

Appendix B

RF Test Data for 5.8GWIFI (Conducted Measurement)

Product Name: SIMAGIC Air Link

Test Model: SIMAGIC Air Link

Environmental Conditions

Temperature:	24.6°C
Relative Humidity:	53.9%
ATM Pressure:	100.0 kPa
Test Engineer:	Zhang Hai
Supervised by:	Fengliu Tang

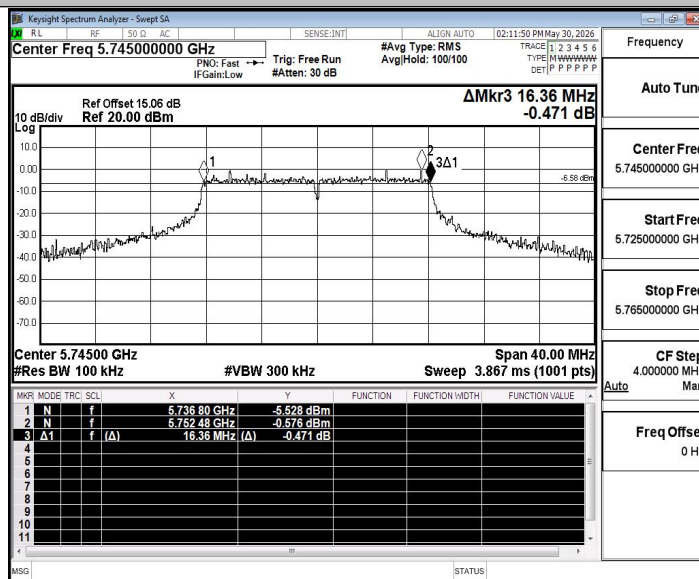
B.1 -6dB Bandwidth

Test Result

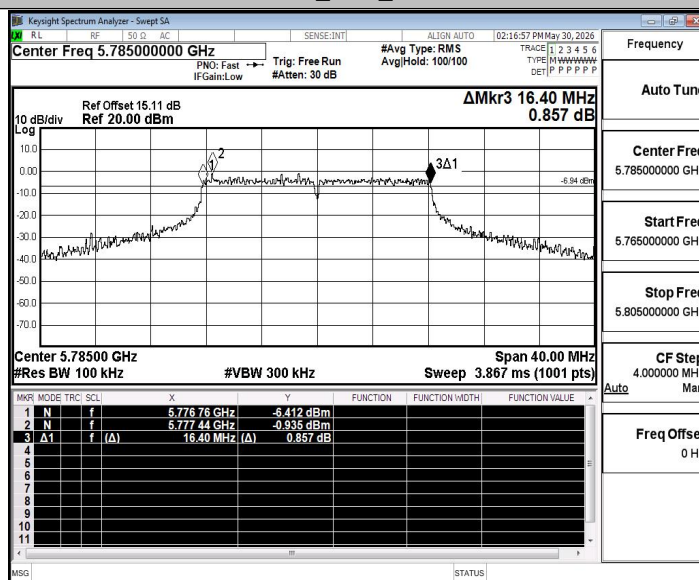
TestMode	Antenna	Freq(MHz)	6db EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5745	16.360	5736.800	5753.160	0.5	PASS
		5785	16.400	5776.760	5793.160	0.5	PASS
		5825	16.360	5816.760	5833.120	0.5	PASS
11N20SISO	Ant1	5745	15.680	5737.440	5753.120	0.5	PASS
		5785	15.080	5777.400	5792.480	0.5	PASS
		5825	15.680	5817.160	5832.840	0.5	PASS
11N40SISO	Ant1	5755	34.080	5738.440	5772.520	0.5	PASS
		5795	35.600	5777.160	5812.760	0.5	PASS
11AC20SISO	Ant1	5745	17.600	5736.200	5753.800	0.5	PASS
		5785	17.560	5776.120	5793.680	0.5	PASS
		5825	17.640	5816.200	5833.840	0.5	PASS
11AC40SISO	Ant1	5755	36.000	5736.840	5772.840	0.5	PASS
		5795	35.680	5776.840	5812.520	0.5	PASS
11AX20SISO	Ant1	5745	19.000	5735.480	5754.480	0.5	PASS
		5785	18.520	5775.600	5794.120	0.5	PASS
		5825	18.640	5815.640	5834.280	0.5	PASS
11AX40SISO	Ant1	5755	37.840	5735.960	5773.800	0.5	PASS
		5795	38.000	5776.040	5814.040	0.5	PASS

Test Graphs B4

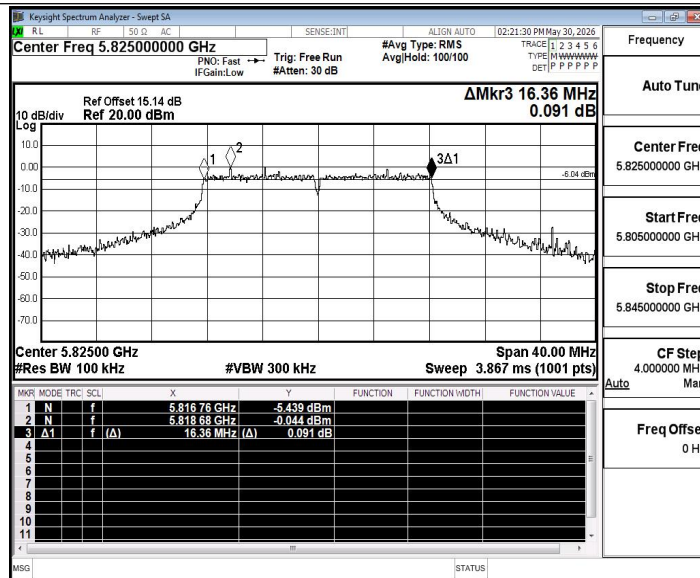
11A_Ant1_5745



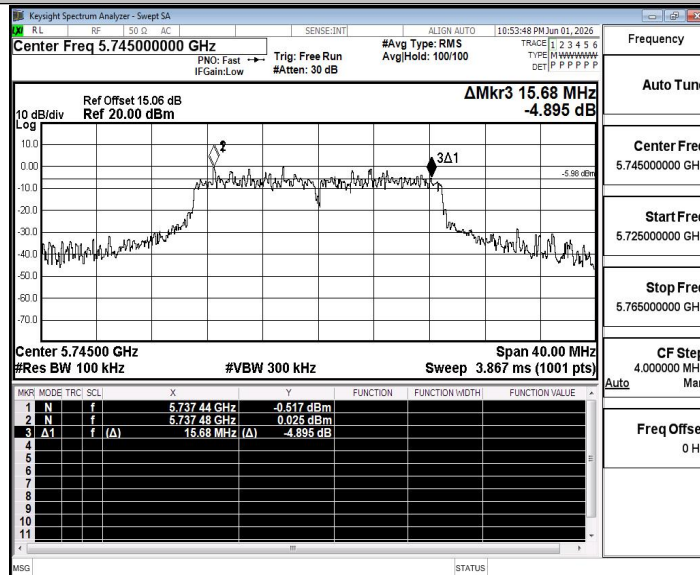
11A_Ant1_5785



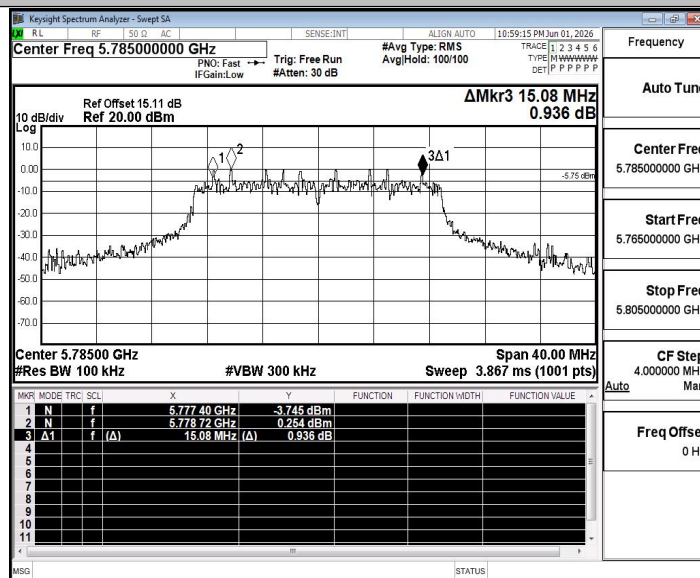
11A_Ant1_5825



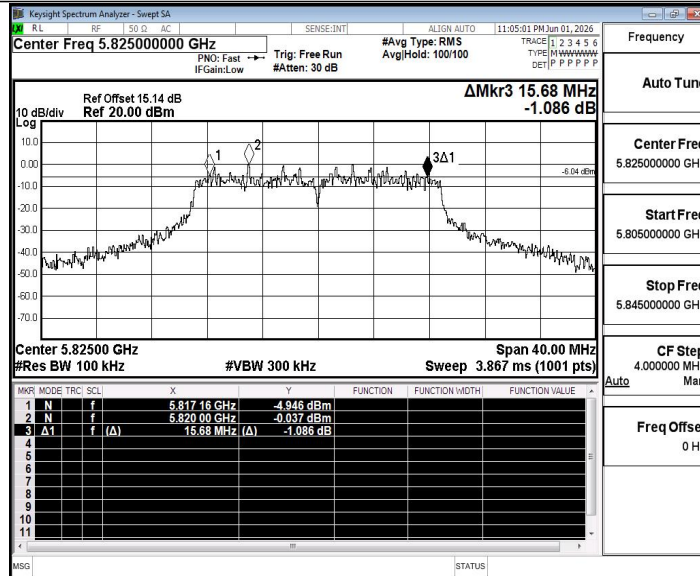
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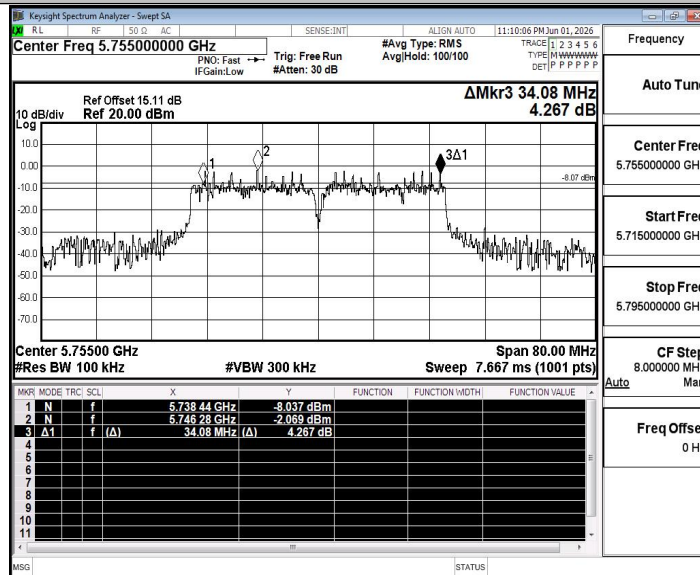
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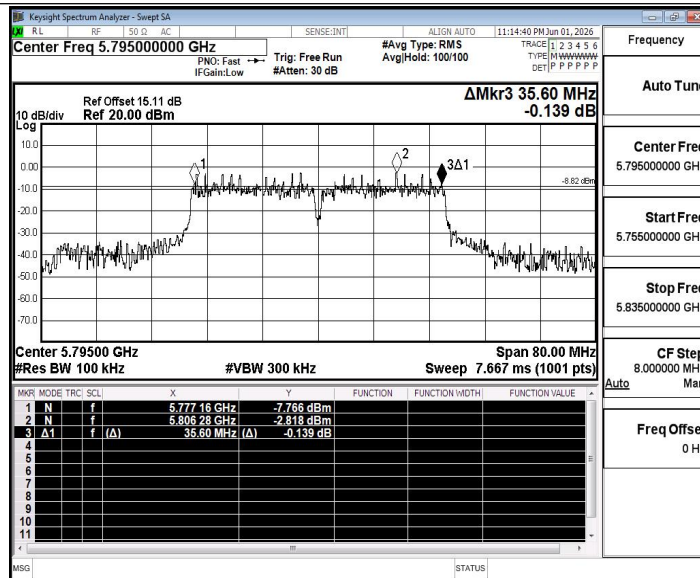
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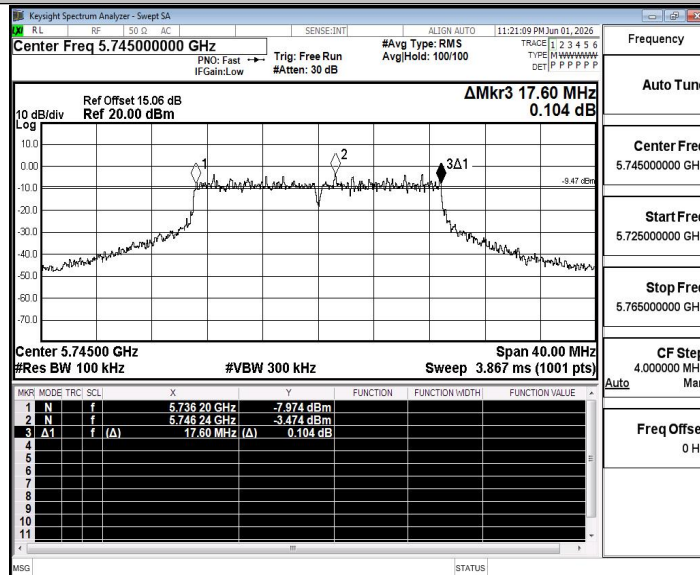
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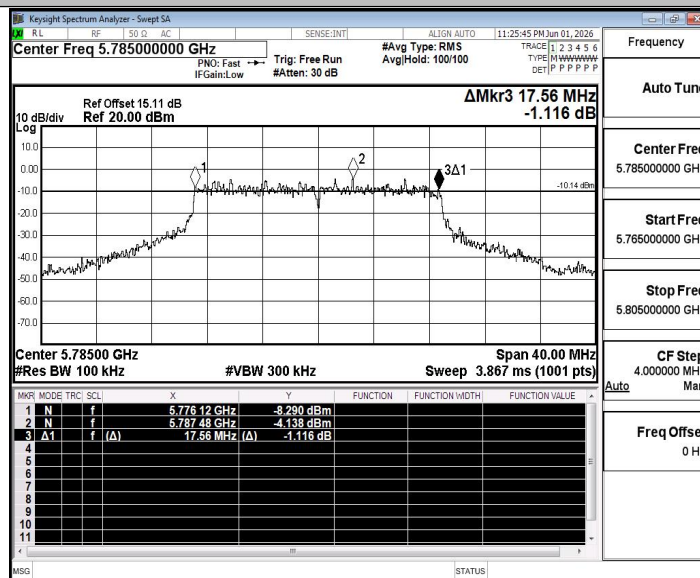
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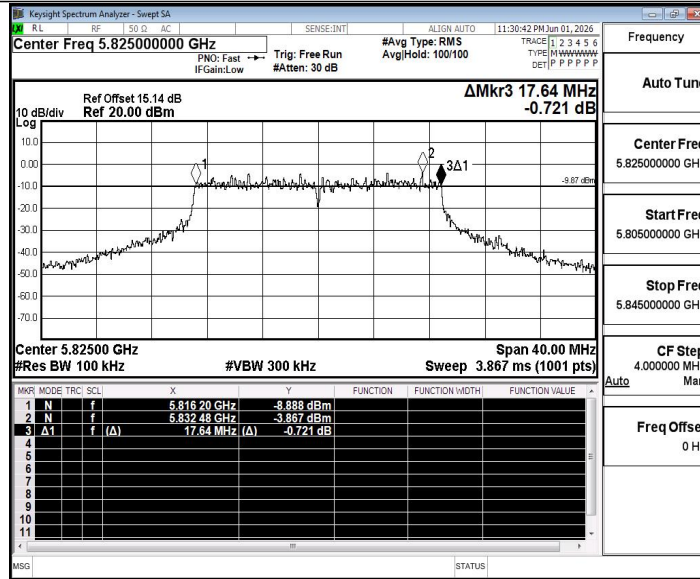
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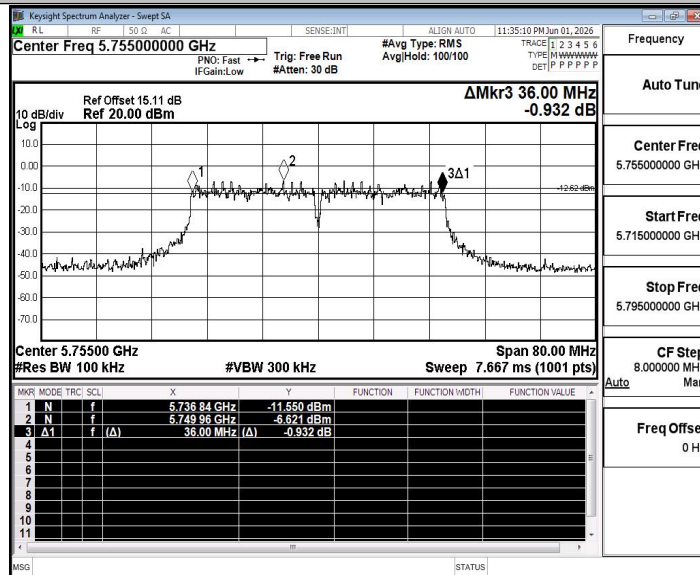
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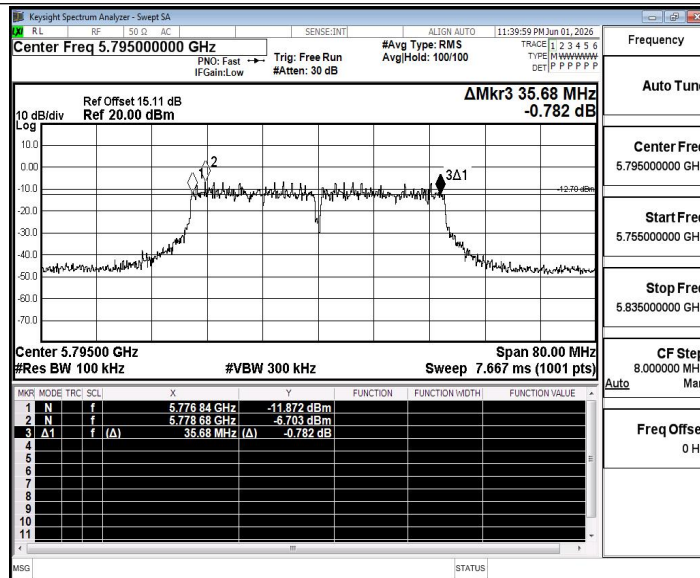
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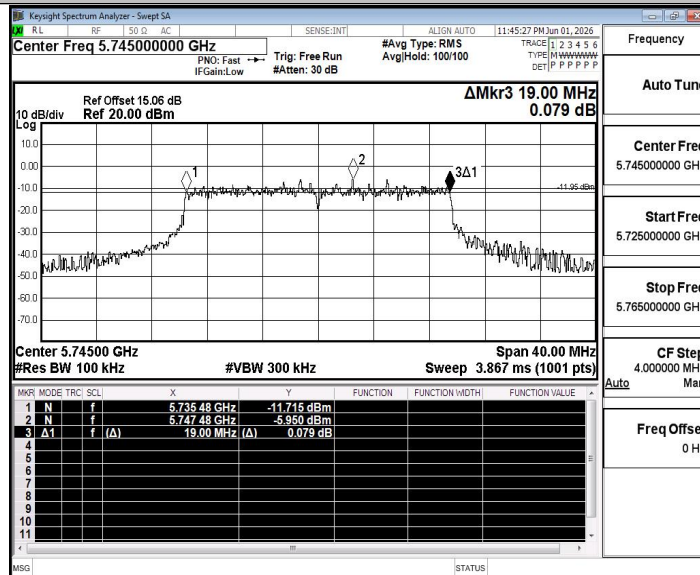
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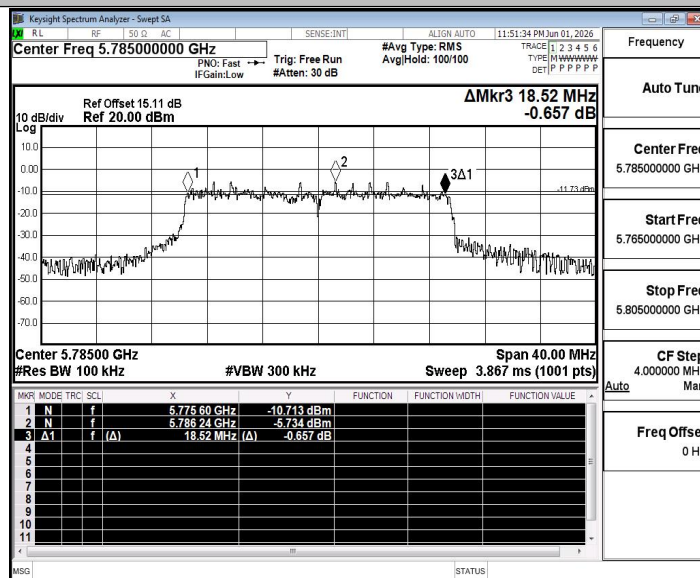
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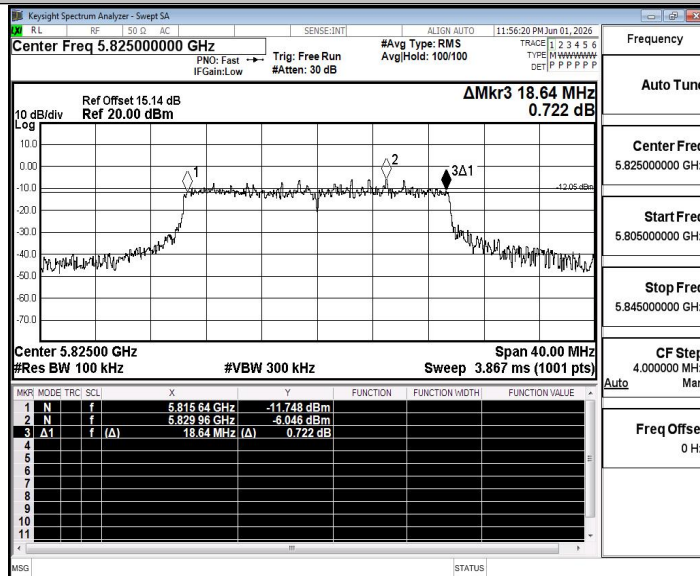
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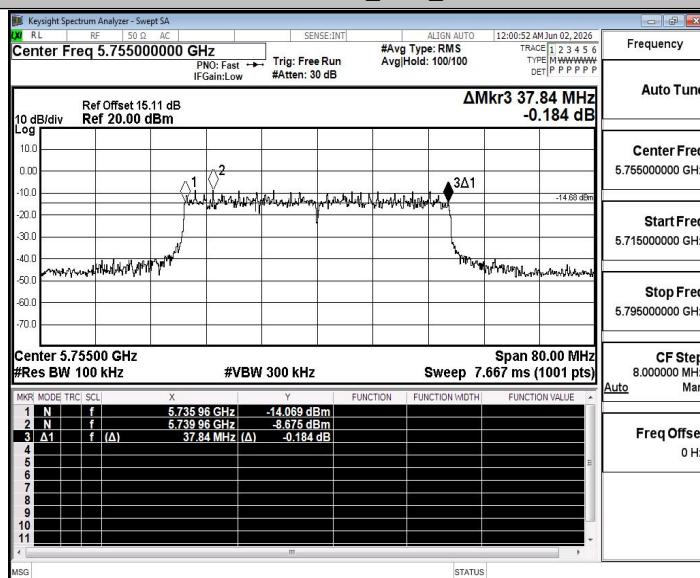
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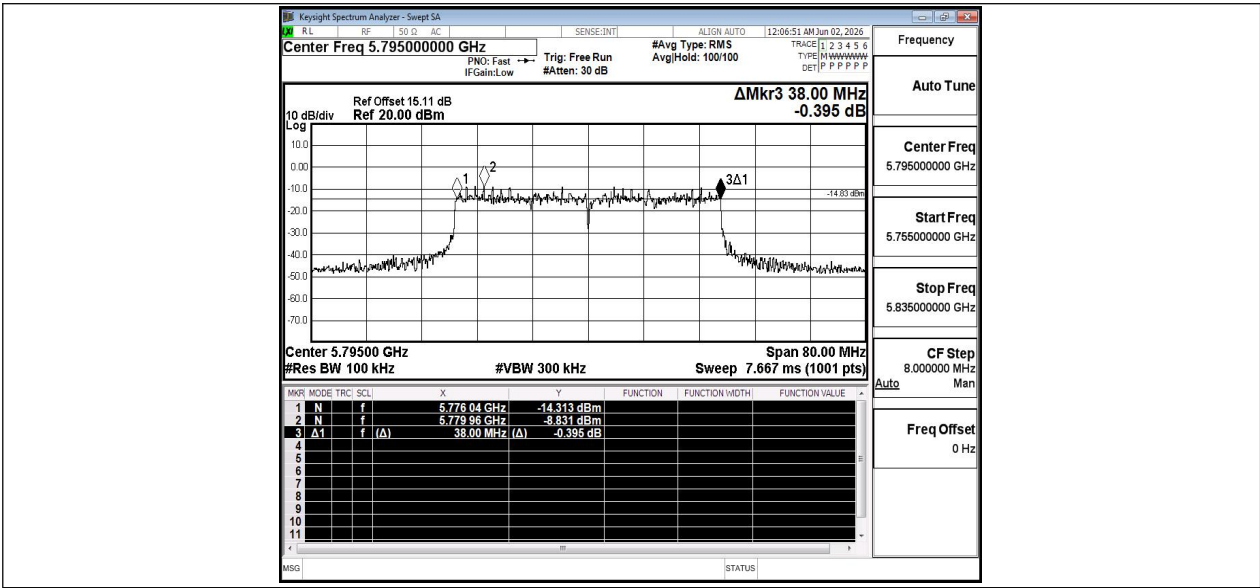
11AX20SISO_Ant1_5825



11AX40SISO_Ant1_5755



11AX40SISO_Ant1_5795



B.2 Maximum conducted output power

Test Result Channel Power

Test Mode	Antenna	Freq(MHz)	TPC Mode	Measured Power [dBm]	DC Factor [dB]	Result [dBm]	Limit [dBm]	Verdict
11A	Ant1	5745	NA	10.25	1.75	12.00	≤30.00	PASS
		5785	NA	10.8	1.77	12.57	≤30.00	PASS
		5825	NA	10.81	1.75	12.56	≤30.00	PASS
11N20SISO	Ant1	5745	NA	2.1	9.18	11.28	≤30.00	PASS
		5785	NA	1.6	9.18	10.78	≤30.00	PASS
		5825	NA	1.4	9.47	10.87	≤30.00	PASS
11N40SISO	Ant1	5755	NA	0.39	10.91	11.30	≤30.00	PASS
		5795	NA	-0.16	10.91	10.75	≤30.00	PASS
11AC20SISO	Ant1	5745	NA	1.34	8.04	9.38	≤30.00	PASS
		5785	NA	1.11	8.04	9.15	≤30.00	PASS
		5825	NA	1.05	7.85	8.90	≤30.00	PASS
11AC40SISO	Ant1	5755	NA	-0.96	10.12	9.16	≤30.00	PASS
		5795	NA	-1.27	10.12	8.85	≤30.00	PASS
11AX20SISO	Ant1	5745	NA	-1.84	8.92	7.08	≤30.00	PASS
		5785	NA	-2.01	9.18	7.17	≤30.00	PASS
		5825	NA	-2.19	9.18	6.99	≤30.00	PASS
11AX40SISO	Ant1	5755	NA	-3.24	10.49	7.25	≤30.00	PASS
		5795	NA	-3.51	10.49	6.98	≤30.00	PASS

B.3 Maximum power spectral density

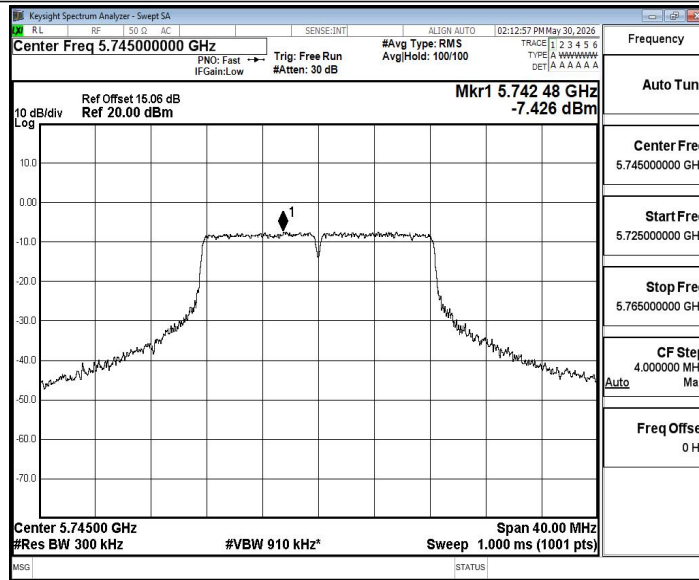
Test Result

TestMode	Antenna	Freq (MHz)	Conducted PSD (dBm/500KHz)	Duty Factor (dB)	RBW Factor	Result [dBm/500k Hz]	Limit [dBm/500k Hz]	Verdict
11A	Ant1	5745	-7.43	1.75	2.22	-3.46	≤30.00	PASS
		5785	-6.82	1.77	2.22	-2.83	≤30.00	PASS
		5825	-6.52	1.75	2.22	-2.55	≤30.00	PASS
11N20SISO	Ant1	5745	-12	9.18	2.22	-0.60	≤30.00	PASS
		5785	-11.6	9.18	2.22	-0.20	≤30.00	PASS
		5825	-12.85	9.47	2.22	-1.16	≤30.00	PASS
11N40SISO	Ant1	5755	-17.87	10.91	2.22	-4.74	≤30.00	PASS
		5795	-18.57	10.91	2.22	-5.44	≤30.00	PASS
11AC20SISO	Ant1	5745	-14.96	8.04	2.22	-4.70	≤30.00	PASS
		5785	-14.92	8.04	2.22	-4.66	≤30.00	PASS
		5825	-14.28	7.85	2.22	-4.21	≤30.00	PASS
11AC40SISO	Ant1	5755	-19.93	10.12	2.22	-7.59	≤30.00	PASS
		5795	-19.96	10.12	2.22	-7.62	≤30.00	PASS
11AX20SISO	Ant1	5745	-18.26	8.92	2.22	-7.12	≤30.00	PASS
		5785	-19.34	9.18	2.22	-7.94	≤30.00	PASS
		5825	-18.28	9.18	2.22	-6.88	≤30.00	PASS
11AX40SISO	Ant1	5755	-21.32	10.49	2.22	-8.61	≤30.00	PASS
		5795	-21.4	10.49	2.22	-8.69	≤30.00	PASS

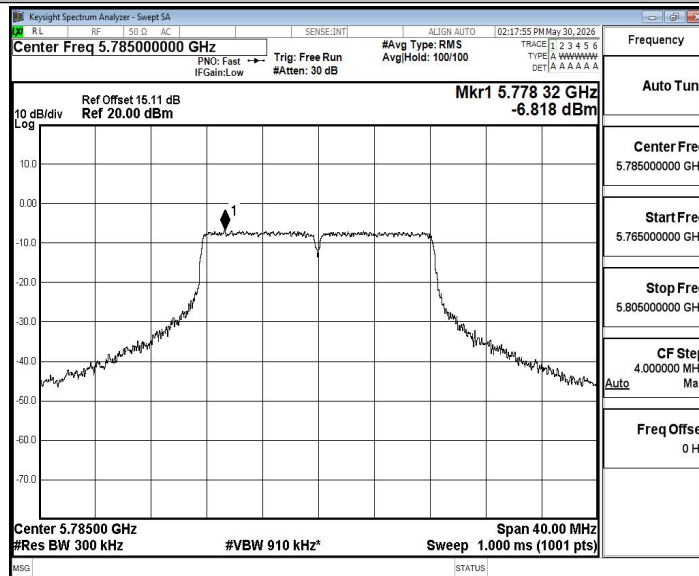
Note: 1.The Result and Limit Unit is dBm/500 kHz in the band 5.725–5.85 GHz.

Test Graphs

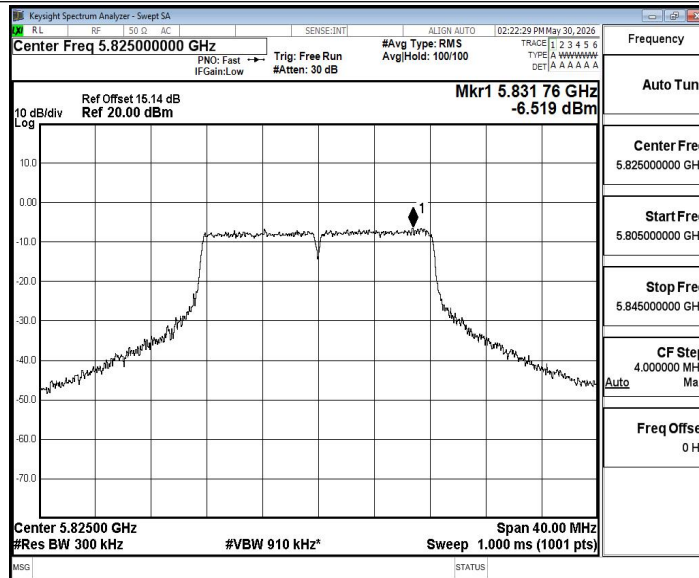
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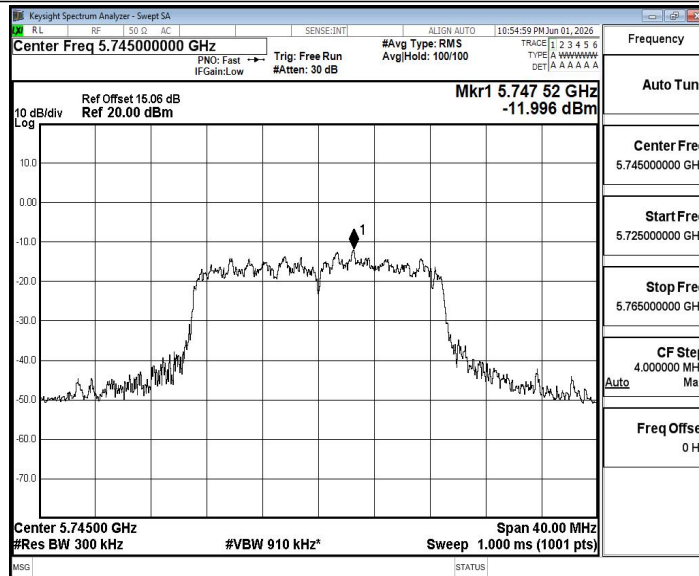
11A_Ant1_5785



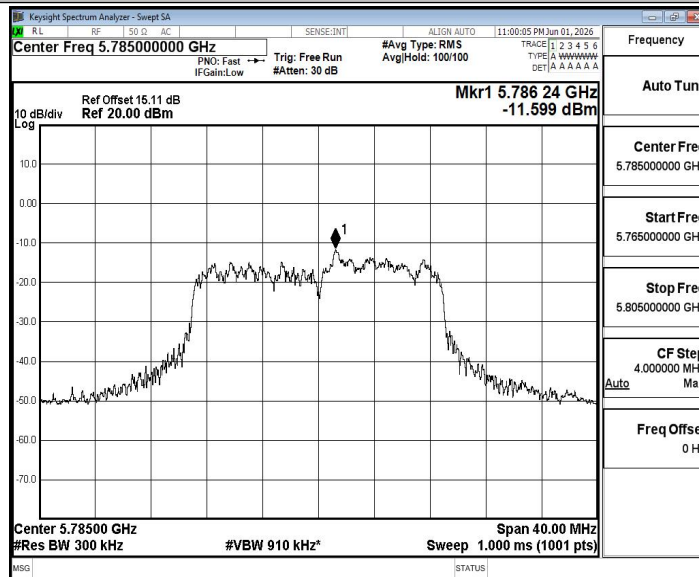
11A_Ant1_5825



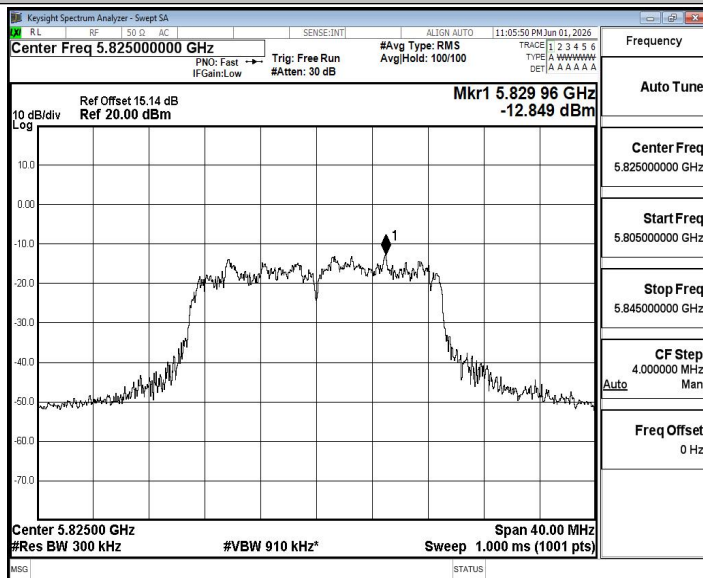
11N20SISO_Ant1_5745



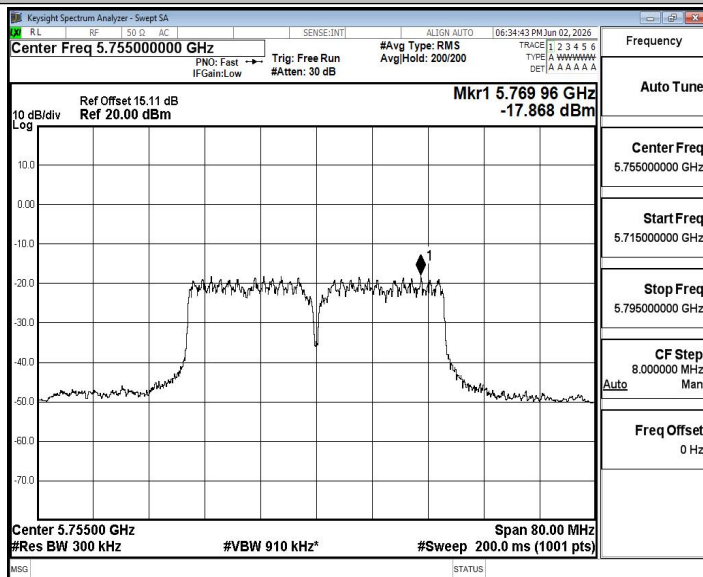
11N20SISO_Ant1_5785



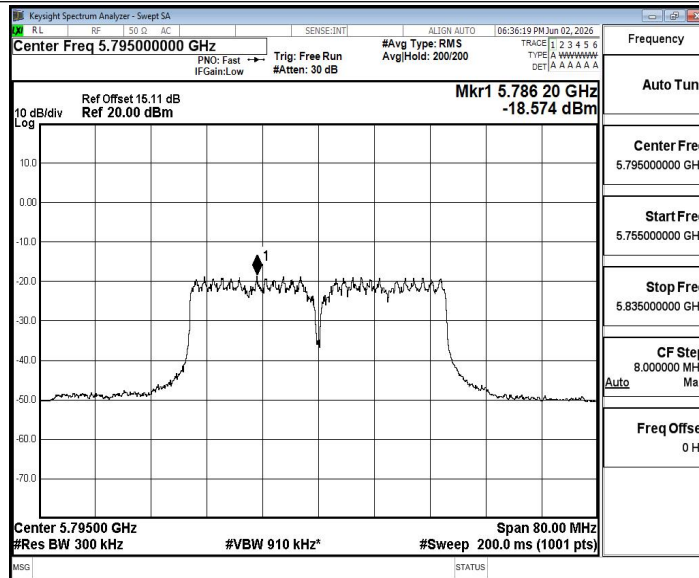
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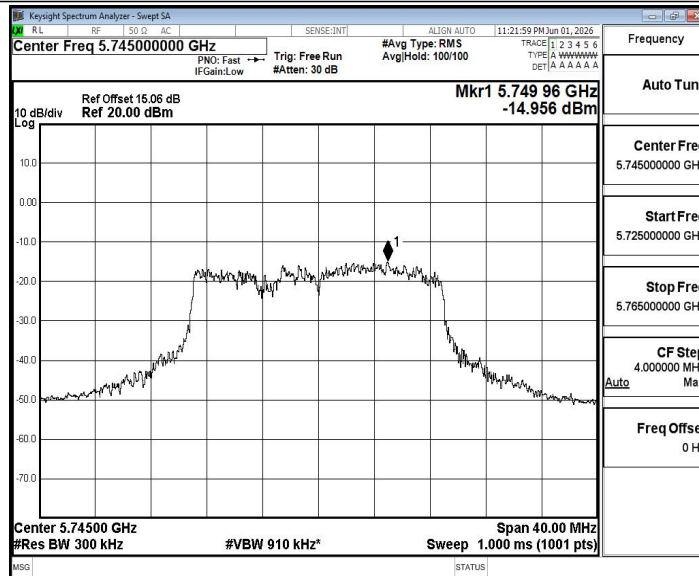
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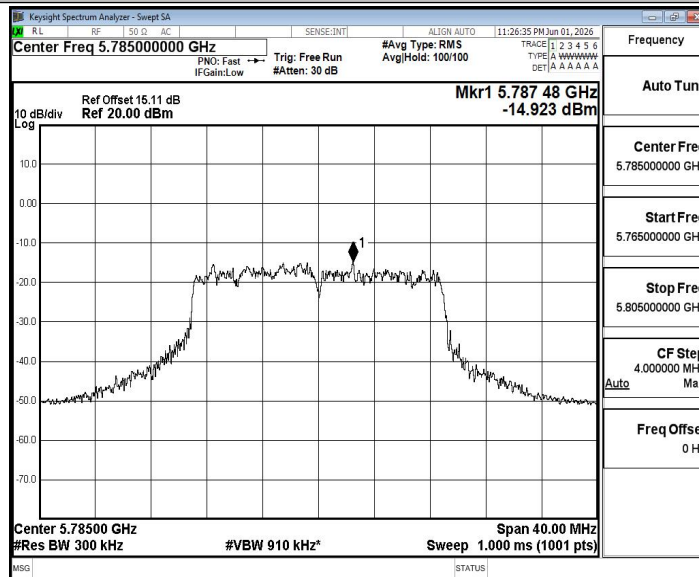
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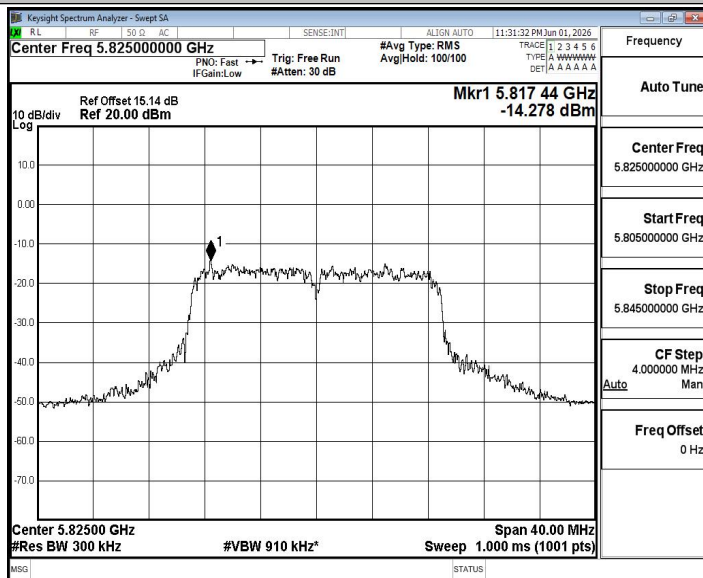
11AC20SISO_Ant1_5745



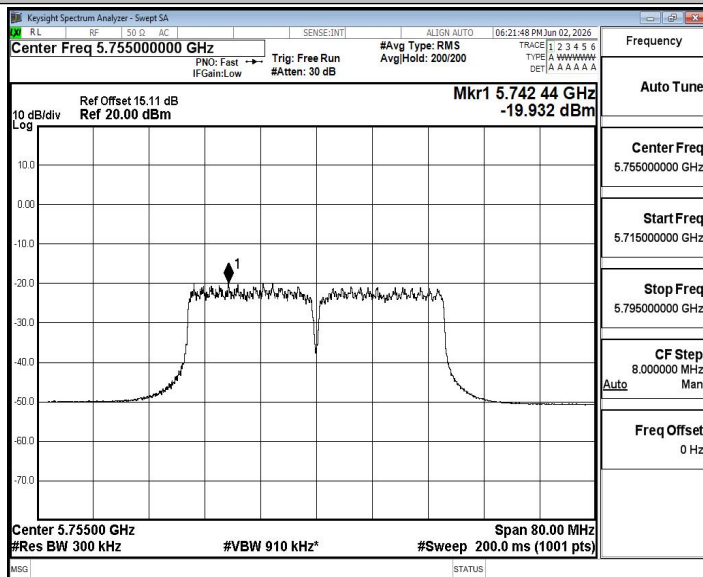
11AC20SISO_Ant1_5785



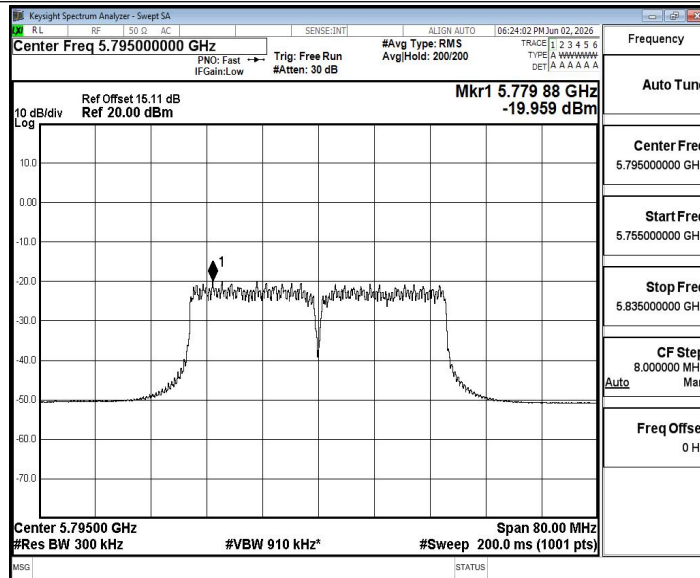
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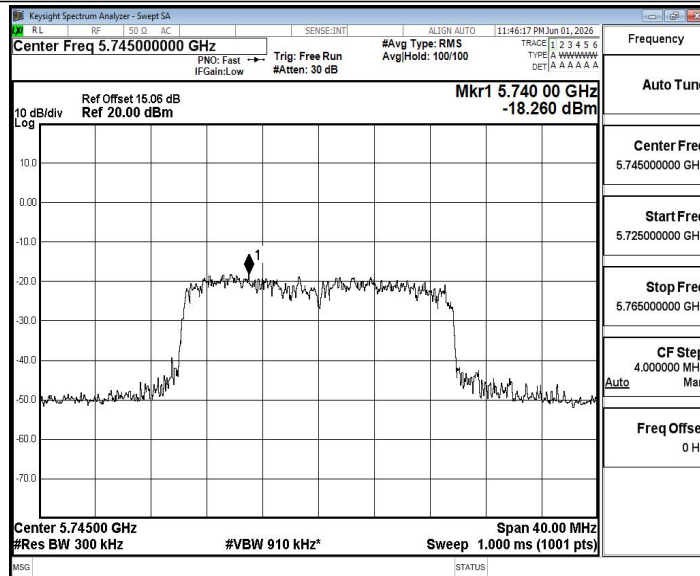
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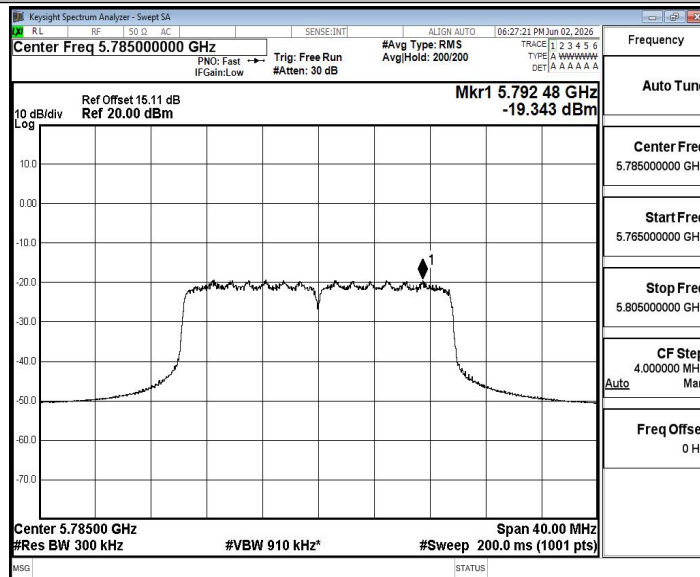
11AC40SISO_Ant1_5795



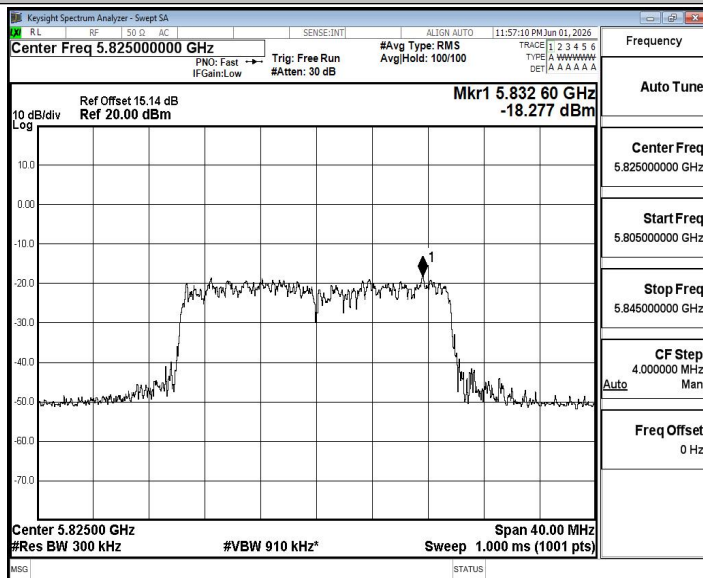
11AX20SISO_Ant1_5745



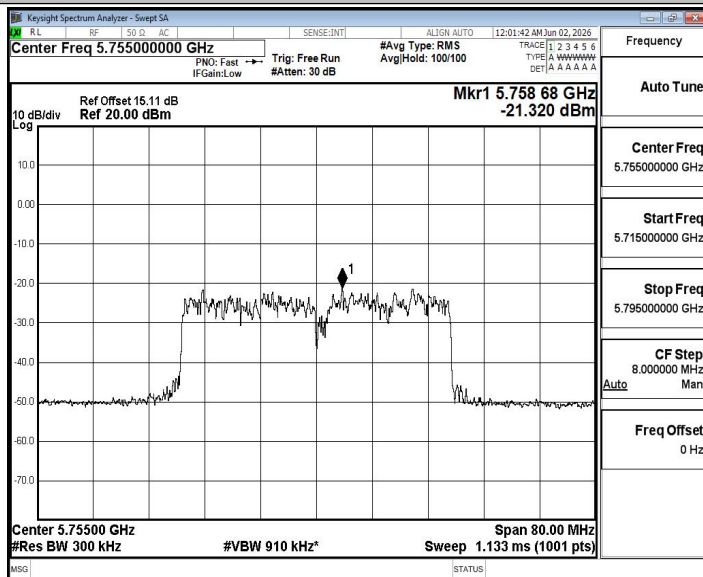
11AX20SISO_Ant1_5785



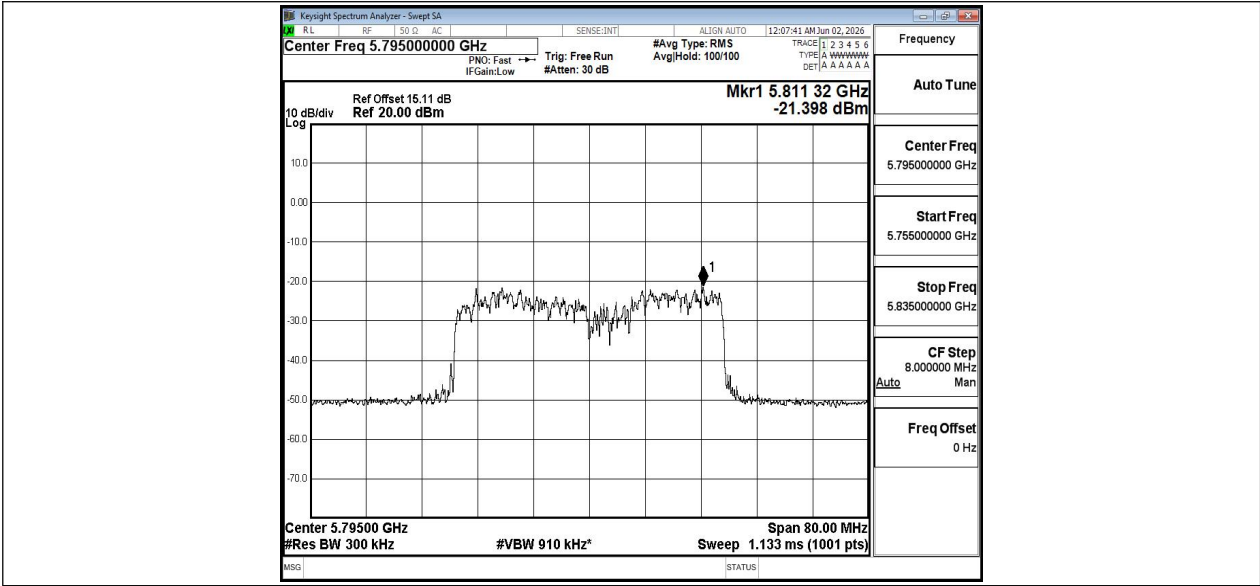
11AX20SISO_Ant1_5825



11AX40SISO_Ant1_5755



11AX40SISO_Ant1_5795



B.4 Emissions in Restricted Bands

Test Result

TestMode	Antenna	ChName	Freq (MHz)	Detector	Freq [MHz]	Result [dBm]	Limit [dBm]	Gain [dBi]	Verdict
11A	Ant1	Low	5745	Peak	5650.000	-48.874	≤-31.82	2.61	PASS
				Peak	5700.000	-41.77	≤5.18	2.61	PASS
				Peak	5720.000	-31.09	≤10.78	2.61	PASS
				Peak	5725.000	-25.06	≤22.18	2.61	PASS
		High	5825	Peak	5850.000	-28.206	≤22.18	2.61	PASS
				Peak	5855.000	-36.36	≤10.78	2.61	PASS
				Peak	5875.000	-43.34	≤5.18	2.61	PASS
				Peak	5925.000	-50.57	≤-27.00	2.61	PASS
11N20SISO	Ant1	Low	5745	Peak	5650.000	-48.567	≤-31.82	2.61	PASS
				Peak	5700.000	-34.62	≤5.18	2.61	PASS
				Peak	5720.000	-33.66	≤10.78	2.61	PASS
				Peak	5725.000	-21.64	≤22.18	2.61	PASS
		High	5825	Peak	5850.000	-40.803	≤22.18	2.61	PASS
				Peak	5855.000	-30.4	≤10.78	2.61	PASS
				Peak	5875.000	-43.37	≤5.18	2.61	PASS
				Peak	5925.000	-50.59	≤-27.00	2.61	PASS
11N40SISO	Ant1	Low	5755	Peak	5650.000	-43.366	≤-31.82	2.61	PASS
				Peak	5700.000	-33.98	≤5.18	2.61	PASS
				Peak	5720.000	-19.16	≤10.78	2.61	PASS
				Peak	5725.000	-22.1	≤22.18	2.61	PASS
		High	5795	Peak	5850.000	-33.558	≤22.18	2.61	PASS
				Peak	5855.000	-30.83	≤10.78	2.61	PASS
				Peak	5875.000	-41.95	≤5.18	2.61	PASS
				Peak	5925.000	-47	≤-27.00	2.61	PASS
11AC20SISO	Ant1	Low	5745	Peak	5650.000	-49.079	≤-31.82	2.61	PASS
				Peak	5700.000	-48.25	≤5.18	2.61	PASS
				Peak	5720.000	-44.58	≤10.78	2.61	PASS
				Peak	5725.000	-34.11	≤22.18	2.61	PASS
		High	5825	Peak	5850.000	-42.951	≤22.18	2.61	PASS
				Peak	5855.000	-43.11	≤10.78	2.61	PASS
				Peak	5875.000	-50.6	≤5.18	2.61	PASS
				Peak	5925.000	-50.83	≤-27.00	2.61	PASS
11AC40SISO	Ant1	Low	5755	Peak	5650.000	-48.583	≤-31.82	2.61	PASS
				Peak	5700.000	-47.18	≤5.18	2.61	PASS
				Peak	5720.000	-34.22	≤10.78	2.61	PASS
				Peak	5725.000	-32.57	≤22.18	2.61	PASS
		High	5795	Peak	5850.000	-38.374	≤22.18	2.61	PASS
				Peak	5855.000	-50.22	≤10.78	2.61	PASS

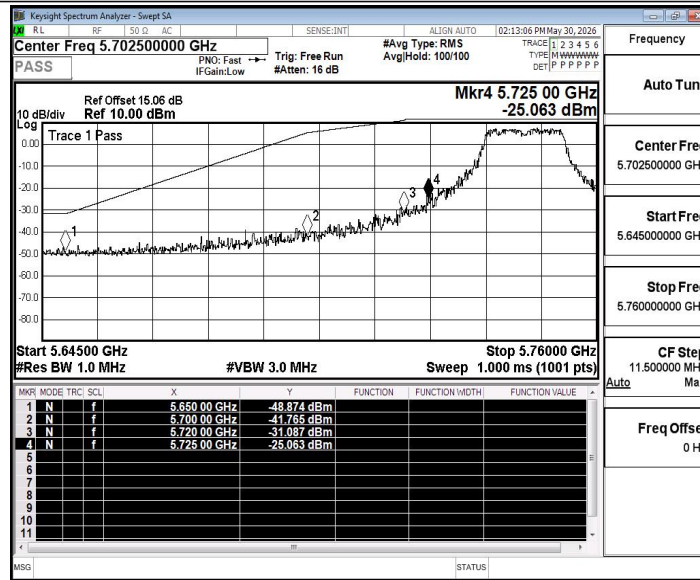
11AX20SISO	Ant1	Low	5745	Peak	5875.000	-50.06	≤5.18	2.61	PASS
				Peak	5925.000	-49.46	≤-27.00	2.61	PASS
				Peak	5650.000	-50.626	≤-31.82	2.61	PASS
				Peak	5700.000	-47.71	≤5.18	2.61	PASS
				Peak	5720.000	-37.88	≤10.78	2.61	PASS
				Peak	5725.000	-40.45	≤22.18	2.61	PASS
		High	5825	Peak	5850.000	-48.275	≤22.18	2.61	PASS
				Peak	5855.000	-50.27	≤10.78	2.61	PASS
				Peak	5875.000	-51.07	≤5.18	2.61	PASS
				Peak	5925.000	-50.57	≤-27.00	2.61	PASS
11AX40SISO	Ant1	Low	5755	Peak	5650.000	-48.726	≤-31.82	2.61	PASS
				Peak	5700.000	-49.21	≤5.18	2.61	PASS
				Peak	5720.000	-38.53	≤10.78	2.61	PASS
				Peak	5725.000	-25.58	≤22.18	2.61	PASS
		High	5795	Peak	5850.000	-42.814	≤22.18	2.61	PASS
				Peak	5855.000	-49.18	≤10.78	2.61	PASS
				Peak	5875.000	-50.33	≤5.18	2.61	PASS
				Peak	5925.000	-50.25	≤-27.00	2.61	PASS

Note:

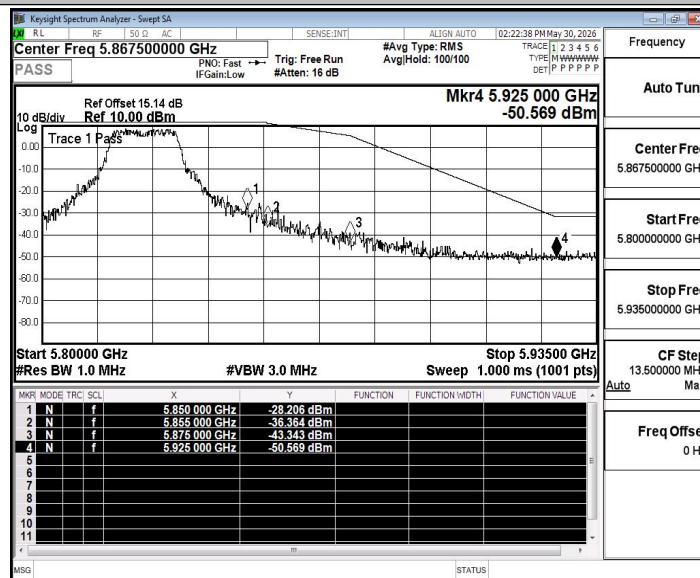
1. The Antenna Gain is compensated in the graph.

Test Graphs

11A_Ant1_Low_5745_Peak



11A_Ant1_High_5825_Peak



11N20SISO_Ant1_Low_5745_Peak