

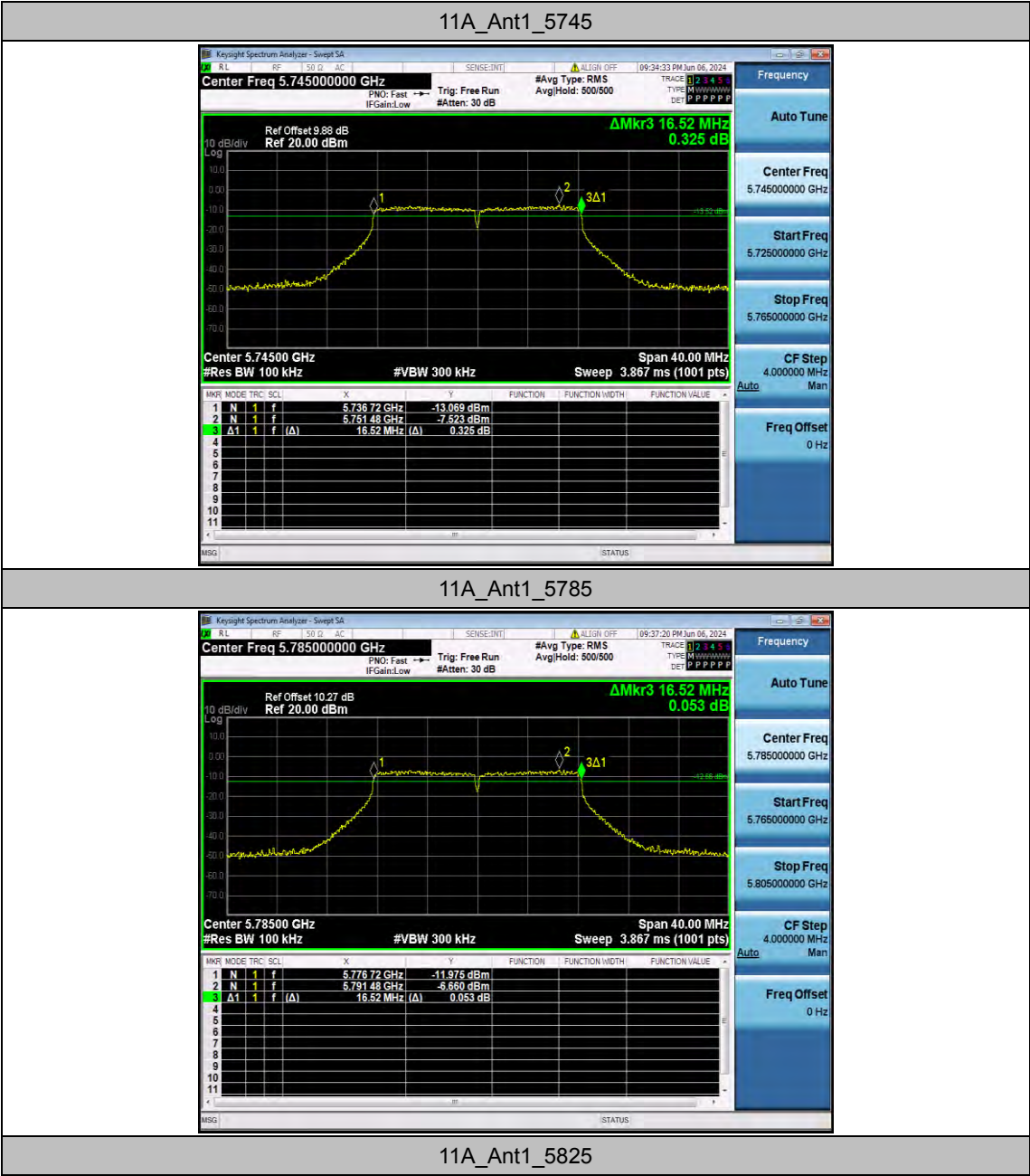
Case No. : <u>CTA24053000104</u>	
Ambient Condition: <u>23</u> °C, <u>49</u> %RH	
According Standard: ■Part15E	
Test Date: <u>2024.6.6</u>	Test Engineer: <u>Evan ouyang</u>

Appendix E.1: Min emission bandwidth

Test Result B4

TestMode	Antenna	Freq(MHz)	6db EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5745	16.520	5736.720	5753.240	0.5	PASS
		5785	16.520	5776.720	5793.240	0.5	PASS
		5825	16.520	5816.720	5833.240	0.5	PASS
11N20SISO	Ant1	5745	17.720	5736.120	5753.840	0.5	PASS
		5785	17.680	5776.120	5793.800	0.5	PASS
		5825	17.720	5816.120	5833.840	0.5	PASS
11N40SISO	Ant1	5755	36.480	5736.760	5773.240	0.5	PASS
		5795	36.480	5776.760	5813.240	0.5	PASS
11AC20SISO	Ant1	5745	17.760	5736.120	5753.880	0.5	PASS
		5785	17.720	5776.120	5793.840	0.5	PASS
		5825	17.760	5816.120	5833.880	0.5	PASS
11AC40SISO	Ant1	5755	36.480	5736.760	5773.240	0.5	PASS
		5795	36.480	5776.760	5813.240	0.5	PASS
11AC80SISO	Ant1	5775	73.920	5739.000	5812.920	0.5	PASS

Test Graphs B4



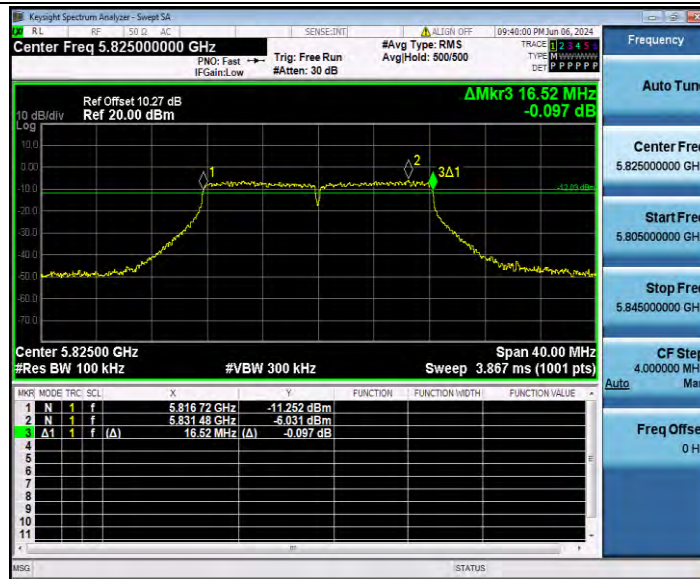
11A_Ant1_5785

Frequency

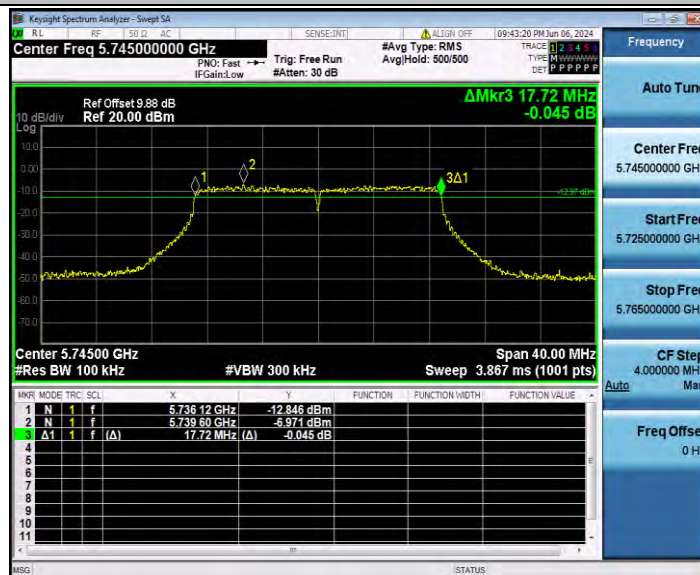
Auto Tune

Center Freq
5.78500000 GHzStart Freq
5.765000000 GHzStop Freq
5.805000000 GHzCF Step
4.000000 MHz
Auto ManFreq Offset
0 Hz

11A_Ant1_5825



11N20SISO_Ant1_5745



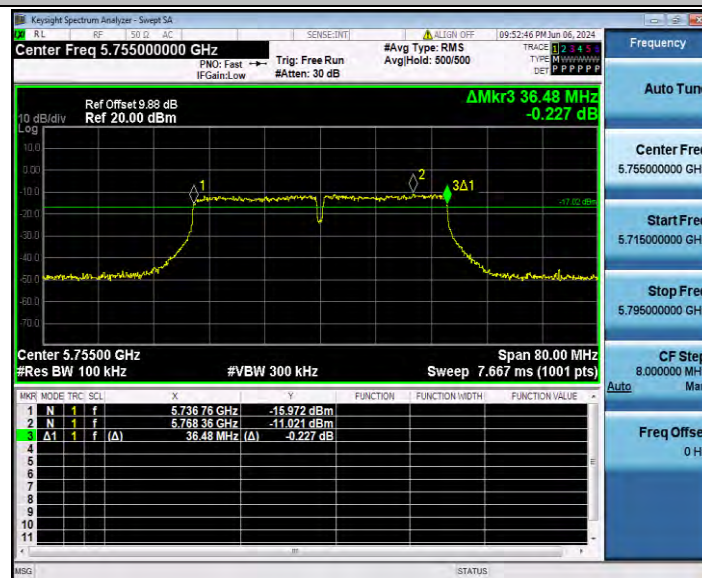
11N20SISO_Ant1_5785



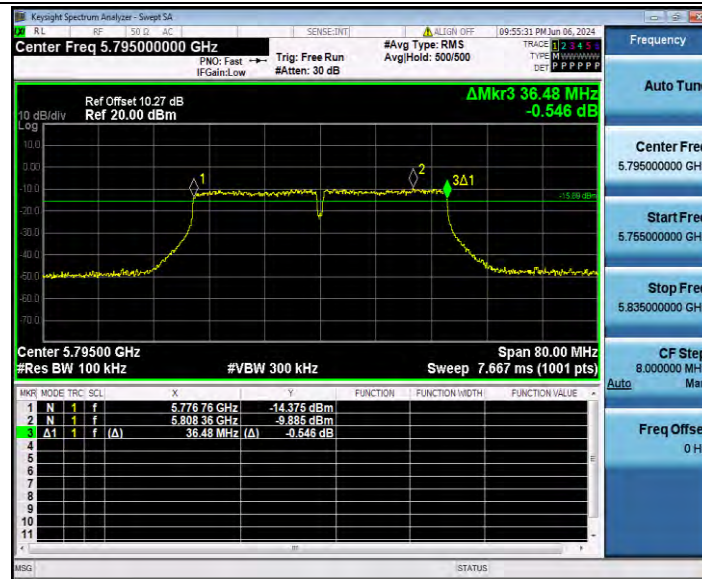
11N20SISO_Ant1_5825



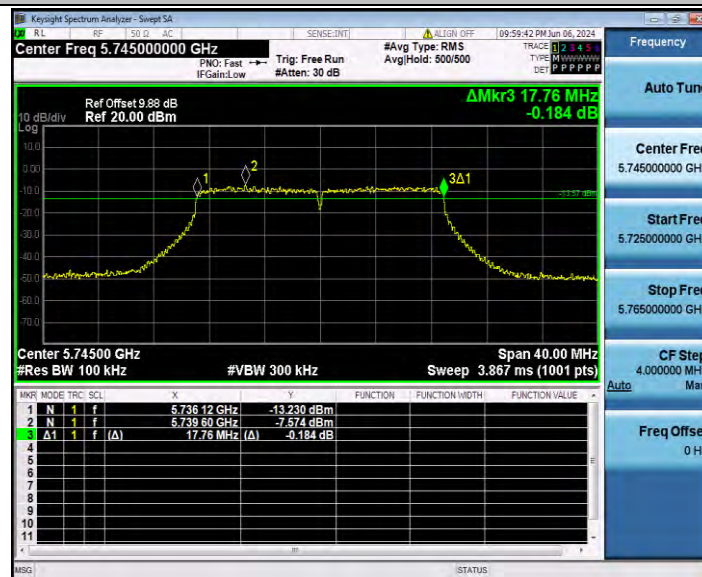
11N40SISO_Ant1_5755



11N40SISO_Ant1_5795



11AC20SISO_Ant1_5745



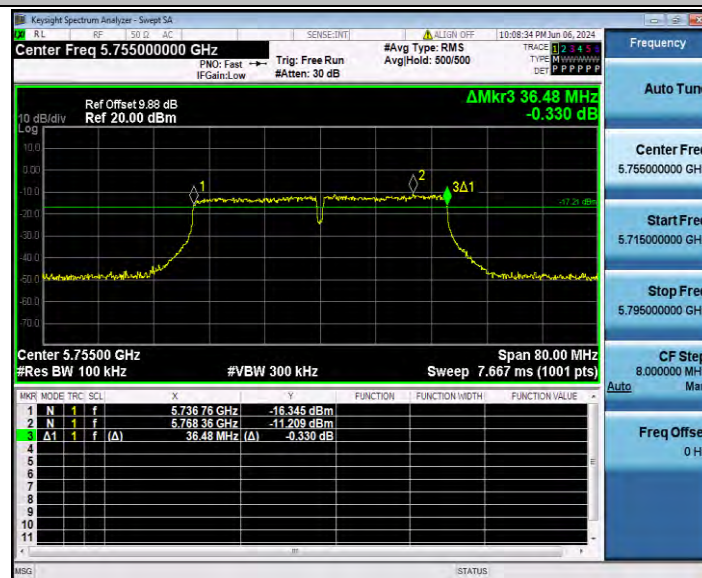
11AC20SISO_Ant1_5785



11AC20SISO_Ant1_5825



11AC40SISO_Ant1_5755



11AC40SISO_Ant1_5795



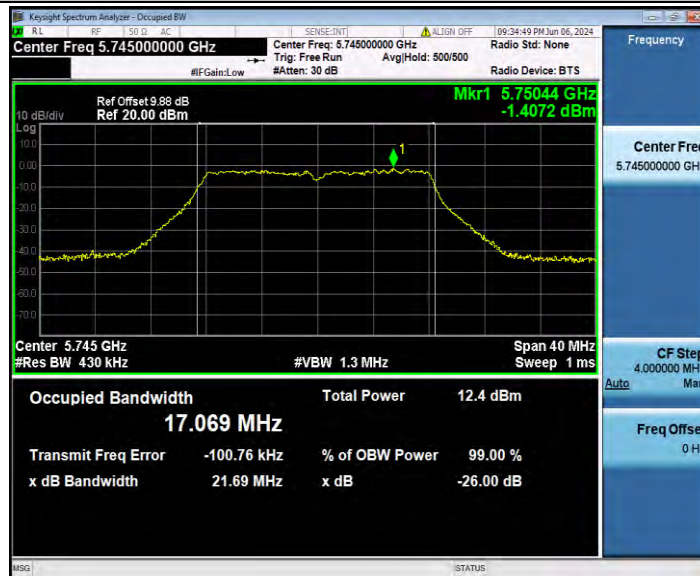
Appendix E.2: Occupied channel bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	OCB [MHz]	FL[MHz]	FH[MHz]
11A	Ant1	5745	17.069	5736.3647	5753.4337
		5785	17.059	5776.3663	5793.4253
		5825	17.060	5816.3628	5833.4228
11N20SISO	Ant1	5745	18.069	5735.9165	5753.9855
		5785	18.058	5775.9290	5793.9870
		5825	18.067	5815.9155	5833.9825
11N40SISO	Ant1	5755	37.037	5736.5723	5773.6093
		5795	37.044	5776.5652	5813.6092
11AC20SISO	Ant1	5745	18.094	5735.9178	5754.0118
		5785	18.078	5775.9187	5793.9967
		5825	18.091	5815.9141	5834.0051
11AC40SISO	Ant1	5755	37.036	5736.5914	5773.6274
		5795	37.017	5776.5568	5813.5738
11AC80SISO	Ant1	5775	74.969	5737.8128	5812.7818

Test Graphs

11A_Ant1_5745



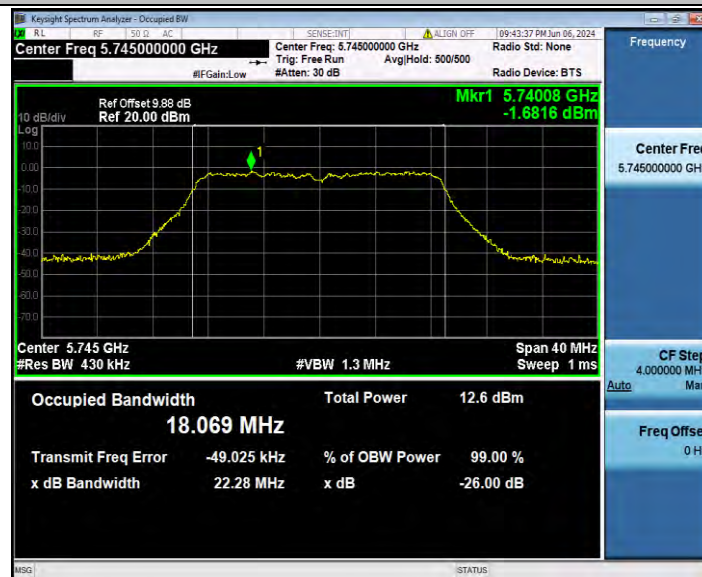
11A_Ant1_5785



11A_Ant1_5825



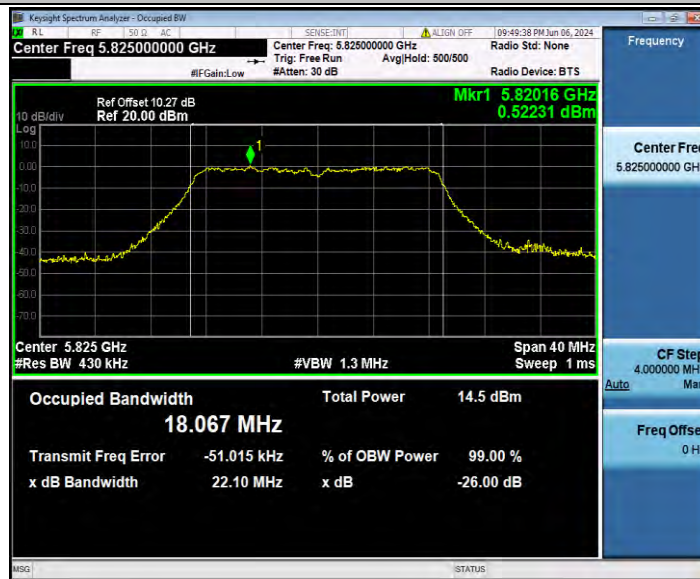
11N20SISO_Ant1_5745



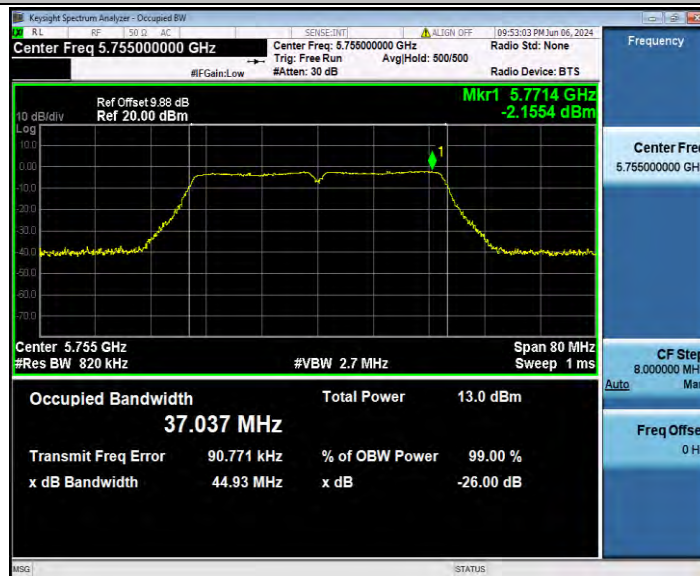
11N20SISO_Ant1_5785



11N20SISO_Ant1_5825



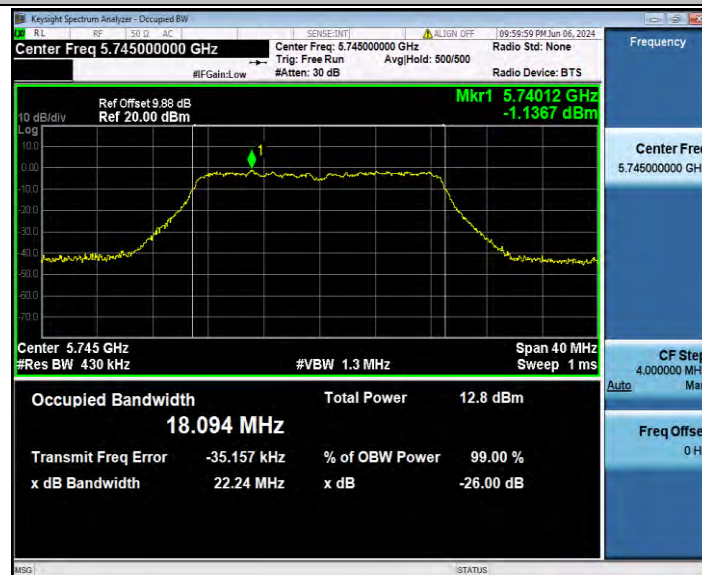
11N40SISO_Ant1_5755



11N40SISO_Ant1_5795



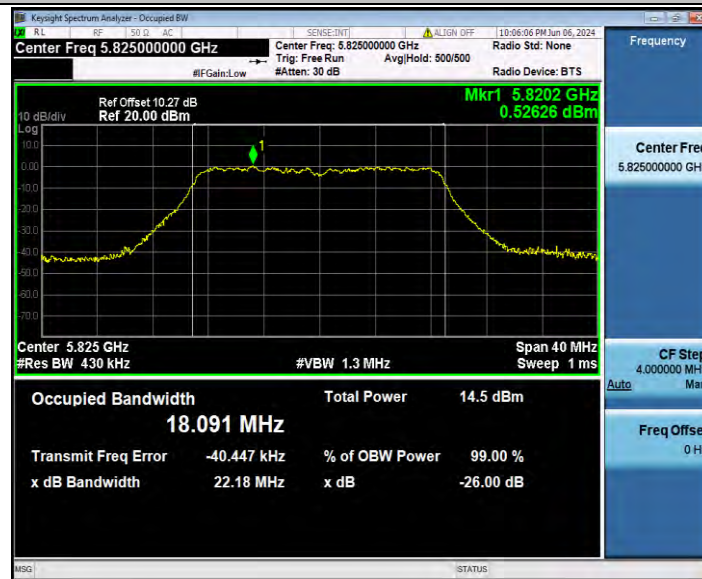
11AC20SISO_Ant1_5745



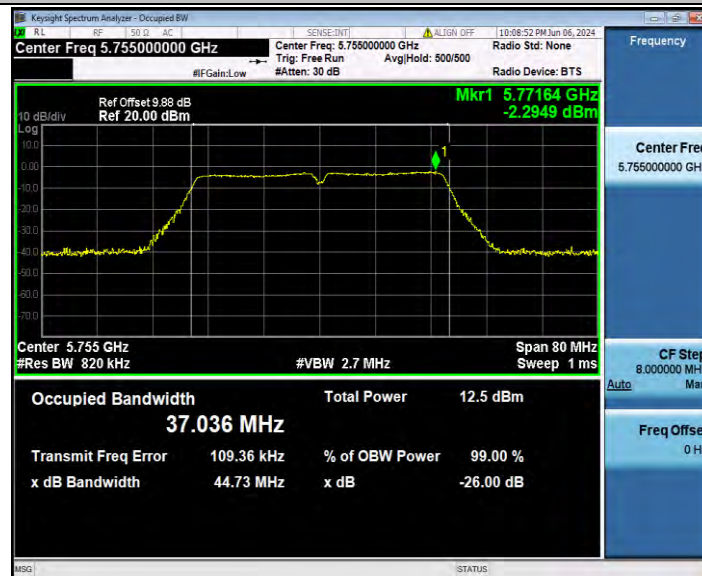
11AC20SISO_Ant1_5785



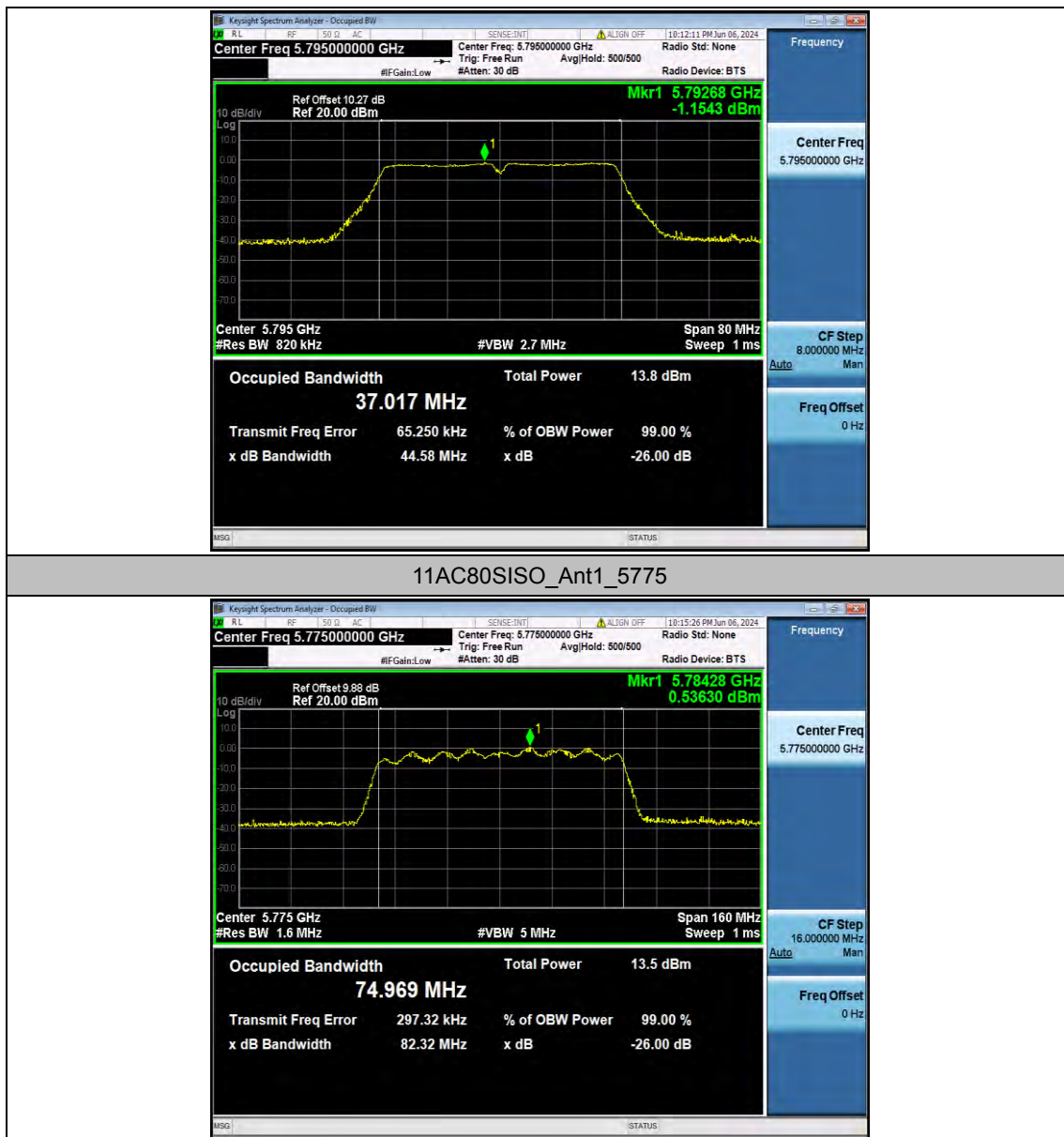
11AC20SISO_Ant1_5825



11AC40SISO_Ant1_5755



11AC40SISO_Ant1_5795



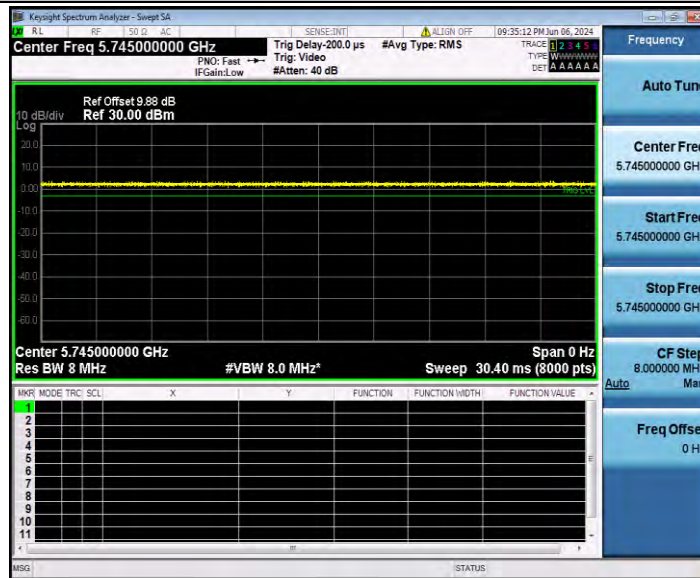
Appendix E.3: Duty Cycle

Test Result

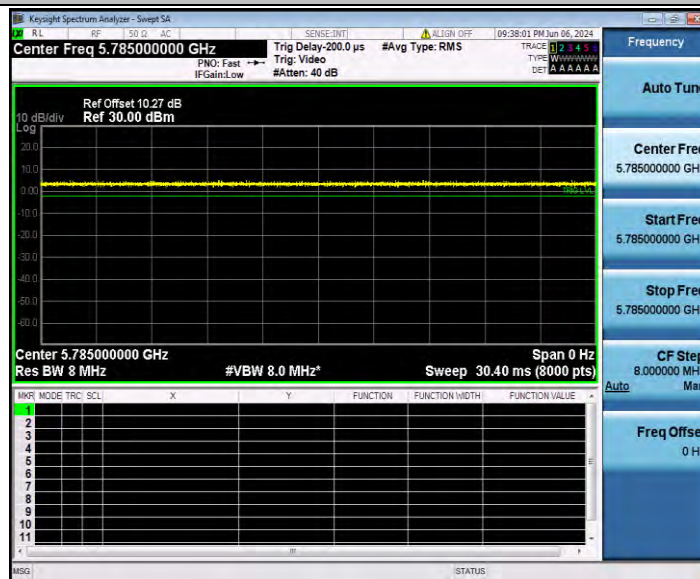
TestMode	Antenna	Freq(MHz)	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	Duty Cycle Factor[dB]	1/T Factor[KHz]
11A	Ant1	5745	30.00	30.00	100.00	0.00	0.03
		5785	30.00	30.00	100.00	0.00	0.03
		5825	30.00	30.00	100.00	0.00	0.03
11N20SISO	Ant1	5745	30.00	30.00	100.00	0.00	0.03
		5785	30.00	30.00	100.00	0.00	0.03
		5825	30.00	30.00	100.00	0.00	0.03
11N40SISO	Ant1	5755	30.00	30.00	100.00	0.00	0.03
		5795	30.00	30.00	100.00	0.00	0.03
11AC20SISO	Ant1	5745	30.00	30.00	100.00	0.00	0.03
		5785	30.00	30.00	100.00	0.00	0.03
		5825	30.00	30.00	100.00	0.00	0.03
11AC40SISO	Ant1	5755	30.00	30.00	100.00	0.00	0.03
		5795	30.00	30.00	100.00	0.00	0.03
11AC80SISO	Ant1	5775	30.00	30.00	100.00	0.00	0.03

Test Graphs

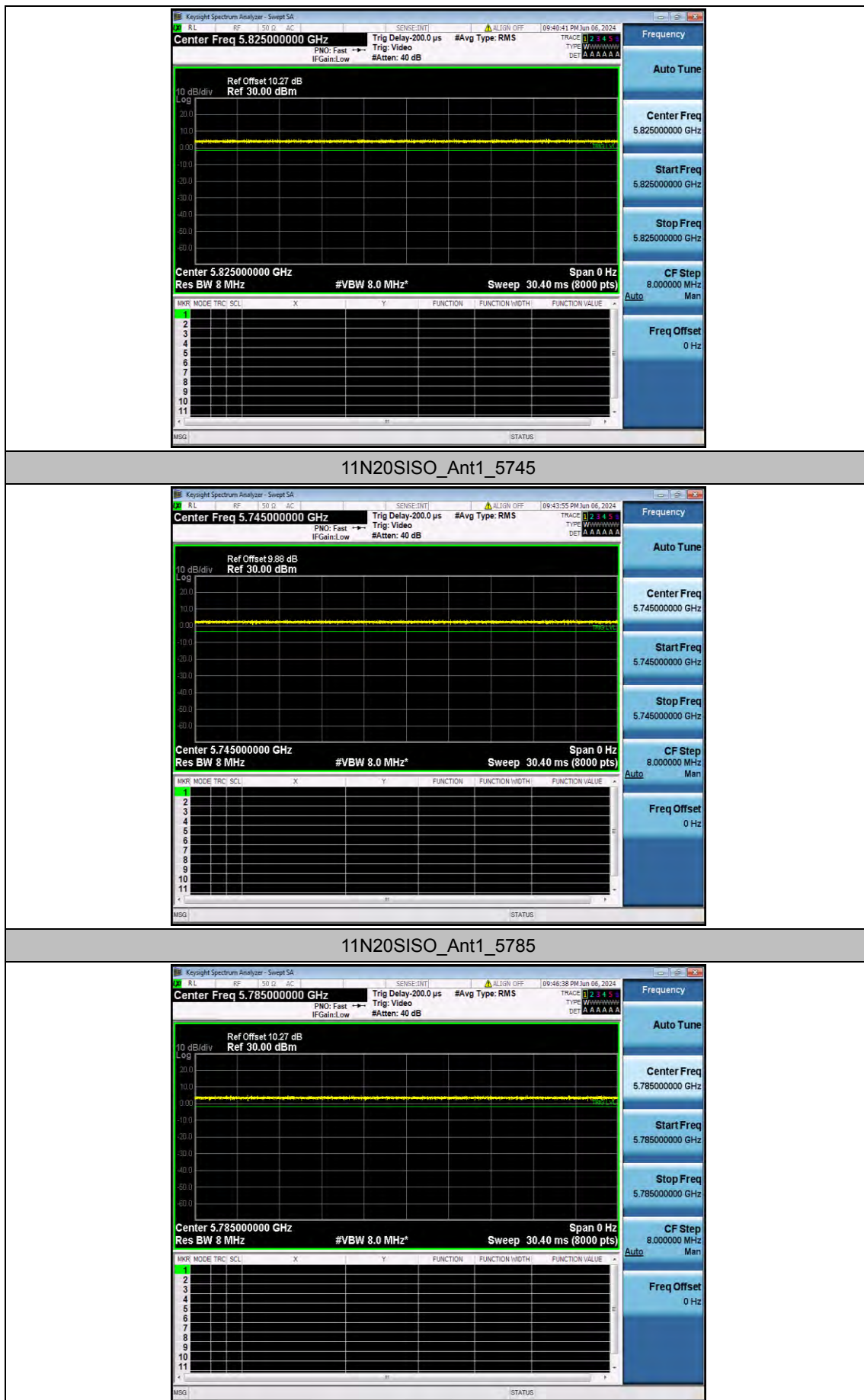
11A_Ant1_5745



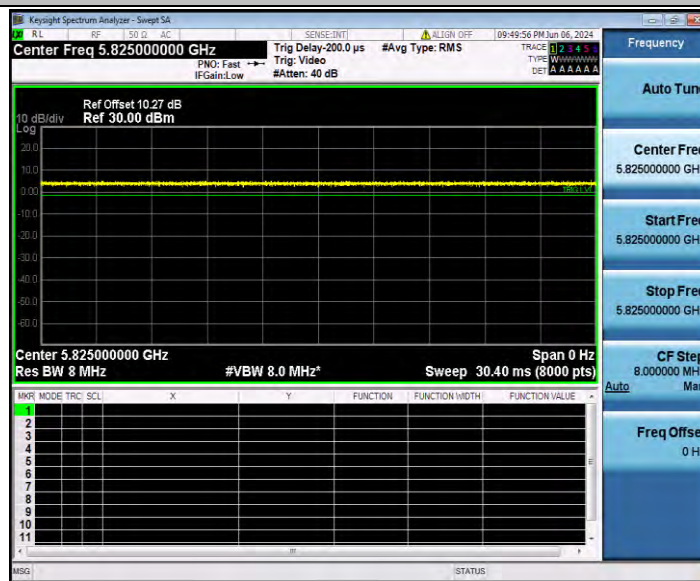
11A_Ant1_5785



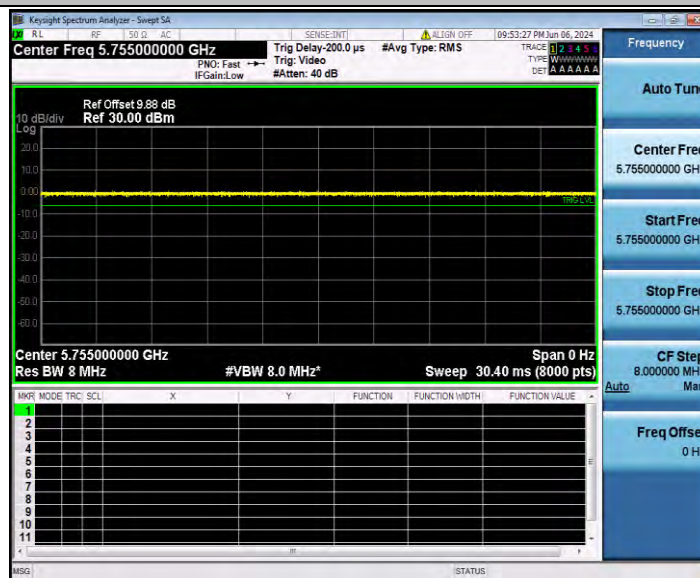
11A_Ant1_5825



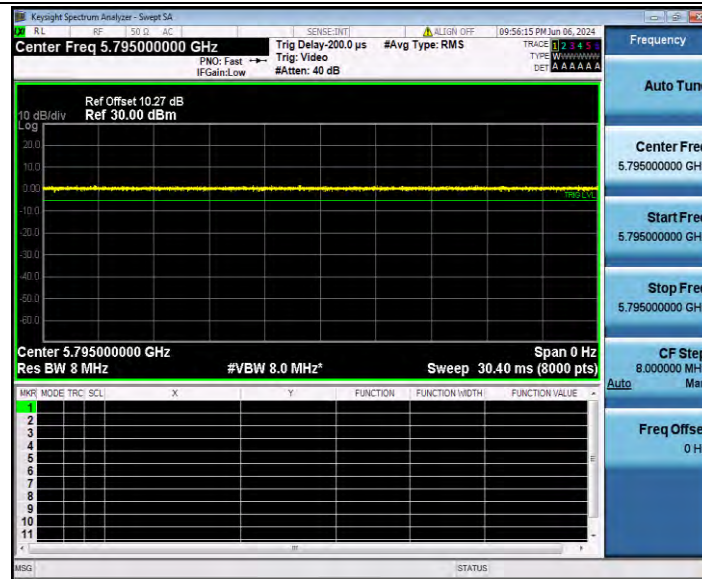
11N20SISO_Ant1_5825



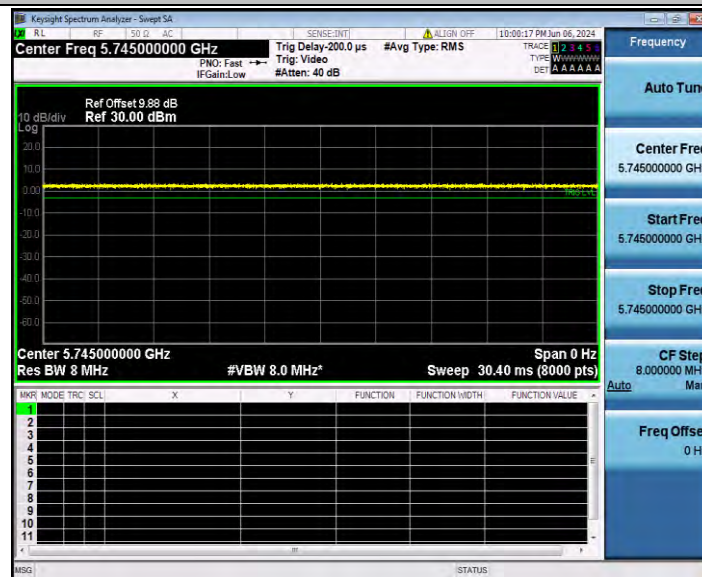
11N40SISO_Ant1_5755



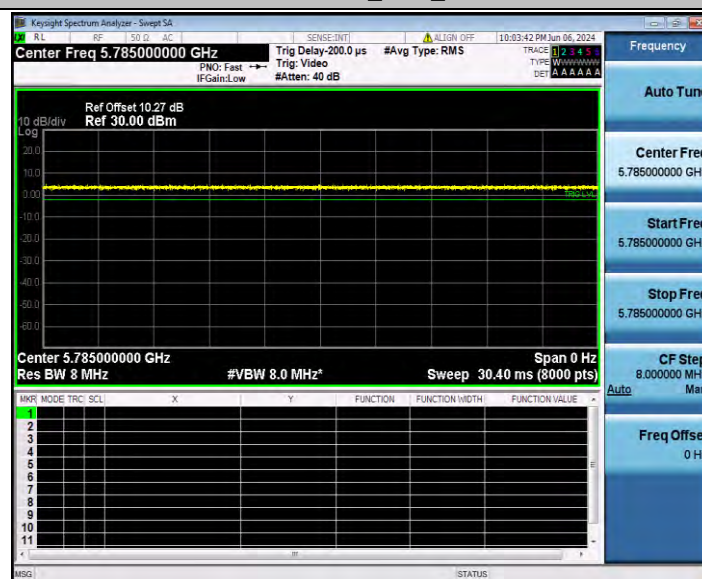
11N40SISO_Ant1_5795



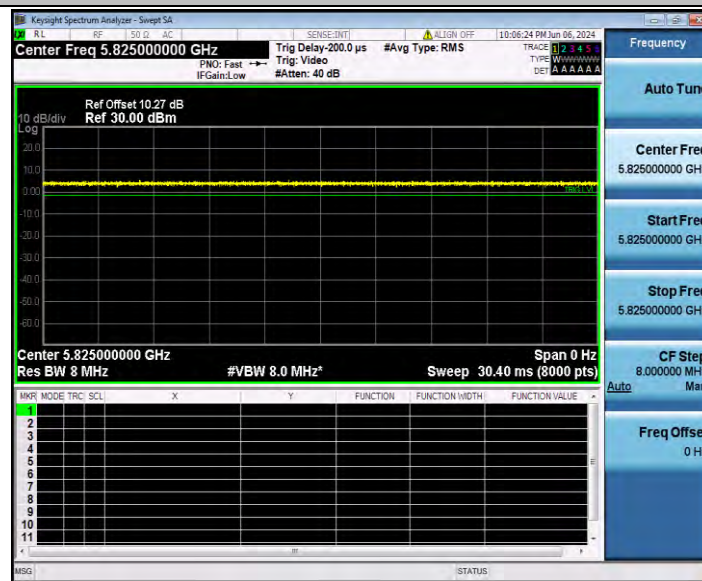
11AC20SISO_Ant1_5745



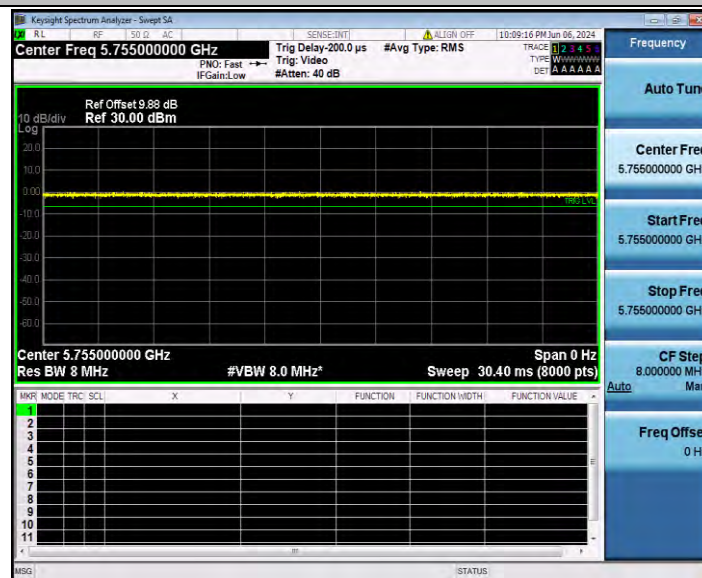
11AC20SISO_Ant1_5785



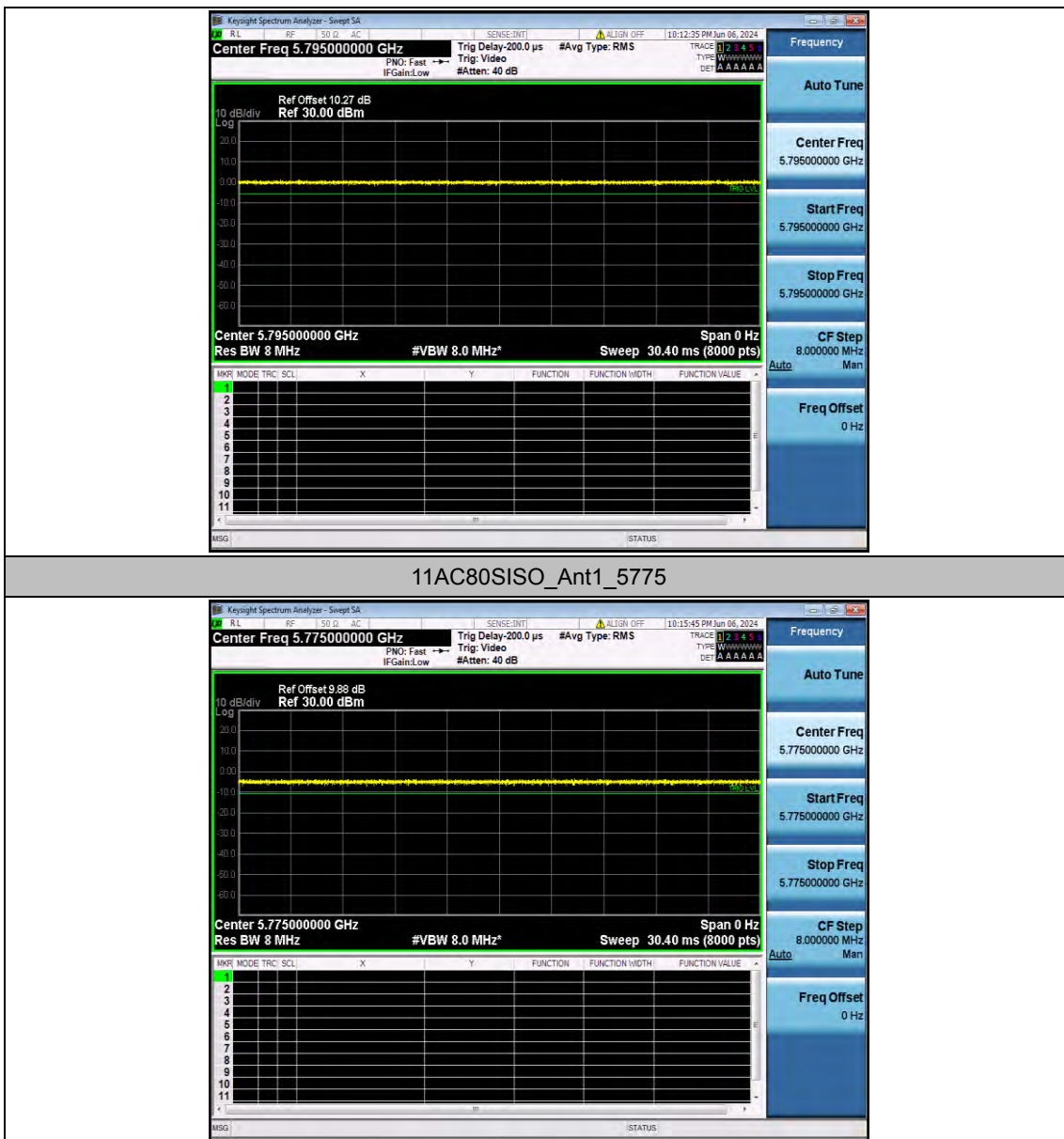
11AC20SISO_Ant1_5825



11AC40SISO_Ant1_5755



11AC40SISO_Ant1_5795



Appendix E.4: Maximum conducted output power

Test Result Channel Power

Test Mode	Antenna	Freq(MHz)	Duty Cycle [%]	Result [dBm]	Limit [dBm]	Verdict
11A	Ant1	5745	100.00	5.97	≤30.00	PASS
		5785	100.00	6.96	≤30.00	PASS
		5825	100.00	7.60	≤30.00	PASS
11N20SISO	Ant1	5745	100.00	6.12	≤30.00	PASS
		5785	100.00	7.27	≤30.00	PASS
		5825	100.00	7.81	≤30.00	PASS
11N40SISO	Ant1	5755	100.00	5.78	≤30.00	PASS
		5795	100.00	6.94	≤30.00	PASS
11AC20SISO	Ant1	5745	100.00	6.15	≤30.00	PASS
		5785	100.00	7.24	≤30.00	PASS
		5825	100.00	7.90	≤30.00	PASS
11AC40SISO	Ant1	5755	100.00	5.31	≤30.00	PASS
		5795	100.00	6.63	≤30.00	PASS
11AC80SISO	Ant1	5775	100.00	4.66	≤30.00	PASS

Appendix E.5: Maximum power spectral density

Test Result

TestMode	Antenna	Freq(MHz)	Result [dBm/MHz]	Limit[dBm/MHz]	Verdict
11A	Ant1	5745	-8.31	≤30.00	PASS
		5785	-7.16	≤30.00	PASS
		5825	-6.65	≤30.00	PASS
11N20SISO	Ant1	5745	-8.34	≤30.00	PASS
		5785	-7.13	≤30.00	PASS
		5825	-6.78	≤30.00	PASS
11N40SISO	Ant1	5755	-11.45	≤30.00	PASS
		5795	-10.52	≤30.00	PASS
11AC20SISO	Ant1	5745	-8.16	≤30.00	PASS
		5785	-7.11	≤30.00	PASS
		5825	-6.72	≤30.00	PASS
11AC40SISO	Ant1	5755	-11.82	≤30.00	PASS
		5795	-10.85	≤30.00	PASS
11AC80SISO	Ant1	5775	-14.48	≤30.00	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_5745



11A_Ant1_5785



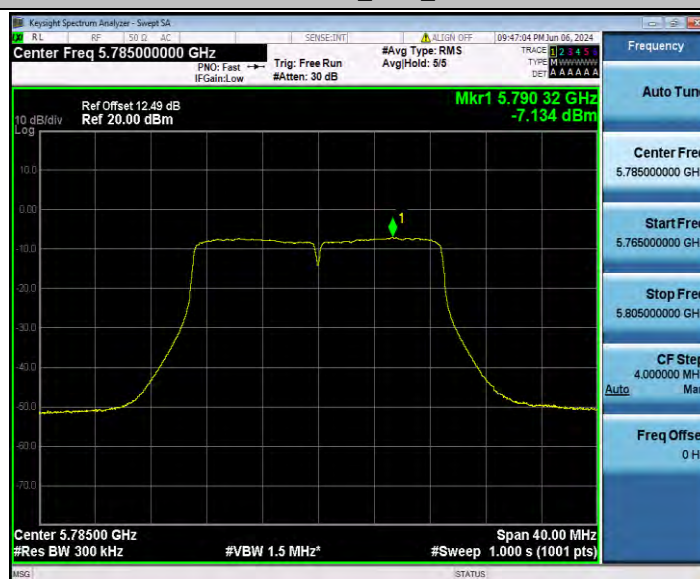
11A_Ant1_5825



11N20SISO_Ant1_5745



11N20SISO_Ant1_5785



11N20SISO_Ant1_5825



11N40SISO_Ant1_5755



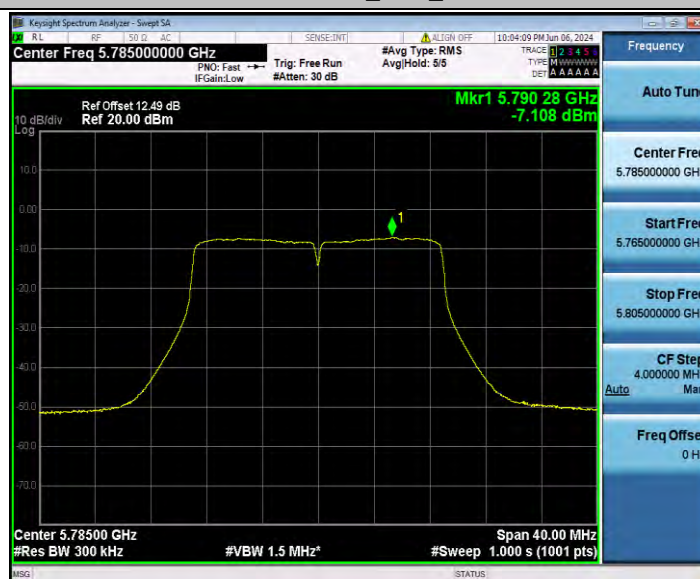
11N40SISO_Ant1_5795



11AC20SISO_Ant1_5745



11AC20SISO_Ant1_5785



11AC20SISO_Ant1_5825



11AC40SISO_Ant1_5755



11AC40SISO_Ant1_5795

Keysight Spectrum Analyzer - Seregi SA

Center Freq 5.775000000 GHz

Ref Offset 12.1 dB
Ref 20.00 dBm

Mkr1 5.79276 GHz
-14.476 dBm

Center 5.77500 GHz
#Res BW 300 kHz
#VBW 1.5 MHz*
Span 160.0 MHz
#Sweep 1.000 s (1001 pts)

Frequency

Auto Tune

Center Freq
5.775000000 GHz

Start Freq
5.695000000 GHz

Stop Freq
5.855000000 GHz

CF Step
16.000000 MHz
Auto Man

Freq Offset
0 Hz

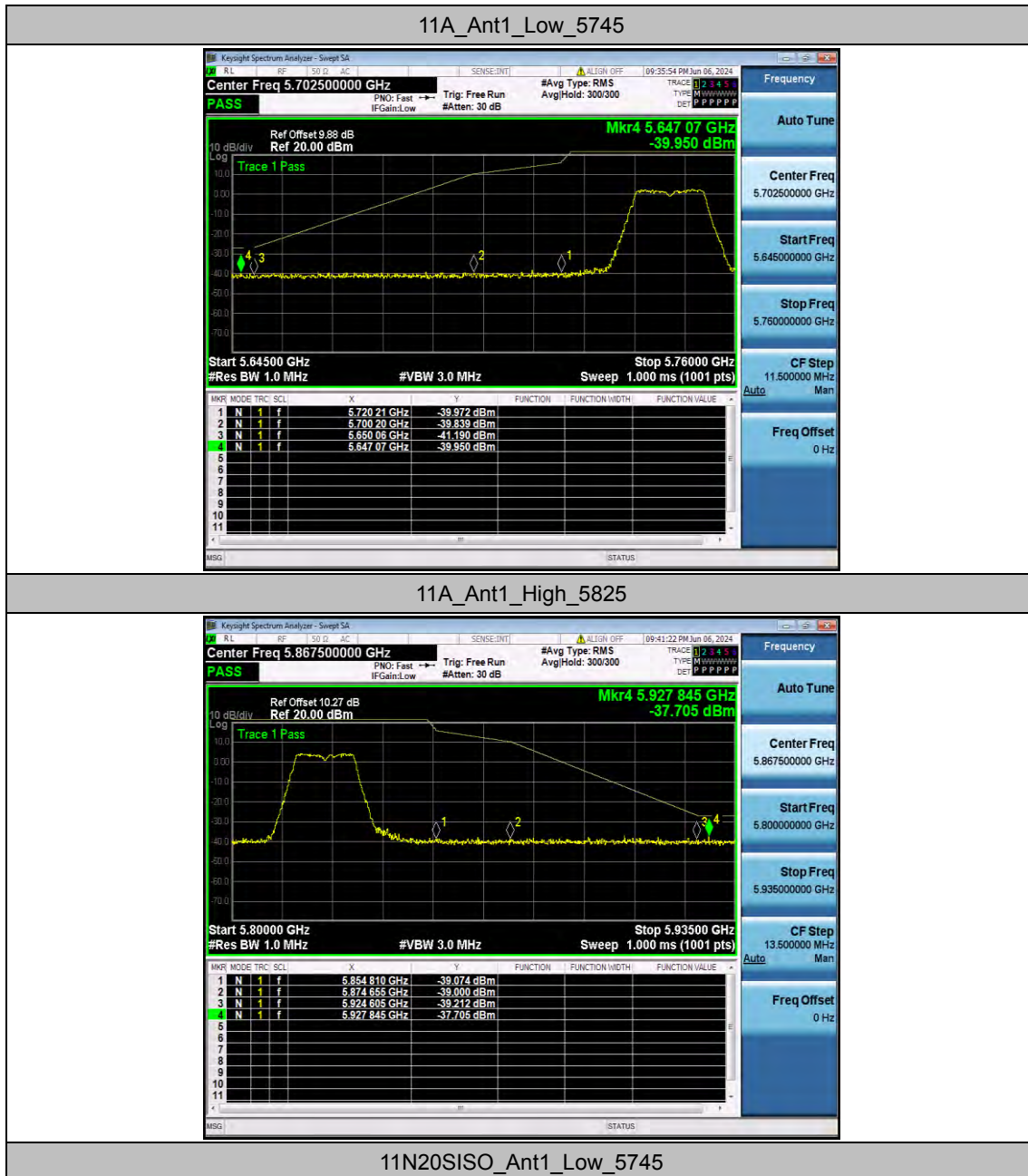
Appendix E.6: Band edge measurements

Test Result B4

TestMode	Antenna	ChName	Freq(MHz)	FreqRange [MHz]	Result [dBm]	Limit [dBm]	Verdict
11A	Ant1	Low	5745	5650~5700	-41.19	≤-26.96	PASS
				5700~5720	-39.84	≤10.06	PASS
				5720~5725	-39.97	≤16.08	PASS
				5760~5650	-39.95	≤-27	PASS
		High	5825	5850~5855	-39.07	≤16.03	PASS
				5855~5875	-39	≤10.10	PASS
				5875~5925	-39.21	≤-26.71	PASS
				5925~5935	-37.71	≤-27	PASS
11N20SI SO	Ant1	Low	5745	5650~5700	-40.34	≤-26.70	PASS
				5700~5720	-38.2	≤11.09	PASS
				5720~5725	-39.79	≤16.34	PASS
				5760~5650	-39.43	≤-27	PASS
		High	5825	5850~5855	-39.19	≤16.03	PASS
				5855~5875	-39.02	≤10.06	PASS
				5875~5925	-39.49	≤-26.51	PASS
				5925~5935	-38.85	≤-27	PASS
11N40SI SO	Ant1	Low	5755	5650~5700	-40.92	≤-26.90	PASS
				5700~5720	-38.53	≤11.61	PASS
				5720~5725	-38.59	≤16.66	PASS
				5780~5650	-39.7	≤-27	PASS
		High	5795	5850~5855	-39.73	≤16.03	PASS
				5855~5875	-38.6	≤10.06	PASS
				5875~5925	-38.63	≤-26.22	PASS
				5925~5935	-38.37	≤-27	PASS
11AC20S ISO	Ant1	Low	5745	5650~5700	-40.94	≤-26.87	PASS
				5700~5720	-38.25	≤10.06	PASS
				5720~5725	-40.59	≤16.08	PASS
				5760~5650	-39.55	≤-27	PASS
		High	5825	5850~5855	-40.34	≤15.73	PASS
				5855~5875	-39.1	≤10.10	PASS
				5875~5925	-39.06	≤-26.61	PASS
				5925~5935	-38.07	≤-27	PASS
11AC40S ISO	Ant1	Low	5755	5650~5700	-40.48	≤-26.80	PASS
				5700~5720	-39.43	≤10.40	PASS
				5720~5725	-39.78	≤15.74	PASS
				5780~5650	-38.78	≤-27	PASS

		High	5795	5850~5855	-38.99	≤ 16.41	PASS
				5855~5875	-38.97	≤ 10.62	PASS
				5875~5925	-38.89	≤ -25.98	PASS
				5925~5935	-38.63	≤ -27	PASS
11AC80S ISO	Ant1	Low	5775	5650~5700	-40.37	≤ -26.69	PASS
				5700~5720	-39.07	≤ 10.18	PASS
				5720~5725	-38.9	≤ 16.35	PASS
				5800~5650	-39.63	≤ -27	PASS
		High	5775	5850~5855	-39.36	≤ 15.84	PASS
				5855~5875	-39.43	≤ 10.35	PASS
				5875~5925	-39.66	≤ -26.46	PASS
				5925~5935	-39.15	≤ -27	PASS

Test Graphs B4





11N20SISO_Ant1_High_5825



11N40SISO_Ant1_Low_5755



11N40SISO_Ant1_High_5795



11AC20SISO_Ant1_Low_5745



11AC20SISO_Ant1_High_5825



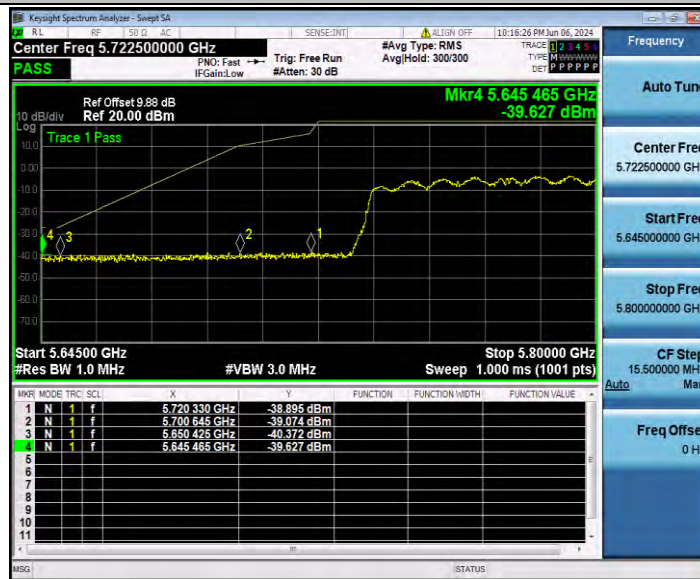
11AC40SISO_Ant1_Low_5755



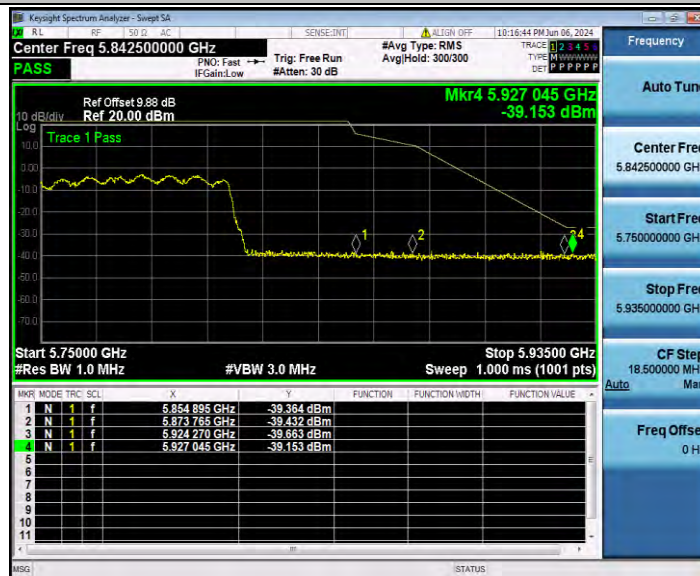
11AC40SISO_Ant1_High_5795



11AC80SISO_Ant1_Low_5775



11AC80SISO_Ant1_High_5775



Appendix E.7: Conducted Spurious Emission

Test Result

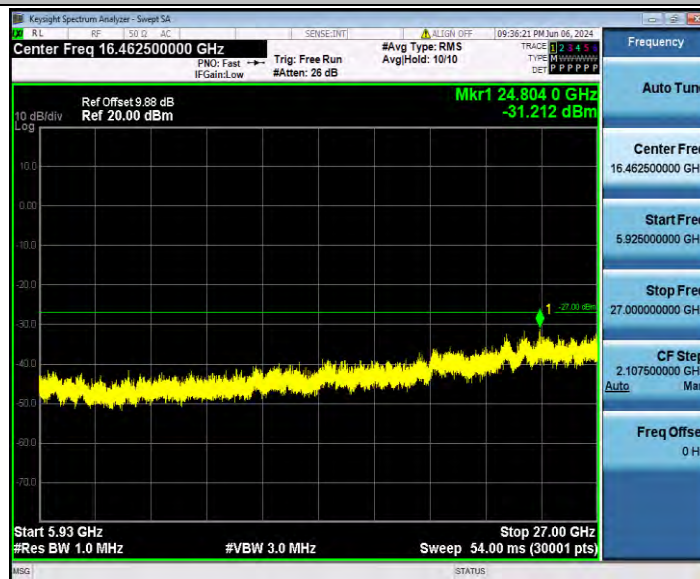
TestMode	Antenna	Freq(MHz)	FreqRange [MHz]	Max. Fre [MHz]	Max. Level [dBm]	Limit [dBm]	Verdict
11A	Ant1	5745	30~5650	5477.09	-39.8	≤-27	PASS
			5925~40000	24803.99	-31.21	≤-27	PASS
		5785	30~5650	5404.97	-39.68	≤-27	PASS
			5925~40000	24260.95	-31.24	≤-27	PASS
		5825	30~5650	4837.91	-40.07	≤-27	PASS
			5925~40000	24232.15	-31.12	≤-27	PASS
11N20SISO	Ant1	5745	30~5650	5469.97	-40.78	≤-27	PASS
			5925~40000	26615.03	-31.78	≤-27	PASS
		5785	30~5650	5530.48	-39.5	≤-27	PASS
			5925~40000	24291.16	-31.05	≤-27	PASS
		5825	30~5650	5462.29	-39.66	≤-27	PASS
			5925~40000	24766.05	-31.91	≤-27	PASS
11N40SISO	Ant1	5755	30~5650	4983.47	-40.84	≤-27	PASS
			5925~40000	25283.79	-32.28	≤-27	PASS
		5795	30~5650	3237.71	-39.79	≤-27	PASS
			5925~40000	24286.24	-32.25	≤-27	PASS
11AC20SISO	Ant1	5745	30~5650	5466.23	-40.17	≤-27	PASS
			5925~40000	25982.78	-32.16	≤-27	PASS
		5785	30~5650	5420.14	-39.76	≤-27	PASS
			5925~40000	24128.88	-32.25	≤-27	PASS
		5825	30~5650	5466.41	-40.21	≤-27	PASS
			5925~40000	24957.83	-31.21	≤-27	PASS
11AC40SISO	Ant1	5755	30~5650	5393.35	-40.31	≤-27	PASS
			5925~40000	25075.15	-31.94	≤-27	PASS
		5795	30~5650	5480.46	-39.1	≤-27	PASS
			5925~40000	26662.1	-32.11	≤-27	PASS
11AC80SISO	Ant1	5775	30~5650	5418.08	-40.5	≤-27	PASS
			5925~40000	25639.96	-31.56	≤-27	PASS

Test Graphs

11A_Ant1_5745_30~5650



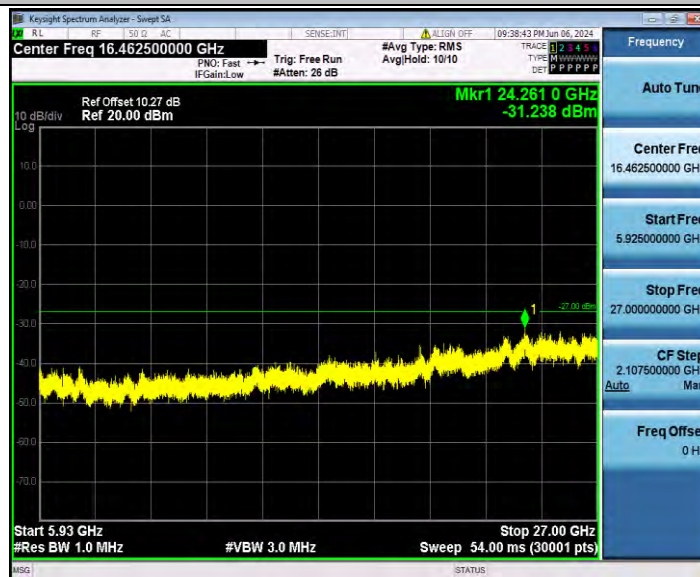
11A_Ant1_5745_5925~40000



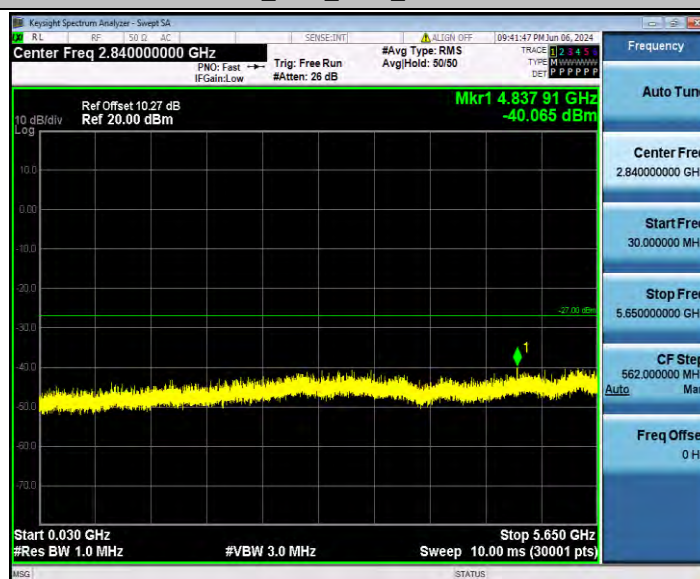
11A_Ant1_5785_30~5650



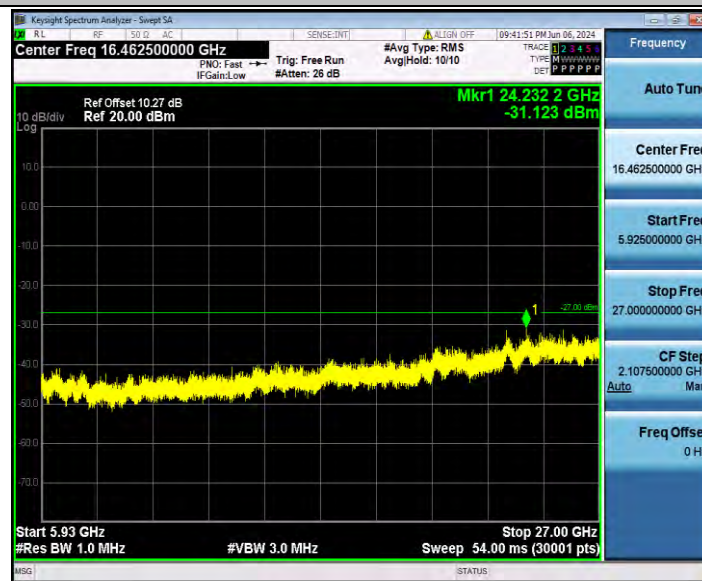
11A_Ant1_5785_5925~40000



11A_Ant1_5825_30~5650



11A_Ant1_5825_5925~40000



11N20SISO_Ant1_5745_30~5650



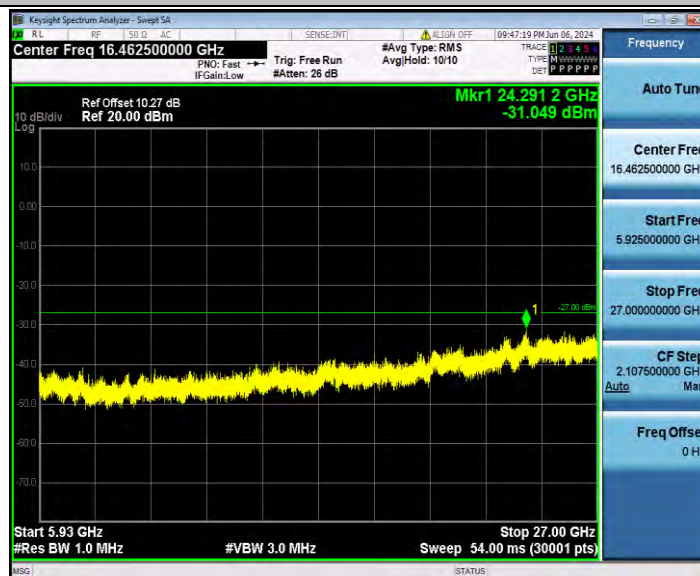
11N20SISO_Ant1_5745_5925~40000



11N20SISO_Ant1_5785_30~5650



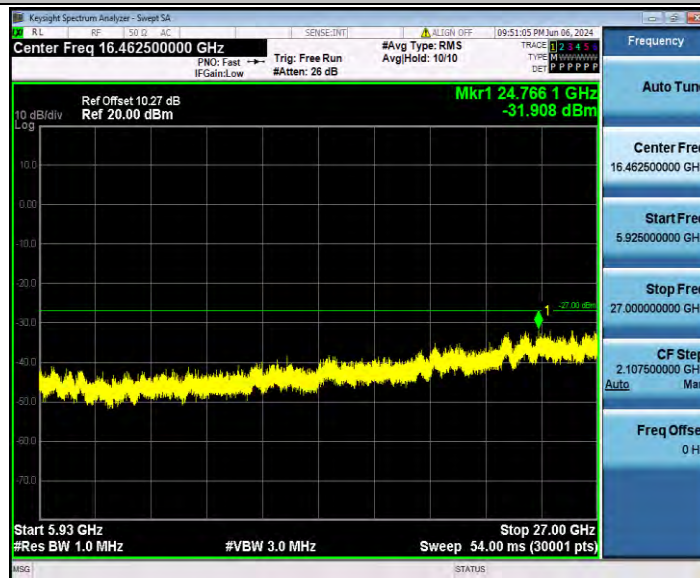
11N20SISO_Ant1_5785_5925~40000



11N20SISO_Ant1_5825_30~5650



11N20SISO_Ant1_5825_5925~40000



11N40SISO_Ant1_5755_30~5650



11N40SISO_Ant1_5755_5925~40000



11N40SISO_Ant1_5795_30~5650



11N40SISO_Ant1_5795_5925~40000



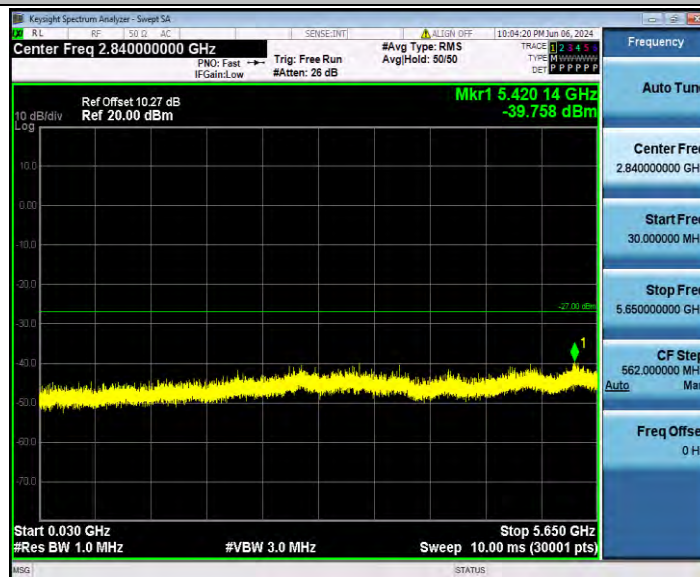
11AC20SISO_Ant1_5745_30~5650



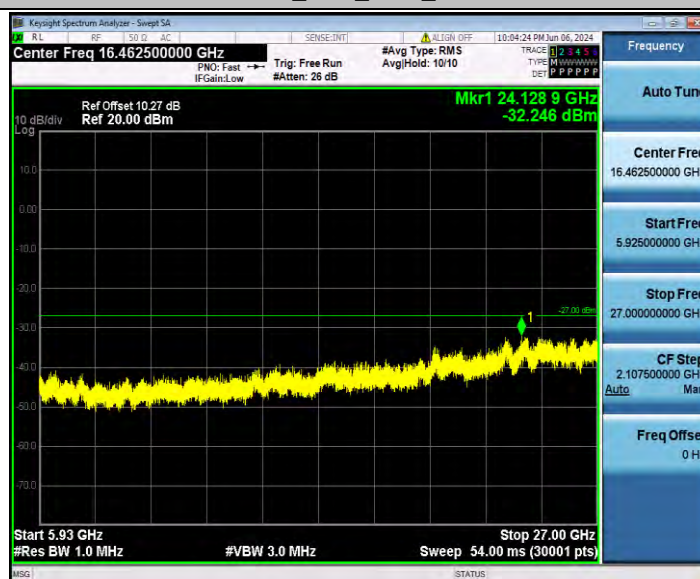
11AC20SISO_Ant1_5745_5925~40000



11AC20SISO_Ant1_5785_30~5650



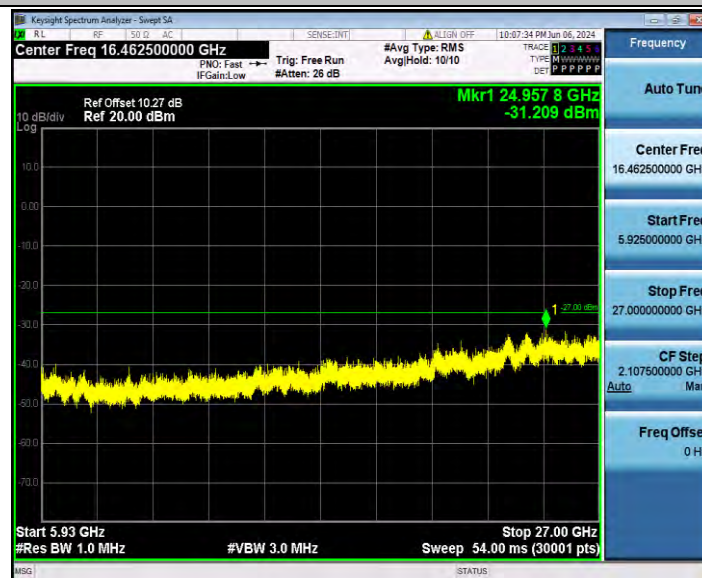
11AC20SISO_Ant1_5785_5925~40000



11AC20SISO_Ant1_5825_30~5650



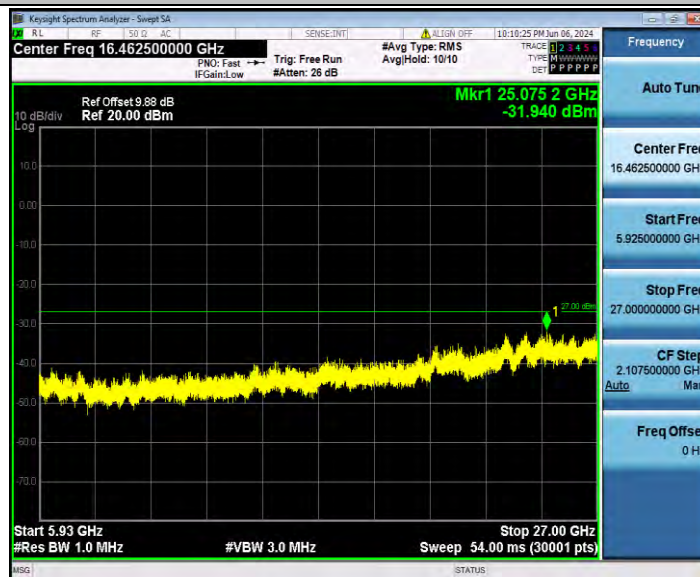
11AC20SISO_Ant1_5825_5925~40000



11AC40SISO_Ant1_5755_30~5650



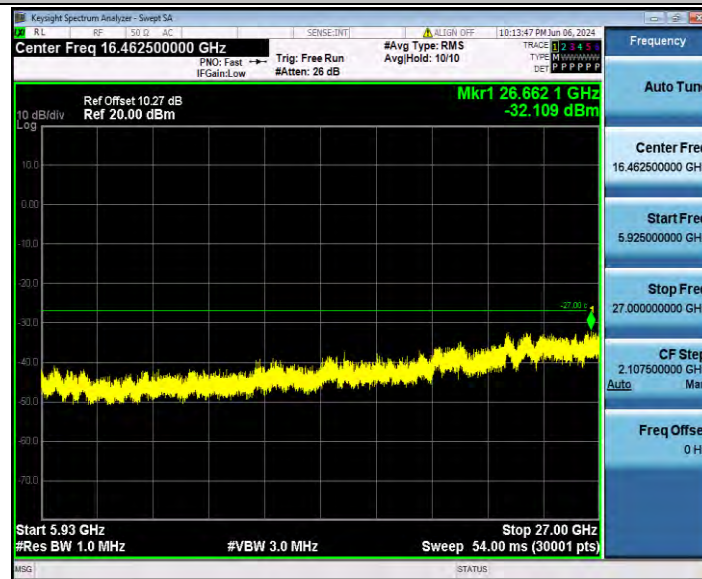
11AC40SISO_Ant1_5755_5925~40000



11AC40SISO_Ant1_5795_30~5650



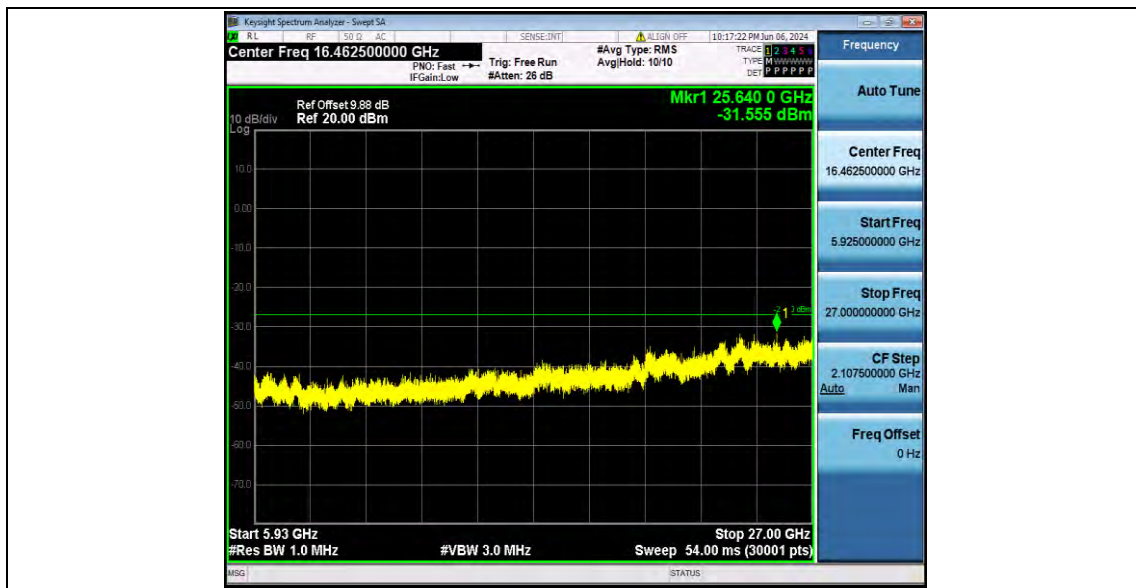
11AC40SISO_Ant1_5795_5925~40000



11AC80SISO_Ant1_5775_30~5650



11AC80SISO_Ant1_5775_5925~40000



Appendix E.8: Emissions in Restricted Bands

Test Result

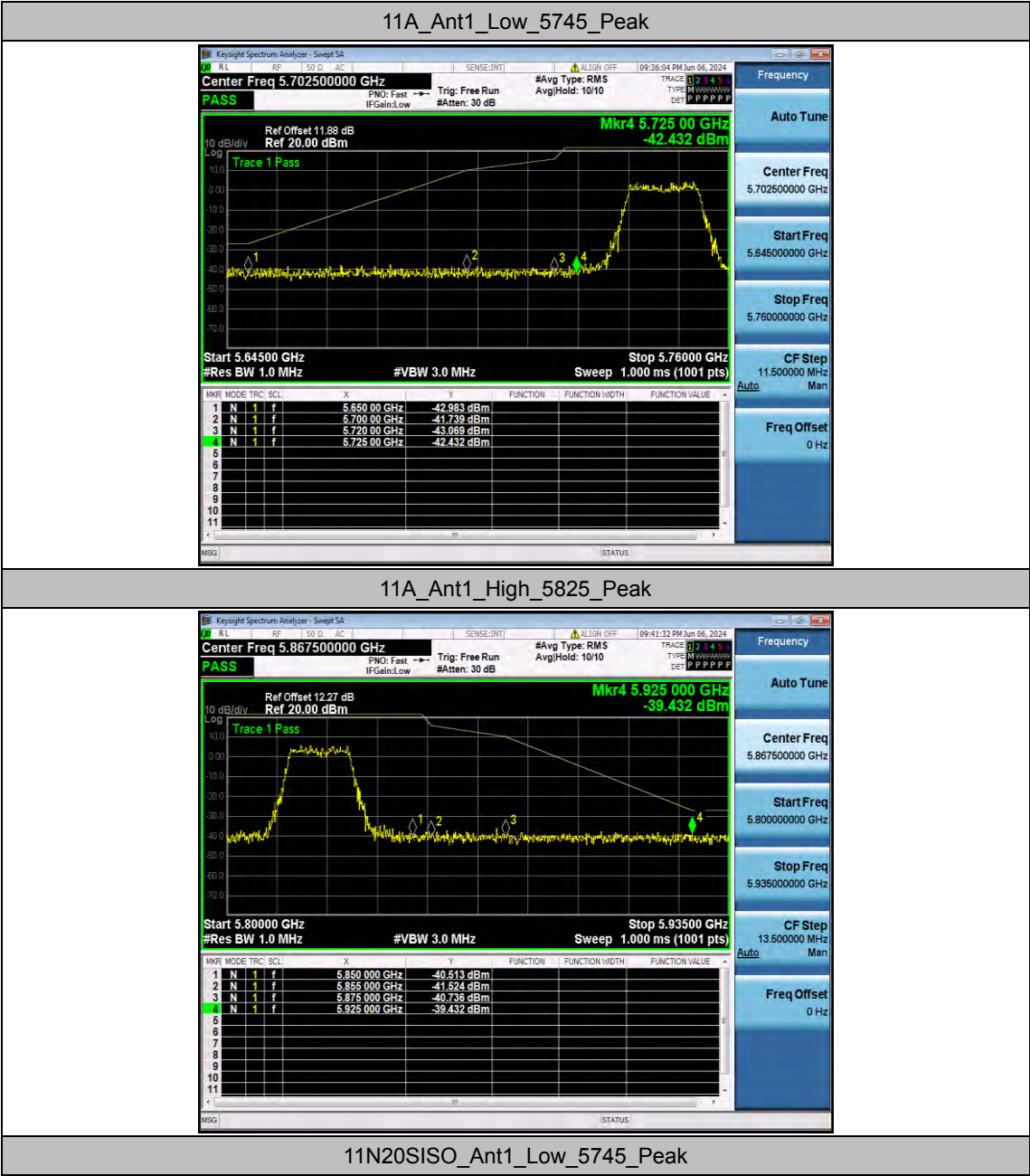
TestMode	Antenna	ChName	Freq(MHz)	Detector	Freq [MHz]	Result [dBm]	Limit [dBm]	Verdict
11A	Ant1	Low	5745	Peak	5650.000	-42.983	≤-27.00	PASS
				Peak	5700.000	-41.74	≤10.00	PASS
				Peak	5720.000	-43.07	≤15.60	PASS
				Peak	5725.000	-42.43	≤27.00	PASS
		High	5825	Peak	5850.000	-40.513	≤27.00	PASS
				Peak	5855.000	-41.52	≤15.60	PASS
				Peak	5875.000	-40.74	≤10.00	PASS
				Peak	5925.000	-39.43	≤-27.00	PASS
11N20SISO	Ant1	Low	5745	Peak	5650.000	-42.697	≤-27.00	PASS
				Peak	5700.000	-41.7	≤10.00	PASS
				Peak	5720.000	-40.65	≤15.60	PASS
				Peak	5725.000	-39.15	≤27.00	PASS
		High	5825	Peak	5850.000	-41.735	≤27.00	PASS
				Peak	5855.000	-40.98	≤15.60	PASS
				Peak	5875.000	-41.51	≤10.00	PASS
				Peak	5925.000	-42.38	≤-27.00	PASS
11N40SISO	Ant1	Low	5755	Peak	5650.000	-42.33	≤-27.00	PASS
				Peak	5700.000	-43.91	≤10.00	PASS
				Peak	5720.000	-39.99	≤15.60	PASS
				Peak	5725.000	-38.45	≤27.00	PASS
		High	5795	Peak	5850.000	-40.685	≤27.00	PASS
				Peak	5855.000	-43.72	≤15.60	PASS
				Peak	5875.000	-41.73	≤10.00	PASS
				Peak	5925.000	-40.2	≤-27.00	PASS
11AC20SISO	Ant1	Low	5745	Peak	5650.000	-42.262	≤-27.00	PASS
				Peak	5700.000	-41.57	≤10.00	PASS
				Peak	5720.000	-42	≤15.60	PASS
				Peak	5725.000	-42.51	≤27.00	PASS
		High	5825	Peak	5850.000	-42.169	≤27.00	PASS
				Peak	5855.000	-39.62	≤15.60	PASS
				Peak	5875.000	-41.92	≤10.00	PASS
				Peak	5925.000	-40.68	≤-27.00	PASS
11AC40SISO	Ant1	Low	5755	Peak	5650.000	-42.831	≤-27.00	PASS
				Peak	5700.000	-42.87	≤10.00	PASS
				Peak	5720.000	-42.33	≤15.60	PASS
				Peak	5725.000	-40.52	≤27.00	PASS

11AC80SISO	Ant1	High	5795	Peak	5850.000	-41.449	≤27.00	PASS
				Peak	5855.000	-39.94	≤15.60	PASS
				Peak	5875.000	-41.11	≤10.00	PASS
				Peak	5925.000	-42.41	≤-27.00	PASS
		Low	5775	Peak	5650.000	-43.628	≤-27.00	PASS
				Peak	5700.000	-36.92	≤10.00	PASS
				Peak	5720.000	-41.4	≤15.60	PASS
				Peak	5725.000	-38.72	≤27.00	PASS
		High	5775	Peak	5850.000	-40.034	≤27.00	PASS
				Peak	5855.000	-40.48	≤15.60	PASS
				Peak	5875.000	-41.03	≤10.00	PASS
				Peak	5925.000	-39.52	≤-27.00	PASS

Note:

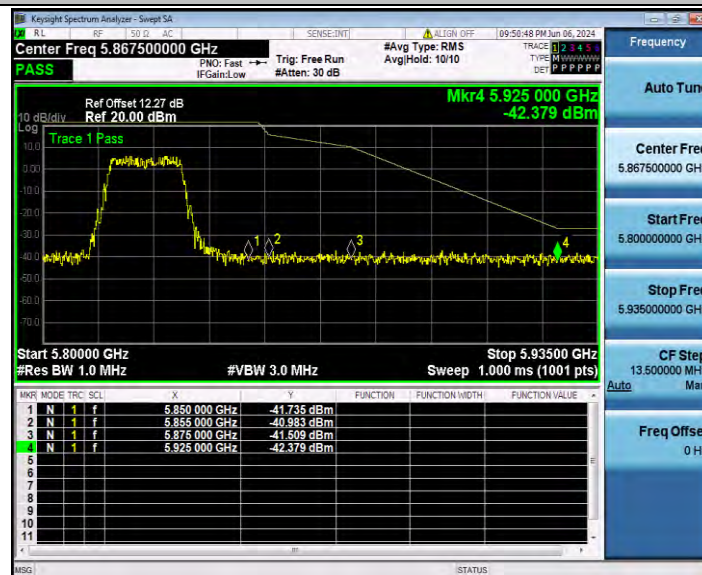
1. The Antenna Gain is compensated in the graph.
2. The Duty Cycle Factor and RBW Factor is compensated in the graph.
3. For transmitters operating in 5150-5350 GHz band and 5470-5725 GHz band: The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.

Test Graphs

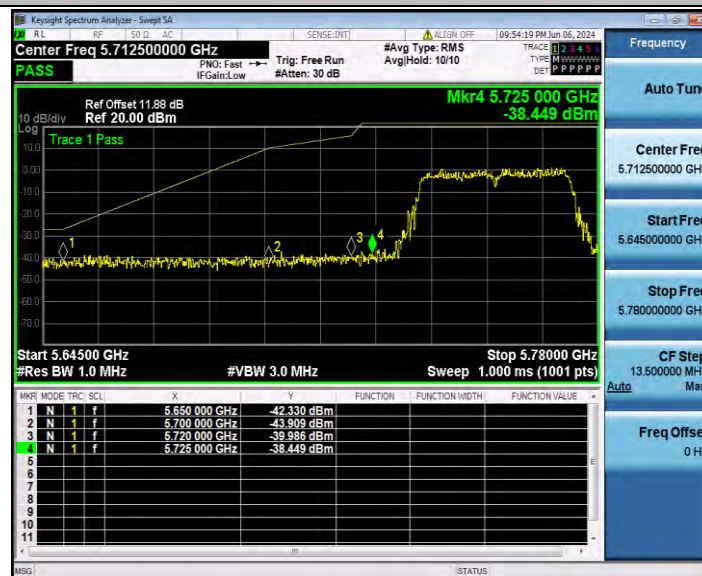




11N20SISO_Ant1_High_5825_Peak



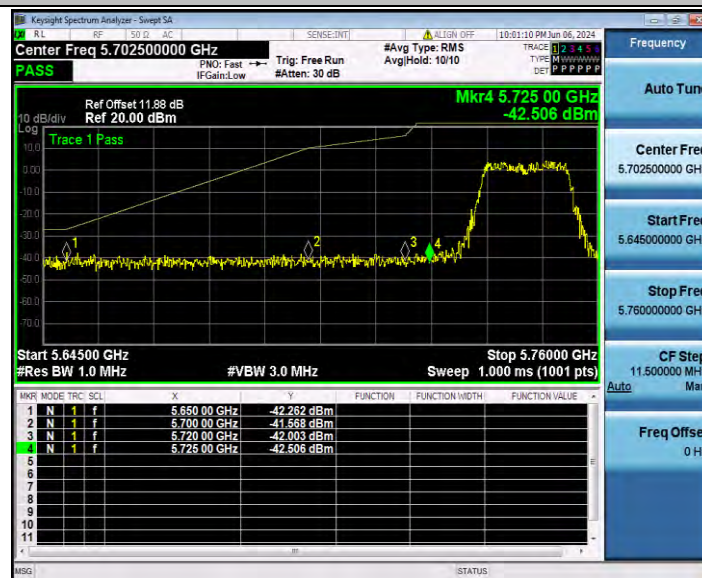
11N40SISO_Ant1_Low_5755_Peak



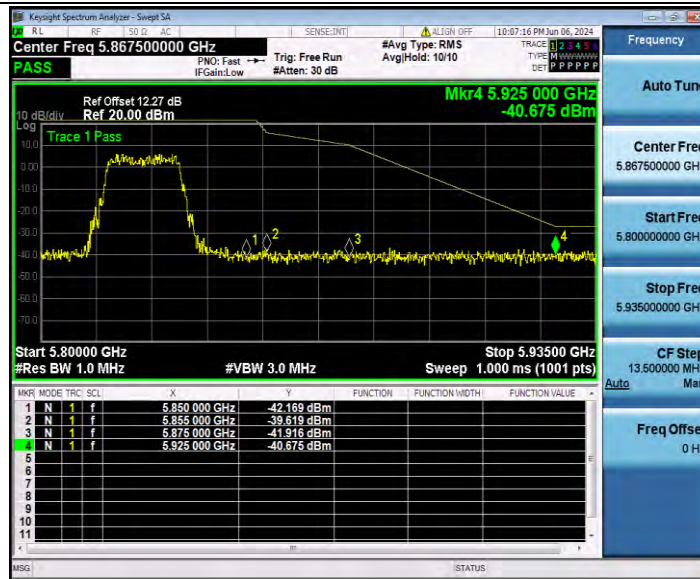
11N40SISO_Ant1_High_5795_Peak



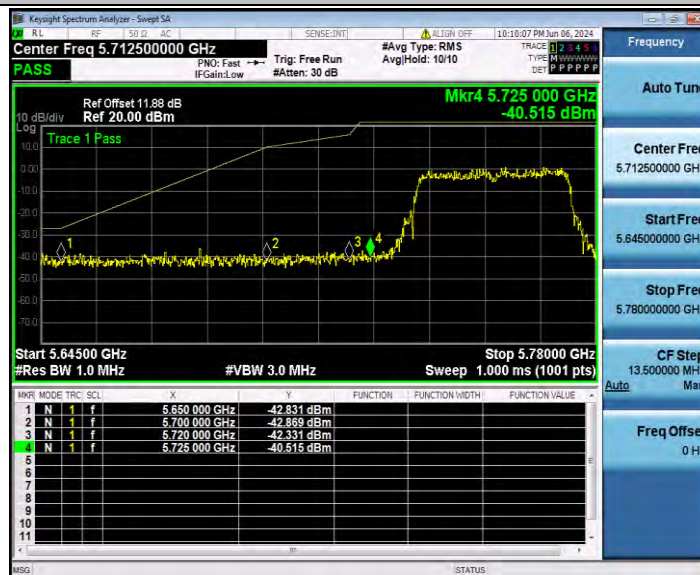
11AC20SISO_Ant1_Low_5745_Peak



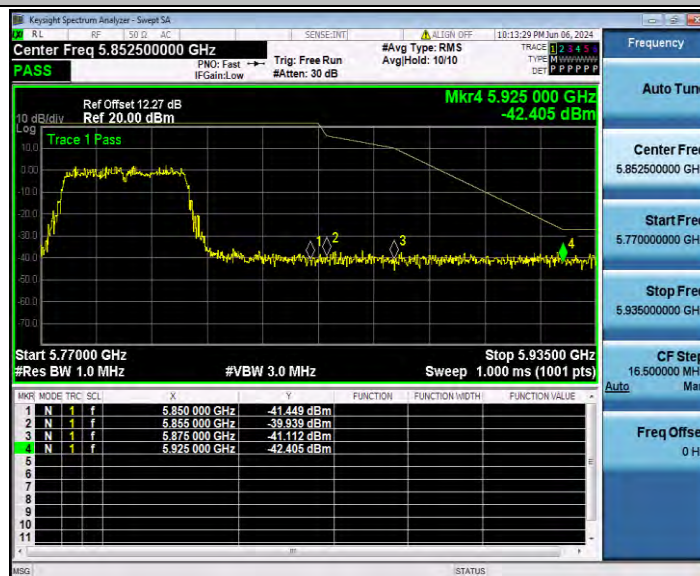
11AC20SISO_Ant1_High_5825_Peak



11AC40SISO_Ant1_Low_5755_Peak



11AC40SISO_Ant1_High_5795_Peak



11AC80SISO_Ant1_Low_5775_Peak



11AC80SISO_Ant1_High_5775_Peak

