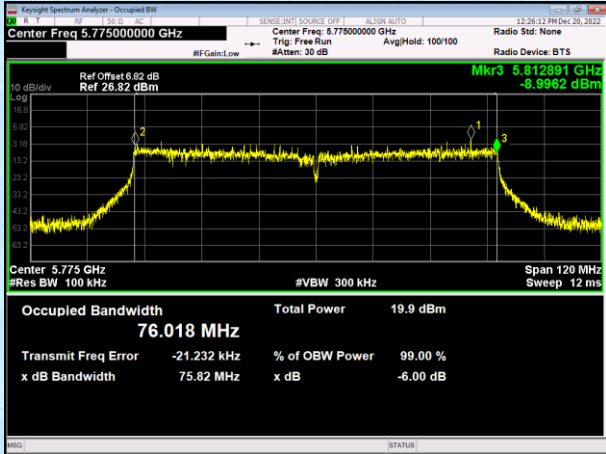


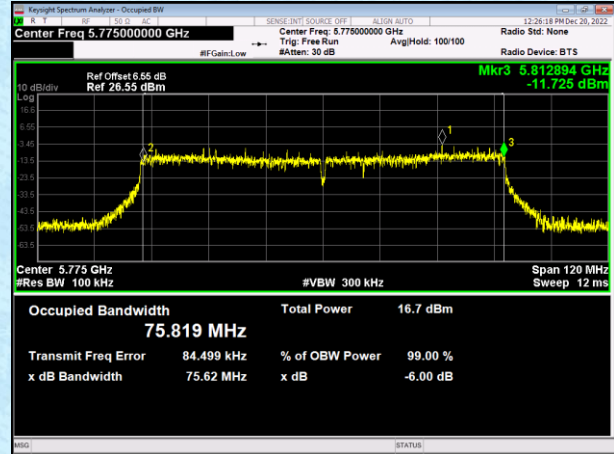
Test mode: 802.11 ac(VHT80)

Lowest channel 5775MHz

Antenna1



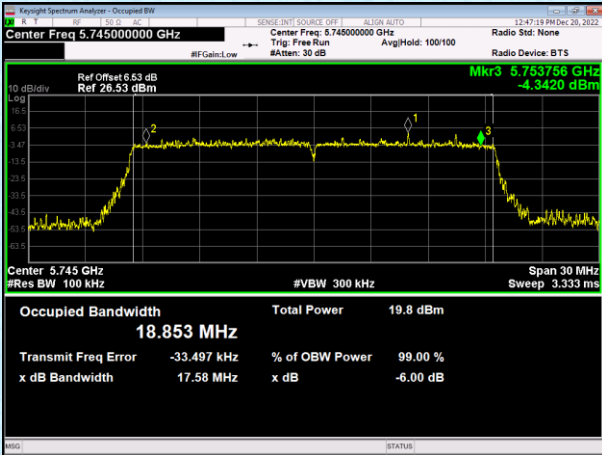
Antenna2



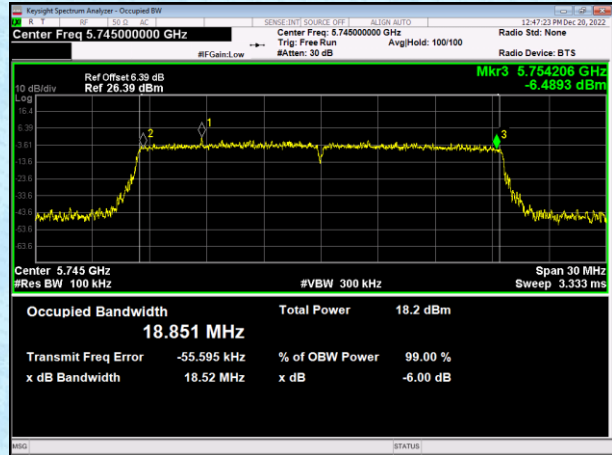
Test mode: 802.11ax(HE20)

Lowest channel 5745MHz

Antenna1

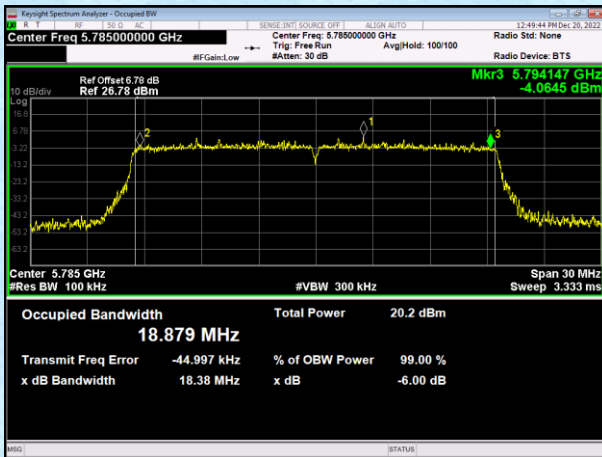


Antenna2

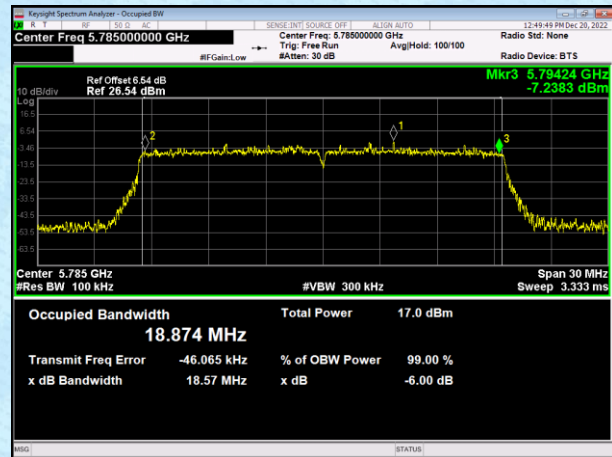


Middle channel 5785MHz

Antenna1

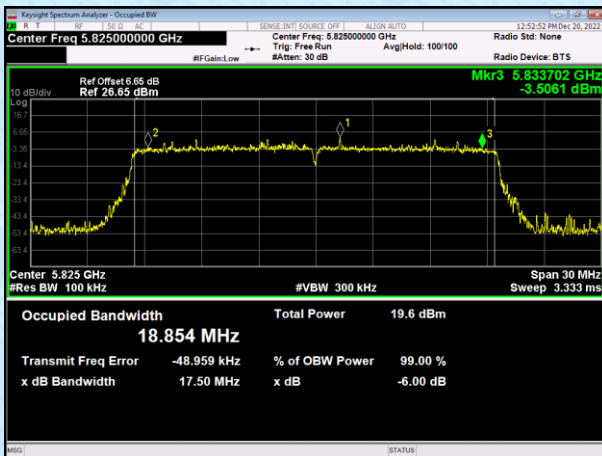


Antenna2

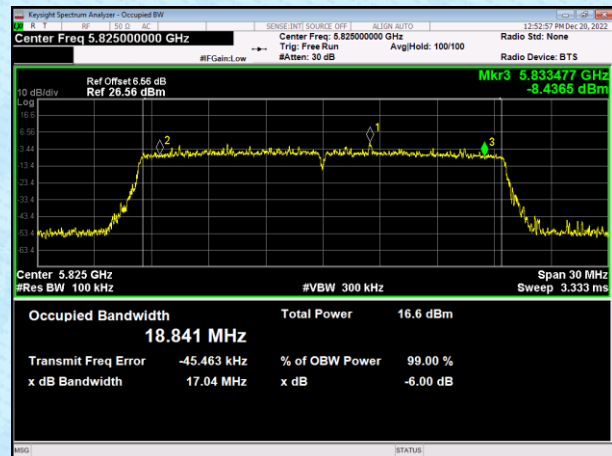


Highest channel 5825MHz

Antenna1



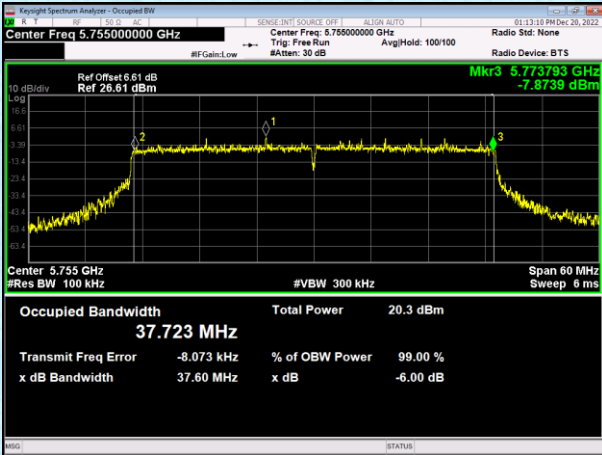
Antenna2



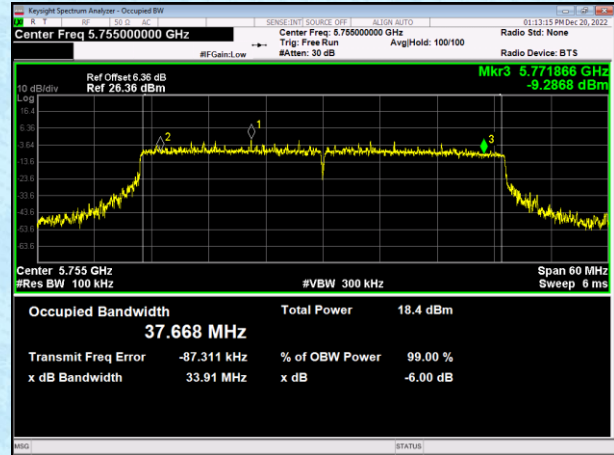
Test mode: 802.11ax(HE40)

Lowest channel 5755MHz

Antenna1

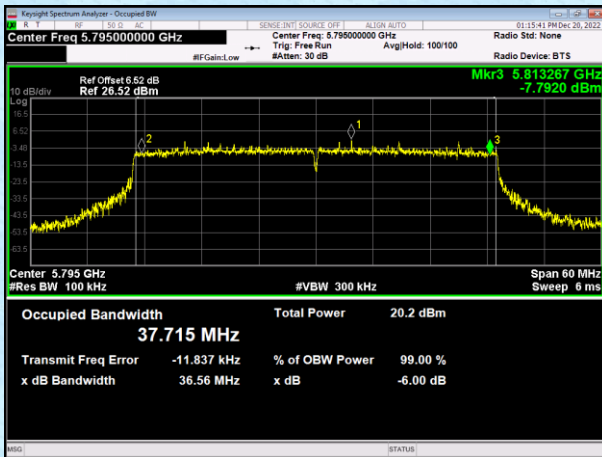


Antenna2



Highest channel 5795MHz

Antenna1



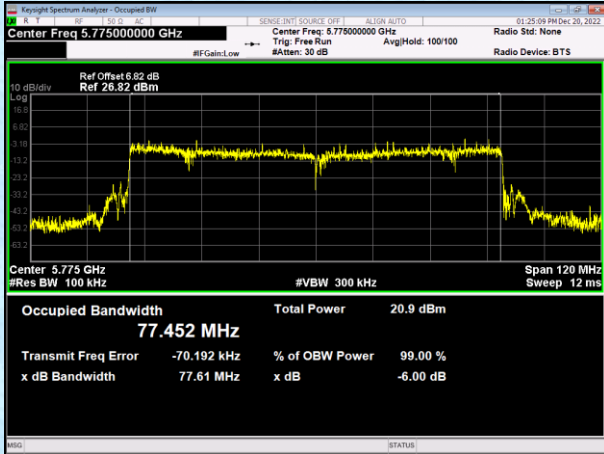
Antenna2



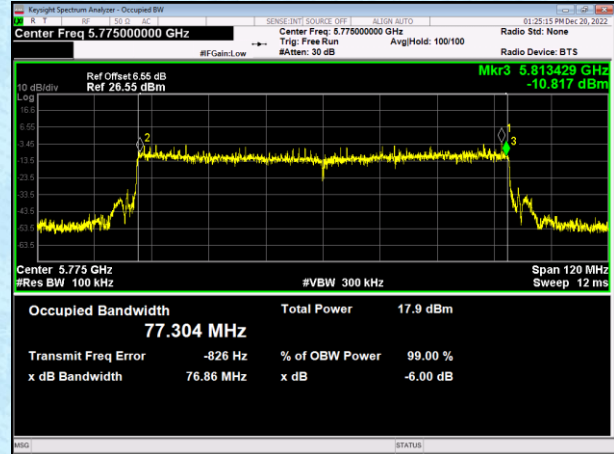
Test mode: 802.11ax(HE80)

Lowest channel 5775MHz

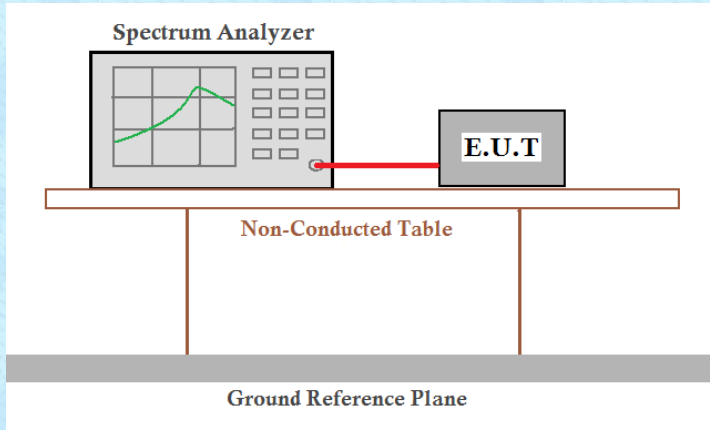
Antenna1



Antenna2



7.4 Power Spectral Density

Test Requirement:	FCC Part15 E Section 15.407(a)(3)
Test Method:	ANSI C63.10:2013 and KDB 789033 D02 General U-NII Test Procedures New Rules v02r01
Limit:	30dBm/500kHz
Test setup:	 <p>The diagram illustrates the test setup. A Spectrum Analyzer is connected to an E.U.T. (Equipment Under Test) via a red cable. Both are placed on a Non-Conducted Table, which is supported by a Ground Reference Plane.</p>
Test Instruments:	Refer to section 6.0 for details
Test mode:	Refer to section 5.2 for details
Test results:	Pass

Measurement Data

Modulation	Frequency (MHz)	Duty cycle		Duty Factor	
		Antenna1	Antenna2	Antenna1	Antenna2
802.11a	5745	35.64	35.64	4.48	4.48
	5785	35.62	35.62	4.48	4.48
	5825	35.68	35.68	4.48	4.48
802.11n(HT20)	5745	31.32	31.32	5.04	5.04
	5785	31.32	31.32	5.04	5.04
	5825	32.43	32.43	4.89	4.89
802.11n(HT40)	5755	18.67	18.67	7.29	7.29
	5795	18.64	18.64	7.3	7.3
802.11ac(VHT20)	5745	31.69	31.69	4.99	4.99
	5785	31.8	31.8	4.98	4.98
	5825	31.92	31.92	4.96	4.96
802.11ac(VHT40)	5755	18.83	18.83	7.25	7.25
	5795	19.31	19.31	7.14	7.14
802.11ac(VHT80)	5775	10.5	10.5	9.79	9.79
802.11ax(HE20)	5745	28.3	28.3	5.48	5.48
	5785	27.99	27.99	5.53	5.53
	5825	28.76	28.76	5.41	5.41
802.11ax(HE40)	5755	17.58	17.58	7.55	7.55
	5795	17.49	17.49	7.57	7.57
802.11ax(HE80)	5775	10.47	10.47	9.8	9.8

802.11a mode										
CH No.	Frequency (MHz)	Measured PSD (dBm)			Duty Factor	Output Power (dBm)			Limit (dBm)	Result
		ANT1	ANT2	ANT 1+2		ANT1	ANT2	ANT 1+2		
149	5745	-2.166	-2.124	0.865	4.48	2.314	2.356	5.345	30	Pass
157	5785	-2.691	-3.484	-0.059	4.48	1.789	0.996	4.421		
165	5825	-3.077	-2.999	-0.028	4.48	1.403	1.481	4.452		
802.11n(HT20) mode										
CH No.	Frequency (MHz)	Measured PSD (dBm)			Duty Factor	Power Spectral Density (dBm)			Limit (dBm)	Result
		ANT1	ANT2	ANT 1+2		ANT1	ANT2	ANT 1+2		
149	5745	-0.039	0.2	3.092	5.04	5.001	5.24	8.132	30	Pass
157	5785	-10.79	-11.92	-8.308	5.04	-5.75	-6.88	-3.268		
165	5825	0.867	-0.67	3.176	4.89	5.757	4.22	8.066		
802.11n(HT40) mode										
CH No.	Frequency (MHz)	Measured PSD (dBm)			Duty Factor	Power Spectral Density (dBm)			Limit (dBm)	Result
		ANT1	ANT2	ANT 1+2		ANT1	ANT2	ANT 1+2		
151	5755	-6.363	-6.702	-3.519	7.29	0.927	0.588	3.771	30	Pass
159	5795	-6.689	-7.522	-4.075	7.3	0.611	-0.222	3.225		

802.11ac(VHT20) mode										
CH No.	Frequency (MHz)	Measured PSD (dBm)			Duty Factor	Power Spectral Density (dBm)			Limit (dBm)	Result
		ANT1	ANT2	ANT 1+2		ANT1	ANT2	ANT 1+2		
149	5745	-1.906	-0.125	2.085	4.99	3.084	4.865	7.075	30	Pass
157	5785	-4.298	-3.598	-0.924	4.98	0.682	1.382	4.056		
165	5825	-1.93	-0.383	1.922	4.96	3.03	4.577	6.882		
802.11ac(VHT40) mode										
CH No.	Frequency (MHz)	Measured PSD (dBm)			Duty Factor	Power Spectral Density (dBm)			Limit (dBm)	Result
		ANT1	ANT2	ANT 1+2		ANT1	ANT2	ANT 1+2		
151	5755	-6.009	-6.408	-3.197	7.25	1.241	0.842	4.053	30	Pass
159	5795	-7.872	-9.766	-5.706	7.14	-0.732	-2.626	1.434		
802.11ac(VHT80) mode										
CH No.	Frequency (MHz)	Measured PSD (dBm)			Duty Factor	Power Spectral Density (dBm)			Limit (dBm)	Result
		ANT1	ANT2	ANT 1+2		ANT1	ANT2	ANT 1+2		
155	5775	-11.13	-15.311	-9.725	9.79	-1.34	-5.521	0.065	30	Pass

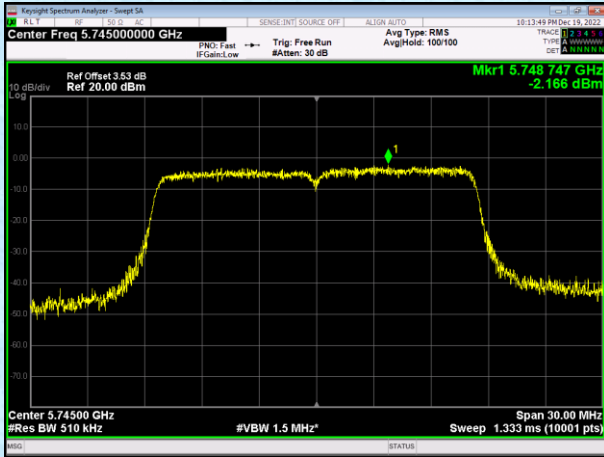
802.11ax(HE20) mode										
CH No.	Frequency (MHz)	Measured PSD (dBm)			Duty Factor	Power Spectral Density (dBm)			Limit (dBm)	Result
		ANT1	ANT2	ANT 1+2		ANT1	ANT2	ANT 1+2		
149	5745	-3.63	-4.477	-1.023	5.48	1.85	1.003	4.457	30	Pass
157	5785	-2.487	-6.365	-0.997	5.53	3.043	-0.835	4.533		
165	5825	-4.098	-6.817	-2.238	5.41	1.312	-1.407	3.172		
802.11ax(HE40) mode										
CH No.	Frequency (MHz)	Measured PSD (dBm)			Duty Factor	Power Spectral Density (dBm)			Limit (dBm)	Result
		ANT1	ANT2	ANT 1+2		ANT1	ANT2	ANT 1+2		
151	5755	-7.266	-9.534	-5.243	7.55	0.284	-1.984	2.307	30	Pass
159	5795	-7.456	-10.489	-5.703	7.57	0.114	-2.919	1.867		
802.11ax(HE80) mode										
CH No.	Frequency (MHz)	Measured PSD (dBm)			Duty Factor	Power Spectral Density (dBm)			Limit (dBm)	Result
		ANT1	ANT2	ANT 1+2		ANT1	ANT2	ANT 1+2		
155	5775	-10.452	-14.338	-8.964	9.8	-0.652	-4.538	0.836	30	Pass

Note: Power Spectral Density = Measured PSD + Duty Factor
 Duty Factor = $10 \log (1/\text{Duty Cycle})$

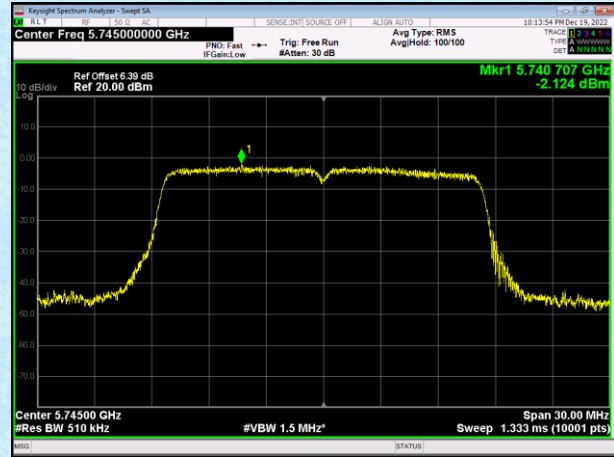
Test plot as follows: Test mode: 802.11a

Lowest channel 5745MHz

Antenna1

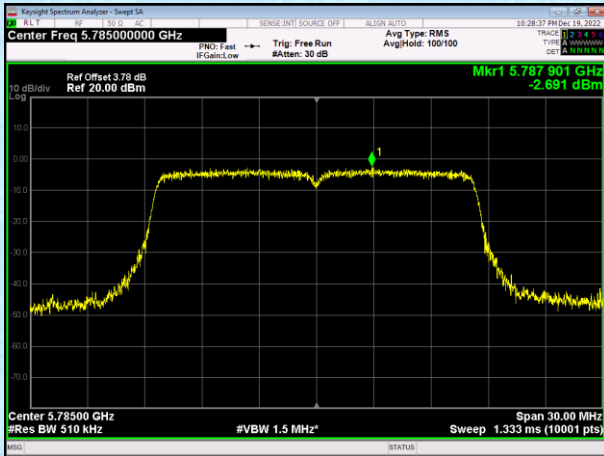


Antenna2

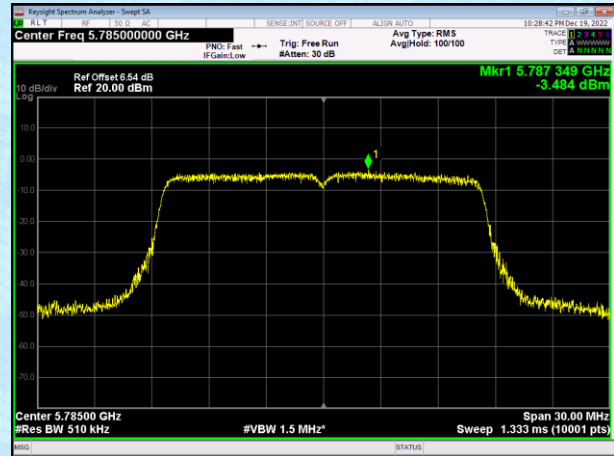


Middle channel 5785MHz

Antenna1

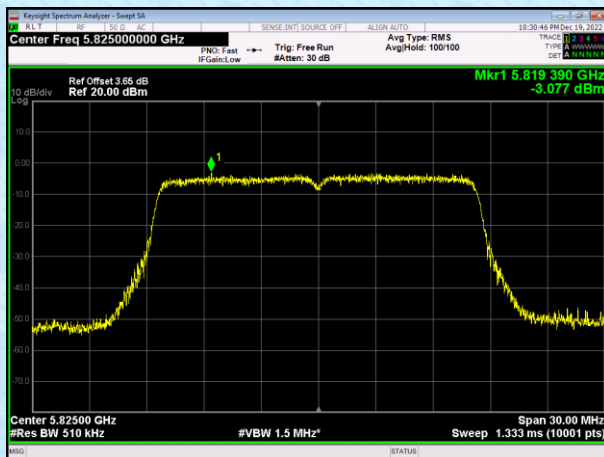


Antenna2

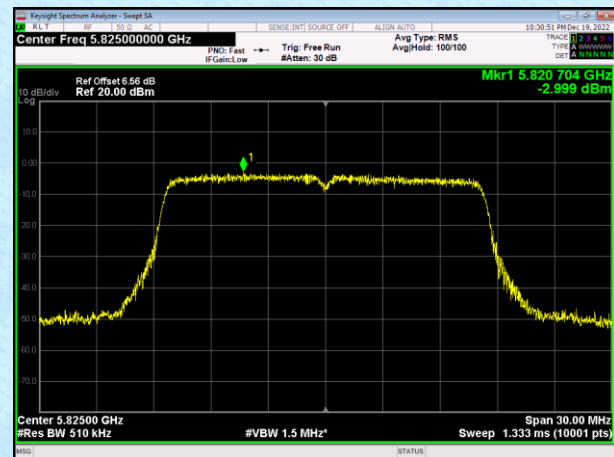


Highest channel 5825MHz

Antenna1



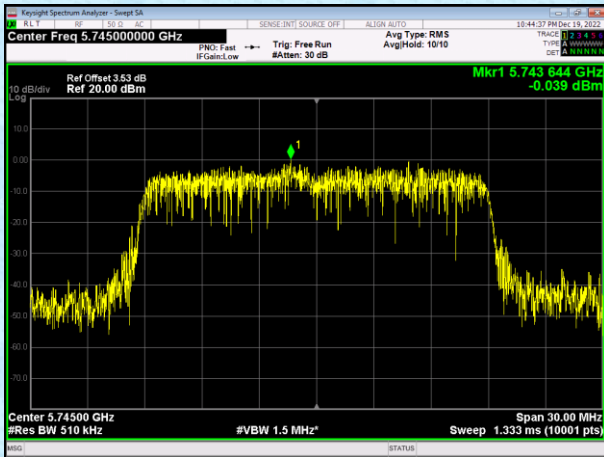
Antenna2



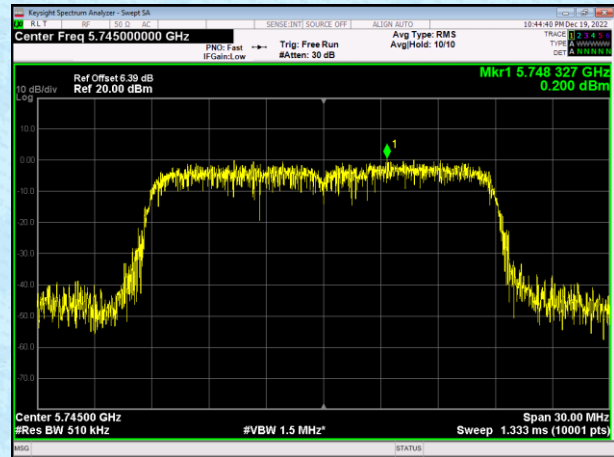
Test mode: 802.11 n(HT20)

Lowest channel 5745MHz

Antenna1

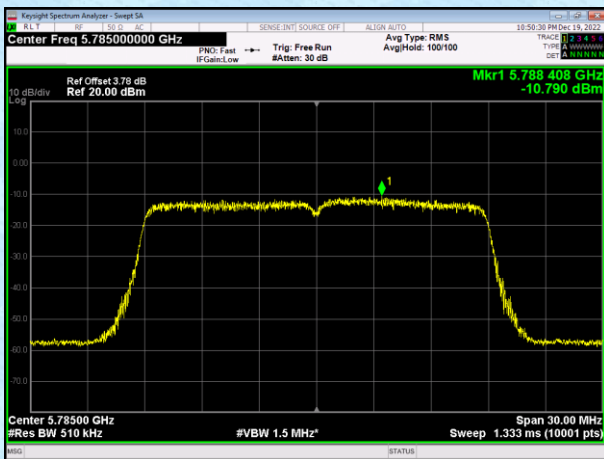


Antenna2

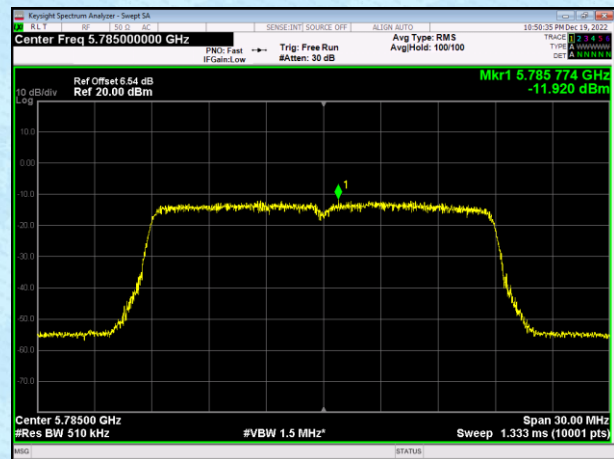


Middle channel 5785MHz

Antenna1

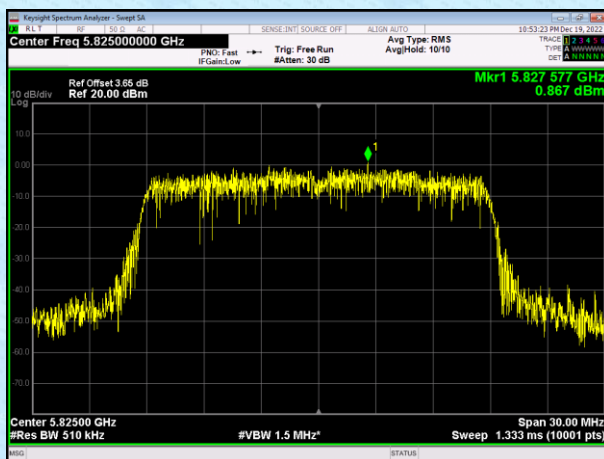


Antenna2

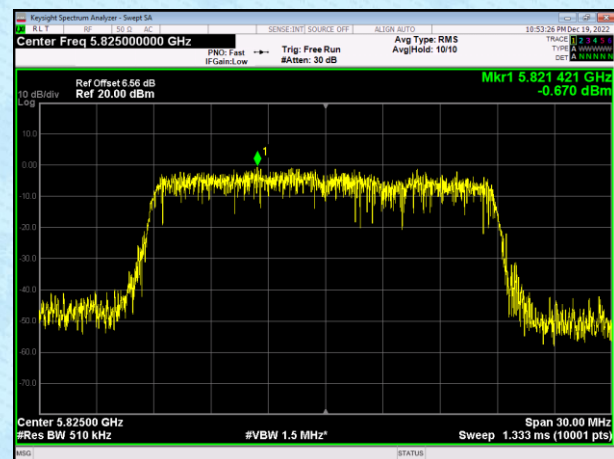


Highest channel 5825MHz

Antenna1



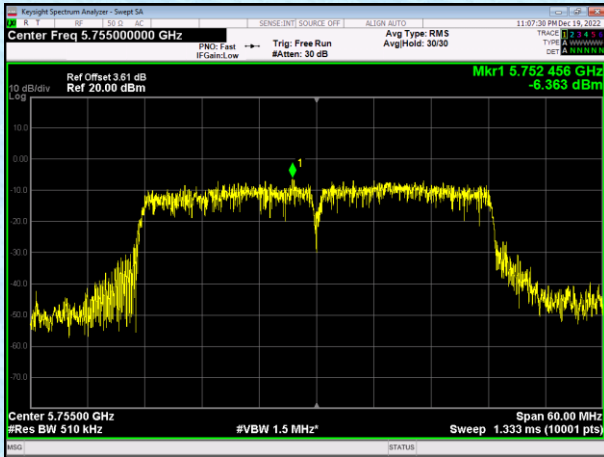
Antenna2



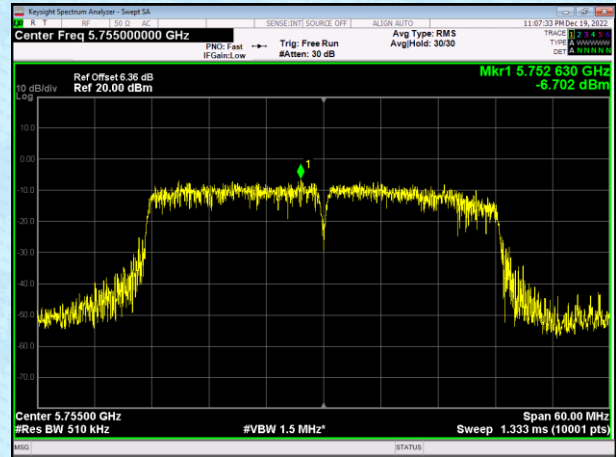
Test mode: 802.11 n(HT40)

Lowest channel 5755MHz

Antenna1

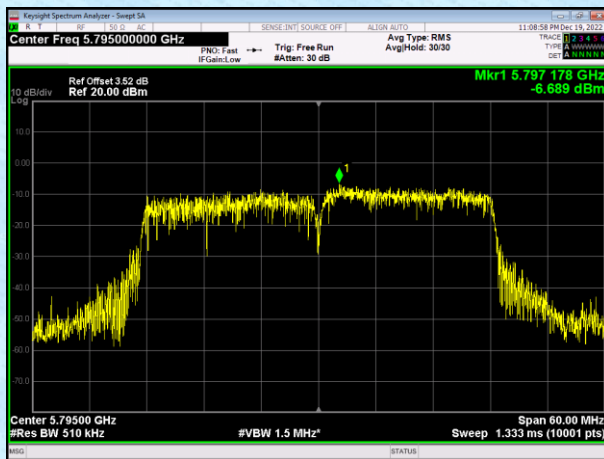


Antenna2

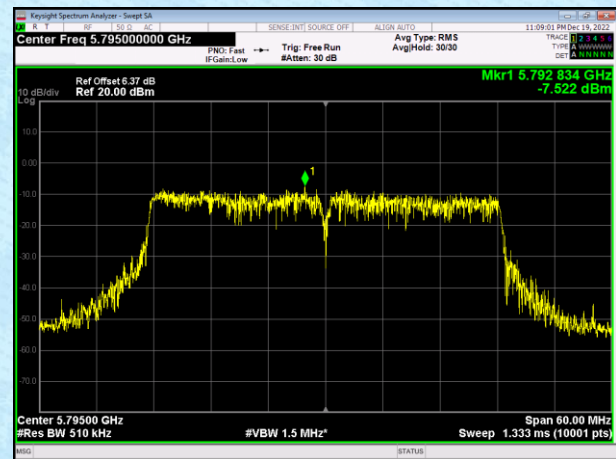


Highest channel 5795MHz

Antenna1



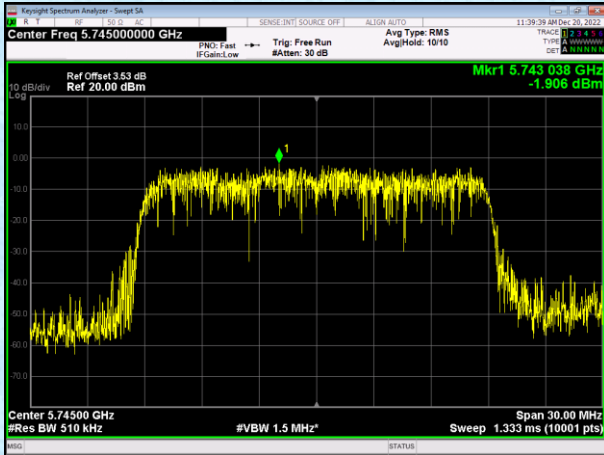
Antenna2



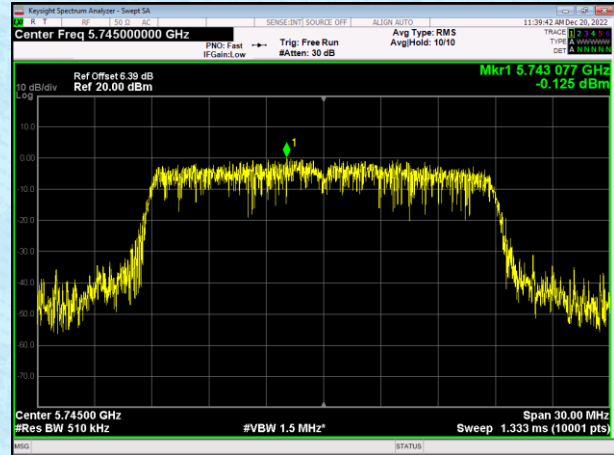
Test mode: 802.11 ac(VHT20)

Lowest channel 5745MHz

Antenna1

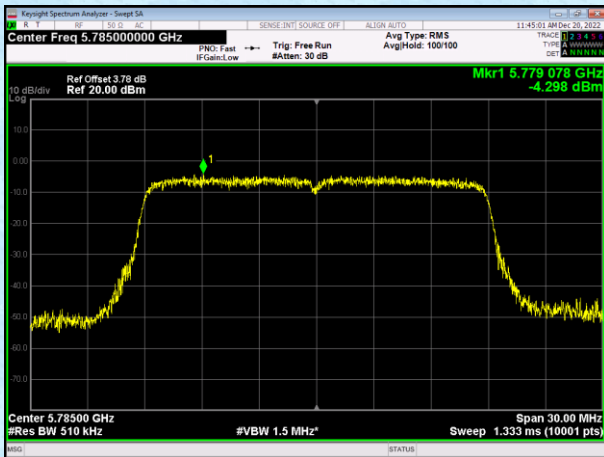


Antenna2

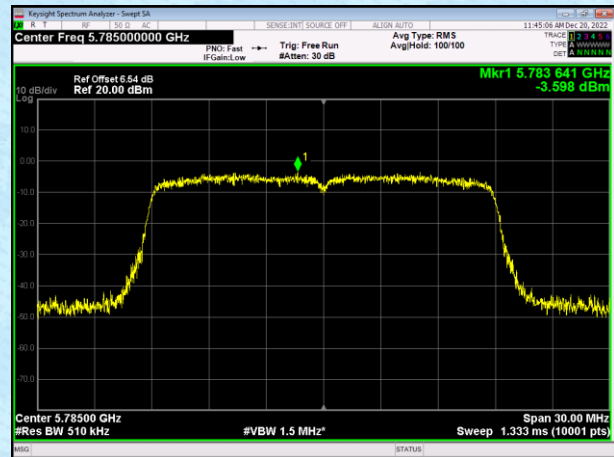


Middle channel 5785MHz

Antenna1

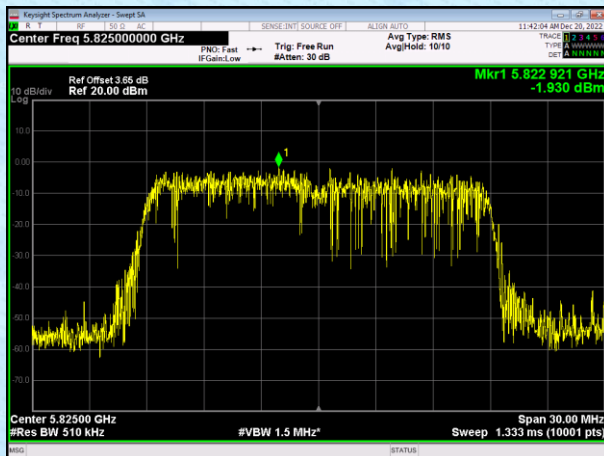


Antenna2

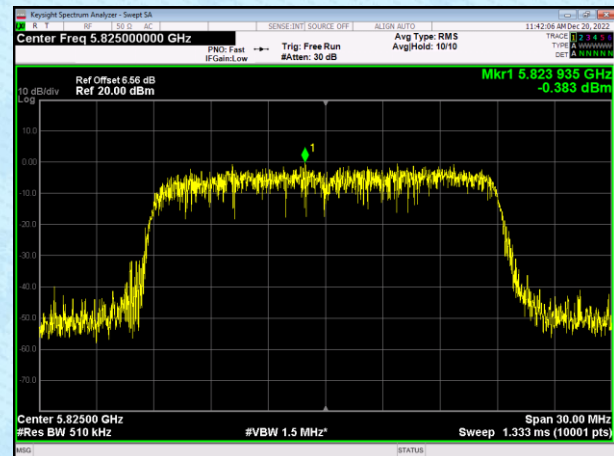


Highest channel 5825MHz

Antenna1



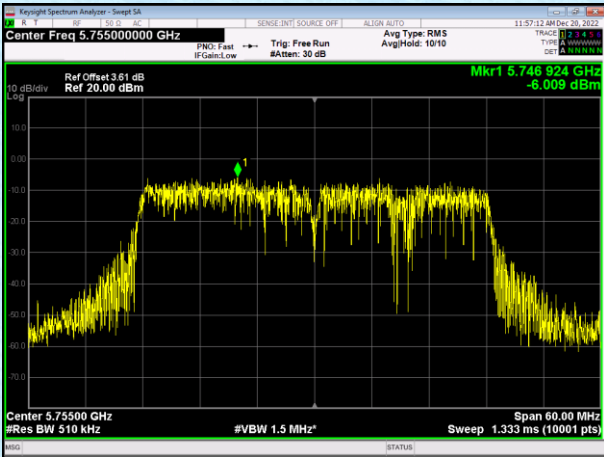
Antenna2



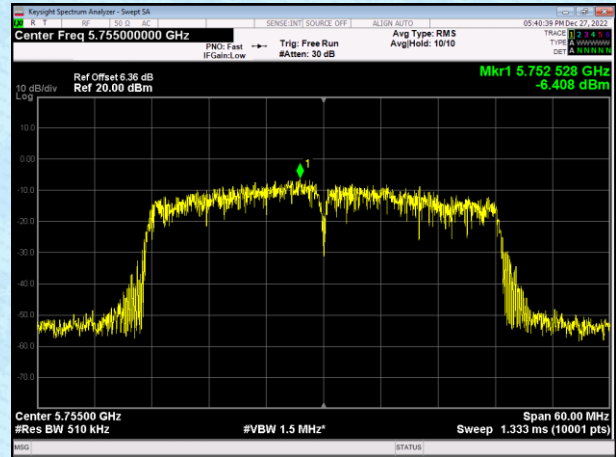
Test mode: 802.11 ac(VHT40)

Lowest channel 5755MHz

Antenna1

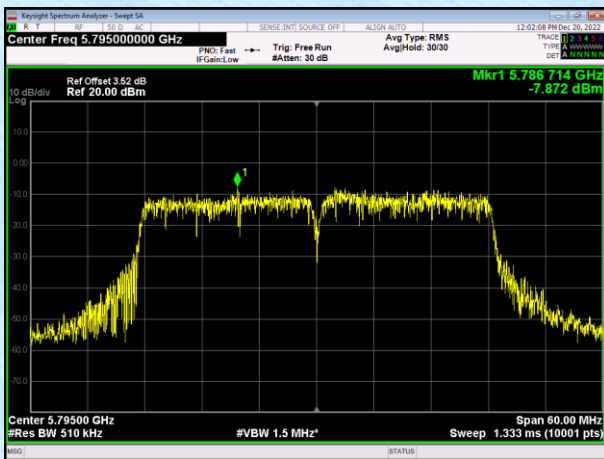


Antenna2

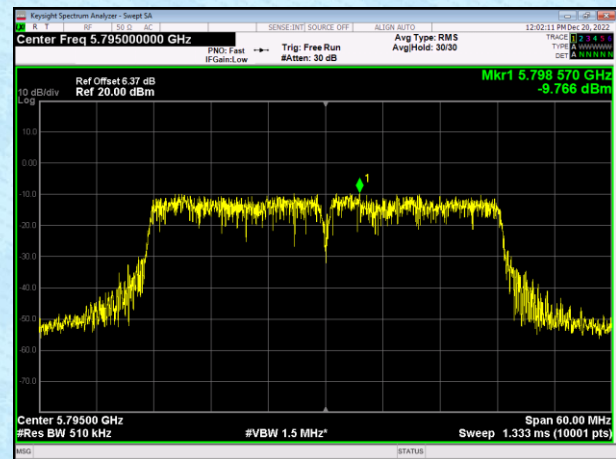


Highest channel 5795MHz

Antenna1



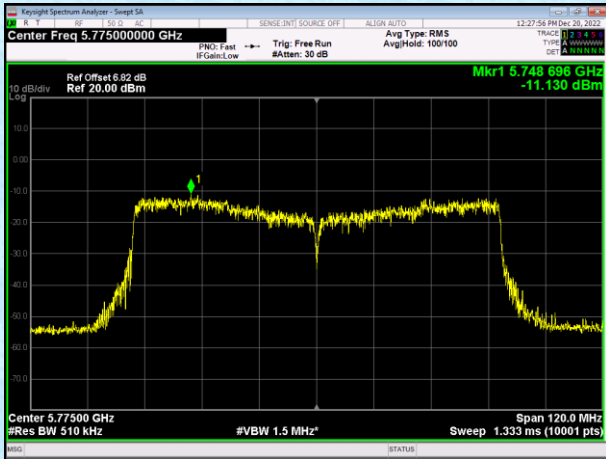
Antenna2



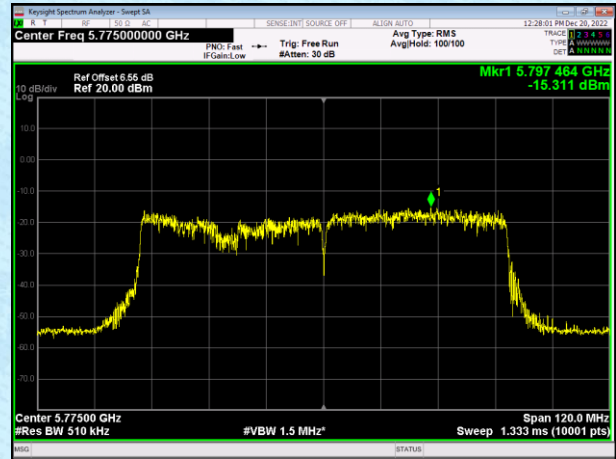
Test mode: 802.11 ac(VHT80)

Lowest channel 5775MHz

Antenna1



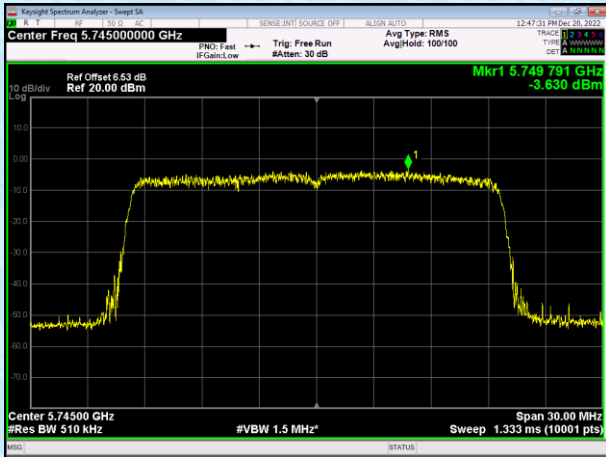
Antenna2



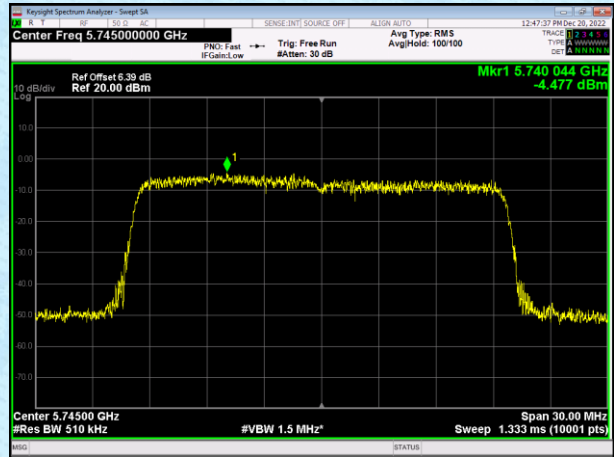
Test mode: 802.11ax(HE20)

Lowest channel 5745MHz

Antenna1

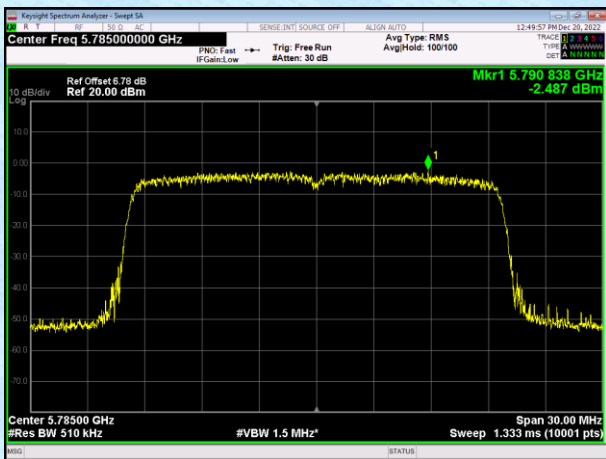


Antenna2

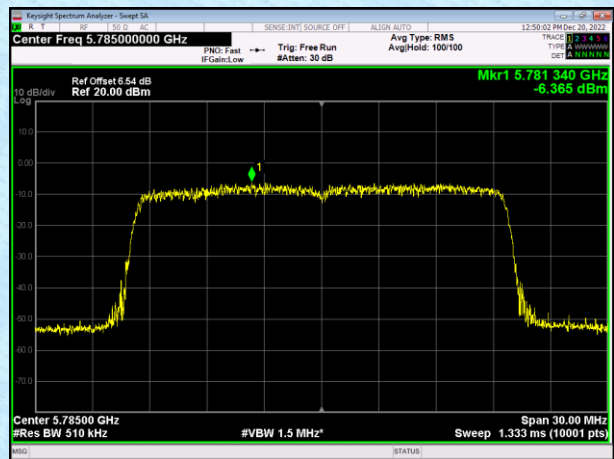


Middle channel 5785MHz

Antenna1



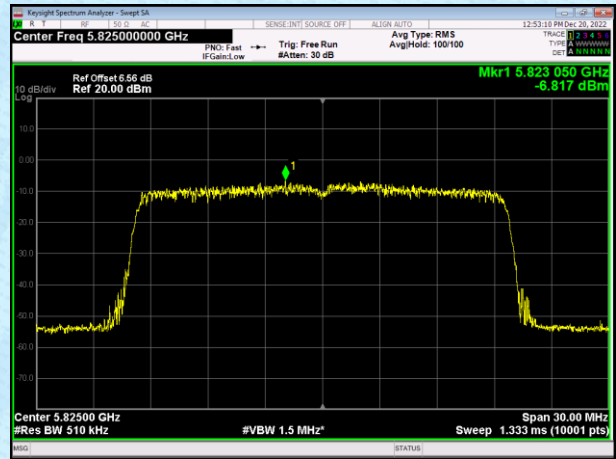
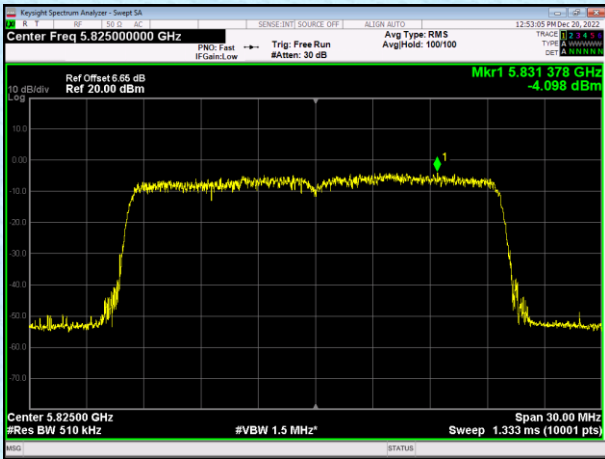
Antenna2



Highest channel 5825MHz

Antenna1

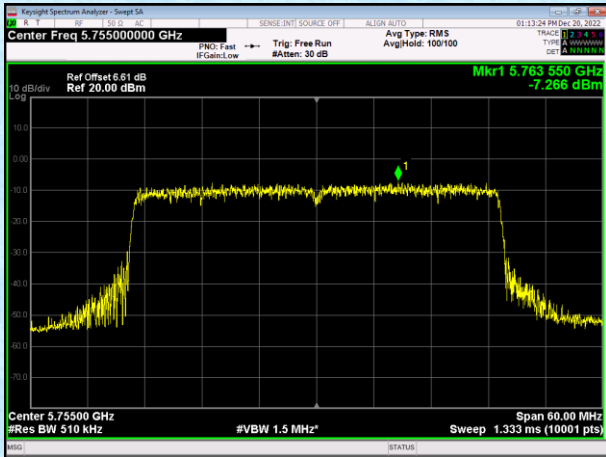
Antenna2



Test mode: 802.11ax(HE40)

Lowest channel 5755MHz

Antenna1

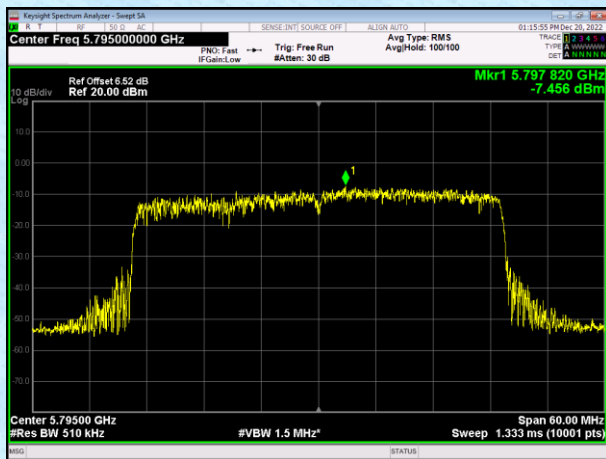


Antenna2

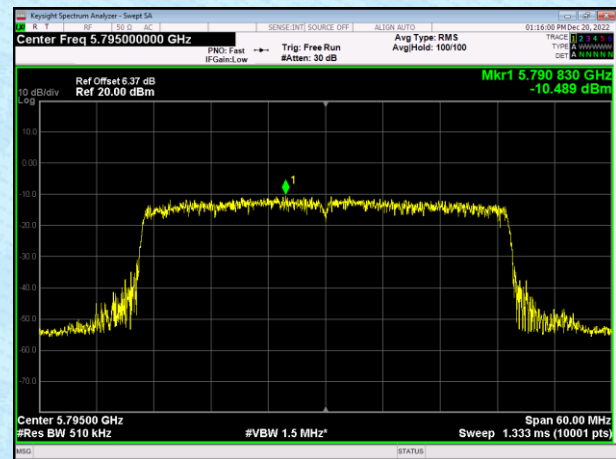


Highest channel 5795MHz

Antenna1



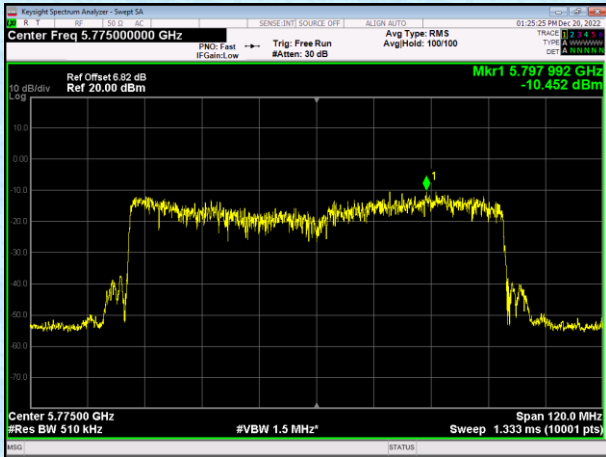
Antenna2



Test mode: 802.11ax(HE80)

Lowest channel 5775MHz

Antenna1



Antenna2

