6. MAXIMUM CONDUCTED OUTPUT POWER

6.1 PPLIED PROCEDURES / LIMIT

According to FCC §15.407

The maximum conduced output power should not exceed:

Frequency Band(MHz)	Limit
5150~5250	1W
5725~5850	1W

6.2 TEST PROCEDURE

· Maximum conducted output power may be measured using a spectrum analyzer/EMI receiver or an RF power meter.

1. Device Configuration

If possible, configure or modify the operation of the EUT so that it transmits continuously at its maximum power control level (see section II.B.).

a) The intent is to test at 100 percent duty cycle; however a small reduction in duty cycle (to no lower than 98 percent) is permitted if required by the EUT for amplitude control purposes. Manufacturers are expected to provide software to the test lab to permit such continuous operation.

b) If continuous transmission (or at least 98 percent duty cycle) cannot be achieved due to hardware limitations (e.g., overheating), the EUT shall be operated at its maximum power control level with the transmit duration as long as possible and the duty cycle as high as possible.

2. Measurement using a Spectrum Analyzer or EMI Receiver (SA)

Measurement of maximum conducted output power using a spectrum analyzer requires integrating the spectrum across a frequency span that encompasses, at a minimum, either the EBW or the 99-percent occupied bandwidth of the signal.1 However, the EBW must be used to determine bandwidth dependent limits on maximum conducted output power in accordance with § 15.407(a).

a) The test method shall be selected as follows: (i) Method SA-1 or SA-1 Alternative (averaging with the EUT transmitting at full power throughout each sweep) shall be applied if either of the following conditions can be satisfied:

• The EUT transmits continuously (or with a duty cycle ≥ 98 percent).

• Sweep triggering or gating can be implemented in a way that the device transmits at the maximum power control level throughout the duration of each of the instrument sweeps to be averaged. This condition can generally be achieved by triggering the instrument's sweep if the duration of the sweep (with the analyzer configured as in Method SA-1, below) is equal to or shorter than the duration T of each transmission from the EUT and if those transmissions exhibit full power throughout their durations.

(ii) Method SA-2 or SA-2 Alternative (averaging across on and off times of the EUT transmissions, followed by duty cycle correction) shall be applied if the conditions of (i) cannot be achieved and the transmissions exhibit a constant duty cycle during the measurement duration. Duty cycle will be considered to be constant if variations are less than ± 2 percent.

(iii) Method SA-3 (RMS detection with max hold) or SA-3 Alternative (reduced VBW with max hold) shall be applied if the conditions of (i) and (ii) cannot be achieved.

b) Method SA-1 (trace averaging with the EUT transmitting at full power throughout each sweep): (i) Set span to encompass the entire emission bandwidth (EBW) (or, alternatively, the entire 99% occupied bandwidth) of the signal.

(ii) Set RBW = 1 MHz.

(iii) Set VBW ≥ 3 MHz.

(iv) Number of points in sweep ≥ 2 Span / RBW. (This ensures that bin-to-bin spacing is ≤ RBW/2, so that narrowband signals are not lost between frequency bins.)

(v) Sweep time = auto.

(vi) Detector = RMS (i.e., power averaging), if available. Otherwise, use sample detector mode.

(vii) If transmit duty cycle < 98 percent, use a video trigger with the trigger level set to enable triggering only on full power pulses. Transmitter must operate at maximum power control level for the entire duration of every sweep. If the EUT transmits continuously (i.e., with no off intervals) or at duty cycle ≥ 98 percent, and if each transmission is entirely at the maximum power control level, then the trigger shall be set to "free run".

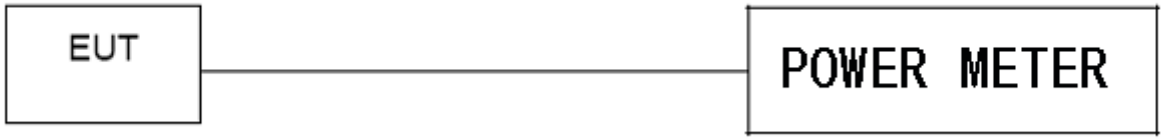
(viii) Trace average at least 100 traces in power averaging (i.e., RMS) mode.

(ix) Compute power by integrating the spectrum across the EBW (or, alternatively, the entire 99% occupied bandwidth) of the signal using the instrument's band power measurement function with band limits set equal to the EBW (or occupied bandwidth) band edges. If the instrument does not have a band power function, sum the spectrum

6.3 DEVIATION FROM STANDARD

No deviation.

6.4 TEST SETUP



6.5 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 2.4 Unless otherwise a special operating condition is specified in the follows during the testing.

6.6 TEST RESULTS

Temperature：	26 ℃	Relative Humidity：	54%
Pressure：	101kPa	Test Voltage ：	AC 120V/60Hz
Test Mode ：	TX (5G) Mode Frequency Band I (5150-5250MHz)		

Test Channel	Frequency	Maximum output power. Antenna port (AV)			LIMIT	Result
	(MHz)	ANT A(dBm)	ANT B(dBm)	Total(dBm)	dBm	
TX 802.11a Mode						
CH36	5180	20.348	20.775	/	30	Pass
CH40	5200	19.883	20.637	/	30	Pass
CH48	5240	19.978	20.194	/	30	Pass
TX 802.11 n20M Mode						
CH36	5180	20.077	20.631	23.37	30	Pass
CH40	5200	19.737	20.219	22.99	30	Pass
CH48	5240	20.015	20.352	23.20	30	Pass
TX 802.11 n40M Mode						
CH38	5190	18.088	18.098	21.10	30	Pass
CH46	5230	18.234	17.310	20.81	30	Pass
TX 802.11 AC20M Mode						
CH36	5180	20.361	20.912	23.66	30	Pass
CH40	5200	20.550	21.061	23.82	30	Pass
CH48	5240	19.754	20.377	23.09	30	Pass
TX 802.11 AC40M Mode						
CH38	5190	17.889	17.952	20.93	30	Pass
CH46	5230	18.234	17.677	20.97	30	Pass
TX 802.11 AC80M Mode						
CH42	5210	16.419	16.488	19.46	30	Pass

Temperature：	26 ℃	Relative Humidity：	54%
Pressure：	101kPa	Test Voltage ：	AC120V 60Hz
Test Mode ：	TX (5G) Mode Frequency Band IV (5725-5825MHz)		

Test Channel	Frequency	Maximum output power. Antenna port (AV)			LIMIT	Result
	(MHz)	ANT A(dBm)	ANT B(dBm)	Total(dBm)	dBm	
TX 802.11a Mode						
CH 149	5745	19.763	19.760	/	30	Pass
CH 157	5785	19.457	19.057	/	30	Pass
CH 165	5825	19.554	19.242	/	30	Pass
TX 802.11 n20M Mode						
CH 149	5745	20.508	19.233	22.93	30	Pass
CH 157	5785	20.028	19.448	22.76	30	Pass
CH 165	5825	19.180	19.055	22.13	30	Pass
TX 802.11 n40M Mode						
CH 151	5755	18.935	17.764	21.40	30	Pass
CH 159	5795	18.062	17.138	20.63	30	Pass
TX 802.11 AC20M Mode						
CH 149	5745	20.718	20.707	23.72	30	Pass
CH 157	5785	20.729	19.448	23.15	30	Pass
CH 165	5825	20.209	19.055	22.68	30	Pass
TX 802.11 AC40M Mode						
CH 151	5755	18.780	18.025	21.43	30	Pass
CH 159	5795	19.148	18.013	21.63	30	Pass
TX 802.11 AC80M Mode						
CH 155	5775	17.465	17.377	20.43	30	Pass

7. OUT OF BAND EMISSIONS

7.1 APPLICABLE STANDARD

According to FCC §15.407(b)

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

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

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

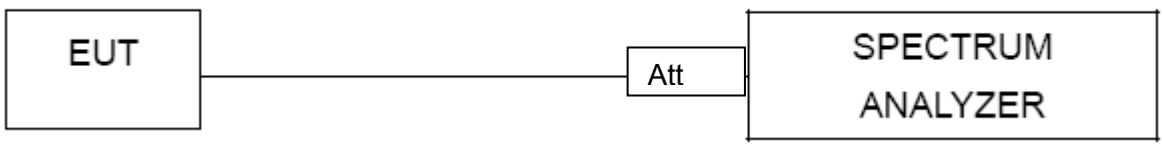
7.2 TEST PROCEDURE

1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
2. Position the EUT without connection to measurement instrument. Turn on the EUT and connect its antenna terminal to measurement instrument via a low loss cable. Then set it to any one measured frequency within its operating range, and make sure the instrument is operated in its linear range.
3. Set RBW of spectrum analyzer to 1 MHz with a convenient frequency span.
4. Measure the highest amplitude appearing on spectral display and set it as a reference level. Plot the graph with marking the highest point and edge frequency.
5. Repeat above procedures until all measured frequencies were complete.

7.3 DEVIATION FROM STANDARD

No deviation.

7.4 TEST SETUP



7.5 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 2.4 Unless otherwise a special operating condition is specified in the follows during the testing.

7.6 TEST RESULTS

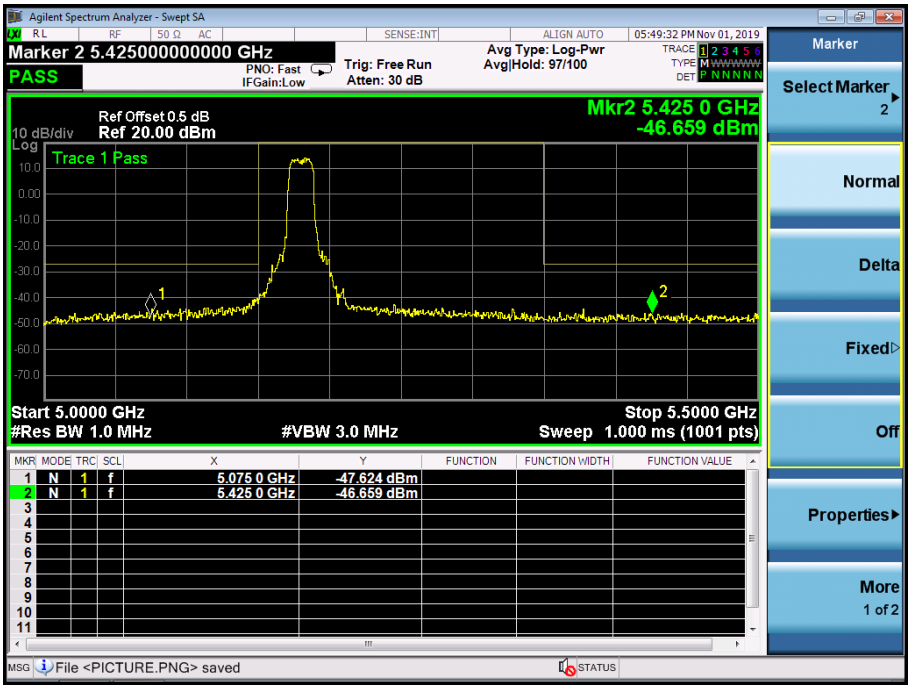
Temperature：	26 ℃	Relative Humidity：	54%
Pressure：	101kPa	Test Voltage ：	AC 120V/60Hz

Note: A(B) Represent the value of antenna A and B, The worst data is Antenna A ,only shown Antenna A Plot.Antenna A: 5150-5250MHz

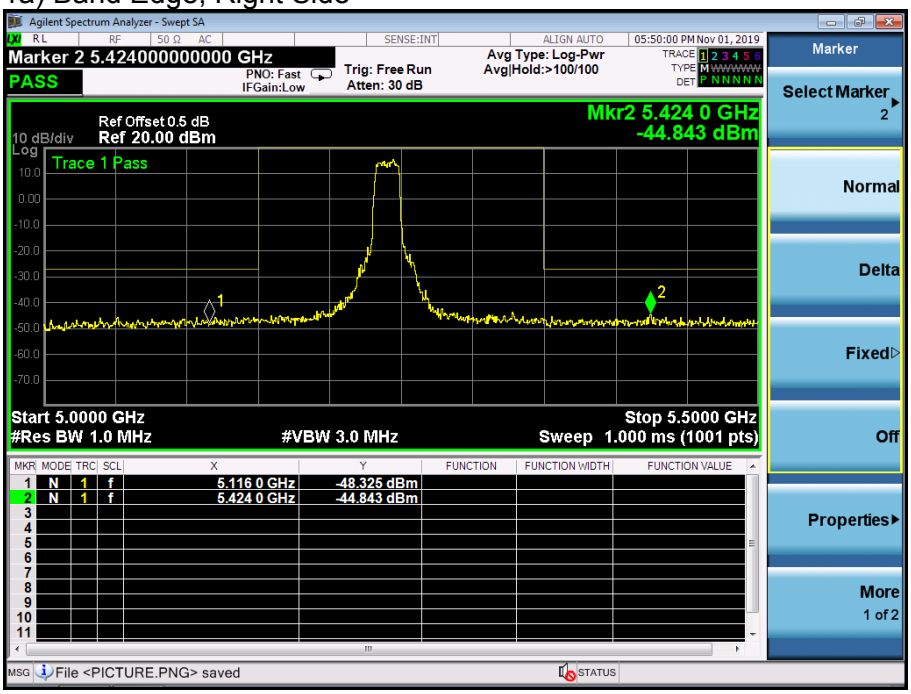
5.2G

5.15~5.25 GHz

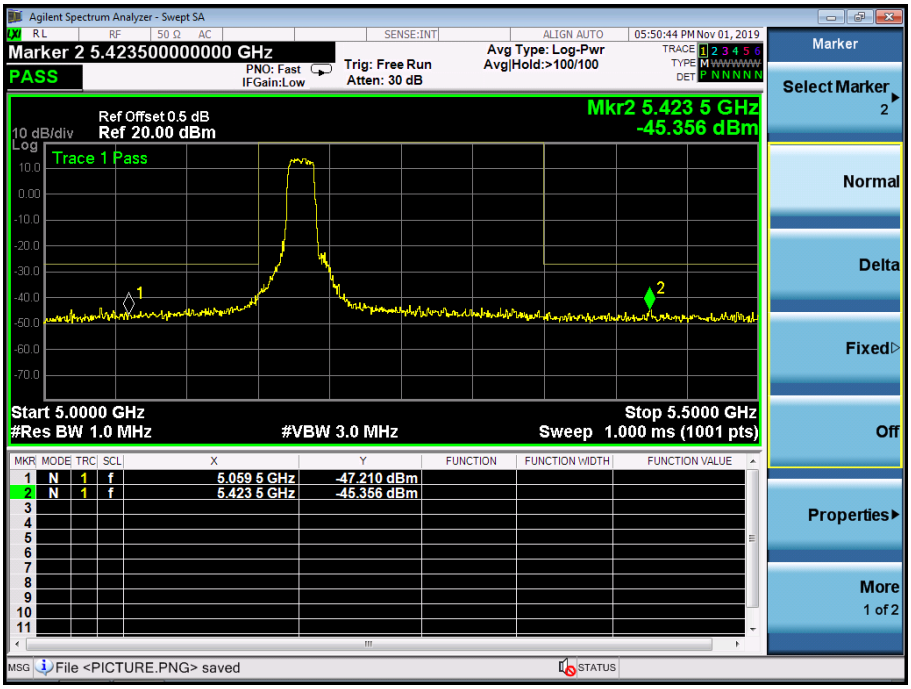
(802.11a) Band Edge, Left Side



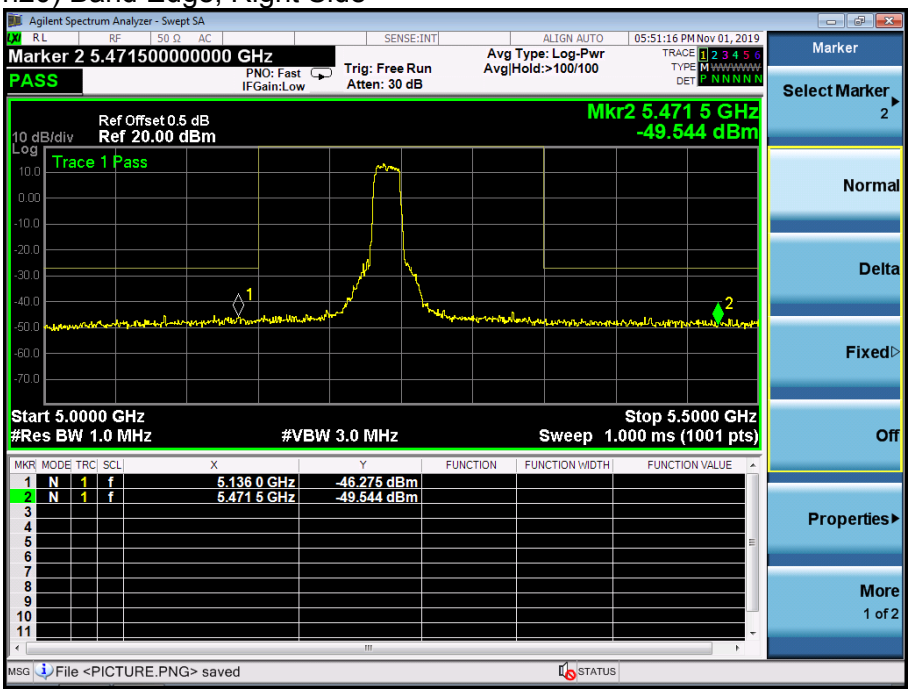
(802.11a) Band Edge, Right Side



(802.11n20) Band Edge, Left Side

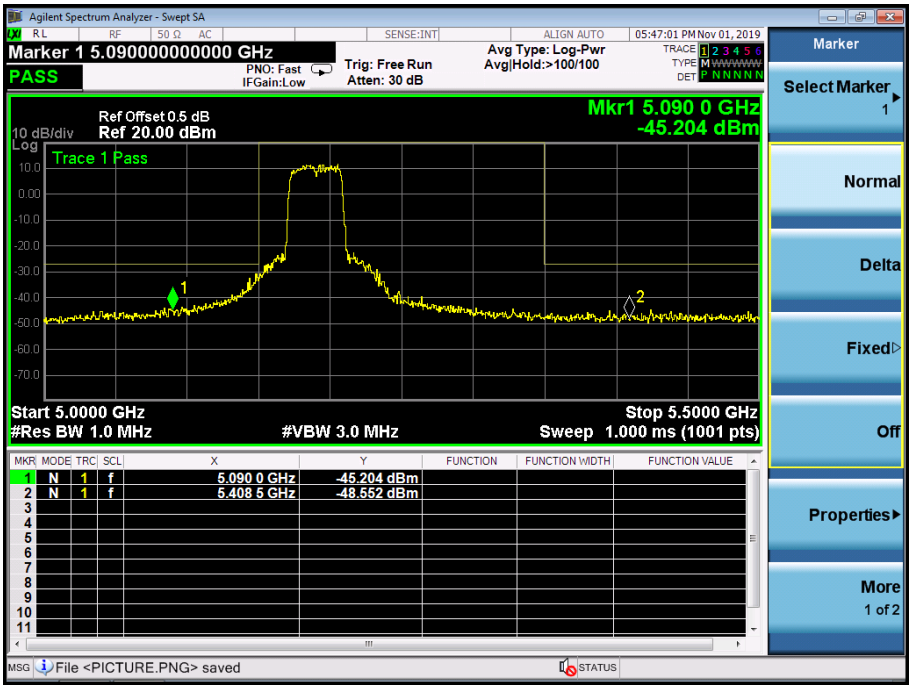


(802.11n20) Band Edge, Right Side

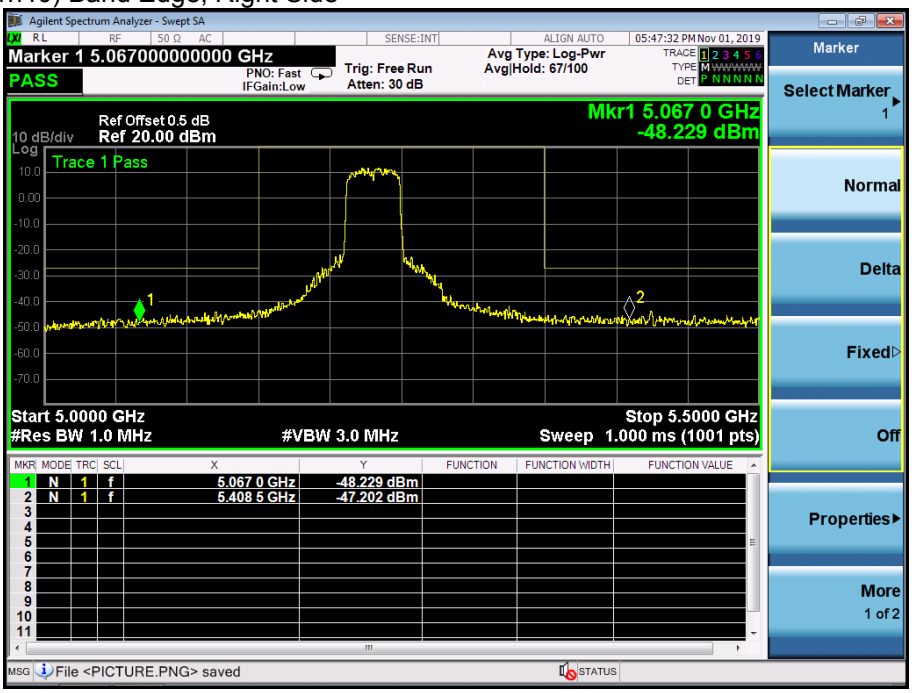


5.15~5.25 GHz

(802.11n40) Band Edge, Left Side

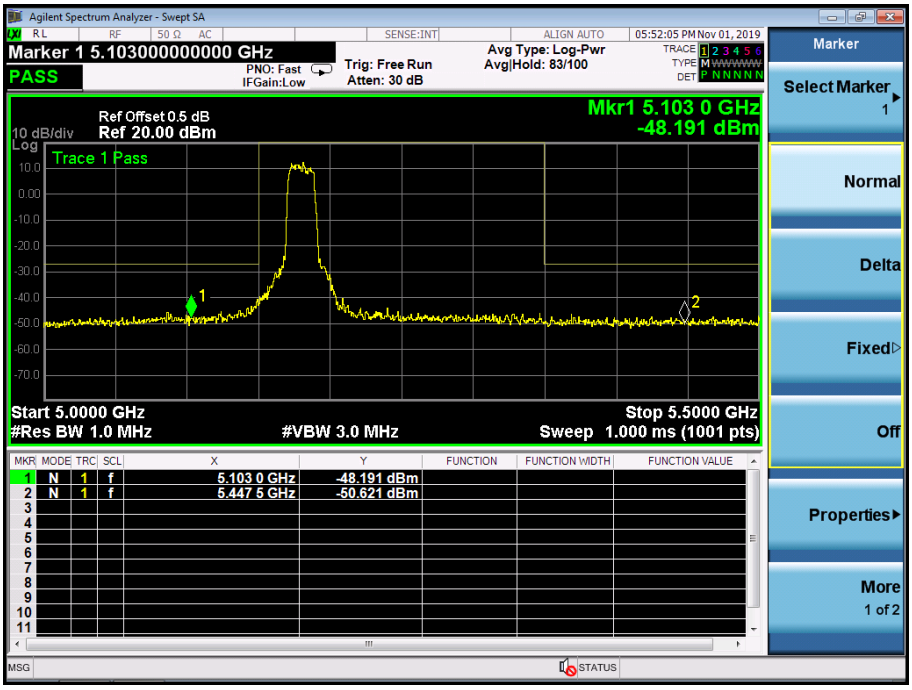


(802.11n40) Band Edge, Right Side

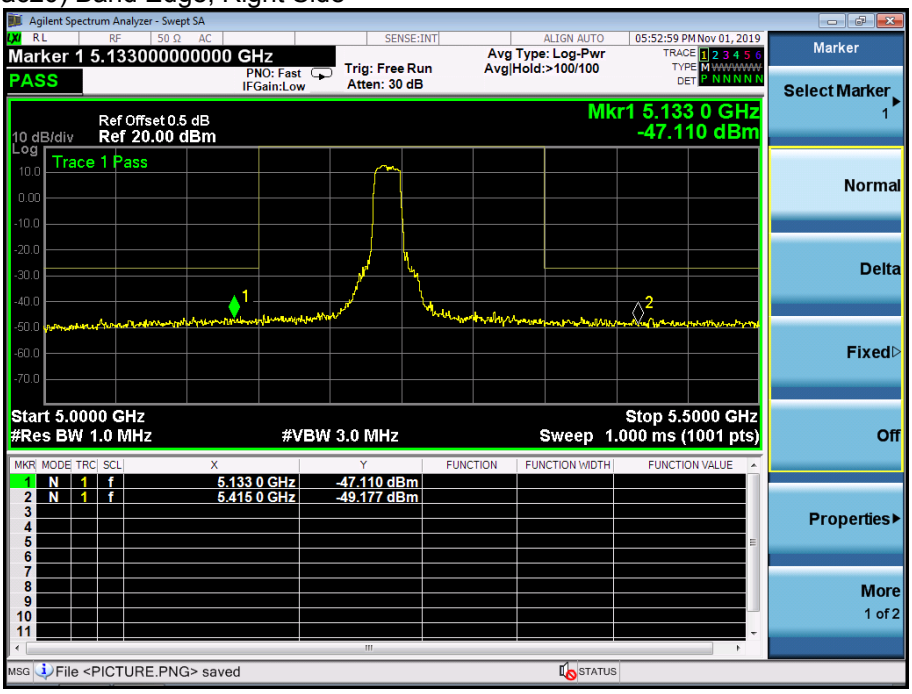


5.15~5.25 GHz

(802.11ac20) Band Edge, Left Side

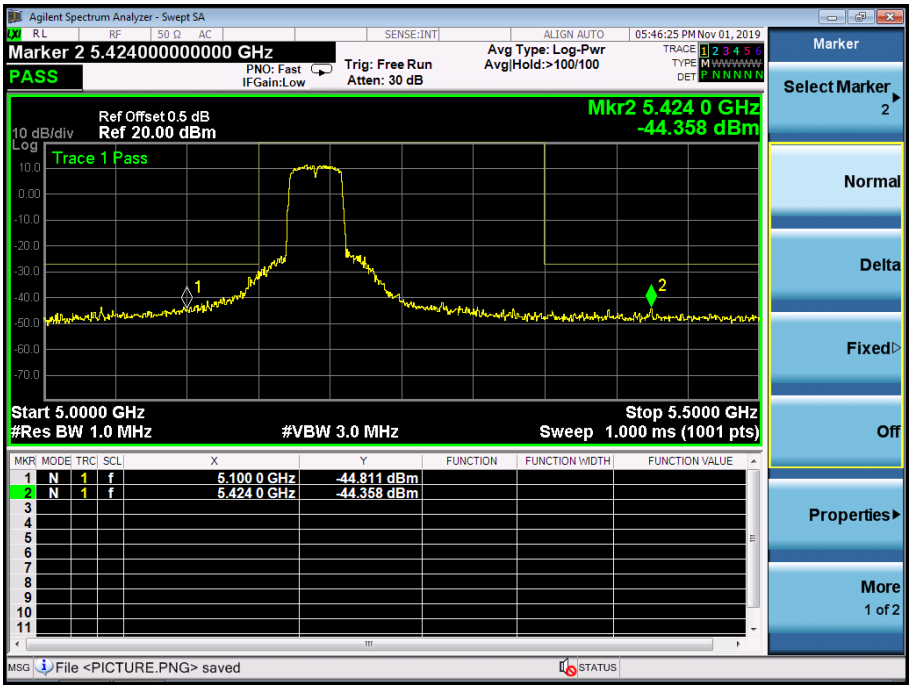


(802.11ac20) Band Edge, Right Side

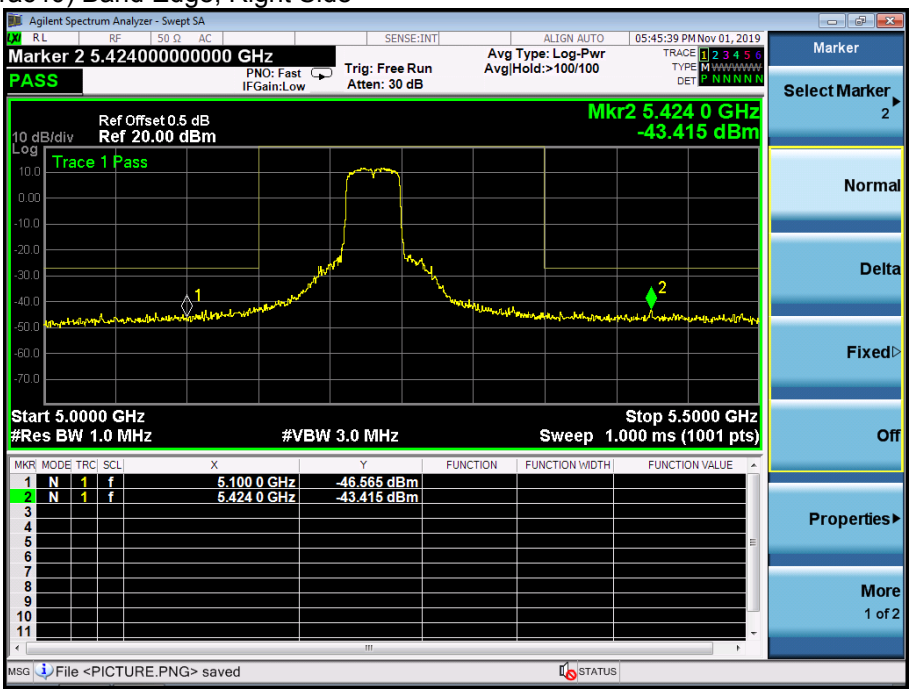


5.15~5.25 GHz

(802.11ac40) Band Edge, Left Side

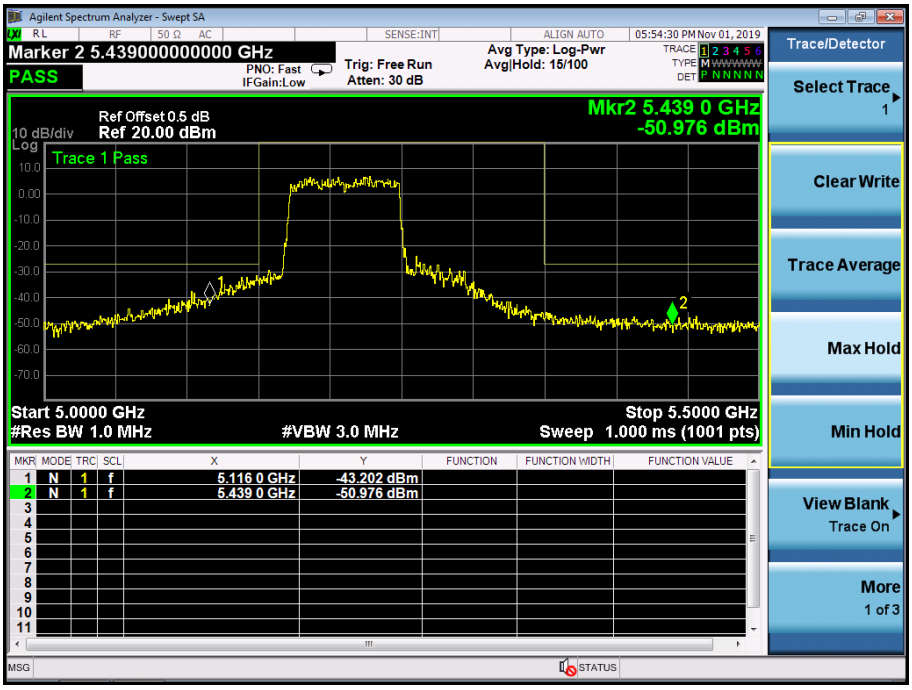


(802.11ac40) Band Edge, Right Side

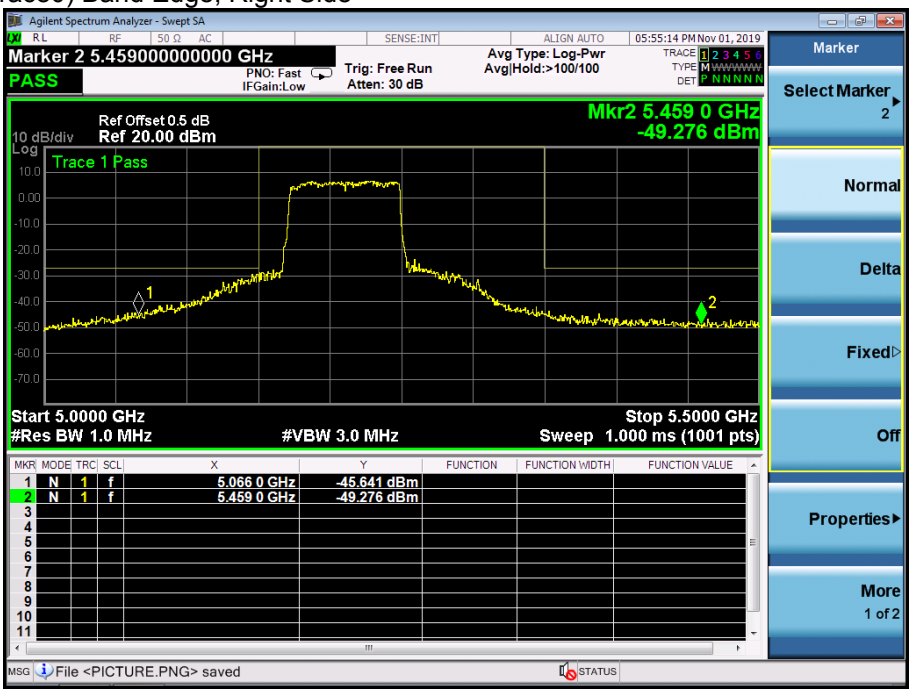


5.15~5.25 GHz

(802.11 ac80) Band Edge, Left Side



(802.11ac80) Band Edge, Right Side

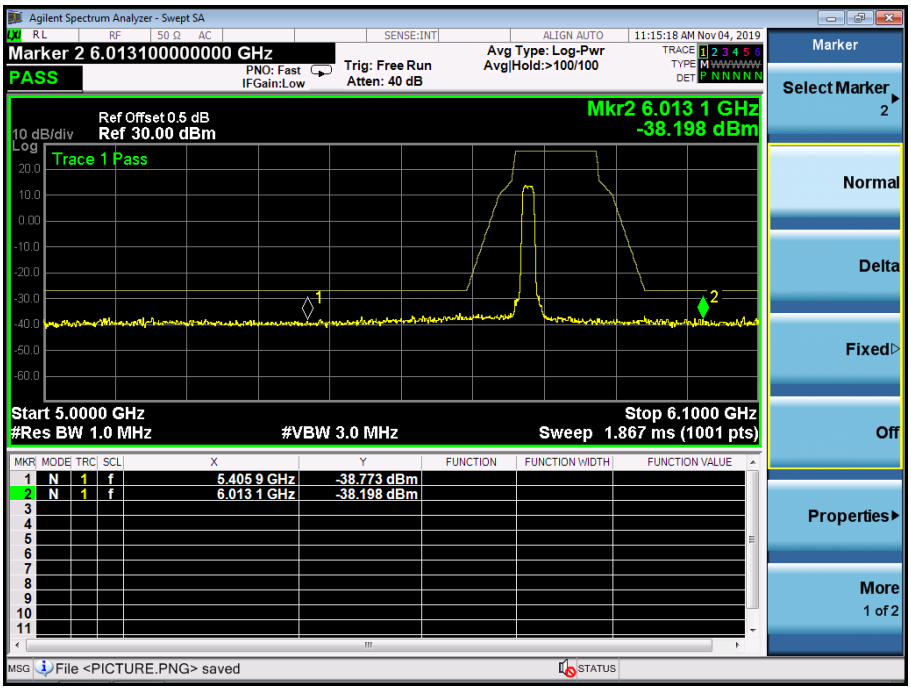


Antenna A: 5725-5850MHz

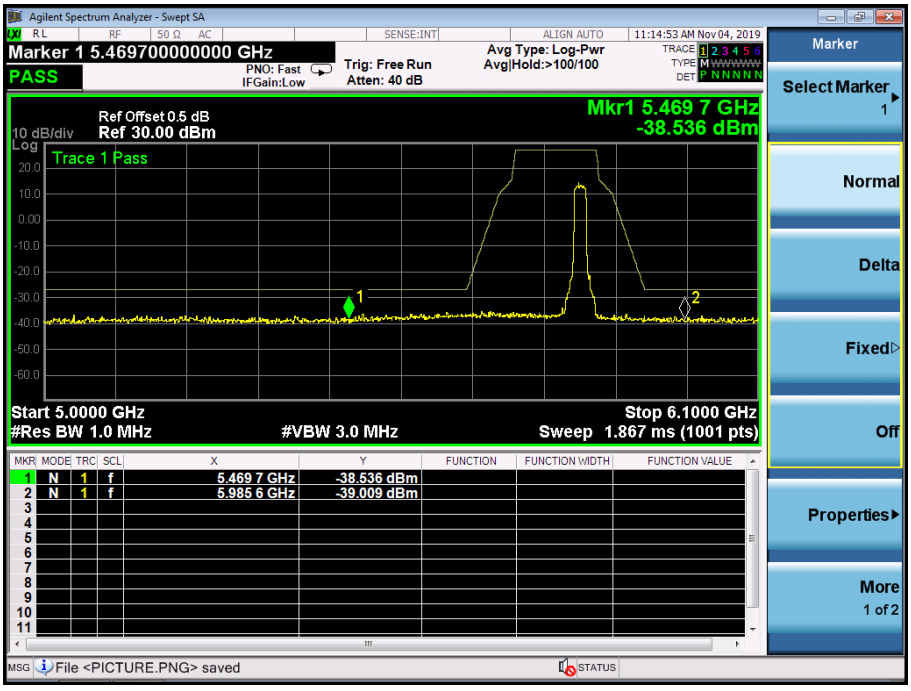
5.8G

5.75~5.85 GHz

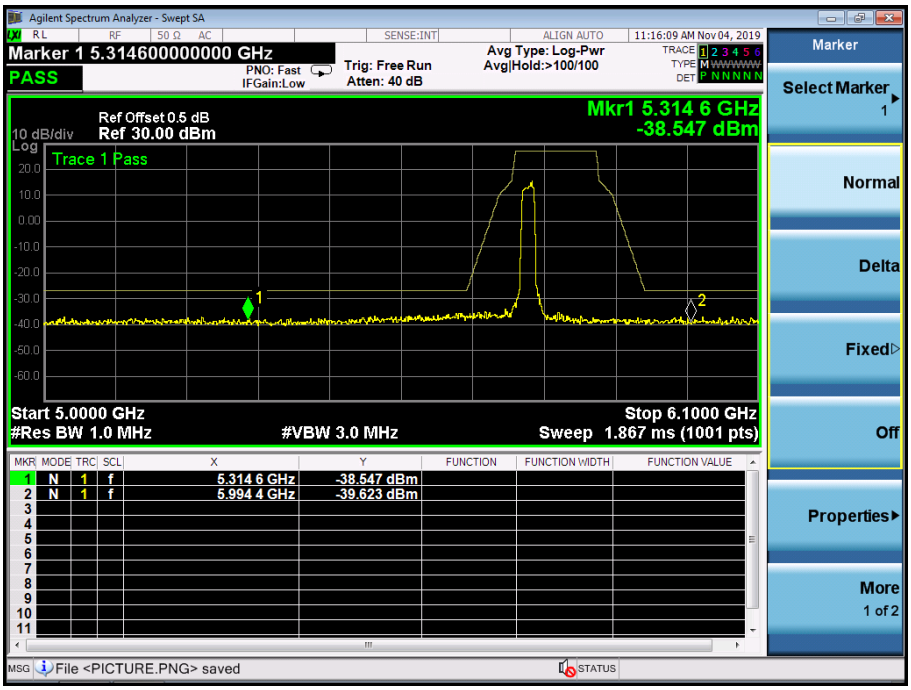
(802.11a) Band Edge, Left Side



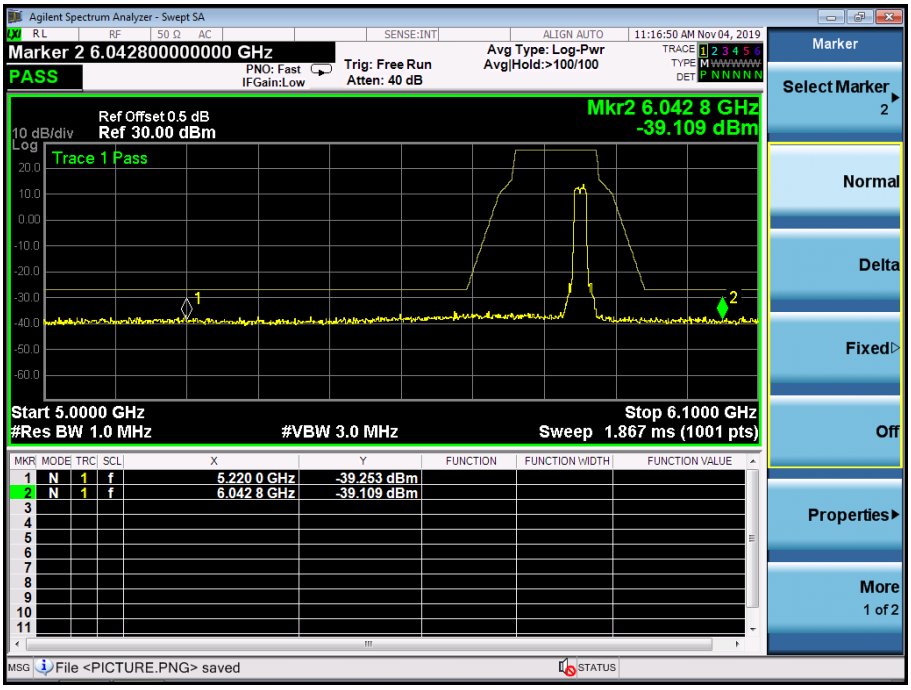
(802.11a) Band Edge, Right Side



(802.11 n20) Band Edge, Left Side

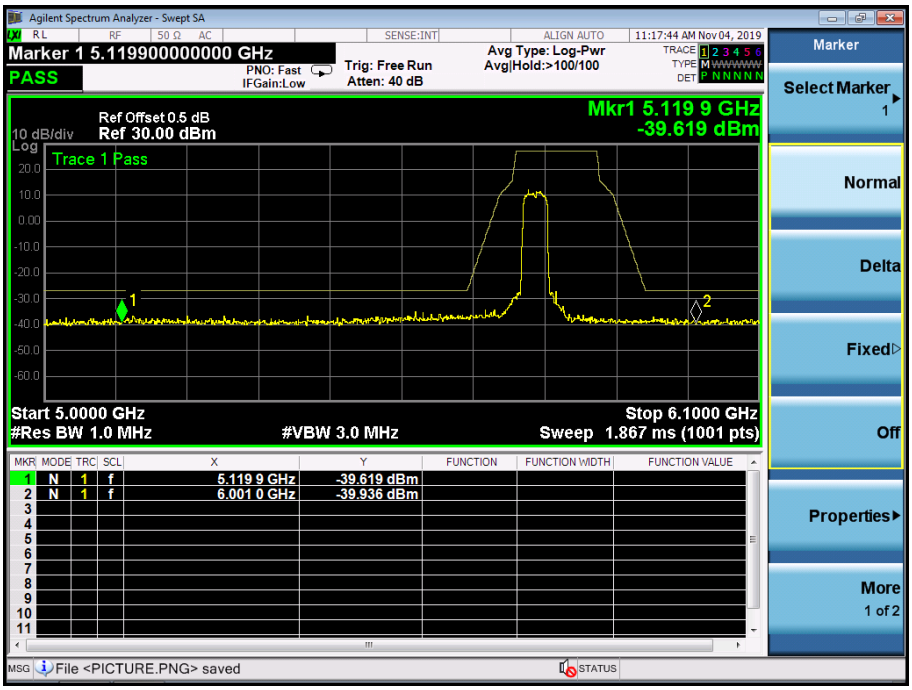


(802.11n20) Band Edge, Right Side

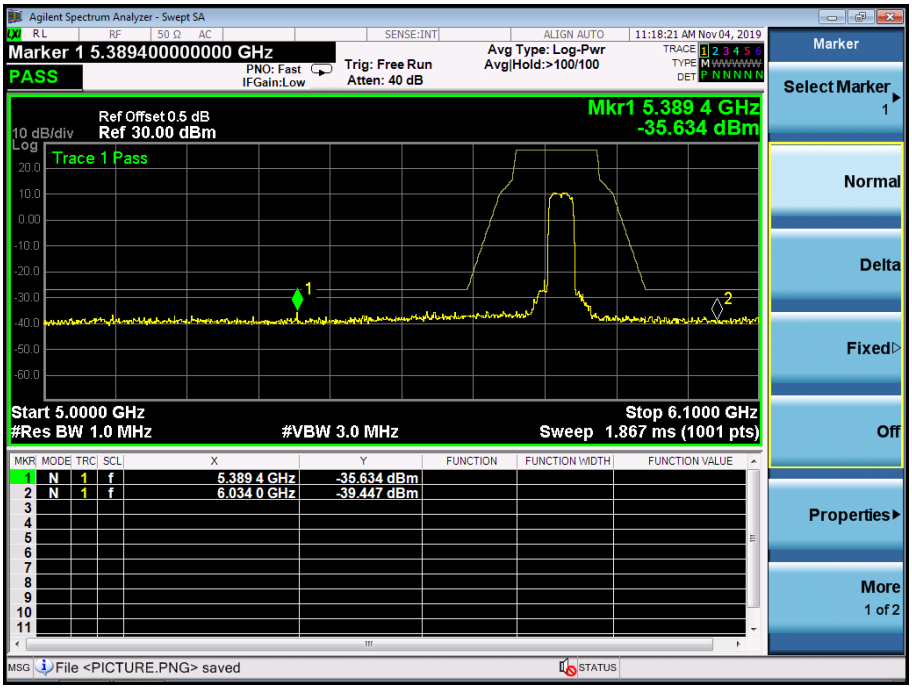


5.75~5.85 GHz

(802.11n40) Band Edge, Left Side

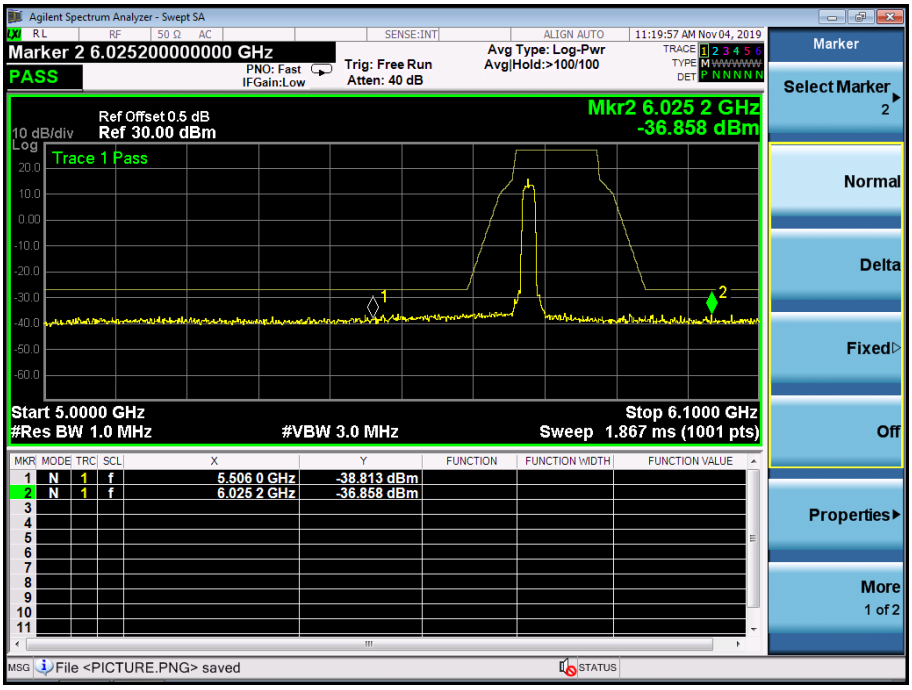


(802.11n40) Band Edge, Right Side

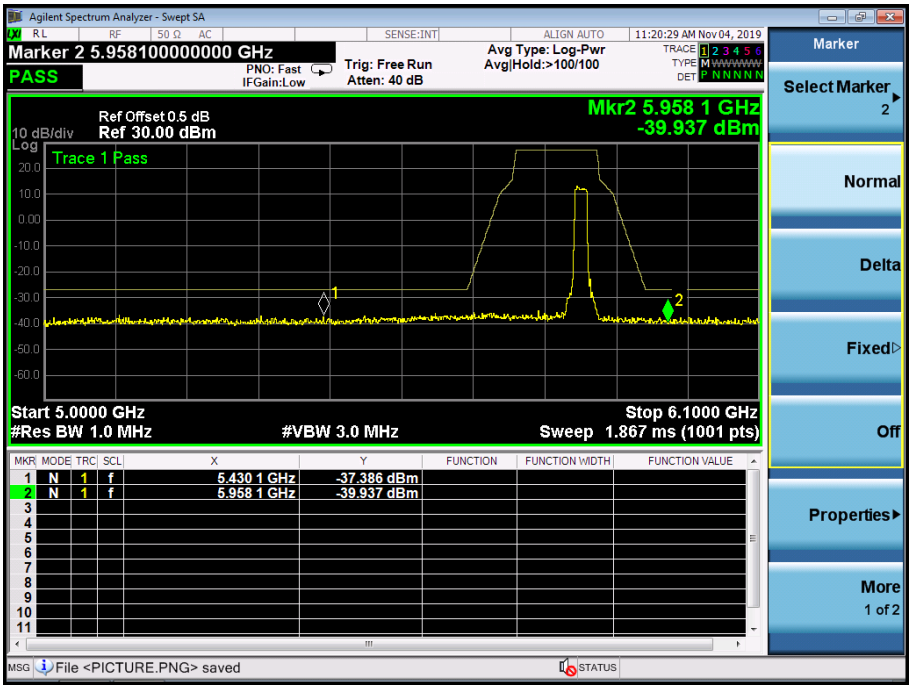


5.75~5.85 GHz

(802.11ac20) Band Edge, Left Side

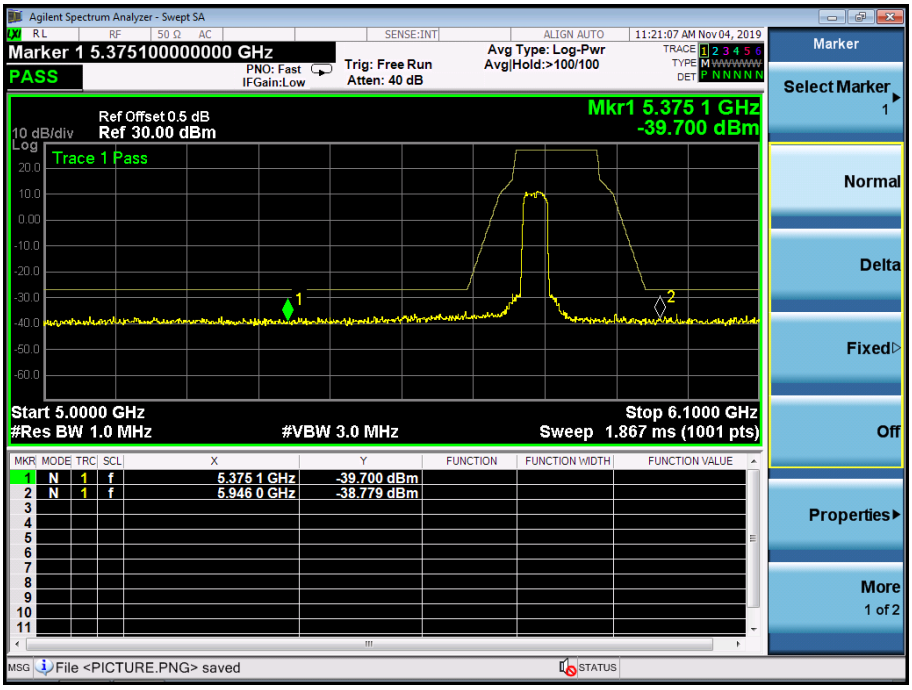


(802.11 ac20) Band Edge, Right Side

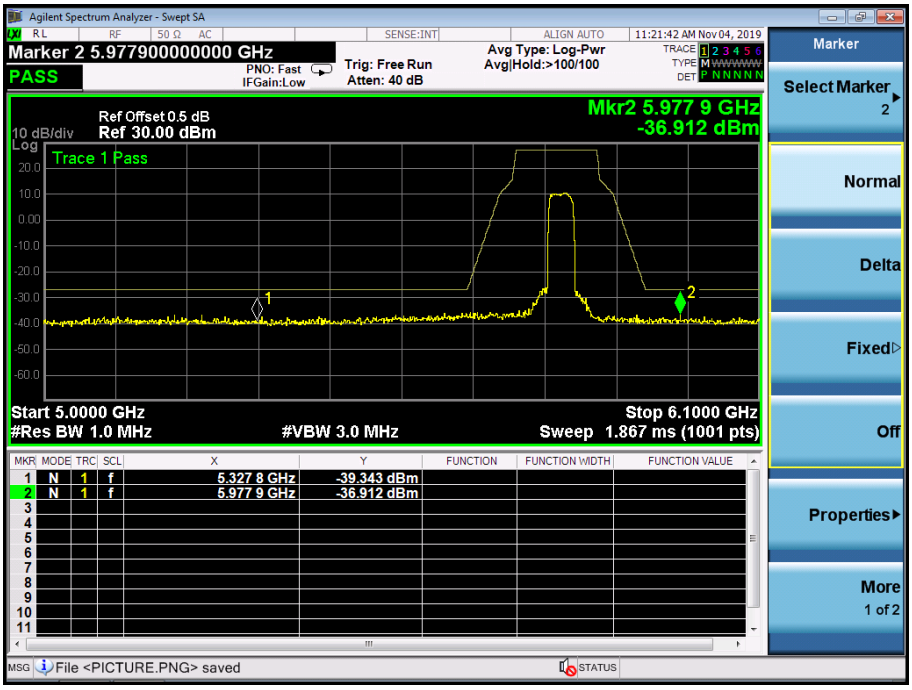


5.75~5.85 GHz

(802.11ac40) Band Edge, Left Side

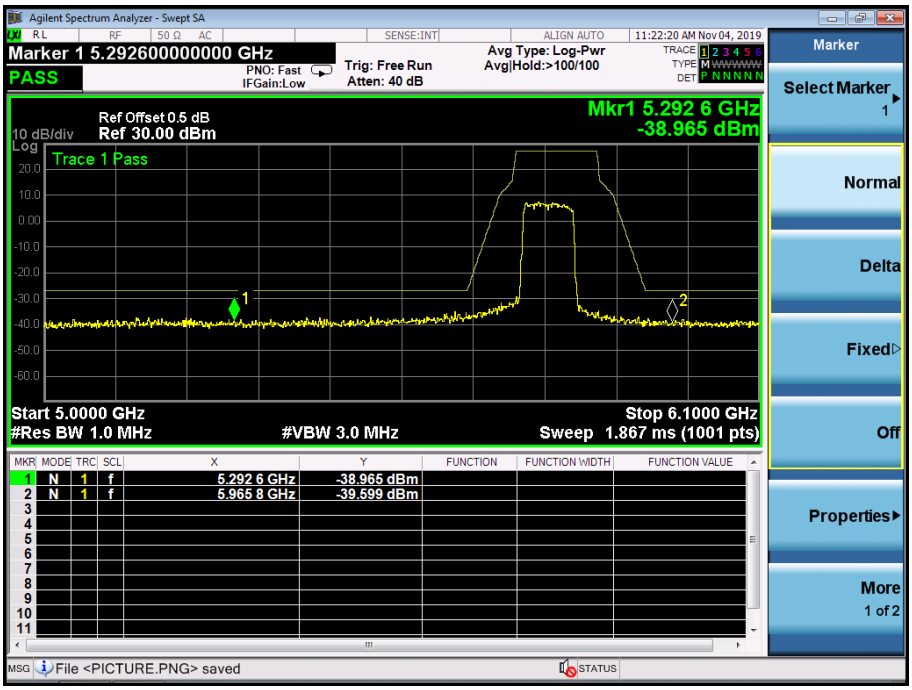


(802.11ac40) Band Edge, Right Side

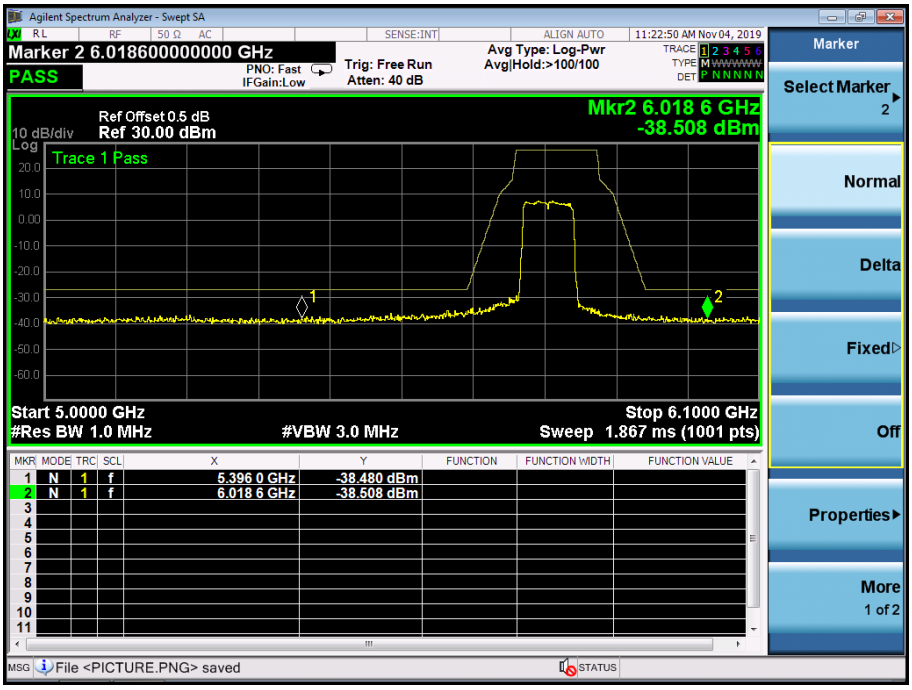


5.75~5.85 GHz

(802.11ac80) Band Edge, Left Side

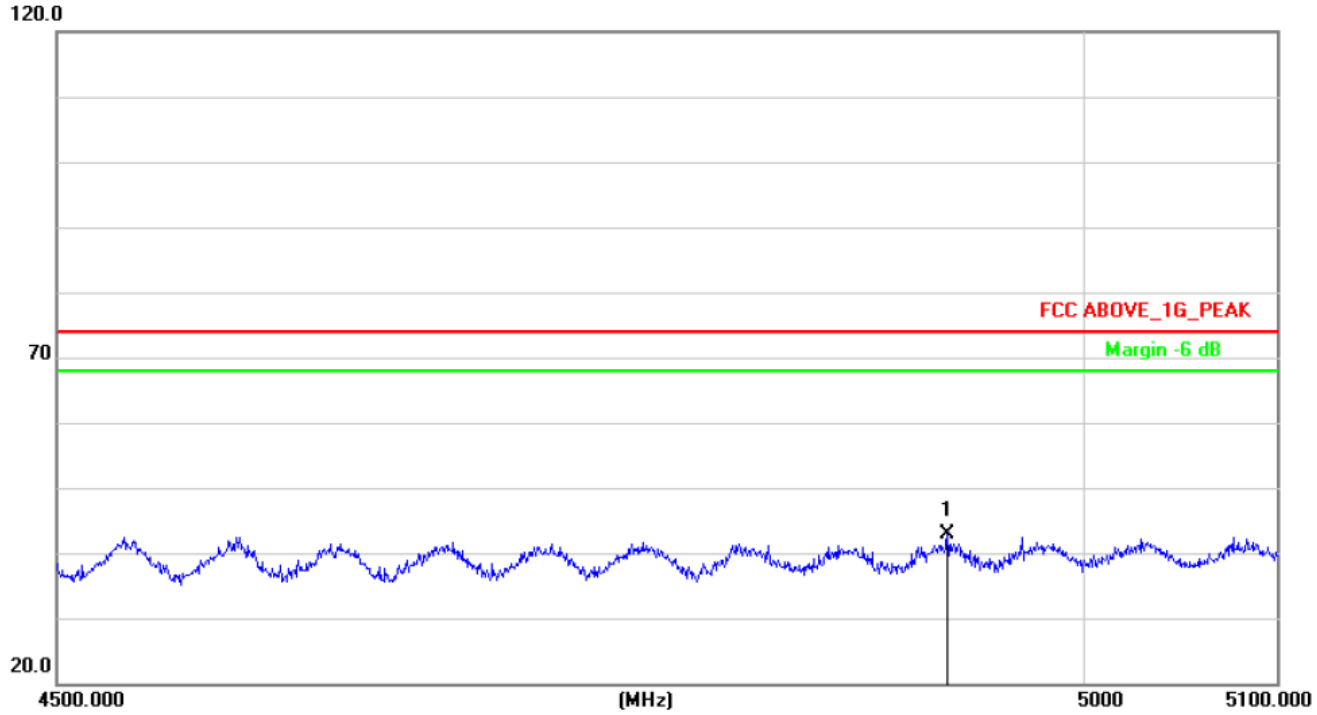


(802.11ac80) Band Edge, Right Side

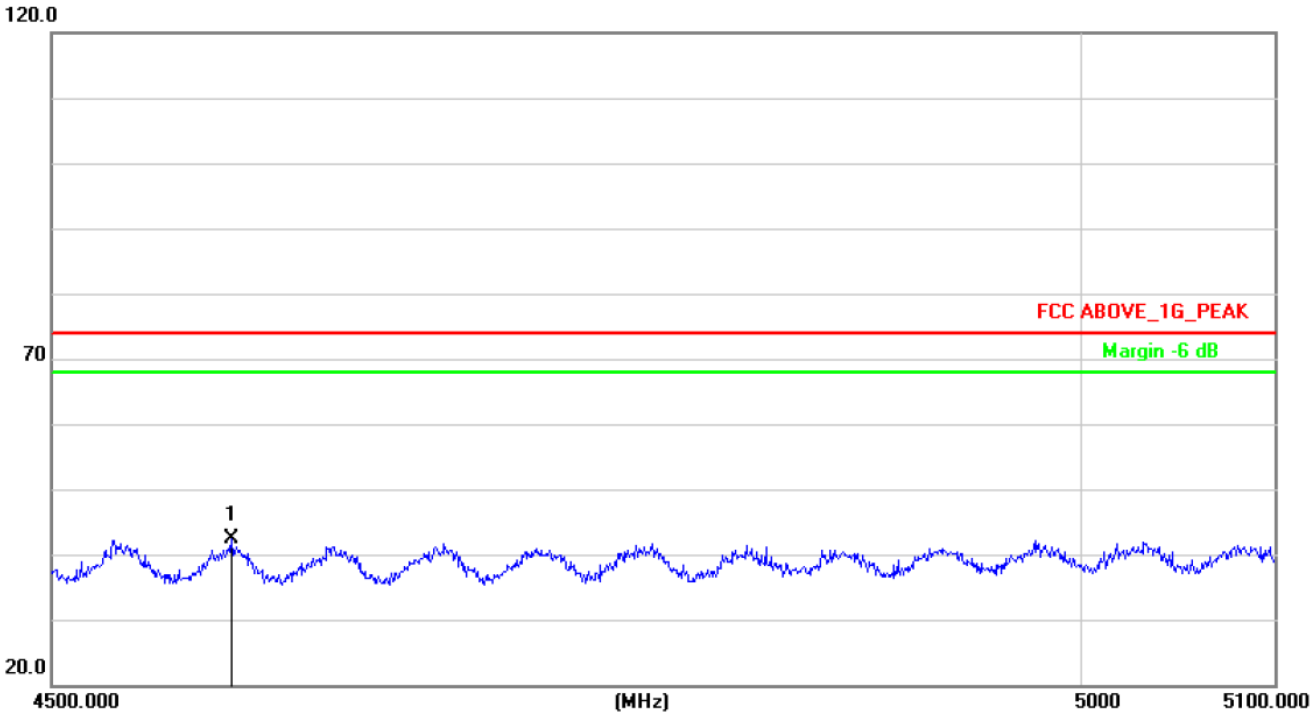


Radiated bandedge

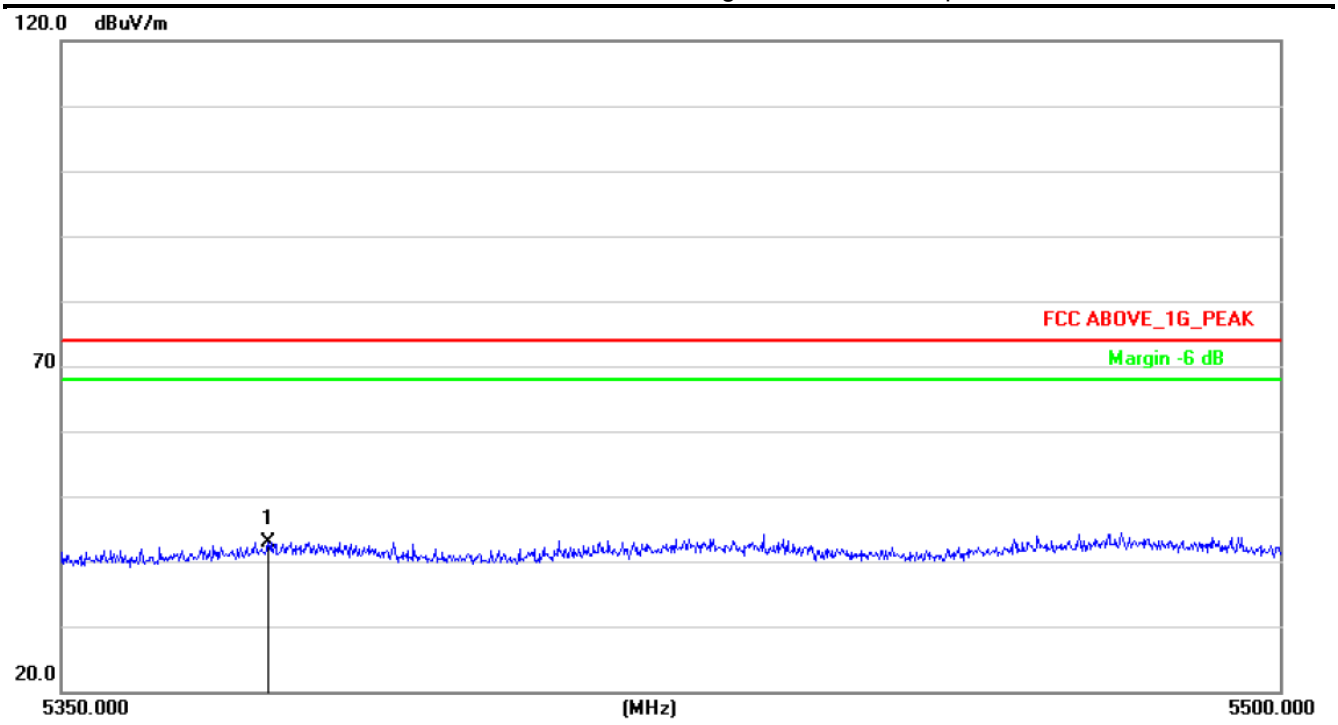
802.11 a
For the frequency band 5150-5250MHz



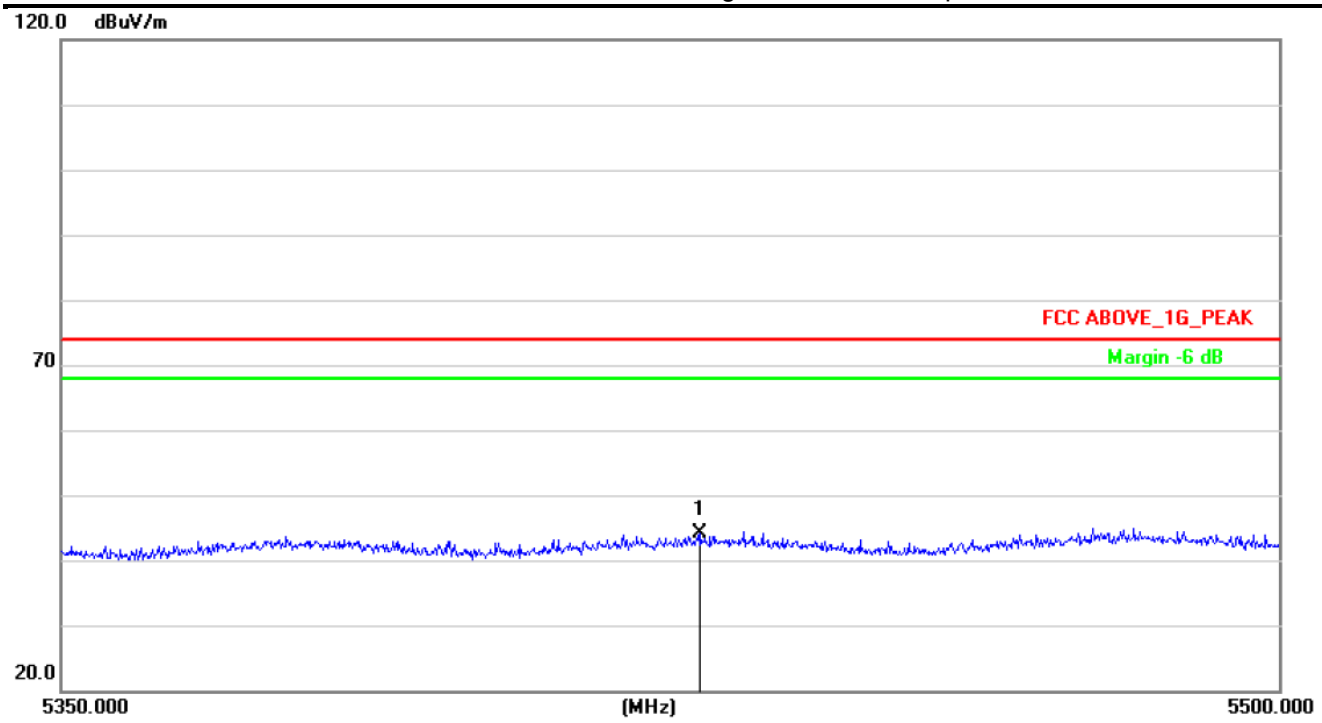
Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type	Polarization
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)		
4930.800	43.17	-0.34	42.83	74.00	-31.17	PK	Horizontal
Remark: Factor = Antenna Factor + Correct Factor. Correct Factor= Cable Loss – Pre-amplifier							



Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type	Polarization
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)		
4584.000	42.97	-0.59	42.38	74.00	-31.62	PK	Vertical
Remark: Factor = Antenna Factor + Correct Factor. Correct Factor= Cable Loss – Pre-amplifier							



Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type	Polarization
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)		
5375.350	41.58	1.31	42.89	74.00	-31.11	PK	Horizontal
Remark: Factor = Antenna Factor + Correct Factor. Correct Factor= Cable Loss – Pre-amplifier							

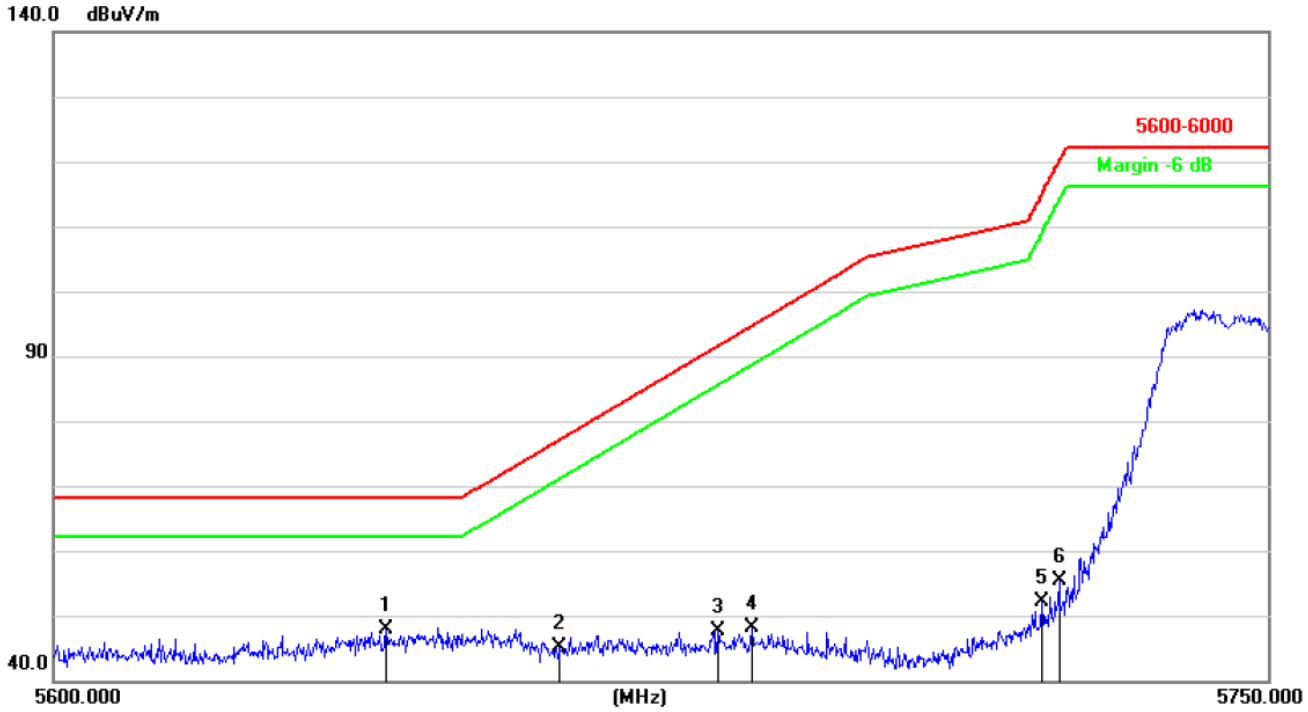


Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type	Polarization
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)		
5428.300	42.48	1.53	44.01	74.00	-29.99	PK	Vertical
Remark: Factor = Antenna Factor + Correct Factor. Correct Factor= Cable Loss – Pre-amplifier							

Note:
1. This EUT was tested in 802.11a/n(HT20), n(HT40) mode and 802.11a the worst case position data was reported.

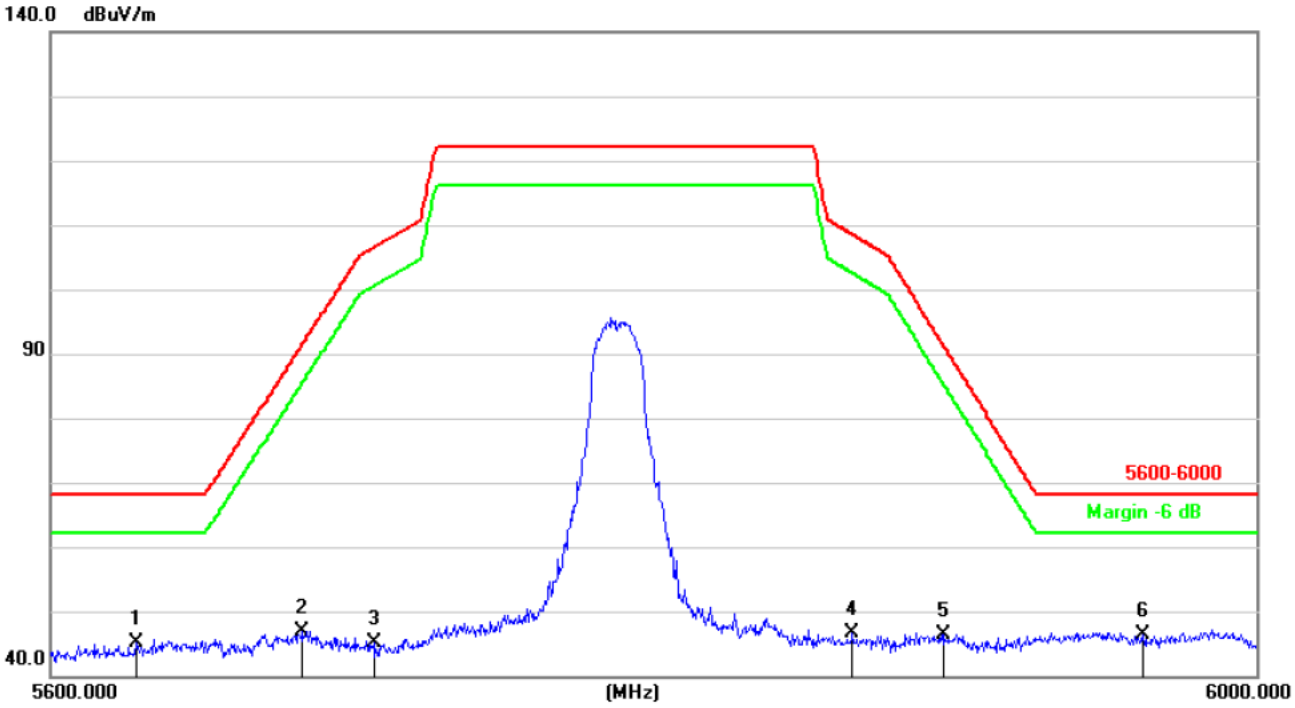
802.11n(HT20)
For the frequency band 5725-5850MHz

Low Channel



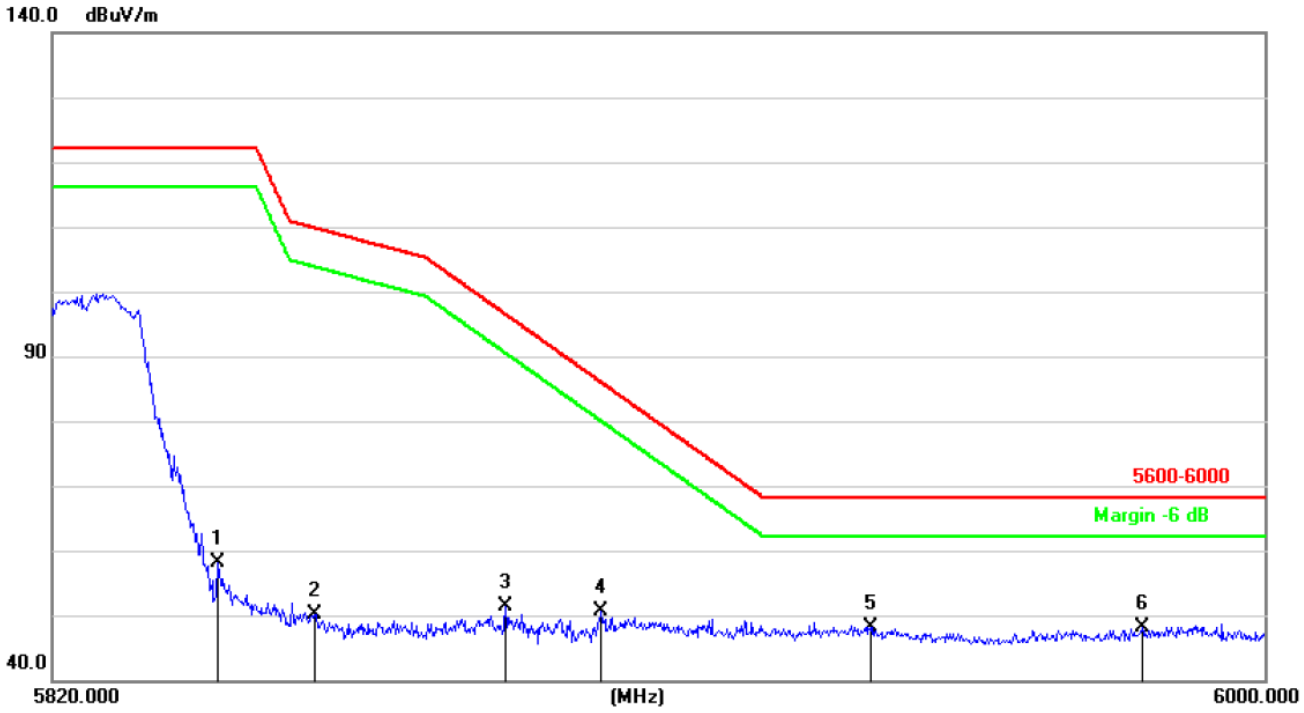
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	5640.800	45.36	2.43	47.79	68.20	-20.41	peak
2	5662.100	42.69	2.52	45.21	77.18	-31.97	peak
3	5681.600	44.92	2.61	47.53	91.62	-44.09	peak
4	5685.800	45.43	2.62	48.05	94.73	-46.68	peak
5	5721.800	49.37	2.78	52.15	114.91	-62.76	peak
6	5724.050	52.61	2.79	55.40	120.03	-64.63	peak

Middle Channel



No.	Frequency (MHz)	Reading (dBuV/m)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5627.600	42.64	2.38	45.02	68.20	-23.18	peak
2	5681.600	44.34	2.61	46.95	91.62	-44.67	peak
3	5704.800	42.31	2.71	45.02	106.55	-61.53	peak
4	5863.200	43.13	3.38	46.51	108.50	-61.99	peak
5	5894.000	42.85	3.51	46.36	91.10	-44.74	peak
6	5961.600	42.46	3.80	46.26	68.20	-21.94	peak

High Channel



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	5844.300	54.88	3.30	58.18	122.20	-64.02	peak
2	5858.520	46.71	3.36	50.07	109.81	-59.74	peak
3	5886.780	47.93	3.48	51.41	96.45	-45.04	peak
4	5901.000	47.02	3.54	50.56	85.92	-35.36	peak
5	5940.960	44.30	3.71	48.01	68.20	-20.19	peak
6	5981.640	44.25	3.88	48.13	68.20	-20.07	peak

Note:
1. This EUT was tested in 802.11a/n/ac(HT20), n/ac(HT40), ac(HT80) mode and 802.11n(HT20) the worst case position data was reported.

8.SPURIOUS RF CONDUCTED EMISSIONS

8.1CONFORMANCE LIMIT

1. Below -20dB of the highest emission level in operating band.
2. Fall in the restricted bands listed in section 15.205. The maximum permitted average field strength is listed in section 15.209.

8.2MEASURING INSTRUMENTS

The Measuring equipment is listed in the section 6.3 of this test report.

8.3TEST SETUP

Please refer to Section 6.1 of this test report.

8.4TEST PROCEDURE

The Spurious RF conducted emissions compliance of RF radiated emission should be measured by following the guidance in ANSI C63.10-2013 with respect to maximizing the emission by rotating the EUT, measuring the emission while the EUT is situated in three orthogonal planes (if appropriate), adjusting the measurement antenna height and polarization etc. Set RBW=100kHz and VBW= 300KHz to measure the peak field strength , and mwasure frequeny range from 9KHz to 26.5GHz.

8.5TEST RESULTS

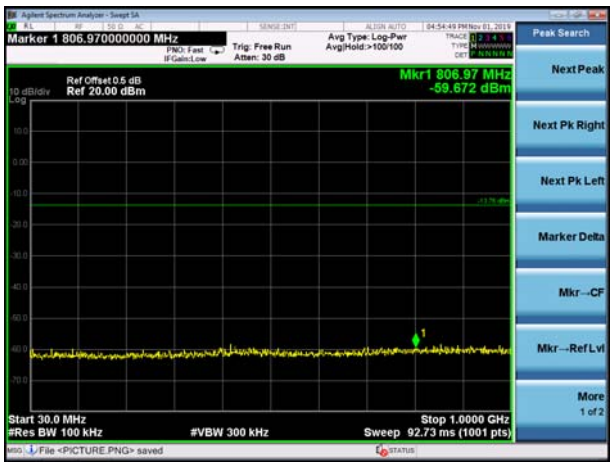
Remark: The measurement frequency range is from 9KHz to the 10th harmonic of the fundamental frequency. The lowest, middle and highest channels are tested to verify the spurious emissions and bandege measurement data.

Note: A(B) Represent the value of antenna A and B, The worst data is Antenna A ,only shown Antenna A Plot.

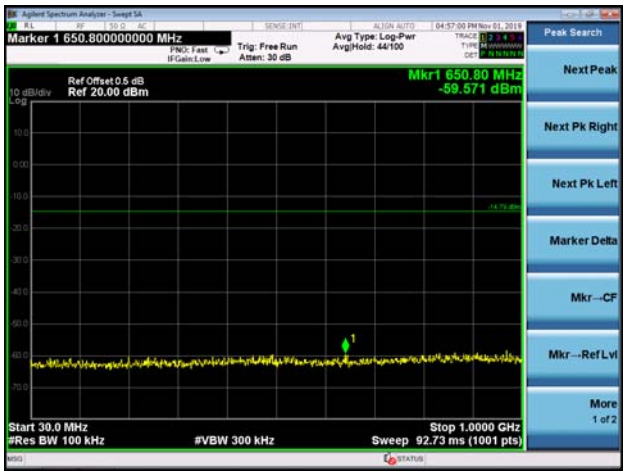
5.2G

Test Plot

802.11a on channel 36



802.11a on channel 40



802.11a on channel 36

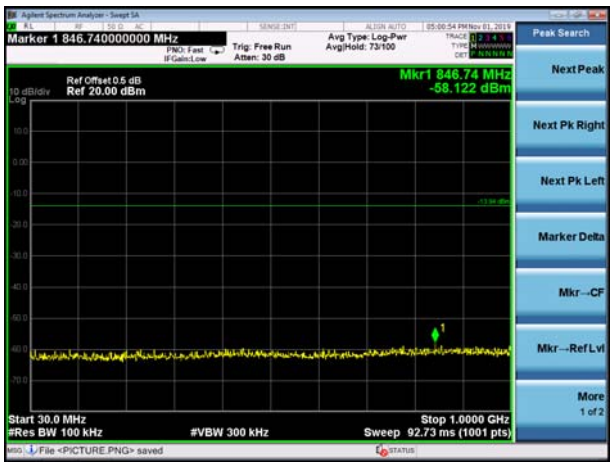
802.11a on channel 40

802.11a on channel 36

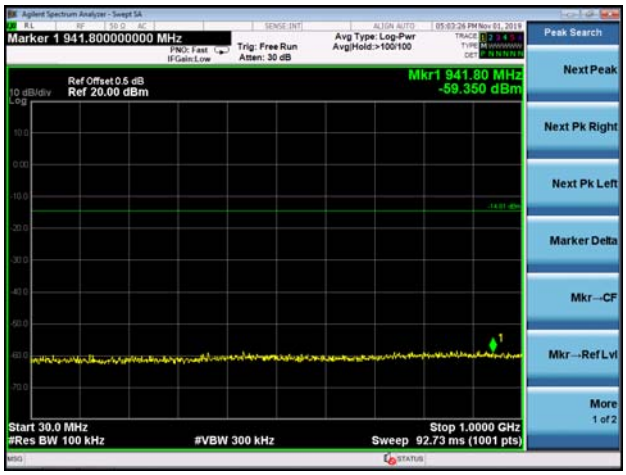
802.11a on channel 40

Test Plot

802.11a on channel 48



802.11n20 on channel 36



802.11a on channel 48

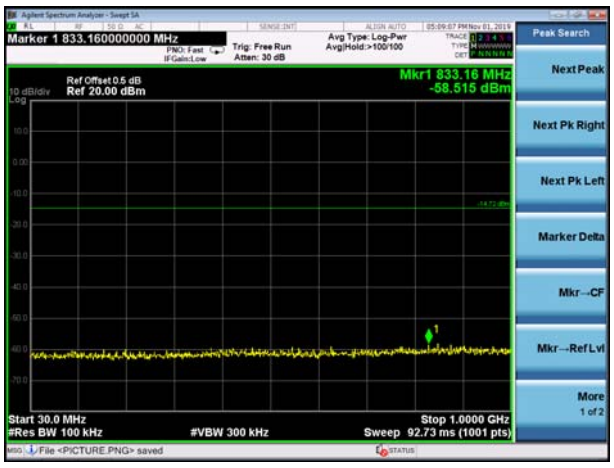
802.11n20 on channel 36

802.11a on channel 48

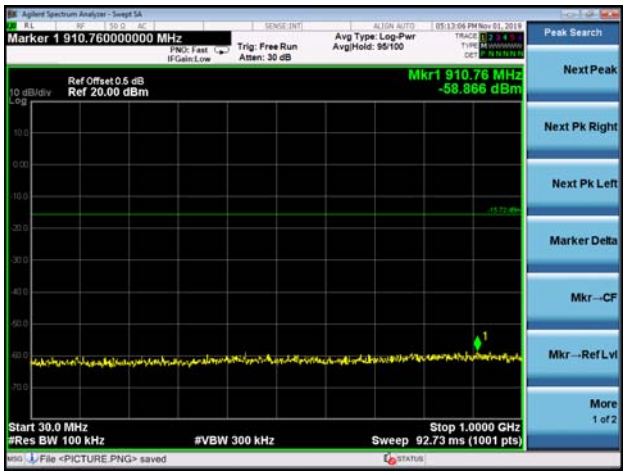
802.11n20 on channel 36

Test Plot

802.11n20 on channel 40



802.11n20 on channel 48



802.11n20 on channel 40

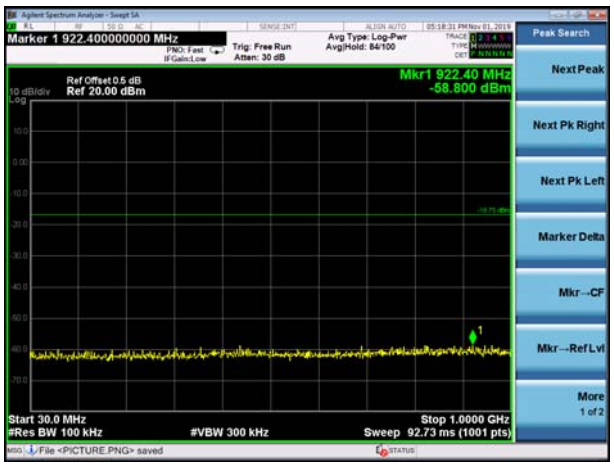
802.11n20 on channel 48

802.11n20 on channel 40

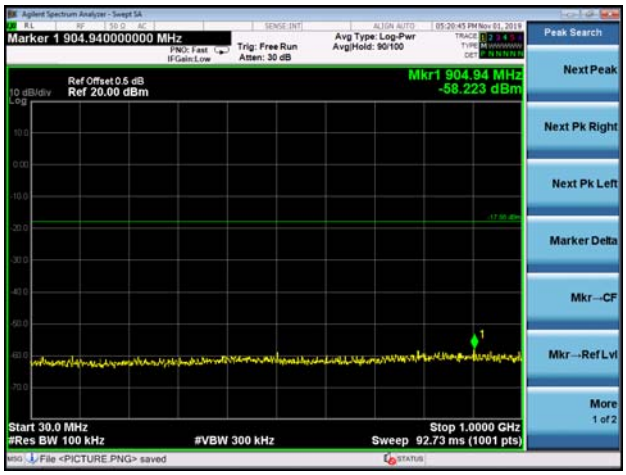
802.11n20 on channel 48

Test Plot

802.11n40 on channel 38

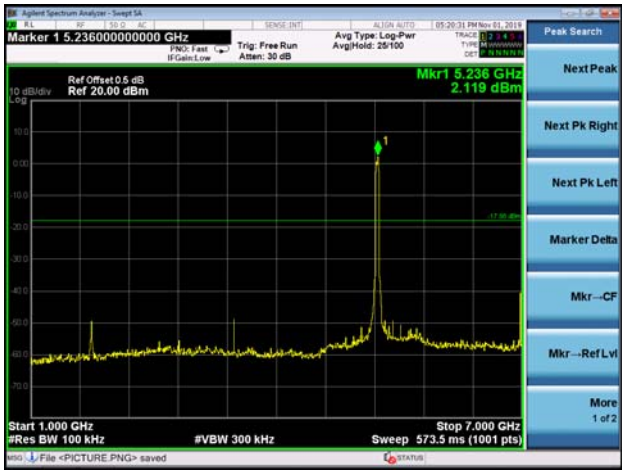


802.11n40 on channel 46



802.11n40 on channel 38

802.11n40 on channel 46

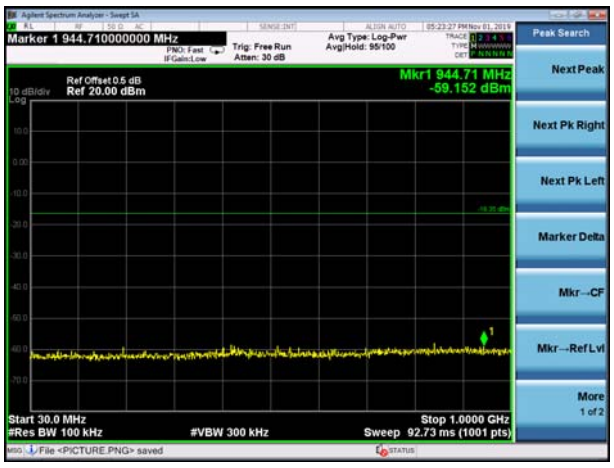


802.11n40 on channel 38

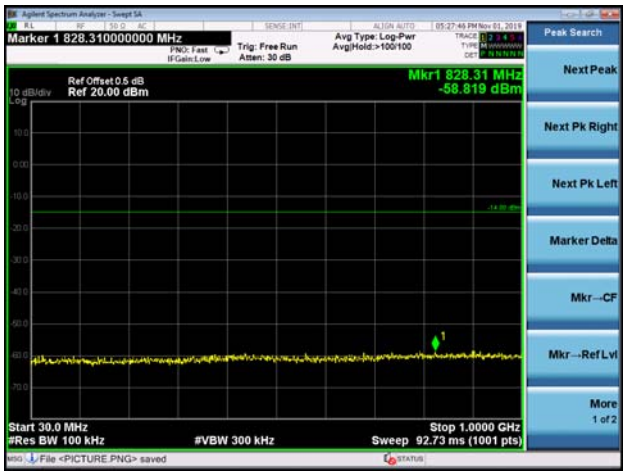
802.11n40 on channel 46

Test Plot

802.11ac20 on channel 36

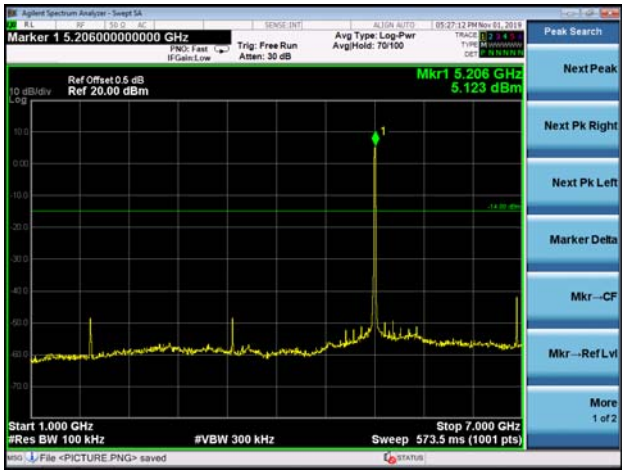


802.11ac20 on channel 40



802.11ac20 on channel 36

802.11ac20 on channel 40

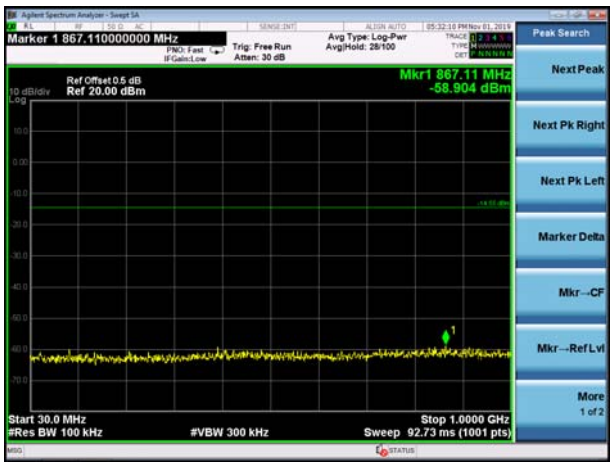


802.11ac20 on channel 36

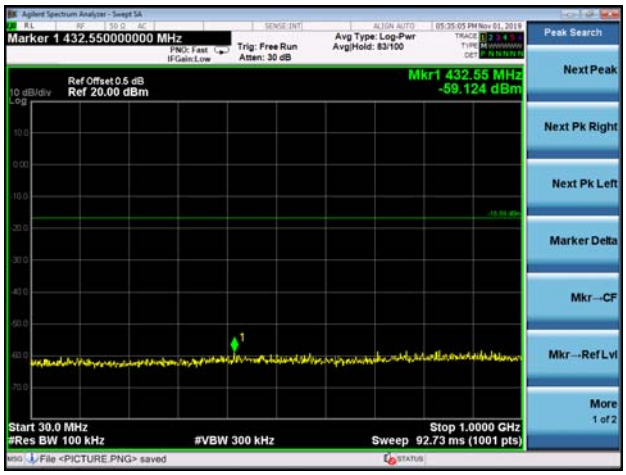
802.11ac20 on channel 40

Test Plot

802.11ac20 on channel 48



802.11ac40 on channel 38



802.11ac20 on channel 48

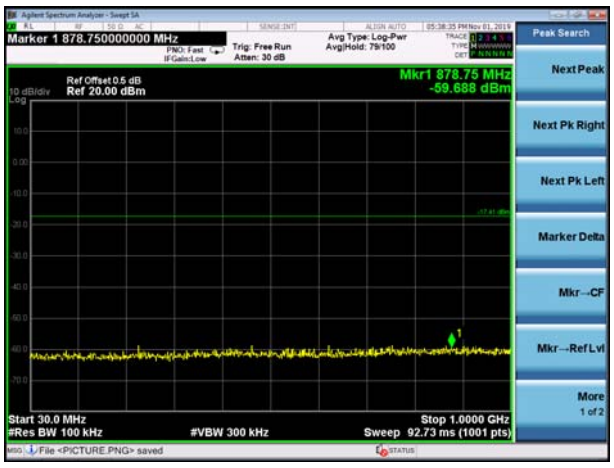
802.11ac40 on channel 38

802.11ac20 on channel 48

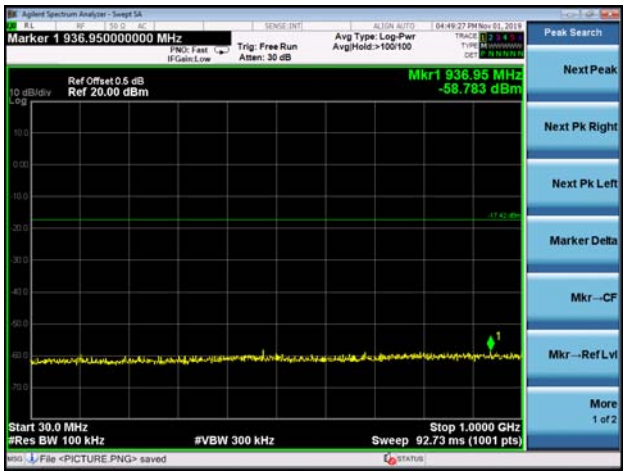
802.11ac40 on channel 38

Test Plot

802.11ac40 on channel 46

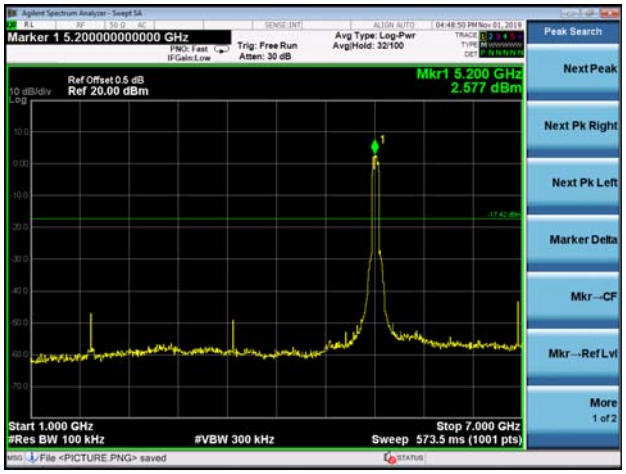


802.11ac80 on channel 42



802.11 ac40 on channel 46

802.11 ac80 on channel 42



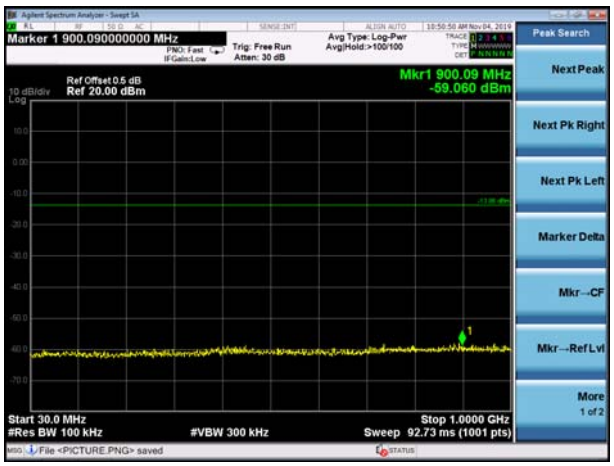
802.11 ac40 on channel 46

802.11 ac80 on channel 42

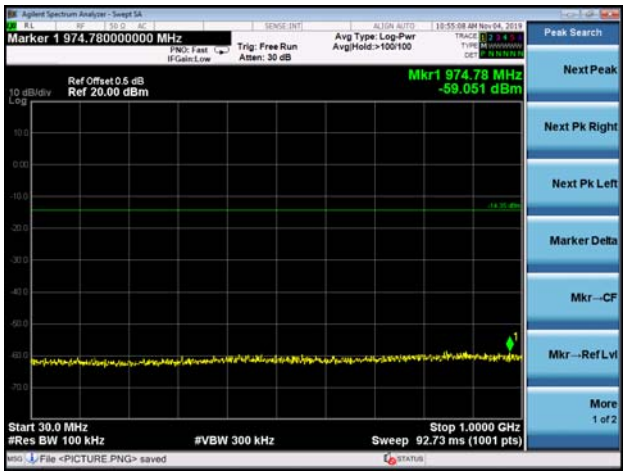
5.8G

Test Plot

802.11a on channel 149



802.11a on channel 157



802.11a on channel 149

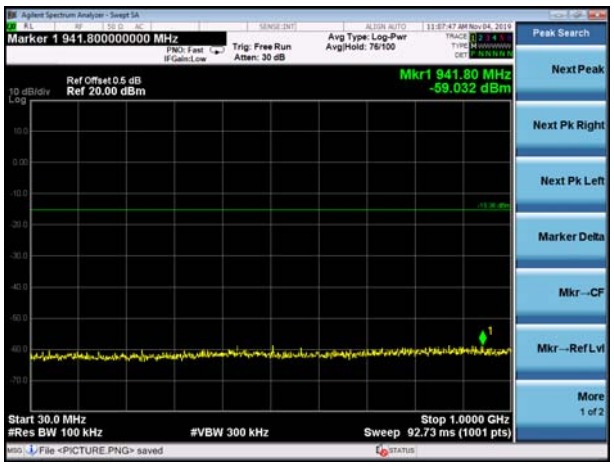
802.11a on channel 157

802.11a on channel 149

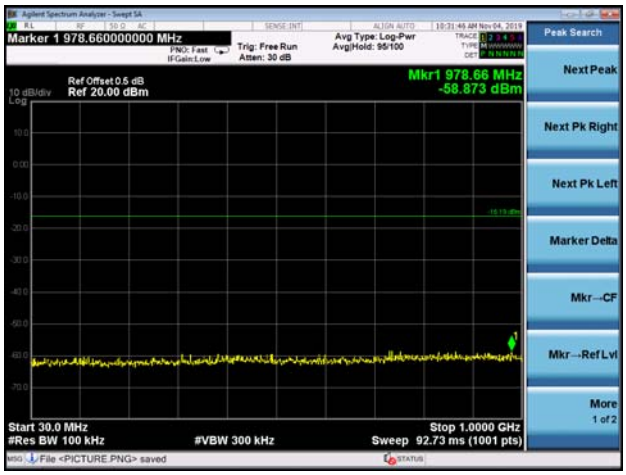
802.11a on channel 157

Test Plot

802.11a on channel 165



802.11n20 on channel 149



802.11a on channel 165

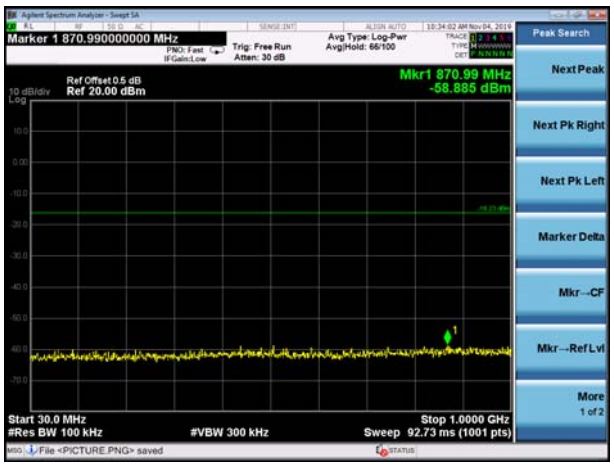
802.11n20 on channel 149

802.11a on channel 165

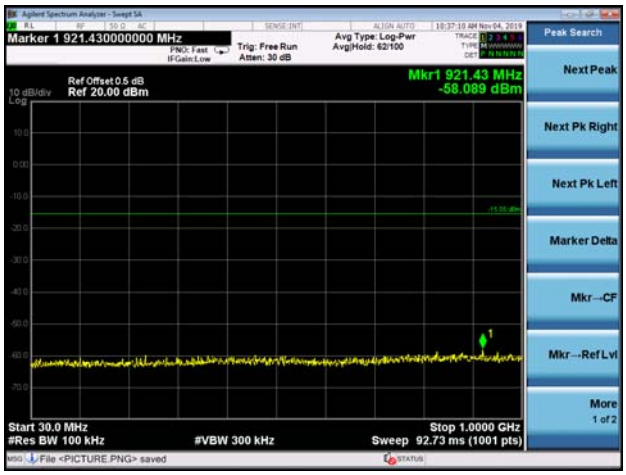
802.11n20 on channel 149

Test Plot

802.11n20 on channel 157



802.11n20 on channel 165



802.11n20 on channel 157

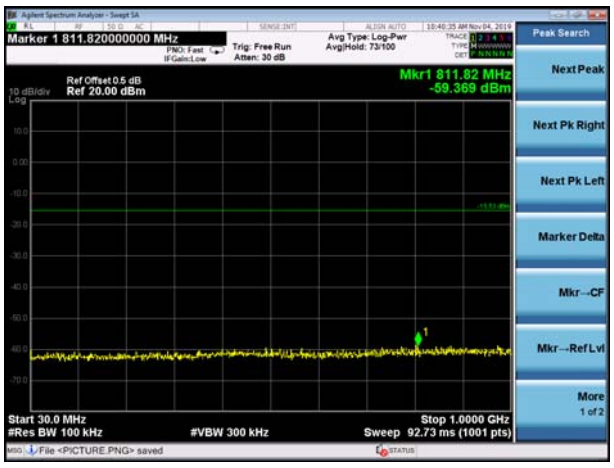
802.11n20 on channel 165

802.11n20 on channel 157

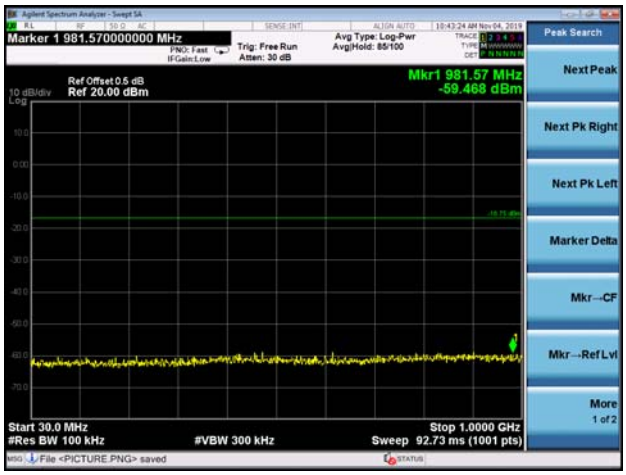
802.11n20 on channel 165

Test Plot

802.11n40 on channel 151



802.11n40 on channel 159



802.11n40 on channel 151

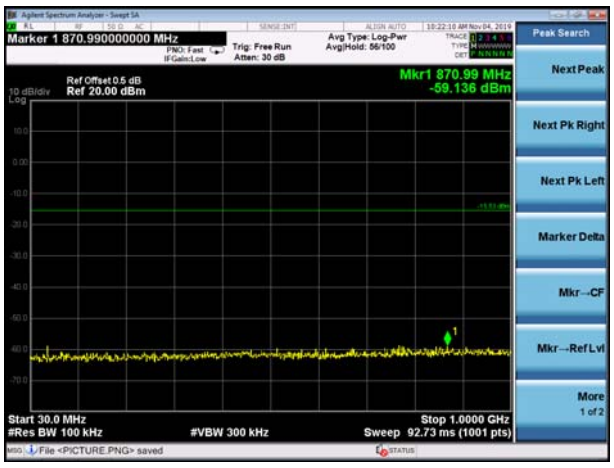
802.11n40 on channel 159

802.11n40 on channel 151

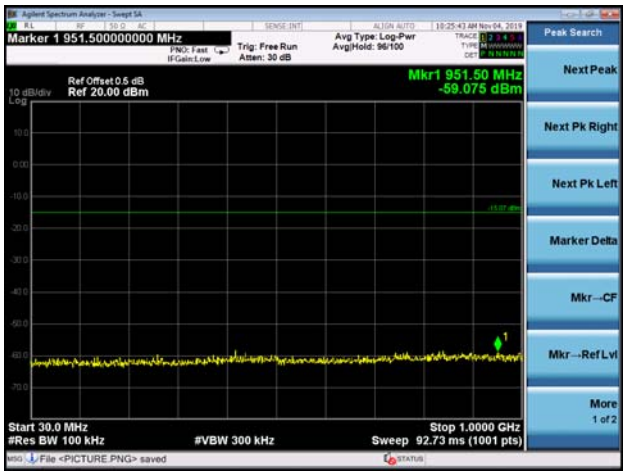
802.11n40 on channel 159

Test Plot

802.11ac20 on channel 149



802.11ac20 on channel 157



802.11ac20 on channel 149

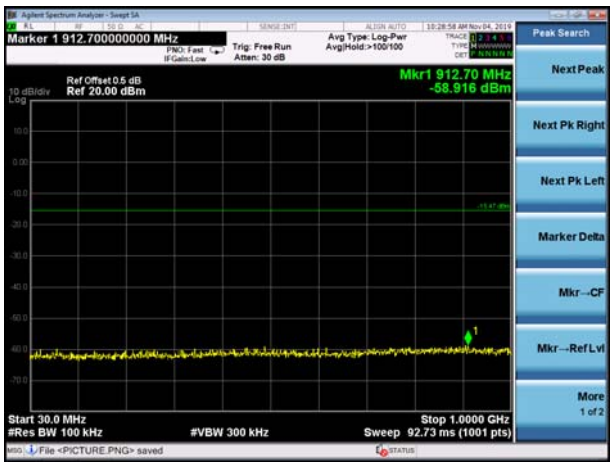
802.11ac20 on channel 157

802.11ac20 on channel 149

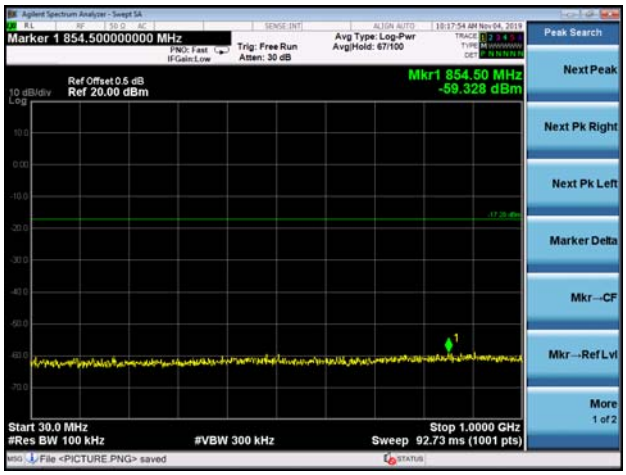
802.11ac20 on channel 157

Test Plot

802.11ac20 on channel 165



802.11ac40 on channel 151



802.11ac20 on channel 165

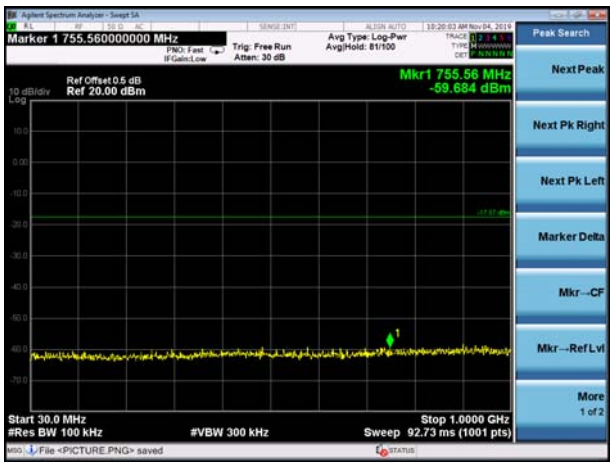
802.11ac40 on channel 151

802.11ac20 on channel 165

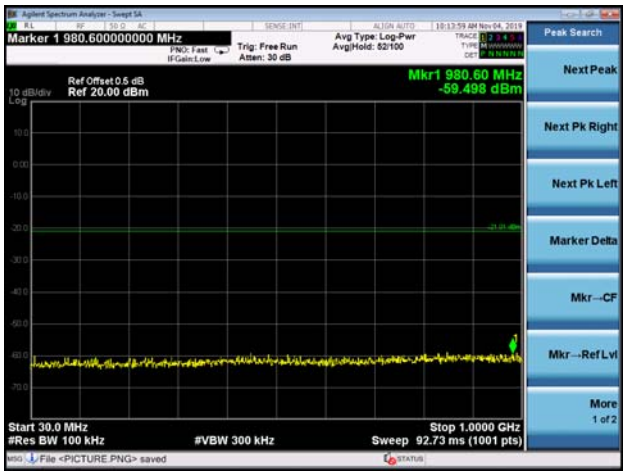
802.11ac40 on channel 151

Test Plot

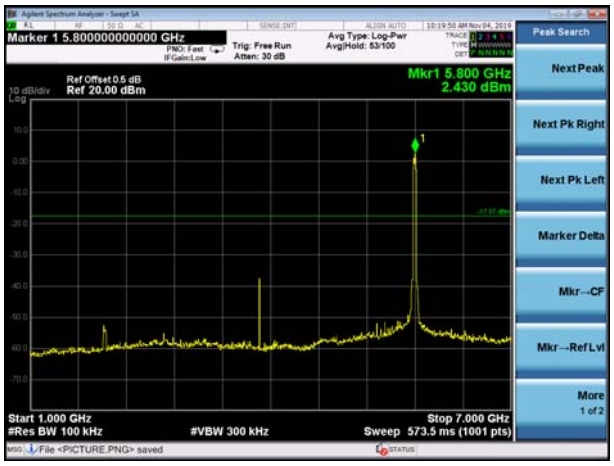
802.11ac40 on channel 159



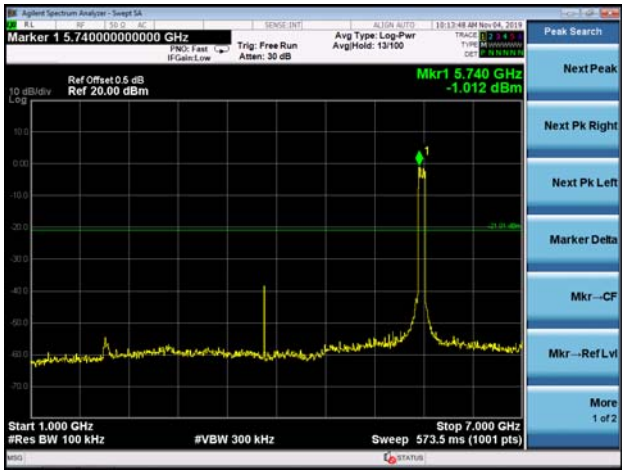
802.11ac80 on channel 155



802.11 ac40 on channel 159



802.11 ac80 on channel 155



802.11 ac40 on channel 159

802.11 ac80 on channel 155

9. Frequency Stability Measurement

9.1 LIMIT

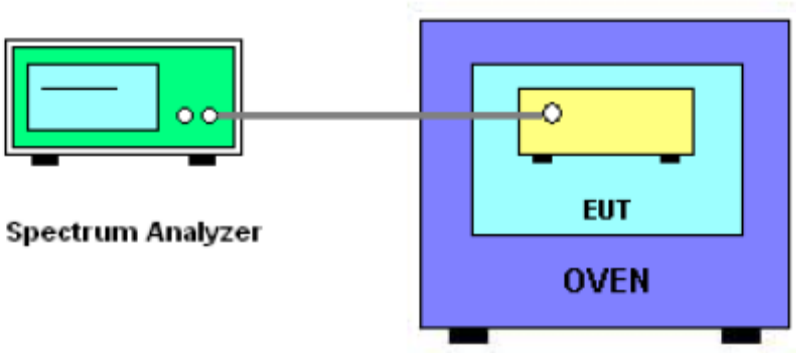
Manufactures of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified in the user's manual.

The transmitter center frequency tolerance shall be ± 20 ppm maximum for the 5 GHz band (IEEE 802.11n specification).

9.2 TEST PROCEDURES

1. The transmitter output (antenna port) was connected to the spectrum analyzer.
2. EUT have transmitted absence of modulation signal and fixed channelize.
3. Set the spectrum analyzer span to view the entire absence of modulation emissions bandwidth.
4. Set RBW = 10 kHz, VBW = 10 kHz with peak detector and maxhold settings.
5. fc is declaring of channel frequency. Then the frequency error formula is (f-fc)/fc × 10_6 ppm and the limit is less than ±20ppm (IEEE 802.11nspecification).
6. The test extreme voltage is to change the primary supply voltage from 85 to 115 percent of the nominal value
7. Extreme temperature is -20°C~70°C.

9.3 TEST SETUP LAYOUT



9.4 EUT OPERATION DURING TEST

The EUT was programmed to be in continuously un-modulation transmitting mode.

9.5 TEST RESULTS

Temperature：	26 ℃	Relative Humidity：	54%
Pressure：	101kPa	Test Voltage ：	AC 120V/60Hz
Test Mode ：	TX Frequency Band I (5150-5250MHz)		

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency：5180MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	12.00	5180.0524	5180	0.0524	10.1158
		V max (V)	13.80	5180.0323	5180	0.0323	6.2355
		V min (V)	10.20	5180.0246	5180	0.0246	4.7490
Limits				± 20 ppm			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency：5180MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	12	T (°C)	-20	5180.0054	5180	0.0054	1.0425
		T (°C)	-10	5180.0106	5180	0.0106	2.0463
		T (°C)	0	5180.0325	5180	0.0325	6.2741
		T (°C)	10	5180.0387	5180	0.0387	7.4710
		T (°C)	20	5180.0294	5180	0.0294	5.6757
		T (°C)	30	5180.0217	5180	0.0217	4.1892
		T (°C)	40	5180.0124	5180	0.0124	2.3938
		T (°C)	50	5180.0097	5180	0.0097	1.8726
		T (°C)	60	5180.0414	5180	0.0414	7.9923
		T (°C)	70	5180.0697	5180	0.0697	13.4556
Limits				± 20 ppm			
Result				Complies			

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency：5200MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	12.00	5200.0256	5200	0.0256	4.9231
		V max (V)	13.80	5200.0423	5200	0.0423	8.1346
		V min (V)	10.20	5200.0696	5200	0.0696	13.3846
Limits				± 20 ppm			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency：5200MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	12	T (°C)	-20	5200.0633	5200	0.0633	12.1731
		T (°C)	-10	5200.0526	5200	0.0526	10.1154
		T (°C)	0	5200.0434	5200	0.0434	8.3462
		T (°C)	10	5200.0923	5200	0.0923	17.7500
		T (°C)	20	5200.0636	5200	0.0636	12.2308
		T (°C)	30	5200.0123	5200	0.0123	2.3654
		T (°C)	40	5200.0736	5200	0.0736	14.1538
		T (°C)	50	5200.0413	5200	0.0413	7.9423
		T (°C)	60	5200.0325	5200	0.0325	6.2500
		T (°C)	70	5200.0423	5200	0.0423	8.1346
Limits				± 20 ppm			
Result				Complies			

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency：5240MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	12.00	5240.0136	5240	0.0136	2.5954
		V max (V)	13.80	5240.0413	5240	0.0413	7.8817
		V min (V)	10.20	5240.0096	5240	0.0096	1.8321
Limits				± 20 ppm			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency：5240MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	12	T (°C)	-20	5240.0097	5240	0.0097	1.8511
		T (°C)	-10	5240.0034	5240	0.0034	0.6489
		T (°C)	0	5240.0146	5240	0.0146	2.7863
		T (°C)	10	5240.0854	5240	0.0854	16.2977
		T (°C)	20	5240.0117	5240	0.0117	2.2328
		T (°C)	30	5240.0126	5240	0.0126	2.4046
		T (°C)	40	5240.0063	5240	0.0063	1.2023
		T (°C)	50	5240.0077	5240	0.0077	1.4695
		T (°C)	60	5240.0054	5240	0.0054	1.0305
		T (°C)	70	5240.0102	5240	0.0102	1.9466
Limits				± 20 ppm			
Result				Complies			

Temperature：	26 ℃	Relative Humidity：	54%
Pressure：	101kPa	Test Voltage ：	AC 120V/60Hz
Test Mode ：	TX Frequency(5745-5850MHz)		

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency：5745MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (° C)	20	V nom (V)	12.00	5745.00786	5745	0.00786	1.3686
		V max (V)	13.80	5745.00877	5745	0.00877	1.5257
		V min (V)	10.20	5745.00962	5745	0.00962	1.6738
Limits				± 20 ppm			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency：5745MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	12	T (°C)	-20	5745.01104	5745	0.01104	1.9211
		T (°C)	-10	5745.00160	5745	0.00160	0.2789
		T (°C)	0	5745.00037	5745	0.00037	0.0646
		T (°C)	10	5745.01243	5745	0.01243	2.1638
		T (°C)	20	5745.00981	5745	0.00981	1.7073
		T (°C)	30	5745.01089	5745	0.01089	1.8957
		T (°C)	40	5745.00118	5745	0.00118	0.2050
		T (°C)	50	5745.00014	5745	0.00014	0.0252
		T (°C)	60	5745.00408	5745	0.00408	0.7104
		T (°C)	70	5745.00618	5745	0.00618	1.0758
Limits				± 20 ppm			
Result				Complies			

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency：5785MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	12.00	5785.00161	5785	0.00161	0.2781
		V max (V)	13.80	5785.01048	5785	0.01048	1.8114
		V min (V)	10.20	5785.00972	5785	0.00972	1.6800
Limits				± 20 ppm			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency：5785MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	12	T (°C)	-20	5785.01164	5785	0.01164	2.0121
		T (°C)	-10	5785.00406	5785	0.00406	0.7011
		T (°C)	0	5785.00141	5785	0.00141	0.2444
		T (°C)	10	5785.01089	5785	0.01089	1.8817
		T (°C)	20	5785.00093	5785	0.00093	0.1601
		T (°C)	30	5785.00828	5785	0.00828	1.4313
		T (°C)	40	5785.01083	5785	0.01083	1.8724
		T (°C)	50	5785.00023	5785	0.00023	0.0397
		T (°C)	60	5785.01146	5785	0.01146	1.9815
		T (°C)	70	5785.00321	5785	0.00321	0.5546
Limits				± 20 ppm			
Result				Complies			

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency：5825MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	12.00	5825.00075	5825	0.00075	0.1282
		V max (V)	13.80	5825.01178	5825	0.01178	2.0224
		V min (V)	10.20	5825.01134	5825	0.01134	1.9463
Limits				± 20 ppm			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency：5825MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	12	T (°C)	-20	5825.00263	5825	0.00263	0.4523
		T (°C)	-10	5825.00386	5825	0.00386	0.6633
		T (°C)	0	5825.01105	5825	0.01105	1.8978
		T (°C)	10	5825.00598	5825	0.00598	1.0262
		T (°C)	20	5825.00797	5825	0.00797	1.3690
		T (°C)	30	5825.00641	5825	0.00641	1.1006
		T (°C)	40	5825.00309	5825	0.00309	0.5308
		T (°C)	50	5825.00752	5825	0.00752	1.2907
		T (°C)	60	5825.00551	5825	0.00551	0.9462
		T (°C)	70	5825.00282	5825	0.00282	0.4836
Limits				± 20 ppm			
Result				Complies			

10. ANTENNA REQUIREMENT

10.1 STANDARD REQUIREMENT

15.203 requirement: For intentional device, according to 15.203: an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

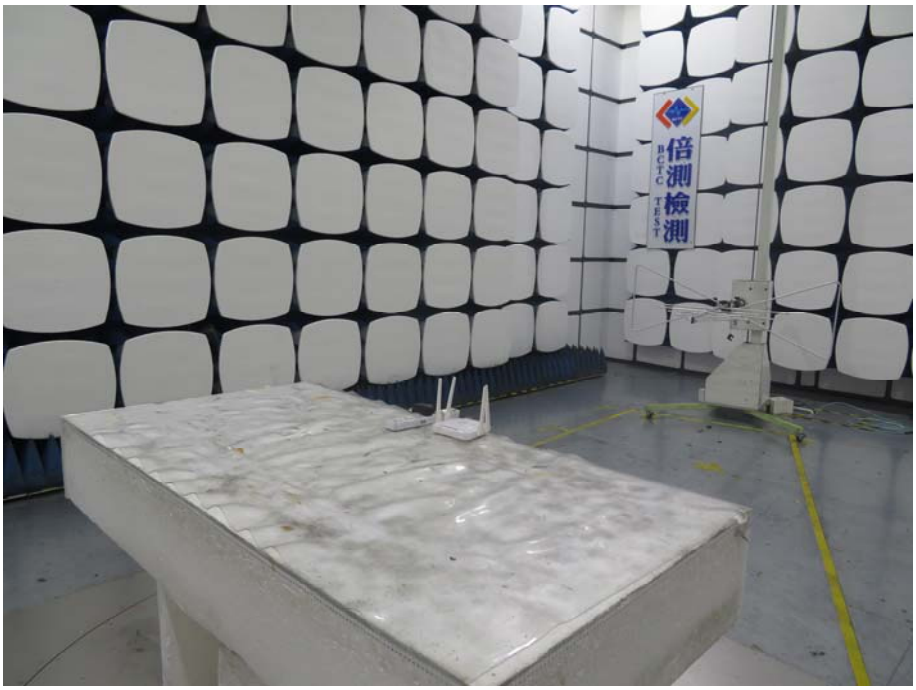
10.2 EUT ANTENNA

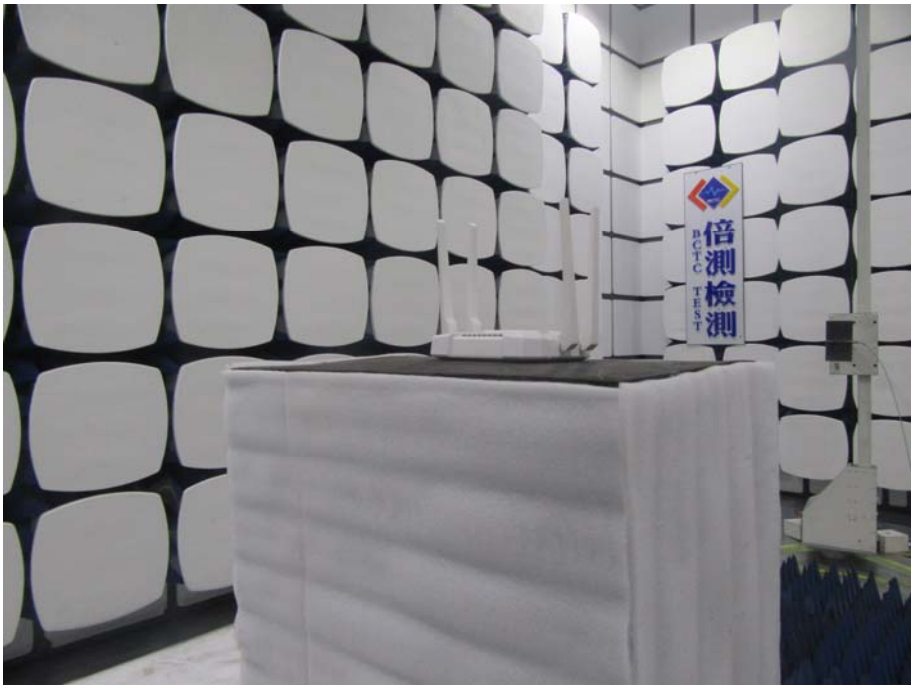
The EUT antenna is External antenna, It comply with the standard requirement.

11. EUT TEST PHOTO

Conducted Measurement Photos

Radiated Measurement Photos





12. EUT PHOTO

※※※※※ END OF REPORT ※※※※※