RF Test Data for RLAN(5.8G) (Conducted Measurement)

Product Name: OTT BOX+GPON

Trade Mark: N/A

Test Model: SD5BGD

FCC ID: 2AQLF-SD5BGX

Environmental Conditions

Temperature:	25.5°C
Relative Humidity:	55.2%
ATM Pressure:	100.0 kPa
Test Engineer:	Anna Hu
Supervised by:	Hugo Chen
NOTE	N/A

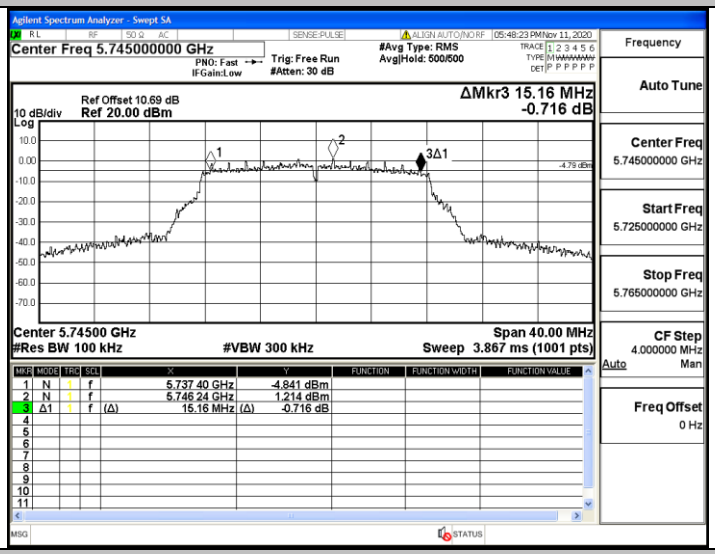
Appendix A: Min emission bandwidth

Test Result

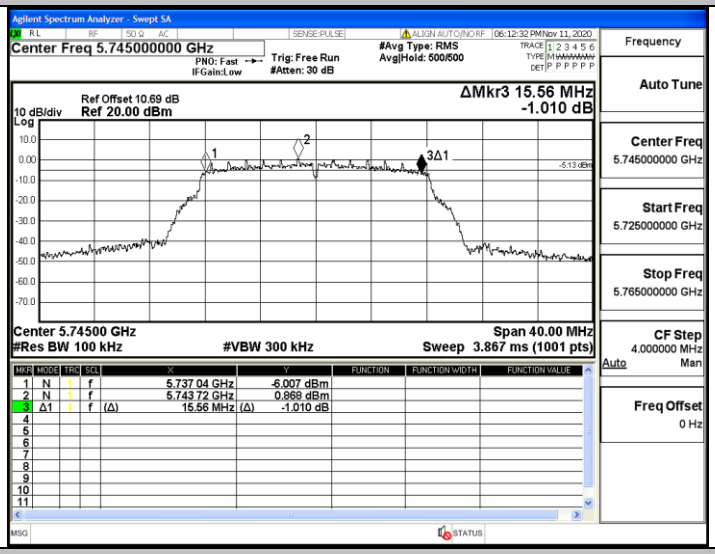
TestMode	Antenna	Channel	6db EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5745	15.160	5737.400	5752.560	0.5	PASS
	Ant2	5745	15.560	5737.040	5752.600	0.5	PASS
	Ant1	5785	15.160	5777.400	5792.560	0.5	PASS
	Ant2	5785	15.200	5777.400	5792.600	0.5	PASS
	Ant1	5825	15.200	5817.400	5832.600	0.5	PASS
	Ant2	5825	15.080	5817.400	5832.480	0.5	PASS
11N20MIMO	Ant1	5745	15.760	5736.800	5752.560	0.5	PASS
	Ant2	5745	15.160	5737.400	5752.560	0.5	PASS
	Ant1	5785	15.160	5777.400	5792.560	0.5	PASS
	Ant2	5785	15.200	5777.400	5792.600	0.5	PASS
	Ant1	5825	15.200	5817.400	5832.600	0.5	PASS
	Ant2	5825	15.160	5817.400	5832.560	0.5	PASS
11N40MIMO	Ant1	5755	35.360	5737.240	5772.600	0.5	PASS
	Ant2	5755	35.280	5737.320	5772.600	0.5	PASS
	Ant1	5795	35.280	5777.320	5812.600	0.5	PASS
	Ant2	5795	35.280	5777.320	5812.600	0.5	PASS
11AC20MIMO	Ant1	5745	15.160	5737.400	5752.560	0.5	PASS
	Ant2	5745	15.200	5737.400	5752.600	0.5	PASS
	Ant1	5785	15.200	5777.400	5792.600	0.5	PASS
	Ant2	5785	15.200	5777.400	5792.600	0.5	PASS
	Ant1	5825	15.160	5817.400	5832.560	0.5	PASS
	Ant2	5825	15.200	5817.400	5832.600	0.5	PASS
11AC40MIMO	Ant1	5755	35.280	5737.320	5772.600	0.5	PASS
	Ant2	5755	35.280	5737.320	5772.600	0.5	PASS
	Ant1	5795	35.280	5777.320	5812.600	0.5	PASS
	Ant2	5795	35.280	5777.320	5812.600	0.5	PASS
11AC80MIMO	Ant1	5775	75.520	5737.240	5812.760	0.5	PASS
	Ant2	5775	75.520	5737.240	5812.760	0.5	PASS

Test Graphs

11A_Ant1_5745



11A_Ant2_5745



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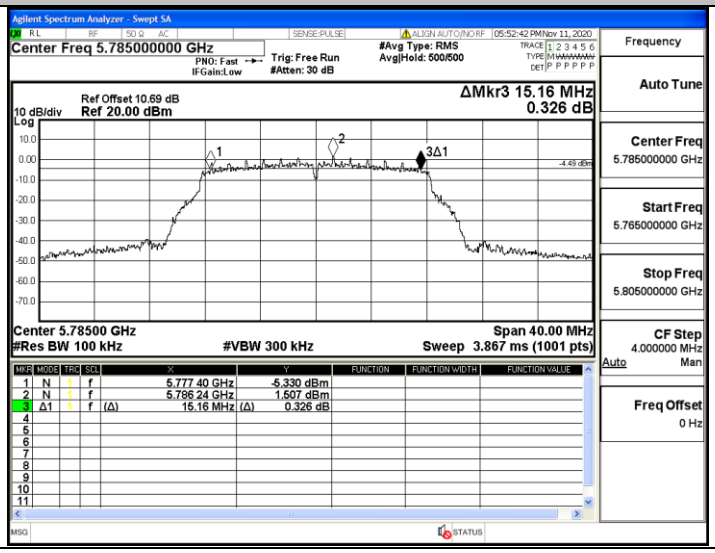

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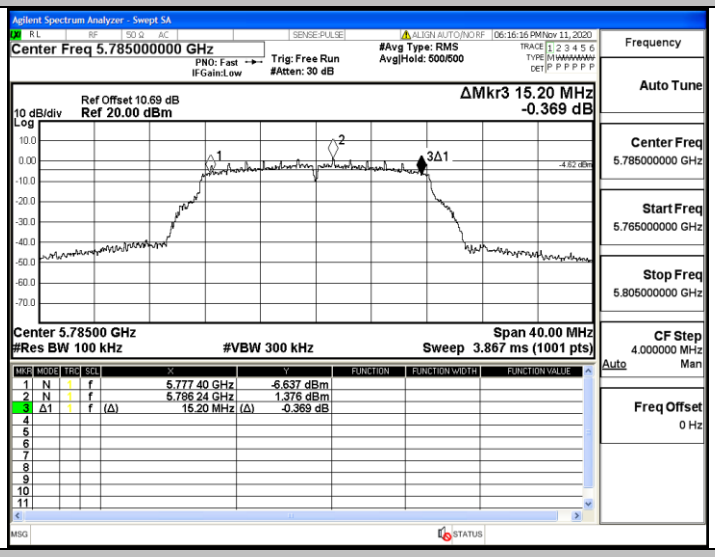

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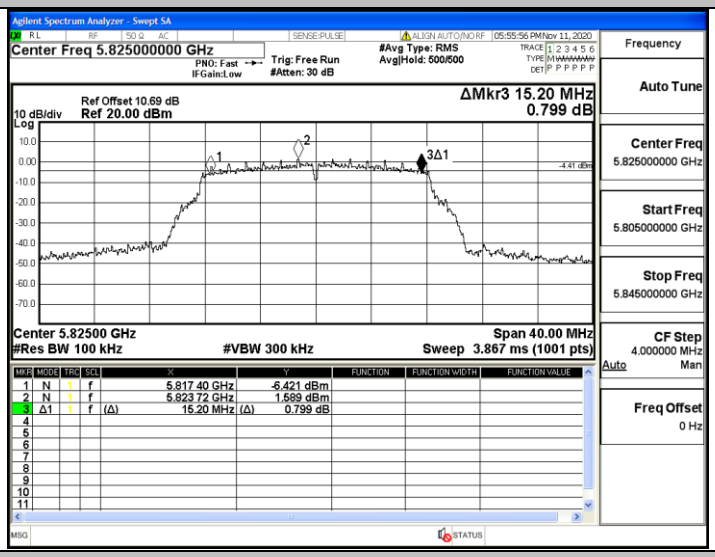

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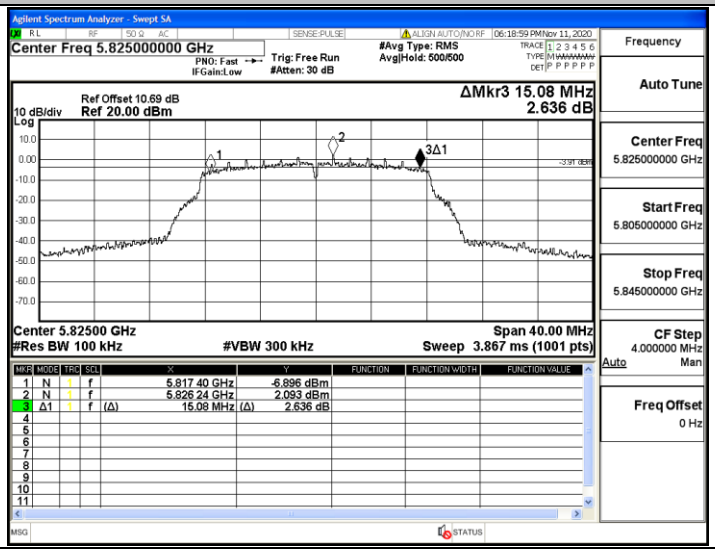

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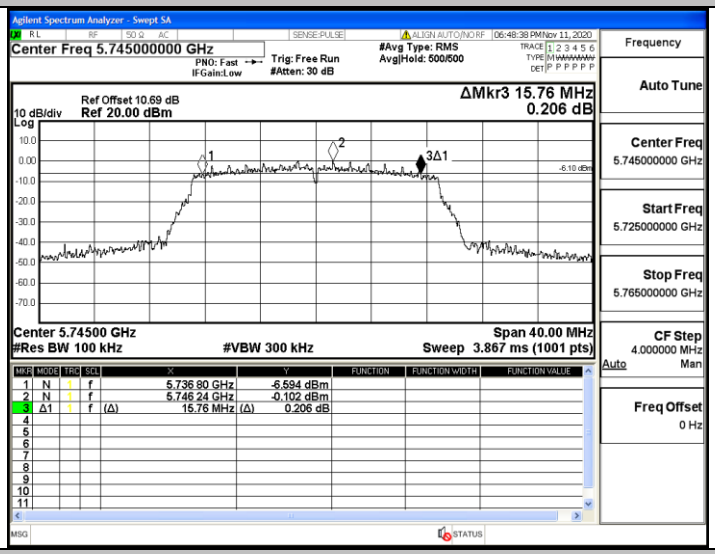

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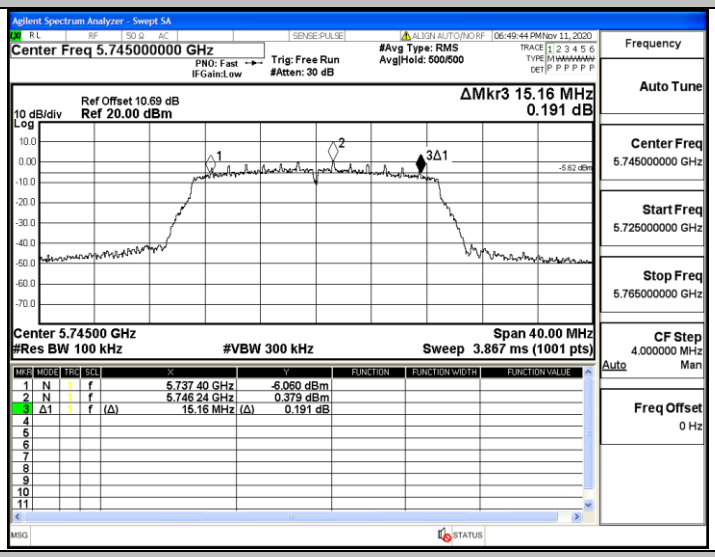

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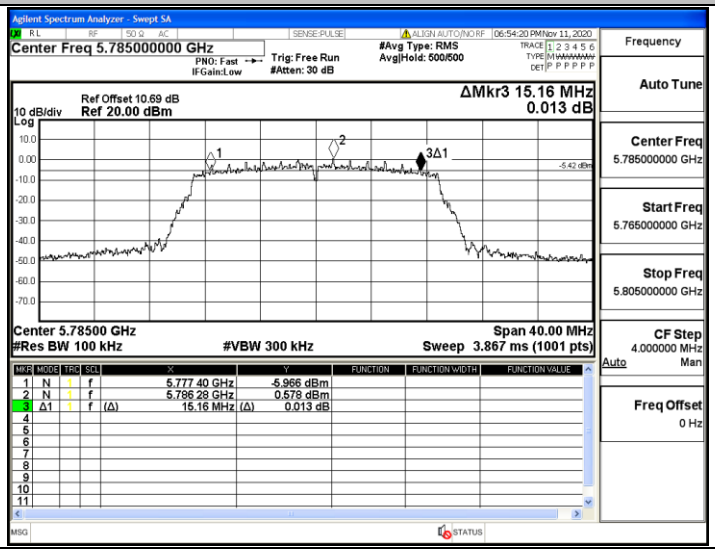

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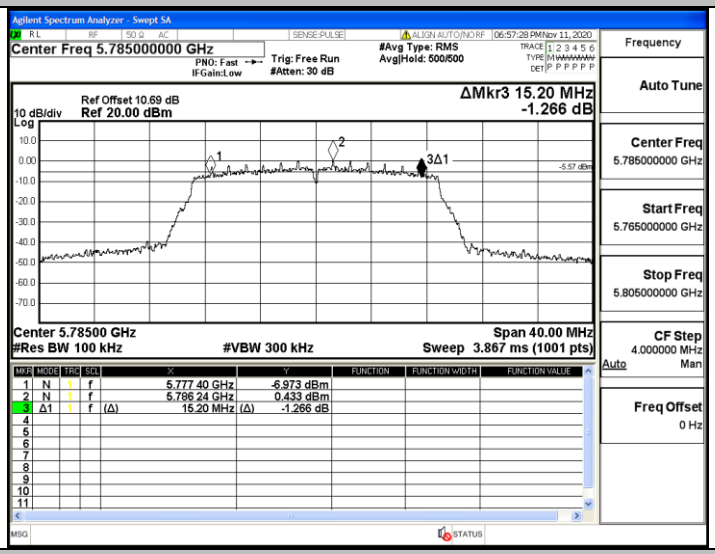
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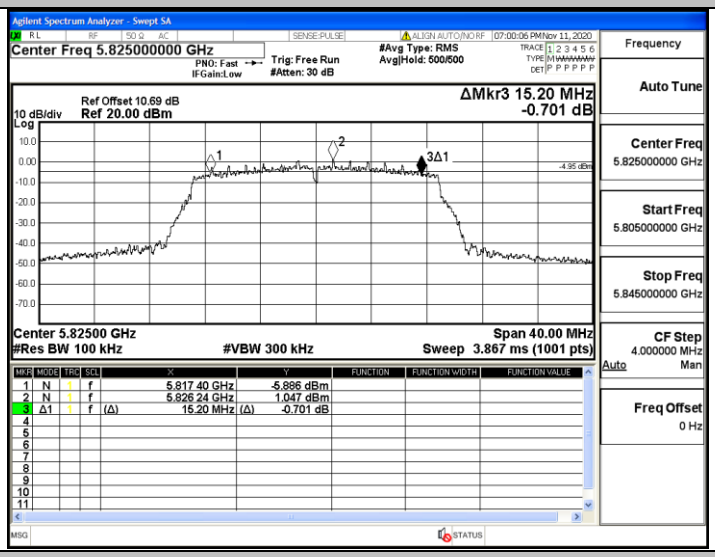
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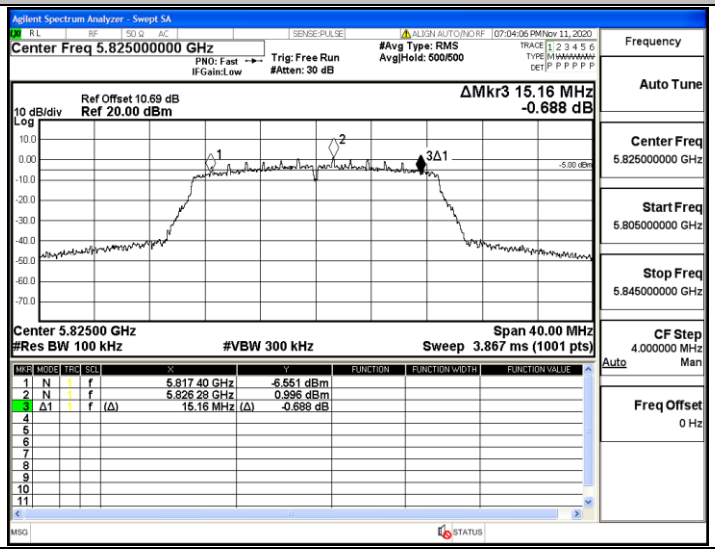

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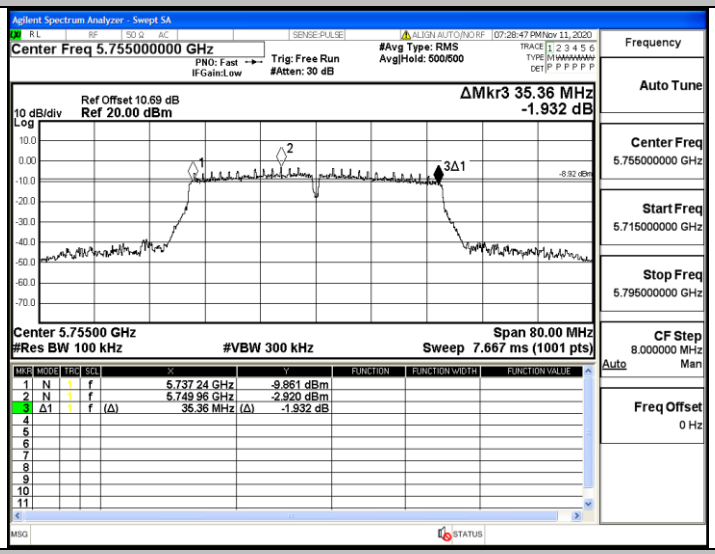

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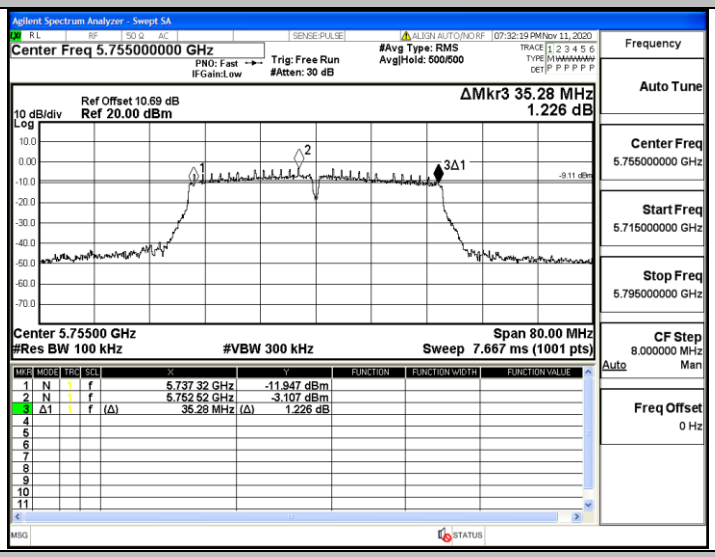

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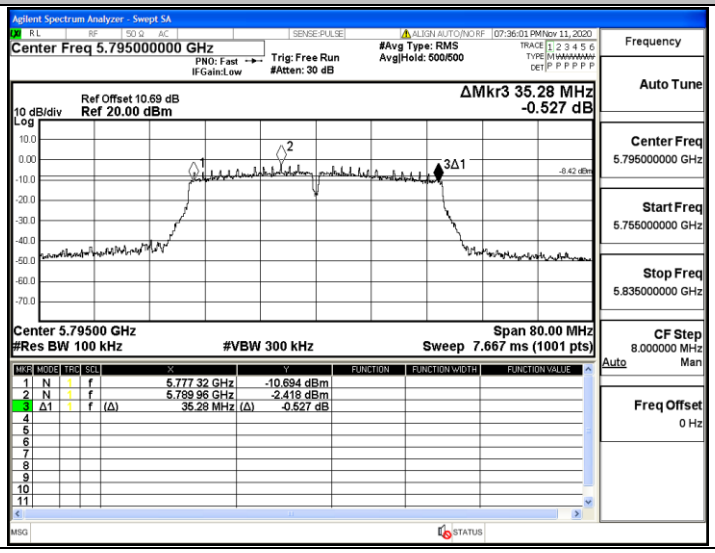

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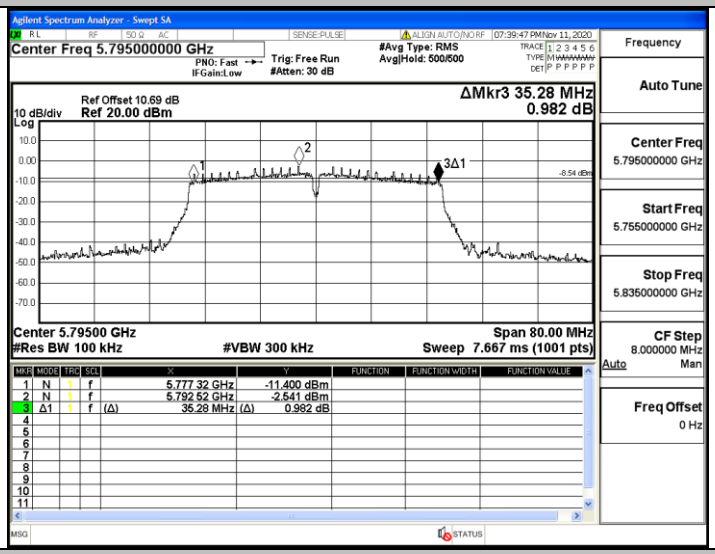
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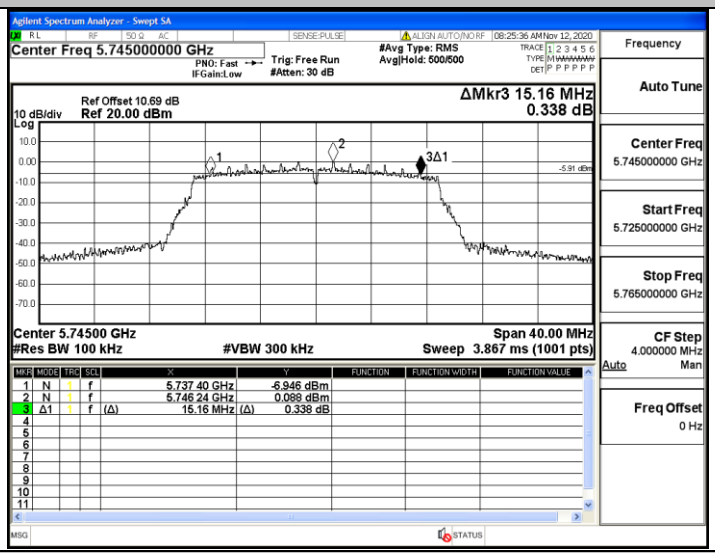
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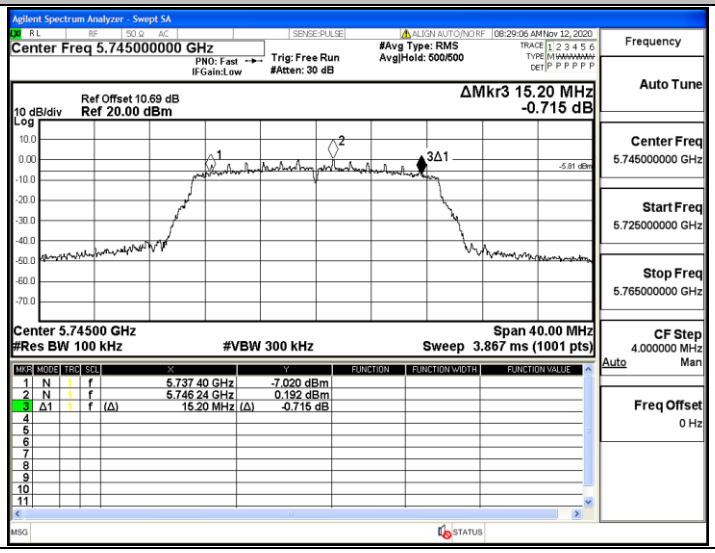

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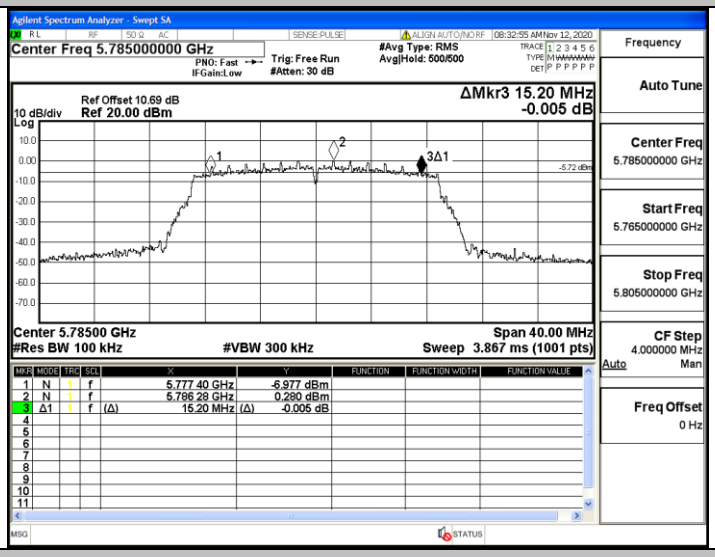

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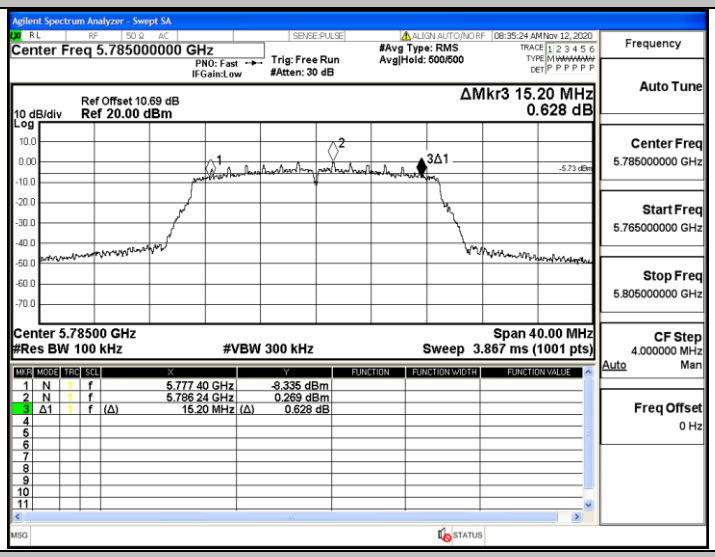

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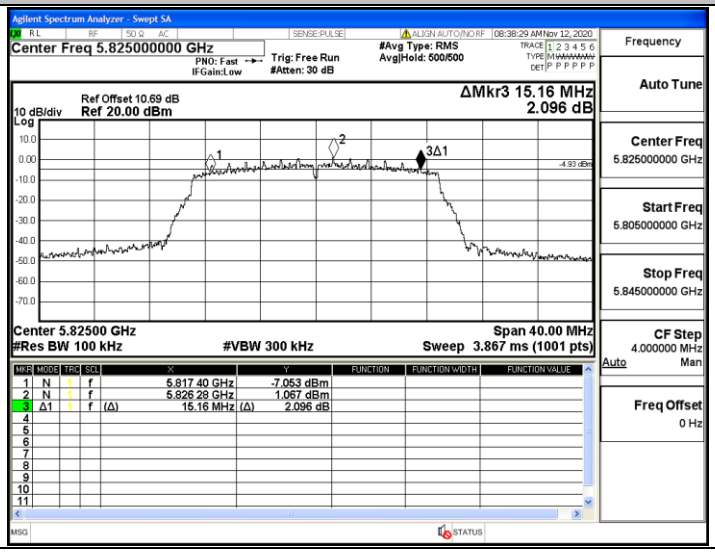

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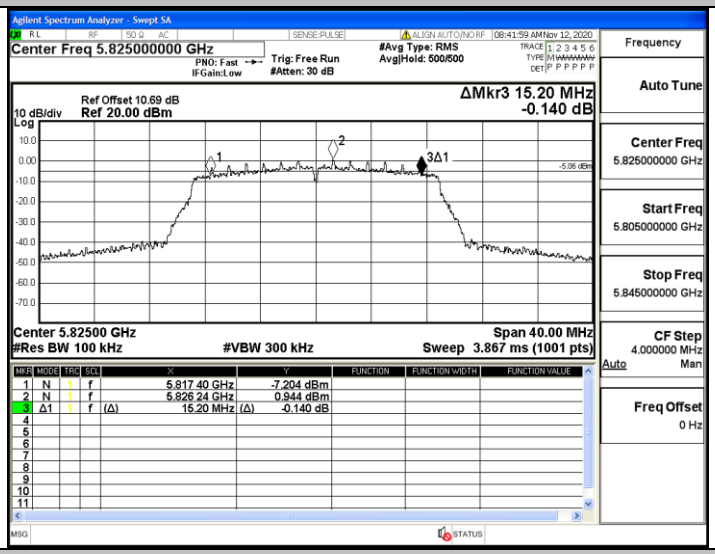
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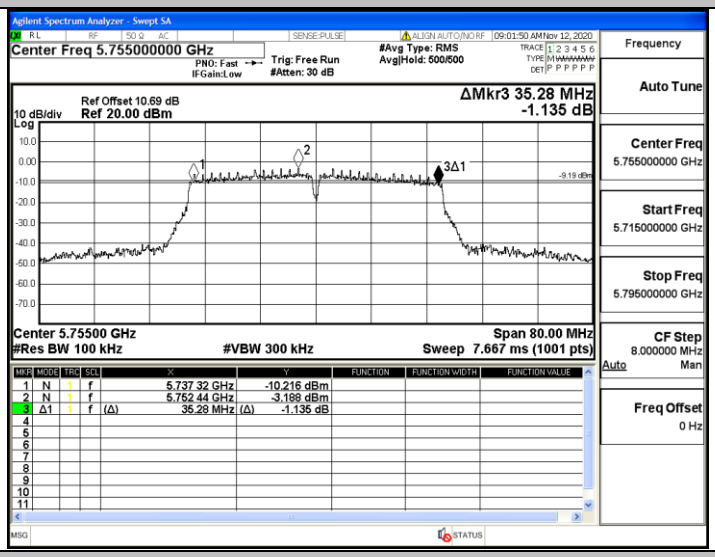
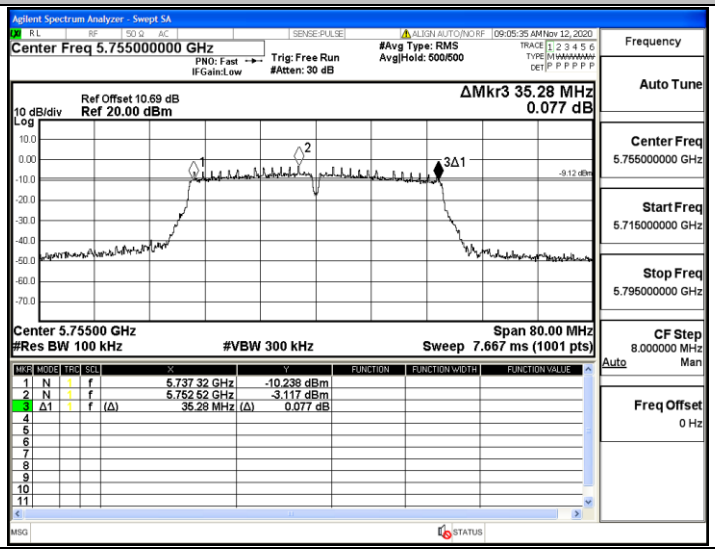

11AC40MIMO_Ant2_5755


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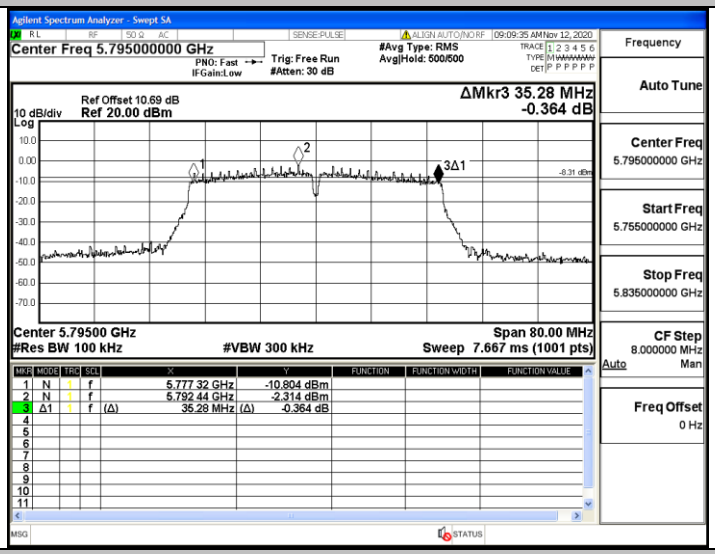
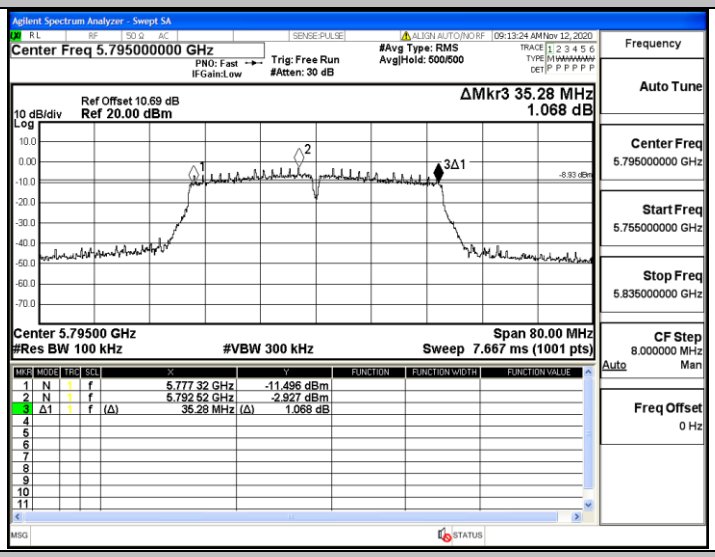

11AC40MIMO_Ant2_5795

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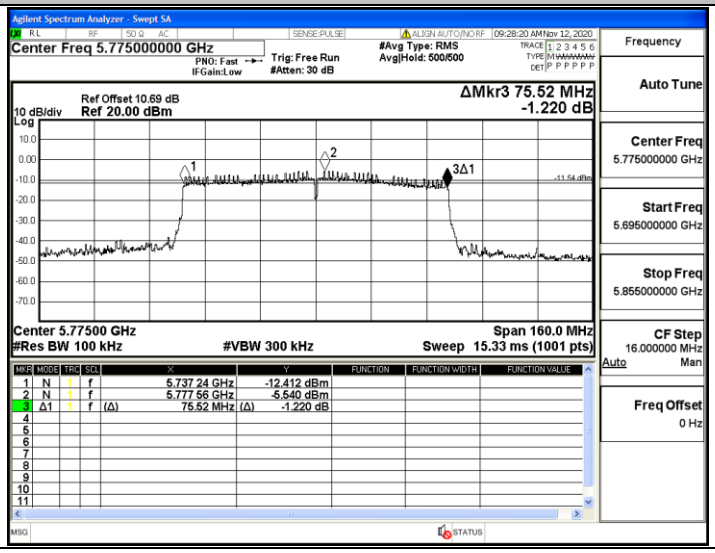

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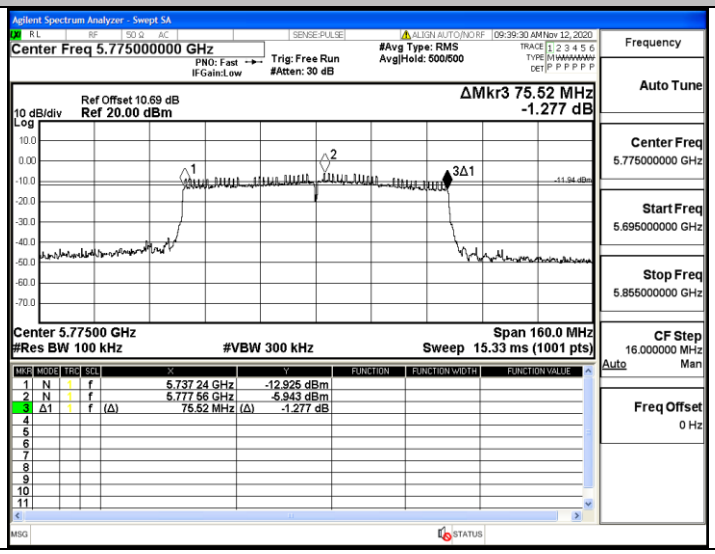


Appendix B: Maximum conducted output power

Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
11A	Ant0	5745	11.21	30.00	PASS
	Ant1	5745	11.27	30.00	PASS
	Ant0	5785	11.50	30.00	PASS
	Ant1	5785	11.37	30.00	PASS
	Ant0	5825	12.13	30.00	PASS
	Ant1	5825	11.83	30.00	PASS
11N20MIMO	Ant0	5745	10.14	30.00	PASS
	Ant1	5745	10.08	30.00	PASS
	total	5745	13.1	29.19	PASS
	Ant0	5785	10.43	30.00	PASS
	Ant1	5785	10.21	30.00	PASS
	total	5785	13.3	29.19	PASS
	Ant0	5825	10.96	30.00	PASS
	Ant1	5825	10.74	30.00	PASS
	total	5825	13.9	29.19	PASS
11N40MIMO	Ant0	5755	9.87	30.00	PASS
	Ant1	5755	9.87	30.00	PASS
	total	5755	12.9	29.19	PASS
	Ant0	5795	10.31	30.00	PASS
	Ant1	5795	10.17	30.00	PASS
	total	5795	13.3	29.19	PASS
11AC20MIMO	Ant0	5745	10.02	30.00	PASS
	Ant1	5745	9.96	30.00	PASS
	total	5745	13.0	29.19	PASS
	Ant0	5785	10.33	30.00	PASS
	Ant1	5785	10.09	30.00	PASS
	total	5785	13.2	29.19	PASS
	Ant0	5825	11.03	30.00	PASS
	Ant1	5825	10.59	30.00	PASS
	total	5825	13.8	29.19	PASS
11AC40MIMO	Ant0	5755	9.96	30.00	PASS
	Ant1	5755	9.74	30.00	PASS
	total	5755	12.9	29.19	PASS
	Ant0	5795	10.32	30.00	PASS
	Ant1	5795	10.06	30.00	PASS
	total	5795	13.2	29.19	PASS
11AC80MIMO	Ant0	5775	10.01	30.00	PASS
	Ant1	5775	9.84	30.00	PASS
	total	5775	12.9	29.19	PASS

Note：The Duty Cycle Factor is compensated in the graph.

Appendix C: Maximum power spectral density

Test Result

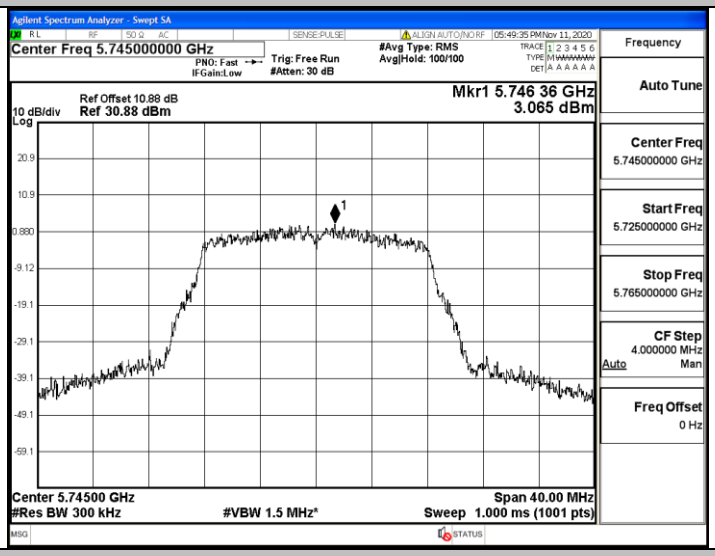
TestMode	Antenna	Channel	Result [dBm/MHz]	Limit[dBm/MHz]	Verdict
11A	Ant1	5745	3.07	<=30.00	PASS
	Ant2	5745	2.61	<=30.00	PASS
	Ant1	5785	3.02	<=30.00	PASS
	Ant2	5785	3.42	<=30.00	PASS
	Ant1	5825	3.79	<=30.00	PASS
	Ant2	5825	2.84	<=30.00	PASS
11N20MIMO	Ant1	5745	2.06	<=30.00	PASS
	Ant2	5745	1.24	<=30.00	PASS
	total	5745	4.68	<=29.19	PASS
	Ant1	5785	1.58	<=30.00	PASS
	Ant2	5785	1.23	<=30.00	PASS
	total	5785	4.42	<=29.19	PASS
	Ant1	5825	1.87	<=30.00	PASS
	Ant2	5825	1.78	<=30.00	PASS
	total	5825	4.84	<=29.19	PASS
11N40MIMO	Ant1	5755	-1.54	<=30.00	PASS
	Ant2	5755	-1.76	<=30.00	PASS
	total	5755	1.36	<=29.19	PASS
	Ant1	5795	-0.67	<=30.00	PASS
	Ant2	5795	-0.82	<=30.00	PASS
	total	5795	2.27	<=29.19	PASS
11AC20MIMO	Ant1	5745	1.48	<=30.00	PASS
	Ant2	5745	1.21	<=30.00	PASS
	total	5745	4.36	<=29.19	PASS
	Ant1	5785	2.05	<=30.00	PASS
	Ant2	5785	1.34	<=30.00	PASS
	total	5785	4.72	<=29.19	PASS
	Ant1	5825	2.68	<=30.00	PASS
	Ant2	5825	1.46	<=30.00	PASS
	total	5825	5.12	<=29.19	PASS
11AC40MIMO	Ant1	5755	-0.99	<=30.00	PASS
	Ant2	5755	-1.96	<=30.00	PASS
	total	5755	1.56	<=29.19	PASS
	Ant1	5795	0.45	<=30.00	PASS
	Ant2	5795	-1.78	<=30.00	PASS
	total	5795	2.49	<=29.19	PASS
11AC80MIMO	Ant1	5775	-3.81	<=30.00	PASS
	Ant2	5775	-4.56	<=30.00	PASS
	total	5775	-1.16	<=29.19	PASS

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

2.The Duty Cycle Factor and RBW Factor is compensated in the graph.

Test Graphs

11A_Ant1_5745



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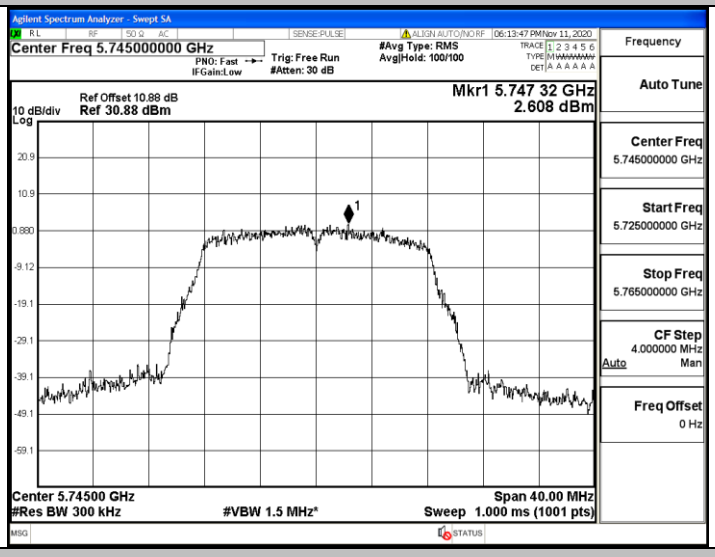

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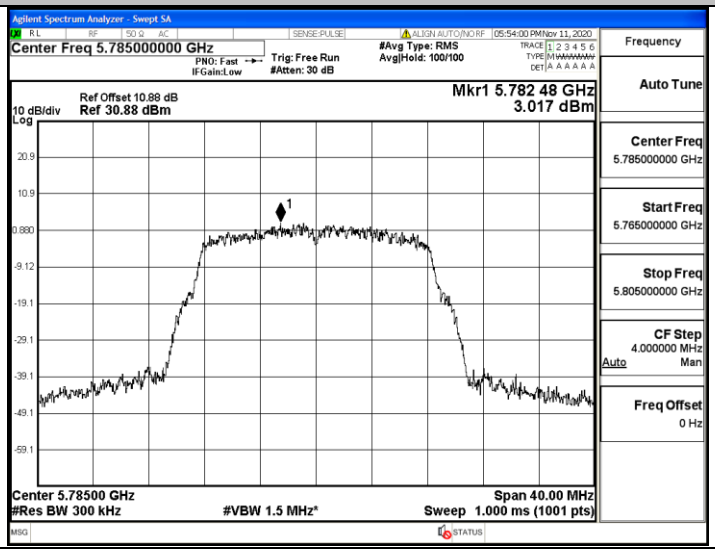

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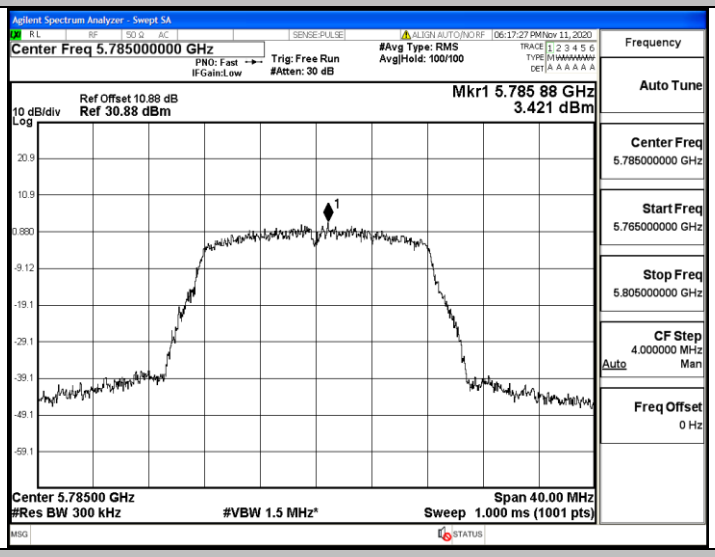

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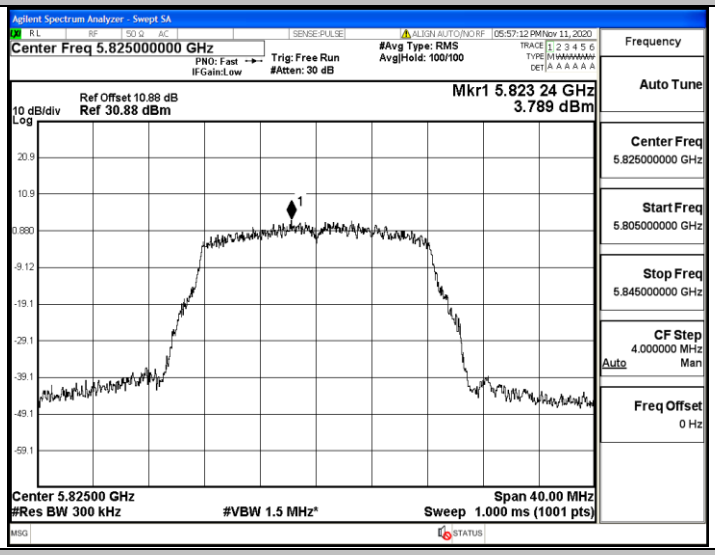

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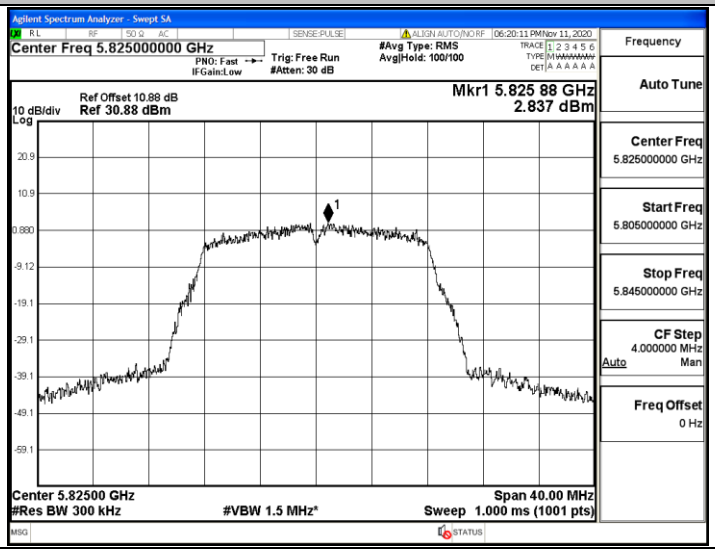

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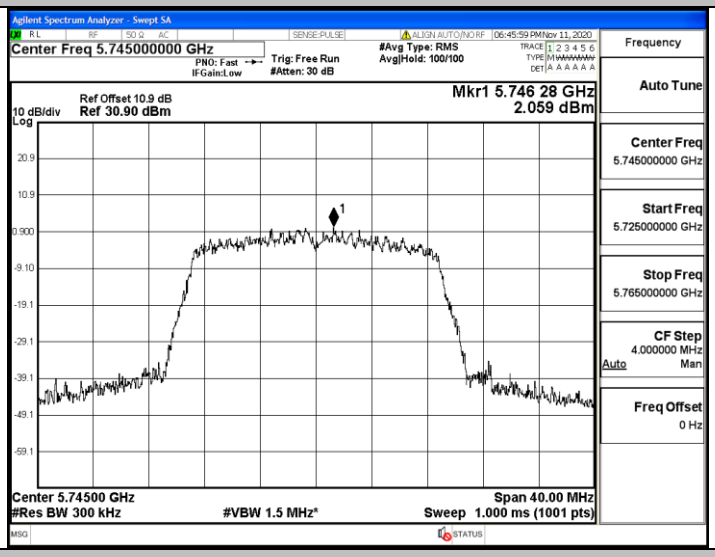
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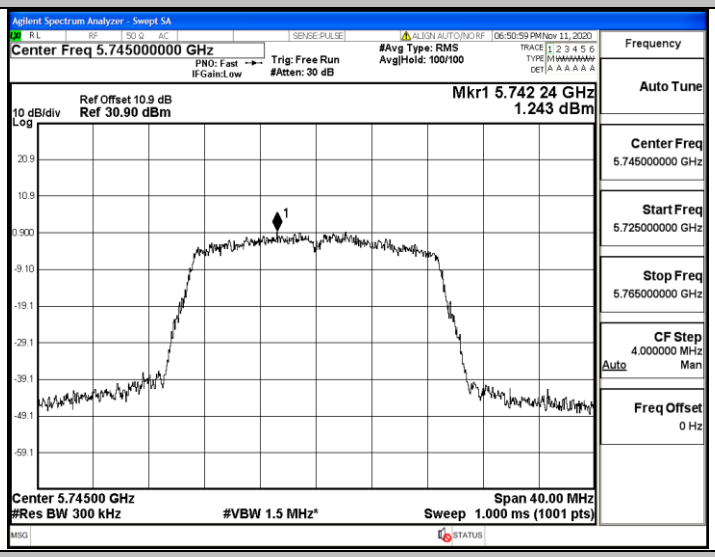
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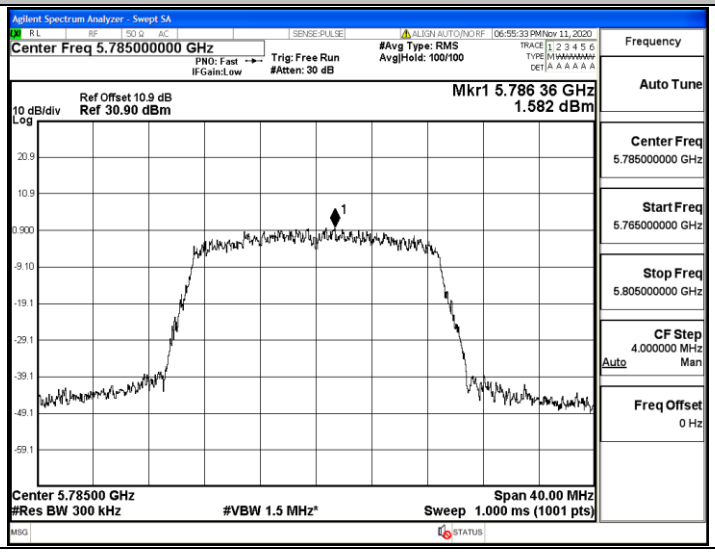

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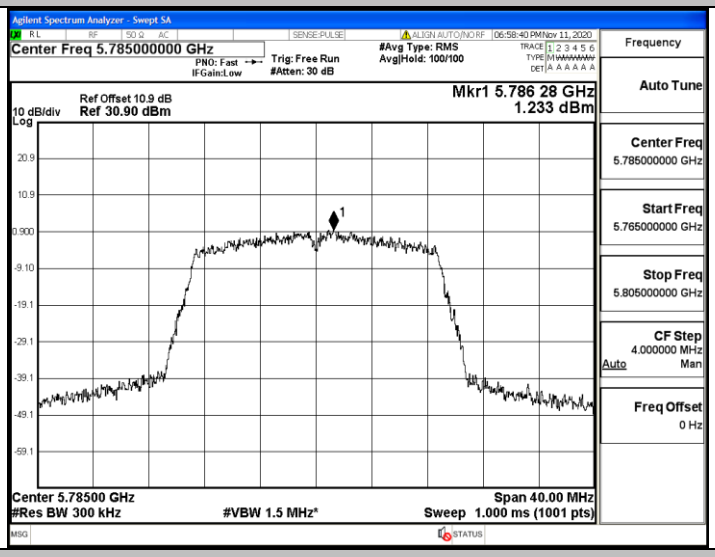
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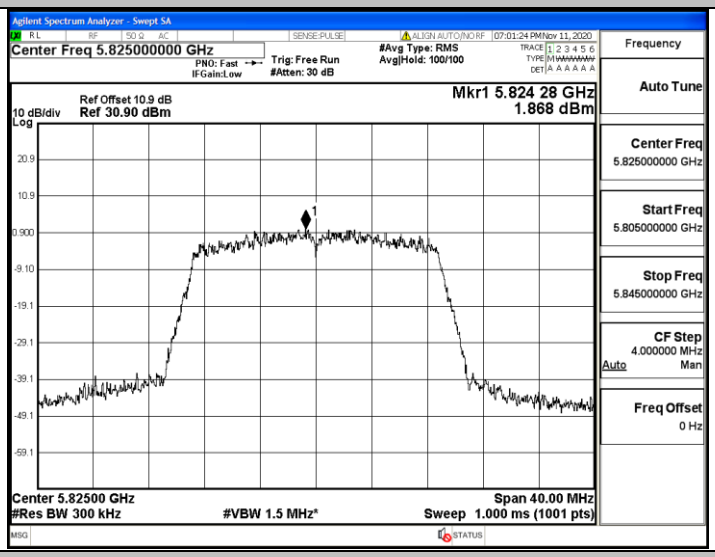
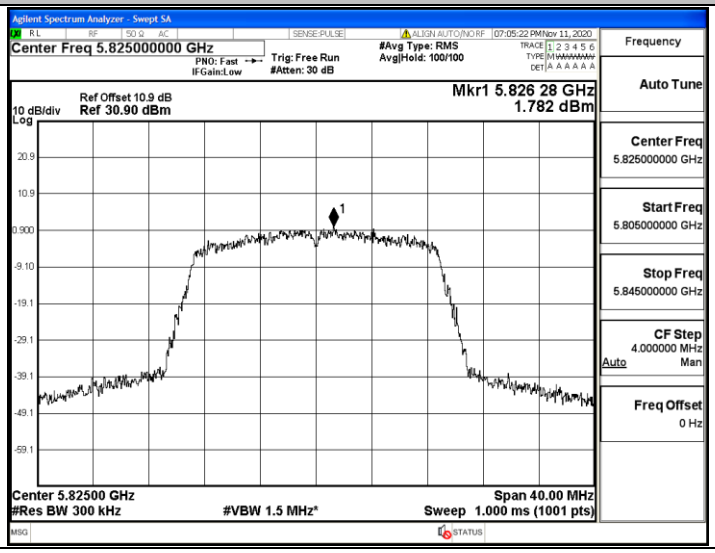
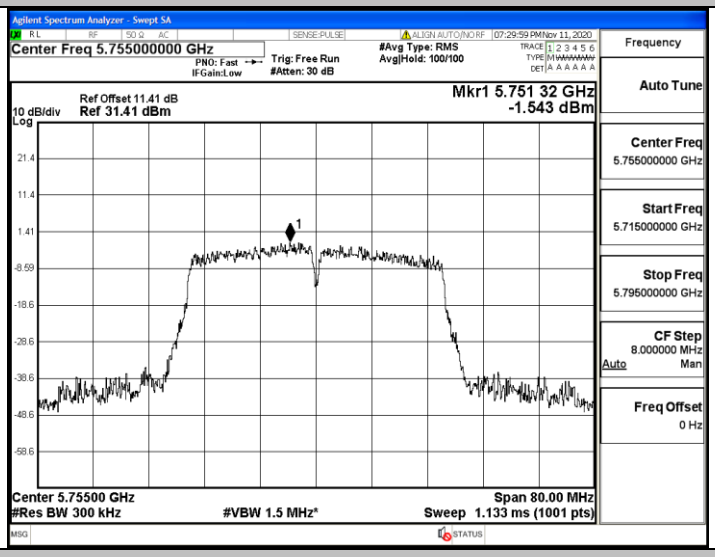

11N20MIMO_Ant2_5825


11N40MIMO_Ant1_5755

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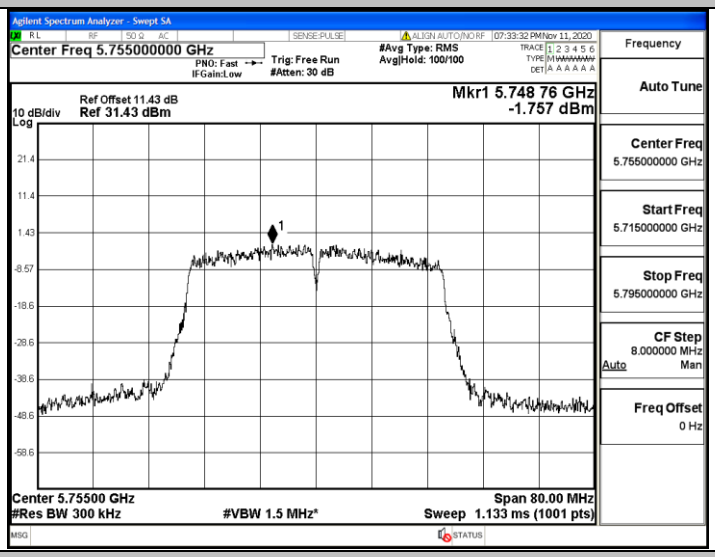
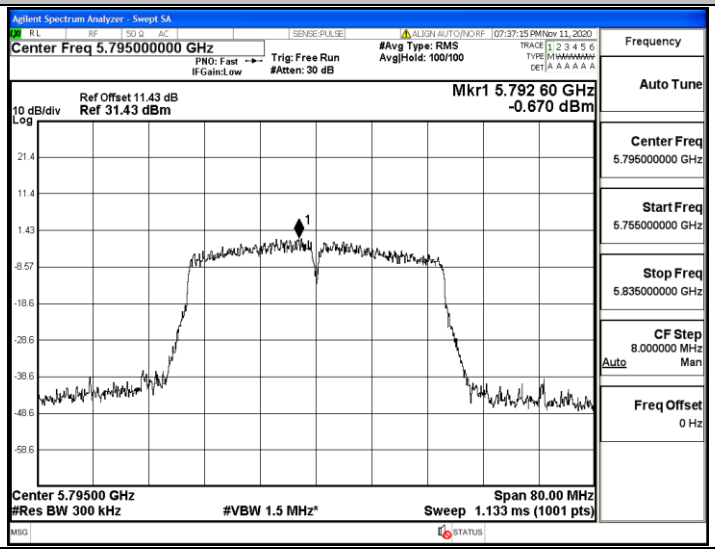

11N40MIMO_Ant1_5795


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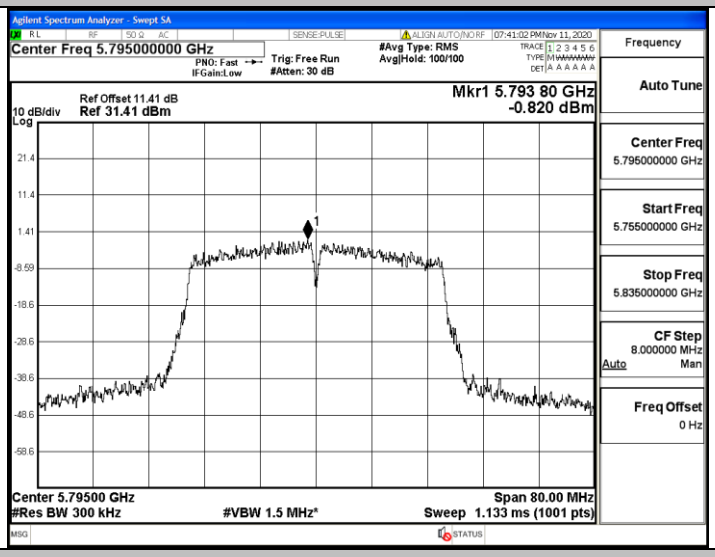
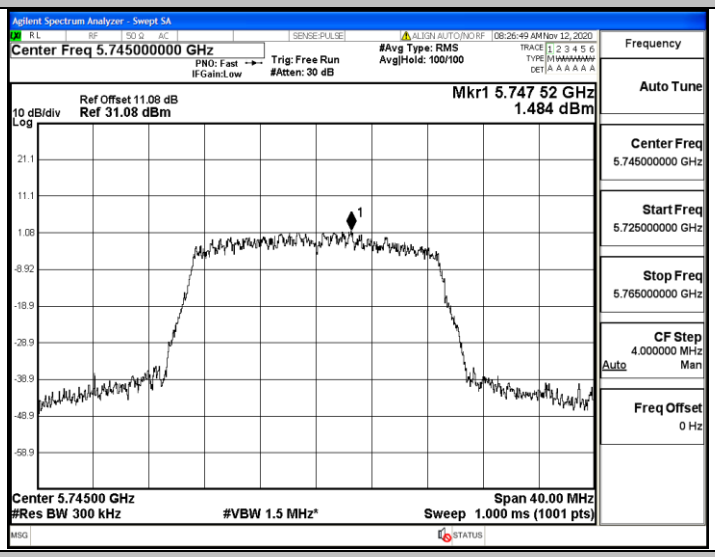
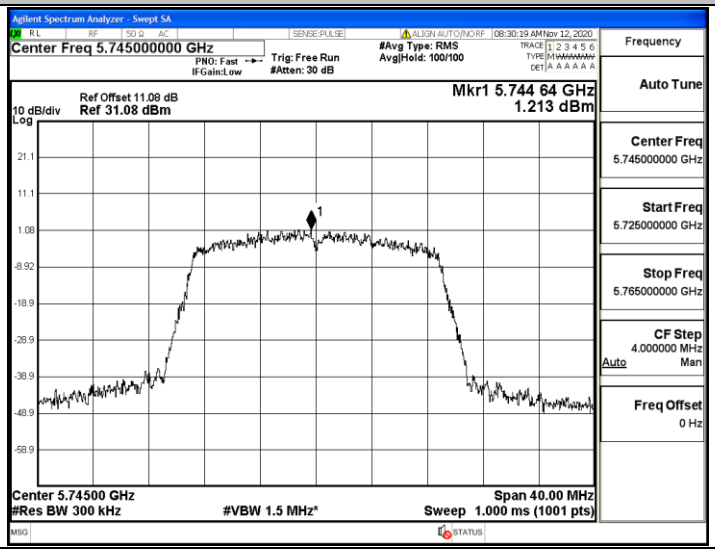
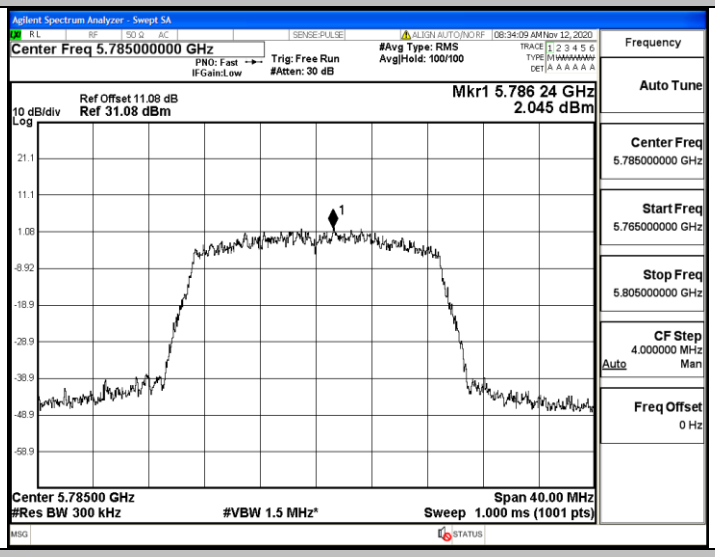
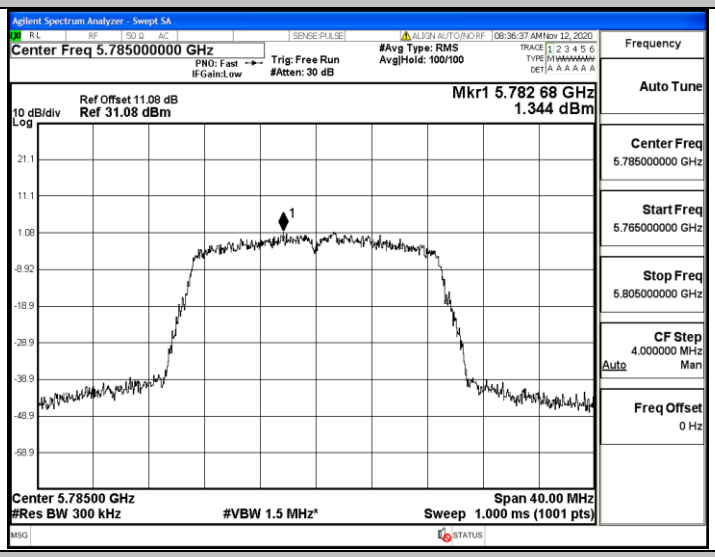

11AC20MIMO_Ant1_5745

11AC20MIMO_Ant2_5745


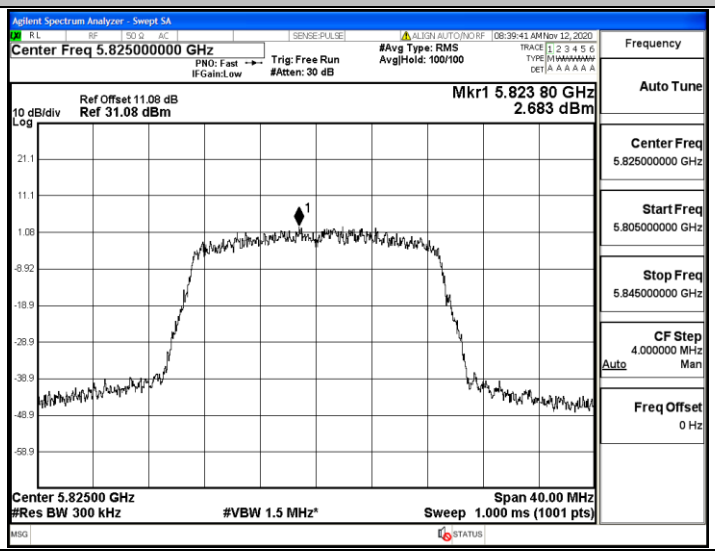
11AC20MIMO_Ant1_5785



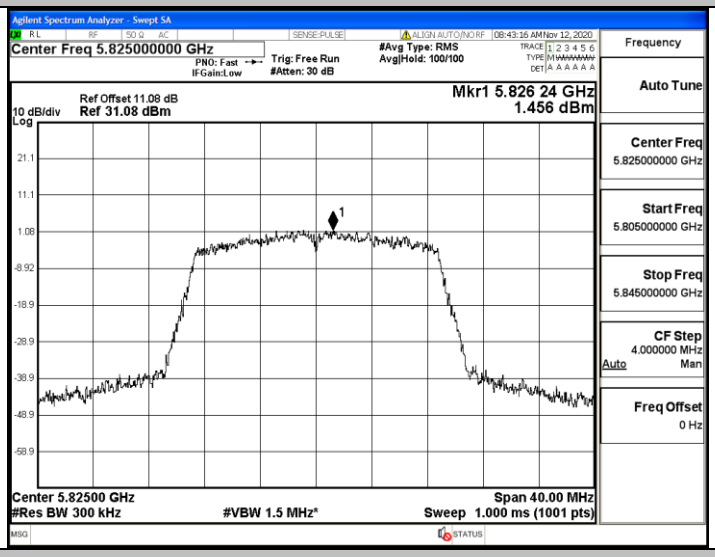
11AC20MIMO_Ant2_5785



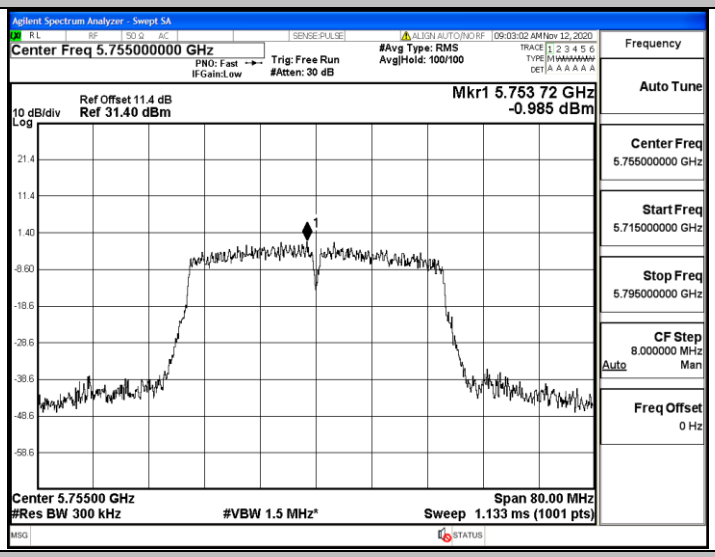
11AC20MIMO_Ant1_5825



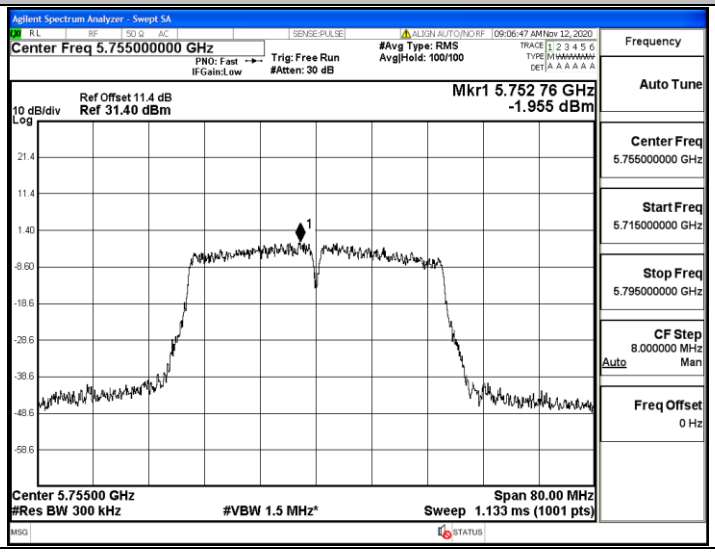
11AC20MIMO_Ant2_5825



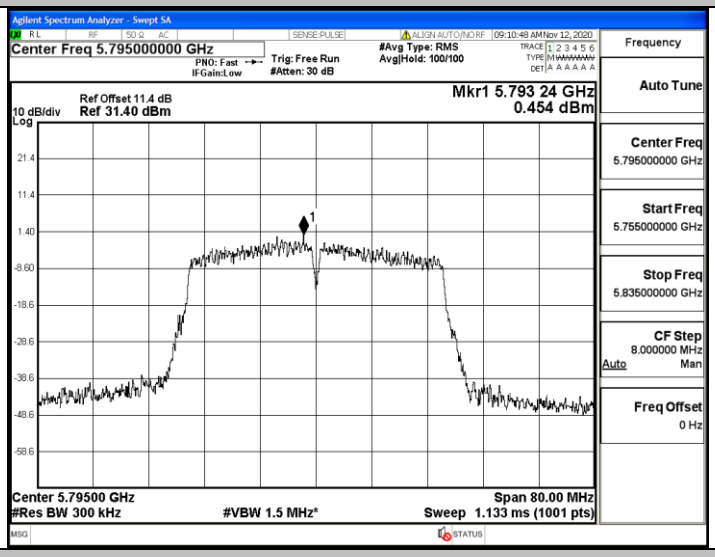
11AC40MIMO_Ant1_5755



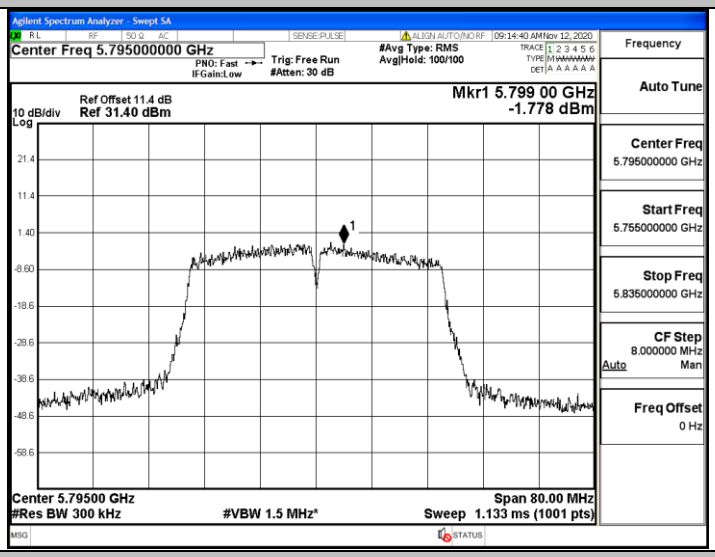
11AC40MIMO_Ant2_5755



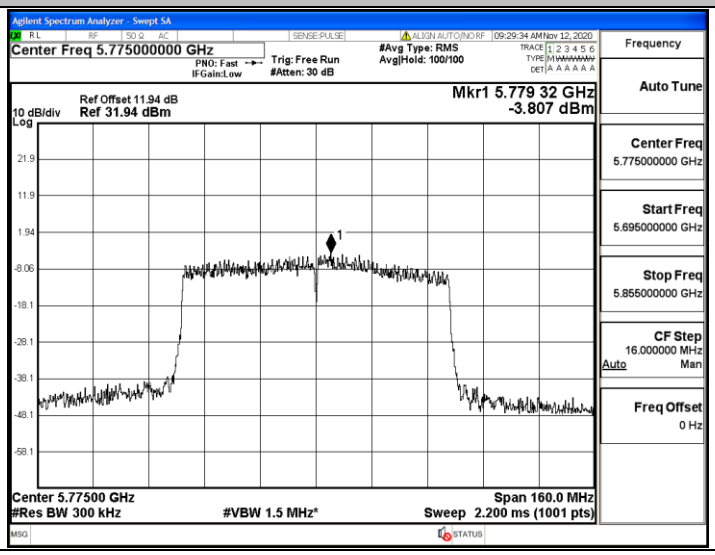
11AC40MIMO_Ant1_5795

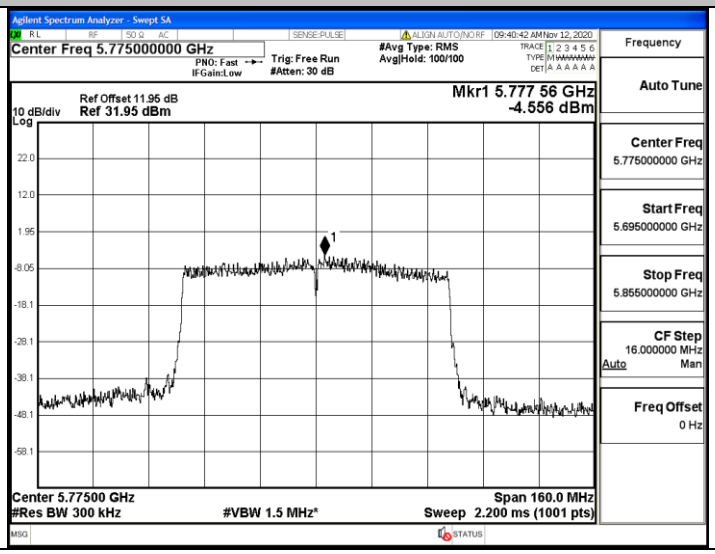


11AC40MIMO_Ant2_5795



11AC80MIMO_Ant1_5775



11AC80MIMO_Ant2_5775


Appendix D: Band edge measurements

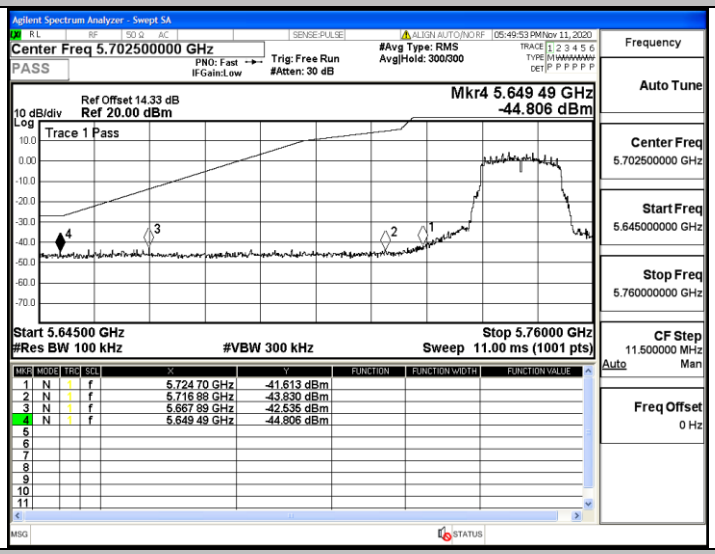
Test Result

TestMode	Antenna	ChName	Channel	FreqRange [MHz]	Result [dBm]	Limit [dBm]	Verdict
11A	Ant1	Low	5745	5650~5700	-42.54	<=-13.77	PASS
				5700~5720	-43.83	<=14.73	PASS
				5720~5725	-41.61	<=26.30	PASS
				5760~5650	-44.81	<=-27	PASS
	Ant2	Low	5745	5650~5700	-41.91	<=-15.64	PASS
				5700~5720	-43.37	<=15.21	PASS
				5720~5725	-42.84	<=26.30	PASS
				5760~5650	-44.25	<=-27	PASS
	Ant1	High	5825	5850~5855	-44.63	<=25.95	PASS
				5855~5875	-44.23	<=10.93	PASS
				5875~5925	-43.61	<=-22.06	PASS
				5925~5935	-44.61	<=-27	PASS
	Ant2	High	5825	5850~5855	-44.05	<=25.03	PASS
				5855~5875	-43.83	<=12.33	PASS
				5875~5925	-41.44	<=1.22	PASS
				5925~5935	-43.18	<=-27	PASS
11N20MIMO	Ant1	Low	5745	5650~5700	-42.82	<=-15.64	PASS
				5700~5720	-43.59	<=10.54	PASS
				5720~5725	-42.49	<=26.30	PASS
				5760~5650	-45.27	<=-27	PASS
	Ant2	Low	5745	5650~5700	-41.56	<=-16.49	PASS
				5700~5720	-44.32	<=13.89	PASS
				5720~5725	-42.5	<=25.78	PASS
				5760~5650	-44.85	<=-27	PASS
	Ant1	High	5825	5850~5855	-43.93	<=19.49	PASS
				5855~5875	-43.63	<=13.05	PASS
				5875~5925	-42.68	<=-4.28	PASS
				5925~5935	-44.59	<=-27	PASS
	Ant2	High	5825	5850~5855	-44.73	<=16.10	PASS
				5855~5875	-43.51	<=12.37	PASS
				5875~5925	-42.78	<=-1.78	PASS
				5925~5935	-44.35	<=-27	PASS
11N40MIMO	Ant1	Low	5755	5650~5700	-42.3	<=-5.53	PASS
				5700~5720	-39.09	<=15.16	PASS
				5720~5725	-38.12	<=21.28	PASS
				5780~5650	-45.23	<=-27	PASS
	Ant2	Low	5755	5650~5700	-43.53	<=1.87	PASS
				5700~5720	-40.71	<=15.24	PASS
				5720~5725	-39.51	<=21.89	PASS
				5780~5650	-44.96	<=-27	PASS
	Ant1	High	5795	5850~5855	-43.56	<=15.66	PASS
				5855~5875	-43.74	<=15.31	PASS
				5875~5925	-43.38	<=-26.80	PASS
				5925~5935	-44.48	<=-27	PASS
	Ant2	High	5795	5850~5855	-44.19	<=25.06	PASS
				5855~5875	-43.69	<=14.61	PASS

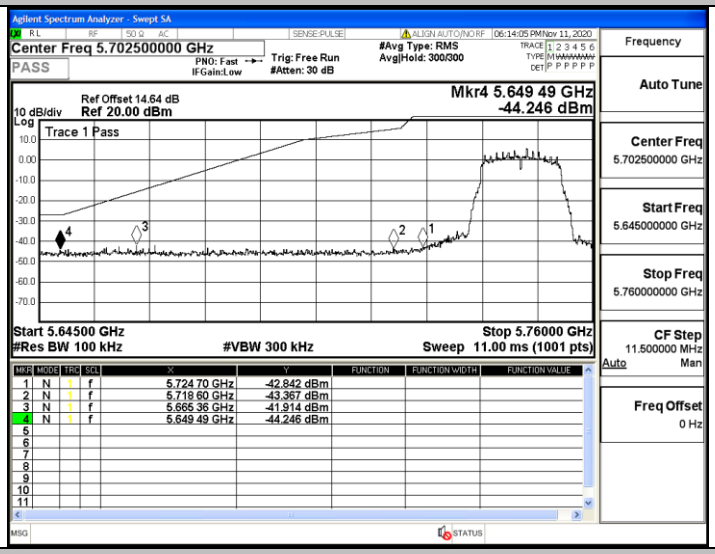
TestMode	Antenna	ChName	Channel	FreqRange [MHz]	Result [dBm]	Limit [dBm]	Verdict
				5875~5925	-43.35	<=-22.16	PASS
				5925~5935	-44.36	<=-27	PASS
11AC20MIMO	Ant1	Low	5745	5650~5700	-43.64	<=-15.64	PASS
				5700~5720	-43.81	<=10.70	PASS
				5720~5725	-42.71	<=26.83	PASS
				5760~5650	-45.98	<=-27	PASS
	Ant2	Low	5745	5650~5700	-42.44	<=-18.36	PASS
				5700~5720	-43.97	<=13.53	PASS
				5720~5725	-43.11	<=24.99	PASS
				5760~5650	-44.79	<=-27	PASS
	Ant1	High	5825	5850~5855	-44.78	<=16.72	PASS
				5855~5875	-43.98	<=14.10	PASS
				5875~5925	-41.37	<=-3.38	PASS
				5925~5935	-45.07	<=-27	PASS
	Ant2	High	5825	5850~5855	-43.52	<=26.87	PASS
				5855~5875	-43.65	<=11.95	PASS
				5875~5925	-42.68	<=-4.28	PASS
				5925~5935	-43.9	<=-27	PASS
11AC40MIMO	Ant1	Low	5755	5650~5700	-42.37	<=-3.63	PASS
				5700~5720	-40.28	<=15.58	PASS
				5720~5725	-38.44	<=21.28	PASS
				5780~5650	-45.06	<=-27	PASS
	Ant2	Low	5755	5650~5700	-43.21	<=-1.83	PASS
				5700~5720	-41.57	<=15.43	PASS
				5720~5725	-40.35	<=21.28	PASS
				5780~5650	-44.23	<=-27	PASS
	Ant1	High	5795	5850~5855	-44.54	<=20.55	PASS
				5855~5875	-44.29	<=12.26	PASS
				5875~5925	-43.65	<=7.27	PASS
				5925~5935	-44.85	<=-27	PASS
	Ant2	High	5795	5850~5855	-42.73	<=18.67	PASS
				5855~5875	-43.52	<=11.38	PASS
				5875~5925	-42.62	<=-17.64	PASS
				5925~5935	-43.71	<=-27	PASS
11AC80MIMO	Ant1	Low	5775	5650~5700	-39.9	<=8.18	PASS
				5700~5720	-36.1	<=15.26	PASS
				5720~5725	-39.84	<=22.71	PASS
				5800~5650	-45.7	<=-27	PASS
		High	5775	5850~5855	-43.74	<=17.48	PASS
				5855~5875	-43.69	<=13.75	PASS
				5875~5925	-43.76	<=-8.06	PASS
				5925~5935	-44.73	<=-27	PASS
	Ant2	Low	5775	5650~5700	-38.66	<=2.56	PASS
				5700~5720	-39	<=15.52	PASS
				5720~5725	-39.45	<=16.35	PASS
				5800~5650	-44.3	<=-27	PASS
		High	5775	5850~5855	-42.71	<=26.76	PASS
				5855~5875	-43.17	<=10.07	PASS
				5875~5925	-43.37	<=-22.30	PASS
				5925~5935	-44.06	<=-27	PASS

Test Graphs

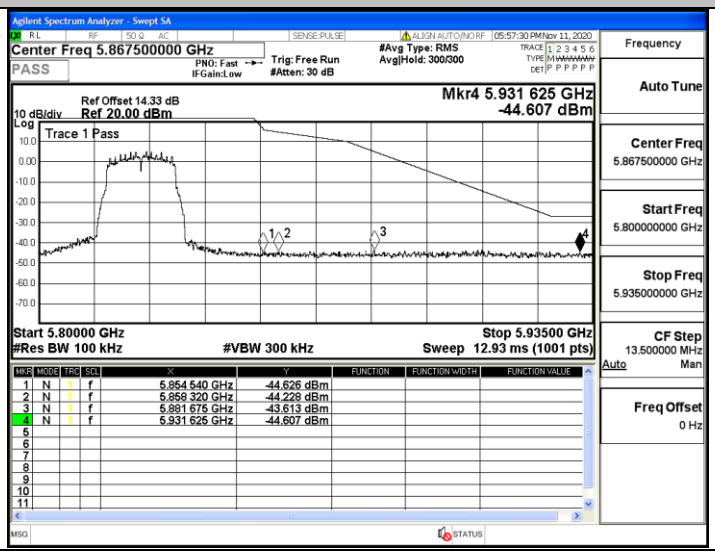
11A_Ant1_Low_5745

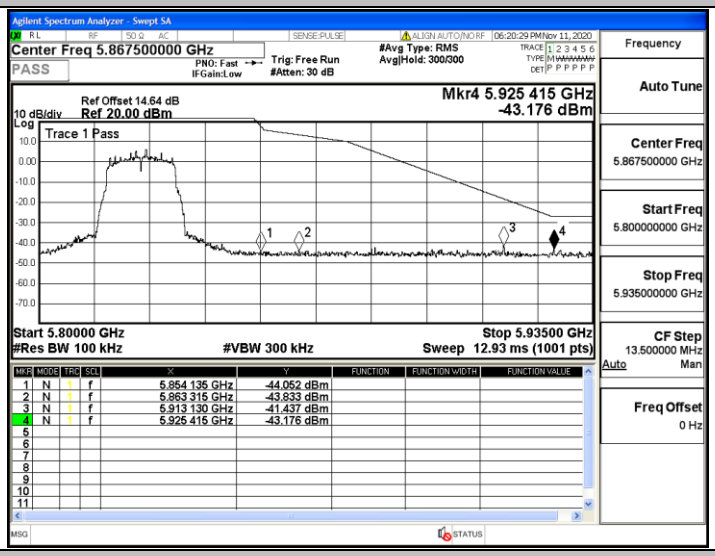
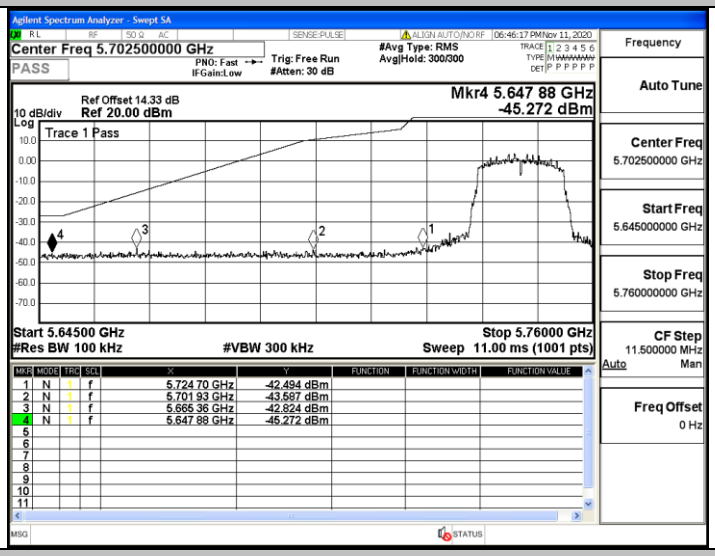


11A_Ant2_Low_5745



11A_Ant1_High_5825



11A_Ant2_High_5825

11N20MIMO_Ant1_Low_5745

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