

Puw test Plot



LCH SPURIOUS EMISSION_10GHz~26GHz





Test Mode	Channel	Verdict
11N HT20	MCH	PASS

Pref test Plot





Puw test Plot



MCH SPURIOUS EMISSION_10GHz~26GHz





Test Mode	Channel	Verdict
11N HT20	НСН	PASS

Pref test Plot





Puw test Plot



HCH SPURIOUS EMISSION_10GHz~26GHz





7.6. RADIATED TEST RESULTS

7.6.1.LIMITS AND PROCEDURE

<u>LIMITS</u>

Please refer to FCC §15.205&§15.209, ISED RSS-247 Clause 5.5, ISED RSS-GEN Clause 8.9&6.13

Please refer to FCC KDB 558074

Radiation Disturbance Test Limit for FCC (Class B)(9KHz-1GHz)

Frequency (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
0.009~0.490	2400/F(KHz)	300
0.490~1.705	24000/F(KHz)	30
1.705~30.0	30	30
30~88	100	3
88~216	150	3
216~960	200	3
960~1000	500	3

Limit for below 30MHz based on RSS-GEN table 6:

Table 6 – General field strength limits at frequencies below 30 MHz				
Frequency	Magnetic field strength (H-Field) (μA/m)	Measurement distance (m)		
9 - 490 kHz ^{Note 1}	6.37/F (F in kHz)	300		
490 - 1705 kHz	63.7/F (F in kHz)	30		
1.705 - 30 MHz	0.08	30		

Note 1: The emission limits for the ranges 9-90 kHz and 110-490 kHz are based on measurements employing a linear average detector.

Note: 1) At frequencies at or above 30 MHz, measurements may be performed at a distance other than what is specified provided: measurements are not made in the near field except where it can be shown that near field measurements are appropriate due to the characteristics of the device; and it can be demonstrated that the signal levels needed to be measured at the distance employed can be detected by the measurement equipment. Measurements shall not be performed at a distance greater than 30 meters unless it can be further demonstrated that measurements at a distance of 30 meters or less are impractical. When performing measurements at a distance other than that specified, the results shall be extrapolated to the



specified distance using an extrapolation factor of 20 dB/decade (inverse linear-distance for field strength measurements; inverse-linear-distance-squared for power density measurements).

(2) At frequencies below 30 MHz, measurements may be performed at a distance closer than that specified in the regulations; however, an attempt should be made to avoid making measurements in the near field. Pending the development of an appropriate measurement procedure for measurements performed below 30 MHz, when performing measurements at a closer distance than specified, the results shall be extrapolated to the specified distance by either making measurements at a minimum of two distances on at least one radial to determine the proper extrapolation factor or by using the square of an inverse linear distance extrapolation factor (40 dB/decade). This paragraph (f) shall not apply to Access BPL devices operating below 30 MHz.

	dB(uV/m) (at 3 meters)		
	Peak	Average	
Above 1000	74	54	

Radiation Disturbance Test Limit for FCC (Above 1G)

Restricted bands of operation

MHz	MHz	MHz	GHz
0.090-0.110	16.42-16.423	399.9-410	4.5-5.15
¹ 0.495-0.505	16.69475-16.69525	608-614	5.35-5.46
2.1735-2.1905	16.80425-16.80475	960-1240	7.25-7.75
4.125-4.128	25.5-25.67	1300-1427	8.025-8.5
4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2
4.20725-4.20775	73-74.6	1645.5-1646.5	9.3-9.5
6.215-6.218	74.8-75.2	1660-1710	10.6-12.7
6.26775-6.26825	108-121.94	1718.8-1722.2	13.25-13.4
6.31175-6.31225	123-138	2200-2300	14.47-14.5
8.291-8.294	149.9-150.05	2310-2390	15.35-16.2
8.362-8.366	156.52475-156.52525	2483.5-2500	17.7-21.4
8.37625-8.38675	156.7-156.9	2690-2900	22.01-23.12
8.41425-8.41475	162.0125-167.17	3260-3267	23.6-24.0
12.29-12.293	167.72-173.2	3332-3339	31.2-31.8
12.51975-12.52025	240-285	3345.8-3358	36.43-36.5
12.57675-12.57725	322-335.4	3600-4400	(²)
13.36-13.41			

Note: ¹Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz. ²Above 38.6c



TEST SETUP AND PROCEDURE

Below 30MHz



The setting of the spectrum analyser

RBW	200Hz (From 9kHz to 0.15MHz)/ 9KHz (From 0.15MHz to 30MHz)
VBW	200Hz (From 9kHz to 0.15MHz)/ 9KHz (From 0.15MHz to 30MHz)
Sweep	Auto
Detector	Peak/QP/ Average
Trace	Max hold

1. The testing follows the guidelines in ANSI C63.10-2013

2. The EUT was arranged to its worst case and then turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level. Both Horizontal, Face-on and Face-off polarizations of the antenna are set to make the measurement.

3. The EUT was placed on a turntable with 0.8 meter above ground.

4. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a 1m height antenna tower.

5. The radiated emission limits are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9-90 kHz, 110-490 kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector

6. For measurement below 1GHz, the initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured. If the emission level of the EUT measured by the peak detector is 3 dB lower than the applicable limit, the peak emission level will be reported. Otherwise, the emission measurement will be repeated using the quasi-peak detector and reported.

7. For the actual test configuration, please refer to the related item in this test report (Photographs of the Test Configuration)



Below 1G



The setting of the spectrum analyser

RBW	120K
VBW	300K
Sweep	Auto
Detector	Peak/QP
Trace	Max hold

1. The testing follows the guidelines in ANSI C63.10-2013.

2. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level. Both horizontal and vertical polarizations of the antenna are set to make the measurement.

3. The EUT was placed on a turntable with 0.8 meter above ground.

4. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.

5. For measurement below 1GHz, the initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured. If the emission level of the EUT measured by the peak detector is 3 dB lower than the applicable limit, the peak emission level will be reported. Otherwise, the emission measurement will be repeated using the quasi-peak detector and reported.

6. For the actual test configuration, please refer to the related Item in this test report (Photographs of the Test Configuration)







The setting of the spectrum analyser

RBW	1M
VBW	PEAK:3M AVG: See note6
Sweep	Auto
Detector	Peak/Average
Trace	Max hold

1. The testing follows the guidelines in ANSI C63.10-2013.

2. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level. Both horizontal and vertical polarizations of the antenna are set to make the measurement.

3. The EUT was placed on a turntable with 1.5m above ground.

4. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.

5. For measurement above 1GHz, the emission measurement will be measured by the peak detector. This peak level, once corrected, must comply with the limit specified in Section 15.209.

6. For measurements above 1 GHz the resolution bandwidth is set to 1 MHz, then the video bandwidth is set to 3 MHz for peak measurements and 1 MHz resolution bandwidth with set VBW ≤RBW/100, but not less than list in section7.1 with average detector, max hold to be run for at least 50 traces for average measurements.

8. For the actual test configuration, please refer to the related item in this test report (Photographs of the Test Configuration)



X axis, Y axis, Z axis positions:



Note: For all radiated test, EUT in each of three orthogonal axis emissions had been tested, but only the worst case (Z axis) data recorded in the report.

7.6.2.TEST ENVIRONMENT

Temperature	22°C	Relative Humidity	56%
Atmosphere Pressure	101kPa	Test Voltage	DC 21.6V

7.6.3. RESTRICTED BANDEDGE

Test Result Table

Test Mode	Test Antenna	Channel	Puw(dBm)	Verdict
	A	LCH	<limit< td=""><td>PASS</td></limit<>	PASS
11B SISO	Antenna1	MCH	<limit< td=""><td>PASS</td></limit<>	PASS
		НСН	<limit< td=""><td>PASS</td></limit<>	PASS
		LCH	<limit< td=""><td>PASS</td></limit<>	PASS
11G SISO Antenna1	MCH	<limit< td=""><td>PASS</td></limit<>	PASS	
		HCH	<limit< td=""><td>PASS</td></limit<>	PASS
		LCH	<limit< td=""><td>PASS</td></limit<>	PASS
11N HT20 Antenna1	Antenna1	MCH	<limit< td=""><td>PASS</td></limit<>	PASS
		НСН	<limit< td=""><td>PASS</td></limit<>	PASS

Test Graphs:

Test Mode	Channel	Polarization	Verdict
11B	LCH	Horizontal	PASS



No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1 :	2222 4470	41.27	14.06	55.33	74.00	-18.67	peak
	2303.4479	30.27	14.06	44.33	54.00	-9.67	average
2	2390.0000	38.17	14.09	52.26	74.00	-21.74	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. For average power measurement, set the VBW refer to section 7.1.
- 5. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.





No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1 2347.6872	42.50	13.66	56.16	74.00	-17.84	peak	
	2347.0072	29.50	13.66	43.16	54.00	-10.84	average
2 2390.0000	40.42	14.09	54.51	74.00	-19.49	peak	
	2390.0000	29.42	14.09	43.51	54.00	-10.49	average

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. For average power measurement, set the VBW refer to section 7.1.
- 5. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.







No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	2483.5000	39.95	13.88	53.83	74.00	-20.17	peak
2 2520.6841	40.58	14.28	54.86	74.00	-19.14	peak	
	2320.0041	30.58	14.28	44.86	54.00	-9.14	average

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

- 4. For average power measurement, set the VBW refer to section 7.1.
- 5. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.





No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
4 0400 5000	2482 5000	40.86	13.88	54.74	74.00	-19.26	peak
I	2403.3000	29.86	13.88	43.74	54.00	-10.26	average
2 2520.9	2520 0261	41.35	14.28	55.63	74.00	-18.37	peak
	2520.9501	30.35	14.28	44.63	54.00	-9.37	average

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. For average power measurement, set the VBW refer to section 7.1.
- 5. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



Test Mode	Test Mode Channel		Verdict		
11G	11G LCH		PASS		



No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	2352.8629	40.21	13.68	53.89	74.00	-20.11	peak
2	2200 0000	39.91	14.09	54.00	74.00	-20.00	peak
2	2390.0000	30.27	14.09	44.36	54.00	-9.64	Average

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. For average power measurement, set the VBW refer to section 7.1.
- 5. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
4 0004 0504	42.65	13.78	56.43	74.00	-17.57	peak	
I	2304.0301	29.65	13.78	43.43	54.00	-10.57	average
2 2390.0000	41.47	14.09	55.56	74.00	-18.44	peak	
	2390.0000	29.47	14.09	43.56	54.00	-10.44	average

- Note: 1. Measurement = Reading Level + Correct Factor.
 - 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
 - 3. Peak: Peak detector.
 - 4. For average power measurement, set the VBW refer to section 7.1.
 - 5. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.







No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	2483.5000	38.91	13.88	52.79	74.00	-21.21	peak
2	2554 2204	42.47	14.46	56.93	74.00	-17.07	peak
2 2554.2394	30.47	14.46	44.93	54.00	-9.07	average	

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. For average power measurement, set the VBW refer to section 7.1.
- 5. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.





No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	2483.5000	39.72	13.88	53.60	74.00	-20.40	peak
2 2493.8614	41.73	14.01	55.74	74.00	-18.26	peak	
	2493.0014	29.73	14.01	43.74	54.00	-10.26	average

- If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
 Peak: Peak detector.
- 4. For average power measurement, set the VBW refer to section 7.1.
- 5. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.





No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	2373.2092	41.86	13.89	55.75	74.00	-18.25	peak
		29.86	13.89	43.75	54.00	-10.25	average
2	2390.0000	39.43	14.09	53.52	74.00	-20.48	peak

- Note: 1. Measurement = Reading Level + Correct Factor.
 - 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
 - 3. Peak: Peak detector.
 - 4. For average power measurement, set the VBW refer to section 7.1.
 - 5. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.





No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
4 0007 740	2227 7405	41.91	13.54	55.45	74.00	-18.55	peak
I	2337.7400	29.91	13.54	43.45	54.00	-10.55	average
2 2390.0000	2200 0000	41.92	14.09	56.01	74.00	-17.99	peak
	2390.0000	29.92	14.09	44.01	54.00	-9.99	average

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. For average power measurement, set the VBW refer to section 7.1.
- 5. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.







No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	2483.5000	39.89	13.88	53.77	74.00	-20.23	peak
2 2576.9577	40.91	14.45	55.36	74.00	-18.64	peak	
	2576.9577	29.91	14.45	44.36	54.00	-9.64	average

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

- 4. For average power measurement, set the VBW refer to section 7.1.
- 5. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.





No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	2483.5000	39.86	13.88	53.74	74.00	-20.26	peak
2	2402 7912	42.22	13.99	56.21	74.00	-17.79	peak
2	2492.7013	30.22	13.99	44.21	54.00	-9.79	average

- If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
 Peak: Peak detector.
- 4. For average power measurement, set the VBW refer to section 7.1.
- 5. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



7.6.4. SPURIOUS EMISSIONS

Test Result Table:

		LCH	<limit< th=""><th>PASS</th></limit<>	PASS
11B SISO	Antenna1	MCH	<limit< td=""><td>PASS</td></limit<>	PASS
		НСН	<limit< td=""><td>PASS</td></limit<>	PASS
		LCH	<limit< td=""><td>PASS</td></limit<>	PASS
11G SISO	Antenna1	MCH	<limit< td=""><td>PASS</td></limit<>	PASS
		НСН	<limit< td=""><td>PASS</td></limit<>	PASS
	A	LCH	<limit< td=""><td>PASS</td></limit<>	PASS
11N HT20	Antenna1	MCH	<limit< td=""><td>PASS</td></limit<>	PASS
		НСН	<limit< td=""><td>PASS</td></limit<>	PASS

2) For 9KHz~30MHz

Test Mode	Test Antenna	Channel	Puw(dBm)	Verdict
11G	Antenna1	LCH	<limit< td=""><td>PASS</td></limit<>	PASS

Remark:

1) Through pre-testing all the test modes and test channels, but only the data of the worst case is included in this test report.

3) For 30MHz~1GHz

Test Mode	Test Antenna	Channel	Puw(dBm)	Verdict
11G	Antenna1	LCH	<limit< td=""><td>PASS</td></limit<>	PASS

Remark:

1) Through pre-testing all the test modes and test channels, but only the data of the worst case is included in this test report.

4) For 18GHz~26.5GHz

Test Mode	Test Antenna	Channel	Puw(dBm)	Verdict
11G	Antenna1	LCH	<limit< td=""><td>PASS</td></limit<>	PASS

Remark:

1) Through pre-testing all the test modes and test channels, but only the data of the worst case is included in this test report.



Part I: 1GHz~18GHz



HARMONICS AND SPURIOUS EMISSIONS

No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	1398.7999	43.92	-5.57	38.35	74.00	-35.65	peak
2	2434.6793	53.37	-1.09	52.28	74.00	-21.72	peak
3	3281.2852	46.20	2.37	48.57	74.00	-25.43	peak
4	4020 2400	49.07	5.29	54.36	74.00	-19.64	peak
4	4920.2400	39.73	5.29	45.02	54.00	-8.98	average
Б	16047 0025	36.71	19.89	56.60	74.00	-17.40	peak
5	10947.9935	26.87	19.89	46.76	54.00	-7.24	average
6	17654 0560	37.13	19.19	56.32	74.00	-17.68	peak
0	17054.9509	26.49	19.19	45.68	54.00	-8.32	average

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.
- 4. Peak: Peak detector.
- 5. AVG: VBW refer to section 7.1.
- 6. For below 3GHz part, filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band Reject Filter losses. For above 3GHz part, filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for HPF losses. The proper operation of the transmitter prior to adding the filter to the measurement chain.
- 7. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.





No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	1394.7994	45.06	-5.66	39.40	74.00	-34.60	peak
2	2439.9300	49.33	-1.05	48.28	74.00	-25.72	peak
3	3281.2852	44.67	2.37	47.04	74.00	-26.96	peak
4	4022 0005	50.96	5.22	56.18	74.00	-17.82	peak
4	4923.9905	41.82	5.22	47.04	54.00	-6.96	average
Б	16051 7440	37.67	19.91	57.58	74.00	-16.42	peak
5	10951.7440	26.73	19.91	46.64	54.00	-7.36	average
6	17566 9200	37.53	19.18	56.71	74.00	-17.29	peak
0	17500.8209	26.61	19.18	45.79	54.00	-8.21	average

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.
- 4. Peak: Peak detector.
- 5. AVG: VBW refer to section 7.1.
- 6. For below 3GHz part, filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band Reject Filter losses. For above 3GHz part, filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for HPF losses. The proper operation of the transmitter prior to adding the filter to the measurement chain.
- 7. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



Test Mode	Channel	Polarization	Verdict
11B	MCH	Horizontal	PASS



No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	1799.0999	44.84	-3.89	40.95	74.00	-33.05	peak
2	2432.6791	51.97	-1.10	50.87	74.00	-23.13	peak
2	1072 2502	54.65	5.21	59.86	74.00	-14.14	peak
3	4073.3392	38.64	5.21	43.85	54.00	-10.15	average
4	15001 6240	37.75	17.57	55.32	74.00	-18.68	peak
4	15991.6240	26.67	17.57	44.24	54.00	-9.76	average
F	17045 5057	36.88	19.94	56.82	74.00	-17.18	peak
Э	17045.5057	26.92	19.94	46.86	54.00	-7.14	average
6	17671 0240	37.25	19.54	56.79	74.00	-17.21	peak
0	17071.8340	26.97	19.54	46.51	54.00	-7.49	average

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.
- 4. Peak: Peak detector.
- 5. AVG: VBW refer to section 7.1.
- 6. For below 3GHz part, filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band Reject Filter losses. For above 3GHz part, filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for HPF losses. The proper operation of the transmitter prior to adding the filter to the measurement chain.
- 7. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.







No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	1197.0246	44.73	-5.54	39.19	74.00	-34.81	peak
2	2432.9291	52.01	-1.10	50.91	74.00	-23.09	peak
3	3247.5309	45.75	1.80	47.55	74.00	-26.45	peak
1	4072 2502	54.97	5.21	60.18	74.00	-13.82	peak
4	4075.5592	39.22	5.21	44.43	54.00	-9.57	average
F	17176 7701	37.88	19.54	57.42	74.00	-16.58	peak
5	1/1/0.//21	27.21	19.54	46.75	54.00	-7.25	average
6	17509 6009	36.71	19.51	56.22	74.00	-17.78	peak
0	17598.0998	27.48	19.51	46.99	54.00	-7.01	average

- 3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.
- 4. Peak: Peak detector.
- 5. AVG: VBW refer to section 7.1.
- 6. For below 3GHz part, filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band Reject Filter losses. For above 3GHz part, filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for HPF losses. The proper operation of the transmitter prior to adding the filter to the measurement chain.
- 7. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.





No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	1796.5996	44.75	-3.91	40.84	74.00	-33.16	peak
2	2432.4291	51.23	-1.10	50.13	74.00	-23.87	peak
3	3281.2852	45.64	2.37	48.01	74.00	-25.99	peak
4	4022 0005	53.08	5.22	58.30	74.00	-15.70	peak
4	4923.9905	37.91	5.22	43.13	54.00	-10.87	average
F	17010 2524	37.17	20.11	57.28	74.00	-16.72	peak
5	17019.2524	27.02	20.11	47.13	54.00	-6.87	average
6	17620 5700	37.72	19.30	57.02	74.00	-16.98	peak
0	17030.5700	27.55	19.30	46.85	54.00	-7.15	average

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.
- 4. Peak: Peak detector.
- 5. AVG: VBW refer to section 7.1.
- 6. For below 3GHz part, filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band Reject Filter losses. For above 3GHz part, filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for HPF losses. The proper operation of the transmitter prior to adding the filter to the measurement chain.
- 7. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



Test Mode	Channel	Polarization	Verdict
11B	HCH	Vertical	PASS



No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	1491.5614	47.69	-5.80	41.89	74.00	-32.11	peak
2	2440.9301	48.96	-1.04	47.92	74.00	-26.08	peak
3	3759.4699	40.16	3.27	43.43	74.00	-30.57	peak
4	13628.8286	38.80	14.85	53.65	74.00	-20.35	peak
F	16021 1164	37.50	19.07	56.57	74.00	-17.43	peak
5	10931.1104	27.37	19.07	46.44	54.00	-7.56	average
6 17514	17511 2112	37.23	19.22	56.45	74.00	-17.55	peak
0	17514.3143	27.46	19.22	46.68	54.00	-7.32	average

- 3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.
- 4. Peak: Peak detector.
- 5. AVG: VBW refer to section 7.1.
- 6. For below 3GHz part, filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band Reject Filter losses. For above 3GHz part, filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for HPF losses. The proper operation of the transmitter prior to adding the filter to the measurement chain.
- 7. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	1195.5244	43.01	-5.54	37.47	74.00	-36.53	peak
2	1797.0996	43.05	-3.91	39.14	74.00	-34.86	peak
2	3 2379.9225	56.72	-1.50	55.22	74.00	-18.78	peak
3		39.32	-1.50	37.82	54.00	-16.18	average
1	1022 0702	56.99	4.97	61.96	74.00	-12.04	peak
4	4033.9792	44.45	4.97	49.42	54.00	-4.58	average
Б	17059 6222	36.01	20.51	56.52	74.00	-17.48	peak
5	17056.0525	25.98	20.51	46.49	54.00	-7.51	average
6	17502 0741	37.02	19.61	56.63	74.00	-17.37	peak
0	17593.0741	27.05	19.61	46.66	54.00	-7.34	average

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.
- 4. Peak: Peak detector.
- 5. AVG: VBW refer to section 7.1.
- 6. For below 3GHz part, filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band Reject Filter losses. For above 3GHz part, filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for HPF losses. The proper operation of the transmitter prior to adding the filter to the measurement chain.
- 7. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



Test Mode	Channel	Polarization	Verdict
11G	LCH	Vertical	PASS



No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	1194.7743	44.78	-5.55	39.23	74.00	-34.77	peak
2	1799.0999	46.02	-3.89	42.13	74.00	-31.87	peak
2	3 2380.1725	61.16	-1.50	59.66	74.00	-14.34	peak
3		42.69	-1.50	41.19	54.00	-12.81	average
4	4040 0547	54.73	4.97	59.70	74.00	-14.30	peak
4	4013.3317	47.58	4.97	42.55	54.00	-11.45	average
E	17020 5020	37.19	20.18	57.37	74.00	-16.63	peak
Э	17030.5036	27.05	20.18	47.23	54.00	-6.77	average
<u> </u>	17501 1000	36.72	19.65	56.37	74.00	-17.63	peak
0	17591.1969	27.89	19.65	47.54	54.00	-6.46	average

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

4. Peak: Peak detector.

5. AVG: VBW refer to section 7.1.

- 6. For below 3GHz part, filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band Reject Filter losses. For above 3GHz part, filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for HPF losses. The proper operation of the transmitter prior to adding the filter to the measurement chain.
- 7. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



Test Mode	Channel	Polarization	Verdict
11G	MCH	Horizontal	PASS



No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	1508.8136	45.85	-5.83	40.02	74.00	-33.98	peak
2	2441.9302	51.55	-1.04	50.51	74.00	-23.49	peak
3	3247.5309	46.59	1.80	48.39	74.00	-25.61	peak
4	4072 2502	51.85	5.21	57.06	74.00	-16.94	peak
4	4873.3592	41.47	5.21	46.68	54.00	-7.32	average
F	16040 4026	37.18	20.08	57.26	74.00	-16.74	peak
5	10940.4920	26.86	20.08	46.94	54.00	-7.06	average
<u> </u>	17600 5751	39.43	19.43	58.86	74.00	-15.14	peak
0	17000.5751	27.55	19.43	46.98	54.00	-7.02	average

- 3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.
- 4. Peak: Peak detector.
- 5. AVG: VBW refer to section 7.1.
- 6. For below 3GHz part, filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band Reject Filter losses. For above 3GHz part, filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for HPF losses. The proper operation of the transmitter prior to adding the filter to the measurement chain.
- 7. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



Test Mode	Channel	Polarization	Verdict
11G	MCH	Vertical	PASS



No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	1399.5499	44.93	-5.55	39.38	74.00	-34.62	peak
2	2441.1801	51.35	-1.04	50.31	74.00	-23.69	peak
3	3247.5309	45.65	1.80	47.45	74.00	-26.55	peak
1	1000 7050	50.29	5.13	55.42	74.00	-18.58	peak
4	4002.7303	39.33	5.13	44.46	54.00	-9.54	average
5	17150 5100	36.93	19.74	56.67	74.00	-17.33	peak
5	17150.5166	27.13	19.74	46.87	54.00	-7.13	average
6	17511 2112	37.68	19.22	56.90	74.00	-17.10	peak
0	17514.3143	27.96	19.22	47.18	54.00	-6.82	average

- 3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.
- 4. Peak: Peak detector.
- 5. AVG: VBW refer to section 7.1.
- 6. For below 3GHz part, filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band Reject Filter losses. For above 3GHz part, filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for HPF losses. The proper operation of the transmitter prior to adding the filter to the measurement chain.
- 7. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



Test Mode	Channel	Polarization	Verdict
11G	HCH	Horizontal	PASS



No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	1798.0998	44.95	-3.90	41.05	74.00	-32.95	peak
2	2438.6798	49.34	-1.06	48.28	74.00	-25.72	peak
3	3281.2852	46.07	2.37	48.44	74.00	-25.56	peak
1	4022 0005	49.51	5.22	54.73	74.00	-19.27	peak
4	4923.9905	39.26	5.22	44.48	54.00	-9.52	average
5	17120 0012	37.88	19.29	57.17	74.00	-16.83	peak
5	17129.0912	27.83	19.29	47.12	54.00	-6.88	average
6	17501 1090	36.41	19.65	56.06	74.00	-17.94	peak
0	17591.1989	27.57	19.65	47.22	54.00	-6.78	average

- 3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.
- 4. Peak: Peak detector.
- 5. AVG: VBW refer to section 7.1.
- 6. For below 3GHz part, filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band Reject Filter losses. For above 3GHz part, filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for HPF losses. The proper operation of the transmitter prior to adding the filter to the measurement chain.
- 7. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



Test Mode	Channel	Polarization	Verdict
11G	HCH	Vertical	PASS



No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	1395.7995	44.18	-5.63	38.55	74.00	-35.45	peak
2	2288.9111	48.44	-2.05	46.39	74.00	-27.61	peak
3	3281.2852	45.01	2.37	47.38	74.00	-26.62	peak
4	4007 7440	52.93	5.15	58.08	74.00	-15.92	peak
4	4927.7410	39.42	5.15	44.57	54.00	-9.43	average
F	16044 2420	37.31	19.99	57.30	74.00	-16.70	peak
5	10944.2430	27.12	19.99	47.11	54.00	-6.89	average
<u> </u>	17626 2045	36.53	19.38	55.91	74.00	-18.09	peak
0	17636.2045	28.08	19.38	47.46	54.00	-6.54	average

- 3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.
- 4. Peak: Peak detector.
- 5. AVG: VBW refer to section 7.1.
- 6. For below 3GHz part, filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band Reject Filter losses. For above 3GHz part, filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for HPF losses. The proper operation of the transmitter prior to adding the filter to the measurement chain.
- 7. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



Test Mode	Channel	Polarization	Verdict
11N HT20	LCH	Horizontal	PASS



No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	1798.8499	43.47	-3.89	39.58	74.00	-34.42	peak
2	2433.9292	50.38	-1.09	49.29	74.00	-24.71	peak
3	3215.6520	46.93	1.81	48.74	74.00	-25.26	peak
4	4000 0500	50.55	4.95	55.50	74.00	-18.50	peak
4	4020.0020	42.02	4.95	46.97	54.00	-7.03	average
F	17150 1115	38.02	19.74	57.76	74.00	-16.24	peak
5	17150.1445	27.48	19.74	47.22	54.00	-6.78	average
6	17626 2045	37.00	19.38	56.38	74.00	-17.62	peak
0	17030.2045	27.60	19.38	46.98	54.00	-7.02	average

- 3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.
- 4. Peak: Peak detector.
- 5. AVG: VBW refer to section 7.1.
- 6. For below 3GHz part, filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band Reject Filter losses. For above 3GHz part, filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for HPF losses. The proper operation of the transmitter prior to adding the filter to the measurement chain.
- 7. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



Test Mode	Channel	Polarization	Verdict
11N HT20	LCH	Vertical	PASS



No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	1794.5993	44.71	-3.94	40.77	74.00	-33.23	peak
2	2442.1803	51.26	-1.03	50.23	74.00	-23.77	peak
3	3215.6520	45.32	1.81	47.13	74.00	-26.87	peak
4	4000 7070	49.36	4.94	54.30	74.00	-19.70	peak
4	4022.7270	40.67	4.94	45.61	54.00	-8.39	average
F	17106 1402	37.40	19.56	56.96	74.00	-17.04	peak
5	17100.1403	27.15	19.56	46.71	54.00	-7.29	average
6	17525 5657	37.16	19.14	56.30	74.00	-17.70	peak
0	17525.5657	27.21	19.14	46.35	54.00	-7.65	average

- 3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.
- 4. Peak: Peak detector.
- 5. AVG: VBW refer to section 7.1.
- 6. For below 3GHz part, filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band Reject Filter losses. For above 3GHz part, filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for HPF losses. The proper operation of the transmitter prior to adding the filter to the measurement chain.
- 7. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



Test Mode	Channel	Polarization	Verdict
11N HT20	MCH	Horizontal	PASS



No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	1799.3499	44.03	-3.88	40.15	74.00	-33.85	peak
2	2435.9295	51.30	-1.08	50.22	74.00	-23.78	peak
3	3249.4062	46.35	1.82	48.17	74.00	-25.83	peak
1	4977 1006	52.36	5.17	57.53	74.00	-16.47	peak
4	4077.1090	43.36	5.17	48.53	54.00	-5.47	average
E	17020 5029	36.70	20.18	56.88	74.00	-17.12	peak
5	17030.5036	26.63	20.18	46.81	54.00	-7.19	average
6	17660 0597	37.26	19.70	56.96	74.00	-17.04	peak
0	17009.9567	27.02	19.70	46.72	54.00	-7.28	average

- 3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.
- 4. Peak: Peak detector.
- 5. AVG: VBW refer to section 7.1.
- 6. For below 3GHz part, filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band Reject Filter losses. For above 3GHz part, filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for HPF losses. The proper operation of the transmitter prior to adding the filter to the measurement chain.
- 7. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



Test Mode	Channel	Polarization	Verdict
11N HT20	MCH	Vertical	PASS



No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	1393.7992	48.17	-5.68	42.49	74.00	-31.51	peak
2	1796.8496	45.66	-3.91	41.75	74.00	-32.25	peak
3	2434.4293	54.62	-1.09	53.53	74.00	-20.47	peak
4	7470.5588	38.82	9.43	48.25	74.00	-25.75	peak
F	16050 2440	36.79	20.21	57.00	74.00	-17.00	peak
5	10959.2449	26.18	20.21	46.39	54.00	-7.61	average
6	17645 5907	37.55	19.22	56.77	74.00	-17.23	peak
0	17043.3607	26.73	19.22	45.95	54.00	-8.05	average

- 3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.
- 4. Peak: Peak detector.
- 5. AVG: VBW refer to section 7.1.
- 6. For below 3GHz part, filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band Reject Filter losses. For above 3GHz part, filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for HPF losses. The proper operation of the transmitter prior to adding the filter to the measurement chain.
- 7. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.





No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	1196.5246	43.28	-5.54	37.74	74.00	-36.26	peak
2	1798.0998	44.88	-3.90	40.98	74.00	-33.02	peak
3	3281.2852	46.09	2.37	48.46	74.00	-25.54	peak
4	4007 7440	50.06	5.15	55.21	74.00	-18.79	peak
4	4927.7410	39.27	5.15	44.42	54.00	-9.58	average
F	17156 1445	37.63	19.74	57.37	74.00	-16.63	peak
5	17150.1445	26.96	19.74	46.70	54.00	-7.30	average
6	17507 1101	36.89	19.39	56.28	74.00	-17.72	peak
0	17307.4404	26.67	19.39	46.06	54.00	-7.94	average

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.
- 4. Peak: Peak detector.
- 5. AVG: VBW refer to section 7.1.
- 6. For below 3GHz part, filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band Reject Filter losses. For above 3GHz part, filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for HPF losses. The proper operation of the transmitter prior to adding the filter to the measurement chain.
- 7. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



Test Mode	Channel	Polarization	Verdict
11N HT20	HCH	Vertical	PASS



No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	1395.7995	45.13	-5.63	39.50	74.00	-34.50	peak
2	2435.9295	49.41	-1.08	48.33	74.00	-25.67	peak
3	3281.2852	45.46	2.37	47.83	74.00	-26.17	peak
1	4000 1150	51.55	5.26	56.81	74.00	-17.19	peak
4	4922.1155	39.66	5.26	44.92	54.00	-9.08	average
5	17160 0710	37.21	19.45	56.66	74.00	-17.34	peak
5	17109.2712	25.17	19.45	44.62	54.00	-9.38	average
6	17506 9246	36.62	19.54	56.16	74.00	-17.84	peak
0	17590.0240	24.24	19.54	43.78	54.00	-10.22	average

- 3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.
- 4. Peak: Peak detector.
- 5. AVG: VBW refer to section 7.1.
- 6. For below 3GHz part, filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band Reject Filter losses. For above 3GHz part, filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for HPF losses. The proper operation of the transmitter prior to adding the filter to the measurement chain.
- 7. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



Part II: 18GHz~26.5GHz

SPURIOUS EMISSIONS 18GHz TO 26.5GHz (WORST-CASE CONFIGURATION)



No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	18395.2895	44.23	-0.97	43.26	74.00	-30.74	peak
2	19383.9384	41.79	-0.81	40.98	74.00	-33.02	peak
3	21663.0163	38.69	-0.29	38.40	74.00	-35.60	peak
4	22615.1115	39.93	0.93	40.86	74.00	-33.14	peak
5	24575.4075	38.17	-0.48	37.69	74.00	-36.31	peak
6	25464.5965	37.74	0.79	38.53	74.00	-35.47	peak

- 2. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.
- 3. Measurement = Reading Level + Correct Factor.



Test Mode	Channel	Polarization	Verdict
11G	LCH	Vertical	PASS



No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	18448.8449	46.79	-0.95	45.84	74.00	-28.16	peak
2	19829.3829	42.43	-0.61	41.82	74.00	-32.18	peak
3	21695.3195	41.24	-0.24	41.00	74.00	-33.00	peak
4	23063.9564	41.42	1.05	42.47	74.00	-31.53	peak
5	24564.3564	40.82	-0.49	40.33	74.00	-33.67	peak
6	25549.6050	40.21	0.93	41.14	74.00	-32.86	peak

Note: 1.If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit. 2. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.



Part III: 30MHz~1GHz



SPURIOUS EMISSIONS 30M TO 1GHHz (WORST-CASE CONFIGURATION)

No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	91.3602	12.27	14.70	26.97	43.50	-16.53	peak
2	144.3530	16.20	19.67	35.87	43.50	-7.63	peak
3	191.4039	14.40	18.57	32.97	43.50	-10.53	peak
4	261.7377	16.36	19.19	35.55	46.00	-10.45	peak
5	319.9450	16.93	20.92	37.85	46.00	-8.15	peak
6	828.8949	12.18	30.16	42.34	46.00	-3.66	peak

Note: 1. If Peak Result complies with QP limit, QP Result is deemed to comply with QP limit. 2. Test setup: RBW: 120 kHz, VBW: 300 kHz, Sweep time: auto.





No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	31.2127	5.14	26.38	31.52	40.00	-8.48	peak
2	41.2777	4.73	19.98	24.71	40.00	-15.29	peak
3	144.3530	9.19	19.67	28.86	43.50	-14.64	peak
4	319.9450	8.36	20.92	29.28	46.00	-16.72	peak
5	499.5387	6.85	25.72	32.57	46.00	-13.43	peak
6	796.5171	5.96	29.74	35.70	46.00	-10.30	peak

Note: 1. If Peak Result complies with QP limit, QP Result is deemed to comply with QP limit. 2. Test setup: RBW: 120 kHz, VBW: 300 kHz, Sweep time: auto.

Part IV: 9KHz~30MHz



SPURIOUS EMISSIONS Below 30MHz (WORST CASE CONFIGURATION-FACE ON)

No.	Frequency	Reading	Correct	FCC	FCC	ISED	ISED	Margin	Remark
				Result	Limit	Result	Limit		
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dBuA/m)	(dBuA/m)	(dB)	
1	0.0233	45.19	-60.98	-15.79	40.26	-67.29	-11.24	-56.05	peak
2	0.0436	54.36	-61.11	-6.75	34.82	-58.25	-16.68	-41.57	peak
3	0.0675	45.25	-61.44	-16.19	31.02	-67.69	-20.48	-47.21	peak
4	0.0878	41.88	-61.20	-19.32	28.74	-70.82	-22.76	-48.06	peak
5	0.1092	39.73	-60.96	-21.23	26.84	-72.73	-24.66	-48.07	peak
6	0.1356	36.36	-61.28	-24.92	24.96	-76.42	-26.54	-49.88	peak

- 2. Result 300m= Result 3m-80 dBuV/m
- 3. $dBuA/m=(dBuV/m)-20log(120\pi)= dBuV-51.5$.
- 4. If Peak Result complies with AV and QP limit, AV and QP Result are deemed to comply with AV limit.
- 5. All 3 polarizations(Horizontal, Face-on and Face-off) of the loop antenna had been tested, but only the worst data recorded in the report.

Test Mode	Channel	Frequency Range	Verdict
11G	LCH	150KHz~490KHz	PASS



No.	Frequency	Reading	Correct	FCC	FCC	ISED	ISED	Margin	Remark
		_		Result	Limit	Result	Limit	_	
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dBuA/m)	(dBuA/m)	(dB)	
1	0.1774	42.68	-61.31	-18.63	22.63	-70.13	-28.87	-41.26	peak
2	0.1989	41.24	-61.20	-19.96	21.63	-71.46	-29.87	-41.59	peak
3	0.2402	37.93	-60.99	-23.06	19.99	-74.56	-31.51	-43.05	peak
4	0.2946	35.12	-60.90	-25.78	18.22	-77.28	-33.28	-44.00	peak
5	0.3533	34.20	-60.85	-26.65	16.64	-78.15	-34.86	-43.29	peak
6	0.4417	31.35	-60.78	-29.43	14.35	-80.93	-37.15	-43.78	peak

- 2. Result 300m= Result 3m-80 dBuV/m
- 3. $dBuA/m=(dBuV/m)-20log(120\pi)= dBuV-51.5$.
- 4. If Peak Result complies with AV and QP limit, AV and QP Result are deemed to comply with AV limit.
- 5. All 3 polarizations(Horizontal, Face-on and Face-off) of the loop antenna had been tested, but only the worst data recorded in the report.





No.	Frequency	Reading	Correct	FCC	FCC	ISED	ISED	Margin	Remark
				Result	Limit	Result	Limit		
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dBuA/m)	(dBuA/m)	(dB)	
1	0.5726	29.02	-20.75	8.27	32.45	-43.23	-19.05	-24.18	peak
2	1.4934	17.28	-20.41	-3.13	24.12	-54.63	-27.38	-27.25	peak
3	4.0050	12.47	-20.16	-7.69	29.54	-59.19	-21.96	-37.23	peak
4	7.5288	8.55	-19.67	-11.12	29.54	-62.62	-21.96	-40.66	peak
5	13.8240	8.44	-19.30	-10.86	29.54	-62.36	-21.96	-40.40	peak
6	20.5706	6.83	-17.52	-10.69	29.54	-62.19	-21.96	-40.23	peak

- 2. Result 300m= Result 3m-80 dBuV/m
- 3. $dBuA/m=(dBuV/m)-20log(120\pi)= dBuV-51.5$.
- 4. If Peak Result complies with AV and QP limit, AV and QP Result are deemed to comply with AV limit.
- 5. All 3 polarizations(Horizontal, Face-on and Face-off) of the loop antenna had been tested, but only the worst data recorded in the report.



7.7. AC POWER LINE CONDUCTED EMISSIONS

<u>LIMITS</u>

Please refer to FCC §15.207 (a)

FREQUENCY (MHz)	Limit (dBuV)					
	Quasi-peak	Average				
0.15 -0.5	66 - 56 *	56 - 46 *				
0.50 -5.0	56.00	46.00				
5.0 -30.0	60.00	50.00				

TEST SETUP AND PROCEDURE



The EUT is put on a table of non-conducting material that is 80cm high. The vertical conducting wall of shielding is located 40cm to the rear of the EUT. The power line of the EUT is connected to the AC mains through a Artificial Mains Network (A.M.N.). A EMI Measurement Receiver (R&S Test Receiver ESR3) is used to test the emissions from both sides of AC line. According to the requirements in Section 6.2 of ANSI C63.10-2013.Conducted emissions from the EUT measured in the frequency range between 0.15 MHz and 30MHz using CISPR Quasi-Peak and average detector mode. The bandwidth of EMI test receiver is set at 9kHz.

The arrangement of the equipment is installed to meet the standards and operating in a manner, which tends to maximize its emission characteristics in a normal application.



TEST RESULTS (WORST CASE CONFIGURATION)



For L Line:

Final_Result

Frequency (MHz)	QuasiPeak (dBµV)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Filter	Corr. (dB)
0.545513		19.12	46.00	26.88	1000.0	9.000	L1	OFF	9.7
1.067888	34.39		56.00	21.61	1000.0	9.000	L1	OFF	9.6
1.105200		20.33	46.00	25.67	1000.0	9.000	L1	OFF	9.6
1.433550	34.14		56.00	21.86	1000.0	9.000	L1	OFF	9.6
1.441013		21.53	46.00	24.47	1000.0	9.000	L1	OFF	9.6
2.261888	33.46		56.00	22.54	1000.0	9.000	L1	OFF	9.7
2.291738		21.55	46.00	24.45	1000.0	9.000	L1	OFF	9.7
4.314075	32.95	-	56.00	23.05	1000.0	9.000	L1	OFF	9.6
4.575263	32.32		56.00	23.68	1000.0	9.000	L1	OFF	9.6
4.575263		20.63	46.00	25.37	1000.0	9.000	L1	OFF	9.6
4.948388		21.23	46.00	24.77	1000.0	9.000	L1	OFF	9.4
4.948388	33.54		56.00	22.46	1000.0	9.000	L1	OFF	9.4

- 2. Test setup: RBW: 200 Hz (9 kHz—150 kHz), 9 kHz (150 kHz—30 MHz).
- 3. Step size: 80Hz (0.009MHz-0.15MHz), 4 kHz (0.15MHz-30MHz), Scan time: auto.
- 4. The extension cord/outlet strip was calibrated with the LISN as required by ANSI C63.10:2013 Clause 6.2.2.
- 5. Pre-testing all test modes and channels, and find the LCH of 11G which is the worst case, so only the worst case is included in this test report.



For N Line:



Final_Result

Frequency (MHz)	QuasiPeak (dBµV)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Filter	Corr. (dB)
0.470888		29.64	46.50	16.86	1000.0	9.000	Ν	OFF	9.6
0.478350	40.65		56.37	15.71	1000.0	9.000	Ν	OFF	9.6
0.582825	39.62		56.00	16.38	1000.0	9.000	Ν	OFF	9.6
1.038038	38.66		56.00	17.34	1000.0	9.000	Ν	OFF	9.7
1.941000		25.54	46.00	20.46	1000.0	9.000	Ν	OFF	9.7
2.232038		26.35	46.00	19.66	1000.0	9.000	Ν	OFF	9.6
2.232038	38.46		56.00	17.54	1000.0	9.000	Ν	OFF	9.6
2.254425		26.48	46.00	19.52	1000.0	9.000	Ν	OFF	9.6
2.254425	38.71		56.00	17.29	1000.0	9.000	Ν	OFF	9.6
2.754413		25.16	46.00	20.84	1000.0	9.000	Ν	OFF	9.6
2.754413	37.22		56.00	18.78	1000.0	9.000	Ν	OFF	9.6
3.463350		24.77	46.00	21.23	1000.0	9.000	Ν	OFF	9.6

Note: 1. If QP Result complies with AV limit, AV Result is deemed to comply with AV limit. 2. Test setup: RBW: 200 Hz (9 kHz—150 kHz), 9 kHz (150 kHz—30 MHz).

- 3. Step size: 80Hz (0.009MHz-0.15MHz), 4 kHz (0.15MHz-30MHz), Scan time: auto.
- 4. The extension cord/outlet strip was calibrated with the LISN as required by ANSI C63.10:2013 Clause 6.2.2.
- 5. Pre-testing all test modes and channels, and find the LCH of 11G which is the worst case, so only the worst case is included in this test report.

8. ANTENNA REQUIREMENTS

APPLICABLE REQUIREMENTS

Please refer to FCC §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.

Please refer to FCC §15.247(b)(4)

The conducted output power limit specified in paragraph (b) of this section is based on the use of antennas with directional gains that do not exceed 6 dBi. Except as shown in paragraph (c) of this section, if transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in paragraphs (b)(1), (b)(2), and (b)(3) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

ANTENNA CONNECTOR

EUT has a EUT with one Meandered printed inverted-F antenna.

ANTENNA GAIN

The antenna gain of EUT is less than 6 dBi.

END OF REPORT