

Power Spectral Density
Test Model 802.11n-HT40

U-NII - 1
Frequency(MHz) 5230



Power Spectral Density
Test Model 802.11ac(HT40)

U-NII - 1
Frequency(MHz) 5190



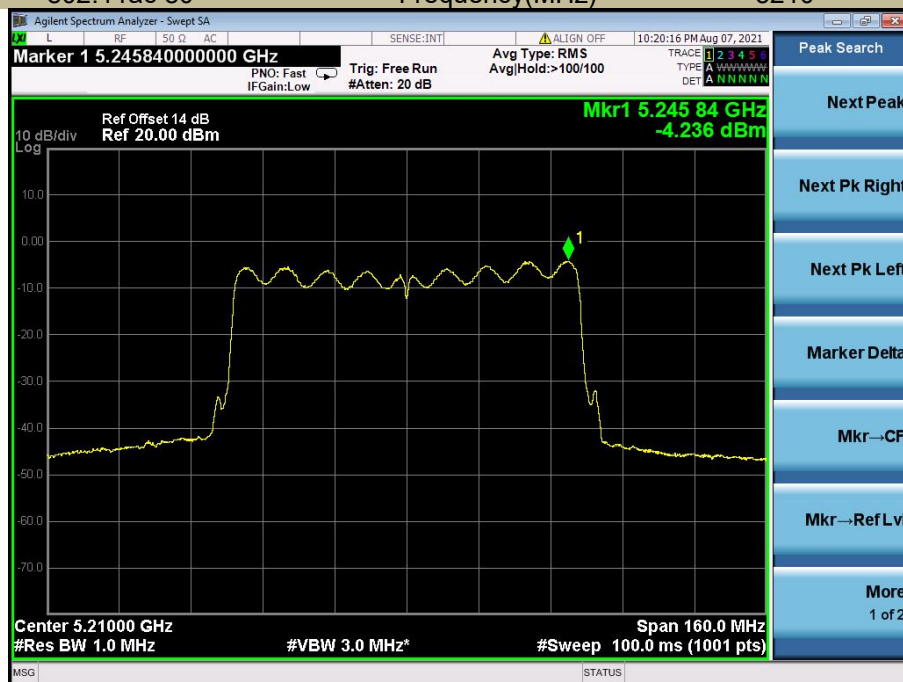
Power Spectral Density
Test Model 802.11ac(HT40)

U-NII - 1
Frequency(MHz) 5230



Power Spectral Density
Test Model 802.11ac 80

U-NII - 1
Frequency(MHz) 5210

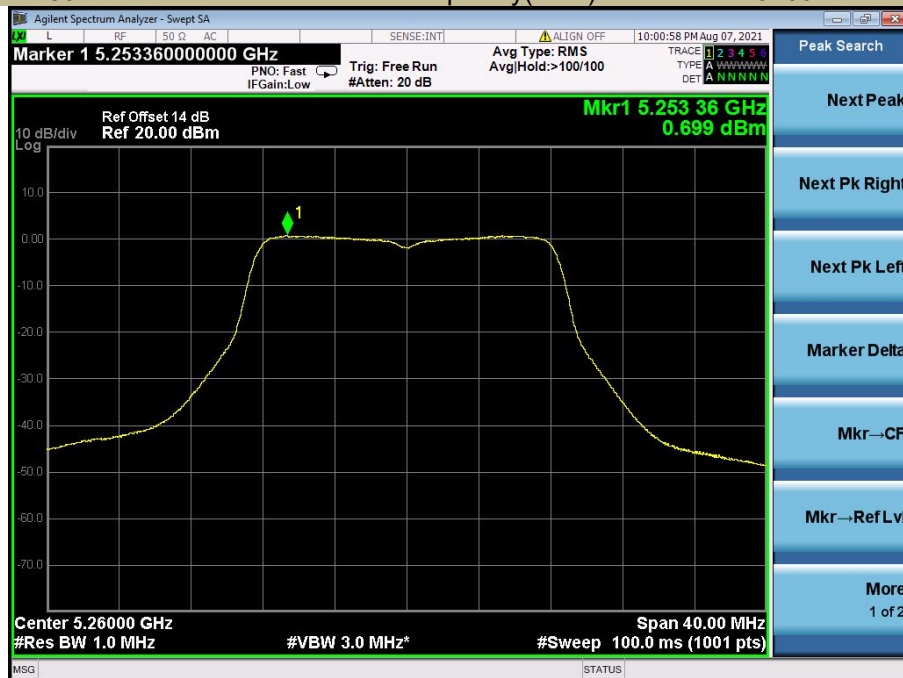


5250-5350MHz

Operating mode	Test Channel	Power Spectral Density dBm/MHz	Limit (dBm/MHz)
802.11a	5260	0.699	11
	5280	0.588	11
	5320	1.122	11
802.11n-HT20	5260	0.023	11
	5280	-0.055	11
	5320	0.400	11
802.11ac(HT20)	5260	-0.281	11
	5280	-0.325	11
	5320	0.182	11
802.11n-HT40	5270	-3.259	11
	5310	-2.819	11
802.11ac(HT40)	5270	-2.915	11
	5310	-2.522	11
802.11ac(HT80)	5290	-4.273	11

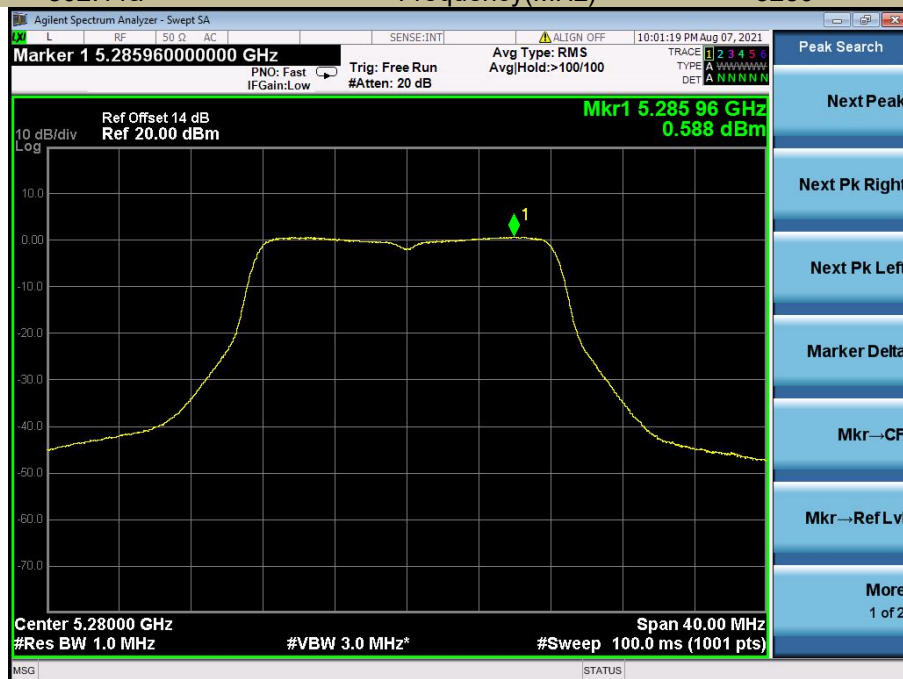
Power Spectral Density
Test Model 802.11a

U-NII – 2A
Frequency(MHz) 5260



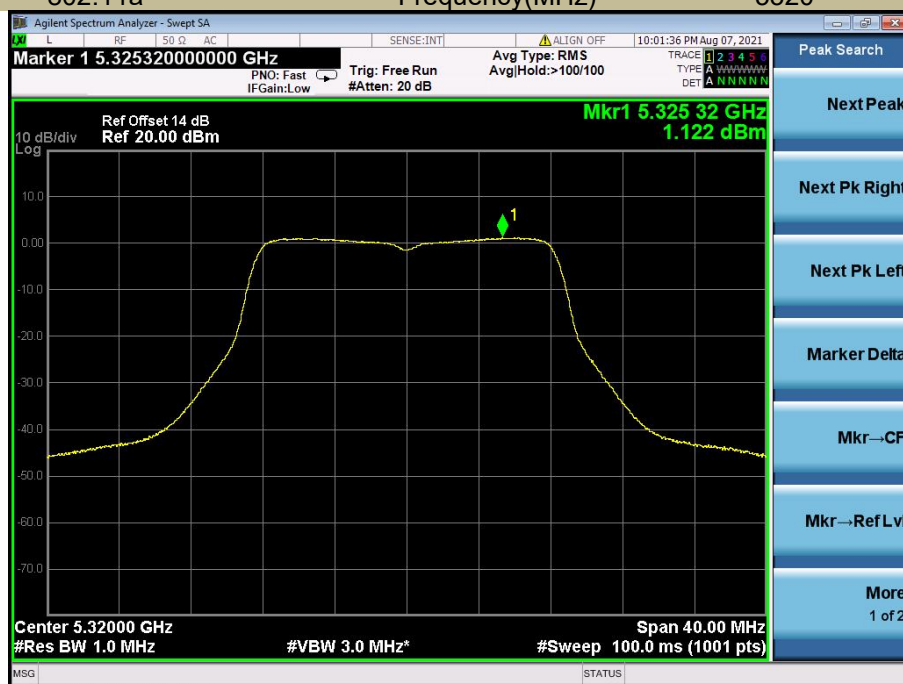
Power Spectral Density
Test Model 802.11a

U-NII – 2A
Frequency(MHz) 5280



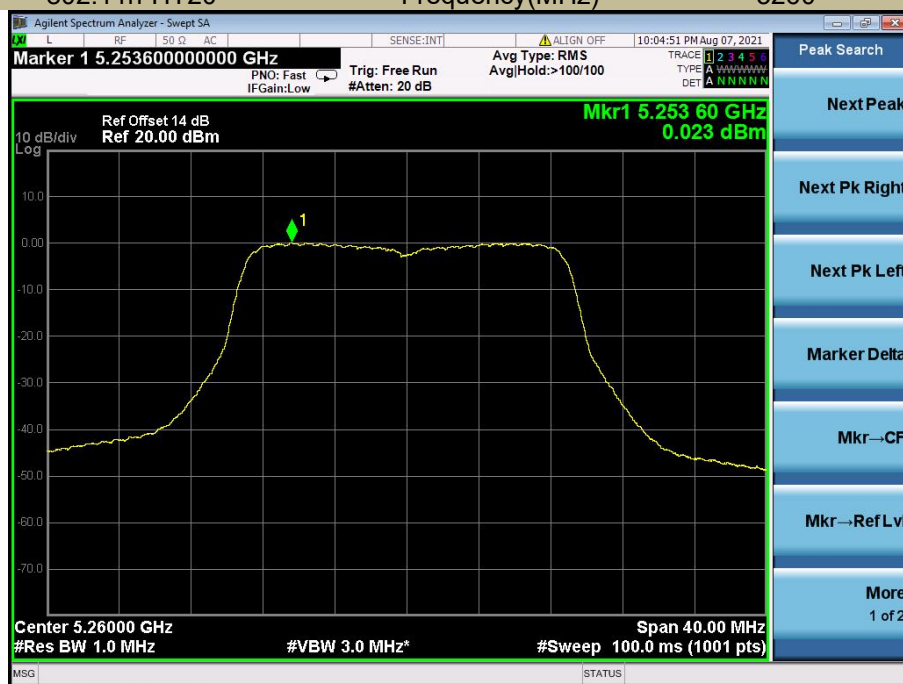
Power Spectral Density
Test Model 802.11a

U-NII – 2A
Frequency(MHz) 5320



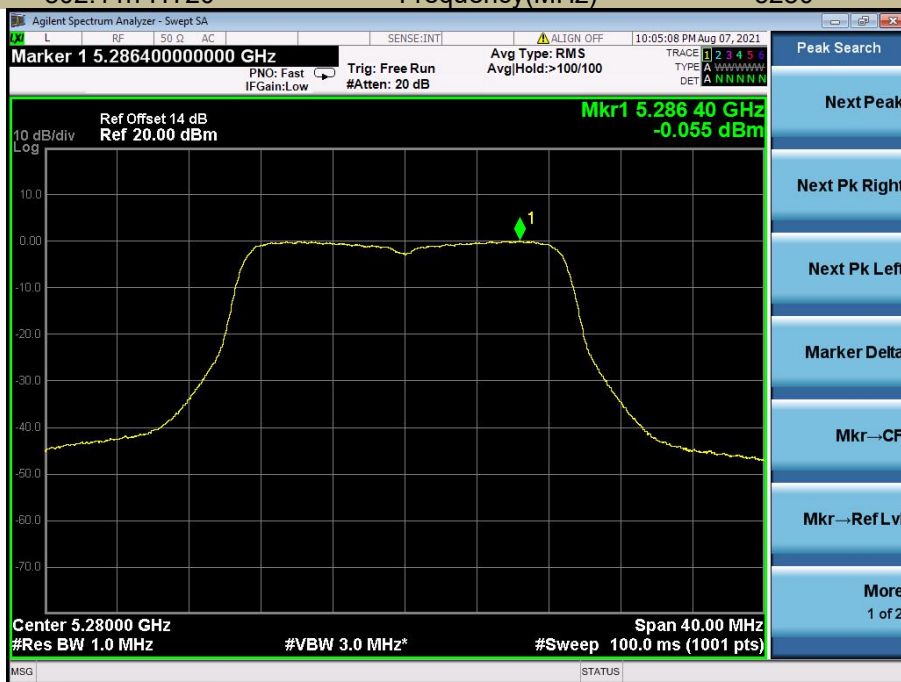
Power Spectral Density
Test Model 802.11n-HT20

U-NII – 2A
Frequency(MHz) 5260



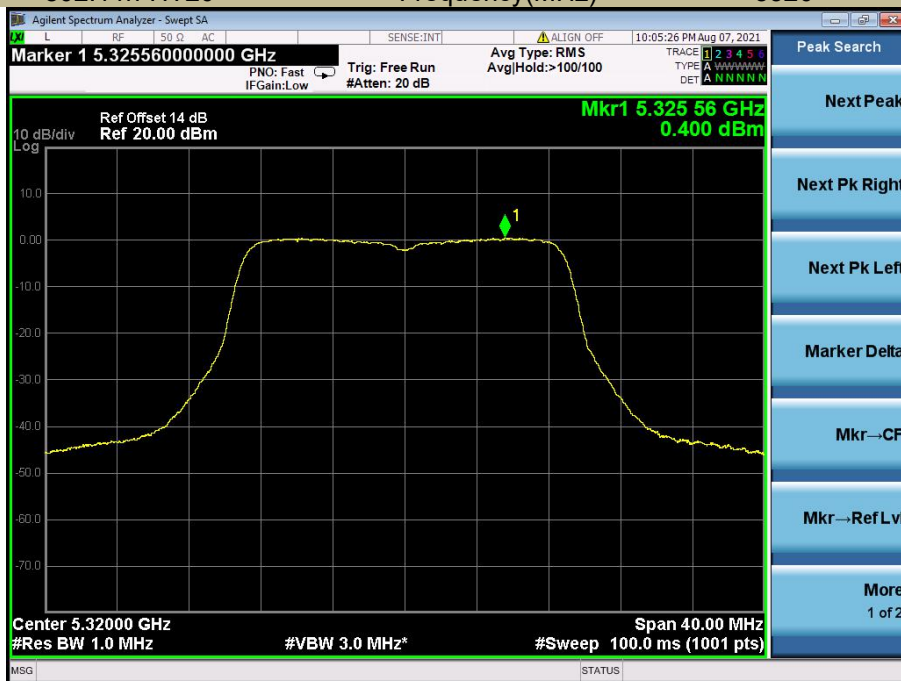
Power Spectral Density
Test Model 802.11n-HT20

U-NII – 2A
Frequency(MHz) 5280



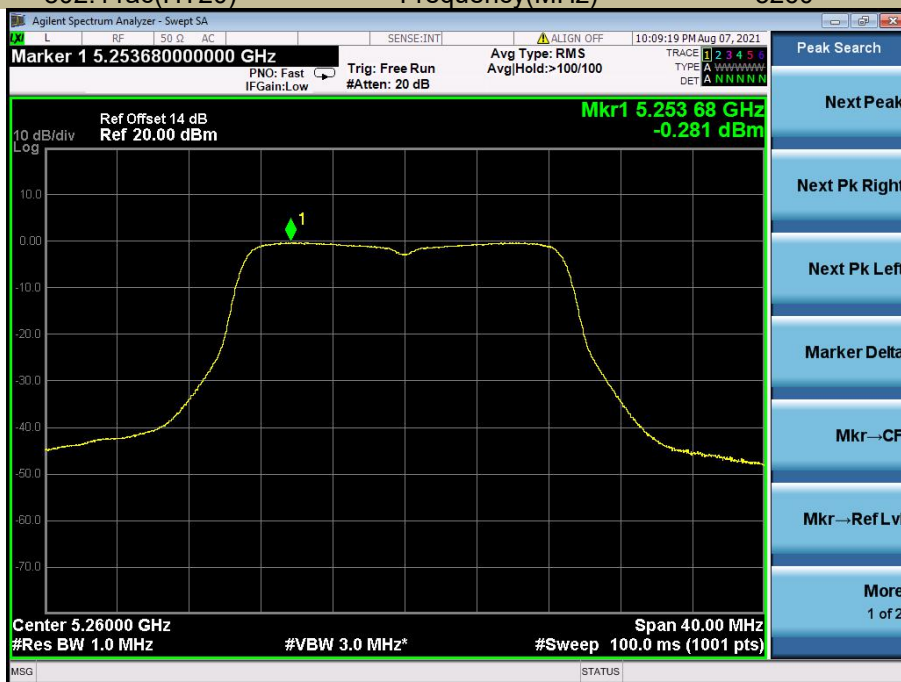
Power Spectral Density
Test Model 802.11n-HT20

U-NII – 2A
Frequency(MHz) 5320



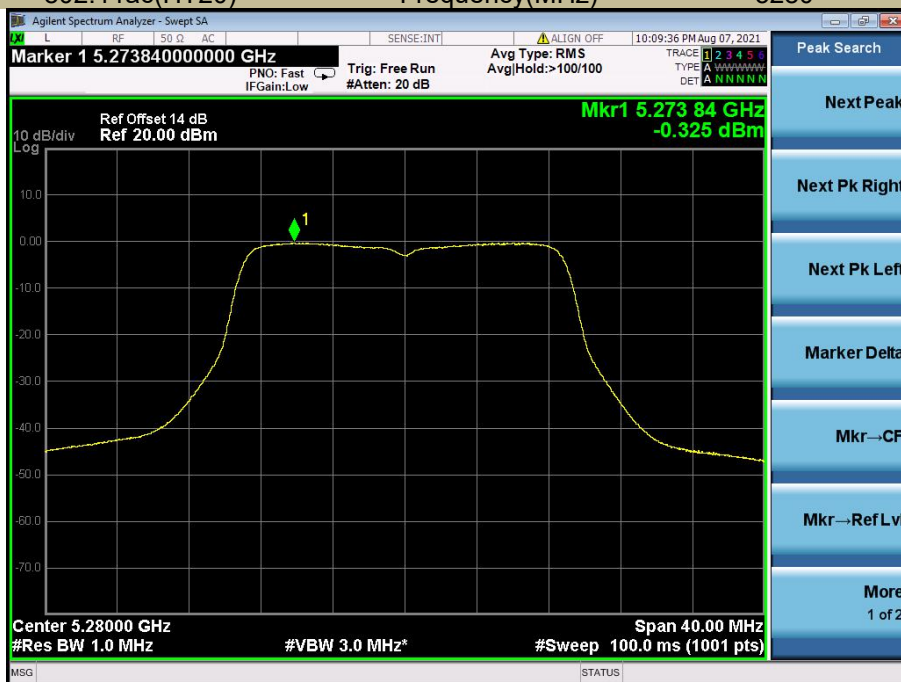
Power Spectral Density
Test Model 802.11ac(HT20)

U-NII – 2A
Frequency(MHz) 5260



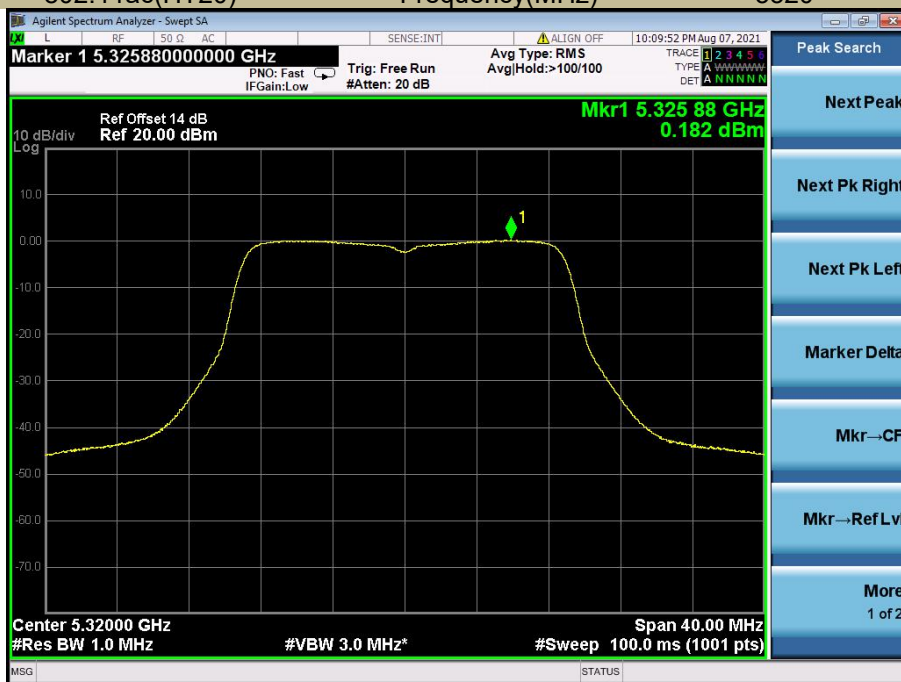
Power Spectral Density
Test Model 802.11ac(HT20)

U-NII – 2A
Frequency(MHz) 5280



Power Spectral Density
Test Model 802.11ac(HT20)

U-NII – 2A
Frequency(MHz) 5320



Power Spectral Density
Test Model 802.11n-HT40

U-NII – 2A
Frequency(MHz) 5270



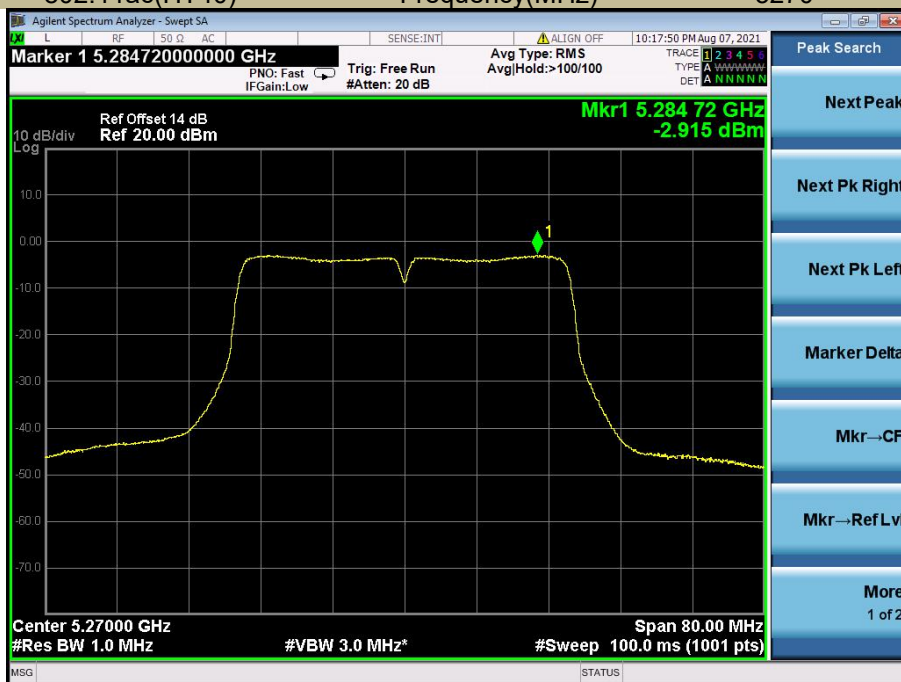
Power Spectral Density
Test Model 802.11n-HT40

U-NII – 2A
Frequency(MHz) 5310



Power Spectral Density
Test Model 802.11ac(HT40)

U-NII – 2A
Frequency(MHz) 5270



Power Spectral Density
Test Model 802.11ac(HT40)

U-NII – 2A
Frequency(MHz)

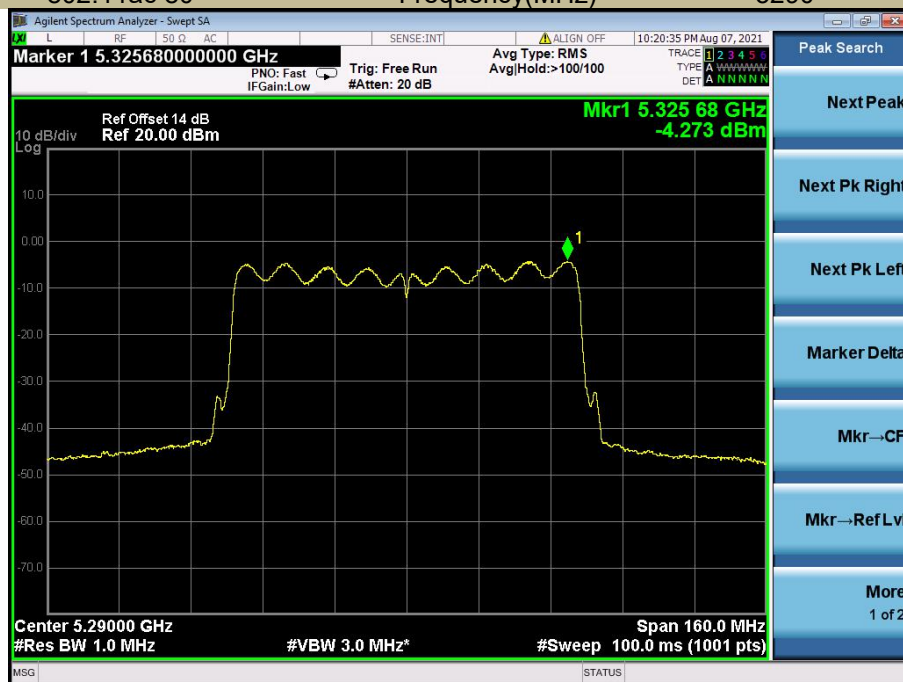
5310



Power Spectral Density
Test Model 802.11ac 80

U-NII – 2A
Frequency(MHz)

5290

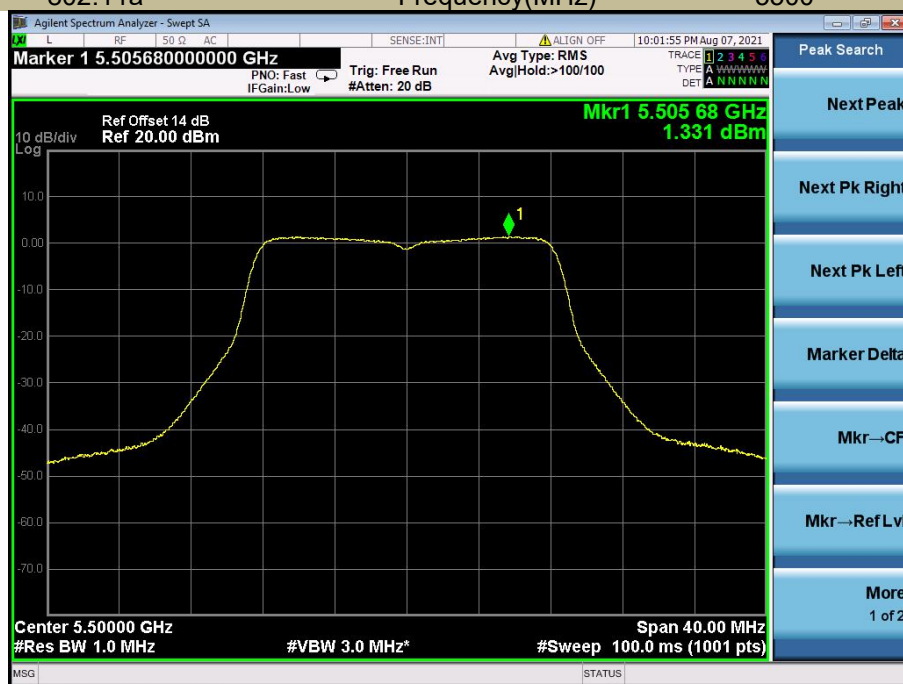


5470-5725MHz

Operating mode	Test Channel	Power Spectral Density dBm/MHz	Limit (dBm/MHz)
802.11a	5500	1.331	11
	5600	1.594	11
	5700	1.056	11
802.11n-HT20	5500	0.634	11
	5600	0.780	11
	5700	0.307	11
802.11ac(HT20)	5500	0.460	11
	5600	0.770	11
	5700	0.368	11
802.11n-HT40	5510	-2.557	11
	5670	-2.506	11
802.11ac(HT40)	5510	-2.240	11
	5670	-2.019	11
802.11ac(HT80)	5530	-3.615	11

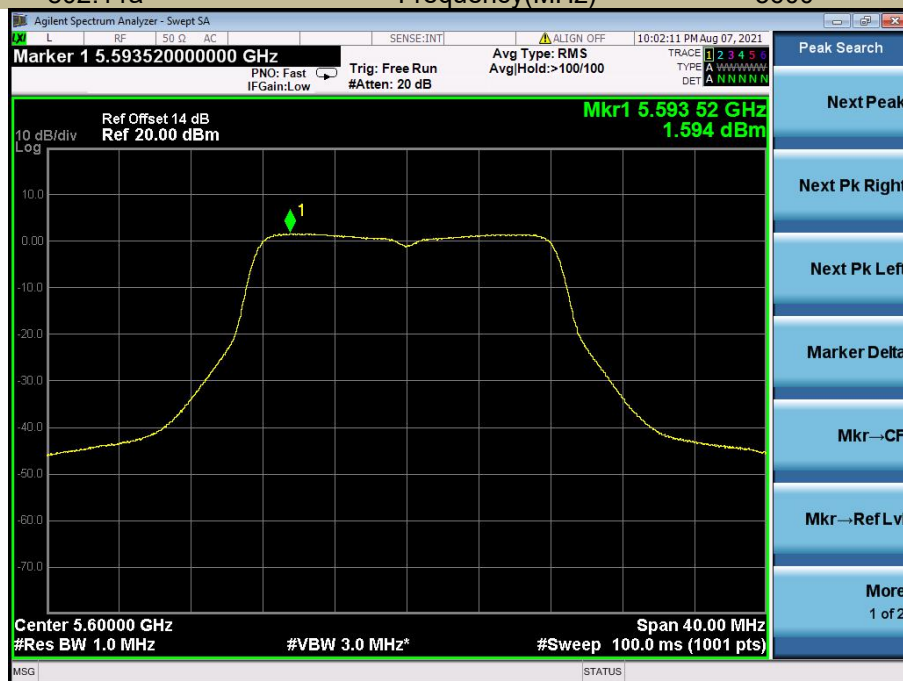
Power Spectral Density
Test Model 802.11a

U-NII – 2C
Frequency(MHz) 5500



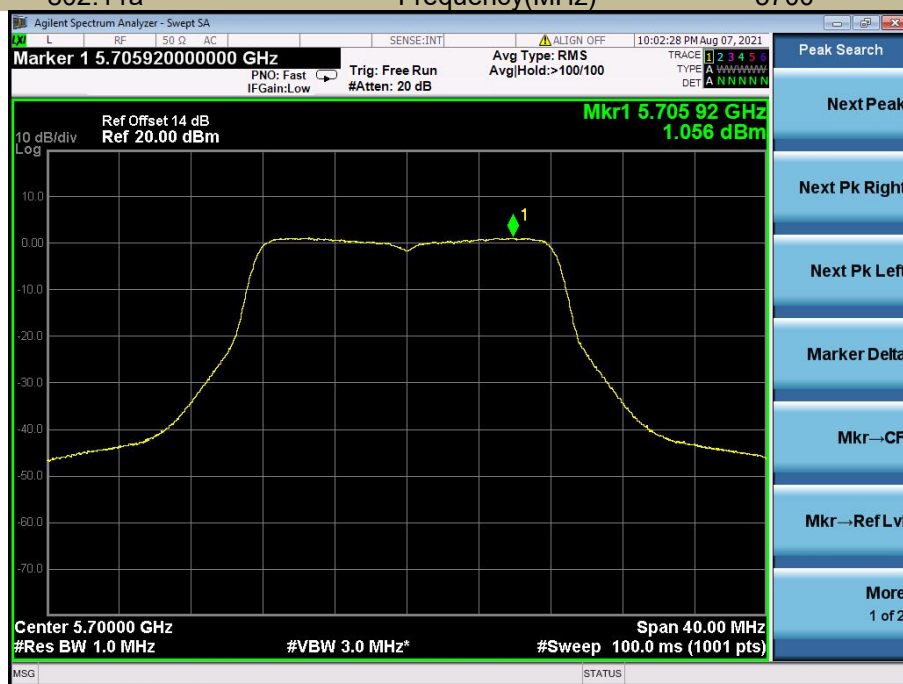
Power Spectral Density
Test Model 802.11a

U-NII – 2C
Frequency(MHz) 5600



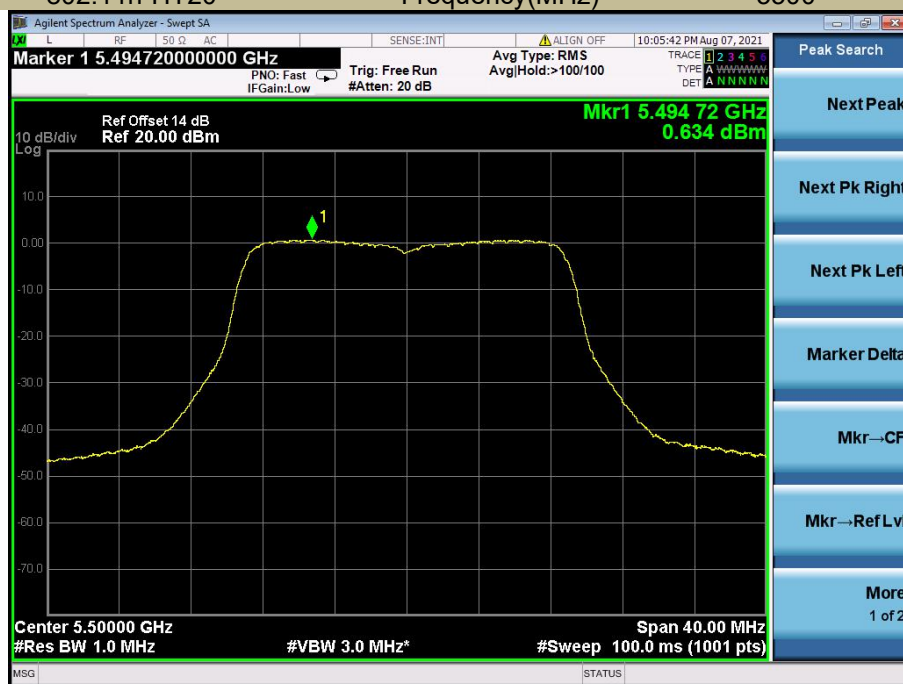
Power Spectral Density
Test Model 802.11a

U-NII – 2C
Frequency(MHz) 5700



Power Spectral Density
Test Model 802.11n-HT20

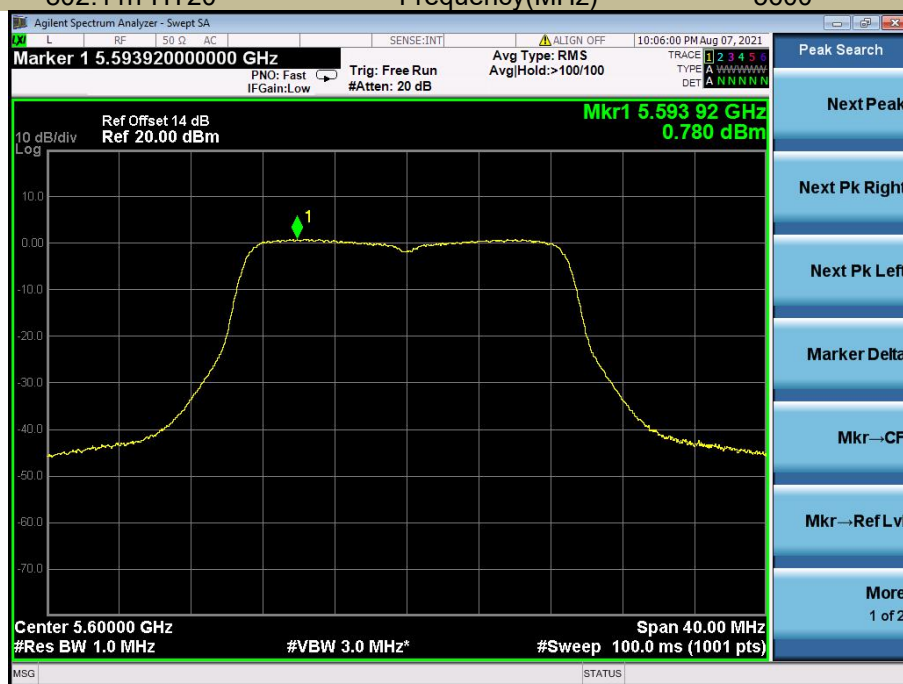
U-NII – 2C
Frequency(MHz) 5500



Power Spectral Density
Test Model 802.11n-HT20

U-NII – 2C
Frequency(MHz)

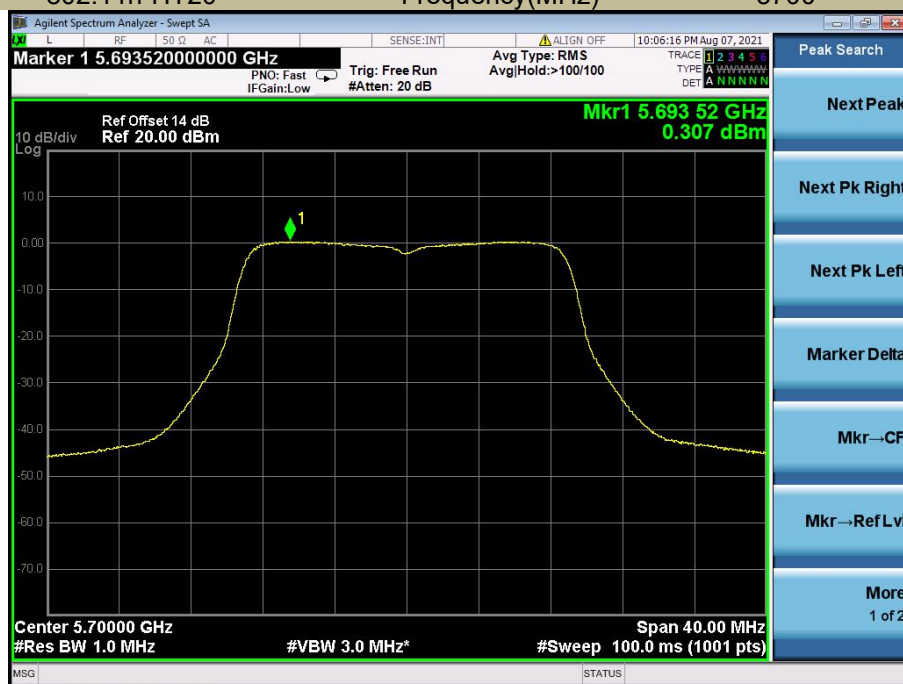
5600



Power Spectral Density
Test Model 802.11n-HT20

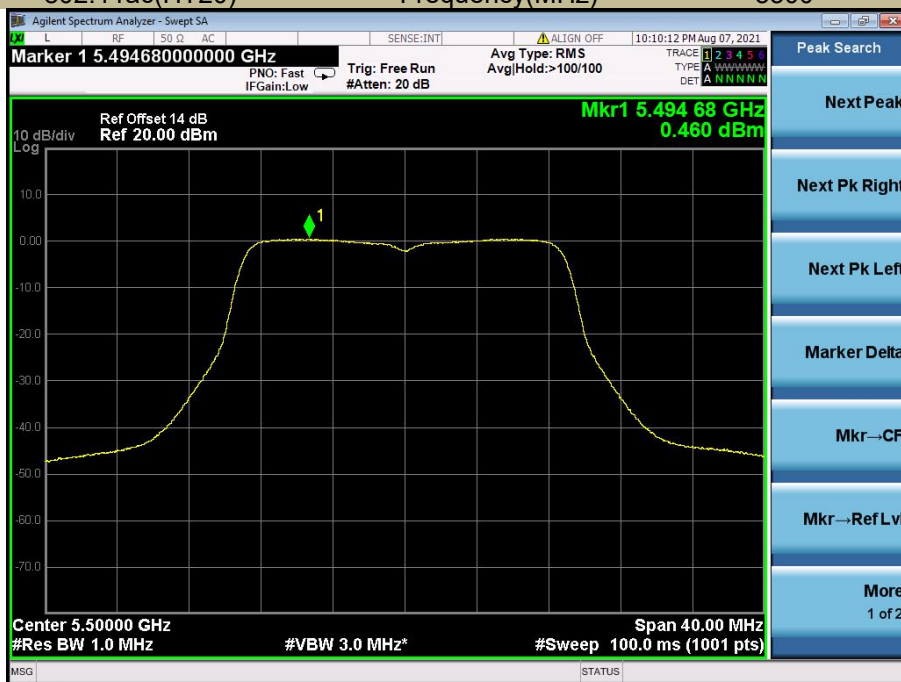
U-NII – 2C
Frequency(MHz)

5700



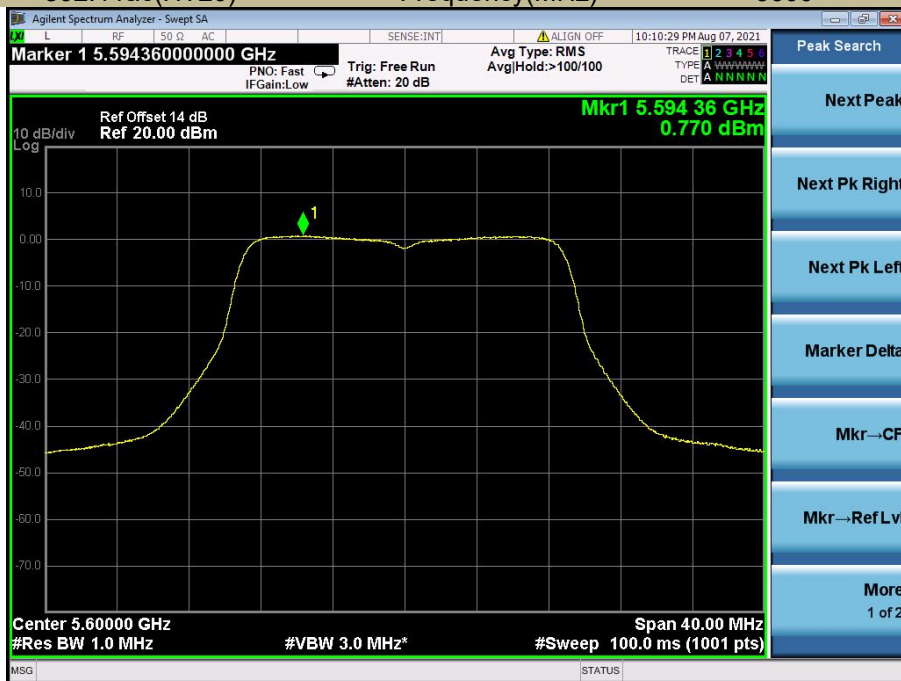
Power Spectral Density
Test Model 802.11ac(HT20)

U-NII – 2C
Frequency(MHz) 5500



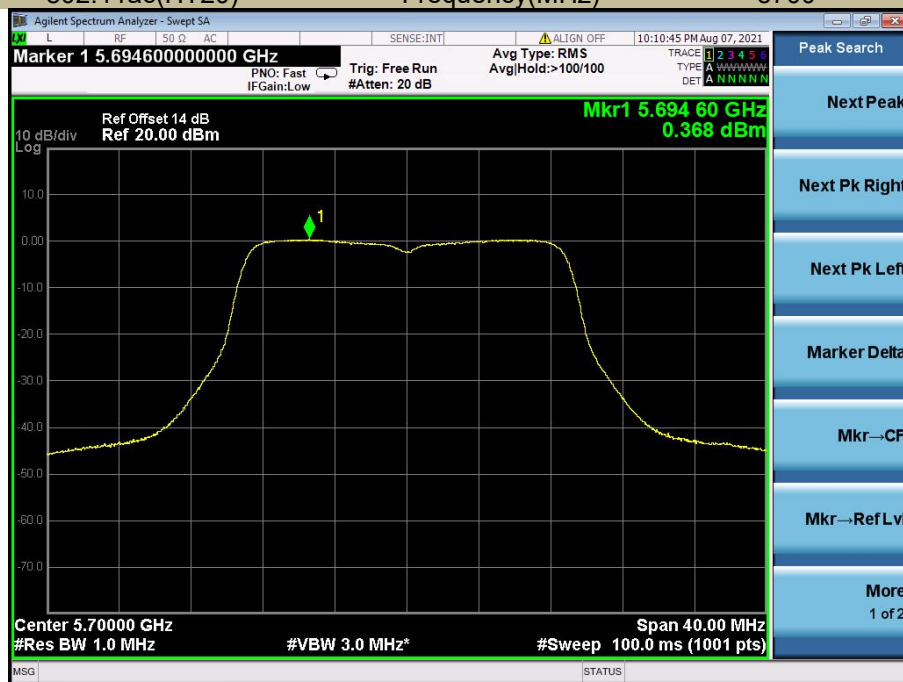
Power Spectral Density
Test Model 802.11ac(HT20)

U-NII – 2C
Frequency(MHz) 5600



Power Spectral Density
Test Model 802.11ac(HT20)

U-NII – 2C
Frequency(MHz) 5700



Power Spectral Density
Test Model 802.11n-HT40

U-NII – 2C
Frequency(MHz) 5510



Power Spectral Density
Test Model 802.11n-HT40

U-NII – 2C
Frequency(MHz) 5670



Power Spectral Density
Test Model 802.11ac(HT40)

U-NII – 2C
Frequency(MHz) 5510



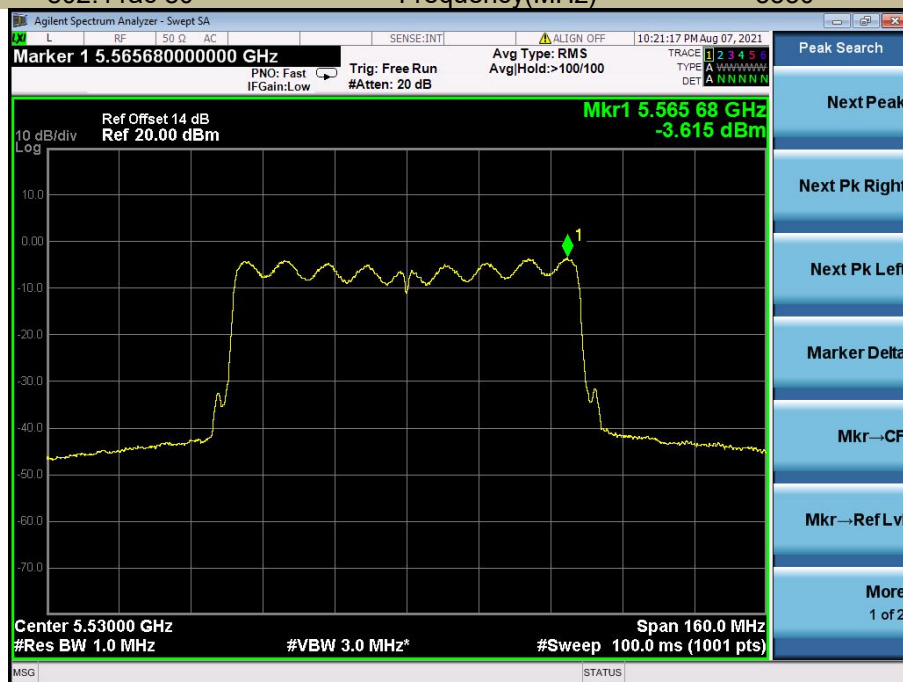
Power Spectral Density
Test Model 802.11ac(HT40)

U-NII – 2C
Frequency(MHz) 5670



Power Spectral Density
Test Model 802.11ac 80

U-NII – 2C
Frequency(MHz) 5530



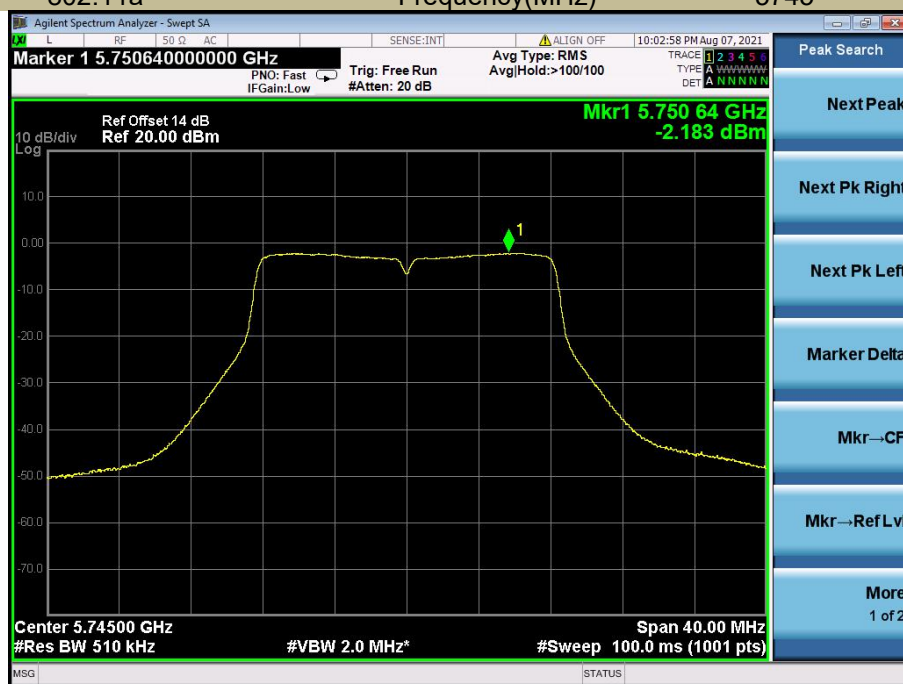
5725-5850MHz

Operating mode	Test Channel	Power Spectral Density dBm/500kHz	Limit (dBm/500kHz)
802.11a	5745	-2.183	30
	5785	-2.431	30
	5825	-2.411	30
802.11n-HT20	5745	-2.920	30
	5785	-3.162	30
	5825	-3.026	30
802.11ac(HT20)	5745	-2.944	30
	5785	-3.215	30
	5825	-3.030	30
802.11n-HT40	5755	-5.823	30
	5795	-6.211	30
802.11ac(HT40)	5755	-5.495	30
	5795	-5.611	30
802.11ac(HT80)	5775	-7.826	30

Power Spectral Density
Test Model 802.11a

U-NII - 3
Frequency(MHz)

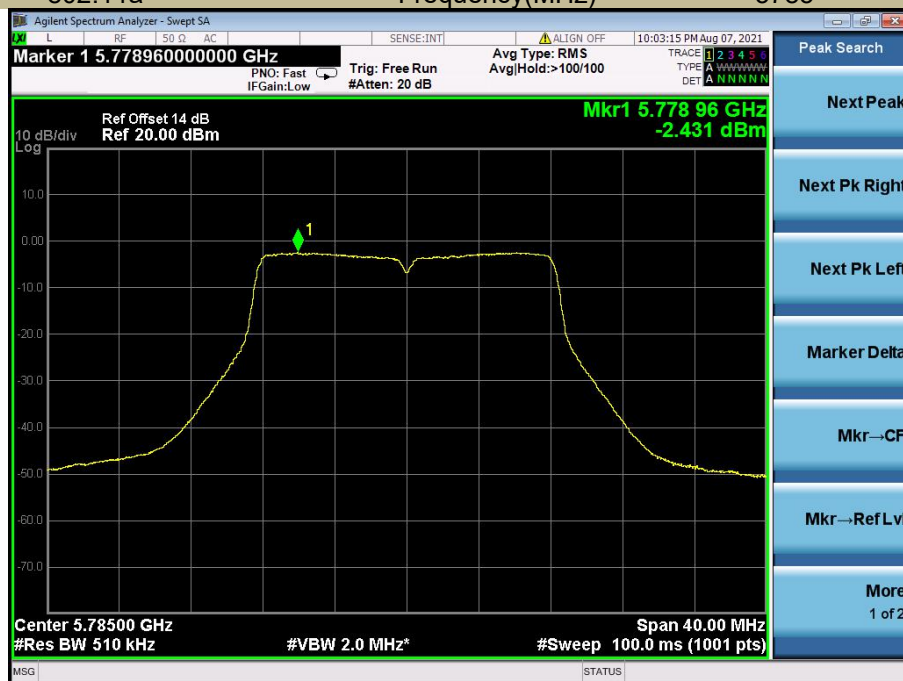
5745



Power Spectral Density
Test Model 802.11a

U-NII - 3
Frequency(MHz)

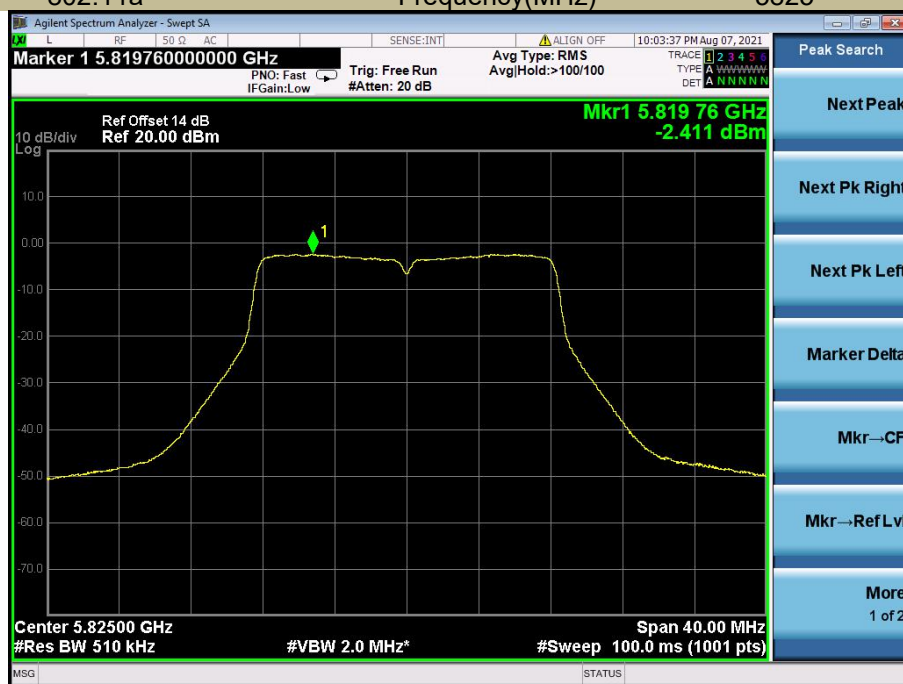
5785



Power Spectral Density
Test Model 802.11a

U-NII - 3
Frequency(MHz)

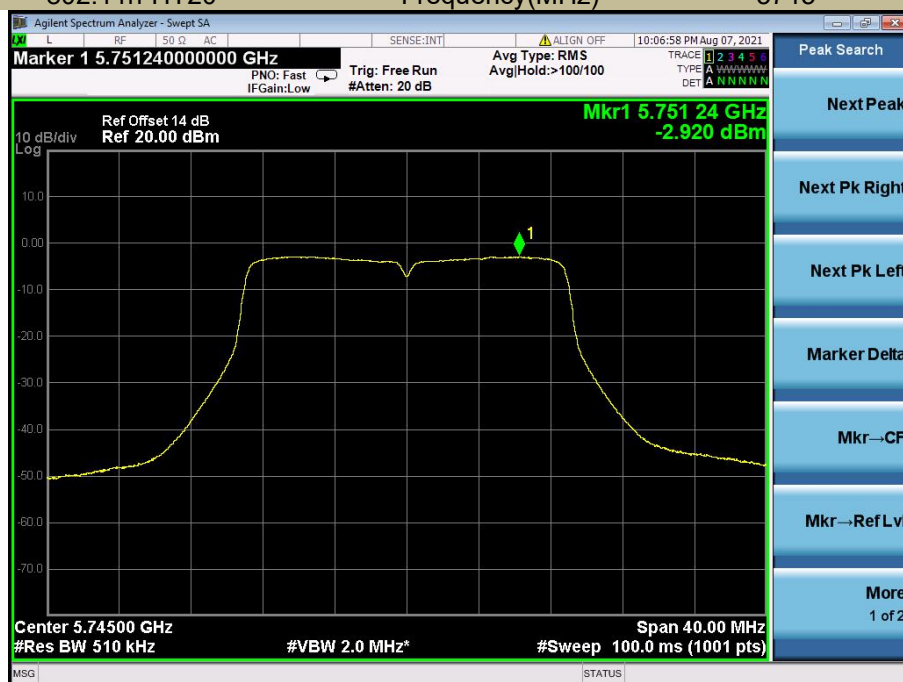
5825



Power Spectral Density
Test Model 802.11n-HT20

U-NII - 3
Frequency(MHz)

5745



Power Spectral Density
Test Model 802.11n-HT20

U-NII - 3
Frequency(MHz)

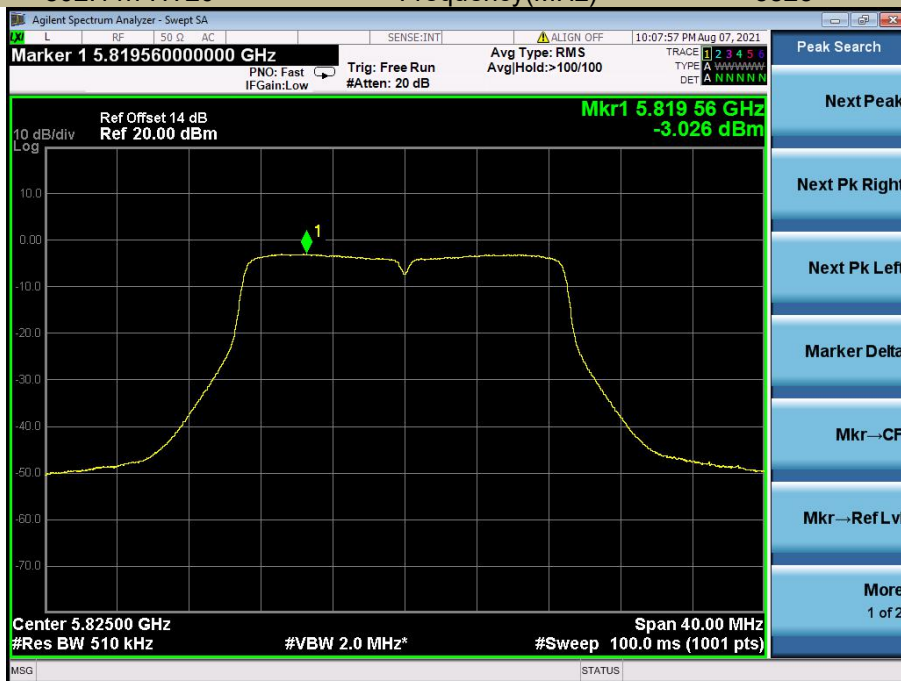
5785



Power Spectral Density
Test Model 802.11n-HT20

U-NII - 3
Frequency(MHz)

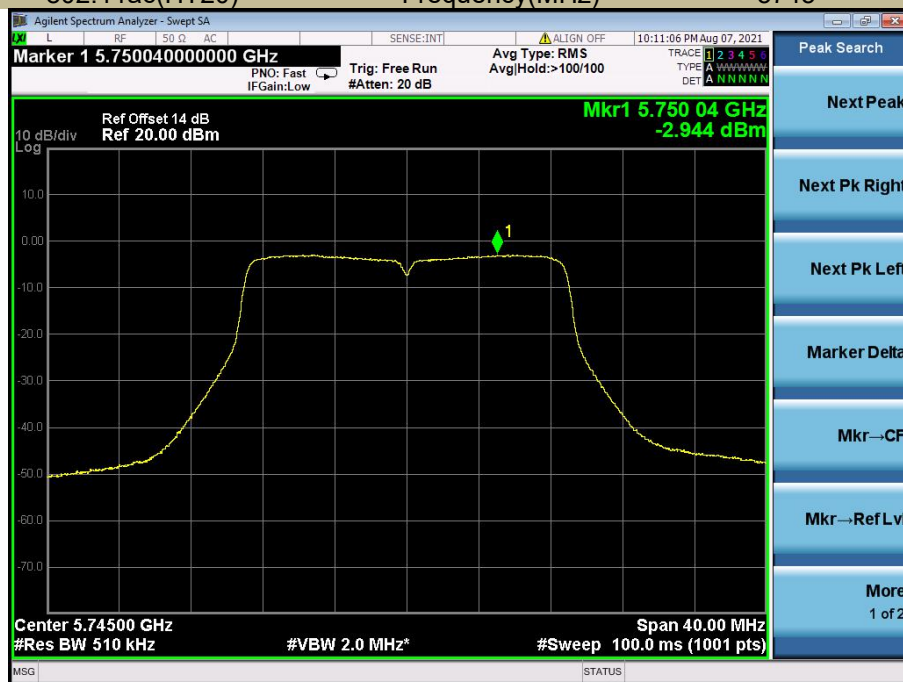
5825



Power Spectral Density
Test Model 802.11ac(HT20)

U-NII - 3
Frequency(MHz)

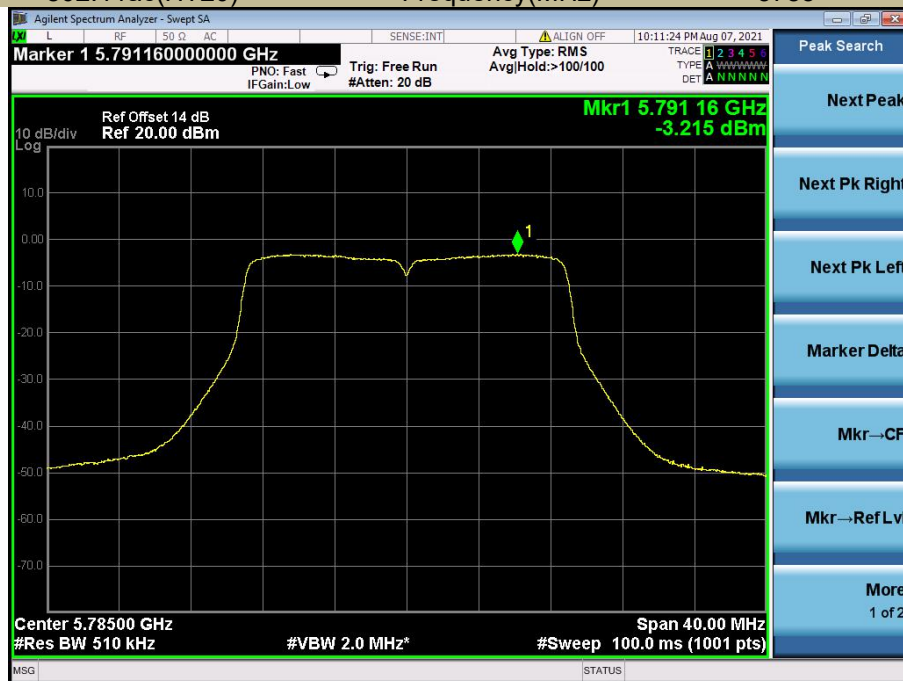
5745



Power Spectral Density
Test Model 802.11ac(HT20)

U-NII - 3
Frequency(MHz)

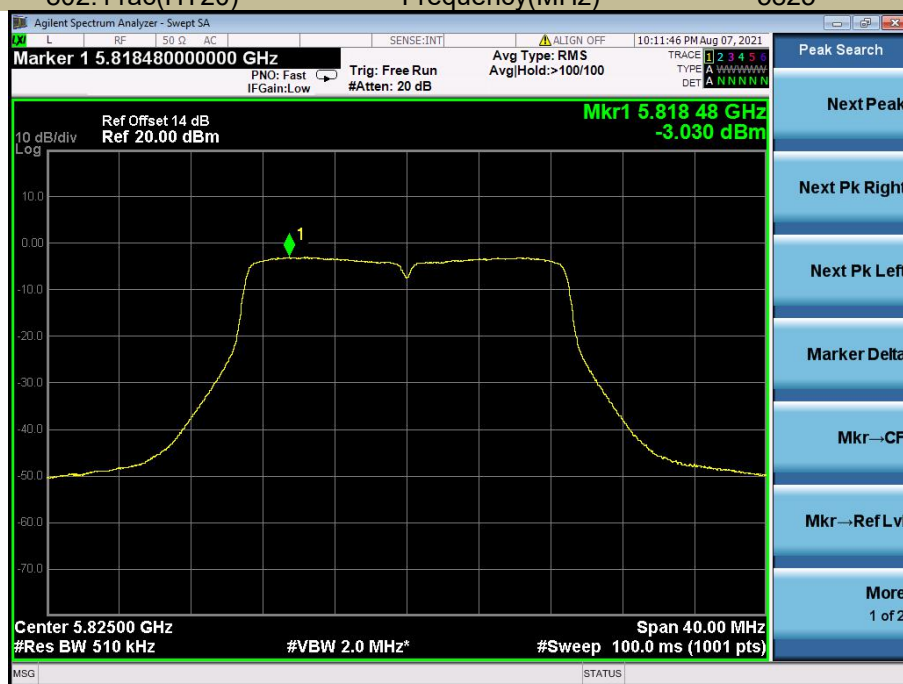
5785



Power Spectral Density
Test Model 802.11ac(HT20)

U-NII - 3
Frequency(MHz)

5825



Power Spectral Density
Test Model 802.11n-HT40

U-NII - 3
Frequency(MHz)

5755



Power Spectral Density
Test Model 802.11n-HT40

U-NII - 3
Frequency(MHz)

5795



Power Spectral Density
Test Model 802.11ac(HT40)

U-NII - 3
Frequency(MHz)

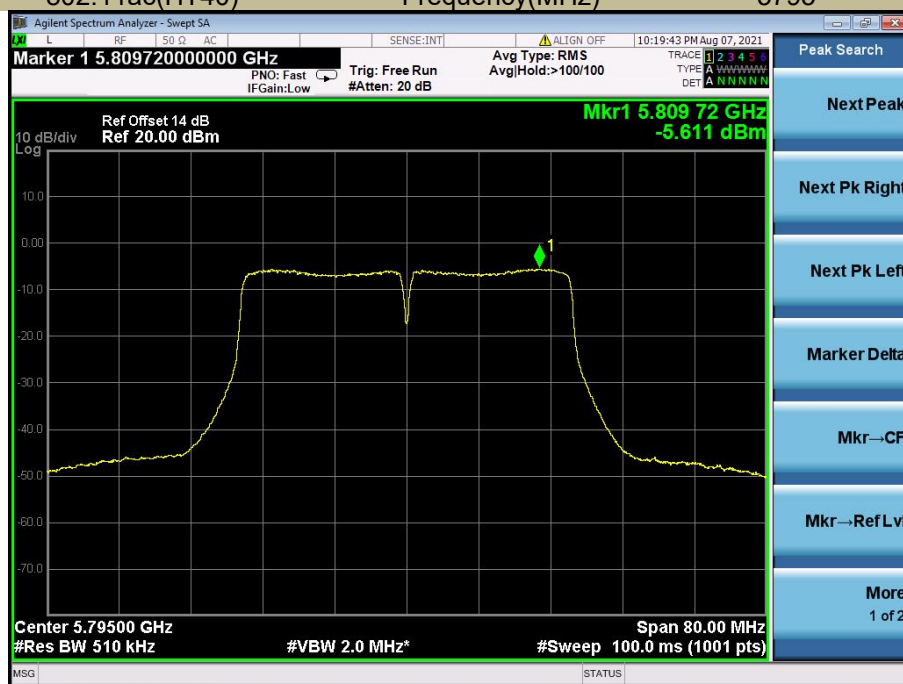
5755



Power Spectral Density
Test Model 802.11ac(HT40)

U-NII - 3
Frequency(MHz)

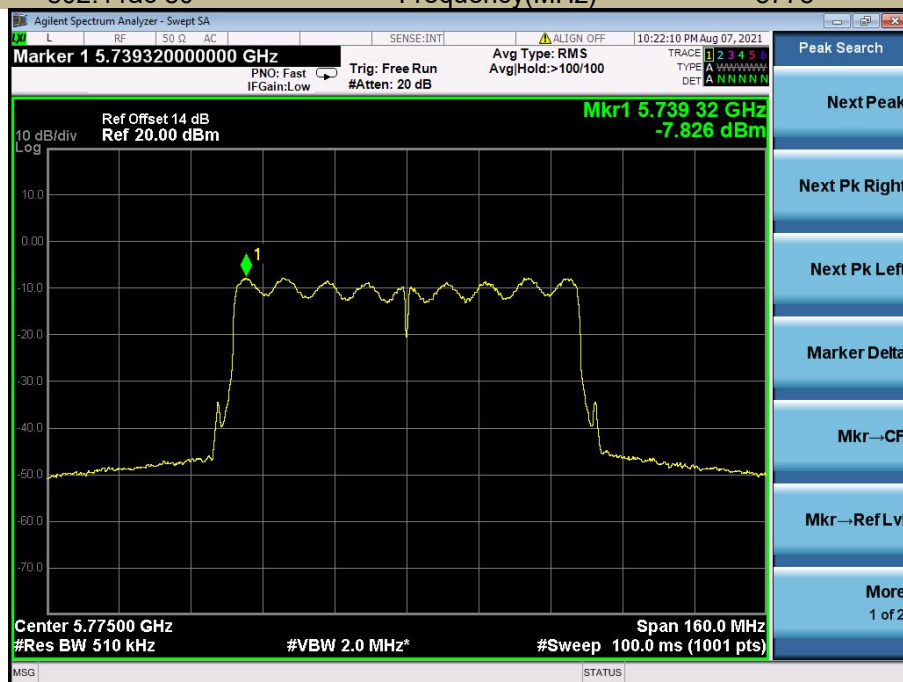
5795



Power Spectral Density
Test Model 802.11ac 80

U-NII - 3
Frequency(MHz)

5775



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(°C)	Test Frequency (MHz)	Max. Deviation (KHz)	Verdict
	0	5179.9893	-10.70	Pass
	10	5179.9905	-9.46	Pass
	20	5179.9913	-8.71	Pass
	30	5179.9906	-9.39	Pass
	40	5179.9908	-9.23	Pass
85% Vnom	25	5179.9904	-9.63	Pass
115% Vnom	25	5179.9906	-9.39	Pass

		5200		
Voltage(V)	Temp(°C)	Test Frequency (MHz)	Max. Deviation (KHz)	Verdict
	0	5199.9873	-12.73	Pass
	10	5199.9874	-12.59	Pass
	20	5199.9867	-13.26	Pass
	30	5199.9878	-12.16	Pass
	40	5199.9875	-12.55	Pass
85% Vnom	25	5199.9878	-12.25	Pass
115% Vnom	25	5199.9870	-13.00	Pass

		5240		
Voltage(V)	Temp(°C)	Test Frequency (MHz)	Max. Deviation (KHz)	Verdict
	0	5239.9876	-12.4	Pass
	10	5239.9879	-12.1	Pass
	20	5239.9884	-11.6	Pass
	30	5239.9867	-13.3	Pass
	40	5239.9876	-12.4	Pass
85% Vnom	25	5239.9881	-11.9	Pass
115% Vnom	25	5239.9866	-13.4	Pass