# Puw test Plot







Test Mode	Channel	Verdict
11n HT20	MCH	PASS

Pref test Plot



# Puw test Plot







Test Mode	Channel	Verdict
11n HT20	НСН	PASS

Pref test Plot



# Puw test Plot







Test Mode	Channel	Verdict
11n HT40	LCH	PASS

Pref test Plot



# Puw test Plot







Test Mode	Channel	Verdict
11n HT40	MCH	PASS

Pref test Plot



# Puw test Plot







Test Mode	Channel	Verdict
11n HT40	НСН	PASS

Pref test Plot



# Puw test Plot





# 7.6. RADIATED TEST RESULTS

# 7.6.1. LIMITS AND PROCEDURE

#### <u>LIMITS</u>

Please refer to FCC §15.205 and §15.209

Please refer to FCC KDB 558074

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

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)

	dB(uV/m) (at 3 meters)	
Frequency (MHZ)	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
<sup>1</sup> 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	( <sup>2</sup> )
13.36-13.41			

Note: <sup>1</sup>Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz. <sup>2</sup>Above 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(10Hz)
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 10Hz video bandwidth with peak 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 12V

# 7.6.3. RESTRICTED BANDEDGE

#### Test Result Table

Test Mode	Channel	Puw(dBm)	Verdict
	LCH	<limit< td=""><td>PASS</td></limit<>	PASS
11B	MCH	<limit< td=""><td>PASS</td></limit<>	PASS
	HCH	<limit< td=""><td>PASS</td></limit<>	PASS
11G	LCH	<limit< td=""><td>PASS</td></limit<>	PASS
	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	MCH	<limit< td=""><td>PASS</td></limit<>	PASS
	НСН	<limit< td=""><td>PASS</td></limit<>	PASS
	LCH	<limit< td=""><td>PASS</td></limit<>	PASS
11n HT40	MCH	<limit< td=""><td>PASS</td></limit<>	PASS
	HCH	<limit< td=""><td>PASS</td></limit<>	PASS



#### Test Graphs:





No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	2352.4503	40.05	13.68	53.73	74.00	-20.27	peak
2	2390.0000	38.40	14.09	52.49	74.00	-21.51	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.
  - 4. 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	2311.8140	40.43	13.22	53.65	74.00	-20.35	peak
2	2390.0000	39.27	14.09	53.36	74.00	-20.64	peak

- 2. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.
- 3. Measurement = Reading Level + Correct Factor.
- 4. 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	38.90	13.88	52.78	74.00	-21.22	peak
2 2566 7067	42.47	14.47	56.94	74.00	-17.06	peak	
2	2300.7007	30.47	14.47	44.94	54.00	-9.06	average

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.
- 4. 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 2483.50	2492 5000	41.23	13.88	55.11	74.00	-18.89	peak
	2465.5000	30.23	13.88	44.11	54.00	-9.89	average
2 2589.5050	40.65	14.48	55.13	74.00	-18.87	peak	
	2009.0000	30.65	14.48	45.13	54.00	-8.87	average

- 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.
  - 4. 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	2336.1920	39.88	13.54	53.42	74.00	-20.58	peak
3	2390.0000	37.88	14.09	51.97	74.00	-22.03	peak

- 2. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.
- 3. Measurement = Reading Level + Correct Factor.
- 4. 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	2333.8105	39.85	13.54	53.39	74.00	-20.61	peak
2	2390.0000	39.44	14.09	53.53	74.00	-20.47	peak

- 2. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.
- 3. Measurement = Reading Level + Correct Factor.
- 4. 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	38.49	13.88	52.37	74.00	-21.63	peak
2 2404 5005	42.92	14.01	56.93	74.00	-17.07	peak	
2	2494.5995	29.92	14.01	43.93	54.00	-10.07	average

- 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.
  - 4. 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	НСН	Vertical	PASS



No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1 2483.500	2492 5000	41.5	13.88	55.38	74.00	-18.62	peak
	2403.3000	30.50	13.88	44.38	54.00	-9.62	average
2 2523.5824	41.83	14.24	56.07	74.00	-17.93	peak	
	2023.0024	30.83	14.24	45.07	54.00	-8.93	average

- 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.
  - 4. 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	2318.3023	40.50	13.26	53.76	74.00	-20.24	peak
2	2390.0000	38.95	14.09	53.04	74.00	-20.96	peak

- 2. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.
- 3. Measurement = Reading Level + Correct Factor.
- 4. 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	2347.7622	40.25	13.67	53.92	74.00	-20.08	peak
2	2280 4200	43.42	14.08	57.50	74.00	-16.50	peak
2 2309.4299	30.42	14.08	44.50	54.00	-9.50	average	
3	2390.0000	38.07	14.09	52.16	74.00	-21.84	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.
  - 4. 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	38.82	13.88	52.70	74.00	-21.30	peak
2 2540.0100	41.99	14.42	56.41	74.00	-17.59	peak	
2	2549.9190	29.99	14.42	44.41	54.00	-9.59	average

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.
- 4. 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	39.91	13.88	53.79	74.00	-20.21	peak
2 2536.1296	40.69	14.28	54.97	74.00	-19.03	peak	
	2536.1296	29.69	14.28	43.97	54.00	-10.03	average

- 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.
  - 4. 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	2334.4481	42.3	13.53	55.83	74.00	-18.17	peak
		29.30	13.53	42.83	54.00	-11.17	average
2	2390.0000	38.85	14.09	52.94	74.00	-21.06	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.
- 4. 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	2347.5559	40.28	13.66	53.94	74.00	-20.06	peak
2	2390.0000	38.80	14.09	52.89	74.00	-21.11	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.
- 4. 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	38.83	13.88	52.71	74.00	-21.29	peak
	41.07	14.18	55.25	74.00	-18.75	peak	
2	2506.6067	30.07	14.18	44.25	54.00	-9.75	average

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.
- 4. 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	38.80	13.88	52.68	74.00	-21.32	peak
2 2555.0855	41.91	14.47	56.38	74.00	-17.62	peak	
	2555.0855	29.91	14.47	44.38	54.00	-9.62	average

- 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.
  - 4. 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:

#### 1) For 1GHz~18GHz

Test Mode	Channel	Puw(dBm)	Verdict
	LCH	<limit< td=""><td>PASS</td></limit<>	PASS
11B	MCH	<limit< td=""><td>PASS</td></limit<>	PASS
	HCH	<limit< td=""><td>PASS</td></limit<>	PASS
	LCH	<limit< td=""><td>PASS</td></limit<>	PASS
11G	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	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 HT40	MCH	<limit< td=""><td>PASS</td></limit<>	PASS
	HCH	<limit< td=""><td>PASS</td></limit<>	PASS

#### 2) For 9KHz~30MHz

Test Mode	Channel	Puw(dBm)	Verdict
1B	HCH	<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	Channel	Puw(dBm)	Verdict	
1B	HCH	<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 M	ode	Channel	Puw(dBm)	Verdict
1B		HCH	<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



#### Reading Correct Frequency Result Limit Margin Remark No. Level Factor (dBuV/m) (MHz) (dBuV/m) (dB) (dBuV/m) (dB) 1198.0248 48.84 -5.54 43.30 74.00 -30.70 1 peak 51.60 74.00 -24.90 2 2133.3917 -2.50 49.10 peak 3 4822.7278 48.88 4.94 53.82 74.00 -20.18 peak 4 11054.1318 37.79 12.96 50.75 74.00 -23.25 peak 37.19 17.18 54.37 74.00 -19.63 peak 5 16016.0020 27.26 17.18 44.44 54.00 -9.56 average -17.33 36.61 20.06 56.67 74.00 peak 6 16966.7458 26.33 20.06 46.39 54.00 -7.61 average 37.59 19.40 56.99 74.00 -17.01 peak 7 17638.0798 27.46 -7.14 19.40 46.86 54.00 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. Confirm that the test have added the Band Reject Filter losses during the testing. Proper operation of the transmitter prior to adding the filter to the measurement chain. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band Reject Filter losses.
- 6. 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	1746.0933	50.22	-4.41	45.81	74.00	-28.19	peak
2	2133.8917	54.68	-2.51	52.17	74.00	-21.83	peak
3	4822.7278	47.86	4.94	52.80	74.00	-21.20	peak
1	12072 0717	38.37	16.17	54.54	74.00	-19.46	peak
4	139/3.0/17	27.68	16.17	43.85	54.00	-10.15	average
F	16010 2762	37.40	17.40	54.80	74.00	-19.20	peak
Э	10010.3703	27.30	17.40	44.70	54.00	-9.30	average
6	16422 2040	38.41	17.05	55.46	74.00	-18.54	peak
0	10432.3040	28.05	17.05	45.10	54.00	-8.90	average
7	17006 7500	38.19	20.20	58.39	74.00	-15.61	peak
/ 1/026.7533	28.36	20.20	48.56	54.00	-5.44	average	
0	17609 0760	38.00	18.74	56.74	74.00	-17.26	peak
0	17008.0760	27.62	18.74	46.36	54.00	-7.64	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. Confirm that the test have added the Band Reject Filter losses during the testing. Proper operation of the transmitter prior to adding the filter to the measurement chain. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band Reject Filter losses.
- 6. 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	2133.8917	54.09	-2.51	51.58	74.00	-22.42	peak
2	2480.1850	49.36	-0.76	48.60	74.00	-25.40	peak
3	4873.3592	46.43	5.21	51.64	74.00	-22.36	peak
4	12008.6261	37.68	13.71	51.39	74.00	-22.61	peak
F	16111 6200	37.71	17.35	55.06	74.00	-18.94	peak
Э	10111.0390	27.27	17.35	44.62	54.00	-9.38	average
c	17024 0701	37.56	20.19	57.75	74.00	-16.25	peak
0	1/024.0/01	27.78	20.19	47.97	54.00	-6.03	average
7	17510 0400	38.09	19.89	57.98	74.00	-16.02	peak
/	17519.9400	27.16	19.89	47.05	54.00	-6.95	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. Confirm that the test have added the Band Reject Filter losses during the testing. Proper operation of the transmitter prior to adding the filter to the measurement chain. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band Reject Filter losses.
- 6. 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	2134.3918	54.74	-2.52	52.22	74.00	-21.78	peak
2	4873.3592	46.25	5.21	51.46	74.00	-22.54	peak
3	13962.6203	37.42	15.95	53.37	74.00	-20.63	peak
1	16172 5217	40.96	16.48	57.44	74.00	-16.56	peak
4	10173.3217	28.27	16.48	44.75	54.00	-9.25	average
E	16092 6220	37.57	20.19	57.76	74.00	-16.24	peak
5	10903.0230	26.51	20.19	46.70	54.00	-7.30	average
6	17552 6042	37.36	18.84	56.20	74.00	-17.80	peak
0	17555.0942	27.23	18.84	46.07	54.00	-7.93	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. Confirm that the test have added the Band Reject Filter losses during the testing. Proper operation of the transmitter prior to adding the filter to the measurement chain. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band Reject Filter losses.
- 6. 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	2134.1418	54.21	-2.51	51.70	74.00	-22.30	peak
2	2480.1850	49.12	-0.76	48.36	74.00	-25.64	peak
3	4923.9905	46.87	5.22	52.09	74.00	-21.91	peak
4	13936.3670	37.57	16.03	53.60	74.00	-20.40	peak
F	15000 7407	36.71	17.59	54.30	74.00	-19.70	peak
Э	15969.7467	26.85	17.59	44.44	54.00	-9.56	average
6	17062 2020	36.95	20.52	57.47	74.00	-16.53	peak
0	17002.3020	27.50	20.52	48.02	54.00	-5.98	average
7	17000 5700	39.00	19.30	58.30	74.00	-15.70	peak
/	17030.5788	28.68	19.30	47.98	54.00	-6.02	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. Confirm that the test have added the Band Reject Filter losses during the testing. Proper operation of the transmitter prior to adding the filter to the measurement chain. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band Reject Filter losses.
- 6. 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	2133.8917	54.81	-2.51	52.30	74.00	-21.70	peak
2	4923.9905	47.08	5.22	52.30	74.00	-21.70	peak
3	10542.1928	38.84	12.54	51.38	74.00	-22.62	peak
4	16166 0209	39.36	16.69	56.05	74.00	-17.95	peak
4	10100.0200	28.69	16.69	45.38	54.00	-8.62	average
F	17104 0720	37.66	19.57	57.23	74.00	-16.77	peak
5	17104.2730	29.08	19.57	48.65	54.00	-5.35	average
6	17510 0400	37.92	19.89	57.81	74.00	-16.19	peak
0	17519.9400	27.88	19.89	47.77	54.00	-6.23	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. Confirm that the test have added the Band Reject Filter losses during the testing. Proper operation of the transmitter prior to adding the filter to the measurement chain. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band Reject Filter losses.
- 6. 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	1357.7947	48.43	-5.68	42.75	74.00	-31.25	peak
2	2134.3918	53.60	-2.52	51.08	74.00	-22.92	peak
3	2426.4283	51.65	-1.15	50.50	74.00	-23.50	peak
4	4822.7278	45.63	4.94	50.57	74.00	-23.43	peak
E	15007 0705	36.72	17.37	54.09	74.00	-19.91	peak
5	10907.0730	27.77	17.37	45.14	54.00	-8.86	average
c	17100 0007	37.77	19.54	57.31	74.00	-16.69	peak
0	1/109.090/	27.29	19.54	46.83	54.00	-7.17	average
-	17700 5001	37.7	18.63	56.33	74.00	-17.67	peak
1	17720.5901	26.77	18.63	45.40	54.00	-8.60	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. Confirm that the test have added the Band Reject Filter losses during the testing. Proper operation of the transmitter prior to adding the filter to the measurement chain. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band Reject Filter losses.
- 6. 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	2134.3918	53.07	-2.52	50.55	74.00	-23.45	peak
2	4822.7278	47.87	4.94	52.81	74.00	-21.19	peak
3	7643.0804	38.95	8.92	47.87	74.00	-26.13	peak
4	13919.4899	37.69	16.06	53.75	74.00	-20.25	peak
F	16001 6077	38.3	16.97	55.27	74.00	-18.73	peak
5	10021.0277	27.81	16.97	44.78	54.00	-9.22	average
6	17071 7500	37.40	20.34	57.74	74.00	-16.26	peak
0	17071.7590	27.40	20.34	47.74	54.00	-6.26	average
7	17000 4541	37.35	19.33	56.68	74.00	-17.32	peak
/	17032.4541	27.45	19.33	46.78	54.00	-7.22	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. Confirm that the test have added the Band Reject Filter losses during the testing. Proper operation of the transmitter prior to adding the filter to the measurement chain. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band Reject Filter losses.
- 6. 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	1308.0385	48.20	-5.68	42.52	74.00	-31.48	peak
2	2133.6417	52.44	-2.51	49.93	74.00	-24.07	peak
3	4873.3592	43.87	5.21	49.08	74.00	-24.92	peak
4	13900.7376	37.67	15.94	53.61	74.00	-20.39	peak
F	10040 0550	37.43	16.87	54.30	74.00	-19.70	peak
5	16042.2553	27.54	16.87	44.41	54.00	-9.59	average
6	10070 0705	36.37	20.65	57.02	74.00	-16.98	peak
0	10979.0725	26.75	20.65	47.40	54.00	-6.60	average
7	17610 2274	39.00	18.65	57.65	74.00	-16.35	peak
/	1/019.3274	28.69	18.65	47.34	54.00	-6.66	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. Confirm that the test have added the Band Reject Filter losses during the testing. Proper operation of the transmitter prior to adding the filter to the measurement chain. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band Reject Filter losses.
- 6. 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	2134.1418	53.76	-2.51	51.25	74.00	-22.75	peak
2	2436.1795	54.78	-1.08	53.70	74.00	-20.30	peak
3	4873.3592	45.07	5.21	50.28	74.00	-23.72	peak
4	13915.7395	37.96	15.92	53.88	74.00	-20.12	peak
F	16016 0000	37.83	17.18	55.01	74.00	-18.99	peak
5	16016.0020	27.94	17.18	45.12	54.00	-8.88	average
6	10040 0007	38.04	19.84	57.88	74.00	-16.12	peak
0	10949.0007	28.38	19.84	48.22	54.00	-5.78	average
7	17624 2202	38.30	19.35	57.65	74.00	-16.35	peak
/	17034.3293	28.00	19.35	47.35	54.00	-6.65	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. Confirm that the test have added the Band Reject Filter losses during the testing. Proper operation of the transmitter prior to adding the filter to the measurement chain. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band Reject Filter losses.
- 6. 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	1308.7886	47.00	-5.69	41.31	74.00	-32.69	peak
2	2134.3918	51.81	-2.52	49.29	74.00	-24.71	peak
3	2426.4283	49.70	-1.15	48.55	74.00	-25.45	peak
4	4922.1153	44.86	5.26	50.12	74.00	-23.88	peak
F	15900 2612	37.64	16.39	54.03	74.00	-19.97	peak
5	10090.0013	26.68	16.39	43.07	54.00	-10.93	average
6	17107 2002	37.75	19.30	57.05	74.00	-16.95	peak
0	1/13/.3922	27.79	19.30	47.09	54.00	-6.91	average
7	17654 0560	37.50	19.19	56.69	74.00	-17.31	peak
	17004.9509	27.26	19.19	46.45	54.00	-7.55	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. Confirm that the test have added the Band Reject Filter losses during the testing. Proper operation of the transmitter prior to adding the filter to the measurement chain. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band Reject Filter losses.
- 6. 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	2134.1418	52.96	-2.51	50.45	74.00	-23.55	peak
2	2426.1783	50.58	-1.15	49.43	74.00	-24.57	peak
3	4923.9905	43.37	5.22	48.59	74.00	-25.41	peak
4	13720.7151	37.24	15.68	52.92	74.00	-21.08	peak
F	16242 2020	37.52	17.11	54.63	74.00	-19.37	peak
5	10342.2920	27.37	17.11	44.48	54.00	-9.52	average
6	17161 7700	37.55	19.69	57.24	74.00	-16.76	peak
0	1/101.//02	27.55	19.69	47.24	54.00	-6.76	average
7	17020 0025	38.12	19.19	57.31	74.00	-16.69	peak
/	17939.9925	27.50	19.19	46.69	54.00	-7.31	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. Confirm that the test have added the Band Reject Filter losses during the testing. Proper operation of the transmitter prior to adding the filter to the measurement chain. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band Reject Filter losses.
- 6. 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	2134.8919	51.77	-2.53	49.24	74.00	-24.76	peak
2	2426.1783	49.76	-1.15	48.61	74.00	-25.39	peak
3	4822.7278	45.70	4.94	50.64	74.00	-23.36	peak
4	14015.1269	38.10	15.65	53.75	74.00	-20.25	peak
F	16100 7627	36.95	17.41	54.36	74.00	-19.64	peak
5	10109.7037	27.12	17.41	44.53	54.00	-9.47	average
6	17060 0007	37.60	20.52	58.12	74.00	-15.88	peak
0	17009.0037	27.66	20.52	48.18	54.00	-5.82	average
7	17510.0040	39.05	19.67	58.72	74.00	-15.28	peak
/	17518.0648	28.06	19.67	47.73	54.00	-6.27	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. Confirm that the test have added the Band Reject Filter losses during the testing. Proper operation of the transmitter prior to adding the filter to the measurement chain. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band Reject Filter losses.
- 6. 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	2134.3918	55.24	-2.52	52.72	74.00	-21.28	peak
2	2425.6782	51.50	-1.16	50.34	74.00	-23.66	peak
3	4824.6031	47.42	4.94	52.36	74.00	-21.64	peak
4	13911.9890	37.66	15.77	53.43	74.00	-20.57	peak
E	15000 7407	37.1	17.59	54.69	74.00	-19.31	peak
5	10909.7407	28.03	17.59	45.62	54.00	-8.38	average
c	17022 0020	37.39	20.18	57.57	74.00	-16.43	peak
0	17023.0029	28.51	20.18	48.69	54.00	-5.31	average
7	17506 0046	38.41	19.54	57.95	74.00	-16.05	peak
1	17596.6246	27.71	19.54	47.25	54.00	-6.75	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. Confirm that the test have added the Band Reject Filter losses during the testing. Proper operation of the transmitter prior to adding the filter to the measurement chain. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band Reject Filter losses.
- 6. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

Verdict

PASS



Polarization

Horizontal

Channel

MCH

4	13902.0203	26.93	15.95	42.88	54.00	-11.12	average
F	16424 1702	37.64	17.02	54.66	74.00	-19.34	peak
Э	10434.1793	28.32	17.02	45.34	54.00	-8.66	average
6	17127 2022	37.52	19.30	56.82	74.00	-17.18	peak
0	1/13/.3922	26.68	19.30	45.98	54.00	-8.02	average
7	17502 0741	38.73	19.61	58.34	74.00	-15.66	peak
1	17593.0741	28.62	19.61	48.23	54.00	-5.77	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.

Test Mode

11n HT20

- 5. Confirm that the test have added the Band Reject Filter losses during the testing. Proper operation of the transmitter prior to adding the filter to the measurement chain. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band Reject Filter losses.
- 6. 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	1745.5932	50.46	-4.40	46.06	74.00	-27.94	peak
2	2133.3917	52.21	-2.50	49.71	74.00	-24.29	peak
3	4873.3592	45.20	5.21	50.41	74.00	-23.59	peak
4	13962.6203	37.52	15.95	53.47	74.00	-20.53	peak
F	15000 7407	36.86	17.59	54.45	74.00	-19.55	peak
Э	10969.7467	27.49	17.59	45.08	54.00	-8.92	average
6	17101 7740	38.75	19.43	58.18	74.00	-15.82	peak
0	1/191.//40	28.76	19.43	48.19	54.00	-5.81	average
7	17020 0550	37.73	19.43	57.16	74.00	-16.84	peak
/	17039.9550	27.52	19.43	46.95	54.00	-7.05	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. Confirm that the test have added the Band Reject Filter losses during the testing. Proper operation of the transmitter prior to adding the filter to the measurement chain. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band Reject Filter losses.
- 6. 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	2133.8917	51.06	-2.51	48.55	74.00	-25.45	peak
2	4923.9905	43.65	5.22	48.87	74.00	-25.13	peak
3	10761.5952	37.60	12.83	50.43	74.00	-23.57	peak
4	14191.3989	37.31	16.08	53.39	74.00	-20.61	peak
F	15005 2744	37.81	17.46	55.27	74.00	-18.73	peak
Э	10990.3744	27.40	17.46	44.86	54.00	-9.14	average
6	17004 0704	36.57	20.19	56.76	74.00	-17.24	peak
0	1/024.0/01	27.17	20.19	47.36	54.00	-6.64	average
7	17666 6604	38.78	19.03	57.81	74.00	-16.19	peak
/	17555.5694	29.47	19.03	48.50	54.00	-5.50	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. Confirm that the test have added the Band Reject Filter losses during the testing. Proper operation of the transmitter prior to adding the filter to the measurement chain. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band Reject Filter losses.
- 6. 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	2133.3917	52.84	-2.50	50.34	74.00	-23.66	peak
2	7429.3037	38.67	9.25	47.92	74.00	-26.08	peak
3	10890.9864	38.04	12.81	50.85	74.00	-23.15	peak
4	13979.4974	37.00	16.52	53.52	74.00	-20.48	peak
F	16102 2629	37.15	17.14	54.29	74.00	-19.71	peak
5	10102.2020	27.75	17.14	44.89	54.00	-9.11	average
6	17100 0005	37.95	19.55	57.50	74.00	-16.50	peak
0	17100.0235	27.60	19.55	47.15	54.00	-6.85	average
7 47000 050	17660 0597	38.13	19.70	57.83	74.00	-16.17	peak
/	17009.9587	28.35	19.70	48.05	54.00	-5.95	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. Confirm that the test have added the Band Reject Filter losses during the testing. Proper operation of the transmitter prior to adding the filter to the measurement chain. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band Reject Filter losses.
- 6. 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	1299.2874	48.68	-5.60	43.08	74.00	-30.92	peak
2	2133.8917	53.72	-2.51	51.21	74.00	-22.79	peak
3	4843.3554	44.21	5.02	49.23	74.00	-24.77	peak
4	10791.5990	38.43	12.63	51.06	74.00	-22.94	peak
F	15000 7407	36.57	17.59	54.16	74.00	-19.84	peak
Э	15969.7467	27.03	17.59	44.62	54.00	-9.38	average
6	17152 2040	38.47	19.74	58.21	74.00	-15.79	peak
0	17152.3940	28.12	19.74	47.86	54.00	-6.14	average
7 47504.0404	17504 0404	38.05	19.58	57.63	74.00	-16.37	peak
/	17594.9494	28.10	19.58	47.68	54.00	-6.32	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. Confirm that the test have added the Band Reject Filter losses during the testing. Proper operation of the transmitter prior to adding the filter to the measurement chain. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band Reject Filter losses.
- 6. 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	1358.0448	47.68	-5.68	42.00	74.00	-32.00	peak
2	2134.1418	53.44	-2.51	50.93	74.00	-23.07	peak
3	4843.3554	45.06	5.02	50.08	74.00	-23.92	peak
4	13881.9852	37.35	16.11	53.46	74.00	-20.54	peak
E	16111 6200	37.08	17.35	54.43	74.00	19.57	peak
Э	10111.0390	28.06	17.35	45.41	54.00	8.59	average
c	10005 4000	36.40	19.94	56.34	74.00	-17.66	peak
0	10905.4902	26.71	19.94	46.65	54.00	-7.35	average
7	17609 0760	37.31	18.74	56.05	74.00	-17.95	peak
1	17608.0760	27.44	18.74	46.18	54.00	-7.82	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. Confirm that the test have added the Band Reject Filter losses during the testing. Proper operation of the transmitter prior to adding the filter to the measurement chain. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band Reject Filter losses.
- 6. 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	2133.6417	50.43	-2.51	47.92	74.00	-26.08	peak
2	2426.1783	51.12	-1.15	49.97	74.00	-24.03	peak
3	4873.3592	44.07	5.21	49.28	74.00	-24.72	peak
4	13765.7207	38.34	15.27	53.61	74.00	-20.39	peak
F	15000 7407	36.98	17.59	54.57	74.00	-19.43	peak
Э	10969.7467	26.77	17.59	44.36	54.00	-9.64	average
6	17000 0000	36.51	20.18	56.69	74.00	-17.31	peak
0	17023.0029	27.41	20.18	47.59	54.00	-6.41	average
7	17669 0925	38.00	19.63	57.63	74.00	-16.37	peak
1	17000.0035	27.95	19.63	47.58	54.00	-6.42	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. Confirm that the test have added the Band Reject Filter losses during the testing. Proper operation of the transmitter prior to adding the filter to the measurement chain. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band Reject Filter losses.
- 6. 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	1746.0933	47.77	-4.41	43.36	74.00	-30.64	peak
2	2134.1418	55.01	-2.51	52.50	74.00	-21.50	peak
3	4873.3592	43.35	5.21	48.56	74.00	-25.44	peak
4	13971.9965	37.63	16.05	53.68	74.00	-20.32	peak
E	16402 2002	37.68	17.12	54.80	74.00	-19.20	peak
Э	10402.3003	26.91	17.12	44.03	54.00	-9.97	average
c	17150 0050	36.88	19.74	56.62	74.00	-17.38	peak
0	17159.6950	27.82	19.74	47.56	54.00	-6.44	average
7	17550 2100	37.27	19.42	56.69	74.00	-17.31	peak
/	17559.3199	27.01	19.42	46.43	54.00	-7.57	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. Confirm that the test have added the Band Reject Filter losses during the testing. Proper operation of the transmitter prior to adding the filter to the measurement chain. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band Reject Filter losses.
- 6. 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	1794.0993	48.14	-3.94	44.20	74.00	-29.80	peak
2	2133.8917	55.82	-2.51	53.31	74.00	-20.69	peak
3	4903.3629	43.63	5.07	48.70	74.00	-25.30	peak
1	12570 1072	40.34	14.88	55.22	74.00	-18.78	peak
4	13376.1973	28.77	14.88	43.65	54.00	-10.35	average
Б	15007 0725	37.04	17.37	54.41	74.00	-19.59	peak
5	10907.0730	27.75	17.37	45.12	54.00	-8.88	average
6	16020 6172	38.44	19.94	58.38	74.00	-15.62	peak
0	10930.0173	28.37	19.94	48.31	54.00	-5.69	average
7	17604 2269	38.49	18.43	56.92	74.00	-17.08	peak
/	17094.3308	28.25	18.43	46.68	54.00	-7.32	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. Confirm that the test have added the Band Reject Filter losses during the testing. Proper operation of the transmitter prior to adding the filter to the measurement chain. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band Reject Filter losses.
- 6. 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	1746.0933	50.42	-4.41	46.01	74.00	-27.99	peak
2	2133.8917	54.13	-2.51	51.62	74.00	-22.38	peak
3	4903.3629	43.49	5.07	48.56	74.00	-25.44	peak
4	13928.8661	37.61	16.05	53.66	74.00	-20.34	peak
F	10002 0754	37.78	17.36	55.14	74.00	-18.86	peak
5	10002.0754	27.13	17.36	44.49	54.00	-9.51	average
6	17051 1214	37.67	20.48	58.15	74.00	-15.85	peak
0	17051.1314	27.29	20.48	47.77	54.00	-6.23	average
7 47000 7000	37.47	19.21	56.68	74.00	-17.32	peak	
/	1/020./030	27.72	19.21	46.93	54.00	-7.07	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. Confirm that the test have added the Band Reject Filter losses during the testing. Proper operation of the transmitter prior to adding the filter to the measurement chain. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band Reject Filter losses.
- 6. 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
11B	HCH	Horizontal	PASS



No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	18492.1992	46.39	-0.94	45.45	74.00	-28.55	peak
2	19824.2824	43.22	-0.61	42.61	74.00	-31.39	peak
3	21186.1186	42.43	-0.82	41.61	74.00	-32.39	peak
4	22632.9633	44.00	0.94	44.94	74.00	-29.06	peak
5	23292.6293	42.89	0.47	43.36	74.00	-30.64	peak
6	25566.6067	40.59	0.96	41.55	74.00	-32.45	peak

- 2. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.
- 3. Measurement = Reading Level + Correct Factor.
- 4. 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	18437.7938	43.95	-0.96	42.99	74.00	-31.01	peak
2	19476.5977	40.90	-0.74	40.16	74.00	-33.84	peak
3	21558.4558	37.94	-0.44	37.50	74.00	-36.50	peak
4	22628.7129	40.77	0.94	41.71	74.00	-32.29	peak
5	24614.5115	38.70	-0.42	38.28	74.00	-35.72	peak
6	25523.2523	38.68	0.89	39.57	74.00	-34.43	peak

- 2. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.
- 3. Measurement = Reading Level + Correct Factor.
- 4. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

Note: All constructions and test modes and channels have been tested, only the worst data record in the report.



## 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	31.4551	5.08	26.22	31.30	40.00	-8.70	peak
2	111.3911	5.75	18.81	24.56	43.50	-18.94	peak
3	164.1644	13.15	18.54	31.69	43.50	-11.81	peak
4	350.0350	10.43	21.66	32.09	46.00	-13.91	peak
5	742.8273	6.69	29.06	35.75	46.00	-10.25	peak
6	844.9785	8.14	30.36	38.50	46.00	-7.50	peak

- 2. Test setup: RBW: 120 kHz, VBW: 300 kHz, Sweep time: auto.
- 3. Measurement = Reading Level + Correct Factor.





No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	61.6252	19.23	14.11	33.34	40.00	-6.66	peak
2	115.1745	9.24	19.48	28.72	43.50	-14.78	peak
3	147.3817	11.48	19.49	30.97	43.50	-12.53	peak
4	164.1644	16.36	18.54	34.90	43.50	-8.60	peak
5	495.8406	6.34	25.61	31.95	46.00	-14.05	peak
6	828.3898	8.37	30.15	38.52	46.00	-7.48	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.

3. Measurement = Reading Level + Correct Factor.

Note: All constructions and test modes and channels have been tested, only the worst data record in the report.

#### Part IV: 9KHz~30MHz



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

No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	0.0145	29.80	-61.12	-31.32	44.34	-75.66	peak
2	0.0241	26.79	-60.99	-34.20	39.96	-74.16	peak
3	0.0355	24.23	-61.06	-36.83	36.59	-73.42	peak
4	0.0592	20.83	-61.30	-40.47	32.16	-72.63	peak
5	0.0849	18.58	-61.28	-42.70	29.03	-71.73	peak
6	0.1111	15.61	-60.99	-45.38	26.70	-72.08	peak

- 2. Result 300m= Result 3m-80 dBuV/m
- 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
11B	HCH	150KHz~490KHz	PASS



No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	0.1755	24.69	-61.32	-36.63	22.72	-59.35	peak
2	0.1890	22.77	-61.25	-38.48	22.08	-60.56	peak
3	0.2514	21.15	-60.94	-39.79	19.59	-59.38	peak
4	0.2793	20.78	-60.92	-40.14	18.68	-58.82	peak
5	0.3449	19.49	-60.86	-41.37	16.85	-58.22	peak
6	0.4134	16.95	-60.80	-43.85	15.16	-59.01	peak

- Note: 1. Measurement = Reading Level + Correct Factor.
  - 2. Result 300m= Result 3m-80 dBuV/m
  - 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
11B	HCH	490KHz~30MHz	PASS



No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	1.1658	10.49	-20.46	-9.97	26.27	-36.24	peak
2	2.0247	9.85	-20.34	-10.49	29.54	-40.03	peak
3	3.4029	9.88	-20.42	-10.54	29.54	-40.08	peak
4	5.7197	7.37	-20.18	-12.81	29.54	-42.35	peak
5	10.4772	8.78	-19.02	-10.24	29.54	-39.78	peak
6	21.4855	7.32	-17.65	-10.33	29.54	-39.87	peak

- 2. Result 30m= Result 3m-40 dBuV/m
- 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

Note: All constructions and test modes and channels have been tested, only the worst data record in the report.



# 8. AC POWER LINE CONDUCTED EMISSIONS

# LIMITS

Please refer to FCC §15.207 (a)

	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)





# Final\_Result

Frequency (MHz)	QuasiPeak (dBuV)	Average (dBuV)	Limit (dBuV)	Margin (dB)	Meas. Time	Bandwidth (kHz)	Line	Filter	Corr. (dB)
					(1115)				
0.478350		34.43	46.37	11.94	1000.0	9.000	L1	OFF	9.7
0.478350	42.08		56.37	14.29	1000.0	9.000	L1	OFF	9.7
0.612675	25.92		56.00	30.08	1000.0	9.000	L1	OFF	9.6
0.806700		26.42	46.00	19.58	1000.0	9.000	L1	OFF	9.6
0.911175	35.22		56.00	20.78	1000.0	9.000	L1	OFF	9.7
1.687275	33.81		56.00	22.19	1000.0	9.000	L1	OFF	9.6
1.687275		26.08	46.00	19.92	1000.0	9.000	L1	OFF	9.6
2.269350	33.69		56.00	22.31	1000.0	9.000	L1	OFF	9.7
2.314125		26.39	46.00	19.61	1000.0	9.000	L1	OFF	9.7
2.903663		26.25	46.00	19.75	1000.0	9.000	L1	OFF	9.8
2.903663	33.60		56.00	22.40	1000.0	9.000	L1	OFF	9.8
3.530513		25.17	46.00	20.83	1000.0	9.000	L1	OFF	9.8

- 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 HCH of 11n HT40 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	Bandwidth (kHz)	Line	Filter	Corr. (dB)
. ,		<b>、</b> ,			(ms)				
0.441038	30.07		57.04	26.97	1000.0	9.000	Ν	OFF	9.6
0.717150	24.67		56.00	31.33	1000.0	9.000	Ν	OFF	9.5
0.724613		13.79	46.00	32.21	1000.0	9.000	Ν	OFF	9.5
1.321613		13.14	46.00	32.86	1000.0	9.000	Ν	OFF	9.6
3.426038	27.15	-	56.00	28.85	1000.0	9.000	Ν	OFF	9.7
4.023038	25.50		56.00	30.50	1000.0	9.000	Ν	OFF	9.6
9.672150		29.33	50.00	20.67	1000.0	9.000	Ν	OFF	9.8
9.836325		30.31	50.00	19.69	1000.0	9.000	Ν	OFF	9.8
10.075125		31.62	50.00	18.38	1000.0	9.000	Ν	OFF	9.8
10.276613	34.70		60.00	25.30	1000.0	9.000	Ν	OFF	9.8
10.276613		30.75	50.00	19.25	1000.0	9.000	Ν	OFF	9.8
10.575113	33.49		60.00	26.51	1000.0	9.000	Ν	OFF	9.8

- 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 HCH of 11n HT40 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 GAIN

The antenna gain of EUT is less than 6 dBi

# END OF REPORT