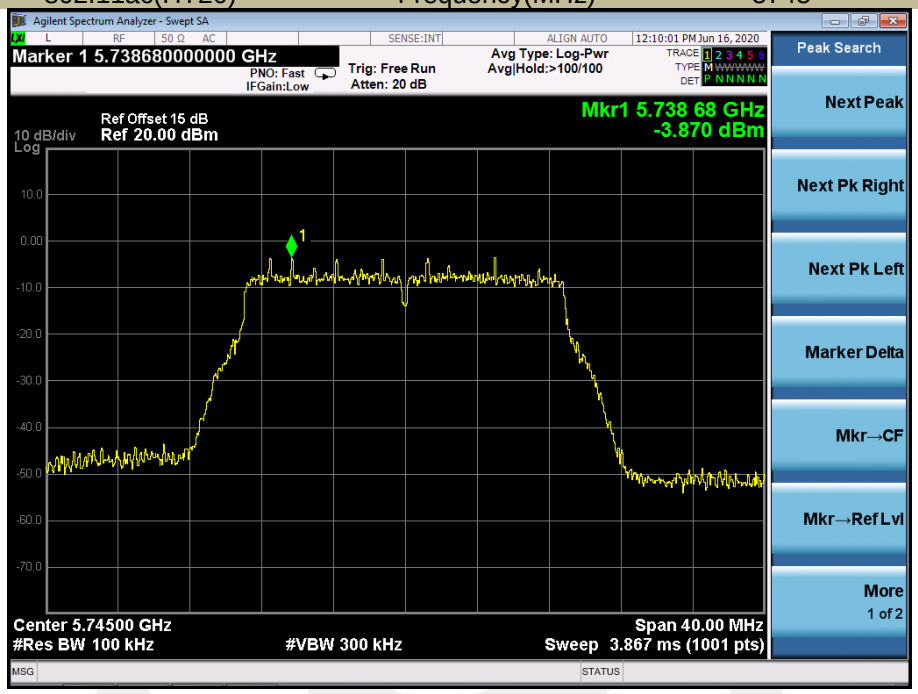
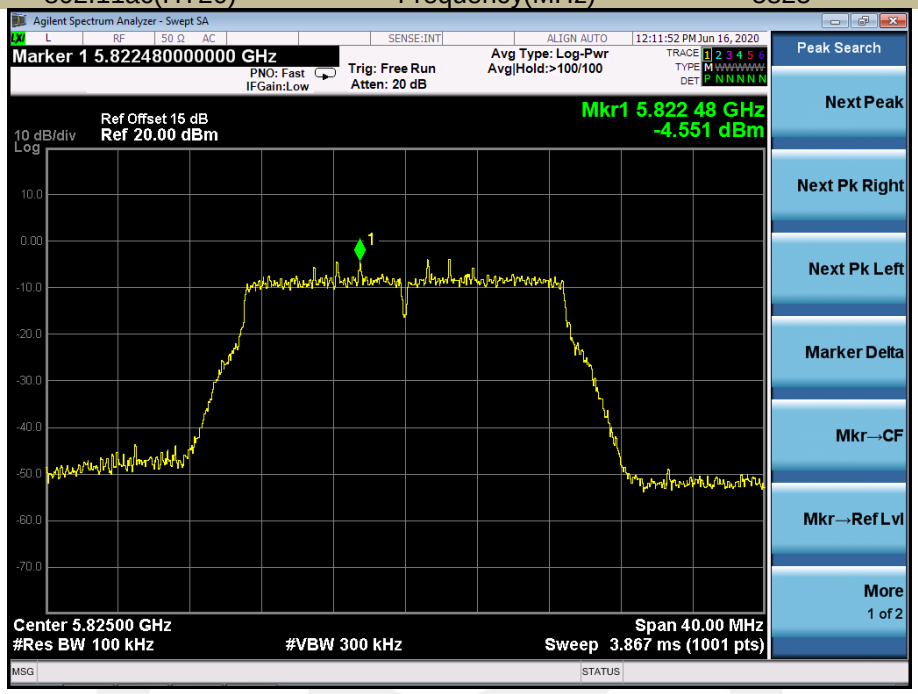
Power Spectral Density		U-NII - 3	
Test Model	802.11ac(HT20)	Frequency(MHz)	5745

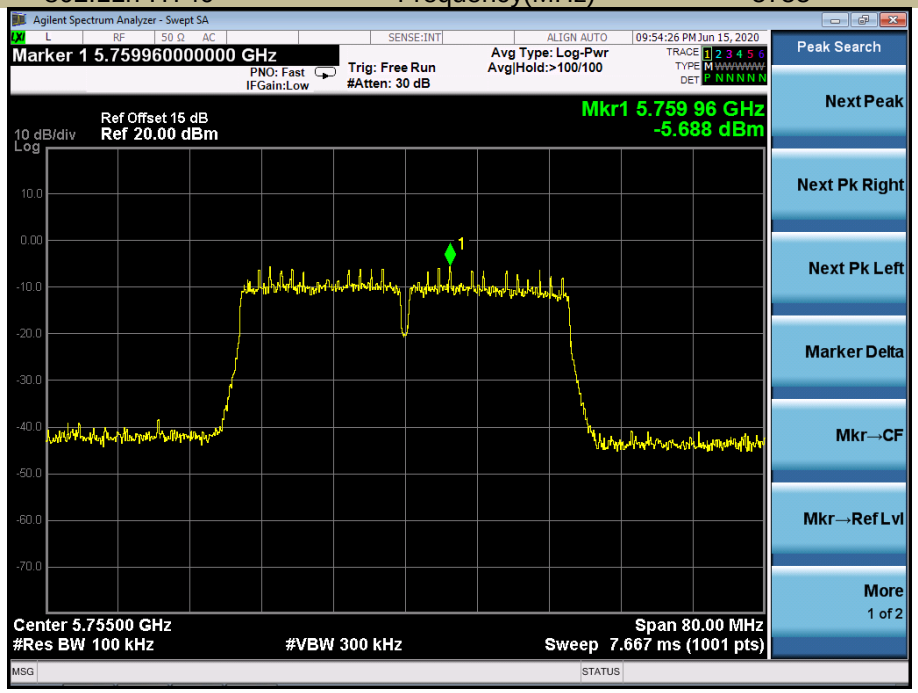


Power Spectral Density		U-NII - 3	
Test Model	802.11ac(HT20)	Frequency(MHz)	5785

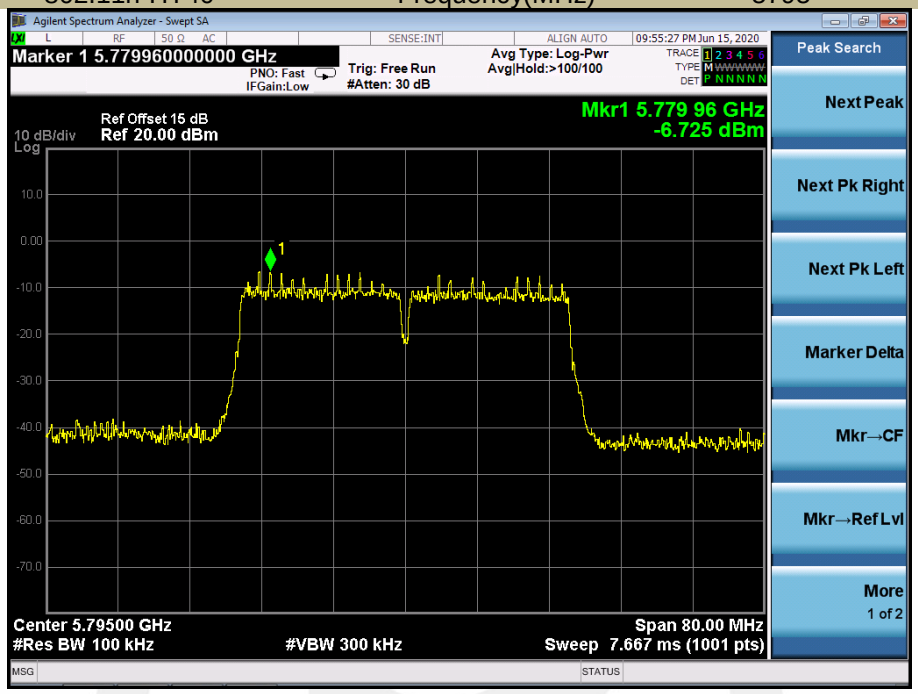
Power Spectral Density		U-NII - 3	
Test Model	802.11ac(HT20)	Frequency(MHz)	5825



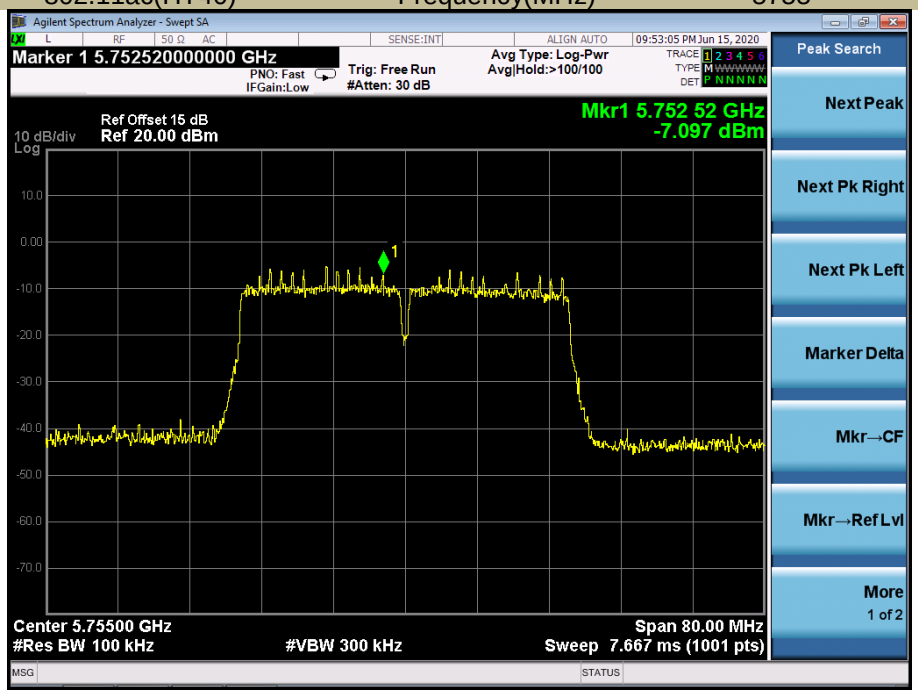
Power Spectral Density		U-NII - 3	
Test Model	802.11n-HT40	Frequency(MHz)	5755



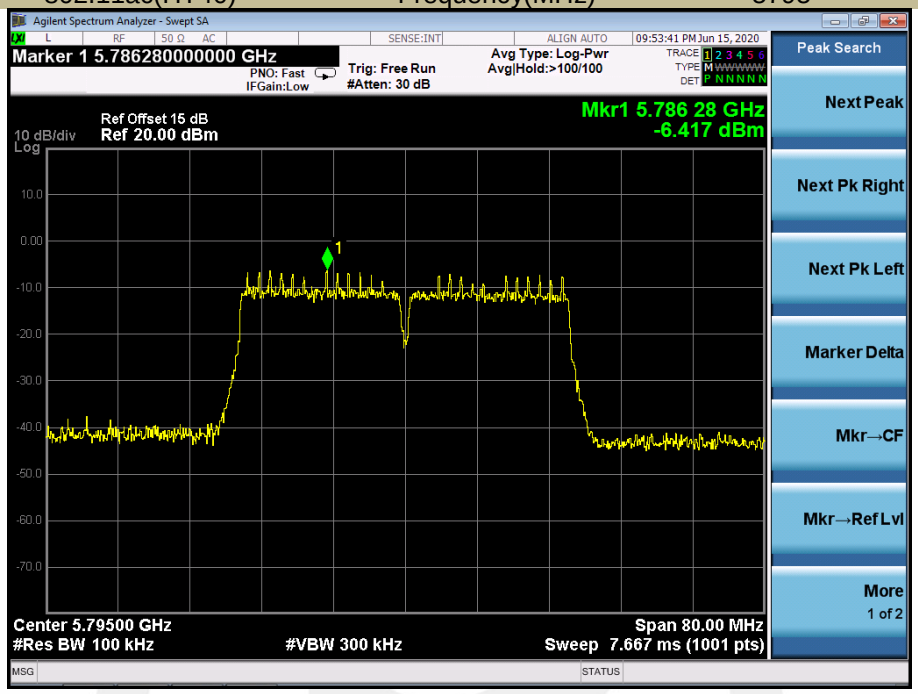
Power Spectral Density		U-NII - 3	
Test Model	802.11n-HT40	Frequency(MHz)	5795



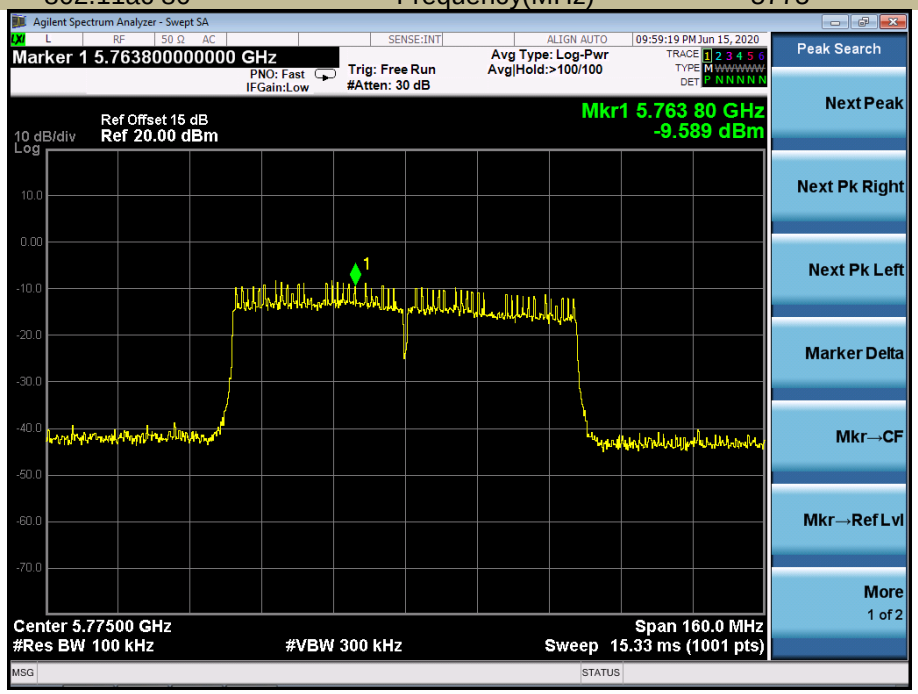
Power Spectral Density		U-NII - 3	
Test Model	802.11ac(HT40)	Frequency(MHz)	5755



Power Spectral Density		U-NII - 3	
Test Model	802.11ac(HT40)	Frequency(MHz)	5795



Power Spectral Density		U-NII - 3	
Test Model	802.11ac 80	Frequency(MHz)	5775

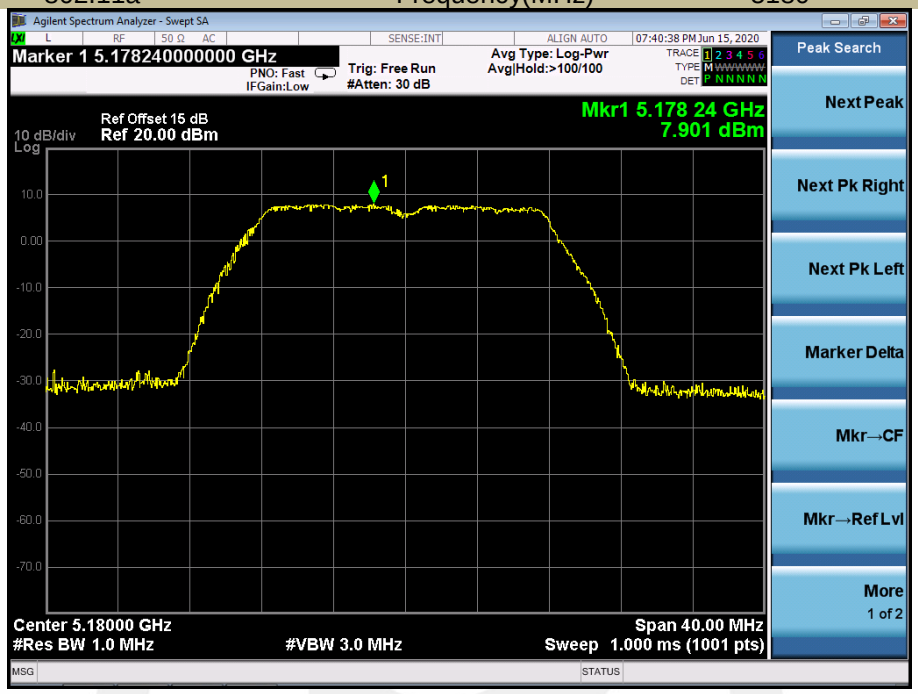


For 1T1R-Antenna 2

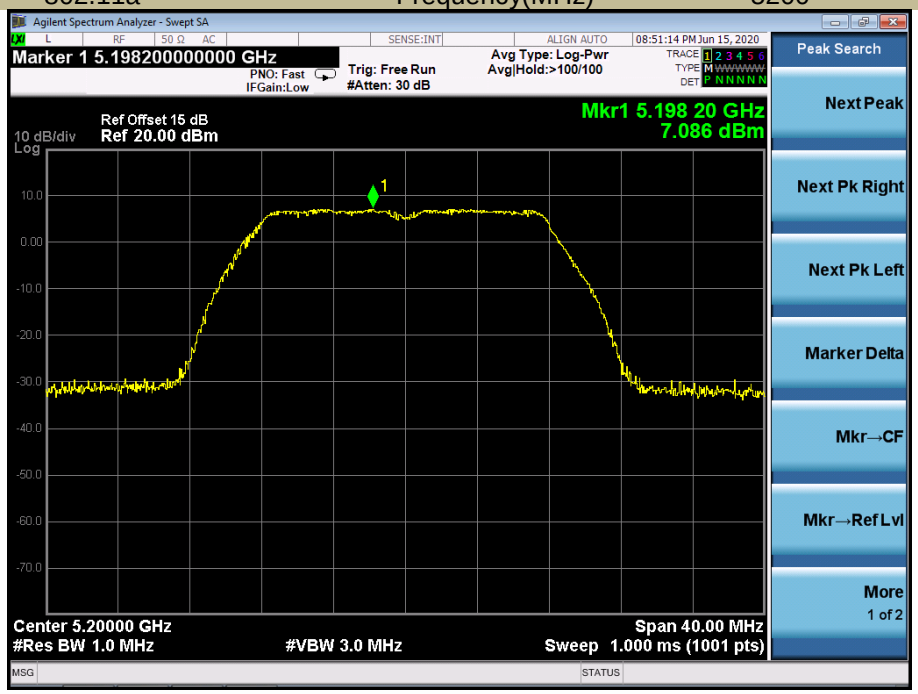
5150-5250MHz

Operating mode	Test Channel	Power Spectral Density dBm/MHz	Limit (dBm/MHz)
802.11a	5180	7.901	11
	5200	7.086	11
	5240	6.736	11
802.11n-HT20	5180	6.636	11
	5200	6.247	11
	5240	6.247	11
802.11ac(HT20)	5180	6.928	11
	5200	6.261	11
	5240	6.771	11
802.11n-HT40	5190	5.866	11
	5230	4.395	11
802.11ac(HT40)	5190	5.304	11
	5230	4.991	11
802.11ac(HT80)	5210	1.289	11

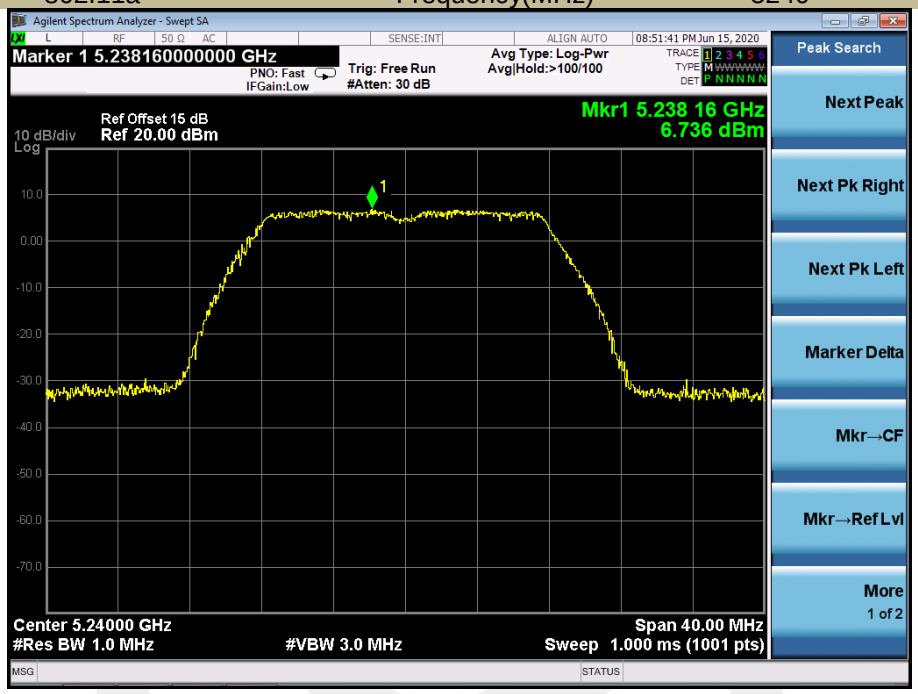
Power Spectral Density		U-NII - 1	
Test Model	802.11a	Frequency(MHz)	5180



Power Spectral Density		U-NII - 1	
Test Model	802.11a	Frequency(MHz)	5200

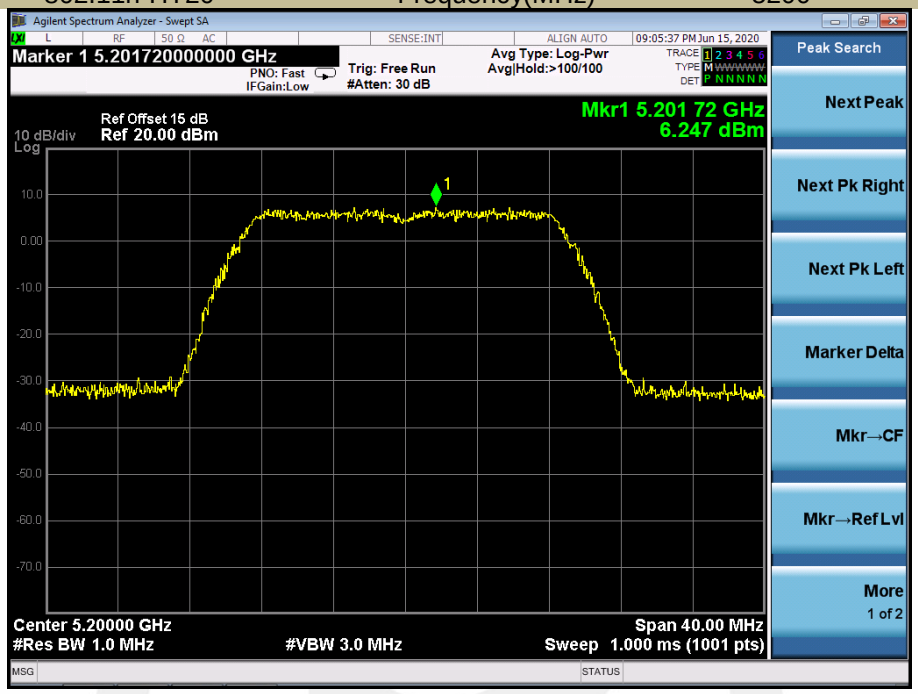


Power Spectral Density		U-NII - 1	
Test Model	802.11a	Frequency(MHz)	5240



Power Spectral Density		U-NII - 1	
Test Model	802.11n-HT20	Frequency(MHz)	5180

Power Spectral Density		U-NII - 1	
Test Model	802.11n-HT20	Frequency(MHz)	5200



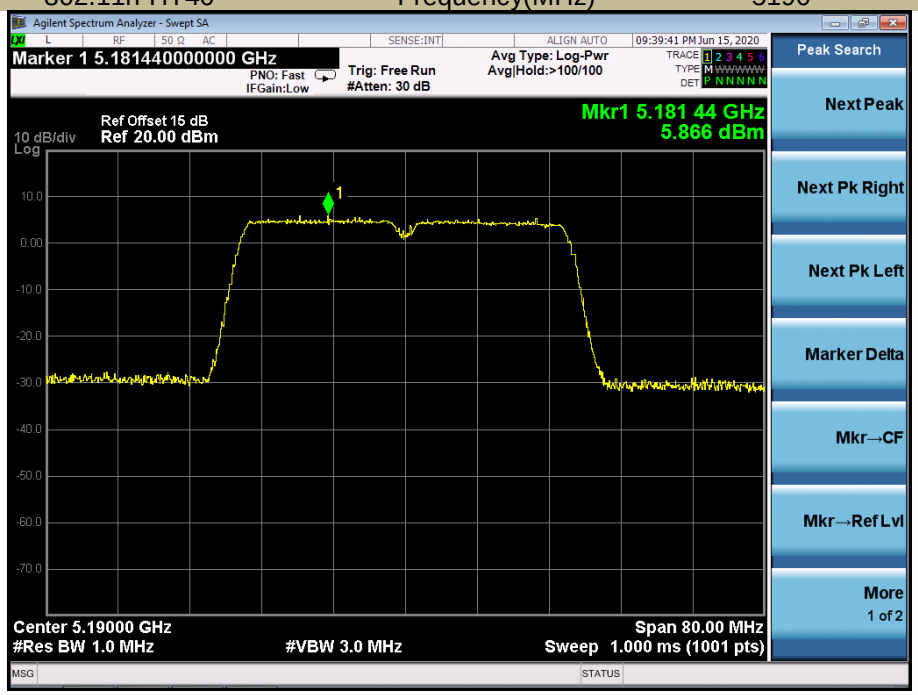
Power Spectral Density		U-NII - 1	
Test Model	802.11n-HT20	Frequency(MHz)	5240

Power Spectral Density		U-NII - 1	
Test Model	802.11ac(HT20)	Frequency(MHz)	5180

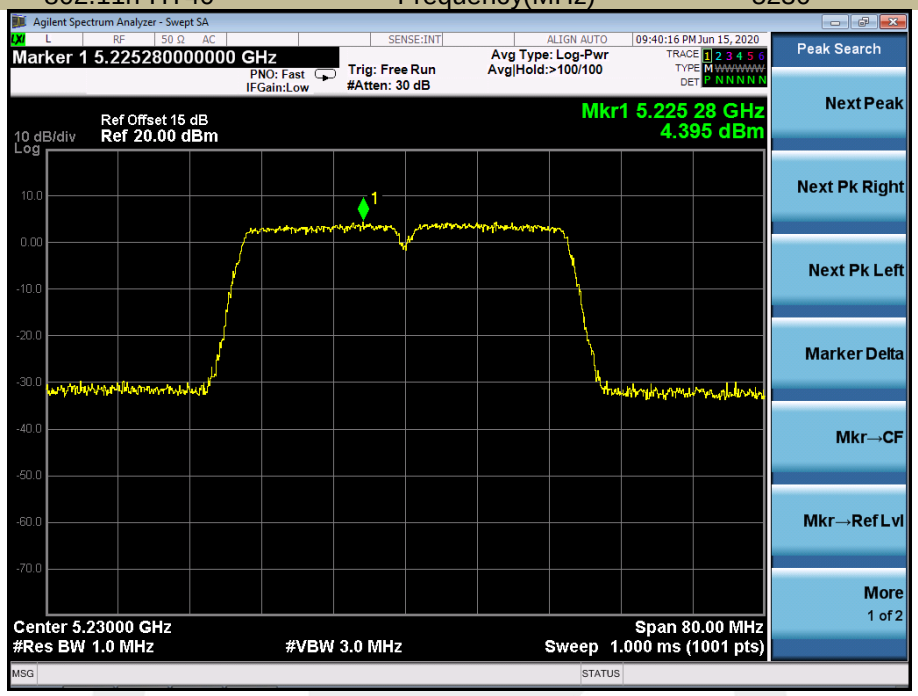
Power Spectral Density		U-NII - 1	
Test Model	802.11ac(HT20)	Frequency(MHz)	5200

Power Spectral Density		U-NII - 1	
Test Model	802.11ac(HT20)	Frequency(MHz)	5240

Power Spectral Density		U-NII - 1	
Test Model	802.11n-HT40	Frequency(MHz)	5190



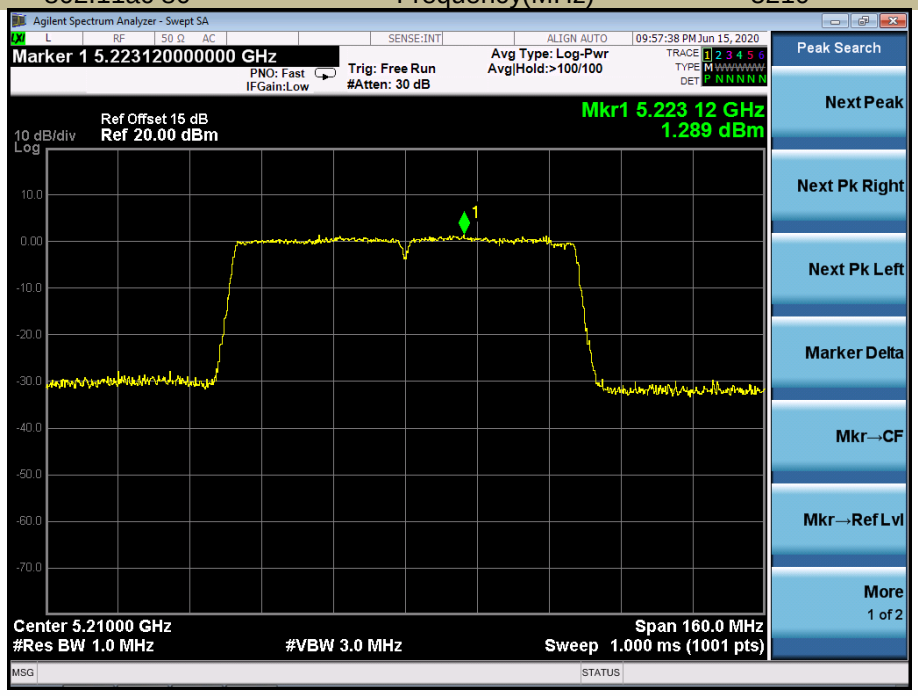
Power Spectral Density		U-NII - 1	
Test Model	802.11n-HT40	Frequency(MHz)	5230



Power Spectral Density		U-NII - 1	
Test Model	802.11ac(HT40)	Frequency(MHz)	5190

Power Spectral Density		U-NII - 1	
Test Model	802.11ac(HT40)	Frequency(MHz)	5230

Power Spectral Density		U-NII - 1	
Test Model	802.11ac 80	Frequency(MHz)	5210



5250-5350MHz

Operating mode	Test Channel	Power Spectral Density dBm/MHz	Limit (dBm/MHz)
802.11a	5260	5.352	11
	5280	4.968	11
	5320	5.297	11
802.11n-HT20	5260	5.743	11
	5280	5.283	11
	5320	5.590	11
802.11ac(HT20)	5260	5.956	11
	5280	5.447	11
	5320	5.185	11
802.11n-HT40	5270	3.050	11
	5310	3.966	11
802.11ac(HT40)	5270	3.061	11
	5310	2.454	11
802.11ac(HT80)	5290	-0.543	11

Power Spectral Density		U-NII – 2A	
Test Model	802.11a	Frequency(MHz)	5260

Power Spectral Density		U-NII – 2A	
Test Model	802.11a	Frequency(MHz)	5280

Power Spectral Density		U-NII – 2A	
Test Model	802.11a	Frequency(MHz)	5320

Power Spectral Density		U-NII – 2A	
Test Model	802.11n-HT20	Frequency(MHz)	5260

Power Spectral Density		U-NII – 2A	
Test Model	802.11n-HT20	Frequency(MHz)	5280

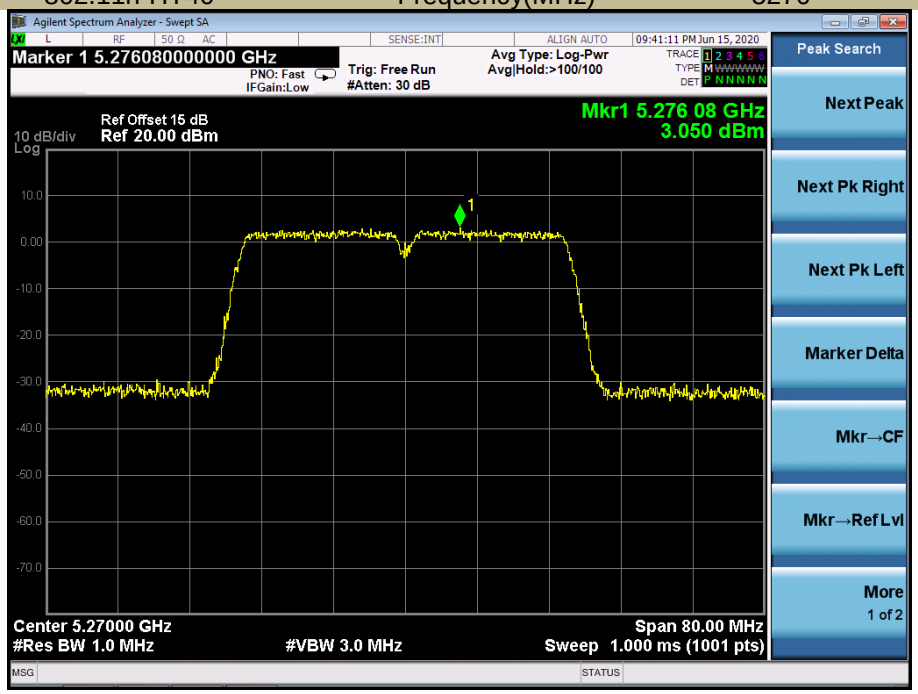
Power Spectral Density		U-NII – 2A	
Test Model	802.11n-HT20	Frequency(MHz)	5320

Power Spectral Density		U-NII – 2A	
Test Model	802.11ac(HT20)	Frequency(MHz)	5260

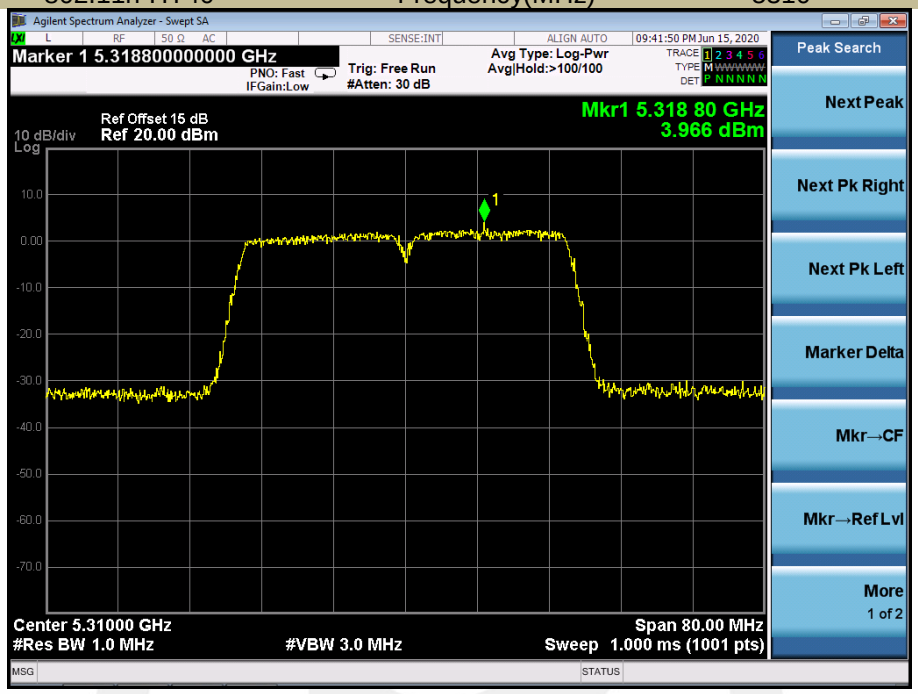
Power Spectral Density		U-NII – 2A	
Test Model	802.11ac(HT20)	Frequency(MHz)	5280

Power Spectral Density		U-NII – 2A	
Test Model	802.11ac(HT20)	Frequency(MHz)	5320

Power Spectral Density		U-NII – 2A	
Test Model	802.11n-HT40	Frequency(MHz)	5270



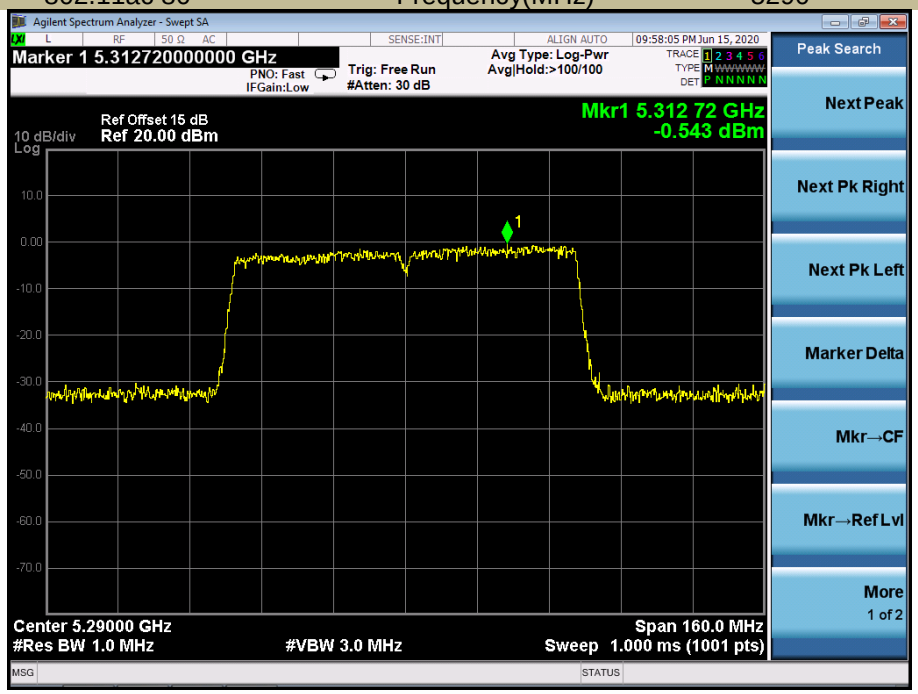
Power Spectral Density		U-NII – 2A	
Test Model	802.11n-HT40	Frequency(MHz)	5310



Power Spectral Density		U-NII – 2A	
Test Model	802.11ac(HT40)	Frequency(MHz)	5270

Power Spectral Density		U-NII – 2A	
Test Model	802.11ac(HT40)	Frequency(MHz)	5310

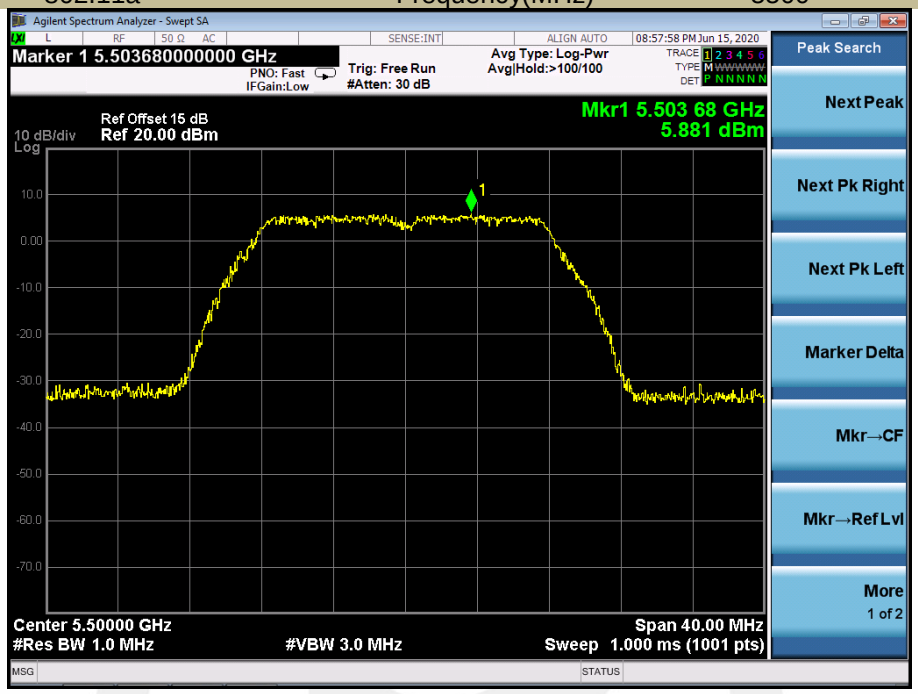
Power Spectral Density		U-NII – 2A	
Test Model	802.11ac 80	Frequency(MHz)	5290



5470-5725MHz

Operating mode	Test Channel	Power Spectral Density dBm/MHz	Limit (dBm/MHz)
802.11a	5500	5.881	11
	5580	5.008	11
	5700	3.994	11
802.11n-HT20	5500	6.017	11
	5580	4.868	11
	5700	3.821	11
802.11ac(HT20)	5500	5.680	11
	5580	5.388	11
	5700	3.589	11
802.11n-HT40	5510	2.994	11
	5670	2.167	11
802.11ac(HT40)	5510	4.488	11
	5670	2.414	11
802.11ac(HT80)	5530	0.050	11

Power Spectral Density		U-NII – 2C	
Test Model	802.11a	Frequency(MHz)	5500



Power Spectral Density		U-NII – 2C	
Test Model	802.11a	Frequency(MHz)	5580

Power Spectral Density		U-NII – 2C	
Test Model	802.11a	Frequency(MHz)	5700

Power Spectral Density		U-NII – 2C	
Test Model	802.11n-HT20	Frequency(MHz)	5500

Power Spectral Density		U-NII – 2C	
Test Model	802.11n-HT20	Frequency(MHz)	5580

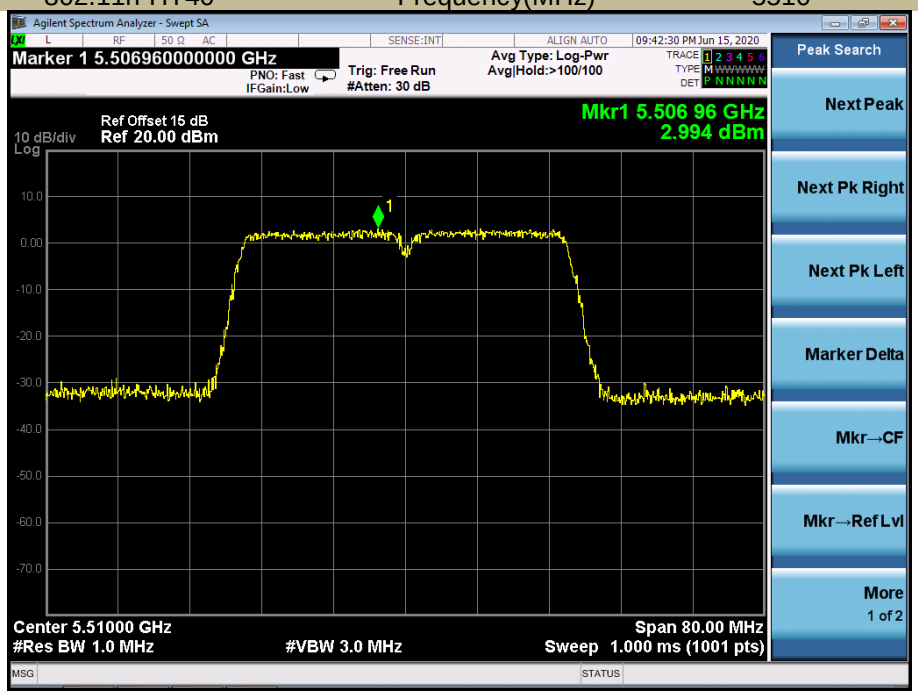
Power Spectral Density		U-NII – 2C	
Test Model	802.11n-HT20	Frequency(MHz)	5700

Power Spectral Density		U-NII – 2C	
Test Model	802.11ac(HT20)	Frequency(MHz)	5500

Power Spectral Density		U-NII – 2C	
Test Model	802.11ac(HT20)	Frequency(MHz)	5580

Power Spectral Density		U-NII – 2C	
Test Model	802.11ac(HT20)	Frequency(MHz)	5700

Power Spectral Density		U-NII – 2C	
Test Model	802.11n-HT40	Frequency(MHz)	5510

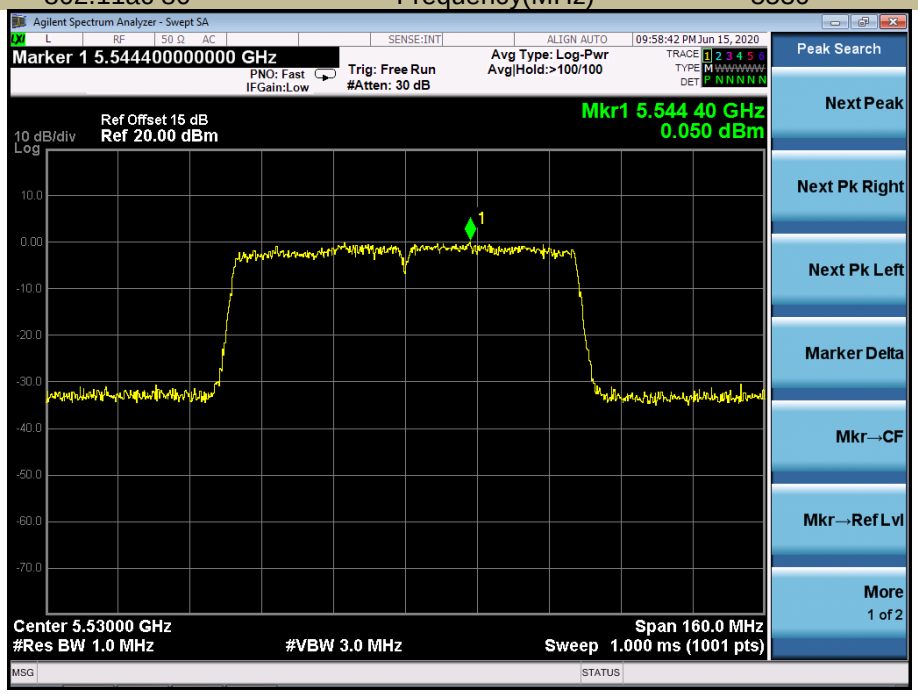


Power Spectral Density		U-NII – 2C	
Test Model	802.11n-HT40	Frequency(MHz)	5670

Power Spectral Density		U-NII – 2C	
Test Model	802.11ac(HT40)	Frequency(MHz)	5510

Power Spectral Density		U-NII – 2C	
Test Model	802.11ac(HT40)	Frequency(MHz)	5670

Power Spectral Density		U-NII – 2C	
Test Model	802.11ac 80	Frequency(MHz)	5530

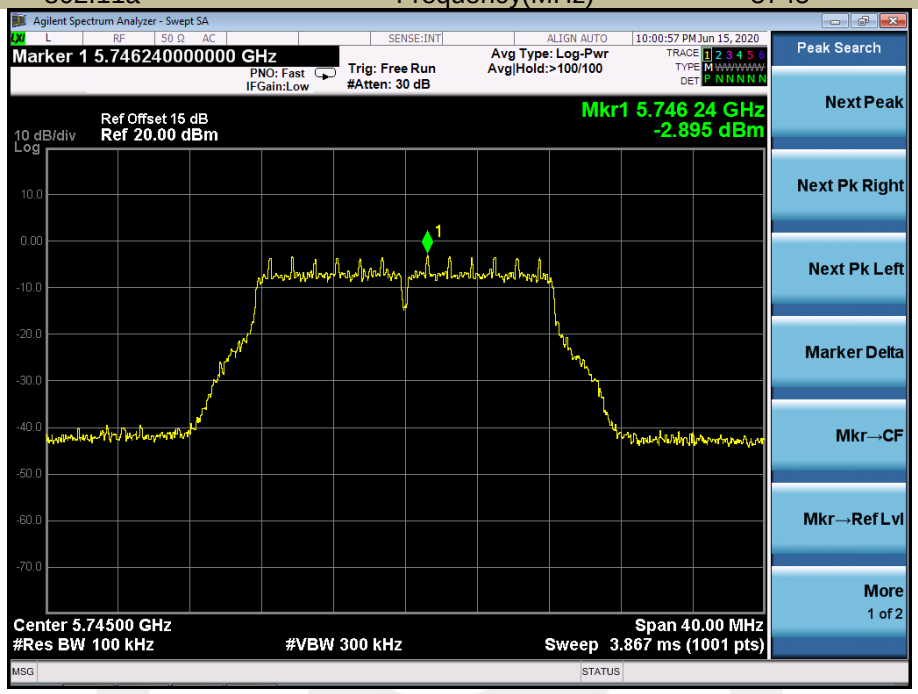


5725-5850MHz

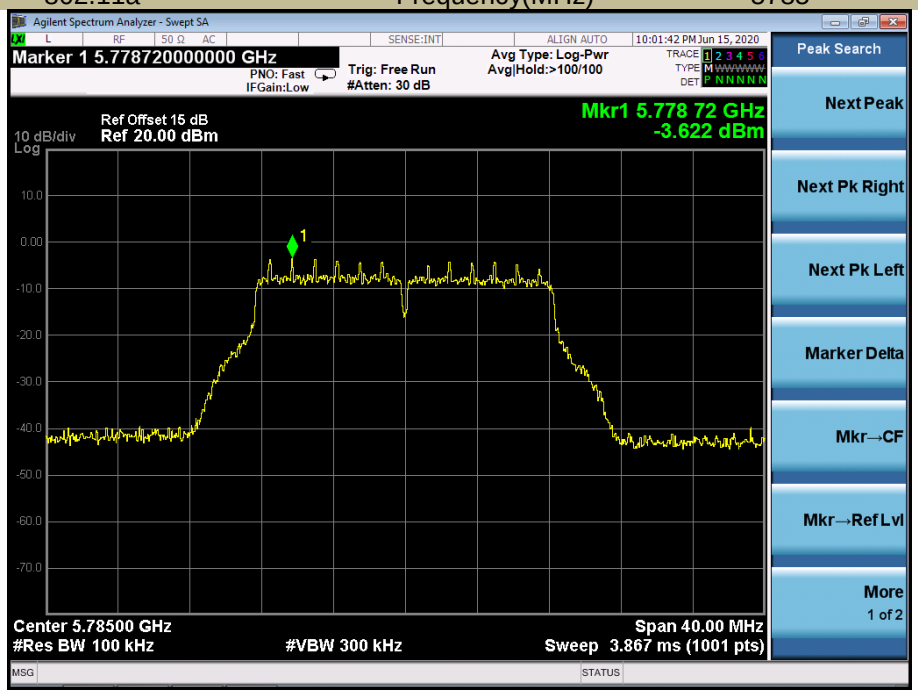
Operating mode	Test Channel	Power Spectral Density dBm/100kHz	Power Spectral Density dBm/500kHz	Limit (dBm/500kHz)
802.11a	5745	-2.895	-0.675	30
	5785	-3.622	-1.402	30
	5825	-4.083	-1.863	30
802.11n-HT20	5745	-2.972	-0.752	30
	5785	-4.151	-1.931	30
	5825	-3.608	-1.388	30
802.11ac(HT20)	5745	-2.747	-0.527	30
	5785	-3.918	-1.698	30
	5825	-3.840	-1.620	30
802.11n-HT40	5755	-5.169	-2.949	30
	5795	-6.436	-4.216	30
802.11ac(HT40)	5755	-5.185	-2.965	30
	5795	-6.431	-4.211	30
802.11ac(HT80)	5775	-8.208	-5.988	30

If measurement bandwidth of Maximum PSD is specified in 500 kHz, add 10 log (500 kHz/RBW) to the measured result, whereas RBW (<500 kHz) is the reduced resolution bandwidth of the spectrum analyzer set during measurement.

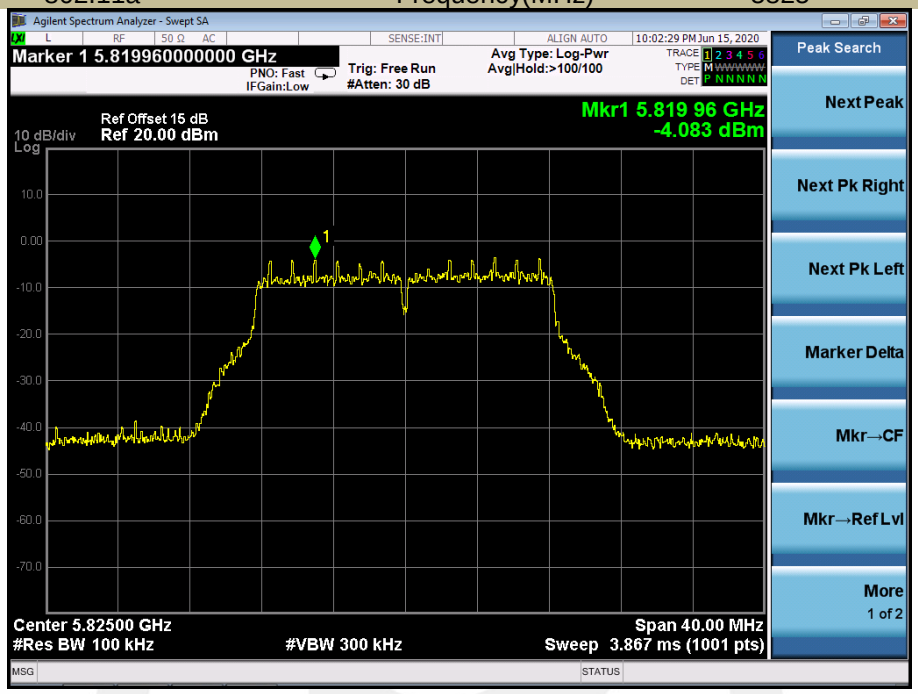
Power Spectral Density		U-NII - 3	
Test Model	802.11a	Frequency(MHz)	5745



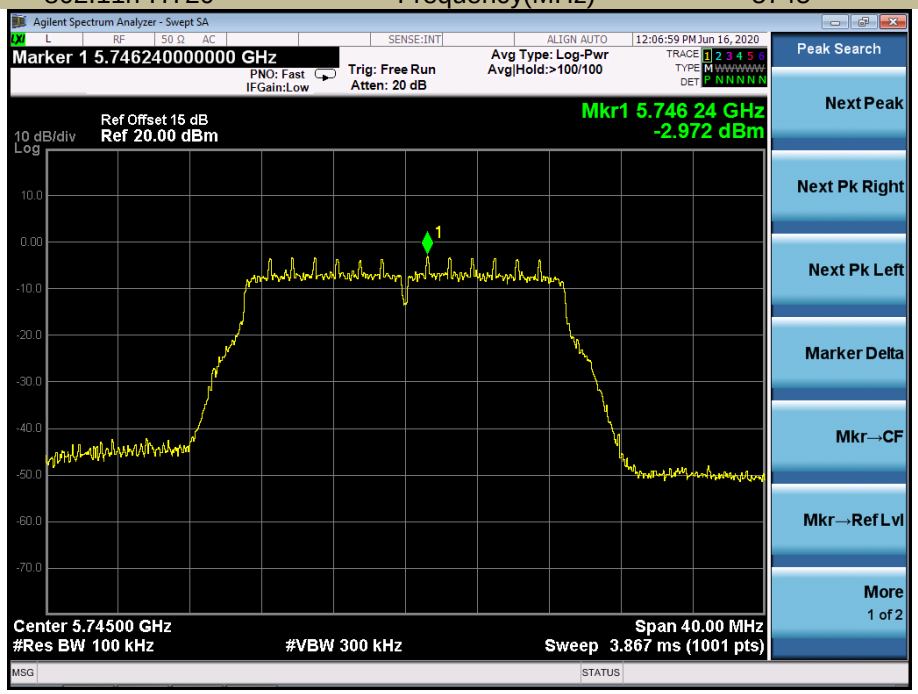
Power Spectral Density		U-NII - 3	
Test Model	802.11a	Frequency(MHz)	5785



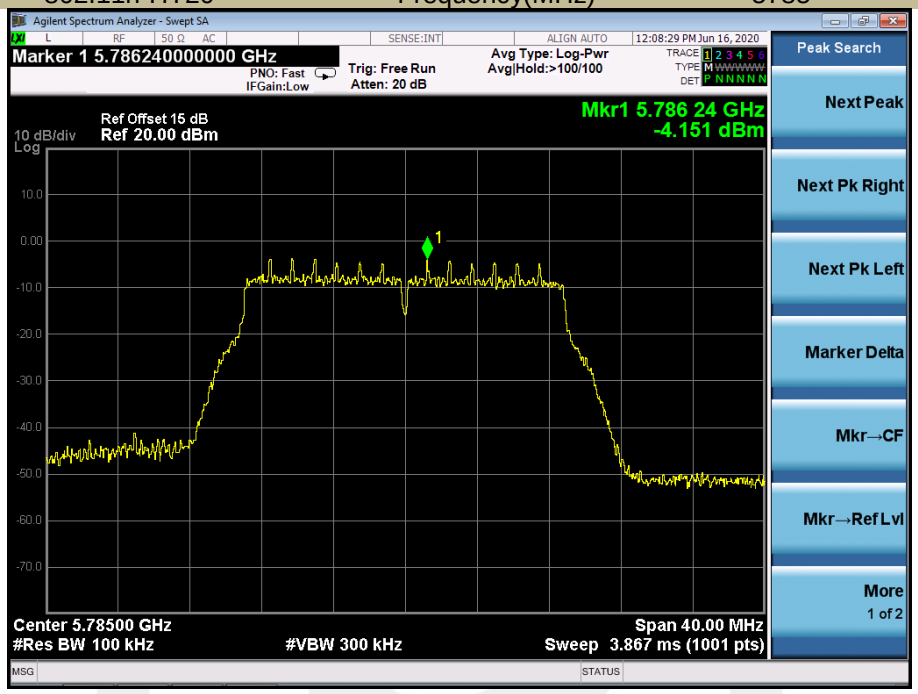
Power Spectral Density		U-NII - 3	
Test Model	802.11a	Frequency(MHz)	5825



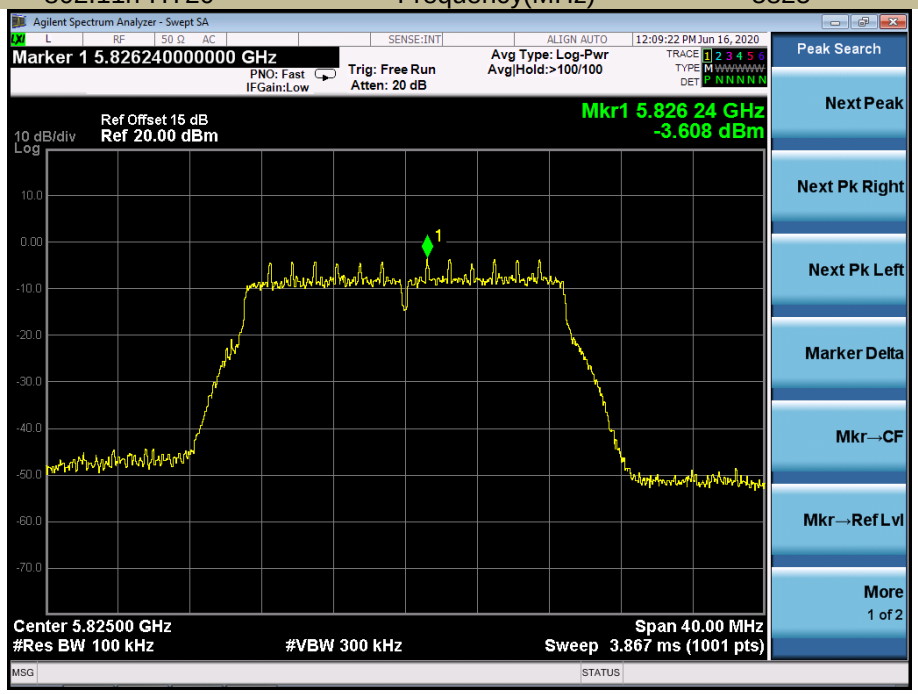
Power Spectral Density		U-NII - 3	
Test Model	802.11n-HT20	Frequency(MHz)	5745



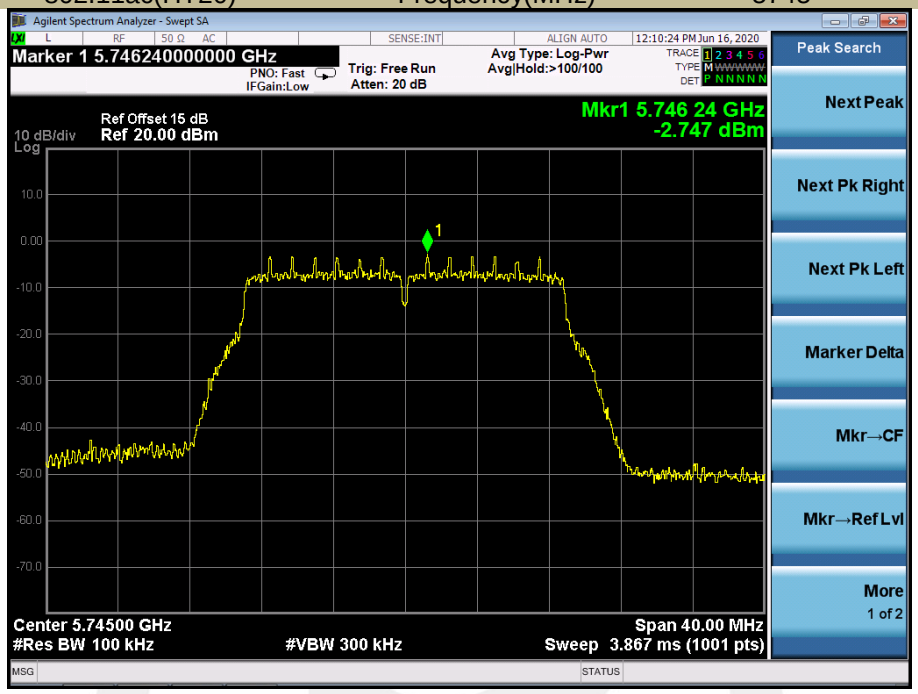
Power Spectral Density		U-NII - 3	
Test Model	802.11n-HT20	Frequency(MHz)	5785



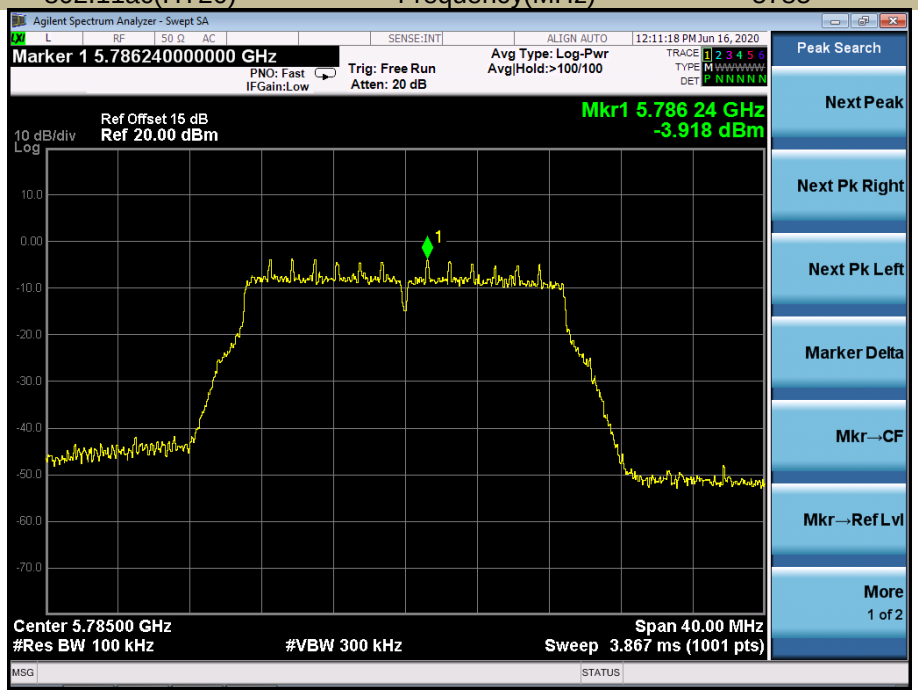
Power Spectral Density		U-NII - 3	
Test Model	802.11n-HT20	Frequency(MHz)	5825



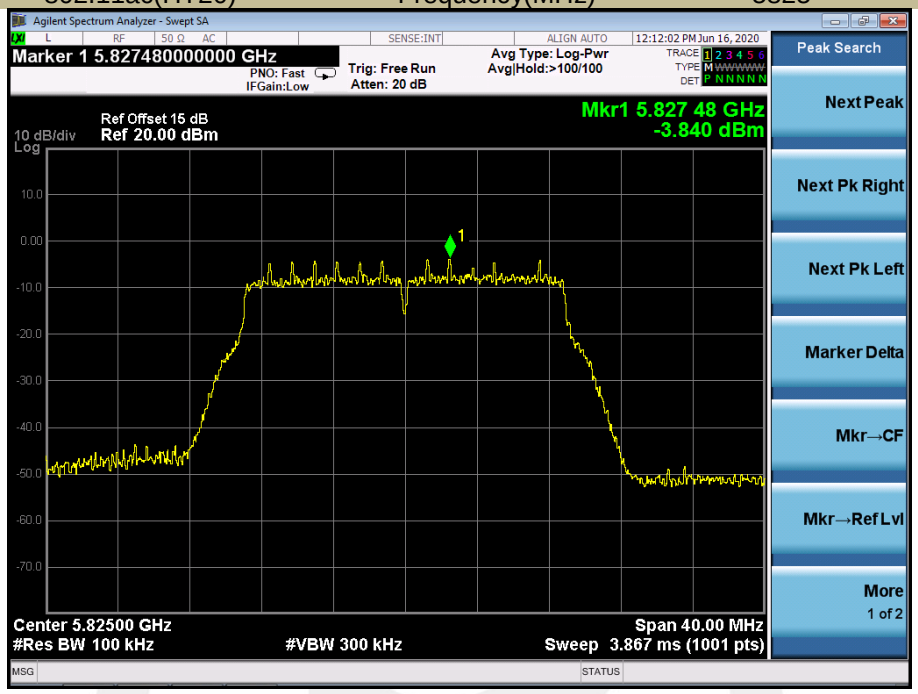
Power Spectral Density		U-NII - 3	
Test Model	802.11ac(HT20)	Frequency(MHz)	5745



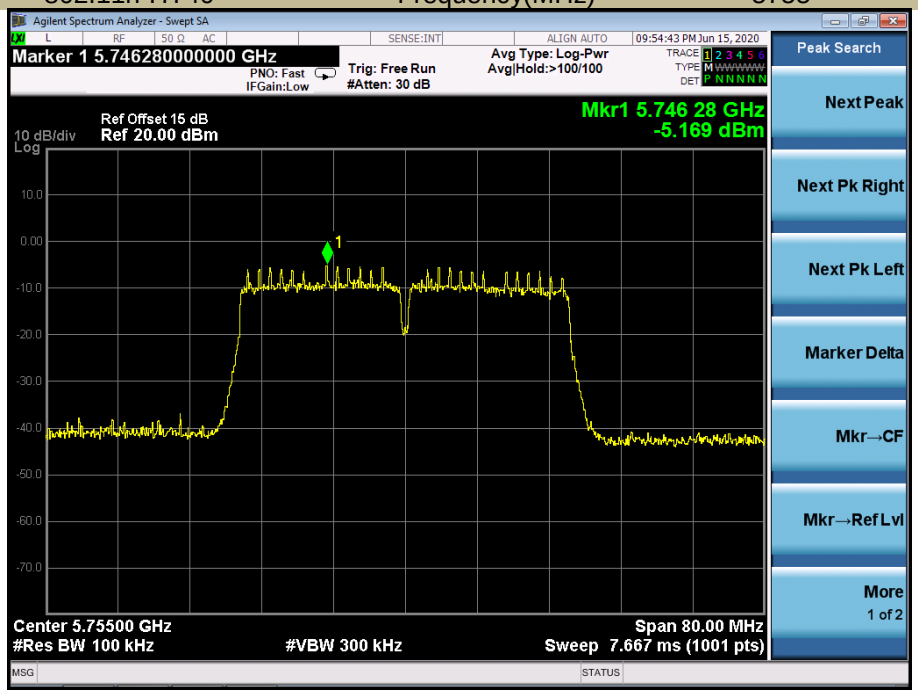
Power Spectral Density		U-NII - 3	
Test Model	802.11ac(HT20)	Frequency(MHz)	5785



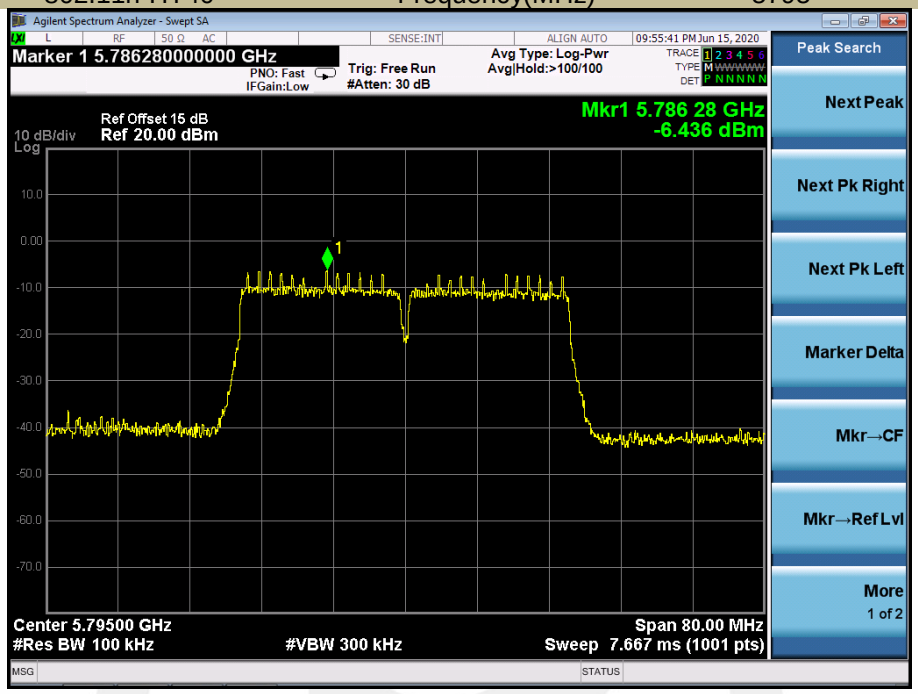
Power Spectral Density		U-NII - 3	
Test Model	802.11ac(HT20)	Frequency(MHz)	5825



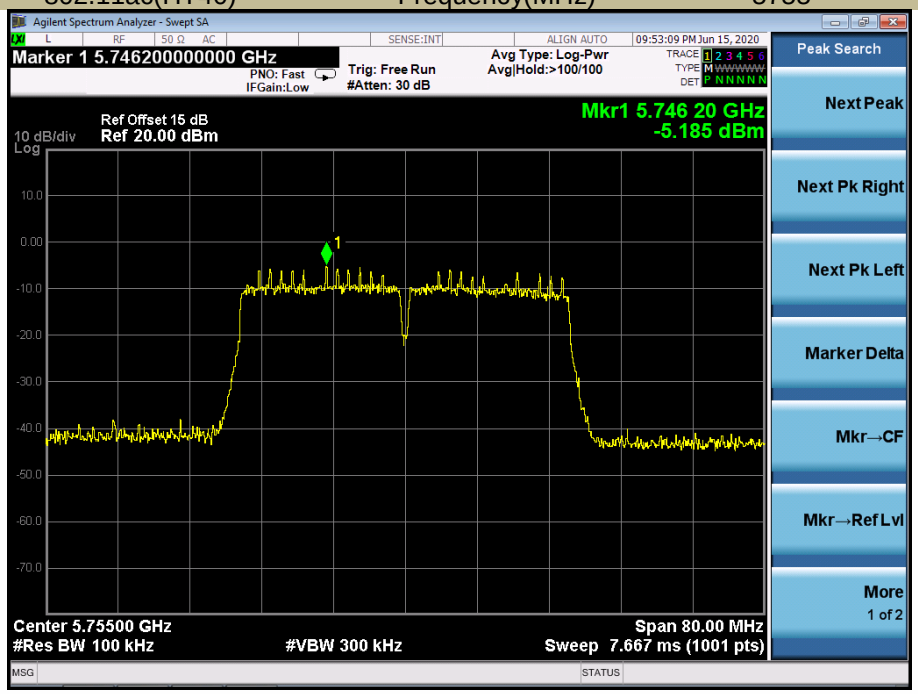
Power Spectral Density		U-NII - 3	
Test Model	802.11n-HT40	Frequency(MHz)	5755



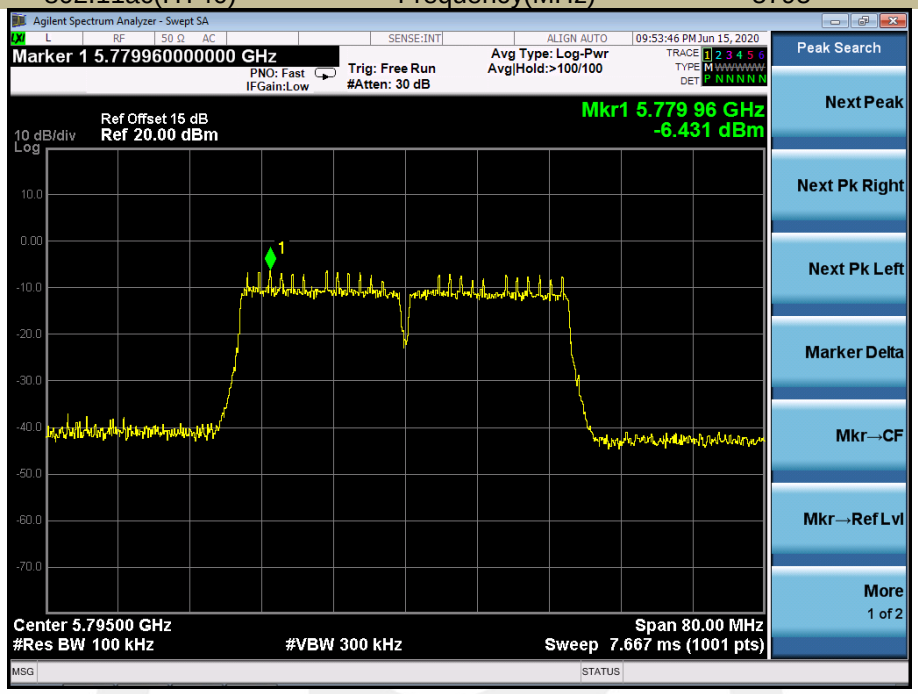
Power Spectral Density		U-NII - 3	
Test Model	802.11n-HT40	Frequency(MHz)	5795



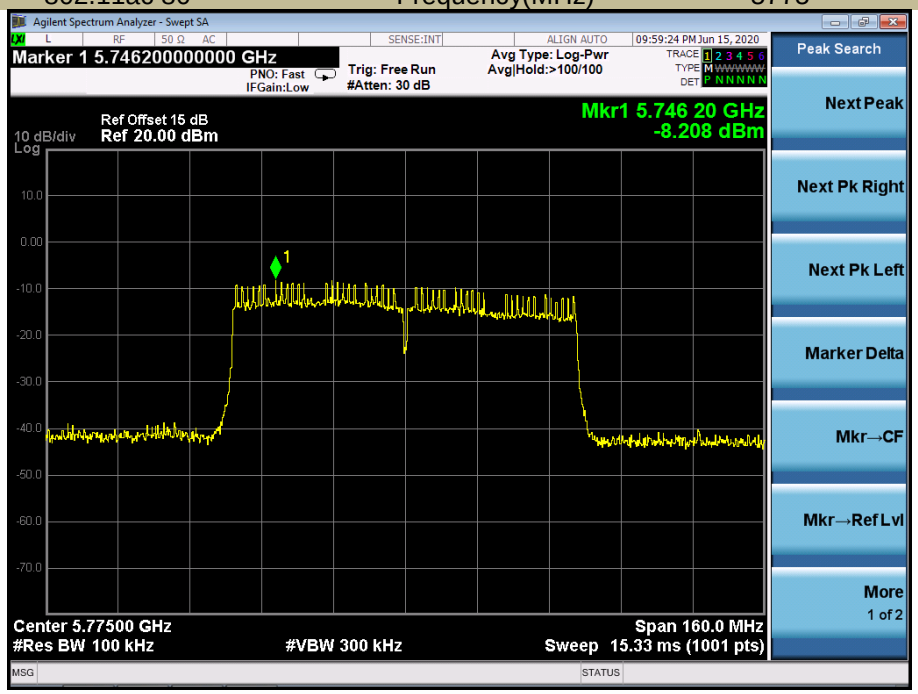
Power Spectral Density		U-NII - 3	
Test Model	802.11ac(HT40)	Frequency(MHz)	5755



Power Spectral Density		U-NII - 3	
Test Model	802.11ac(HT40)	Frequency(MHz)	5795



Power Spectral Density		U-NII - 3	
Test Model	802.11ac 80	Frequency(MHz)	5775



For 2T2R– Total

5150-5250MHz

Operating mode	Test Channel	Power Spectral Density dBm/MHz			Limit (dBm/MHz)
		Antenna 1	Antenna 2	Total	
802.11n-HT20	5180	6.630	6.636	9.64	10
	5200	6.633	6.247	9.45	10
	5240	6.731	6.247	9.51	10
802.11ac(HT20)	5180	6.569	6.928	9.76	10
	5200	6.261	6.261	9.80	10
	5240	6.493	6.771	9.64	10
802.11n-HT40	5190	5.309	5.866	8.61	10
	5230	3.984	4.395	7.20	10
802.11ac(HT40)	5190	4.599	5.304	7.98	10
	5230	3.877	4.991	7.48	10
802.11ac(HT80)	5210	0.855	1.289	4.09	10

5250-5350MHz

Operating mode	Test Channel	Power Spectral Density dBm/MHz			Limit (dBm/MHz)
		Antenna 1	Antenna 2	Total	
802.11n-HT20	5260	5.504	5.743	8.64	10
	5300	4.662	5.283	7.99	10
	5320	4.689	5.59	8.17	10
802.11ac(HT20)	5260	5.565	5.956	8.78	10
	5300	4.596	5.447	8.05	10
	5320	4.522	5.185	7.88	10
802.11n-HT40	5270	2.787	3.05	5.93	10
	5310	2.729	3.966	6.40	10
802.11ac(HT40)	5270	2.435	3.061	5.77	10
	5310	2.164	2.454	5.32	10
802.11ac(HT80)	5290	-0.931	-0.543	2.28	10

5470-5725MHz

Operating mode	Test Channel	Power Spectral Density dBm/MHz			Limit (dBm/MHz)
		Antenna 1	Antenna 2	Total	
802.11n-HT20	5500	5.443	6.017	8.75	10
	5580	4.844	4.868	7.87	10
	5700	3.32	3.821	6.59	10
802.11ac(HT20)	5500	5.367	5.68	8.54	10
	5580	5.015	5.388	8.22	10
	5700	3.589	3.589	6.60	10
802.11n-HT40	5510	2.696	2.994	5.86	10
	5670	2.039	2.167	5.11	10
802.11ac(HT40)	5510	3.401	4.488	6.99	10
	5670	2.185	2.414	5.31	10
802.11ac(HT80)	5530	-0.761	0.05	2.67	10

5725-5850MHz

Operating mode	Test Channel	Power Spectral Density dBm/MHz			Limit (dBm/MHz)
		Antenna 1	Antenna 2	Total	
802.11n-HT20	5745	-1.414	-0.752	1.94	29
	5785	-1.702	-1.931	1.20	29
	5825	-2.063	-1.388	1.30	29
802.11ac(HT20)	5745	-1.65	-0.527	1.96	29
	5785	-1.616	-1.698	1.35	29
	5825	-2.331	-1.62	1.05	29
802.11n-HT40	5755	-3.468	-2.949	-0.19	29
	5795	-4.505	-4.216	-1.35	29
802.11ac(HT40)	5755	-4.877	-2.965	-0.81	29
	5795	-4.197	-4.211	-1.19	29
802.11ac(HT80)	5775	-7.369	-5.988	-3.61	29

8.4 FREQUENCY STABILITY

8.4.1 Applicable Standard

According to FCC Part 15.407(g)
ANSI C63.10 Section 6.8

8.4.2 Conformance Limit

Manufacturers of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified in the users manual.

8.4.3 Test Configuration

Test according to clause 6.1 radio frequency test setup

8.4.4 Test Procedure

The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement.
Set to the maximum power setting and enable the EUT transmit continuously
Set RBW = 10 kHz.
Set Span= Entire absence of modulation emissions band
Set the video bandwidth (VBW) =30 kHz. width
Set Detector = Peak.
Set Trace mode = max hold.
Set Sweep = auto couple.
Allow the trace to stabilize.
The test extreme voltage is to change the primary supply voltage from 85 to 115 percent of the nominal value.
Beginning at each temperature level specified in user manual , the frequency shall be measured within one minute after application of primary power to the transmitter and at intervals of no more than one minute thereafter until ten minutes have elapsed or until sufficient measurements are obtained to indicate clearly that the frequency has stabilized within the applicable tolerance, whichever time period is greater. During each test, the ambient temperature shall not be allowed to rise more than 10° centigrade above the respective beginning ambient temperature level
Measure and record the results in the test report.

8.4.5 Test Results

802.11a	5180			
Voltage(V)	Temp(℃)	Test Frequency (MHz)	Max. Deviation (KHz)	Verdict
Vnom	-20	5179.9893	-10.7	Pass
	-10	5179.9864	-13.6	Pass
	0	5179.9878	-12.2	Pass
	10	5179.9819	-18.1	Pass
	20	5179.9884	-11.6	Pass
	30	5179.9889	-11.1	Pass
	40	5179.9808	-19.2	Pass
	55	5179.9881	-11.9	Pass
85% Vnom	25	5179.9805	-19.5	Pass
115% Vnom	25	5179.9880	-12.0	Pass

5200				
Voltage(V)	Temp(℃)	Test Frequency (MHz)	Max. Deviation (KHz)	Verdict
Vnom	-20	5199.9854	-14.6	Pass
	-10	5199.9898	-10.2	Pass
	0	5199.9874	-12.6	Pass
	10	5199.9808	-19.2	Pass
	20	5199.9815	-18.5	Pass
	30	5199.9864	-13.6	Pass
	40	5199.9867	-13.3	Pass
	55	5199.9845	-15.5	Pass
85% Vnom	25	5199.9845	-15.5	Pass
115% Vnom	25	5199.9893	-10.7	Pass

5240				
Voltage(V)	Temp(℃)	Test Frequency (MHz)	Max. Deviation (KHz)	Verdict
Vnom	-20	5239.9898	-10.2	Pass
	-10	5239.9893	-10.7	Pass
	0	5239.9895	-10.5	Pass
	10	5239.9874	-12.6	Pass
	20	5239.9888	-11.2	Pass
	30	5239.9879	-12.1	Pass
	40	5239.9819	-18.1	Pass
	55	5239.9867	-13.3	Pass
85% Vnom	25	5239.9878	-12.2	Pass
115% Vnom	25	5239.9838	-16.2	Pass

5190				
Voltage(V)	Temp(℃)	Test Frequency (MHz)	Max. Deviation (KHz)	Verdict
Vnom	-20	5189.9891	-10.9	Pass
	-10	5189.9872	-12.8	Pass
	0	5189.9858	-14.2	Pass
	10	5189.9832	-16.8	Pass
	20	5189.9876	-12.4	Pass
	30	5189.9823	-17.7	Pass
	40	5189.9814	-18.6	Pass
	55	5189.9884	-11.6	Pass
85% Vnom	25	5189.9819	-18.1	Pass
115% Vnom	25	5189.9807	-19.3	Pass

5230				
Voltage(V)	Temp(℃)	Test Frequency (MHz)	Max. Deviation (KHz)	Verdict
Vnom	-20	5229.9842	-15.8	Pass
	-10	5229.9839	-16.1	Pass
	0	5229.9891	-10.9	Pass
	10	5229.9852	-14.8	Pass
	20	5229.9853	-14.7	Pass
	30	5229.9897	-10.3	Pass
	40	5229.9825	-17.5	Pass
	55	5229.9842	-15.8	Pass
85% Vnom	25	5229.986	-14.0	Pass
115% Vnom	25	5229.9826	-17.4	Pass

5210				
Voltage(V)	Temp(℃)	Test Frequency (MHz)	Max. Deviation (KHz)	Verdict
Vnom	-20	5209.9836	-16.4	Pass
	-10	5209.9873	-12.7	Pass
	0	5209.9856	-14.4	Pass
	10	5209.9857	-14.3	Pass
	20	5209.9808	-19.2	Pass
	30	5209.9852	-14.8	Pass
	40	5209.9898	-10.2	Pass
	55	5209.9803	-19.7	Pass
85% Vnom	25	5209.9863	-13.7	Pass
115% Vnom	25	5209.9886	-11.4	Pass

802.11a	5260			
Voltage(V)	Temp(℃)	Test Frequency (MHz)	Max. Deviation (KHz)	Verdict
Vnom	-20	5259.9885	-11.5	Pass
	-10	5259.9823	-17.7	Pass
	0	5259.9856	-14.4	Pass
	10	5259.9847	-15.3	Pass
	20	5259.9854	-14.6	Pass
	30	5259.9815	-18.5	Pass
	40	5259.9812	-18.8	Pass
	55	5259.9863	-13.7	Pass
85% Vnom	25	5259.9861	-13.9	Pass
115% Vnom	25	5259.9809	-19.1	Pass

5280				
Voltage(V)	Temp(℃)	Test Frequency (MHz)	Max. Deviation (KHz)	Verdict
Vnom	-20	5279.9889	-11.1	Pass
	-10	5279.9832	-16.8	Pass
	0	5279.987	-13.0	Pass
	10	5279.983	-17.0	Pass
	20	5279.9834	-16.6	Pass
	30	5279.9896	-10.4	Pass
	40	5279.9845	-15.5	Pass
	55	5279.9847	-15.3	Pass
85% Vnom	25	5279.99	-10	Pass
115% Vnom	25	5279.9883	-11.7	Pass

5320				
Voltage(V)	Temp(℃)	Test Frequency (MHz)	Max. Deviation (KHz)	Verdict
Vnom	-20	5319.9834	-16.6	Pass
	-10	5319.9801	-19.9	Pass
	0	5319.9801	-19.9	Pass
	10	5319.9851	-14.9	Pass
	20	5319.9810	-19.0	Pass
	30	5319.9803	-19.7	Pass
	40	5319.9820	-18.0	Pass
	55	5319.9872	-12.8	Pass
85% Vnom	25	5319.9849	-15.1	Pass
115% Vnom	25	5319.9825	-17.5	Pass

5270

Voltage(V)	Temp(℃)	Test Frequency (MHz)	Max. Deviation (KHz)	Verdict
Vnom	-20	5269.9822	-17.8	Pass
	-10	5269.9829	-17.1	Pass
	0	5269.9834	-16.6	Pass
	10	5269.9859	-14.1	Pass
	20	5269.9816	-18.4	Pass
	30	5269.9832	-16.8	Pass
	40	5269.981	-19.0	Pass
	55	5269.9814	-18.6	Pass
85% Vnom	25	5269.981	-19.0	Pass
115% Vnom	25	5269.984	-16.0	Pass

5310

Voltage(V)	Temp(℃)	Test Frequency (MHz)	Max. Deviation (KHz)	Verdict
Vnom	-20	5309.9806	-19.4	Pass
	-10	5309.9851	-14.9	Pass
	0	5309.9814	-18.6	Pass
	10	5309.9841	-15.9	Pass
	20	5309.989	-11.0	Pass
	30	5309.9814	-18.6	Pass
	40	5309.9876	-12.4	Pass
	55	5309.9801	-19.9	Pass
85% Vnom	25	5309.9889	-11.1	Pass
115% Vnom	25	5309.9896	-10.4	Pass

5290

Voltage(V)	Temp(℃)	Test Frequency (MHz)	Max. Deviation (KHz)	Verdict
Vnom	-20	5289.9825	-17.5	Pass
	-10	5289.9876	-12.4	Pass
	0	5289.9818	-18.2	Pass
	10	5289.9866	-13.4	Pass
	20	5289.9803	-19.7	Pass
	30	5289.9806	-19.4	Pass
	40	5289.9825	-17.5	Pass
	55	5289.9887	-11.3	Pass
85% Vnom	25	5289.9859	-14.1	Pass
115% Vnom	25	5289.9889	-11.1	Pass

802.11a	5500			
Voltage(V)	Temp(℃)	Test Frequency (MHz)	Max. Deviation (KHz)	Verdict
Vnom	-20	5499.9847	-15.3	Pass
	-10	5499.9827	-17.3	Pass
	0	5499.9808	-19.2	Pass
	10	5499.9873	-12.7	Pass
	20	5499.9823	-17.7	Pass
	30	5499.9867	-13.3	Pass
	40	5499.984	-16.0	Pass
	55	5499.9878	-12.2	Pass
85% Vnom	25	5499.9824	-17.6	Pass
115% Vnom	25	5499.9829	-17.1	Pass

5580				
Voltage(V)	Temp(℃)	Test Frequency (MHz)	Max. Deviation (KHz)	Verdict
Vnom	-20	5579.9887	-11.3	Pass
	-10	5579.9843	-15.7	Pass
	0	5579.9823	-17.7	Pass
	10	5579.9835	-16.5	Pass
	20	5579.9852	-14.8	Pass
	30	5579.9885	-11.5	Pass
	40	5579.9881	-11.9	Pass
	55	5579.9854	-14.6	Pass
85% Vnom	25	5579.9871	-12.9	Pass
115% Vnom	25	5579.9811	-18.9	Pass

5700				
Voltage(V)	Temp(℃)	Test Frequency (MHz)	Max. Deviation (KHz)	Verdict
Vnom	-20	5699.9891	-10.9	Pass
	-10	5699.9829	-17.1	Pass
	0	5699.9888	-11.2	Pass
	10	5699.9862	-13.8	Pass
	20	5699.9834	-16.6	Pass
	30	5699.9879	-12.1	Pass
	40	5699.9871	-12.9	Pass
	55	5699.9845	-15.5	Pass
85% Vnom	25	5699.9821	-17.9	Pass
115% Vnom	25	5699.9839	-16.1	Pass

5510

Voltage(V)	Temp(℃)	Test Frequency (MHz)	Max. Deviation (KHz)	Verdict
Vnom	-20	5509.9811	-18.9	Pass
	-10	5509.9864	-13.6	Pass
	0	5509.9895	-10.5	Pass
	10	5509.9855	-14.5	Pass
	20	5509.9868	-13.2	Pass
	30	5509.9868	-13.2	Pass
	40	5509.9883	-11.7	Pass
	55	5509.9854	-14.6	Pass
85% Vnom	25	5509.9852	-14.8	Pass
115% Vnom	25	5509.9875	-12.5	Pass

5670

Voltage(V)	Temp(℃)	Test Frequency (MHz)	Max. Deviation (KHz)	Verdict
Vnom	-20	5669.9807	-19.3	Pass
	-10	5669.9854	-14.6	Pass
	0	5669.9839	-16.1	Pass
	10	5669.9818	-18.2	Pass
	20	5669.9892	-10.8	Pass
	30	5669.9832	-16.8	Pass
	40	5669.9873	-12.7	Pass
	55	5669.9819	-18.1	Pass
85% Vnom	25	5669.9846	-15.4	Pass
115% Vnom	25	5669.9899	-10.1	Pass

5530

Voltage(V)	Temp(℃)	Test Frequency (MHz)	Max. Deviation (KHz)	Verdict
Vnom	-20	5529.9873	-12.7	Pass
	-10	5529.9887	-11.3	Pass
	0	5529.9803	-19.7	Pass
	10	5529.9813	-18.7	Pass
	20	5529.9891	-10.9	Pass
	30	5529.9822	-17.8	Pass
	40	5529.9826	-17.4	Pass
	55	5529.9818	-18.2	Pass
85% Vnom	25	5529.9817	-18.3	Pass
115% Vnom	25	5529.9858	-14.2	Pass

802.11a	5745

Voltage(V)	Temp(℃)	Test Frequency (MHz)	Max. Deviation (KHz)	Verdict
Vnom	-20	5744.9821	-17.9	Pass
	-10	5744.9843	-15.7	Pass
	0	5744.9887	-11.3	Pass
	10	5744.9814	-18.6	Pass
	20	5744.9846	-15.4	Pass
	30	5744.9886	-11.4	Pass
	40	5744.984	-16.0	Pass
	55	5744.9864	-13.6	Pass
85% Vnom	25	5744.9891	-10.9	Pass
115% Vnom	25	5744.9864	-13.6	Pass

5785

Voltage(V)	Temp(℃)	Test Frequency (MHz)	Max. Deviation (KHz)	Verdict
Vnom	-20	5784.9811	-18.9	Pass
	-10	5784.9868	-13.2	Pass
	0	5784.9823	-17.7	Pass
	10	5784.9881	-11.9	Pass
	20	5784.984	-16.0	Pass
	30	5784.9886	-11.4	Pass
	40	5784.9888	-11.2	Pass
	55	5784.9869	-13.1	Pass
85% Vnom	25	5784.9867	-13.3	Pass
115% Vnom	25	5784.9899	-10.1	Pass

5825

Voltage(V)	Temp(℃)	Test Frequency (MHz)	Max. Deviation (KHz)	Verdict
Vnom	-20	5824.9852	-14.8	Pass
	-10	5824.9868	-13.2	Pass
	0	5824.9813	-18.7	Pass
	10	5824.9801	-19.9	Pass
	20	5824.9894	-10.6	Pass
	30	5824.9802	-19.8	Pass
	40	5824.9873	-12.7	Pass
	55	5824.9815	-18.5	Pass
85% Vnom	25	5824.9810	-19.0	Pass
115% Vnom	25	5824.9877	-12.3	Pass

5755

Voltage(V)	Temp(℃)	Test Frequency (MHz)	Max. Deviation (KHz)	Verdict
Vnom	-20	5754.9817	-18.3	Pass
	-10	5754.9822	-17.8	Pass
	0	5754.9801	-19.9	Pass
	10	5754.9800	-20.0	Pass
	20	5754.9873	-12.7	Pass
	30	5754.9886	-11.4	Pass
	40	5754.9810	-19.0	Pass
	55	5754.9822	-17.8	Pass
85% Vnom	25	5754.9819	-18.1	Pass
115% Vnom	25	5754.9801	-19.9	Pass

5795

Voltage(V)	Temp(℃)	Test Frequency (MHz)	Max. Deviation (KHz)	Verdict
Vnom	-20	5794.9883	-11.7	Pass
	-10	5794.9844	-15.6	Pass
	0	5794.9832	-16.8	Pass
	10	5794.9831	-16.9	Pass
	20	5794.9878	-12.2	Pass
	30	5794.9853	-14.7	Pass
	40	5794.9868	-13.2	Pass
	55	5794.9839	-16.1	Pass
85% Vnom	25	5794.9828	-17.2	Pass
115% Vnom	25	5794.9852	-14.8	Pass

5775

Voltage(V)	Temp(℃)	Test Frequency (MHz)	Max. Deviation (KHz)	Verdict
Vnom	-20	5774.9849	-15.1	Pass
	-10	5774.9865	-13.5	Pass
	0	5774.9884	-11.6	Pass
	10	5774.9822	-17.8	Pass
	20	5774.9831	-16.9	Pass
	30	5774.9887	-11.3	Pass
	40	5774.9817	-18.3	Pass
	55	5774.9884	-11.6	Pass
85% Vnom	25	5774.9835	-16.5	Pass
115% Vnom	25	5774.9884	-11.6	Pass

8.5 UNDESIRABLE RADIATED SPURIOUS EMISSION

8.5.1 Applicable Standard

According to FCC Part 15.407 (b)
According to 789033 D02 Section II(G)

8.5.2 Conformance Limit

For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz.
For transmitters operating in the 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz.
For transmitters operating in the 5.47-5.725 GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz.
For transmitters operating in the 5.725-5.85 GHz band: All emissions shall be limited to a level of −27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.
The emission measurements shall be performed using a minimum resolution bandwidth of 1 MHz. A lower resolution bandwidth may be employed near the band edge, when necessary, provided the measured energy is integrated to show the total power over 1 MHz.
Unwanted emissions below 1 GHz must comply with the general field strength limits set forth in §15.209
The emissions from an intentional radiator shall not exceed the field strength levels specified in the following table 15.209(a):

Restricted Frequency(MHz)	Field Strength (μV/m)	Field Strength (dBμV/m)	Measurement Distance
0.009-0.490	2400/F(KHz)	20 log (uV/m)	300
0.490-1.705	24000/F(KHz)	20 log (uV/m)	30
1.705-30	30	29.5	30
30-88	100	40	3
88-216	150	43.5	3
216-960	200	46	3
Above 960	500	54	3

The provisions of §15.205 apply to intentional radiators operating under this section,15.205 Restricted bands of operation

MHz	MHz	MHz	GHz
0.090-0.110	16.42-16.423	399.9-410	4.5-5.15
10.495-0.505	16.69475-16.69525	608-614	5.35-5.46
2.1735-2.1905	16.80425-16.80475	960-1240	7.25-7.75
4.125-4.128	25.5-25.67	1300-1427	8.025-8.5
4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2
4.20725-4.20775	73-74.6	1645.5-1646.5	9.3-9.5
6.215-6.218	74.8-75.2	1660-1710	10.6-12.7
6.26775-6.26825	123-138	2200-2300	14.47-14.5
8.291-8.294	149.9-150.05	2310-2390	15.35-16.2
8.362-8.366	156.52475-156.52525	2483.5-2500	17.7-21.4
8.37625-8.38675	156.7-156.9	2690-2900	22.01-23.12
8.41425-8.41475	162.0125-167.17	3260-3267	23.6-24.0
12.29-12.293	167.72-173.2	3332-3339	31.2-31.8
12.51975-12.52025	240-285	3345.8-3358	36.43-36.5
12.57675-12.57725	322-335.4	3600-4400	(2)
13.36-13.41			

Remark: 1. Emission level in dBuV/m=20 log (uV/m)
2. Measurement was performed at an antenna to the closed point of EUT distance of meters.
3. Only spurious frequency is permitted to locate within the Restricted Bands specified in provision of ξ 15.205, and the emissions located in restricted bands also comply with 15.209 limit.

8.5.3 Test Configuration

Test according to clause 6.2 radio frequency test setup

8.5.4 Test Procedure

■ Unwanted Emissions Measurements below 1000 MHz

Compliance shall be demonstrated using CISPR quasi-peak detection; however, peak detection is permitted as an alternative to quasi-peak detection.
The EUT was placed on a turn table which is 0.8m above ground plane.
And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
Repeat above procedures until all frequency measured was complete.
We use software control the EUT, Let EUT hopping on and transmit with highest power, All the modes have been tested and the worst result was reported.
Use the following spectrum analyzer settings:
Set RBW=120kHz for f < 1 GHz(30MHz to 1GHz), 200Hz for f<150KHz(9KHz to 150KHz), 9KHz for <30MHz
(150KHz to 30KHz).
Set the VBW > RBW.
Detector = Peak.
Trace mode = max hold.
Follow the guidelines in ANSI C63.10-2013 with respect to maximizing the emission by rotating the EUT, measuring the emission while the EUT is situated in three orthogonal planes (if appropriate), adjusting the measurement antenna height and polarization, etc. A pre-amp and a high pass filter are required for this test, in order to provide the measuring system with sufficient sensitivity. Allow the trace to stabilize. The peak reading of the emission, after being corrected by the antenna factor, cable loss, pre-amp gain, etc., is the peak field strength, which must comply with the limit specified in Section 15.35(b). Submit this data.
Repeat above procedures until all frequency measured was complete.

■ Unwanted Maximum peak Emissions Measurements above 1000 MHz

Maximum emission levels are measured by setting the analyzer as follows:
RBW = 1 MHz.
VBW ≥ 3 MHz.
Detector = Peak.
Sweep time = auto.
Trace mode = max hold.
Allow sweeps to continue until the trace stabilizes. Note that if the transmission is not continuous, the time required for the trace to stabilize will increase by a factor of approximately 1/x, where x is the duty cycle. For example, at 50 percent duty cycle, the measurement time will increase by a factor of two relative to measurement time for continuous transmission.

■ Unwanted Average Emissions Measurements above 1000 MHz

Method VB (Averaging using reduced video bandwidth): Alternative method.
RBW = 1 MHz.
Video bandwidth. • If the EUT is configured to transmit with duty cycle ≥ 98 percent, set VBW ≤ RBW/100 (i.e., 10 kHz) but not less than 10 Hz.
• If the EUT duty cycle is < 98 percent, set VBW ≥ 1/T, where T is defined in section II.B.1.a).
Video bandwidth mode or display mode • The instrument shall be set to ensure that video filtering is applied in the power domain. Typically, this requires setting the detector mode to RMS and setting the Average-VBW Type to Power (RMS).
• As an alternative, the analyzer may be set to linear detector mode. Ensure that video filtering is applied in linear voltage domain (rather than in a log or dB domain). Some analyzers require linear display mode in order to accomplish this. Others have a setting for Average-VBW Type, which can be set to “Voltage” regardless of the display mode.