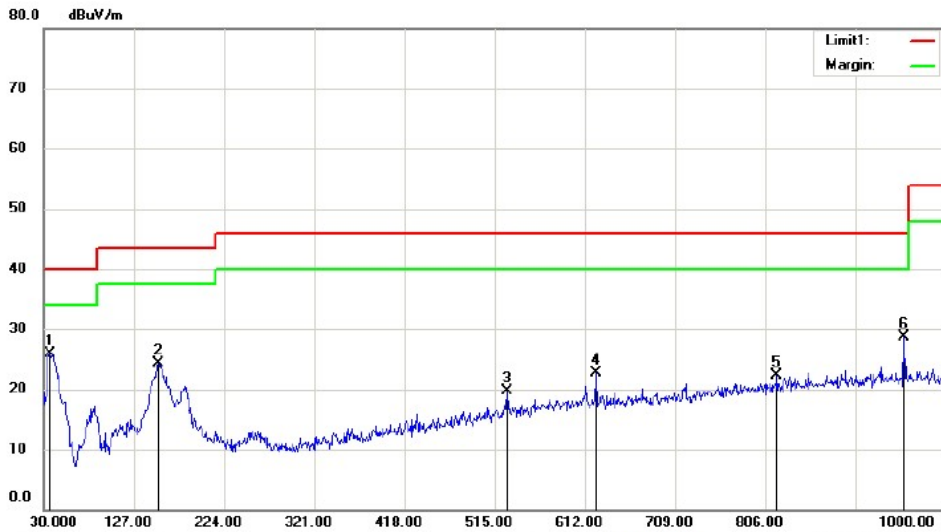


Site 3m Chamber 3# Polarization: **Horizontal** Temperature: 21 C
 Limit: (RE)FCC PART 15 CLASS B Power: DC 5V Humidity: 53 %

M/N: AirPresence Key
 Mode:802.11n20(5785MHz)
 Note:

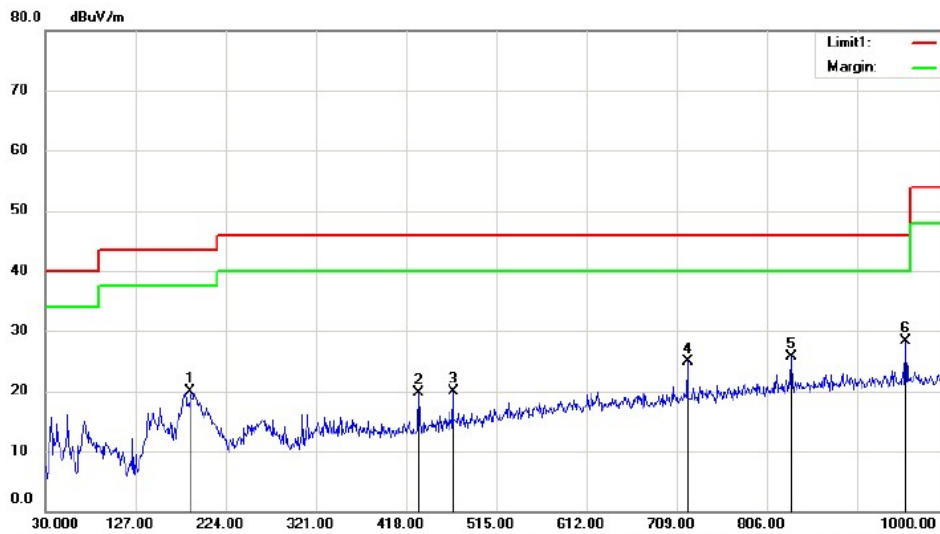
No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	cm	degree	Comment
1		191.9900	51.74	-32.47	19.27	43.50	-24.23	QP		
2		306.4500	46.80	-29.31	17.49	46.00	-28.51	QP		
3		431.5800	46.15	-26.15	20.00	46.00	-26.00	QP		
4		720.6400	45.10	-19.98	25.12	46.00	-20.88	QP		
5		832.1900	42.93	-17.69	25.24	46.00	-20.76	QP		
6	*	955.3800	43.67	-15.69	27.98	46.00	-18.02	QP		



Site 3m Chamber 3# Polarization: **Vertical** Temperature: 21 C
 Limit: (RE)FCC PART 15 CLASS B Power: DC 5V Humidity: 53 %

M/N: AirPresence Key
 Mode: 802.11n20(5785MHz)
 Note:

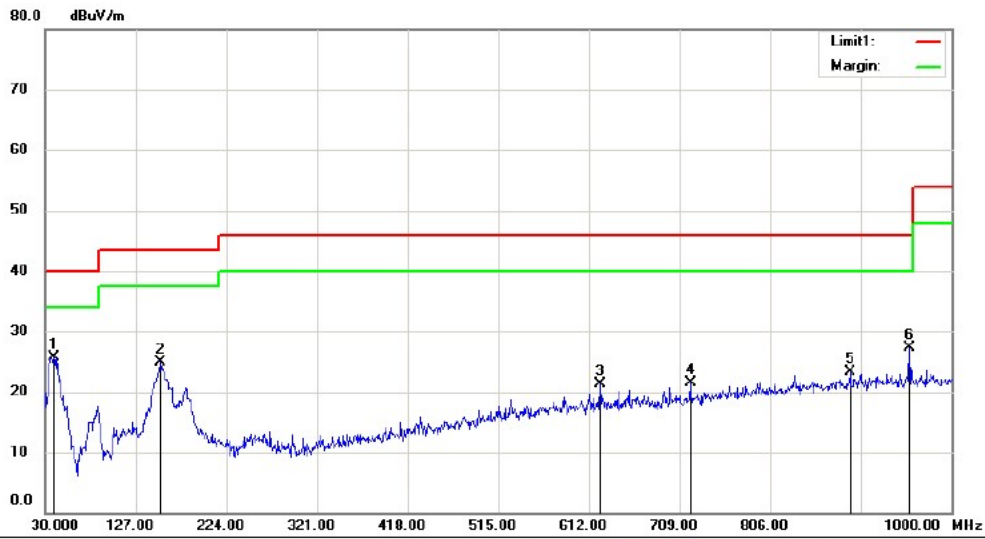
No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	cm	degree	Comment
1	*	36.7900	57.31	-31.44	25.87	40.00	-14.13	QP		
2		153.1900	59.20	-34.94	24.26	43.50	-19.24	QP		
3		528.5800	43.01	-23.40	19.61	46.00	-26.39	QP		
4		624.6100	44.03	-21.29	22.74	46.00	-23.26	QP		
5		818.6100	40.26	-17.93	22.33	46.00	-23.67	QP		
6		955.3800	44.44	-15.69	28.75	46.00	-17.25	QP		



Site 3m Chamber 3# Polarization: **Horizontal** Temperature: 21 C
 Limit: (RE)FCC PART 15 CLASS B Power: DC 5V Humidity: 53 %

M/N: AirPresence Key
 Mode:802.11n20(5825MHz)
 Note:

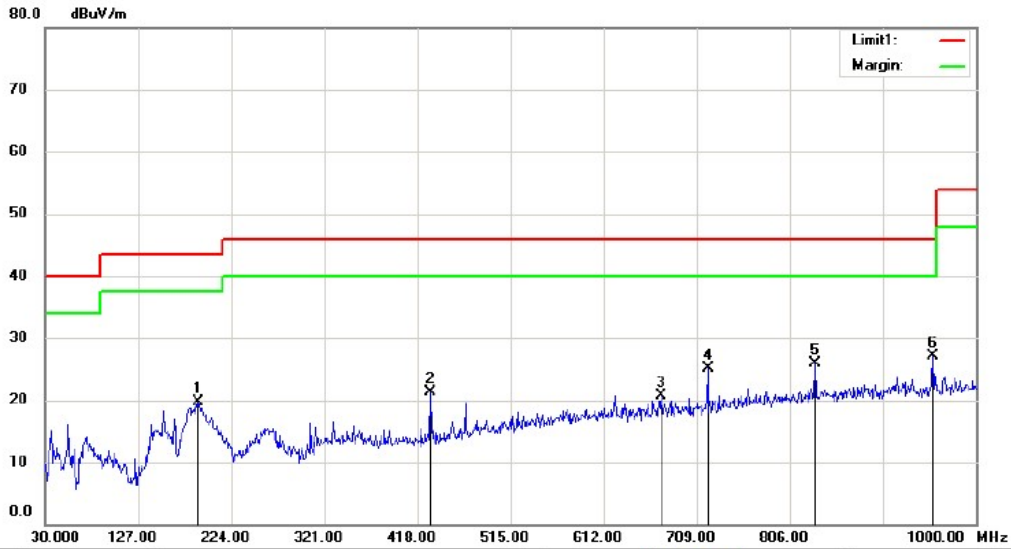
No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	cm	degree	Comment
1		186.1700	52.80	-32.80	20.00	43.50	-23.50	QP		
2		431.5800	45.92	-26.15	19.77	46.00	-26.23	QP		
3		468.4400	44.99	-25.12	19.87	46.00	-26.13	QP		
4		720.6400	44.88	-19.98	24.90	46.00	-21.10	QP		
5		832.1900	43.45	-17.69	25.76	46.00	-20.24	QP		
6	*	955.3800	43.92	-15.69	28.23	46.00	-17.77	QP		



Site: 3m Chamber 3# Polarization: **Vertical** Temperature: 21 C
 Limit: (RE)FCC PART 15 CLASS B Power: DC 5V Humidity: 53 %

M/N: AirPresence Key
 Mode: 802.11n20(5825MHz)
 Note:

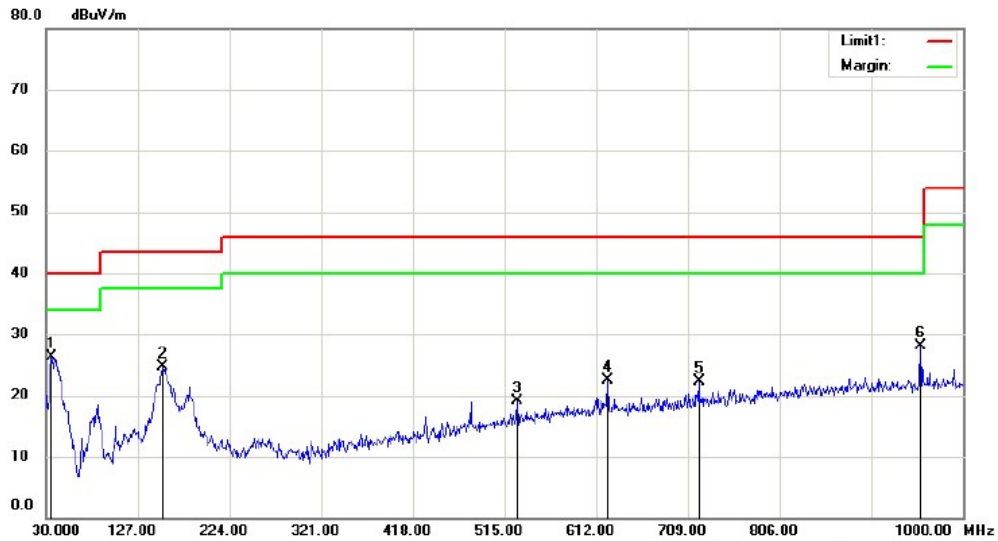
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Antenna Height cm	Table Degree	Detector	Comment
1	*	39.7000	56.40	-30.65	25.75	40.00	-14.25			QP	
2		153.1900	59.78	-34.94	24.84	43.50	-18.66			QP	
3		623.6400	42.69	-21.32	21.37	46.00	-24.63			QP	
4		720.6400	41.39	-19.98	21.41	46.00	-24.59			QP	
5		891.3600	39.88	-16.65	23.23	46.00	-22.77			QP	
6		955.3800	42.90	-15.69	27.21	46.00	-18.79			QP	



Site 3m Chamber 3# Polarization: *Horizontal* Temperature: 21 C
 Limit: (RE)FCC PART 15 CLASS B Power: DC 5V Humidity: 53 %

M/N: AirPresence Key
 Mode: 802.11n40(5190MHz)
 Note:

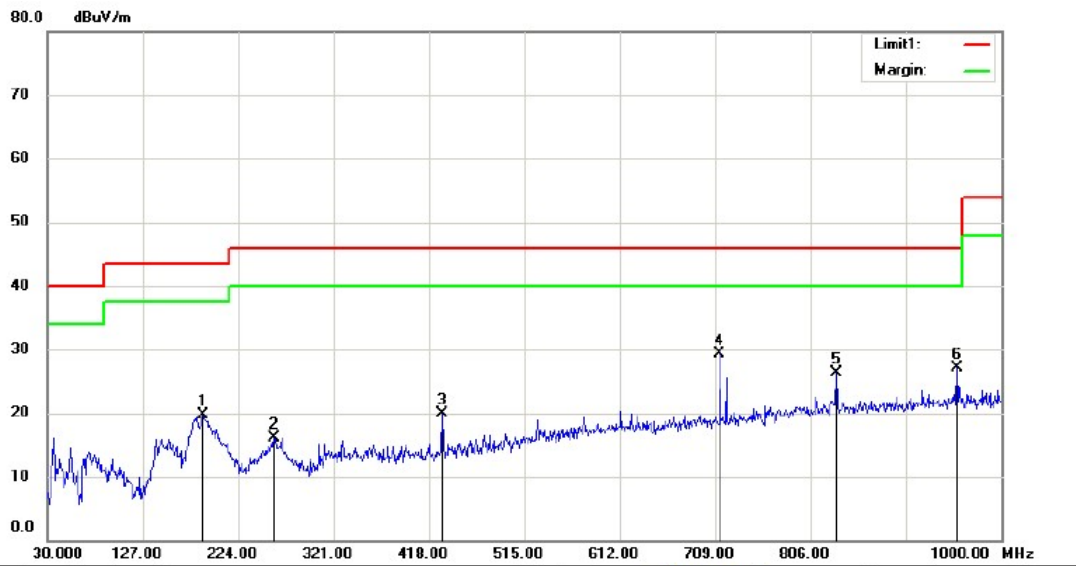
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Antenna Height cm	Table Degree	Detector	Comment
1		189.0800	52.19	-32.55	19.64	43.50	-23.86	QP			
2		431.5800	47.44	-26.15	21.29	46.00	-24.71	QP			
3		672.1400	41.49	-20.75	20.74	46.00	-25.26	QP			
4		720.6400	45.04	-19.98	25.06	46.00	-20.94	QP			
5		832.1900	43.59	-17.69	25.90	46.00	-20.10	QP			
6	*	955.3800	42.84	-15.69	27.15	46.00	-18.85	QP			



Site: 3m Chamber 3# Polarization: **Vertical** Temperature: 21 C
 Limit: (RE)FCC PART 15 CLASS B Power: DC 5V Humidity: 53 %

M/N: AirPresence Key
 Mode: 802.11n40(5190MHz)
 Note:

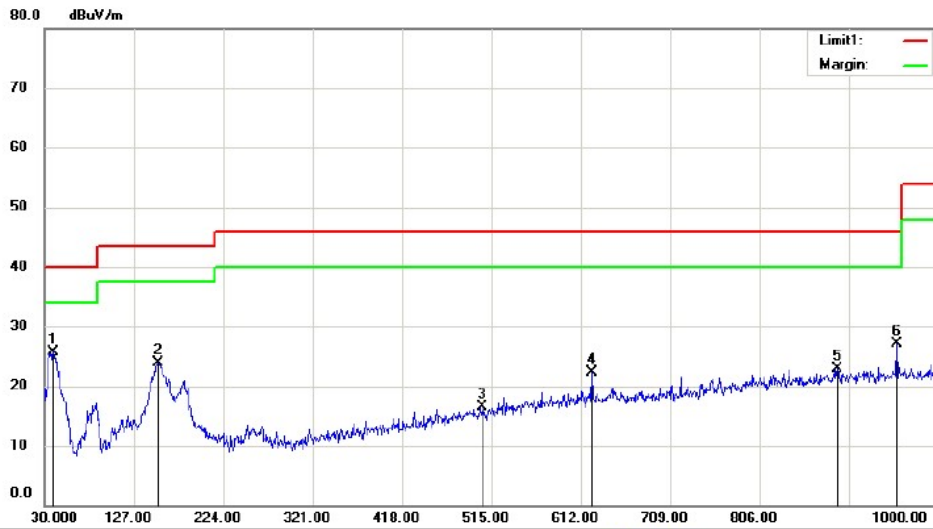
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Antenna Height cm	Table Degree	Detector	Comment
1	*	35.8200	58.03	-31.77	26.26	40.00	-13.74			QP	
2		153.1900	59.59	-34.94	24.65	43.50	-18.85			QP	
3		528.5800	42.42	-23.40	19.02	46.00	-26.98			QP	
4		624.6100	43.81	-21.29	22.52	46.00	-23.48			QP	
5		720.6400	42.20	-19.98	22.22	46.00	-23.78			QP	
6		955.3800	43.77	-15.69	28.08	46.00	-17.92			QP	



Site 3m Chamber 3# Polarization: **Horizontal** Temperature: 21 C
 Limit: (RE)FCC PART 15 CLASS B Power: DC 5V Humidity: 53 %

M/N: AirPresence Key
 Mode:802.11n40(5230MHz)
 Note:

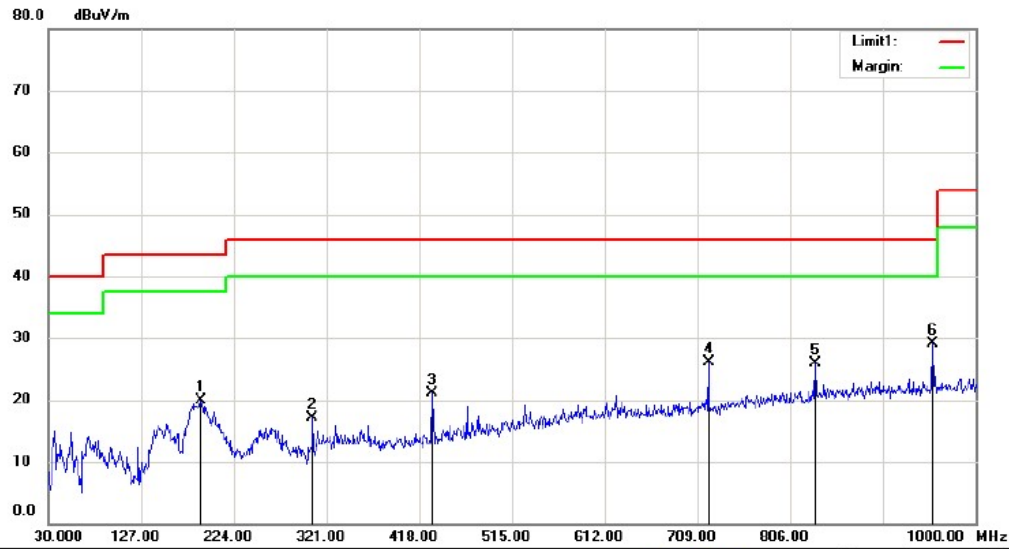
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Antenna Height cm	Table Degree	Comment
1		188.1100	52.31	-32.63	19.68	43.50	-23.82	QP			
2		260.8600	46.71	-30.64	16.07	46.00	-29.93	QP			
3		431.5800	46.02	-26.15	19.87	46.00	-26.13	QP			
4	*	713.8500	49.33	-20.12	29.21	46.00	-16.79	QP			
5		832.1900	43.97	-17.69	26.28	46.00	-19.72	QP			
6		955.3800	42.83	-15.69	27.14	46.00	-18.86	QP			



Site: 3m Chamber 3# Polarization: **Vertical** Temperature: 21 C
 Limit: (RE)FCC PART 15 CLASS B Power: DC 5V Humidity: 53 %

M/N: AirPresence Key
 Mode: 802.11n40(5230MHz)
 Note:

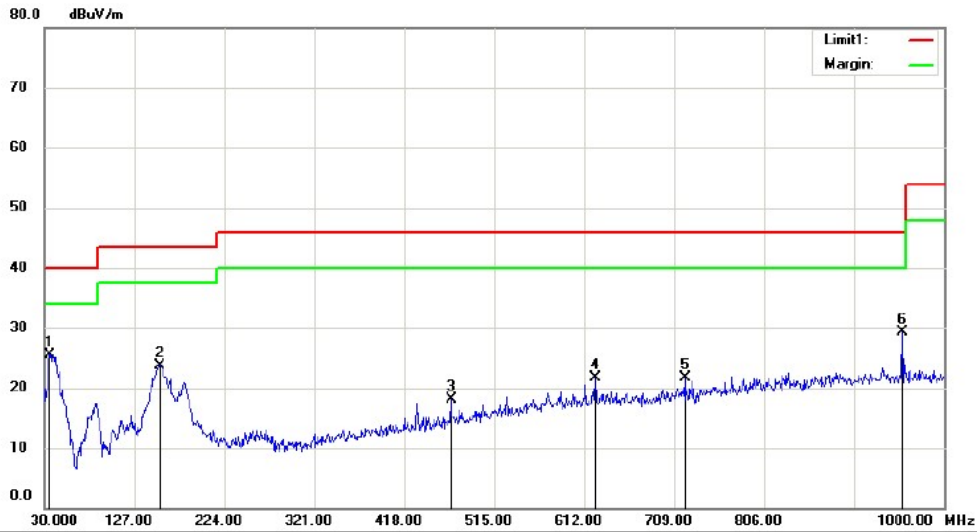
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Antenna Height cm	Table Degree	Comment
1	*	39.7000	56.39	-30.65	25.74	40.00	-14.26	QP			
2		153.1900	58.91	-34.94	23.97	43.50	-19.53	QP			
3		505.3000	40.49	-24.00	16.49	46.00	-29.51	QP			
4		624.6100	43.66	-21.29	22.37	46.00	-23.63	QP			
5		890.3900	39.63	-16.67	22.96	46.00	-23.04	QP			
6		955.3800	42.80	-15.69	27.11	46.00	-18.89	QP			



Site 3m Chamber 3# Polarization: *Horizontal* Temperature: 21 C
 Limit: (RE)FCC PART 15 CLASS B Power: DC 5V Humidity: 53 %

M/N: AirPresence Key
 Mode: 802.11n40(5755MHz)
 Note:

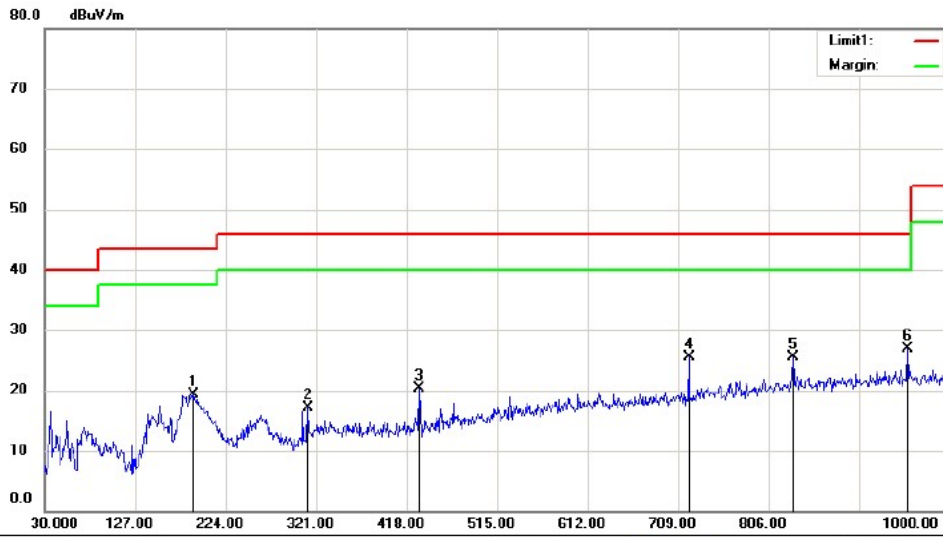
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Antenna Height cm	Table Degree	Detector	Comment
1		190.0500	52.35	-32.47	19.88	43.50	-23.62			QP	
2		306.4500	46.47	-29.31	17.16	46.00	-28.84			QP	
3		431.5800	47.33	-26.15	21.18	46.00	-24.82			QP	
4		720.6400	46.15	-19.98	26.17	46.00	-19.83			QP	
5		832.1900	43.55	-17.69	25.86	46.00	-20.14			QP	
6	*	955.3800	44.82	-15.69	29.13	46.00	-16.87			QP	



Site 3m Chamber 3# Polarization: **Vertical** Temperature: 21 C
 Limit: (RE)FCC PART 15 CLASS B Power: DC 5V Humidity: 53 %

M/N: AirPresence Key
 Mode: 802.11n40(5755MHz)
 Note:

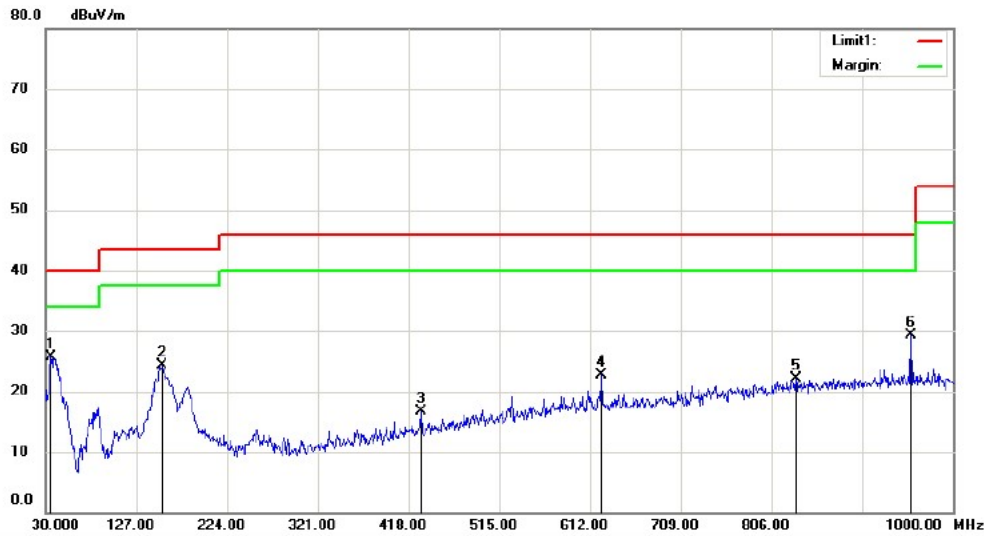
No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	cm	degree	Comment
1	*	35.8200	57.28	-31.77	25.51	40.00	-14.49	QP		
2		155.1300	58.67	-34.88	23.79	43.50	-19.71	QP		
3		468.4400	43.18	-25.12	18.06	46.00	-27.94	QP		
4		623.6400	43.00	-21.32	21.68	46.00	-24.32	QP		
5		720.6400	41.71	-19.98	21.73	46.00	-24.27	QP		
6		955.3800	45.04	-15.69	29.35	46.00	-16.65	QP		



Site 3m Chamber 3# Polarization: **Horizontal** Temperature: 21 C
 Limit: (RE)FCC PART 15 CLASS B Power: DC 5V Humidity: 53 %

M/N: AirPresence Key
 Mode:802.11n40(5795MHz)
 Note:

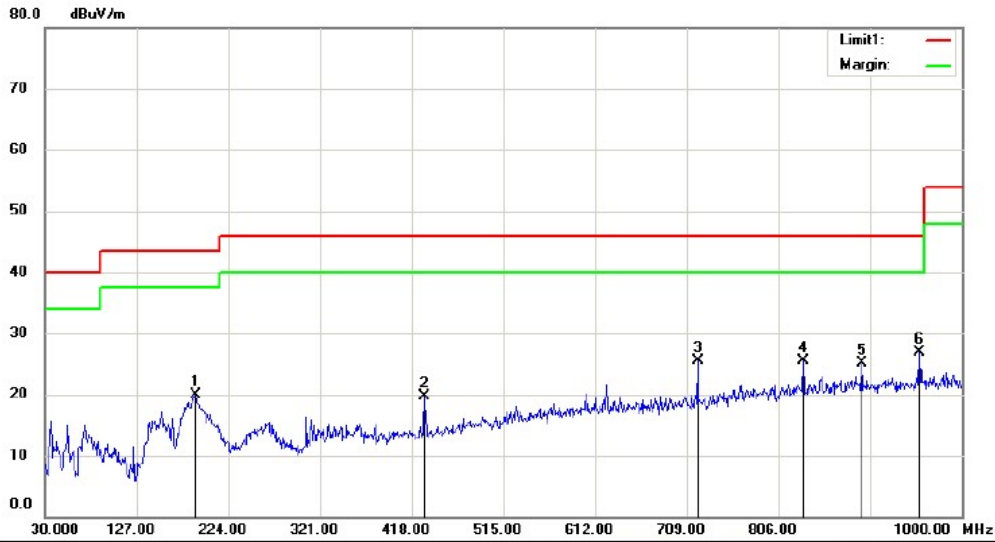
No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	cm	degree	Comment
1		189.0800	51.93	-32.55	19.38	43.50	-24.12	QP		
2		312.2700	46.22	-29.15	17.07	46.00	-28.93	QP		
3		431.5800	46.38	-26.15	20.23	46.00	-25.77	QP		
4		720.6400	45.43	-19.98	25.45	46.00	-20.55	QP		
5		832.1900	43.20	-17.69	25.51	46.00	-20.49	QP		
6	*	955.3800	42.69	-15.69	27.00	46.00	-19.00	QP		



Site 3m Chamber 3# Polarization: **Vertical** Temperature: 21 C
 Limit: (RE)FCC PART 15 CLASS B Power: DC 5V Humidity: 53 %

M/N: AirPresence Key
 Mode:802.11n40(5785MHz)
 Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	cm	degree	Comment
1	*	35.8200	57.43	-31.77	25.66	40.00	-14.34	QP		
2		155.1300	59.19	-34.88	24.31	43.50	-19.19	QP		
3		431.5800	42.82	-26.15	16.77	46.00	-29.23	QP		
4		624.6100	44.06	-21.29	22.77	46.00	-23.23	QP		
5		832.1900	39.82	-17.69	22.13	46.00	-23.87	QP		
6		955.3800	45.02	-15.69	29.33	46.00	-16.67	QP		



Site 3m Chamber 3#

Polarization: *Horizontal*

Temperature: 21 C

Limit: (RE)FCC PART 15 CLASS B

Power: DC 5V

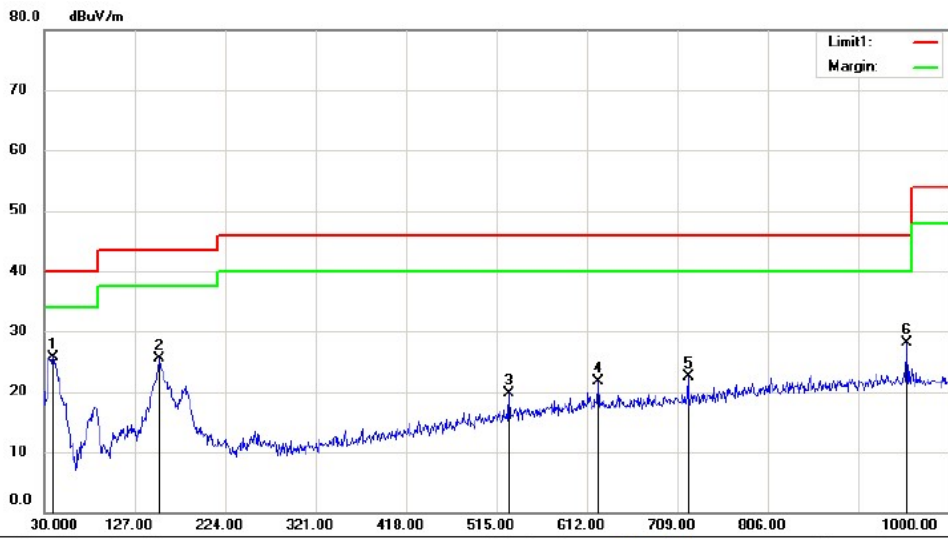
Humidity: 53 %

M/N: AirPresence Key

Mode:802.11ac80(5210MHz)

Note:

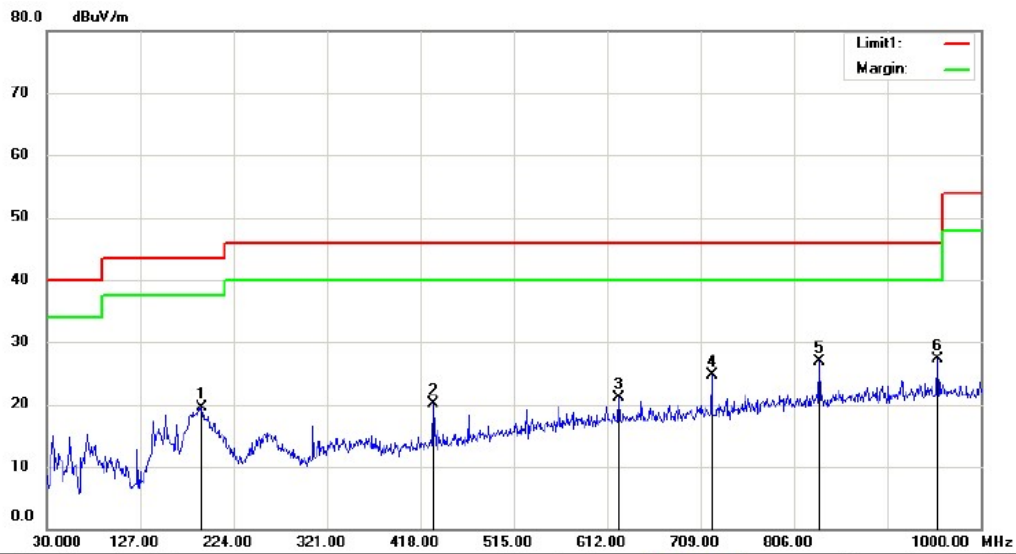
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Antenna Height cm	Table Degree	Detector	Comment
1		190.0500	52.34	-32.47	19.87	43.50	-23.63			QP	
2		431.5800	45.89	-26.15	19.74	46.00	-26.26			QP	
3		720.6400	45.52	-19.98	25.54	46.00	-20.46			QP	
4		832.1900	43.18	-17.69	25.49	46.00	-20.51			QP	
5		894.2700	41.65	-16.60	25.05	46.00	-20.95			QP	
6	*	955.3800	42.58	-15.69	26.89	46.00	-19.11			QP	



Site: 3m Chamber 3# Polarization: *Vertical* Temperature: 21 C
 Limit: (RE)FCC PART 15 CLASS B Power: DC 5V Humidity: 53 %

M/N: AirPresence Key
 Mode: 802.11ac80(5210MHz)
 Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	cm	degree	Comment
1	*	39.7000	56.36	-30.65	25.71	40.00	-14.29	QP		
2		153.1900	60.40	-34.94	25.46	43.50	-18.04	QP		
3		528.5800	43.17	-23.40	19.77	46.00	-26.23	QP		
4		624.6100	43.01	-21.29	21.72	46.00	-24.28	QP		
5		720.6400	42.42	-19.98	22.44	46.00	-23.56	QP		
6		955.3800	43.82	-15.69	28.13	46.00	-17.87	QP		



Site 3m Chamber 3# Polarization: **Horizontal** Temperature: 21 C
 Limit: (RE)FCC PART 15 CLASS B Power: DC 5V Humidity: 53 %

M/N: AirPresence Key
 Mode: 802.11ac80(5775MHz)
 Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	cm	degree	Comment
1		191.0200	51.93	-32.47	19.46	43.50	-24.04	QP		
2		431.5800	46.25	-26.15	20.10	46.00	-25.90	QP		
3		624.6100	42.35	-21.29	21.06	46.00	-24.94	QP		
4		720.6400	44.65	-19.98	24.67	46.00	-21.33	QP		
5		832.1900	44.62	-17.69	26.93	46.00	-19.07	QP		
6	*	955.3800	43.07	-15.69	27.38	46.00	-18.62	QP		



Site: 3m Chamber 3# Polarization: **Vertical** Temperature: 21 C
 Limit: (RE)FCC PART 15 CLASS B Power: DC 5V Humidity: 53 %

M/N: AirPresence Key
 Mode: 802.11ac80(5775MHz)
 Note:

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Antenna Height cm	Table Degree	Comment
1	*	35.8200	57.56	-31.77	25.79	40.00	-14.21	QP		
2		154.1600	59.14	-34.92	24.22	43.50	-19.28	QP		
3		623.6400	44.16	-21.32	22.84	46.00	-23.16	QP		
4		720.6400	41.64	-19.98	21.66	46.00	-24.34	QP		
5		832.1900	41.50	-17.69	23.81	46.00	-22.19	QP		
6		955.3800	43.21	-15.69	27.52	46.00	-18.48	QP		

8.6 POWER LINE CONDUCTED EMISSIONS

8.6.1 Applicable Standard

According to FCC Part 15.207(a)

8.6.2 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.

8.6.3 Test Configuration

Test according to clause 6.3 conducted emission test setup

8.6.4 Test Procedure

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

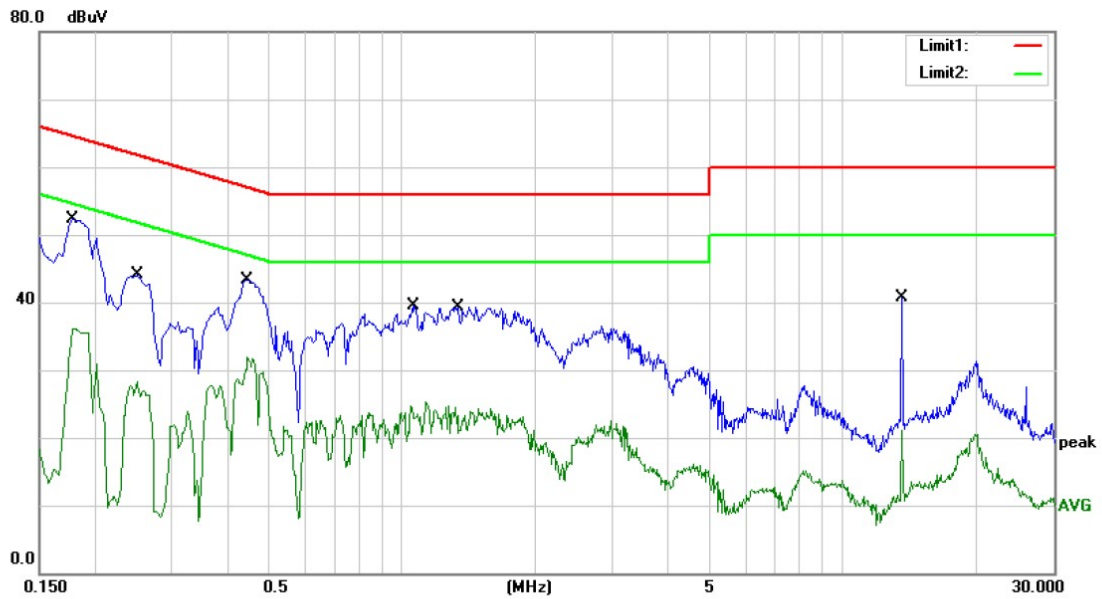
Maximum procedure was performed on the highest emissions to ensure EUT compliance.

Repeat above procedures until all frequency measured were complete.

8.6.5 Test Results

Pass

All mode and the voltage 120V and 240V have been tested, and show the worst result (WIFI ON,120V~60Hz) as bellow.



Site Conduction #2

Phase: **L1**

Temperature: 21

Limit: (CE)FCC PART 15 C

Power: AC 120V/60Hz

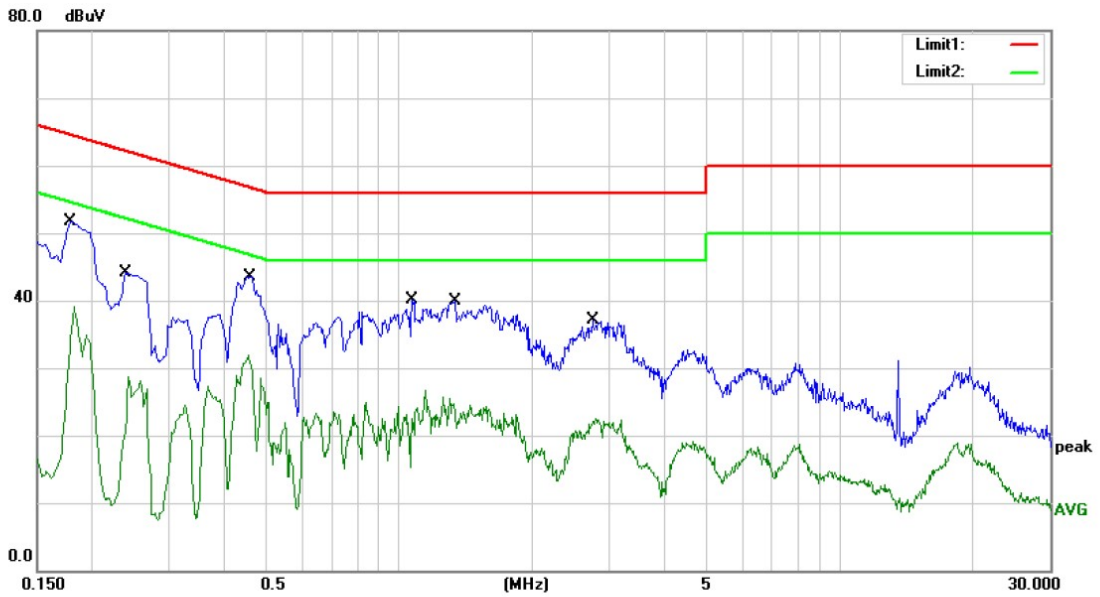
Humidity: 53 %

Mode: WIFI ON

Note:

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1	*	0.1780	42.70	9.63	52.33	64.58	-12.25	QP	
2		0.1780	26.40	9.63	36.03	54.58	-18.55	AVG	
3		0.2500	34.35	9.65	44.00	61.76	-17.76	QP	
4		0.2500	18.72	9.65	28.37	51.76	-23.39	AVG	
5		0.4460	33.62	9.70	43.32	56.95	-13.63	QP	
6		0.4460	22.12	9.70	31.82	46.95	-15.13	AVG	
7		1.0580	29.56	9.85	39.41	56.00	-16.59	QP	
8		1.0580	15.47	9.85	25.32	46.00	-20.68	AVG	
9		1.3340	29.52	9.85	39.37	56.00	-16.63	QP	
10		1.3340	14.90	9.85	24.75	46.00	-21.25	AVG	
11		13.5660	30.08	10.63	40.71	60.00	-19.29	QP	
12		13.5660	10.52	10.63	21.15	50.00	-28.85	AVG	

*:Maximum data x:Over limit !:over margin Comment: Factor build in receiver. Operator: Cai



Site Conduction #2 Phase: **N** Temperature: 21
 Limit: (CE)FCC PART 15 C Power: AC 120V/60Hz Humidity: 53 %
 Mode: WIFI ON
 Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Detector	Comment
		MHz	dBuV	dB	dBuV	dBuV	dB		
1	*	0.1780	42.10	9.63	51.73	64.58	-12.85	QP	
2		0.1780	29.56	9.63	39.19	54.58	-15.39	AVG	
3		0.2380	34.50	9.64	44.14	62.17	-18.03	QP	
4		0.2380	19.04	9.64	28.68	52.17	-23.49	AVG	
5		0.4580	33.86	9.70	43.56	56.73	-13.17	QP	
6		0.4580	22.14	9.70	31.84	46.73	-14.89	AVG	
7		1.0700	30.16	9.85	40.01	56.00	-15.99	QP	
8		1.0700	16.94	9.85	26.79	46.00	-19.21	AVG	
9		1.3380	30.02	9.85	39.87	56.00	-16.13	QP	
10		1.3380	15.83	9.85	25.68	46.00	-20.32	AVG	
11		2.7460	27.19	9.86	37.05	56.00	-18.95	QP	
12		2.7460	12.61	9.86	22.47	46.00	-23.53	AVG	

*:Maximum data x:Over limit !:over margin Comment: Factor build in receiver. Operator: Cai

8.7 ANTENNA APPLICATION

8.7.1 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.

8.7.2 Result

PASS.

The EUT has 1 antenna: a Ceramic antenna for WIFI 2.4G, the gain is 2.0 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