



Appendix D

RF Test Data for B1WIFI(Conducted Measurement)

Product Name: Mini PC

Trade Mark: Huidun

Test Model: H20

Environmental Conditions

Temperature:	24.9℃
Relative Humidity:	52.3%
ATM Pressure:	101Kpa
Test Engineer:	Emiya lin
Supervised by:	Simba Haung



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1 Duty Cycle

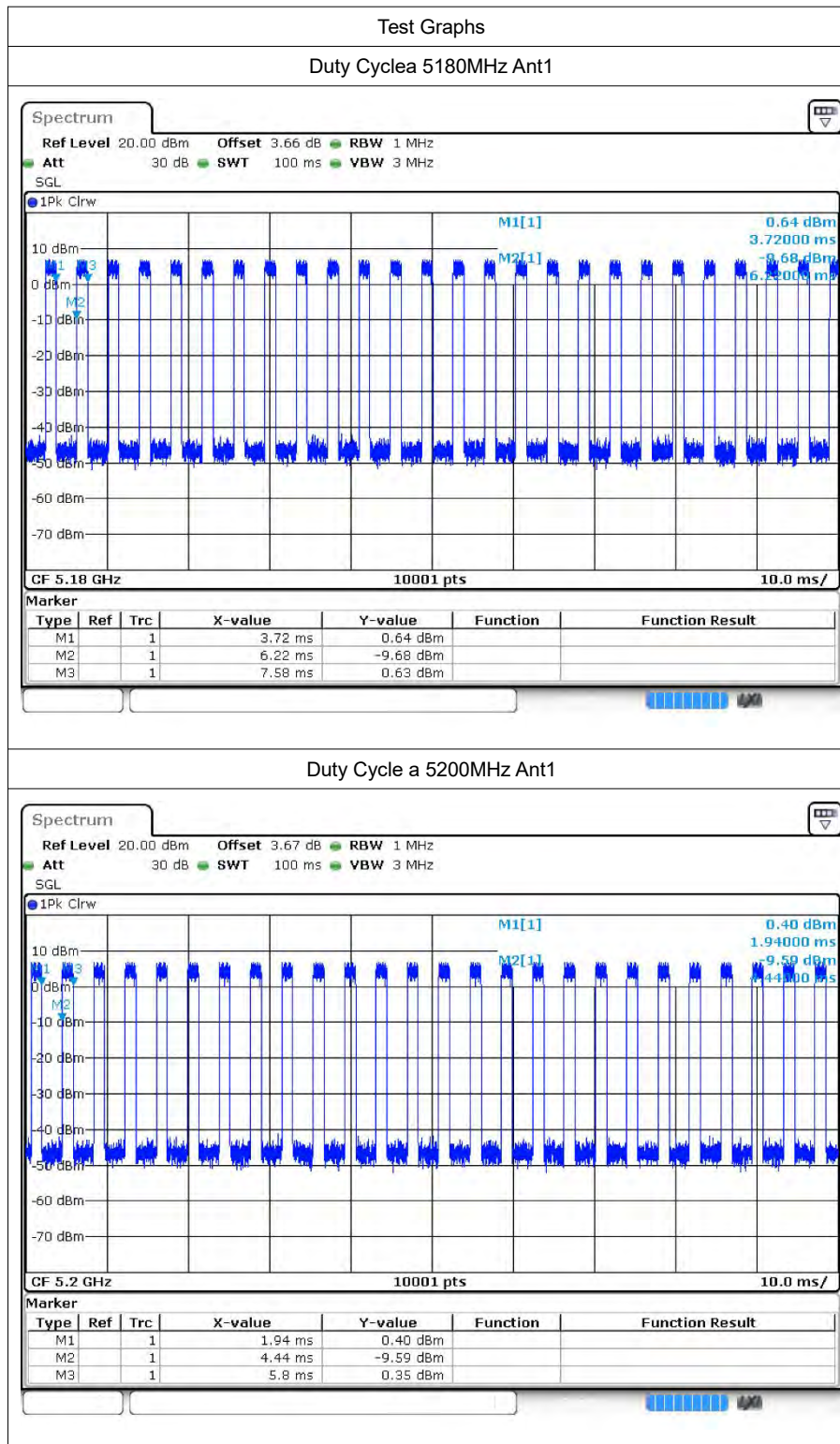
1.1 Test Result

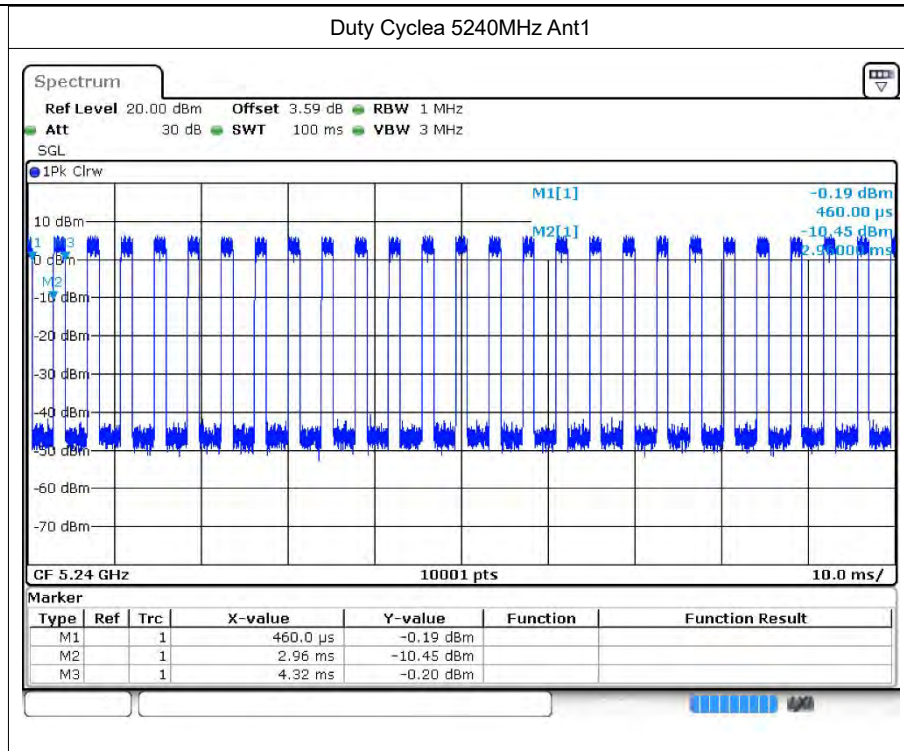
Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
a	5180	Ant1	35.4	4.51	0.74
a	5200	Ant1	35.64	4.48	0.74
a	5240	Ant1	35.21	4.53	0.74
a	5180	Ant2	35.62	4.48	0.74
a	5200	Ant2	35.51	4.5	0.74
a	5240	Ant2	35.35	4.52	0.74
n20	5180	Ant1	33.95	4.69	0.79
n20	5200	Ant1	34.56	4.61	0.79
n20	5240	Ant1	33.77	4.72	0.79
n20	5180	Ant2	34.64	4.6	0.79
n20	5200	Ant2	33.5	4.75	0.78
n20	5240	Ant2	33.91	4.7	0.79
n40	5190	Ant1	20.3	6.93	1.61
n40	5230	Ant1	20.32	6.92	1.61
n40	5190	Ant2	20.58	6.87	1.59
n40	5230	Ant2	20.56	6.87	1.59
ac20	5180	Ant1	33.46	4.76	0.78
ac20	5200	Ant1	34.56	4.61	0.79
ac20	5240	Ant1	33.45	4.76	0.78
ac20	5180	Ant2	33.63	4.73	0.78
ac20	5200	Ant2	34.05	4.68	0.79
ac20	5240	Ant2	33.46	4.76	0.78
ac40	5190	Ant1	35.01	4.56	0.75
ac40	5230	Ant1	35.12	4.54	0.75
ac40	5190	Ant2	35.3	4.52	0.74
ac40	5230	Ant2	33.44	4.76	0.81
ac80	5210	Ant1	34.38	4.64	鑒?
ac80	5210	Ant2	34	4.69	0.79
ax20	5180	Ant1	31.82	4.97	0.85
ax20	5200	Ant1	31.83	4.97	0.85
ax20	5240	Ant1	31.82	4.97	0.85
ax20	5180	Ant2	32.61	4.87	0.85
ax20	5200	Ant2	32.69	4.86	0.85
ax20	5240	Ant2	32.03	4.94	0.85
ax40	5190	Ant1	36.5	4.38	0.7
ax40	5230	Ant1	36.06	4.43	0.7
ax40	5190	Ant2	36.25	4.41	0.69



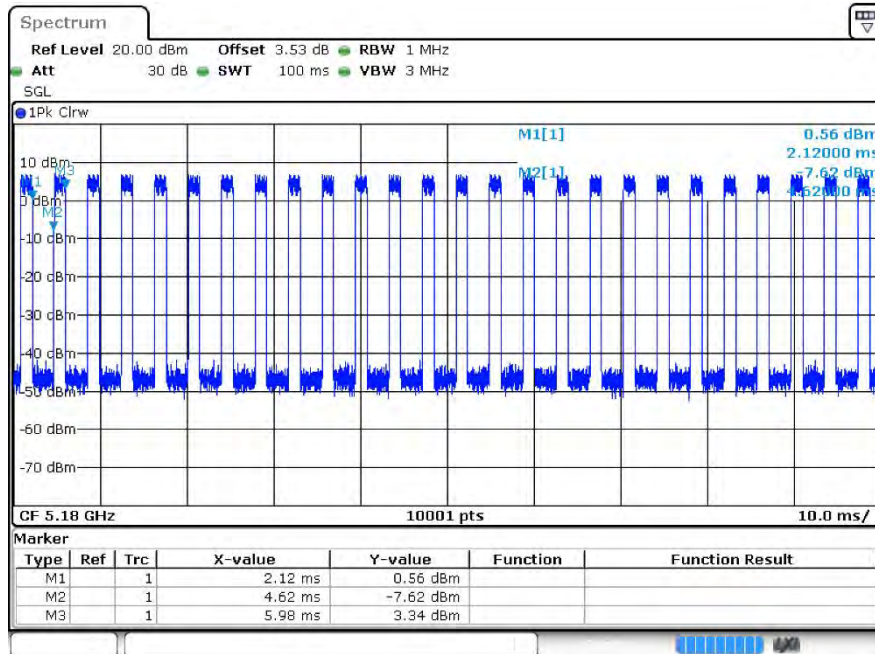
ax40	5230	Ant2	36.88	4.33	0.69
ax80	5210	Ant1	33.76	4.72	0.81
ax80	5210	Ant2	32.29	4.91	0.81

1.2 Test Graphs

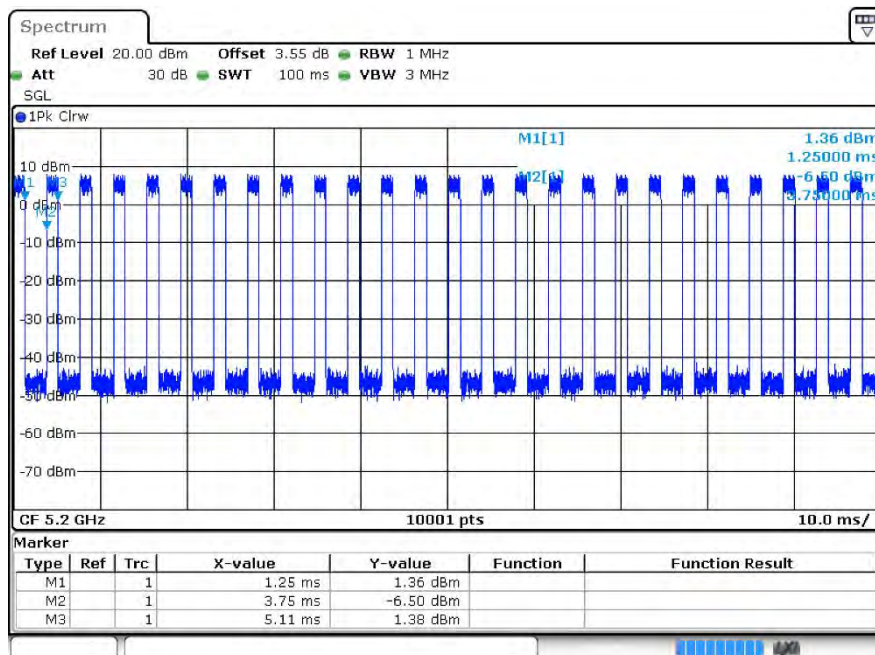


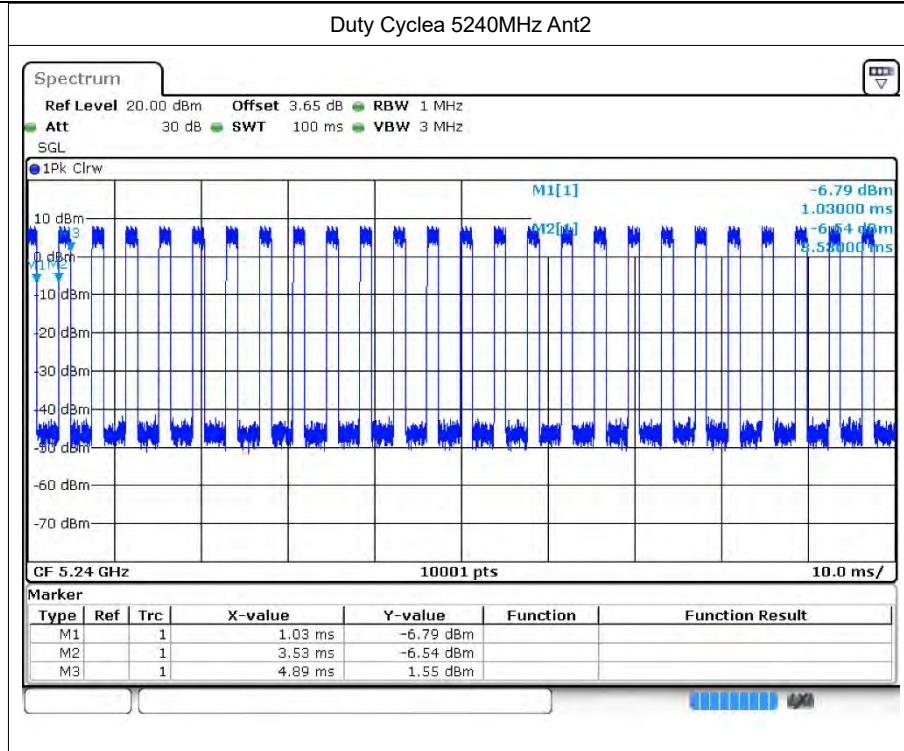


Duty Cyclea 5180MHz Ant2

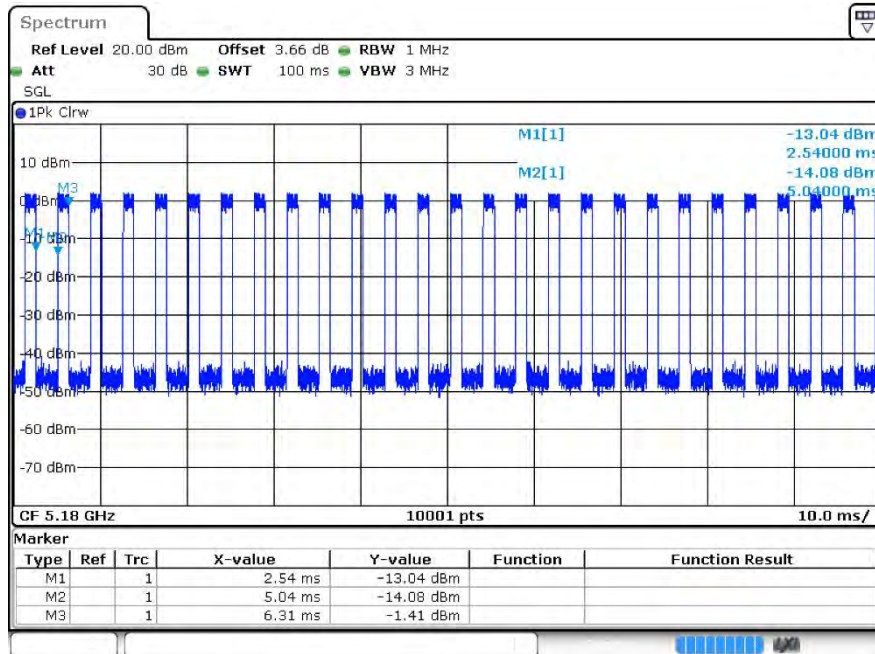


Duty Cycle a 5200MHz Ant2

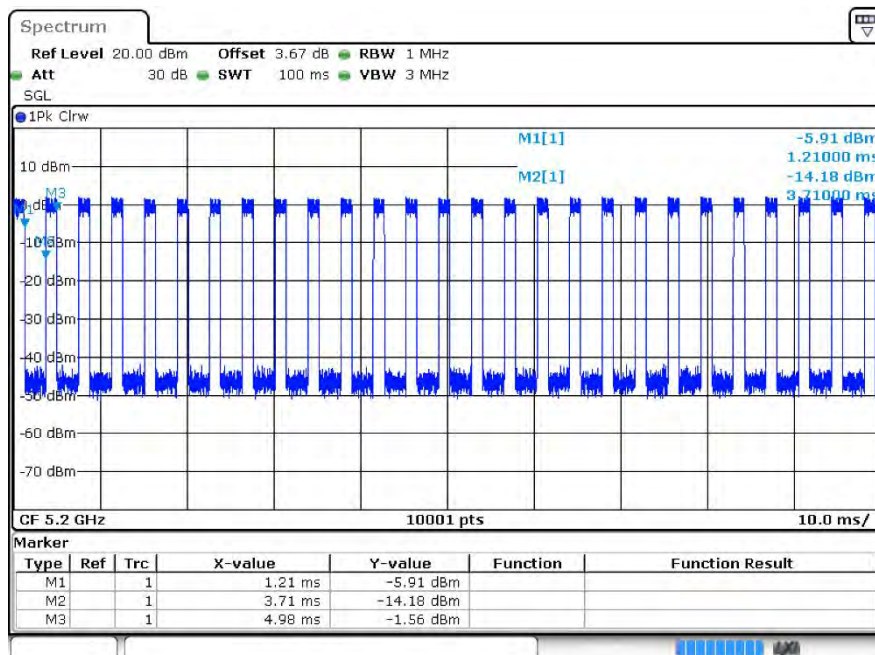


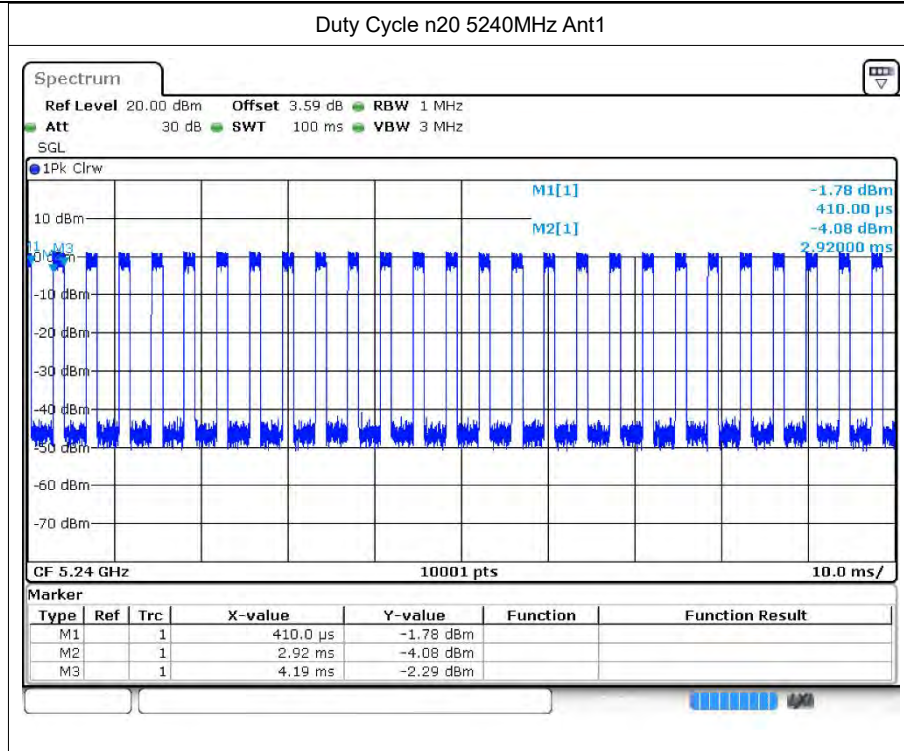


Duty Cycle n20 5180MHz Ant1

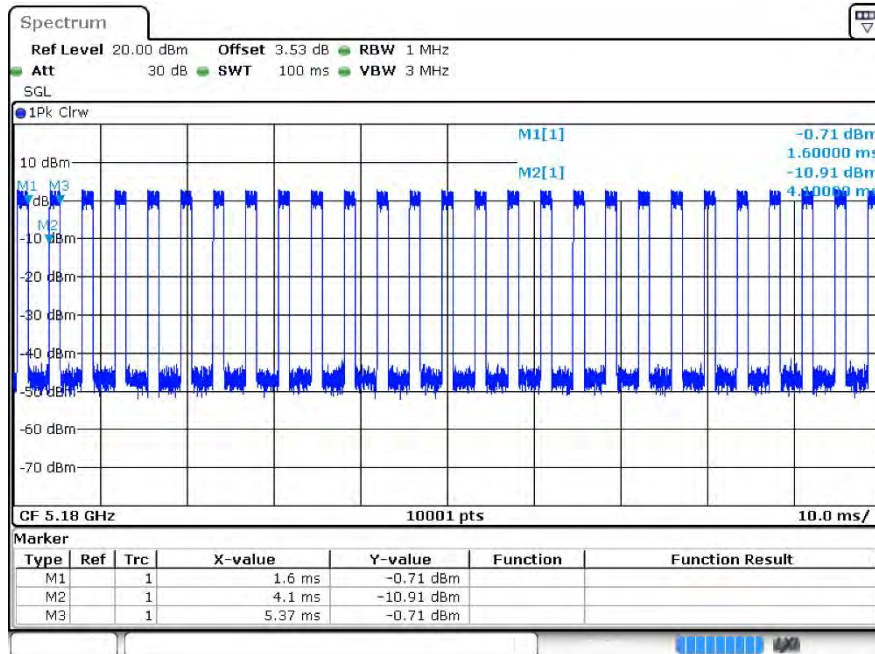


Duty Cycle n20 5200MHz Ant1

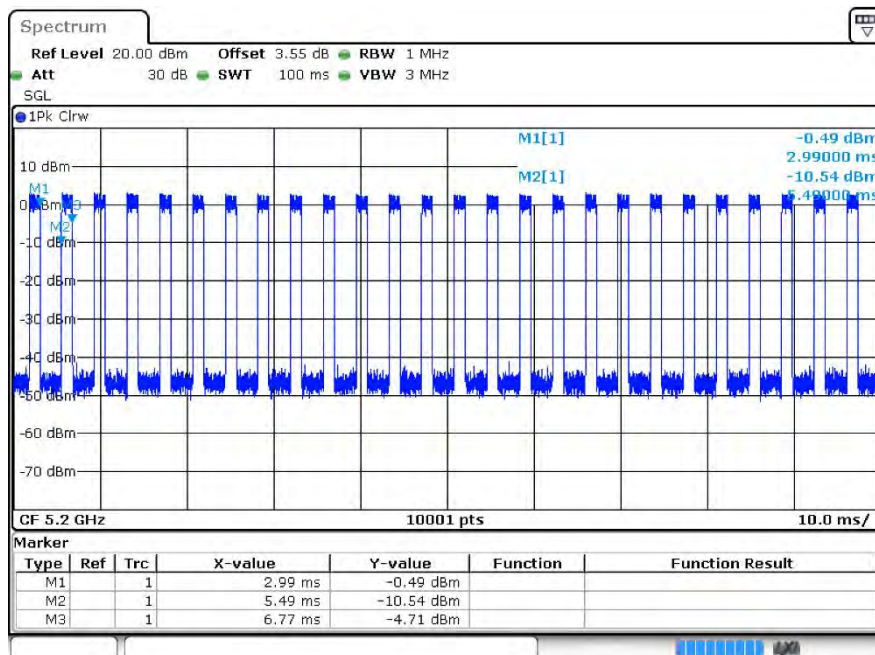


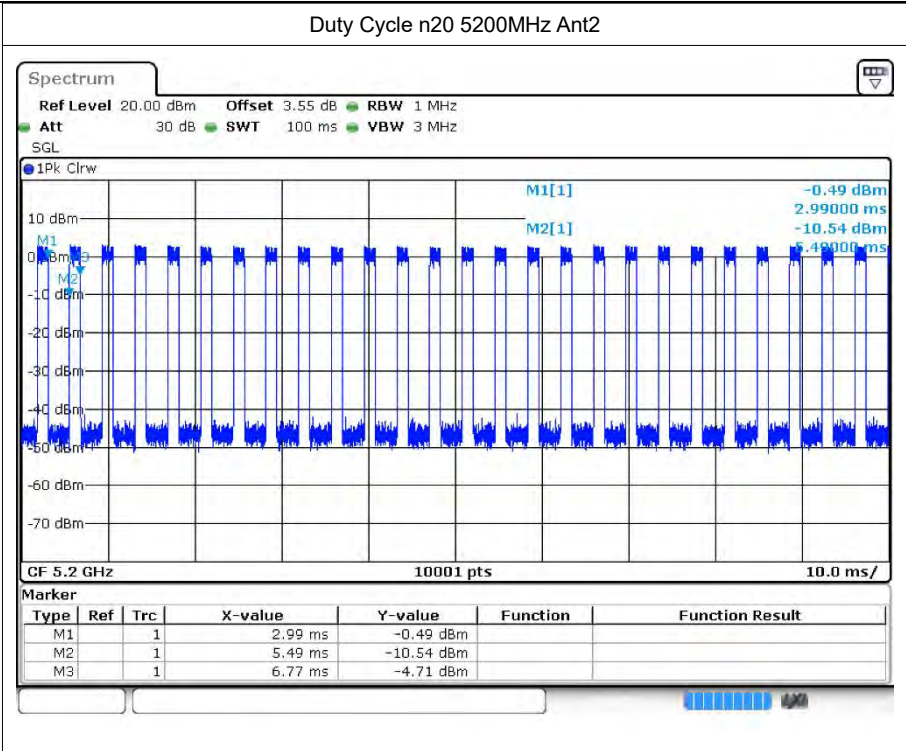


Duty Cycle n20 5180MHz Ant2

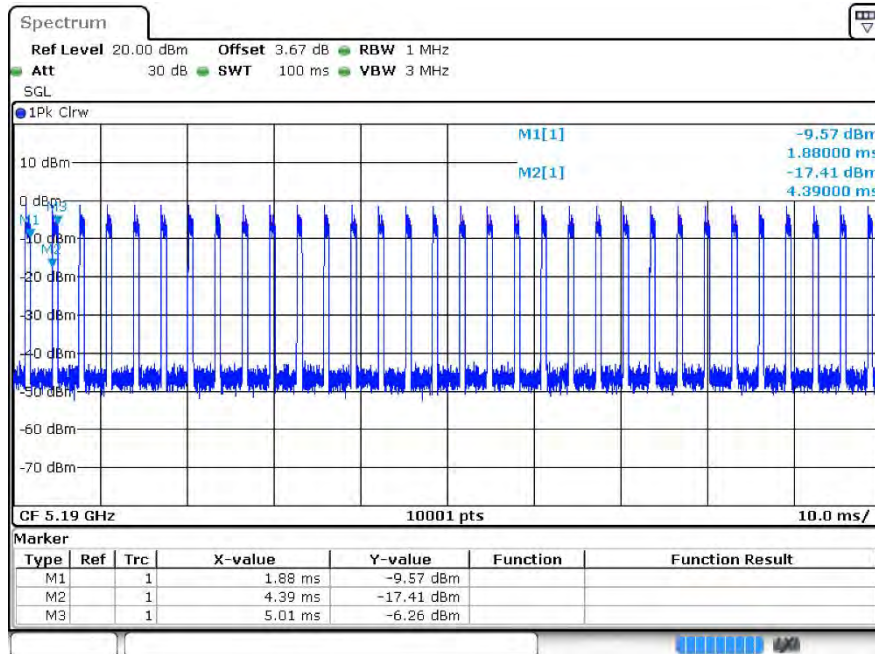


Duty Cycle n20 5200MHz Ant2

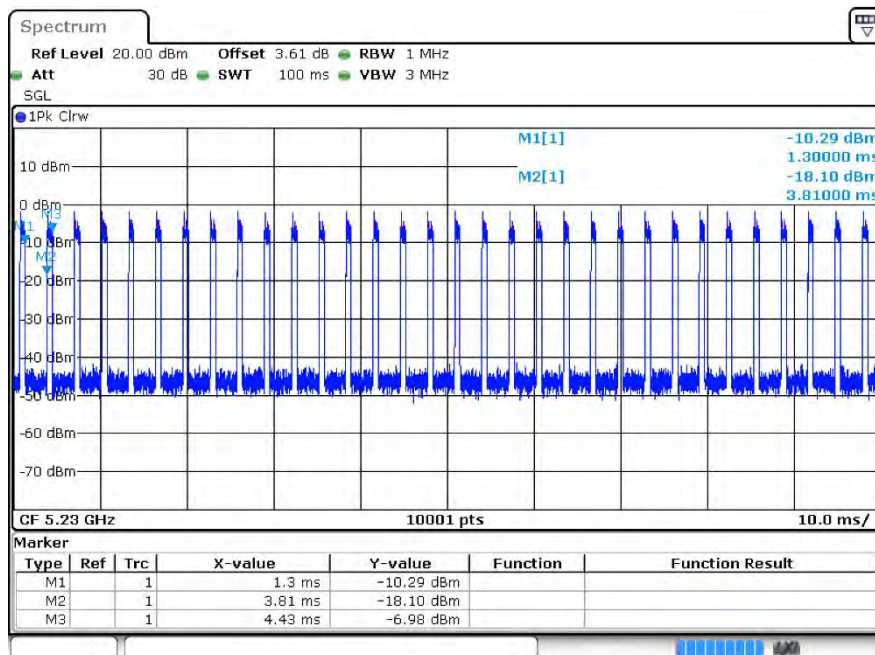




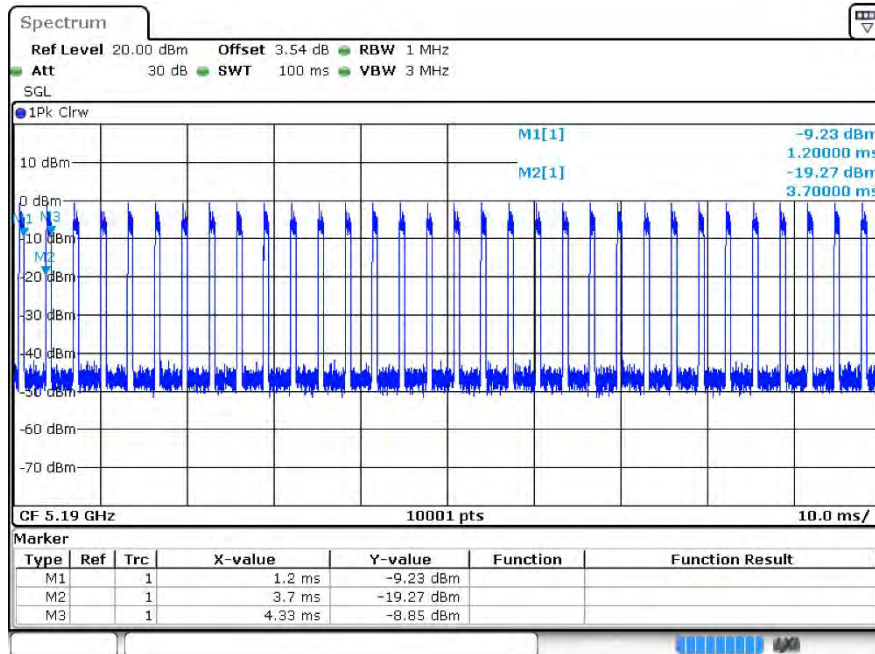
Duty Cyclen40 5190MHz Ant1



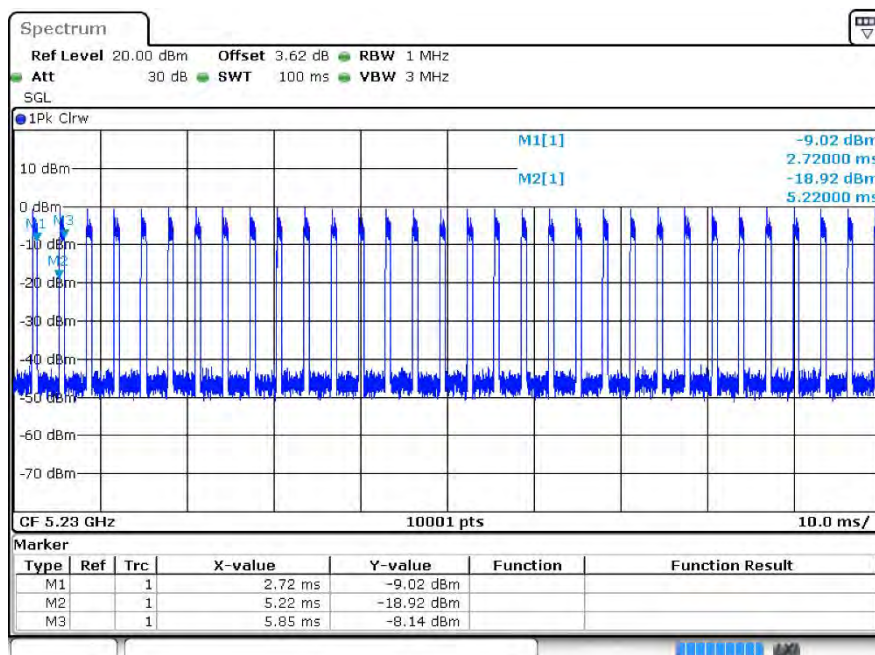
Duty Cyclen40 5230MHz Ant1



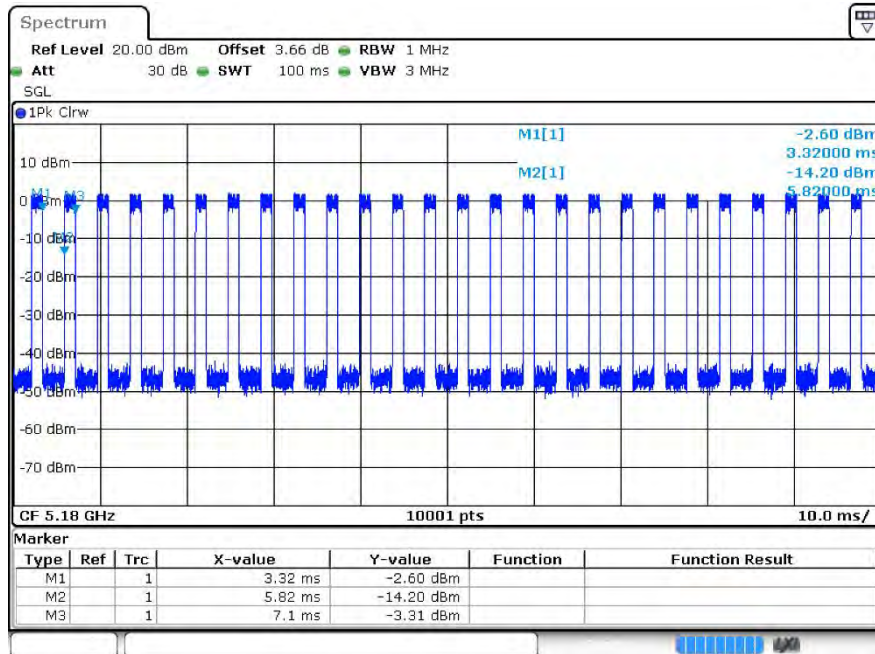
Duty Cyclen40 5190MHz Ant2



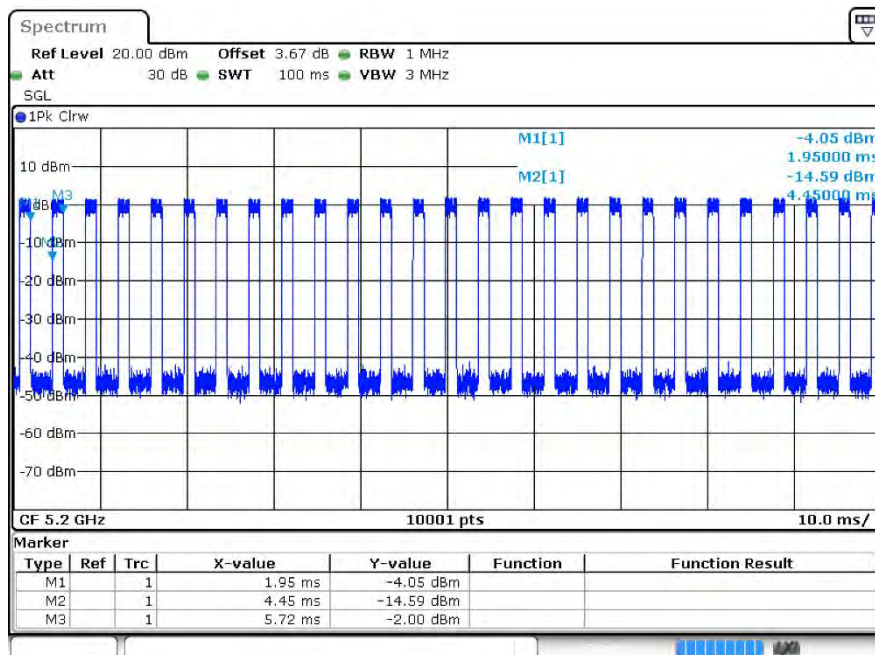
Duty Cyclen40 5230MHz Ant2

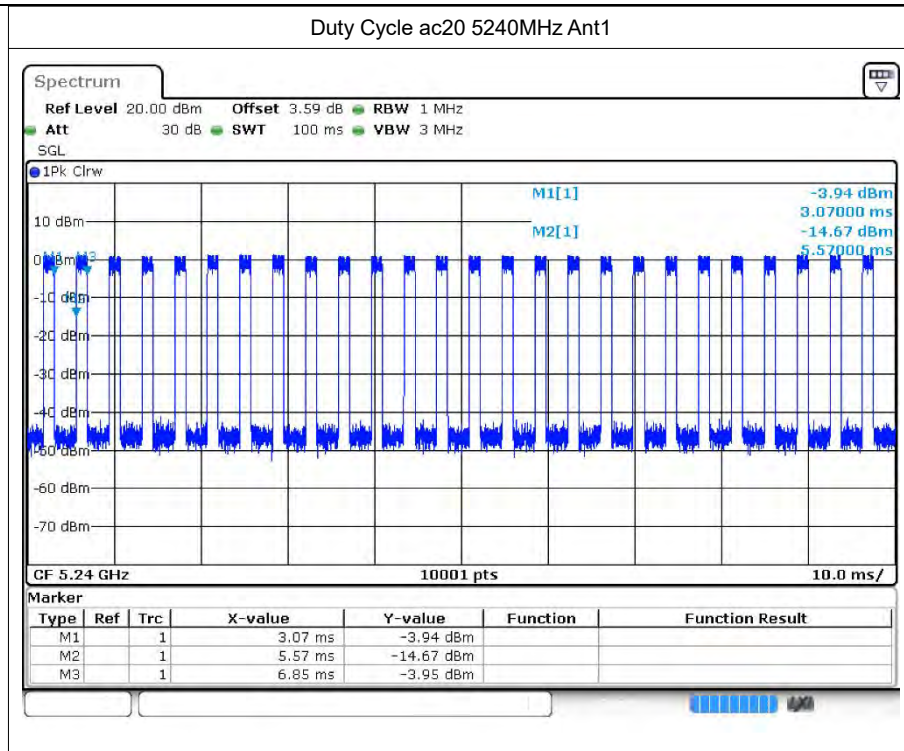


Duty Cycle ac20 5180MHz Ant1

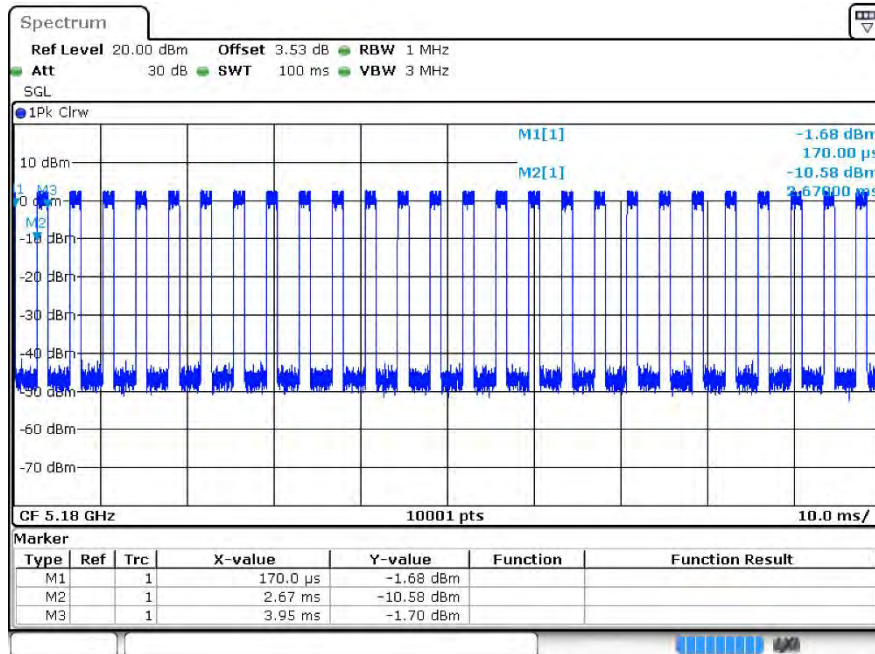


Duty Cycle ac20 5200MHz Ant1

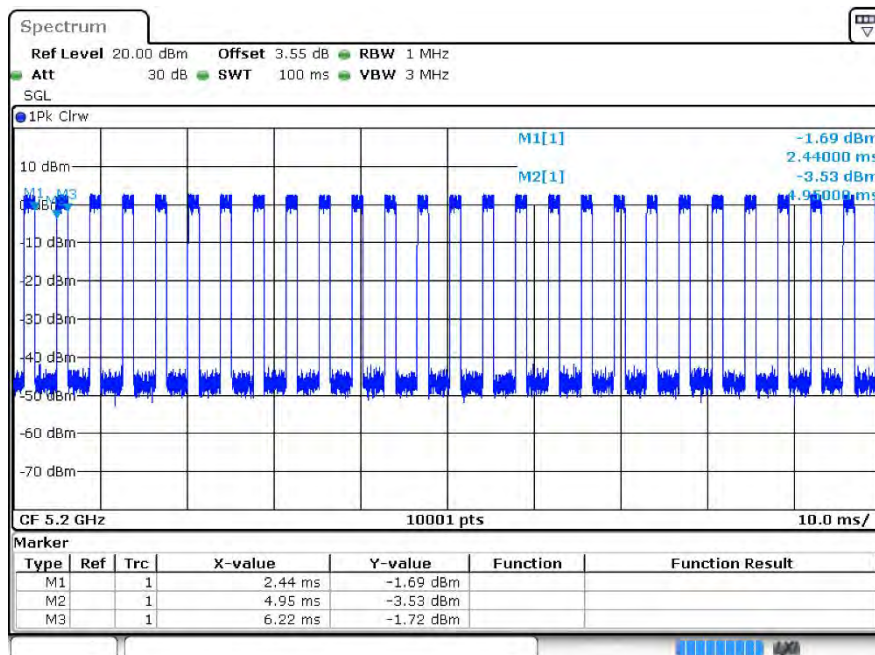


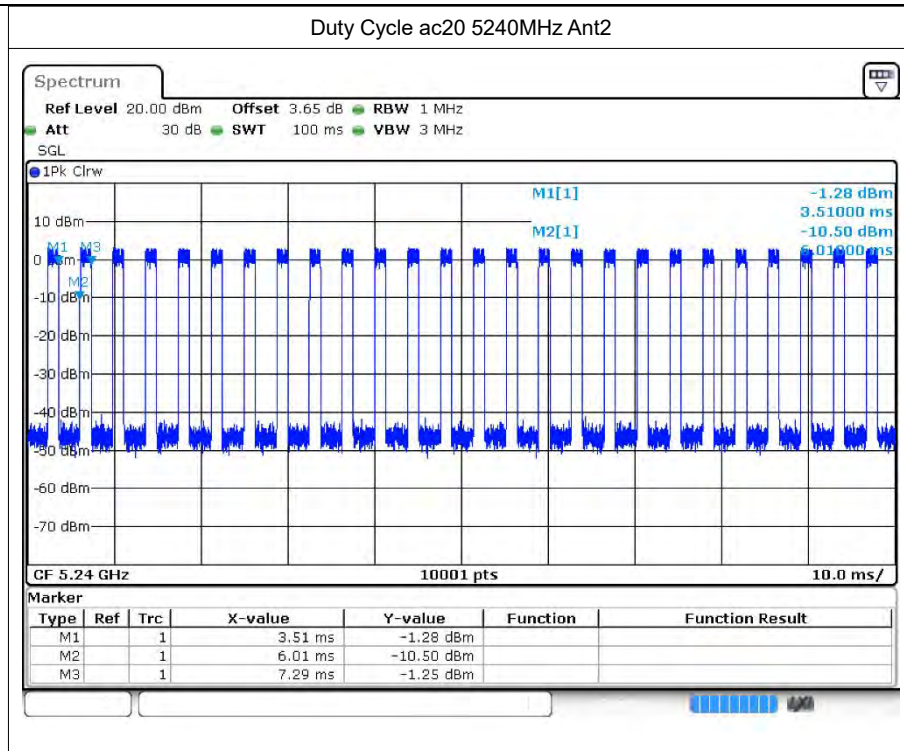


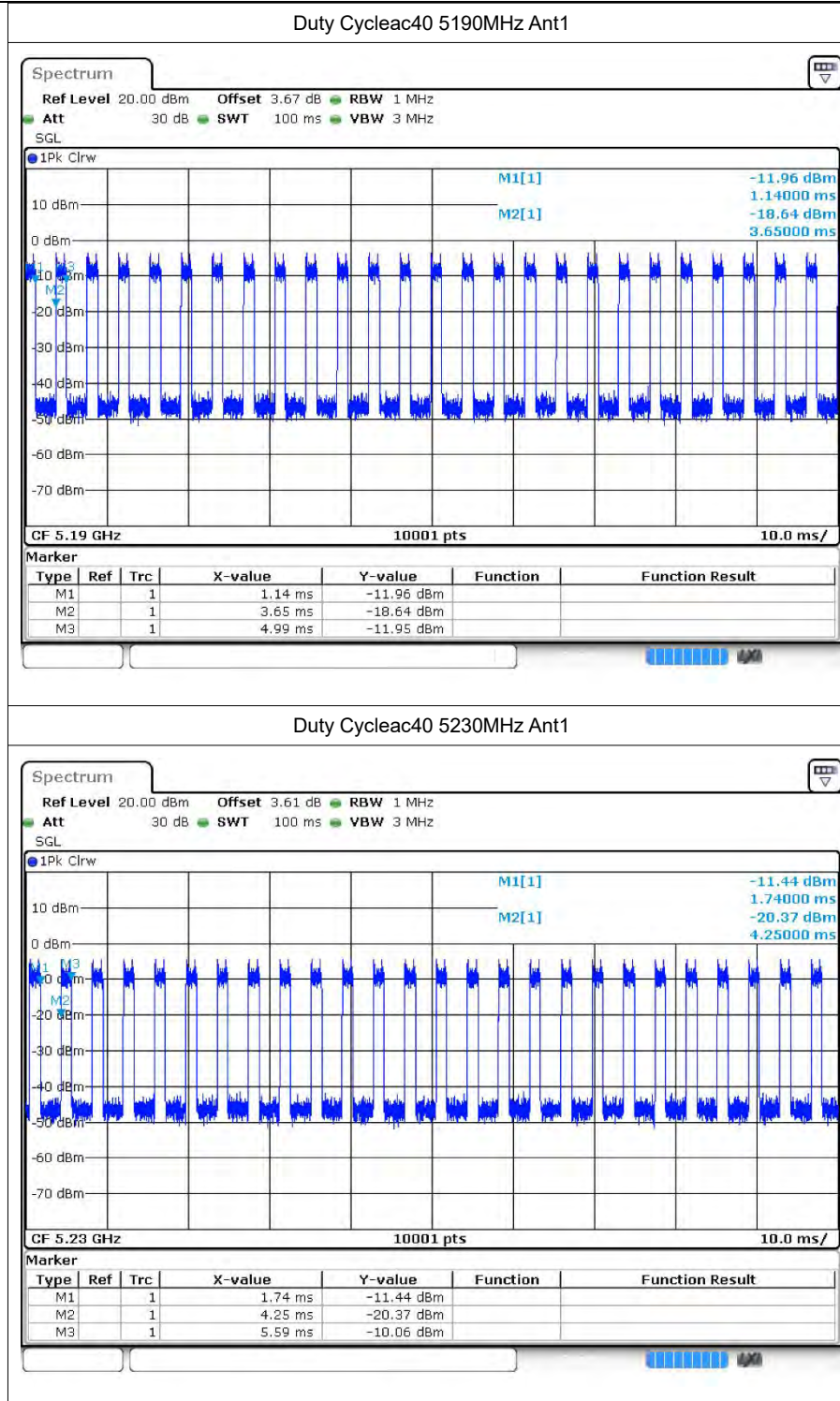
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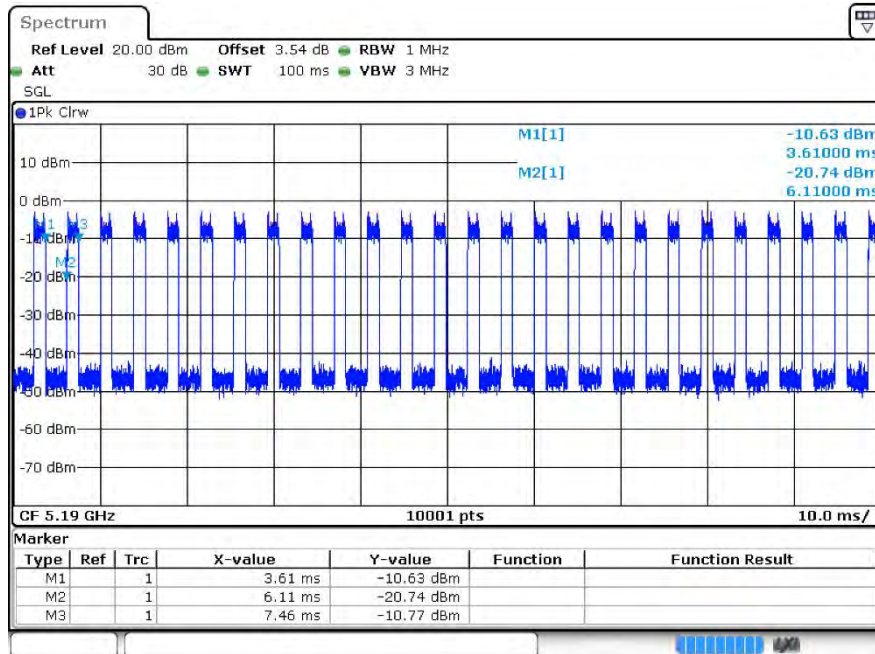
Duty Cycle ac20 5200MHz Ant2



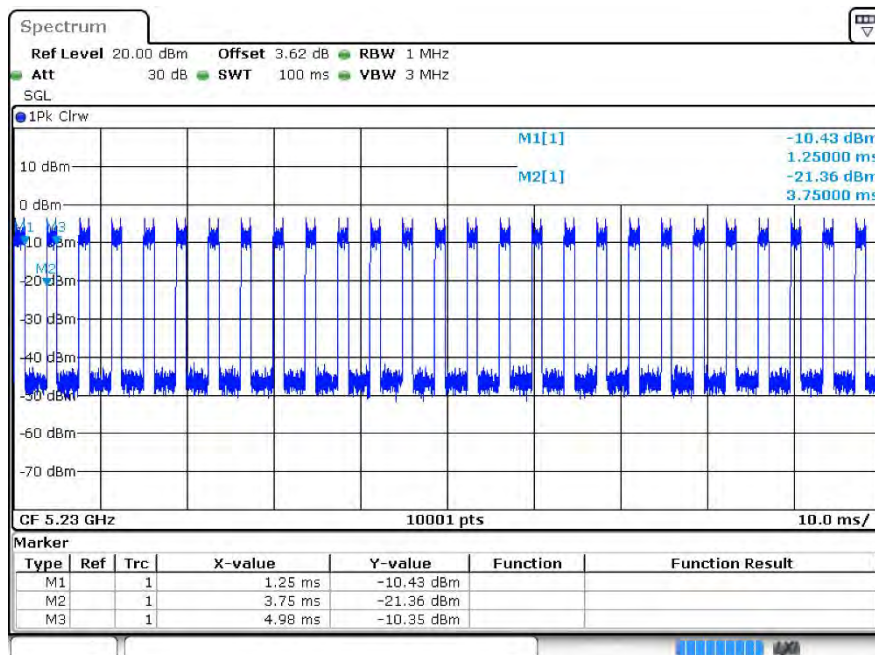


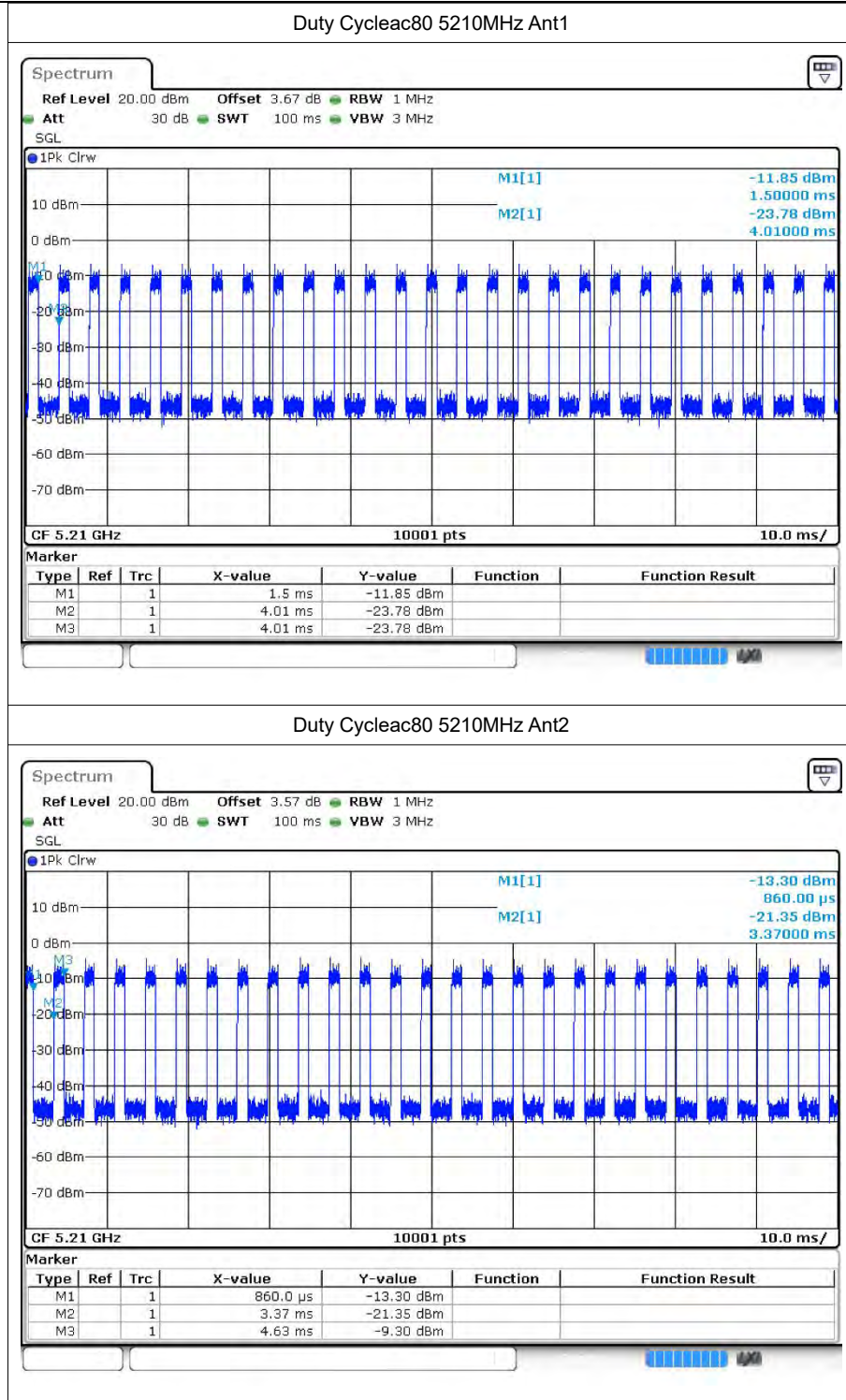


Duty Cycleac40 5190MHz Ant2

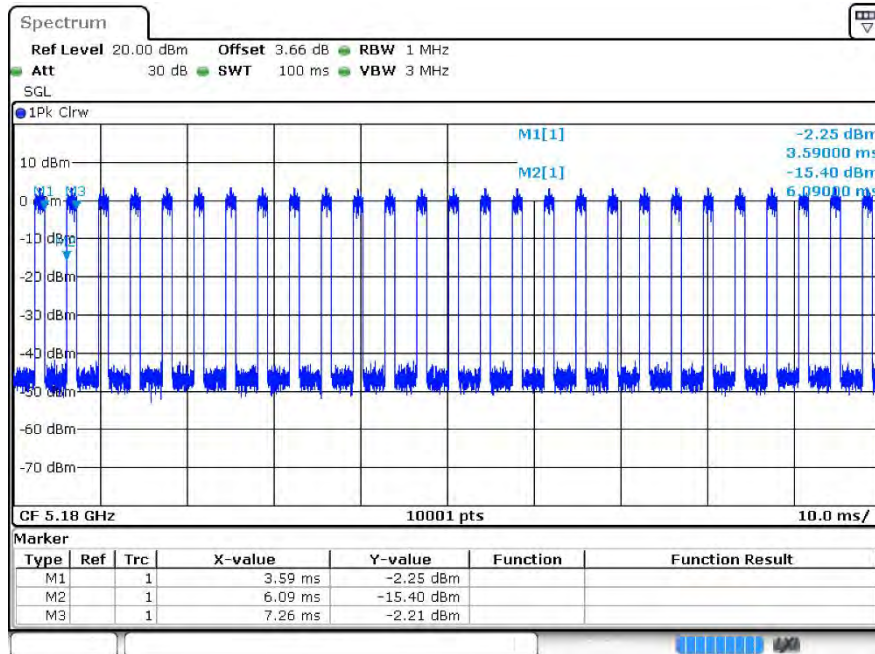


Duty Cycleac40 5230MHz Ant2

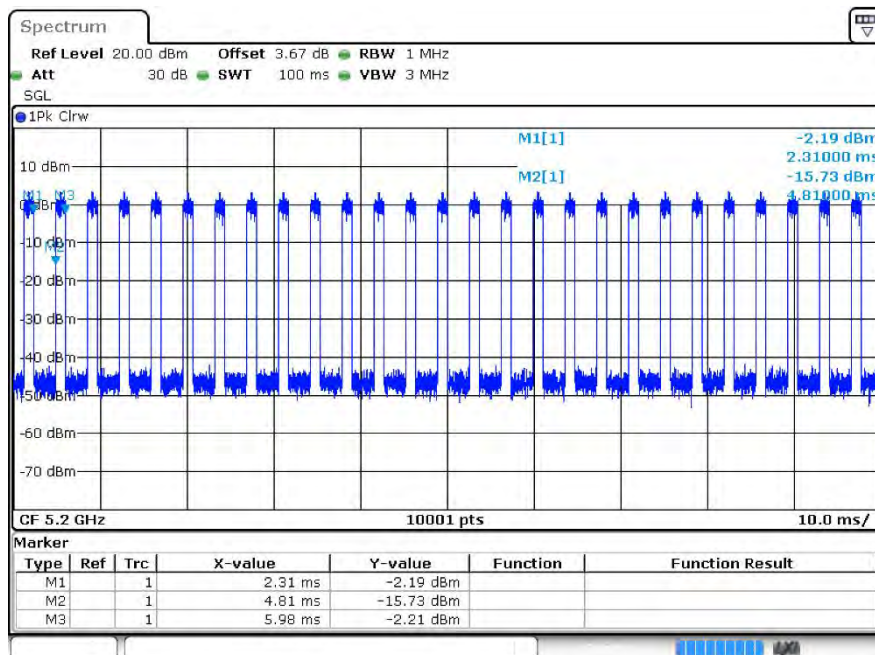


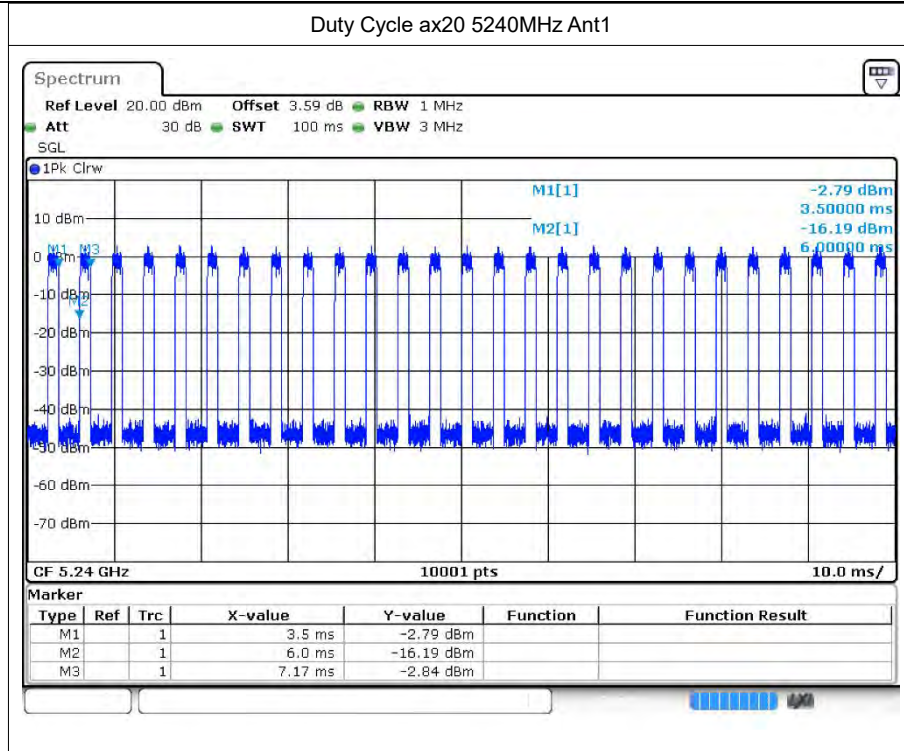


Duty Cycle ax20 5180MHz Ant1

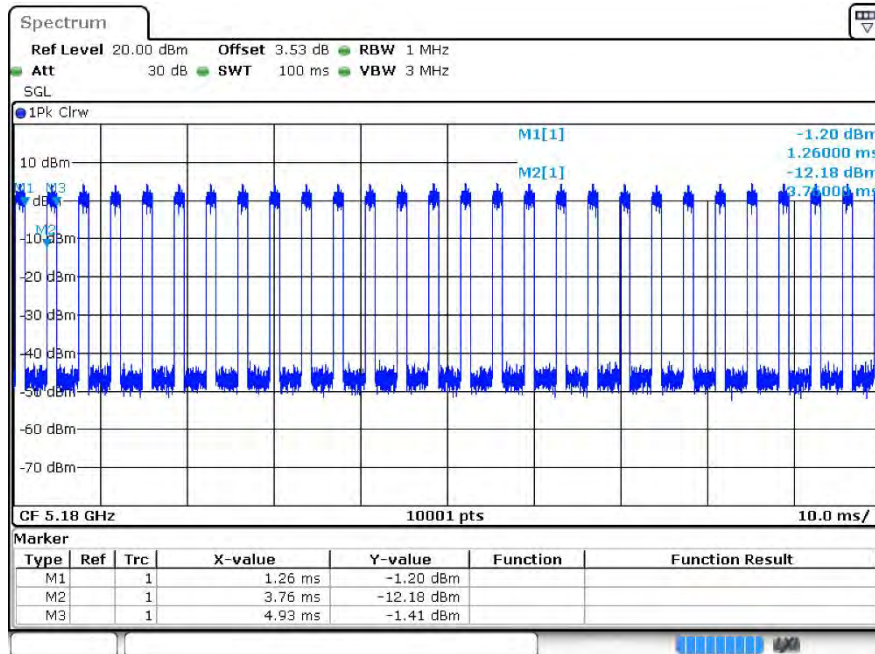


Duty Cycle ax20 5200MHz Ant1

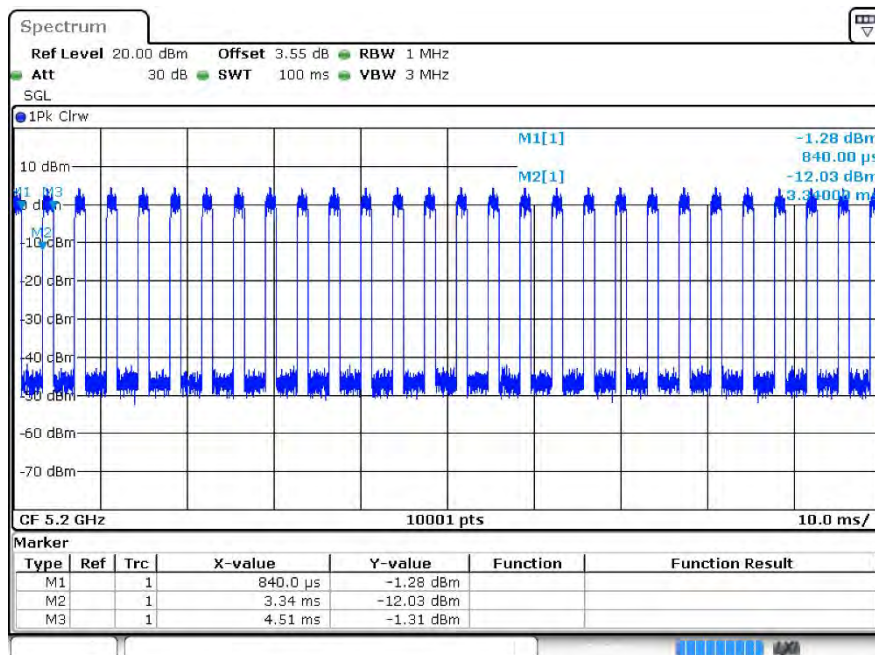


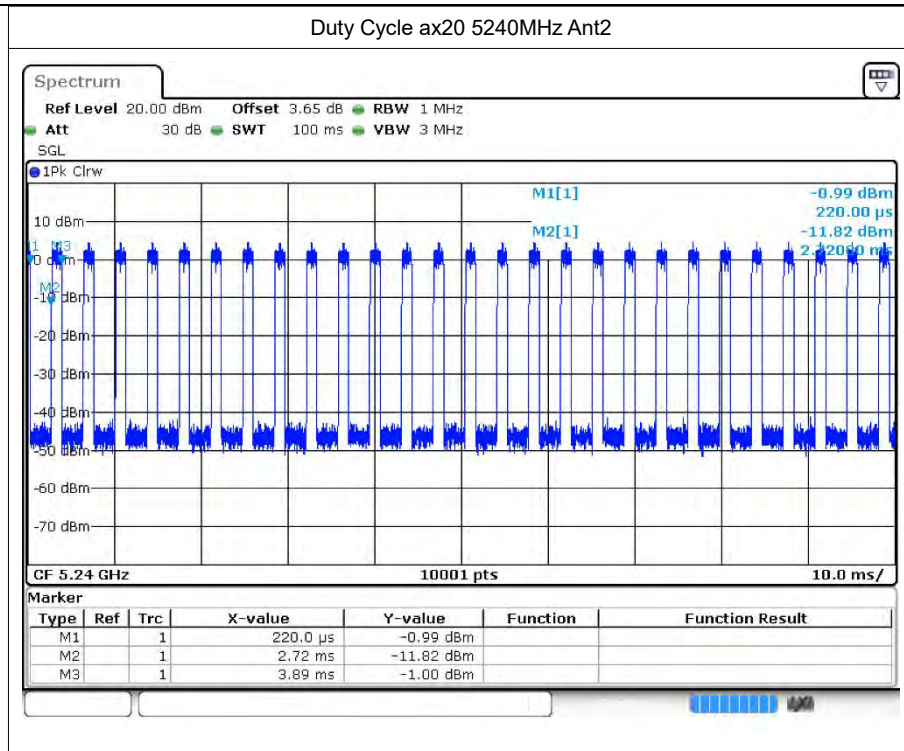


Duty Cycle ax20 5180MHz Ant2

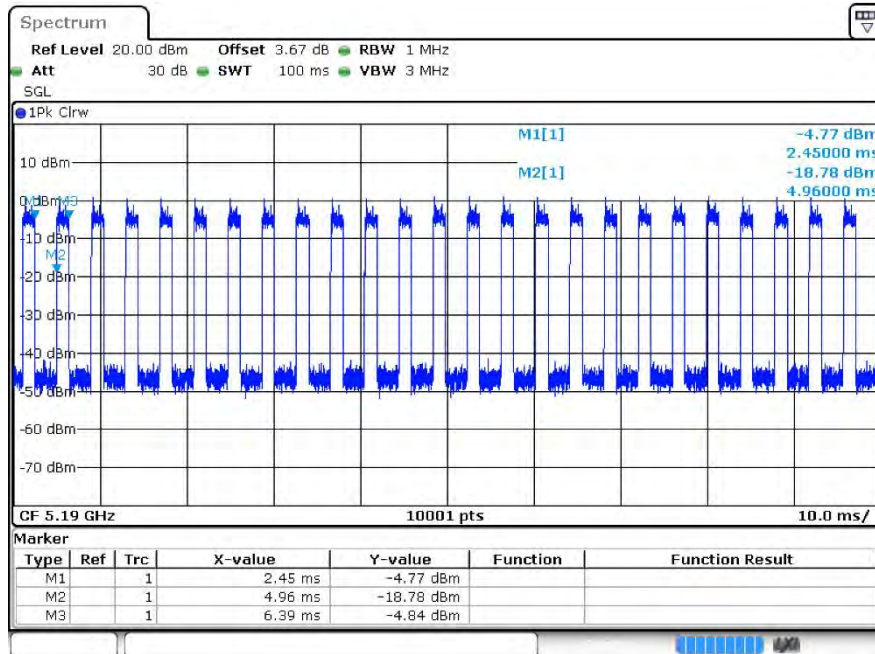


Duty Cycle ax20 5200MHz Ant2

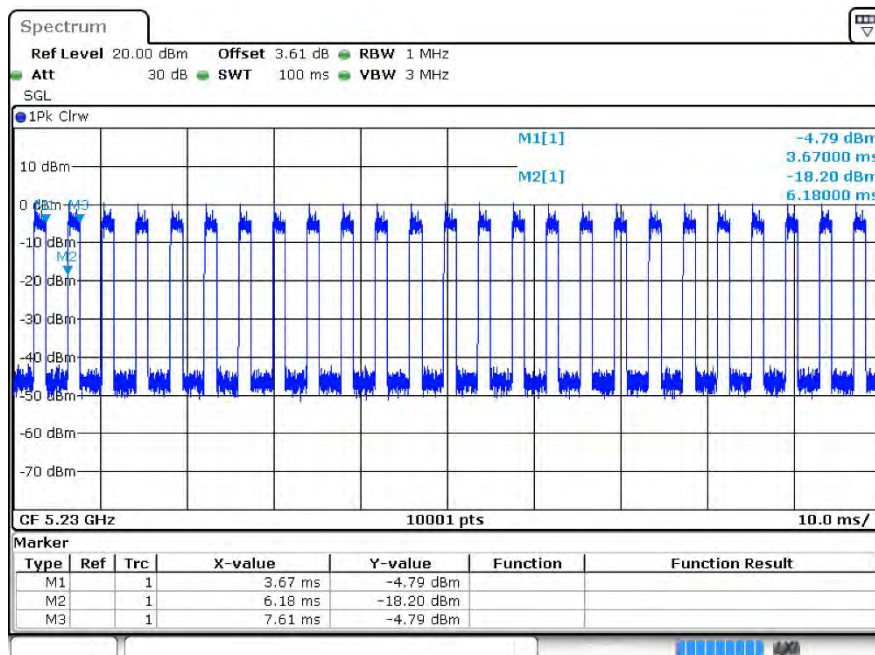




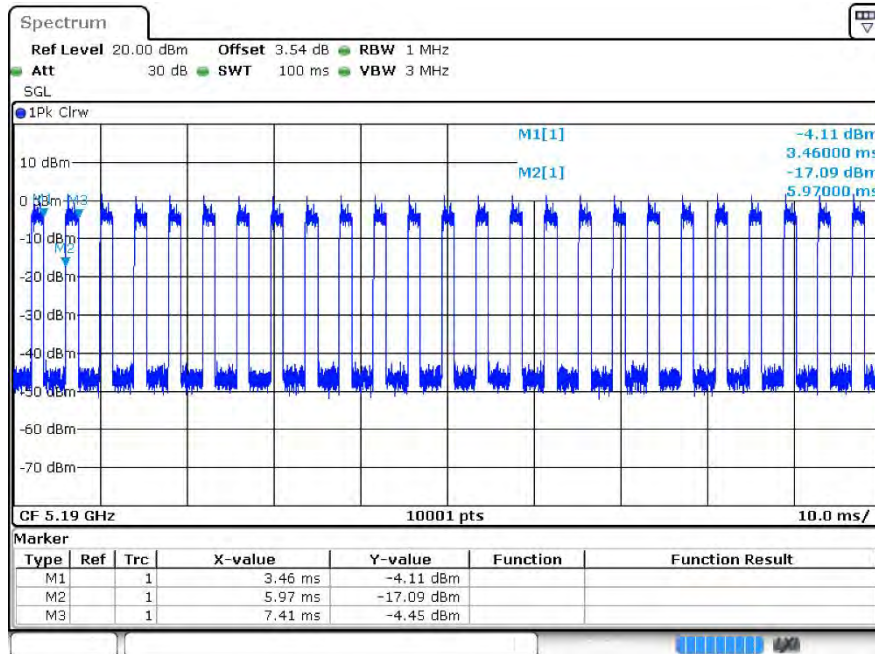
Duty Cycleax40 5190MHz Ant1



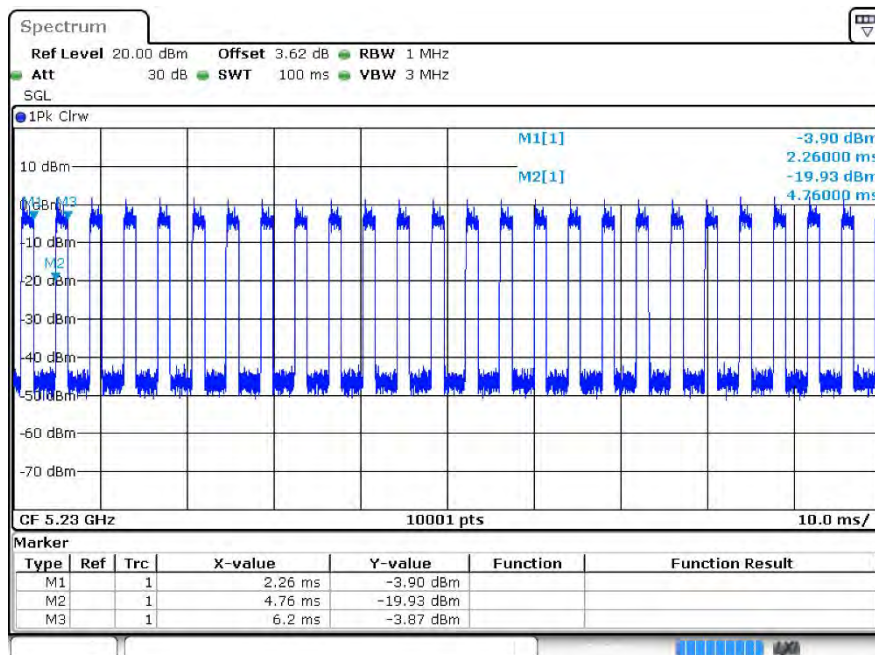
Duty Cycleax40 5230MHz Ant1

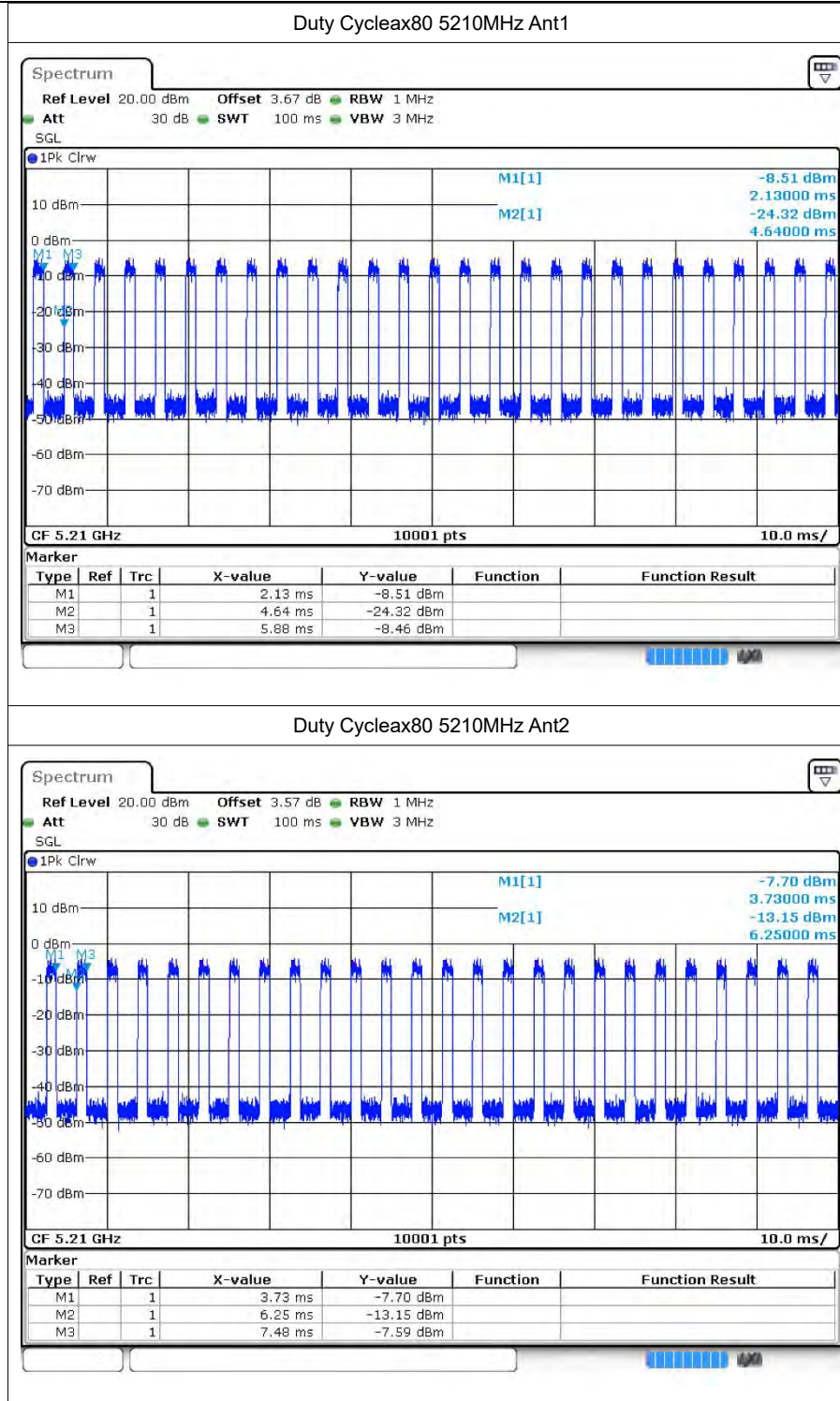


Duty Cycleax40 5190MHz Ant2



Duty Cycleax40 5230MHz Ant2





2 Maximum Conducted Output Power

2.1 Test Result

Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
a	5180	Ant1	14.62	24	Pass
a	5200	Ant1	14.39	24	Pass
a	5240	Ant1	13.89	24	Pass
a	5180	Ant2	14.04	24	Pass
a	5200	Ant2	15.09	24	Pass
a	5240	Ant2	15.26	24	Pass
n20	5180	Ant1	10.06	24	Pass
n20	5200	Ant1	9.88	24	Pass
n20	5240	Ant1	9.38	24	Pass
n20	5180	Ant2	10.93	24	Pass
n20	5200	Ant2	11.04	24	Pass
n20	5240	Ant2	10.95	24	Pass
n20	5180	Sum	13.56	24	Pass
n20	5200	Sum	13.51	24	Pass
n20	5240	Sum	13.34	24	Pass
n40	5190	Ant1	9.76	24	Pass
n40	5230	Ant1	9.33	24	Pass
n40	5190	Ant2	10.72	24	Pass
n40	5230	Ant2	10.88	24	Pass
n40	5190	Sum	13.25	24	Pass
n40	5230	Sum	13.12	24	Pass
ac20	5180	Ant1	10.1	24	Pass
ac20	5200	Ant1	9.89	24	Pass
ac20	5240	Ant1	9.22	24	Pass
ac20	5180	Ant2	10.95	24	Pass
ac20	5200	Ant2	11.01	24	Pass
ac20	5240	Ant2	11.17	24	Pass
ac20	5180	Sum	13.6	24	Pass
ac20	5200	Sum	13.49	24	Pass
ac20	5240	Sum	13.37	24	Pass
ac40	5190	Ant1	9.88	24	Pass
ac40	5230	Ant1	9.48	24	Pass
ac40	5190	Ant2	10.8	24	Pass
ac40	5230	Ant2	11.02	24	Pass
ac40	5190	Sum	13.41	24	Pass



ac40	5230	Sum	13.29	24	Pass
ac80	5210	Ant1	9.75	24	Pass
ac80	5210	Ant2	10.98	24	Pass
ac80	5210	Sum	13.37	24	Pass
ax20	5180	Ant1	10.1	24	Pass
ax20	5200	Ant1	9.92	24	Pass
ax20	5240	Ant1	9.28	24	Pass
ax20	5180	Ant2	11.12	24	Pass
ax20	5200	Ant2	11.05	24	Pass
ax20	5240	Ant2	11.18	24	Pass
ax20	5180	Sum	13.54	24	Pass
ax20	5200	Sum	13.6	24	Pass
ax20	5240	Sum	13.4	24	Pass
ax40	5190	Ant1	10.18	24	Pass
ax40	5230	Ant1	9.67	24	Pass
ax40	5190	Ant2	10.99	24	Pass
ax40	5230	Ant2	11.15	24	Pass
ax40	5190	Sum	13.61	24	Pass
ax40	5230	Sum	13.5	24	Pass
ax80	5210	Ant1	9.49	24	Pass
ax80	5210	Ant2	10.41	24	Pass
ax80	5210	Sum	13.04	24	Pass

Note:

The duty factor has been compensated into the result.



3 -26dB Bandwidth

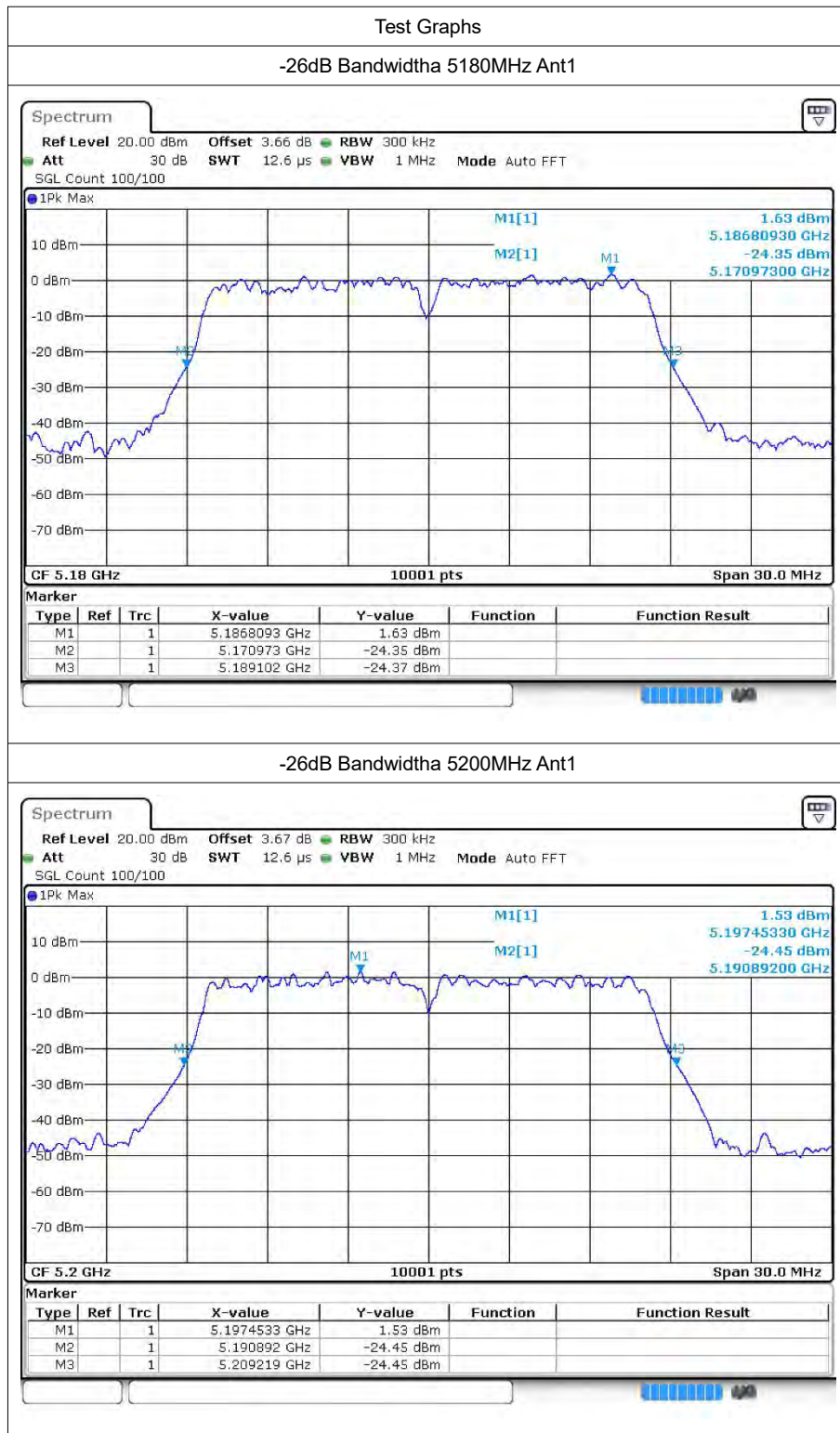
3.1 Test Result

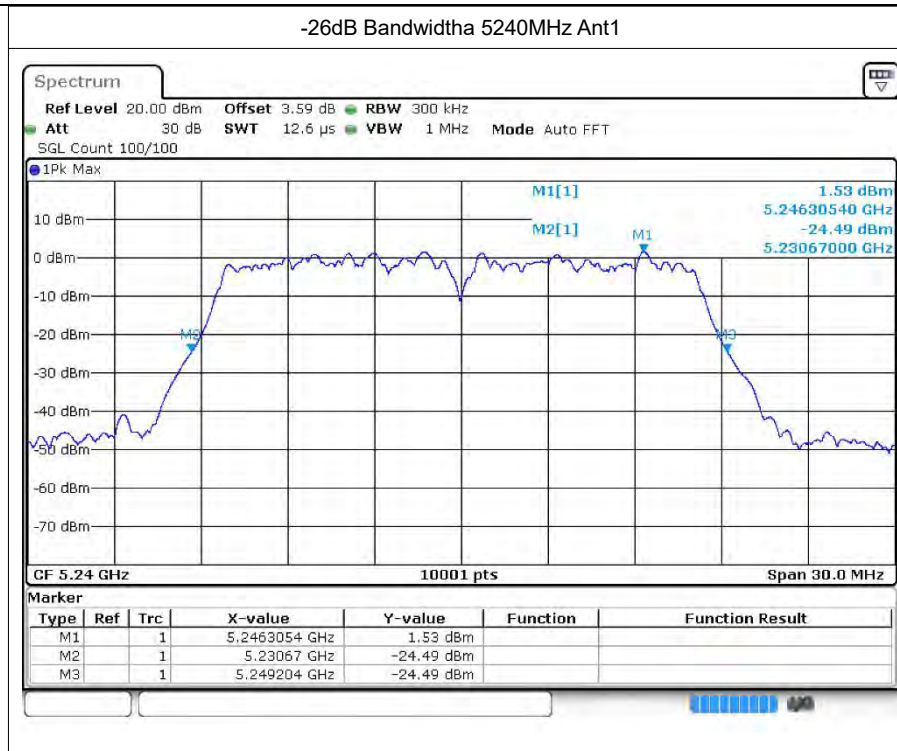
Mode	Frequency (MHz)	Antenna	-26 dB Bandwidth (MHz)	Limit -26 dB Bandwidth (MHz)	Verdict
a	5180	Ant1	18.129	0.5	Pass
a	5200	Ant1	18.327	0.5	Pass
a	5240	Ant1	18.534	0.5	Pass
n20	5180	Ant1	19.671	0.5	Pass
n20	5200	Ant1	19.239	0.5	Pass
n20	5240	Ant1	19.707	0.5	Pass
n40	5190	Ant1	38.238	0.5	Pass
n40	5230	Ant1	38.802	0.5	Pass
ac20	5180	Ant1	19.182	0.5	Pass
ac20	5200	Ant1	19.587	0.5	Pass
ac20	5240	Ant1	19.338	0.5	Pass
ac40	5190	Ant1	37.89	0.5	Pass
ac40	5230	Ant1	38.1	0.5	Pass
ac80	5210	Ant1	81.396	0.5	Pass
ax20	5180	Ant1	20.496	0.5	Pass
ax20	5200	Ant1	19.947	0.5	Pass
ax20	5240	Ant1	20.121	0.5	Pass
ax40	5190	Ant1	39.24	0.5	Pass
ax40	5230	Ant1	39.438	0.5	Pass
ax80	5210	Ant1	79.212	0.5	Pass
a	5180	Ant2	18.642	0.5	Pass
a	5200	Ant2	18.225	0.5	Pass
a	5240	Ant2	18.435	0.5	Pass
n20	5180	Ant2	19.302	0.5	Pass
n20	5200	Ant2	19.332	0.5	Pass
n20	5240	Ant2	19.203	0.5	Pass
n40	5190	Ant2	38.118	0.5	Pass
n40	5230	Ant2	38.682	0.5	Pass
ac20	5180	Ant2	19.236	0.5	Pass
ac20	5200	Ant2	19.308	0.5	Pass
ac20	5240	Ant2	19.488	0.5	Pass
ac40	5190	Ant2	38.1	0.5	Pass
ac40	5230	Ant2	38.802	0.5	Pass
ac80	5210	Ant2	82.44	0.5	Pass
ax20	5180	Ant2	20.079	0.5	Pass
ax20	5200	Ant2	20.139	0.5	Pass
ax20	5240	Ant2	20.115	0.5	Pass



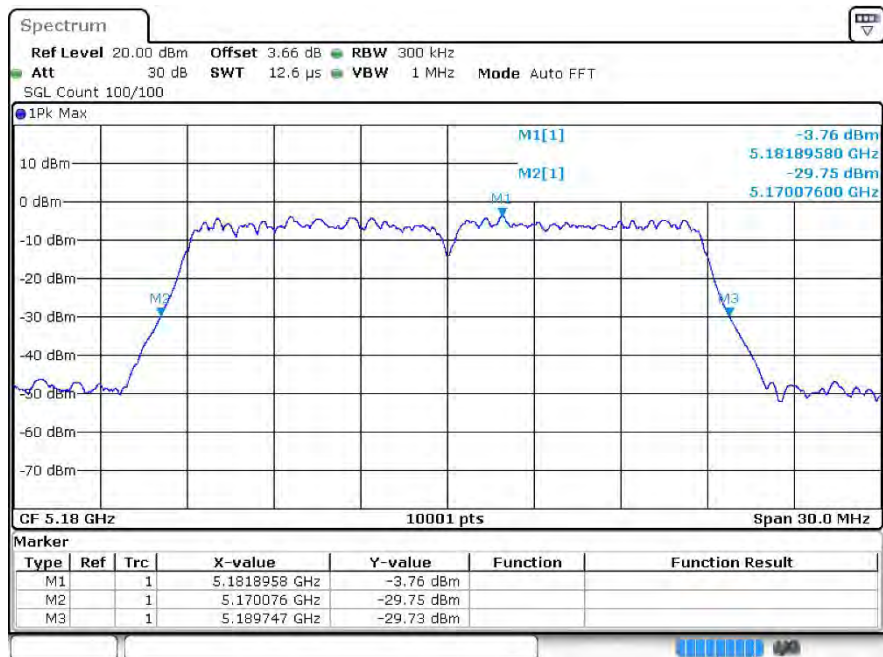
ax40	5190	Ant2	39.228	0.5	Pass
ax40	5230	Ant2	39.318	0.5	Pass
ax80	5210	Ant2	79.176	0.5	Pass

3.2 Test Graphs

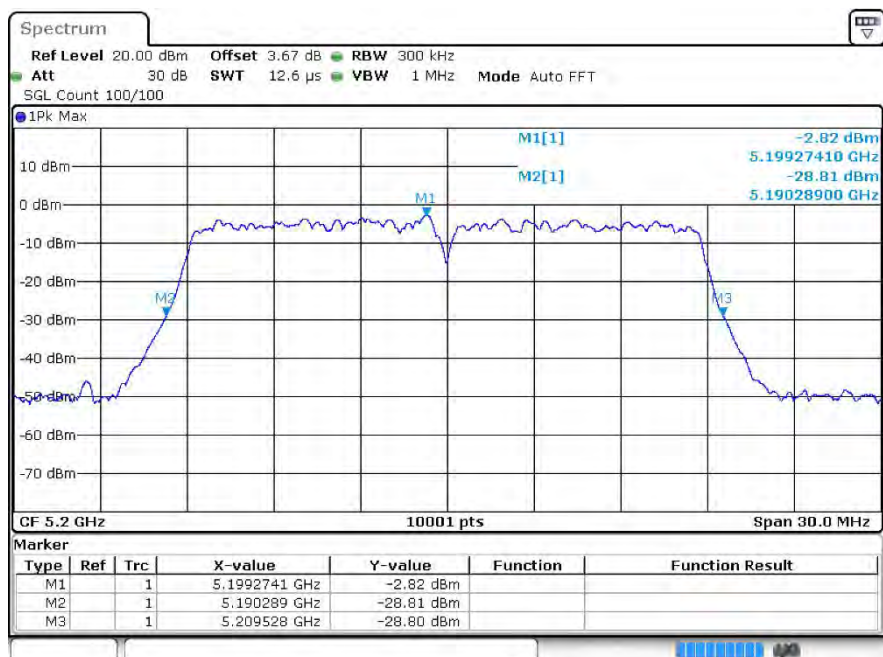


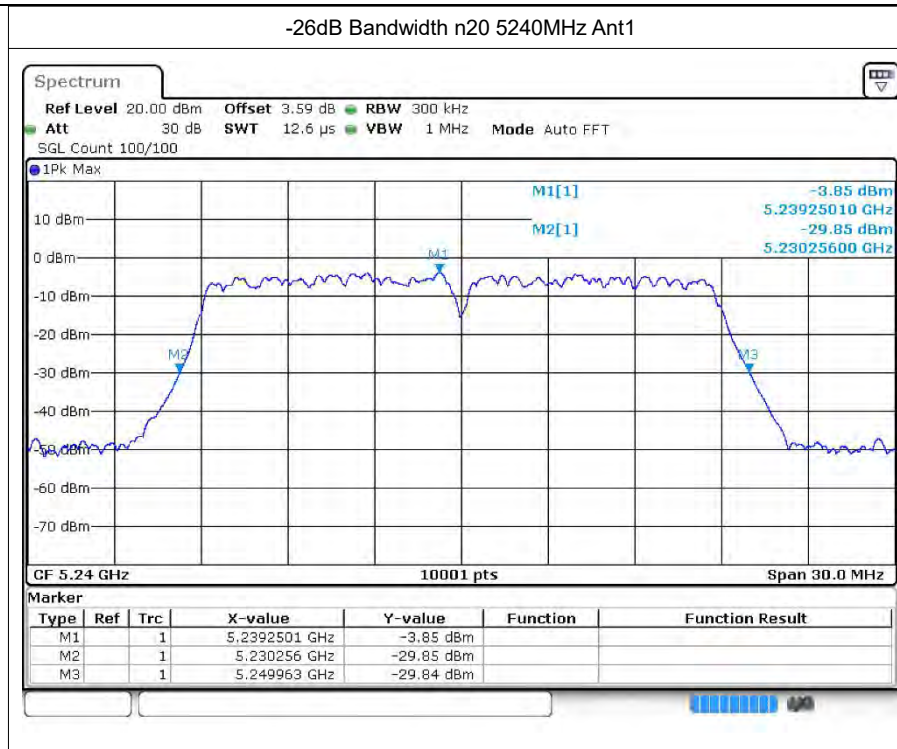


-26dB Bandwidth n20 5180MHz Ant1

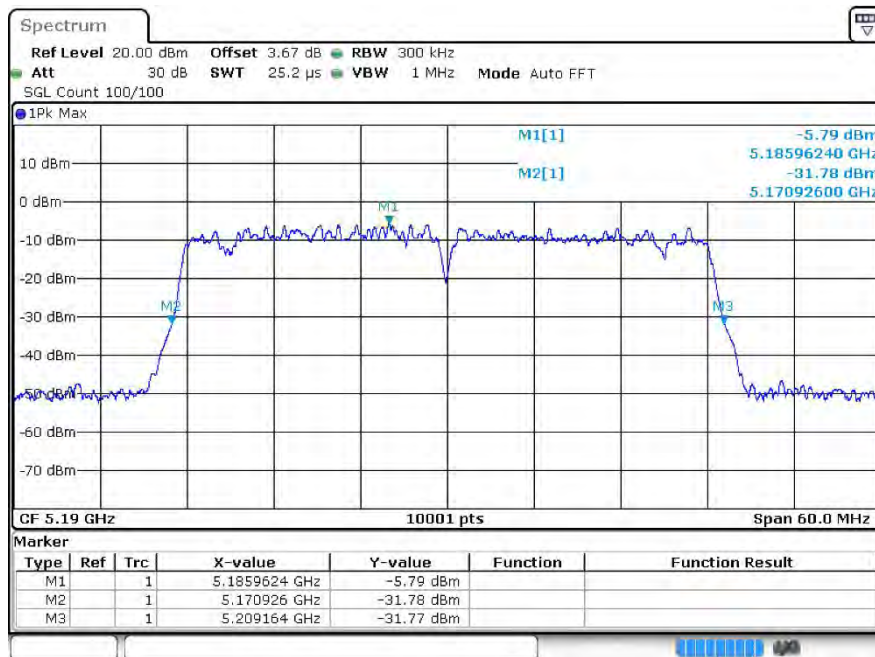


-26dB Bandwidth n20 5200MHz Ant1

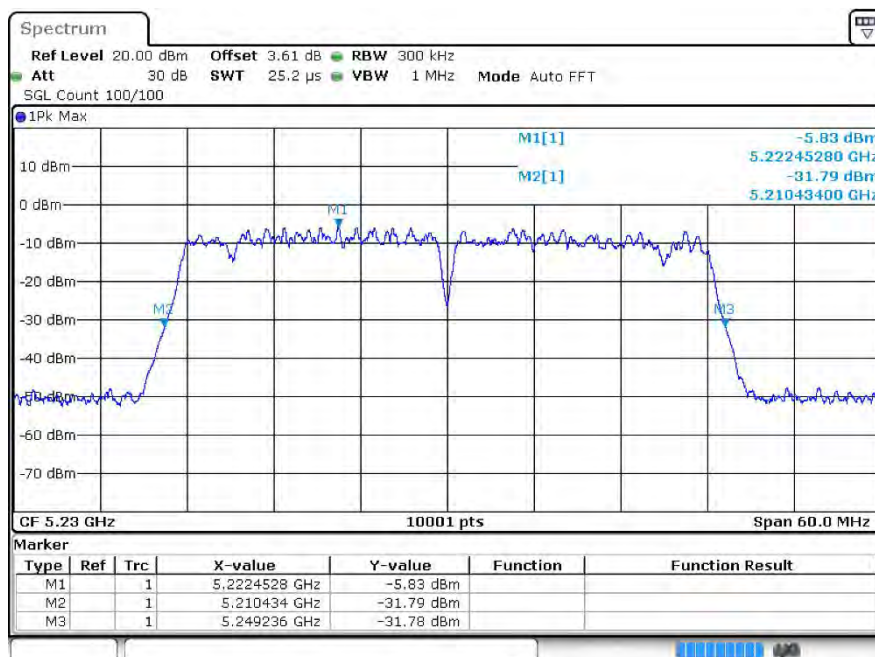




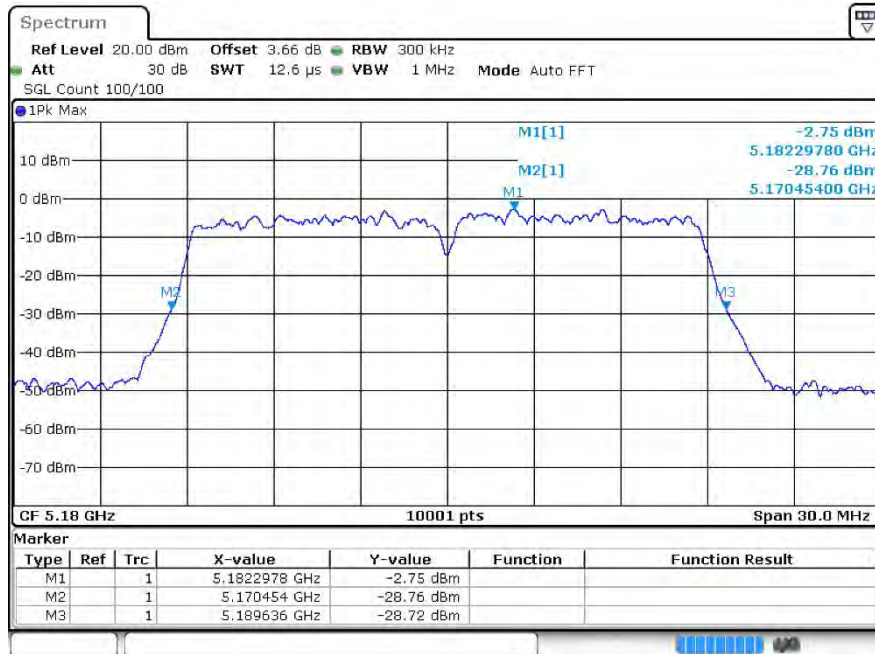
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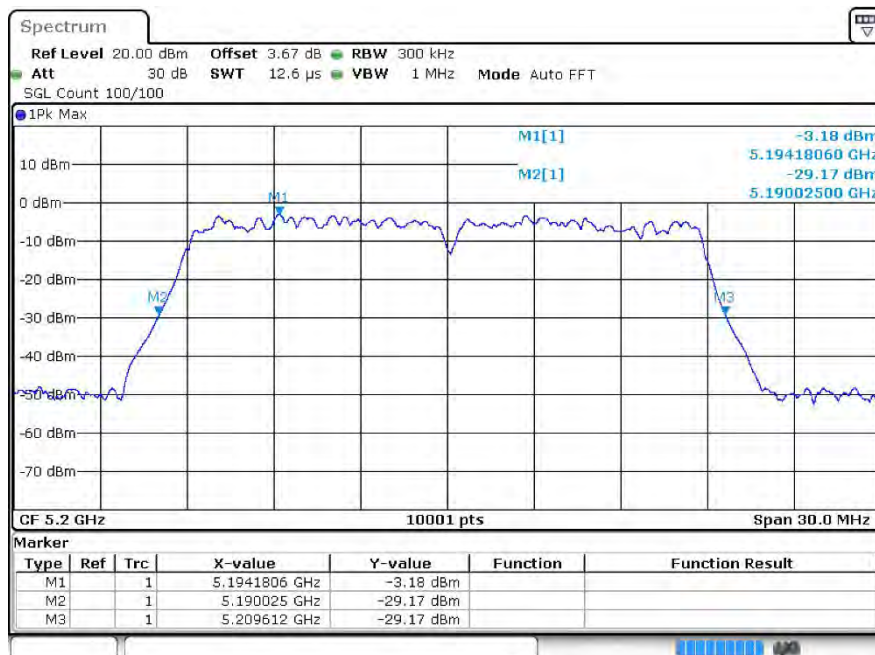
-26dB Bandwidthn40 5230MHz Ant1

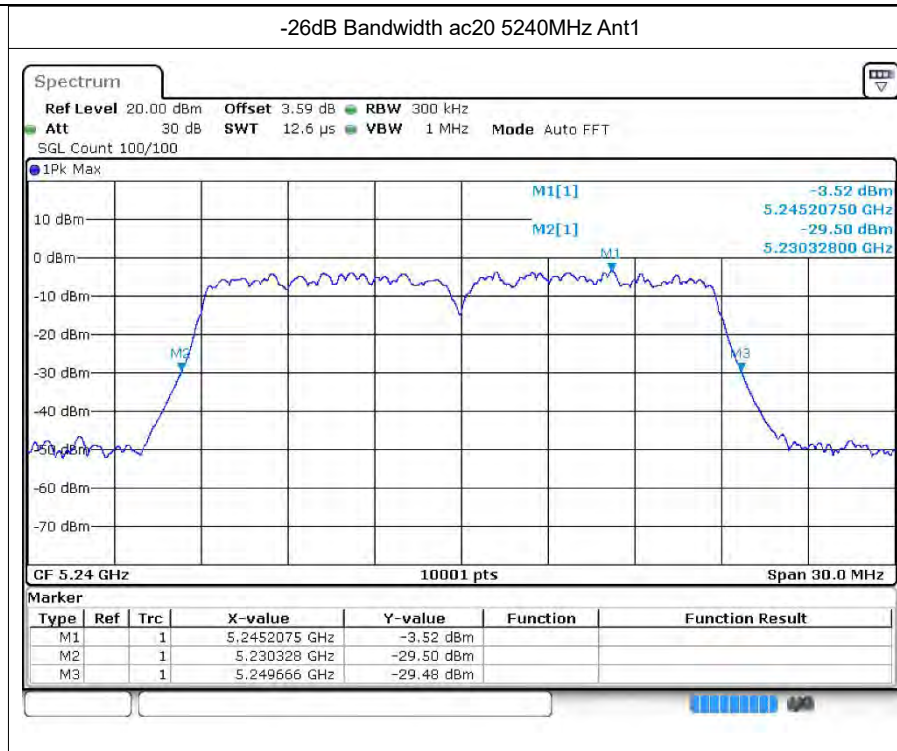


-26dB Bandwidth ac20 5180MHz Ant1

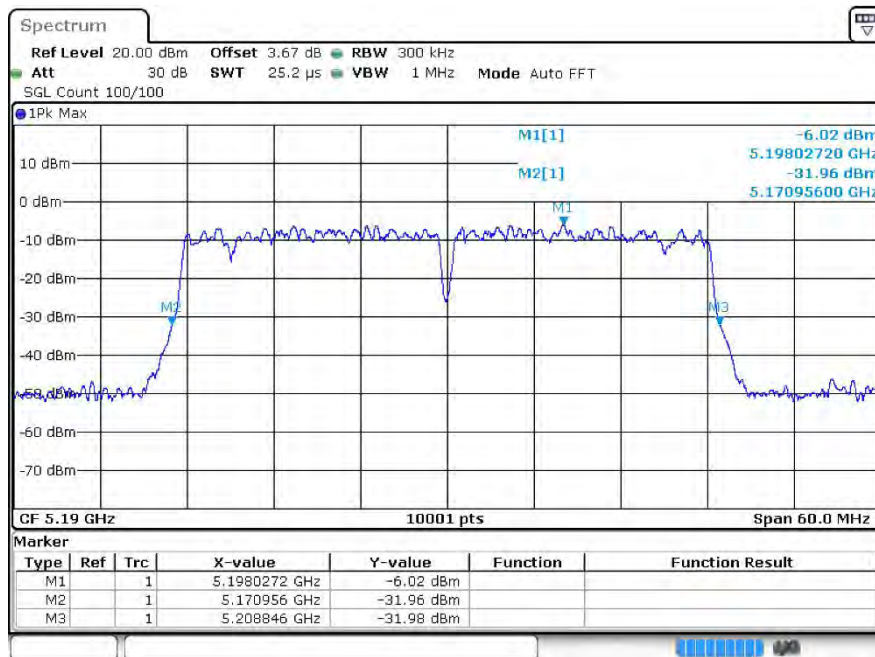


-26dB Bandwidth ac20 5200MHz Ant1

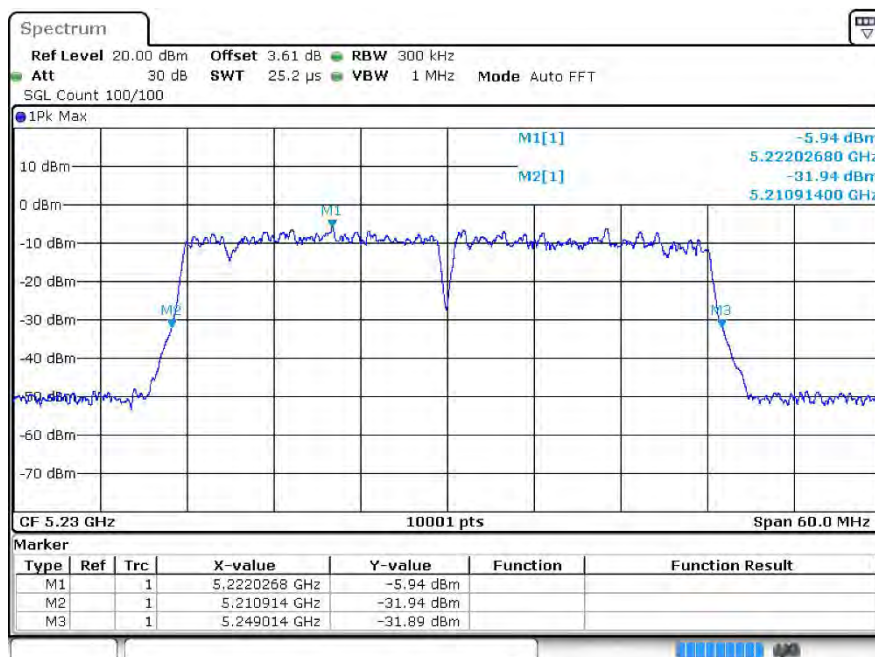


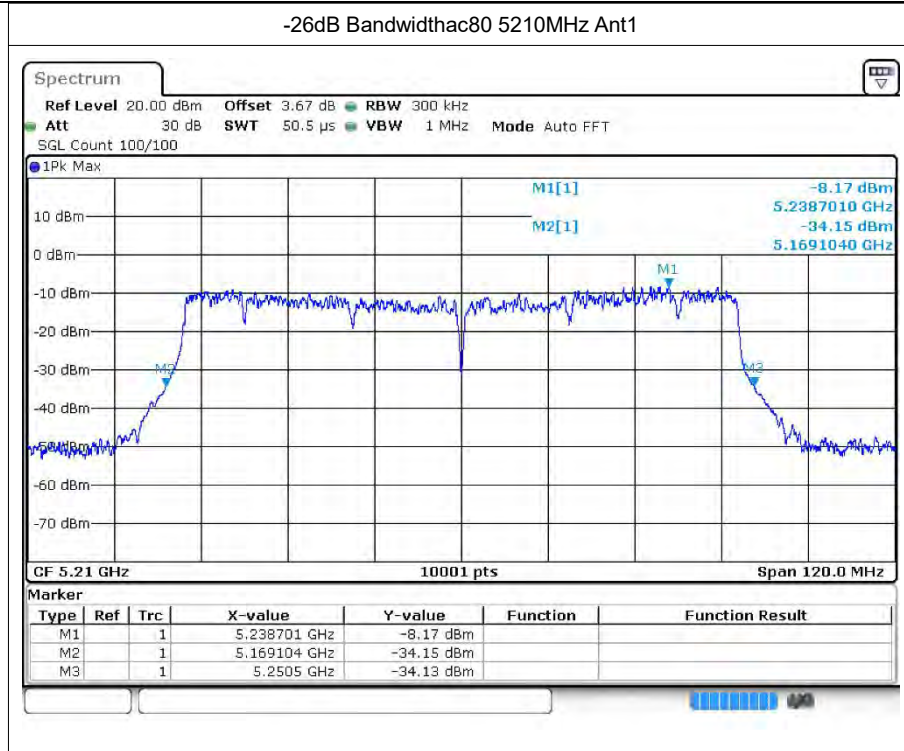


-26dB Bandwidthac40 5190MHz Ant1

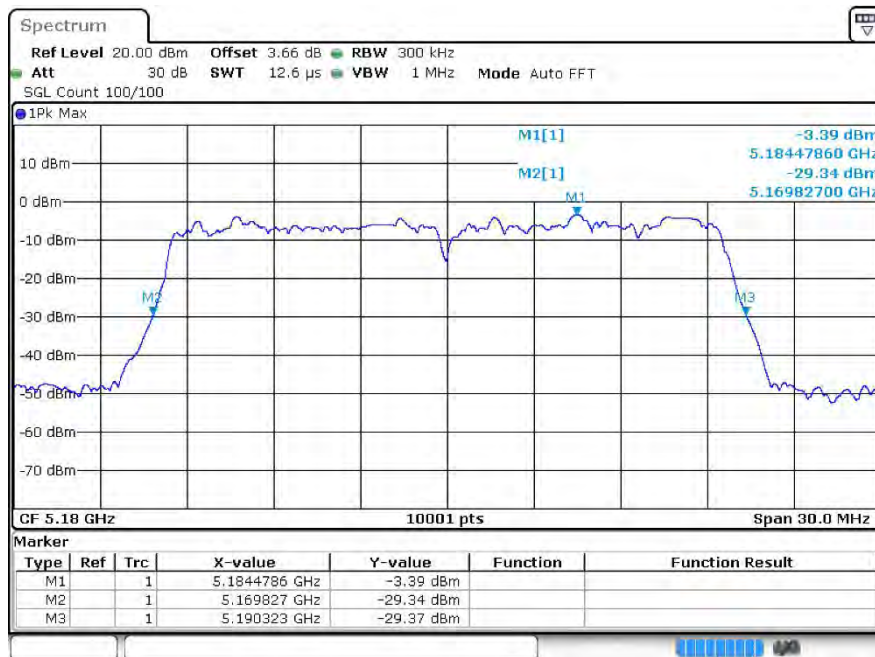


-26dB Bandwidthac40 5230MHz Ant1

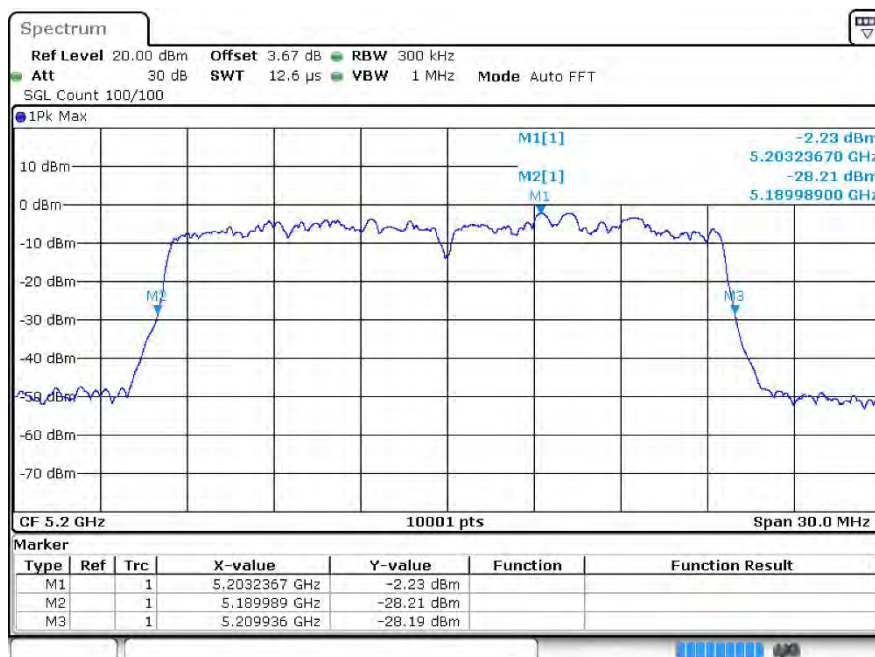


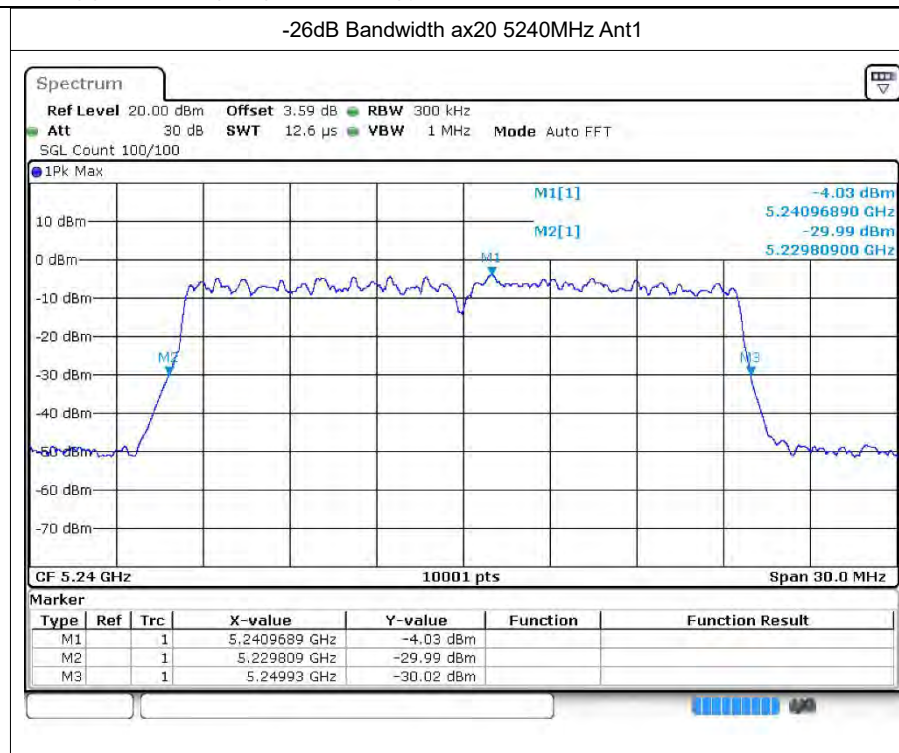


-26dB Bandwidth ax20 5180MHz Ant1

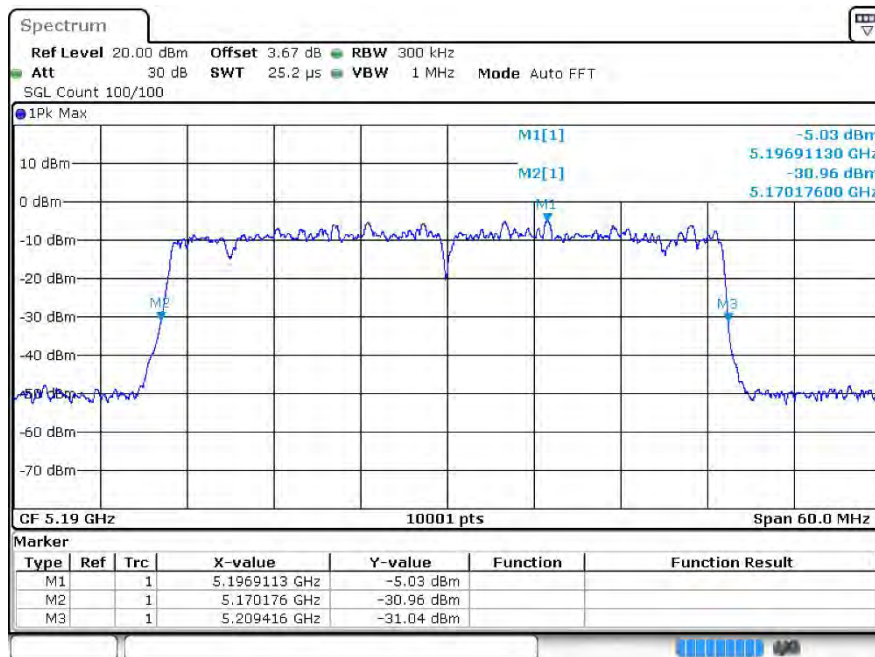


-26dB Bandwidth ax20 5200MHz Ant1

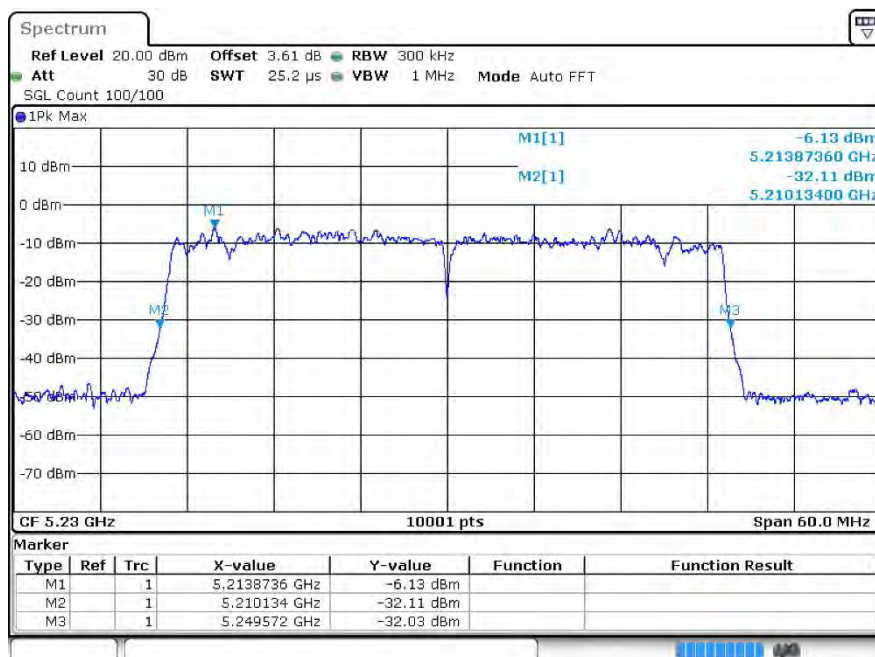


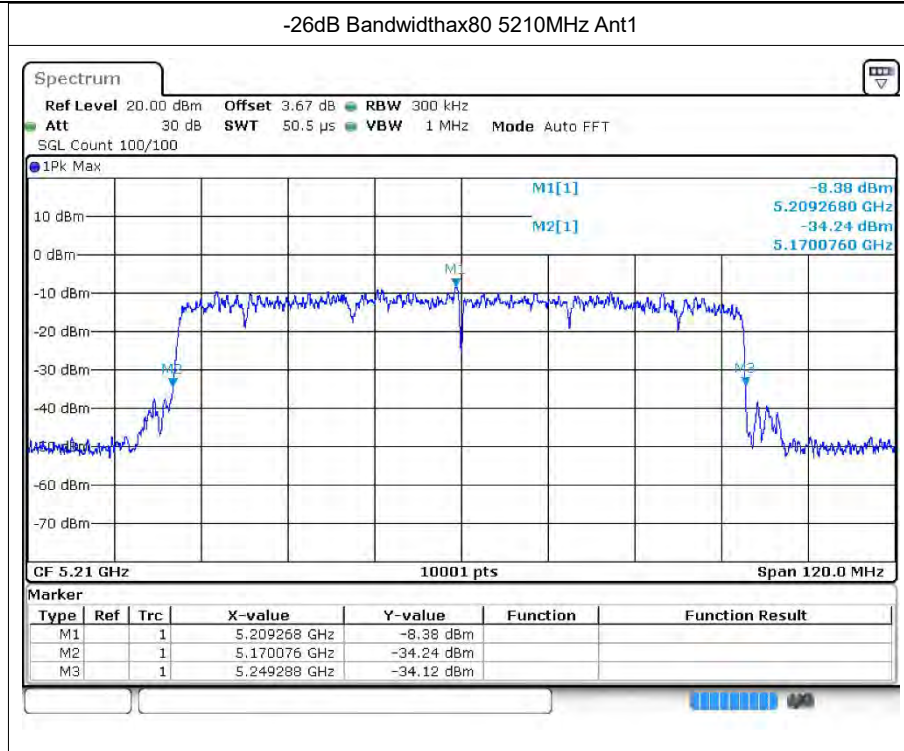


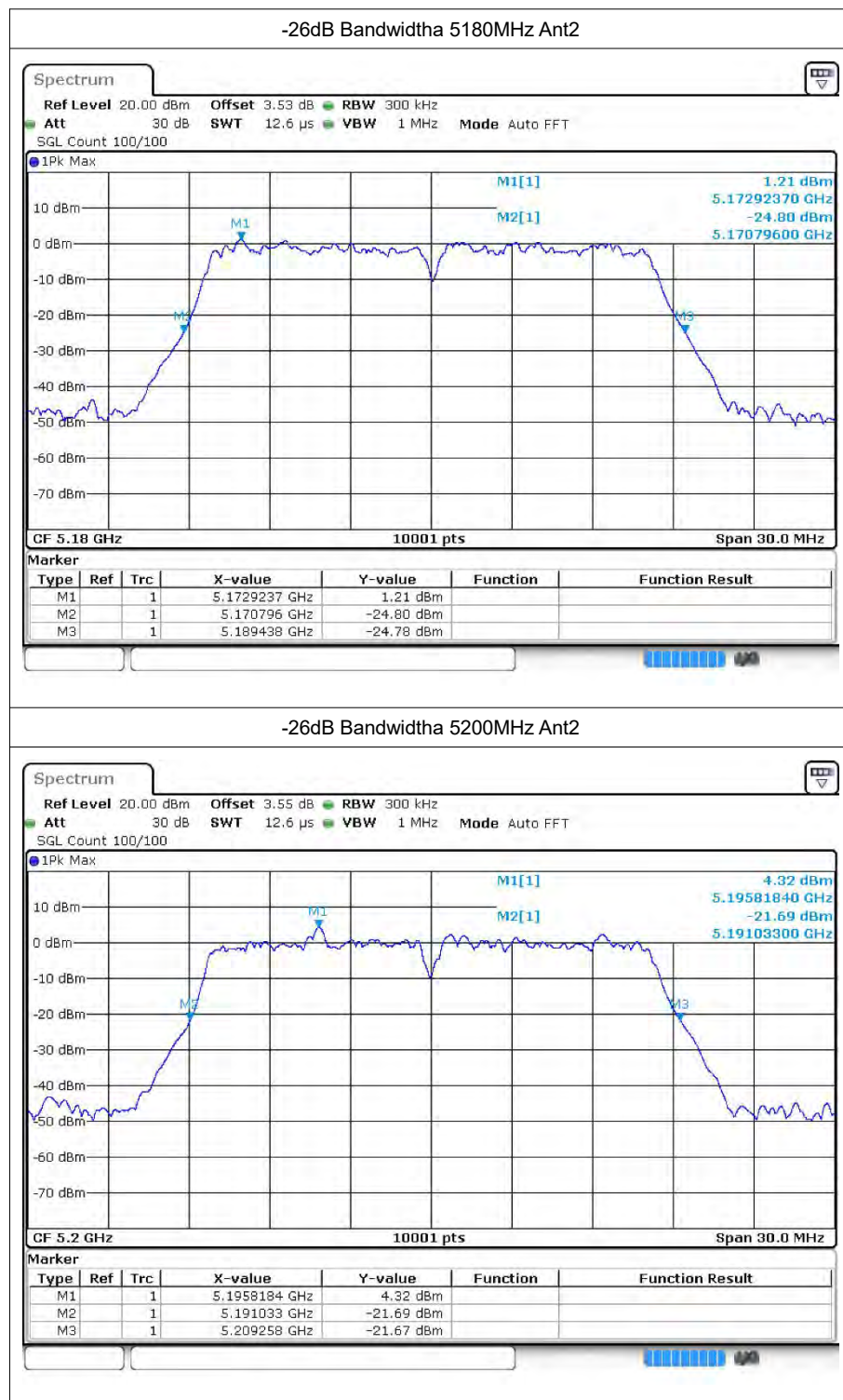
-26dB Bandwidthax40 5190MHz Ant1

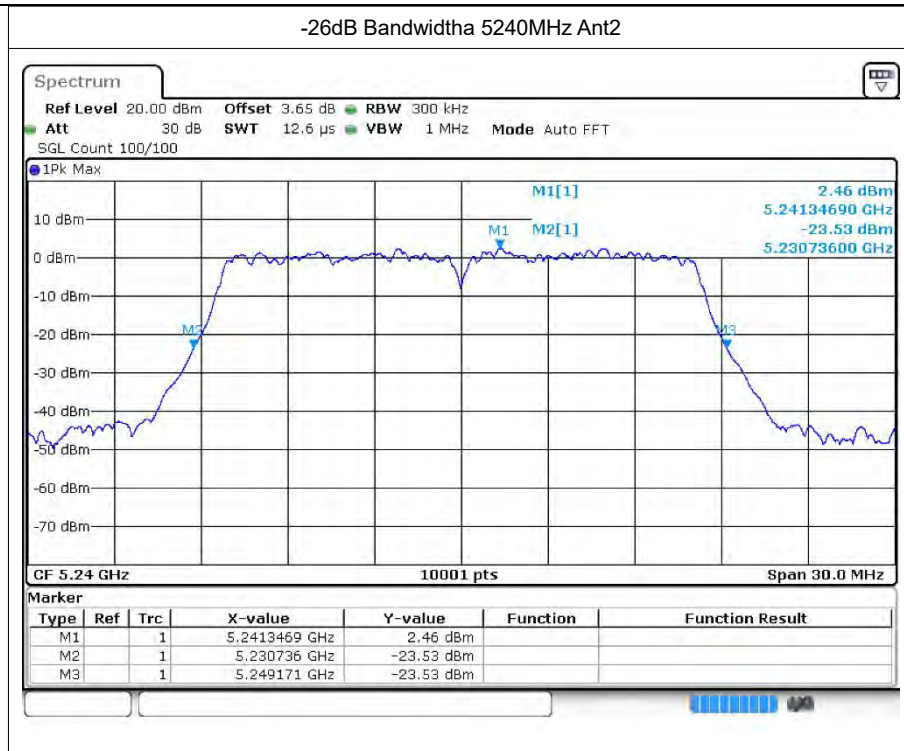


-26dB Bandwidthax40 5230MHz Ant1

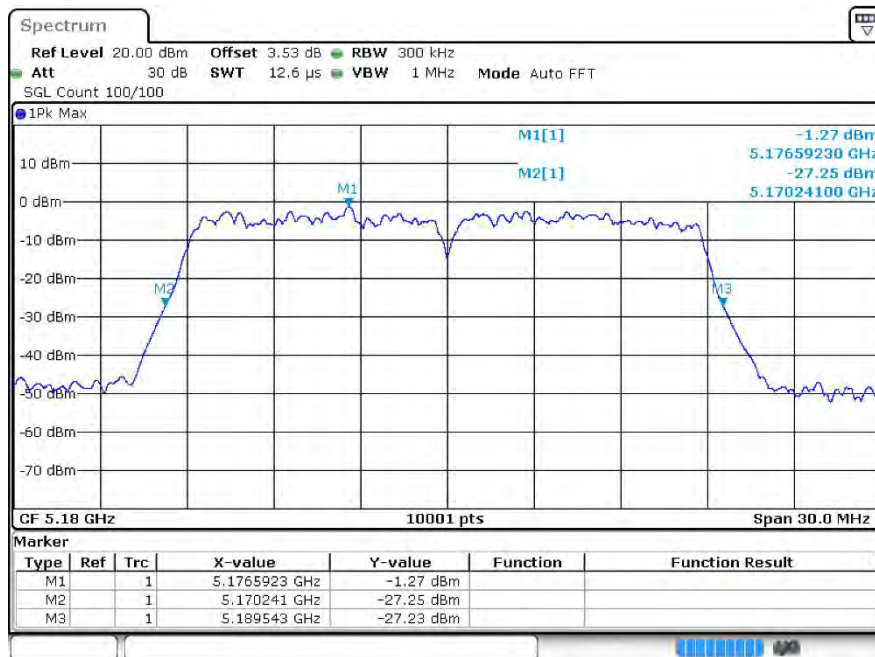




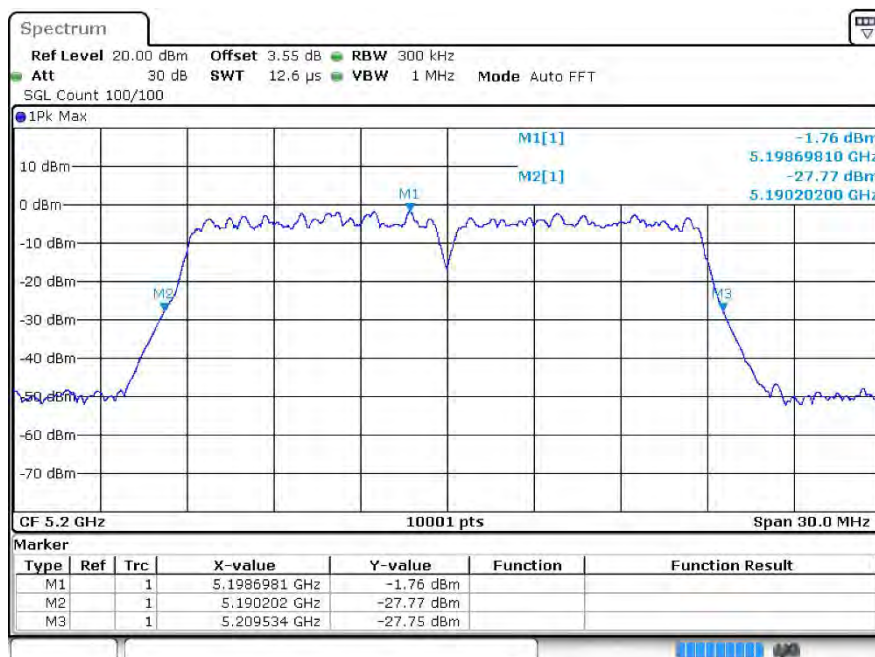


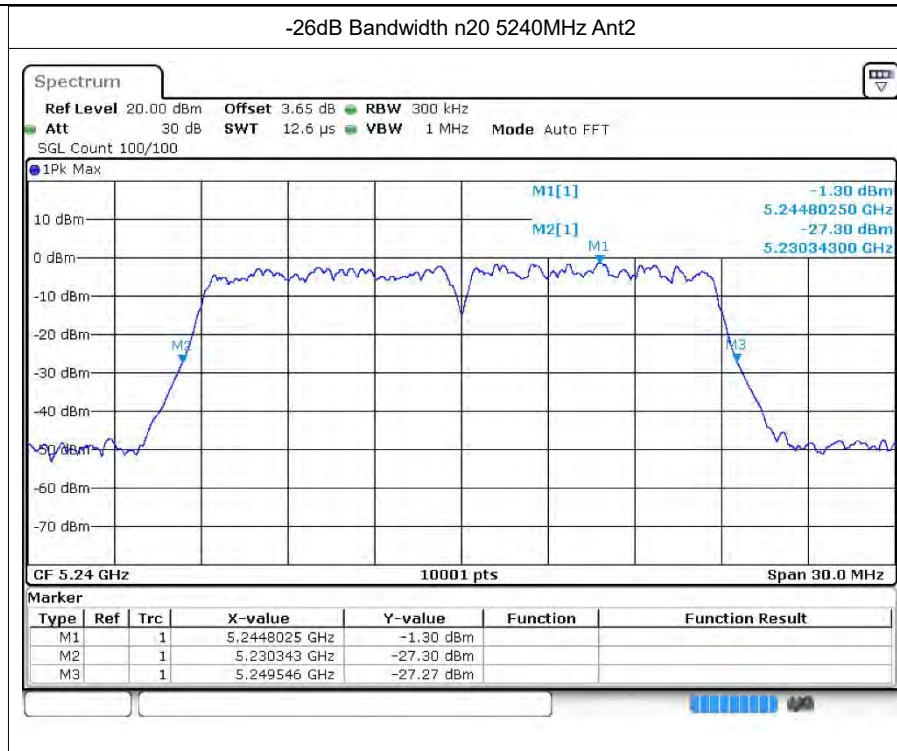


-26dB Bandwidth n20 5180MHz Ant2

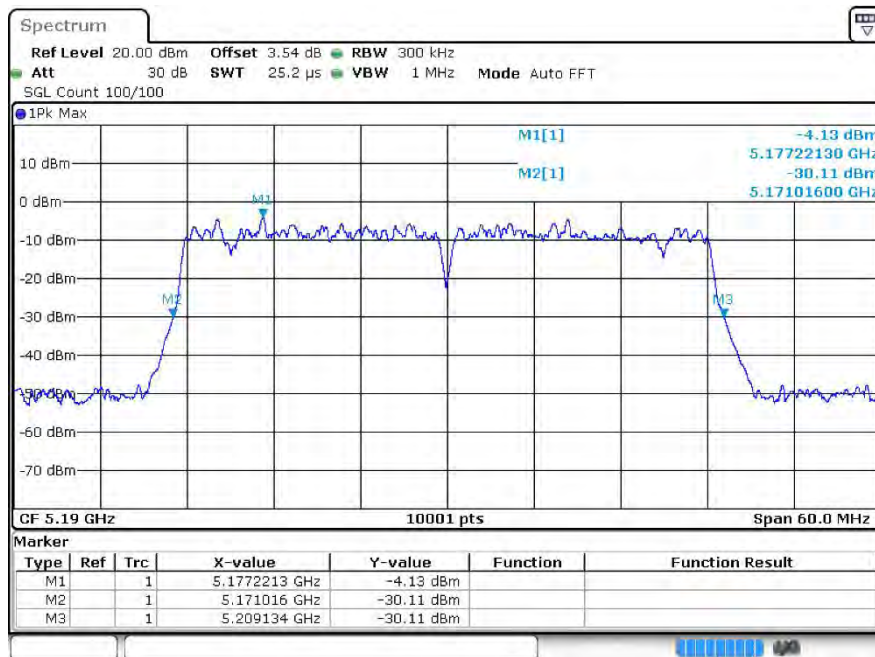


-26dB Bandwidth n20 5200MHz Ant2

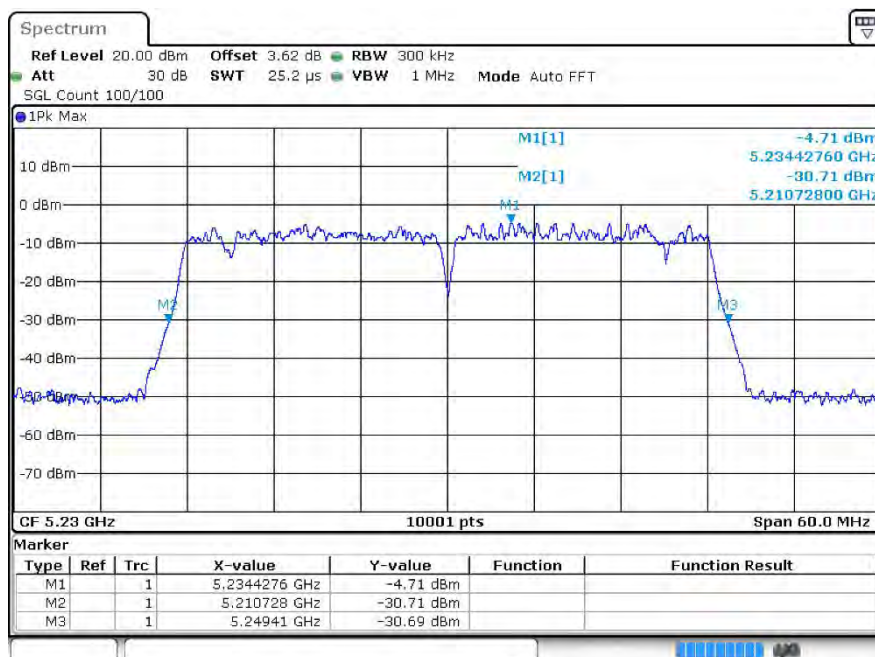




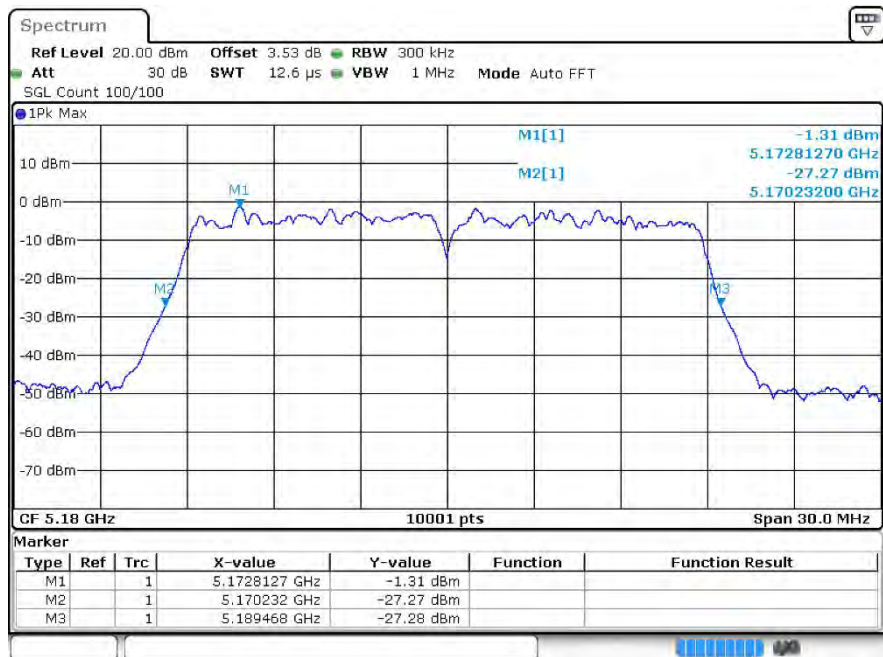
-26dB Bandwidthn40 5190MHz Ant2



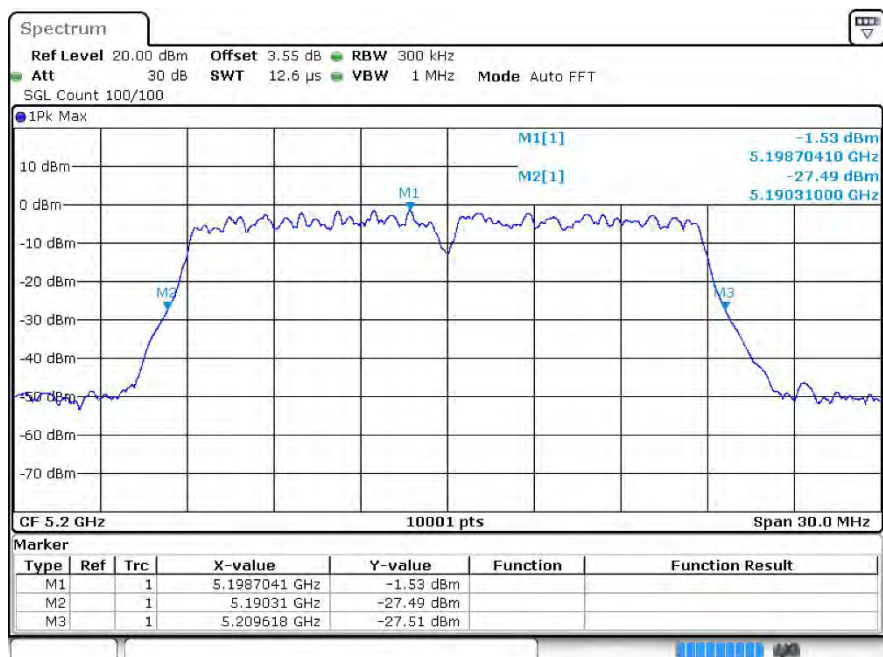
-26dB Bandwidthn40 5230MHz Ant2

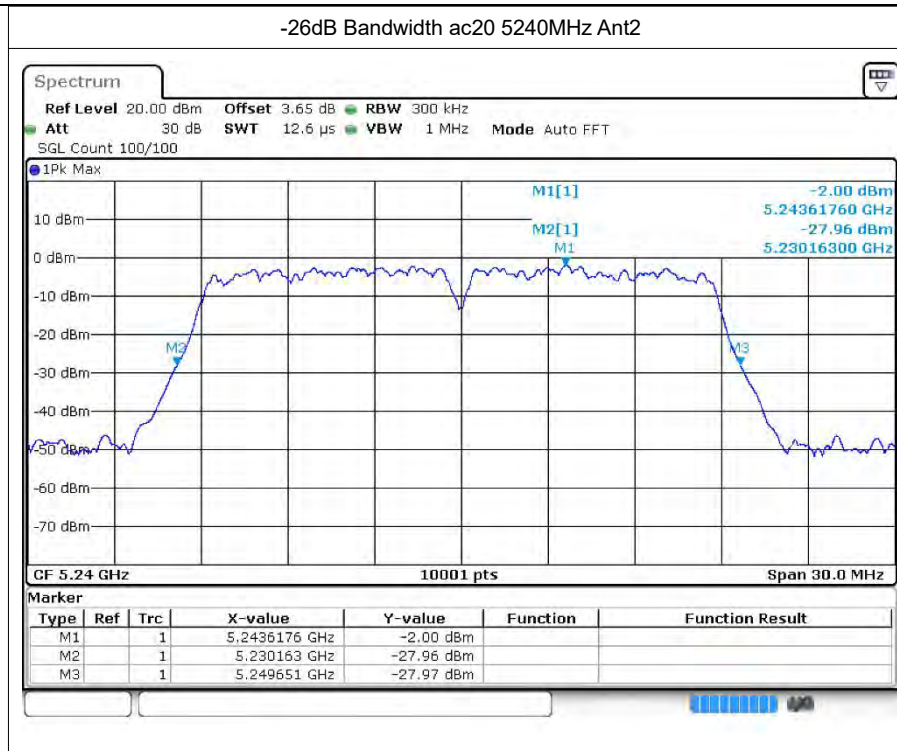


-26dB Bandwidth ac20 5180MHz Ant2

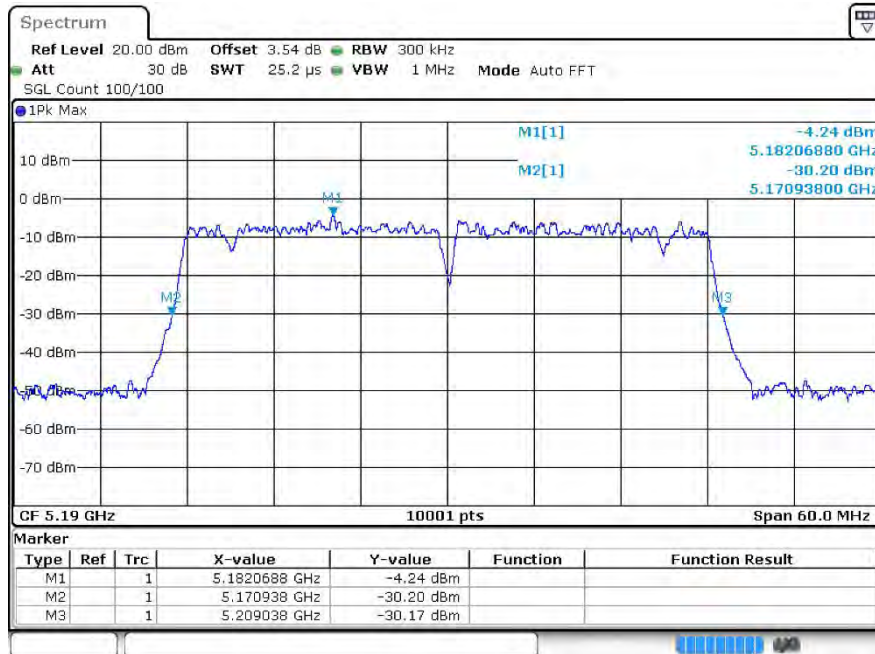


-26dB Bandwidth ac20 5200MHz Ant2

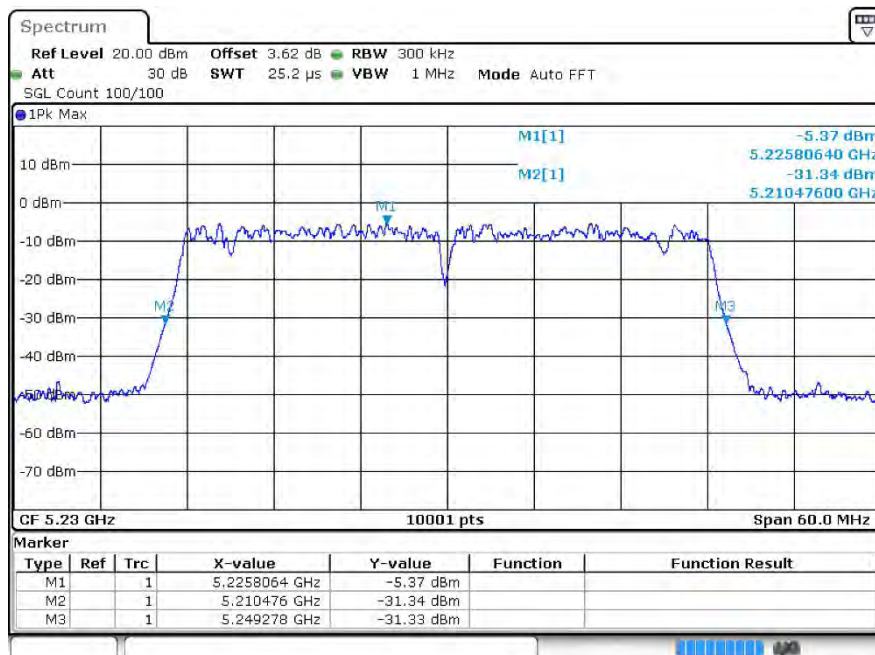


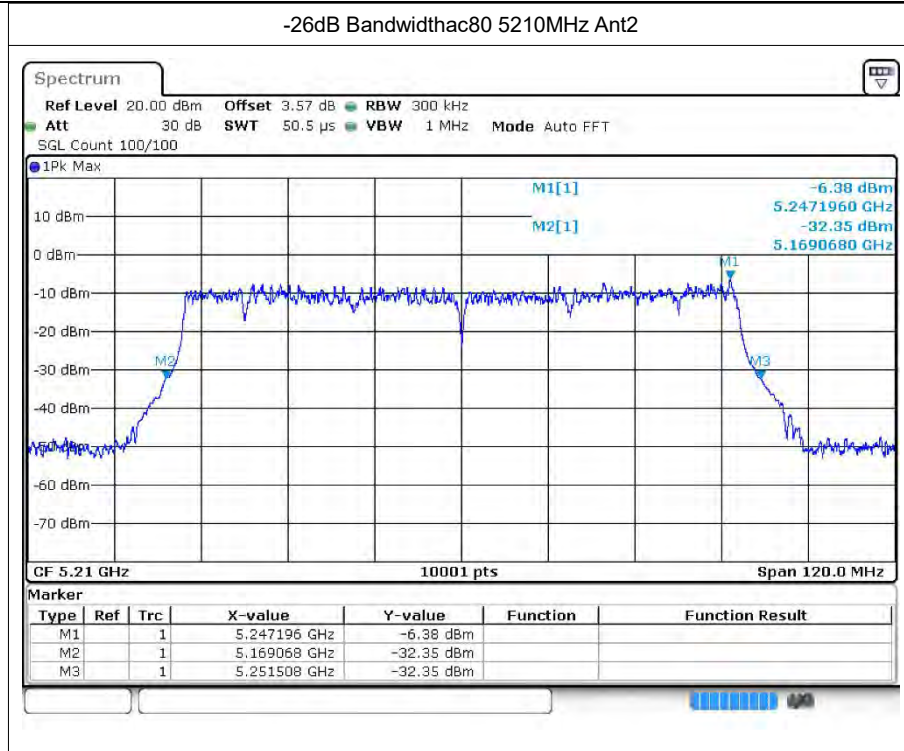


-26dB Bandwidthac40 5190MHz Ant2

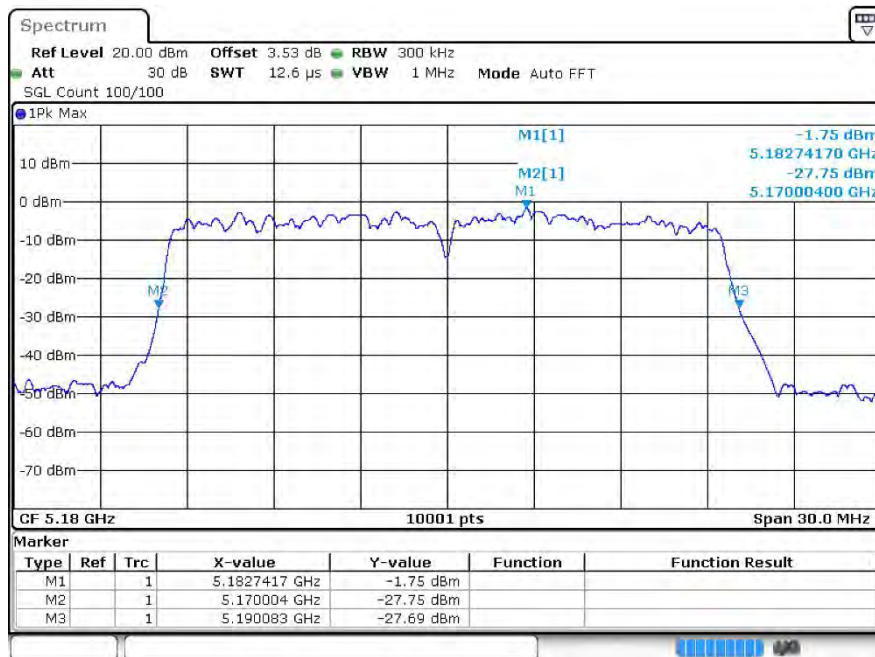


-26dB Bandwidthac40 5230MHz Ant2

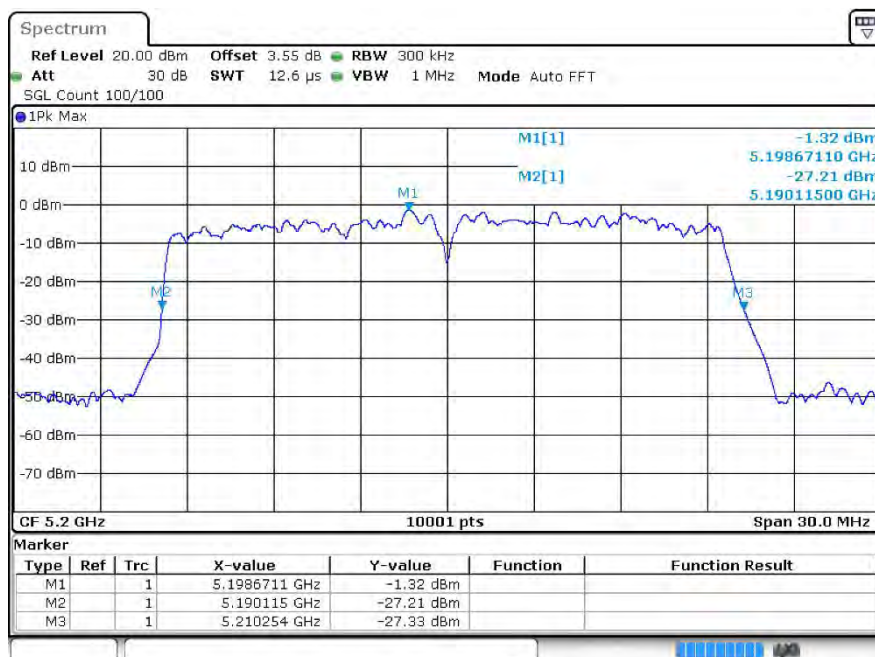


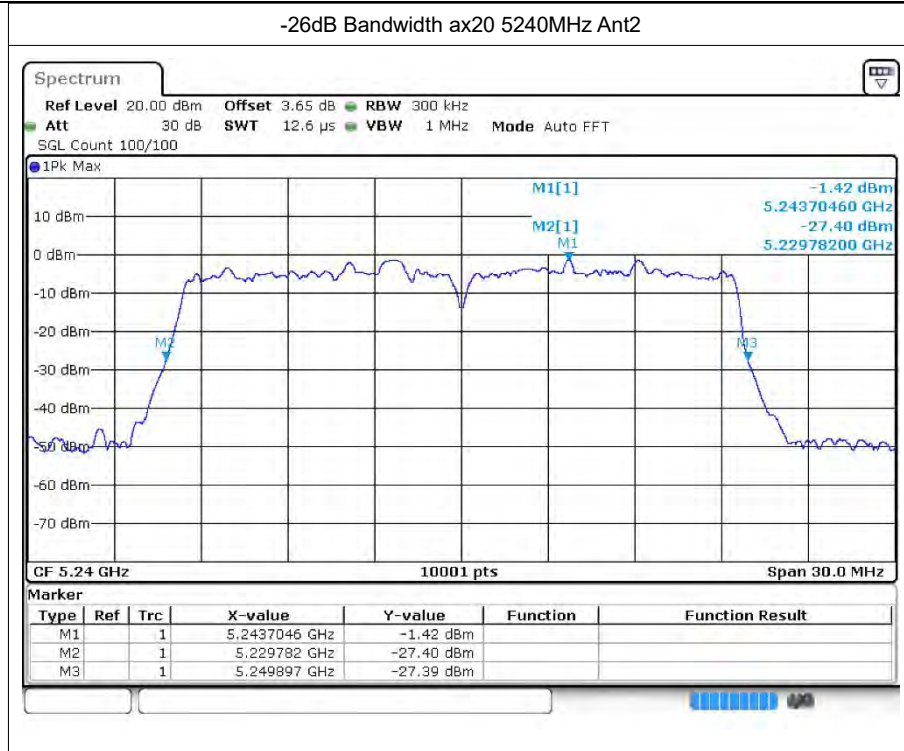


-26dB Bandwidth ax20 5180MHz Ant2

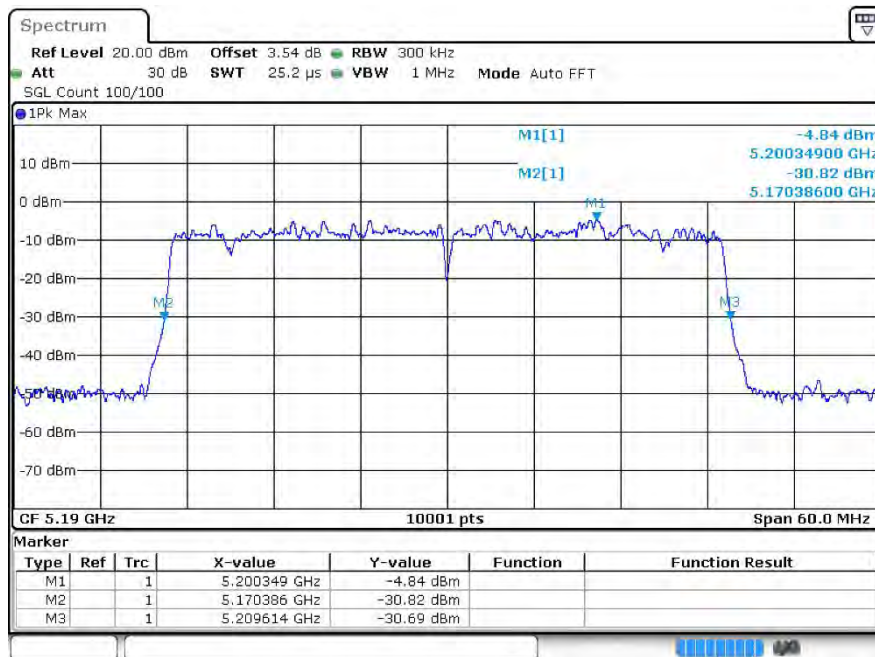


-26dB Bandwidth ax20 5200MHz Ant2

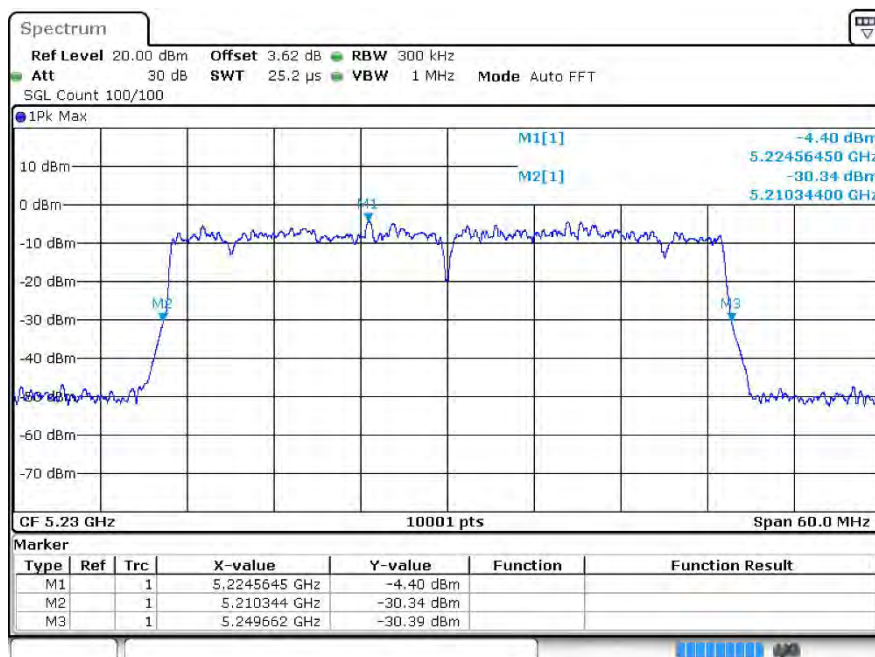


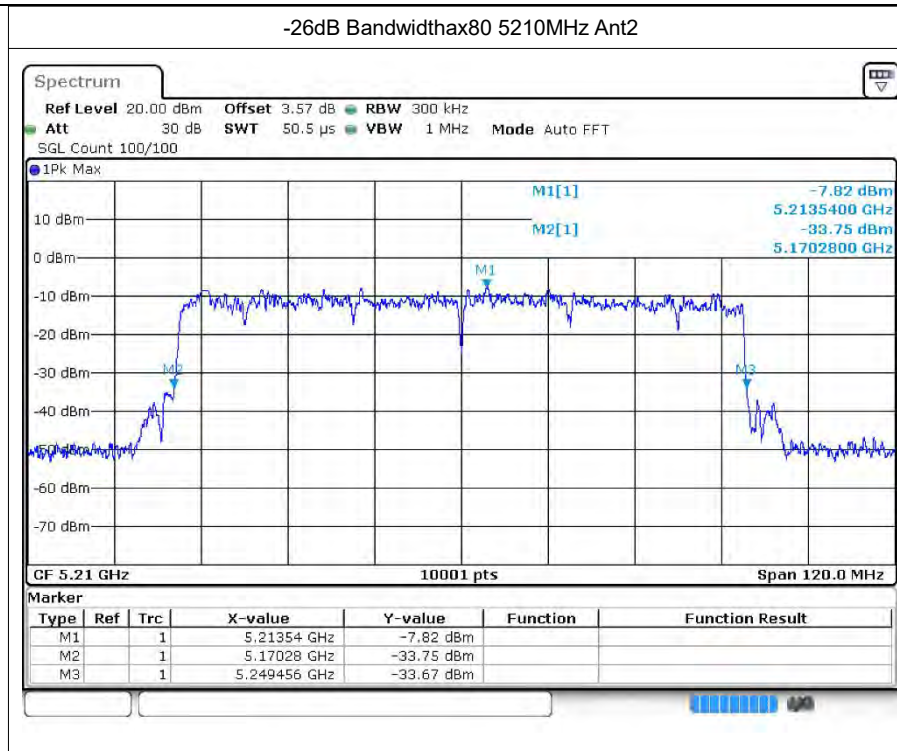


-26dB Bandwidthax40 5190MHz Ant2



-26dB Bandwidthax40 5230MHz Ant2





4 Occupied Channel Bandwidth

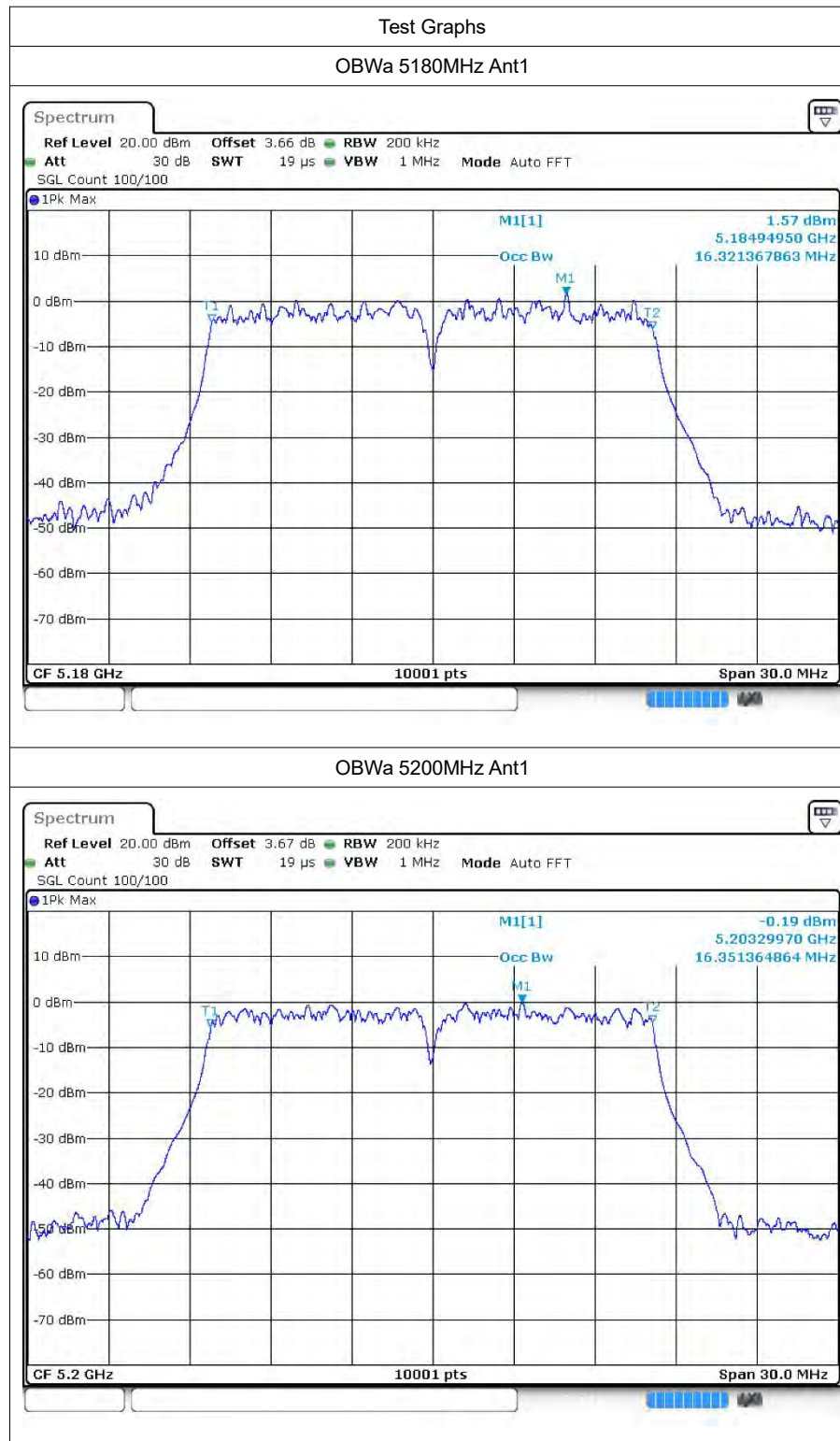
4.1 Test Result

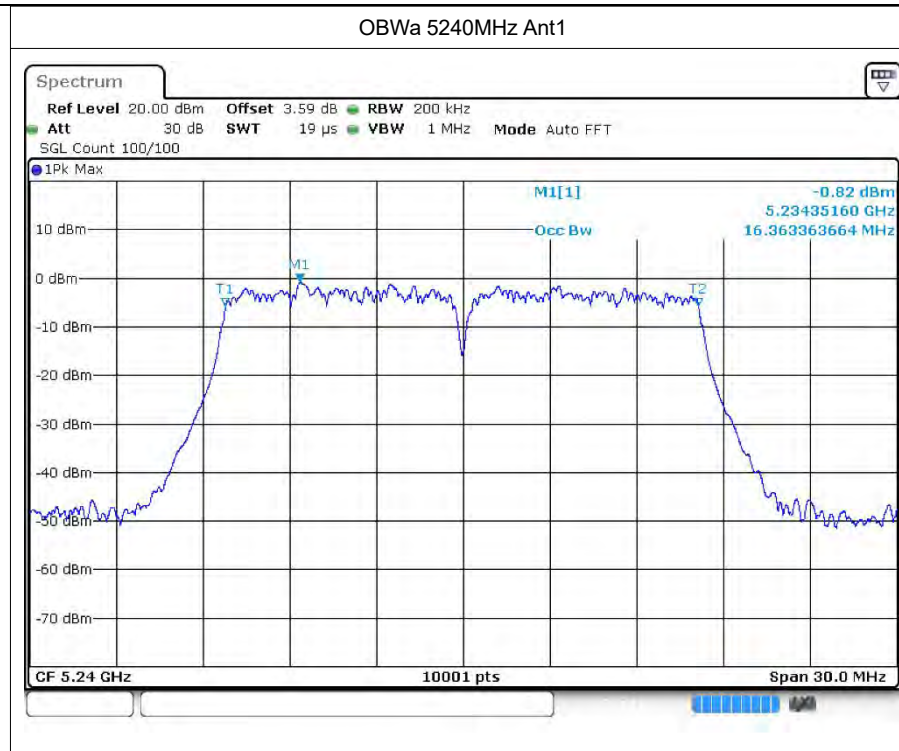
Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
a	5180	Ant1	16.321
a	5200	Ant1	16.351
a	5240	Ant1	16.363
n20	5180	Ant1	17.533
n20	5200	Ant1	17.527
n20	5240	Ant1	17.533
n40	5190	Ant1	36.044
n40	5230	Ant1	36.044
ac20	5180	Ant1	17.581
ac20	5200	Ant1	17.53
ac20	5240	Ant1	17.53
ac40	5190	Ant1	36.08
ac40	5230	Ant1	36.098
ac80	5210	Ant1	76.204
ax20	5180	Ant1	18.838
ax20	5200	Ant1	18.886
ax20	5240	Ant1	18.877
ax40	5190	Ant1	37.688
ax40	5230	Ant1	37.724
ax80	5210	Ant1	76.732
a	5180	Ant2	16.33
a	5200	Ant2	16.324
a	5240	Ant2	16.321
n20	5180	Ant2	17.551
n20	5200	Ant2	17.557
n20	5240	Ant2	17.575
n40	5190	Ant2	36.092
n40	5230	Ant2	36.242
ac20	5180	Ant2	17.515
ac20	5200	Ant2	17.563
ac20	5240	Ant2	17.548
ac40	5190	Ant2	36.152
ac40	5230	Ant2	36.002
ac80	5210	Ant2	76
ax20	5180	Ant2	18.865
ax20	5200	Ant2	18.868



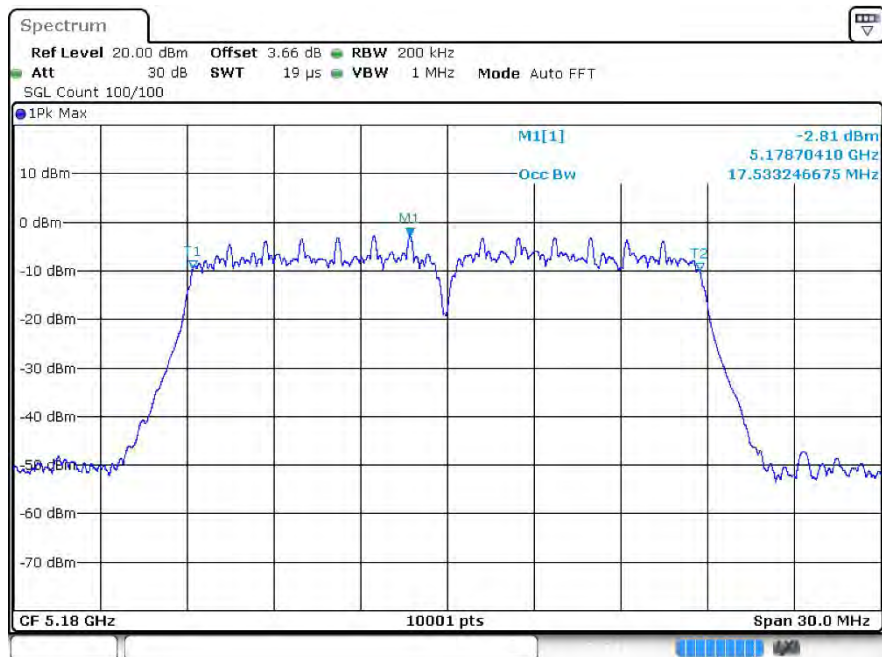
ax20	5240	Ant2	18.889
ax40	5190	Ant2	37.682
ax40	5230	Ant2	37.694
ax80	5210	Ant2	76.828

4.2 Test Graphs

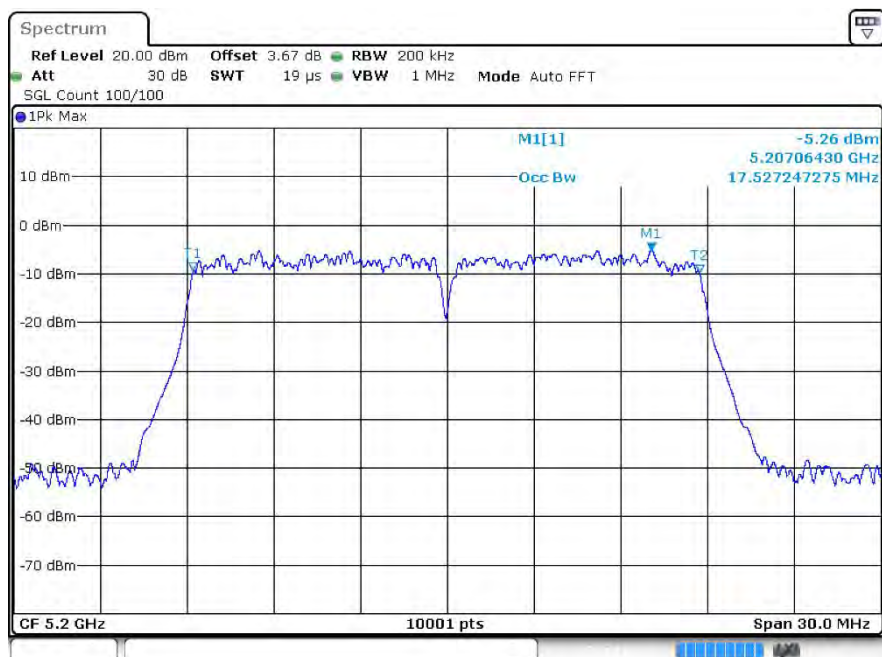


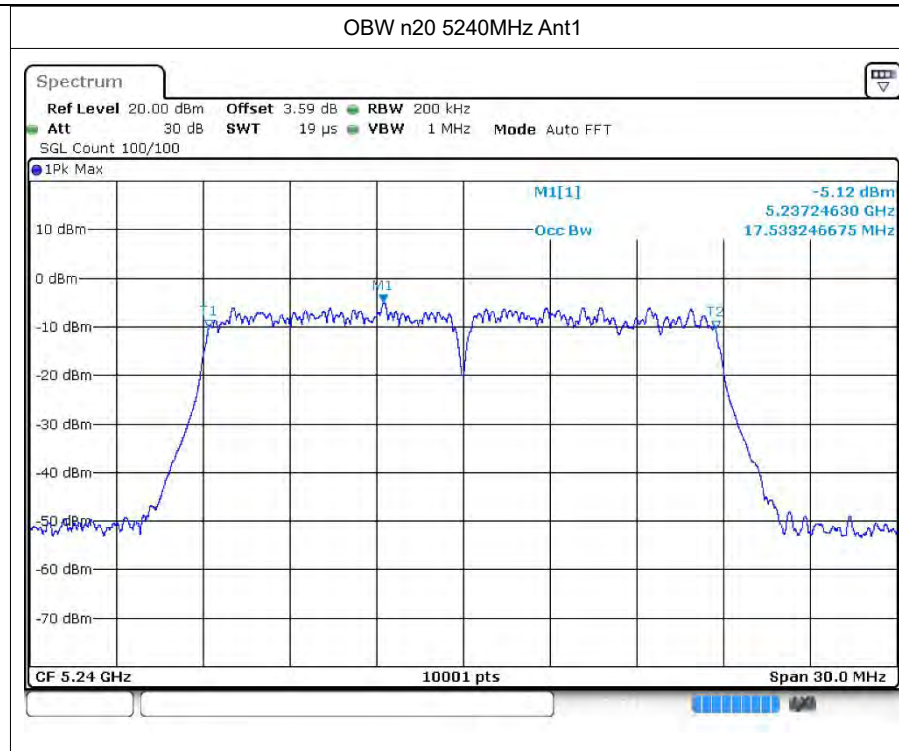


OBW n20 5180MHz Ant1

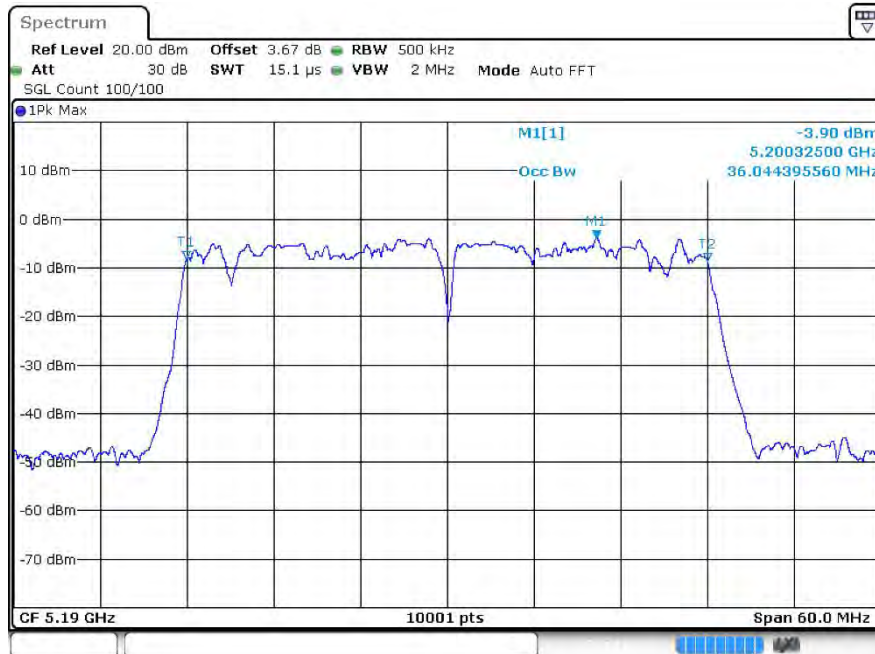


OBW n20 5200MHz Ant1

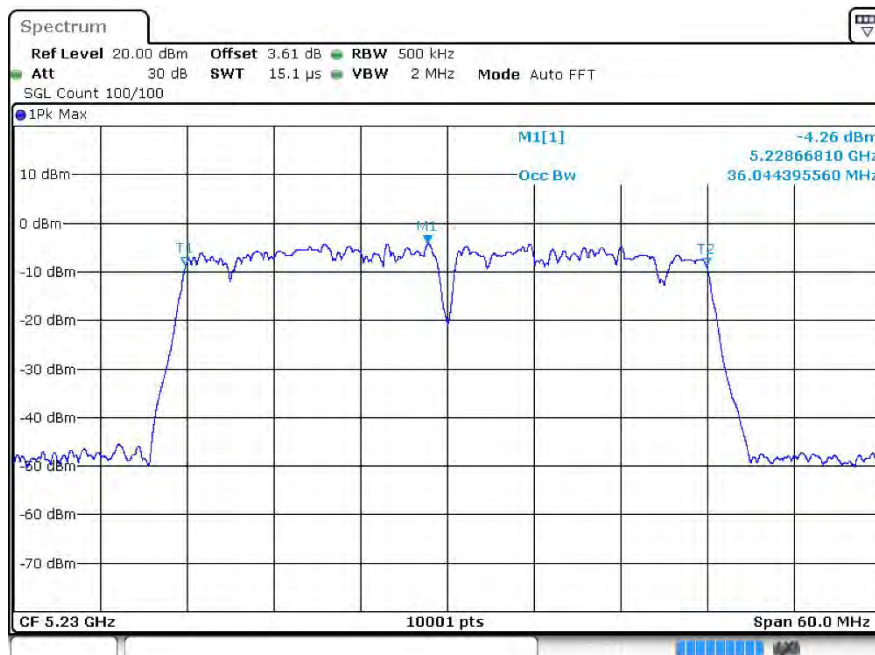




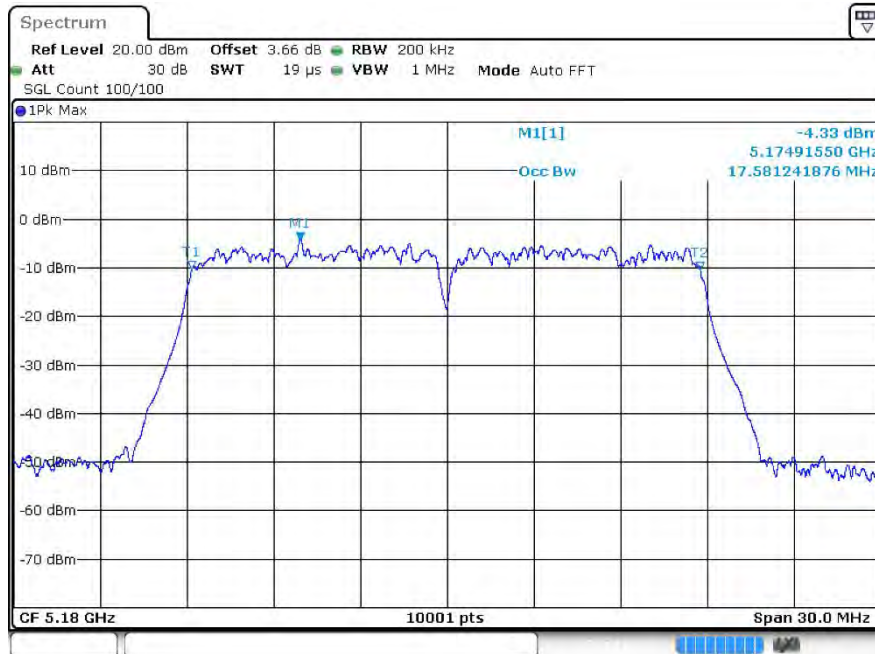
OBWn40 5190MHz Ant1



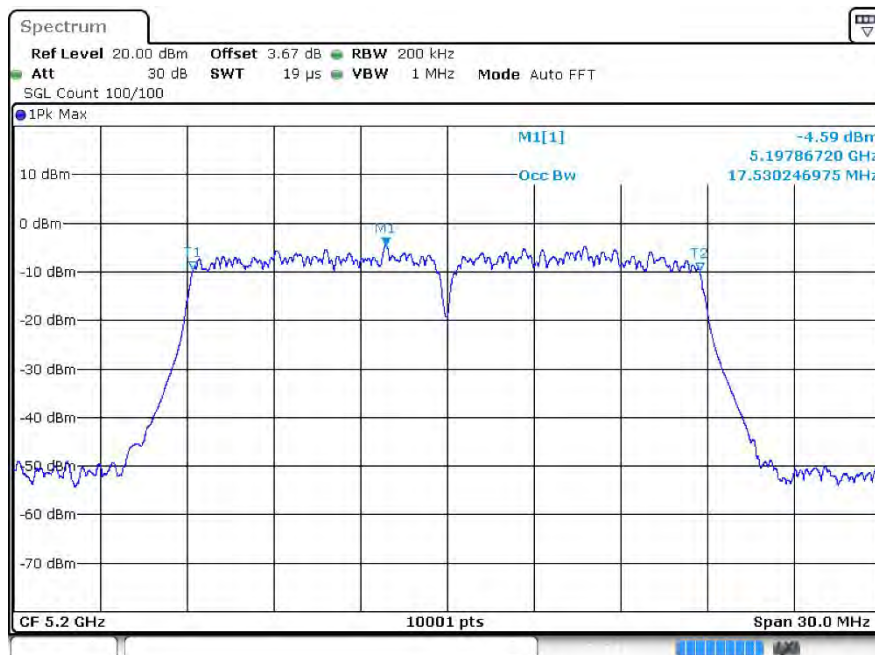
OBWn40 5230MHz Ant1

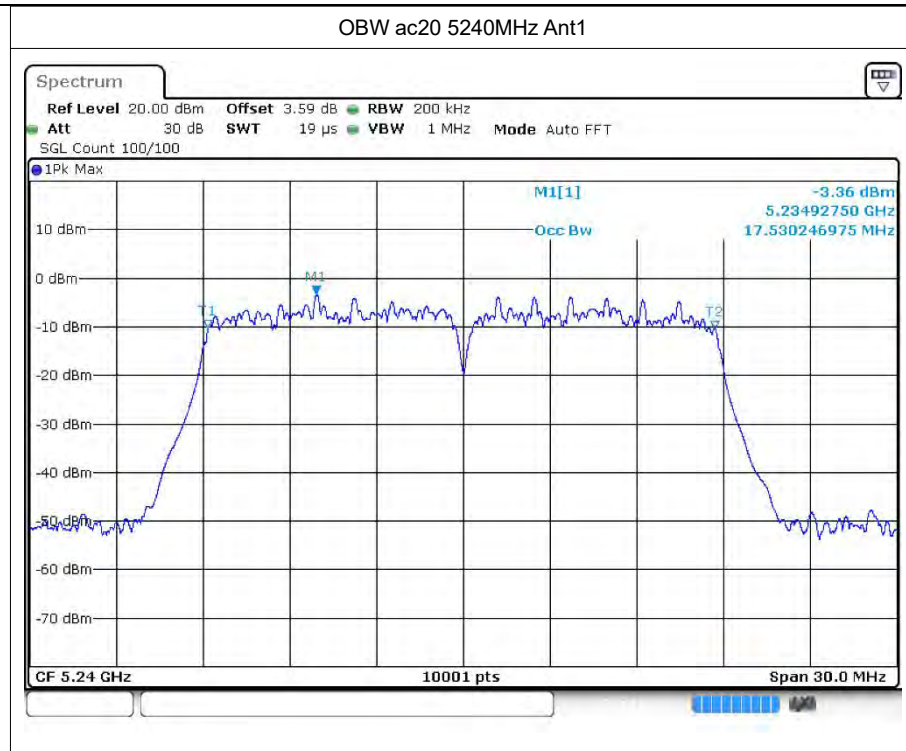


OBW ac20 5180MHz Ant1

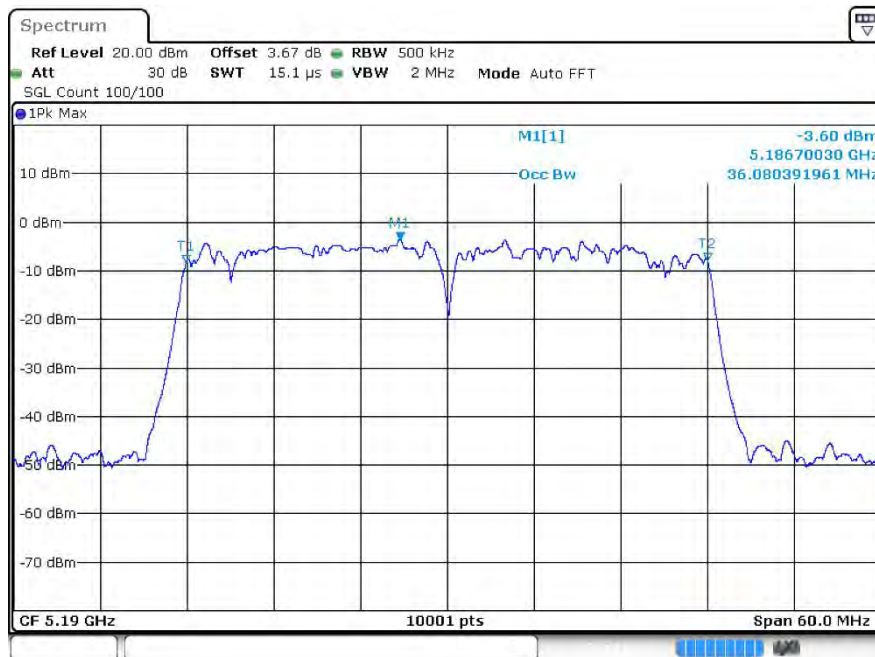


OBW ac20 5200MHz Ant1

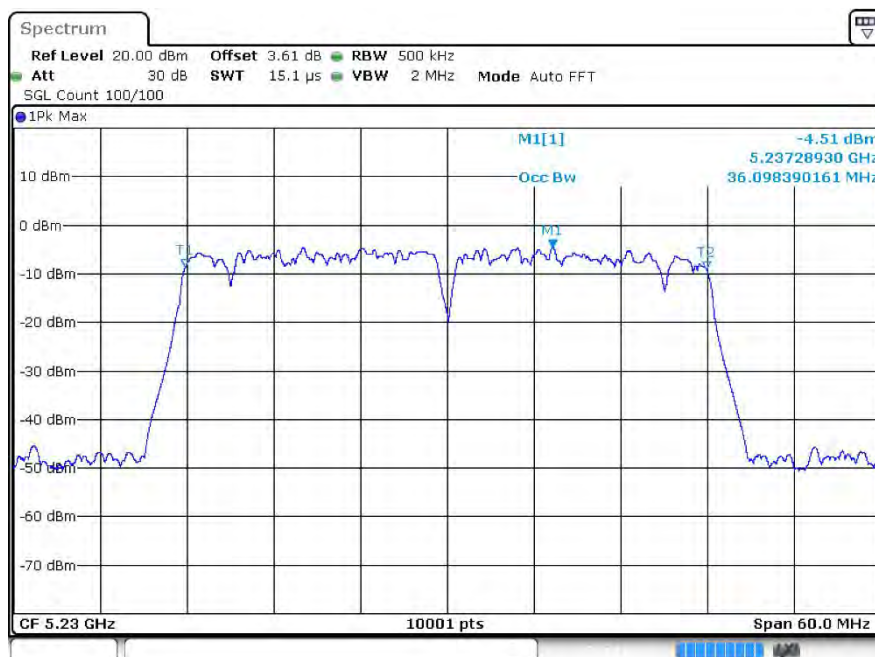


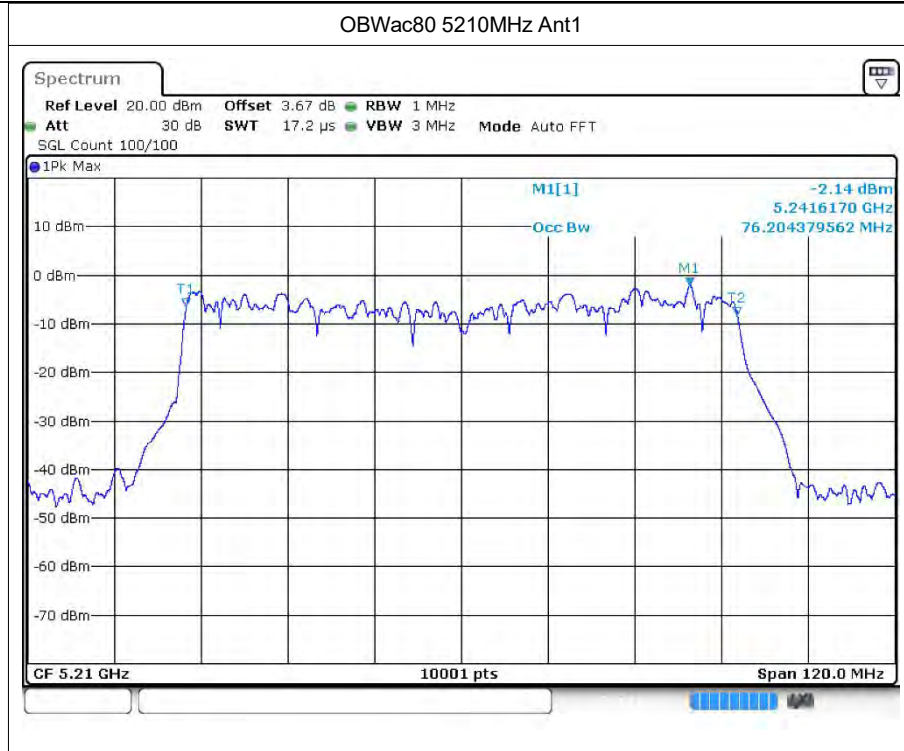


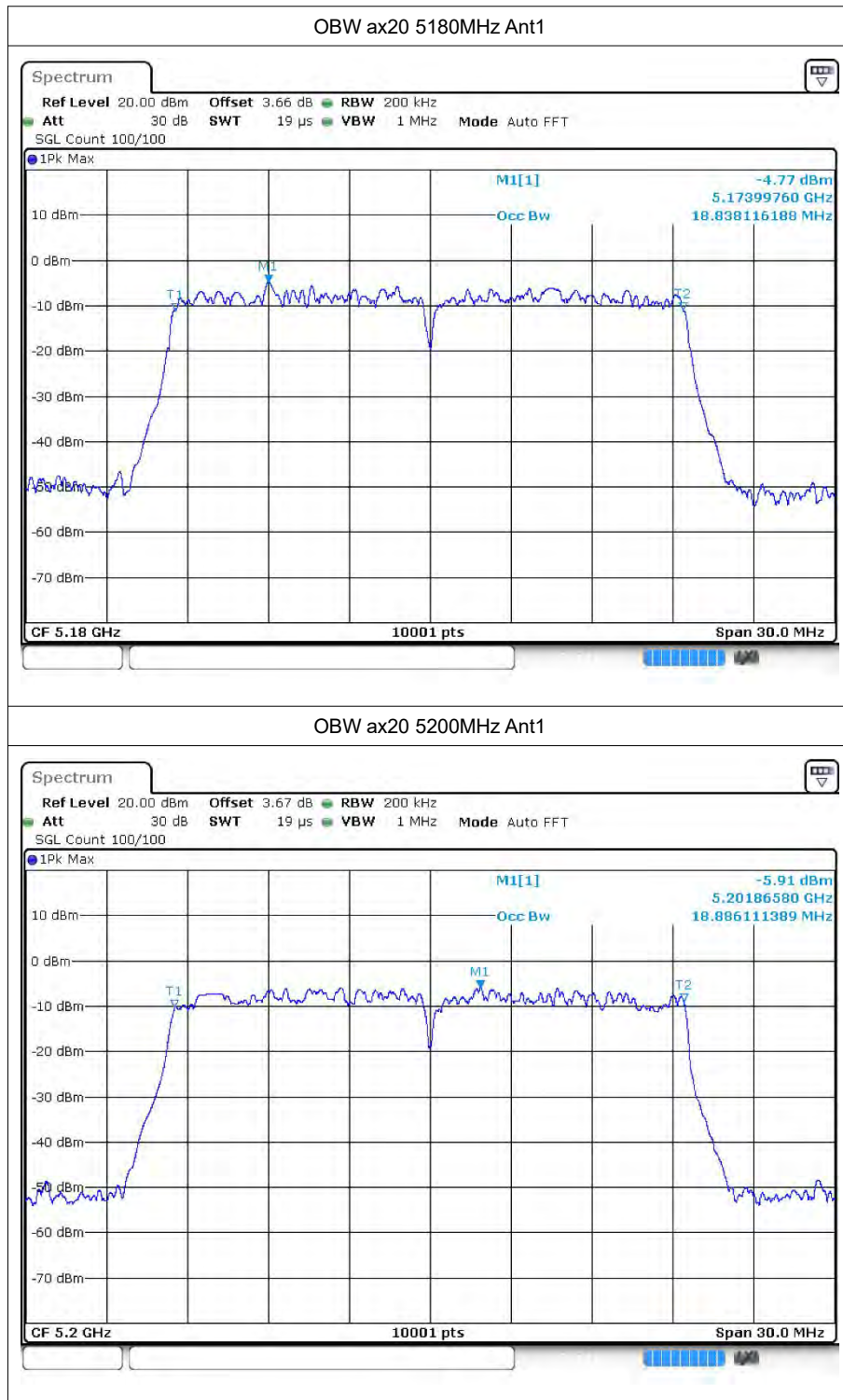
OBWac40 5190MHz Ant1

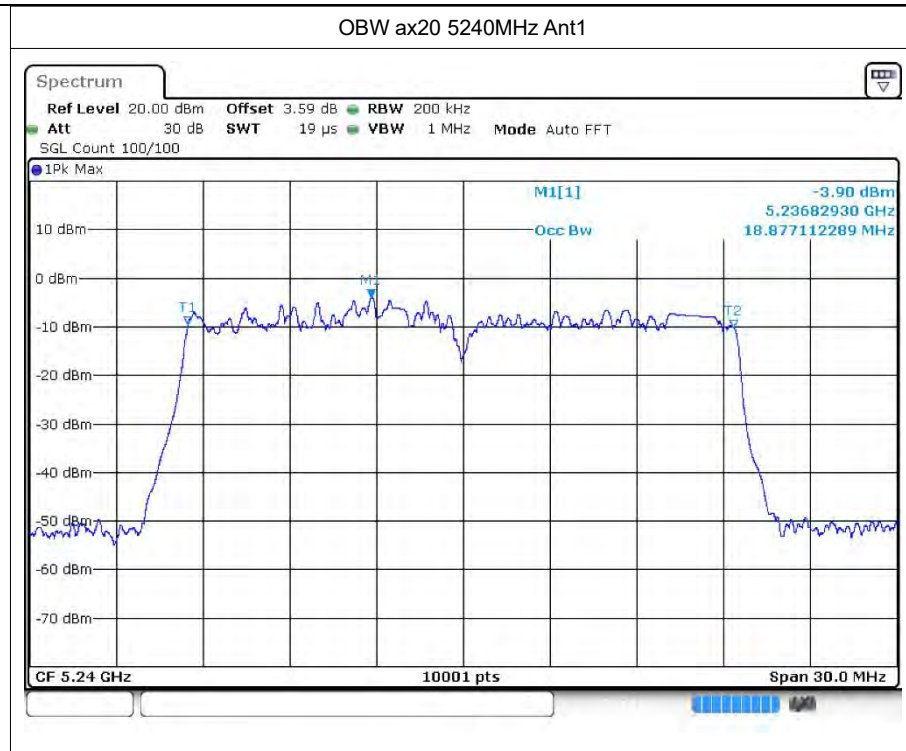


OBWac40 5230MHz Ant1

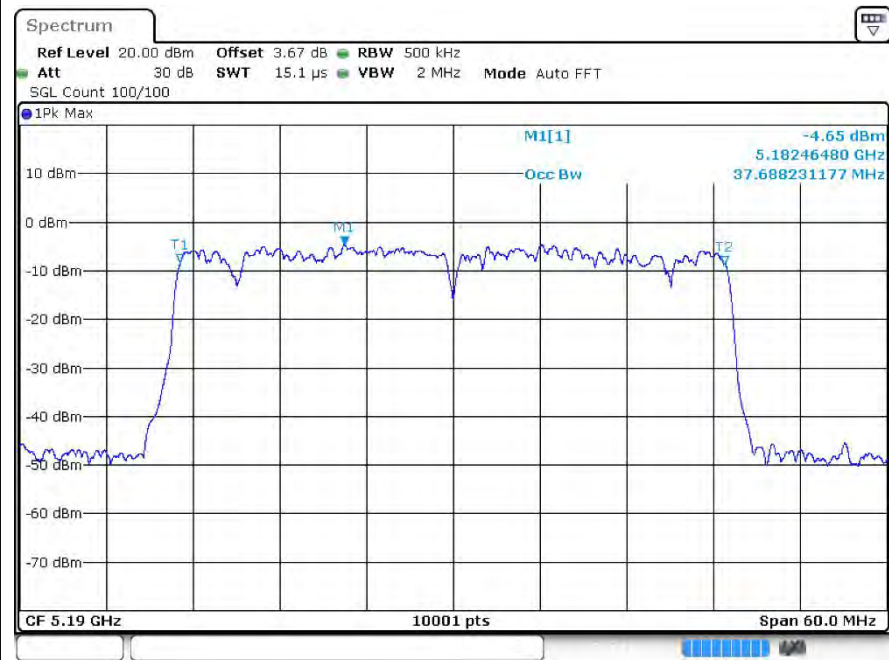




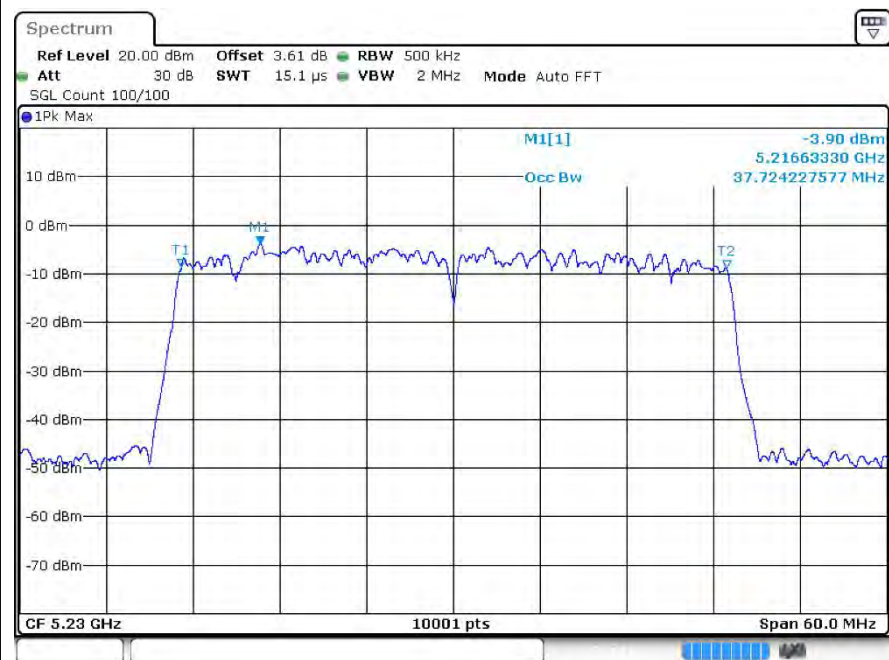


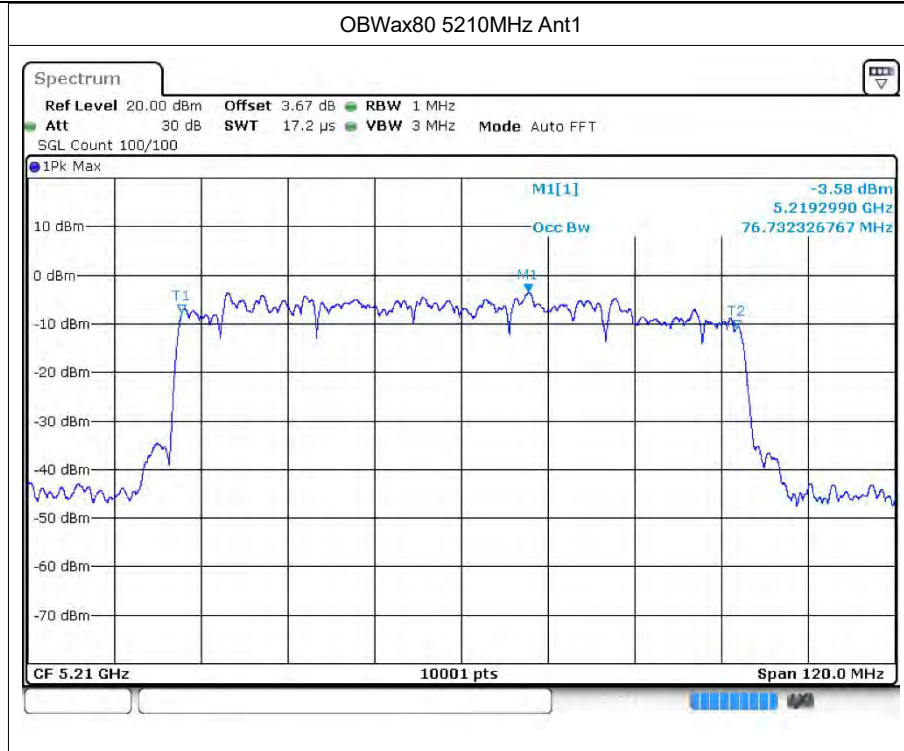


OBWax40 5190MHz Ant1

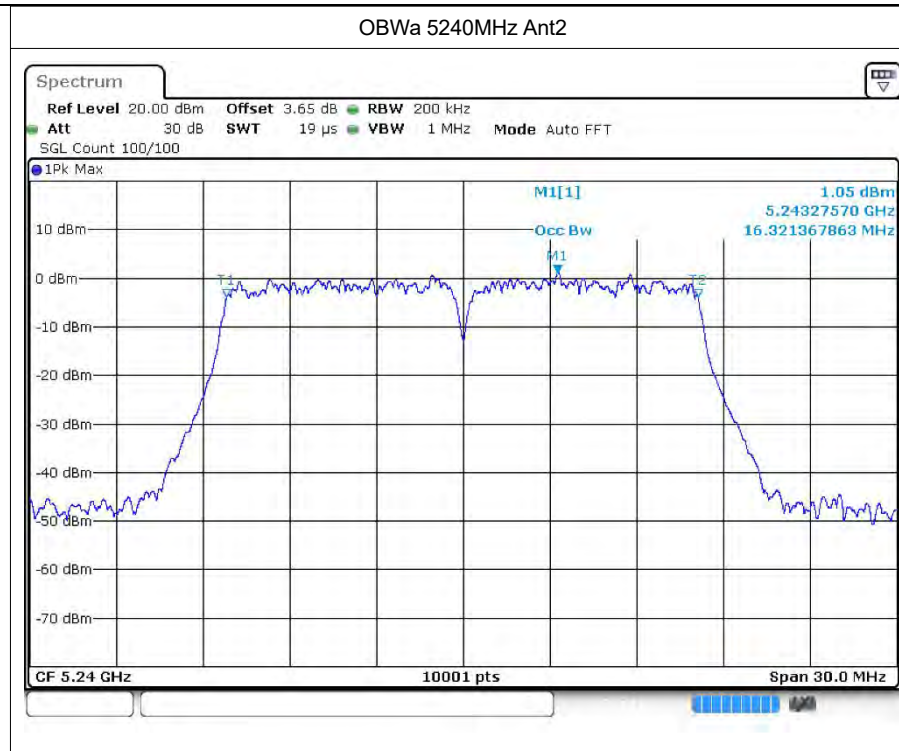


OBWax40 5230MHz Ant1

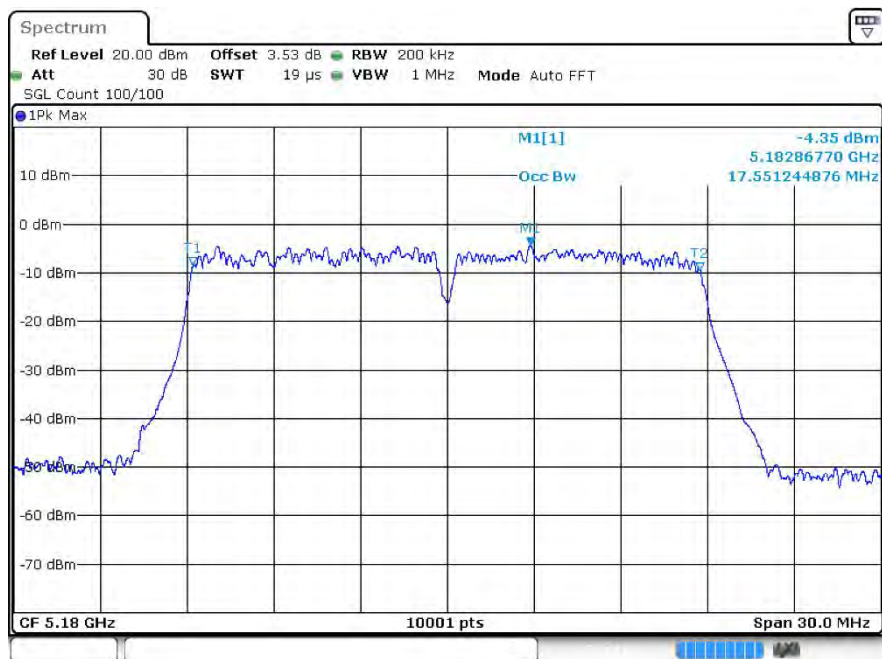




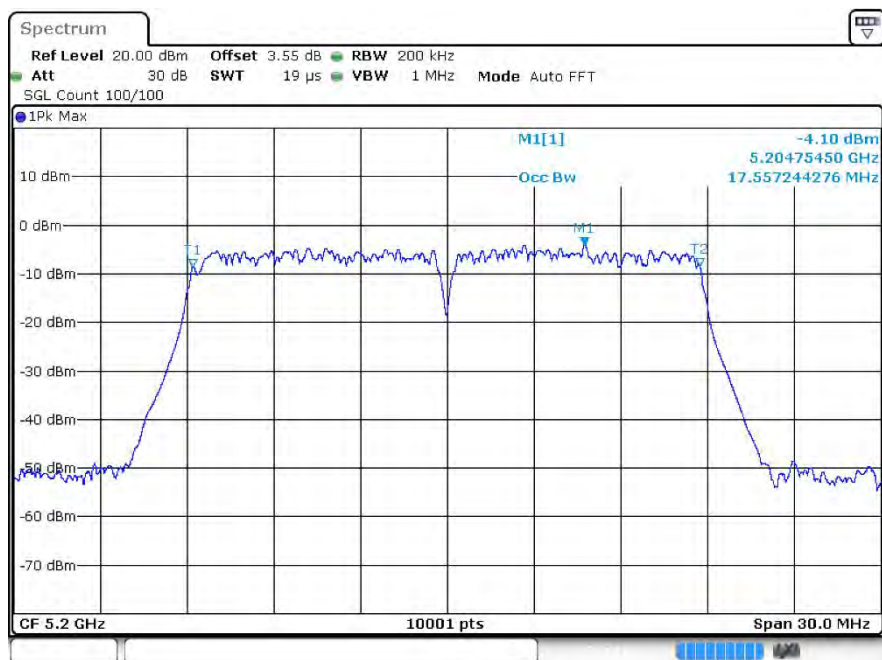


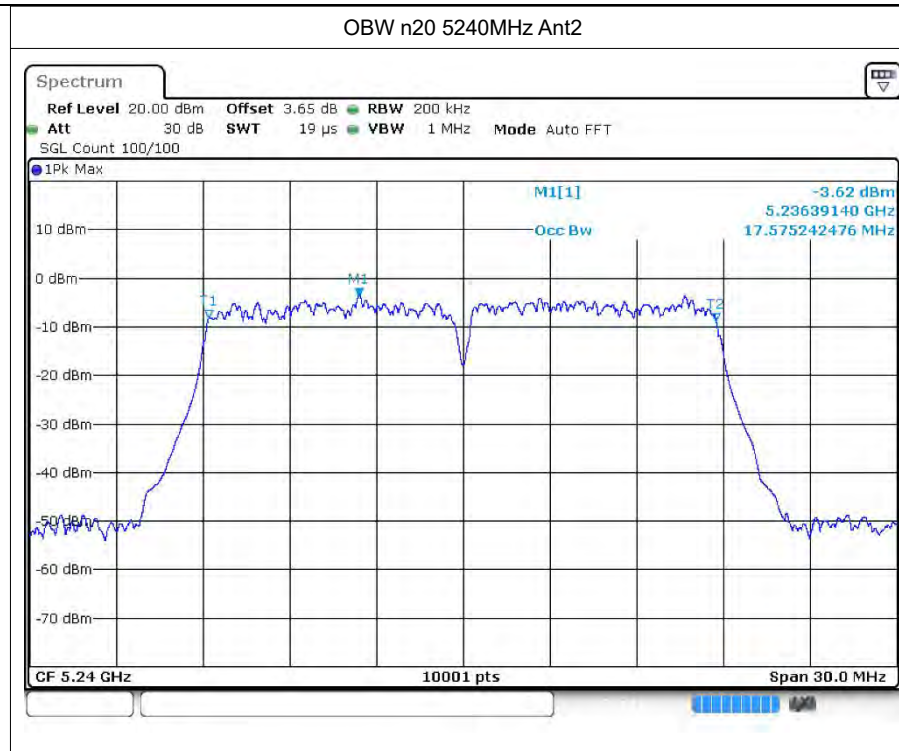


OBW n20 5180MHz Ant2

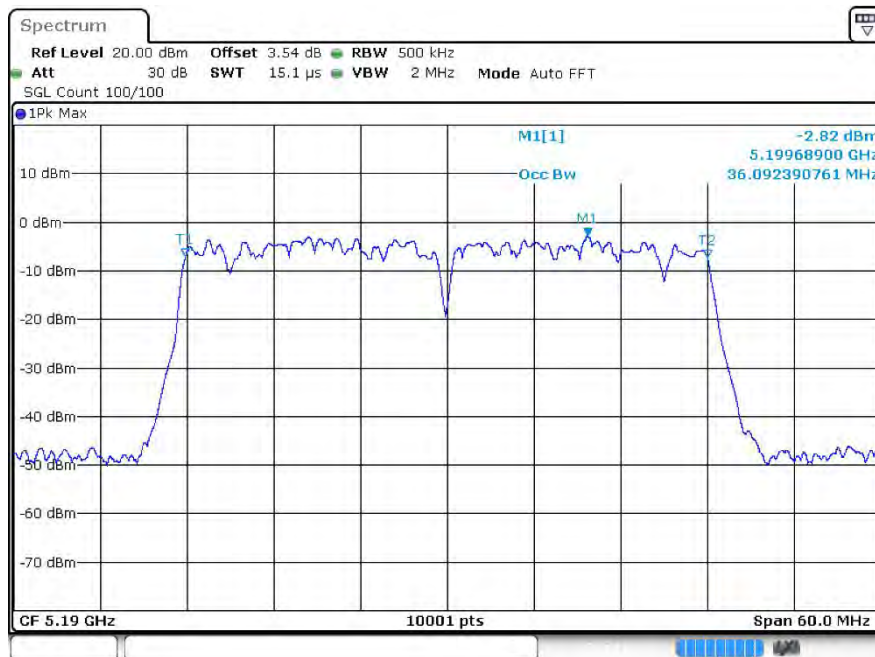


OBW n20 5200MHz Ant2

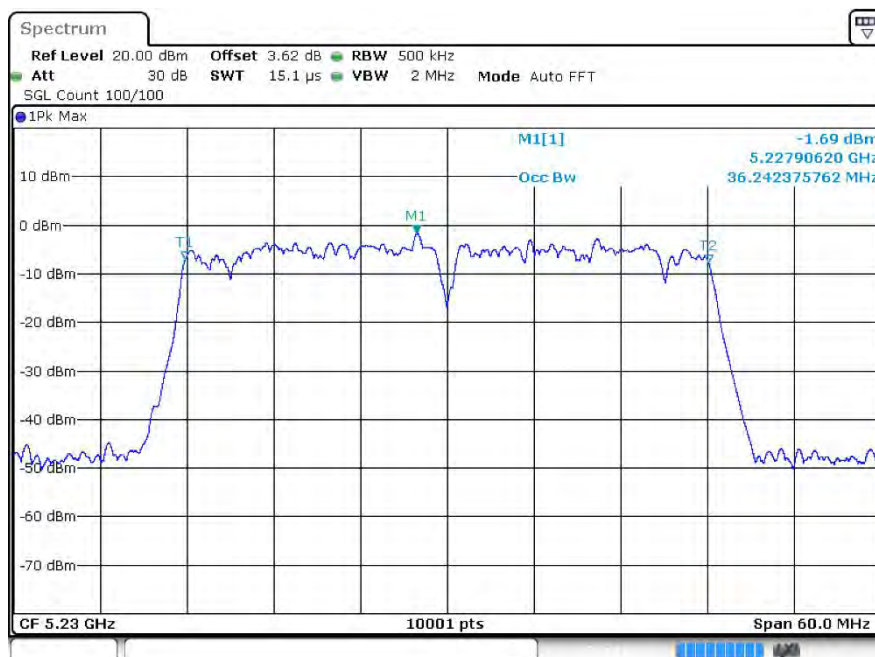




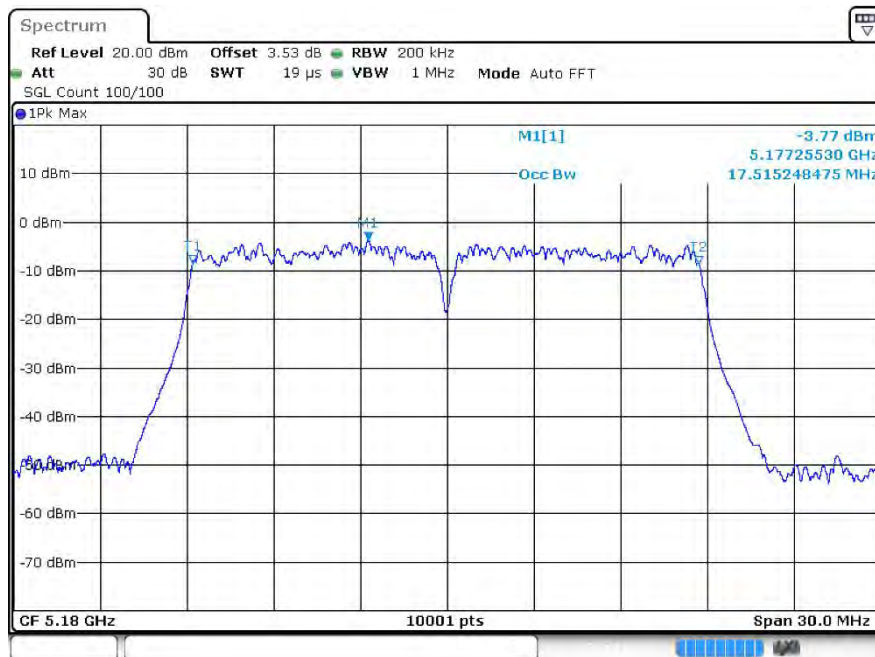
OBWn40 5190MHz Ant2



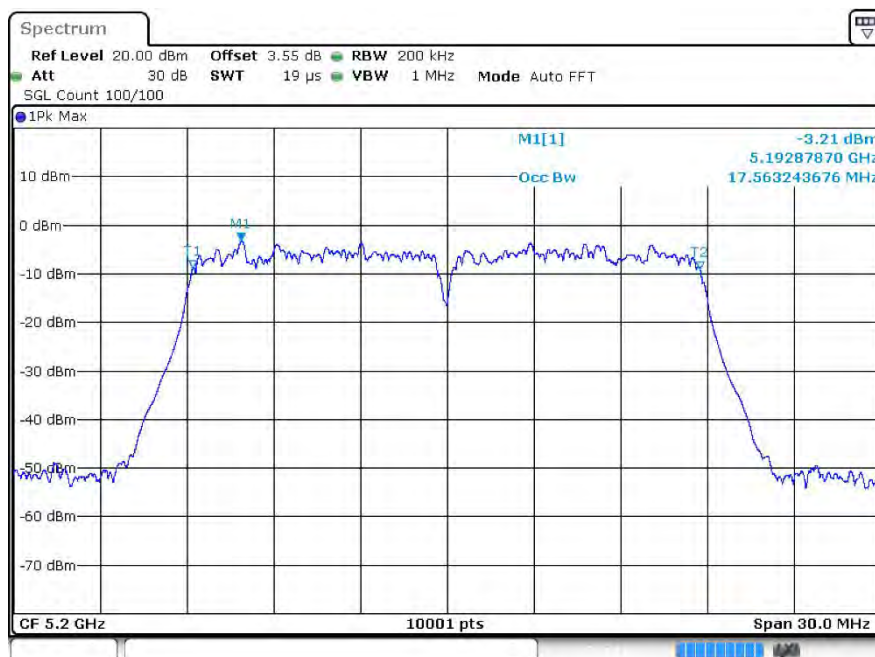
OBWn40 5230MHz Ant2

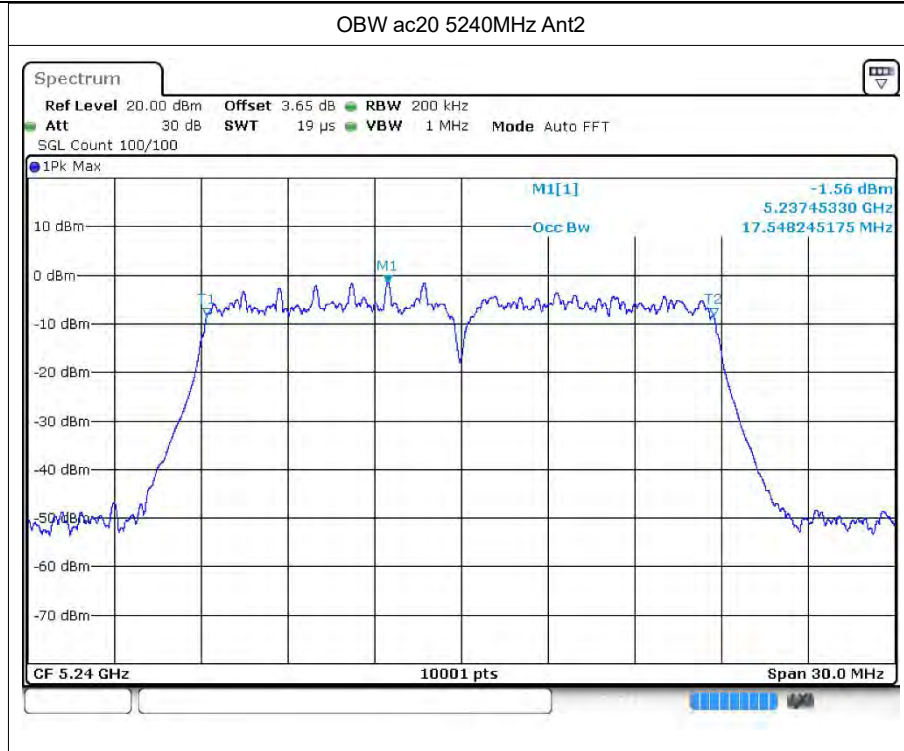


OBW ac20 5180MHz Ant2

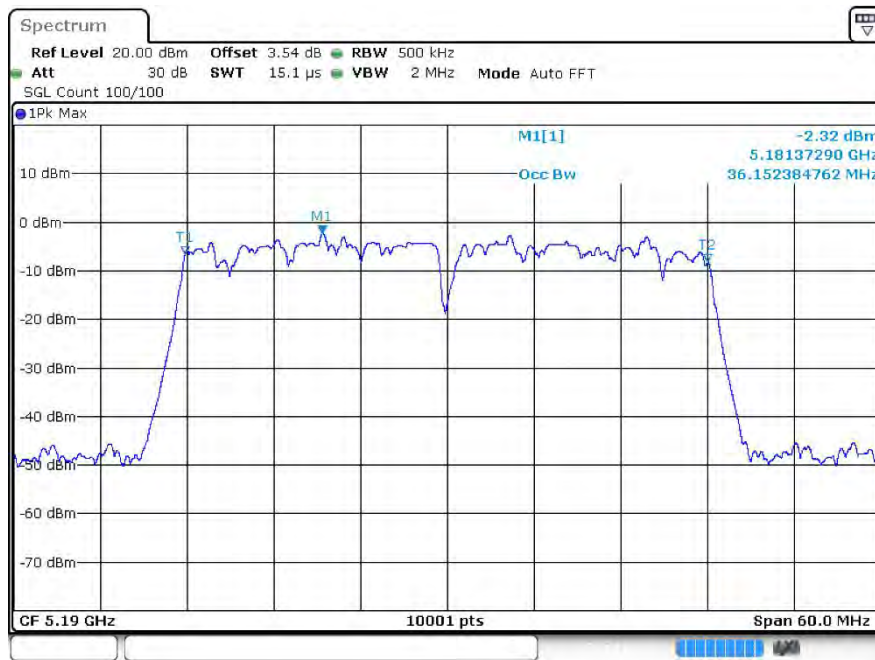


OBW ac20 5200MHz Ant2

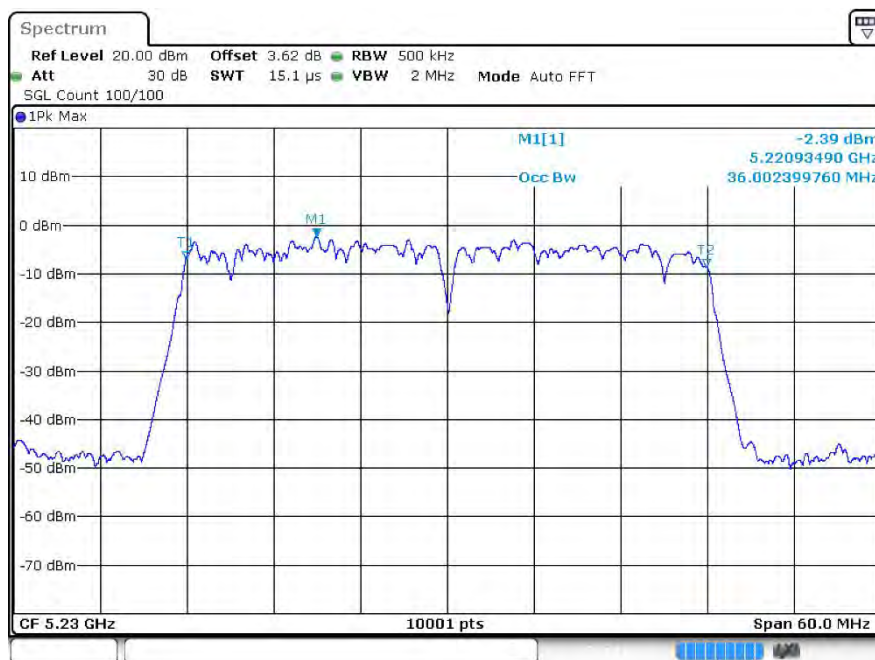


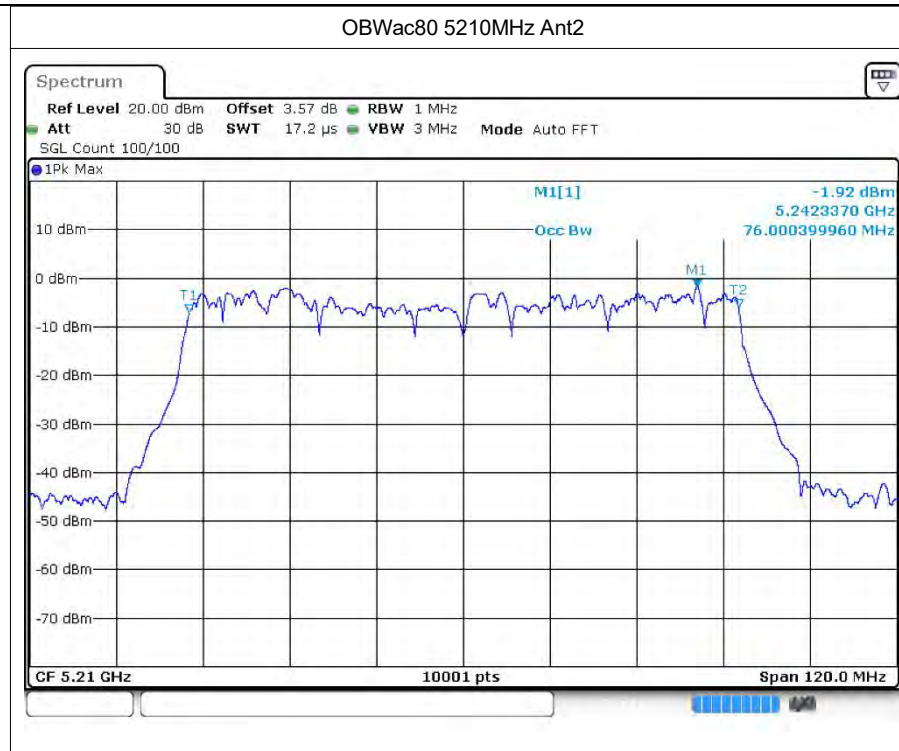


OBWac40 5190MHz Ant2

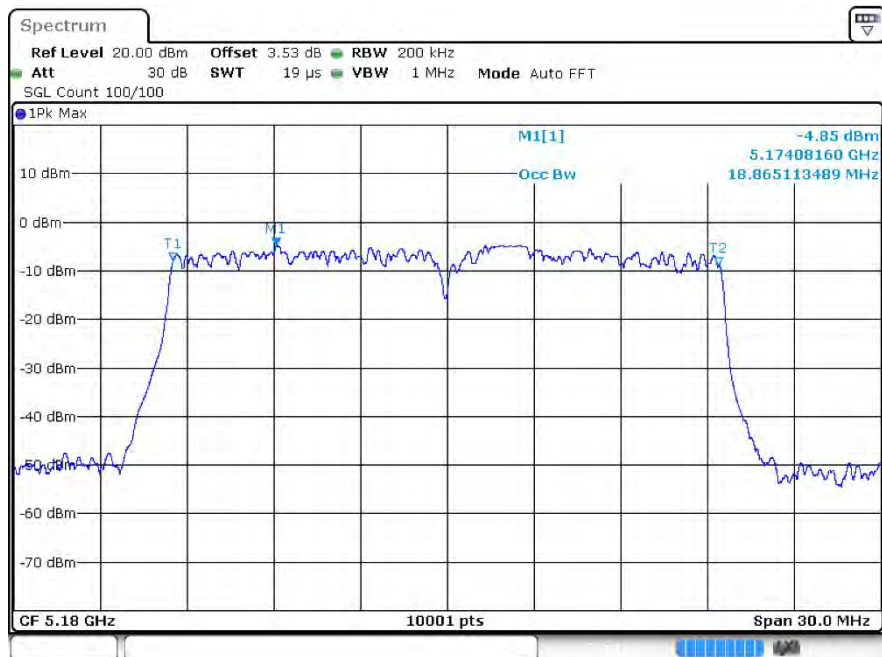


OBWac40 5230MHz Ant2

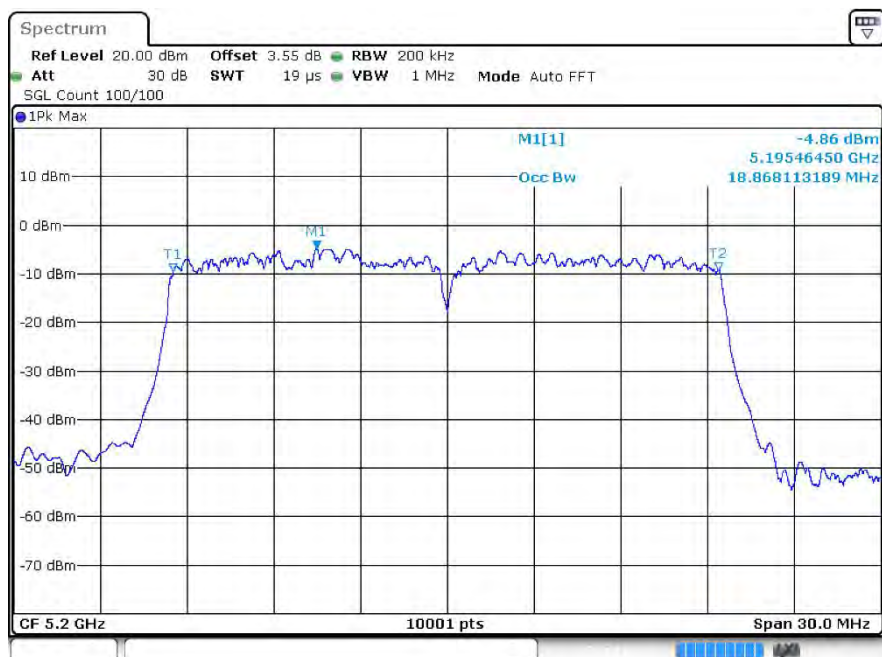


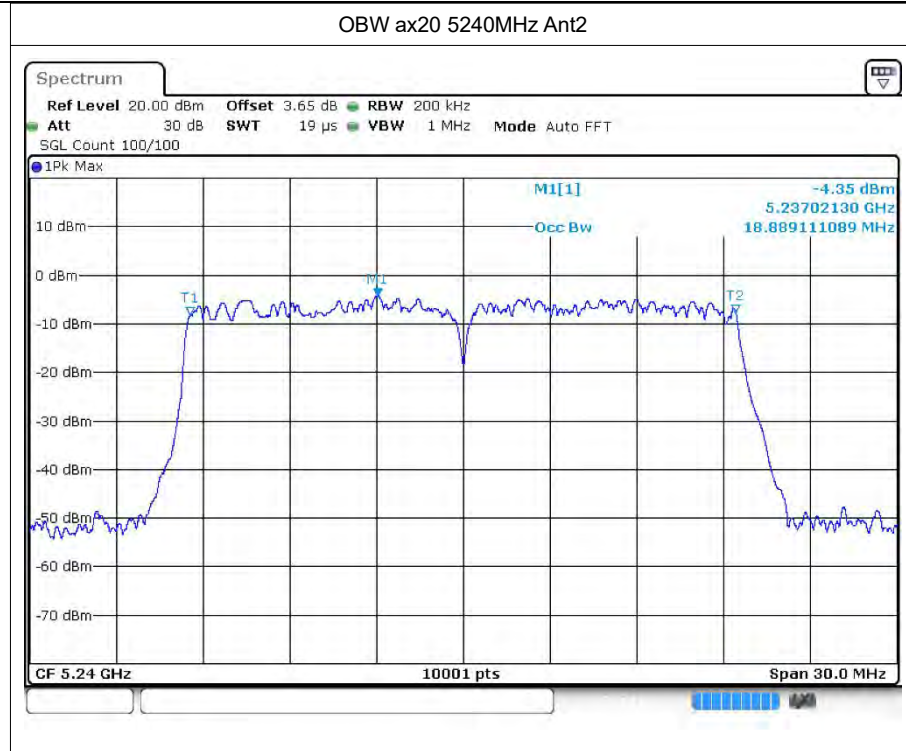


OBW ax20 5180MHz Ant2

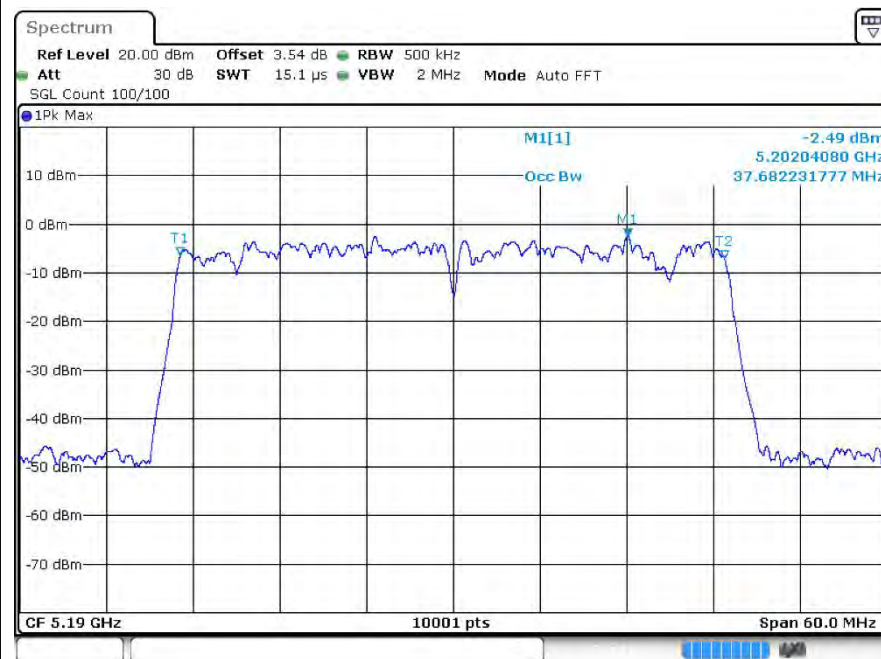


OBW ax20 5200MHz Ant2

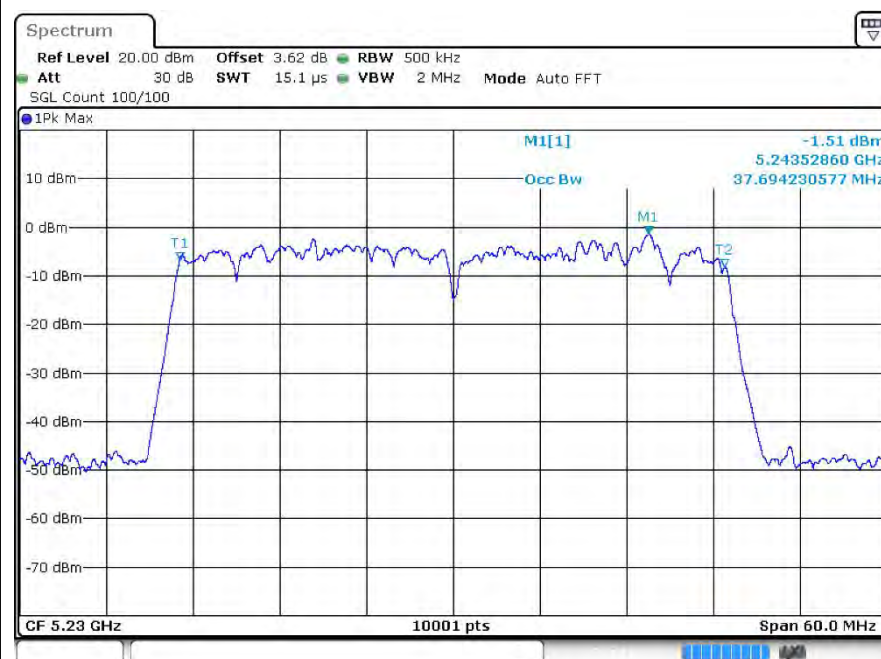


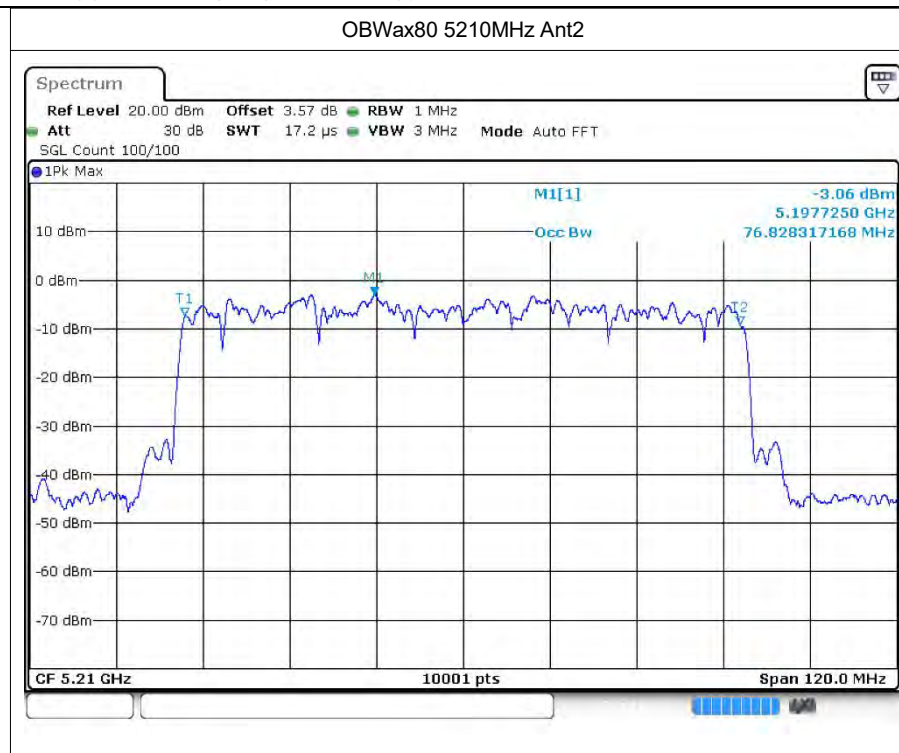


OBWax40 5190MHz Ant2



OBWax40 5230MHz Ant2





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	-3.56	4.51	0.95	11	Pass
a	5200	Ant1	-3.74	4.48	0.74	11	Pass
a	5240	Ant1	-5.09	4.53	-0.56	11	Pass
a	5180	Ant2	-4.42	4.48	0.060	11	Pass
a	5200	Ant2	-3.06	4.5	1.44	11	Pass
a	5240	Ant2	-2.76	4.52	1.76	11	Pass
n20	5180	Ant1	-8.12	4.69	-3.43	11	Pass
n20	5180	Ant2	-7.47	4.6	-2.87	11	Pass
n20	5180	Sum	-	-	-0.13	11	Pass
n20	5200	Ant1	-7.91	4.61	-3.3	11	Pass
n20	5200	Ant2	-7.37	4.75	-2.62	11	Pass
n20	5200	Sum	-	-	0.06	11	Pass
n20	5240	Ant1	-9.19	4.74	-4.45	11	Pass
n20	5240	Ant2	-6.78	4.7	-2.08	11	Pass
n20	5240	Sum	-	-	-0.09	11	Pass
n40	5190	Ant1	-12.9	6.93	-5.97	11	Pass
n40	5190	Ant2	-11.42	6.87	-4.55	11	Pass
n40	5190	Sum	-	-	-2.19	11	Pass
n40	5230	Ant1	-13.34	6.92	-6.42	11	Pass
n40	5230	Ant2	-11.76	6.87	-4.89	11	Pass
n40	5230	Sum	-	-	-2.58	11	Pass
ac20	5180	Ant1	-8.38	4.76	-3.62	11	Pass
ac20	5180	Ant2	-7.64	4.73	-2.91	11	Pass
ac20	5180	Sum	-	-	-0.24	11	Pass
ac20	5200	Ant1	-8.9	4.61	-4.29	11	Pass
ac20	5200	Ant2	-8.05	4.68	-3.37	11	Pass
ac20	5200	Sum	-	-	-0.80	11	Pass
ac20	5240	Ant1	-9.14	4.76	-4.38	11	Pass
ac20	5240	Ant2	-7	4.76	-2.24	11	Pass
ac20	5240	Sum	-	-	-0.17	11	Pass
ac40	5190	Ant1	-13.29	6.9	-6.39	11	Pass
ac40	5190	Ant2	-11.68	6.84	-4.84	11	Pass
ac40	5190	Sum	-	-	-2.54	11	Pass
ac40	5230	Ant1	-13.37	6.89	-6.48	11	Pass
ac40	5230	Ant2	-11.4	6.84	-4.56	11	Pass
ac40	5230	Sum	-	-	-2.40	11	Pass



ac80	5210	Ant1	-14.39	4.64	-9.75	11	Pass
ac80	5210	Ant2	-12.51	4.69	-7.82	11	Pass
ac80	5210	Sum	-	-	-5.67	11	Pass
ax20	5180	Ant1	-9.72	4.97	-4.75	11	Pass
ax20	5180	Ant2	-8.98	4.87	-4.11	11	Pass
ax20	5180	Sum	-	-	-1.41	11	Pass
ax20	5200	Ant1	-10.22	4.97	-5.25	11	Pass
ax20	5200	Ant2	-8.78	4.86	-3.92	11	Pass
ax20	5200	Sum	-	-	-1.52	11	Pass
ax20	5240	Ant1	-11.09	4.97	-6.12	11	Pass
ax20	5240	Ant2	-9.07	4.94	-4.13	11	Pass
ax20	5240	Sum	-	-	-2.00	11	Pass
ax40	5190	Ant1	-11.33	4.38	-6.95	11	Pass
ax40	5190	Ant2	-11.14	4.41	-6.73	11	Pass
ax40	5190	Sum	-	-	-3.83	11	Pass
ax40	5230	Ant1	-12.1	4.43	-7.67	11	Pass
ax40	5230	Ant2	-10.75	4.33	-6.42	11	Pass
ax40	5230	Sum	-	-	-3.99	11	Pass
ax80	5210	Ant1	-14	4.72	-9.28	11	Pass
ax80	5210	Ant2	-14.46	4.91	-9.55	11	Pass
ax80	5210	Sum	-	-	-6.40	11	Pass

5.2 Test Graphs

