

- ☒ 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 ANT2 and MIMO as below:

Test mode: 802.11a Frequency(MHz): 5260

Freq. (MHz)	Ant.Pol. H/V	Field Strength (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Margin(dB)
8325.43	V	54.89	-40.34	-27	13.34
11382.6	V	59.64	-35.59	-27	8.59
17986.9	V	66.72	-28.51	-27	1.51
8266.42	H	55.79	-39.44	-27	12.44
10731.5	H	59.24	-35.99	-27	8.99
17540.9	H	64.92	-30.31	-27	3.31

Test mode: 802.11a Frequency(MHz): 5280

Freq. (MHz)	Ant.Pol. H/V	Field Strength (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Margin(dB)
7845.40	V	54.19	-41.04	-27	14.04
10736.5	V	60.48	-34.75	-27	7.75
17980.9	V	66.45	-28.78	-27	1.78
8585.44	H	55.12	-40.11	-27	13.11
10738.5	H	59.53	-35.7	-27	8.7
17998.9	H	67.56	-27.67	-27	0.67

Test mode: 802.11a Frequency(MHz): 5320

Freq. (MHz)	Ant.Pol. H/V	Field Strength (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Margin(dB)
8222.42	V	56.33	-38.9	-27	11.9
10725.5	V	59.34	-35.89	-27	8.89
17993.9	V	67.01	-28.22	-27	1.22
8084.41	H	54.74	-40.49	-27	13.49
10662.5	H	59.16	-36.07	-27	9.07
17982.9	H	66.72	-28.51	-27	1.51

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

Frequency: 5260

Freq. (MHz)	Ant.Pol. H/V	Emission Level(dBuV/m)		Limit 3m(dBuV/m)		Margin (dB)	
		PK	AV	PK	AV	PK	AV
8325.43	V	54.89	39.75	74	54	19.11	14.25
11382.6	V	59.64	41.35	74	54	14.36	12.65
17986.9	V	66.72	46.58	74	54	7.28	7.42
8266.42	H	55.79	39.64	74	54	18.21	14.36
10731.5	H	59.24	43.63	74	54	14.76	10.37
17540.9	H	64.92	45.34	74	54	9.08	8.66

Frequency: 5280

Freq. (MHz)	Ant.Pol. H/V	Emission Level(dBuV/m)		Limit 3m(dBuV/m)		Margin (dB)	
		PK	AV	PK	AV	PK	AV
7845.40	V	54.19	38.36	74	54	19.81	15.64
10736.5	V	60.48	43.42	74	54	13.52	10.58
17980.9	V	66.45	46.30	74	54	7.55	7.70
8585.44	H	55.12	40.66	74	54	18.88	13.34
10738.5	H	59.53	43.42	74	54	14.47	10.58
17998.9	H	67.56	47.60	74	54	6.44	6.40

Frequency: 5320

Freq. (MHz)	Ant.Pol. H/V	Emission Level(dBuV/m)		Limit 3m(dBuV/m)		Margin (dB)	
		PK	AV	PK	AV	PK	AV
8222.42	V	56.33	39.63	74	54	17.67	14.37
10725.5	V	59.34	43.60	74	54	14.66	10.40
17993.9	V	67.01	46.74	74	54	6.99	7.26
8084.41	H	54.74	39.71	74	54	19.26	14.29
10662.5	H	59.16	42.94	74	54	14.84	11.06
17982.9	H	66.72	46.68	74	54	7.28	7.32

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

● ☒ Undesirable radiated Undesirable radiated Spurious Emission in Band Edge

Test mode: 802.11ac Frequency(MHz): 5260

Freq. (MHz)	Ant.Pol. H/V	Field Strength (RBW=100KHz) (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Verdict
5147.64	V	55.59	-39.64	-27	Pass
5117.90	H	54.17	-41.06	-27	Pass

Test mode: 802.11ac Frequency(MHz): 5320

Freq. (MHz)	Ant.Pol. H/V	Field Strength (RBW=100KHz) (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Verdict
5350.08	V	54.30	-40.93	-27	Pass
5354.45	H	55.77	-39.46	-27	Pass

Note: (1) All Readings are Peak Value (VBW=3MHz) and AV 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: 802.11ac Frequency(MHz): 5260

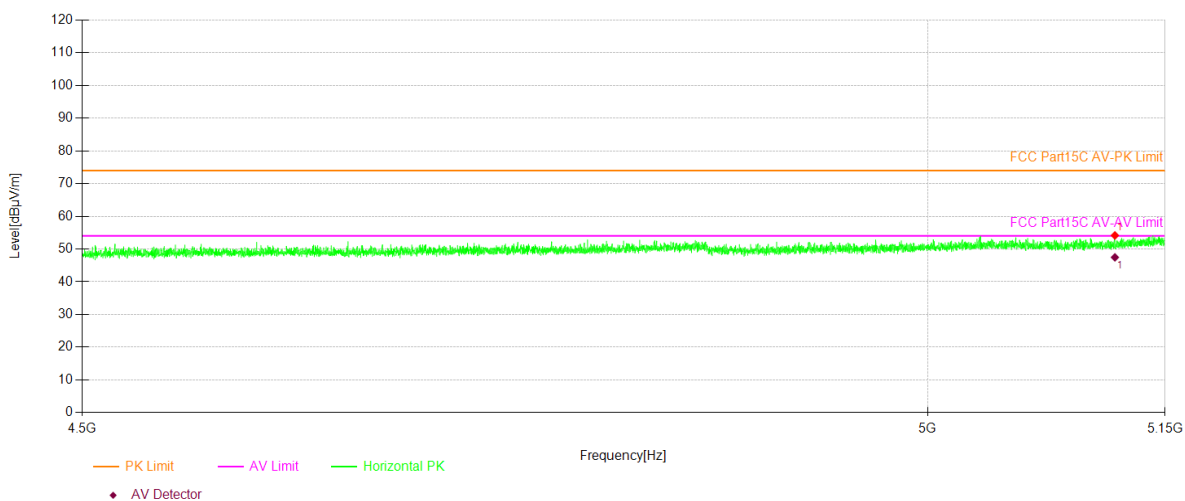
Frequency (MHz)	Polarity	PK(dBuV/m) (VBW=3MHz)	Limit 3m (dBuV/m)	AV(dBuV/m) (VBW=10Hz)	Limit 3m (dBuV/m)
5147.64	V	55.59	74.00	47.82	54.00
5117.90	H	54.17	74.00	47.46	54.00

Test mode: 802.11ac Frequency(MHz): 5320

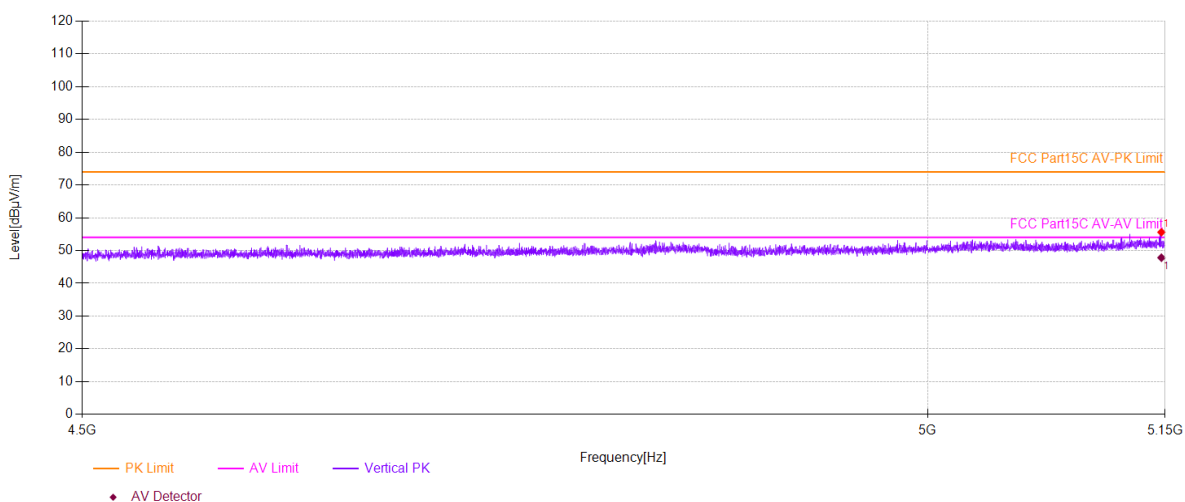
Frequency (MHz)	Polarity	PK(dBuV/m) (VBW=3MHz)	Limit 3m (dBuV/m)	AV(dBuV/m) (VBW=10Hz)	Limit 3m (dBuV/m)
5350.08	V	54.30	74.00	48.64	54.00
5354.45	H	55.77	74.00	48.72	54.00

Note: (1) All Readings are Peak Value (VBW=3MHz) and AV Value (VBW=10Hz).
 (2) Emission Level= Reading Level+Correct Factor +Cable Loss.
 (3) Correct Factor= Ant_F + Cab_L - Preamp
 (4) Data of measurement within this frequency range shown "--" in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

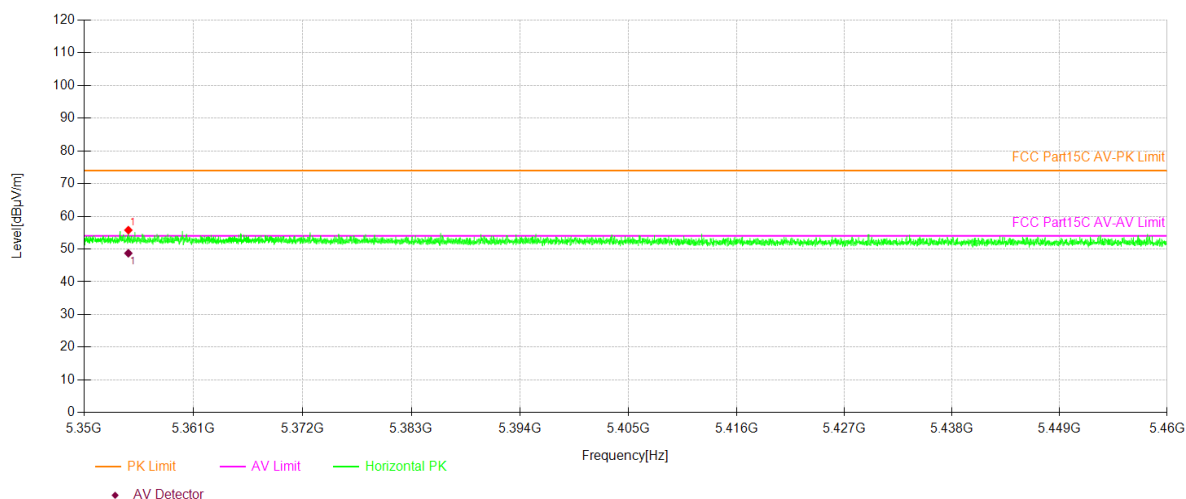
U-NII -2A				
Test Model	Undesirable radiated Spurious Emission in Restricted Band (5100-5150MHz)			
	☒ 802.11ac	☐ 802.11n(HT20)	☐ 802.11n(HT40)	
	☒ 5260	☐ 5300	☐ 5320	Ant.Pol H



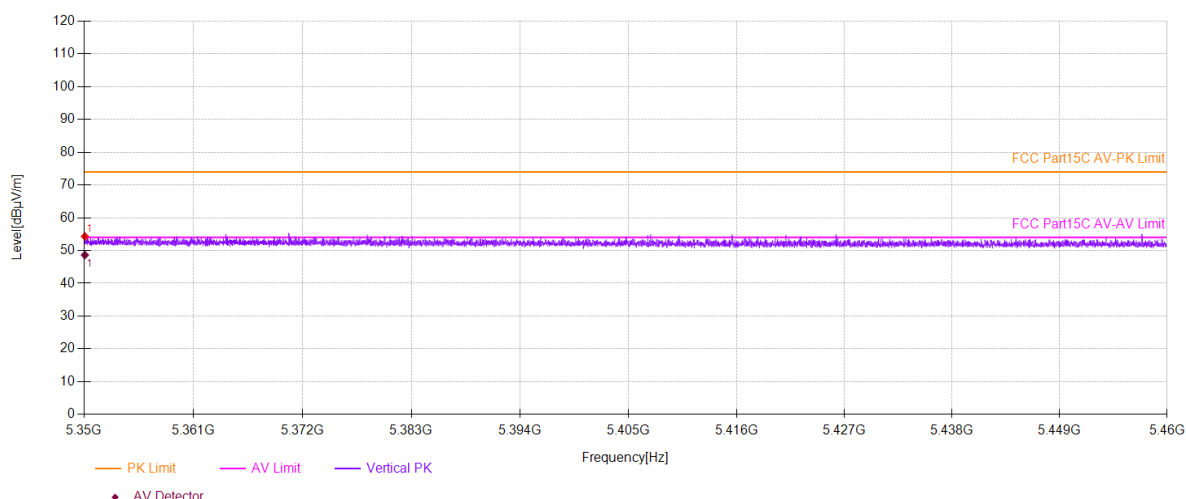
U-NII -2A				
Test Model	Undesirable radiated Spurious Emission in Restricted Band (5100-5150MHz)			
	☒ 802.11ac	☐ 802.11n(HT20)	☐ 802.11n(HT40)	
	☒ 5260	☐ 5300	☐ 5320	Ant.Pol V



U-NII -2A				
Test Model	Undesirable radiated Spurious Emission in Restricted Band (5350-5400MHz)			
	☒ 802.11ac	☐ 802.11n(HT20)	☐ 802.11n(HT40)	
	☐ 5260	☐ 5300	☒ 5320	Ant.Pol H



U-NII -2A				
Test Model	Undesirable radiated Spurious Emission in Restricted Band (5350-5400MHz)			
	☒ 802.11ac	☐ 802.11n(HT20)	☐ 802.11n(HT40)	
	☐ 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 ANT2 and MIMO as below:

Test mode:		802.11a		Frequency(MHz):		5500	
Freq. (MHz)	Ant.Pol. H/V	Field Strength (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Margin(dB)		
6929.34	V	54.28	-40.95	-27	13.95		
10060.5	V	59.46	-35.77	-27	8.77		
17973.9	V	66.09	-29.14	-27	2.14		
8263.42	H	54.76	-40.47	-27	13.47		
10075.5	H	59.63	-35.6	-27	8.6		
17988.9	H	67.04	-28.19	-27	1.19		

Test mode:		802.11a		Frequency(MHz):		5580	
Freq. (MHz)	Ant.Pol. H/V	Field Strength (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Margin(dB)		
8216.42	V	55.25	-39.98	-27	12.98		
10736.5	V	59.36	-35.87	-27	8.87		
17987.9	V	66.49	-28.74	-27	1.74		
10088.5	H	58.97	-36.26	-27	9.26		
12555.6	H	59.78	-35.45	-27	8.45		
17974.9	H	66.41	-28.82	-27	1.82		

Test mode:		802.11a		Frequency(MHz):		5700	
Freq. (MHz)	Ant.Pol. H/V	Field Strength (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Margin(dB)		
8697.45	V	55.39	-39.84	-27	12.84		
11501.6	V	59.52	-35.71	-27	8.71		
17993.9	V	66.73	-28.5	-27	1.5		
8118.41	H	54.54	-40.69	-27	13.69		
10866.5	H	59.66	-35.57	-27	8.57		
17984.9	H	66.78	-28.45	-27	1.45		

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

Frequency: 5500

Freq. (MHz)	Ant.Pol. H/V	Emission Level(dBuV/m)		Limit 3m(dBuV/m)		Margin (dB)	
		PK	AV	PK	AV	PK	AV
6929.34	V	54.28	39.61	74	54	19.72	14.39
10060.5	V	59.46	41.89	74	54	14.54	12.11
17973.9	V	66.09	46.39	74	54	7.91	7.61
8263.42	H	54.76	39.61	74	54	19.24	14.39
10075.5	H	59.63	42.07	74	54	14.37	11.93
17988.9	H	67.04	46.74	74	54	6.96	7.26

Frequency: 5580

Freq. (MHz)	Ant.Pol. H/V	Emission Level(dBuV/m)		Limit 3m(dBuV/m)		Margin (dB)	
		PK	AV	PK	AV	PK	AV
8216.42	V	55.25	39.40	74	54	18.75	14.60
10736.5	V	59.36	43.05	74	54	14.64	10.95
17987.9	V	66.49	46.46	74	54	7.51	7.54
10088.5	H	58.97	46.43	74	54	15.03	7.57
12555.6	H	59.78	45.82	74	54	14.22	8.18
17974.9	H	66.41	46.11	74	54	7.59	7.89

Frequency: 5700

Freq. (MHz)	Ant.Pol. H/V	Emission Level(dBuV/m)		Limit 3m(dBuV/m)		Margin (dB)	
		PK	AV	PK	AV	PK	AV
8697.45	V	55.39	41.06	74	54	18.61	12.94
11501.6	V	59.52	43.34	74	54	14.48	10.66
17993.9	V	66.73	46.92	74	54	7.27	7.08
8118.41	H	54.54	39.23	74	54	19.46	14.77
10866.5	H	59.66	42.00	74	54	14.34	12.00
17984.9	H	66.78	46.81	74	54	7.22	7.19

- Note:** (1) All Readings are Peak Value (VBW=3MHz) and AV 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.

● ☒ Undesirable radiated Undesirable radiated Spurious Emission in Band Edge

Test mode: 802.11ac Frequency(MHz): 5500

Freq. (MHz)	Ant.Pol. H/V	Field Strength (RBW=100KHz) (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Verdict
5468.05	V	53.26	-41.97	-27	Pass
5469.76	H	53.94	-41.29	-27	Pass

Test mode: 802.11ac Frequency(MHz): 5700

Freq. (MHz)	Ant.Pol. H/V	Field Strength (RBW=100KHz) (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Verdict
5725.44	V	53.32	-41.91	-27	Pass
5725.66	H	52.71	-42.52	-27	Pass

Note: (1) All Readings are Peak Value (VBW=3MHz) and AV 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: 802.11ac Frequency(MHz): 5500

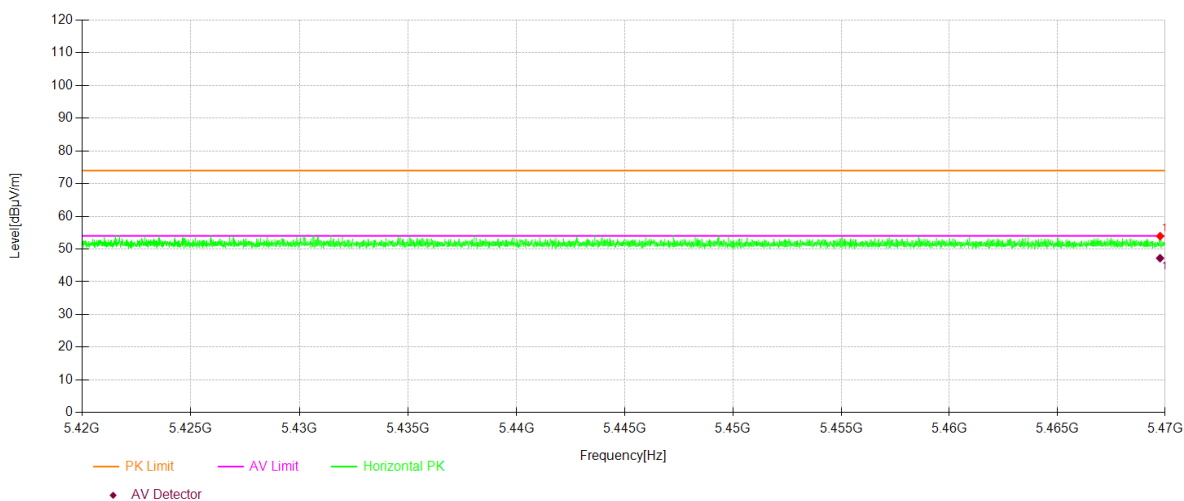
Frequency (MHz)	Polarity	PK(dBuV/m) (VBW=3MHz)	Limit 3m (dBuV/m)	AV(dBuV/m) (VBW=10Hz)	Limit 3m (dBuV/m)
5468.05	V	53.26	74.00	47.03	54.00
5469.76	H	53.94	74.00	47.21	54.00

Test mode: 802.11ac Frequency(MHz): 5700

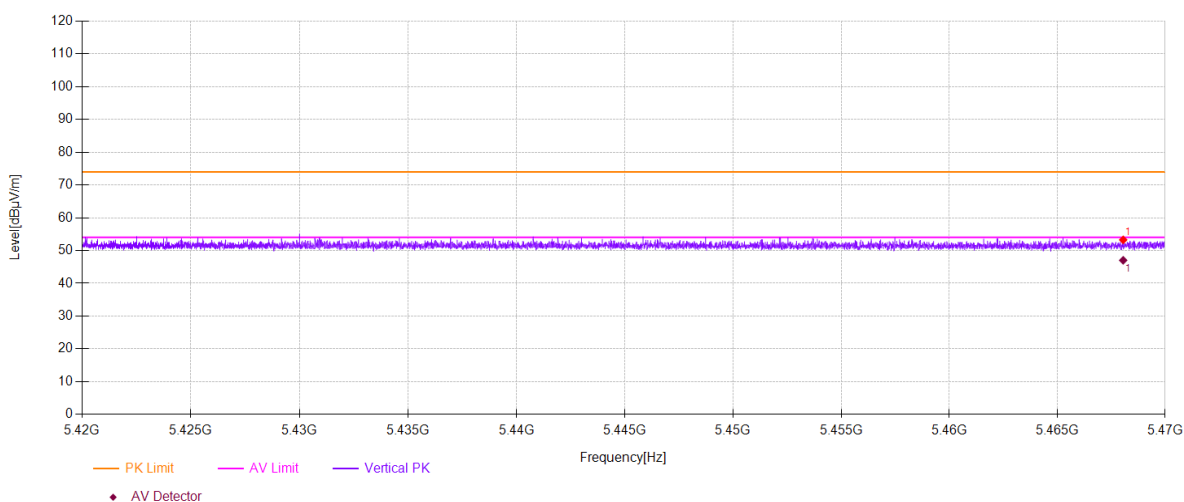
Frequency (MHz)	Polarity	PK(dBuV/m) (VBW=3MHz)	Limit 3m (dBuV/m)	AV(dBuV/m) (VBW=10Hz)	Limit 3m (dBuV/m)
5725.44	V	53.32	74.00	47.75	54.00
5725.66	H	52.71	74.00	47.67	54.00

Note: (1) All Readings are Peak Value (VBW=3MHz) and AV Value (VBW=10Hz).
 (2) Emission Level= Reading Level+Correct Factor +Cable Loss.
 (3) Correct Factor= Ant_F + Cab_L - Preamp
 (4) Data of measurement within this frequency range shown " -- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

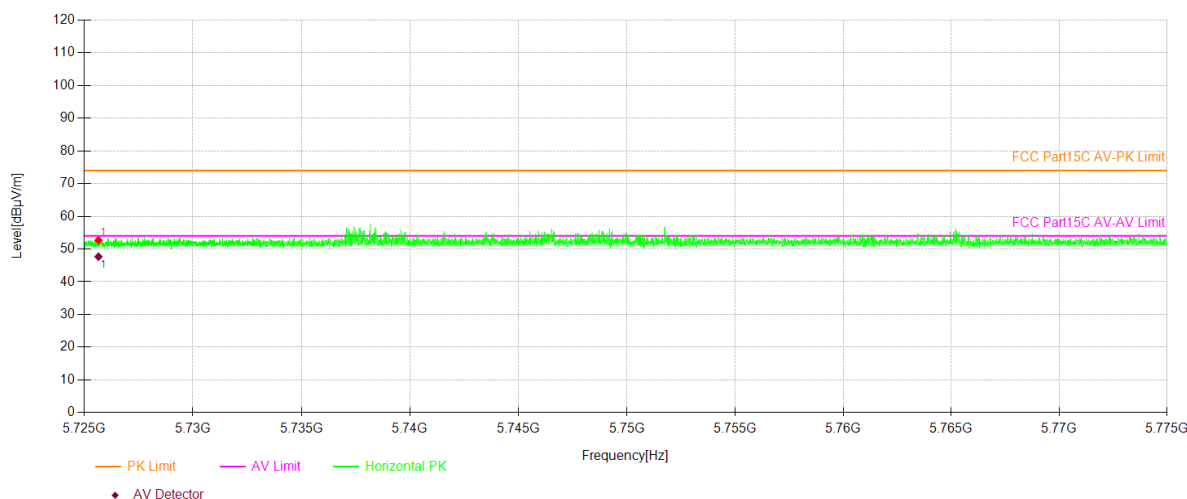
U-NII -2C				
Test Model	Undesirable radiated Spurious Emission in Restricted Band (5100-5150MHz)			
	☒ 802.11ac	☐ 802.11n(HT20)	☐ 802.11n(HT40)	
	☒ 5500	☐ 5580	☐ 5700	Ant.Pol H



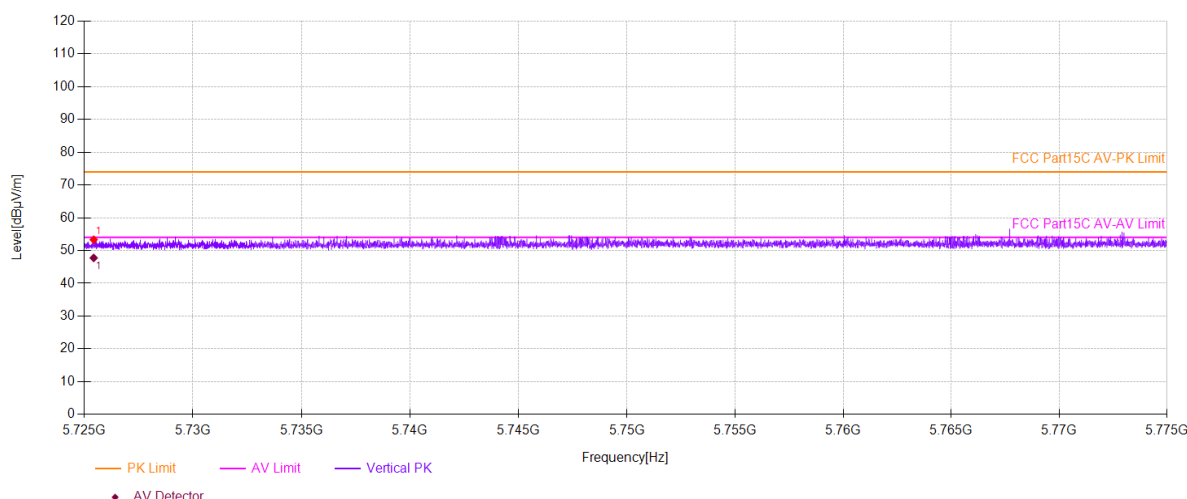
U-NII -2C				
Test Model	Undesirable radiated Spurious Emission in Restricted Band (5100-5150MHz)			
	☒ 802.11ac	☐ 802.11n(HT20)	☐ 802.11n(HT40)	
	☒ 5500	☐ 5580	☐ 5700	Ant.Pol V



U-NII -2C				
Test Model	Undesirable radiated Spurious Emission in Restricted Band (5350-5400MHz)			
	☒ 802.11ac	☐ 802.11n(HT20)	☐ 802.11n(HT40)	
	☐ 5500	☐ 5580	☒ 5700	Ant.Pol H



U-NII -2C				
Test Model	Undesirable radiated Spurious Emission in Restricted Band (5350-5400MHz)			
	☒ 802.11ac	☐ 802.11n(HT20)	☐ 802.11n(HT40)	
	☐ 5500	☐ 5580	☒ 5700	Ant.Pol V



- ☒ 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 ANT2 and MIMO as below:

Test mode:		802.11a		Frequency(MHz):		5745	
Freq. (MHz)	Ant.Pol. H/V	Field Strength (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Margin(dB)		
8307.42	V	55.15	-40.08	-27	13.08		
10758.5	V	59.67	-35.56	-27	8.56		
17997.9	V	66.14	-29.09	-27	2.09		
8957.46	H	56.26	-38.97	-27	11.97		
11375.6	H	59.70	-35.53	-27	8.53		
17991.9	H	66.66	-28.57	-27	1.57		

Test mode:		802.11a		Frequency(MHz):		5785	
Freq. (MHz)	Ant.Pol. H/V	Field Strength (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Margin(dB)		
8668.45	V	55.67	-39.56	-27	12.56		
10726.5	V	60.08	-35.15	-27	8.15		
17996.9	V	67.00	-28.23	-27	1.23		
8096.41	H	55.30	-39.93	-27	12.93		
11376.6	H	58.95	-36.28	-27	9.28		
17998.9	H	66.82	-28.41	-27	1.41		

Test mode:		802.11a		Frequency(MHz):		5825	
Freq. (MHz)	Ant.Pol. H/V	Field Strength (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Margin(dB)		
7850.40	V	54.39	-40.84	-27	13.84		
10755.5	V	58.92	-36.31	-27	9.31		
18000	V	67.03	-28.2	-27	1.2		
8911.46	H	55.69	-39.54	-27	12.54		
11591.6	H	58.94	-36.29	-27	9.29		
17959.9	H	66.80	-28.43	-27	1.43		

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

Frequency: 5745

Freq. (MHz)	Ant.Pol. H/V	Emission Level(dBuV/m)		Limit 3m(dBuV/m)		Margin (dB)	
		PK	AV	PK	AV	PK	AV
8307.42	V	55.15	39.76	74	54	18.85	14.24
10758.5	V	59.67	43.17	74	54	14.33	10.83
17997.9	V	66.14	46.92	74	54	7.86	7.08
8957.46	H	56.26	41.95	74	54	17.74	12.05
11375.6	H	59.70	41.40	74	54	14.30	12.60
17991.9	H	66.66	46.83	74	54	7.34	7.17

Frequency: 5785

Freq. (MHz)	Ant.Pol. H/V	Emission Level(dBuV/m)		Limit 3m(dBuV/m)		Margin (dB)	
		PK	AV	PK	AV	PK	AV
8668.45	V	55.67	40.34	74	54	18.33	13.66
10726.5	V	60.08	43.78	74	54	13.92	10.22
17996.9	V	67.00	46.71	74	54	7.00	7.29
8096.41	H	55.30	39.94	74	54	18.70	14.06
11376.6	H	58.95	41.32	74	54	15.05	12.68
17998.9	H	66.82	46.97	74	54	7.18	7.03

Frequency: 5825

Freq. (MHz)	Ant.Pol. H/V	Emission Level(dBuV/m)		Limit 3m(dBuV/m)		Margin (dB)	
		PK	AV	PK	AV	PK	AV
7850.40	V	54.39	39.05	74	54	19.61	14.95
10755.5	V	58.92	43.10	74	54	15.08	10.90
18000	V	67.03	46.80	74	54	6.97	7.20
8911.46	H	55.69	42.19	74	54	18.31	11.81
11591.6	H	58.94	42.15	74	54	15.06	11.85
17959.9	H	66.80	45.71	74	54	7.20	8.29

- Note:** (1) All Readings are Peak Value (VBW=3MHz) and AV 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.

- ☒ Undesirable radiated Undesirable radiated Spurious Emission in Band Edge

Test mode: 802.11ac Frequency(MHz): 5745

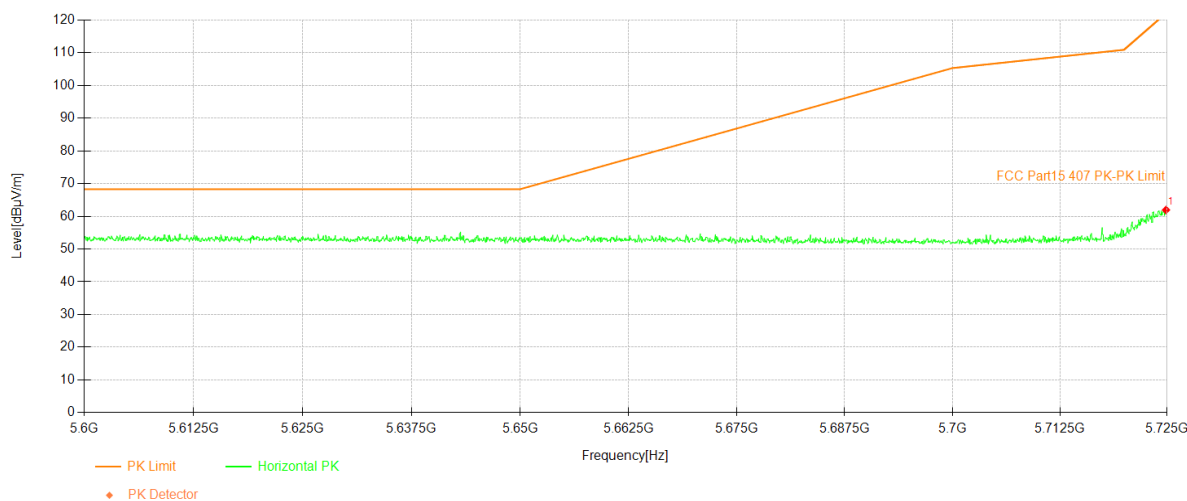
Freq. (MHz)	Ant.Pol. H/V	Field Strength (RBW=100KHz) (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Verdict
5724.81	V	62.13	-33.1	-27	Pass
5724.87	H	61.95	-33.28	-27	Pass

Test mode: 802.11ac Frequency(MHz): 5825

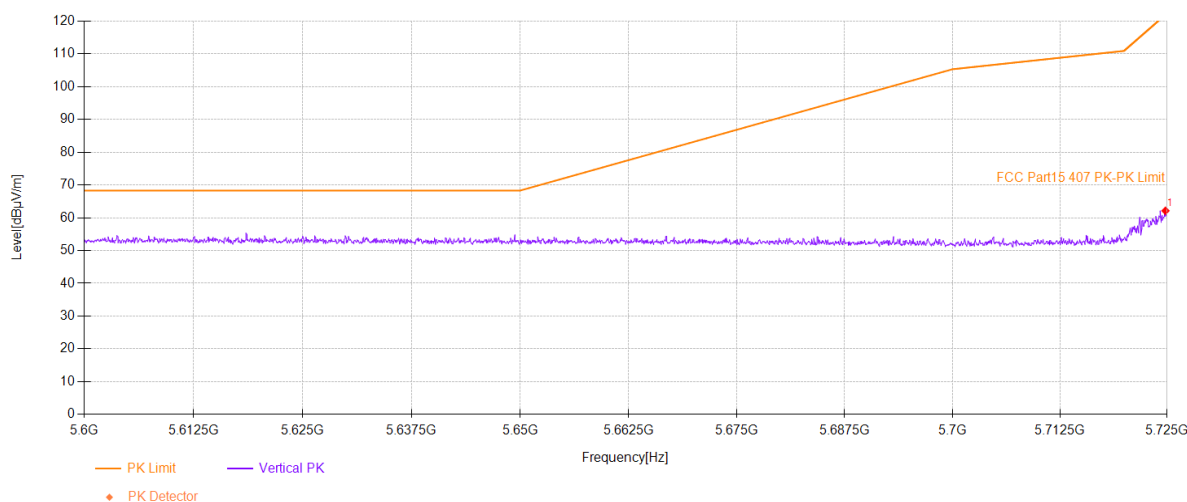
Freq. (MHz)	Ant.Pol. H/V	Field Strength (RBW=100KHz) (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Verdict
5851.81	V	54.72	-40.51	-27	Pass
5853.06	H	56.09	-39.14	-27	Pass

Note: (1) All Readings are Peak Value (VBW=3MHz) and AV 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

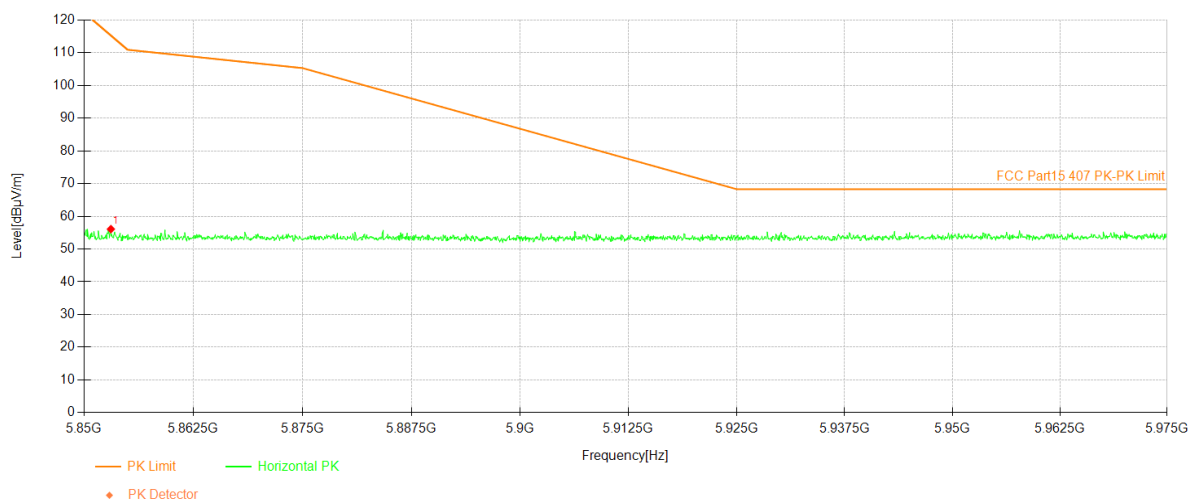
U-NII -3			
Test Model	Undesirable radiated Spurious Emission in Restricted Band (5100-5150MHz)		
	☐ 802.11a	☒ 802.11n(HT20)	☐ 802.11n(HT40)
	☒ 5745		Ant.Pol H



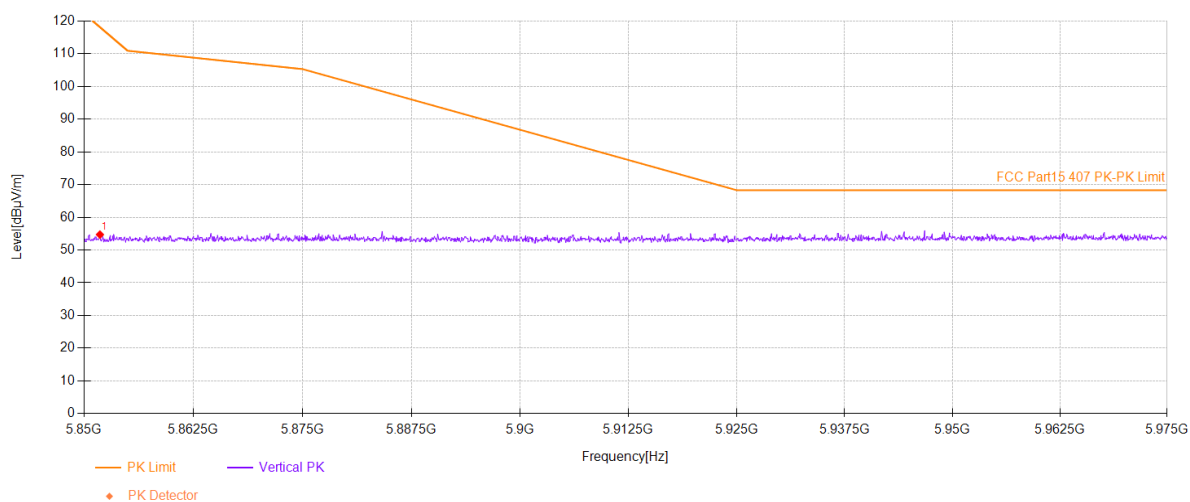
U-NII -3			
Test Model	Undesirable radiated Spurious Emission in Restricted Band (5100-5150MHz)		
	☐ 802.11a	☒ 802.11n(HT20)	☐ 802.11n(HT40)
	☒ 5745		Ant.Pol V



U-NII -3			
Test Model	Undesirable radiated Spurious Emission in Restricted Band (5350-5400MHz)		
	☐ 802.11a	☒ 802.11n(HT20)	☐ 802.11n(HT40)
	☒ 5825	Ant.Pol H	

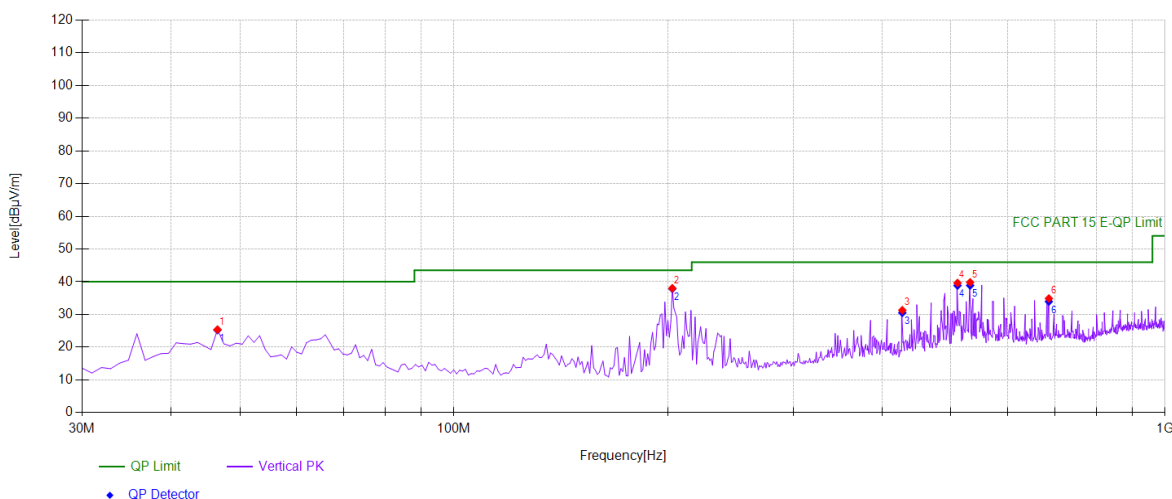


U-NII -3			
Test Model	Undesirable radiated Spurious Emission in Restricted Band (5350-5400MHz)		
	☐ 802.11a	☒ 802.11n(HT20)	☐ 802.11n(HT40)
	☒ 5825	Ant.Pol V	



- Undesirable radiated Spurious Emission below 1GHz (30MHz to 1GHz)
All the modes 802.11a/n has been tested and the worst result 802.11a recorded as below:

Test mode: 802.11n(20) Frequency(MHz): 5180

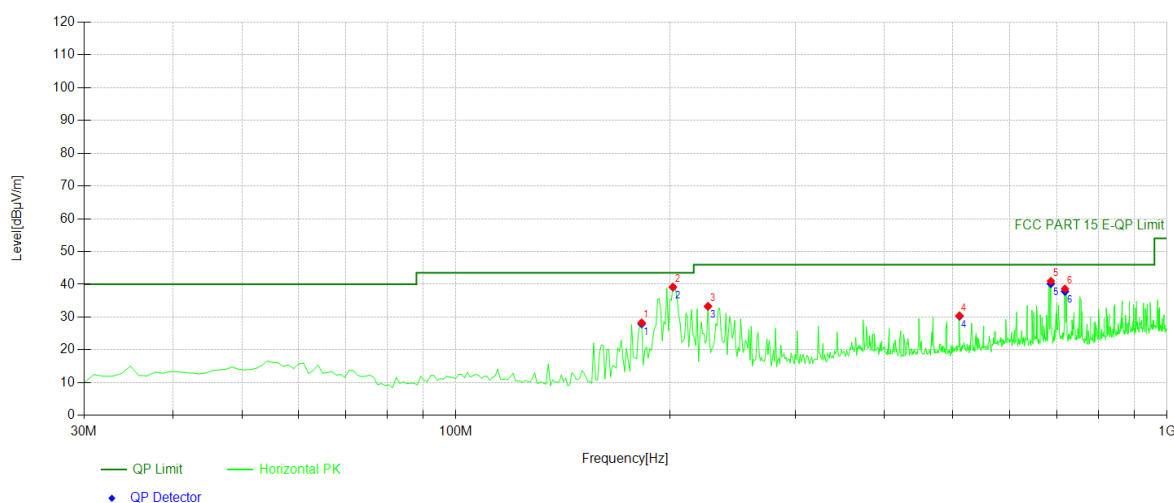


Suspected Data List

NO.	Freq. [MHz]	Reading [dBμV]	Factor [dB/m]	Level [dBμV/m]	Detector	Limit [dBμV/m]	Margin [dB]	Polarity
1	46.5065	41.92	-16.53	25.39	PK	40.00	14.61	Vertical
2	202.832	55.43	-17.42	38.01	PK	43.50	5.49	Vertical
3	427.127	42.77	-11.46	31.31	PK	46.00	14.69	Vertical
4	510.630	49.39	-9.75	39.64	PK	46.00	6.36	Vertical
5	531.992	49.04	-9.21	39.83	PK	46.00	6.17	Vertical
6	686.376	41.33	-6.43	34.90	PK	46.00	11.10	Vertical

Final Data List

NO.	Freq. [MHz]	Factor [dB/m]	QP Value [dBμV/m]	QP Limit [dBμV/m]	QP Margin [dB]
1	46.5065	-16.53	25.24	40.00	14.76
2	202.8328	-17.42	37.86	43.50	5.64
3	427.1271	-11.46	30.52	46.00	15.48
4	510.6306	-9.75	38.85	46.00	7.15
5	531.992	-9.21	38.88	46.00	7.12
6	686.3764	-6.43	33.95	46.00	12.05



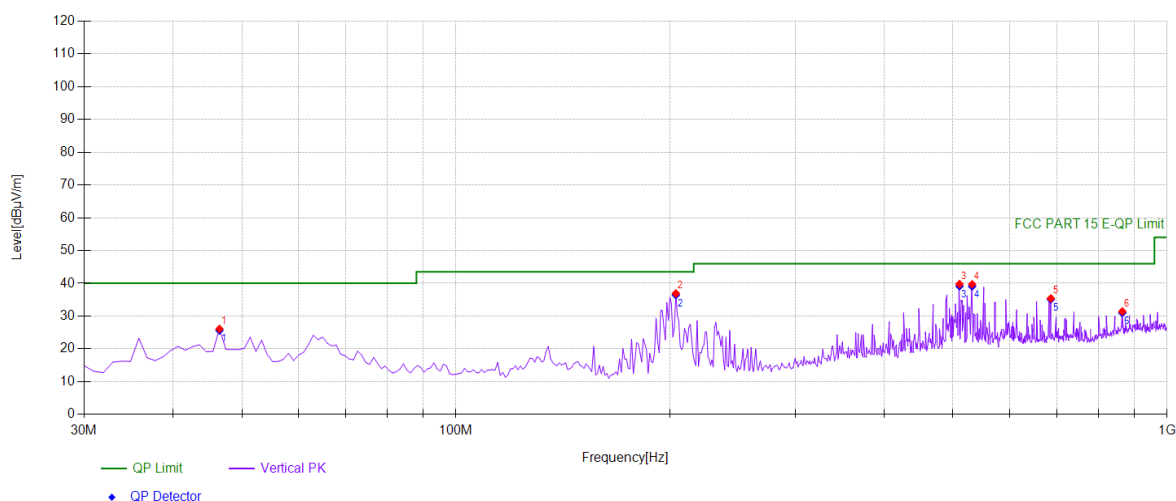
Suspected Data List

NO.	Freq. [MHz]	Reading [dBμV]	Factor [dB/m]	Level [dBμV/m]	Detector	Limit [dBμV/m]	Margin [dB]	Polarity
1	182.442	46.73	-18.44	28.29	PK	43.50	15.21	Horizontal
2	201.861	56.65	-17.49	39.16	PK	43.50	4.34	Horizontal
3	226.136	49.45	-16.16	33.29	PK	46.00	12.71	Horizontal
4	510.630	40.19	-9.75	30.44	PK	46.00	15.56	Horizontal
5	686.376	47.42	-6.43	40.99	PK	46.00	5.01	Horizontal
6	718.418	44.38	-5.75	38.63	PK	46.00	7.37	Horizontal

Final Data List

NO.	Freq. [MHz]	Factor [dB/m]	QP Value [dBμV/m]	QP Limit [dBμV/m]	QP Margin [dB]
1	182.4424	-18.44	27.92	43.50	15.58
2	201.8619	-17.49	39.15	43.50	4.35
3	226.1361	-16.16	33.28	46.00	12.72
4	510.6306	-9.75	30.27	46.00	15.73
5	686.3764	-6.43	40.18	46.00	5.82
6	718.4184	-5.75	37.82	46.00	8.18

Test mode: 802.11n(20) Frequency(MHz): 5200

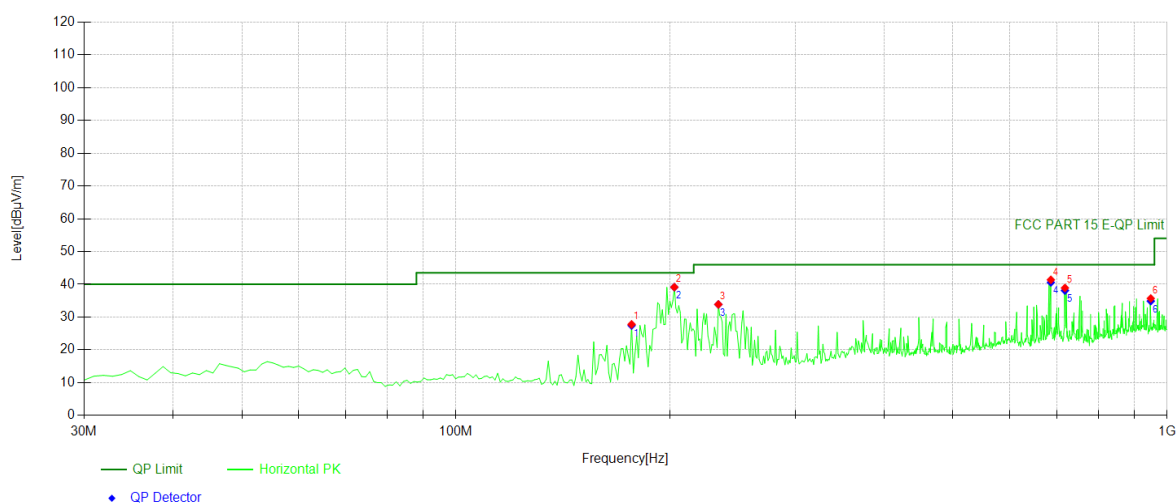


Suspected Data List

NO.	Freq. [MHz]	Reading [dBμV]	Factor [dB/m]	Level [dBμV/m]	Detector	Limit [dBμV/m]	Margin [dB]	Polarity
1	46.5065	42.63	-16.53	26.10	PK	40.00	13.90	Vertical
2	203.803	54.26	-17.36	36.90	PK	43.50	6.60	Vertical
3	510.630	49.51	-9.75	39.76	PK	46.00	6.24	Vertical
4	531.992	48.91	-9.21	39.70	PK	46.00	6.30	Vertical
5	686.376	41.83	-6.43	35.40	PK	46.00	10.60	Vertical
6	865.035	34.82	-3.40	31.42	PK	46.00	14.58	Vertical

Final Data List

NO.	Freq. [MHz]	Factor [dB/m]	QP Value [dBμV/m]	QP Limit [dBμV/m]	QP Margin [dB]
1	46.5065	-16.53	25.62	40.00	14.38
2	203.8038	-17.36	36.42	43.50	7.08
3	510.6306	-9.75	39.12	46.00	6.88
4	531.992	-9.21	39.06	46.00	6.94
5	686.3764	-6.43	35.11	46.00	10.89
6	865.035	-3.40	30.97	46.00	15.03



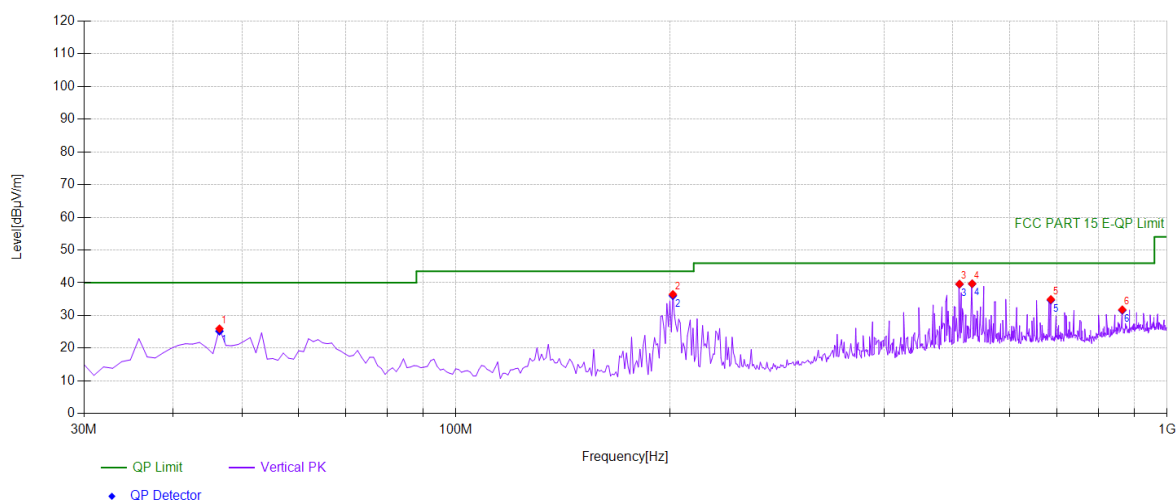
Suspected Data List

NO.	Freq. [MHz]	Reading [dBμV]	Factor [dB/m]	Level [dBμV/m]	Detector	Limit [dBμV/m]	Margin [dB]	Polarity
1	176.616	46.53	-18.73	27.80	PK	43.50	15.70	Horizontal
2	202.832	56.56	-17.42	39.14	PK	43.50	4.36	Horizontal
3	233.903	49.78	-15.91	33.87	PK	46.00	12.13	Horizontal
4	686.376	47.82	-6.43	41.39	PK	46.00	4.61	Horizontal
5	718.418	44.66	-5.75	38.91	PK	46.00	7.09	Horizontal
6	948.538	38.37	-2.67	35.70	PK	46.00	10.30	Horizontal

Final Data List

NO.	Freq. [MHz]	Factor [dB/m]	QP Value [dBμV/m]	QP Limit [dBμV/m]	QP Margin [dB]
1	176.6166	-18.73	27.43	43.50	16.07
2	202.8328	-17.42	39.13	43.50	4.37
3	233.9039	-15.91	33.86	46.00	12.14
4	686.3764	-6.43	40.58	46.00	5.42
5	718.4184	-5.75	38.10	46.00	7.90
6	948.5385	-2.67	34.89	46.00	11.11

Test mode: 802.11n(20) Frequency(MHz): 5240

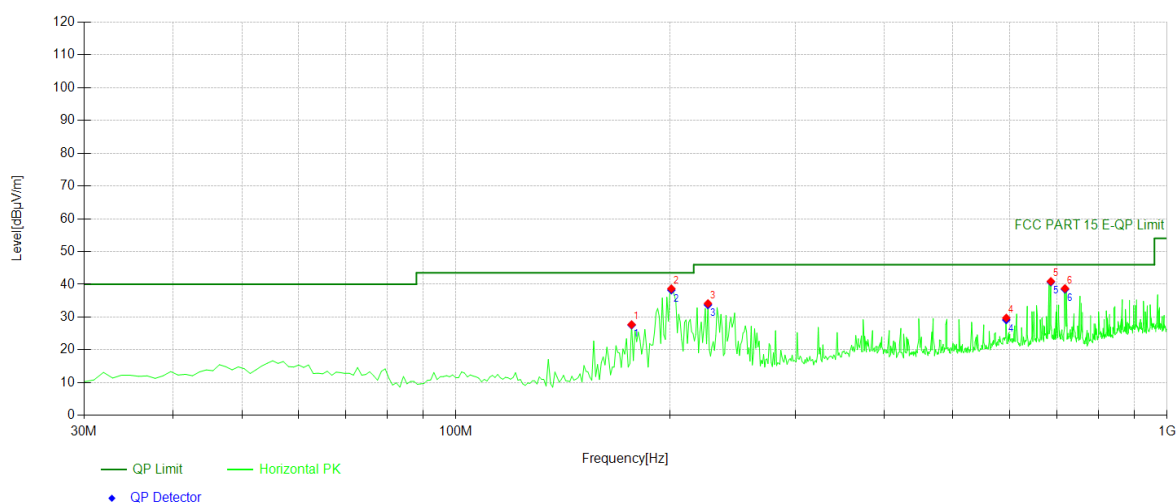


Suspected Data List

NO.	Freq. [MHz]	Reading [dBμV]	Factor [dB/m]	Level [dBμV/m]	Detector	Limit [dBμV/m]	Margin [dB]	Polarity
1	46.5065	42.51	-16.53	25.98	PK	40.00	14.02	Vertical
2	201.861	53.96	-17.49	36.47	PK	43.50	7.03	Vertical
3	510.630	49.37	-9.75	39.62	PK	46.00	6.38	Vertical
4	531.992	48.94	-9.21	39.73	PK	46.00	6.27	Vertical
5	686.376	41.35	-6.43	34.92	PK	46.00	11.08	Vertical
6	865.035	35.19	-3.40	31.79	PK	46.00	14.21	Vertical

Final Data List

NO.	Freq. [MHz]	Factor [dB/m]	QP Value [dBμV/m]	QP Limit [dBμV/m]	QP Margin [dB]
1	46.5065	-16.53	25.19	40.00	14.81
2	201.8619	-17.49	36.04	43.50	7.46
3	510.6306	-9.75	39.55	46.00	6.45
4	531.992	-9.21	39.66	46.00	6.34
5	686.3764	-6.43	34.69	46.00	11.31
6	865.035	-3.40	31.56	46.00	14.44



Suspected Data List

NO.	Freq. [MHz]	Reading [dBμV]	Factor [dB/m]	Level [dBμV/m]	Detector	Limit [dBμV/m]	Margin [dB]	Polarity
1	176.616	46.46	-18.73	27.73	PK	43.50	15.77	Horizontal
2	200.890	56.23	-17.55	38.68	PK	43.50	4.82	Horizontal
3	226.136	50.33	-16.16	34.17	PK	46.00	11.83	Horizontal
4	594.134	36.19	-6.44	29.75	PK	46.00	16.25	Horizontal
5	686.376	47.34	-6.43	40.91	PK	46.00	5.09	Horizontal
6	718.418	44.48	-5.75	38.73	PK	46.00	7.27	Horizontal

Final Data List

NO.	Freq. [MHz]	Factor [dB/m]	QP Value [dBμV/m]	QP Limit [dBμV/m]	QP Margin [dB]
1	176.6166	-18.73	27.57	43.50	15.93
2	200.8909	-17.55	38.24	43.50	5.26
3	226.1361	-16.16	33.73	46.00	12.27
4	594.1341	-6.44	29.15	46.00	16.85
5	686.3764	-6.43	40.67	46.00	5.33
6	718.4184	-5.75	38.49	46.00	7.51

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

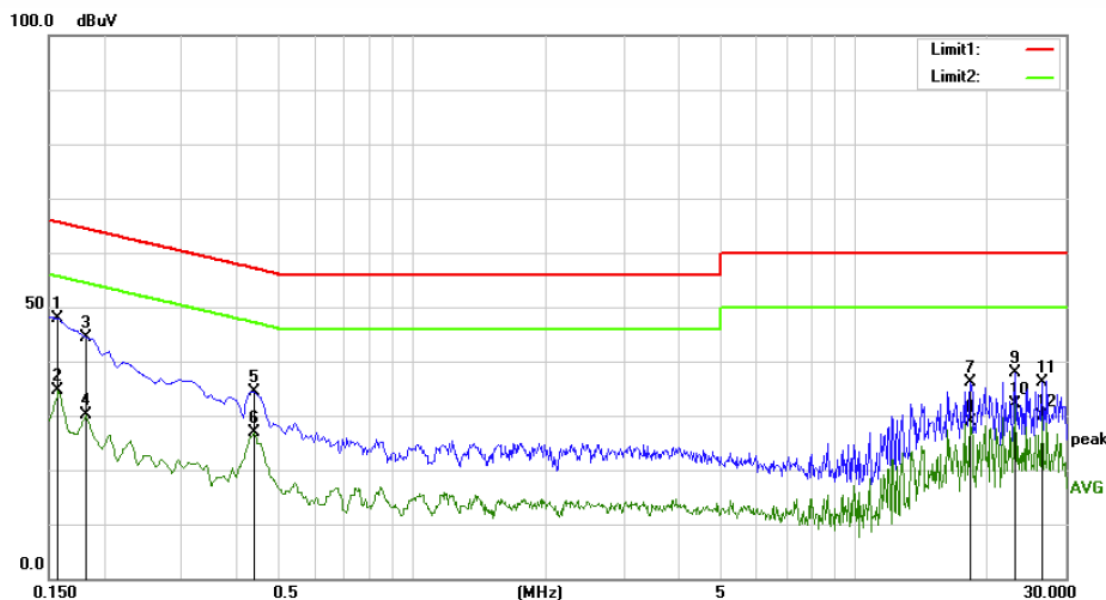
The EUT was placed on a table which is 0.8m above ground plane.

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

PASS



Site Conduction #1

Phase: **L1**

Temperature: 25.7

Limit: (CE)FCC PART 15 class B_QP

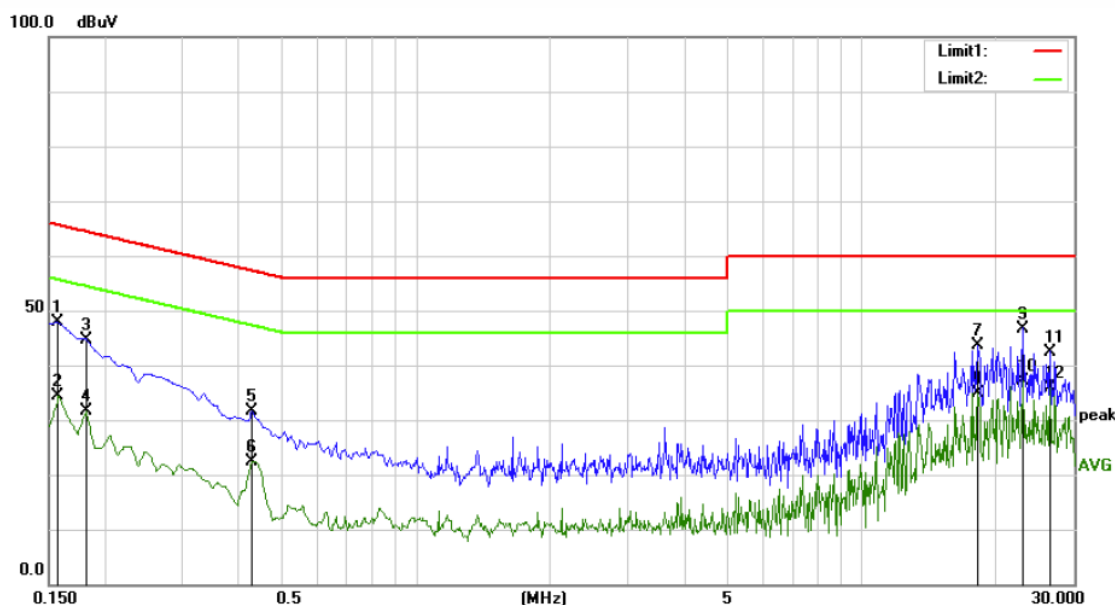
Power: AC 120V/60Hz

Humidity: 57 %

Mode: WiFi mode

Note:

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1	*	0.1580	38.00	9.93	47.93	65.57	-17.64	QP	
2		0.1580	24.72	9.93	34.65	55.57	-20.92	AVG	
3		0.1820	34.44	9.91	44.35	64.39	-20.04	QP	
4		0.1820	20.16	9.91	30.07	54.39	-24.32	AVG	
5		0.4380	24.45	9.91	34.36	57.10	-22.74	QP	
6		0.4380	16.85	9.91	26.76	47.10	-20.34	AVG	
7		18.3100	25.55	10.57	36.12	60.00	-23.88	QP	
8		18.3100	18.27	10.57	28.84	50.00	-21.16	AVG	
9		23.1340	27.15	10.75	37.90	60.00	-22.10	QP	
10		23.1340	21.45	10.75	32.20	50.00	-17.80	AVG	
11		26.6140	25.37	10.87	36.24	60.00	-23.76	QP	
12		26.6140	19.01	10.87	29.88	50.00	-20.12	AVG	



Site Conduction #1

Phase: **N**

Temperature: 25.7

Limit: (CE)FCC PART 15 class B_QP

Power: AC 120V/60Hz

Humidity: 57 %

Mode: WiFi mode

Note:

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1		0.1580	37.95	9.93	47.88	65.57	-17.69	QP	
2		0.1580	24.40	9.93	34.33	55.57	-21.24	AVG	
3		0.1820	34.64	9.91	44.55	64.39	-19.84	QP	
4		0.1820	21.61	9.91	31.52	54.39	-22.87	AVG	
5		0.4300	21.70	9.90	31.60	57.25	-25.65	QP	
6		0.4300	12.56	9.90	22.46	47.25	-24.79	AVG	
7		18.3100	33.14	10.57	43.71	60.00	-16.29	QP	
8		18.3100	24.32	10.57	34.89	50.00	-15.11	AVG	
9		23.1340	36.00	10.75	46.75	60.00	-13.25	QP	
10	*	23.1340	26.27	10.75	37.02	50.00	-12.98	AVG	
11		26.4940	31.40	10.87	42.27	60.00	-17.73	QP	
12		26.4940	24.89	10.87	35.76	50.00	-14.24	AVG	

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

PASS.

The EUT has antennas: an FPC Antenna for WIFI 5G, the antenna1 gain is 3.82 dBi, the antenna2 gain is 4.22 dBi

Note:

- ☒ 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 -----