

Test Mode	Channel	Polarization	Verdict	
11AC40	5795	Horizontal	PASS	



No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	[MHz]	[dBuV]	[dB/m]	[dBuV/m]	[dBuV/m]	[dB]	
1	8828.4714	44.01	3.73	47.74	74.00	-26.26	Horizontal
2	11000.5001	42.37	4.98	47.35	74.00	-26.65	Horizontal
3	12762.4604	40.64	7.47	48.11	74.00	-25.89	Horizontal
4	14239.3732	40.23	11.40	51.63	74.00	-22.37	Horizontal
5	16593.0988	38.88	14.26	53.14	74.00	-20.86	Horizontal
6	17639.94	37.26	17.90	55.16	74.00	-18.84	Horizontal
7	17908.3181	36.30	18.83	55.13	74.00	-18.87	Horizontal

AV Result:

No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	[MHz]	[dBuV]	[dB/m]	[dBuV/m]	[dBuV/m]	[dB]	
1	17639.94	27.19	17.90	45.09	54.00	-8.91	Horizontal
2	17908.3181	27.00	18.83	45.83	54.00	-8.17	Horizontal

- 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.
- 8. Since the non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.



Test Mode	Test Mode Channel		Verdict	
11AC40	5795	Vertical	PASS	



No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	[MHz]	[dBuV]	[dB/m]	[dBuV/m]	[dBuV/m]	[dB]	
1	8838.4731	44.30	3.65	47.95	74.00	-26.05	Vertical
2	11173.8623	42.46	5.41	47.87	74.00	-26.13	Vertical
3	12474.079	41.91	6.91	48.82	74.00	-25.18	Vertical
4	13489.2482	41.03	9.10	50.13	74.00	-23.87	Vertical
5	15047.8413	40.50	12.03	52.53	74.00	-21.47	Vertical
6	17508.2514	37.44	17.20	54.64	74.00	-19.36	Vertical
7	17703.2839	38.26	17.56	55.82	74.00	-18.18	Vertical

AV Result:

No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	[MHz]	[dBuV]	[dB/m]	[dBuV/m]	[dBuV/m]	[dB]	
1	17508.2514	27.18	17.20	44.38	54.00	-9.62	Vertical
2	17703.2839	27.36	17.56	44.92	54.00	-9.08	Vertical

- 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.
- 8. Since the non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.



Test Mode	Test Mode Channel		Verdict	
11AC80	5210	Horizontal	PASS	



No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	[MHz]	[dBuV]	[dB/m]	[dBuV/m]	[dBuV/m]	[dB]	
1	9721.9537	43.92	4.60	48.52	74.00	-25.48	Horizontal
2	12027.3379	41.39	6.72	48.11	74.00	-25.89	Horizontal
3	13475.9127	40.69	9.04	49.73	74.00	-24.27	Horizontal
4	14226.0377	39.52	11.46	50.98	74.00	-23.02	Horizontal
5	16033.0055	39.25	13.64	52.89	74.00	-21.11	Horizontal
6	17514.9192	38.63	17.17	55.80	74.00	-18.20	Horizontal
7	17919.9867	36.66	18.54	55.20	74.00	-18.80	Horizontal

AV Result:

No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	[MHz]	[dBuV]	[dB/m]	[dBuV/m]	[dBuV/m]	[dB]	
1	17514.9192	26.68	17.17	43.85	54.00	-10.15	Horizontal
2	17919.9867	26.66	18.54	45.20	54.00	-8.80	Horizontal

- 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.
- 8. Since the non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.



Test Mode	Channel	Polarization	Verdict
11AC80	5210	Vertical	PASS



No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	[MHz]	[dBuV]	[dB/m]	[dBuV/m]	[dBuV/m]	[dB]	
1	8808.4681	43.93	3.92	47.85	74.00	-26.15	Vertical
2	10163.6939	44.10	4.12	48.22	74.00	-25.78	Vertical
3	11907.3179	41.92	6.33	48.25	74.00	-25.75	Vertical
4	13507.5846	40.72	9.21	49.93	74.00	-24.07	Vertical
5	15434.5724	39.13	12.87	52.00	74.00	-22.00	Vertical
6	17444.9075	37.87	17.15	55.02	74.00	-18.98	Vertical
7	17924.9875	36.52	18.58	55.10	74.00	-18.90	Vertical

AV Result:

No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	[MHz]	[dBuV]	[dB/m]	[dBuV/m]	[dBuV/m]	[dB]	
1	17444.9075	27.17	17.15	44.32	54.00	-9.68	Vertical
2	17924.9875	26.71	18.58	45.29	54.00	-8.71	Vertical

- 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.
- 8. Since the non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.



Test Mode	Channel	Polarization	Verdict
11AC80	5775	Horizontal	PASS



No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	[MHz]	[dBuV]	[dB/m]	[dBuV/m]	[dBuV/m]	[dB]	
1	9705.2842	43.21	4.32	47.53	74.00	-26.47	Horizontal
2	11782.297	41.85	6.02	47.87	74.00	-26.13	Horizontal
3	13002.5004	41.20	7.96	49.16	74.00	-24.84	Horizontal
4	14349.3916	39.89	11.26	51.15	74.00	-22.85	Horizontal
5	15549.5916	39.81	12.37	52.18	74.00	-21.82	Horizontal
6	17703.2839	37.24	17.56	54.80	74.00	-19.20	Horizontal
7	17863.3106	36.36	18.82	55.18	74.00	-18.82	Horizontal

AV Result:

No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	[MHz]	[dBuV]	[dB/m]	[dBuV/m]	[dBuV/m]	[dB]	
1	17703.2839	27.33	17.56	44.89	54.00	-9.11	Horizontal
2	17863.3106	26.47	18.82	45.29	54.00	-8.71	Horizontal

- 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.
- 8. Since the non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.



Test Mode	Channel	Polarization	Verdict
11AC80	5775	Vertical	PASS



No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	[MHz]	[dBuV]	[dB/m]	[dBuV/m]	[dBuV/m]	[dB]	
1	9301.8836	44.68	3.27	47.95	74.00	-26.05	Vertical
2	10832.1387	43.34	4.69	48.03	74.00	-25.97	Vertical
3	12807.4679	41.62	7.29	48.91	74.00	-25.09	Vertical
4	14406.0677	39.48	11.41	50.89	74.00	-23.11	Vertical
5	16764.7941	38.37	15.07	53.44	74.00	-20.56	Vertical
6	17711.6186	37.17	17.73	54.90	74.00	-19.10	Vertical
7	17866.6444	37.08	18.73	55.81	74.00	-18.19	Vertical

AV Result:

No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	[MHz]	[dBuV]	[dB/m]	[dBuV/m]	[dBuV/m]	[dB]	
1	17711.6186	27.09	17.73	44.82	54.00	-9.18	Vertical
2	17866.6444	26.73	18.73	45.46	54.00	-8.54	Vertical

- 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.
- 8. Since the non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.



Part 3: 18GHz to 26.5GHz

Test Mode Channel Polarization Verdict 11A 5745 Horizontal PASS 80 70 60 50 -evel[dBµV/m] 40 30 20 10 0 18G 20G 26.5G Frequency[Hz]

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

PK R	PK Result:							
No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark	
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)		
1	18742.9743	50.84	-6.22	44.62	74.00	-29.38	Horizontal	
2	20089.509	48.28	-5.14	43.14	74.00	-30.86	Horizontal	
3	21589.909	48.29	-5.80	42.49	74.00	-31.51	Horizontal	
4	23032.5033	48.16	-3.51	44.65	74.00	-29.35	Horizontal	
5	24430.8931	48.93	-2.95	45.98	74.00	-28.02	Horizontal	
6	25399.99	49.57	-3.25	46.32	74.00	-27.68	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.



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	19080.458	49.47	-5.94	43.53	74.00	-30.47	Vertical
2	20095.4595	48.66	-5.15	43.51	74.00	-30.49	Vertical
3	21762.4762	48.98	-5.74	43.24	74.00	-30.76	Vertical
4	23499.1999	48.89	-3.15	45.74	74.00	-28.26	Vertical
5	24211.5712	49.07	-2.80	46.27	74.00	-27.73	Vertical
6	25245.2745	49.55	-3.36	46.19	74.00	-27.81	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.



Part 4: 26.5GHz to 40GHz



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

PK R	PK Result:							
No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark	
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)		
1	27630.063	58.14	-7.06	51.08	74.00	-22.92	Horizontal	
2	29813.2313	57.76	-6.86	50.90	74.00	-23.10	Horizontal	
3	32641.7642	58.35	-5.81	52.54	74.00	-21.46	Horizontal	
4	35466.2466	54.94	-2.92	52.02	74.00	-21.98	Horizontal	
5	36719.1719	52.39	-0.97	51.42	74.00	-22.58	Horizontal	
6	39237.1737	50.61	2.86	53.47	74.00	-20.53	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.

2. Test setup. RDW. T MITZ, VDW. 3 MITZ, Sweep time.



Test Mode	Channel	Polarization	Verdict	
11A	11A 5745		PASS	



No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	27490.9991	58.99	-7.16	51.83	74.00	-22.17	Vertical
2	28039.1539	58.30	-6.88	51.42	74.00	-22.58	Vertical
3	32699.82	58.12	-5.80	52.32	74.00	-21.68	Vertical
4	34788.4788	56.71	-4.74	51.97	74.00	-22.03	Vertical
5	36392.4392	53.42	-1.96	51.46	74.00	-22.54	Vertical
6	39312.7813	50.45	2.99	53.44	74.00	-20.56	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.

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Part 5: 30MHz~1GHz

Test Mode Channel Polarization Verdict 11A 5745 Horizontal PASS Averag Limit1 100 90 80 70 Level[dB(uV)] 60 50 \sim 40 30 Winner W 20 10 0 300M Frequency[MHz]

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	64.6862	15.94	18.08	34.02	40.0	-5.98	Peak
2	104.7088	7.75	18.67	26.42	43.5	-17.08	Peak
3	143.2760	13.32	15.32	28.64	43.5	-14.86	Peak
4	278.6250	16.51	20.82	37.33	46.0	-8.67	Peak
5	374.9217	19.63	23.43	43.06	46.0	-2.94	QP
6	704.5621	1.53	28.81	30.34	46.0	-15.66	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.



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	63.95850	17.97	18.32	36.29	40.0	-3.71	Peak
2	106.6493	6.40	18.59	24.99	43.5	-18.51	Peak
3	148.1272	10.58	15.37	25.95	43.5	-17.55	Peak
4	277.1697	8.10	20.81	28.91	46.0	-17.09	Peak
5	374.9217	13.30	23.43	36.73	46.0	-9.27	Peak
6	625.0021	2.89	28.10	30.99	46.0	-15.01	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.



Part 6: 9kHz to 30MHz

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



No.	Frequency	Reading Level	Correct Factor	FCC Result	FCC Limit	IC Result	IC Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dBuA/m)	(dBuA/m)	(dB)	
1	0.0227	33.73	-61.78	-28.05	40.63	-79.55	-10.87	-68.68	Peak
2	0.0455	30.43	-61.71	-31.28	34.49	-82.78	-17.01	-65.77	Peak
3	0.0679	28.13	-61.77	-33.64	31.00	-85.14	-20.50	-64.64	Peak
4	0.0908	25.15	-61.81	-36.66	28.45	-88.16	-23.05	-65.11	Peak
5	0.1135	20.70	-61.82	-41.12	26.51	-92.62	-24.99	-67.63	Peak
6	0.1359	16.02	-61.83	-45.81	24.95	-97.31	-26.55	-70.76	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
- 5. The limits in CFR 47, Part 15, Subpart C, paragraph 15.209 (a), are identical to those in RSS-GEN Section 8.9, Table 6, since the measurements are performed in terms of magnetic field strength and converted to electric field strength levels (as reported in the table) using the free space impedance of 377 Ω; For example, the measurement frequency X kHz resulted in a level of Y dBuV/m, which is equivalent to Y-51.5 = Z dBuA/m, which has the same margin, W dB, to the corresponding RSS-GEN Table 6 limit as it has to be 15.209(a) limit.



Test Mode	Channel	Frequency Range	Verdict
11A	5745	150kHz~490Hz	PASS



No.	Frequency	Reading Level	Correct Factor	FCC Result	FCC Limit	IC Result	IC Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dBuA/m)	(dBuA/m)	(dB)	
1	0.2102	31.16	-61.87	-30.71	21.22	-82.21	-30.28	-51.93	Peak
2	0.2254	31.87	-61.87	-30.00	20.69	-81.50	-30.81	-50.69	Peak
3	0.2594	31.30	-61.89	-30.59	19.49	-82.09	-32.01	-50.08	Peak
4	0.3174	31.41	-61.91	-30.50	17.62	-82.00	-33.88	-48.12	Peak
5	0.4162	29.52	-61.88	-32.36	15.11	-83.86	-36.39	-47.47	Peak
6	0.4507	27.66	-61.88	-34.22	14.16	-85.72	-37.34	-48.38	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
- 5. The limits in CFR 47, Part 15, Subpart C, paragraph 15.209 (a), are identical to those

in RSS-GEN Section 8.9, Table 6, since the measurements are performed in terms of

magnetic field strength and converted to electric field strength levels (as reported in the table) using the free space impedance of 377 Ω ; For example, the

measurement frequency X kHz resulted in a level of Y dBuV/m, which is equivalent to

Y-51.5 = Z dBuA/m, which has the same margin, W dB, to the corresponding RSS-GEN Table 6 limit as it has to be 15.209(a) limit.



Test Mode	Channel	Frequency Range	Verdict
11A	5745	490kHz~30MHz	PASS



No.	Frequency	Reading Level	Correct Factor	FCC Result	FCC Limit	IC Result	IC Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dBuA/m)	(dBuA/m)	(dB)	
1	0.9696	20.29	-21.85	-1.56	27.88	-53.06	-23.62	-29.44	Peak
2	1.2427	22.41	-21.84	0.57	25.73	-50.93	-25.77	-25.16	Peak
3	2.4823	17.61	-21.8	-4.19	29.54	-55.69	-21.96	-33.73	Peak
4	3.7368	12.66	-21.76	-9.10	29.54	-60.60	-21.96	-38.64	Peak
5	4.9764	13.10	-21.76	-8.66	29.54	-60.16	-21.96	-38.20	Peak
6	16.9525	9.43	-21.49	-12.06	29.54	-63.56	-21.96	-41.60	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
 - 5. The limits in CFR 47, Part 15, Subpart C, paragraph 15.209 (a), are identical to those

in RSS-GEN Section 8.9, Table 6, since the measurements are performed in terms of

magnetic field strength and converted to electric field strength levels (as reported in the table) using the free space impedance of 377Ω. For example, the measurement frequency X kHz resulted in a level of Y dBuV/m, which is equivalent to

Y-51.5 = Z dBuA/m, which has the same margin, W dB, to the corresponding RSS-GEN Table 6 limit as it has to be 15.209(a) limit.



8. FREQUENCY STABILITY

<u>LIMITS</u>

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	≥3 × 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 -20°C~70°C.

TEST ENVIRONMENT

Environment Parameter	Selected Values During Tests
Relative Humidity	56%
Atmospheric Pressure:	101kPa
Temperature	22°C

TEST SETUP





TEST RESULTS

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

TEST RESULTS (WORST-CASE CONFIGURATION)

Test Mode	Channel	Temp.	Volt.	Freq.Error(Hz)	Freq.vs.rated(ppm)	Verdict
	5200	TN	VL	12000.00	2.307692	PASS
11a		TN	VN	12000.00	2.307692	PASS
		TN	VH	14000.00	2.692308	PASS
	5785	TN	VL	-14000.00	-2.420052	PASS
11a		TN	VN	-14000.00	-2.420052	PASS
		TN	VH	6000.00	1.037165	PASS

Frequency Error vs. Voltage:

Frequency Error vs. Temperature:

Test Mode	Channel	Temp.	Volt.	Freq.Error(Hz)	Freq.vs.rated(ppm)	Verdict
		70	VN	2000.00	0.384615	PASS
		60	VN	8000.00	1.538462	PASS
		50	VN	10000.00	1.923077	PASS
		40	VN	2000.00	0.384615	PASS
110	5200	30	VN	2000.00	0.384615	PASS
IIa	5200	20	VN	12000.00	2.307692	PASS
		10	VN	8000.00	1.538462	PASS
		0	VN	8000.00	1.538462	PASS
		-10	VN	10000.00	1.923077	PASS
		-20	VN	8000.00	1.538462	PASS
		70	VN	-18000.00	-3.111495	PASS
		60	VN	-8000.00	-1.382887	PASS
		50	VN	-6000.00	-1.037165	PASS
		40	VN	-10000.00	-1.728608	PASS
110	5795	30	VN	-8000.00	-1.382887	PASS
IIa	5765	20	VN	-12000.00	-2.074330	PASS
		10	VN	-18000.00	-3.111495	PASS
		0	VN	-8000.00	-1.382887	PASS
		-10	VN	-2000.00	-0.345722	PASS
		-20	VN	-6000.00	-1.037165	PASS

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



9. AC POWER LINE CONDUCTED EMISSIONS

LIMITS

Please refer to FCC §15.207 (a), ISED RSS-Gen Clause 8.8

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	56%			
Atmospheric Pressure:	101kPa			
Temperature	22°C			



For L Line:

TEST RESULTS (WORST CASE CONFIGURATION)



Final_Result

Frequency (MHz)	QuasiPeak (dBµV)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Filter	Corr. (dB)
19.710705		30.63	50.00	19.37	1000.0	9.000	L1	OFF	9.7
19.710705	32.56		60.00	27.44	1000.0	9.000	L1	OFF	9.7
19.768913		25.65	50.00	24.35	1000.0	9.000	L1	OFF	9.7
19.768913	28.73		60.00	31.27	1000.0	9.000	L1	OFF	9.7
20.256960		32.42	50.00	17.58	1000.0	9.000	L1	OFF	9.8
20.256960	34.20		60.00	25.80	1000.0	9.000	L1	OFF	9.8
20.318153		30.60	50.00	19.40	1000.0	9.000	L1	OFF	9.8
20.318153	32.71		60.00	27.29	1000.0	9.000	L1	OFF	9.8
20.685308		26.88	50.00	23.12	1000.0	9.000	L1	OFF	9.8
20.685308	29.65		60.00	30.35	1000.0	9.000	L1	OFF	9.8
20.991270		27.76	50.00	22.24	1000.0	9.000	L1	OFF	9.8
20.991270	30.45		60.00	29.55	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. Pre-testing all test modes and channels and find the 5745MHz of 11A which is the worst case, so only the worst case is included in this test report.

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For N Line:



Final_Result

Frequency (MHz)	QuasiPeak (dBµV)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Filter	Corr. (dB)
18.243578		28.30	50.00	21.70	1000.0	9.000	Ν	OFF	9.8
18.243578	30.69		60.00	29.31	1000.0	9.000	N	OFF	9.8
19.709213		31.88	50.00	18.12	1000.0	9.000	N	OFF	9.8
19.709213	33.76		60.00	26.24	1000.0	9.000	N	OFF	9.8
20.259945		31.53	50.00	18.47	1000.0	9.000	N	OFF	9.8
20.259945	33.46		60.00	26.54	1000.0	9.000	N	OFF	9.8
20.318153		30.61	50.00	19.39	1000.0	9.000	Ν	OFF	9.8
20.318153	32.70		60.00	27.30	1000.0	9.000	Ν	OFF	9.8
20.868885		28.11	50.00	21.89	1000.0	9.000	N	OFF	9.8
20.868885	30.56		60.00	29.44	1000.0	9.000	N	OFF	9.8
21.661403		29.87	50.00	20.13	1000.0	9.000	Ν	OFF	9.8
21.661403	31.78		60.00	28.22	1000.0	9.000	Ν	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. Pre-testing all test modes and channels and find the 5745MHz of 11A which is the worst case, so only the worst case is included in this test report.





10. 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 §15.407 (a)(1), (a)(3)

The conducted output power limit specified in paragraph (a)(1) and (a)(3) of this section is based on the use of antennas with directional gains that do not exceed 6 dBi. 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 (a)(1) and (a)(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

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