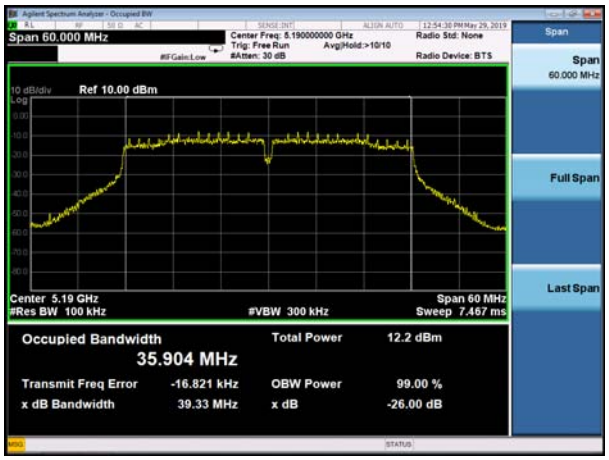
Test plot

(802.11 n40) -26dB&99%Bandwidth plot on channel 38

(802.11 AC20) -26dB&99%Bandwidth plot on channel 36



(802.11 n40) -26dB&99%Bandwidth plot on channel 46

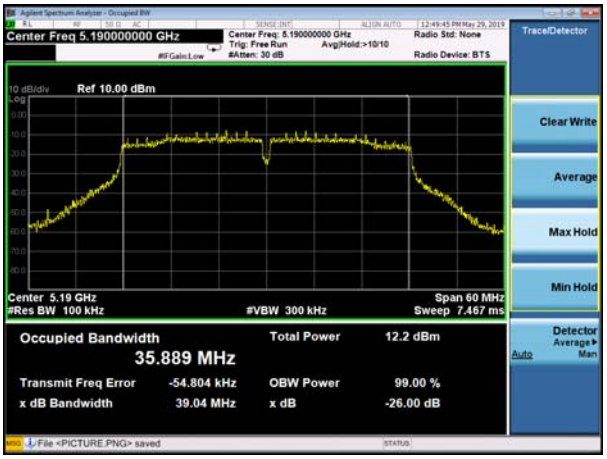
(802.11 AC20) -26dB&99%Bandwidth plot on channel 40

(802.11 AC20) -26dB&99%Bandwidth plot on

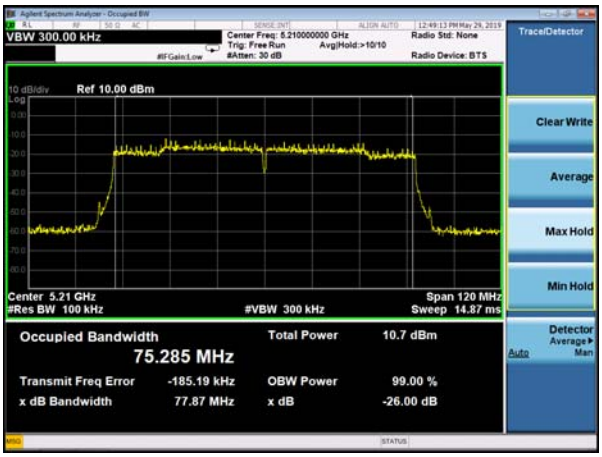
channel 48

Test plot

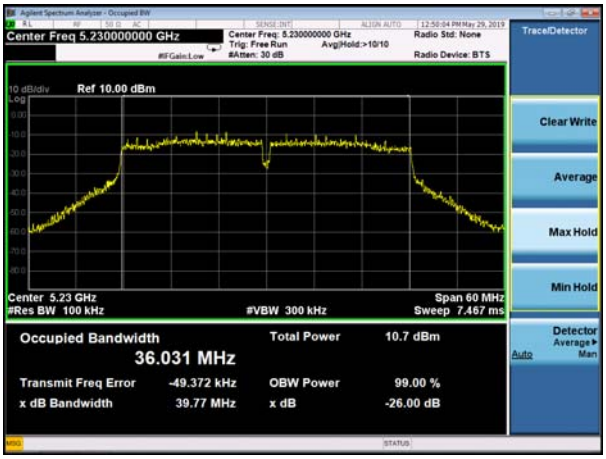
(802.11 AC40) -26dB&99%Bandwidth plot on channel 38



(802.11 AC80) -26dB&99%Bandwidth plot on channel 42



(802.11 AC40) -26dB&99%Bandwidth plot on channel 46

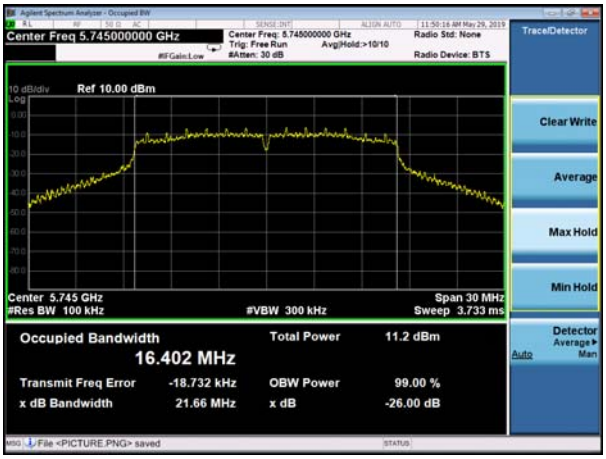

Center Freq 5.230000000 GHz
Center Freq: 5.230000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#Atten: 30 dB
Radio Std: None
Radio Device: BTS
Trace/Detector
10 dB/div
Ref 10.00 dBm
Log
Clear Write
Average
Max Hold
Min Hold
Center 5.23 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 60 MHz
Sweep 7.467 ms
Occupied Bandwidth
36.031 MHz
Total Power
10.7 dBm
Transmit Freq Error
-49.372 kHz
OBW Power
99.00 %
x dB Bandwidth
39.77 MHz
x dB
-26.00 dB
Detector
Average
Auto
Man
MSG
STATUS

Temperature：	26 ℃	Relative Humidity：	54%
Pressure：	101kPa	Test Voltage ：	DC 3.7V
Test Mode ：	TX Frequency Band IV(5745-5850MHz)		

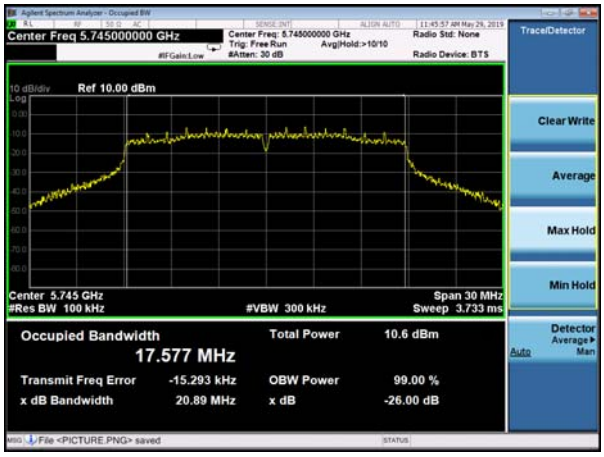
Mode	Channel	Frequency (MHz)	99% bandwidth(MHz)	26dB bandwidth (MHz)	Result
802.11a	CH149	5745	16.402	21.66	Pass
	CH157	5785	16.381	21.03	Pass
	CH165	5825	16.354	20.63	Pass
802.11 n20	CH149	5745	17.577	20.89	Pass
	CH157	5785	17.560	20.72	Pass
	CH165	5825	17.573	20.75	Pass
802.11 n40	CH151	5755	35.918	39.33	Pass
	CH159	5795	35.924	39.43	Pass
802.11 AC20	CH149	5745	17.560	21.29	Pass
	CH157	5785	17.581	21.70	Pass
	CH165	5825	17.571	20.55	Pass
802.11 AC40	CH151	5755	35.935	39.43	Pass
	CH159	5795	35.919	39.59	Pass
802.11 AC80	CH155	5775	75.178	78.31	Pass

Test plot

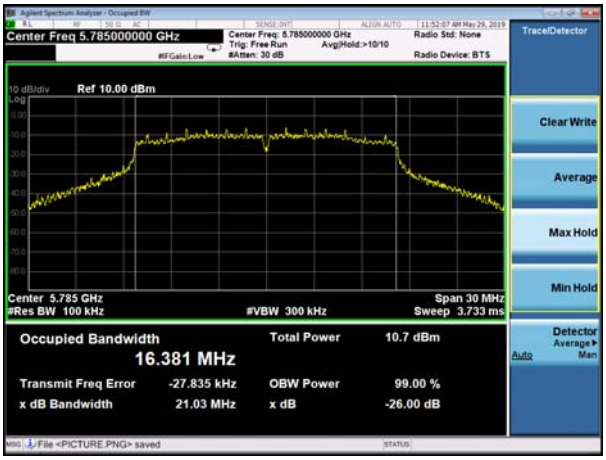
(802.11a) -26dB&99%Bandwidth plot on channel 149



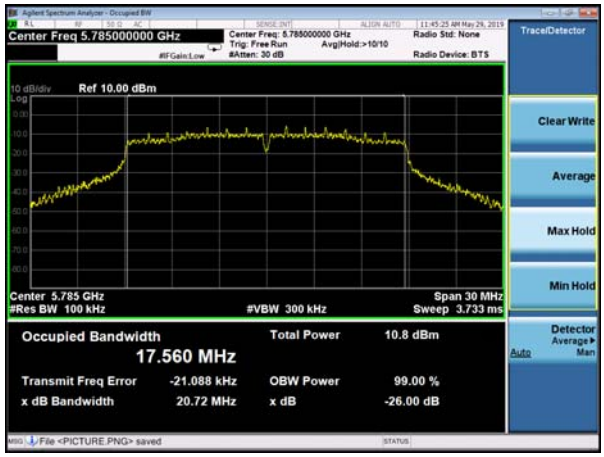
(802.11 n20) -26dB&99%Bandwidth plot on channel 149



(802.11a) -26dB&99%Bandwidth plot on channel 157

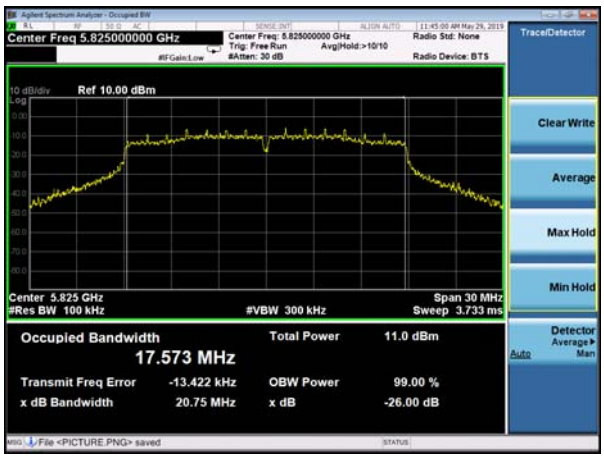


(802.11 n20) -26dB&99%Bandwidth plot on channel 157



(802.11a) -26dB&99%Bandwidth plot on channel 165

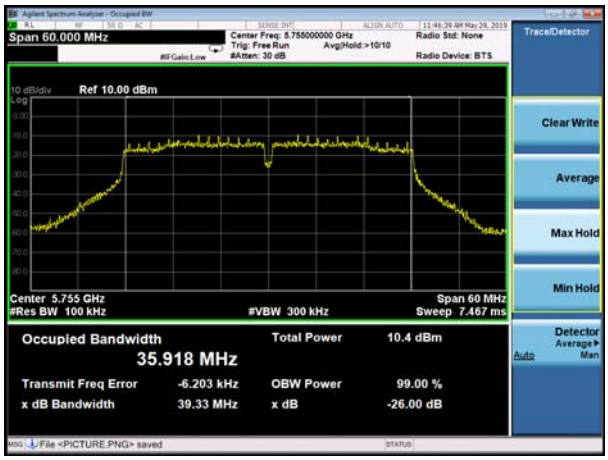
(802.11 n20) -26dB&99%Bandwidth plot on channel 165

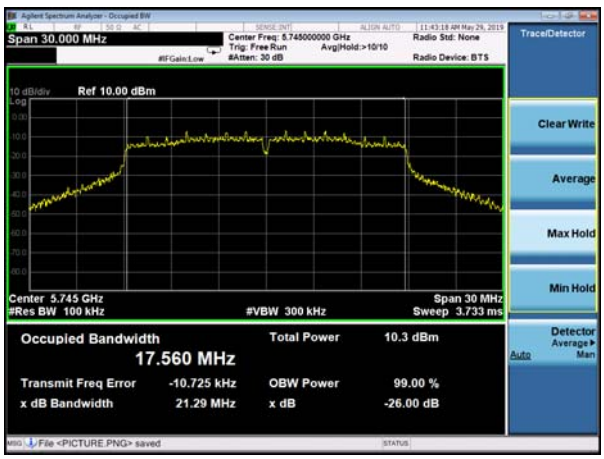


Test plot

(802.11 n40) -26dB&99%Bandwidth plot on channel 151

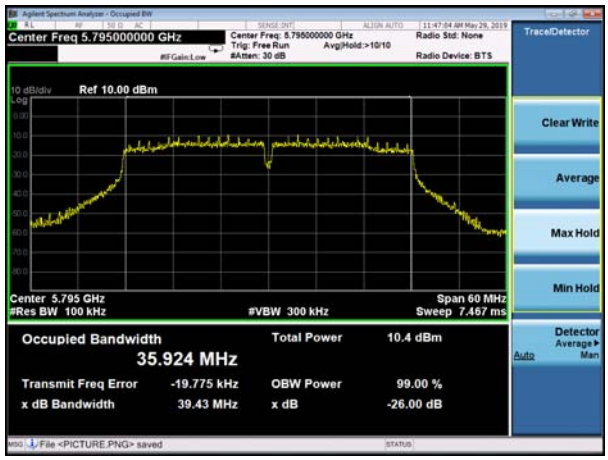
(802.11 AC20) -26dB&99%Bandwidth plot on channel 149





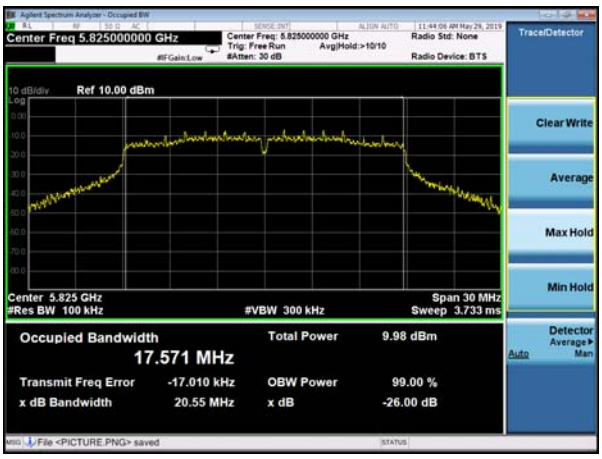
(802.11 n40) -26dB&99%Bandwidth plot on channel 159

(802.11 AC20) -26dB&99%Bandwidth plot on channel 157



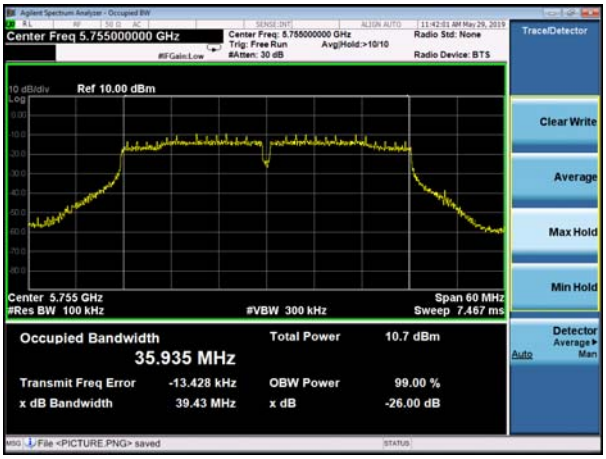
(802.11 AC20) -26dB&99%Bandwidth plot on

channel 165

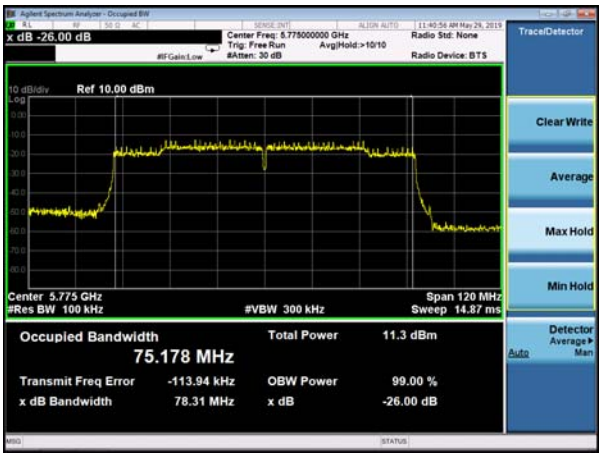


Test plot

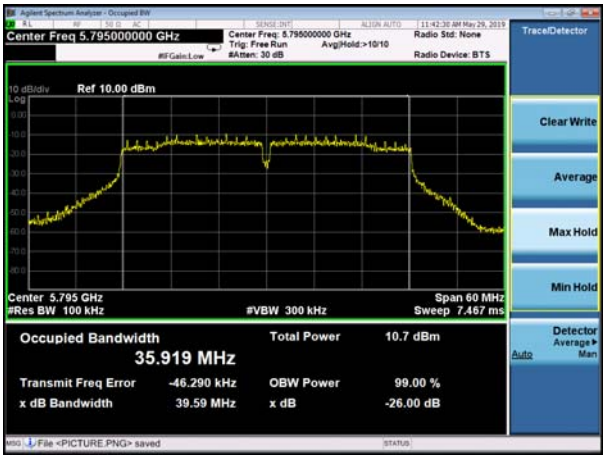
(802.11 AC40) -26dB&99%Bandwidth plot on channel 151



(802.11 AC80) -26dB&99%Bandwidth plot on channel 155



(802.11 AC40) -26dB&99%Bandwidth plot on channel 159


Center Freq 5.795000000 GHz
Center Freq: 5.795000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#Atten: 30 dB
Radio Std: None
Radio Device: BTS
Trace/Detector
10 dB/div
Ref 10.00 dBm
Log
Clear Write
Average
Max Hold
Min Hold
Center 5.795 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 60 MHz
Sweep 7.467 ms
Occupied Bandwidth
35.919 MHz
Total Power
10.7 dBm
Transmit Freq Error
-46.290 kHz
OBW Power
99.00 %
x dB Bandwidth
39.59 MHz
x dB
-26.00 dB
Detector
Average
Auto
Man
File <PICTURE.PNG> saved

6. MINIMUM 6 DB BANDWIDTH

6.1 APPLIED PROCEDURES / LIMIT

According to FCC §15.407(e)
(e) Within the 5.725-5.85 GHz band, the minimum 6 dB bandwidth of U-NII devices shall be at least 500 kHz.

6.2 TEST PROCEDURE

Section 15.407(e) specifies the minimum 6 dB emission bandwidth of at least 500 KHz for the band 5.715-5.85 GHz. The following procedure shall be used for measuring this bandwidth:

a) Set RBW = 100 kHz.

b) Set the video bandwidth (VBW) ≥ 3 × RBW.

c) Detector = Peak.

d) Trace mode = max hold.

e) Sweep = auto couple.

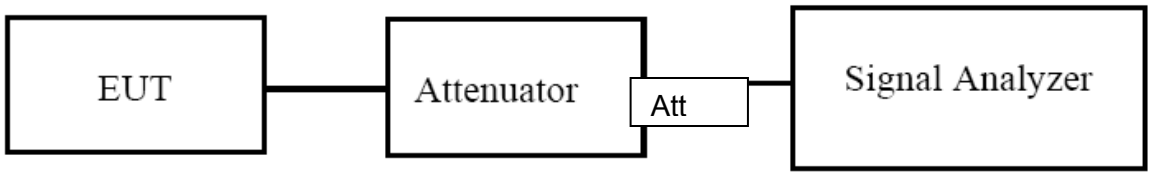
f) Allow the trace to stabilize.

g) Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

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 ：	DC 3.7V
Test Mode ：	TX Frequency Band I (5150-5250MHz)		

Mode	Channel	Frequency (MHz)	6dB bandwidth (MHz)	Limit (KHz)	Result
802.11a	CH36	5180	14.35	≧500	Pass
	CH40	5200	13.78	≧500	Pass
	CH48	5240	14.43	≧500	Pass
802.11 n20	CH36	5180	14.00	≧500	Pass
	CH40	5200	15.68	≧500	Pass
	CH48	5240	12.63	≧500	Pass
802.11 n40	CH 38	5190	35.05	≧500	Pass
	CH 46	5230	35.08	≧500	Pass
802.11 AC20	CH36	5180	11.90	≧500	Pass
	CH40	5200	15.60	≧500	Pass
	CH48	5240	15.08	≧500	Pass
802.11 AC40	CH 38	5190	33.13	≧500	Pass
	CH 46	5230	35.02	≧500	Pass
802.11 AC80	CH 42	5210	73.95	≧500	Pass

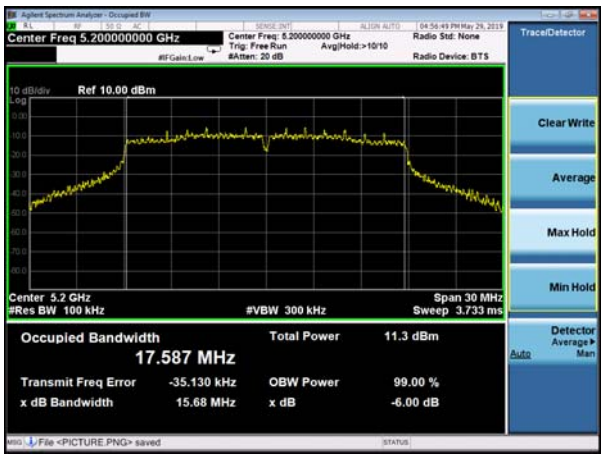
Test plot

(802.11a) 6dB Bandwidth plot on channel 36

(802.11 n20) 6dB Bandwidth plot on channel 36

(802.11a) 6dB Bandwidth plot on channel 40

(802.11 n20) 6dB Bandwidth plot on channel 40

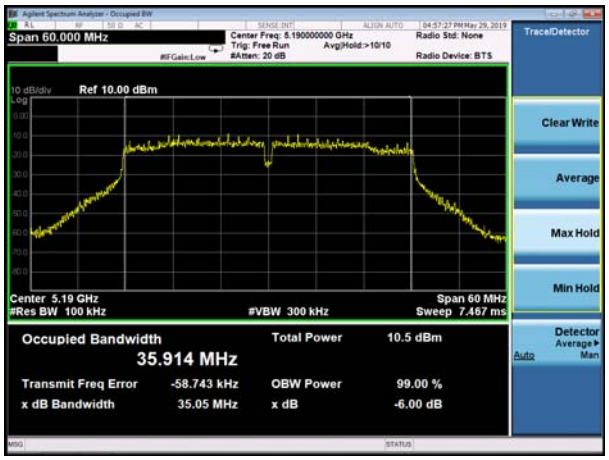


(802.11a) 6dB Bandwidth plot on channel 48

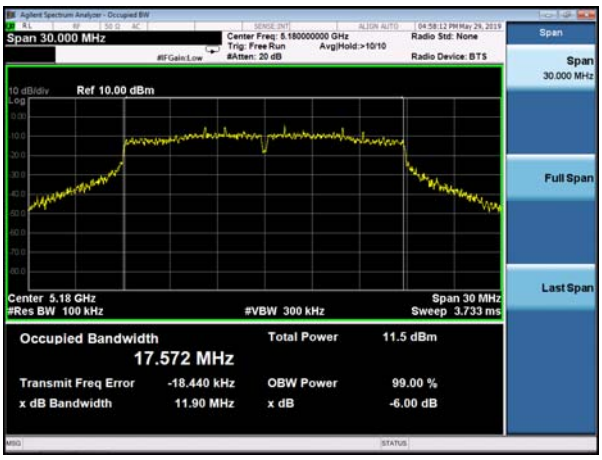
(802.11 n20) 6dB Bandwidth plot on channel 48

Test plot

(802.11 n40) 6dB Bandwidth plot on channel 38



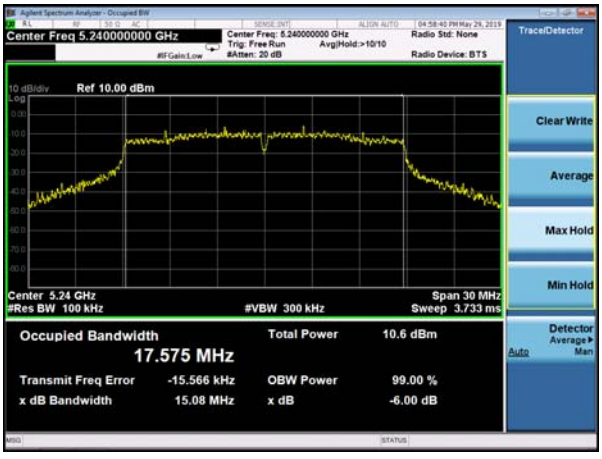
(802.11 AC20) 6dB Bandwidth plot on channel 36



(802.11 n40) 6dB Bandwidth plot on channel 46

(802.11 AC20) 6dB Bandwidth plot on channel 40

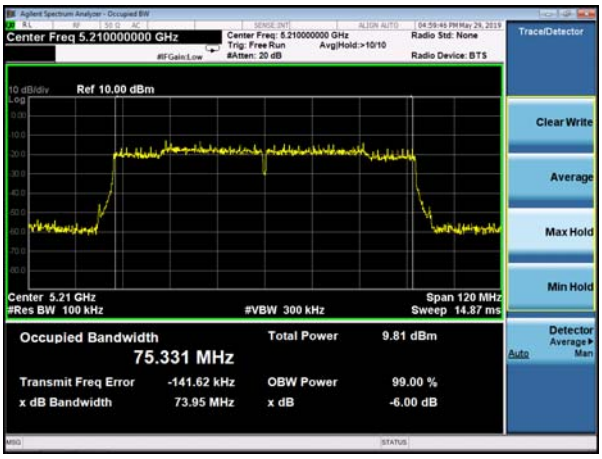
(802.11 AC20) 6dB Bandwidth plot on channel 48



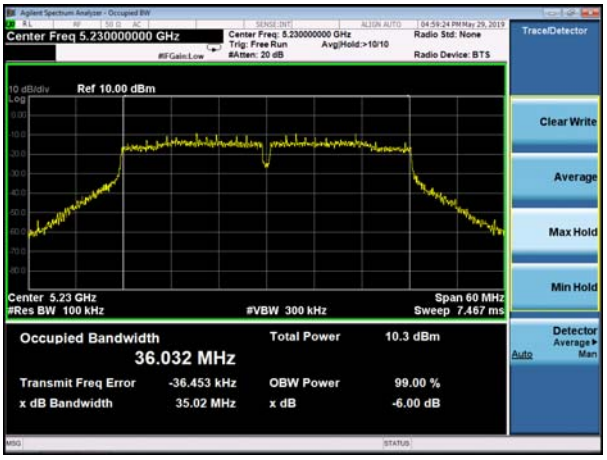
Test plot

(802.11 AC40) 6dB Bandwidth plot on channel 38

(802.11 AC80) 6dB Bandwidth plot on channel 42



(802.11 AC40) 6dB Bandwidth plot on channel 46



7. MAXIMUM CONDUCTED OUTPUT POWER

7.1 PPLIED PROCEDURES / LIMIT

According to FCC §15.407

The maximum conduced output power should not exceed:

Frequency Band(MHz)	Limit
5150~5250	250mW
5725~5850	1W

The maximum e.i.r.p should not exceed:

Frequency Band(MHz)	Limit
5150~5250	200mW or 10dBm +10logB whichever is less
5725~5850	N/A

Note: Where “B” is the 99% emission bandwidth in MHz

7.2 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".

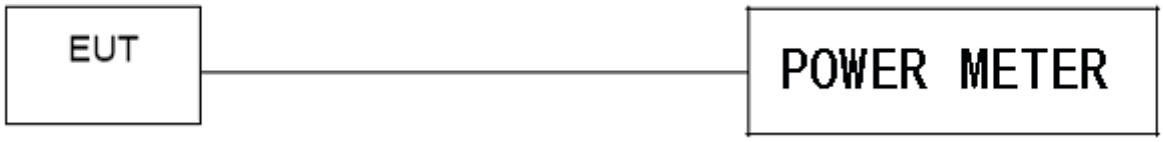
(viii) Trace average at least 100 traces in power averaging (i.e., RMS) mode.

(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

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 ：	DC 3.7V
Test Mode ：	TX (5G) Mode Frequency Band I (5150-5250MHz)		

Test Channel	Frequency (MHz)	Maximum output power. Antenna port (AV) (dBm)	LIMIT dBm	Result
TX 802.11a Mode				
CH36	5180	6.86	23.98	Pass
CH40	5200	7.05	23.98	Pass
CH48	5240	6.16	23.98	Pass
TX 802.11 n20M Mode				
CH36	5180	6.92	23.98	Pass
CH40	5200	6.78	23.98	Pass
CH48	5240	6.63	23.98	Pass
TX 802.11 n40M Mode				
CH38	5190	5.36	23.98	Pass
CH46	5230	4.64	23.98	Pass
TX 802.11 AC20M Mode				
CH36	5180	7.46	23.98	Pass
CH40	5200	7.48	23.98	Pass
CH48	5240	6.69	23.98	Pass
TX 802.11 AC40M Mode				
CH38	5190	5.25	23.98	Pass
CH46	5230	5.66	23.98	Pass
TX 802.11 AC80M Mode				
CH42	5210	4.25	23.98	Pass

Temperature：	26 ℃	Relative Humidity：	54%
Pressure：	101kPa	Test Voltage ：	DC 3.7V
Test Mode ：	TX (5G) Mode Frequency Band IV (5725-5825MHz)		

Test Channel	Frequency (MHz)	Maximum output power. Antenna port (AV) (dBm)	LIMIT dBm	Result
TX 802.11a Mode				
CH 149	5745	6.90	30	Pass
CH 157	5785	6.08	30	Pass
CH 165	5825	6.65	30	Pass
TX 802.11 n20M Mode				
CH 149	5745	6.13	30	Pass
CH 157	5785	6.29	30	Pass
CH 165	5825	6.63	30	Pass
TX 802.11 n40M Mode				
CH 151	5755	6.18	30	Pass
CH 159	5795	6.77	30	Pass
TX 802.11 AC20M Mode				
CH 149	5745	6.37	30	Pass
CH 157	5785	6.57	30	Pass
CH 165	5825	6.44	30	Pass
TX 802.11 AC40M Mode				
CH 151	5755	6.26	30	Pass
CH 159	5795	6.17	30	Pass
TX 802.11 AC80M Mode				
CH 155	5775	4.66	30	Pass

8. OUT OF BAND EMISSIONS

8.1 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) For transmitters operating in the 5.725-5.85 GHz band: All emissions within the frequency range from the band edge to 10 MHz above or below the band edge shall not exceed an e.i.r.p. of −17 dBm/MHz; for frequencies 10 MHz or greater above or below the band edge, emissions shall not exceed an e.i.r.p. of −27 dBm/MHz.

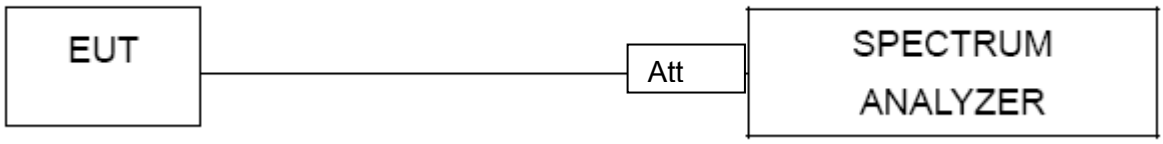
8.2 TEST PROCEDURE

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.

8.3 DEVIATION FROM STANDARD

No deviation.

8.4 TEST SETUP



8.5 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.

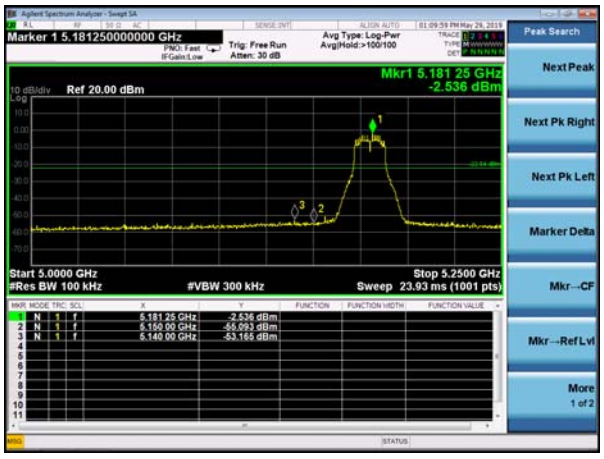
8.6 TEST RESULTS

Temperature：	26 ℃	Relative Humidity：	54%
Pressure：	101kPa	Test Voltage ：	DC 3.7V

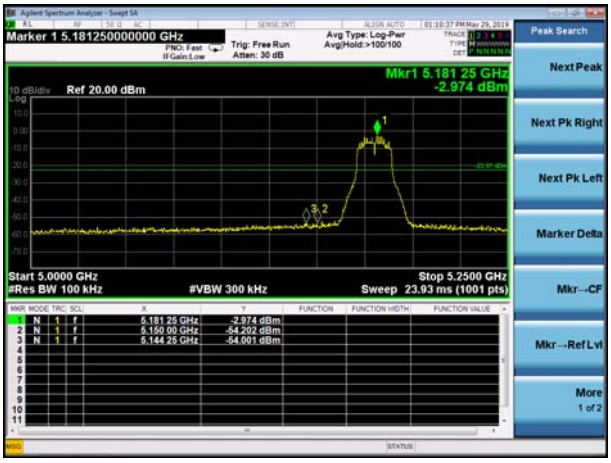
5.2G

5.15~5.25 GHz

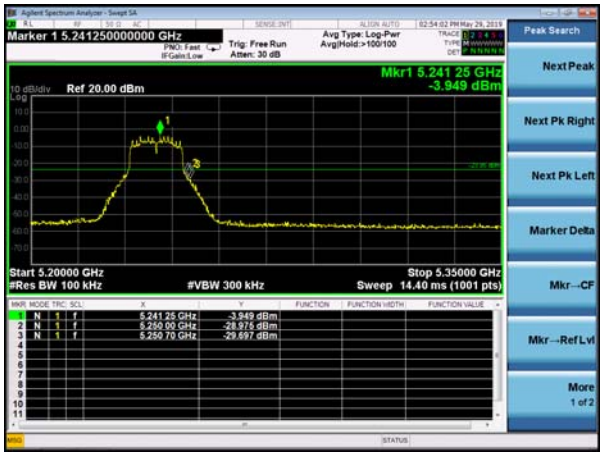
(802.11a) Band Edge, Left Side



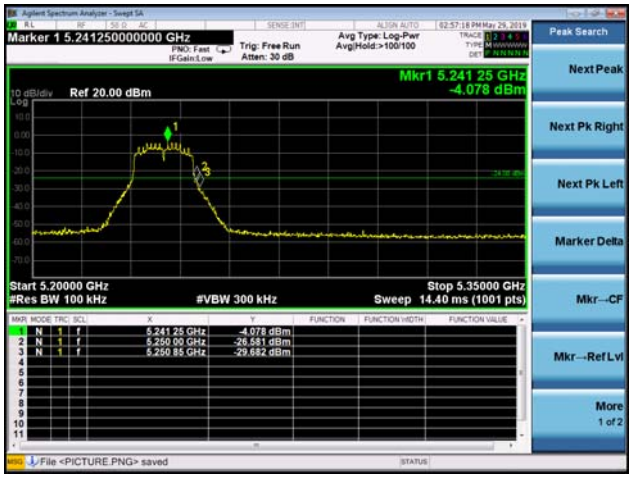
(802.11n20) Band Edge, Left Side



(802.11a) Band Edge, Right Side

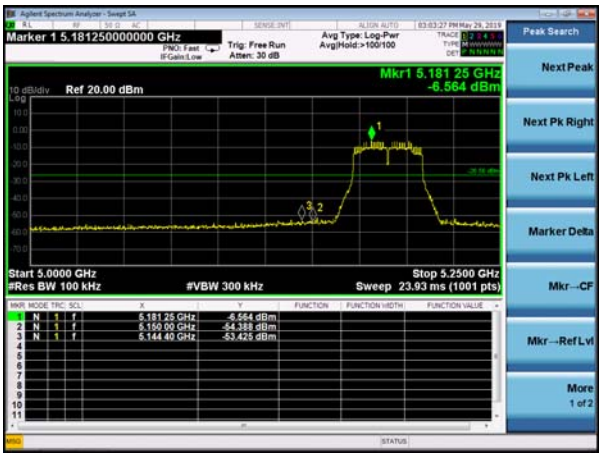


(802.11n20) Band Edge, Right Side

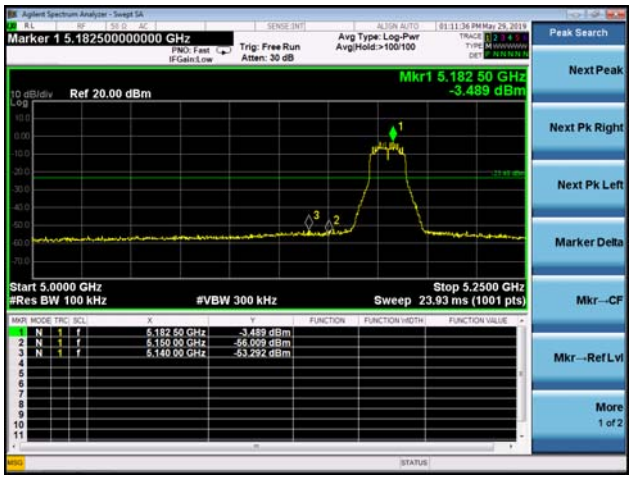


5.15~5.25 GHz

(802.11n40) Band Edge, Left Side

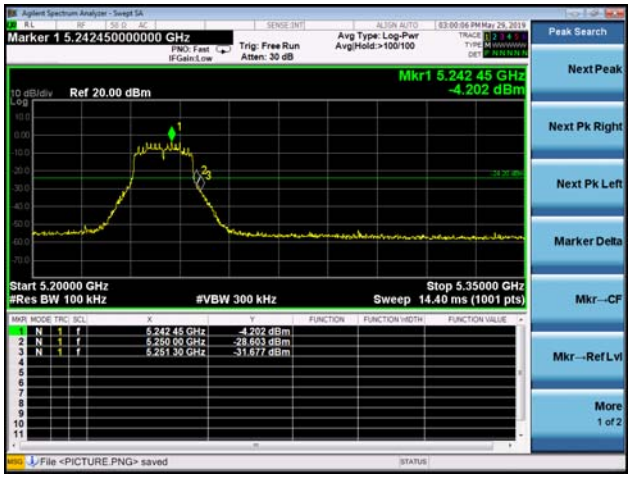


(802.11ac20) Band Edge, Left Side



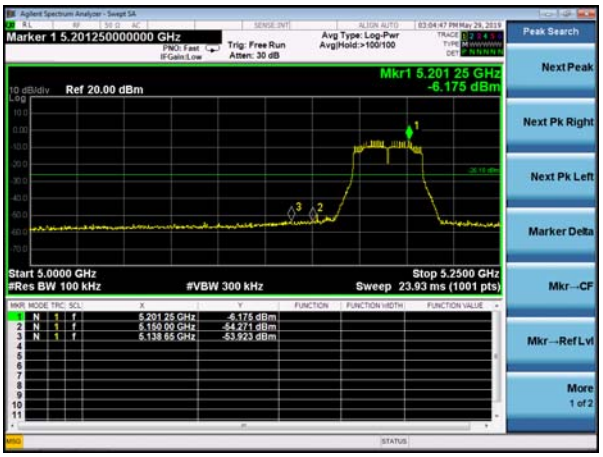
(802.11n40) Band Edge, Right Side

(802.11ac20) Band Edge, Right Side

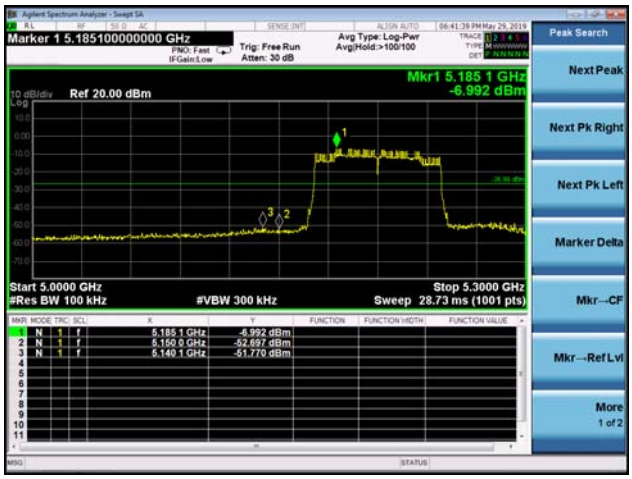


5.15~5.25 GHz

(802.11ac40) Band Edge, Left Side



(802.11ac80) Band Edge



(802.11ac40) Band Edge, Right Side

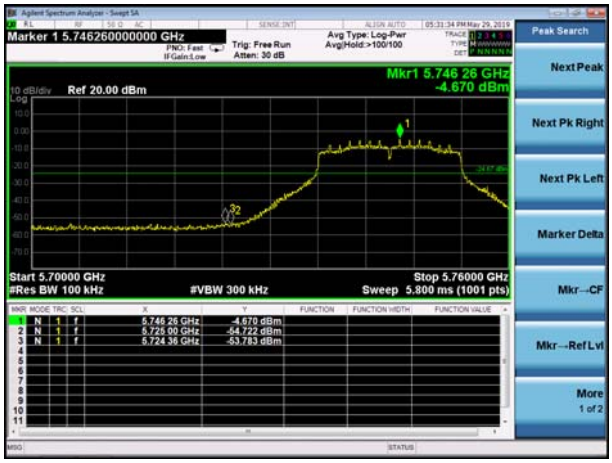
(802.11ac80) Band Edge, Right Side

5.8G

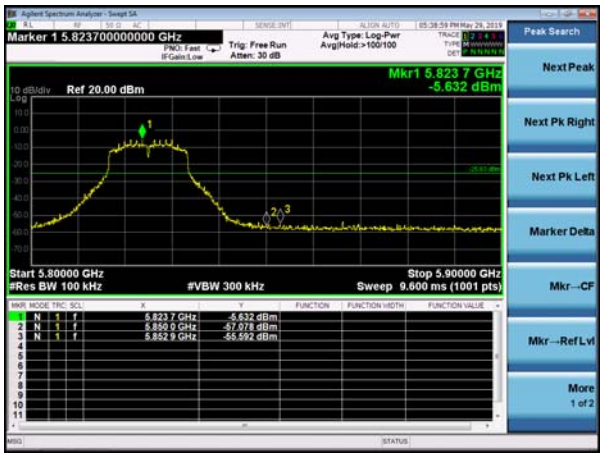
5.75~5.85 GHz

(802.11a) Band Edge, Left Side

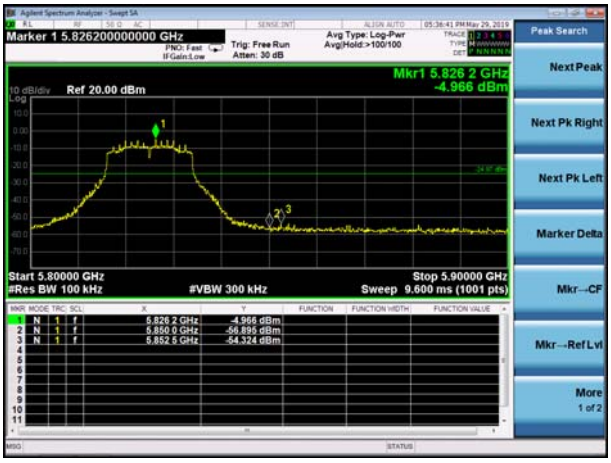
(802.11n20) Band Edge, Left Side



(802.11a) Band Edge, Right Side



(802.11n20) Band Edge, Right Side

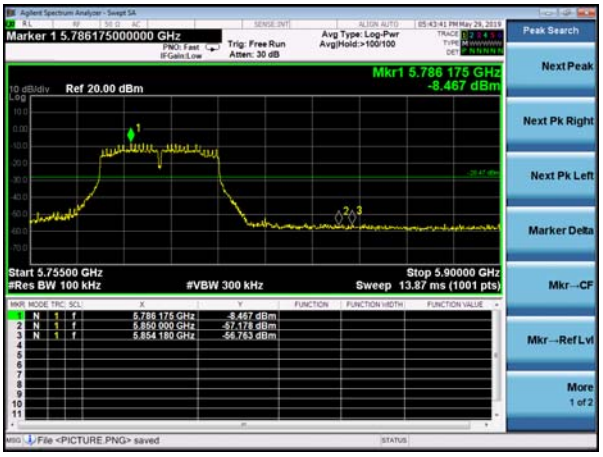


5.75~5.85 GHz

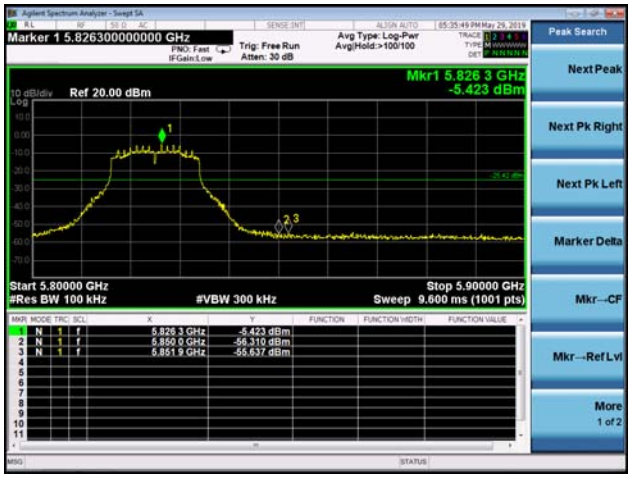
(802.11n40) Band Edge, Left Side

(802.11ac20) Band Edge, Left Side

(802.11n40) Band Edge, Right Side



(802.11ac20) Band Edge, Right Side

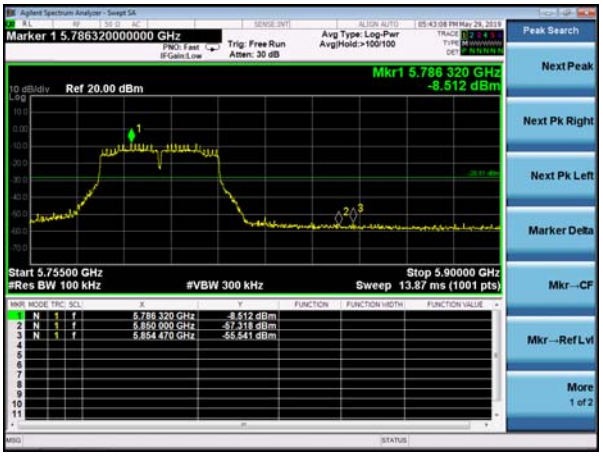


5.75~5.83 GHz

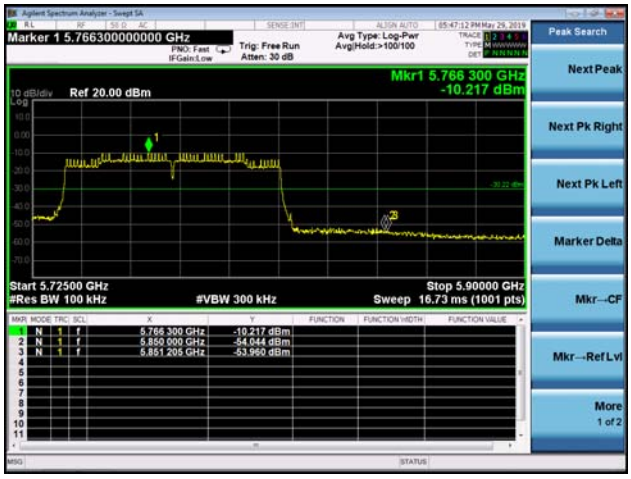
(802.11ac40) Band Edge, Left Side

(802.11ac80) Band Edge, Left Side

(802.11ac40) Band Edge, Right Side



(802.11ac80) Band Edge, Right Side



9.SPURIOUS RF CONDUCTED EMISSIONS

9.1CONFORMANCE 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.

9.2MEASURING INSTRUMENTS

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

9.3TEST SETUP

Please refer to Section 6.1 of this test report.

9.4TEST 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.

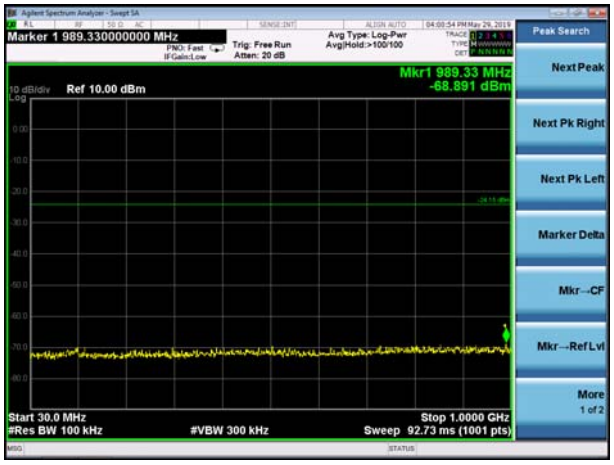
9.5TEST RESULTS

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.

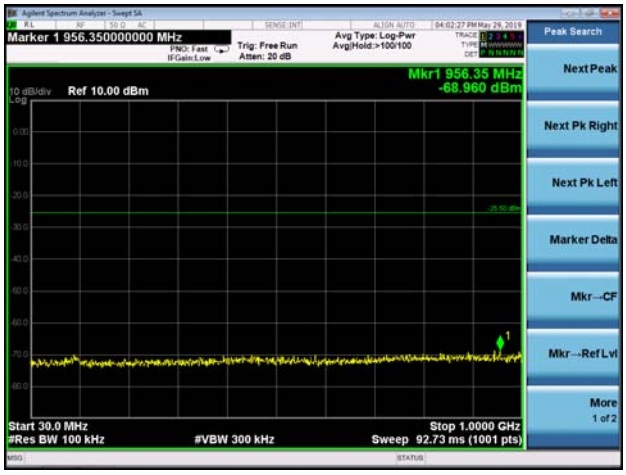
5.2G

Test Plot

802.11a on channel 36

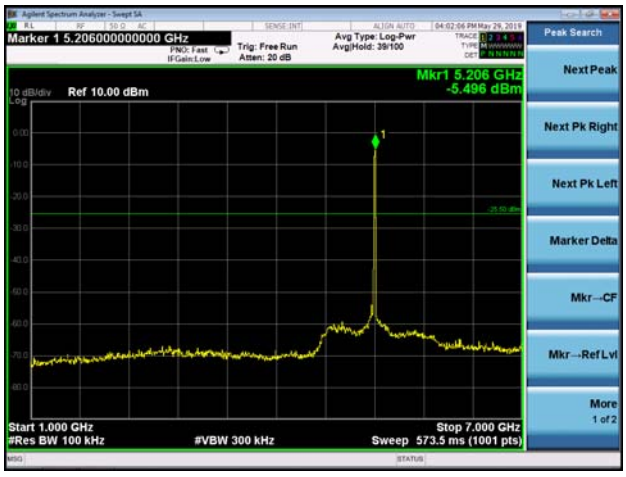


802.11a on channel 40



802.11a on channel 36

802.11a on channel 40

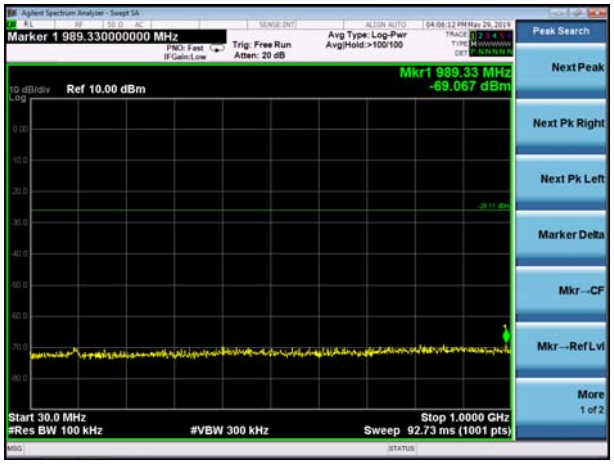


802.11a on channel 36

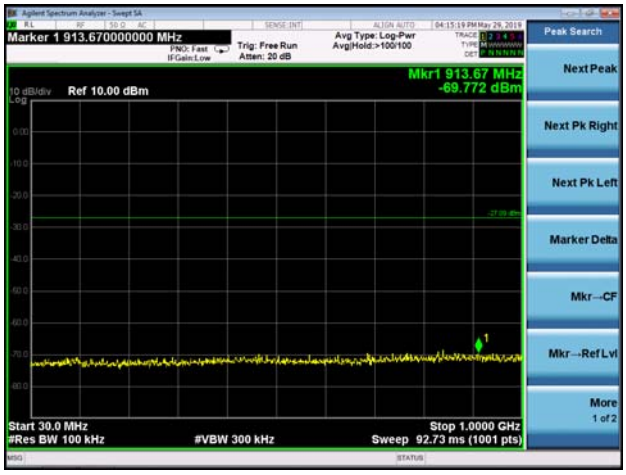
802.11a on channel 40

Test Plot

802.11a on channel 48



802.11n20 on channel 36



802.11a on channel 48

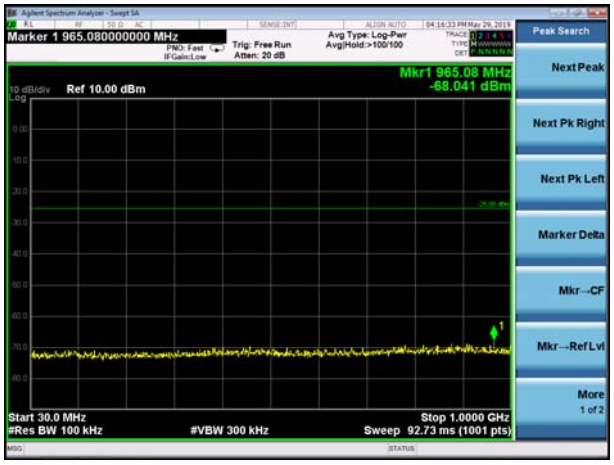
802.11n20 on channel 36

802.11a on channel 48

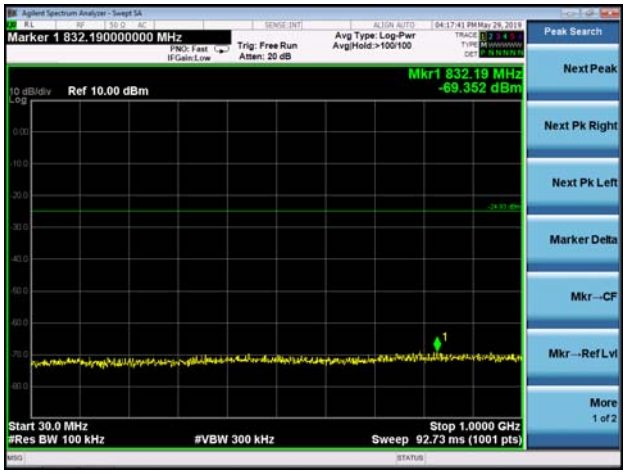
802.11n20 on channel 36

Test Plot

802.11n20 on channel 40



802.11n20 on channel 48



802.11n20 on channel 40

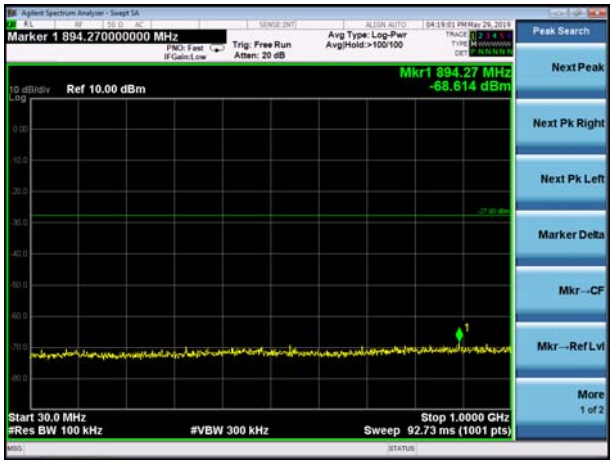
802.11n20 on channel 48

802.11n20 on channel 40

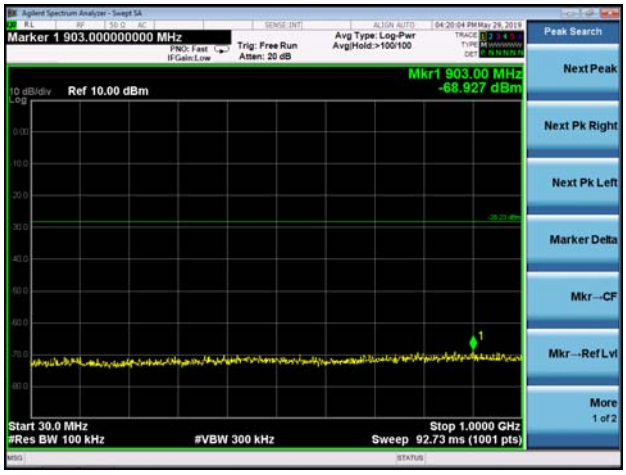
802.11n20 on channel 48

Test Plot

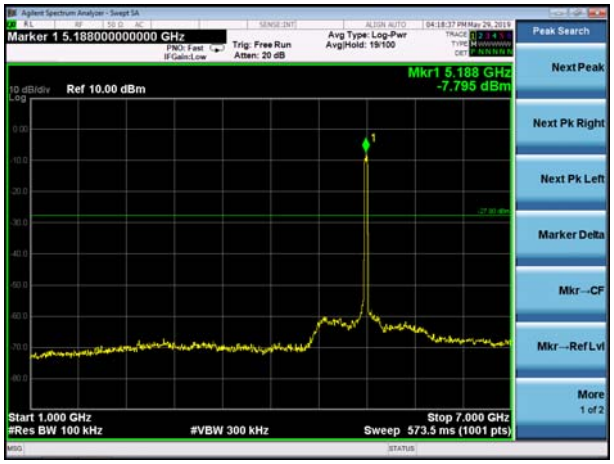
802.11n40 on channel 38



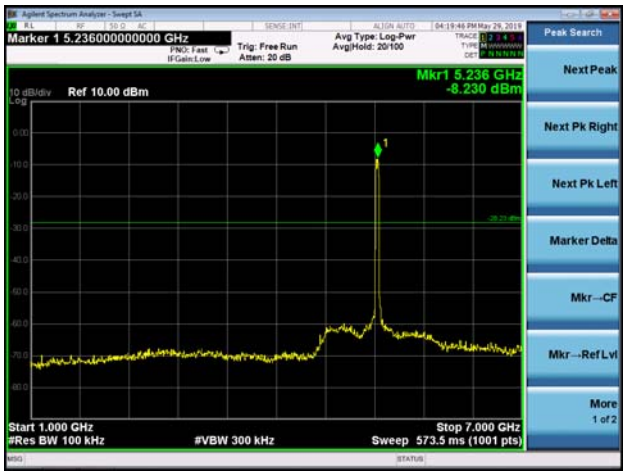
802.11n40 on channel 46



802.11n40 on channel 38



802.11n40 on channel 46

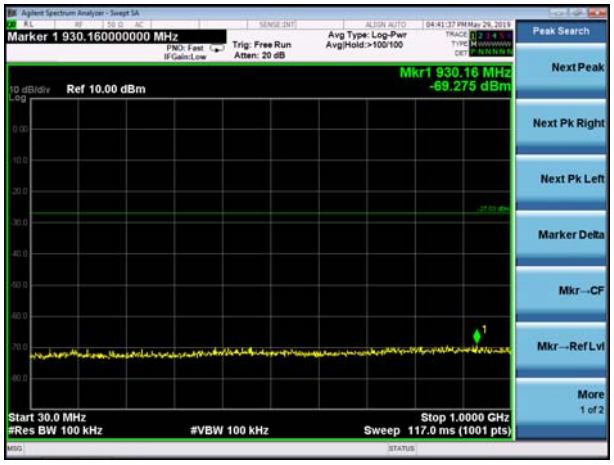


802.11n40 on channel 38

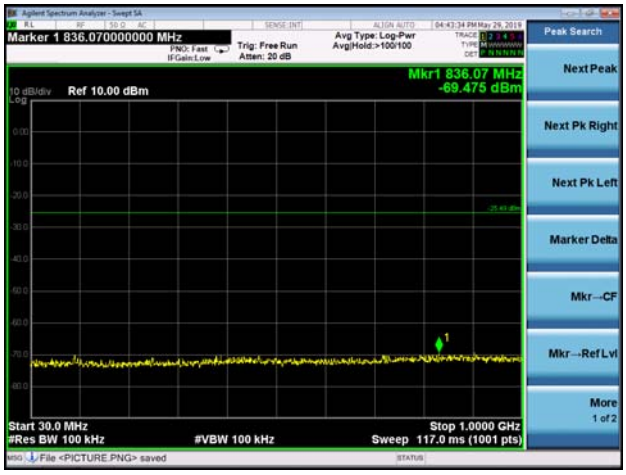
802.11n40 on channel 46

Test Plot

802.11ac20 on channel 36



802.11ac20 on channel 40



802.11ac20 on channel 36

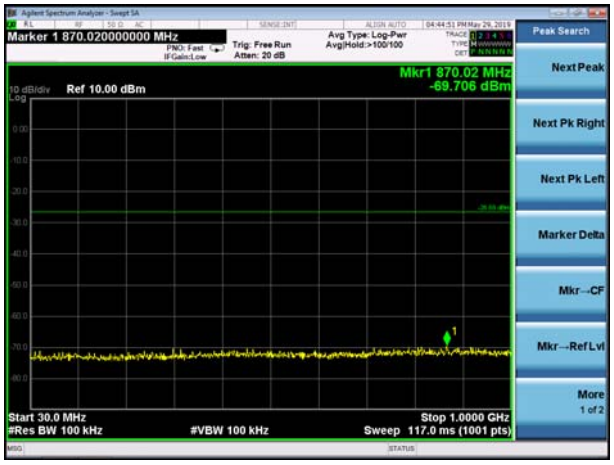
802.11ac20 on channel 40

802.11ac20 on channel 36

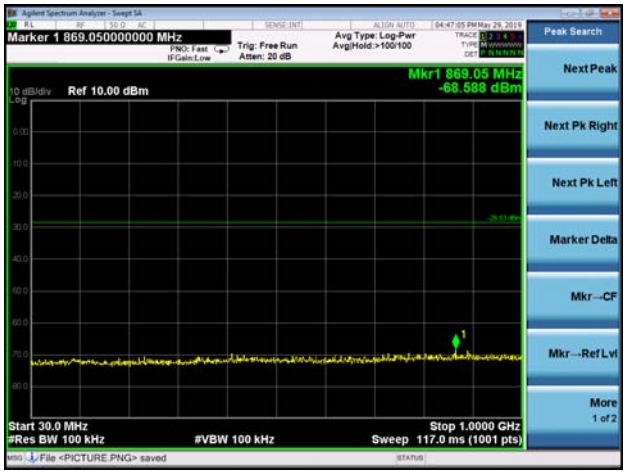
802.11ac20 on channel 40

Test Plot

802.11ac20 on channel 48

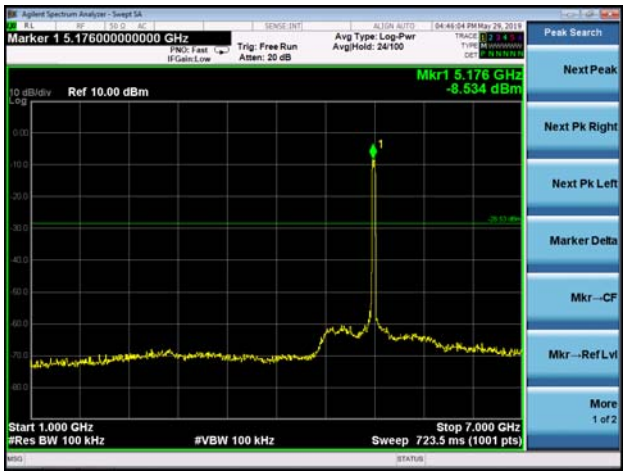


802.11ac40 on channel 38



802.11ac20 on channel 48

802.11ac40 on channel 38

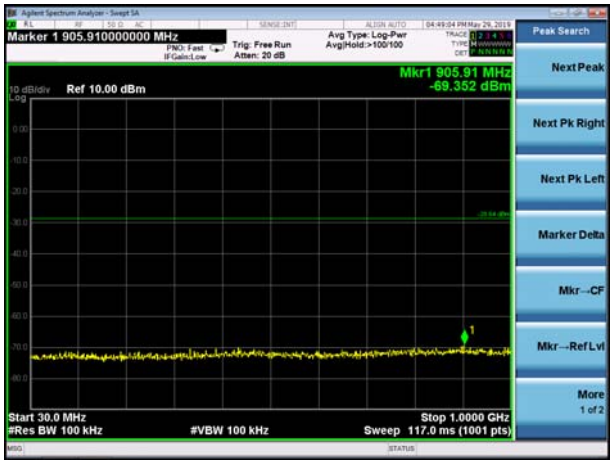


802.11ac20 on channel 48

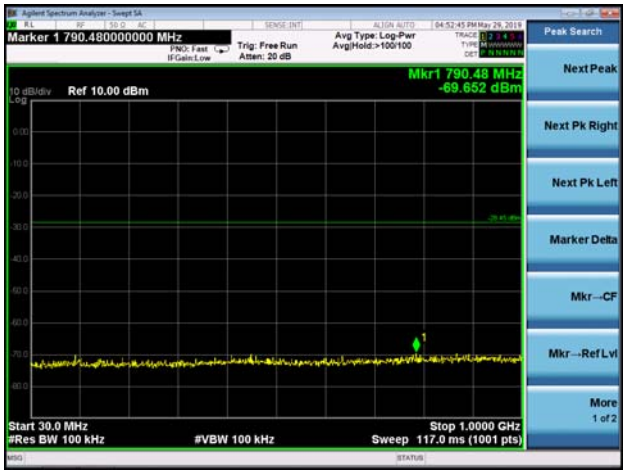
802.11ac40 on channel 38

Test Plot

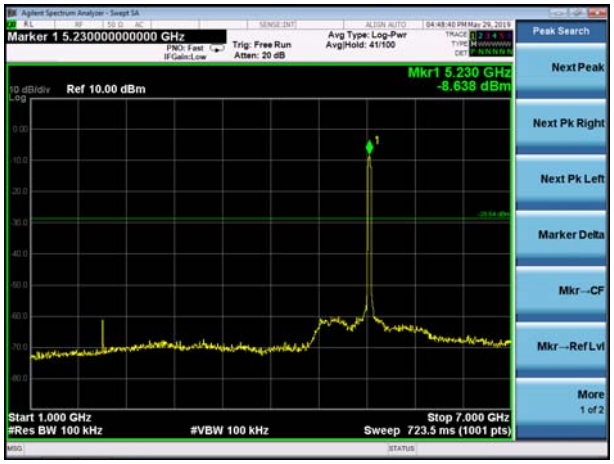
802.11ac40 on channel 46



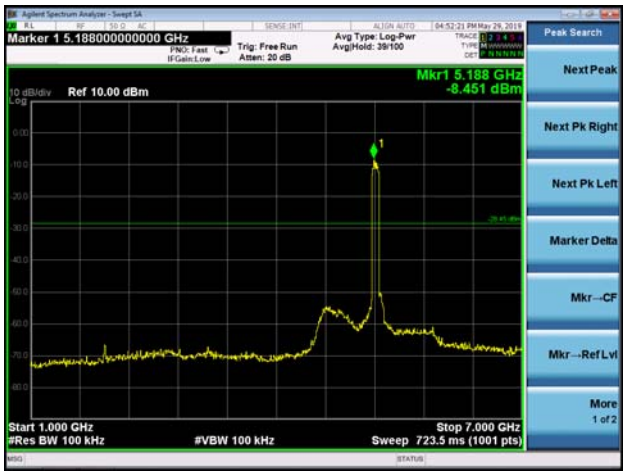
802.11ac80 on channel 42



802.11 ac40 on channel 46



802.11 ac80 on channel 42



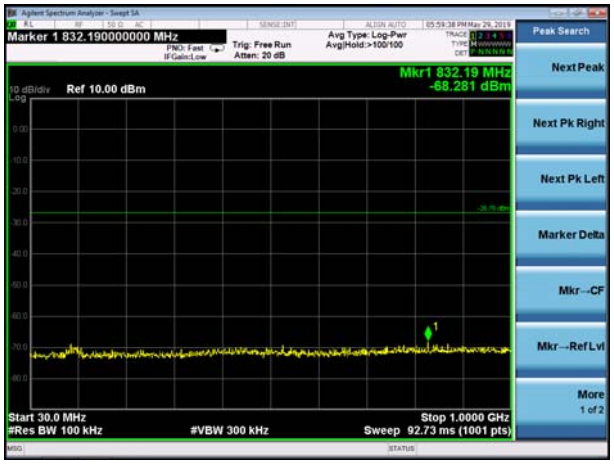
802.11 ac40 on channel 46

802.11 ac80 on channel 42

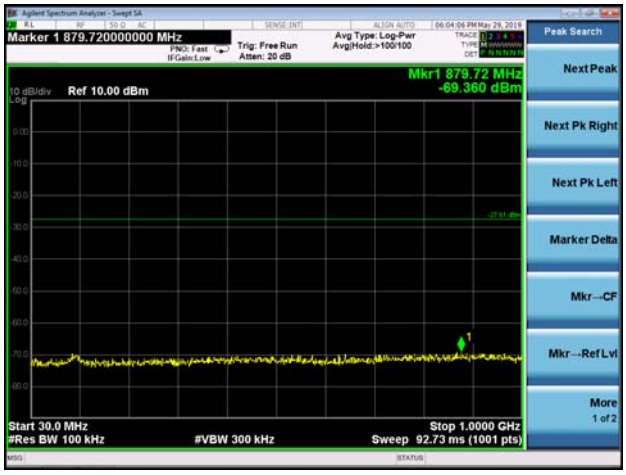
5.8G

Test Plot

802.11a on channel 149



802.11a on channel 157



802.11a on channel 149

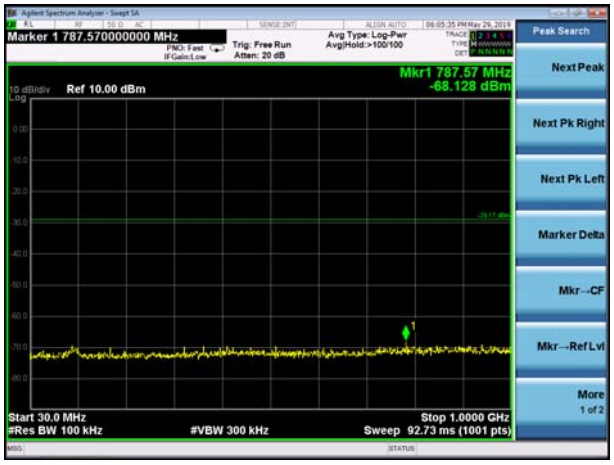
802.11a on channel 157

802.11a on channel 149

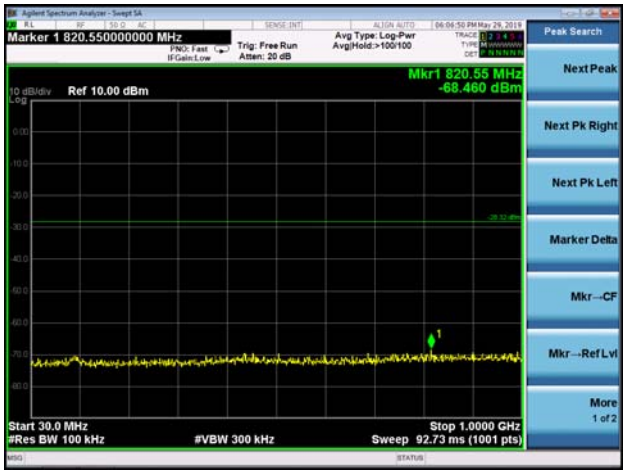
802.11a on channel 157

Test Plot

802.11a on channel 165



802.11n20 on channel 149



802.11a on channel 165

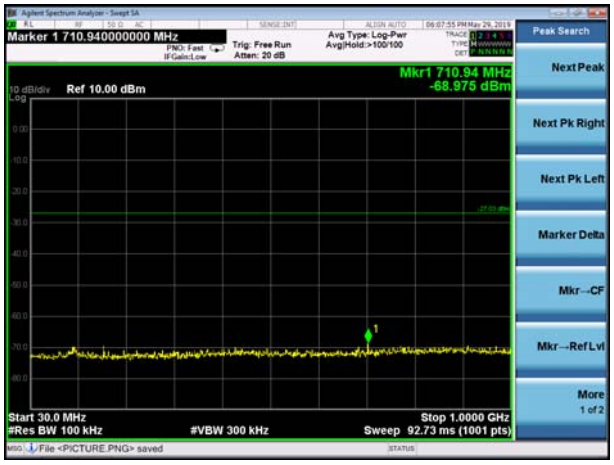
802.11n20 on channel 149

802.11a on channel 165

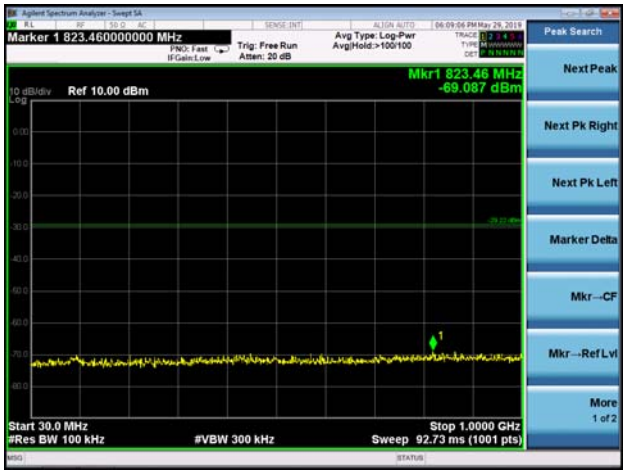
802.11n20 on channel 149

Test Plot

802.11n20 on channel 157



802.11n20 on channel 165



802.11n20 on channel 157

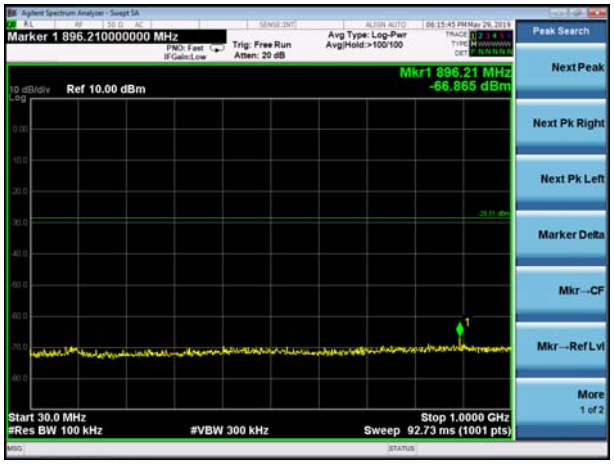
802.11n20 on channel 165

802.11n20 on channel 157

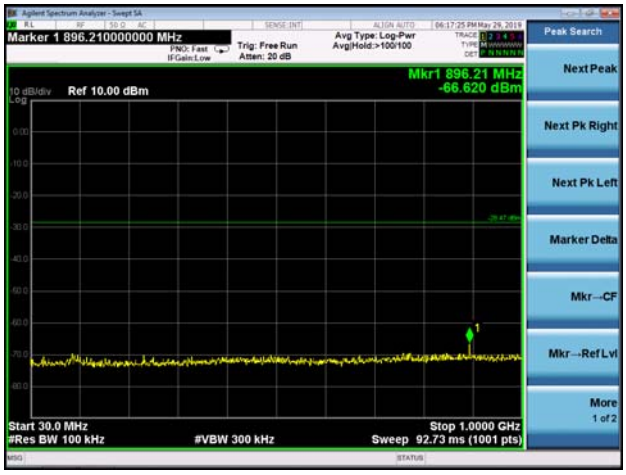
802.11n20 on channel 165

Test Plot

802.11n40 on channel 151



802.11n40 on channel 159



802.11n40 on channel 151

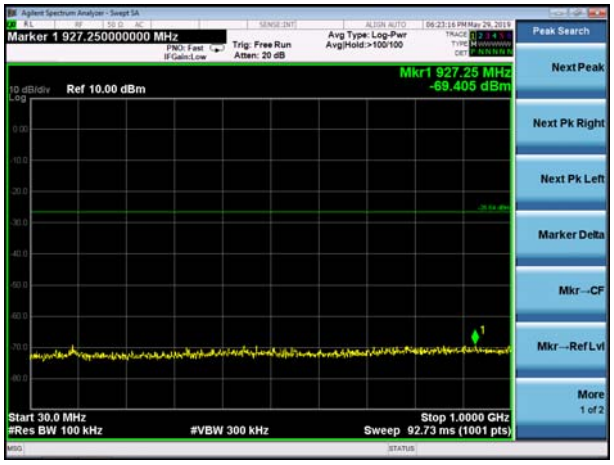
802.11n40 on channel 159

802.11n40 on channel 151

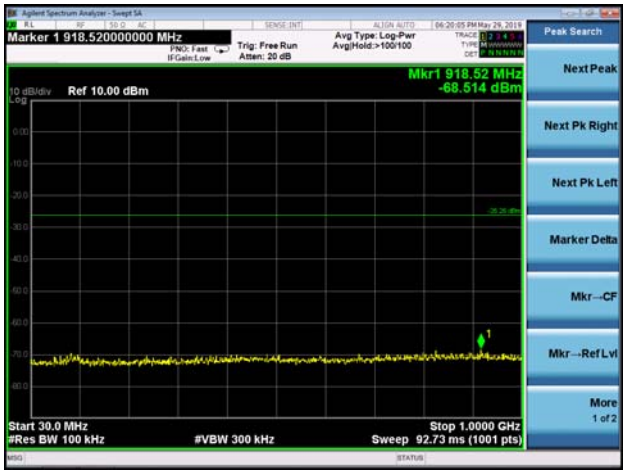
802.11n40 on channel 159

Test Plot

802.11ac20 on channel 149



802.11ac20 on channel 157



802.11ac20 on channel 149

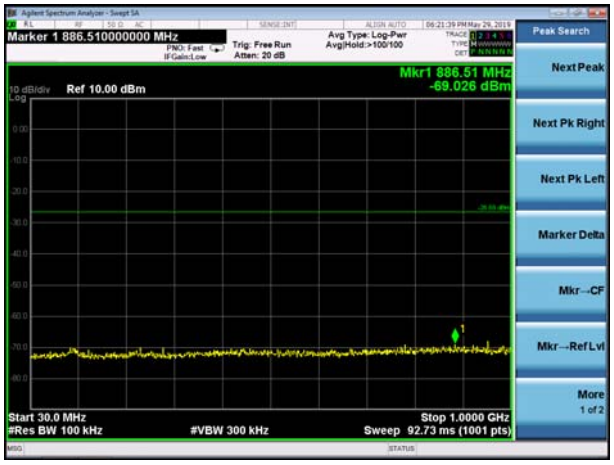
802.11ac20 on channel 157

802.11ac20 on channel 149

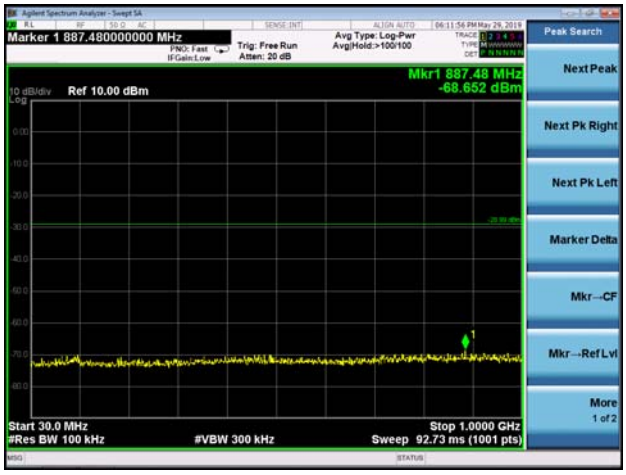
802.11ac20 on channel 157

Test Plot

802.11ac20 on channel 165



802.11ac40 on channel 151



802.11ac20 on channel 165

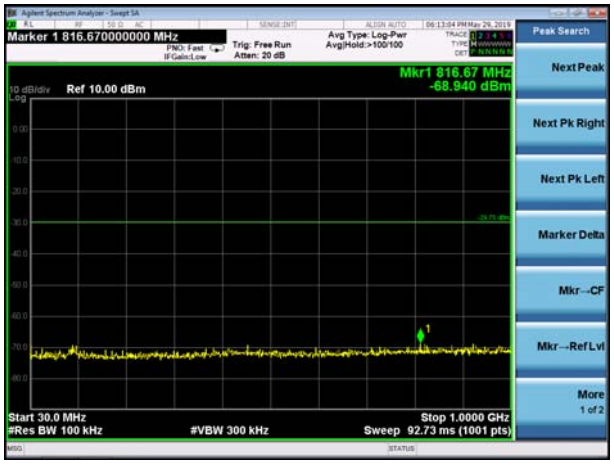
802.11ac40 on channel 151

802.11ac20 on channel 165

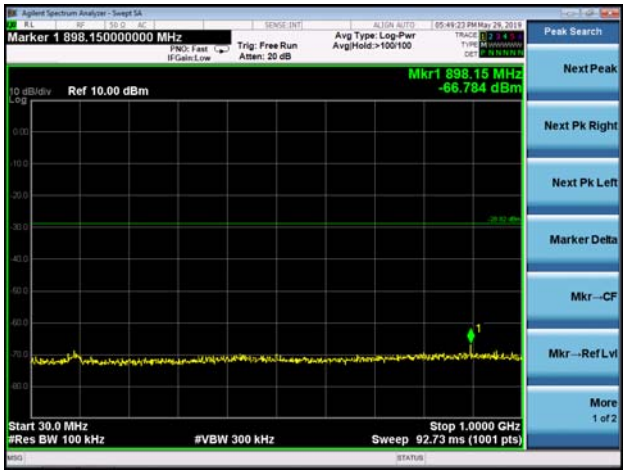
802.11ac40 on channel 151

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

10. Frequency Stability Measurement

10.1 LIMIT

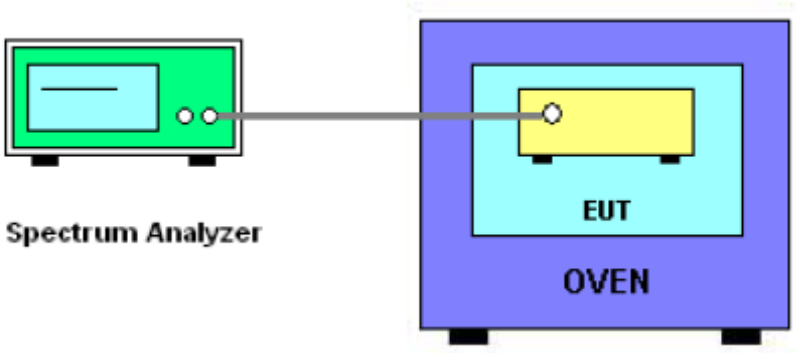
Manufactures of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified in the user's manual.

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

10.2 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 (fc-f)/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.

10.3 TEST SETUP LAYOUT



10.4 EUT OPERATION DURING TEST

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

10.5 TEST RESULTS

Temperature：	26 ℃	Relative Humidity：	54%
Pressure：	101kPa	Test Voltage ：	DC 3.7V
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)	3.70	5180.0522	5180	0.0522	-10.0772
		V max (V)	4.26	5180.0328	5180	0.0328	-6.3320
		V min (V)	3.15	5180.0241	5180	0.0241	-4.6525
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)	3.7	T (°C)	-20	5180.0056	5180	0.0056	-1.0811
		T (°C)	-10	5180.0103	5180	0.0103	-1.9884
		T (°C)	0	5180.0329	5180	0.0329	-6.3514
		T (°C)	10	5180.0382	5180	0.0382	-7.3745
		T (°C)	20	5180.0292	5180	0.0292	-5.6371
		T (°C)	30	5180.0211	5180	0.0211	-4.0734
		T (°C)	40	5180.0128	5180	0.0128	-2.4710
		T (°C)	50	5180.0091	5180	0.0091	-1.7568
		T (°C)	60	5180.0415	5180	0.0415	-8.0116
		T (°C)	70	5180.0690	5180	0.0690	-13.3205
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)	3.70	5200.0254	5200	0.0254	-4.8846
		V max (V)	4.26	5200.0427	5200	0.0427	-8.2115
		V min (V)	3.15	5200.0699	5200	0.0699	-13.4423
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)	3.7	T (°C)	-20	5200.0631	5200	0.0631	-12.1346
		T (°C)	-10	5200.0527	5200	0.0527	-10.1346
		T (°C)	0	5200.0433	5200	0.0433	-8.3269
		T (°C)	10	5200.0926	5200	0.0926	-17.8077
		T (°C)	20	5200.0631	5200	0.0631	-12.1346
		T (°C)	30	5200.0128	5200	0.0128	-2.4615
		T (°C)	40	5200.0732	5200	0.0732	-14.0769
		T (°C)	50	5200.0418	5200	0.0418	-8.0385
		T (°C)	60	5200.0321	5200	0.0321	-6.1731
		T (°C)	70	5200.0421	5200	0.0421	-8.0962
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)	3.70	5240.0138	5240	0.0138	-2.6336
		V max (V)	4.26	5240.0412	5240	0.0412	-7.8626
		V min (V)	3.15	5240.0093	5240	0.0093	-1.7748
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)	3.7	T (°C)	-20	5240.0094	5240	0.0094	-1.7939
		T (°C)	-10	5240.0032	5240	0.0032	-0.6107
		T (°C)	0	5240.0145	5240	0.0145	-2.7672
		T (°C)	10	5240.0851	5240	0.0851	-16.2405
		T (°C)	20	5240.0116	5240	0.0116	-2.2137
		T (°C)	30	5240.0124	5240	0.0124	-2.3664
		T (°C)	40	5240.0067	5240	0.0067	-1.2786
		T (°C)	50	5240.0079	5240	0.0079	-1.5076
		T (°C)	60	5240.0052	5240	0.0052	-0.9924
		T (°C)	70	5240.0103	5240	0.0103	-1.9656
Limits				± 20 ppm			
Result				Complies			

Temperature：	26 ℃	Relative Humidity：	54%
Pressure：	101kPa	Test Voltage ：	DC 3.7V
Test Mode ：	TX Frequency(5745-5850MHz)		

TEST CONDITIONS				Reference Frequency：5745MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	3.70	5745.00359	5745	0.00359	-0.6249
		V max (V)	4.26	5745.00841	5745	0.00841	-1.4645
		V min (V)	3.15	5745.00989	5745	0.00989	-1.7214
Limits				± 20 ppm			
Result				Complies			

Voltage vs. Frequency Stability

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency：5745MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	3.7	T (°C)	-20	5745.01305	5745	0.01305	-2.2719
		T (°C)	-10	5745.00006	5745	0.00006	-0.0101
		T (°C)	0	5745.00912	5745	0.00912	-1.5871
		T (°C)	10	5745.00968	5745	0.00968	-1.6846
		T (°C)	20	5745.00055	5745	0.00055	-0.0955
		T (°C)	30	5745.00395	5745	0.00395	-0.6867
		T (°C)	40	5745.00685	5745	0.00685	-1.1926
		T (°C)	50	5745.00350	5745	0.00350	-0.6090
		T (°C)	60	5745.00518	5745	0.00518	-0.9024
		T (°C)	70	5745.00896	5745	0.00896	-1.5595
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)	3.70	5785.00317	5785	0.00317	-0.5475
		V max (V)	4.26	5785.00648	5785	0.00648	-1.1204
		V min (V)	3.15	5785.00331	5785	0.00331	-0.5721
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)	3.7	T (°C)	-20	5785.00881	5785	0.00881	-1.5231
		T (°C)	-10	5785.00740	5785	0.00740	-1.2797
		T (°C)	0	5785.00242	5785	0.00242	-0.4187
		T (°C)	10	5785.00451	5785	0.00451	-0.7790
		T (°C)	20	5785.00919	5785	0.00919	-1.5884
		T (°C)	30	5785.01010	5785	0.01010	-1.7462
		T (°C)	40	5785.01082	5785	0.01082	-1.8703
		T (°C)	50	5785.00115	5785	0.00115	-0.1992
		T (°C)	60	5785.01204	5785	0.01204	-2.0810
		T (°C)	70	5785.00016	5785	0.00016	-0.0271
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)	3.70	5825.00447	5825	0.00447	-0.7678
		V max (V)	4.26	5825.00305	5825	0.00305	-0.5231
		V min (V)	3.15	5825.00419	5825	0.00419	-0.7189
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)	3.7	T (°C)	-20	5825.00372	5825	0.00372	-0.6384
		T (°C)	-10	5825.00311	5825	0.00311	-0.5339
		T (°C)	0	5825.00078	5825	0.00078	-0.1334
		T (°C)	10	5825.00729	5825	0.00729	-1.2512
		T (°C)	20	5825.01347	5825	0.01347	-2.3129
		T (°C)	30	5825.00309	5825	0.00309	-0.5301
		T (°C)	40	5825.00911	5825	0.00911	-1.5640
		T (°C)	50	5825.01064	5825	0.01064	-1.8273
		T (°C)	60	5825.00907	5825	0.00907	-1.5568
		T (°C)	70	5825.00377	5825	0.00377	-0.6469
Limits				± 20 ppm			
Result				Complies			

11. ANTENNA REQUIREMENT

11.1 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.

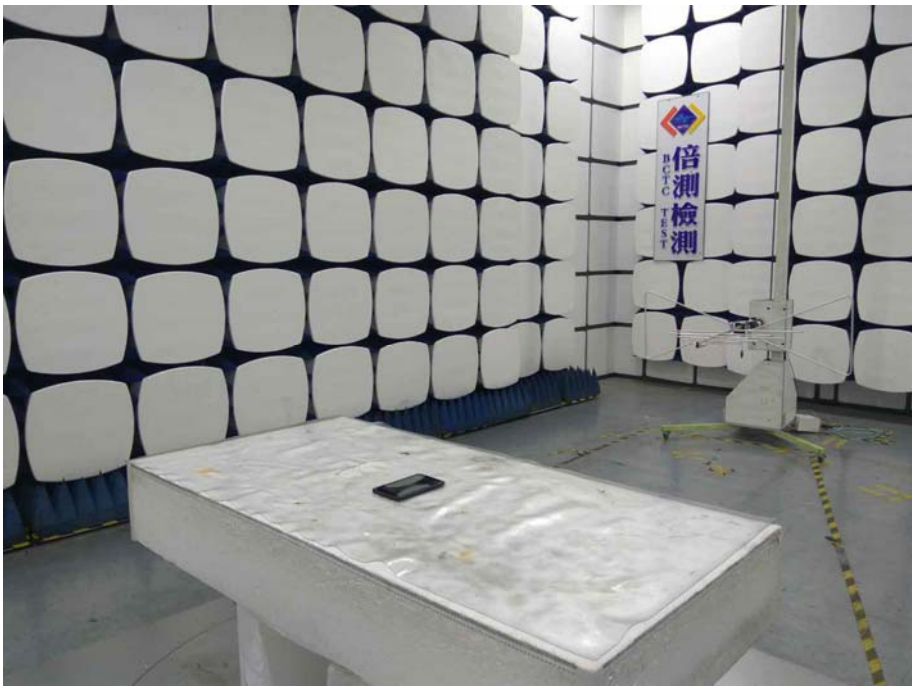
11.2 EUT ANTENNA

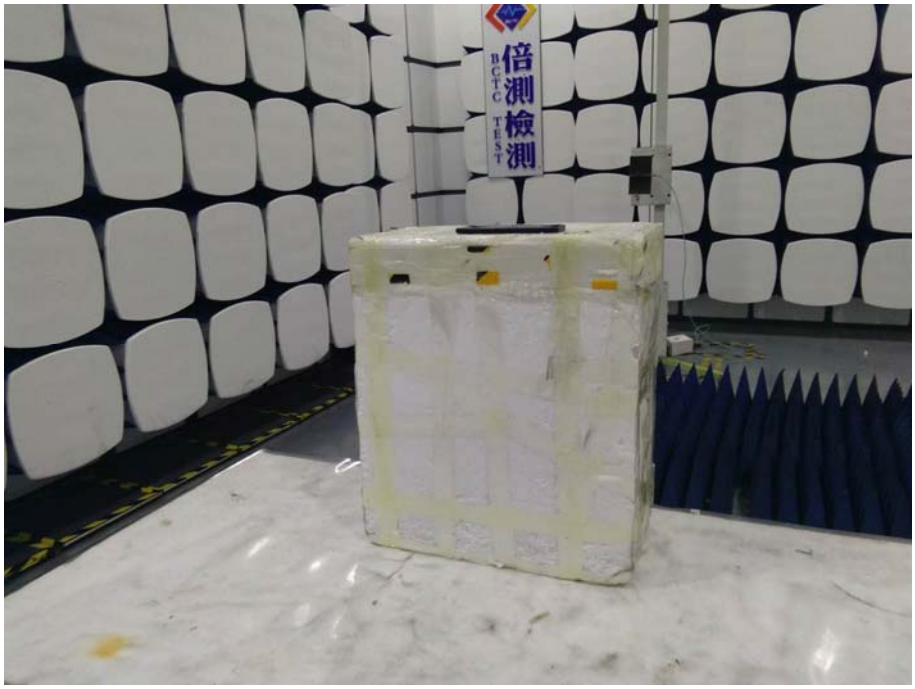
The EUT antenna is FPCB antenna(antenna gain:1dBi). It comply with the standard requirement.

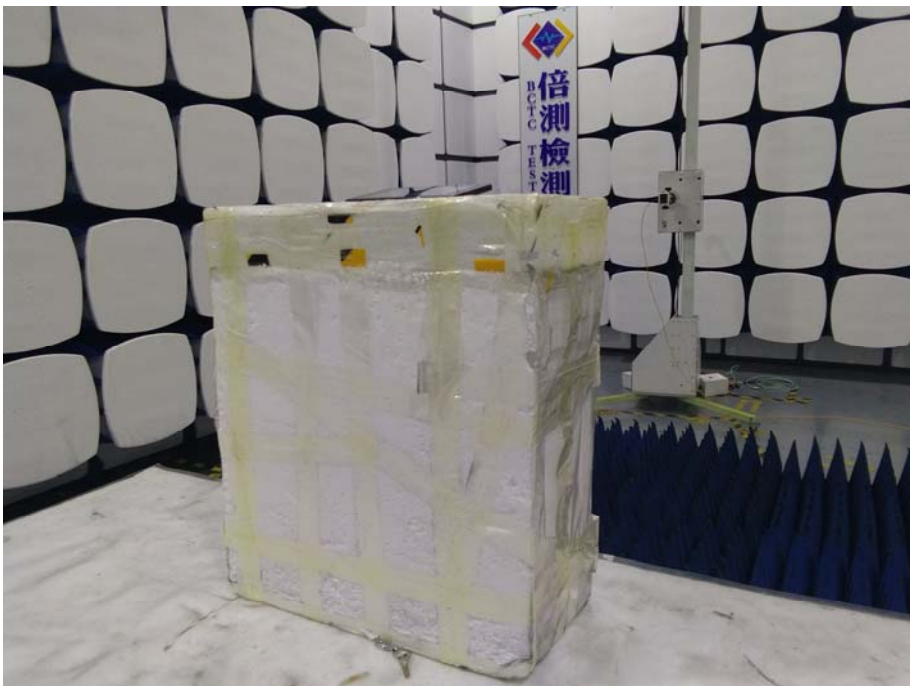
12. EUT TEST PHOTO

Conducted Measurement Photos

Radiated Measurement Photos






倍测检测
BCTC TEST

13. EUT PHOTO

※※※※※ **END OF REPORT** ※※※※※