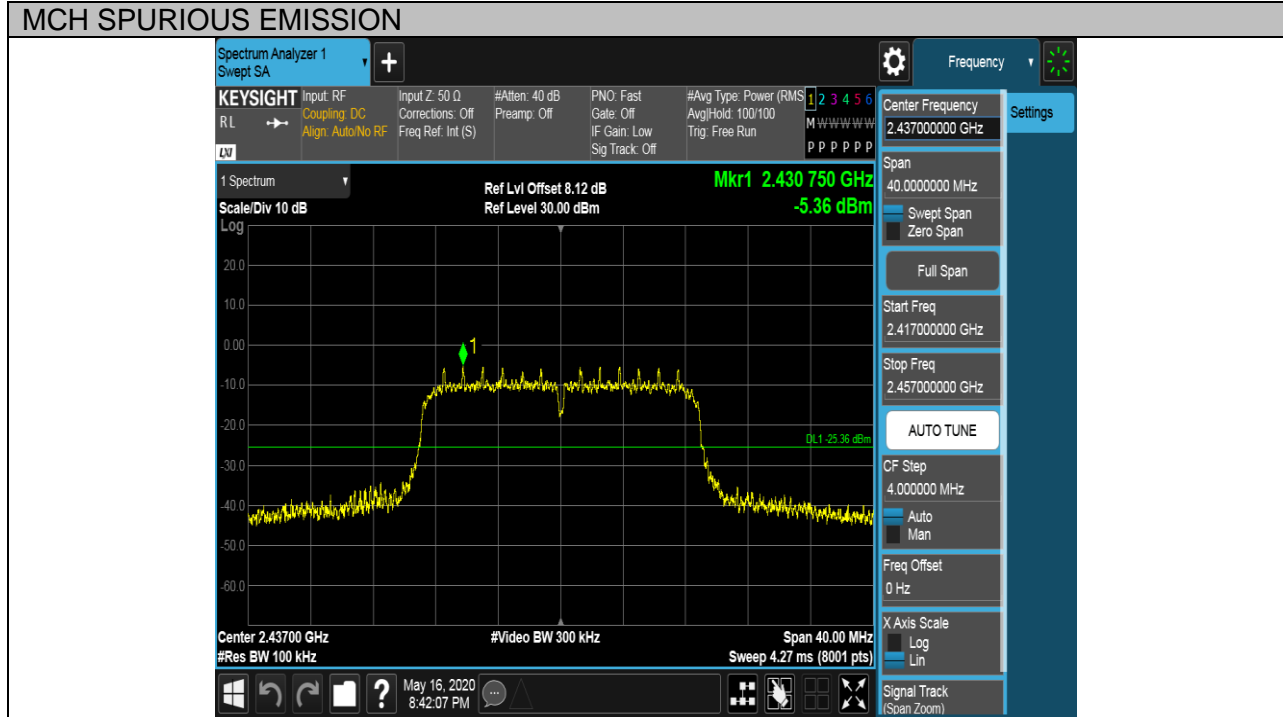




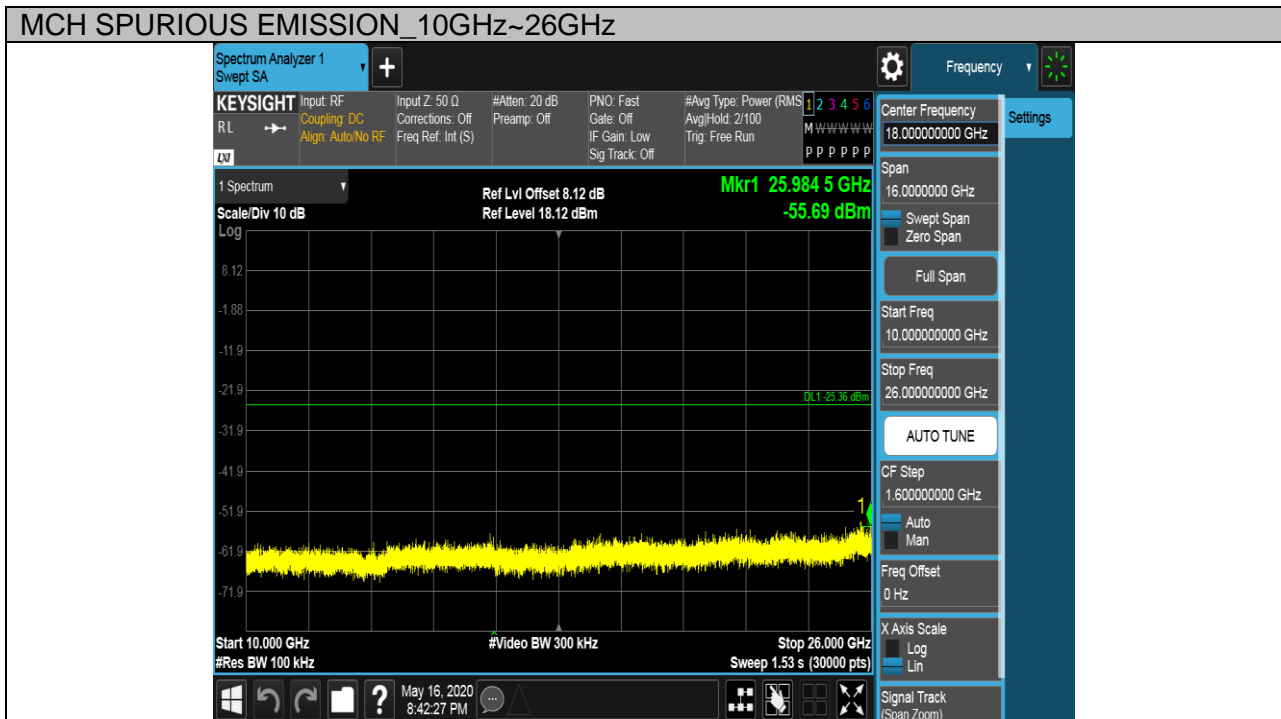
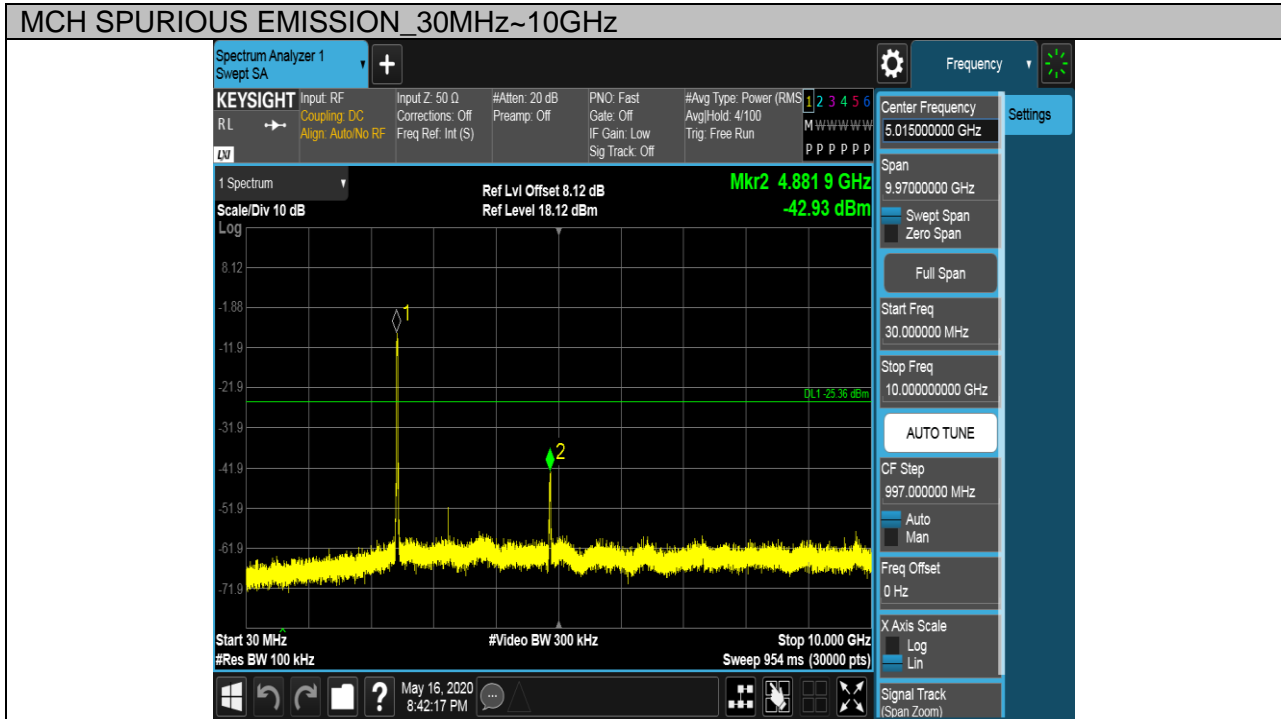
Test Mode	Channel	Verdict
11N HT20	MCH	PASS

Pref test Plot





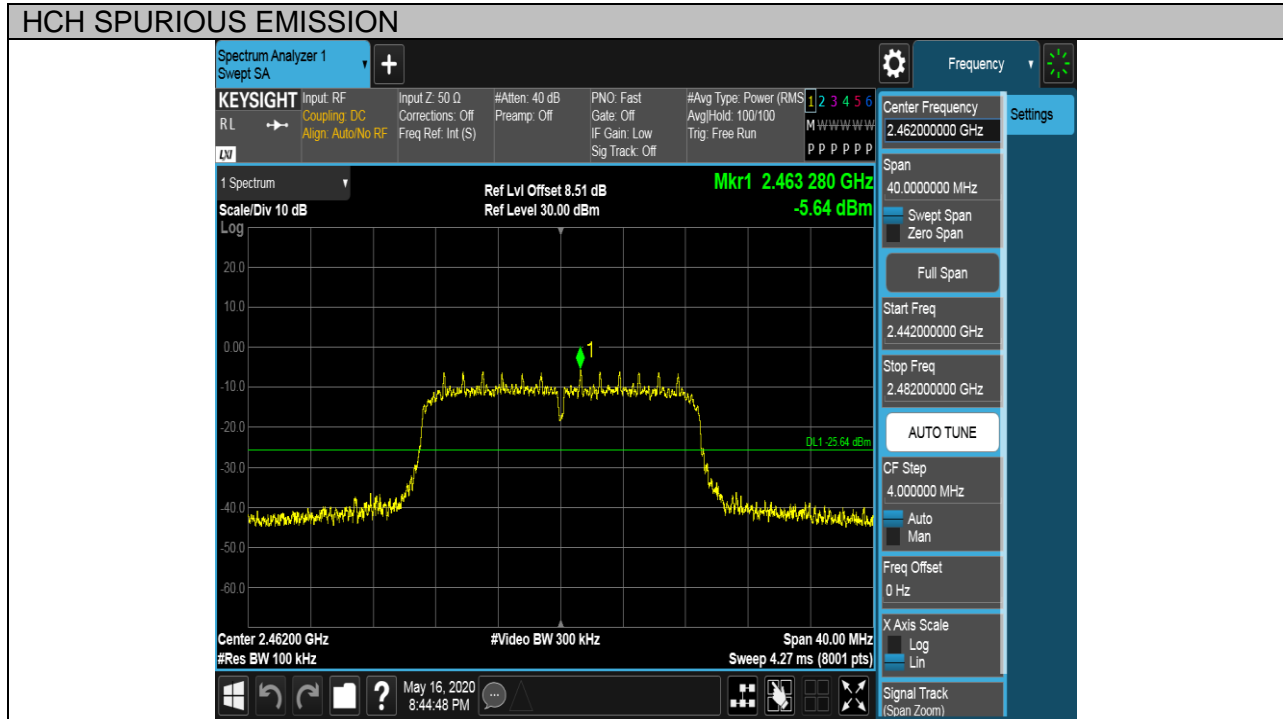
Puw test Plot





Test Mode	Channel	Verdict
11N HT20	HCH	PASS

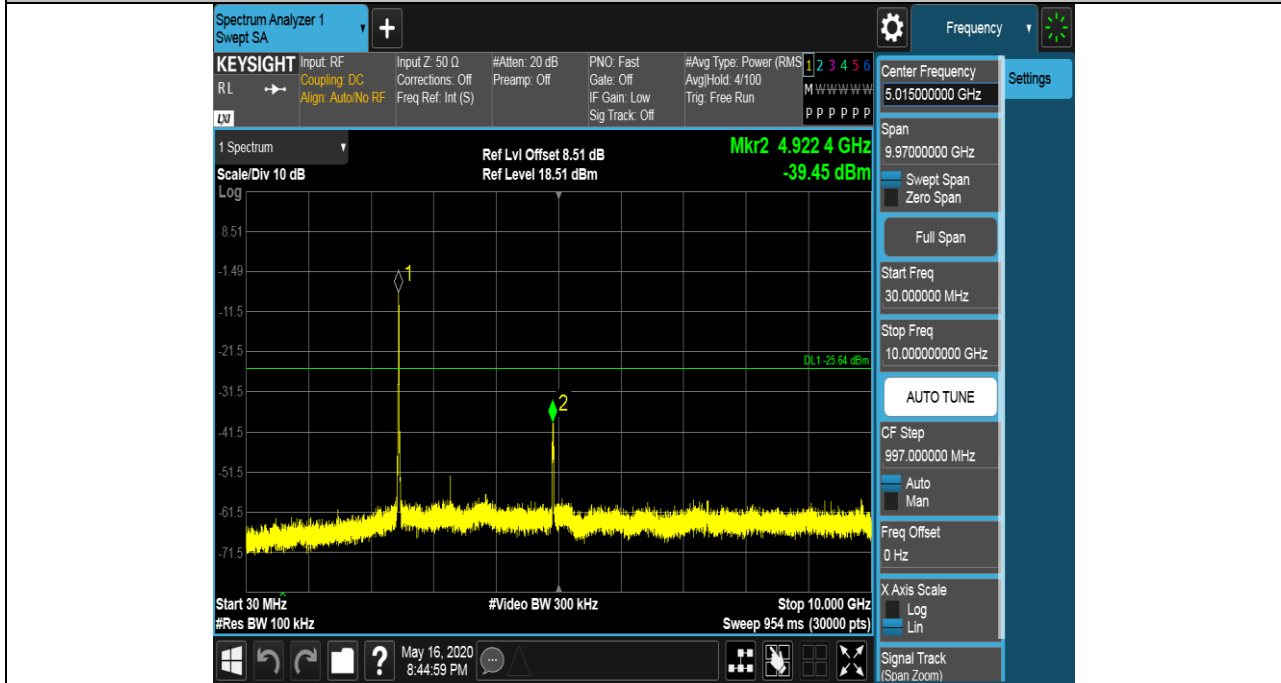
Pref test Plot



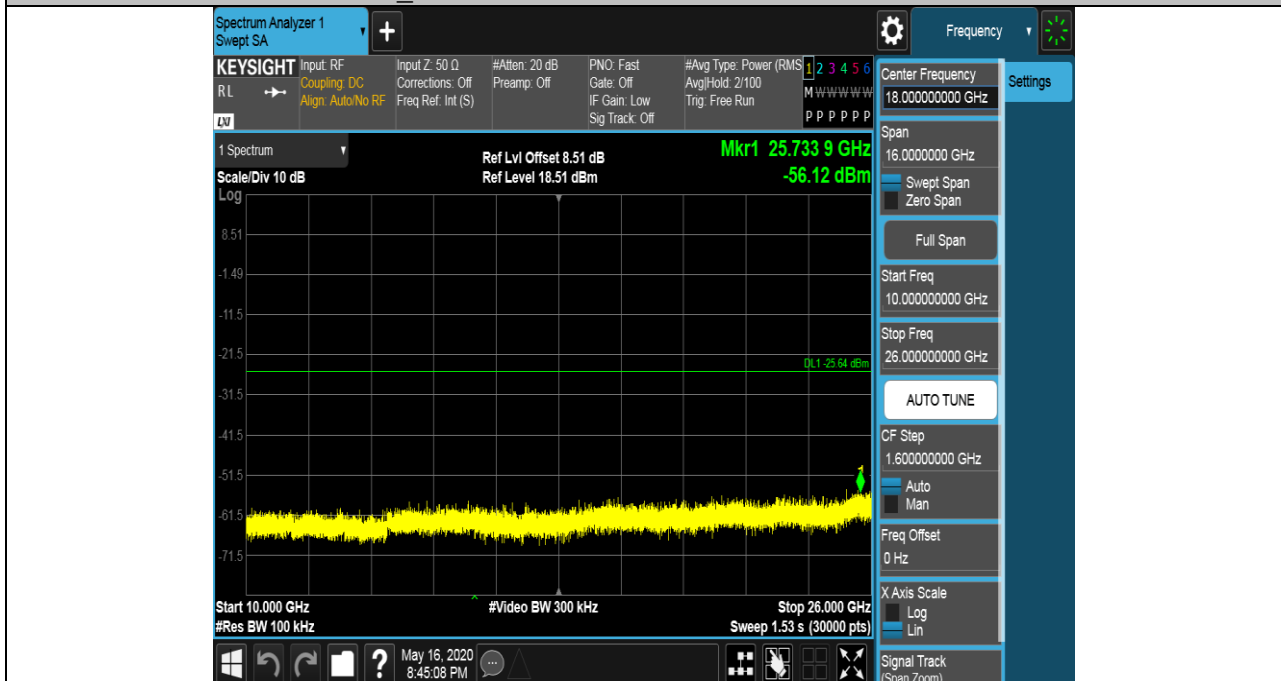


Puw test Plot

HCH SPURIOUS EMISSION_30MHz~10GHz



HCH SPURIOUS EMISSION_10GHz~26GHz





7.6. RADIATED TEST RESULTS

7.6.1. LIMITS AND PROCEDURE

LIMITS

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.

Radiation Disturbance Test Limit for FCC (Above 1G)

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

Restricted bands of operation

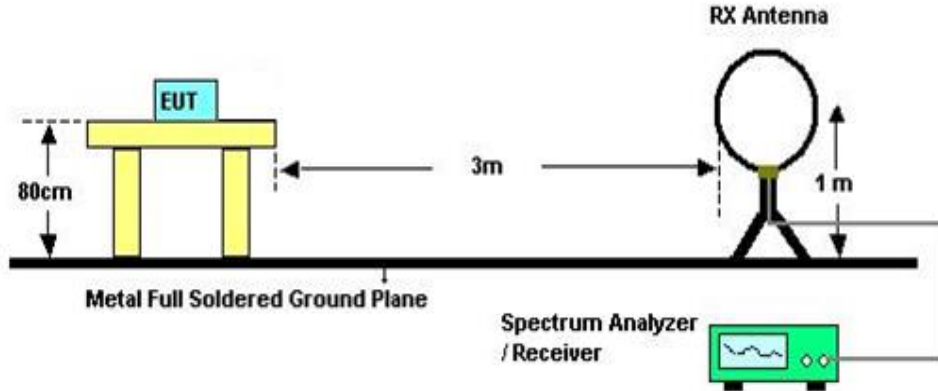
MHz	MHz	MHz	GHz
0.090-0.110	16.42-16.423	399.9-410	4.5-5.15
¹ 0.495-0.505	16.69475-16.69525	608-614	5.35-5.46
2.1735-2.1905	16.80425-16.80475	960-1240	7.25-7.75
4.125-4.128	25.5-25.67	1300-1427	8.025-8.5
4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2
4.20725-4.20775	73-74.6	1645.5-1646.5	9.3-9.5
6.215-6.218	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

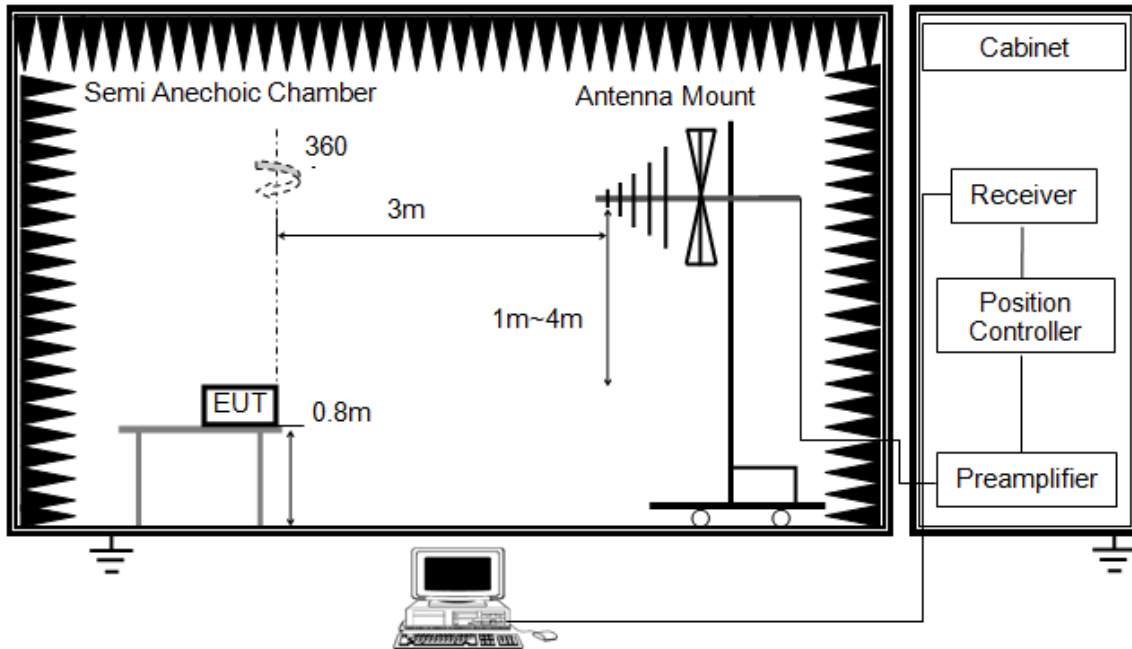


The setting of the spectrum analyser

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

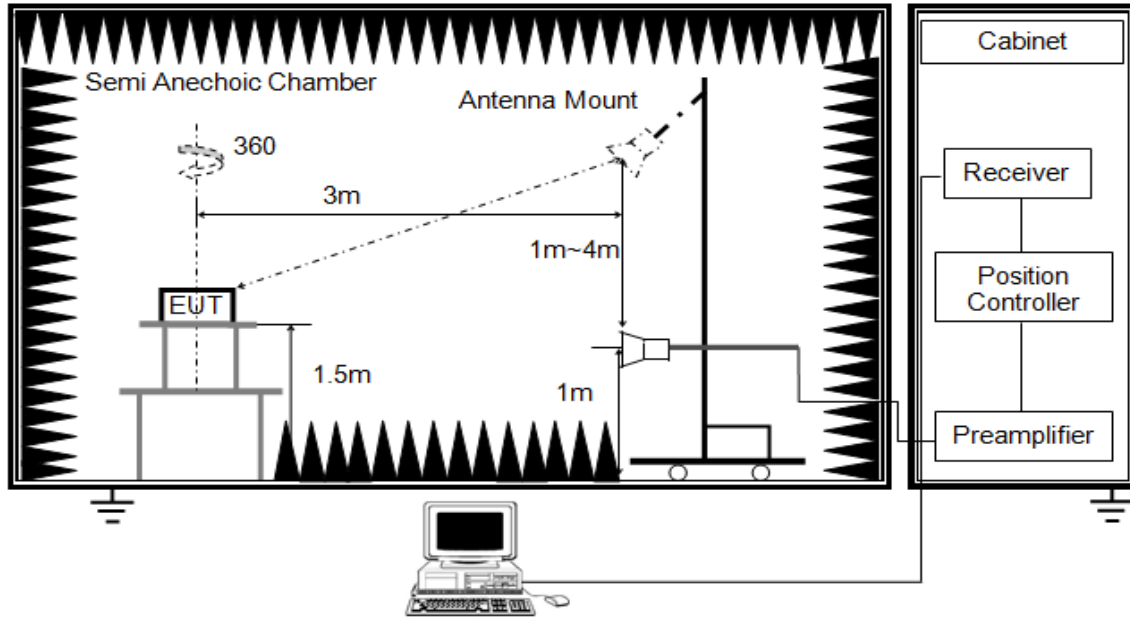


The setting of the spectrum analyser

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)

ABOVE 1G

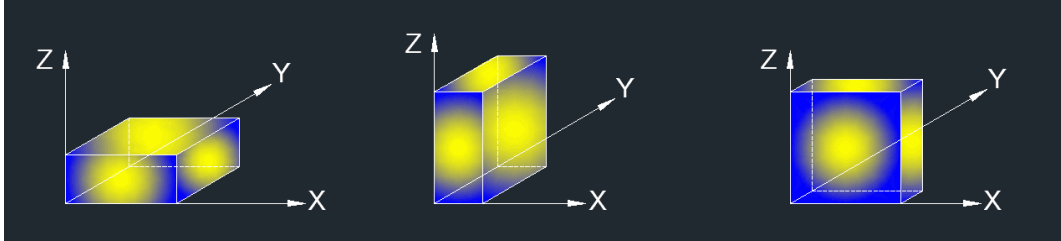


The setting of the spectrum analyser

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 $VBW \leq RBW/100$, 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 (X 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

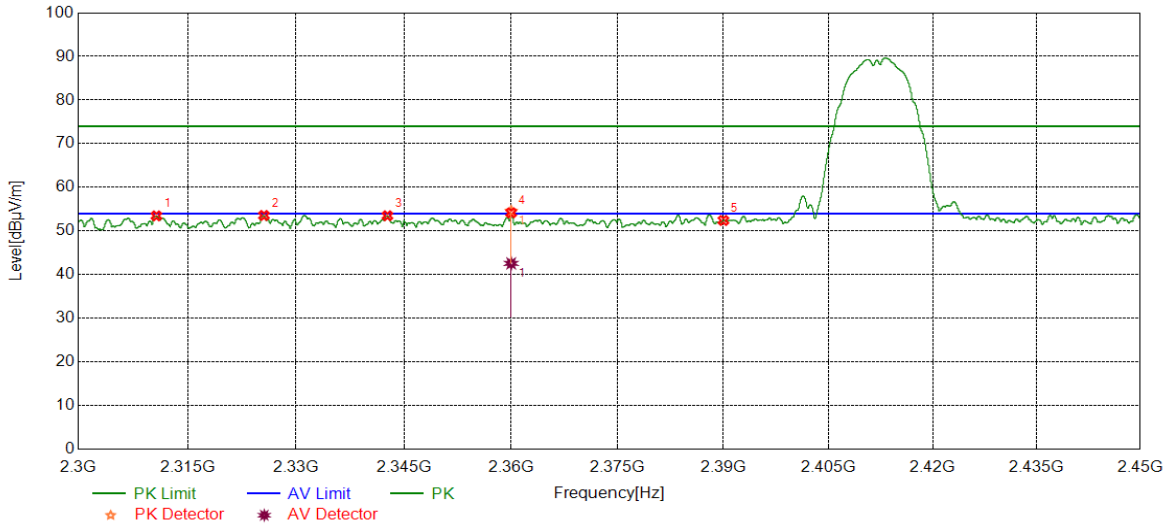
Test Result Table

Test Mode	Test Antenna	Channel	P _{uw} (dBm)	Verdict
11B	Antenna1	LCH	<Limit	PASS
		MCH	<Limit	PASS
		HCH	<Limit	PASS
11G	Antenna1	LCH	<Limit	PASS
		MCH	<Limit	PASS
		HCH	<Limit	PASS
11N HT20	Antenna1	LCH	<Limit	PASS
		MCH	<Limit	PASS
		HCH	<Limit	PASS



Test Graphs:

Test Mode	Channel	Polarization	Verdict
11B	LCH	Horizontal	PASS

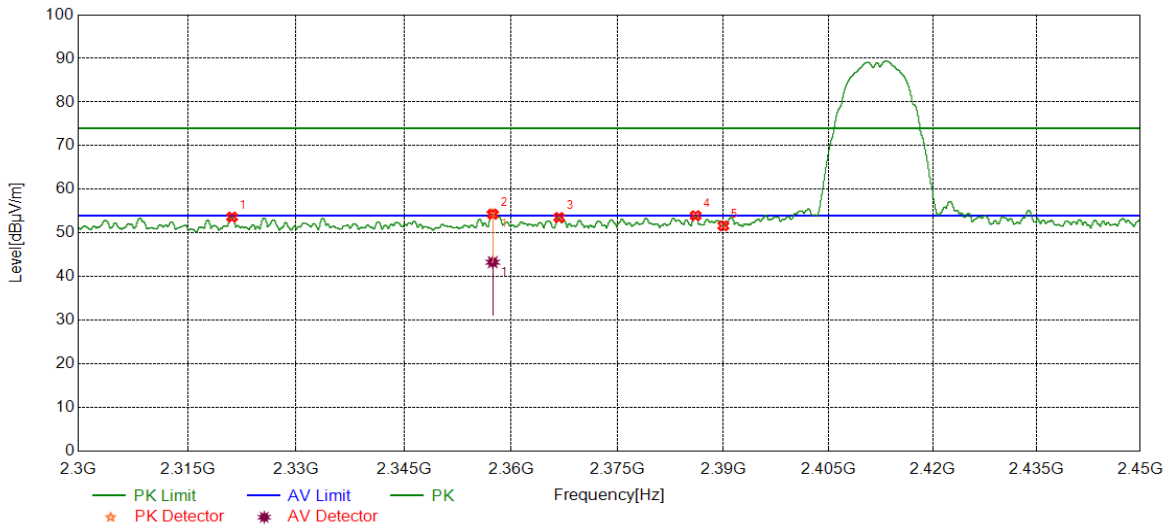


No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	2310.7076	40.52	12.95	53.47	74.00	-20.53	peak
2	2325.5407	40.48	13.08	53.56	74.00	-20.44	peak
3	2342.6991	40.19	13.31	53.50	74.00	-20.50	peak
4	2360.0075	41.11	13.46	54.57	74.00	-19.43	peak
		29.11	13.46	42.57	54.00	-11.43	average
5	2390.0000	38.67	13.75	52.42	74.00	-21.58	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.



Test Mode	Channel	Polarization	Verdict
11B	LCH	Vertical	PASS

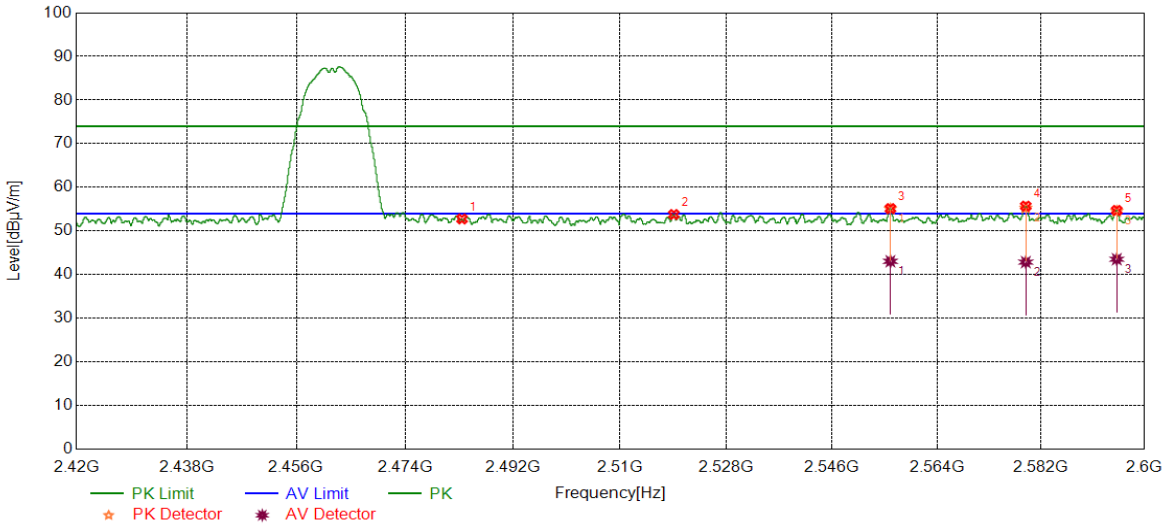


No.	Frequency (MHz)	Reading Level (dBuV/m)	Correct Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2321.1339	40.65	13.01	53.66	74.00	-20.34	peak
2	2357.4197	40.86	13.45	54.31	74.00	-19.69	peak
		29.86	13.45	43.31	54.00	-10.69	average
3	2366.7583	40.05	13.50	53.55	74.00	-20.45	peak
4	2386.0545	40.23	13.74	53.97	74.00	-20.03	peak
5	2390.0000	37.89	13.75	51.64	74.00	-22.36	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.



Test Mode	Channel	Polarization	Verdict
11B	HCH	Horizontal	PASS

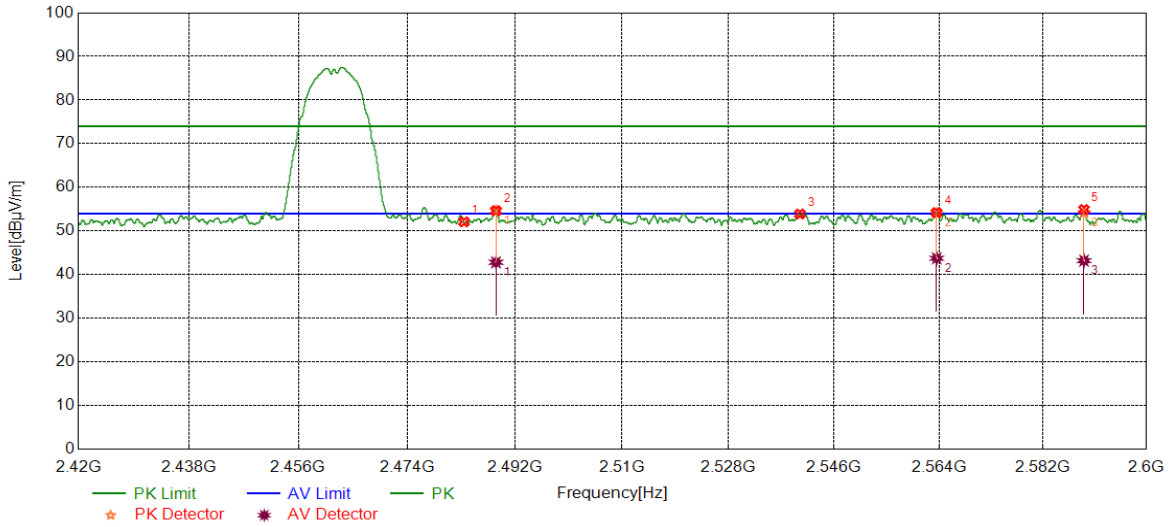


No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	2483.5000	39.24	13.51	52.75	74.00	-21.25	peak
2	2519.0819	40.02	13.77	53.79	74.00	-20.21	peak
3	2555.9856	41.08	13.98	55.06	74.00	-18.94	peak
		29.08	13.98	43.06	54.00	-10.94	average
4	2579.3339	41.25	14.02	55.27	74.00	-18.73	peak
		28.85	14.02	42.87	54.00	-11.13	average
5	2595.1395	40.45	14.08	54.53	74.00	-19.47	peak
		29.45	14.08	43.53	54.00	-10.47	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.



Test Mode	Channel	Polarization	Verdict
11B	HCH	Vertical	PASS

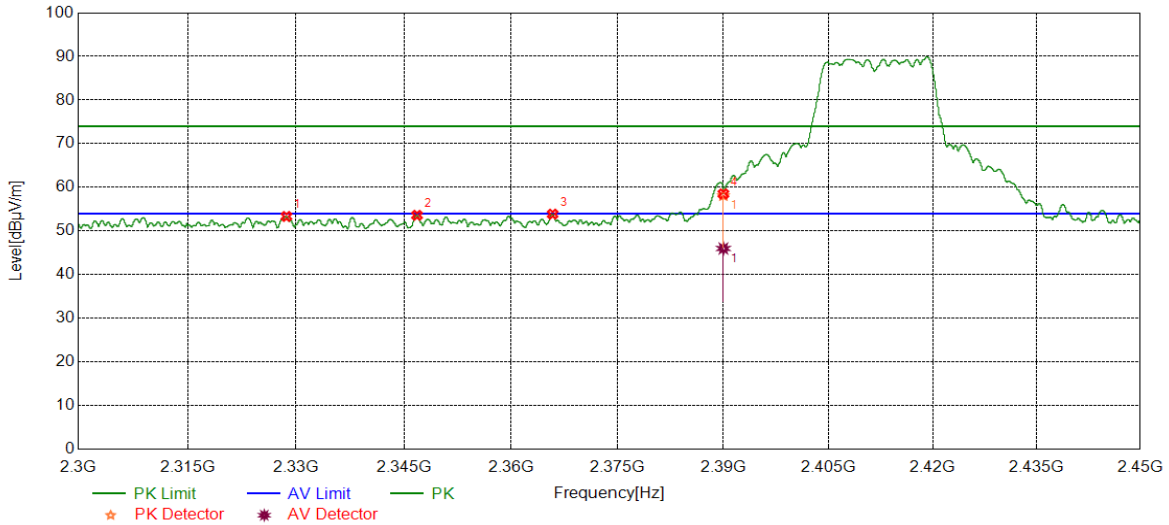


No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	2483.5000	38.58	13.51	52.09	74.00	-21.91	peak
2	2488.8389	41.09	13.54	54.63	74.00	-19.37	peak
		29.29	13.54	42.83	54.00	-11.17	average
3	2540.1620	40.03	13.87	53.90	74.00	-20.10	peak
4	2563.6004	40.06	13.99	54.05	74.00	-19.95	peak
		29.76	13.99	43.75	54.00	-10.25	average
5	2589.0909	40.17	14.03	54.20	74.00	-19.80	peak
		29.17	14.03	43.20	54.00	-10.80	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.



Test Mode	Channel	Polarization	Verdict
11G	LCH	Horizontal	PASS

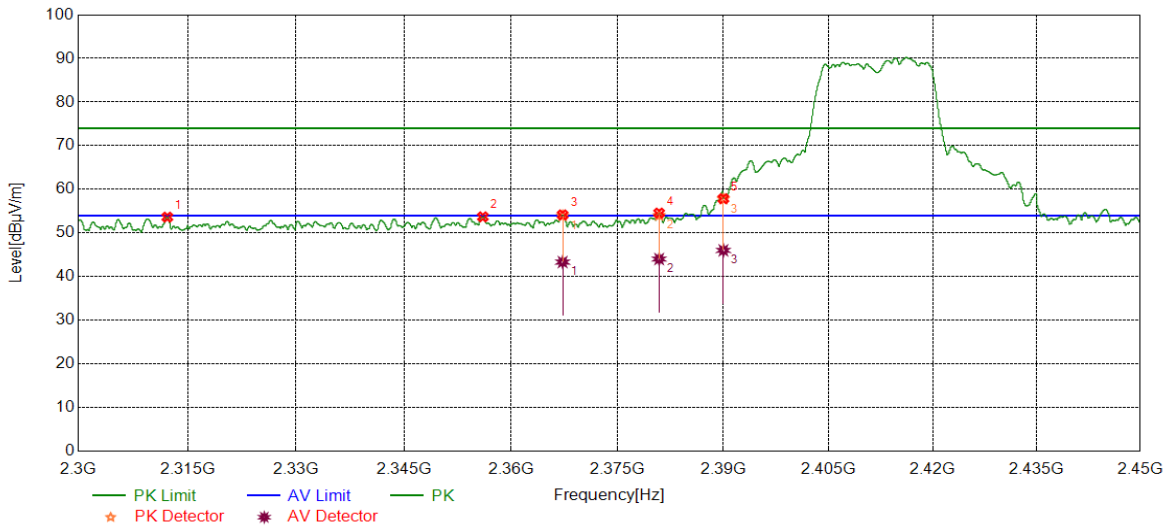


No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	2328.6536	40.23	13.11	53.34	74.00	-20.66	peak
2	2346.8246	40.25	13.35	53.60	74.00	-20.40	peak
3	2365.8395	40.37	13.50	53.87	74.00	-20.13	peak
4	2390.0000	44.36	13.75	58.11	74.00	-15.89	peak
		32.24	13.75	45.99	54.00	-8.01	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.



Test Mode	Channel	Polarization	Verdict
11G	LCH	Vertical	PASS

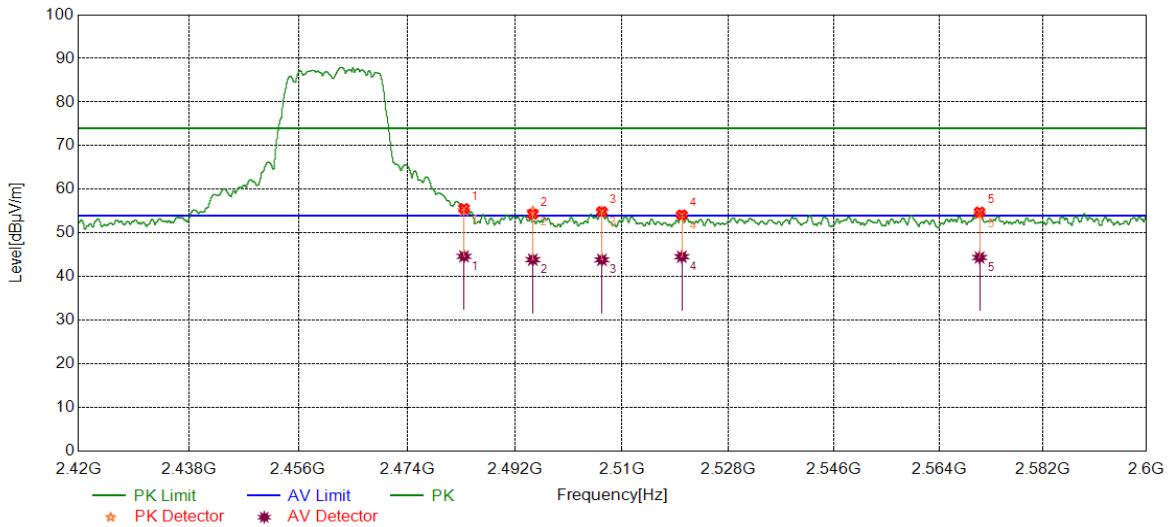


No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	2312.2078	40.68	12.96	53.64	74.00	-20.36	peak
2	2356.0320	40.26	13.44	53.70	74.00	-20.30	peak
3	2367.2459	40.43	13.51	53.94	74.00	-20.06	peak
		29.83	13.51	43.34	54.00	-10.66	average
4	2380.8789	40.34	13.69	54.03	74.00	-19.97	peak
		30.34	13.69	44.03	54.00	-9.97	average
5	2390.0000	44.04	13.75	57.79	74.00	-16.21	peak
		32.27	13.75	46.02	54.00	-7.98	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.



Test Mode	Channel	Polarization	Verdict
11G	HCH	Horizontal	PASS

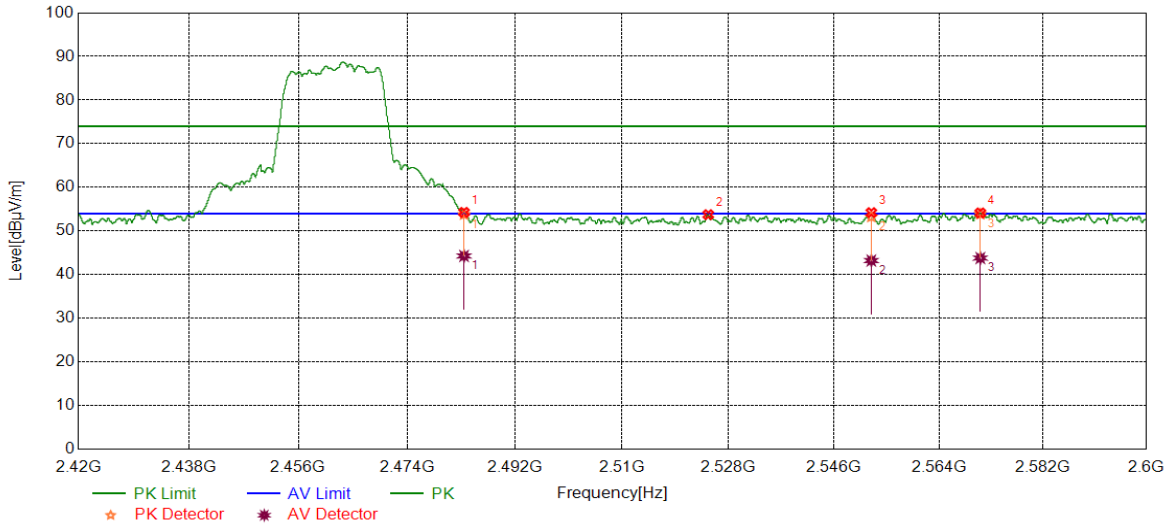


No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	2483.5000	41.64	13.51	55.15	74.00	-18.85	peak
		31.14	13.51	44.65	54.00	-9.35	average
2	2494.9955	41.29	13.60	54.89	74.00	-19.11	peak
		30.29	13.60	43.89	54.00	-10.11	average
3	2506.6067	41.15	13.70	54.85	74.00	-19.15	peak
		30.15	13.70	43.85	54.00	-10.15	average
4	2520.0900	40.17	13.79	53.96	74.00	-20.04	peak
		30.77	13.79	44.56	54.00	-9.44	average
5	2570.9991	40.39	14.00	54.39	74.00	-19.61	peak
		30.39	14.00	44.39	54.00	-9.61	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.



Test Mode	Channel	Polarization	Verdict
11G	HCH	Vertical	PASS

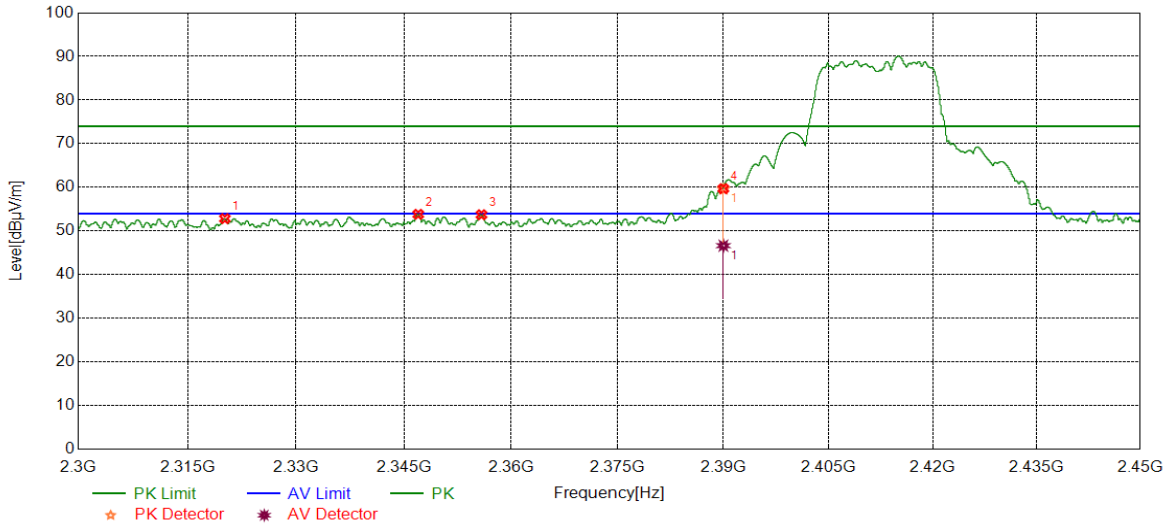


No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	2483.5000	40.27	13.51	53.78	74.00	-20.22	peak
		30.77	13.51	44.28	54.00	-9.72	average
2	2524.5725	39.94	13.81	53.75	74.00	-20.25	peak
		29.28	13.95	43.23	54.00	-10.77	average
3	2552.3672	39.28	13.95	53.23	74.00	-20.77	peak
		29.28	13.95	43.23	54.00	-10.77	average
4	2571.1251	39.88	14.00	53.88	74.00	-20.12	peak
		29.80	14.00	43.80	54.00	-10.20	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.



Test Mode	Channel	Polarization	Verdict
11N HT20	LCH	Horizontal	PASS

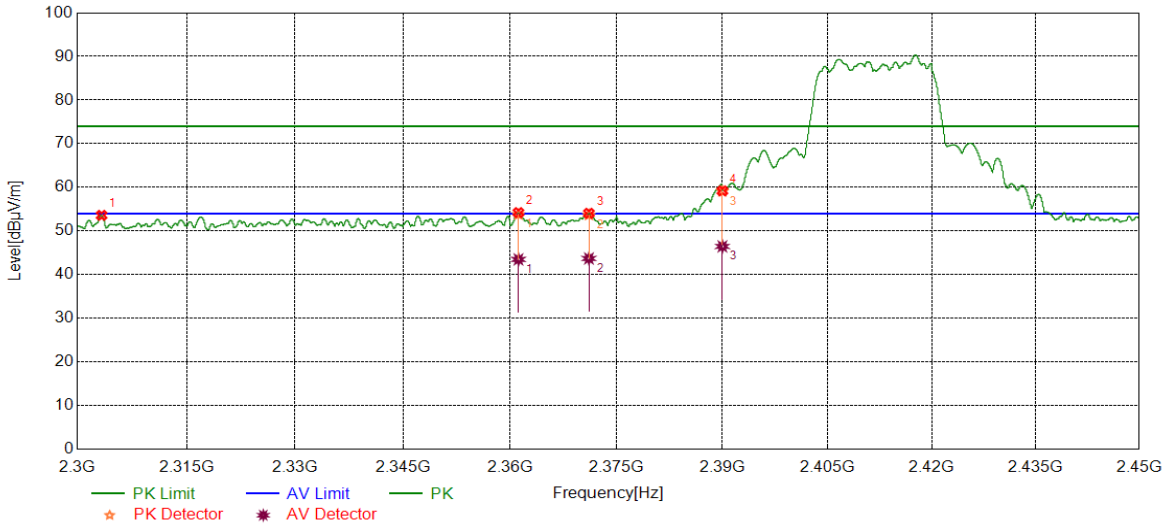


No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	2320.1400	39.81	13.02	52.83	74.00	-21.17	peak
2	2346.9934	40.48	13.35	53.83	74.00	-20.17	peak
3	2355.8445	40.29	13.44	53.73	74.00	-20.27	peak
4	2390.0000	45.83	13.75	59.58	74.00	-14.42	peak
		32.89	13.75	46.64	54.00	-7.36	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.



Test Mode	Channel	Polarization	Verdict
11N HT20	LCH	Vertical	PASS

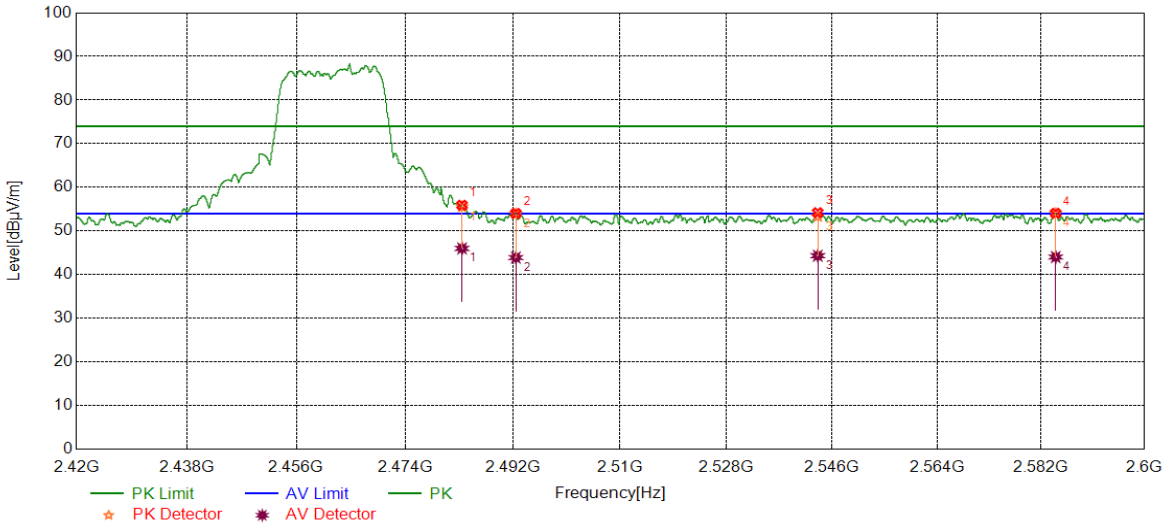


No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	2303.3192	40.69	12.90	53.59	74.00	-20.41	peak
		30.02	13.47	43.49	54.00	-10.51	average
2	2361.1701	40.32	13.47	53.79	74.00	-20.21	peak
		30.15	13.55	43.70	54.00	-10.30	average
3	2371.0901	40.15	13.55	53.70	74.00	-20.30	peak
		32.72	13.75	46.47	54.00	-7.53	average
4	2390.0000	45.36	13.75	59.11	74.00	-14.89	peak
		32.72	13.75	46.47	54.00	-7.53	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.



Test Mode	Channel	Polarization	Verdict
11N HT20	HCH	Horizontal	PASS

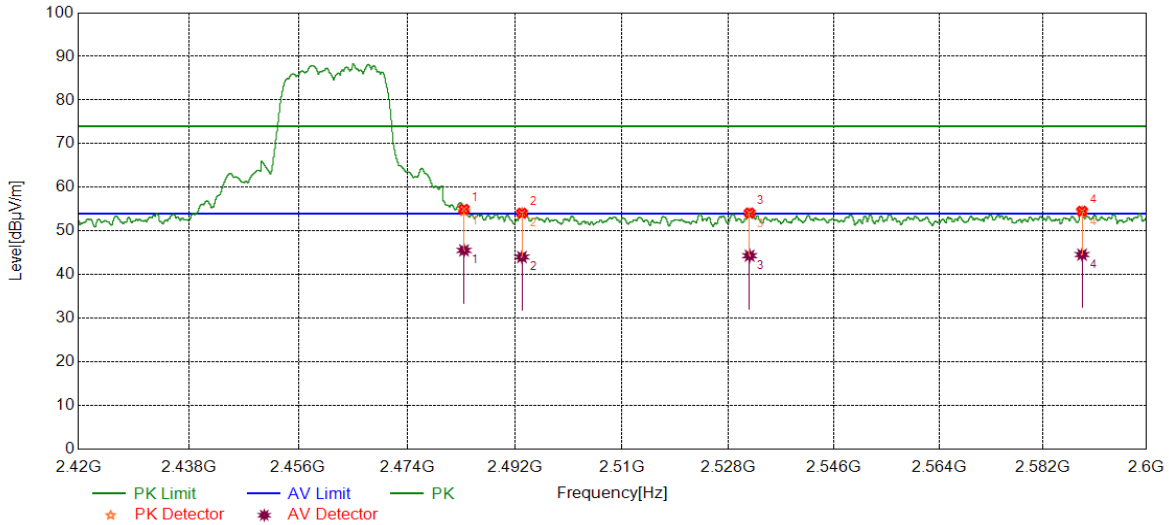


No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	2483.5000	42.05	13.51	55.56	74.00	-18.44	peak
		32.50	13.51	46.01	54.00	-7.99	average
2	2492.4932	41.32	13.59	54.91	74.00	-19.09	peak
		30.32	13.59	43.91	54.00	-10.09	average
3	2543.5464	39.42	13.91	53.33	74.00	-20.67	peak
		30.42	13.91	44.33	54.00	-9.67	average
4	2584.5185	40.01	14.02	54.03	74.00	-19.97	peak
		30.01	14.02	44.03	54.00	-9.97	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.



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	2483.5000	41.05	13.51	54.56	74.00	-19.44	average
		32.05	13.51	45.56	54.00	-8.44	peak
2	2493.1773	40.45	13.59	54.04	74.00	-19.96	average
		30.45	13.59	44.04	54.00	-9.96	peak
3	2531.5932	40.50	13.84	54.34	74.00	-19.66	average
		30.50	13.84	44.34	54.00	-9.66	peak
4	2588.7489	41.55	14.04	55.59	74.00	-18.41	average
		30.55	14.04	44.59	54.00	-9.41	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.



7.6.4. SPURIOUS EMISSIONS

Test Result Table:

11B	Antenna1	LCH	<Limit	PASS
		MCH	<Limit	PASS
		HCH	<Limit	PASS
11G	Antenna1	LCH	<Limit	PASS
		MCH	<Limit	PASS
		HCH	<Limit	PASS
11N HT20	Antenna1	LCH	<Limit	PASS
		MCH	<Limit	PASS
		HCH	<Limit	PASS

2) For 9KHz~30MHz

Test Mode	Test Antenna	Channel	Puw(dBm)	Verdict
11G	Antenna1	LCH	<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	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	PASS

Remark:

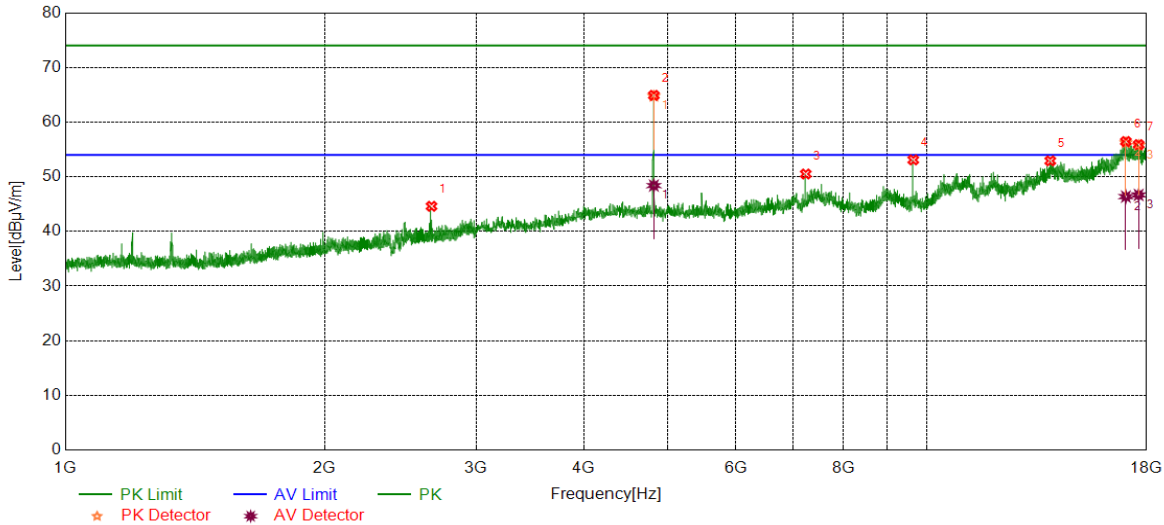
1) Through pre-testing all the test modes and test channels, but only the data of the worst case is included in this test report.



Part I: 1GHz~18GHz

HARMONICS AND SPURIOUS EMISSIONS

Test Mode	Channel	Polarization	Verdict
11B	LCH	Horizontal	PASS

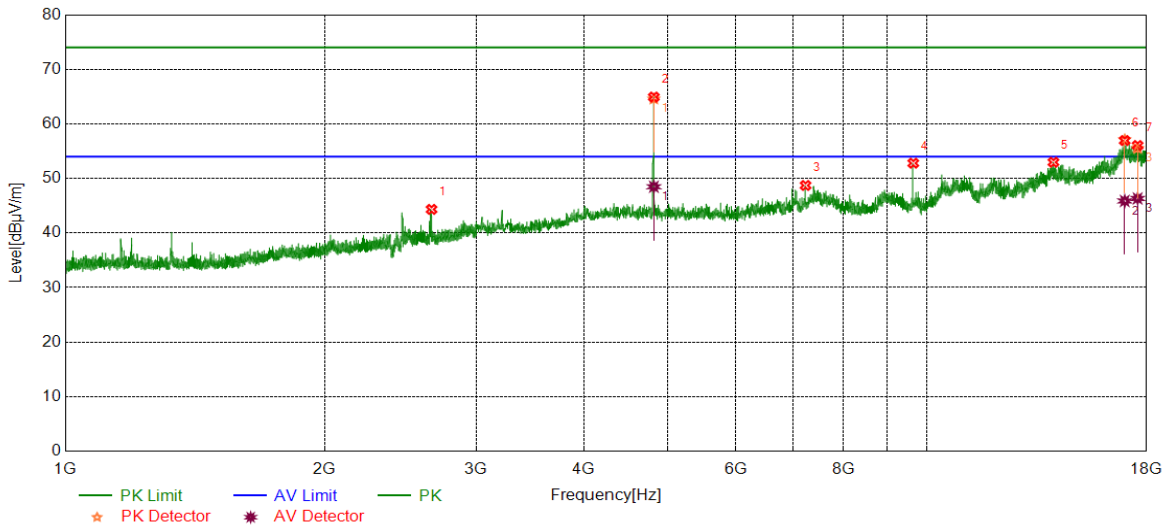


No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	2661.9577	45.36	-0.76	44.60	74.00	-29.40	peak
2	4822.7278	59.85	4.90	64.75	74.00	-9.25	peak
		43.49	4.90	48.39	54.00	-5.61	average
3	7238.0298	42.23	8.28	50.51	74.00	-23.49	peak
4	9647.7060	44.40	8.69	53.09	74.00	-20.91	peak
5	13913.8642	37.95	14.96	52.91	74.00	-21.09	peak
6	17028.6286	36.76	19.47	56.23	74.00	-17.77	peak
		26.90	19.47	46.37	54.00	-7.63	average
7	17621.2027	37.02	18.73	55.75	74.00	-18.25	peak
		27.95	18.73	46.68	54.00	-7.32	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. 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	LCH	Vertical	PASS

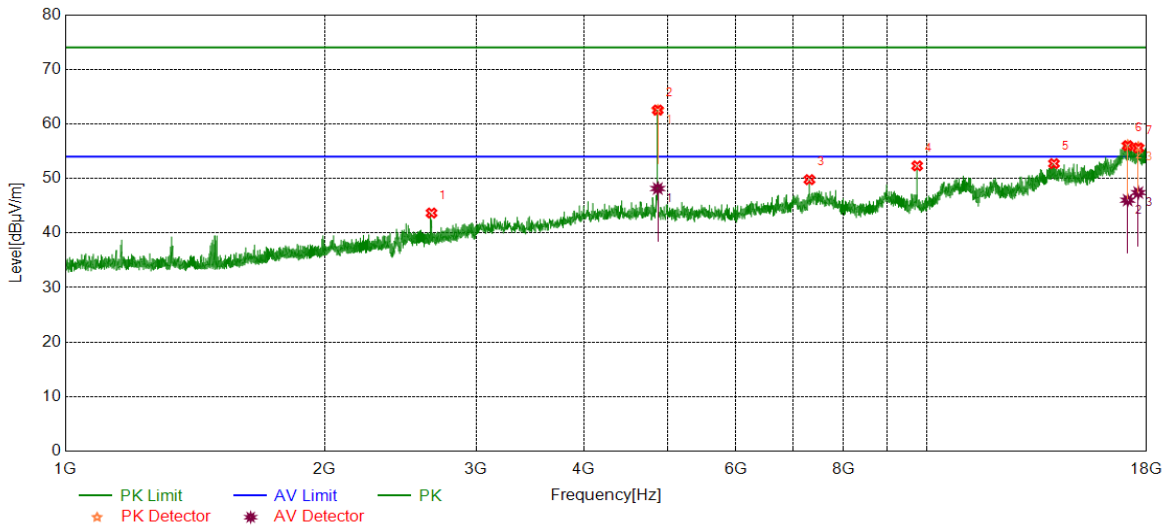


No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	2662.2078	45.09	-0.76	44.33	74.00	-29.67	peak
2	4822.7246	59.67	4.90	64.57	74.00	-9.43	peak
		43.58	4.90	48.48	54.00	-5.52	average
3	7234.2793	40.40	8.32	48.72	74.00	-25.28	peak
4	9647.7060	44.11	8.69	52.80	74.00	-21.20	peak
5	14032.0040	37.48	15.49	52.97	74.00	-21.03	peak
		37.45	19.65	57.10	74.00	-16.90	peak
6	16976.1220	26.22	19.65	45.87	54.00	-8.13	average
		36.39	19.11	55.50	74.00	-18.50	peak
7	17572.4466	27.22	19.11	46.33	54.00	-7.67	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. 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

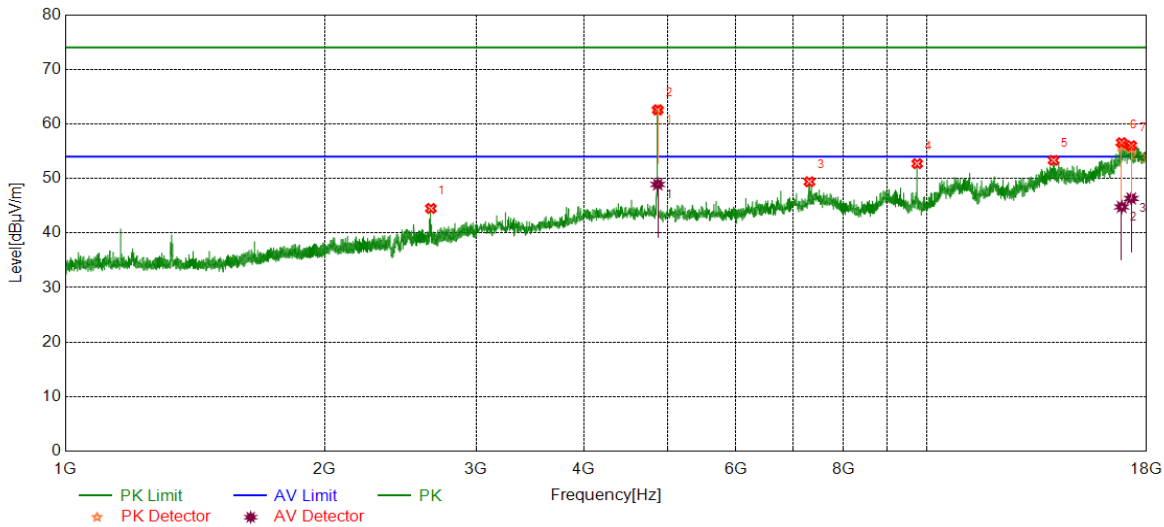


No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	2661.9577	44.42	-0.76	43.66	74.00	-30.34	peak
2	4873.3592	57.63	4.86	62.49	74.00	-11.51	peak
		43.29	4.86	48.15	54.00	-5.85	average
3	7309.2887	41.23	8.55	49.78	74.00	-24.22	peak
4	9748.9686	43.36	8.95	52.31	74.00	-21.69	peak
5	14050.7563	37.06	15.66	52.72	74.00	-21.28	peak
6	17111.1389	37.64	18.43	56.07	74.00	-17.93	peak
		27.59	18.43	46.02	54.00	-7.98	average
7	17604.3255	36.98	18.72	55.70	74.00	-18.30	peak
		28.69	18.72	47.41	54.00	-6.59	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. 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	Vertical	PASS

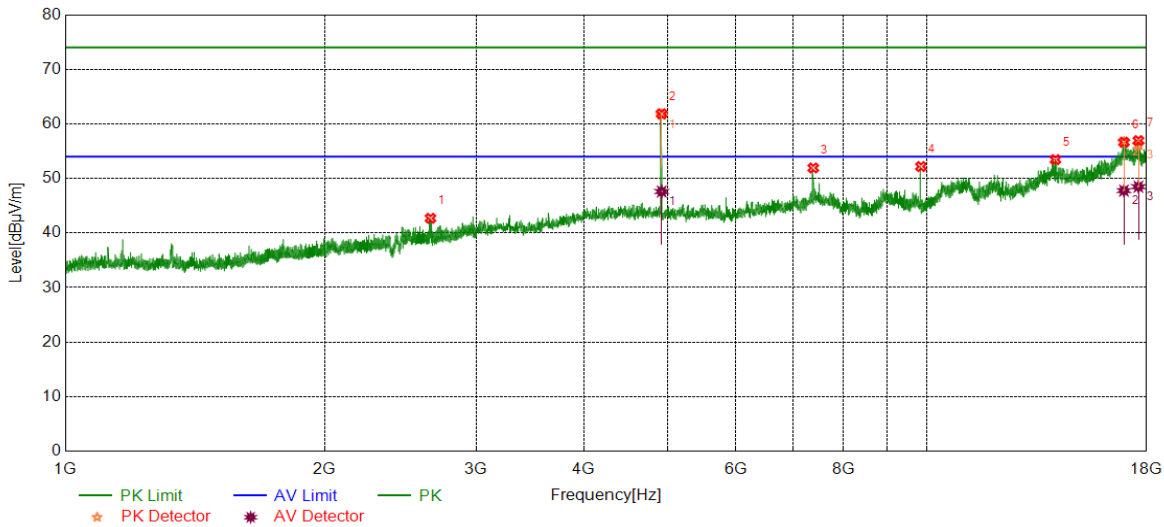


No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	2657.4572	45.27	-0.77	44.50	74.00	-29.50	peak
2	4873.3592	57.62	4.86	62.48	74.00	-11.52	peak
		44.04	4.86	48.90	54.00	-5.10	average
3	7309.2887	40.84	8.55	49.39	74.00	-24.61	peak
4	9748.9686	43.76	8.95	52.71	74.00	-21.29	peak
5	14035.7545	37.81	15.51	53.32	74.00	-20.68	peak
6	16839.2299	37.83	18.10	55.93	74.00	-18.07	peak
		26.68	18.10	44.78	54.00	-9.22	average
7	17276.1595	37.33	18.16	55.49	74.00	-18.51	peak
		28.17	18.16	46.33	54.00	-7.67	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. 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	Horizontal	PASS

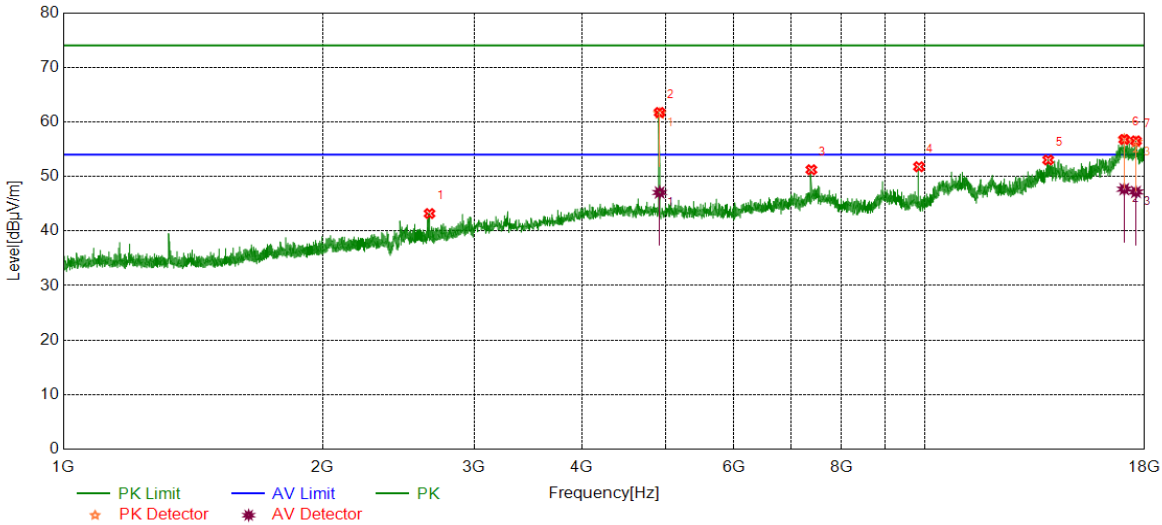


No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	2654.4568	43.49	-0.79	42.70	74.00	-31.30	peak
2	4923.9905	56.61	5.08	61.69	74.00	-12.31	peak
		42.52	5.08	47.60	54.00	-6.40	average
3	7384.2980	43.15	8.77	51.92	74.00	-22.08	peak
4	9848.3560	43.40	8.78	52.18	74.00	-21.82	peak
5	14107.0134	37.95	15.50	53.45	74.00	-20.55	peak
6	16940.4926	37.24	19.40	56.64	74.00	-17.36	peak
		28.37	19.40	47.77	54.00	-6.23	average
7	17609.9512	37.42	18.72	56.14	74.00	-17.86	peak
		26.77	18.72	48.49	54.00	-8.51	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. 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

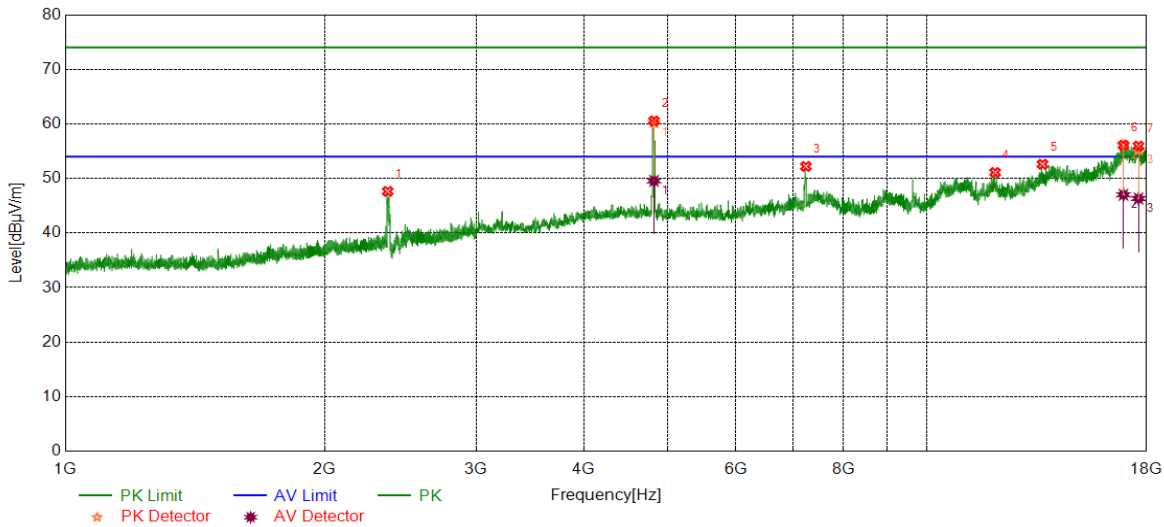


No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	2661.9577	43.96	-0.76	43.20	74.00	-30.80	peak
2	4923.9905	56.48	5.08	61.56	74.00	-12.44	peak
		38.98	5.08	47.06	54.00	-9.94	average
3	7386.1733	42.45	8.78	51.23	74.00	-22.77	peak
4	9848.3560	43.00	8.78	51.78	74.00	-22.22	peak
5	13910.1138	38.02	15.00	53.02	74.00	-20.98	peak
6	17045.5057	37.21	19.54	56.75	74.00	-17.25	peak
		28.13	19.54	47.67	54.00	-6.33	average
7	17587.4484	37.48	18.82	56.30	74.00	-17.70	peak
		28.34	18.82	47.16	54.00	-6.84	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. 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	Horizontal	PASS

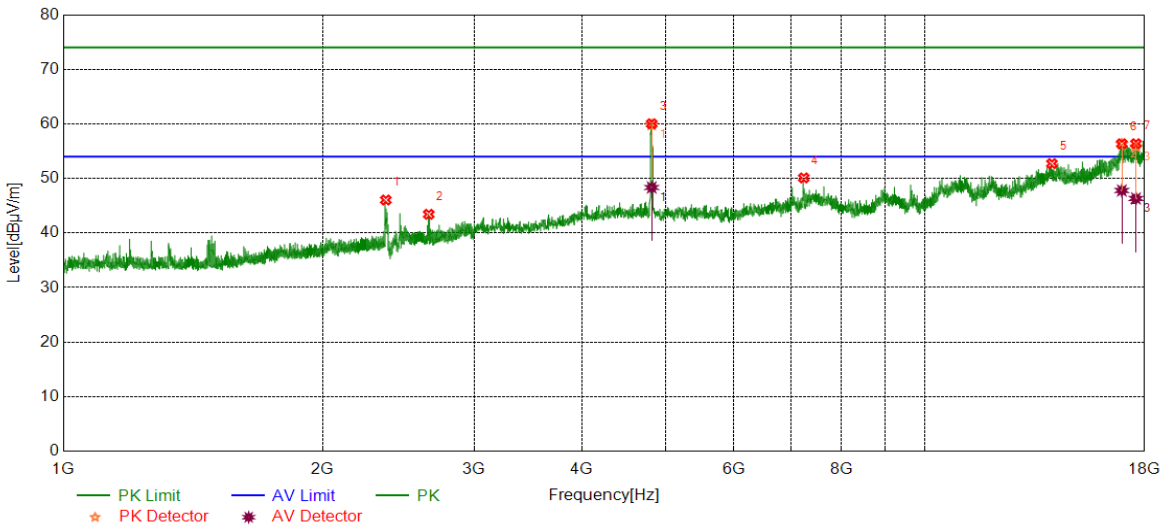


No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	2367.6710	49.22	-1.59	47.63	74.00	-26.37	peak
2	4824.6031	55.24	4.94	60.18	74.00	-13.82	peak
		44.63	4.94	49.57	54.00	-4.43	average
3	7239.9050	43.93	8.27	52.20	74.00	-21.80	peak
4	12006.7508	38.05	13.05	51.10	74.00	-22.90	peak
5	13628.8286	38.61	13.99	52.60	74.00	-21.40	peak
6	16919.8650	37.43	18.64	56.07	74.00	-17.93	peak
		28.37	18.64	47.01	54.00	-6.99	average
7	17613.7017	36.5	18.71	55.21	74.00	-18.79	peak
		26.61	18.71	46.32	54.00	-8.68	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. 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

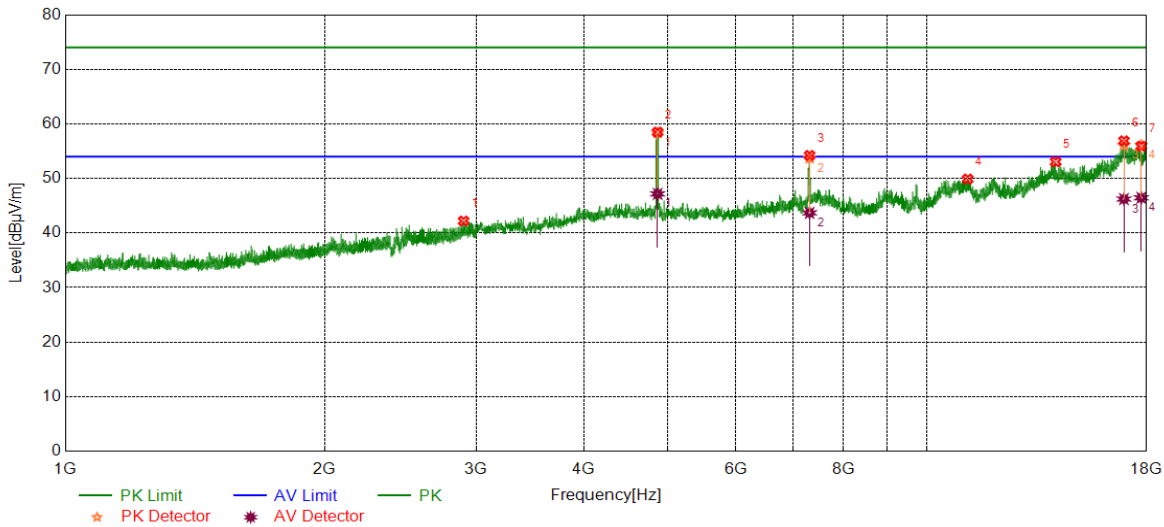


No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	2368.4211	47.63	-1.58	46.05	74.00	-27.95	peak
2	2656.4571	44.21	-0.78	43.43	74.00	-30.57	peak
3	4820.8526	54.97	4.86	59.83	74.00	-14.17	peak
		43.48	4.86	48.34	54.00	-5.66	average
4	7238.0298	41.82	8.28	50.10	74.00	-23.90	peak
5	14050.7563	37.06	15.66	52.72	74.00	-21.28	peak
6	16936.7421	37.04	19.26	56.30	74.00	-17.70	peak
		28.53	19.26	47.79	54.00	-6.21	average
7	17589.3237	37.03	18.79	55.82	74.00	-18.18	peak
		27.54	18.79	46.33	54.00	-7.67	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. 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

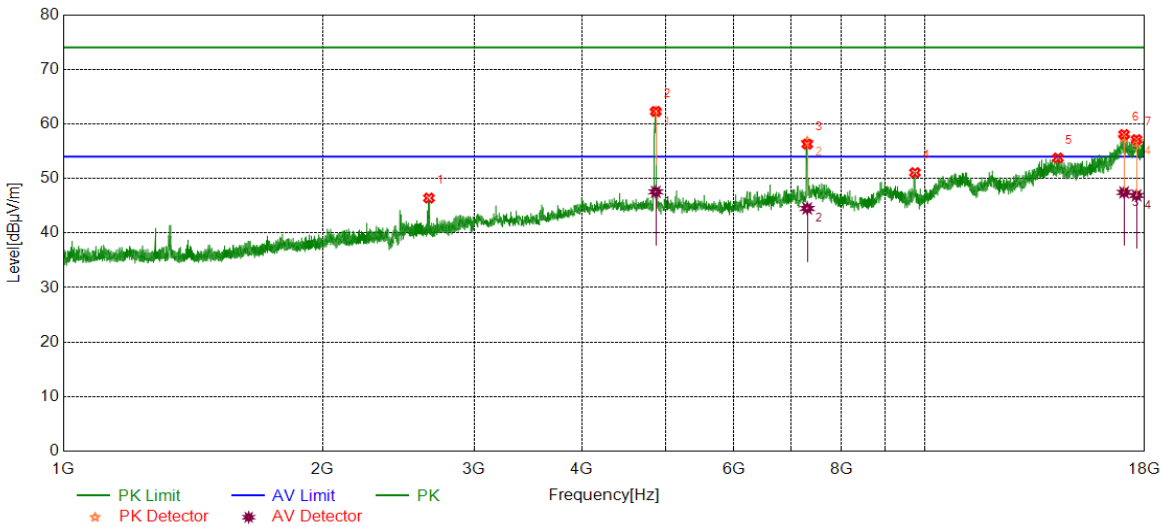


No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	2899.9875	41.86	0.34	42.20	74.00	-31.80	peak
2	4871.5309	53.59	4.77	58.36	74.00	-15.64	peak
		42.40	4.77	47.17	54.00	-6.83	average
3	7313.0861	45.14	8.56	53.70	74.00	-20.30	peak
		35.13	8.56	43.69	54.00	-10.31	average
4	11157.2697	37.47	12.43	49.90	74.00	-24.10	peak
5	14114.5143	37.66	15.39	53.05	74.00	-20.95	peak
6	16940.4926	36.67	19.40	56.07	74.00	-17.93	peak
		26.82	19.40	46.22	54.00	-7.78	average
7	17743.0929	37.86	18.24	56.10	74.00	-17.90	peak
		28.21	18.24	46.45	54.00	-7.55	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. 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

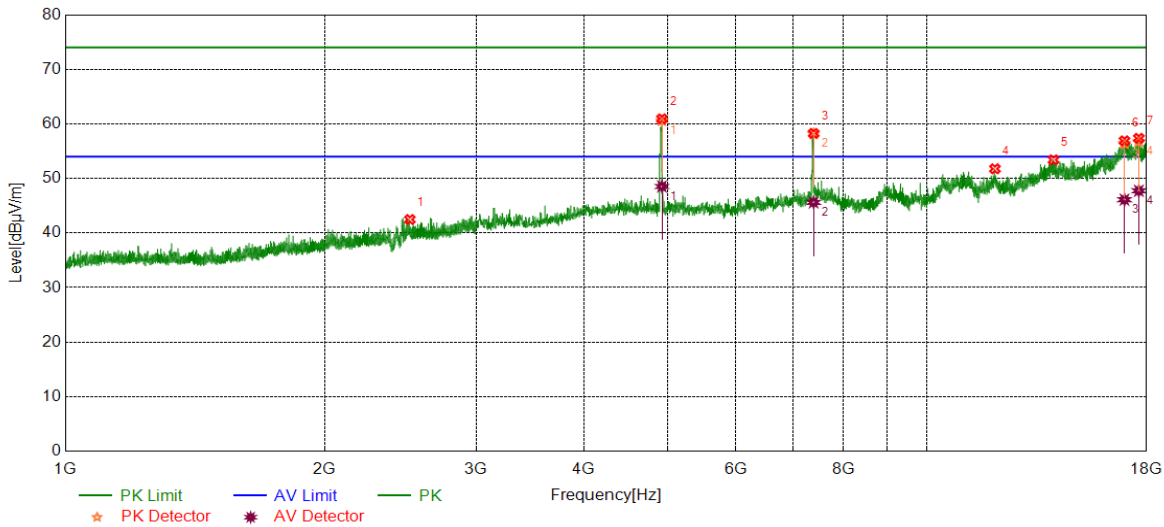


No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	2657.9572	47.18	-0.77	46.41	74.00	-27.59	peak
2	4873.3686	57.34	4.86	62.20	74.00	-11.80	peak
		42.68	4.86	47.54	54.00	-6.46	average
3	7305.5382	48.07	8.57	56.64	74.00	-17.36	peak
		35.94	8.57	44.51	54.00	-9.49	average
4	9743.3429	42.07	9.00	51.07	74.00	-22.93	peak
5	14277.6597	38.57	15.18	53.75	74.00	-20.25	peak
6	17038.0048	38.09	19.50	57.59	74.00	-16.41	peak
		27.94	19.50	47.44	54.00	-6.56	average
7	17617.4522	38.06	18.71	56.77	74.00	-17.23	peak
		30.18	18.71	46.89	54.00	-5.11	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. 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

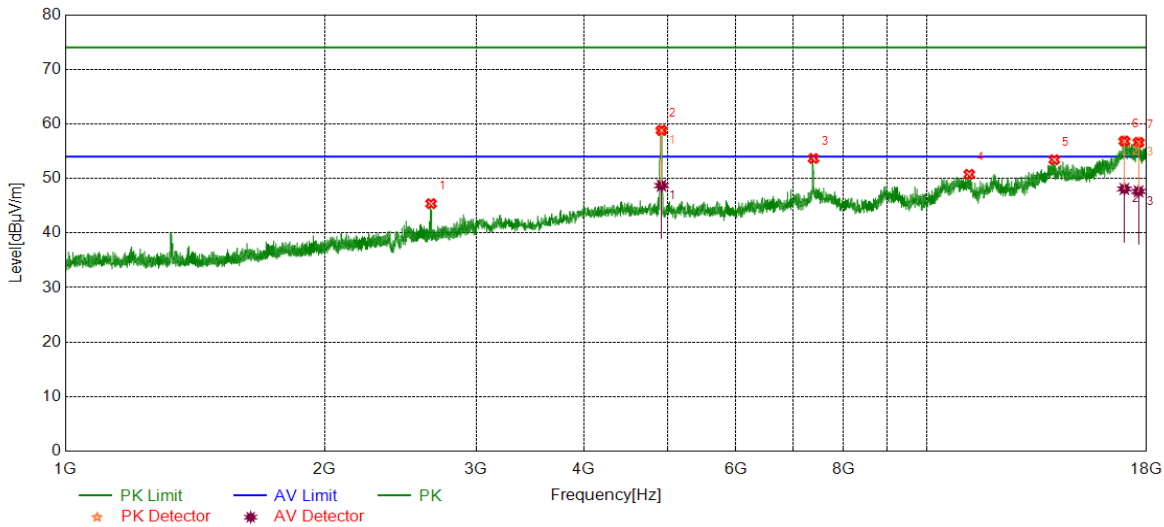


No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	2512.4391	43.06	-0.58	42.48	74.00	-31.52	peak
2	4927.7410	55.46	5.13	60.59	74.00	-13.41	peak
		43.40	5.13	48.53	54.00	-5.47	average
3	7391.7990	49.39	8.80	58.19	74.00	-15.81	peak
		36.81	8.80	45.61	54.00	-8.39	average
4	12001.1251	38.60	13.17	51.77	74.00	-22.23	peak
5	14033.8792	37.91	15.50	53.41	74.00	-20.59	peak
6	16964.8706	36.55	19.83	56.38	74.00	-17.62	peak
		26.28	19.83	46.11	54.00	-7.89	average
7	17628.7036	37.90	18.85	56.75	74.00	-17.25	peak
		28.89	18.85	47.74	54.00	-6.26	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. 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

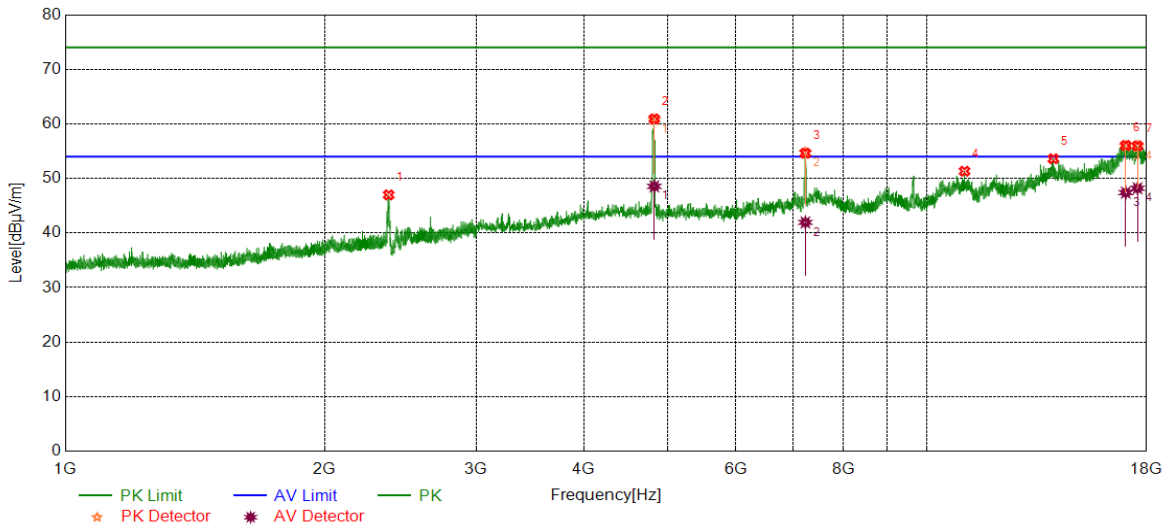


No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	2658.4573	46.15	-0.77	45.38	74.00	-28.62	peak
2	4922.1153	53.67	5.06	58.73	74.00	-15.27	peak
		43.63	5.06	48.69	54.00	-5.31	average
3	7388.0485	44.88	8.78	53.66	74.00	-20.34	peak
4	11204.1505	38.45	12.31	50.76	74.00	-23.24	peak
5	14063.8830	37.73	15.70	53.43	74.00	-20.57	peak
6	16961.1201	37.04	19.77	56.81	74.00	-17.19	peak
		28.31	19.77	48.08	54.00	-5.92	average
7	17617.4522	37.87	18.71	56.58	74.00	-17.42	peak
		28.93	18.71	47.64	54.00	-6.36	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. 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

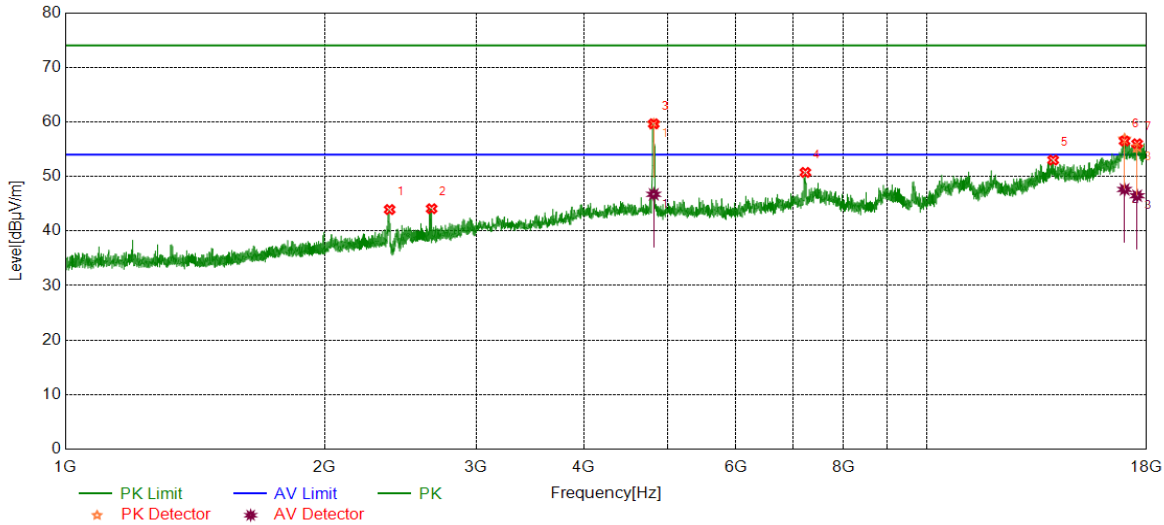


No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	2373.9217	48.52	-1.54	46.98	74.00	-27.02	peak
		55.74	5.01	60.75	74.00	-13.25	peak
2	4828.3535	43.54	5.01	48.55	54.00	-5.45	average
		46.40	8.35	54.75	74.00	-19.25	peak
3	7230.5288	33.59	8.35	41.94	54.00	-12.06	average
		38.61	12.71	51.32	74.00	-22.68	peak
4	11063.5079	38.17	15.44	53.61	74.00	-20.39	peak
6	17023.0029	36.61	19.33	55.94	74.00	-18.06	peak
		28.07	19.33	47.40	54.00	-6.60	average
7	17568.6961	36.84	19.12	55.96	74.00	-18.04	peak
		29.08	19.12	48.20	54.00	-5.80	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. 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

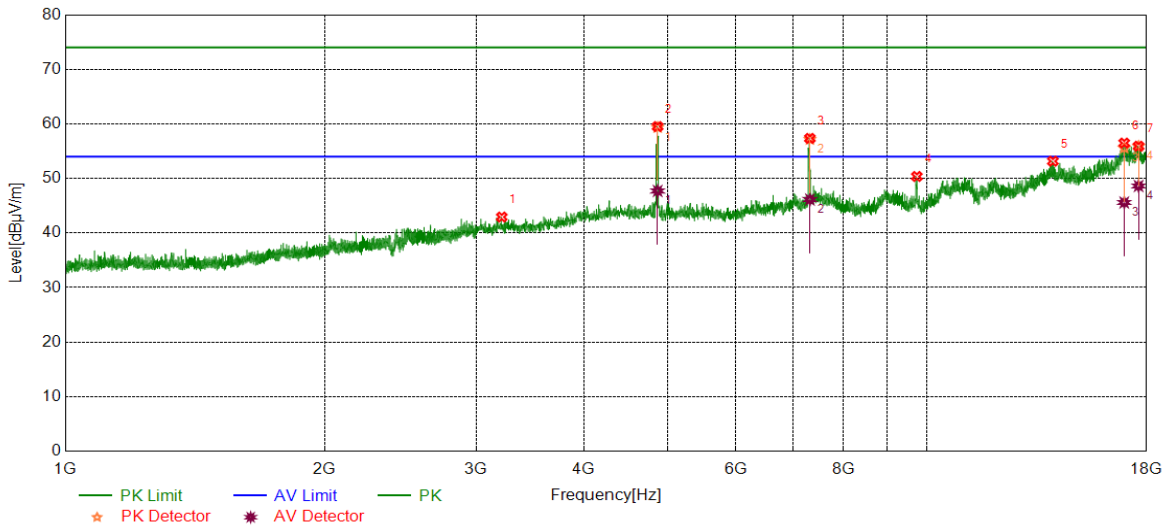


No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	2379.9225	45.43	-1.50	43.93	74.00	-30.07	peak
2	2662.7078	44.84	-0.76	44.08	74.00	-29.92	peak
3	4820.8526	54.75	4.86	59.61	74.00	-14.39	peak
		41.86	4.86	46.72	54.00	-7.28	average
4	7230.5288	42.39	8.35	50.74	74.00	-23.26	Peak
5	14020.7526	37.74	15.26	53.00	74.00	-21.00	peak
6	16968.6211	36.99	19.88	56.87	74.00	-17.13	peak
		27.74	19.88	47.62	54.00	-6.38	average
7	17549.9437	37.06	18.35	55.41	74.00	-18.59	peak
		28.11	18.35	46.46	54.00	-7.54	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. 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

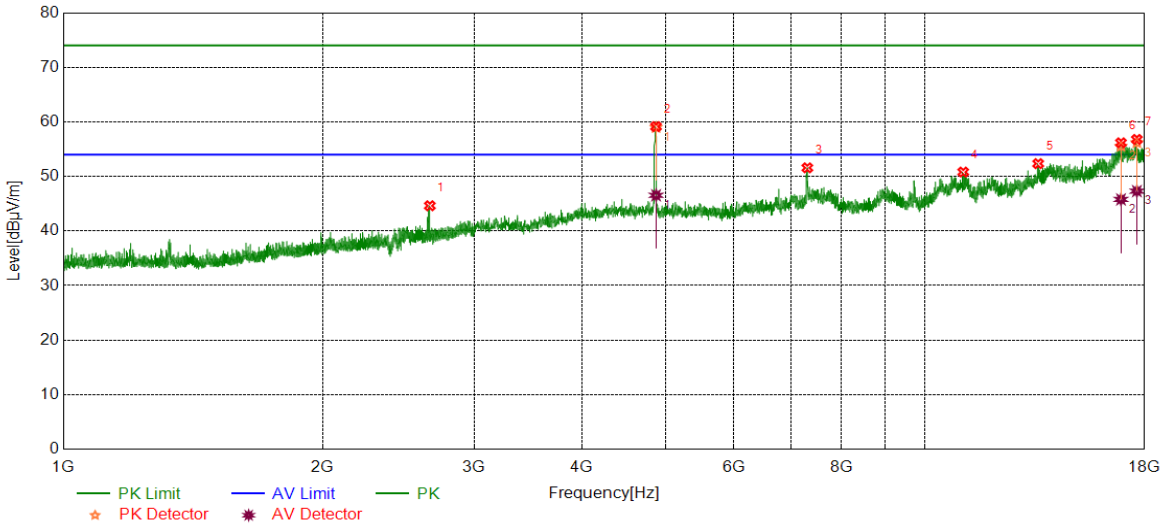


No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	3211.9015	41.27	1.66	42.93	74.00	-31.07	peak
2	4871.5266	54.58	4.77	59.35	74.00	-14.65	peak
		42.94	4.77	47.71	54.00	-6.29	average
3	7318.7075	48.57	8.59	57.16	74.00	-16.84	peak
		31.54	8.59	46.13	54.00	-13.87	average
4	9739.5924	41.34	9.03	50.37	74.00	-23.63	Peak
5	14011.3764	37.93	15.23	53.16	74.00	-20.84	peak
6	16953.6192	36.16	19.42	55.58	74.00	-18.42	peak
		26.17	19.42	45.59	54.00	-8.41	average
7	17617.4522	37.17	18.71	55.88	74.00	-18.12	peak
		29.91	18.71	48.62	54.00	-5.38	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. 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

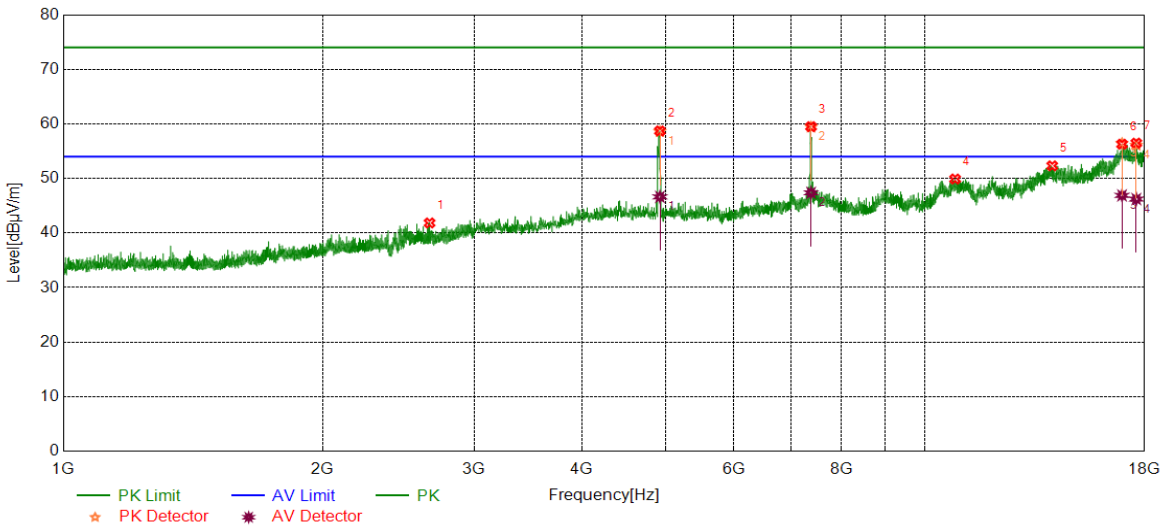


No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	2664.4581	45.39	-0.76	44.63	74.00	-29.37	peak
2	4877.1485	53.93	5.06	58.99	74.00	-15.01	peak
		41.48	5.06	46.54	54.00	-7.46	average
3	7307.4134	43.02	8.56	51.58	74.00	-22.42	peak
4	11084.1355	38.02	12.79	50.81	74.00	-23.19	peak
5	13542.5678	38.74	13.61	52.35	74.00	-21.65	peak
6	16897.3622	37.12	18.41	55.53	74.00	-18.47	peak
		27.38	18.41	45.79	54.00	-8.21	average
7	17630.5788	37.33	18.86	56.19	74.00	-17.81	peak
		28.45	18.86	47.31	54.00	-6.69	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. 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	Horizontal	PASS

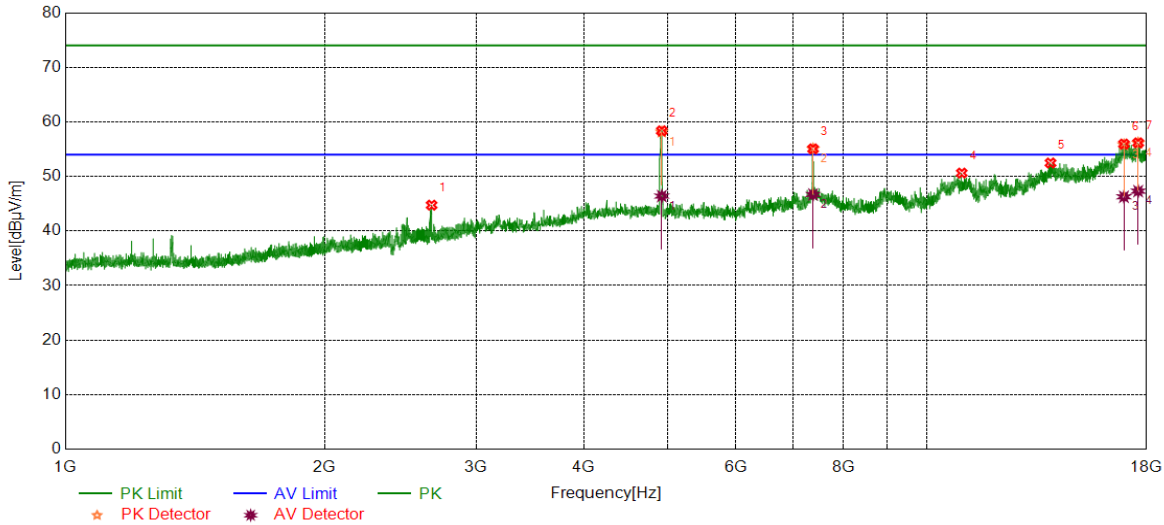


No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	2662.4578	42.60	-0.76	41.84	74.00	-32.16	peak
		53.46	5.14	58.60	74.00	-15.40	peak
2	4927.7084	41.48	5.14	46.62	54.00	-7.38	average
		50.66	8.76	59.42	74.00	-14.58	peak
3	7380.5150	38.61	8.76	47.37	54.00	-6.63	average
		10845.9807	37.76	12.14	49.90	74.00	-24.10
4	14060.1325	36.61	15.70	52.31	74.00	-21.69	peak
		37.07	19.33	56.40	74.00	-17.60	peak
5	16944.2430	27.56	19.33	46.89	54.00	-7.11	average
		37.38	18.72	56.10	74.00	-17.90	peak
6	17604.3255	27.50	18.72	46.22	54.00	-7.78	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. 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	2662.7078	45.50	-0.76	44.74	74.00	-29.26	peak
		53.04	5.11	58.15	74.00	-15.85	peak
2	4925.8850	41.29	5.11	46.40	54.00	-7.60	average
		46.28	8.76	55.04	74.00	-18.96	peak
3	7380.5669	37.94	8.76	46.70	54.00	-7.30	average
		38.14	12.48	50.62	74.00	-23.38	Peak
4	10982.8729	37.60	14.87	52.47	74.00	-21.53	peak
6	16940.4926	36.40	19.40	55.80	74.00	-18.20	peak
		26.87	19.40	46.27	54.00	-7.73	average
7	17596.8246	37.38	18.74	56.12	74.00	-17.88	peak
		28.57	18.74	47.31	54.00	-6.69	average

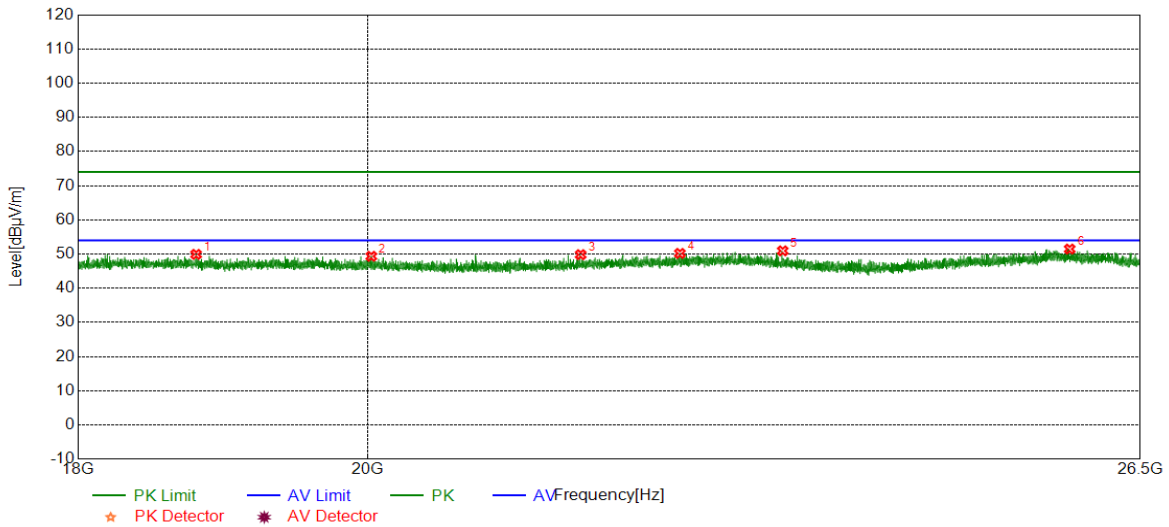
- Note: 1. Measurement = Reading Level + Correct Factor.
 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
 3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.
 4. Peak: Peak detector.
 5. AVG: VBW refer to section 7.1.
 6. For below 3GHz part, filter losses 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)

Test Mode	Channel	Polarization	Verdict
11G	LCH	Horizontal	PASS

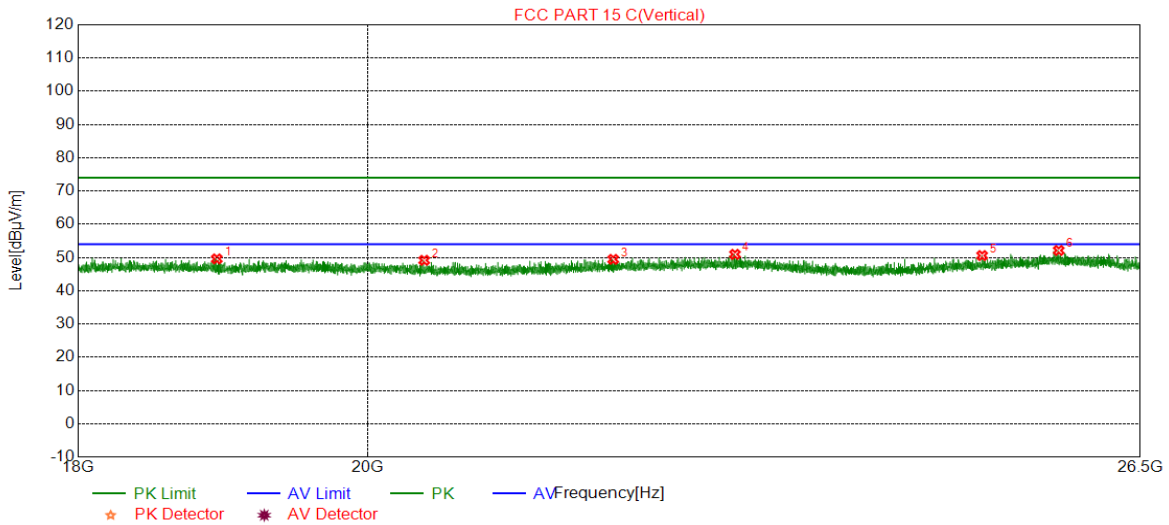


No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	18788.8789	50.95	-1.04	49.91	74.00	-24.09	peak
2	20027.4527	49.86	-0.52	49.34	74.00	-24.66	peak
3	21614.5615	50.18	-0.36	49.82	74.00	-24.18	peak
4	22410.2410	49.51	0.68	50.19	74.00	-23.81	peak
5	23265.4265	50.39	0.54	50.93	74.00	-23.07	peak
6	25829.2829	50.07	1.39	51.46	74.00	-22.54	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.
 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	18930.8431	50.73	-1.12	49.61	74.00	-24.39	peak
2	20416.7917	49.84	-0.66	49.18	74.00	-24.82	peak
3	21872.1372	49.46	0.00	49.46	74.00	-24.54	peak
4	22864.1864	49.85	1.12	50.97	74.00	-23.03	peak
5	25018.3018	50.55	0.05	50.60	74.00	-23.40	peak
6	25726.4226	50.91	1.23	52.14	74.00	-21.86	peak

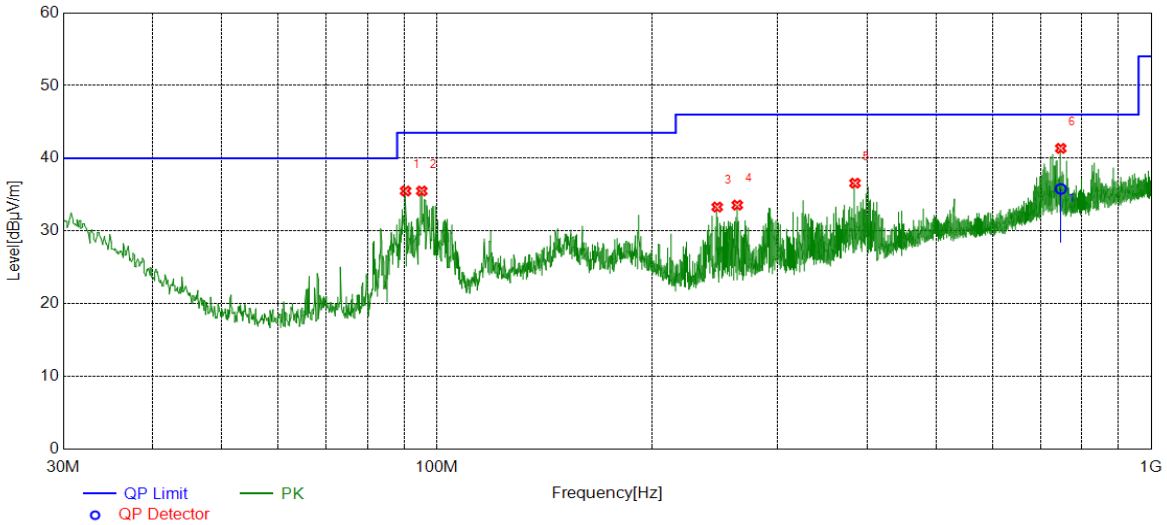
Note: 1.If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
2. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.
3. Measurement = Reading Level + Correct Factor.



Part III: 30MHz~1GHz

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

Test Mode	Channel	Polarization	Verdict
11G	LCH	Horizontal	PASS

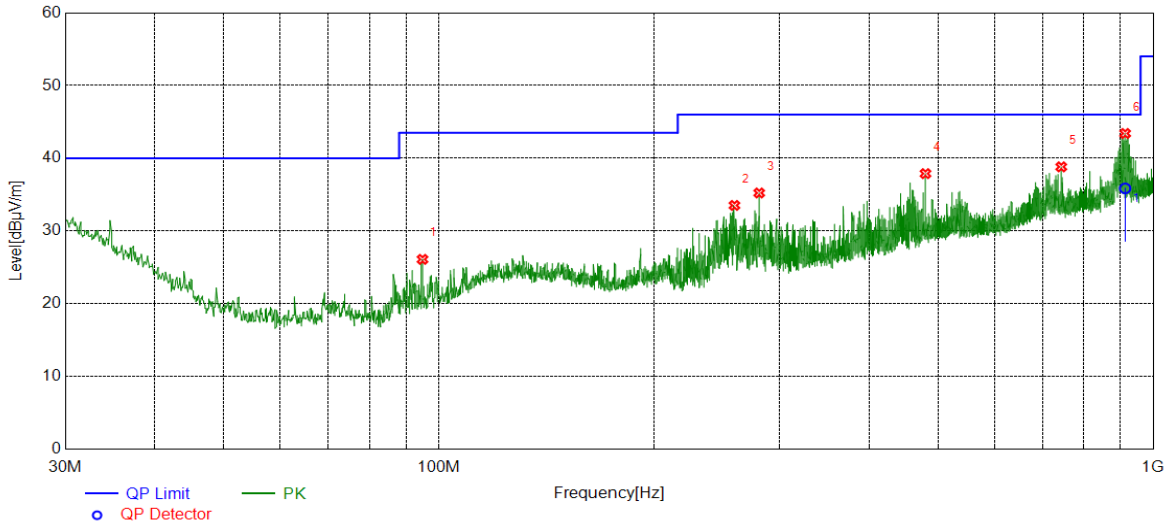


No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	90.4370	20.79	14.71	35.50	43.50	-8.00	peak
2	95.2875	19.59	15.91	35.50	43.50	-8.00	peak
3	246.9137	14.03	19.26	33.29	46.00	-12.71	peak
4	263.4053	13.86	19.70	33.56	46.00	-12.44	peak
5	384.9585	13.77	22.81	36.58	46.00	-9.42	peak
6	747.0957	6.72	29.07	35.79	46.00	-10.21	QP

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.
 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	94.8995	10.28	15.82	26.10	43.50	-17.40	peak
2	259.3309	14.10	19.42	33.52	46.00	-12.48	peak
3	280.8671	14.42	20.81	35.23	46.00	-10.77	peak
4	480.0280	12.51	25.38	37.89	46.00	-8.11	peak
5	743.6034	9.82	29.00	38.82	46.00	-7.18	peak
6	913.1997	4.85	31.01	35.86	46.00	-10.14	QP

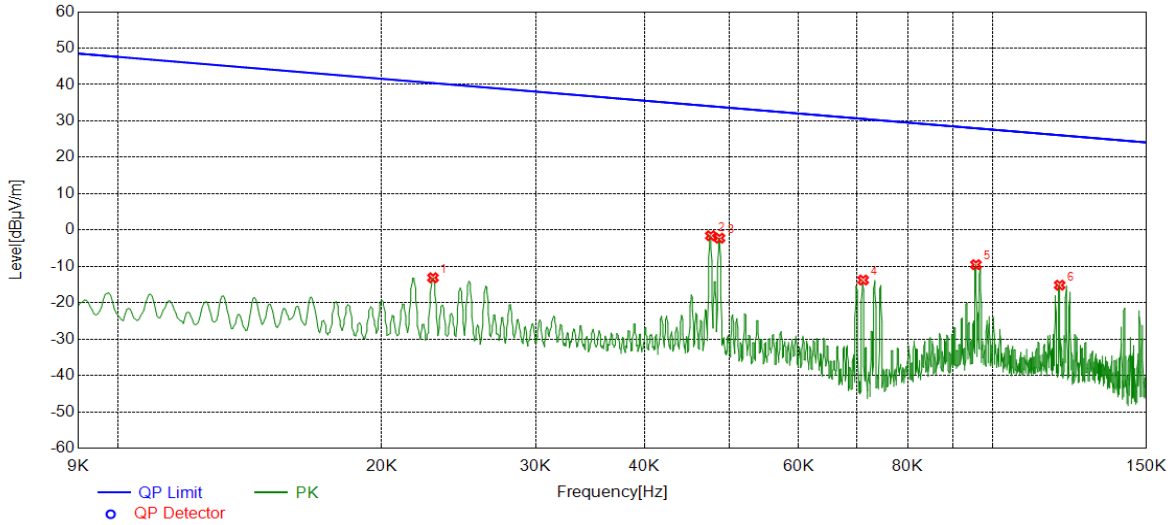
- Note: 1. If Peak Result complies with QP limit, QP Result is deemed to comply with QP limit.
 2. Test setup: RBW: 120 kHz, VBW: 300 kHz, Sweep time: auto.
 3. Measurement = Reading Level + Correct Factor.



Part IV: 9KHz~30MHz

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

Test Mode	Channel	Frequency Range	Verdict
11G	LCH	9KHz~150KHz	PASS

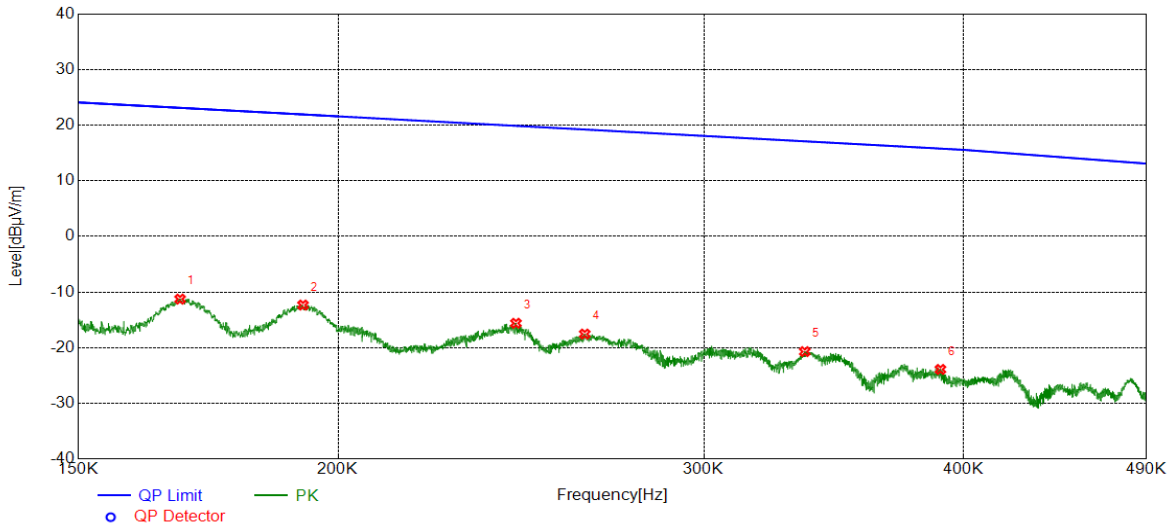


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	FCC Result (dBuV/m)	FCC Limit (dBuV/m)	ISED Result (dBuA/m)	ISED Limit (dBuA/m)	Margin (dB)	Remark
1	0.0229	47.63	-60.76	-13.13	40.40	-64.63	-11.1	-53.53	peak
2	0.0476	59.35	-60.92	-1.57	34.06	-53.07	-17.44	-35.63	peak
3	0.0487	58.68	-60.93	-2.25	33.84	-53.75	-17.66	-36.09	peak
4	0.0711	47.51	-61.27	-13.76	30.57	-65.26	-20.93	-44.33	peak
5	0.0957	51.23	-60.76	-9.53	27.98	-61.03	-23.52	-37.51	peak
6	0.1193	45.70	-60.87	-15.17	26.07	-66.67	-25.43	-41.24	peak

- Note: 1. Measurement = Reading Level + Correct Factor.
 2. $\text{dBuA/m} = (\text{dBuV/m}) - 20 \log(120\pi) = \text{dBuV} - 51.5$.
 3. If Peak Result complies with AV and QP limit, AV and QP Result are deemed to comply with AV limit.
 4. 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

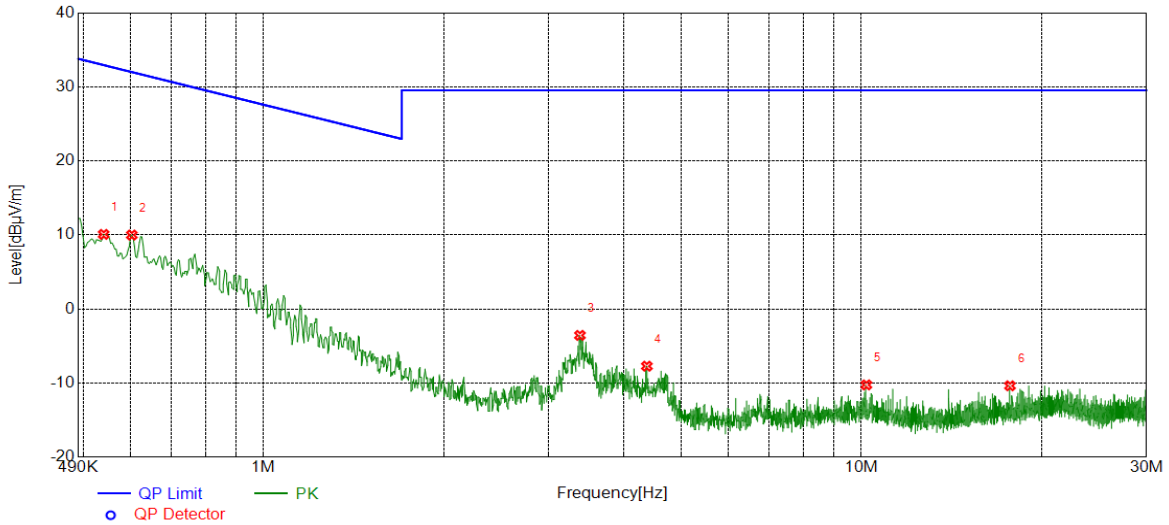


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	FCC Result (dBuV/m)	FCC Limit (dBuV/m)	ISED Result (dBuA/m)	ISED Limit (dBuA/m)	Margin (dB)	Remark
1	0.1679	49.87	-61.14	-11.27	23.11	-62.77	-28.39	-34.38	peak
2	0.1924	48.68	-61.02	-12.34	21.92	-63.84	-29.58	-34.26	peak
3	0.2436	45.15	-60.76	-15.61	19.87	-67.11	-31.63	-35.48	peak
4	0.2629	43.17	-60.72	-17.55	19.21	-69.05	-32.29	-36.76	peak
5	0.3355	39.95	-60.66	-20.71	17.09	-72.21	-34.41	-37.80	peak
6	0.3899	36.70	-60.61	-23.91	15.78	-75.41	-35.72	-39.69	peak

- Note: 1. Measurement = Reading Level + Correct Factor.
 2. $\text{dBuA/m} = (\text{dBuV/m}) - 20 \log(120\pi) = \text{dBuV} - 51.5$.
 3. If Peak Result complies with AV and QP limit, AV and QP Result are deemed to comply with AV limit.
 4. 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	490KHz~30MHz	PASS



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	FCC Result (dBuV/m)	FCC Limit (dBuV/m)	ISED Result (dBuA/m)	ISED Limit (dBuA/m)	Margin (dB)	Remark
1	0.5402	30.61	-20.53	10.08	32.95	-41.42	-18.55	-22.87	peak
2	0.6021	30.55	-20.56	9.99	32.01	-41.51	-19.49	-22.02	peak
3	3.3823	16.70	-20.26	-3.56	29.54	-55.06	-21.96	-33.10	peak
4	4.3769	12.33	-20.05	-7.72	29.54	-59.22	-21.96	-37.26	peak
5	10.1939	8.55	-18.80	-10.25	29.54	-61.75	-21.96	-39.79	peak
6	17.7226	7.77	-18.14	-10.37	29.54	-61.87	-21.96	-39.91	peak

- Note:
1. Measurement = Reading Level + Correct Factor.
 2. $\text{dBuA/m} = (\text{dBuV/m}) - 20 \log(120\pi) = \text{dBuV} - 51.5$.
 3. If Peak Result complies with AV and QP limit, AV and QP Result are deemed to comply with AV limit.
 4. 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.

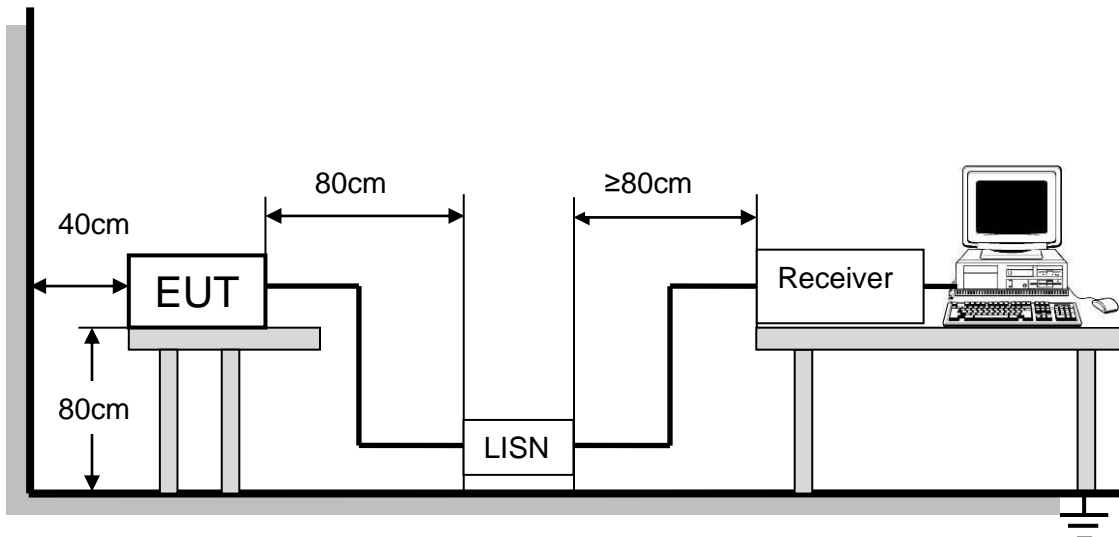
8. AC POWER LINE CONDUCTED EMISSIONS

LIMITS

Please refer to CFR 47 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

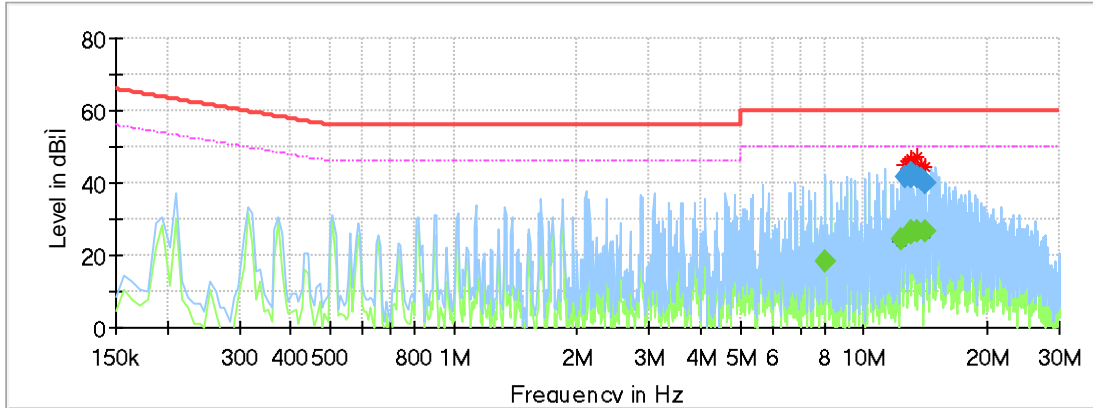


The EUT is put on a table of non-conducting material that is 80cm high. The vertical conducting wall of shielding is located 40cm to the rear of the EUT. The power line of the EUT is connected to the AC mains through a Artificial Mains Network (A.M.N.). A EMI Measurement Receiver (R&S Test Receiver ESR3) 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:



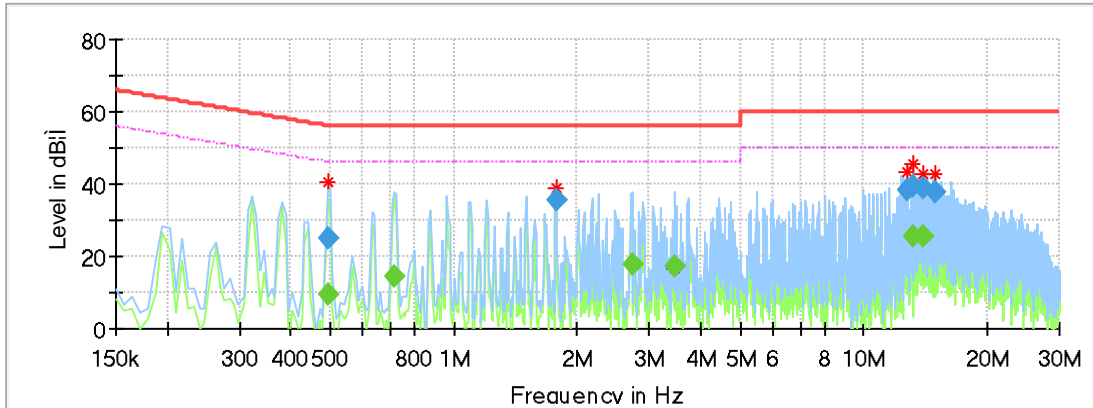
Final Result

Frequency (MHz)	QuasiPeak (dBuV)	Average (dBuV)	Limit (dBuV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Filter	Corr. (dB)
8.067713	---	18.44	50.00	31.56	1000.0	9.000	L1	OFF	9.8
12.336263	---	24.36	50.00	25.64	1000.0	9.000	L1	OFF	9.6
12.552675	41.91	---	60.00	18.09	1000.0	9.000	L1	OFF	9.6
13.037738	41.62	---	60.00	18.38	1000.0	9.000	L1	OFF	9.6
13.037738	---	26.21	50.00	23.79	1000.0	9.000	L1	OFF	9.6
13.075050	42.61	---	60.00	17.39	1000.0	9.000	L1	OFF	9.6
13.075050	---	26.40	50.00	23.60	1000.0	9.000	L1	OFF	9.6
13.560113	---	26.56	50.00	23.44	1000.0	9.000	L1	OFF	9.6
13.560113	41.68	---	60.00	18.32	1000.0	9.000	L1	OFF	9.6
13.821300	40.95	---	60.00	19.05	1000.0	9.000	L1	OFF	9.6
14.045175	---	26.41	50.00	23.59	1000.0	9.000	L1	OFF	9.6
14.052638	40.20	---	60.00	19.80	1000.0	9.000	L1	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.



For N Line:



Final_Result

Frequency (MHz)	QuasiPeak (dBuV)	Average (dBuV)	Limit (dBuV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Filter	Corr. (dB)
0.493275	---	9.28	46.11	36.83	1000.0	9.000	N	OFF	9.6
0.493275	25.13	---	56.11	30.99	1000.0	9.000	N	OFF	9.6
0.717150	---	14.46	46.00	31.54	1000.0	9.000	N	OFF	9.5
1.776825	35.47	---	56.00	20.53	1000.0	9.000	N	OFF	9.6
2.717100	---	17.81	46.00	28.19	1000.0	9.000	N	OFF	9.6
3.470813	---	17.12	46.00	28.88	1000.0	9.000	N	OFF	9.6
12.769088	38.60	---	60.00	21.40	1000.0	9.000	N	OFF	9.7
13.224300	39.43	---	60.00	20.57	1000.0	9.000	N	OFF	9.7
13.224300	---	25.78	50.00	24.22	1000.0	9.000	N	OFF	9.7
14.022788	39.08	---	60.00	20.92	1000.0	9.000	N	OFF	9.6
14.022788	---	25.71	50.00	24.29	1000.0	9.000	N	OFF	9.6
14.970525	37.75	---	60.00	22.25	1000.0	9.000	N	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.



9. 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