



Appendix D

RF Test Data for B1WIFI(Conducted Measurement)

Product Name: UV Photocuring 3D Printer

Trade Mark: ELEGOO

Test Model: Jupiter 2

Environmental Conditions

Temperature:	25.6° C
Relative Humidity:	52.4%
ATM Pressure:	100.0 kPa
Test Engineer:	Emiya lin
Supervised by:	Simba Haung



Contents

Page

COVER PAGE

1	Duty Cycle	3
1.1	Test Result	3
1.2	Test Graphs	4
2	Maximum Conducted Output Power	14
2.1	Test Result	14
3	-26dB Bandwidth	15
3.1	Test Result	15
3.2	Test Graphs	16
4	Occupied Channel Bandwidth	26
4.1	Test Result	26
4.2	Test Graphs	27
5	Maximum Power Spectral Density Level	37
5.1	Test Result	37
5.2	Test Graphs	38
6	Frequency Stability	48
6.1	Test Result	48
7	Conducted RF Spurious Emission	53
7.1	Test Result	53
7.2	Test Graphs	54

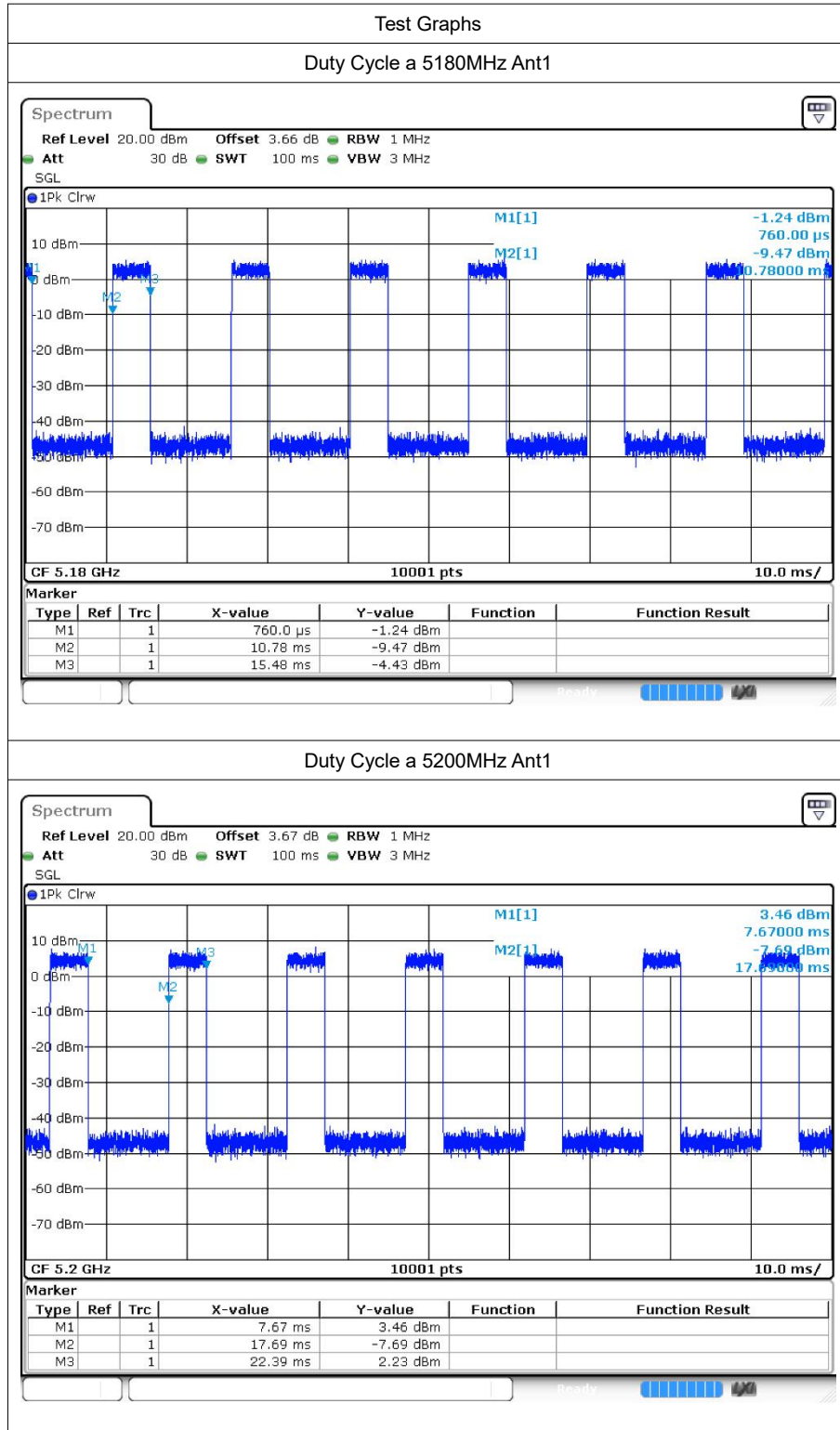


1 Duty Cycle

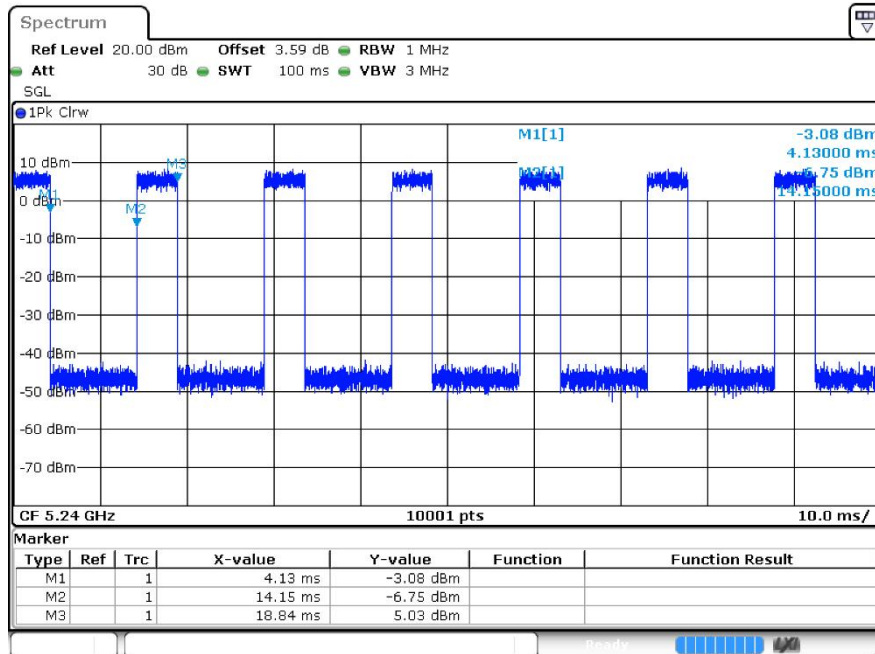
1.1 Test Result

Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
a	5180	Ant1	29.91	5.24	0.21
a	5200	Ant1	32.95	4.82	0.21
a	5240	Ant1	32.36	4.9	0.21
n20	5180	Ant1	33.25	4.78	0.2
n20	5200	Ant1	34.27	4.65	0.2
n20	5240	Ant1	33.27	4.78	0.2
n40	5190	Ant1	34.34	4.64	0.2
n40	5230	Ant1	32.88	4.83	0.2
ac20	5180	Ant1	33.13	4.8	0.2
ac20	5200	Ant1	30.64	5.14	0.2
ac20	5240	Ant1	34.67	4.6	0.2
ac40	5190	Ant1	34.15	4.67	0.2
ac40	5230	Ant1	34.37	4.64	0.2
ax20	5180	Ant1	29.65	5.28	0.26
ax20	5200	Ant1	27.2	5.65	0.26
ax20	5240	Ant1	27.16	5.66	0.26
ax40	5190	Ant1	27.16	5.66	0.26
ax40	5230	Ant1	28.48	5.46	0.26

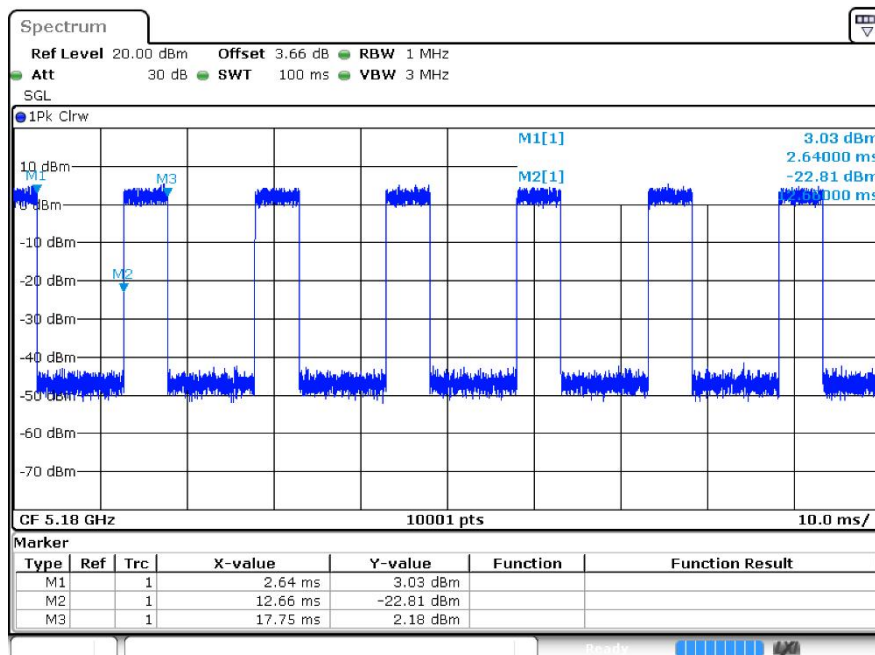
1.2 Test Graphs



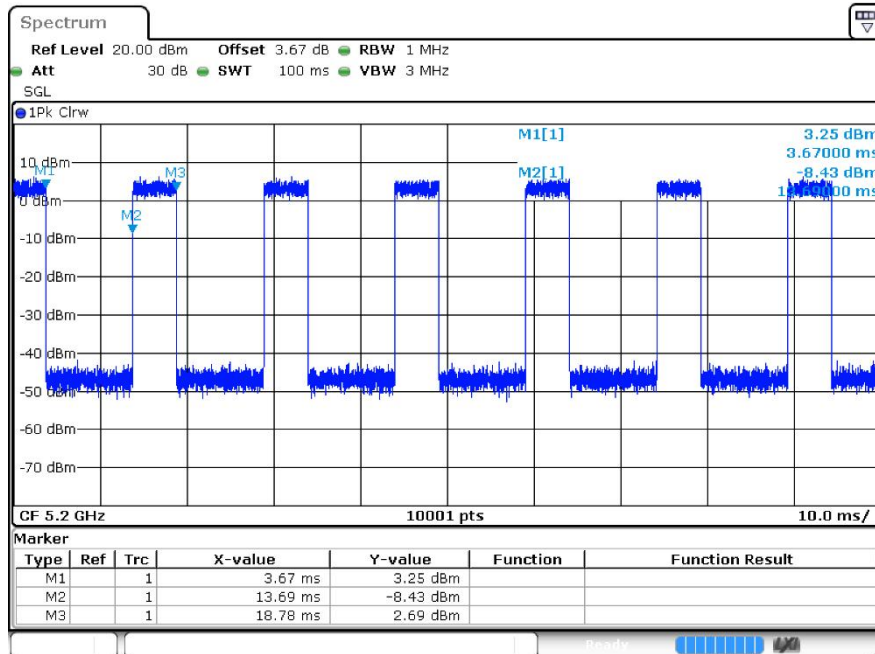
Duty Cycle a 5240MHz Ant1



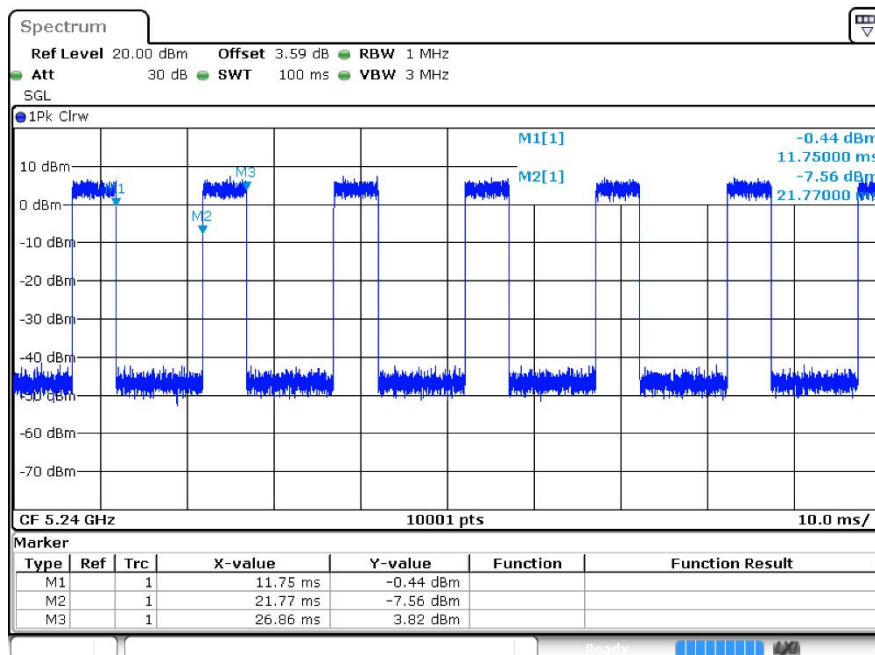
Duty Cycle n20 5180MHz Ant1



Duty Cycle a n20 5200MHz Ant1

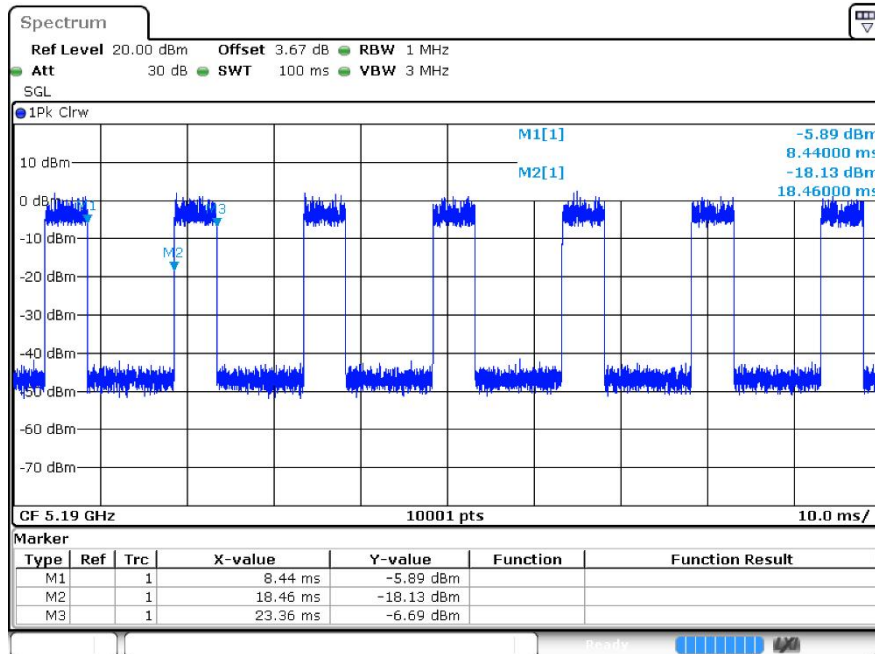


Duty Cycle n20 5240MHz Ant1

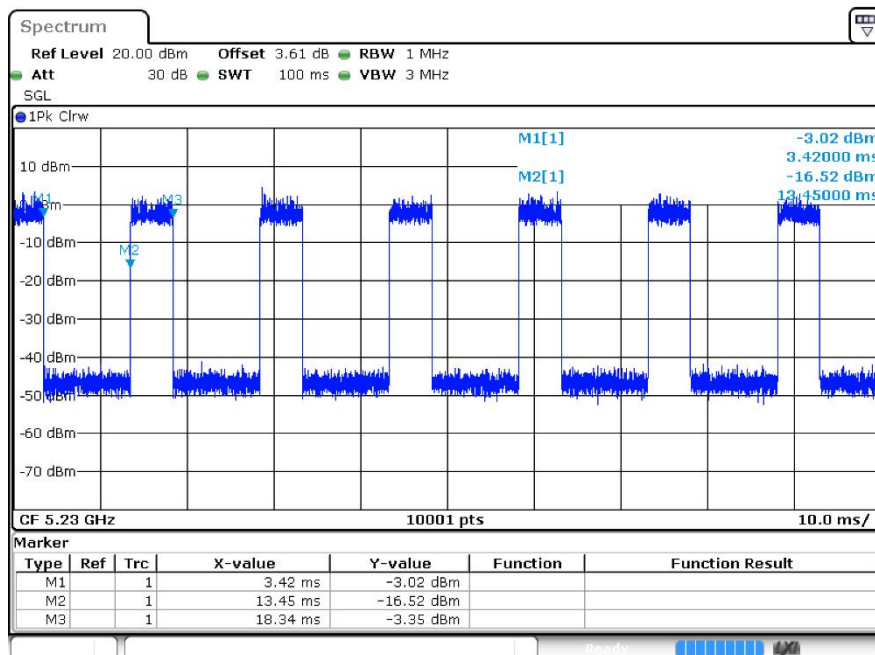




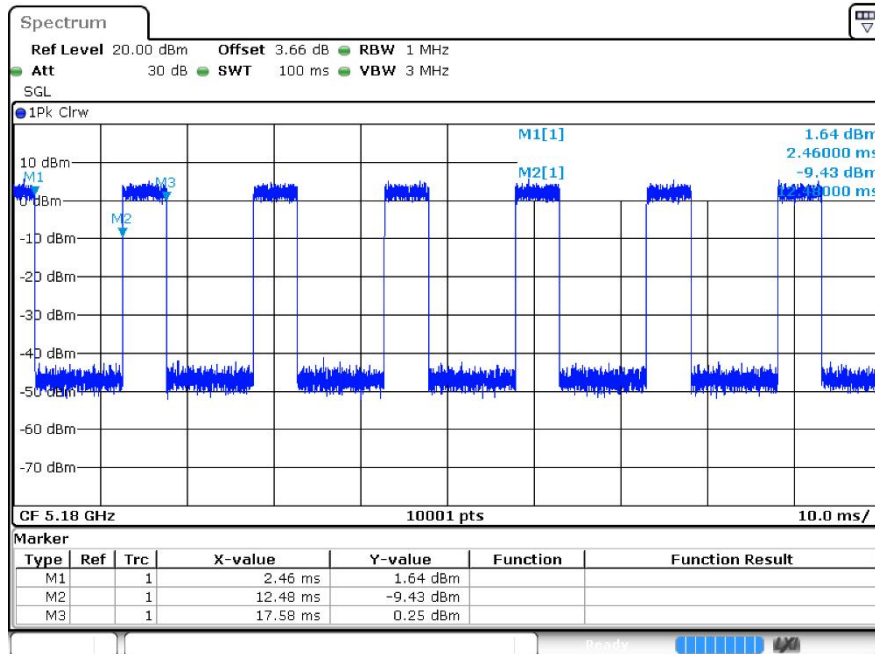
Duty Cycle n40 5190MHz Ant1



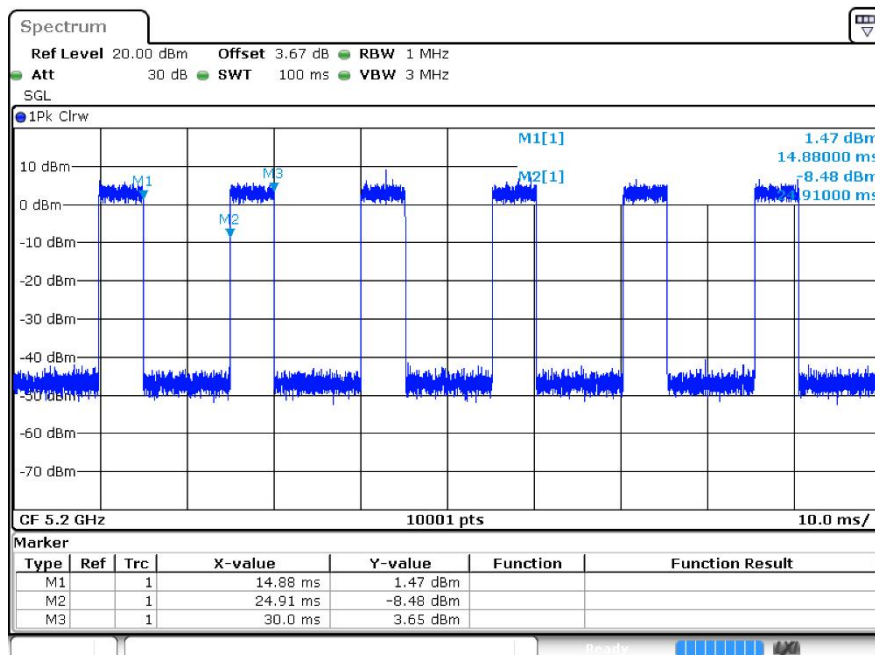
Duty Cycle n40 5230MHz Ant1



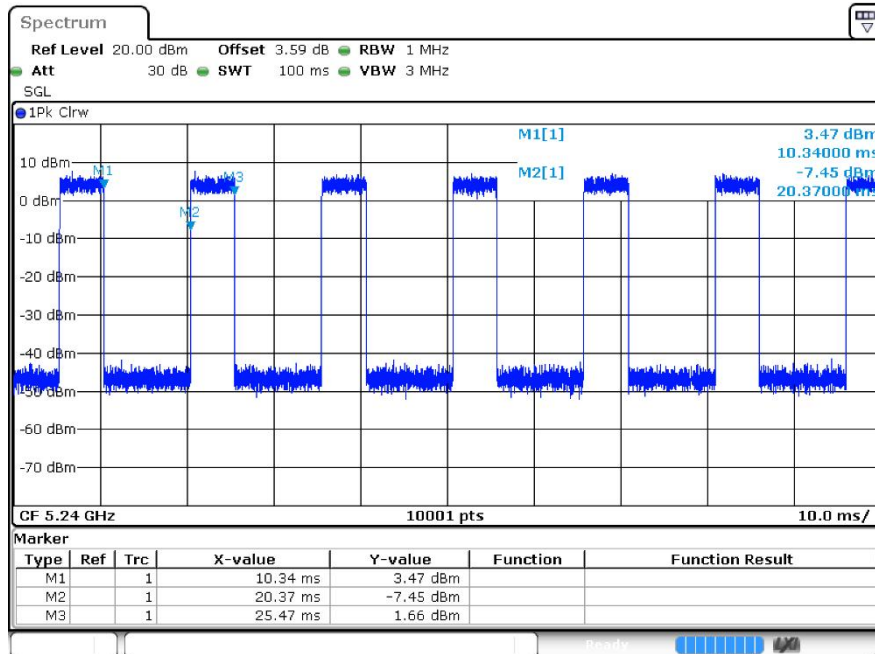
Duty Cycle ac20 5180MHz Ant1



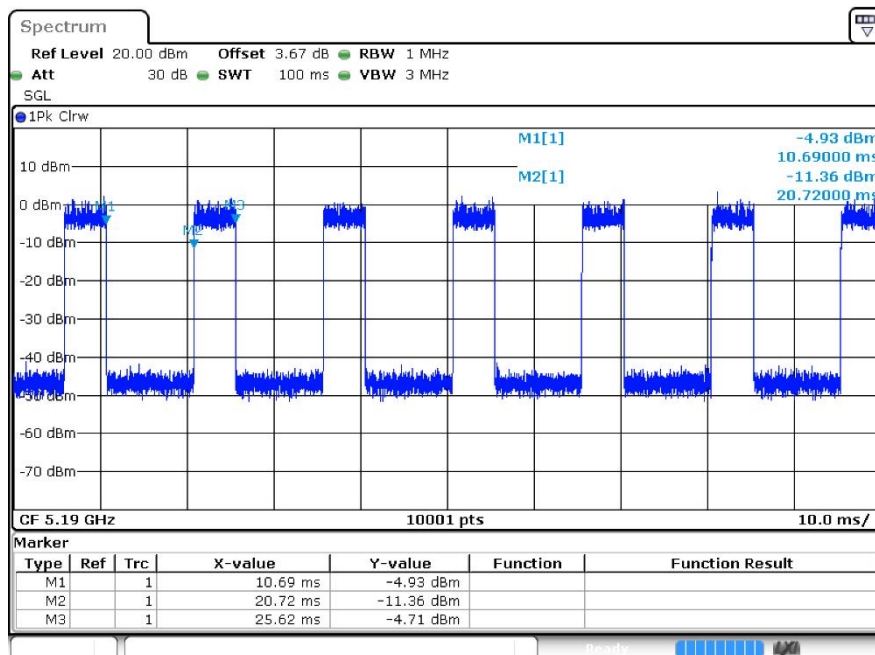
Duty Cycle ac20 5200MHz Ant1

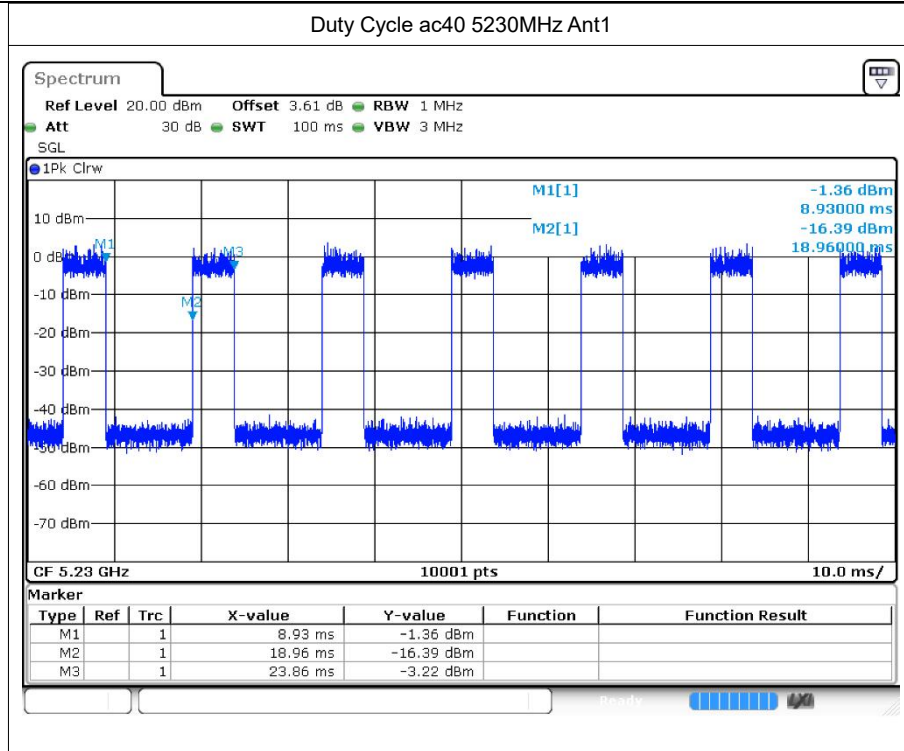


Duty Cycle ac20 5240MHz Ant1

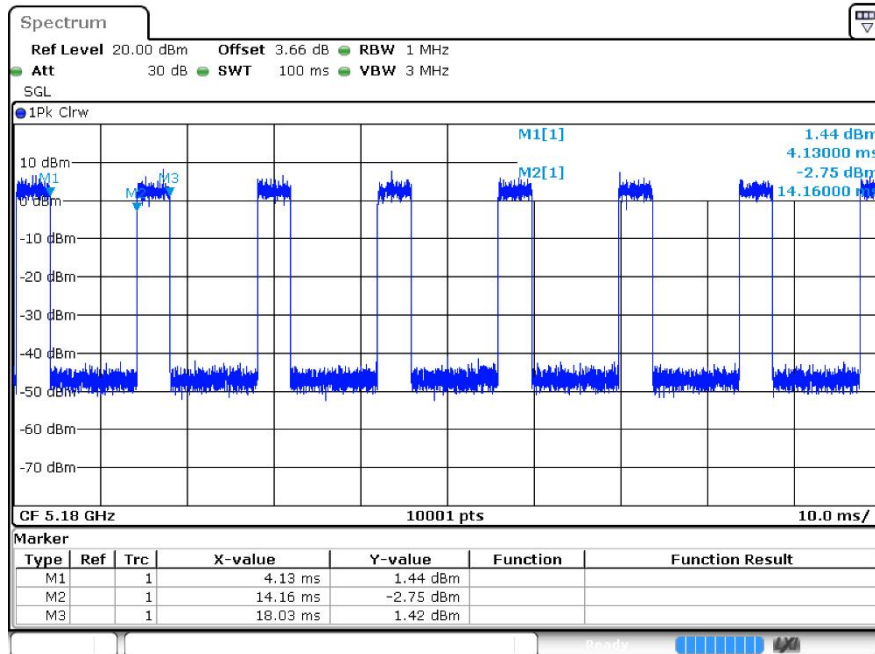


Duty Cycle ac40 5190MHz Ant1

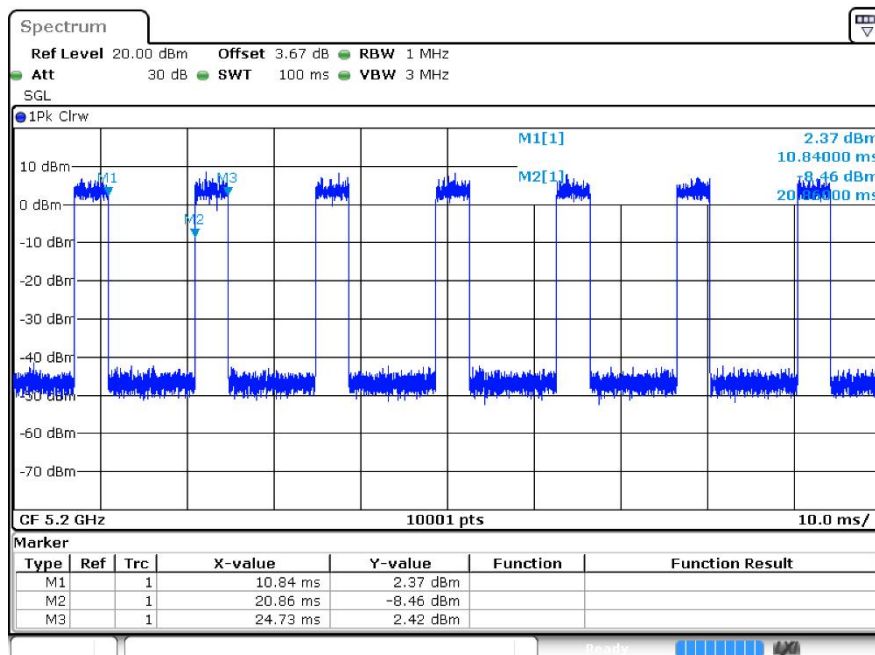




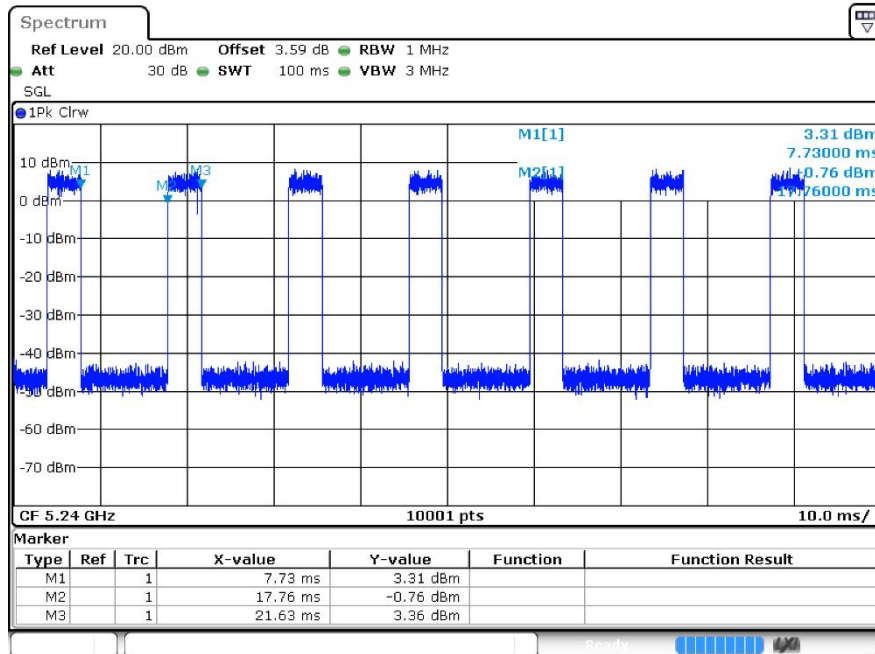
Duty Cycle ax20 5180MHz Ant1



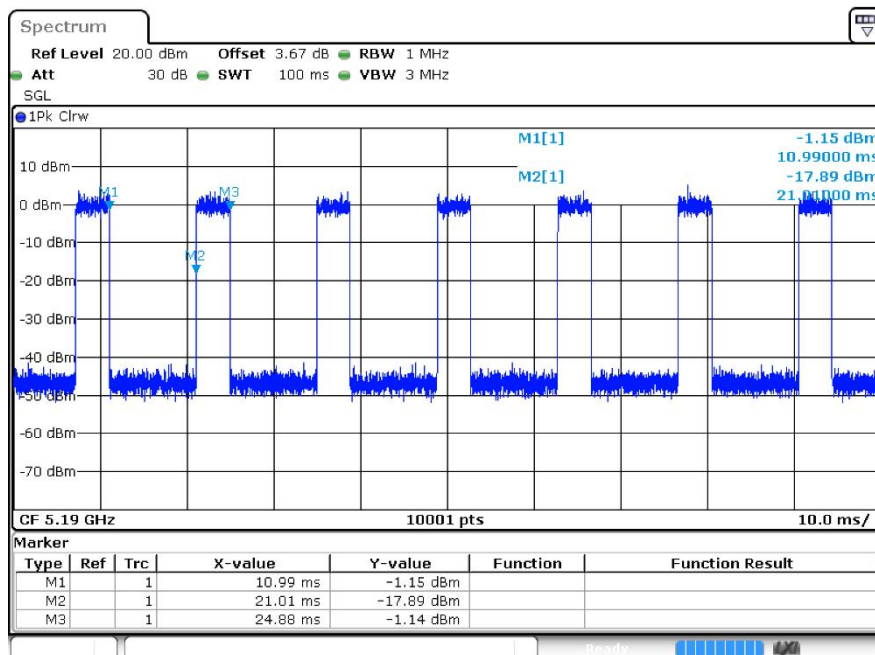
Duty Cycle ax20 5200MHz Ant1

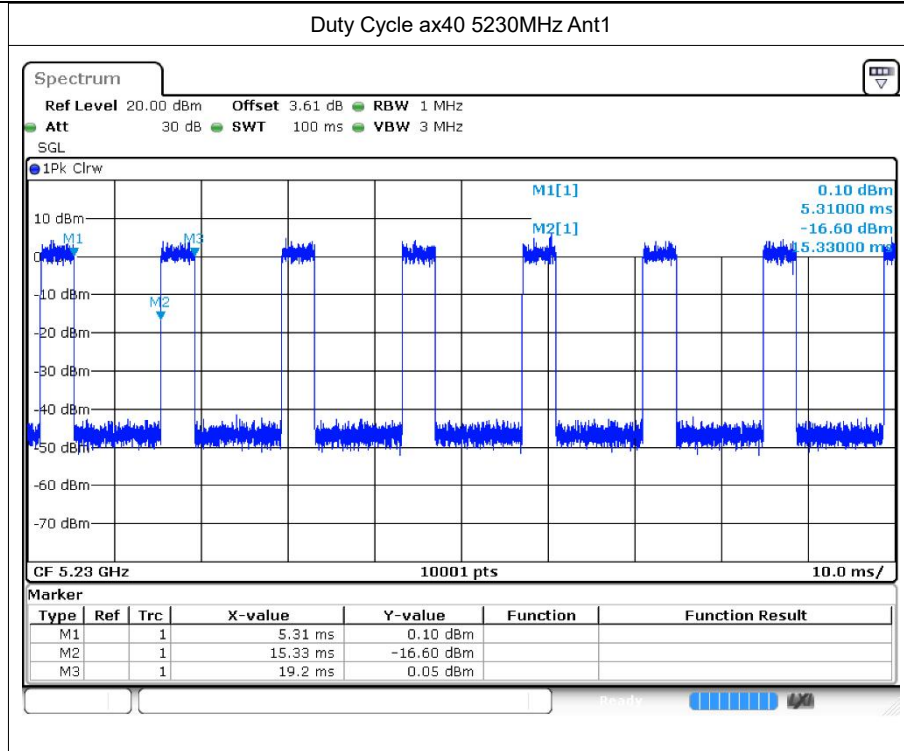


Duty Cycle ax20 5240MHz Ant1



Duty Cycle ax40 5190MHz Ant1





2 Maximum Conducted Output Power

2.1 Test Result

Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
a	5180	Ant1	13.21	24	Pass
a	5200	Ant1	14.06	24	Pass
a	5240	Ant1	15.09	24	Pass
n20	5180	Ant1	12.22	24	Pass
n20	5200	Ant1	13.06	24	Pass
n20	5240	Ant1	13.94	24	Pass
n40	5190	Ant1	12.7	24	Pass
n40	5230	Ant1	13.78	24	Pass
ac20	5180	Ant1	12.23	24	Pass
ac20	5200	Ant1	12.96	24	Pass
ac20	5240	Ant1	14.03	24	Pass
ac40	5190	Ant1	12.7	24	Pass
ac40	5230	Ant1	13.82	24	Pass
ax20	5180	Ant1	13.04	24	Pass
ax20	5200	Ant1	13.76	24	Pass
ax20	5240	Ant1	14.7	24	Pass
ax40	5190	Ant1	13.71	24	Pass
ax40	5230	Ant1	14.69	24	Pass

Note:

The duty factor has been compensated into the result.

3 -26dB Bandwidth

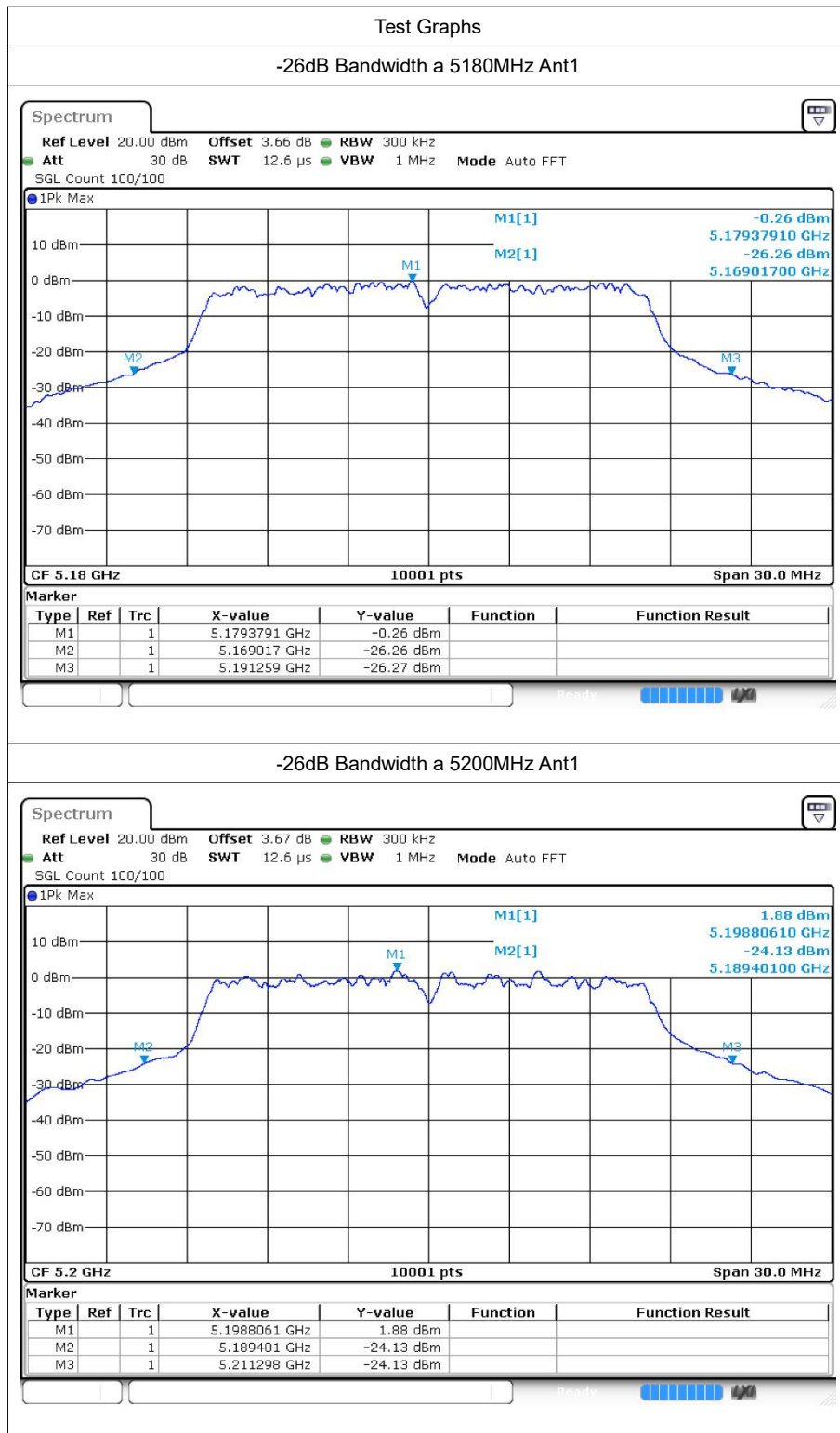
3.1 Test Result

Mode	Frequency (MHz)	Antenna	-26 dB Bandwidth (MHz)	Limit -26 dB Bandwidth (MHz)	Verdict
a	5180	Ant1	22.242	0.5	Pass
a	5200	Ant1	21.897	0.5	Pass
a	5240	Ant1	22.08	0.5	Pass
n20	5180	Ant1	23.898	0.5	Pass
n20	5200	Ant1	21.399	0.5	Pass
n20	5240	Ant1	23.703	0.5	Pass
n40	5190	Ant1	45.126	0.5	Pass
n40	5230	Ant1	42.576	0.5	Pass
ac20	5180	Ant1	24.273	0.5	Pass
ac20	5200	Ant1	23.376	0.5	Pass
ac20	5240	Ant1	23.514	0.5	Pass
ac40	5190	Ant1	43.704	0.5	Pass
ac40	5230	Ant1	42.444	0.5	Pass
ax20	5180	Ant1	22.881	0.5	Pass
ax20	5200	Ant1	20.112	0.5	Pass
ax20	5240	Ant1	23.166	0.5	Pass
ax40	5190	Ant1	39.384	0.5	Pass
ax40	5230	Ant1	39.822	0.5	Pass

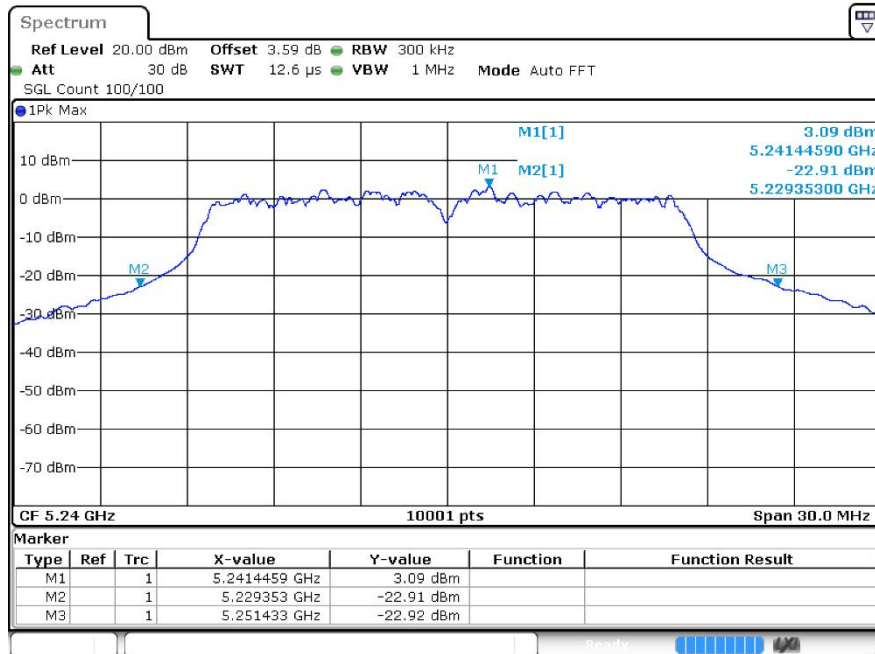
Note:

The duty factor has been compensated into the result.

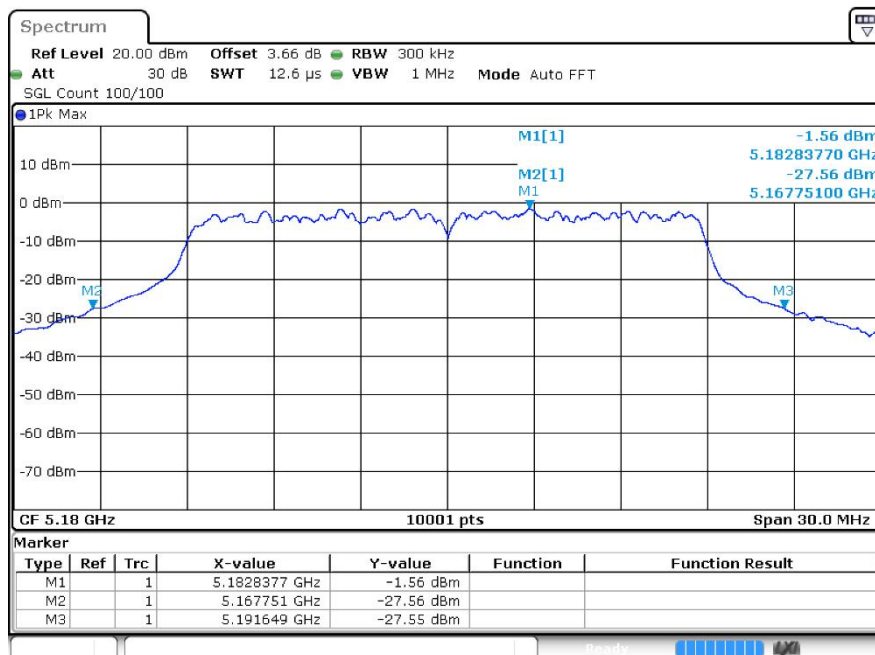
3.2 Test Graphs



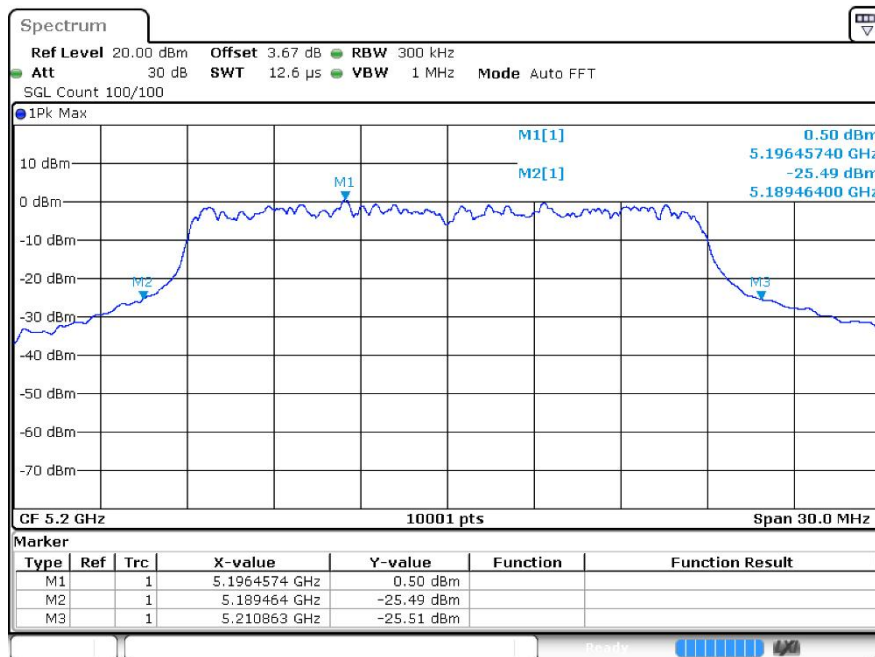
-26dB Bandwidth a 5240MHz Ant1



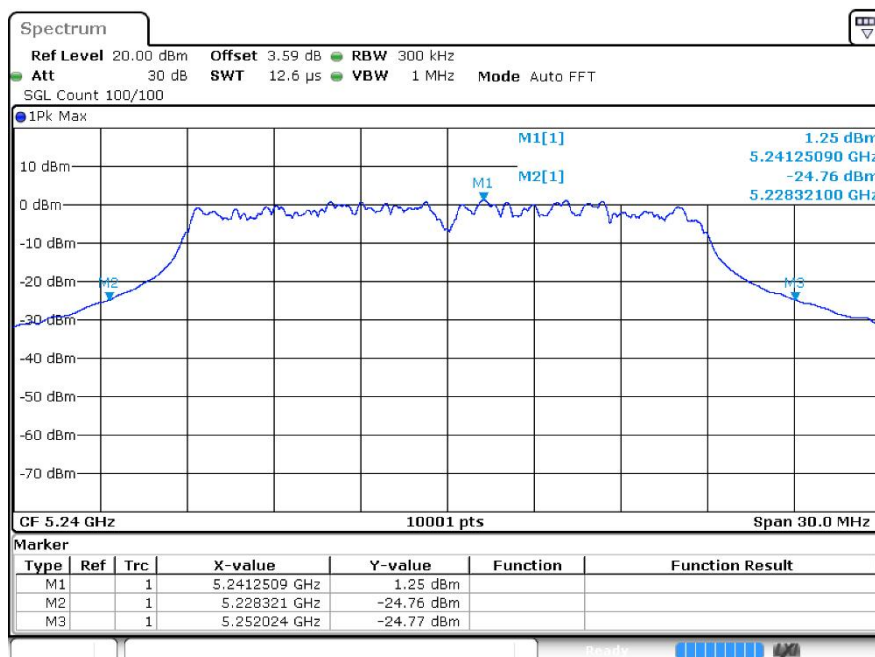
-26dB Bandwidth n20 5180MHz Ant1



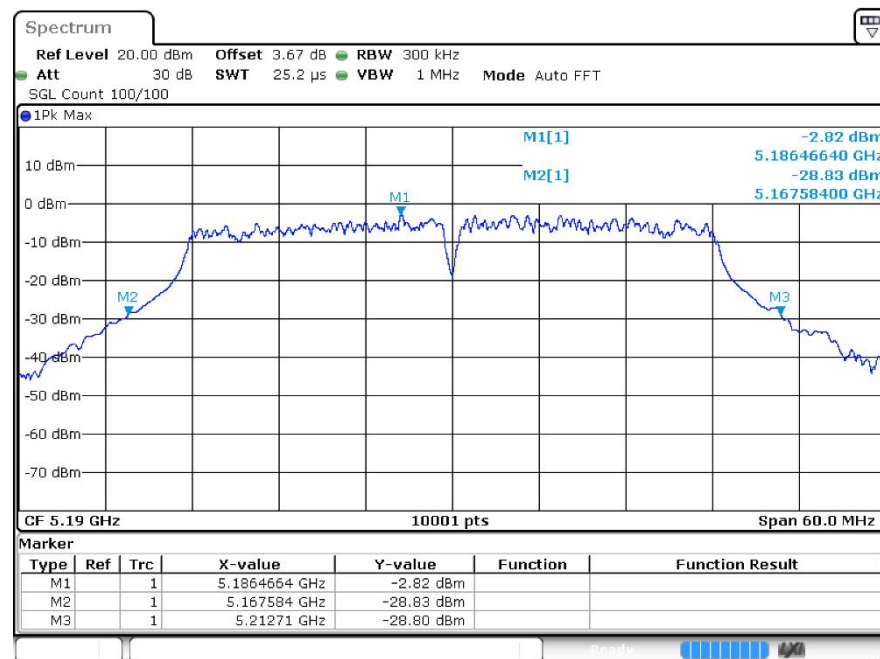
-26dB Bandwidth n20 5200MHz Ant1



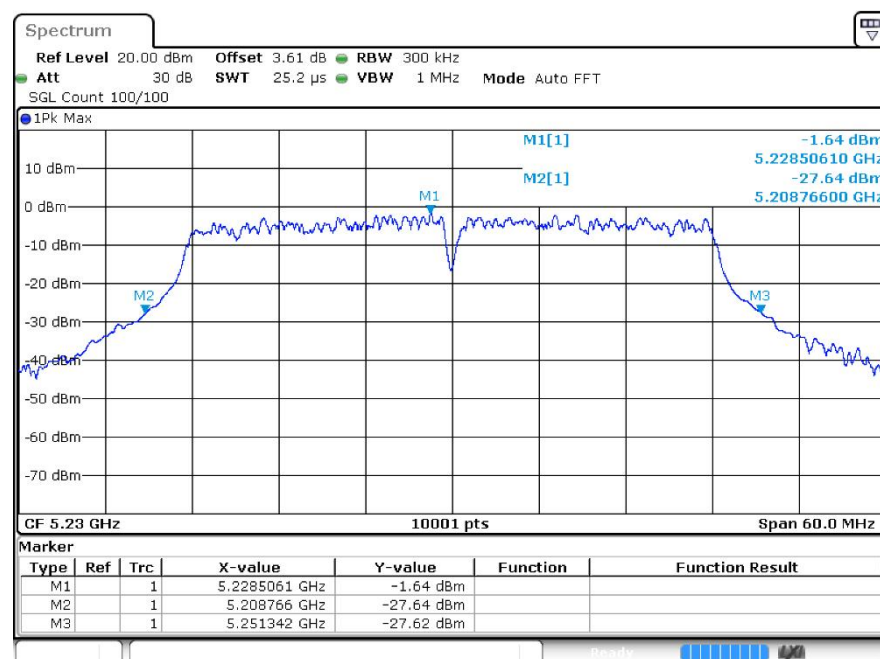
-26dB Bandwidth n20 5240MHz Ant1



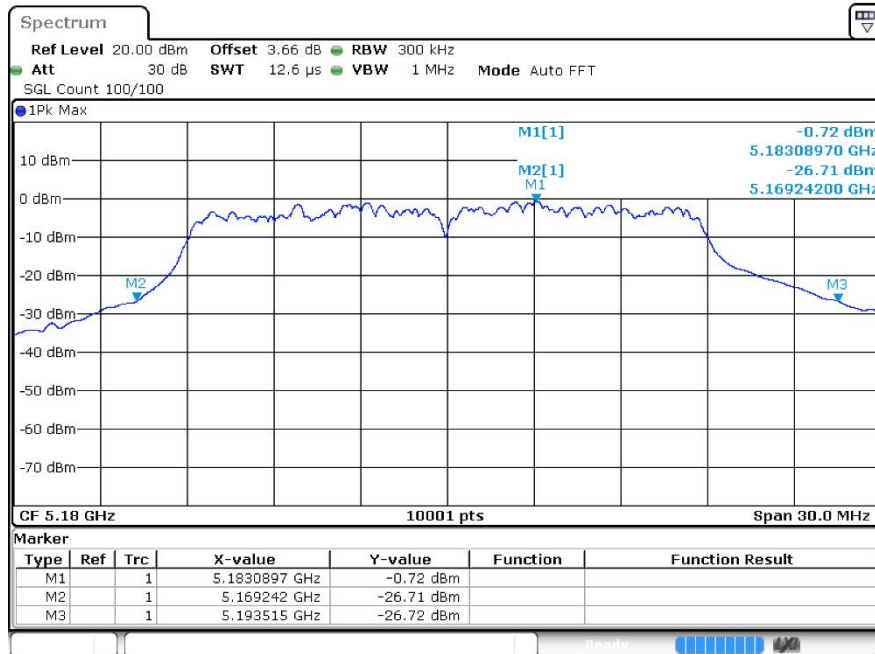
-26dB Bandwidth n40 5190MHz Ant1



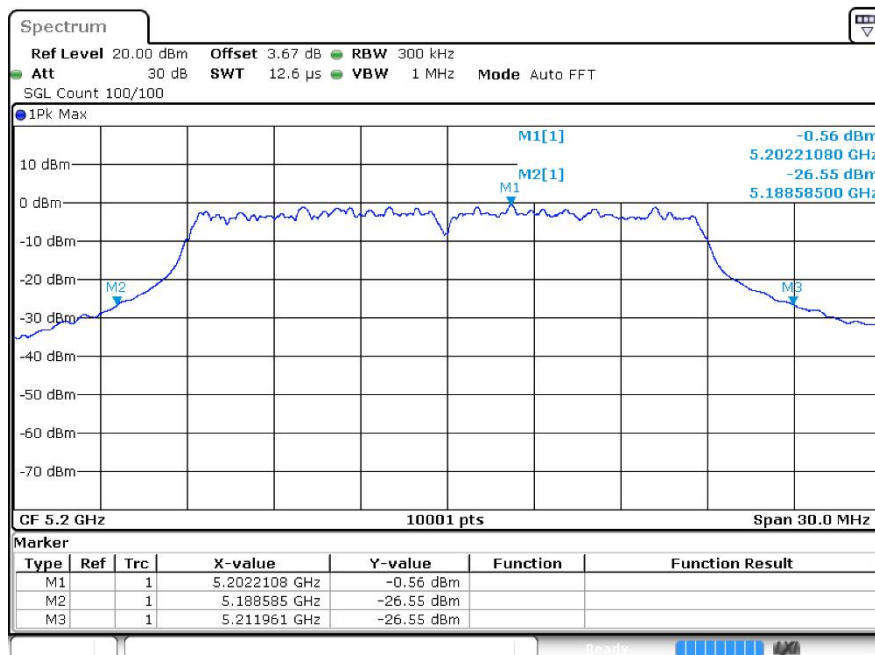
-26dB Bandwidth n40 5230MHz Ant1



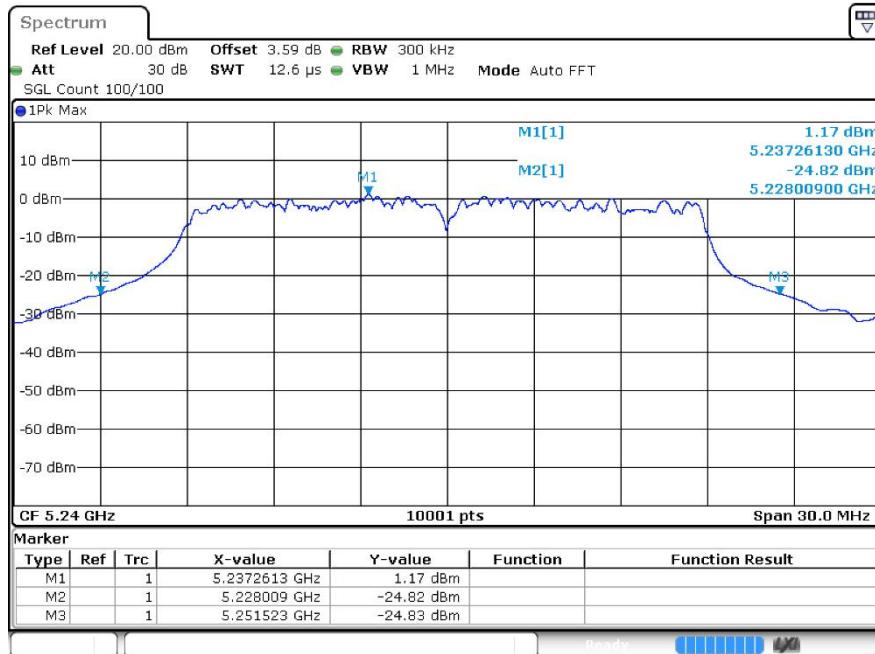
-26dB Bandwidth ac20 5180MHz Ant1



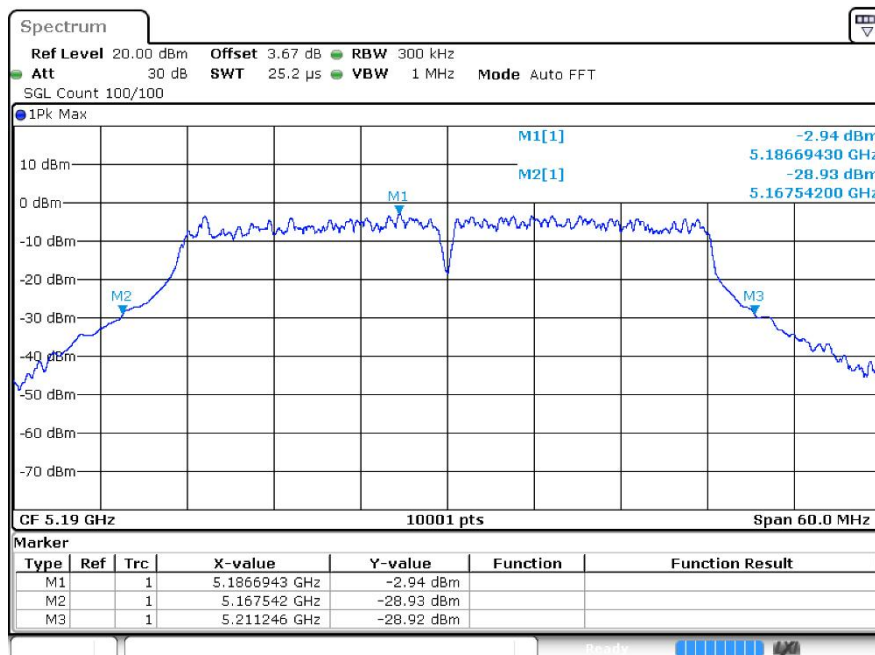
-26dB Bandwidth ac20 5200MHz Ant1

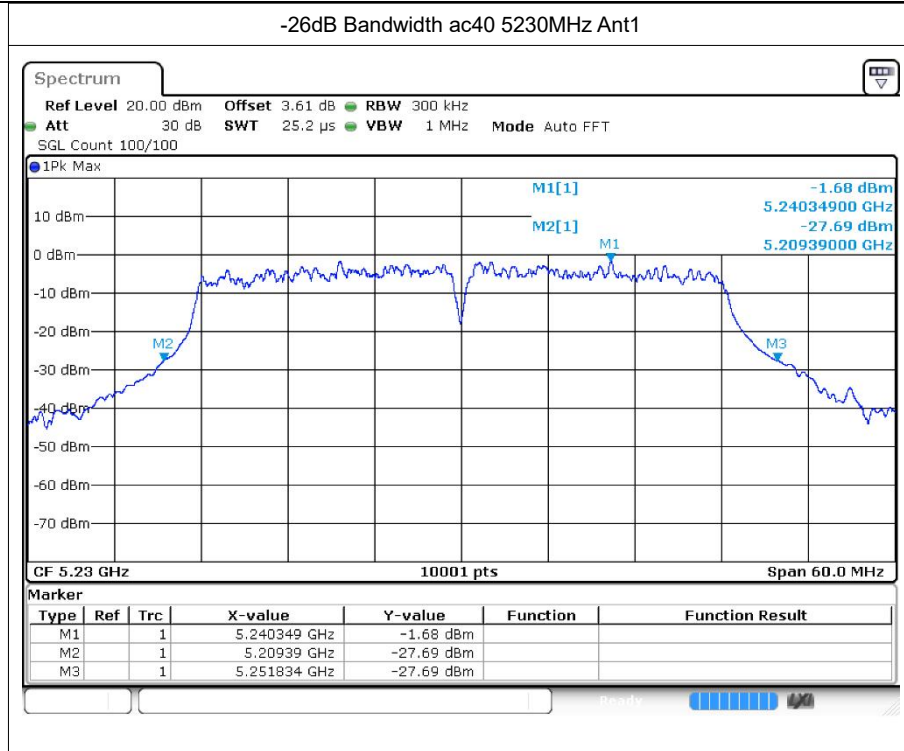


-26dB Bandwidth ac20 5240MHz Ant1

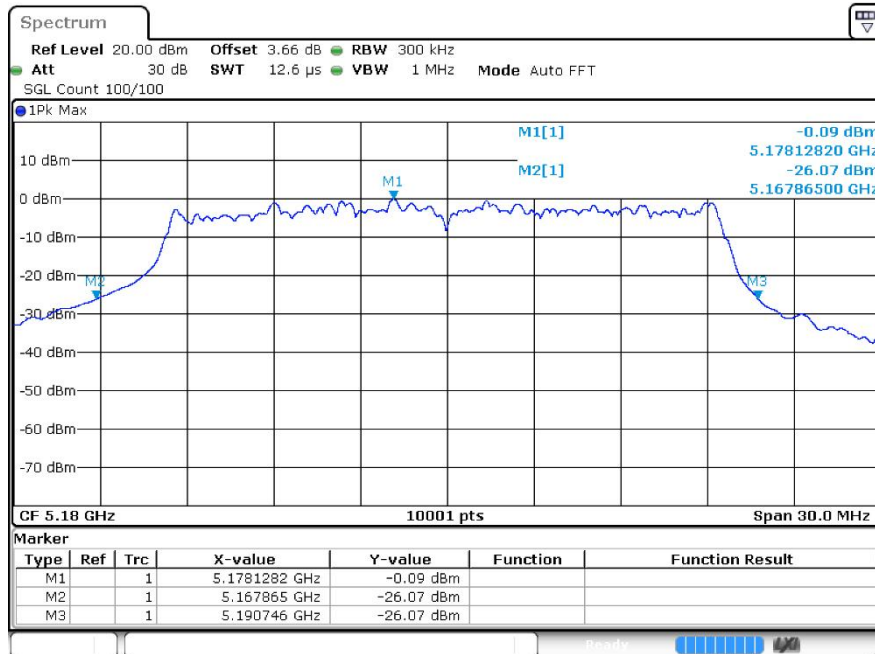


-26dB Bandwidth ac40 5190MHz Ant1

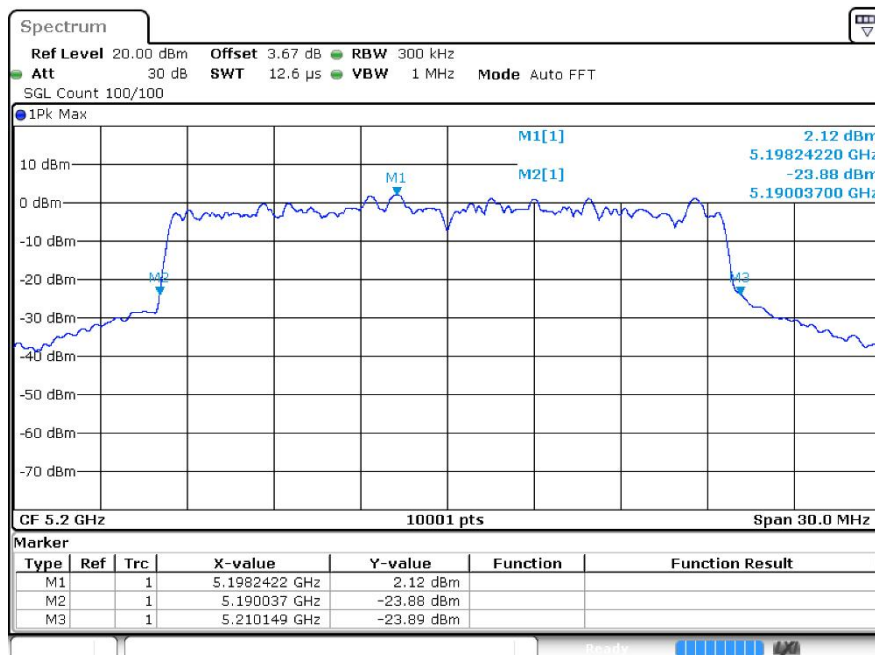




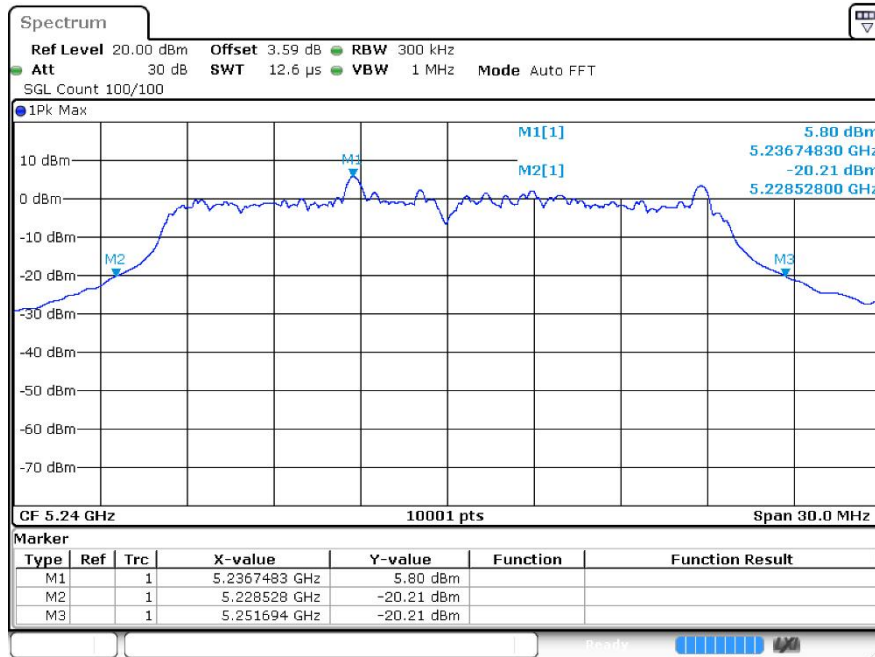
-26dB Bandwidth ax20 5180MHz Ant1



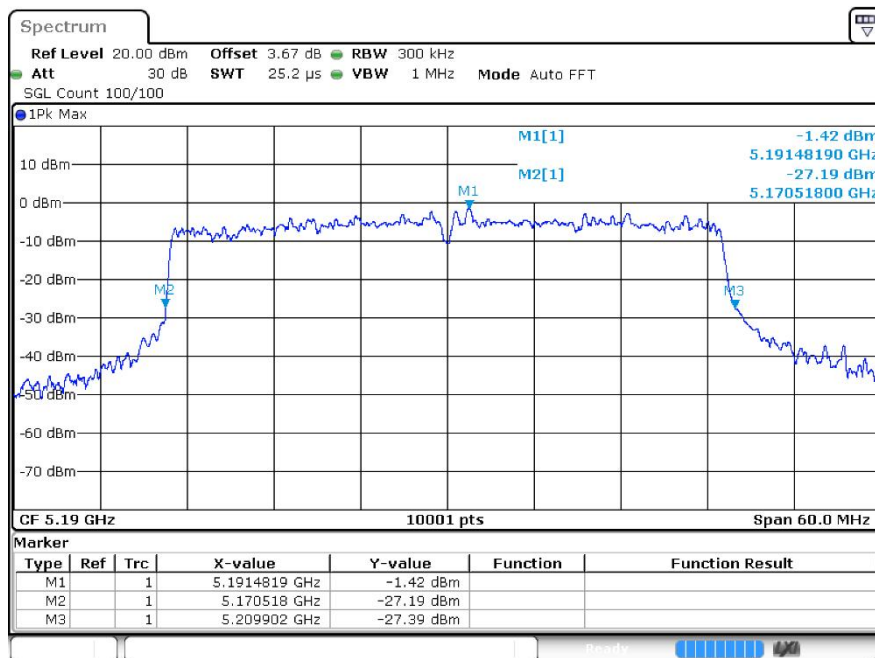
-26dB Bandwidth ax20 5200MHz Ant1

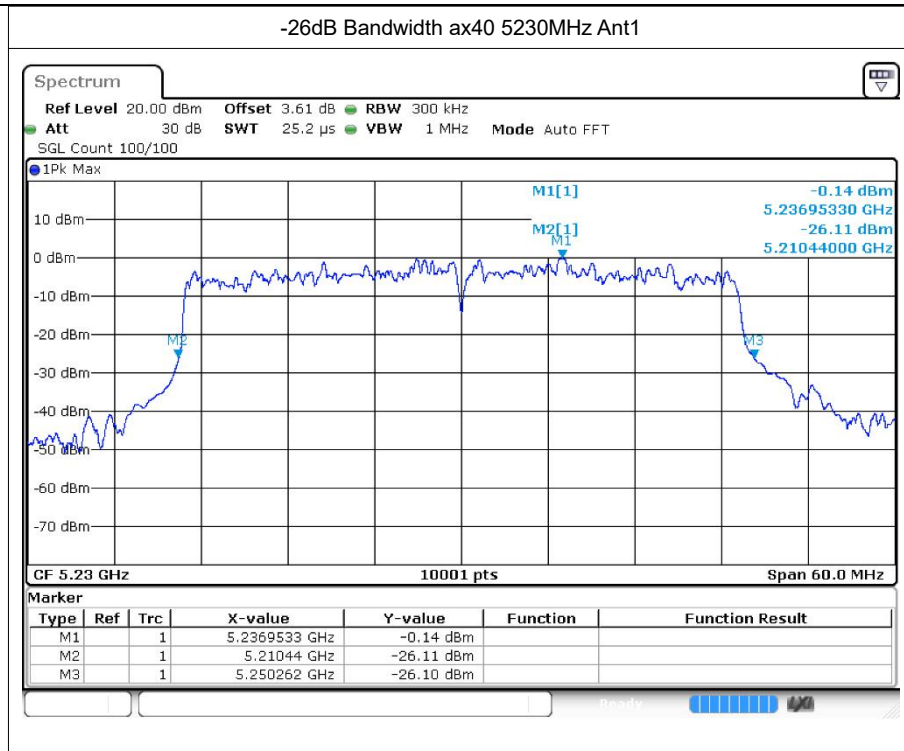


-26dB Bandwidth ax20 5240MHz Ant1



-26dB Bandwidth ax40 5190MHz Ant1





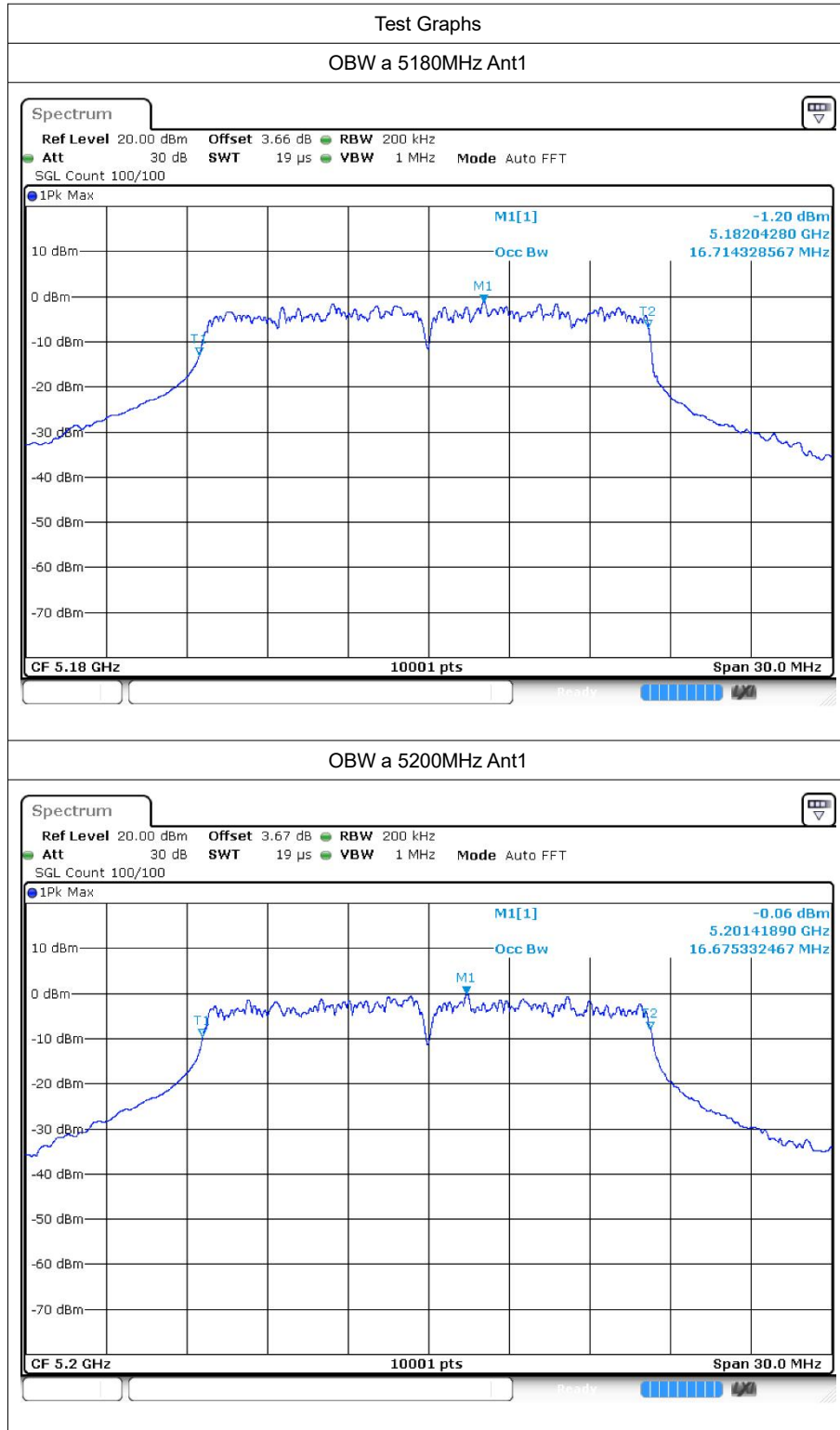


4 Occupied Channel Bandwidth

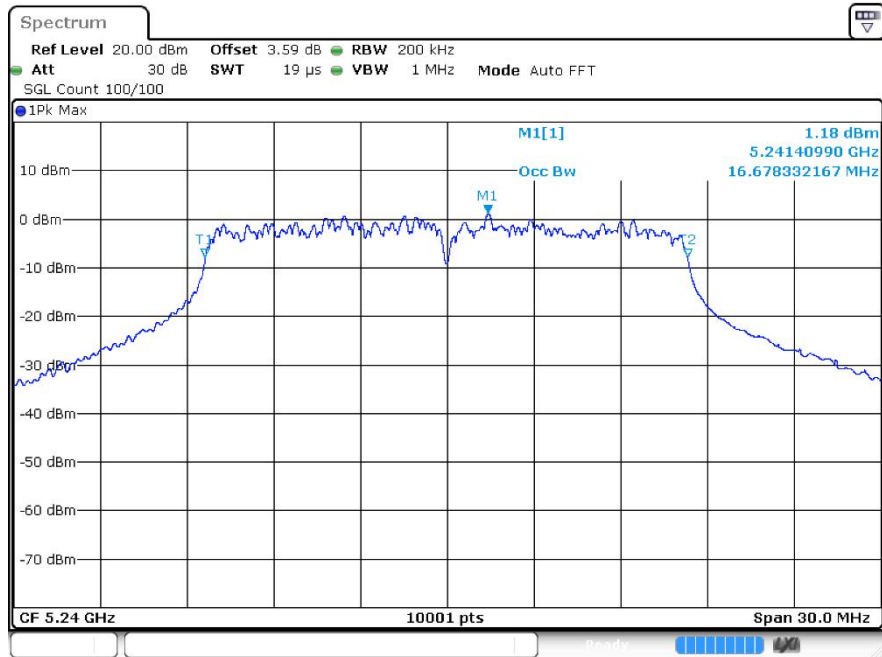
4.1 Test Result

Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
a	5180	Ant1	16.714
a	5200	Ant1	16.675
a	5240	Ant1	16.678
n20	5180	Ant1	17.818
n20	5200	Ant1	17.707
n20	5240	Ant1	17.941
n40	5190	Ant1	36.212
n40	5230	Ant1	36.218
ac20	5180	Ant1	17.722
ac20	5200	Ant1	17.791
ac20	5240	Ant1	17.731
ac40	5190	Ant1	36.272
ac40	5230	Ant1	36.596
ax20	5180	Ant1	19.03
ax20	5200	Ant1	18.982
ax20	5240	Ant1	19.12
ax40	5190	Ant1	37.868
ax40	5230	Ant1	37.85

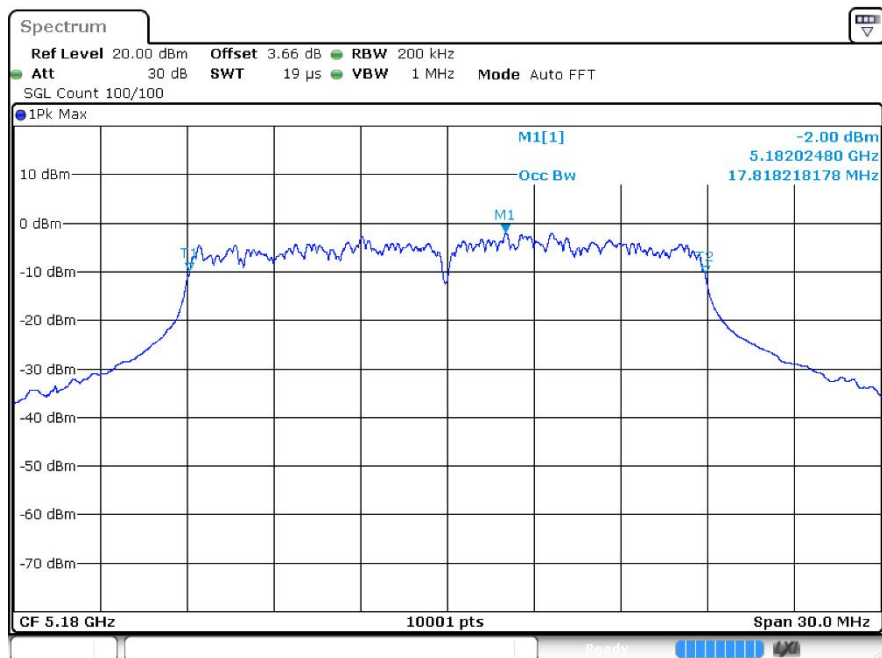
4.2 Test Graphs



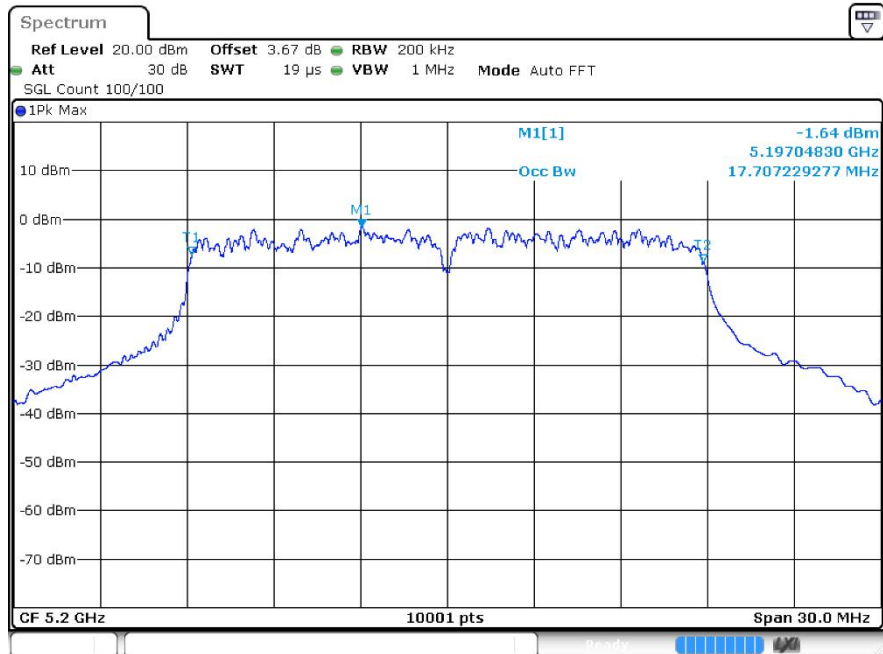
OBW a 5240MHz Ant1



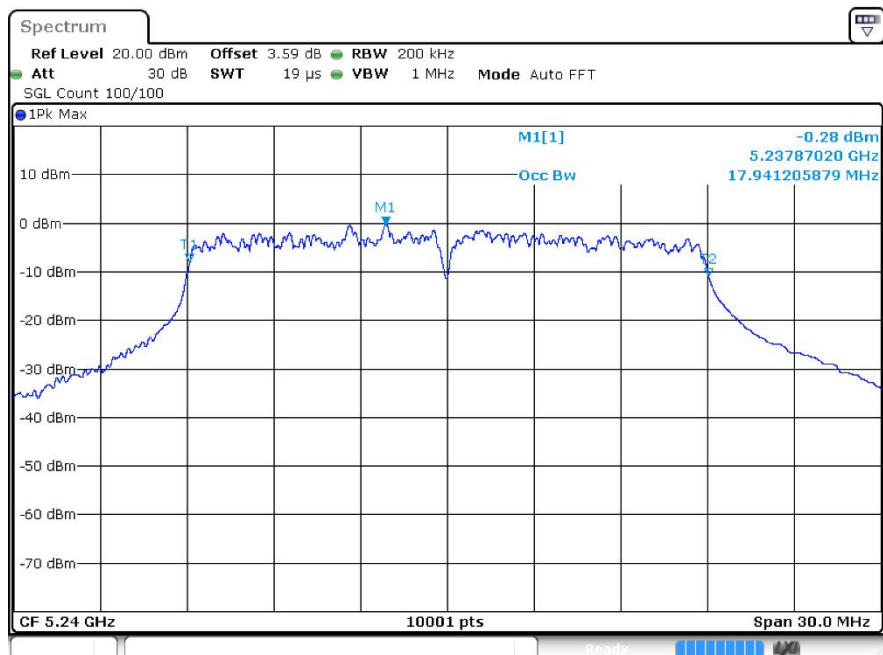
OBW n20 5180MHz Ant1



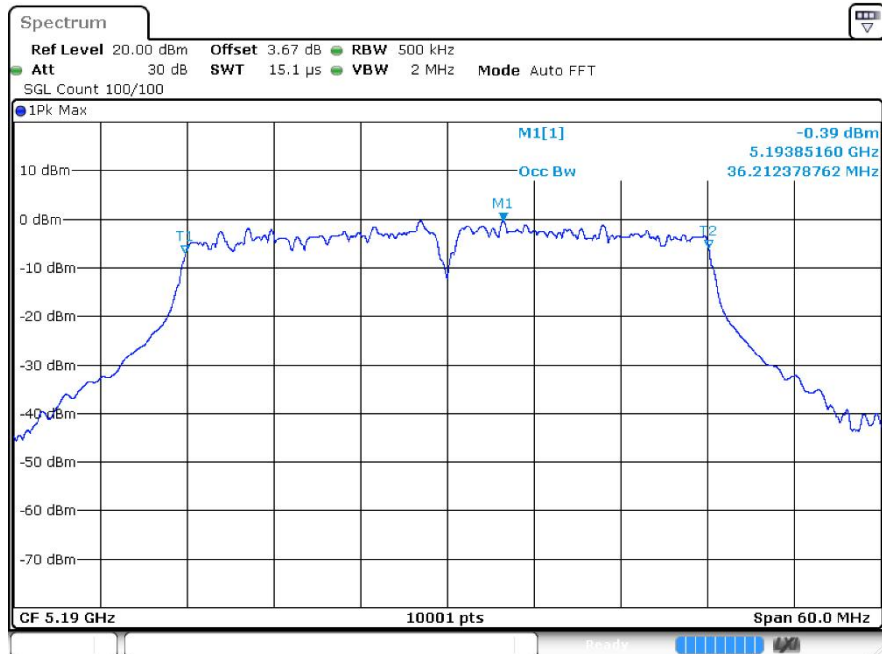
OBW n20 5200MHz Ant1



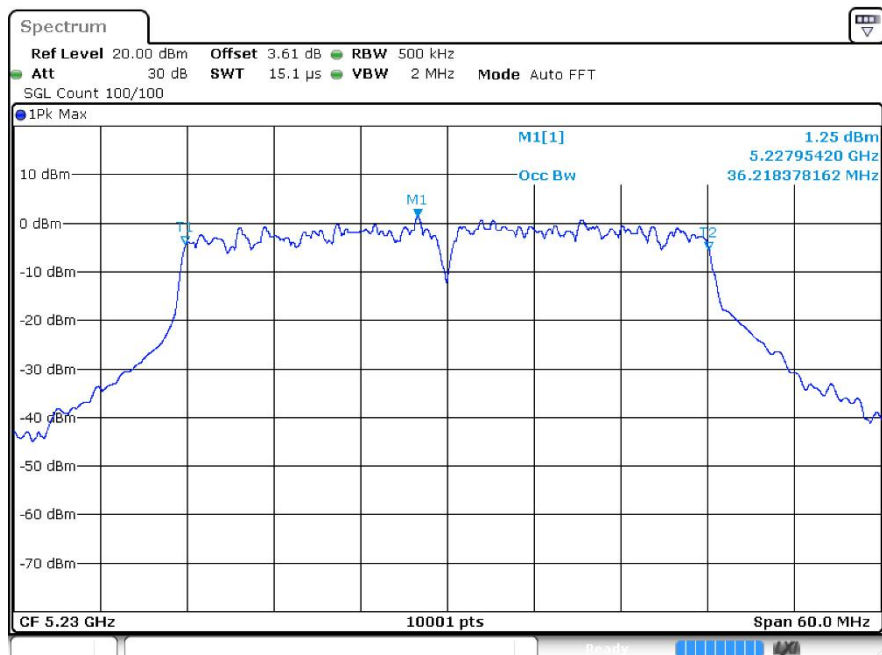
OBW n20 5240MHz Ant1



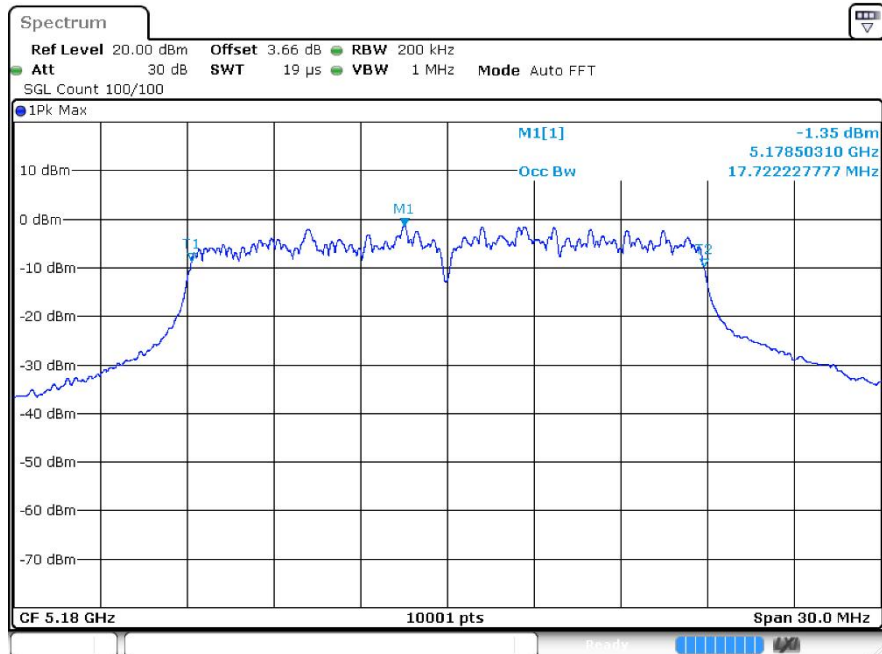
OBW n40 5190MHz Ant1



OBW n40 5230MHz Ant1



OBW ac20 5180MHz Ant1



OBW ac20 5200MHz Ant1

