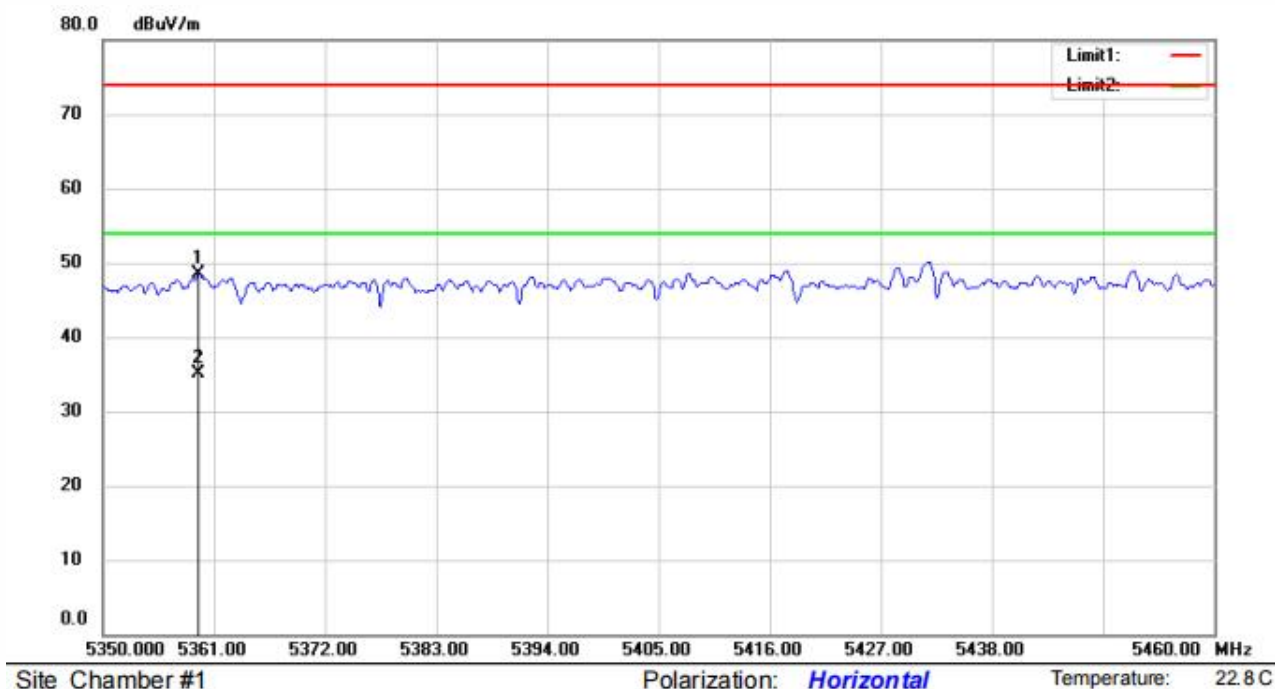
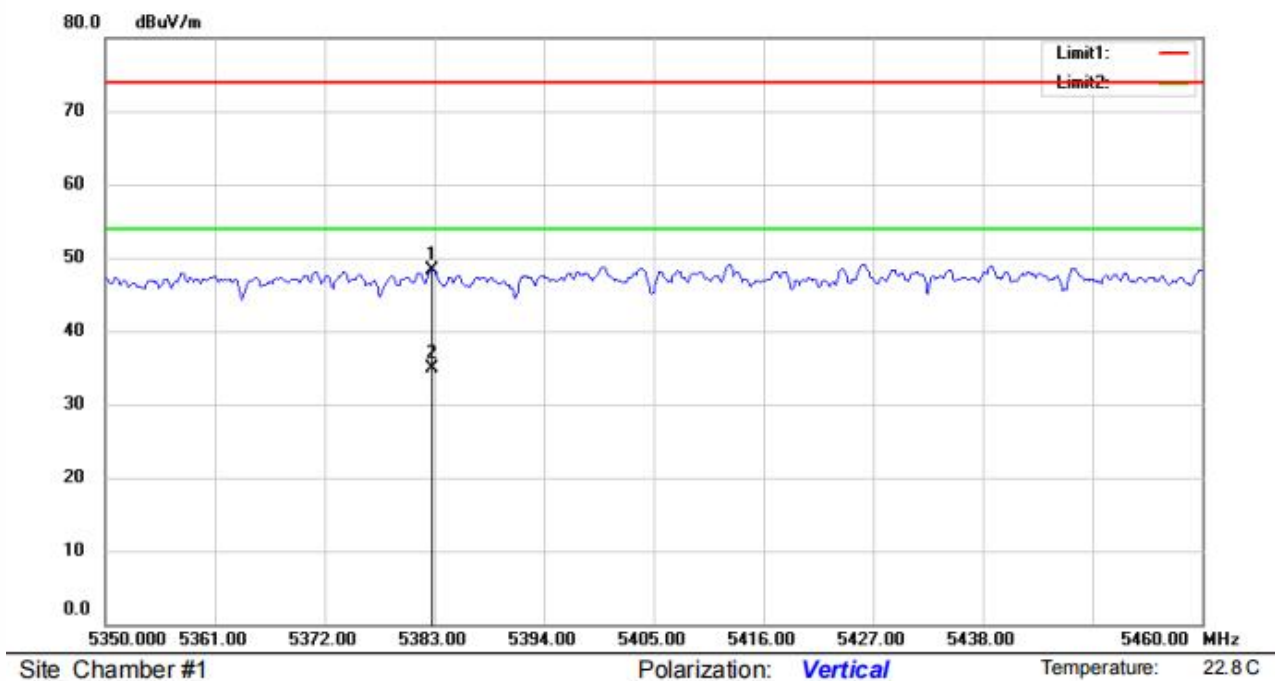


U-NII - 1			
Test Model	Undesirable radiated Spurious Emission in Restricted Band (5350-5400MHz)		
	☐ 802.11a	☒ 802.11n(HT20)	☐ 802.11n(HT40)
	☐ 5180	☐ 5200	☒ 5240
	Ant.Pol		H



U-NII - 1			
Test Model	Undesirable radiated Spurious Emission in Restricted Band (5350-5400MHz)		
	☐ 802.11a	☒ 802.11n(HT20)	☐ 802.11n(HT40)
	☐ 5180	☐ 5200	☒ 5240
	Ant.Pol		V



- ☒ For Undesirable radiated Spurious Emission in U-NII -2A
 - ☒ Undesirable radiated Spurious Emission Above 1GHz (1GHz to 40GHz)
- All of the configurations or modes are tested, the data of the worst case is recorded in the report.
Highest gain of each antenna and highest output power is ANT1 and MIMO as below:

ANT1:

Test mode: 802.11n(20) Frequency(MHz): 5260

Freq. (MHz)	Ant.Pol. H/V	Field Strength (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Over(dB)
6552.835	V	54.34	-40.89	-27	-13.89
7902.616	V	54.85	-40.38	-27	-13.38
9926.86	V	54.67	-40.56	-27	-13.56
6784.104	H	54.06	-41.17	-27	-14.17
8195.724	H	53.7	-41.53	-27	-14.53
10779.21	H	54.48	-40.75	-27	-13.75

Test mode: 802.11n(20) Frequency(MHz): 5280

Freq. (MHz)	Ant.Pol. H/V	Field Strength (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Over(dB)
6995.172	V	55.06	-40.17	-27	-13.17
8172.069	V	55.09	-40.14	-27	-13.14
9903.933	V	55.61	-39.62	-27	-12.62
6936.783	H	54.54	-40.69	-27	-13.69
8920.04	H	54.88	-40.35	-27	-13.35
10779.21	H	55.25	-39.98	-27	-12.98

Test mode: 802.11n(20) Frequency(MHz): 5320

Freq. (MHz)	Ant.Pol. H/V	Field Strength (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Over(dB)
6845.164	V	54.59	-40.64	-27	-13.64
7859.336	V	54.86	-40.37	-27	-13.37
10197.31	V	55.15	-40.08	-27	-13.08
6979.016	H	54.58	-40.65	-27	-13.65
8812.409	H	54.35	-40.88	-27	-13.88
11211.37	H	54.76	-40.47	-27	-13.47

ANT1:

Test mode: 802.11n(20)		Frequency(MHz): 5260			
Freq. (MHz)	Ant.Pol.	Emission Level(dBuV/m)	Limit 3m(dBuV/m)	Over(dB)	Detector
6552.835	V	54.34	74.00	-19.66	Peak
7902.616	V	54.85	74.00	-19.15	Peak
9926.86	V	54.67	74.00	-19.33	Peak
6552.835	V	40.92	54.00	-13.08	Avg
7902.616	V	41.49	54.00	-12.51	Avg
9926.86	V	41.11	54.00	-12.89	Avg
6784.104	H	54.06	74.00	-19.94	Peak
8195.724	H	53.7	74.00	-20.3	Peak
10779.21	H	54.48	74.00	-19.52	Peak
6784.104	H	40.51	54.00	-13.49	Avg
8195.724	H	40.31	54.00	-13.69	Avg
10779.21	H	41.03	54.00	-12.97	Avg

Test mode: 802.11n(20)		Frequency(MHz): 5280			
Freq. (MHz)	Ant.Pol.	Emission Level(dBuV/m)	Limit 3m(dBuV/m)	Over(dB)	Detector
6995.172	V	55.06	74.00	-18.94	Peak
8172.069	V	55.09	74.00	-18.91	Peak
9903.933	V	55.61	74.00	-18.39	Peak
6995.172	V	41.64	54.00	-12.36	Avg
8172.069	V	41.73	54.00	-12.27	Avg
9903.933	V	42.21	54.00	-11.79	Avg
6936.783	H	54.54	74.00	-19.46	Peak
8920.04	H	54.88	74.00	-19.12	Peak
10779.21	H	55.25	74.00	-18.75	Peak
6936.783	H	40.92	54.00	-13.08	Avg
8920.04	H	41.43	54.00	-12.57	Avg
10779.21	H	41.89	54.00	-12.11	Avg

Test mode: 802.11n(20)		Frequency(MHz): 5320			
Freq. (MHz)	Ant.Pol.	Emission Level(dBuV/m)	Limit 3m(dBuV/m)	Over(dB)	Detector
6845.164	V	54.59	74.00	-19.41	Peak
7859.336	V	54.86	74.00	-19.14	Peak
10197.31	V	55.15	74.00	-18.85	Peak
6845.164	V	41.02	54.00	-12.98	Avg
7859.336	V	41.45	54.00	-12.55	Avg
10197.31	V	41.72	54.00	-12.28	Avg
6979.016	H	54.58	74.00	-19.42	Peak
8812.409	H	54.35	74.00	-19.65	Peak
11211.37	H	54.76	74.00	-19.24	Peak
6979.016	H	41.25	54.00	-12.75	Avg
8812.409	H	40.92	54.00	-13.08	Avg
11211.37	H	41.32	54.00	-12.68	Avg

● ☒ Undesirable radiated Undesirable radiated Spurious Emission in Band Edge

Test mode: 802.11n(20) Frequency(MHz): 5260

Freq. (MHz)	Ant.Pol. H/V	Field Strength (RBW=100KHz) (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Verdict
5127.66	V	65.35	-29.88	-27	Pass
5107.10	H	65.58	-29.65	-27	Pass

Test mode: 802.11n(20) Frequency(MHz): 5320

Freq. (MHz)	Ant.Pol. H/V	Field Strength (RBW=100KHz) (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Verdict
5354.048	V	48.74	-46.49	-27	Pass
5351.507	H	64.66	-30.57	-27	Pass

Note: (1) All Readings are Peak Value (VBW=3MHz) and Peak Value (VBW=10Hz).
 (2) Emission Level= Reading Level+Correct Factor +Cable Loss.
 (3) Correct Factor= Ant_F + Cab_L - Preamp
 (4) EIRP[dBm] = E[dBuV/m] + 20 log(d[meters]) - 104.77
 d is the measurement distance in 3 meters

Test mode: 802.11n(20) Frequency(MHz): 5260

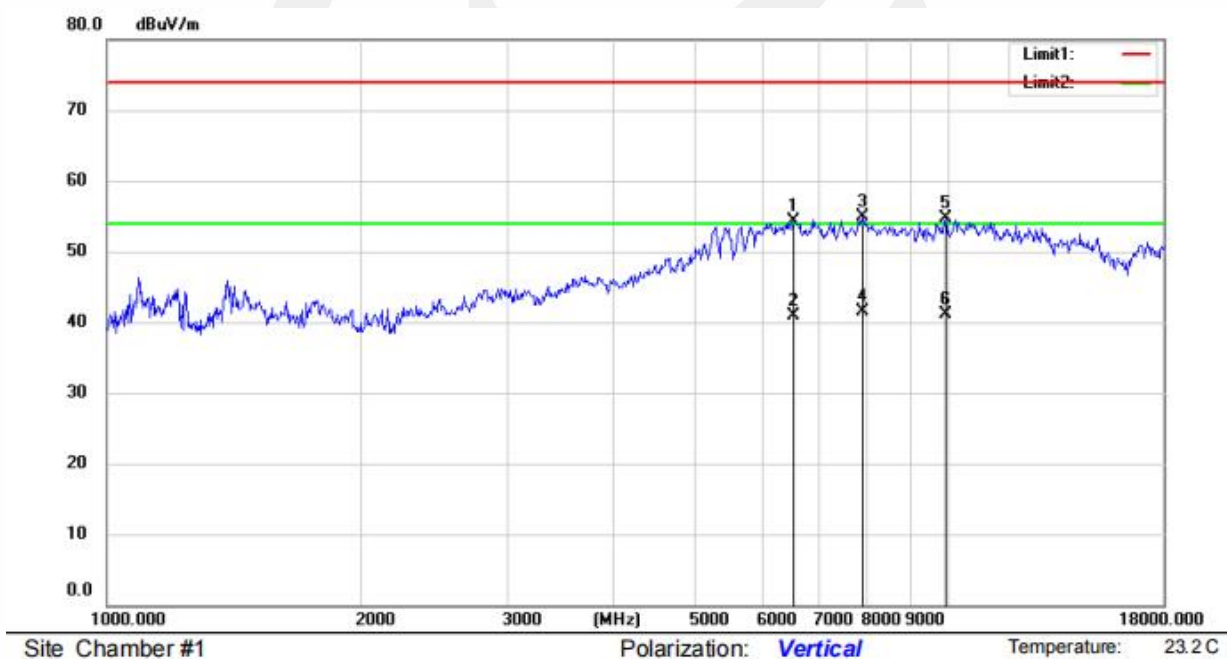
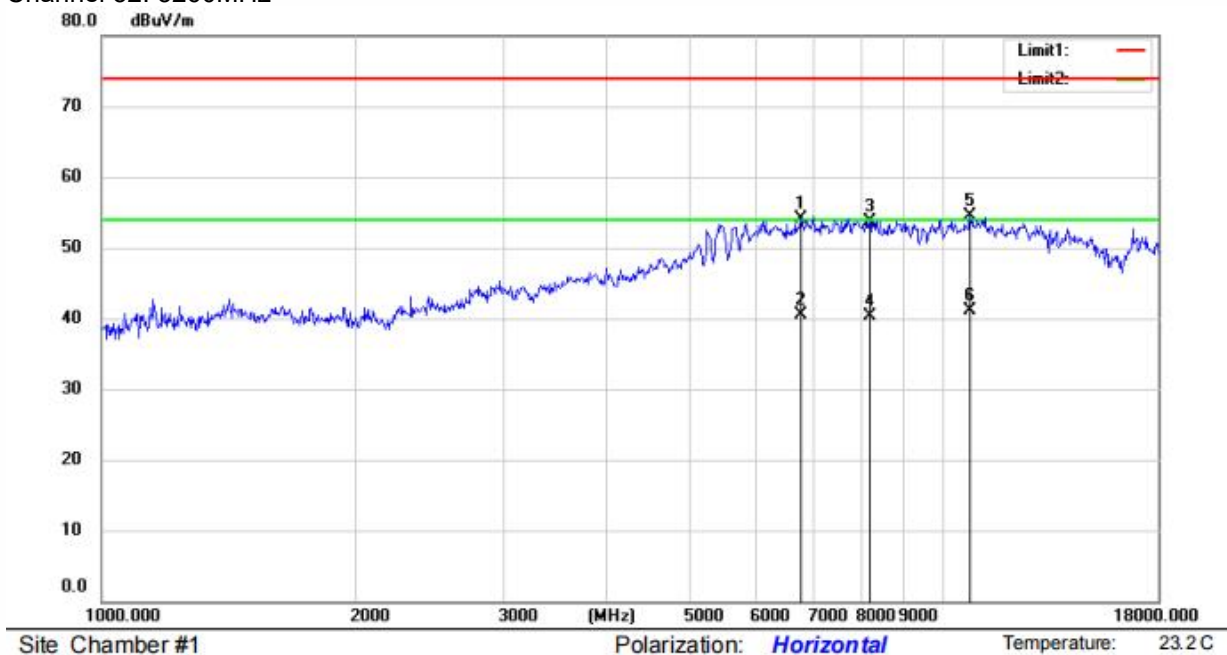
Freq. (MHz)	Ant.Pol.	Emission Level(dBuV/m)	Limit 3m(dBuV/m)	Over(dB)	Detector
5127.575	V	48.74	74.00	-25.26	Peak
5127.575	V	35.28	54.00	-18.72	Avg
5070.96	H	49.13	74.00	-24.87	Peak
5070.96	H	35.45	54.00	-18.55	Avg

Test mode: 802.11n(20) Frequency(MHz): 5320

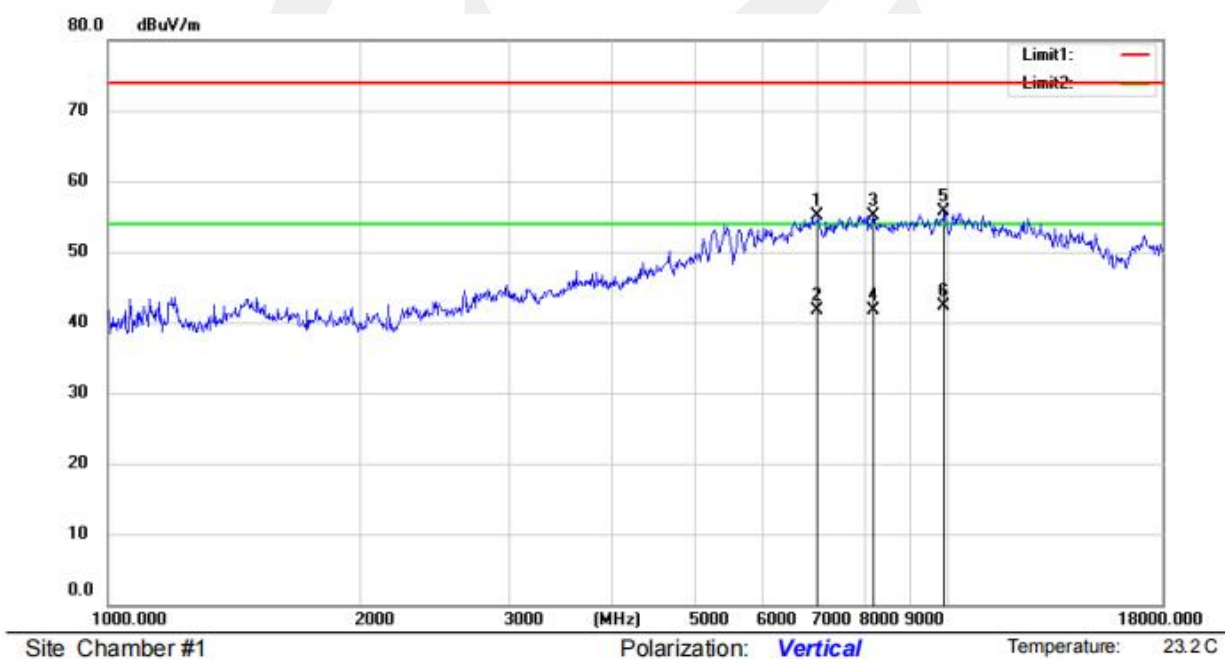
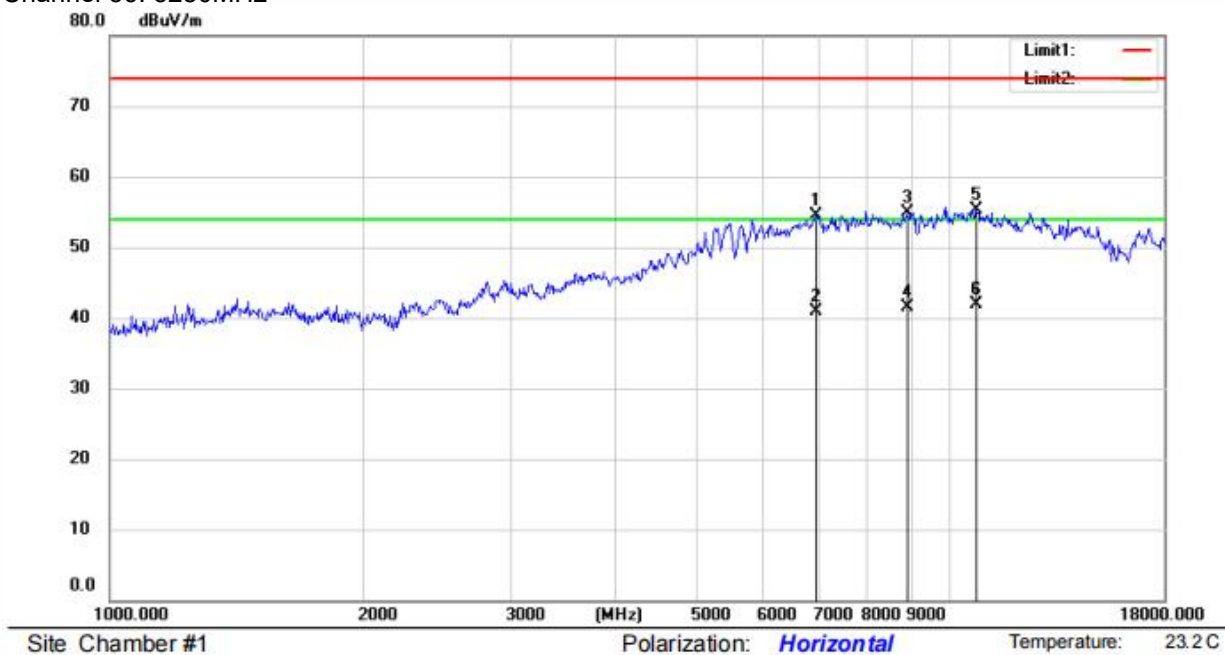
Freq. (MHz)	Ant.Pol.	Emission Level(dBuV/m)	Limit 3m(dBuV/m)	Over(dB)	Detector
5354.048	V	48.74	74.00	-25.26	Peak
5354.048	V	35.28	54.00	-18.72	Avg
5351.507	H	64.66	74.00	-9.34	Peak
5351.507	H	47.28	54.00	-6.72	Avg

Note: (1) All Readings are Peak Value (VBW=3MHz) and Peak Value (VBW=10Hz).
 (2) Emission Level= Reading Level+Correct Factor +Cable Loss.
 (3) Correct Factor= Ant_F + Cab_L - Preamp
 (4)The reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

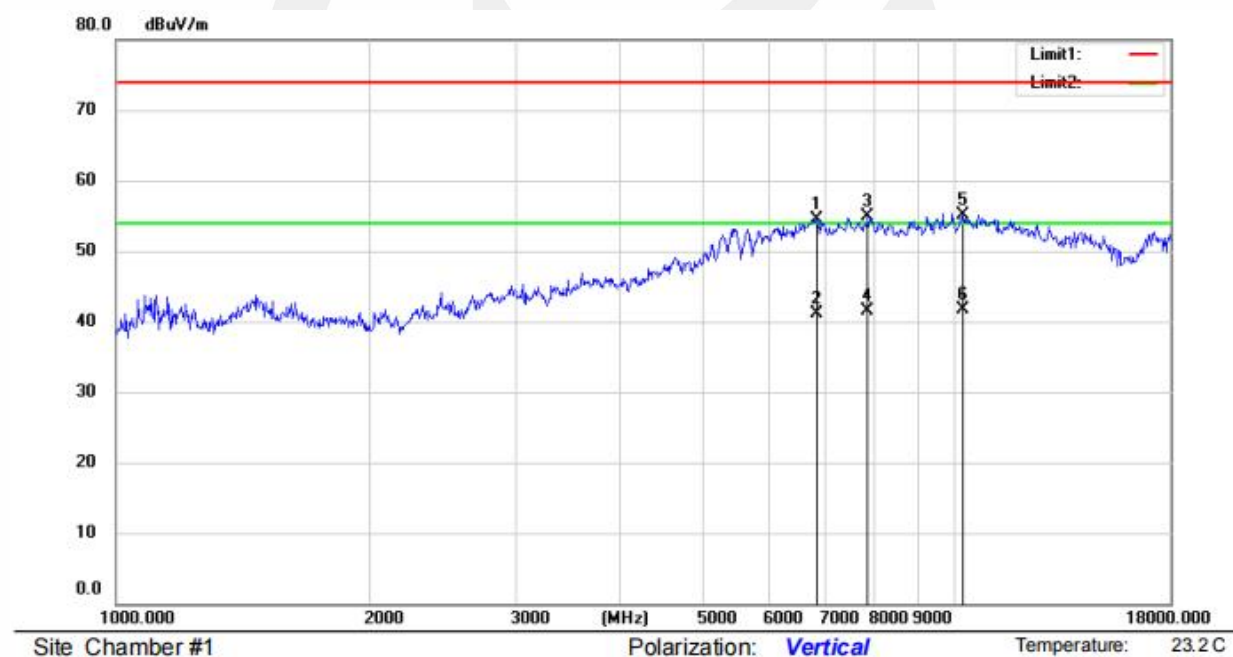
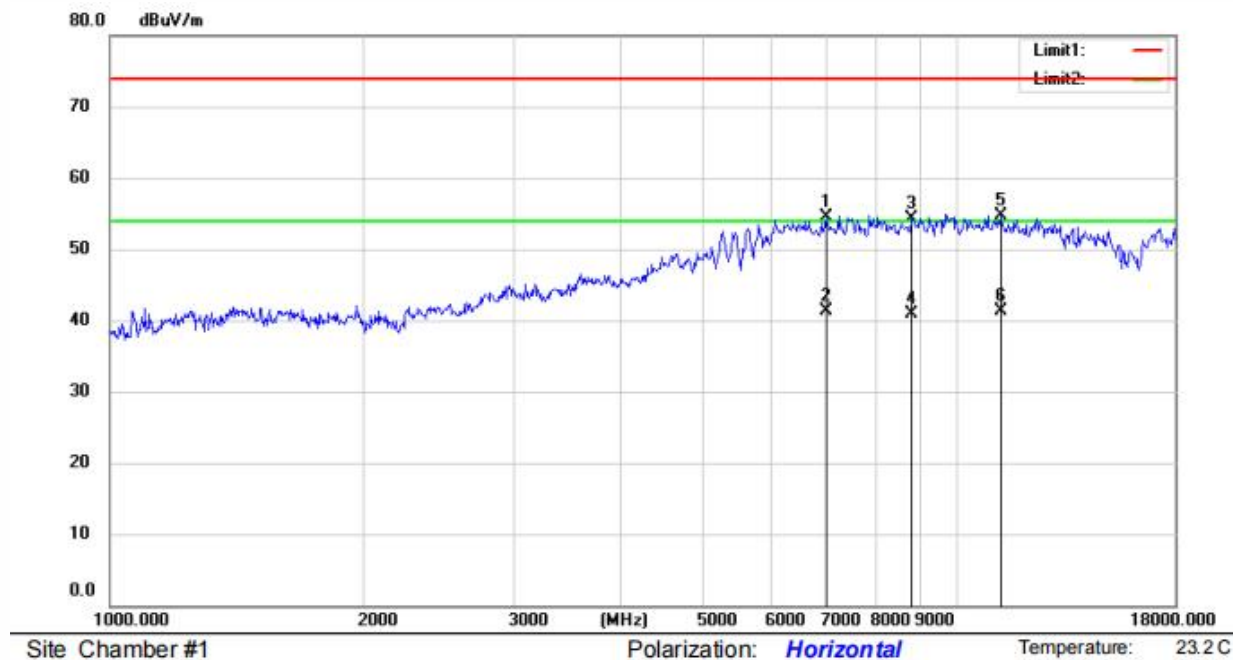
Channel 52: 5260MHz



Channel 56: 5280MHz



Channel 64: 5320MHz



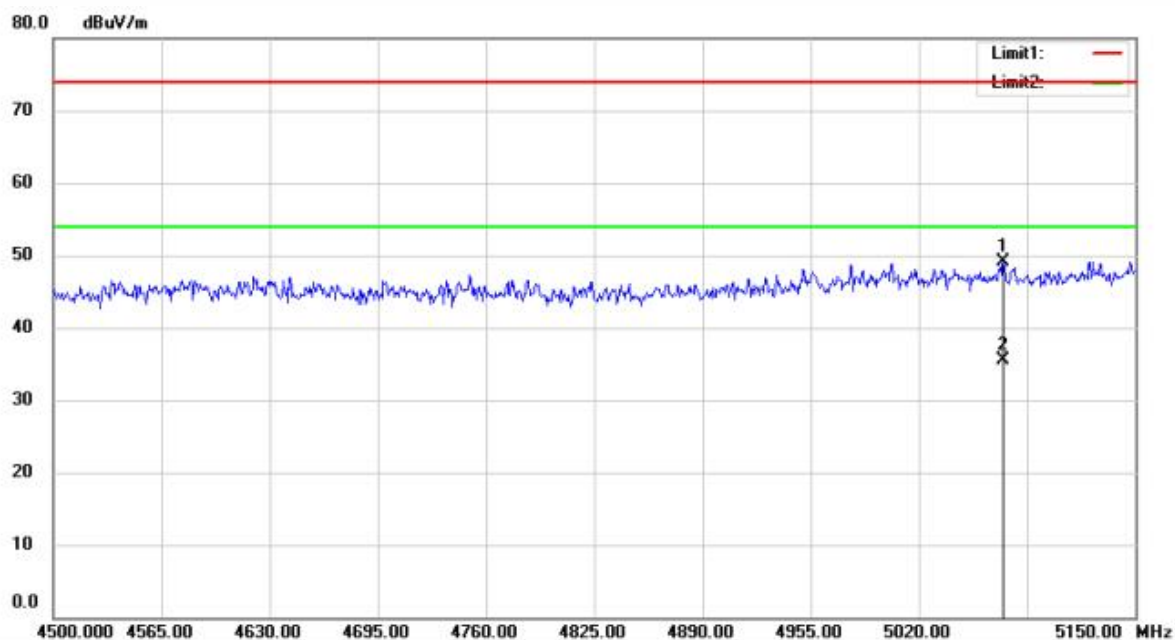
Note: Scan from 1GHz to 40GHz, the disturbance above 18GHz was very low. The points marked on above plots are the highest emissions could be found when testing, so only above points had been displayed.

U-NII -2A

Test Model Undesirable radiated Spurious Emission in Restricted Band (5100-5150MHz)

☐ 802.11a ☒ 802.11n(HT20) ☐ 802.11 ac (VHT20)

☒ 5260 ☐ 5300 ☐ 5320 Ant.Pol H



Site Chamber #1

Polarization: **Horizontal**

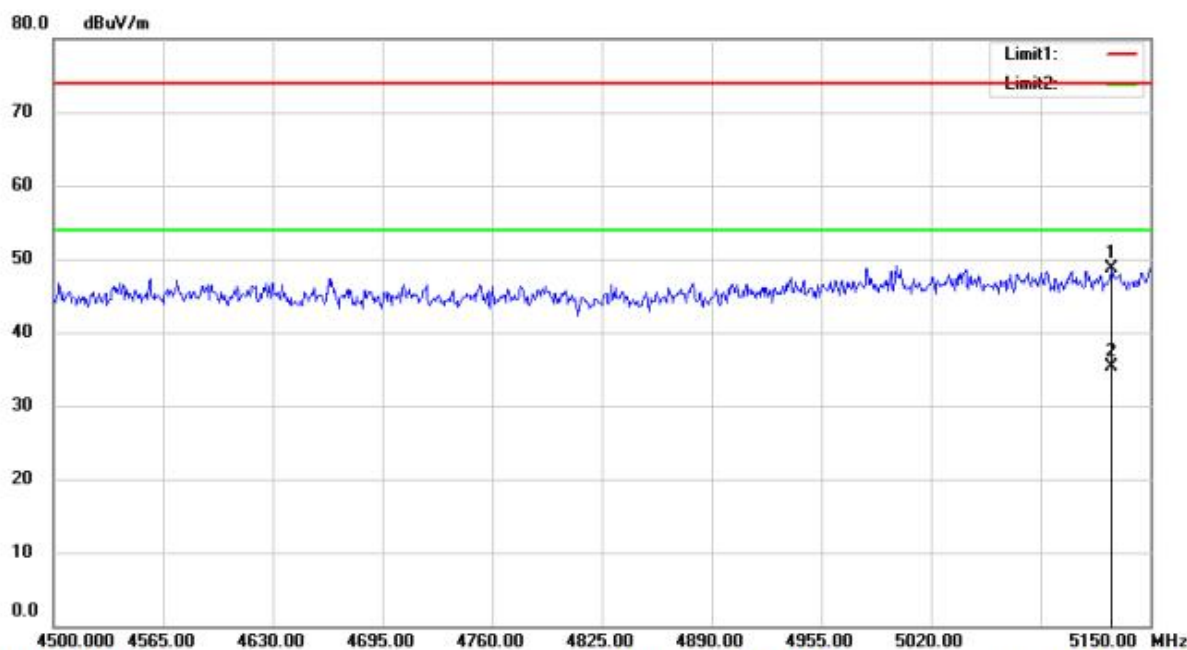
Temperature: 22.8 C

U-NII -2A

Test Model Undesirable radiated Spurious Emission in Restricted Band (5100-5150MHz)

☐ 802.11a ☒ 802.11n(HT20) ☐ 802.11 ac (VHT20)

☒ 5260 ☐ 5300 ☐ 5320 Ant.Pol V

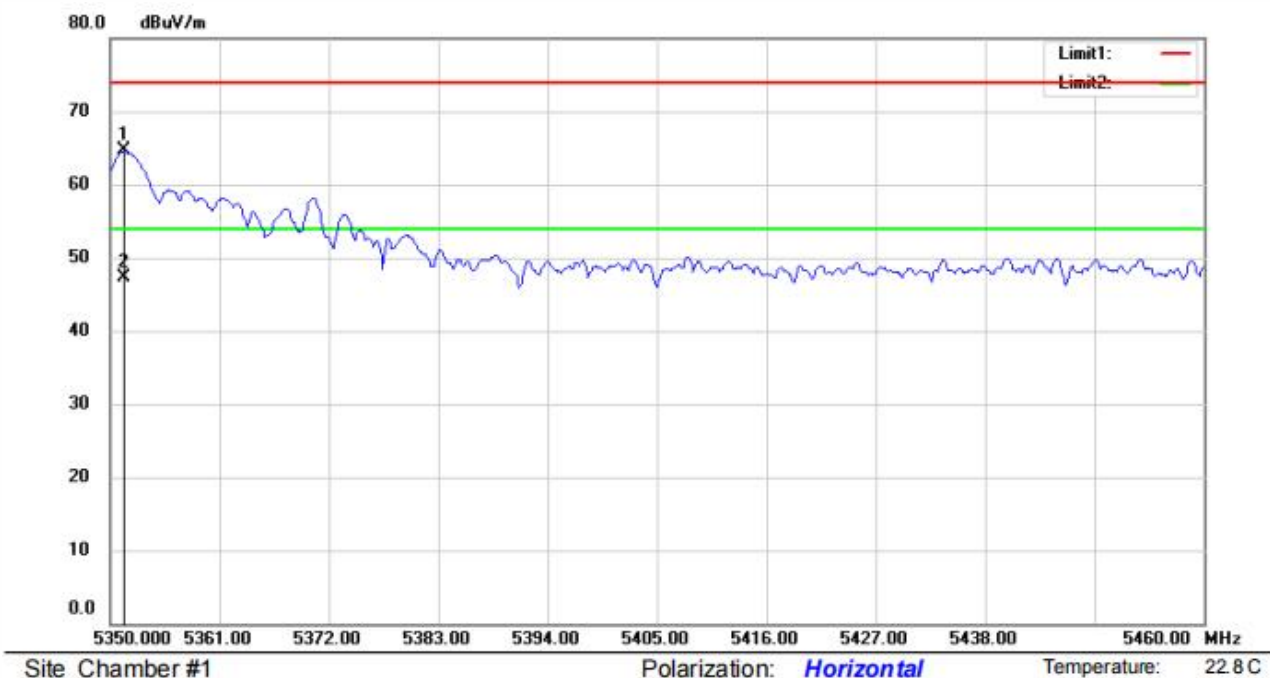


Site Chamber #1

Polarization: **Vertical**

Temperature: 22.8 C

U-NII -2A			
Test Model	Undesirable radiated Spurious Emission in Restricted Band (5350-5400MHz)		
	☐ 802.11a	☒ 802.11n(HT20)	☐ 802.11 ac (VHT20)
	☐ 5260	☐ 5300	☒ 5320
	Ant.Pol		H



U-NII -2A			
Test Model	Undesirable radiated Spurious Emission in Restricted Band (5350-5460MHz)		
	☐ 802.11a	☒ 802.11n(HT20)	☐ 802.11 ac (VHT20)
	☐ 5260	☐ 5300	☒ 5320
	Ant.Pol		V



- ☒ For Undesirable radiated Spurious Emission in U-NII -2C
 - ☒ Undesirable radiated Spurious Emission Above 1GHz (1GHz to 40GHz)
- All of the configurations or modes are tested, the data of the worst case is recorded in the report.
Highest gain of each antenna and highest output power is ANT1 and MIMO as below:

ANT1:

Test mode: 802.11n(20) Frequency(MHz): 5500

Freq. (MHz)	Ant.Pol. H/V	Field Strength (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Over(dB)
6966.923	V	54.78	-40.45	-27	-13.45
7948.432	V	54.74	-40.49	-27	-13.49
10615.34	V	54.97	-40.26	-27	-13.26
7263.015	H	53.84	-41.39	-27	-14.39
9889.63	H	54.53	-40.7	-27	-13.7
12487.64	H	54.12	-41.11	-27	-14.11

Test mode: 802.11n(20) Frequency(MHz): 5580

Freq. (MHz)	Ant.Pol. H/V	Field Strength (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Over(dB)
6774.307	V	53.99	-41.24	-27	-14.24
7971.439	V	54.54	-40.69	-27	-13.69
11012.25	V	54.46	-40.77	-27	-13.77
6960.885	H	54.35	-40.88	-27	-13.88
7699.694	H	54.34	-40.89	-27	-13.89
11050.51	H	54.31	-40.92	-27	-13.92

Test mode: 802.11n(20) Frequency(MHz): 5700

Freq. (MHz)	Ant.Pol. H/V	Field Strength (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Over(dB)
6890.821	V	54.27	-40.96	-27	-13.96
8101.515	V	54.37	-40.86	-27	-13.86
10144.4	V	53.99	-41.24	-27	-14.24
6940.794	H	54.28	-40.95	-27	-13.95
9049.887	H	54.05	-41.18	-27	-14.18
11104.94	H	54.4	-40.83	-27	-13.83

ANT1:

Test mode: 802.11n(20)		Frequency(MHz): 5500			
Freq. (MHz)	Ant.Pol.	Emission Level(dBuV/m)	Limit 3m(dBuV/m)	Over(dB)	Detector
6966.923	V	54.78	74.00	-19.22	Peak
7948.432	V	54.74	74.00	-19.26	Peak
10615.34	V	54.97	74.00	-19.03	Peak
6966.923	V	41.33	54.00	-12.67	Avg
7948.432	V	41.35	54.00	-12.65	Avg
10615.34	V	41.5	54.00	-12.5	Avg
7263.015	H	53.84	74.00	-20.16	Peak
9889.63	H	54.53	74.00	-19.47	Peak
12487.64	H	54.12	74.00	-19.88	Peak
7263.015	H	40.5	54.00	-13.5	Avg
9889.63	H	41.1	54.00	-12.9	Avg
12487.64	H	40.74	54.00	-13.26	Avg

Test mode: 802.11n(20)		Frequency(MHz): 5580			
Freq. (MHz)	Ant.Pol.	Emission Level(dBuV/m)	Limit 3m(dBuV/m)	Over(dB)	Detector
6774.307	V	53.99	74.00	-20.01	Peak
7971.439	V	54.54	74.00	-19.46	Peak
11012.25	V	54.46	74.00	-19.54	Peak
6774.307	V	40.55	54.00	-13.45	Avg
7971.439	V	41.17	54.00	-12.83	Avg
11012.25	V	40.87	54.00	-13.13	Avg
6960.885	H	54.35	74.00	-19.65	Peak
7699.694	H	54.34	74.00	-19.66	Peak
11050.51	H	54.31	74.00	-19.69	Peak
6960.885	H	40.84	54.00	-13.16	Avg
7699.694	H	40.91	54.00	-13.09	Avg
11050.51	H	40.84	54.00	-13.16	Avg

Test mode: 802.11n(20)		Frequency(MHz): 5700			
Freq. (MHz)	Ant.Pol.	Emission Level(dBuV/m)	Limit 3m(dBuV/m)	Over(dB)	Detector
6890.821	V	54.27	74.00	-19.73	Peak
8101.515	V	54.37	74.00	-19.63	Peak
10144.4	V	53.99	74.00	-20.01	Peak
6890.821	V	40.66	54.00	-13.34	Avg
8101.515	V	40.72	54.00	-13.28	Avg
10144.4	V	40.5	54.00	-13.5	Avg
6940.794	H	54.28	74.00	-19.72	Peak
9049.887	H	54.05	74.00	-19.95	Peak
11104.94	H	54.4	74.00	-19.6	Peak
6940.794	H	40.83	54.00	-13.17	Avg
9049.887	H	40.62	54.00	-13.38	Avg
11104.94	H	40.97	54.00	-13.03	Avg

● ☒ Undesirable radiated Undesirable radiated Spurious Emission in Band Edge

Test mode: 802.11n(20) Frequency(MHz): 5500

Freq. (MHz)	Ant.Pol. H/V	Field Strength (RBW=100KHz) (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Verdict
5453.175	V	50.09	-45.14	-27	Pass
5469.78	H	53.93	-41.3	-27	Pass

Test mode: 802.11n(20) Frequency(MHz): 5700

Freq. (MHz)	Ant.Pol. H/V	Field Strength (RBW=100KHz) (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Verdict
5725	V	49.07	-46.16	-27	Pass
5727.1	H	51.67	-43.56	-27	Pass

Note: (1) All Readings are Peak Value (VBW=3MHz) and Peak Value (VBW=10Hz).
 (2) Emission Level= Reading Level+Correct Factor +Cable Loss.
 (3) Correct Factor= Ant_F + Cab_L - Preamp
 (4) EIRP[dBm] = E[dBuV/m] + 20 log(d[meters]) - 104.77
 d is the measurement distance in 3 meters

Test mode: 802.11n(20) Frequency(MHz): 5500

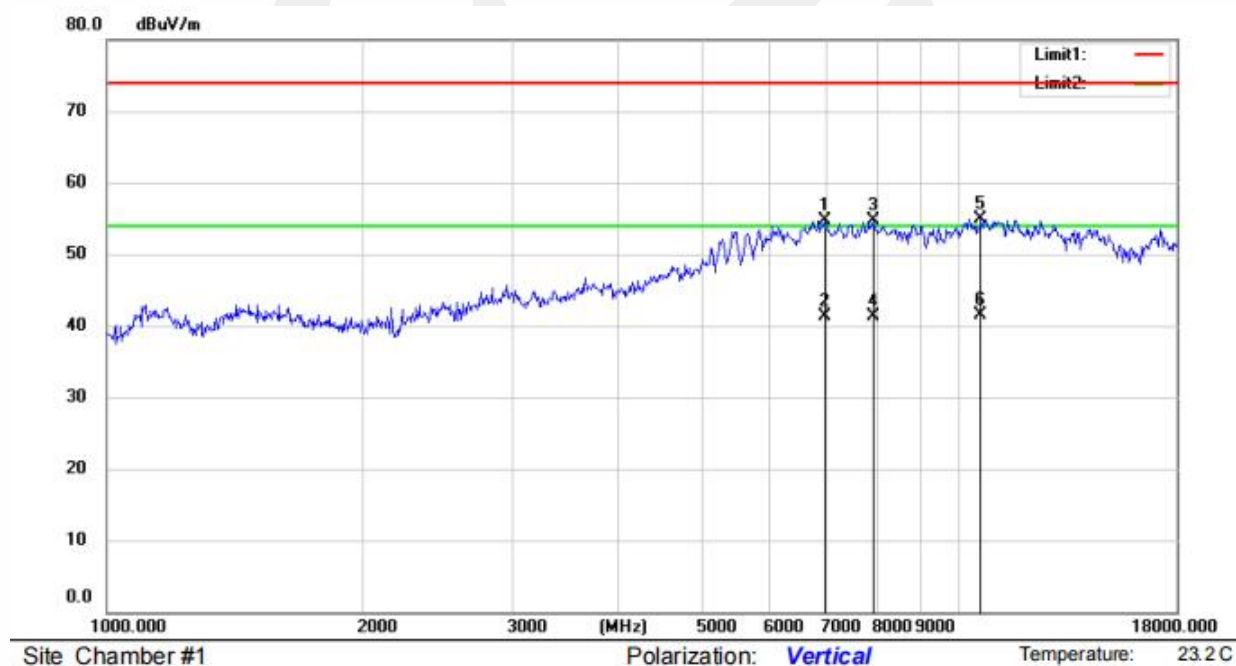
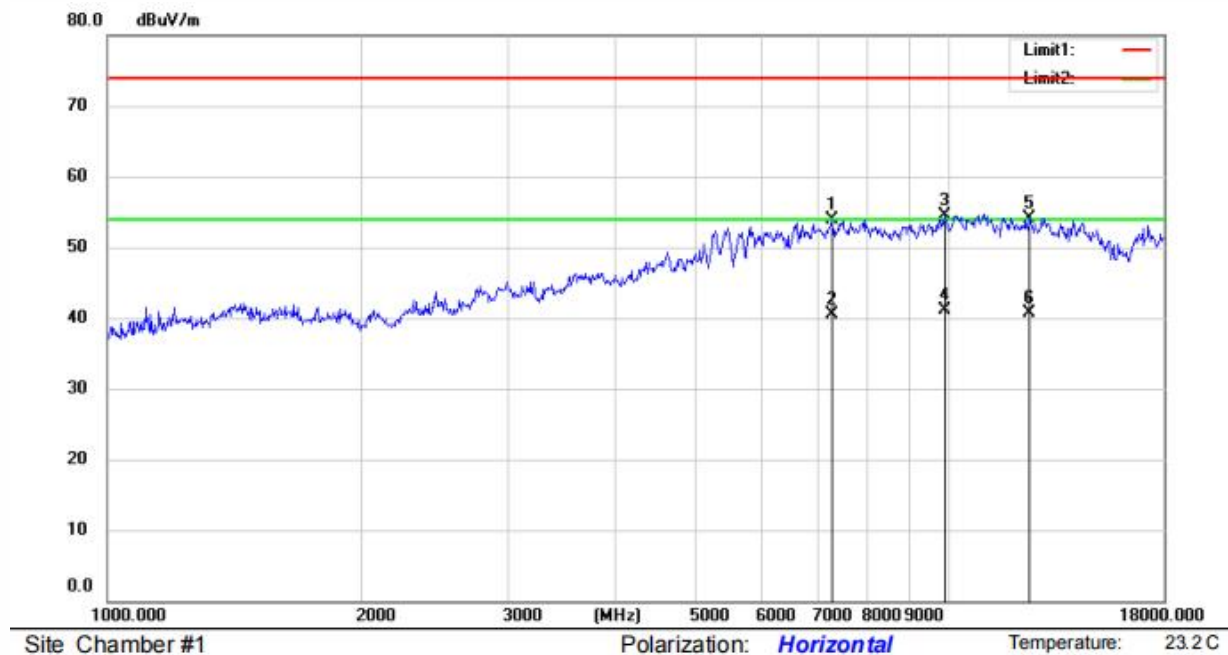
Freq. (MHz)	Ant.Pol.	Emission Level(dBuV/m)	Limit 3m(dBuV/m)	Over(dB)	Detector
5453.175	V	50.09	74.00	-23.91	Peak
5453.175	V	35.58	54.00	-18.42	Avg
5469.78	H	53.93	74.00	-20.07	Peak
5469.78	H	39.74	54.00	-14.26	Avg

Test mode: 802.11n(20) Frequency(MHz): 5700

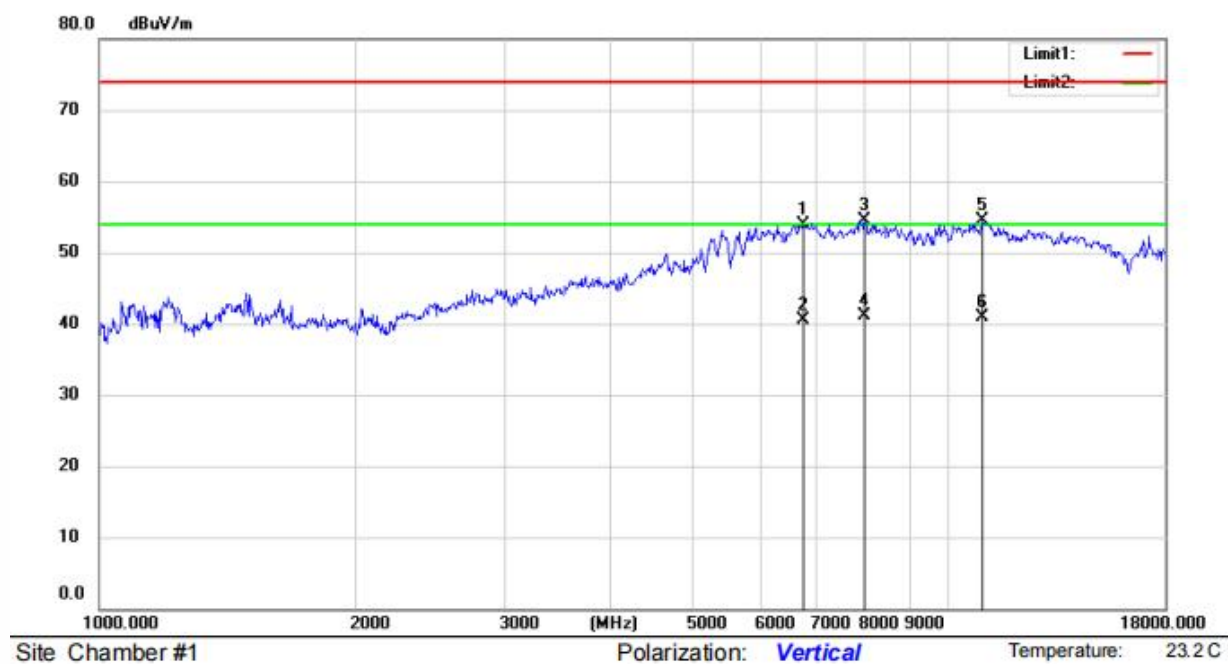
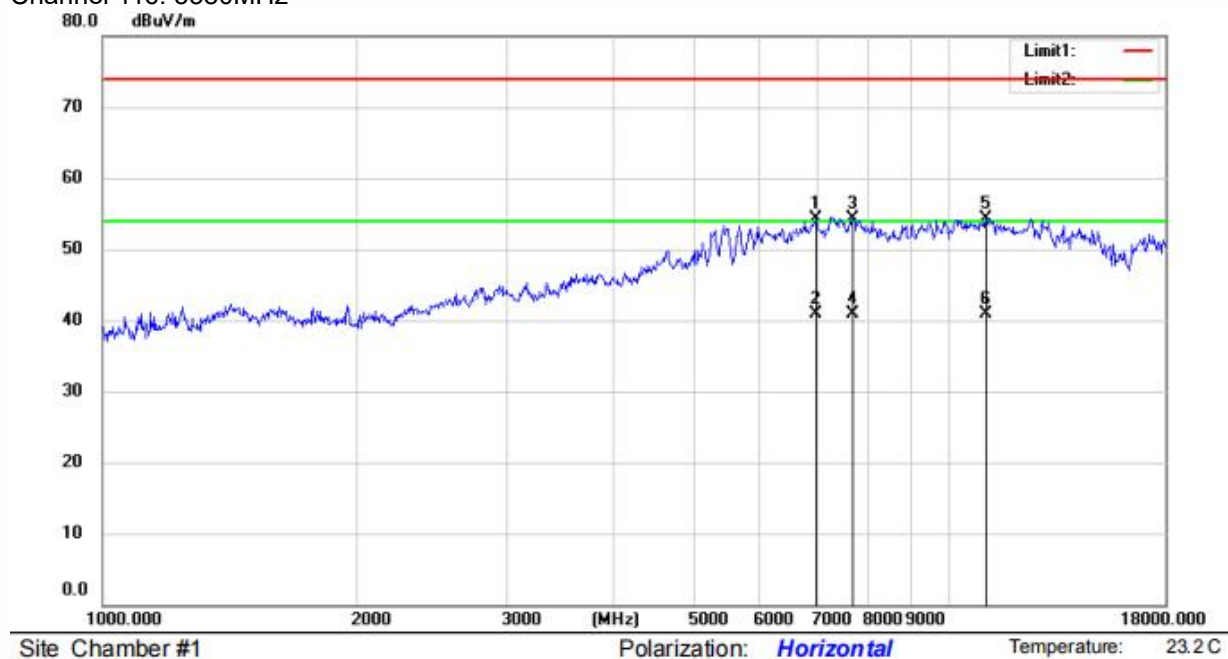
Freq. (MHz)	Ant.Pol.	Emission Level(dBuV/m)	Limit 3m(dBuV/m)	Over(dB)	Detector
5725	V	49.07	74.00	-24.93	Peak
5725	V	33.89	54.00	-20.11	Avg
5727.1	H	51.67	74.00	-22.33	Peak
5727.1	H	37.44	54.00	-16.56	Avg

Note: (1) All Readings are Peak Value (VBW=3MHz) and Peak Value (VBW=10Hz).
 (2) Emission Level= Reading Level+Correct Factor +Cable Loss.
 (3) Correct Factor= Ant_F + Cab_L - Preamp
 (4) The reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

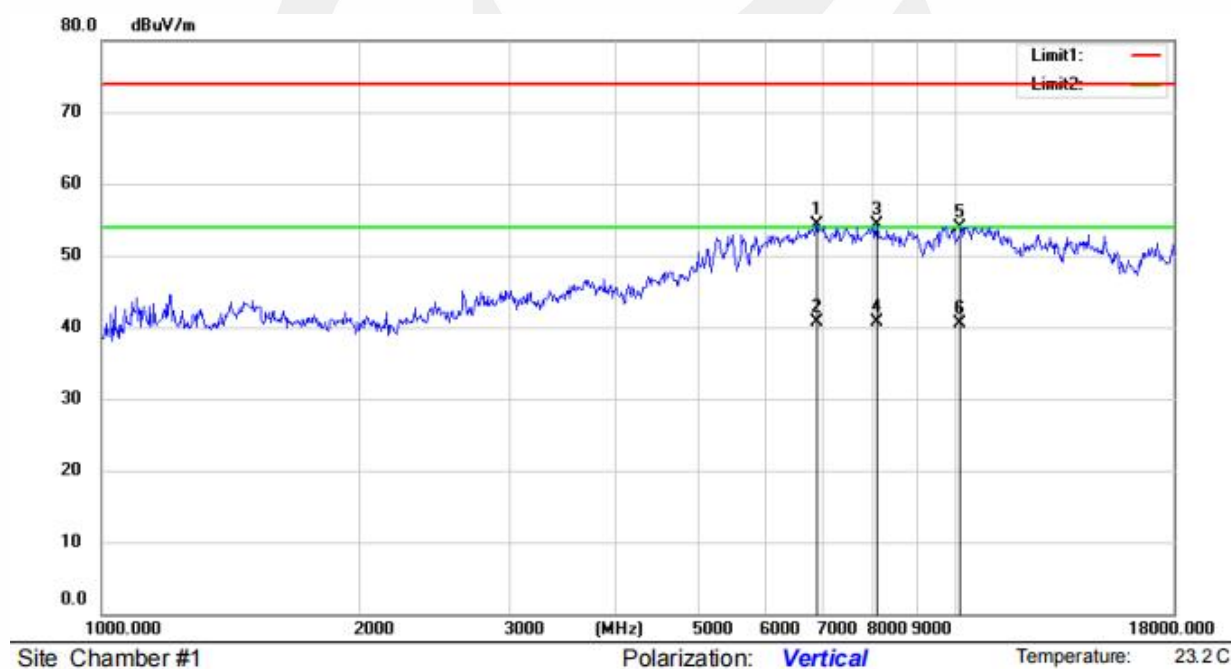
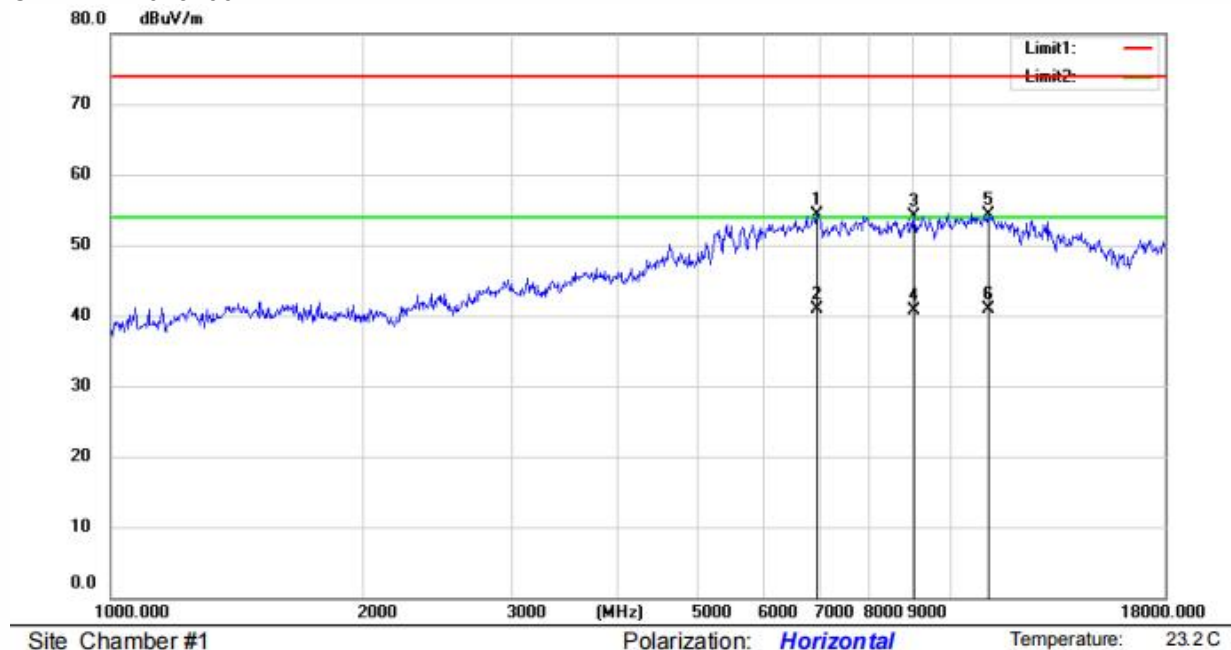
Channel 100: 5500MHz



Channel 116: 5580MHz

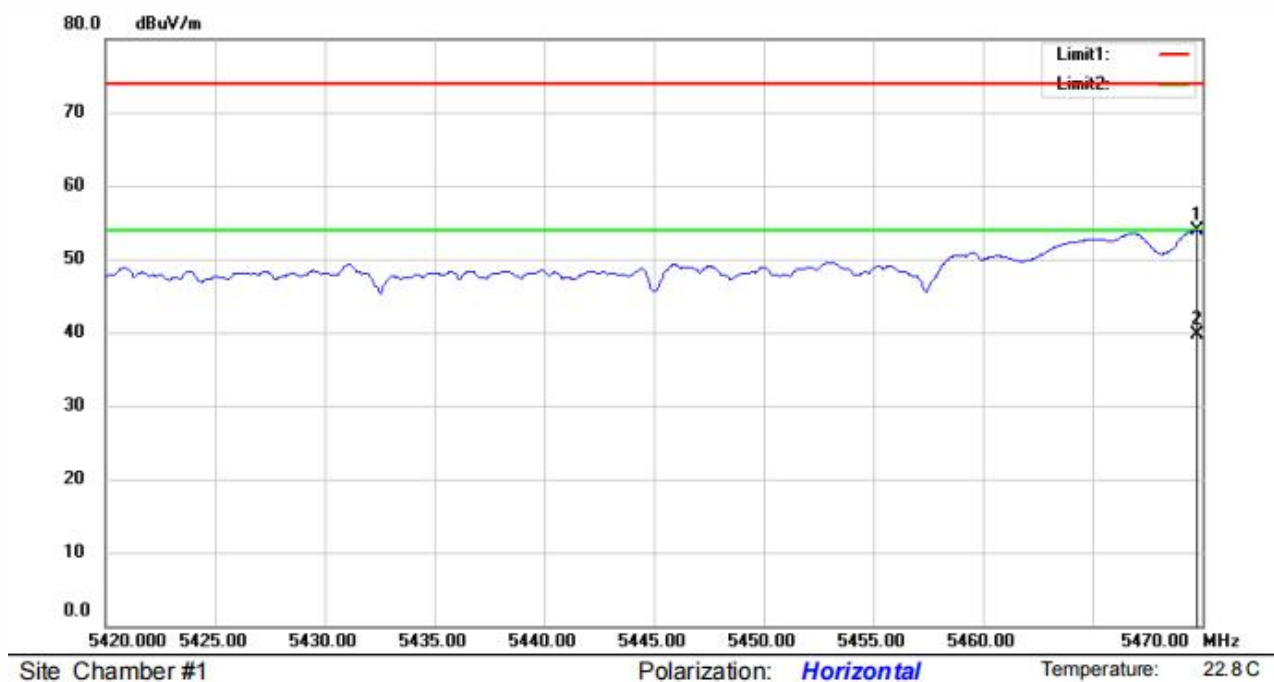


Channel 140: 5700MHz

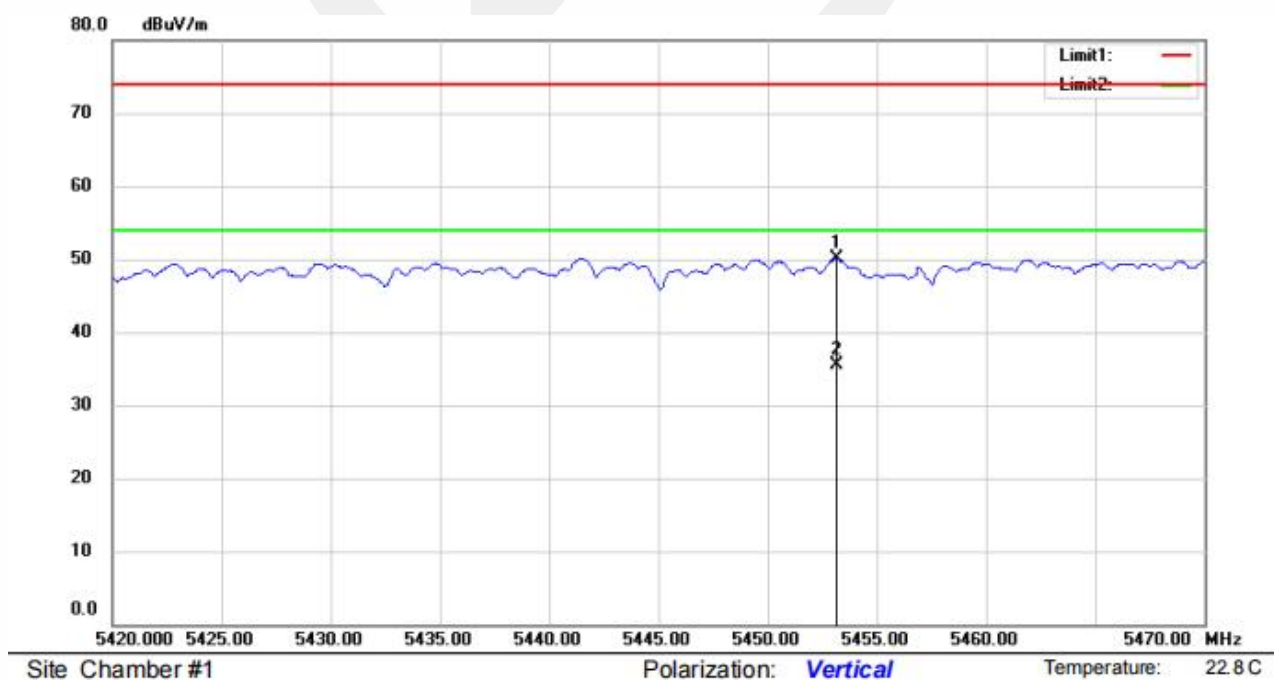


Note: Scan from 1GHz to 40GHz, the disturbance above 18GHz was very low. The points marked on above plots are the highest emissions could be found when testing, so only above points had been displayed.

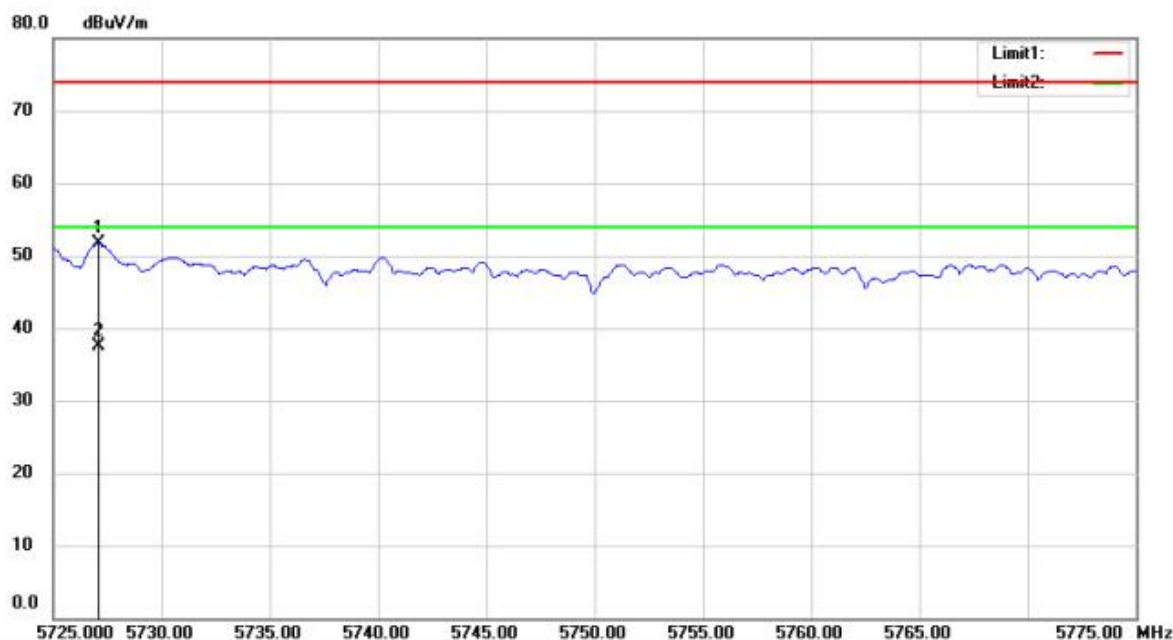
U-NII -2C			
Test Model	Undesirable radiated Spurious Emission in Restricted Band (5420-5470MHz)		
	☐ 802.11a	☒ 802.11n(HT20)	☐ 802.11 ac (VHT20)
	☒ 5500	☐ 5580	☐ 5700
	Ant.Pol		H



U-NII -2C			
Test Model	Undesirable radiated Spurious Emission in Restricted Band (5420-5470MHz)		
	☐ 802.11a	☒ 802.11n(HT20)	☐ 802.11 ac (VHT20)
	☒ 5500	☐ 5580	☐ 5700
	Ant.Pol		V



U-NII -2C			
Test Model	Undesirable radiated Spurious Emission in Restricted Band (5720-5775MHz)		
	☐ 802.11a	☒ 802.11n(HT20)	☐ 802.11 ac (VHT20)
	☐ 5500	☐ 5580	☒ 5700
			Ant.Pol H

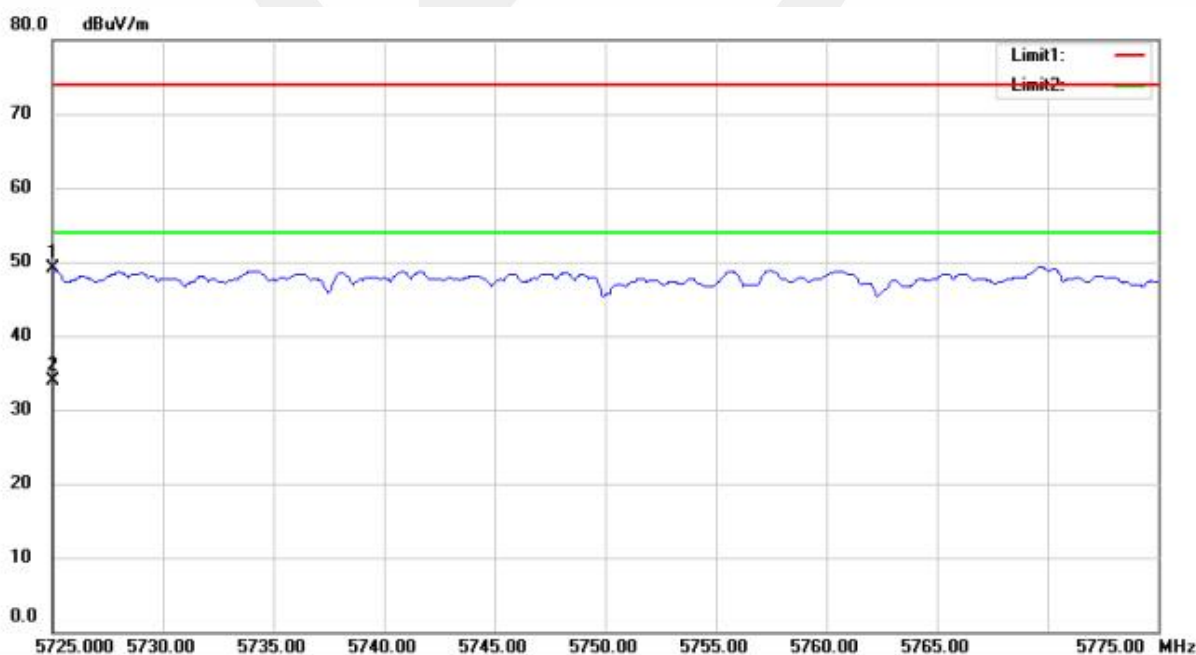


Site Chamber #1

Polarization: **Horizontal**

Temperature: 22.8 C

U-NII -2C			
Test Model	Undesirable radiated Spurious Emission in Restricted Band (5720-5775MHz)		
	☐ 802.11a	☒ 802.11n(HT20)	☐ 802.11 ac (VHT20)
	☐ 5500	☐ 5580	☒ 5700
			Ant.Pol V



Site Chamber #1

Polarization: **Vertical**

Temperature: 22.8 C

- ☒ For Undesirable radiated Spurious Emission in U-NII -3
 - ☒ Undesirable radiated Spurious Emission Above 1GHz (1GHz to 40GHz)
- All of the configurations or modes are tested, the data of the worst case is recorded in the report.
Highest gain of each antenna and highest output power is ANT1 and MIMO as below:

ANT1:

Test mode: 802.11n(20) Frequency(MHz): 5745

Freq. (MHz)	Ant.Pol. H/V	Field Strength (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Over(dB)
6797.844	V	54.47	-40.76	-27	-13.76
7916.333	V	54.64	-40.59	-27	-13.59
10801.04	V	54.27	-40.96	-27	-13.96
6962.897	H	54.31	-40.92	-27	-13.92
9505.672	H	54.46	-40.77	-27	-13.77
11044.12	H	54.53	-40.7	-27	-13.7

Test mode: 802.11n(20) Frequency(MHz): 5785

Freq. (MHz)	Ant.Pol. H/V	Field Strength (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Over(dB)
6630.952	V	54.4	-40.83	-27	-13.83
9886.772	V	54.68	-40.55	-27	-13.55
12422.84	V	54.04	-41.19	-27	-14.19
6265.742	H	53.87	-41.36	-27	-14.36
7832.124	H	53.64	-41.59	-27	-14.59
10354.73	H	54.31	-40.92	-27	-13.92

Test mode: 802.11n(20) Frequency(MHz): 5825

Freq. (MHz)	Ant.Pol. H/V	Field Strength (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Over(dB)
6770.392	V	54.07	-41.16	-27	-14.16
7909.472	V	54.47	-40.76	-27	-13.76
10838.57	V	54.33	-40.9	-27	-13.9
6997.194	H	54.47	-40.76	-27	-13.76
8136.716	H	54.13	-41.1	-27	-14.1
10517.61	H	54.65	-40.58	-27	-13.58

ANT1:

Test mode: 802.11n(20)		Frequency(MHz): 5745			
Freq. (MHz)	Ant.Pol.	Emission Level(dBuV/m)	Limit 3m(dBuV/m)	Over(dB)	Detector
6797.844	V	54.47	74.00	-19.53	Peak
7916.333	V	54.64	74.00	-19.36	Peak
10801.04	V	54.27	74.00	-19.73	Peak
6797.844	V	40.93	54.00	-13.07	Avg
7916.333	V	41.26	54.00	-12.74	Avg
10801.04	V	40.75	54.00	-13.25	Avg
6962.897	H	54.31	74.00	-19.69	Peak
9505.672	H	54.46	74.00	-19.54	Peak
11044.12	H	54.53	74.00	-19.47	Peak
6962.897	H	40.86	54.00	-13.14	Avg
9505.672	H	40.83	54.00	-13.17	Avg
11044.12	H	41.06	54.00	-12.94	Avg

Test mode: 802.11n(20)		Frequency(MHz): 5785			
Freq. (MHz)	Ant.Pol.	Emission Level(dBuV/m)	Limit 3m(dBuV/m)	Over(dB)	Detector
6630.952	V	54.4	74.00	-19.6	Peak
9886.772	V	54.68	74.00	-19.32	Peak
12422.84	V	54.04	74.00	-19.96	Peak
6630.952	V	41.01	54.00	-12.99	Avg
9886.772	V	41.24	54.00	-12.76	Avg
12422.84	V	40.63	54.00	-13.37	Avg
6265.742	H	53.87	74.00	-20.13	Peak
7832.124	H	53.64	74.00	-20.36	Peak
10354.73	H	54.31	74.00	-19.69	Peak
6265.742	H	40.36	54.00	-13.64	Avg
7832.124	H	40.19	54.00	-13.81	Avg
10354.73	H	40.83	54.00	-13.17	Avg

Test mode: 802.11n(20)		Frequency(MHz): 5825			
Freq. (MHz)	Ant.Pol.	Emission Level(dBuV/m)	Limit 3m(dBuV/m)	Over(dB)	Detector
6770.392	V	54.07	74.00	-19.93	Peak
7909.472	V	54.47	74.00	-19.53	Peak
10838.57	V	54.33	74.00	-19.67	Peak
6770.392	V	40.56	54.00	-13.44	Avg
7909.472	V	41.08	54.00	-12.92	Avg
10838.57	V	40.89	54.00	-13.11	Avg
6997.194	H	54.47	74.00	-19.53	Peak
8136.716	H	54.13	74.00	-19.87	Peak
10517.61	H	54.65	74.00	-19.35	Peak
6997.194	H	40.85	54.00	-13.15	Avg
8136.716	H	38.75	54.00	-15.25	Avg
10517.61	H	43.22	54.00	-10.78	Avg

● ☒ Undesirable radiated Spurious Emission in band edge

Test mode:		802.11n(20)		Frequency:		5745	
Freq. (MHz)	Ant.Pol. H/V	Field Strength (RBW=100KHz) (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Verdict		
5624.750	V	49.95	-45.28	-27.00	PASS		
5644.762	H	49.57	-45.66	-27.00	PASS		

Test mode:		802.11n(20)		Frequency:		5825	
Freq. (MHz)	Ant.Pol. H/V	Field Strength (RBW=100KHz) (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Verdict		
5931.875	V	49.92	-45.31	-27.00	PASS		
5933.438	H	50.40	-44.83	-27.00	PASS		

Note: (1) All Readings are Peak Value (VBW=3MHz) and Peak Value (VBW=10Hz).

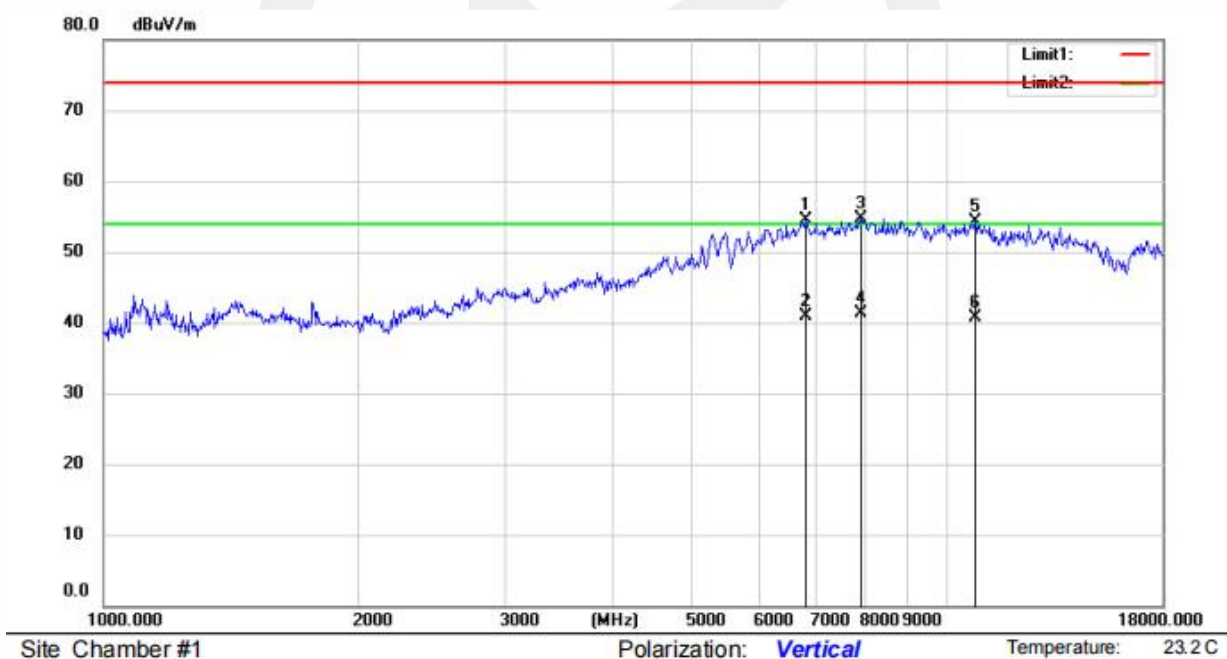
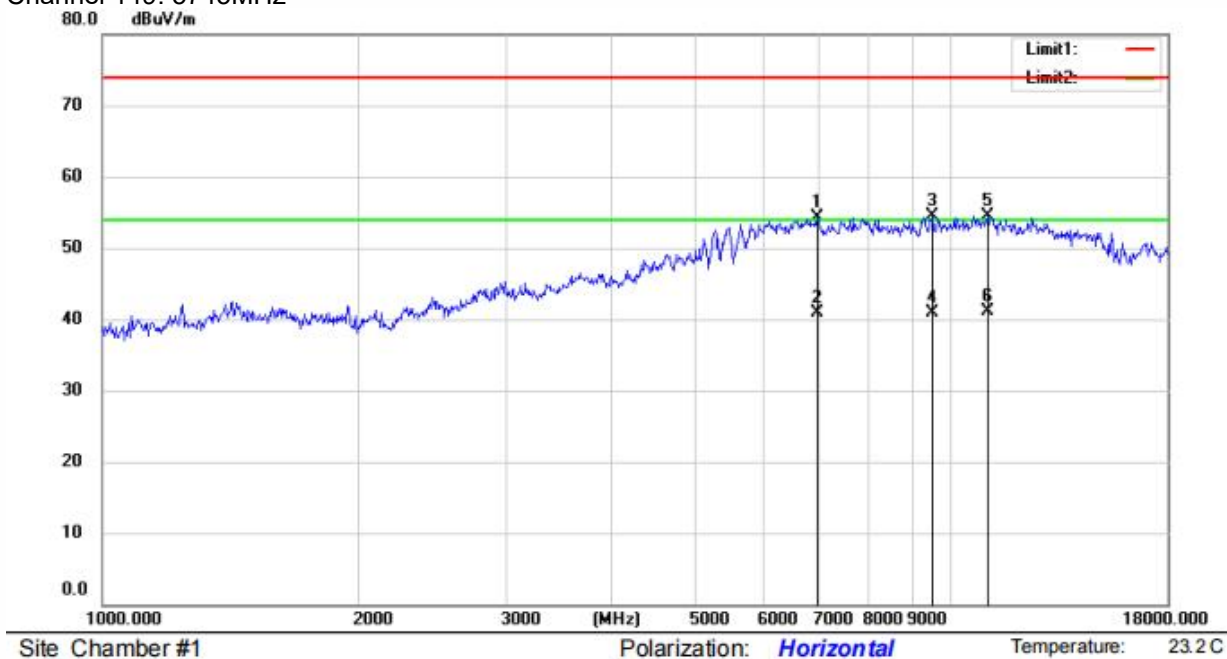
(2) Emission Level= Reading Level+Correct Factor +Cable Loss.

(3) Correct Factor= Ant_F + Cab_L - Preamp

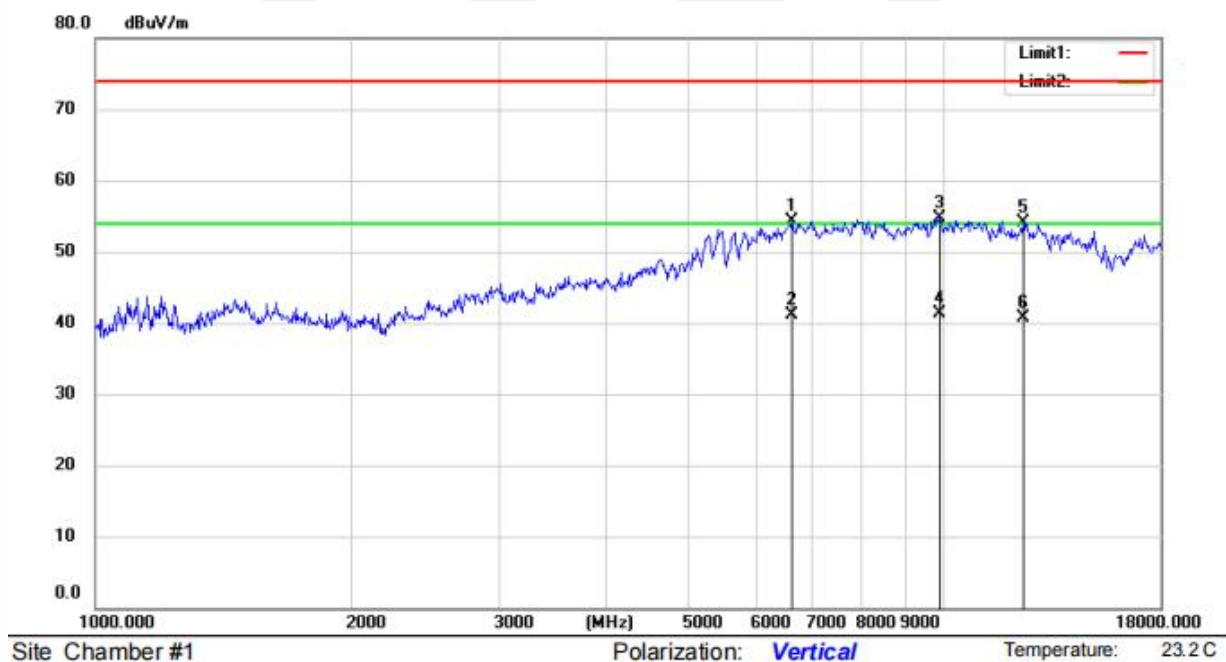
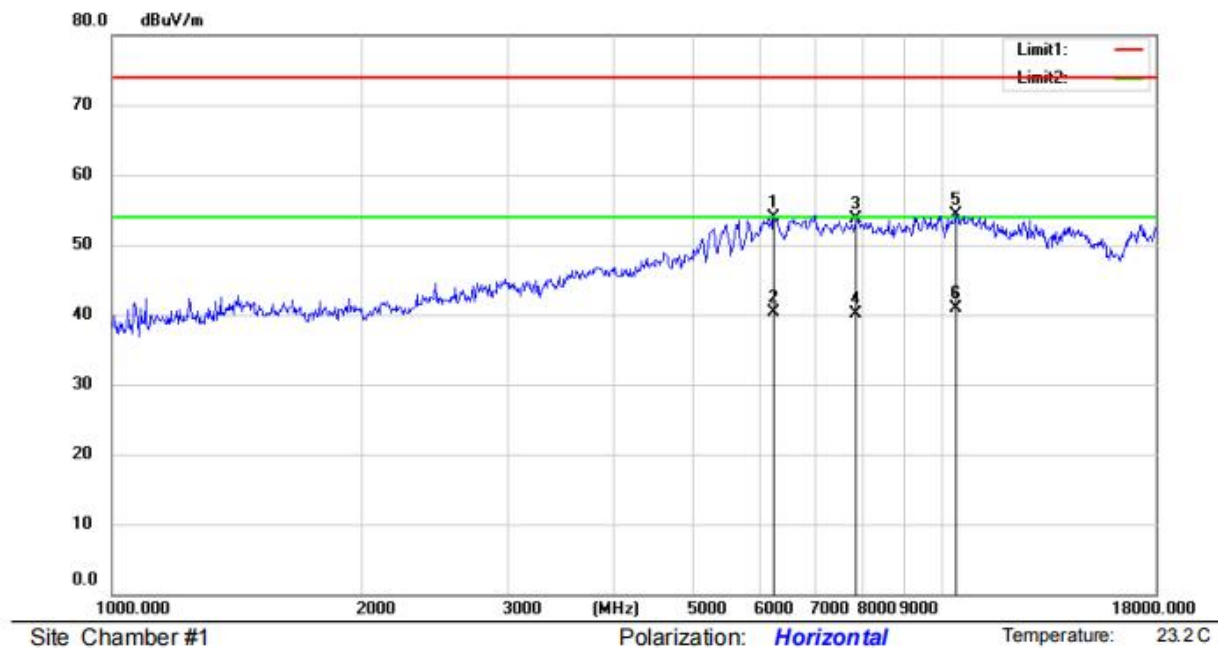
(4) EIRP[dBm] = E[dBuV/m] + 20 log(d[meters]) - 104.77

d is the measurement distance in 3 meters

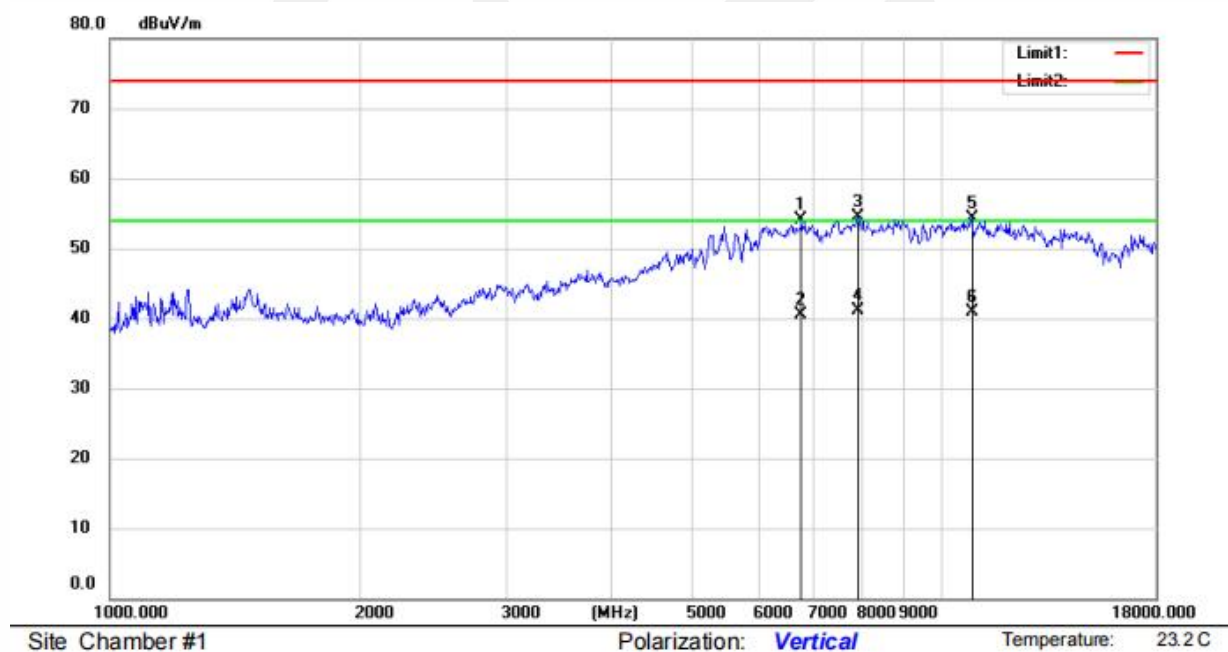
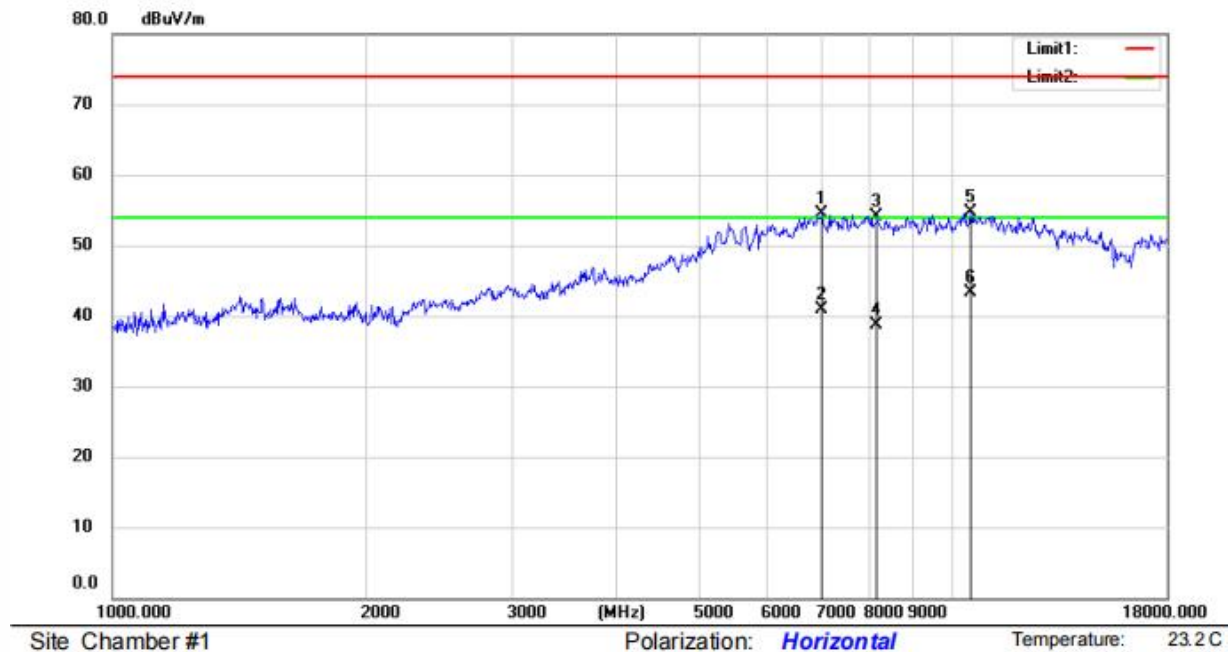
Channel 149: 5745MHz



Channel 157: 5785MHz

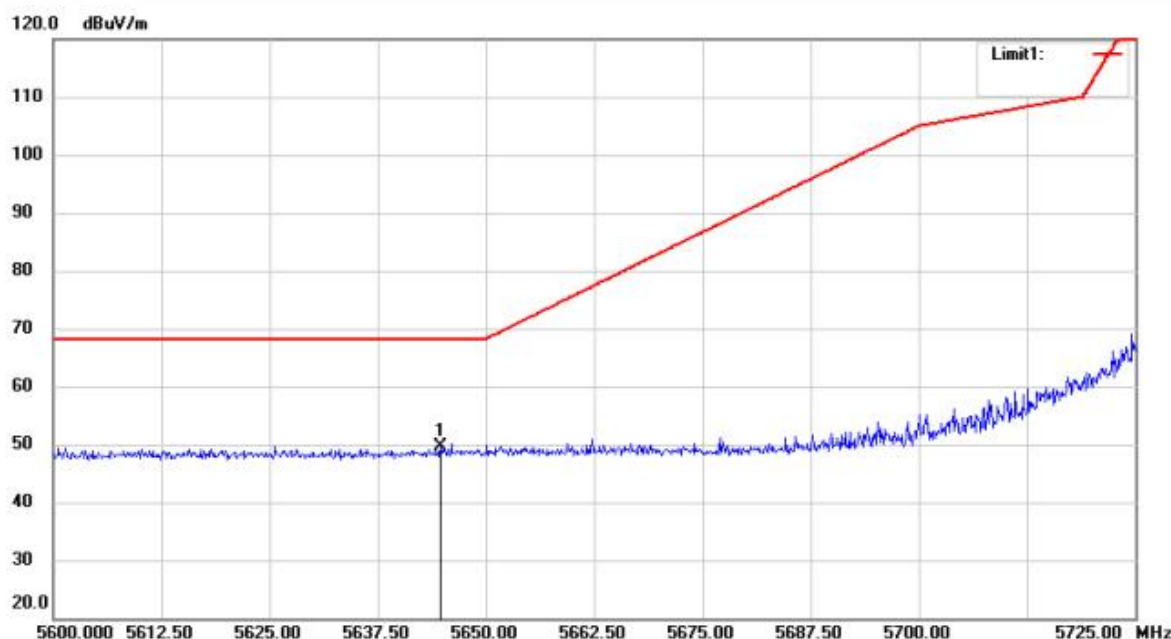


Channel 165: 5785MHz



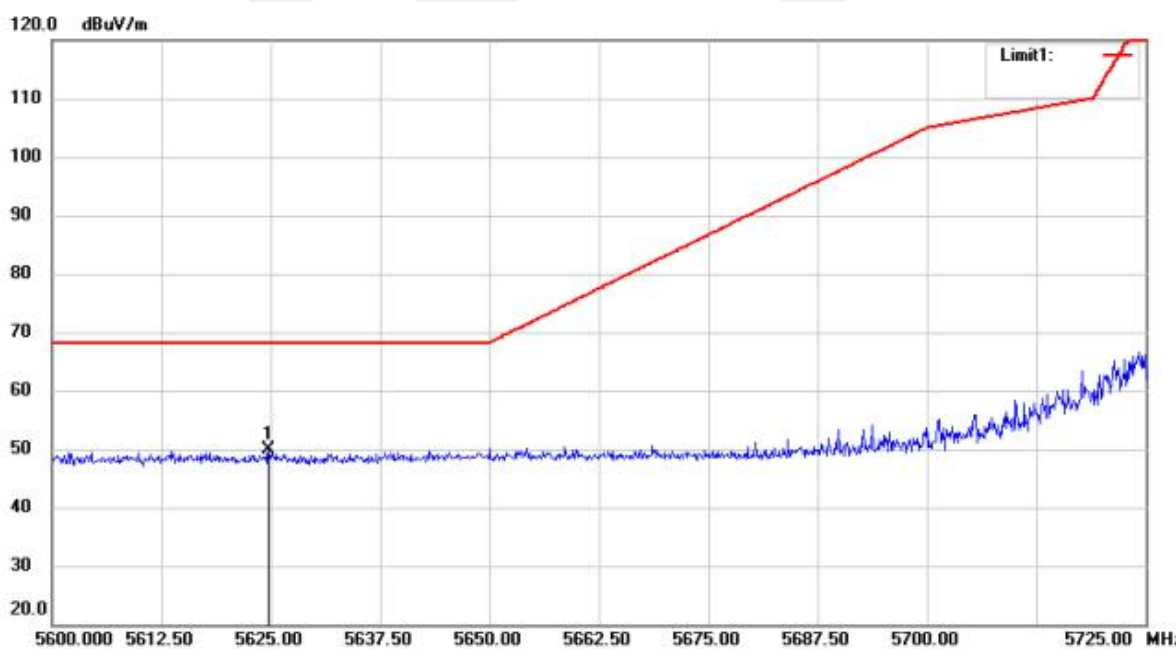
Note: Scan from 1GHz to 40GHz, the disturbance above 18GHz was very low. The points marked on above plots are the highest emissions could be found when testing, so only above points had been displayed.

Test Model U-NII -3
 Undesirable radiated Undesirable radiated Spurious Emission in Band Edge
☐ 802.11a ☒ 802.11n(HT20) ☐ 802.11n(HT40)
☒ 5745 Ant.Pol H



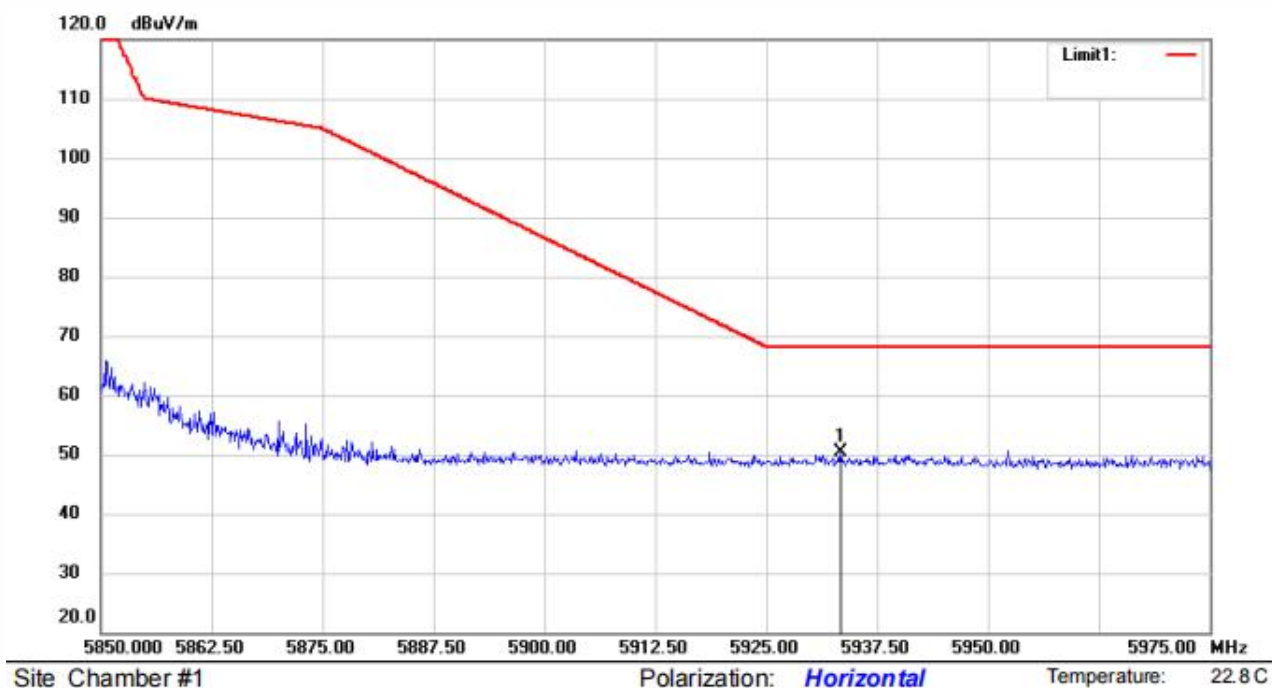
Site Chamber #1 Polarization: **Horizontal** Temperature: 22.8 C

Test Model U-NII -3
 Undesirable radiated Undesirable radiated Spurious Emission in Band Edge
☐ 802.11a ☒ 802.11n(HT20) ☐ 802.11n(HT40)
☒ 5745 Ant.Pol V

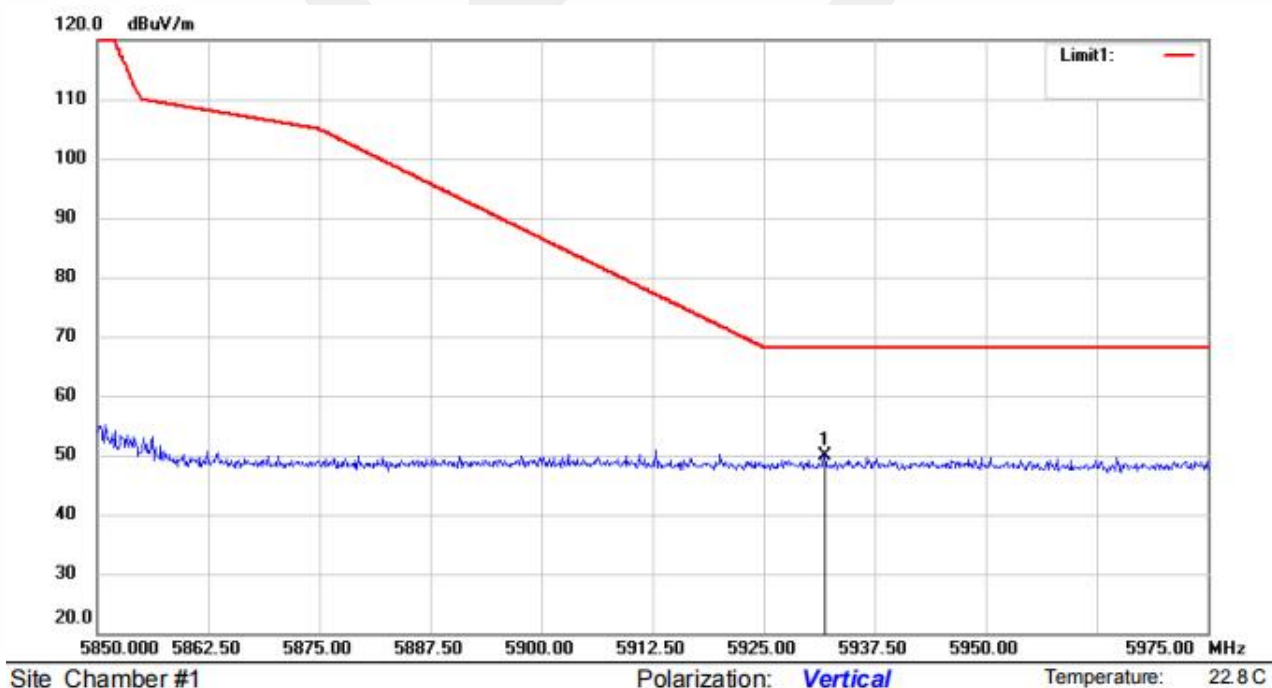


Site Chamber #1 Polarization: **Vertical** Temperature: 22.8 C

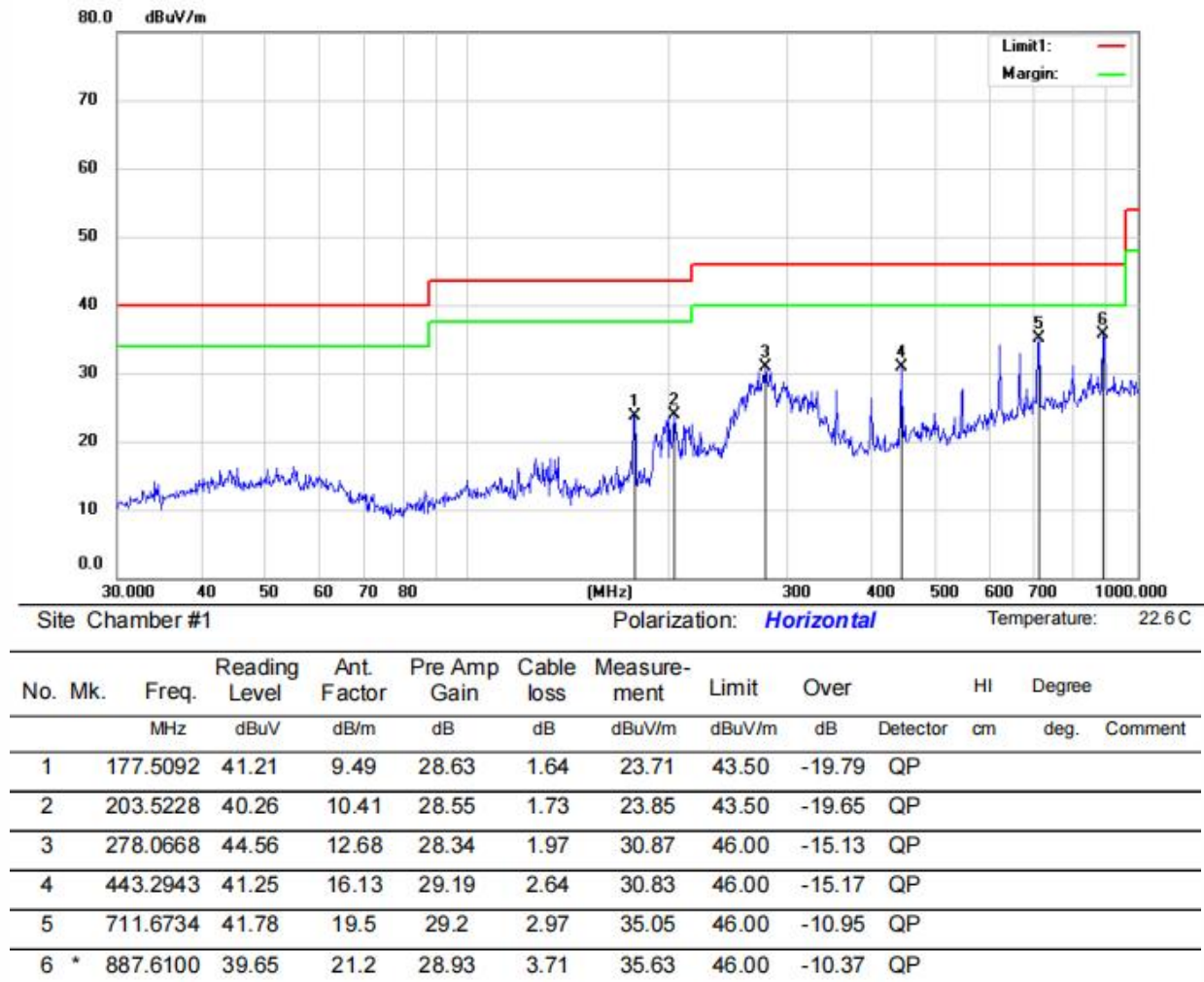
U-NII -3			
Test Model	Undesirable radiated	Undesirable radiated	Spurious Emission in Band Edge
	☐ 802.11a	☒ 802.11n(HT20)	☐ 802.11n(HT40)
		☒ 5825	
			Ant.Pol H



U-NII -3			
Test Model	Undesirable radiated	Undesirable radiated	Spurious Emission in Band Edge
	☐ 802.11a	☒ 802.11n(HT20)	☐ 802.11n(HT40)
		☒ 5825	
			Ant.Pol V

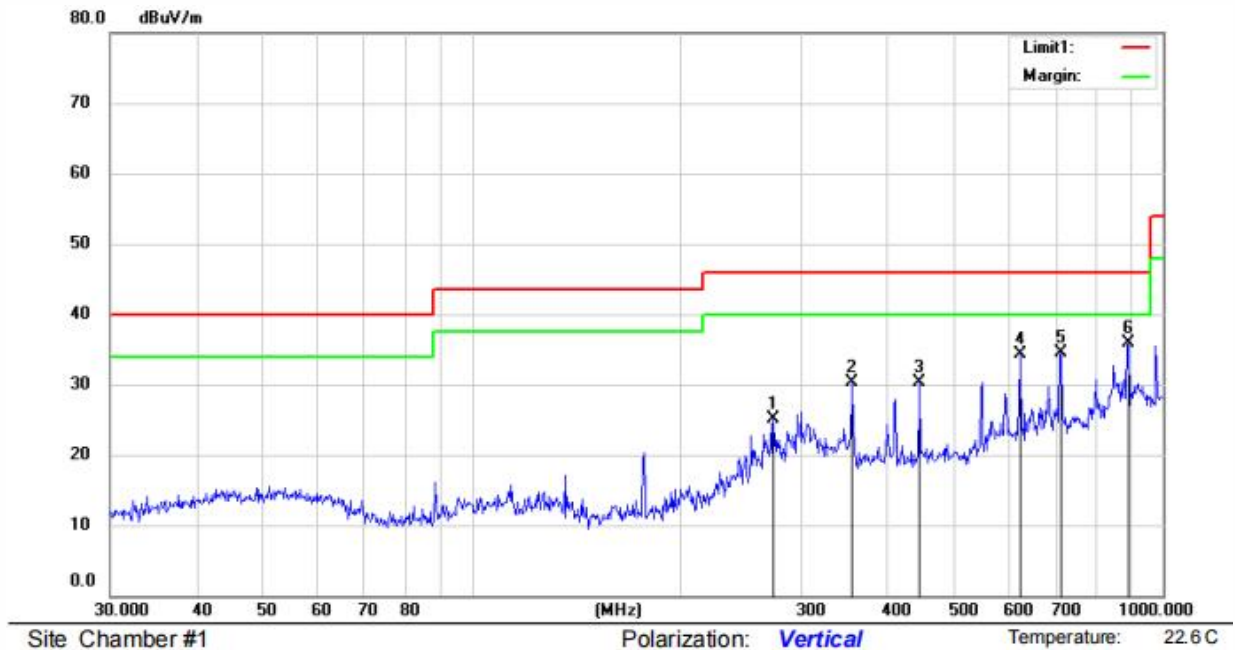


- Undesirable radiated Spurious Emission below 1GHz (30MHz to 1GHz)
- All the antenna(Antenna 1) and modes(802.11a/n/ac/ax) have been tested and the worst(Antenna 1, 802.11a) result recorded was report as below:



*:Maximum data x:Over limit !:over margin

Operator: Ccyf



No.	Mk.	Freq. MHz	Reading Level dBuV	Ant. Factor dB/m	Pre Amp Gain dB	Cable loss dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	HI cm	Degree deg.	Comment
1		273.2341	38.98	12.52	28.36	1.94	25.08	46.00	-20.92	QP			
2		355.4273	41.78	14.81	28.63	2.43	30.39	46.00	-15.61	QP			
3		444.8514	40.57	16.29	29.2	2.64	30.30	46.00	-15.70	QP			
4		620.7096	42.16	18.39	29.35	3.1	34.30	46.00	-11.70	QP			
5		711.6734	41.28	19.5	29.2	2.97	34.55	46.00	-11.45	QP			
6	*	890.7278	39.83	21.21	28.93	3.72	35.83	46.00	-10.17	QP			

*:Maximum data x:Over limit !:over margin

Operator: Ccyf

8.5 POWER LINE CONDUCTED EMISSIONS

8.5.1 Applicable Standard

According to FCC Part 15.207(a)

8.5.2 Conformance Limit

Frequency(MHz)	Conducted Emission Limit	
	Quasi-peak	Average
0.15-0.5	66-56	56-46
0.5-5.0	56	46
5.0-30.0	60	50

Note: 1. The lower limit shall apply at the transition frequencies
2. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50MHz.

8.5.3 Test Configuration

Test according to clause 6.3 conducted emission test setup

8.5.4 Test Procedure

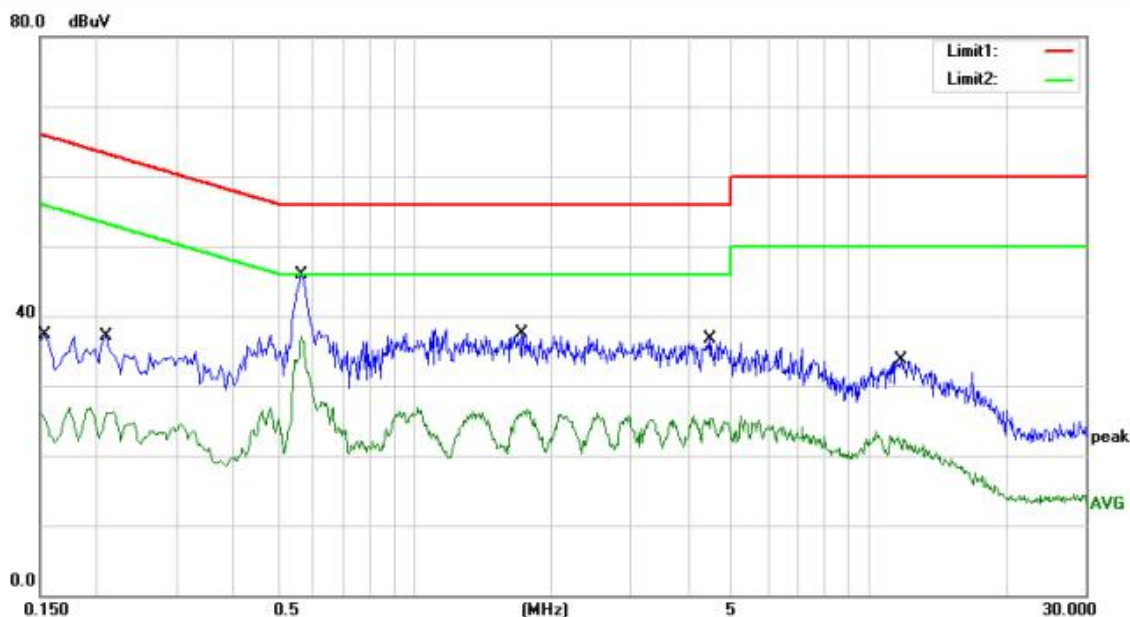
The EUT was placed on a table which is 0.8m above ground plane.
Maximum procedure was performed on the highest emissions to ensure EUT compliance.
Repeat above procedures until all frequency measured were complete.

8.5.5 Test Results

Temperature :	25.1℃	ATM Pressure::	1011 mbar
Humidity :	45 %	Test Engineer:	Lusi

Pass

The 120V &240V voltage have been tested, and the worst result recorded was report as below:



Site site #1

Phase: L1

Temperature: 20.2

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1500	18.90	18.42	37.32	66.00	-28.68	QP	
2		0.1500	7.87	18.42	26.29	56.00	-29.71	AVG	
3		0.2100	18.82	18.27	37.09	63.21	-26.12	QP	
4		0.2100	7.90	18.27	26.17	53.21	-27.04	AVG	
5		0.5660	28.35	17.55	45.90	56.00	-10.10	QP	
6	*	0.5660	19.45	17.55	37.00	46.00	-9.00	AVG	
7		1.7260	19.82	17.60	37.42	56.00	-18.58	QP	
8		1.7260	8.73	17.60	26.33	46.00	-19.67	AVG	
9		4.4860	18.93	17.73	36.66	56.00	-19.34	QP	
10		4.4860	7.65	17.73	25.38	46.00	-20.62	AVG	
11		11.5900	15.84	17.78	33.62	60.00	-26.38	QP	
12		11.5900	4.88	17.78	22.66	50.00	-27.34	AVG	

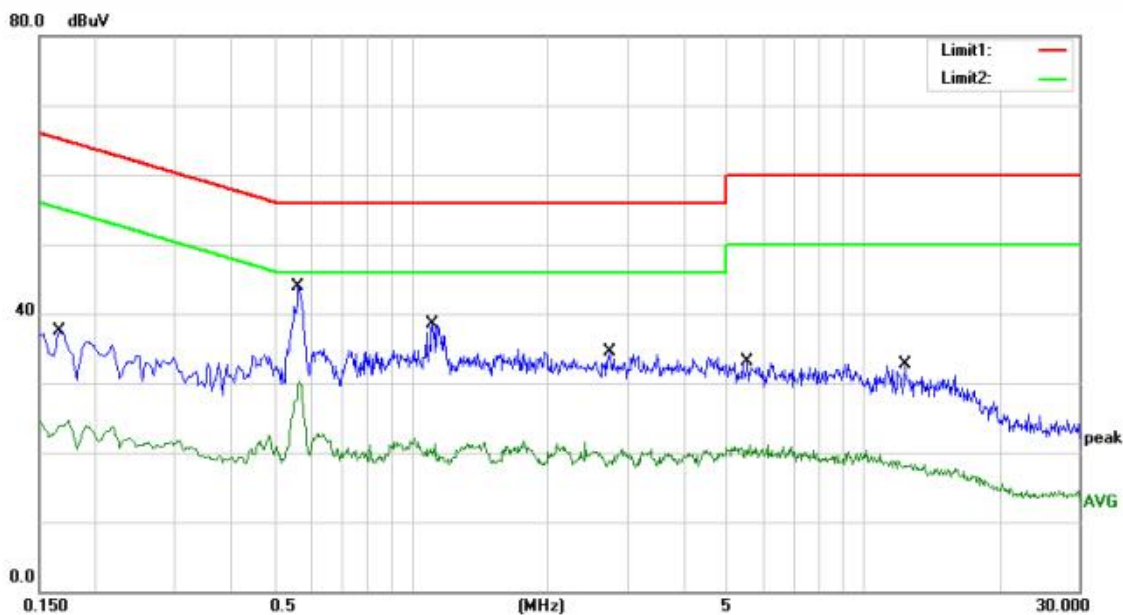
*:Maximum data

x:Over limit

!:over margin

Comment: Factor build in receiver.

Operator:



Site site #1

Phase: N

Temperature: 20.2

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1		0.1660	19.18	18.38	37.56	65.16	-27.60	QP	
2		0.1660	5.44	18.38	23.82	55.16	-31.34	AVG	
3	*	0.5620	26.30	17.55	43.85	56.00	-12.15	QP	
4		0.5620	12.66	17.55	30.21	46.00	-15.79	AVG	
5		1.1140	20.83	17.58	38.41	56.00	-17.59	QP	
6		1.1140	2.19	17.58	19.77	46.00	-26.23	AVG	
7		2.7620	16.90	17.65	34.55	56.00	-21.45	QP	
8		2.7620	1.31	17.65	18.96	46.00	-27.04	AVG	
9		5.4700	15.31	17.75	33.06	60.00	-26.94	QP	
10		5.4700	1.49	17.75	19.24	50.00	-30.76	AVG	
11		12.3540	14.95	17.78	32.73	60.00	-27.27	QP	
12		12.3540	0.06	17.78	17.84	50.00	-32.16	AVG	

*:Maximum data

x:Over limit

!:over margin

Comment: Factor build in receiver.

Operator:

8.6 ANTENNA APPLICATION

8.6.1 Antenna Requirement

Standard	Requirement
FCC CRF Part 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. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited. This requirement does not apply to carrier current devices or to devices operated under the provisions of §15.211, §15.213, §15.217, §15.219, or §15.221. Further, this requirement does not apply to intentional radiators that must be professionally installed, such as perimeter protection systems and some field disturbance sensors, or to other intentional radiators which, in accordance with §15.31(d), must be measured at the installation site. However, the installer shall be responsible for ensuring that the proper antenna is employed so that the limits in this part are not exceeded.

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.

8.6.2 Result

Temperature : 25°C ATM Pressure:: 1011 mbar
Humidity : 60 % Test Engineer: XXH

PASS

The EUT is Dual-band WIFI FPC Bracket Antenna.

- ☒ Antennas use a permanently attached antenna which is not replaceable.
- ☐ Not using a standard antenna jack or electrical connector for antenna replacement
- ☐ The antenna has to be professionally installed (please provide method of installation)

Which in accordance to section 15.203, please refer to the internal photos.

Detail of factor for radiated emission:

Frequency(MHz)	Ant_F(dB)	Cab_L(dB)	Preamp(dB)	Correct Factor(dB)
0.009	20.6	0.03	\	20.63
0.15	20.7	0.1	\	20.8
1	20.9	0.15	\	21.05
10	20.1	0.28	\	20.38
30	18.8	0.45	\	19.25
30	11.7	0.62	27.9	-15.58
100	12.5	1.02	27.8	-14.28
300	12.9	1.91	27.5	-12.69
600	19.2	2.92	27	-4.88
800	21.1	3.54	26.6	-1.96
1000	22.3	4.17	26.2	0.27
1000	25.6	1.76	41.4	-14.04
3000	28.9	3.27	43.2	-11.03
5000	31.1	4.2	44.6	-9.3
8000	36.2	5.95	44.7	-2.55
10000	38.4	6.3	43.9	0.8
12000	38.5	7.14	42.3	3.34
15000	40.2	8.15	41.4	6.95
18000	45.4	9.02	41.3	13.12
18000	37.9	1.81	47.9	-8.19
21000	37.9	1.95	48.7	-8.85
25000	39.3	2.01	42.8	-1.49
28000	39.6	2.16	46.0	-4.24
31000	41.2	2.24	44.5	-1.06
34000	41.5	2.29	46.6	-2.81
37000	43.8	2.30	46.4	-0.3
40000	43.2	2.50	42.2	3.5

--- End of Report ---

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2. This report shall not be copied partly without authorization.
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4. The observations or tests with special mark fall outside the scope of accreditation, and are only used for purpose of commission, research, training, internal quality control etc.
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6. 对本检验报告若有异议，请于收到报告之日起 20 日内提出。
6. Objections shall be raised within 20 days from the date receiving the report.