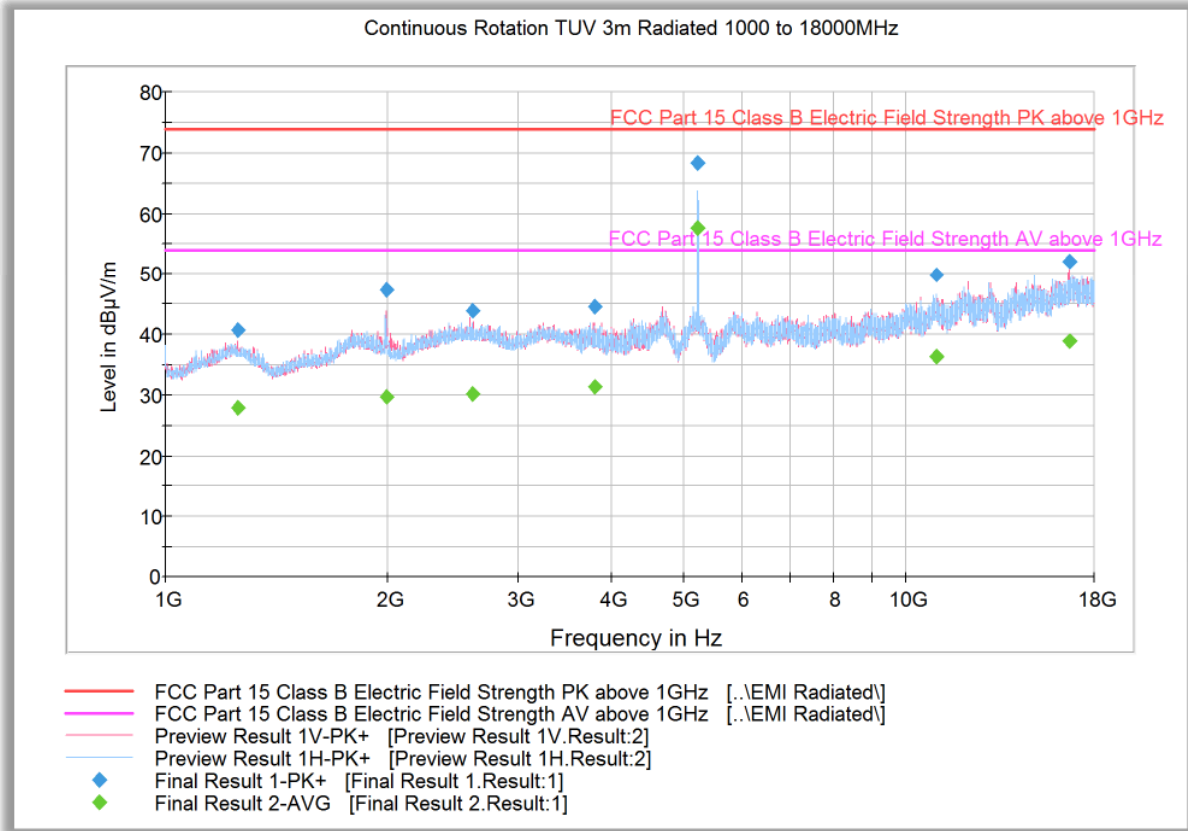
2.7.11 Test Results Below 1GHz_Worst Case Configuration_802.11a U-NII 1 High Channel 9Mbps MIMO



Quasi Peak Data

Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
31.680000	26.6	1000.0	120.000	105.0	V	53.0	-7.7	13.4	40.0
61.518317	33.2	1000.0	120.000	319.0	H	180.0	-17.2	6.8	40.0
61.582204	33.2	1000.0	120.000	334.0	H	180.0	-17.2	6.8	40.0
84.692745	30.2	1000.0	120.000	100.0	V	120.0	-17.0	9.8	40.0
172.663808	30.9	1000.0	120.000	100.0	V	4.0	-12.4	12.6	43.5
173.767695	30.2	1000.0	120.000	100.0	V	1.0	-12.4	13.3	43.5

2.7.12 Test Results Above 1GHz_Worst Case Configuration_802.11a U-NII 1 High Channel 9Mbps MIMO



Peak Data

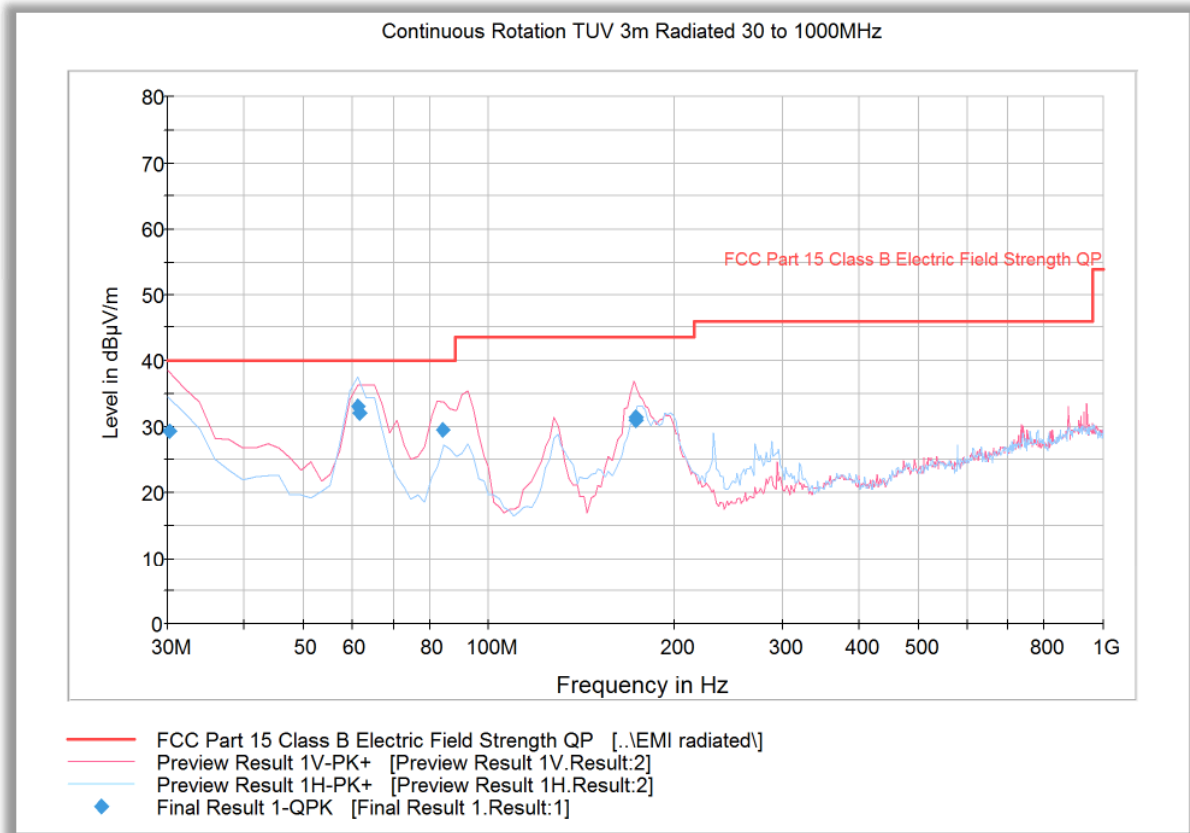
Frequency (MHz)	MaxPeak (dBμV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
1254.100000	40.7	1000.0	1000.000	265.3	V	65.0	-5.6	33.2	73.9
1987.833333	47.4	1000.0	1000.000	228.4	V	141.0	-2.3	26.5	73.9
2596.266667	43.9	1000.0	1000.000	124.7	V	149.0	-0.5	30.0	73.9
3792.666667	44.6	1000.0	1000.000	199.5	V	259.0	2.0	29.3	73.9
5237.900000	68.4	1000.0	1000.000	146.7	H	164.0	4.3	Fundamental Carrier	
10984.300000	49.8	1000.0	1000.000	252.3	H	203.0	11.5	24.1	73.9
16645.466666	52.2	1000.0	1000.000	132.7	V	120.0	17.6	21.7	73.9

Average Data

Frequency (MHz)	Average (dBμV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
1254.100000	27.8	1000.0	1000.000	265.3	V	65.0	-5.6	26.1	53.9
1987.833333	29.7	1000.0	1000.000	228.4	V	141.0	-2.3	24.2	53.9
2596.266667	30.1	1000.0	1000.000	124.7	V	149.0	-0.5	23.8	53.9
3792.666667	31.2	1000.0	1000.000	199.5	V	259.0	2.0	22.7	53.9
5237.900000	57.7	1000.0	1000.000	146.7	H	164.0	4.3	Fundamental Carrier	
10984.300000	36.4	1000.0	1000.000	252.3	H	203.0	11.5	17.5	53.9
16645.466666	38.8	1000.0	1000.000	132.7	V	120.0	17.6	15.1	53.9

Test Notes: Measurement was performed with a 5.0GHz notch filter. No significant emissions observed above 18GHz. Only the worst case configuration presented. Duty Cycle correction factor not applied on Average data (0.46 dB) since there is no spurious emission within 6 dB of the limit (DCCF has no impact on the presented test results).

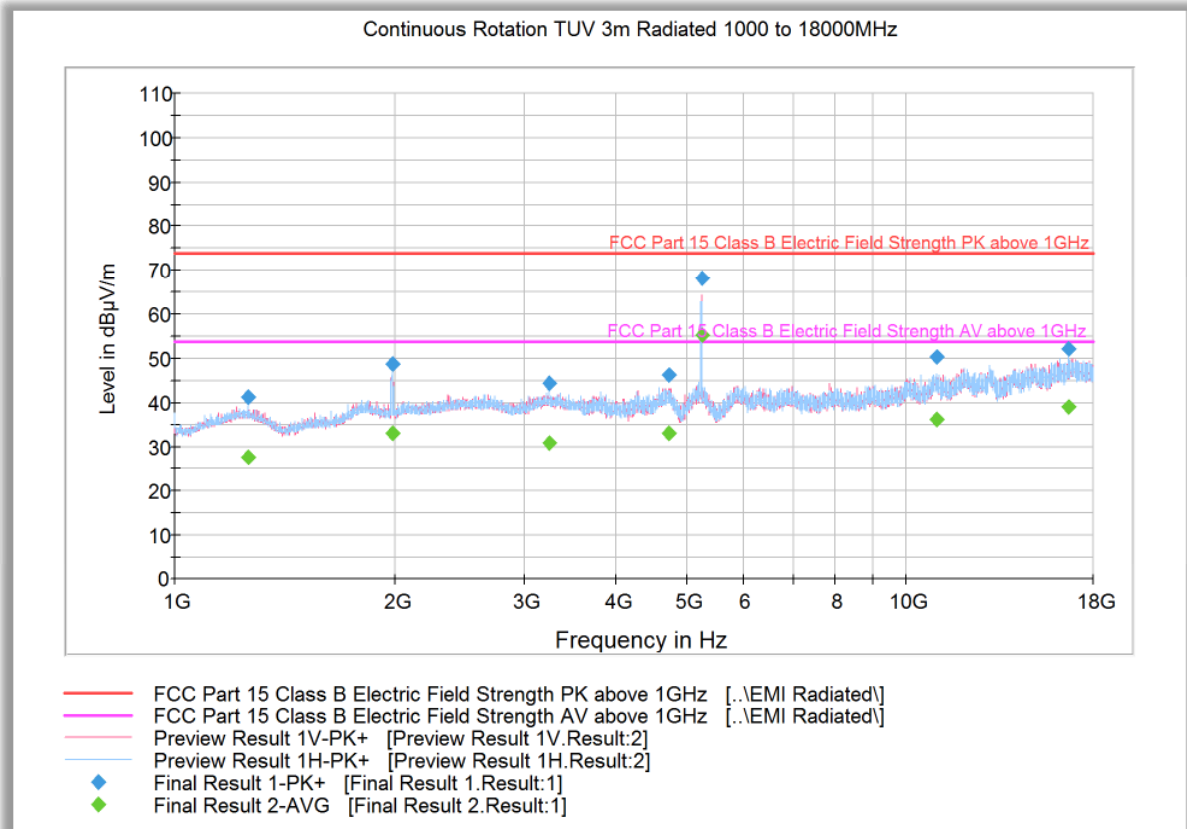
2.7.13 Test Results Below 1GHz_Worst Case Configuration_802.11n 20 MHz Bandwidth U-NII 1 High Channel MCS1 MIMO



Quasi Peak Data

Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
30.200000	29.2	1000.0	120.000	100.0	V	171.0	-6.5	10.8	40.0
61.262204	33.0	1000.0	120.000	301.0	H	168.0	-17.2	7.0	40.0
61.358317	32.1	1000.0	120.000	331.0	H	350.0	-17.2	7.9	40.0
84.052745	29.4	1000.0	120.000	110.0	V	46.0	-17.1	10.6	40.0
172.983808	30.8	1000.0	120.000	100.0	V	-7.0	-12.4	12.7	43.5
173.287695	31.4	1000.0	120.000	100.0	V	-1.0	-12.4	12.1	43.5

2.7.14 Test Results Above 1GHz_Worst Case Configuration_802.11n 20 MHz Bandwidth U-NII 1 High Channel MCS1 MIMO



Peak Data

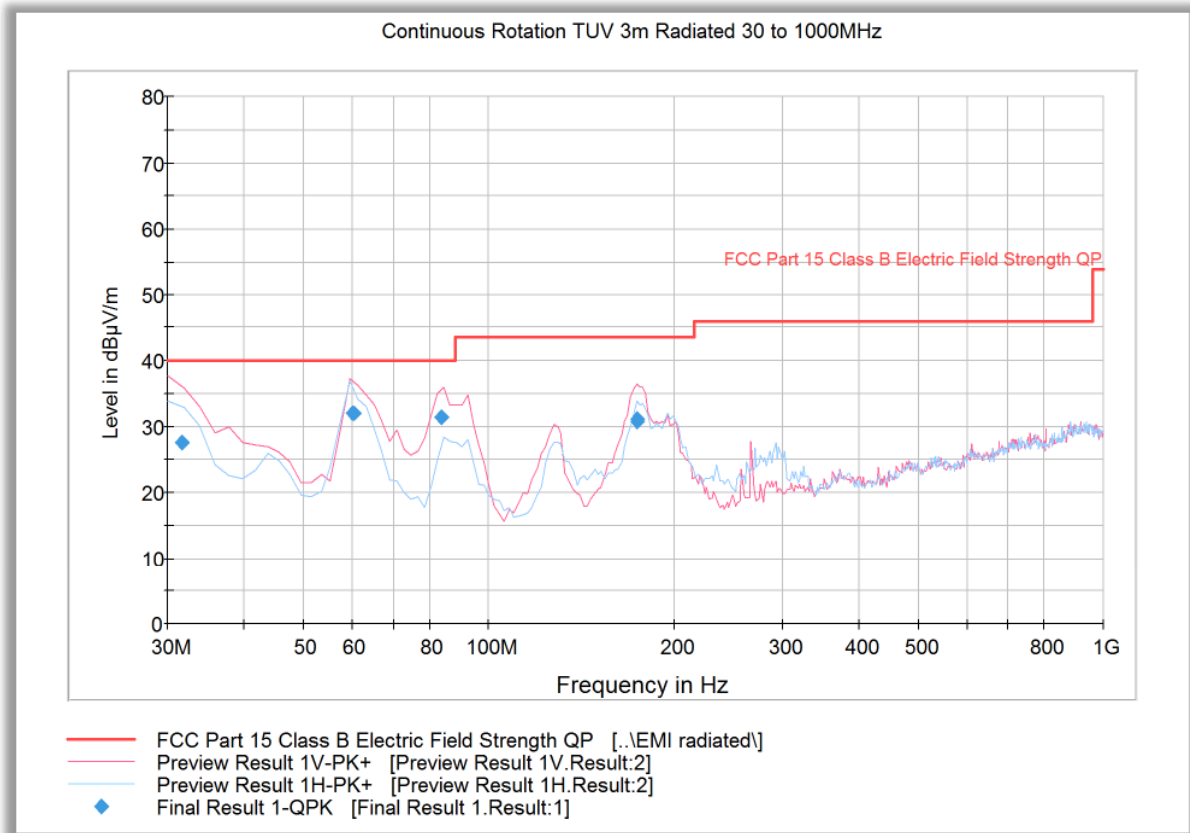
Frequency (MHz)	MaxPeak (dBμV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
1259.200000	41.1	1000.0	1000.000	187.5	H	8.0	-5.6	32.8	73.9
1981.100000	48.6	1000.0	1000.000	103.7	H	314.0	-2.3	25.3	73.9
3245.500000	44.3	1000.0	1000.000	322.2	H	10.0	0.9	29.6	73.9
4731.500000	46.2	1000.0	1000.000	165.6	V	12.0	3.5	27.7	73.9
5244.466667	68.3	1000.0	1000.000	103.7	V	146.0	4.3	Fundamental Carrier	
10989.40000	50.2	1000.0	1000.000	317.2	H	-2.0	11.5	23.7	73.9
16656.63333	52.3	1000.0	1000.000	173.6	H	20.0	17.6	21.6	73.9

Average Data

Frequency (MHz)	Average (dBμV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
1259.200000	27.8	1000.0	1000.000	187.5	H	8.0	-5.6	26.1	53.9
1981.100000	33.1	1000.0	1000.000	103.7	H	314.0	-2.3	20.8	53.9
3245.500000	30.7	1000.0	1000.000	322.2	H	10.0	0.9	23.2	53.9
4731.500000	32.9	1000.0	1000.000	165.6	V	12.0	3.5	21.0	53.9
5244.466667	55.4	1000.0	1000.000	103.7	V	146.0	4.3	Fundamental Carrier	
10989.40000	36.3	1000.0	1000.000	317.2	H	-2.0	11.5	17.6	53.9
16656.63333	38.8	1000.0	1000.000	173.6	H	20.0	17.6	15.1	53.9

Test Notes: Measurement was performed with a 5.0GHz notch filter. No significant emissions observed above 18GHz. Only the worst case configuration presented. Duty Cycle correction factor not applied on Average data (0.64 dB) since there is no spurious emission within 6 dB of the limit (DCCF has no impact on the presented test results).

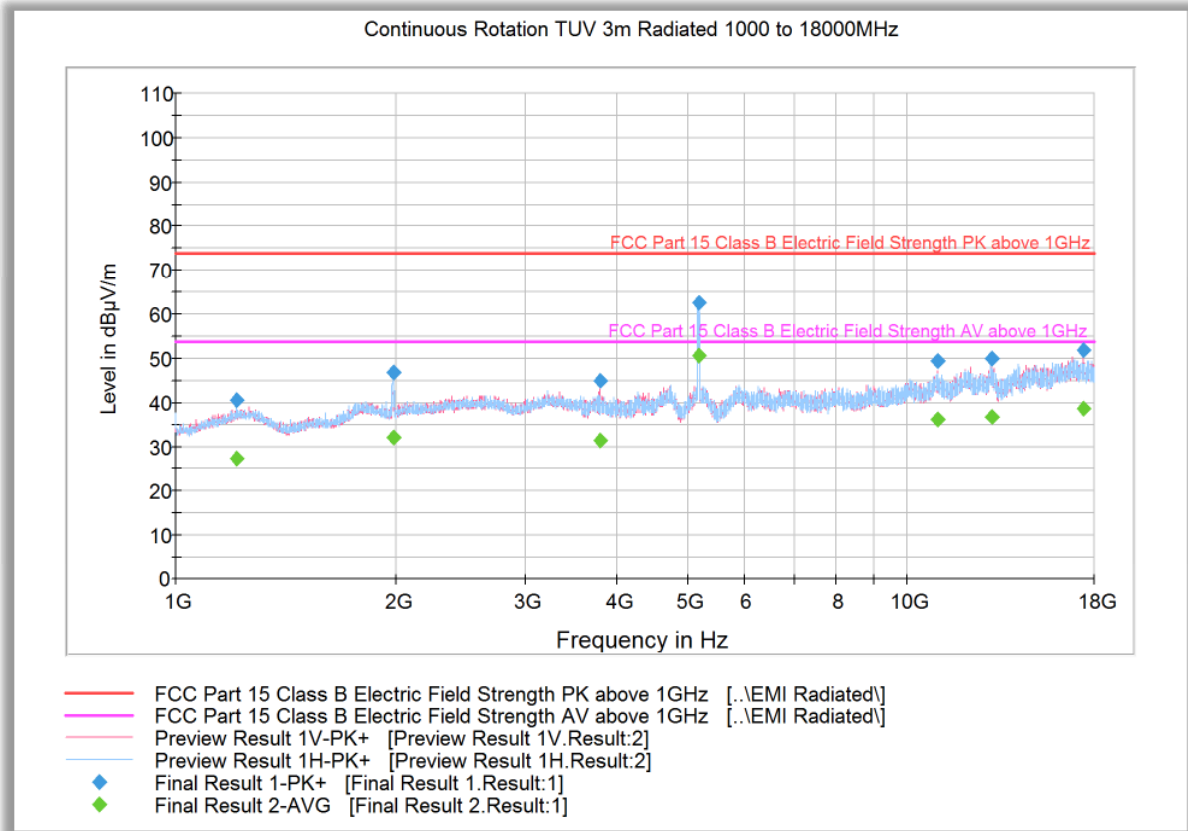
2.7.15 Test Results Below 1GHz_Worst Case Configuration_802.11ac 40 MHz Bandwidth U-NII 1 Low Channel MCS0 MIMO



Quasi Peak Data

Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
31.680000	27.6	1000.0	120.000	100.0	V	246.0	-7.7	12.4	40.0
60.062204	32.0	1000.0	120.000	283.0	V	85.0	-17.1	8.0	40.0
60.318317	31.9	1000.0	120.000	289.0	V	90.0	-17.1	8.1	40.0
83.692745	31.3	1000.0	120.000	100.0	V	105.0	-17.1	8.7	40.0
173.663808	30.8	1000.0	120.000	100.0	V	15.0	-12.4	12.7	43.5
174.167695	31.1	1000.0	120.000	100.0	V	9.0	-12.4	12.4	43.5

2.7.16 Test Results Above 1GHz_Worst Case Configuration_802.11ac 40 MHz Bandwidth U-NII 1 Low Channel MCS0 MIMO



Peak Data

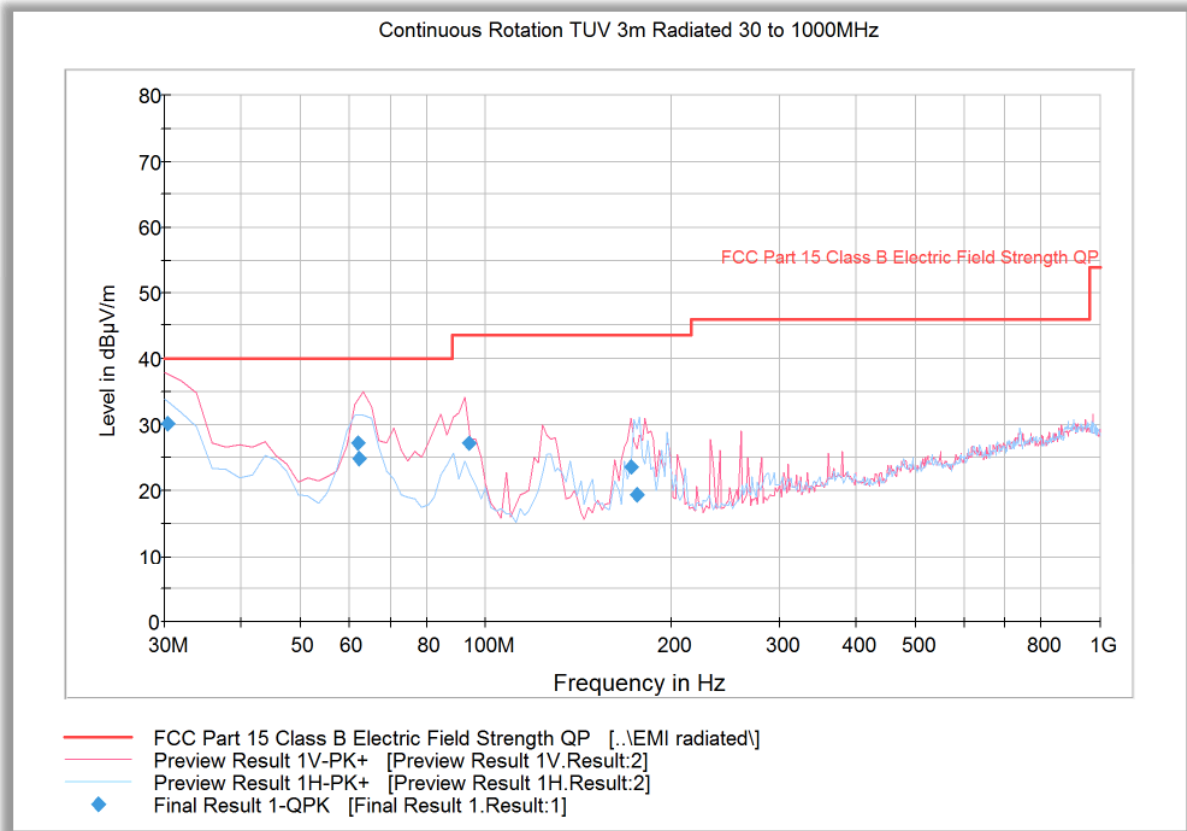
Frequency (MHz)	MaxPeak (dBμV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
1210.833333	40.5	1000.0	1000.000	120.7	V	325.0	-6.3	33.4	73.9
1981.300000	46.8	1000.0	1000.000	146.7	H	71.0	-2.3	27.1	73.9
3804.433333	44.9	1000.0	1000.000	195.5	V	287.0	2.1	29.0	73.9
5186.333333	62.6	1000.0	1000.000	302.2	H	196.0	4.1	Fundamental Carrier	
10988.433333	49.2	1000.0	1000.000	182.6	V	29.0	11.5	24.7	73.9
13041.300000	49.9	1000.0	1000.000	312.2	V	181.0	13.3	24.0	73.9

Average Data

Frequency (MHz)	Average (dBμV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
1210.833333	27.5	1000.0	1000.000	120.7	V	325.0	-6.3	26.4	53.9
1981.300000	32.0	1000.0	1000.000	146.7	H	71.0	-2.3	21.9	53.9
3804.433333	31.5	1000.0	1000.000	195.5	V	287.0	2.1	22.4	53.9
5186.333333	50.5	1000.0	1000.000	302.2	H	196.0	4.1	Fundamental Carrier	
10988.433333	36.2	1000.0	1000.000	182.6	V	29.0	11.5	17.7	53.9
13041.300000	36.8	1000.0	1000.000	312.2	V	181.0	13.3	17.1	53.9
17363.066666	38.7	1000.0	1000.000	124.7	V	122.0	17.6	15.2	53.9

Test Notes: Measurement was performed with a 5.0GHz notch filter. No significant emissions observed above 18GHz. Only the worst case configuration presented. Duty Cycle correction factor not applied on Average data (0.66 dB) since there is no spurious emission within 6 dB of the limit (DCCF has no impact on the presented test results).

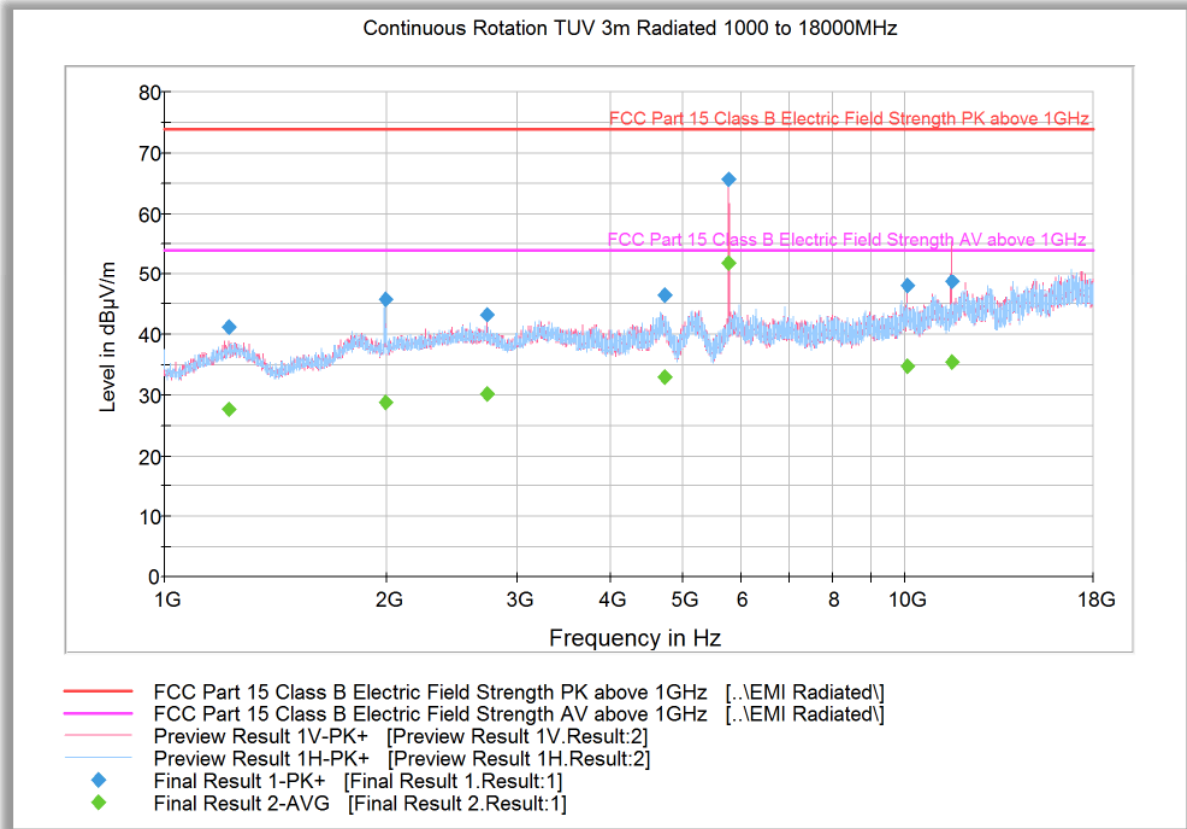
2.7.17 Test Results Below 1GHz_Worst Case Configuration_802.11a U-NII 3 Middle Channel 6 Mbps MIMO



Quasi Peak Data

Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
30.240000	30.1	1000.0	120.000	100.0	V	238.0	-6.5	9.9	40.0
61.918317	27.1	1000.0	120.000	346.0	H	195.0	-17.2	12.9	40.0
62.206092	24.8	1000.0	120.000	294.0	V	97.0	-17.2	15.2	40.0
93.524409	27.2	1000.0	120.000	100.0	V	66.0	-15.6	16.3	43.5
172.543808	23.5	1000.0	120.000	100.0	V	1.0	-12.4	20.0	43.5
176.255471	19.4	1000.0	120.000	196.0	H	129.0	-12.4	24.1	43.5

2.7.18 Test Results Above 1GHz_Worst Case Configuration_802.11a U-NII 3 Middle Channel 6 Mbps MIMO



Peak Data

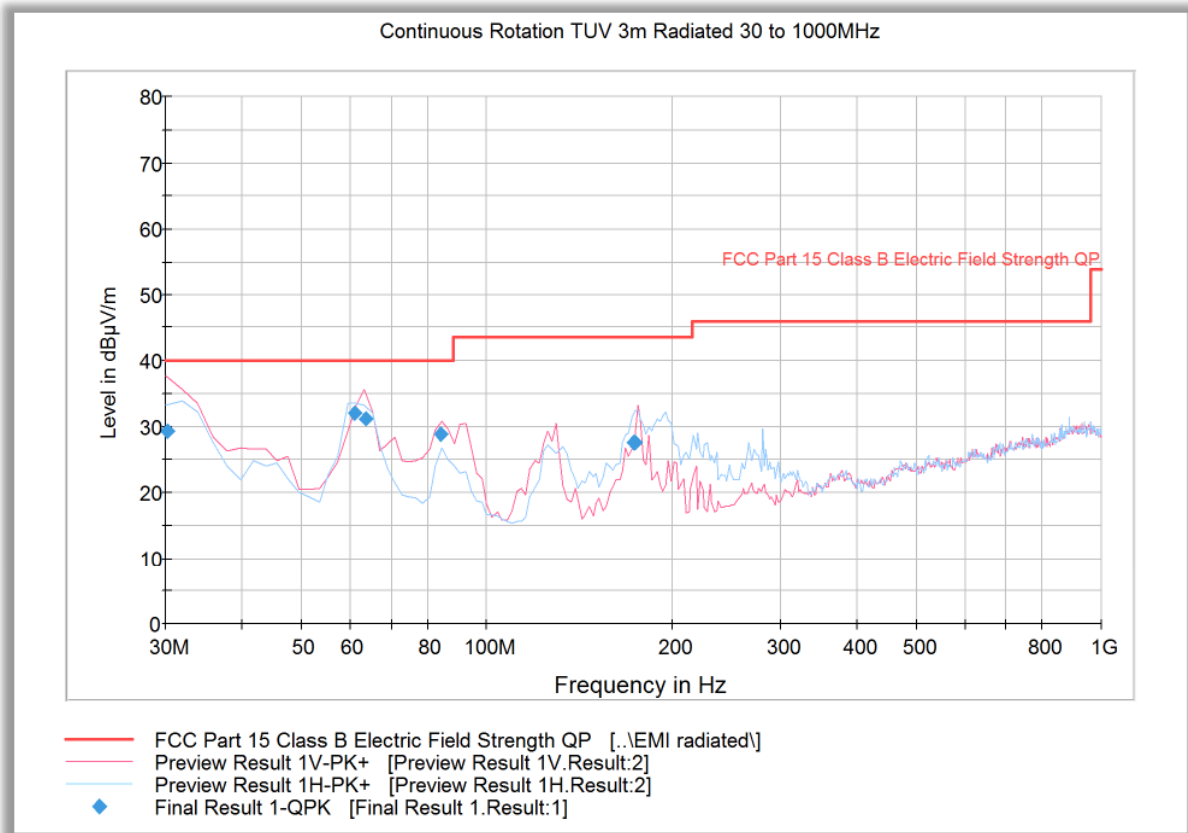
Frequency (MHz)	MaxPeak (dBμV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
1218.133333	41.2	1000.0	1000.000	222.4	V	5.0	-6.1	32.7	73.9
1986.533333	45.7	1000.0	1000.000	151.2	H	20.0	-2.3	28.2	73.9
2723.033333	43.2	1000.0	1000.000	221.4	V	51.0	-0.2	30.7	73.9
4727.366667	46.3	1000.0	1000.000	329.2	V	64.0	3.5	27.6	73.9
5783.633333	65.7	1000.0	1000.000	113.7	V	151.0	5.2	28.2	73.9
10104.03333	48.0	1000.0	1000.000	152.2	V	233.0	9.8	25.9	73.9
11579.06666	48.6	1000.0	1000.000	250.5	V	107.0	12.3	25.3	73.9

Average Data

Frequency (MHz)	Average (dBμV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
1218.133333	27.7	1000.0	1000.000	222.4	V	5.0	-6.1	26.2	53.9
1986.533333	28.8	1000.0	1000.000	151.2	H	20.0	-2.3	25.1	53.9
2723.033333	30.2	1000.0	1000.000	221.4	V	51.0	-0.2	23.7	53.9
4727.366667	32.9	1000.0	1000.000	329.2	V	64.0	3.5	21.0	53.9
5783.633333	52.0	1000.0	1000.000	113.7	V	151.0	5.2	21.9	53.9
10104.03333	34.9	1000.0	1000.000	152.2	V	233.0	9.8	19.0	53.9
11579.06666	35.5	1000.0	1000.000	250.5	V	107.0	12.3	18.4	53.9

Test Notes: Measurement was performed with a 5.0GHz notch filter. No significant emissions observed above 18GHz. Only the worst case configuration presented. Duty Cycle correction factor not applied on Average data (0.31 dB) since there is no spurious emission within 6 dB of the limit (DCCF has no impact on the presented test results).

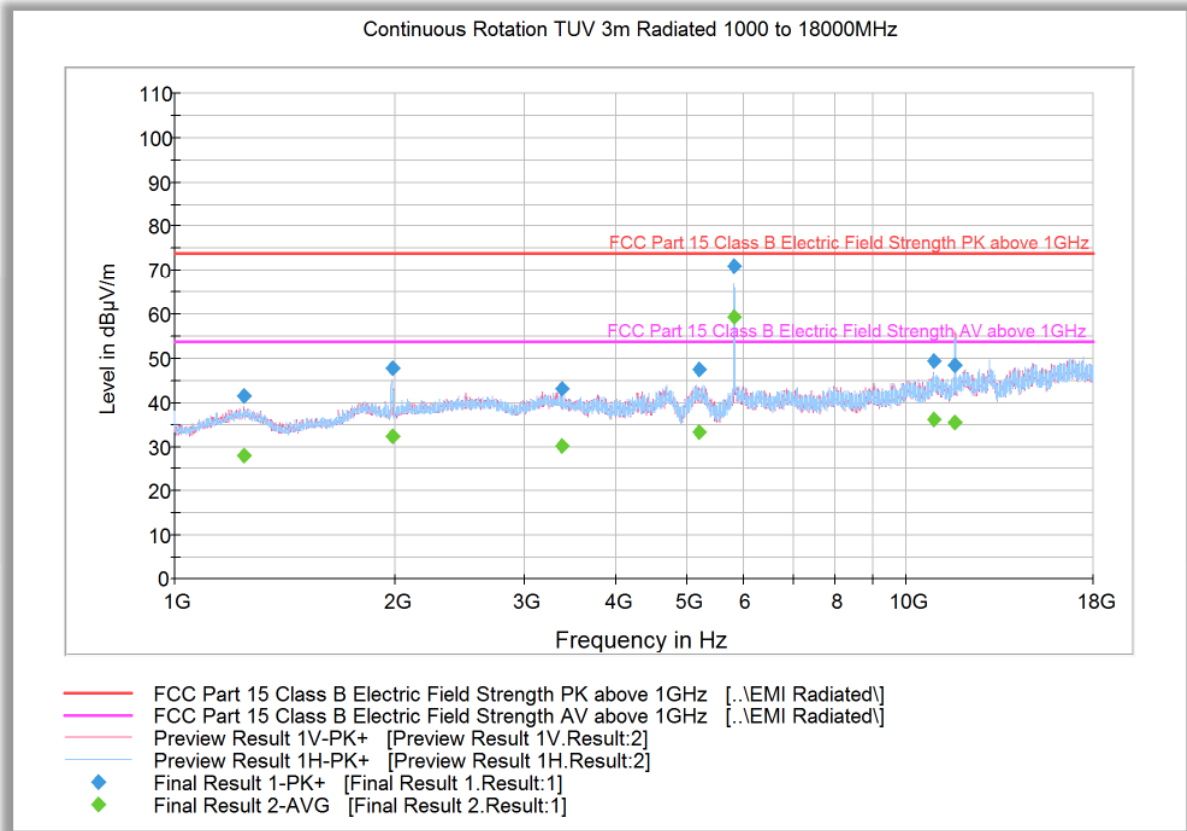
2.7.19 Test Results Below 1GHz_Worst Case Configuration_802.11n 20 MHz Bandwidth U-NII 3 High Channel MCS0 MIMO



Quasi Peak Data

Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
30.120000	29.4	1000.0	120.000	100.0	V	163.0	-6.4	10.6	40.0
60.878317	32.1	1000.0	120.000	250.0	H	174.0	-17.2	7.9	40.0
63.566092	31.3	1000.0	120.000	150.0	V	71.0	-17.3	8.7	40.0
84.052745	28.8	1000.0	120.000	150.0	V	196.0	-17.1	11.2	40.0
172.871583	27.6	1000.0	120.000	100.0	V	-8.0	-12.4	15.9	43.5
174.183808	27.5	1000.0	120.000	200.0	H	273.0	-12.4	16.0	43.5

2.7.20 Test Results Above 1GHz_Worst Case Configuration_802.11n 20 MHz Bandwidth U-NII 3 High Channel MCS0 MIMO



Peak Data

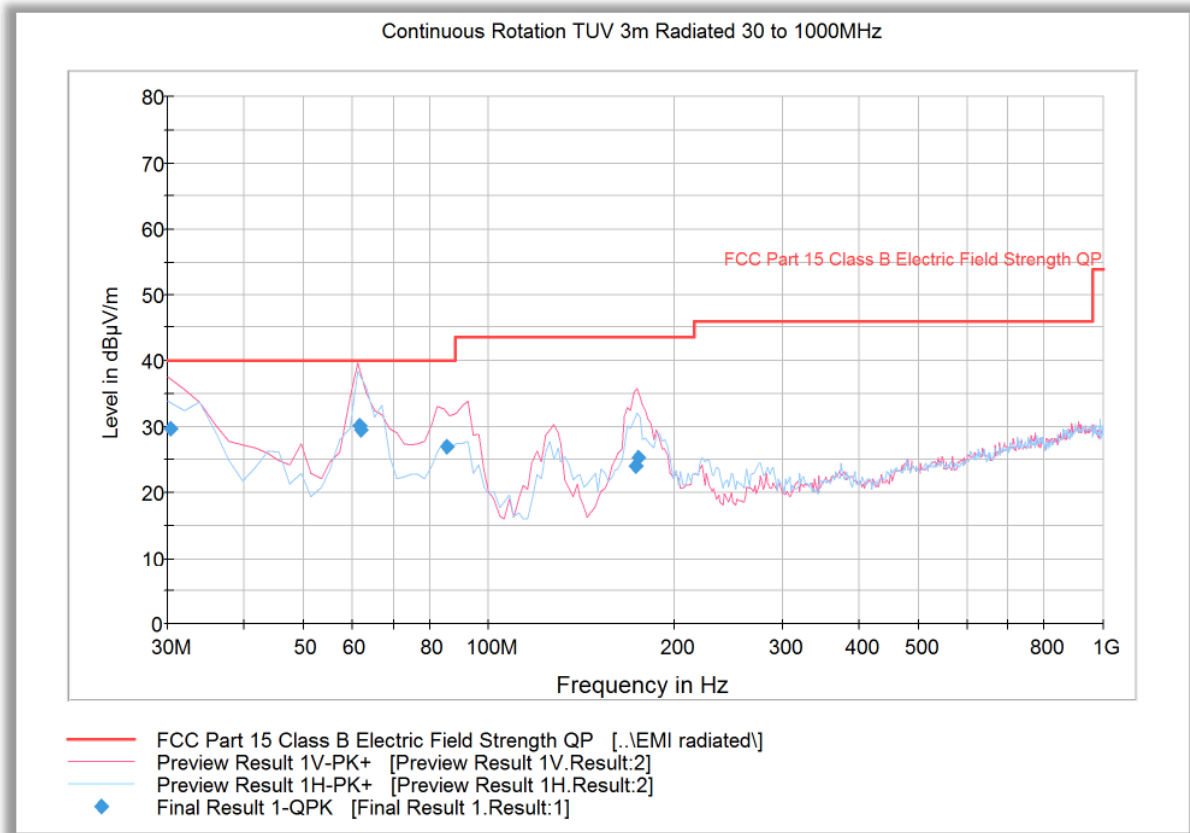
Frequency (MHz)	MaxPeak (dBμV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
1246.133333	41.4	1000.0	1000.000	323.2	V	99.0	-5.7	32.5	73.9
1980.900000	47.8	1000.0	1000.000	102.7	H	66.0	-2.3	26.1	73.9
3378.500000	43.2	1000.0	1000.000	333.1	V	291.0	0.7	30.7	73.9
5213.966667	47.4	1000.0	1000.000	343.1	V	26.0	4.2	26.5	73.9
5817.933333	70.9	1000.0	1000.000	281.3	H	117.0	5.4	Fundamental Carrier	
10906.43333	49.5	1000.0	1000.000	209.4	V	53.0	11.5	24.4	73.9
11653.90000	48.3	1000.0	1000.000	317.2	V	205.0	12.3	25.6	73.9

Average Data

Frequency (MHz)	Average (dBμV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
1246.133333	27.8	1000.0	1000.000	323.2	V	99.0	-5.7	26.1	53.9
1980.900000	32.4	1000.0	1000.000	102.7	H	66.0	-2.3	21.5	53.9
3378.500000	30.2	1000.0	1000.000	333.1	V	291.0	0.7	23.7	53.9
5213.966667	33.4	1000.0	1000.000	343.1	V	26.0	4.2	20.5	53.9
5817.933333	59.3	1000.0	1000.000	281.3	H	117.0	5.4	Fundamental Carrier	
10906.43333	36.2	1000.0	1000.000	209.4	V	53.0	11.5	17.7	53.9
11653.90000	35.6	1000.0	1000.000	317.2	V	205.0	12.3	18.3	53.9

Test Notes: Measurement was performed with a 5.0GHz notch filter. No significant emissions observed above 18GHz. Only the worst case configuration presented. Duty Cycle correction factor not applied on Average data (0.34 dB) since there is no spurious emission within 6 dB of the limit (DCCF has no impact on the presented test results).

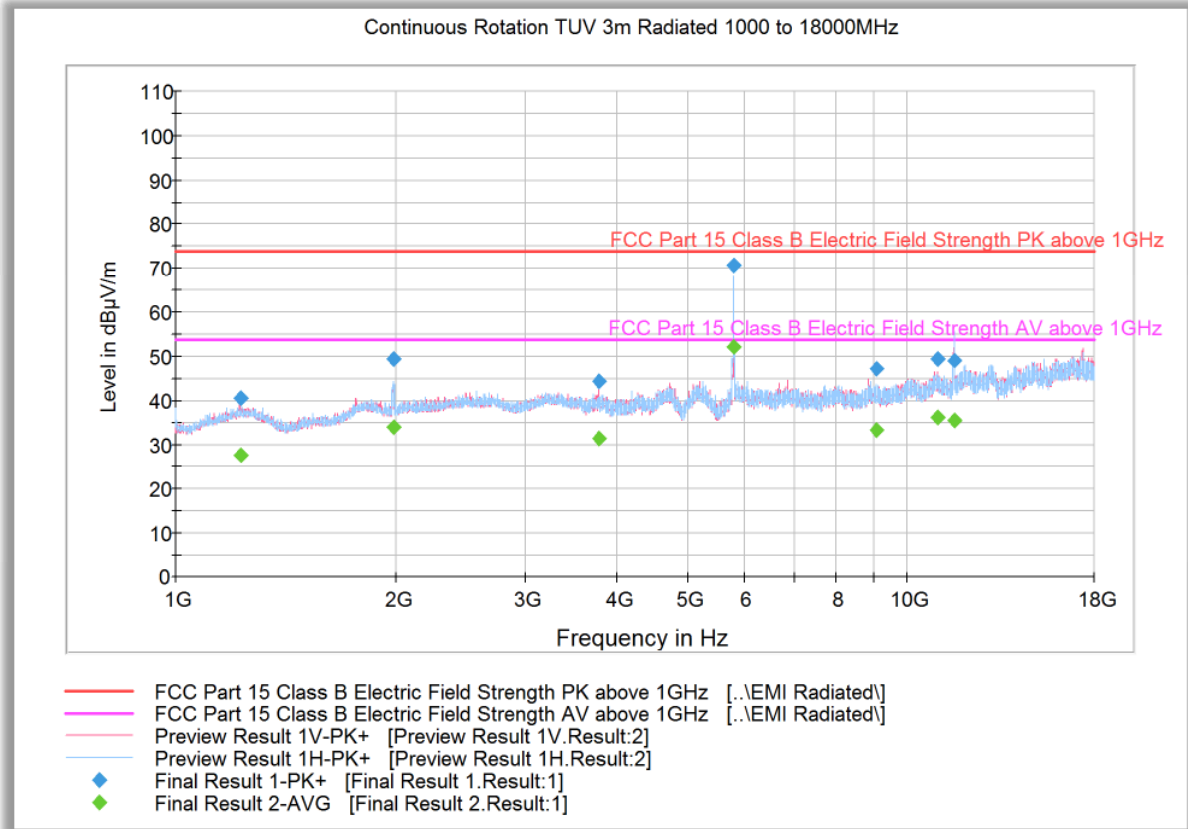
2.7.21 Test Results Below 1GHz_Worst Case Configuration_802.11ac 20 MHz Bandwidth U-NII 3 Middle Channel MCS0 MIMO



Quasi Peak Data

Frequency (MHz)	QuasiPeak (dBμV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
30.240000	29.6	1000.0	120.000	100.0	V	110.0	-6.5	10.4	40.0
61.622204	30.1	1000.0	120.000	271.0	V	83.0	-17.2	9.9	40.0
61.838317	29.5	1000.0	120.000	150.0	V	102.0	-17.2	10.5	40.0
85.572745	26.9	1000.0	120.000	100.0	V	86.0	-16.9	13.1	40.0
173.487695	23.9	1000.0	120.000	100.0	V	150.0	-12.4	19.6	43.5
174.663808	25.2	1000.0	120.000	100.0	V	150.0	-12.4	18.3	43.5

2.7.22 Test Results Above 1GHz_Worst Case Configuration_802.11ac 20 MHz Bandwidth U-NII 3 Middle Channel MCS0 MIMO



Peak Data

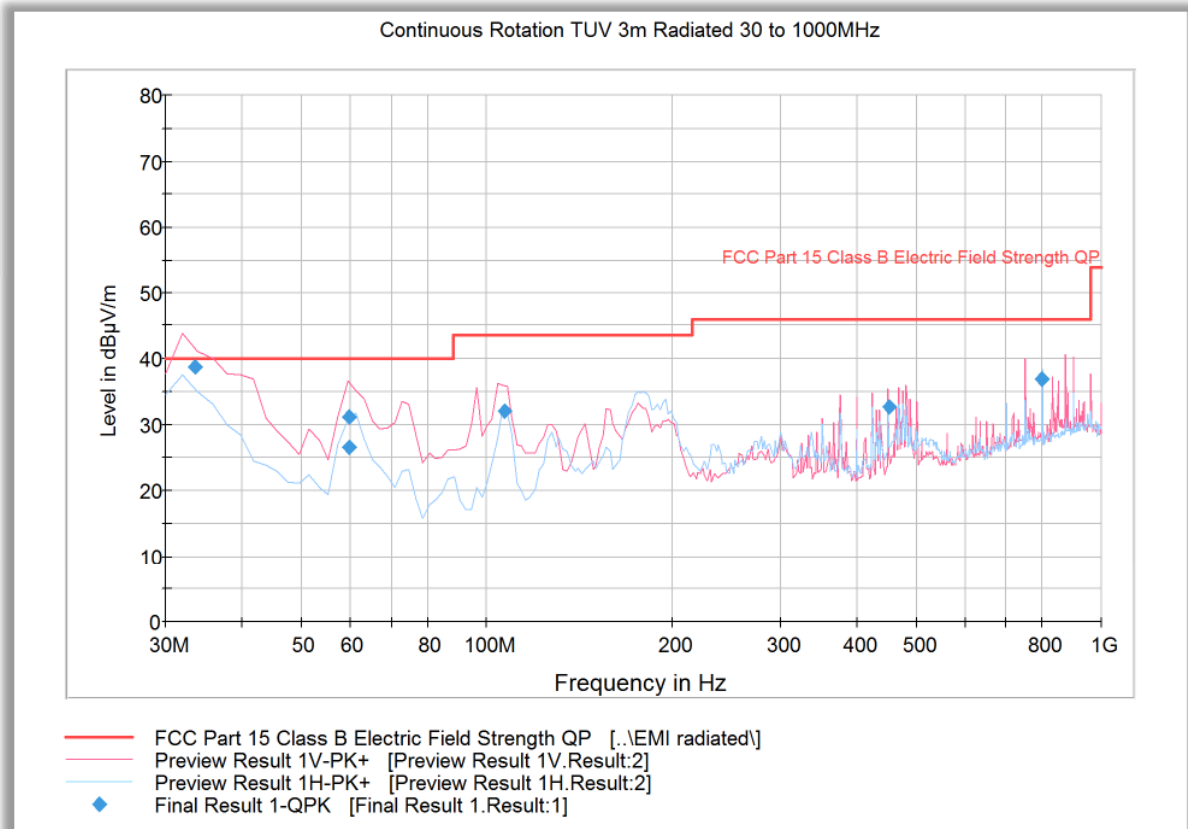
Frequency (MHz)	MaxPeak (dBμV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
1225.166667	40.6	1000.0	1000.000	132.7	V	145.0	-5.9	33.3	73.9
1981.266667	49.5	1000.0	1000.000	252.3	V	275.0	-2.3	24.4	73.9
3789.366667	44.4	1000.0	1000.000	281.2	V	216.0	2.0	29.6	73.9
5784.800000	70.7	1000.0	1000.000	271.3	H	-8.0	5.2	Fundamental Carrier	
9054.400000	47.2	1000.0	1000.000	147.7	V	125.0	7.9	26.7	73.9
10978.06666	49.3	1000.0	1000.000	103.7	V	147.0	11.5	24.6	73.9
11573.46666	49.1	1000.0	1000.000	250.5	H	71.0	12.3	24.8	73.9

Average Data

Frequency (MHz)	Average (dBμV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
1225.166667	27.7	1000.0	1000.000	132.7	V	145.0	-5.9	26.2	53.9
1981.266667	33.8	1000.0	1000.000	252.3	V	275.0	-2.3	20.1	53.9
3789.366667	31.4	1000.0	1000.000	281.2	V	216.0	2.0	22.5	53.9
5784.800000	52.0	1000.0	1000.000	271.3	H	-8.0	5.2	Fundamental Carrier	
9054.400000	33.4	1000.0	1000.000	147.7	V	125.0	7.9	20.5	53.9
10978.06666	36.2	1000.0	1000.000	103.7	V	147.0	11.5	17.7	53.9
11573.46666	35.4	1000.0	1000.000	250.5	H	71.0	12.3	18.5	53.9

Test Notes: Measurement was performed with a 5.0GHz notch filter. No significant emissions observed above 18GHz. Only the worst case configuration presented. Duty Cycle correction factor not applied on Average data (0.34 dB) since there is no spurious emission within 6 dB of the limit (DCCF has no impact on the presented test results).

2.7.23 Test Results Below 1GHz (Co-located TX, both WLAN and Cell radio are active)

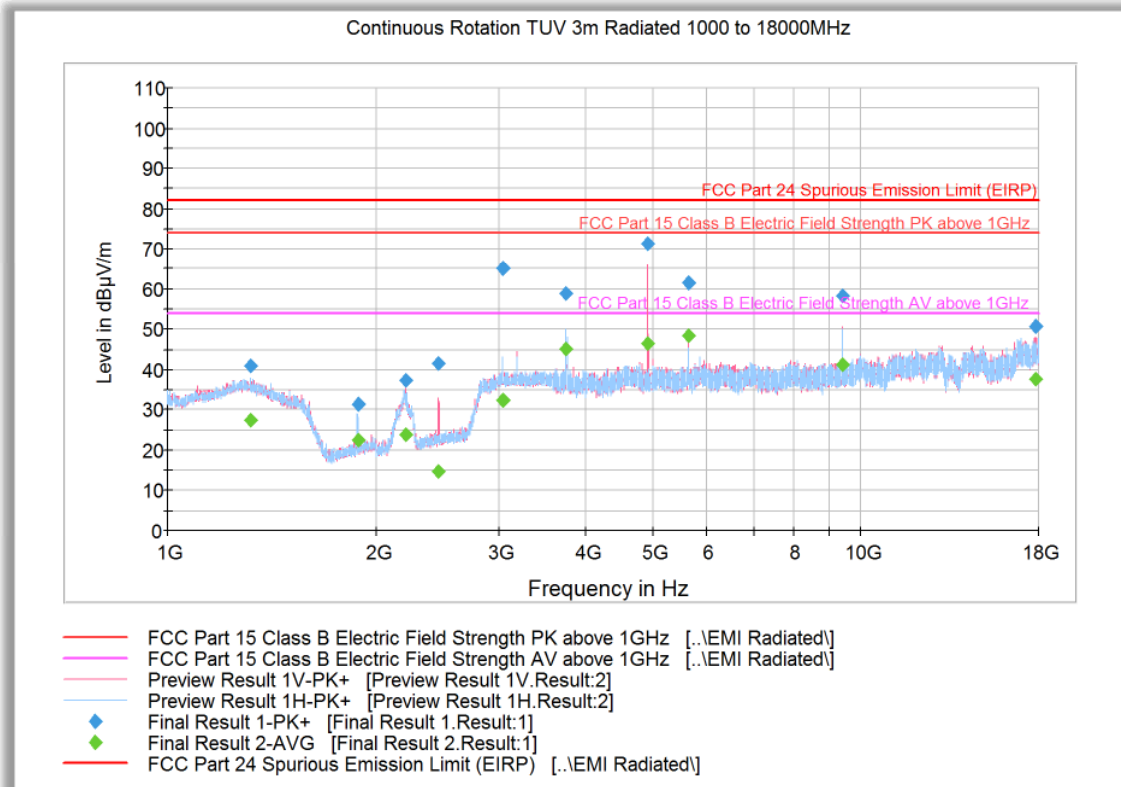


Quasi Peak Data

Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
33.400000	38.7	1000.0	120.000	100.0	V	150.0	-9.1	1.3	40.0
59.542204	31.3	1000.0	120.000	150.0	V	3.0	-17.0	8.7	40.0
59.558317	26.5	1000.0	120.000	109.0	V	1.0	-17.0	13.5	40.0
106.667735	32.0	1000.0	120.000	100.0	V	246.0	-15.3	11.5	43.5
449.999760	32.6	1000.0	120.000	213.0	V	178.0	-3.2	3.4	46.0
800.003447	36.8	1000.0	120.000	100.0	V	170.0	4.0	-10.8	46.0

Test Notes: Only worst case WLAN and licensed test configuration presented.

2.7.24 Test Results Above 1GHz (Co-located TX, both WLAN and Cell radio are active)



Peak Data

Frequency (MHz)	MaxPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
1315.266667	40.8	1000.0	1000.000	100.0	H	5.0	-5.2	33.1	73.9
1879.700000	31.4	1000.0	1000.000	299.0	H	11.0	-2.7	42.5	73.9
2201.866667	37.3	1000.0	1000.000	299.0	V	10.0	-1.7	36.6	73.9
2460.733333	41.7	1000.0	1000.000	136.0	V	11.0	-0.7	32.2	73.9
3043.200000	65.1	1000.0	1000.000	225.0	H	5.0	0.7	8.8	73.9
3756.633333	58.8	1000.0	1000.000	292.0	H	11.0	1.9	15.1	73.9
4923.966667	71.2	1000.0	1000.000	250.0	V	16.0	3.5	2.9	73.9
5636.600000	61.7	1000.0	1000.000	173.0	V	11.0	5.0	12.2	73.9
9403.866667	58.2	1000.0	1000.000	173.0	V	11.0	8.6	15.7	73.9
17870.800000	50.8	1000.0	1000.000	199.0	V	17.0	17.7	23.1	73.9

Average Data

Frequency (MHz)	Average (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
1315.266667	27.4	1000.0	1000.000	100.0	H	5.0	-5.2	26.5	53.9
1879.700000	22.7	1000.0	1000.000	299.0	H	11.0	-2.7	31.2	53.9
2201.866667	24.0	1000.0	1000.000	299.0	V	10.0	-1.7	29.9	53.9
2460.733333	14.6	1000.0	1000.000	136.0	V	11.0	-0.7	39.3	53.9
3043.200000	32.4	1000.0	1000.000	225.0	H	5.0	0.7	21.5	53.9
3756.633333	45.1	1000.0	1000.000	292.0	H	11.0	1.9	8.8	53.9
4923.966667	46.5	1000.0	1000.000	250.0	V	16.0	3.5	7.4	53.9
5636.600000	48.5	1000.0	1000.000	173.0	V	11.0	5.0	5.4	53.9
9403.866667	41.1	1000.0	1000.000	173.0	V	11.0	8.6	12.8	53.9
17870.800000	37.7	1000.0	1000.000	199.0	V	17.0	17.7	16.2	53.9

Test Notes: Only worst case WLAN and licensed test configuration presented. 1.8 GHz and 2.4 GHz Notches were used during the test.

2.8 BAND-EDGE MEASUREMENTS

2.8.1 Specification Reference

FCC CFR 47 Part 15, Clause 15.407(b)(1), (4)(i) and (7); (h)(2)
FCC CFR 47 Part 15, Clause 15.209
RSS-247, Section 6.2.1.2 and 6.2.4.2

2.8.2 Standard Applicable

FCC CFR 47 Part 15, Clause 15.407:

(b) Undesirable emission limits. Except as shown in paragraph (b)(7) of this section, the maximum emissions outside of the frequency bands of operation shall be attenuated in accordance with the following limits:

(1) For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

(4) For transmitters operating in the 5.725-5.85 GHz band

(i) All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

(7) The provisions of §15.205 apply to intentional radiators operating under this section.

(h) Transmit Power Control (TPC) and Dynamic Frequency Selection (DFS)

(2) U-NII devices operating with any part of its 26 dB emission bandwidth in the 5.25–5.35 GHz and 5.47–5.725 GHz bands shall employ a DFS radar detection mechanism to detect the presence of radar systems and to avoid co-channel operation with radar systems.

RSS-247, Section 6.2.1.2:

For transmitters with operating frequencies in the band 5150-5250 MHz, all emissions outside the band 5150-5350 MHz shall not exceed -27 dBm/MHz e.i.r.p. Any unwanted emissions that fall into the band 5250-5350 MHz shall be attenuated below the channel power by at least 26 dB, when measured using a resolution bandwidth between 1 and 5% of the occupied bandwidth (i.e. 99% bandwidth), above 5250 MHz. The 26 dB bandwidth may fall into the 5250-5350 MHz band; however, if the occupied bandwidth also falls within the 5250-5350 MHz band, the transmission is considered as intentional and the devices shall comply with all requirements in the band 5250-5350 MHz including implementing dynamic frequency selection (DFS) and TPC, on the portion of the emission that resides in the 5250-5350 MHz band.

RSS-247, Section 6.2.4.2:

Devices operating in the band 5725-5850 MHz shall have e.i.r.p. of unwanted emissions comply with the following:

- e) 27 dBm/MHz at frequencies from the band edges decreasing linearly to 15.6 dBm/MHz at 5 MHz above or below the band edges;
- f) 15.6 dBm/MHz at 5 MHz above or below the band edges decreasing linearly to 10 dBm/MHz at 25 MHz above or below the band edges;
- g) 10 dBm/MHz at 25 MHz above or below the band edges decreasing linearly to -27 dBm/MHz at 75 MHz above or below the band edges; and
- h) -27 dBm/MHz at frequencies more than 75 MHz above or below the band edges.



2.8.3 Test Methodology

Section II (G) Unwanted Emission Measurement of 789033 D02 General UNII Test Procedures v02r01

2.8.4 Equipment Under Test and Modification State

Serial No: AZ280418A00067 / Test Configuration B

2.8.5 Date of Test/Initial of test personnel who performed the test

August 01, 02 and 10, 2018/XYZ

2.8.6 Test Equipment Used

The major items of test equipment used for the above tests are identified in Section 3.1.

2.8.7 Environmental Conditions

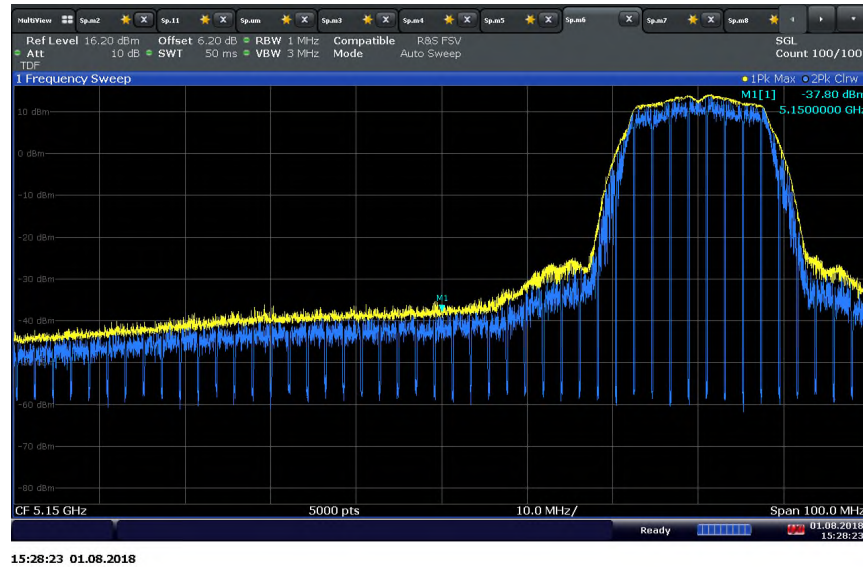
Test performed at TÜV SÜD America Inc. Rancho Bernardo facility

Ambient Temperature	25.3 - 27.2 °C
Relative Humidity	48.8 - 53.7 %
ATM Pressure	98.5 – 99.0 kPa

2.8.8 Additional Observations

- This is a conducted test using Integration Method as per Section II (G) Unwanted Emission Measurement of 789033 D02 General UNII Test Procedures v02r01.
- Only the worst case data rate/modulation presented.
- TDF (Transducer Factor) was used to compensate for the external attenuator and cable used.
- Antenna gain was added and additional 3dB offset was added for MIMO mode (verification performed on worst case antenna port).

2.8.9 Test Results

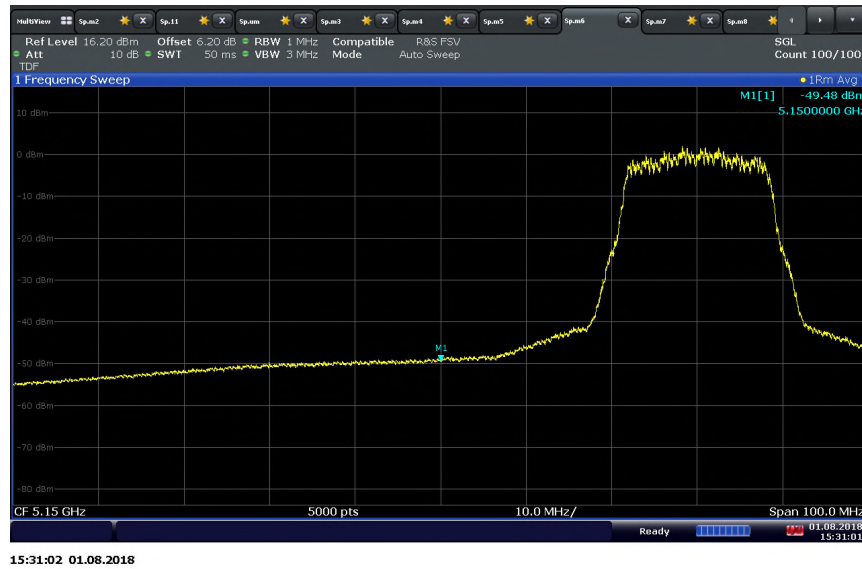


802.11a U-NII 1 Lower Band Edge (Peak Measurement)

Lower band edge peak calculation:

- 5150 MHz (in the restricted band): Complies with -27 dBm E.I.R.P limit.
- Use the following formula as per Section Section G(1) of 789033 D02 General UNII Test Procedures v02r01:

$$\begin{aligned}
 E(\text{dB}\mu\text{V}/\text{m}) &= \text{EIRP (dBm)} + 95.2 \\
 &= -37.8 \text{ dBm} + 95.2 \\
 &= 57.4 \text{ dB}\mu\text{V}/\text{m} @ 3 \text{ meters (Complies with } 74 \text{ dB}\mu\text{V}/\text{m limit)}
 \end{aligned}$$

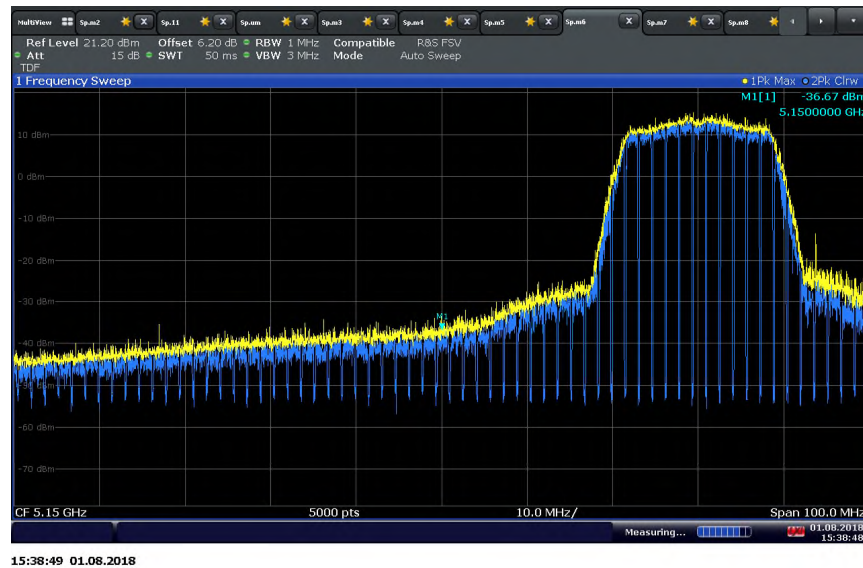


802.11a U-NII 1 Lower Band Edge (Average Measurement)

Lower band edge average calculation:

- 5150 MHz (in the restricted band): Complies with -27 dBm E.I.R.P limit.
- Use the following formula as per Section Section G(1) of 789033 D02 General UNII Test Procedures v02r01:

$$\begin{aligned}
 E(\text{dB}\mu\text{V}/\text{m}) &= \text{EIRP (dBm)} + 95.2 + \text{DCCF} \\
 &= -49.48 \text{ dBm} + 95.2 + 0.46 \\
 &= 46.18 \text{ dB}\mu\text{V}/\text{m} @ 3 \text{ meters (Complies with 54 dB}\mu\text{V}/\text{m limit)}
 \end{aligned}$$

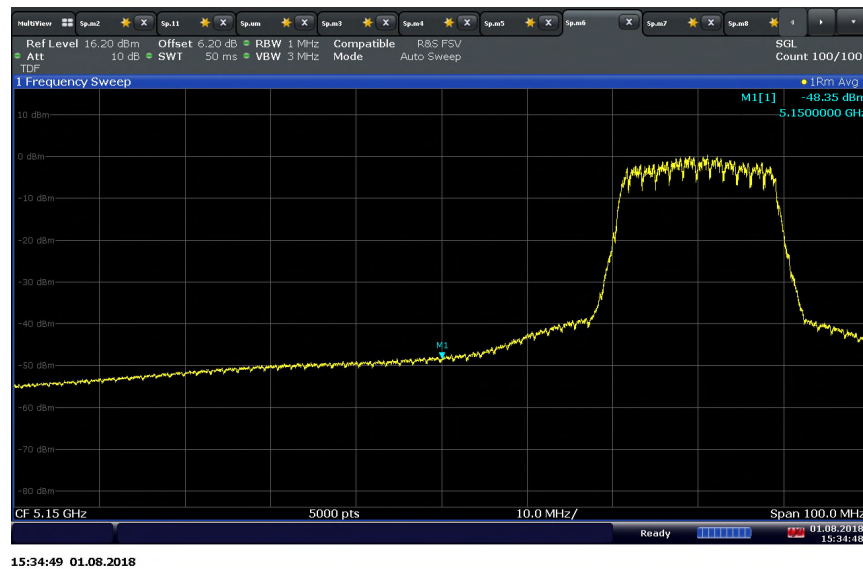


802.11n (20MHz BW) U-NII 1 Lower Band Edge (Peak Measurement)

Lower band edge peak calculation:

- 5150 MHz (in the restricted band): Complies with -27 dBm E.I.R.P limit.
- Use the following formula as per Section Section G(1) of 789033 D02 General UNII Test Procedures v02r01:

$$\begin{aligned}
 E(\text{dB}\mu\text{V}/\text{m}) &= \text{EIRP (dBm)} + 95.2 \\
 &= -36.67 \text{ dBm} + 95.2 \\
 &= 58.53 \text{ dB}\mu\text{V}/\text{m} @ 3 \text{ meters (Complies with 74 dB}\mu\text{V}/\text{m limit)}
 \end{aligned}$$

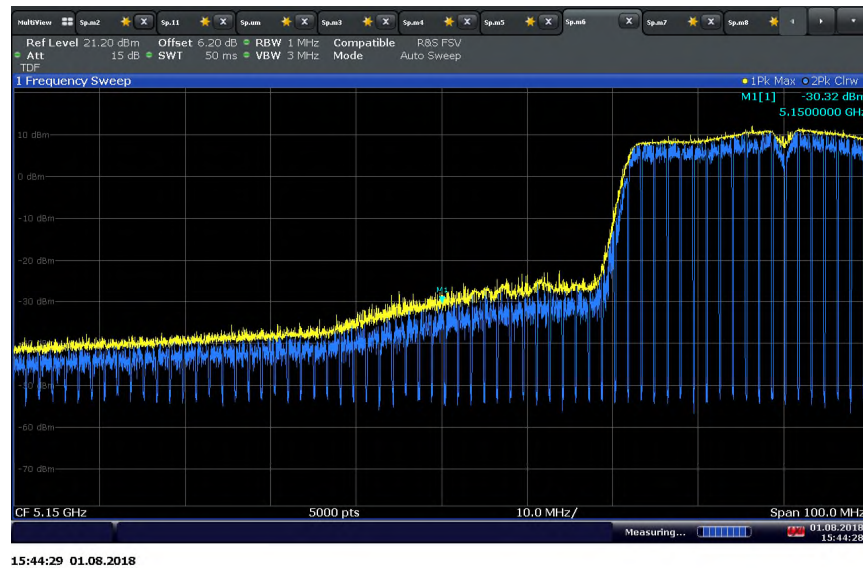


802.11n U-NII 1 (20 MHz BW) Lower Band Edge (Average Measurement)

Lower band edge average calculation:

- 5150 MHz (in the restricted band): Complies with -27 dBm E.I.R.P limit.
- Use the following formula as per Section Section G(1) of 789033 D02 General UNII Test Procedures v02r01:

$$\begin{aligned}
 E(\text{dB}\mu\text{V}/\text{m}) &= \text{EIRP (dBm)} + 95.2 + \text{DCCF} \\
 &= -48.35 + 95.2 + 0.64 \\
 &= 47.49 \text{ dB}\mu\text{V}/\text{m} @ 3 \text{ meters (Complies with 54 dB}\mu\text{V}/\text{m limit)}
 \end{aligned}$$

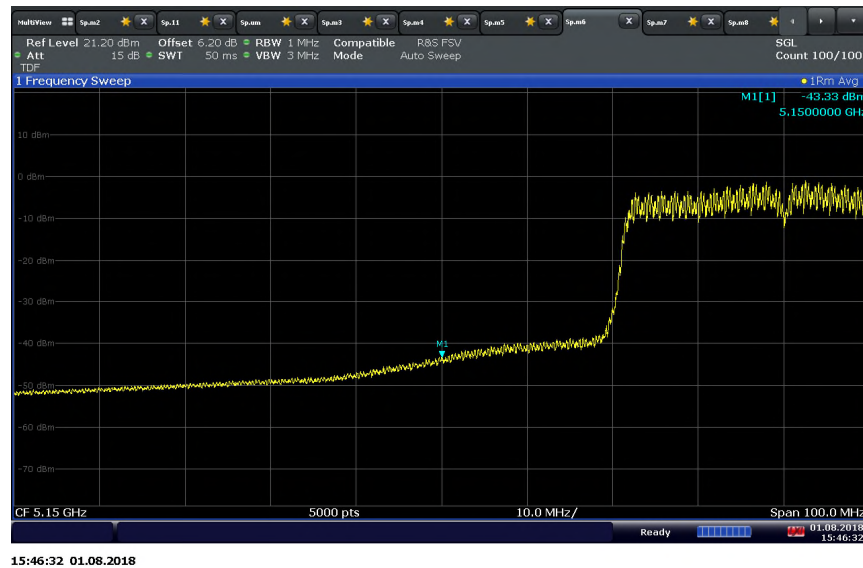


802.11n (40MHz BW) U-NII 1 Lower Band Edge (Peak Measurement)

Lower band edge peak calculation:

- 5150 MHz (in the restricted band): Complies with -27 dBm E.I.R.P limit.
- Use the following formula as per Section Section G(1) of 789033 D02 General UNII Test Procedures v02r01:

$$\begin{aligned}
 E(\text{dB}\mu\text{V}/\text{m}) &= \text{EIRP (dBm)} + 95.2 \\
 &= -30.32 \text{ dBm} + 95.2 \\
 &= 64.88 \text{ dB}\mu\text{V}/\text{m} @ 3 \text{ meters (Complies with 74 dB}\mu\text{V}/\text{m limit)}
 \end{aligned}$$

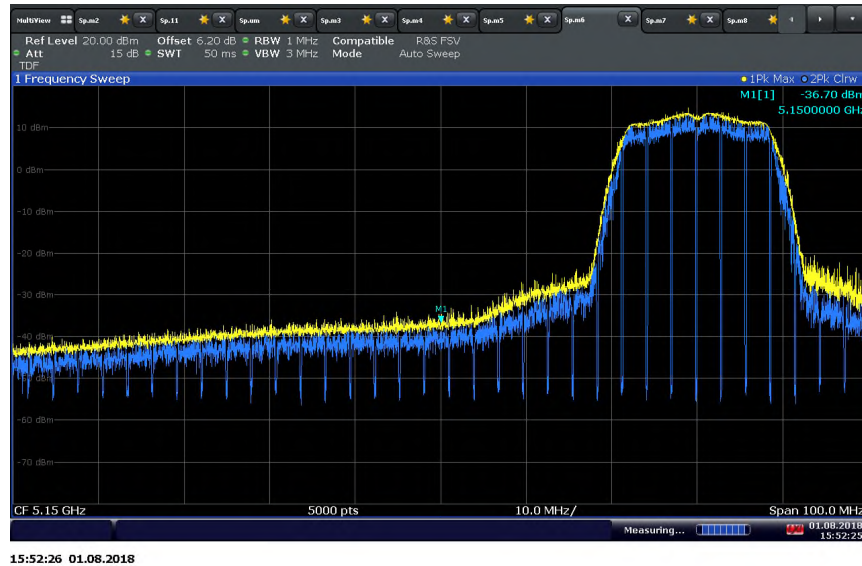


802.11n U-NII 1 (40 MHz BW) Lower Band Edge (Average Measurement)

Lower band edge peak calculation:

- 5150 MHz (in the restricted band): Complies with -27 dBm E.I.R.P limit.
- Use the following formula as per Section G(1) of 789033 D02 General UNII Test Procedures v02r01:

$$\begin{aligned}
 E(\text{dB}\mu\text{V}/\text{m}) &= \text{EIRP (dBm)} + 95.2 + \text{DCCF} \\
 &= -43.33 \text{ dBm} + 95.2 + 0.67 \\
 &= 52.54 \text{ dB}\mu\text{V}/\text{m} @ 3 \text{ meters (Complies with 54 dB}\mu\text{V}/\text{m limit)}
 \end{aligned}$$

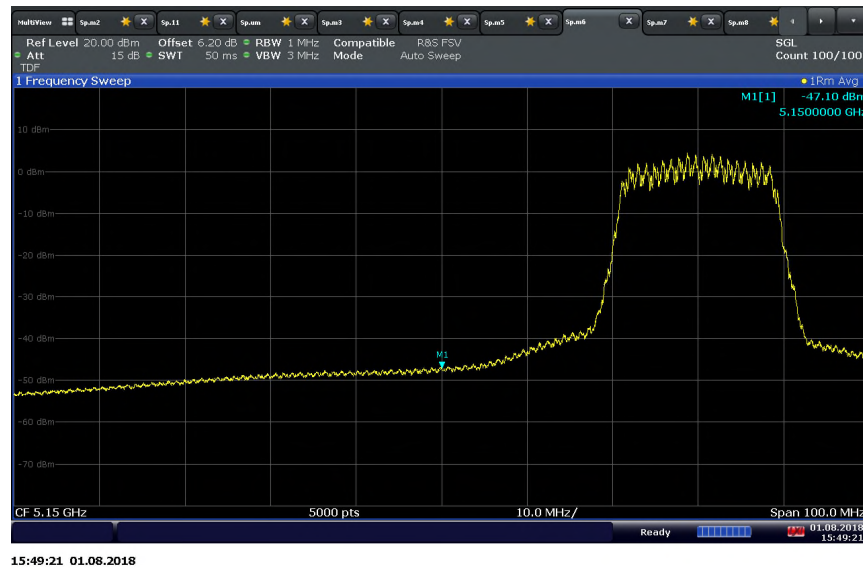


802.11ac (20MHz BW) U-NII 1 Lower Band Edge (Peak Measurement)

Lower band edge peak calculation:

- 5150 MHz (in the restricted band): Complies with -27 dBm E.I.R.P limit.
- Use the following formula as per Section Section G(1) of 789033 D02 General UNII Test Procedures v02r01:

$$\begin{aligned}
 E(\text{dB}\mu\text{V}/\text{m}) &= \text{EIRP (dBm)} + 95.2 \\
 &= (-36.7 \text{ dBm} + 95.2) \\
 &= 58.5 \text{ dB}\mu\text{V}/\text{m} @ 3 \text{ meters (Complies with } 74 \text{ dB}\mu\text{V}/\text{m limit})
 \end{aligned}$$

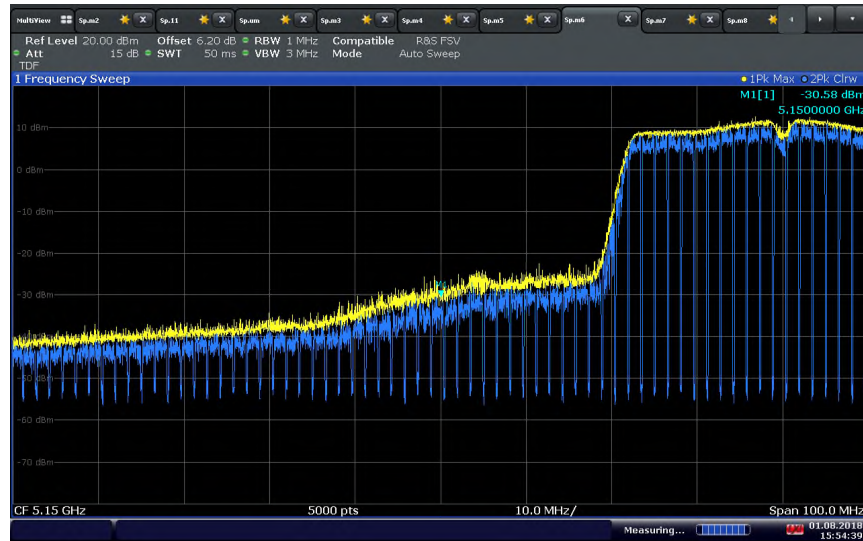


802.11ac U-NII 1 (20 MHz BW) Lower Band Edge (Average Measurement)

Lower band edge peak calculation:

- 5150 MHz (in the restricted band): Complies with -27 dBm E.I.R.P limit.
- Use the following formula as per Section Section G(1) of 789033 D02 General UNII Test Procedures v02r01:

$$\begin{aligned}
 E(\text{dB}\mu\text{V}/\text{m}) &= \text{EIRP (dBm)} + 95.2 + \text{DCCF} \\
 &= -47.1 \text{ dBm} + 95.2 + 0.34 \\
 &= 48.44 \text{ dB}\mu\text{V}/\text{m} @ 3 \text{ meters (Complies with 54 dB}\mu\text{V}/\text{m limit)}
 \end{aligned}$$

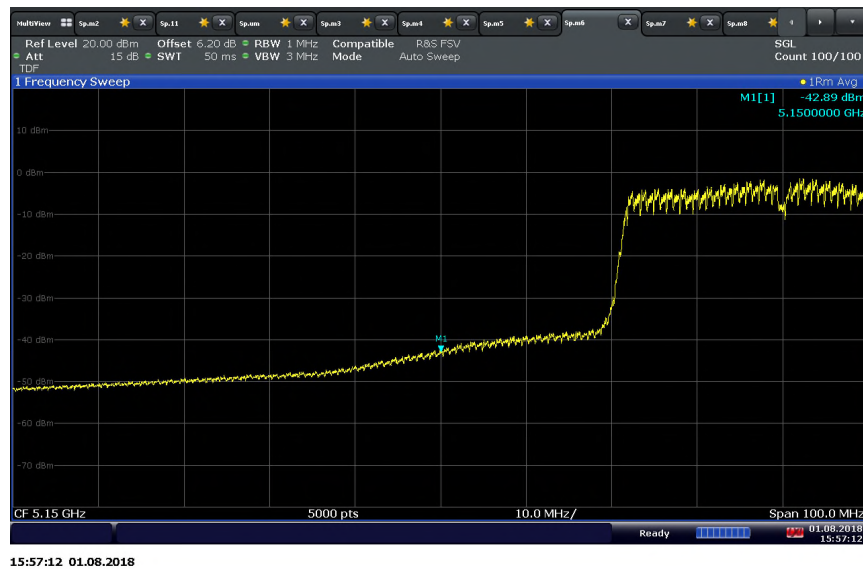


802.11 ac (40MHz BW) U-NII 1 Lower Band Edge (Peak Measurement)

Lower band edge peak calculation:

- 5150 MHz (in the restricted band): Complies with -27 dBm E.I.R.P limit.
- Use the following formula as per Section Section G(1) of 789033 D02 General UNII Test Procedures v02r01:

$$\begin{aligned}
 E(\text{dB}\mu\text{V}/\text{m}) &= \text{EIRP (dBm)} + 95.2 \\
 &= -30.58 \text{ dBm} + 95.2 \\
 &= 64.62 \text{ dB}\mu\text{V}/\text{m} @ 3 \text{ meters (Complies with 74 dB}\mu\text{V}/\text{m limit)}
 \end{aligned}$$

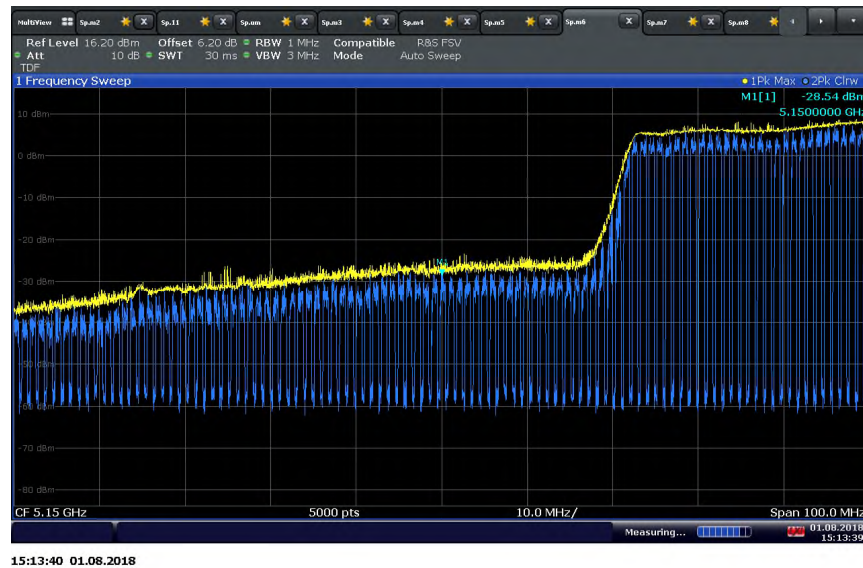


802.11 ac U-NII 1 (40 MHz BW) Lower Band Edge (Average Measurement)

Lower band edge peak calculation:

- 5150 MHz (in the restricted band): Complies with -27 dBm E.I.R.P limit.
- Use the following formula as per Section Section G(1) of 789033 D02 General UNII Test Procedures v02r01:

$$\begin{aligned}
 E(\text{dB}\mu\text{V}/\text{m}) &= \text{EIRP (dBm)} + 95.2 + \text{DCCF} \\
 &= -42.89 \text{ dBm} + 95.2 + 0.66 \\
 &= 52.97 \text{ dB}\mu\text{V}/\text{m} @ 3 \text{ meters (Complies with 54 dB}\mu\text{V}/\text{m limit)}
 \end{aligned}$$

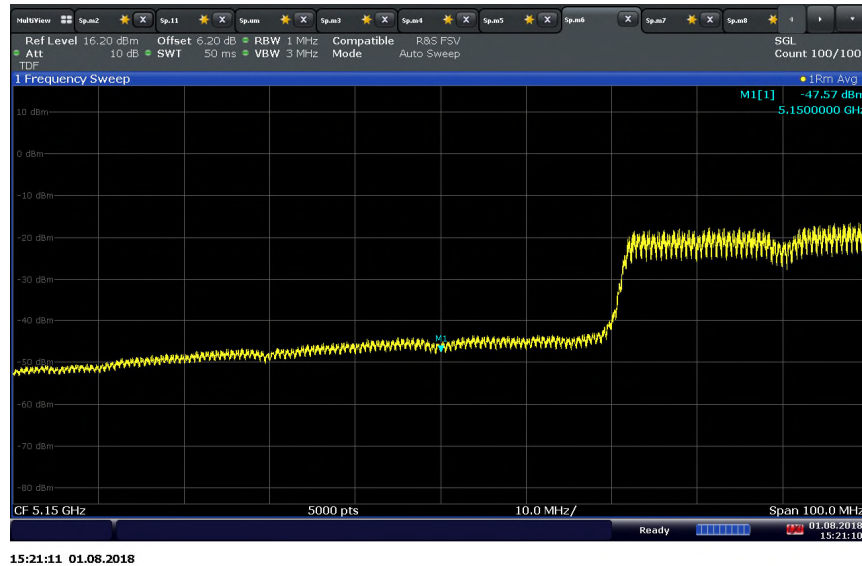


802.11ac (80MHz BW) U-NII 1 Lower Band Edge (Peak Measurement)

Lower band edge peak calculation:

- 5150 MHz (in the restricted band): Complies with -27 dBm E.I.R.P limit.
- Use the following formula as per Section Section G(1) of 789033 D02 General UNII Test Procedures v02r01:

$$\begin{aligned}
 E(\text{dB}\mu\text{V}/\text{m}) &= \text{EIRP (dBm)} + 95.2 \\
 &= -28.54 + 95.2 \\
 &= 66.66 \text{ dB}\mu\text{V}/\text{m} @ 3 \text{ meters (Complies with 74 dB}\mu\text{V}/\text{m limit)}
 \end{aligned}$$

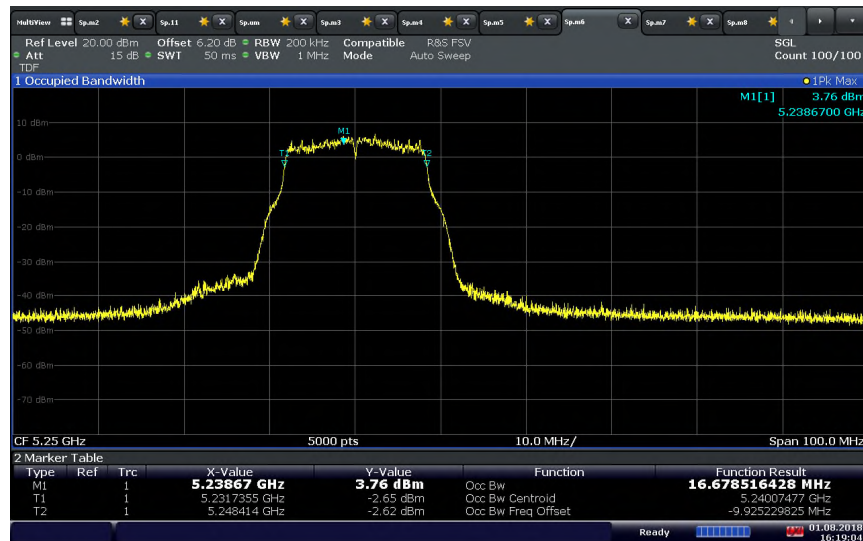


802.11 ac U-NII 1 (80 MHz BW) Lower Band Edge (Average Measurement)

Lower band edge peak calculation:

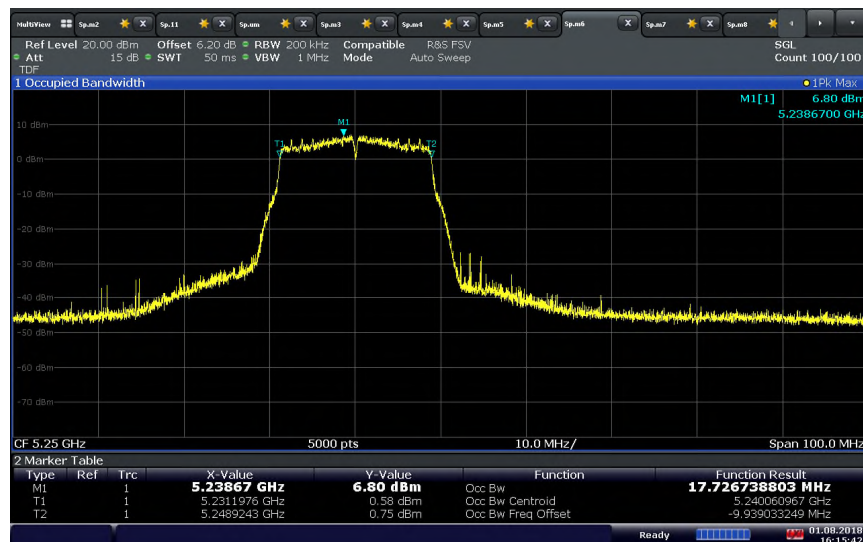
- 5150 MHz (in the restricted band): Complies with -27 dBm E.I.R.P limit.
- Use the following formula as per Section Section G(1) of 789033 D02 General UNII Test Procedures v02r01:

$$\begin{aligned}
 E(\text{dB}\mu\text{V}/\text{m}) &= \text{EIRP (dBm)} + 95.2 + \text{DCCF} \\
 &= -47.57 + 95.2 + 1.95 \\
 &= 49.58 \text{ dB}\mu\text{V}/\text{m} @ 3 \text{ meters (Complies with 54 dB}\mu\text{V}/\text{m limit)}
 \end{aligned}$$



16:19:04 01.08.2018

802.11a U-NII 1 Upper Band Edge Verification (T2 < 5250 MHz)



16:15:42 01.08.2018

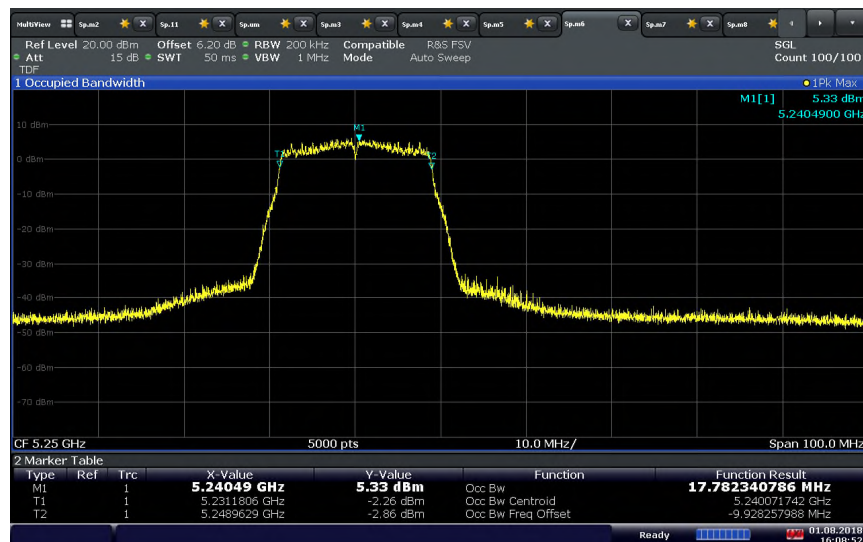
802.11n (20 MHz BW) U-NII 1 Upper Band Edge Verification (T2 < 5250 MHz)

Band edge requirement for U-NII 1 is from 5150 MHz to 5350 MHz (upper edge of U-NII 2A). However there is a requirement under §15.407 (h)(2) that U-NII devices operating with any part of its 26 dB emission bandwidth or 99% bandwidth as a practical matter, in the 5.25-5.35 GHz and 5.47-5.725 GHz bands shall employ a DFS radar detection mechanism to detect the presence of radar systems and to avoid co-channel operation with radar systems. The plot presented was a verification that the 99% Bandwidth of 802.11a U-NII 1 high channel stays within the U-NII 1 band (T2 should be ≤ 5250 MHz).



16:13:50 01.08.2018

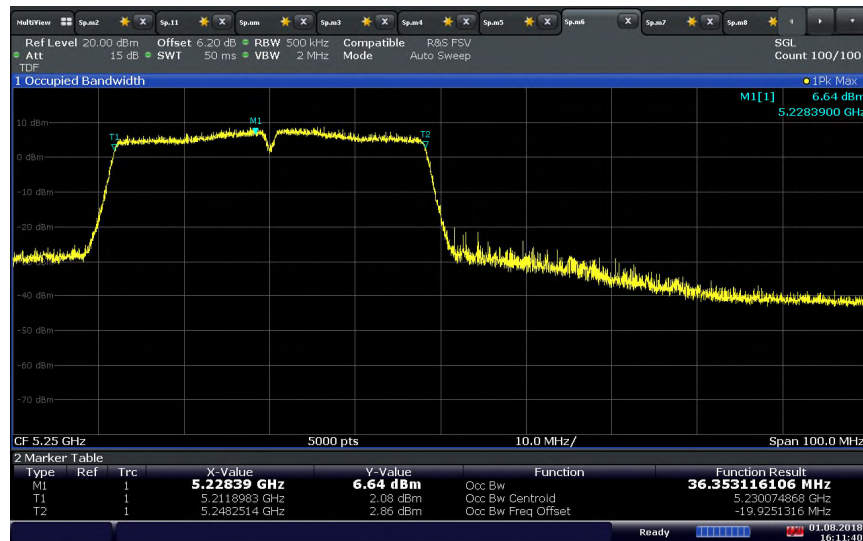
802.11n (40 MHz BW) U-NII 1 Upper Band Edge Verification (T2 < 5250 MHz)



16:08:53 01.08.2018

802.11ac (20 MHz BW) U-NII 1 Upper Band Edge Verification (T2 < 5250 MHz)

Band edge requirement for U-NII 1 is from 5150 MHz to 5350 MHz (upper edge of U-NII 2A). However there is a requirement under §15.407 (h)(2) that U-NII devices operating with any part of its 26 dB emission bandwidth or 99% bandwidth as a practical matter, in the 5.25-5.35 GHz and 5.47-5.725 GHz bands shall employ a DFS radar detection mechanism to detect the presence of radar systems and to avoid co-channel operation with radar systems. The plot presented was a verification that the 99% Bandwidth of 802.11a U-NII 1 high channel stays within the U-NII 1 band (T2 should be ≤ 5250 MHz).



16:11:41 01.08.2018

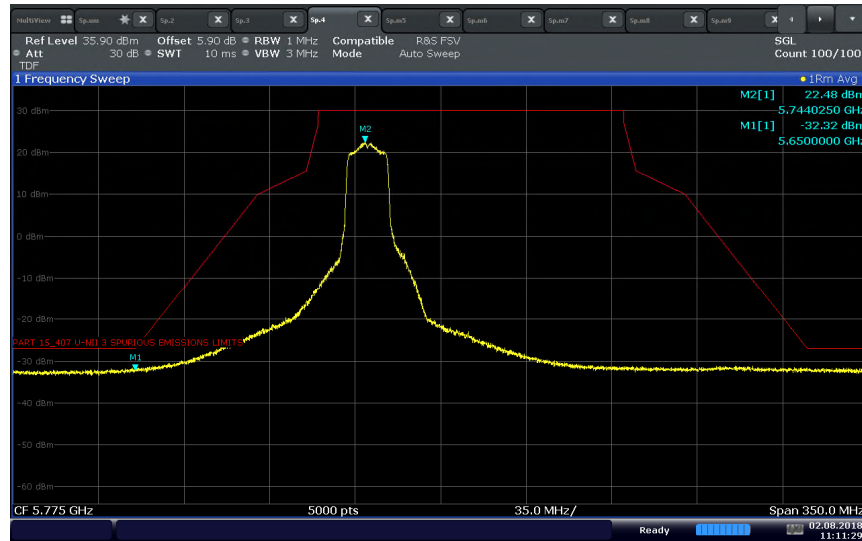
802.11ac (40 MHz BW) U-NII 1 Upper Band Edge Verification (T2 < 5250 MHz)



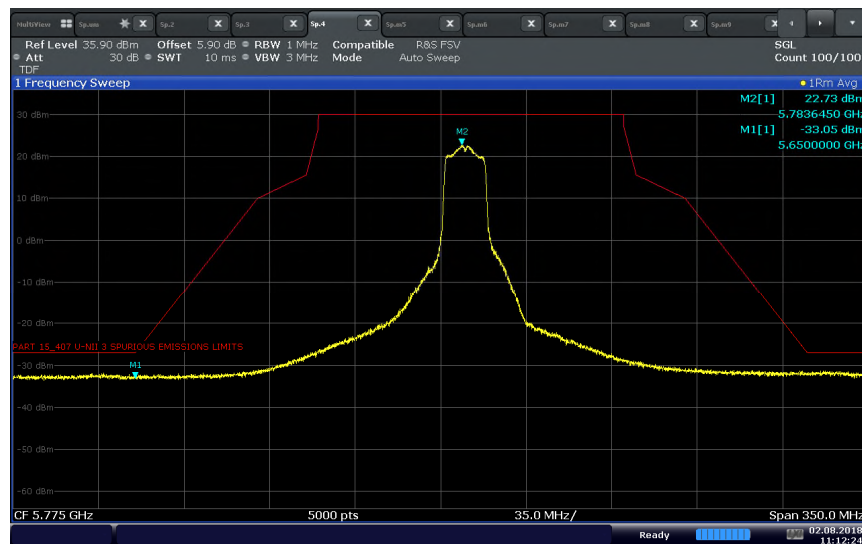
16:29:16 01.08.2018

802.11ac (80 MHz BW) U-NII 1 Upper Band Edge Verification (T2 < 5250 MHz)

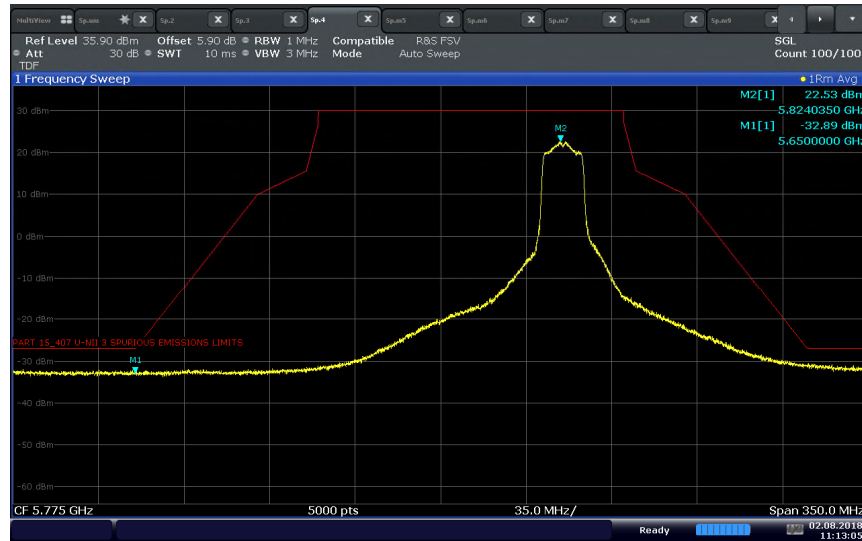
Band edge requirement for U-NII 1 is from 5150 MHz to 5350 MHz (upper edge of U-NII 2A). However there is a requirement under §15.407 (h)(2) that U-NII devices operating with any part of its 26 dB emission bandwidth or 99% bandwidth as a practical matter, in the 5.25-5.35 GHz and 5.47-5.725 GHz bands shall employ a DFS radar detection mechanism to detect the presence of radar systems and to avoid co-channel operation with radar systems. The plot presented was a verification that the 99% Bandwidth of 802.11a U-NII 1 high channel stays within the U-NII 1 band (T2 should be ≤ 5250 MHz).



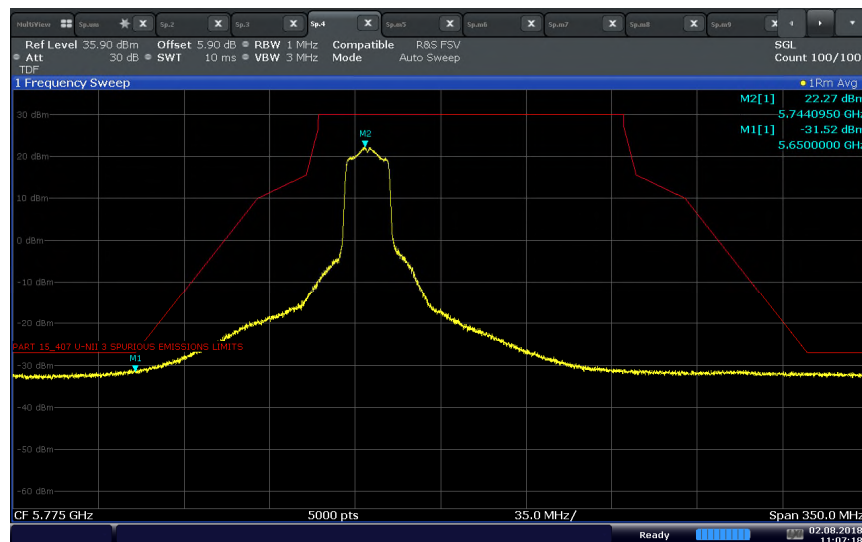
802.11a U-NII 3 Low Channel Emission Mask (0.31 dB DCCF applies to the emission, complies)



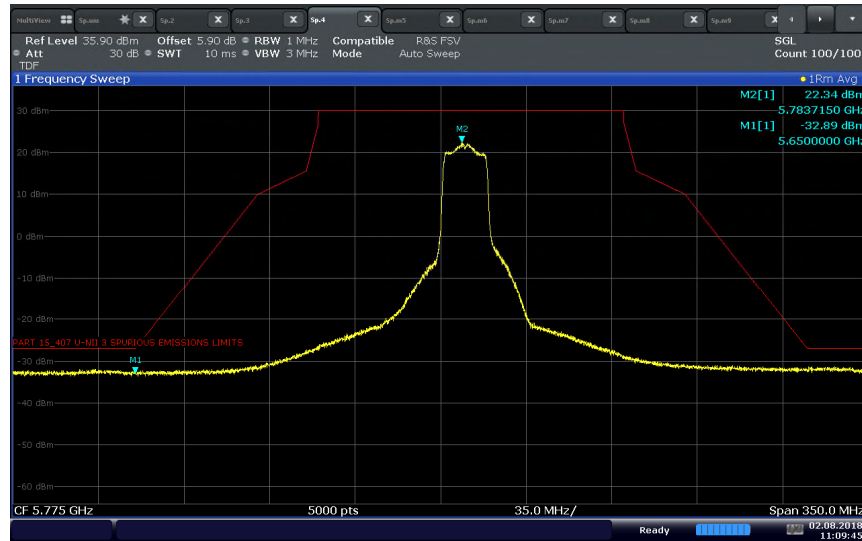
802.11a U-NII 3 Middle Channel Emission Mask (0.31 dB DCCF applies to the emission, complies)



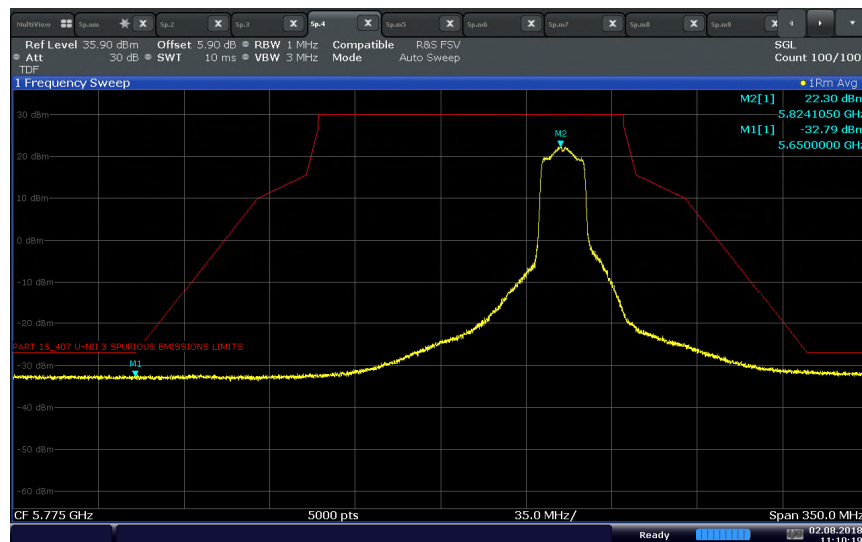
802.11a U-NII 3 High Channel Emission Mask (0.34 dB DCCF applies to the emission, complies)



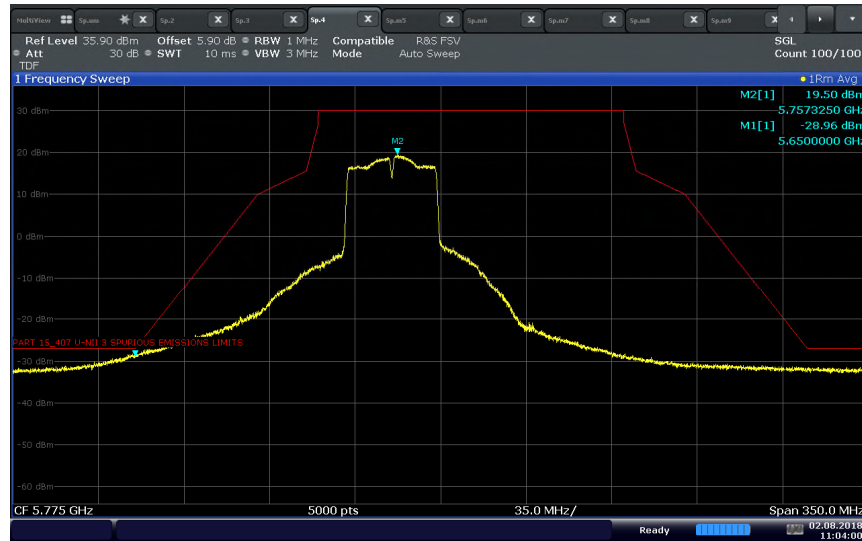
802.11n (20MHz BW) U-NII 3 Low Channel Emission Mask (0.34 dB DCCF applies to the emission, complies)



802.11n (20MHz BW) U-NII 3 Middle Channel Emission Mask (0.34 dB DCCF applies to the emission, complies)

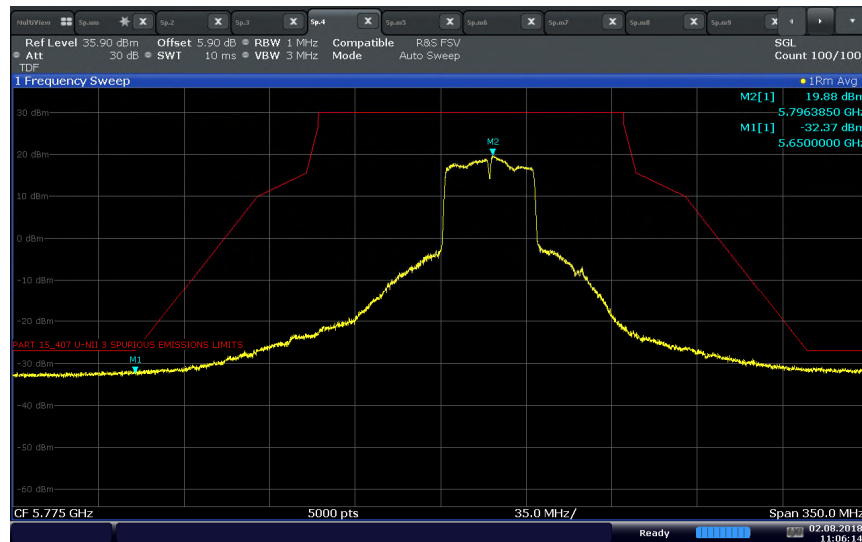


802.11n (20MHz BW) U-NII 3 High Channel Emission Mask (0.34 dB DCCF applies to the emission, complies)



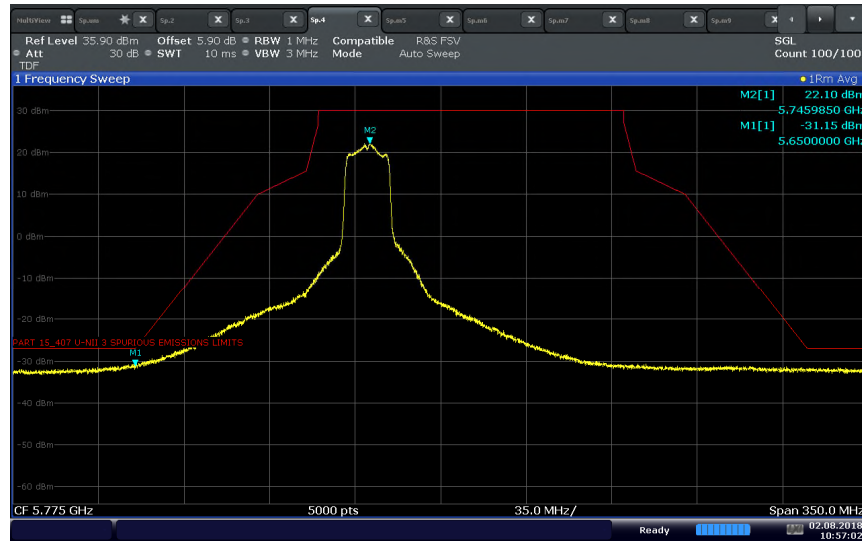
11:04:01 02.08.2018

802.11n (40MHz BW) U-NII 3 Low Channel Emission Mask (0.66 dB DCCF applies to the emission, complies)

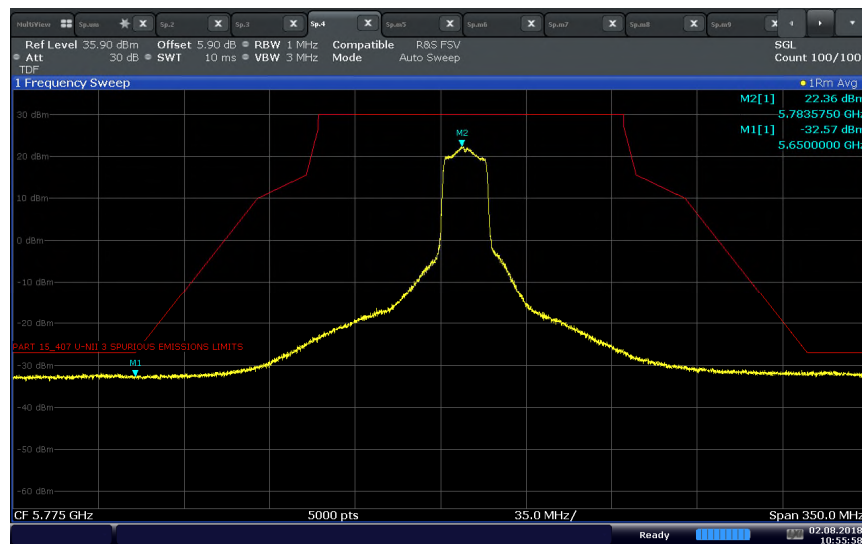


11:06:15 02.08.2018

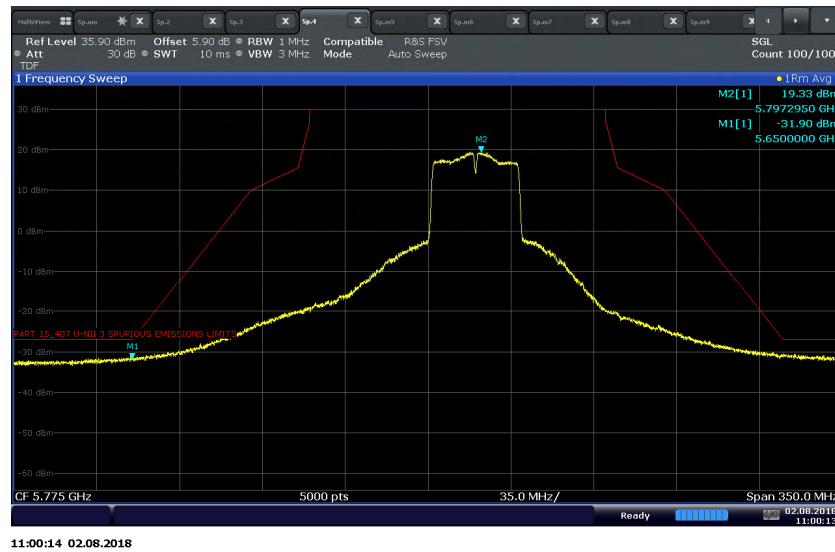
802.11n (40MHz BW) U-NII 3 High Channel Emission Mask (0.66 dB DCCF applies to the emission, complies)



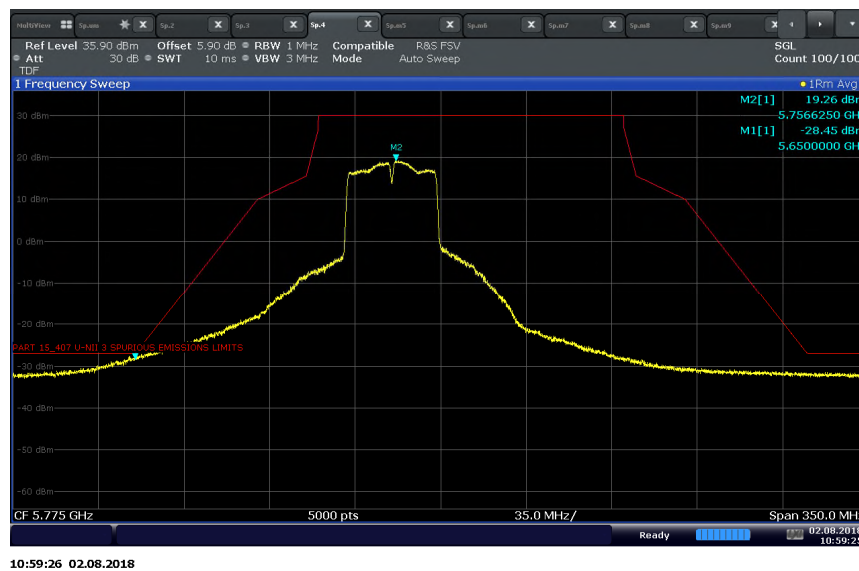
802.11ac (20MHz BW) U-NII 3 Low Channel Emission Mask (0.34 dB DCCF applies to the emission, complies)



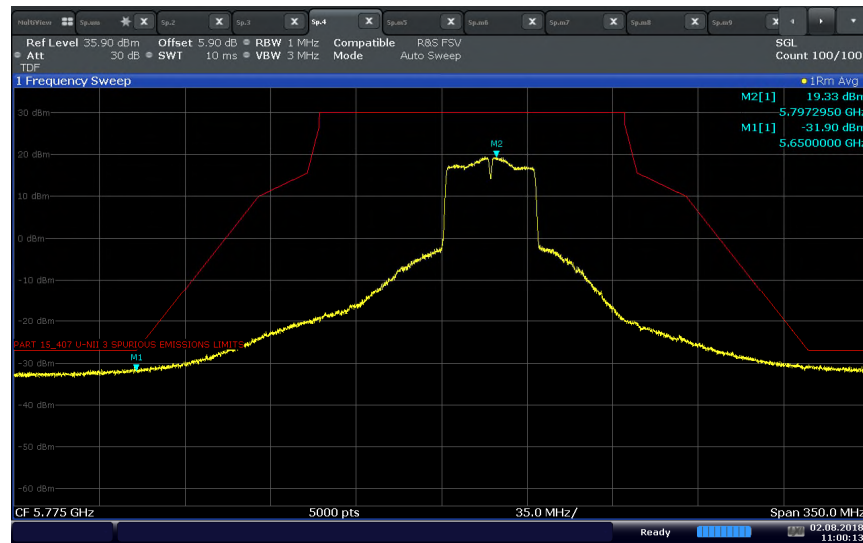
802.11ac (20MHz BW) U-NII 3 Middle Channel Emission Mask (0.34 dB DCCF applies to the emission, complies)



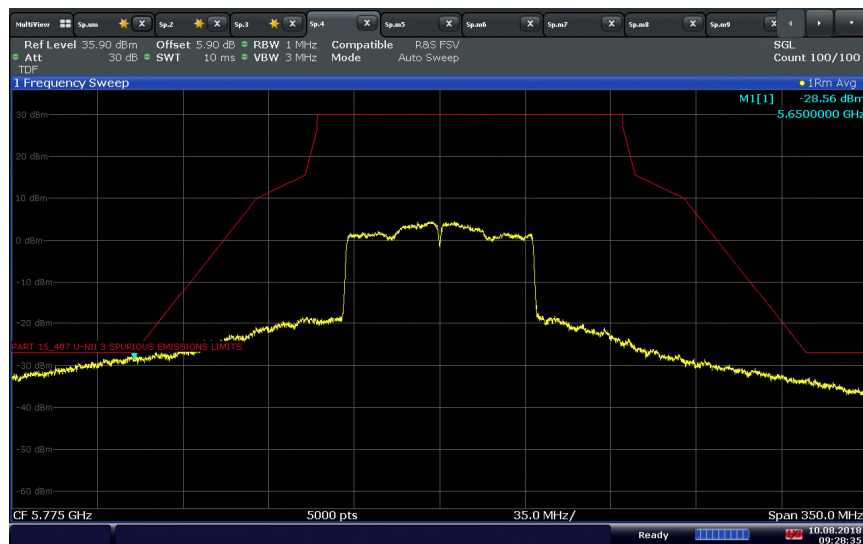
802.11ac (20MHz BW) U-NII 3 High Channel Emission Mask (0.34 dB DCCF applies to the emission, complies)



802.11ac (40MHz BW) U-NII 3 Low Channel Emission Mask (0.67 dB DCCF applies to the emission, complies)



802.11ac (40MHz BW) U-NII 3 High Channel Emission Mask (0.67 dB DCCF applies to the emission, complies)



802.11ac (80MHz BW) U-NII 3 Middle Channel Emission Mask (1.94 dB DCCF applies to the emission, not complies)



2.9 FREQUENCY STABILITY

2.9.1 Specification Reference

FCC CFR 47 Part 15, Clause 15.407(g)
RSS-GEN, Section 6.11

2.9.2 Standard Applicable

Manufacturers of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified in the user's manual.

2.9.1 Manufacturer Declaration



Date: August 24, 2018

TUV SUD BABT TCB
Octagon House, Concorde Way
Segensworth Road,
Fareham,
Hampshire,
PO15 5RL

FCC ID: PKRNVWMIFI8800

Attestation for FCC Part 15.407 Declaration of Conformity

Pursuant to FCC CFR 47 Part 15.407(g), we, Novatel Wireless, Inc., an Inseego Company, declare that the frequency stability in the UNII Bands is ensured such that an emission is maintained within the band of operation under all conditions of normal operation as specified in the user's manual.

Sincerely,

A handwritten signature in black ink, appearing to be "Roman Olmos", written over a horizontal line.

Roman Olmos
Sr. Regulatory Engineer

Novatel Wireless, Inc., an Inseego Company
9805 Scranton Road Suite 300, San Diego CA 92121
Toll Free: 888.888.9231 • Main 858.812.3400 • Fax 858.812.3406
www.inseego.com



SECTION 3

TEST EQUIPMENT USED



3.1 TEST EQUIPMENT USED

List of absolute measuring and other principal items of test equipment.

ID Number (SDGE/SDRB)	Test Equipment	Type	Serial Number	Manufacturer	Cal Date	Cal Due Date
Antenna Conducted Port Setup						
7662	P-Series Power Meter	N1911A	MY45100951	Agilent	06/15/18	06/15/19
7661	50MHz-18GHz Wideband Power Sensor	N1921A	MY45241383	Agilent	06/15/18	06/15/19
7608	Vector Signal Generator	SMBV100A	259021	Rhode & Schwarz	09/19/17	09/19/19
7582	Signal/Spectrum Analyzer	FSW26	101614	Rhode & Schwarz	12/14/17	12/14/18
-	10dB Attenuator	VAT-10W2+2W	N/A	MCL	Verified by 7608 and 7582	
8825	20dB Attenuator	46-20-34	BK5773	Weinschel Corp.	Verified by 7608 and 7582	
AC Conducted Emissions Test Setup						
1024	EMI Test Receiver	ESCS 30	847793/001	Rhode & Schwarz	09/15/17	09/15/18
7567	LISN	FCC-LISN-50-25-2	120304	Fischer Custom Comm.	12/14/17	12/14/19
8822	20dB Attenuator	34-20-34	N/A	MCE / Weinschel	Verified by 7608 and 7582	
8824	20dB Attenuator	34-20-34	N/A	MCE / Weinschel	Verified by 7608 and 7582	
7582	Signal/Spectrum Analyzer	FSW26	101614	Rhode & Schwarz	12/14/17	12/14/18
7608	Vector Signal Generator	SMBV100A	259021	Rhode & Schwarz	09/19/17	09/19/19
Radiated Test Setup						
7582	Signal/Spectrum Analyzer	FSW26	101614	Rhode & Schwarz	12/14/17	12/14/18
7608	Vector Signal Generator	SMBV100A	259021	Rhode & Schwarz	09/19/17	09/19/19
1033	Bilog Antenna	3142C	00044556	EMCO	10/11/16	10/11/18
7575	Double-ridged waveguide horn antenna	3117	00155511	EMCO	06/16/18	06/16/20
1193	Pre-amplifier	PAM-0202	185	A.H. Systems, Inc.	04/11/18	04/11/19
8921	High-frequency cable	SucoFlex 100 SX	N/A	Suhner	Verified by 7608 and 7582	
8923	High-frequency cable	Micropore 19057793	N/A	United Microwave Products	Verified by 7608 and 7582	
1040	EMI Test Receiver	ESIB40	100292	Rhode & Schwarz	10/25/17	10/25/18
1049	EMI Test Receiver	ESU	100133	Rhode & Schwarz	07/13/18	07/13/19
8628	Pre-amplifier	QLI-01182835-JO	8986002	Quinstar	02/06/18	02/06/19
8818	5.0GHz Band Notch Filter	BRM50716	015	Micro-Tronics	Verified by 7608 and 7582	
8806	1.8 GHz Band Notch Filter	BRM50707	005	Micro-Tronics	Verified by 7608 and 7582	
6815	2.4 GHz Band Notch Filter	BRM50702	008	Micro-Tronics	Verified by 7608 and 7582	



Miscellaneous						
6708	Multimeter	34401A	US36086974	Hewlett Packard	07/18/18	07/18/19
11312	Mini Environmental Quality Meter	850027	CF099-56010- 340	Sper Scientific	02/26/18	02/26/19
	Test Software	EMC32	V8.53	Rhode & Schwarz	N/A	

3.2 MEASUREMENT UNCERTAINTY

For a 95% confidence level, the measurement uncertainties for defined systems are:

3.2.1 Radiated Emission Measurements (Below 1GHz)

Contribution		Probability Distribution Type	Probability Distribution x_i	Standard Uncertainty $u(x_i)$	$[u(x_i)]^2$
1	Receiver/Spectrum Analyzer	Rectangular	0.45	0.26	0.07
2	Cables	Rectangular	0.50	0.29	0.08
3	Preamp	Rectangular	0.50	0.29	0.08
4	Antenna	Rectangular	0.75	0.43	0.19
5	Site	Rectangular	3.52	1.44	2.07
6	EUT Setup	Rectangular	1.00	0.58	0.33
Combined Uncertainty (u_c):					1.68
Coverage Factor (k):					2
Expanded Uncertainty:					3.36

3.2.2 Radiated Emission Measurements (Above 1GHz)

Contribution		Probability Distribution Type	Probability Distribution x_i	Standard Uncertainty $u(x_i)$	$[u(x_i)]^2$
1	Receiver/Spectrum Analyzer	Rectangular	0.57	0.33	0.11
2	Cables	Rectangular	0.70	0.40	0.16
3	Preamp	Rectangular	0.50	0.29	0.08
4	Antenna	Rectangular	0.37	0.21	0.05
5	Site	Rectangular	3.00	1.22	1.50
6	EUT Setup	Rectangular	1.00	0.58	0.33
Combined Uncertainty (u_c):					1.49
Coverage Factor (k):					2
Expanded Uncertainty:					2.99

3.2.3 Conducted Antenna Port Measurement

Contribution		Probability Distribution Type	Probability Distribution x_i	Standard Uncertainty $u(x_i)$	$[u(x_i)]^2$
1	Receiver/Spectrum Analyzer	Rectangular	0.34	0.20	0.04
2	Cables	Rectangular	0.30	0.17	0.03
3	EUT Setup	Rectangular	0.50	0.29	0.08
Combined Uncertainty (u_c):					0.39
Coverage Factor (k):					1.96
Expanded Uncertainty:					0.76

3.2.4 AC Conducted Emissions

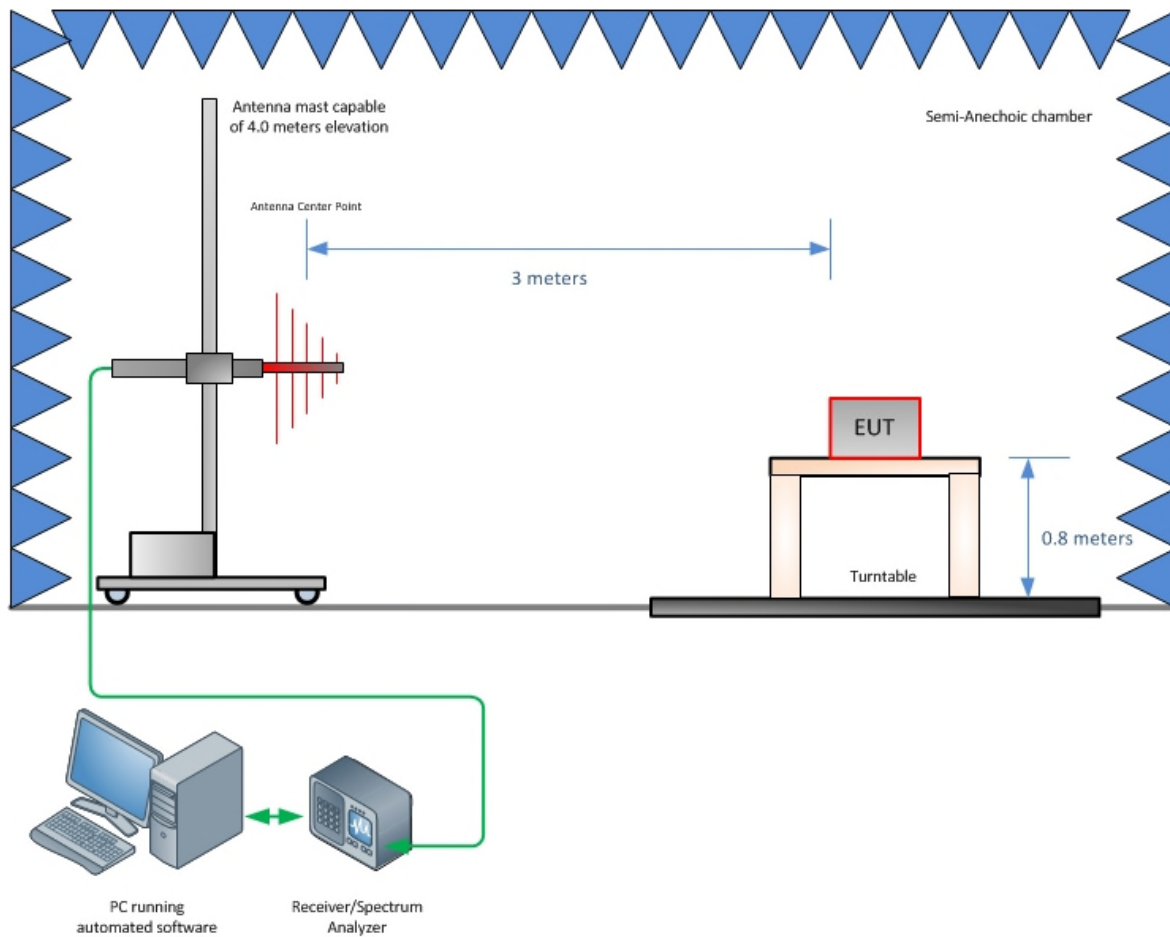
Contribution		Probability Distribution Type	Probability Distribution x_i	Standard Uncertainty $u(x_i)$	$[u(x_i)]^2$
1	Receiver/Spectrum Analyzer	Rectangular	0.36	0.21	0.04
2	Cables	Rectangular	0.50	0.29	0.08
3	LISN	Rectangular	0.66	0.38	0.15
4	Attenuator	Rectangular	0.30	0.17	0.03
5	EUT Setup	Rectangular	1.00	0.58	0.33
Combined Uncertainty (u_c):					0.80
Coverage Factor (k):					2
Expanded Uncertainty:					1.59



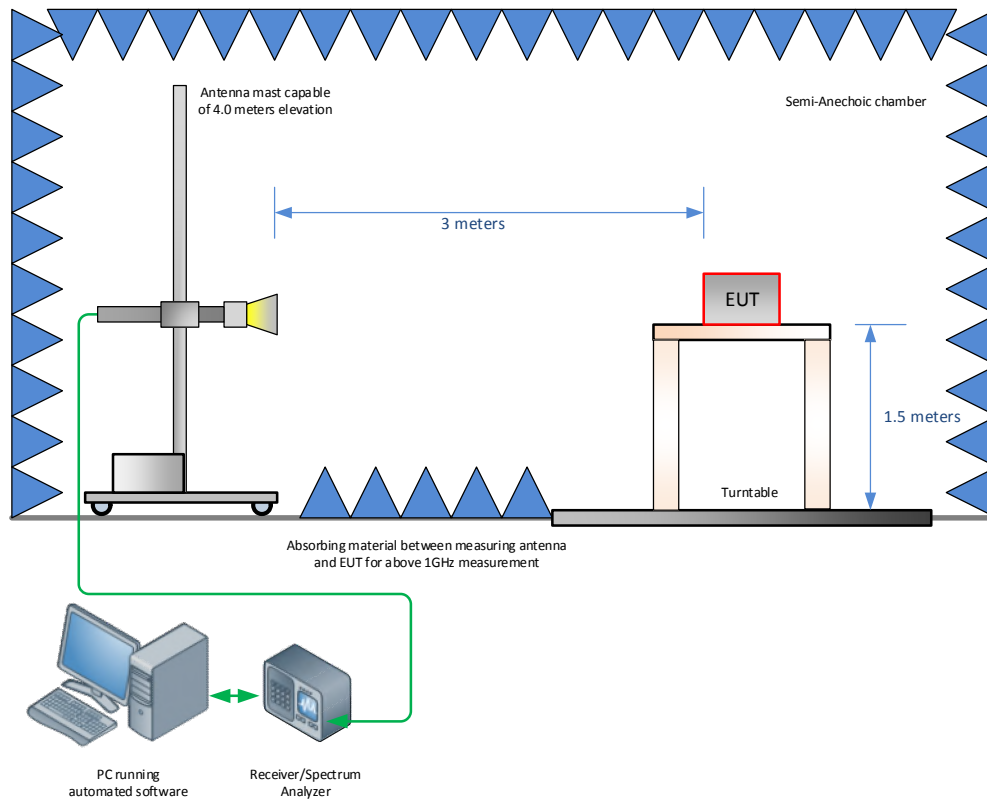
SECTION 4

DIAGRAM OF TEST SETUP

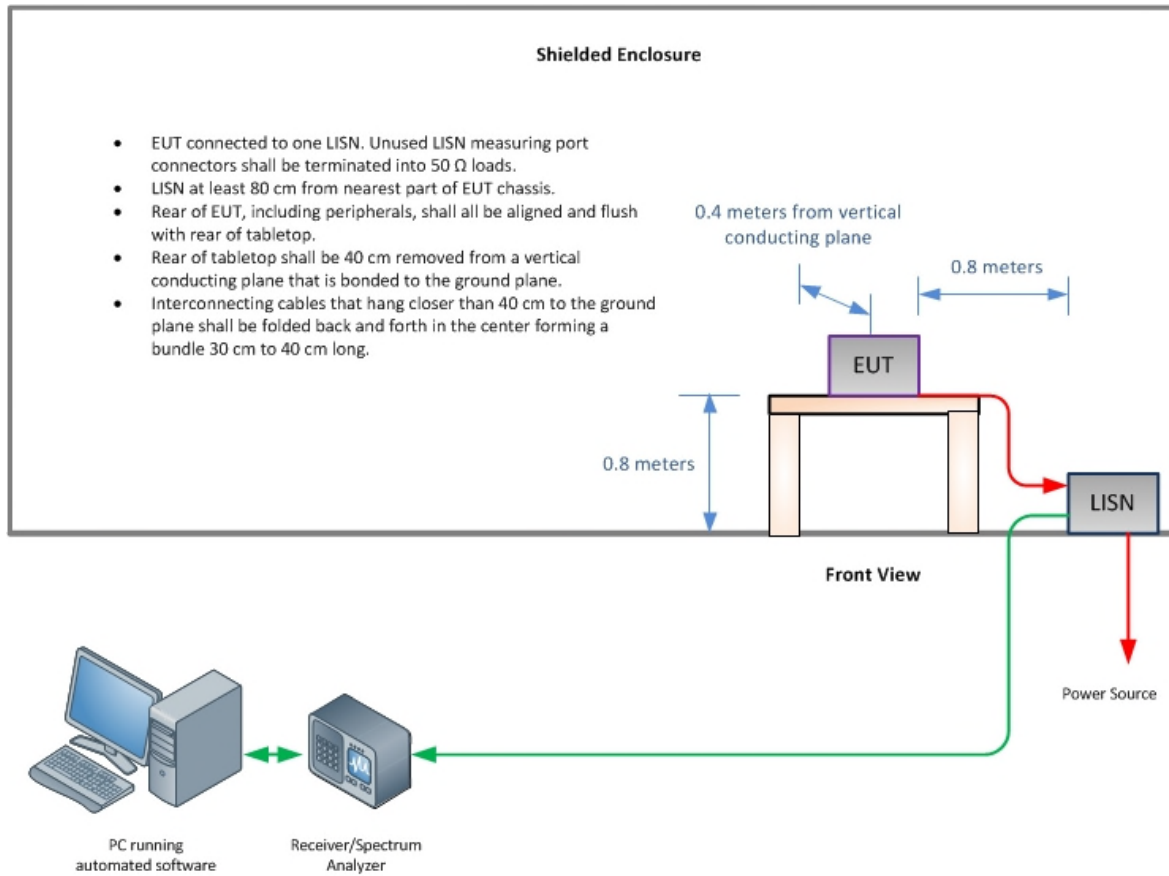
4.1 TEST SETUP DIAGRAM



Radiated Emission Test Setup (Below 1GHz)



Radiated Emission Test Setup (Above 1GHz)





SECTION 5

ACCREDITATION, DISCLAIMERS AND COPYRIGHT



5.1 ACCREDITATION, DISCLAIMERS AND COPYRIGHT

TÜV SÜD America Inc.'s reports apply only to the specific sample tested under stated test conditions. It is the manufacturer's responsibility to assure the continued compliance of production units of this model. TÜV SÜD America, Inc. shall have no liability for any deductions, inferences or generalizations drawn by the client or others from TÜV SÜD America, Inc.'s issued reports.

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