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Appendix for 5G WIFI

**Applicant: HONGKONG UCLOUDLINK NETWORK TECHNOLOGY
LIMITED**

**Address: Suite 603, 6/F, Laws Commercial Plaza, 788 Cheung Sha
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Product Name: 4G LTE Wireless Router

Model: GLMR21A02

FCC ID: 2AC88-GLMR21A02

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Appendix A1: Emission Bandwidth

Test Result

Test Mode	Antenna	Channel	26db EBW [MHz]	FL[MHz]	FH[MHz]	Verdict
802.11a	Ant1	5180	25.120	5166.720	5191.840	PASS
	Ant2	5180	32.560	5164.480	5197.040	PASS
	Ant1	5200	24.920	5186.720	5211.640	PASS
	Ant2	5200	32.200	5184.840	5217.040	PASS
	Ant1	5240	26.840	5224.760	5251.600	PASS
	Ant2	5240	30.600	5224.560	5255.160	PASS
	Ant1	5745	27.960	5729.760	5757.720	PASS
	Ant2	5745	33.240	5729.400	5762.640	PASS
	Ant1	5785	29.720	5769.680	5799.400	PASS
	Ant2	5785	32.440	5769.640	5802.080	PASS
	Ant1	5825	27.720	5810.680	5838.400	PASS
	Ant2	5825	29.960	5809.680	5839.640	PASS
802.11n(HT20)	Ant1	5180	26.680	5167.840	5194.520	PASS
	Ant2	5180	20.320	5170.040	5190.360	PASS
	Ant1	5200	28.160	5186.720	5214.880	PASS
	Ant2	5200	20.560	5189.800	5210.360	PASS
	Ant1	5240	28.800	5226.120	5254.920	PASS
	Ant2	5240	20.760	5229.720	5250.480	PASS
	Ant1	5745	29.840	5730.120	5759.960	PASS
	Ant2	5745	20.120	5735.080	5755.200	PASS
	Ant1	5785	29.320	5770.320	5799.640	PASS
	Ant2	5785	20.240	5774.960	5795.200	PASS
	Ant1	5825	29.800	5810.120	5839.920	PASS
	Ant2	5825	20.720	5814.480	5835.200	PASS
802.11n(HT40)	Ant1	5190	40.160	5170.080	5210.240	PASS
	Ant2	5190	42.160	5169.680	5211.840	PASS
	Ant1	5230	47.600	5207.520	5255.120	PASS
	Ant2	5230	40.400	5209.920	5250.320	PASS
	Ant1	5755	68.720	5719.800	5788.520	PASS
	Ant2	5755	40.320	5734.840	5775.160	PASS
	Ant1	5795	52.560	5768.760	5821.320	PASS
	Ant2	5795	40.080	5775.080	5815.160	PASS
802.11ac(VHT20)	Ant1	5180	20.840	5169.360	5190.200	PASS
	Ant2	5180	20.320	5170.000	5190.320	PASS
	Ant1	5200	20.160	5190.040	5210.200	PASS
	Ant2	5200	19.920	5190.160	5210.080	PASS
	Ant1	5240	20.320	5230.040	5250.360	PASS
	Ant2	5240	20.120	5230.120	5250.240	PASS
	Ant1	5745	21.400	5734.040	5755.440	PASS
	Ant2	5745	20.200	5735.080	5755.280	PASS
	Ant1	5785	20.760	5774.440	5795.200	PASS

	Ant2	5785	20.120	5775.160	5795.280	PASS
	Ant1	5825	21.040	5814.320	5835.360	PASS
	Ant2	5825	20.120	5815.080	5835.200	PASS
802.11ac(VHT40)	Ant1	5190	40.560	5169.840	5210.400	PASS
	Ant2	5190	40.080	5170.160	5210.240	PASS
	Ant1	5230	40.400	5209.920	5250.320	PASS
	Ant2	5230	40.240	5210.160	5250.400	PASS
	Ant1	5755	54.880	5728.680	5783.560	PASS
	Ant2	5755	40.720	5734.520	5775.240	PASS
	Ant1	5795	56.720	5768.600	5825.320	PASS
	Ant2	5795	40.160	5775.160	5815.320	PASS
802.11ac(VHT80)	Ant1	5210	94.880	5162.800	5257.680	PASS
	Ant2	5210	81.120	5169.680	5250.800	PASS
	Ant1	5775	86.880	5734.520	5821.400	PASS
	Ant2	5775	81.120	5734.520	5815.640	PASS

Test Graphs

802.11a_Ant1_5180



802.11a_Ant2_5180



802.11a_Ant1_5200



802.11a_Ant2_5200



802.11a_Ant1_5240



802.11a_Ant2_5240



802.11a_Ant1_5745



802.11a_Ant2_5745



802.11a_Ant1_5785



802.11a_Ant2_5785



802.11a_Ant1_5825



802.11a_Ant2_5825



802.11n(HT20)_Ant1_5180



802.11n(HT20)_Ant2_5180



802.11n(HT20)_Ant1_5200



802.11n(HT20)_Ant2_5200



802.11n(HT20)_Ant1_5240



802.11n(HT20)_Ant2_5240



802.11n(HT20)_Ant1_5745



802.11n(HT20)_Ant2_5745



802.11n(HT20)_Ant1_5785



802.11n(HT20)_Ant2_5785



802.11n(HT40)_Ant2_5190



802.11n(HT40)_Ant1_5230



802.11n(HT40)_Ant2_5230



802.11n(HT40)_Ant1_5755



802.11n(HT40)_Ant2_5755



802.11n(HT40)_Ant1_5795



802.11n(HT40)_Ant2_5795



802.11ac(VHT20)_Ant1_5180



802.11ac(VHT20)_Ant2_5180



802.11ac(VHT20)_Ant1_5200



802.11ac(VHT20)_Ant2_5200



802.11ac(VHT20)_Ant1_5240



802.11ac(VHT20)_Ant2_5240



802.11ac(VHT20)_Ant1_5745



802.11ac(VHT20)_Ant2_5745



802.11ac(VHT20)_Ant1_5785



802.11ac(VHT20)_Ant2_5785



802.11ac(VHT20)_Ant1_5825



802.11ac(VHT20)_Ant2_5825



802.11ac(VHT40)_Ant1_5190



802.11ac(VHT40)_Ant2_5190



802.11ac(VHT40)_Ant1_5230



802.11ac(VHT40)_Ant2_5230



802.11ac(VHT40)_Ant1_5755



802.11ac(VHT40)_Ant2_5755



802.11ac(VHT40)_Ant1_5795



802.11ac(VHT40)_Ant2_5795



802.11ac(VHT80)_Ant1_5210



802.11ac(VHT80)_Ant2_5210



802.11ac(VHT80)_Ant1_5775



802.11ac(VHT80)_Ant2_5775



Appendix A2: Occupied channel bandwidth

Test Result

Test Mode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Verdict
802.11a	Ant1	5180	17.286	5171.452	5188.738	PASS
	Ant2	5180	18.548	5170.794	5189.342	PASS
	Ant1	5200	17.348	5191.429	5208.777	PASS
	Ant2	5200	18.186	5191.058	5209.244	PASS
	Ant1	5240	17.309	5231.451	5248.760	PASS
	Ant2	5240	18.306	5230.951	5249.257	PASS
	Ant1	5745	17.662	5736.257	5753.919	PASS
	Ant2	5745	19.678	5735.167	5754.845	PASS
	Ant1	5785	17.576	5776.340	5793.916	PASS
	Ant2	5785	18.186	5776.035	5794.221	PASS
	Ant1	5825	17.609	5816.329	5833.938	PASS
	Ant2	5825	17.996	5816.104	5834.100	PASS
802.11n(HT20)	Ant1	5180	18.188	5171.052	5189.240	PASS
	Ant2	5180	17.929	5171.163	5189.092	PASS
	Ant1	5200	18.275	5190.988	5209.263	PASS
	Ant2	5200	17.991	5191.118	5209.109	PASS
	Ant1	5240	18.338	5230.980	5249.318	PASS
	Ant2	5240	17.935	5231.156	5249.091	PASS
	Ant1	5745	18.667	5735.801	5754.468	PASS
	Ant2	5745	17.873	5736.179	5754.052	PASS
	Ant1	5785	18.486	5775.933	5794.419	PASS
	Ant2	5785	17.941	5776.160	5794.101	PASS
	Ant1	5825	18.414	5815.972	5834.386	PASS
	Ant2	5825	17.912	5816.185	5834.097	PASS
802.11n(HT40)	Ant1	5190	36.276	5171.958	5208.234	PASS
	Ant2	5190	36.300	5171.956	5208.256	PASS
	Ant1	5230	36.383	5211.911	5248.294	PASS
	Ant2	5230	36.310	5211.955	5248.265	PASS
	Ant1	5755	36.920	5736.581	5773.501	PASS
	Ant2	5755	36.281	5736.962	5773.243	PASS
	Ant1	5795	36.482	5776.900	5813.382	PASS
	Ant2	5795	36.195	5777.032	5813.227	PASS
802.11ac(VHT20)	Ant1	5180	17.988	5171.111	5189.099	PASS
	Ant2	5180	17.875	5171.174	5189.049	PASS
	Ant1	5200	17.938	5191.142	5209.080	PASS
	Ant2	5200	17.853	5191.198	5209.051	PASS
	Ant1	5240	17.937	5231.141	5249.078	PASS
	Ant2	5240	17.846	5231.204	5249.050	PASS
	Ant1	5745	18.001	5736.119	5754.120	PASS
	Ant2	5745	17.858	5736.201	5754.059	PASS
	Ant1	5785	18.036	5776.113	5794.149	PASS

	Ant2	5785	17.842	5776.196	5794.038	PASS
	Ant1	5825	18.053	5816.118	5834.171	PASS
	Ant2	5825	17.857	5816.216	5834.073	PASS
802.11ac(VHT40)	Ant1	5190	36.362	5171.949	5208.311	PASS
	Ant2	5190	36.219	5172.004	5208.223	PASS
	Ant1	5230	36.240	5212.010	5248.250	PASS
	Ant2	5230	36.210	5212.033	5248.243	PASS
	Ant1	5755	36.531	5736.880	5773.411	PASS
	Ant2	5755	36.260	5736.999	5773.259	PASS
	Ant1	5795	36.491	5776.857	5813.348	PASS
	Ant2	5795	36.246	5777.049	5813.295	PASS
802.11ac(VHT80)	Ant1	5210	75.637	5172.284	5247.921	PASS
	Ant2	5210	75.258	5172.409	5247.667	PASS
	Ant1	5775	75.499	5737.302	5812.801	PASS
	Ant2	5775	75.403	5737.404	5812.807	PASS

Test Graphs

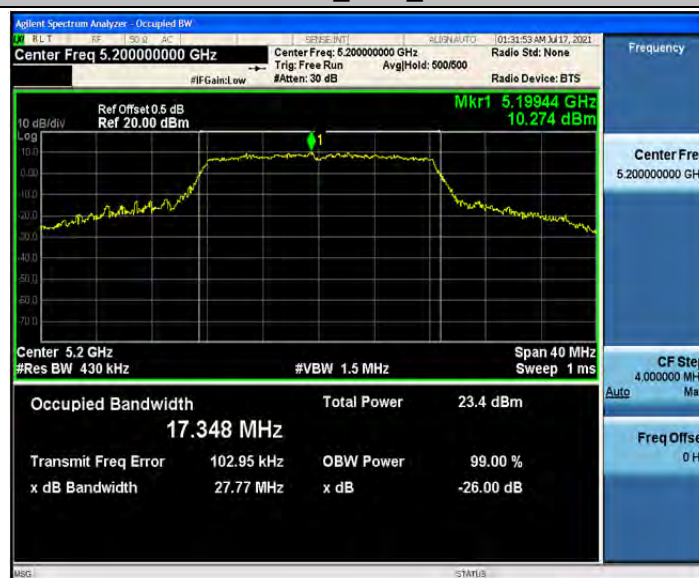
802.11a_Ant1_5180



802.11a_Ant2_5180



802.11a_Ant1_5200



802.11a_Ant2_5200



802.11a_Ant1_5240



802.11a_Ant2_5240



802.11a_Ant1_5745



802.11a_Ant2_5745



802.11a_Ant1_5785



802.11a_Ant2_5785



802.11a_Ant1_5825



802.11a_Ant2_5825



802.11n(HT20)_Ant1_5180



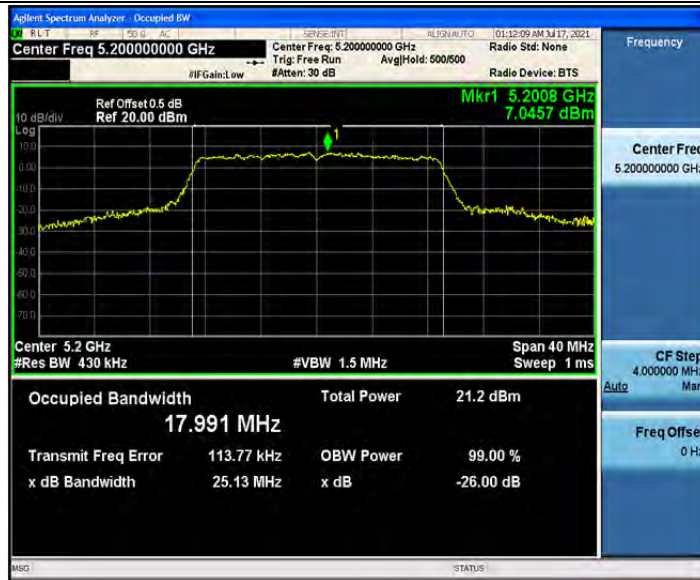
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802.11n(HT20)_Ant1_5200



802.11n(HT20)_Ant2_5200



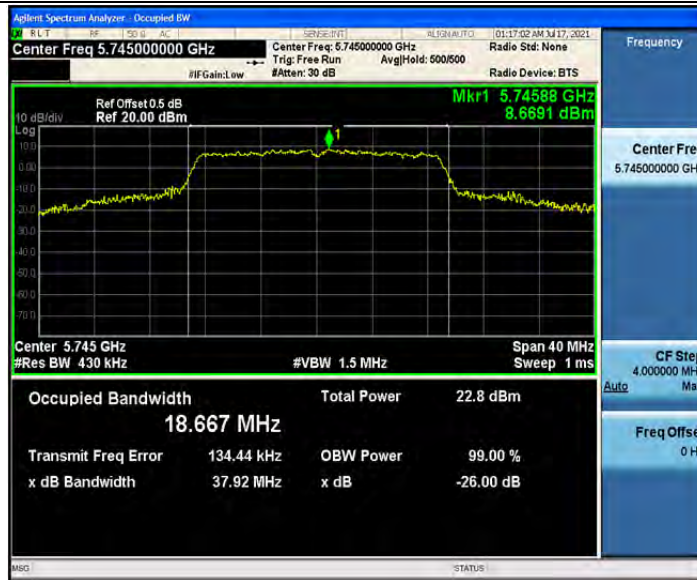
802.11n(HT20)_Ant1_5240



802.11n(HT20)_Ant2_5240



802.11n(HT20)_Ant1_5745



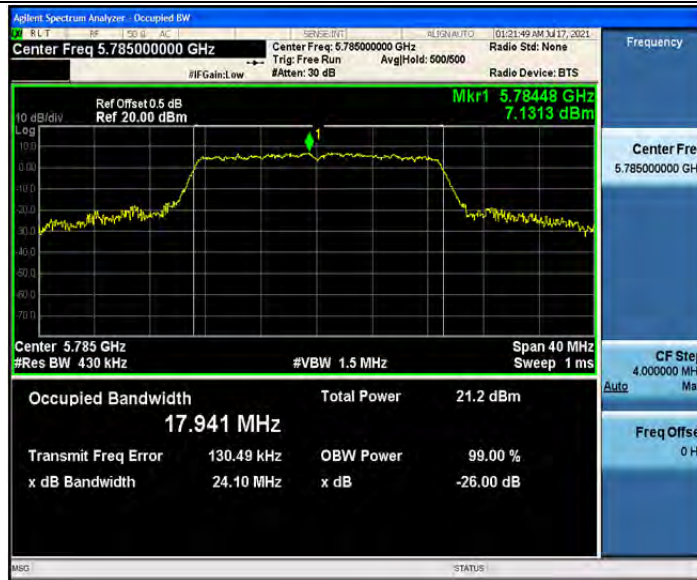
802.11n(HT20)_Ant2_5745



802.11n(HT20)_Ant1_5785



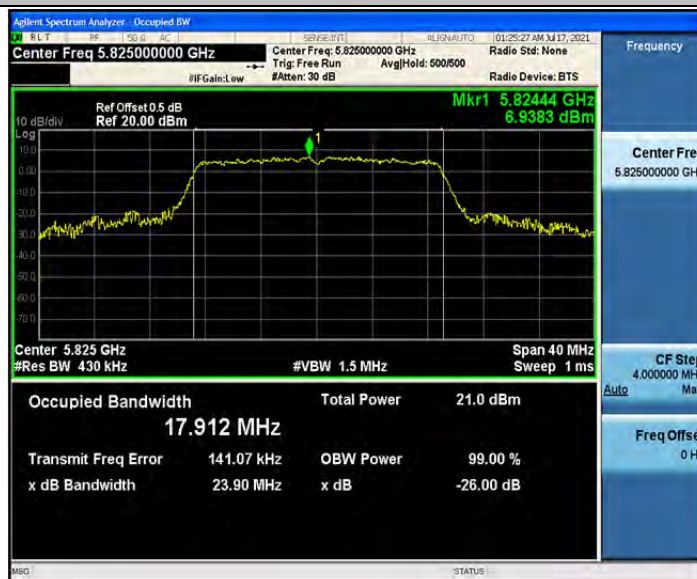
802.11n(HT20)_Ant2_5785



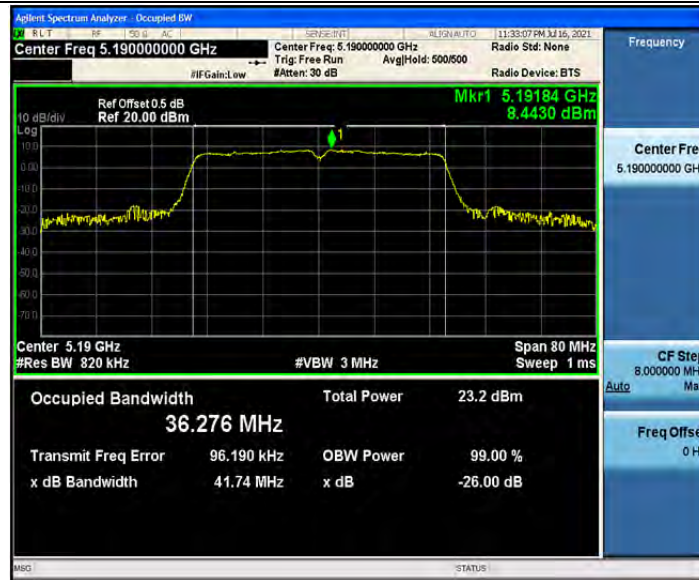
802.11n(HT20)_Ant1_5825



802.11n(HT20)_Ant2_5825



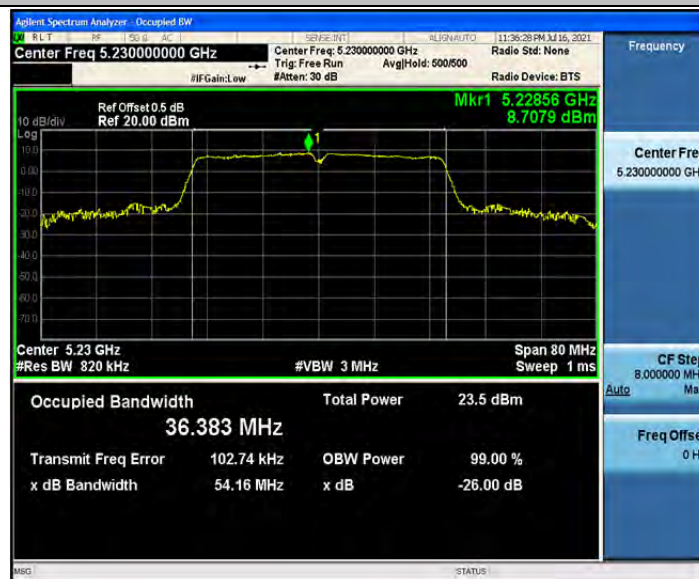
802.11n(HT40)_Ant1_5190



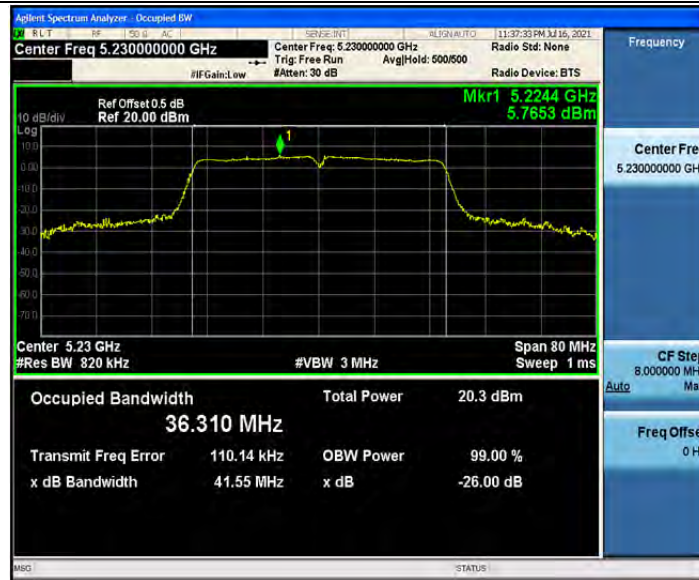
802.11n(HT40)_Ant2_5190



802.11n(HT40)_Ant1_5230



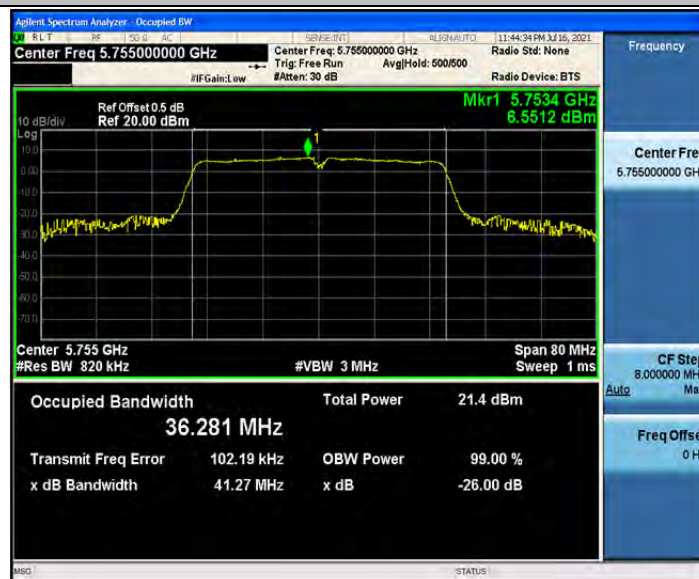
802.11n(HT40)_Ant2_5230



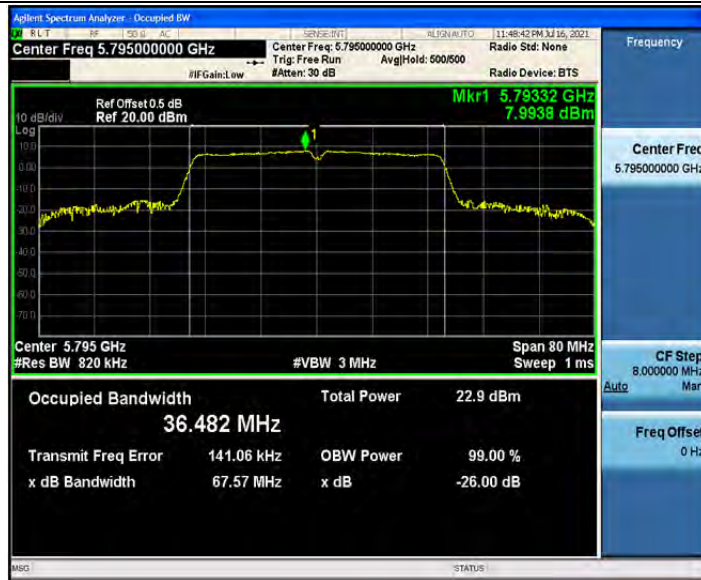
802.11n(HT40)_Ant1_5755



802.11n(HT40)_Ant2_5755



802.11n(HT40)_Ant1_5795



802.11n(HT40)_Ant2_5795



802.11ac(VHT20)_Ant1_5180



802.11ac(VHT20)_Ant2_5180



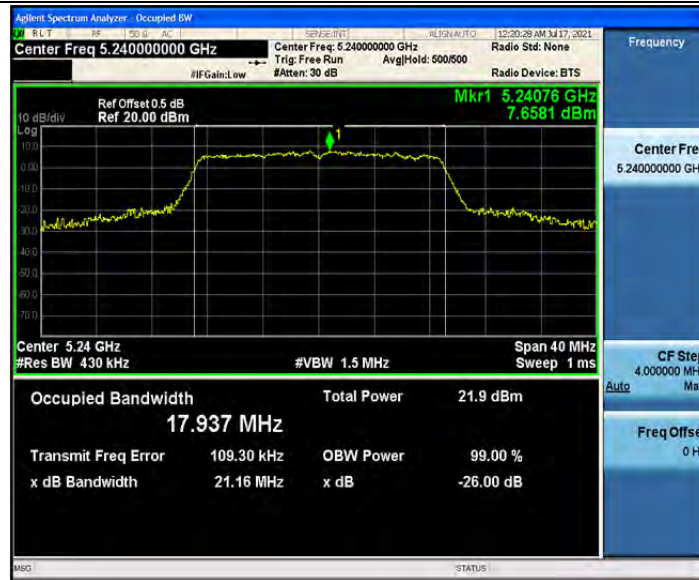
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802.11ac(VHT20)_Ant2_5200



802.11ac(VHT20)_Ant1_5240



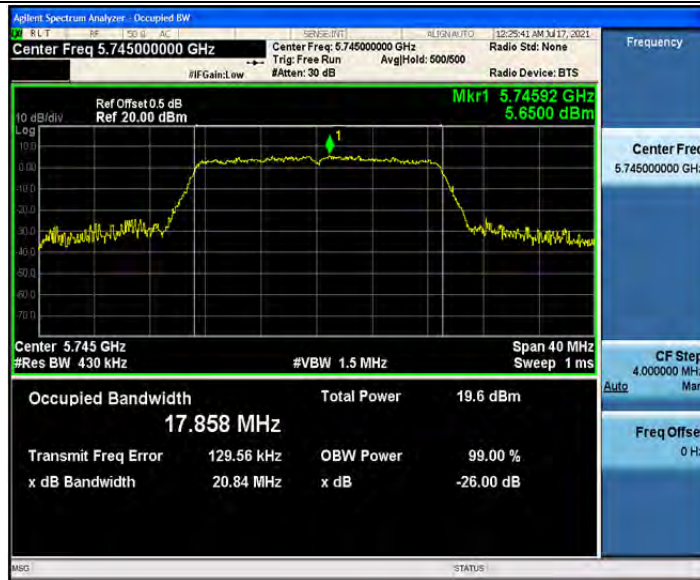
802.11ac(VHT20)_Ant2_5240



802.11ac(VHT20)_Ant1_5745



802.11ac(VHT20)_Ant2_5745



802.11ac(VHT20)_Ant1_5785



802.11ac(VHT20)_Ant2_5785



802.11ac(VHT20)_Ant1_5825



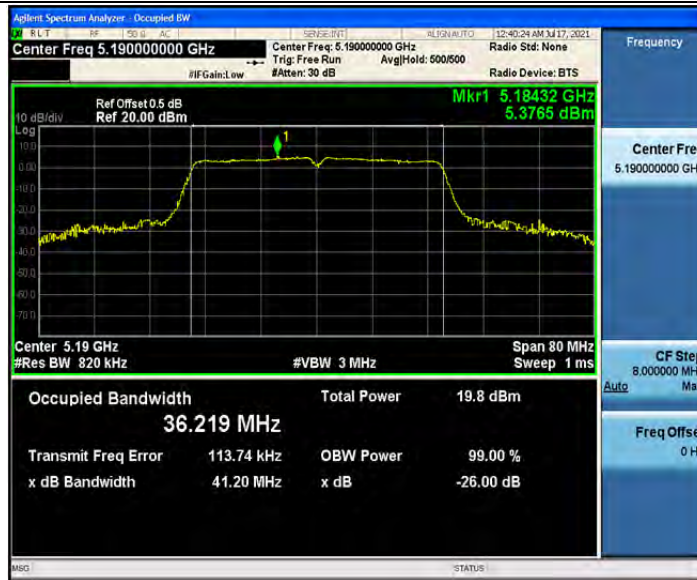
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802.11ac(VHT40)_Ant1_5190



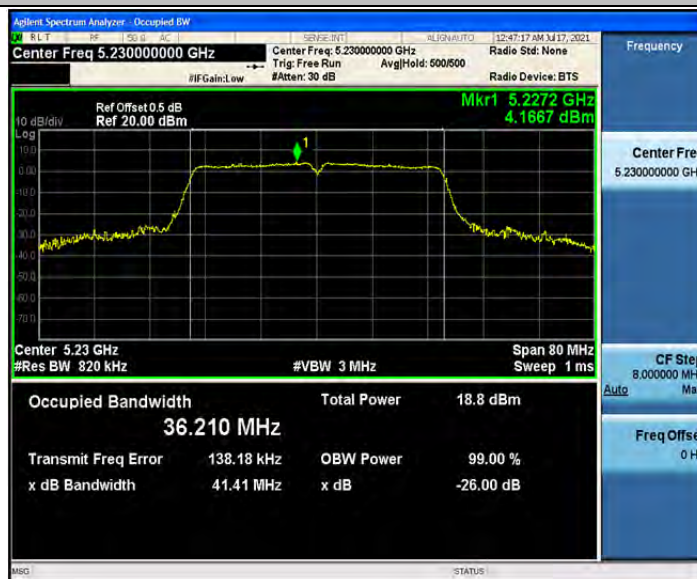
802.11ac(VHT40)_Ant2_5190



802.11ac(VHT40)_Ant1_5230



802.11ac(VHT40)_Ant2_5230



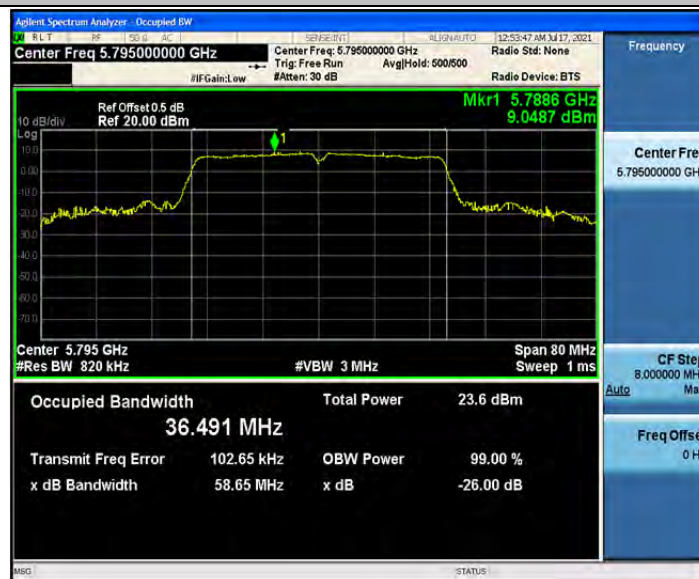
802.11ac(VHT40)_Ant1_5755



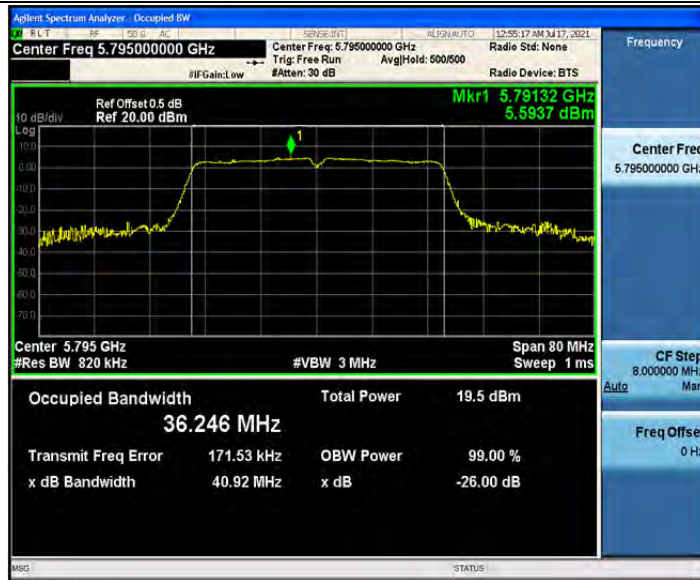
802.11ac(VHT40)_Ant2_5755



802.11ac(VHT40)_Ant1_5795



802.11ac(VHT40)_Ant2_5795



802.11ac(VHT80)_Ant1_5210



802.11ac(VHT80)_Ant2_5210



802.11ac(VHT80)_Ant1_5775



802.11ac(VHT80)_Ant2_5775



Appendix A3: Min emission bandwidth

Test Result

Test Mode	Antenna	Channel	6db EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
802.11a	Ant1	5745	15.040	5737.600	5752.640	>0.5	PASS
	Ant2	5745	15.240	5737.480	5752.720	>0.5	PASS
	Ant1	5785	15.200	5777.560	5792.760	>0.5	PASS
	Ant2	5785	16.360	5776.960	5793.320	>0.5	PASS
	Ant1	5825	15.200	5817.520	5832.720	>0.5	PASS
	Ant2	5825	16.360	5816.920	5833.280	>0.5	PASS
802.11n(HT20)	Ant1	5745	15.520	5737.200	5752.720	>0.5	PASS
	Ant2	5745	17.120	5736.560	5753.680	>0.5	PASS
	Ant1	5785	17.080	5776.600	5793.680	>0.5	PASS
	Ant2	5785	17.120	5776.560	5793.680	>0.5	PASS
	Ant1	5825	15.840	5817.200	5833.040	>0.5	PASS
	Ant2	5825	17.120	5816.560	5833.680	>0.5	PASS
802.11n(HT40)	Ant1	5755	35.280	5737.480	5772.760	>0.5	PASS
	Ant2	5755	35.280	5737.480	5772.760	>0.5	PASS
	Ant1	5795	35.280	5777.480	5812.760	>0.5	PASS
	Ant2	5795	35.280	5777.480	5812.760	>0.5	PASS
802.11ac(VHT20)	Ant1	5745	16.960	5736.600	5753.560	>0.5	PASS
	Ant2	5745	17.160	5736.560	5753.720	>0.5	PASS
	Ant1	5785	17.040	5776.600	5793.640	>0.5	PASS
	Ant2	5785	16.160	5776.600	5792.760	>0.5	PASS
	Ant1	5825	16.640	5816.960	5833.600	>0.5	PASS
	Ant2	5825	15.840	5817.200	5833.040	>0.5	PASS
802.11ac(VHT40)	Ant1	5755	35.280	5737.480	5772.760	>0.5	PASS
	Ant2	5755	35.280	5737.480	5772.760	>0.5	PASS
	Ant1	5795	35.280	5777.480	5812.760	>0.5	PASS
	Ant2	5795	35.280	5777.480	5812.760	>0.5	PASS
802.11ac(VHT80)	Ant1	5775	75.360	5737.400	5812.760	>0.5	PASS
	Ant2	5775	75.360	5737.400	5812.760	>0.5	PASS

Test Graphs

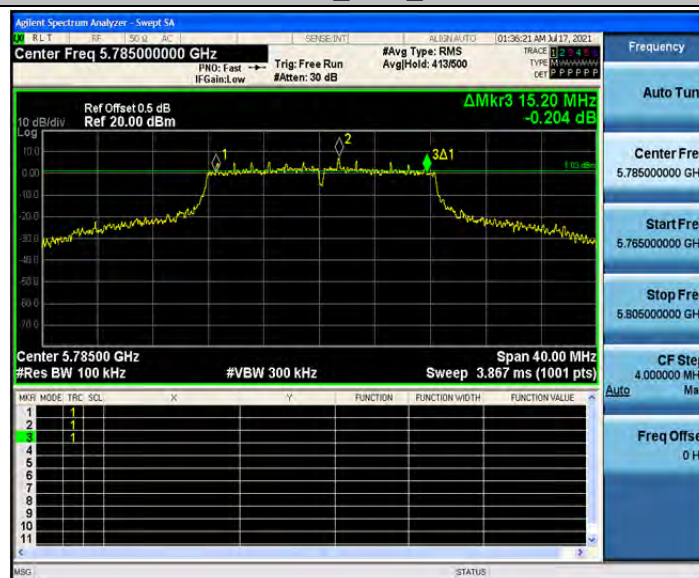
802.11a_Ant1_5745



802.11a_Ant2_5745



802.11a_Ant1_5785



802.11a_Ant2_5785



802.11a_Ant1_5825



802.11a_Ant2_5825



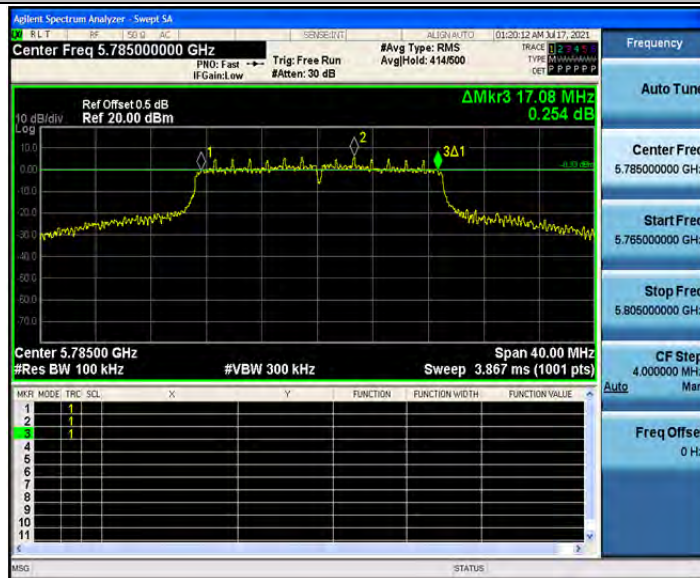
802.11n(HT20)_Ant1_5745



802.11n(HT20)_Ant2_5745



802.11n(HT20)_Ant1_5785



802.11n(HT20)_Ant2_5785



802.11n(HT20)_Ant1_5825



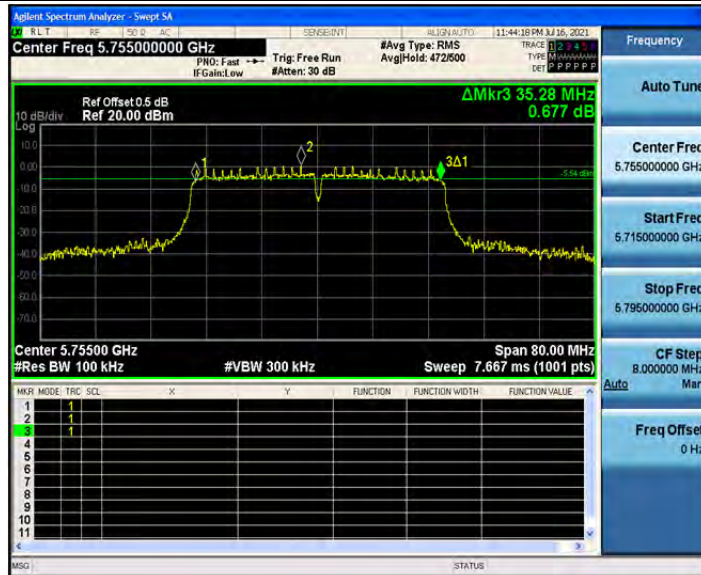
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802.11n(HT40)_Ant1_5755



802.11n(HT40)_Ant2_5755



802.11n(HT40)_Ant1_5795



802.11n(HT40)_Ant2_5795