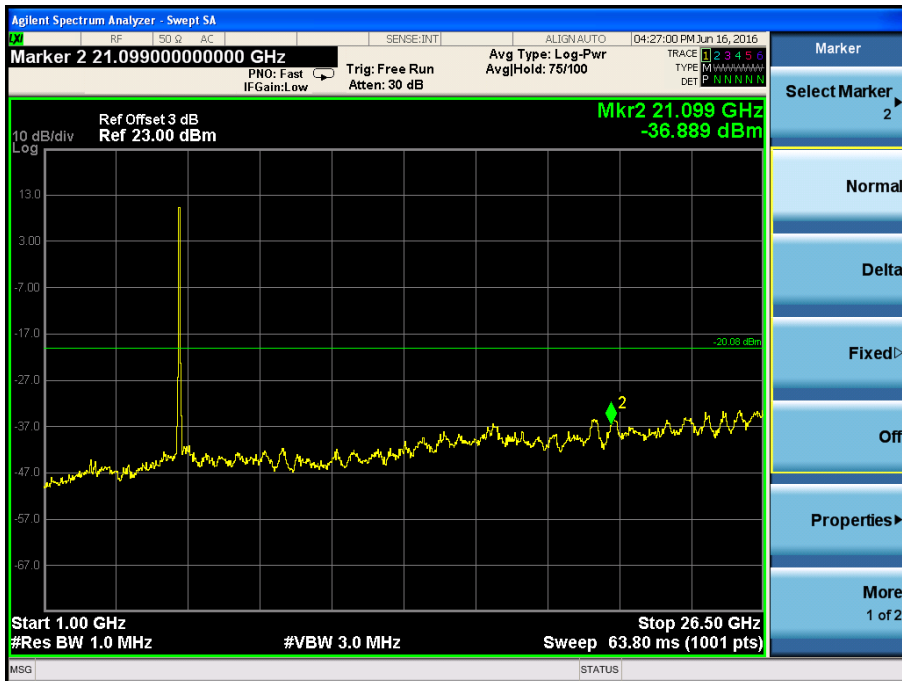
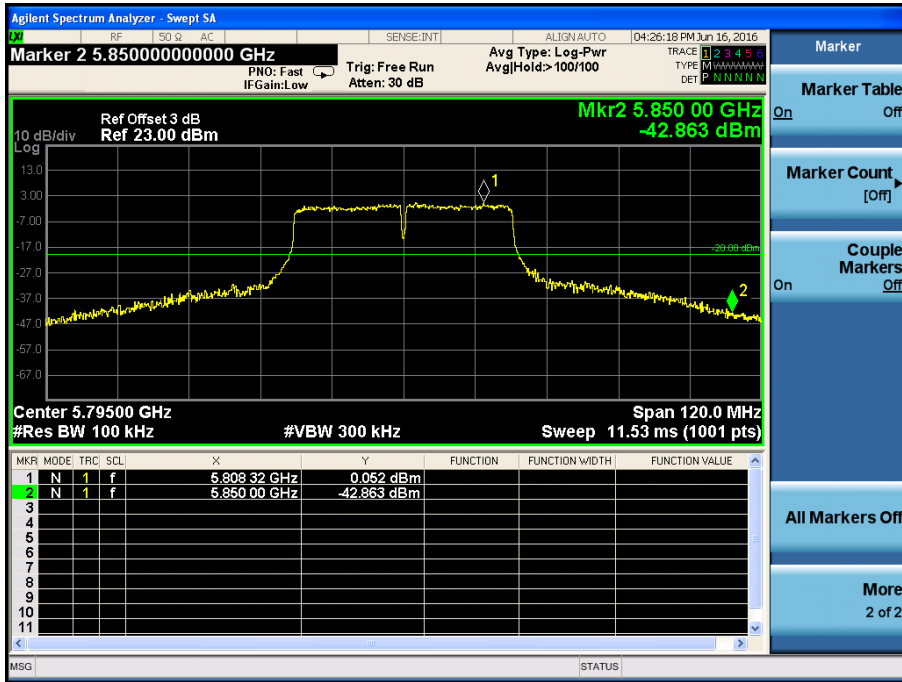
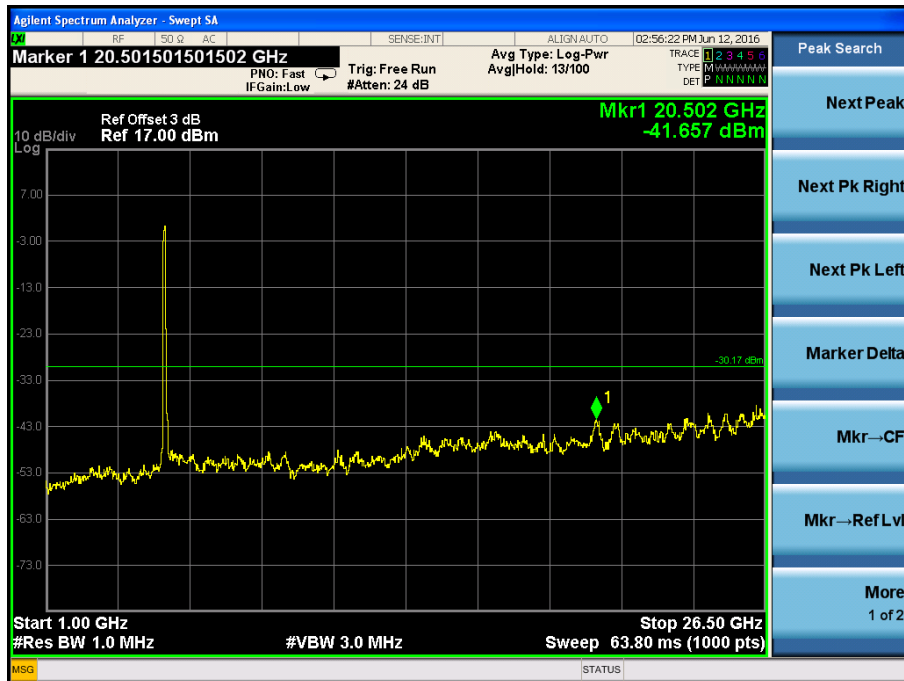
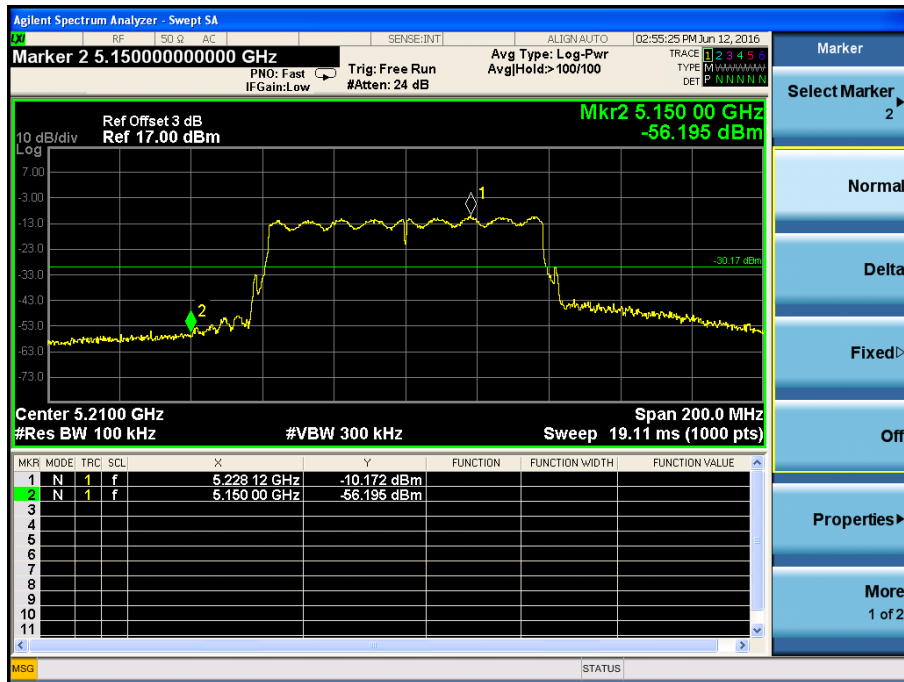


5795MHz

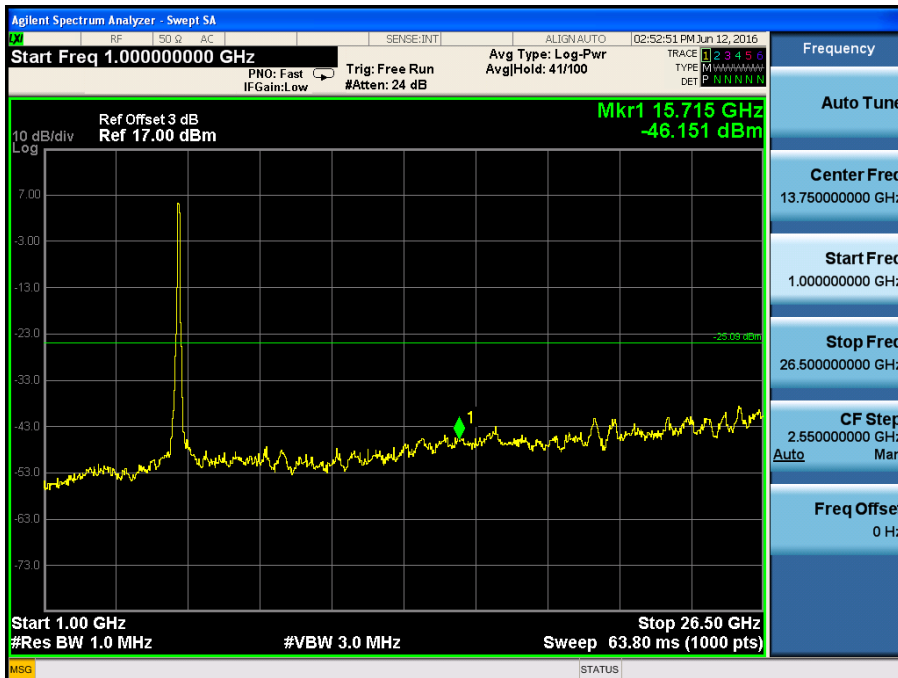


# 802.11ac80

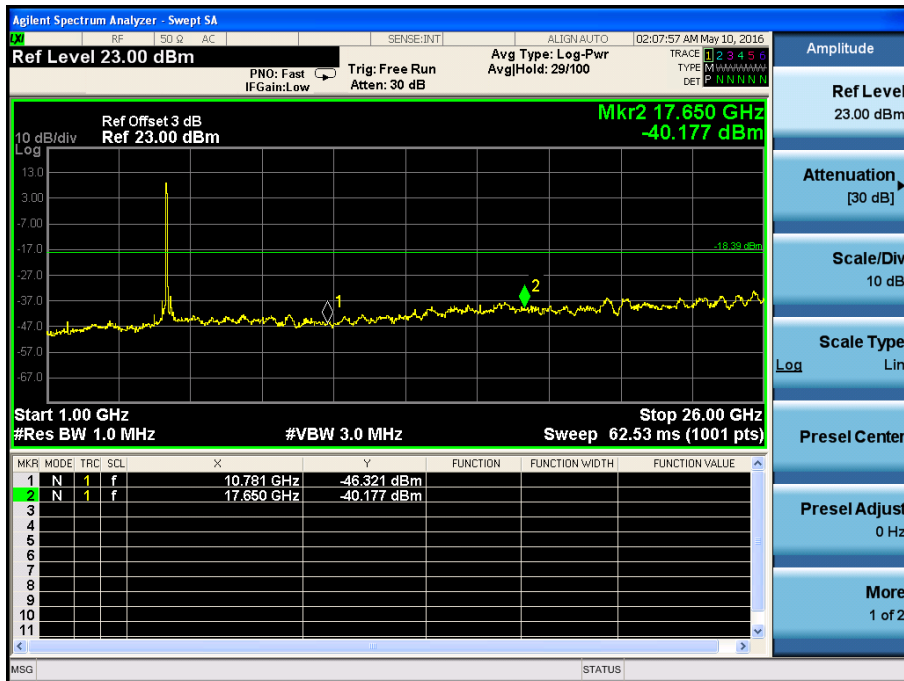
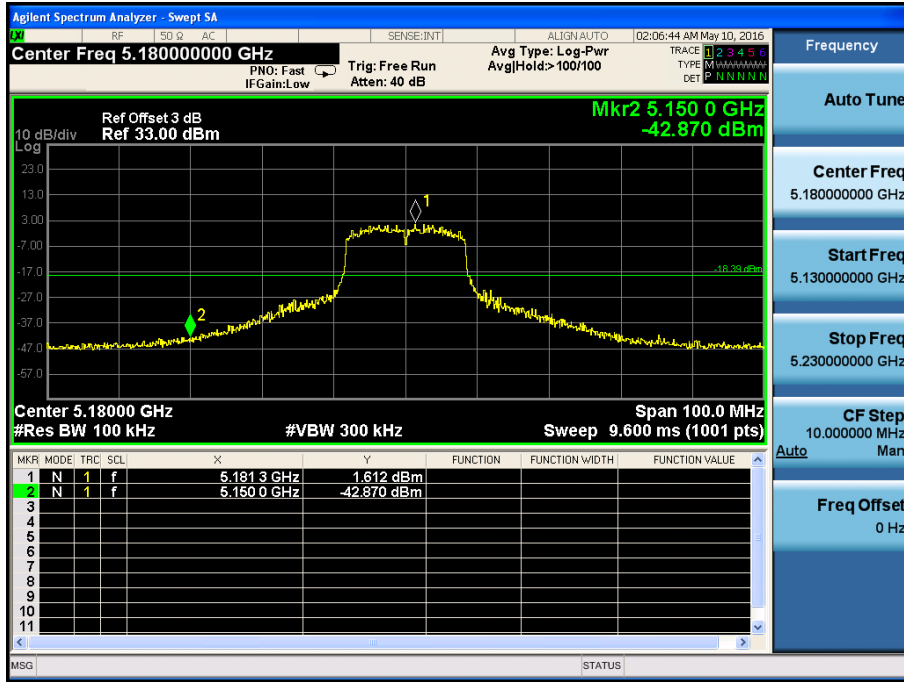
5210MHz



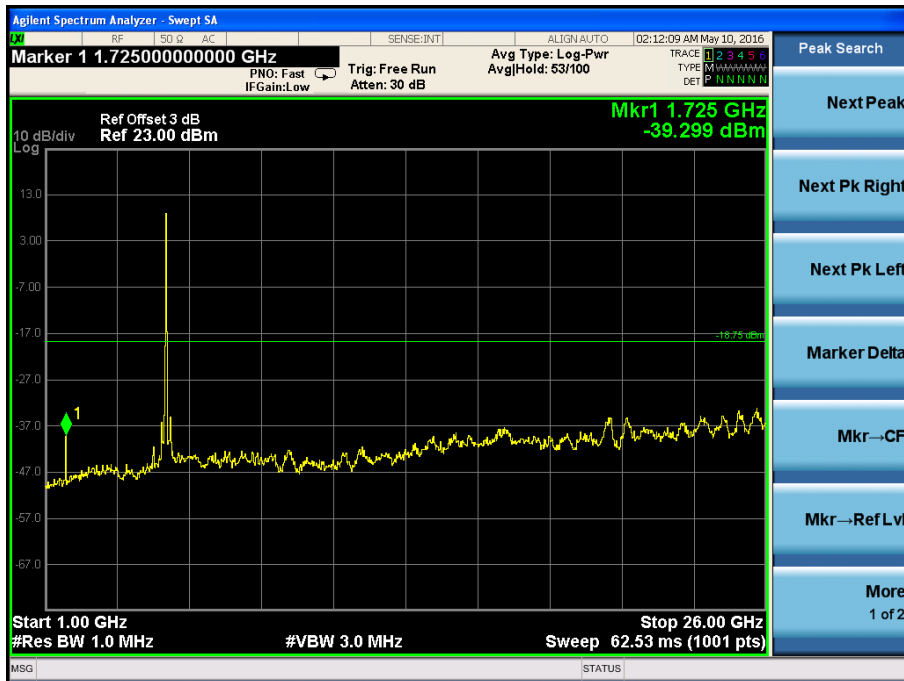
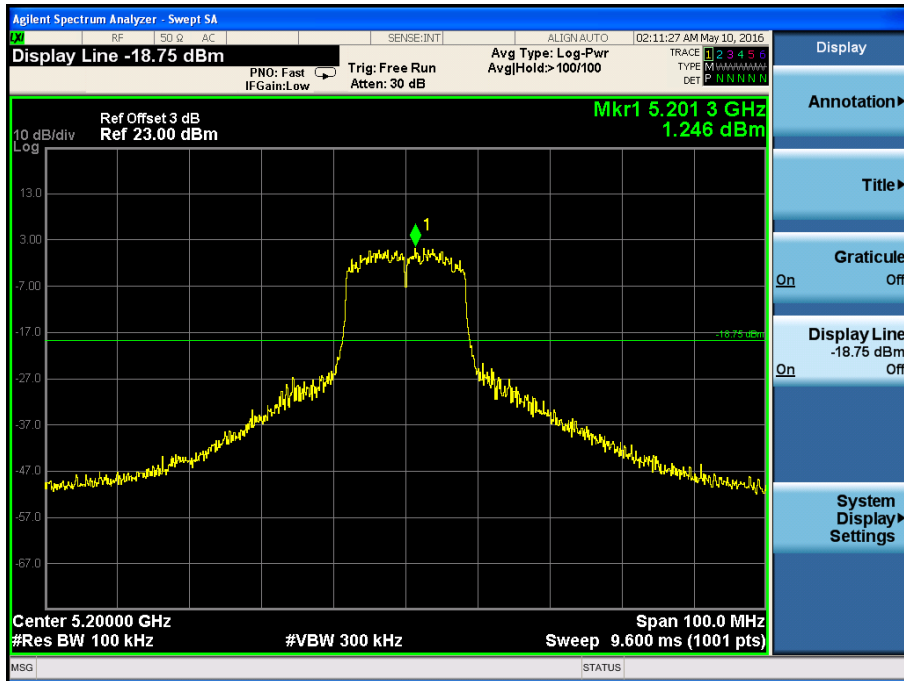
5775MHz



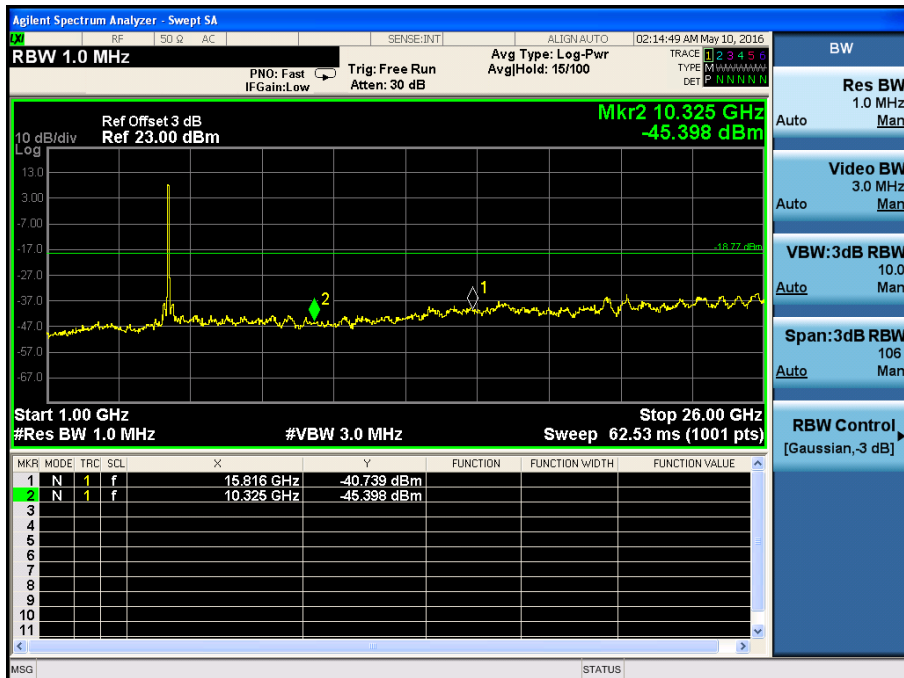
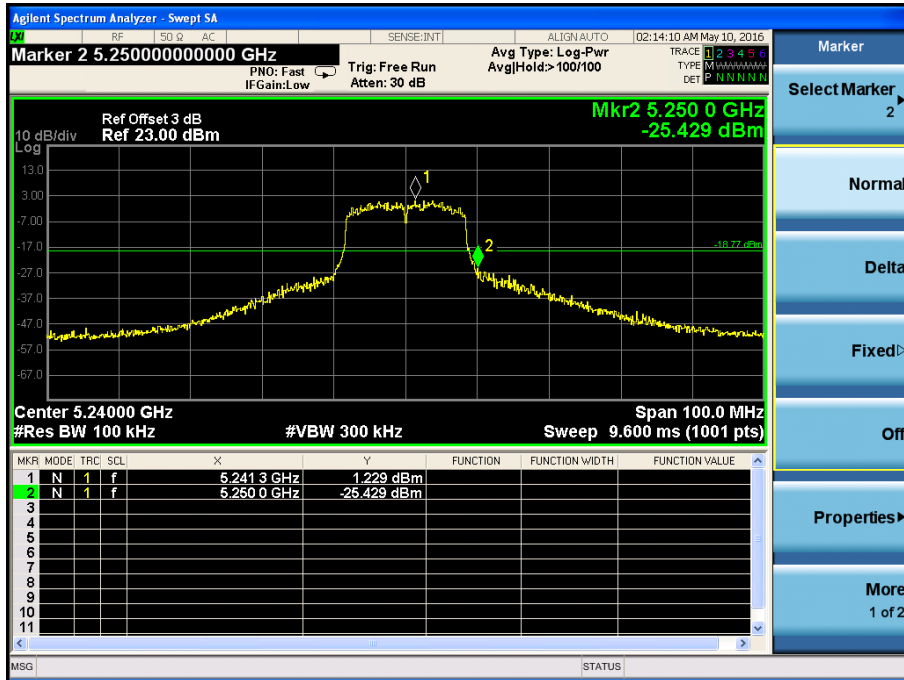
Antenna 2  
802.11a  
5180MHz



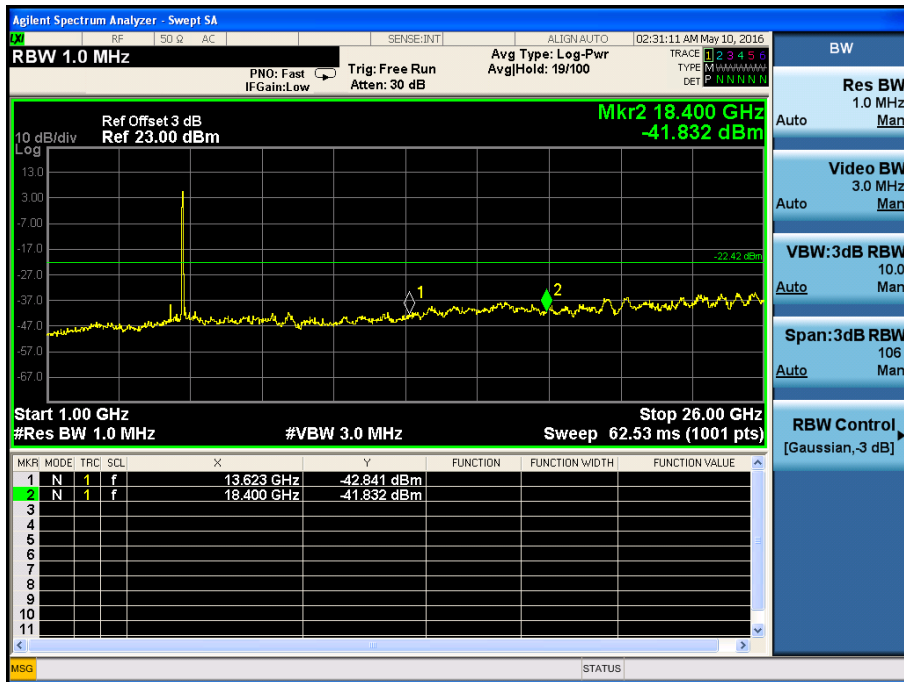
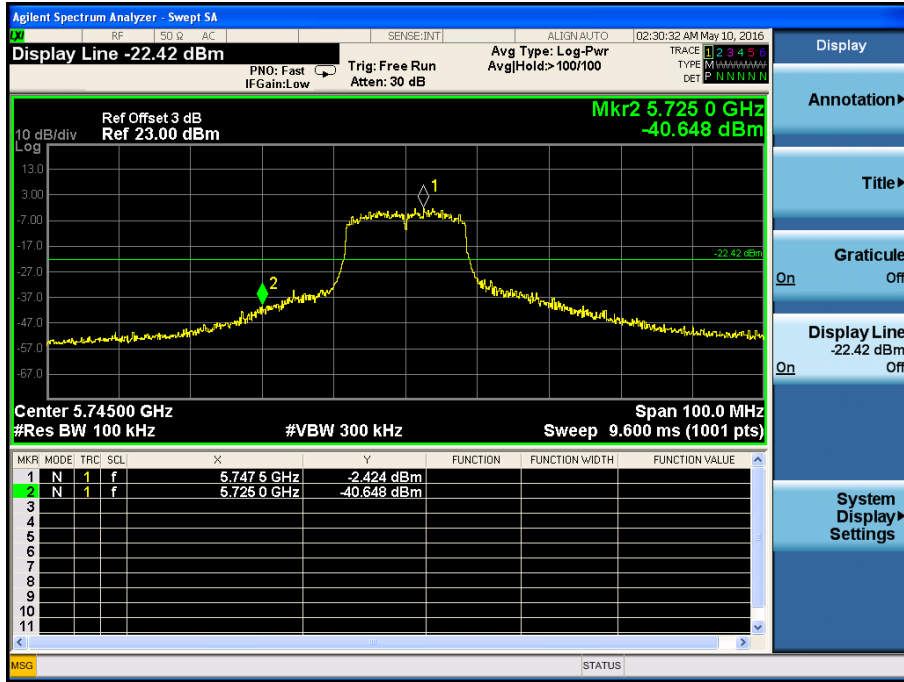
5200MHz



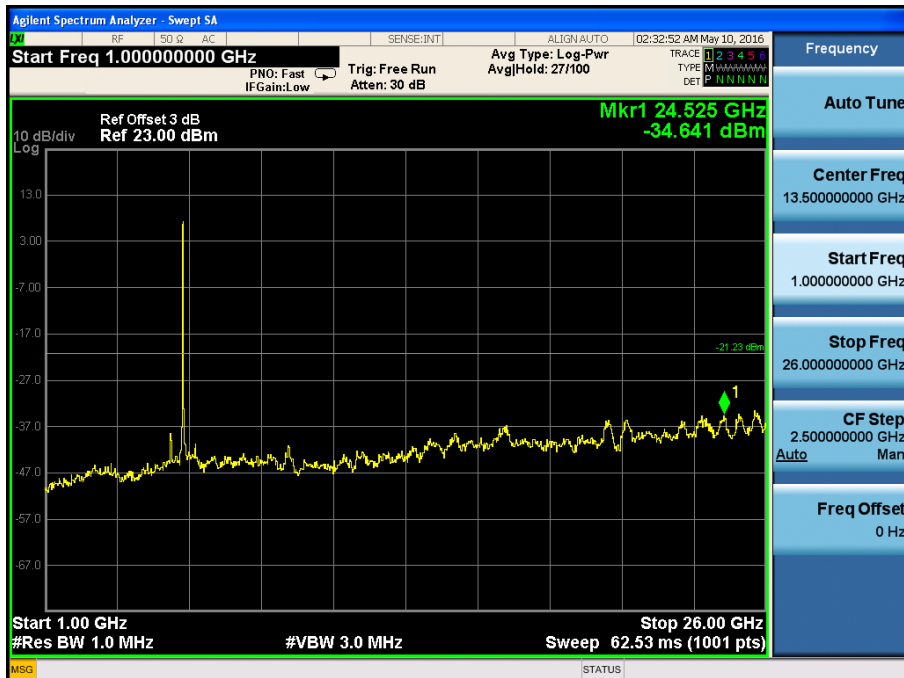
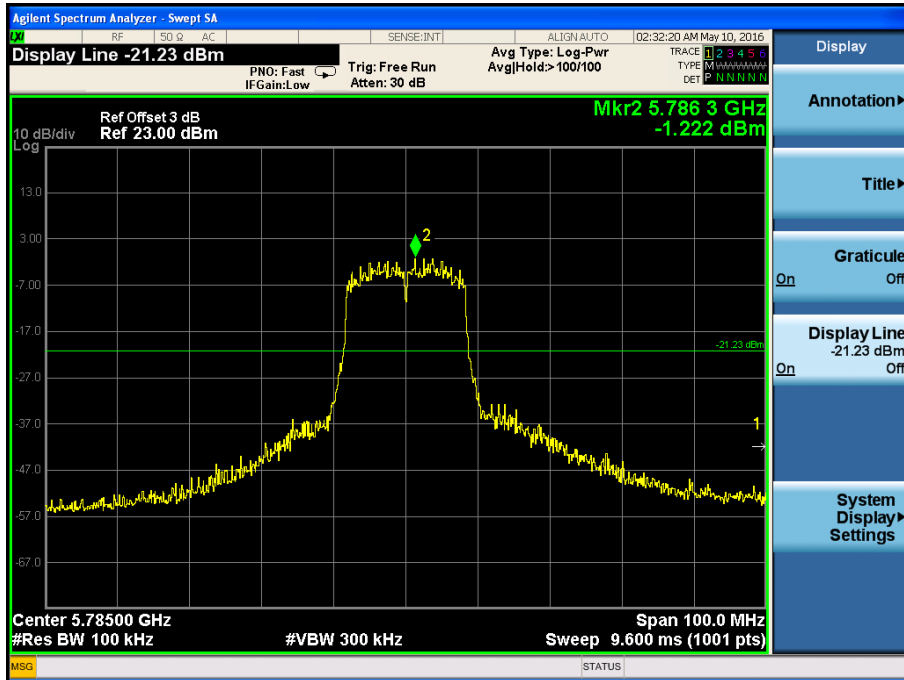
5240MHz



5745MHz

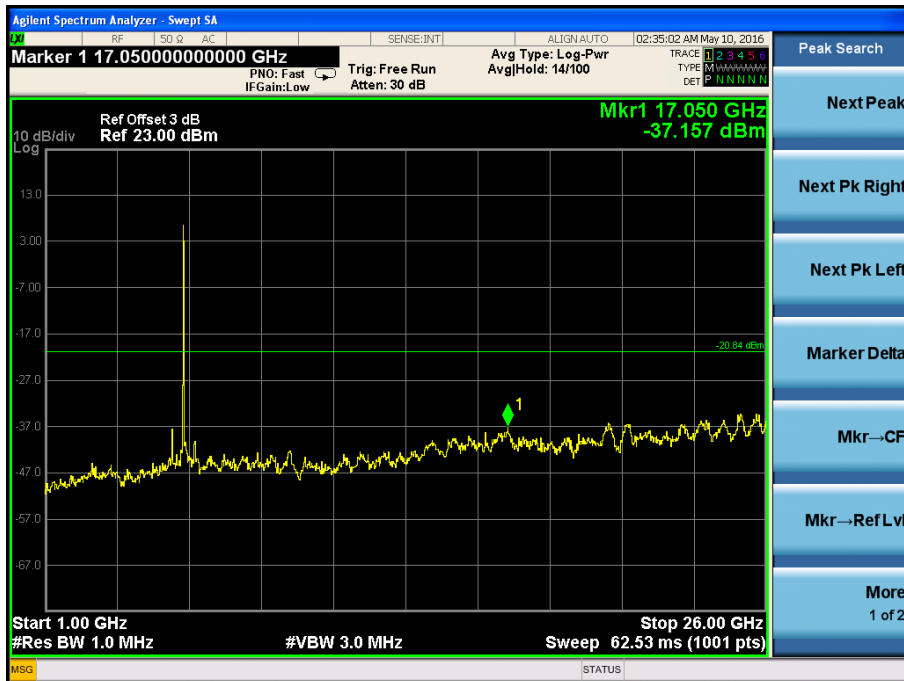
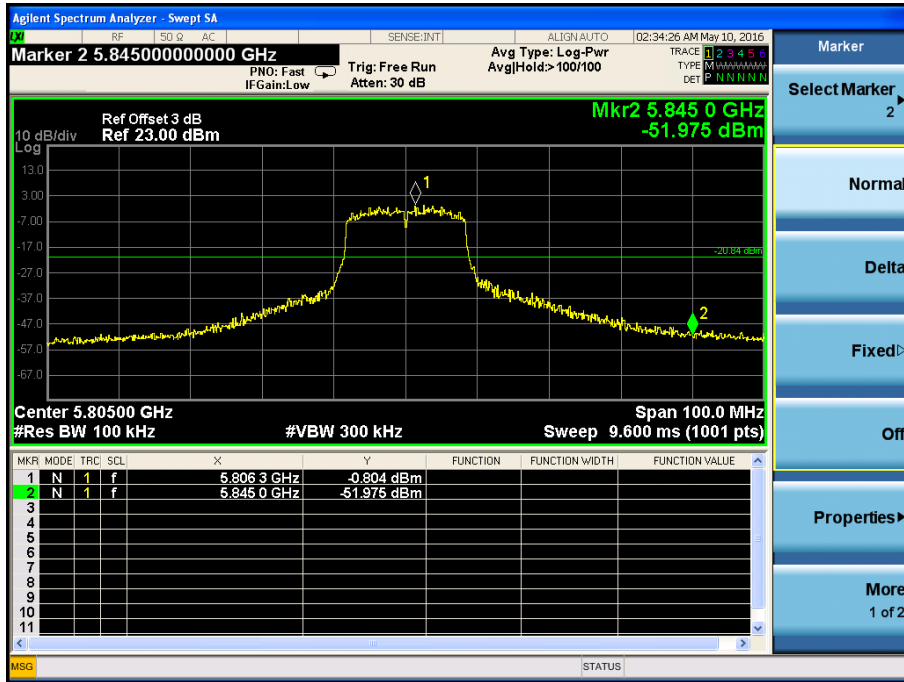


5785MHz

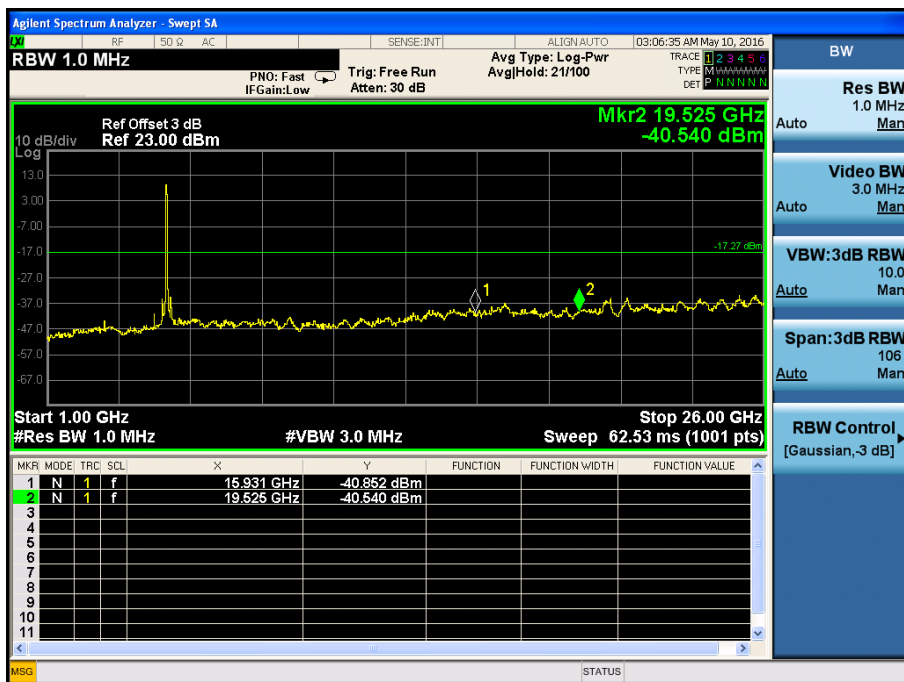
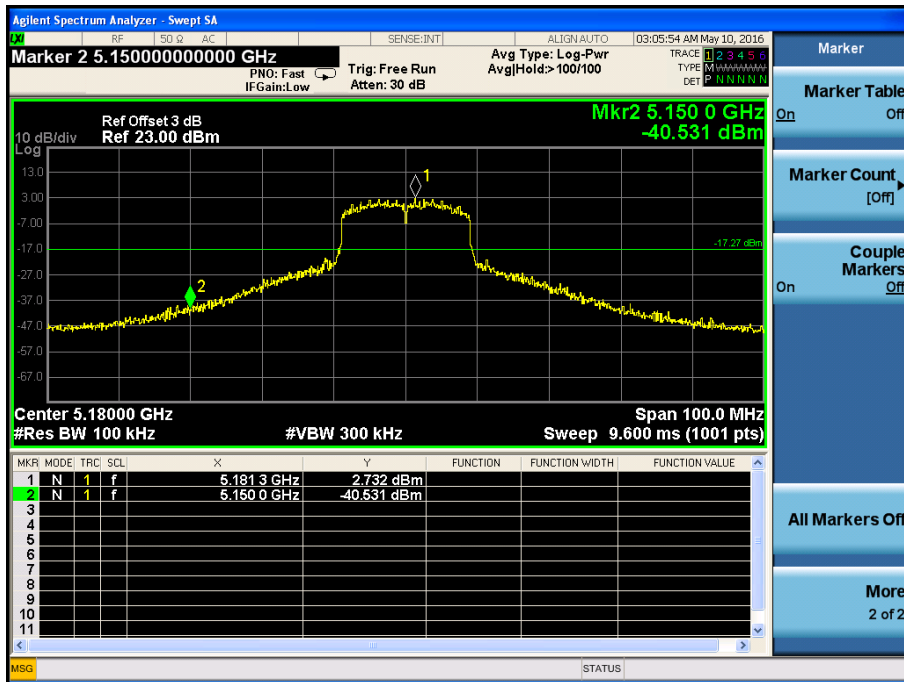




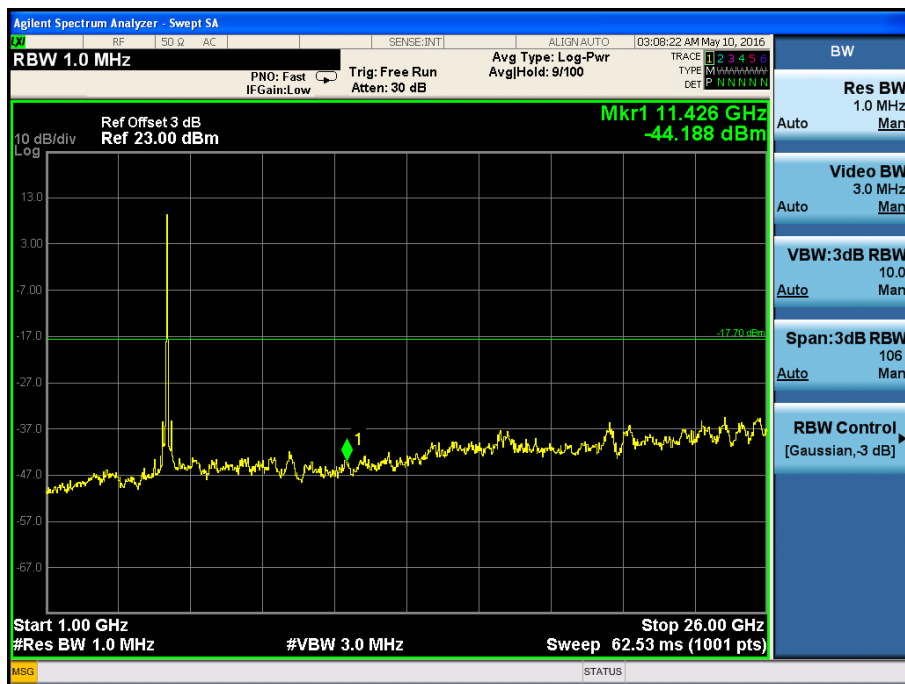
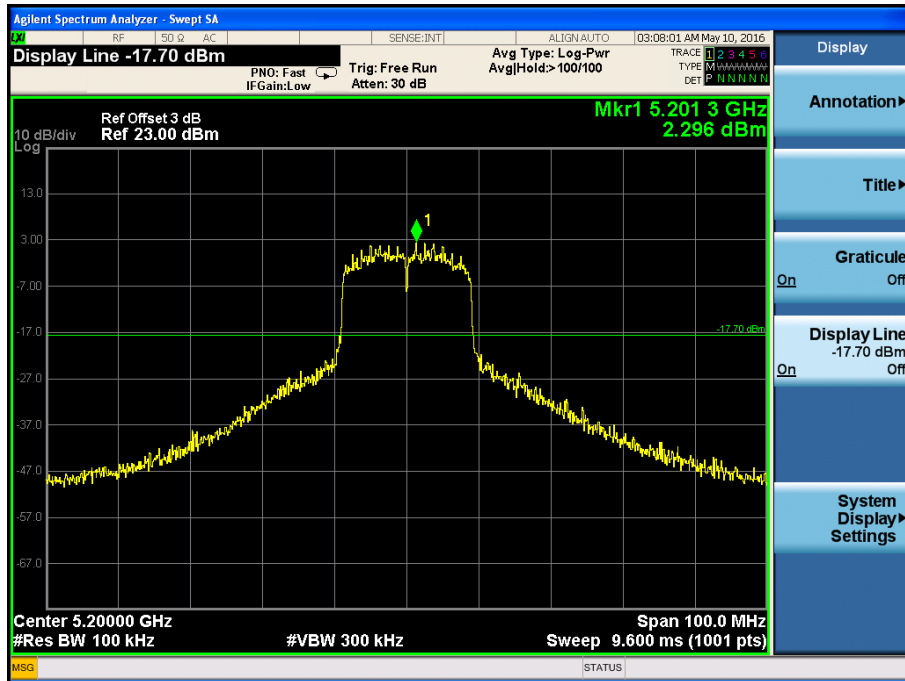
5805MHz



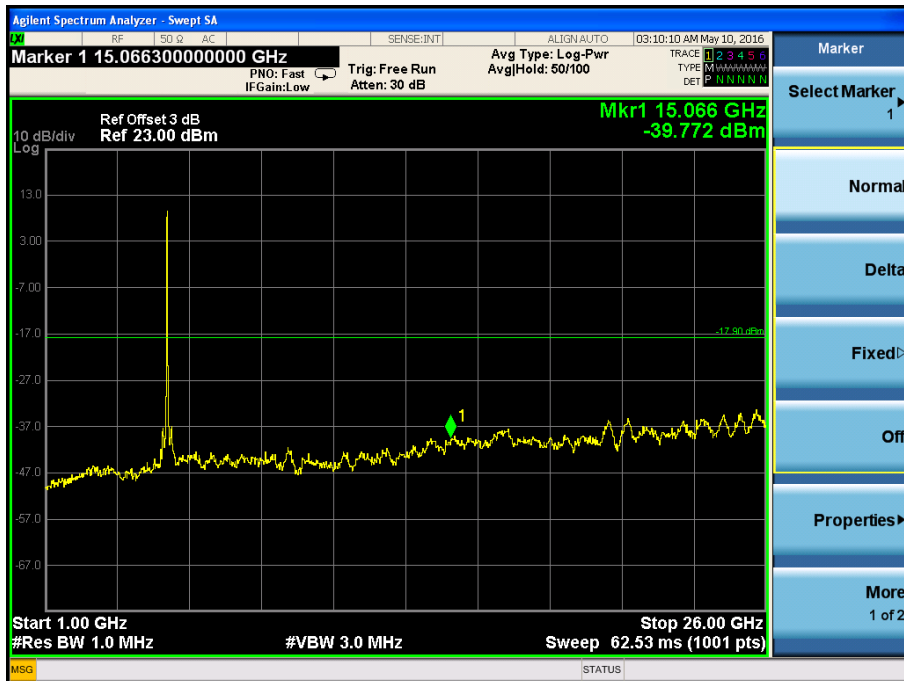
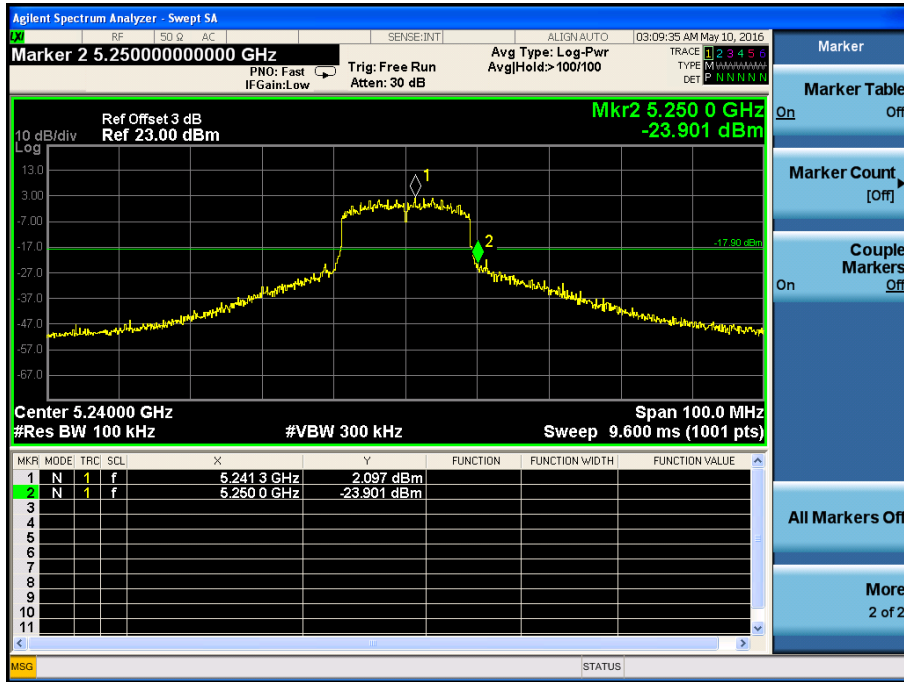
802.11n-HT20  
5180MHz



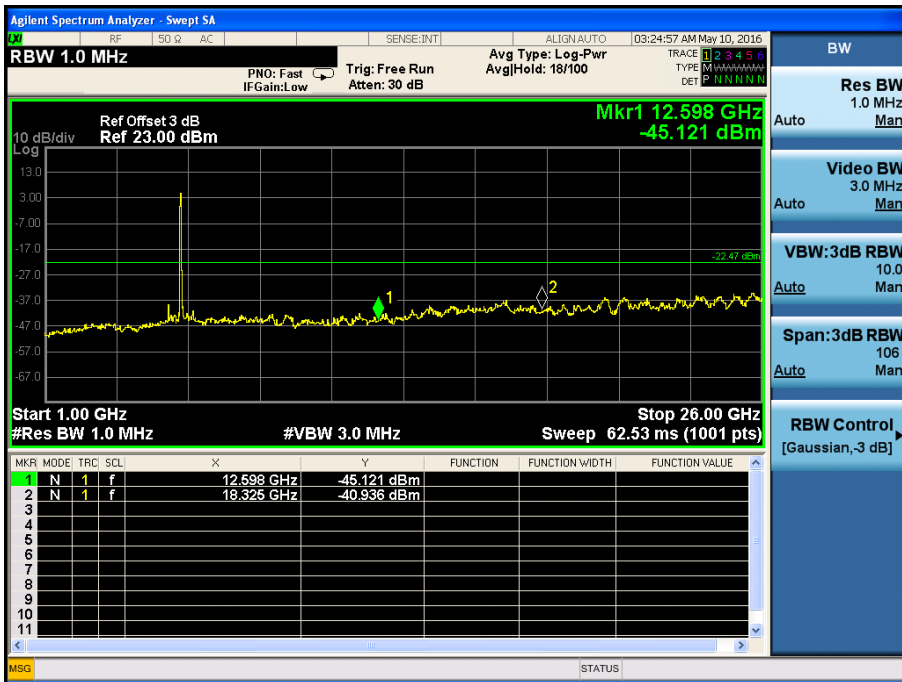
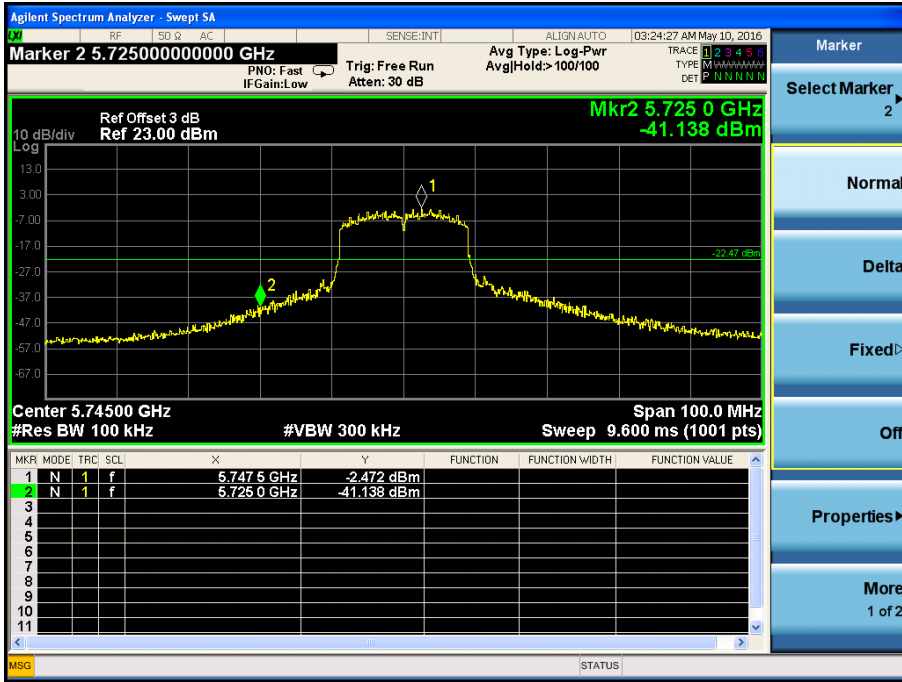
5200MHz



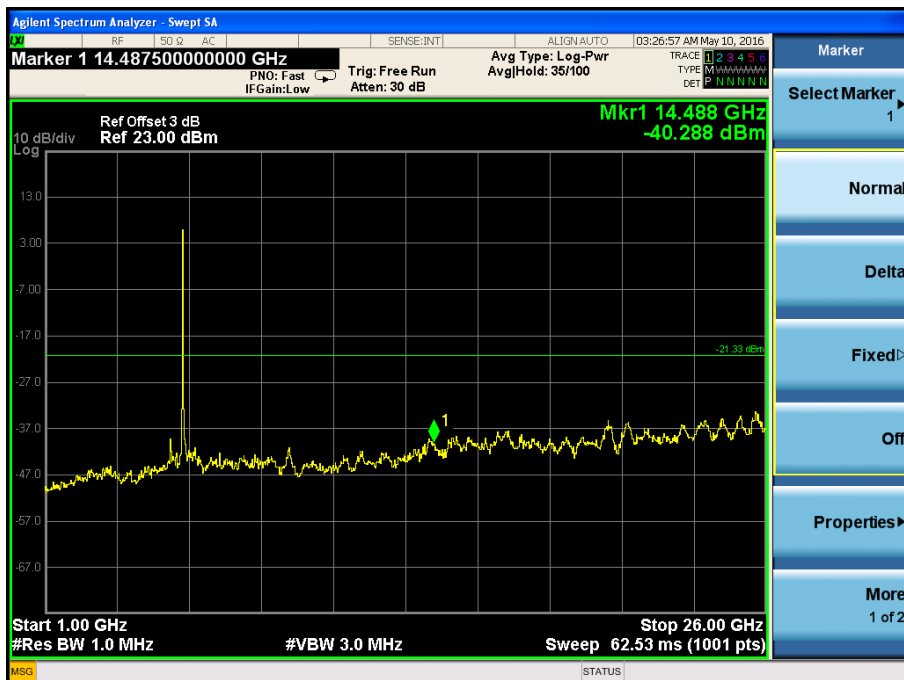
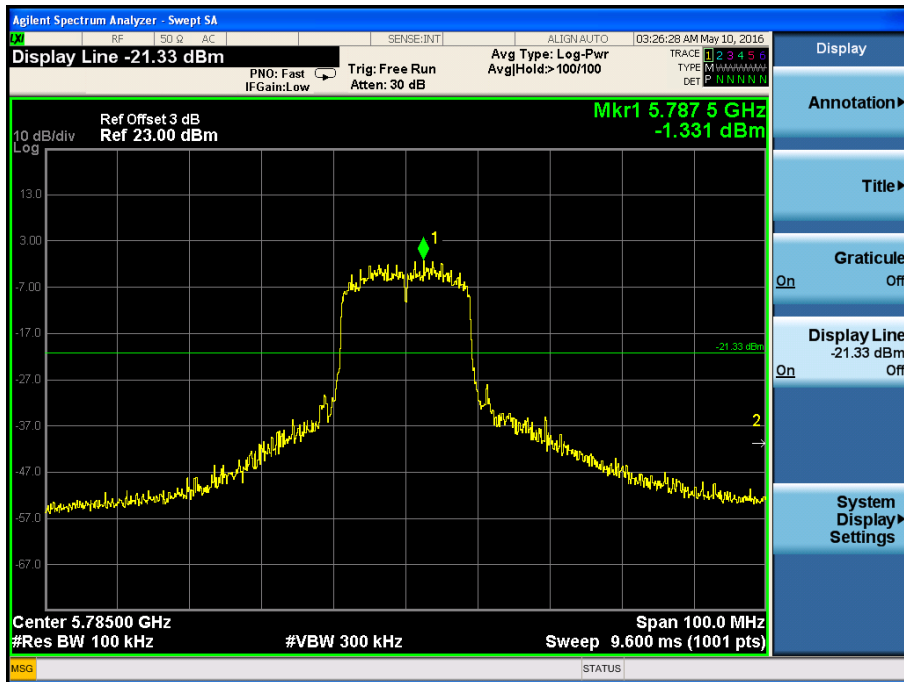
5240MHz



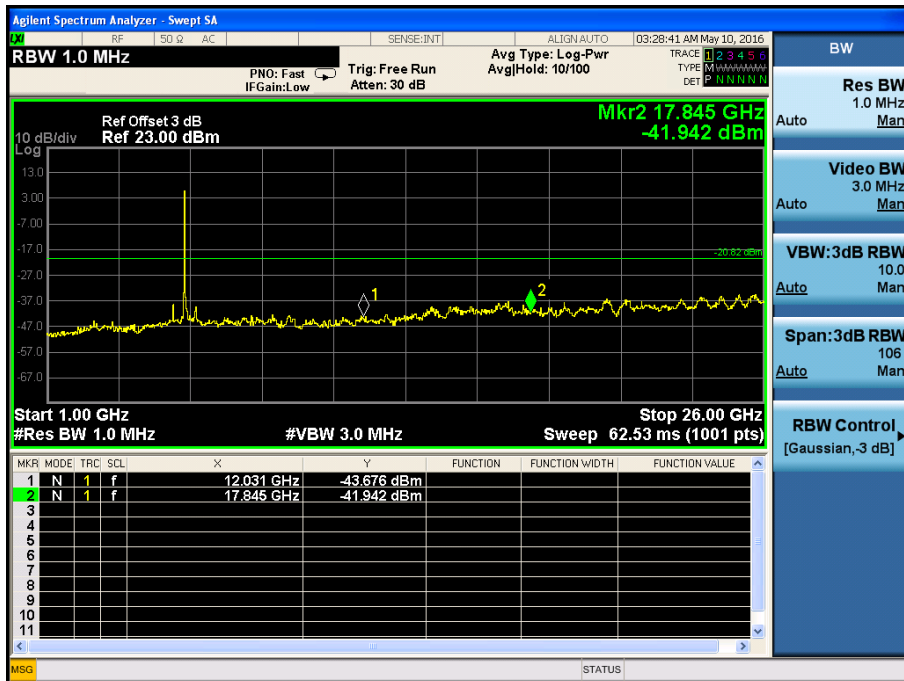
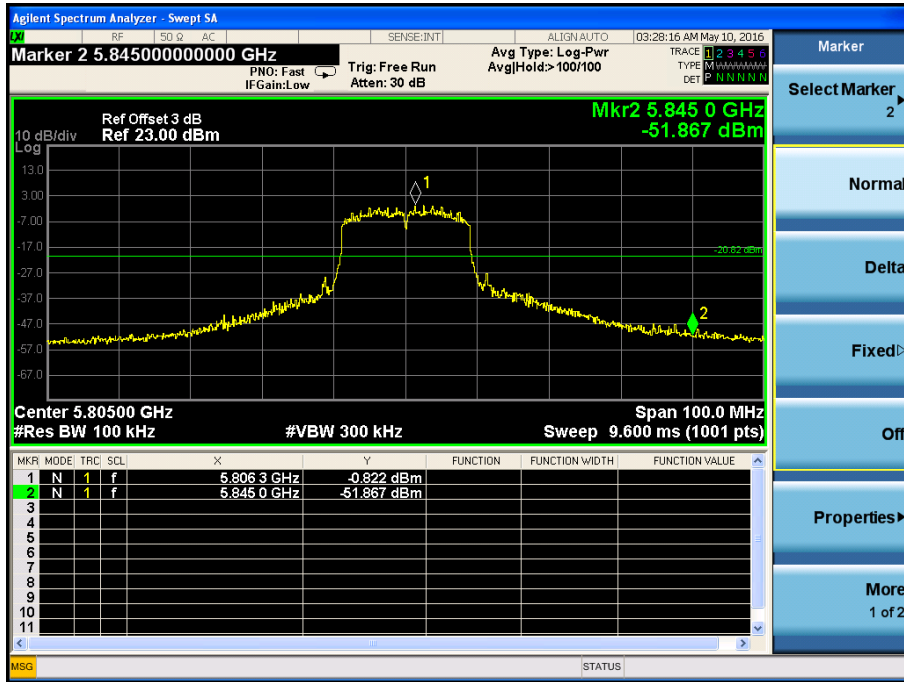
5745MHz



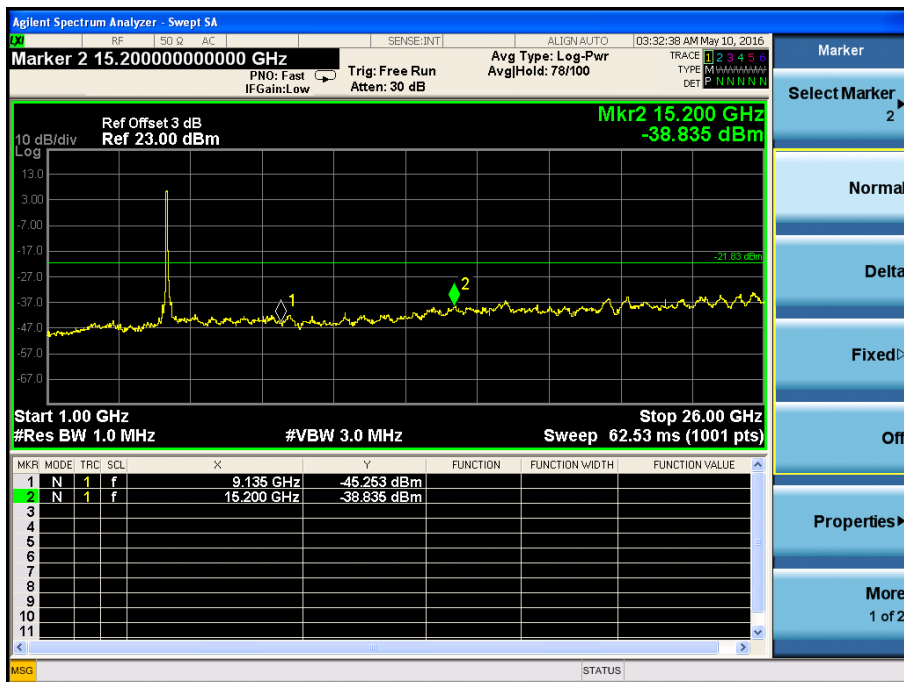
5785MHz



5805MHz

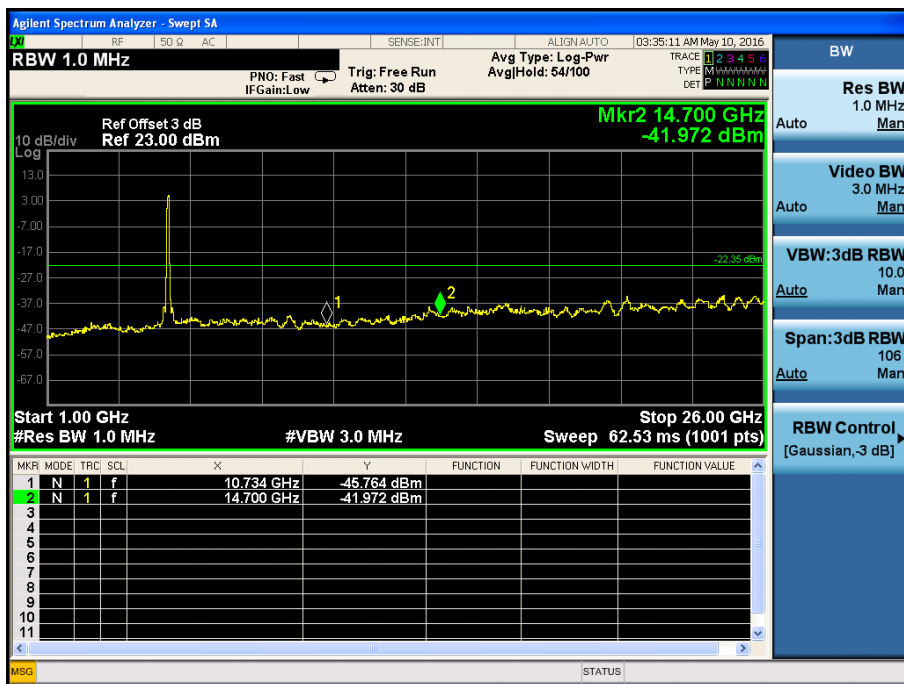


802.11n-HT40  
5190MHz

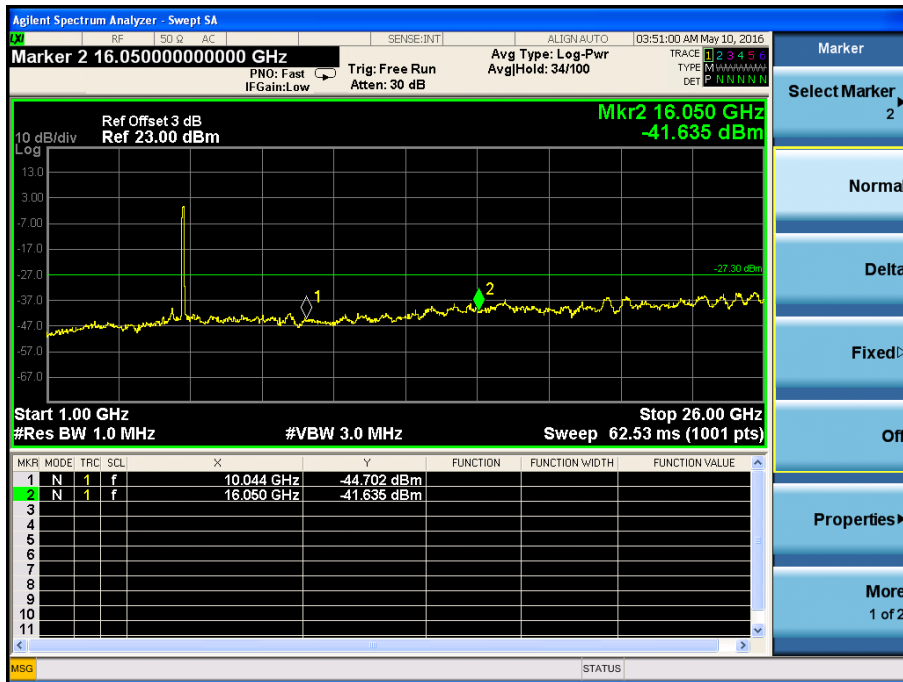
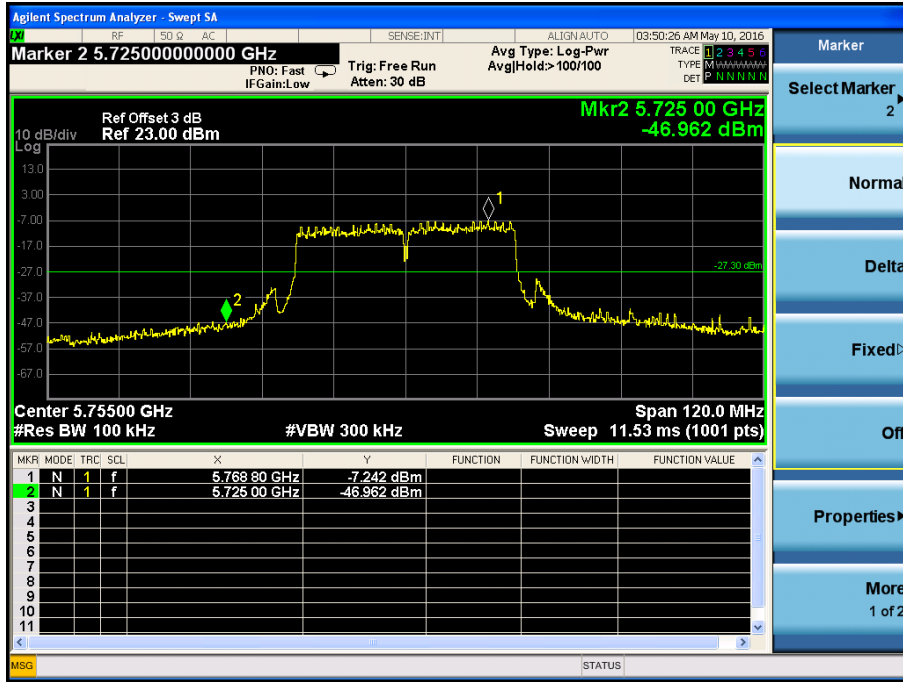




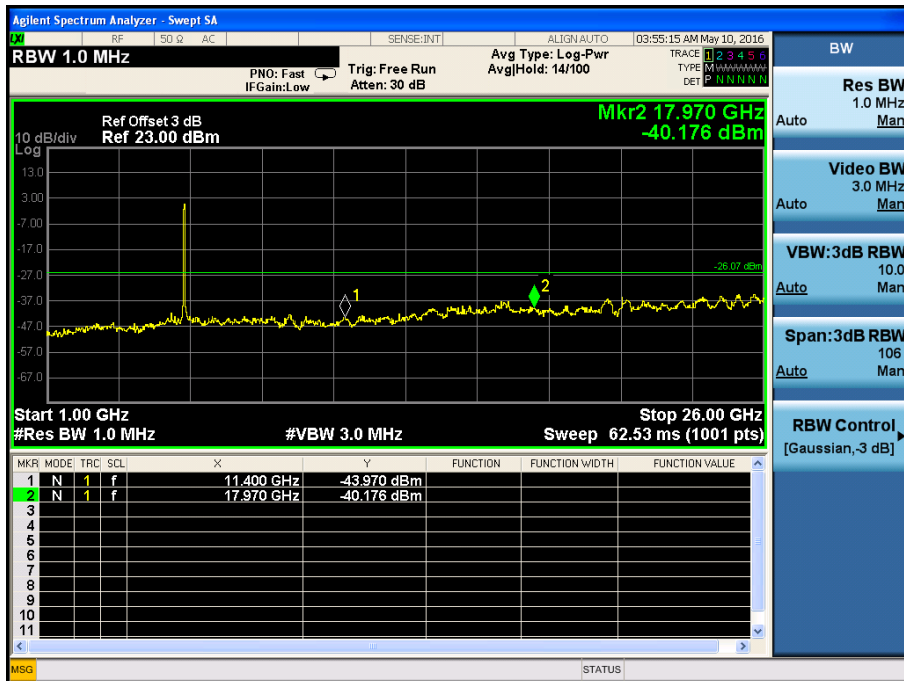
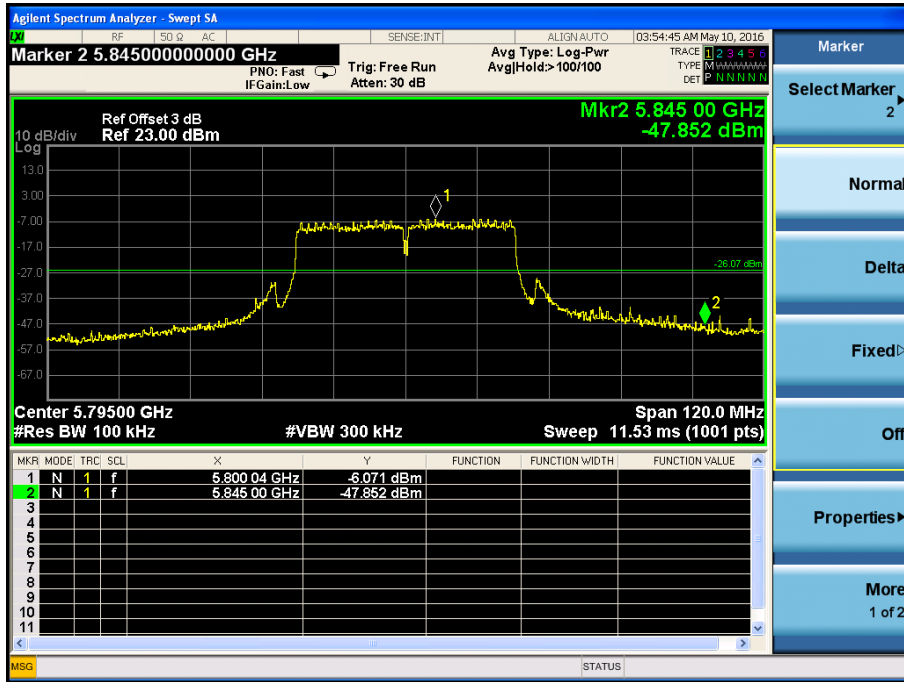
5230MHz



5755MHz

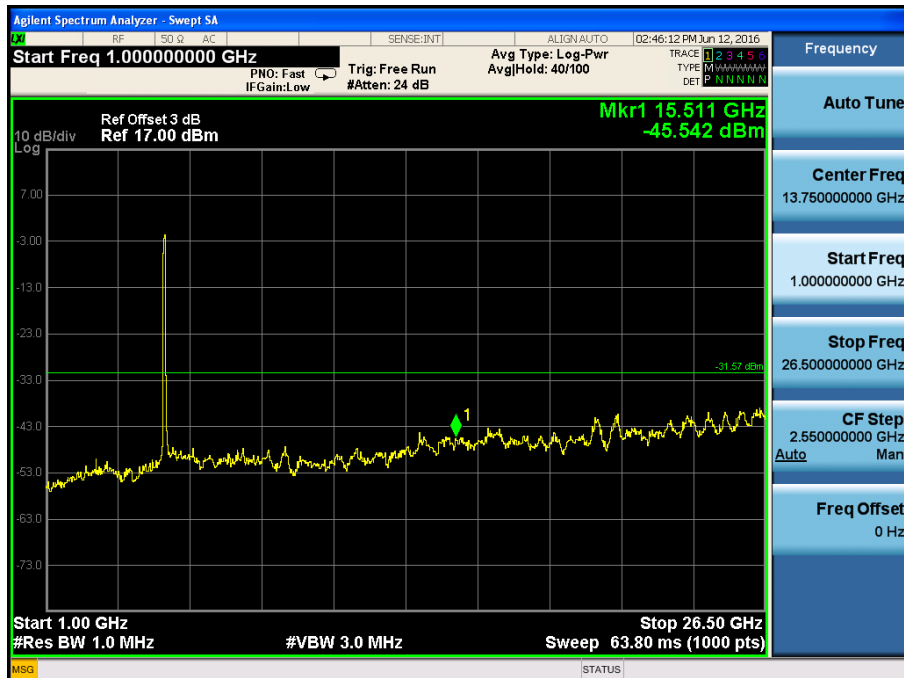
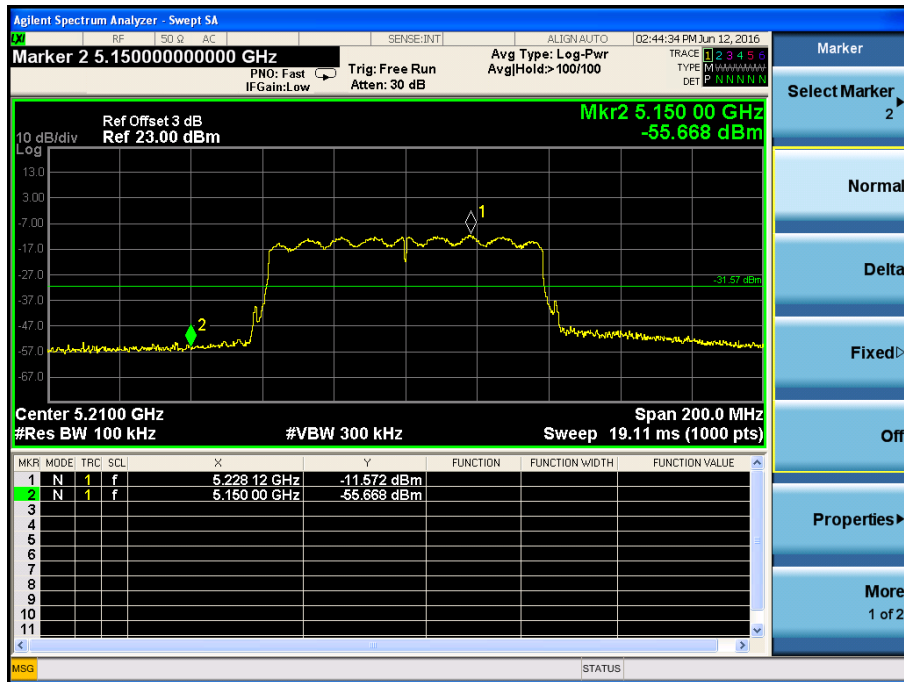


5795MHz

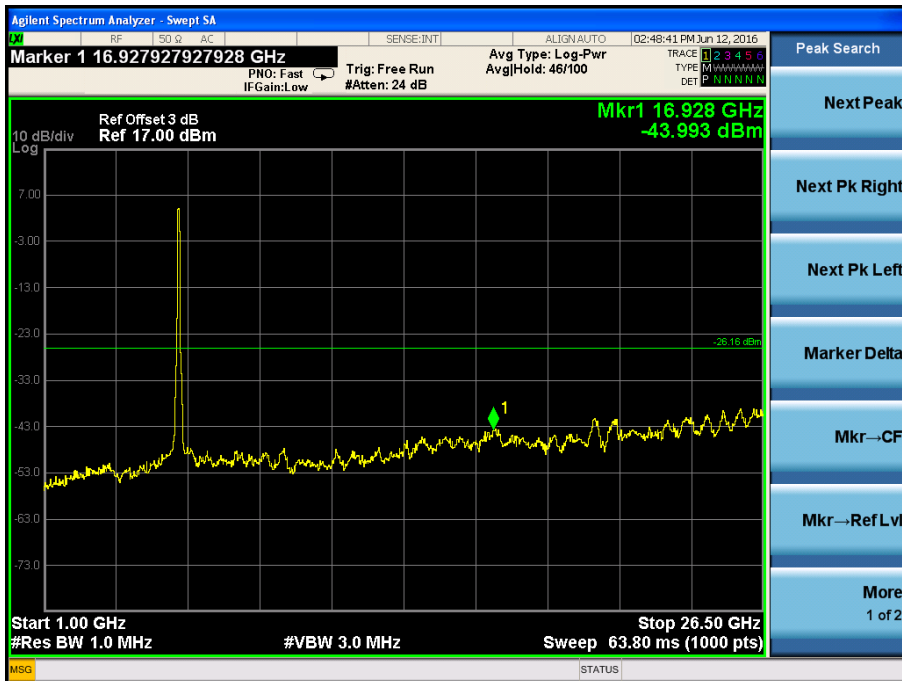
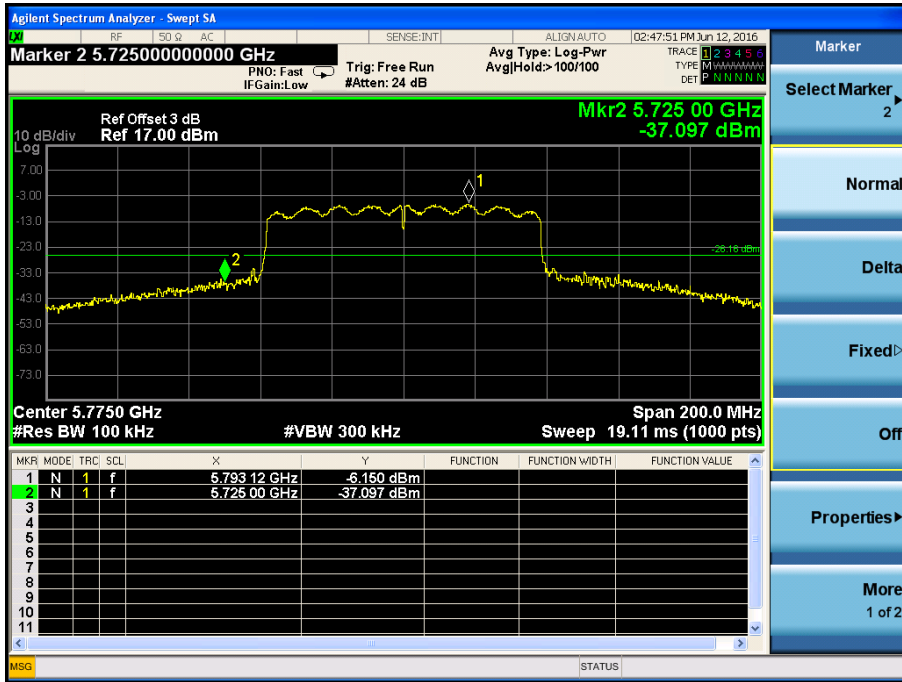


802.11ac80

5210MHz



5775MHz



## 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

5150-5250MHz

802.11a\_20MHz

Reference Frequency(Middle Channel): 5240 MHz			
Environment Temperature (°C)	Power Supplied (VDC)	Frequency Measure with Time Elapsed	
		MCF (Hz)	Error (ppm)
50	3.3	121	0.0231
40	3.3	118	0.0225
30	3.3	116	0.0221
20	3.3	124	0.0237
10	3.3	136	0.0260
0	3.3	141	0.0269
-10	3.3	133	0.0254
-20	3.3	128	0.0244
-30	3.3	144	0.0275

802.11n\_HT20

Reference Frequency(Middle Channel): 5240 MHz			
Environment Temperature (°C)	Power Supplied (VDC)	Frequency Measure with Time Elapsed	
		MCF (Hz)	Error (ppm)
50	3.3	141	0.0269
40	3.3	128	0.0244
30	3.3	124	0.0237
20	3.3	154	0.0294
10	3.3	114	0.0218
0	3.3	134	0.0256
-10	3.3	147	0.0281
-20	3.3	118	0.0225

-30	3.3	126	0.0240
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802.11n\_HT40

Reference Frequency(Middle Channel): 5230 MHz			
Environment Temperature (°C)	Power Supplied (VDC)	Frequency Measure with Time Elapsed	
		MCF (Hz)	Error (ppm)
50	3.3	141	0.0270
40	3.3	145	0.0277
30	3.3	141	0.0270
20	3.3	131	0.0250
10	3.3	148	0.0283
0	3.3	152	0.0291
-10	3.3	158	0.0302
-20	3.3	151	0.0289
-30	3.3	149	0.0285

802.11ac\_HT80

Reference Frequency(Fixed Channel): 5210 MHz			
Environment Temperature (°C)	Power Supplied (VDC)	Frequency Measure with Time Elapsed	
		MCF (Hz)	Error (ppm)
50	3.3	148	0.0284
40	3.3	149	0.0286
30	3.3	151	0.0290
20	3.3	144	0.0276
10	3.3	151	0.0290
0	3.3	156	0.0299
-10	3.3	161	0.0309
-20	3.3	154	0.0296
-30	3.3	160	0.0307



5725-5850MHz

802.11a\_HT20

Reference Frequency(Middle Channel): 5785MHz			
Environment Temperature (°C)	Power Supplied (VDC)	Frequency Measure with Time Elapsed	
		MCF (Hz)	Error (ppm)
50	3.3	118	0.0338
40	3.3	124	0.0349
30	3.3	134	0.0367
20	3.3	125	0.0351
10	3.3	116	0.0335
0	3.3	147	0.0390
-10	3.3	157	0.0407
-20	3.3	184	0.0455
-30	3.3	164	0.0420

802.11n\_HT20

Reference Frequency(Middle Channel): 5785MHz			
Environment Temperature (°C)	Power Supplied (VDC)	Frequency Measure with Time Elapsed	
		MCF (Hz)	Error (ppm)
50	3.3	117	0.0227
40	3.3	127	0.0244
30	3.3	145	0.0276
20	3.3	154	0.0292
10	3.3	165	0.0312
0	3.3	185	0.0347
-10	3.3	154	0.0292
-20	3.3	181	0.0340
-30	3.3	157	0.0297

802.11n\_HT40

Reference Frequency(Fixed Channel): 5755 MHz			
Environment Temperature (°C)	Power Supplied (VDC)	Frequency Measure with Time Elapsed	
		MCF (Hz)	Error (ppm)
50	3.3	155	0.0269
40	3.3	162	0.0281
30	3.3	161	0.0280
20	3.3	148	0.0257
10	3.3	129	0.0223
0	3.3	200	0.0347
-10	3.3	169	0.0294
-20	3.3	167	0.0289
-30	3.3	159	0.0276

802.11ac\_HT80

Reference Frequency(Fixed Channel): 5775 MHz			
Environment Temperature (°C)	Power Supplied (VDC)	Frequency Measure with Time Elapsed	
		MCF (Hz)	Error (ppm)
50	3.3	160	0.0277
40	3.3	156	0.0270
30	3.3	163	0.0281
20	3.3	156	0.0270
10	3.3	159	0.0275
0	3.3	167	0.0288
-10	3.3	172	0.0298
-20	3.3	167	0.0288
-30	3.3	171	0.0295

So, Frequency Stability Versus Input Voltage is:

5150-5250MHz

802.11a\_HT20

Reference Frequency(Middle Channel): 5240 MHz			
Environment Temperature (°C)	Power Supplied (VDC)	Frequency Measure with Time Elapsed	
		Frequency (Hz)	Error (ppm)
20	3.0	139	0.0265
	3.3	136	0.0260
	3.7	133	0.0254

802.11n\_HT20

Reference Frequency(Middle Channel): 5240 MHz			
Environment Temperature (°C)	Power Supplied (VDC)	Frequency Measure with Time Elapsed	
		Frequency (Hz)	Error (ppm)
20	3.0	145	0.0277
	3.3	148	0.0282
	3.7	152	0.0290

802.11n\_HT40

Reference Frequency(Middle Channel): 5230 MHz			
Environment Temperature (°C)	Power Supplied (VDC)	Frequency Measure with Time Elapsed	
		Frequency (Hz)	Error (ppm)
20	3.0	152	0.0291
	3.3	148	0.0283
	3.7	146	0.0279

802.11ac\_HT80

Reference Frequency(Fix Channel): 5210 MHz			
Environment Temperature (°C)	Power Supplied (VDC)	Frequency Measure with Time Elapsed	
		Frequency (Hz)	Error (ppm)
20	3.0	155	0.0298
	3.3	151	0.0290
	3.7	158	0.0303

5725-5850MHz

802.11a\_HT20

Reference Frequency(Middle Channel): 5785 MHz			
Environment Temperature (°C)	Power Supplied (VAC)	Frequency Measure with Time Elapsed	
		Frequency (Hz)	Error (ppm)
20	102	147	0.0270
	120	154	0.0306
	138	186	0.0367

802.11n\_HT20

Reference Frequency(Middle Channel): 5785 MHz			
Environment Temperature (°C)	Power Supplied (VDC)	Frequency Measure with Time Elapsed	
		Frequency (Hz)	Error (ppm)
20	3.0	184	0.0335
	3.3	149	0.0296
	3.7	158	0.0313

802.11n\_HT40

Reference Frequency(Fixed Channel): 5755 MHz			
Environment Temperature (°C)	Power Supplied (VDC)	Frequency Measure with Time Elapsed	
		Frequency (Hz)	Error (ppm)
20	3.0	167	0.0289
	3.3	150	0.0260
	3.7	152	0.0264

802.11ac\_HT80

Reference Frequency(Fixed Channel): 5775MHz			
Environment Temperature (°C)	Power Supplied (VDC)	Frequency Measure with Time Elapsed	
		Frequency (Hz)	Error (ppm)
20	3.0	163	0.0281
	3.3	164	0.0284
	3.7	175	0.0303

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