

FCC Appendix RF Test Data for 5GWIFI

FCC ID : 2A4NPHD2

Company : Dongguan Daozhi Electronic Technology Co., Ltd.

EUT : dash cam

Model Number : HD2

Report No. : CTA26071600302

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	25.680	5731.880	5757.560	---	---
		5785	24.480	5772.600	5797.080	---	---
		5825	25.320	5812.120	5837.440	---	---
11N20SISO	Ant1	5745	26.520	5731.720	5758.240	---	---
		5785	26.440	5771.600	5798.040	---	---
		5825	25.000	5812.120	5837.120	---	---
11N40SISO	Ant1	5755	45.920	5731.800	5777.720	---	---
		5795	45.120	5772.360	5817.480	---	---

Test Graphs

11A_Ant1_5745



11A_Ant1_5785



11A_Ant1_5825



11N20SISO_Ant1_5745



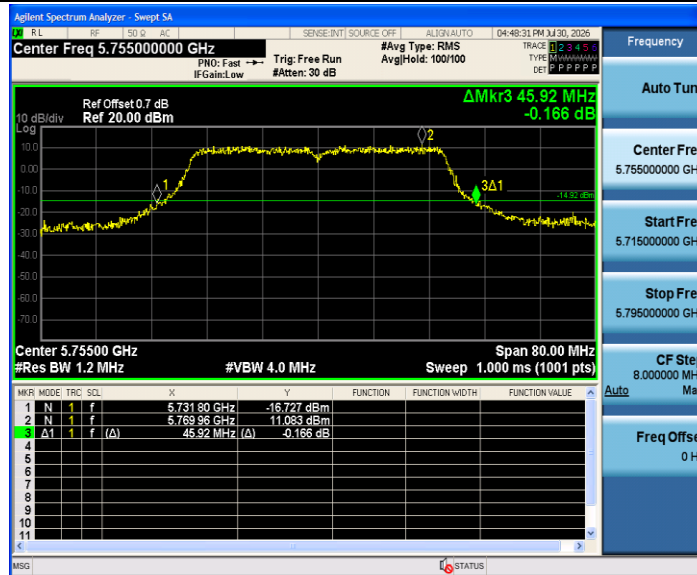
11N20SISO_Ant1_5785



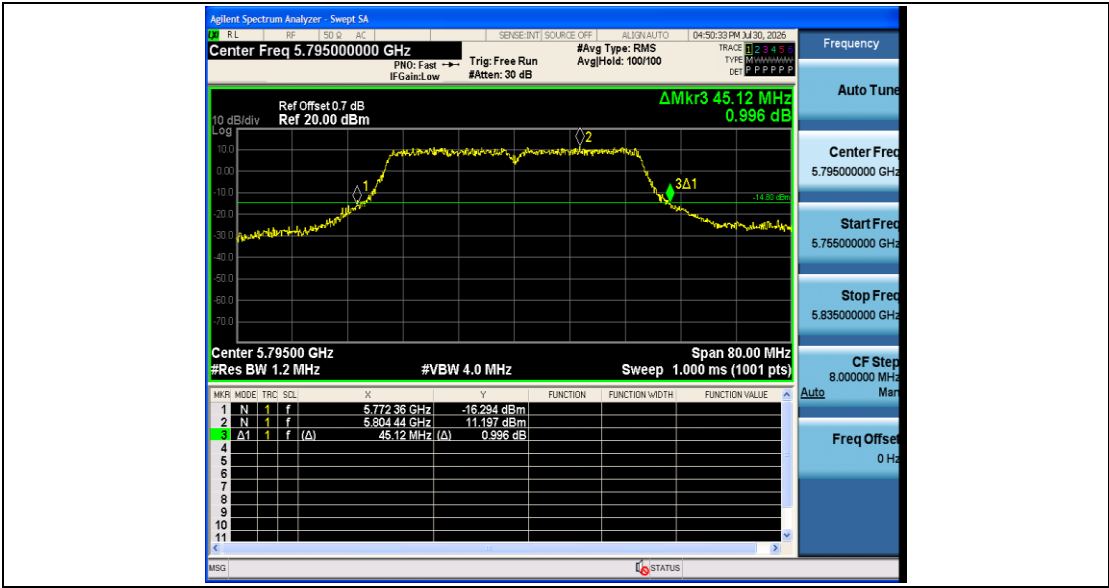
11N20SISO_Ant1_5825



11N40SISO_Ant1_5755



11N40SISO_Ant1_5795

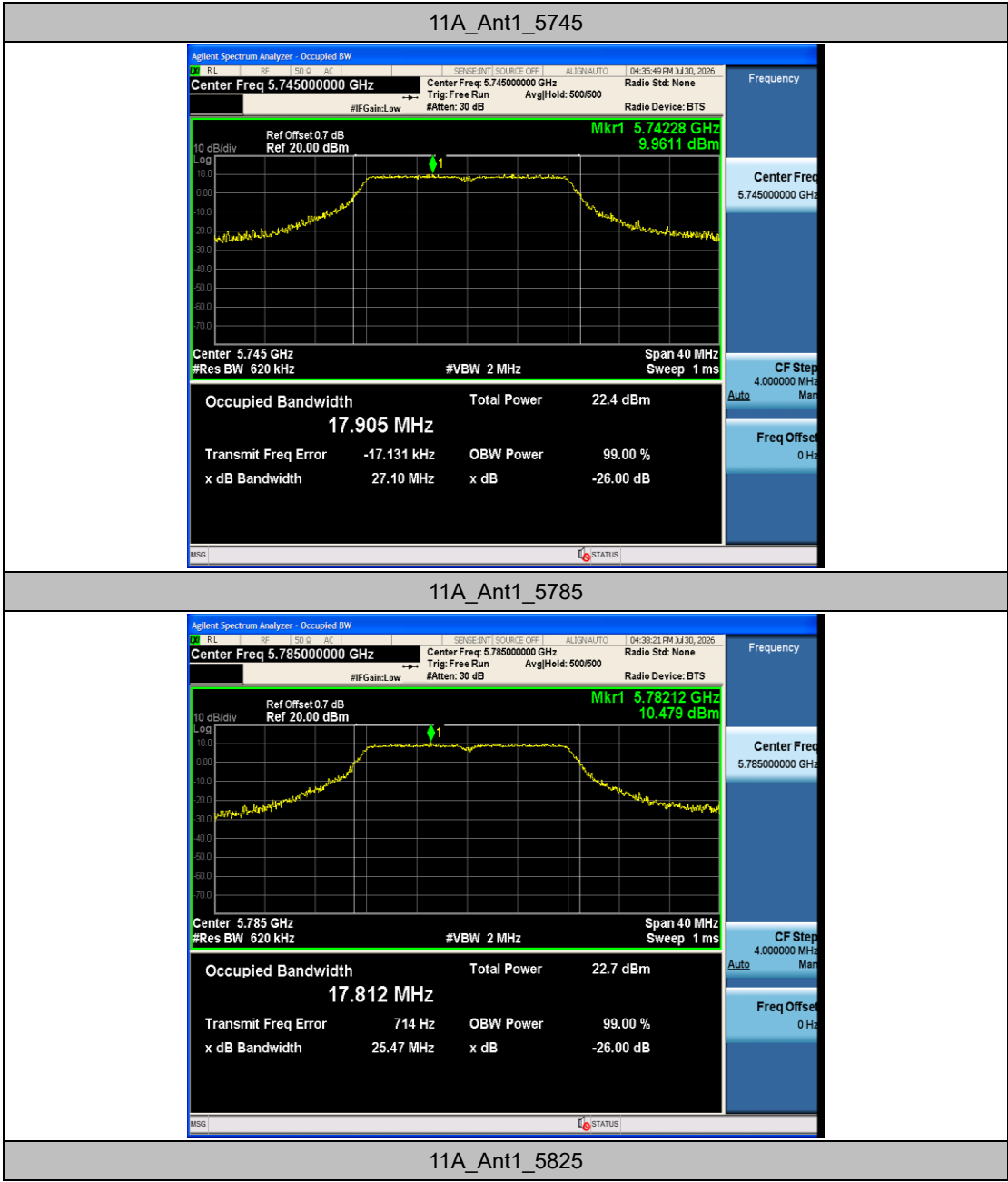


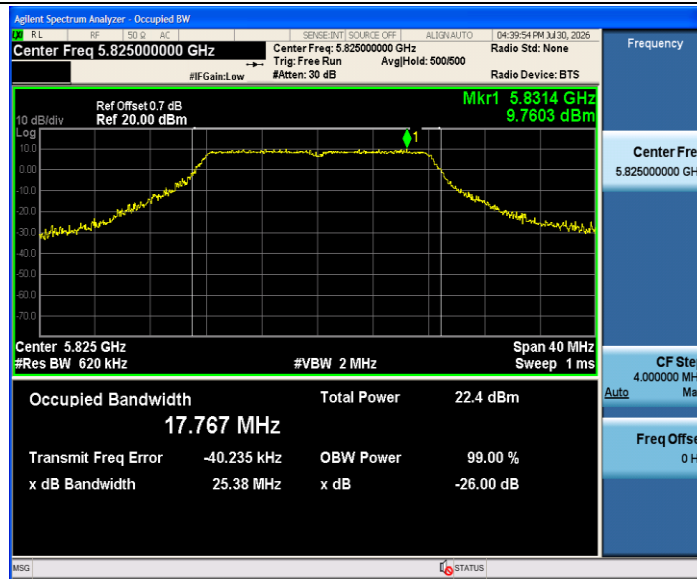
Appendix A2: Occupied channel bandwidth

Test Result

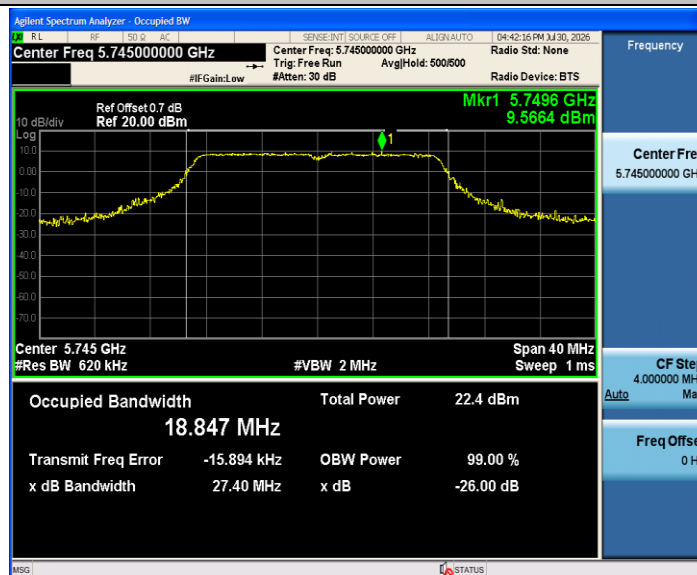
TestMode	Antenna	Freq(MHz)	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5745	17.905	5736.0304	5753.9354	---	---
		5785	17.812	5776.0947	5793.9067	---	---
		5825	17.767	5816.0763	5833.8433	---	---
11N20SISO	Ant1	5745	18.847	5735.5606	5754.4076	---	---
		5785	18.765	5775.6154	5794.3804	---	---
		5825	18.751	5815.6161	5834.3671	---	---
11N40SISO	Ant1	5755	37.034	5736.5833	5773.6173	---	---
		5795	36.964	5776.6908	5813.6548	---	---

Test Graphs

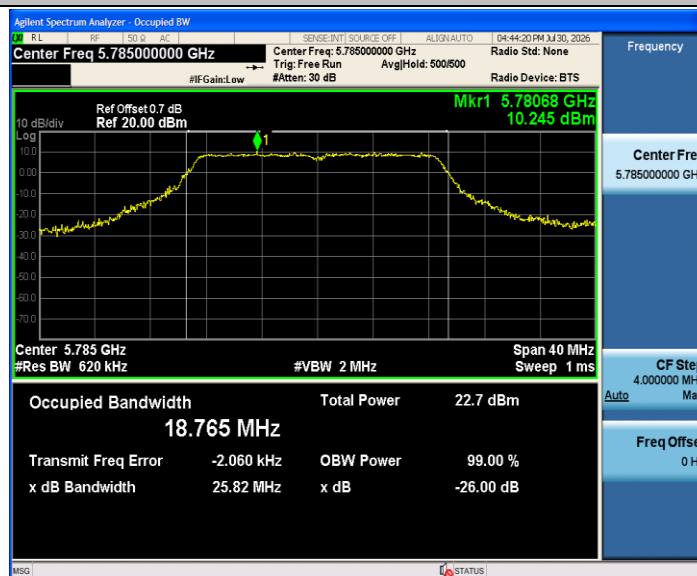




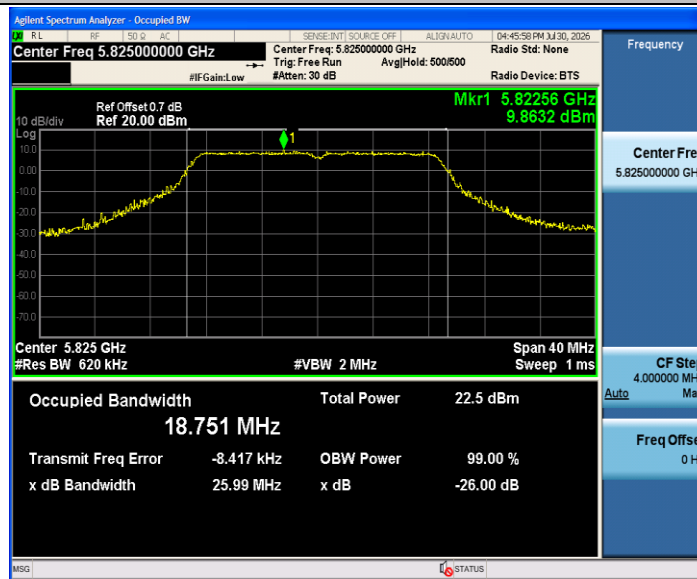
11N20SISO_Ant1_5745



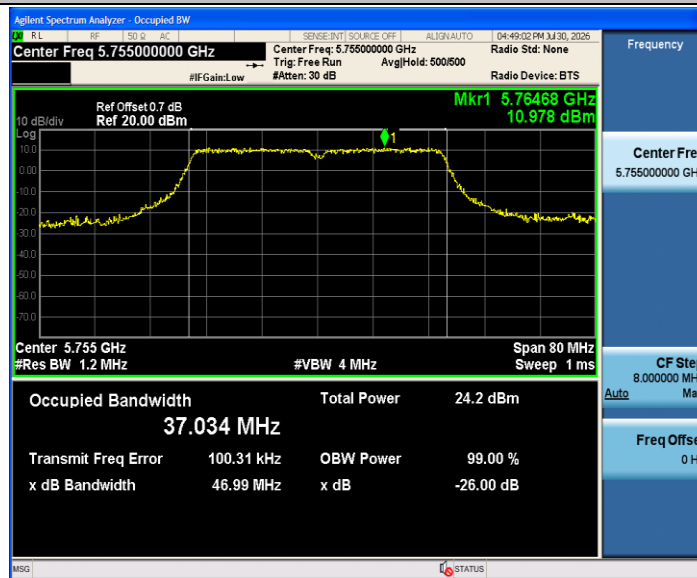
11N20SISO_Ant1_5785



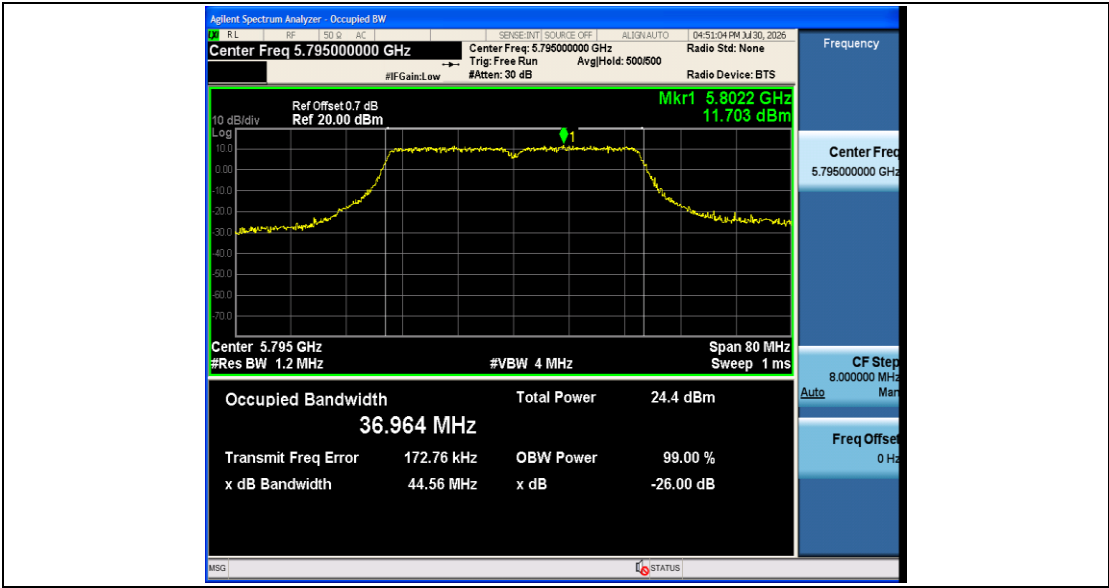
11N20SISO_Ant1_5825



11N40SISO_Ant1_5755



11N40SISO_Ant1_5795



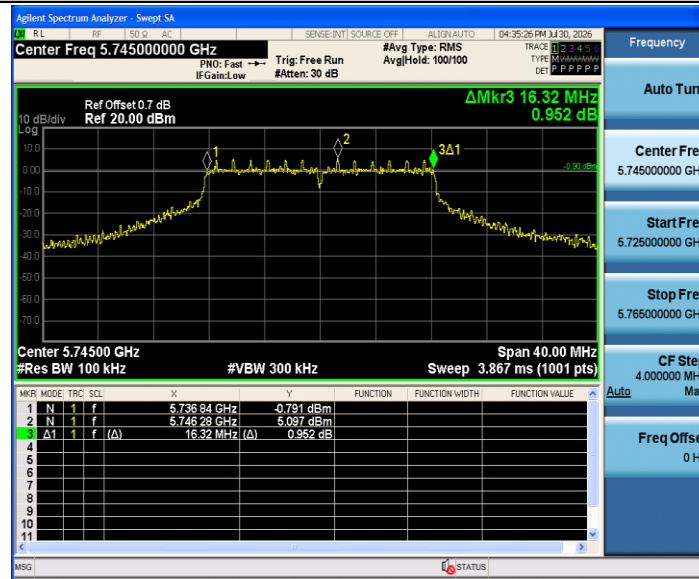
Appendix A3: Min emission bandwidth

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	17.520	5736.240	5753.760	0.5	PASS
		5785	17.520	5776.240	5793.760	0.5	PASS
		5825	17.240	5816.520	5833.760	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

Test Graphs B4

11A_Ant1_5745



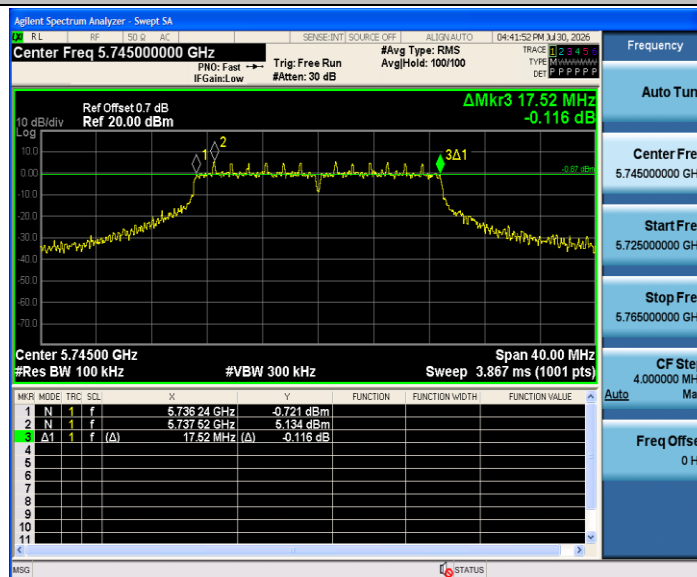
11A_Ant1_5785



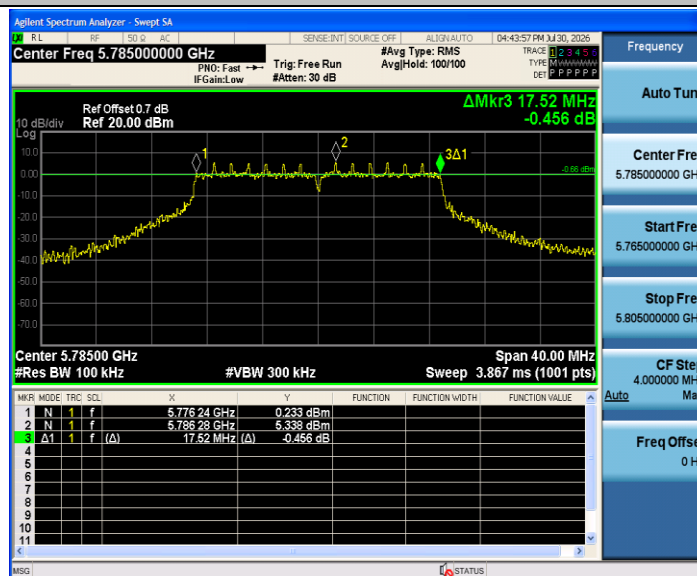
11A_Ant1_5825



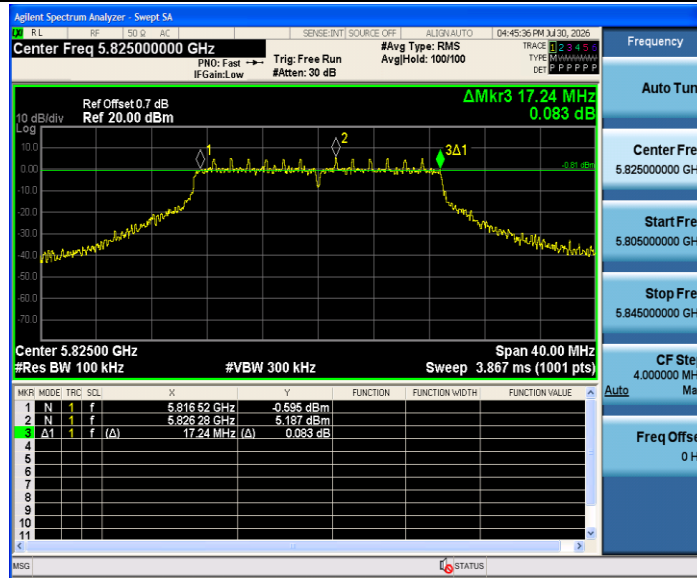
11N20SISO_Ant1_5745



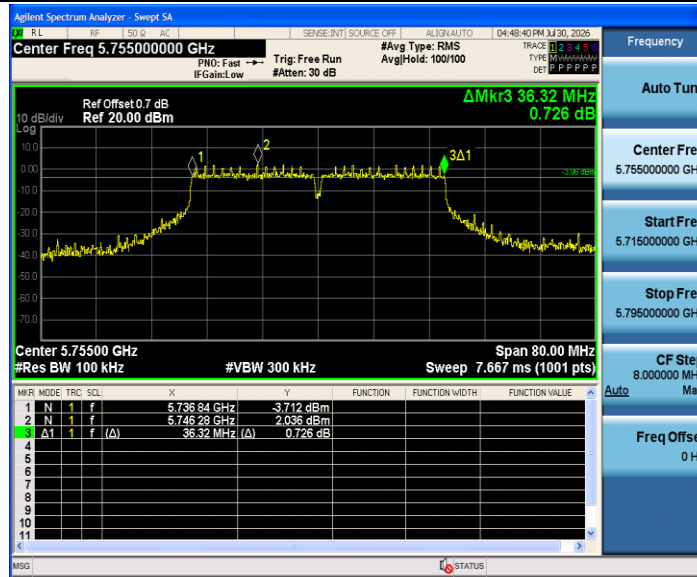
11N20SISO_Ant1_5785



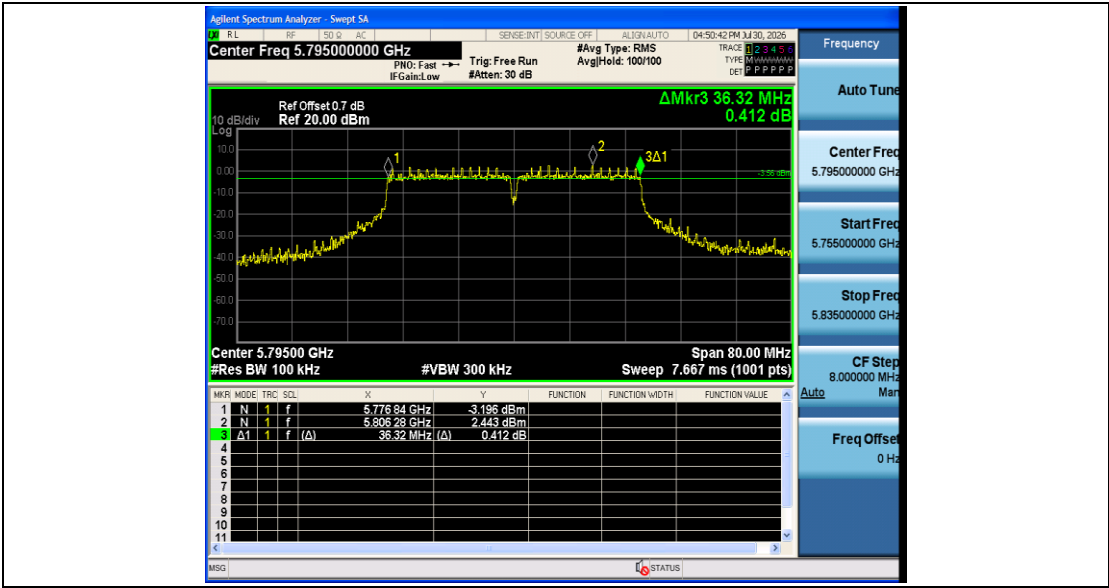
11N20SISO_Ant1_5825



11N40SISO_Ant1_5755



11N40SISO_Ant1_5795

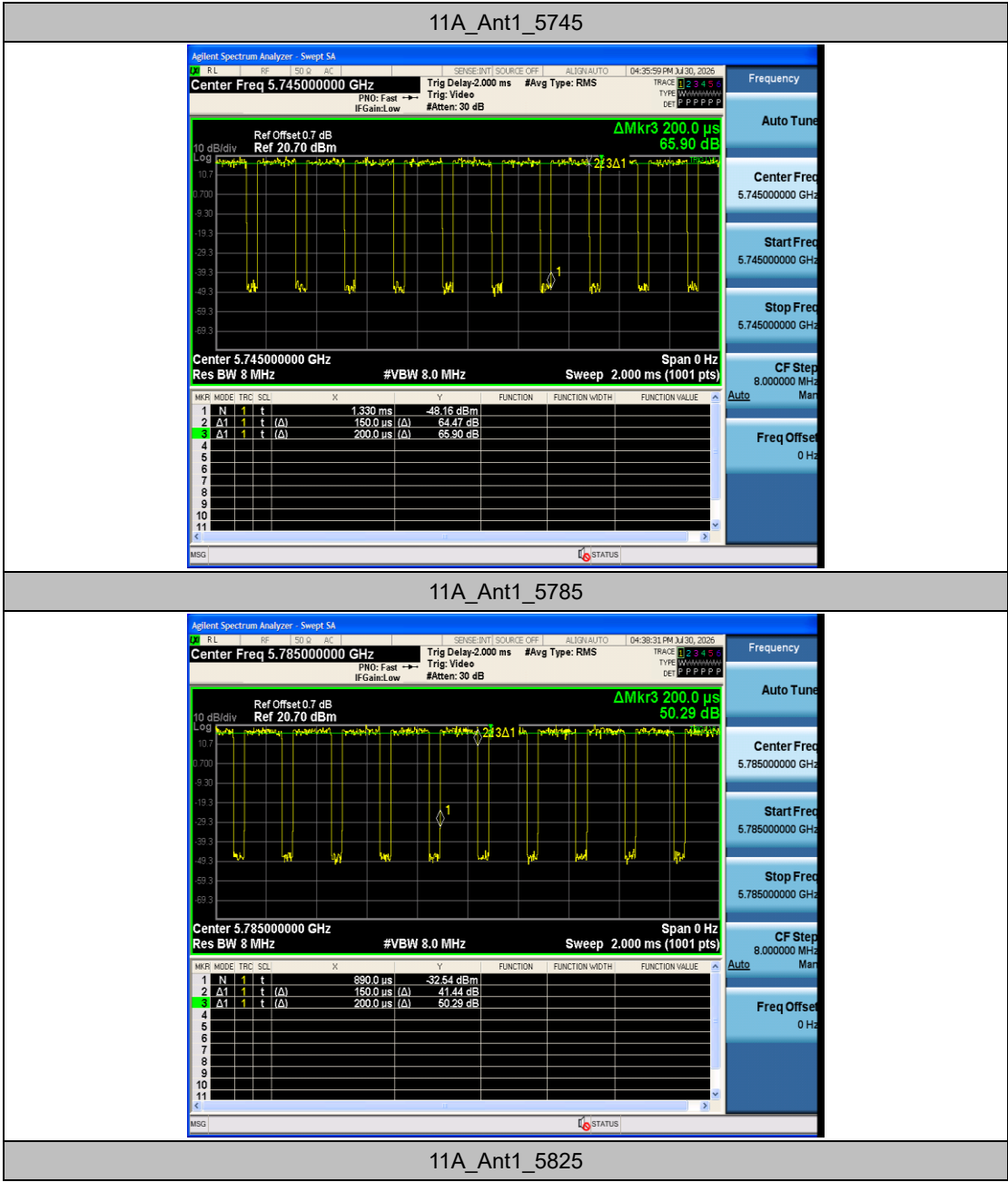


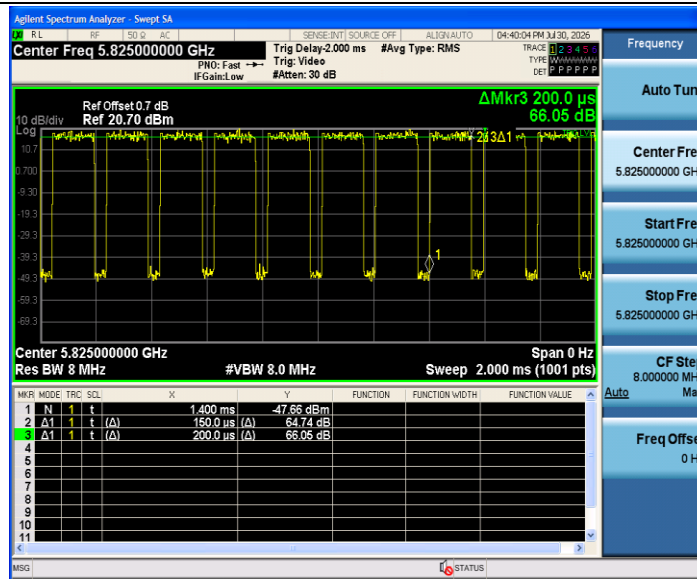
Appendix B: Duty Cycle

Test Result

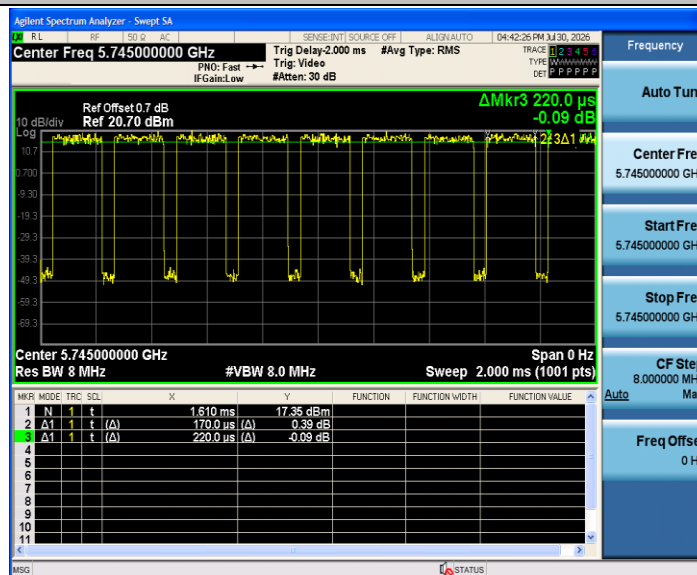
TestMode	Antenna	Freq(MHz)	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	DC Factor [dB]	Limit	Verdict
11A	Ant1	5745	0.15	0.20	75.00	1.25	---	---
		5785	0.15	0.20	75.00	1.25	---	---
		5825	0.15	0.20	75.00	1.25	---	---
11N20SISO	Ant1	5745	0.17	0.22	77.27	1.12	---	---
		5785	0.18	0.23	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

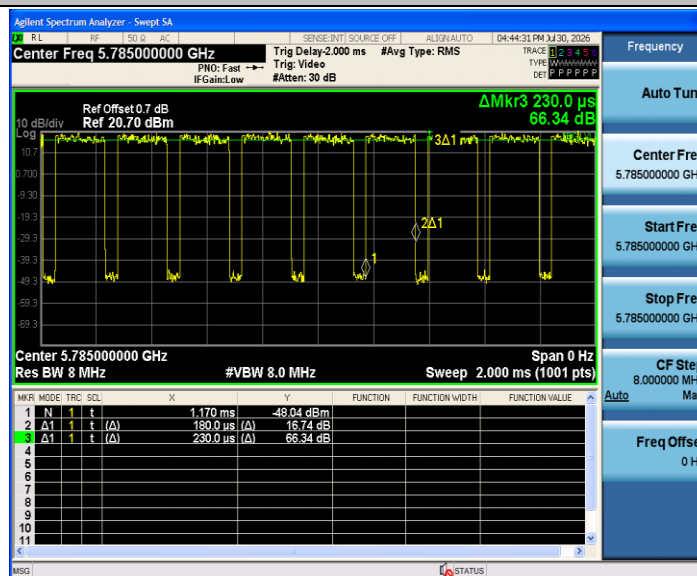




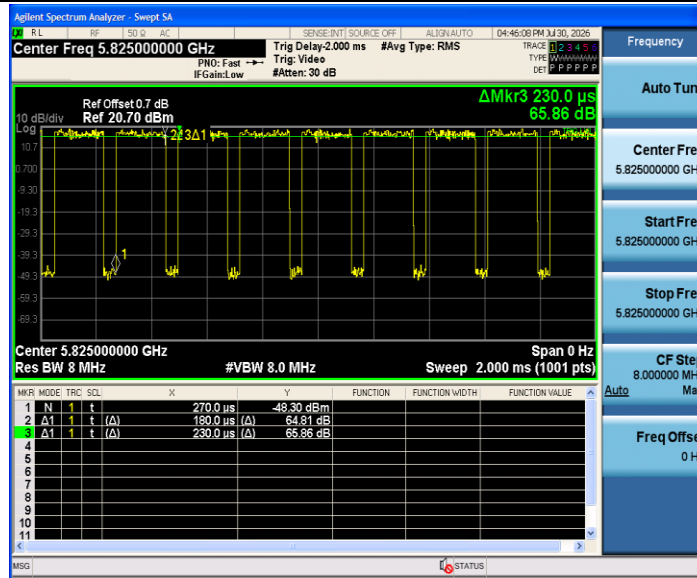
11N20SISO_Ant1_5745



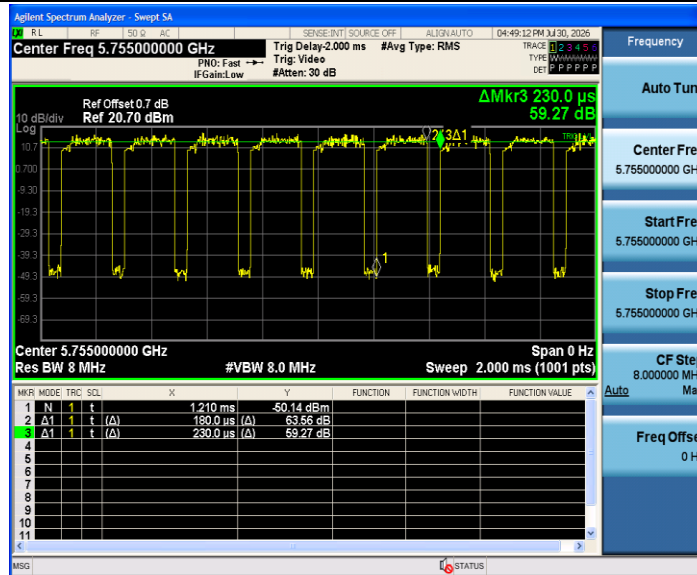
11N20SISO_Ant1_5785



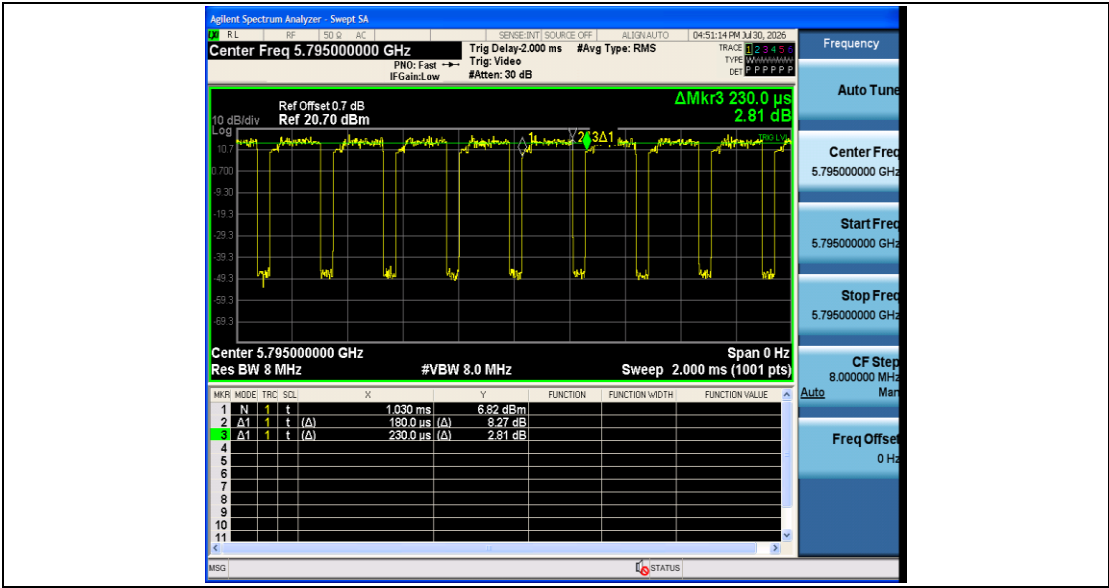
11N20SISO_Ant1_5825



11N40SISO_Ant1_5755



11N40SISO_Ant1_5795



Appendix C: Maximum conducted output power

Test Result

Test Mode	Antenna	Freq(MHz)	Channel Power [dBm]	Duty Cycle [%]	DC Factor [dBm]	Result [dBm]	Limit [dBm]	Verdict
11A	Ant1	5745	14.93	75.00	1.25	16.18	≤30.00	PASS
		5785	14.68	75.00	1.25	15.93	≤30.00	PASS
		5825	14.49	75.00	1.25	15.74	≤30.00	PASS
11N20SISO	Ant1	5745	14.53	77.27	1.12	15.65	≤30.00	PASS
		5785	14.92	78.26	1.06	15.98	≤30.00	PASS
		5825	14.68	78.26	1.06	15.74	≤30.00	PASS
11N40SISO	Ant1	5755	14.91	78.26	1.06	15.97	≤30.00	PASS
		5795	14.87	78.26	1.06	15.93	≤30.00	PASS

Appendix D: Maximum power spectral density

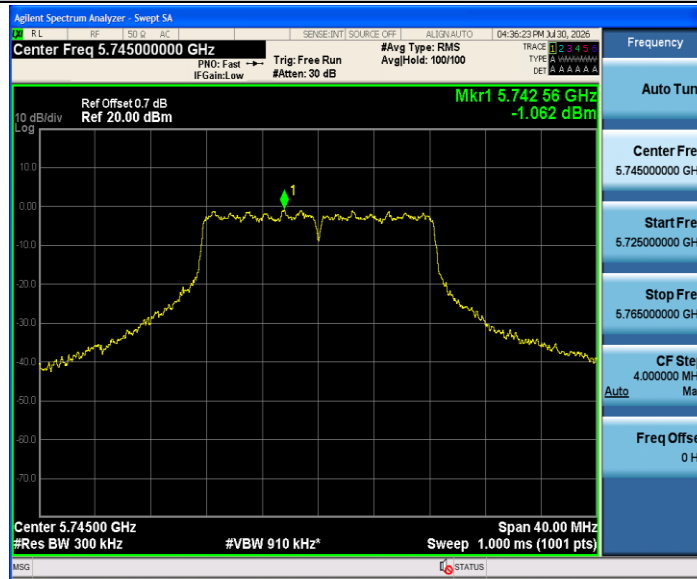
Test Result

TestMode	Antenna	Freq(MHz)	RawData [dBm/MHz]	DC Factor [dBm]	RBW Factor [dBm]	Result [dBm/500KHz]	Limit [dBm/500KHz]	Verdict
11A	Ant1	5745	-1.06	1.25	2.22	2.41	≤30.00	PASS
		5785	-1.05	1.25	2.22	2.42	≤30.00	PASS
		5825	-1.01	1.25	2.22	2.46	≤30.00	PASS
11N20SISO	Ant1	5745	-0.95	1.12	2.22	2.39	≤30.00	PASS
		5785	-0.69	1.06	2.22	2.59	≤30.00	PASS
		5825	-0.6	1.06	2.22	2.68	≤30.00	PASS
11N40SISO	Ant1	5755	-4.12	1.06	2.22	-0.84	≤30.00	PASS
		5795	-3.74	1.06	2.22	-0.46	≤30.00	PASS

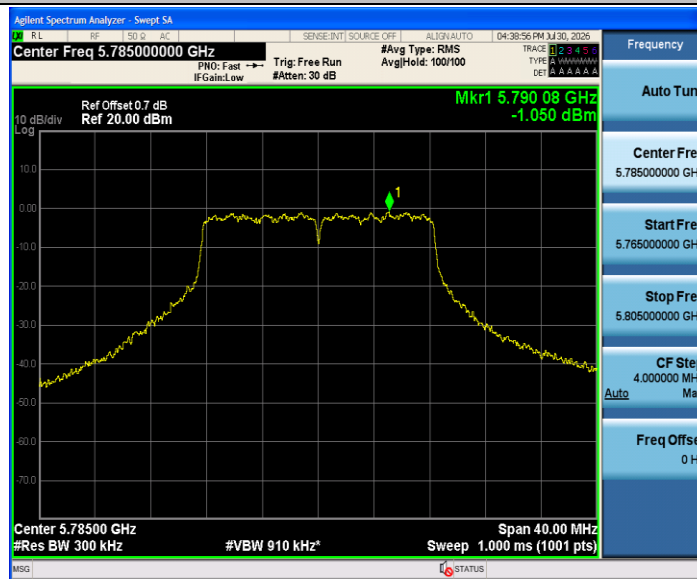
Note:1.The Result and Limit Unit is dBm/500 kHz in the band 5.725–5.85 GHz. $P.S.D(dBm/500KHz) = P.S.D(dBm/300KHz) + 10 \log(500 \text{ kHz}/300KHz) + \text{Duty factor}$. 2. $RBW \text{ factor} = 10 \log(500 \text{ KHz} / 300 \text{ KHz}) = 2.22 \text{ dB}$ 3. $EIRP \text{ P.S.D}(dBm/MHz) = \text{Result P.S.D}(dBm/MHz) + \text{Duty factor} + \text{Antenna Gain}$ 4. Note:Offset=cable loss

Test Graphs

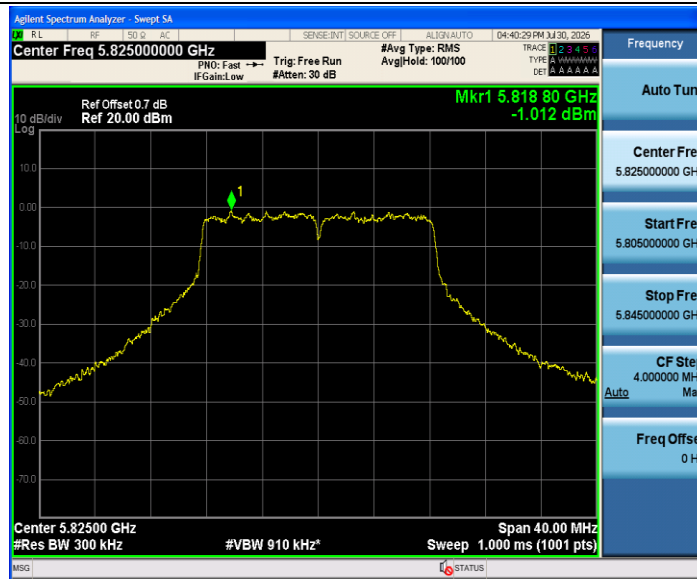
11A_Ant1_5745



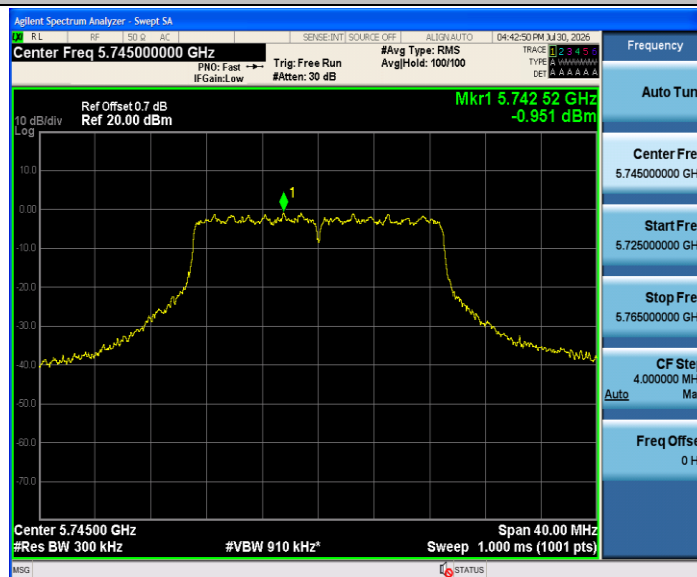
11A_Ant1_5785



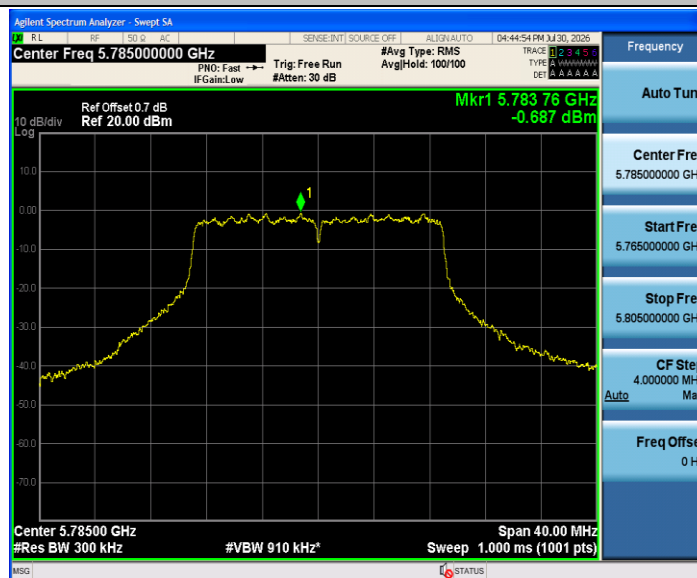
11A_Ant1_5825



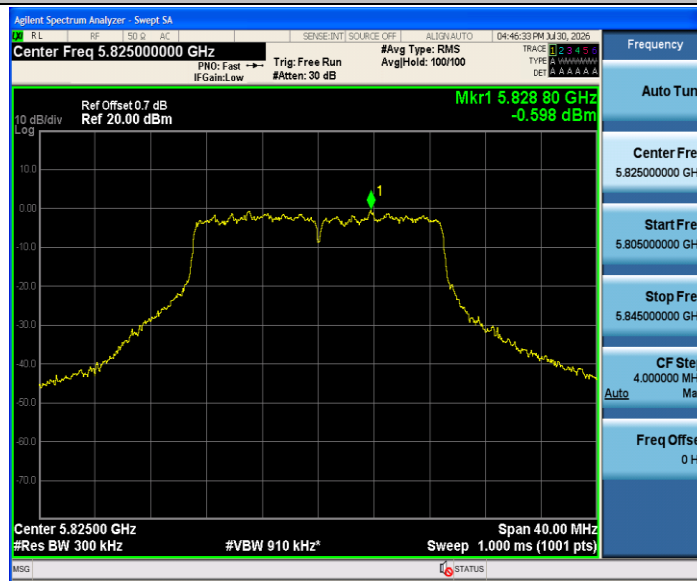
11N20SISO_Ant1_5745



11N20SISO_Ant1_5785



11N20SISO_Ant1_5825



11N40SISO_Ant1_5755



11N40SISO_Ant1_5795



Appendix 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	-45.64	≤-27	PASS
				5650~5700	-47.23	≤-26.96	PASS
				5700~5720	-26.27	≤12.99	PASS
				5720~5725	-26.87	≤15.82	PASS
		High	5825	5850~5855	-33.73	≤15.73	PASS
				5855~5875	-32.79	≤13.99	PASS
				5875~5925	-49.31	≤-26.51	PASS
				5925~5935	-48.28	≤-27	PASS
11N20SI SO	Ant1	Low	5745	5645~5650	-46.56	≤-27	PASS
				5650~5700	-47.6	≤-26.45	PASS
				5700~5720	-24.52	≤13.63	PASS
				5720~5725	-23.25	≤16.87	PASS
		High	5825	5850~5855	-34.21	≤15.73	PASS
				5855~5875	-31.7	≤14.90	PASS
				5875~5925	-48.37	≤-26.61	PASS
				5925~5935	-48.18	≤-27	PASS
11N40SI SO	Ant1	Low	5755	5645~5650	-38.76	≤-27	PASS
				5650~5700	-37.67	≤-26.30	PASS
				5700~5720	-22.68	≤13.76	PASS
				5720~5725	-27.22	≤15.74	PASS
		High	5795	5850~5855	-36.06	≤15.66	PASS
				5855~5875	-35.18	≤11.73	PASS
				5875~5925	-48.05	≤-26.71	PASS
				5925~5935	-46.85	≤-27	PASS

Test Graphs B4

11A_Ant1_Low_5745



11A_Ant1_High_5825



11N20SISO_Ant1_Low_5745



11N20ISO_Ant1_High_5825



11N40ISO_Ant1_Low_5755



11N40SISO_Ant1_High_5795



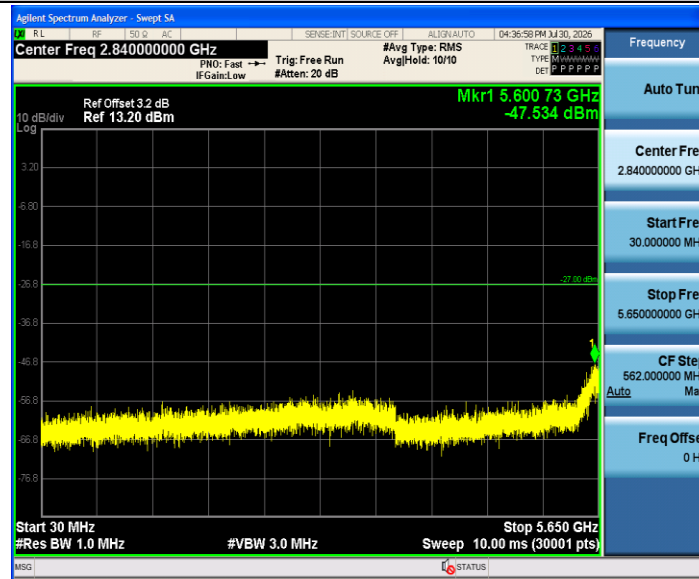
Appendix F: Conducted Spurious Emission

Test Result

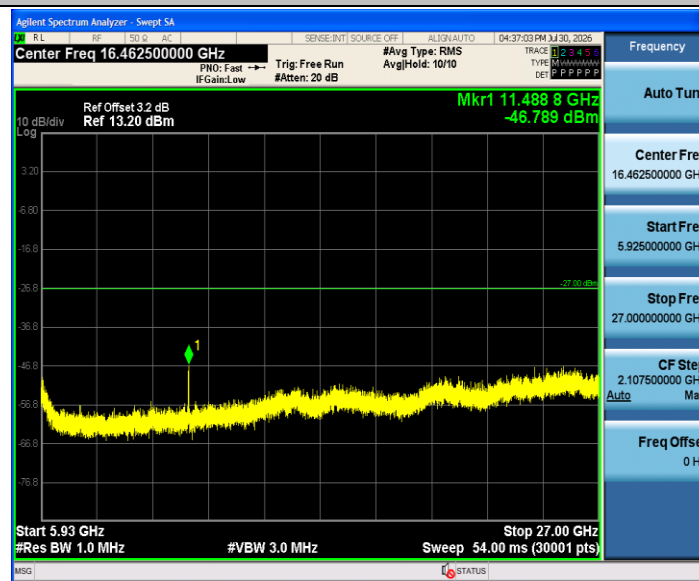
TestMode	Antenna	Freq(MHz)	FreqRange [MHz]	Max. Fre [MHz]	Max. Level [dBm]	Limit [dBm]	Verdict
11A	Ant1	5745	30~5650	5600.73	-47.53	≤-27	PASS
			5925~40000	11488.8	-46.79	≤-27	PASS
		5785	30~5650	5626.02	-42.64	≤-27	PASS
			5925~40000	24619.23	-47.07	≤-27	PASS
		5825	30~5650	5639.88	-46.83	≤-27	PASS
			5925~40000	26137.33	-46.88	≤-27	PASS
11N20SISO	Ant1	5745	30~5650	5611.78	-46.65	≤-27	PASS
			5925~40000	25609.75	-47.12	≤-27	PASS
		5785	30~5650	5625.27	-42.85	≤-27	PASS
			5925~40000	25687.73	-46.97	≤-27	PASS
		5825	30~5650	5642.51	-46.84	≤-27	PASS
			5925~40000	26159.11	-47.18	≤-27	PASS
11N40SISO	Ant1	5755	30~5650	5648.69	-39.75	≤-27	PASS
			5925~40000	26141.55	-46.39	≤-27	PASS
		5795	30~5650	5639.7	-46.83	≤-27	PASS
			5925~40000	25486.11	-47.51	≤-27	PASS

Test Graphs

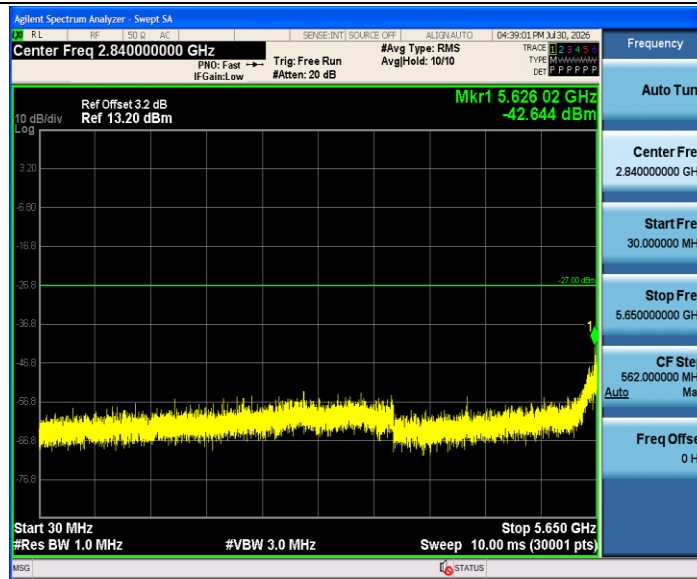
11A_Ant1_5745_30~5650



11A_Ant1_5745_5925~40000



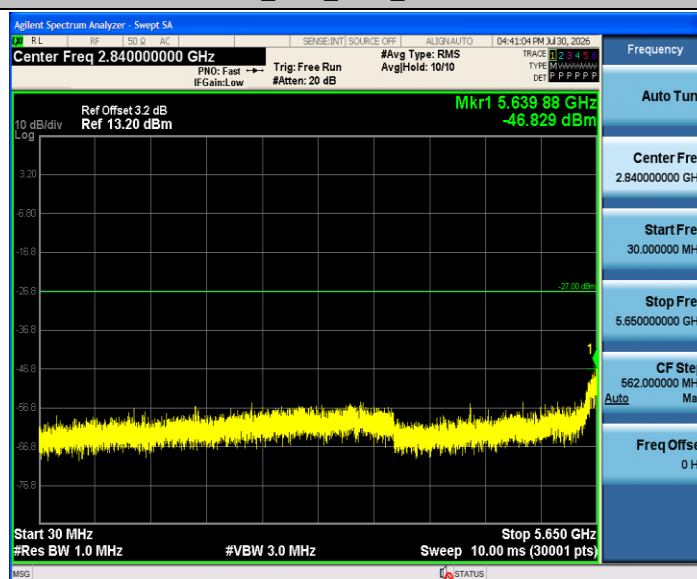
11A_Ant1_5785_30~5650



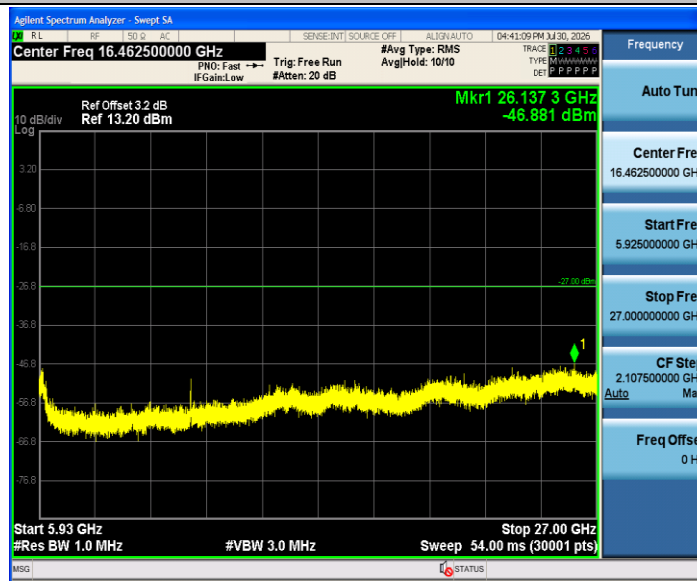
11A_Ant1_5785_5925~40000



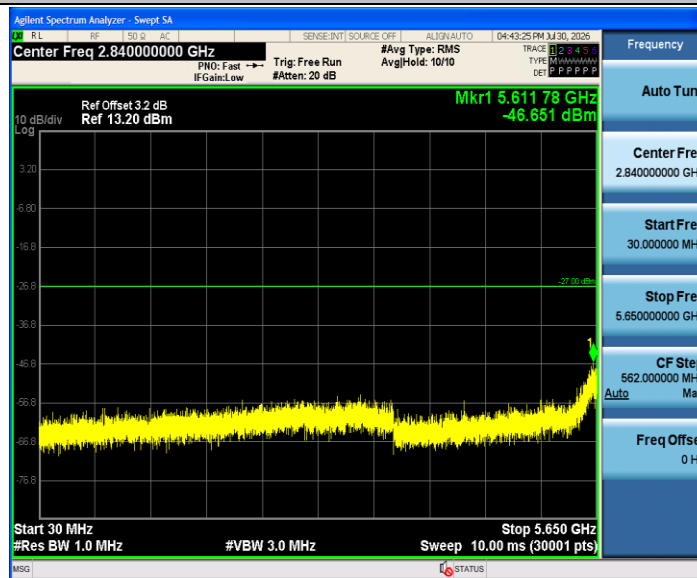
11A_Ant1_5825_30~5650



11A_Ant1_5825_5925~40000



11N20SISO_Ant1_5745_30~5650



11N20SISO_Ant1_5745_5925~40000