

5 Appendix C: Maximum power spectral density

5.1 Total Maximum power spectral density:

Total PSD= Ant 1 PSD + duty cycle factor + Ant 2 PSD+ duty cycle factor.

The directional gain is 9.1dBi, which exceed 6dBi 3.1dB, the total PSD limit will be reduced by 3.1dB.

Nominal limit for Band U-NII-1/-2A/-2C: Limit is 11dBm/MHz

Nominal limit for Band U-NII-3: 30dBm/500K

For the band U-NII-3 result shall add $10 \log (500\text{KHz}/300\text{KHz}) = 2.21\text{dB}$ to the measured result as the measurement RBW=300Khz, therefore, the test result shall add the RBW factor 2.21db.

Final limit = nominal limit-antenna reduction factor-duty cycle factor- RBW factor

The Duty Cycle Factor and RBW Factor is compensated in the conducted PSD graph.

Therefore,

Final limit= nominal limit-antenna reduction factor only.

Total PSD= Ant 1 conducted PSD + Ant 2 conducted PSD in the below table.



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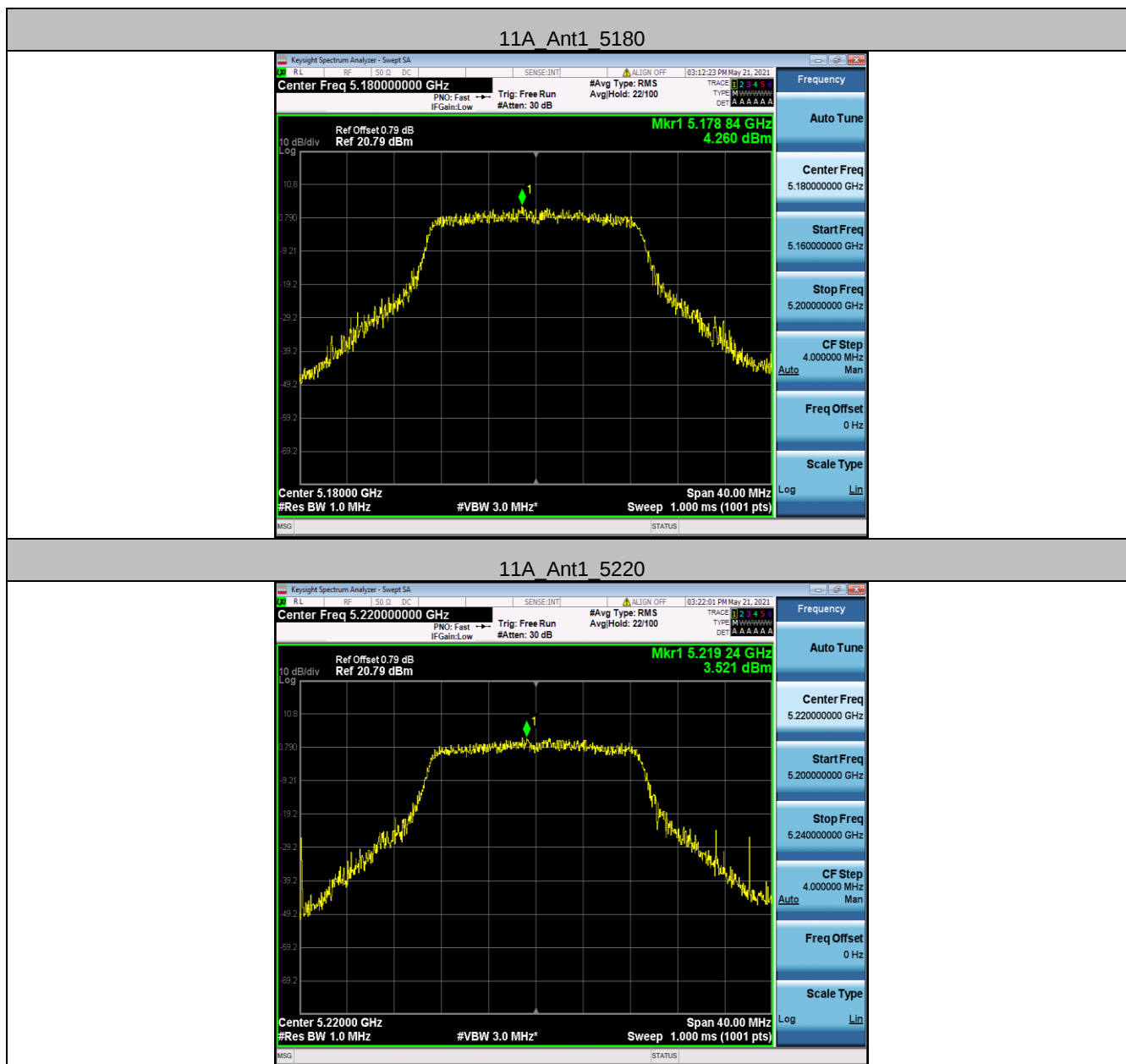
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11 A 20SISO	5180	Ant 1	0	4.26	Ant2	0	2.13	6.335	7.9	PASS
	5220		0	3.52		0	2.28	5.954	7.9	PASS
	5240		0	4.06		0	1.81	6.089	7.9	PASS
	5260		0	4.71		0	1.83	6.515	7.9	PASS
	5300		0	4.34		0	1.49	6.155	7.9	PASS
	5320		0	4.71		0	1.65	6.454	7.9	PASS
	5500		0	2.59		0	0.37	4.631	7.9	PASS
	5580		0	3.86		0	1.78	5.954	7.9	PASS
	5700		0	4.87		0	1.86	6.631	7.9	PASS
	5745		0	0.66		0	0.27	3.480	26.9	PASS
	5785		0	0.46		0	-1.08	2.768	26.9	PASS
	5825		0	0.54		0	-1.32	2.719	26.9	PASS
11N20SISO	5180	Ant 1	0.65	4.9	Ant2	0.65	2.81	6.990	7.9	PASS
	5220		0.65	4.26		0.65	2.93	6.656	7.9	PASS
	5240		0.65	3.16		0.65	2.38	5.798	7.9	PASS
	5260		0.65	3.03		0.65	1.26	5.245	7.9	PASS
	5300		0.65	3.98		0.65	1.24	5.833	7.9	PASS
	5320		0.65	3.73		0.65	1.63	5.816	7.9	PASS
	5500		0.65	3.9		0.65	0.29	5.470	7.9	PASS
	5580		0.65	3.44		0.65	2.37	5.948	7.9	PASS
	5700		0.65	5.97		0.65	2.49	7.580	7.9	PASS
	5745		0.65	1.9		0.65	1.9	4.910	26.9	PASS
	5785		0.65	1.8		0.65	-0.81	3.698	26.9	PASS
	5825		0.65	0.7		0.65	-1.51	2.744	26.9	PASS
11N40SISO	5190	Ant 1	0.17	1.99	Ant2	0.17	0.88	4.481	7.9	PASS
	5230		0.17	1.47		0.17	-0.6	3.567	7.9	PASS
	5270		0.17	0.33		0.17	-0.55	2.923	7.9	PASS
	5310		0.17	1.03		0.17	-0.78	3.229	7.9	PASS
	5510		0.17	1.33		0.17	-1.58	3.125	7.9	PASS
	5550		0.17	-0.02		0.17	-0.46	2.776	7.9	PASS
	5670		0.17	2.68		0.17	-0.72	4.315	7.9	PASS
	5755		0.17	-1.64		0.17	-4.32	0.234	26.9	PASS
	5795		0.17	-2.62		0.17	-3.77	-0.14	26.9	PASS



Test Mode	Channel	Ant	Factor	Conducted PSD	Ant	Factor	Conducted PSD	Total power	Limit	Verdict
11AC20SISO	5180	Ant 1	0	4.66	Ant2	0	2.09	6.573	7.9	PASS
	5220		0	3.88		0	2.01	6.055	7.9	PASS
	5240		0	4.13		0	2.84	6.543	7.9	PASS
	5260		0	2.81		0	2.17	5.512	7.9	PASS
	5300		0	4.09		0	1.36	5.946	7.9	PASS
	5320		0	3.82		0	1.89	5.972	7.9	PASS
	5500		0	3.6		0	-0.03	5.164	7.9	PASS
	5580		0	2.83		0	2.74	5.796	7.9	PASS
	5700		0	5.45		0	2.26	7.152	7.9	PASS
	5745		0	2.26		0	-0.57	4.082	26.9	PASS
	5785		0	0.03		0	-1.63	2.289	26.9	PASS
	5825		0	0.33		0	-1.51	2.517	26.9	PASS
11AC40SISO	5190	Ant 1	0.17	2.22	Ant2	0.17	0.97	4.650	7.9	PASS
	5230		0.17	2		0.17	0.34	4.259	7.9	PASS
	5270		0.17	1.72		0.17	-0.84	3.636	7.9	PASS
	5310		0.17	1		0.17	-0.56	3.300	7.9	PASS
	5510		0.17	1.41		0.17	-1.69	3.141	7.9	PASS
	5550		0.17	0.41		0.17	-0.28	3.089	7.9	PASS
	5670		0.17	2.45		0.17	-0.37	4.275	7.9	PASS
	5755		0.17	-2.37		0.17	-3.73	0.013	26.9	PASS
	5795		0.17	-1.53		0.17	-4	0.419	26.9	PASS
11AC80SISO	5210	Ant 1	0.34	-0.28	Ant2	0.34	-3.02	1.573	7.9	PASS
	5290		0.34	-1.7		0.34	-4.3	0.202	7.9	PASS
	5530		0.34	-1.92		0.34	-5.35	-0.29	7.9	PASS
	5610		0.34	-1.61		0.34	-3.34	0.62	7.9	PASS
	5775		0.34	-4.71		0.34	-6.12	-2.34	26.9	PASS



5.2 Test Graphs for antenna 1:



11A Ant1 5240



11A Ant1 5260



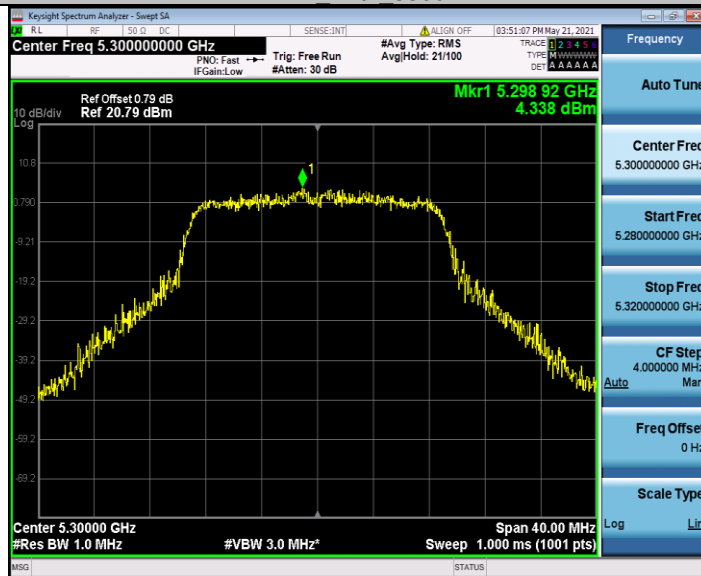
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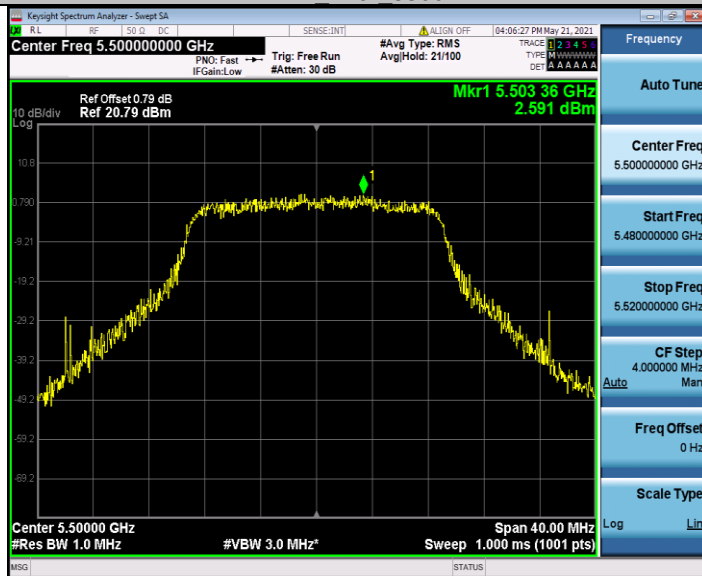
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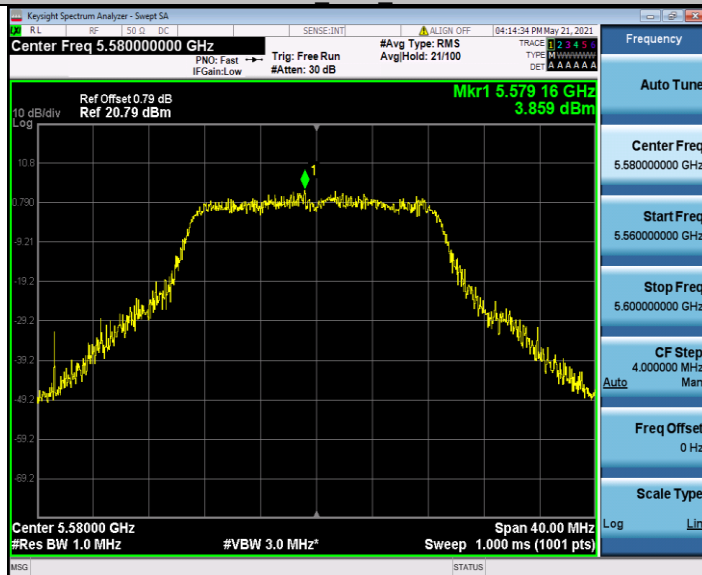
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11A Ant1 5500



11A Ant1 5580



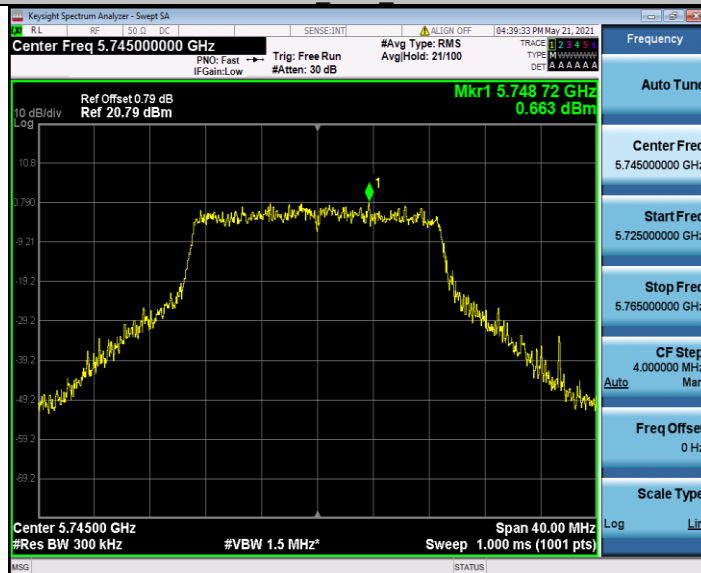
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11A Ant1 5700



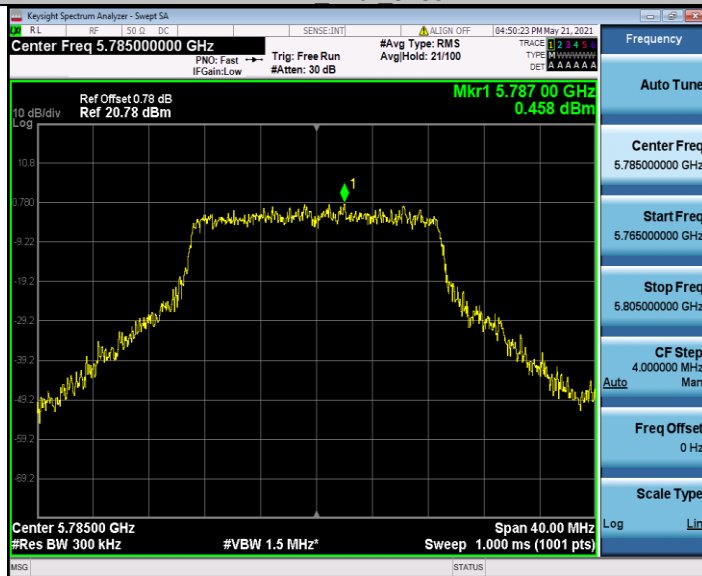
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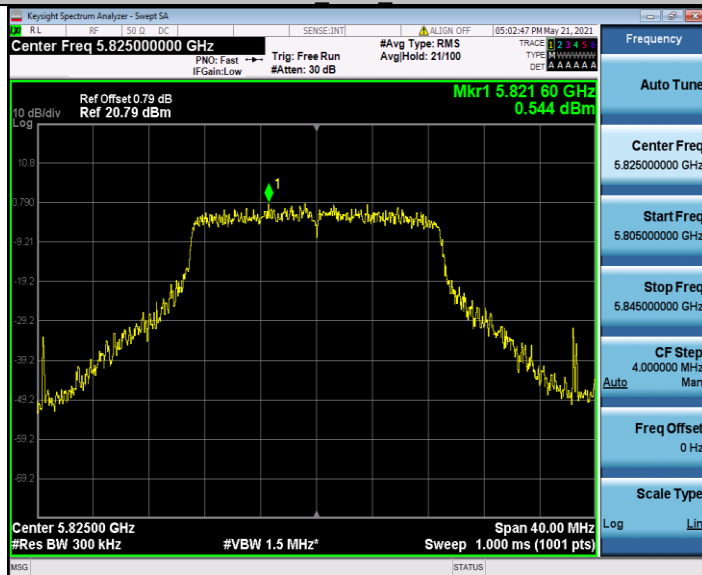
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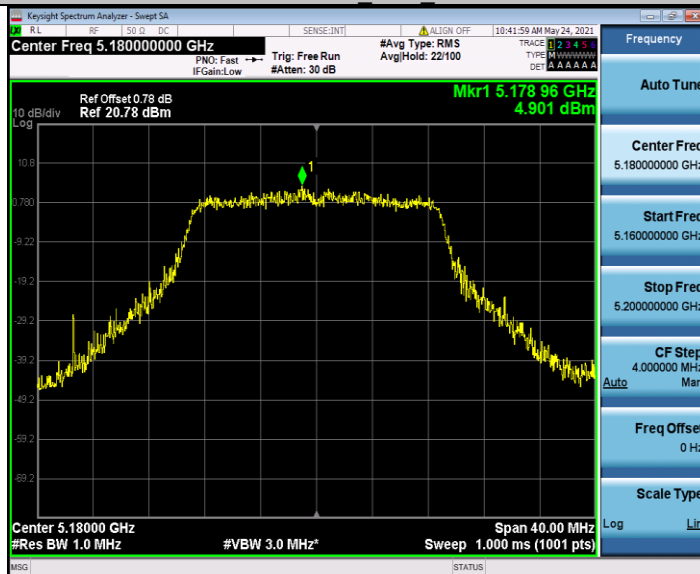
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11A Ant1 5825



11N20SISO_Ant1_5180



11N20SISO_Ant1_5220



11N20SISO Ant1 5240



11N20SISO Ant1 5260



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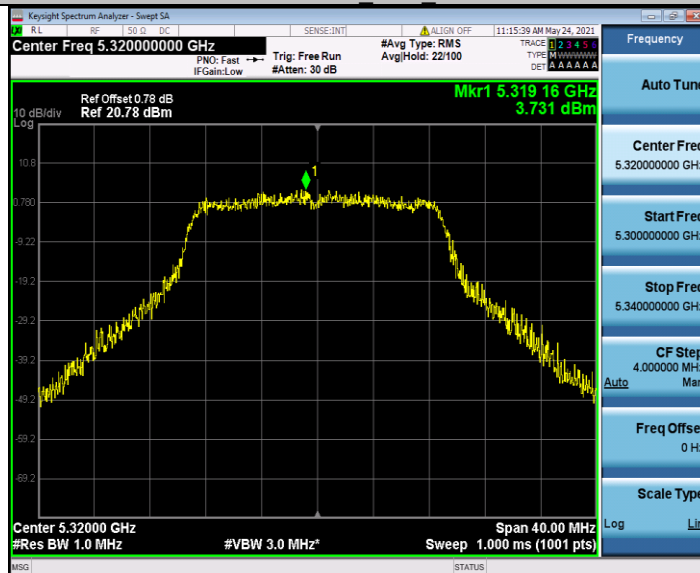
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11N20SISO Ant1 5320



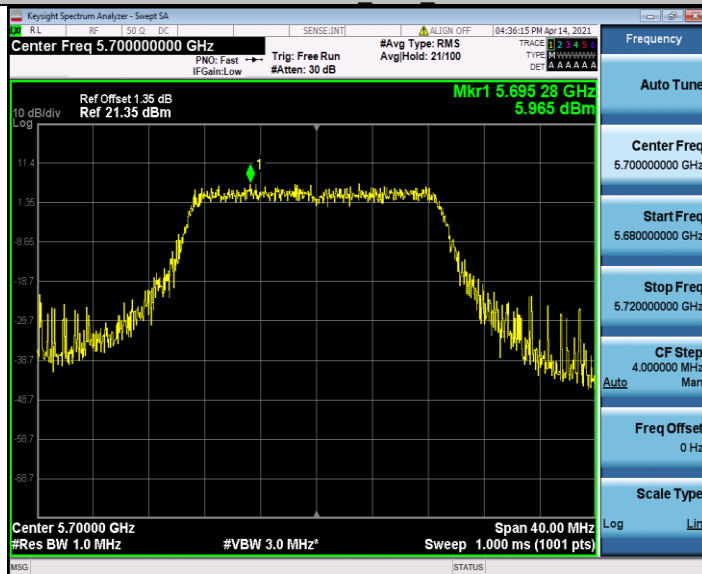
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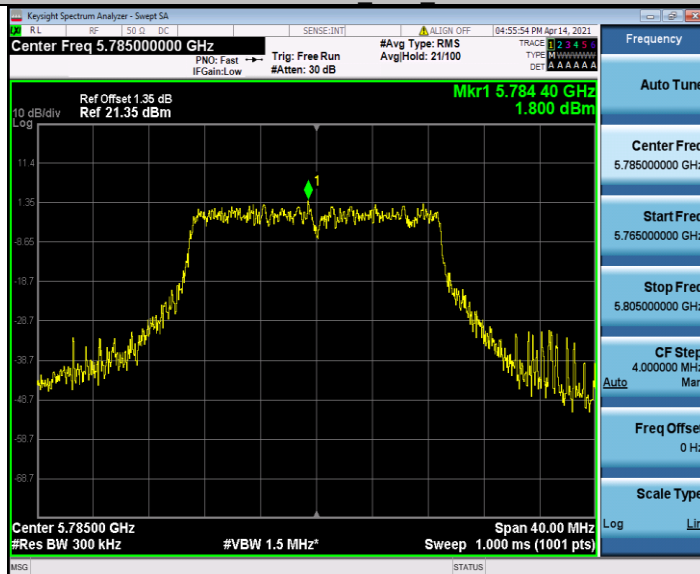
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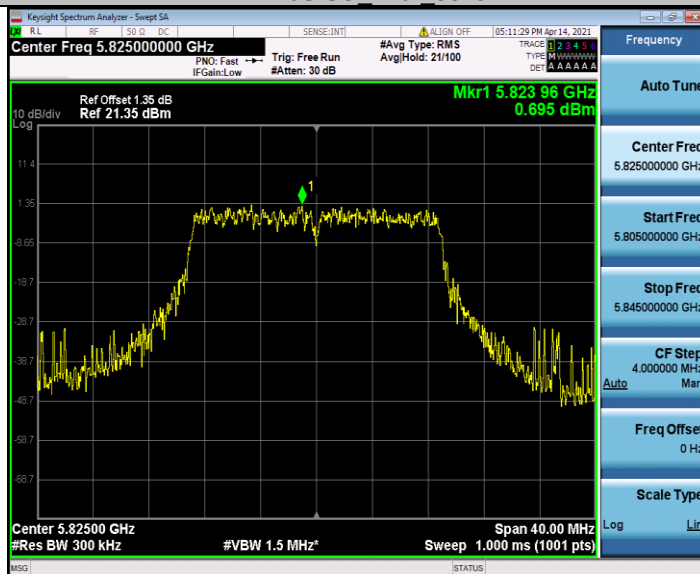
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11N20SISO_Ant1_5785



11N20SISO_Ant1_5825



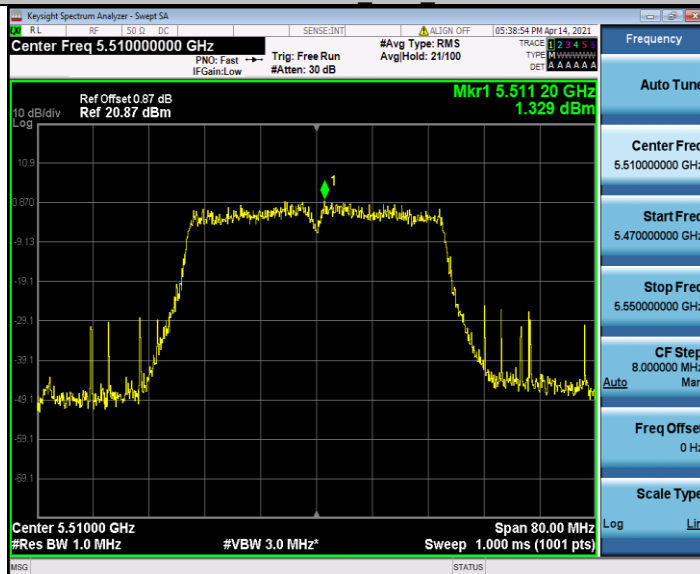
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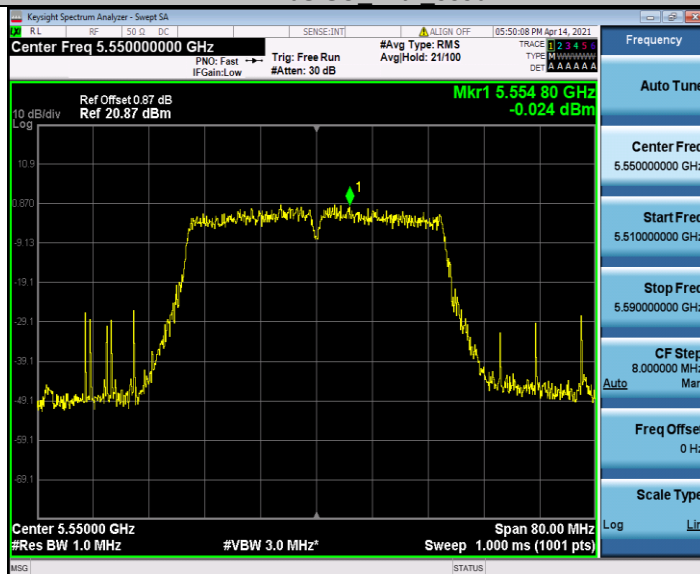
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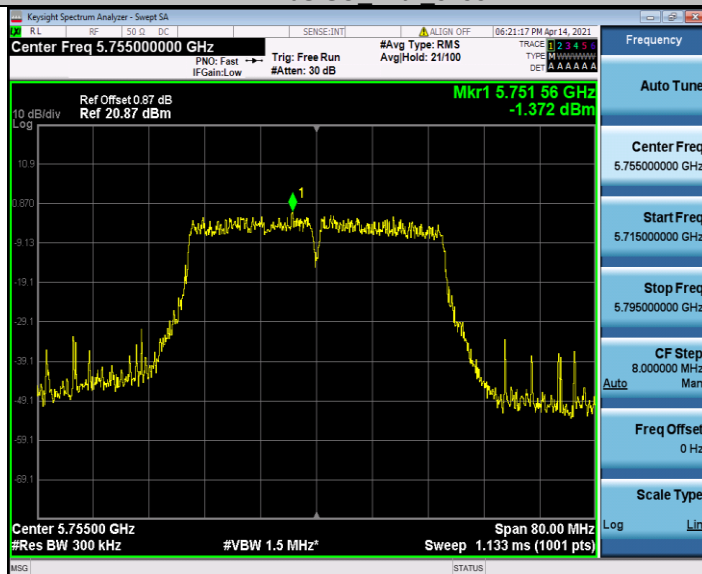
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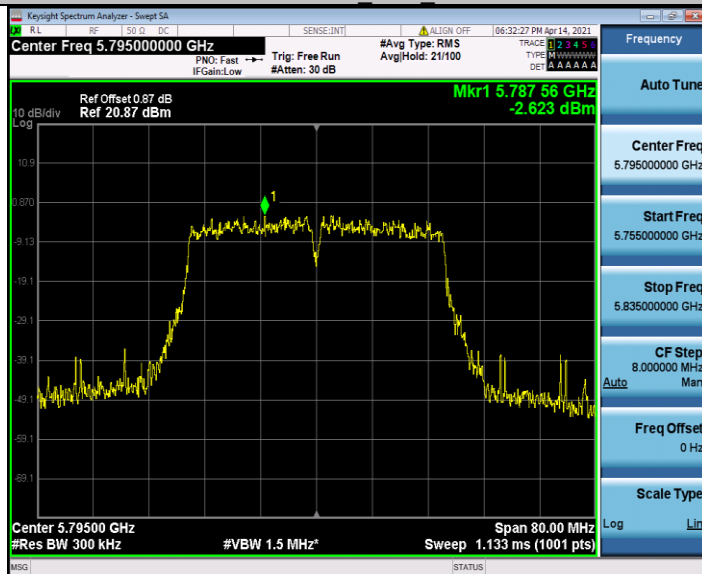
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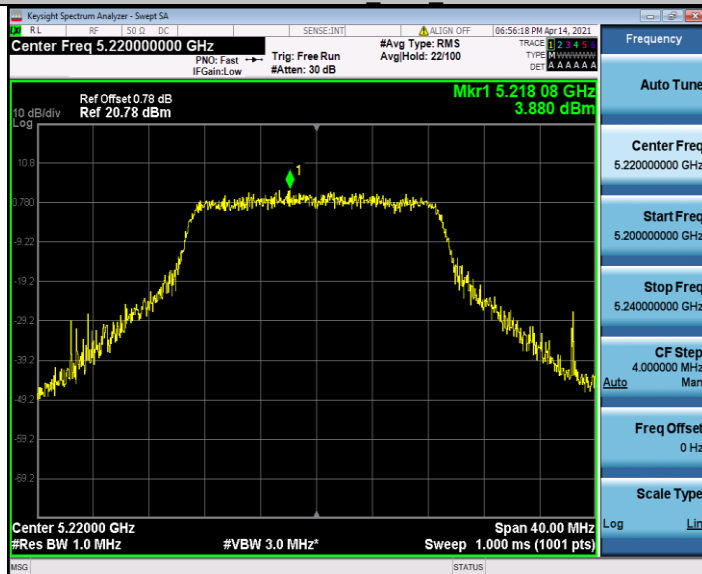
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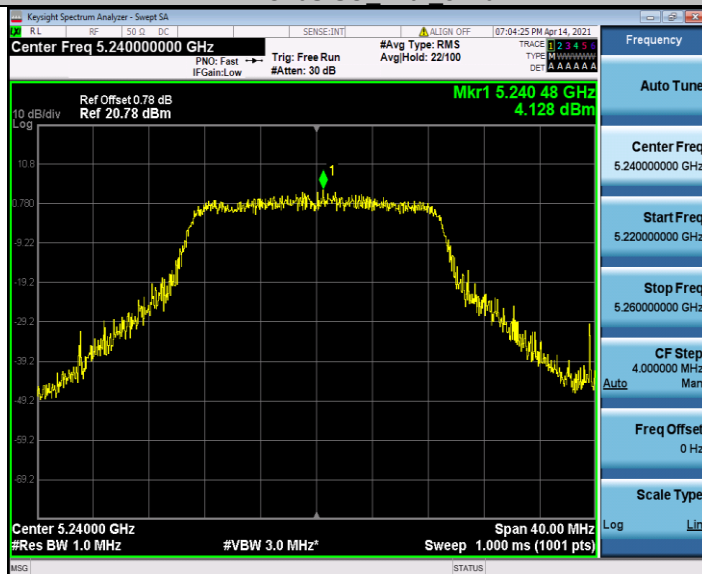
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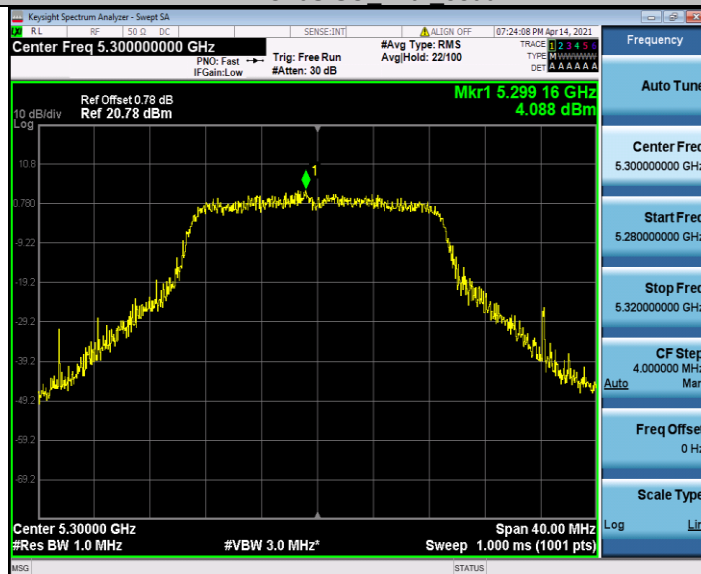
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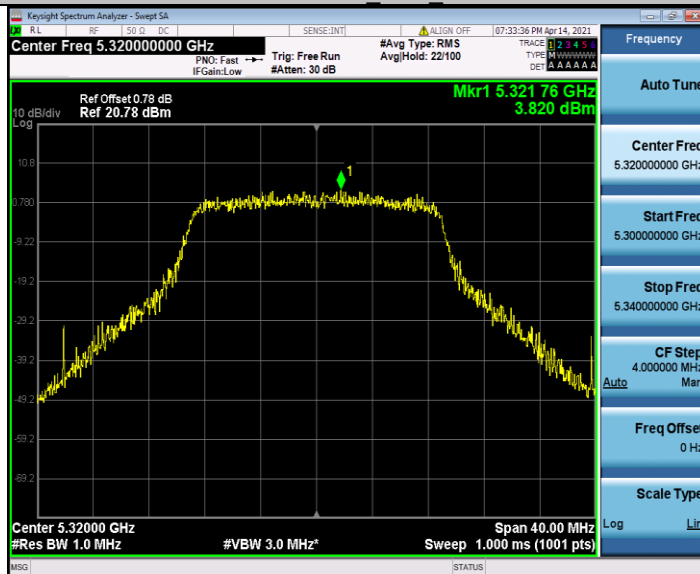


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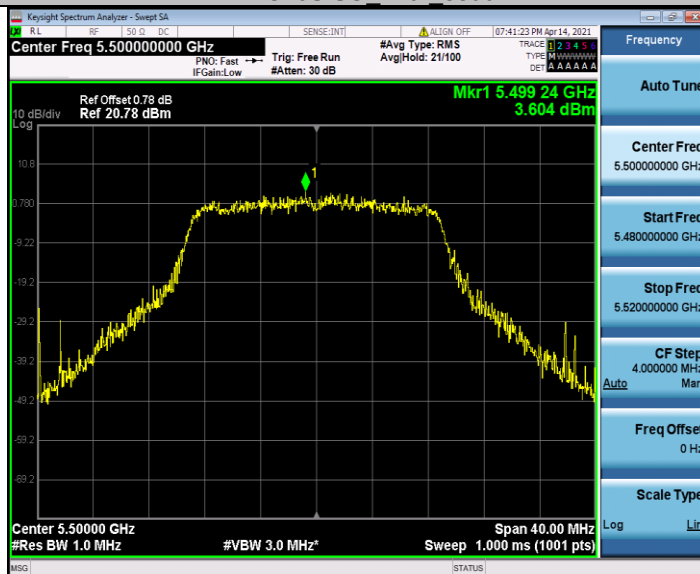
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11AC20SISO_Ant1_5500



11AC20SISO_Ant1_5580



11AC20SISO_Ant1_5700



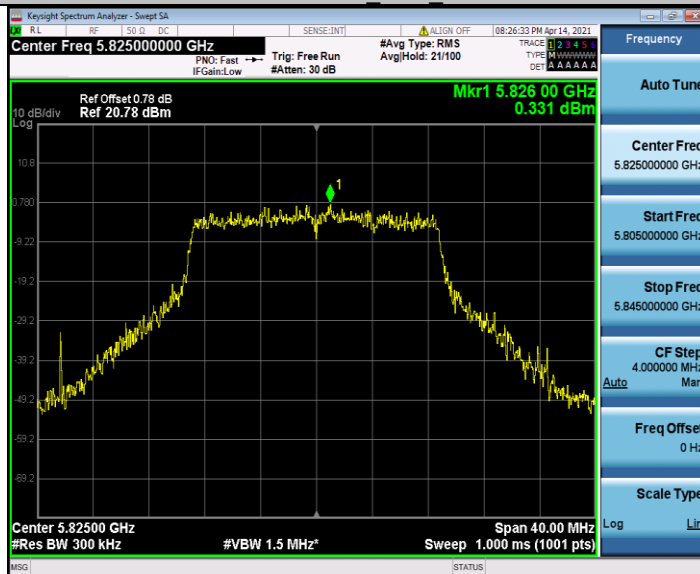
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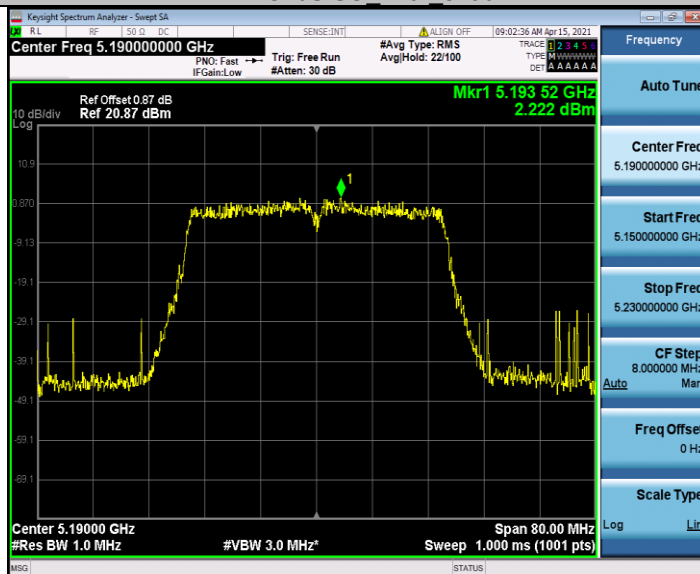
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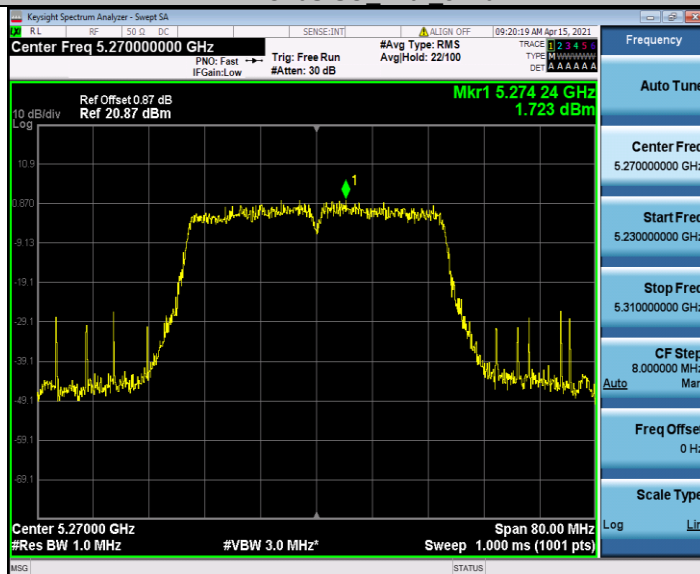
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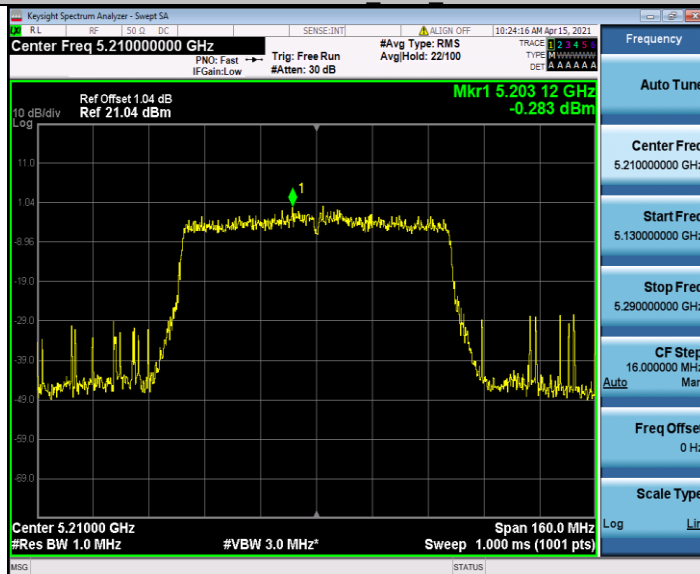
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