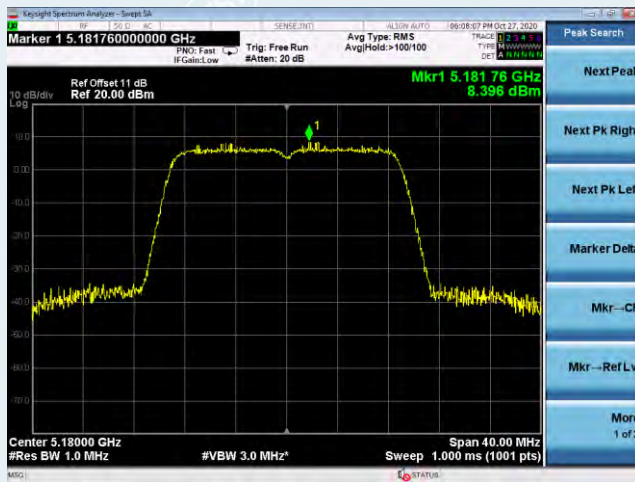
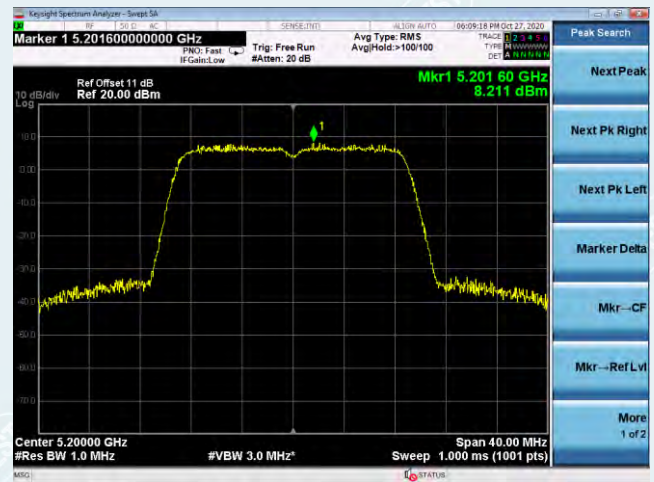


802.11ac VHT20 mode (antenna 2)

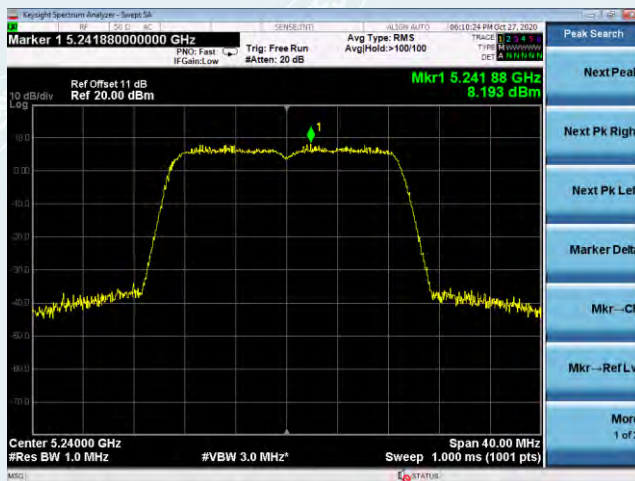
Channel 5180MHz



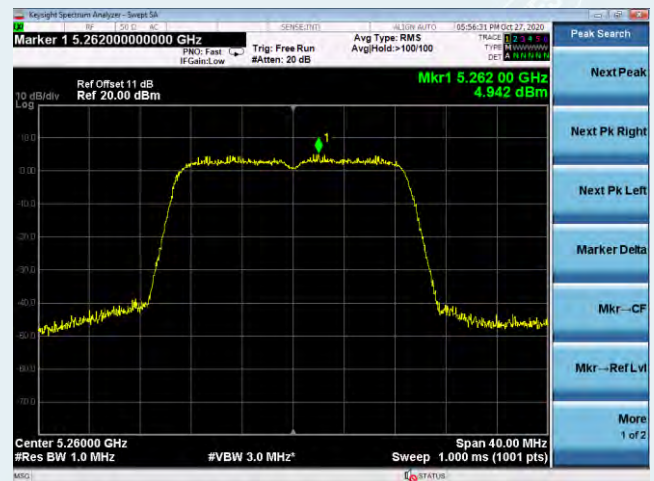
Channel 5200MHz



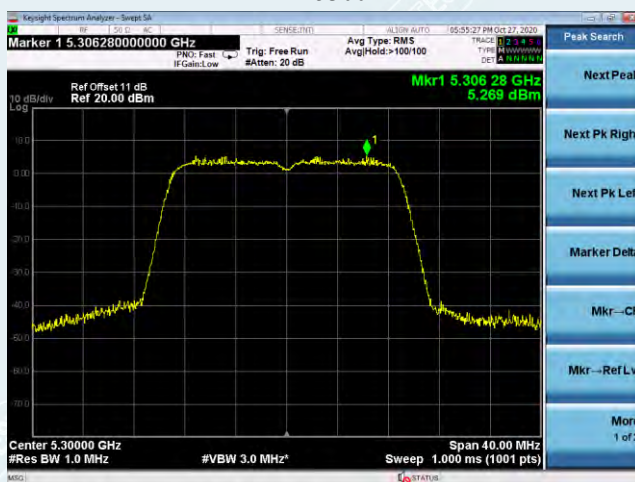
Channel 5240MHz



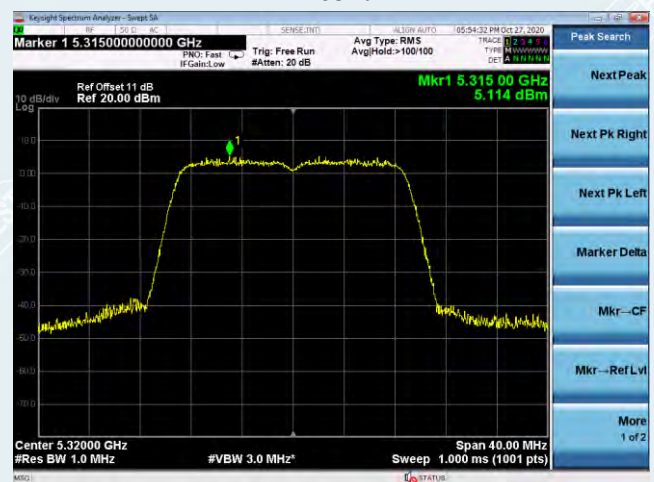
Channel 5260MHz



Channel 5300MHz

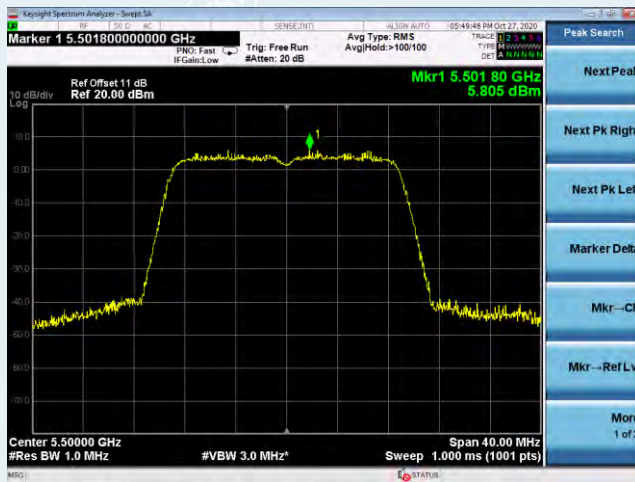


Channel 5320MHz

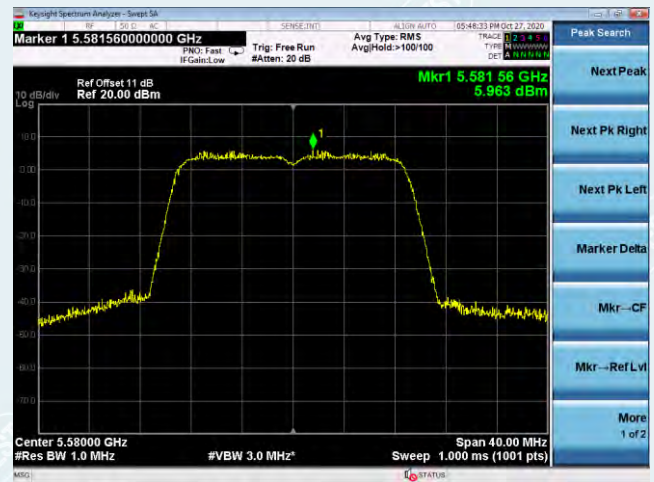


802.11ac VHT20 mode (antenna 2)

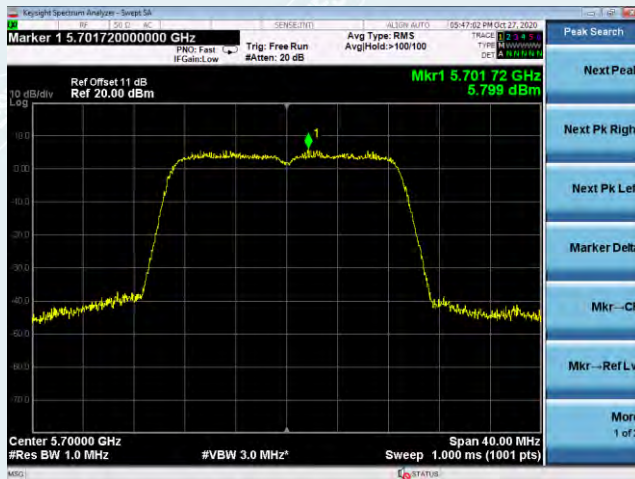
Channel 5500MHz



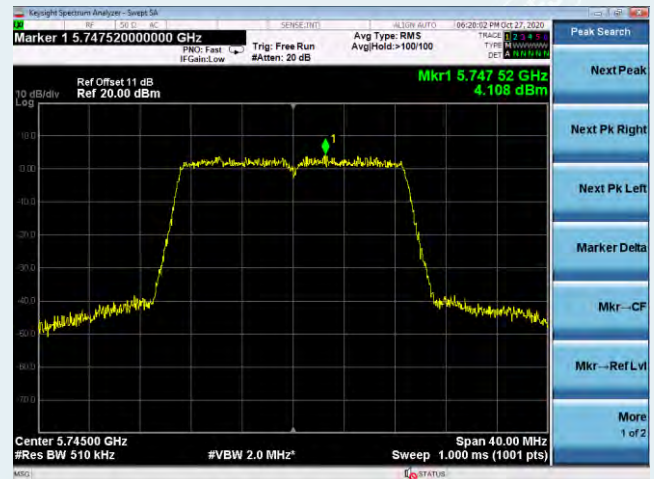
Channel 5580MHz



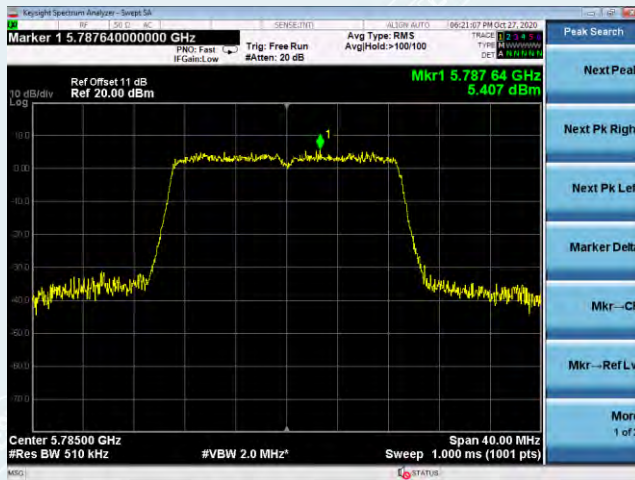
Channel 5700MHz



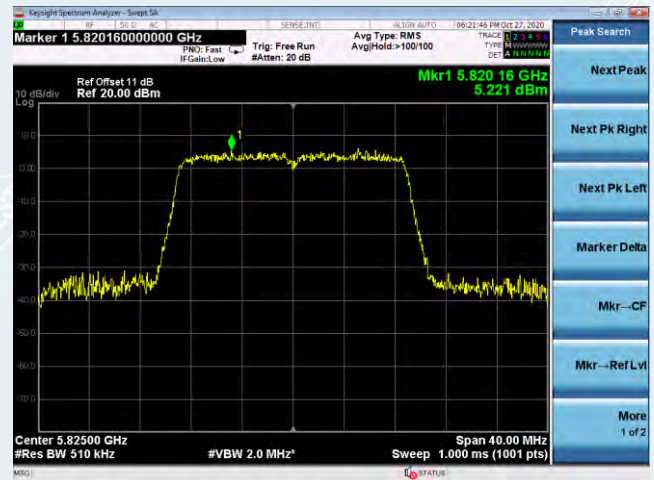
Channel 5745MHz



Channel 5785MHz



Channel 5825MHz



802.11n HT40 mode (antenna 1)

Channel 5190MHz



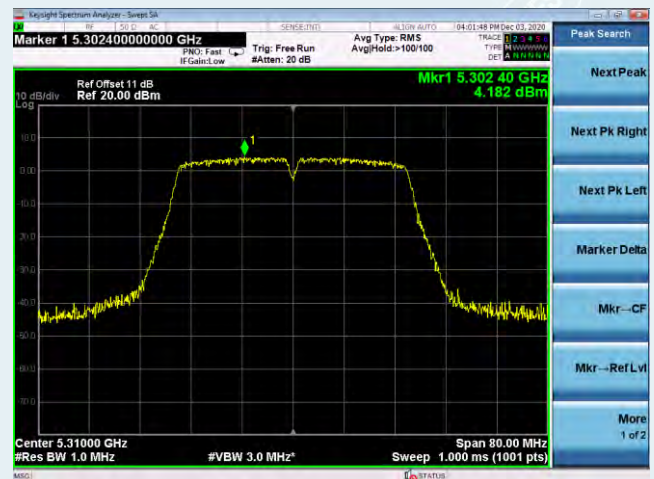
Channel 5230MHz



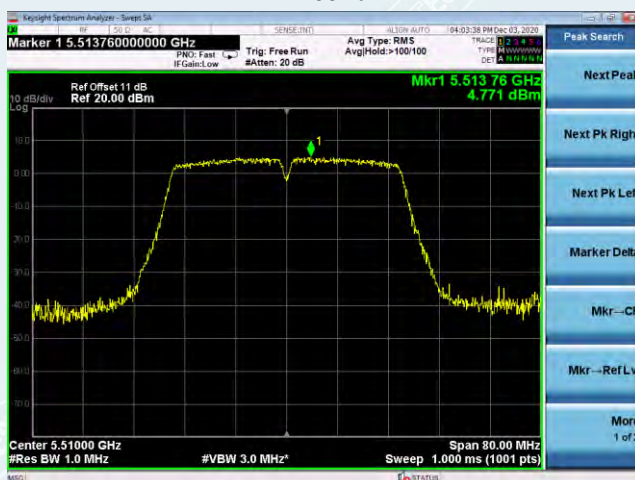
Channel 5270MHz



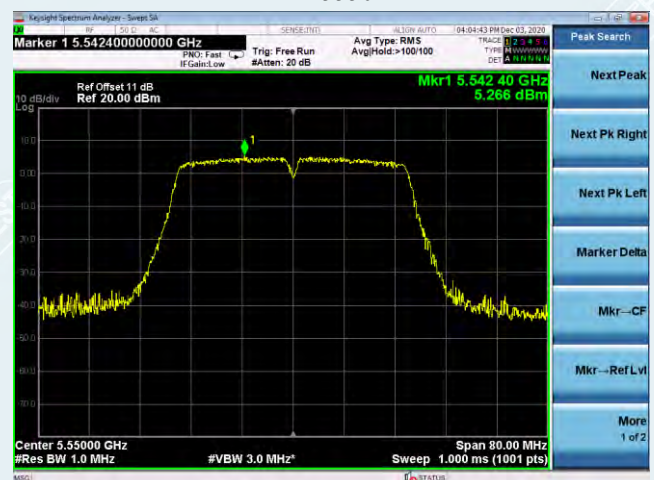
Channel 5310MHz



Channel 5510MHz



Channel 5550MHz



802.11n HT40 mode (antenna 1)

Channel 5670MHz



Channel 5755MHz

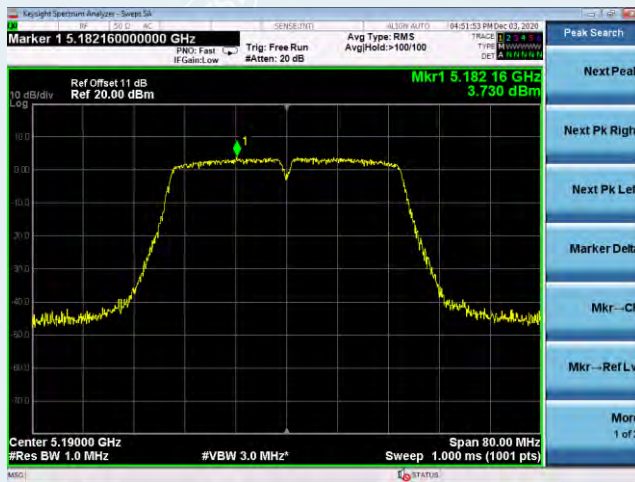


Channel 5795MHz



802.11n HT40 mode (antenna 2)

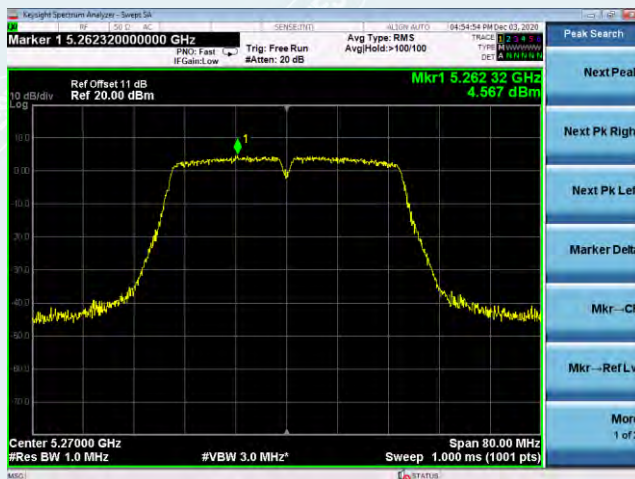
Channel 5190MHz



Channel 5230MHz



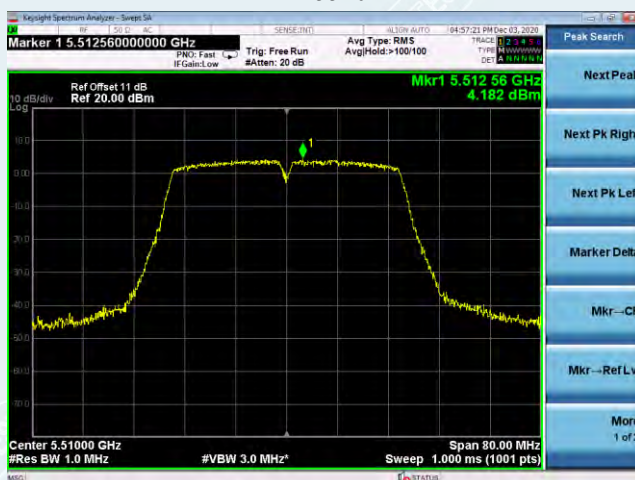
Channel 5270MHz



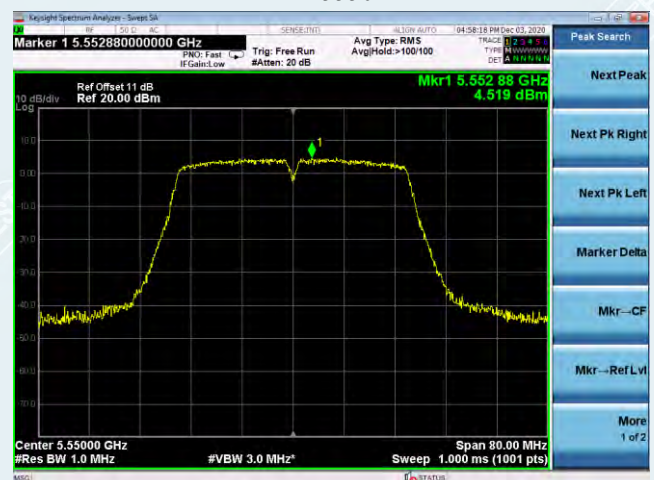
Channel 5310MHz



Channel 5510MHz



Channel 5550MHz



802.11n HT40 mode (antenna 2)

Channel 5670MHz



Channel 5755MHz



Channel 5795MHz



802.11ac VHT40 mode (antenna 1)

Channel 5190MHz



Channel 5230MHz



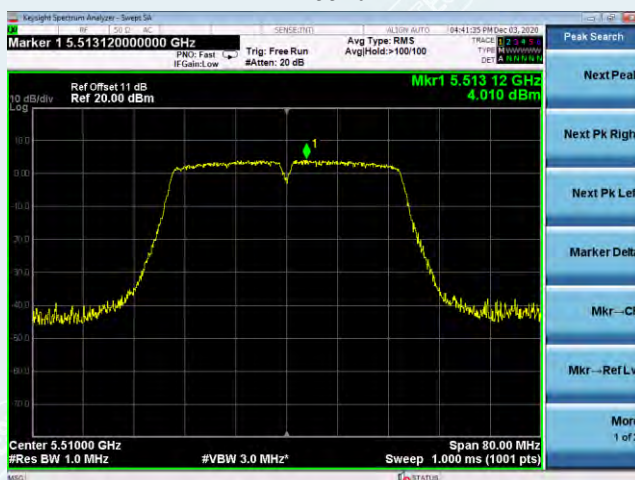
Channel 5270MHz



Channel 5310MHz



Channel 5510MHz

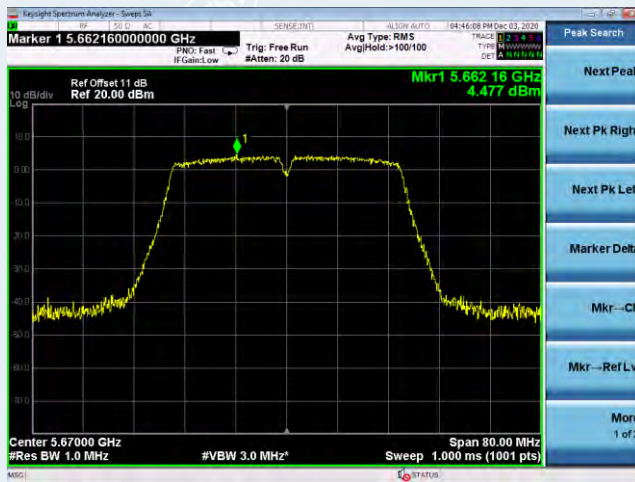


Channel 5550MHz



802.11ac VHT40 mode (antenna 1)

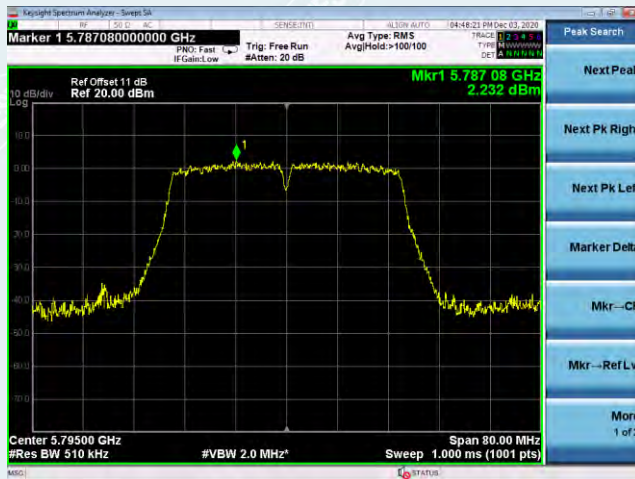
Channel 5670MHz



Channel 5755MHz



Channel 5795MHz



802.11ac VHT40 mode (antenna 2)

Channel 5190MHz



Channel 5230MHz



Channel 5270MHz



Channel 5310MHz



Channel 5510MHz



Channel 5550MHz



802.11ac VHT40 mode (antenna 2)

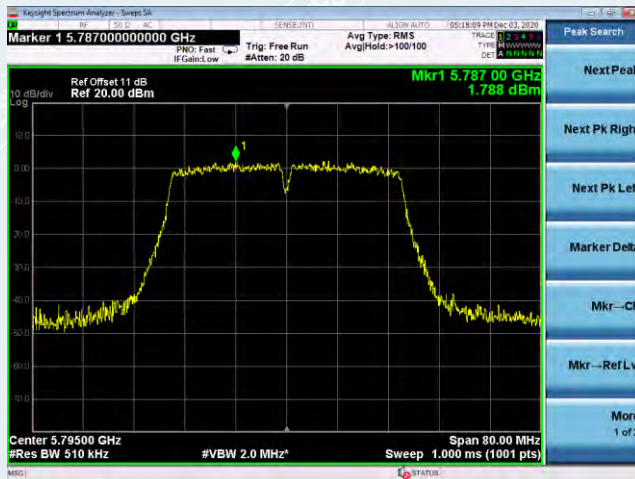
Channel 5670MHz



Channel 5755MHz

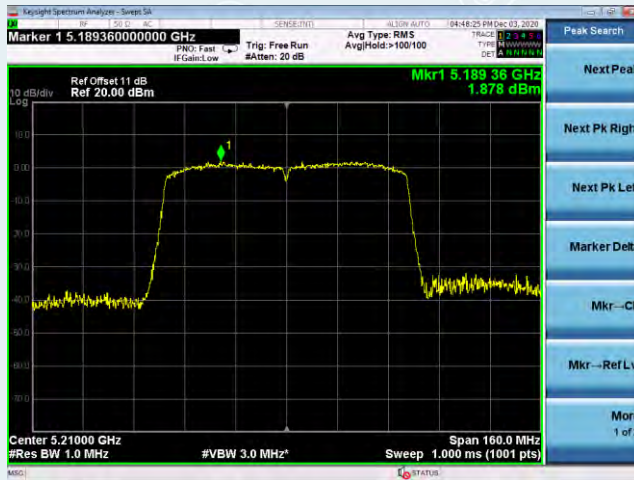


Channel 5795MHz

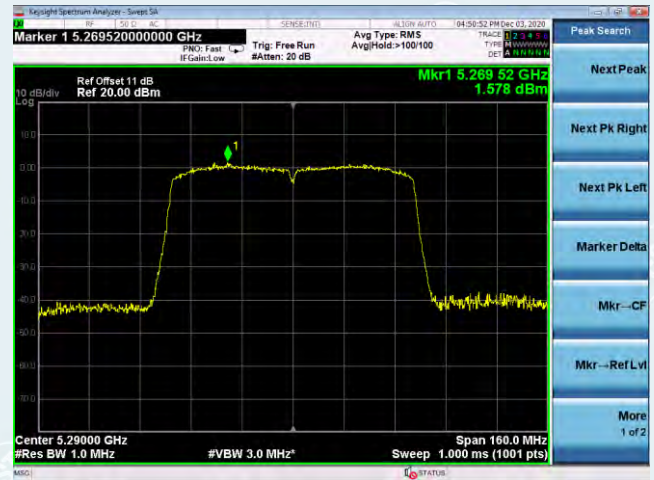


802.11ac VHT80 mode (antenna 1)

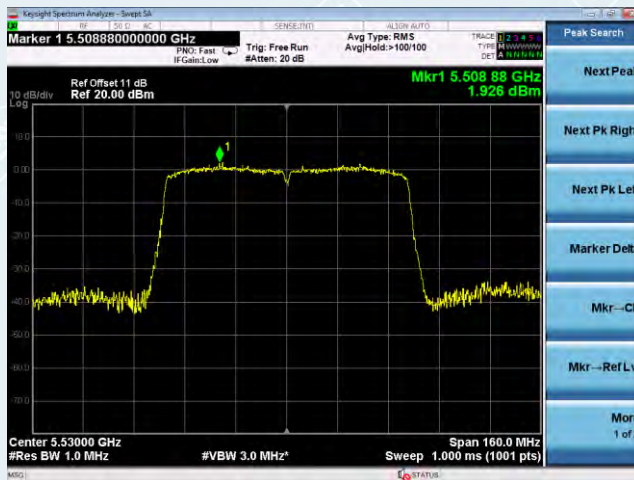
Channel 5210MHz



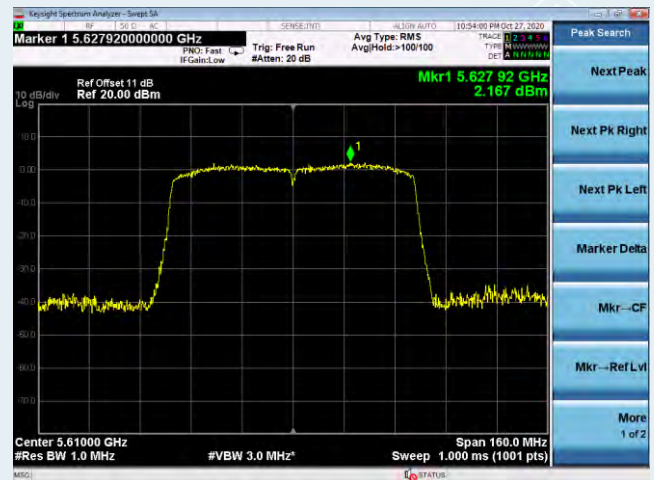
Channel 5290MHz



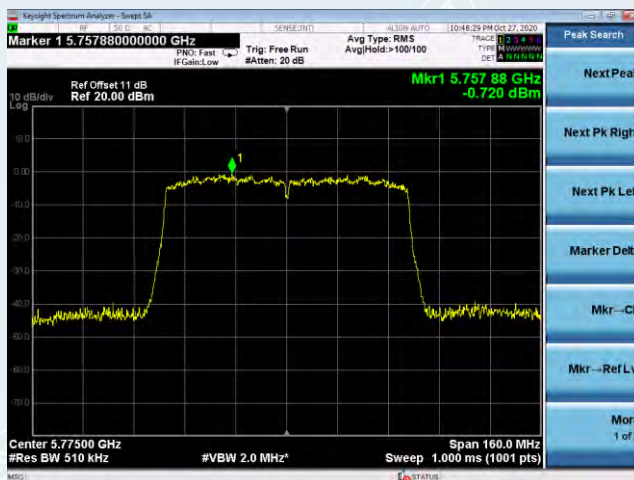
Channel 5530MHz



Channel 5610MHz

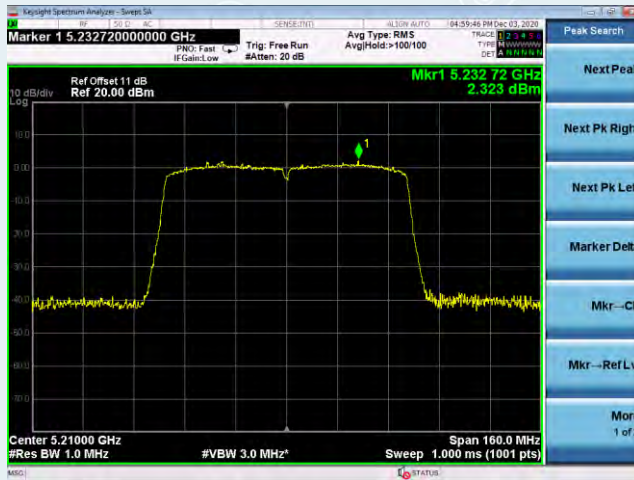


Channel 5775MHz



802.11ac VHT80 mode (antenna 2)

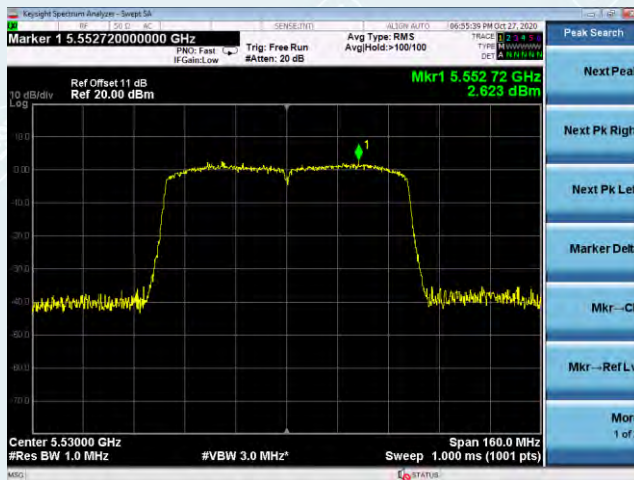
Channel 5210MHz



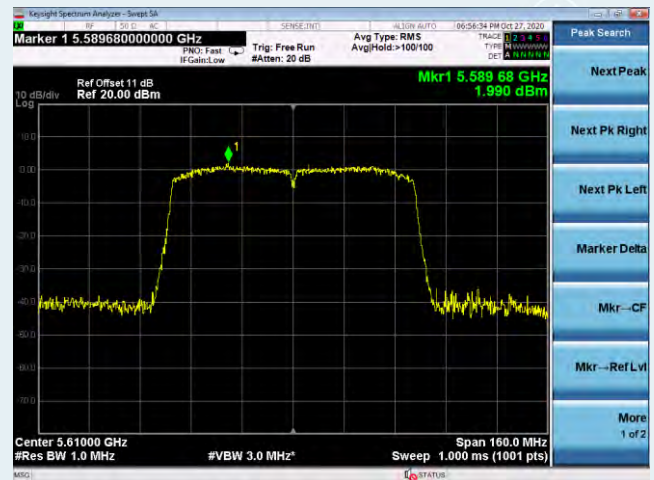
Channel 5290MHz



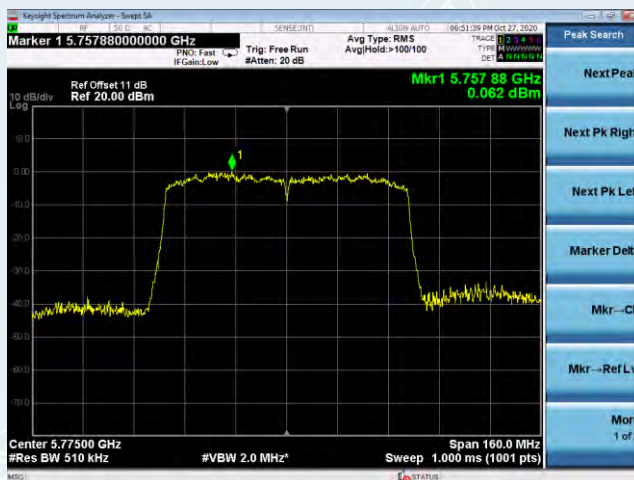
Channel 5530MHz



Channel 5610MHz



Channel 5775MHz

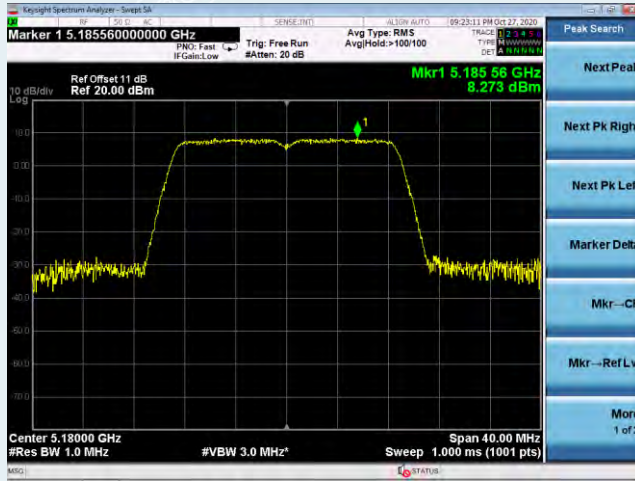


Beamforming

Test Results (plots) of PSD

802.11n HT20 mode (antenna 1)

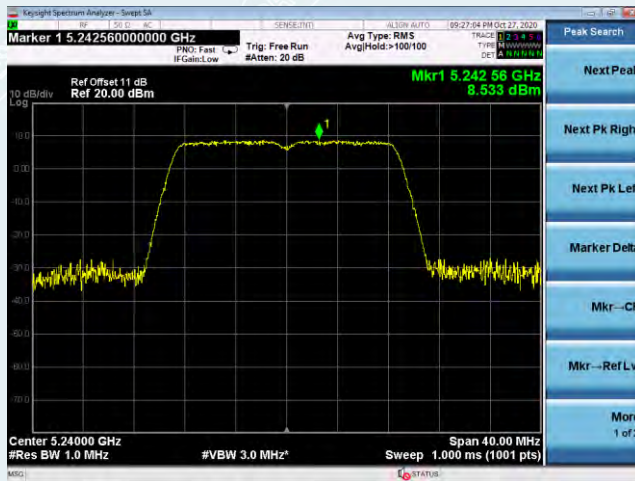
Channel 5180MHz



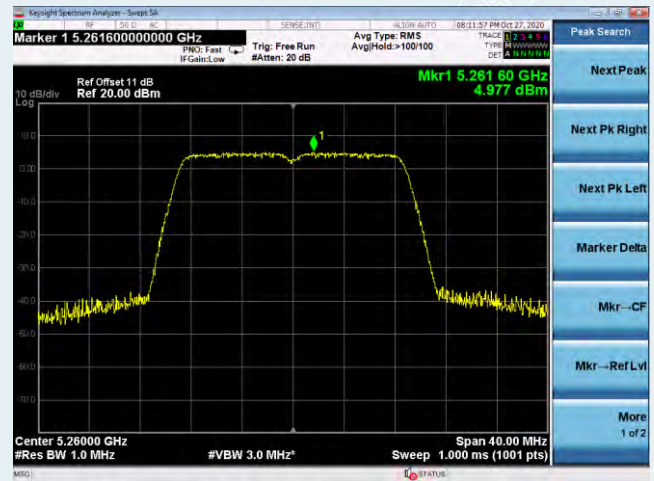
Channel 5200MHz



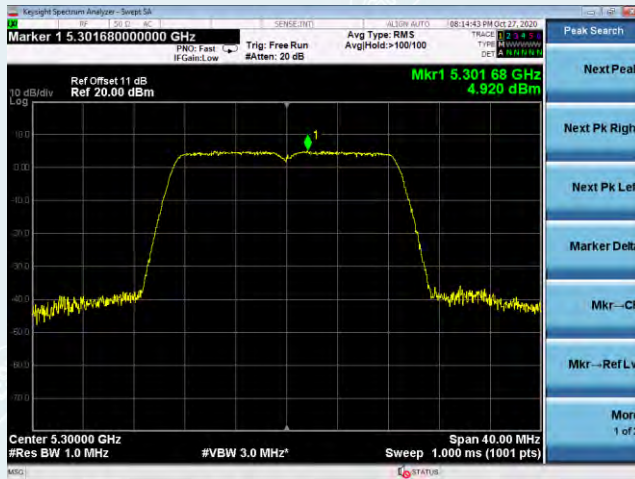
Channel 5240MHz



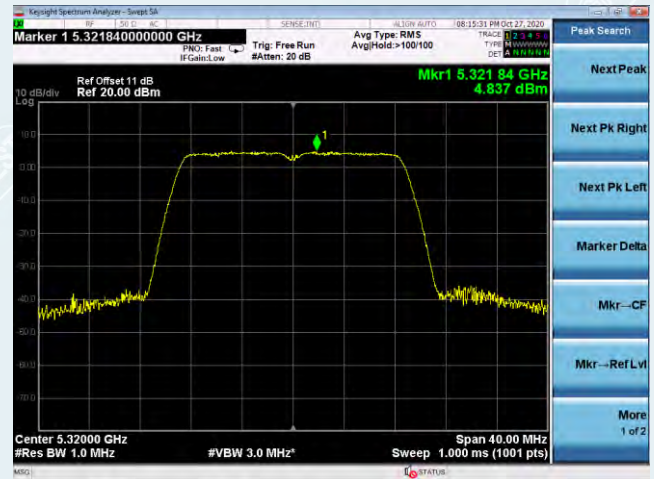
Channel 5260MHz



Channel 5300MHz

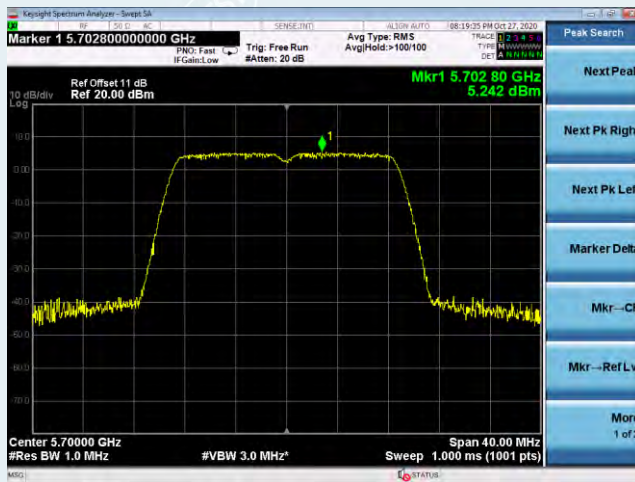


Channel 5320MHz

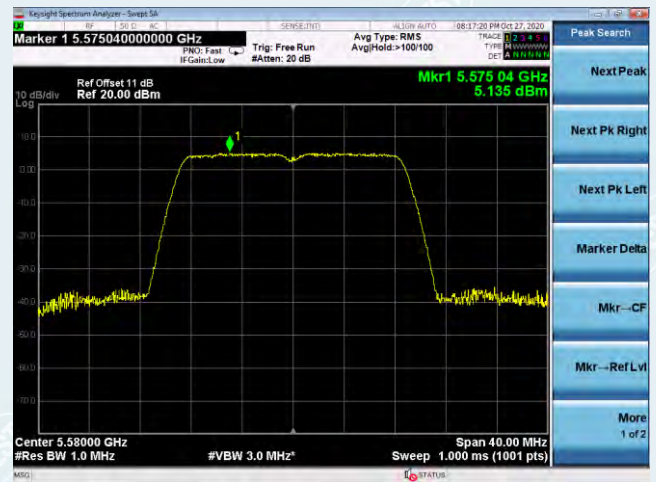


802.11n HT20 mode (antenna 1)

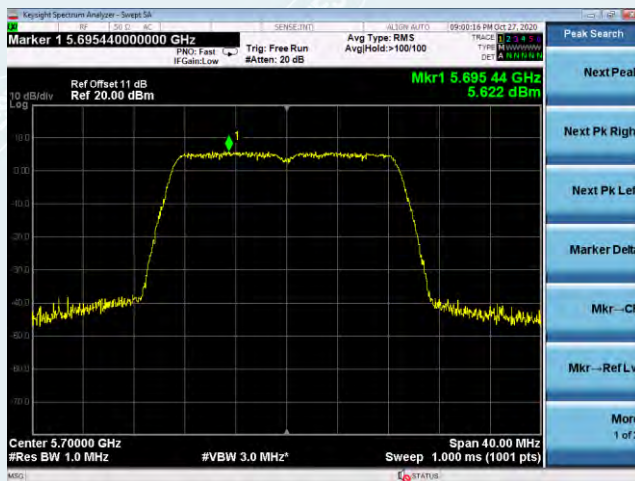
Channel 5500MHz



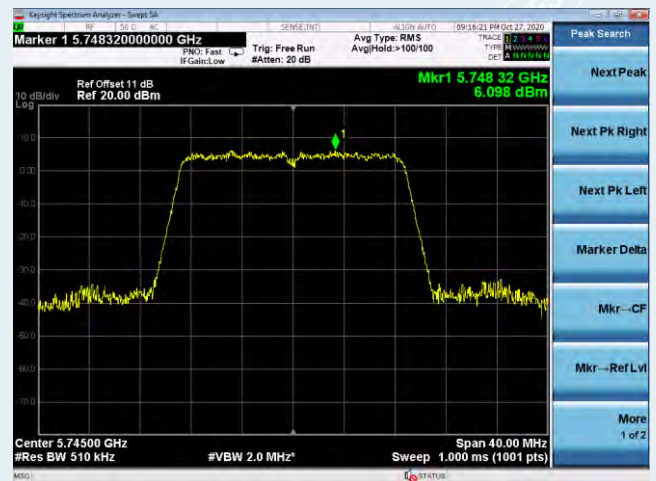
Channel 5580MHz



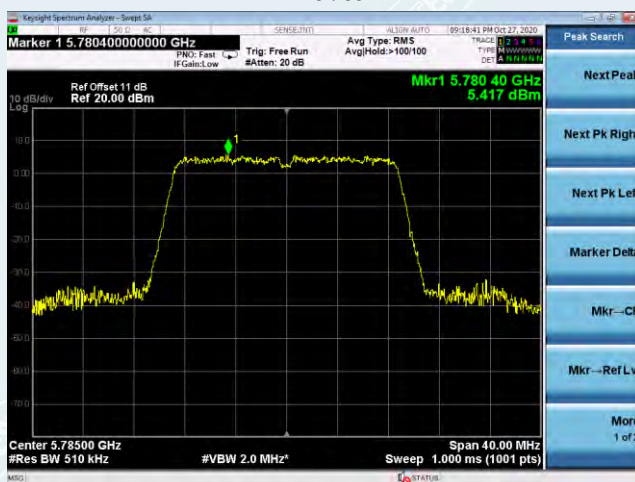
Channel 5700MHz



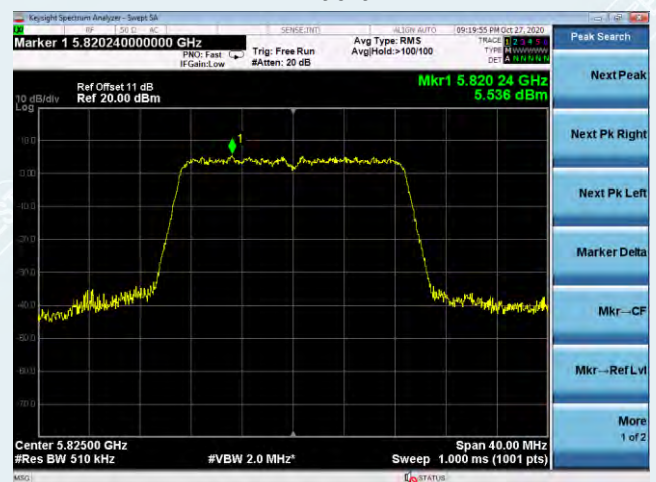
Channel 5745MHz



Channel 5785MHz

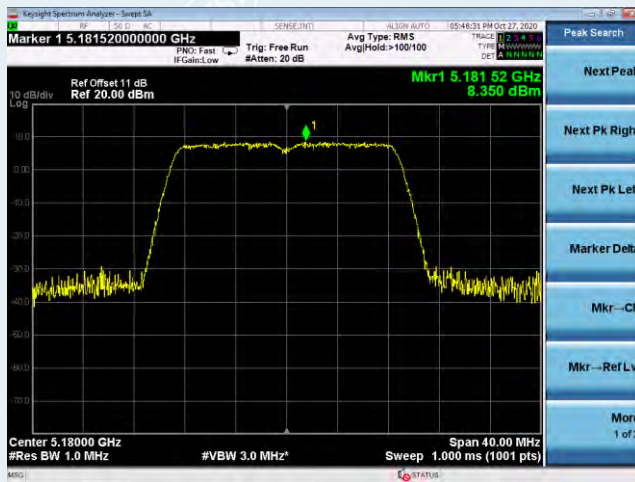


Channel 5825MHz



802.11n HT20 mode (antenna 2)

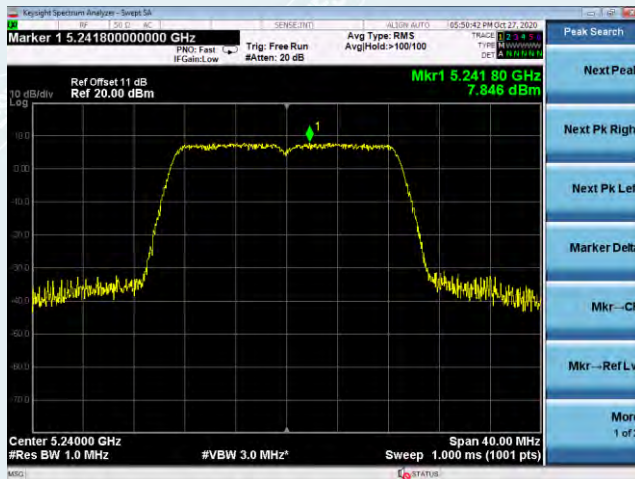
Channel 5180MHz



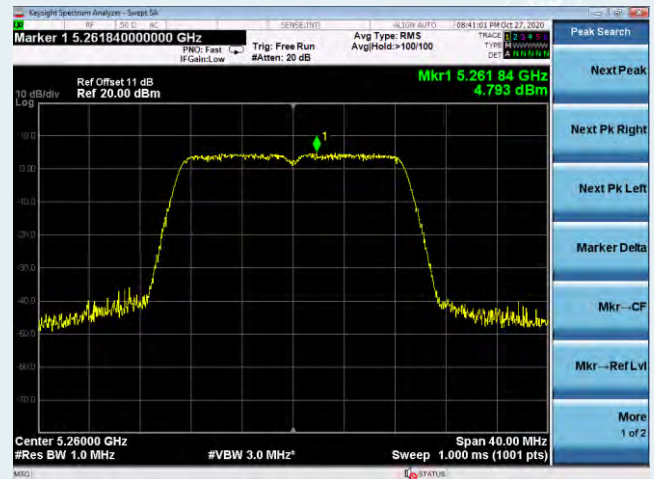
Channel 5200MHz



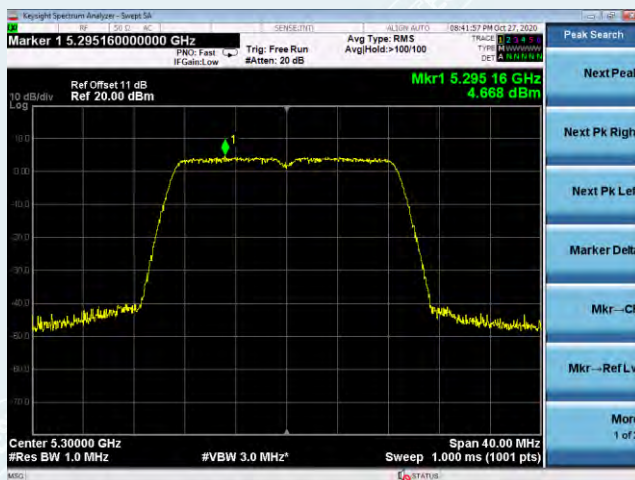
Channel 5240MHz



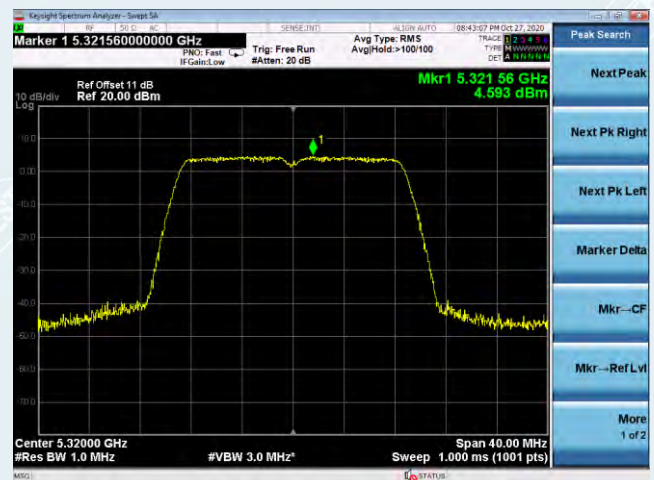
Channel 5260MHz



Channel 5300MHz

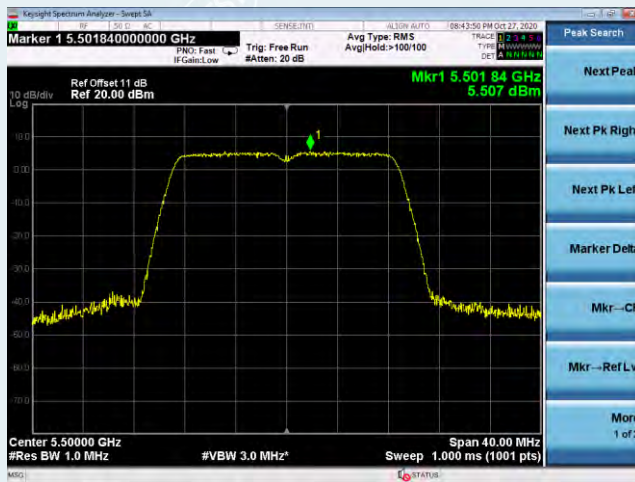


Channel 5320MHz

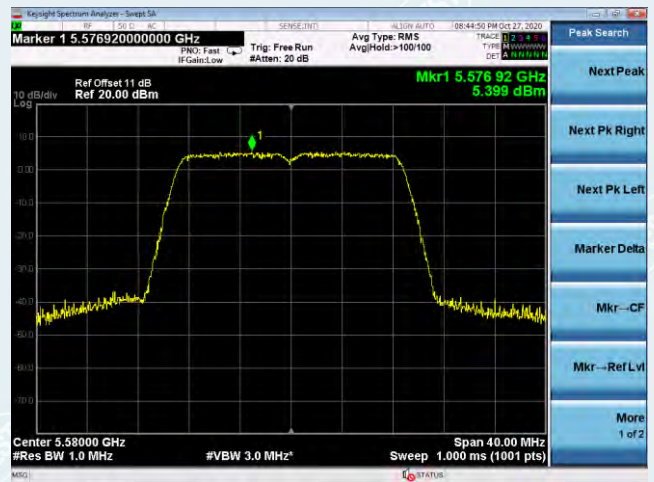


802.11n HT20 mode (antenna 2)

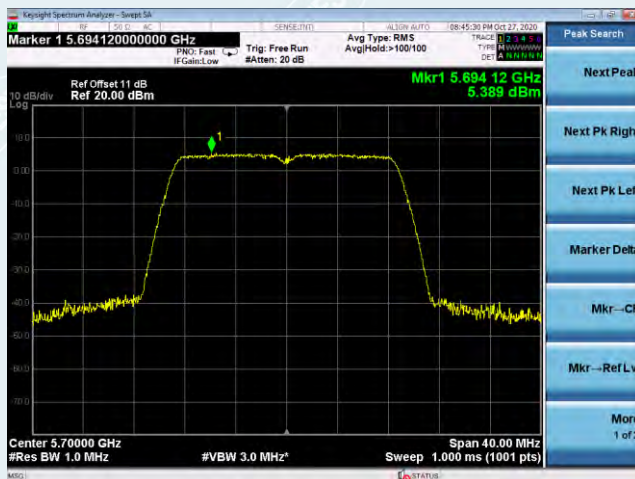
Channel 5500MHz



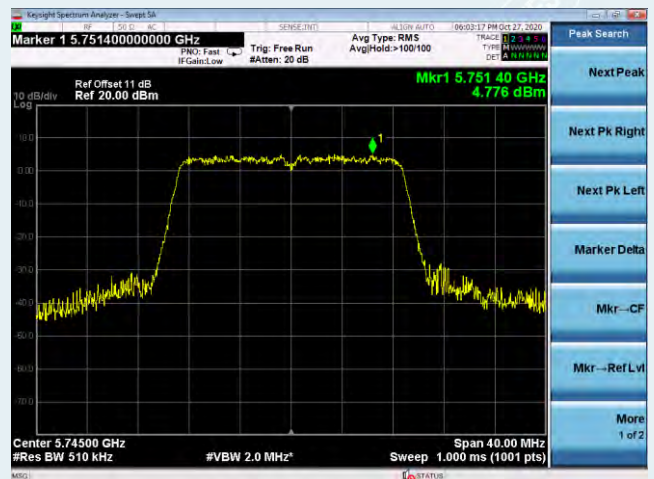
Channel 5580MHz



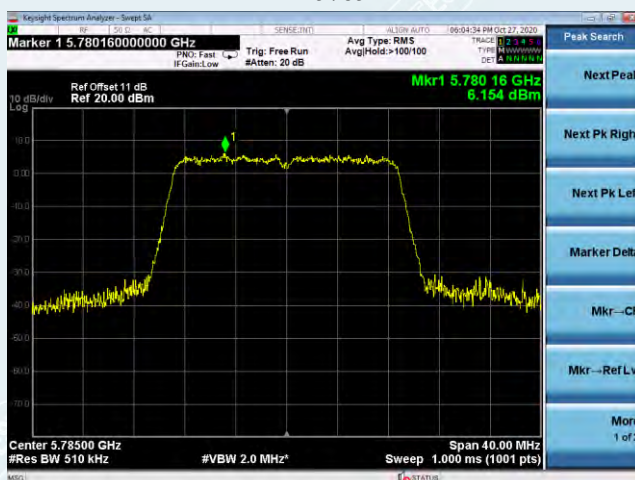
Channel 5700MHz



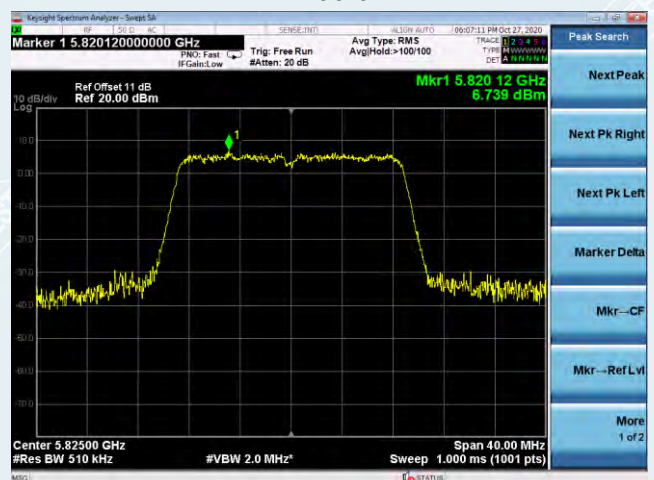
Channel 5745MHz



Channel 5785MHz

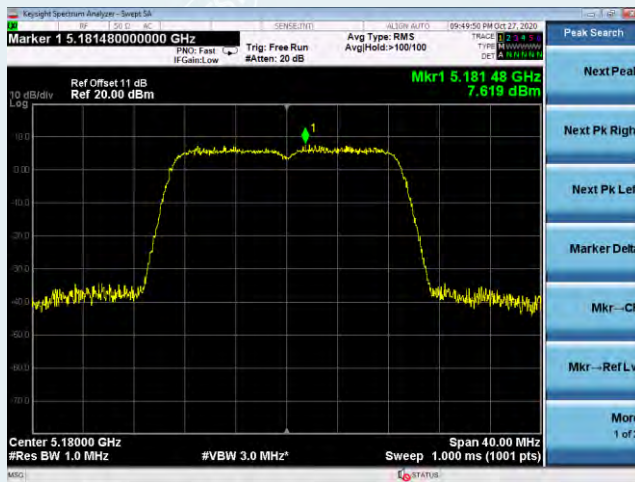


Channel 5825MHz

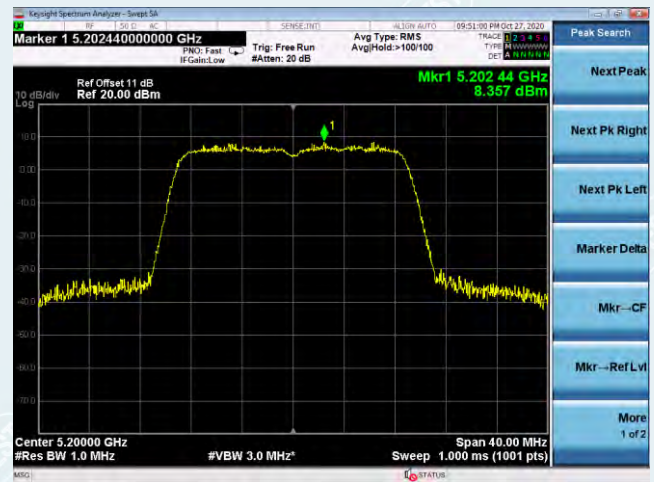


802.11ac VHT20 mode (antenna 1)

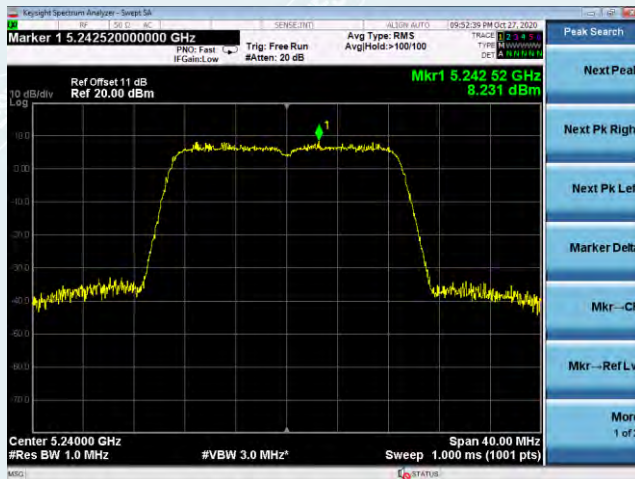
Channel 5180MHz



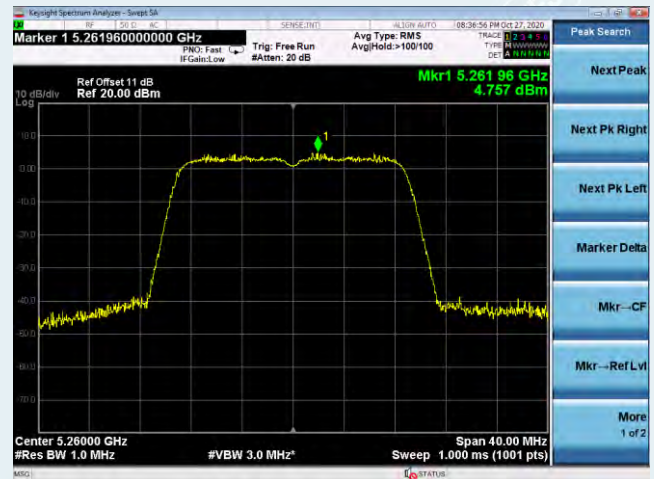
Channel 5200MHz



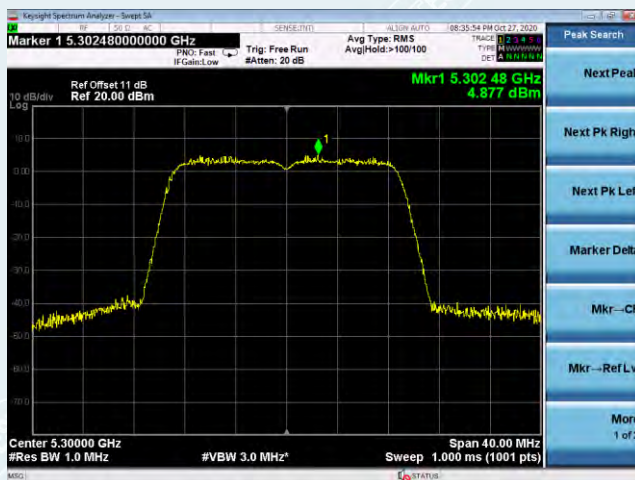
Channel 5240MHz



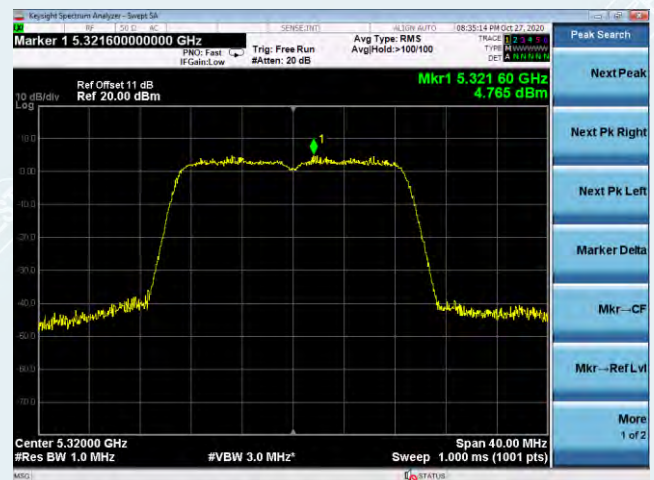
Channel 5260MHz



Channel 5300MHz



Channel 5320MHz

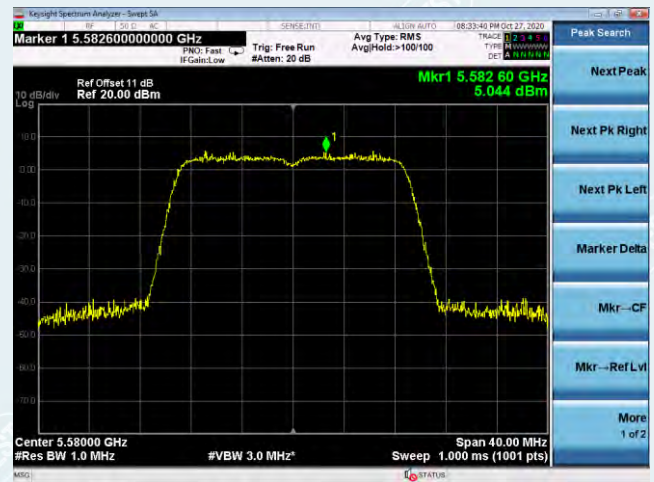


802.11ac VHT20 mode (antenna 1)

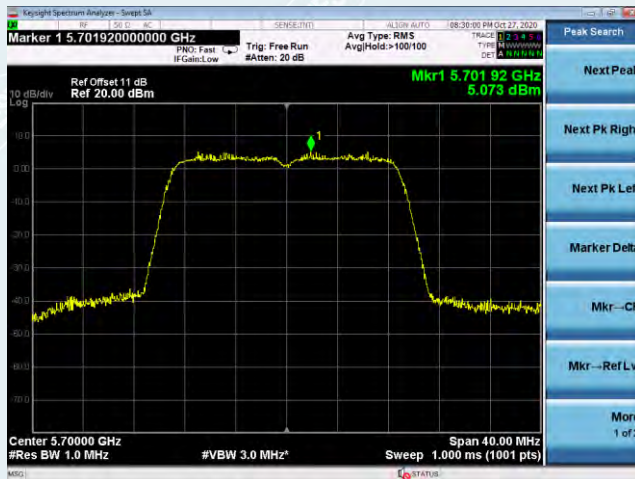
Channel 5500MHz



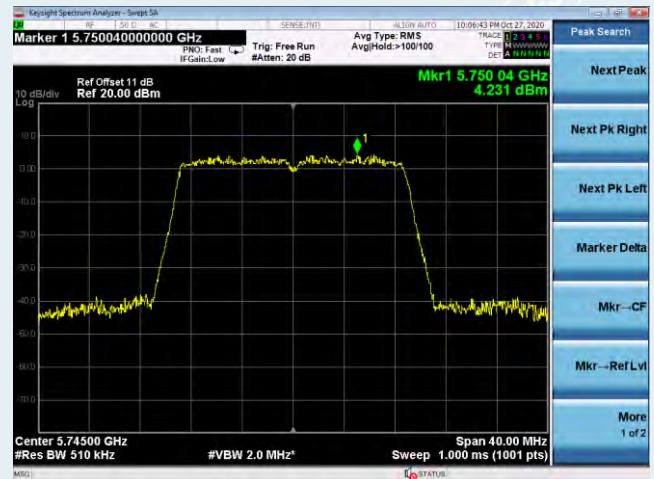
Channel 5580MHz



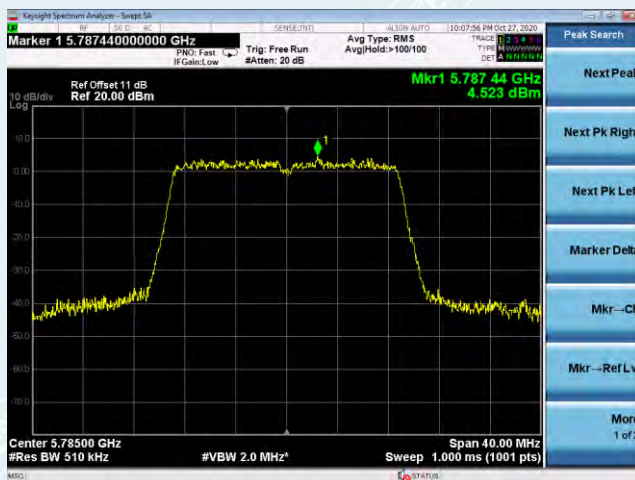
Channel 5700MHz



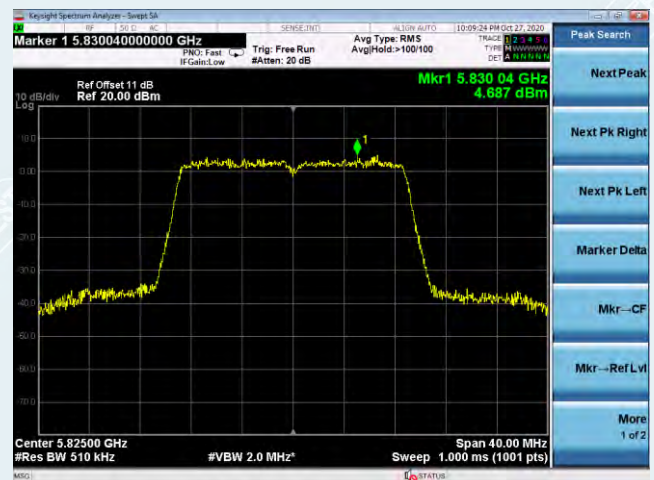
Channel 5745MHz



Channel 5785MHz

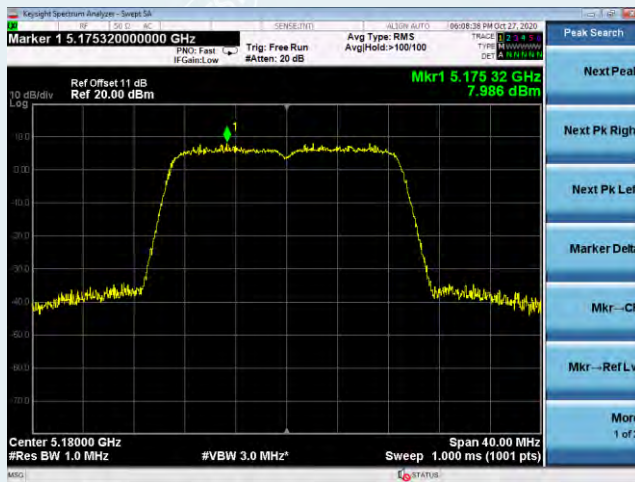


Channel 5825MHz

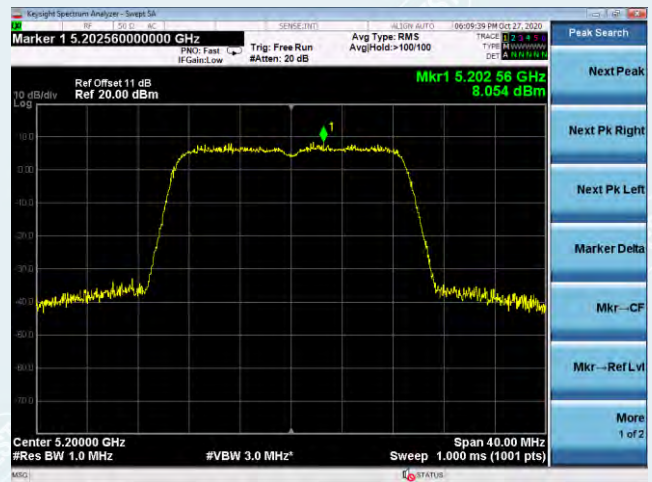


802.11ac VHT20 mode (antenna 2)

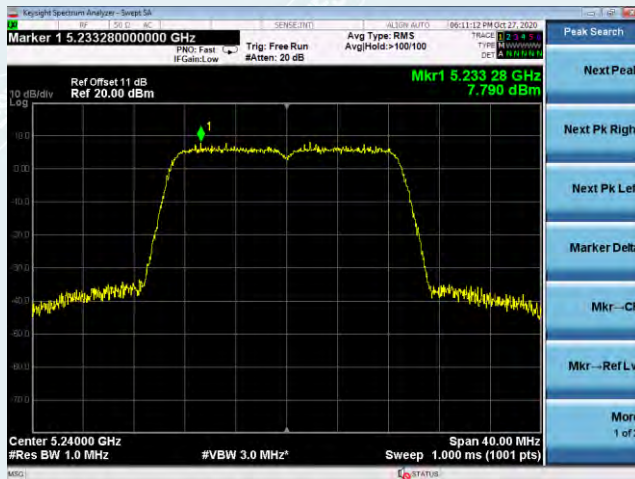
Channel 5180MHz



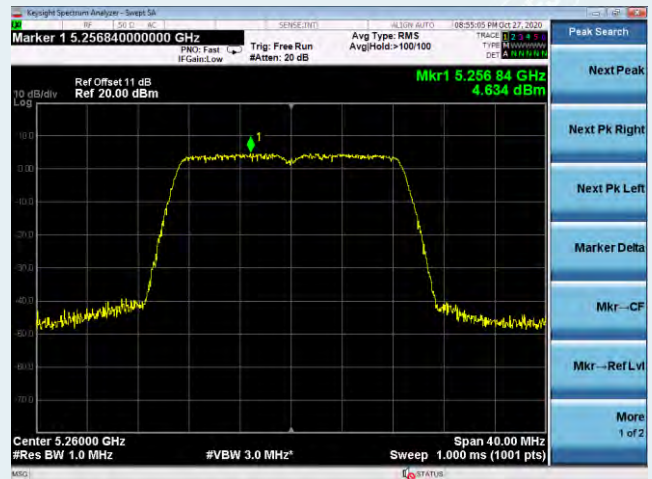
Channel 5200MHz



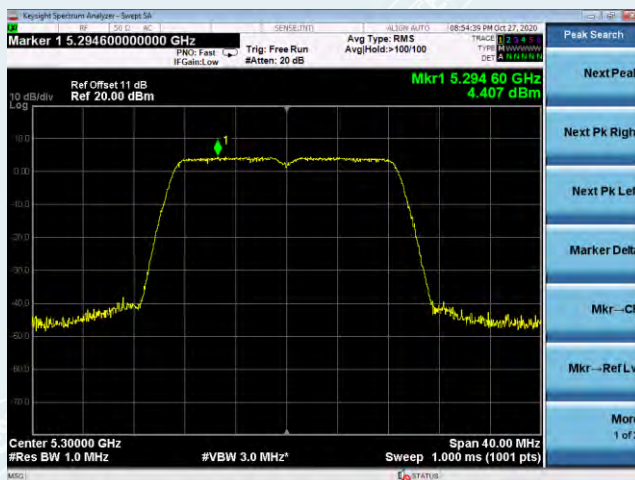
Channel 5240MHz



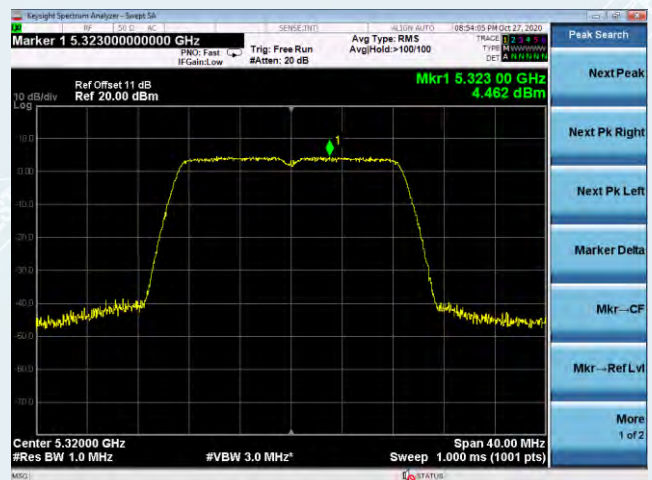
Channel 5260MHz



Channel 5300MHz

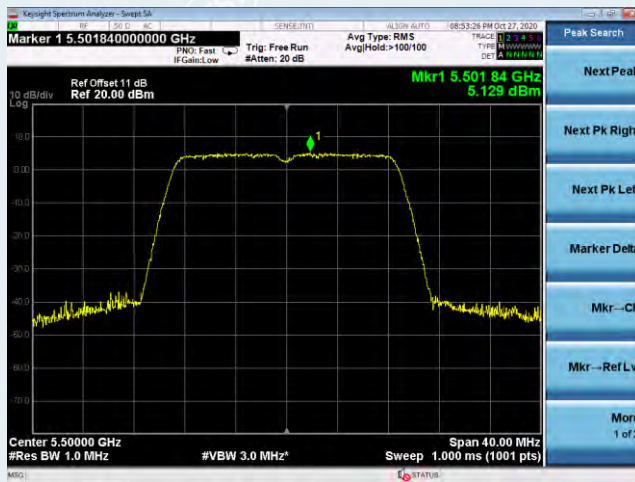


Channel 5320MHz

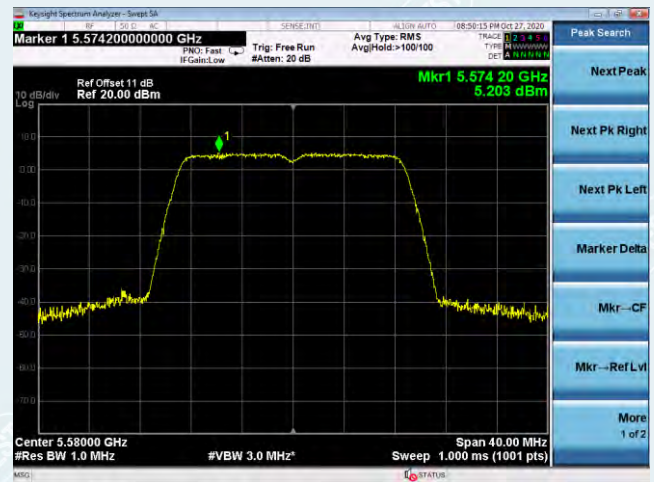


802.11ac VHT20 mode (antenna 2)

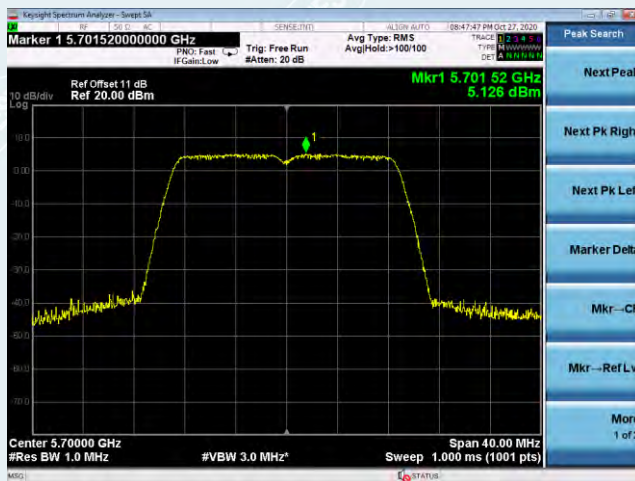
Channel 5500MHz



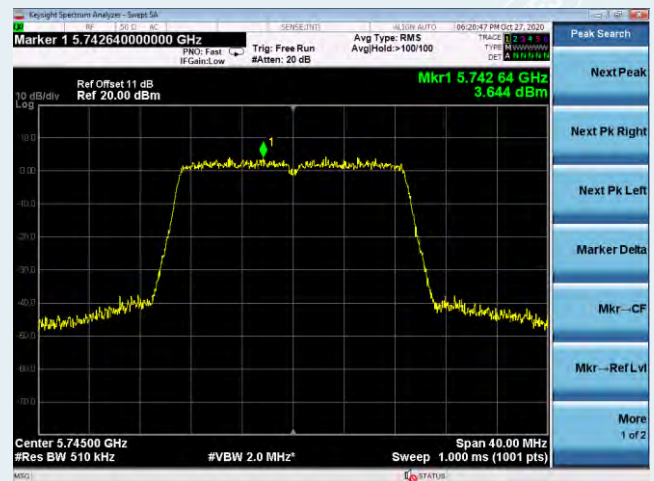
Channel 5580MHz



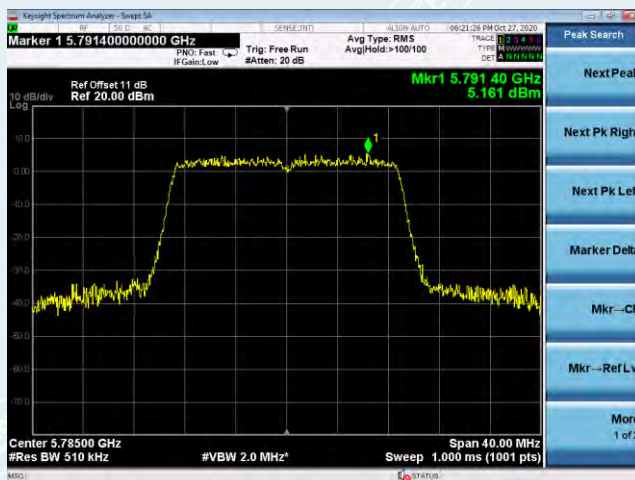
Channel 5700MHz



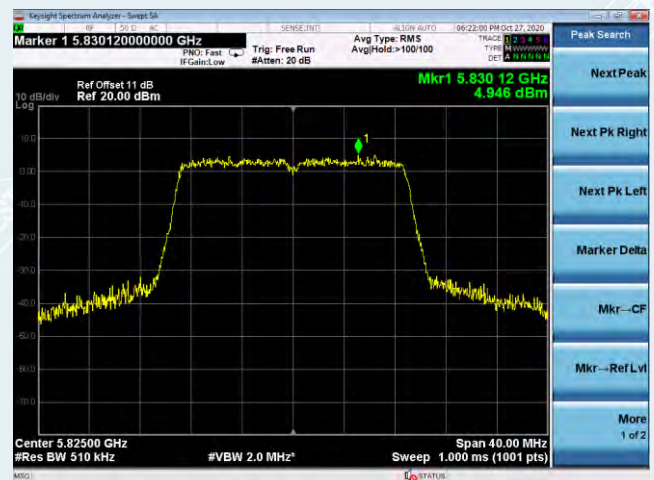
Channel 5745MHz



Channel 5785MHz

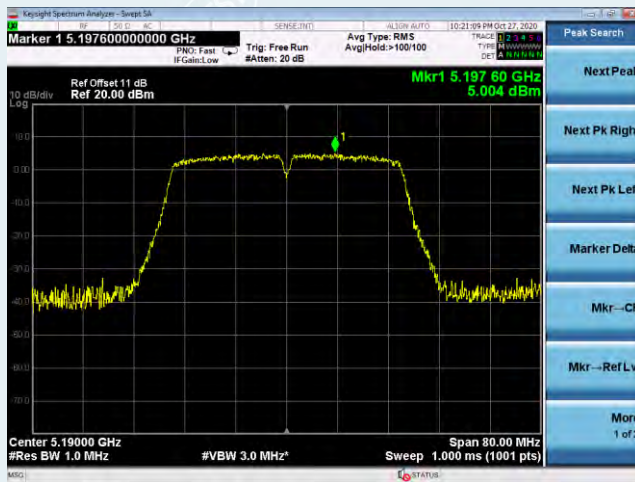


Channel 5825MHz

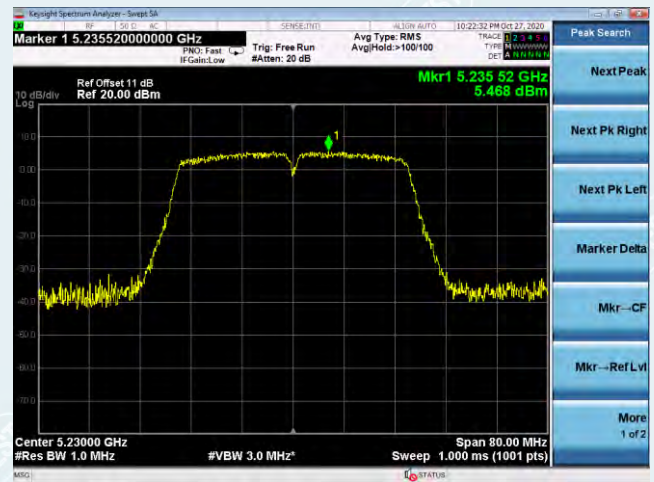


802.11n HT40 mode (antenna 1)

Channel 5190MHz



Channel 5230MHz



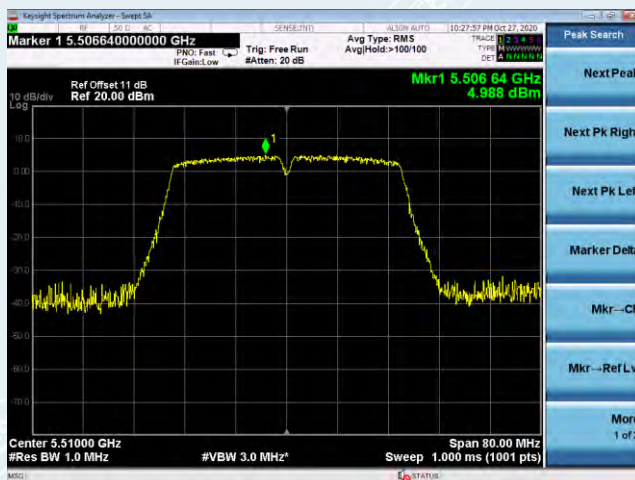
Channel 5270MHz



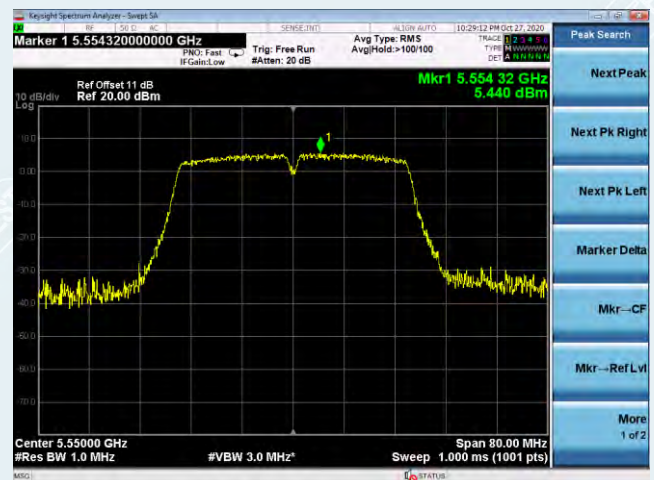
Channel 5310MHz



Channel 5510MHz



Channel 5550MHz

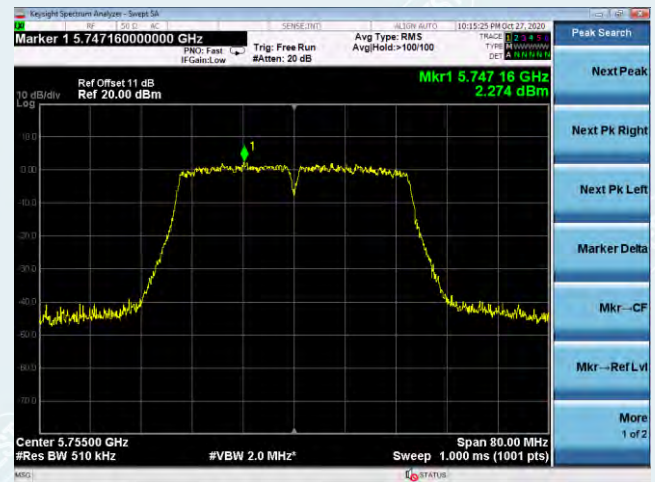


802.11n HT40 mode (antenna 1)

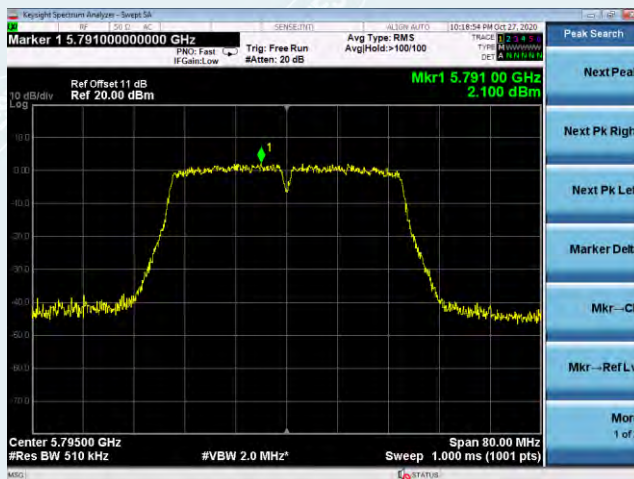
Channel 5670MHz



Channel 5755MHz

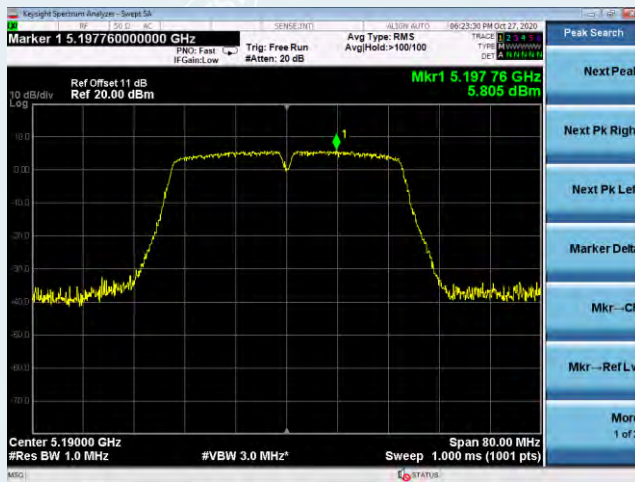


Channel 5795MHz

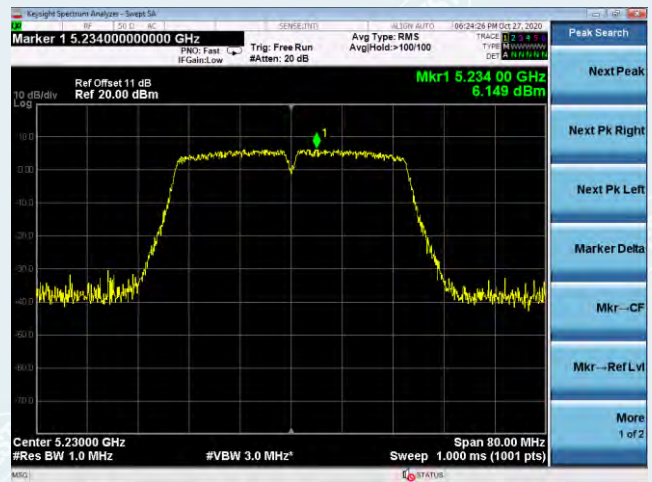


802.11n HT40 mode (antenna 2)

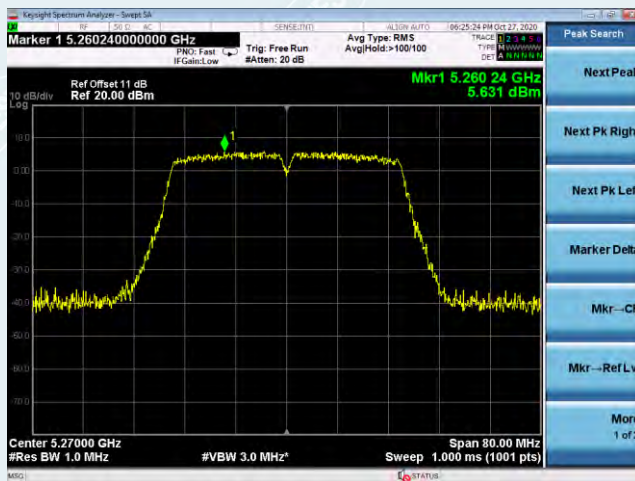
Channel 5190MHz



Channel 5230MHz



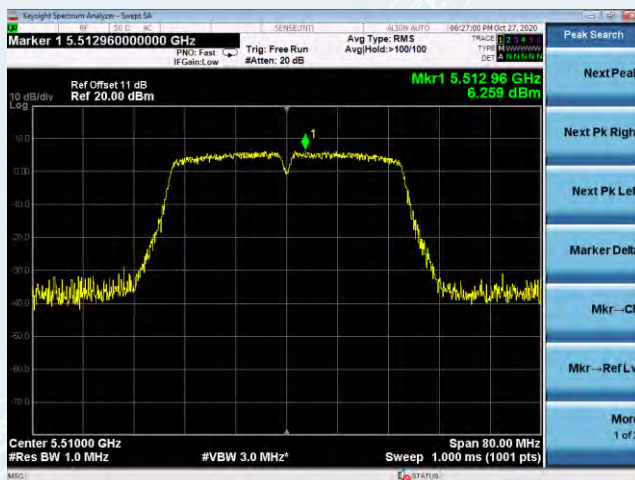
Channel 5270MHz



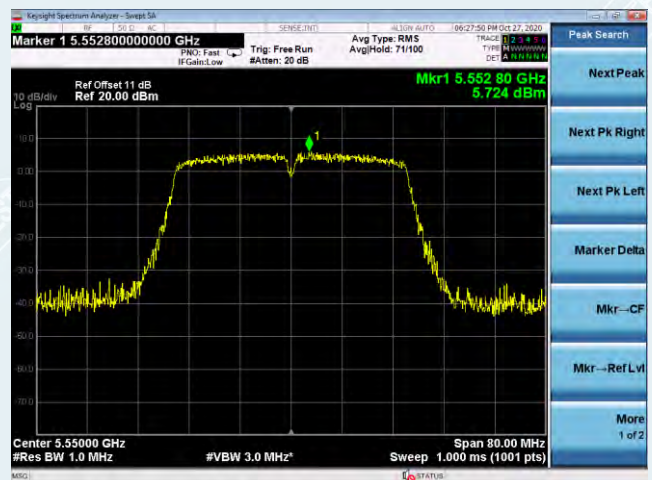
Channel 5310MHz



Channel 5510MHz



Channel 5550MHz

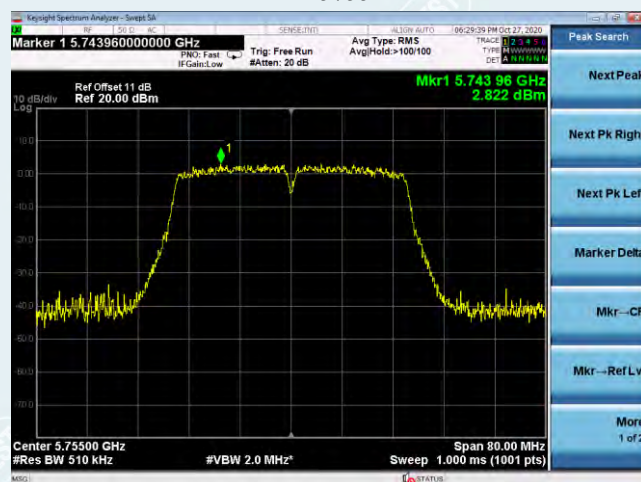


802.11n HT40 mode (antenna 2)

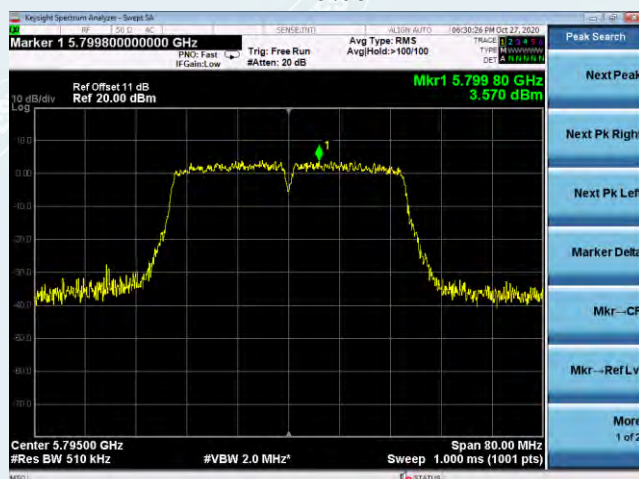
Channel 5670MHz



Channel 5755MHz

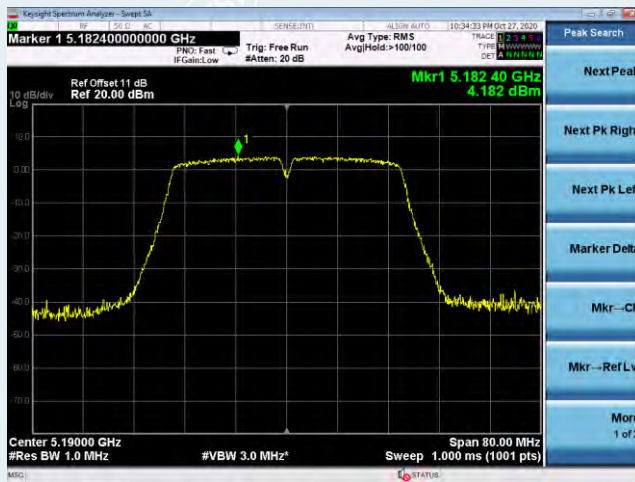


Channel 5795MHz

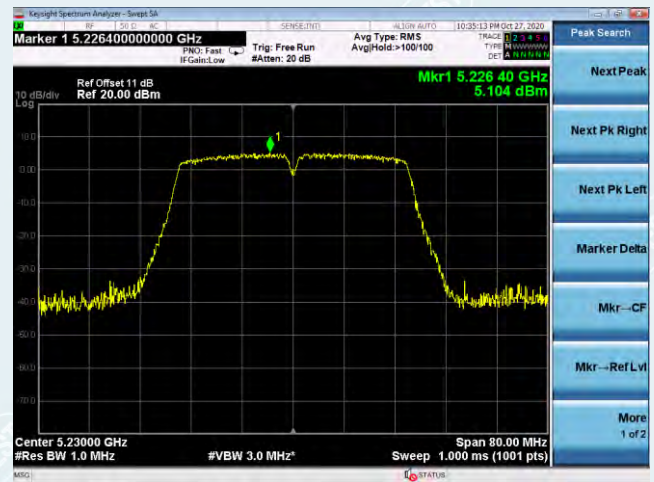


802.11ac VHT40 mode (antenna 1)

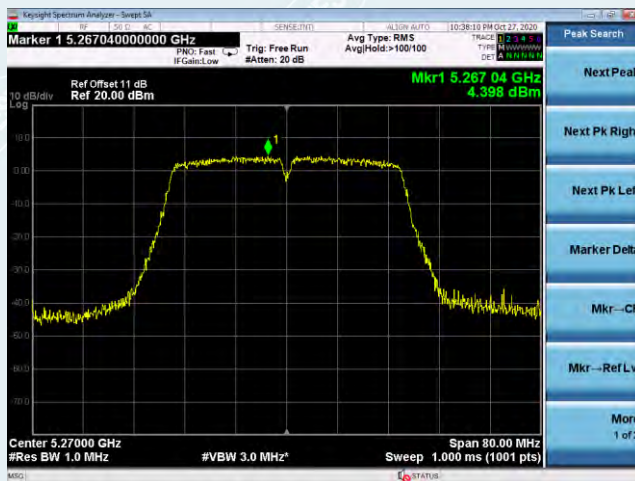
Channel 5190MHz



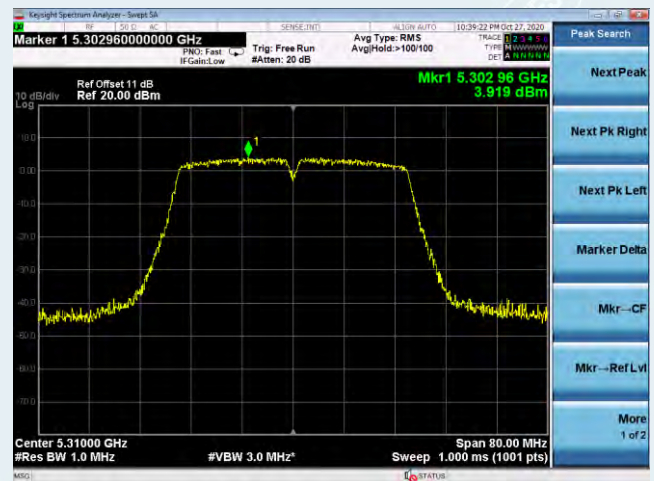
Channel 5230MHz



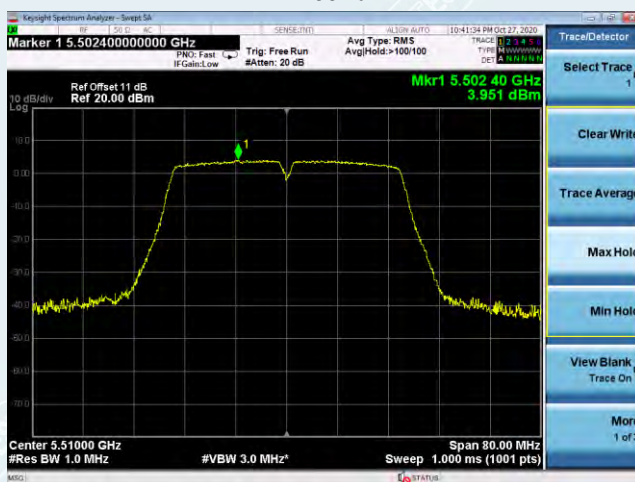
Channel 5270MHz



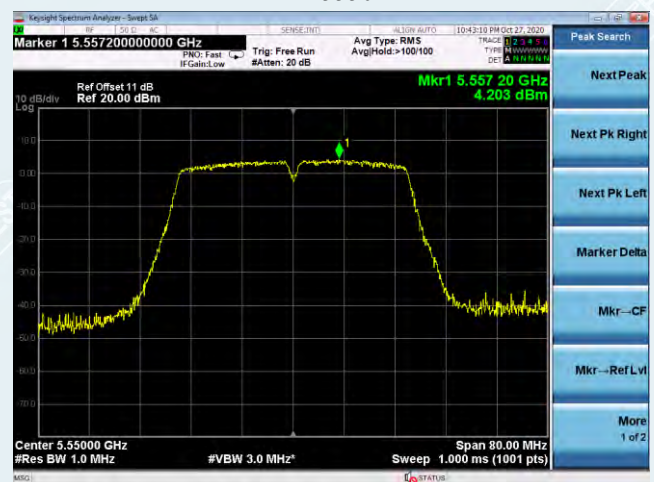
Channel 5310MHz



Channel 5510MHz

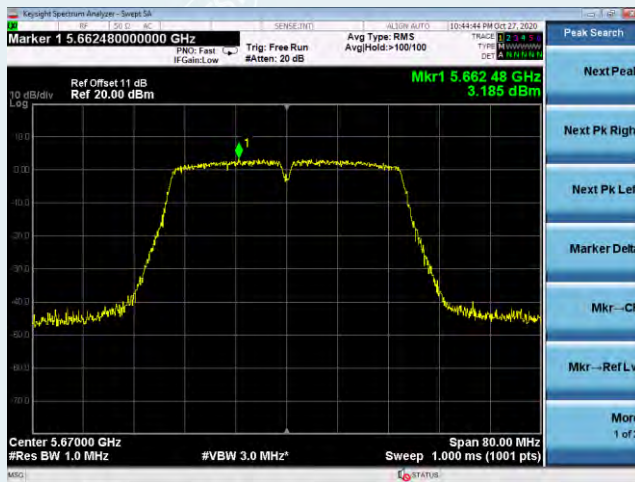


Channel 5550MHz

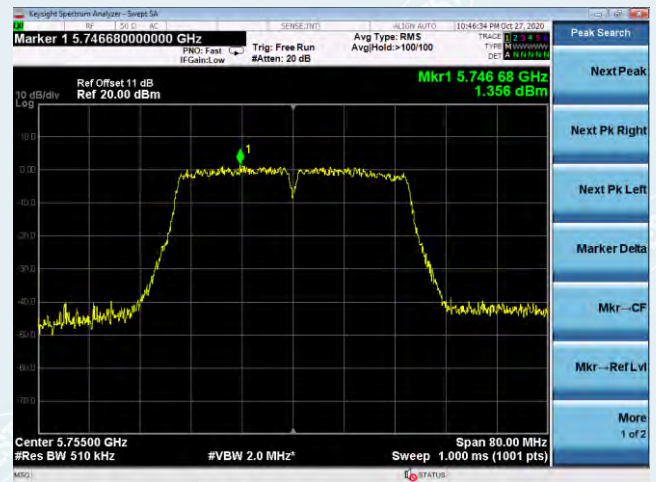


802.11ac VHT40 mode (antenna 1)

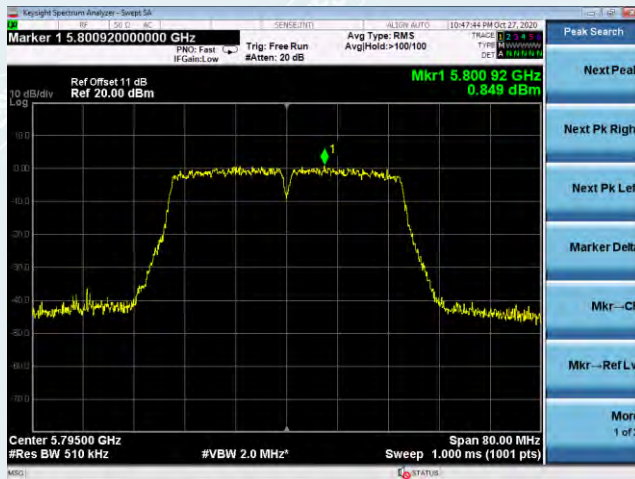
Channel 5670MHz



Channel 5755MHz

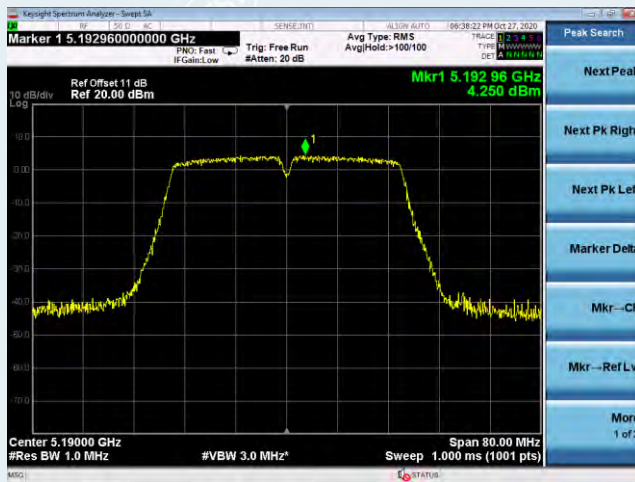


Channel 5795MHz

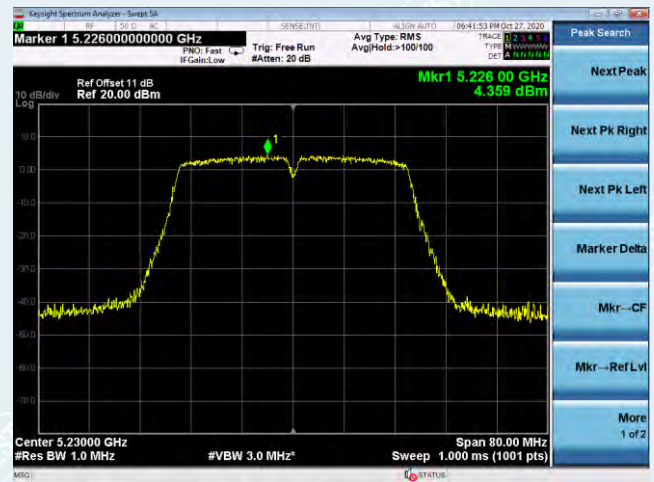


802.11ac VHT40 mode (antenna 2)

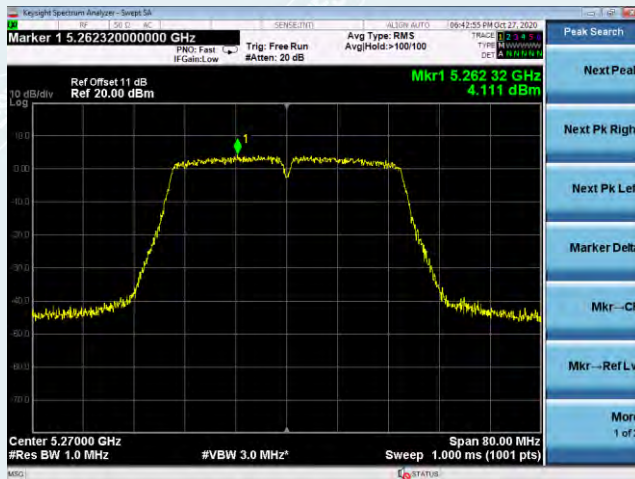
Channel 5190MHz



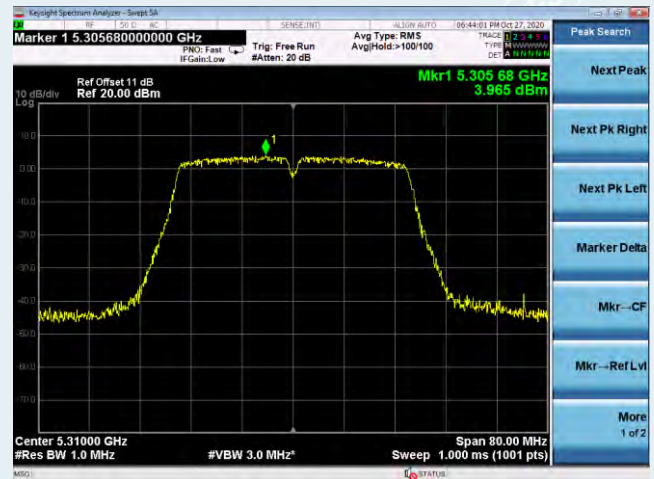
Channel 5230MHz



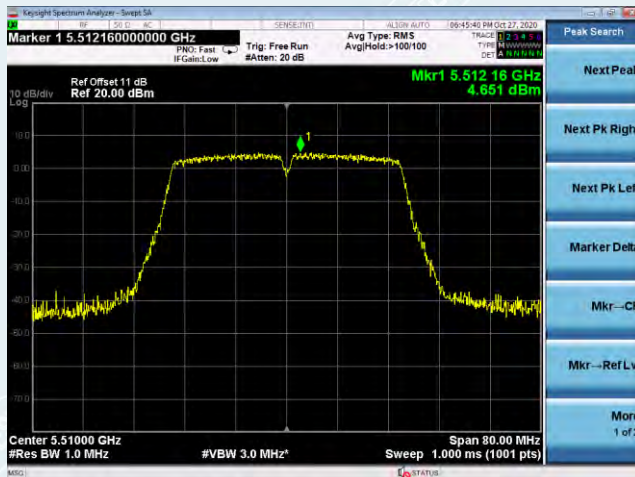
Channel 5270MHz



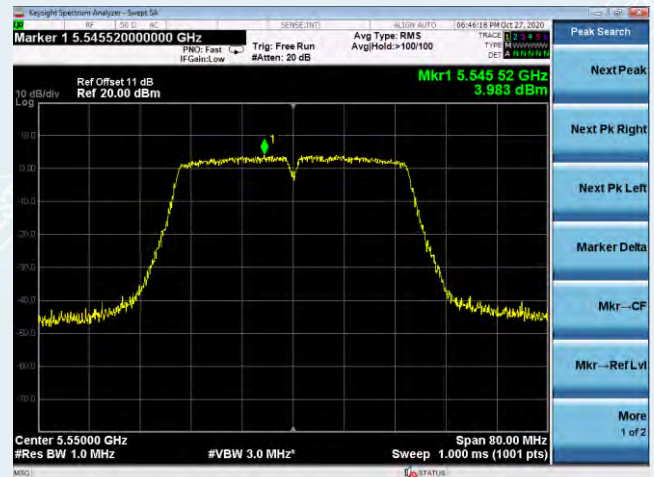
Channel 5310MHz



Channel 5510MHz

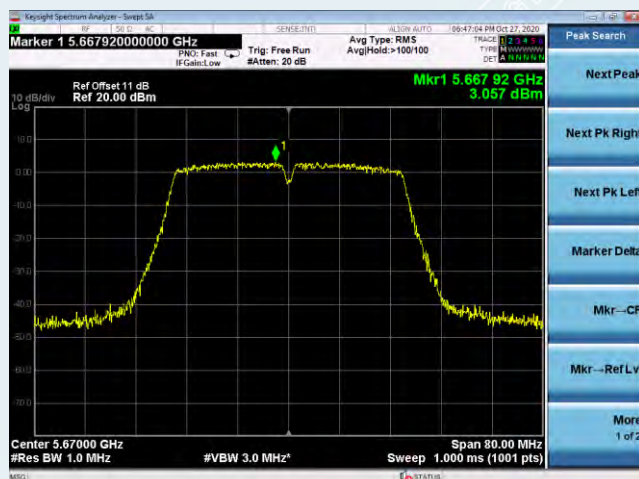


Channel 5550MHz

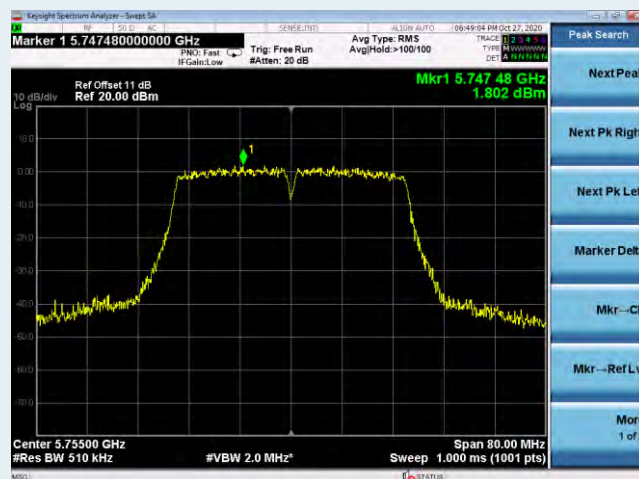


802.11ac VHT40 mode (antenna 2)

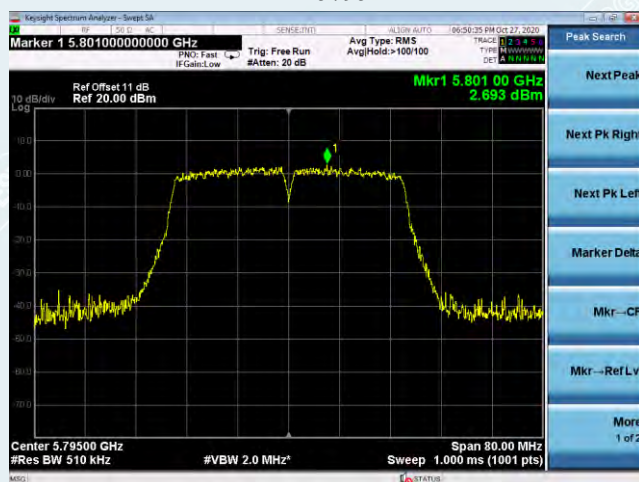
Channel 5670MHz



Channel 5755MHz

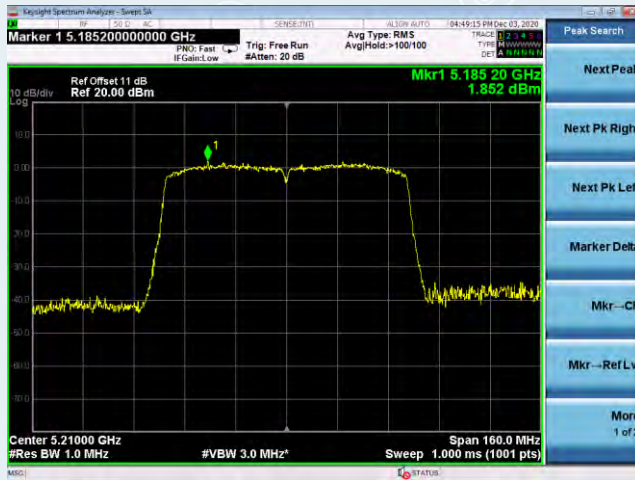


Channel 5795MHz

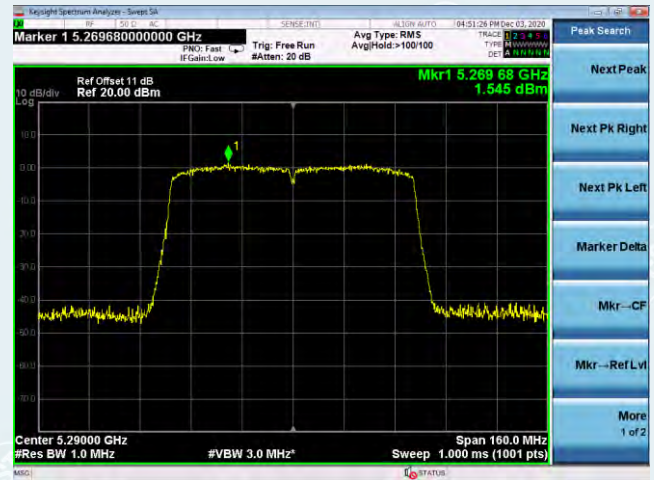


802.11ac VHT80 mode (antenna 1)

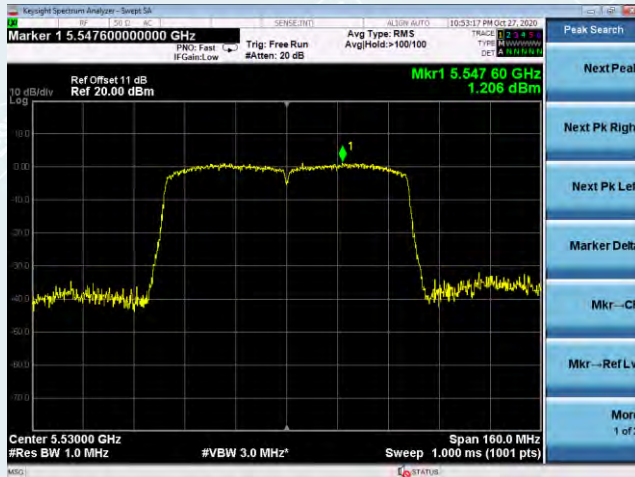
Channel 5210MHz



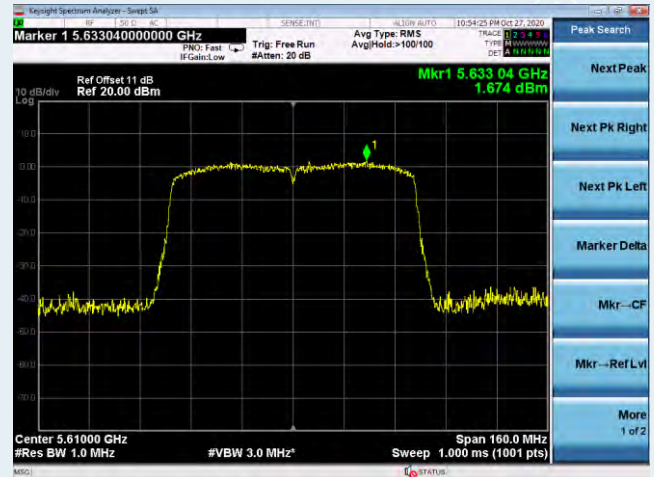
Channel 5290MHz



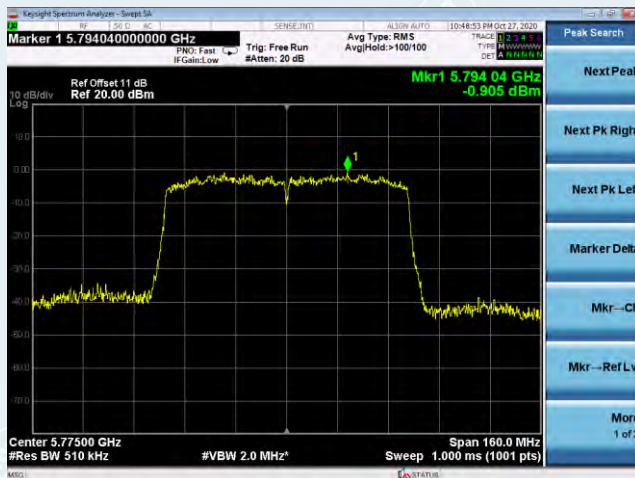
Channel 5530MHz



Channel 5610MHz



Channel 5775MHz

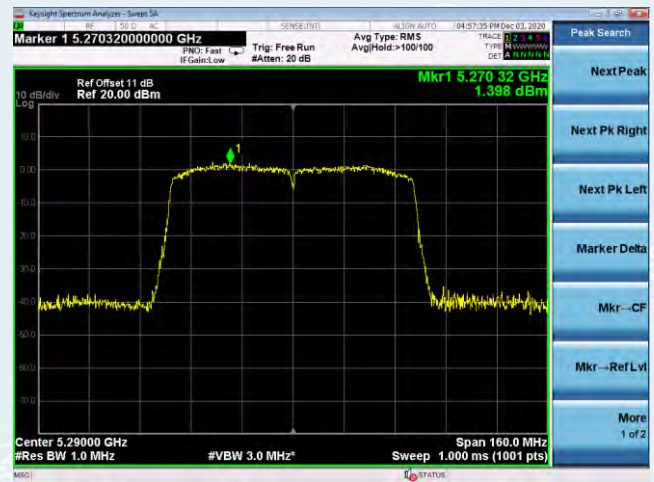


802.11ac VHT80 mode (antenna 2)

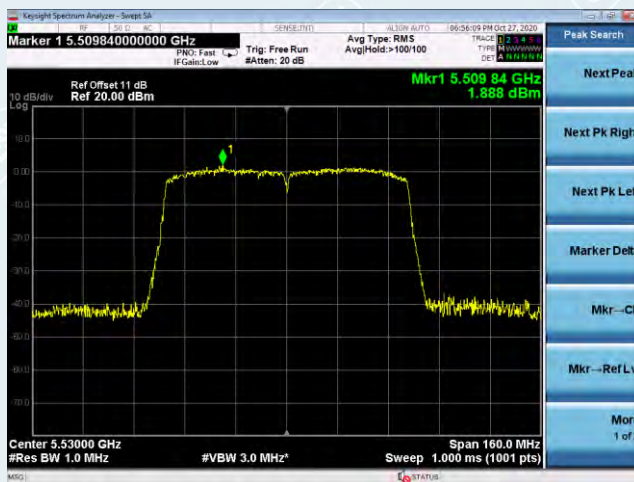
Channel 5210MHz



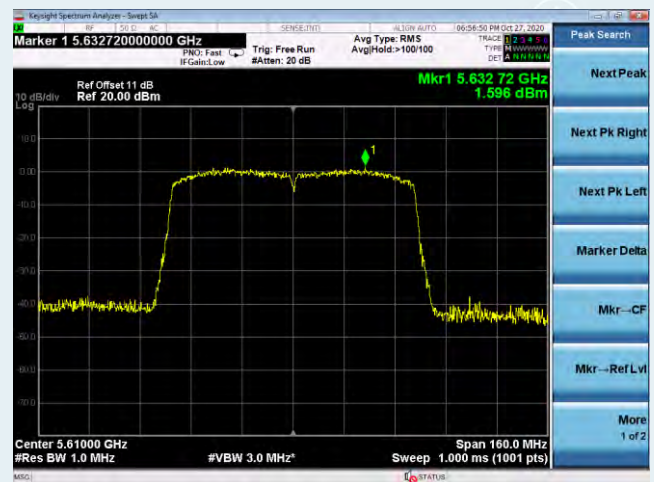
Channel 5290MHz



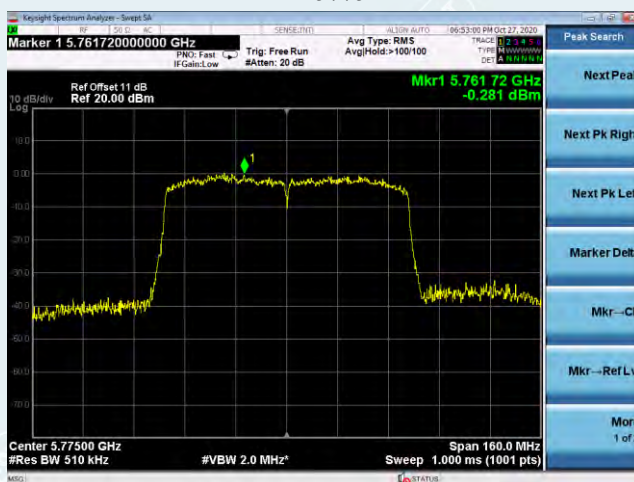
Channel 5530MHz



Channel 5610MHz



Channel 5775MHz



11. FREQUENCY STABILITY

11.1. LIMITS

According to §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.

11.2. TEST PROCEDURES

The equipment under test was connected to an external AC or DC power supply and input rated voltage. RF output was connected to a frequency counter or spectrum analyzer via feed through attenuators. The EUT was placed inside the temperature chamber. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and measure EUT 20°C operating frequency as reference frequency. Turn EUT off and set the chamber temperature to -20°C. After the temperature stabilized for approximately 30 minutes recorded the frequency. Repeat step measure with 10°C increased per stage until the highest temperature of +50°C reached.

11.3. TEST SETUP



11.4. TEST RESULTS

Non- Beamforming

802.11a mode

Voltage vs. Frequency Stability

Voltage	Measurement Frequency (MHz)
(V)	5180.0000
132	5179.9444
120	5179.9444
108	5179.9448
Max. Deviation (MHz)	0.0556
Max. Deviation (ppm)	10.7336

Voltage	Measurement Frequency (MHz)
(V)	5260.0000
132	5259.9432
120	5259.9436
108	5259.9434
Max. Deviation (MHz)	0.0568
Max. Deviation (ppm)	10.7985

Voltage	Measurement Frequency (MHz)
(V)	5500.0000
132	5499.9402
120	5499.9408
108	5499.9406
Max. Deviation (MHz)	0.0598
Max. Deviation (ppm)	10.8727

Voltage	Measurement Frequency (MHz)
(V)	5745.0000
132	5744.9378
120	5744.9382
108	5744.9380
Max. Deviation (MHz)	0.0622
Max. Deviation (ppm)	10.8268

Temperature vs. Frequency Stability

Voltage	Measurement Frequency (MHz)
(°C)	5180.0000
-5	5179.9442
5	5179.9444
15	5179.9442
25	5179.9446
35	5179.9444
45	5179.9446
50	5179.9444
Max. Deviation (MHz)	0.0558
Max. Deviation (ppm)	10.7722

Temperature vs. Frequency Stability

Voltage	Measurement Frequency (MHz)
(°C)	5260.0000
-5	5259.9440
5	5259.9442
15	5259.9438
25	5259.9436
35	5259.9438
45	5259.9434
50	5259.9436
Max. Deviation (MHz)	0.0566
Max. Deviation (ppm)	10.7605

Temperature vs. Frequency Stability

Voltage	Measurement Frequency (MHz)
(°C)	5500.0000
-5	5499.9414
5	5499.9420
15	5499.9412
25	5499.9410
35	5499.9408
45	5499.9406
50	5499.9408
Max. Deviation (MHz)	0.0594
Max. Deviation (ppm)	10.8000

Temperature vs. Frequency Stability

Voltage	Measurement Frequency (MHz)
(°C)	5745.0000
-5	5744.9374
5	5744.9372
15	5744.9370
25	5744.9378
35	5744.9380
45	5744.9374
50	5744.9382
Max. Deviation (MHz)	0.0630
Max. Deviation (ppm)	10.9661

-----This is the last page of the report.-----