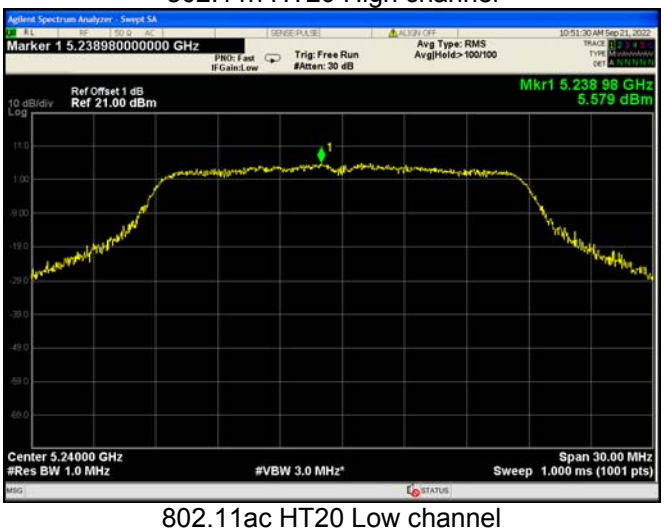
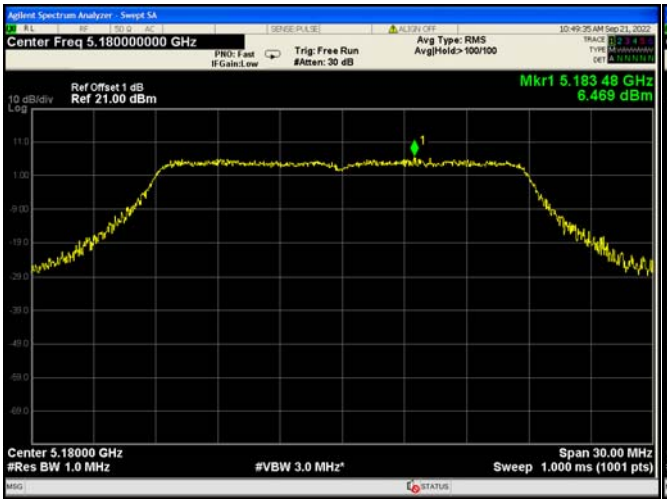
802.11n HT20 High channel

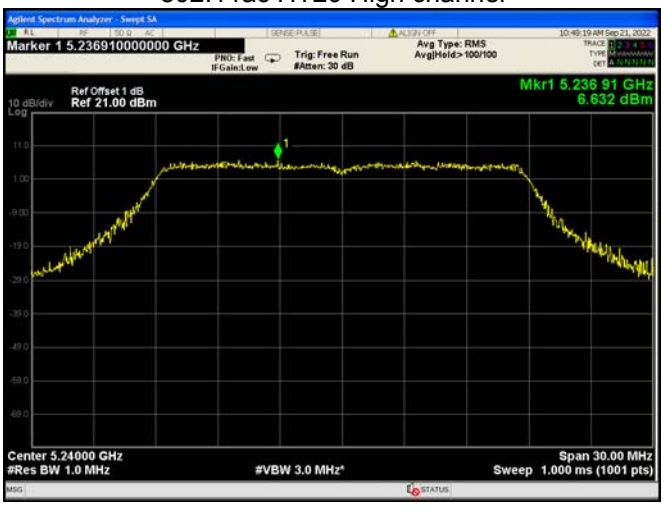


802.11ac HT20 Low channel

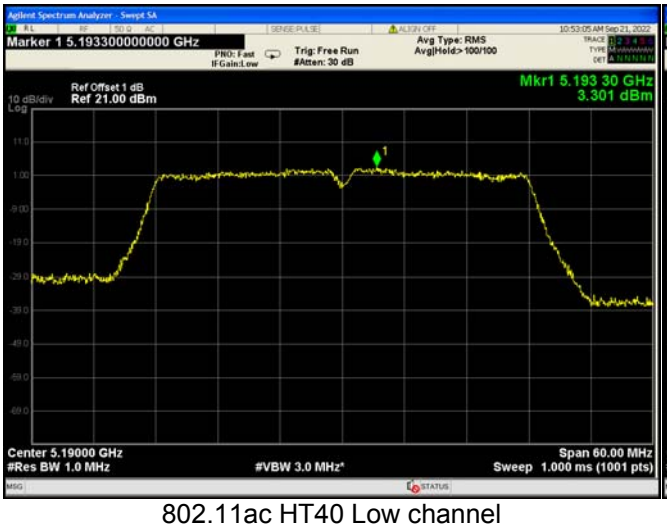


802.11ac HT20 Middle channel

802.11ac HT20 High channel



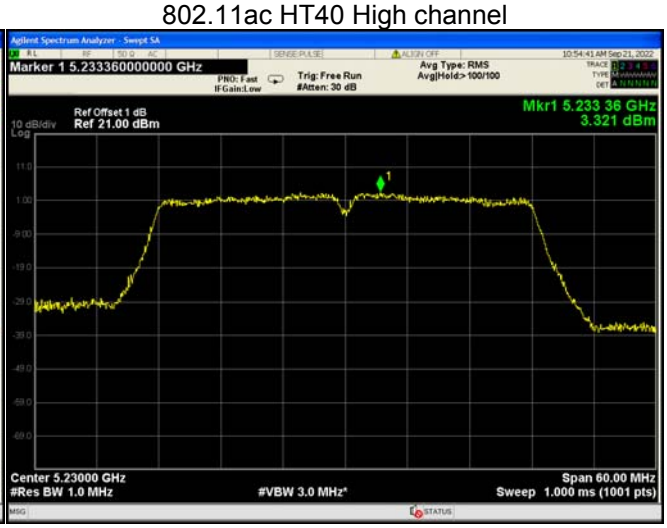
802.11n HT40 Low channel



802.11n HT40 High channel

802.11ac HT40 Low channel

802.11ac HT40 High channel

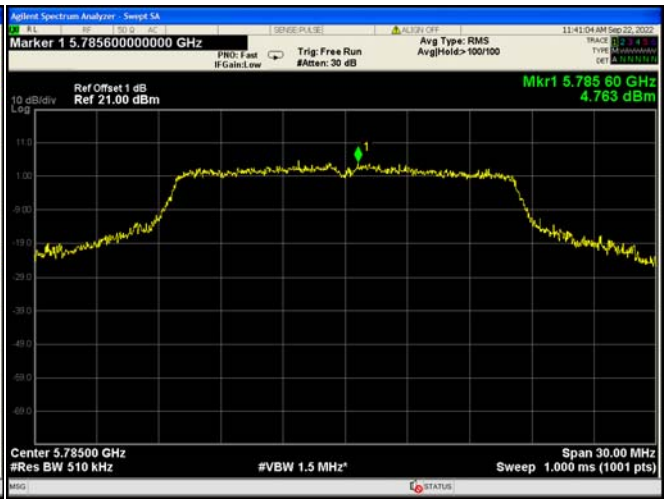


802.11ac HT80 Middle channel

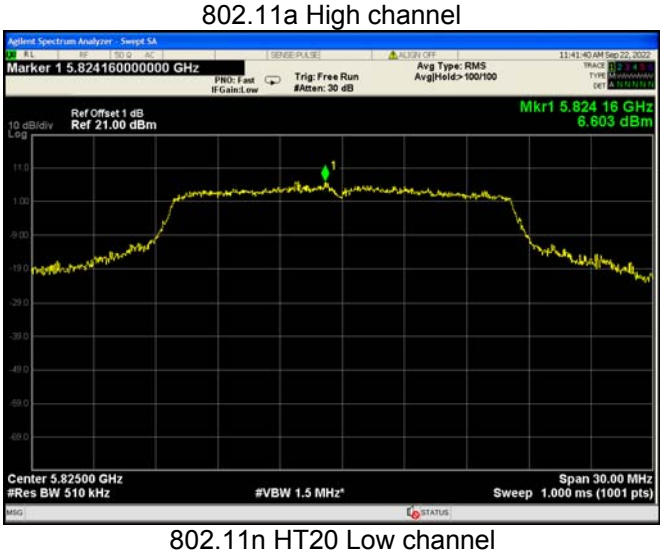
U-NII-3

802.11a Low channel

802.11a Middle channel



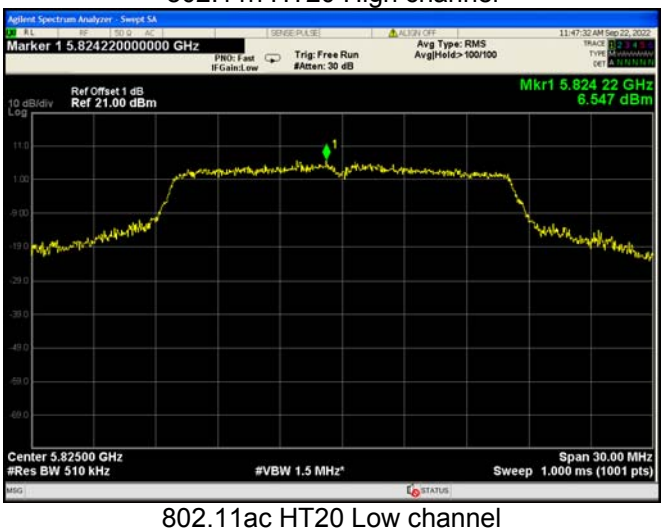
802.11a High channel



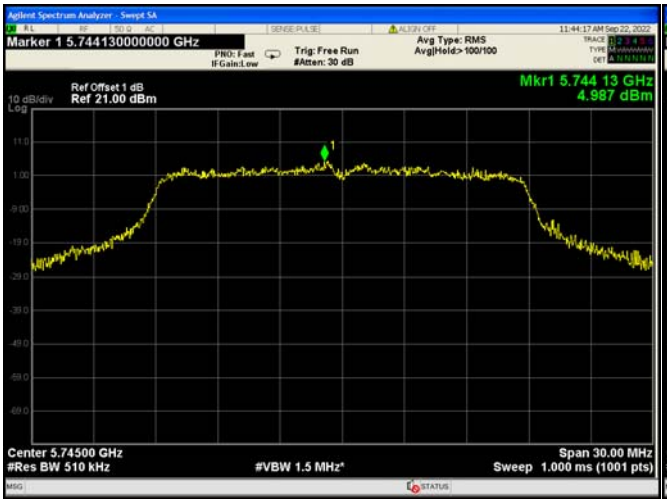
802.11n HT20 Low channel

802.11n HT20 Middle channel

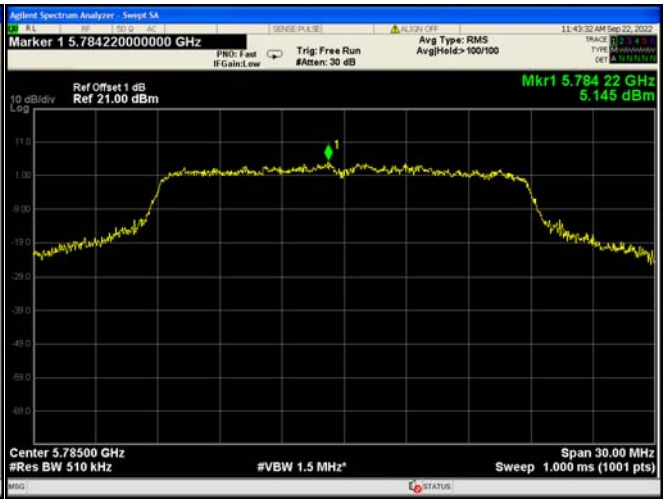
802.11n HT20 High channel



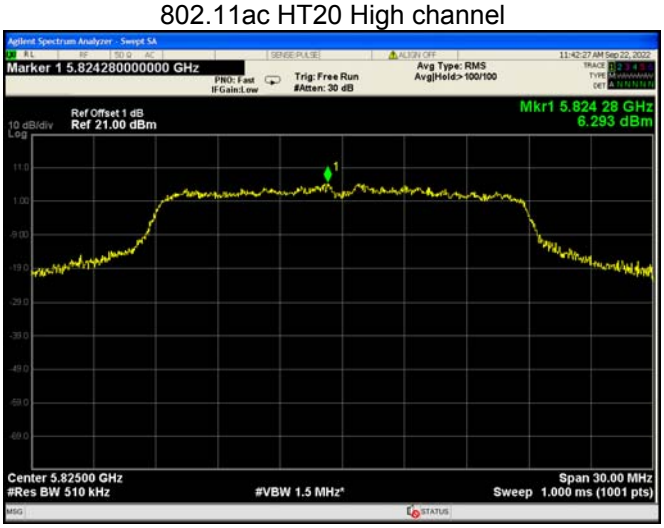
802.11ac HT20 Low channel



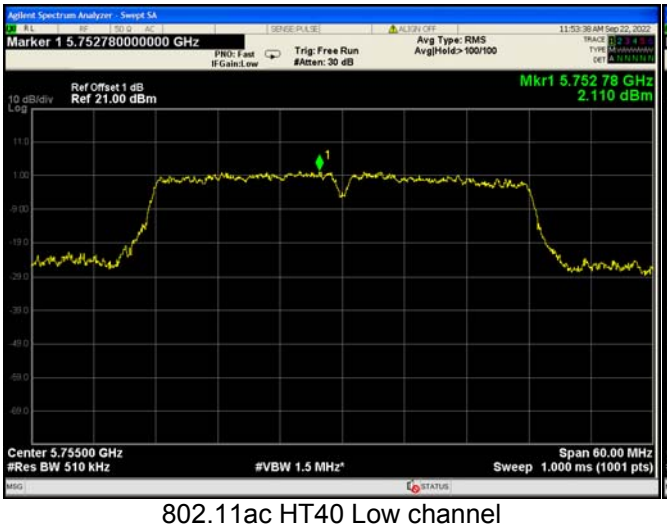
802.11ac HT20 Middle channel



802.11ac HT20 High channel

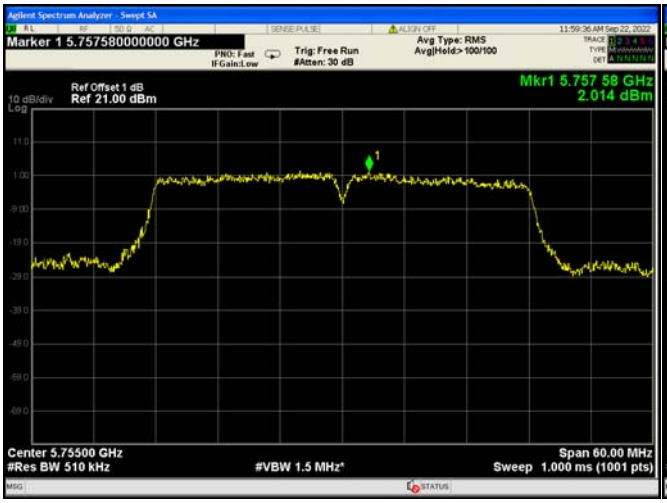


802.11n HT40 Low channel

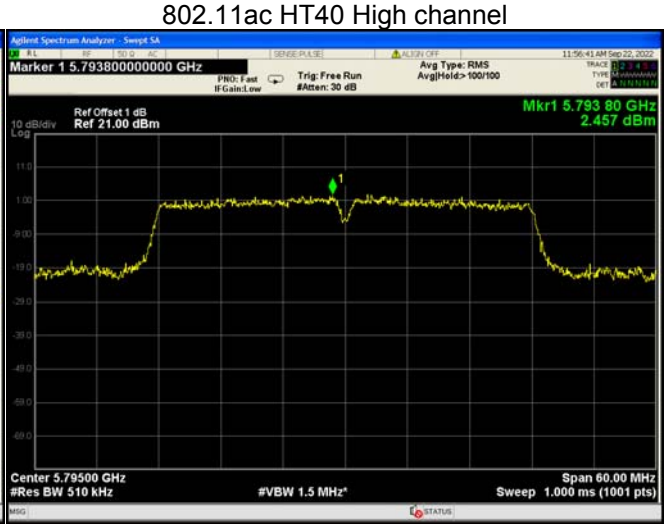


802.11n HT40 High channel

802.11ac HT40 Low channel



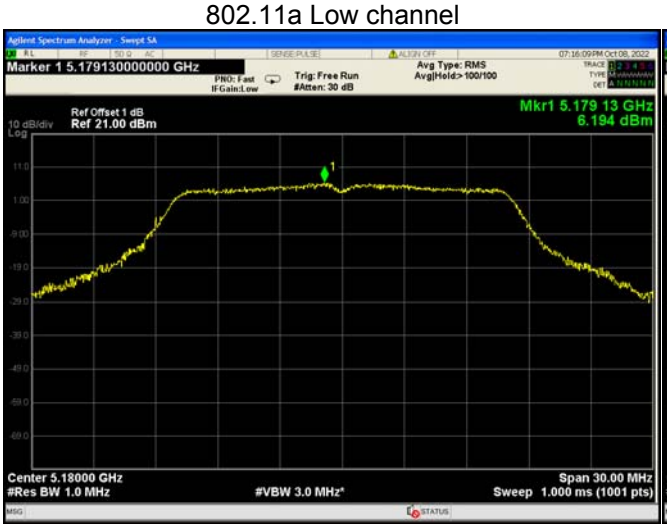
802.11ac HT40 High channel



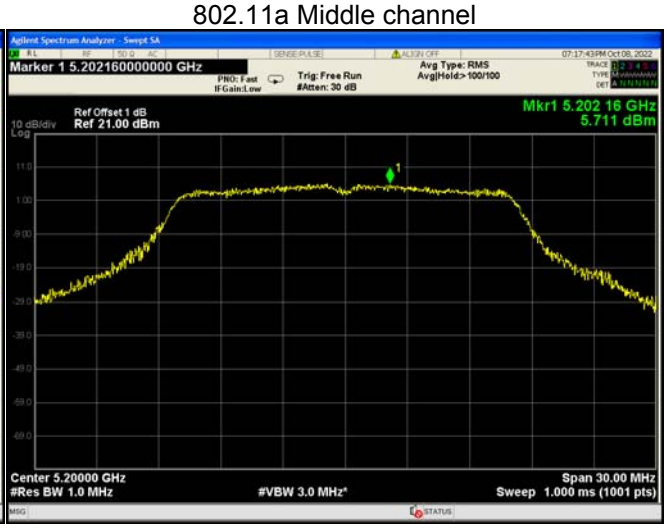
802.11ac HT80 Middle channel

Ant. 2
U-NII-1

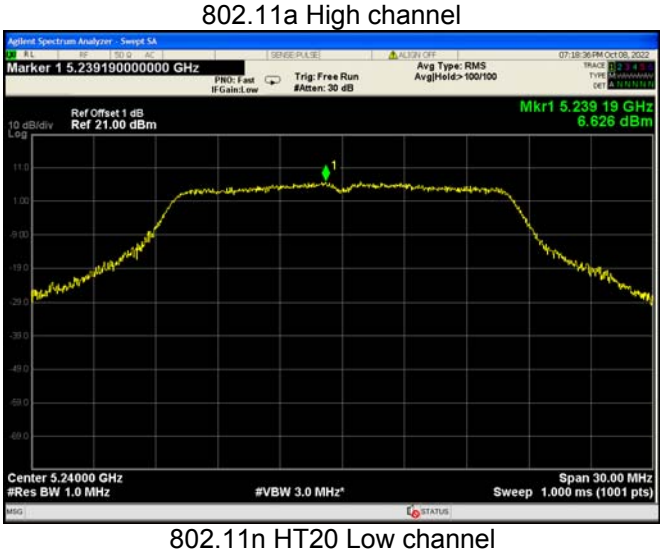
802.11a Low channel



802.11a Middle channel



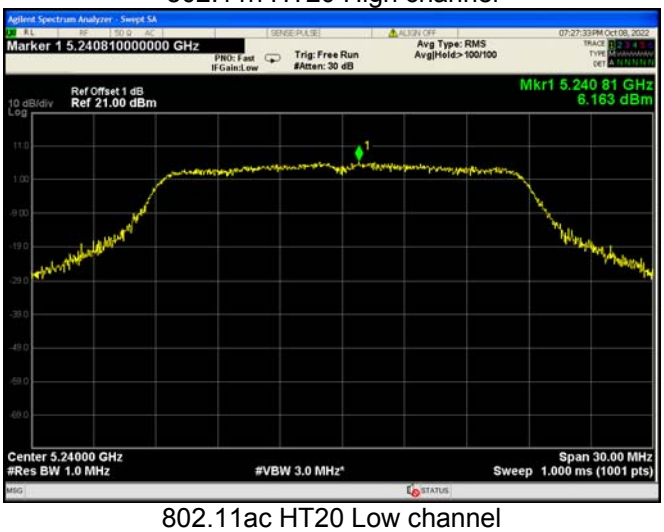
802.11a High channel



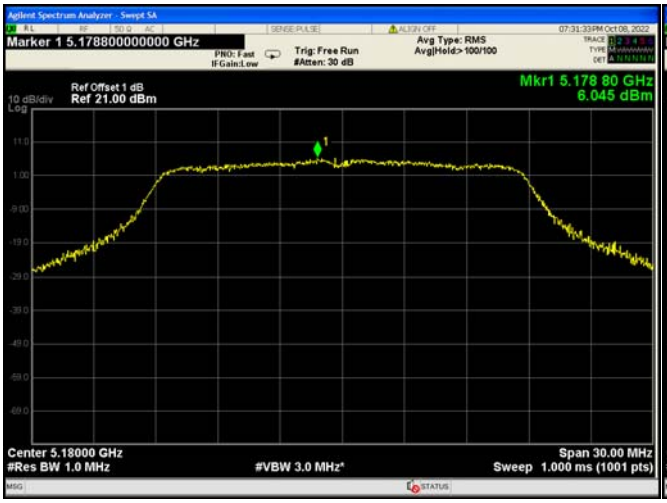
802.11n HT20 Low channel

802.11n HT20 Middle channel

802.11n HT20 High channel



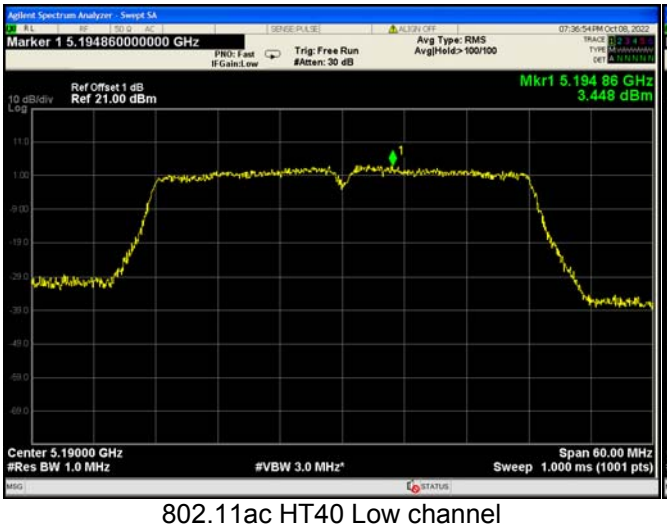
802.11ac HT20 Low channel



802.11ac HT20 Middle channel

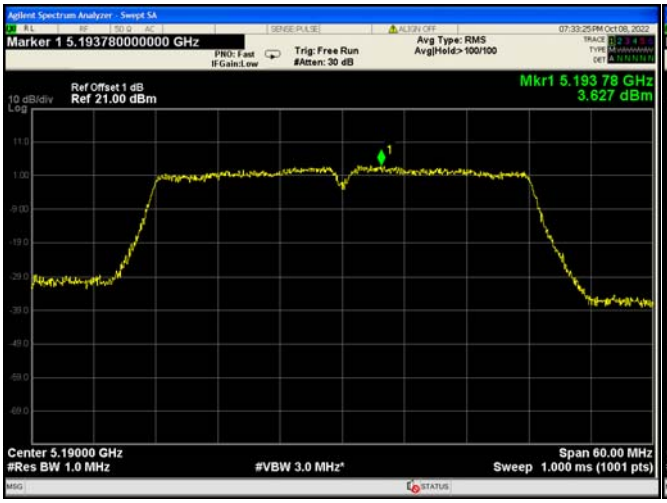
802.11ac HT20 High channel

802.11n HT40 Low channel

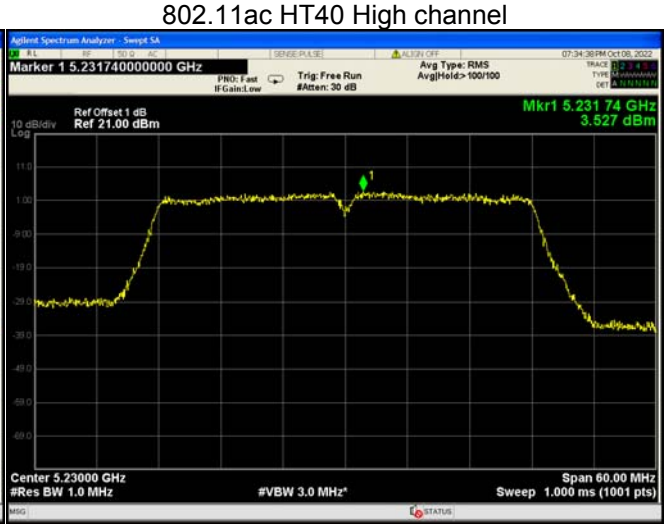


802.11n HT40 High channel

802.11ac HT40 Low channel



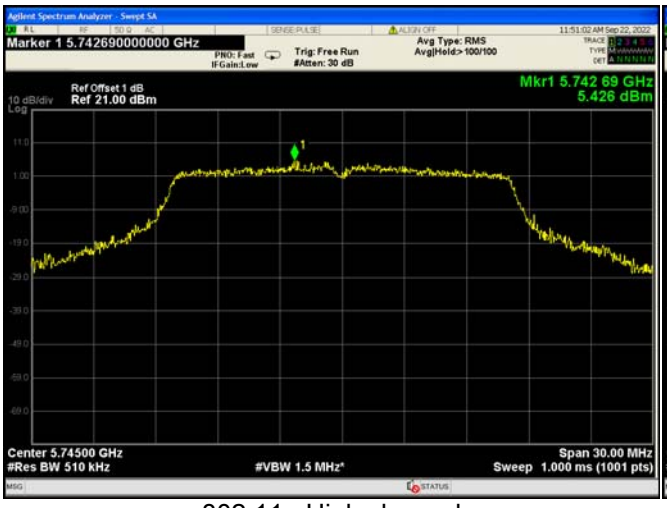
802.11ac HT40 High channel



802.11ac HT80 Middle channel

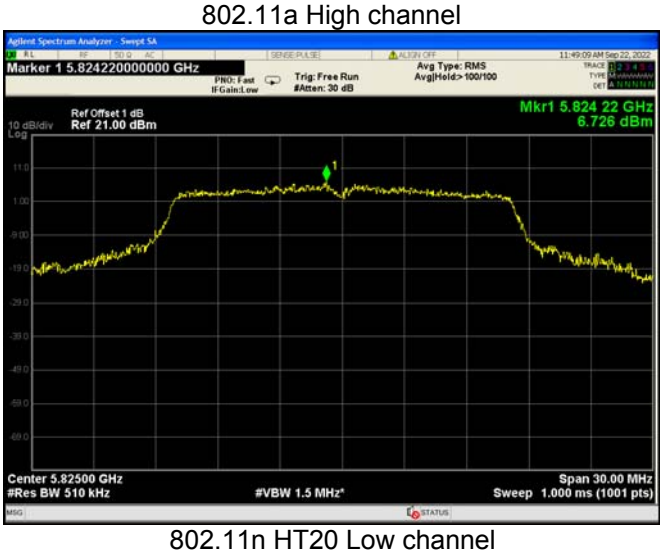
U-NII-3

802.11a Low channel



802.11a Middle channel

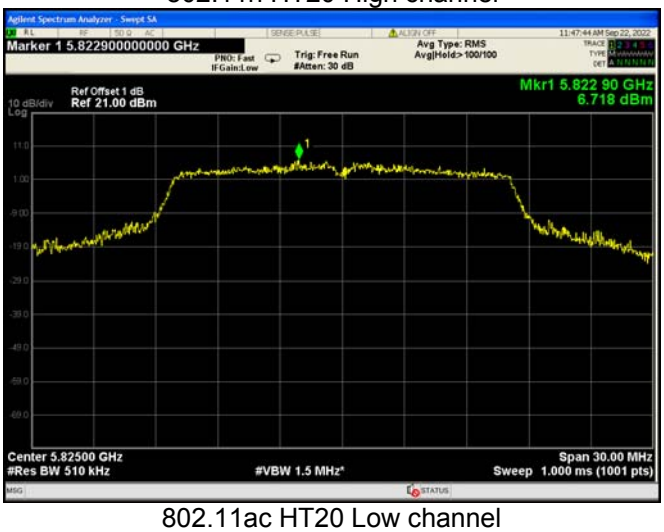
802.11a High channel



802.11n HT20 Low channel

802.11n HT20 Middle channel

802.11n HT20 High channel

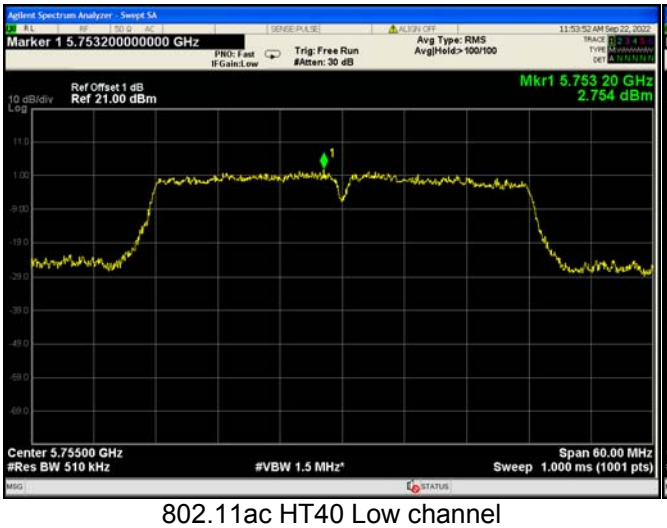


802.11ac HT20 Low channel

802.11ac HT20 Middle channel

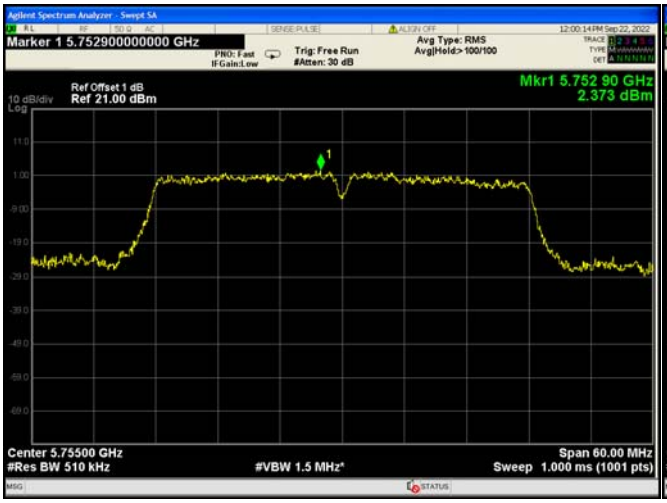
802.11ac HT20 High channel

802.11n HT40 Low channel

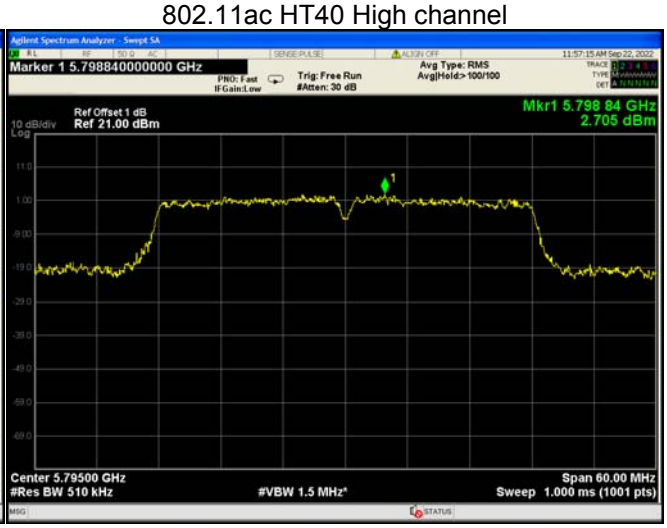


802.11n HT40 High channel

802.11ac HT40 Low channel



802.11ac HT40 High channel



802.11ac HT80 Middle channel

16 Frequency Stability

Test Requirement:	FCC CFR47 Part 15 Section 15.407(g)
Test Method:	ANSI C63.10:2013 KDB 789033 D02 General UNII Test Procedures New Rules v02r01
Test Limit:	According to 47CFR part 15 subpart E section 15.407(g): 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.
Test Result:	PASS

16.1 Test Procedure:

According to § 2.1055 Measurements required: Frequency stability, the following test procedure was performed.

1. The transmitter output (antenna port) was connected to the spectrum analyzer.
2. EUT have transmitted absence of unmodulation signal and fixed channelise.
3. Set the spectrum analyzer span to view the entire absence of modulation emissions bandwidth.
4. Set RBW = 10 kHz, VBW = 10 kHz with peak detector and maxhold settings.
5. f_C is declaring of channel frequency.
6. Then the frequency stability formula is $(f_C\text{-}f) / f_C \times 10^6$ ppm.
7. Extreme temperature rule is -30°C~ 50°C.
8. Extreme voltage is 85 to 115 percent of the nominal value.

16.2 Test Result:

Note: the manufacturer declared that the maximum frequency stability is below 20ppm.

U-NII-1 Test Frequency:5180MHz				
Temperature (℃)	**Power Supply (VAC)**	**Frequency deviation (MHz)**	**Frequency deviation (ppm)**	**Limit (ppm)**
50	120	0.0037	0.72	20
40		0.0108	2.08	20
30		0.0150	2.90	20
20		0.0125	2.41	20
10		0.0146	2.82	20
0		0.0111	2.14	20
-10		0.0127	2.44	20
-20		0.0083	1.59	20
-30		/	/	/
20	102	0.0090	1.73	20
20	138	0.0123	2.38	20

U-NII-3 Test Frequency:5785MHz				
Temperature (℃)	**Power Supply (VAC)**	**Frequency deviation (MHz)**	**Frequency deviation (ppm)**	**Limit (ppm)**
50	120	0.0016	0.27	20
40		0.0026	0.46	20
30		-0.0010	-0.17	20
20		0.0017	0.29	20
10		0.0067	1.16	20
0		0.0018	0.31	20
-10		-0.0007	-0.12	20
-20		0.0043	0.75	20
-30		/	/	/
20	102	-0.0069	-1.19	20
20	138	-0.0033	-0.58	20

17 Antenna Requirement

According to the FCC Part 15 Paragraph 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. This product has two external antennas with RP-SMA connector and Gain is 3.7dBi Max. fulfil the requirement of this section.

Note: Please refer to EUT photos for more details.

18 RF Exposure

Note: Please refer to RF Exposure Report: WTF22D09183192W005.

19 Photographs of test setup and EUT.

Note: Please refer to appendix: Appendix-E120-FCWP-Photos.

======End of Report======