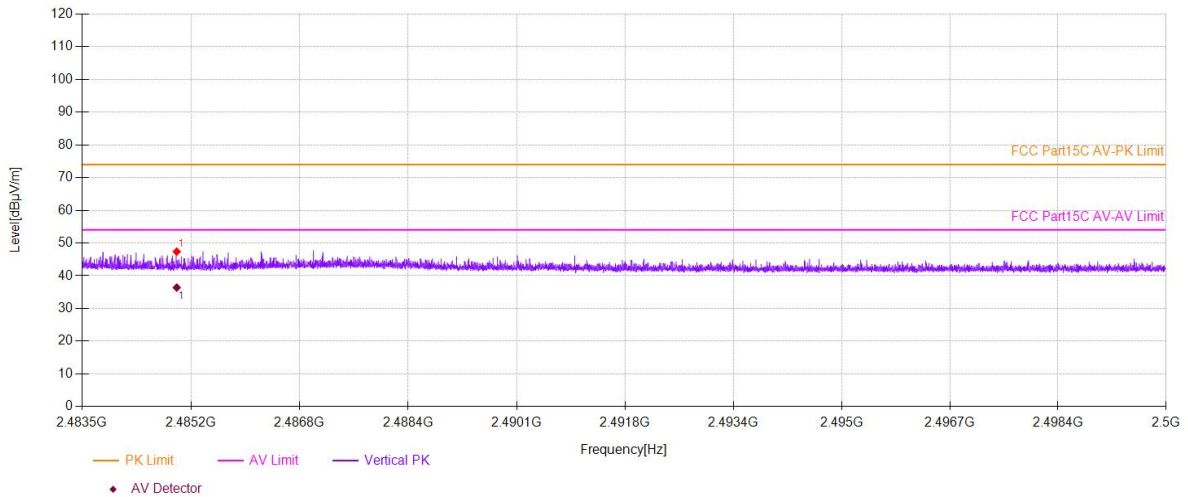


Test Model 802.11n(HT20) Spurious Emission in Restricted Band 2483.5-2500MHz
Channel 11: 2462MHz VBW=3MHz Polarity: V



Suspected Data List

NO.	Freq. [MHz]	Level [dBμV/m]	Factor[dB/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	2484.9355	47.39	30.12	74.00	26.61	PK	Vertical

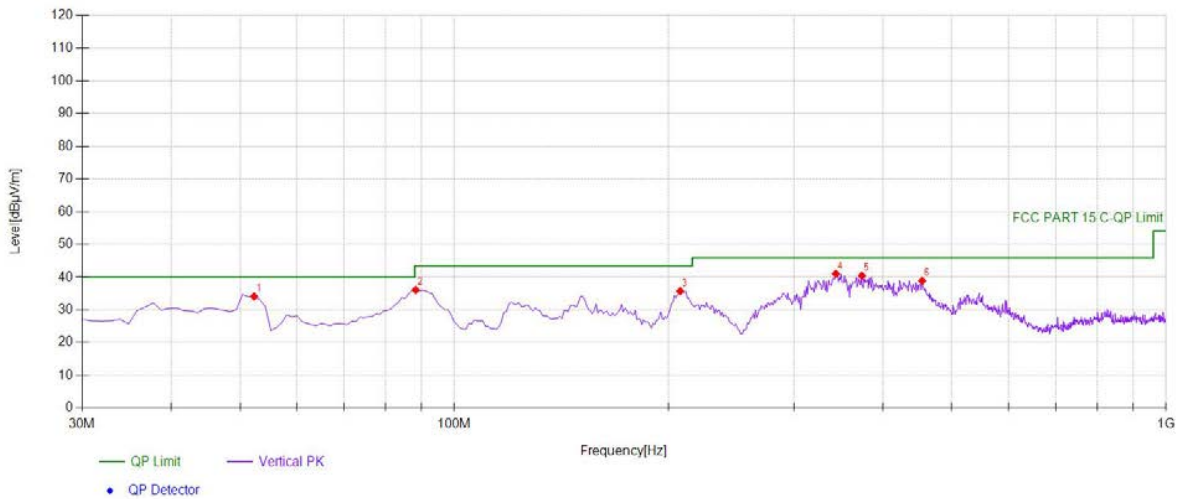
AV Final Data List

NO.	Freq. [MHz]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Detector	Polarity
1	2484.9355	36.39	54.00	17.61	AV	Vertical

■ Spurious Emission below 1GHz (30MHz to 1GHz)

All the antenna(Antenna 1) and modes(802.11b/g/n/ax) have been tested and the worst(Antenna 1,802.11b) result recorded was report as below:

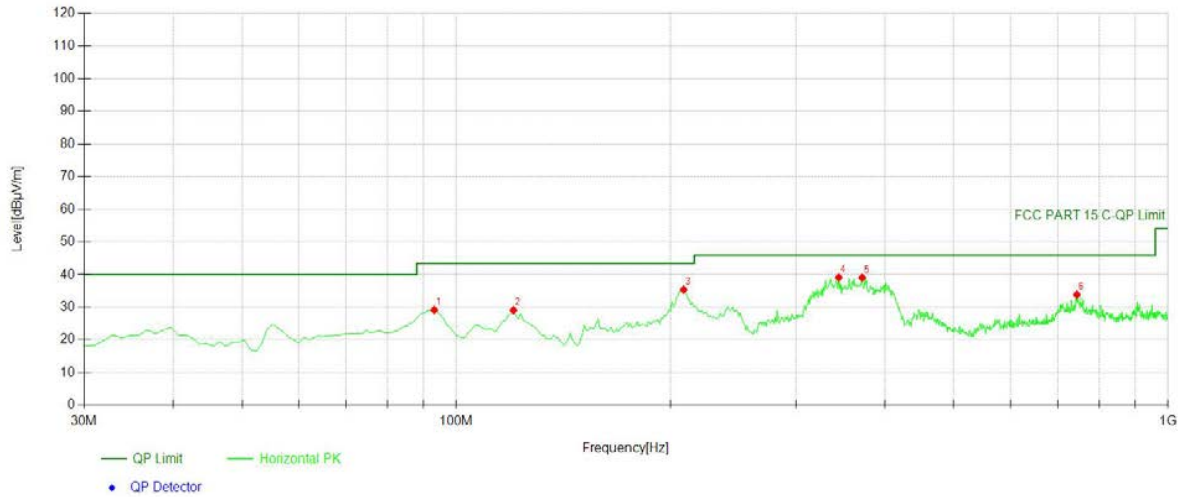
Mode:	11B 2412
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Suspected Data List

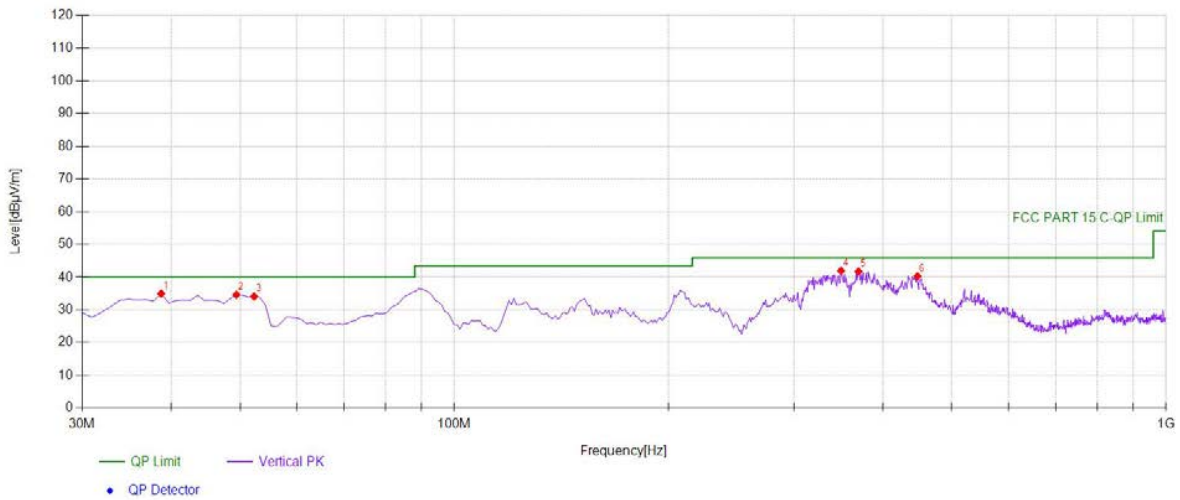
NO.	Freq. [MHz]	Reading [dBμV]	Factor [dB/m]	Level [dBμV/m]	Detector	Limit [dBμV/m]	Margin [dB]	Polarity
1	52.3323	45.09	-10.97	34.12	PK	40.00	5.88	Vertical
2	88.2583	49.75	-13.64	36.11	PK	43.50	7.39	Vertical
3	207.687	47.57	-11.81	35.76	PK	43.50	7.74	Vertical
4	343.623	47.66	-6.56	41.10	PK	46.00	4.90	Vertical
5	373.723	46.59	-6.11	40.48	PK	46.00	5.52	Vertical
6	454.314	43.51	-4.59	38.92	PK	46.00	7.08	Vertical

Mode:	11B 2412
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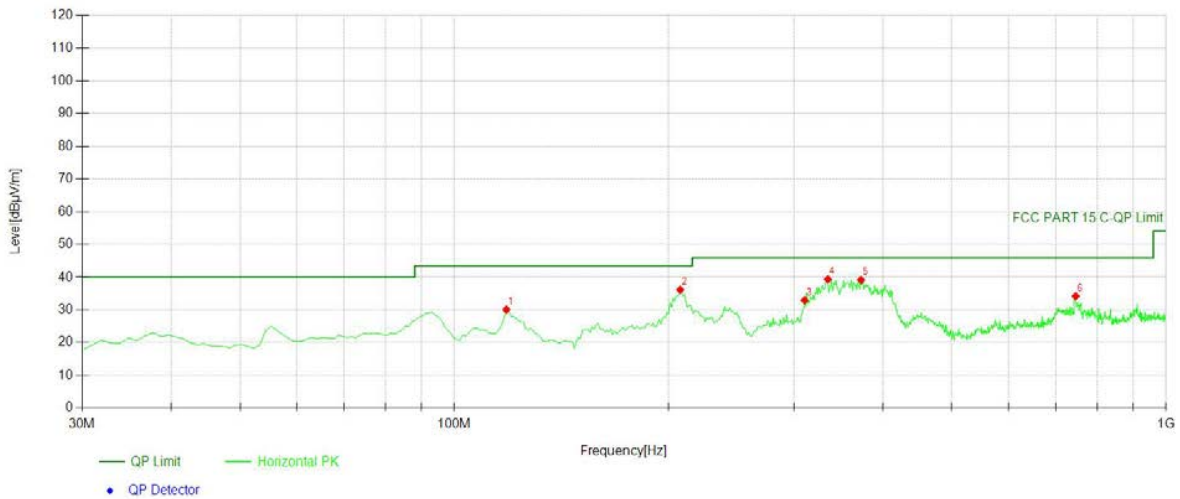
Suspected Data List								
NO.	Freq. [MHz]	Reading [dBμV]	Factor [dB/m]	Level [dBμV/m]	Detector	Limit [dBμV/m]	Margin [dB]	Polarity
1	93.1131	42.05	-12.88	29.17	PK	43.50	14.33	Horizontal
2	120.300	42.45	-13.34	29.11	PK	43.50	14.39	Horizontal
3	208.658	47.13	-11.74	35.39	PK	43.50	8.11	Horizontal
4	344.594	45.73	-6.57	39.16	PK	46.00	6.84	Horizontal
5	371.781	45.30	-6.19	39.11	PK	46.00	6.89	Horizontal
6	744.634	33.69	0.18	33.87	PK	46.00	12.13	Horizontal

Mode:	11B 2437
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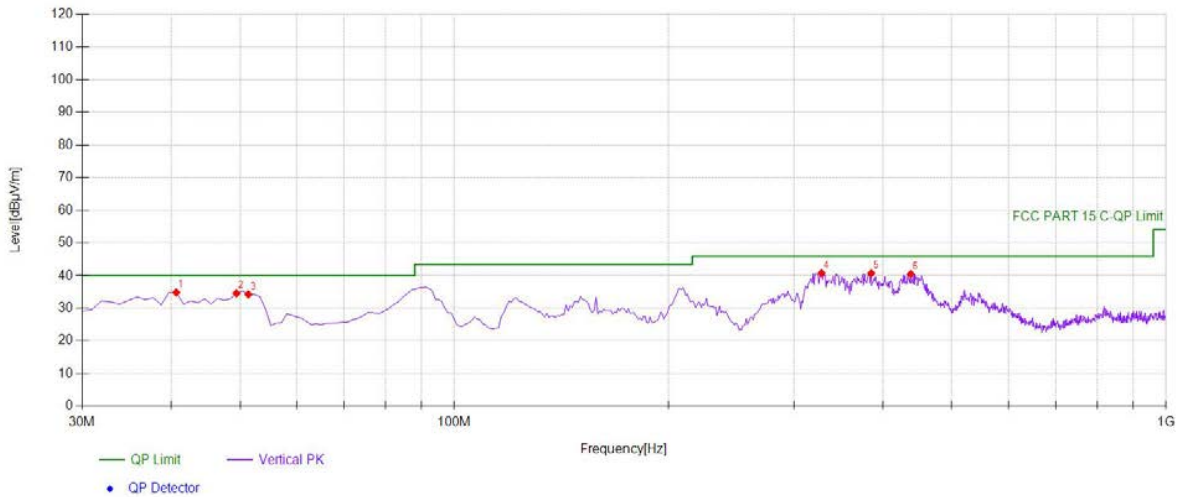
Suspected Data List								
NO.	Freq. [MHz]	Reading [dBμV]	Factor [dB/m]	Level [dBμV/m]	Detector	Limit [dBμV/m]	Margin [dB]	Polarity
1	38.7387	47.44	-12.45	34.99	PK	40.00	5.01	Vertical
2	49.4194	45.38	-10.75	34.63	PK	40.00	5.37	Vertical
3	52.3323	45.07	-10.97	34.10	PK	40.00	5.90	Vertical
4	349.449	48.59	-6.59	42.00	PK	46.00	4.00	Vertical
5	369.839	48.06	-6.26	41.80	PK	46.00	4.20	Vertical
6	447.517	45.18	-4.85	40.33	PK	46.00	5.67	Vertical

Mode:	11B 2437
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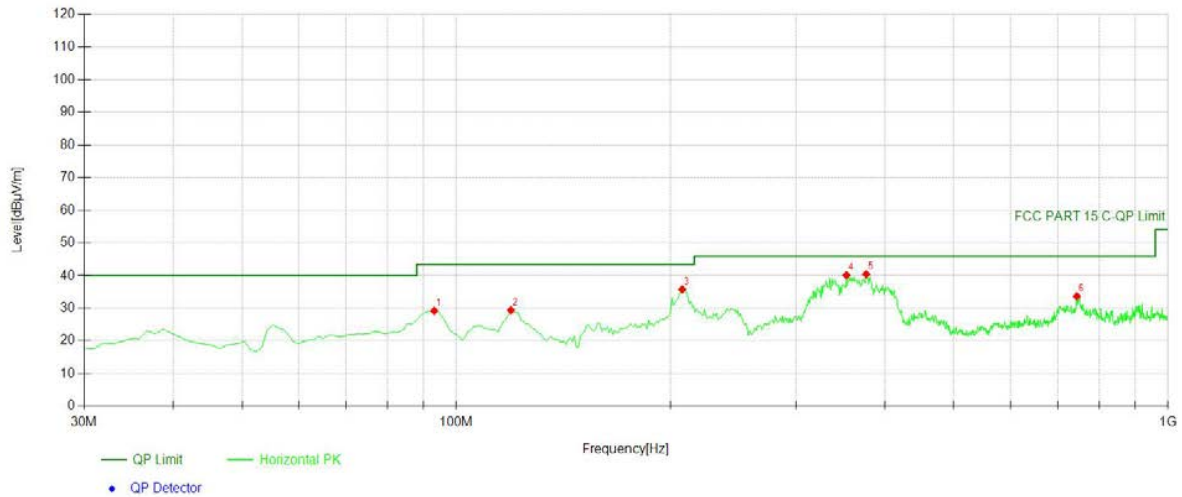
Suspected Data List								
NO.	Freq. [MHz]	Reading [dBμV]	Factor [dB/m]	Level [dBμV/m]	Detector	Limit [dBμV/m]	Margin [dB]	Polarity
1	118.358	43.27	-13.20	30.07	PK	43.50	13.43	Horizontal
2	207.687	47.96	-11.81	36.15	PK	43.50	7.35	Horizontal
3	310.610	41.01	-8.05	32.96	PK	46.00	13.04	Horizontal
4	334.884	46.30	-6.93	39.37	PK	46.00	6.63	Horizontal
5	372.752	45.32	-6.15	39.17	PK	46.00	6.83	Horizontal
6	746.576	34.16	0.03	34.19	PK	46.00	11.81	Horizontal

Mode:	11B 2462
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Suspected Data List								
NO.	Freq. [MHz]	Reading [dBμV]	Factor [dB/m]	Level [dBμV/m]	Detector	Limit [dBμV/m]	Margin [dB]	Polarity
1	40.6807	46.99	-12.15	34.84	PK	40.00	5.16	Vertical
2	49.4194	45.33	-10.75	34.58	PK	40.00	5.42	Vertical
3	51.3614	45.12	-10.85	34.27	PK	40.00	5.73	Vertical
4	328.088	48.18	-7.41	40.77	PK	46.00	5.23	Vertical
5	385.375	46.48	-5.73	40.75	PK	46.00	5.25	Vertical
6	437.807	45.77	-5.26	40.51	PK	46.00	5.49	Vertical

Mode:	11B 2462
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Suspected Data List								
NO.	Freq. [MHz]	Reading [dBμV]	Factor [dB/m]	Level [dBμV/m]	Detector	Limit [dBμV/m]	Margin [dB]	Polarity
1	93.1131	42.10	-12.88	29.22	PK	43.50	14.28	Horizontal
2	119.329	42.66	-13.27	29.39	PK	43.50	14.11	Horizontal
3	207.687	47.62	-11.81	35.81	PK	43.50	7.69	Horizontal
4	353.333	46.75	-6.60	40.15	PK	46.00	5.85	Horizontal
5	376.636	46.46	-5.99	40.47	PK	46.00	5.53	Horizontal
6	744.634	33.50	0.18	33.68	PK	46.00	12.32	Horizontal

8.7 CONDUCTED EMISSION TEST

8.7.1 Applicable Standard

According to FCC Part 15.207(a)

According to IC RSS-Gen 8.8

8.7.2 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.

8.7.3 Test Configuration

Test according to clause 6.3conducted emission test setup

8.7.4 Test Procedure

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

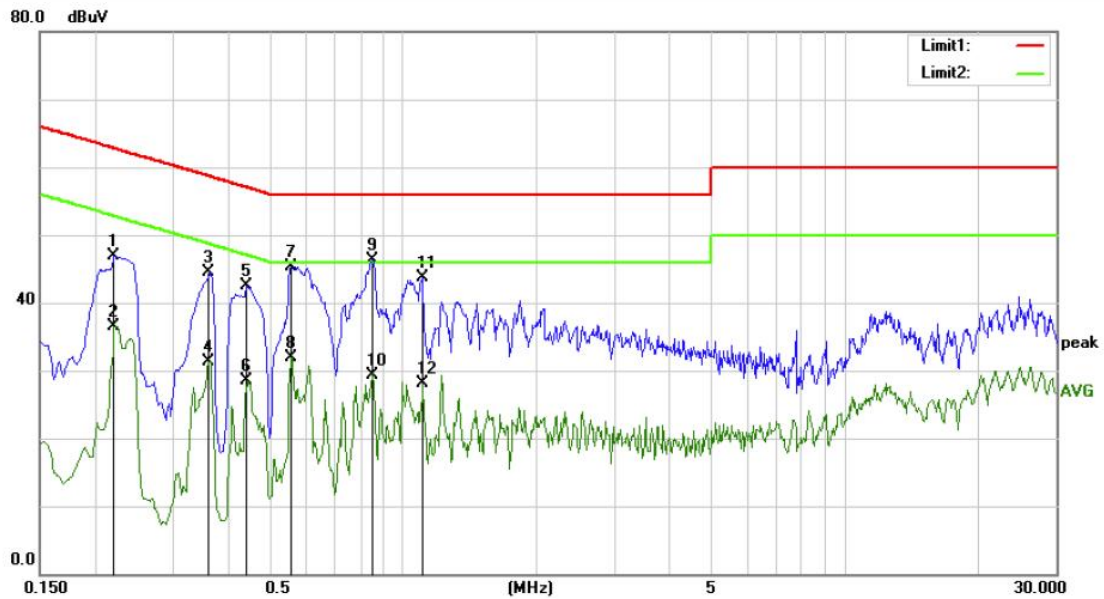
Maximum procedure was performed on the highest emissions to ensure EUT compliance.

Repeat above procedures until all frequency measured were complete.

8.7.5 Test Results

Pass

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



Site Conduction #1

Phase: **N**

Temperature: 23.2

Limit: (CE)FCC PART 15 class B_QP

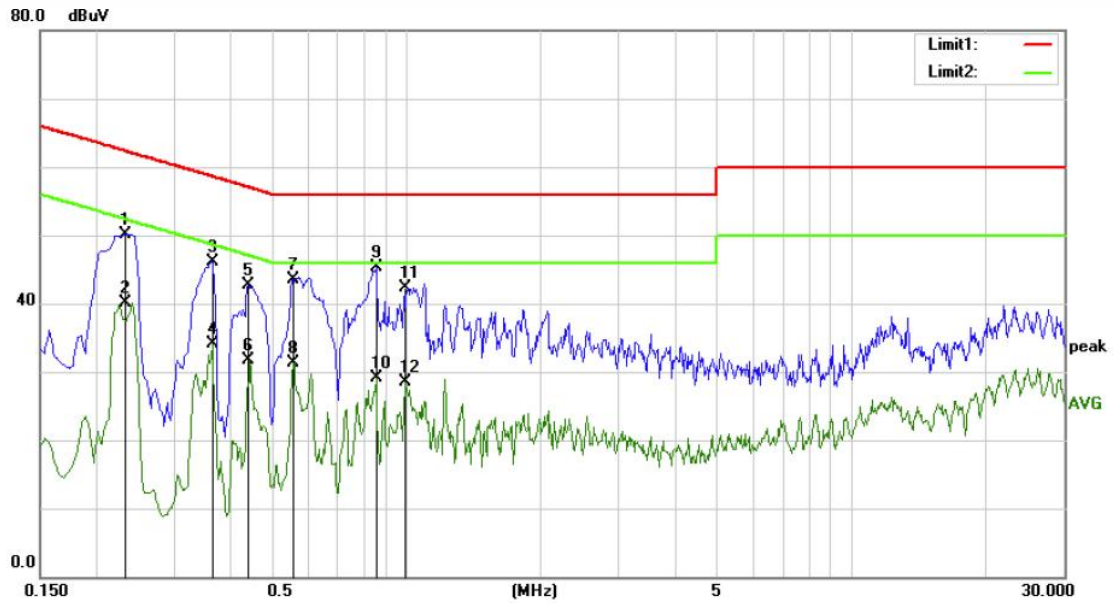
Power: AC 120V/60Hz

Humidity: 64 %

Mode: WiFi mode

Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Detector	Comment
		MHz	dBuV	dB	dBuV	dBuV	dB		
1		0.2220	37.18	9.75	46.93	62.74	-15.81	QP	
2		0.2220	26.71	9.75	36.46	52.74	-16.28	AVG	
3		0.3620	34.62	9.90	44.52	58.68	-14.16	QP	
4		0.3620	21.44	9.90	31.34	48.68	-17.34	AVG	
5		0.4420	32.75	9.82	42.57	57.02	-14.45	QP	
6		0.4420	18.61	9.82	28.43	47.02	-18.59	AVG	
7		0.5580	35.42	9.90	45.32	56.00	-10.68	QP	
8		0.5580	21.98	9.90	31.88	46.00	-14.12	AVG	
9	*	0.8500	36.37	9.89	46.26	56.00	-9.74	QP	
10		0.8500	19.51	9.89	29.40	46.00	-16.60	AVG	
11		1.1020	33.77	9.99	43.76	56.00	-12.24	QP	
12		1.1020	18.04	9.99	28.03	46.00	-17.97	AVG	



Site Conduction #1

Phase: **L1**

Temperature: 23.2

Limit: (CE)FCC PART 15 class B_QP

Power: AC 120V/60Hz

Humidity: 64 %

Mode: WiFi mode

Note:

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1		0.2340	40.41	9.78	50.19	62.31	-12.12	QP	
2		0.2340	30.34	9.78	40.12	52.31	-12.19	AVG	
3		0.3660	36.20	9.89	46.09	58.59	-12.50	QP	
4		0.3660	24.16	9.89	34.05	48.59	-14.54	AVG	
5		0.4420	32.86	9.82	42.68	57.02	-14.34	QP	
6		0.4420	21.80	9.82	31.62	47.02	-15.40	AVG	
7		0.5580	33.65	9.90	43.55	56.00	-12.45	QP	
8		0.5580	21.49	9.90	31.39	46.00	-14.61	AVG	
9	*	0.8540	35.40	9.90	45.30	56.00	-10.70	QP	
10		0.8540	19.20	9.90	29.10	46.00	-16.90	AVG	
11		0.9940	32.23	9.99	42.22	56.00	-13.78	QP	
12		0.9940	18.59	9.99	28.58	46.00	-17.42	AVG	

8.8 ANTENNA APPLICATION

8.8.1 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.
FCC 47 CFR Part 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.
RSS-Gen Section 6.8	The applicant for equipment certification shall provide a list of all antenna types that may be used with the transmitter, where applicable (i.e. for transmitters with detachable antenna), indicating the maximum permissible antenna gain (in dBi) and the required impedance for each antenna. The test report shall demonstrate the compliance of the transmitter with the limit for maximum equivalent isotropically radiated power (e.i.r.p.) specified in the applicable RSS, when the transmitter is equipped with any antenna type, selected from this list.
RSS-247 Section 5.4	If the transmitter employs an antenna system that emits multiple directional beams, but does not emit multiple directional beams simultaneously, the total output power conducted to the array or arrays that comprise the device (i.e. the sum of the power supplied to all antennas, antenna elements, staves, etc., and summed across all carriers or frequency channels) shall not exceed the applicable output power limit. However, the total conducted output power shall be reduced by 1 dB below the specified limits for each 3 dB that the directional gain of the antenna/antenna array exceeds 6 dBi. The directional antenna gain shall be computed as the sum of 10 log (number of array elements or staves) plus the directional gain of the element or stave having the highest gain.

8.8.2 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 documentInternal Photos to show the antenna connector.

*** End of Report ***

9 APPENDIX PHOTOGRAPHS OF EUT

Please refer to the file of External Photo and Internal Photo.



10 APPENDIX PHOTOGRAPHS OF TEST SETUP

Please refer to the file of Test Setup Photo.



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