

## Appendix A

### Duty-Cycle test Results





## Conducted output power

### Test results

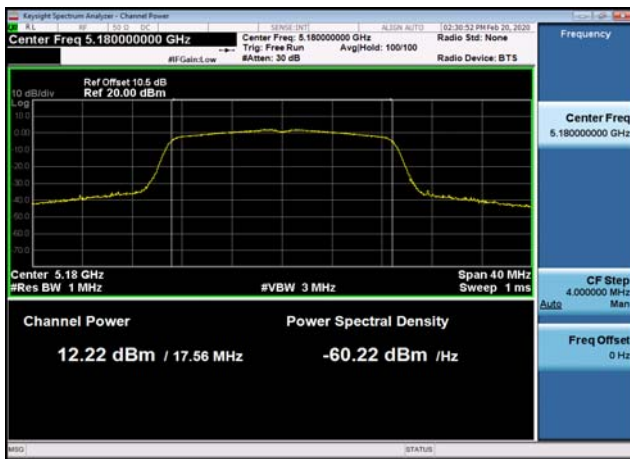
U-NII-1 AVGSA Output Power				
Mode	Test Frequency (MHz)	Max Conducted Output Power (dBm)	Limit (dBm)	Result
802.11n (20MHz)	5180	12.22	24	Pass
802.11n (20MHz)	5220	11.43	24	Pass
802.11n (20MHz)	5240	11.64	24	Pass
802.11n (40MHz)	5190	11.52	24	Pass
802.11n (40MHz)	5230	10.78	24	Pass
802.11ac (20MHz)	5180	12.20	24	Pass
802.11ac (20MHz)	5220	11.45	24	Pass
802.11ac (20MHz)	5240	12.00	24	Pass
802.11ac (40MHz)	5190	11.49	24	Pass
802.11ac (40MHz)	5230	11.31	24	Pass
802.11ac (80MHz)	5210	11.62	24	Pass
802.11a (20MHz)	5180	12.70	24	Pass
802.11a (20MHz)	5220	12.53	24	Pass
802.11a (20MHz)	5240	12.47	24	Pass



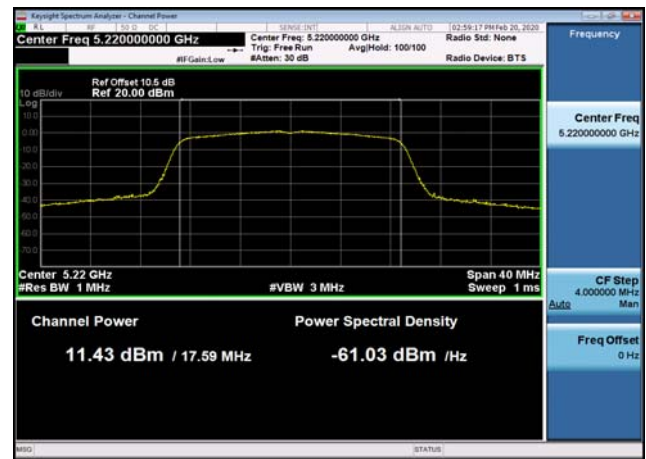
U-NII-3 AVGSA Output Power				
Mode	Test Frequency (MHz)	Max Conducted Output Power (dBm)	Limit (dBm)	Result
802.11n (20MHz)	5745	12.03	30	Pass
802.11n (20MHz)	5785	12.30	30	Pass
802.11n (20MHz)	5825	11.80	30	Pass
802.11n (40MHz)	5755	12.22	30	Pass
802.11n (40MHz)	5795	12.77	30	Pass
802.11ac (20MHz)	5745	12.98	30	Pass
802.11ac (20MHz)	5785	12.15	30	Pass
802.11ac (20MHz)	5825	12.18	30	Pass
802.11ac (40MHz)	5755	12.74	30	Pass
802.11ac (40MHz)	5795	12.69	30	Pass
802.11ac (80MHz)	5775	12.01	30	Pass
802.11a (20MHz)	5745	12.49	30	Pass
802.11a (20MHz)	5785	12.50	30	Pass
802.11a (20MHz)	5825	12.41	30	Pass

### Test Plots

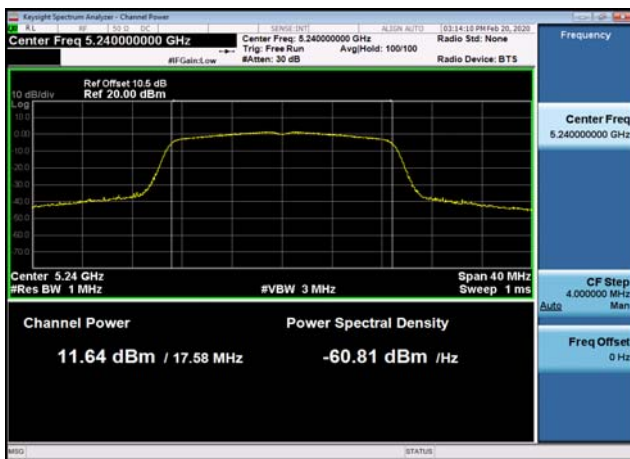
U-NII-1 Output Power-802.11n(20MHz)  
,5180MHz



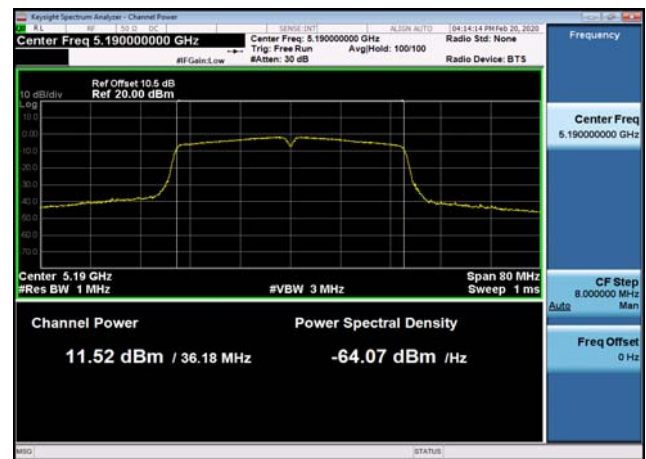
U-NII-1 Output Power-802.11n(20MHz)  
,5220MHz



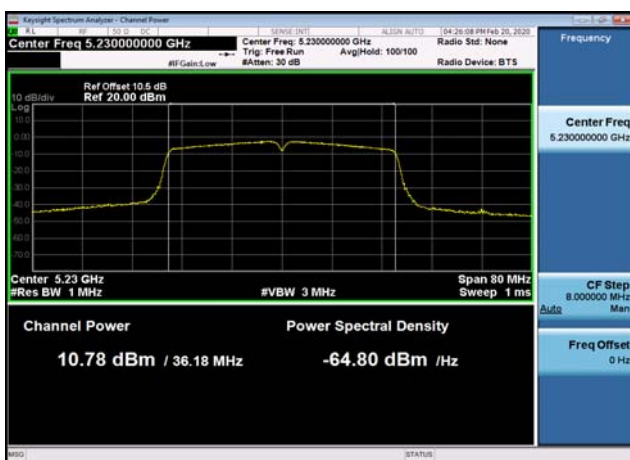
U-NII-1 Output Power-802.11n(20MHz)  
,5240MHz



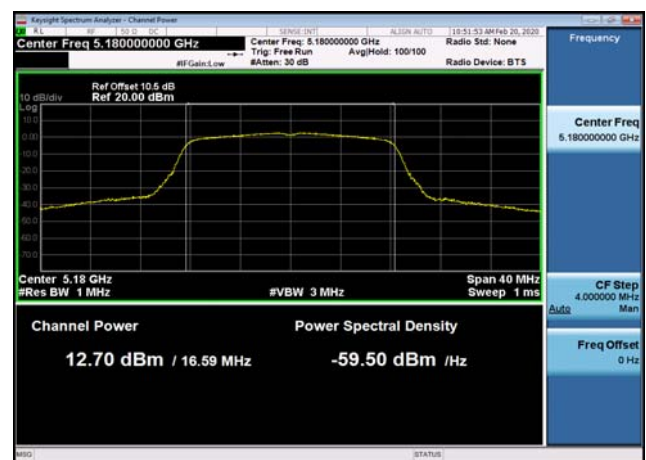
U-NII-1 Output Power-802.11n(40MHz)  
,5190MHz



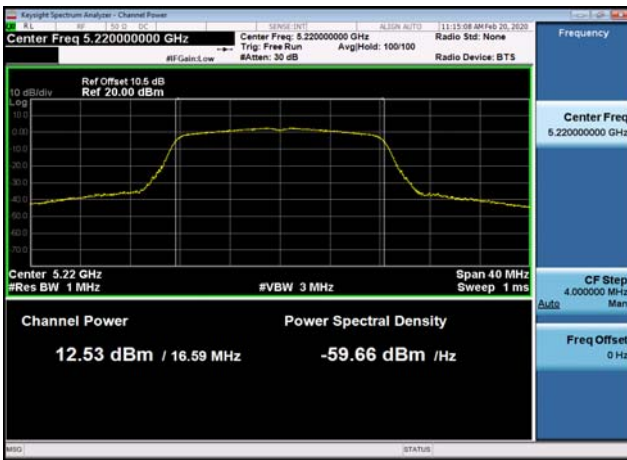
U-NII-1 Output Power-802.11n(40MHz)  
,5230MHz



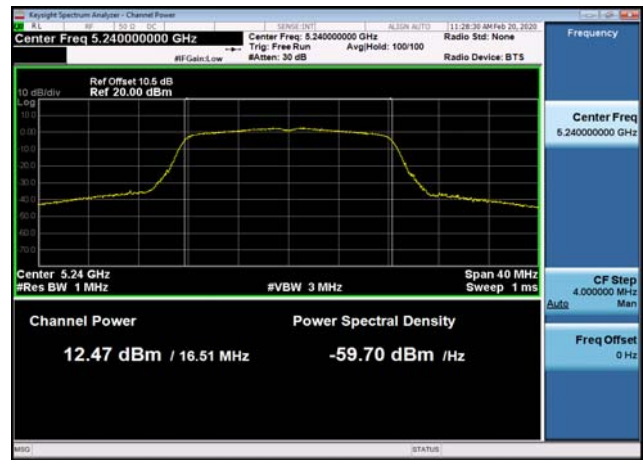
U-NII-1 Output Power-802.11a(20MHz)  
,5180MHz



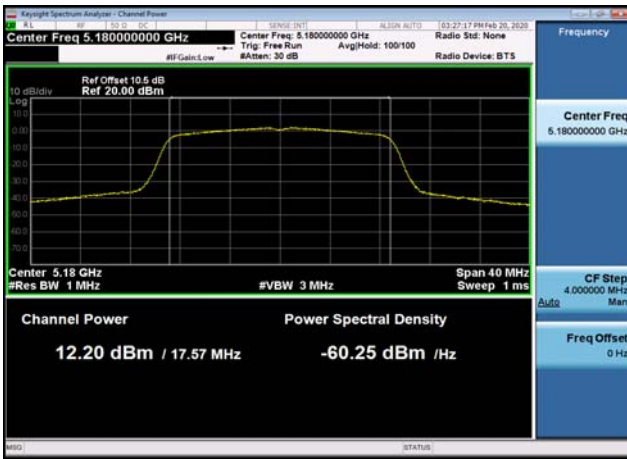
U-NII-1 Output Power-802.11a(20MHz)  
,5220MHz



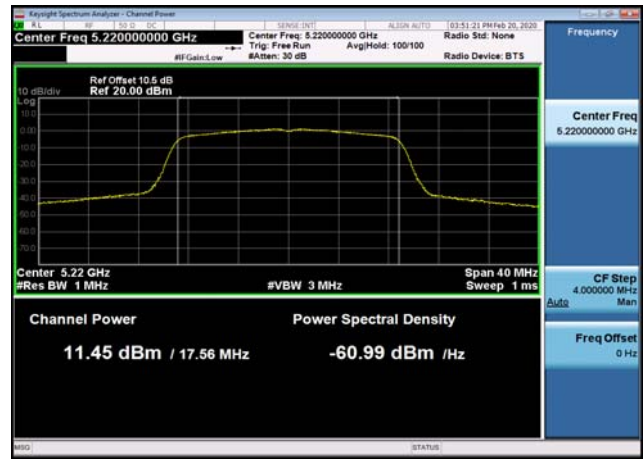
U-NII-1 Output Power-802.11a(20MHz)  
,5240MHz



U-NII-1 Output Power-802.11ac(20MHz)  
,5180MHz



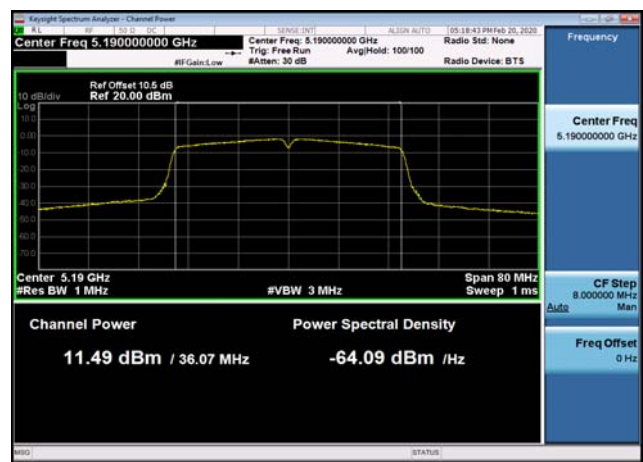
U-NII-1 Output Power-802.11ac(20MHz)  
,5220MHz



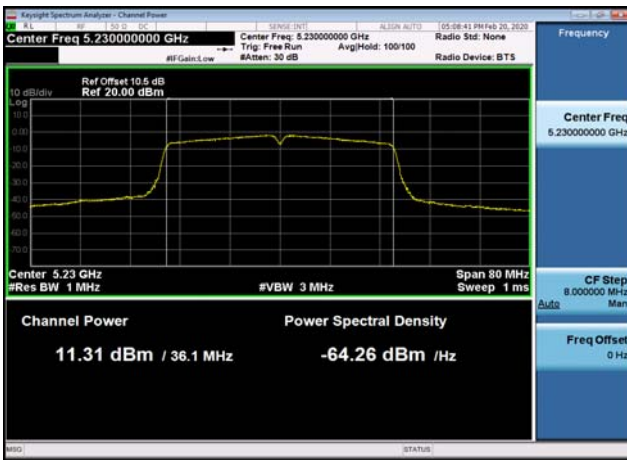
U-NII-1 Output Power-802.11ac(20MHz)  
,5240MHz



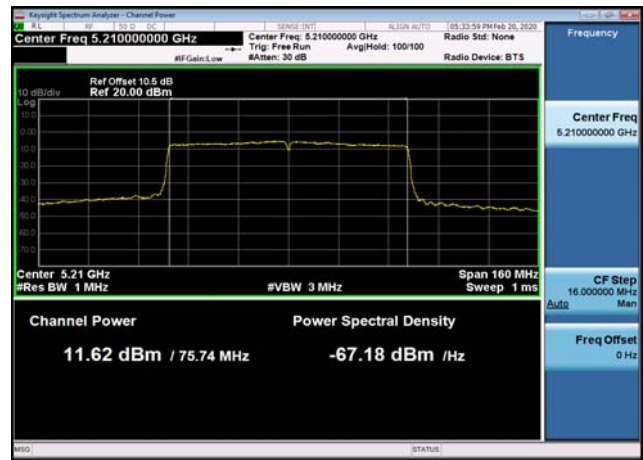
U-NII-1 Output Power-802.11ac(40MHz)  
,5190MHz



U-NII-1 Output Power-802.11ac(40MHz)  
,5230MHz



U-NII-1 Output Power-802.11ac(80MHz)  
,5210MHz



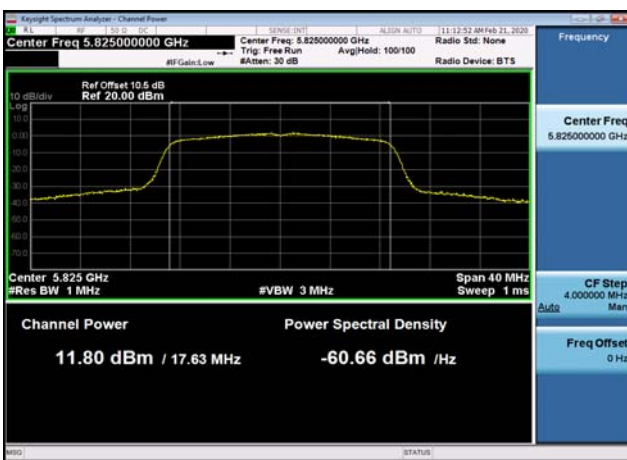
U-NII-3 Output Power-802.11n(20MHz)  
,5745MHz



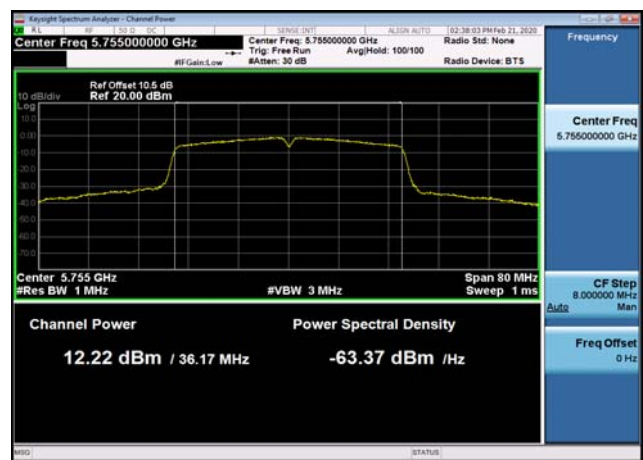
U-NII-3 Output Power-802.11n(20MHz)  
,5785MHz



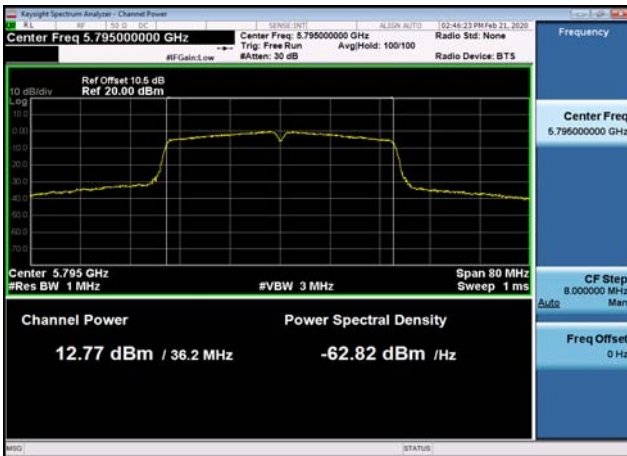
U-NII-3 Output Power-802.11n(20MHz)  
,5825MHz



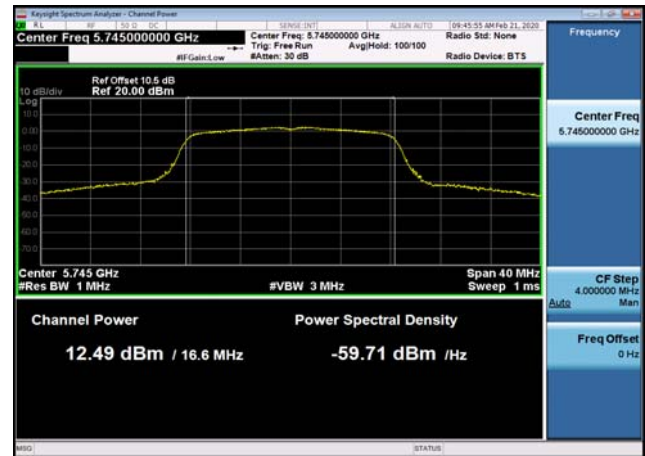
U-NII-3 Output Power-802.11n(40MHz)  
,5755MHz



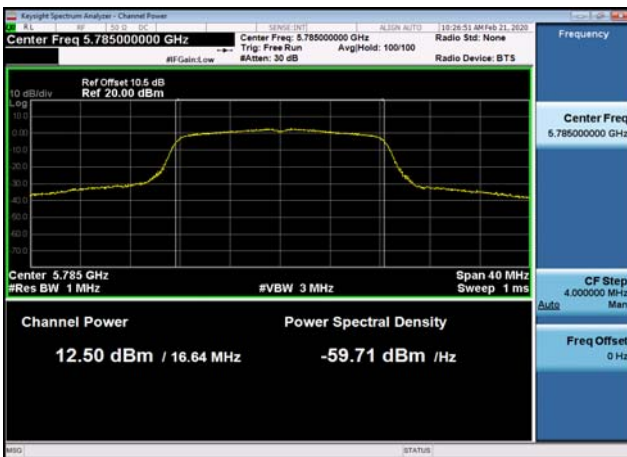
U-NII-3 Output Power-802.11n(40MHz)  
,5795MHz



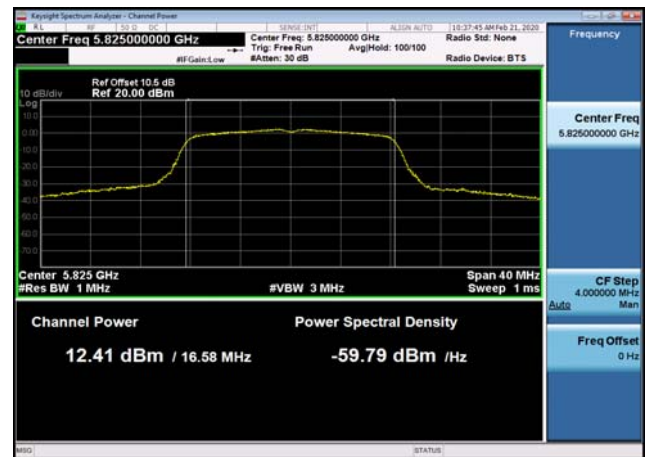
U-NII-3 Output Power-802.11a(20MHz)  
,5745MHz



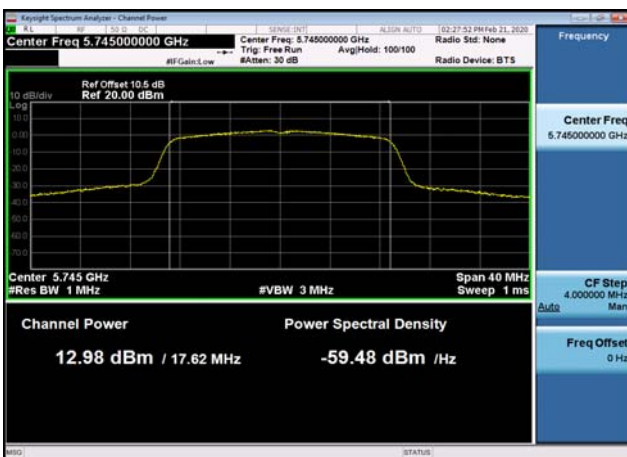
U-NII-3 Output Power-802.11a(20MHz)  
,5785MHz



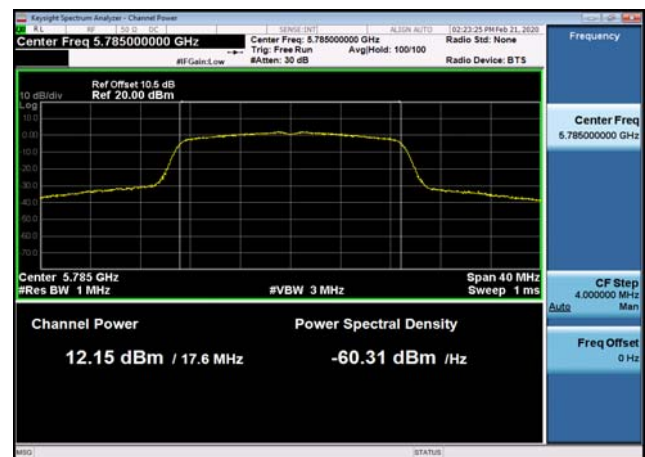
U-NII-3 Output Power-802.11a(20MHz)  
,5825MHz



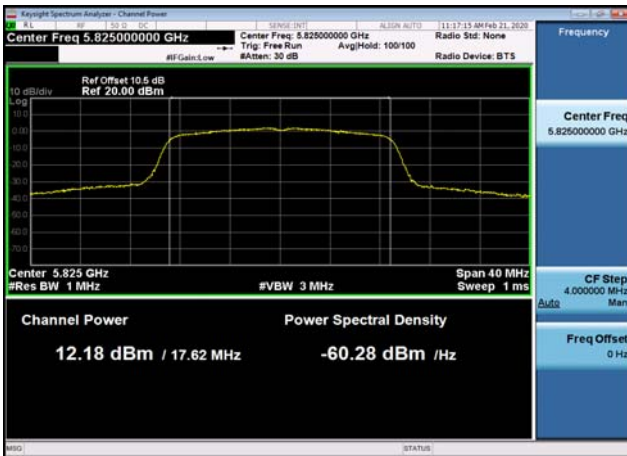
U-NII-3 Output Power-802.11ac(20MHz)  
,5745MHz



U-NII-3 Output Power-802.11ac(20MHz)  
,5785MHz



U-NII-3 Output Power-802.11ac(20MHz)  
,5825MHz



U-NII-3 Output Power-802.11ac(40MHz)  
,5755MHz



U-NII-3 Output Power-802.11ac(40MHz)  
,5795MHz



U-NII-3 Output Power-802.11ac(80MHz)  
,5775MHz







## AVGSA Power Spectral Density

### Test Result and Data

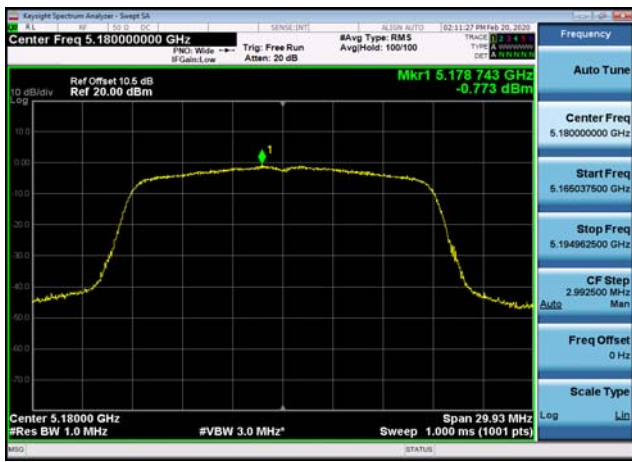
U-NII-1 AVGSA Power Spectral Density				
Mode	Test Frequency (MHz)	PSD (dBm/1MHz)	Limit (dBm/1MHz)	Result
802.11n (20MHz)	5180	-0.773	11	Pass
802.11n (20MHz)	5220	1.507	11	Pass
802.11n (20MHz)	5240	1.378	11	Pass
802.11n (40MHz)	5190	-1.179	11	Pass
802.11n (40MHz)	5230	-1.987	11	Pass
802.11ac (20MHz)	5180	2.085	11	Pass
802.11ac (20MHz)	5220	1.130	11	Pass
802.11ac (20MHz)	5240	1.778	11	Pass
802.11ac (40MHz)	5190	-1.437	11	Pass
802.11ac (40MHz)	5230	-1.701	11	Pass
802.11ac (80MHz)	5210	-4.980	11	Pass
802.11a (20MHz)	5180	2.458	11	Pass
802.11a (20MHz)	5220	2.361	11	Pass
802.11a (20MHz)	5240	2.334	11	Pass



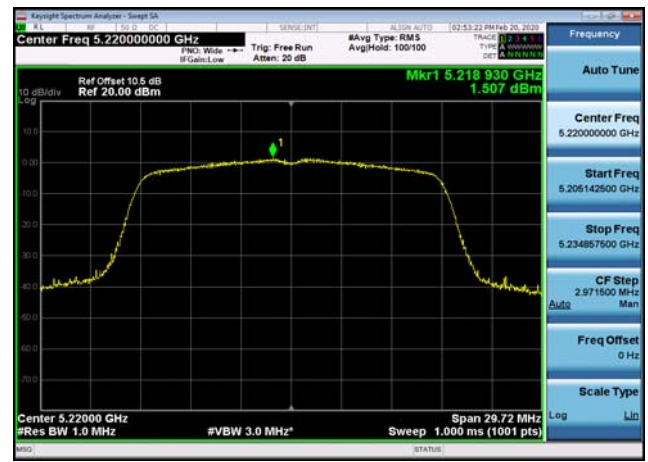
U-NII-3 AVGSA Power Spectral Density				
Mode	Test Frequency (MHz)	PSD (dBm/510KHz)	Limit (dBm/500KHz)	Result
802.11n (20MHz)	5745	-0.625	30	Pass
802.11n (20MHz)	5785	-0.122	30	Pass
802.11n (20MHz)	5825	-0.501	30	Pass
802.11n (40MHz)	5755	-3.587	30	Pass
802.11n (40MHz)	5795	-2.901	30	Pass
802.11ac (20MHz)	5745	0.246	30	Pass
802.11ac (20MHz)	5785	-0.297	30	Pass
802.11ac (20MHz)	5825	-0.495	30	Pass
802.11ac (40MHz)	5755	-2.693	30	Pass
802.11ac (40MHz)	5795	-3.149	30	Pass
802.11ac (80MHz)	5775	-7.177	30	Pass
802.11a (20MHz)	5745	-0.358	30	Pass
802.11a (20MHz)	5785	0.266	30	Pass
802.11a (20MHz)	5825	-0.194	30	Pass

### Test Plots

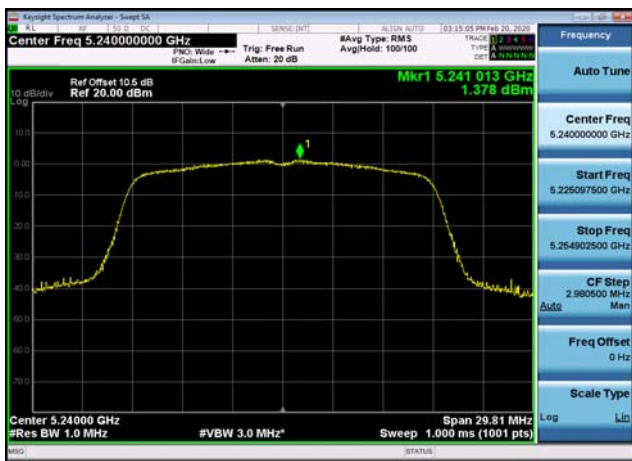
U-NII-1 Power spectral density-802.11  
n(20MHz),5180MHz



U-NII-1 Power spectral density-802.11  
n(20MHz),5220MHz



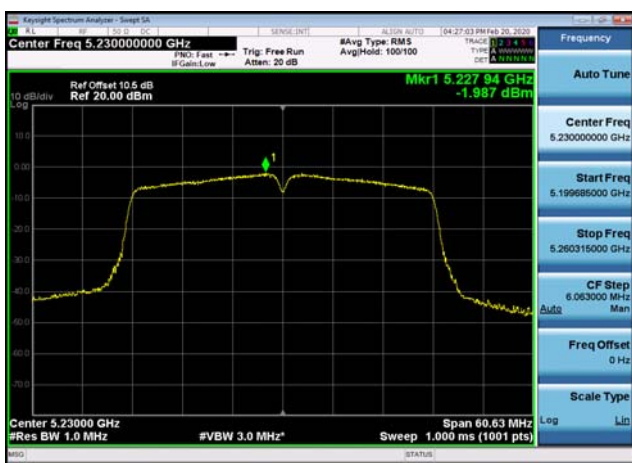
U-NII-1 Power spectral density-802.11  
n(20MHz),5240MHz



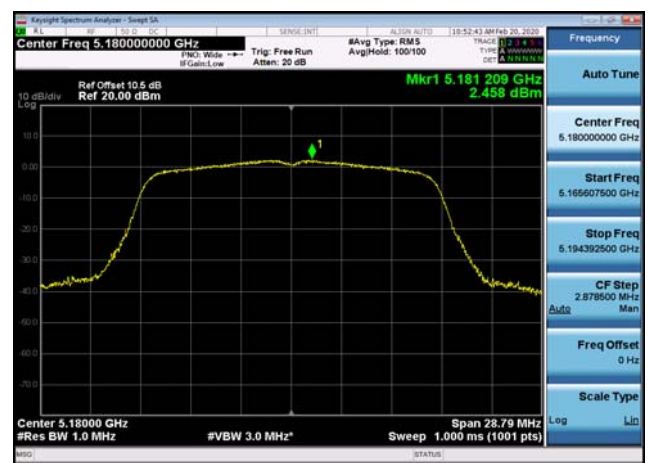
U-NII-1 Power spectral density-802.11  
n(40MHz),5190MHz



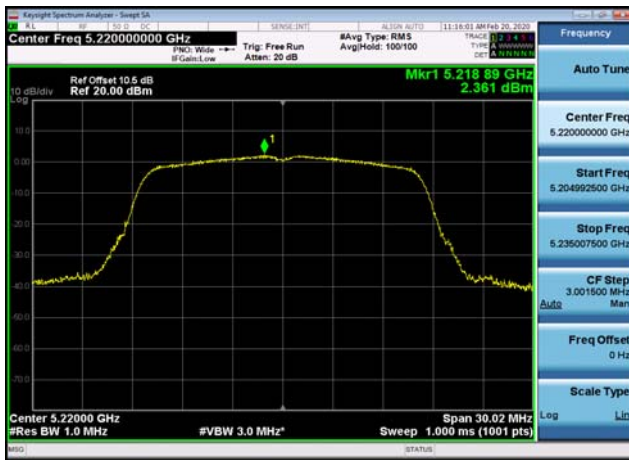
U-NII-1 Power spectral density-802.11  
n(40MHz),5230MHz



U-NII-1 Power spectral density-802.11  
a(20MHz),5180MHz



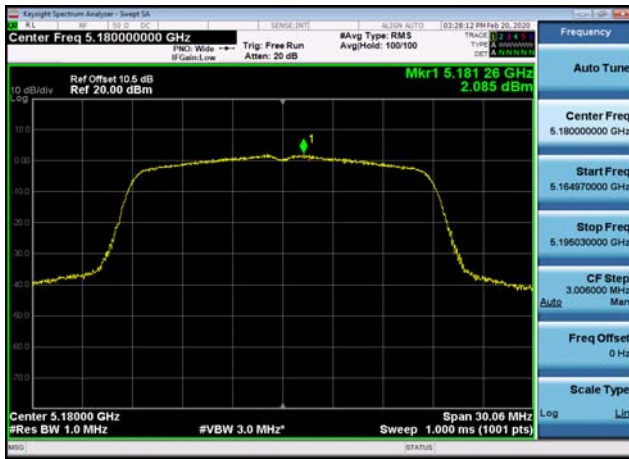
U-NII-1 Power spectral density-802.11  
a(20MHz),5220MHz



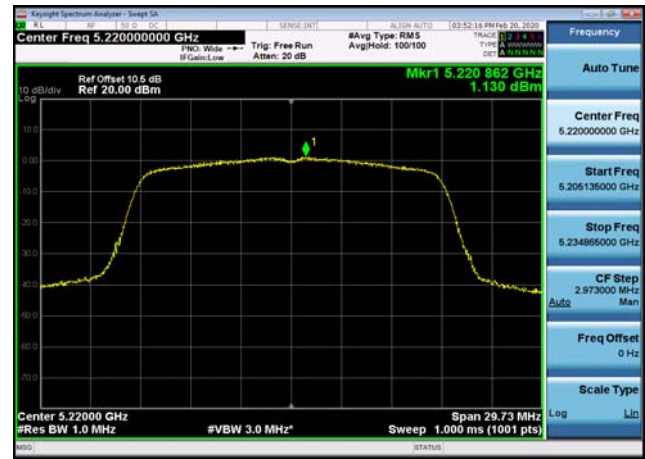
U-NII-1 Power spectral density-802.11  
a(20MHz),5240MHz



U-NII-1 Power spectral density-802.11  
ac(20MHz),5180MHz



U-NII-1 Power spectral density-802.11  
ac(20MHz),5220MHz



U-NII-1 Power spectral density-802.11  
ac(20MHz),5240MHz



U-NII-1 Power spectral density-802.11  
ac(40MHz),5190MHz



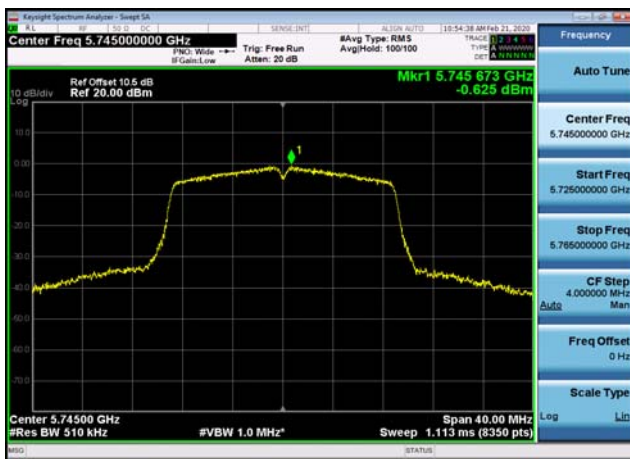
U-NII-1 Power spectral density-802.11  
ac(40MHz),5230MHz



U-NII-1 Power spectral density-802.11  
ac(80MHz),5210MHz



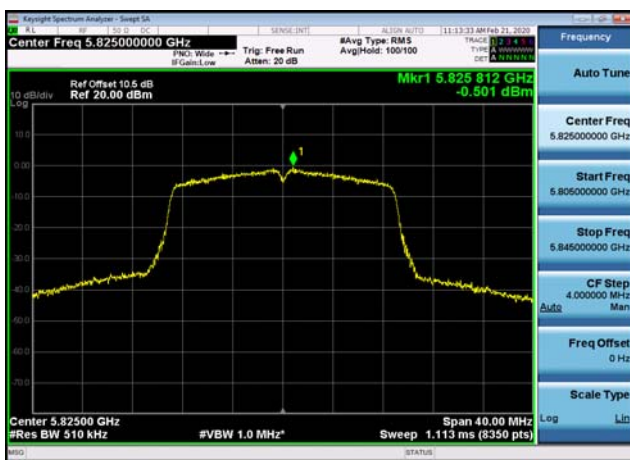
U-NII-3 Power spectral density-802.11  
n(20MHz),5745MHz



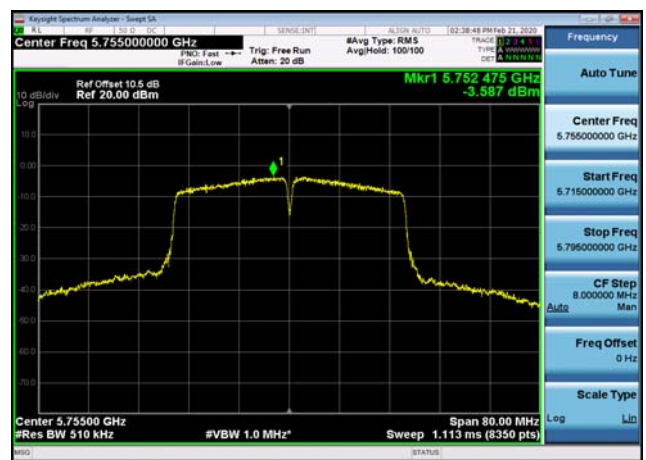
U-NII-3 Power spectral density-802.11  
n(20MHz),5785MHz



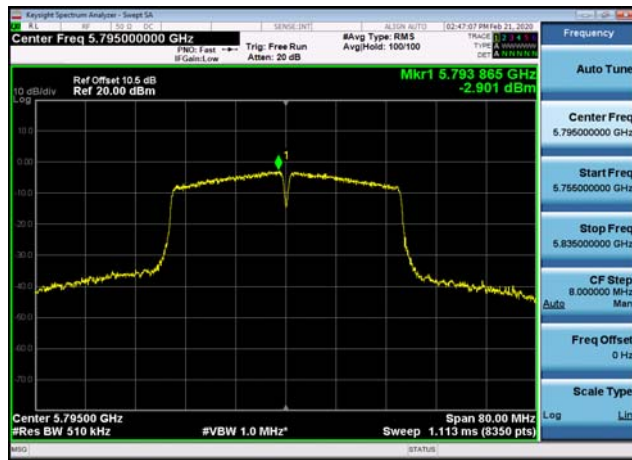
U-NII-3 Power spectral density-802.11  
n(20MHz),5825MHz



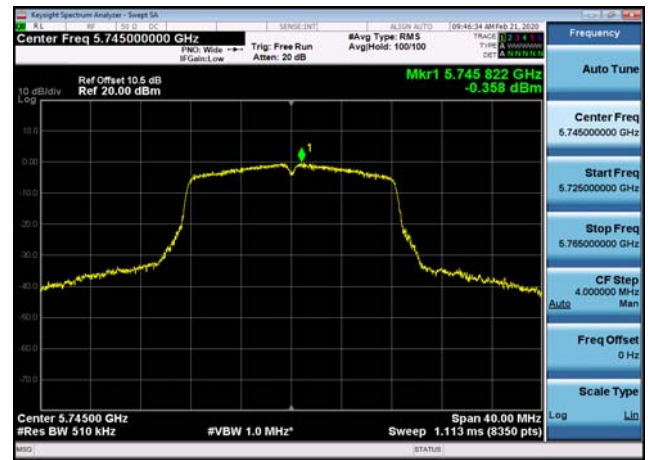
U-NII-3 Power spectral density-802.11  
n(40MHz),5755MHz



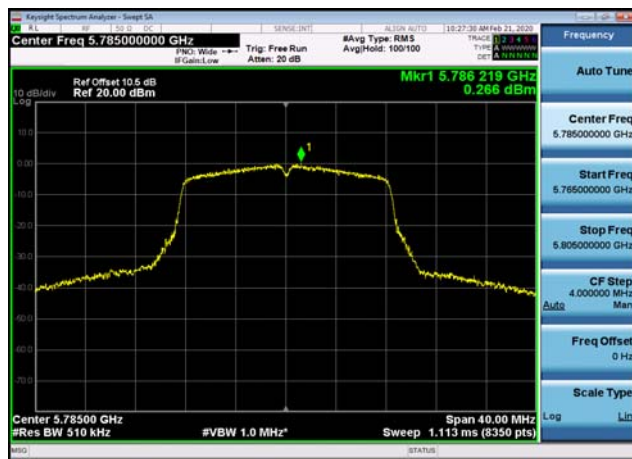
U-NII-3 Power spectral density-802.11  
n(40MHz),5795MHz



U-NII-3 Power spectral density-802.11  
a(20MHz),5745MHz



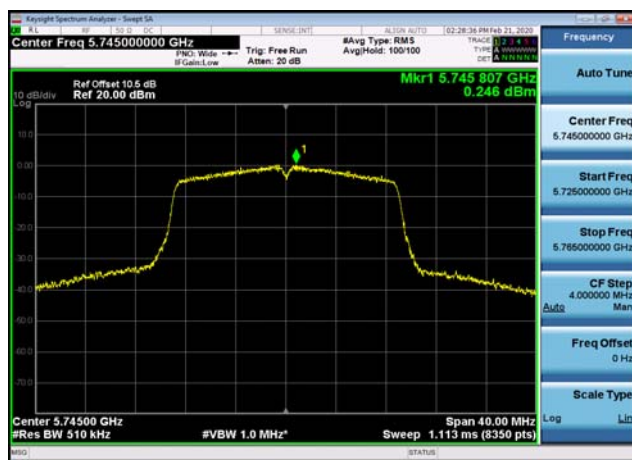
U-NII-3 Power spectral density-802.11  
a(20MHz),5785MHz



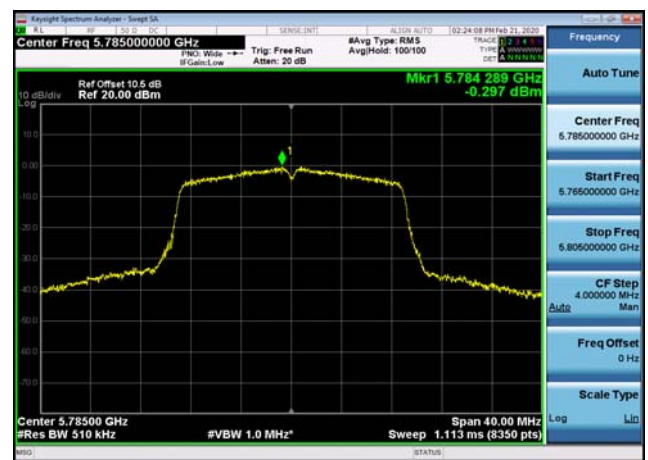
U-NII-3 Power spectral density-802.11  
a(20MHz),5825MHz



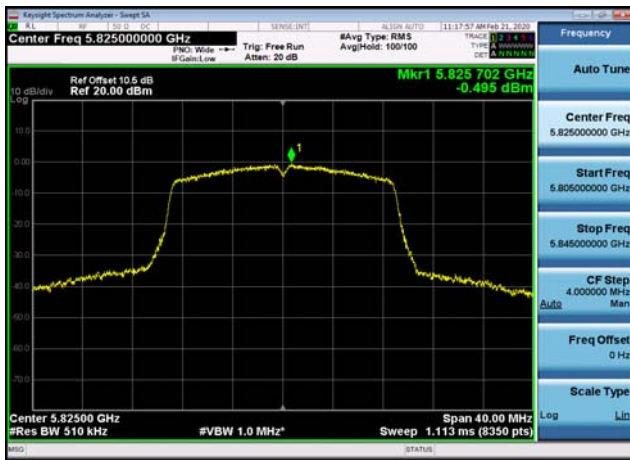
U-NII-3 Power spectral density-802.11  
ac(20MHz),5745MHz



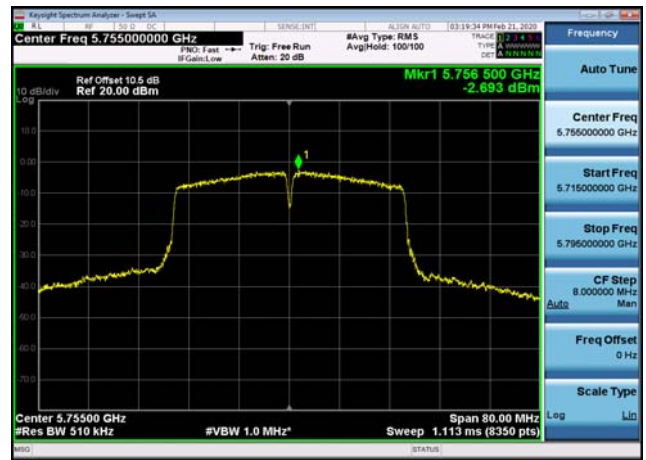
U-NII-3 Power spectral density-802.11  
ac(20MHz),5785MHz



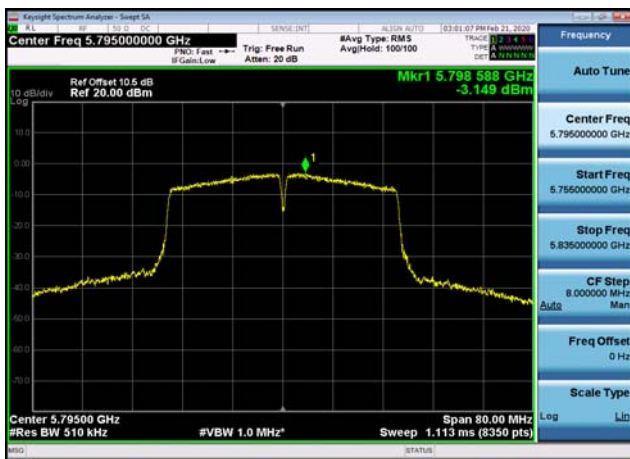
U-NII-3 Power spectral density-802.11  
ac(20MHz),5825MHz



U-NII-3 Power spectral density-802.11  
ac(40MHz),5755MHz



U-NII-3 Power spectral density-802.11  
ac(40MHz),5795MHz



U-NII-3 Power spectral density-802.11  
ac(80MHz),5775MHz



**6dB and 26dB Down Bandwidth****Test Result and Data**

U-NII-1 Occupied 26dB Bandwidth			
Mode	Test Frequency (MHz)	Occupied Bandwidth (MHz)	Result
802.11n (20MHz)	5180	19.95	Pass
802.11n (20MHz)	5220	19.81	Pass
802.11n (20MHz)	5240	19.87	Pass
802.11n (40MHz)	5190	40.34	Pass
802.11n (40MHz)	5230	40.42	Pass
802.11ac (20MHz)	5180	20.04	Pass
802.11ac (20MHz)	5220	19.82	Pass
802.11ac (20MHz)	5240	20.05	Pass
802.11ac (40MHz)	5190	40.21	Pass
802.11ac (40MHz)	5230	40.18	Pass
802.11ac (80MHz)	5210	81.97	Pass
802.11a (20MHz)	5180	19.19	Pass
802.11a (20MHz)	5220	20.01	Pass
802.11a (20MHz)	5240	19.95	Pass





## U-NII-3 Occupied 6dB Bandwidth

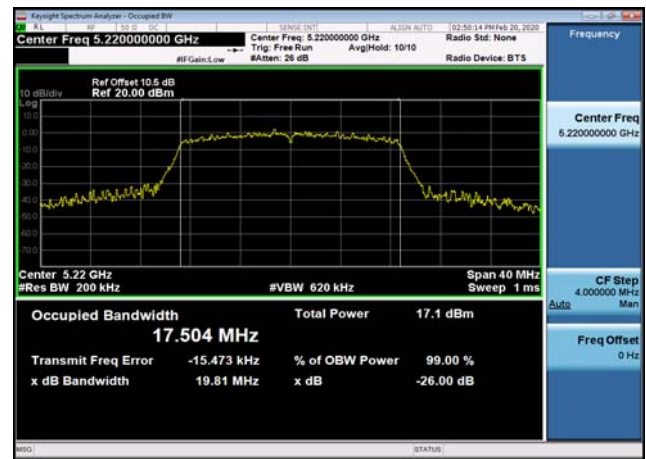
Mode	Test Frequency (MHz)	Occupied Bandwidth (MHz)	Min Limit (KHz)	Result
802.11n (20MHz)	5745	15.05	500	Pass
802.11n (20MHz)	5785	14.11	500	Pass
802.11n (20MHz)	5825	11.73	500	Pass
802.11n (40MHz)	5755	35.10	500	Pass
802.11n (40MHz)	5795	32.64	500	Pass
802.11ac (20MHz)	5745	11.98	500	Pass
802.11ac (20MHz)	5785	13.78	500	Pass
802.11ac (20MHz)	5825	11.62	500	Pass
802.11ac (40MHz)	5755	35.13	500	Pass
802.11ac (40MHz)	5795	35.10	500	Pass
802.11ac (80MHz)	5775	75.49	500	Pass
802.11a (20MHz)	5745	12.98	500	Pass
802.11a (20MHz)	5785	14.11	500	Pass
802.11a (20MHz)	5825	15.14	500	Pass

# Test Plots

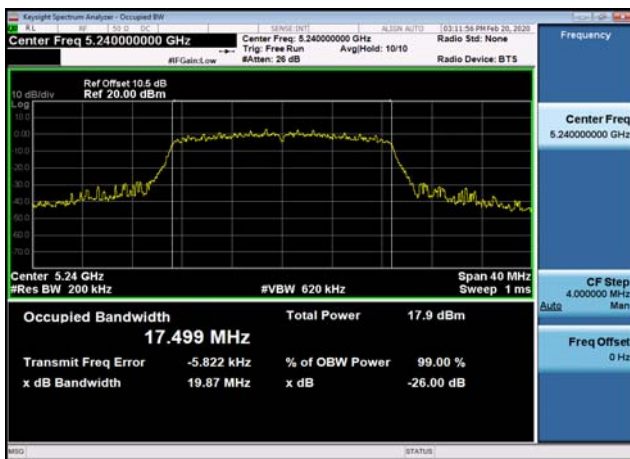
U-NII-1 26dB Bandwidth-802.11n(20MHz)  
,5180MHz



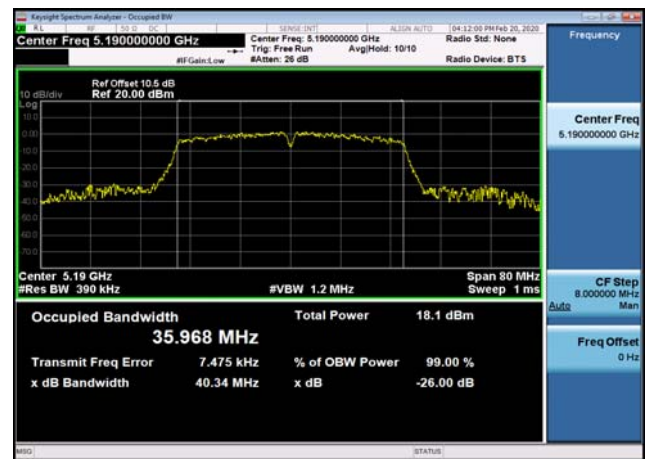
U-NII-1 26dB Bandwidth-802.11n(20MHz)  
,5220MHz



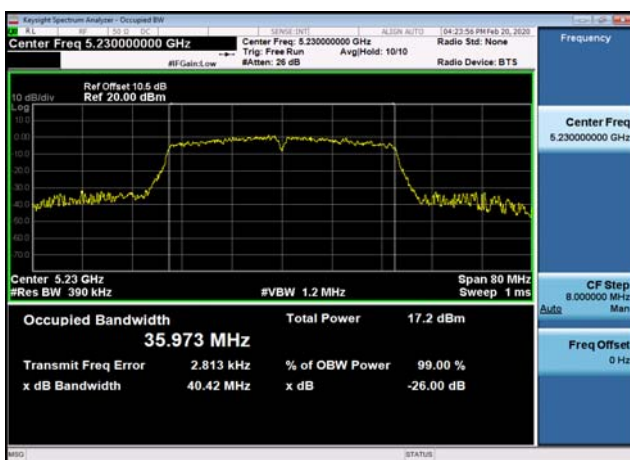
U-NII-1 26dB Bandwidth-802.11n(20MHz)  
,5240MHz



U-NII-1 26dB Bandwidth-802.11n(40MHz)  
,5190MHz



U-NII-1 26dB Bandwidth-802.11n(40MHz)  
,5230MHz



U-NII-1 26dB Bandwidth-802.11a(20MHz)  
,5180MHz



U-NII-1 26dB Bandwidth-802.11a(20MHz)  
,5220MHz



U-NII-1 26dB Bandwidth-802.11a(20MHz)  
,5240MHz



U-NII-1 26dB Bandwidth-802.11ac(20MHz)  
,5180MHz



U-NII-1 26dB Bandwidth-802.11ac(20MHz)  
,5220MHz



U-NII-1 26dB Bandwidth-802.11ac(20MHz)  
,5240MHz



U-NII-1 26dB Bandwidth-802.11ac(40MHz)  
,5190MHz



U-NII-1 26dB Bandwidth-802.11ac(40MHz),5230MHz



U-NII-1 26dB Bandwidth-802.11ac(80MHz),5210MHz



U-NII-3 6dB Bandwidth-802.11n(20MHz),5745MHz,Ant1



U-NII-3 6dB Bandwidth-802.11n(20MHz),5785MHz,Ant1



U-NII-3 6dB Bandwidth-802.11n(20MHz),5825MHz,Ant1



U-NII-3 6dB Bandwidth-802.11n(40MHz),5755MHz,Ant1



U-NII-3 6dB Bandwidth-802.11n(40MHz)  
,5795MHz,Ant1



U-NII-3 6dB Bandwidth-802.11a(20MHz)  
,5745MHz,Ant1



U-NII-3 6dB Bandwidth-802.11a(20MHz)  
,5785MHz,Ant1



U-NII-3 6dB Bandwidth-802.11a(20MHz)  
,5825MHz,Ant1



U-NII-3 6dB Bandwidth-802.11ac(20MHz)  
,5745MHz,Ant1



U-NII-3 6dB Bandwidth-802.11ac(20MHz)  
,5785MHz,Ant1



U-NII-3 6dB Bandwidth-802.11ac(20MHz)  
,5825MHz,Ant1



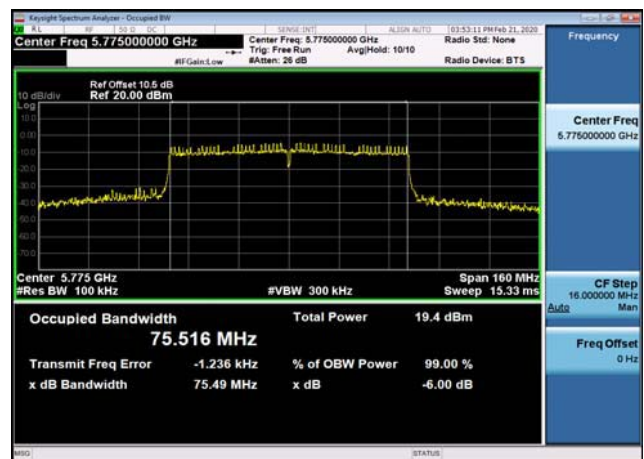
U-NII-3 6dB Bandwidth-802.11ac(40MHz)  
,5755MHz,Ant1



U-NII-3 6dB Bandwidth-802.11ac(40MHz)  
,5795MHz,Ant1



U-NII-3 6dB Bandwidth-802.11ac(80MHz)  
,5775MHz,Ant1



**Frequency Stability****U-NII-1**

U-NII-1 Centre Frequency							
Mode	Test Frequency (MHz)	Ant	LF (MHz)	HF (MHz)	CF (MHz)	Freq Stability (ppm)	Test Result
802.11n (20MHz)	5180	Ant1	5171.199	5188.797	5179.998	-0.400	Pass
802.11n (20MHz)	5220	Ant1	5211.127	5228.869	5219.998	-0.400	Pass
802.11n (20MHz)	5240	Ant1	5231.215	5248.778	5239.996	-0.720	Pass
802.11n (40MHz)	5190	Ant1	5171.864	5208.146	5190.005	0.870	Pass
802.11n (40MHz)	5230	Ant1	5211.837	5248.146	5229.991	-1.720	Pass
802.11ac (20MHz)	5180	Ant1	5171.190	5188.794	5179.992	-1.530	Pass
802.11ac (20MHz)	5220	Ant1	5211.176	5228.797	5219.986	-2.630	Pass
802.11ac (20MHz)	5240	Ant1	5231.206	5248.763	5239.984	-3.020	Pass
802.11ac (40MHz)	5190	Ant1	5171.835	5208.161	5189.998	-0.430	Pass
802.11ac (40MHz)	5230	Ant1	5211.823	5248.165	5229.994	-1.150	Pass
802.11ac (80MHz)	5210	Ant1	5171.803	5248.183	5209.993	-1.280	Pass
802.11a (20MHz)	5180	Ant1	5171.816	5188.178	5179.997	-0.560	Pass
802.11a (20MHz)	5220	Ant1	5211.825	5228.167	5219.996	-0.800	Pass
802.11a (20MHz)	5240	Ant1	5231.737	5248.190	5239.963	-7.000	Pass



## U-NII-3

U-NII-3 Centre Frequency							
Mode	Test Frequency (MHz)	Ant	LF (MHz)	HF (MHz)	CF (MHz)	Freq Stability (ppm)	Test Result
802.11n (20MHz)	5745	Ant1	5736.216	5753.808	5745.012	2.030	Pass
802.11n (20MHz)	5785	Ant1	5776.221	5793.797	5785.009	1.510	Pass
802.11n (20MHz)	5825	Ant1	5816.229	5833.799	5825.014	2.430	Pass
802.11n (40MHz)	5755	Ant1	5736.871	5773.168	5755.020	3.390	Pass
802.11n (40MHz)	5795	Ant1	5776.879	5813.153	5795.016	2.720	Pass
802.11ac (20MHz)	5745	Ant1	5736.192	5753.902	5745.047	8.120	Pass
802.11ac (20MHz)	5785	Ant1	5776.193	5793.901	5785.047	8.070	Pass
802.11ac (20MHz)	5825	Ant1	5816.218	5833.800	5825.009	1.570	Pass
802.11ac (40MHz)	5755	Ant1	5736.862	5773.188	5755.025	4.300	Pass
802.11ac (40MHz)	5795	Ant1	5776.855	5813.189	5795.022	3.750	Pass
802.11ac (80MHz)	5775	Ant1	5736.773	5813.283	5775.028	4.910	Pass
802.11a (20MHz)	5745	Ant1	5736.738	5753.265	5745.002	0.290	Pass
802.11a (20MHz)	5785	Ant1	5776.728	5793.258	5784.993	-1.150	Pass
802.11a (20MHz)	5825	Ant1	5816.842	5833.177	5825.009	1.570	Pass

Note: The worst data reported only.