

Case No. : <u>CTA24052001004</u>	
Ambient Condition: <u>23</u> °C, <u>55</u> %RH	
According Standard: ■Part15E	
Test Date: <u>2024.4.27</u>	Test Engineer: <u>Evan ouyang</u>

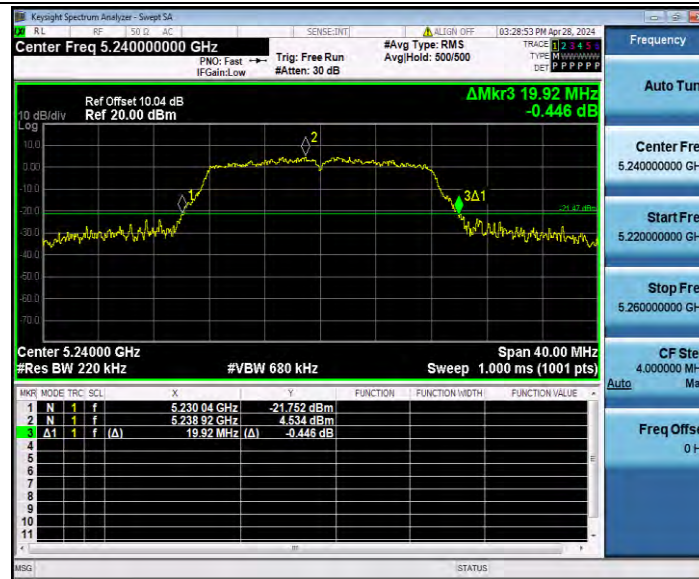
Appendix D.1: Emission Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	26db EBW [MHz]	FL[MHz]	FH[MHz]
11A	Ant1	5180	19.880	5170.080	5189.960
		5200	20.080	5189.960	5210.040
		5240	19.920	5230.040	5249.960
11N20SISO	Ant1	5180	23.960	5167.400	5191.360
		5200	20.280	5189.920	5210.200
		5240	20.400	5229.880	5250.280
11N40SISO	Ant1	5190	40.640	5169.760	5210.400
		5230	41.040	5209.680	5250.720
11AC20SISO	Ant1	5180	20.320	5169.800	5190.120
		5200	20.280	5189.920	5210.200
		5240	20.360	5229.880	5250.240
11AC40SISO	Ant1	5190	40.640	5169.680	5210.320
		5230	40.320	5209.840	5250.160
11AC80SISO	Ant1	5210	81.120	5169.520	5250.640

Test Graphs

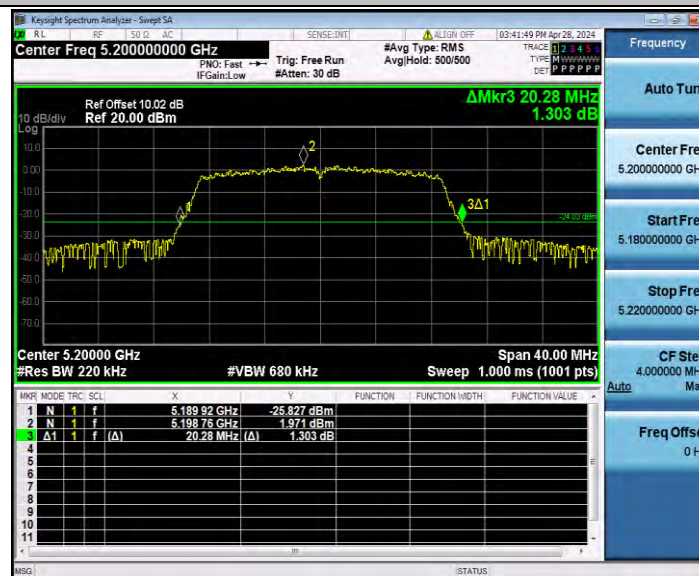




11N20SISO_Ant1_5180



11N20SISO_Ant1_5200



11N20SISO_Ant1_5240



11N40SISO_Ant1_5190



11N40SISO_Ant1_5230



11AC20SISO_Ant1_5240



11AC40SISO_Ant1_5190



11AC40SISO_Ant1_5230

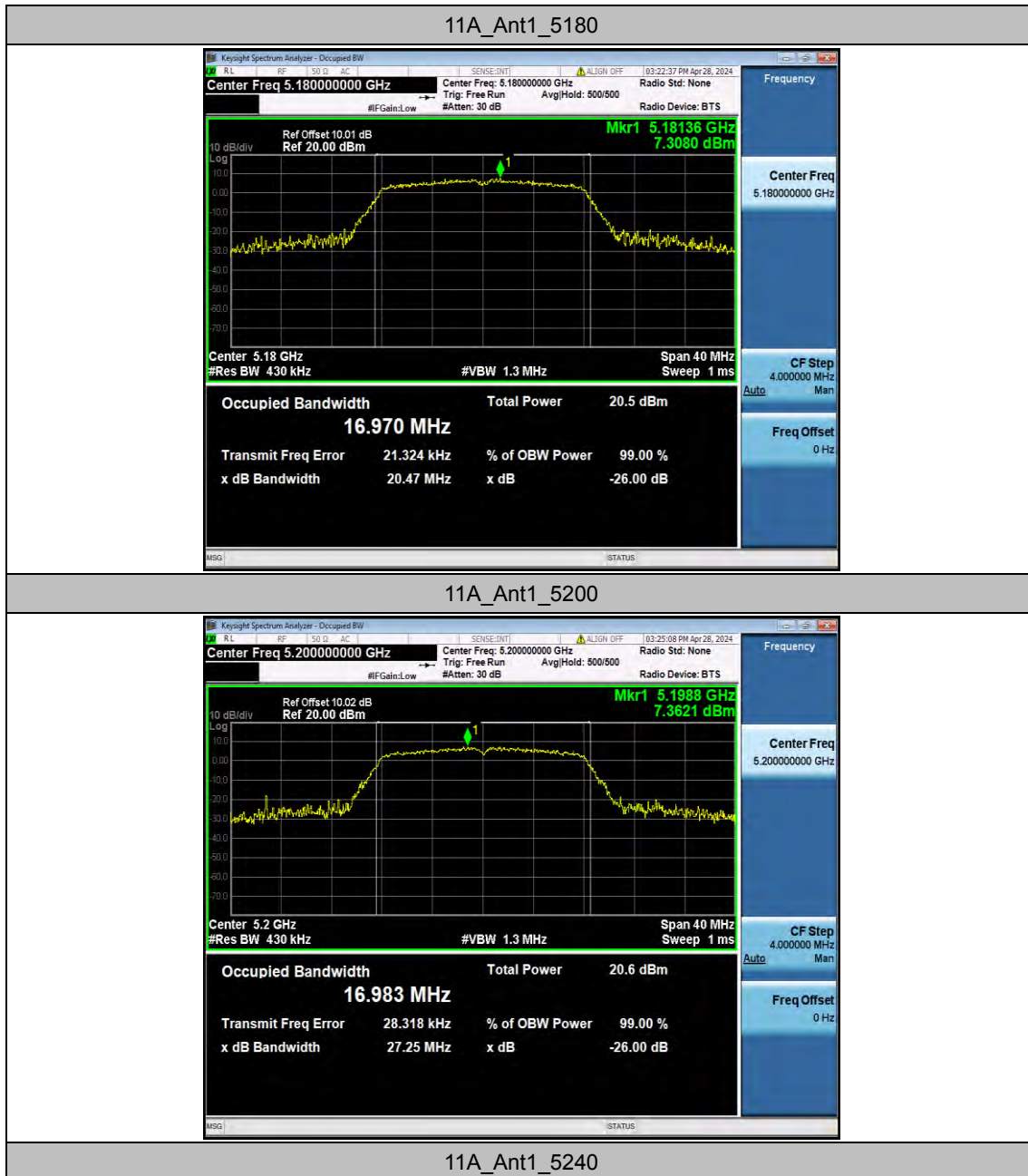


Appendix D.2: Occupied channel bandwidth

Test Result

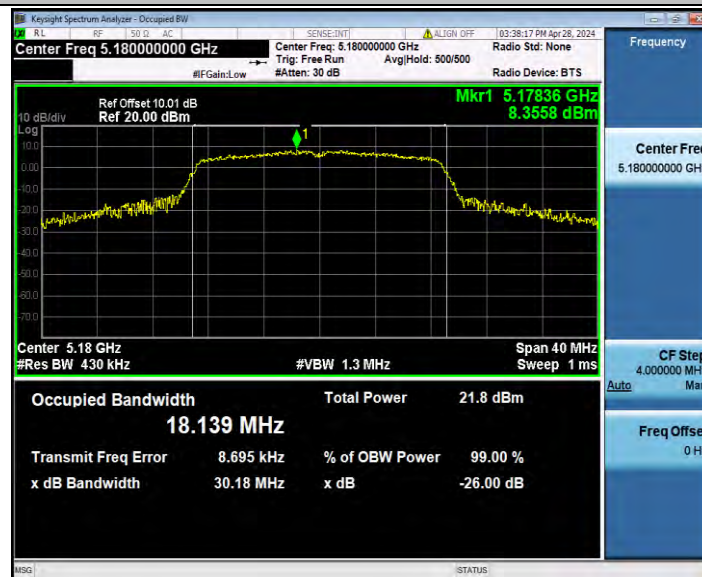
TestMode	Antenna	Freq(MHz)	OCB [MHz]	FL[MHz]	FH[MHz]
11A	Ant1	5180	16.970	5171.5363	5188.5063
		5200	16.983	5191.5368	5208.5198
		5240	17.025	5231.4803	5248.5053
11N20SISO	Ant1	5180	18.139	5170.9392	5189.0782
		5200	17.916	5191.0609	5208.9769
		5240	17.898	5231.0324	5248.9304
11N40SISO	Ant1	5190	36.463	5171.8477	5208.3107
		5230	36.385	5211.8318	5248.2168
11AC20SISO	Ant1	5180	17.848	5171.0783	5188.9263
		5200	17.929	5191.0497	5208.9787
		5240	17.905	5231.0662	5248.9712
11AC40SISO	Ant1	5190	36.288	5171.9347	5208.2227
		5230	36.264	5211.8493	5248.1133
11AC80SISO	Ant1	5210	75.207	5172.5199	5247.7269

Test Graphs

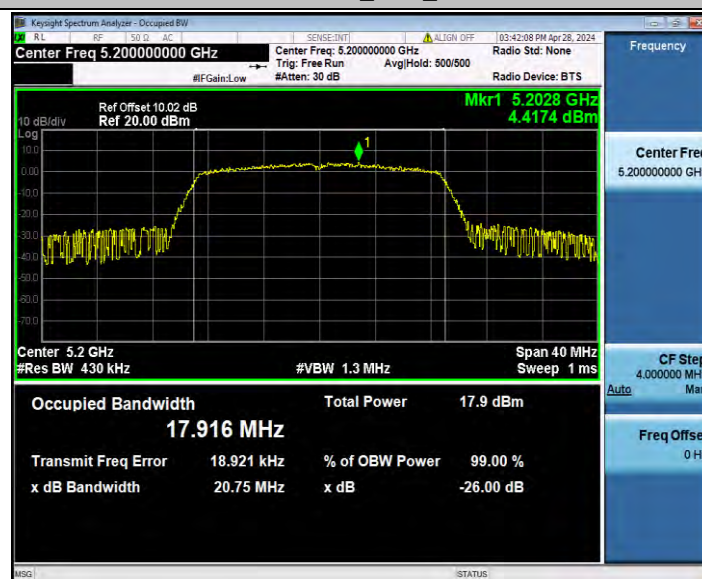




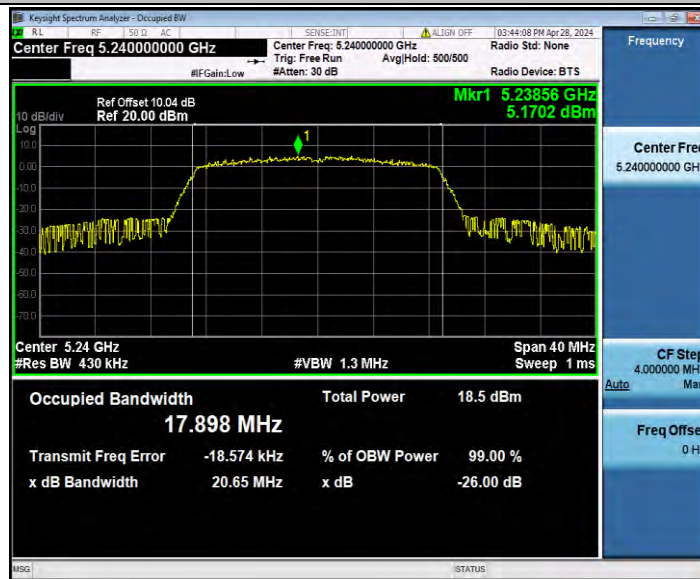
11N20SISO_Ant1_5180



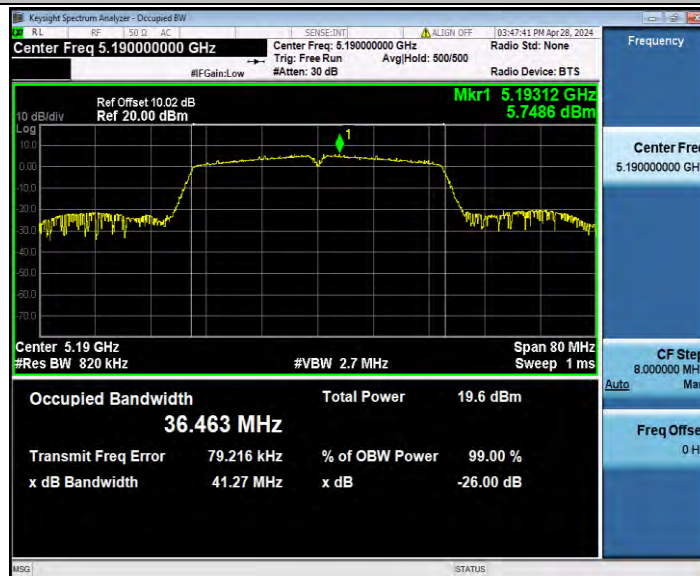
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11N20SISO_Ant1_5240



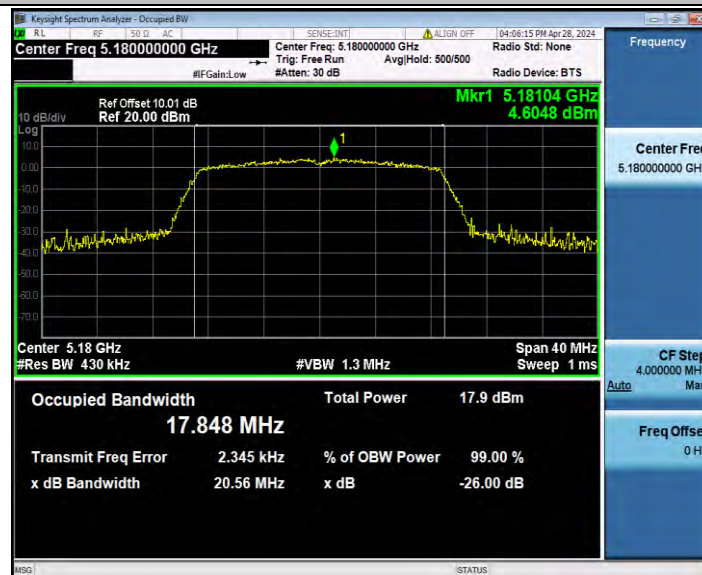
11N40SISO_Ant1_5190



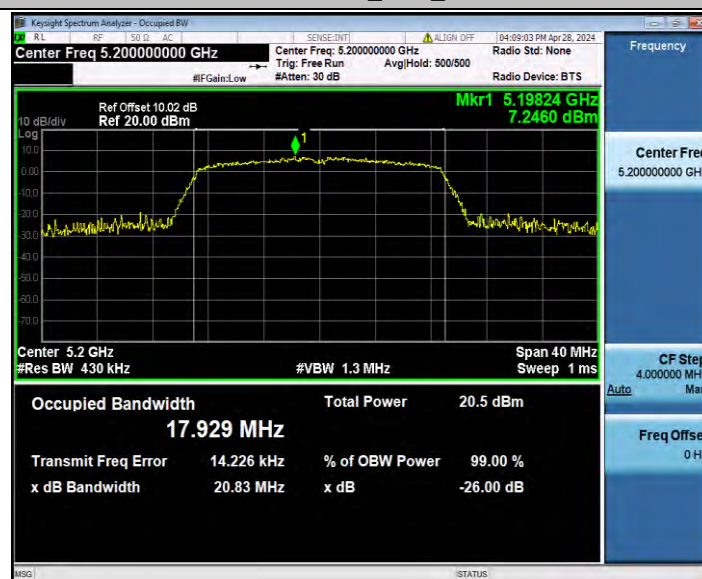
11N40SISO_Ant1_5230



11AC20SISO_Ant1_5180



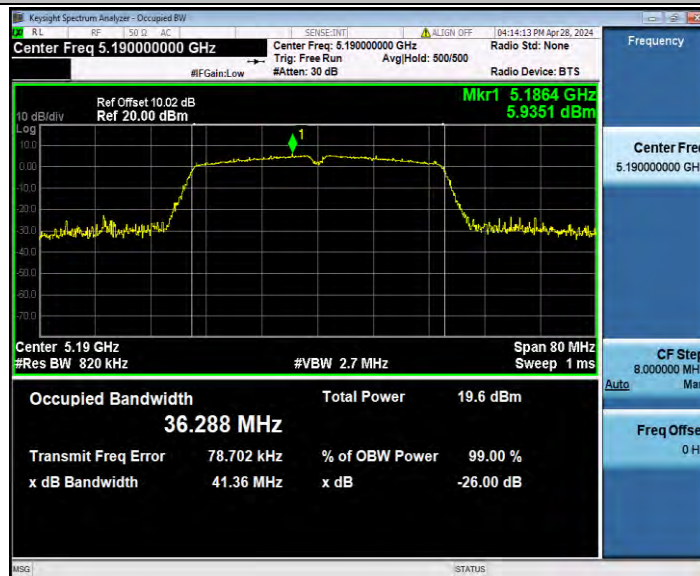
11AC20SISO_Ant1_5200



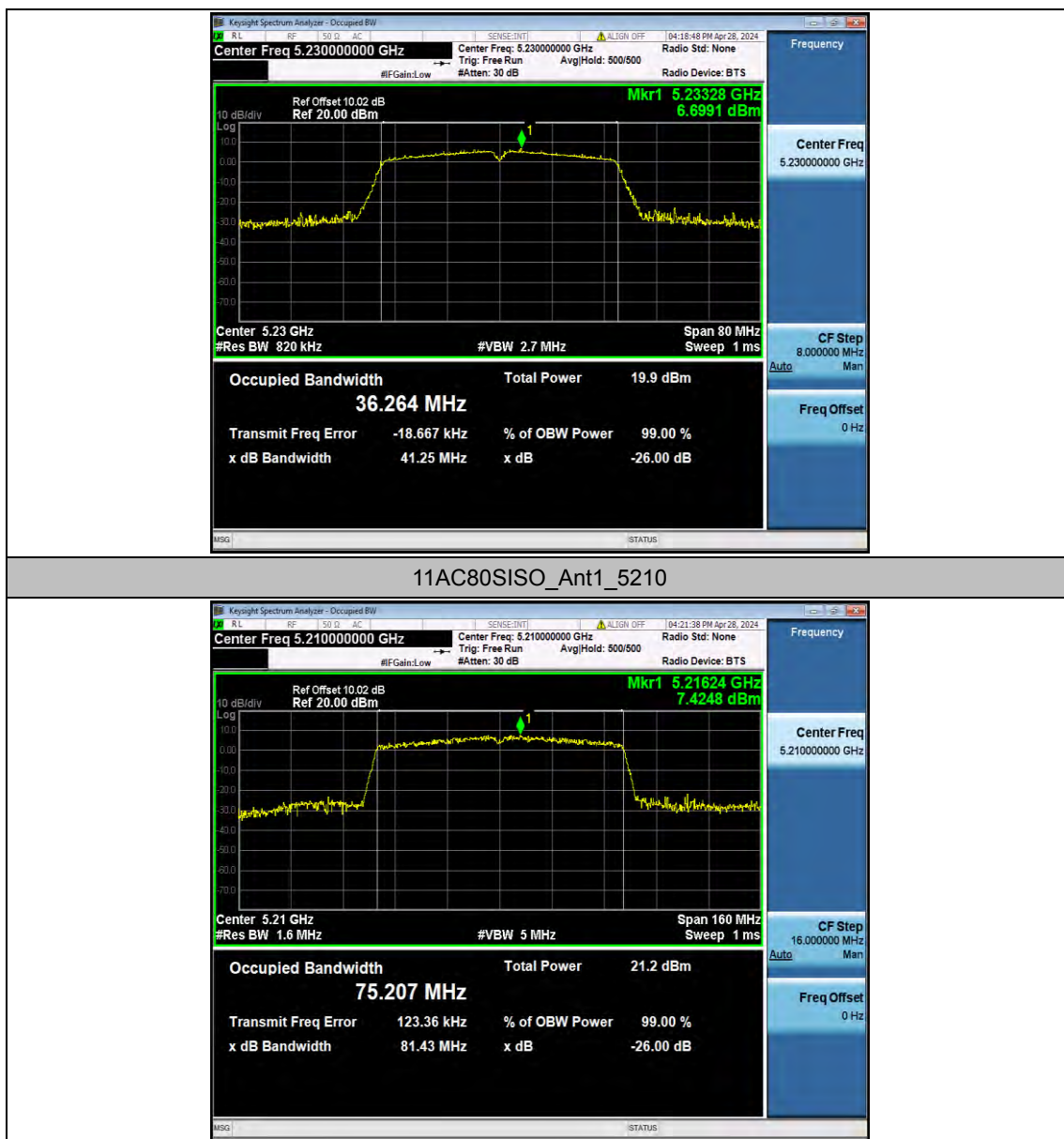
11AC20SISO_Ant1_5240



11AC40SISO_Ant1_5190



11AC40SISO_Ant1_5230

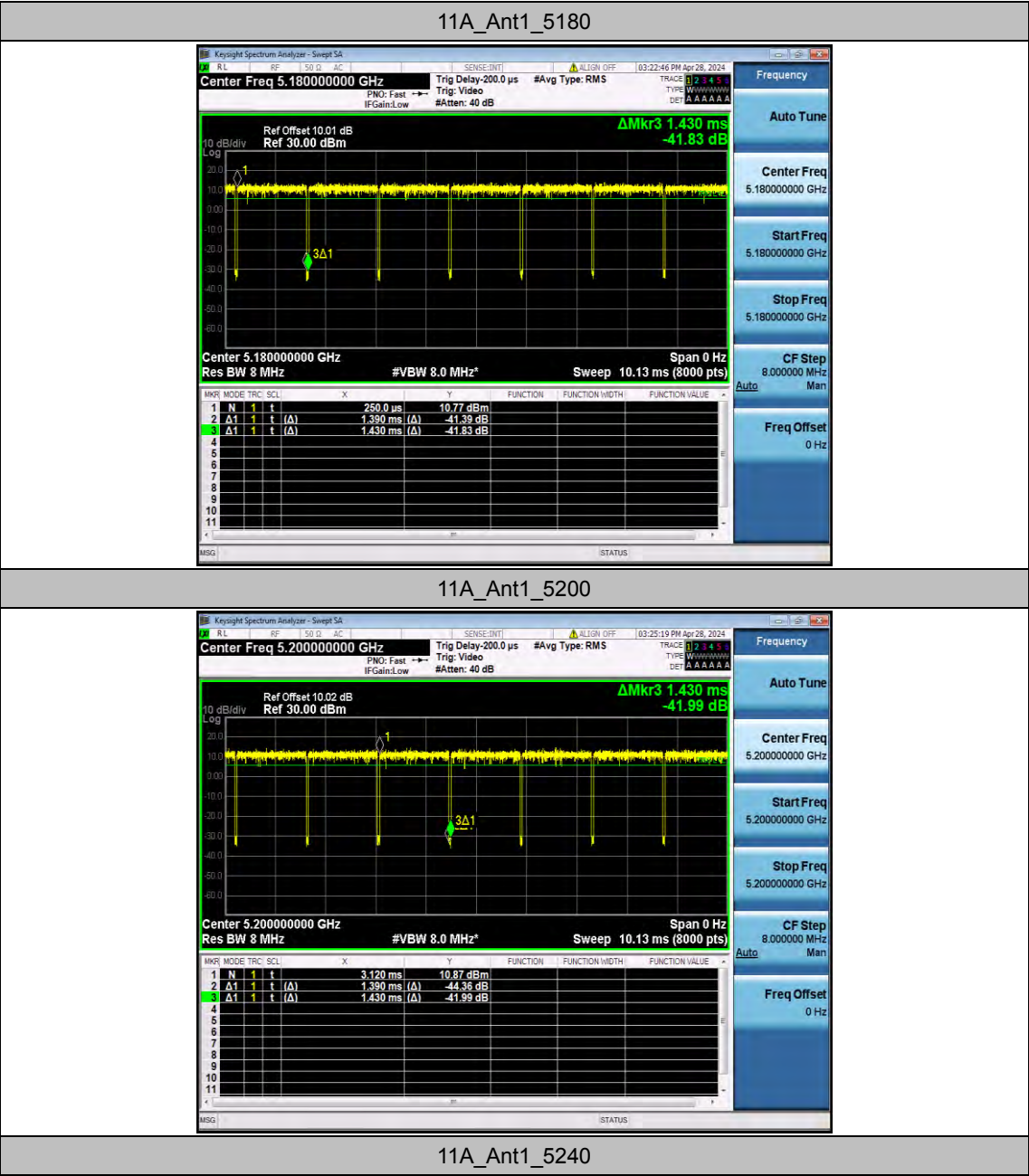


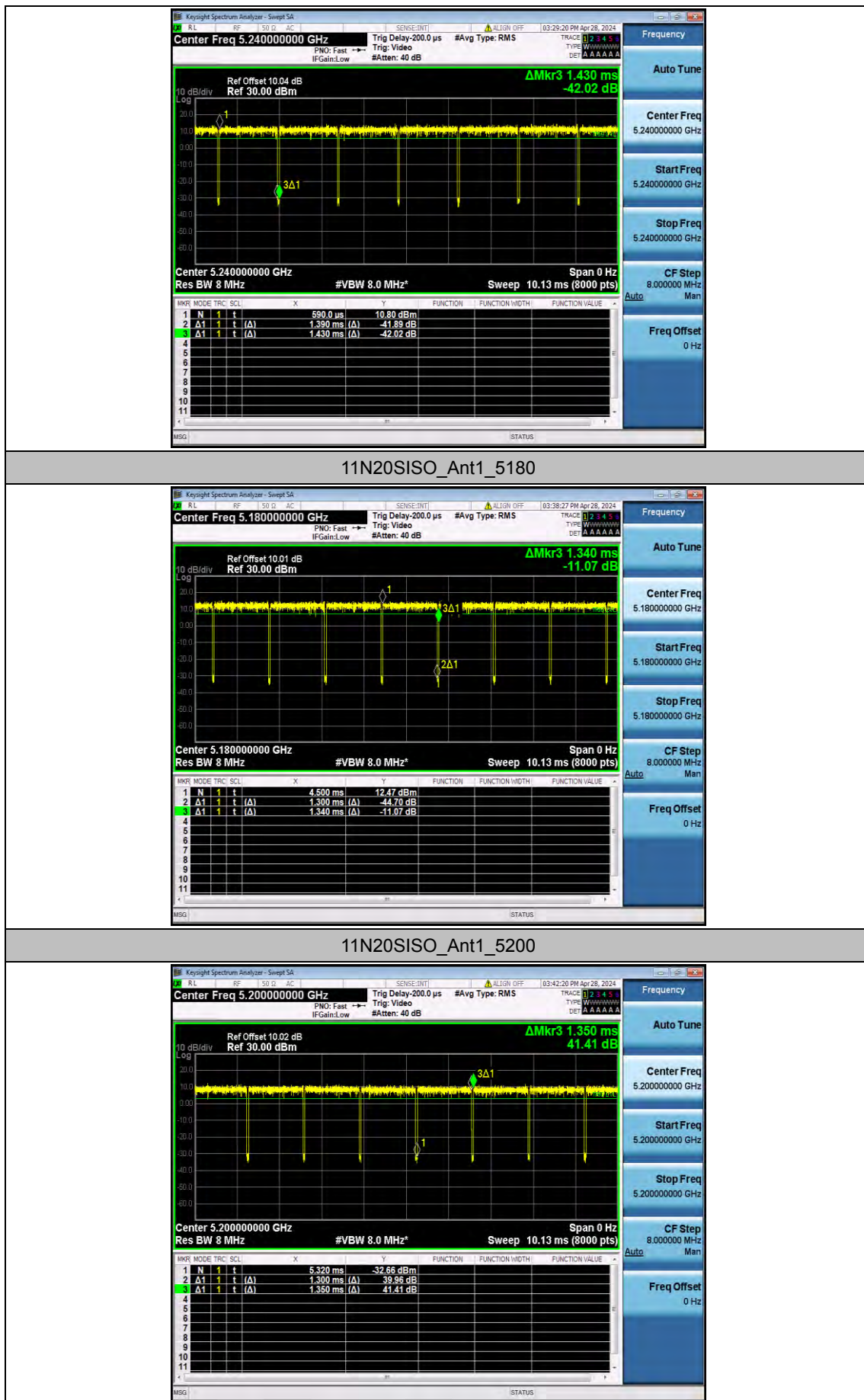
Appendix D.3: Duty Cycle

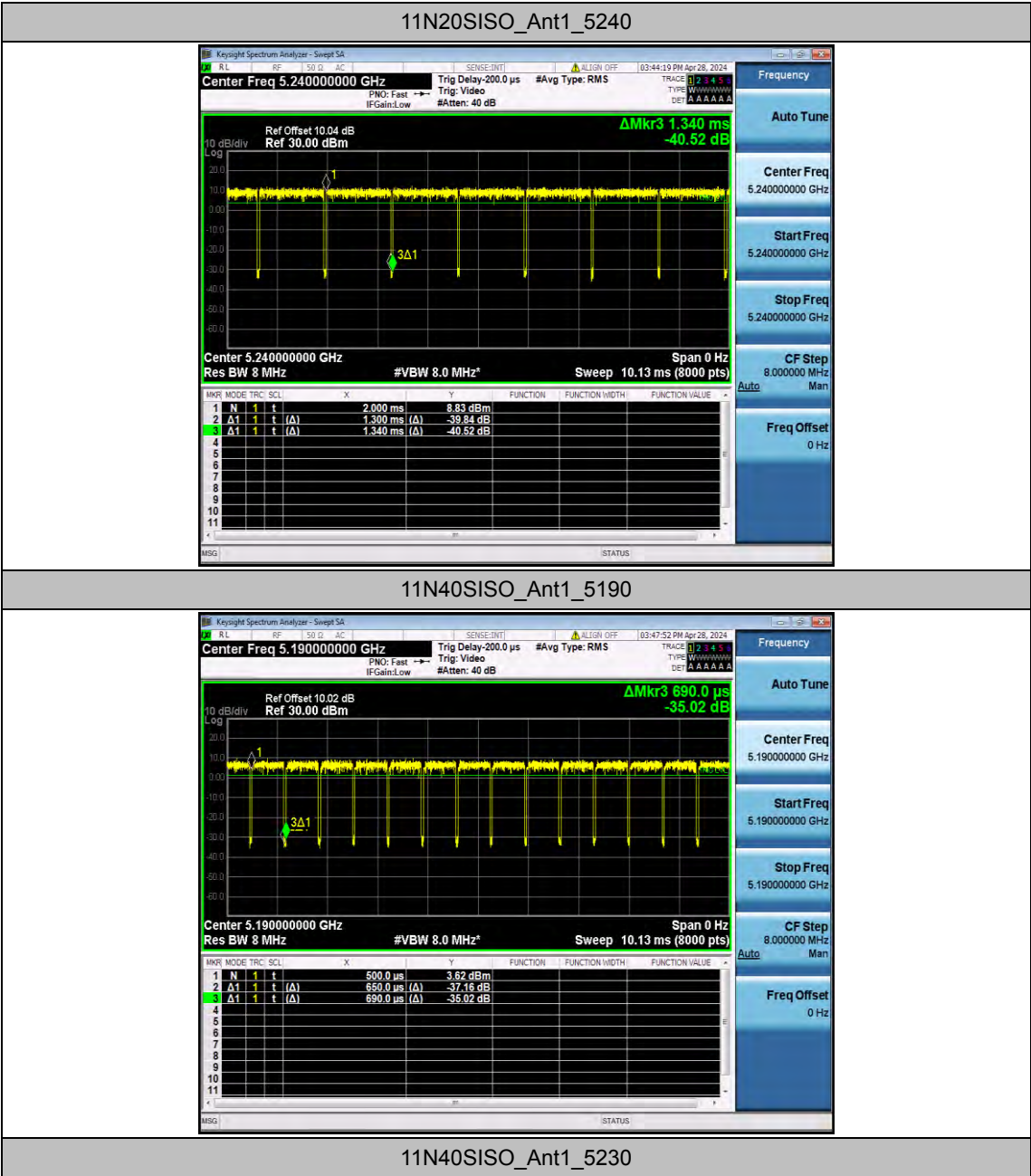
Test Result

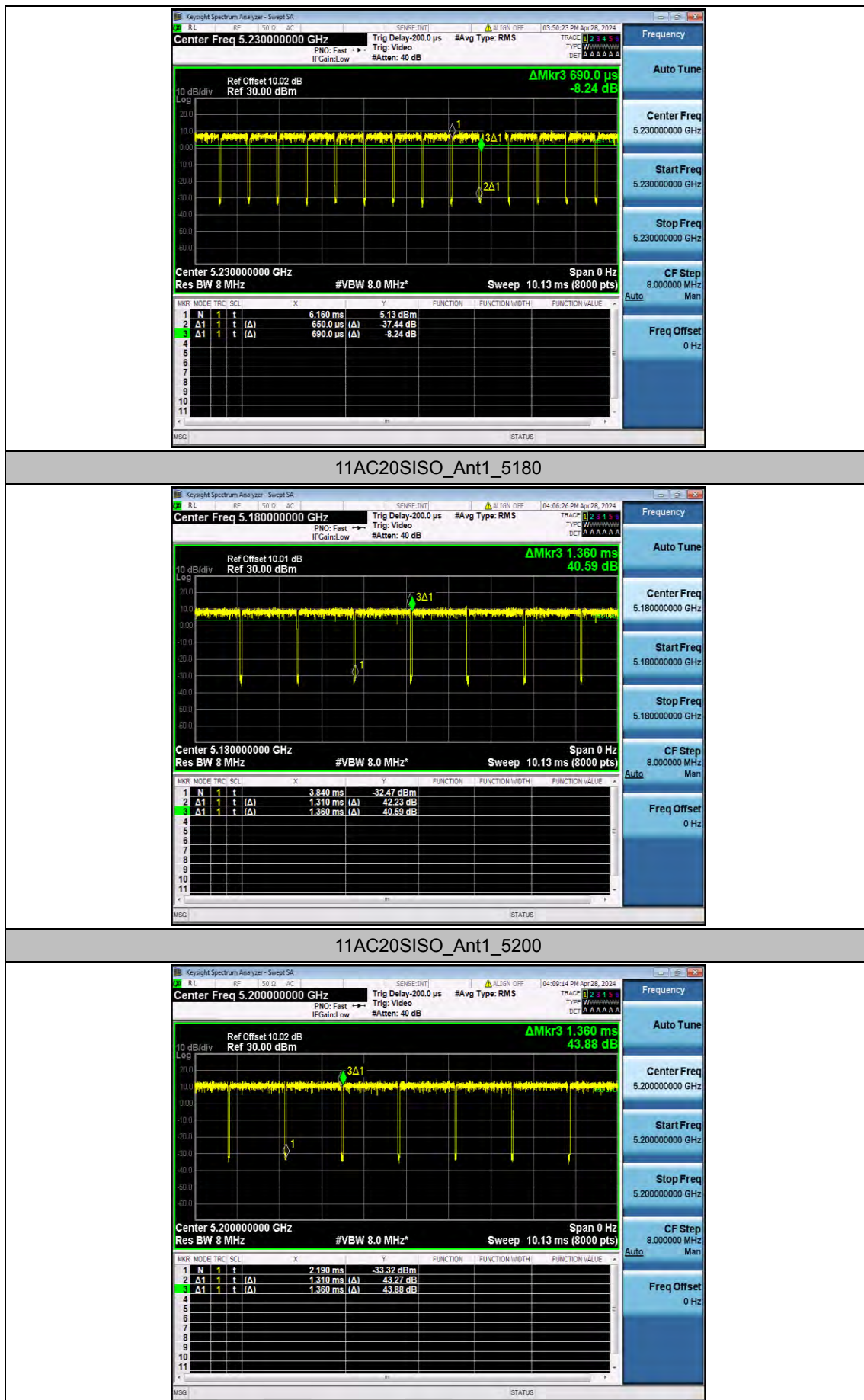
TestMode	Antenna	Freq(MHz)	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	Duty Cycle Factor[dB]	1/T Factor[KHz]
11A	Ant1	5180	1.39	1.43	97.20	0.12	0.72
		5200	1.39	1.43	97.20	0.12	0.72
		5240	1.39	1.43	97.20	0.12	0.72
11N20SISO	Ant1	5180	1.30	1.34	97.01	0.13	0.77
		5200	1.30	1.35	96.30	0.16	0.77
		5240	1.30	1.34	97.01	0.13	0.77
11N40SISO	Ant1	5190	0.65	0.69	94.20	0.26	1.54
		5230	0.65	0.69	94.20	0.26	1.54
11AC20SISO	Ant1	5180	1.31	1.36	96.32	0.16	0.76
		5200	1.31	1.36	96.32	0.16	0.76
		5240	1.31	1.35	97.04	0.13	0.76
11AC40SISO	Ant1	5190	0.65	0.69	94.20	0.26	1.54
		5230	0.65	0.70	92.86	0.32	1.54
11AC80SISO	Ant1	5210	0.32	0.36	88.89	0.51	3.13

Test Graphs

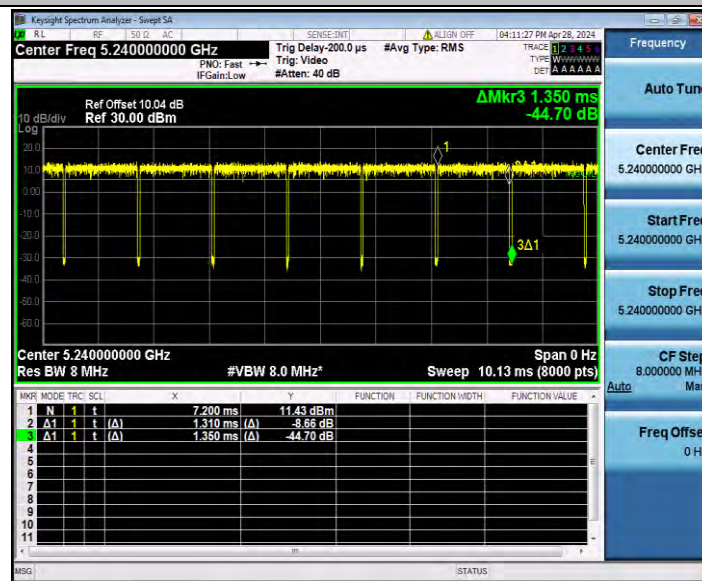




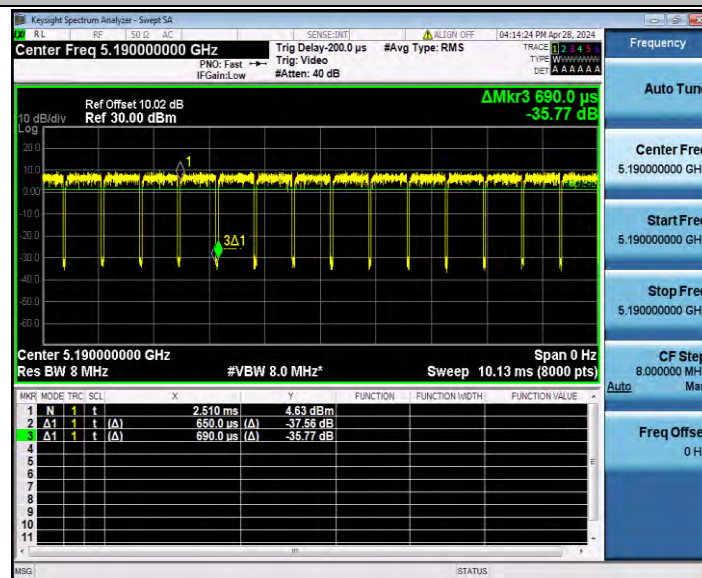




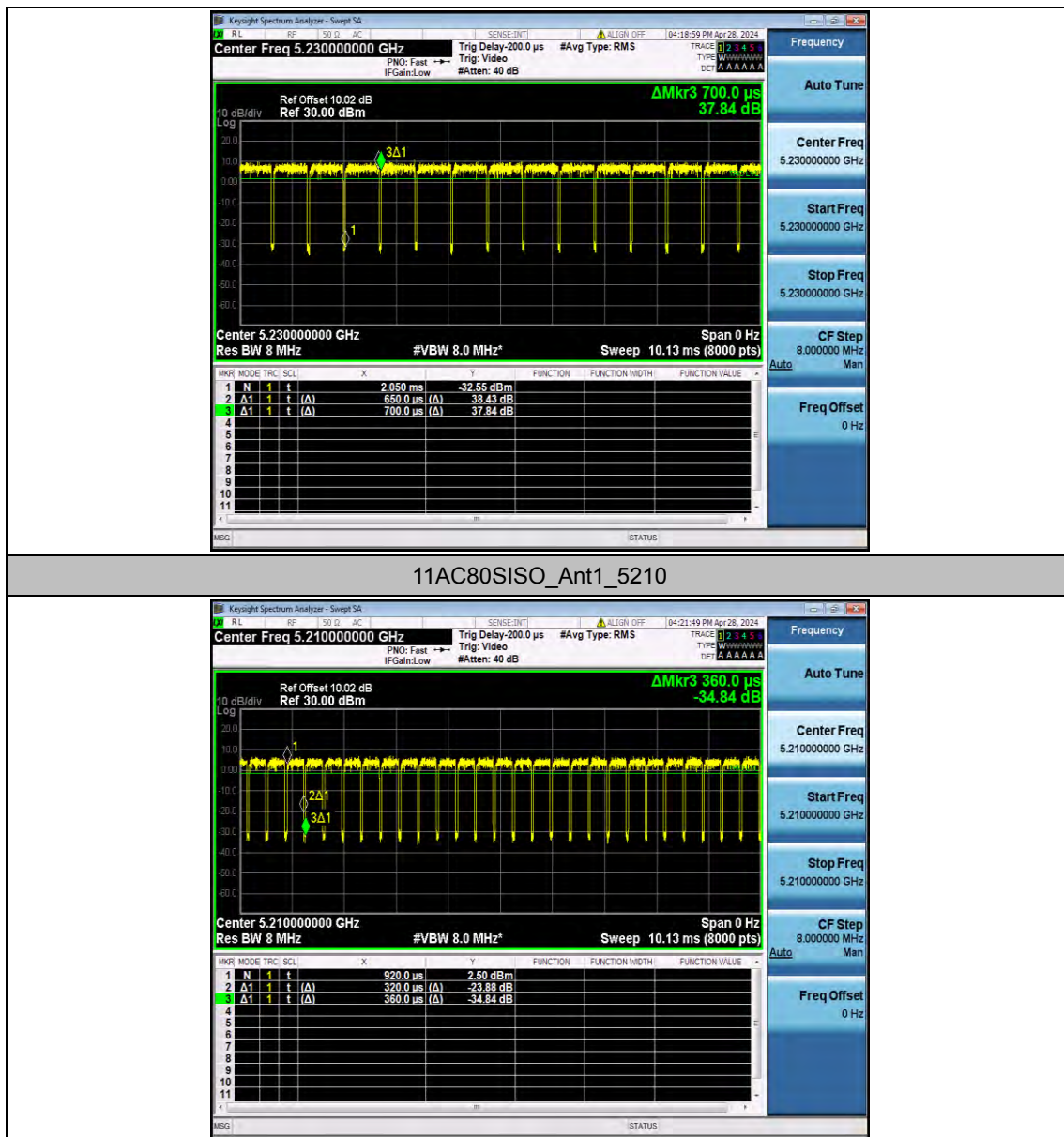
11AC20SISO_Ant1_5240



11AC40SISO_Ant1_5190



11AC40SISO_Ant1_5230



Appendix D.4: Maximum conducted output power

Test Result Channel Power

Test Mode	Antenna	Freq(MHz)	Channel Power [dBm]	Duty Cycle [%]	DC Factor [dBm]	Result [dBm]	Limit [dBm]	Verdict
11A	Ant1	5180	13.57	97.20	0.12	13.69	≤23.98	PASS
		5200	13.64	97.20	0.12	13.76	≤23.98	PASS
		5240	13.50	97.20	0.12	13.62	≤23.98	PASS
11N20SISO	Ant1	5180	14.92	97.01	0.13	15.05	≤23.98	PASS
		5200	11.27	96.30	0.16	11.43	≤23.98	PASS
		5240	11.53	97.01	0.13	11.66	≤23.98	PASS
11N40SISO	Ant1	5190	11.91	94.20	0.26	12.17	≤23.98	PASS
		5230	12.23	94.20	0.26	12.49	≤23.98	PASS
11AC20SISO	Ant1	5180	11.07	96.32	0.16	11.23	≤23.98	PASS
		5200	13.62	96.32	0.16	13.78	≤23.98	PASS
		5240	13.66	97.04	0.13	13.79	≤23.98	PASS
11AC40SISO	Ant1	5190	11.93	94.20	0.26	12.19	≤23.98	PASS
		5230	12.15	92.86	0.32	12.47	≤23.98	PASS
11AC80SISO	Ant1	5210	11.86	88.89	0.51	12.37	≤23.98	PASS

Note:

1. The Duty Cycle Factor is compensated in the graph.
2. The Duty Cycle Factor and RBW Factor is compensated in the data.

Appendix D.5: Maximum power spectral density

Test Result

TestMode	Antenna	Freq(MHz)	Result [dBm/MHz]	Limit[dBm/MHz]	Verdict
11A	Ant1	5180	3.02	≤11.00	PASS
		5200	3.39	≤11.00	PASS
		5240	3.24	≤11.00	PASS
11N20SISO	Ant1	5180	4.31	≤11.00	PASS
		5200	0.71	≤11.00	PASS
		5240	1.00	≤11.00	PASS
11N40SISO	Ant1	5190	-1.33	≤11.00	PASS
		5230	-0.91	≤11.00	PASS
11AC20SISO	Ant1	5180	0.50	≤11.00	PASS
		5200	3.01	≤11.00	PASS
		5240	3.07	≤11.00	PASS
11AC40SISO	Ant1	5190	-1.06	≤11.00	PASS
		5230	-0.94	≤11.00	PASS
11AC80SISO	Ant1	5210	-3.85	≤11.00	PASS

Note: 1.The Result and Limit Unit is dBm/500 kHz in the band 5.725–5.85 GHz.
 2.The Duty Cycle Factor and RBW Factor is compensated in the graph.

Test Graphs

11A_Ant1_5180



11A_Ant1_5200



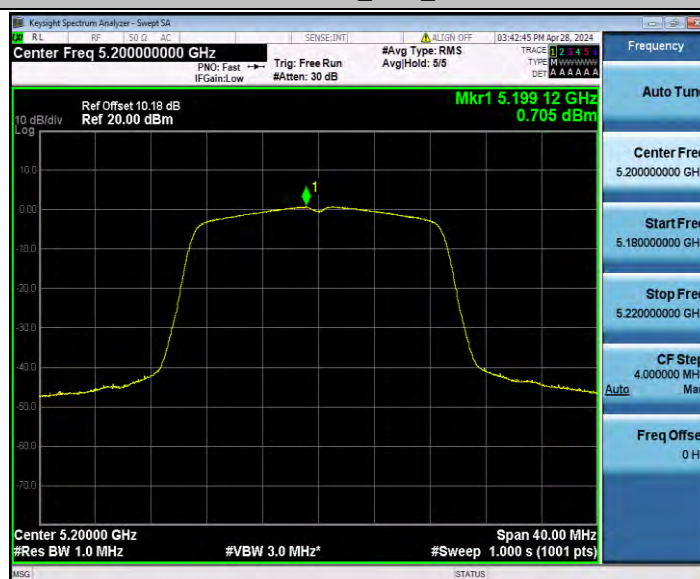
11A_Ant1_5240



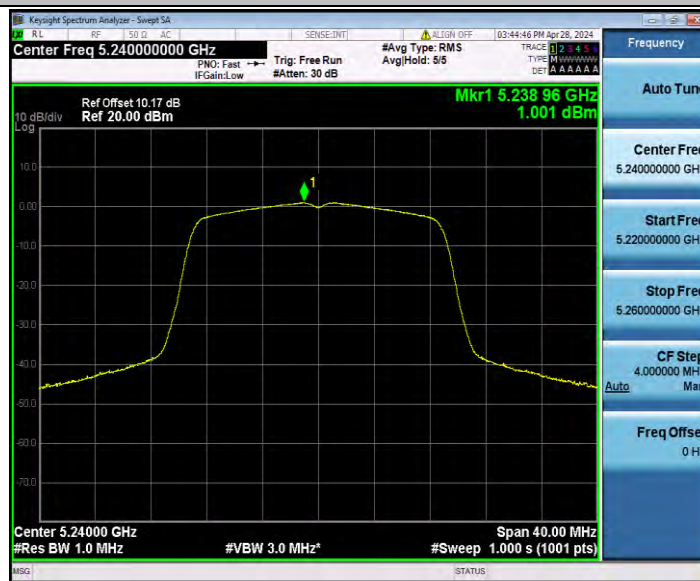
11N20SISO_Ant1_5180



11N20SISO_Ant1_5200



11N20SISO_Ant1_5240



11N40SISO_Ant1_5190



11N40SISO_Ant1_5230



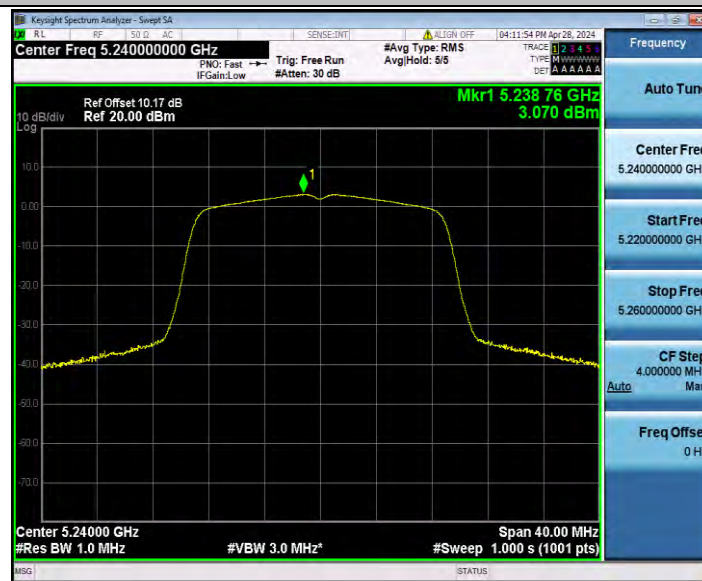
11AC20SISO_Ant1_5180



11AC20SISO_Ant1_5200



11AC20SISO_Ant1_5240



11AC40SISO_Ant1_5190



11AC40SISO_Ant1_5230

Keysight Spectrum Analyzer - Seregi SA

RF 50.0 AC ALIGN DEF 04:22:16 PM Apr 28, 2024

Center Freq 5.210000000 GHz

PNO: Fast Trig: Free Run #Avg Type: RMS Avg/Hold: 5/5

IFGain: Low #Atten: 30 dB

TRACE 1 2 3 4 5

TYPE M W W W W W W W

DET A A A A A A A

Frequency

Auto Tune

Center Freq 5.210000000 GHz

Start Freq 5.130000000 GHz

Stop Freq 5.290000000 GHz

CF Step 16.000000 MHz

Auto Man

Freq Offset 0 Hz

10 dB/div Ref Offset 10.53 dB

Log Ref 20.00 dBm

Mkr1 5.21256 GHz -3.853 dBm

Center 5.21000 GHz

#Res BW 1.0 MHz

#VBW 3.0 MHz*

Span 160.0 MHz

#Sweep 1.000 s (1001 pts)

MSO STATUS