8.7 POWER LINE CONDUCTED EMISSIONS

8.7.1 Applicable Standard

According to FCC Part 15.207(a)
According to IC RSS-Gen 8.8

8.7.2 Conformance Limit

	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.

8.7.3 Test Configuration

Test according to clause 7.3 conducted emission test setup.

8.7.4 Test Procedure

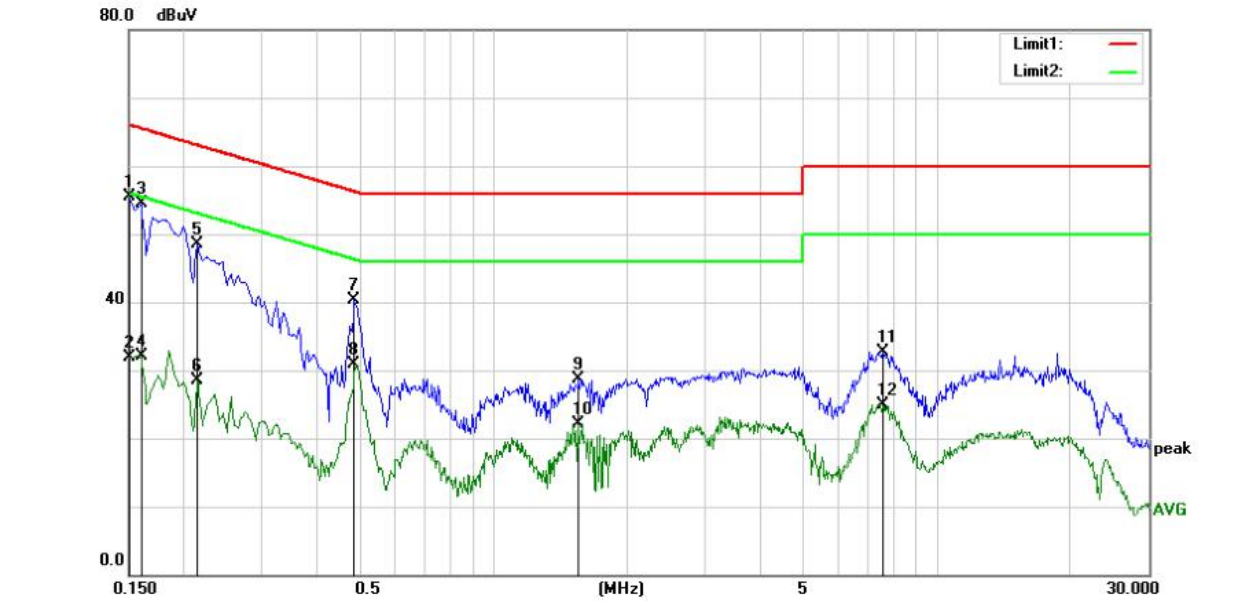
The EUT was placed on a table which is 0.8m above ground plane.
Maximum procedure was performed on the highest emissions to ensure EUT compliance.
Repeat above procedures until all frequency measured were complete.

8.7.5 Test Results

PASS

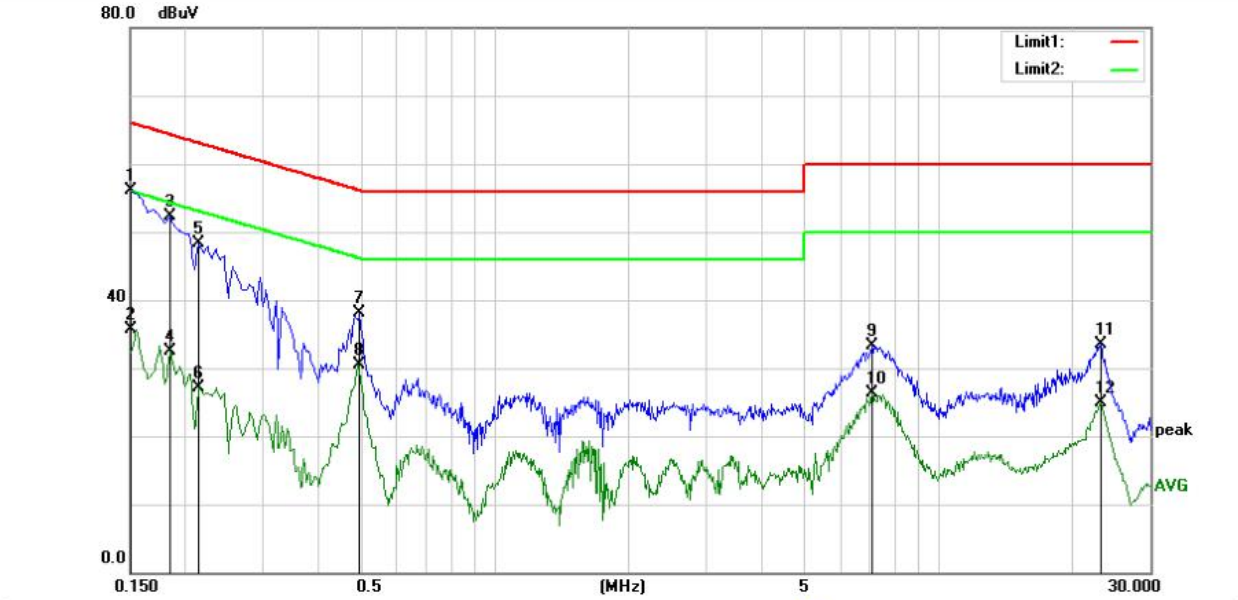
Temperature :	21.9℃	ATM Pressure:	1011 mbar
Humidity :	58 %	Test Engineer:	WQG

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



Site Conduction #1 Phase: L1 Temperature: 21.9

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	*	0.1500	46.00	9.51	55.51	66.00	-10.49	QP	
2		0.1500	22.36	9.51	31.87	56.00	-24.13	AVG	
3		0.1600	44.89	9.63	54.52	65.46	-10.94	QP	
4		0.1600	22.39	9.63	32.02	55.46	-23.44	AVG	
5		0.2150	38.49	10.09	48.58	63.01	-14.43	QP	
6		0.2150	18.32	10.09	28.41	53.01	-24.60	AVG	
7		0.4850	30.58	9.69	40.27	56.25	-15.98	QP	
8		0.4850	21.25	9.69	30.94	46.25	-15.31	AVG	
9		1.5550	18.90	9.77	28.67	56.00	-27.33	QP	
10		1.5550	12.36	9.77	22.13	46.00	-23.87	AVG	
11		7.5550	22.71	9.99	32.70	60.00	-27.30	QP	
12		7.5550	14.83	9.99	24.82	50.00	-25.18	AVG	



Site Conduction #1 Phase: N Temperature: 21.9

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	*	0.1500	46.52	9.51	56.03	66.00	-9.97	QP	
2		0.1500	26.26	9.51	35.77	56.00	-20.23	AVG	
3		0.1850	42.40	9.92	52.32	64.26	-11.94	QP	
4		0.1850	22.64	9.92	32.56	54.26	-21.70	AVG	
5		0.2150	38.12	10.09	48.21	63.01	-14.80	QP	
6		0.2150	16.98	10.09	27.07	53.01	-25.94	AVG	
7		0.4950	28.42	9.68	38.10	56.08	-17.98	QP	
8		0.4950	20.82	9.68	30.50	46.08	-15.58	AVG	
9		7.0800	23.26	9.98	33.24	60.00	-26.76	QP	
10		7.0800	16.35	9.98	26.33	50.00	-23.67	AVG	
11		23.2300	23.56	9.95	33.51	60.00	-26.49	QP	
12		23.2300	14.92	9.95	24.87	50.00	-25.13	AVG	

8.8 ANTENNA REQUIREMENT

8.8.1 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.
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.

8.8.2 Result

PASS

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

The EUT is Integrated Antenna, antenna gain is Ant1: 1.54dBi, Ant2: 1.54dBi.

☑ 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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