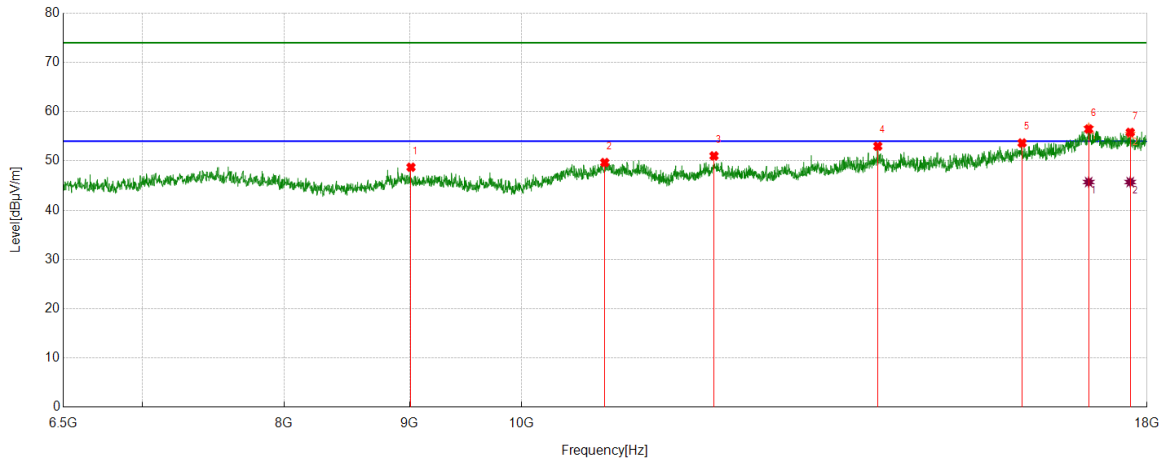




Test Mode	Channel	Polarization	Verdict
11AC80	5775	Vertical	PASS



PK Result:

No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	[MHz]	[dBuV/m]	[dB]	[dBuV/m]	[dBuV/m]	[dB]	
1	9013.1689	39.01	9.71	48.72	74.00	-25.28	Vertical
2	10813.2189	37.14	12.53	49.67	74.00	-24.33	Vertical
3	11982.5804	37.51	13.51	51.02	74.00	-22.98	Vertical
4	13976.246	38.37	14.62	52.99	74.00	-21.01	Vertical
5	16006.3344	37.35	16.29	53.64	74.00	-20.36	Vertical
6	17039.5899	37.18	19.52	56.70	74.00	-17.30	Vertical
7	17718.2030	36.45	19.06	55.51	74.00	-18.49	Vertical

AV Result:

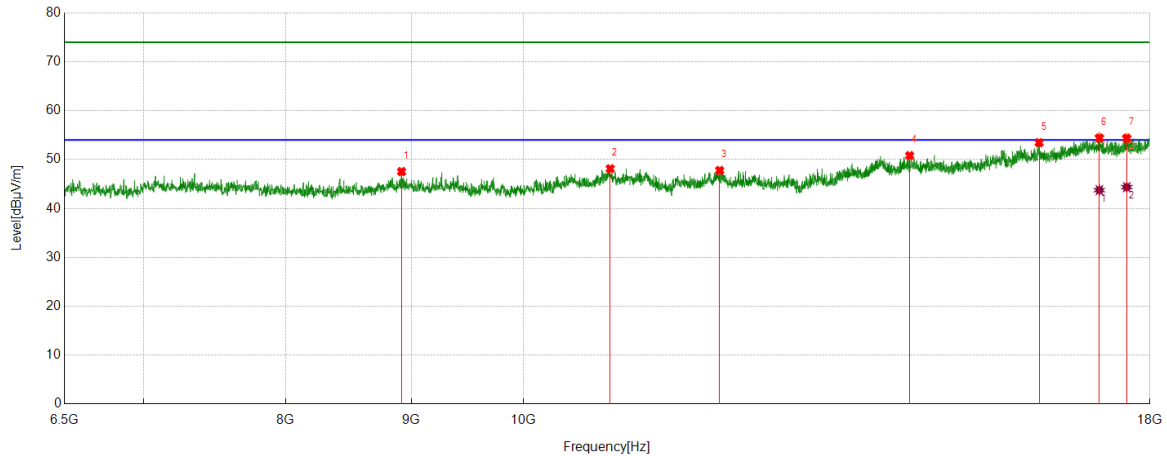
No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	[MHz]	[dBuV/m]	[dB]	[dBuV/m]	[dBuV/m]	[dB]	
1	17039.5899	26.19	19.52	45.71	54.00	-8.29	Vertical
2	17718.2030	26.65	19.06	45.71	54.00	-8.29	Vertical

- Remark: 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 6.2.  
 6. For above 6.5GHz part, filter losses were only considered in the spurious frequency bands and the authorized band were 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.



**Antenna Type 1: PCB Antenna**

Test Mode	Channel	Polarization	Verdict
11A	5180	Horizontal	PASS



**PK Result:**

No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	[MHz]	[dBuV/m]	[dB]	[dBuV/m]	[dBuV/m]	[dB]	
1	8919.2365	37.85	9.69	47.54	74.00	-26.46	Horizontal
2	10847.7246	35.97	12.15	48.12	74.00	-25.88	Horizontal
3	12020.9202	35.07	12.70	47.77	74.00	-26.23	Horizontal
4	14367.3112	35.94	14.86	50.80	74.00	-23.20	Horizontal
5	16222.9538	35.40	18.05	53.45	74.00	-20.55	Horizontal
6	17166.111	36.05	18.54	54.59	74.00	-19.41	Horizontal
7	17612.7688	35.84	18.57	54.41	74.00	-19.59	Horizontal

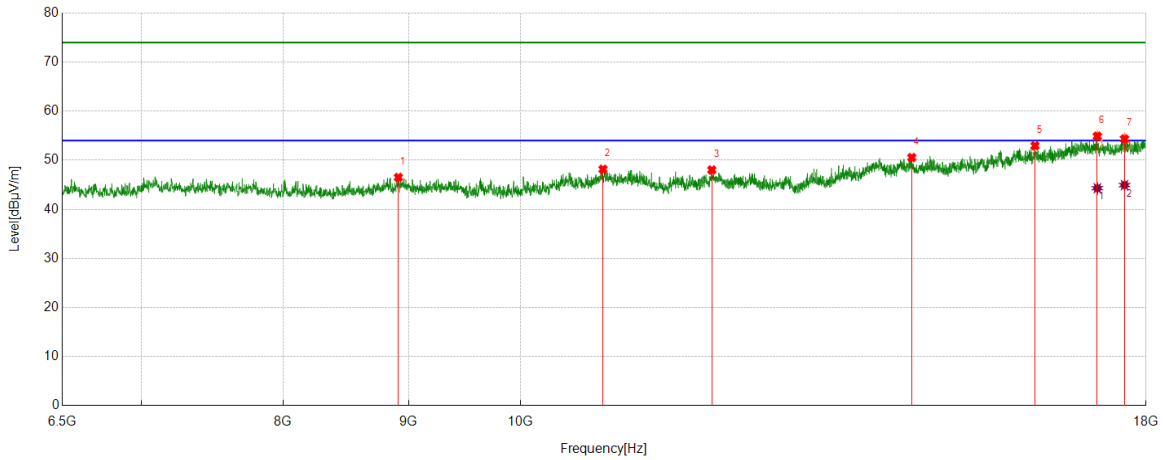
**AV Result:**

No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	[MHz]	[dBuV/m]	[dB]	[dBuV/m]	[dBuV/m]	[dB]	
1	17166.111	25.21	18.54	43.75	54.00	-10.25	Horizontal
2	17612.7688	25.79	18.57	44.36	54.00	-9.64	Horizontal

- Remark: 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 6.2.  
 6. For above 6.5GHz part, filter losses were only considered in the spurious frequency bands and the authorized band were 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
11A	5180	Vertical	PASS



PK Result:

No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	[MHz]	[dBuV/m]	[dB]	[dBuV/m]	[dBuV/m]	[dB]	
1	8915.4026	36.89	9.61	46.50	74.00	-27.50	Vertical
2	10805.5509	36.14	12.02	48.16	74.00	-25.84	Vertical
3	11969.1615	35.40	12.62	48.02	74.00	-25.98	Vertical
4	14443.9907	35.54	15.01	50.55	74.00	-23.45	Vertical
5	16217.2029	35.12	17.83	52.95	74.00	-21.05	Vertical
6	17194.8658	36.15	18.82	54.97	74.00	-19.03	Vertical
7	17639.6066	35.27	19.22	54.49	74.00	-19.51	Vertical

AV Result:

No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	[MHz]	[dBuV/m]	[dB]	[dBuV/m]	[dBuV/m]	[dB]	
1	17194.8658	25.48	18.82	44.30	54.00	-9.70	Vertical
2	17639.6066	25.72	19.22	44.94	54.00	-9.06	Vertical

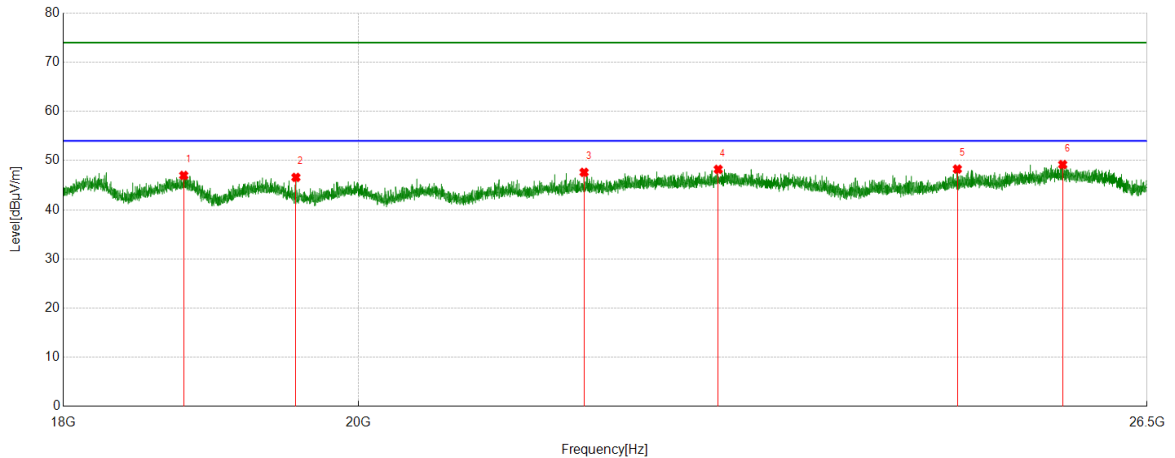
- Remark: 1. Measurement = Reading Level + Correct Factor.  
 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.  
 3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.  
 4. Peak: Peak detector.  
 5. AVG: VBW refer to section 6.2.  
 6. For above 6.5GHz part, filter losses were only considered in the spurious frequency bands and the authorized band were 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 3: 18GHz~26.5GHz**

**Antenna Type 2: External Dipole Antenna**

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

Test Mode	Channel	Polarization	Verdict
11A	5745	Horizontal	PASS



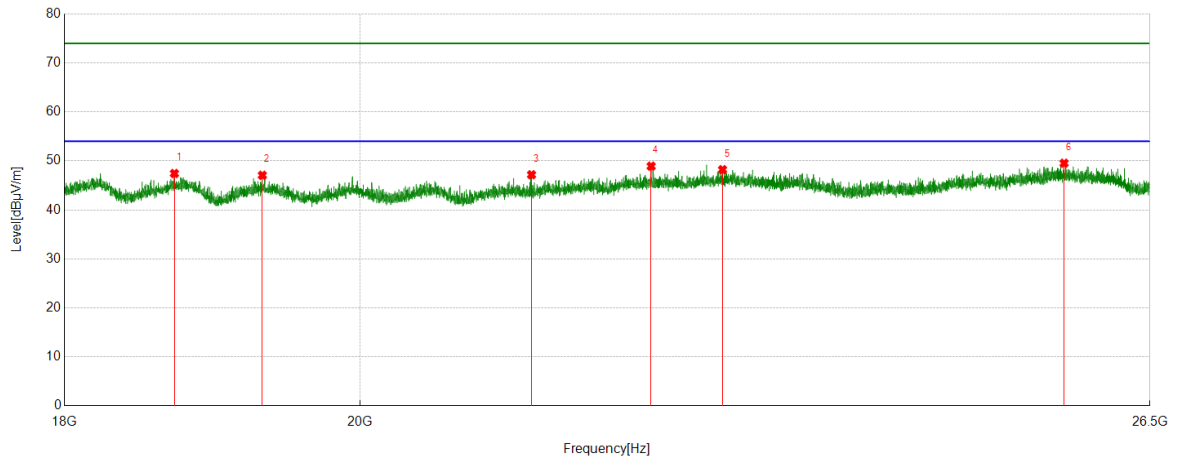
**PK Result:**

No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	[MHz]	[dBuV/m]	[dB]	[dBuV/m]	[dBuV/m]	[dB]	
1	18791.4291	48.43	-1.45	46.98	74.00	-27.02	Horizontal
2	19559.0559	47.77	-1.19	46.58	74.00	-27.42	Horizontal
3	21677.4677	48.18	-0.57	47.61	74.00	-26.39	Horizontal
4	22740.074	47.65	0.57	48.22	74.00	-25.78	Horizontal
5	24765.8266	48.99	-0.72	48.27	74.00	-25.73	Horizontal
6	25714.5215	48.53	0.66	49.19	74.00	-24.81	Horizontal

- Remark: 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
11A	5745	Vertical	PASS



PK Result:

No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	[MHz]	[dBuV/m]	[dB]	[dBuV/m]	[dBuV/m]	[dB]	
1	18720.022	48.83	-1.40	47.43	74.00	-26.57	Vertical
2	19315.9316	48.39	-1.33	47.06	74.00	-26.94	Vertical
3	21260.076	48.07	-0.90	47.17	74.00	-26.83	Vertical
4	22185.8186	49.02	-0.10	48.92	74.00	-25.08	Vertical
5	22757.0757	47.62	0.59	48.21	74.00	-25.79	Vertical
6	25701.7702	48.88	0.64	49.52	74.00	-24.48	Vertical

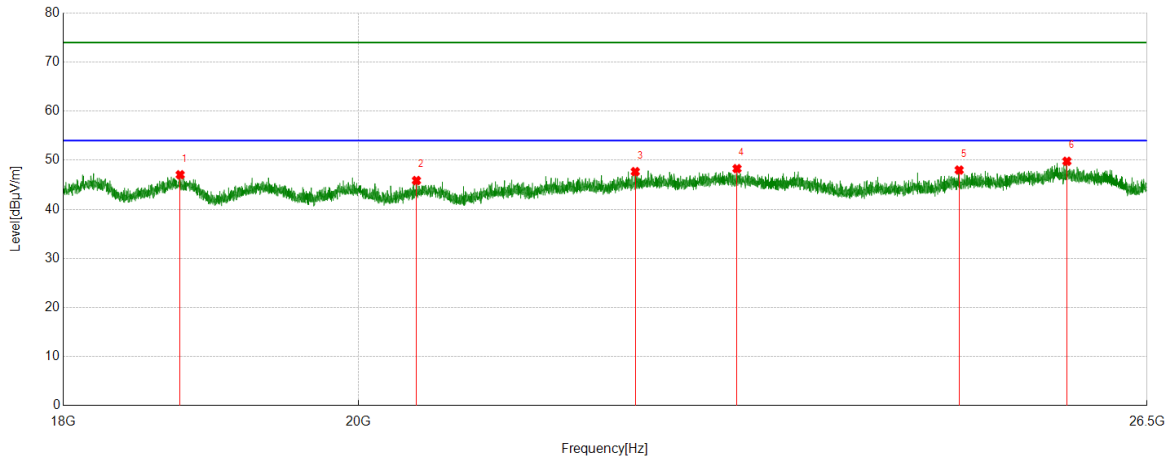
- Remark: 1. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.  
 2. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.  
 3. Measurement = Reading Level + Correct Factor.



**Antenna Type 1: PCB Antenna**

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

Test Mode	Channel	Polarization	Verdict
11A	5745	Horizontal	PASS



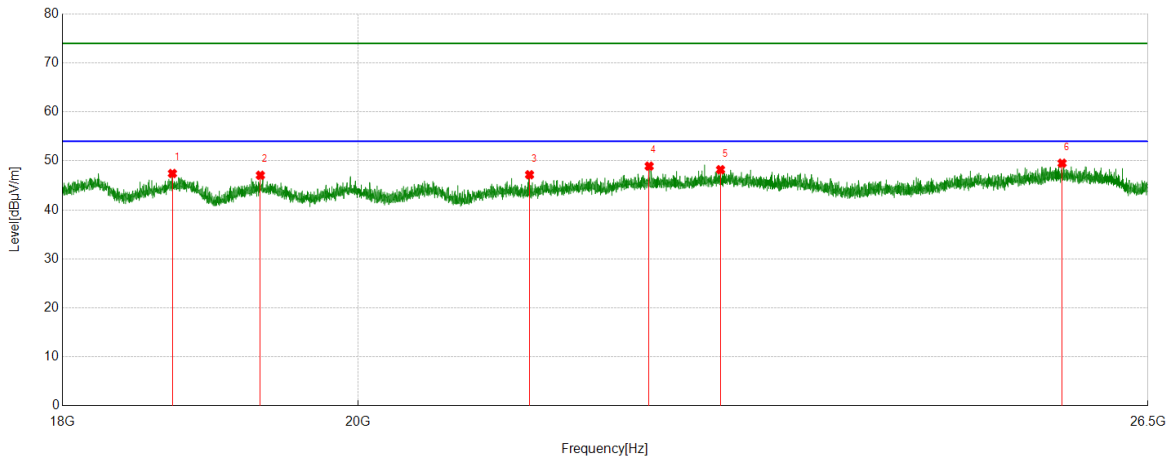
**PK Result:**

No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	[MHz]	[dBuV/m]	[dB]	[dBuV/m]	[dBuV/m]	[dB]	
1	18767.6268	48.47	-1.43	47.04	74.00	-26.96	Horizontal
2	20418.4918	46.85	-0.98	45.87	74.00	-28.13	Horizontal
3	22077.0077	47.92	-0.24	47.68	74.00	-26.32	Horizontal
4	22893.0893	47.56	0.73	48.29	74.00	-25.71	Horizontal
5	24781.9782	48.71	-0.71	48.00	74.00	-26.00	Horizontal
6	25752.7753	49.07	0.72	49.79	74.00	-24.21	Horizontal

- Remark: 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
11A	5745	Vertical	PASS



PK Result:

No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	[MHz]	[dBuV/m]	[dB]	[dBuV/m]	[dBuV/m]	[dB]	
1	18703.8704	48.55	-1.40	47.15	74.00	-26.85	Vertical
2	19988.3488	47.06	-0.92	46.14	74.00	-27.86	Vertical
3	21407.9908	48.36	-0.78	47.58	74.00	-26.42	Vertical
4	22179.868	47.81	-0.11	47.70	74.00	-26.30	Vertical
5	24152.9153	48.55	-1.38	47.17	74.00	-26.83	Vertical
6	25714.5215	48.44	0.66	49.10	74.00	-24.90	Vertical

- Remark: 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.

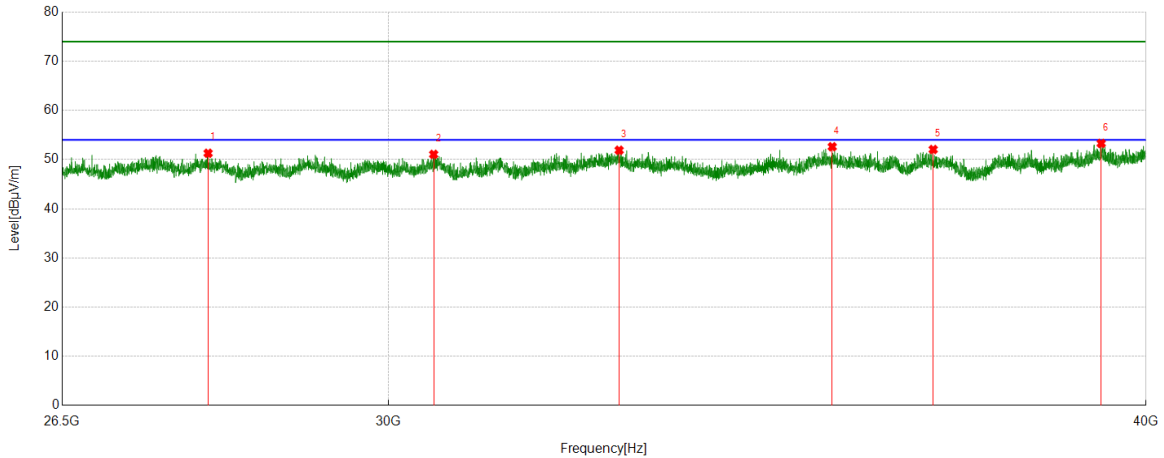


**Part 4: 26.5GHz~40GHz**

**Antenna Type 2: External Dipole Antenna**

**SPURIOUS EMISSIONS 26.5GHz TO 40GHz (WORST-CASE CONFIGURATION)**

Test Mode	Channel	Polarization	Verdict
11A	5745	Horizontal	PASS



**PK Result:**

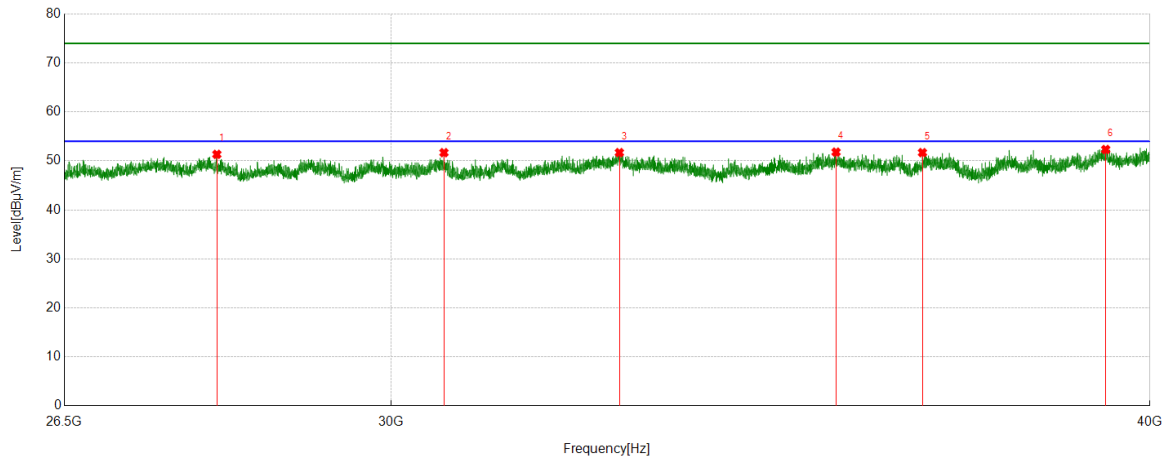
No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	[MHz]	[dBuV/m]	[dB]	[dBuV/m]	[dBuV/m]	[dB]	
1	28010.8011	58.12	-6.83	51.29	74.00	-22.71	Horizontal
2	30516.6517	58.04	-6.98	51.06	74.00	-22.94	Horizontal
3	32744.3744	57.69	-5.79	51.90	74.00	-22.10	Horizontal
4	35505.4005	55.42	-2.81	52.61	74.00	-21.39	Horizontal
5	36893.3393	52.33	-0.28	52.05	74.00	-21.95	Horizontal
6	39324.9325	50.28	3.01	53.29	74.00	-20.71	Horizontal

- Remark: 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
11A	5745	Vertical	PASS



PK Result:

No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	[MHz]	[dBuV/m]	[dB]	[dBuV/m]	[dBuV/m]	[dB]	
1	28078.3078	58.29	-6.95	51.34	74.00	-22.66	Vertical
2	30604.4104	58.85	-7.17	51.68	74.00	-22.32	Vertical
3	32709.2709	57.49	-5.80	51.69	74.00	-22.31	Vertical
4	35510.8011	54.60	-2.80	51.80	74.00	-22.20	Vertical
5	36693.5194	52.77	-1.08	51.69	74.00	-22.31	Vertical
6	39334.3834	49.30	3.03	52.33	74.00	-21.67	Vertical

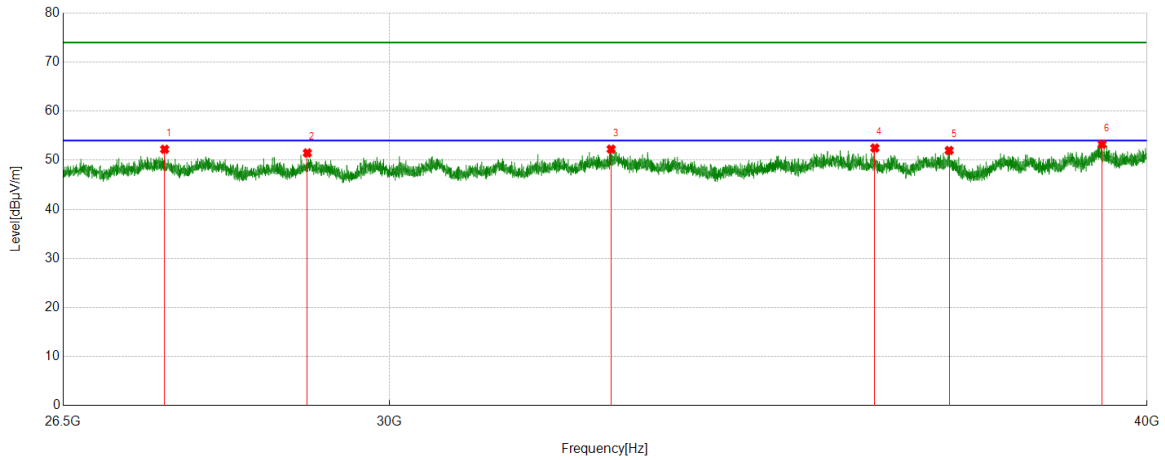
- Remark: 1. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.  
 2. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.  
 3. Measurement = Reading Level + Correct Factor.



**Antenna Type 1: PCB Antenna**

**SPURIOUS EMISSIONS 26.5GHz TO 40GHz (WORST-CASE CONFIGURATION)**

Test Mode	Channel	Polarization	Verdict
11A	5745	Horizontal	PASS



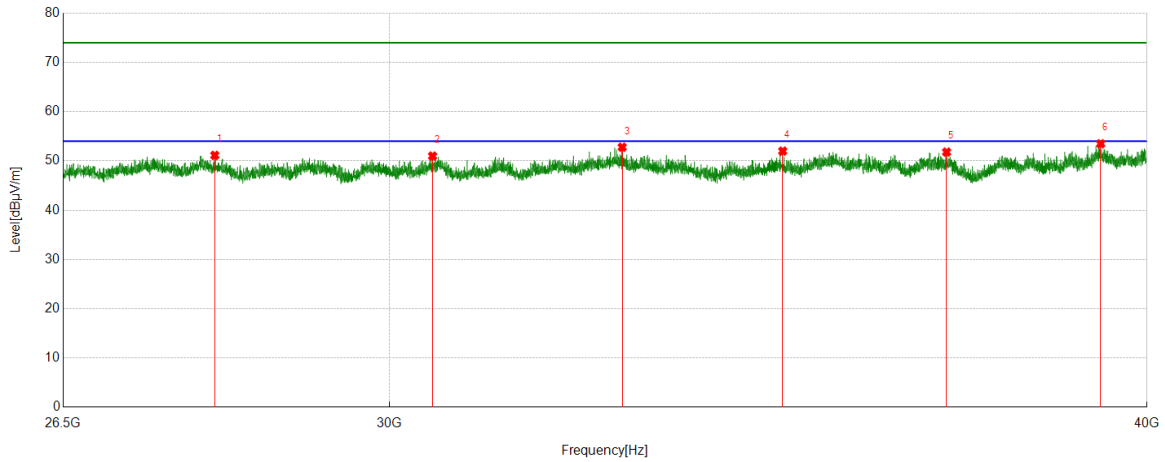
**PK Result:**

No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	[MHz]	[dBuV/m]	[dB]	[dBuV/m]	[dBuV/m]	[dB]	
1	27542.3042	59.36	-7.13	52.23	74.00	-21.77	Horizontal
2	29076.0576	58.08	-6.60	51.48	74.00	-22.52	Horizontal
3	32632.3132	58.08	-5.82	52.26	74.00	-21.74	Horizontal
4	36071.1071	54.72	-2.23	52.49	74.00	-21.51	Horizontal
5	37103.9604	52.44	-0.45	51.99	74.00	-22.01	Horizontal
6	39323.5824	50.26	3.01	53.27	74.00	-20.73	Horizontal

- Remark: 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
11A	5745	Vertical	PASS



PK Result:

No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	[MHz]	[dBuV/m]	[dB]	[dBuV/m]	[dBuV/m]	[dB]	
1	28071.5572	58.07	-6.94	51.13	74.00	-22.87	Vertical
2	30492.3492	57.92	-6.93	50.99	74.00	-23.01	Vertical
3	32770.027	58.56	-5.78	52.78	74.00	-21.22	Vertical
4	34830.333	56.68	-4.69	51.99	74.00	-22.01	Vertical
5	37067.5068	52.04	-0.24	51.80	74.00	-22.20	Vertical
6	39301.9802	50.51	2.97	53.48	74.00	-20.52	Vertical

- Remark: 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.

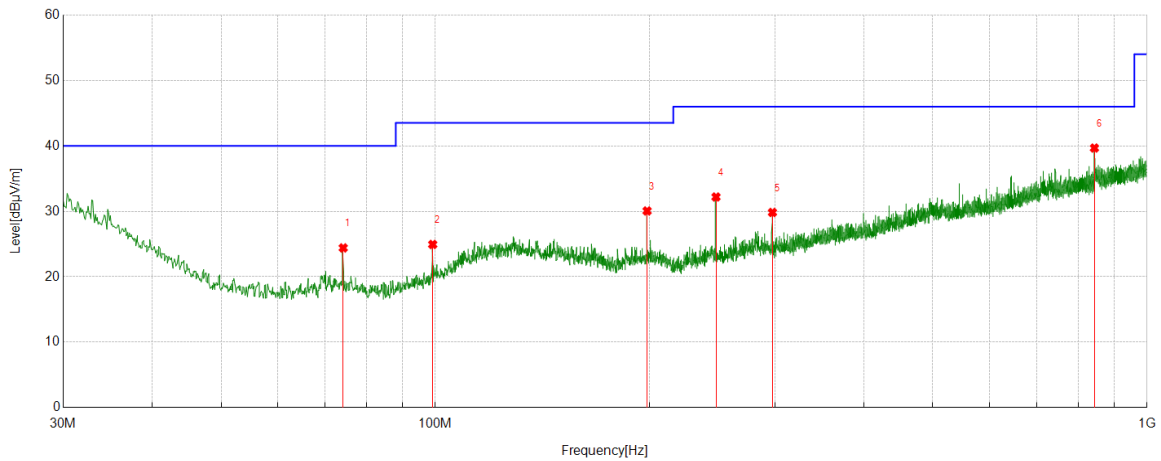


**Part 5: 30MHz~1GHz**

**Antenna Type 2: External Dipole Antenna**

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

Test Mode	Channel	Polarization	Verdict
11A	5745	Horizontal	PASS

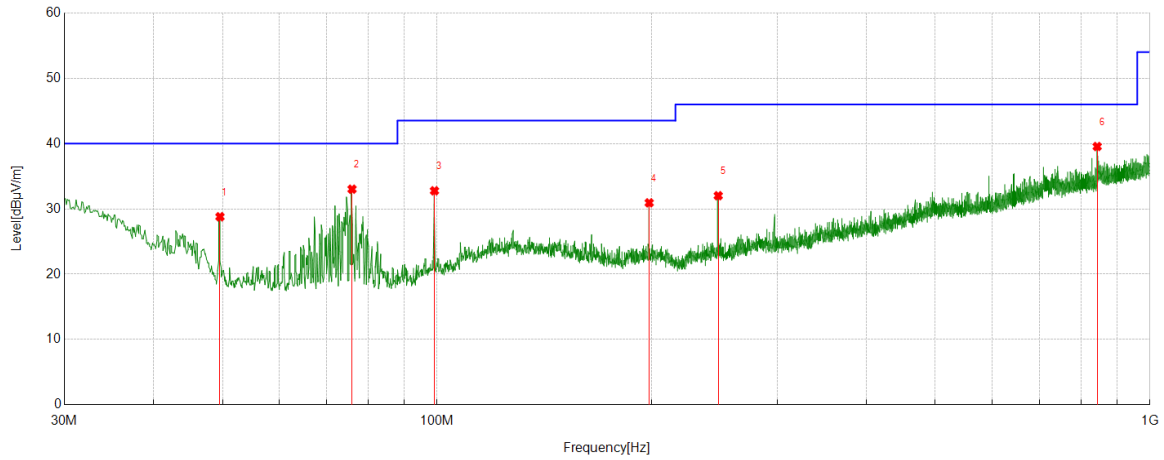


No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	74.2364	9.80	14.61	24.41	40.00	-15.59	peak
2	99.1679	8.27	16.67	24.94	43.50	-18.56	peak
3	198.4088	10.99	19.07	30.06	43.50	-13.44	peak
4	247.9808	13.23	18.96	32.19	46.00	-13.81	peak
5	297.6498	9.35	20.48	29.83	46.00	-16.17	peak
6	843.5234	9.31	30.36	39.67	46.00	-6.33	peak

- Remark: 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
11A	5745	Vertical	PASS



No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	49.596	14.00	14.80	28.80	40.00	-11.20	peak
2	75.9826	18.48	14.54	33.02	40.00	-6.98	peak
3	99.1679	16.10	16.67	32.77	43.50	-10.73	peak
4	198.4088	11.86	19.07	30.93	43.50	-12.57	peak
5	247.9808	13.06	18.96	32.02	46.00	-13.98	peak
6	843.3293	9.19	30.36	39.55	46.00	-6.45	peak

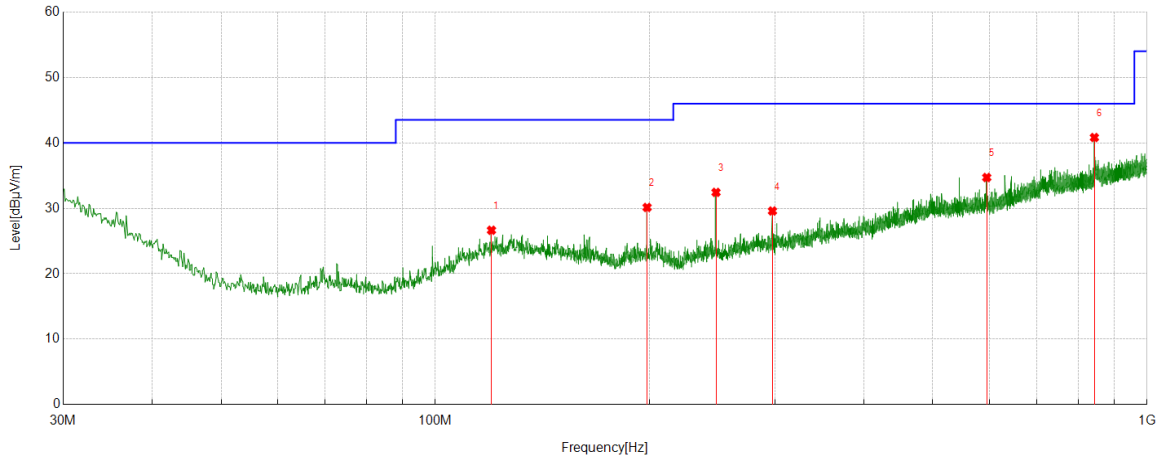
Remark: 1. If Peak Result complies with QP limit, QP Result is deemed to comply with QP limit.  
 2. Test setup: RBW: 120 kHz, VBW: 300 kHz, Sweep time: auto.  
 3. Measurement = Reading Level + Correct Factor.



**Antenna Type 1: PCB Antenna**

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

Test Mode	Channel	Polarization	Verdict
11A	5745	Horizontal	PASS

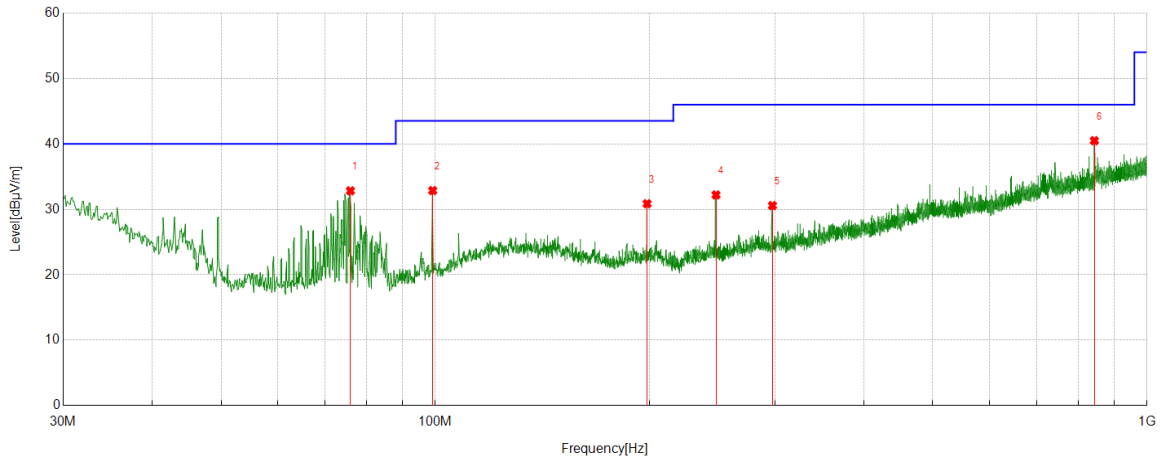


No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	119.928	6.28	20.37	26.65	43.50	-16.85	peak
2	198.4088	11.07	19.07	30.14	43.50	-13.36	peak
3	247.9808	13.48	18.96	32.44	46.00	-13.56	peak
4	297.6498	9.11	20.48	29.59	46.00	-16.41	peak
5	595.3725	8.17	26.54	34.71	46.00	-11.29	peak
6	843.4263	10.46	30.36	40.82	46.00	-5.18	peak

- Remark: 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
11A	5745	Vertical	PASS



No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	75.9826	18.29	14.54	32.83	40.00	-7.17	peak
2	99.1679	16.20	16.67	32.87	43.50	-10.63	peak
3	198.4088	11.79	19.07	30.86	43.50	-12.64	peak
4	247.9808	13.24	18.96	32.20	46.00	-13.80	peak
5	297.6498	10.09	20.48	30.57	46.00	-15.43	peak
6	843.3293	10.13	30.36	40.49	46.00	-5.51	peak

Remark: 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.

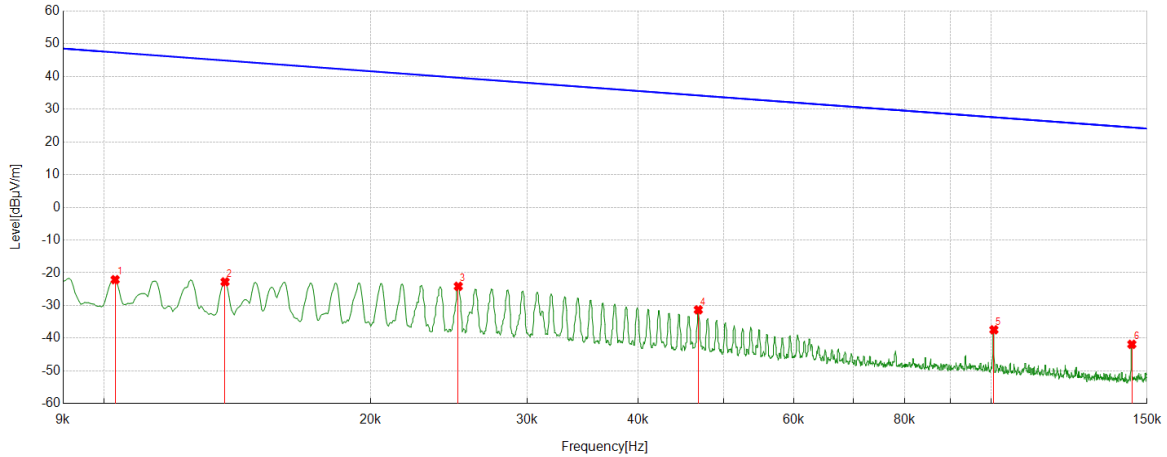


**Part 6: 9kHz~30MHz**

**Antenna Type 2: External Dipole Antenna**

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

Test Mode	Channel	Frequency Range	Verdict
11A	5745	9kHz~150kHz	PASS



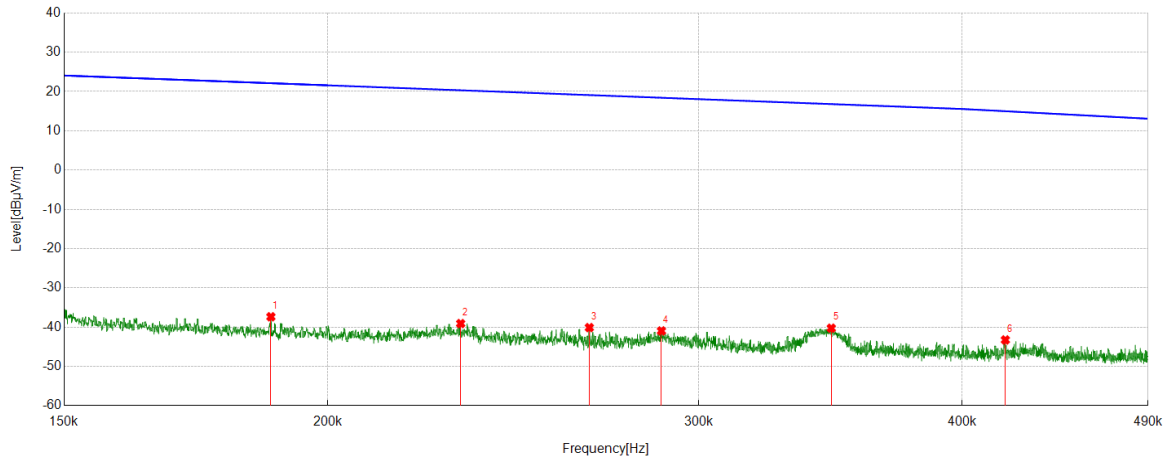
No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	0.0103	39.03	-61.14	-22.11	47.37	-69.48	peak
2	0.0137	38.27	-61.04	-22.77	44.86	-67.63	peak
3	0.0251	36.75	-60.88	-24.13	39.60	-63.73	peak
4	0.0468	29.70	-61.02	-31.32	34.19	-65.51	peak
5	0.1008	23.31	-60.73	-37.42	27.53	-64.95	peak
6	0.1442	19.39	-61.25	-41.86	24.42	-66.28	peak

- Remark: 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
11A	5745	150kHz~490kHz	PASS

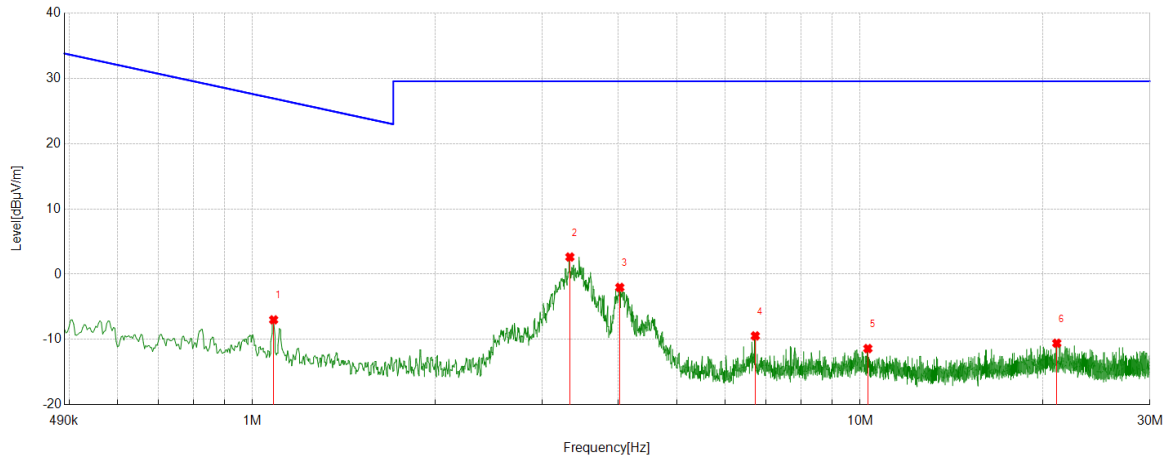


No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	0.188	23.76	-61.12	-37.36	22.12	-59.48	peak
2	0.2313	21.81	-60.90	-39.09	20.32	-59.41	peak
3	0.2662	20.68	-60.79	-40.11	19.10	-59.21	peak
4	0.288	19.81	-60.77	-40.96	18.41	-59.37	peak
5	0.3467	20.46	-60.72	-40.26	16.80	-57.06	peak
6	0.4193	17.40	-60.66	-43.26	14.98	-58.24	peak

- Remark:
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
11A	5745	490kHz~30MHz	PASS



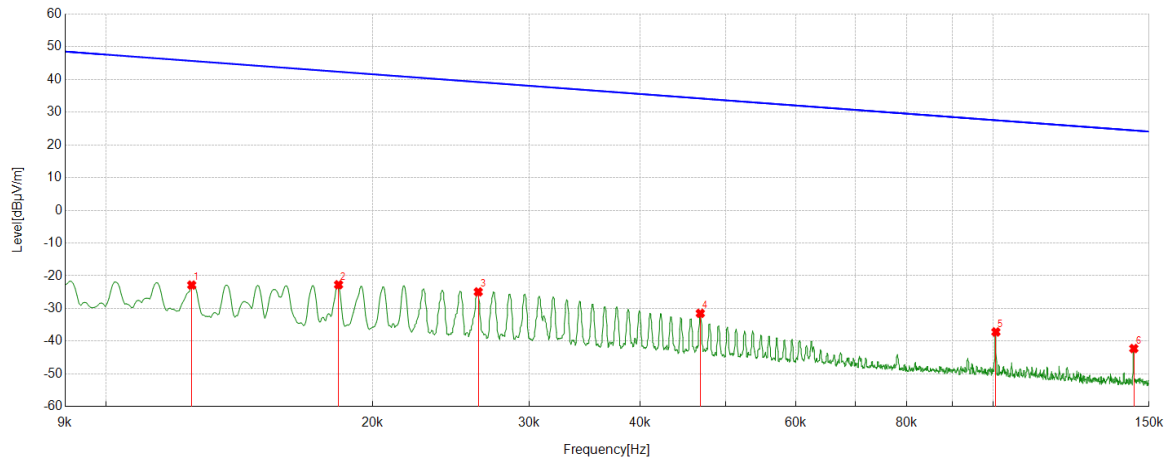
No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	1.0832	13.36	-20.34	-6.98	26.91	-33.89	peak
2	3.3291	22.97	-20.34	2.63	29.54	-26.91	peak
3	4.0227	18.02	-20.04	-2.02	29.54	-31.56	peak
4	6.7231	10.31	-19.75	-9.44	29.54	-38.98	peak
5	10.3001	7.45	-18.83	-11.38	29.54	-40.92	peak
6	21.0753	6.90	-17.46	-10.56	29.54	-40.10	peak

- Remark: 1. Measurement = Reading Level + Correct Factor.  
 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

**Antenna Type 1: PCB Antenna**

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

Test Mode	Channel	Frequency Range	Verdict
11A	5745	9kHz~150kHz	PASS

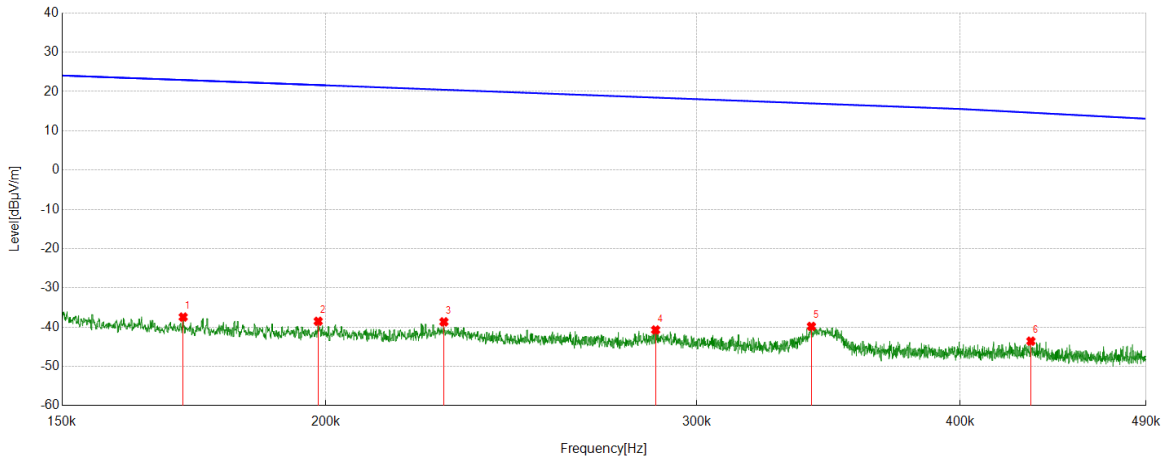


No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	0.0125	38.23	-61.07	-22.84	45.64	-68.48	peak
2	0.0183	38.17	-60.90	-22.73	42.37	-65.10	peak
3	0.0263	35.97	-60.89	-24.92	39.22	-64.14	peak
4	0.0468	29.54	-61.02	-31.48	34.19	-65.67	peak
5	0.1008	23.56	-60.73	-37.17	27.53	-64.70	peak
6	0.1442	19.02	-61.25	-42.23	24.42	-66.65	peak

- Remark:
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
11A	5745	150kHz~490kHz	PASS

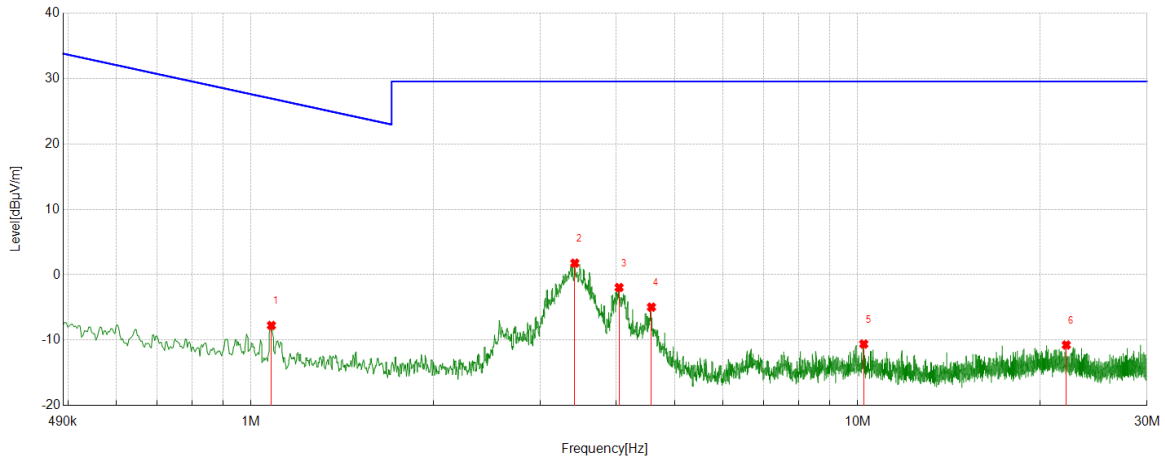


No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	0.1712	23.78	-61.21	-37.43	22.94	-60.37	peak
2	0.1984	22.56	-61.07	-38.51	21.65	-60.16	peak
3	0.2276	22.27	-60.92	-38.65	20.46	-59.11	peak
4	0.2868	20.06	-60.77	-40.71	18.45	-59.16	peak
5	0.3400	20.92	-60.73	-39.81	16.97	-56.78	peak
6	0.4321	17.08	-60.65	-43.57	14.62	-58.19	peak

- Remark: 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
11A	5745	490kHz~30MHz	PASS



No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	1.0803	12.60	-20.34	-7.74	26.94	-34.68	peak
2	3.4177	22.07	-20.29	1.78	29.54	-27.76	peak
3	4.0434	18.10	-20.05	-1.95	29.54	-31.49	peak
4	4.5716	15.20	-20.14	-4.94	29.54	-34.48	peak
5	10.2352	8.24	-18.82	-10.58	29.54	-40.12	peak
6	22.0817	6.88	-17.61	-10.73	29.54	-40.27	peak

- Remark:
1. Measurement = Reading Level + Correct Factor.
  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

## 8. FREQUENCY STABILITY

### LIMITS

The frequency of the carrier signal shall be maintained within band of operation

### TEST SETUP AND PROCEDURE

Connect the UUT to the spectrum analyser and use the following settings:

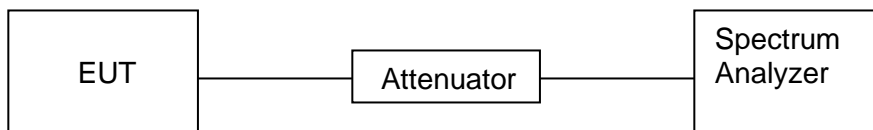
Center Frequency	The center frequency of the channel under test
Detector	PEAK
RBW	10kHz
VBW	$\geq 3 \times \text{RBW}$
Span	Encompass the entire emissions bandwidth (EBW) of the signal
Trace	Max hold
Sweep time	Auto

Allow the trace to stabilize, find the peak value of the power envelope and record the frequency, then calculated the frequency drift.

The test extreme voltage is to change the primary supply voltage from 85 to 115 percent of the nominal value.

User manual temperature is  $-40^{\circ}\text{C} \sim 85^{\circ}\text{C}$ .

### TEST SETUP





**TEST ENVIRONMENT**

Environment Parameter	Selected Values During Tests	
Relative Humidity	55 ~ 65%	
Atmospheric Pressure:	101kPa	
Temperature	TL	-40°C
	TN	23 ~ 28°C
	TH	85°C
Voltage:	VL	DC 2.805V
	VN	DC 3.3V
	VH	DC 3.795V

Note: TL= Lower Extreme Temperature  
TN= Normal Temperature  
TH= Upper Extreme Temperature  
VL= Lower Extreme Test Voltage  
VN= Nominal Voltage  
VH= Upper Extreme Test Voltage



**TEST RESULTS**

Not applicable, the customer will declare the extreme used temperature and voltage in the user manual.

**TEST RESULTS (WORST-CASE CONFIGURATION)**

**Frequency Error vs. Voltage:**

Frequency Error vs. Temperature									
802.11a: 5200 MHz									
Temp.	Volt.	0 Minute		2 Minute		5 Minute		10 Minute	
		Freq.Error (MHz)	Tolerance (ppm)	Freq.Error (MHz)	Tolerance (ppm)	Freq.Error (MHz)	Tolerance (ppm)	Freq.Error (MHz)	Tolerance (ppm)
TN	VL	5199.94	-11.5385	5199.95	9.6154	5199.95	9.6154	5199.95	9.6154
TN	VN	5199.94	-11.5385	5199.96	7.6923	5199.96	7.6923	5199.96	7.6923
TN	VH	5199.94	-11.4943	5199.95	9.6154	5199.95	9.6154	5199.95	9.6154

**Frequency Error vs. Temperature:**

Frequency Error vs. Temperature									
802.11a: 5200 MHz									
Temp.	Volt.	0 Minute		2 Minute		5 Minute		10 Minute	
		Freq.Error (MHz)	Tolerance (ppm)	Freq.Error (MHz)	Tolerance (ppm)	Freq.Error (MHz)	Tolerance (ppm)	Freq.Error (MHz)	Tolerance (ppm)
85	VN	5199.93	-13.4615	5199.95	9.6154	5199.95	9.6154	5199.95	9.6154
75	VN	5199.94	-11.5385	5199.96	7.6923	5199.96	7.6923	5199.96	7.6923
65	VN	5199.93	-13.4615	5199.95	9.6154	5199.95	9.6154	5199.95	9.6154
55	VN	5199.94	-11.5385	5199.97	5.7692	5199.97	5.7692	5199.97	5.7692
45	VN	5199.94	-11.5385	5199.95	9.6154	5199.95	9.6154	5199.95	9.6154
35	VN	5199.94	-11.5385	5199.96	7.6923	5199.96	7.6923	5199.96	7.6923
25	VN	5199.93	-13.4615	5199.95	9.6154	5199.95	9.6154	5199.95	9.6154
15	VN	5199.94	-11.5385	5199.97	5.7692	5199.97	5.7692	5199.97	5.7692
5	VN	5199.94	-11.5385	5199.96	7.6923	5199.96	7.6923	5199.96	7.6923
-5	VN	5199.94	-11.5385	5199.97	5.7692	5199.97	5.7692	5199.97	5.7692
-15	VN	5199.94	-11.5385	5199.95	9.6154	5199.95	9.6154	5199.95	9.6154
-25	VN	5199.94	-11.5385	5199.96	7.6923	5199.96	7.6923	5199.96	7.6923
-35	VN	5199.93	-13.4615	5199.95	9.6154	5199.95	9.6154	5199.95	9.6154
-40	VN	5199.94	-11.5385	5199.97	5.7692	5199.97	5.7692	5199.97	5.7692

Remark: All the modulation and channels had been tested, but only the worst data recorded in the report.





**Frequency Error vs. Voltage:**

Frequency Error vs. Temperature									
802.11a: 5825 MHz									
Temp.	Volt.	0 Minute		2 Minute		5 Minute		10 Minute	
		Freq.Error (MHz)	Tolerance (ppm)	Freq.Error (MHz)	Tolerance (ppm)	Freq.Error (MHz)	Tolerance (ppm)	Freq.Error (MHz)	Tolerance (ppm)
TN	VL	5824.94	-10.3004	5824.95	-8.58369	5824.95	-8.58369	5824.95	-8.58369
TN	VN	5824.95	-10.3004	5824.96	-6.86695	5824.96	-6.86695	5824.96	-6.86695
TN	VH	5824.95	-8.5837	5824.96	-6.86695	5824.96	-6.86695	5824.96	-6.86695

**Frequency Error vs. Temperature:**

Frequency Error vs. Temperature									
802.11a: 5825 MHz									
Temp.	Volt.	0 Minute		2 Minute		5 Minute		10 Minute	
		Freq.Error (MHz)	Tolerance (ppm)	Freq.Error (MHz)	Tolerance (ppm)	Freq.Error (MHz)	Tolerance (ppm)	Freq.Error (MHz)	Tolerance (ppm)
85	VN	5824.95	-8.58369	5824.96	-6.86695	5824.96	-6.86695	5824.96	-6.86695
75	VN	5824.94	-10.3004	5824.95	-8.58369	5824.95	-8.58369	5824.95	-8.58369
65	VN	5824.95	-8.58369	5824.95	-8.58369	5824.95	-8.58369	5824.95	-8.58369
55	VN	5824.96	-6.86695	5824.96	-6.86695	5824.96	-6.86695	5824.96	-6.86695
45	VN	5824.95	-8.58369	5824.96	-6.86695	5824.96	-6.86695	5824.96	-6.86695
35	VN	5824.95	-8.58369	5824.95	-8.58369	5824.95	-8.58369	5824.95	-8.58369
25	VN	5824.94	-10.3004	5824.94	-10.3004	5824.94	-10.3004	5824.94	-10.3004
15	VN	5824.95	-8.58369	5824.95	-8.58369	5824.95	-8.58369	5824.95	-8.58369
5	VN	5824.95	-8.58369	5824.96	-6.86695	5824.96	-6.86695	5824.96	-6.86695
-5	VN	5824.95	-8.58369	5824.95	-8.58369	5824.95	-8.58369	5824.95	-8.58369
-15	VN	5824.95	-8.58369	5824.96	-6.86695	5824.96	-6.86695	5824.96	-6.86695
-25	VN	5824.95	-8.58369	5824.95	-8.58369	5824.95	-8.58369	5824.95	-8.58369
-35	VN	5824.93	-12.0172	5824.95	-8.58369	5824.95	-8.58369	5824.95	-8.58369
-40	VN	5824.95	-8.58369	5824.95	-8.58369	5824.95	-8.58369	5824.95	-8.58369

Remark: All the modulation and channels had been tested, but only the worst data recorded in the report.



## 9. DYNAMIC FREQUENCY SELECTION

### APPLICABILITY OF DFS REQUIREMENTS

Table 1: Applicability of DFS Requirements Prior to Use of a Channel

Requirement	Operational Mode		
	<input type="checkbox"/> Master	<input checked="" type="checkbox"/> Client Without Radar Detection	<input type="checkbox"/> Client With Radar Detection
Non-Occupancy Period	Yes	Not required	Yes
DFS Detection Threshold	Yes	Not required	Yes
Channel Availability Check Time	Yes	Not required	Not required
U-NII Detection Bandwidth	Yes	Not required	Yes

Table 2: Applicability of DFS requirements during normal operation

Requirement	Operational Mode	
	<input type="checkbox"/> Master Device or Client with Radar Detection	<input checked="" type="checkbox"/> Client Without Radar Detection
DFS Detection Threshold	Yes	Not required
Channel Closing Transmission Time	Yes	Yes
Channel Move Time	Yes	Yes
U-NII Detection Bandwidth	Yes	Not required

Additional requirements for devices with multiple bandwidth modes	<input type="checkbox"/> Master Device or Client with Radar Detection	<input checked="" type="checkbox"/> Client Without Radar Detection
U-NII Detection Bandwidth and Statistical Performance Check	All BW modes must be tested	Not required
Channel Move Time and Channel Closing Transmission Time	Test using widest BW mode available	Test using the widest BW mode available for the link
All other tests	Any single BW mode	Not required
Remark: Frequencies selected for statistical performance check should include several frequencies within the radar detection bandwidth and frequencies near the edge of the radar detection bandwidth. For 802.11 devices it is suggested to select frequencies in each of the bonded 20 MHz channels and the channel center frequency.		



**LIMITS**

(1) DFS Detection Thresholds

Table 3: DFS Detection Thresholds for Master Devices and Client Devices With Radar Detection

Maximum Transmit Power	Value (See Remarks 1, 2, and 3)
EIRP $\geq$ 200 milliwatt	-64 dBm
EIRP < 200 milliwatt and power spectral density < 10 dBm/MHz	-62 dBm
EIRP < 200 milliwatt that do not meet the power spectral density requirement	-64 dBm

Remark 1: This is the level at the input of the receiver assuming a 0 dBi receive antenna.  
 Remark 2: Throughout these test procedures an additional 1 dB has been added to the amplitude of the test transmission waveforms to account for variations in measurement equipment. This will ensure that the test signal is at or above the detection threshold level to trigger a DFS response.  
 Remark3: EIRP is based on the highest antenna gain. For MIMO devices refer to KDB Publication 662911 D01.

(2) DFS Response Requirements

Table 4: DFS Response Requirement Values

Parameter	Value
Non-occupancy period	Minimum 30 minutes
Channel Availability Check Time	60 seconds
Channel Move Time	10 seconds See Remark 1.
Channel Closing Transmission Time	200 milliseconds + an aggregate of 60 milliseconds over remaining 10 second period. See Remarks 1 and 2.
U-NII Detection Bandwidth	Minimum 100% of the U-NII 99% transmission power bandwidth. See Remark 3.

Remark 1: Channel Move Time and the Channel Closing Transmission Time should be performed with Radar Type 0. The measurement timing begins at the end of the Radar Type 0 burst.  
 Remark 2: The Channel Closing Transmission Time is comprised of 200 milliseconds starting at the beginning of the Channel Move Time plus any additional intermittent control signals required facilitating a Channel move (an aggregate of 60 milliseconds) during the remainder of the 10 second period. The aggregate duration of control signals will not count quiet periods in between transmissions.  
 Remark 3: During the U-NII Detection Bandwidth detection test, radar type 0 should be used. For each frequency step the minimum percentage of detection is 90 percent. Measurements are performed with no data traffic.



**PARAMETERS OF RADAR TEST WAVEFORMS**

This section provides the parameters for required test waveforms, minimum percentage of successful detections, and the minimum number of trials that must be used for determining DFS conformance. Step intervals of 0.1 microsecond for Pulse Width, 1 microsecond for PRI, 1 MHz for chirp width and 1 for the number of pulses will be utilized for the random determination of specific test waveforms.

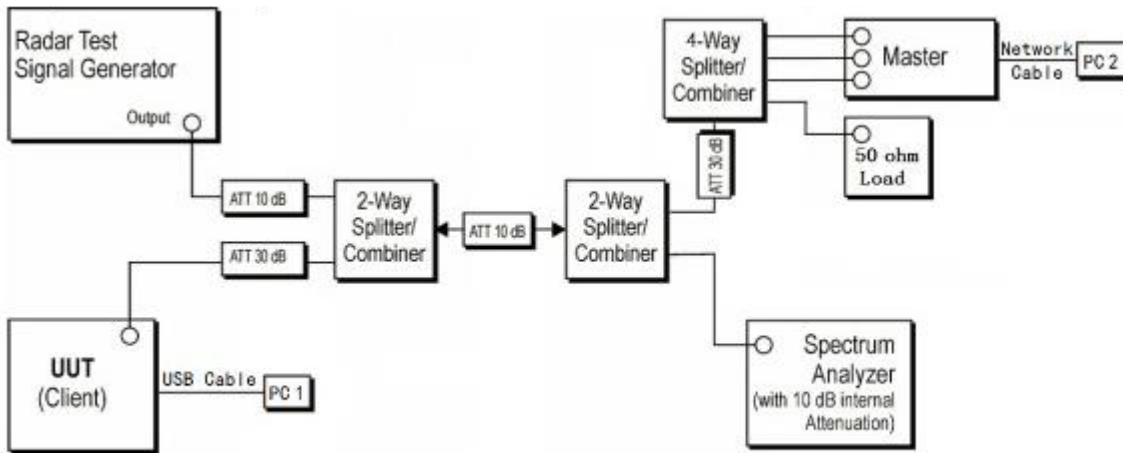
Table 5 Short Pulse Radar Test Waveforms

Radar Type	Pulse Width (μsec)	PRI (μsec)	Number of Pulses	Minimum Percentage of Successful Detection	Minimum Number of Trials
0	1	1428	18	See Note 1	See Note 1
1	1	Test A	Roundup $\left\{ \left( \frac{1}{360} \right) \cdot \left( \frac{19 \cdot 10^6}{\text{PRI}_{\mu\text{sec}}} \right) \right\}$	60%	30
		Test B			
2	1-5	150-230	23-29	60%	30
3	6-10	200-500	16-18	60%	30
4	11-20	200-500	12-16	60%	30
Aggregate (Radar Types 1-4)				80%	120
Note 1: Short Pulse Radar Type 0 should be used for the detection bandwidth test, channel move time, and channel closing time tests. Test A: 15 unique PRI values randomly selected from the list of 23 PRI values in Table 5a Test B: 15 unique PRI values randomly selected within the range of 518-3066 μsec, with a minimum increment of 1 μsec, excluding PRI values selected in Test A					

A minimum of 30 unique waveforms are required for each of the Short Pulse Radar Types 2 through 4. If more than 30 waveforms are used for Short Pulse Radar Types 2 through 4, then each additional waveform must also be unique and not repeated from the previous waveforms. If more than 30 waveforms are used for Short Pulse Radar Type 1, then each additional waveform is generated with Test B and must also be unique and not repeated from the previous waveforms in Tests A or B. Test aggregate is average of the percentage of successful detections of short pulse radar types 1-4

## TEST SETUP

Setup for Client with injection at the Master



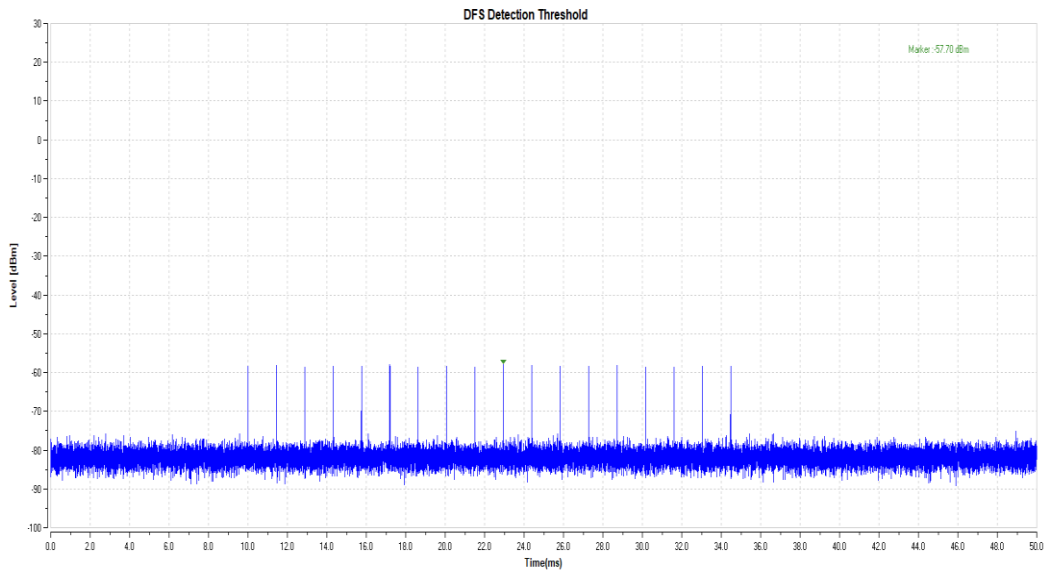
## TEST ENVIRONMENT

Environment Parameter	Selected Values During Tests
Relative Humidity	60%
Atmospheric Pressure:	100.2kPa
Temperature	25°C
Test Voltage	DC 3.3V
Test Date	03/25/2022-04/26/2022



## TEST RESULTS

Test Mode	Channel	Radar Type	Result	Limit [dBm]	Verdict
11AC80	5530	Type 0	-57.7	-57.5	Pass

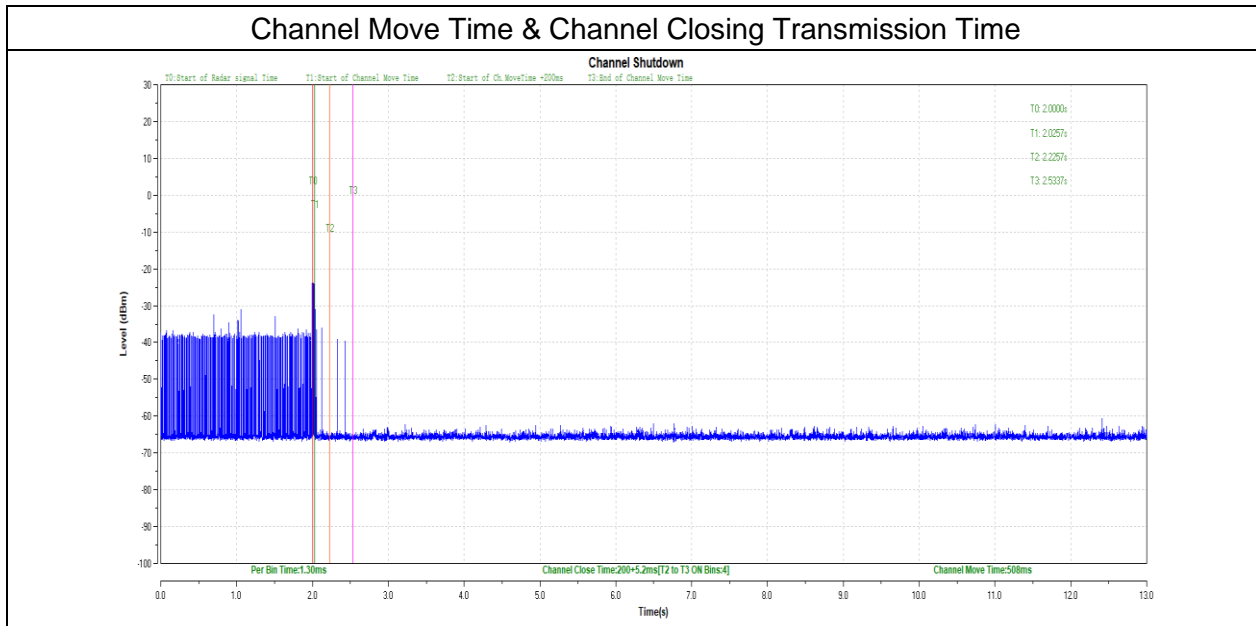




### Test Data

BW/Channel	Test Item	Test Result	Limit	Results
80MHz / 5530MHz	Channel Move Time	0.5080ms	< 10 s	pass
	Channel Closing Transmission Time	0.28 s	200 milliseconds + an aggregate of 60 milliseconds over remaining 10 second period.	pass

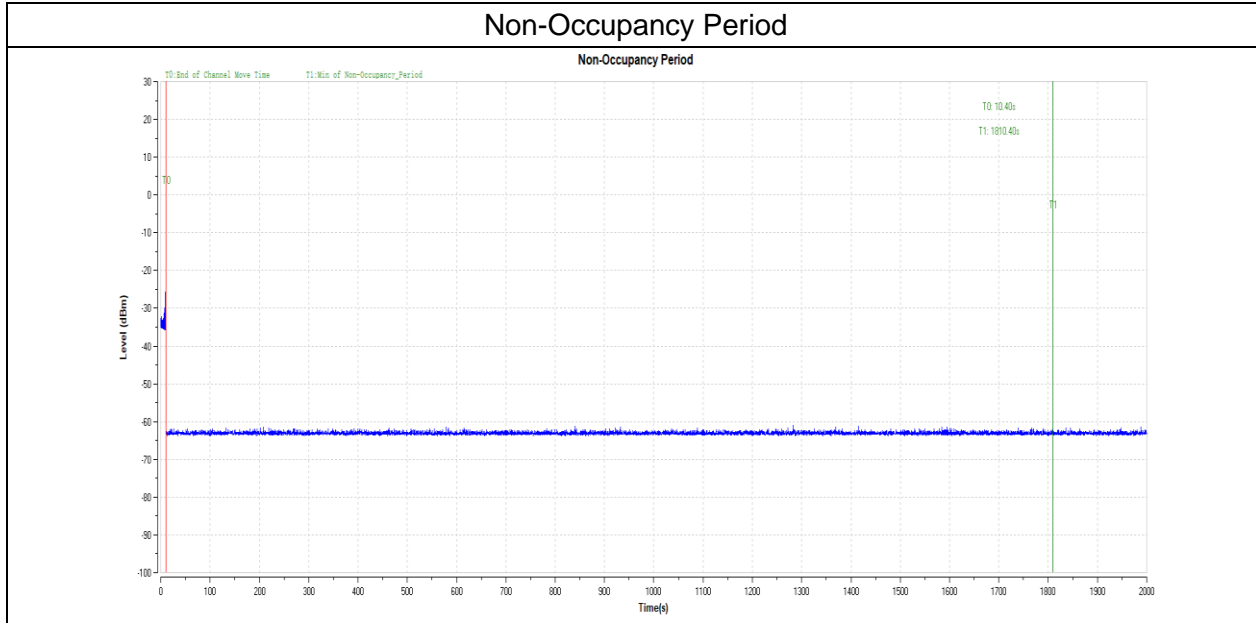
Test plots as follows:





BW/Channel	Test Item	Test Result	Limit	Results
80MHz / 5530MHz	Non-Occupancy Period	see test graph	≥1800	PASS

Test plots as follows:



Note: All the modulation and channels had been tested, but only the worst data recorded in the report.



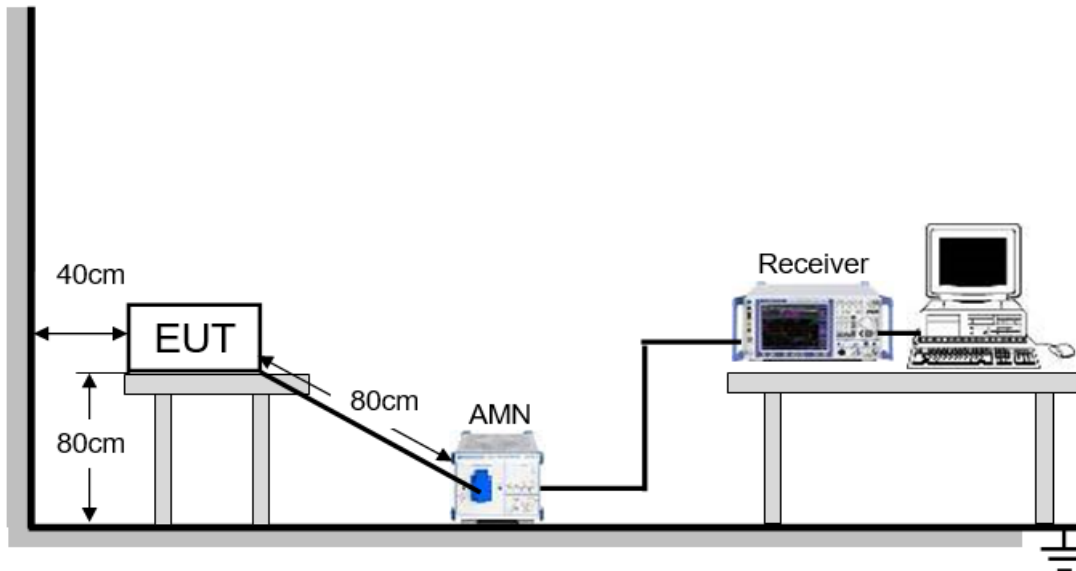
## 10. AC POWER LINE CONDUCTED EMISSIONS

### LIMITS

Please refer to FCC §15.207 (a)

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

### TEST SETUP AND PROCEDURE



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

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

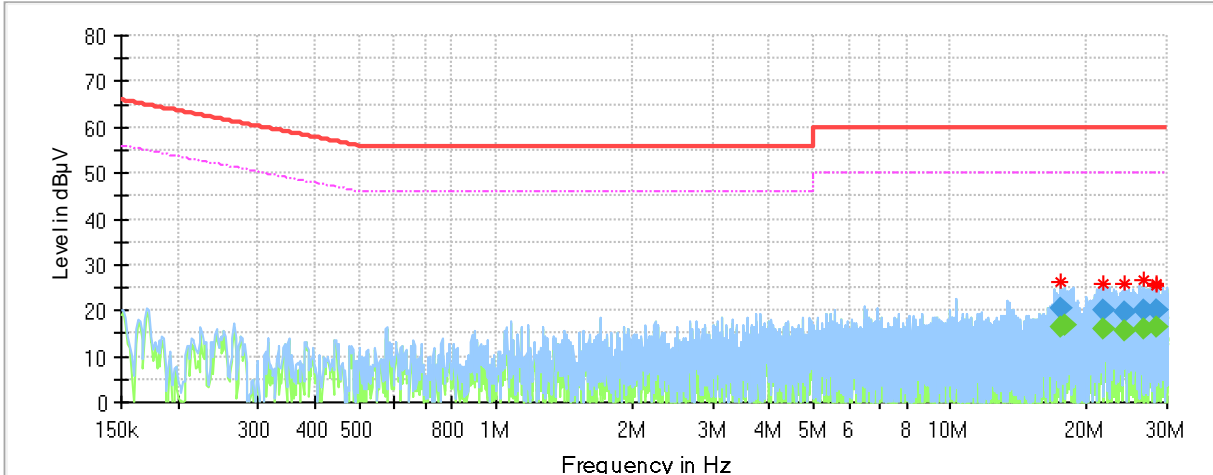


**TEST ENVIRONMENT**

Environment Parameter	Selected Values During Tests
Relative Humidity	65%
Atmospheric Pressure:	100.2kPa
Temperature	25°C
Test Voltage	AC 120V
Test Date	05/22/2022

**TEST RESULTS (WORST CASE CONFIGURATION)**

**For L Line:**



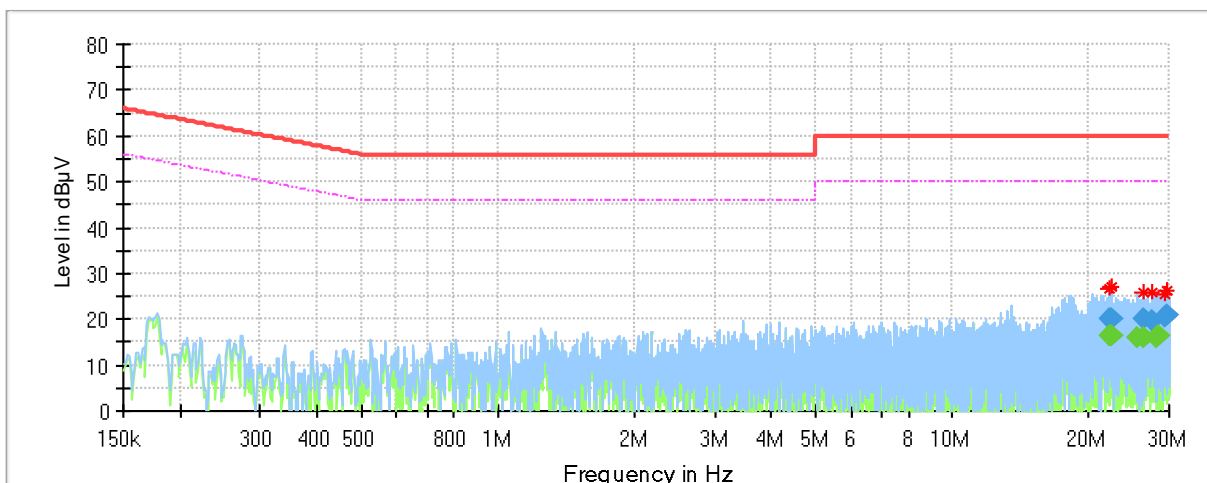
**Final Result**

Frequency (MHz)	QuasiPeak (dBµV)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Filter	Corr. (dB)
17.407778	---	16.36	50.00	33.64	1000.0	9.000	L1	OFF	9.6
17.407778	20.59	---	60.00	39.41	1000.0	9.000	L1	OFF	9.6
17.898810	---	16.80	50.00	33.20	1000.0	9.000	L1	OFF	9.7
21.656925	20.25	---	60.00	39.75	1000.0	9.000	L1	OFF	9.8
21.656925	---	16.07	50.00	33.93	1000.0	9.000	L1	OFF	9.8
24.170295	19.62	---	60.00	40.38	1000.0	9.000	L1	OFF	9.8
24.170295	---	15.64	50.00	34.36	1000.0	9.000	L1	OFF	9.8
26.517998	---	16.04	50.00	33.96	1000.0	9.000	L1	OFF	9.8
26.517998	20.04	---	60.00	39.96	1000.0	9.000	L1	OFF	9.8
28.340340	20.08	---	60.00	39.92	1000.0	9.000	L1	OFF	9.8
28.470188	---	16.26	50.00	33.74	1000.0	9.000	L1	OFF	9.8
28.470188	20.06	---	60.00	39.94	1000.0	9.000	L1	OFF	9.8

- 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. The EUT was test with two type antennas, the result of the EUT with type 2 antenna was worse case and recorded in this report.  
 6. Pre-testing all test modes and channels, and find the 5745MHz of 11A mode which is the worst case, so only the worst case is included in this test report.



**For N Line:**



**Final Result**

Frequency (MHz)	QuasiPeak (dBµV)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Filter	Corr. (dB)
22.236015	---	16.24	50.00	33.76	1000.0	9.000	N	OFF	10.0
22.236015	20.30	---	60.00	39.70	1000.0	9.000	N	OFF	10.0
22.398698	---	16.29	50.00	33.71	1000.0	9.000	N	OFF	10.0
22.398698	20.23	---	60.00	39.77	1000.0	9.000	N	OFF	10.0
25.573245	---	15.85	50.00	34.15	1000.0	9.000	N	OFF	9.9
26.406060	20.11	---	60.00	39.89	1000.0	9.000	N	OFF	9.8
26.406060	---	16.07	50.00	33.93	1000.0	9.000	N	OFF	9.8
27.576180	19.88	---	60.00	40.12	1000.0	9.000	N	OFF	9.8
28.197060	---	16.11	50.00	33.89	1000.0	9.000	N	OFF	9.8
28.420935	---	16.29	50.00	33.71	1000.0	9.000	N	OFF	9.8
29.276138	20.54	---	60.00	39.46	1000.0	9.000	N	OFF	9.7
29.740305	20.81	---	60.00	39.19	1000.0	9.000	N	OFF	9.7

- 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. The EUT was test with two type antennas, the result of the EUT with type 2 antenna was worse case and recorded in this report.  
 6. Pre-testing all test modes and channels, and find the 5745MHz of 11A mode which is the worst case, so only the worst case is included in this test report.



## 11. 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 more than 6 dBi, so the power and power density limit shall be reduced amount in dB that the directional gain of the antenna exceeds 6dBi.

**END OF REPORT**