



Appendix D

RF Test Data for 5.2G WIFI (Conducted Measurement)

Product Name: Tablet

Test Model: 10WB2

Environmental Conditions

Temperature:	22.5℃
Relative Humidity:	53.1%
ATM Pressure:	100.0 kPa
Test Engineer:	 Ling Zhu
Supervised by:	 Li Huan



D.1 Emission Bandwidth

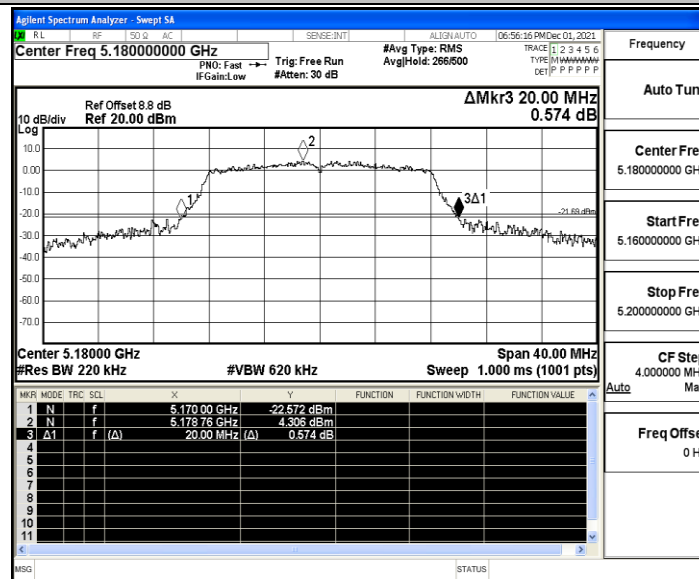
Test Result

TestMode	Antenna	Channel	26db EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5180	20.000	5170.000	5190.000	---	PASS
		5200	19.760	5190.200	5209.960	---	PASS
		5240	19.920	5230.160	5250.080	---	PASS
11N20SISO	Ant1	5180	22.840	5168.520	5191.360	---	PASS
		5200	22.160	5188.280	5210.440	---	PASS
		5240	23.080	5228.440	5251.520	---	PASS
11N40SISO	Ant1	5190	40.160	5170.080	5210.240	---	PASS
		5230	40.240	5209.920	5250.160	---	PASS
11AC20SISO	Ant1	5180	20.040	5170.080	5190.120	---	PASS
		5200	20.080	5190.040	5210.120	---	PASS
		5240	20.280	5229.880	5250.160	---	PASS
11AC40SISO	Ant1	5190	40.160	5169.840	5210.000	---	PASS
		5230	40.080	5210.240	5250.320	---	PASS
11AC80SISO	Ant1	5210	81.600	5169.200	5250.800	---	PASS

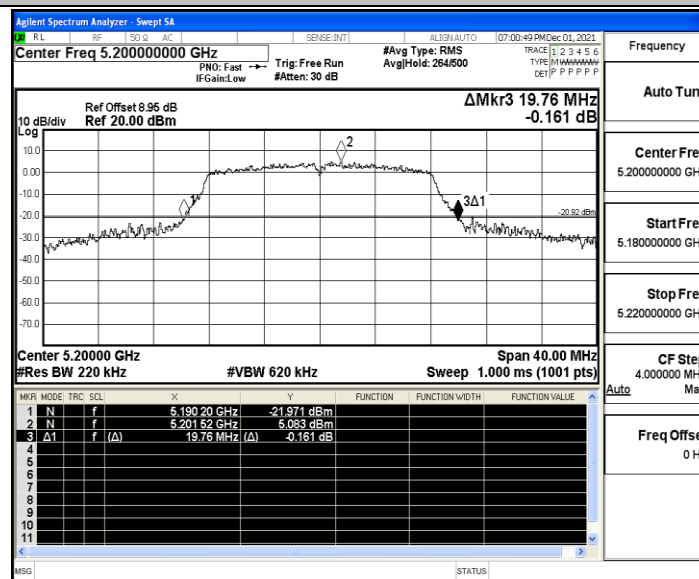


Test Graphs

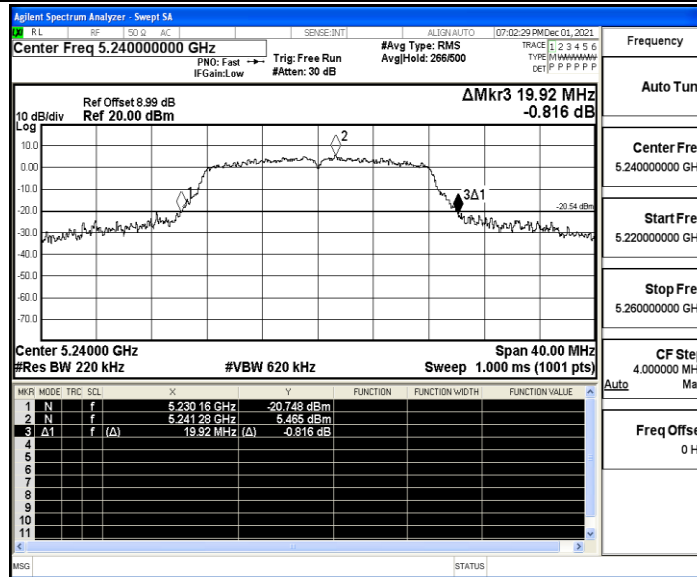
11A_Ant1_5180



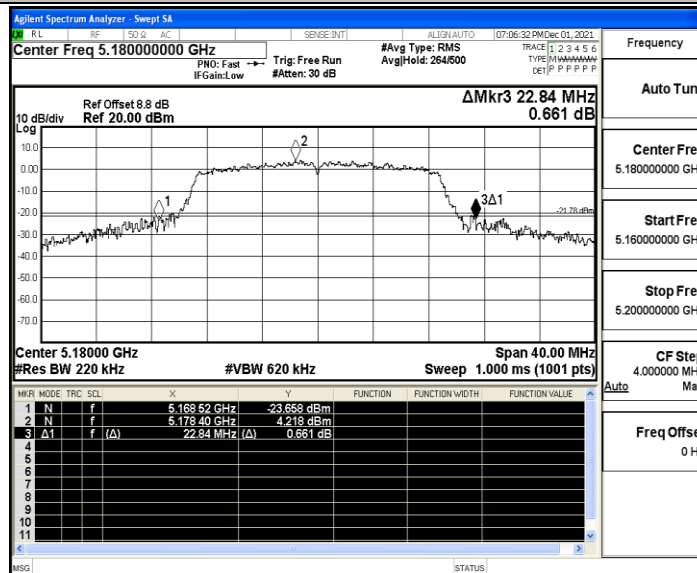
11A_Ant1_5200



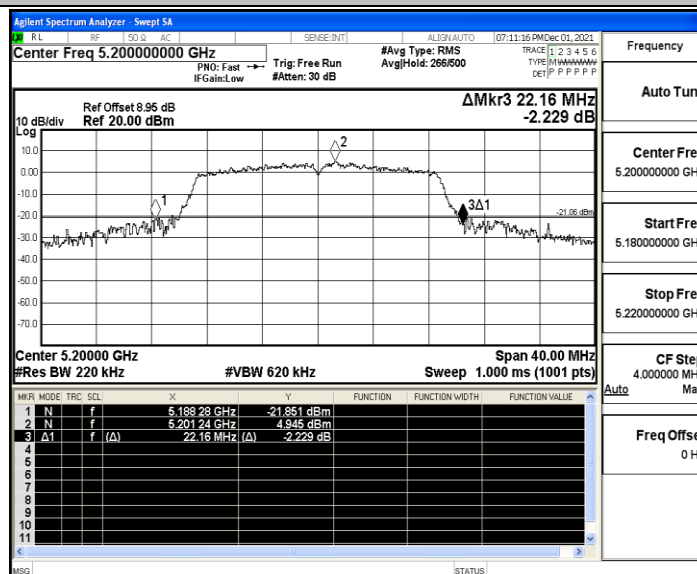
11A_Ant1_5240



11N20SISO_Ant1_5180

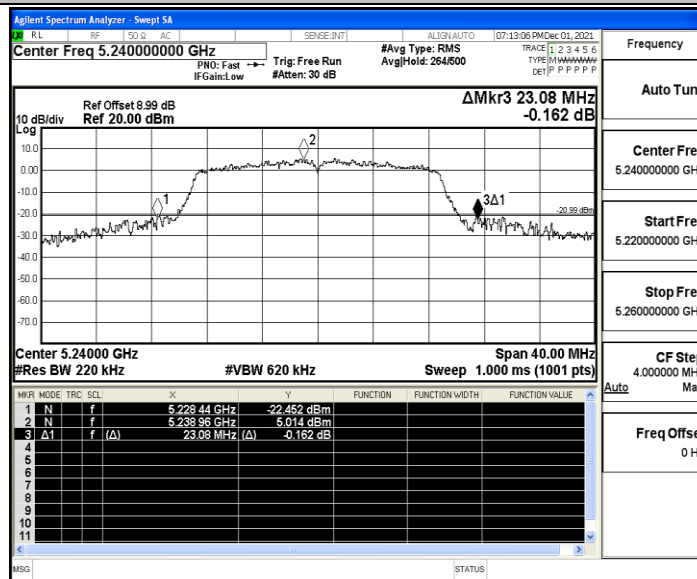


11N20SISO_Ant1_5200

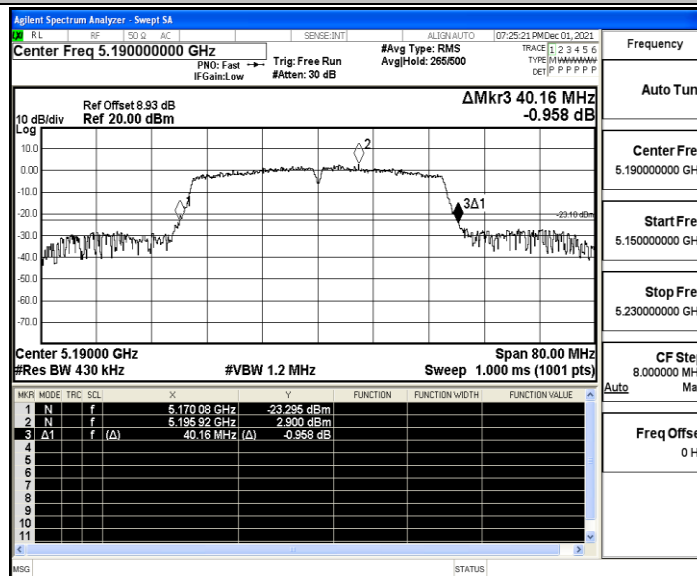




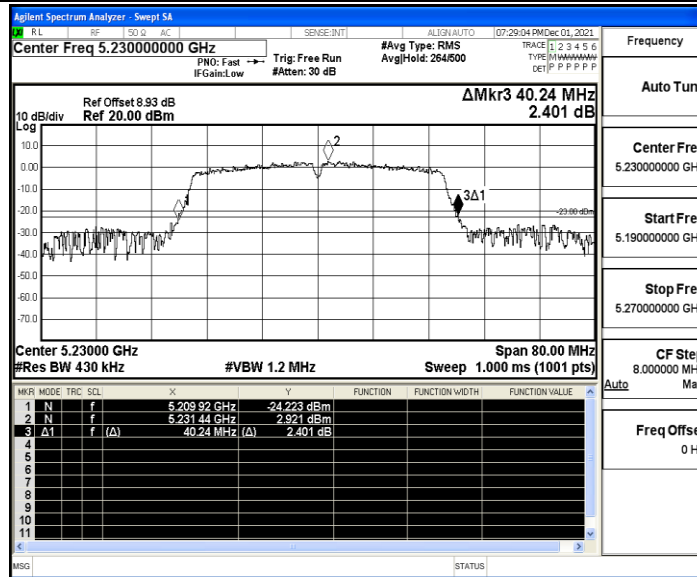
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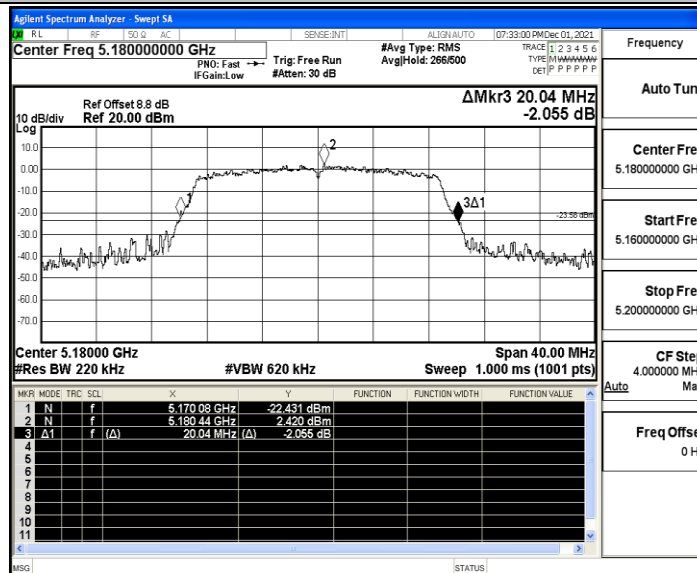
11N40SISO_Ant1_5190



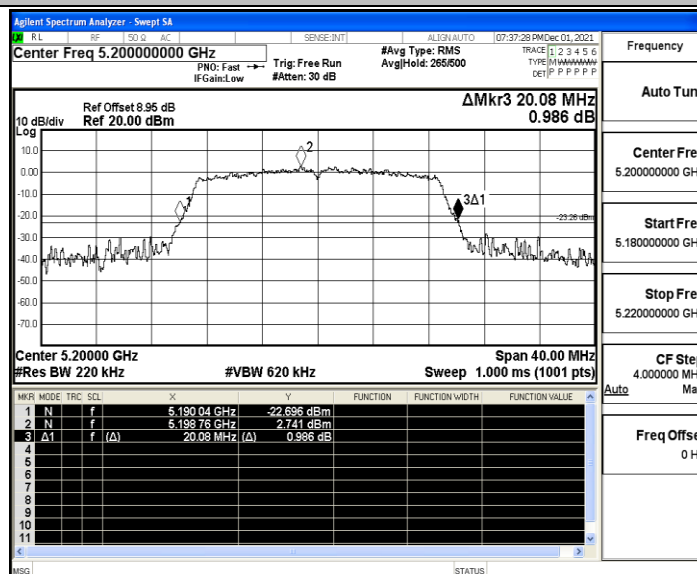
11N40SISO_Ant1_5230



11AC20SISO_Ant1_5180

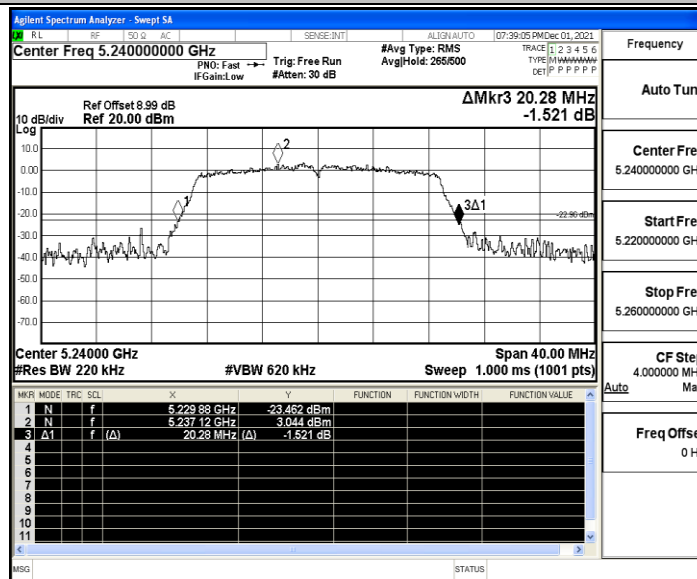


11AC20SISO_Ant1_5200

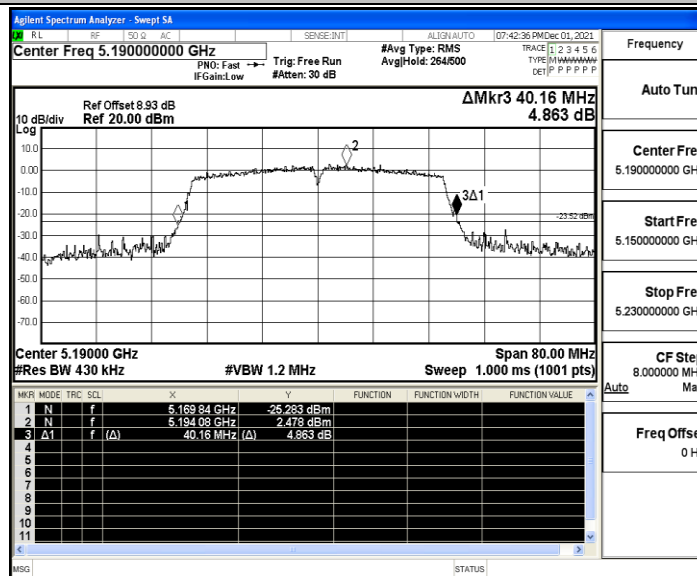




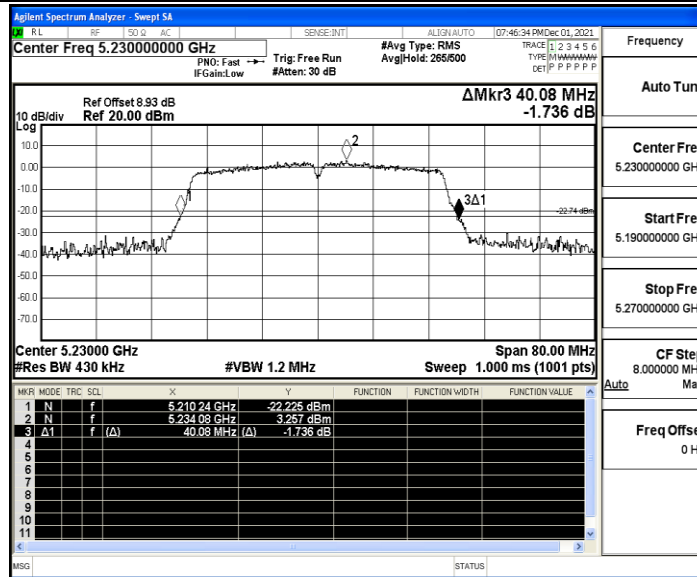
11AC20SISO_Ant1_5240



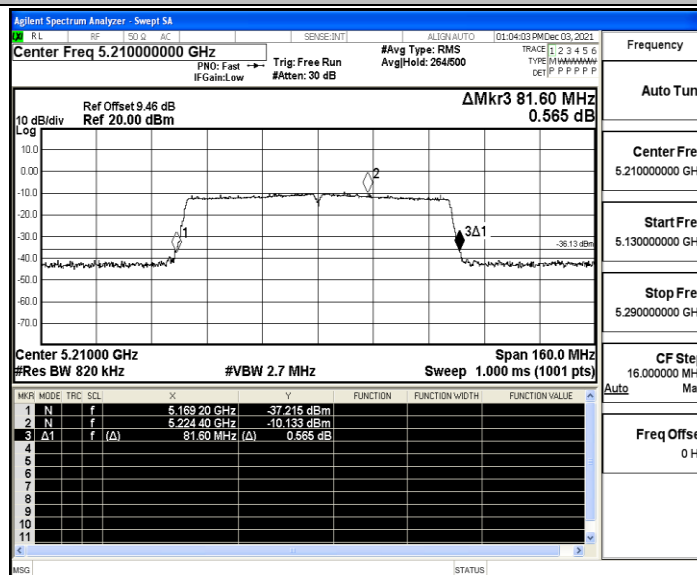
11AC40SISO_Ant1_5190



11AC40SISO_Ant1_5230



11AC80SISO_Ant1_5210





D.2 Maximum conducted output power

Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
11A	Ant1	5180	13.77	≤ 23.98	PASS
		5200	14.18	≤ 23.98	PASS
		5240	14.84	≤ 23.98	PASS
11N20SISO	Ant1	5180	13.80	≤ 23.98	PASS
		5200	14.02	≤ 23.98	PASS
		5240	14.66	≤ 23.98	PASS
11N40SISO	Ant1	5190	11.90	≤ 23.98	PASS
		5230	12.60	≤ 23.98	PASS
11AC20SISO	Ant1	5180	11.57	≤ 23.98	PASS
		5200	12.01	≤ 23.98	PASS
		5240	12.60	≤ 23.98	PASS
11AC40SISO	Ant1	5190	12.09	≤ 23.98	PASS
		5230	12.67	≤ 23.98	PASS
11AC80SISO	Ant1	5210	11.49	≤ 23.98	PASS

Note: The Duty Cycle Factor is compensated in the graph.



D.3 Maximum power spectral density

Test Result

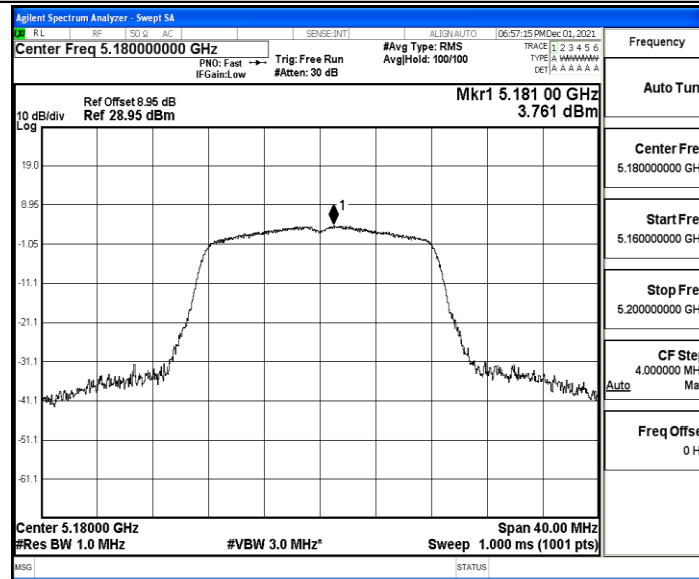
TestMode	Antenna	Channel	Result [dBm/MHz]	Limit[dBm/MHz]	Verdict
11A	Ant1	5180	3.76	≤ 11	PASS
		5200	4.15	≤ 11	PASS
		5240	4.98	≤ 11	PASS
11N20SISO	Ant1	5180	3.35	≤ 11	PASS
		5200	3.82	≤ 11	PASS
		5240	4.45	≤ 11	PASS
11N40SISO	Ant1	5190	-1.06	≤ 11	PASS
		5230	-0.75	≤ 11	PASS
11AC20SISO	Ant1	5180	1.34	≤ 11	PASS
		5200	1.57	≤ 11	PASS
		5240	2.3	≤ 11	PASS
11AC40SISO	Ant1	5190	-0.85	≤ 11	PASS
		5230	-0.72	≤ 11	PASS
11AC80SISO	Ant1	5210	-4.81	≤ 11	PASS

Note: The Duty Cycle Factor and RBW Factor is compensated in the graph.

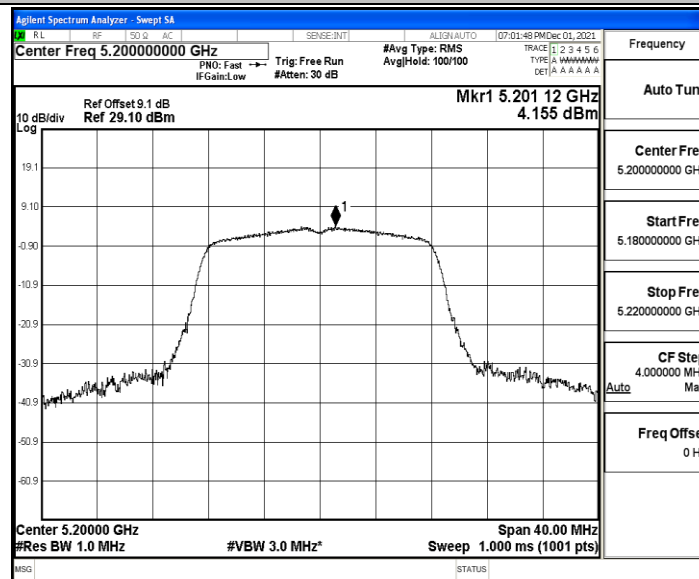


Test Graphs

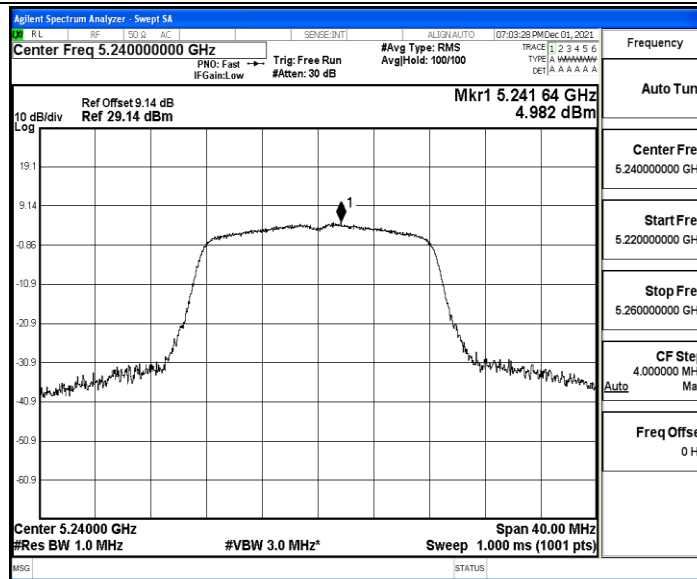
11A_Ant1_5180



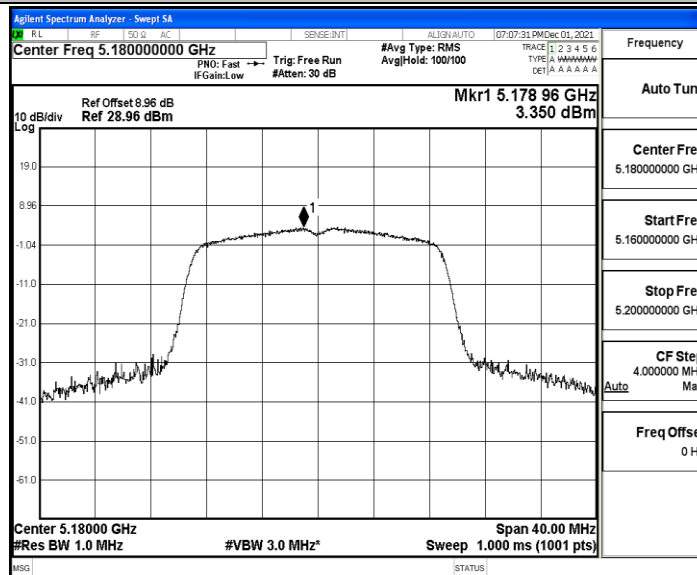
11A_Ant1_5200



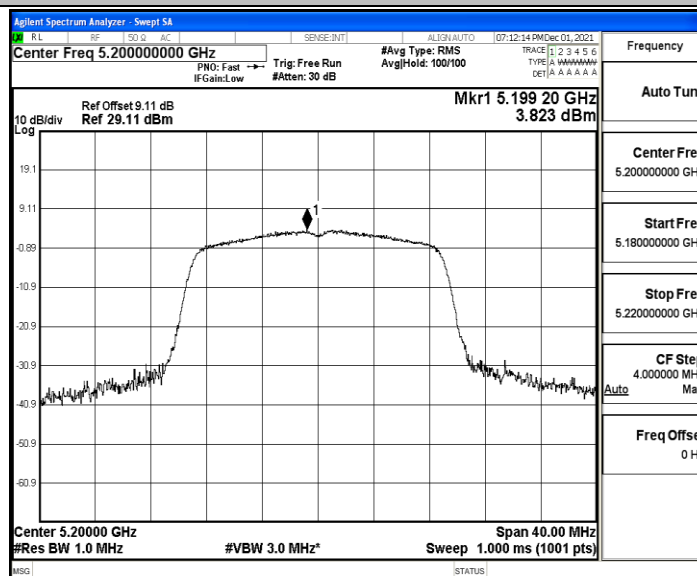
11A_Ant1_5240



11N20SISO_Ant1_5180

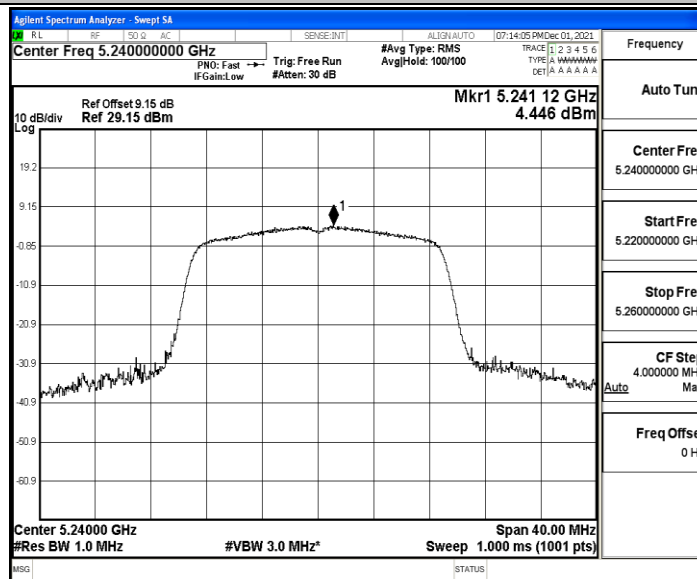


11N20SISO_Ant1_5200

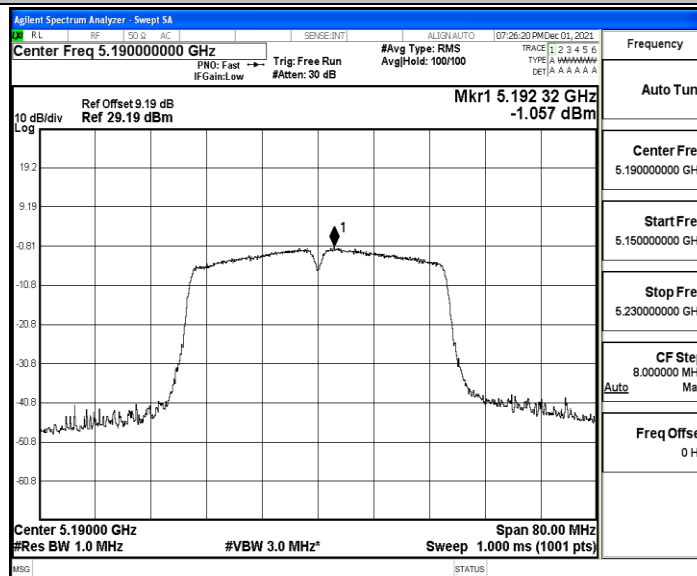




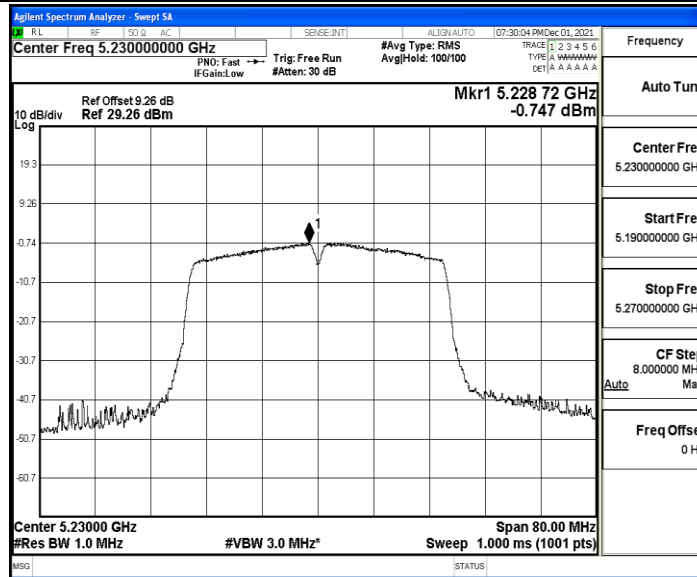
11N20SISO_Ant1_5240



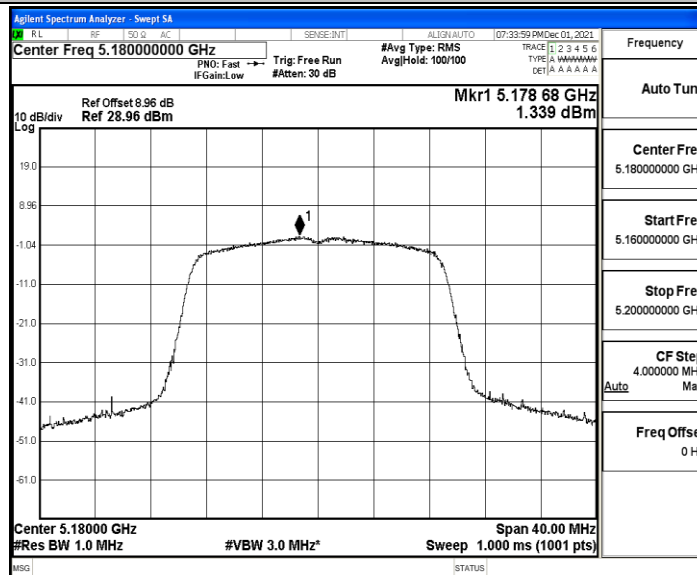
11N40SISO_Ant1_5190



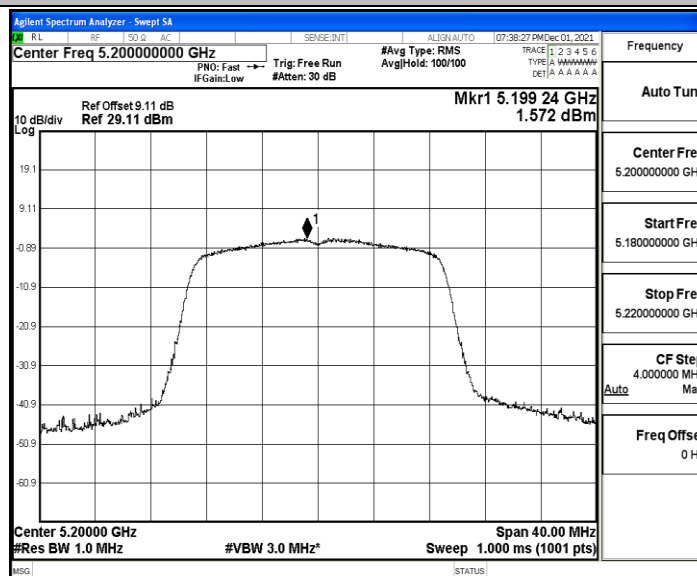
11N40SISO_Ant1_5230



11AC20SISO_Ant1_5180

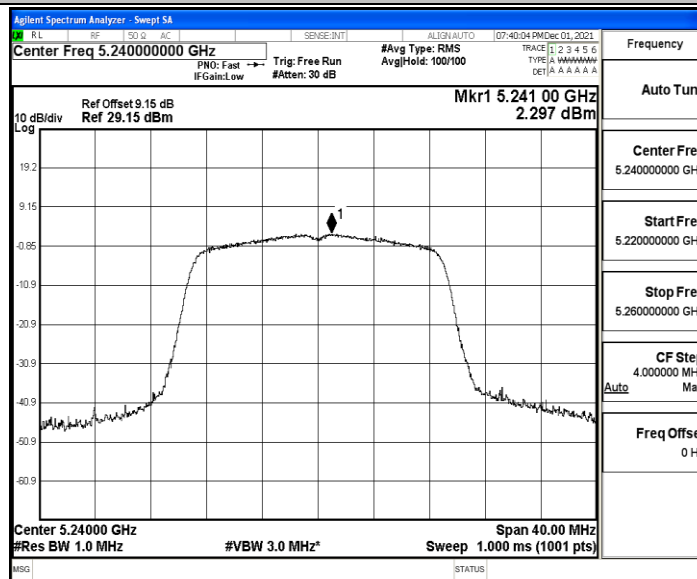


11AC20SISO_Ant1_5200

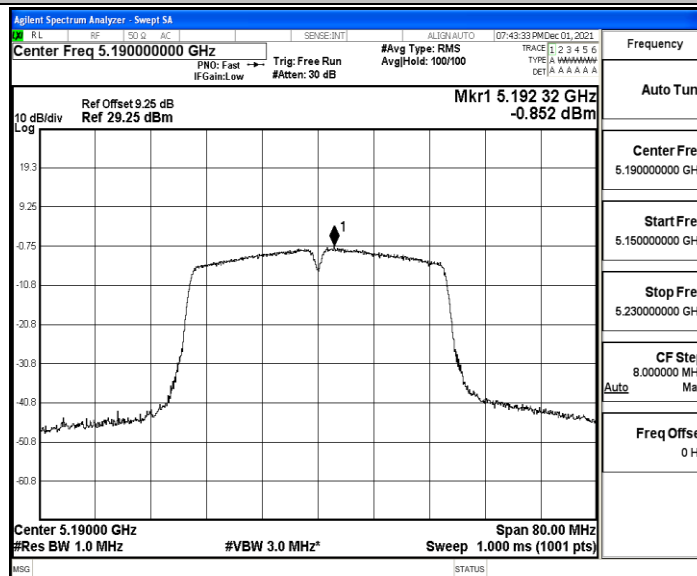




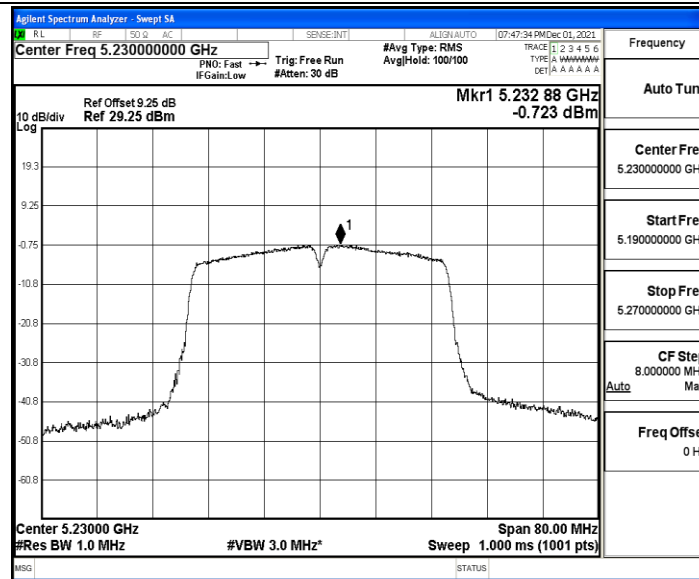
11AC20SISO_Ant1_5240



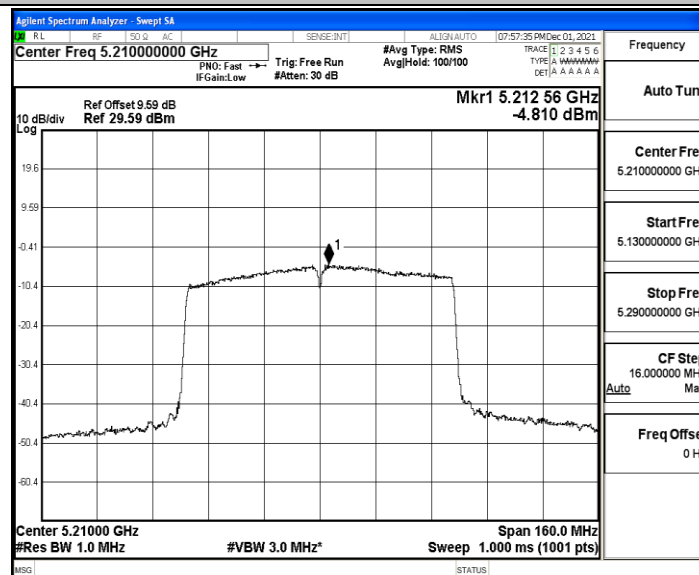
11AC40SISO_Ant1_5190



11AC40SISO_Ant1_5230



11AC80SISO_Ant1_5210





D.4 Emissions in Restricted Bands

Test Result

TestMode	Antenna	ChName	Channel	Detector	Freq. [MHz]	Result [dBm]	Limit [dBm]	Result [dBuV/m]	Limit [dBuV/m]	Verdict
11A	Ant1	Low	5180	AV	4500.000	-49.4	≤-41.20	45.80	≤54	PASS
				AV	5149.600	-43.86	≤-41.20	51.34	≤54	PASS
				AV	5150.000	-43.44	≤-41.20	51.76	≤54	PASS
				Peak	4500.000	-42.37	≤-21.20	52.83	≤74	PASS
				Peak	5148.900	-31.91	≤-21.20	63.29	≤74	PASS
				Peak	5150.000	-33.3	≤-21.20	61.90	≤74	PASS
		High	5240	AV	5350.000	-47.25	≤-41.20	47.95	≤54	PASS
				AV	5350.800	-47.03	≤-41.20	48.17	≤54	PASS
				AV	5460.000	-47.52	≤-41.20	47.68	≤54	PASS
				Peak	5350.000	-41.54	≤-21.20	53.66	≤74	PASS
				Peak	5389.440	-37.5	≤-21.20	57.70	≤74	PASS
				Peak	5460.000	-37.99	≤-21.20	57.21	≤74	PASS
11N20SIS O	Ant1	Low	5180	AV	4500.000	-49.52	≤-41.20	45.68	≤54	PASS
				AV	5149.600	-43.46	≤-41.20	51.74	≤54	PASS
				AV	5150.000	-42.92	≤-41.20	52.28	≤54	PASS
				Peak	4500.000	-41.69	≤-21.20	53.51	≤74	PASS
				Peak	5148.900	-30.68	≤-21.20	64.52	≤74	PASS
				Peak	5150.000	-32.12	≤-21.20	63.08	≤74	PASS
		High	5240	AV	5350.000	-47.28	≤-41.20	47.92	≤54	PASS
				AV	5352.960	-47.11	≤-41.20	48.09	≤54	PASS
				AV	5460.000	-47.76	≤-41.20	47.44	≤54	PASS
				Peak	5350.000	-40.07	≤-21.20	55.13	≤74	PASS
				Peak	5409.600	-37.92	≤-21.20	57.28	≤74	PASS
				Peak	5460.000	-38.46	≤-21.20	56.74	≤74	PASS
11N40SIS O	Ant1	Low	5190	AV	4500.000	-49.14	≤-41.20	46.06	≤54	PASS
				AV	5149.600	-43.53	≤-41.20	51.67	≤54	PASS
				AV	5150.000	-43.56	≤-41.20	51.64	≤54	PASS
				Peak	4500.000	-41.25	≤-21.20	53.95	≤74	PASS
				Peak	5148.200	-32.89	≤-21.20	62.31	≤74	PASS
				Peak	5150.000	-34.03	≤-21.20	61.17	≤74	PASS
		High	5230	AV	5350.000	-47.22	≤-41.20	47.98	≤54	PASS
				AV	5352.880	-46.81	≤-41.20	48.39	≤54	PASS
				AV	5460.000	-47.46	≤-41.20	47.74	≤54	PASS
				Peak	5350.000	-40.69	≤-21.20	54.51	≤74	PASS
				Peak	5375.500	-38.03	≤-21.20	57.17	≤74	PASS
				Peak	5460.000	-40.72	≤-21.20	54.48	≤74	PASS
11AC20SI	Ant1	Low	5180	AV	4500.000	-49.41	≤-41.20	45.79	≤54	PASS



SO				AV	5149.600	-46.97	≤ -41.20	48.23	≤ 54	PASS
				AV	5150.000	-46.87	≤ -41.20	48.33	≤ 54	PASS
				Peak	4500.000	-42.83	≤ -21.20	52.37	≤ 74	PASS
				Peak	4906.000	-36.72	≤ -21.20	58.48	≤ 74	PASS
				Peak	5150.000	-40.84	≤ -21.20	54.36	≤ 74	PASS
		High	5240	AV	5350.000	-47.34	≤ -41.20	47.86	≤ 54	PASS
				AV	5369.040	-47.17	≤ -41.20	48.03	≤ 54	PASS
				AV	5460.000	-47.58	≤ -41.20	47.62	≤ 54	PASS
				Peak	5350.000	-41.34	≤ -21.20	53.86	≤ 74	PASS
				Peak	5407.440	-37.86	≤ -21.20	57.34	≤ 74	PASS
				Peak	5460.000	-40.3	≤ -21.20	54.90	≤ 74	PASS
11AC40SI SO	Ant1	Low	5190	AV	4500.000	-49.24	≤ -41.20	45.96	≤ 54	PASS
				AV	5149.600	-43.84	≤ -41.20	51.36	≤ 54	PASS
				AV	5150.000	-43.86	≤ -41.20	51.34	≤ 54	PASS
				Peak	4500.000	-39.94	≤ -21.20	55.26	≤ 74	PASS
				Peak	5148.900	-33.51	≤ -21.20	61.69	≤ 74	PASS
				Peak	5150.000	-35.79	≤ -21.20	59.41	≤ 74	PASS
		High	5230	AV	5350.000	-47.22	≤ -41.20	47.98	≤ 54	PASS
				AV	5362.760	-46.98	≤ -41.20	48.22	≤ 54	PASS
				AV	5460.000	-47.51	≤ -41.20	47.69	≤ 54	PASS
				Peak	5350.000	-40.34	≤ -21.20	54.86	≤ 74	PASS
				Peak	5403.580	-37.94	≤ -21.20	57.26	≤ 74	PASS
				Peak	5460.000	-41.04	≤ -21.20	54.16	≤ 74	PASS
11AC80SI SO	Ant1	Low	5210	AV	4500.000	-48.55	≤ -41.20	46.65	≤ 54	PASS
				AV	5145.000	-42.29	≤ -41.20	52.91	≤ 54	PASS
				AV	5150.000	-43.38	≤ -41.20	51.82	≤ 54	PASS
				Peak	4500.000	-42.99	≤ -21.20	52.21	≤ 74	PASS
				Peak	5148.750	-32.41	≤ -21.20	62.79	≤ 74	PASS
				Peak	5150.000	-37.58	≤ -21.20	57.62	≤ 74	PASS
		High	5210	AV	5350.000	-47.1	≤ -41.20	48.10	≤ 54	PASS
				AV	5368.440	-46.47	≤ -41.20	48.73	≤ 54	PASS
				AV	5460.000	-47.15	≤ -41.20	48.05	≤ 54	PASS
				Peak	5350.000	-40.66	≤ -21.20	54.54	≤ 74	PASS
				Peak	5402.600	-37.54	≤ -21.20	57.66	≤ 74	PASS
				Peak	5460.000	-40.09	≤ -21.20	55.11	≤ 74	PASS

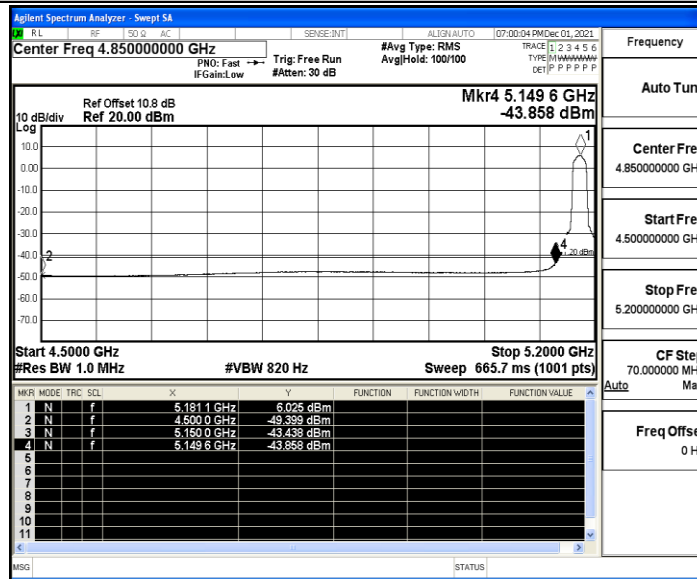
Note:

1. The Antenna Gain is compensated in the graph.
2. For transmitters operating in 5150-5250 GHz band: The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.

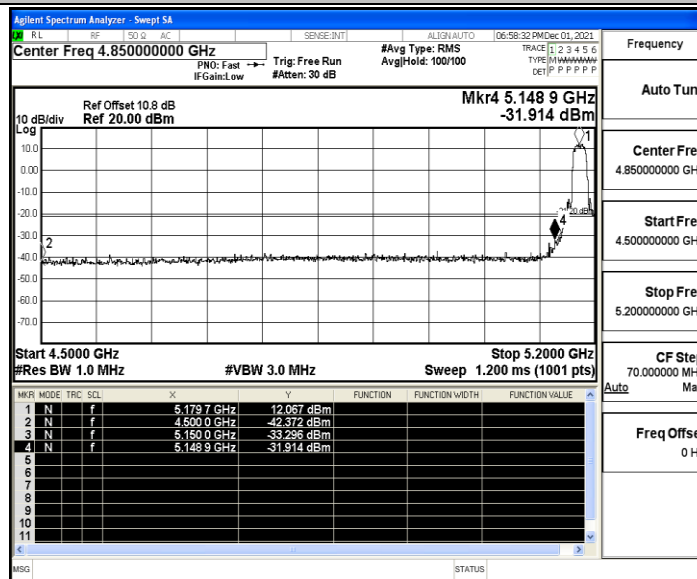


Test Graphs

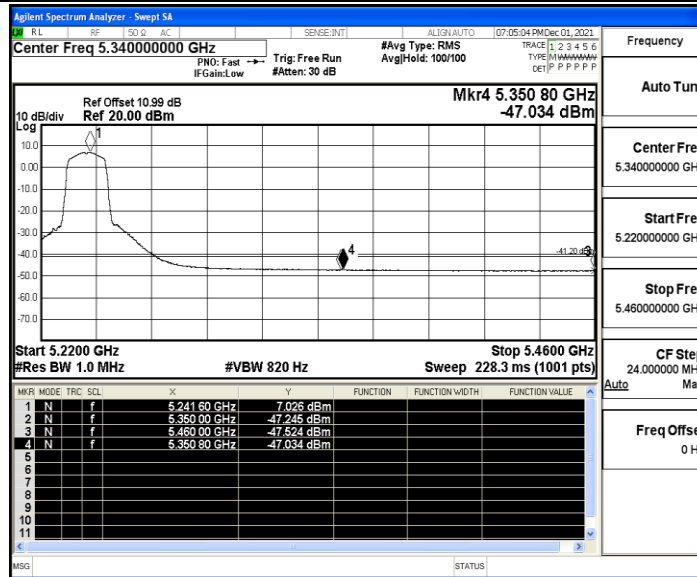
11A_Ant1_Low_5180_AV



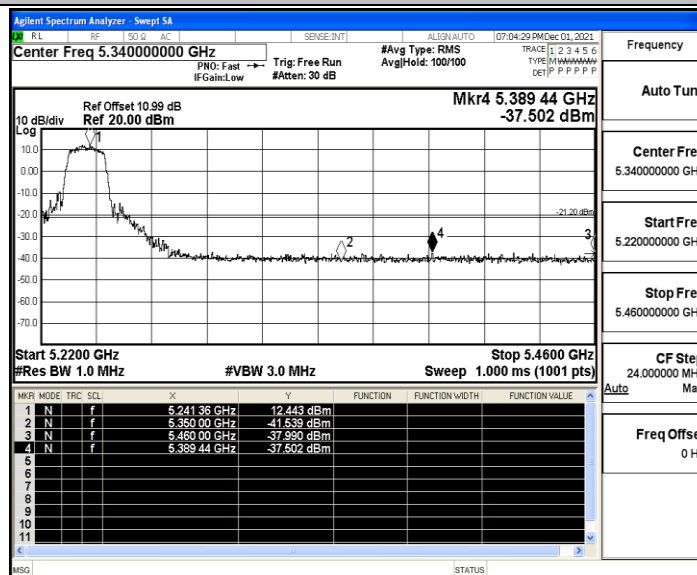
11A_Ant1_Low_5180_Peak



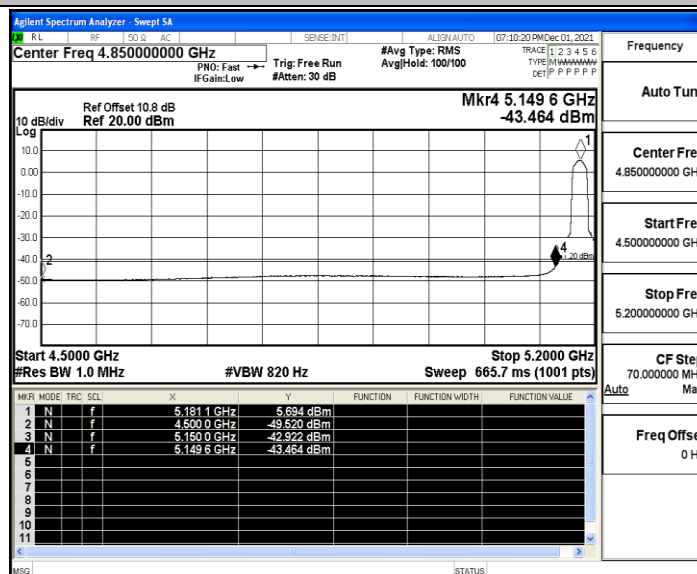
11A_Ant1_High_5240_AV



11A_Ant1_High_5240_Peak

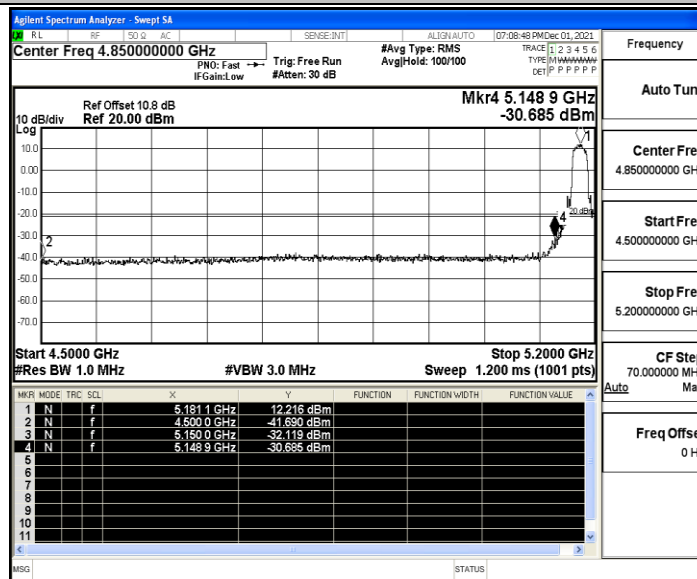


11N20SISO_Ant1_Low_5180_AV

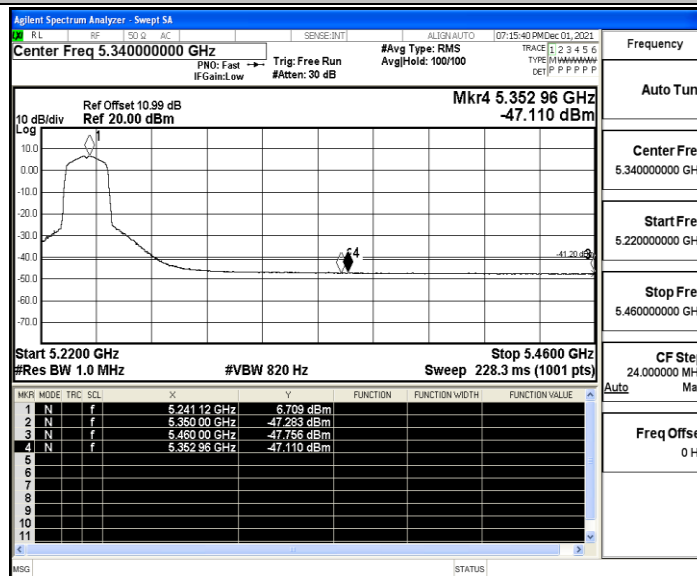




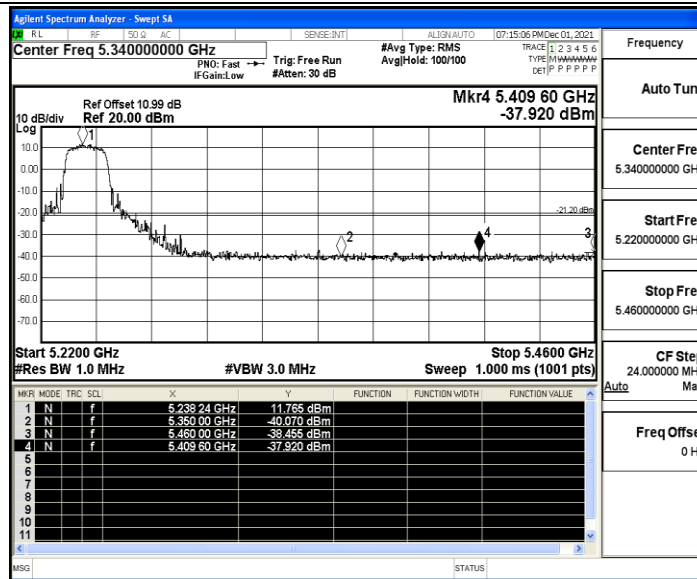
11N20SISO_Ant1_Low_5180_Peak



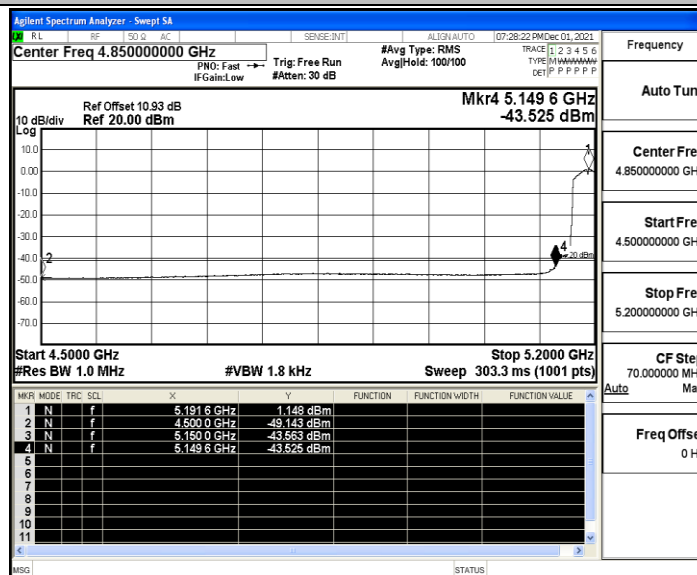
11N20SISO_Ant1_High_5240_AV



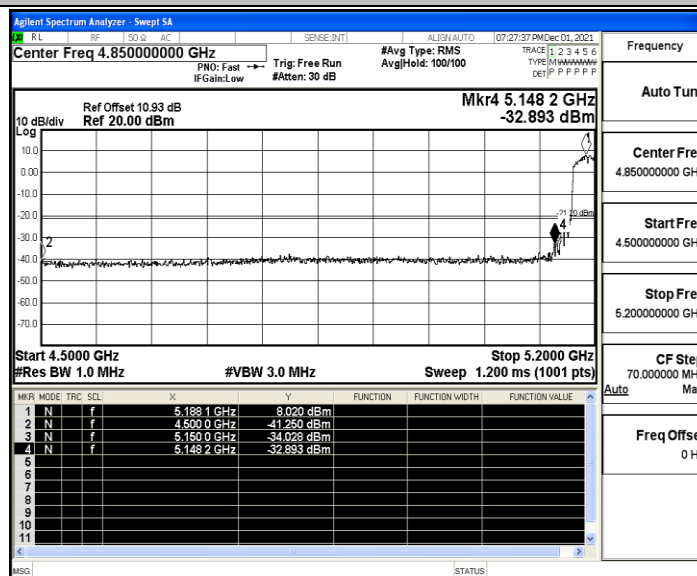
11N20SISO_Ant1_High_5240_Peak



11N40SISO_Ant1_Low_5190_AV

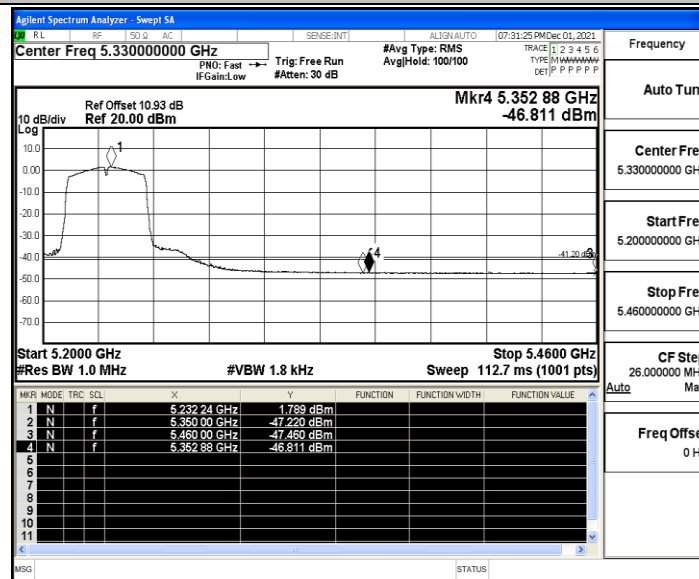


11N40SISO_Ant1_Low_5190_Peak

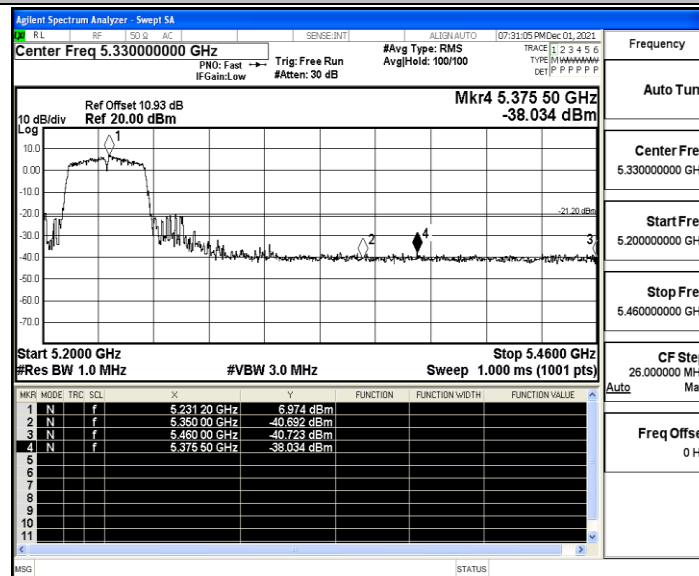




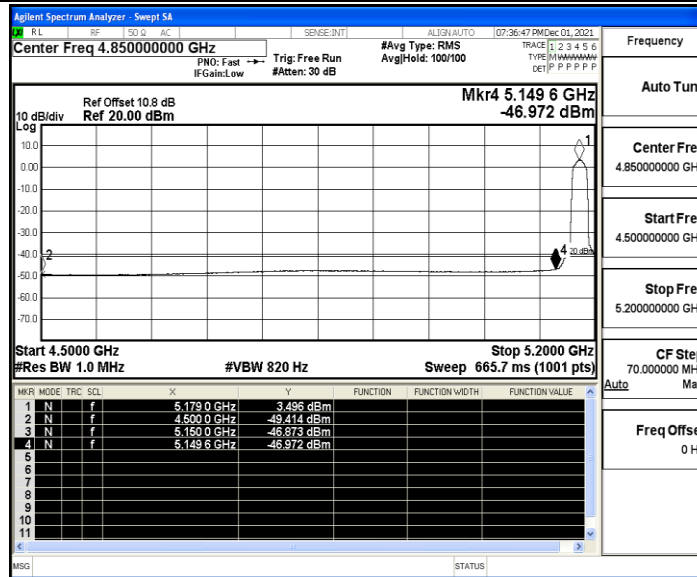
11N40SISO_Ant1_High_5230_AV



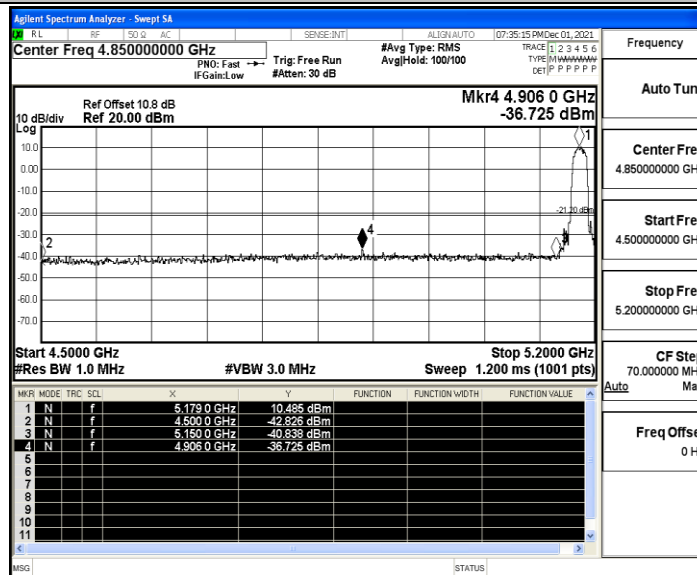
11N40SISO_Ant1_High_5230_Peak



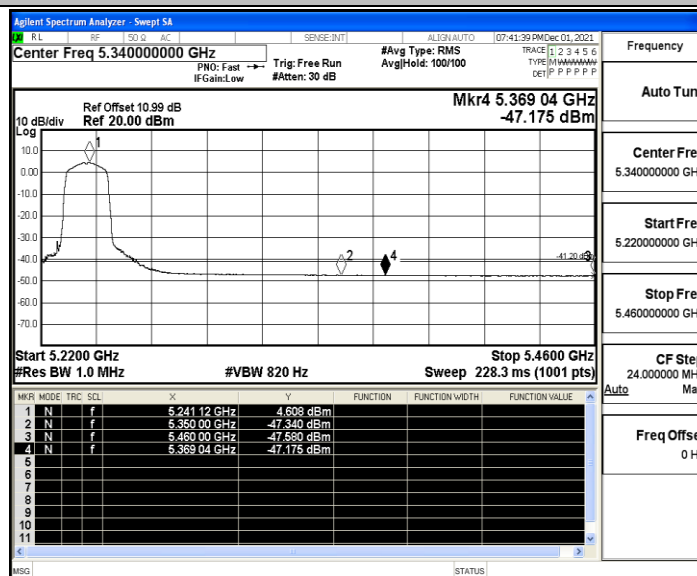
11AC20SISO_Ant1_Low_5180_AV



11AC20SISO_Ant1_Low_5180_Peak

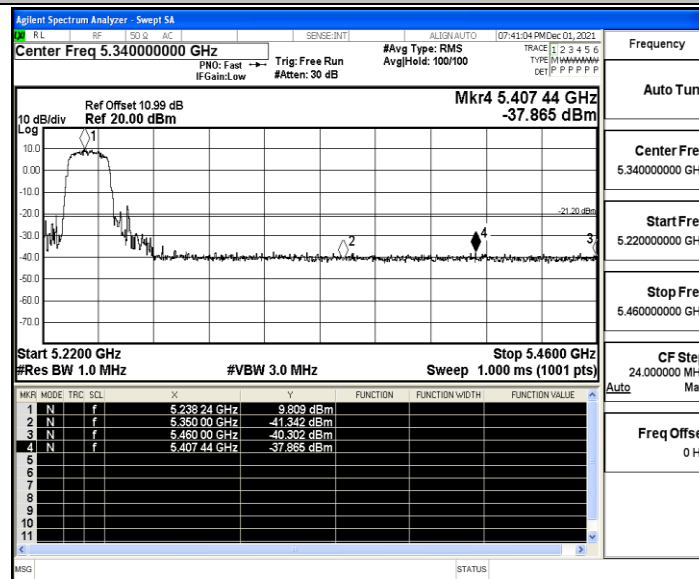


11AC20SISO_Ant1_High_5240_AV

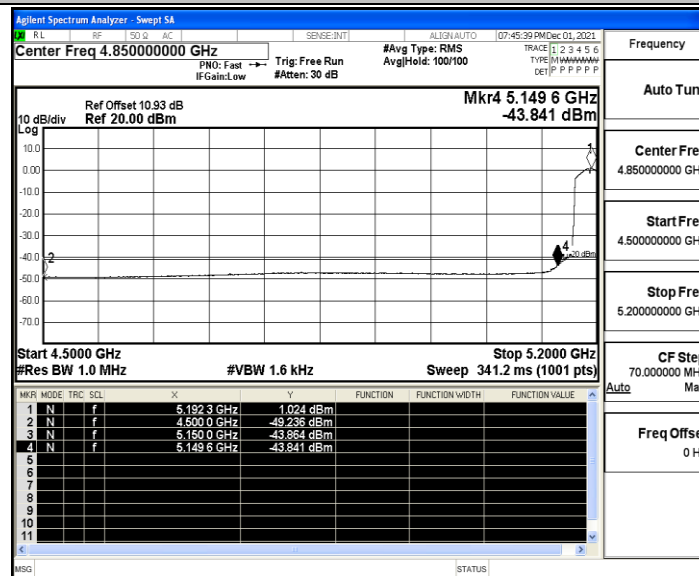




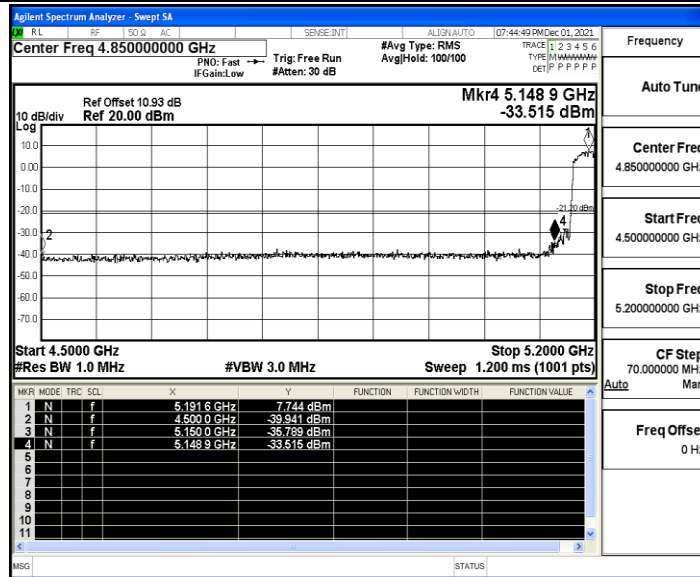
11AC20SISO_Ant1_High_5240_Peak



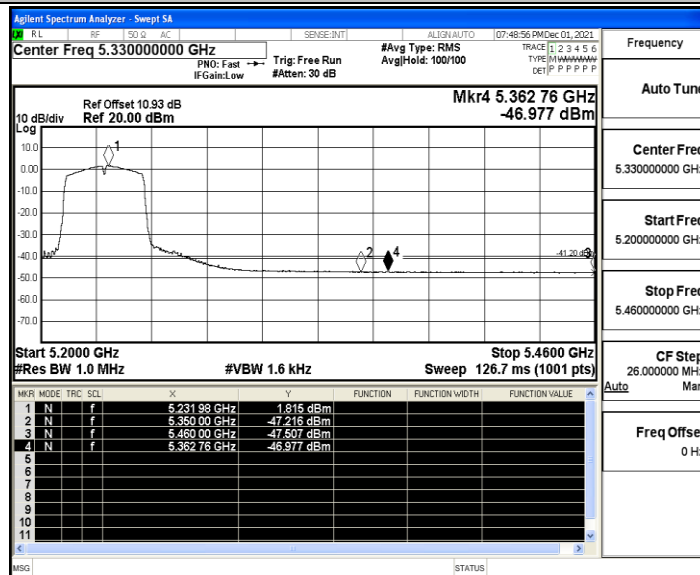
11AC40SISO_Ant1_Low_5190_AV



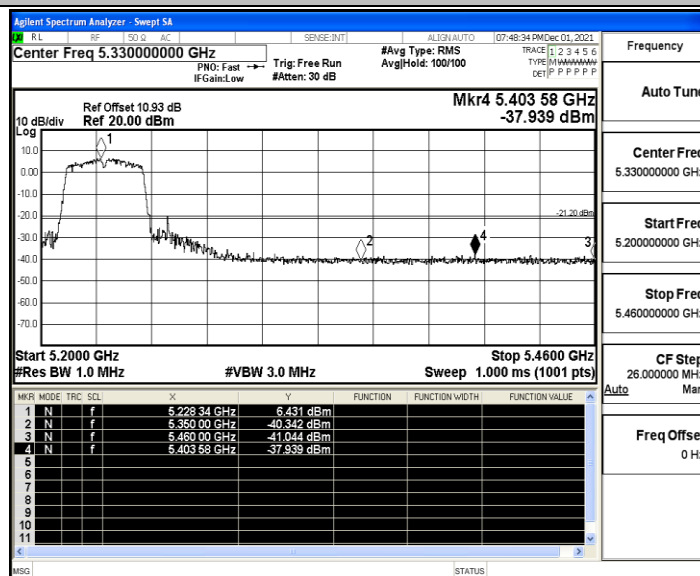
11AC40SISO_Ant1_Low_5190_Peak

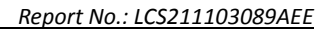


11AC40SISO_Ant1_High_5230_AV



11AC40SISO_Ant1_High_5230_Peak





Agilent Spectrum Analyzer - Sweep SA

Center Freq **4.875000000 GHz** Span **10.00 dB** Ref Offset **10.96 dB** Ref **20.00 dBm**

PNO: Fast IF GainCw Trig: Free Run #Atten: 30 dB #Avg Type: RMS Avg/Hold: 100/100 TYPE: [W] WMMWMM DET: P P P P P

Mkr4 **5.145 00 GHz** **-42.291 dBm**

MIR MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	f	5.212 50 GHz	-2.556 dBm			
2	N	f	4.600 00 GHz	-48.551 dBm			
3	N	f	5.150 00 GHz	-43.380 dBm			
4	N	f	5.145 00 GHz	-42.291 dBm			
5							
6							
7							
8							
9							
10							
11							

Start **4.5000 GHz** Stop **5.2500 GHz**
#Res BW **1.0 MHz** #VBW **3.3 kHz** Sweep **177.3 ms (1001 pts)**

Agilent Spectrum Analyzer - Swept SA

Center Freq 4.875000000 GHz

RF: R L, SO: D, AC: SENSE: INT

ALGN: AUTO, 07:59:09 PM Dec 01, 2021

Trace 1: 2 3 4 5, TYPE: [W]WMMWMM, DET: P P P P P

PRF: Fast, Trig: Free Run, #Att: 30 dB, #Avg Type: RMS, Avg/Hold: 100/100

Ref Offset 10.96 dB, Ref 20.00 dBm

Mkr4 5.148 75 GHz, -32.408 dBm

Log

10.0 dB/div

10.0

0.00

-10.0

-20.0

-30.0

-40.0

-50.0

-70.0

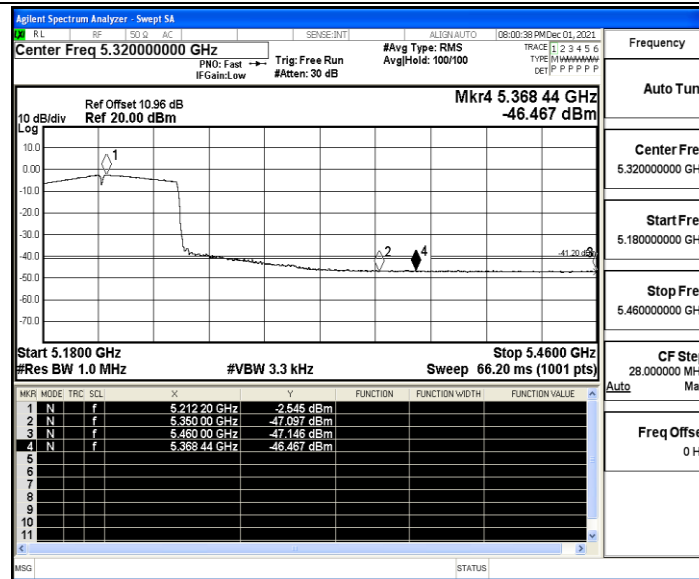
Start 4.50000 GHz, Stop 5.25000 GHz, #Res BW 1.0 MHz, #VBW 3.0 MHz, Sweep 1.267 ms (1001 pts)

MKR	MODE	TRC	SEL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	f		5.212 50 GHz	4.221 dBm			
2	N	f		4.500 00 GHz	-42.987 dBm			
3	N	f		5.150 00 GHz	-37.577 dBm			
4	N	f		5.148 75 GHz	-32.408 dBm			
5								
6								
7								
8								
9								
10								
11								

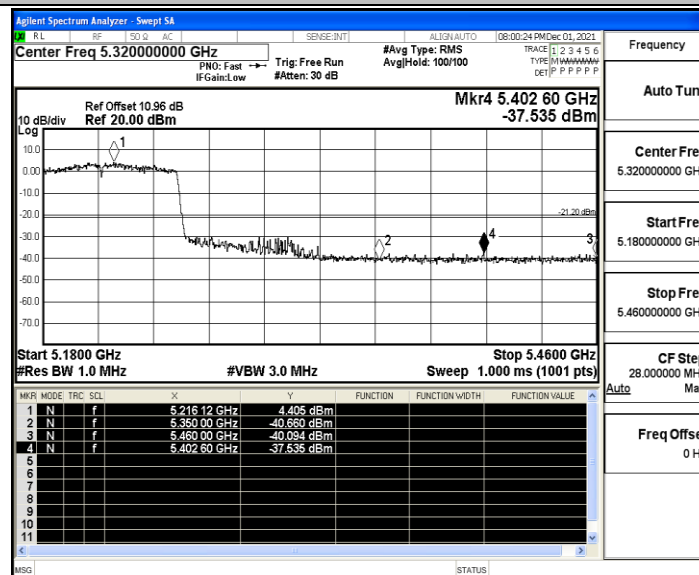
MSG

STATUS

27 / 37



11AC80SISO_Ant1_High_5210_Peak





D.5 Frequency Stability

Test Result

Voltage								
TestMode	Antenna	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
11AC20SISO	Ant1	5180	NV	NT	-9000	-1.737452	20	PASS
			LV	NT	-9000	-1.737452	20	PASS
			HV	NT	-9000	-1.737452	20	PASS
		5200	NV	NT	-9000	-1.730769	20	PASS
			LV	NT	-10000	-1.923077	20	PASS
			HV	NT	-9000	-1.730769	20	PASS
		5240	NV	NT	-10000	-1.908397	20	PASS
			LV	NT	-9000	-1.717557	20	PASS
			HV	NT	-9000	-1.717557	20	PASS
11AC40SISO	Ant1	5190	NV	NT	-10000	-1.926782	20	PASS
			LV	NT	-9000	-1.734104	20	PASS
			HV	NT	-10000	-1.926782	20	PASS
		5230	NV	NT	-9000	-1.720841	20	PASS
			LV	NT	-9000	-1.720841	20	PASS
			HV	NT	-9000	-1.720841	20	PASS
11AC80SISO	Ant1	5210	NV	NT	-9000	-1.727447	20	PASS
			LV	NT	-9000	-1.727447	20	PASS
			HV	NT	-9000	-1.727447	20	PASS

Temperature								
TestMode	Antenna	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
11AC20SISO	Ant1	5180	NV	-30	-9000	-1.737452	20	PASS
			NV	-20	-9000	-1.737452	20	PASS
			NV	-10	-9000	-1.737452	20	PASS
			NV	0	-9000	-1.737452	20	PASS
			NV	10	-9000	-1.737452	20	PASS
			NV	20	-9000	-1.737452	20	PASS
			NV	30	-9000	-1.737452	20	PASS
			NV	40	-9000	-1.737452	20	PASS
			NV	50	-10000	-1.930502	20	PASS
		5200	NV	-30	-9000	-1.730769	20	PASS
			NV	-20	-9000	-1.730769	20	PASS
			NV	-10	-10000	-1.923077	20	PASS
			NV	0	-9000	-1.730769	20	PASS
			NV	10	-9000	-1.730769	20	PASS
			NV	20	-9000	-1.730769	20	PASS



			NV	20	-9000	-1.730769	20	PASS
			NV	30	-9000	-1.730769	20	PASS
			NV	40	-9000	-1.730769	20	PASS
			NV	50	-9000	-1.730769	20	PASS
		5240	NV	-30	-9000	-1.717557	20	PASS
			NV	-20	-9000	-1.717557	20	PASS
			NV	-10	-9000	-1.717557	20	PASS
			NV	0	-10000	-1.908397	20	PASS
			NV	10	-10000	-1.908397	20	PASS
			NV	20	-10000	-1.908397	20	PASS
			NV	30	-9000	-1.717557	20	PASS
			NV	40	-9000	-1.717557	20	PASS
			NV	50	-9000	-1.717557	20	PASS
11AC40SIS O	Ant1	5190	NV	-30	-9000	-1.734104	20	PASS
			NV	-20	-9000	-1.734104	20	PASS
			NV	-10	-9000	-1.734104	20	PASS
			NV	0	-9000	-1.734104	20	PASS
			NV	10	-9000	-1.734104	20	PASS
			NV	20	-9000	-1.734104	20	PASS
			NV	30	-9000	-1.734104	20	PASS
			NV	40	-9000	-1.734104	20	PASS
		5230	NV	50	-9000	-1.734104	20	PASS
			NV	-30	-9000	-1.720841	20	PASS
			NV	-20	-9000	-1.720841	20	PASS
			NV	-10	-9000	-1.720841	20	PASS
			NV	0	-9000	-1.720841	20	PASS
			NV	10	-9000	-1.720841	20	PASS
			NV	20	-9000	-1.720841	20	PASS
			NV	30	-9000	-1.720841	20	PASS
			NV	40	-9000	-1.720841	20	PASS
			NV	50	-9000	-1.720841	20	PASS
11AC80SIS O	Ant1	5210	NV	-30	-9000	-1.727447	20	PASS
			NV	-20	-9000	-1.727447	20	PASS
			NV	-10	-9000	-1.727447	20	PASS
			NV	0	-9000	-1.727447	20	PASS
			NV	10	-9000	-1.727447	20	PASS
			NV	20	-9000	-1.727447	20	PASS
			NV	30	-9000	-1.727447	20	PASS
			NV	40	-9000	-1.727447	20	PASS
			NV	50	-9000	-1.727447	20	PASS



D.6 Duty Cycle

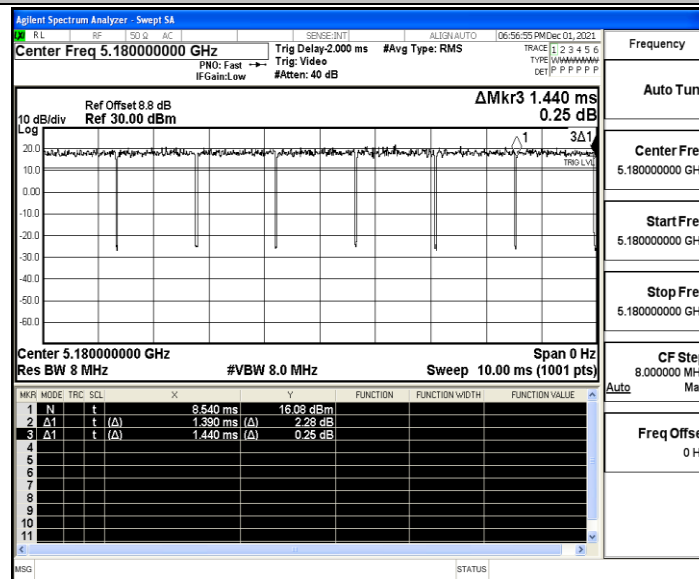
Test Result

TestMode	Antenna	Channel	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	Limit	Verdict
11A	Ant1	5180	1.39	1.44	96.53	---	PASS
		5200	1.39	1.44	96.53	---	PASS
		5240	1.39	1.44	96.53	---	PASS
11N20SISO	Ant1	5180	1.30	1.35	96.30	---	PASS
		5200	1.30	1.35	96.30	---	PASS
		5240	1.30	1.35	96.30	---	PASS
11N40SISO	Ant1	5190	0.64	0.68	94.12	---	PASS
		5230	0.63	0.68	92.65	---	PASS
11AC20SISO	Ant1	5180	1.31	1.36	96.32	---	PASS
		5200	1.31	1.36	96.32	---	PASS
		5240	1.31	1.36	96.32	---	PASS
11AC40SISO	Ant1	5190	0.65	0.70	92.86	---	PASS
		5230	0.65	0.70	92.86	---	PASS
11AC80SISO	Ant1	5210	30.00	30.00	100.00	---	PASS

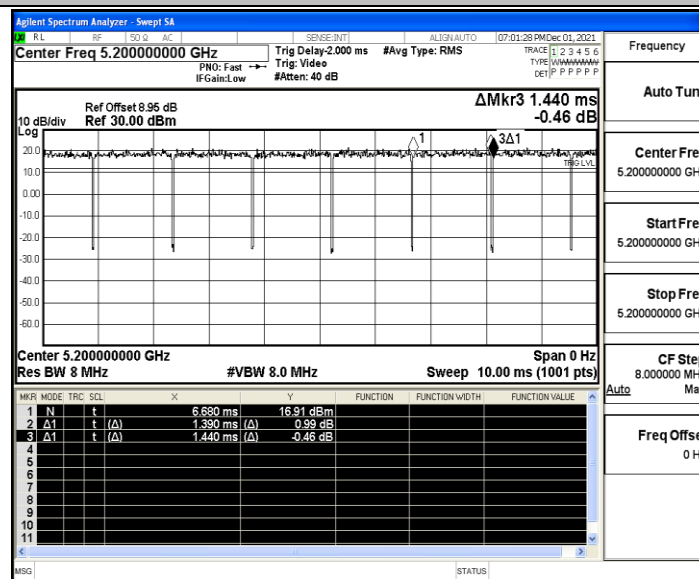


Test Graphs

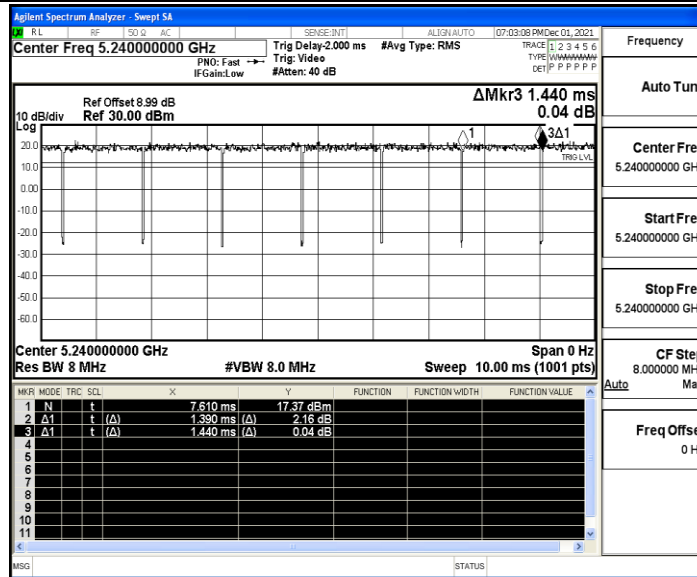
11A_Ant1_5180



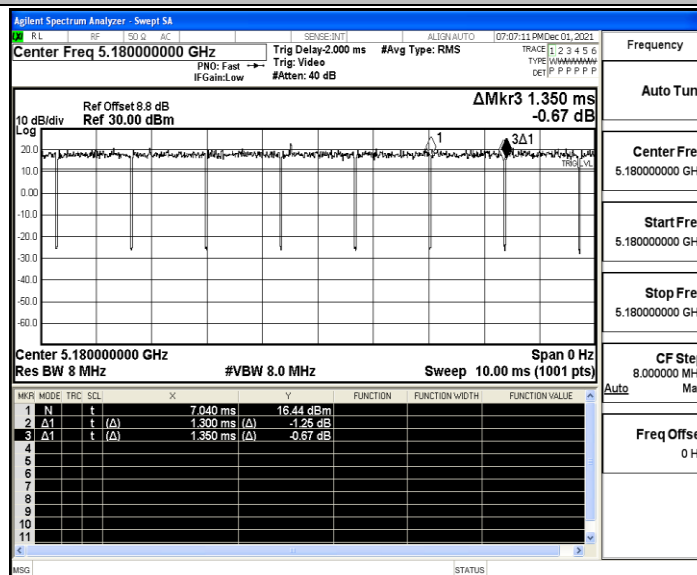
11A_Ant1_5200



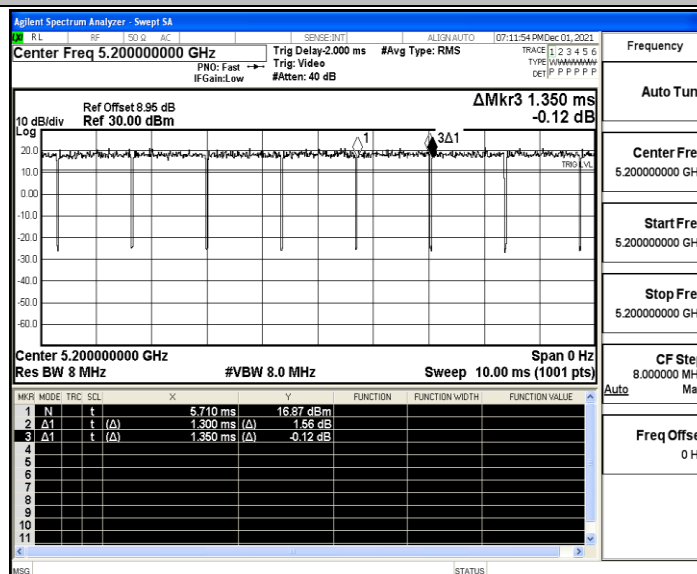
11A_Ant1_5240



11N20SISO_Ant1_5180

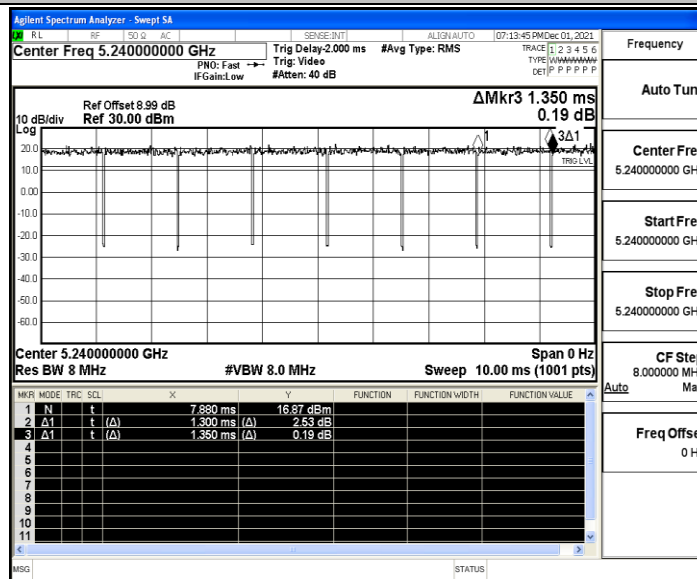


11N20SISO_Ant1_5200

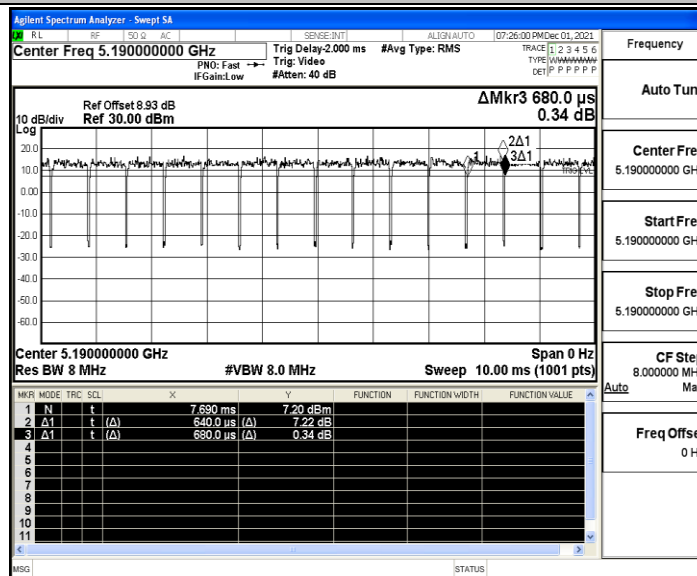




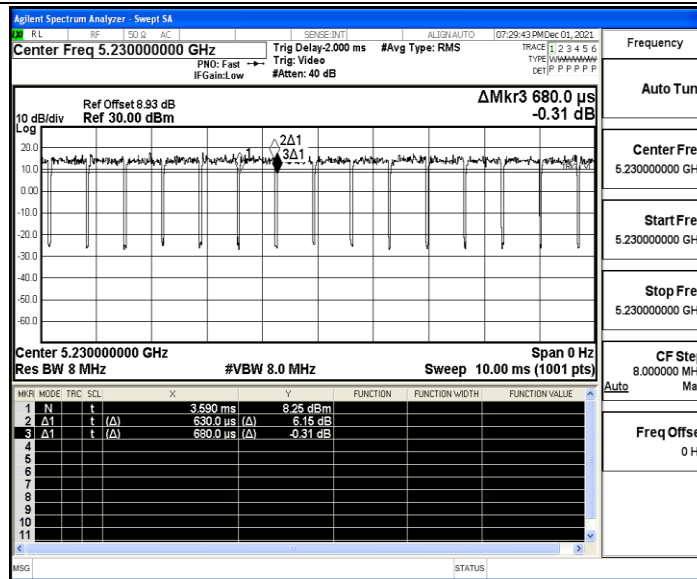
11N20SISO_Ant1_5240



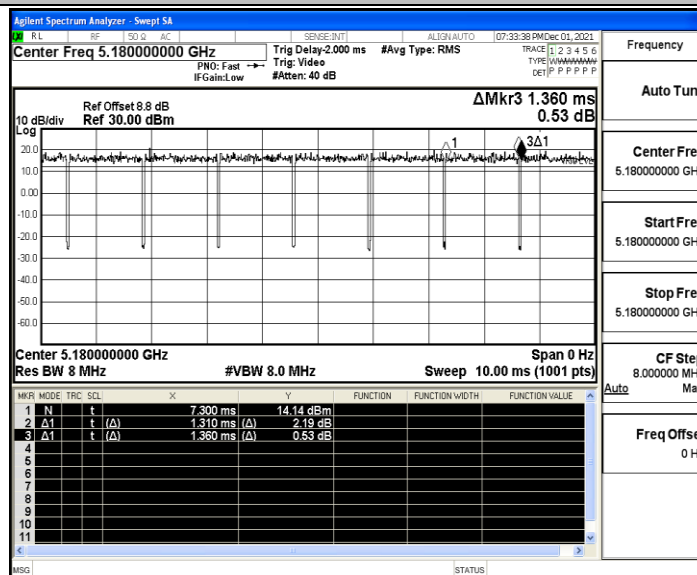
11N40SISO_Ant1_5190



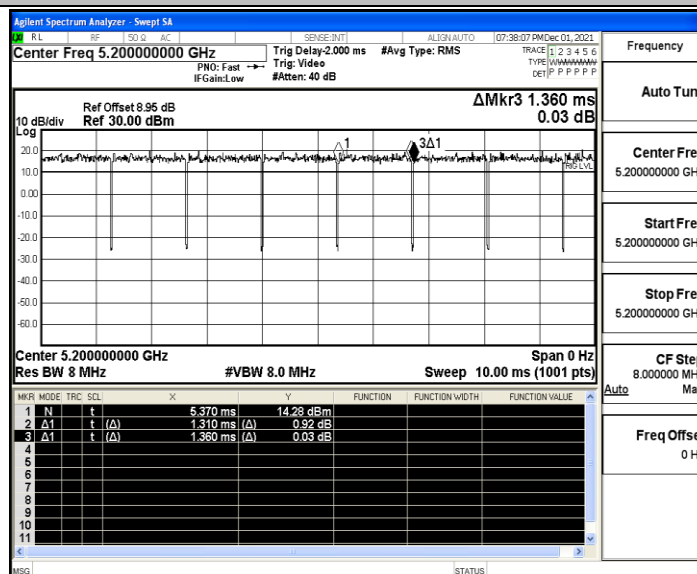
11N40SISO_Ant1_5230



11AC20SISO_Ant1_5180

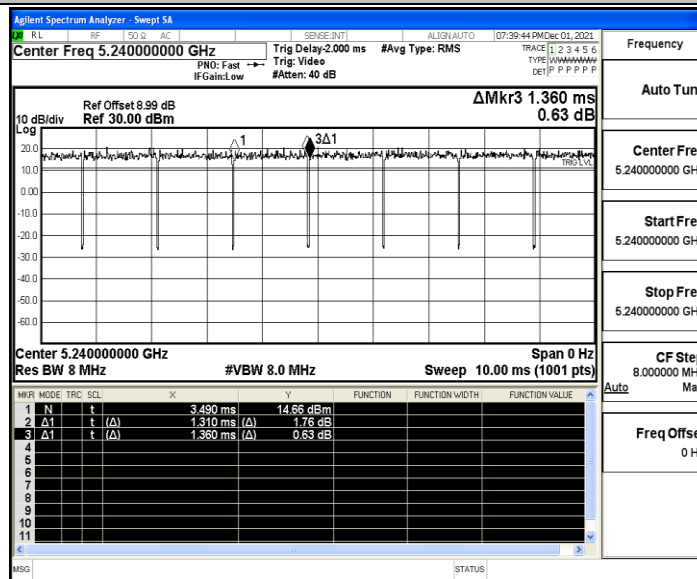


11AC20SISO_Ant1_5200

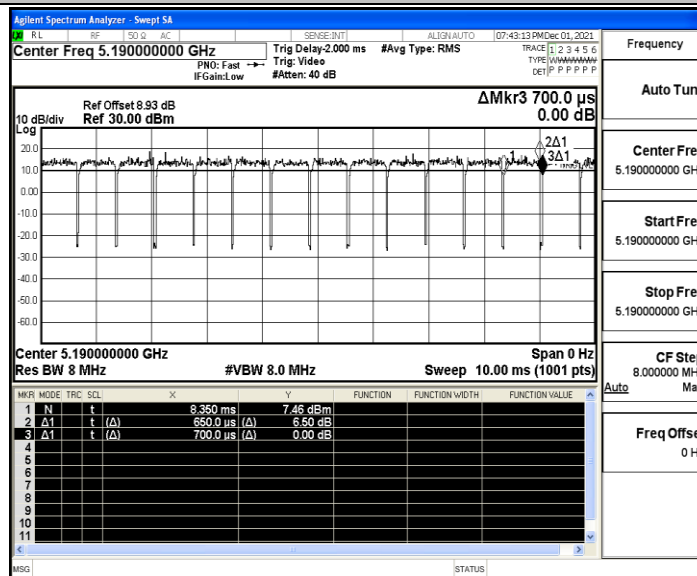




11AC20SISO_Ant1_5240



11AC40SISO_Ant1_5190



11AC40SISO_Ant1_5230

