

FCC Appendix RF Test Data for 5GWIFI

FCC ID : 2AW5W-C4

Company : REXING INC.

EUT : Dash Cam

Model Number : C4

Report No. : CTA25111400901

Reviewed By : Eric Wang

Appendix A1: Emission Bandwidth

Test Result

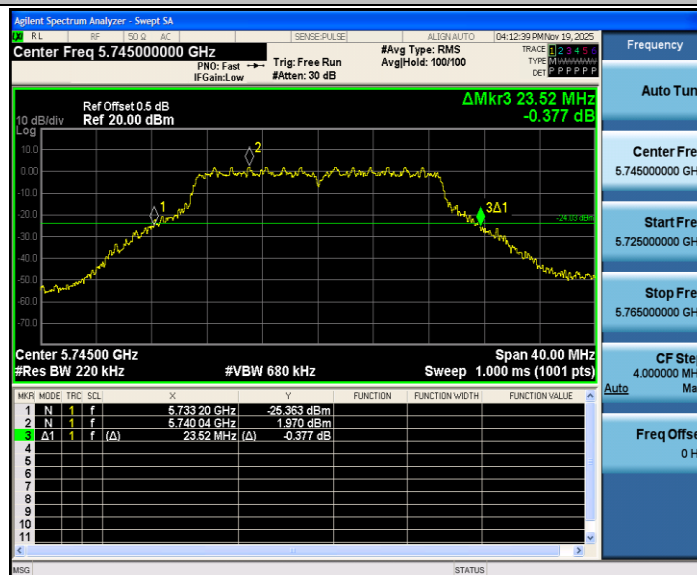
TestMode	Antenna	Freq(MHz)	26db EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5745	22.520	5733.640	5756.160	---	---
		5785	23.240	5773.440	5796.680	---	---
		5825	22.360	5813.880	5836.240	---	---
11N20SISO	Ant1	5745	23.520	5733.200	5756.720	---	---
		5785	22.800	5773.680	5796.480	---	---
		5825	23.400	5813.360	5836.760	---	---
11N40SISO	Ant1	5755	44.240	5733.400	5777.640	---	---
		5795	45.120	5772.760	5817.880	---	---

Test Graphs





11N20SISO_Ant1_5745



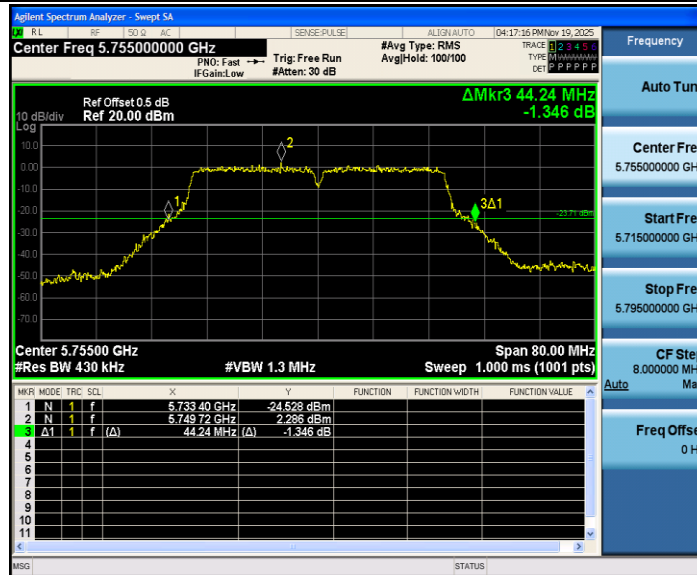
11N20SISO_Ant1_5785



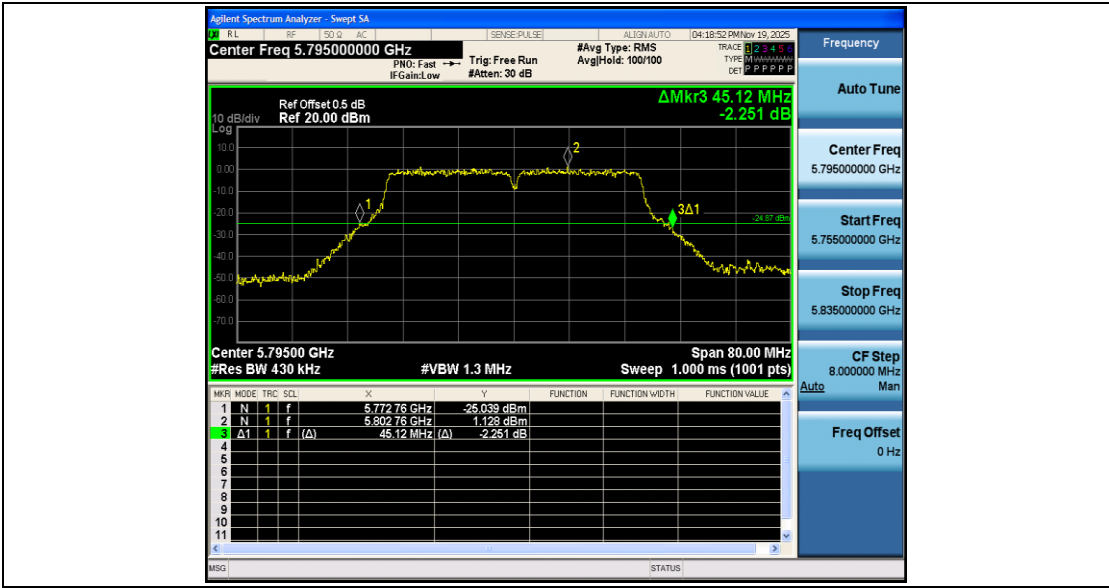
11N20SISO_Ant1_5825



11N40SISO_Ant1_5755



11N40SISO_Ant1_5795



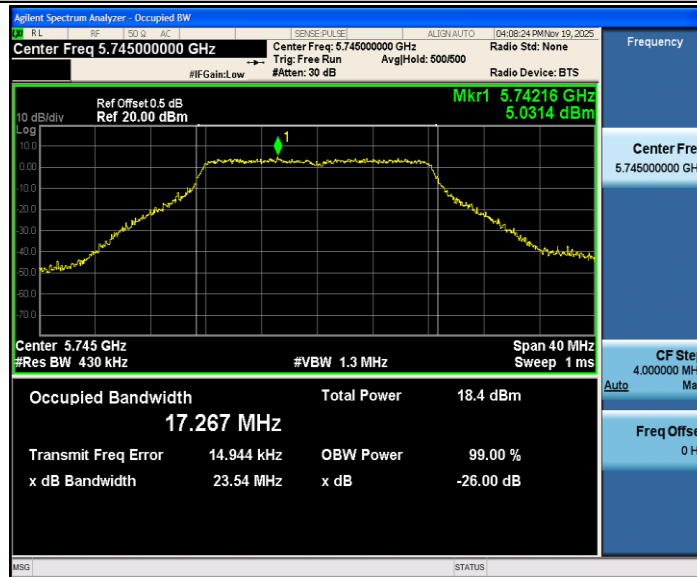
Appendix A2: Occupied channel bandwidth

Test Result

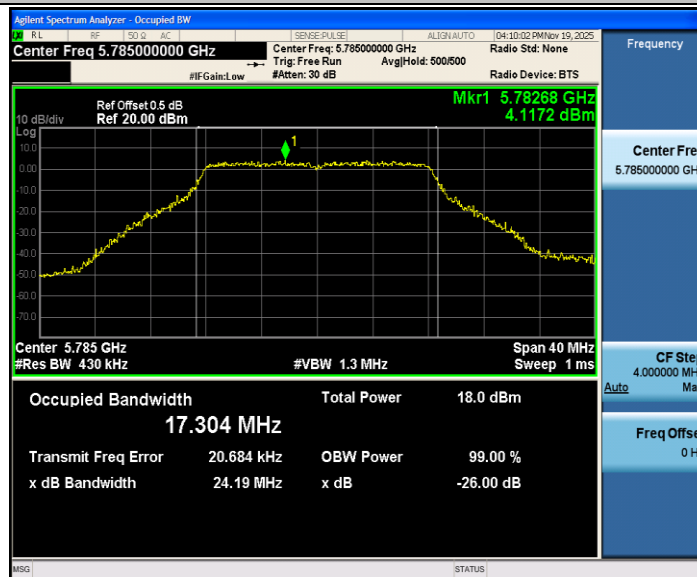
TestMode	Antenna	Freq(MHz)	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5745	17.267	5736.3814	5753.6484	---	---
		5785	17.304	5776.3687	5793.6727	---	---
		5825	17.321	5816.3897	5833.7107	---	---
11N20SISO	Ant1	5745	18.357	5735.8306	5754.1876	---	---
		5785	18.372	5775.8538	5794.2258	---	---
		5825	18.329	5815.8903	5834.2193	---	---
11N40SISO	Ant1	5755	36.692	5736.7290	5773.4210	---	---
		5795	36.764	5776.7447	5813.5087	---	---

Test Graphs

11A_Ant1_5745



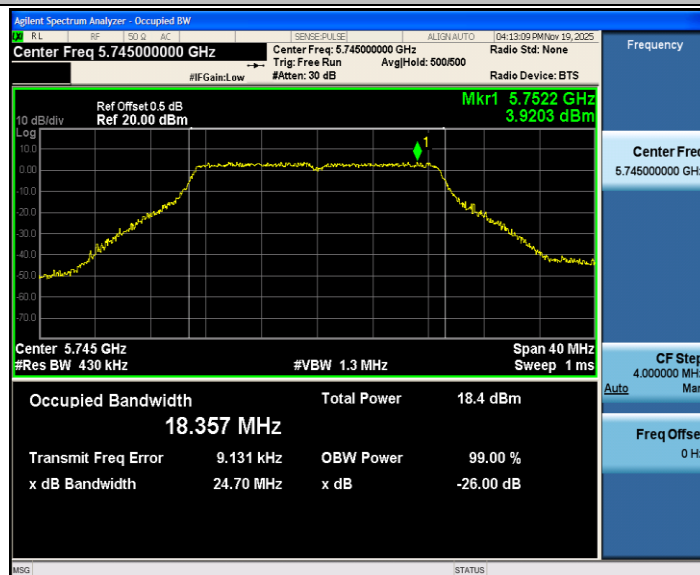
11A_Ant1_5785



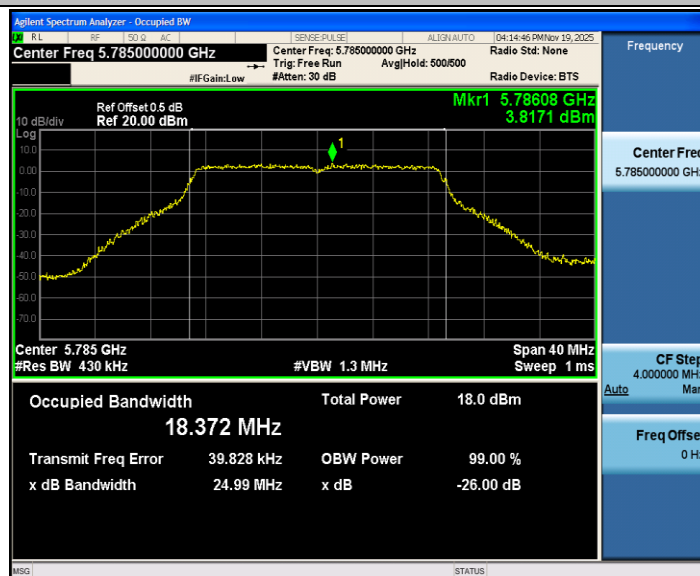
11A_Ant1_5825



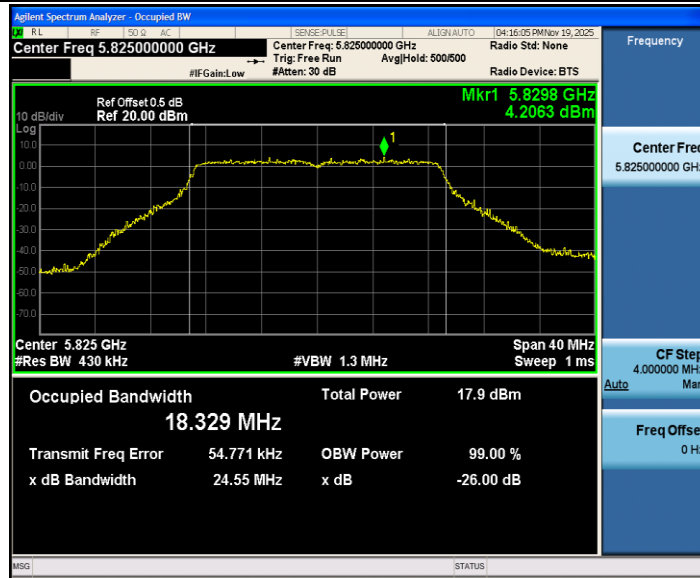
11N20SISO_Ant1_5745



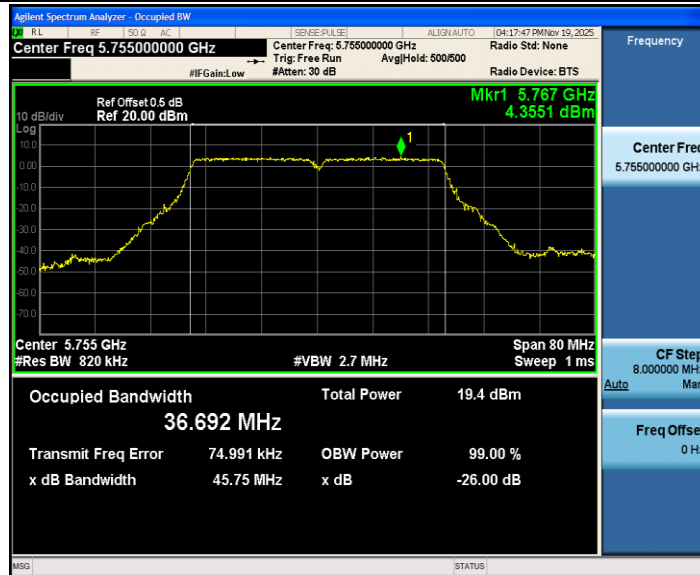
11N20SISO_Ant1_5785



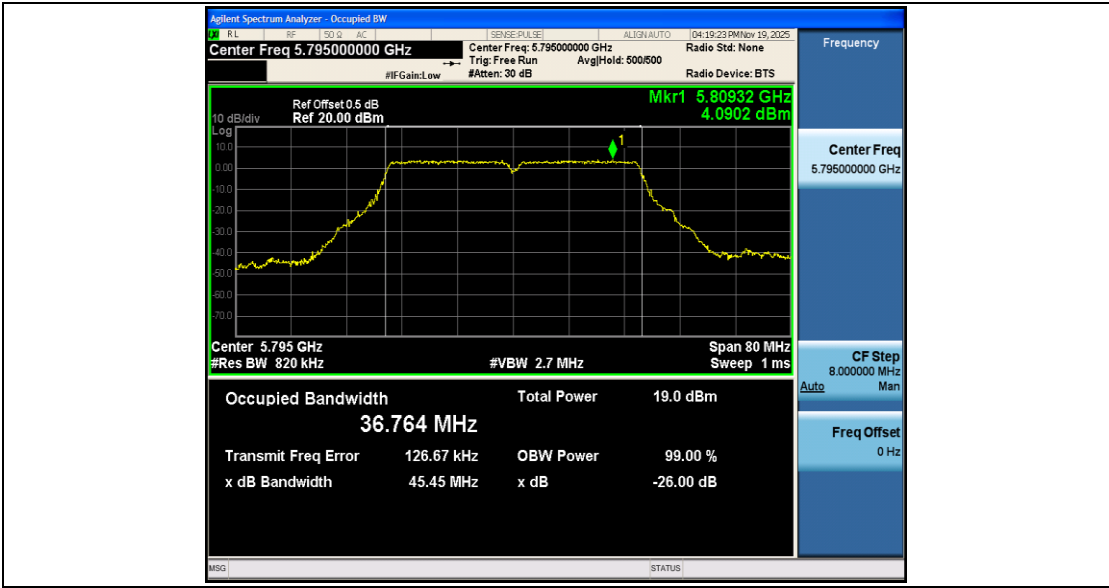
11N20SISO_Ant1_5825



11N40SISO_Ant1_5755



11N40SISO_Ant1_5795



Appendix A3: Min emission bandwidth

Test Result B4

TestMode	Antenna	Freq(MHz)	6db EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5745	16.320	5736.840	5753.160	0.5	PASS
		5785	16.320	5776.840	5793.160	0.5	PASS
		5825	16.320	5816.840	5833.160	0.5	PASS
11N20SISO	Ant1	5745	17.160	5736.240	5753.400	0.5	PASS
		5785	17.520	5776.240	5793.760	0.5	PASS
		5825	17.560	5816.240	5833.800	0.5	PASS
11N40SISO	Ant1	5755	36.320	5736.840	5773.160	0.5	PASS
		5795	36.320	5776.840	5813.160	0.5	PASS

11A_Ant1_5745

Agilent Spectrum Analyzer - Sweep SA

Center Freq 5.745000000 GHz

Ref Offset 0.5 dB
Ref 20.00 dBm

Trig: Free Run
#Avt: 30 dB

#Avg Type: RMS
Avg/Hold: 100/100

Span 40.00 MHz
Sweep 3.867 ms (1001 pts)

ΔMkr3 16.32 MHz
1.134 dB

MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	1	f	5.736 84 GHz	-4.749 dBm			
2	N	1	f	5.745 23 GHz	1.185 dBm			
3	Δ	1	f (Δ)	16.32 MHz (Δ)	1.134 dB			

11A_Ant1_5785

Agilent Spectrum Analyzer - Sweep SA

Center Freq 5.785000000 GHz

Ref Offset 0.5 dB
Ref 20.00 dBm

Trig: Free Run
#Avt: 30 dB

#Avg Type: RMS
Avg/Hold: 100/100

Span 40.00 MHz
Sweep 3.867 ms (1001 pts)

ΔMkr3 16.32 MHz
-0.623 dB

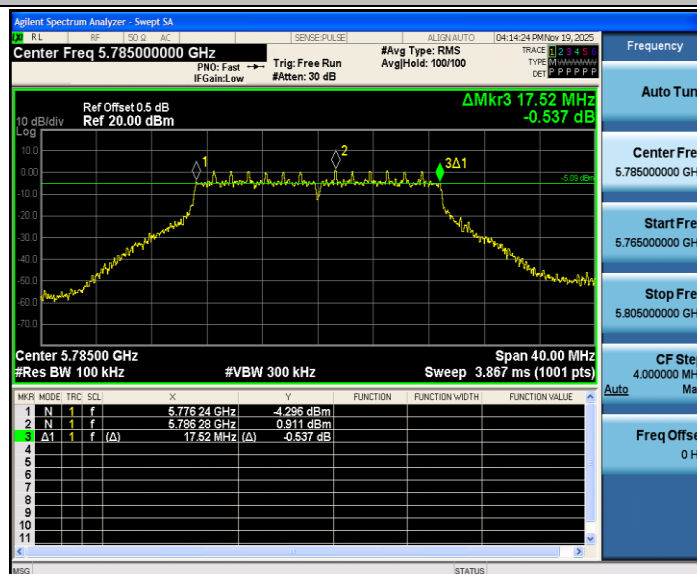
MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	1	f	5.776 84 GHz	-3.894 dBm			
2	N	1	f	5.786 28 GHz	0.754 dBm			
3	Δ	1	f (Δ)	16.32 MHz (Δ)	-0.623 dB			



11N20SISO_Ant1_5745



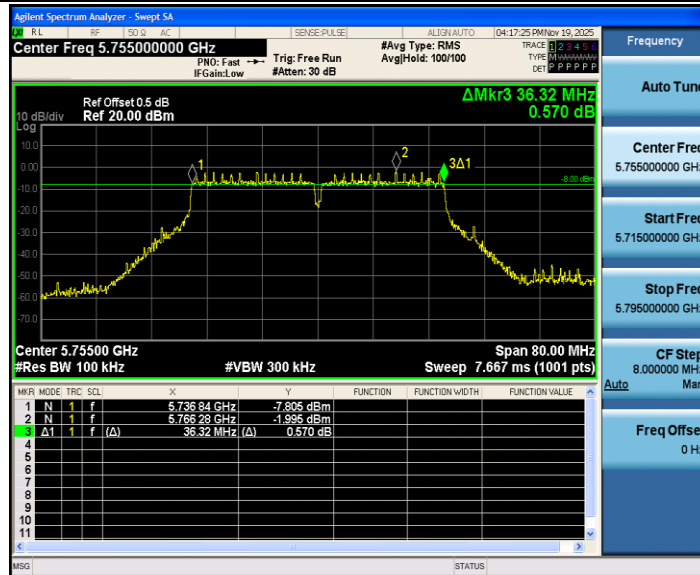
11N20SISO_Ant1_5785



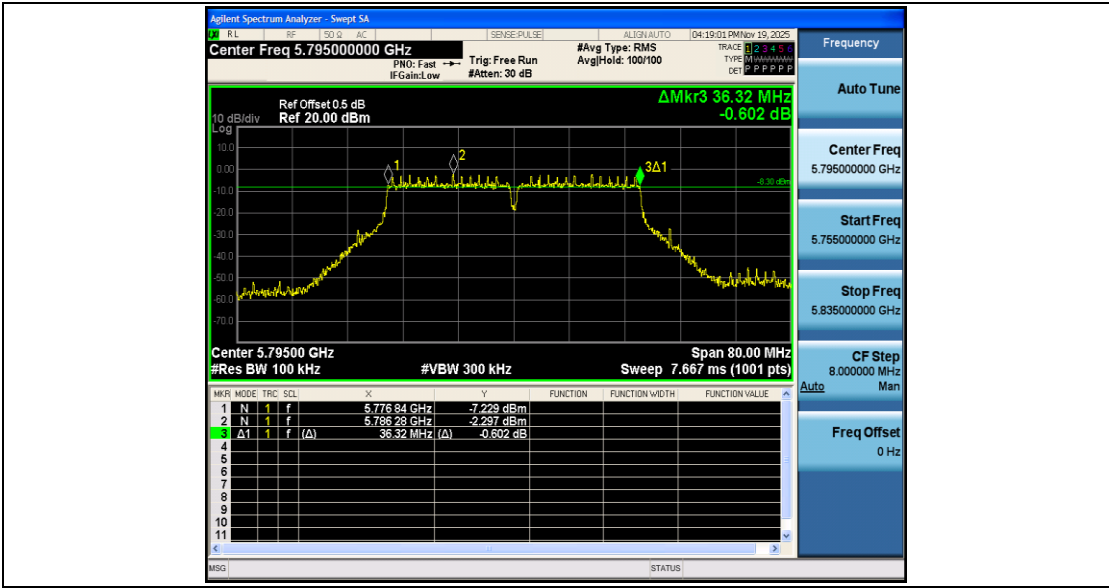
11N20SISO_Ant1_5825



11N40SISO_Ant1_5755



11N40SISO_Ant1_5795

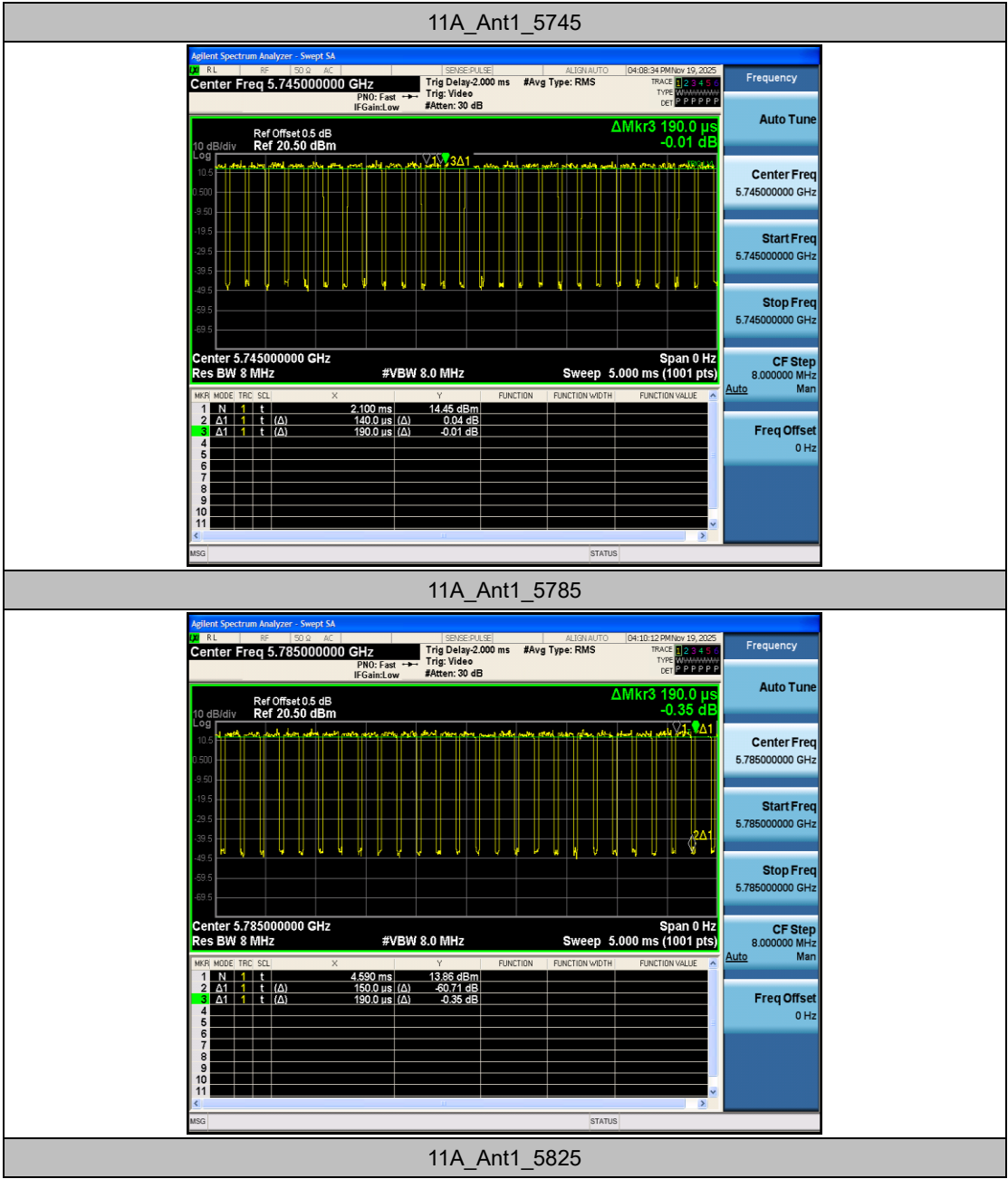


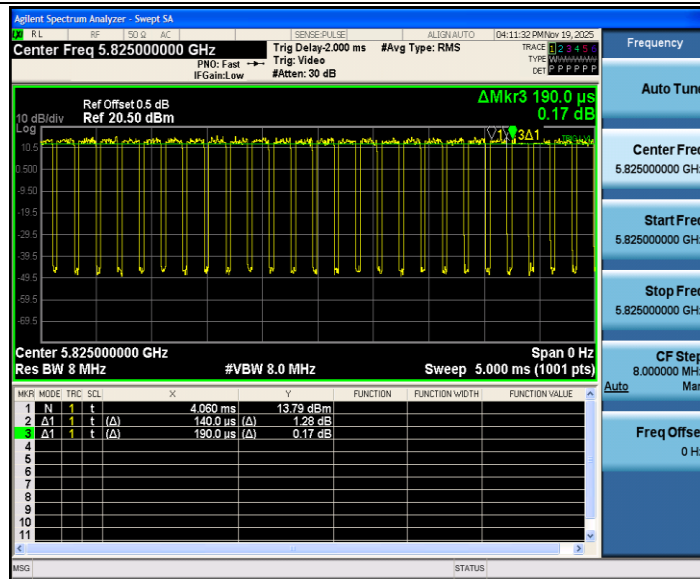
Appendix B: Duty Cycle

Test Result

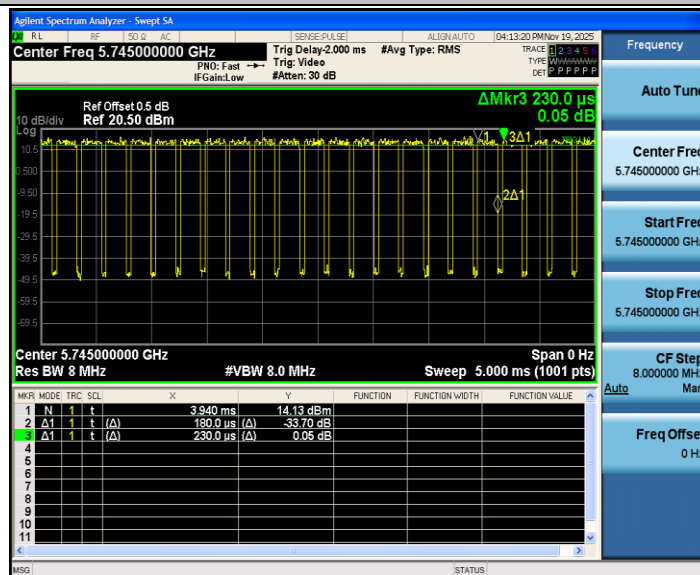
TestMode	Antenna	Freq(MHz)	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	Duty factor(dB)	Limit	Verdict
11A	Ant1	5745	0.14	0.19	73.68	1.33	---	---
		5785	0.15	0.19	78.95	1.03	---	---
		5825	0.14	0.19	73.68	1.33	---	---
11N20SISO	Ant1	5745	0.18	0.23	78.26	1.06	---	---
		5785	0.18	0.23	78.26	1.06	---	---
		5825	0.18	0.23	78.26	1.06	---	---
11N40SISO	Ant1	5755	0.18	0.23	78.26	1.06	---	---
		5795	0.18	0.23	78.26	1.06	---	---

Test Graphs

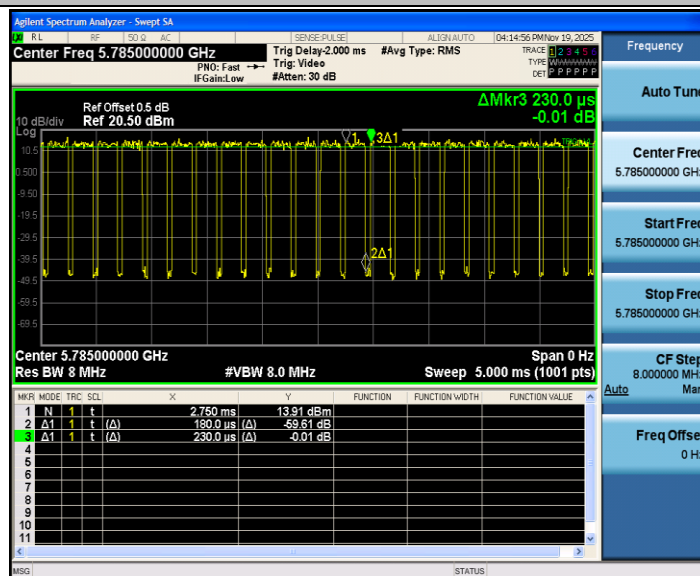




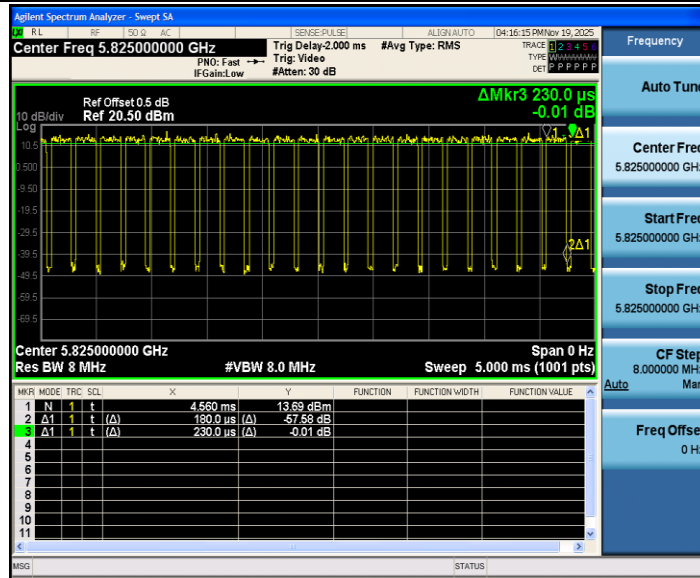
11N20SISO_Ant1_5745



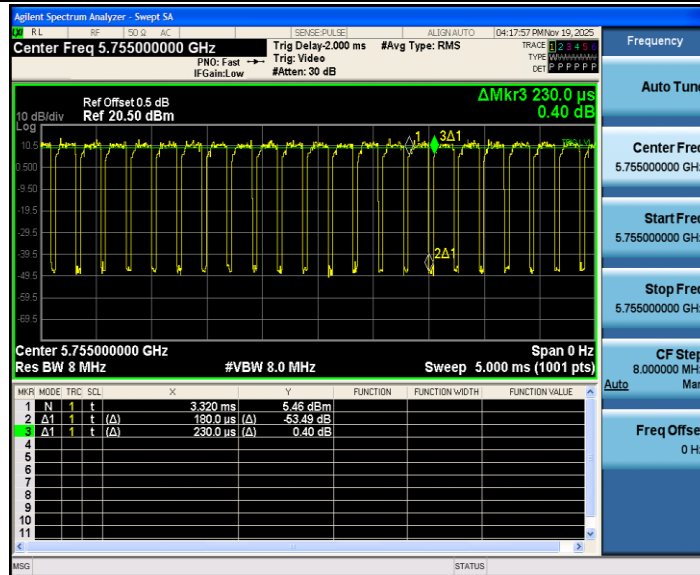
11N20SISO_Ant1_5785



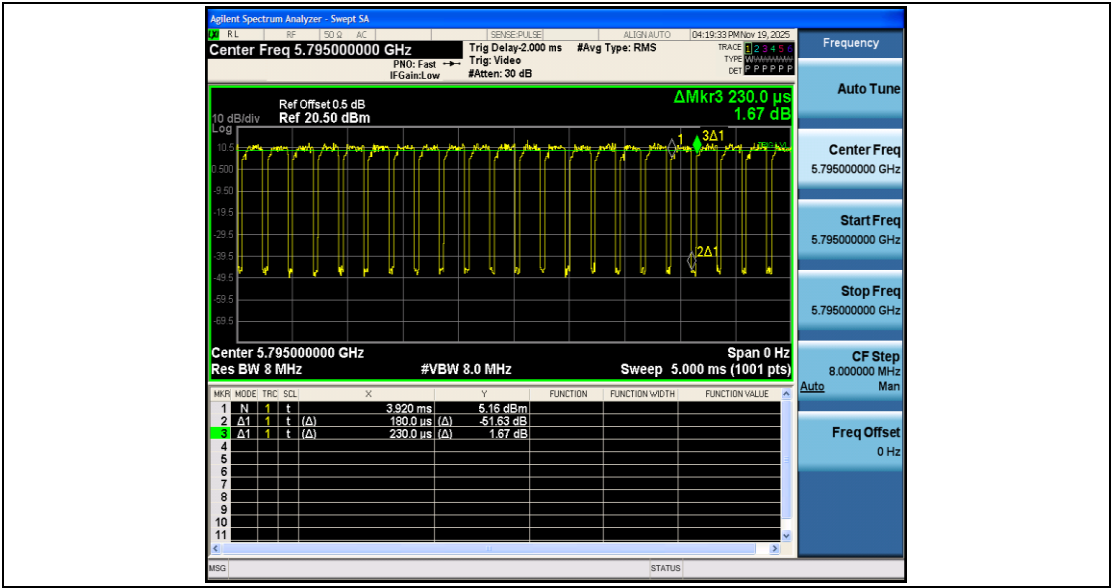
11N20SISO_Ant1_5825



11N40SISO_Ant1_5755



11N40SISO_Ant1_5795



Appendix C: 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	5745	10.67	73.68	1.33	12.00	≤30.00	PASS
		5785	10.19	78.95	1.03	11.22	≤30.00	PASS
		5825	10.03	73.68	1.33	11.36	≤30.00	PASS
11N20SISO	Ant1	5745	10.77	78.26	1.06	11.83	≤30.00	PASS
		5785	10.34	78.26	1.06	11.40	≤30.00	PASS
		5825	10.22	78.26	1.06	11.28	≤30.00	PASS
11N40SISO	Ant1	5755	10.93	78.26	1.06	11.99	≤30.00	PASS
		5795	10.54	78.26	1.06	11.60	≤30.00	PASS

Appendix D: Maximum power spectral density

Test Result

TestMode	Antenna	Freq(MHz)	Result [dBm/300KHz]	RBW Factor (dB)	Duty factor (dB)	Result [dBm/500KHz]	Limit [dBm/500KHz]	Verdict
11A	Ant1	5745	-5.251	2.22	1.33	-1.70	≤30.00	PASS
		5785	-5.275	2.22	1.03	-2.03	≤30.00	PASS
		5825	-5.233	2.22	1.33	-1.68	≤30.00	PASS
11N20SISO	Ant1	5745	-4.834	2.22	1.06	-1.55	≤30.00	PASS
		5785	-5.229	2.22	1.06	-1.95	≤30.00	PASS
		5825	-5.249	2.22	1.06	-1.97	≤30.00	PASS
11N40SISO	Ant1	5755	-7.810	2.22	1.06	-4.53	≤30.00	PASS
		5795	-8.014	2.22	1.06	-4.73	≤30.00	PASS

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

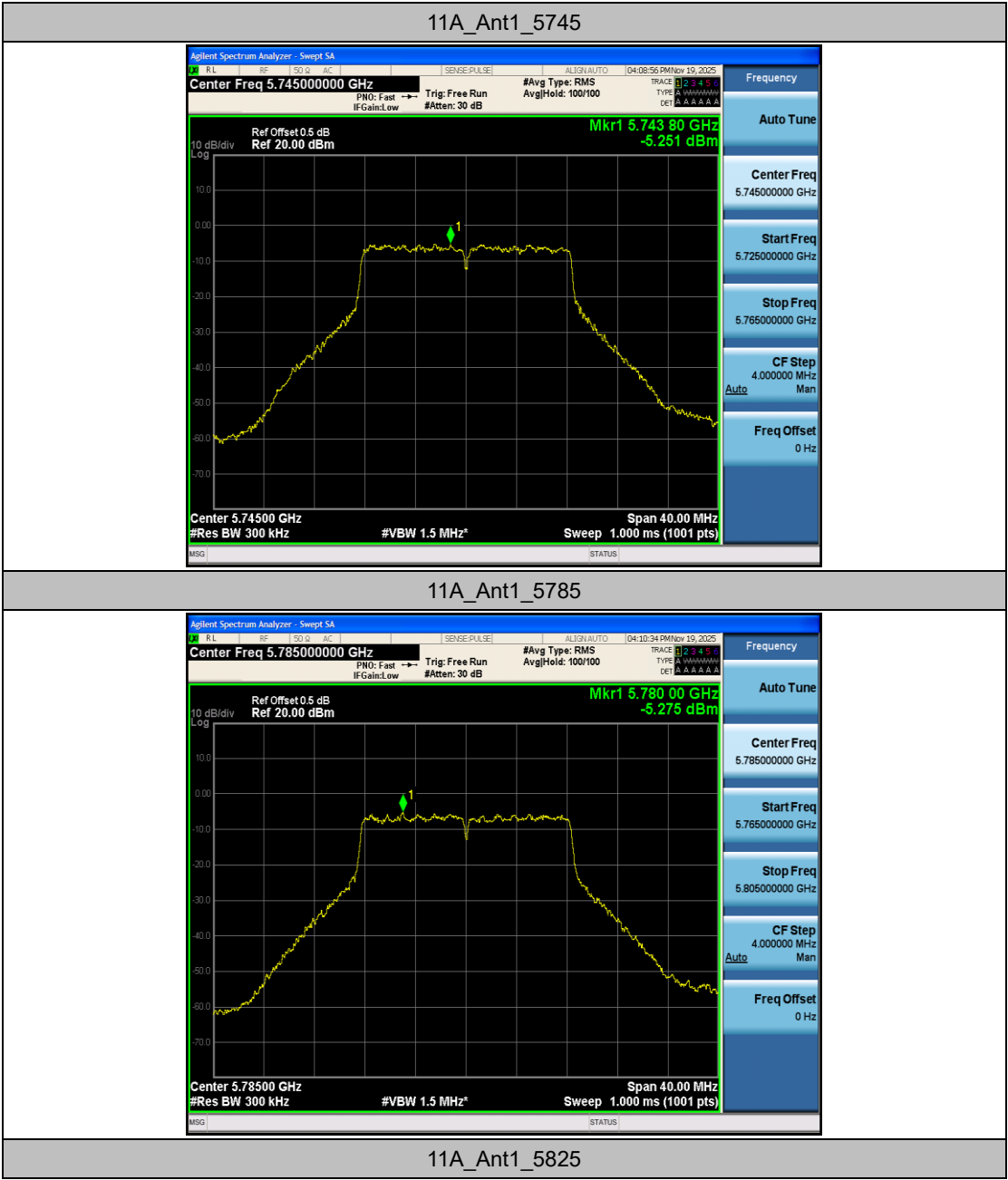
P.S.D(dBm/500KHz)= P.S.D(dBm/300KHz)+10 log (500 kHz/300KHz) +Duty factor.

2. RBW factor= 10 log (500 KHz /300 KHz) = 2.22 dB

3. EIRP P.S.D(dBm/MHz)= Result P.S.D(dBm/MHz)+ Duty factor+Antenna Gain

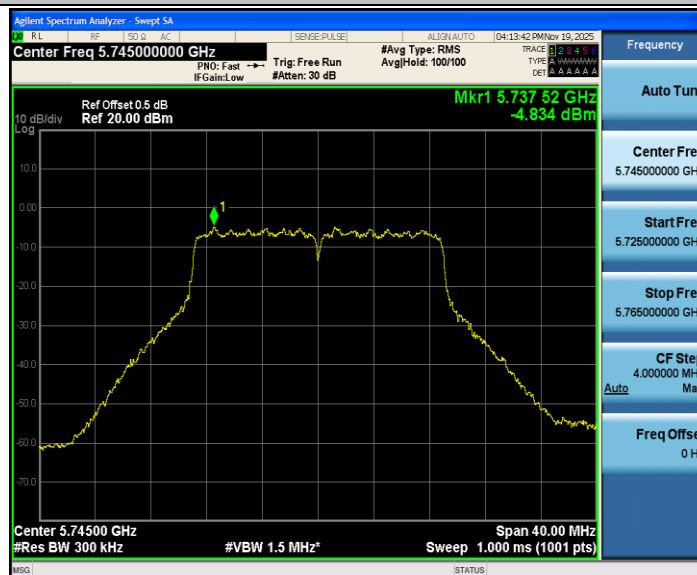
4. Note:Offset=cable loss

Test Graphs

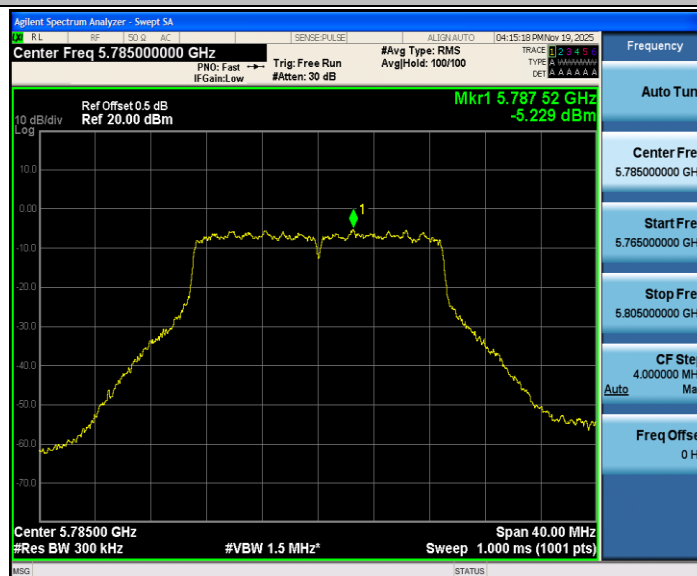




11N20SISO_Ant1_5745



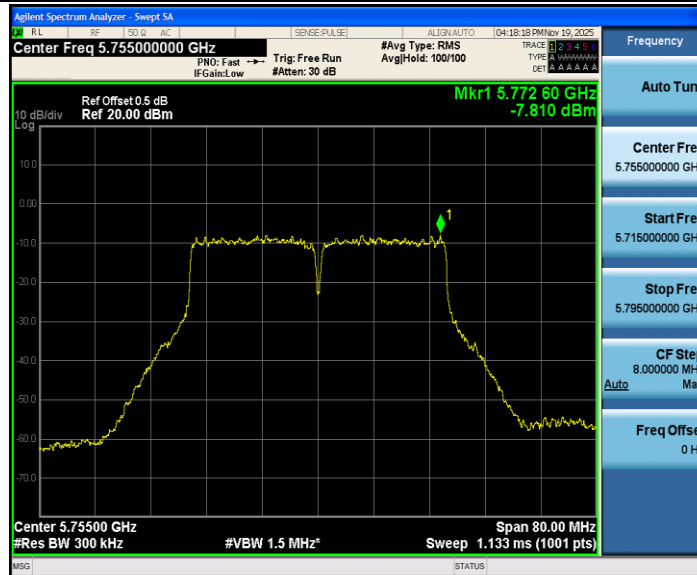
11N20SISO_Ant1_5785



11N20SISO_Ant1_5825



11N40SISO_Ant1_5755



11N40SISO_Ant1_5795

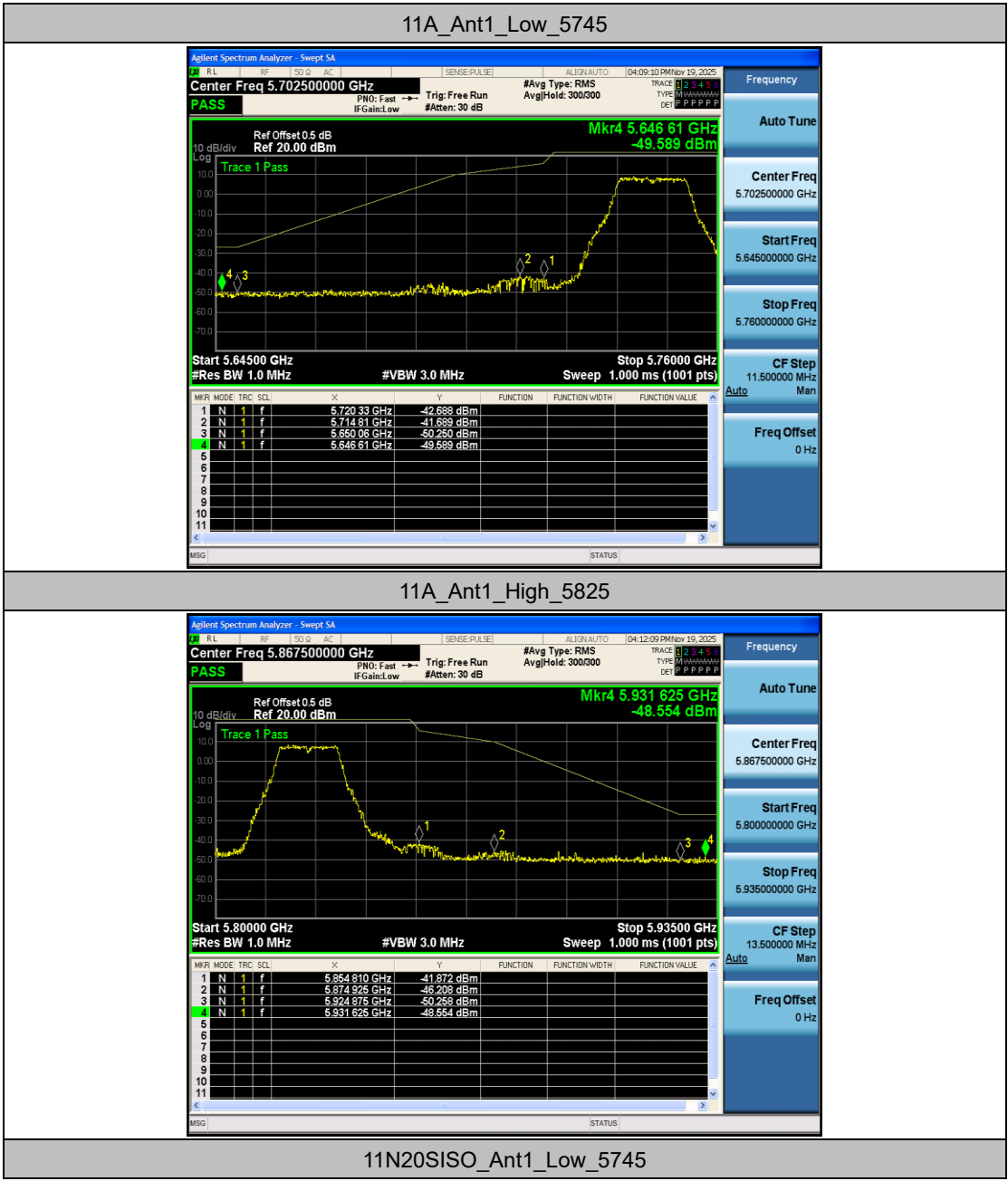


Appendix E: Band edge measurements

Test Result B4

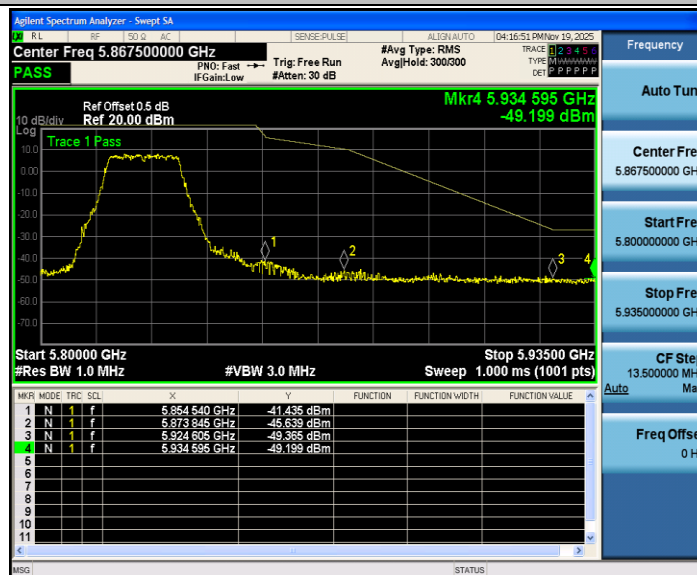
TestMode	Antenna	ChName	Freq(MHz)	FreqRange [MHz]	Result [dBm]	Limit [dBm]	Verdict
11A	Ant1	Low	5745	5650~5700	-50.25	≤-26.96	PASS
				5700~5720	-41.69	≤14.15	PASS
				5720~5725	-42.69	≤16.34	PASS
				5760~5650	-49.59	≤-27	PASS
		High	5825	5850~5855	-41.87	≤16.03	PASS
				5855~5875	-46.21	≤10.02	PASS
				5875~5925	-50.26	≤-26.91	PASS
				5925~5935	-48.55	≤-27	PASS
11N20SI SO	Ant1	Low	5745	5650~5700	-50.09	≤-26.96	PASS
				5700~5720	-41.54	≤14.02	PASS
				5720~5725	-45.03	≤16.34	PASS
				5760~5650	-49.37	≤-27	PASS
		High	5825	5850~5855	-41.44	≤16.65	PASS
				5855~5875	-45.64	≤10.32	PASS
				5875~5925	-49.37	≤-26.71	PASS
				5925~5935	-49.2	≤-27	PASS
11N40SI SO	Ant1	Low	5755	5650~5700	-49.23	≤-25.90	PASS
				5700~5720	-45.39	≤10.10	PASS
				5720~5725	-41.56	≤15.74	PASS
				5780~5650	-49.33	≤-27	PASS
		High	5795	5850~5855	-45.91	≤17.16	PASS
				5855~5875	-47.59	≤10.06	PASS
				5875~5925	-50.27	≤-26.95	PASS
				5925~5935	-48.26	≤-27	PASS

Test Graphs B4

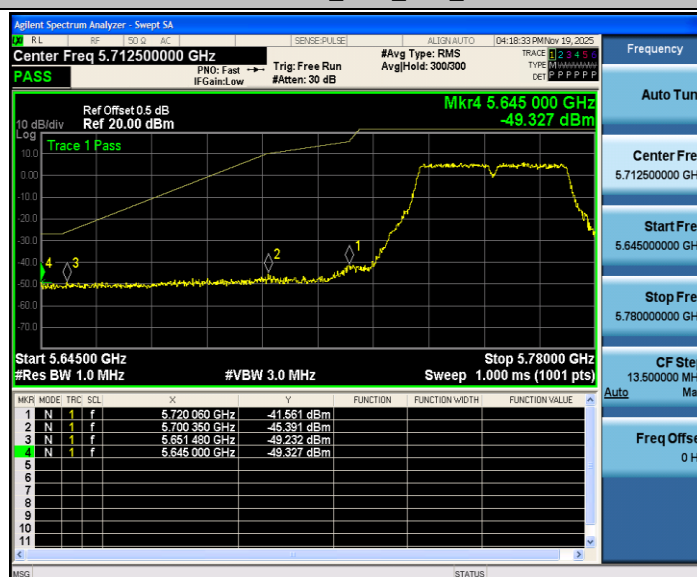




11N20SISO_Ant1_High_5825



11N40SISO_Ant1_Low_5755



11N40SISO_Ant1_High_5795

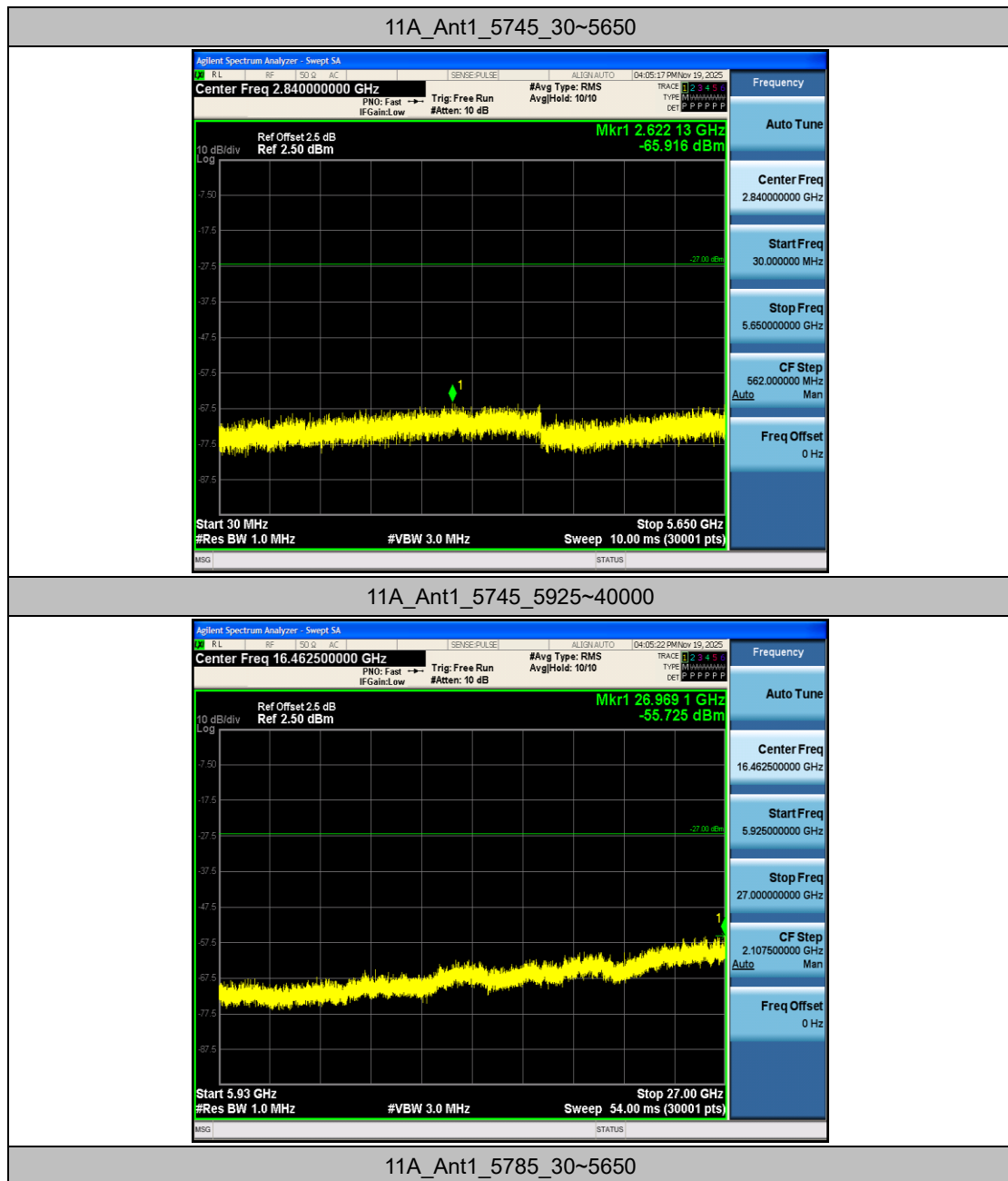


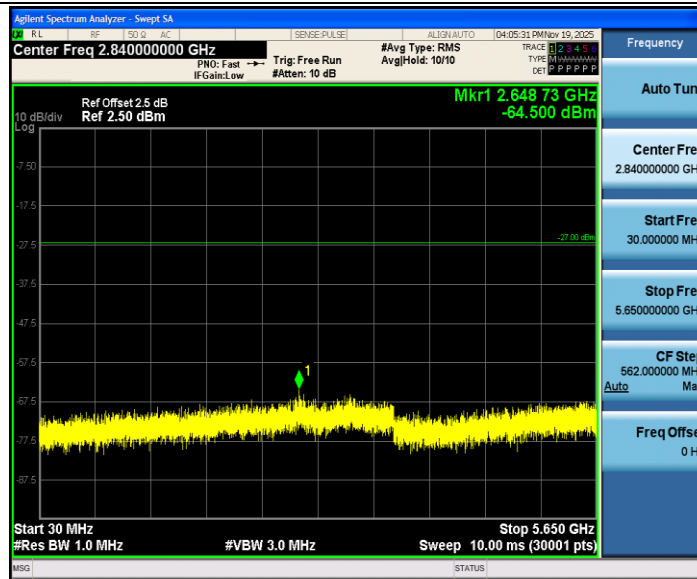
Appendix F: Conducted Spurious Emission

Test Result

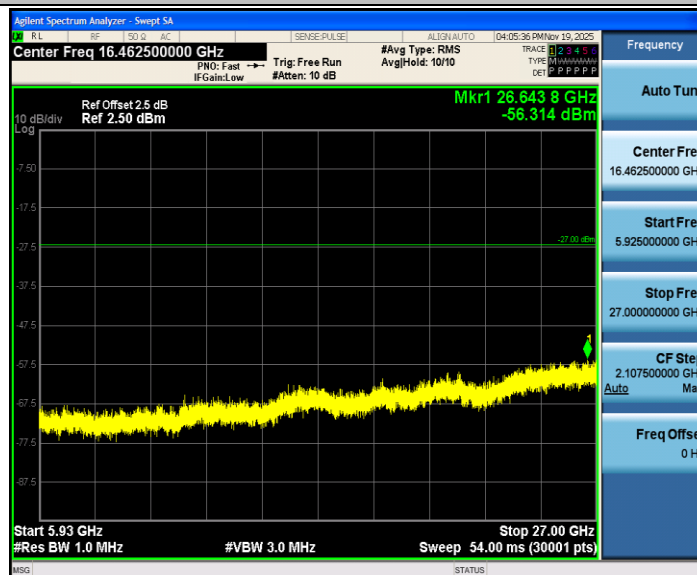
TestMode	Antenna	Freq(MHz)	FreqRange [MHz]	Max. Fre [MHz]	Max. Level [dBm]	Limit [dBm]	Verdict
11A	Ant1	5745	30~5650	2622.13	-65.92	≤-27	PASS
			5925~40000	26969.09	-55.73	≤-27	PASS
		5785	30~5650	2648.73	-64.5	≤-27	PASS
			5925~40000	26643.83	-56.31	≤-27	PASS
		5825	30~5650	3140.67	-64.42	≤-27	PASS
			5925~40000	26033.36	-55.4	≤-27	PASS
11N20SISO	Ant1	5745	30~5650	2999.23	-65.43	≤-27	PASS
			5925~40000	26015.8	-56.03	≤-27	PASS
		5785	30~5650	3152.66	-65.32	≤-27	PASS
			5925~40000	26625.57	-55.42	≤-27	PASS
		5825	30~5650	3179.82	-65.88	≤-27	PASS
			5925~40000	26621.35	-56.19	≤-27	PASS
11N40SISO	Ant1	5755	30~5650	3120.81	-66.01	≤-27	PASS
			5925~40000	26866.53	-55.3	≤-27	PASS
		5795	30~5650	2600.21	-65.33	≤-27	PASS
			5925~40000	26600.98	-55.28	≤-27	PASS

Test Graphs

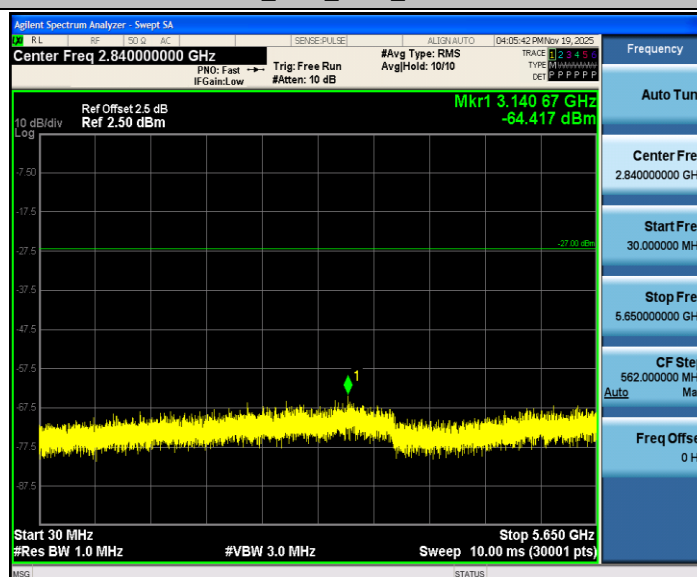




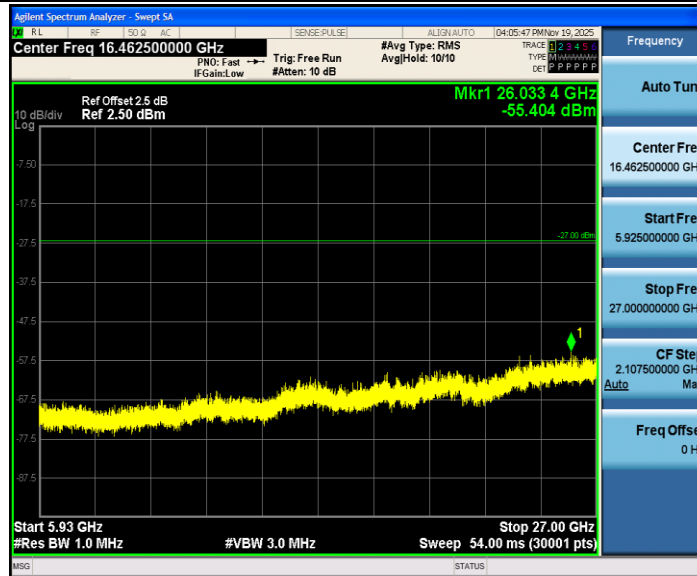
11A_Ant1_5785_5925~40000



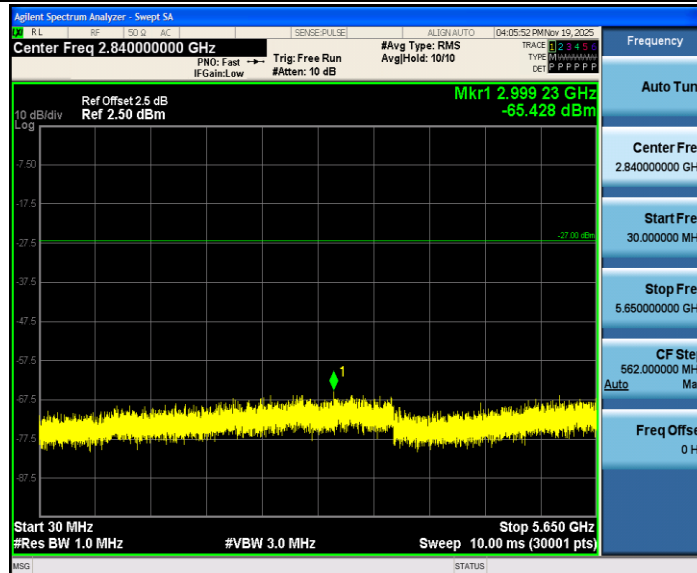
11A_Ant1_5825_30~5650



11A_Ant1_5825_5925~40000



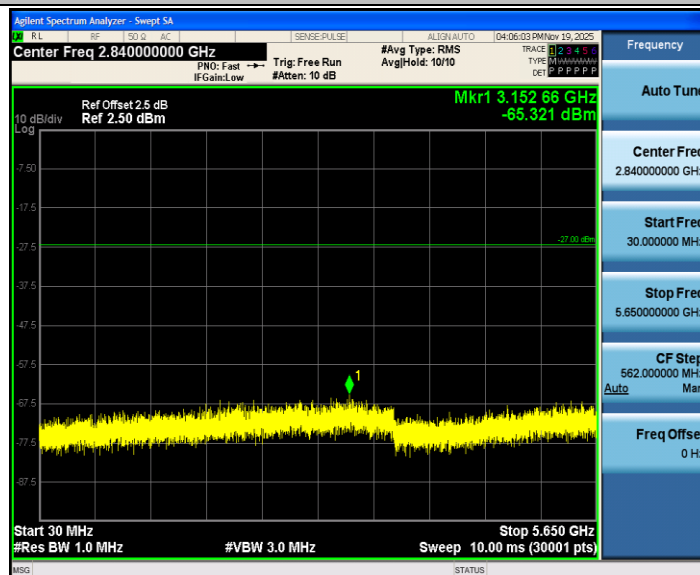
11N20SISO_Ant1_5745_30~5650



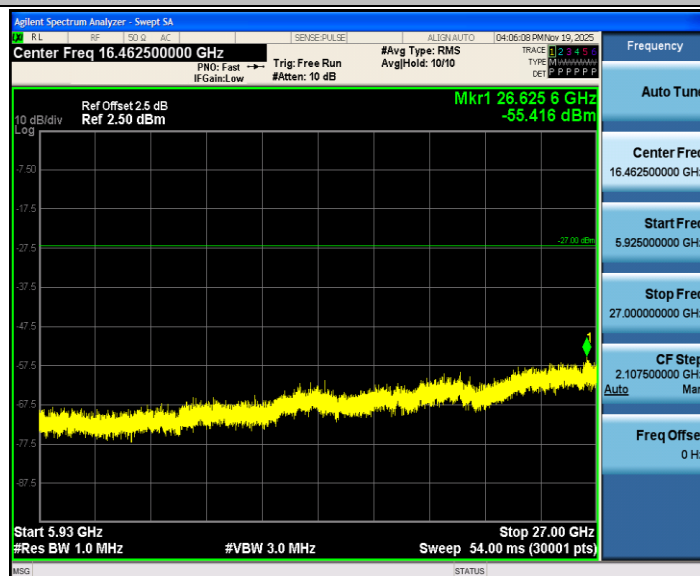
11N20SISO_Ant1_5745_5925~40000



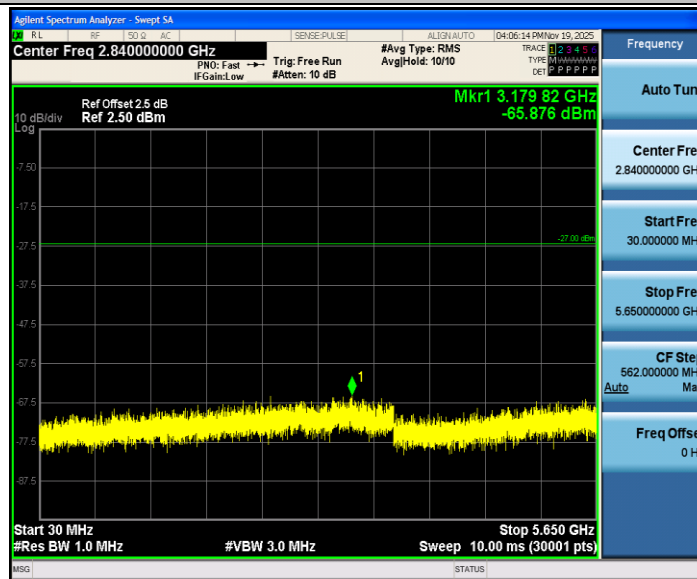
11N20SISO_Ant1_5785_30~5650



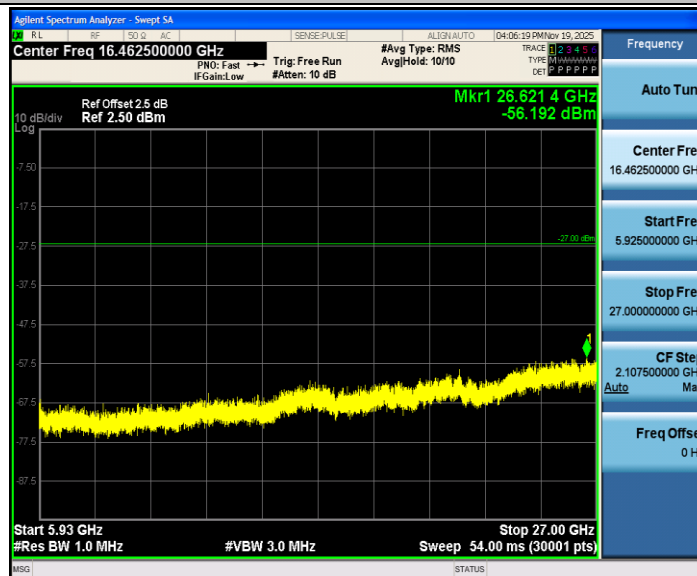
11N20SISO_Ant1_5785_5925~40000



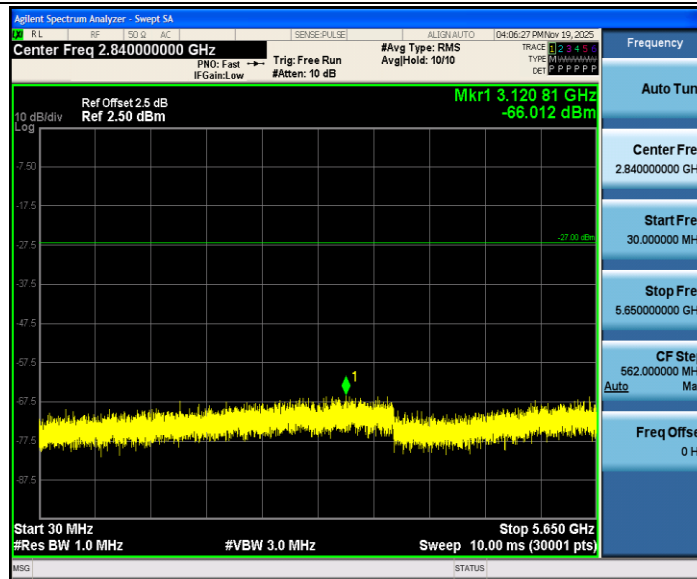
11N20SISO_Ant1_5825_30~5650



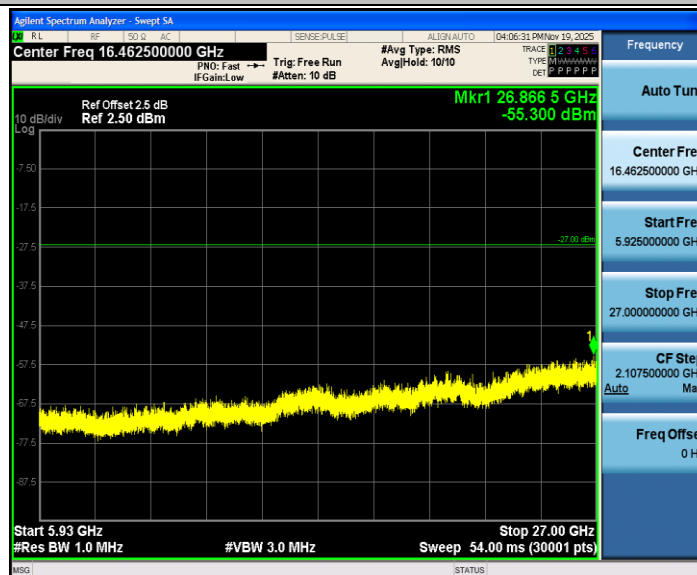
11N20SISO_Ant1_5825_5925~40000



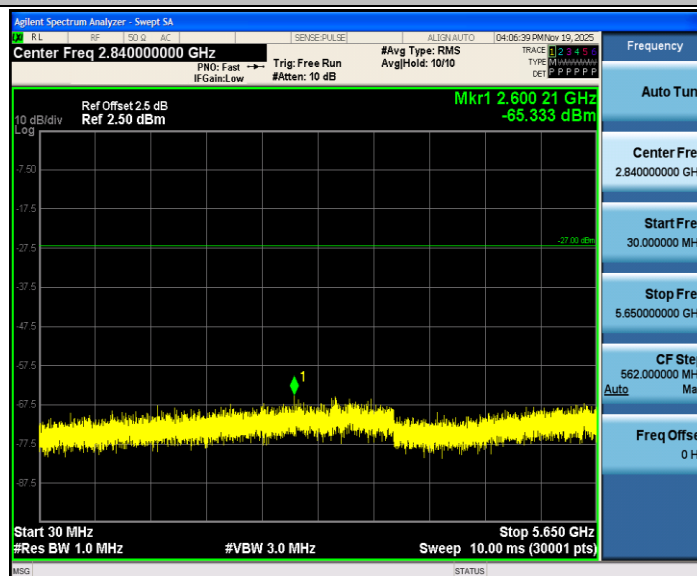
11N40SISO_Ant1_5755_30~5650



11N40SISO_Ant1_5755_5925~40000



11N40SISO_Ant1_5795_30~5650



11N40SISO_Ant1_5795_5925~40000

