■ Spurious Emission in Restricted Band 2310-2390MHz and 2483.5-2500MHz
All modes have been tested, and the worst result recorded was report as below:

Test mode: 802.11n(20MHz) Frequency: Channel 1: 2412MHz

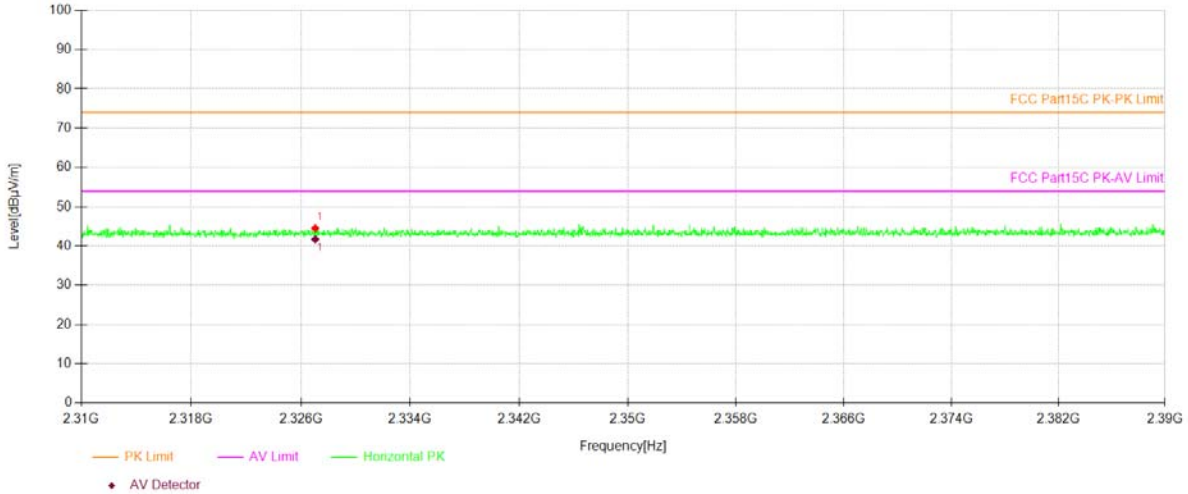
Freq. (MHz)	Ant.Pol.	Emission Level(dBuV/m)	Limit 3m(dBuV/m)	Over(dB)	Detector
2329.76	V	45.18	74.00	28.82	peak
2329.76	V	42.83	54.00	11.17	AVG
2327.04	H	44.53	74.00	29.47	peak
2327.04	H	41.71	54.00	12.29	AVG

Test mode: 802.11n(20MHz) Frequency: Channel 11: 2462MHz

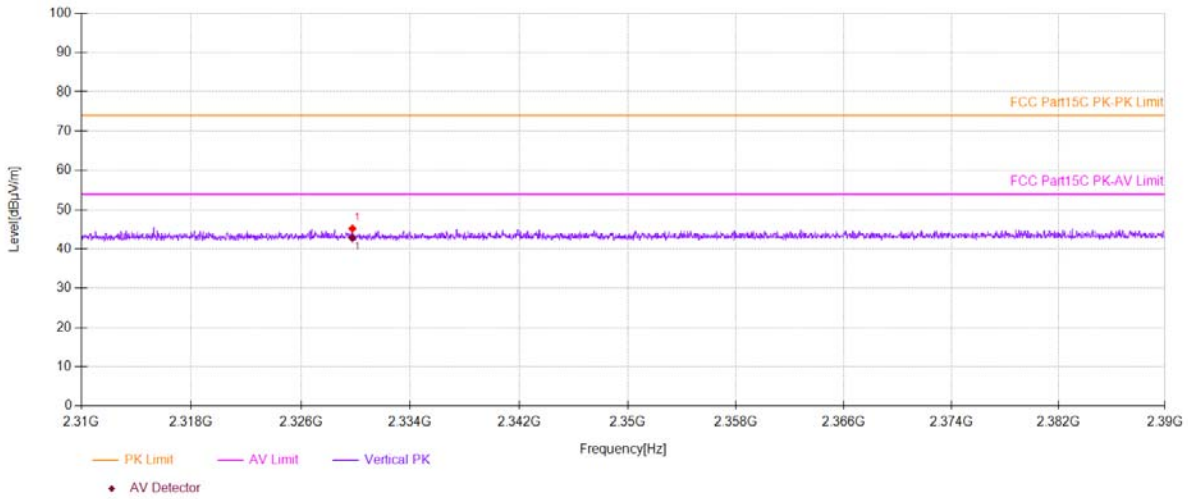
Freq. (MHz)	Ant.Pol.	Emission Level(dBuV/m)	Limit 3m(dBuV/m)	Over(dB)	Detector
2487.04	V	45.56	74.00	28.44	peak
2487.04	V	43.27	54.00	10.73	AVG
2485.91	H	46.26	74.00	27.74	peak
2485.91	H	43.52	54.00	10.48	AVG

Note: (1) All Readings are Peak Value (VBW=3MHz) and Average Value (VBW=10Hz).
(2) Emission Level= Reading Level+Correct Factor.
(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.

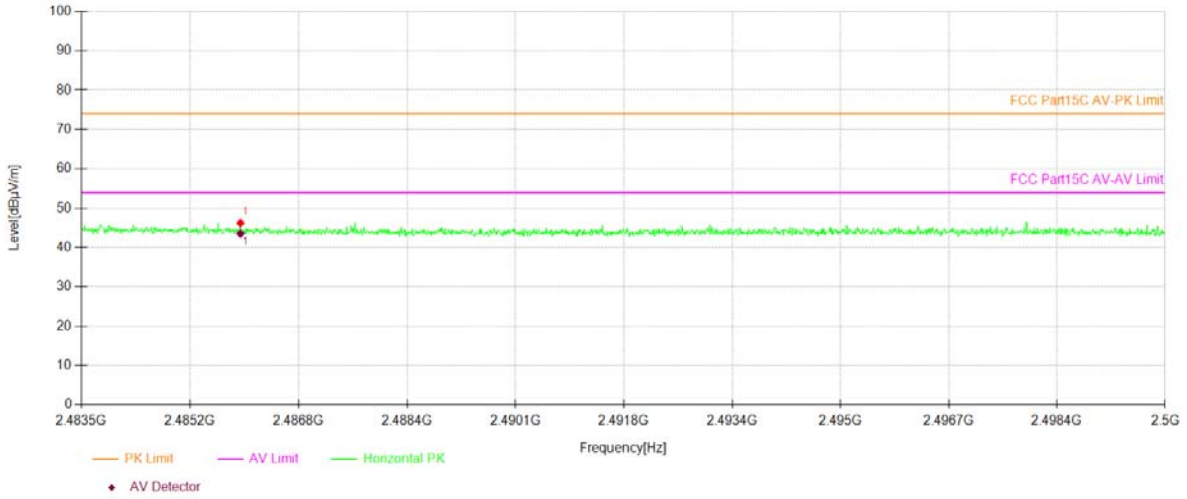
Test Model	Spurious Emission in Restricted Band 2310-2390MHz ☐802.11b ☐802.11g ☒802.11n(HT20) ☐802.11n(HT40) ☒Channel 1: 2412MHz ☐Channel 3: 2422MHz Polarity: H VBW=3MHz Test By: HYD



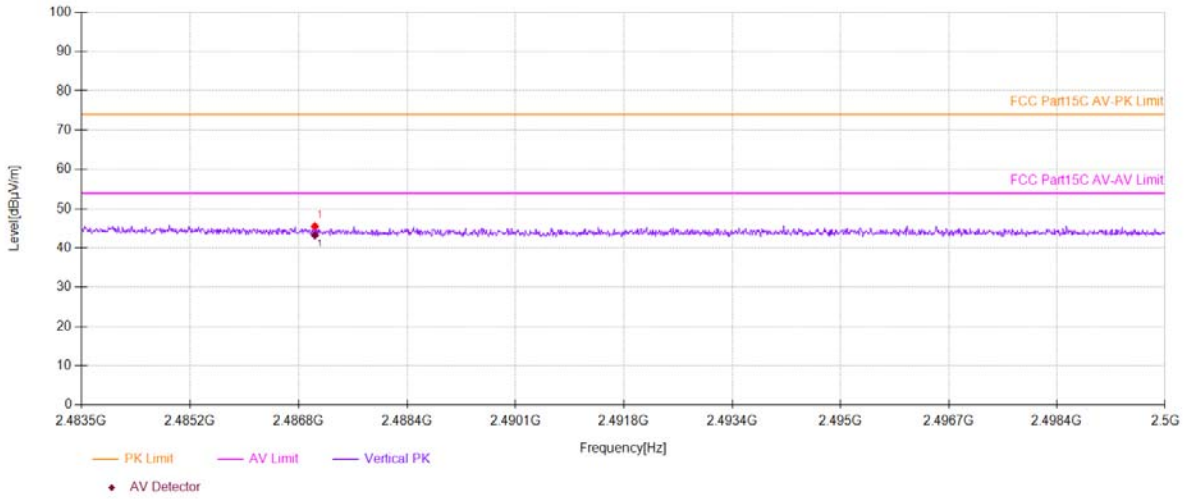
Test Model	Spurious Emission in Restricted Band 2310-2390MHz ☐802.11b ☐802.11g ☒802.11n(HT20) ☐802.11n(HT40) ☒Channel 1: 2412MHz ☐Channel 3: 2422MHz Polarity: V VBW=3MHz Test By: HYD



Test Model	Spurious Emission in Restricted Band 2483.5-2500MHz ☐802.11b ☐802.11g ☒802.11n(HT20) ☐802.11n(HT40) ☒Channel 11: 2462MHz ☐Channel 9: 2452MHz Polarity: H VBW=3MHz Test By: HYD

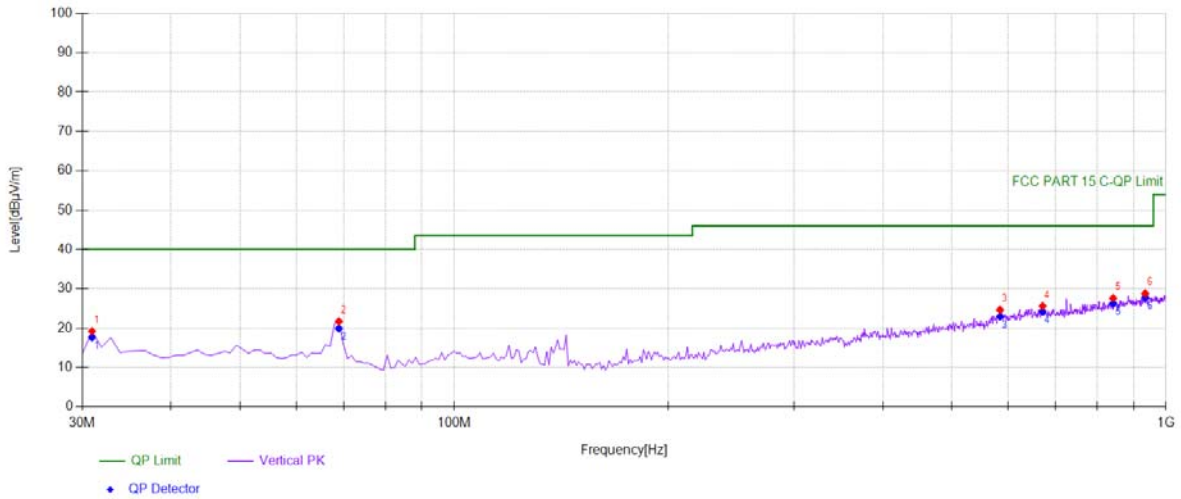


Test Model	Spurious Emission in Restricted Band2483.5-2500MHz ☐802.11b ☐802.11g ☒802.11n(HT20) ☐802.11n(HT40) ☒Channel 11: 2462MHz ☐Channel 9: 2452MHz Polarity: V VBW=3MHz Test By: HYD

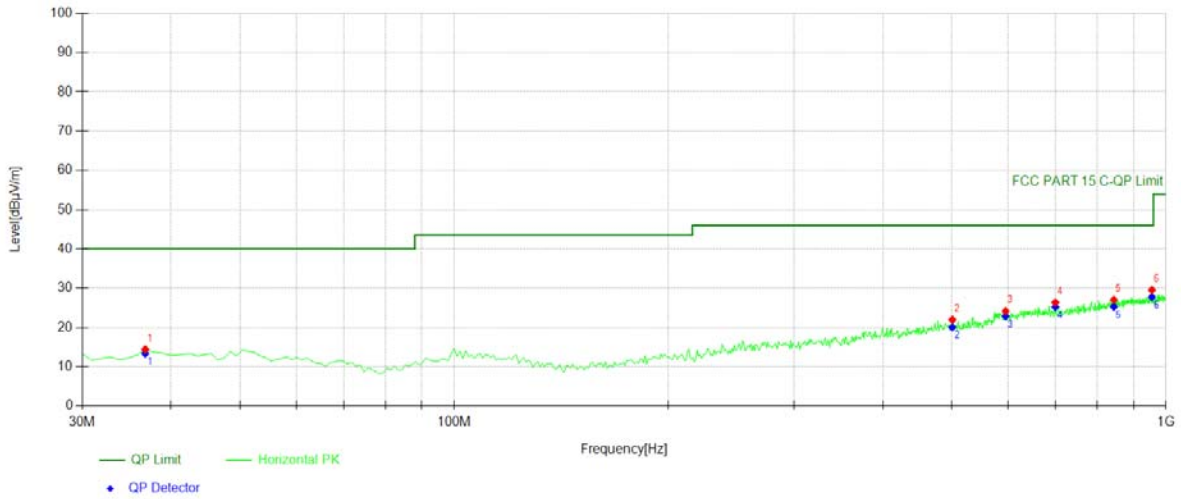


■ Spurious Emission below 1GHz (30MHz to 1GHz)
All modes have been tested, and the worst result recorded was report as below:

Test mode:	GFSK	Frequency:	Channel 0: 2412MHz

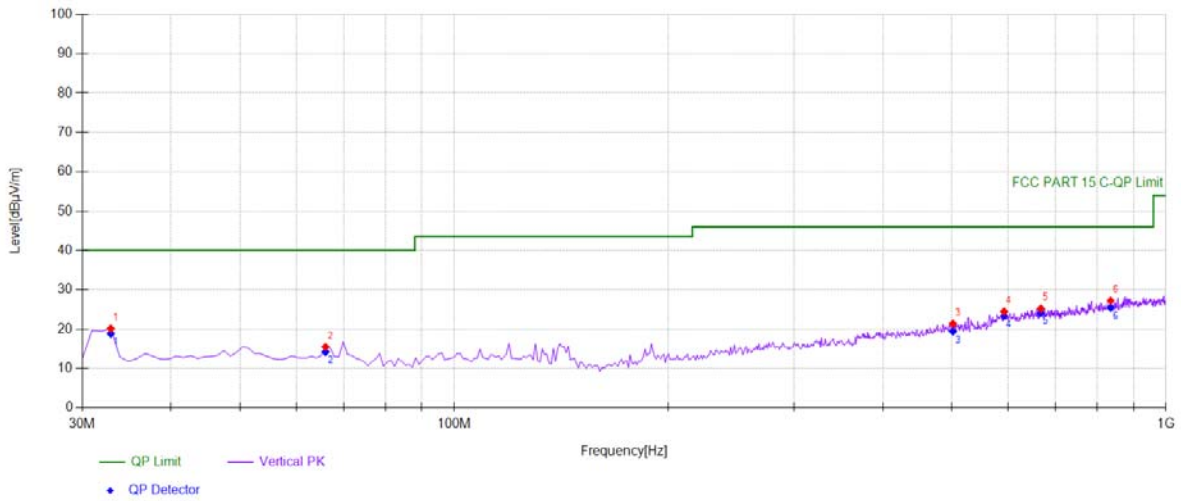


Suspected Data List								
NO.	Freq. [MHz]	Reading [dBμV]	Factor [dB/m]	Level [dBμV/m]	Detector	Limit [dBμV/m]	Margin [dB]	Polarity
1	30.971	37.71	-18.47	19.24	PK	40.00	20.76	Vertical
2	68.8388	41.51	-19.80	21.71	PK	40.00	18.29	Vertical
3	584.424	31.81	-7.14	24.67	PK	46.00	21.33	Vertical
4	670.840	31.72	-6.14	25.58	PK	46.00	20.42	Vertical
5	842.702	31.47	-3.84	27.63	PK	46.00	18.37	Vertical
6	934.944	31.37	-2.54	28.83	PK	46.00	17.17	Vertical

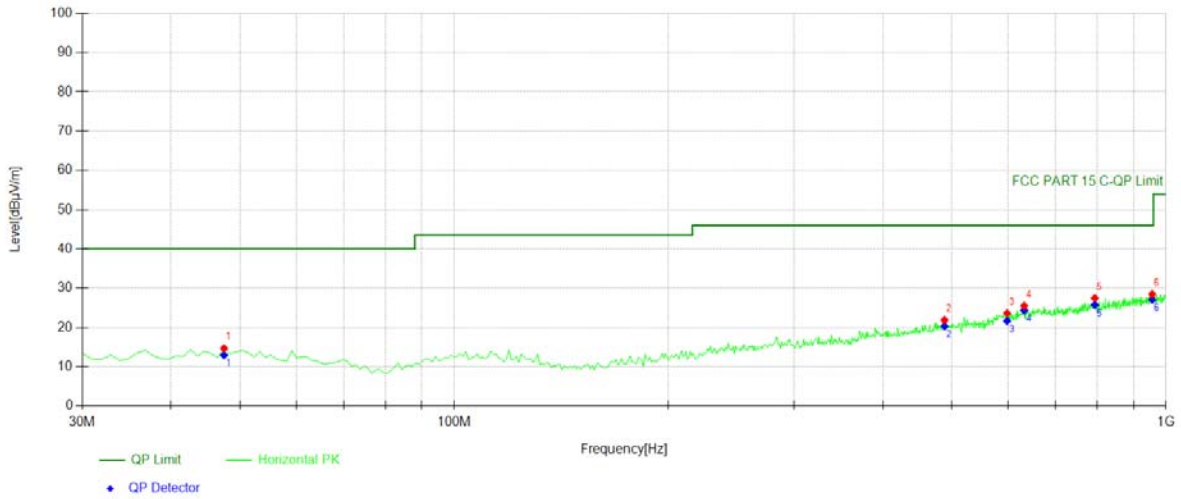


Suspected Data List								
NO.	Freq. [MHz]	Reading [dBµV]	Factor [dB/m]	Level [dBµV/m]	Detector	Limit [dBµV/m]	Margin [dB]	Polarity
1	36.7968	32.54	-18.11	14.43	PK	40.00	25.57	Horizontal
2	500.920	31.71	-9.76	21.95	PK	46.00	24.05	Horizontal
3	595.105	31.31	-7.14	24.17	PK	46.00	21.83	Horizontal
4	698.999	32.32	-5.95	26.37	PK	46.00	19.63	Horizontal
5	844.644	30.89	-3.83	27.06	PK	46.00	18.94	Horizontal
6	955.335	31.82	-2.30	29.52	PK	46.00	16.48	Horizontal

Test mode:	GFSK	Frequency:	Channel 0: 2437MHz

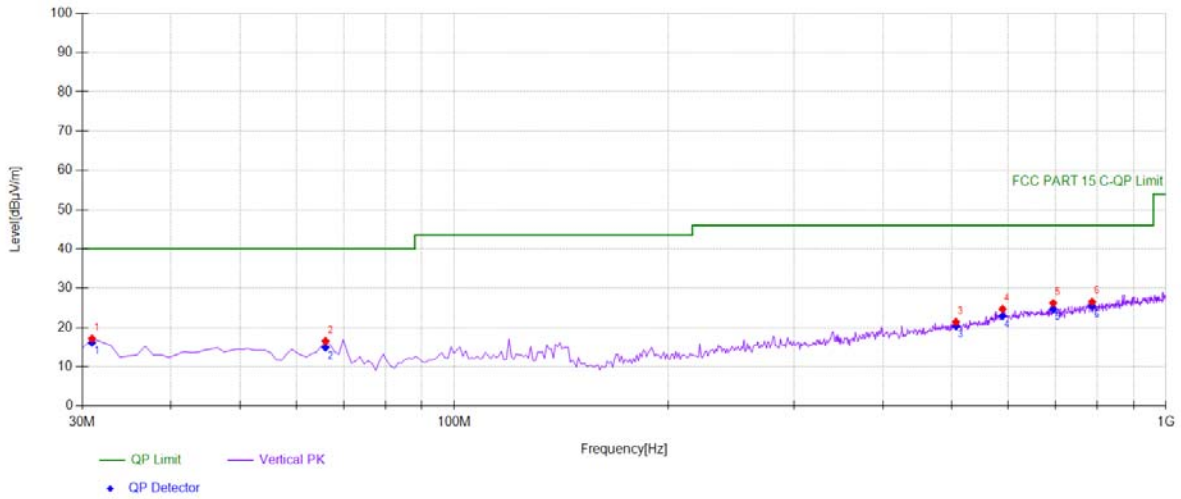


Suspected Data List								
NO.	Freq. [MHz]	Reading [dBµV]	Factor [dB/m]	Level [dBµV/m]	Detector	Limit [dBµV/m]	Margin [dB]	Polarity
1	32.9129	38.49	-18.35	20.14	PK	40.00	19.86	Vertical
2	65.9259	34.88	-19.39	15.49	PK	40.00	24.51	Vertical
3	501.891	31.12	-9.76	21.36	PK	46.00	24.64	Vertical
4	592.192	31.62	-7.14	24.48	PK	46.00	21.52	Vertical
5	666.957	31.36	-6.14	25.22	PK	46.00	20.78	Vertical
6	835.905	31.18	-3.96	27.22	PK	46.00	18.78	Vertical

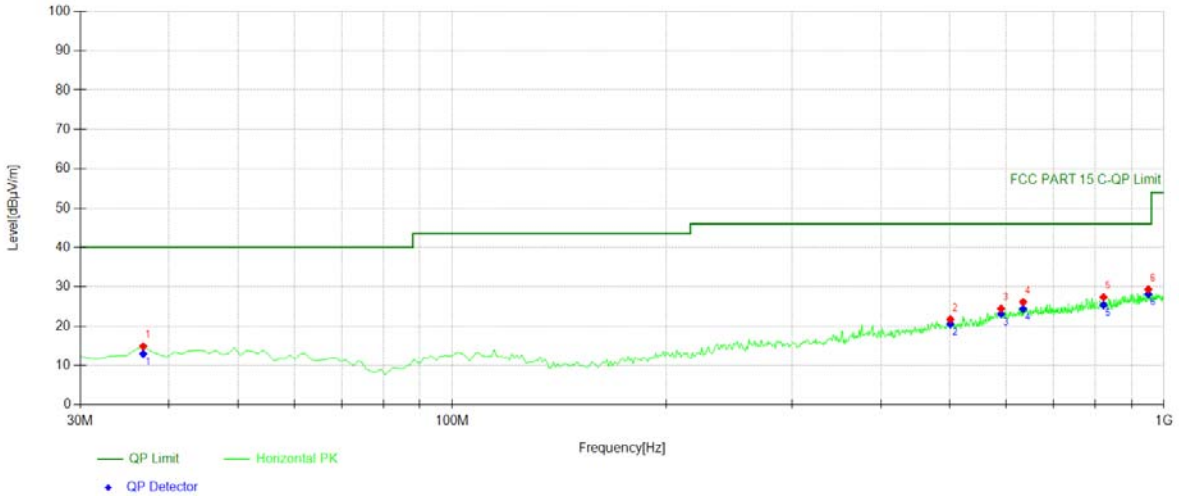


Suspected Data List								
NO.	Freq. [MHz]	Reading [dBµV]	Factor [dB/m]	Level [dBµV/m]	Detector	Limit [dBµV/m]	Margin [dB]	Polarity
1	47.4775	32.06	-17.39	14.67	PK	40.00	25.33	Horizontal
2	488.298	31.67	-9.80	21.87	PK	46.00	24.13	Horizontal
3	598.018	30.76	-7.14	23.62	PK	46.00	22.38	Horizontal
4	632.002	32.10	-6.63	25.47	PK	46.00	20.53	Horizontal
5	794.154	31.97	-4.48	27.49	PK	46.00	18.51	Horizontal
6	956.306	30.76	-2.30	28.46	PK	46.00	17.54	Horizontal

Test mode:	GFSK	Frequency:	Channel 0: 2462MHz



Suspected Data List								
NO.	Freq. [MHz]	Reading [dBµV]	Factor [dB/m]	Level [dBµV/m]	Detector	Limit [dBµV/m]	Margin [dB]	Polarity
1	30.971	35.62	-18.47	17.15	PK	40.00	22.85	Vertical
2	65.9259	35.94	-19.39	16.55	PK	40.00	23.45	Vertical
3	506.746	31.18	-9.77	21.41	PK	46.00	24.59	Vertical
4	589.279	31.87	-7.14	24.73	PK	46.00	21.27	Vertical
5	694.144	32.18	-5.99	26.19	PK	46.00	19.81	Vertical
6	787.357	31.08	-4.55	26.53	PK	46.00	19.47	Vertical



Suspected Data List								
NO.	Freq. [MHz]	Reading [dBμV]	Factor [dB/m]	Level [dBμV/m]	Detector	Limit [dBμV/m]	Margin [dB]	Polarity
1	36.7968	32.98	-18.11	14.87	PK	40.00	25.13	Horizontal
2	500.920	31.51	-9.76	21.75	PK	46.00	24.25	Horizontal
3	590.250	31.58	-7.14	24.44	PK	46.00	21.56	Horizontal
4	633.943	32.66	-6.54	26.12	PK	46.00	19.88	Horizontal
5	822.312	31.61	-4.25	27.36	PK	46.00	18.64	Horizontal
6	950.480	31.65	-2.33	29.32	PK	46.00	16.68	Horizontal

7.6 CONDUCTED EMISSION TEST

7.6.1 Applicable Standard

According to IC RSS-Gen 8.8

7.6.2 Conformance Limit

FCC Part 15, Subpart B, Class B

Conducted Emission Limit		
Frequency(MHz)	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.		

7.6.3 Test Configuration

Test according to clause 6.3 conducted emission test setup

7.6.4 Test Procedure

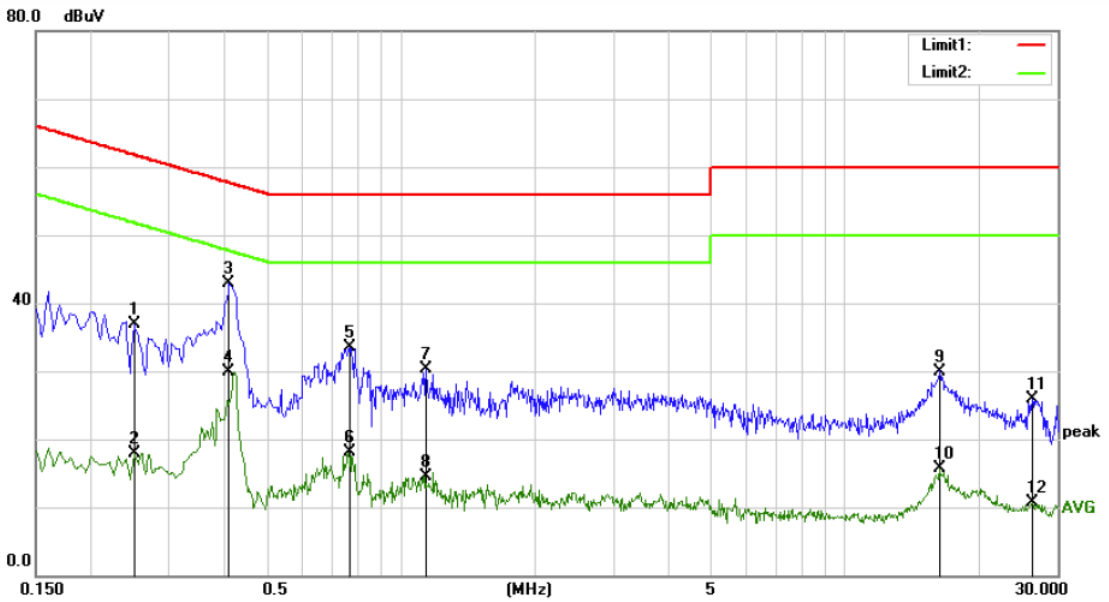
The EUT was placed on a table which is 0.8m above ground plane.
Maximum procedure was performed on the highest emissions to ensure EUT compliance.
Repeat above procedures until all frequency measured were complete.

7.6.5 Test Results

Pass

The AC120V &240V voltage have been tested, and the worst result recorded was report as below.

Temperature :	21.9℃	ATM Pressure:	1011 mbar
Humidity :	58 %	Test Engineer:	KK



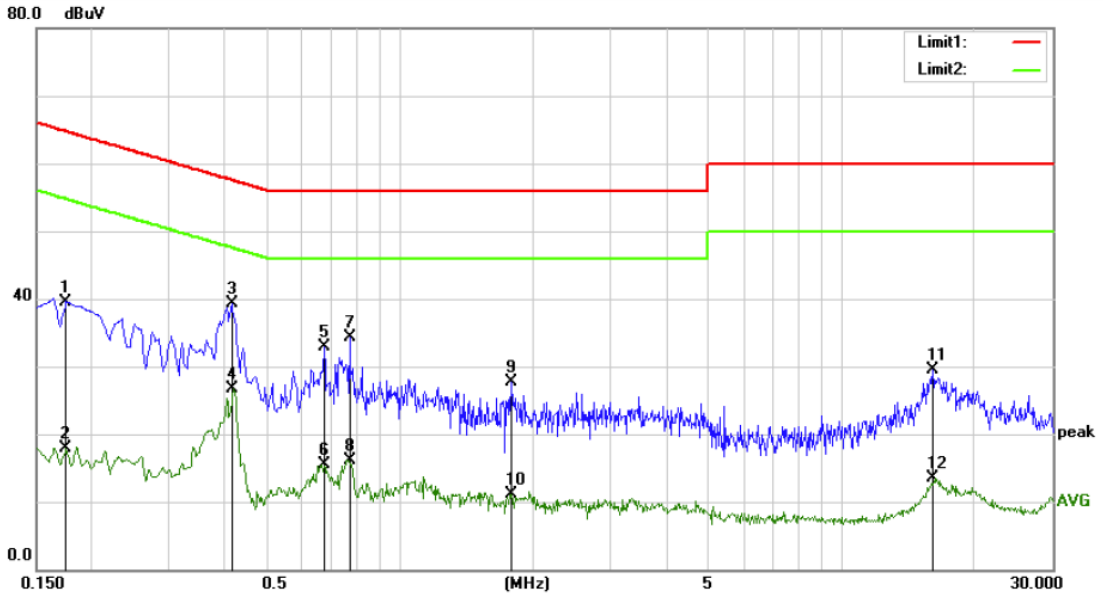
Site Conduction #1 Phase: N Temperature: 21.9

Limit: (CE)FCC PART 15 class B_QP Power: AC 120V/60Hz Humidity: 58 %

Mode: wifi 2.4G

Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.2500	26.99	10.01	37.00	61.76	-24.76	QP	
2		0.2500	7.95	10.01	17.96	51.76	-33.80	AVG	
3	*	0.4100	33.07	9.86	42.93	57.65	-14.72	QP	
4		0.4100	20.08	9.86	29.94	47.65	-17.71	AVG	
5		0.7650	23.61	9.90	33.51	56.00	-22.49	QP	
6		0.7650	8.14	9.90	18.04	46.00	-27.96	AVG	
7		1.1400	20.34	9.90	30.24	56.00	-25.76	QP	
8		1.1400	4.55	9.90	14.45	46.00	-31.55	AVG	
9		16.3800	19.99	10.01	30.00	60.00	-30.00	QP	
10		16.3800	5.73	10.01	15.74	50.00	-34.26	AVG	
11		26.3550	15.83	10.04	25.87	60.00	-34.13	QP	
12		26.3550	0.61	10.04	10.65	50.00	-39.35	AVG	



Site Conduction #1 Phase: *L1* Temperature: 21.9

Limit: (CE)FCC PART 15 class B_QP Power: AC 120V/60Hz Humidity: 58 %

Mode: wifi 2.4G

Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1750	29.71	9.89	39.60	64.72	-25.12	QP	
2		0.1750	7.93	9.89	17.82	54.72	-36.90	AVG	
3	*	0.4150	29.50	9.86	39.36	57.55	-18.19	QP	
4		0.4150	16.78	9.86	26.64	47.55	-20.91	AVG	
5		0.6750	22.99	9.89	32.88	56.00	-23.12	QP	
6		0.6750	5.63	9.89	15.52	46.00	-30.48	AVG	
7		0.7700	24.32	9.90	34.22	56.00	-21.78	QP	
8		0.7700	6.24	9.90	16.14	46.00	-29.86	AVG	
9		1.7900	17.95	9.83	27.78	56.00	-28.22	QP	
10		1.7900	1.35	9.83	11.18	46.00	-34.82	AVG	
11		16.1300	19.52	9.99	29.51	60.00	-30.49	QP	
12		16.1300	3.53	9.99	13.52	50.00	-36.48	AVG	

7.7 ANTENNA APPLICATION

7.7.1 Antenna Requirement

Standard	Requirement
FCC CRF Part15.203	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 15.247 (b), 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.

7.7.2 Result

PASS.

Note: ☑ Antenna 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)

Please refer to the attached document Internal Photos to show the antenna connector.

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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Statement

1．本报告无授权批准人签字及“检验检测专用章”无效。
This report is invalid without the signature of the authorized approver and "special seal for testing".

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The test results or observations are applicable only to tested sample. Client shall be responsible for representativeness of the sample and authenticity of the material.

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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。
Objections shall be raised within 20 days from the date receiving the report.