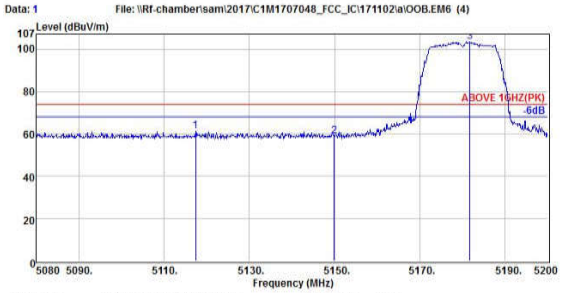
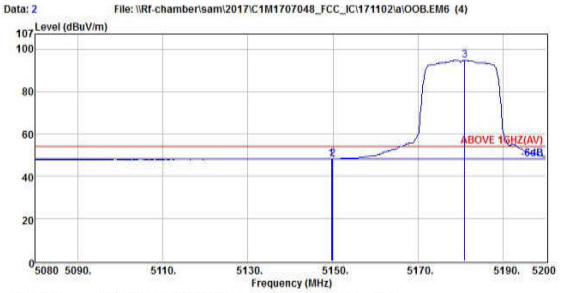


Site no. : Fully Chamber Site
Dis. / Ant. : 3m 3117(00135902)
Limit : ABOVE 1GHZ(PK)
Env. / Ins. : 22°C / 58% N9010B
EUT : GEAC-200
Power Rating : AC 120V/60Hz
Test Mode : Tx 5180MHz(802.11a)

Data no. : 1
Ant. pol. : VERTICAL
Engineer : Sam

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	5117.44	34.42	9.78	17.22	61.42	74.00	12.58	Peak
2	5149.96	34.45	9.83	14.79	59.07	74.00	14.93	Peak
3	5181.76	34.48	9.88	59.02	103.38	74.00	-29.38	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
2. The emissions not reported are 20 dB lower than the specified limit.

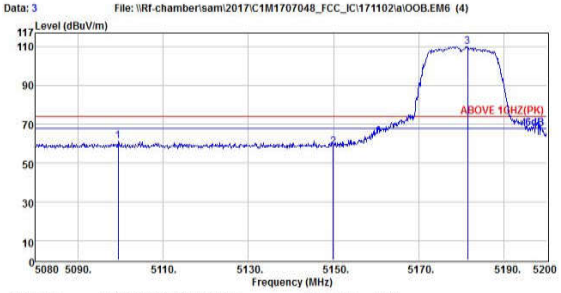


Site no. : Fully Chamber Site
Dis. / Ant. : 3m 3117(00135902)
Limit : ABOVE 1GHZ(AV)
Env. / Ins. : 22°C / 58% N9010B
EUT : GEAC-200
Power Rating : AC 120V/60Hz
Test Mode : Tx 5180MHz(802.11a)

Data no. : 2
Ant. pol. : VERTICAL
Engineer : Sam

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	5149.80	34.45	9.83	3.92	48.20	54.00	5.80	Average
2	5149.98	34.45	9.83	3.90	48.18	54.00	5.82	Average
3	5180.92	34.48	9.88	50.32	94.68	54.00	-40.68	Average

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
2. The emissions not reported are 20 dB lower than the specified limit.

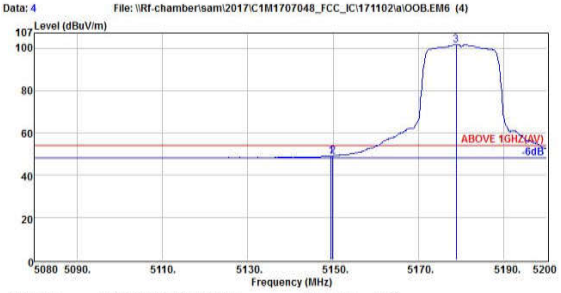


Site no. : Fully Chamber Site
Dis. / Ant. : 3m 3117(00135902)
Limit : ABOVE 1GHZ(PK)
Env. / Ins. : 22°C / 58% N9010B
EUT : GEAC-200
Power Rating : AC 120V/60Hz
Test Mode : Tx 5180MHz(802.11a)

Data no. : 3
Ant. pol. : HORIZONTAL
Engineer : Sam

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	5099.44	34.40	9.76	17.15	61.31	74.00	12.69	Peak
2	5149.96	34.45	9.83	14.03	58.31	74.00	15.69	Peak
3	5181.40	34.48	9.88	65.80	110.16	74.00	-36.16	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
2. The emissions not reported are 20 dB lower than the specified limit.



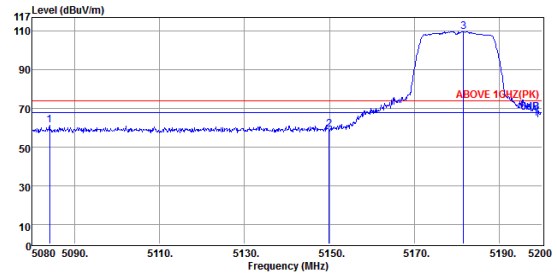
Site no. : Fully Chamber Site
Dis. / Ant. : 3m 3117(00135902)
Limit : ABOVE 1GHZ(AV)
Env. / Ins. : 22°C / 58% N9010B
EUT : GEAC-200
Power Rating : AC 120V/60Hz
Test Mode : Tx 5180MHz(802.11a)

Data no. : 4
Ant. pol. : HORIZONTAL
Engineer : Sam

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	5149.48	34.45	9.83	4.74	49.02	54.00	4.98	Average
2	5149.98	34.45	9.83	4.83	49.11	54.00	4.89	Average
3	5178.76	34.48	9.88	57.18	101.54	54.00	-47.54	Average

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
2. The emissions not reported are 20 dB lower than the specified limit.

Data: 1 File: C:\Users\Sam_Chang\Desktop\未完成\C1M1707048_2.4G_5G_B1_FCC_IC\e3\5G\n20\OOB.EM6 (

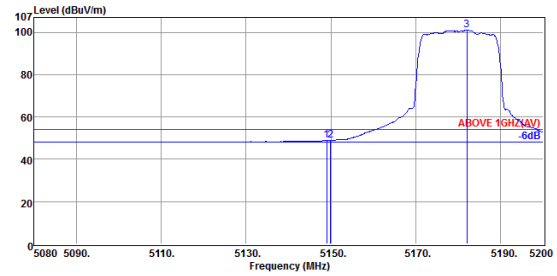


Site no. : Fully Chamber Site Data no. : 1
Dis. / Ant. : 3m 3117(00135902) Ant. pol. : VERTICAL
Limit : ABOVE 1GHZ(PK)
Env. / Ins. : 22*C / 58% N9010B Engineer : Sam
EUT : GEAC-200
Power Rating : AC 120V
Test Mode : Tx 5180MHz(802.11n20)

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	5084.20	34.38	9.73	17.05	61.16	74.00	12.84	Peak
2	5149.96	34.45	9.83	14.77	59.05	74.00	14.95	Peak
3	5181.52	34.48	9.88	85.35	109.71	74.00	-35.71	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
2. The emissions not reported are 20 dB lower than the specified limit.

Data: 2 File: C:\Users\Sam_Chang\Desktop\未完成\C1M1707048_2.4G_5G_B1_FCC_IC\e3\5G\n20\OOB.EM6 (

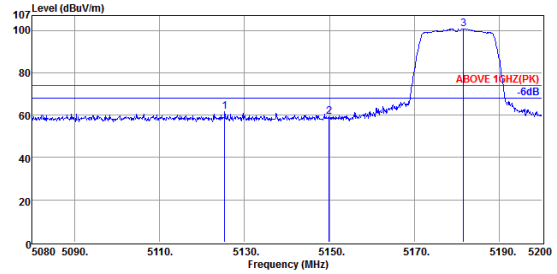


Site no. : Fully Chamber Site Data no. : 2
Dis. / Ant. : 3m 3117(00135902) Ant. pol. : VERTICAL
Limit : ABOVE 1GHZ(AV)
Env. / Ins. : 22*C / 58% N9010B Engineer : Sam
EUT : GEAC-200
Power Rating : AC 120V
Test Mode : Tx 5180MHz(802.11n20)

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	5149.00	34.45	9.83	4.53	48.81	54.00	5.19	Average
2	5149.98	34.45	9.83	4.54	48.82	54.00	5.18	Average
3	5182.00	34.48	9.88	56.57	100.93	54.00	-48.93	Average

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
2. The emissions not reported are 20 dB lower than the specified limit.

Data: 3 File: C:\Users\Sam_Chang\Desktop\未完成\C1M1707048_2.4G_5G_B1_FCC_IC\e3\5G\n20\OOB.EM6 (

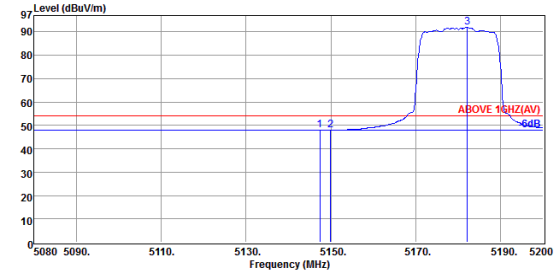


Site no. : Fully Chamber Site Data no. : 3
Dis. / Ant. : 3m 3117(00135902) Ant. pol. : HORIZONTAL
Limit : ABOVE 1GHZ(PK)
Env. / Ins. : 22*C / 58% N9010B Engineer : Sam
EUT : GEAC-200
Power Rating : AC 120V
Test Mode : Tx 5180MHz(802.11n20)

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	5125.36	34.43	9.81	17.52	61.76	74.00	12.24	Peak
2	5149.96	34.45	9.83	14.93	59.21	74.00	14.79	Peak
3	5181.52	34.48	9.88	56.41	100.77	74.00	-26.77	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
2. The emissions not reported are 20 dB lower than the specified limit.

Data: 4 File: C:\Users\Sam_Chang\Desktop\未完成\C1M1707048_2.4G_5G_B1_FCC_IC\e3\5G\n20\OOB.EM6 (

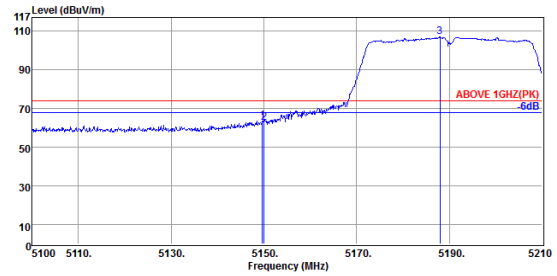


Site no. : Fully Chamber Site Data no. : 4
Dis. / Ant. : 3m 3117(00135902) Ant. pol. : HORIZONTAL
Limit : ABOVE 1GHZ(AV)
Env. / Ins. : 22*C / 58% N9010B Engineer : Sam
EUT : GEAC-200
Power Rating : AC 120V
Test Mode : Tx 5180MHz(802.11n20)

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	5147.44	34.45	9.83	3.80	48.08	54.00	5.92	Average
2	5149.96	34.45	9.83	3.78	48.06	54.00	5.94	Average
3	5182.12	34.48	9.88	47.49	91.85	54.00	-37.85	Average

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
2. The emissions not reported are 20 dB lower than the specified limit.

Data: 1 File: C:\Users\Sam_Chang\Desktop\未完成\C1M1707048_2.4G_5G_B1_FCC_IC\e3\5G\n40\OOB.EM6 (

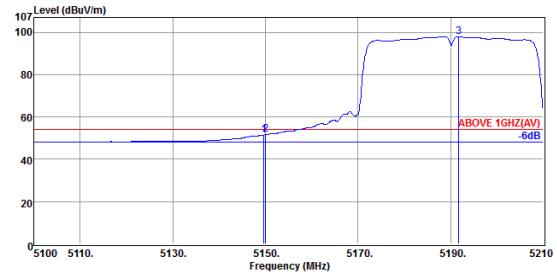


Site no. : Fully Chamber Site Data no. : 1
Dis. / Ant. : 3m 3117(00135902) Ant. pol. : VERTICAL
Limit : ABOVE 1GHZ(PK)
Env. / Ins. : 22*C / 58% N9010B Engineer : Sam
EUT : GEAC-200
Power Rating : AC 120V
Test Mode : Tx 5190MHz(802.11n40)

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	5148.72	34.45	9.83	18.16	63.44	74.00	10.56	Peak
2	5150.05	34.45	9.83	18.49	62.77	74.00	11.23	Peak
3	5188.00	34.48	9.88	82.82	107.18	74.00	-33.18	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
2. The emissions not reported are 20 dB lower than the specified limit.

Data: 2 File: C:\Users\Sam_Chang\Desktop\未完成\C1M1707048_2.4G_5G_B1_FCC_IC\e3\5G\n40\OOB.EM6 (

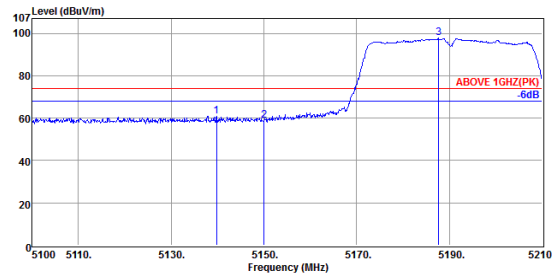


Site no. : Fully Chamber Site Data no. : 2
Dis. / Ant. : 3m 3117(00135902) Ant. pol. : VERTICAL
Limit : ABOVE 1GHZ(AV)
Env. / Ins. : 22*C / 58% N9010B Engineer : Sam
EUT : GEAC-200
Power Rating : AC 120V
Test Mode : Tx 5190MHz(802.11n40)

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	5148.72	34.45	9.83	7.23	51.51	54.00	2.49	Average
2	5150.05	34.45	9.83	7.27	51.55	54.00	2.45	Average
3	5191.74	34.50	9.91	53.64	98.05	54.00	-44.05	Average

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
2. The emissions not reported are 20 dB lower than the specified limit.

Data: 3 File: C:\Users\Sam_Chang\Desktop\未完成\C1M1707048_2.4G_5G_B1_FCC_IC\e3\5G\n40\OOB.EM6 (

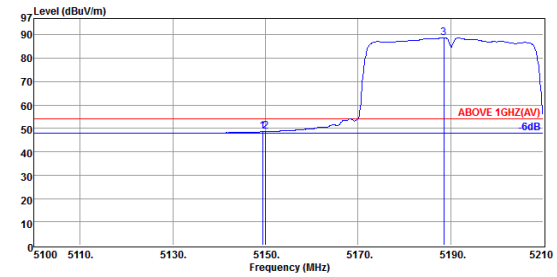


Site no. : Fully Chamber Site Data no. : 3
Dis. / Ant. : 3m 3117(00135902) Ant. pol. : HORIZONTAL
Limit : ABOVE 1GHZ(PK)
Env. / Ins. : 22*C / 58% N9010B Engineer : Sam
EUT : GEAC-200
Power Rating : AC 120V
Test Mode : Tx 5190MHz(802.11n40)

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	5139.82	34.45	9.83	18.58	60.86	74.00	13.14	Peak
2	5150.05	34.45	9.83	14.85	58.93	74.00	15.07	Peak
3	5187.67	34.48	9.88	53.31	97.67	74.00	-23.67	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
2. The emissions not reported are 20 dB lower than the specified limit.

Data: 4 File: C:\Users\Sam_Chang\Desktop\未完成\C1M1707048_2.4G_5G_B1_FCC_IC\e3\5G\n40\OOB.EM6 (

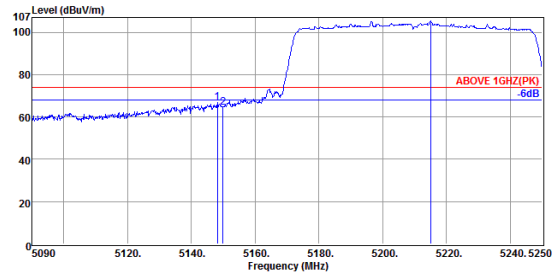


Site no. : Fully Chamber Site Data no. : 4
Dis. / Ant. : 3m 3117(00135902) Ant. pol. : HORIZONTAL
Limit : ABOVE 1GHZ(AV)
Env. / Ins. : 22*C / 58% N9010B Engineer : Sam
EUT : GEAC-200
Power Rating : AC 120V
Test Mode : Tx 5190MHz(802.11n40)

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	5149.39	34.45	9.83	4.29	48.57	54.00	5.43	Average
2	5150.05	34.45	9.83	4.35	48.63	54.00	5.37	Average
3	5188.55	34.48	9.88	44.46	88.82	54.00	-34.82	Average

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
2. The emissions not reported are 20 dB lower than the specified limit.

Data: 1 File: C:\Users\Sam_Chang\Desktop\未完成\C1M1707048_2.4G_5G_B1_FCC_IC\e3\5G\ac80\OOB.EM6



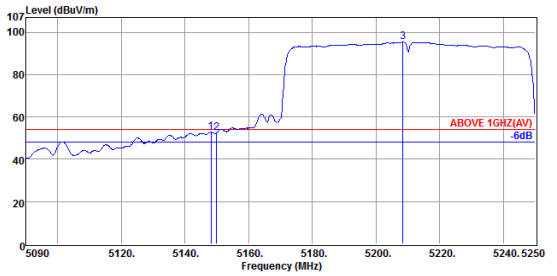
Site no. : Fully Chamber Site
Dis. / Ant. : 3m 3117(00135902)
Limit : ABOVE 1GHZ(PK)
Env. / Ins. : 22*C / 58% N9010B
EUT : GEAC-200
Power Rating : AC 120V
Test Mode : Tx 5210MHz(802.11ac80)

Data no. : 1
Ant. pol. : VERTICAL
Engineer : Sam

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	5148.24	34.45	9.83	22.39	66.67	74.00	7.33	Peak
2	5150.00	34.45	9.83	20.16	64.44	74.00	9.56	Peak
3	5215.12	34.52	9.83	81.01	105.46	74.00	-31.46	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
2. The emissions not reported are 20 dB lower than the specified limit.

Data: 2 File: C:\Users\Sam_Chang\Desktop\未完成\C1M1707048_2.4G_5G_B1_FCC_IC\e3\5G\ac80\OOB.EM6



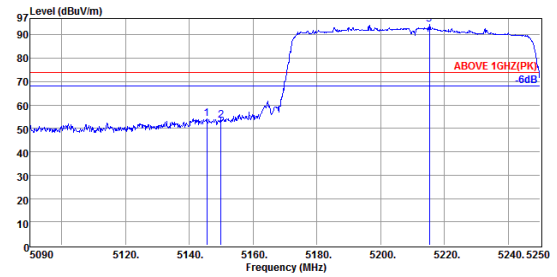
Site no. : Fully Chamber Site
Dis. / Ant. : 3m 3117(00135902)
Limit : ABOVE 1GHZ(AV)
Env. / Ins. : 22*C / 58% N9010B
EUT : GEAC-200
Power Rating : AC 120V
Test Mode : Tx 5210MHz(802.11ac80)

Data no. : 2
Ant. pol. : VERTICAL
Engineer : Sam

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	5148.24	34.45	9.83	8.44	52.72	54.00	1.28	Average
2	5150.00	34.45	9.83	8.29	52.57	54.00	1.43	Average
3	5208.40	34.52	9.93	50.85	95.30	54.00	-41.30	Average

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
2. The emissions not reported are 20 dB lower than the specified limit.

Data: 3 File: C:\Users\Sam_Chang\Desktop\未完成\C1M1707048_2.4G_5G_B1_FCC_IC\e3\5G\ac80\OOB.EM6



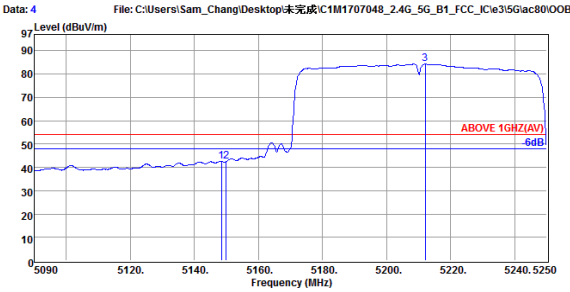
Site no. : Fully Chamber Site
Dis. / Ant. : 3m 3117(00135902)
Limit : ABOVE 1GHZ(PK)
Env. / Ins. : 22*C / 58% N9010B
EUT : GEAC-200
Power Rating : AC 120V
Test Mode : Tx 5210MHz(802.11ac80)

Data no. : 3
Ant. pol. : HORIZONTAL
Engineer : Sam

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	5145.52	34.45	9.83	9.76	54.04	74.00	19.96	Peak
2	5150.00	34.45	9.83	9.22	53.50	74.00	20.50	Peak
3	5215.28	34.52	9.93	49.99	94.44	74.00	-20.44	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
2. The emissions not reported are 20 dB lower than the specified limit.

Data: 4 File: C:\Users\Sam_Chang\Desktop\未完成\C1M1707048_2.4G_5G_B1_FCC_IC\e3\5G\ac80\OOB.EM6



Site no. : Fully Chamber Site
Dis. / Ant. : 3m 3117(00135902)
Limit : ABOVE 1GHZ(AV)
Env. / Ins. : 22*C / 58% N9010B
EUT : GEAC-200
Power Rating : AC 120V
Test Mode : Tx 5210MHz(802.11ac80)

Data no. : 4
Ant. pol. : HORIZONTAL
Engineer : Sam

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	5148.40	34.45	9.83	-1.70	42.58	54.00	11.42	Average
2	5150.00	34.45	9.83	-1.74	42.54	54.00	11.46	Average
3	5212.08	34.52	9.93	39.79	84.24	54.00	-30.24	Average

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
2. The emissions not reported are 20 dB lower than the specified limit.

7. CONDUCTED SPURIOUS EMISSIONS

7.1. Limit

In any 1MHz bandwidth outside the frequency bands in which the spread spectrum intentional radiator in operating, the radio frequency power that is produced by the intentional radiator shall be at least 20dB below that in the 1MHz bandwidth within the band that contains the highest level of the desired power.

In addition, radiated emissions which fall in the restricted bands, as defined in RSS-GEN Clause 7.2.2, must also comply with the radiated emission limits specified in RSS-247.

7.2. Test Procedure

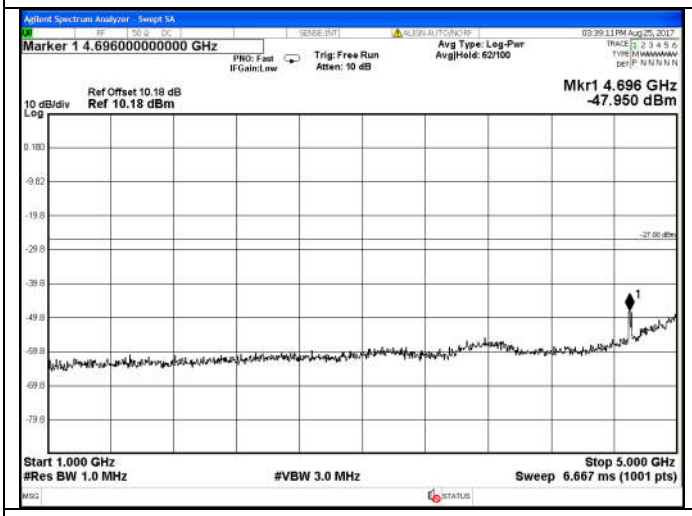
The transmitter output was connected to a spectrum analyzer, The resolution bandwidth is set to 1MHz, The video bandwidth is set to 3MHz and measure all the emissions with peak detector.

7.3. Test result

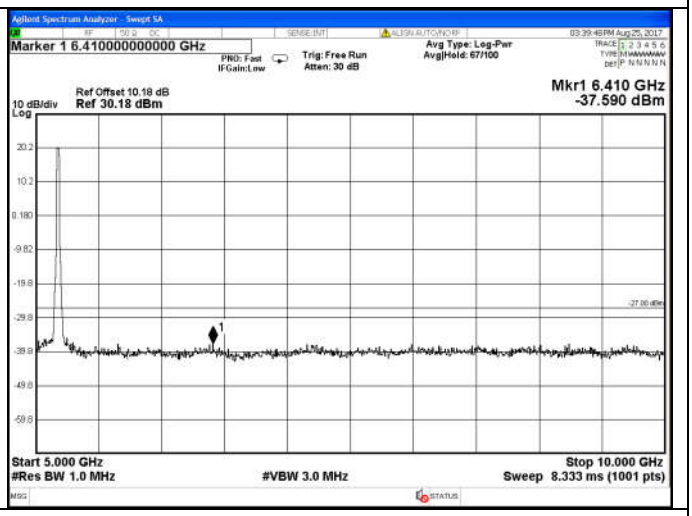
PASS (The testing data was attached in the next pages.)

ANT1:
Test Mode: IEEE 802.11a
Test CH36: 5180MHz

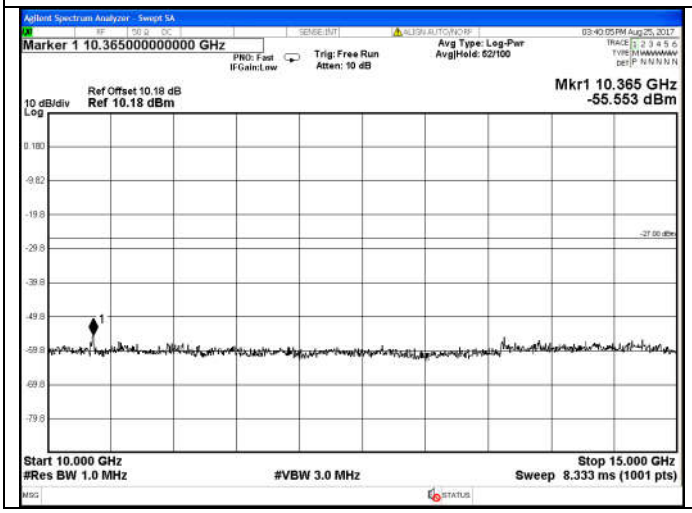
1GHz-5GHz



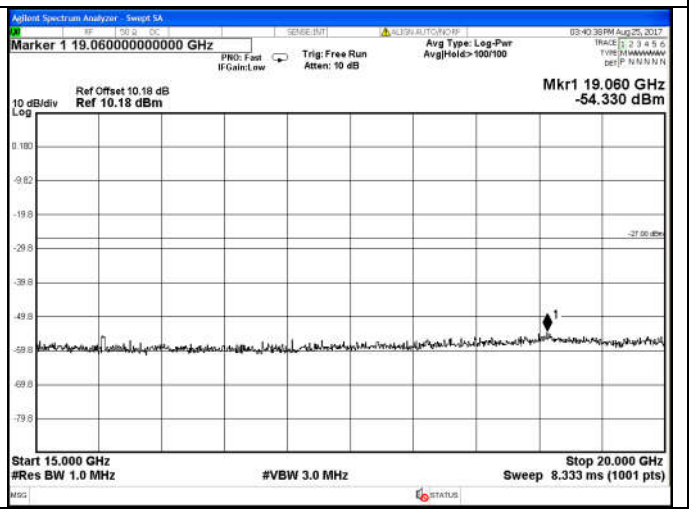
5GHz-10GHz



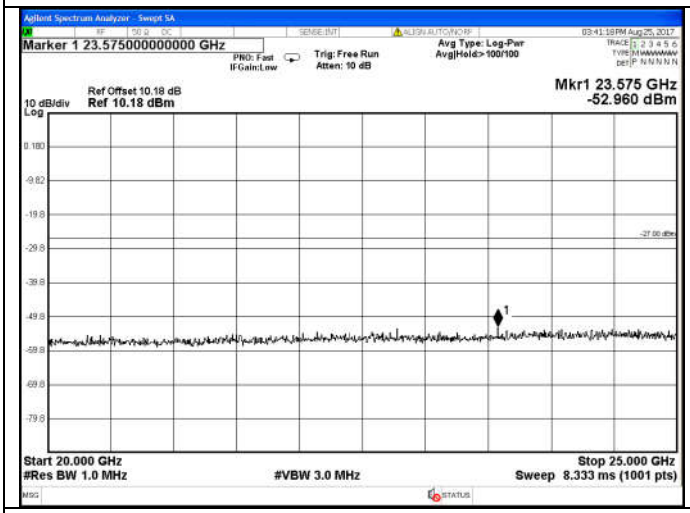
10GHz-15GHz



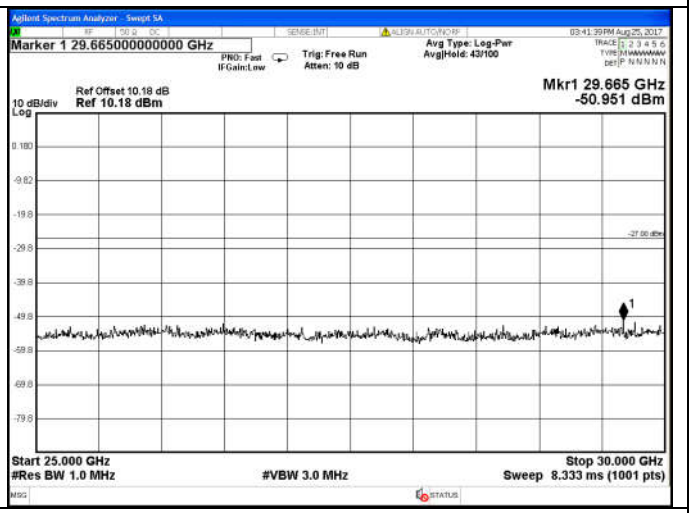
15GHz-20GHz



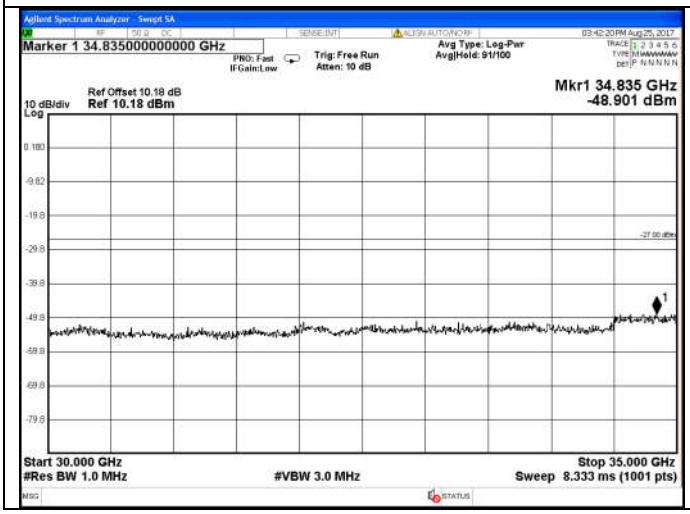
20GHz-25GHz



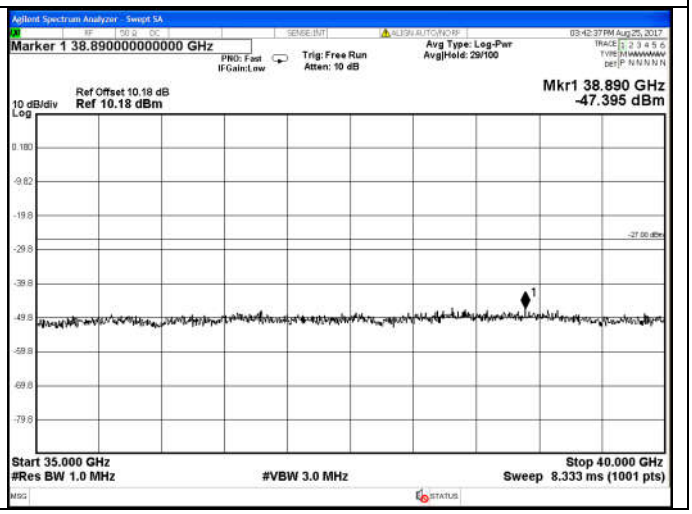
25GHz-30GHz



30GHz-35GHz

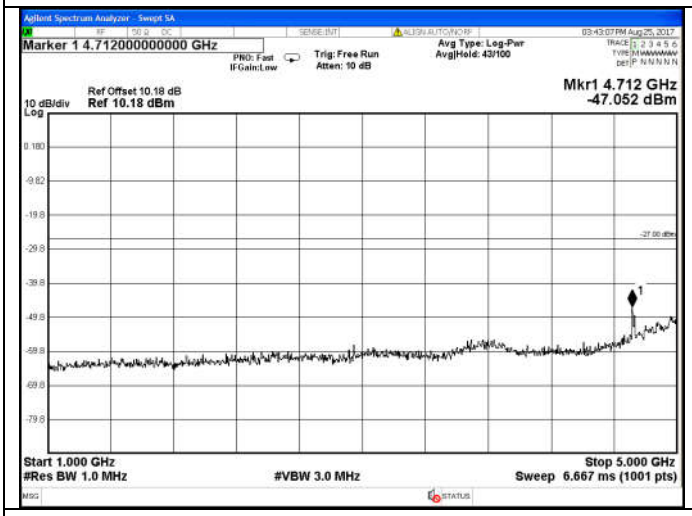


35GHz-40GHz

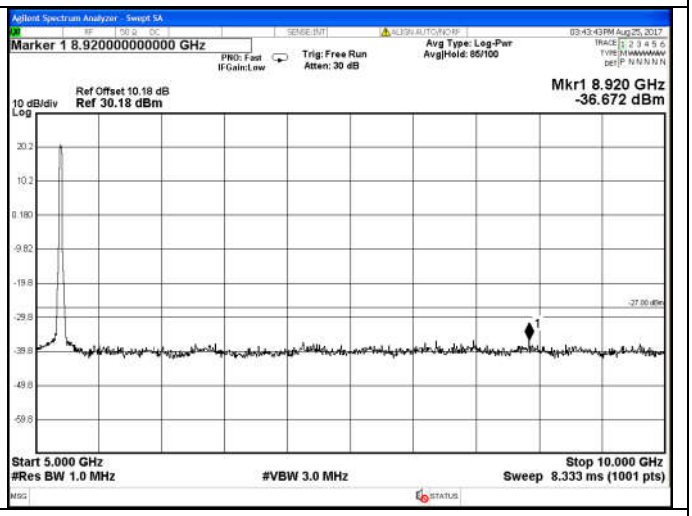


ANT1:
Test Mode: IEEE 802.11a
Test CH40: 5200MHz

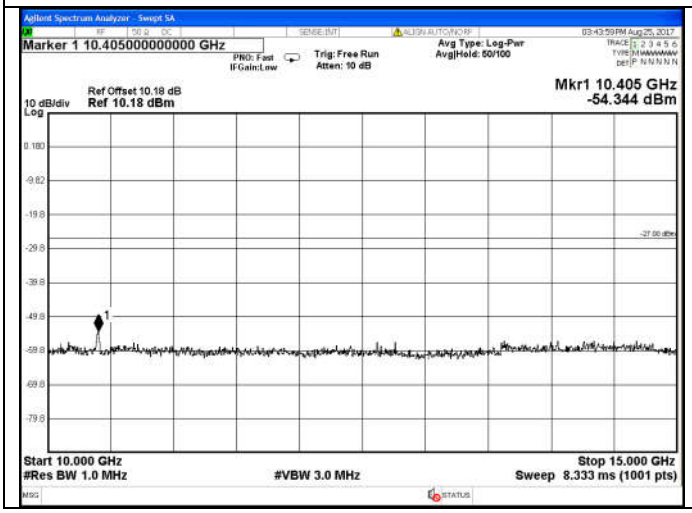
1GHz-5GHz



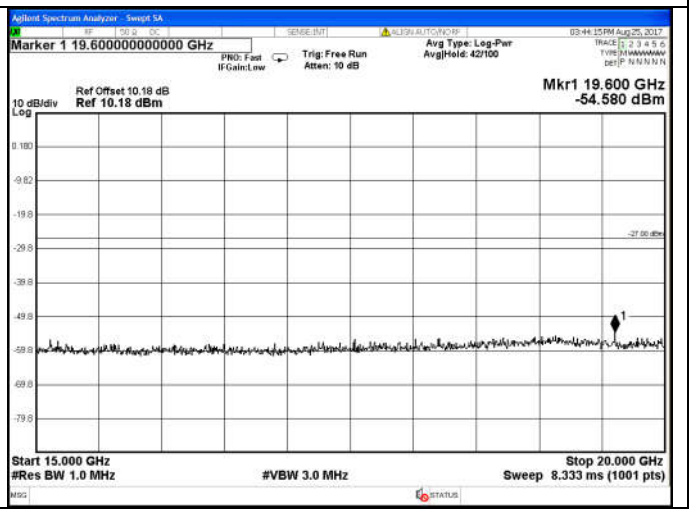
5GHz-10GHz

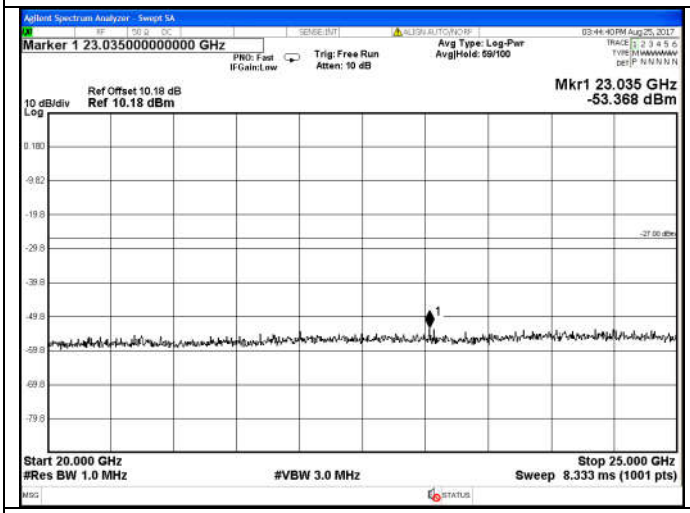
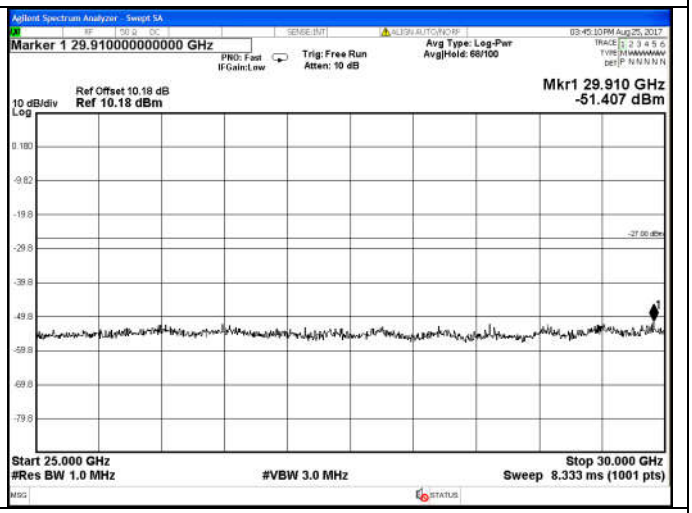
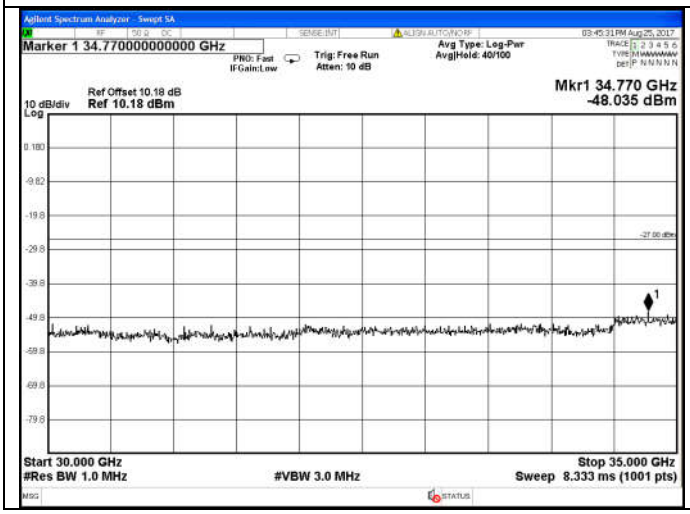
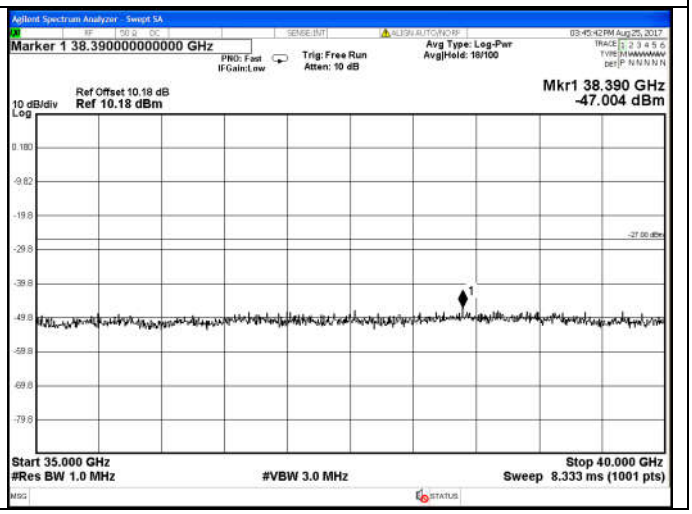


10GHz-15GHz



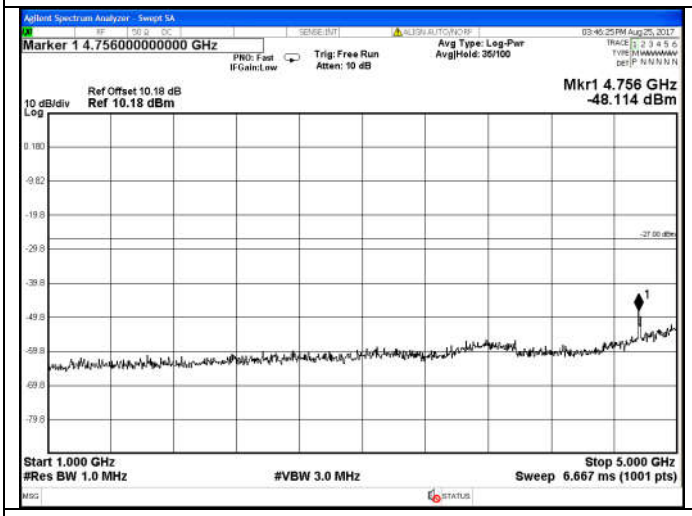
15GHz-20GHz



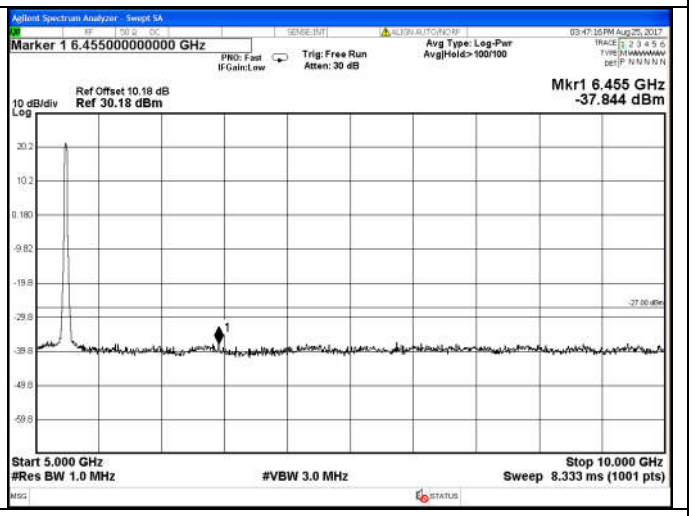
20GHz-25GHz	25GHz-30GHz
	
30GHz-35GHz	**35GHz-40GHz**
	

ANT1:
Test Mode: IEEE 802.11a
Test CH48: 5240MHz

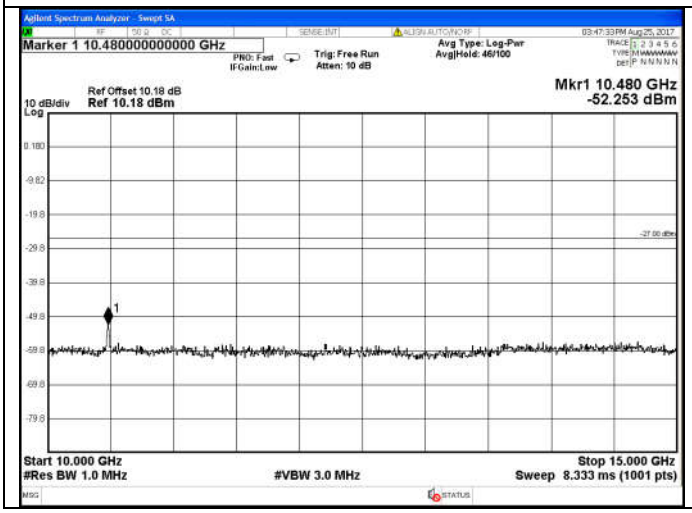
1GHz-5GHz



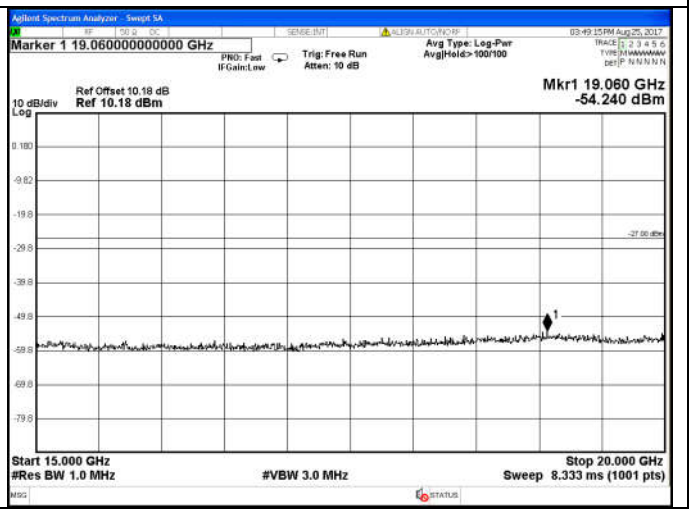
5GHz-10GHz

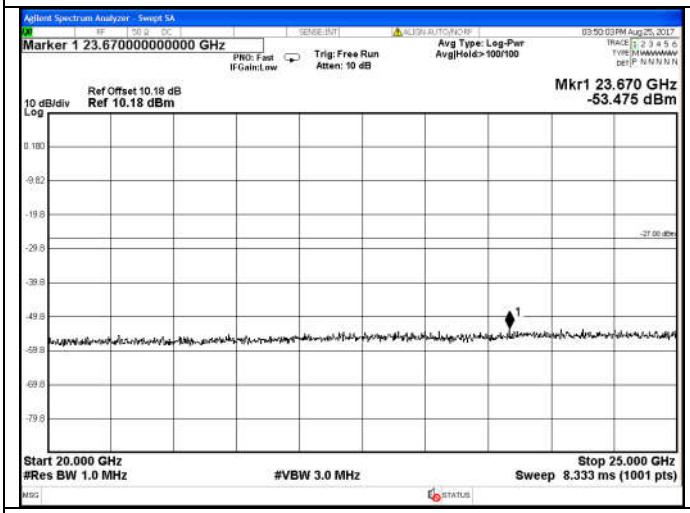
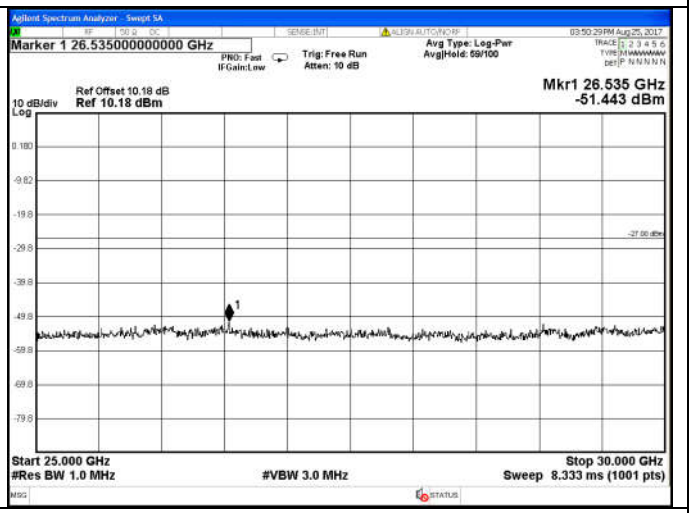
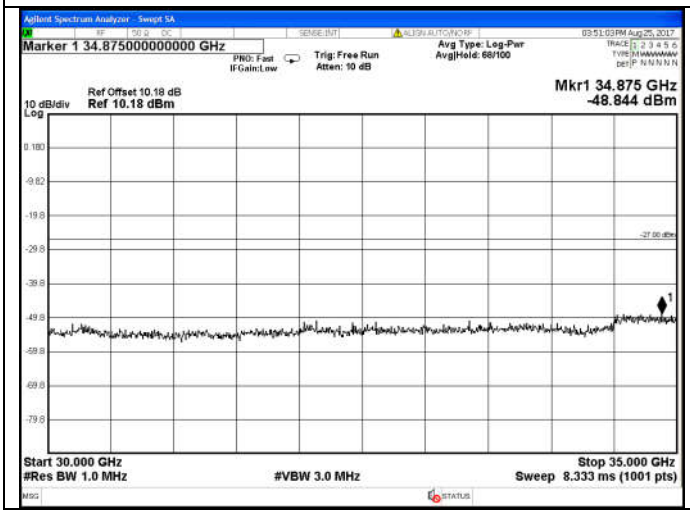
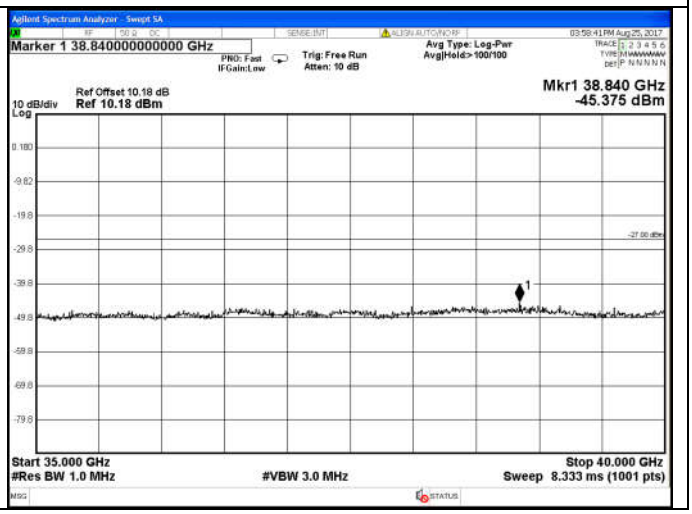


10GHz-15GHz



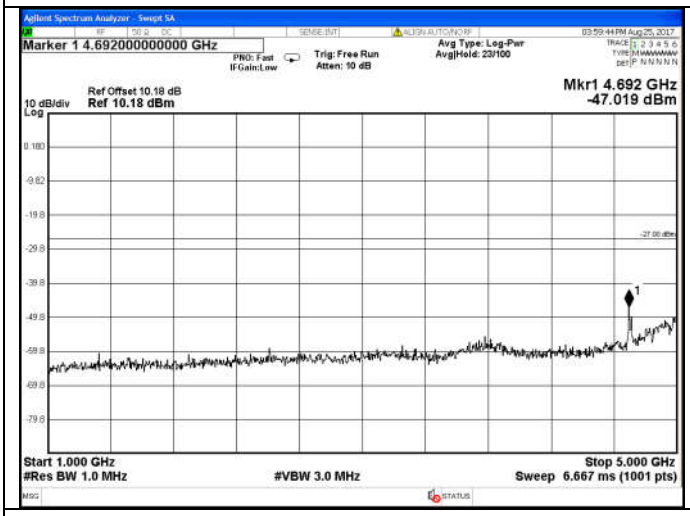
15GHz-20GHz



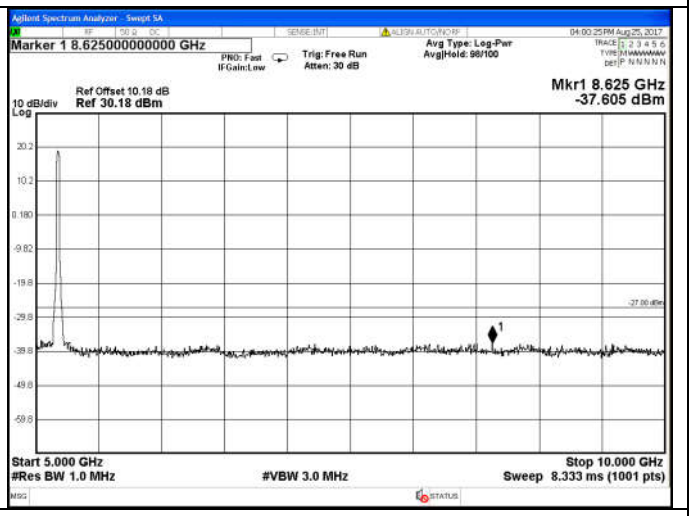
20GHz-25GHz	25GHz-30GHz
	
30GHz-35GHz	35GHz-40GHz
	

ANT1:
Test Mode: IEEE 802.11n HT20
Test CH36: 5180MHz

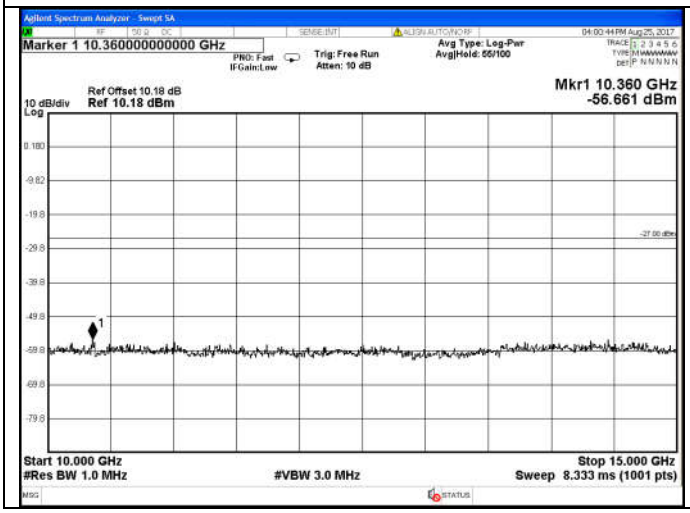
1GHz-5GHz



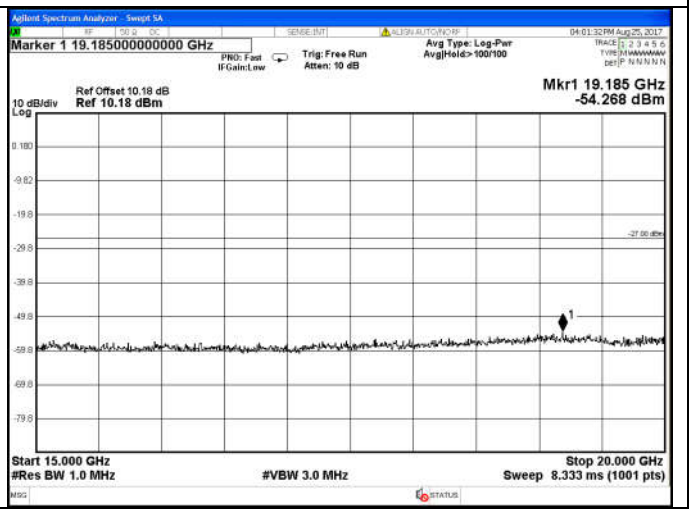
5GHz-10GHz



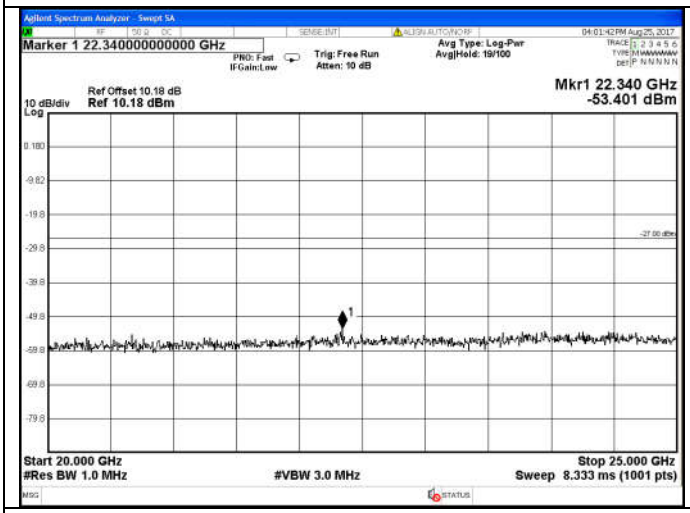
10GHz-15GHz



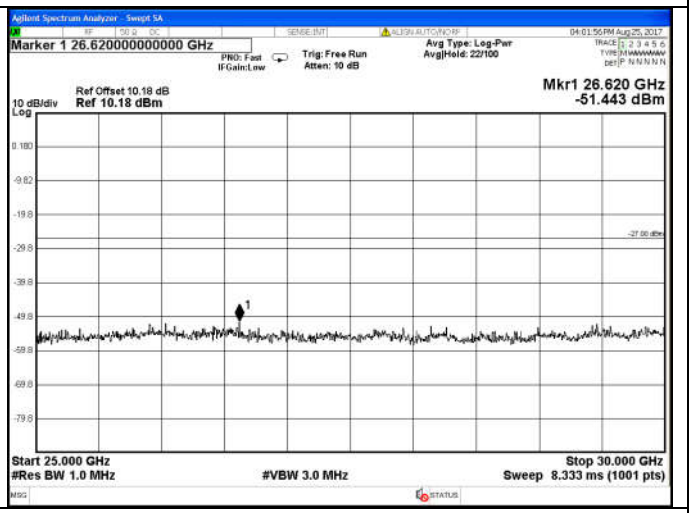
15GHz-20GHz



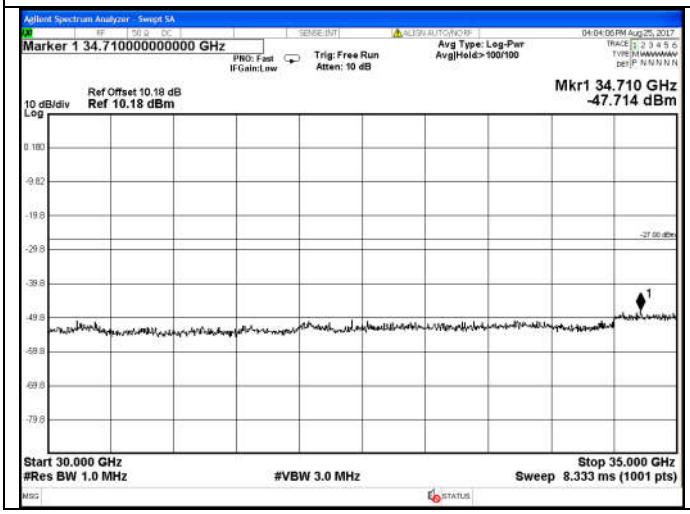
20GHz-25GHz



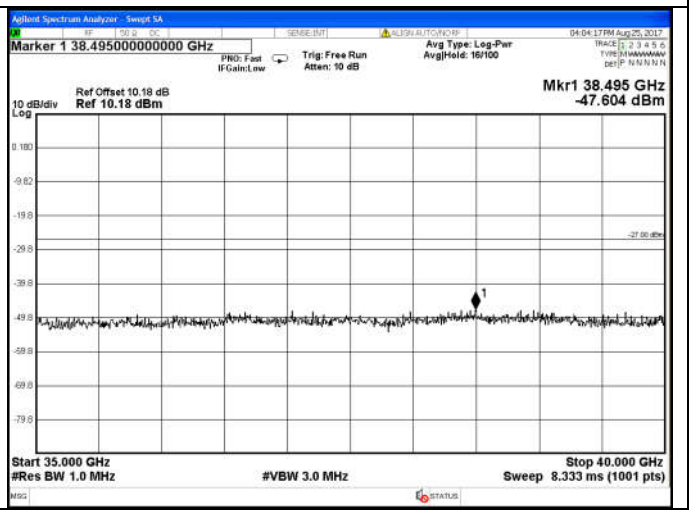
25GHz-30GHz



30GHz-35GHz

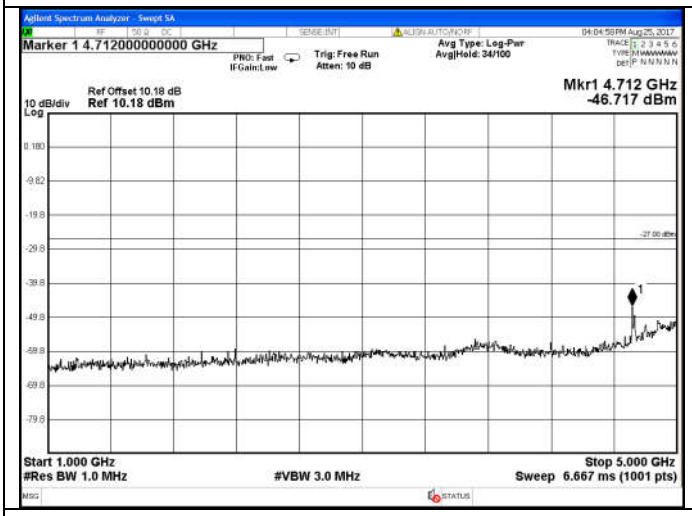


35GHz-40GHz

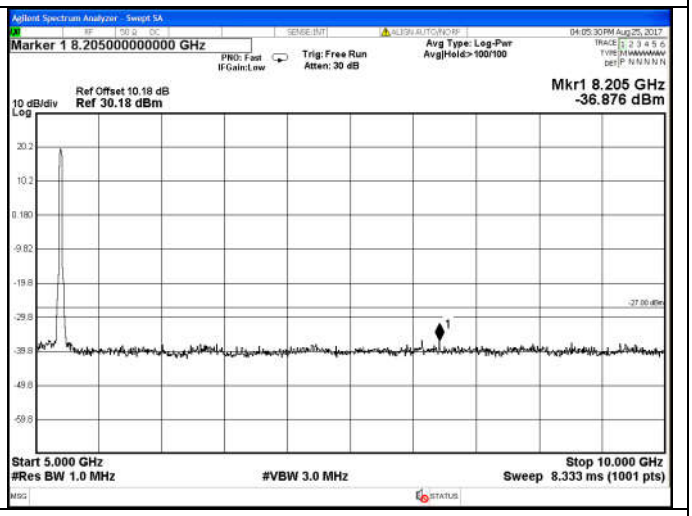


ANT1:
Test Mode: IEEE 802.11n HT20
Test CH40: 5200MHz

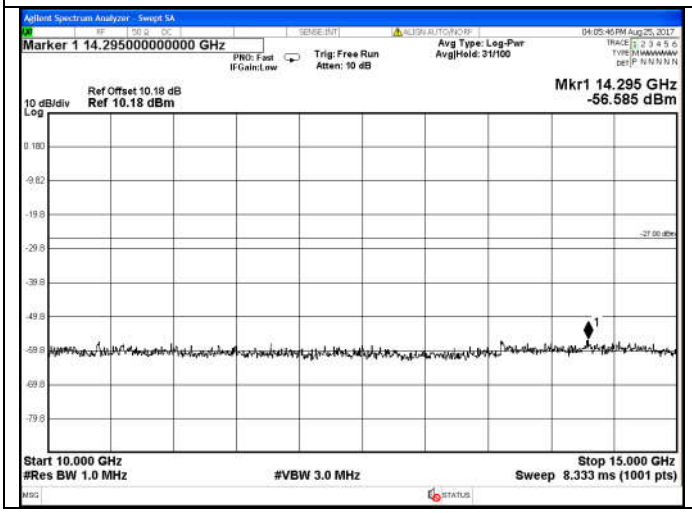
1GHz-5GHz



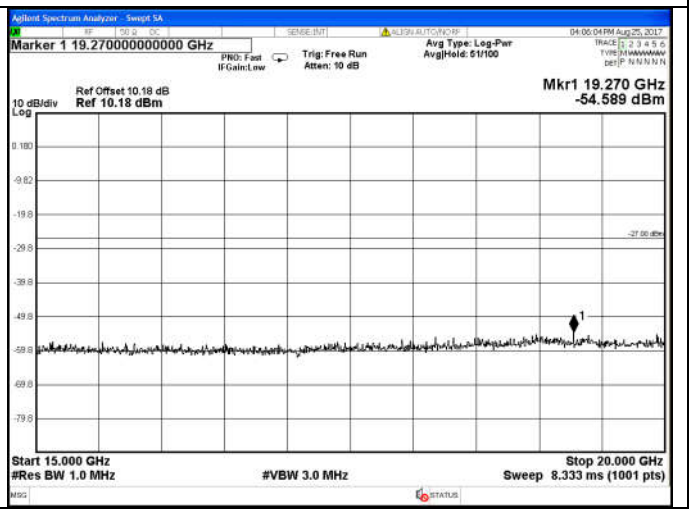
5GHz-10GHz



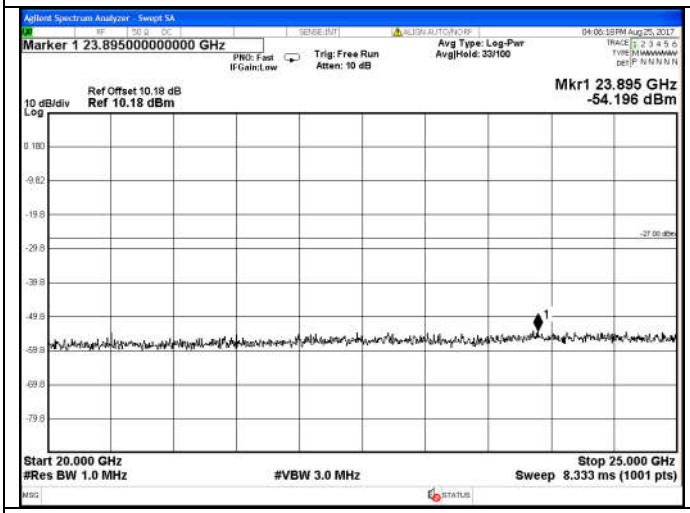
10GHz-15GHz



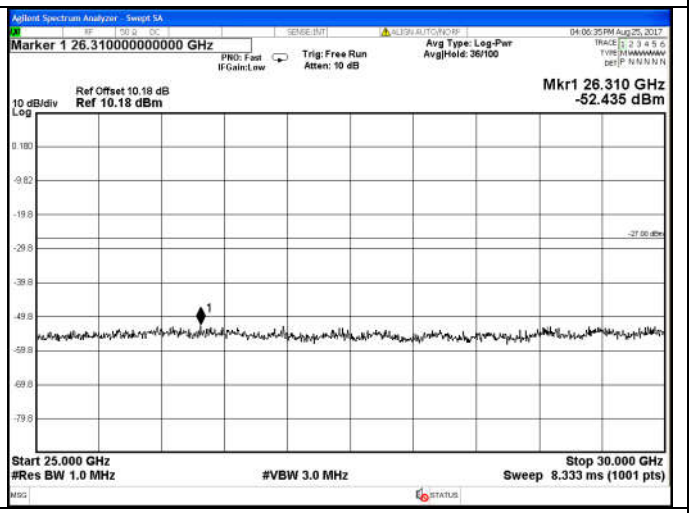
15GHz-20GHz



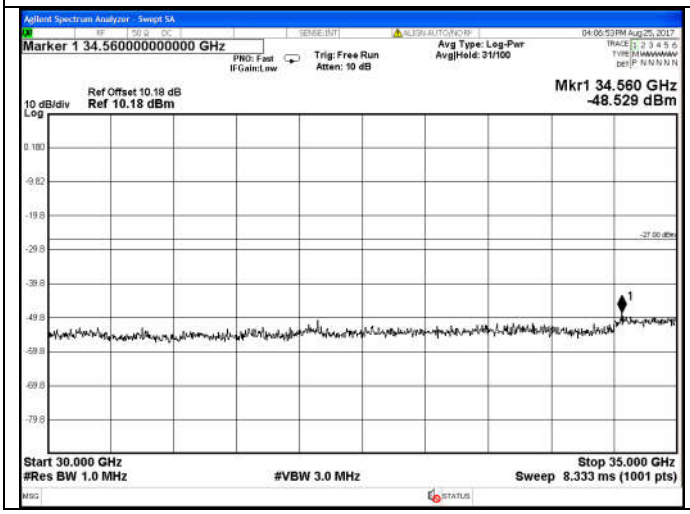
20GHz-25GHz



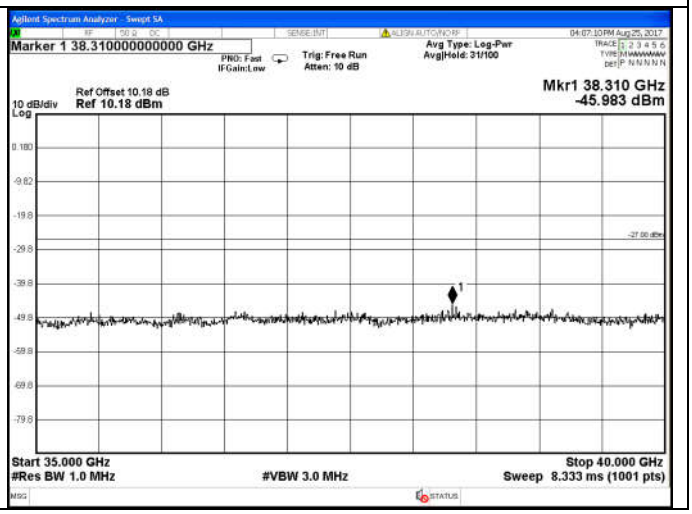
25GHz-30GHz



30GHz-35GHz

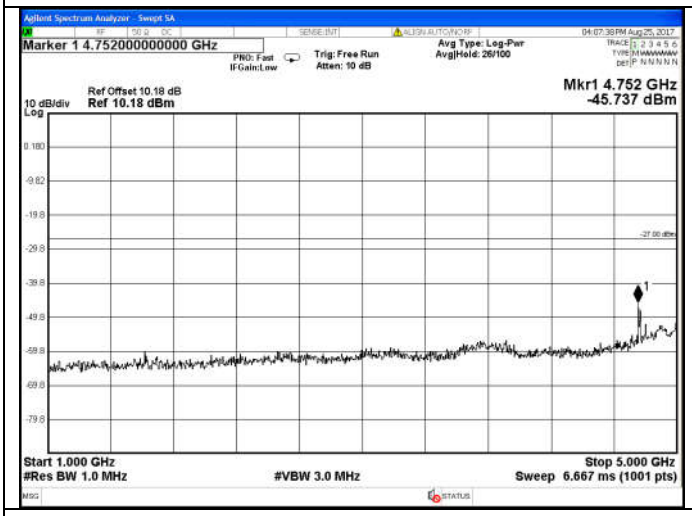


35GHz-40GHz

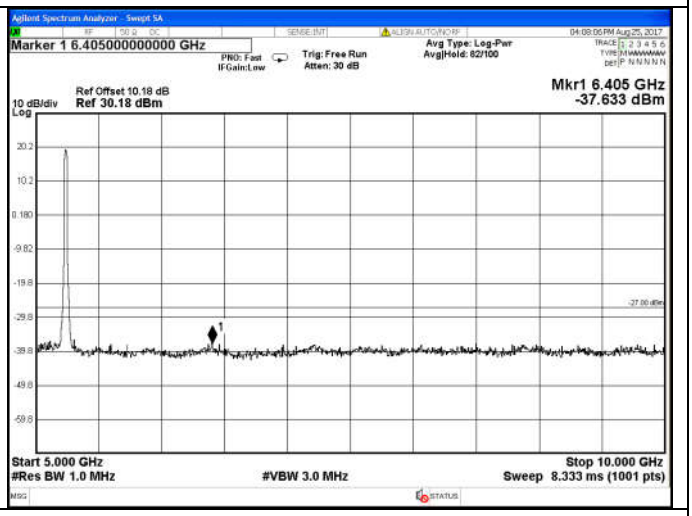


ANT1:
Test Mode: IEEE 802.11n HT20
Test CH48: 5240MHz

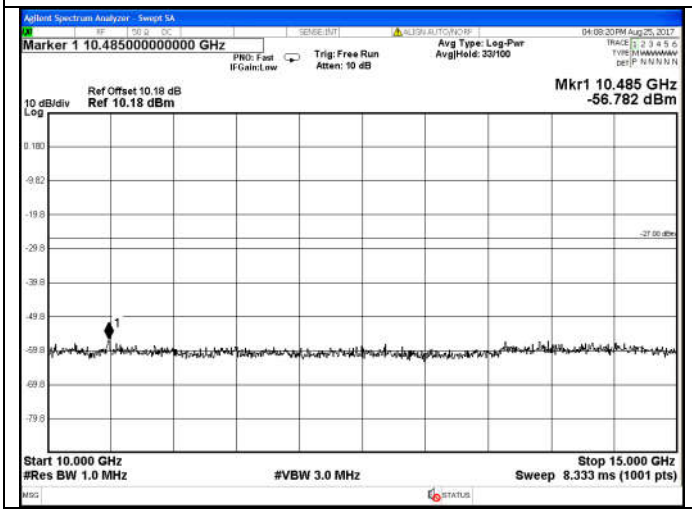
1GHz-5GHz



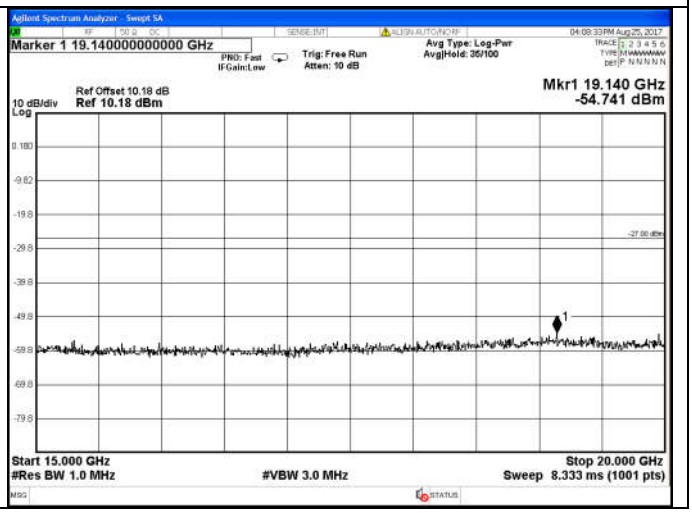
5GHz-10GHz

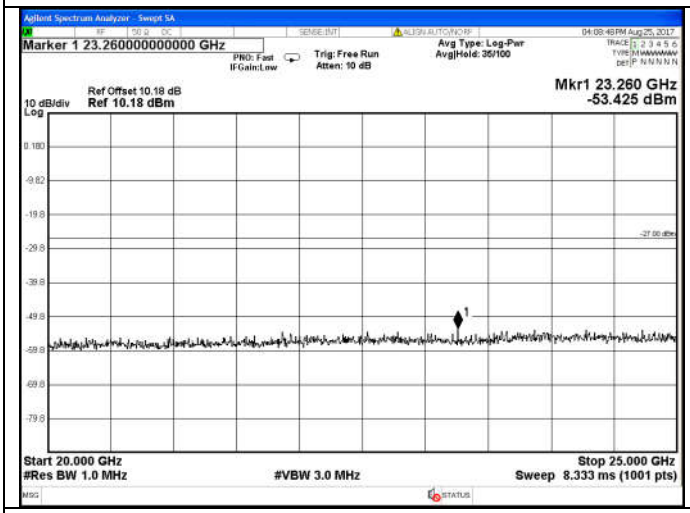
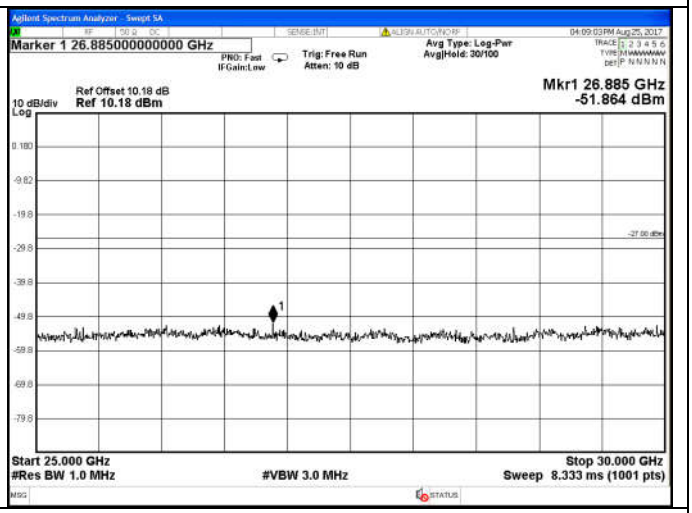
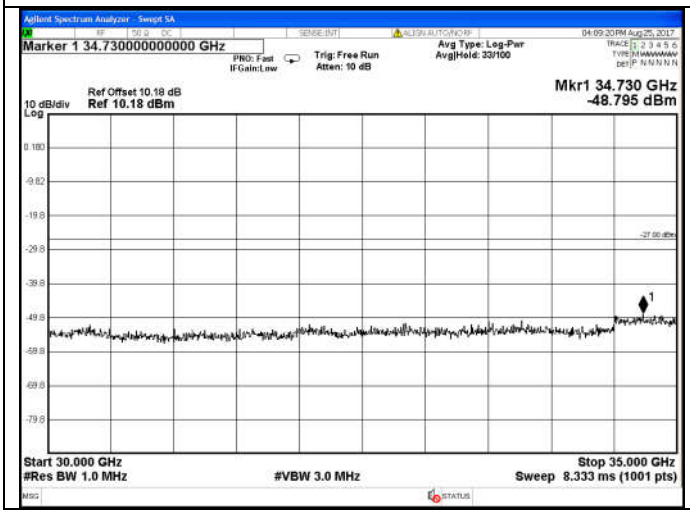
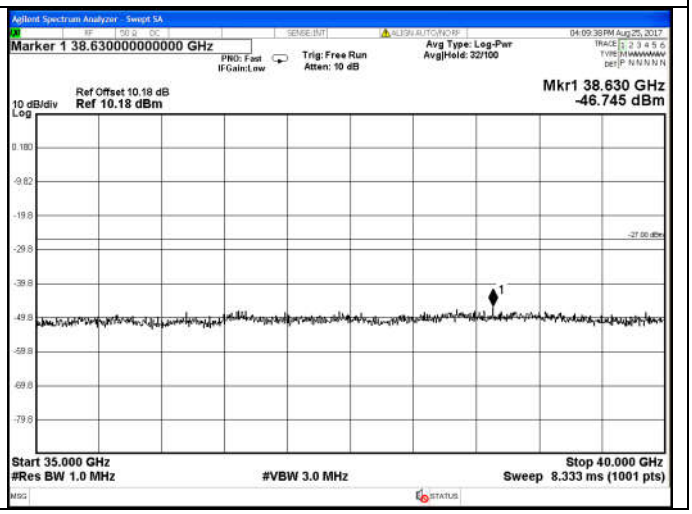


10GHz-15GHz



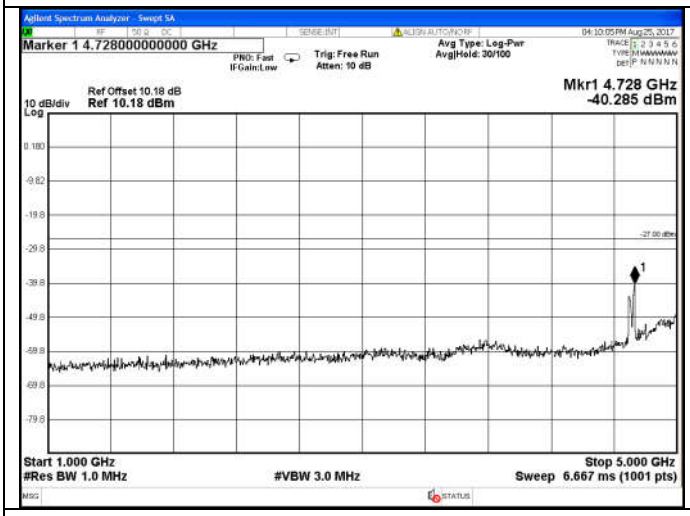
15GHz-20GHz



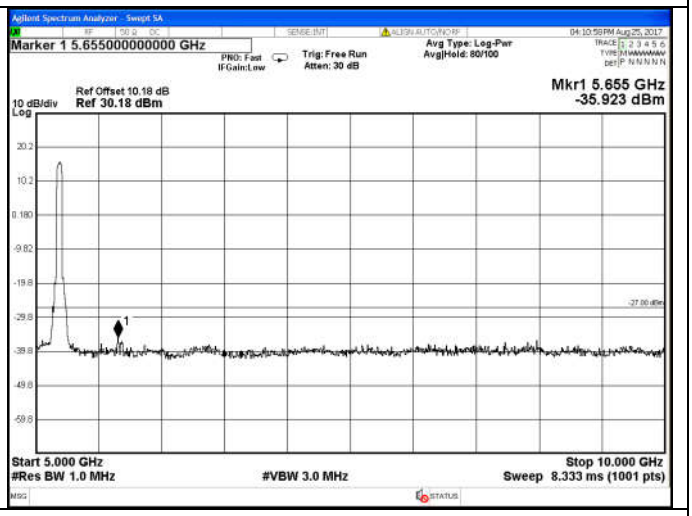
20GHz-25GHz	25GHz-30GHz
	
30GHz-35GHz	**35GHz-40GHz**
	

ANT1:
Test Mode: IEEE 802.11n HT40
Test CH38: 5190MHz

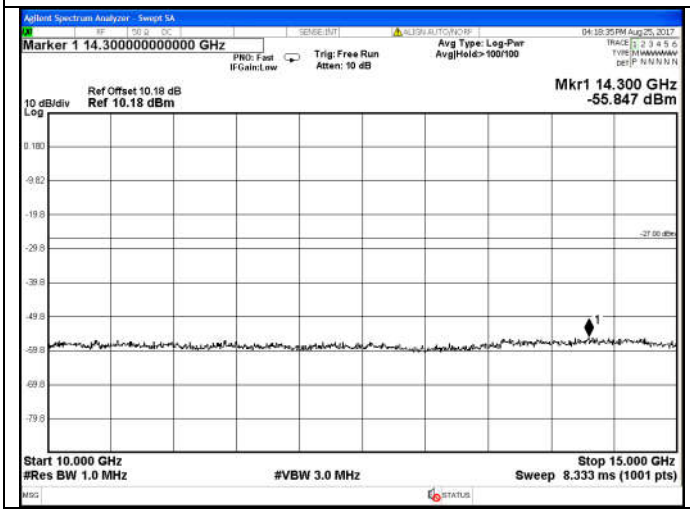
1GHz-5GHz



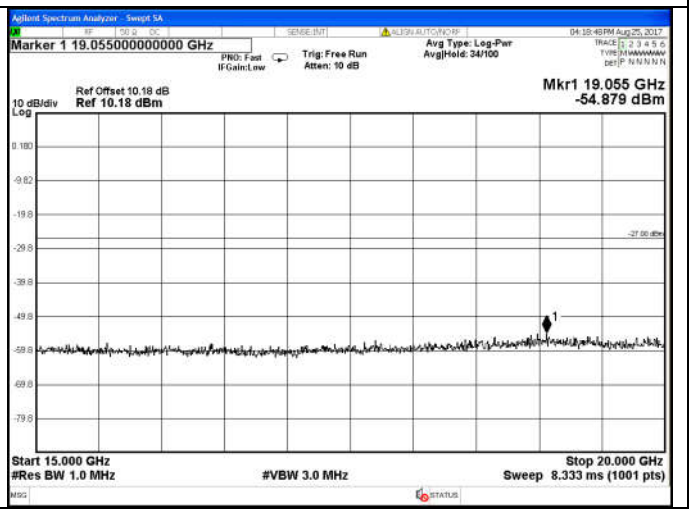
5GHz-10GHz



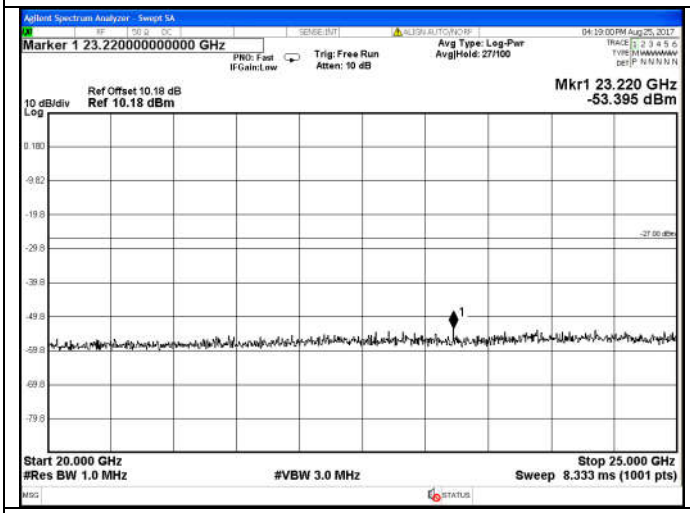
10GHz-15GHz



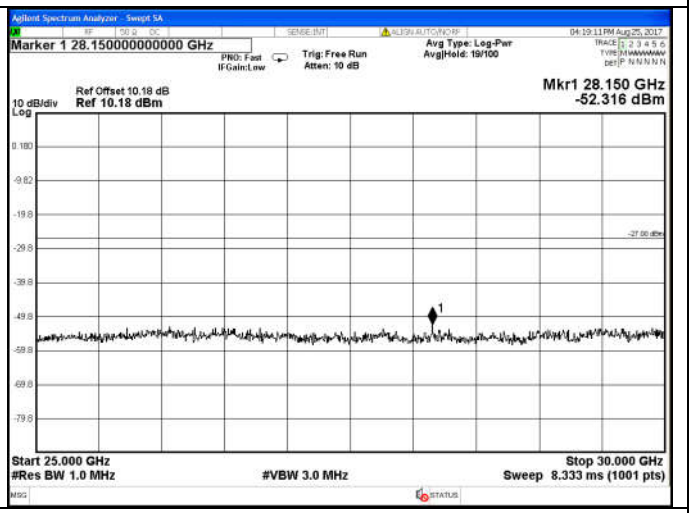
15GHz-20GHz



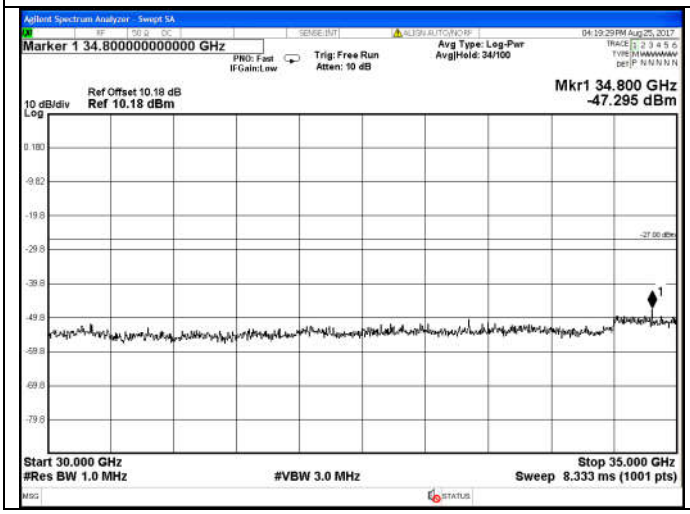
20GHz-25GHz



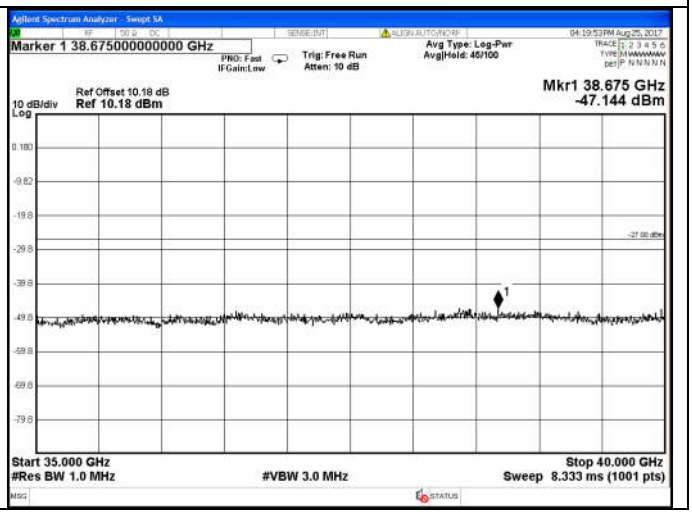
25GHz-30GHz



30GHz-35GHz

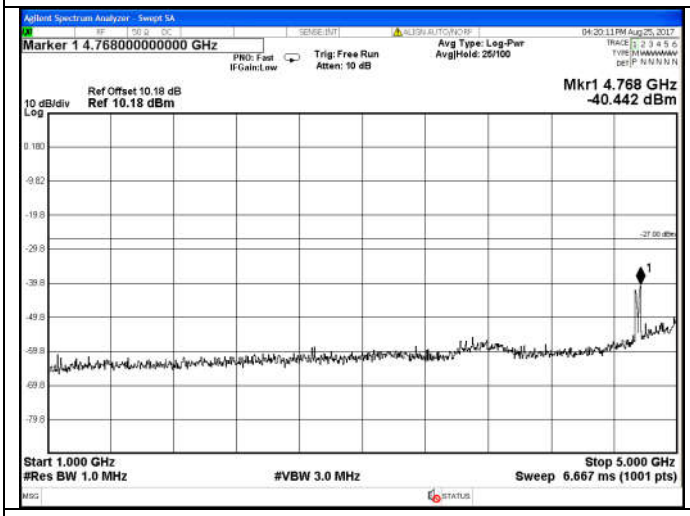


35GHz-40GHz

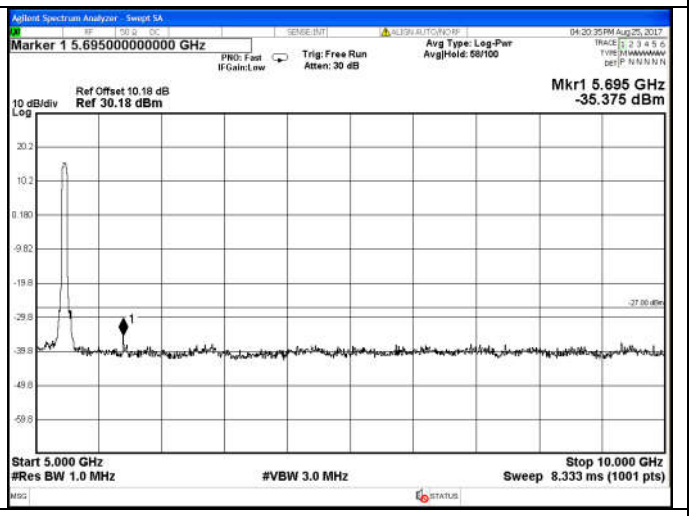


ANT1:
Test Mode: IEEE 802.11n HT40
Test CH46: 5230MHz

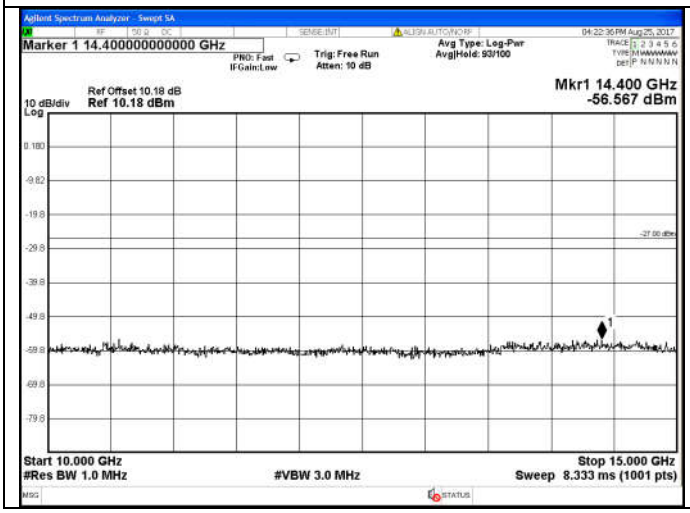
1GHz-5GHz



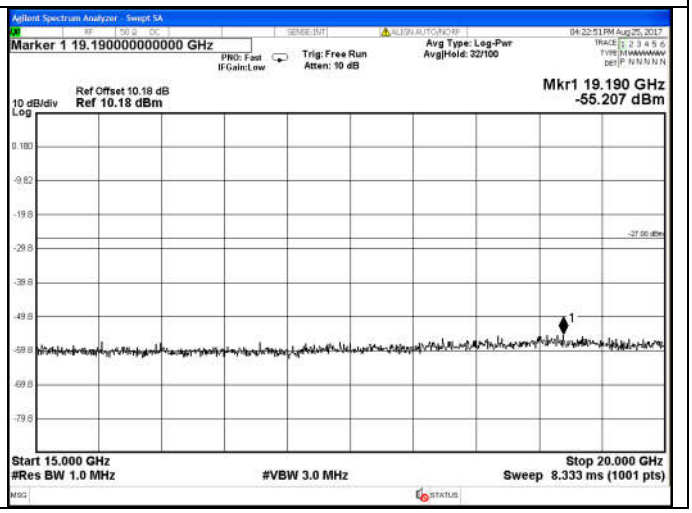
5GHz-10GHz

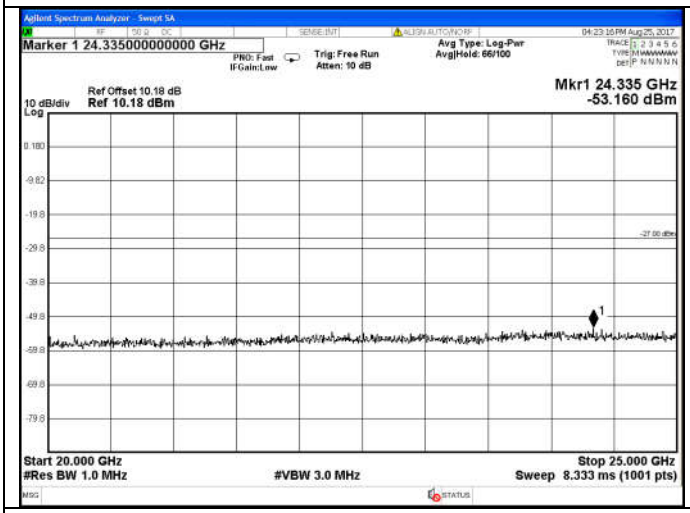
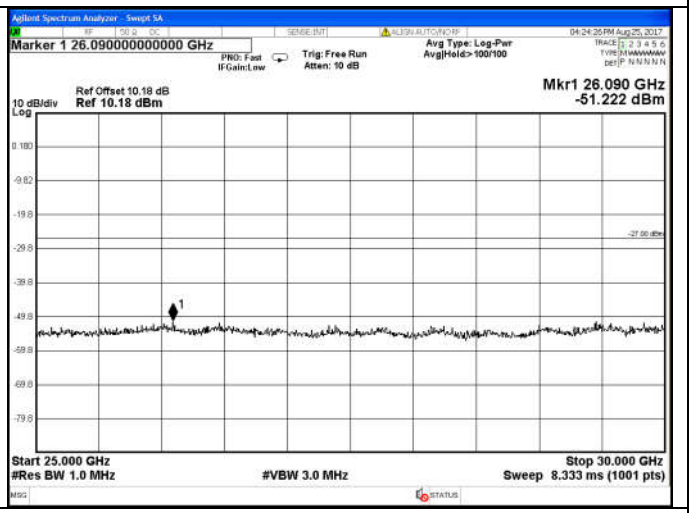
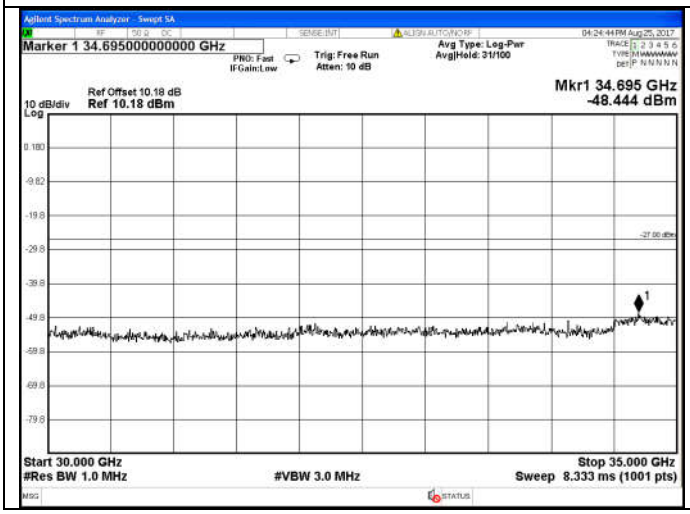
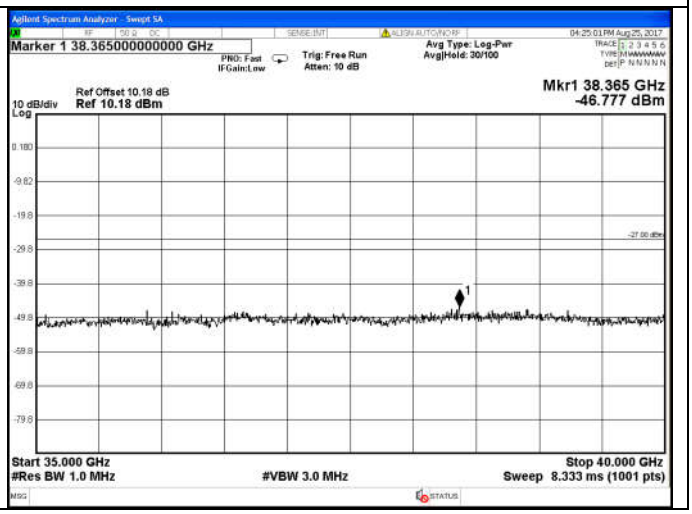


10GHz-15GHz



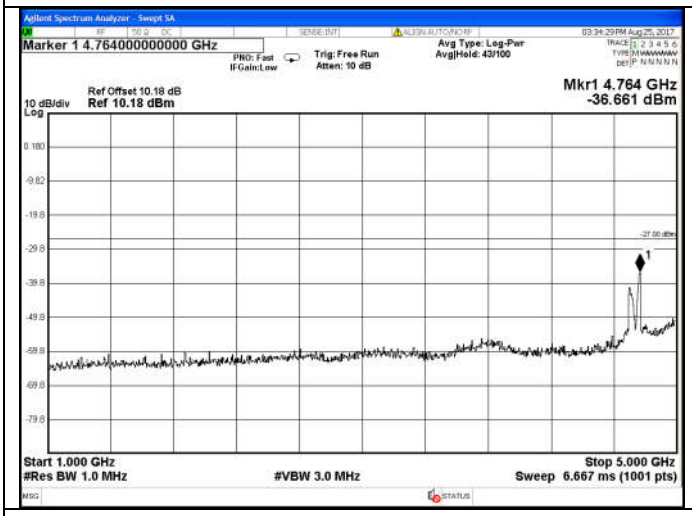
15GHz-20GHz



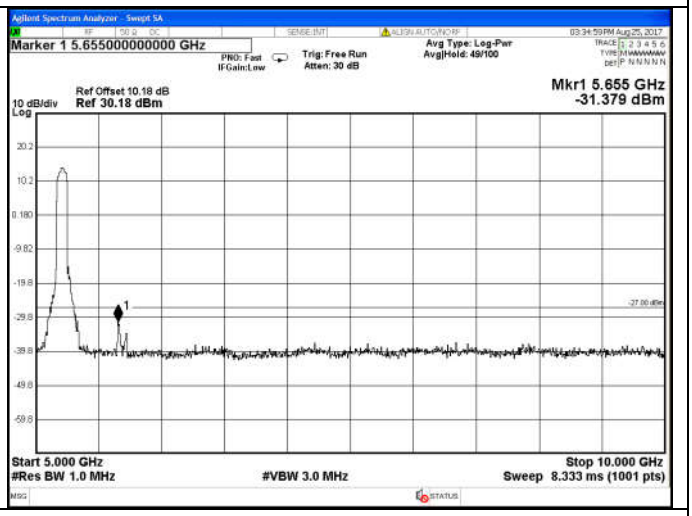
20GHz-25GHz	25GHz-30GHz
	
30GHz-35GHz	35GHz-40GHz
	

ANT1:
Test Mode: IEEE 802.11ac VHT80
Test CH42: 5210MHz

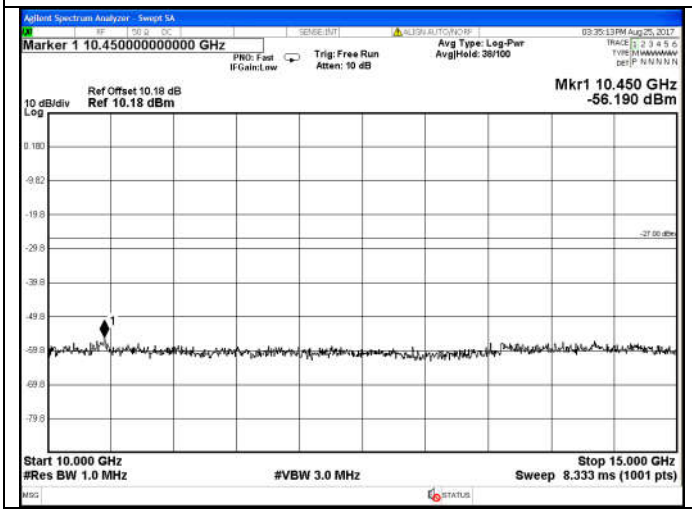
1GHz-5GHz



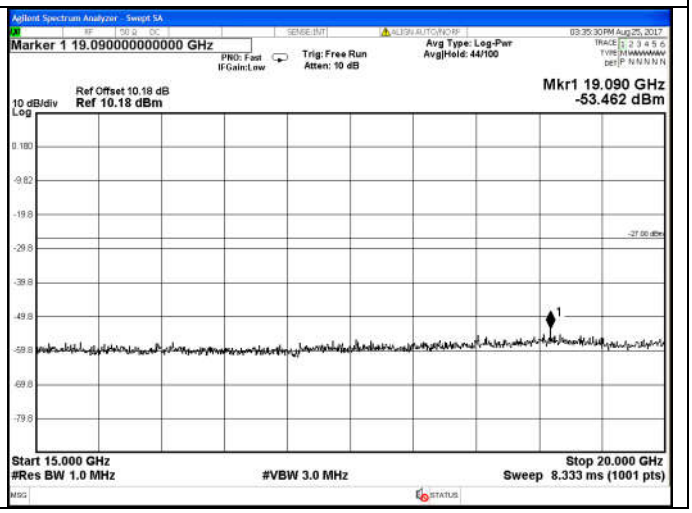
5GHz-10GHz



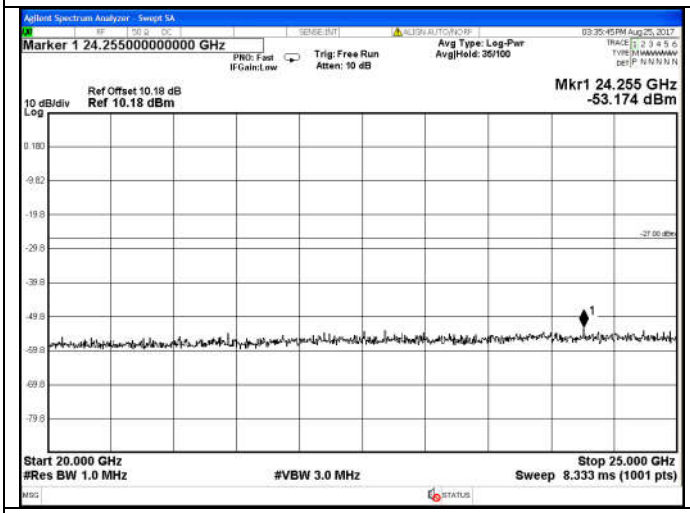
10GHz-15GHz



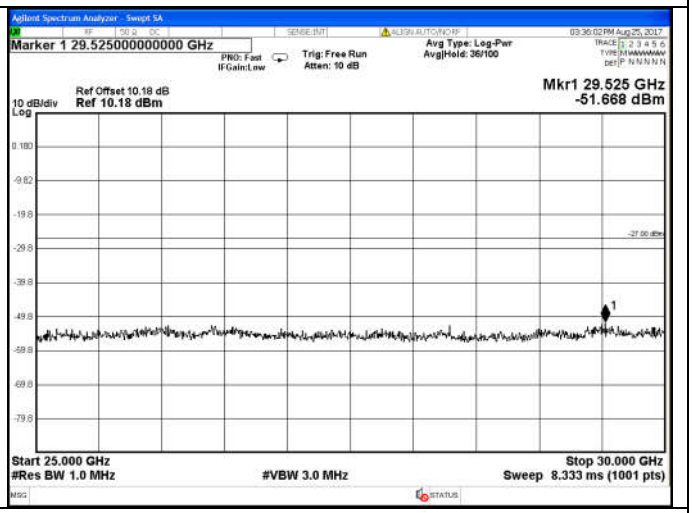
15GHz-20GHz



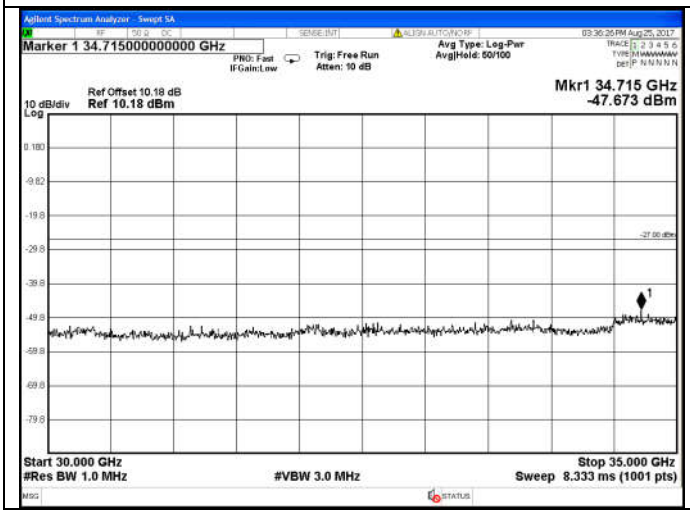
20GHz-25GHz



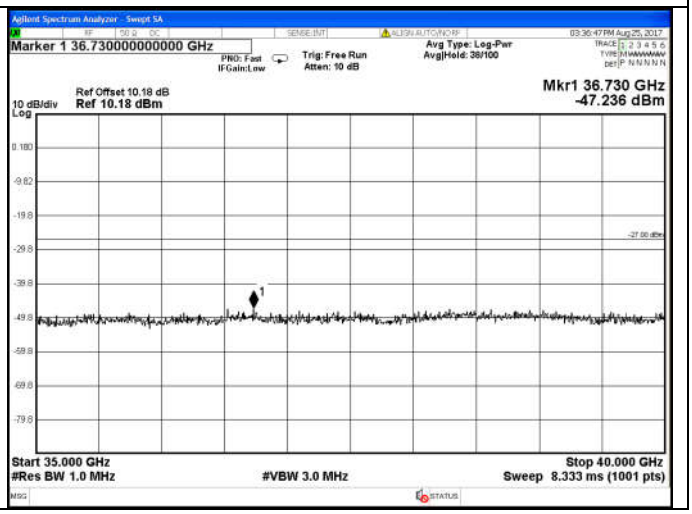
25GHz-30GHz



30GHz-35GHz



35GHz-40GHz



8. 99% & 26dB Bandwidth Test

8.1.Test Procedure

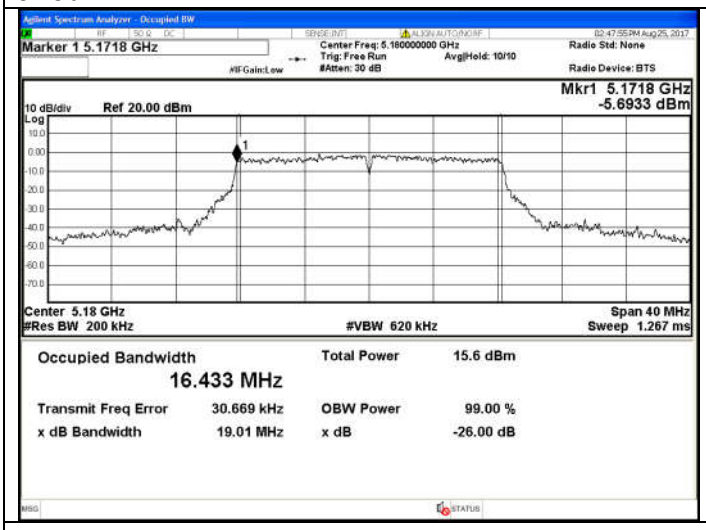
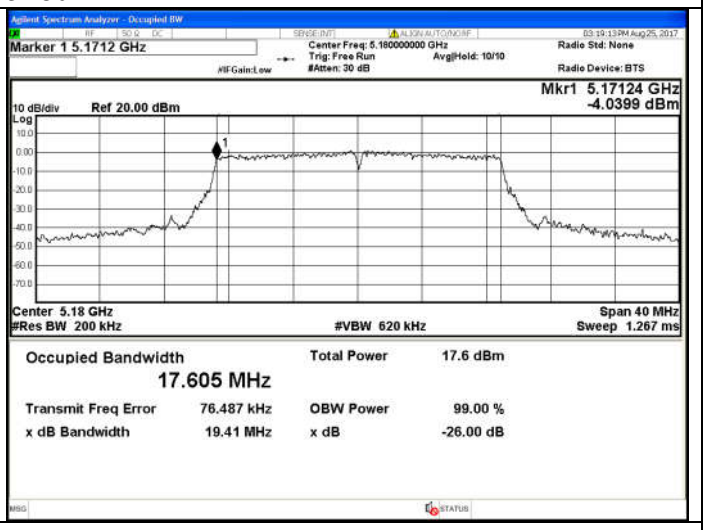
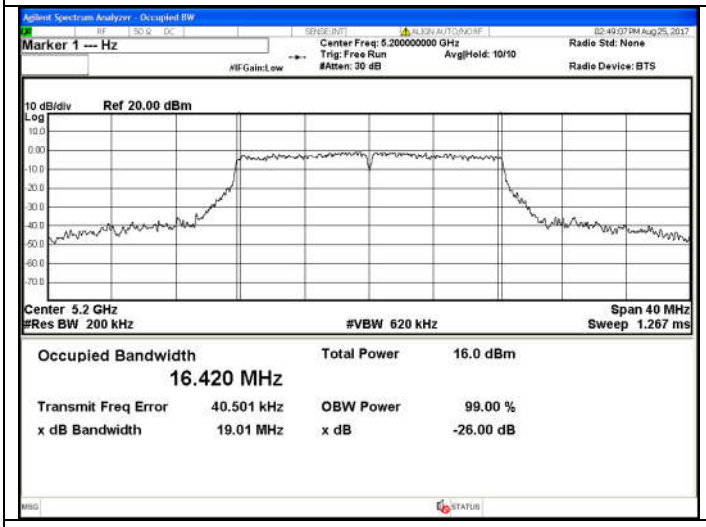
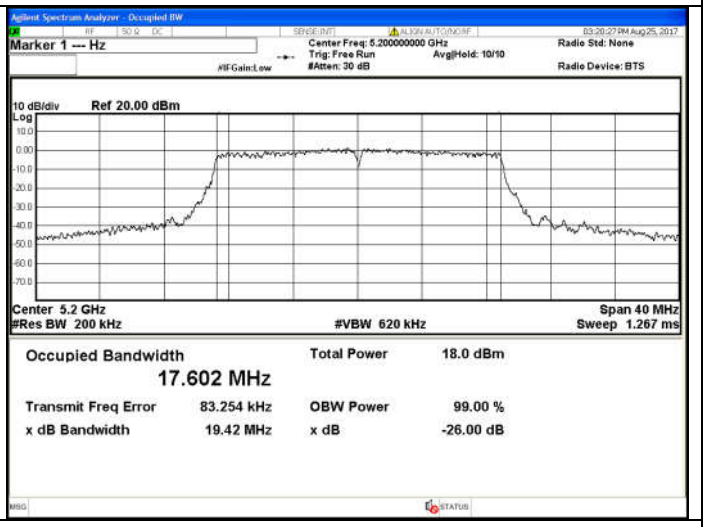
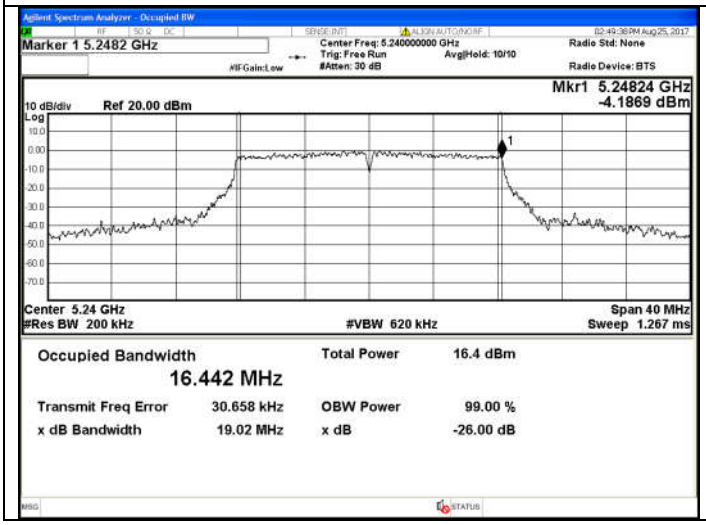
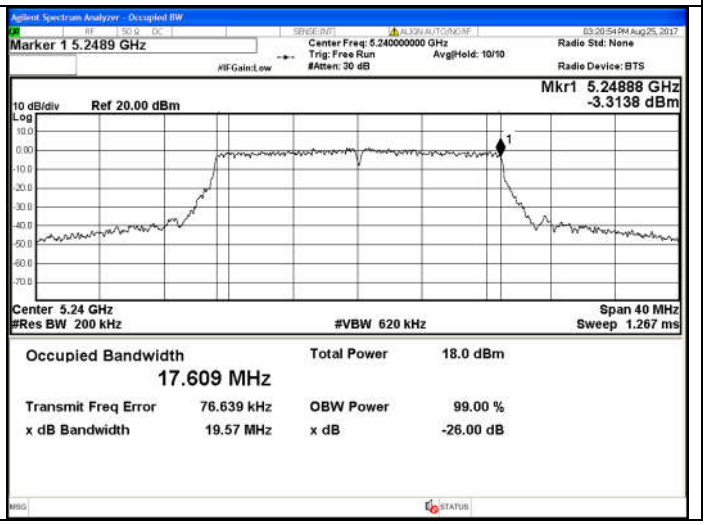
26dB Bandwidth:
The transmitter output was connected to a spectrum analyzer, The bandwidth of the fundamental frequency was measured by spectrum analyzer with 200kHz RBW and 620 KHz VBW The 26dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 26dB.

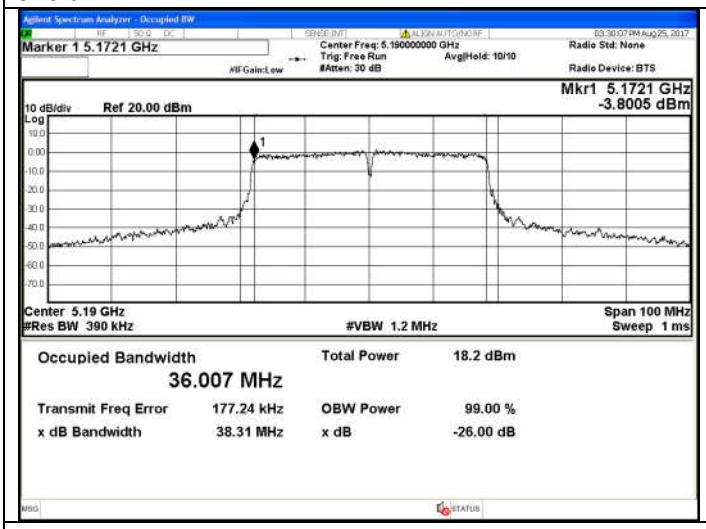
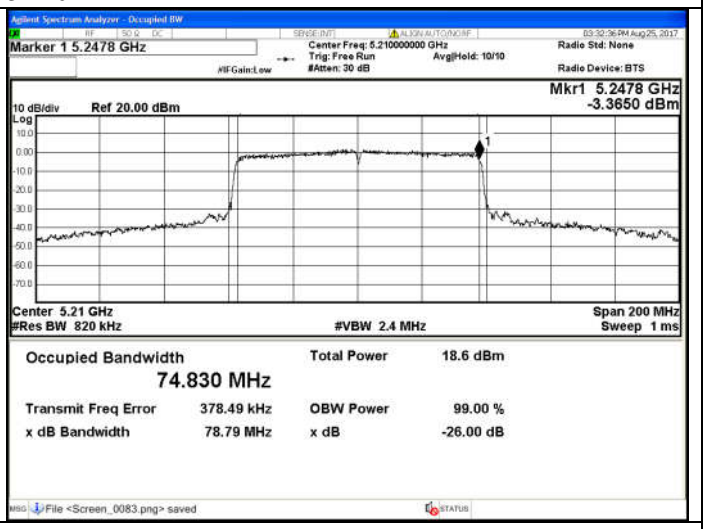
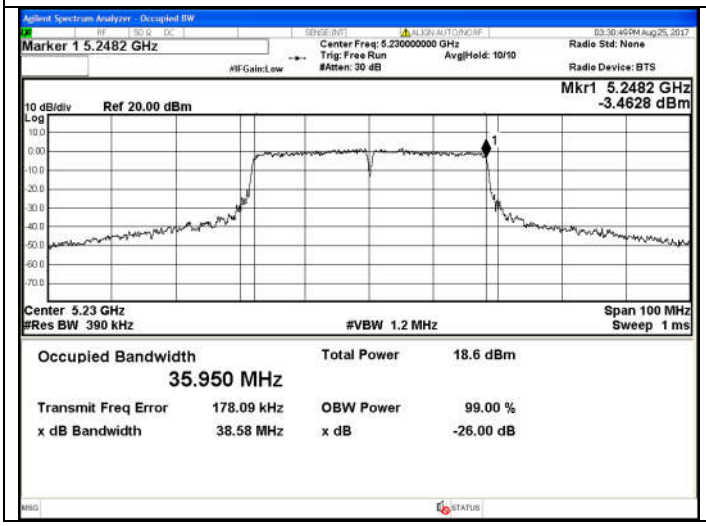
8.2.Test Results

5180-5240MHz Band:

Test Mode	Frequency (MHz)	99% bandwidth (MHz)	Limit
11a	5180	16.433	N/A
	5200	16.420	N/A
	5240	16.442	N/A
11n HT20	5180	17.605	N/A
	5200	17.602	N/A
	5240	17.609	N/A
11n HT40	5190	36.007	N/A
	5230	35.950	N/A
11ac VHT80	5210	74.830	N/A
Conclusion: PASS			

Test Mode	Frequency (MHz)	26dB Bandwidth (MHz)	Limit
11a	5180	19.01	N/A
	5200	19.01	N/A
	5240	19.02	N/A
11n HT20	5180	19.41	N/A
	5200	19.42	N/A
	5240	19.57	N/A
11n HT40	5190	38.31	N/A
	5230	38.58	N/A
11ac VHT80	5210	78.79	N/A
Conclusion: PASS			

5180-5240MHz Band:	
ANT1	
11a	**11n HT20**
5180MHz	5180MHz
	
5200MHz	5200MHz
	
5240MHz	5240MHz
	

11n HT40	**11ac VHT80**
5190MHz	5210MHz
	
5230MHz	
	

9. OUTPUT POWER TEST

9.1. Limit

For the band 5.15–5.25 GHz.
For an indoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W(30dBm) provided the maximum antenna gain does not exceed 6 dBi.

9.2. Test Procedure

1. Connected the EUT's antenna port to measure device by 20dB attenuator.
2. Use the test method described in KBD789033 clause E Method SA-1
   1) Set span to encompass the entire emission bandwidth (EBW) (or, alternatively, the entire 99% occupied bandwidth) of the signal.
   2) Set RBW = 1 MHz.
   3) Set VBW ≥ 3 MHz.
   4) Number of points in sweep ≥ 2 × span / RBW.
   5) Sweep time = auto.
   6) Detector = power averaging (rms), if available. Otherwise, use sample detector mode.
   7) If transmit duty cycle < 98%, 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%, and if each transmission is entirely at the maximum power control level, then the trigger shall be set to "free run."
   8) Trace average at least 100 traces in power averaging (rms) mode.
   9) 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 levels (in power units) at 1 MHz intervals extending across the EBW (or, alternatively, the entire 99% occupied bandwidth) of the spectrum.

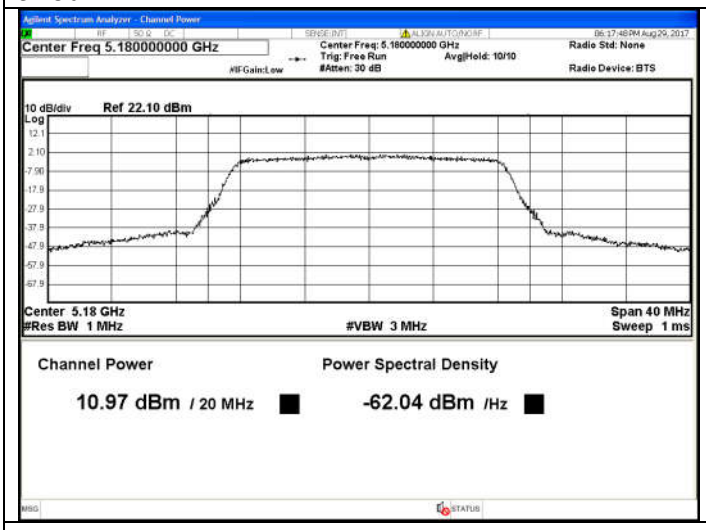
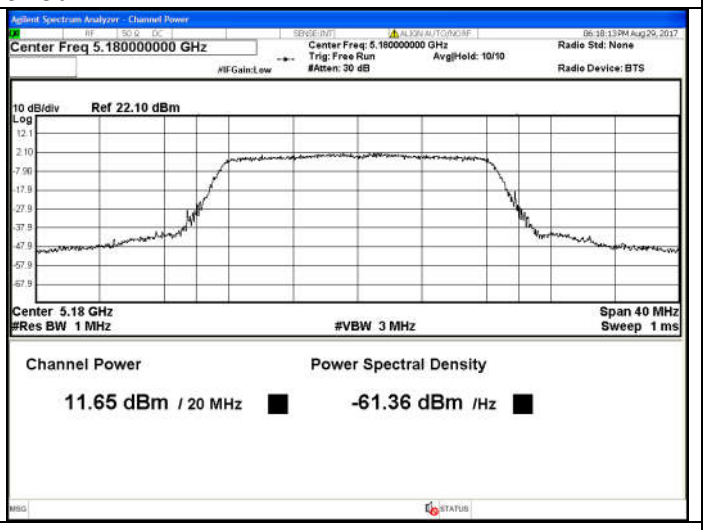
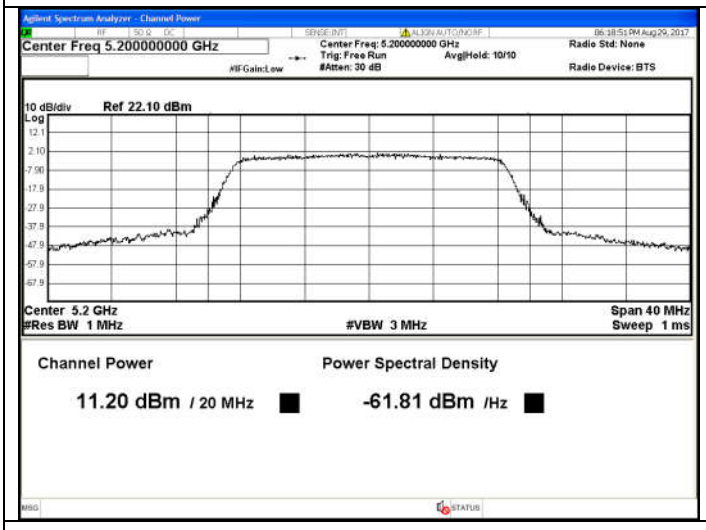
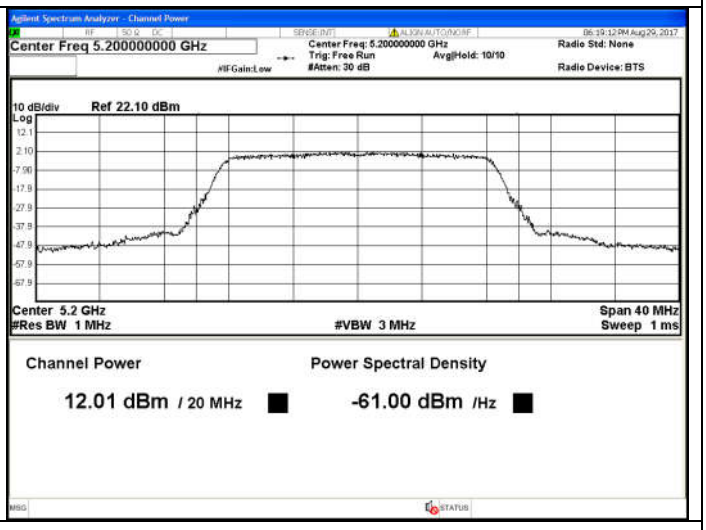
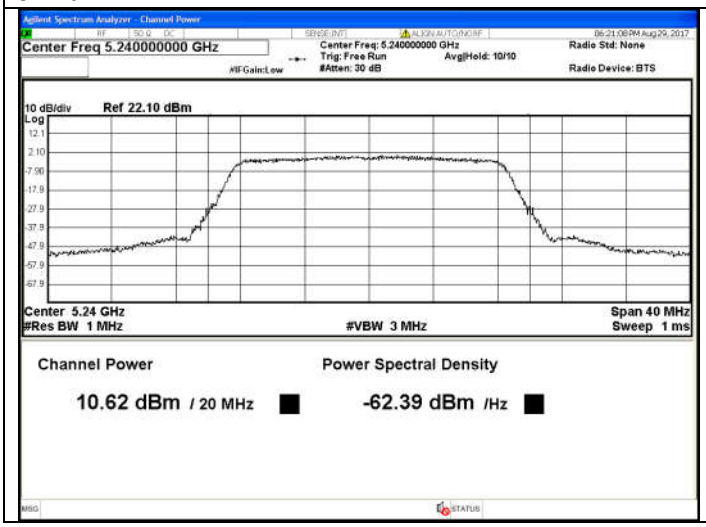
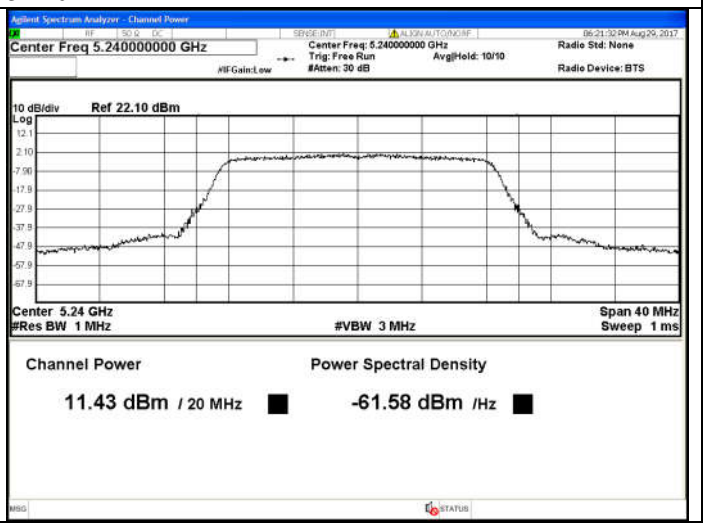
Note: The cable loss and attenuator loss were offset into measure device as an amplitude offset.

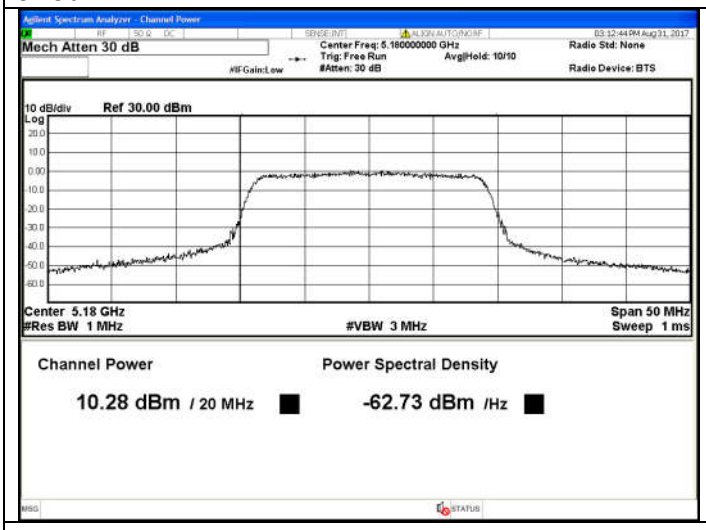
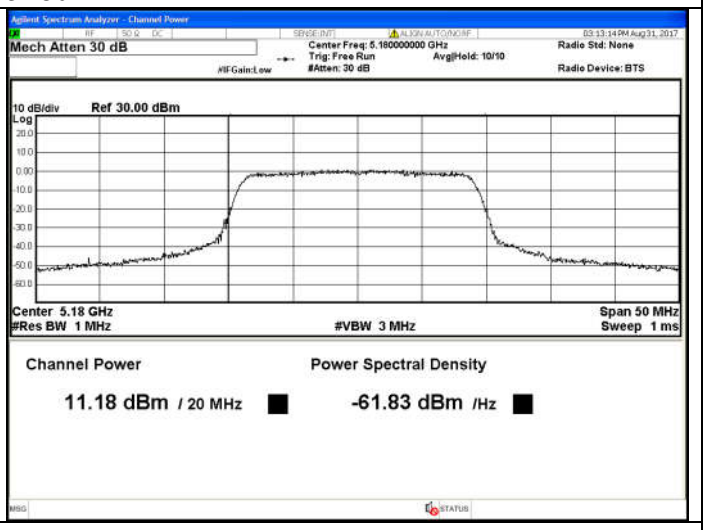
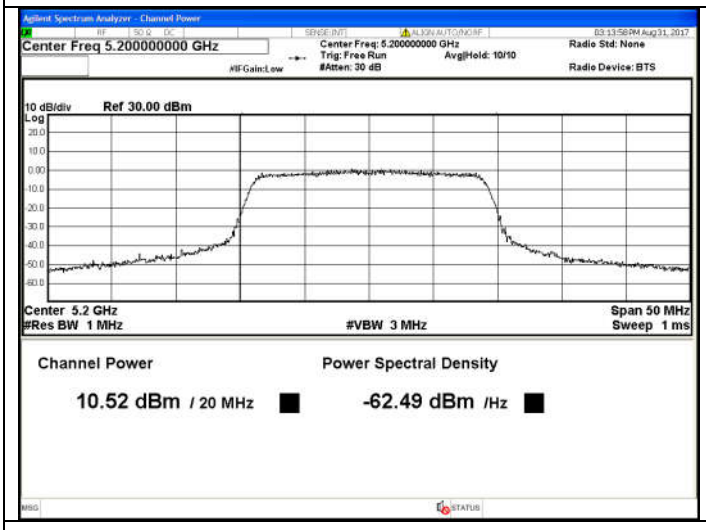
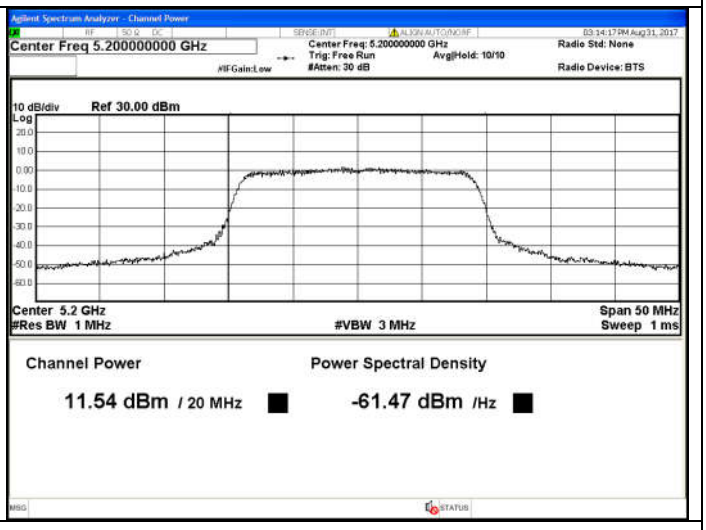
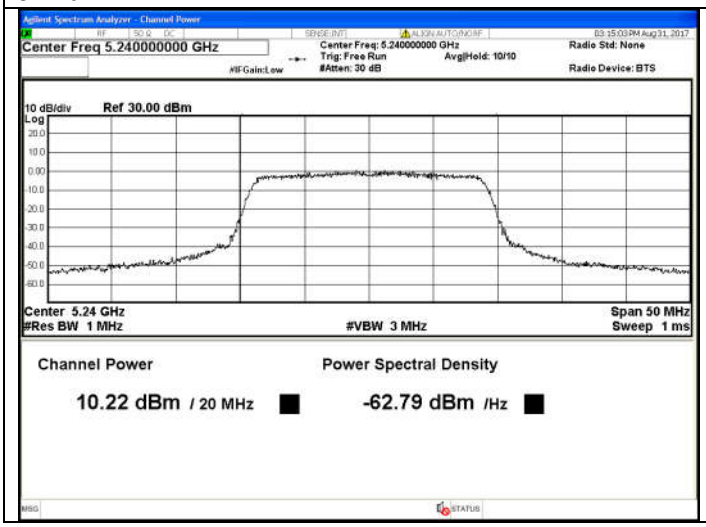
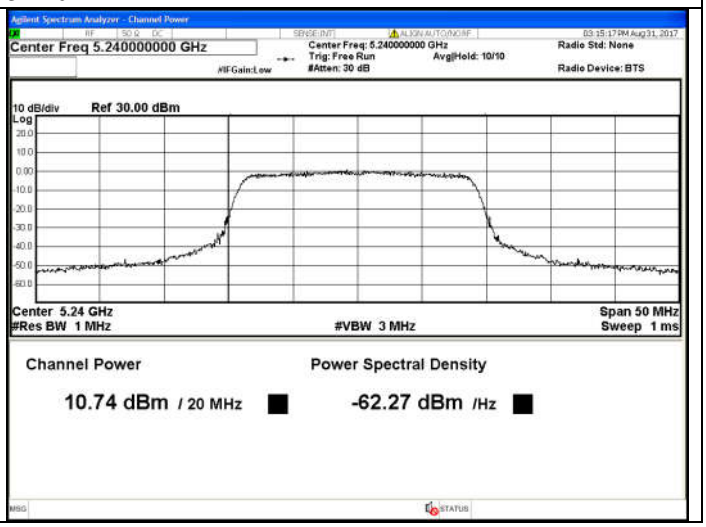
9.3.Test Results

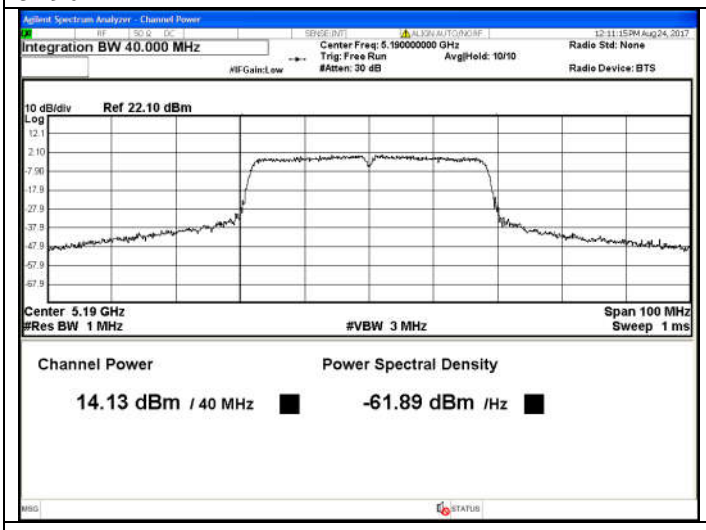
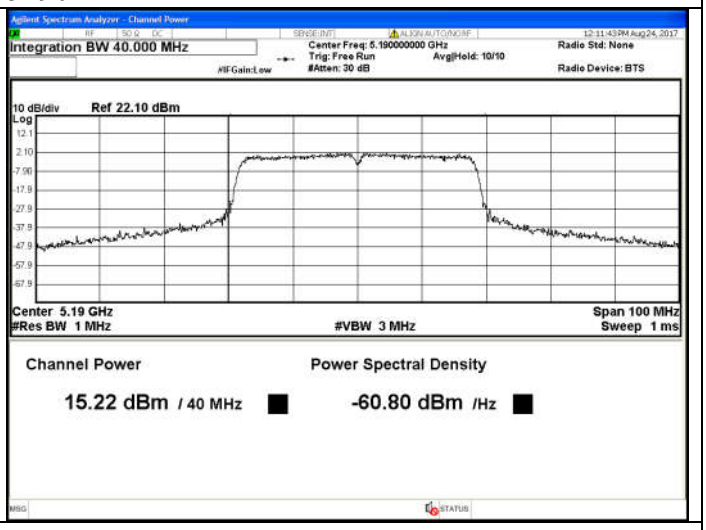
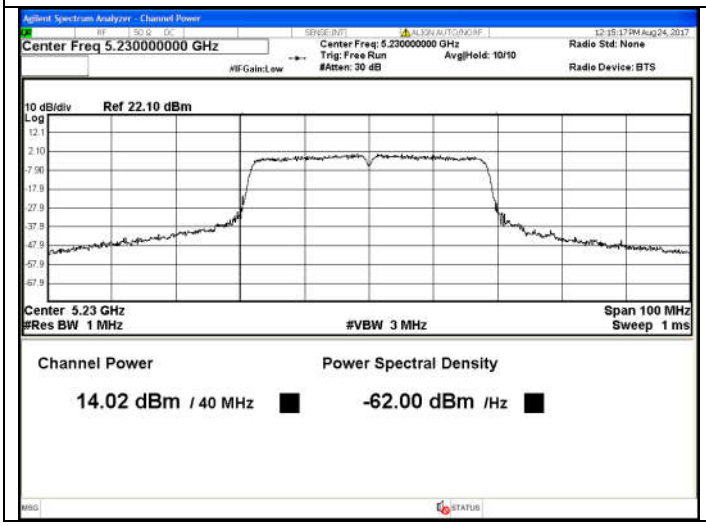
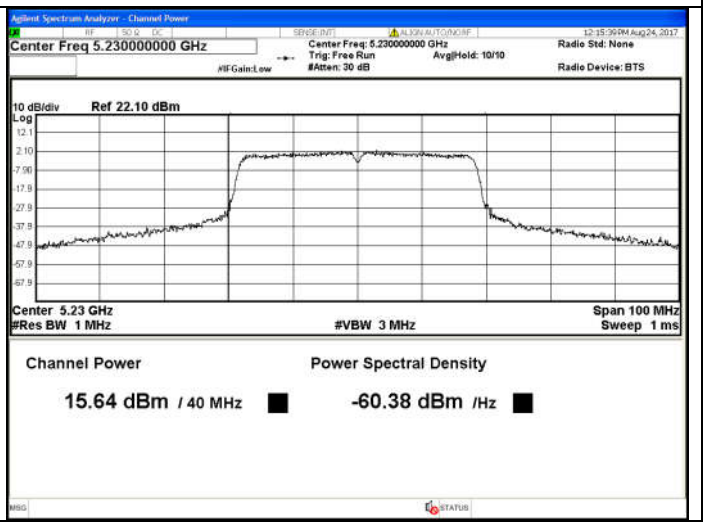
5180-5240MHz Band:

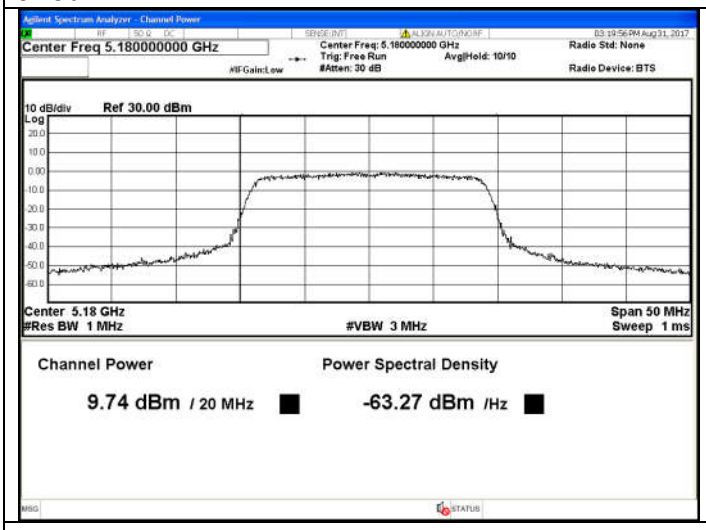
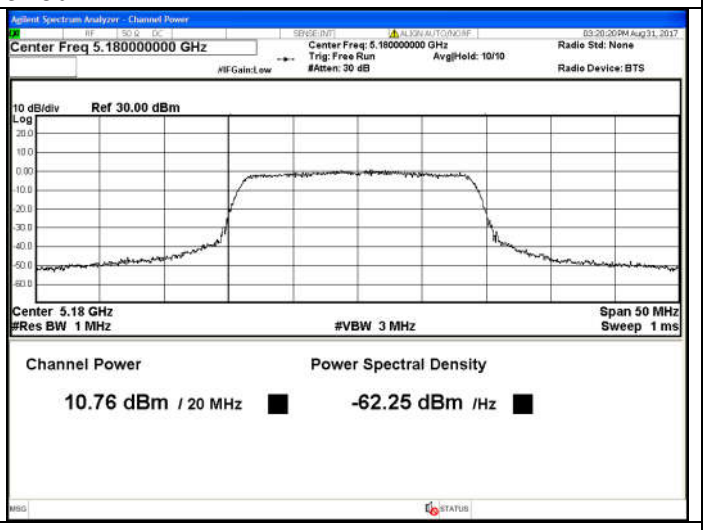
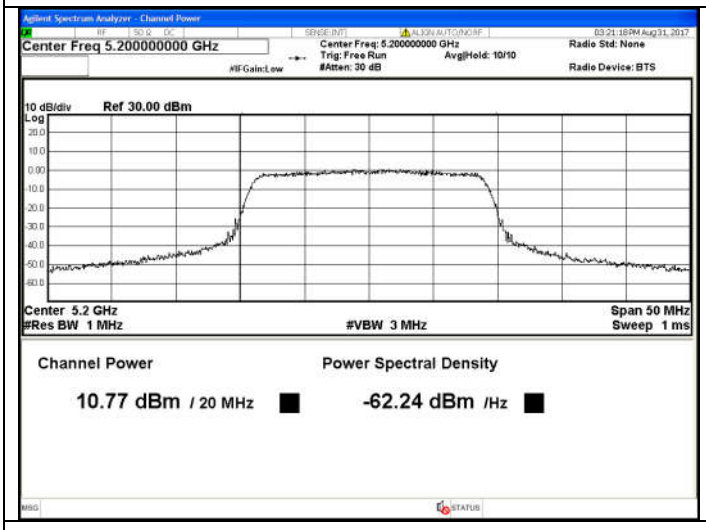
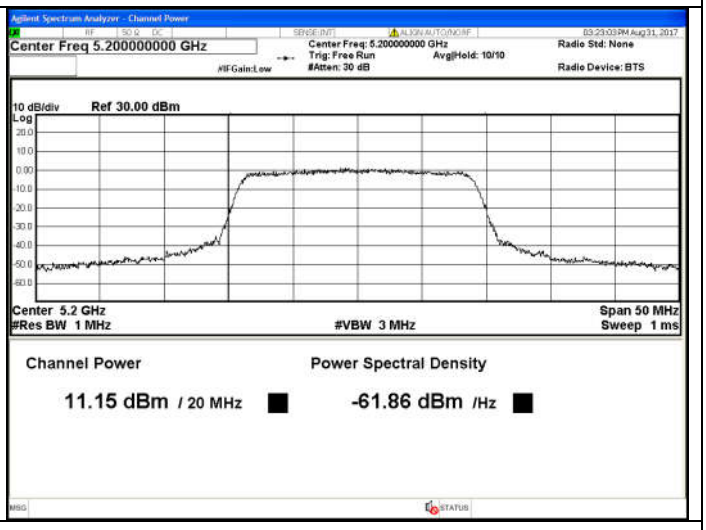
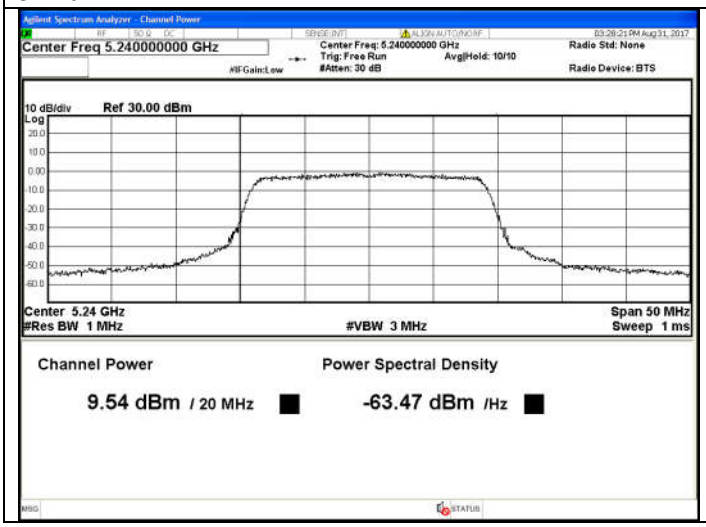
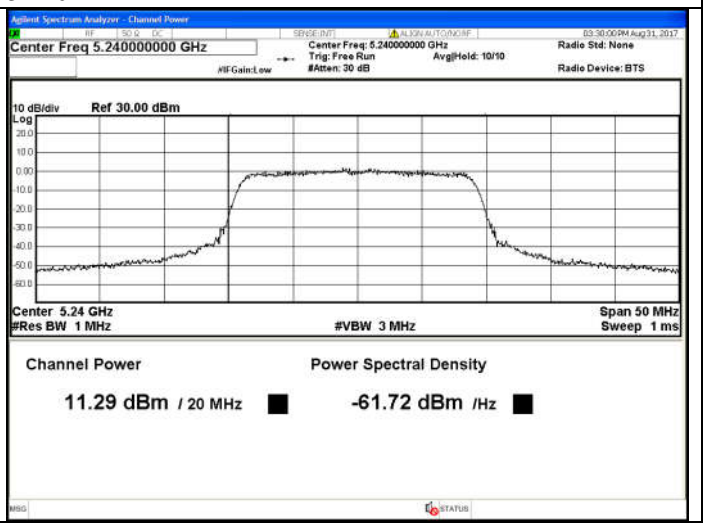
Test Mode	Frequency (MHz)	output Power (dBm)			Limit (dBm)
		ANT 0	ANT 1	Total	
11a	5180	10.97	11.65	14.33	30
	5200	11.20	12.01	14.63	30
	5240	10.62	11.43	14.05	30
11n HT20	5180	10.28	11.18	13.76	30
	5200	10.52	11.54	14.07	30
	5240	10.22	10.74	13.50	30
11n HT40	5190	14.13	15.22	17.72	30
	5230	14.02	15.64	17.92	30
11ac VHT20	5180	9.74	10.76	13.29	30
	5200	10.77	11.15	13.97	30
	5240	9.54	11.29	13.51	30
11ac VHT40	5190	13.68	14.80	17.29	30
	5230	13.38	15.14	17.36	30
11ac VHT80	5210	13.81	14.81	17.35	30
Conclusion: PASS					

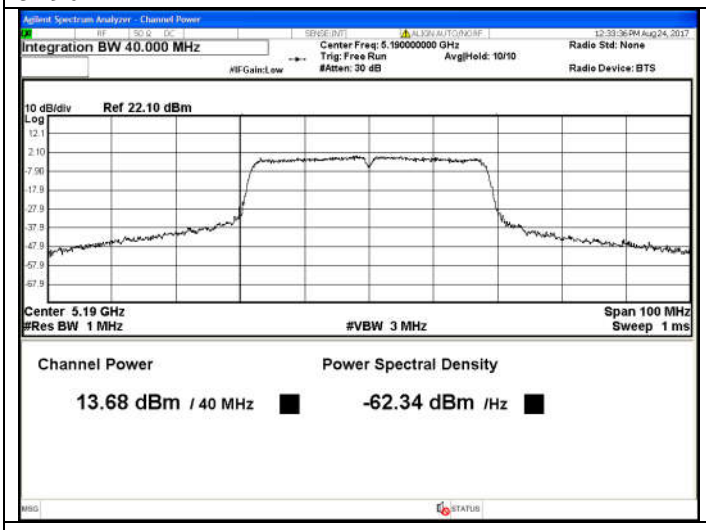
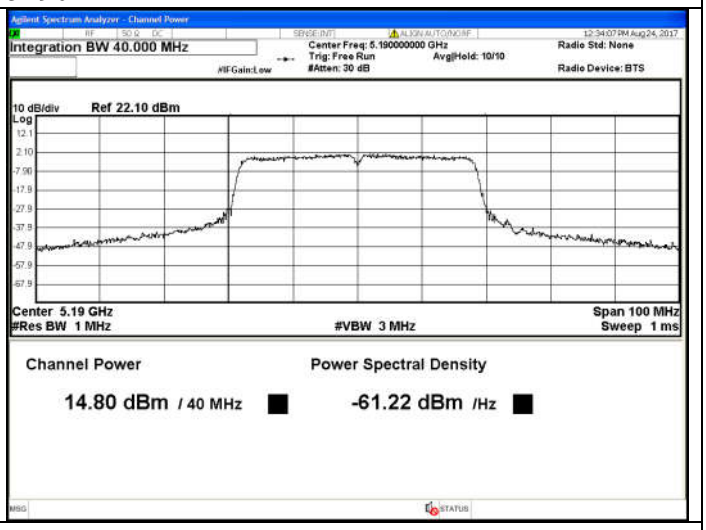
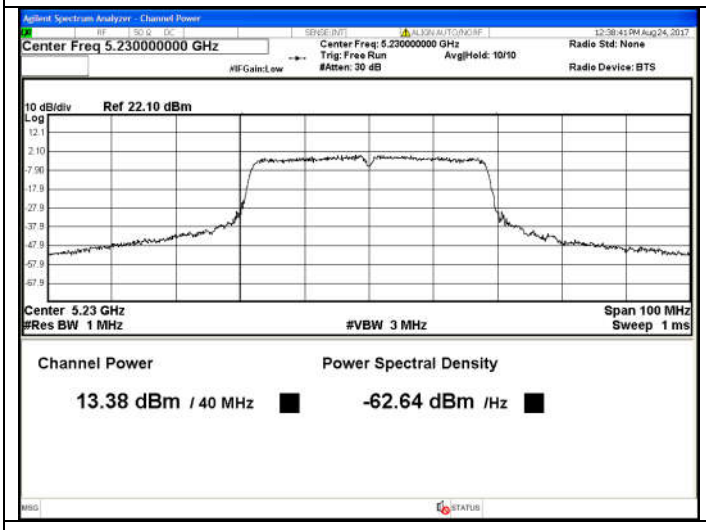
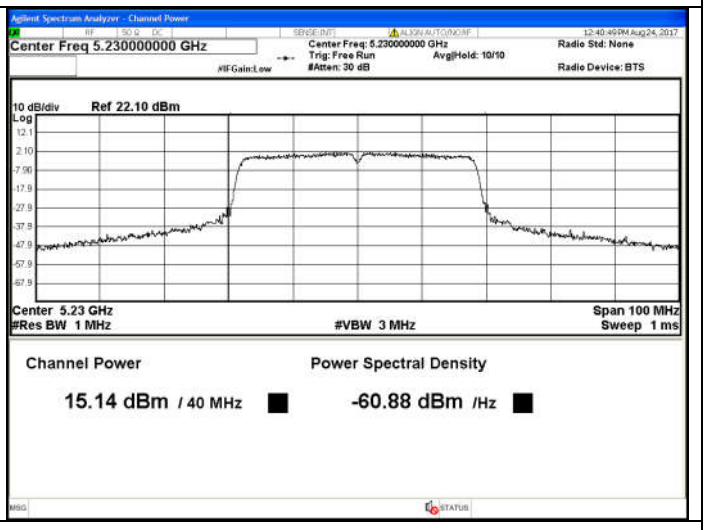
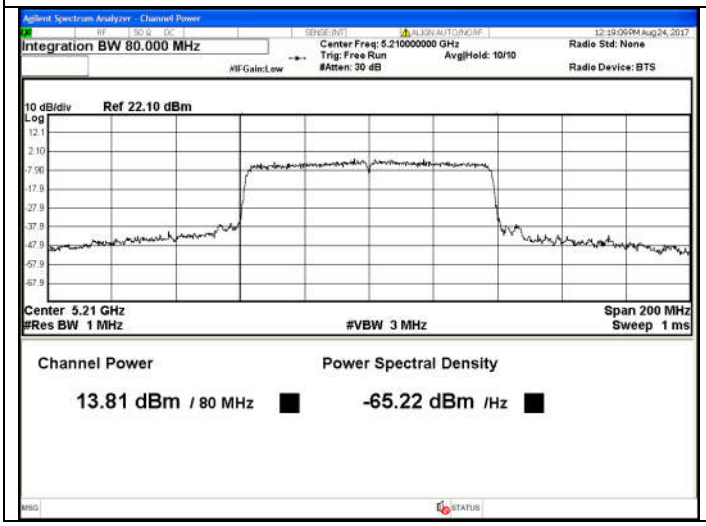
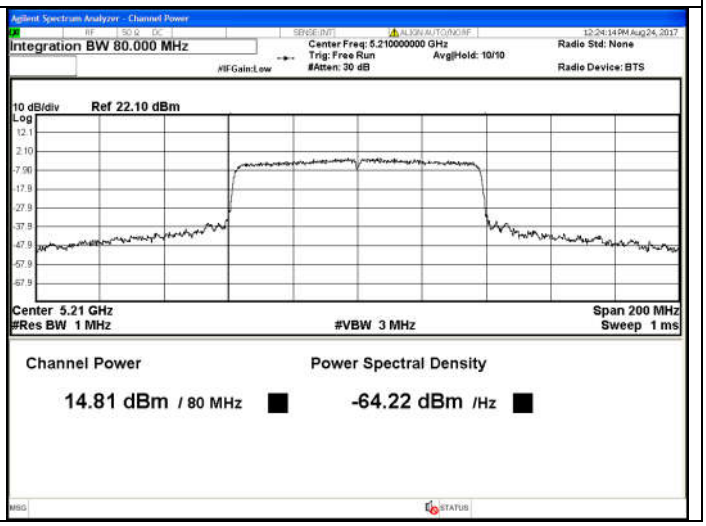
Note: 1. Directional Gain= G_{ANT} = 5.08dBi < 6dBi.
2. The transmit signals are uncorrelated.

5180-5240MHz Band:	
ANT 0	**ANT 1**
11a	**11a**
5180MHz	5180MHz
	
5200MHz	5200MHz
	
5240MHz	5240MHz
	

5180-5240MHz Band:	
ANT 0	**ANT 1**
11n HT20	**11n HT20**
5180MHz	5180MHz
	
5200MHz	5200MHz
	
5240MHz	5240MHz
	

5180-5240MHz Band:	
ANT 0	**ANT 1**
11n HT40	**11n HT40**
5190MHz	5190MHz
	
5230MHz	5230MHz
	

5180-5240MHz Band:	
ANT 0	**ANT 1**
11ac VHT20	**11ac VHT20**
5180MHz	5180MHz
	
5200MHz	5200MHz
	
5240MHz	5240MHz
	

5180-5240MHz Band:	
ANT 0	**ANT 1**
11ac VHT40	**11ac VHT40**
5190MHz	5190MHz
	
5230MHz	5230MHz
	
11ac VHT80	**11ac VHT80**
5210MHz	5210MHz
	

10. EQUIVALENT Isotropic Radiated Power Test

10.1. Limit

Band 5150-5250 MHz:
The maximum e.i.r.p. shall not exceed 200 mW or 10 + 10 log10B, dBm, whichever power is less. B is the 99% emission bandwidth in megahertz.

10.2. Test Method

(1) Connected the EUT's antenna port to the Spectrum Analyzer by suitable attenuator ,set the Spectrum Analyzer as below:

Span: Zero
RBW:100KHz
VBW:100KHz

Read out the duty cycle(X) of the transmitter and record as X

(2) The channel power measure function of spectrum Analyzer was used to measure out average output power of transmitter.

(3)Calculated e.i.r.p according to the formula: Read + Cable loss + Atten loss + Antenna Gain + 10log(1/x)

(4)Repeated test at the lowest, the middle, and the highest frequency of the stated frequency range.

10.3.Test Results

5180-5240MHz Band:

Test Mode	CH	Max Out power (dBm)	Antenna Gain (dBi)	10log(1/X)	Max Out power EIRP (dBm)	EIRP Limit (dBm)
11a	5180	14.33	5.08	0	19.41	22.16
	5200	14.63			19.71	22.16
	5240	14.05			19.13	22.16
11n HT20	5180	13.76		0	18.84	22.46
	5200	14.07			19.15	22.46
	5240	13.50			18.58	22.46
11n HT40	5190	17.72		0	22.80	23.01
	5230	17.92			23.00	23.01
11ac VHT20	5180	13.29		0	18.37	23.01
	5200	13.97			19.05	23.01
	5240	13.51			18.59	23.01
11ac VHT40	5190	17.29		0	22.37	23.01
	5230	17.36			22.44	23.01
11ac VHT80	5210	17.35		0	22.43	23.01
Conclusion: PASS						

11.SPECTRAL DENSITY TEST

11.1.Limit

For 15.407:

Band 5150-5250 MHz:

The maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band.

For RSS-247:

Band 5150-5250 MHz:

The e.i.r.p spectral density shall not exceed 10 dBm in any 1.0 MHz band.

11.2.Test Procedure

For the Band 5.15-5.35GHz; 5.47-5.725 GHz:

The transmitter output was connected to a spectrum analyzer. Power density was measured by spectrum analyzer with 1MHz RBW and 3MHz VBW; Detector: RMS mode.

For the band 5.725-5.85 GHz:

The transmitter output was connected to a spectrum analyzer. Power density was measured by spectrum analyzer with 1MHz RBW and 3MHz VBW,RMS Detector.

So use the test method described in KDB789033 clause E

1) Set the RBW=100kHz and VBW =3MHz
2) 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.)
3) Sweep time = auto
4) Detector = RMS (i.e., power averaging), if available. Otherwise, use sample detector mode.
5) Use the “peak search” function of spectrum analyzer find the max value, then add 10log (500kHz/RBW) to the measured result.

Note: The cable loss and attenuator loss were offset into measure device as an amplitude offset.

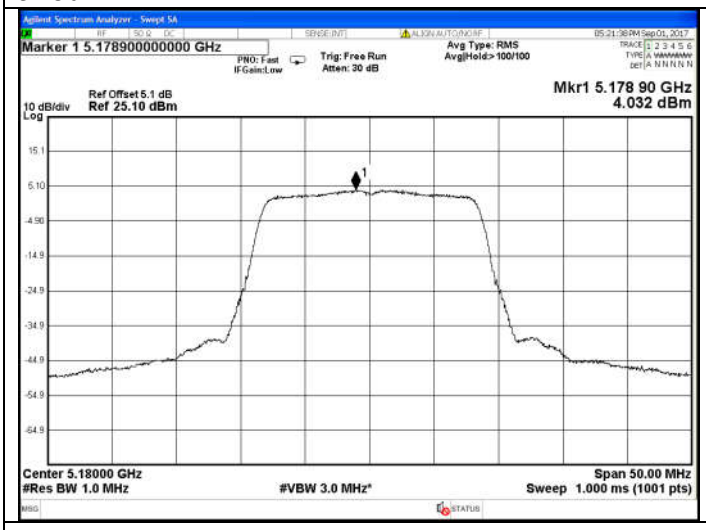
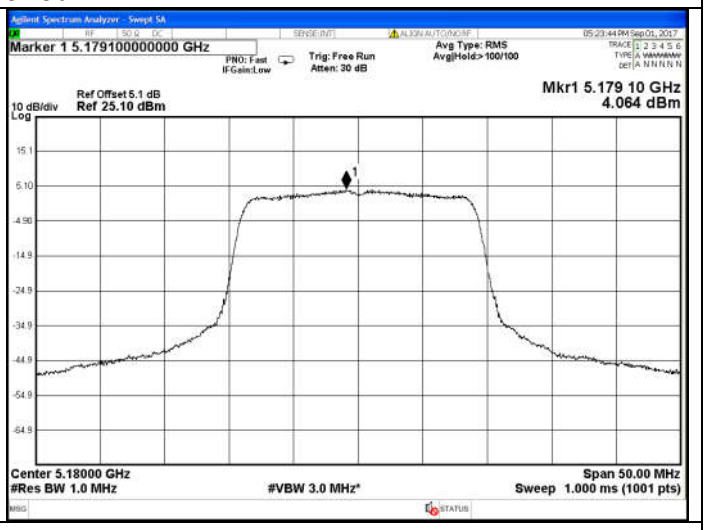
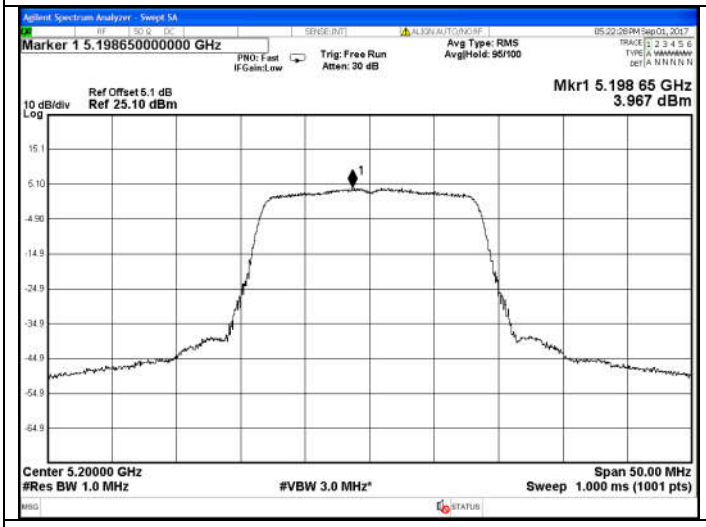
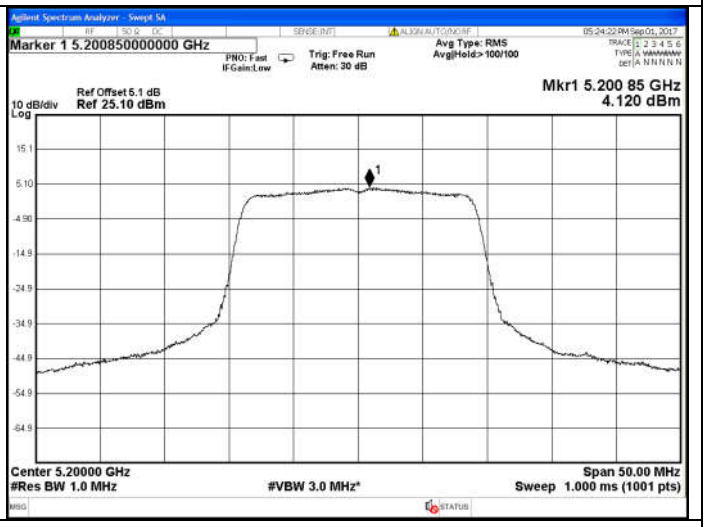
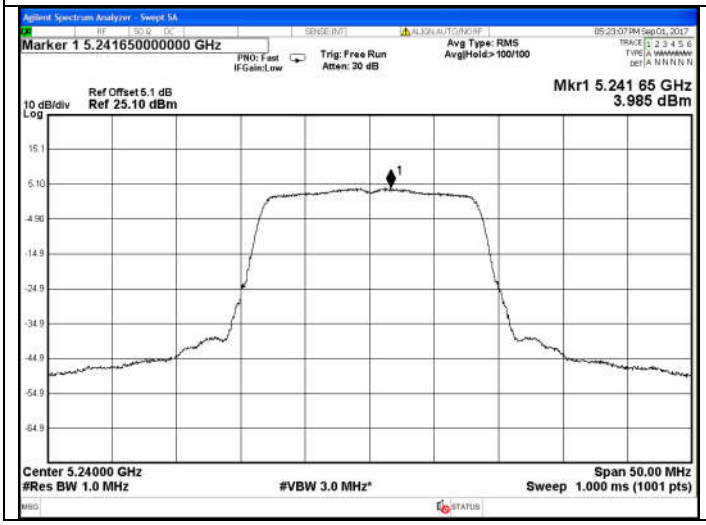
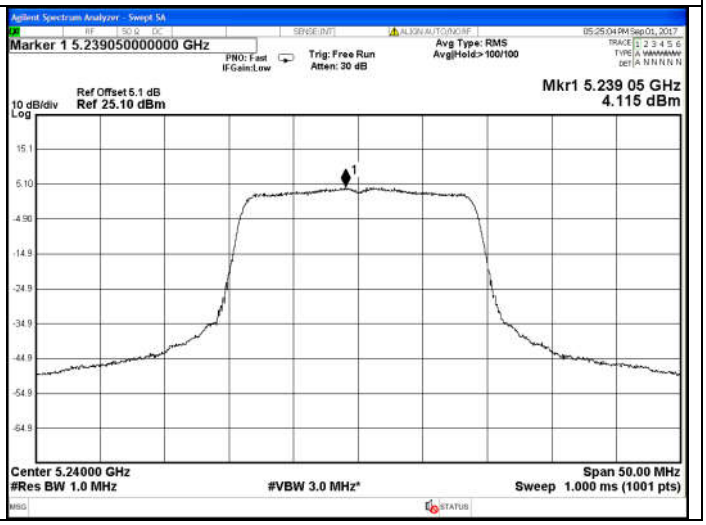
11.3.Test Results

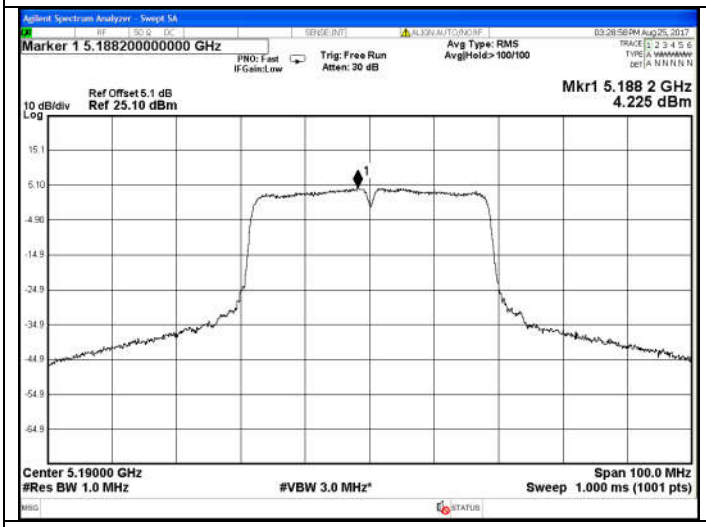
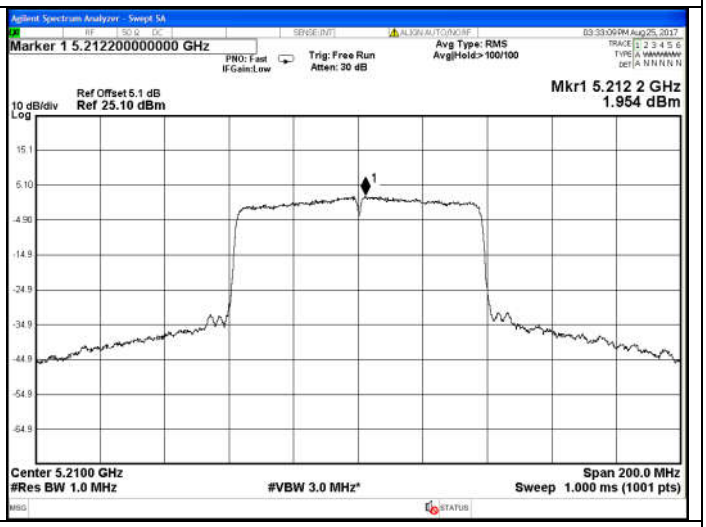
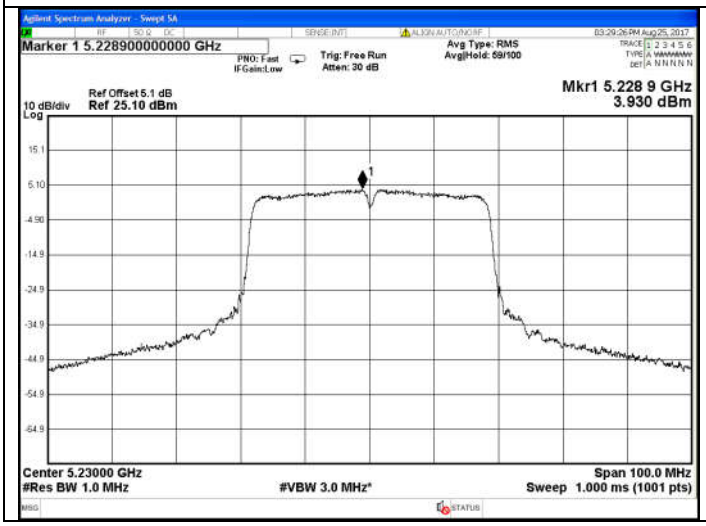
5180-5240MHz Band:

Test Mode	Frequency (MHz)	Power density (dBm/MHz)	Power density Limit (dBm/MHz)
11a	5180	4.032	17
	5200	3.967	17
	5240	3.985	17
11n HT20	5180	4.064	17
	5200	4.120	17
	5240	4.115	17
11n HT40	5190	4.225	17
	5230	3.930	17
11ac VHT80	5210	1.954	17
Conclusion: PASS			

Note: 1. Directional Gain= G_{ANT} = 5.08dBi < 6dBi.
2. The transmit signals are uncorrelated.

Test Mode	Frequency (MHz)	e.i.r.p Power density (dBm/MHz)	e.i.r.p Power density Limit (dBm/MHz)
11a	5180	9.112	10
	5200	9.047	10
	5240	9.065	10
11n HT20	5180	9.144	10
	5200	9.200	10
	5240	9.195	10
11n HT40	5190	9.305	10
	5230	9.010	10
11ac VHT80	5210	7.034	10
Conclusion: PASS			

5180-5240MHz Band:	
ANT 1	**ANT 1**
11a	**11n HT20**
5180MHz	5180MHz
	
5200MHz	5200MHz
	
5240MHz	5240MHz
	

ANT1	ANT1
11n HT40	**11ac VHT80**
5190MHz	5210MHz
	
5230MHz	
	

12. FREQUENCY STABILITY MEASUREMENT

12.1. Limit

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 user's manual.

12.2. Test Procedure

1. The transmitter output (antenna port) was connected to the spectrum analyzer.
   EUT have transmitted absence of modulation signal and fixed channelise. Set the spectrum analyzer span to view the entire absence of modulation emissions bandwidth. Set RBW = 10 kHz, VBW = 10 kHz with peak detector and maxhold settings. fc is declaring of channel frequency. Then the frequency error formula is (fc-f)/f × 106ppm. The test extreme voltage is to change the primary supply voltage from 85 to 115 percent of the nominal value.
2. Extreme temperature rule is -30°C~50°C.

12.3. Test Result

Condition	Frequency(MHz)	Measurement Value(MHz)	Result(ppm)
25°,120Vac	5180	5180.003	0.579
-30°,102Vac	5180	5179.983	-3.282
-30°,138Vac	5180	5179.971	-5.598
-20°,102Vac	5180	5180.018	3.475
-20°,138Vac	5180	5180.025	4.826
-10°,102Vac	5180	5179.963	-7.143
-10°,138Vac	5180	5179.974	-5.019
0°,102Vac	5180	5179.996	-0.772
0°,138Vac	5180	5180.018	3.475
10°,102Vac	5180	5180.012	2.317
10°,138Vac	5180	5180.019	3.668
20°,102Vac	5180	5179.983	-3.282
20°,138Vac	5180	5180.013	2.510
30°,102Vac	5180	5180.026	5.019
30°,138Vac	5180	5179.971	-5.598
40°,102Vac	5180	5180.027	5.212
40°,138Vac	5180	5179.993	-1.351
50°,102Vac	5180	5179.973	-5.212
50°,138Vac	5180	5179.991	-1.737

13. ANTENNA REQUIREMENT

13.1. Standard Applicable

For intentional device, according to FCC 47 CFR Section 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. And according to FCC 47 CFR Section 15.407 (a), if transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

13.2. Antenna Connected Construction

The antennas used for this product are Dipole antenna that no antenna other than that furnished by the responsible party shall be used with the device, the maximum peak gain of the transmit antenna is 5.08dBi.

14. DEVIATION TO TEST SPECIFICATIONS

[NONE]