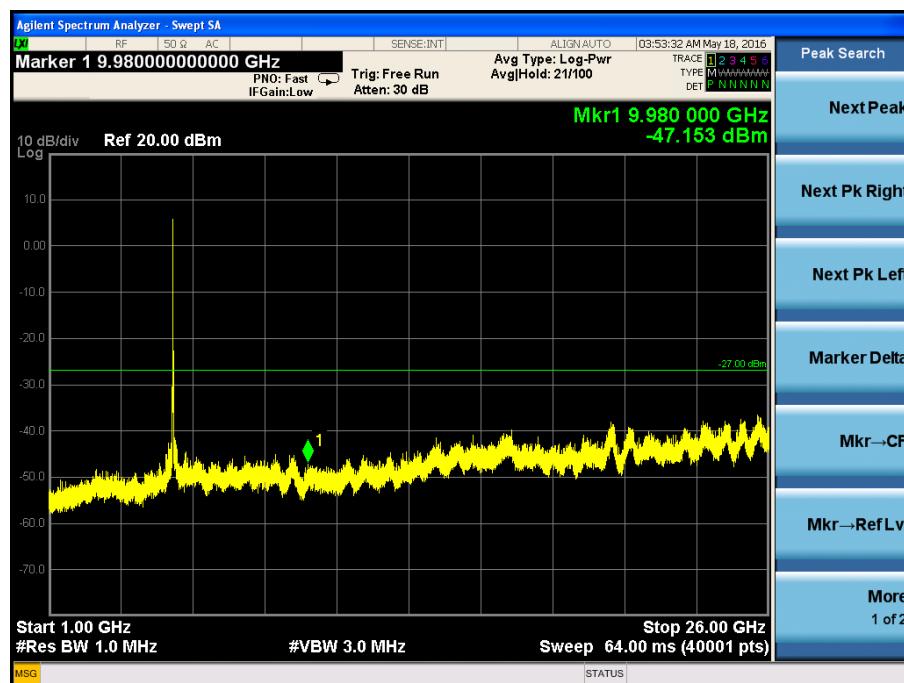
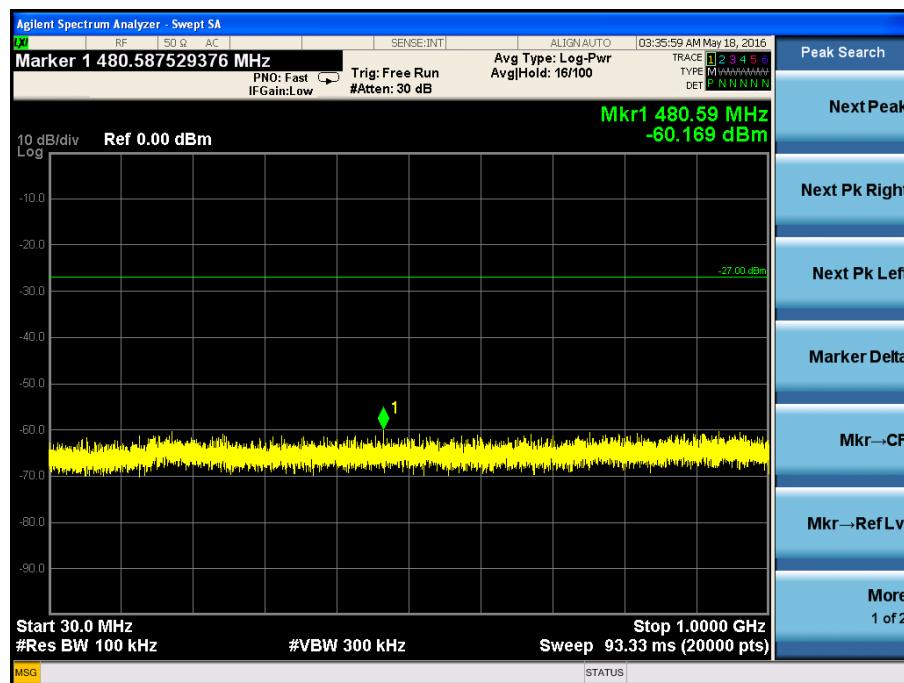
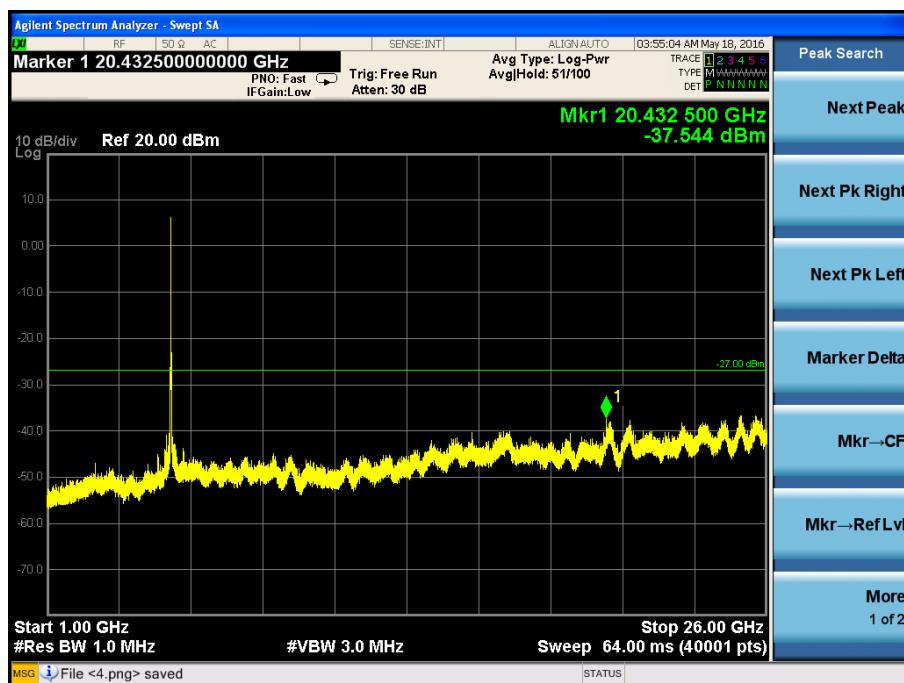
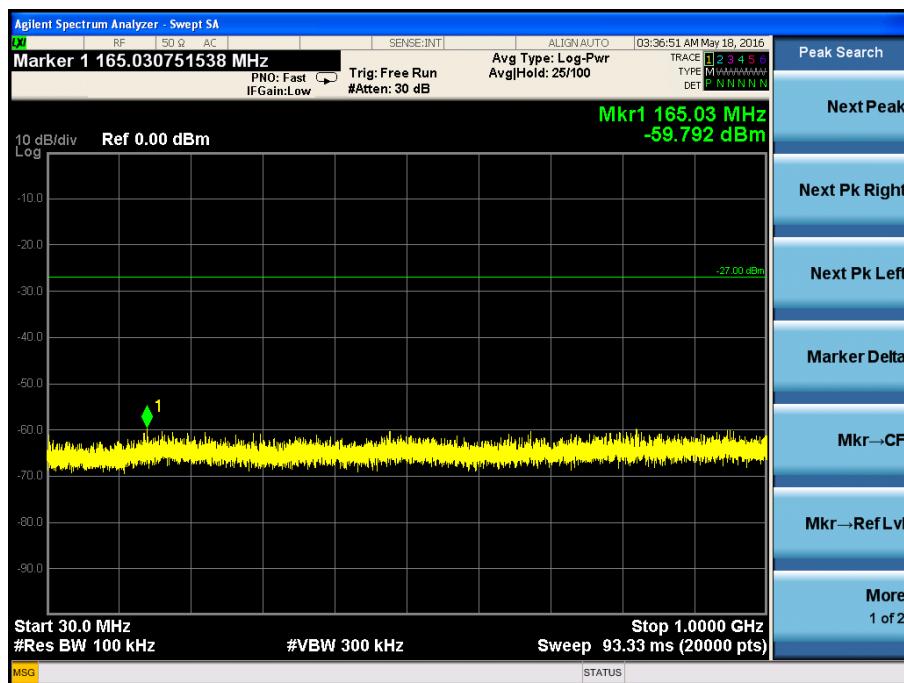


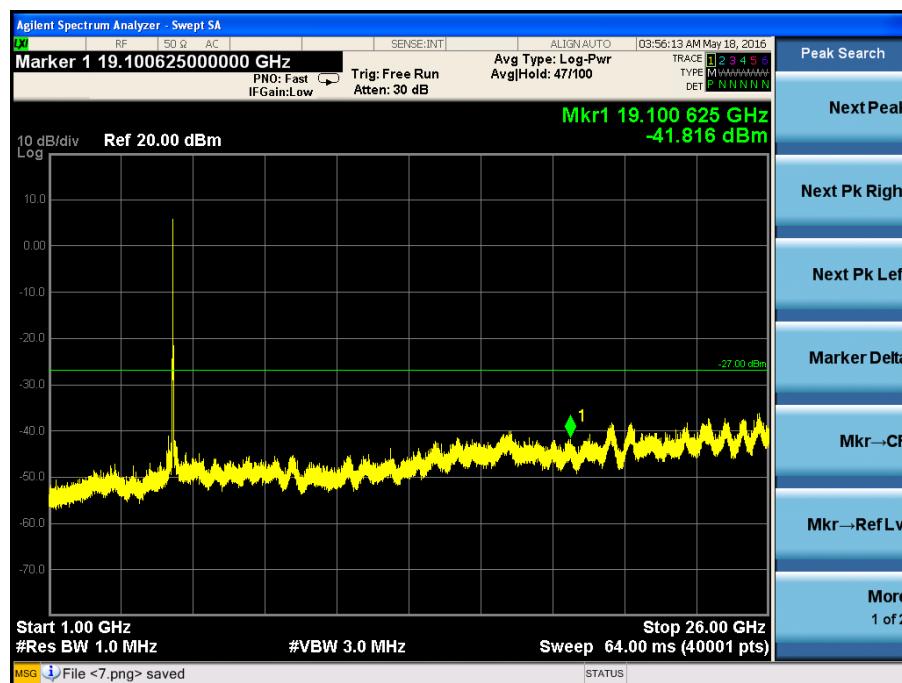
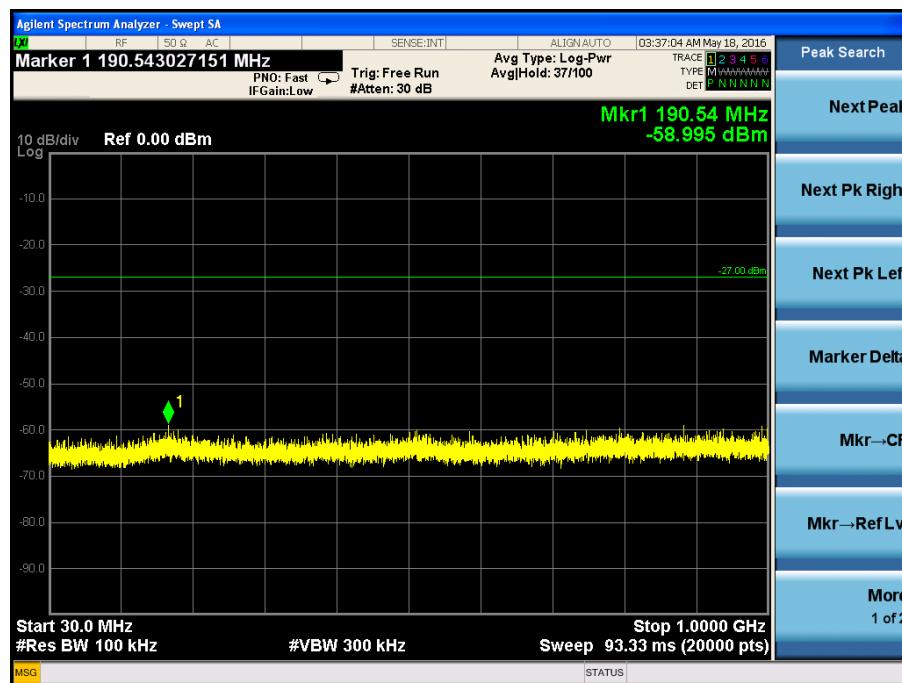
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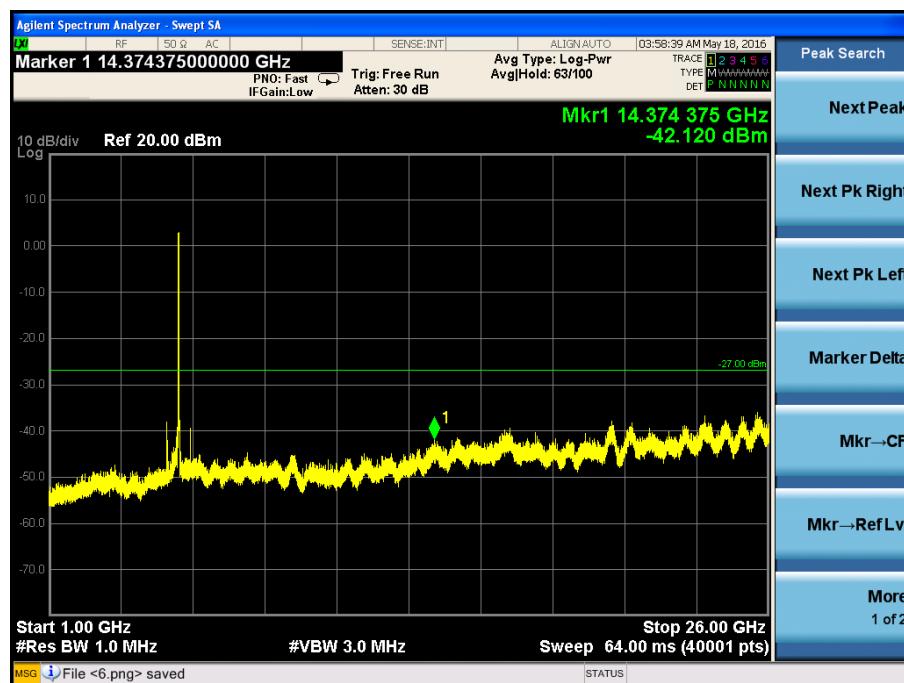
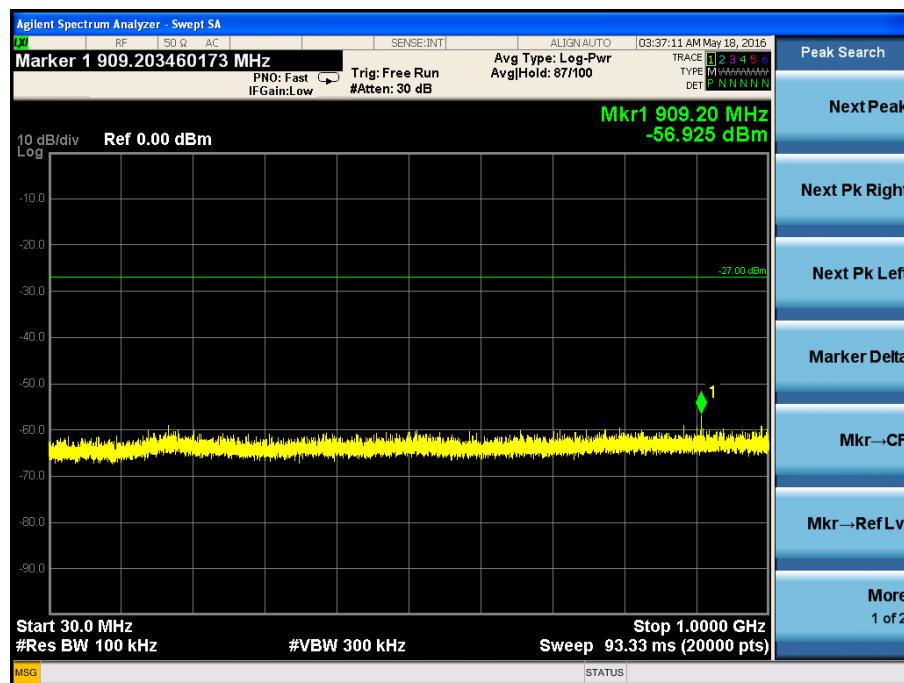
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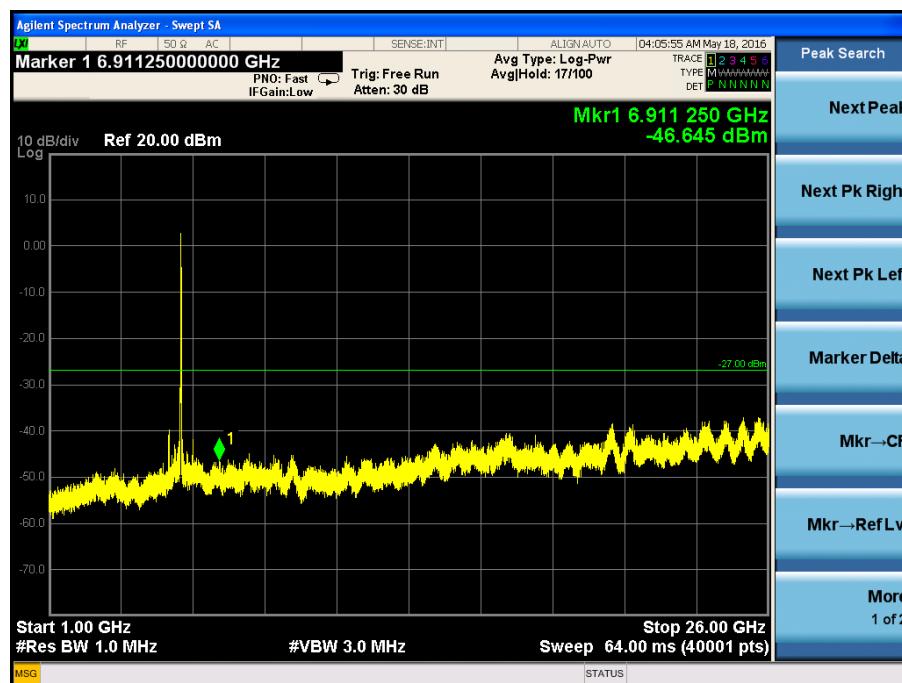
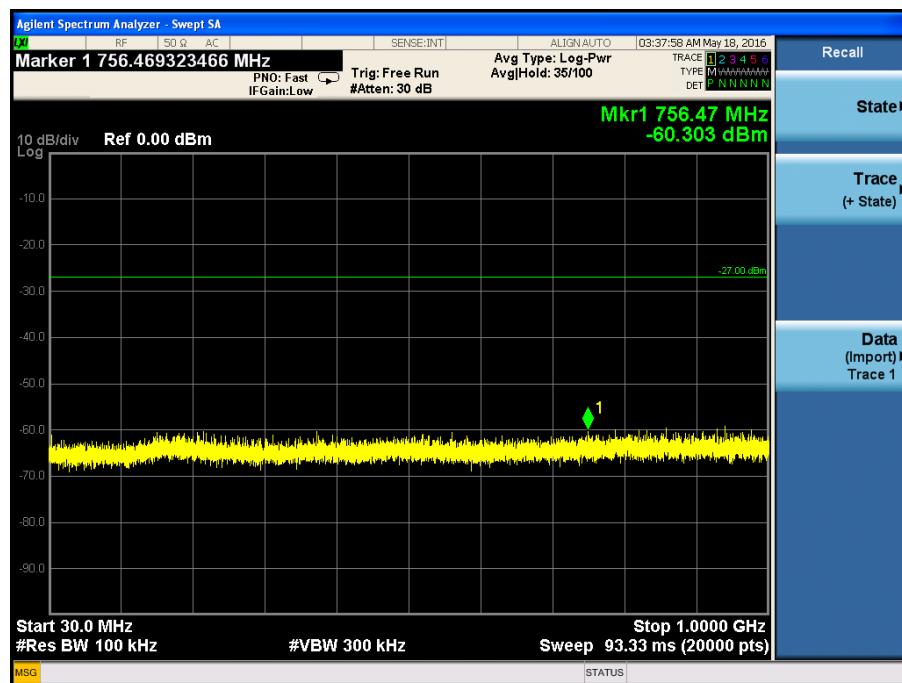
5500MHz



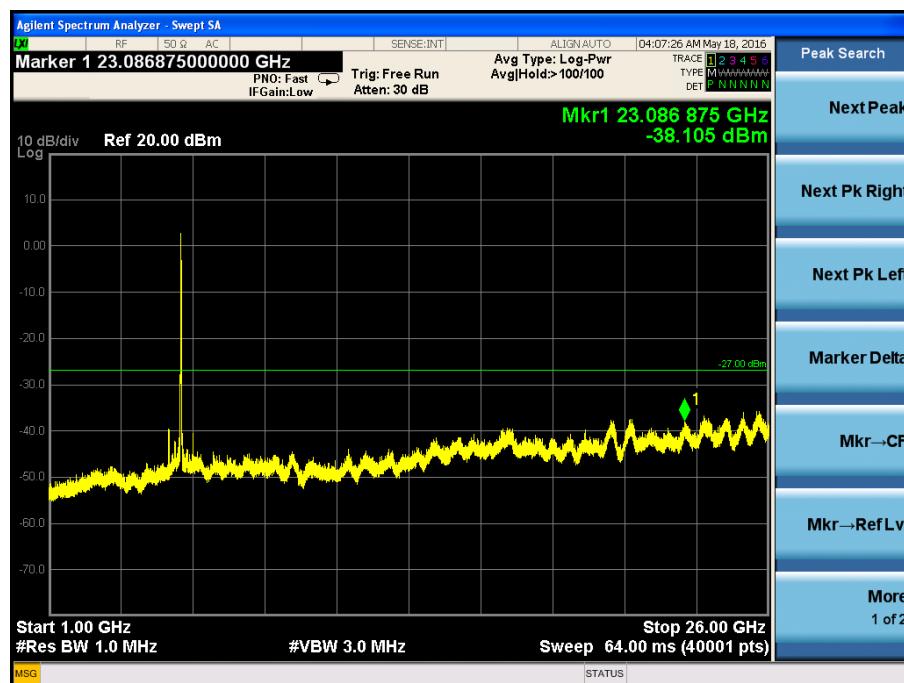
5580MHz



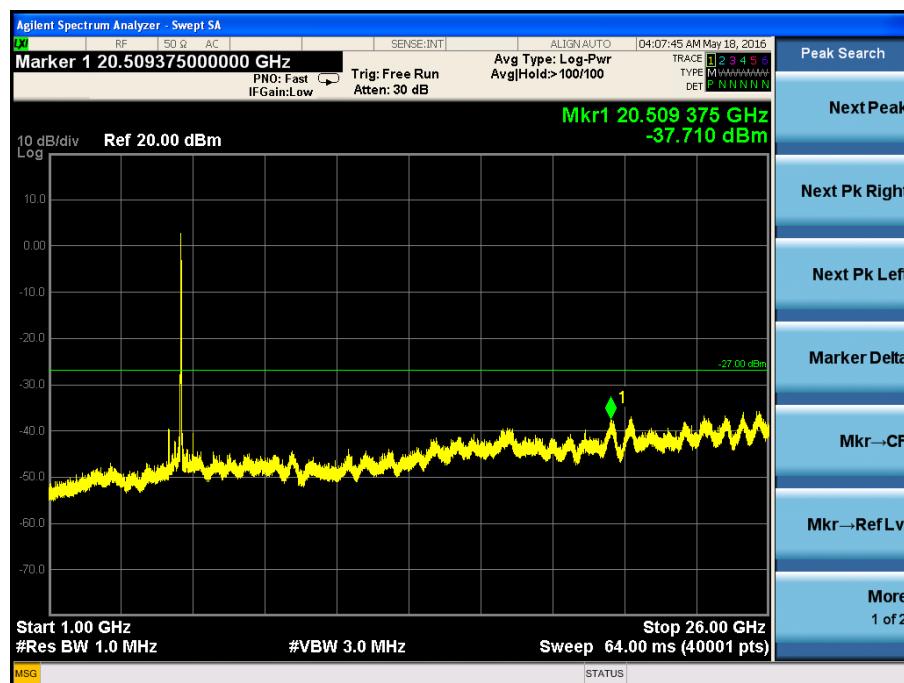
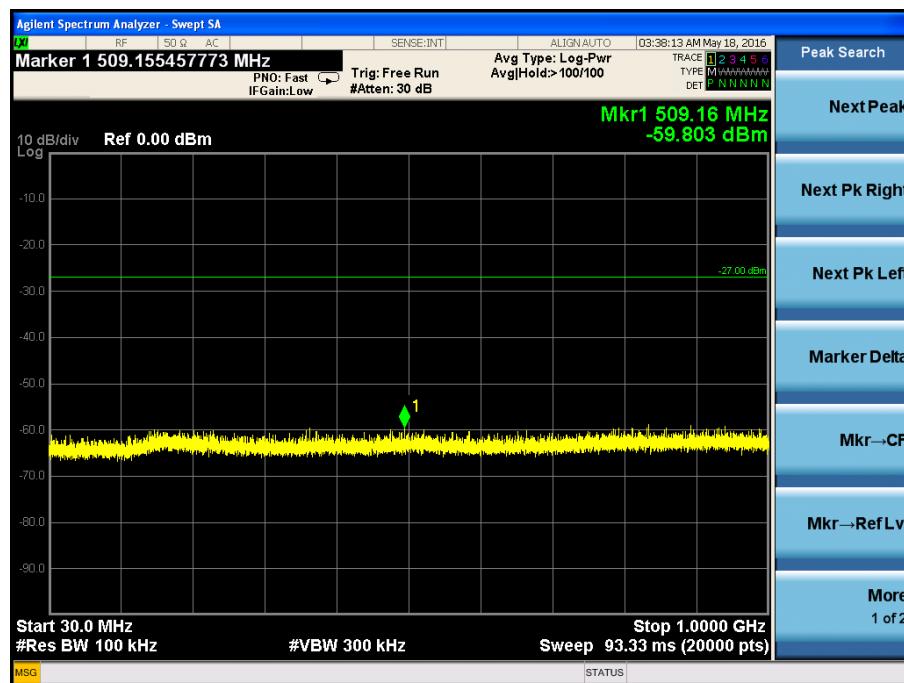
5700MHz



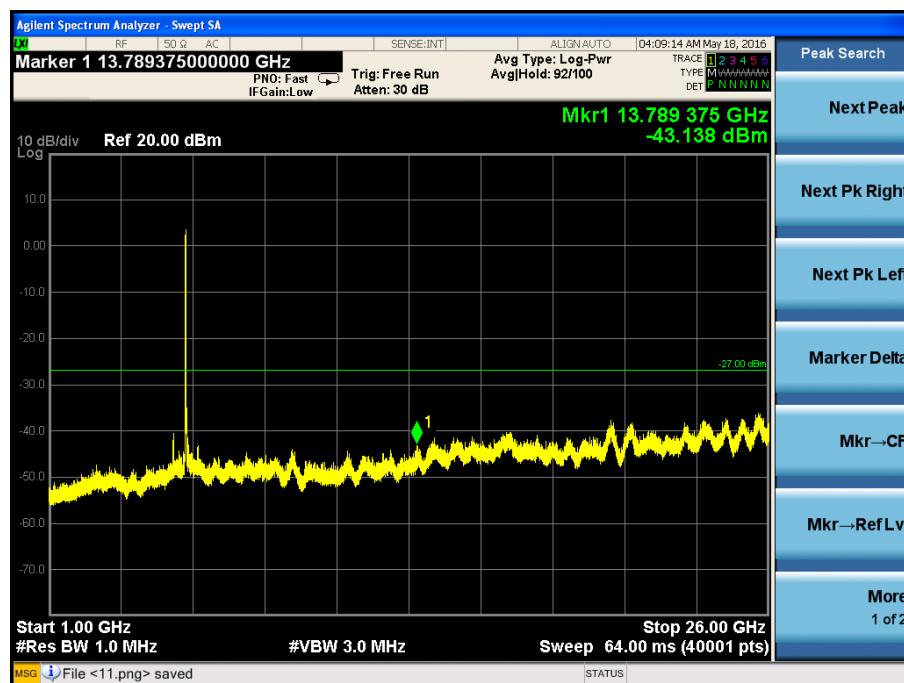
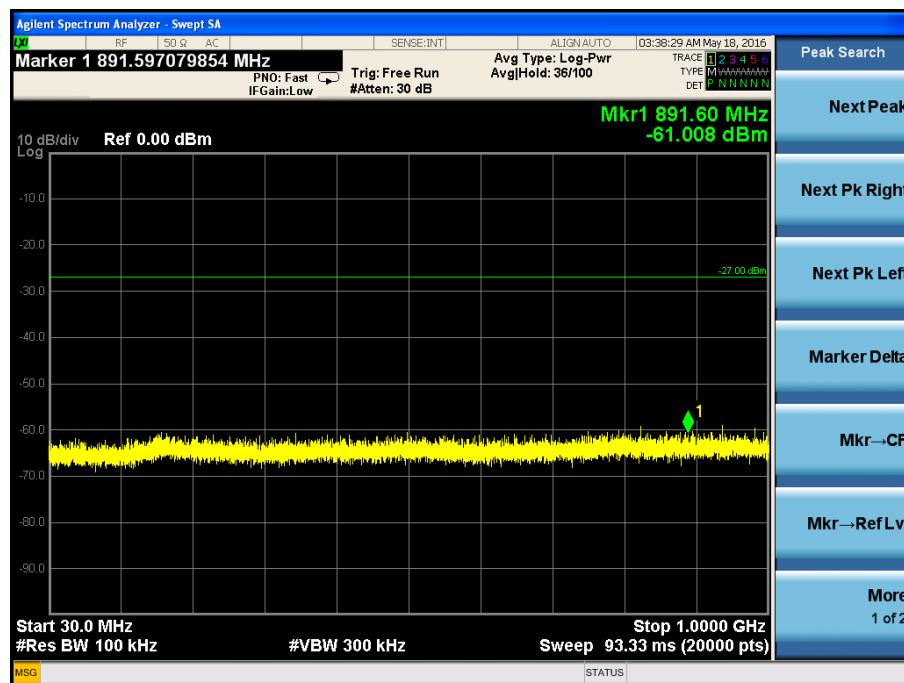
5745MHz



5785MHz

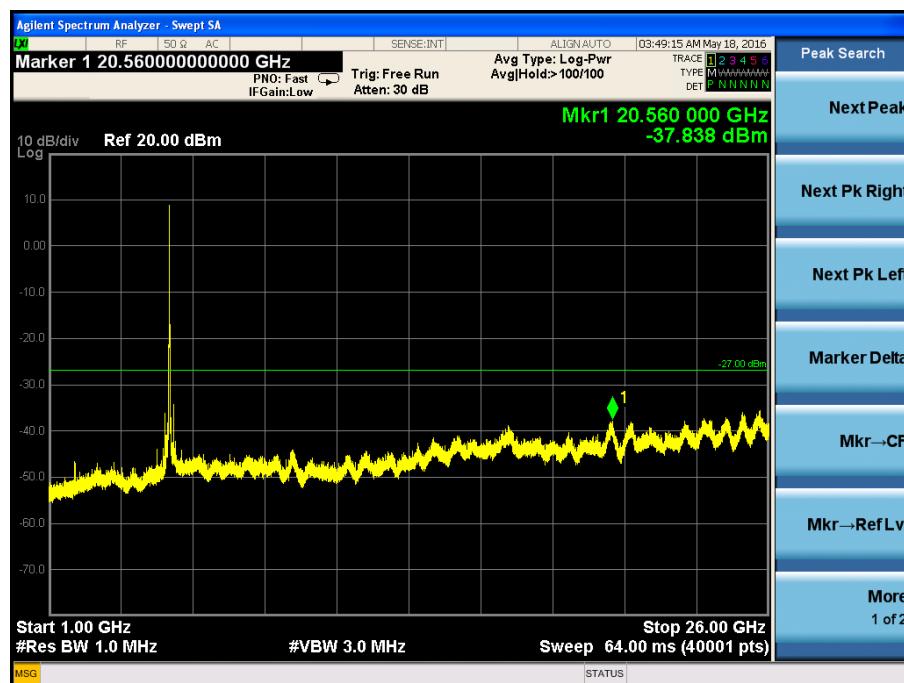
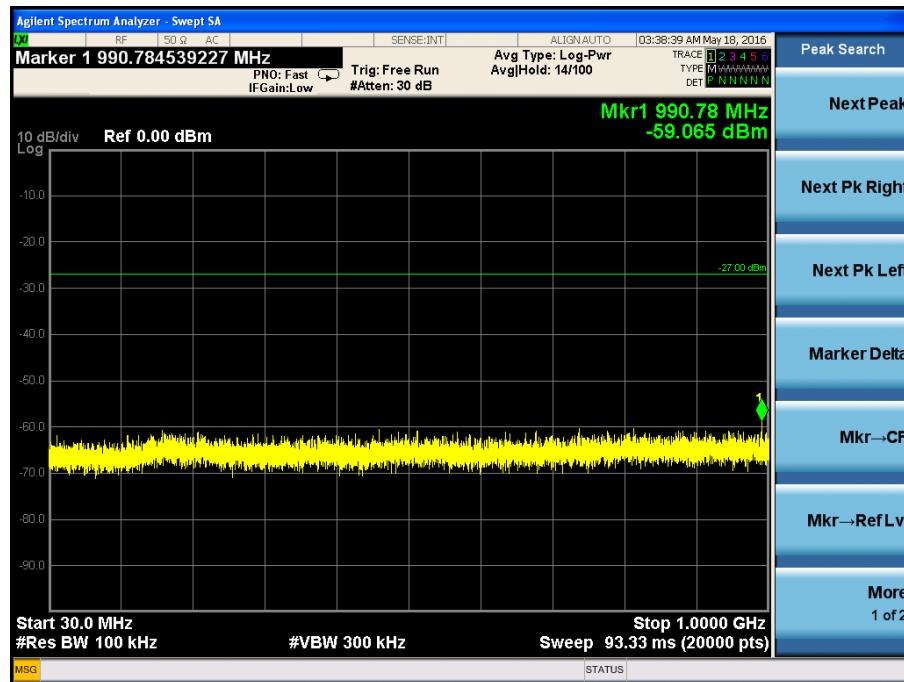


5825MHz

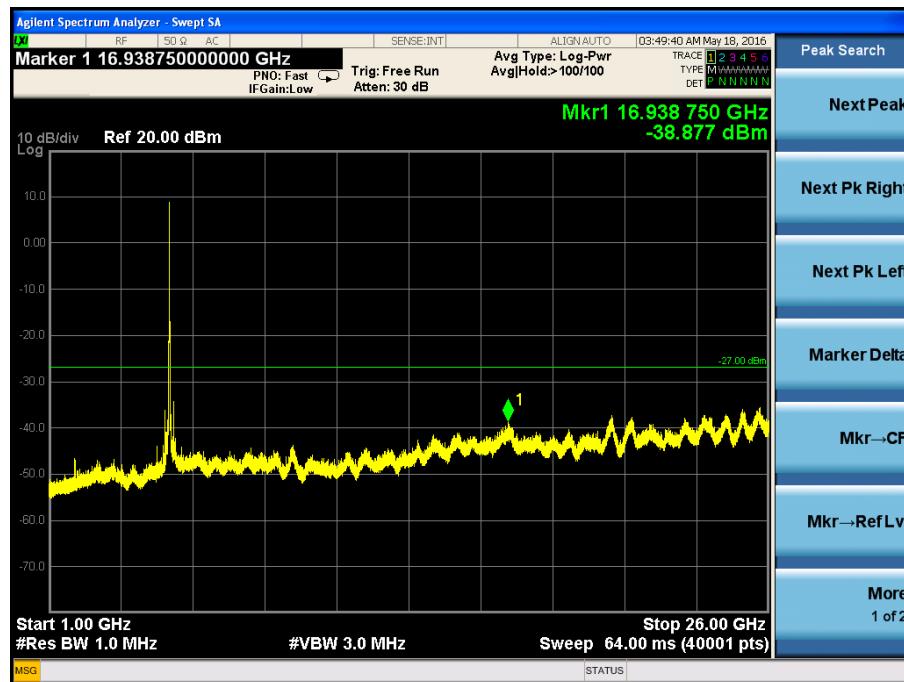
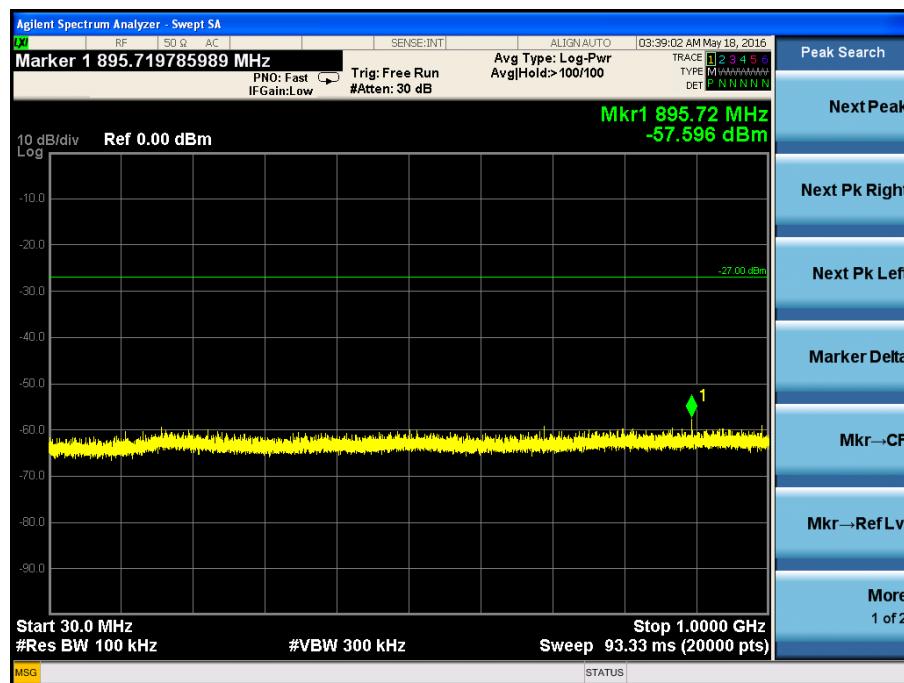


802.11n-HT20

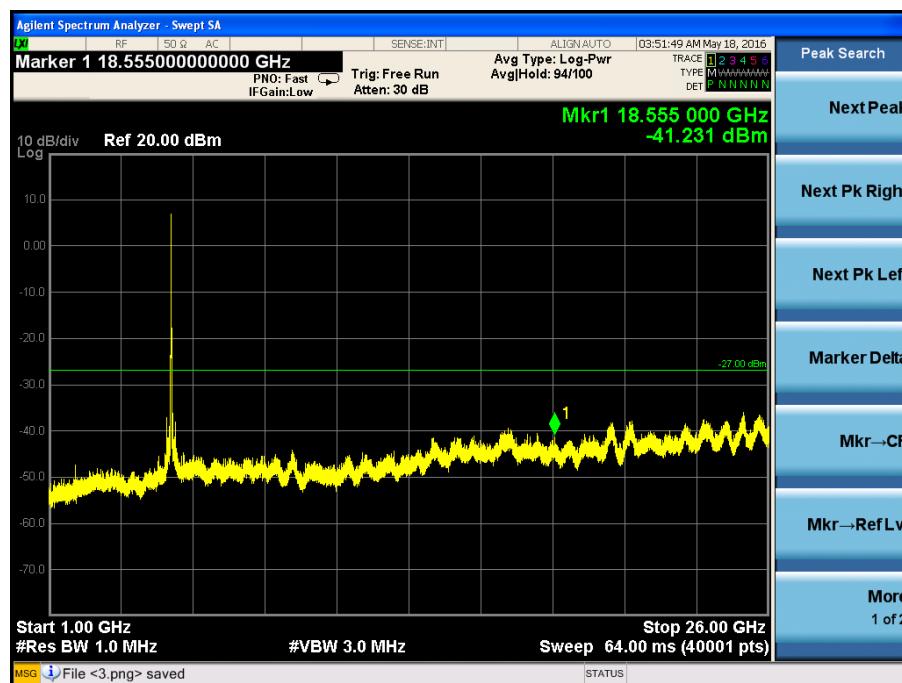
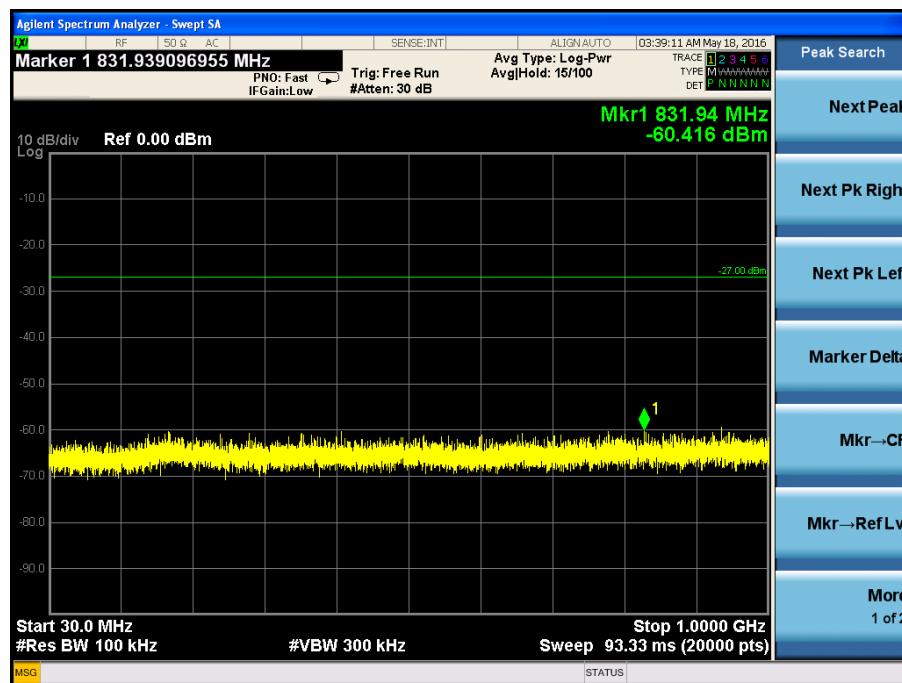
5180MHz



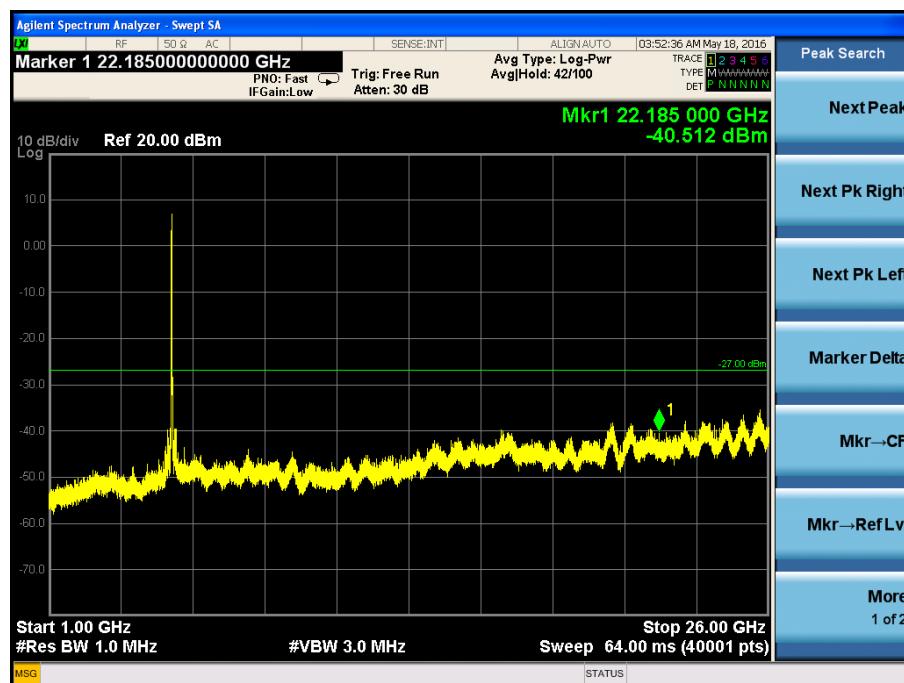
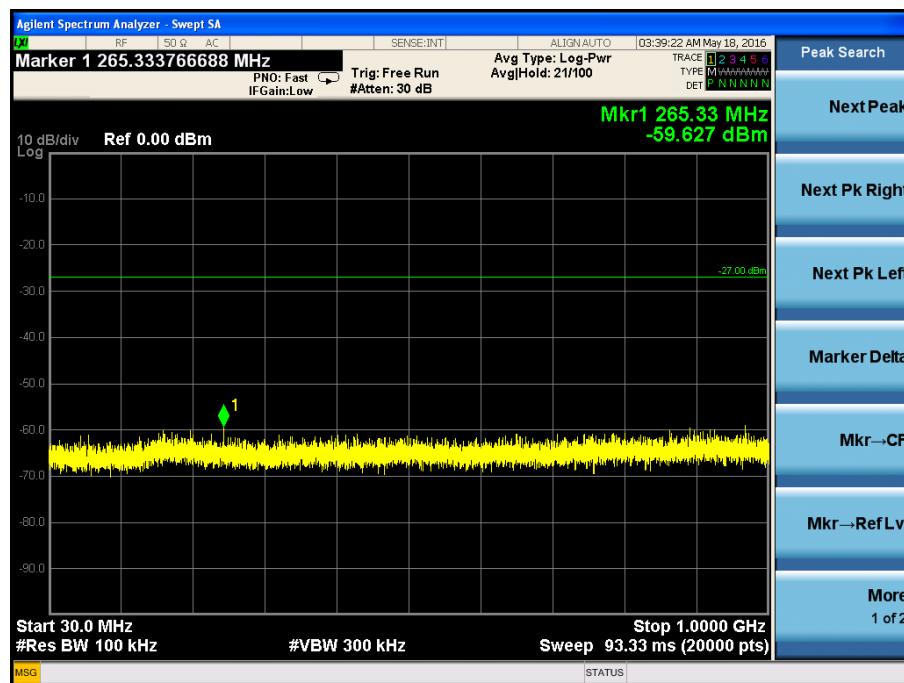
5200MHz



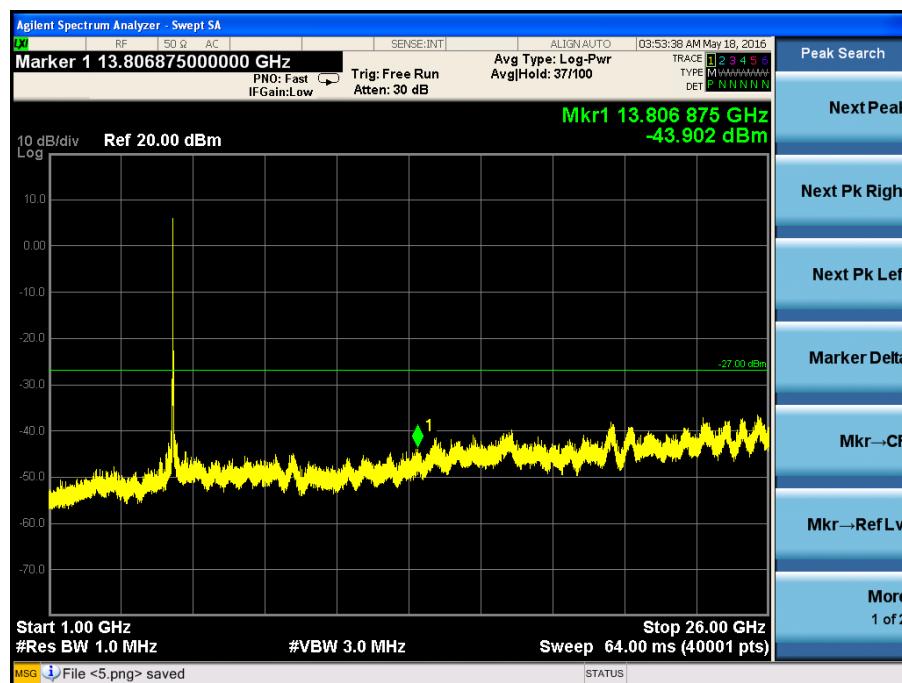
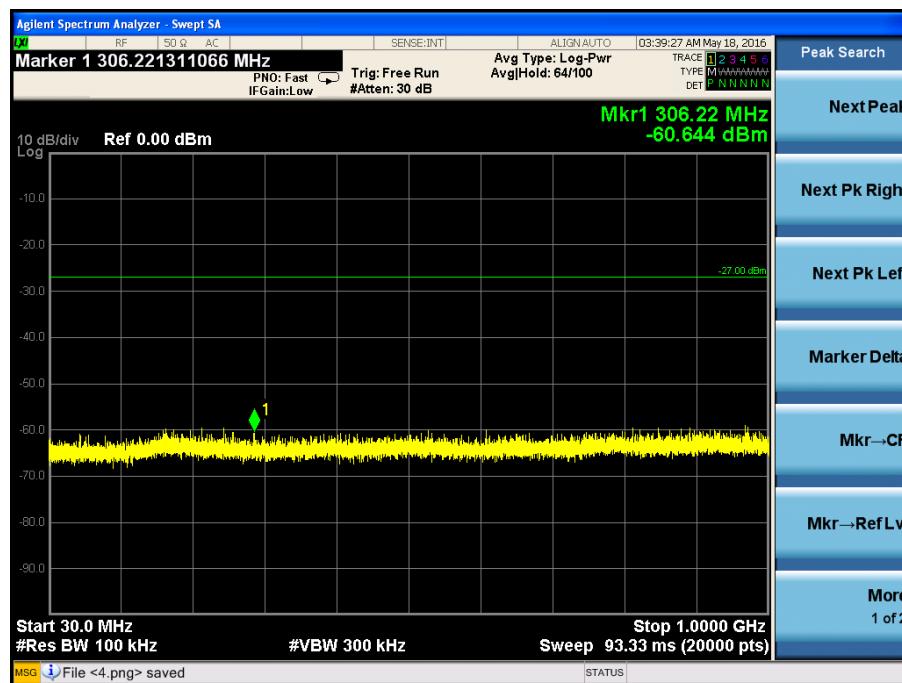
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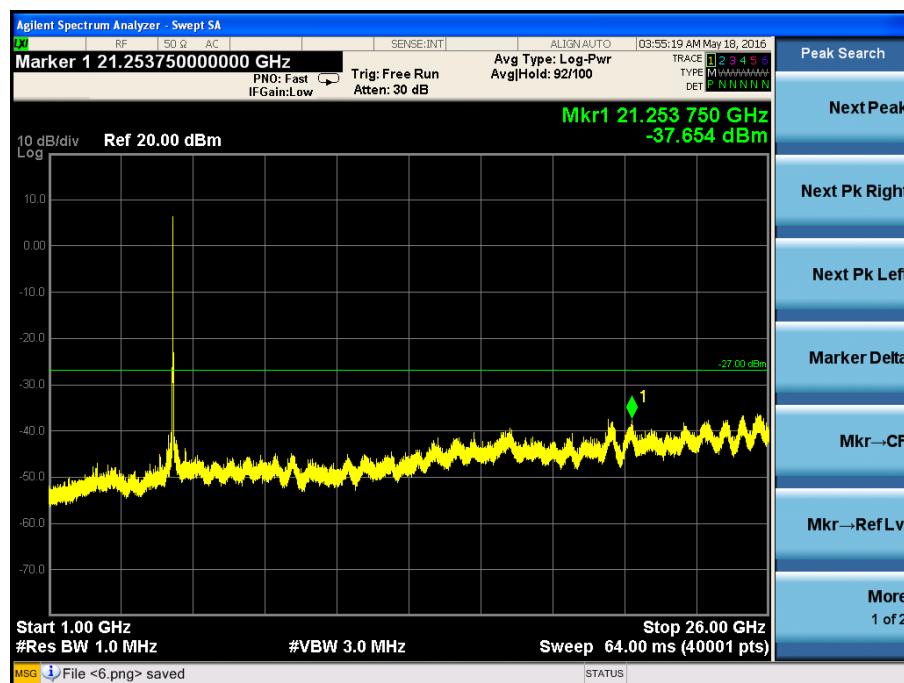
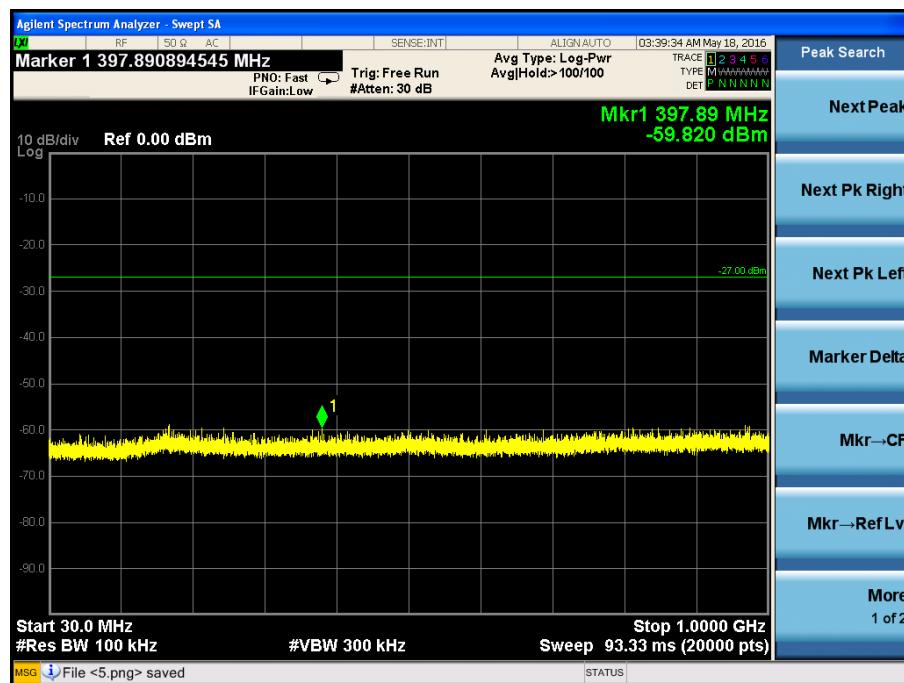
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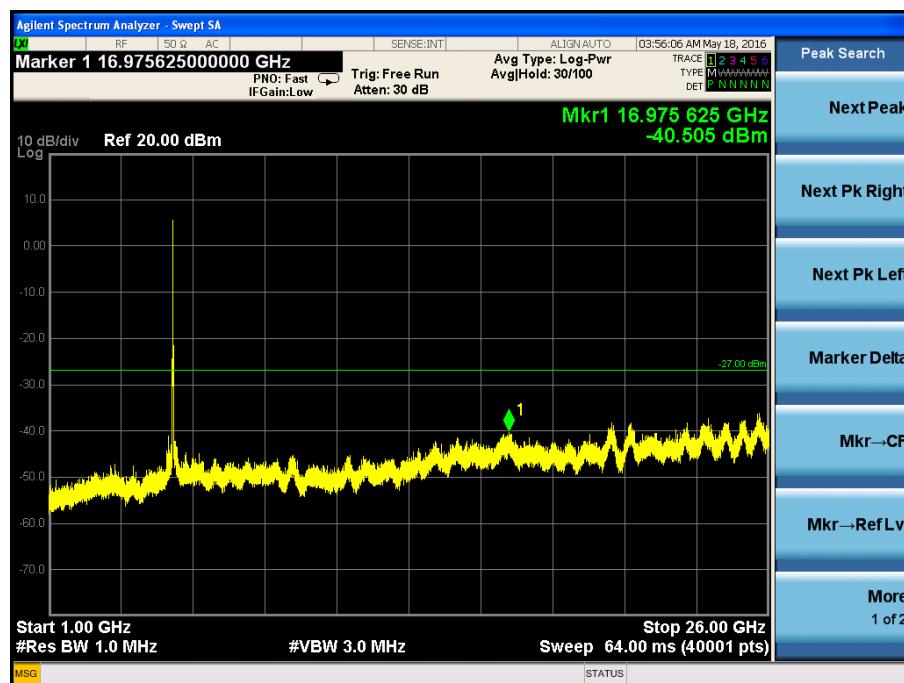
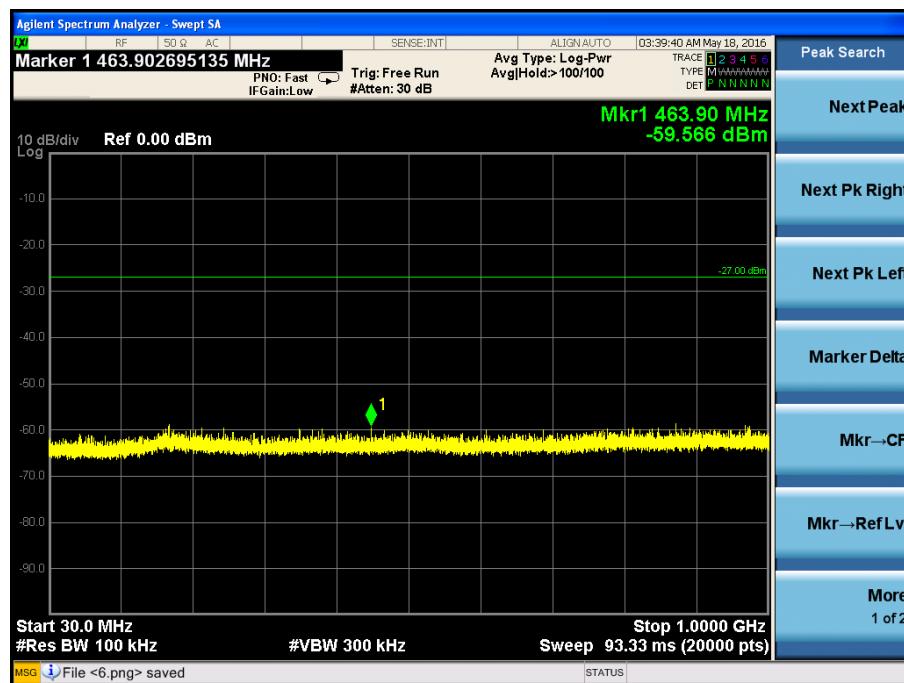
5300MHz



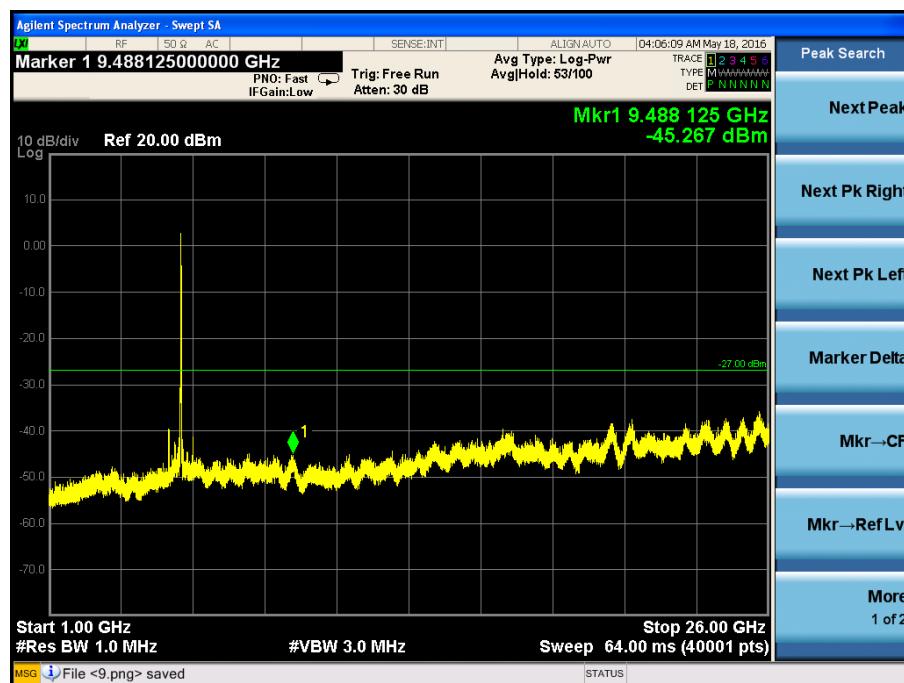
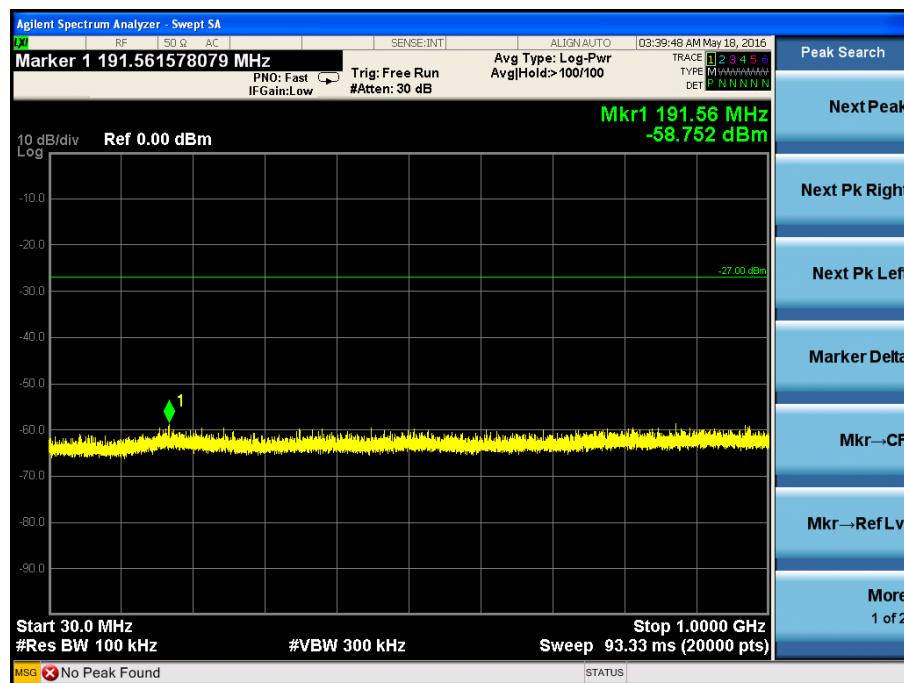
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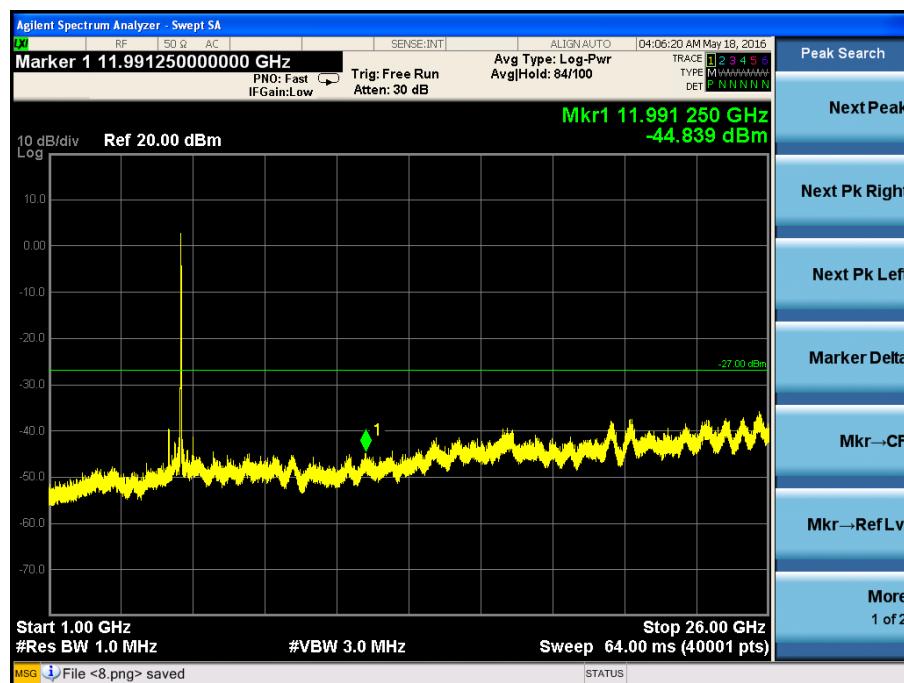
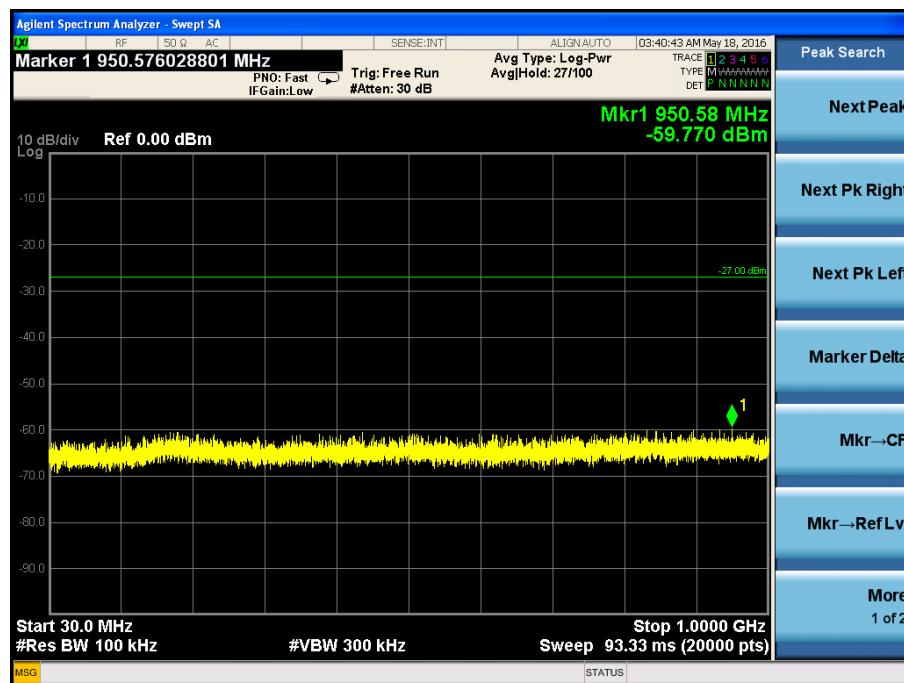
5500MHz



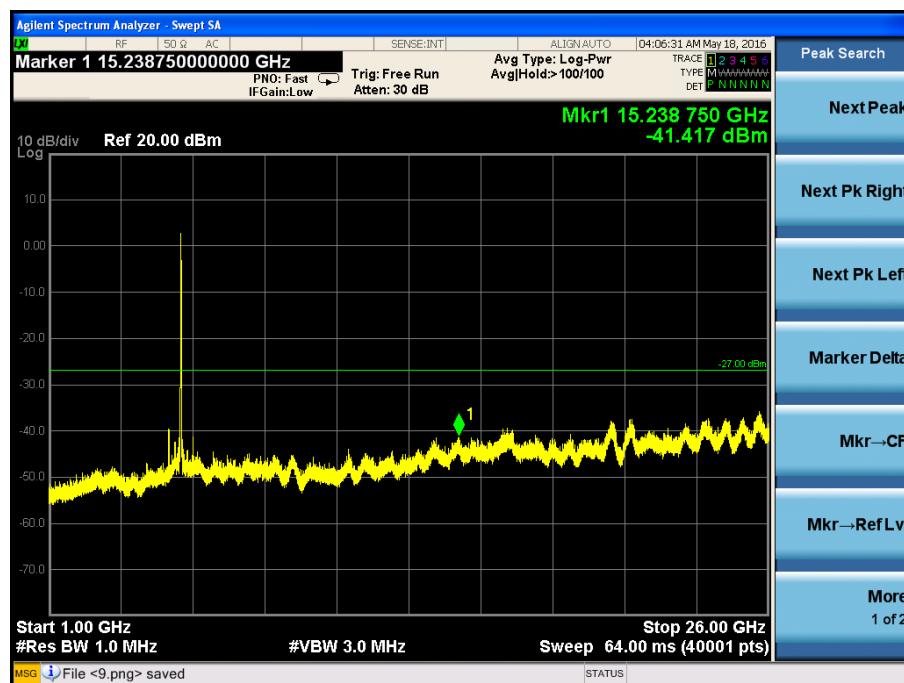
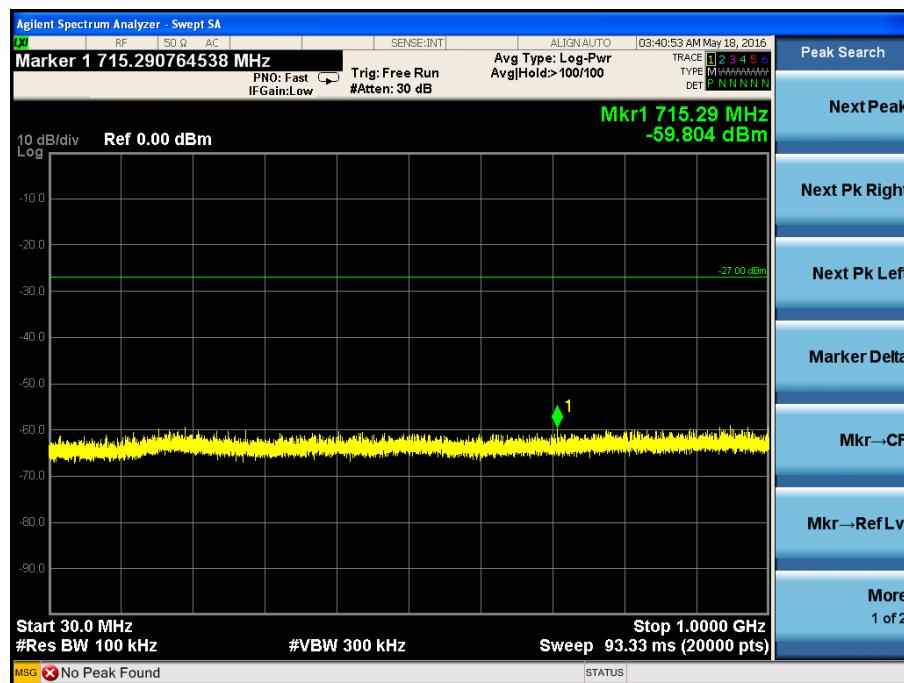
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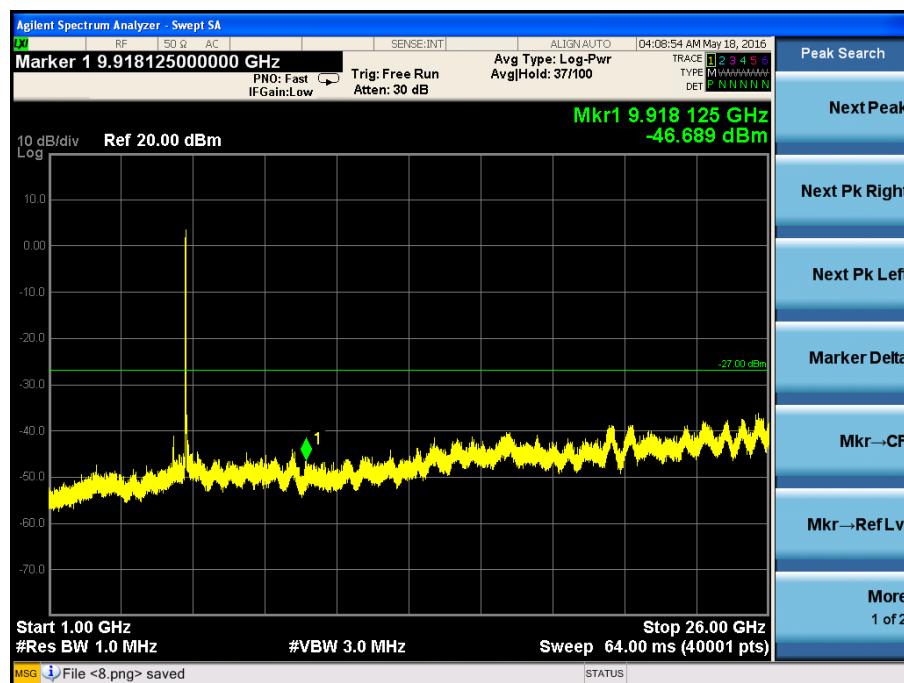
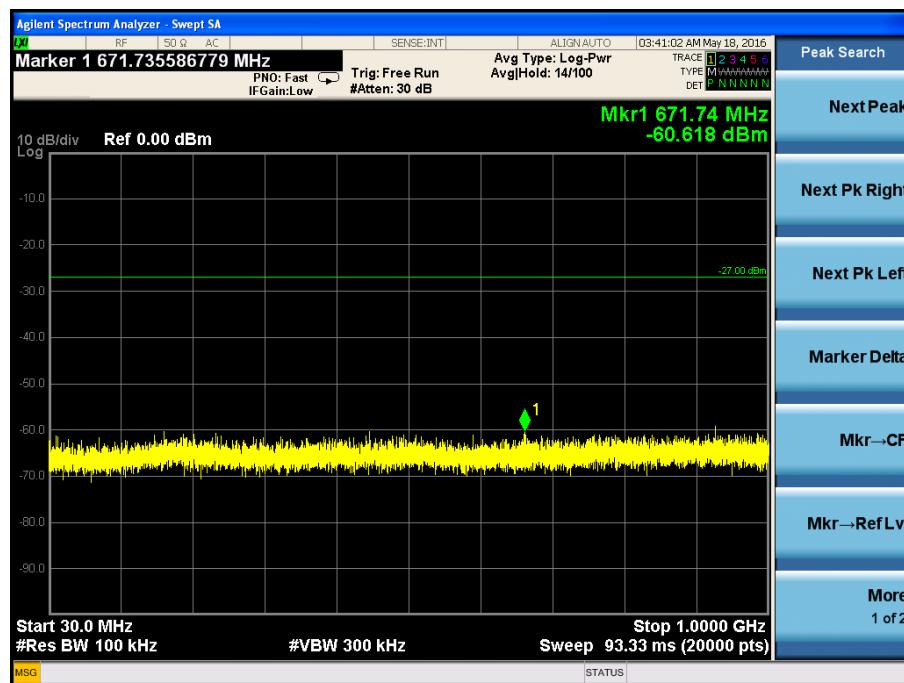
5700MHz



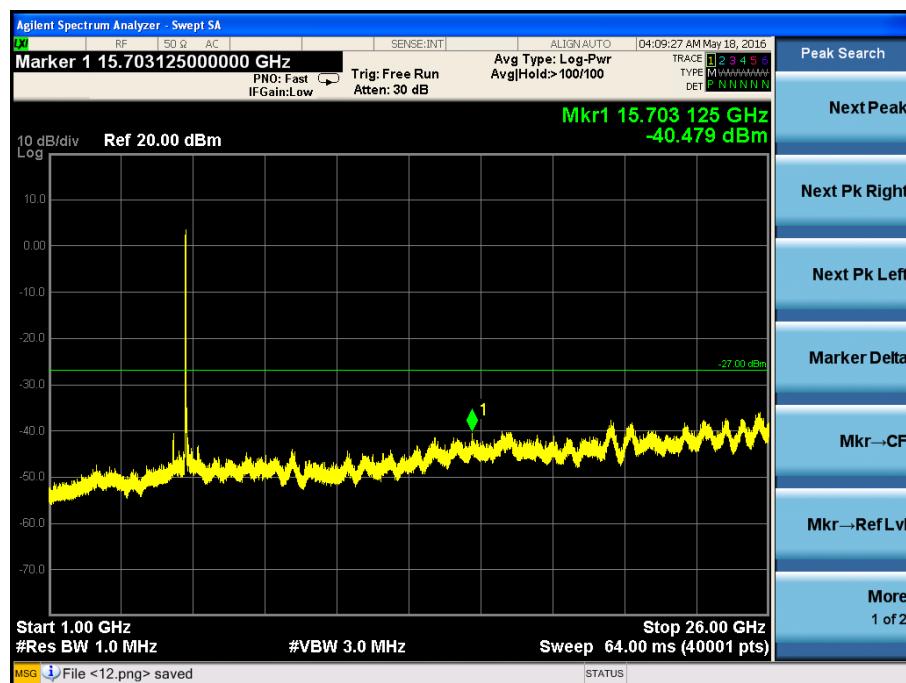
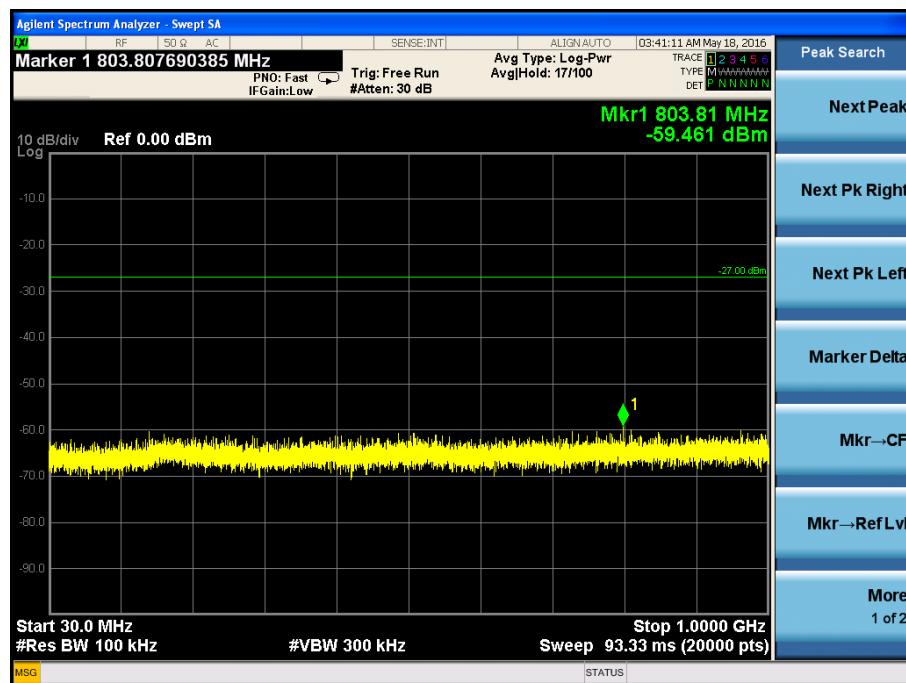
5745MHz



5785MHz

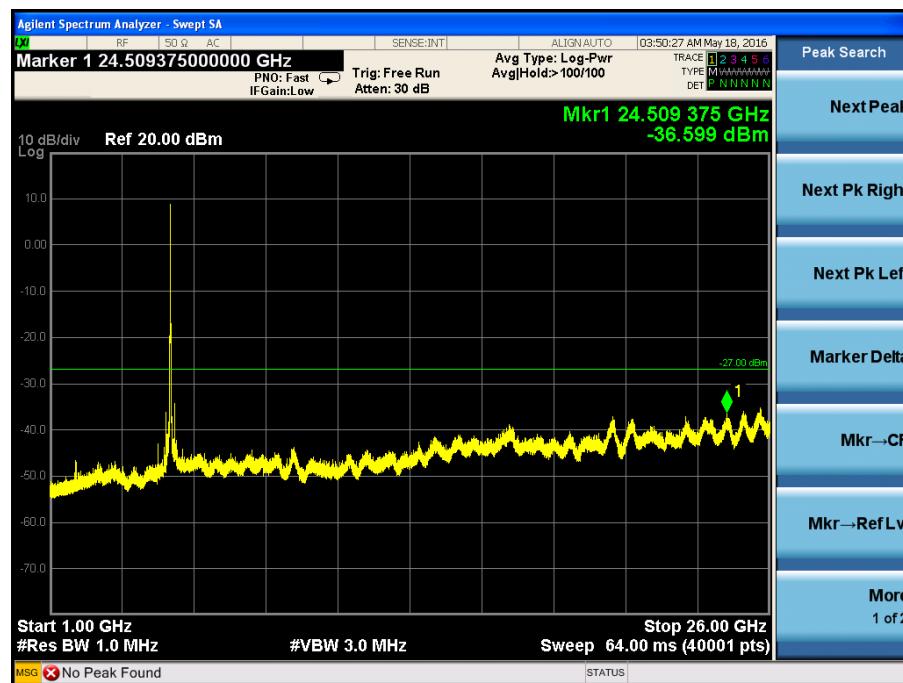


5825MHz

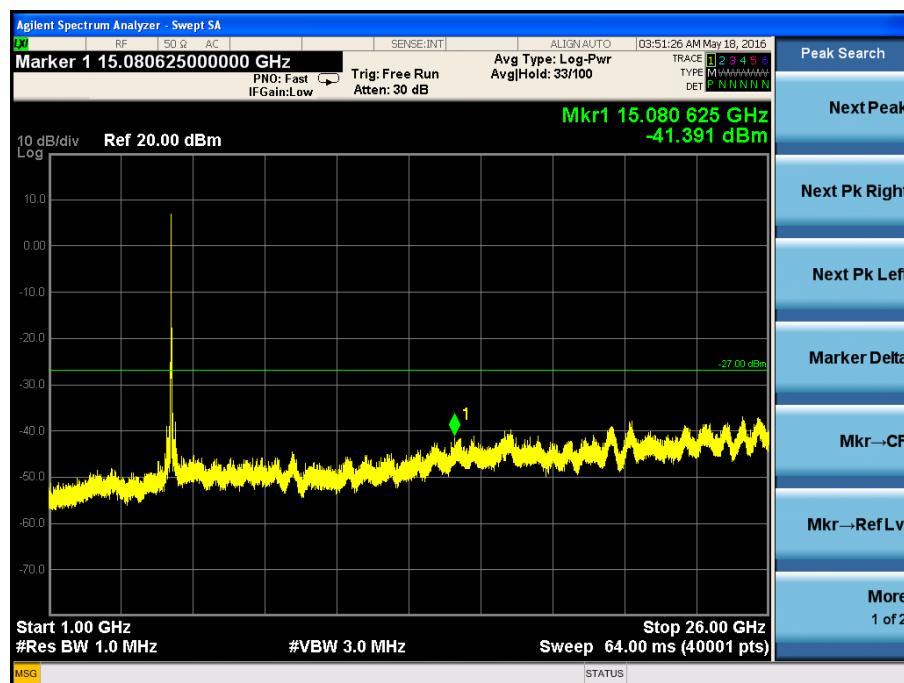
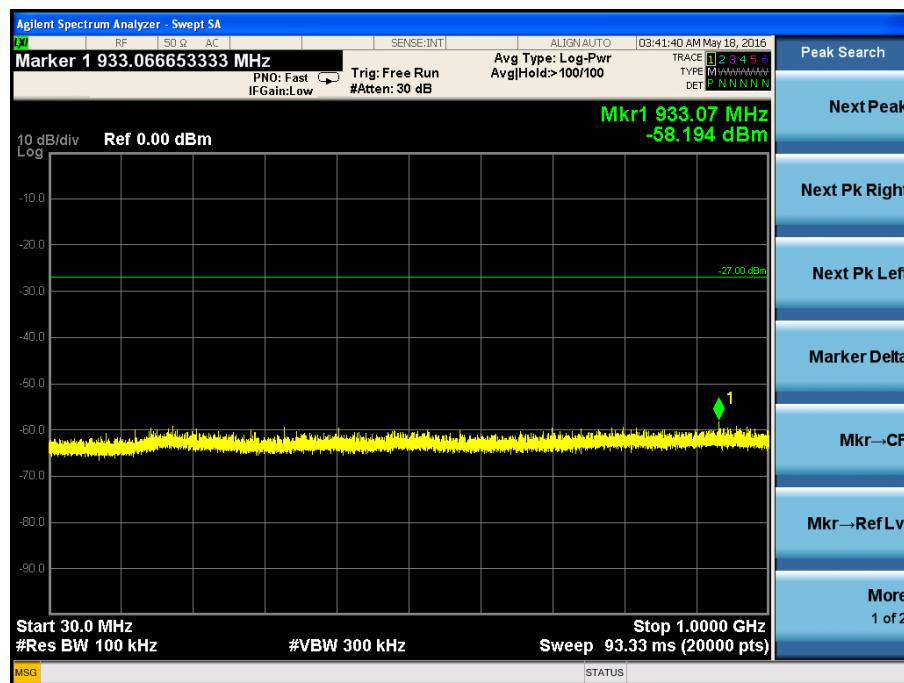


802.11n-HT40

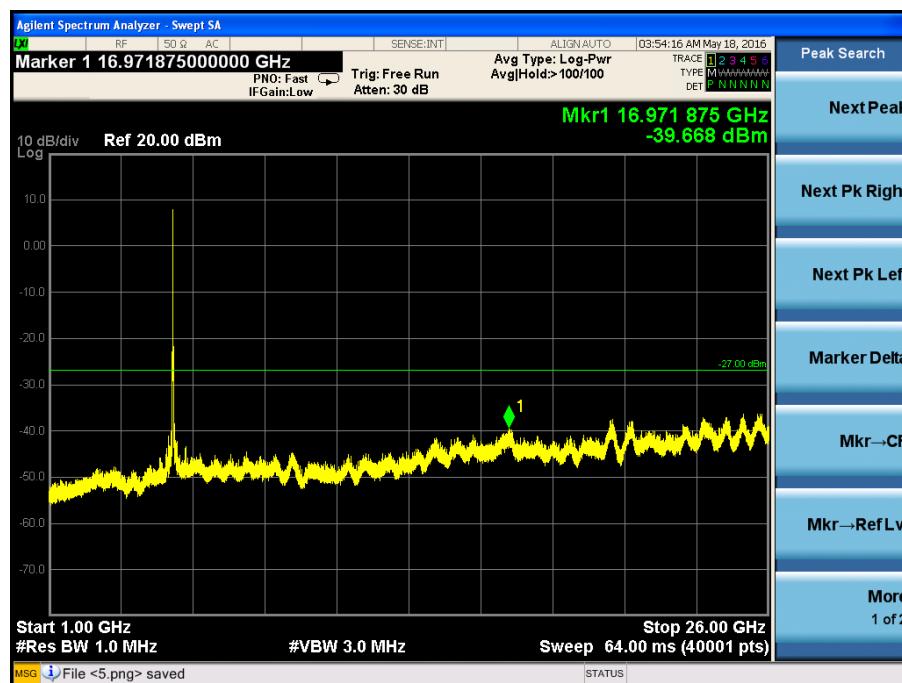
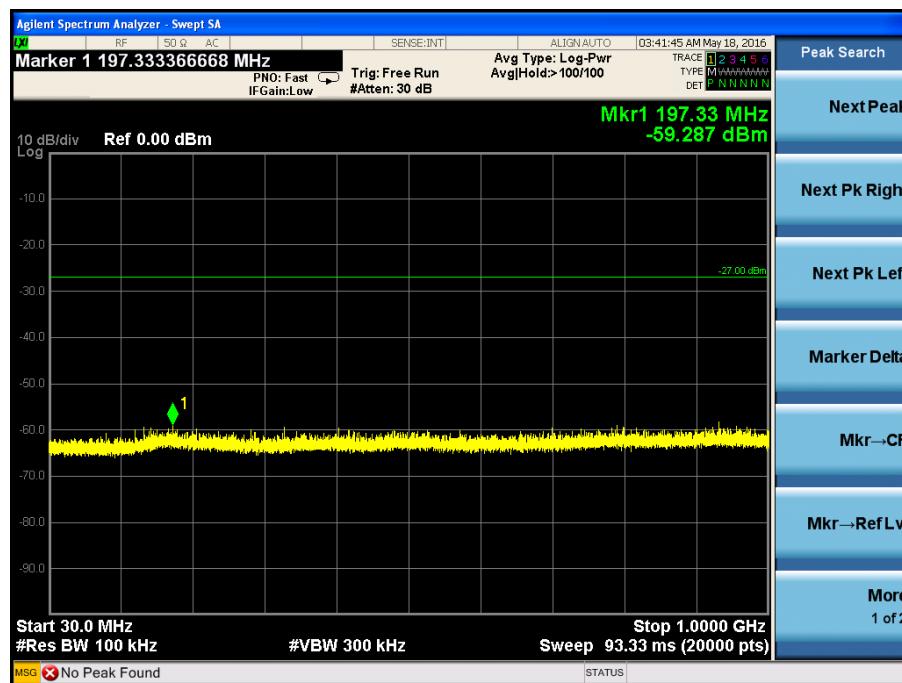
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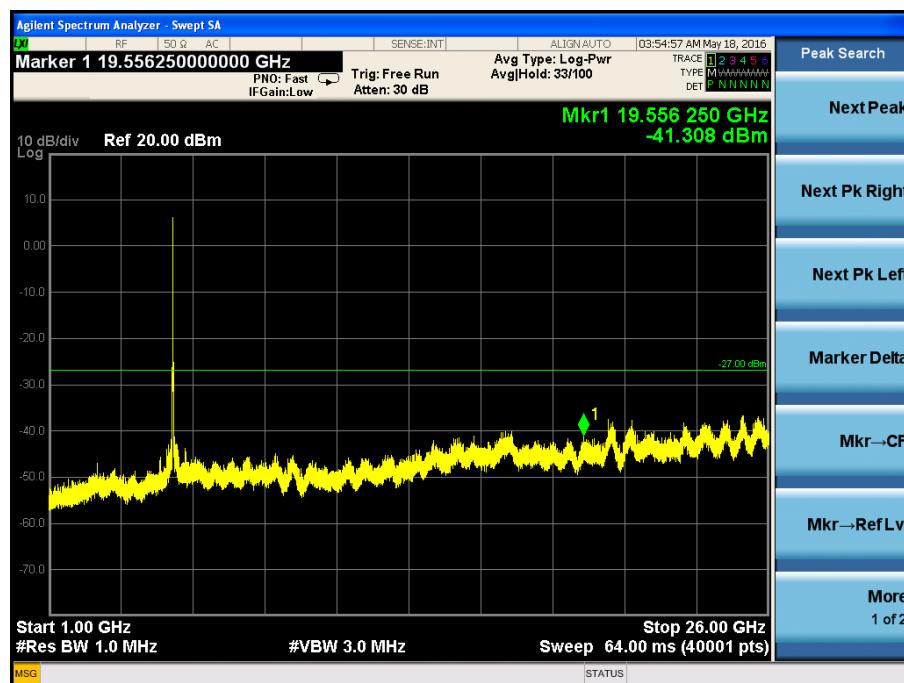
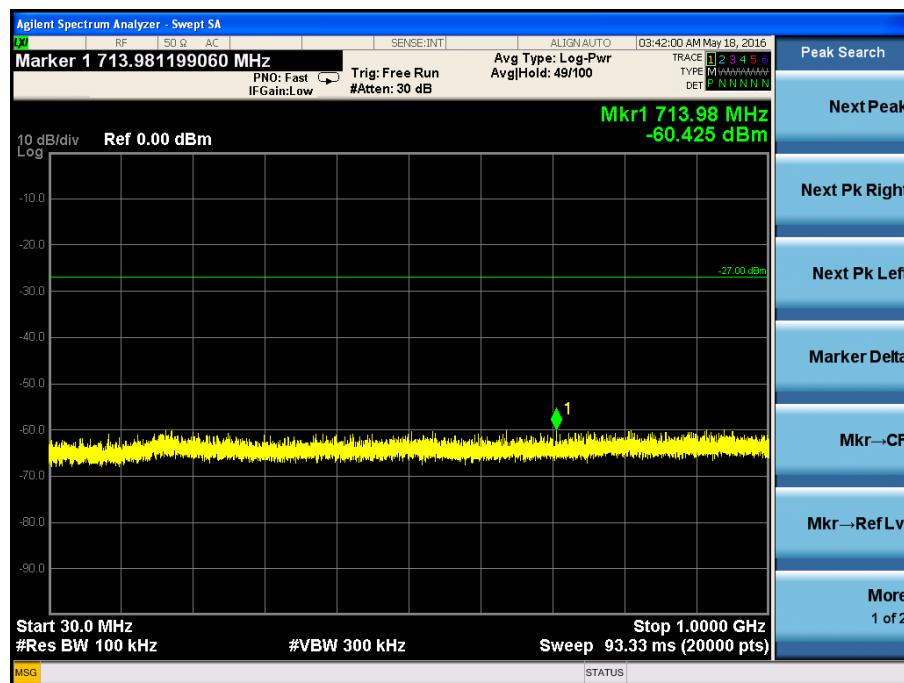
5230MHz



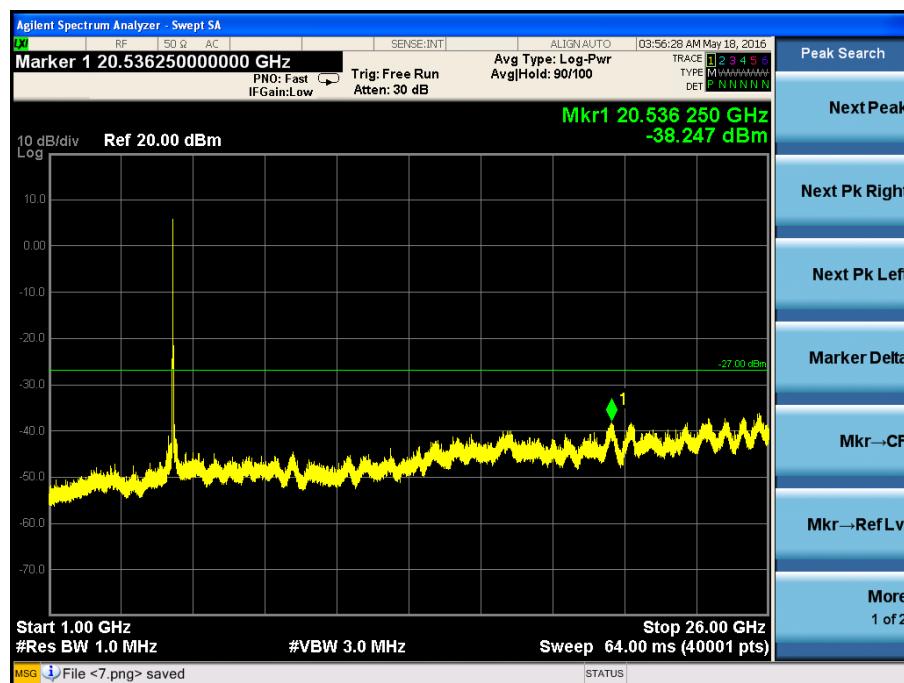
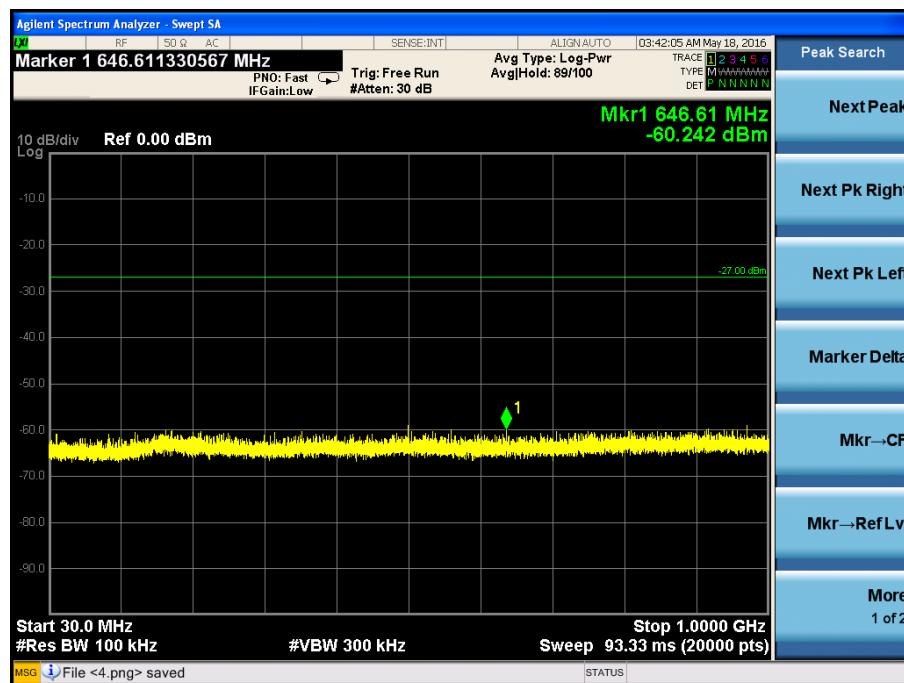
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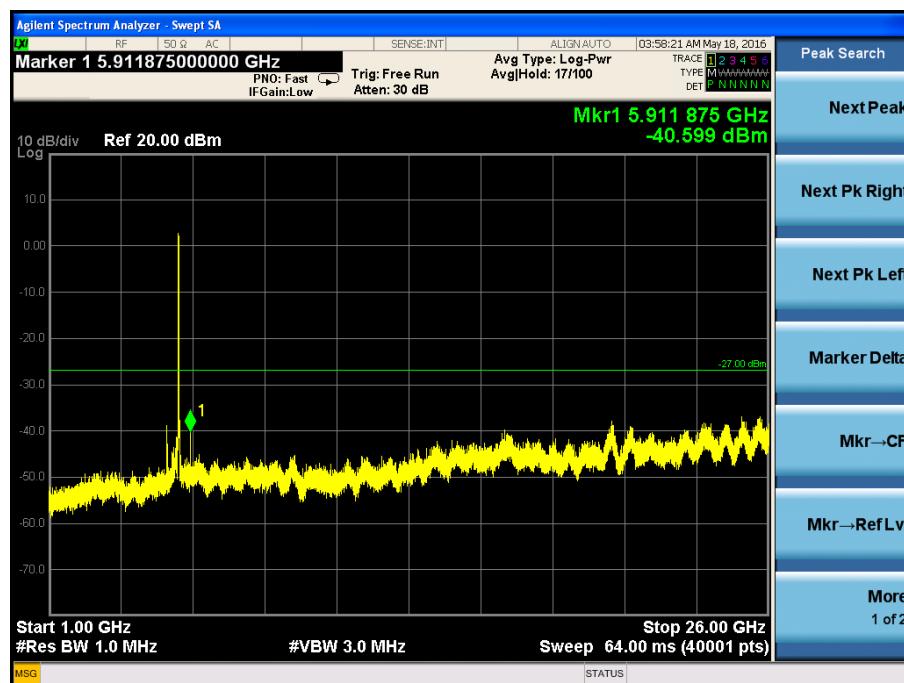
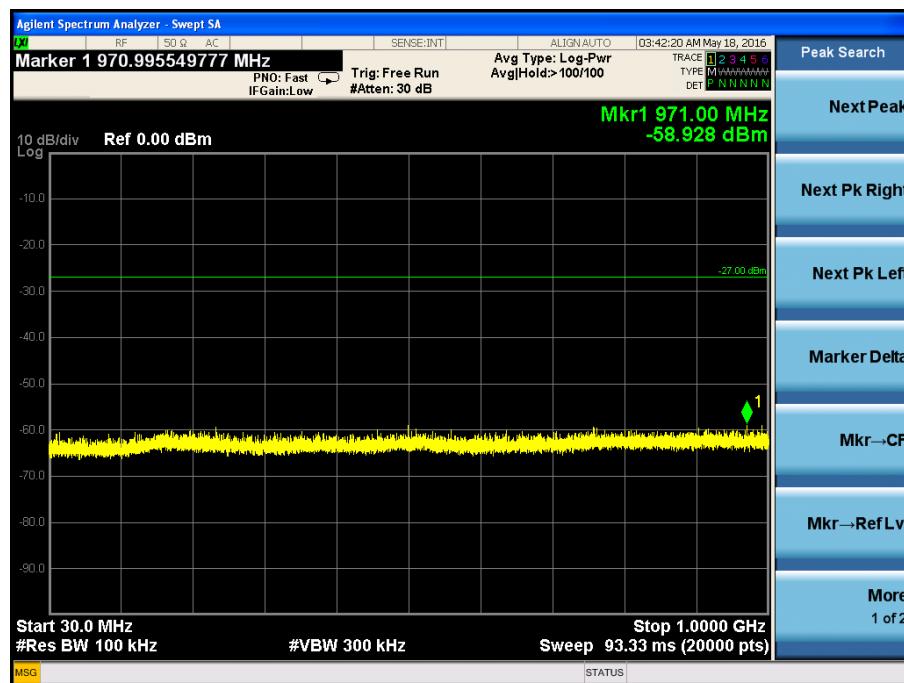
5310MHz



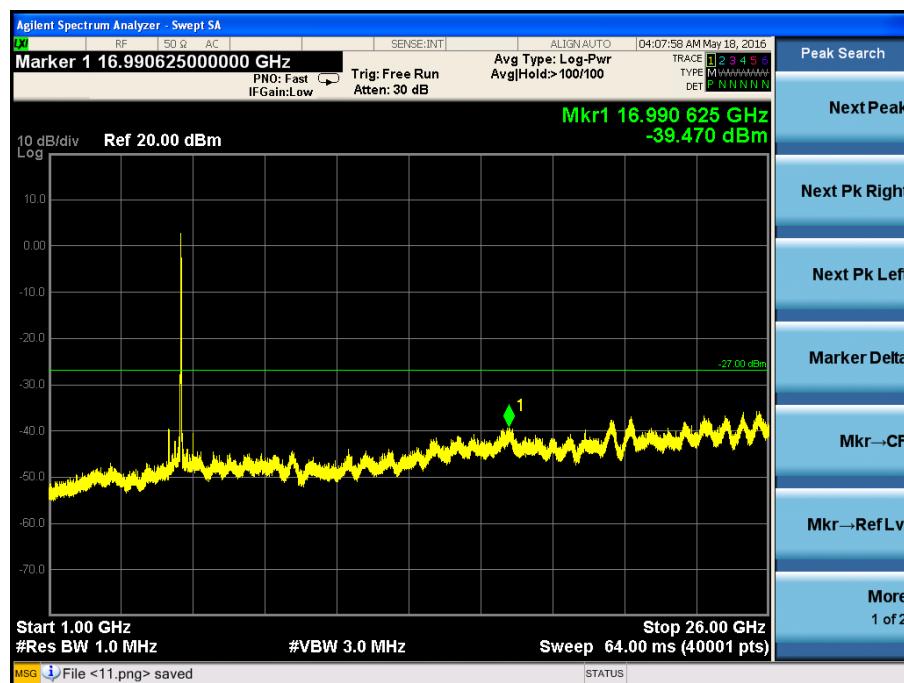
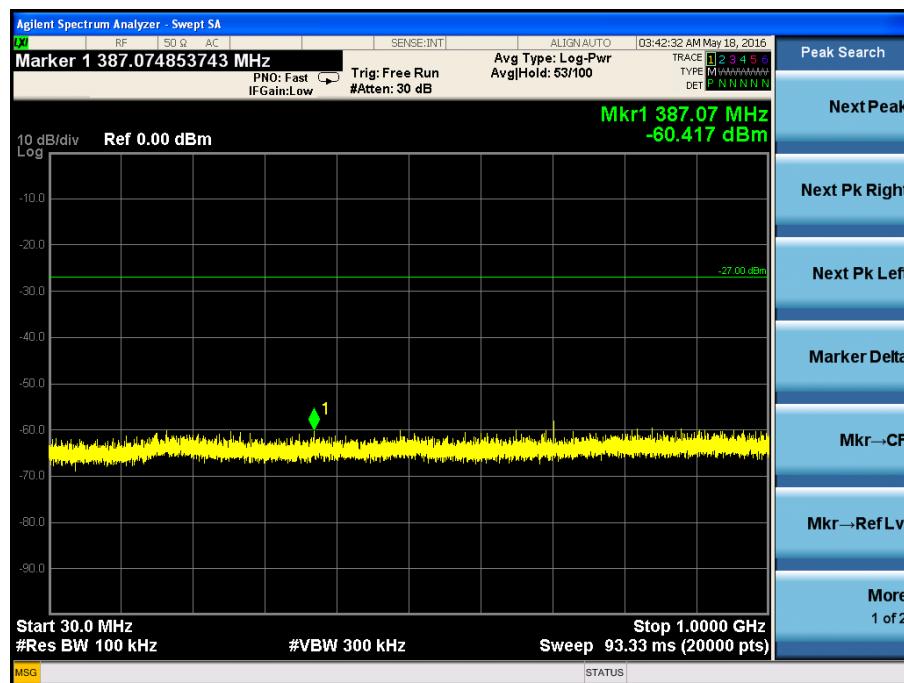
5510MHz



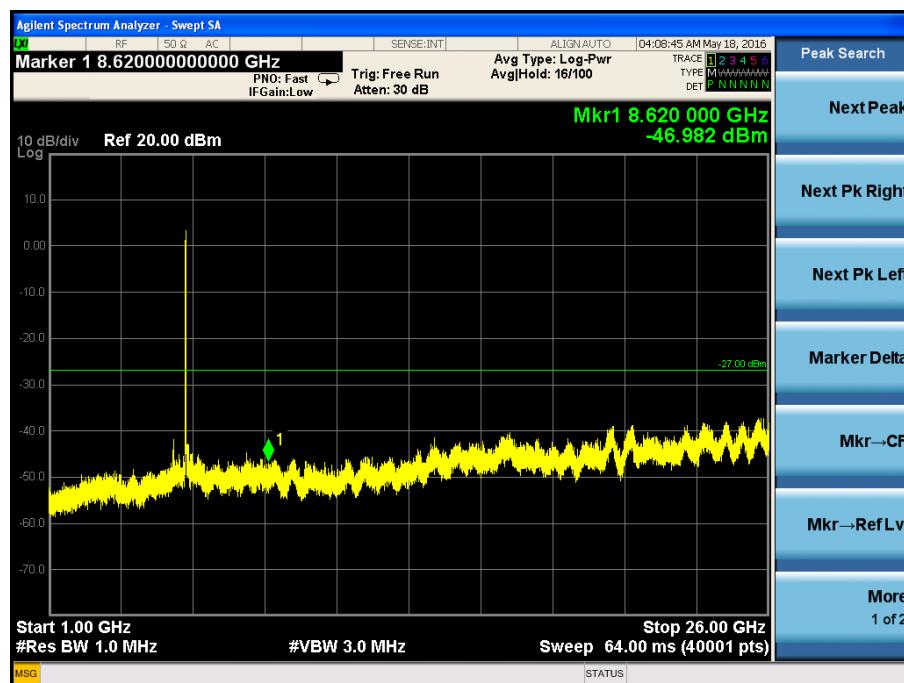
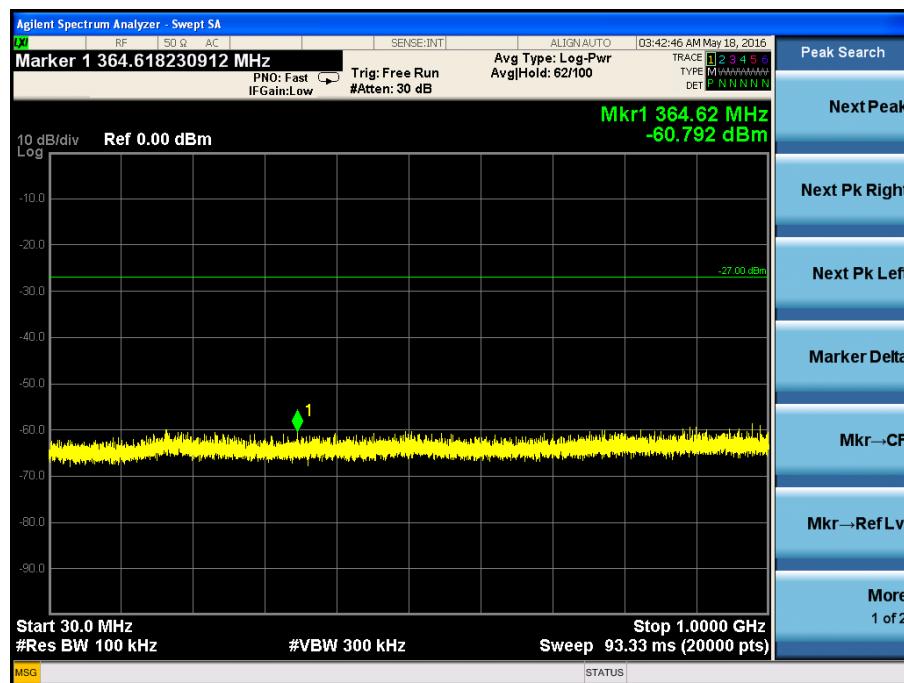
5550MHz



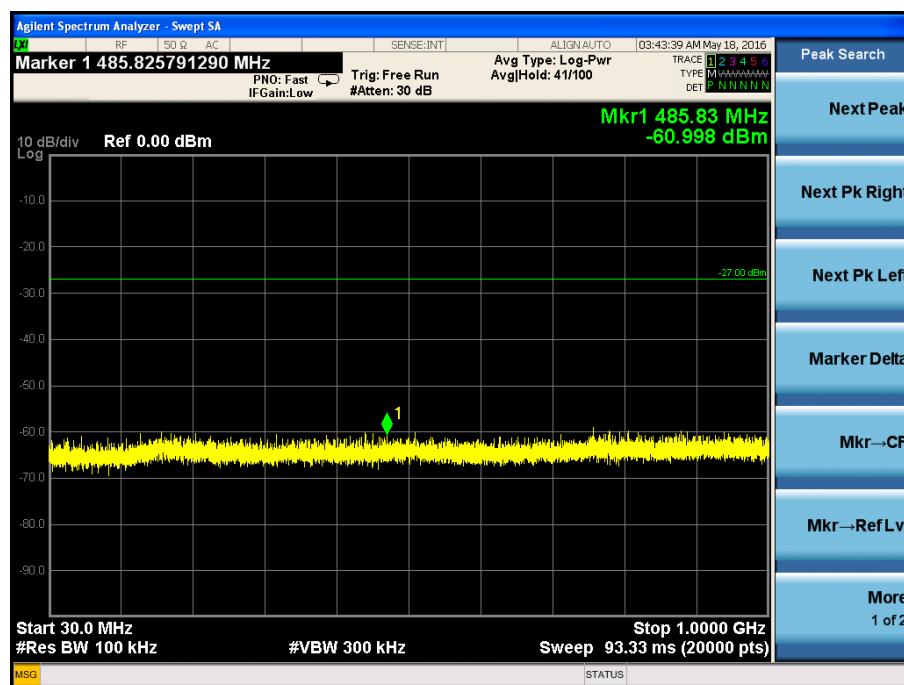
5670MHz



5755MHz



5795MHz



9. Radiated Spurious Emissions

9.1 Measurement Uncertainty

Based on NIS 81, The Treatment of Uncertainty in EMC Measurements, the best estimate of the uncertainty of a radiation emissions measurement is ± 5.10 dB.

9.2 Standard Applicable

According to §15.407(b)(6), Unwanted emissions below 1 GHz must comply with the general field strength limits set forth in §15.209. Further, any U-NII devices using an AC power line are required to comply also with the conducted limits set forth in §15.207.

According to §15.407(b)(7), The provisions of §15.205 apply to intentional radiators operating under this section. 789033 D02 General UNII Test Procedures New Rules v01, If radiated measurements are performed, field strength is then converted to EIRP as follows: $EIRP = ((E \cdot d)^2) / 30$, where:

E is the field strength in V/m; d is the measurement distance in meters;

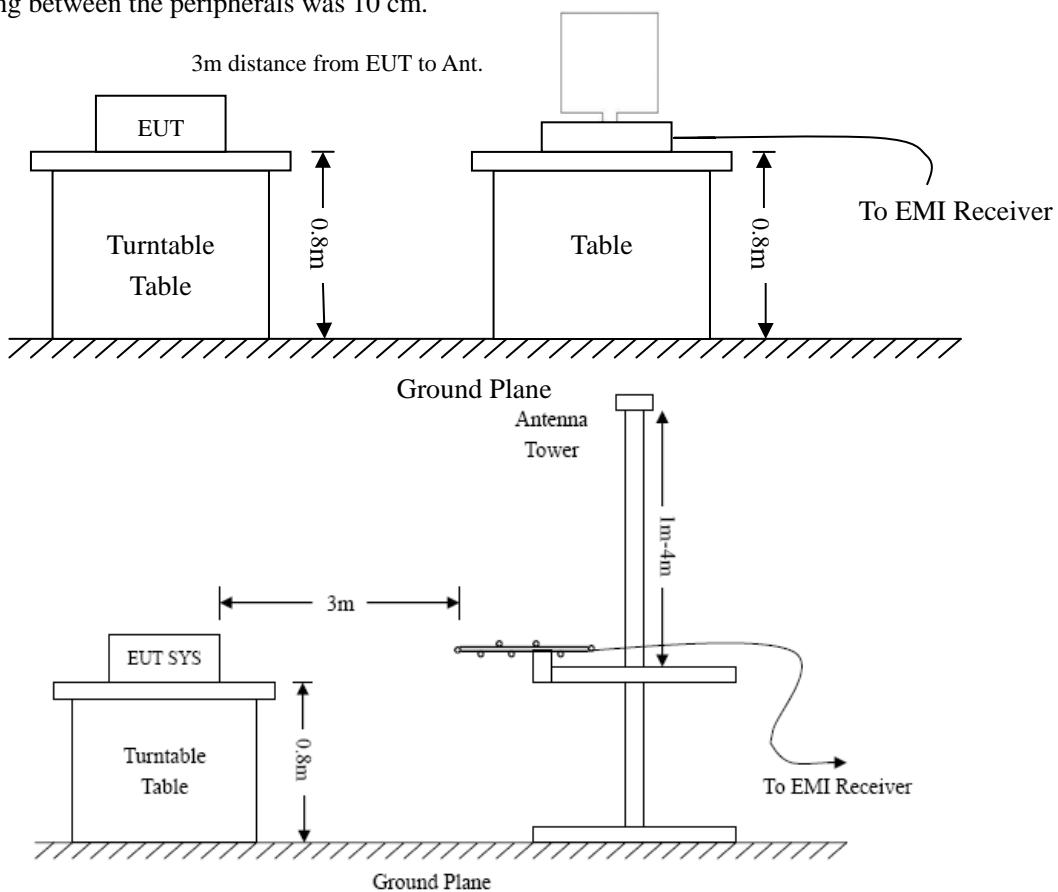
EIRP is the equivalent isotropically radiated power in watts.

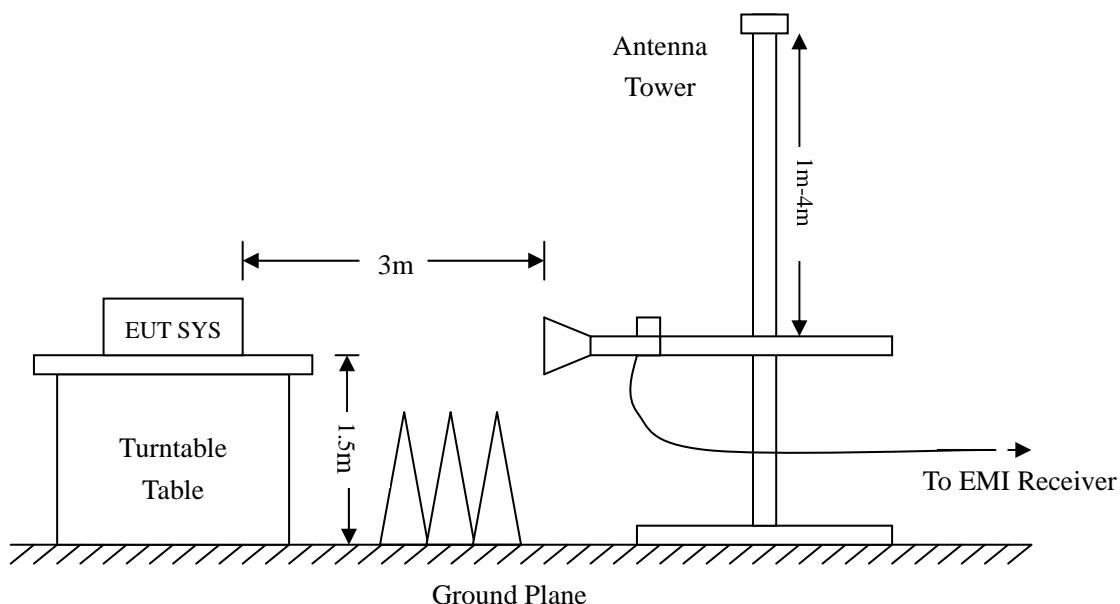
9.3 Test Procedure

The setup of EUT is according with per ANSI C63.4-2014 measurement procedure. The specification used was with the FCC Part 15.205 15.407(b)(6) and FCC Part 15.209 Limit..

The external I/O cables were draped along the test table and formed a bundle 30 to 40 cm long in the middle.

The spacing between the peripherals was 10 cm.





9.4 Test Receiver Setup

During the radiated emission test, the test receiver was set with the following configurations:

Frequency :9kHz-30MHz

RBW=10KHz,

VBW =30KHz

Sweep time= Auto

Trace = max hold

Detector function = peak

Frequency :30MHz-1GHz

RBW=120KHz,

VBW=300KHz

Sweep time= Auto

Trace = max hold

Detector function = peak, QP

Frequency :Above 1GHz

RBW=1MHz,

VBW=3MHz(Peak), 10Hz(AV)

Sweep time= Auto

Trace = max hold

Detector function = peak, AV

9.5 Corrected Amplitude & Margin Calculation

The Corrected Amplitude is calculated adding the Antenna Factor and the Cable Factor, and subtracting the Amplifier Gain from the Amplitude reading. The basic equation is as follows:

$$\text{Corr. Ampl.} = \text{Indicated Reading} + \text{Ant. Factor} + \text{Cable Loss} - \text{Ampl. Gain}$$

The “Margin” column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of -6dB μ V means the emission is 6dB μ V below the maximum limit. The equation for margin calculation is as follows:

$$\text{Margin} = \text{Corr. Ampl.} - \text{FCC Part 15 Limit}$$

9.6 Environmental Conditions

Temperature:	22° C
Relative Humidity:	52%
ATM Pressure:	1012 mbar

9.7 Summary of Test Results/Plots

According to the data below, the FCC Part 15.205, 15.209 and 15.407(b)(6) standards, and had the worst margin of:

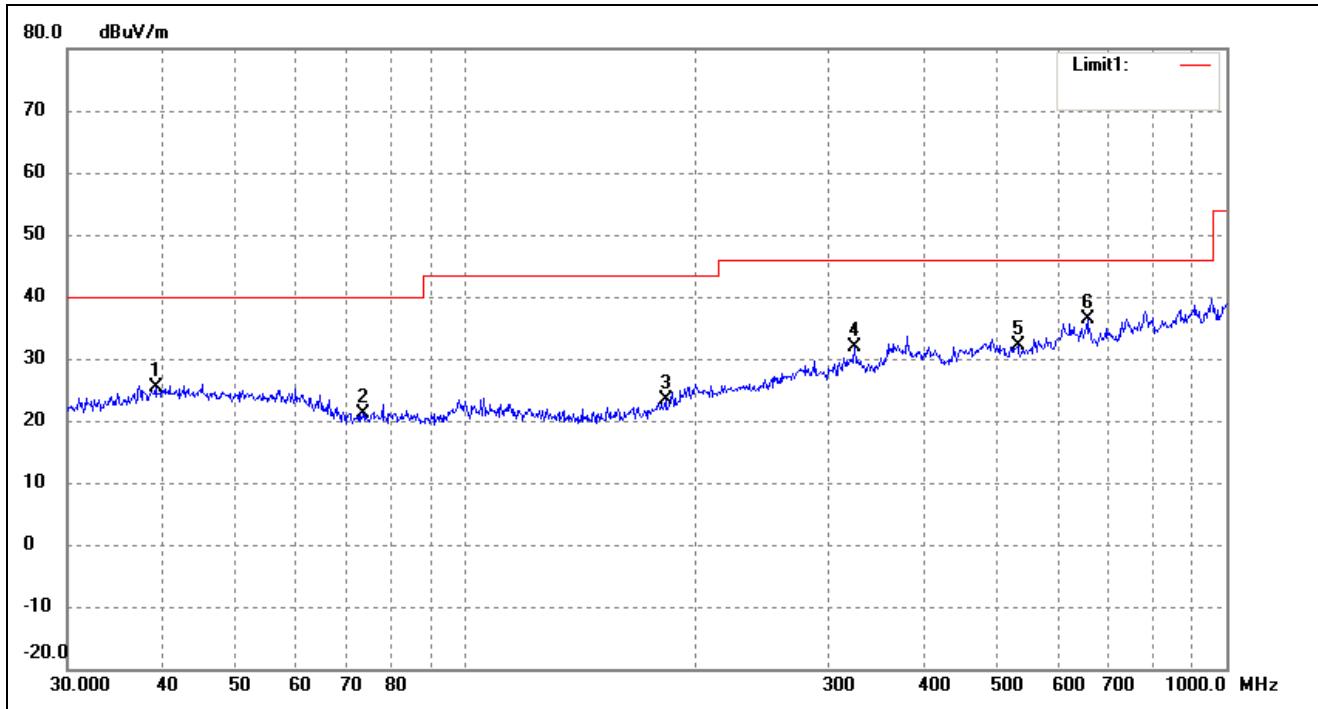
Note: this EUT was tested in 3 orthogonal positions and the worst case position data was reported.

For 802.11a

Spurious Emission From 30 MHz to 1 GHz

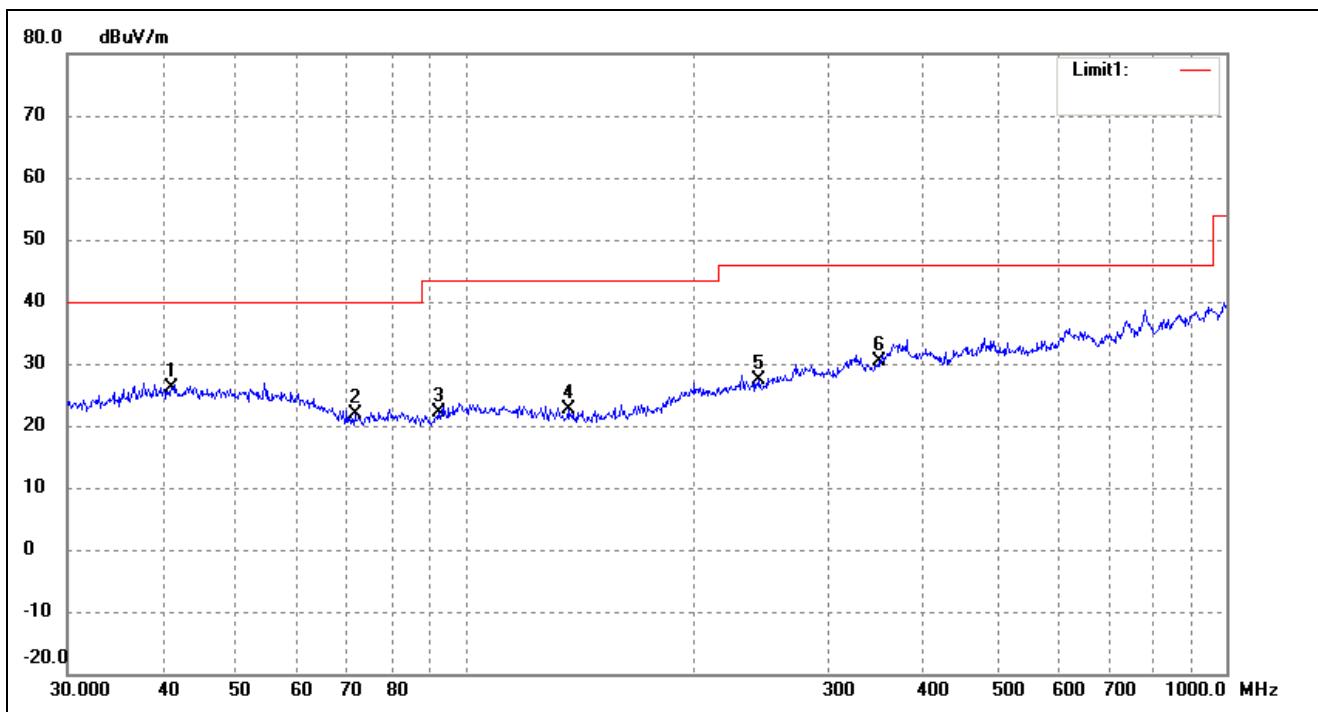
Test mode: Transmitting Channel 5180MHz

Horizontal



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree	Height (cm)	Remark
1	39.1616	33.34	-7.90	25.44	40.00	-14.56	35	100	peak
2	73.3593	33.68	-12.55	21.13	40.00	-18.87	68	100	peak
3	183.2005	34.31	-10.93	23.38	43.50	-20.12	105	100	peak
4	324.4561	36.60	-4.70	31.90	46.00	-14.10	138	100	peak
5	531.9635	33.88	-1.83	32.05	46.00	-13.95	35	100	peak
6	656.5300	36.04	0.37	36.41	46.00	-9.59	68	100	peak

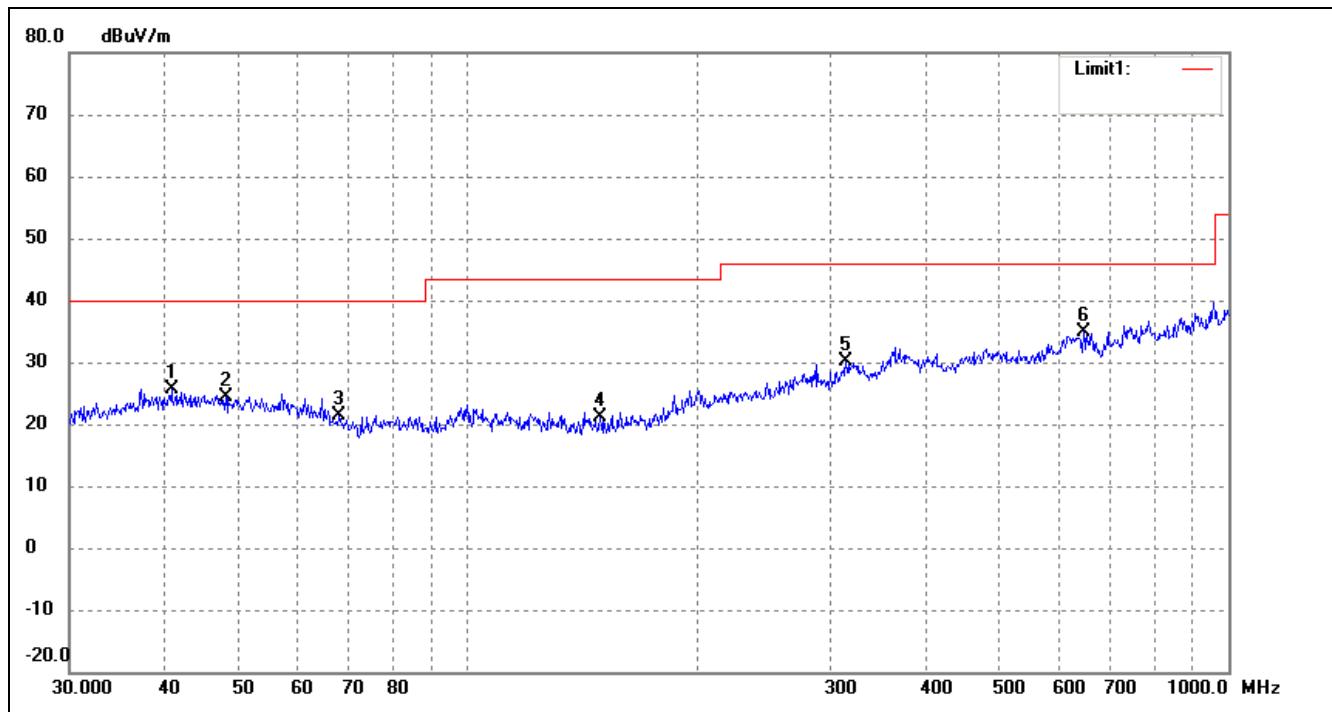
Test Specification: *Vertical*



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	41.1320	33.94	-7.74	26.20	40.00	-13.80	0	100	peak
2	71.5806	34.58	-12.70	21.88	40.00	-18.12	0	100	peak
3	92.1388	34.72	-12.51	22.21	43.50	-21.29	0	100	peak
4	136.4598	35.04	-12.37	22.67	43.50	-20.83	0	100	peak
5	243.3772	35.54	-8.10	27.44	46.00	-18.56	0	100	peak
6	349.2500	34.54	-4.19	30.35	46.00	-15.65	0	100	peak

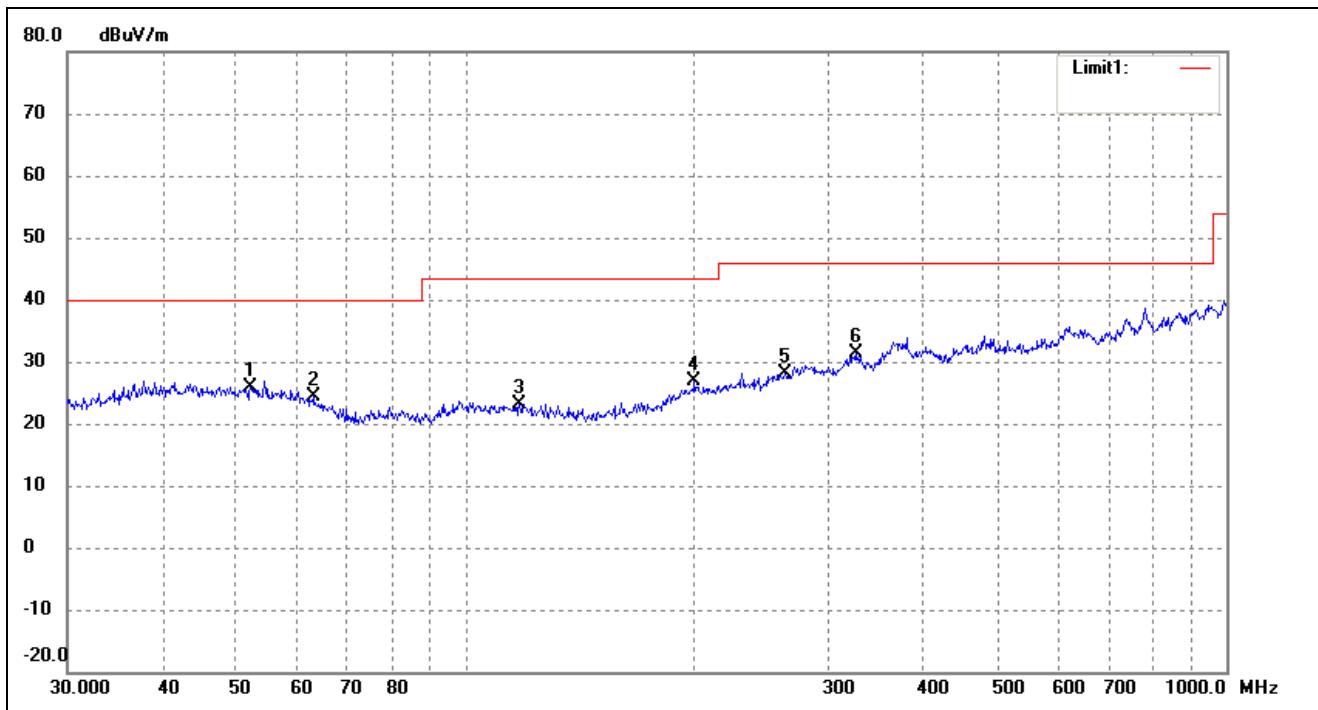
Test mode: Transmitting Channel 5300MHz

Horizontal



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	40.8446	33.23	-7.72	25.51	40.00	-14.49	39	100	peak
2	48.1626	32.58	-8.20	24.38	40.00	-15.62	164	100	peak
3	67.9129	33.44	-12.15	21.29	40.00	-18.71	204	100	peak
4	149.4857	33.57	-12.43	21.14	43.50	-22.36	255	100	peak
5	314.3765	35.09	-4.92	30.17	46.00	-15.83	39	100	peak
6	645.1195	34.38	0.61	34.99	46.00	-11.01	164	100	peak

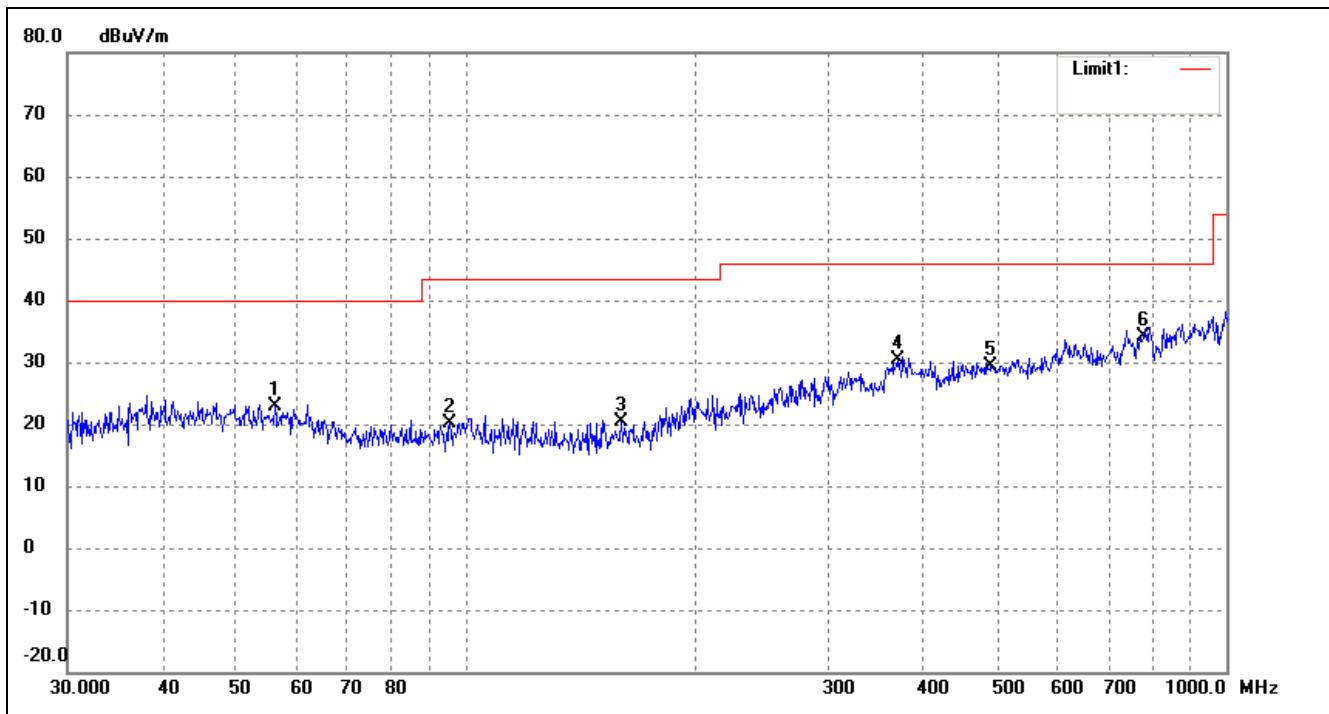
Test Specification: *Vertical*



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	52.2079	34.46	-8.59	25.87	40.00	-14.13	50	100	peak
2	63.0916	34.87	-10.58	24.29	40.00	-15.71	89	100	peak
3	117.7725	34.56	-11.37	23.19	43.50	-20.31	135	100	peak
4	199.9856	35.63	-8.65	26.98	43.50	-16.52	169	100	peak
5	262.8955	34.95	-6.83	28.12	46.00	-17.88	50	100	peak
6	325.5958	36.09	-4.72	31.37	46.00	-14.63	89	100	peak

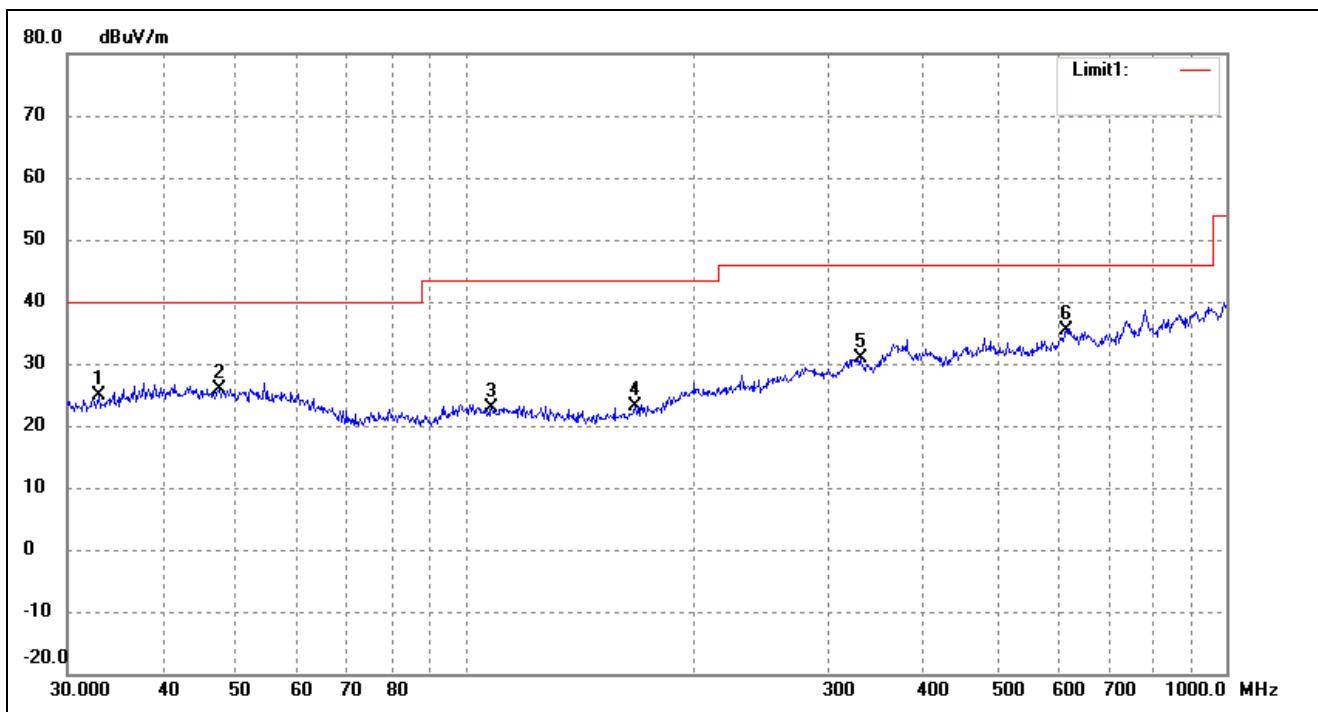
Test mode: Transmitting Channel 5580MHz

Horizontal



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	56.1974	31.97	-9.10	22.87	40.00	-17.13	44	100	peak
2	95.4270	31.93	-11.83	20.10	43.50	-23.40	149	100	peak
3	160.3457	32.70	-12.25	20.45	43.50	-23.05	183	100	peak
4	369.4047	33.16	-2.71	30.45	46.00	-15.55	226	100	peak
5	490.7447	31.11	-1.66	29.45	46.00	-16.55	44	100	peak
6	776.8778	31.47	2.73	34.20	46.00	-11.80	149	100	peak

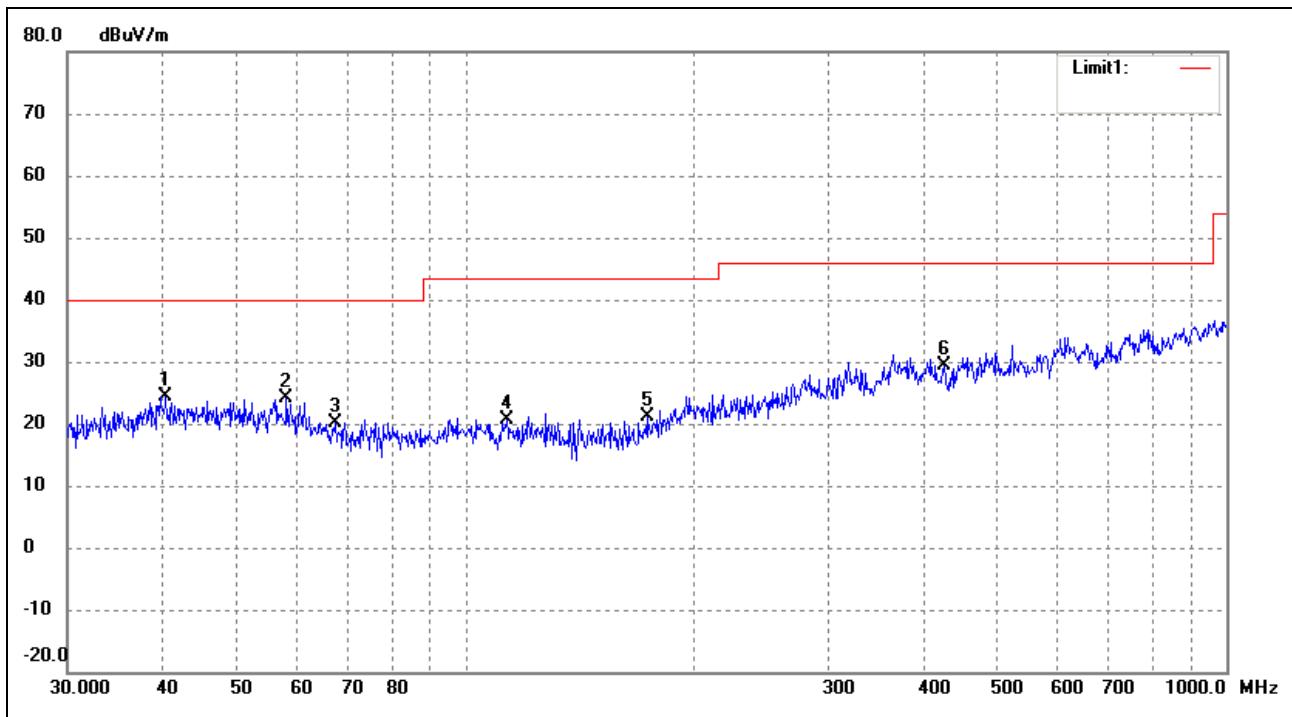
Test Specification: *Vertical*



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	32.9791	34.41	-9.56	24.85	40.00	-15.15	42	100	peak
2	47.4918	33.95	-8.16	25.79	40.00	-14.21	79	100	peak
3	108.2667	33.93	-11.11	22.82	43.50	-20.68	176	100	peak
4	167.2368	35.14	-11.94	23.20	43.50	-20.30	255	100	peak
5	330.1949	35.66	-4.81	30.85	46.00	-15.15	42	100	peak
6	616.3718	34.38	0.99	35.37	46.00	-10.63	79	100	peak

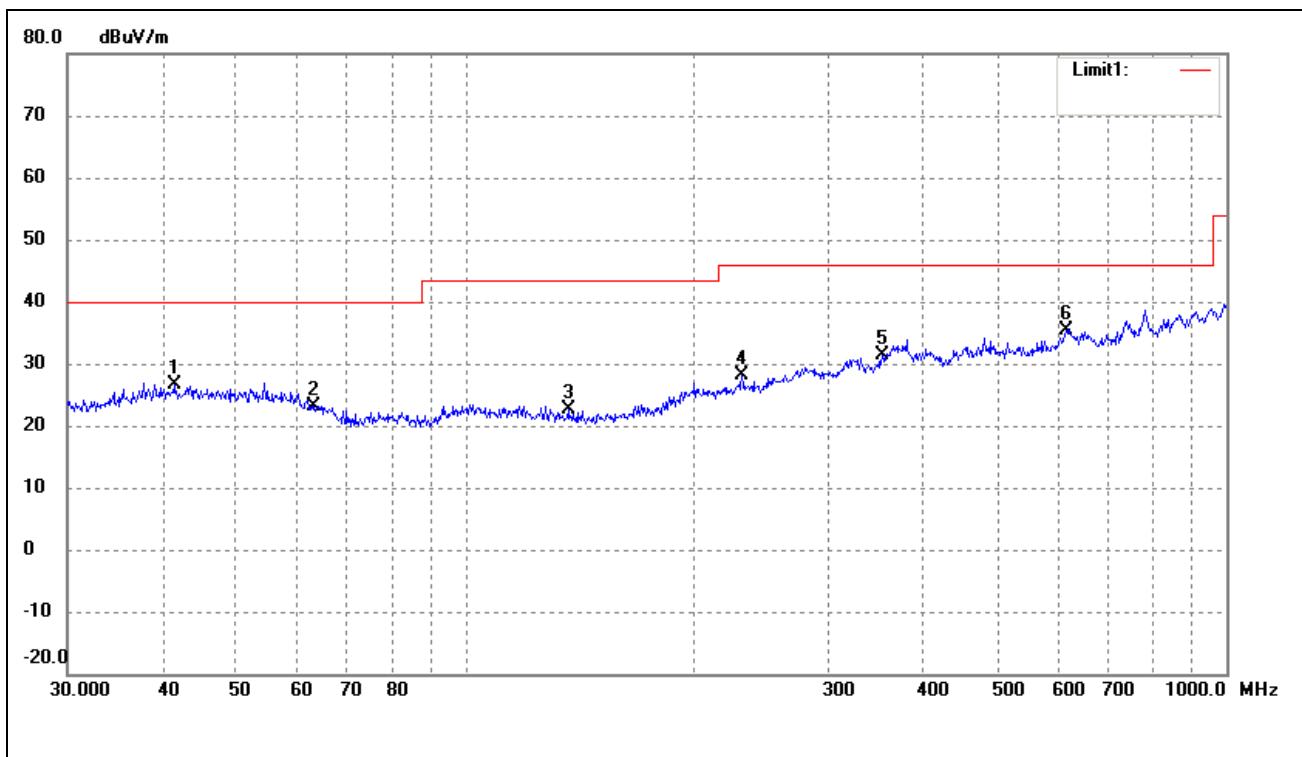
Test mode: Transmitting Channel 5785MHz

Horizontal



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	40.4172	31.96	-7.70	24.26	40.00	-15.74	46	100	peak
2	58.2030	33.52	-9.35	24.17	40.00	-15.83	149	100	peak
3	67.4382	32.22	-12.00	20.22	40.00	-19.78	169	100	peak
4	113.3163	31.87	-11.25	20.62	43.50	-22.88	212	100	peak
5	173.2051	32.81	-11.68	21.13	43.50	-22.37	46	100	peak
6	426.5210	32.82	-3.32	29.50	46.00	-16.50	149	100	peak

Test Specification: Vertical

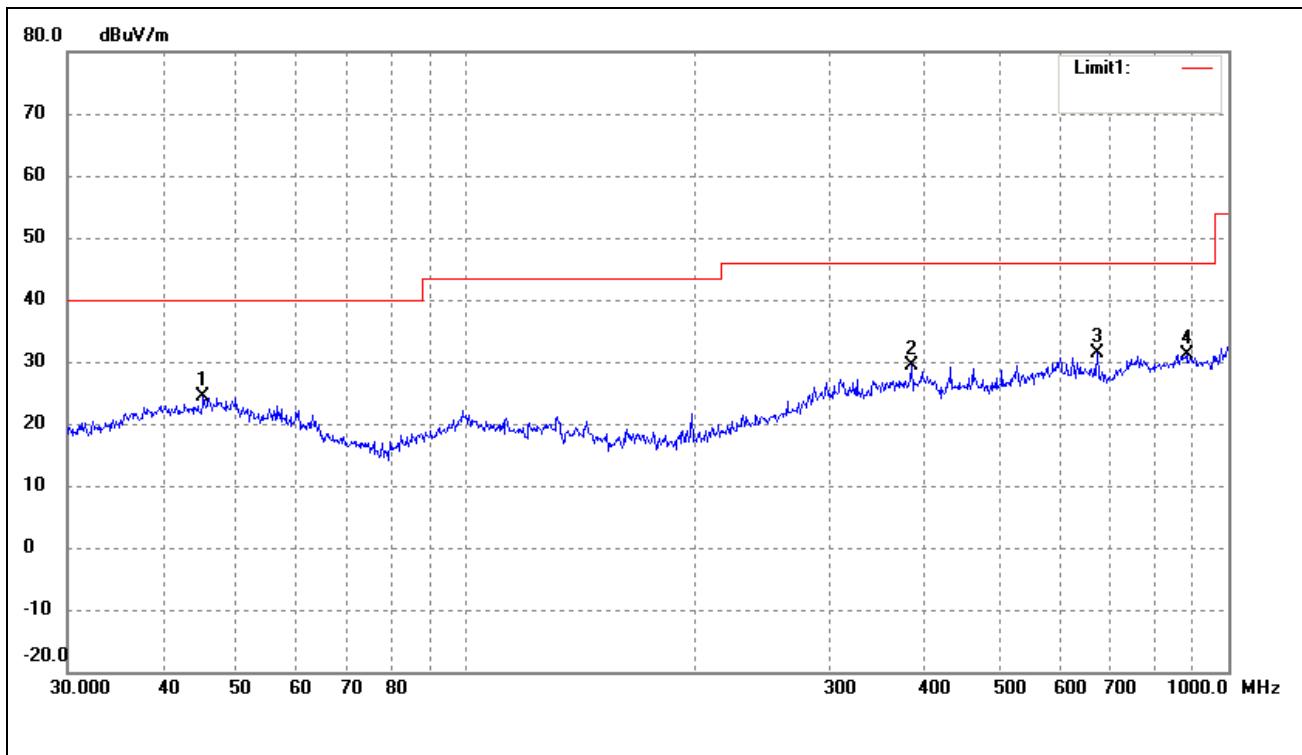


No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (•)	Height (cm)	Remark
1	41.4215	34.43	-7.76	26.67	40.00	-13.33	39	100	peak
2	63.3132	33.90	-10.66	23.24	40.00	-16.76	97	100	peak
3	136.4598	35.04	-12.37	22.67	43.50	-20.83	156	100	peak
4	230.9068	36.58	-8.57	28.01	46.00	-17.99	221	100	peak
5	352.9434	35.18	-3.86	31.32	46.00	-14.68	180	100	peak
6	616.3718	34.38	0.99	35.37	46.00	-10.63	21	100	peak

For 802.11n-HT20

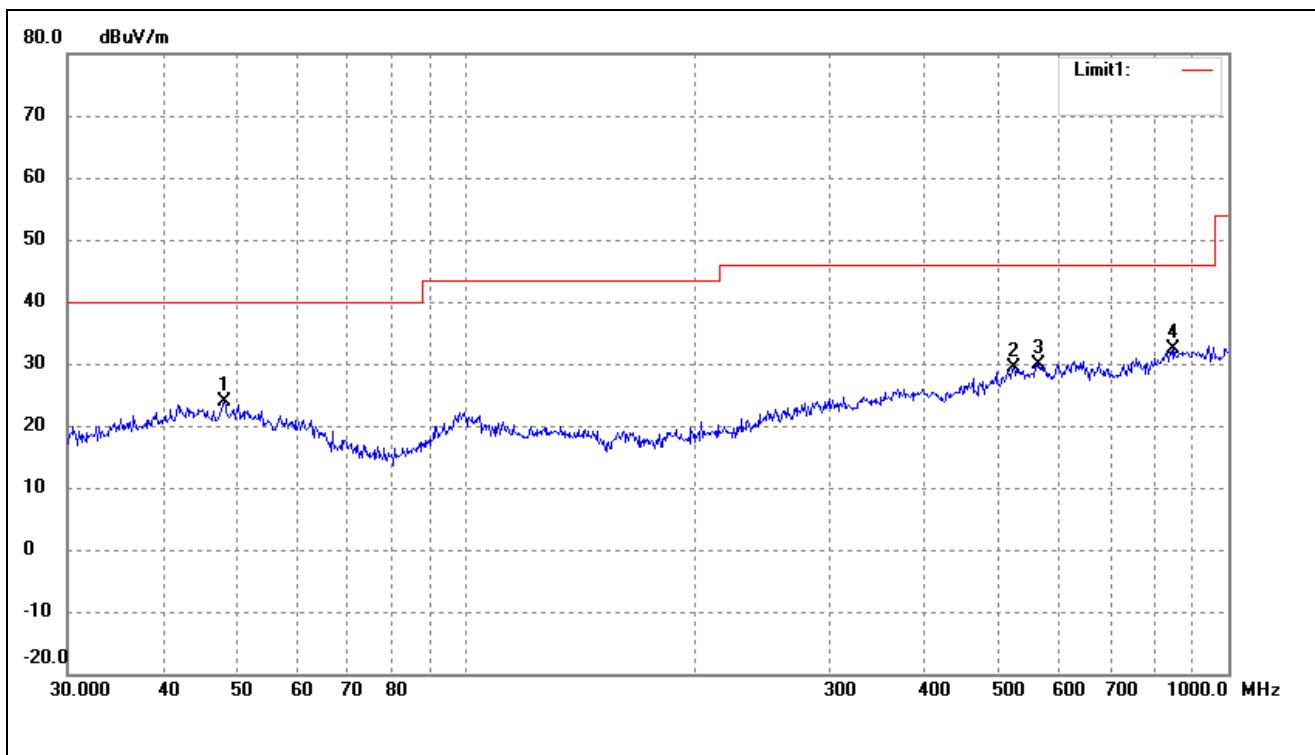
Test mode: Transmitting Channel 5180MHz

Horizontal



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (•)	Height (cm)	Remark
1	45.2165	17.53	6.74	24.27	40.00	-15.73	54	100	peak
2	383.9318	20.07	9.38	29.45	46.00	-16.55	125	100	peak
3	672.8445	19.24	12.22	31.46	46.00	-14.54	167	100	peak
4	881.4067	14.27	16.82	31.09	46.00	-14.91	241	100	peak

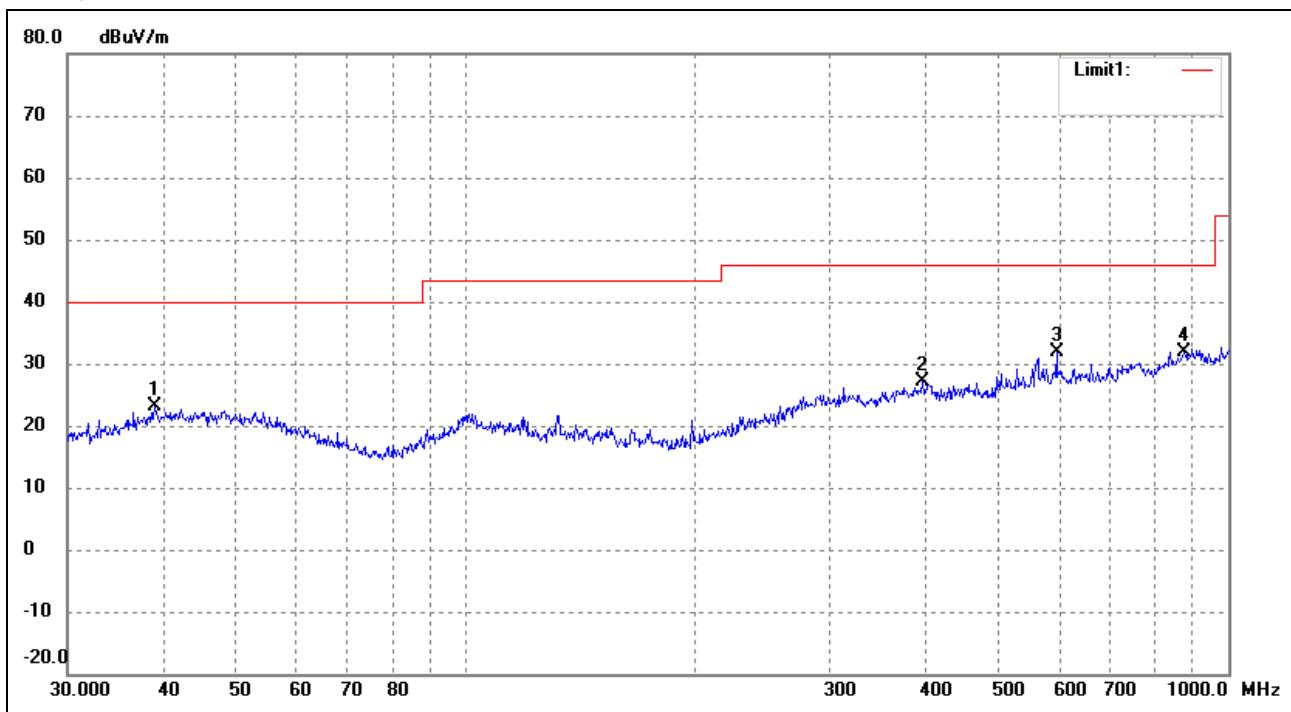
Test Specification: *Vertical*



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (•)	Height (cm)	Remark
1	48.1625	16.97	6.81	23.78	40.00	-16.22	37	100	peak
2	522.7178	18.12	11.37	29.49	46.00	-16.51	204	100	peak
3	564.6389	18.12	11.77	29.89	46.00	-16.11	232	100	peak
4	848.0561	16.42	15.86	32.28	46.00	-13.72	268	100	peak

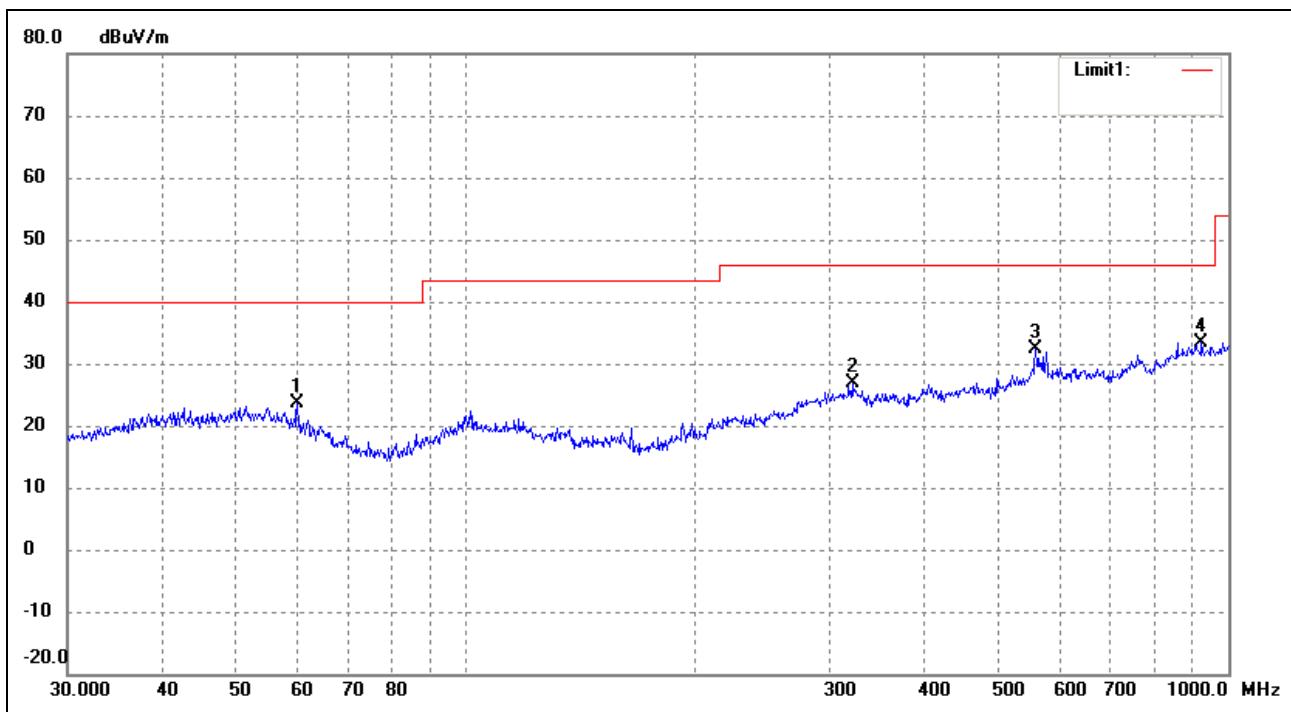
Test mode: Transmitting Channel 5260MHz

Horizontal



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (•)	Height (cm)	Remark
1	39.0245	14.03	9.08	23.11	40.00	-16.89	29	100	peak
2	396.2413	17.29	9.95	27.24	46.00	-18.76	135	100	peak
3	595.1326	18.85	13.14	31.99	46.00	-14.01	174	100	peak
4	875.2468	15.18	16.70	31.88	46.00	-14.12	218	100	peak

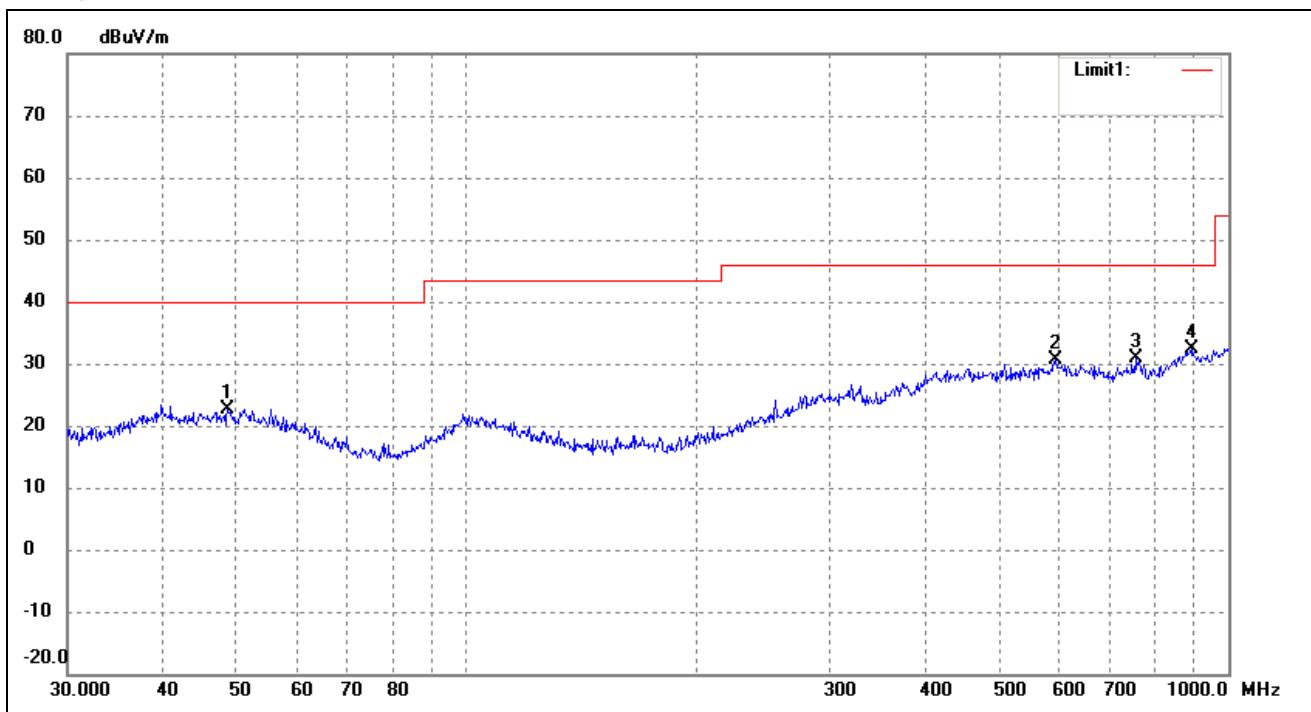
Test Specification: *Vertical*



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (•)	Height (cm)	Remark
1	60.0690	18.15	5.36	23.51	40.00	-16.49	54	100	peak
2	321.0606	17.67	9.26	26.93	46.00	-19.07	165	100	peak
3	558.7300	20.75	11.52	32.27	46.00	-13.73	194	100	peak
4	922.5157	16.89	16.44	33.33	46.00	-12.67	237	100	peak

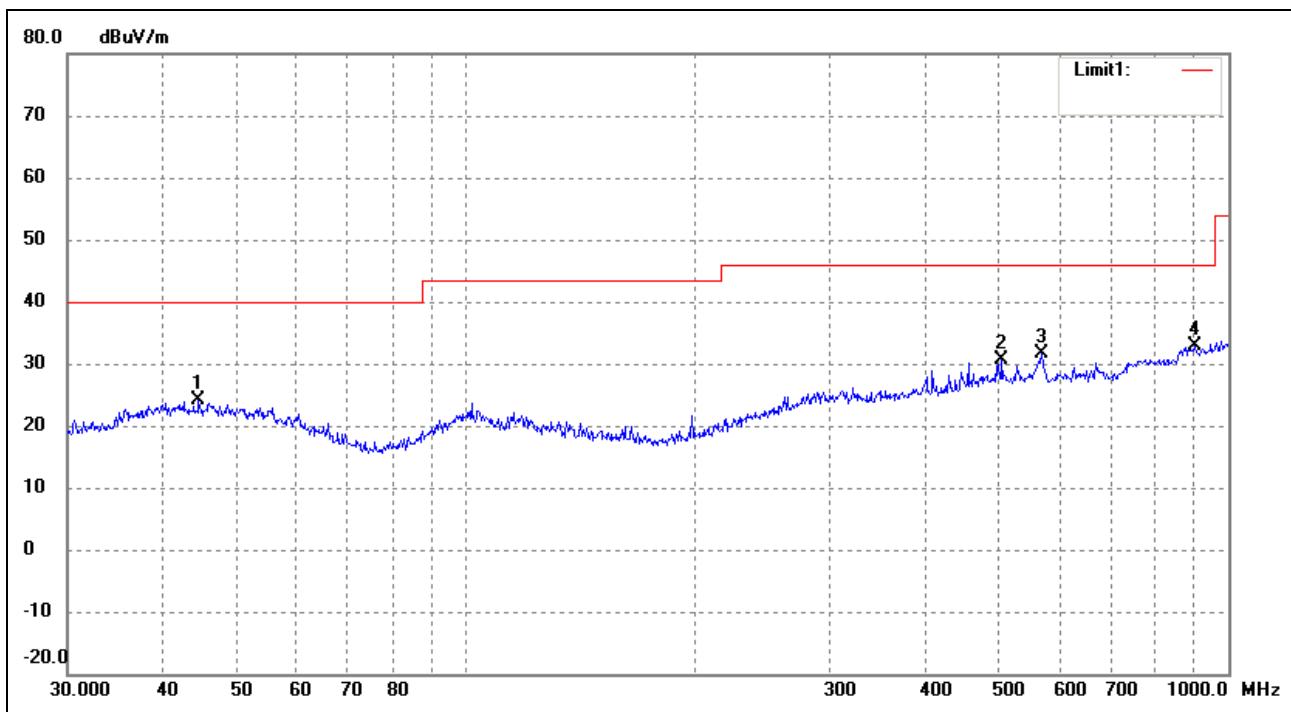
Test mode: Transmitting Channel 5580MHz

Horizontal



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (•)	Height (cm)	Remark
1	48.6719	16.24	6.39	22.63	40.00	-17.37	36	100	peak
2	593.0497	17.45	13.06	30.51	46.00	-15.49	121	100	peak
3	755.3872	16.46	14.40	30.86	46.00	-15.14	167	100	peak
4	893.8567	15.46	16.85	32.31	46.00	-13.69	195	100	peak

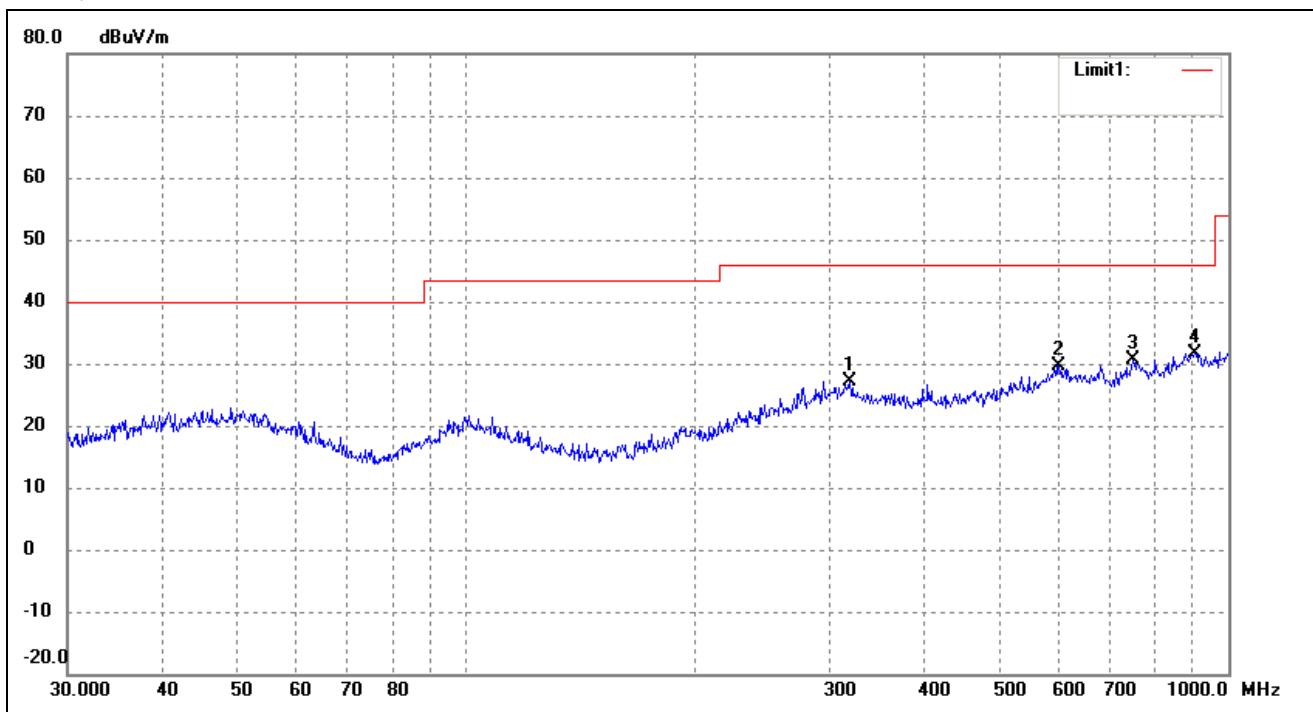
Test Specification: *Vertical*



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (•)	Height (cm)	Remark
1	44.5867	16.15	7.88	24.03	40.00	-15.97	44	100	peak
2	504.7062	19.72	10.98	30.70	46.00	-15.30	135	100	peak
3	568.6127	19.54	11.98	31.52	46.00	-14.48	197	100	peak
4	903.3093	15.99	16.79	32.78	46.00	-13.22	251	100	peak

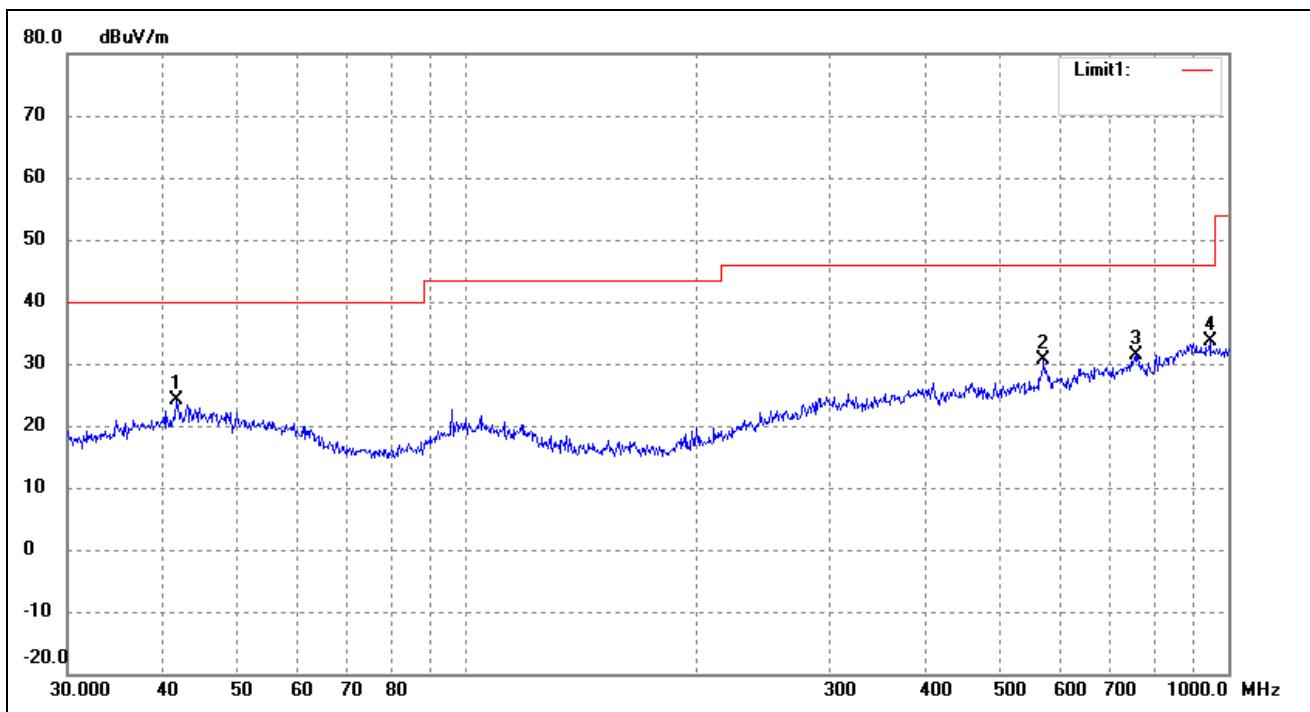
Test mode: Transmitting Channel 5745MHz

Horizontal



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (•)	Height (cm)	Remark
1	318.8170	17.91	9.28	27.19	46.00	-18.81	85	100	peak
2	599.3212	16.34	13.30	29.64	46.00	-16.36	147	100	peak
3	750.1082	16.64	14.10	30.74	46.00	-15.26	203	100	peak
4	903.3093	14.92	16.79	31.71	46.00	-14.29	269	100	peak

Test Specification: *Vertical*

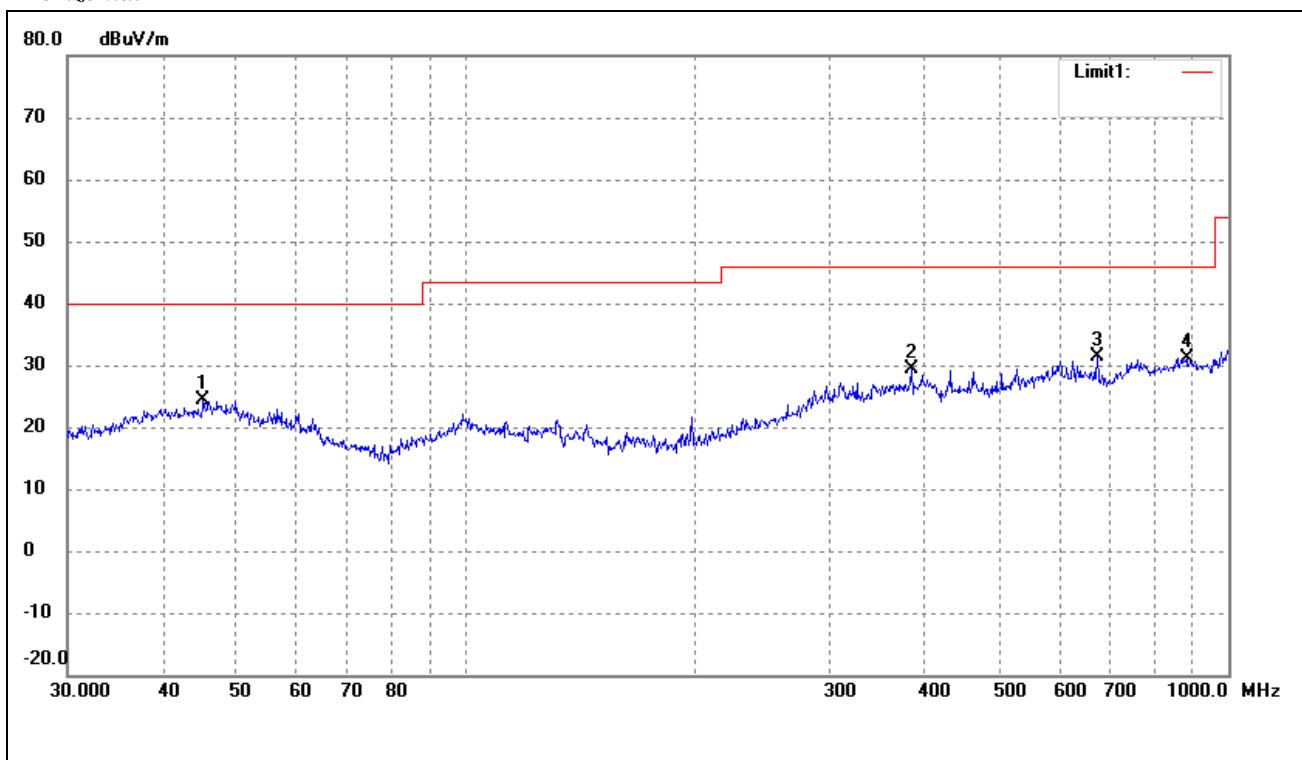


No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (•)	Height (cm)	Remark
1	41.7130	15.31	8.74	24.05	40.00	-15.95	26	100	peak
2	572.6144	18.56	12.19	30.75	46.00	-15.25	164	100	peak
3	755.3872	16.60	14.86	31.46	46.00	-14.54	215	100	peak
4	945.4397	17.32	16.25	33.57	46.00	-12.43	283	100	peak

For 802.11n-HT40

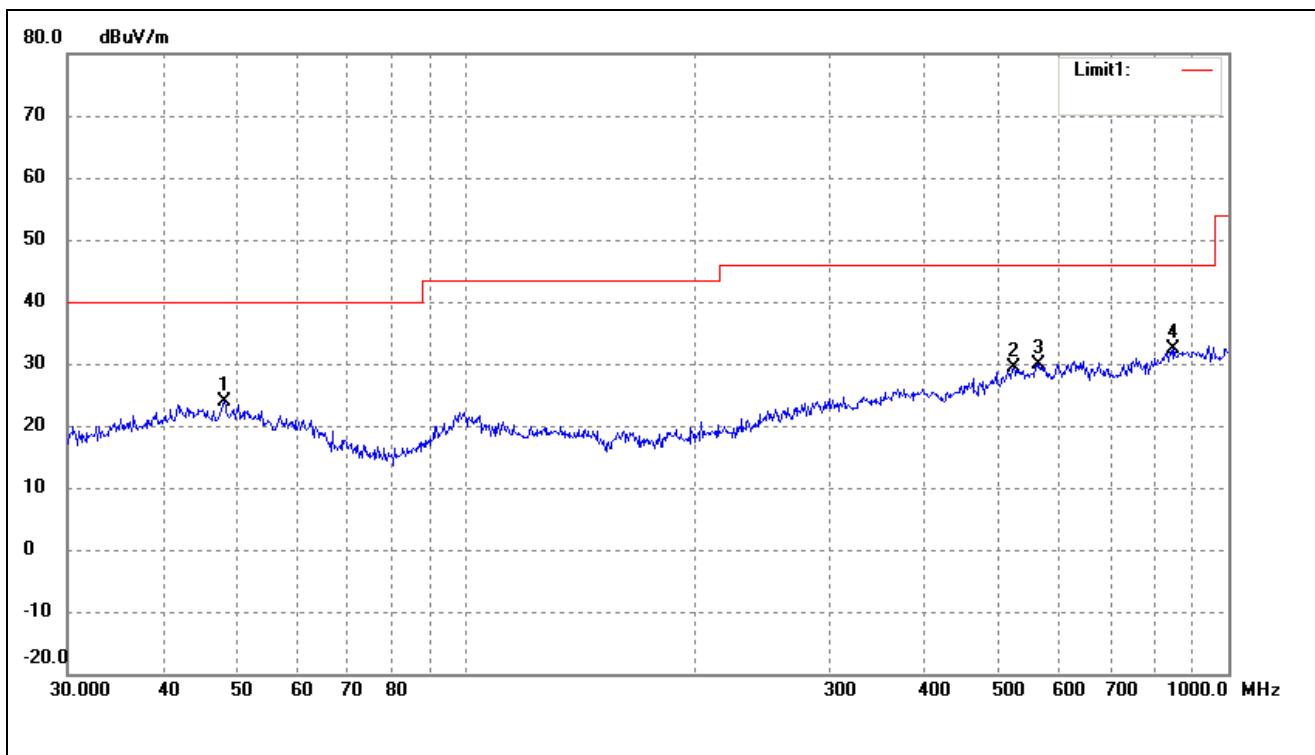
Test mode: Transmitting Channel 5190MHz

Horizontal



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (•)	Height (cm)	Remark
1	45.2165	17.53	6.74	24.27	40.00	-15.73	54	100	peak
2	383.9318	20.07	9.38	29.45	46.00	-16.55	125	100	peak
3	672.8445	19.24	12.22	31.46	46.00	-14.54	167	100	peak
4	881.4067	14.27	16.82	31.09	46.00	-14.91	241	100	peak

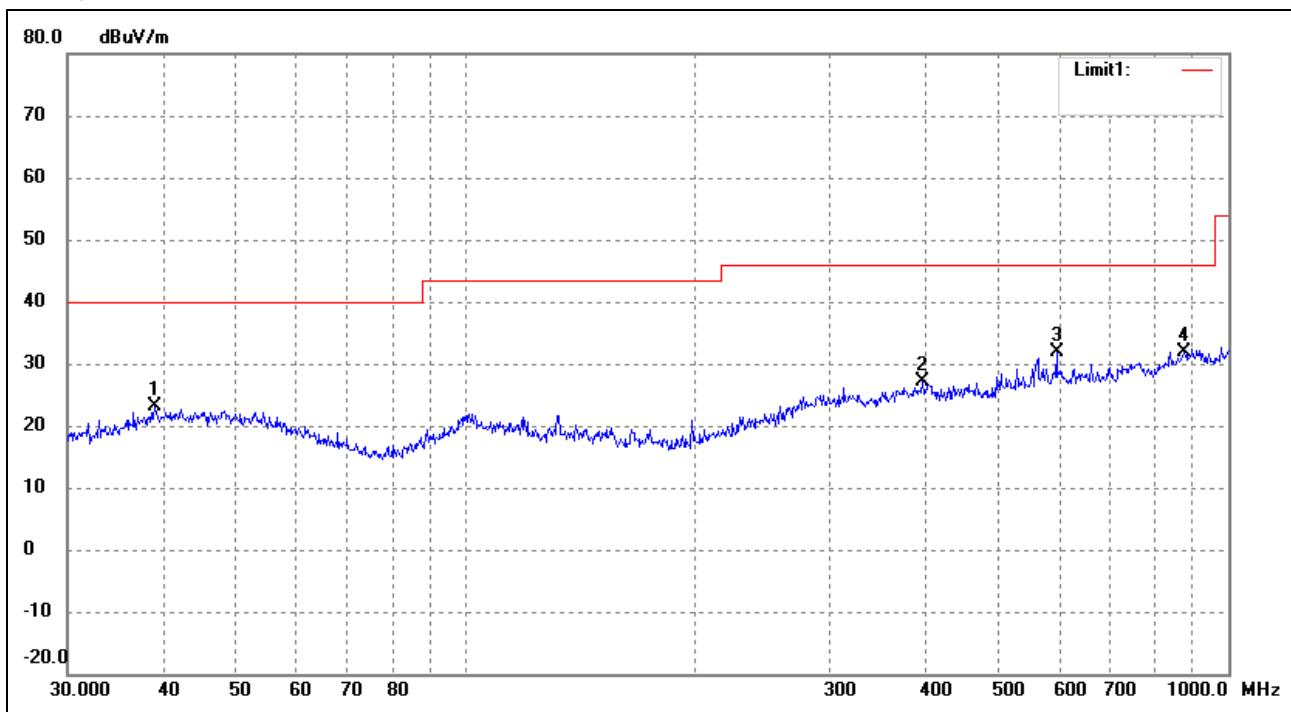
Test Specification: *Vertical*



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (•)	Height (cm)	Remark
1	48.1625	16.97	6.81	23.78	40.00	-16.22	37	100	peak
2	522.7178	18.12	11.37	29.49	46.00	-16.51	204	100	peak
3	564.6389	18.12	11.77	29.89	46.00	-16.11	232	100	peak
4	848.0561	16.42	15.86	32.28	46.00	-13.72	268	100	peak

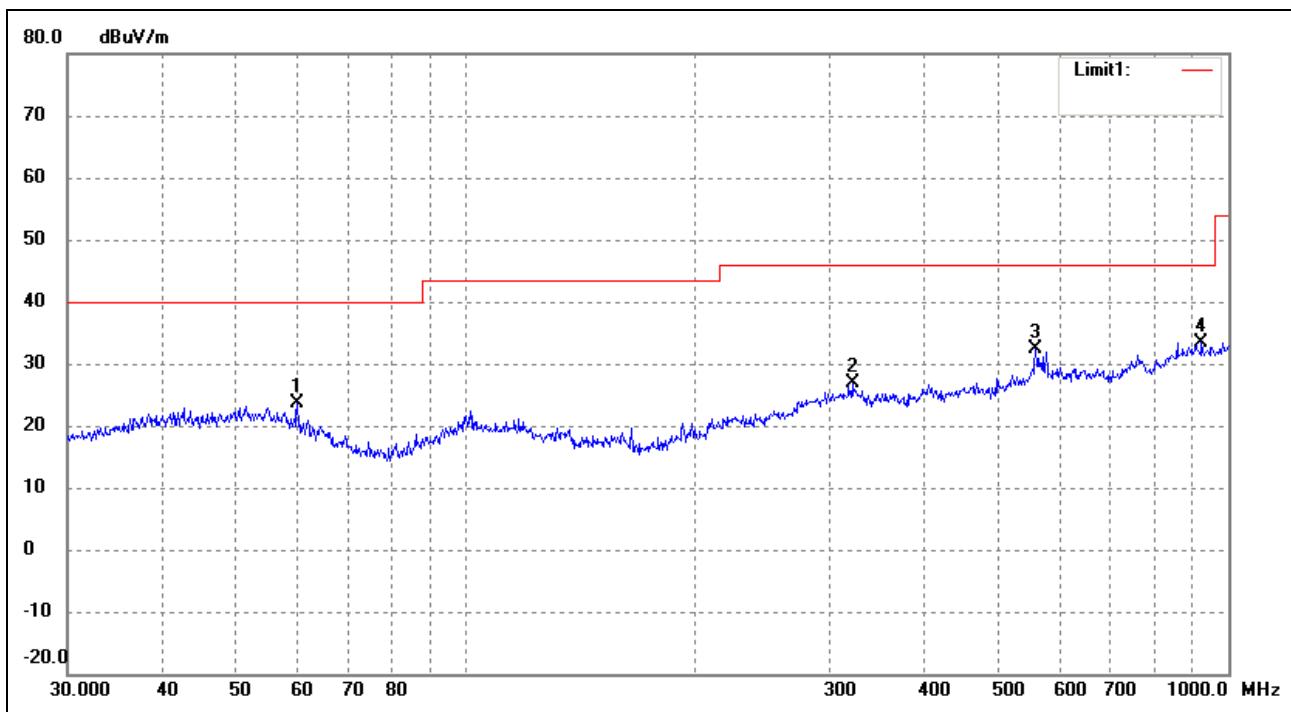
Test mode: Transmitting Channel 5270MHz

Horizontal



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (•)	Height (cm)	Remark
1	39.0245	14.03	9.08	23.11	40.00	-16.89	29	100	peak
2	396.2413	17.29	9.95	27.24	46.00	-18.76	135	100	peak
3	595.1326	18.85	13.14	31.99	46.00	-14.01	174	100	peak
4	875.2468	15.18	16.70	31.88	46.00	-14.12	218	100	peak

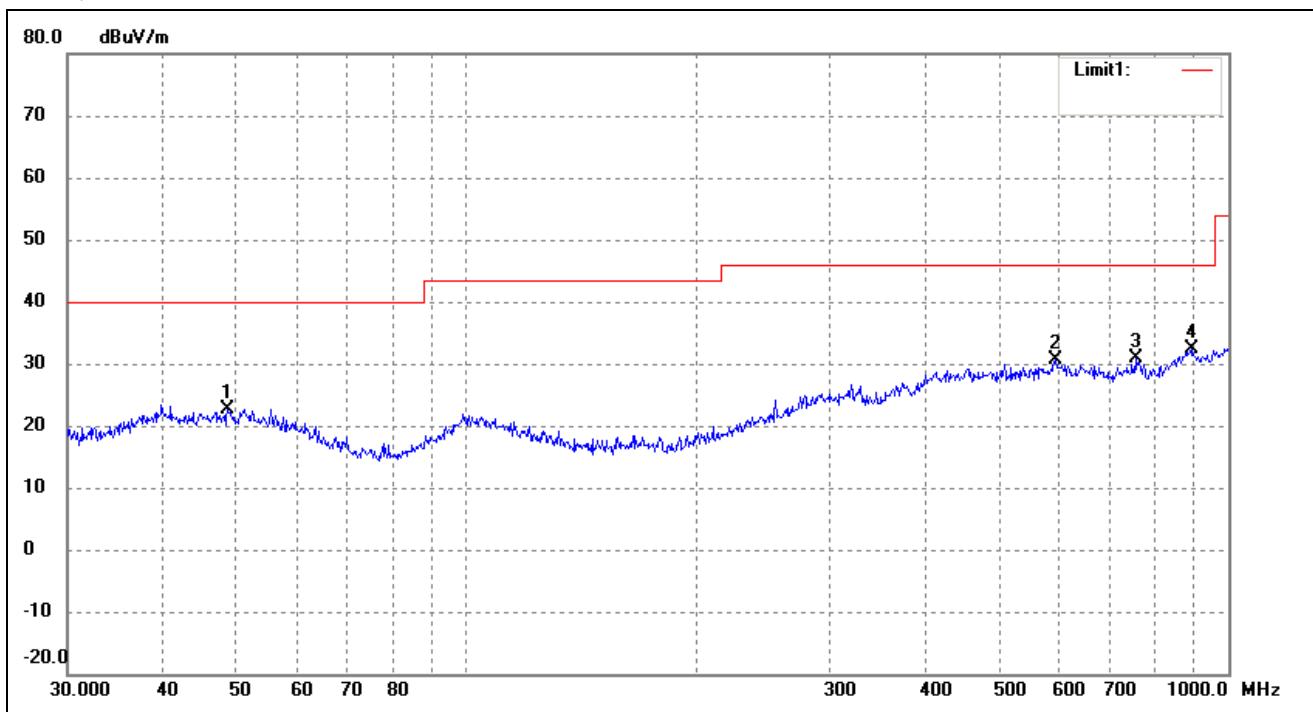
Test Specification: *Vertical*



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (•)	Height (cm)	Remark
1	60.0690	18.15	5.36	23.51	40.00	-16.49	54	100	peak
2	321.0606	17.67	9.26	26.93	46.00	-19.07	165	100	peak
3	558.7300	20.75	11.52	32.27	46.00	-13.73	194	100	peak
4	922.5157	16.89	16.44	33.33	46.00	-12.67	237	100	peak

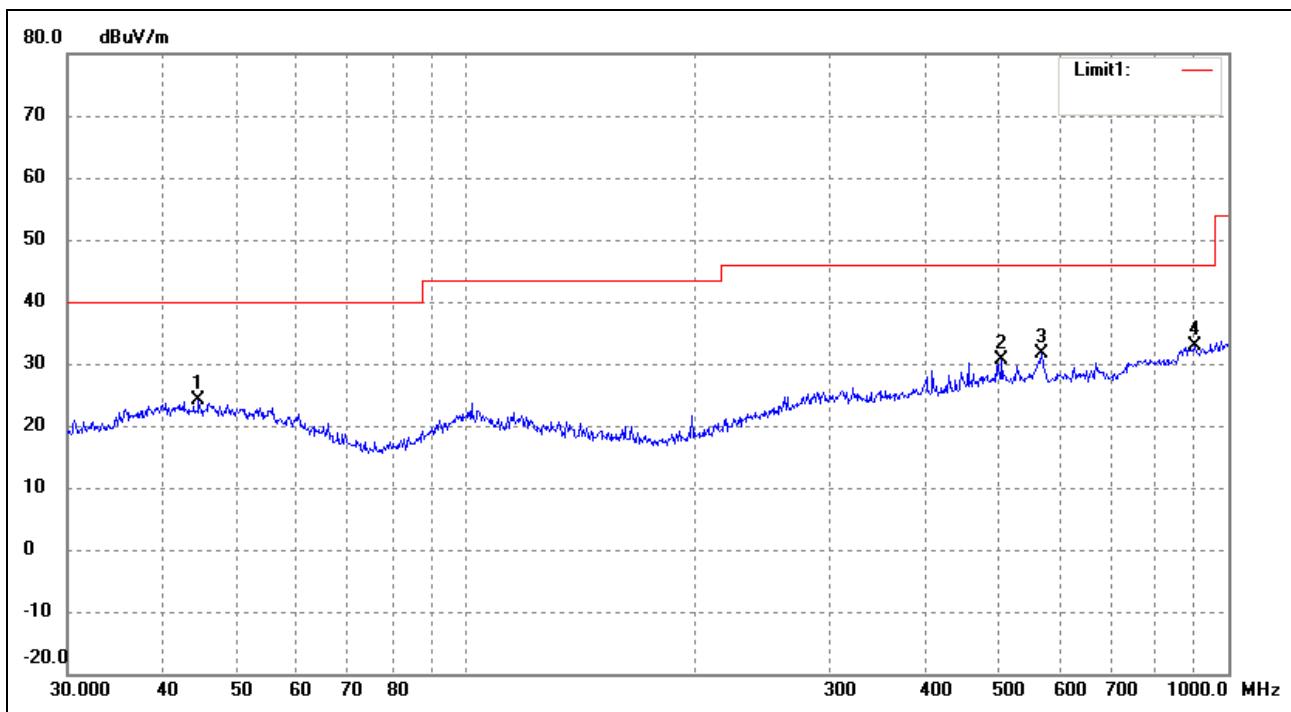
Test mode: Transmitting Channel 5550MHz

Horizontal



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (•)	Height (cm)	Remark
1	48.6719	16.24	6.39	22.63	40.00	-17.37	36	100	peak
2	593.0497	17.45	13.06	30.51	46.00	-15.49	121	100	peak
3	755.3872	16.46	14.40	30.86	46.00	-15.14	167	100	peak
4	893.8567	15.46	16.85	32.31	46.00	-13.69	195	100	peak

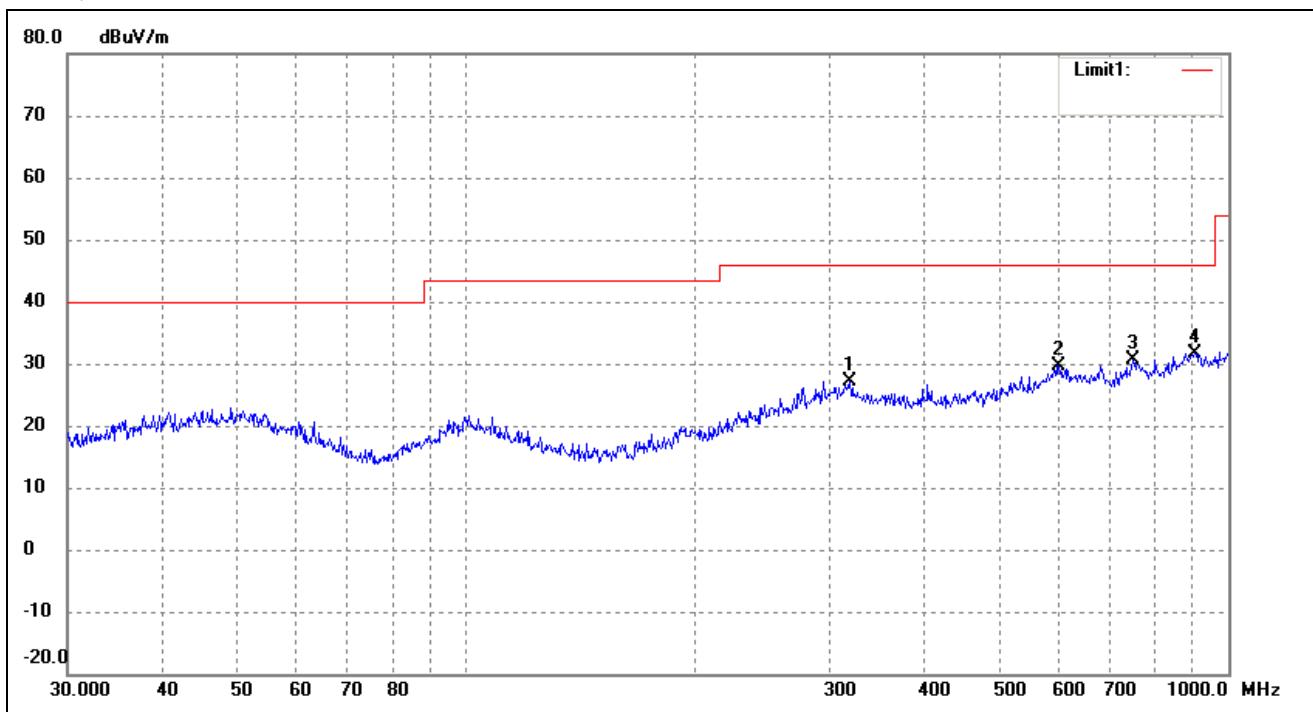
Test Specification: *Vertical*



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (•)	Height (cm)	Remark
1	44.5867	16.15	7.88	24.03	40.00	-15.97	44	100	peak
2	504.7062	19.72	10.98	30.70	46.00	-15.30	135	100	peak
3	568.6127	19.54	11.98	31.52	46.00	-14.48	197	100	peak
4	903.3093	15.99	16.79	32.78	46.00	-13.22	251	100	peak

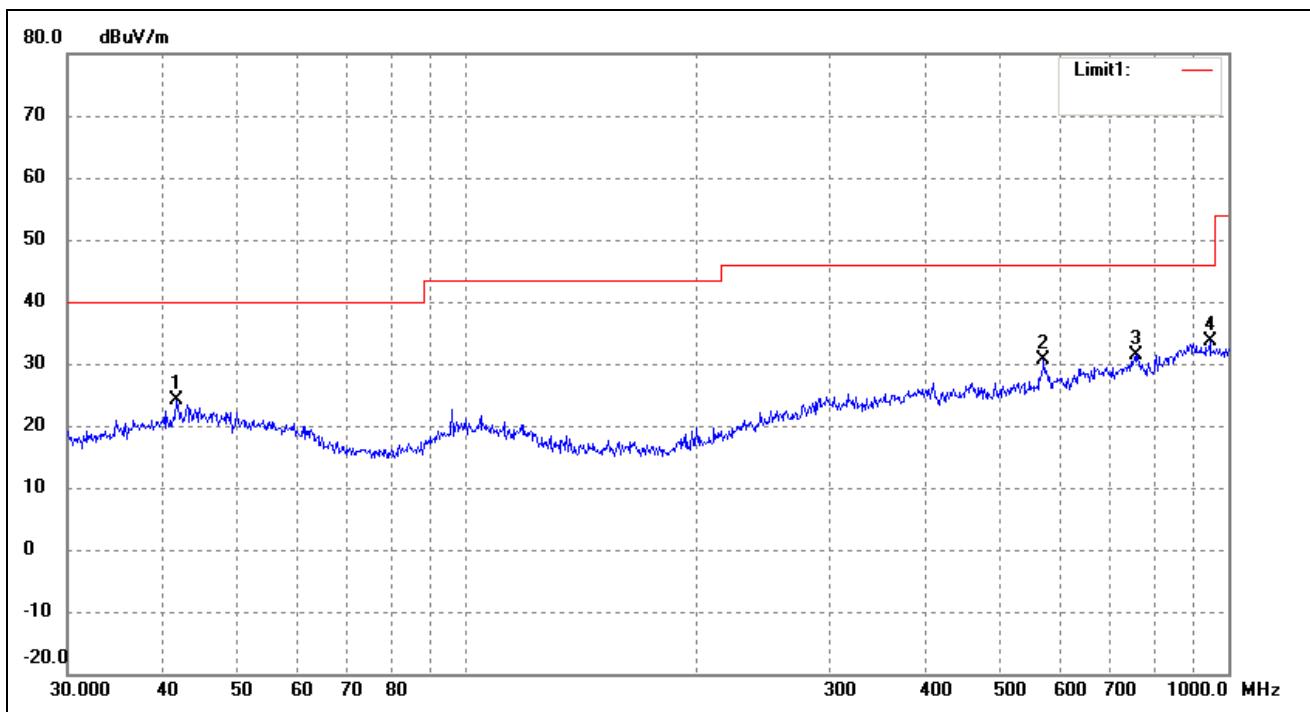
Test mode: Transmitting Channel 5755MHz

Horizontal



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (•)	Height (cm)	Remark
1	318.8170	17.91	9.28	27.19	46.00	-18.81	85	100	peak
2	599.3212	16.34	13.30	29.64	46.00	-16.36	147	100	peak
3	750.1082	16.64	14.10	30.74	46.00	-15.26	203	100	peak
4	903.3093	14.92	16.79	31.71	46.00	-14.29	269	100	peak

Test Specification: *Vertical*



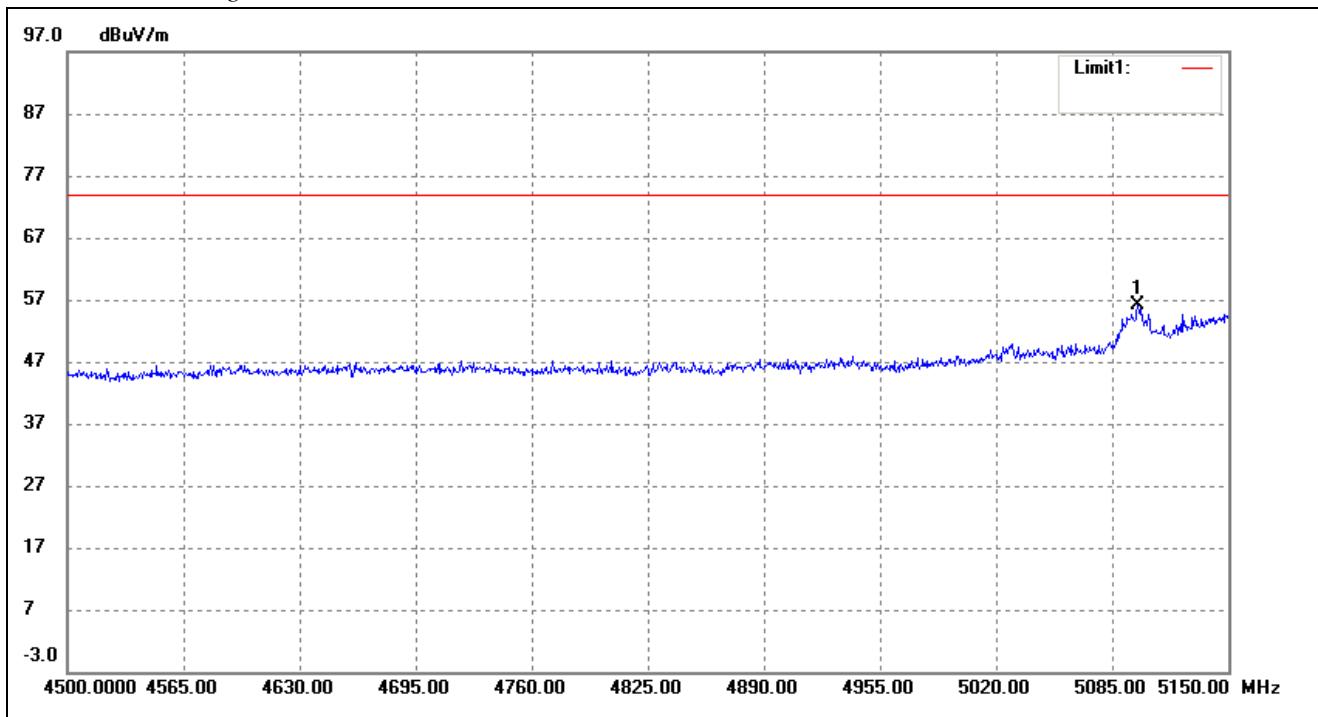
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (•)	Height (cm)	Remark
1	41.7130	15.31	8.74	24.05	40.00	-15.95	26	100	peak
2	572.6144	18.56	12.19	30.75	46.00	-15.25	164	100	peak
3	755.3872	16.60	14.86	31.46	46.00	-14.54	215	100	peak
4	945.4397	17.32	16.25	33.57	46.00	-12.43	283	100	peak

802.11a

Spurious Emission above 1GHz

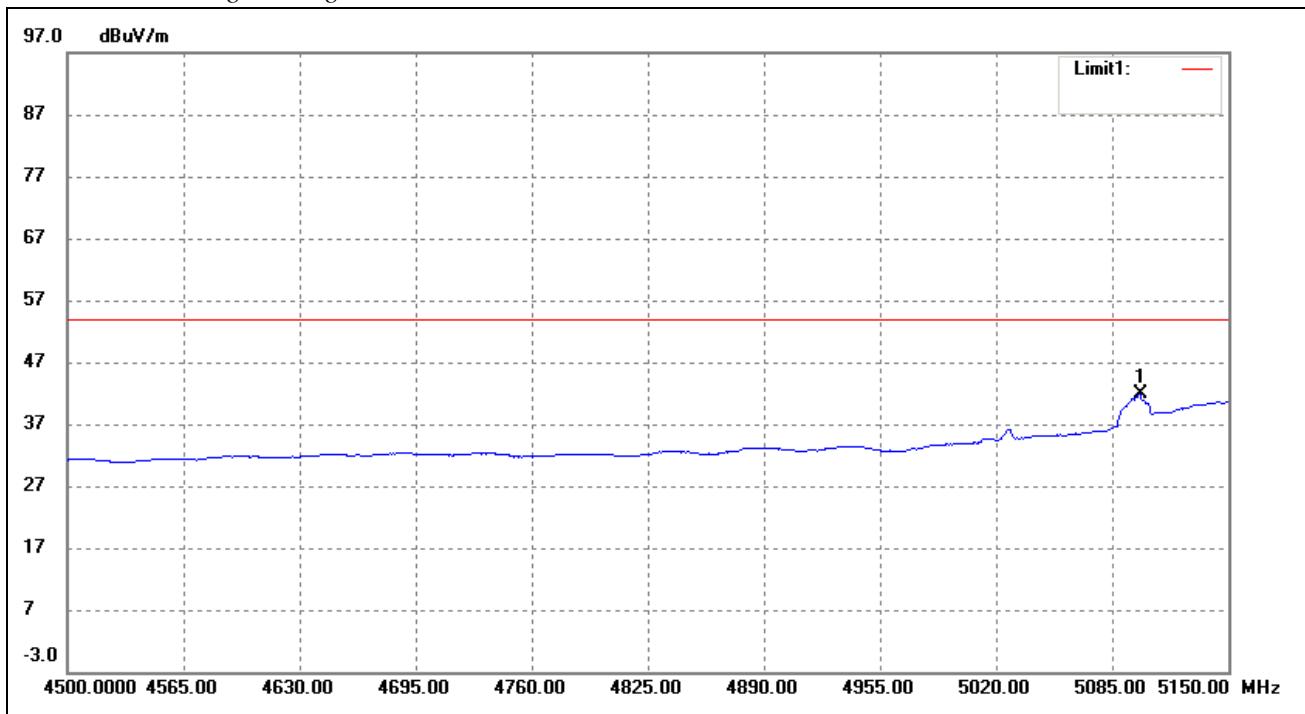
For the frequency band 5.15-5.25GHz(802.11a)

Restricted Bandedge Peak



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Remark
1	5099.300	56.47	-0.25	56.22	74.00	-17.78	360	100	peak

Restricted Bandedge Average



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Remark
1	5100.600	42.14	-0.25	41.89	54.00	-12.11	360	100	Ave

Note: this EUT was tested in the low, high channel and the worst case position data was reported.

Hormonics And Spurious Emissions

Frequency MHz	Detector	Meter Reading dBuV	Direction Degree	Polar H / V	Antenna Loss dB	Cable loss dB	Amplifier dB	Correction Amplitude dBuV/m	Limit dBuV/m	Margin dB
Low Channel (5180MHz)										
15540	PK	45.0	55	V	40.7	10.9	39.6	57.0	74	-17.0
15540	PK	46.1	55	H	40.7	10.9	39.6	58.1	74	-15.9
15540	AV	30.3	55	V	40.7	10.9	39.6	42.3	54	-11.7
15540	AV	30.4	55	H	40.7	10.9	39.6	42.4	54	-11.6
High Channel (5240MHz)										
15720	PK	46.3	55	V	40.7	10.9	39.6	58.3	74	-15.7
15720	PK	45.6	55	H	40.7	10.9	39.6	57.6	74	-16.4
15720	AV	31.2	55	V	40.7	10.9	39.6	43.2	54	-10.8
15720	AV	30.3	55	H	40.7	10.9	39.6	42.3	54	-11.7

Out of Band edge

Test CH.	Test Segment		Result dBm/MHz	Limit dBm/MHz
	MHz			
Lowest	Below 5150		-49.65	-27
Highest	Above 5350		-48.52	-27

Note: the data just list the worst cases

For the frequency band 5.250-5.350GHz (802.11a)

Hormonics And Spurious Emissions

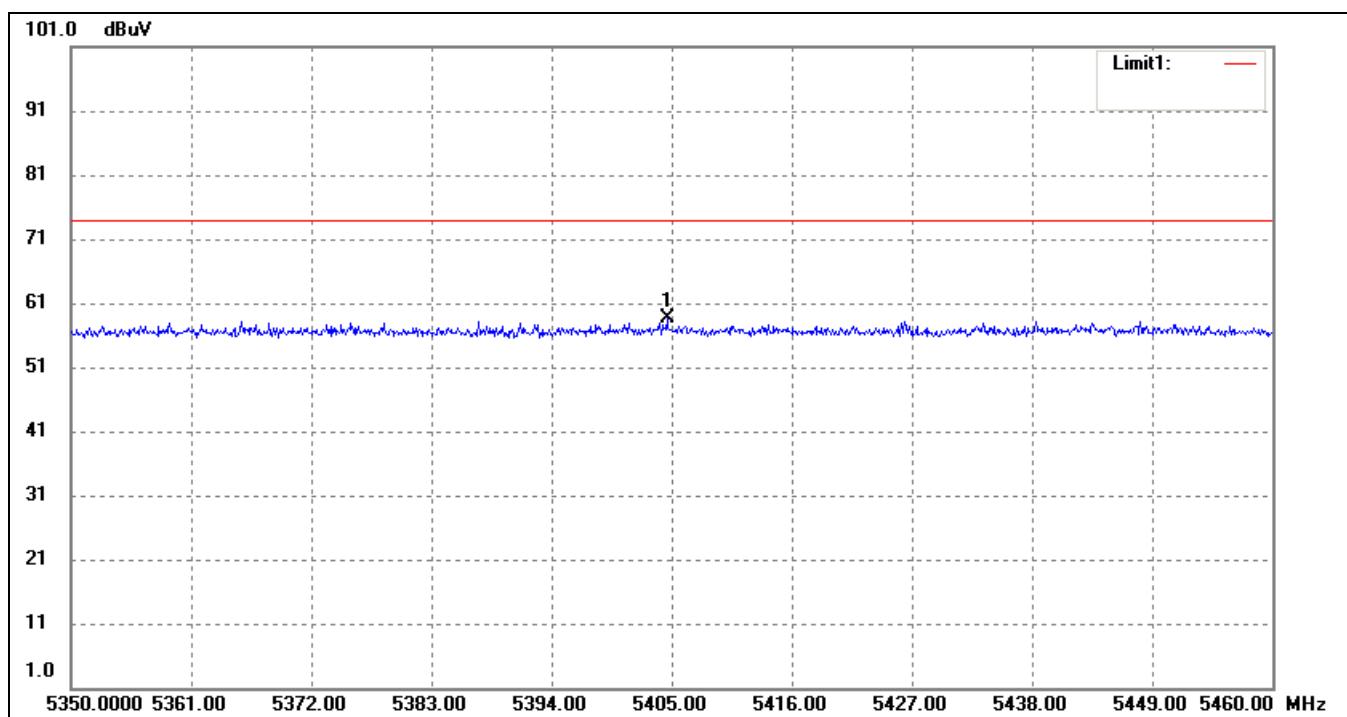
Frequency MHz	Detector	Meter Reading dBuV	Direction Degree	Polar H / V	Antenna Loss dB	Cable loss dB	Amplifier dB	Correction Amplitude dBuV/m	Limit dBuV/m	Margin dB
Low Channel (5260MHz)										
10520	PK	60.28	360	V	38.3	7.24	40.1	65.72	74	-8.28
10520	PK	60.87	360	H	38.3	7.24	40.1	66.31	74	-7.69
10520	AV	45.32	360	V	38.3	7.24	40.1	50.76	54	-3.24
10520	AV	39.3	360	H	38.3	7.24	40.1	44.74	54	-9.26
High Channel (5320MHz)										
10640	PK	58.36	360	V	38.3	7.24	40.1	63.8	74	-10.2
10640	PK	63.23	360	H	38.3	7.24	40.1	68.67	74	-5.33
10640	AV	40.57	360	V	38.3	7.24	40.1	46.01	54	-7.99
10640	AV	39.72	360	H	38.3	7.24	40.1	45.16	54	-8.84

Out of Band edge

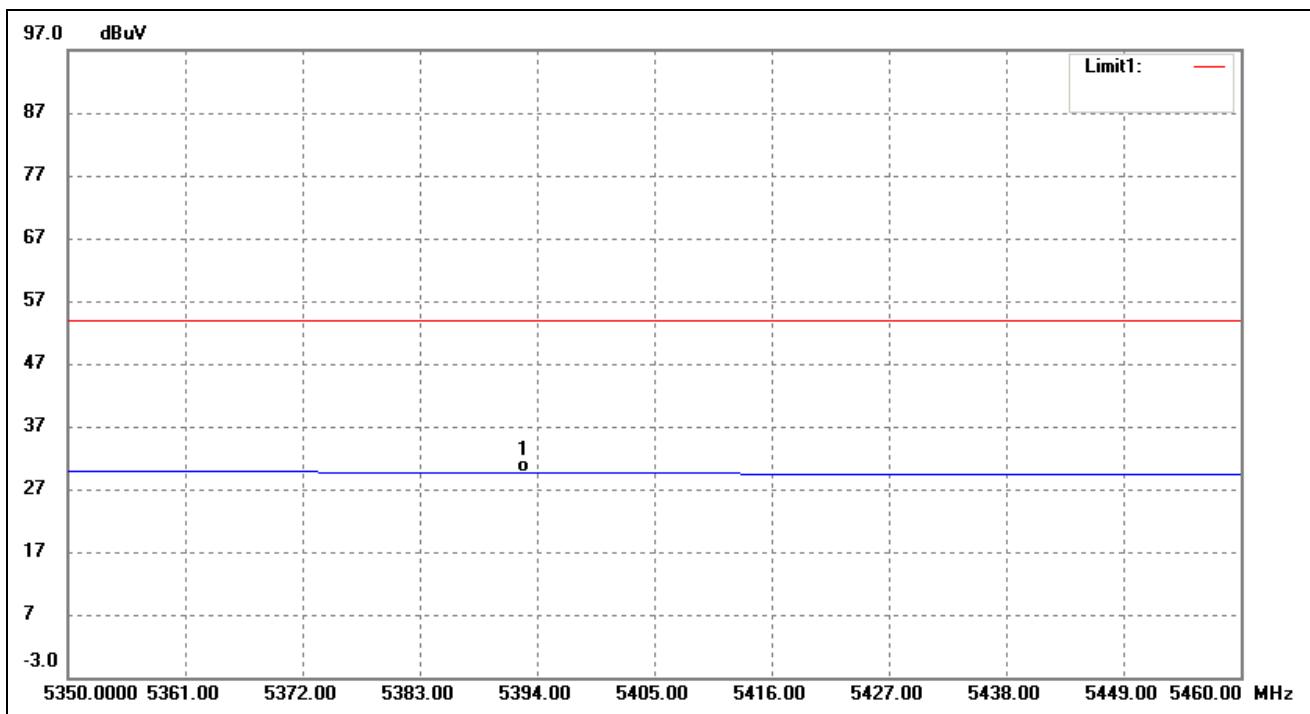
Test CH.	Test Segment		Result dBm/MHz	Limit dBm/MHz
	MHz			
Lowest	Below 5150		-38.29	-27
Highest	Above 5350		-43.16	-27

Note: the data just list the worst cases

Restricted Bandedge Peak



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Remark
1	5404.610	47.24	11.35	58.59	74.00	-15.41	180	150	peak

Restricted Bandedge Average


No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Remark
1	5392.853	18.36	11.34	29.70	54.00	-24.30	180	150	AVG

Note: this EUT was tested in the low, high channel and the worst case position data was reported.

For the frequency band 5.470-5.725GHz (802.11a)

Hormonics And Spurious Emissions

Frequency MHz	Detector	Meter Reading dBuV	Direction Degree	Polar H / V	Antenna Loss dB	Cable loss dB	Amplifier dB	Correction Amplitude dBuV/m	Limit dBuV/m	Margin dB
Low Channel (5500MHz)										
11000	PK	63.84	360	V	38.5	8.35	40.1	70.59	74	-3.41
11000	PK	58.53	360	H	38.5	8.35	40.1	65.28	74	-8.72
11000	AV	39.01	360	V	38.5	8.35	40.1	45.76	54	-8.24
11000	AV	40.87	360	H	38.5	8.35	40.1	47.62	54	-6.38
High Channel (5700MHz)										
11400	PK	59.82	360	V	38.9	8.4	40.1	67.02	74	-6.98
11400	PK	58.31	360	H	38.9	8.4	40.1	65.51	74	-8.49
11400	AV	41.38	360	V	38.9	8.4	40.1	48.58	54	-5.42
11400	AV	38.41	360	H	38.9	8.4	40.1	45.61	54	-8.39

Out of Band edge

Test CH.	Test Segment		Result dBm/MHz	Limit dBm/MHz
	MHz			
Lowest	Below 5470		-42.37	-27
Highest	Above 5725		-48.19	-27

Note: the data just list the worst cases

For the frequency band 5.725-5.850GHz (802.11a)

Hormonics And Spurious Emissions

Frequency MHz	Detector	Meter Reading dBuV	Direction Degree	Polar H / V	Antenna Loss dB	Cable loss dB	Amplifier dB	Correction Amplitude dBuV/m	Limit dBuV/m	Margin dB
Low Channel (5725MHz)										
11450	PK	60.84	360	V	38.9	9.8	40.1	69.44	74	-4.56
11450	PK	57.93	360	H	38.9	9.8	40.1	66.53	74	-7.47
11450	AV	36.34	360	V	38.9	9.8	40.1	44.94	54	-9.06
11450	AV	39.94	360	H	38.9	9.8	40.1	48.54	54	-5.46
High Channel (5825MHz)										
11610	PK	60.10	360	V	38.9	9.8	40.1	68.7	74	-5.3
11610	PK	59.72	360	H	38.9	9.8	40.1	68.32	74	-5.68
11610	AV	36.44	360	V	38.9	9.8	40.1	45.04	54	-8.96
11610	AV	39.48	360	H	38.9	9.8	40.1	48.08	54	-5.92

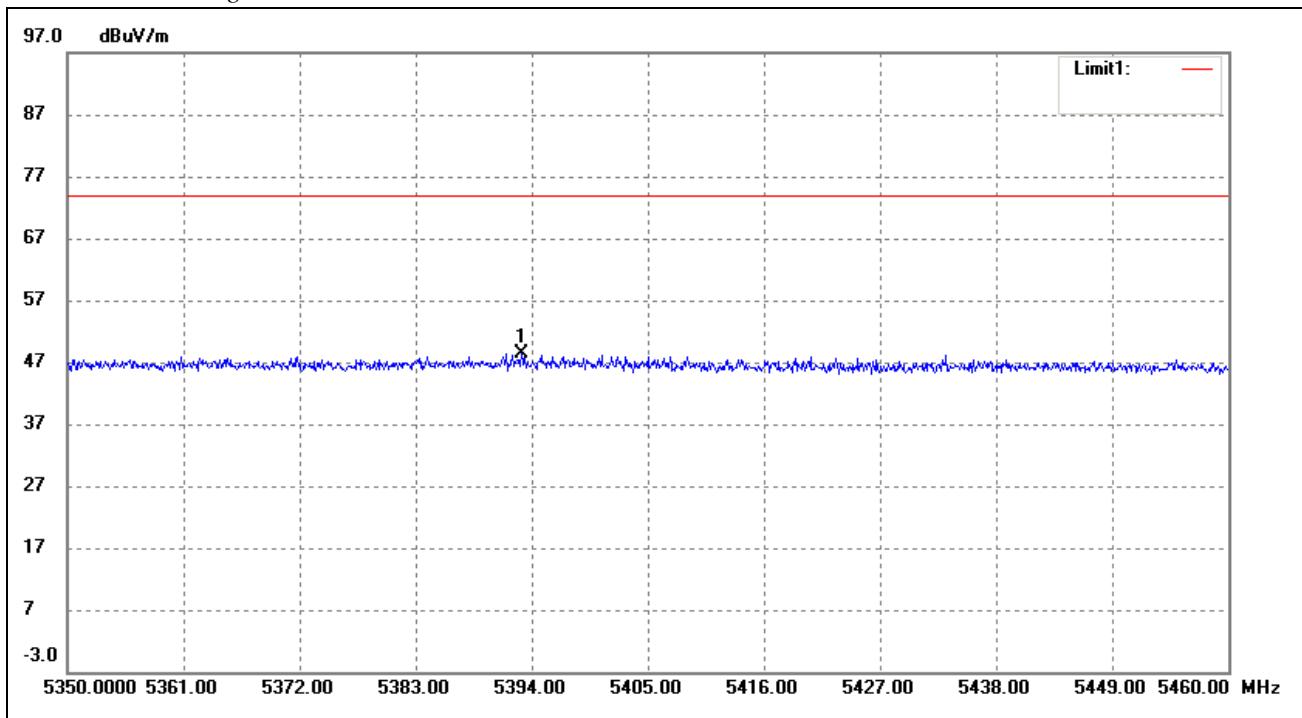
Out of Band edge

Test CH.	Test Segment		Result dBm/MHz	Limit dBm/MHz
	MHz			
Lowest	Below 5715		-49.82	-27
	5715 to 5725		-45.63	-17
Highest	5850 to 5860		-46.85	-17
	Above 5860		-47.73	-27
Note: the data just list the worst cases				

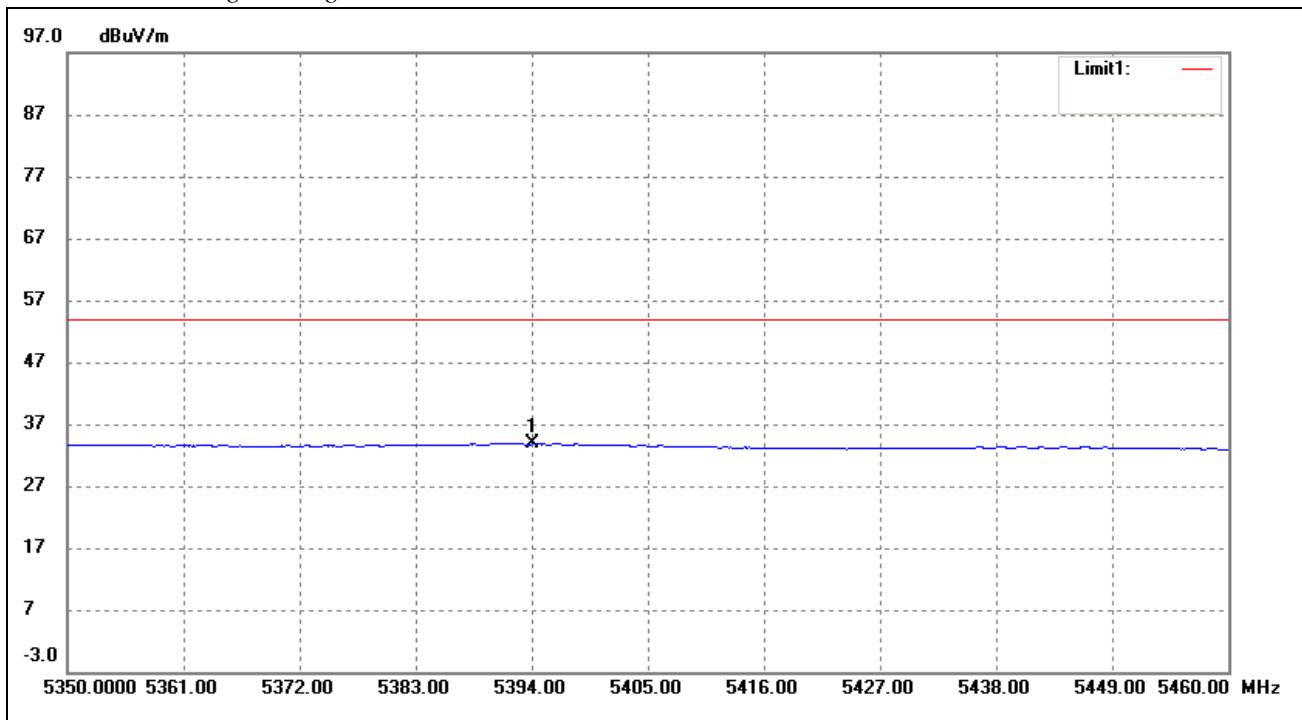
802.11n20

For the frequency band 5.15-5.25GHz(802.11n HT20)

Restricted Bandedge Peak



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Remark
1	5393.010	53.45	-5.06	48.39	74.00	-25.61	55	100	peak

Restricted Bandedge Average


Note: this EUT was tested in the low, high channel and the worst case position data was reported.

Hormonics And Spurious Emissions

Frequency MHz	Detector	Meter Reading dBuV	Direction Degree	Polar H / V	Antenna Loss dB	Cable loss dB	Amplifier dB	Correction Amplitude dBuV/m	Limit dBuV/m	Margin dB
Low Channel (5180MHz)										
10360	PK	44.4	360	V	40.7	10.9	39.6	56.4	74	-17.6
10360	PK	43.8	360	H	40.7	10.9	39.6	55.8	74	-18.2
10360	AV	29.8	360	V	40.7	10.9	39.6	41.8	54	-12.2
10360	AV	28.9	360	H	40.7	10.9	39.6	40.9	54	-13.1
High Channel (5240MHz)										
10480	PK	43.9	360	V	40.7	10.9	39.6	55.9	74	-18.1
10480	PK	43.3	360	H	40.7	10.9	39.6	55.3	74	-18.7
10480	AV	29.7	360	V	40.7	10.9	39.6	41.7	54	-12.3
10480	AV	28.2	360	H	40.7	10.9	39.6	40.2	54	-13.8

Out of Band edge

Test CH.	Test Segment		Result dBm/MHz	Limit dBm/MHz
	MHz			
Lowest	Below 5150		-46.47	-27
Highest	Above 5350		-48.21	-27
Note: the data just list the worst cases				

For the frequency band 5.250-5.350GHz (802.11n HT20)

Hormonics And Spurious Emissions

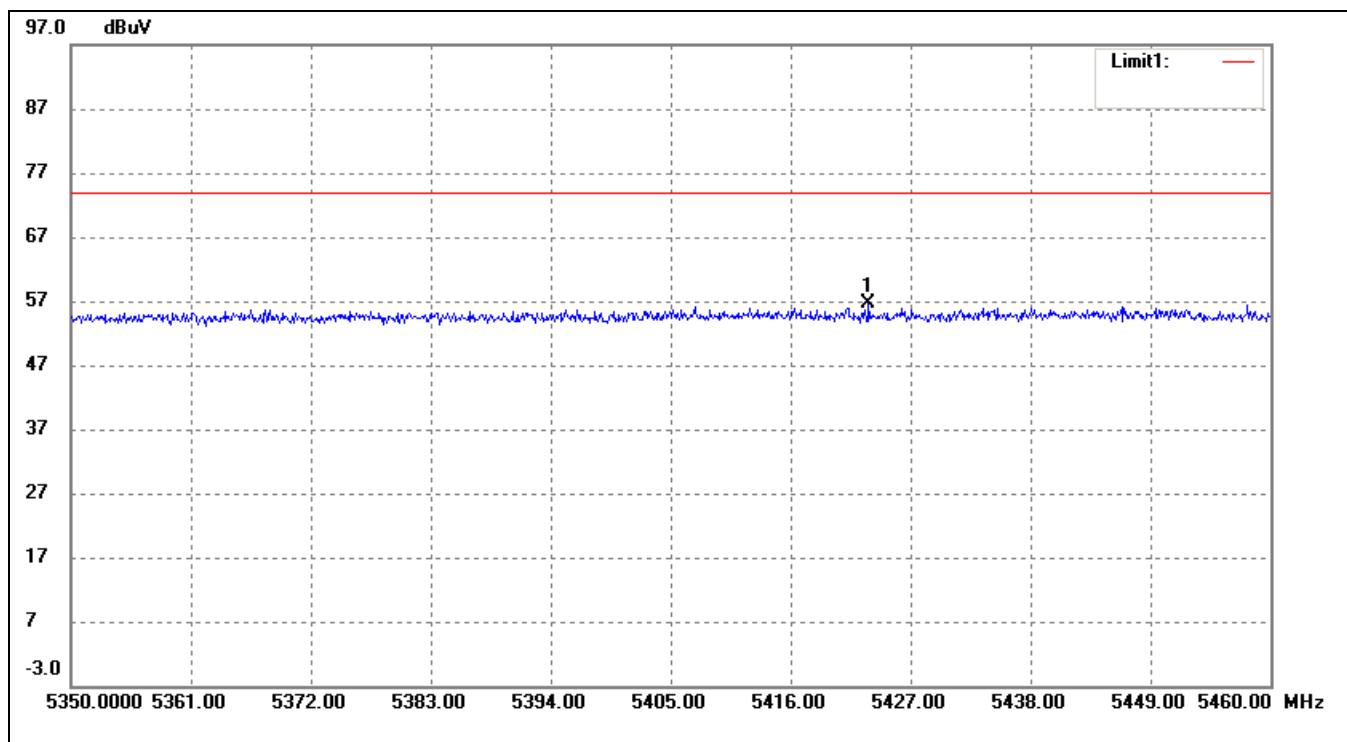
Frequency MHz	Detector	Meter Reading dBuV	Direction Degree	Polar H / V	Antenna Loss dB	Cable loss dB	Amplifier dB	Correction Amplitude dBuV/m	Limit dBuV/m	Margin dB
Low Channel (5260MHz)										
10520	PK	63.39	360	V	38.3	7.24	40.1	68.83	74	-5.17
10520	PK	62.06	360	H	38.3	7.24	40.1	67.5	74	-6.5
10520	AV	38.12	360	V	38.3	7.24	40.1	43.56	54	-10.44
10520	AV	40.12	360	H	38.3	7.24	40.1	45.56	54	-8.44
High Channel (5320MHz)										
10640	PK	62.04	360	V	38.3	7.24	40.1	67.48	74	-6.52
10640	PK	62.17	360	H	38.3	7.24	40.1	67.61	74	-6.39
10640	AV	37.86	360	V	38.3	7.24	40.1	43.3	54	-10.7
10640	AV	39.4	360	H	38.3	7.24	40.1	44.84	54	-9.16

Out of Band edge

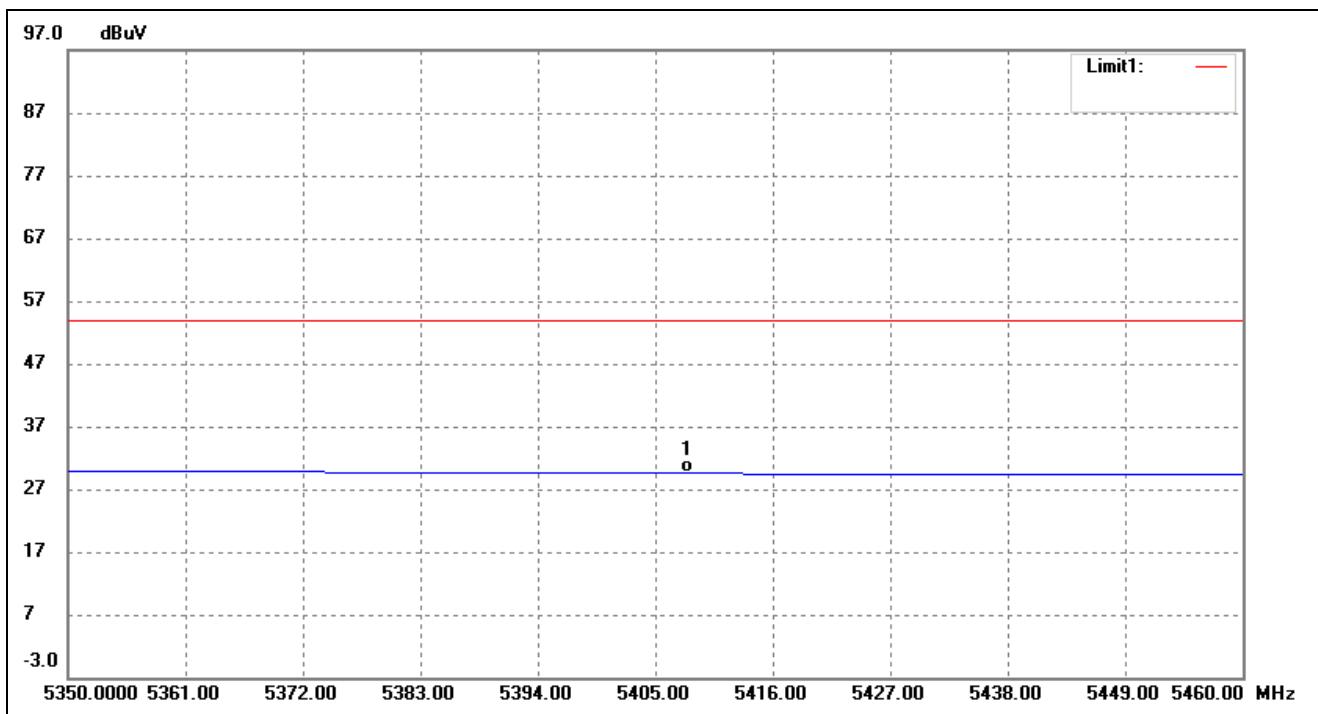
Test CH.	Test Segment		Result dBm/MHz	Limit dBm/MHz
	MHz			
Lowest	Below 5150		-42.09	-27
Highest	Above 5350		-45.58	-27

Note: the data just list the worst cases

Restricted Bandedge Peak



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Remark
1	5423.231	45.24	11.37	56.61	74.00	-17.39	185	150	peak

Restricted Bandedge Average


No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Remark
1	5408.021	18.29	11.35	29.64	54.00	-24.36	356	150	AVG

Note: this EUT was tested in the low, high channel and the worst case position data was reported.

For the frequency band 5.470-5.725GHz (802.11n HT20)

Hormonics And Spurious Emissions

Frequency MHz	Detector	Meter Reading dBuV	Direction Degree	Polar H / V	Antenna Loss dB	Cable loss dB	Amplifier dB	Correction Amplitude dBuV/m	Limit dBuV/m	Margin dB
Low Channel (5500MHz)										
11000	PK	62.98	360	V	38.5	8.35	40.1	69.73	74	-4.27
11000	PK	60.95	360	H	38.5	8.35	40.1	67.7	74	-6.30
11000	AV	40.20	360	V	38.5	8.35	40.1	46.95	54	-7.05
11000	AV	36.67	360	H	38.5	8.35	40.1	43.42	54	-10.58
High Channel (5700MHz)										
11400	PK	58.70	360	V	38.9	8.4	40.1	65.9	74	-8.10
11400	PK	61.07	360	H	38.9	8.4	40.1	68.27	74	-5.73
11400	AV	37.68	360	V	38.9	8.4	40.1	44.88	54	-9.12
11400	AV	39.38	360	H	38.9	8.4	40.1	46.58	54	-7.42

Out of Band edge

Test CH.	Test Segment		Result dBm/MHz	Limit dBm/MHz
	MHz			
Lowest	Below 5470		-38.95	-27
Highest	Above 5725		-42.37	-27

Note: the data just list the worst cases

For the frequency band 5.725-5.850GHz(802.11n HT20)

Hormonics And Spurious Emissions

Frequency MHz	Detector	Meter Reading dBuV	Direction Degree	Polar H / V	Antenna Loss dB	Cable loss dB	Amplifier dB	Correction Amplitude dBuV/m	Limit dBuV/m	Margin dB
Low Channel (5745MHz)										
11490	PK	59.58	360	V	38.9	9.8	40.1	68.18	74	-5.82
11490	PK	58.37	360	H	38.9	9.8	40.1	66.97	74	-7.03
11490	AV	38.95	360	V	38.9	9.8	40.1	47.55	54	-6.45
11490	AV	38.11	360	H	38.9	9.8	40.1	46.71	54	-7.29
High Channel (5825MHz)										
11610	PK	56.03	360	V	38.9	9.8	40.1	64.63	74	-9.37
11610	PK	56.09	360	H	38.9	9.8	40.1	64.69	74	-9.31
11610	AV	36.36	360	V	38.9	9.8	40.1	44.96	54	-9.04
11610	AV	41.28	360	H	38.9	9.8	40.1	49.88	54	-4.12

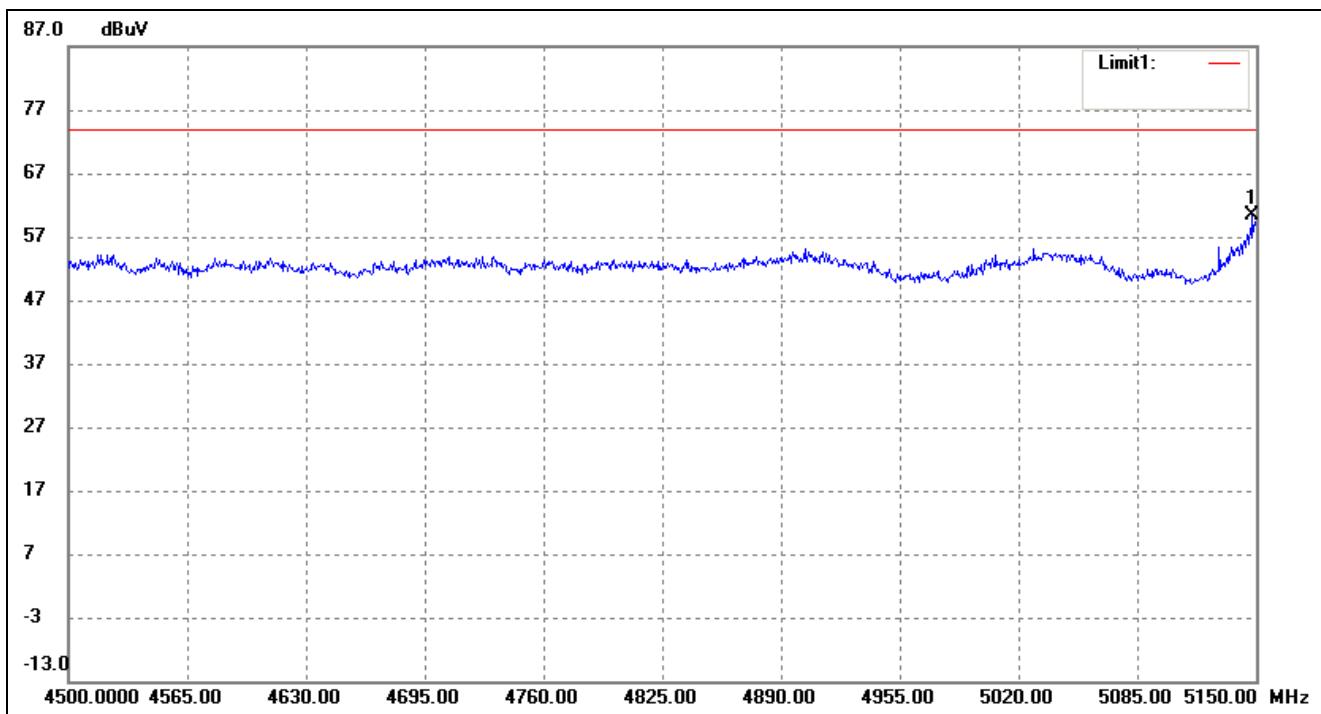
Out of Band edge

Test CH.	Test Segment		Result dBm/MHz	Limit dBm/MHz
	MHz			
Lowest	Below 5715		-42.37	-27
	5715 to 5725		-45.69	-17
Highest	5850 to 5860		-48.12	-17
	Above 5860		-45.27	-27
Note: the data just list the worst cases				

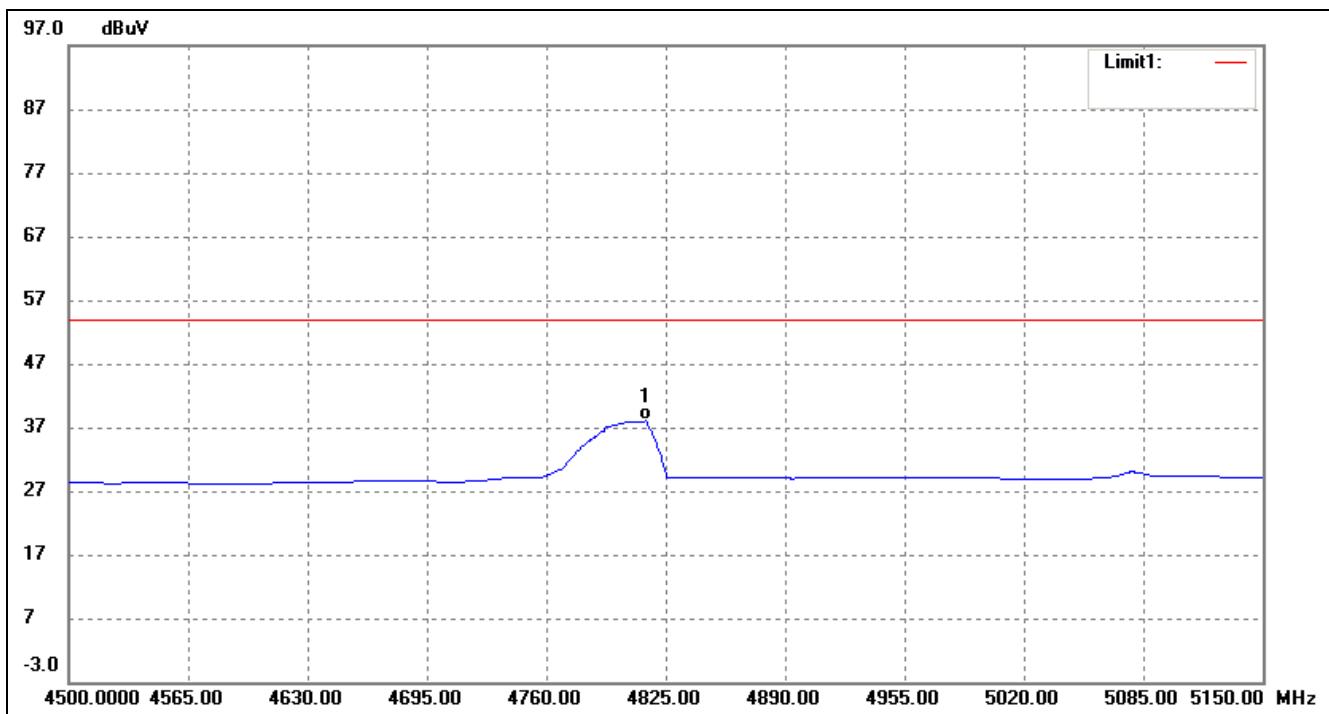
802.11n40

For the frequency band 5.15-5.25GHz(802.11n HT40)

Restricted Bandedge Peak



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Remark
1	5148.610	49.40	11.02	60.42	74.00	-13.58	21	150	peak

Restricted Bandedge Average


No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Remark
1	4814.042	27.46	10.55	38.01	54.00	-15.99	25	150	AVG

Note: this EUT was tested in the low, high channel and the worst case position data was reported.

Hormonics And Spurious Emissions

Frequency MHz	Detector	Meter Reading dBuV	Direction Degree	Polar H / V	Antenna Loss dB	Cable loss dB	Amplifier dB	Correction Amplitude dBuV/m	Limit dBuV/m	Margin dB
Low Channel (5190MHz)										
10380	PK	57.30	360	V	40.7	10.9	39.6	69.3	74	-4.70
10380	PK	55.92	360	H	40.7	10.9	39.6	67.92	74	-6.08
10380	AV	36.99	360	V	40.7	10.9	39.6	48.99	54	-5.01
10380	AV	37.56	360	H	40.7	10.9	39.6	49.56	54	-4.44
High Channel (5230MHz)										
10460	PK	55.67	360	V	40.7	10.9	39.6	67.67	74	-6.33
10460	PK	57.76	360	H	40.7	10.9	39.6	69.76	74	-4.24
10460	AV	35.28	360	V	40.7	10.9	39.6	47.28	54	-6.72
10460	AV	35.51	360	H	40.7	10.9	39.6	47.51	54	-6.49

Out of Band edge

Test CH.	Test Segment		Result dBm/MHz	Limit dBm/MHz
	MHz			
Lowest	Below 5150		-42.10	-27
Highest	Above 5350		-45.57	-27
Note: the data just list the worst cases				

For the frequency band 5.250-5.350GHz (802.11n HT40)

Hormonics And Spurious Emissions

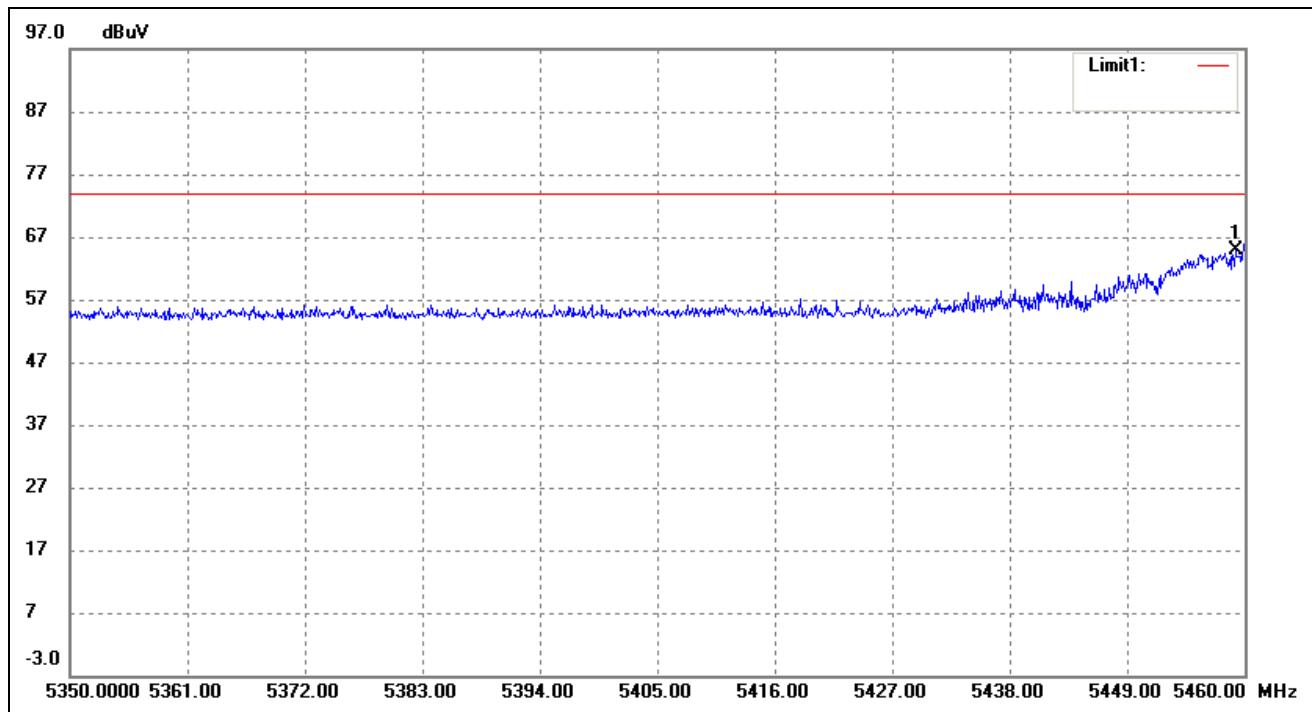
Frequency MHz	Detector	Meter Reading dBuV	Direction Degree	Polar H / V	Antenna Loss dB	Cable loss dB	Amplifier dB	Correction Amplitude dBuV/m	Limit dBuV/m	Margin dB
Low Channel (5270MHz)										
10540	PK	59.35	360	V	38.3	7.24	40.1	64.79	74	-9.21
10540	PK	59.38	360	H	38.3	7.24	40.1	64.82	74	-9.18
10540	AV	43.25	360	V	38.3	7.24	40.1	48.69	54	-5.31
10540	AV	38.39	360	H	38.3	7.24	40.1	43.83	54	-10.17
High Channel (5310MHz)										
10620	PK	63.82	360	V	38.3	7.24	40.1	69.26	74	-4.74
10620	PK	57.39	360	H	38.3	7.24	40.1	62.83	74	-11.17
10620	AV	41.67	360	V	38.3	7.24	40.1	47.11	54	-6.89
10620	AV	36.94	360	H	38.3	7.24	40.1	42.38	54	-11.62

Out of Band edge

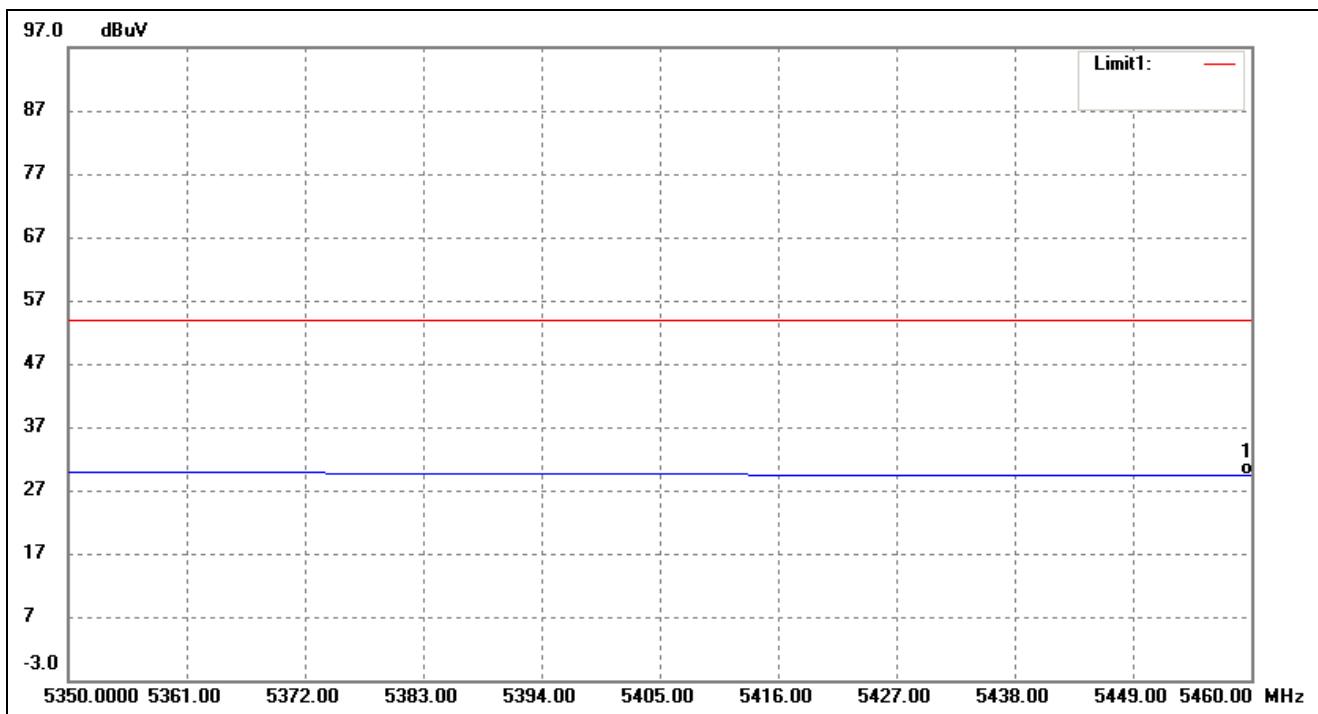
Test CH.	Test Segment		Result dBm/MHz	Limit dBm/MHz
	MHz			
Lowest	Below 5150		-41.25	-27
Highest	Above 5350		-46.17	-27

Note: the data just list the worst cases

Restricted Bandedge Peak



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Remark
1	5459.222	53.45	11.42	64.87	74.00	-9.13	181	150	peak

Restricted Bandedge Average


No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Remark
1	5459.667	18.05	11.42	29.47	54.00	-24.53	181	150	AVG

For the frequency band 5.470-5.725GHz (802.11n HT40)

Hormonics And Spurious Emissions

Frequency MHz	Detector	Meter Reading dBuV	Direction Degree	Polar H / V	Antenna Loss dB	Cable loss dB	Amplifier dB	Correction Amplitude dBuV/m	Limit dBuV/m	Margin dB
Low Channel (5510MHz)										
11020	PK	57.12	360	V	38.5	8.35	40.1	63.87	74	-10.13
11020	PK	59.73	360	H	38.5	8.35	40.1	66.48	74	-7.52
11020	AV	38.95	360	V	38.5	8.35	40.1	45.7	54	-8.3
11020	AV	36.31	360	H	38.5	8.35	40.1	43.06	54	-10.94
High Channel (5670MHz)										
11340	PK	57.27	360	V	38.9	8.4	40.1	64.47	74	-9.53
11340	PK	62.27	360	H	38.9	8.4	40.1	69.47	74	-4.53
11340	AV	40.16	360	V	38.9	8.4	40.1	47.36	54	-6.64
11340	AV	37.05	360	H	38.9	8.4	40.1	44.25	54	-9.75

Out of Band edge

Test CH.	Test Segment		Result dBm/MHz	Limit dBm/MHz
	MHz			
Lowest	Below 5470		-39.65	-27
Highest	Above 5725		-45.51	-27

Note: the data just list the worst cases

For the frequency band 5.725-5.850GHz(802.11n HT40)

Hormonics And Spurious Emissions

Frequency MHz	Detector	Meter Reading dBuV	Direction Degree	Polar H / V	Antenna Loss dB	Cable loss dB	Amplifier dB	Correction Amplitude dBuV/m	Limit dBuV/m	Margin dB
Low Channel (5755MHz)										
11510	PK	53.72	360	V	38.9	9.8	40.1	62.32	74	-11.68
11510	PK	54.04	360	H	38.9	9.8	40.1	62.64	74	-11.36
11510	AV	40.04	360	V	38.9	9.8	40.1	48.64	54	-5.36
11510	AV	41.22	360	H	38.9	9.8	40.1	49.82	54	-4.18
High Channel (5795MHz)										
11590	PK	54.45	360	V	38.9	9.8	40.1	63.05	74	-10.95
11590	PK	53.73	360	H	38.9	9.8	40.1	62.33	74	-11.67
11590	AV	36.79	360	V	38.9	9.8	40.1	45.39	54	-8.61
11590	AV	40.55	360	H	38.9	9.8	40.1	49.15	54	-4.85

Out of Band edge

Test CH.	Test Segment		Result dBm/MHz	Limit dBm/MHz
	MHz			
Lowest	Below 5715		-40.27	-27
	5715 to 5725		-45.36	-17
Highest	5850 to 5860		-41.19	-17
	Above 5860		-48.68	-27

Note: the data just list the worst cases

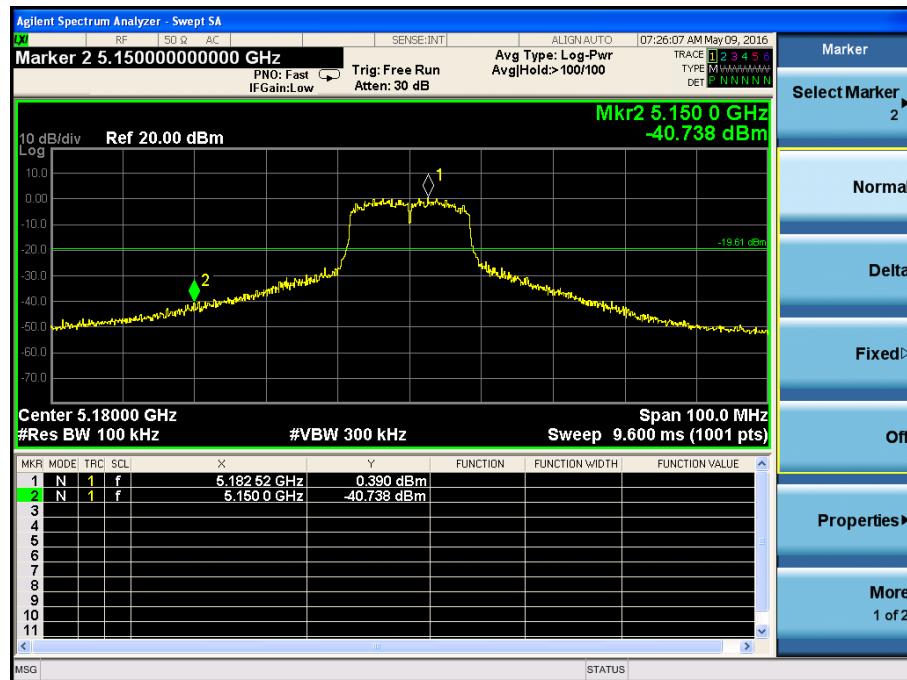
Note: Testing is carried out with frequency rang 9kHz to 40GHz, which above 3rd Harmonics are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

The measurements greater than 20dB below the limit from 9kHz to 30MHz.

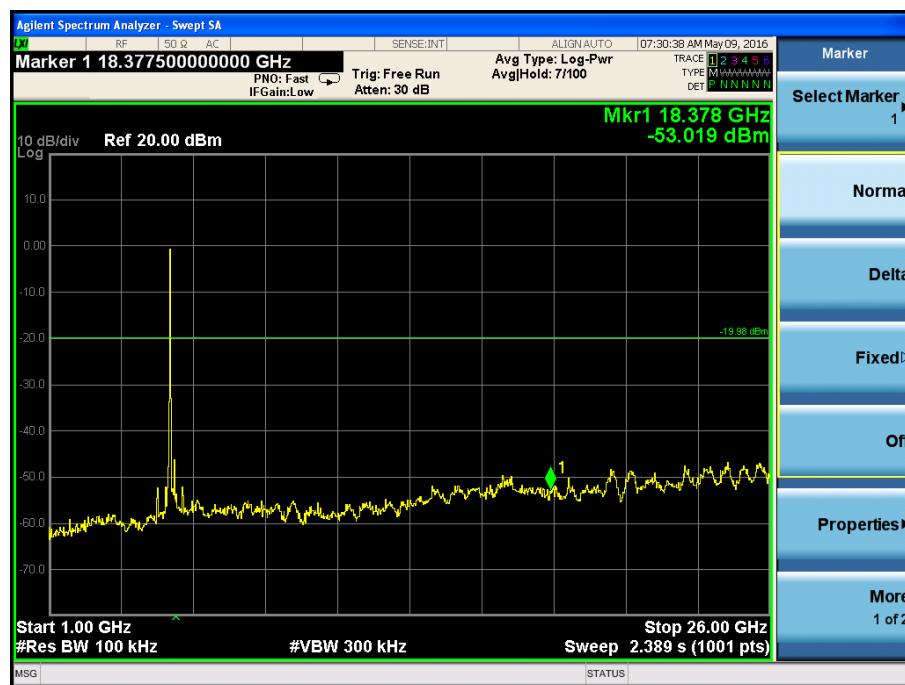
Out-of-Band and Spurious Emission (Conducted)

Antenna 1
802.11a

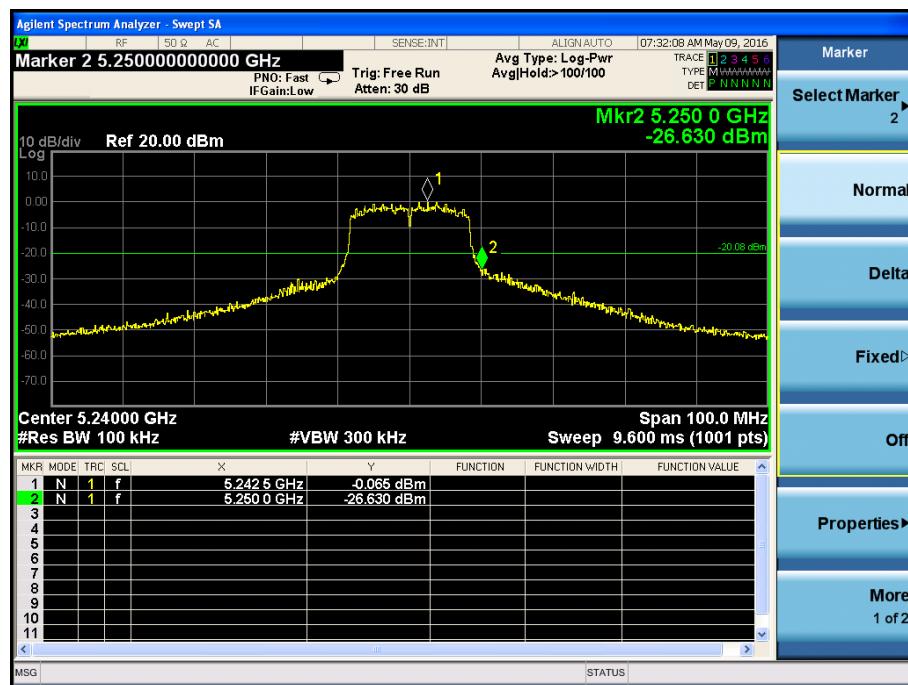
5180MHz



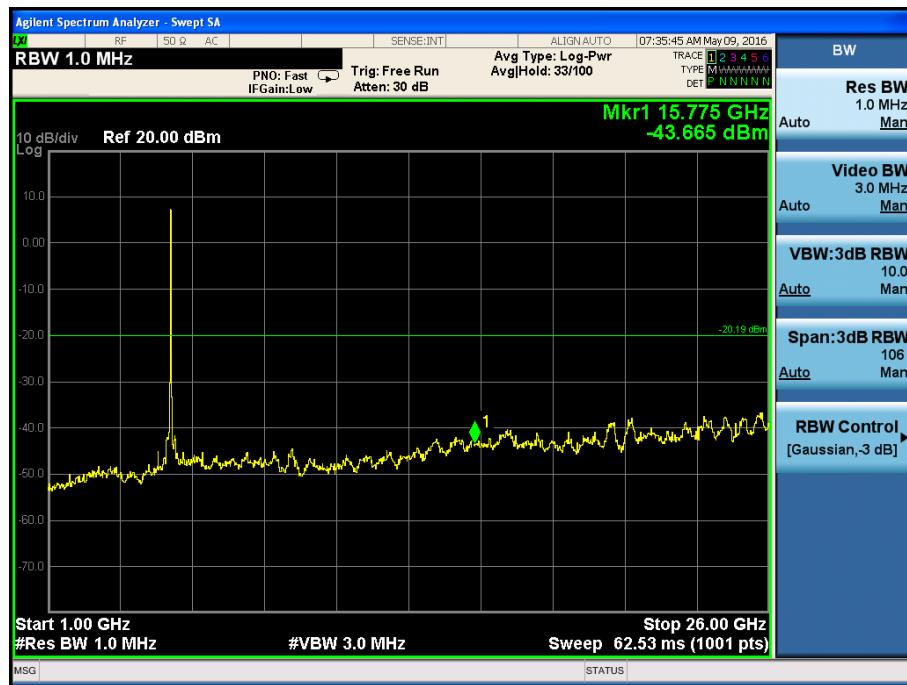
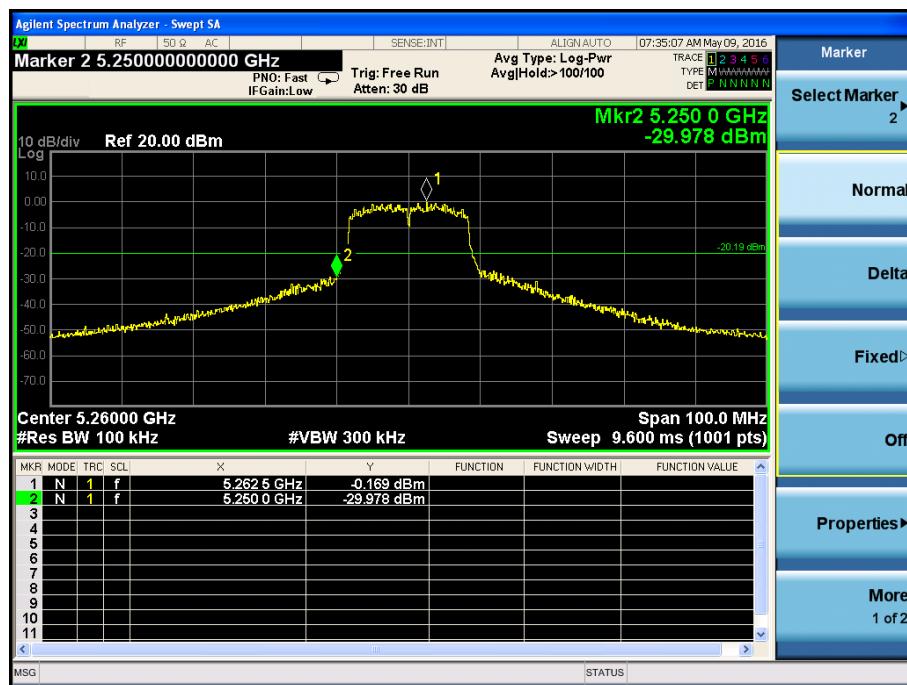
5200MHz



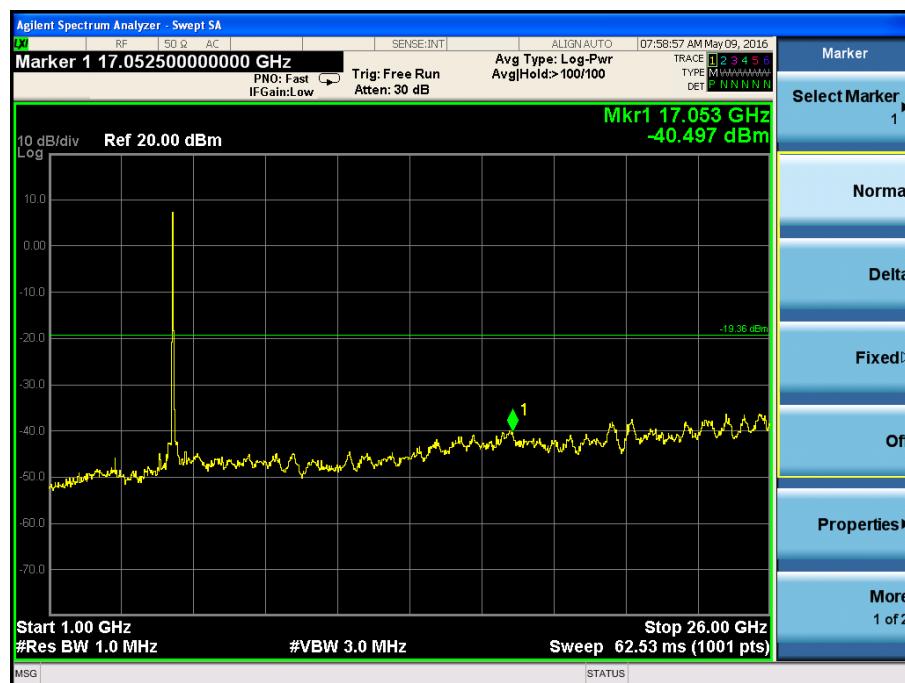
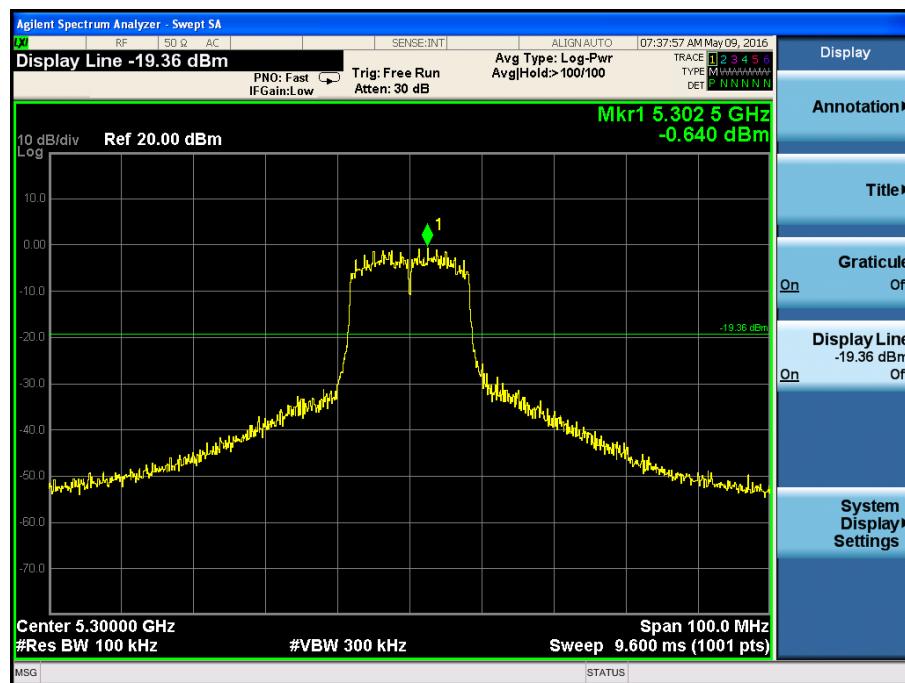
5240MHz



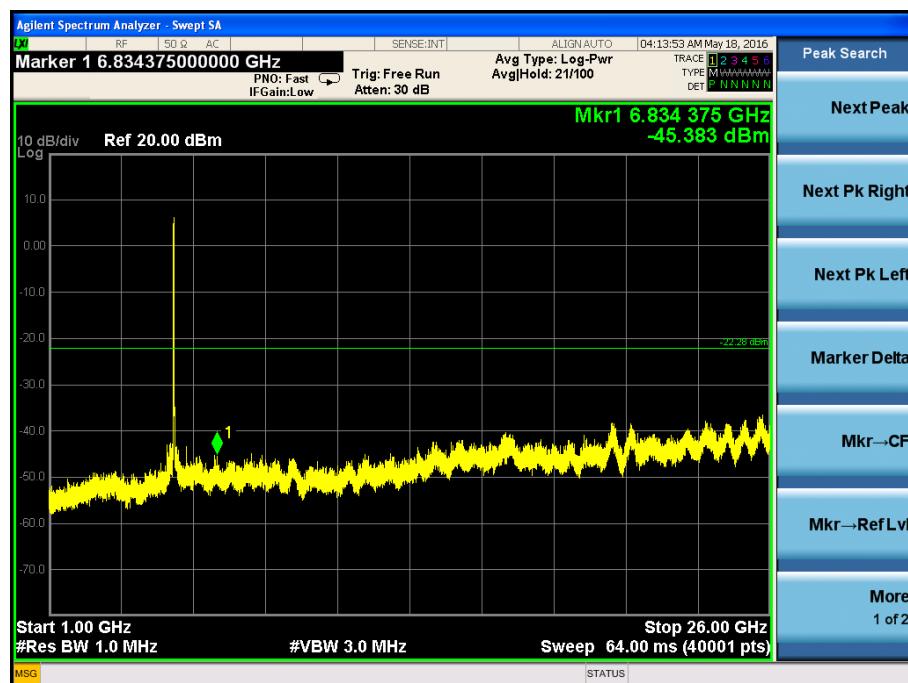
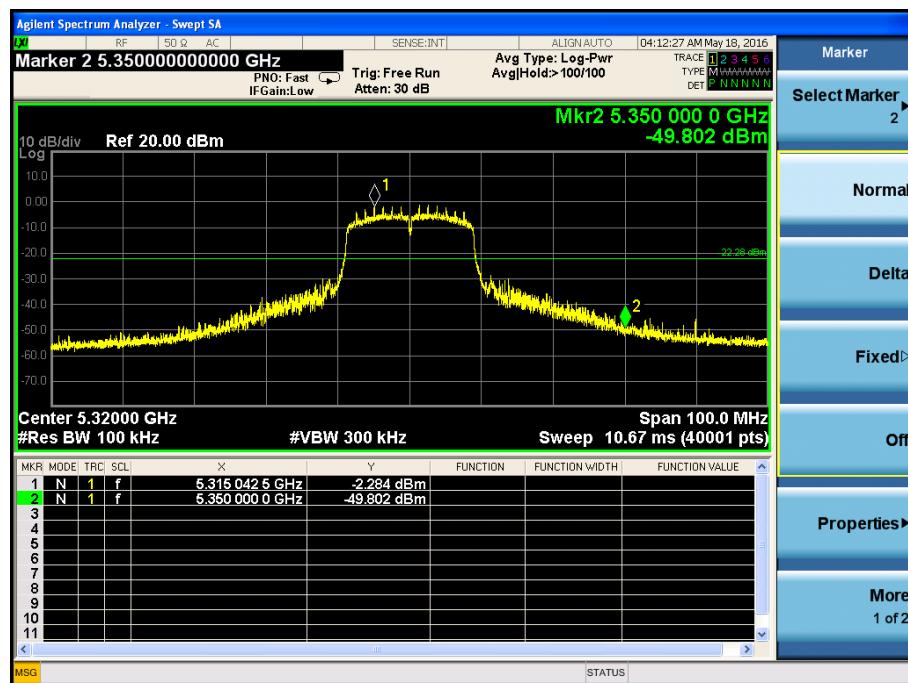
5260MHz



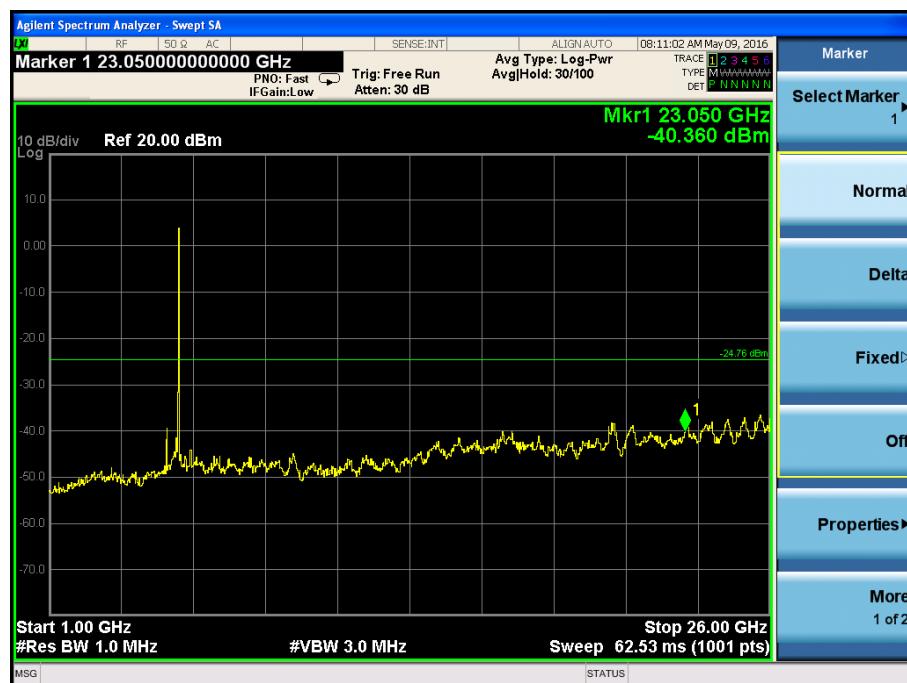
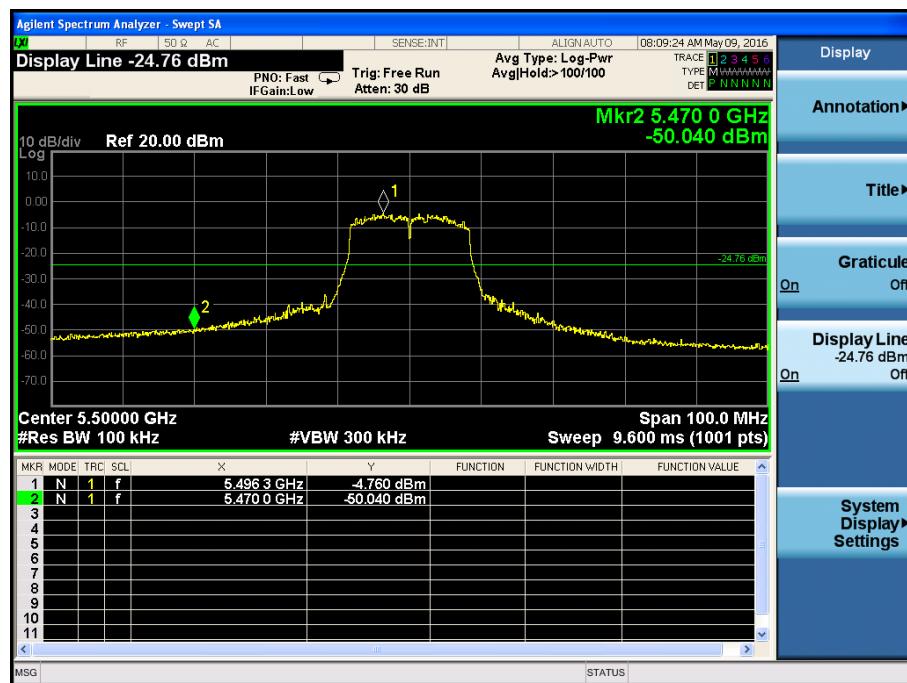
5300MHz



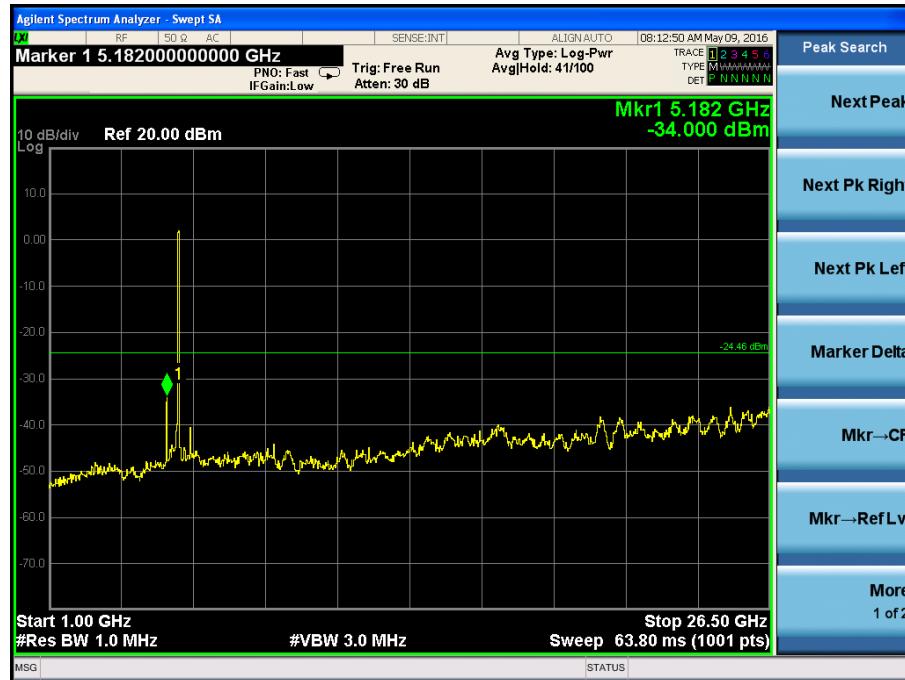
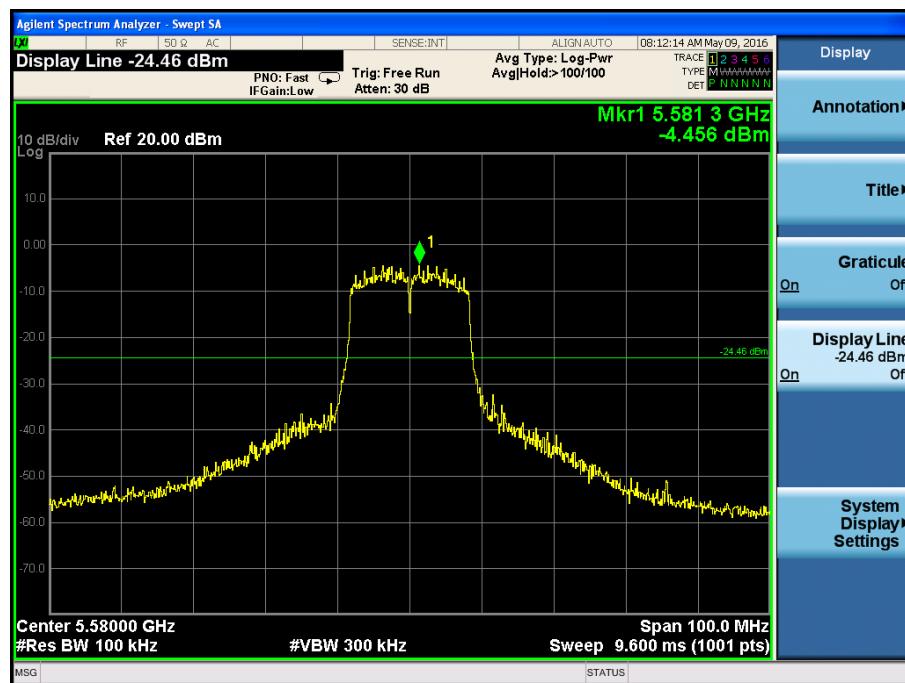
5320MHz



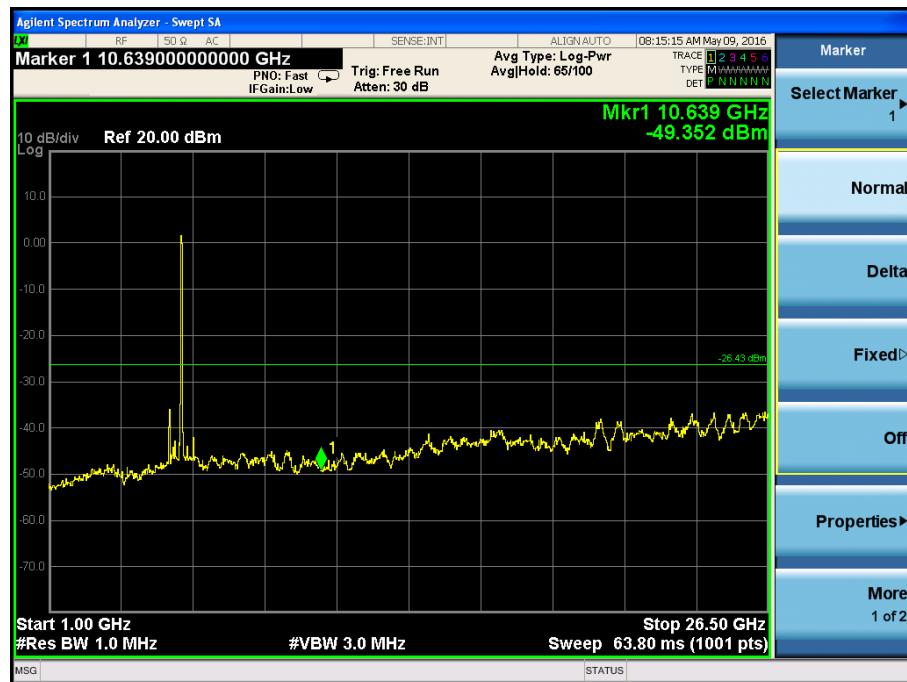
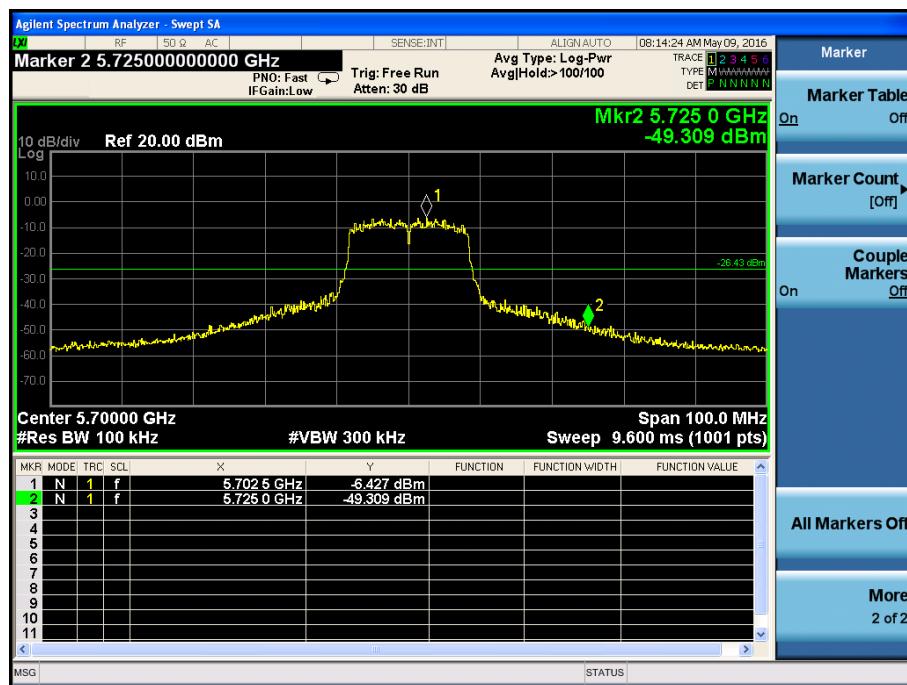
5500MHz



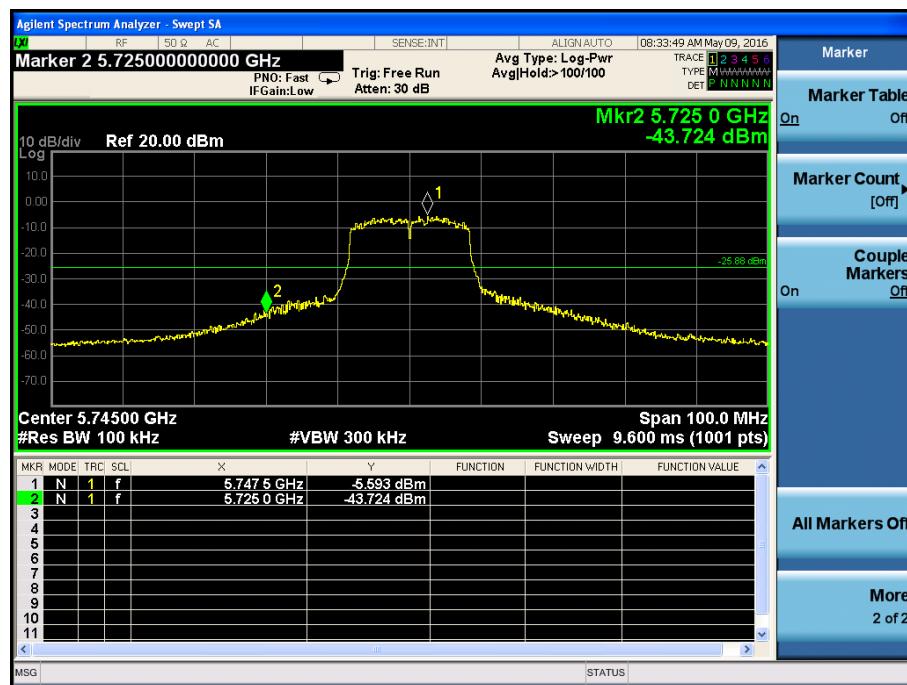
5580MHz



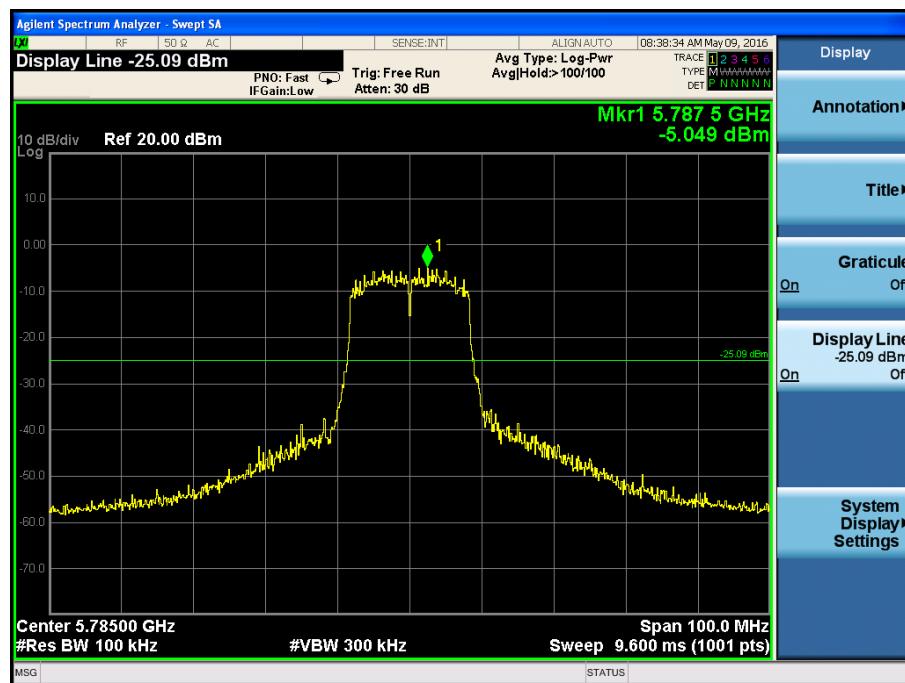
5700MHz



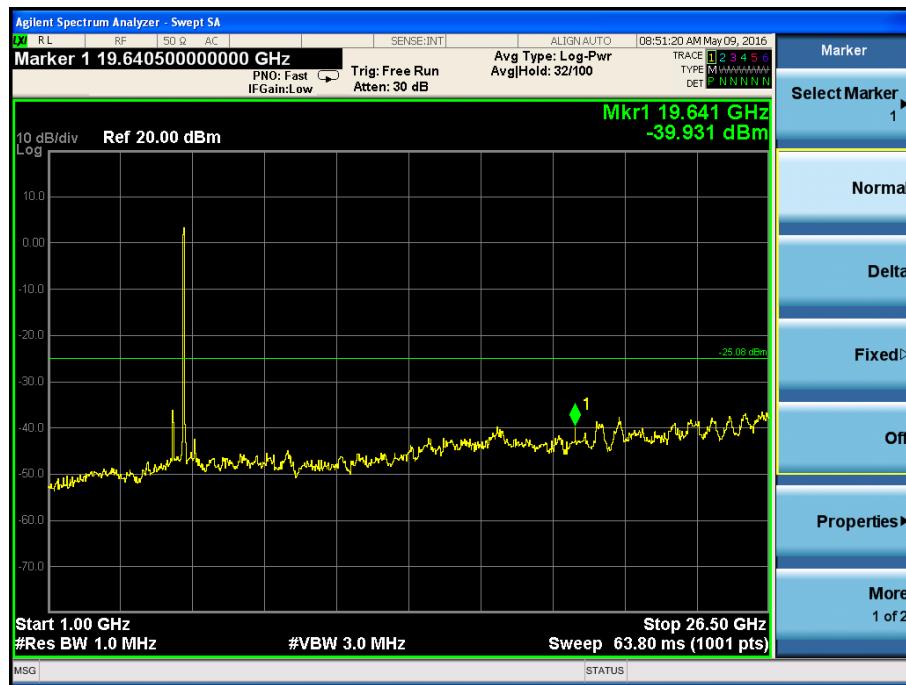
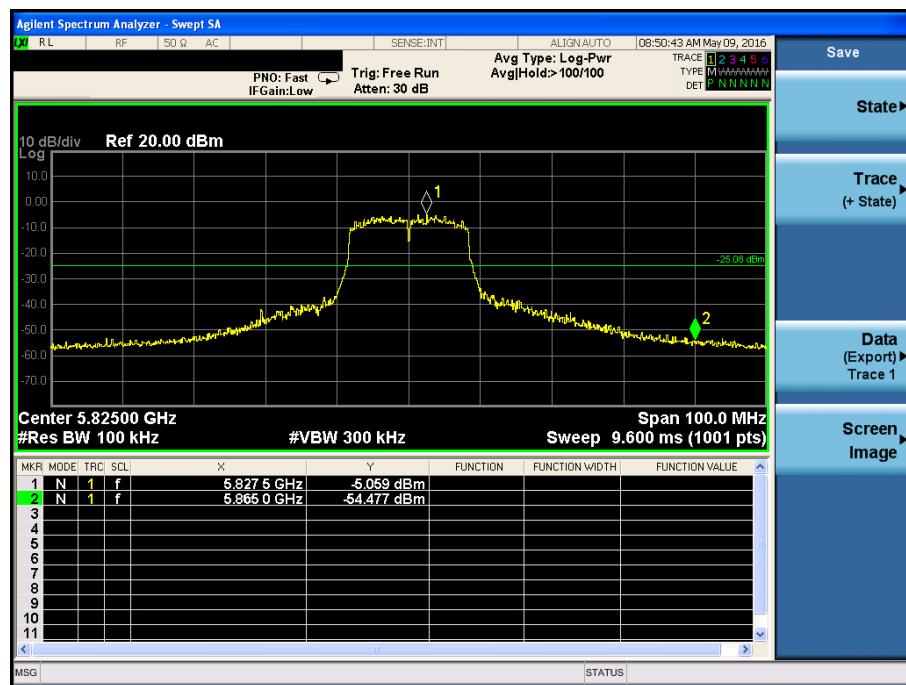
5745MHz



5785MHz

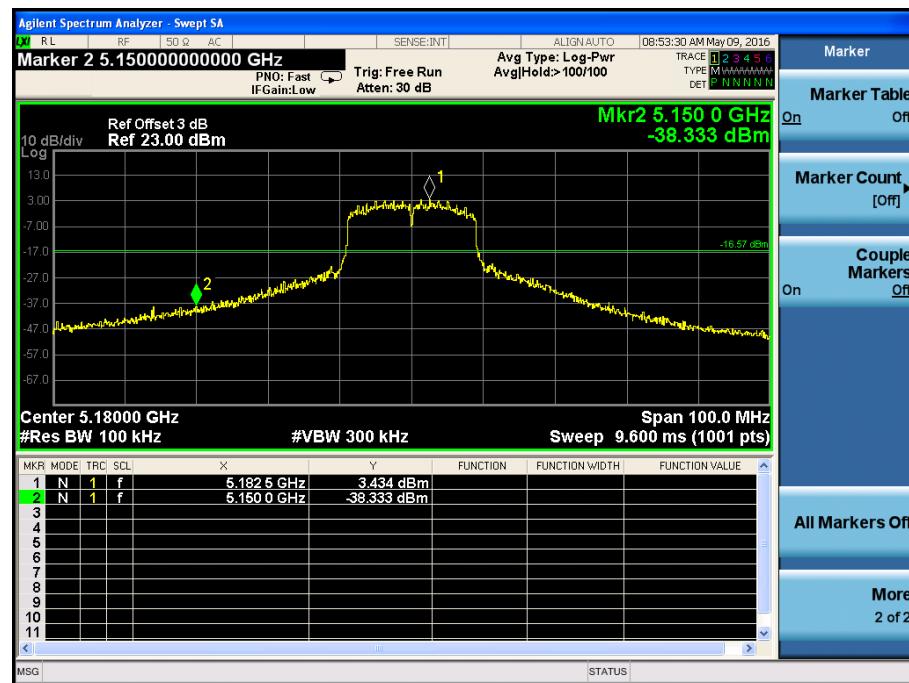


5825MHz

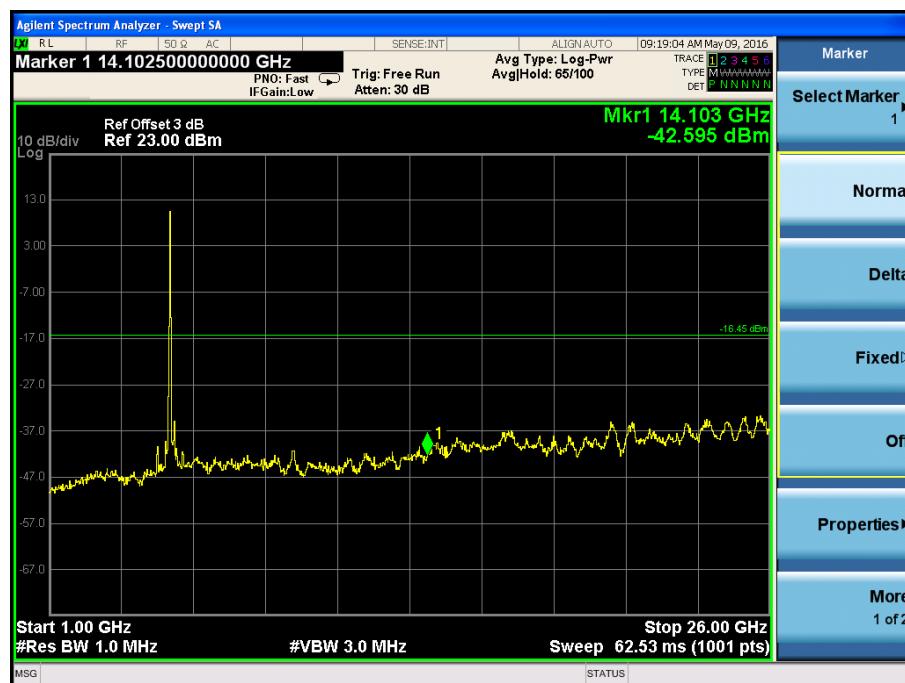


802.11n-HT20

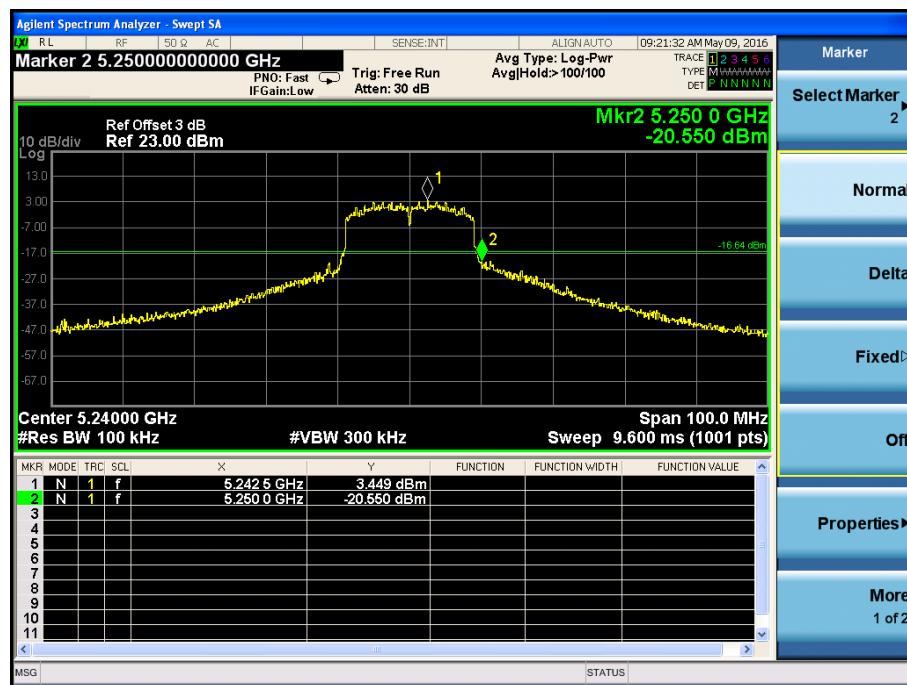
5180MHz



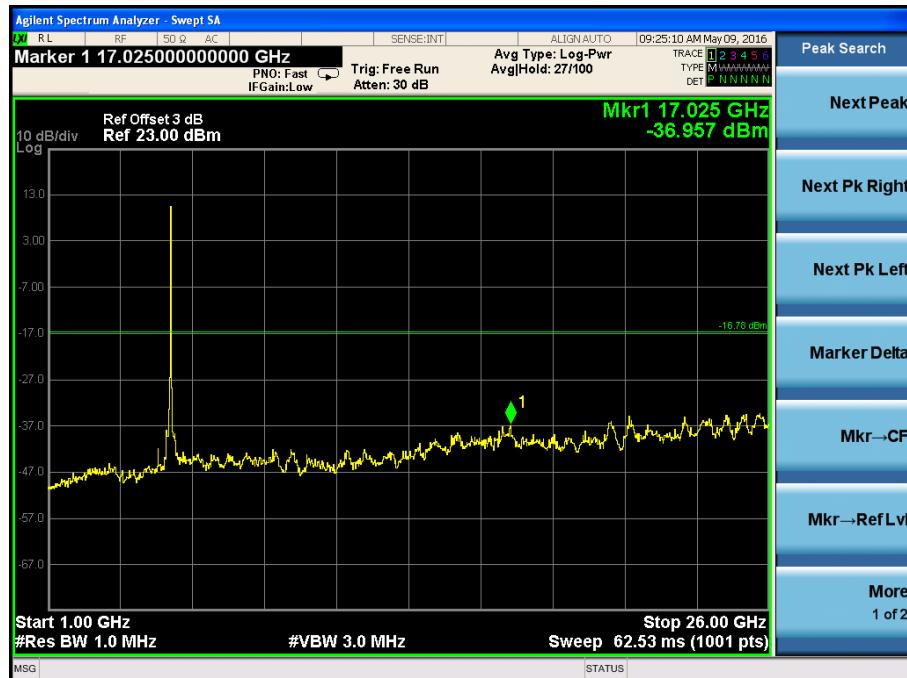
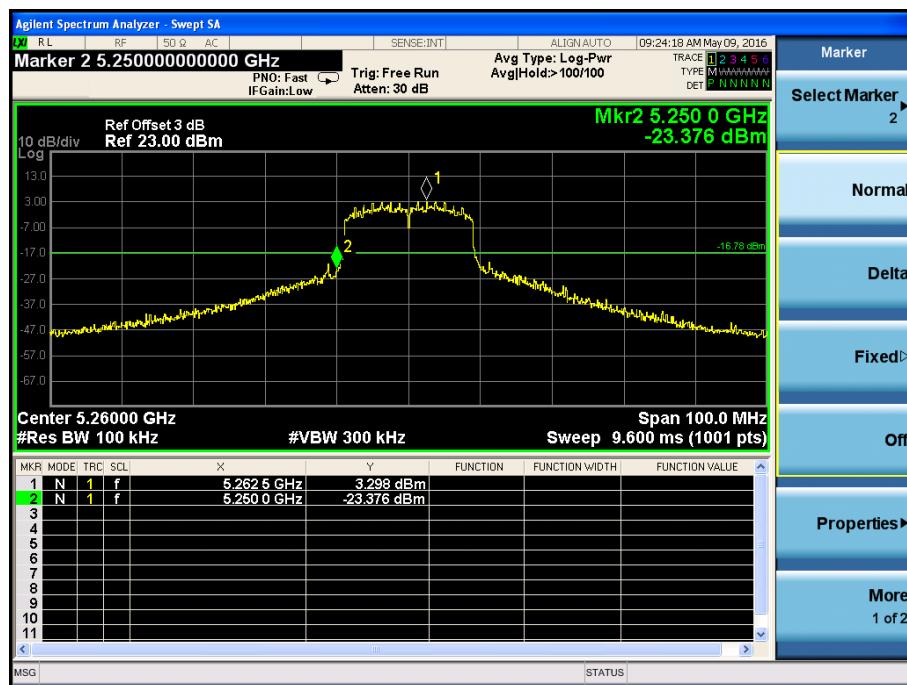
5200MHz



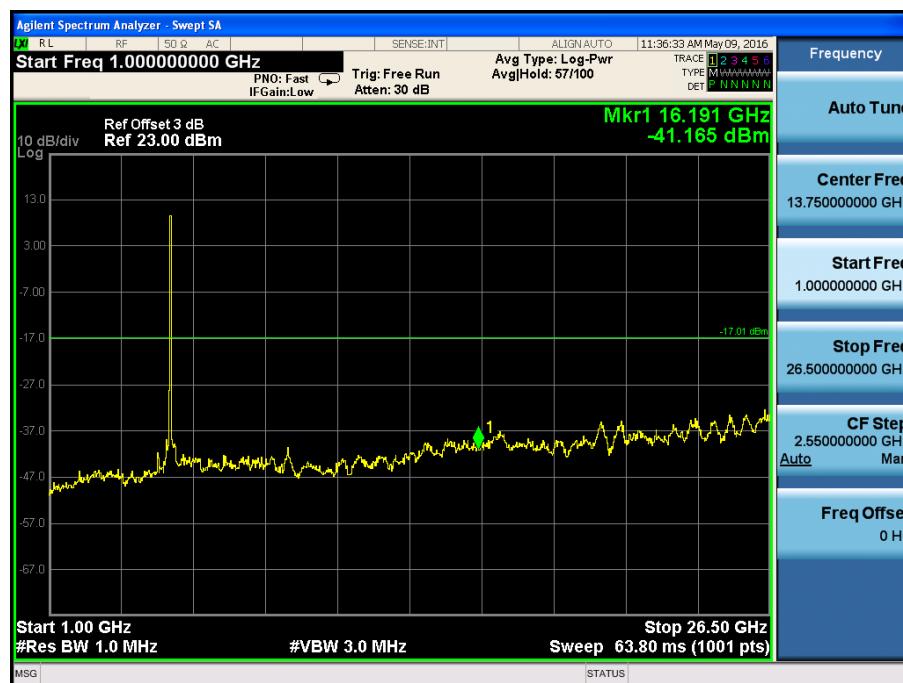
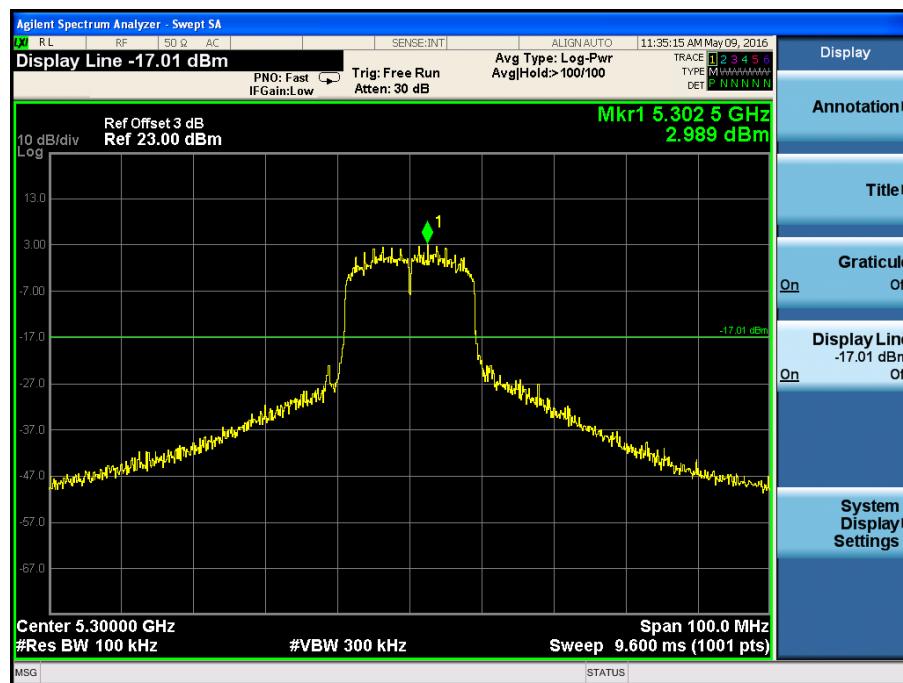
5240MHz



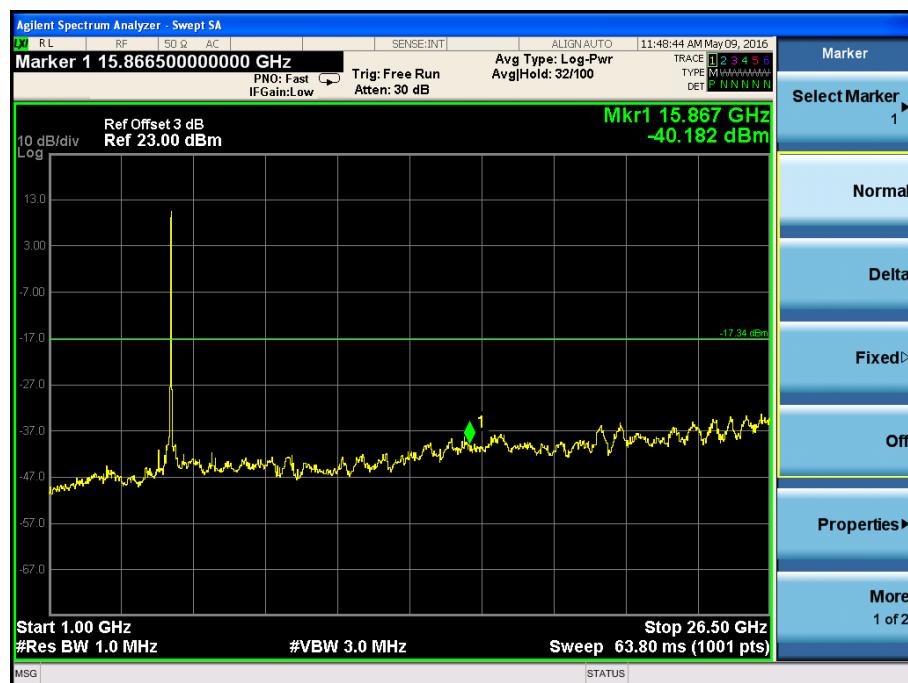
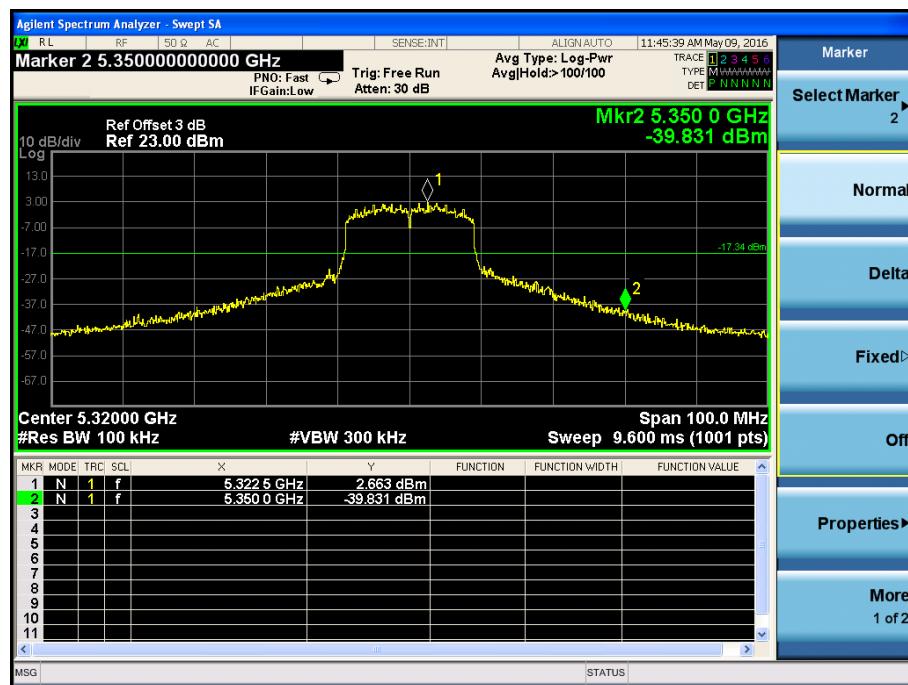
5260MHz



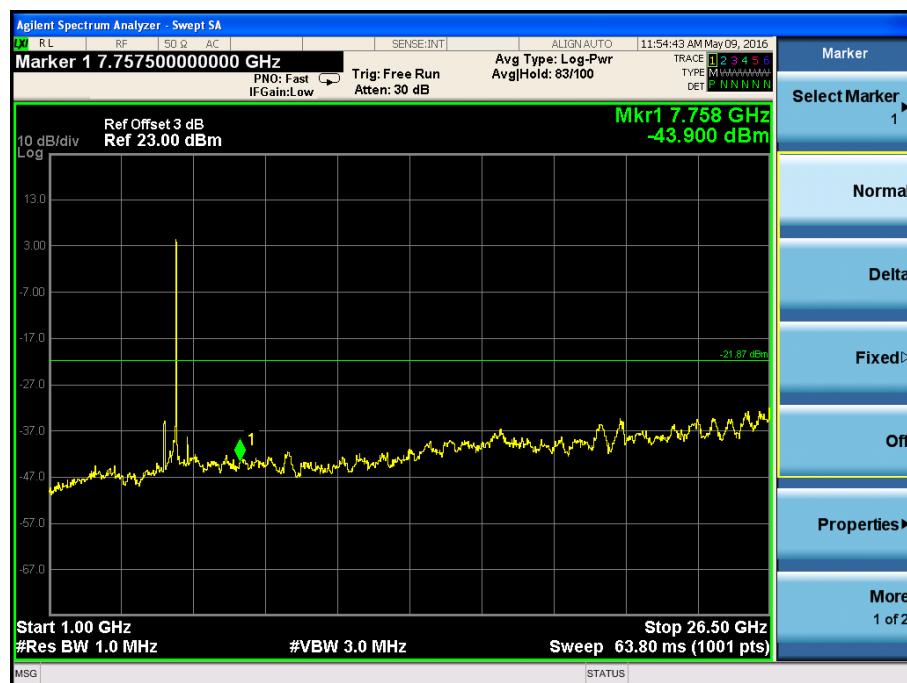
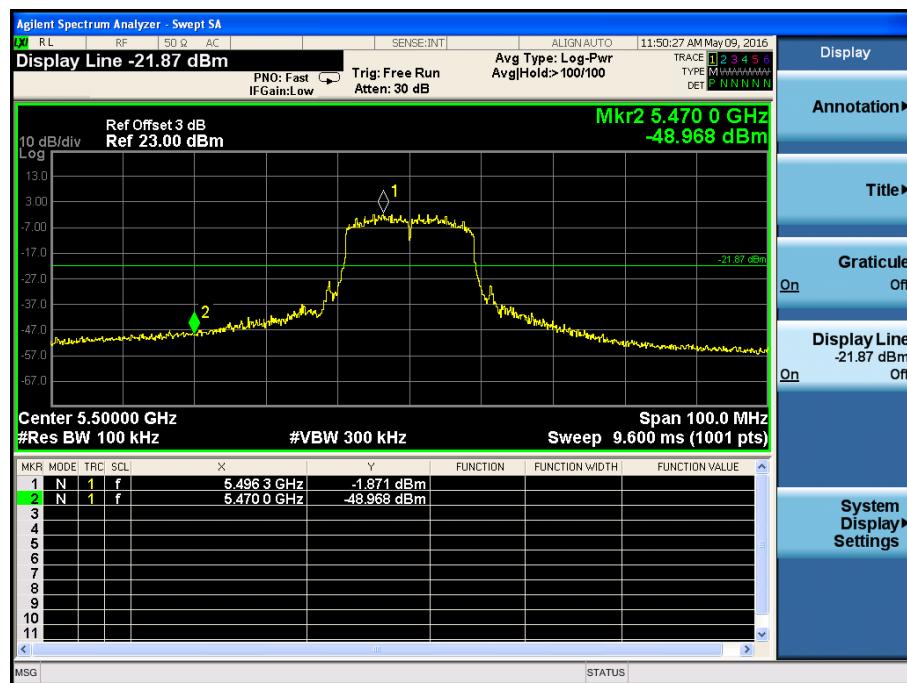
5300MHz



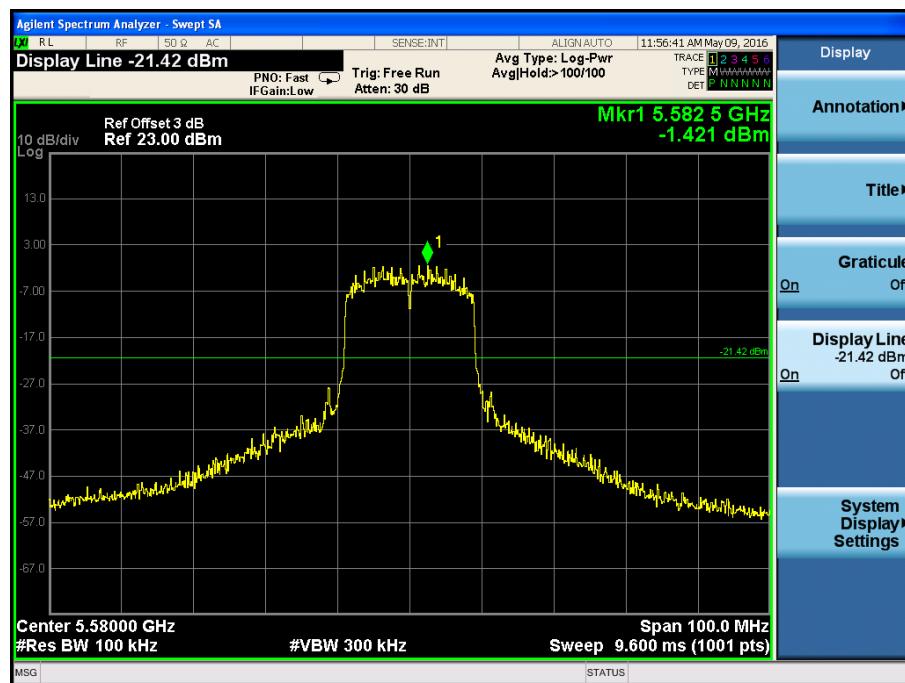
5320MHz



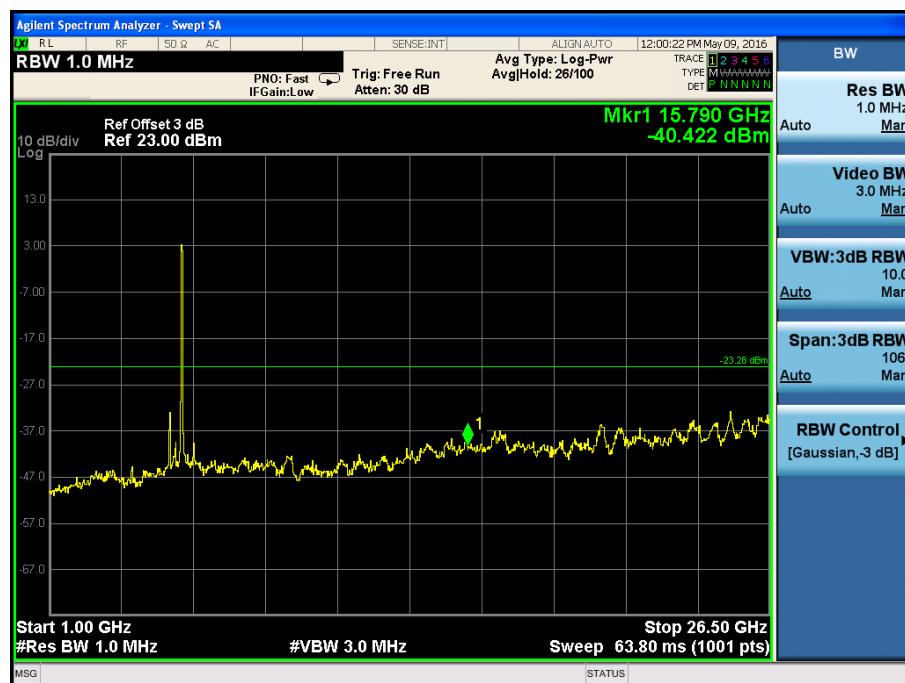
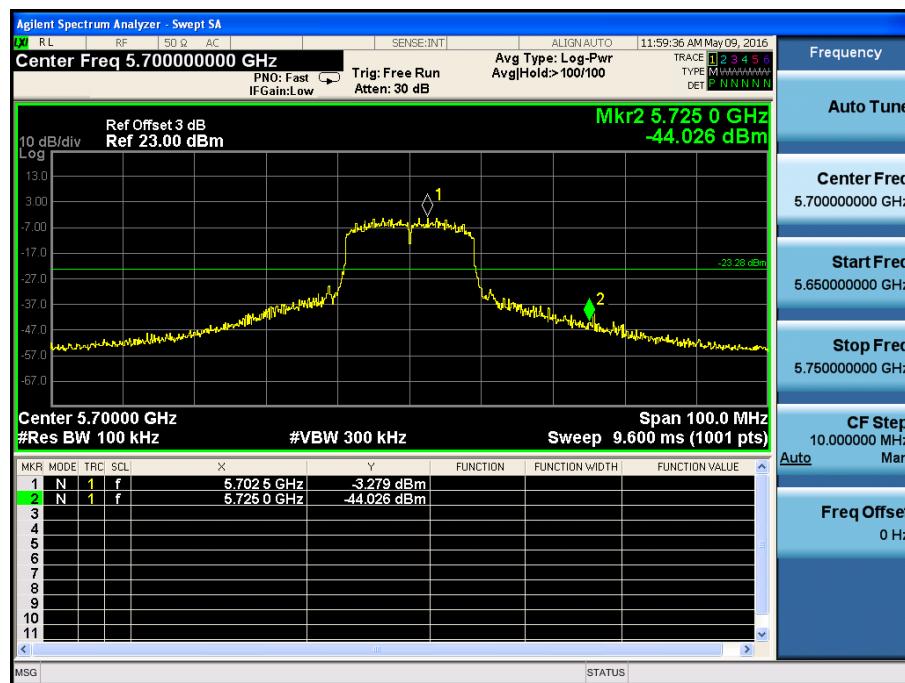
5500MHz



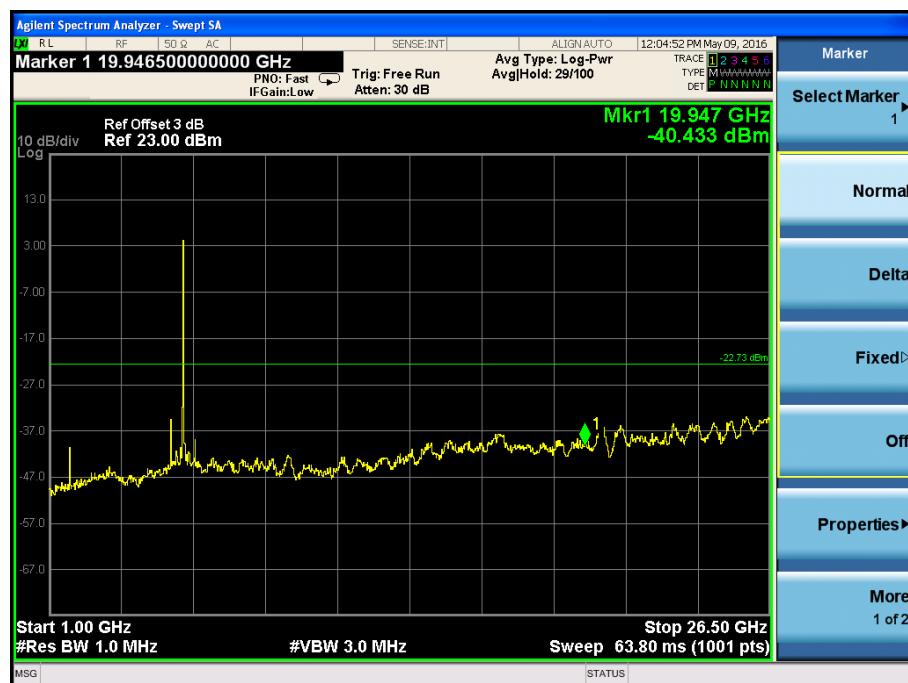
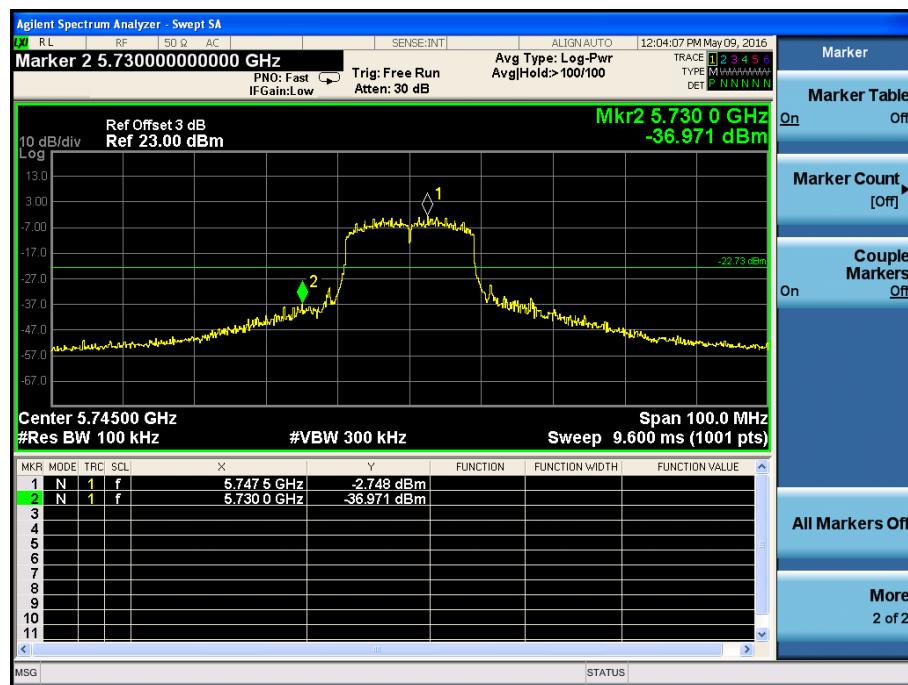
5580MHz



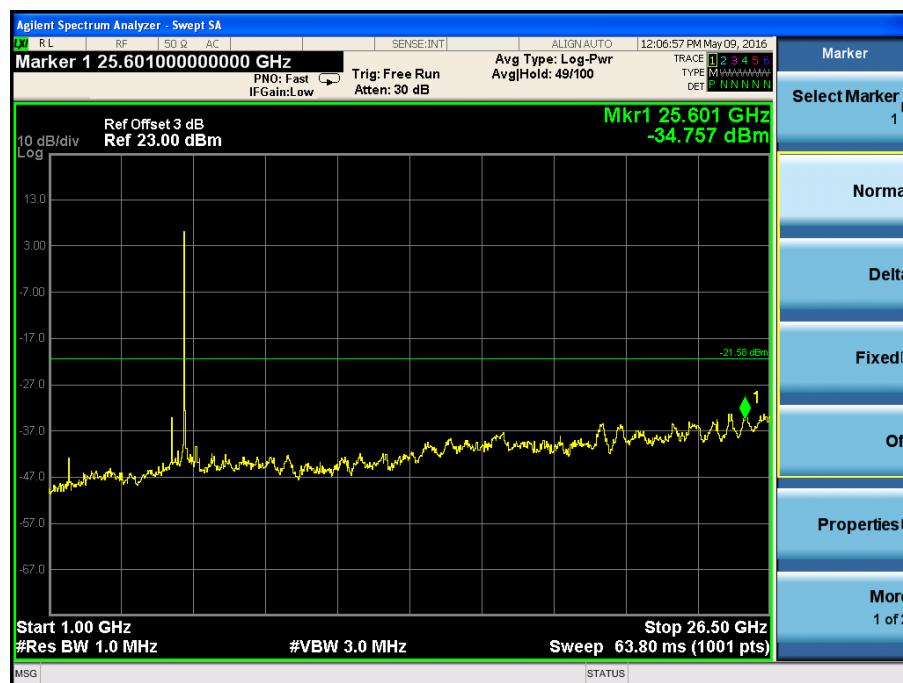
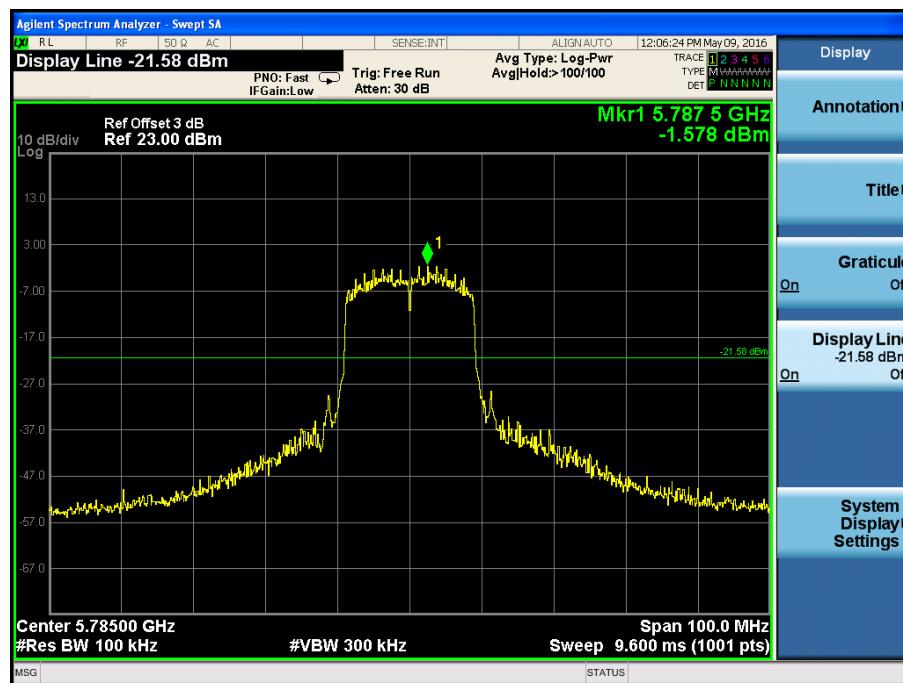
5700MHz



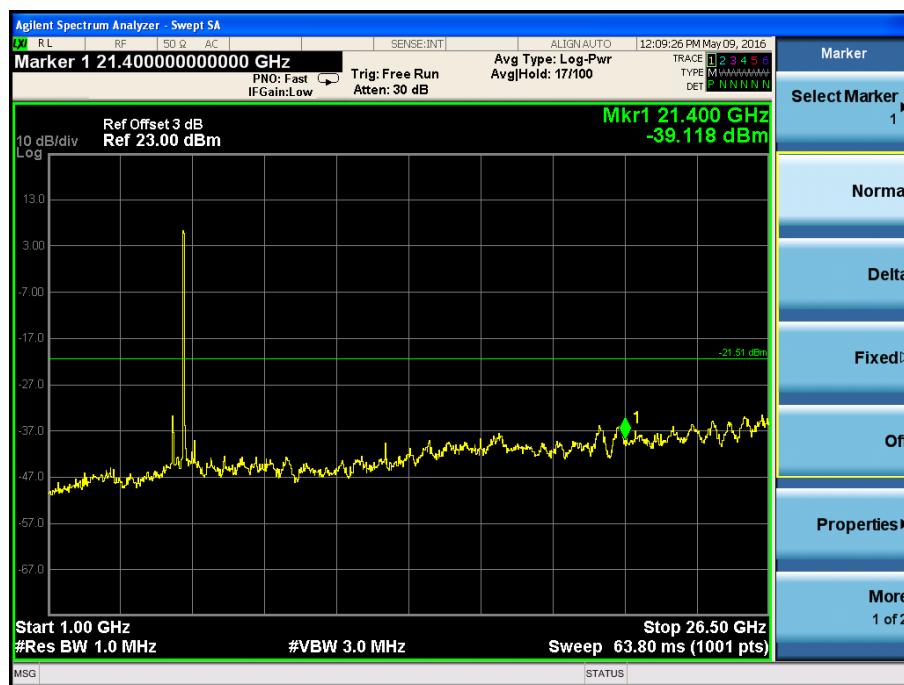
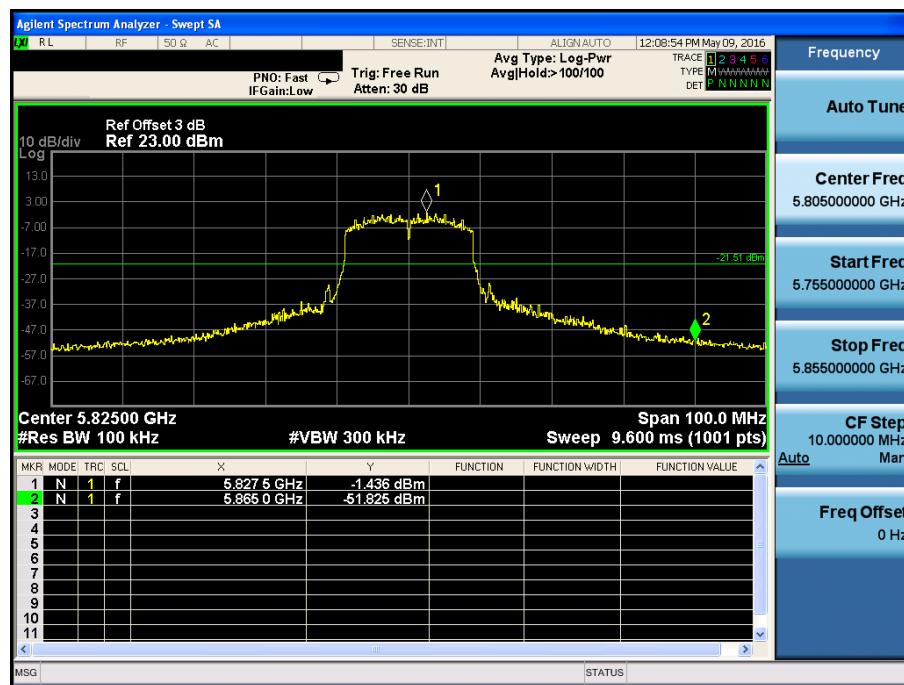
5745MHz



5785MHz

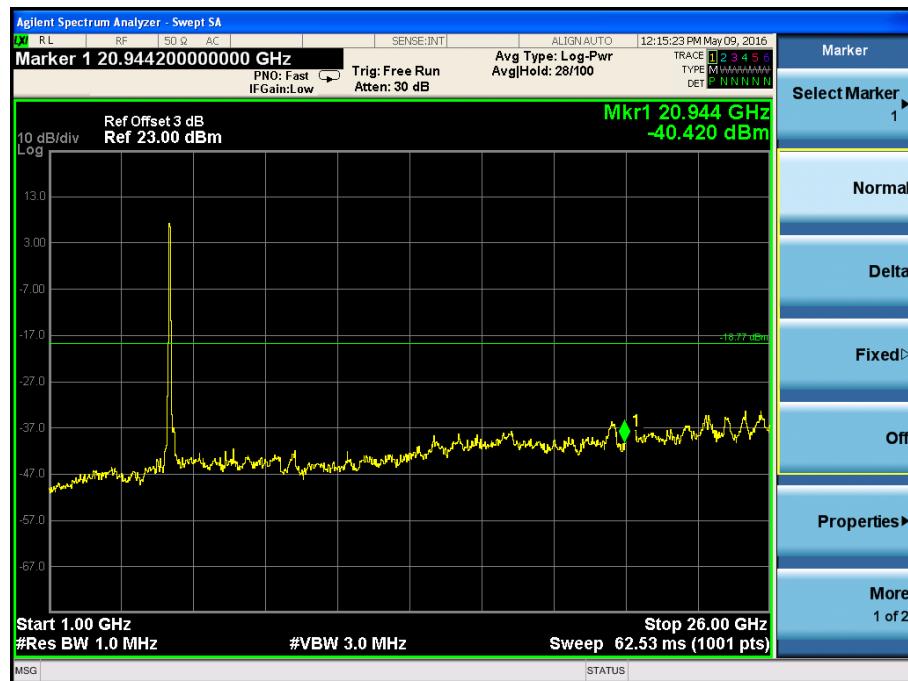


5825MHz



802.11n-HT40

5190MHz



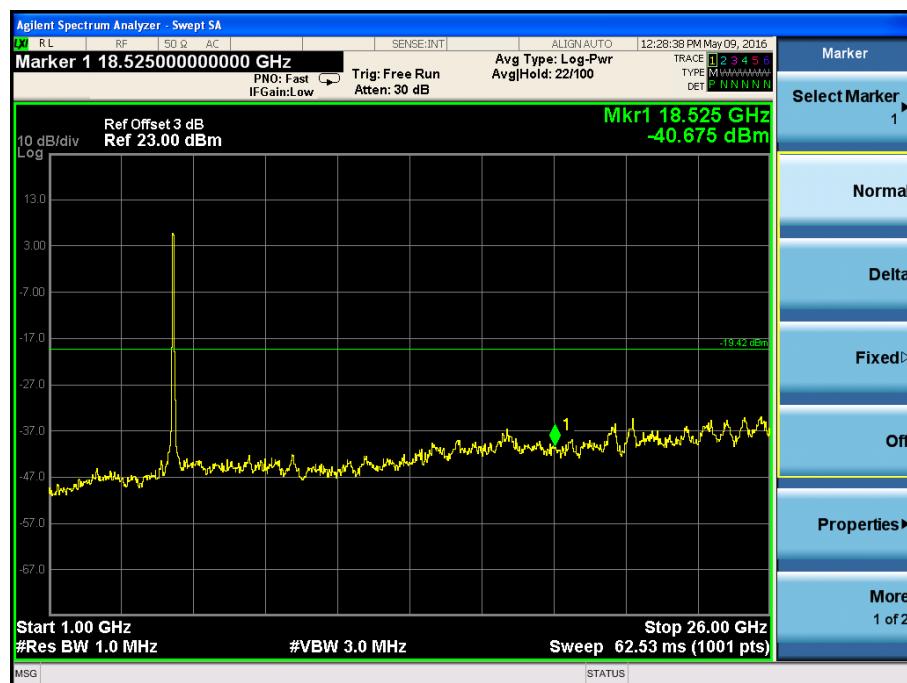
5230MHz



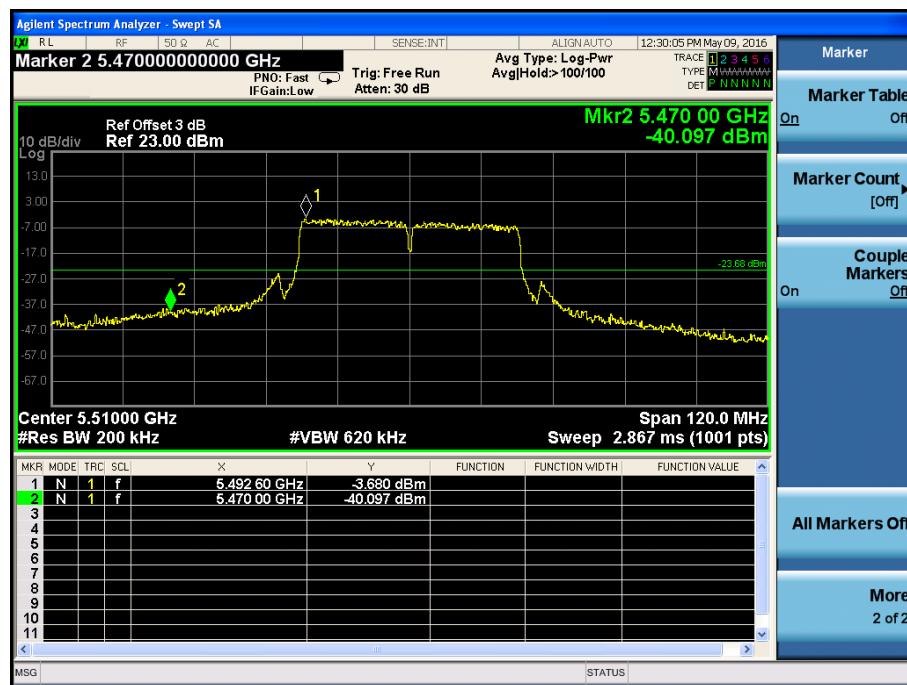
5270MHz



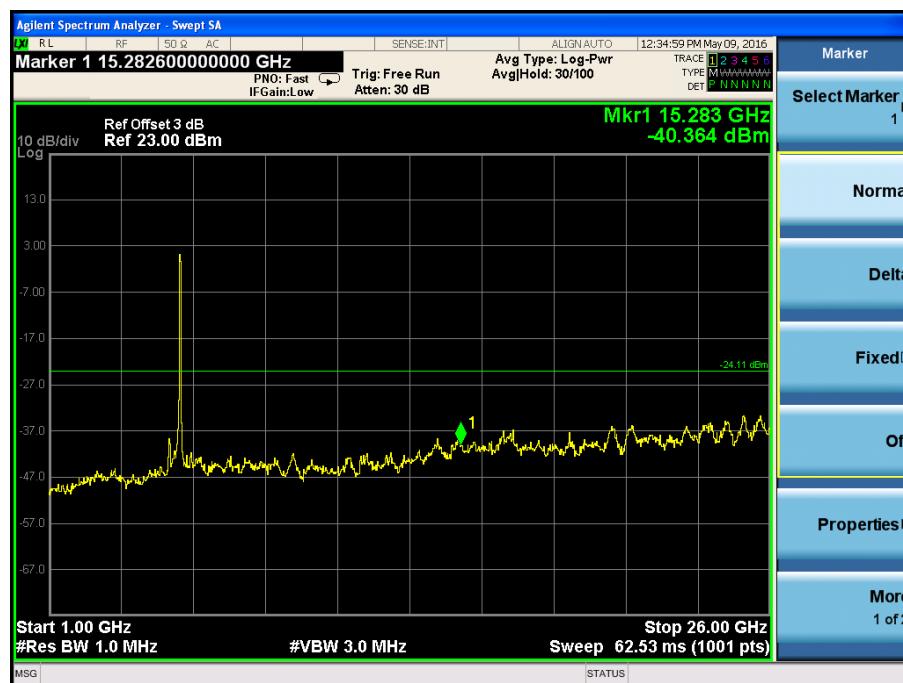
5310MHz



5510MHz



5550MHz



5670MHz

