Appendix D

RF Test Data for B1WIFI(Conducted Measurement)

Product Name: RC Drone

Trade Mark: N/A

Test Model: X01

Environmental Conditions

Temperature:	24.6° C
Relative Humidity:	52.4%
ATM Pressure:	100.0 kPa
Test Engineer:	Emiya lin
Supervised by:	Simba Haung

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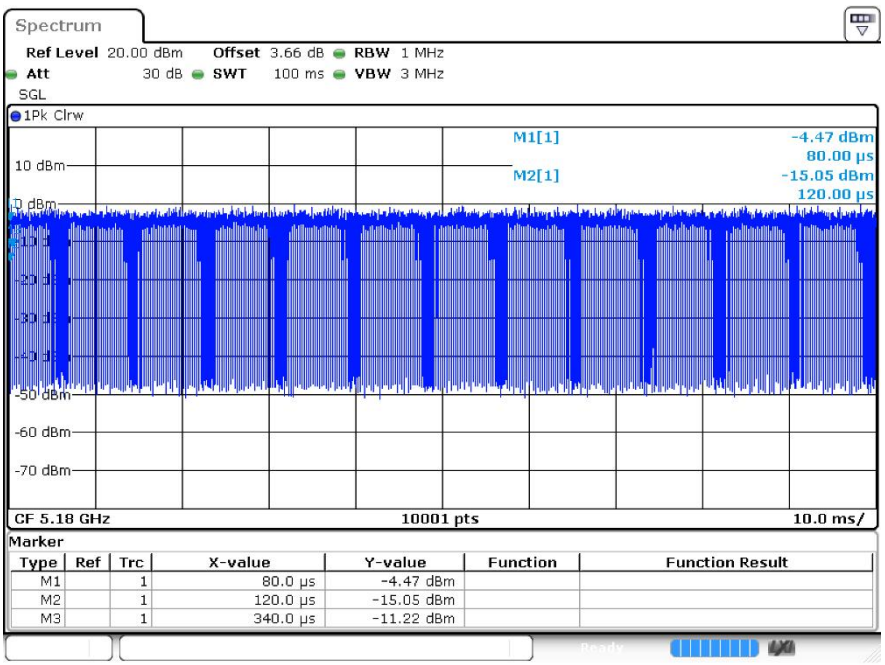
1 Duty Cycle

1.1 Test Result

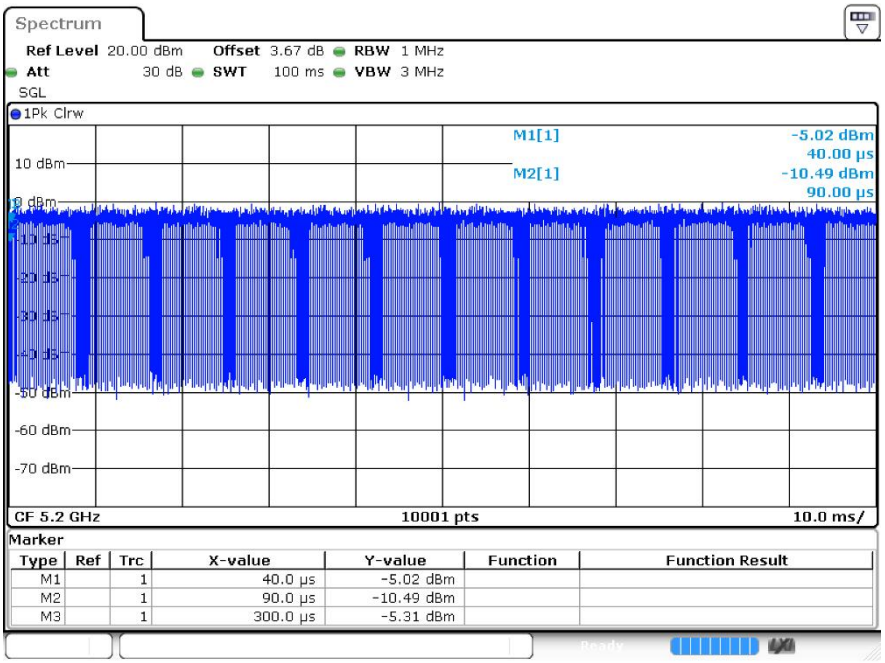
Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
a	5180	Ant1	86.55	0.63	4.55
a	5200	Ant1	86.59	0.63	4.76
a	5240	Ant1	86.94	0.61	4.55

1.2 Test Graphs

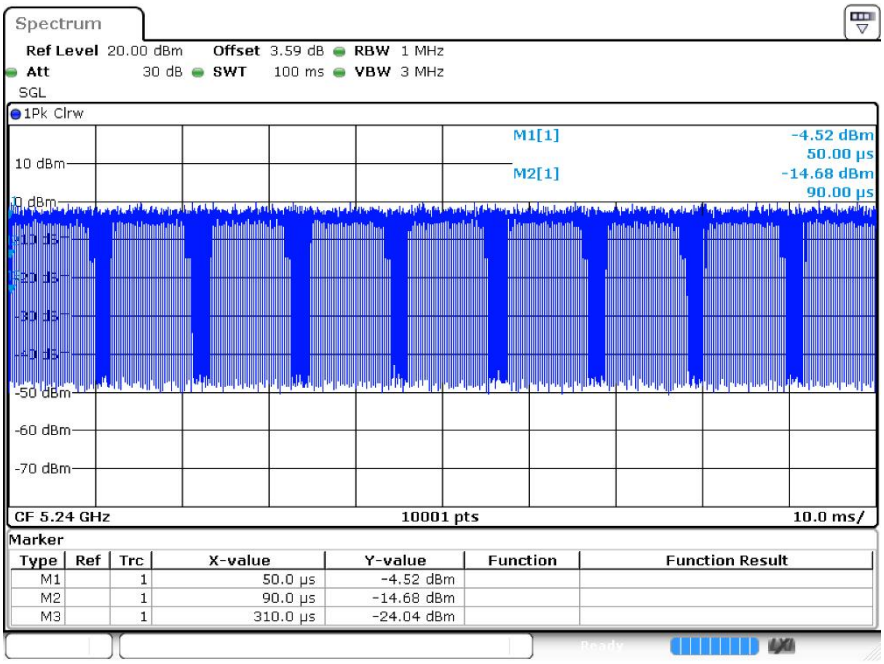
Test Graphs
Duty Cycle a 5180MHz Ant1



Duty Cycle a 5200MHz Ant1



Duty Cycle a 5240MHz Ant1



2 Maximum Conducted Output Power

2.1 Test Result

Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
a	5180	Ant1	5.89	24	Pass
a	5200	Ant1	6.03	24	Pass
a	5240	Ant1	6.31	24	Pass

Note:

The duty factor has been compensated into the result.

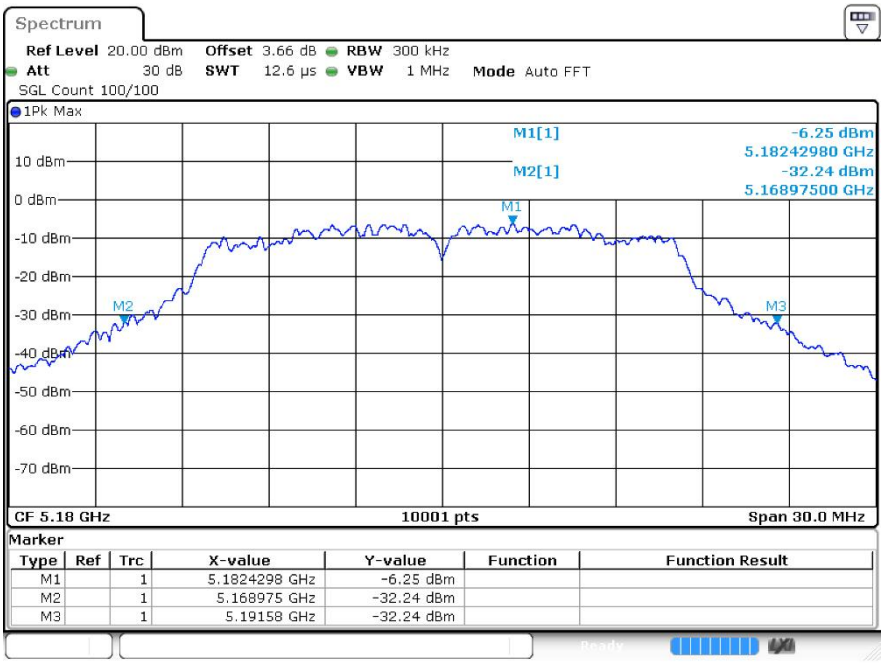
3 -26dB Bandwidth

3.1 Test Result

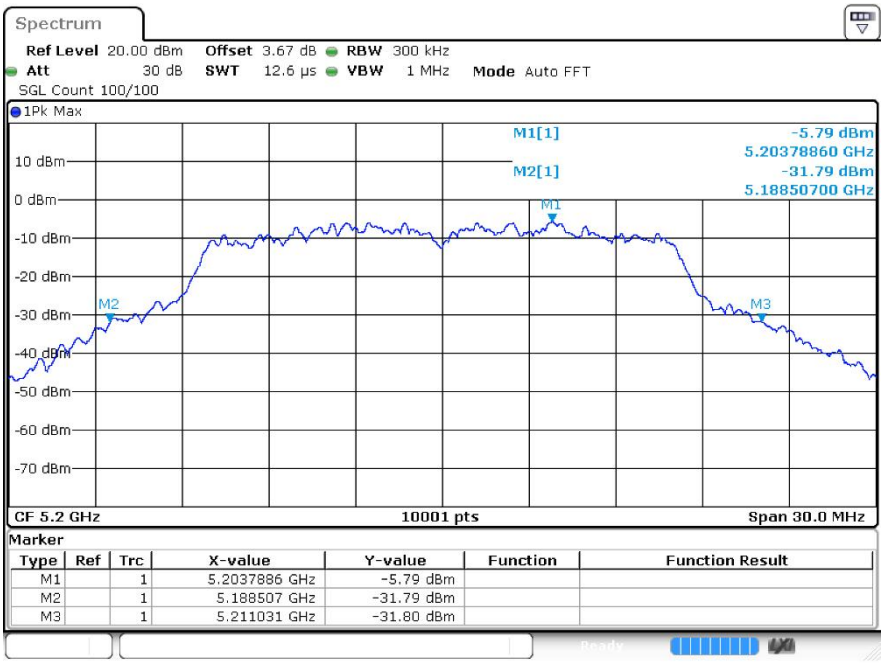
Mode	Frequency (MHz)	Antenna	-26 dB Bandwidth (MHz)	Limit -26 dB Bandwidth (MHz)	Verdict
a	5180	Ant1	22.605	0.5	Pass
a	5200	Ant1	22.524	0.5	Pass
a	5240	Ant1	22.392	0.5	Pass

3.2 Test Graphs

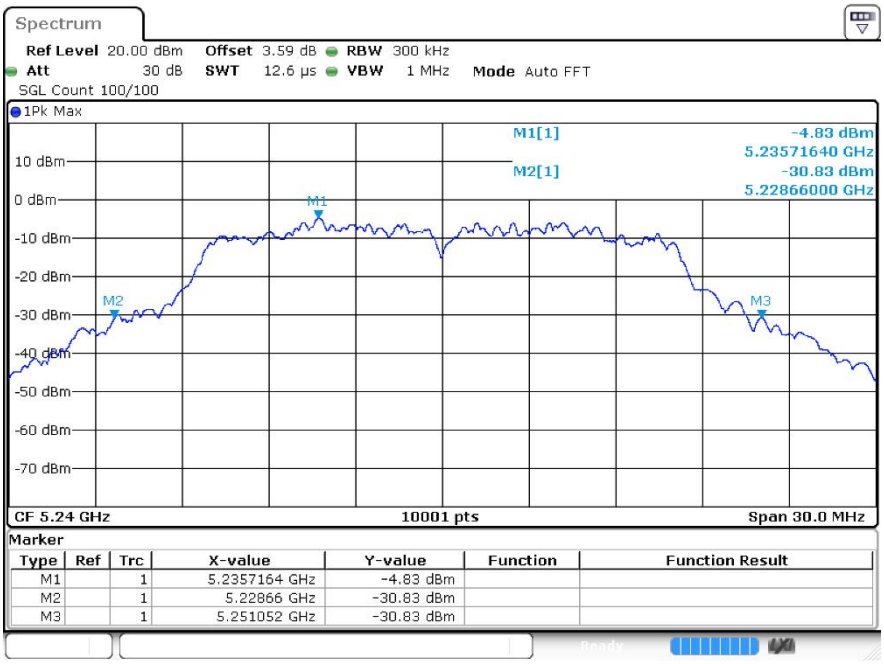
Test Graphs
-26dB Bandwidth a 5180MHz Ant1



-26dB Bandwidth a 5200MHz Ant1



-26dB Bandwidth a 5240MHz Ant1



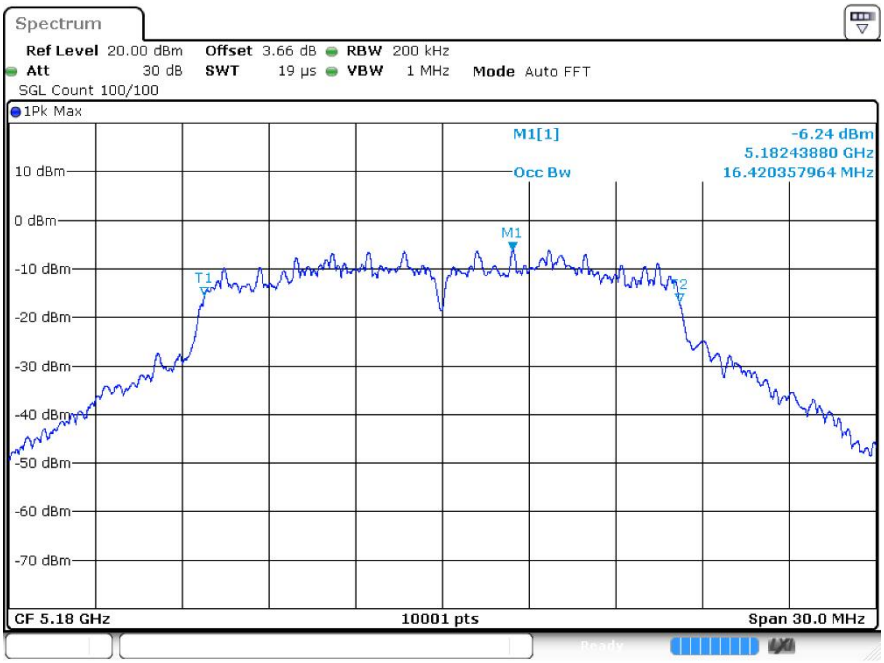
4 Occupied Channel Bandwidth

4.1 Test Result

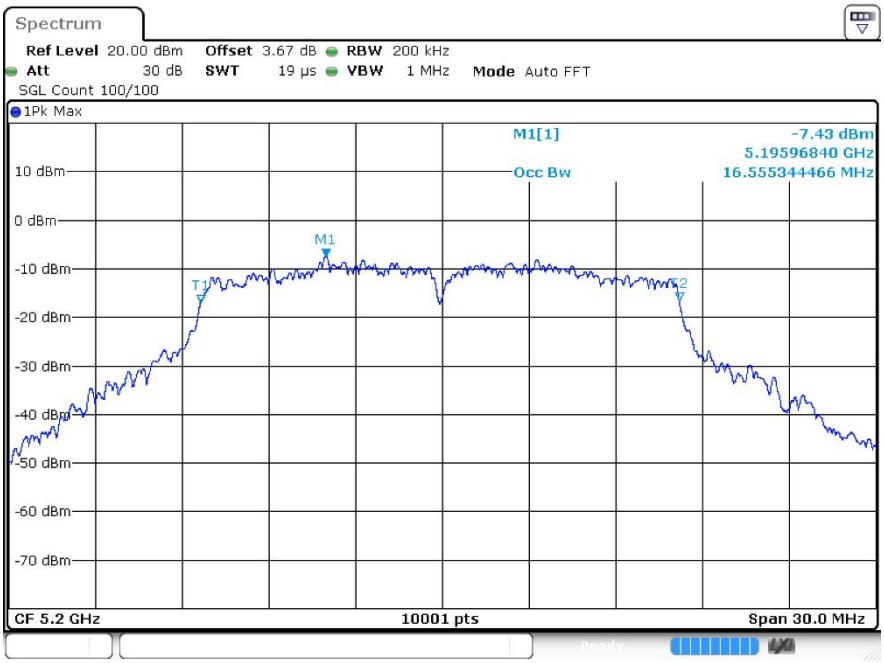
Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
a	5180	Ant1	16.42
a	5200	Ant1	16.555
a	5240	Ant1	16.486

4.2 Test Graphs

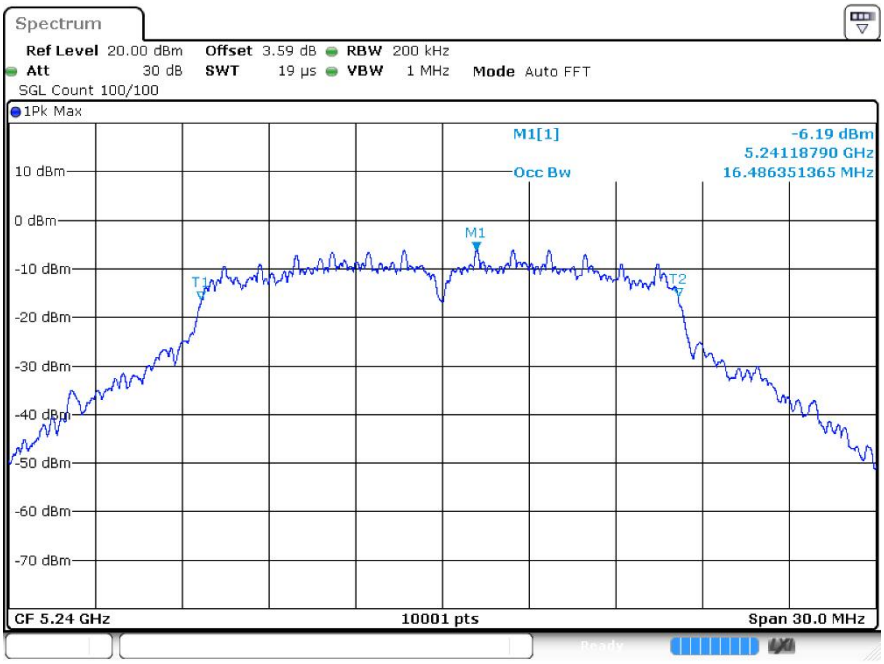
Test Graphs
OBW a 5180MHz Ant1



OBW a 5200MHz Ant1



OBW a 5240MHz Ant1



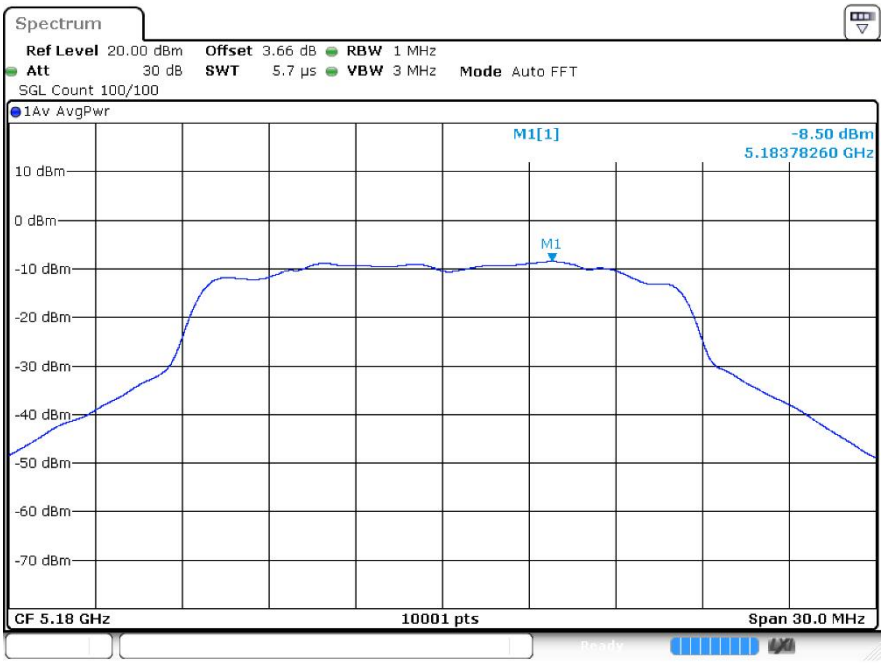
5 Maximum Power Spectral Density Level

5.1 Test Result

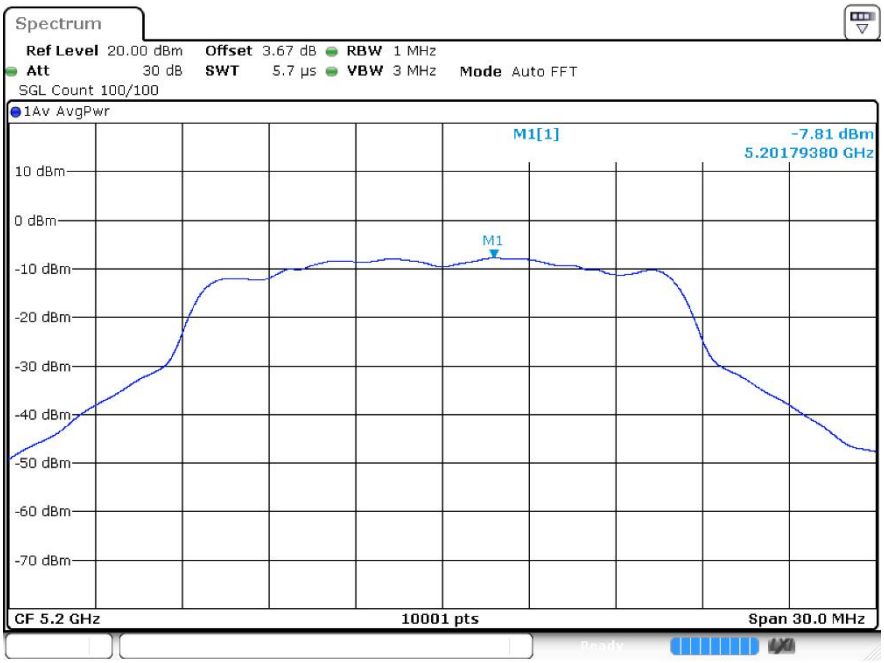
Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm)	Duty Factor (dB)	Total PSD (dBm)	Limit (dBm)	Verdict
a	5180	Ant1	-8.5	0.63	-7.87	11	Pass
a	5200	Ant1	-7.81	0.63	-7.18	11	Pass
a	5240	Ant1	-7.99	0.61	-7.38	11	Pass

5.2 Test Graphs

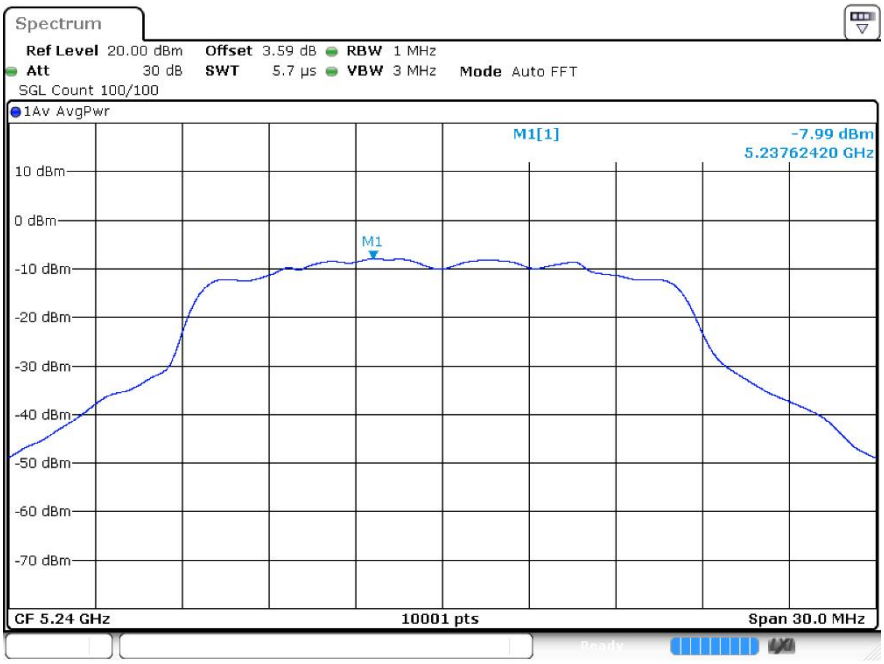
Test Graphs
PSD a 5180MHz Ant1



PSD a 5200MHz Ant1



PSD a 5240MHz Ant1



6 Frequency Stability

6.1 Test Result

Condition	Mode	Frequency (MHz)	Antenna	Measured Frequency (MHz)	Frequency Error (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
20C 3.145V	a	5180	Ant1	5179.94	-60000	-11.58	25	Pass
20C 3.7V	a	5180	Ant1	5179.94	-60000	-11.58	25	Pass
20C 4.255V	a	5180	Ant1	5179.96	-40000	-7.72	25	Pass
-20C 3.7V	a	5180	Ant1	5179.96	-40000	-7.72	25	Pass
-10C 3.7V	a	5180	Ant1	5179.94	-60000	-11.58	25	Pass
0C 3.7V	a	5180	Ant1	5179.94	-60000	-11.58	25	Pass
10C 3.7V	a	5180	Ant1	5179.92	-80000	-15.44	25	Pass
30C 3.7V	a	5180	Ant1	5179.98	-20000	-3.86	25	Pass
40C 3.7V	a	5180	Ant1	5179.92	-80000	-15.44	25	Pass
50C 3.7V	a	5180	Ant1	5179.98	-20000	-3.86	25	Pass
20C 3.145V	a	5200	Ant1	5199.94	-60000	-11.54	25	Pass
20C 3.7V	a	5200	Ant1	5199.94	-60000	-11.54	25	Pass
20C 4.255V	a	5200	Ant1	5199.92	-80000	-15.38	25	Pass
-20C 3.7V	a	5200	Ant1	5199.96	-40000	-7.69	25	Pass
-10C 3.7V	a	5200	Ant1	5199.94	-60000	-11.54	25	Pass
0C 3.7V	a	5200	Ant1	5199.94	-60000	-11.54	25	Pass
10C 3.7V	a	5200	Ant1	5199.92	-80000	-15.38	25	Pass
30C 3.7V	a	5200	Ant1	5199.94	-60000	-11.54	25	Pass
40C 3.7V	a	5200	Ant1	5199.96	-40000	-7.69	25	Pass
20C 3.145V	a	5200	Ant1	5199.94	-60000	-11.54	25	Pass
20C 3.145V	a	5240	Ant1	5239.94	-60000	-11.45	25	Pass
20C 3.7V	a	5240	Ant1	5239.94	-60000	-11.45	25	Pass
20C 4.255V	a	5240	Ant1	5239.92	-80000	-15.27	25	Pass
-20C 3.7V	a	5240	Ant1	5239.96	-40000	-7.63	25	Pass
-10C 3.7V	a	5240	Ant1	5239.94	-60000	-11.45	25	Pass
0C 3.7V	a	5240	Ant1	5239.94	-60000	-11.45	25	Pass
10C 3.7V	a	5240	Ant1	5239.92	-80000	-15.27	25	Pass
30C 3.7V	a	5240	Ant1	5239.94	-60000	-11.45	25	Pass
40C 3.7V	a	5240	Ant1	5239.96	-40000	-7.63	25	Pass
50C 3.7V	a	5240	Ant1	5239.92	-80000	-15.27	25	Pass

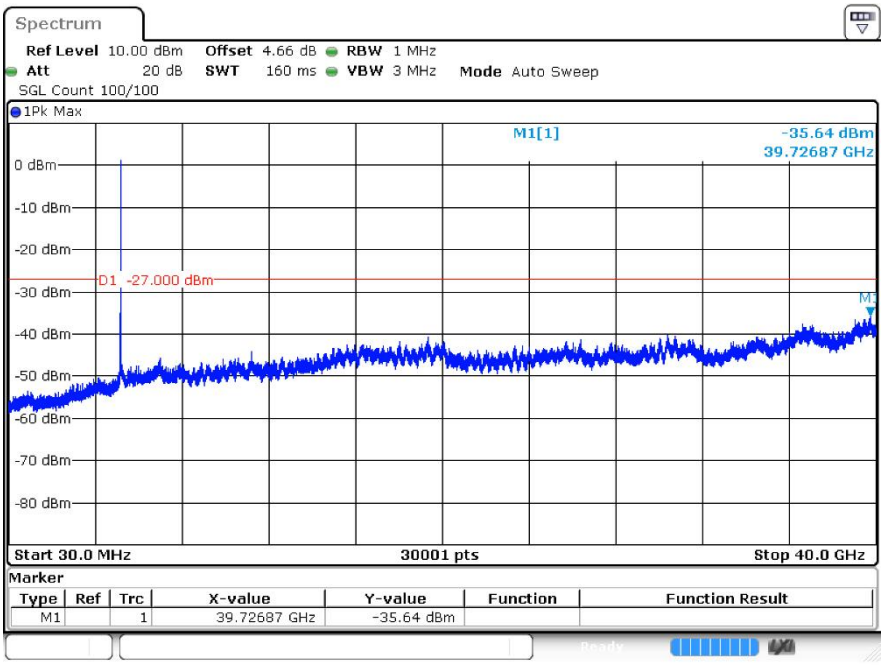
7 Conducted RF Spurious Emission

7.1 Test Result

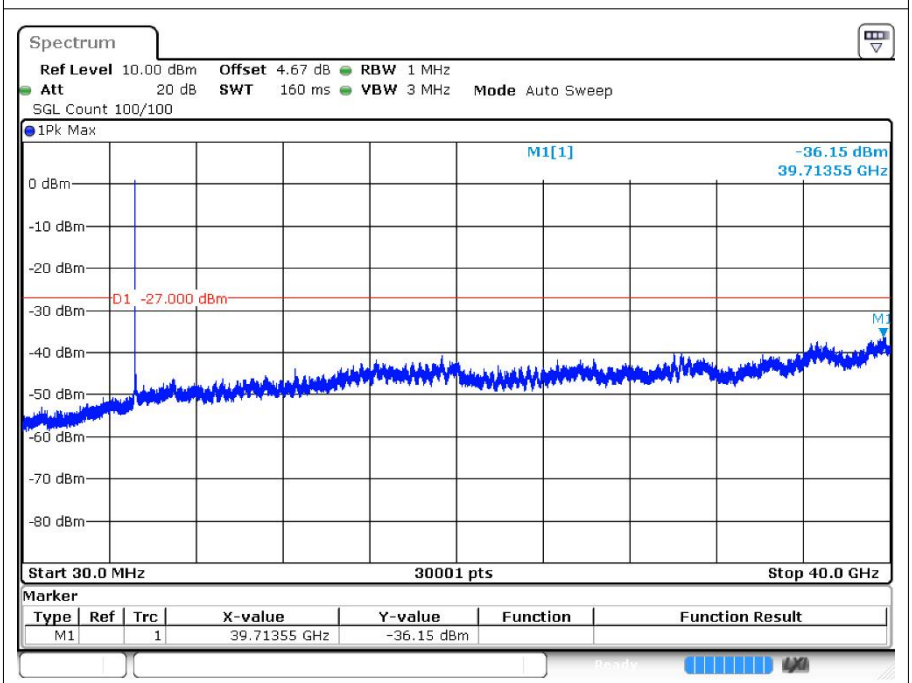
Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
a	5180	Ant1	-35.63	-27	Pass
a	5200	Ant1	-36.15	-27	Pass
a	5240	Ant1	-36.05	-27	Pass

7.2 Test Graphs

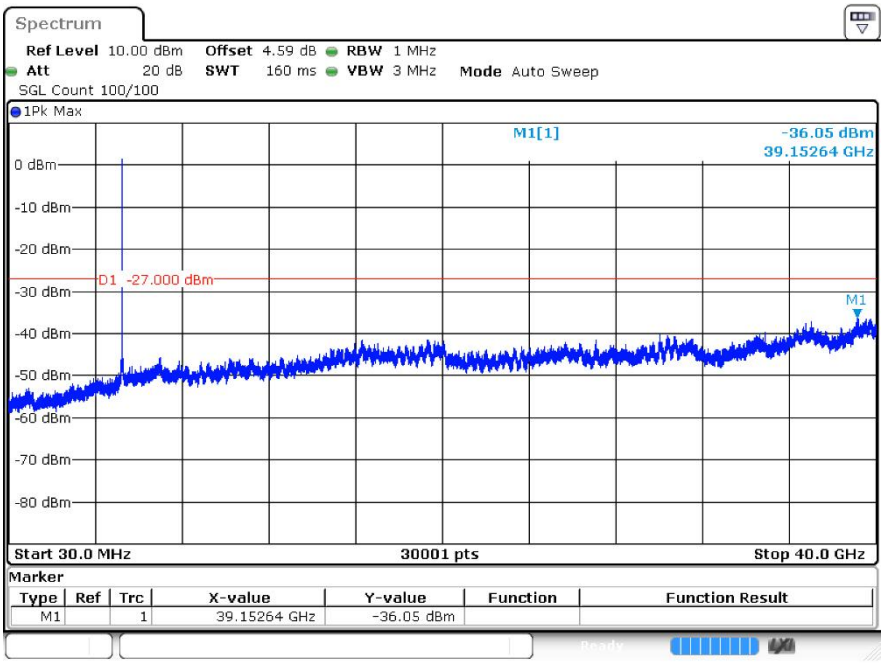
Test Graphs
Tx. Spurious a 5180MHz Ant1



Tx. Spurious a 5200MHz Ant1



Tx. Spurious a 5240MHz Ant1



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