

*Restricted Band, Harmonics 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
<b>Low Channel (5745MHz)</b>										
11490	PK	49.2	360	V	38.9	9.8	40.1	57.8	74	-16.2
11490	PK	48.7	360	H	38.9	9.8	40.1	57.3	74	-16.7
11490	AV	32.6	360	V	38.9	9.8	40.1	41.2	54	-12.8
11490	AV	32.0	360	H	38.9	9.8	40.1	40.6	54	-13.4
<b>High Channel (5825MHz)</b>										
11610	PK	48.6	360	V	38.9	9.8	40.1	57.2	74	-16.8
11610	PK	48.9	360	H	38.9	9.8	40.1	57.5	74	-16.5
11610	AV	32.5	360	V	38.9	9.8	40.1	41.1	54	-12.9
11610	AV	32.1	360	H	38.9	9.8	40.1	40.7	54	-13.3

*Note: Testing is carried out with frequency rang 9kHz to 40GHz, which above 3<sup>th</sup> 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.*

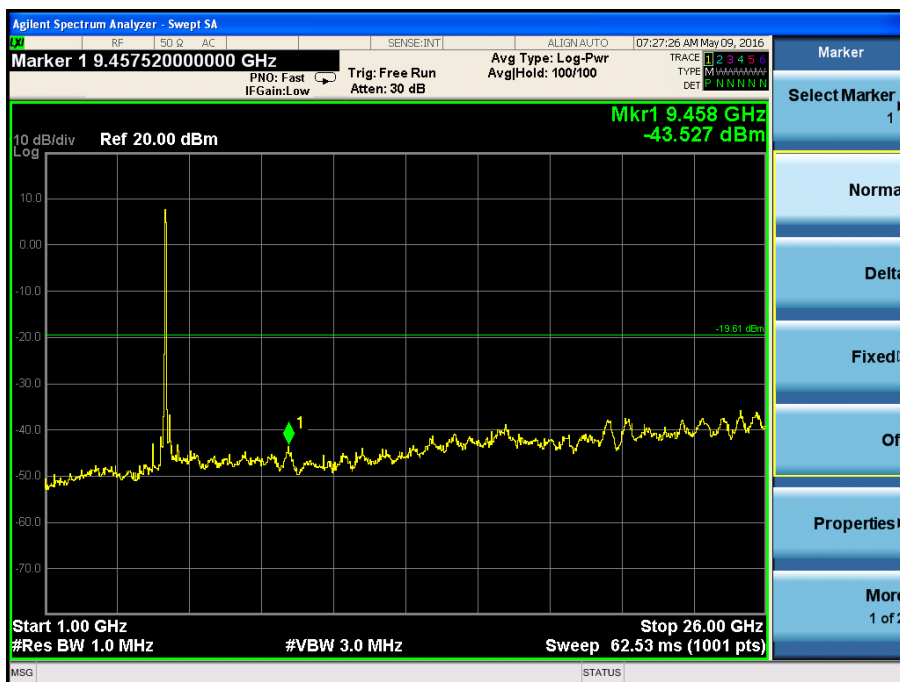
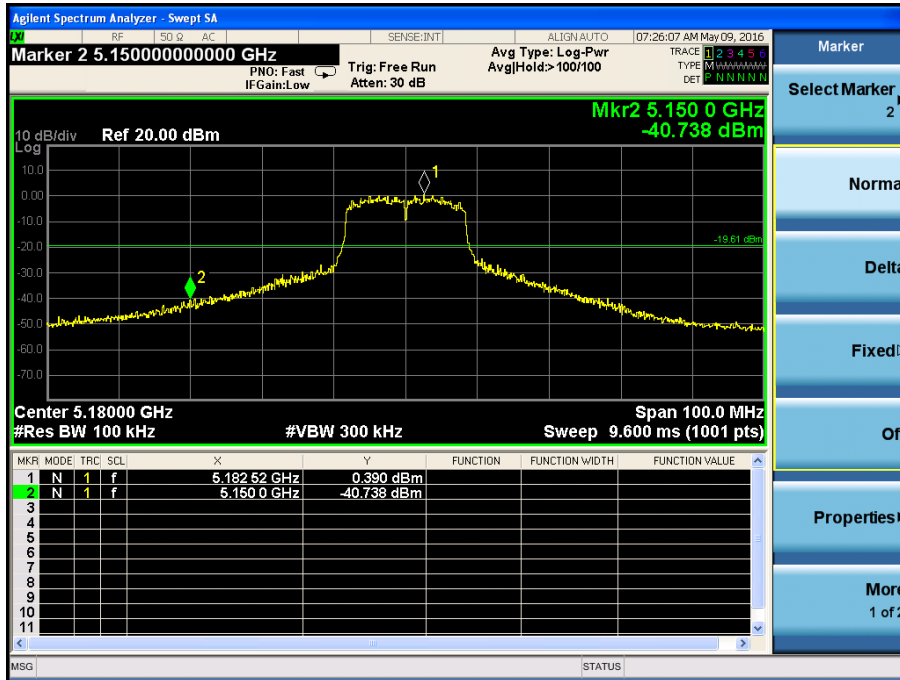
Emissions above 26.5GHz are attenuated more than 20dB below the permissible limits and test data are not reported.

Out-of-Band and Spurious Emission (Conducted)

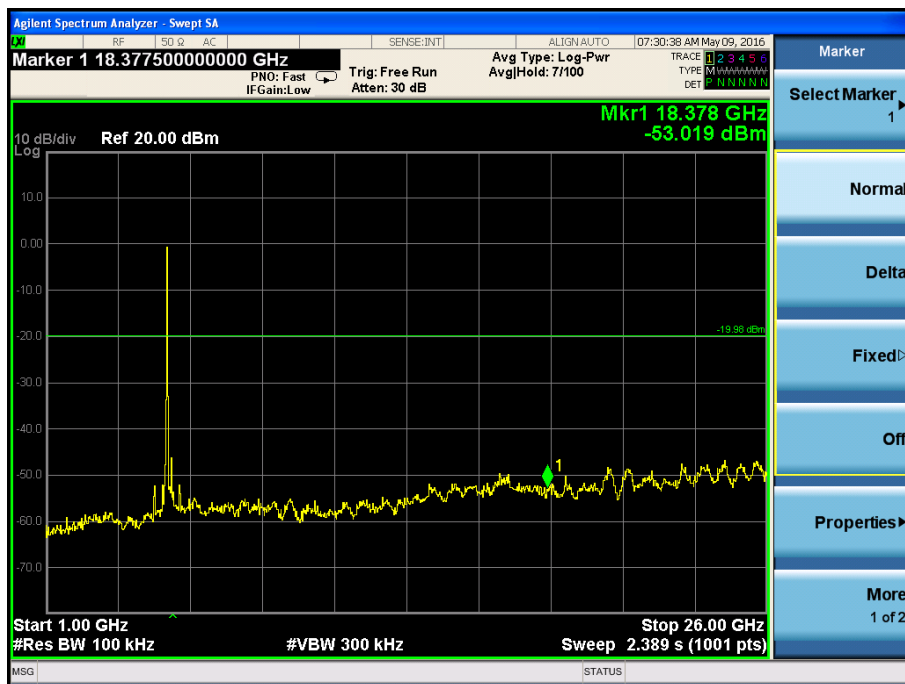
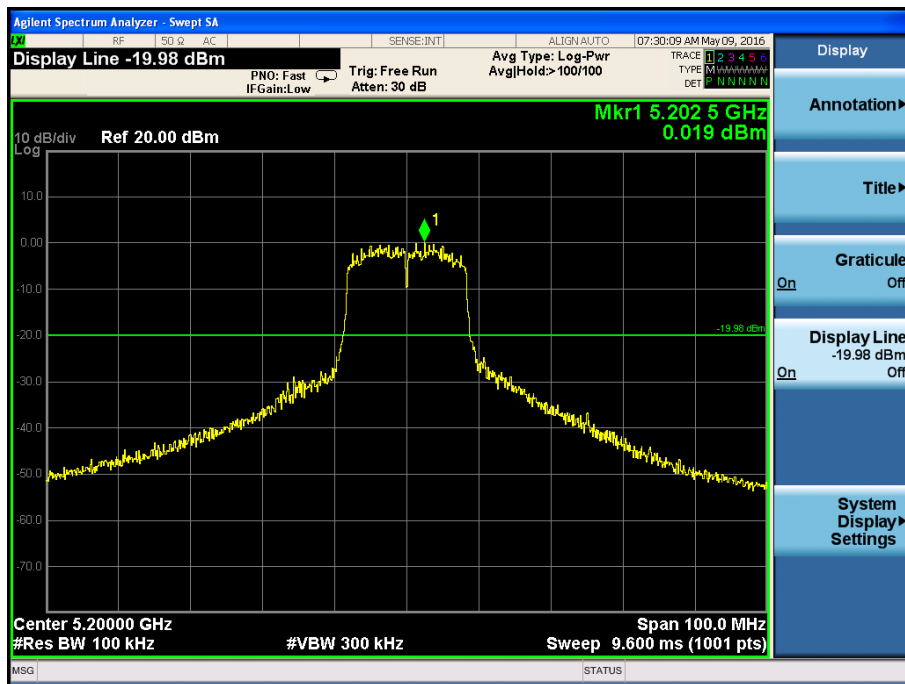
Antenna 1

802.11a

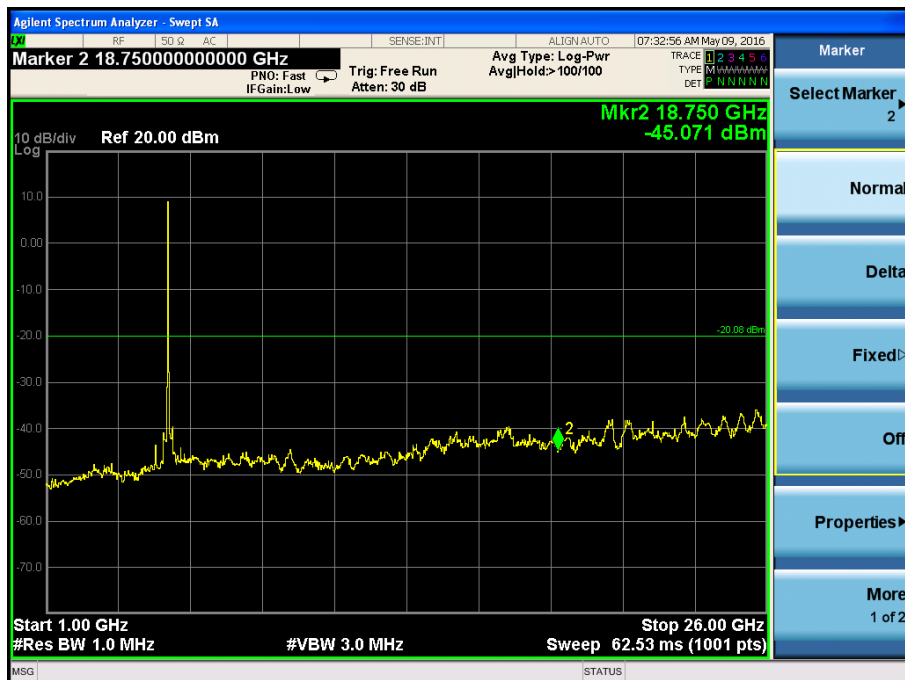
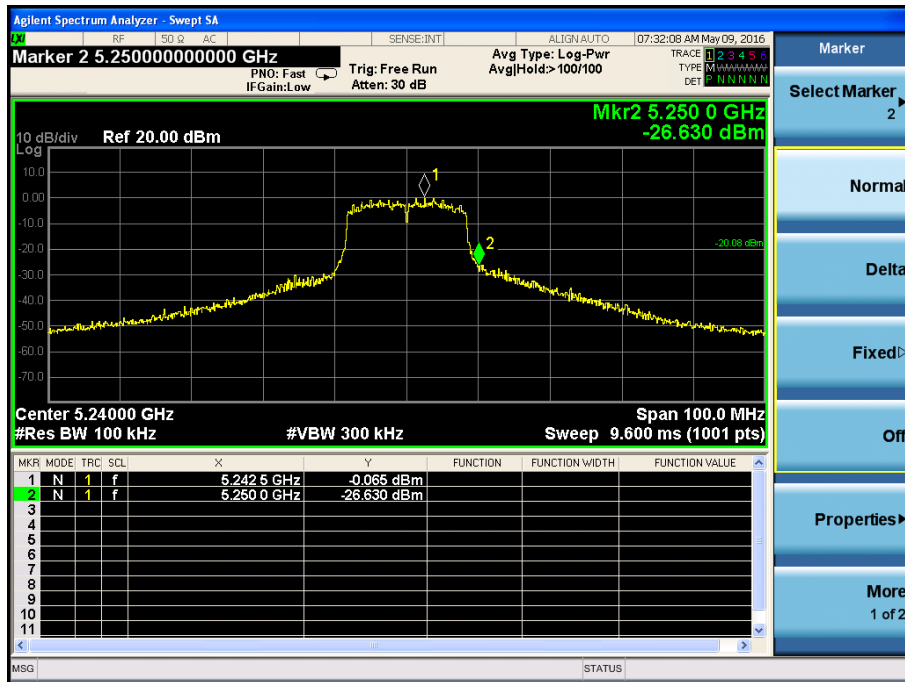
5180MHz



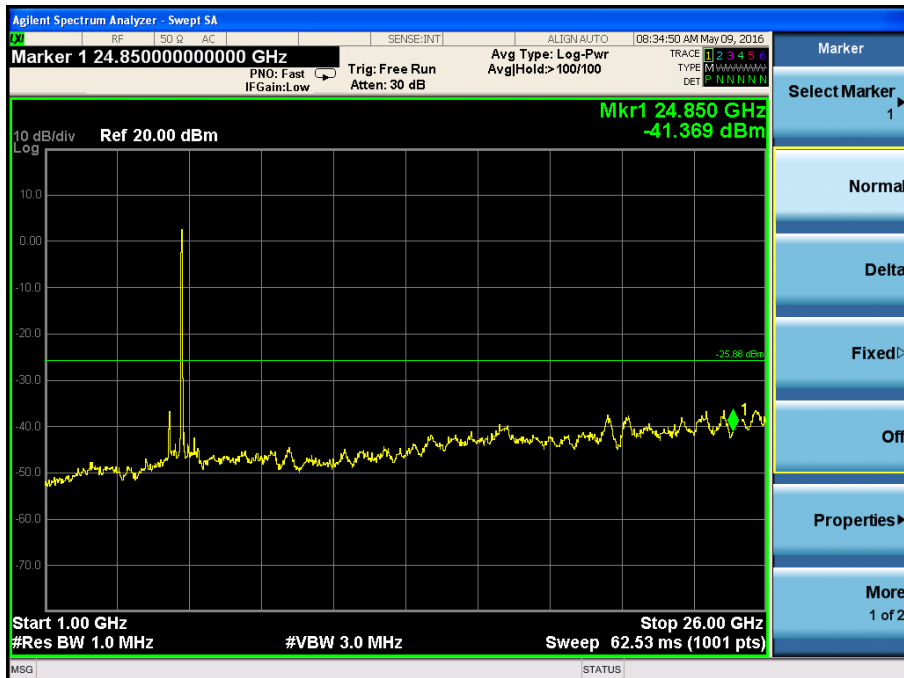
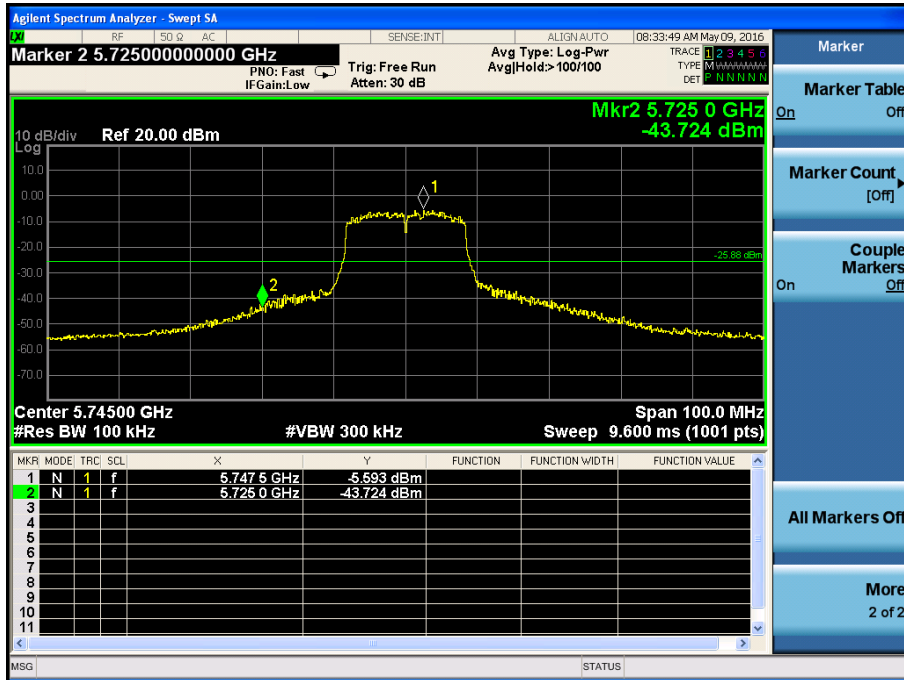
5200MHz



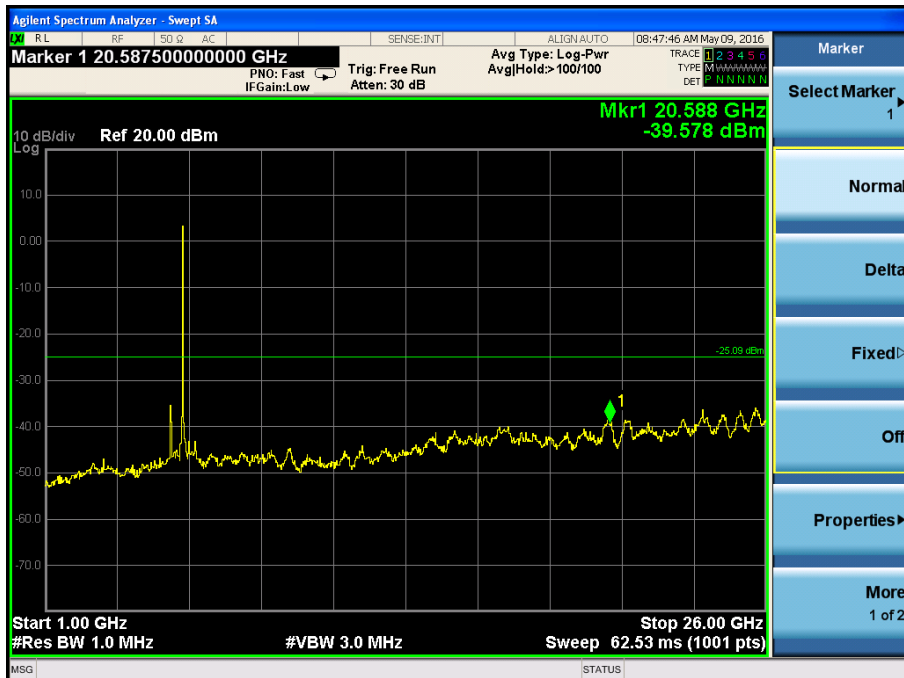
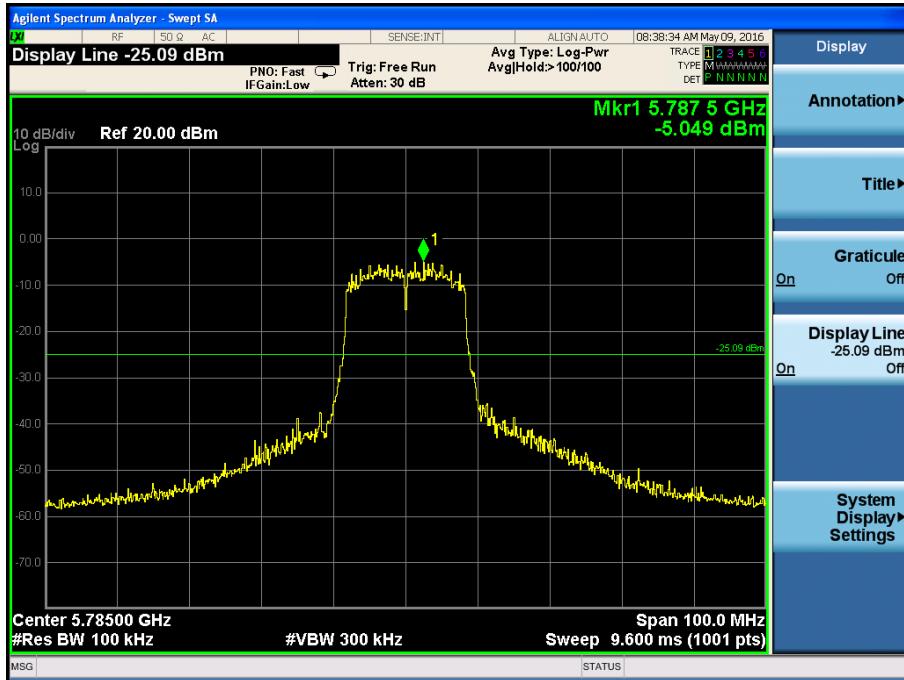
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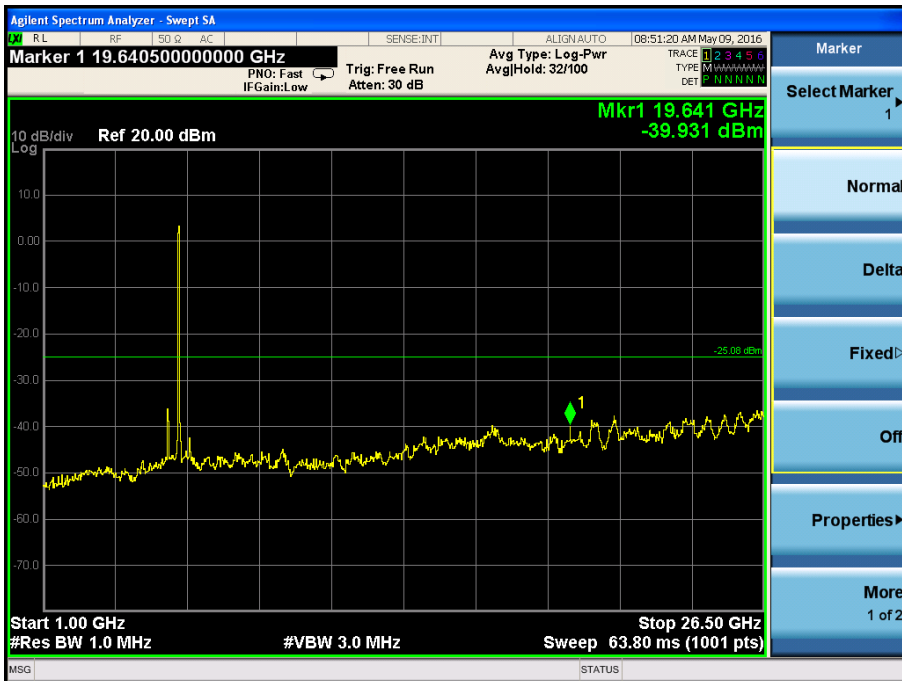
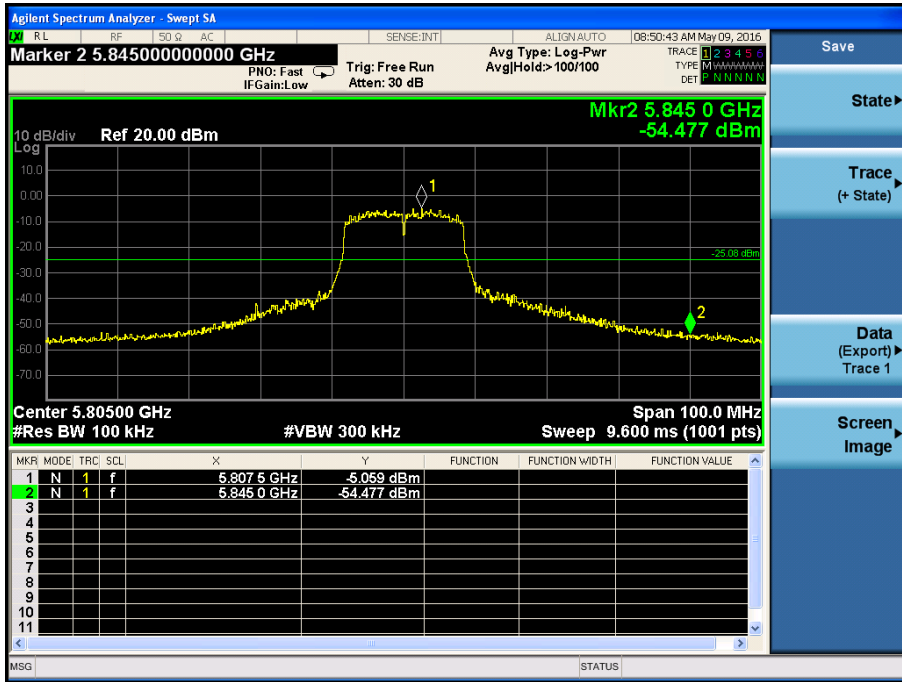
5745MHz



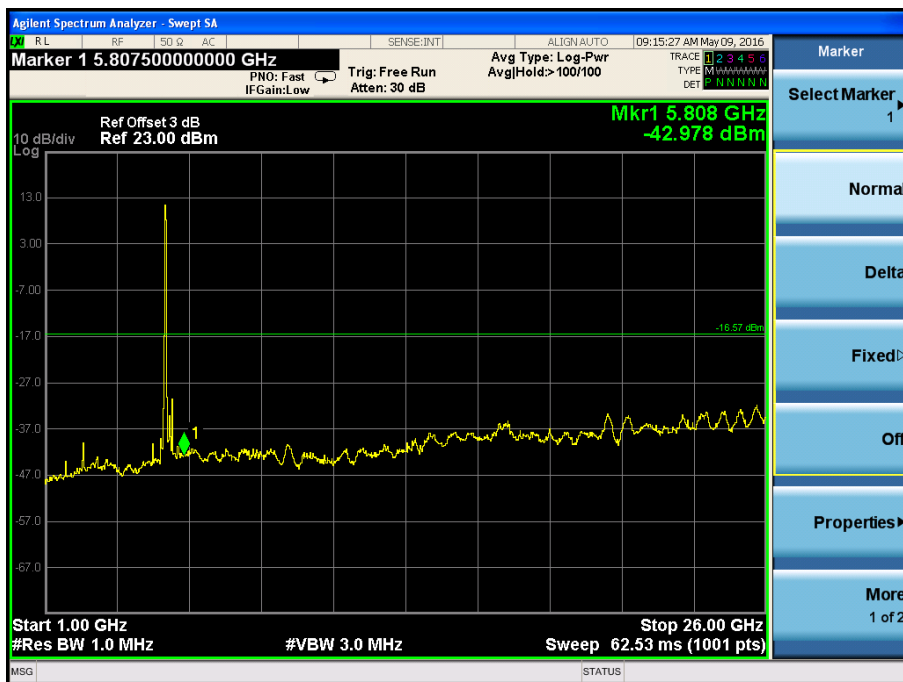
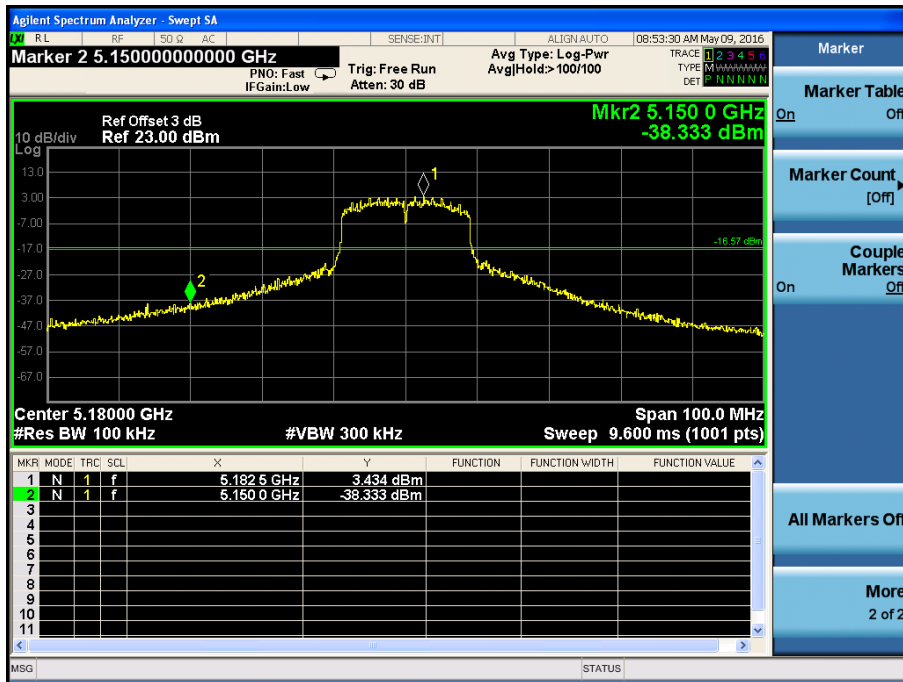
5785MHz



5805MHz

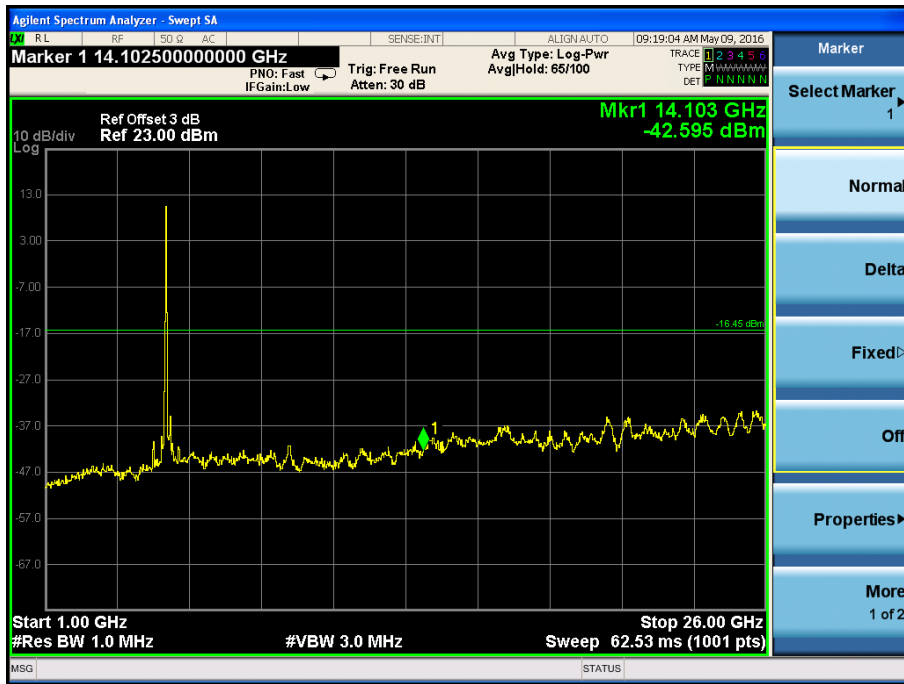
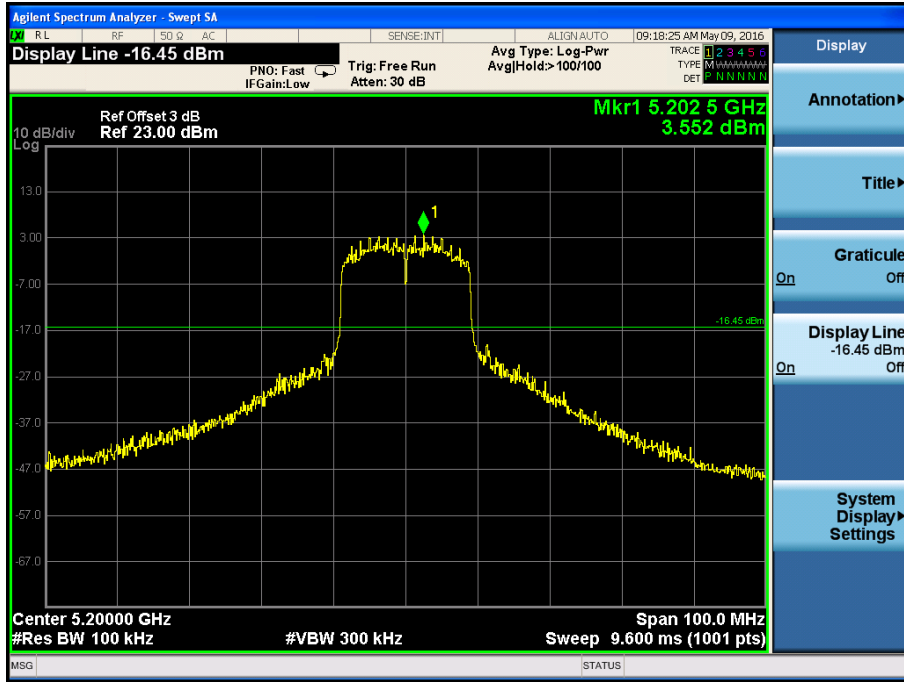


802.11n-HT20  
5180MHz

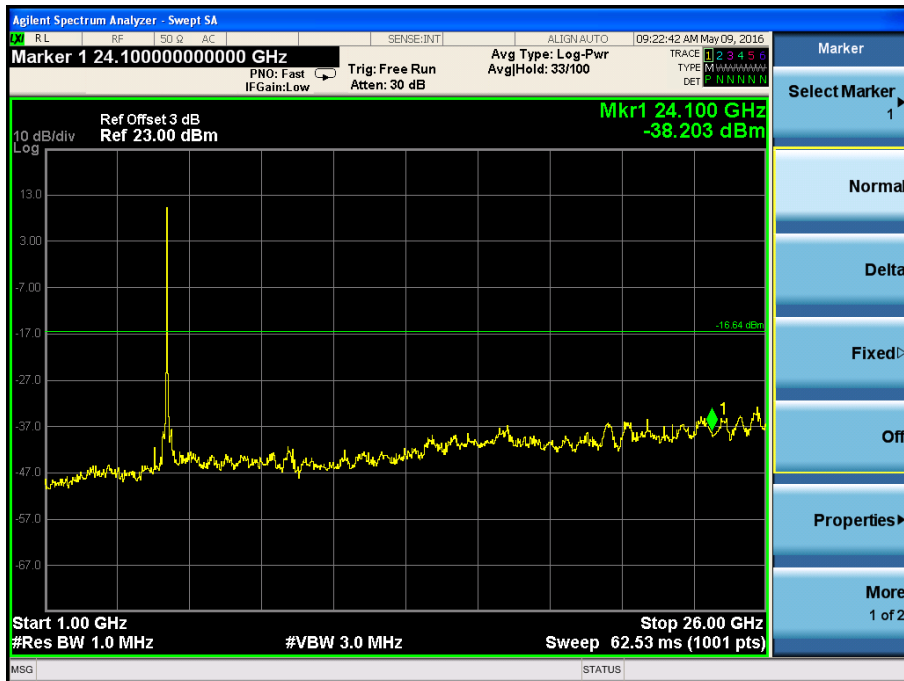
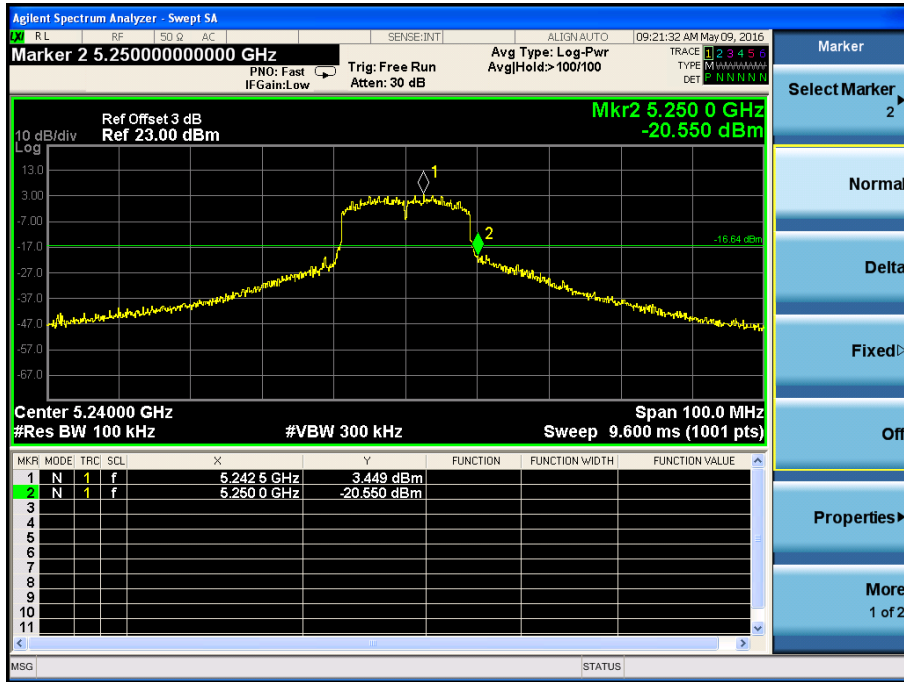




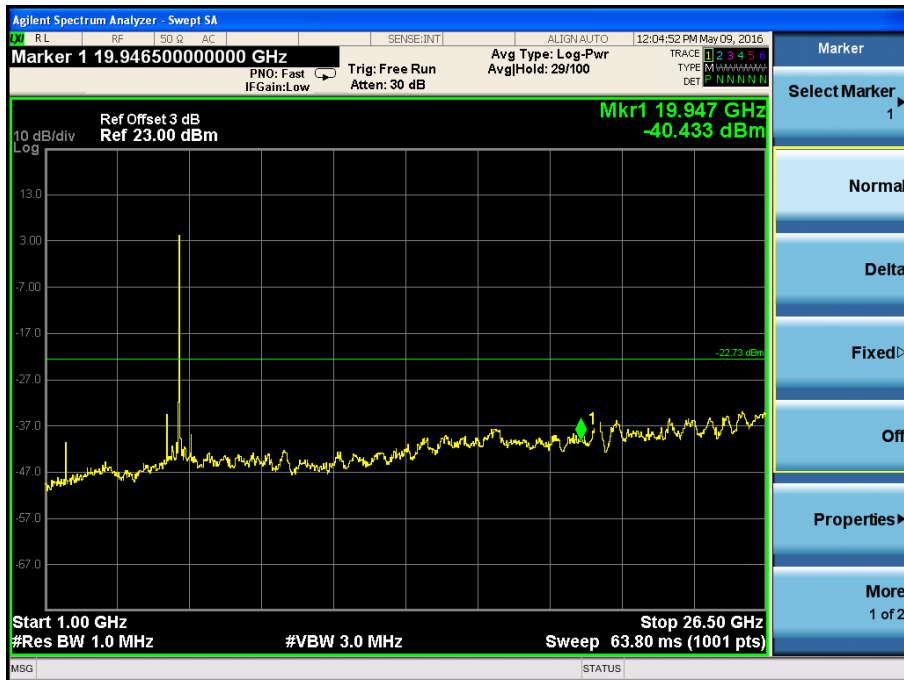
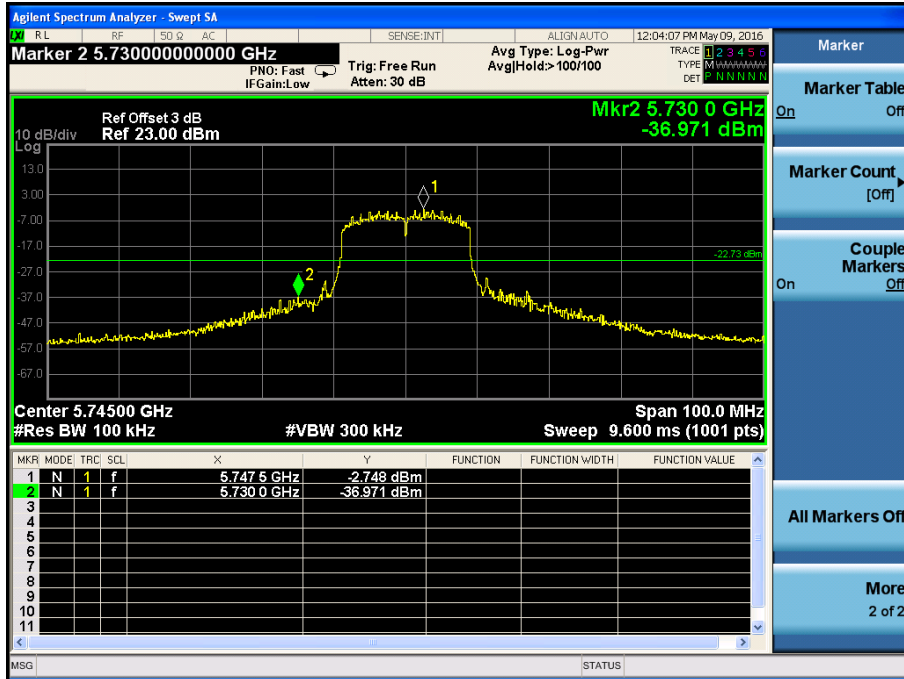
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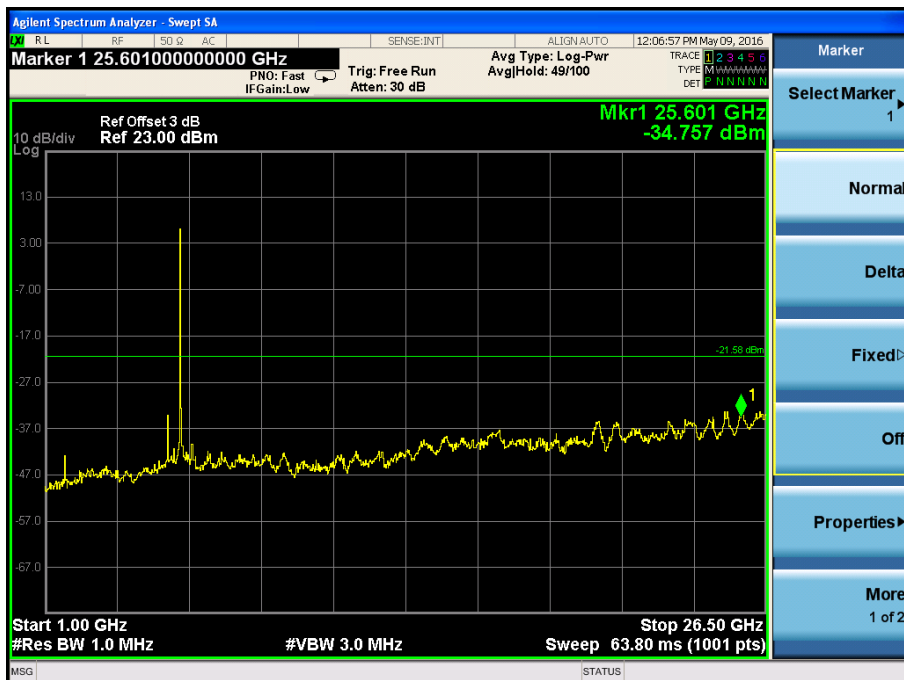
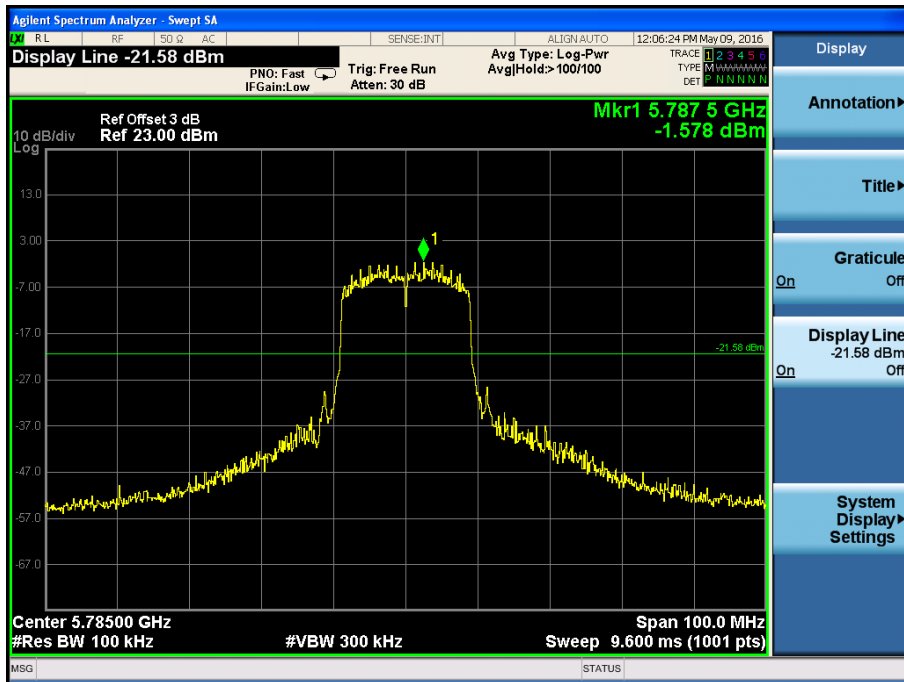
5240MHz



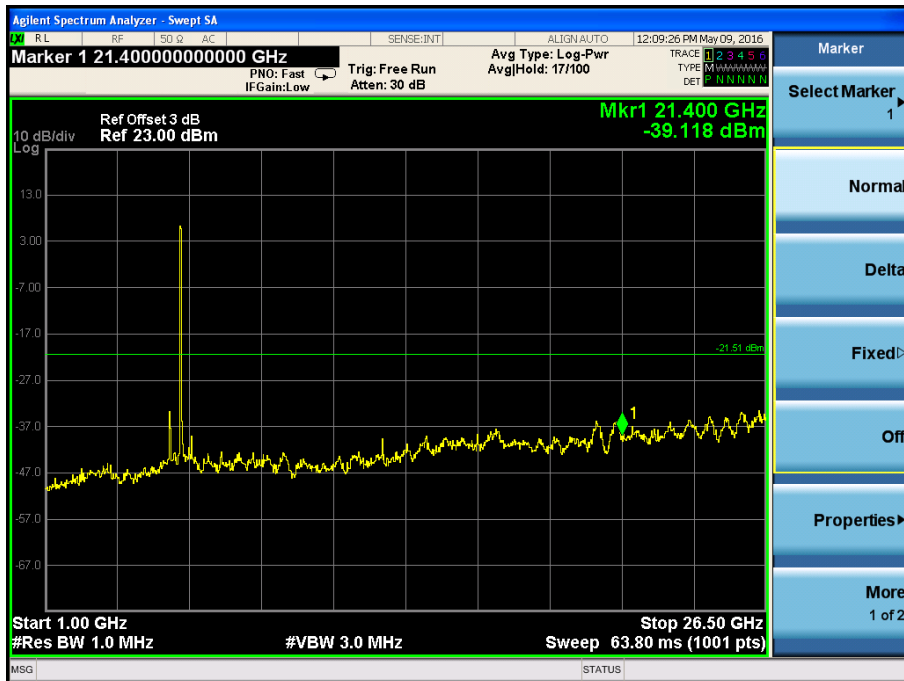
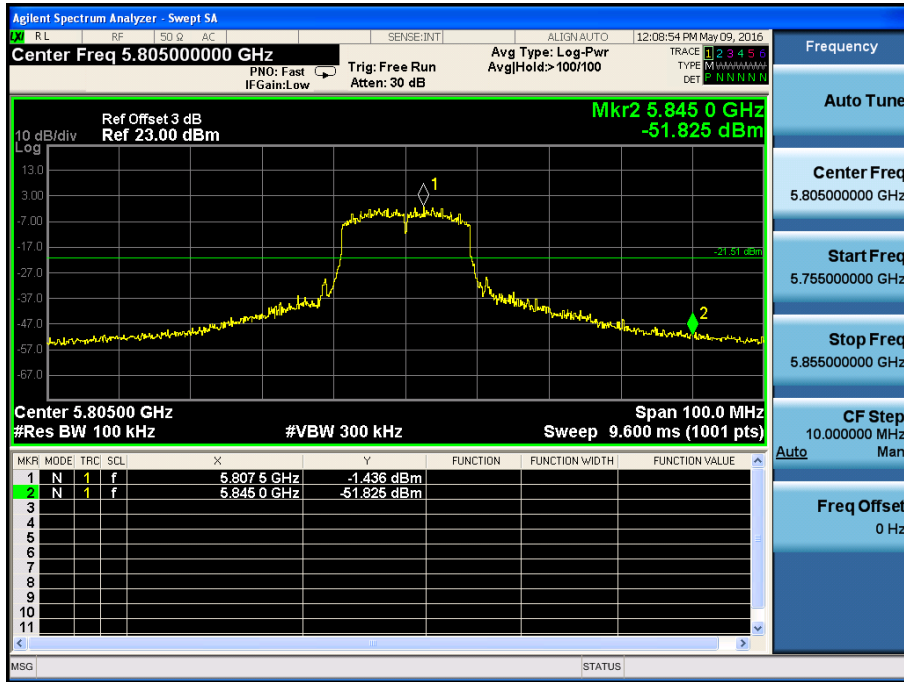
5745MHz



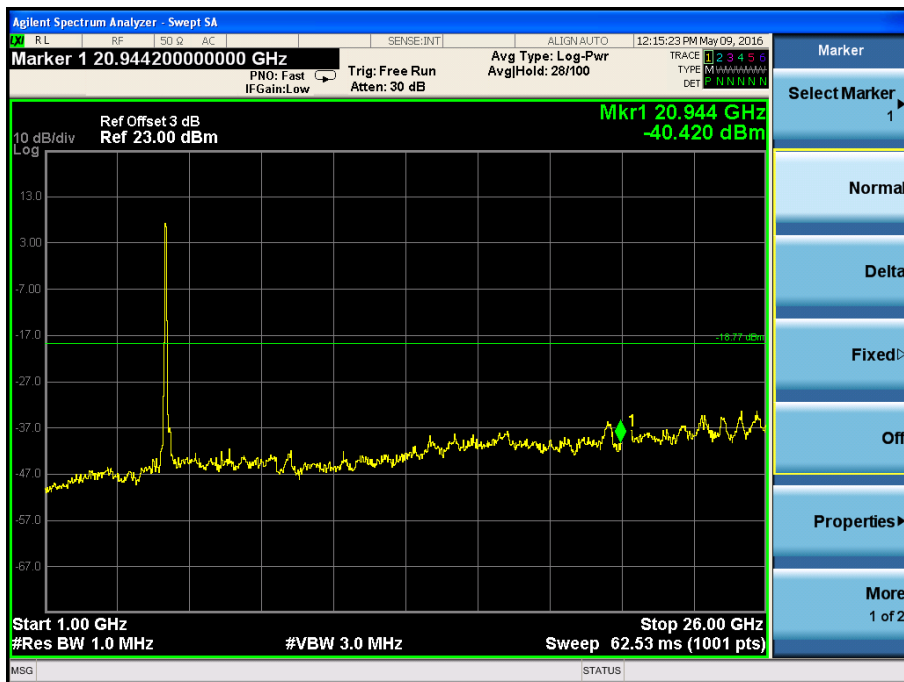
5785MHz



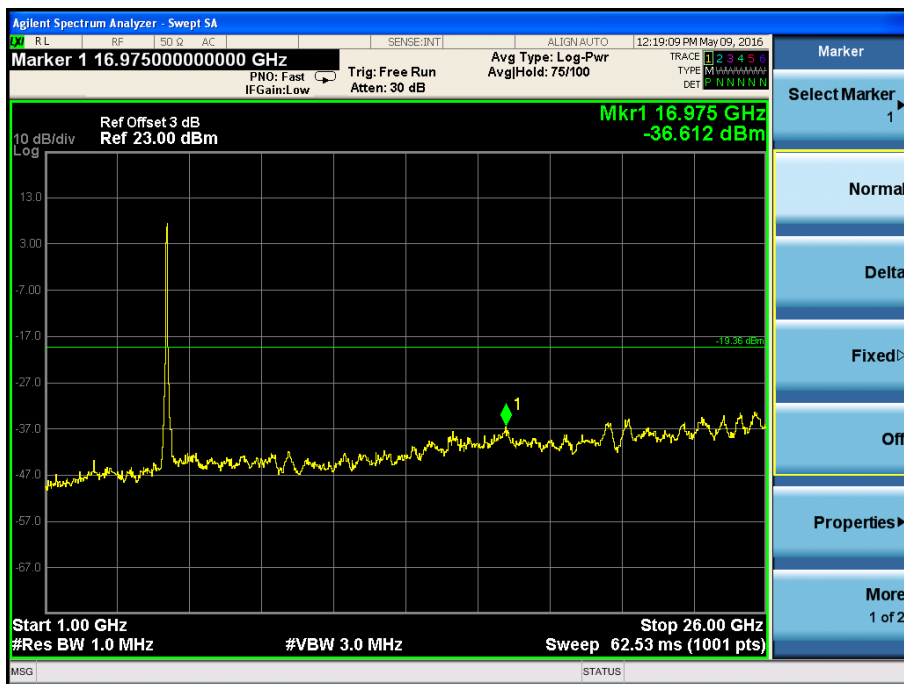
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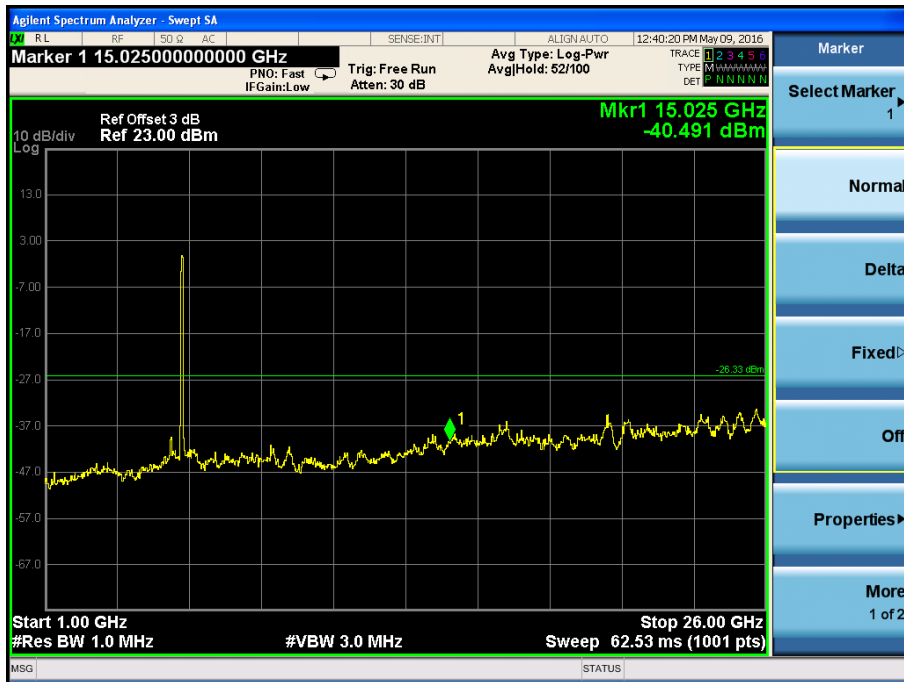
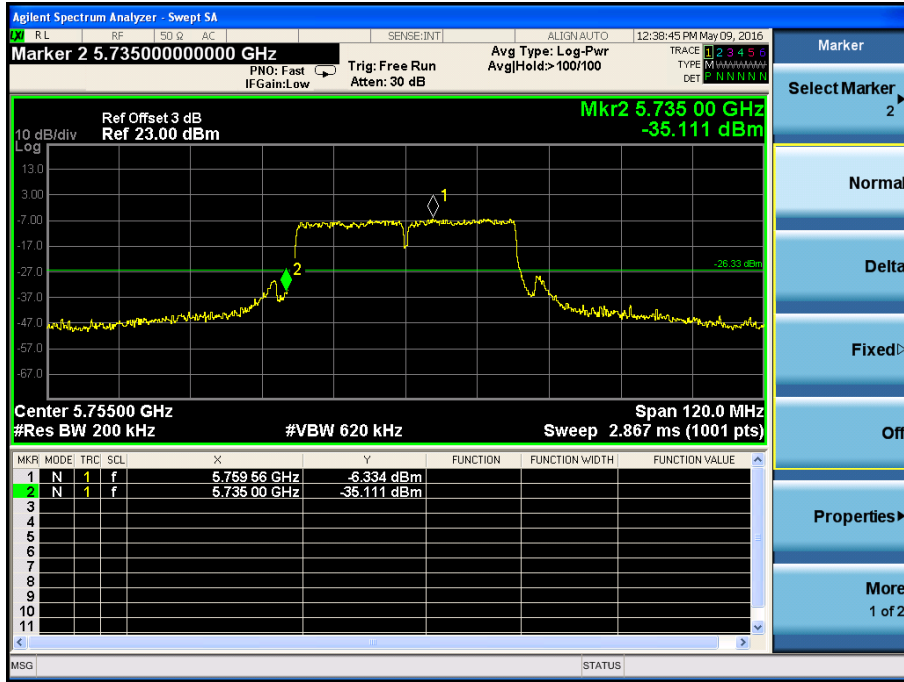
802.11n-HT40  
5190MHz



5230MHz

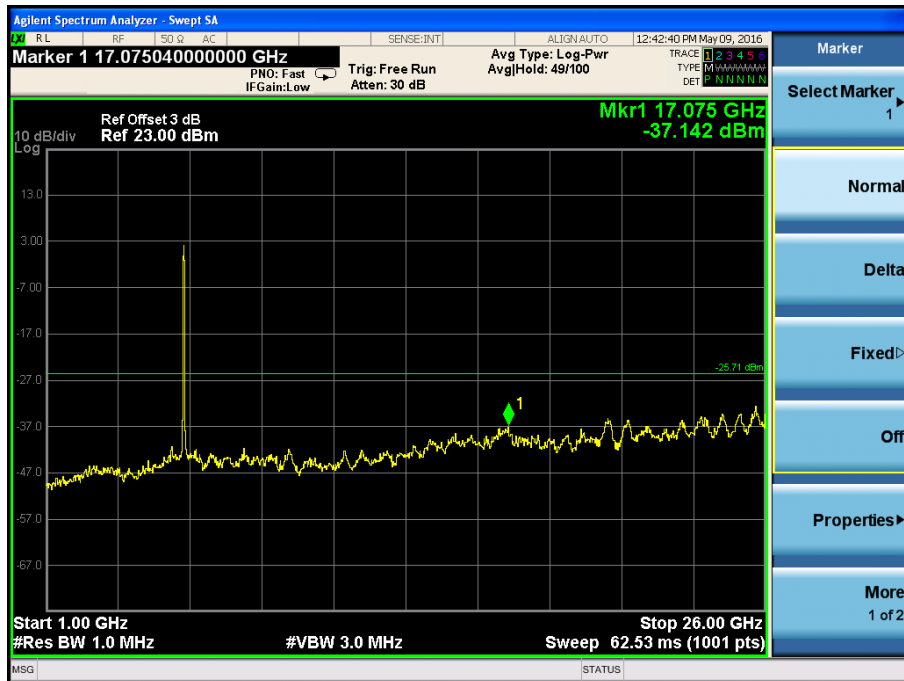
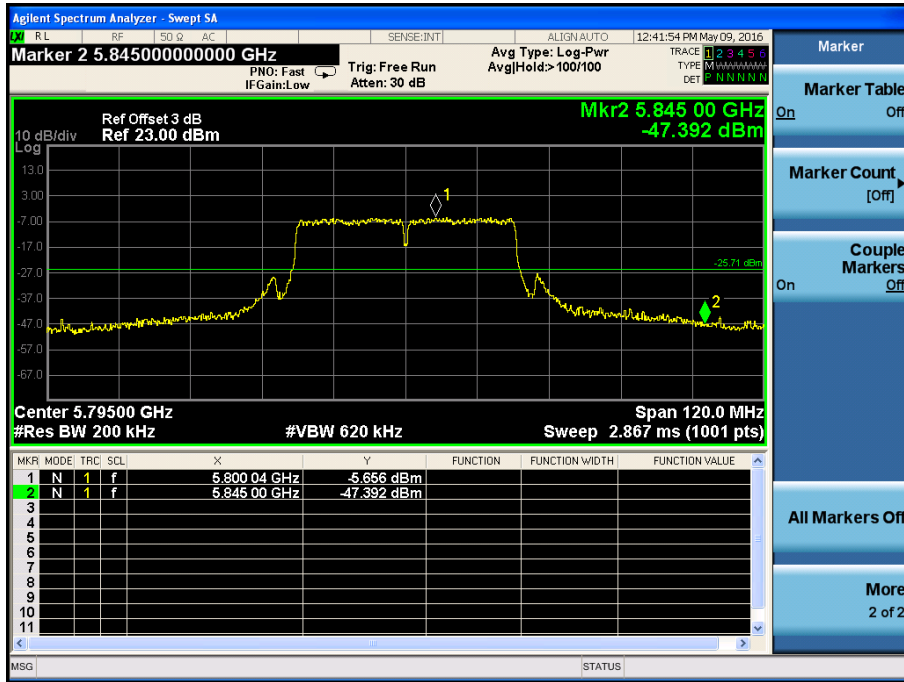


5755MHz

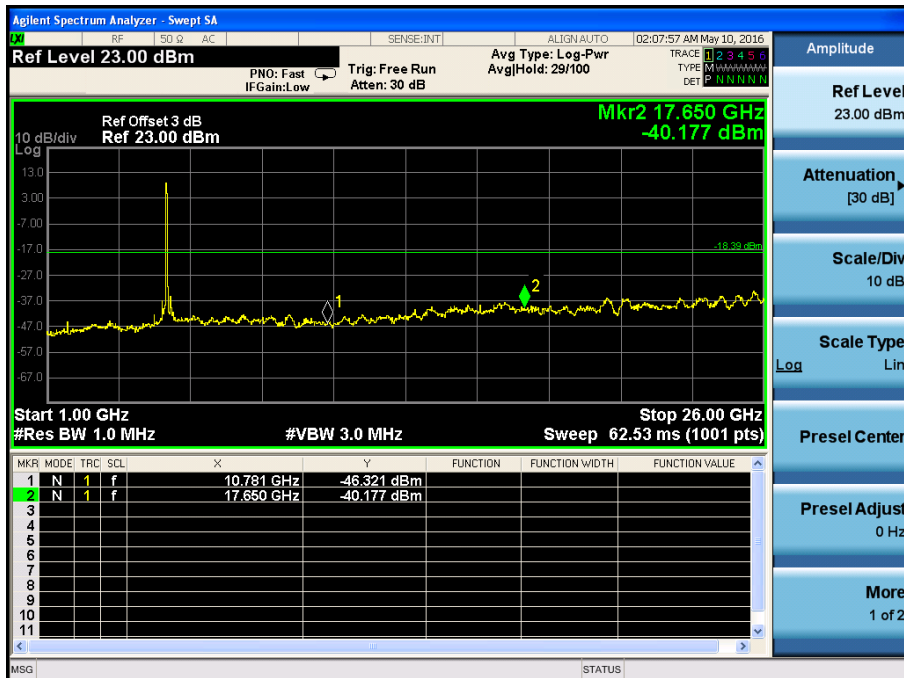
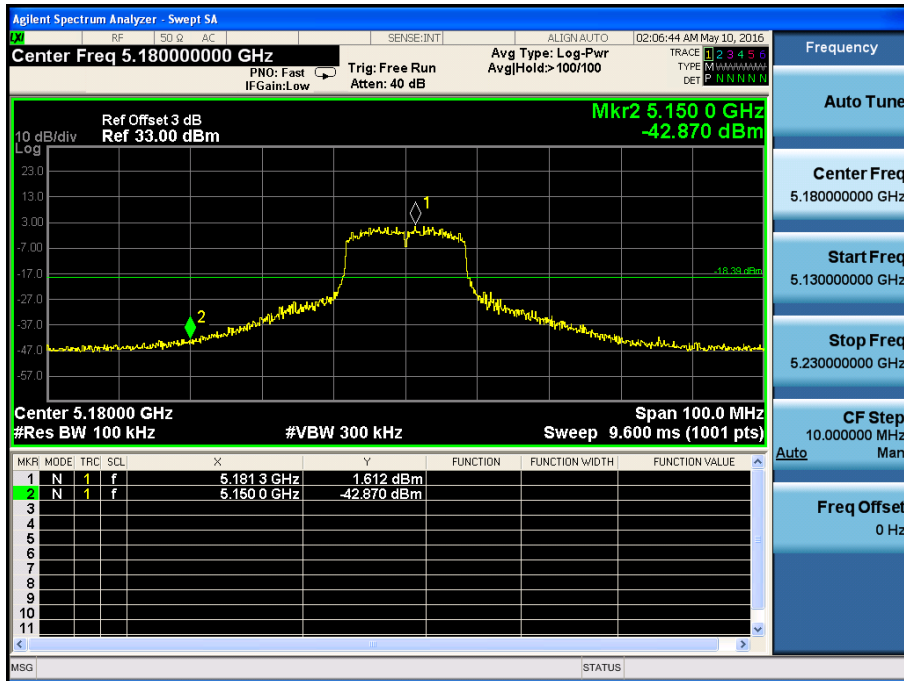




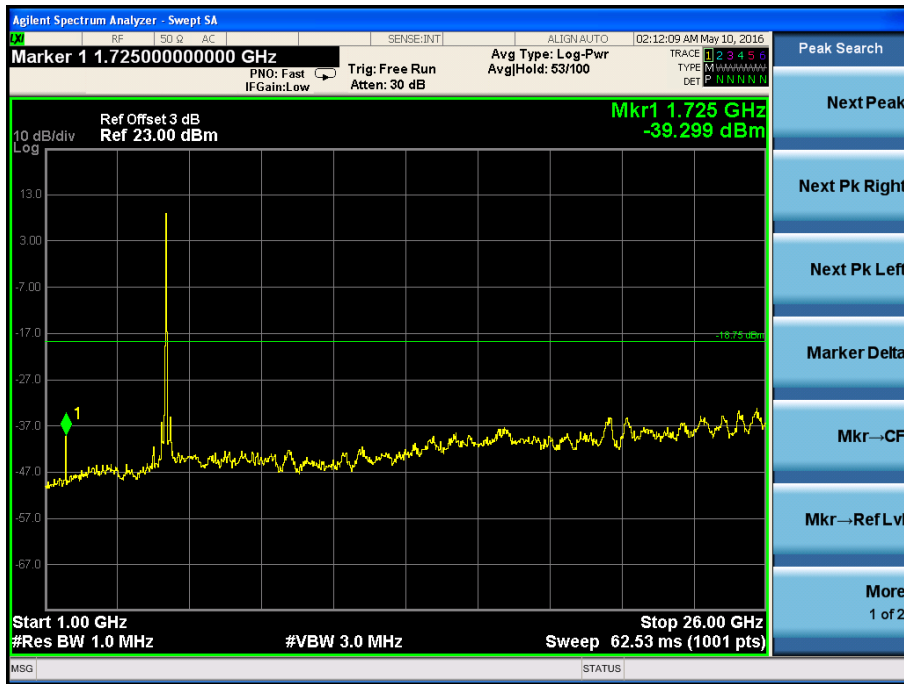
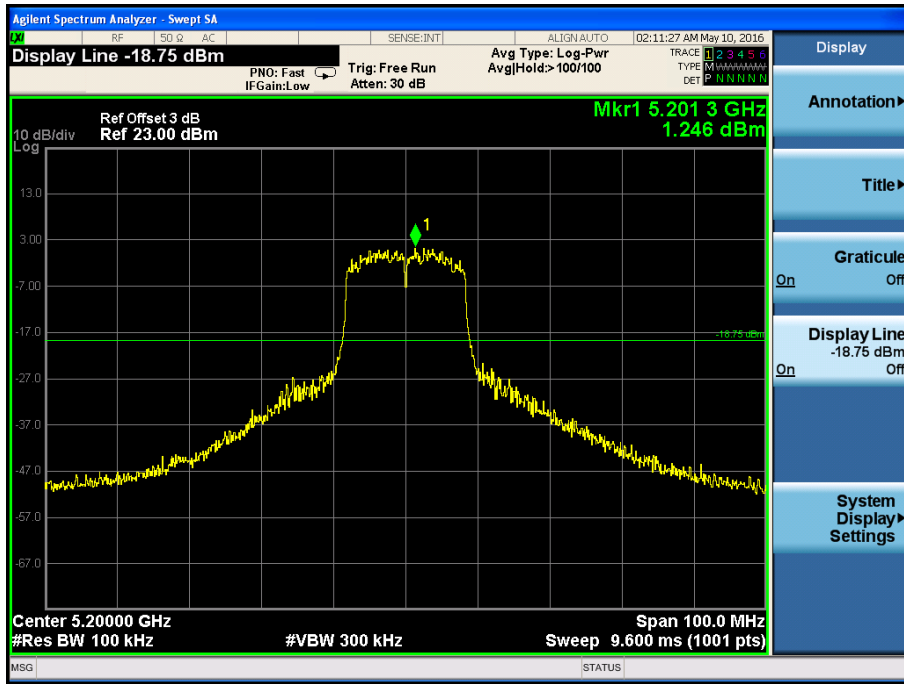
5795MHz



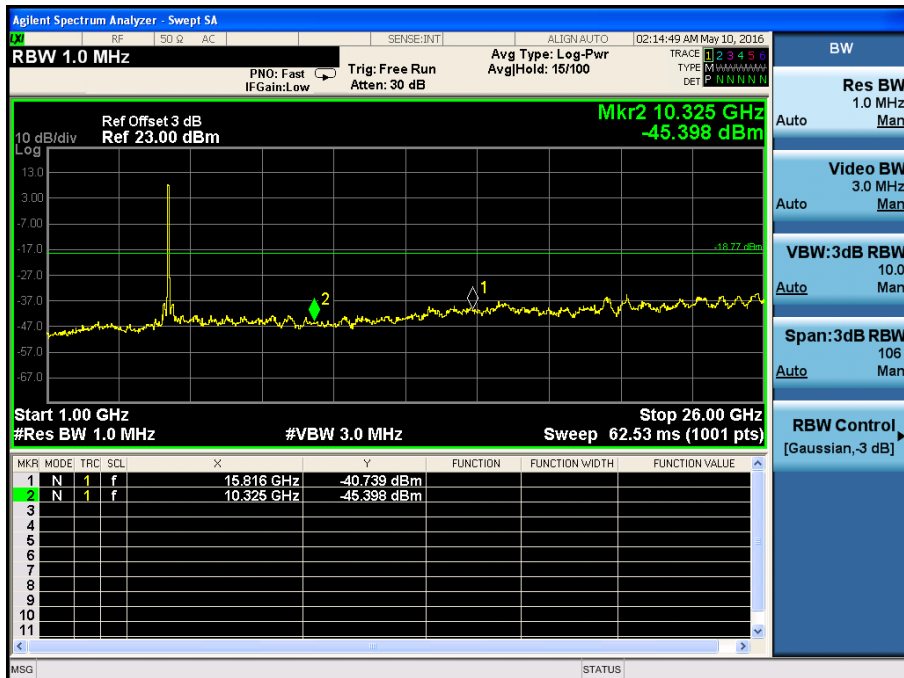
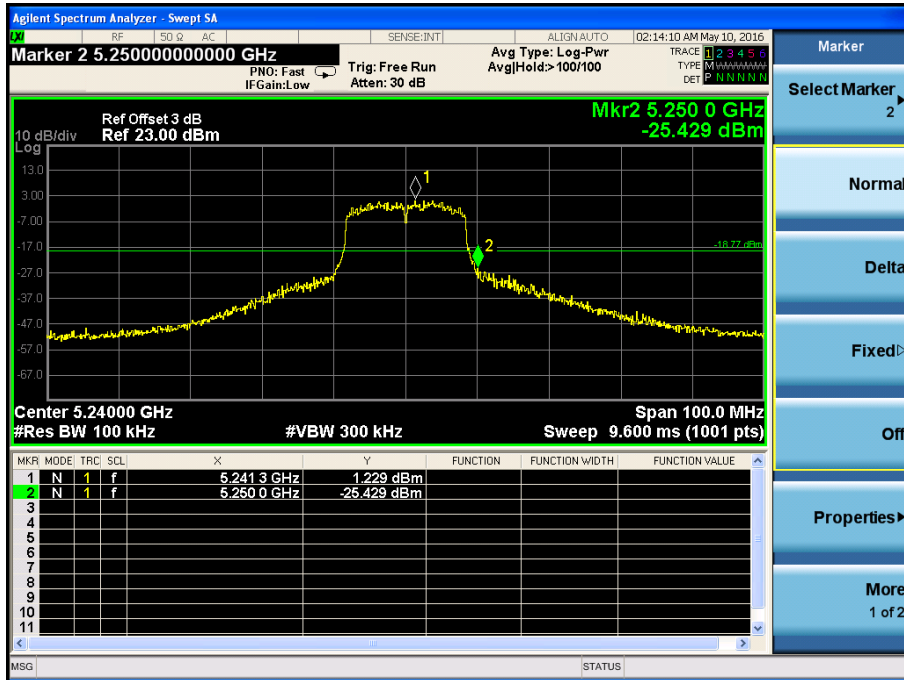
Antenna 2  
802.11a  
5180MHz



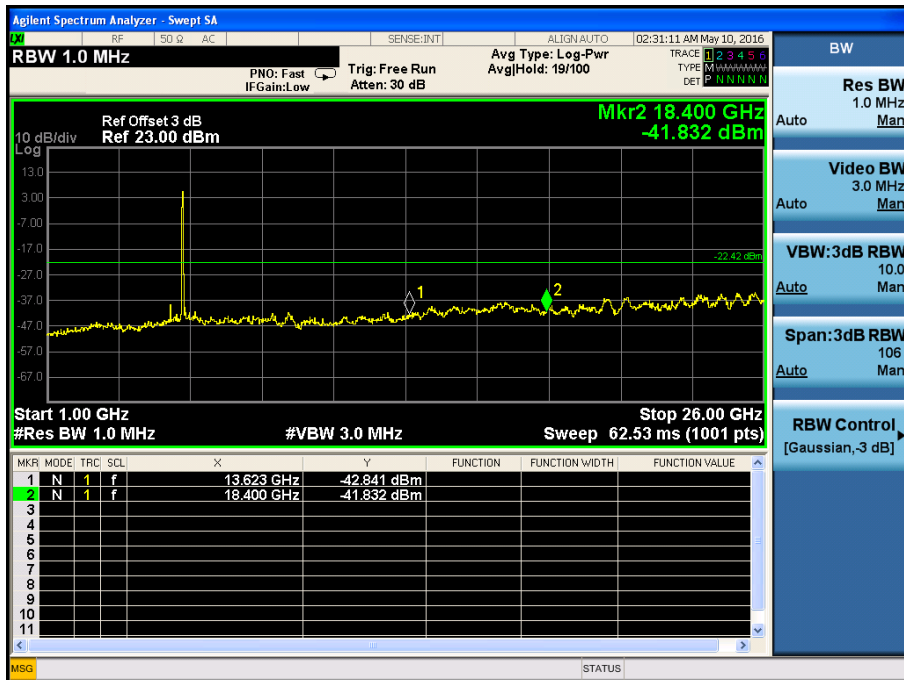
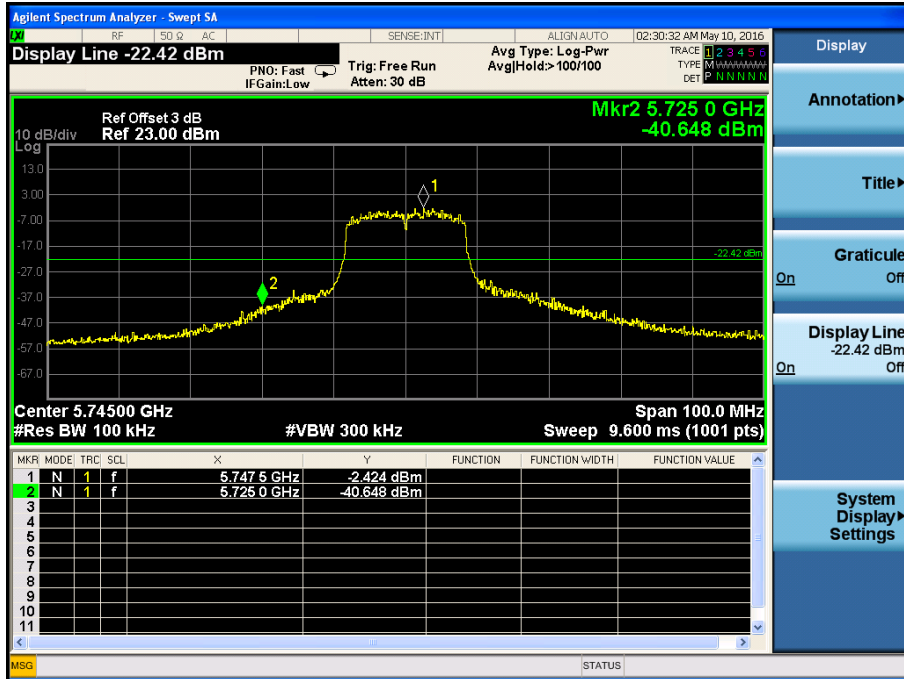
5200MHz



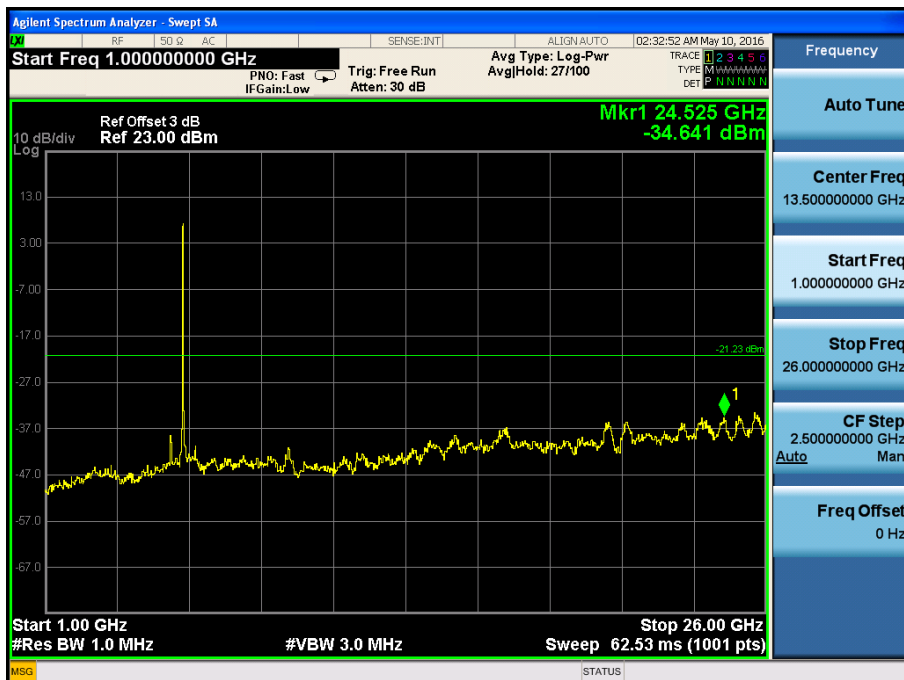
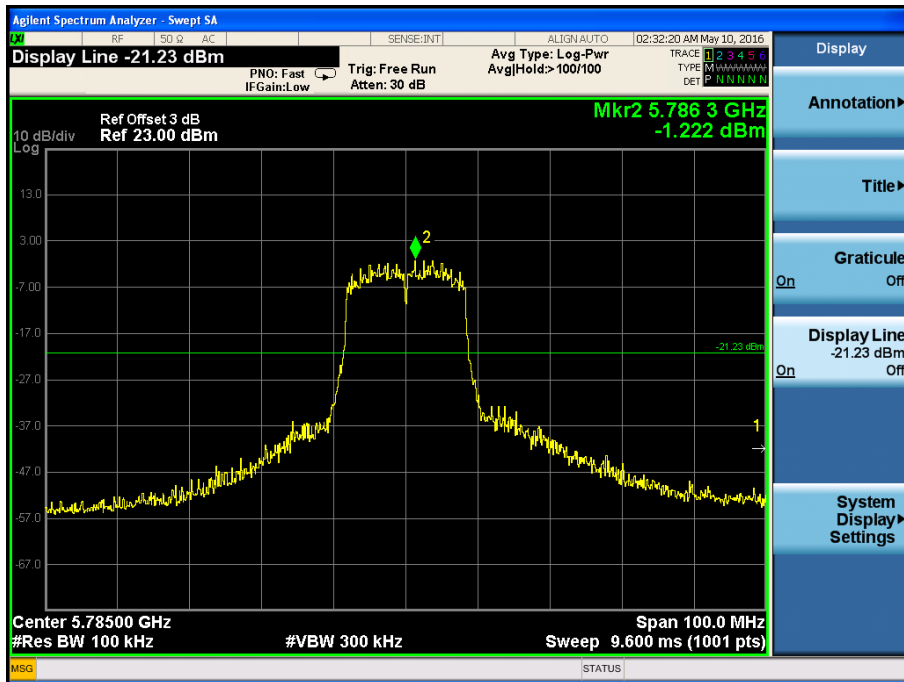
5240MHz



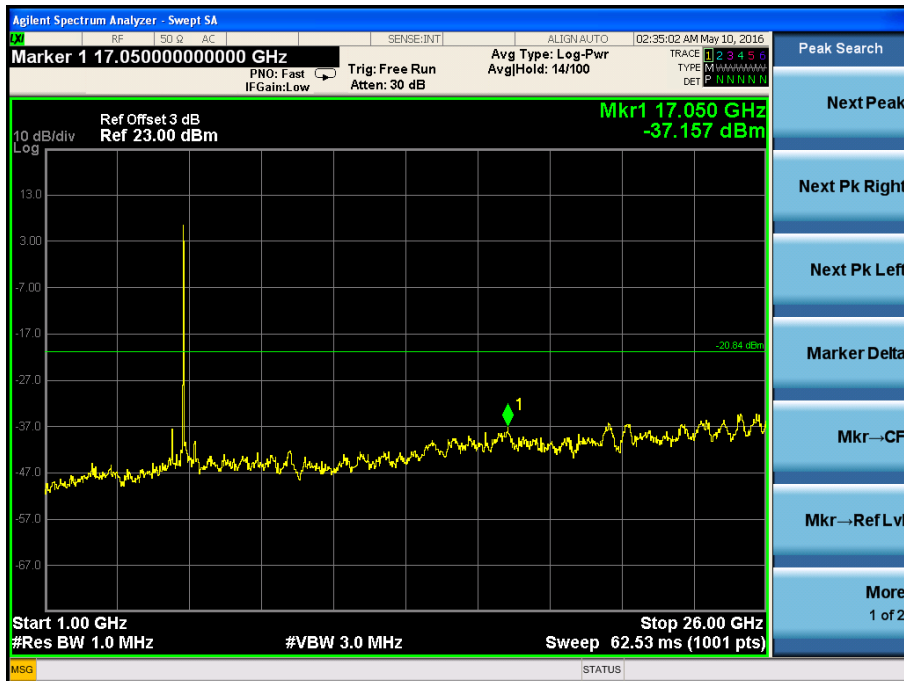
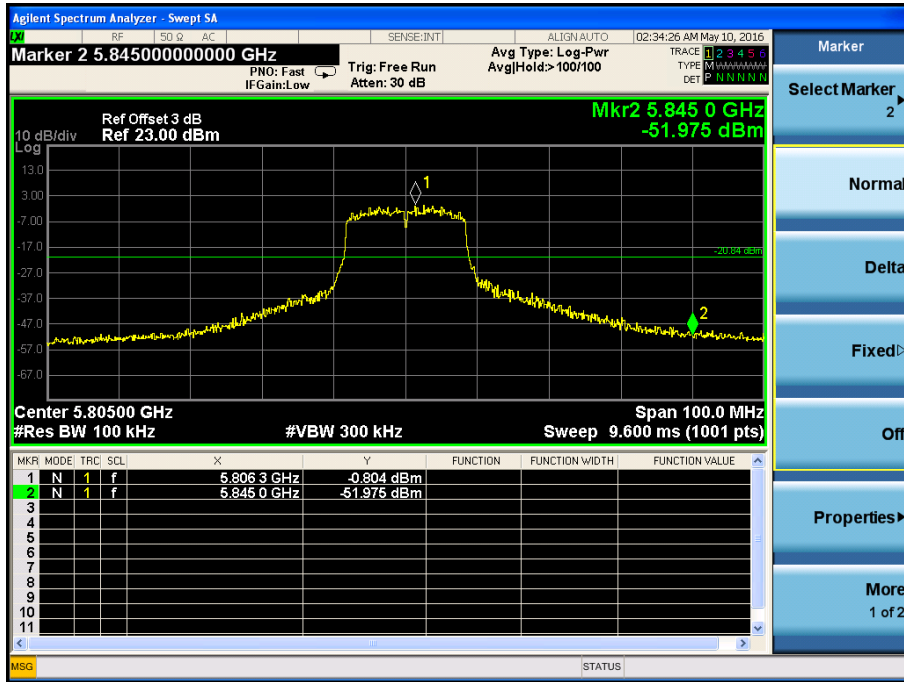
5745MHz



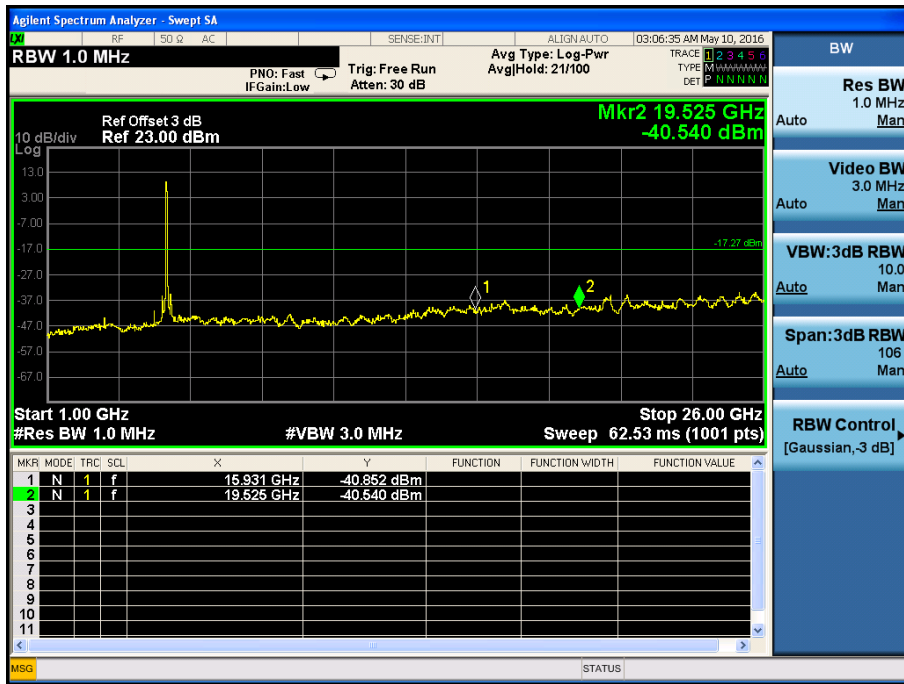
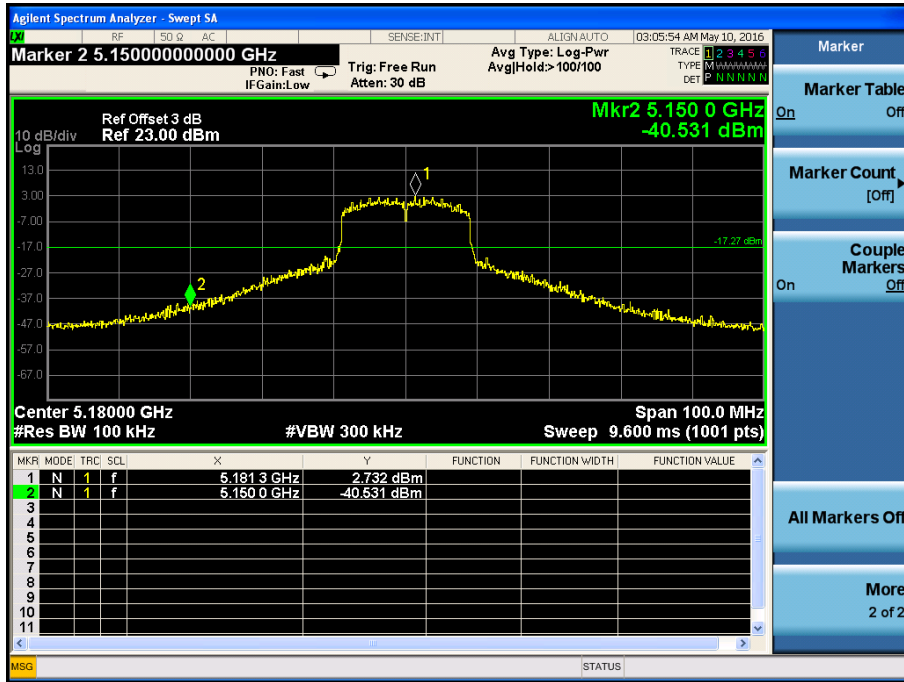
5785MHz



5805MHz

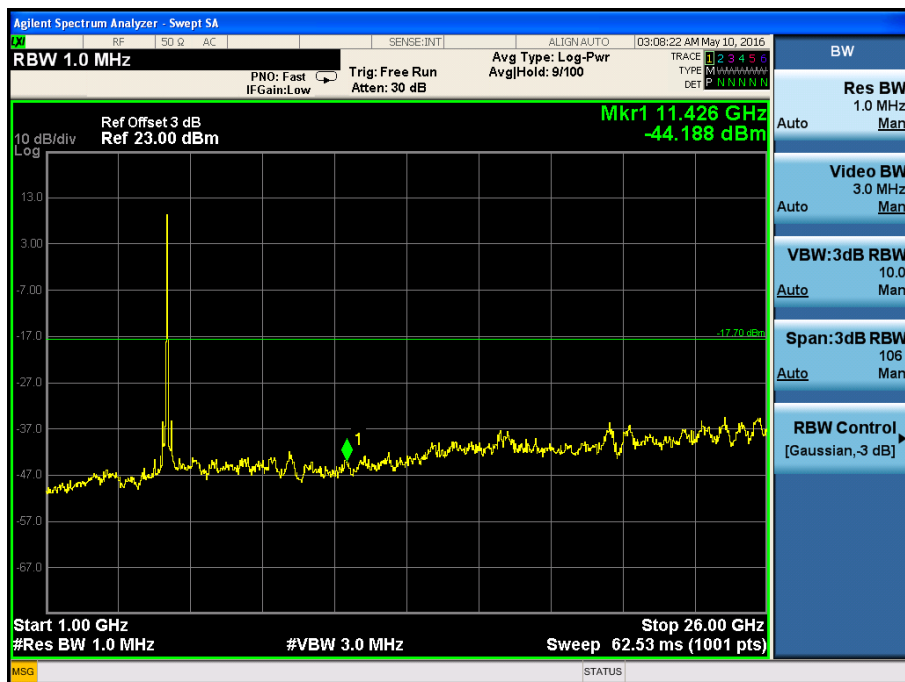
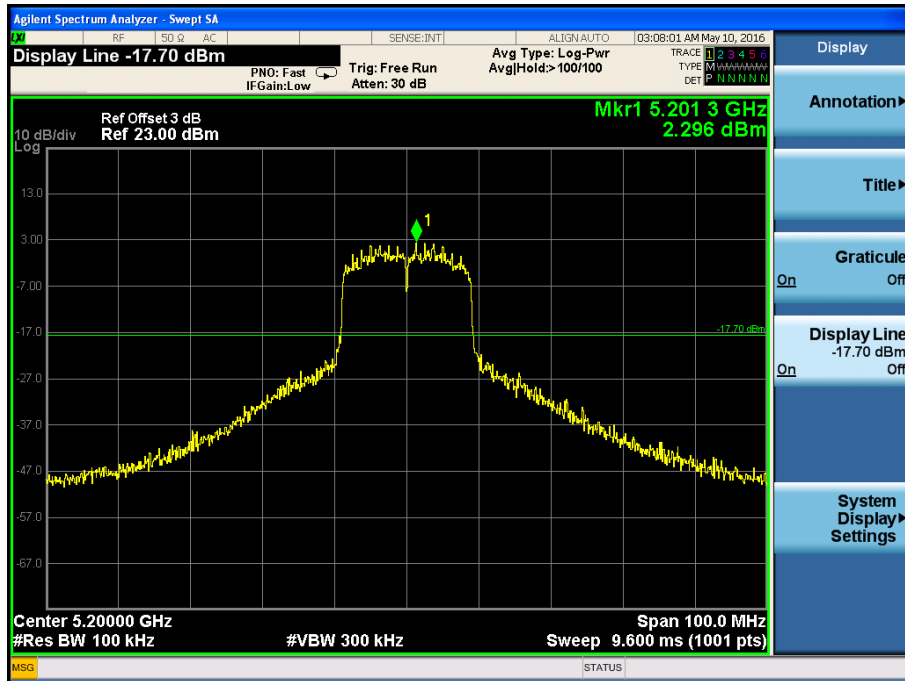


802.11n-HT20  
5180MHz

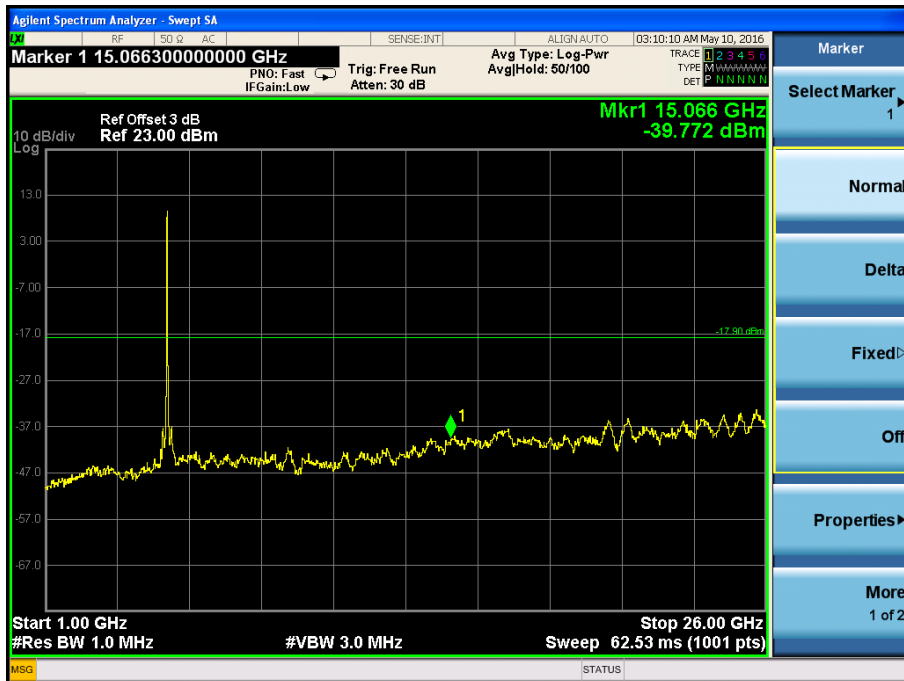
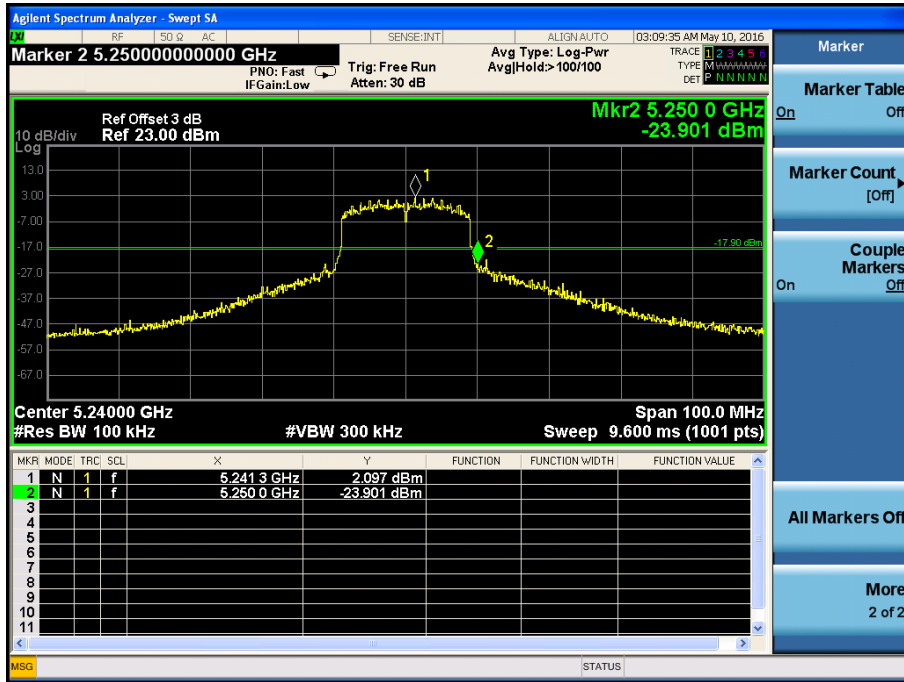




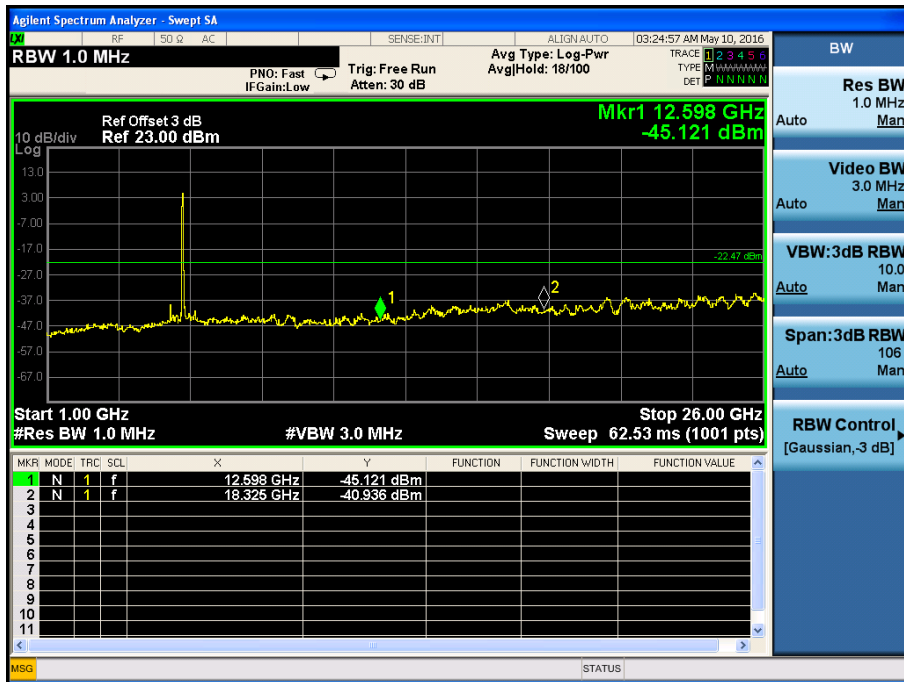
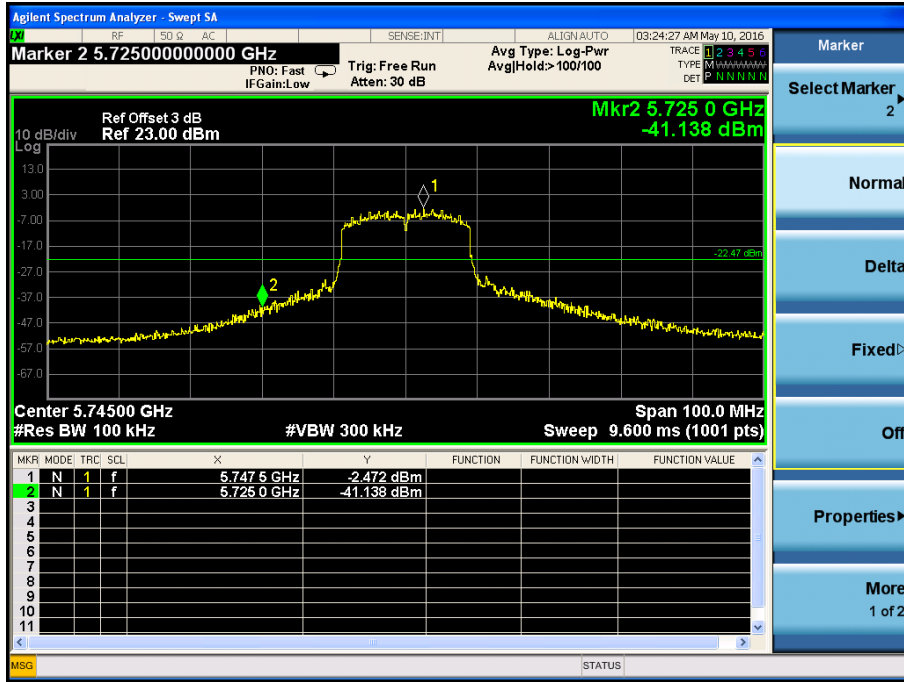
5200MHz



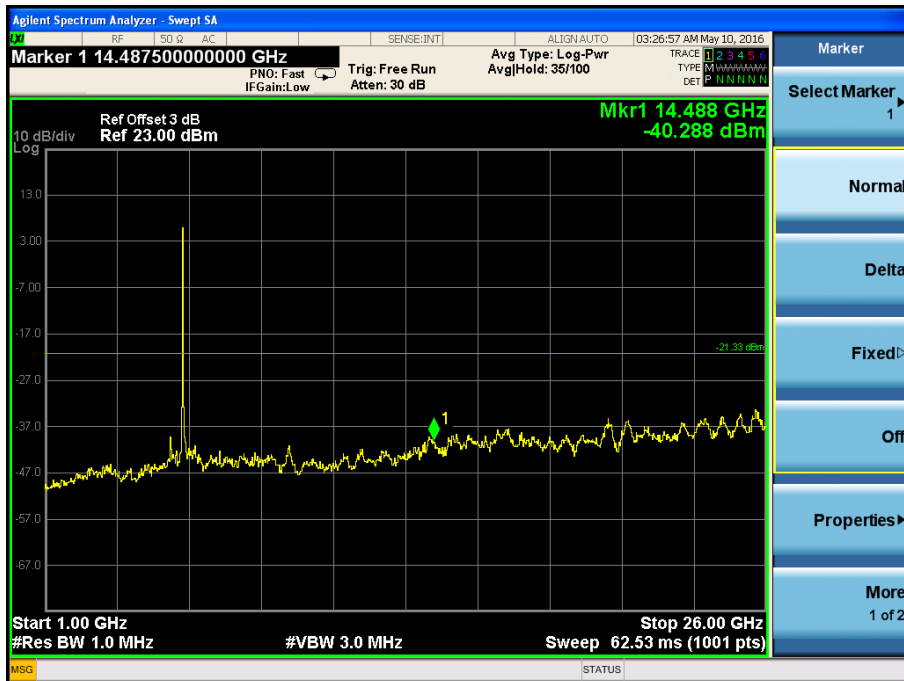
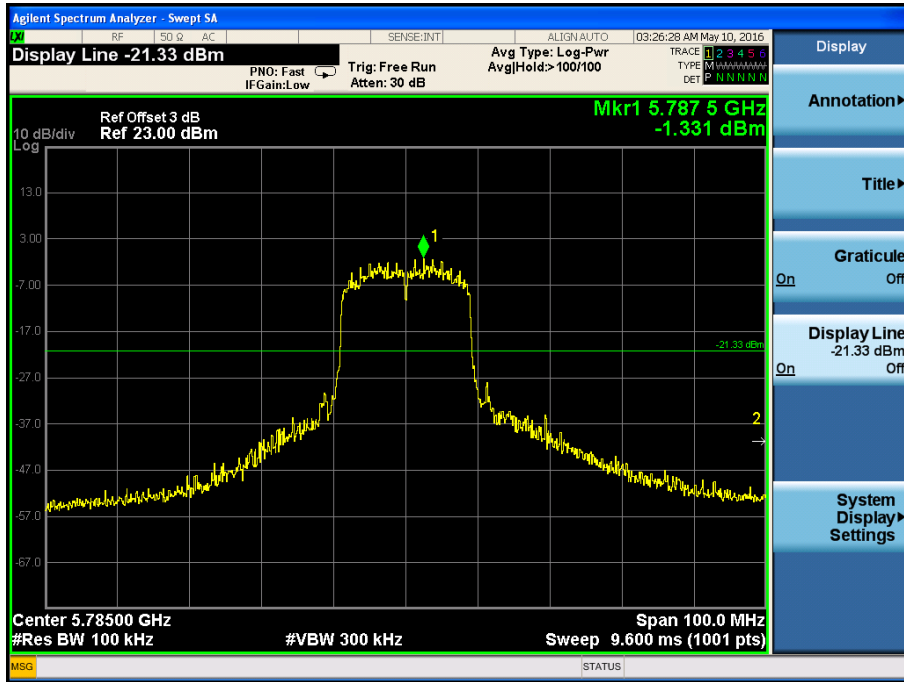
5240MHz



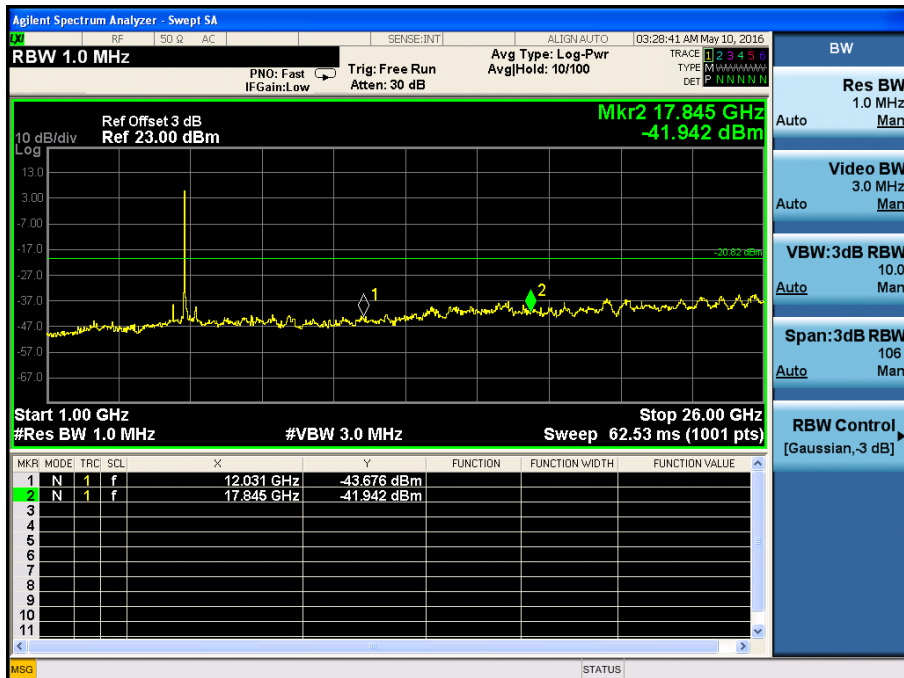
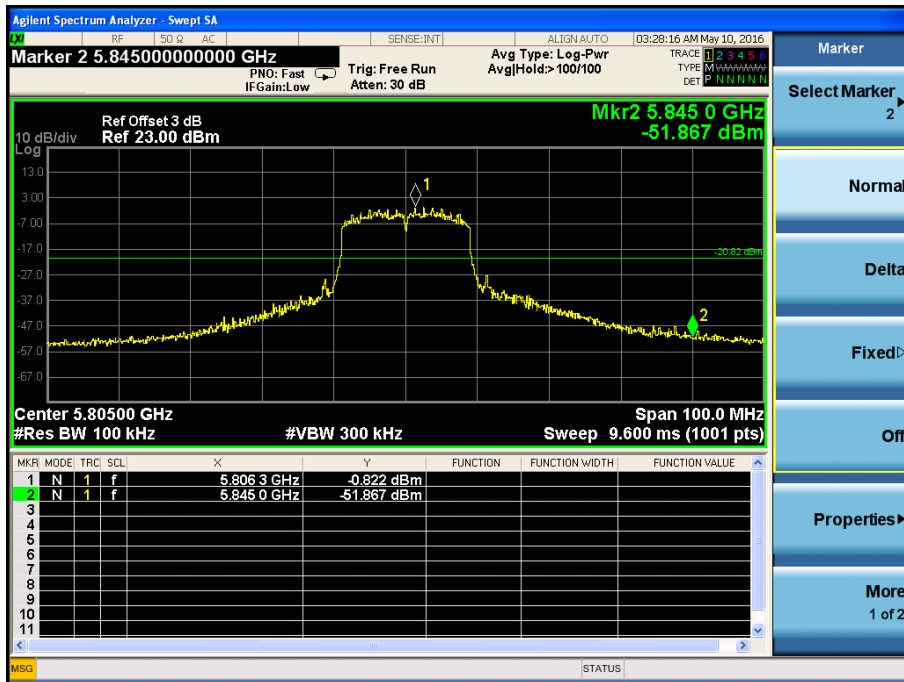
5745MHz



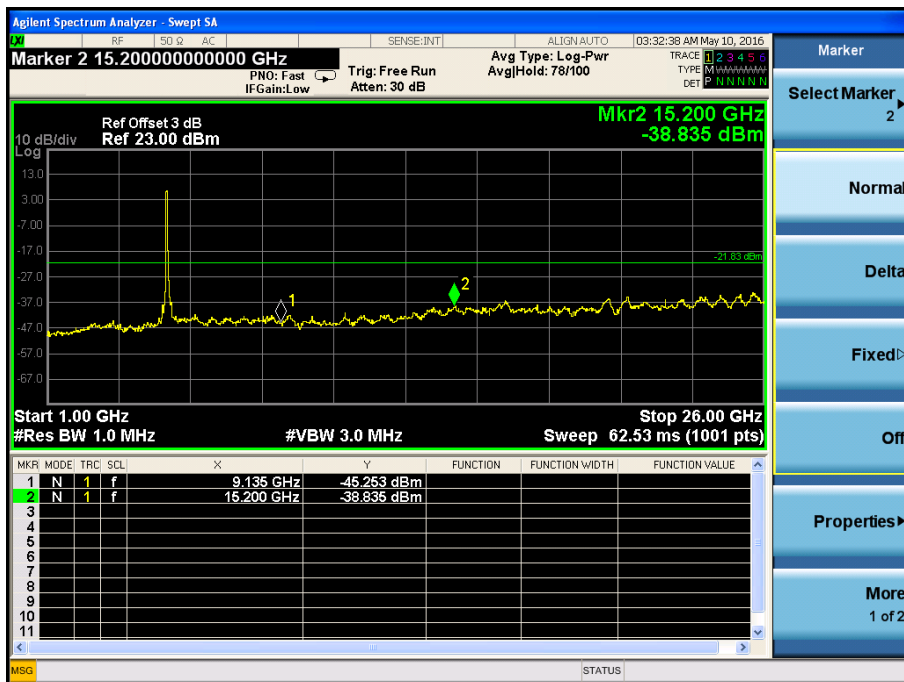
5785MHz



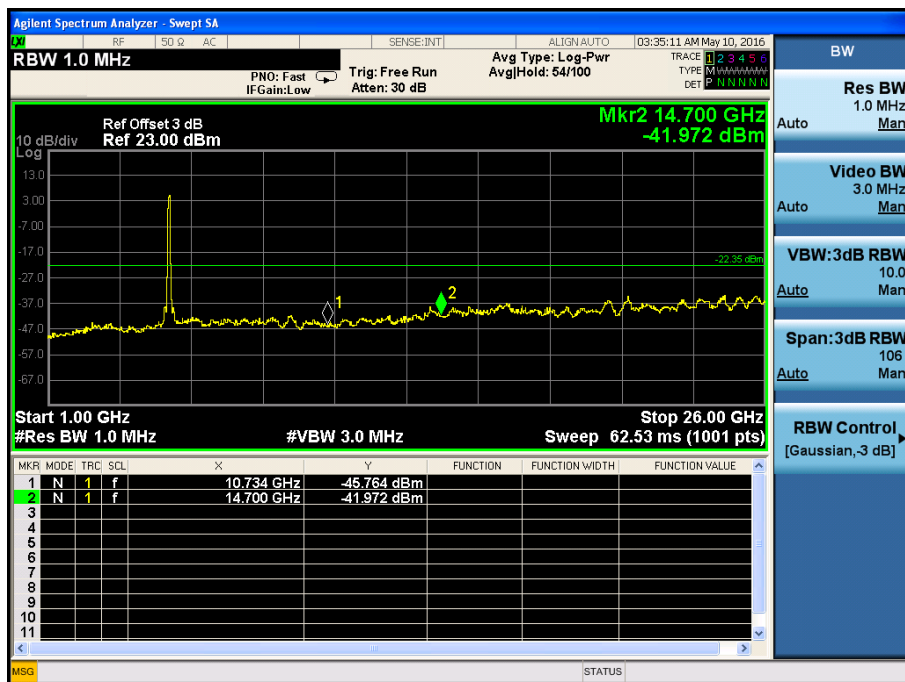
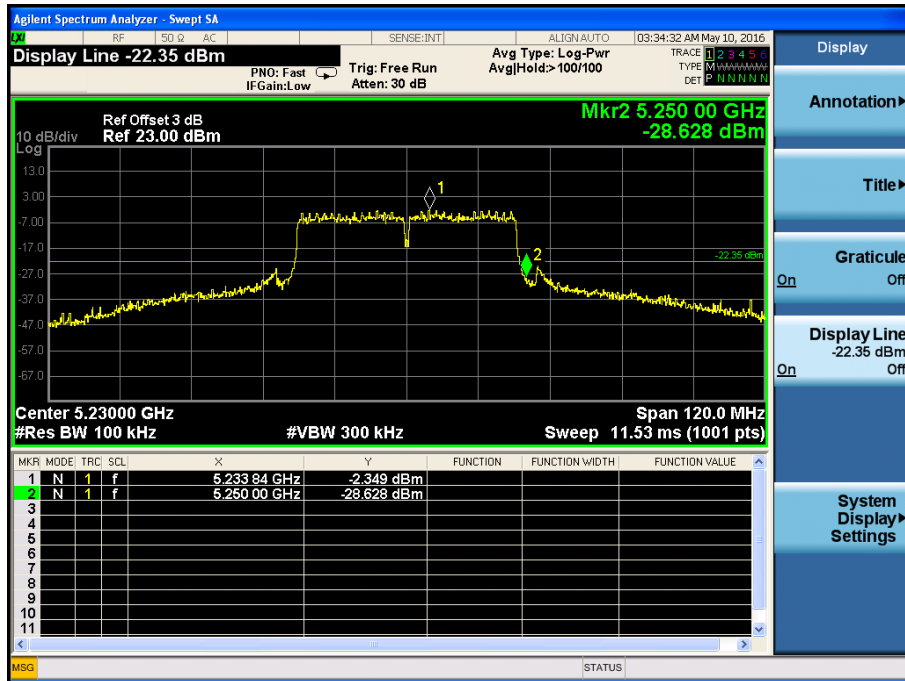
5805MHz



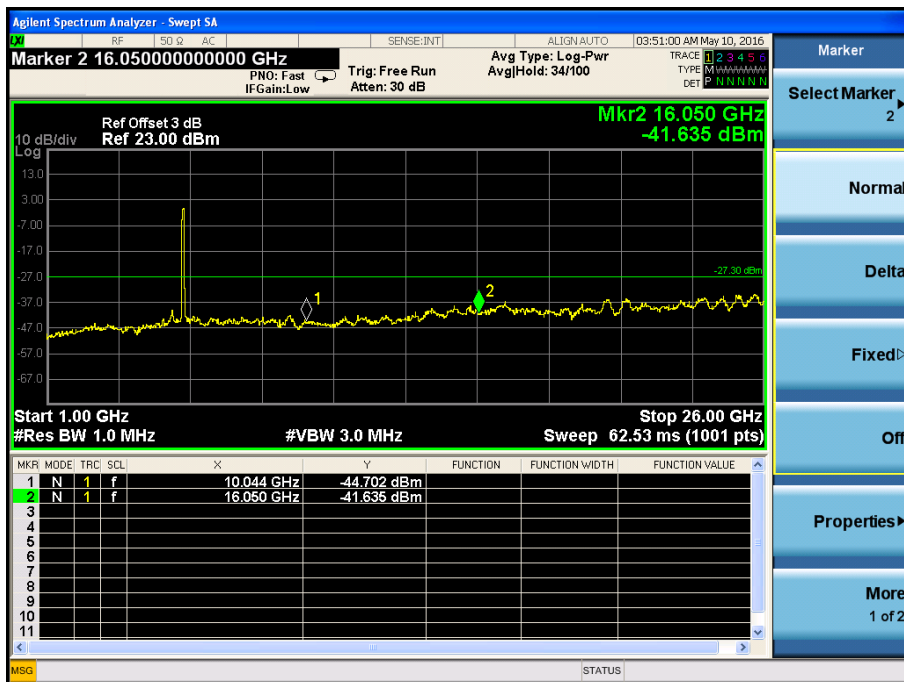
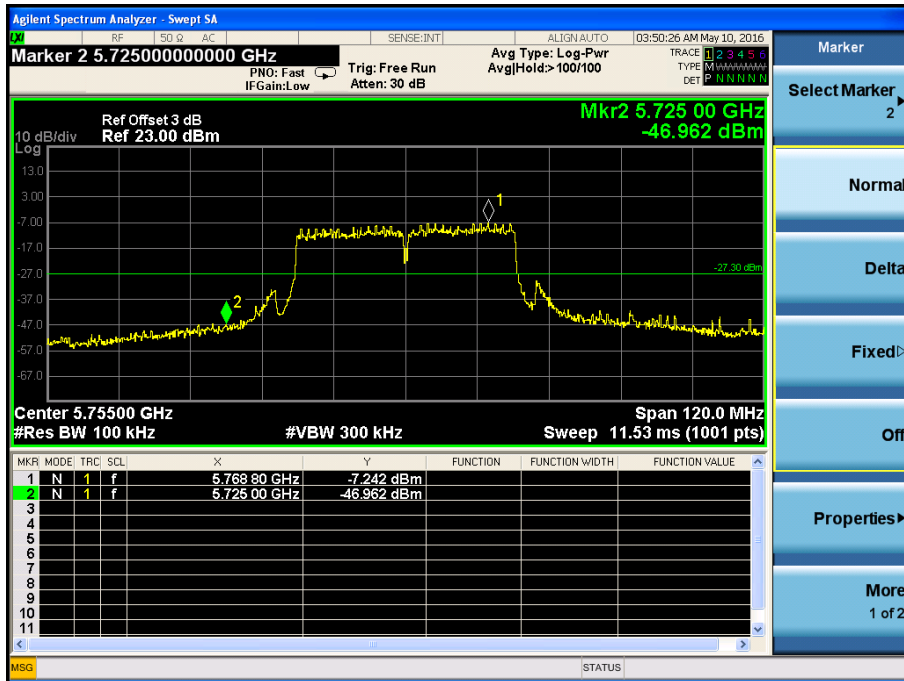
802.11n-HT40  
5190MHz



5230MHz

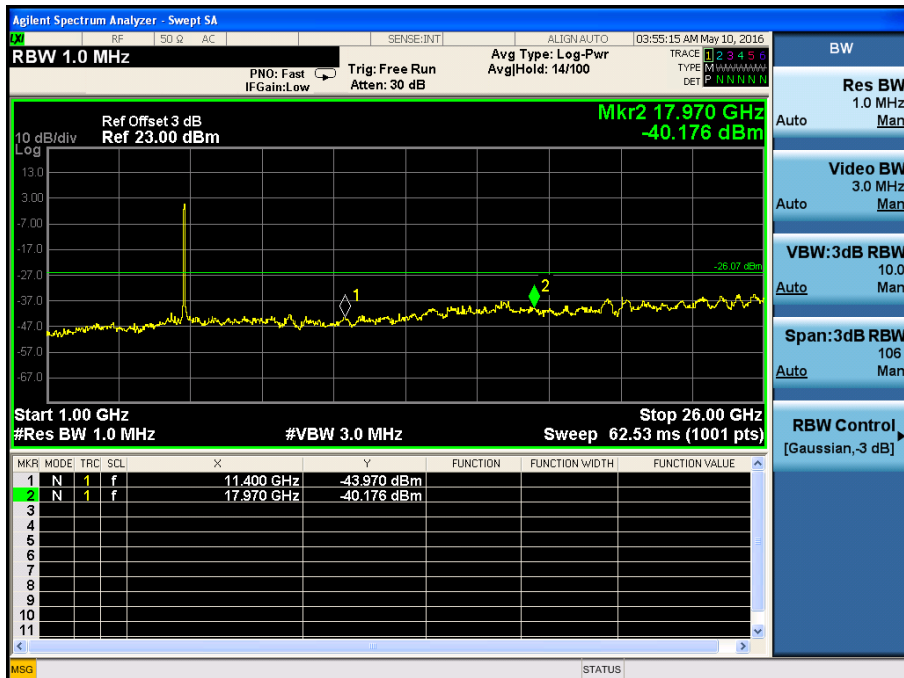
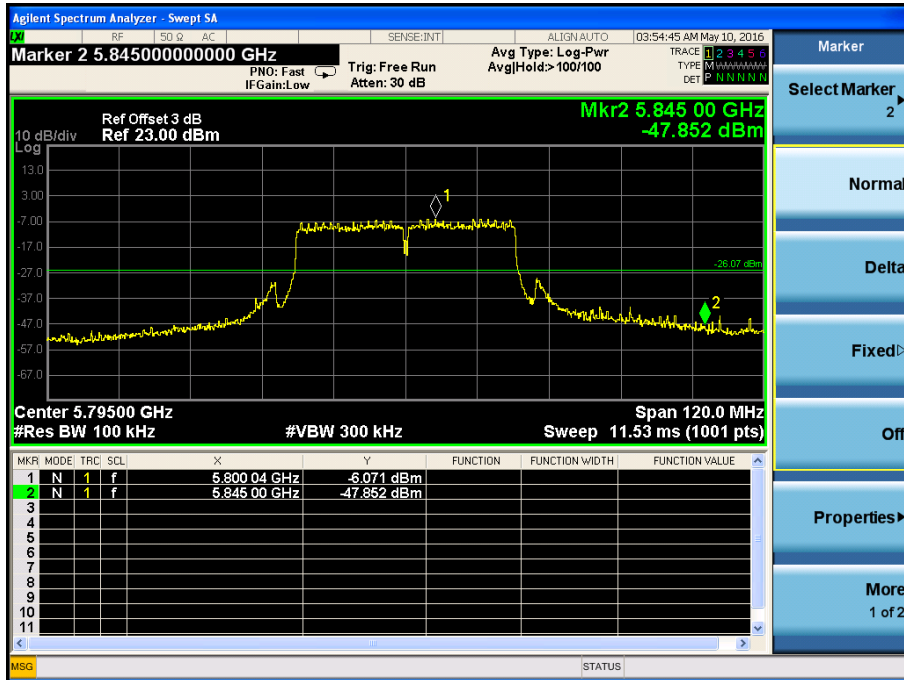


5755MHz





5795MHz



## 10. Frequency Stability

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### 10.1 Standard Applicable

According to §15.407(g), 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 users manual.

### 10.2 Test Procedure

According to §2.1055, the following test procedure was performed.

The Frequency Stability is measured directly with a Frequency Domain Analyzer. Frequency Deviation in ppm is calculated from the measured peak to peak value.

The Carrier Frequency Stability over Power Supply Voltage and over Temperature is measured with a Frequency Domain Analyzer in histogram mode

Temperature:	Supply Voltage
20°C	85-115% of declared nominal voltage
-30°C to +50°C	Normal

### 10.3 Environmental Conditions

Temperature:	20°C
Relative Humidity:	54%
ATM Pressure:	1011 mbar

### 10.4 Summary of Test Results/Plots

#### 802.11a

Reference Frequency(Middle Channel): 5180 MHz			
Environment Temperature (°C)	Power Supplied (VDC)	Frequency Measure with Time Elapsed	
		MCF (Hz)	Error (ppm)
50	3.3	137	0.0264
40	3.3	139	0.0268
30	3.3	149	0.0288
20	3.3	150	0.0290
10	3.3	136	0.0263
0	3.3	142	0.0274
-10	3.3	150	0.0290
-20	3.3	149	0.0288
-30	3.3	130	0.0251

#### 802.11n20

Reference Frequency(Middle Channel): 5200 MHz			
Environment Temperature (°C)	Power Supplied (VDC)	Frequency Measure with Time Elapsed	
		MCF (Hz)	Error (ppm)
50	3.3	162	0.0312
40	3.3	164	0.0315
30	3.3	175	0.0337
20	3.3	177	0.0340
10	3.3	164	0.0315
0	3.3	153	0.0294
-10	3.3	149	0.0287
-20	3.3	157	0.0302
-30	3.3	164	0.0315

802.11n40

Reference Frequency(Middle Channel): 5230 MHz			
Environment Temperature (°C)	Power Supplied (VDC)	Frequency Measure with Time Elapsed	
		MCF (Hz)	Error (ppm)
50	3.3	161	0.0308
40	3.3	159	0.0304
30	3.3	149	0.0285
20	3.3	166	0.0317
10	3.3	159	0.0304
0	3.3	153	0.0293
-10	3.3	138	0.0264
-20	3.3	157	0.0300
-30	3.3	155	0.0296

So, Frequency Stability Versus Input Voltage is:

**802.11a**

Reference Frequency(Middle Channel): 5180 MHz			
Environment Temperature (°C)	Power Supplied (VAC)	Frequency Measure with Time Elapsed	
		Frequency (Hz)	Error (ppm)
20	2.8	146	0.0282
	3.3	150	0.0290
	3.8	147	0.0284

**802.11n20**

Reference Frequency(Middle Channel): 5200 MHz			
Environment Temperature (°C)	Power Supplied (VAC)	Frequency Measure with Time Elapsed	
		Frequency (Hz)	Error (ppm)
20	2.8	160	0.0308
	3.3	177	0.0340
	3.8	168	0.0323

**802.11n40**

Reference Frequency(Middle Channel): 5230MHz			
Environment Temperature (°C)	Power Supplied (VAC)	Frequency Measure with Time Elapsed	
		Frequency (Hz)	Error (ppm)
20	2.8	138	0.0264
	3.3	166	0.0317
	3.8	156	0.0298

\*\*\*\*\* END OF REPORT \*\*\*\*\*