Appendix A: Test results

Band	Frequency	802.11 a		802.11 n (HT20)		Frequency	802.11 n (HT40)		Frequency	802.11 ac (VHT80)	
		Ant0	Ant1	Ant0	Ant1		Ant0	Ant1		Ant0	Ant1
NII 2A	5260	50	50	50	50	5270	52	52	5290	38	38
	5300	52	52	52	52	5310	40	40			
	5320	46	46	46	46						

1. Occupied N dB Bandwidth

1.1 Test Data

U-NII-2a Occupied N dB Bandwidth				
Mode	Test Frequency (MHz)	Ant	Occupied Bandwidth (MHz)	Result
802.11a	5260	Ant0	22.73	Pass
802.11a	5260	Ant1	21.27	Pass
802.11a	5300	Ant0	24.15	Pass
802.11a	5300	Ant1	21.15	Pass
802.11a	5320	Ant0	20.59	Pass
802.11a	5320	Ant1	21.18	Pass
802.11n (HT20)	5260	Ant0	23.36	Pass
802.11n (HT20)	5260	Ant1	20.51	Pass
802.11n (HT20)	5300	Ant0	22.64	Pass
802.11n (HT20)	5300	Ant1	22.63	Pass
802.11n (HT20)	5320	Ant0	20.71	Pass
802.11n (HT20)	5320	Ant1	22.68	Pass
802.11n (HT40)	5270	Ant0	64.28	Pass
802.11n (HT40)	5270	Ant1	65.71	Pass
802.11n (HT40)	5310	Ant0	41.30	Pass
802.11n (HT40)	5310	Ant1	41.28	Pass
802.11ac (VHT80)	5290	Ant0	81.07	Pass
802.11ac (VHT80)	5290	Ant1	80.97	Pass

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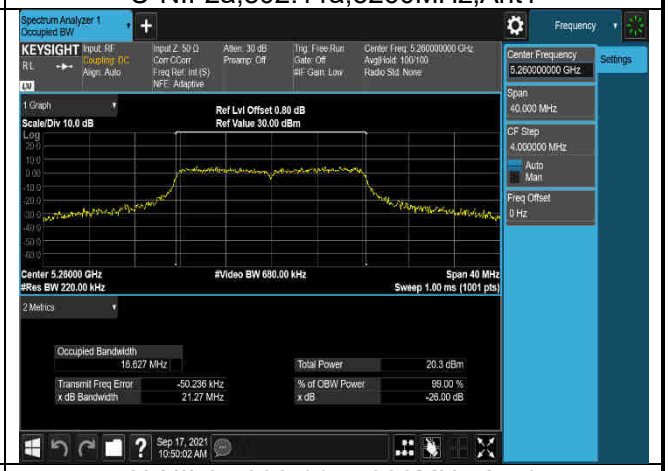
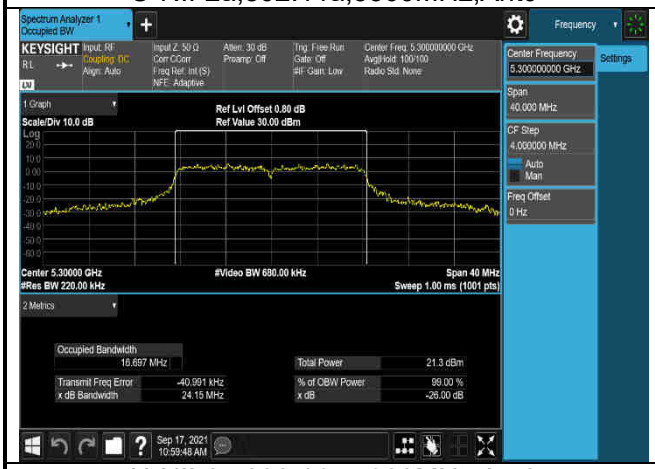
1.2 Test Plots

U-NII-2a,802.11a,5260MHz,Ant0

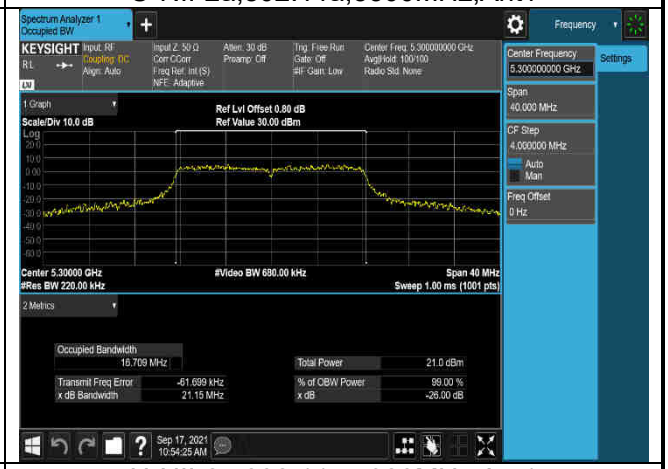
U-NII-2a,802.11a,5260MHz,Ant1



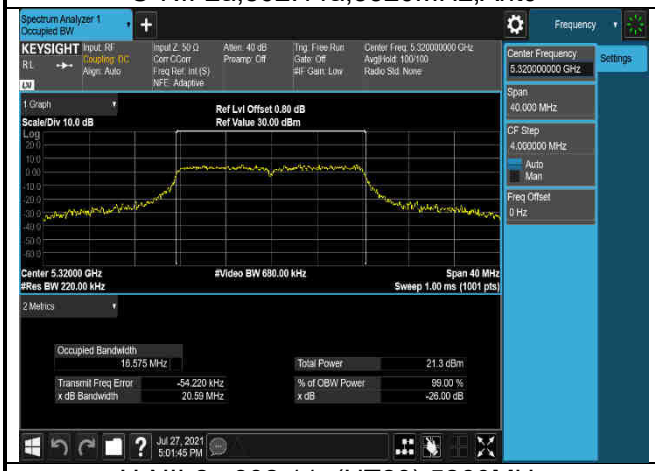
U-NII-2a,802.11a,5300MHz,Ant0



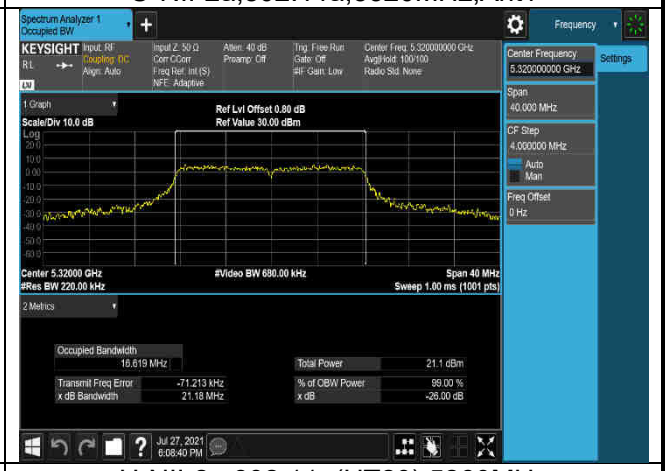
U-NII-2a,802.11a,5300MHz,Ant1



U-NII-2a,802.11a,5320MHz,Ant0



U-NII-2a,802.11a,5320MHz,Ant1



U-NII-2a,802.11n(HT20),5260MHz ,Ant0

U-NII-2a,802.11n(HT20),5260MHz ,Ant1

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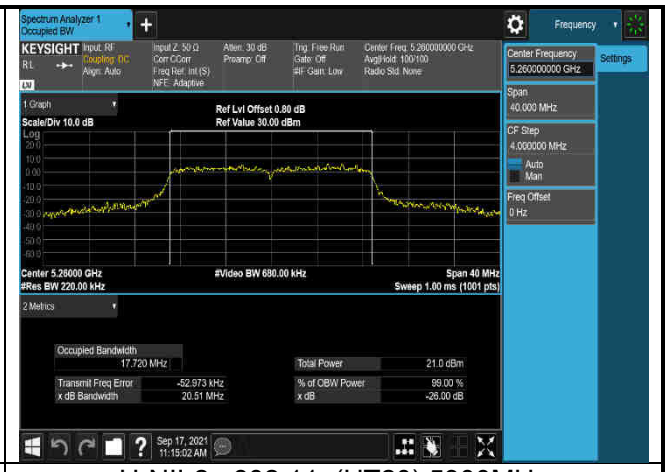
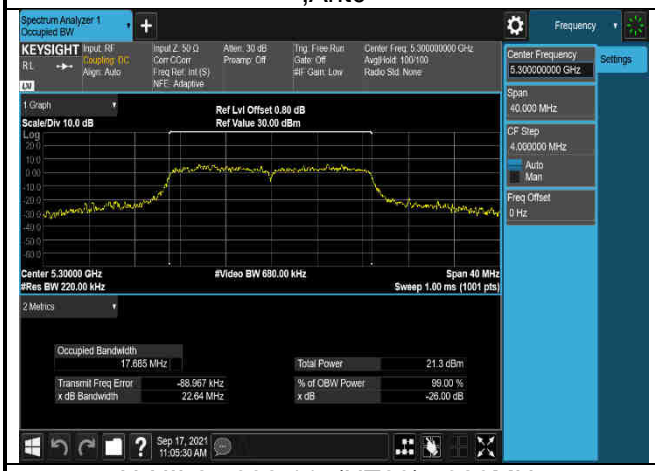
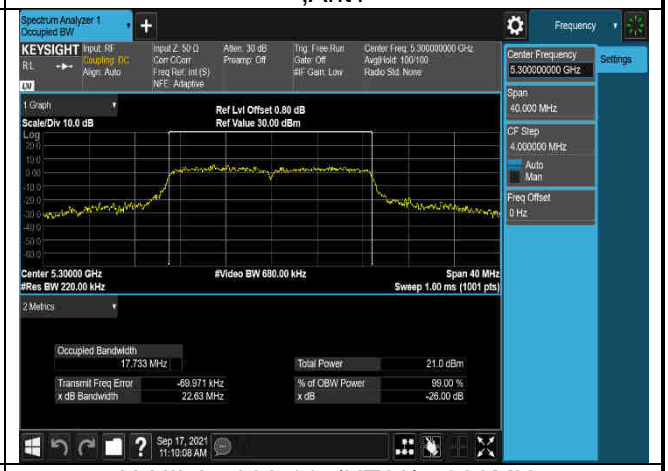
U-NII-2a,802.11n(HT20),5300MHz
,Ant0



U-NII-2a,802.11n(HT20),5300MHz
,Ant1

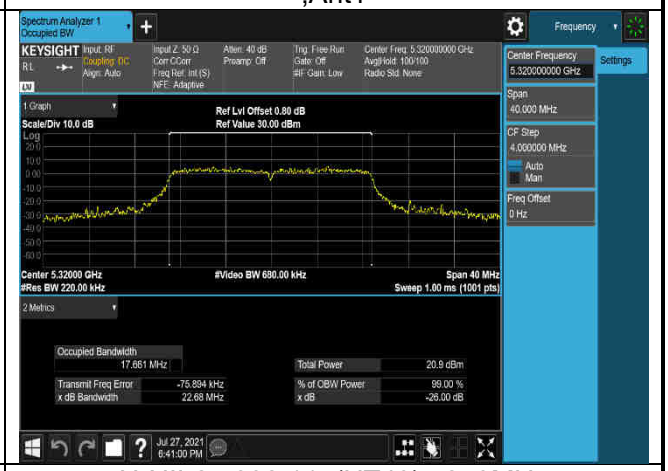


U-NII-2a,802.11n(HT20),5320MHz
,Ant0



U-NII-2a,802.11n(HT20),5320MHz
,Ant1

U-NII-2a,802.11n(HT40),5270MHz
,Ant0



U-NII-2a,802.11n(HT40),5270MHz
,Ant1

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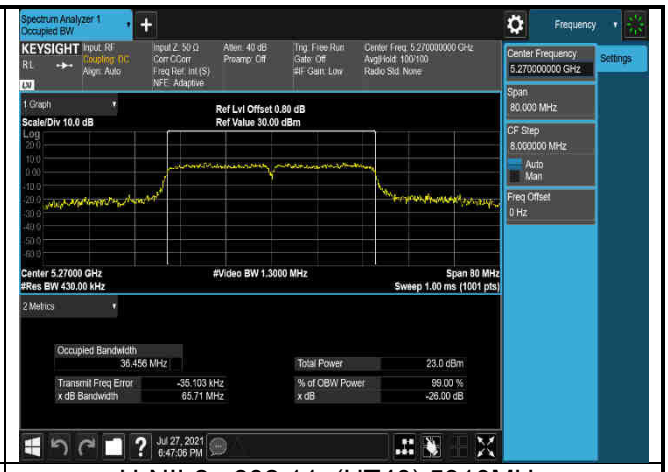
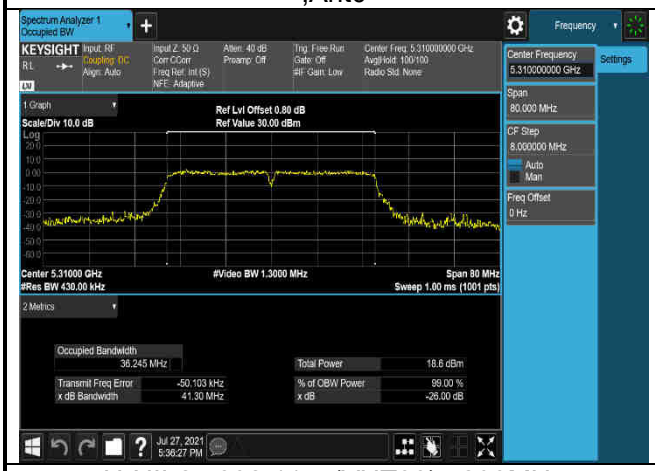
U-NII-2a,802.11n(HT40),5310MHz ,Ant0

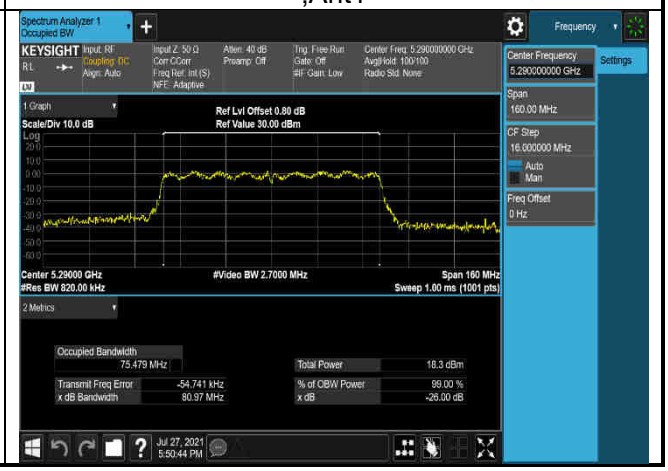


U-NII-2a,802.11n(HT40),5310MHz ,Ant1



U-NII-2a,802.11ac(VHT80),5290MHz ,Ant0

U-NII-2a,802.11ac(VHT80),5290MHz ,Ant1



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2. 99% Occupied Bandwidth

2.1 Test Data

U-NII-2a 99% Occupied Bandwidth				
Mode	Test Frequency (MHz)	Ant	99% Occupied Bandwidth (MHz)	Result
802.11a	5260	Ant0	16.670	Pass
802.11a	5260	Ant1	16.602	Pass
802.11a	5300	Ant0	16.661	Pass
802.11a	5300	Ant1	16.659	Pass
802.11a	5320	Ant0	16.581	Pass
802.11a	5320	Ant1	16.634	Pass
802.11n (HT20)	5260	Ant0	17.692	Pass
802.11n (HT20)	5260	Ant1	17.719	Pass
802.11n (HT20)	5300	Ant0	17.737	Pass
802.11n (HT20)	5300	Ant1	17.703	Pass
802.11n (HT20)	5320	Ant0	17.672	Pass
802.11n (HT20)	5320	Ant1	17.673	Pass
802.11n (HT40)	5270	Ant0	36.548	Pass
802.11n (HT40)	5270	Ant1	36.473	Pass
802.11n (HT40)	5310	Ant0	36.220	Pass
802.11n (HT40)	5310	Ant1	36.197	Pass
802.11ac (VHT80)	5290	Ant0	75.483	Pass
802.11ac (VHT80)	5290	Ant1	75.366	Pass

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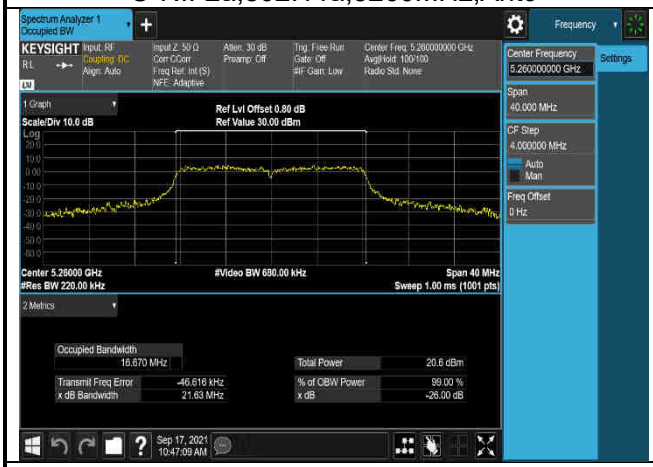
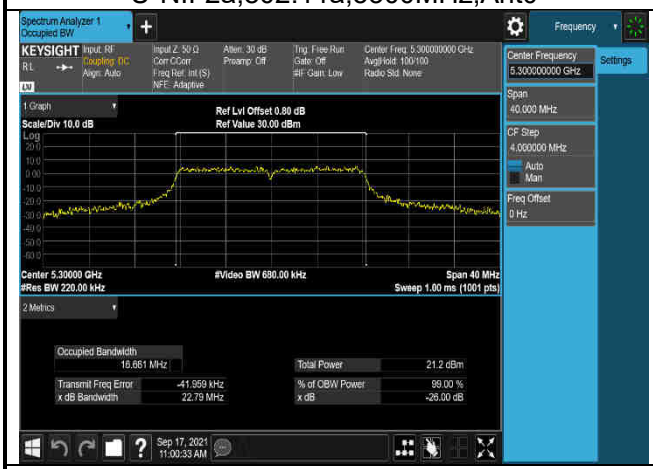
2.2 Test Plots

U-NII-2a,802.11a,5260MHz,Ant0



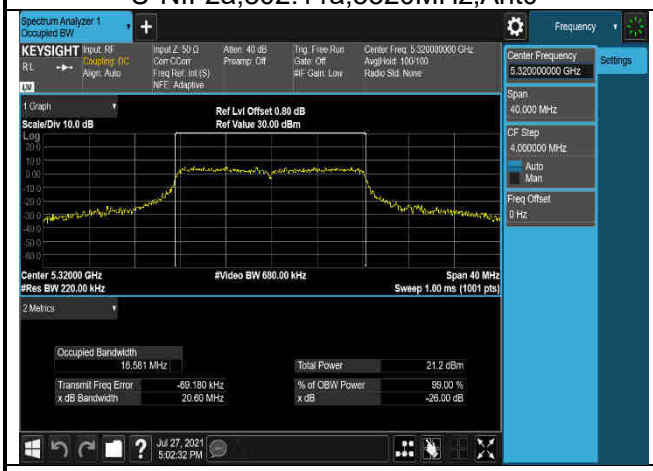
U-NII-2a,802.11a,5260MHz,Ant1

U-NII-2a,802.11a,5300MHz,Ant0

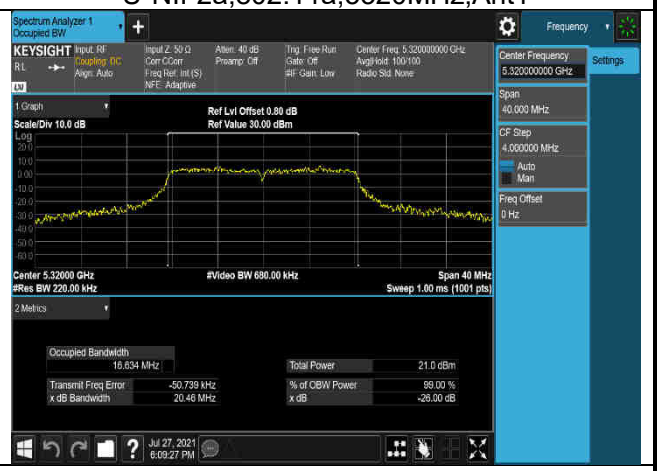


U-NII-2a,802.11a,5300MHz,Ant1

U-NII-2a,802.11a,5320MHz,Ant0



U-NII-2a,802.11a,5320MHz,Ant1



U-NII-2a,802.11n(HT20),5260MHz ,Ant0

U-NII-2a,802.11n(HT20),5260MHz ,Ant1

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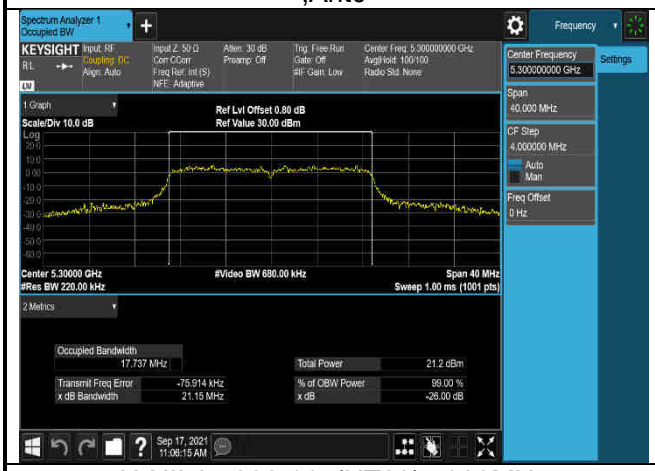
U-NII-2a,802.11n(HT20),5300MHz ,Ant0

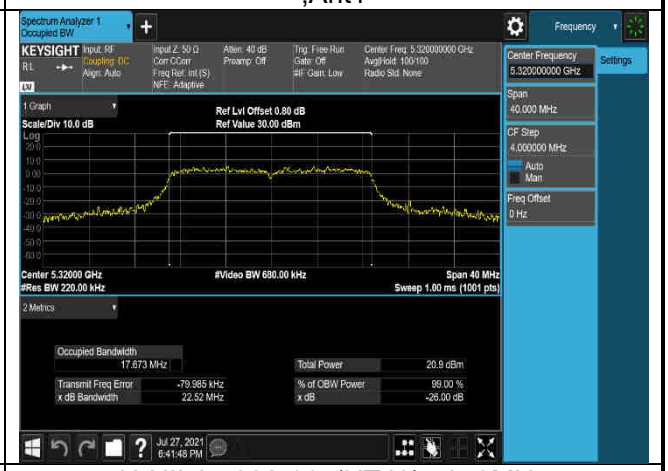
U-NII-2a,802.11n(HT20),5300MHz ,Ant1



U-NII-2a,802.11n(HT20),5320MHz ,Ant0

U-NII-2a,802.11n(HT20),5320MHz ,Ant1

U-NII-2a,802.11n(HT40),5270MHz ,Ant0



U-NII-2a,802.11n(HT40),5270MHz ,Ant1

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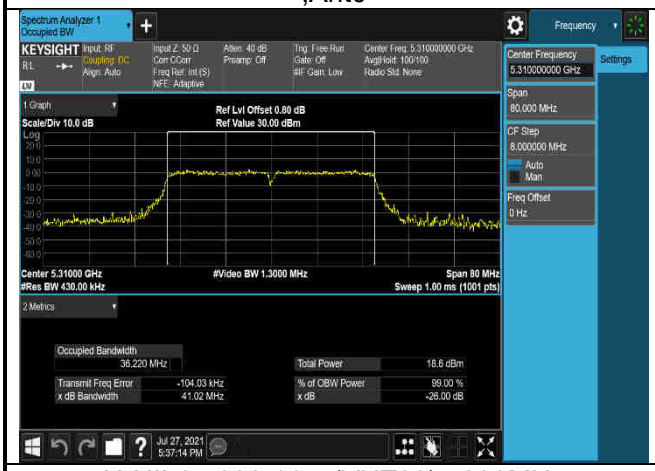
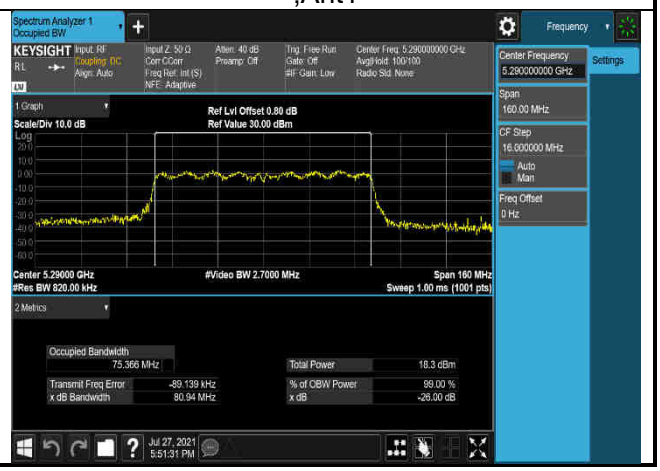
U-NII-2a,802.11n(HT40),5310MHz ,Ant0

U-NII-2a,802.11n(HT40),5310MHz ,Ant1



U-NII-2a,802.11ac(VHT80),5290MHz ,Ant0

U-NII-2a,802.11ac(VHT80),5290MHz ,Ant1



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3. Duty Cycle

3.1 Test Data

U-NII-2a Duty Cycle				
Mode	Test Frequency (MHz)	Ant	Duty Cycle (%)	Duty Cycle Factor (dB)
802.11a	5260	Ant0	57.63	2.39
802.11a	5260	Ant1	57.63	2.39
802.11a	5300	Ant0	57.63	2.39
802.11a	5300	Ant1	57.63	2.39
802.11a	5320	Ant0	57.38	2.41
802.11a	5320	Ant1	57.63	2.39
802.11n (HT20)	5260	Ant0	55.70	2.54
802.11n (HT20)	5260	Ant1	55.95	2.52
802.11n (HT20)	5300	Ant0	55.95	2.52
802.11n (HT20)	5300	Ant1	55.95	2.52
802.11n (HT20)	5320	Ant0	55.95	2.52
802.11n (HT20)	5320	Ant1	55.70	2.54
802.11n (HT40)	5270	Ant0	38.41	4.16
802.11n (HT40)	5270	Ant1	39.02	4.09
802.11n (HT40)	5310	Ant0	39.02	4.09
802.11n (HT40)	5310	Ant1	38.65	4.13
802.11ac (VHT80)	5290	Ant0	24.24	6.15
802.11ac (VHT80)	5290	Ant1	24.24	6.15

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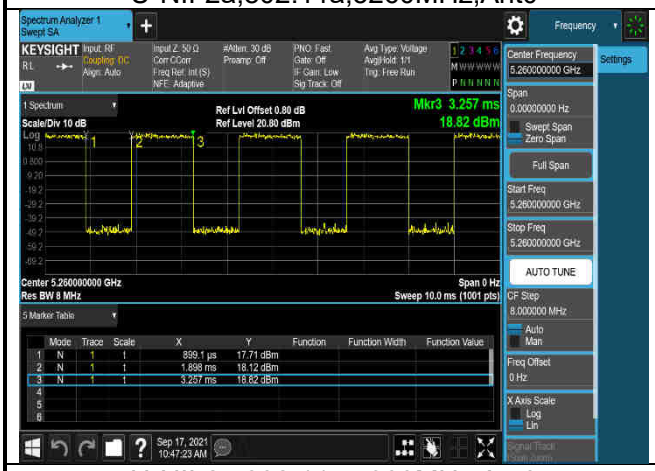
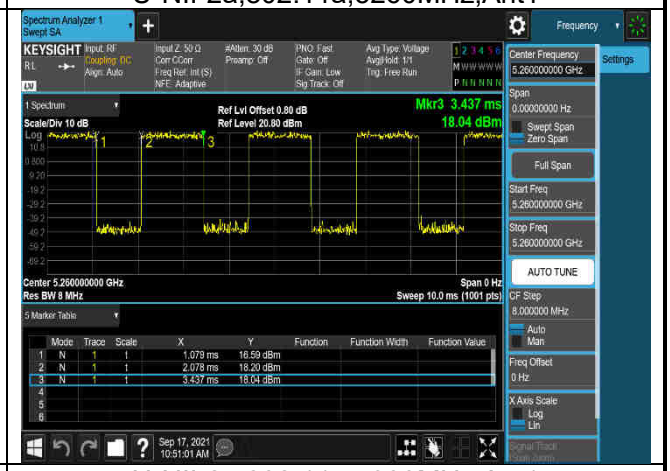
3.2 Test Plots

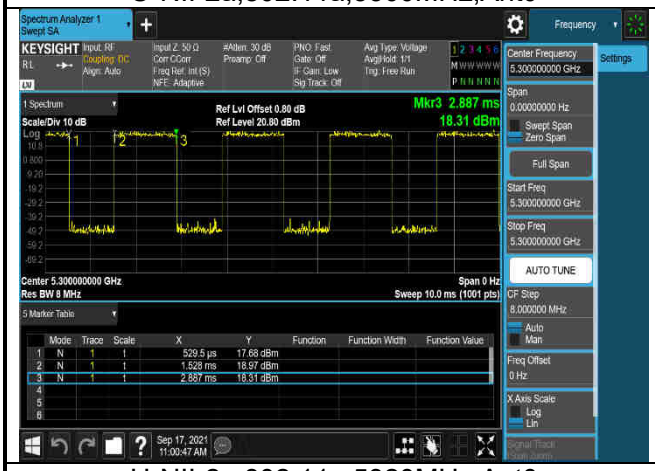
U-NII-2a,802.11a,5260MHz,Ant0



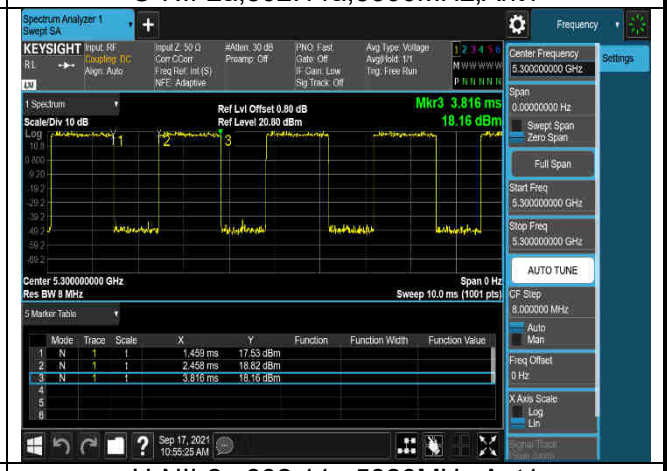
U-NII-2a,802.11a,5260MHz,Ant1



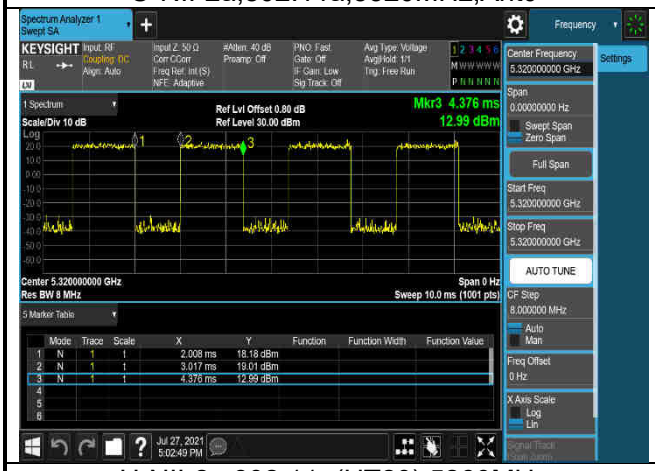
U-NII-2a,802.11a,5300MHz,Ant0



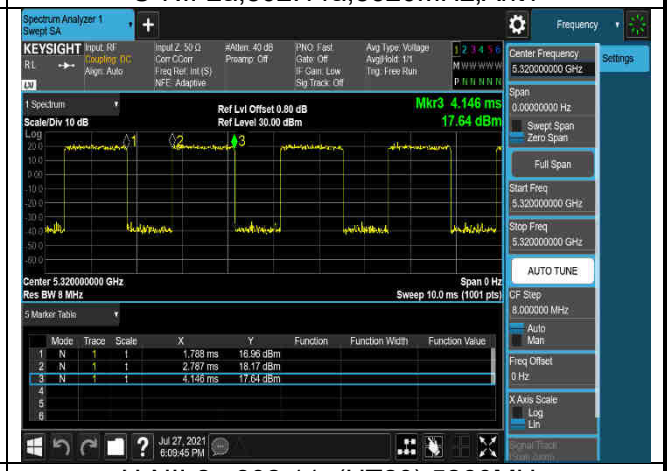
U-NII-2a,802.11a,5300MHz,Ant1



U-NII-2a,802.11a,5320MHz,Ant0



U-NII-2a,802.11a,5320MHz,Ant1



U-NII-2a,802.11n(HT20),5260MHz ,Ant0

U-NII-2a,802.11n(HT20),5260MHz ,Ant1

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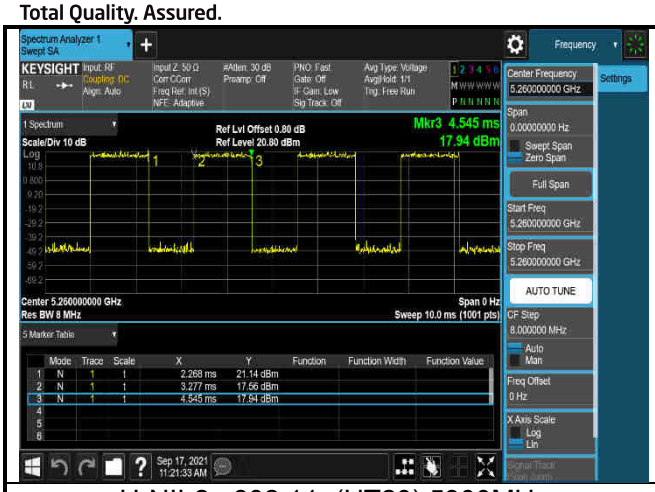
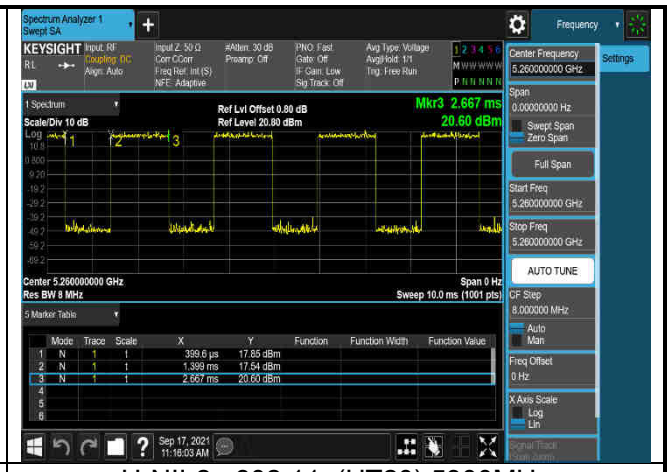
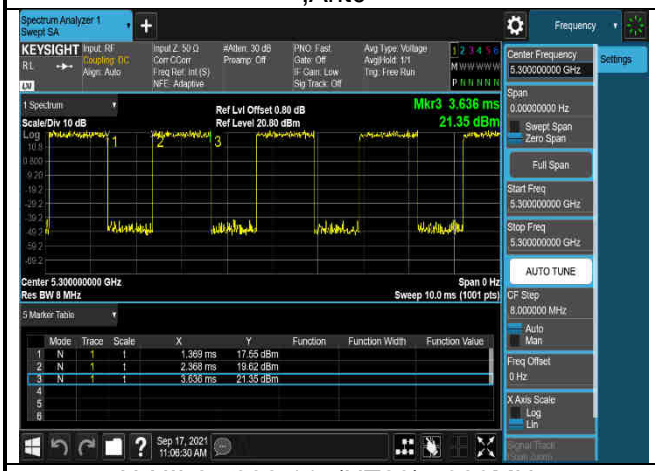


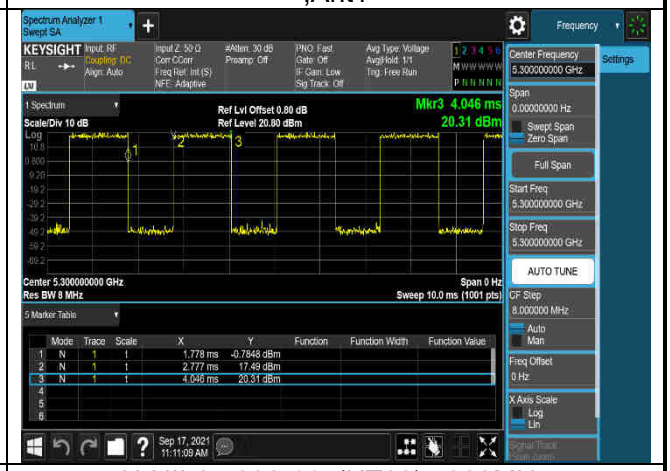
U-NII-2a,802.11n(HT20),5300MHz ,Ant0



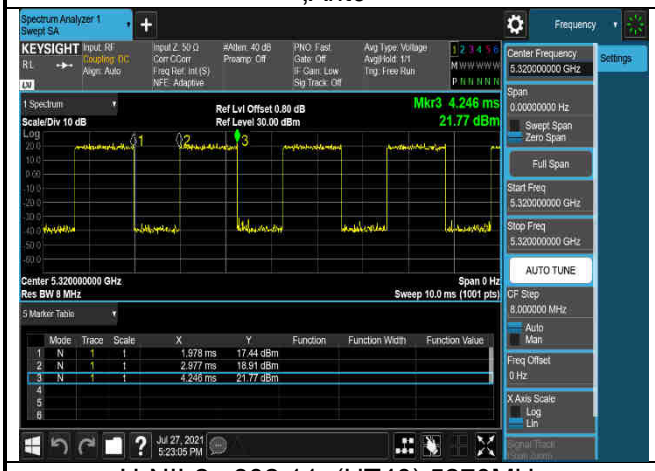
U-NII-2a,802.11n(HT20),5300MHz ,Ant1



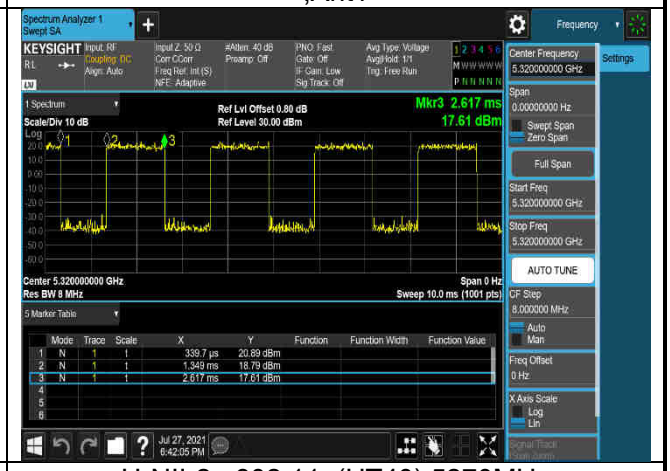
U-NII-2a,802.11n(HT20),5320MHz ,Ant0



U-NII-2a,802.11n(HT20),5320MHz ,Ant1



U-NII-2a,802.11n(HT40),5270MHz ,Ant0



U-NII-2a,802.11n(HT40),5270MHz ,Ant1

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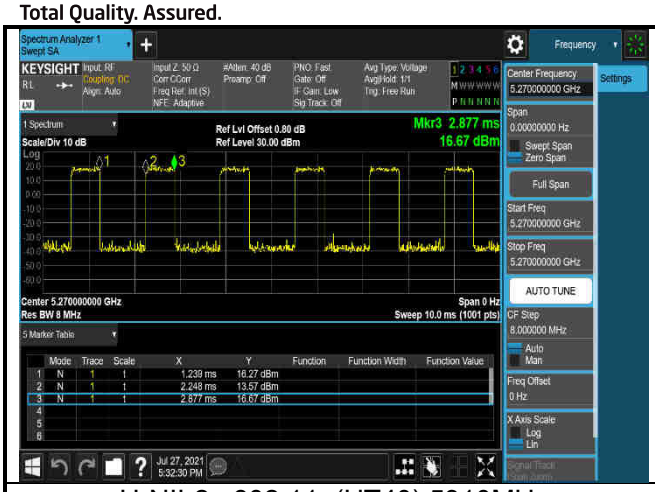
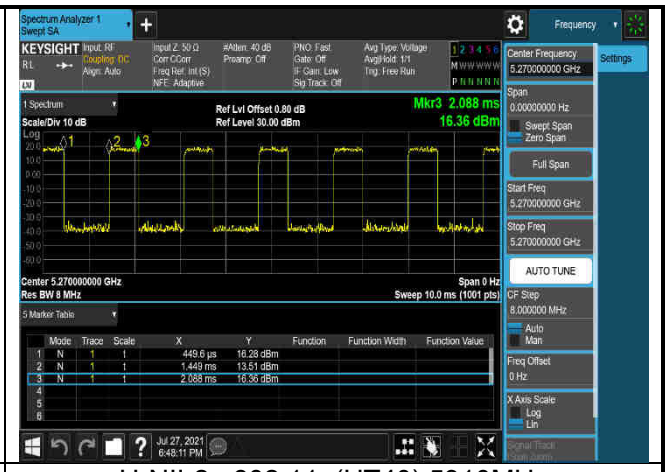
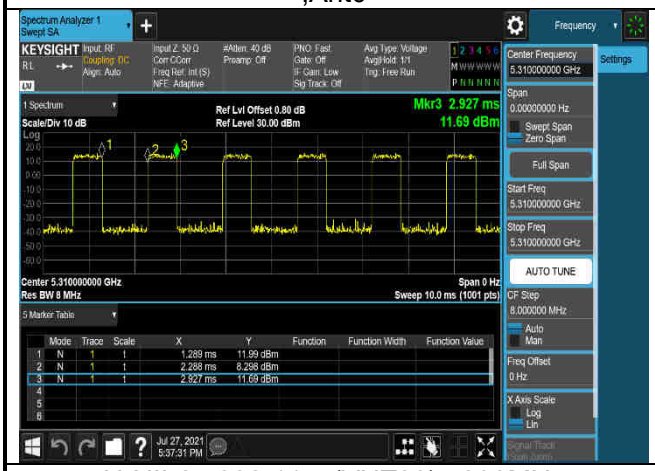


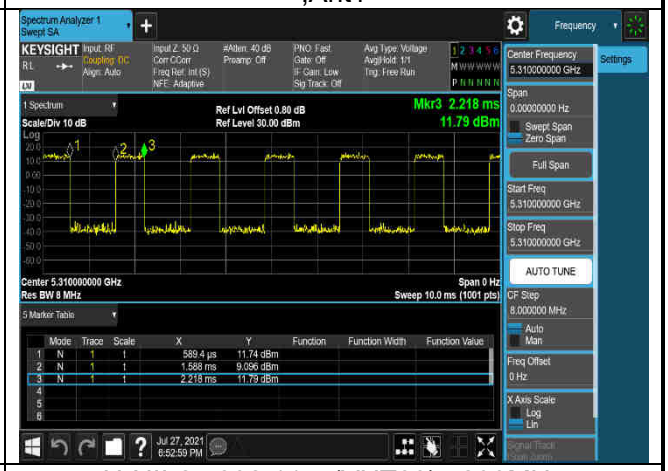
U-NII-2a,802.11n(HT40),5310MHz ,Ant0



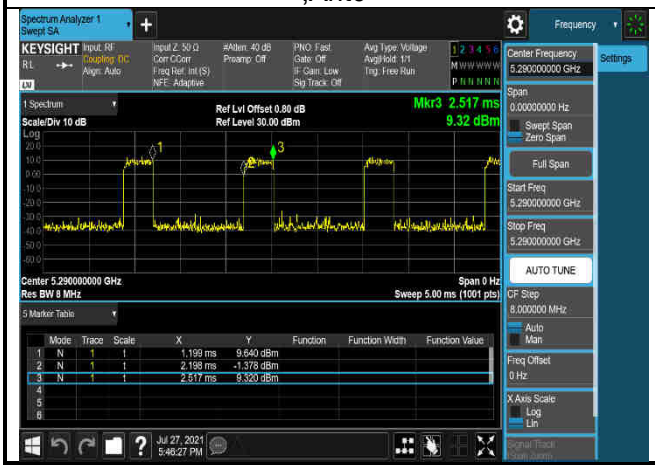
U-NII-2a,802.11n(HT40),5310MHz ,Ant1

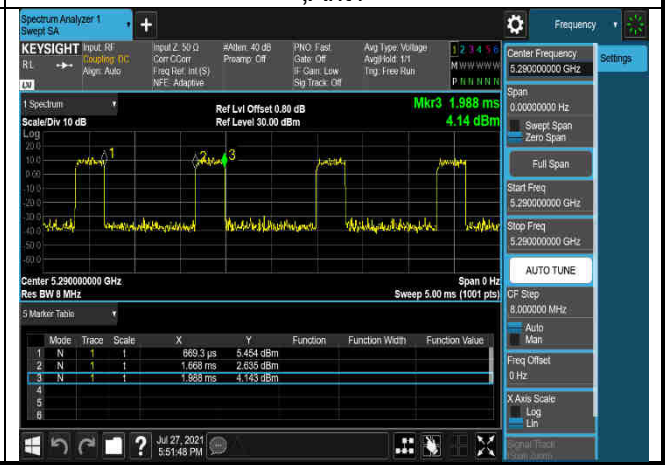


U-NII-2a,802.11ac(VHT80),5290MHz ,Ant0



U-NII-2a,802.11ac(VHT80),5290MHz ,Ant1





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4. AVGSA Output Power

4.1 Test Data

	U-NII-2a AVGSA Output Power							
Mode	Test Frequency (MHz)	Ant	Duty Cycle Factor (dB)	Max Power (dBm)	Limit (dBm)	EIRP (dBm)	IC Limit (dBm)	Result
802.11a	5260	Ant0	2.39	15.21	24	18.89	23	Pass
802.11a	5260	Ant1	2.39	14.61	24	18.29	23	Pass
802.11a	5300	Ant0	2.39	15.74	24	19.42	23	Pass
802.11a	5300	Ant1	2.39	15.45	24	19.13	23	Pass
802.11a	5320	Ant0	2.41	15.67	24	19.25	23	Pass
802.11a	5320	Ant1	2.39	15.50	24	19.08	23	Pass
802.11n (HT20)	5260	Ant0	2.54	15.34	24	19.02	23	Pass
802.11n (HT20)	5260	Ant1	2.52	15.15	24	18.83	23	Pass
802.11n (HT20)	5300	Ant0	2.52	15.44	24	19.12	23	Pass
802.11n (HT20)	5300	Ant1	2.52	15.43	24	19.11	23	Pass
802.11n (HT20)	5320	Ant0	2.52	15.62	24	19.20	23	Pass
802.11n (HT20)	5320	Ant1	2.54	15.47	24	19.05	23	Pass
802.11n (HT40)	5270	Ant0	4.16	17.68	24	21.26	24	Pass
802.11n (HT40)	5270	Ant1	4.09	17.28	24	20.86	24	Pass
802.11n (HT40)	5310	Ant0	4.09	13.14	24	16.72	24	Pass
802.11n (HT40)	5310	Ant1	4.13	12.92	24	16.50	24	Pass
802.11ac (VHT80)	5290	Ant0	6.15	11.35	24	14.93	24	Pass
802.11ac (VHT80)	5290	Ant1	6.15	12.45	24	16.03	24	Pass

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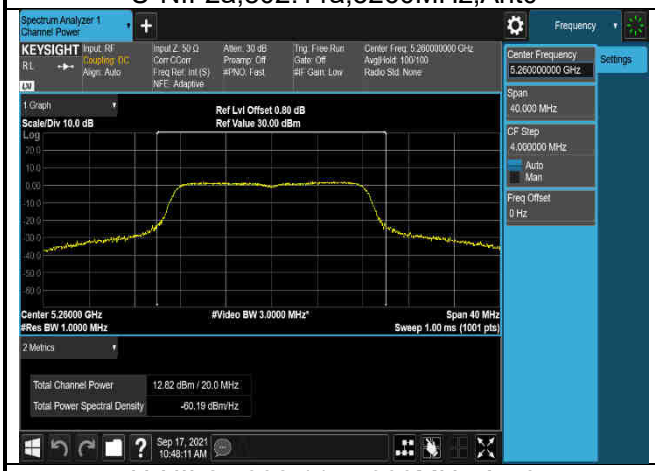
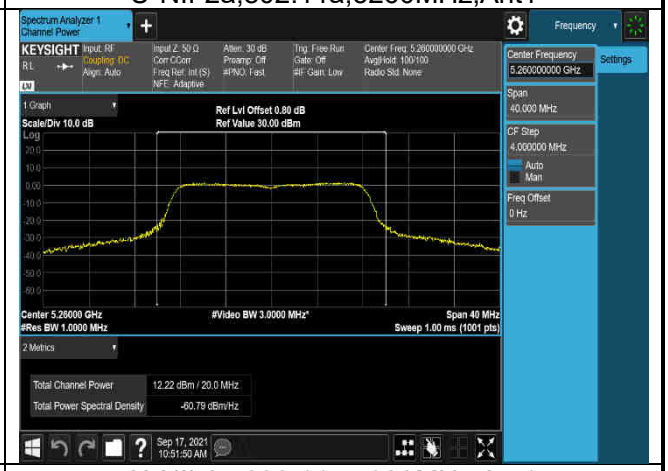
4.2 Test Plots

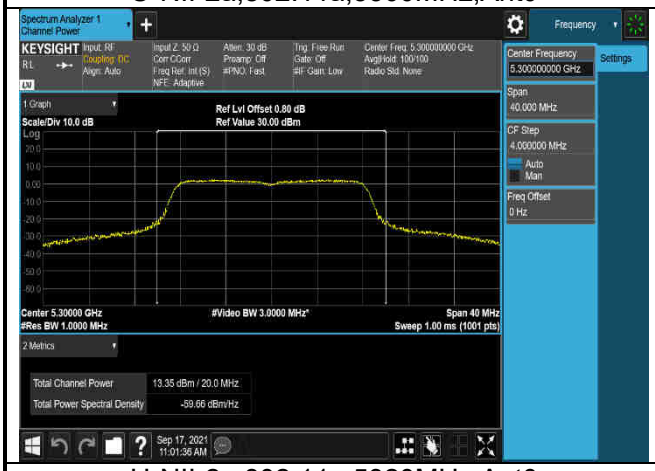
U-NII-2a,802.11a,5260MHz,Ant0



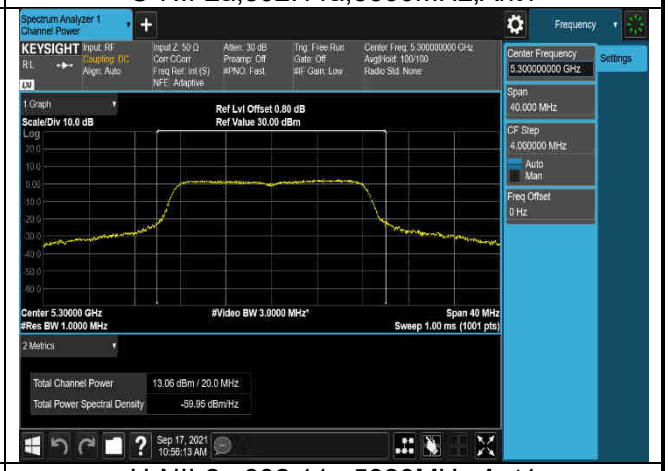
U-NII-2a,802.11a,5260MHz,Ant1



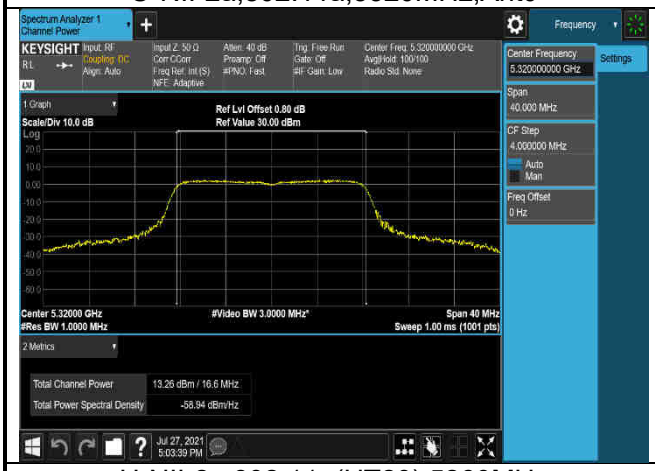
U-NII-2a,802.11a,5300MHz,Ant0



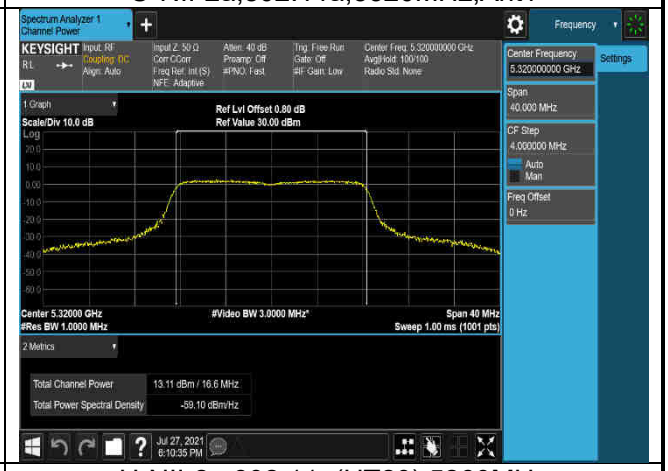
U-NII-2a,802.11a,5300MHz,Ant1



U-NII-2a,802.11a,5320MHz,Ant0



U-NII-2a,802.11a,5320MHz,Ant1



U-NII-2a,802.11n(HT20),5260MHz ,Ant0

U-NII-2a,802.11n(HT20),5260MHz ,Ant1

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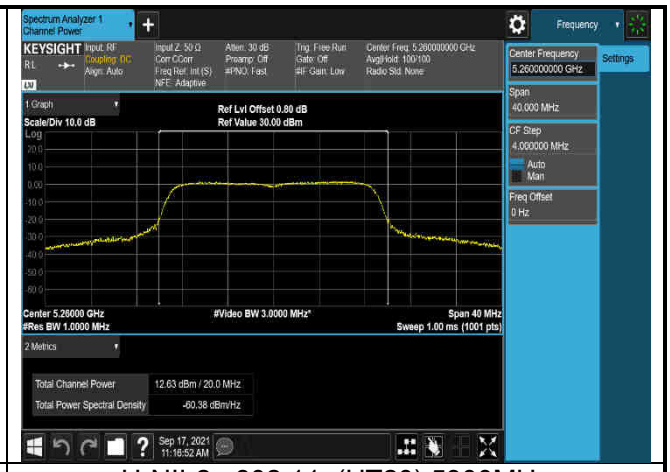
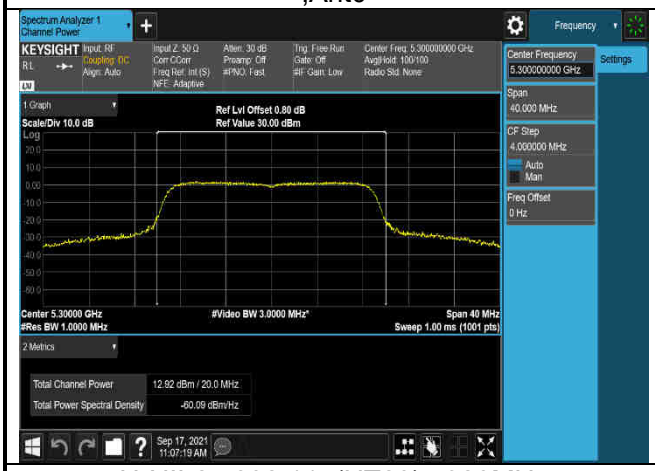
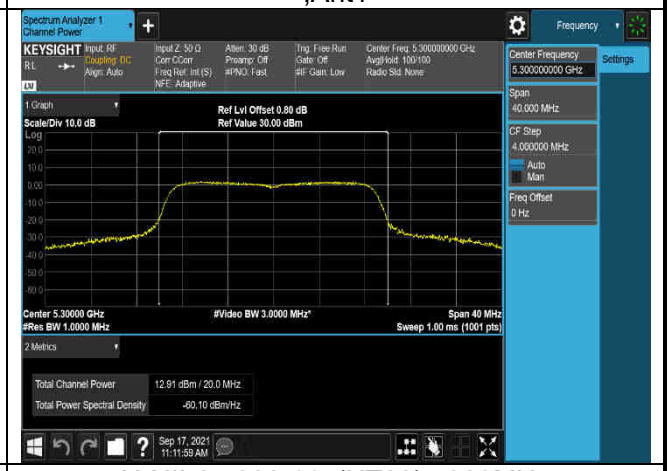
U-NII-2a,802.11n(HT20),5300MHz ,Ant0



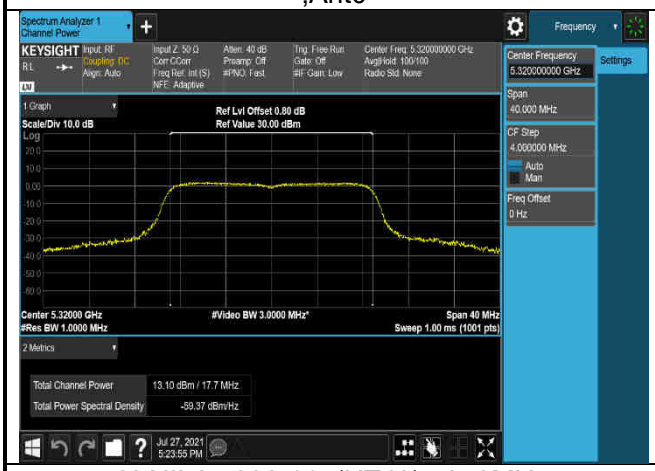
U-NII-2a,802.11n(HT20),5300MHz ,Ant1



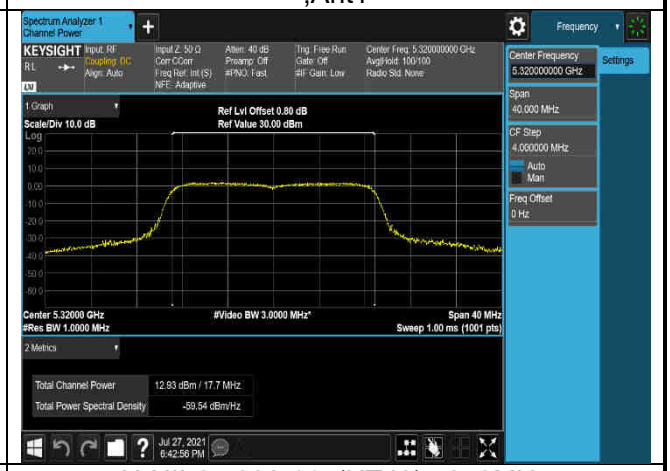
U-NII-2a,802.11n(HT20),5320MHz ,Ant0



U-NII-2a,802.11n(HT20),5320MHz ,Ant1



U-NII-2a,802.11n(HT40),5270MHz ,Ant0



U-NII-2a,802.11n(HT40),5270MHz ,Ant1

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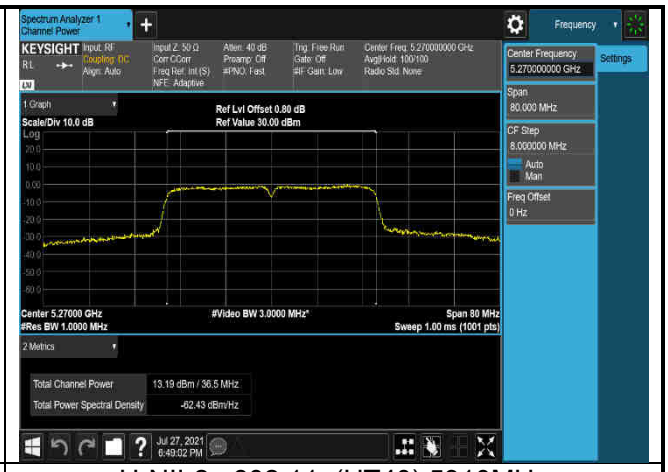
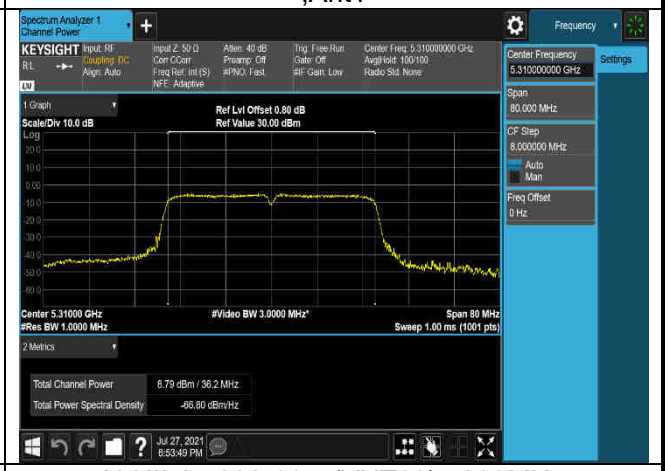
U-NII-2a,802.11n(HT40),5310MHz
,Ant0



U-NII-2a,802.11n(HT40),5310MHz
,Ant1

U-NII-2a,802.11ac(VHT80),5290MHz
,Ant0



U-NII-2a,802.11ac(VHT80),5290MHz
,Ant1

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5. AVGSA Power Spectral Density

5.1 Test Data

U-NII-2a AVGSA Power Spectral Density								
Mode	Test Frequency (MHz)	Ant	Duty Cycle Factor (dB)	PSD (dBm)	FCC Limit (dBm)	ERIP PSD (dBm)	IC Limit (dBm)	Result
802.11a	5260	Ant0	2.39	4.134	11	7.814	10	Pass
802.11a	5260	Ant1	2.39	4.015	11	7.695	10	Pass
802.11a	5300	Ant0	2.39	5.314	11	8.994	10	Pass
802.11a	5300	Ant1	2.39	5.800	11	9.48	10	Pass
802.11a	5320	Ant0	2.41	4.963	11	8.643	10	Pass
802.11a	5320	Ant1	2.39	4.833	11	8.513	10	Pass
802.11n (HT20)	5260	Ant0	2.54	5.894	11	9.574	10	Pass
802.11n (HT20)	5260	Ant1	2.52	3.852	11	7.532	10	Pass
802.11n (HT20)	5300	Ant0	2.52	4.298	11	7.978	10	Pass
802.11n (HT20)	5300	Ant1	2.52	3.910	11	7.59	10	Pass
802.11n (HT20)	5320	Ant0	2.52	4.403	11	8.083	10	Pass
802.11n (HT20)	5320	Ant1	2.54	4.708	11	8.388	10	Pass
802.11n (HT40)	5270	Ant0	4.16	3.733	11	7.413	10	Pass
802.11n (HT40)	5270	Ant1	4.09	4.090	11	7.77	10	Pass
802.11n (HT40)	5310	Ant0	4.09	-0.419	11	3.261	10	Pass
802.11n (HT40)	5310	Ant1	4.13	-0.950	11	2.73	10	Pass
802.11ac (VHT80)	5290	Ant0	6.15	-3.520	11	0.16	10	Pass
802.11ac (VHT80)	5290	Ant1	6.15	-1.907	11	1.773	10	Pass

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5.2 Test Plots

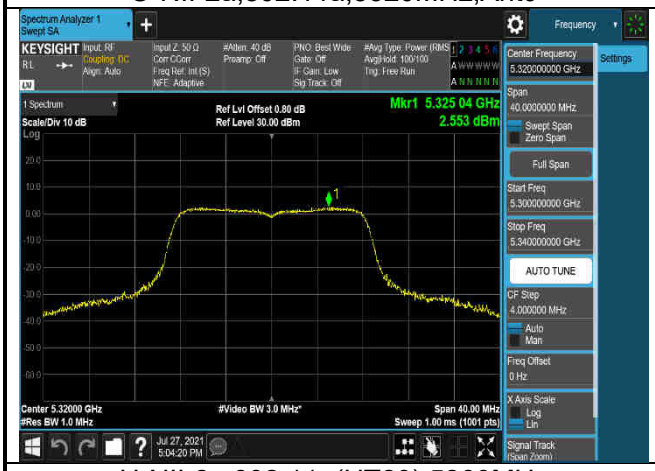
U-NII-2a,802.11a,5260MHz,Ant0

U-NII-2a,802.11a,5260MHz,Ant1

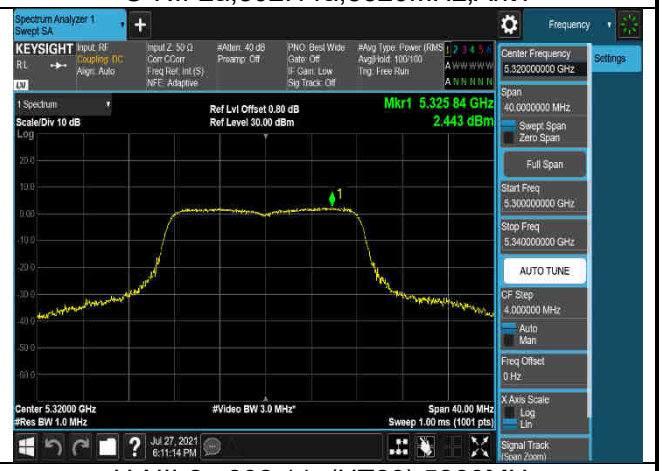
U-NII-2a,802.11a,5300MHz,Ant0

U-NII-2a,802.11a,5300MHz,Ant1

U-NII-2a,802.11a,5320MHz,Ant0



U-NII-2a,802.11a,5320MHz,Ant1



U-NII-2a,802.11n(HT20),5260MHz ,Ant0

U-NII-2a,802.11n(HT20),5260MHz ,Ant1

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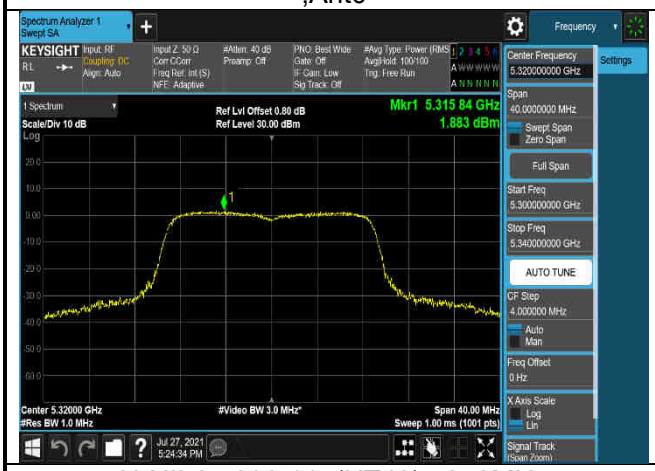
U-NII-2a,802.11n(HT20),5300MHz ,Ant0

U-NII-2a,802.11n(HT20),5300MHz ,Ant1

U-NII-2a,802.11n(HT20),5320MHz ,Ant0

U-NII-2a,802.11n(HT20),5320MHz ,Ant1



U-NII-2a,802.11n(HT40),5270MHz ,Ant0

U-NII-2a,802.11n(HT40),5270MHz ,Ant1

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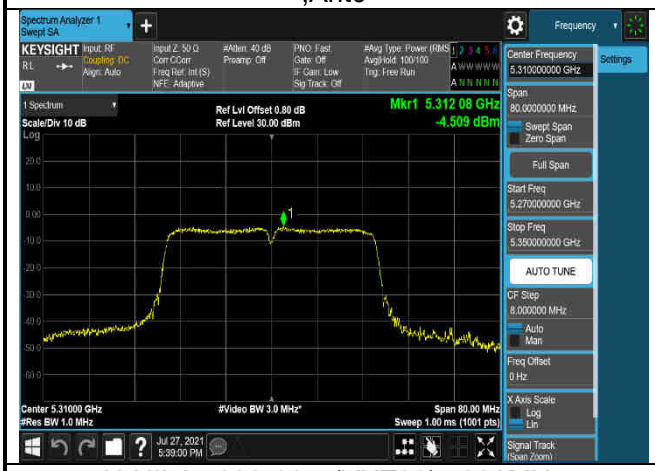
U-NII-2a,802.11n(HT40),5310MHz ,Ant0

U-NII-2a,802.11n(HT40),5310MHz ,Ant1



U-NII-2a,802.11ac(VHT80),5290MHz ,Ant0

U-NII-2a,802.11ac(VHT80),5290MHz ,Ant1

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