

FCC Appendix RF Test Data for 5GWIFI

FCC ID : 2BVHS-A-ONE

Company : Trinity Electronic Trading Co., Ltd.

EUT : Dashcam

Model Number : A-One

Report No. : CTA26020600103

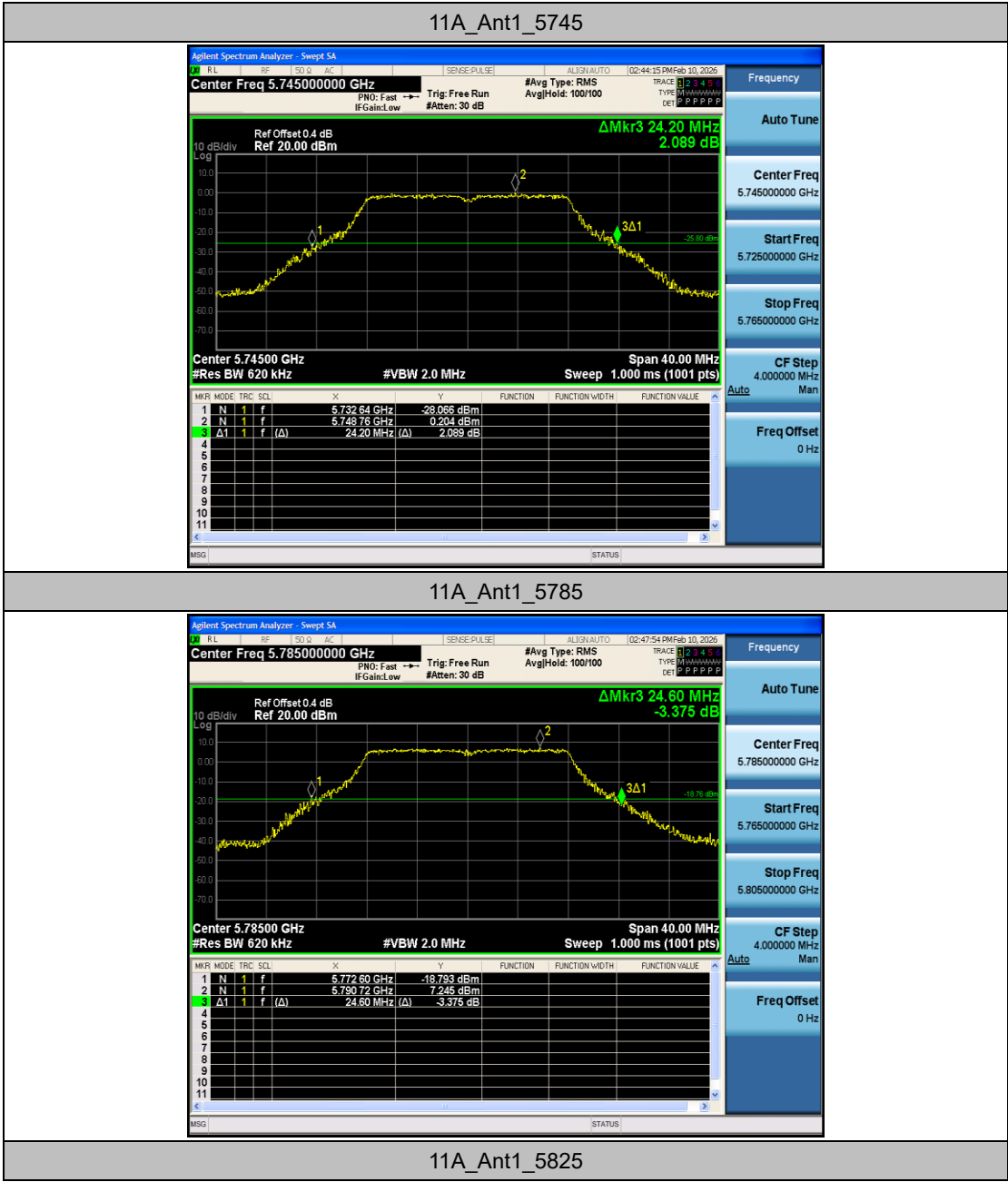
Reviewed By : Eric Wang

Appendix A1: Emission Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	26db EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5745	24.200	5732.640	5756.840	---	---
		5785	24.600	5772.600	5797.200	---	---
		5825	24.800	5812.360	5837.160	---	---
11N20SISO	Ant1	5745	24.680	5733.000	5757.680	---	---
		5785	24.120	5772.920	5797.040	---	---
		5825	24.160	5812.880	5837.040	---	---
11N40SISO	Ant1	5755	44.560	5733.480	5778.040	---	---
		5795	44.560	5773.480	5818.040	---	---

Test Graphs





11N20SISO_Ant1_5745



11N20SISO_Ant1_5785



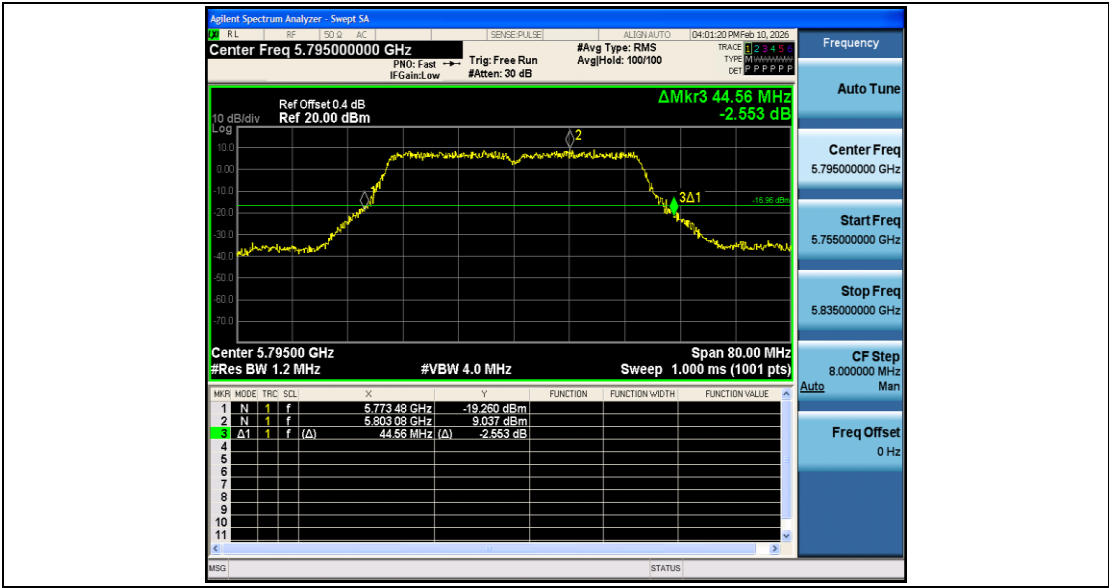
11N20SISO_Ant1_5825



11N40SISO_Ant1_5755



11N40SISO_Ant1_5795

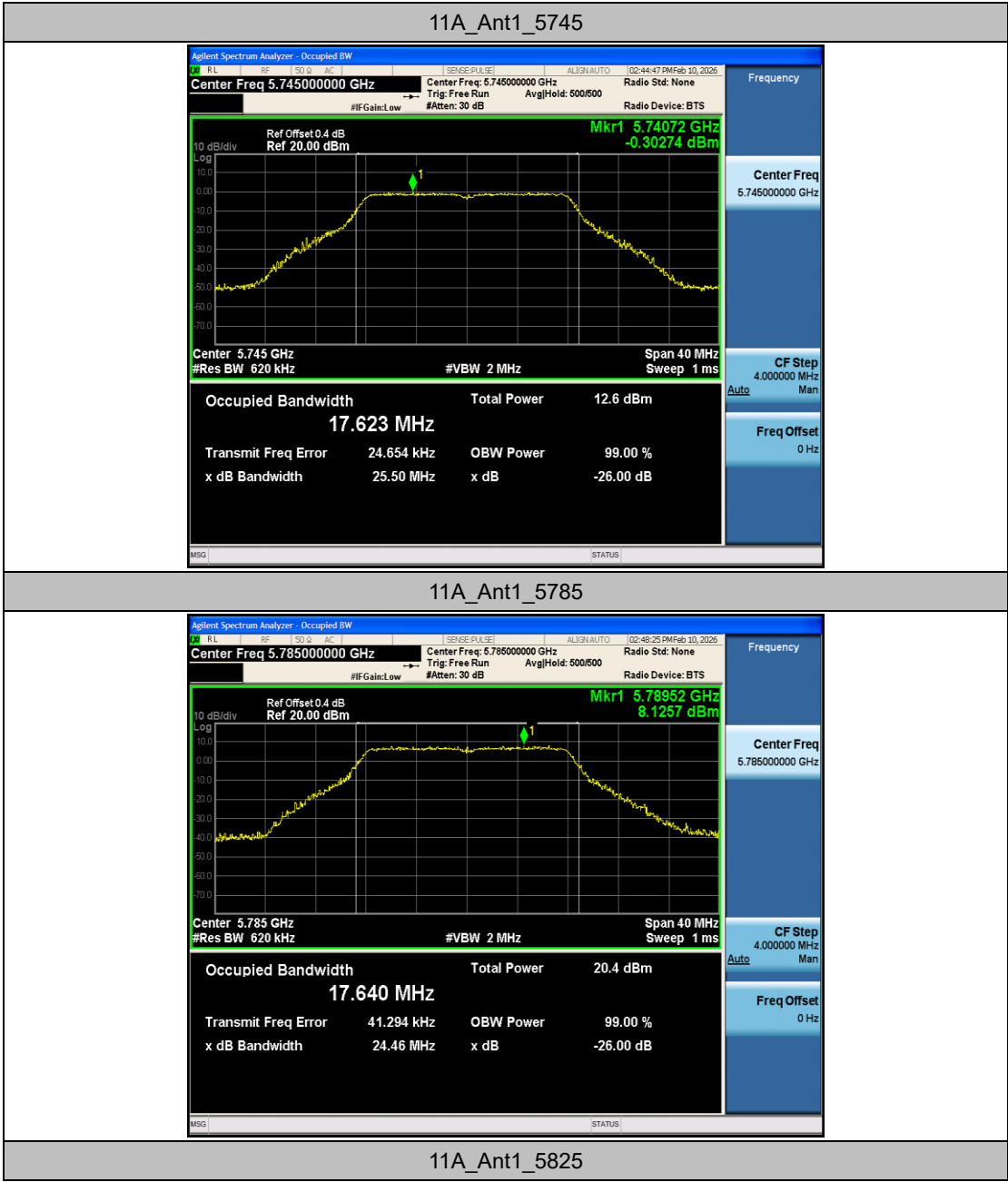


Appendix A2: Occupied channel bandwidth

Test Result

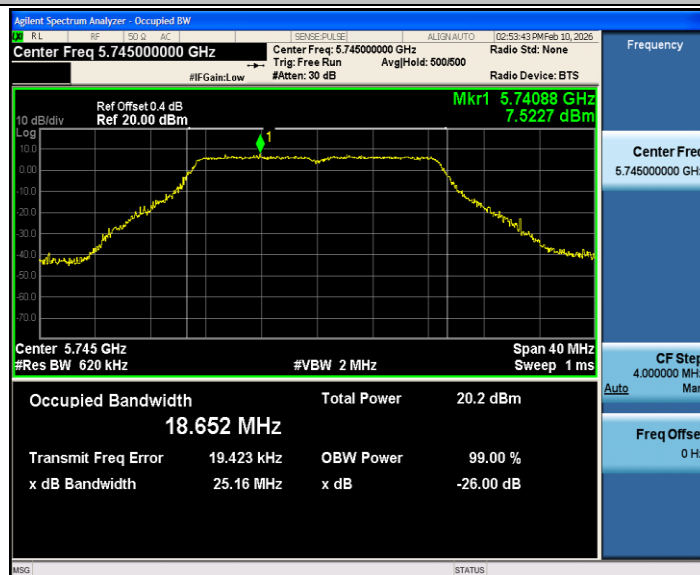
TestMode	Antenna	Freq(MHz)	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5745	17.623	5736.2132	5753.8362	---	---
		5785	17.640	5776.2213	5793.8613	---	---
		5825	17.625	5816.1907	5833.8157	---	---
11N20SISO	Ant1	5745	18.652	5735.6934	5754.3454	---	---
		5785	18.652	5775.6860	5794.3380	---	---
		5825	18.619	5815.7157	5834.3347	---	---
11N40SISO	Ant1	5755	36.850	5736.6988	5773.5488	---	---
		5795	36.988	5776.6472	5813.6352	---	---

Test Graphs

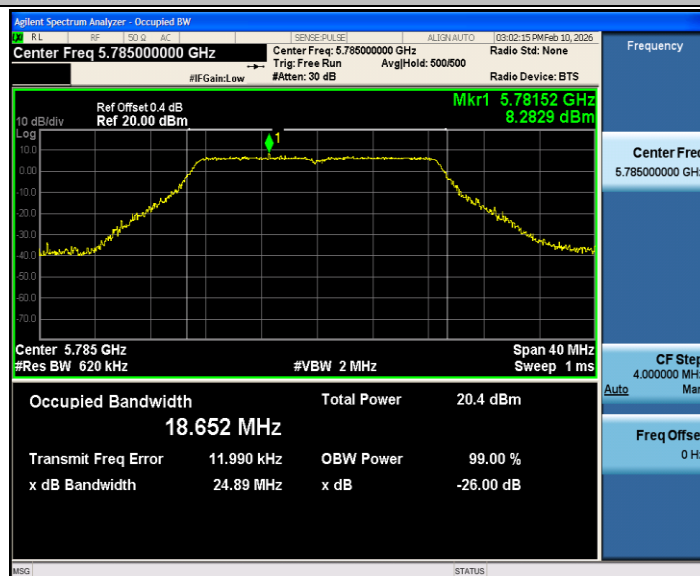




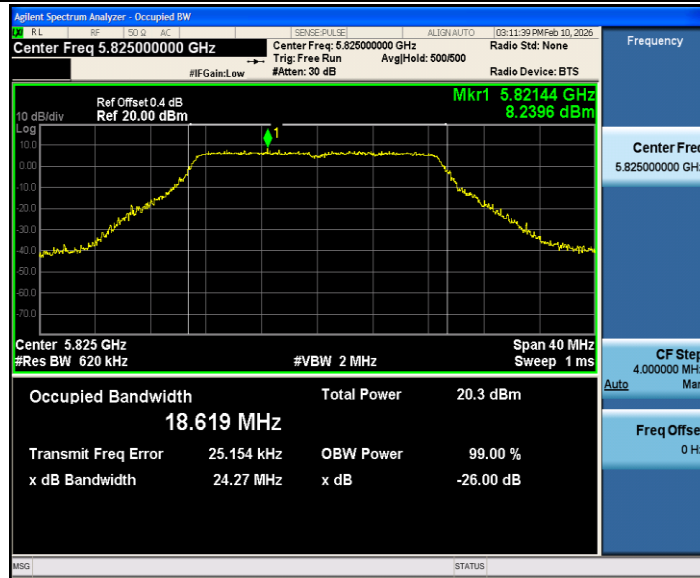
11N20SISO_Ant1_5745



11N20SISO_Ant1_5785



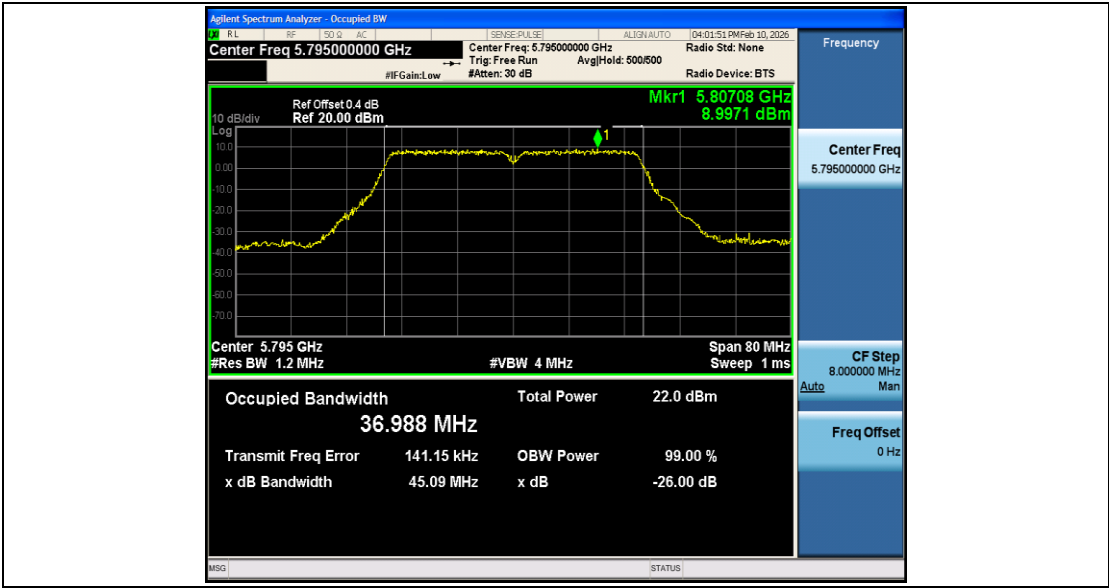
11N20SISO_Ant1_5825



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	17.560	5736.240	5753.800	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 0.4 dB
Ref 20.00 dBm

Trig: Free Run
#Atten: 30 dB

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

Span 40.00 MHz
Sweep 3.867 ms (1001 pts)

ΔMkr3 16.32 MHz
-0.541 dB

MNR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	1	f	5.736 84 GHz	-10.055 dBm			
2	N	1	f	5.745 23 GHz	-4.723 dBm			
3	Δ1	1	f (Δ)	16.32 MHz (Δ)	-0.541 dB			

11A_Ant1_5785

Agilent Spectrum Analyzer - Sweep SA

Center Freq 5.785000000 GHz

Ref Offset 0.4 dB
Ref 20.00 dBm

Trig: Free Run
#Atten: 30 dB

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

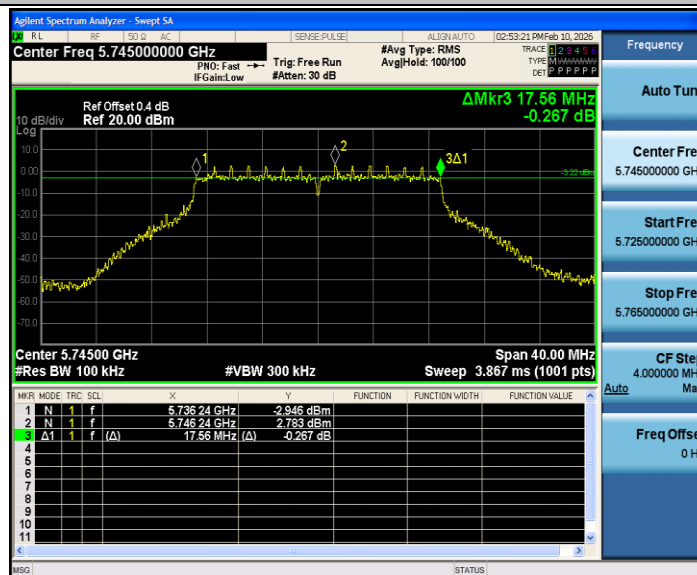
Span 40.00 MHz
Sweep 3.867 ms (1001 pts)

ΔMkr3 16.32 MHz
-0.002 dB

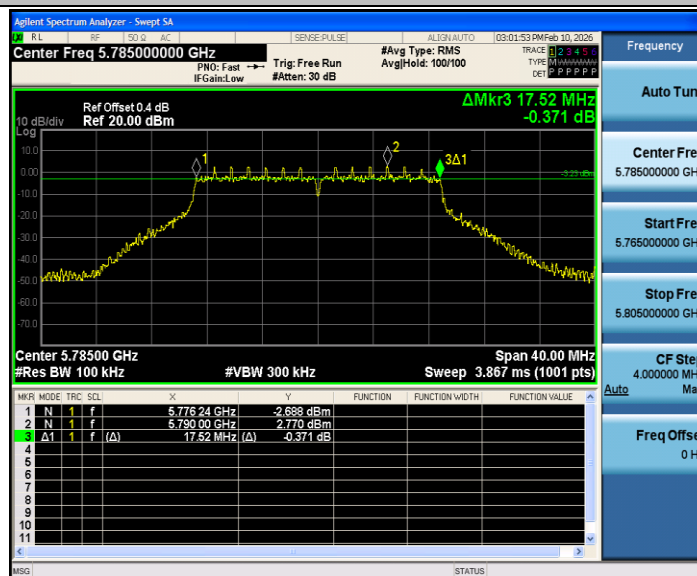
MNR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	1	f	5.776 84 GHz	-2.820 dBm			
2	N	1	f	5.786 28 GHz	2.871 dBm			
3	Δ1	1	f (Δ)	16.32 MHz (Δ)	-0.002 dB			



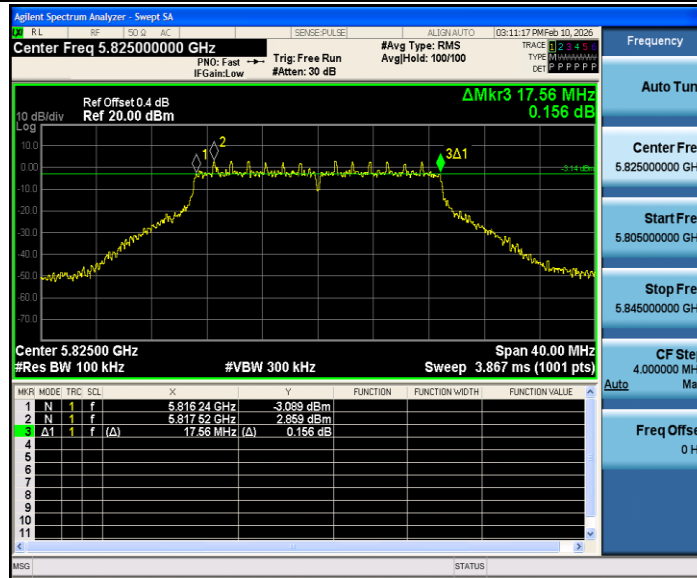
11N20SISO_Ant1_5745



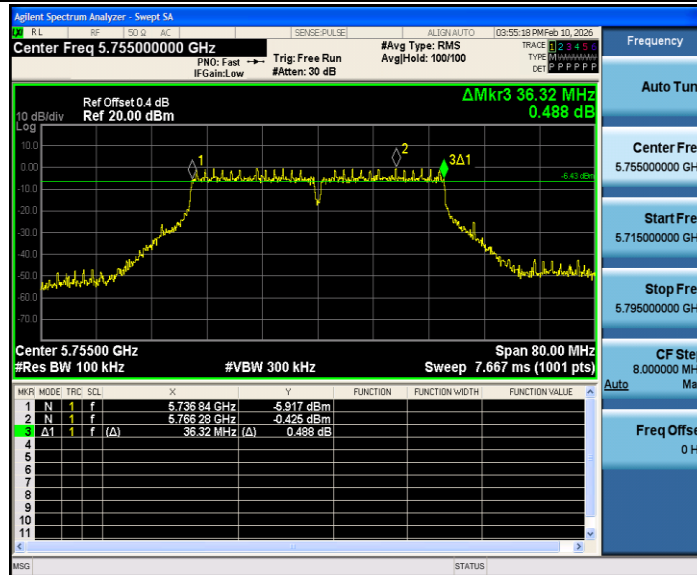
11N20SISO_Ant1_5785



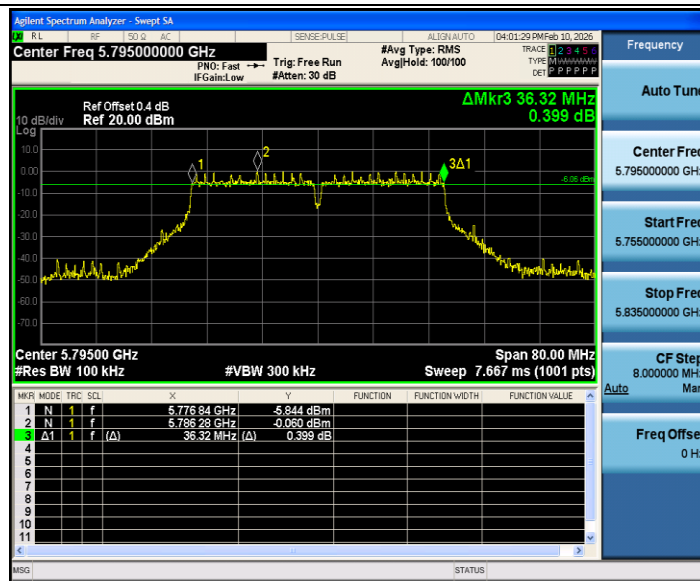
11N20SISO_Ant1_5825



11N40SISO_Ant1_5755



11N40SISO_Ant1_5795

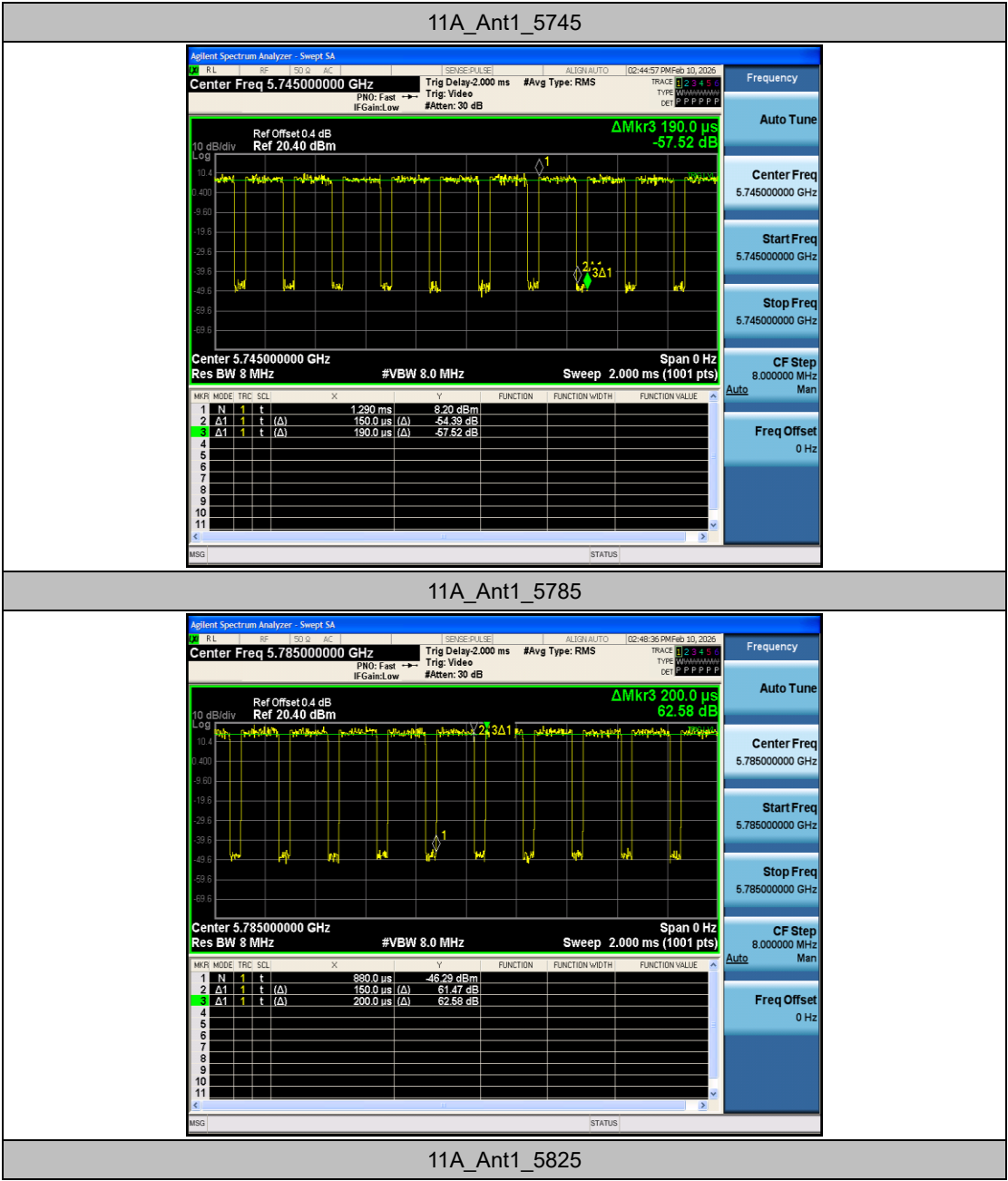


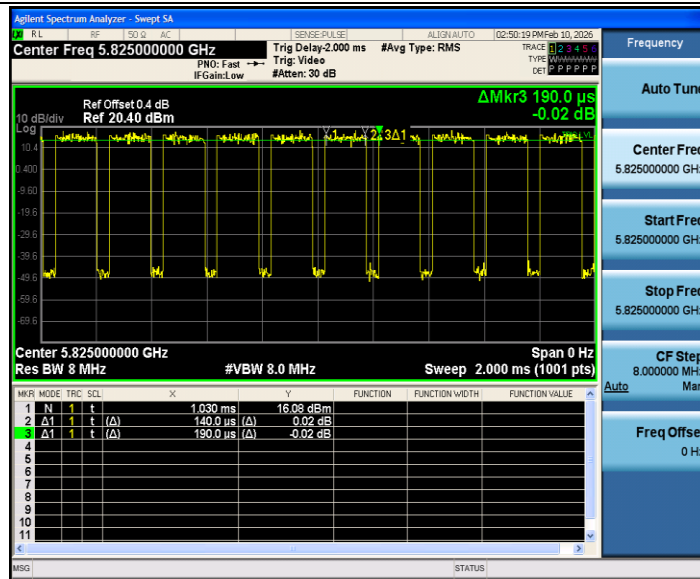
Appendix B: Duty Cycle

Test Result

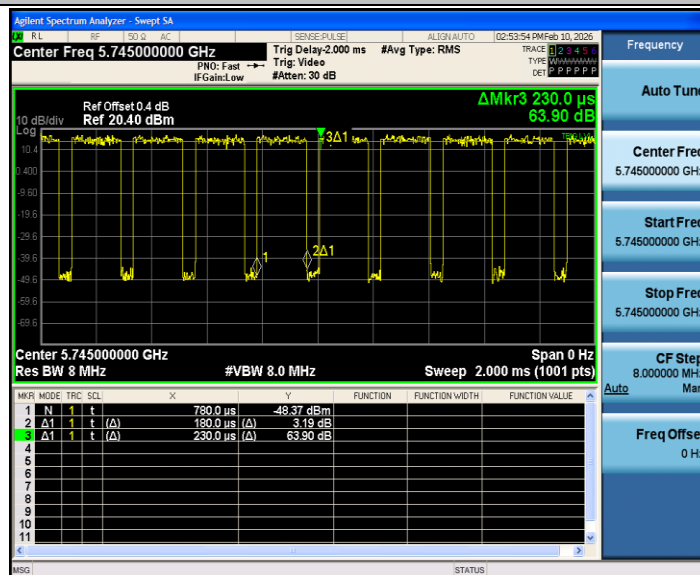
TestMode	Antenna	Freq(MHz)	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	DC Factor [dB]	Limit	Verdict
11A	Ant1	5745	0.15	0.19	78.95	1.03	---	---
		5785	0.15	0.20	75.00	1.25	---	---
		5825	0.14	0.19	73.68	1.33	---	---
11N20SISO	Ant1	5745	0.18	0.23	78.26	1.06	---	---
		5785	0.18	0.23	78.26	1.06	---	---
		5825	0.17	0.22	77.27	1.12	---	---
11N40SISO	Ant1	5755	0.18	0.23	78.26	1.06	---	---
		5795	0.18	0.23	78.26	1.06	---	---

Test Graphs

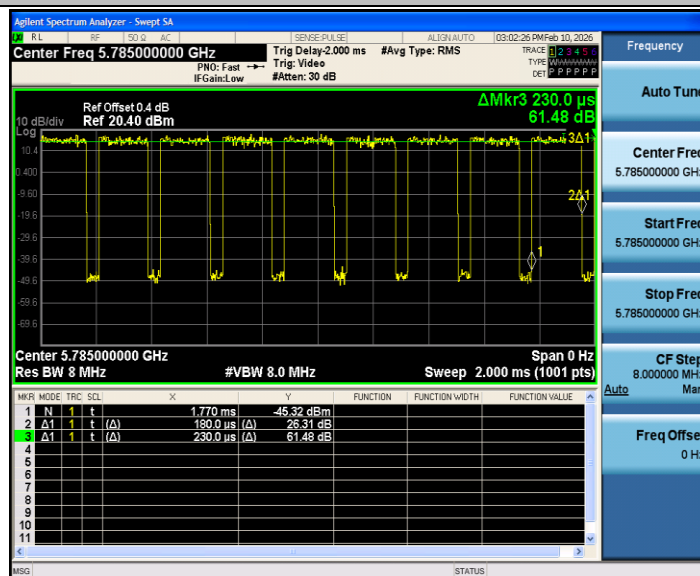




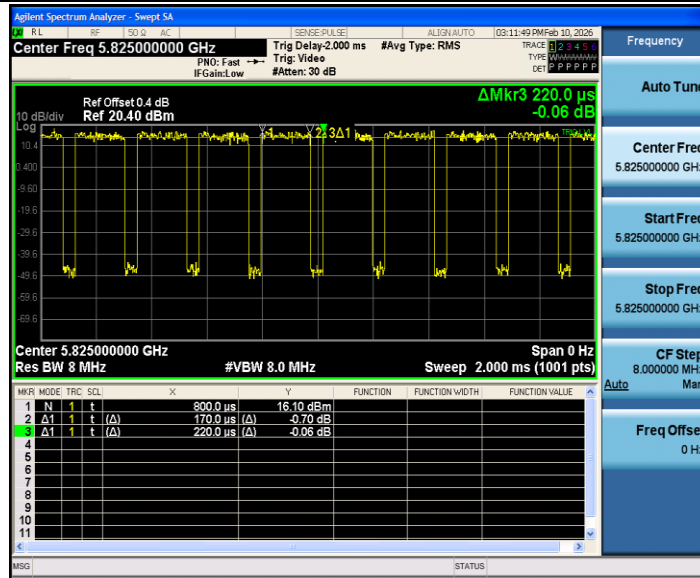
11N20SISO_Ant1_5745



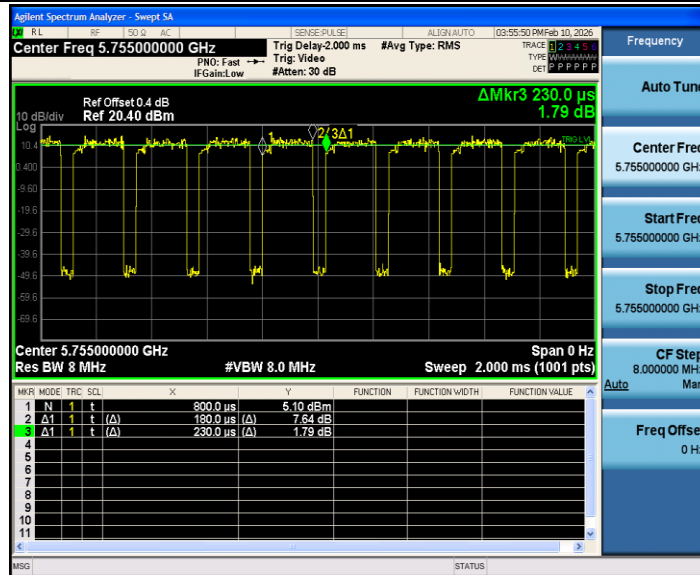
11N20SISO_Ant1_5785



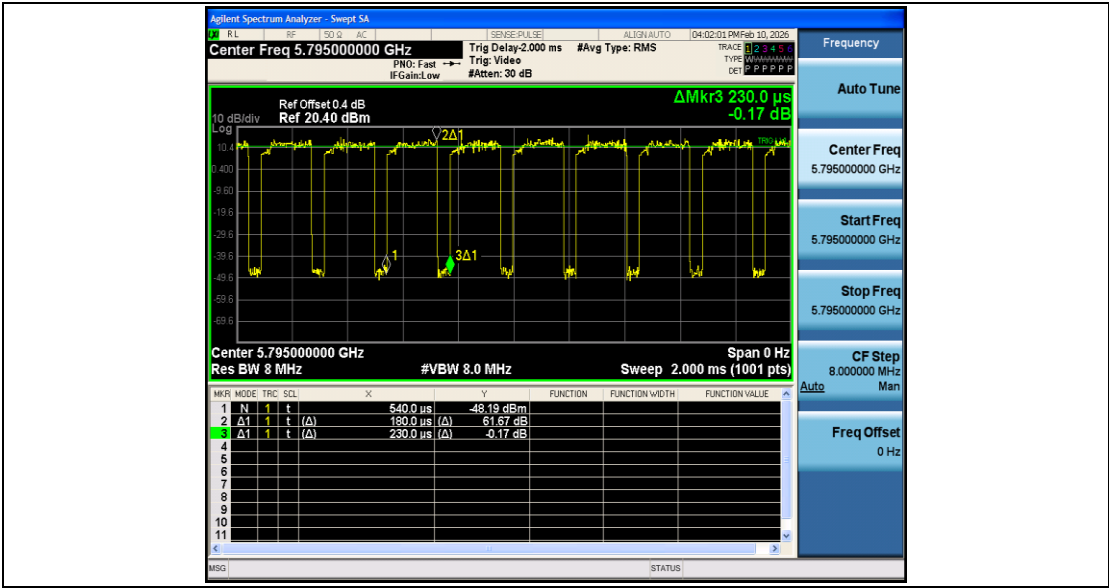
11N20SISO_Ant1_5825



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	12.30	78.95	1.03	13.33	≤30.00	PASS
		5785	12.35	75.00	1.25	13.60	≤30.00	PASS
		5825	12.33	73.68	1.33	13.66	≤30.00	PASS
11N20SISO	Ant1	5745	12.44	78.26	1.06	13.50	≤30.00	PASS
		5785	12.54	78.26	1.06	13.60	≤30.00	PASS
		5825	12.48	77.27	1.12	13.60	≤30.00	PASS
11N40SISO	Ant1	5755	12.58	78.26	1.06	13.64	≤30.00	PASS
		5795	12.76	78.26	1.06	13.82	≤30.00	PASS

Appendix D: Maximum power spectral density

Test Result

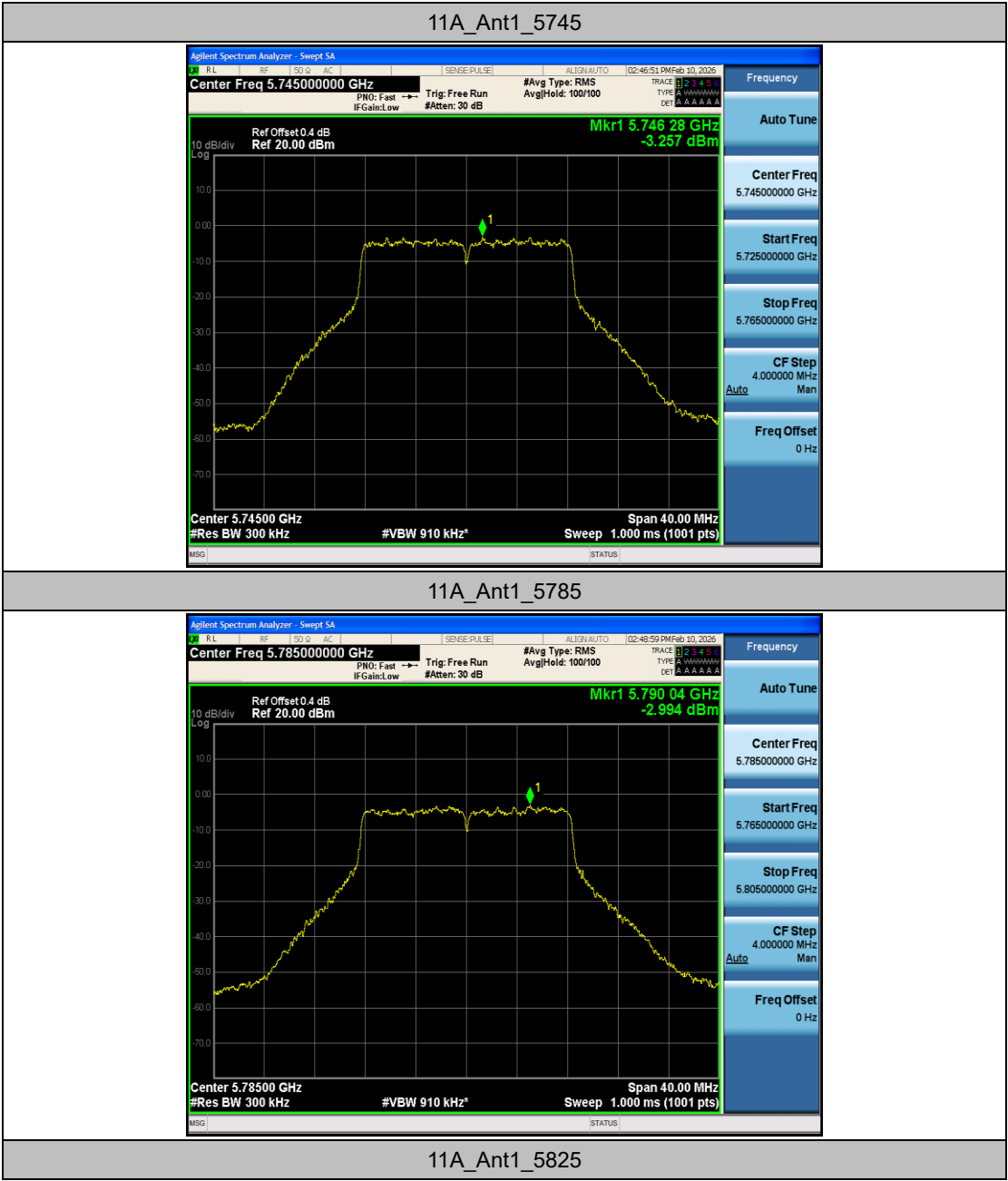
TestMode	Antenna	Freq(MHz)	Result [dBm/300KHz]	Duty factor (dB)	RBW Factor (dB)	Result [dBm/500KHz]	Limit [dBm/500KHz]	Verdict
11A	Ant1	5745	-3.26	1.03	2.22	-0.01	≤30.00	PASS
		5785	-2.99	1.25	2.22	0.48	≤30.00	PASS
		5825	-3.28	1.33	2.22	0.27	≤30.00	PASS
11N20SISO	Ant1	5745	-3.14	1.06	2.22	0.14	≤30.00	PASS
		5785	-2.96	1.06	2.22	0.32	≤30.00	PASS
		5825	-3.12	1.12	2.22	0.22	≤30.00	PASS
11N40SISO	Ant1	5755	-6.48	1.06	2.22	-3.20	≤30.00	PASS
		5795	-5.38	1.06	2.22	-2.10	≤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).

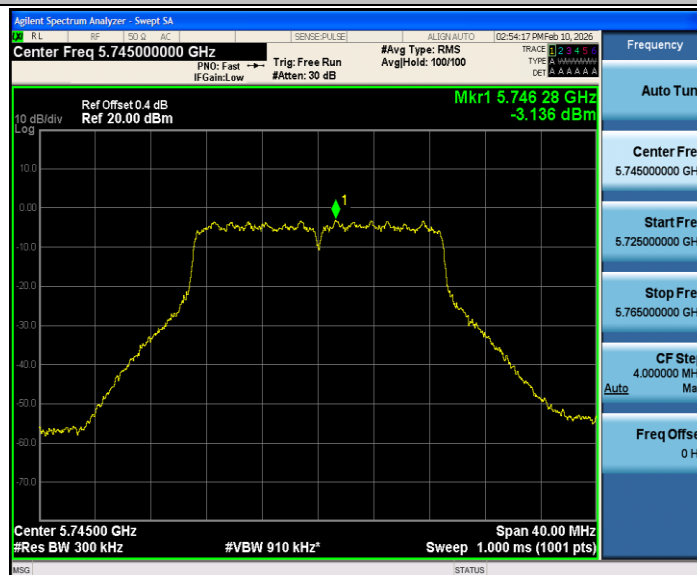
2. RBW factor= 10 log (500 KHz /300 KHz) = 2.22 dB and The RBW Factor is compensated in the data graph.

Test Graphs





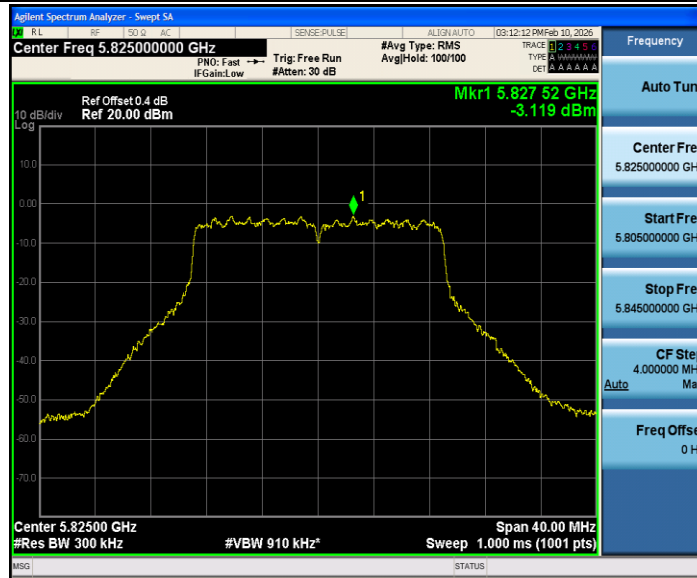
11N20SISO_Ant1_5745



11N20SISO_Ant1_5785



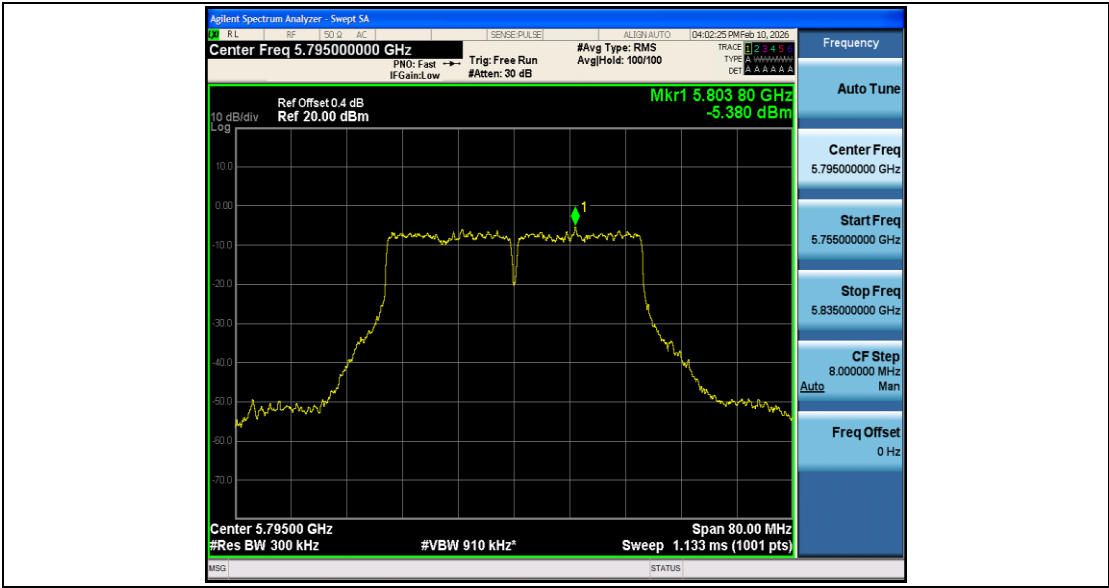
11N20SISO_Ant1_5825



11N40SISO_Ant1_5755



11N40SISO_Ant1_5795

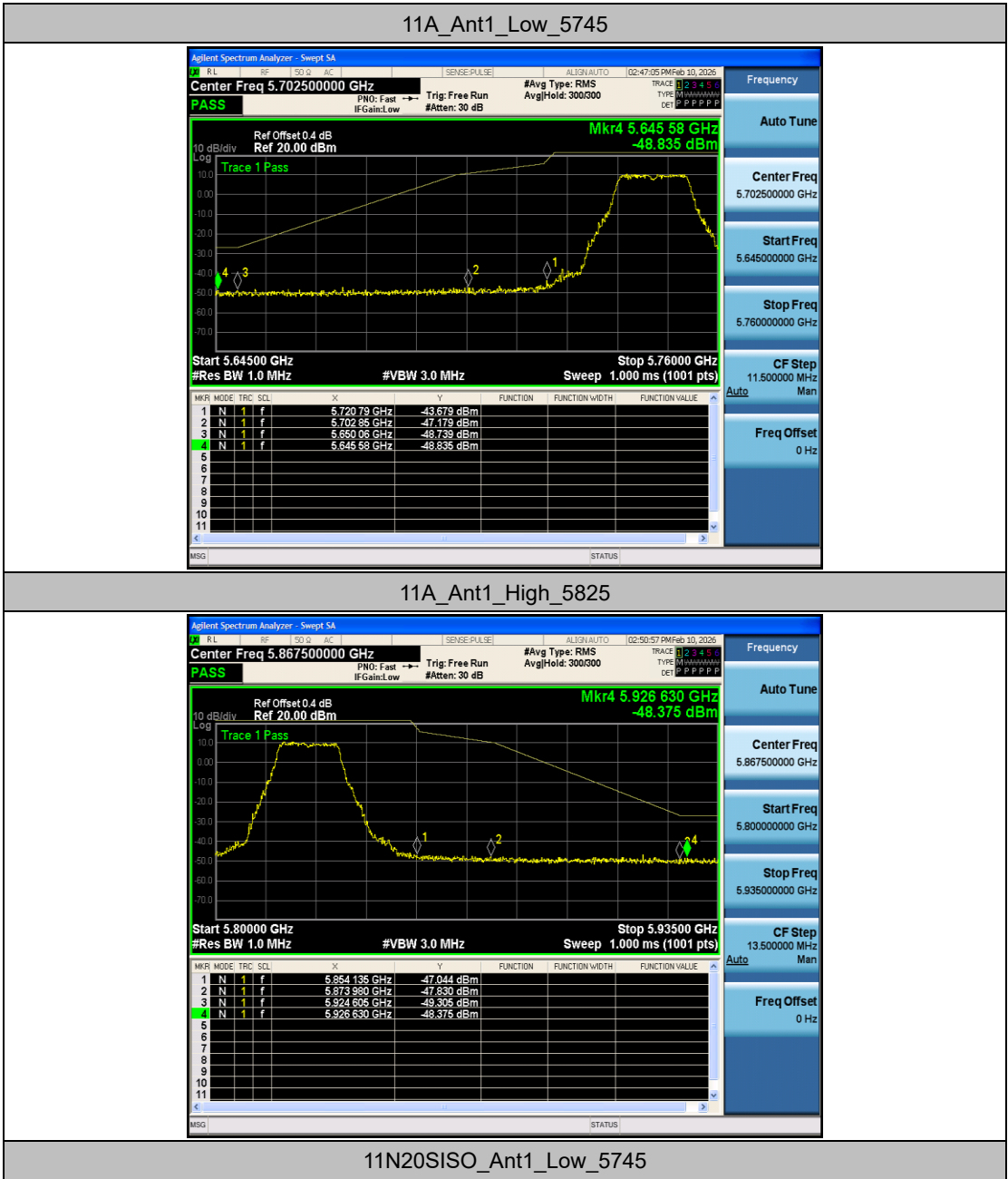


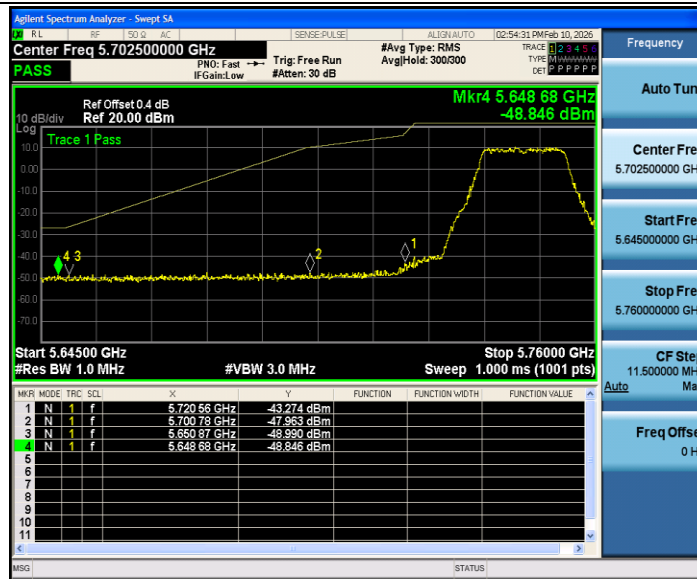
Appendix E: Band edge measurements

Test Result B4

TestMode	Antenna	ChName	Freq(MHz)	FreqRange [MHz]	Result [dBm]	Limit [dBm]	Verdict
11A	Ant1	Low	5745	5645~5650	-48.84	≤-27	PASS
				5650~5700	-48.74	≤-26.96	PASS
				5700~5720	-47.18	≤10.80	PASS
				5720~5725	-43.68	≤17.39	PASS
		High	5825	5850~5855	-47.04	≤17.57	PASS
				5855~5875	-47.83	≤10.29	PASS
				5875~5925	-49.31	≤-26.71	PASS
				5925~5935	-48.38	≤-27	PASS
11N20SI SO	Ant1	Low	5745	5645~5650	-48.85	≤-27	PASS
				5650~5700	-48.99	≤-26.36	PASS
				5700~5720	-47.96	≤10.22	PASS
				5720~5725	-43.27	≤16.87	PASS
		High	5825	5850~5855	-46.84	≤15.73	PASS
				5855~5875	-46.76	≤10.10	PASS
				5875~5925	-49.56	≤-26.71	PASS
				5925~5935	-48.45	≤-27	PASS
11N40SI SO	Ant1	Low	5755	5645~5650	-48.68	≤-27	PASS
				5650~5700	-49.42	≤-26.40	PASS
				5700~5720	-42.26	≤12.25	PASS
				5720~5725	-40.04	≤15.74	PASS
		High	5795	5850~5855	-47.46	≤16.03	PASS
				5855~5875	-46.91	≤10.16	PASS
				5875~5925	-48.58	≤-26.34	PASS
				5925~5935	-48.73	≤-27	PASS

Test Graphs B4

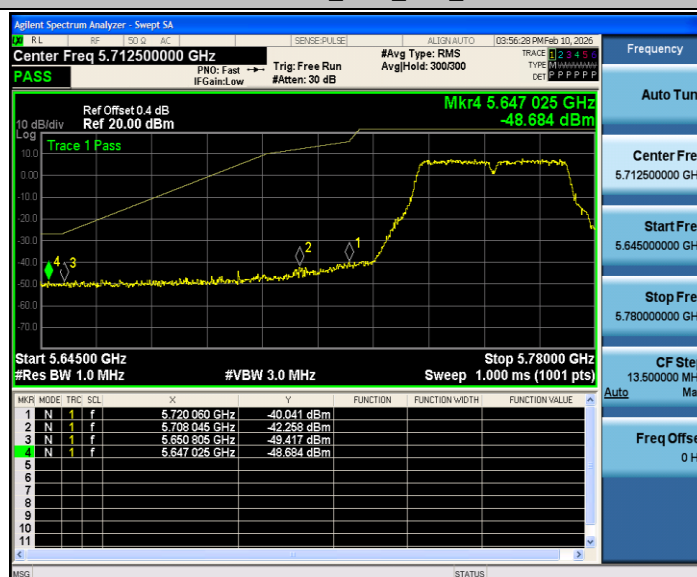




11N20ISO_Ant1_High_5825



11N40ISO_Ant1_Low_5755



11N40SISO_Ant1_High_5795



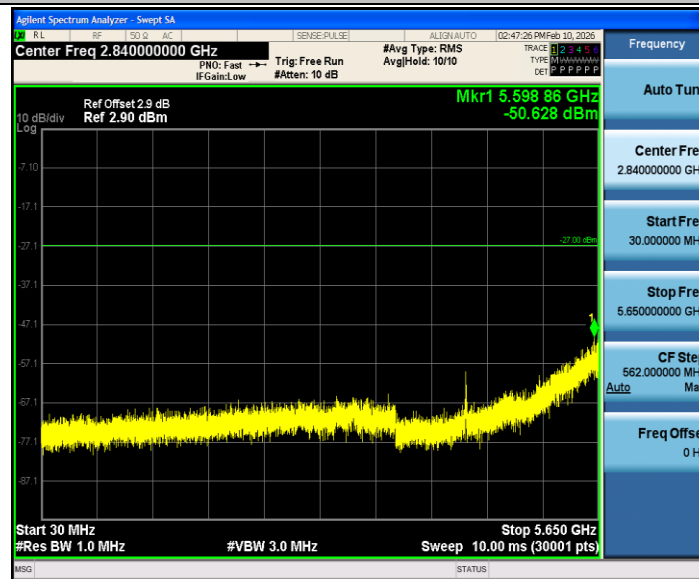
Appendix F: Conducted Spurious Emission

Test Result

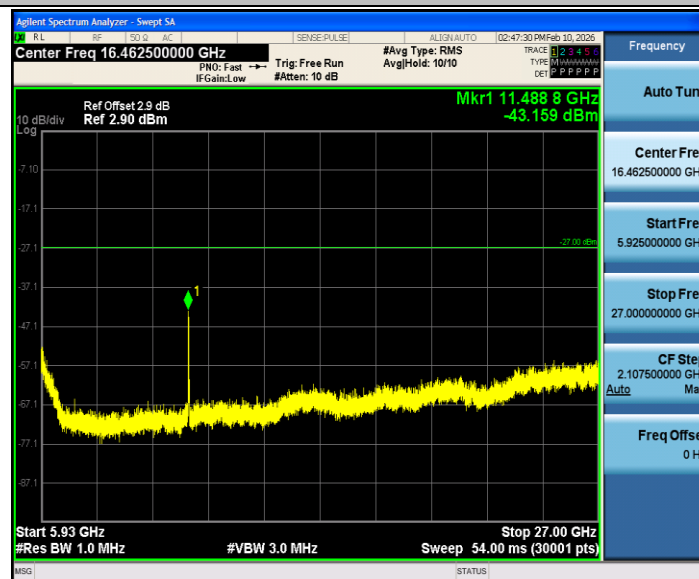
TestMode	Antenna	Freq(MHz)	FreqRange [MHz]	Max. Fre [MHz]	Max. Level [dBm]	Limit [dBm]	Verdict
11A	Ant1	5745	30~5650	5598.86	-50.63	≤-27	PASS
			5925~40000	11488.8	-43.16	≤-27	PASS
		5785	30~5650	5594.17	-52.18	≤-27	PASS
			5925~40000	11567.48	-45.32	≤-27	PASS
		5825	30~5650	5637.45	-51.58	≤-27	PASS
			5925~40000	11646.86	-48.82	≤-27	PASS
11N20SISO	Ant1	5745	30~5650	5645.32	-52.34	≤-27	PASS
			5925~40000	11478.97	-45.51	≤-27	PASS
		5785	30~5650	5631.27	-52.07	≤-27	PASS
			5925~40000	11568.18	-46.39	≤-27	PASS
		5825	30~5650	5635.95	-51.9	≤-27	PASS
			5925~40000	11651.08	-50.19	≤-27	PASS
11N40SISO	Ant1	5755	30~5650	5643.82	-51.75	≤-27	PASS
			5925~40000	11517.6	-45.68	≤-27	PASS
		5795	30~5650	5647.75	-51.14	≤-27	PASS
			5925~40000	11572.4	-49.46	≤-27	PASS

Test Graphs

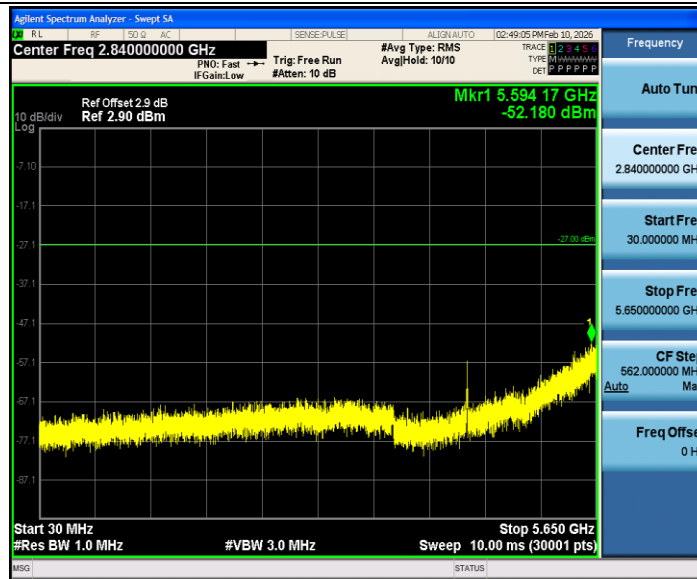
11A_Ant1_5745_30~5650



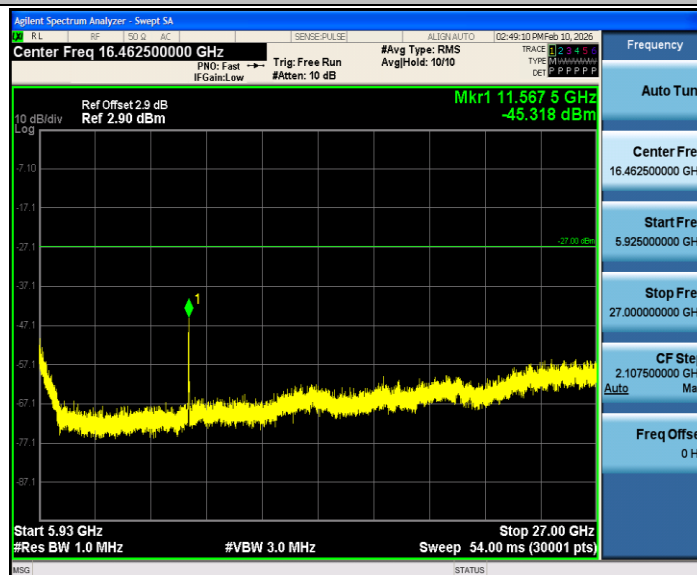
11A_Ant1_5745_5925~40000



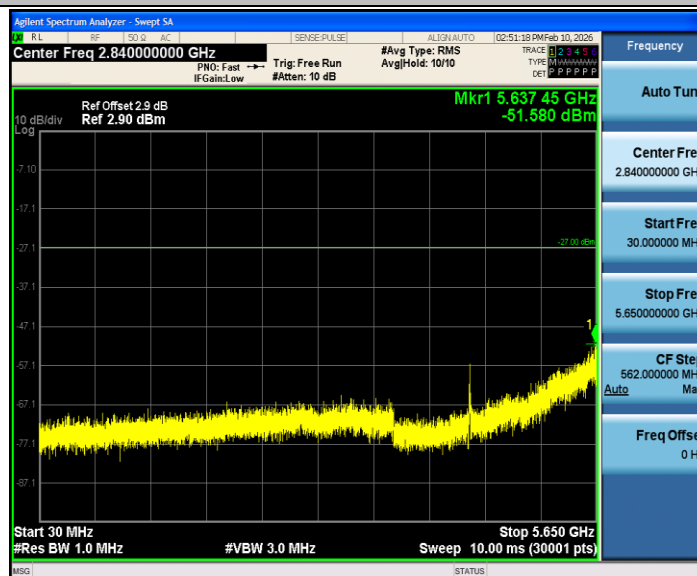
11A_Ant1_5785_30~5650



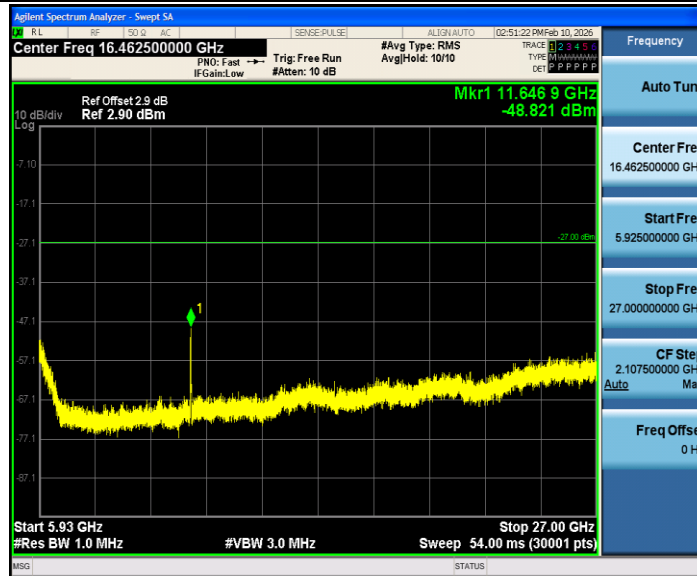
11A_Ant1_5785_5925~40000



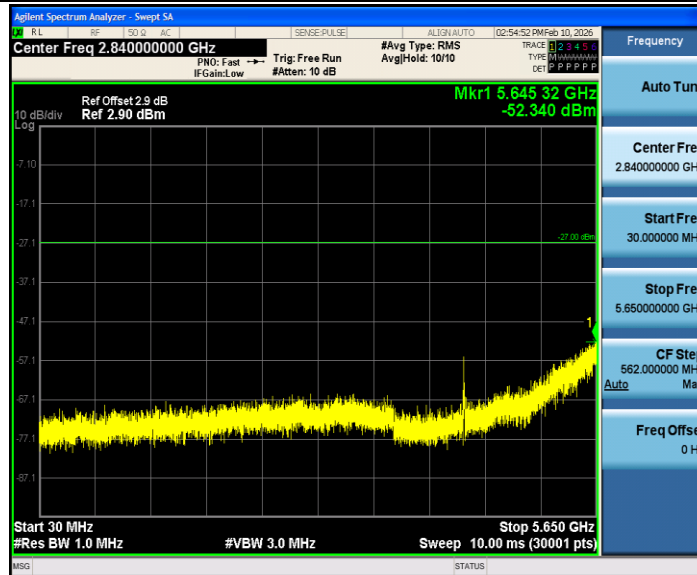
11A_Ant1_5825_30~5650



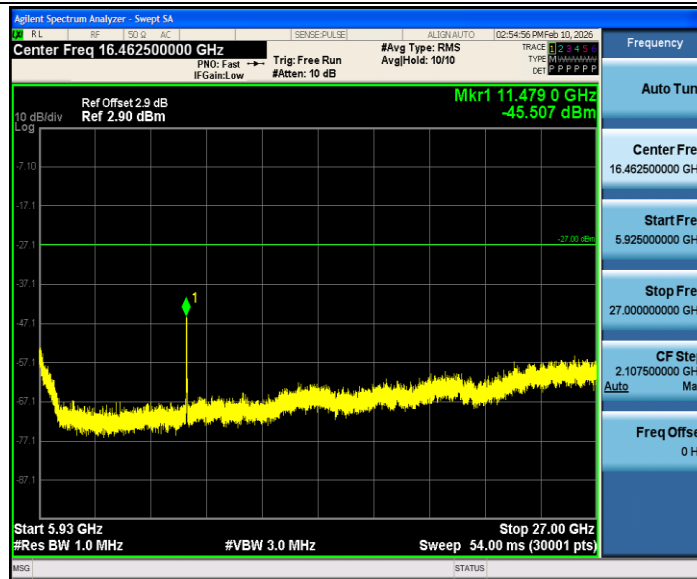
11A_Ant1_5825_5925~40000



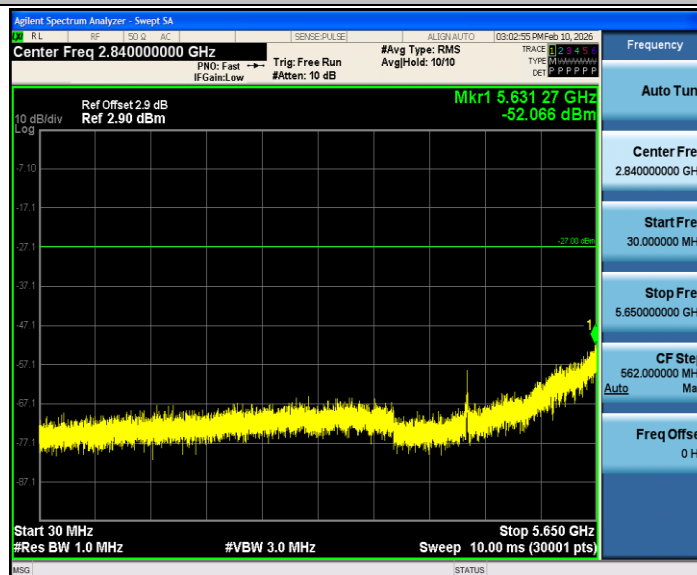
11N20SISO_Ant1_5745_30~5650



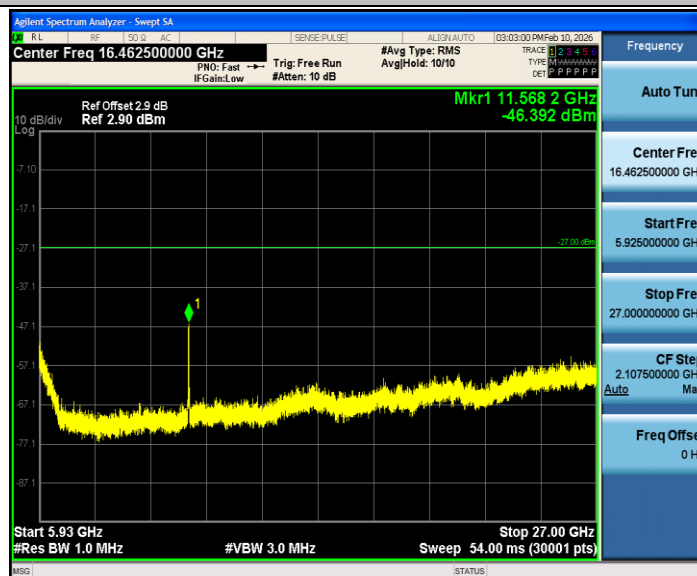
11N20SISO_Ant1_5745_5925~40000



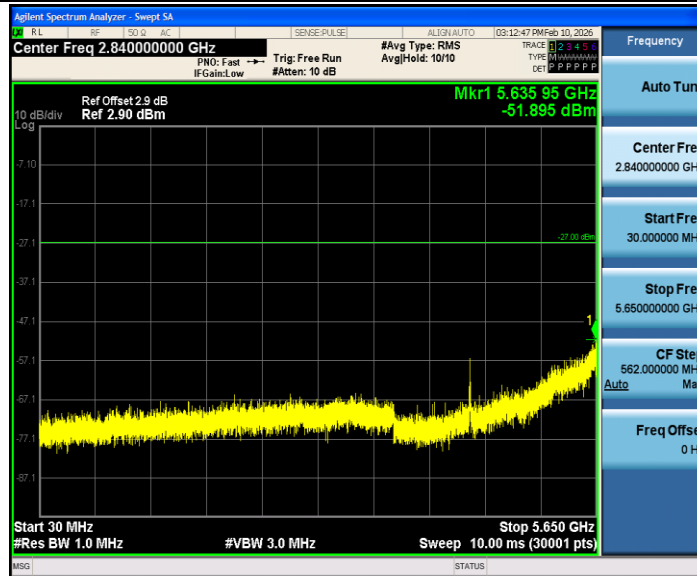
11N20SISO_Ant1_5785_30~5650



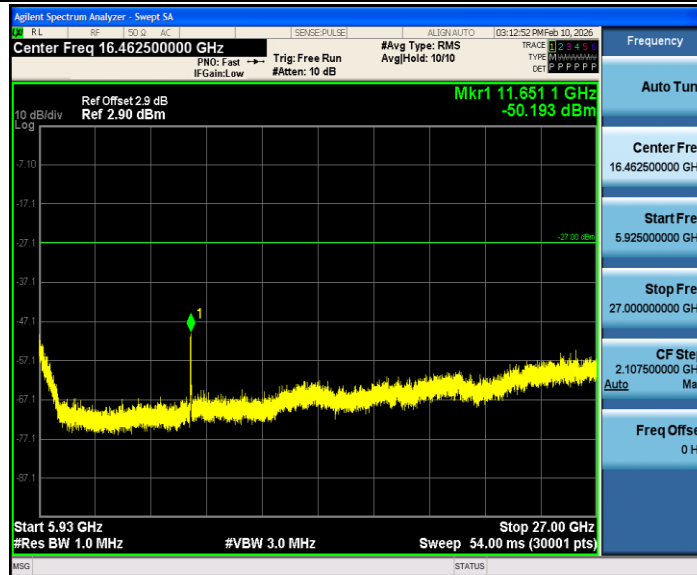
11N20SISO_Ant1_5785_5925~40000



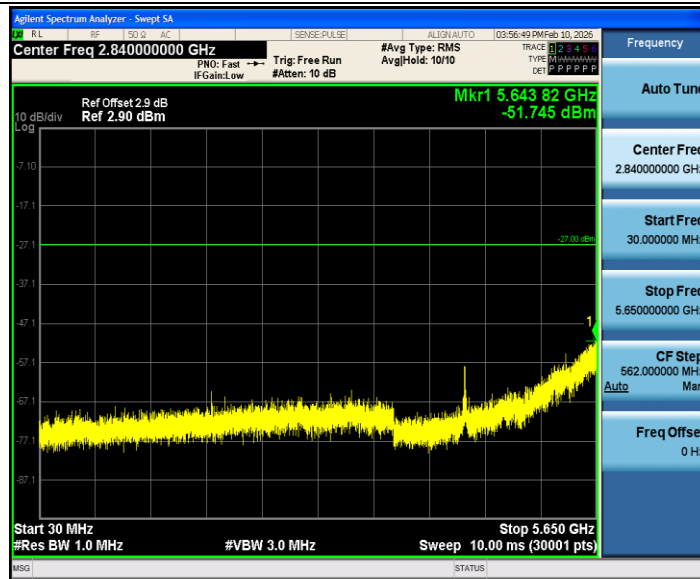
11N20SISO_Ant1_5825_30~5650



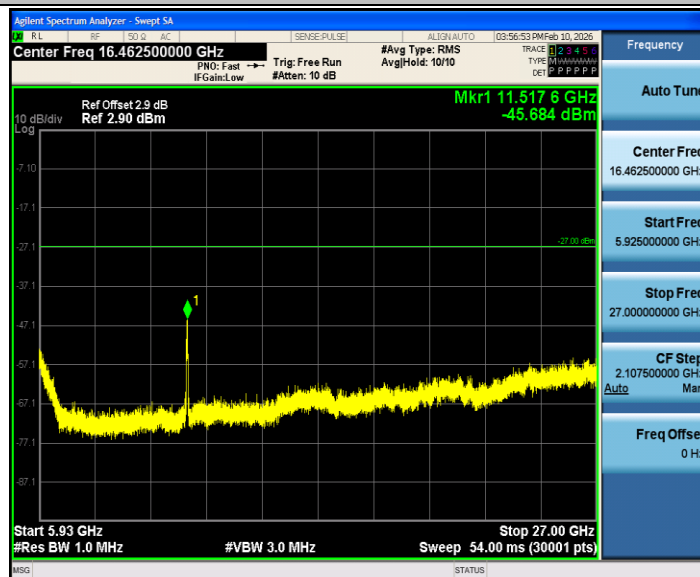
11N20SISO_Ant1_5825_5925~40000



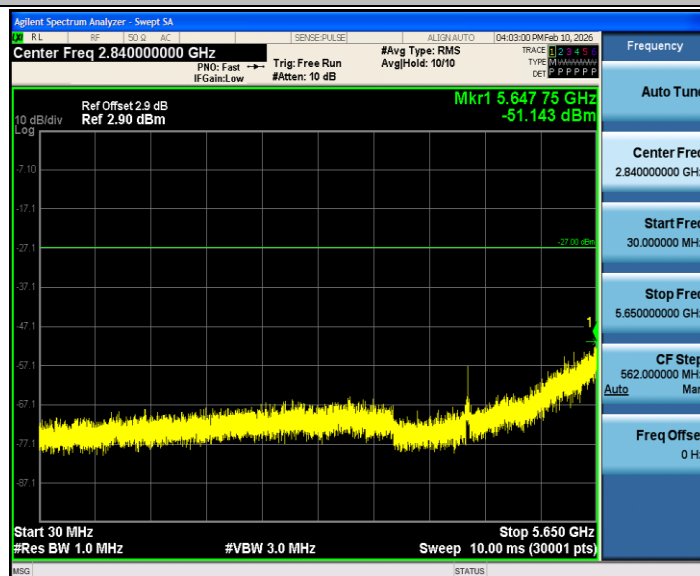
11N40SISO_Ant1_5755_30~5650



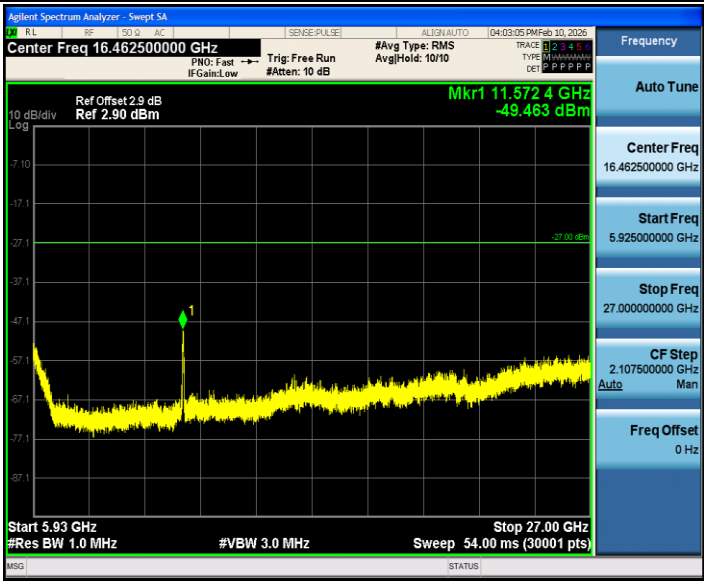
11N40SISO_Ant1_5755_5925~40000



11N40SISO_Ant1_5795_30~5650



11N40SISO_Ant1_5795_5925~40000



Appendix G: Emissions in Restricted Bands

Test Result

TestMode	ChName	Freq(MHz)	Detector	Freq [MHz]	Result [dBm]	Gain [dB]	EIRP [dBm]	Limit [dBm]	Verdict
11A	Low	5745	Peak	5650.000	-51.489	2.00	-49.489	≤-27.00	PASS
			Peak	5700.000	-49.64	2.00	-47.64	≤10.00	PASS
			Peak	5720.000	-49.32	2.00	-47.32	≤15.60	PASS
			Peak	5725.000	-42.34	2.00	-40.34	≤27.00	PASS
	High	5825	Peak	5850.000	-47.768	2.00	-45.768	≤27.00	PASS
			Peak	5855.000	-48.79	2.00	-46.79	≤15.60	PASS
			Peak	5875.000	-50.35	2.00	-48.35	≤10.00	PASS
			Peak	5925.000	-49.84	2.00	-47.84	≤-27.00	PASS
11N20SISO	Low	5745	Peak	5650.000	-50.516	2.00	-48.516	≤-27.00	PASS
			Peak	5700.000	-50.67	2.00	-48.67	≤10.00	PASS
			Peak	5720.000	-48.21	2.00	-46.21	≤15.60	PASS
			Peak	5725.000	-41.5	2.00	-39.5	≤27.00	PASS
	High	5825	Peak	5850.000	-41.777	2.00	-39.777	≤27.00	PASS
			Peak	5855.000	-46.94	2.00	-44.94	≤15.60	PASS
			Peak	5875.000	-48.17	2.00	-46.17	≤10.00	PASS
			Peak	5925.000	-51.69	2.00	-49.69	≤-27.00	PASS
11N40SISO	Low	5755	Peak	5650.000	-50.437	2.00	-48.437	≤-27.00	PASS
			Peak	5700.000	-48.16	2.00	-46.16	≤10.00	PASS
			Peak	5720.000	-39.74	2.00	-37.74	≤15.60	PASS
			Peak	5725.000	-40.45	2.00	-38.45	≤27.00	PASS
	High	5795	Peak	5850.000	-47.65	2.00	-45.65	≤27.00	PASS
			Peak	5855.000	-47.43	2.00	-45.43	≤15.60	PASS
			Peak	5875.000	-49.56	2.00	-47.56	≤10.00	PASS
			Peak	5925.000	-50.57	2.00	-48.57	≤-27.00	PASS

- Note: 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.