



RF Test Data for RLAN(5. 8G) (Conducted Measurement)

Product Name: Wireless Car Adapter

Trade Mark: **acer**

Test Model: TC03A

FCC ID: 2A2P5-TC03A

Environmental Conditions

Temperature:	23.5°C
Relative Humidity:	58%
ATM Pressure:	100.0 kPa
Test Engineer:	Allen Lai
Supervised by:	Max Zhang
NOTE	N/A

Appendix A2: Occupied channel bandwidth

Test Result

Test Mode	Antenna	Frequency [MHz]	OCB [MHz]	FL [MHz]	FH [MHz]	Limit [MHz]	Verdict
11A	Ant1	5745	17.978	5736.0624	5754.0404	---	---
11A	Ant1	5785	17.887	5776.3968	5794.2838	---	---
11A	Ant1	5825	17.753	5816.6647	5834.4177	---	---
11N20SISO	Ant1	5745	18.677	5735.9436	5754.6206	---	---
11N20SISO	Ant1	5785	18.574	5775.9740	5794.5480	---	---
11N20SISO	Ant1	5825	18.503	5816.0608	5834.5638	---	---
11N40SISO	Ant1	5755	37.393	5736.6646	5774.0576	---	---
11N40SISO	Ant1	5795	37.236	5776.7284	5813.9644	---	---
11AC20SISO	Ant1	5745	18.656	5735.7103	5754.3663	---	---
11AC20SISO	Ant1	5785	18.518	5775.8150	5794.3330	---	---
11AC20SISO	Ant1	5825	18.513	5815.8591	5834.3721	---	---
11AC40SISO	Ant1	5755	37.381	5736.4412	5773.8222	---	---
11AC40SISO	Ant1	5795	37.374	5776.4444	5813.8184	---	---

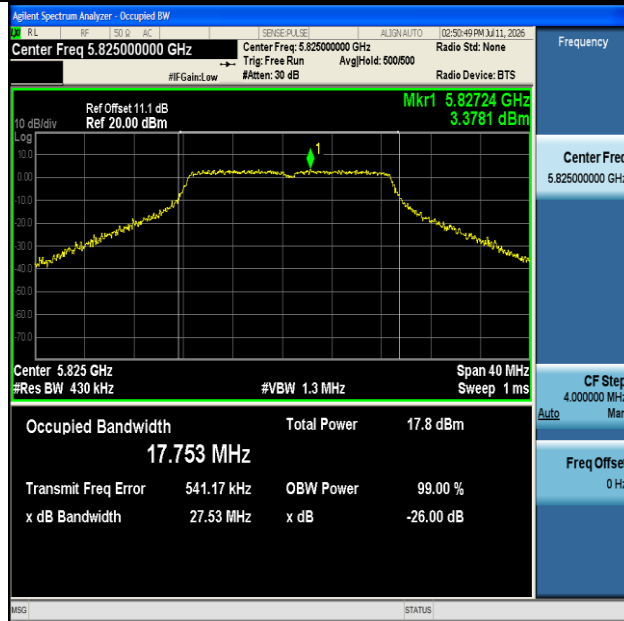
Note: offset(dB) = cable loss(dB) + attenuator factor(dB)



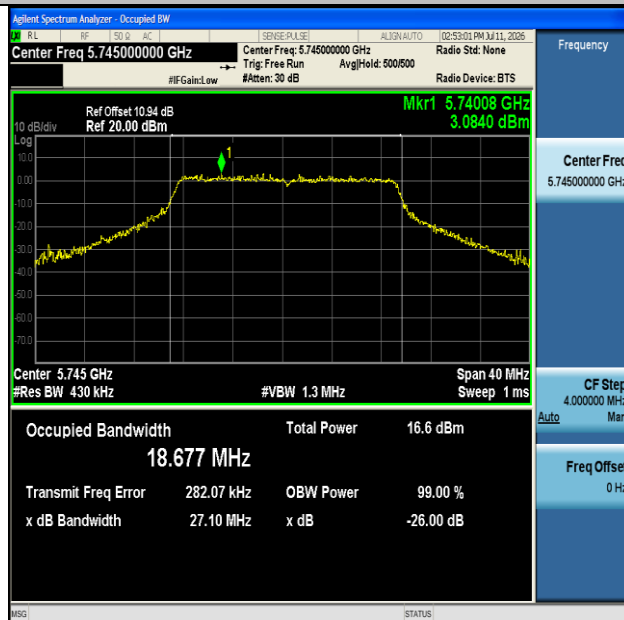


Test Graphs



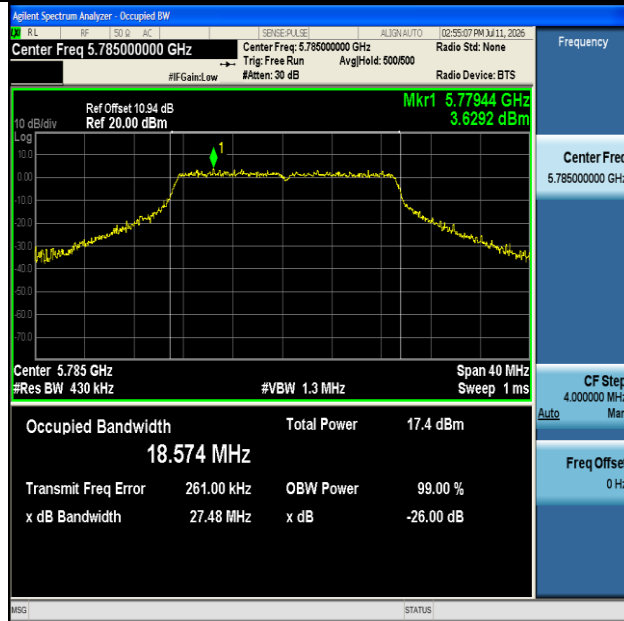


11A-Ant1-5825

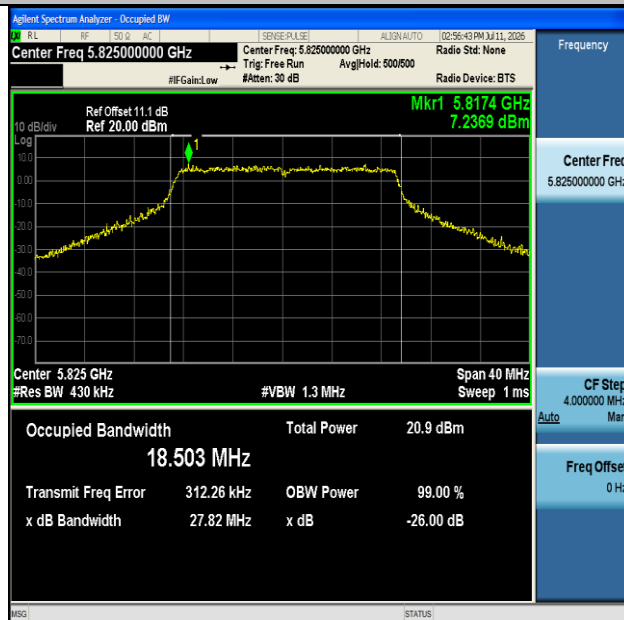


11N20SISO-Ant1-5745



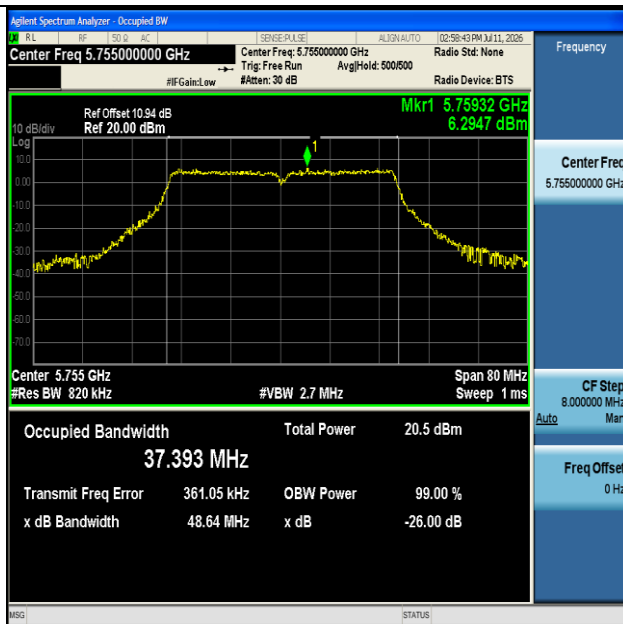


11N20SISO-Ant1-5785

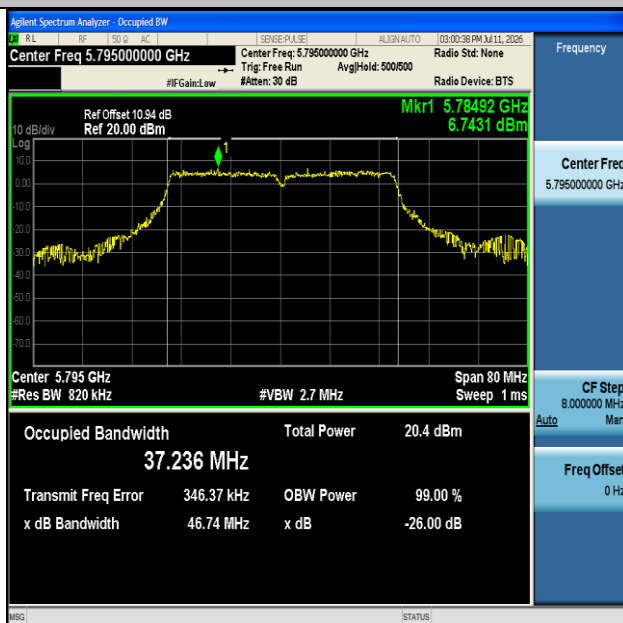


11N20SISO-Ant1-5825



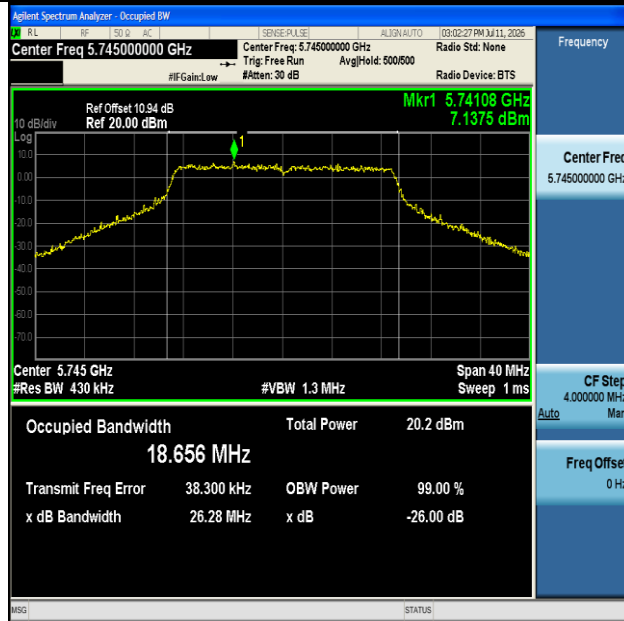


11N40SISO-Ant1-5755



11N40SISO-Ant1-5795



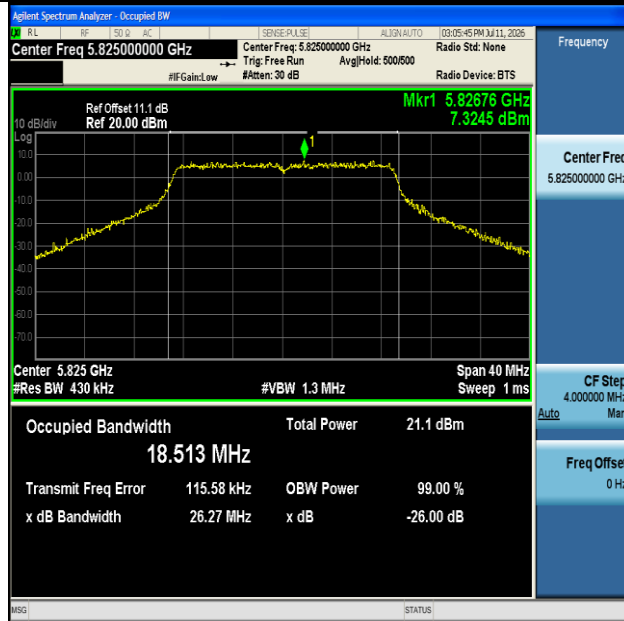


11AC20SISO-Ant1-5745

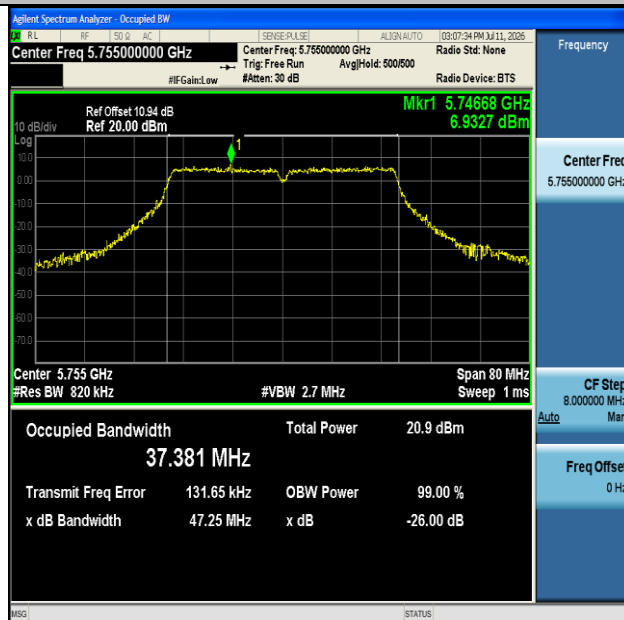


11AC20SISO-Ant1-5785



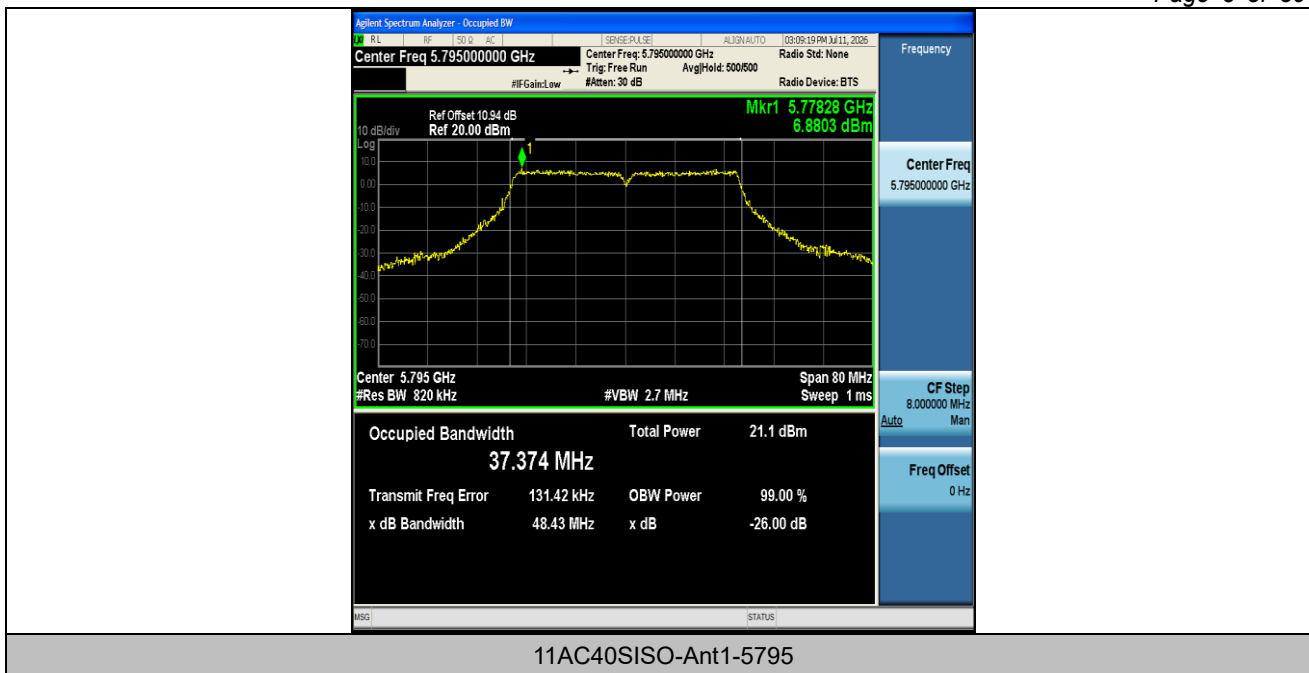


11AC20SISO-Ant1-5825



11AC40SISO-Ant1-5755







Appendix A: Min emission bandwidth

Test Result

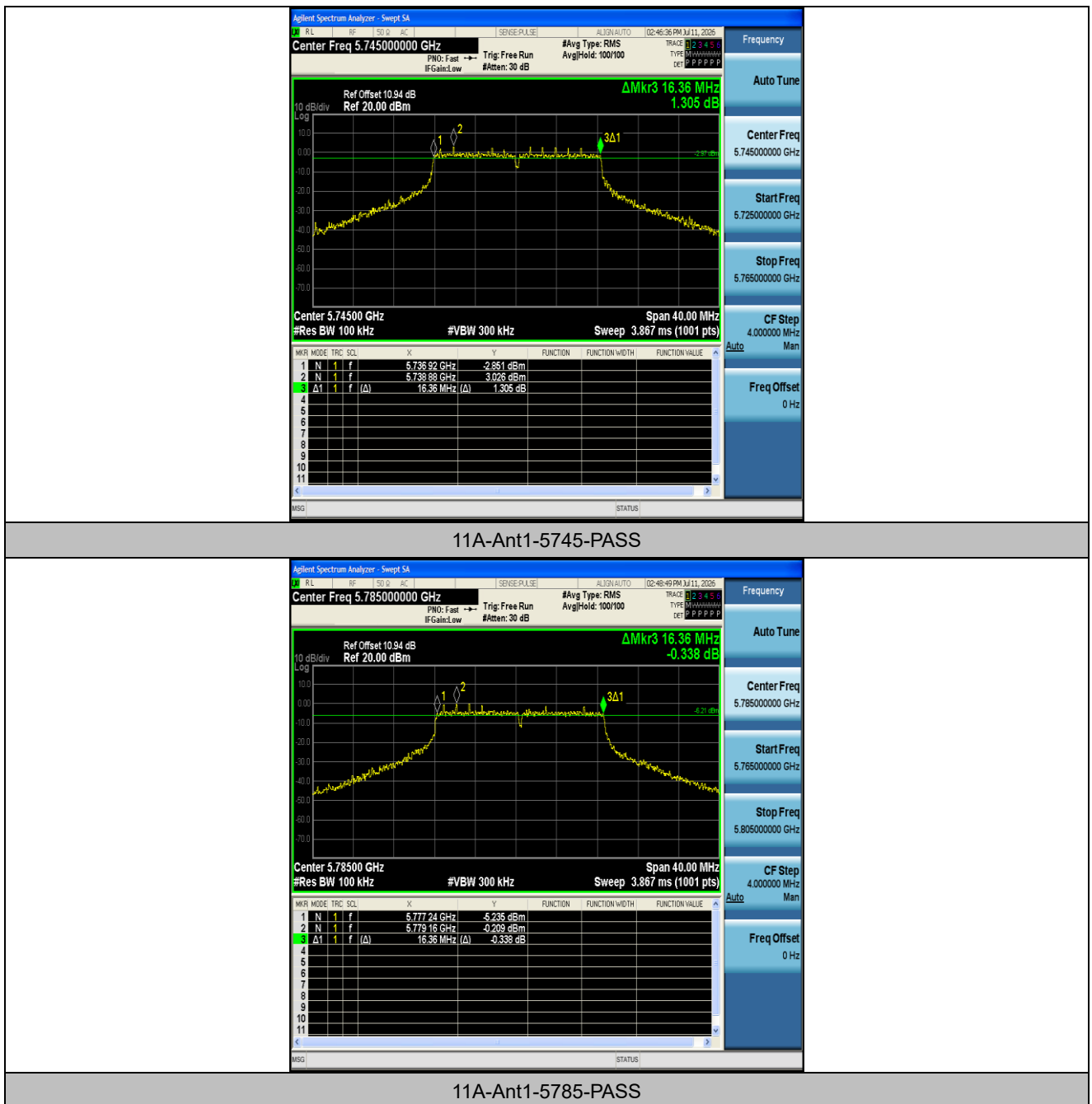
Test Mode	Antenna	Frequency [MHz]	6db EBW [MHz]	FL [MHz]	FH [MHz]	Limit [MHz]	Verdict
11A	Ant1	5745	16.360	5736.920	5753.280	0.5	PASS
11A	Ant1	5785	16.360	5777.240	5793.600	0.5	PASS
11A	Ant1	5825	16.320	5817.400	5833.720	0.5	PASS
11N20SISO	Ant1	5745	17.720	5736.600	5754.320	0.5	PASS
11N20SISO	Ant1	5785	17.680	5776.440	5794.120	0.5	PASS
11N20SISO	Ant1	5825	17.680	5816.440	5834.120	0.5	PASS
11N40SISO	Ant1	5755	36.480	5737.000	5773.480	0.5	PASS
11N40SISO	Ant1	5795	36.480	5777.000	5813.480	0.5	PASS
11AC20SISO	Ant1	5745	17.680	5736.320	5754.000	0.5	PASS
11AC20SISO	Ant1	5785	17.680	5776.280	5793.960	0.5	PASS
11AC20SISO	Ant1	5825	17.640	5816.320	5833.960	0.5	PASS
11AC40SISO	Ant1	5755	36.480	5736.840	5773.320	0.5	PASS
11AC40SISO	Ant1	5795	36.480	5776.840	5813.320	0.5	PASS

Note: offset(dB) = cable loss(dB) + attenuator factor(dB)





Test Graphs





11A-Ant1-5825-PASS



11N20SISO-Ant1-5745-PASS





11N20SISO-Ant1-5785-PASS

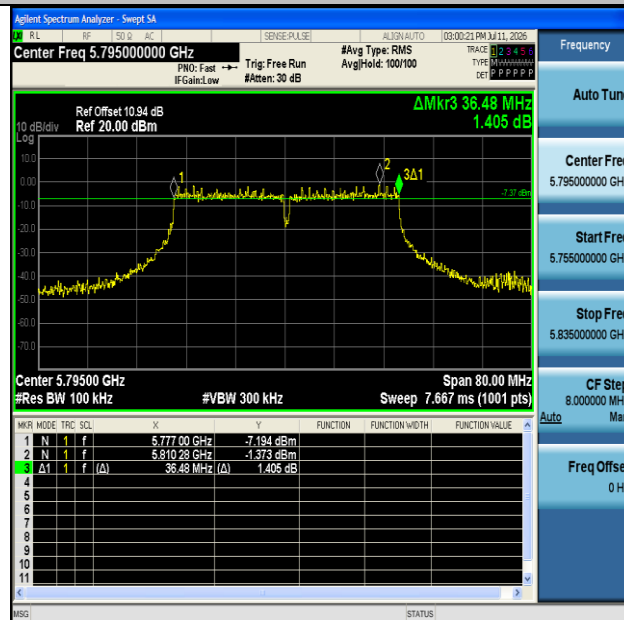


11N20SISO-Ant1-5825-PASS



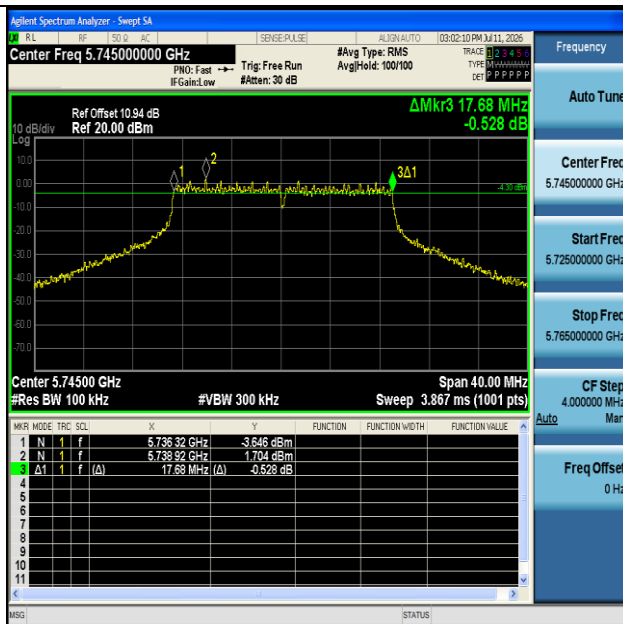


11N40SISO-Ant1-5755-PASS

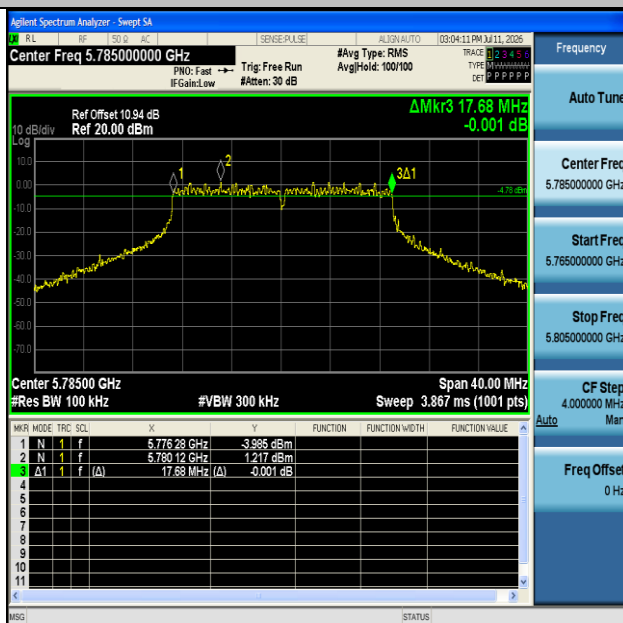


11N40SISO-Ant1-5795-PASS



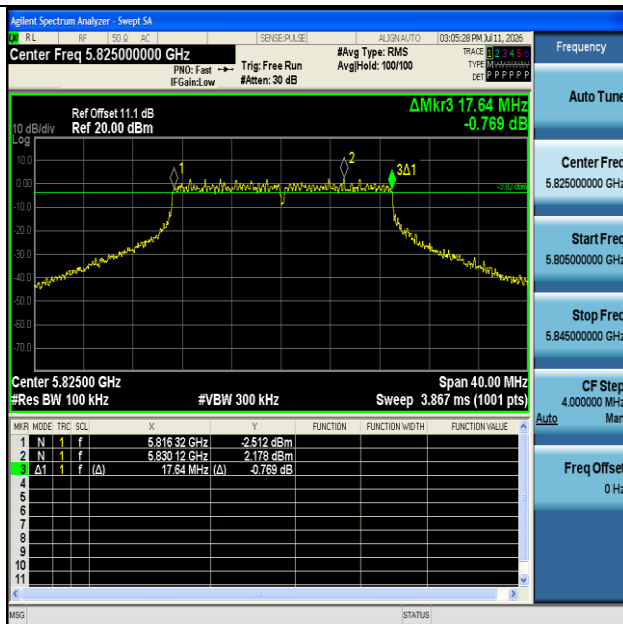


11AC20SISO-Ant1-5745-PASS

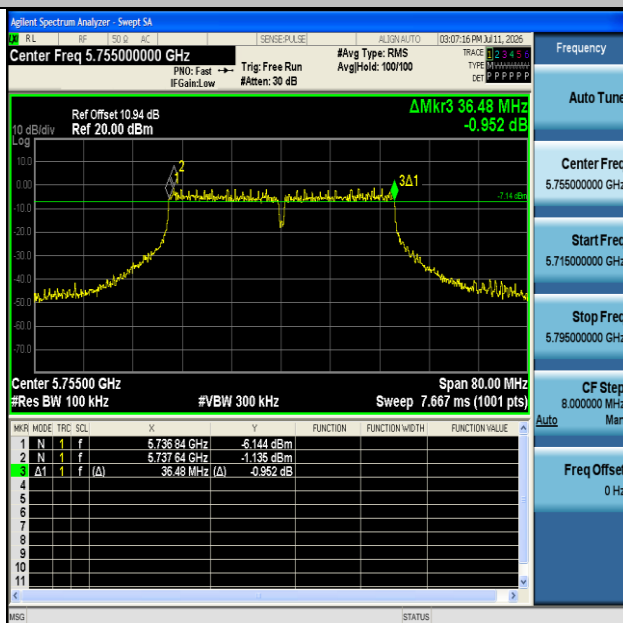


11AC20SISO-Ant1-5785-PASS



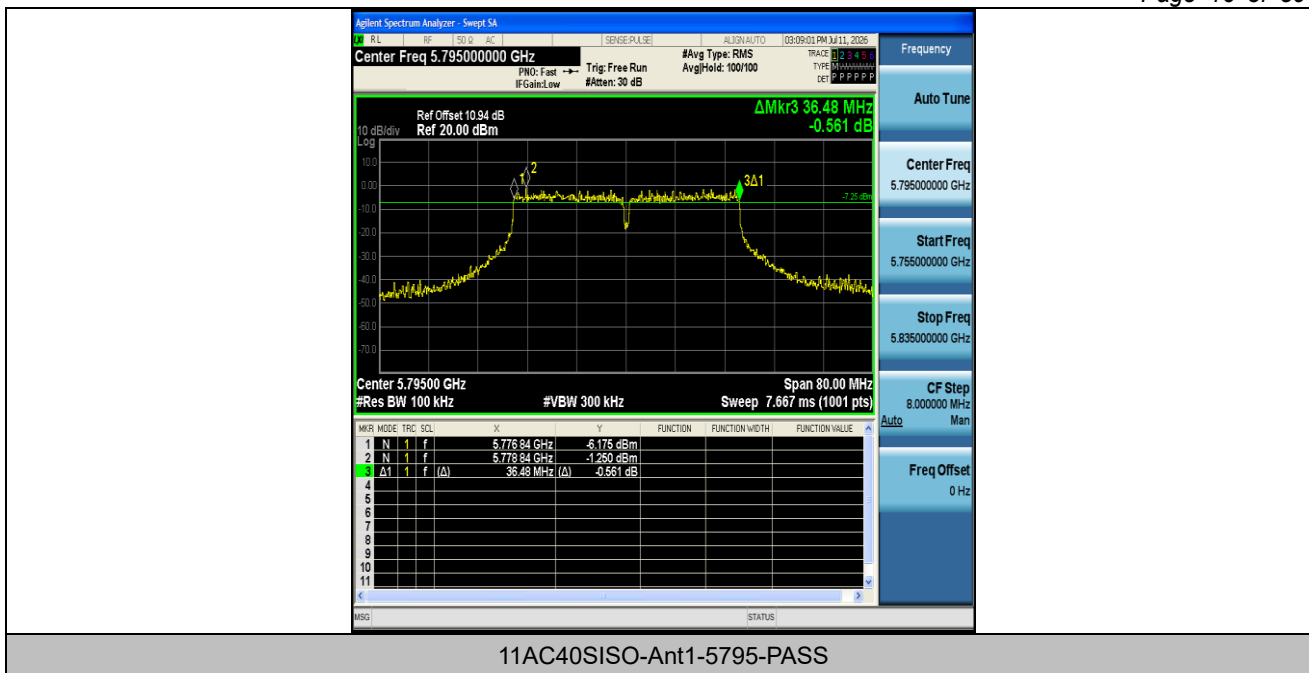


11AC20SISO-Ant1-5825-PASS



11AC40SISO-Ant1-5755-PASS







Appendix B: Maximum conducted output power

Test Result

Test Mode	Antenna	Frequency [MHz]	Conducted Power [dBm]	Conducted Limit [dBm]	Verdict
11A	Ant1	5745	10.80	≤30.00	PASS
11A	Ant1	5785	10.83	≤30.00	PASS
11A	Ant1	5825	10.91	≤30.00	PASS
11N20SISO	Ant1	5745	9.74	≤30.00	PASS
11N20SISO	Ant1	5785	9.92	≤30.00	PASS
11N20SISO	Ant1	5825	13.99	≤30.00	PASS
11N40SISO	Ant1	5755	12.51	≤30.00	PASS
11N40SISO	Ant1	5795	12.66	≤30.00	PASS
11AC20SISO	Ant1	5745	13.08	≤30.00	PASS
11AC20SISO	Ant1	5785	12.91	≤30.00	PASS
11AC20SISO	Ant1	5825	14.21	≤30.00	PASS
11AC40SISO	Ant1	5755	12.75	≤30.00	PASS
11AC40SISO	Ant1	5795	13.61	≤30.00	PASS

Note: offset(dB) = cable loss(dB) + attenuator factor(dB) + Duty Cycle Factor(dB)





Appendix C: Maximum power spectral density

Test Result

Frequency [MHz]	Test Mode	Antenna	Result [dBm/300KHz]	Result [dBm/500KHz]	Limit [dBm/500KHz]	Verdict
5745	11A	Ant1	-7.37	-5.15	≤30.00	PASS
5785	11A	Ant1	-7.60	-5.38	≤30.00	PASS
5825	11A	Ant1	-7.55	-5.33	≤30.00	PASS
5745	11N20SISO	Ant1	-7.47	-5.25	≤30.00	PASS
5785	11N20SISO	Ant1	-5.71	-3.49	≤30.00	PASS
5825	11N20SISO	Ant1	-6.54	-4.32	≤30.00	PASS
5755	11N40SISO	Ant1	-10.12	-7.90	≤30.00	PASS
5795	11N40SISO	Ant1	-8.79	-6.57	≤30.00	PASS
5745	11AC20SISO	Ant1	-5.19	-2.97	≤30.00	PASS
5785	11AC20SISO	Ant1	-5.5	-3.28	≤30.00	PASS
5825	11AC20SISO	Ant1	-4.24	-2.02	≤30.00	PASS
5755	11AC40SISO	Ant1	-8.41	-6.19	≤30.00	PASS
5795	11AC40SISO	Ant1	-7.84	-5.62	≤30.00	PASS

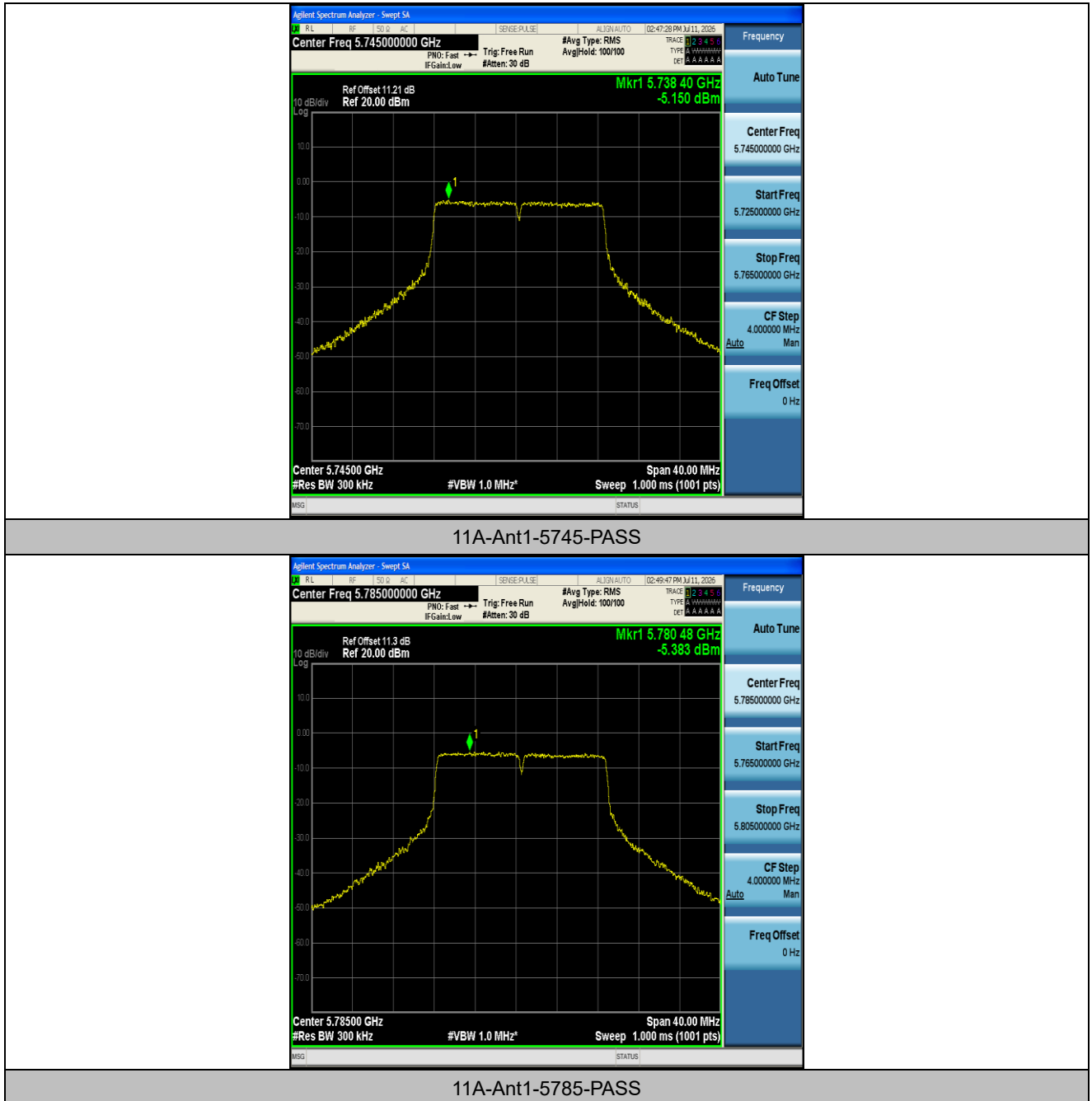
Note: offset(dB) = cable loss(dB) + attenuator factor(dB) + Duty Cycle Factor(dB)

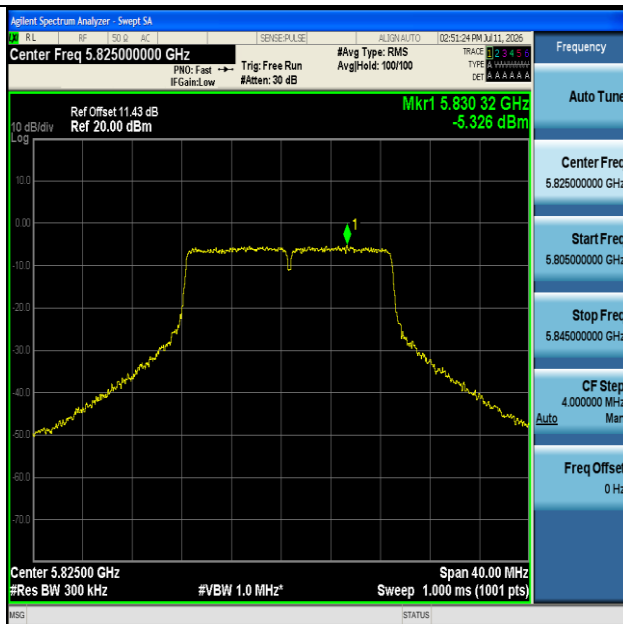
Result[dBm/500KHz] = Result[dBm/300KHz] + RB Factor(dB)



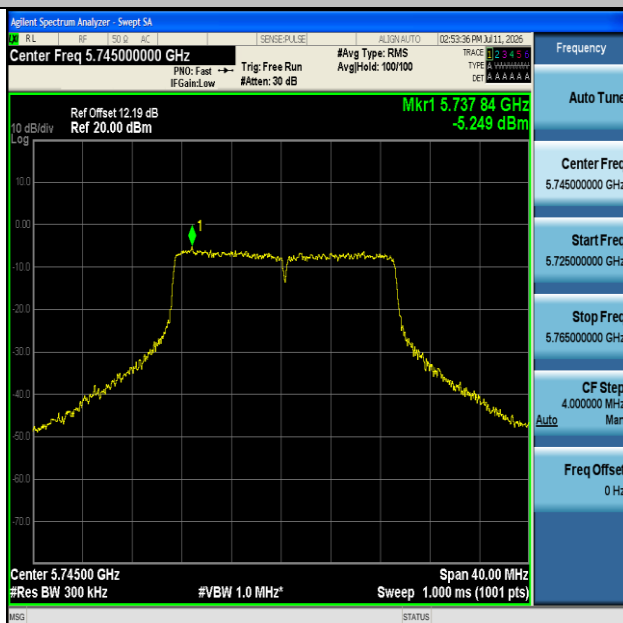


Test Graphs





11A-Ant1-5825-PASS

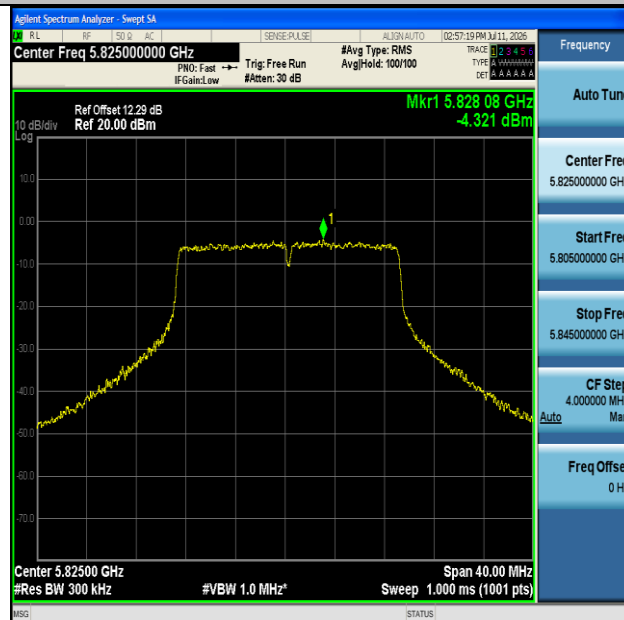


11N20SISO-Ant1-5745-PASS



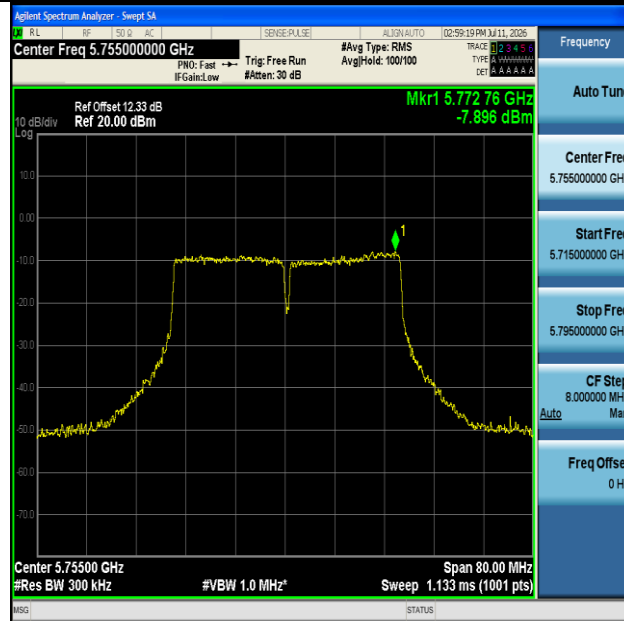


11N20SISO-Ant1-5785-PASS

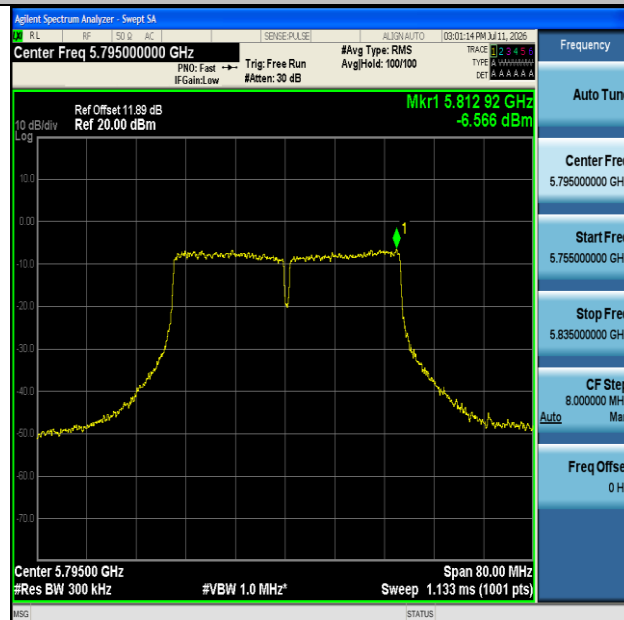


11N20SISO-Ant1-5825-PASS



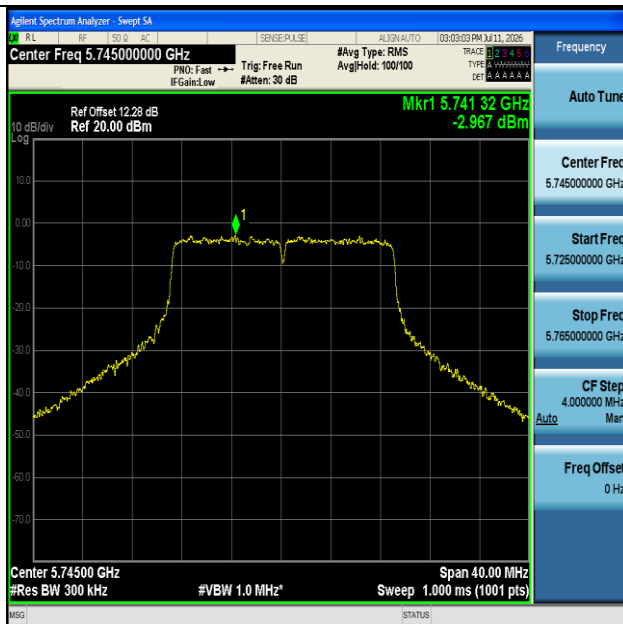


11N40SISO-Ant1-5755-PASS

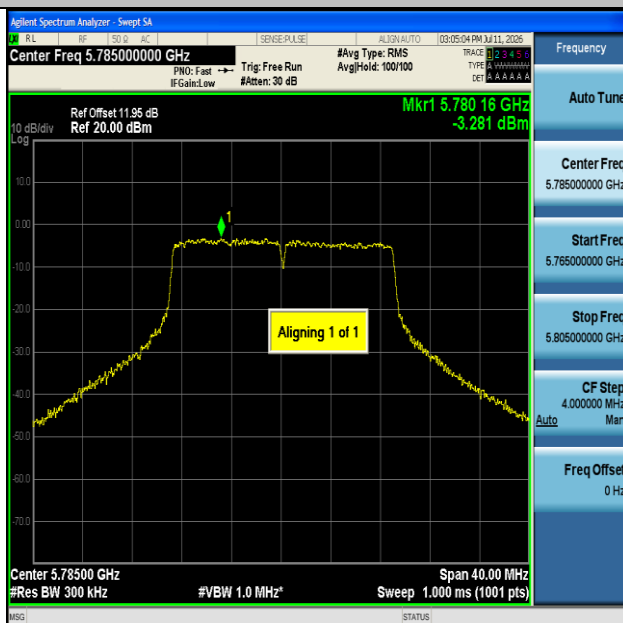


11N40SISO-Ant1-5795-PASS



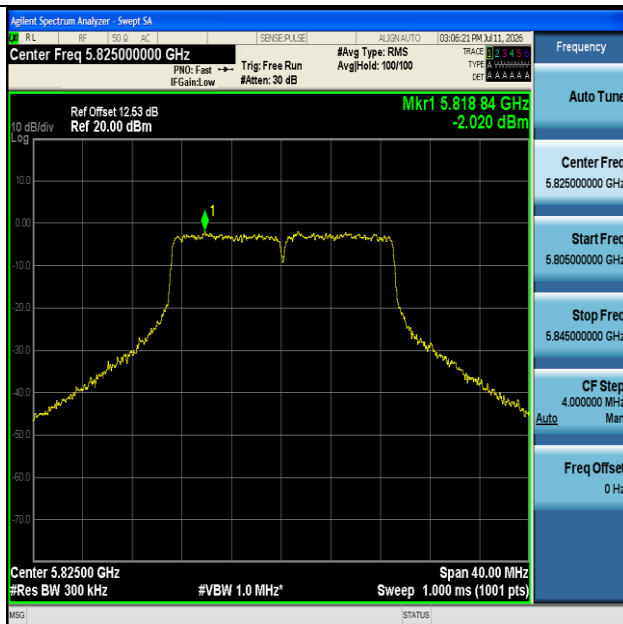


11AC20SISO-Ant1-5745-PASS

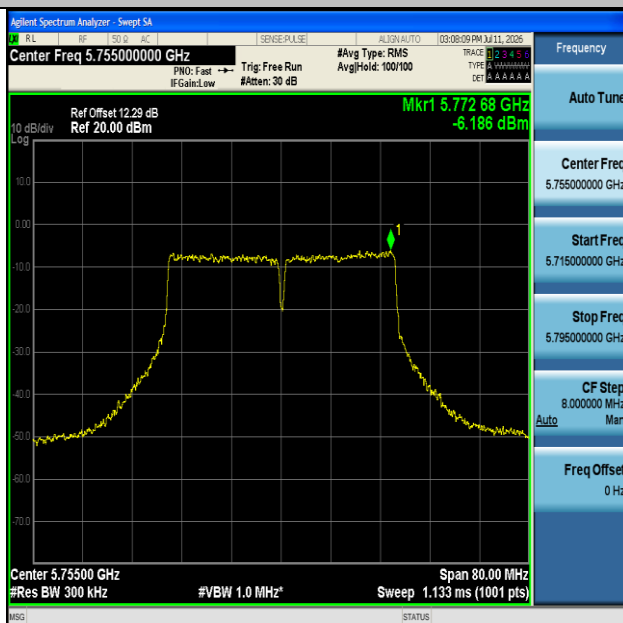


11AC20SISO-Ant1-5785-PASS



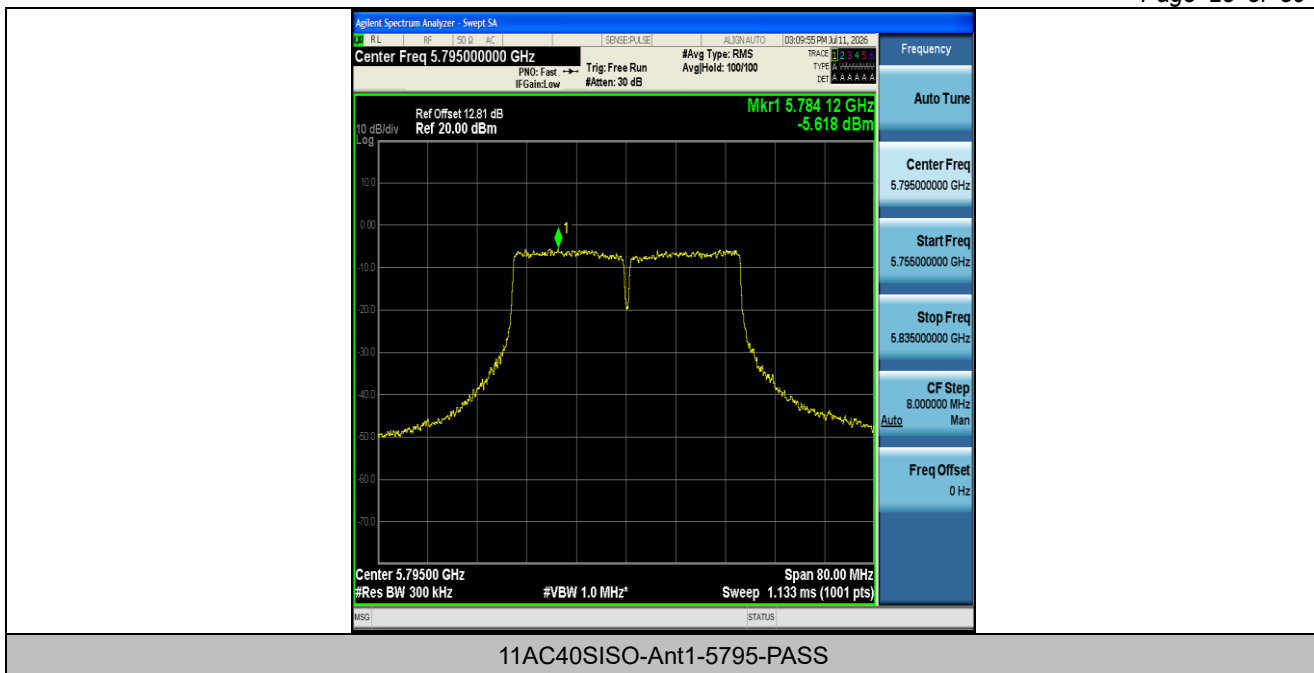


11AC20SISO-Ant1-5825-PASS



11AC40SISO-Ant1-5755-PASS







Appendix D: Band edge measurements

Test Result

Test Mode	Antenna	Ch. Name	Frequency [MHz]	Freq. Range [MHz]	Result [dBm]	Limit [dBm]	Verdict
11A	Ant1	Low	5745	5720~5725	-35.24	≤15.82	PASS
11A	Ant1	Low	5745	5700~5720	-30.76	≤13.69	PASS
11A	Ant1	Low	5745	5650~5700	-37.07	≤-26.70	PASS
11A	Ant1	Low	5745	5760~5650	-35.79	≤-27	PASS
11A	Ant1	High	5825	5850~5855	-35.57	≤16.03	PASS
11A	Ant1	High	5825	5855~5875	-36.02	≤10.02	PASS
11A	Ant1	High	5825	5875~5925	-35.47	≤-26.91	PASS
11A	Ant1	High	5825	5925~5935	-34.69	≤-27	PASS
11N20SISO	Ant1	Low	5745	5720~5725	-29.59	≤19.75	PASS
11N20SISO	Ant1	Low	5745	5700~5720	-35.02	≤10.35	PASS
11N20SISO	Ant1	Low	5745	5650~5700	-36.32	≤-26.87	PASS
11N20SISO	Ant1	Low	5745	5760~5650	-35.87	≤-27	PASS
11N20SISO	Ant1	High	5825	5850~5855	-28.52	≤16.34	PASS
11N20SISO	Ant1	High	5825	5855~5875	-27.35	≤15.09	PASS
11N20SISO	Ant1	High	5825	5875~5925	-36.38	≤-26.91	PASS
11N20SISO	Ant1	High	5825	5925~5935	-35.45	≤-27	PASS
11N40SISO	Ant1	Low	5755	5720~5725	-22.06	≤16.04	PASS
11N40SISO	Ant1	Low	5755	5700~5720	-22.26	≤15.16	PASS
11N40SISO	Ant1	Low	5755	5650~5700	-35.88	≤-26.50	PASS
11N40SISO	Ant1	Low	5755	5780~5650	-33.82	≤-27	PASS
11N40SISO	Ant1	High	5795	5850~5855	-32.16	≤17.16	PASS
11N40SISO	Ant1	High	5795	5855~5875	-29.49	≤15.33	PASS
11N40SISO	Ant1	High	5795	5875~5925	-36.53	≤-26.95	PASS
11N40SISO	Ant1	High	5795	5925~5935	-35.98	≤-27	PASS
11AC20SISO	Ant1	Low	5745	5720~5725	-29.26	≤18.70	PASS
11AC20SISO	Ant1	Low	5745	5700~5720	-34.34	≤10.44	PASS
11AC20SISO	Ant1	Low	5745	5650~5700	-35.41	≤-25.59	PASS
11AC20SISO	Ant1	Low	5745	5760~5650	-35.9	≤-27	PASS
11AC20SISO	Ant1	High	5825	5850~5855	-28.37	≤21.88	PASS
11AC20SISO	Ant1	High	5825	5855~5875	-28.53	≤14.94	PASS
11AC20SISO	Ant1	High	5825	5875~5925	-34.51	≤-25.91	PASS





11AC20SIS O	Ant1	High	5825	5925~5935	-35.76	≤ -27	PASS
11AC40SIS O	Ant1	Low	5755	5720~5725	-27.67	≤ 15.74	PASS
11AC40SIS O	Ant1	Low	5755	5700~5720	-27.68	≤ 15.58	PASS
11AC40SIS O	Ant1	Low	5755	5650~5700	-36.43	≤ -26.40	PASS
11AC40SIS O	Ant1	Low	5755	5780~5650	-35.11	≤ -27	PASS
11AC40SIS O	Ant1	High	5795	5850~5855	-31.21	≤ 15.66	PASS
11AC40SIS O	Ant1	High	5795	5855~5875	-31.64	≤ 12.84	PASS
11AC40SIS O	Ant1	High	5795	5875~5925	-35.05	≤ -26.59	PASS
11AC40SIS O	Ant1	High	5795	5925~5935	-35.27	≤ -27	PASS

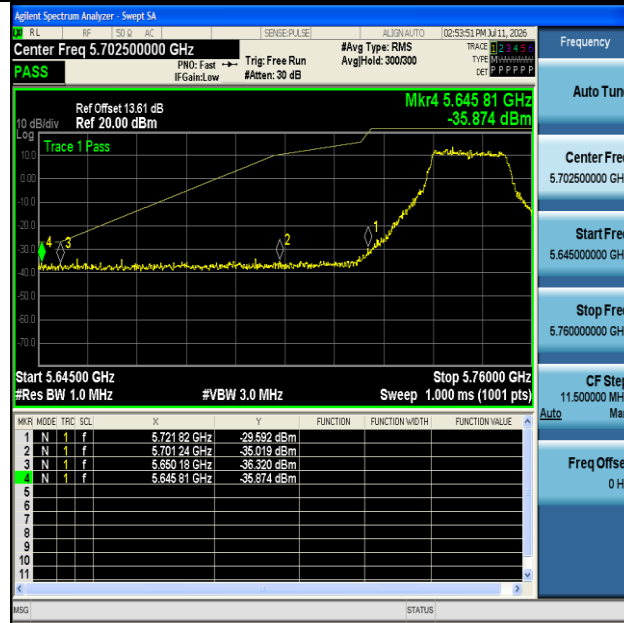
Note: offset(dB) = cable loss(dB) + attenuator factor(dB)+antenna gain(dBi)





Test Graphs





11N20SISO-Ant1-5745-PASS



11N20SISO-Ant1-5825-PASS





11N40SISO-Ant1-5755-PASS



11N40SISO-Ant1-5795-PASS





11AC20SISO-Ant1-5745-PASS



11AC20SISO-Ant1-5825-PASS





11AC40SISO-Ant1-5755-PASS



11AC40SISO-Ant1-5795-PASS





Appendix E: Frequency Stability

Test Result

Ant1

Frequency (MHz)	Environment Temperature (Degree)	Voltage (VAC)	Measured Frequency (MHz)	Limit Range (MHz)	Test Results
5745	20	132	5744.900978	5725 – 5850	PASS
5745	20	108	5745.041039	5725 – 5850	PASS
5745	50	120	5744.933548	5725 – 5850	PASS
5745	40	120	5745.050945	5725 – 5850	PASS
5745	30	120	5745.009926	5725 – 5850	PASS
5745	20	120	5744.907202	5725 – 5850	PASS
5745	10	120	5745.076732	5725 – 5850	PASS
5745	0	120	5745.084333	5725 – 5850	PASS
5745	-10	120	5744.903159	5725 – 5850	PASS
5745	-20	120	5745.033055	5725 – 5850	PASS
5745	-30	120	5745.059729	5725 – 5850	PASS





Ant1

Frequency (MHz)	Enviroment Temperature (Dregree)	Voltage (VAC)	Measured Frequency (MHz)	Limit Range (MHz)	Test Results
5785	20	132	5784.918658	5725 – 5850	PASS
5785	20	108	5784.976167	5725 – 5850	PASS
5785	50	120	5785.027551	5725 – 5850	PASS
5785	40	120	5784.962090	5725 – 5850	PASS
5785	30	120	5784.990629	5725 – 5850	PASS
5785	20	120	5784.998354	5725 – 5850	PASS
5785	10	120	5785.012681	5725 – 5850	PASS
5785	0	120	5785.059765	5725 – 5850	PASS
5785	-10	120	5784.912339	5725 – 5850	PASS
5785	-20	120	5785.074352	5725 – 5850	PASS
5785	-30	120	5784.912952	5725 – 5850	PASS





Ant1

Frequency (MHz)	Enviroment Temperature (Degree)	Voltage (VAC)	Measured Frequency (MHz)	Limit Range (MHz)	Test Results
5825	20	132	5824.902968	5725 – 5850	PASS
5825	20	108	5824.910994	5725 – 5850	PASS
5825	50	120	5824.955446	5725 – 5850	PASS
5825	40	120	5824.950636	5725 – 5850	PASS
5825	30	120	5824.982370	5725 – 5850	PASS
5825	20	120	5825.085909	5725 – 5850	PASS
5825	10	120	5824.906989	5725 – 5850	PASS
5825	0	120	5825.008848	5725 – 5850	PASS
5825	-10	120	5824.975844	5725 – 5850	PASS
5825	-20	120	5824.953194	5725 – 5850	PASS
5825	-30	120	5825.032182	5725 – 5850	PASS





Ant1

Frequency (MHz)	Enviroment Temperature (Degree)	Voltage (VAC)	Measured Frequency (MHz)	Limit Range (MHz)	Test Results
5755	20	132	5755.085781	5725 – 5850	PASS
5755	20	108	5755.018576	5725 – 5850	PASS
5755	50	120	5754.997551	5725 – 5850	PASS
5755	40	120	5755.045244	5725 – 5850	PASS
5755	30	120	5755.005085	5725 – 5850	PASS
5755	20	120	5754.993754	5725 – 5850	PASS
5755	10	120	5755.045784	5725 – 5850	PASS
5755	0	120	5754.938192	5725 – 5850	PASS
5755	-10	120	5755.050014	5725 – 5850	PASS
5755	-20	120	5754.939851	5725 – 5850	PASS
5755	-30	120	5755.084397	5725 – 5850	PASS





Ant1

Frequency (MHz)	Enviroment Temperature (Degree)	Voltage (VAC)	Measured Frequency (MHz)	Limit Range (MHz)	Test Results
5795	20	132	5794.976560	5725 – 5850	PASS
5795	20	108	5794.980464	5725 – 5850	PASS
5795	50	120	5795.053547	5725 – 5850	PASS
5795	40	120	5795.071755	5725 – 5850	PASS
5795	30	120	5794.989789	5725 – 5850	PASS
5795	20	120	5794.909062	5725 – 5850	PASS
5795	10	120	5795.070606	5725 – 5850	PASS
5795	0	120	5794.943231	5725 – 5850	PASS
5795	-10	120	5794.943866	5725 – 5850	PASS
5795	-20	120	5795.024793	5725 – 5850	PASS
5795	-30	120	5795.006434	5725 – 5850	PASS





Appendix F: Conducted Spurious Emission

Test Result

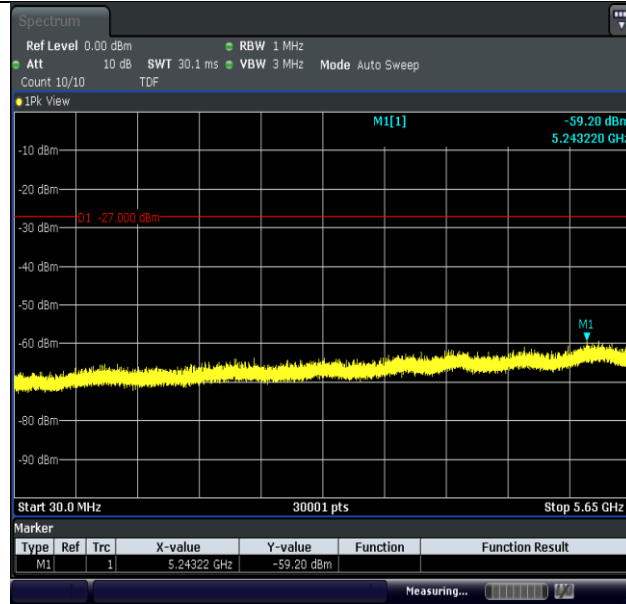
TestMode	Antenna	Frequency[MHz]	FreqRange [MHz]	Max. Fre [MHz]	Max. Level [dBm]	Limit [dBm]	Verdict
11A	Ant1	5745	30~5650	5243.22	-59.2	≤-27	PASS
11A	Ant1	5745	5925~40000	38744.4	-58.44	≤-27	PASS
11A	Ant1	5785	30~5650	5404.32	-59.25	≤-27	PASS
11A	Ant1	5785	5925~40000	38769.4	-57.15	≤-27	PASS
11A	Ant1	5825	30~5650	5452.84	-59.63	≤-27	PASS
11A	Ant1	5825	5925~40000	39138.5	-58.3	≤-27	PASS
11N20SISO	Ant1	5745	30~5650	5487.68	-59.45	≤-27	PASS
11N20SISO	Ant1	5745	5925~40000	38698.9	-57.79	≤-27	PASS
11N20SISO	Ant1	5785	30~5650	5452.46	-59.22	≤-27	PASS
11N20SISO	Ant1	5785	5925~40000	38779.6	-58.23	≤-27	PASS
11N20SISO	Ant1	5825	30~5650	5356.36	-60.14	≤-27	PASS
11N20SISO	Ant1	5825	5925~40000	38746.6	-58.11	≤-27	PASS
11N40SISO	Ant1	5755	30~5650	5255.4	-59.9	≤-27	PASS
11N40SISO	Ant1	5755	5925~40000	38804.6	-56.79	≤-27	PASS
11N40SISO	Ant1	5795	30~5650	5356.74	-59.51	≤-27	PASS
11N40SISO	Ant1	5795	5925~40000	38733	-58.26	≤-27	PASS
11AC20SISO	Ant1	5745	30~5650	5232.73	-59.56	≤-27	PASS
11AC20SISO	Ant1	5745	5925~40000	38789.8	-58.41	≤-27	PASS
11AC20SISO	Ant1	5785	30~5650	5390.46	-59.58	≤-27	PASS
11AC20SISO	Ant1	5785	5925~40000	38790.9	-57.44	≤-27	PASS
11AC20SISO	Ant1	5825	30~5650	5308.41	-59.6	≤-27	PASS
11AC20SISO	Ant1	5825	5925~40000	38747.8	-58.32	≤-27	PASS
11AC40SISO	Ant1	5755	30~5650	5370.23	-58.82	≤-27	PASS
11AC40SISO	Ant1	5755	5925~40000	39096.5	-57.89	≤-27	PASS
11AC40SISO	Ant1	5795	30~5650	5269.82	-59.54	≤-27	PASS
11AC40SISO	Ant1	5795	5925~40000	38716	-58.57	≤-27	PASS

Note: For spurious emissions plots from 30MHz to 40 GHz, the cable loss , antenna gain and attenuator factors have been set in the 'Input Correction' of the Spectrum Analyzer during the test.

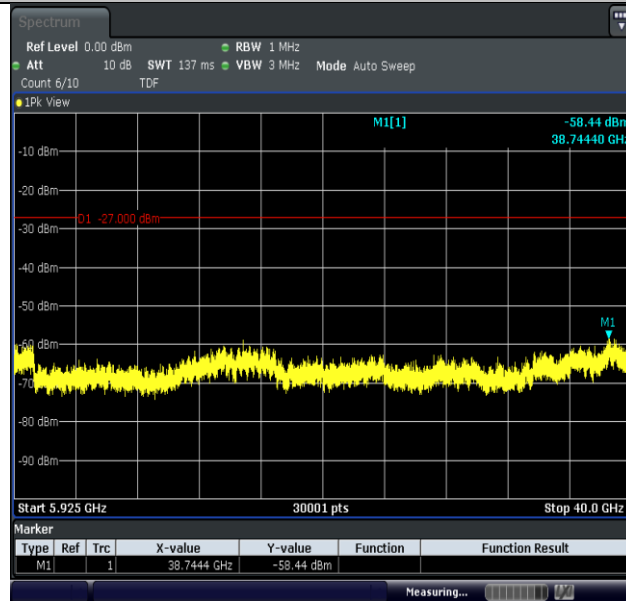




Test Graphs

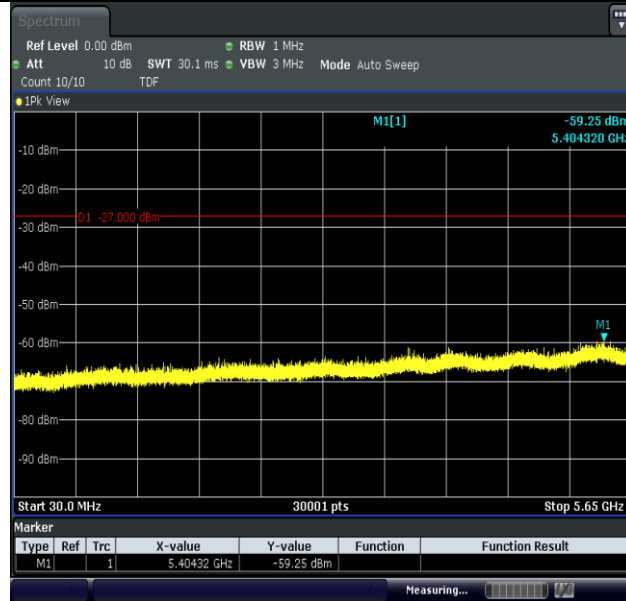


11A-Ant1-5745-30~5650-PASS

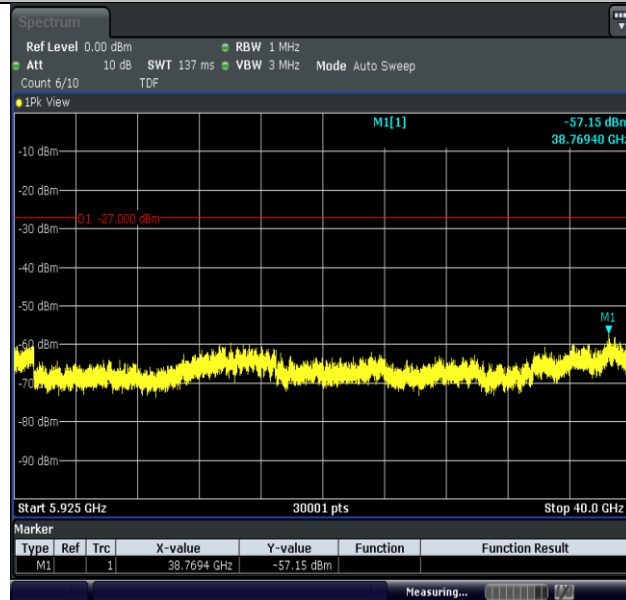


11A-Ant1-5745-5925~40000-PASS



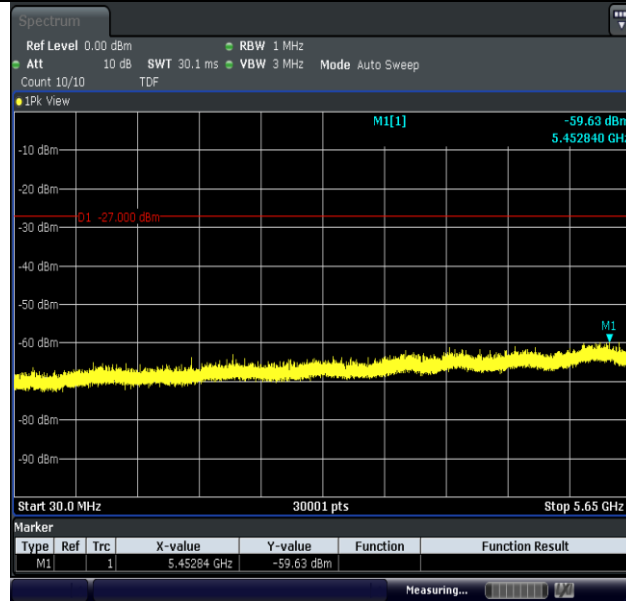


11A-Ant1-5785-30~5650-PASS

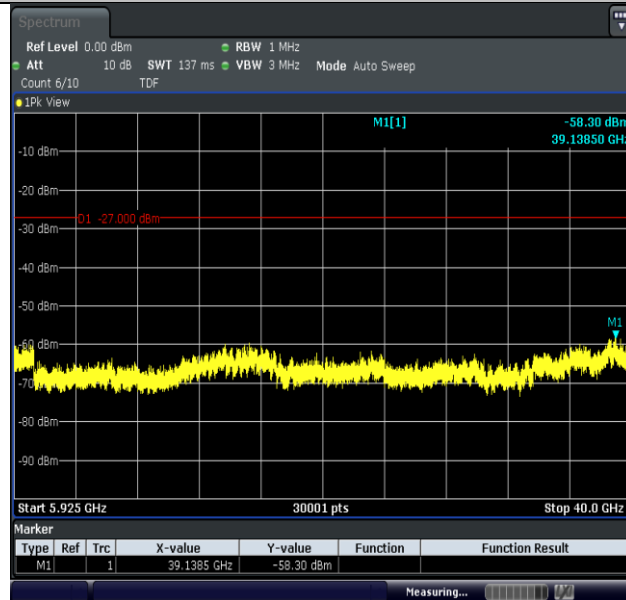


11A-Ant1-5785-5925~40000-PASS



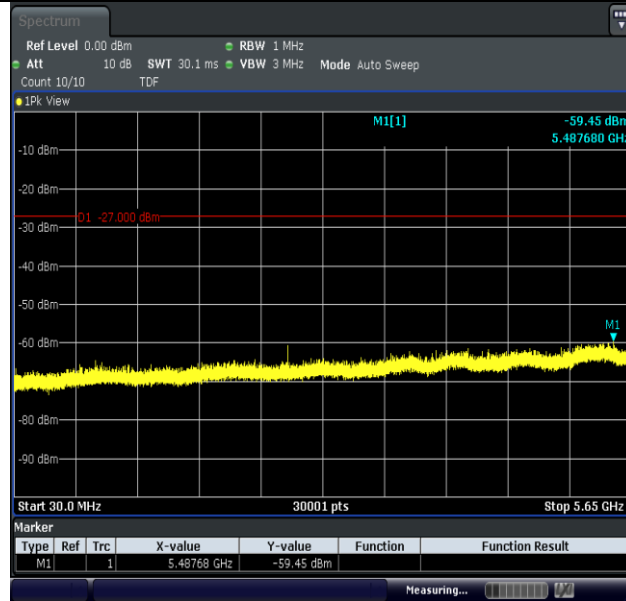


11A-Ant1-5825-30~5650-PASS

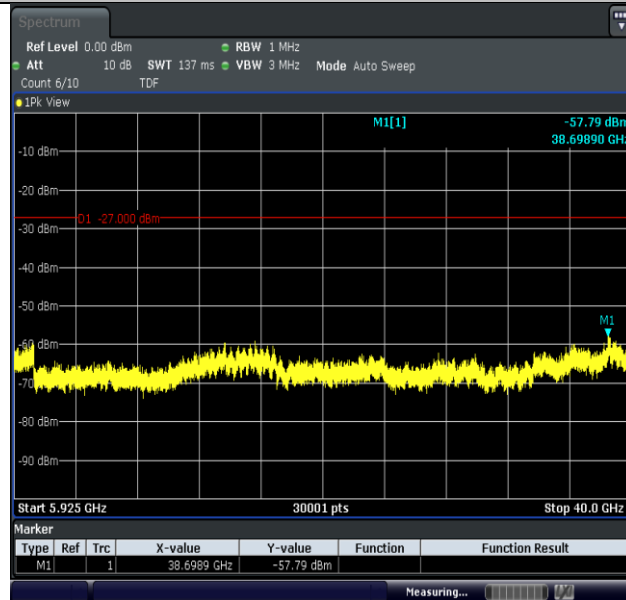


11A-Ant1-5825-5925~40000-PASS



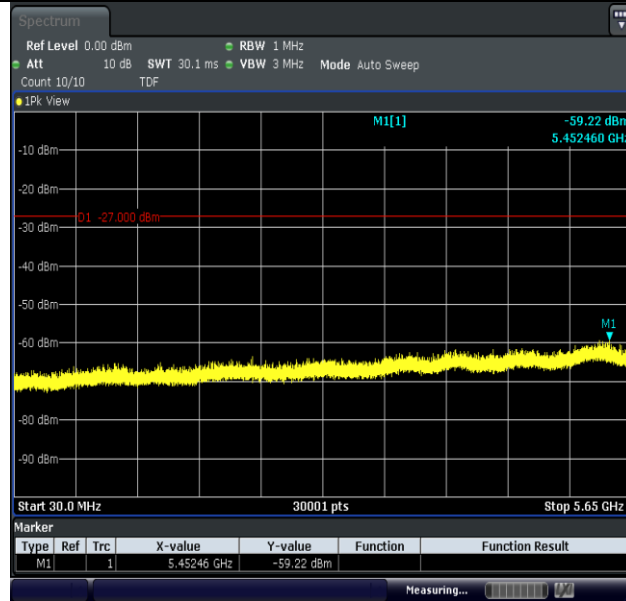


11N20SISO-Ant1-5745-30~5650-PASS

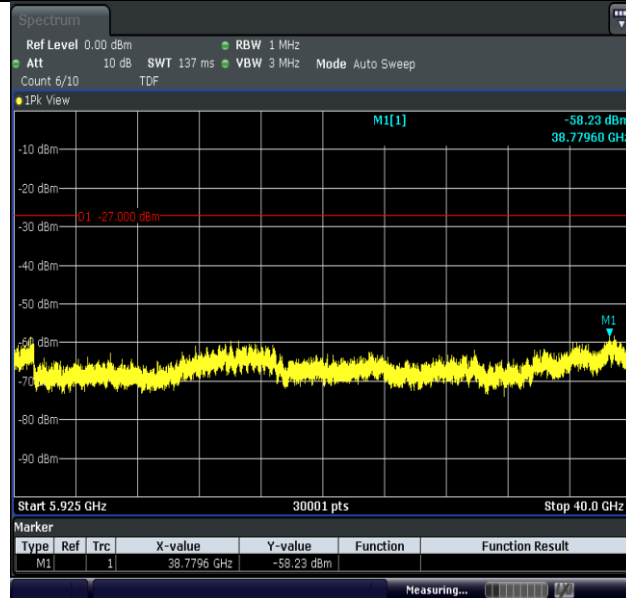


11N20SISO-Ant1-5745-5925~40000-PASS



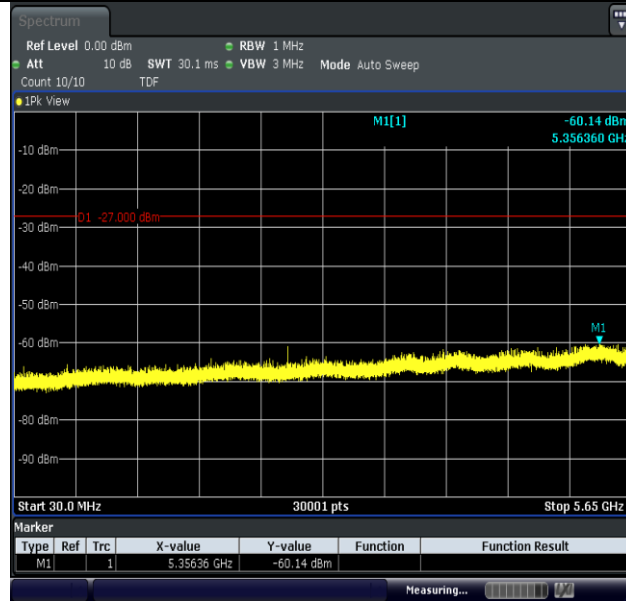


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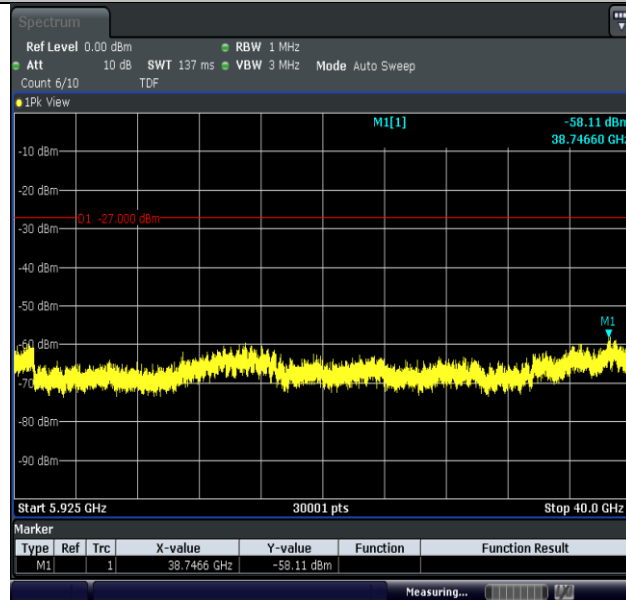


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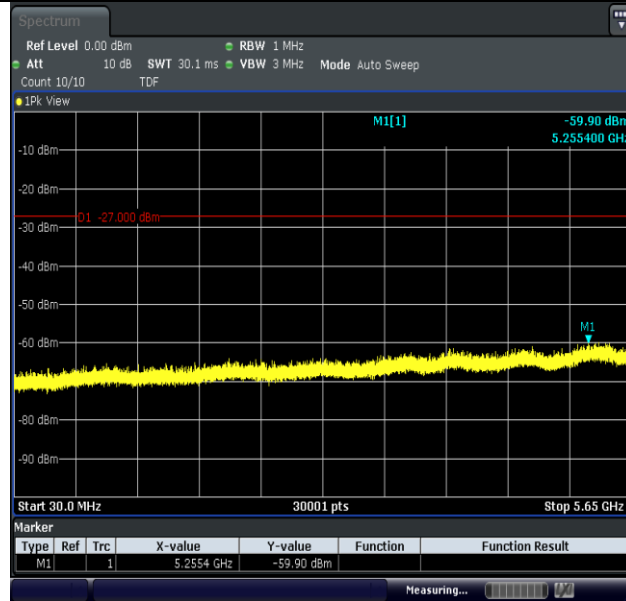


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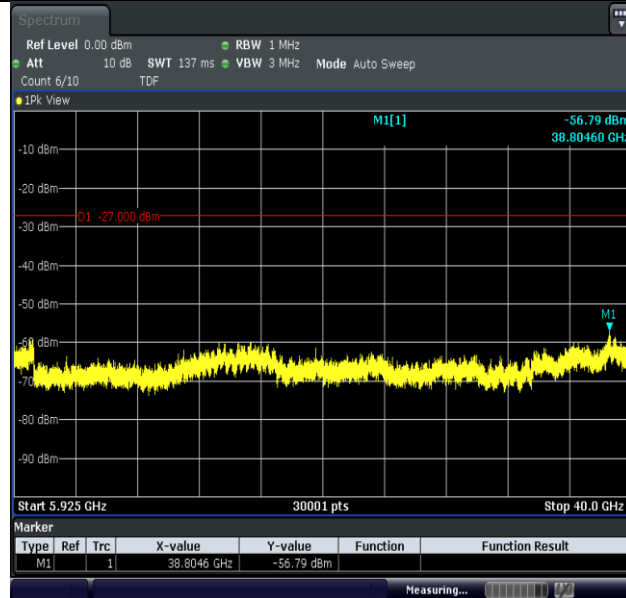


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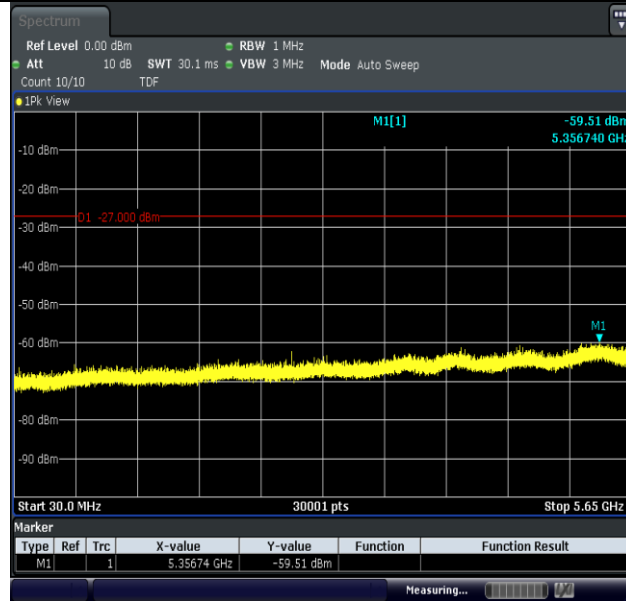


11N40SISO-Ant1-5755-30~5650-PASS

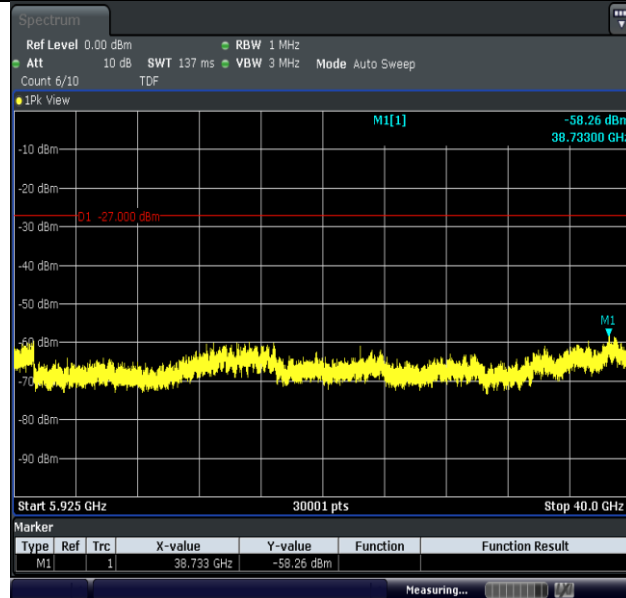


11N40SISO-Ant1-5755-5925~40000-PASS



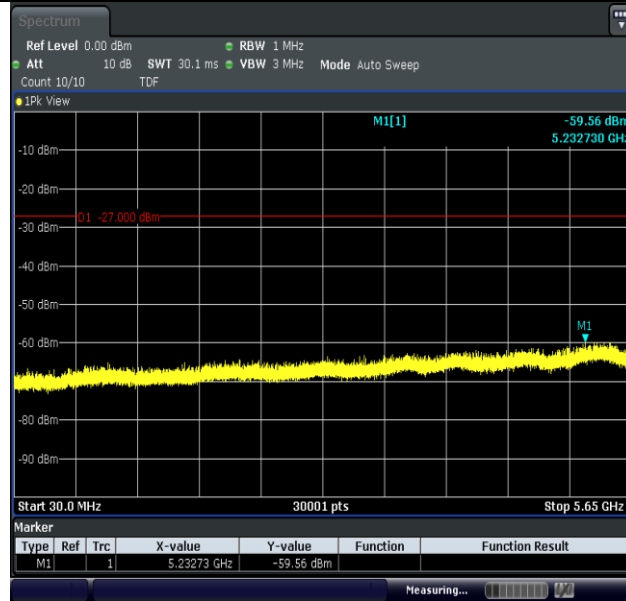


11N40SISO-Ant1-5795-30~5650-PASS

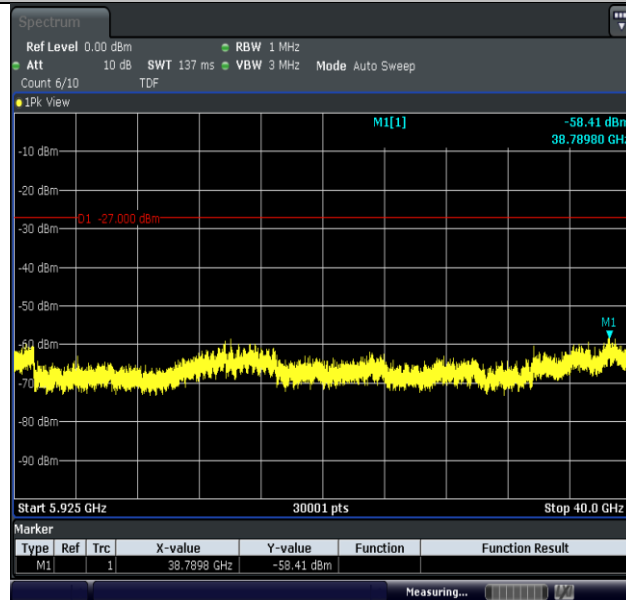


11N40SISO-Ant1-5795-5925~40000-PASS



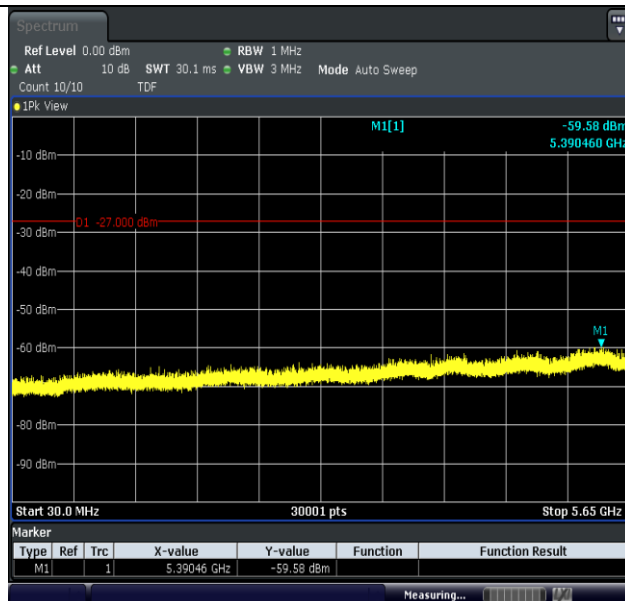


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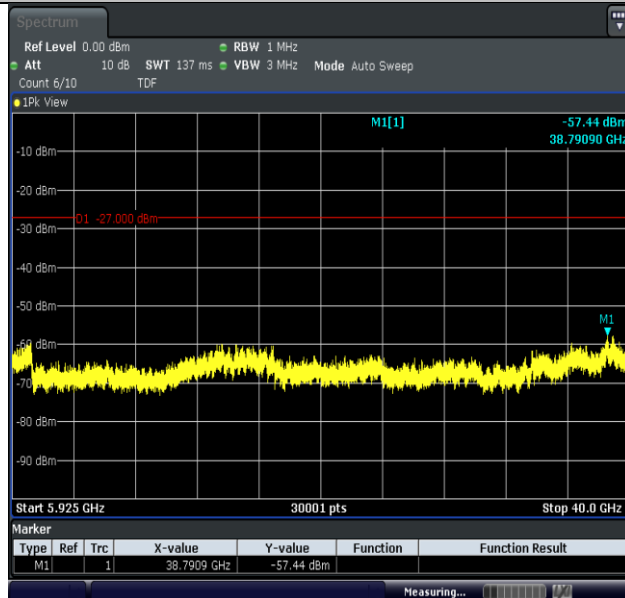


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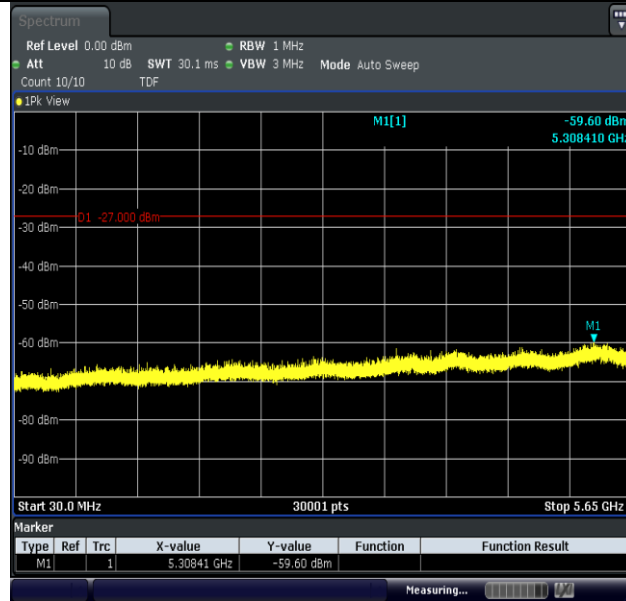


11AC20SISO-Ant1-5785-30~5650-PASS

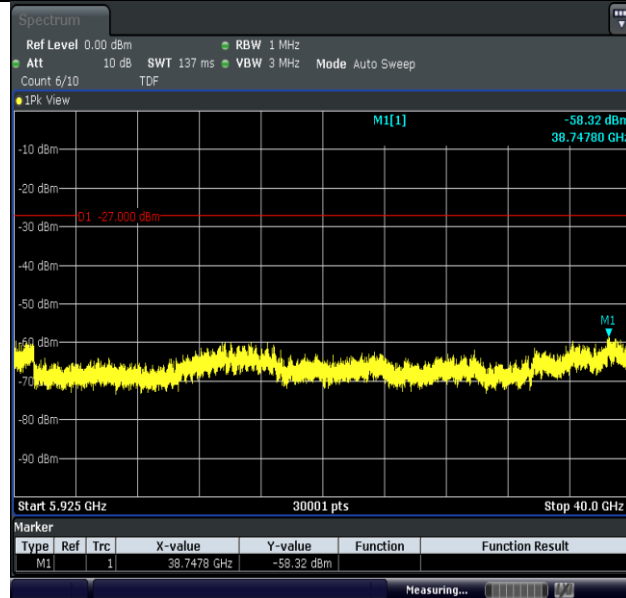


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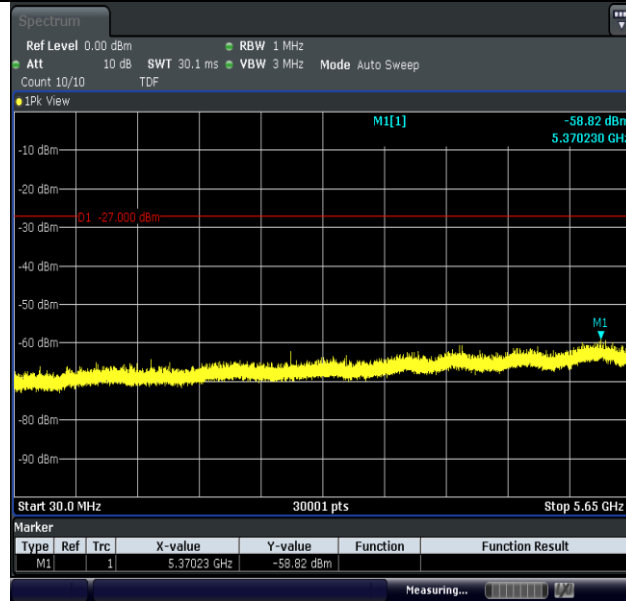


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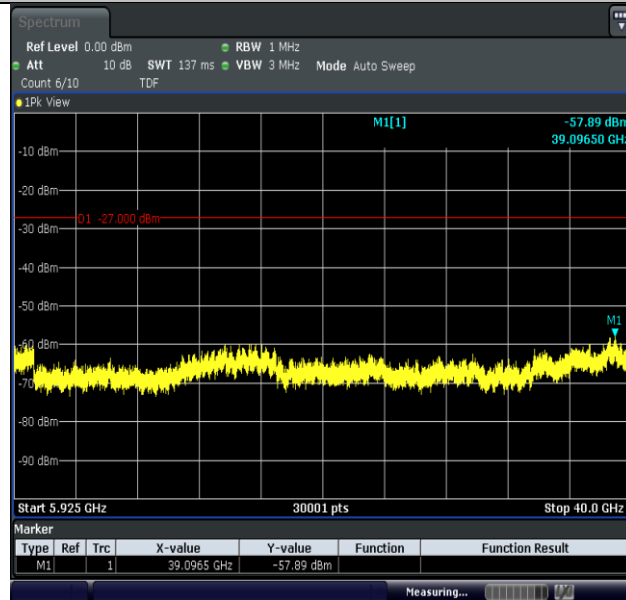


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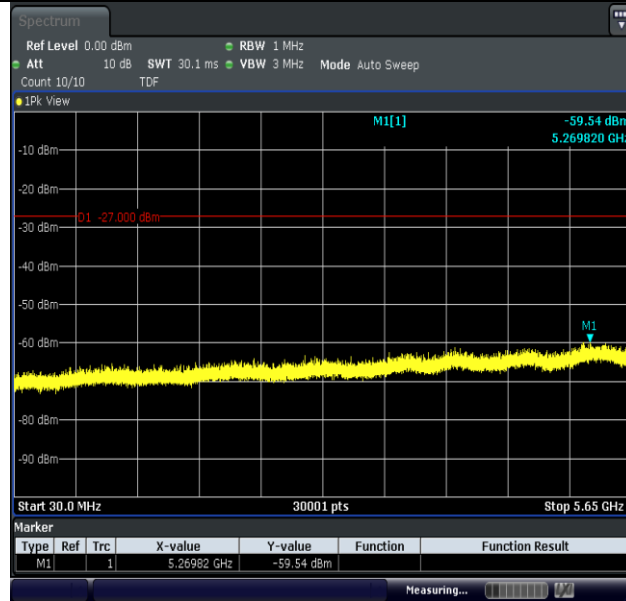


11AC40SISO-Ant1-5755-30~5650-PASS

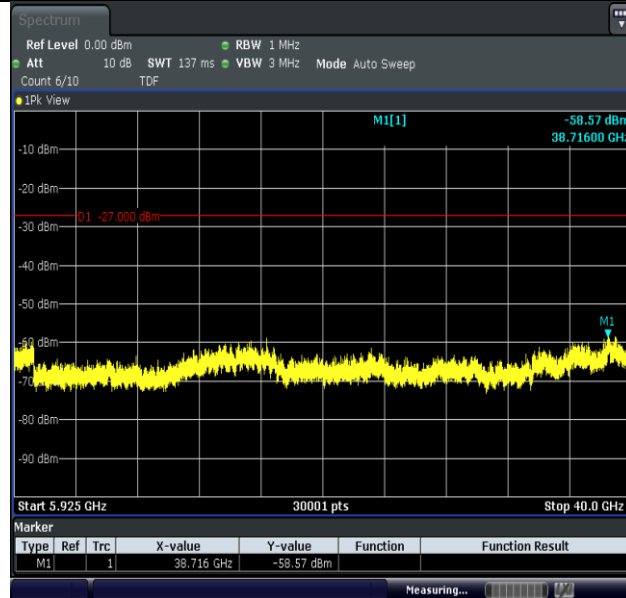


11AC40SISO-Ant1-5755-5925~40000-PASS





11AC40SISO-Ant1-5795-30~5650-PASS



11AC40SISO-Ant1-5795-5925~40000-PASS





Appendix G: Duty Cycle

Test Result

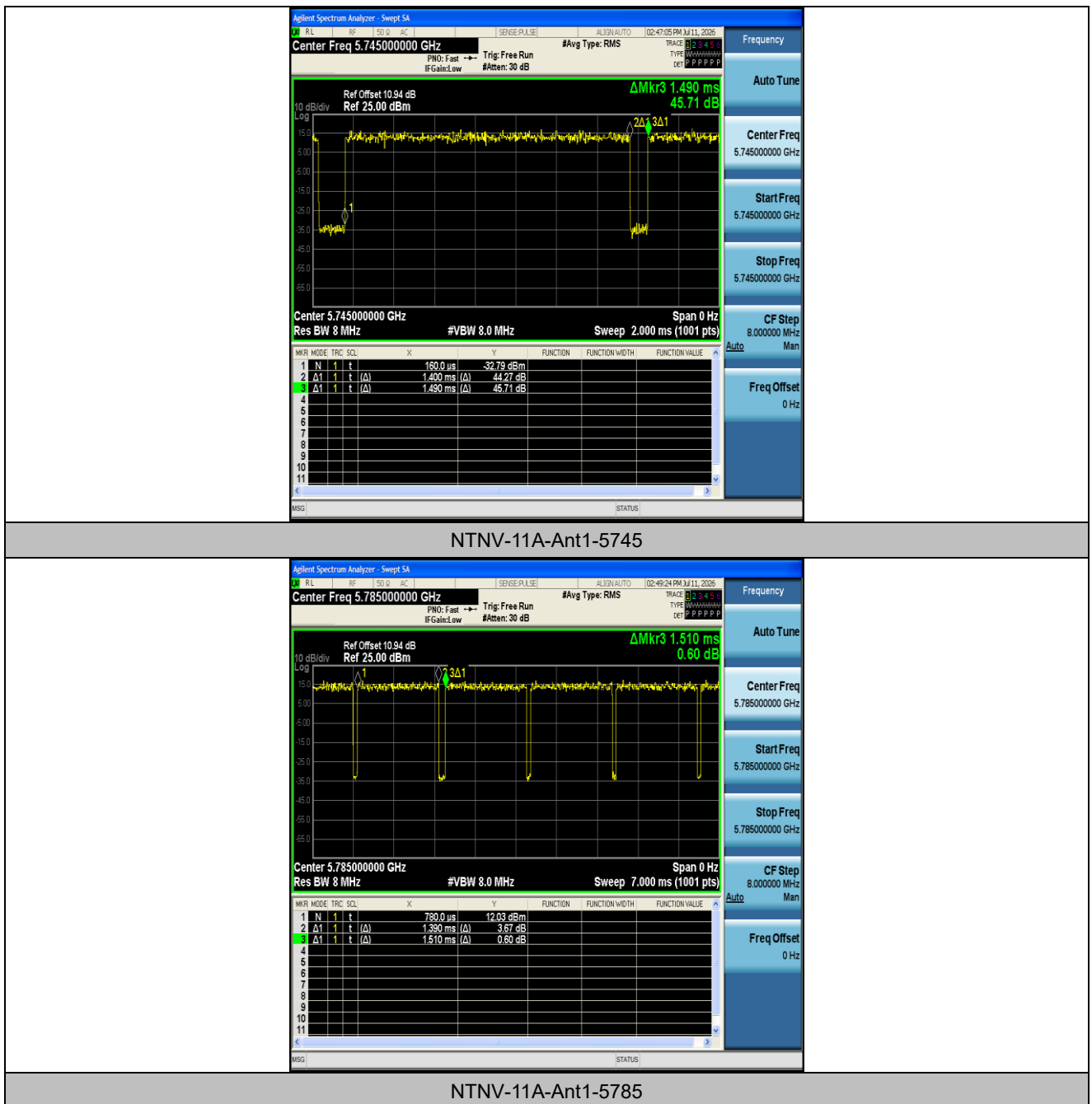
Test Mode	Antenna	Frequency [MHz]	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	Dc. Factor [%]	1/T
11A	Ant1	5745	1.40	1.49	93.96	0.27	0.71
11A	Ant1	5785	1.39	1.51	92.05	0.36	0.72
11A	Ant1	5825	1.39	1.50	92.67	0.33	0.72
11N20SISO	Ant1	5745	0.54	0.72	75.00	1.25	1.85
11N20SISO	Ant1	5785	0.55	0.65	84.62	0.73	1.82
11N20SISO	Ant1	5825	0.54	0.71	76.06	1.19	1.85
11N40SISO	Ant1	5755	0.53	0.73	72.60	1.39	1.89
11N40SISO	Ant1	5795	0.53	0.66	80.30	0.95	1.89
11AC20SISO	Ant1	5745	0.47	0.64	73.44	1.34	2.13
11AC20SISO	Ant1	5785	0.46	0.58	79.31	1.01	2.17
11AC20SISO	Ant1	5825	0.46	0.64	71.88	1.43	2.17
11AC40SISO	Ant1	5755	0.41	0.56	73.21	1.35	2.44
11AC40SISO	Ant1	5795	0.41	0.63	65.08	1.87	2.44

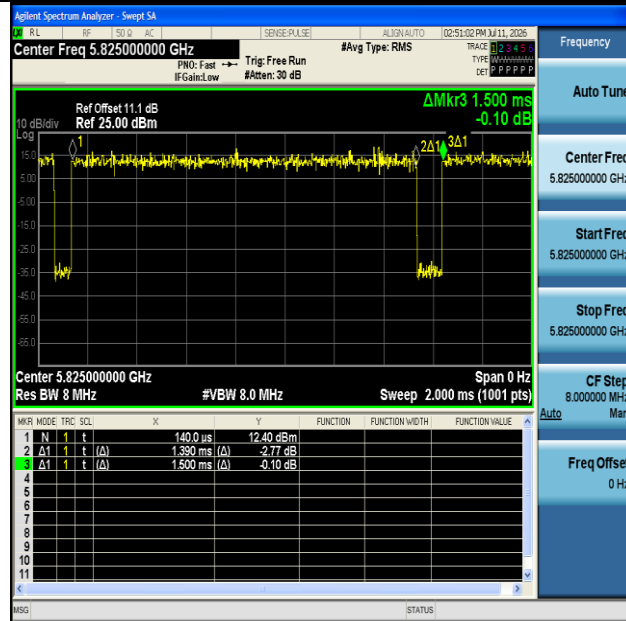
Note: offset(dB) = cable loss(dB) + attenuator factor(dB)



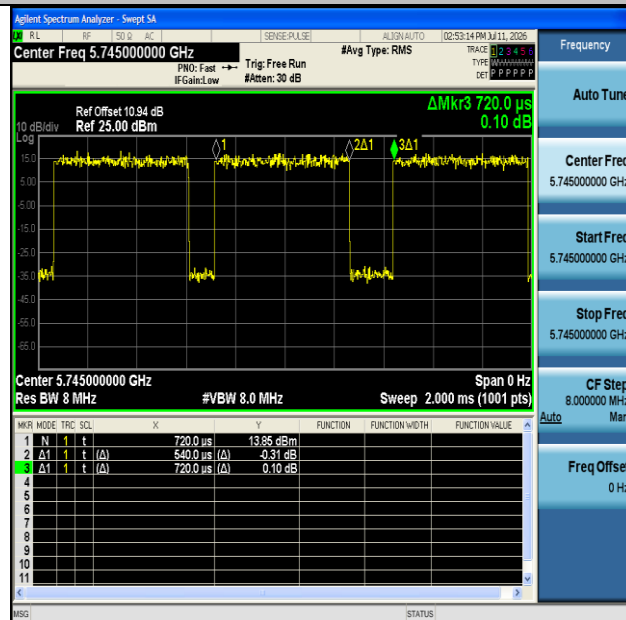


Test Graphs



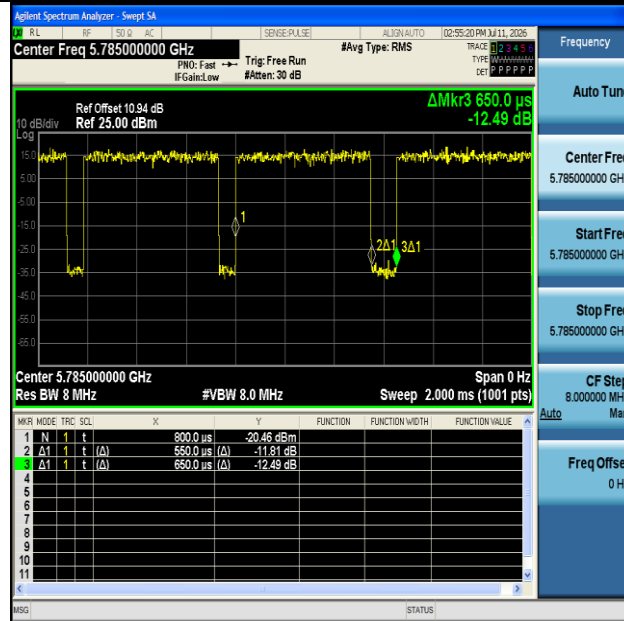


NTNV-11A-Ant1-5825

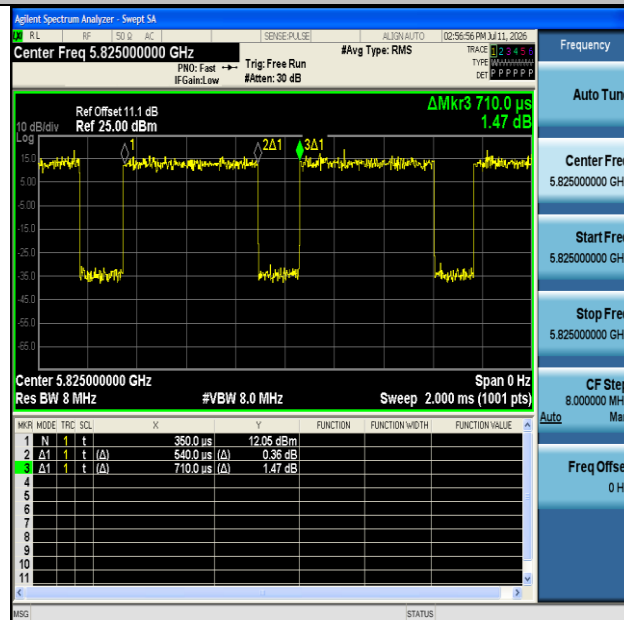


NTNV-11N20SISO-Ant1-5745





NTNV-11N20SISO-Ant1-5785

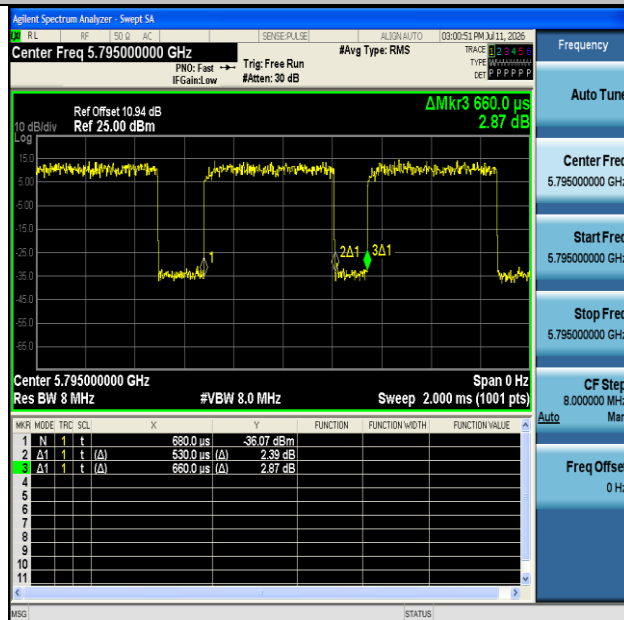


NTNV-11N20SISO-Ant1-5825



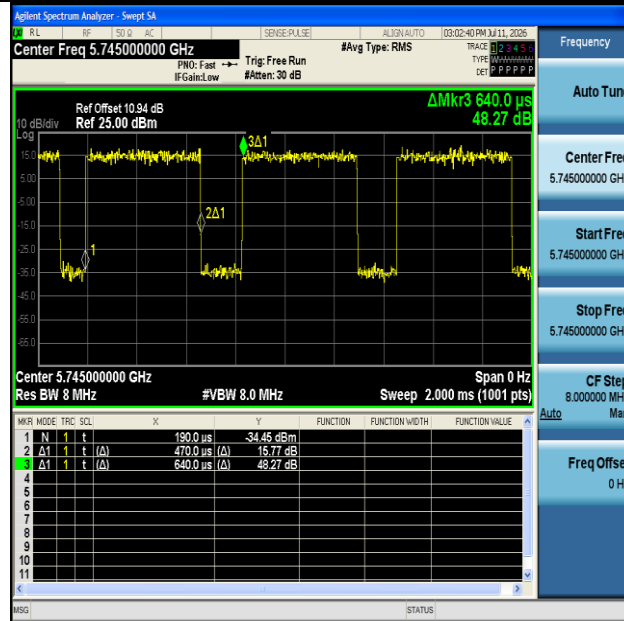


NTVN-11N40SISO-Ant1-5755

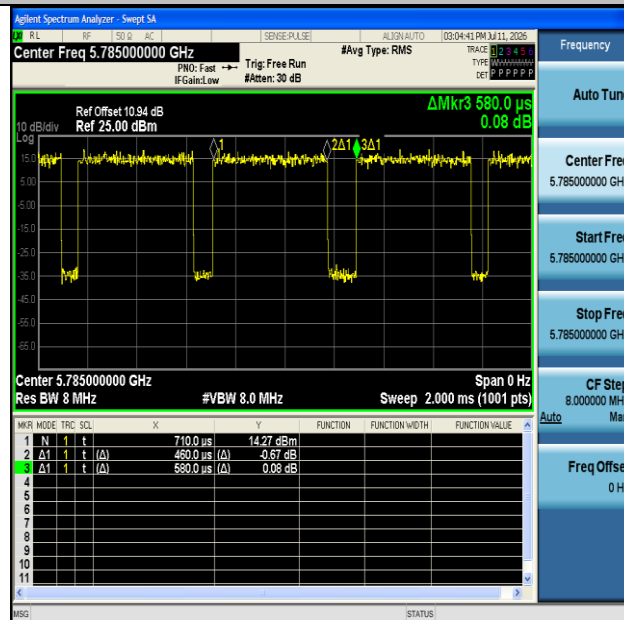


NTVN-11N40SISO-Ant1-5795





NTNV-11AC20SISO-Ant1-5745



NTNV-11AC20SISO-Ant1-5785

