

6. -26 DB & 6DBM EMISSION BANDWIDTH

Test Requirement:	Part 15 Subpart C Section 15.407 (e)
Test Method:	KDB 789033 D02 v02r01

6.1 APPLIED PROCEDURES / LIMIT

FCC Part15.407 (e)		
Bandwidth		
Limit	Band1	N/A
	Band4	≥ 500 kHz

6.2 TEST PROCEDURE

Place the EUT on the table and set it in the transmitting mode.

Remove the antenna from the EUT and then connect a low-loss RF cable from the antenna port to the spectrum analyzer.

Set the spectrum analyzers RBW = approximately 1% of the emission bandwidth, VBW >RBW, Detector = Peak, Span>26dB bandwidth, and Sweep = auto ,Trace mode = max hold.

Measure the maximum width of the emission that is 26dB down from the maximum of the emission.

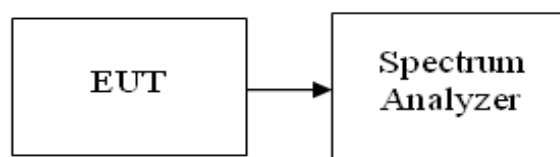
Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.

Repeat until all the rest channels were investigated.

6.3 DEVIATION FROM STANDARD

No deviation.

6.4 TEST SETUP



6.5 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 2.4 Unless otherwise a special operating condition is specified in the follows during the testing.

6.6 TEST RESULT

Temperature :	26°C	Relative Humidity :	54%
Pressure :	101kPa	Test Voltage :	AC120V
Test Mode :	TX		

BAND 1

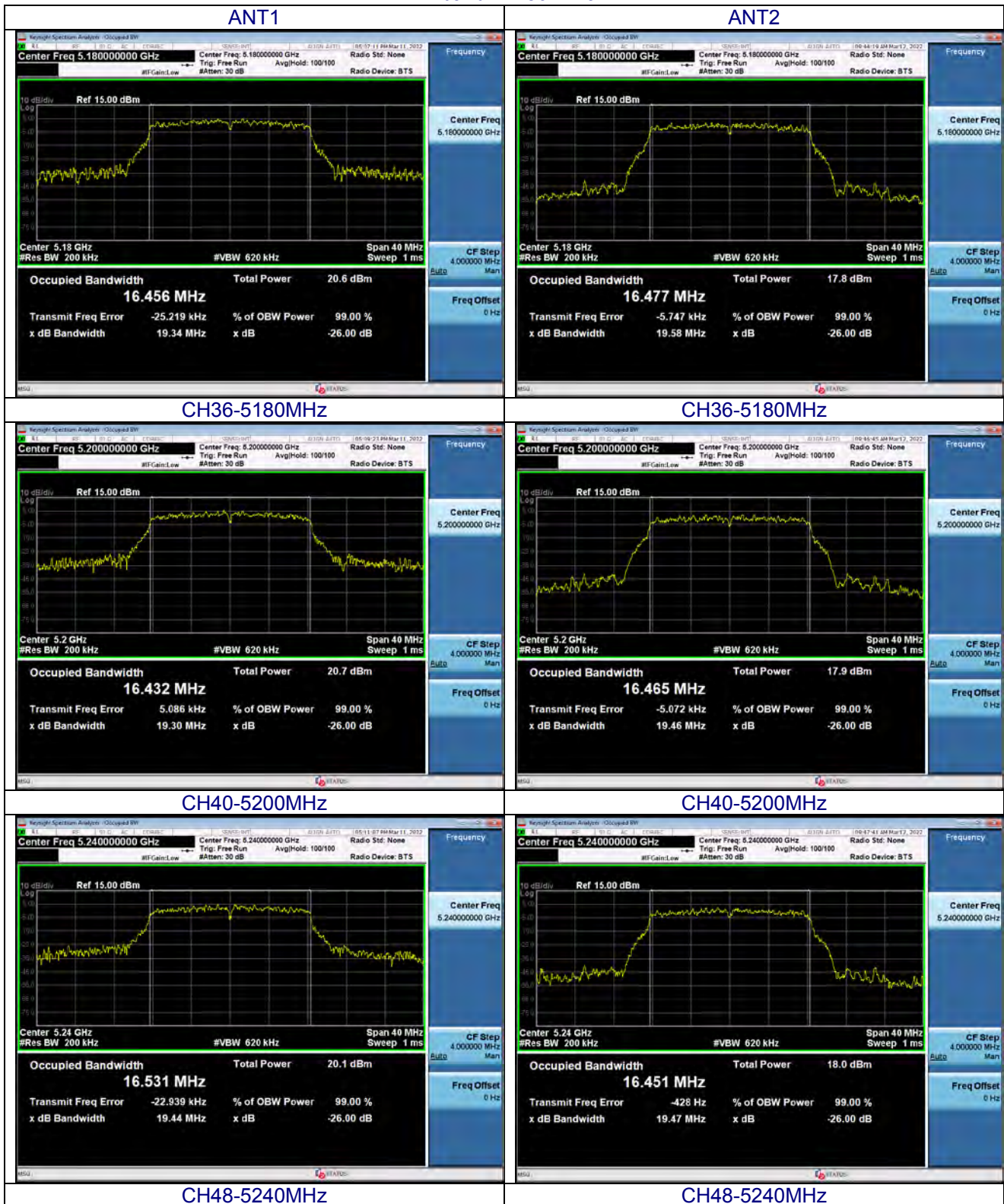
802.11 Mode	Channel No.	Frequency [MHz]	26dB Bandwidth [MHz]		99% Bandwidth [MHz]	
			ANT1	ANT2	ANT1	ANT2
a	36	5180	19.34	19.58	16.456	16.477
	40	5200	19.30	19.46	16.432	16.465
	48	5240	19.44	19.47	16.531	16.451
n (20MHz)	36	5180	19.58	19.50	16.451	16.454
	40	5200	19.48	19.28	16.453	16.446
	48	5240	19.81	19.40	16.465	16.422
n (40MHz)	38	5190	39.06	38.92	35.752	35.832
	46	5230	38.84	39.21	35.858	35.924
ac (20MHz)	36	5180	19.93	20.04	17.681	17.699
	40	5200	19.88	19.84	17.692	17.674
	48	5240	19.90	19.70	17.675	17.701
ac(40MHz)	38	5190	40.31	40.11	36.252	36.146
	46	5230	39.59	40.23	36.138	36.260
ac(80MHz)	42	5210	80.06	80.18	77.257	77.234
ax (20MHz)	36	5180	22.76	22.94	19.025	19.027
	40	5200	25.21	24.51	19.043	19.065
	48	5240	19.90	19.79	18.888	18.966
ax(40MHz)	38	5190	39.47	39.62	37.812	37.795
	46	5230	39.54	39.45	37.831	37.923
ax(80MHz)	42	5210	80.10	80.00	77.392	77.307

BAND 4

802.11 Mode	Channel No.	Frequency [MHz]	-6db Bandwidth [MHz]		Limit
			ANT1	ANT2	
a	149	5745	16.38	16.35	≥ 500 kHz
	157	5785	16.29	16.26	
	165	5825	16.37	16.42	
n (20MHz)	149	5745	16.35	16.42	
	157	5785	16.26	15.73	
	165	5825	15.58	15.73	
n (40MHz)	151	5755	33.84	35.10	
	159	5795	35.11	33.88	
ac (20MHz)	149	5745	17.67	17.62	
	157	5785	17.55	17.55	
	165	5825	17.63	17.63	
ac(40MHz)	151	5755	36.41	36.14	
	159	5795	36.13	36.29	
ac(80MHz)	155	5775	76.85	78.11	
ax (20MHz)	149	5745	18.99	18.56	
	157	5785	18.98	19.12	
	165	5825	19.05	19.07	
ax(40MHz)	151	5755	37.95	38.11	
	159	5795	38.05	38.18	
ax(80MHz)	155	5775	77.58	77.79	

Test plot as follows:

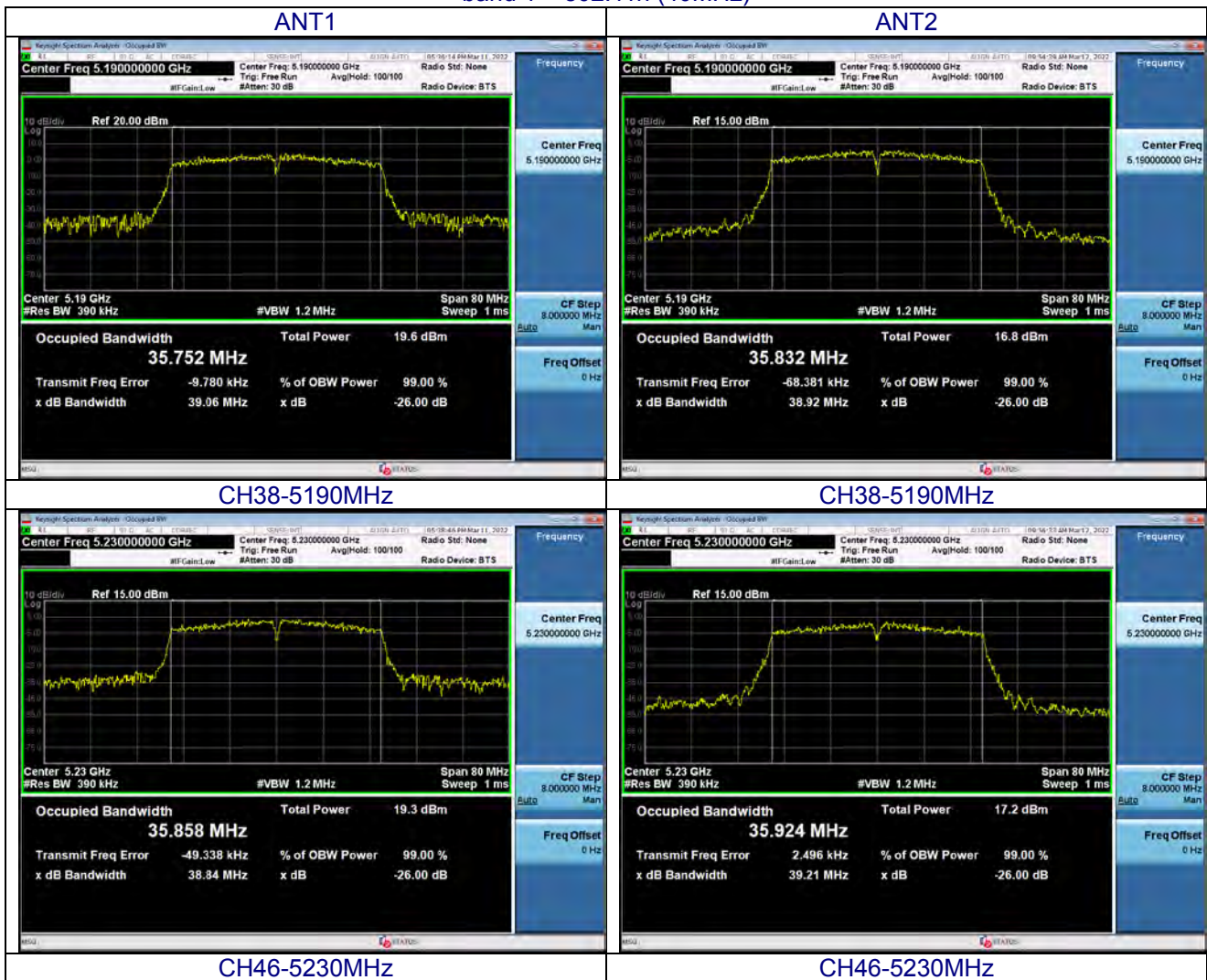
band 1 – 802.11a



band 1 – 802.11n (20MHz)

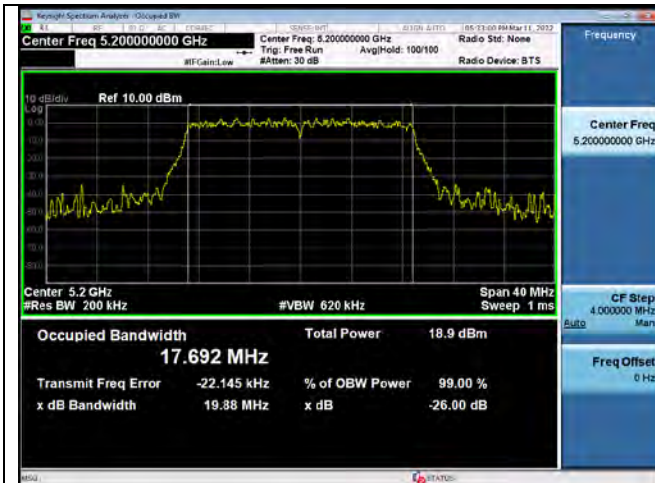


band 1 – 802.11n (40MHz)



band 1 – 802.11ac (20MHz)

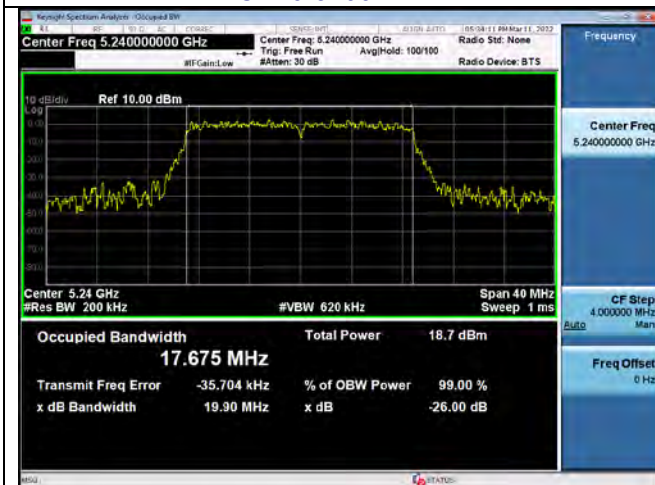




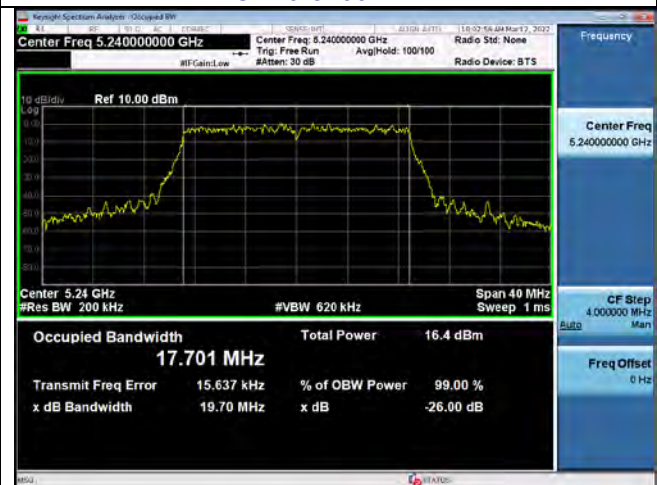
CH40-5200MHz



CH40-5200MHz

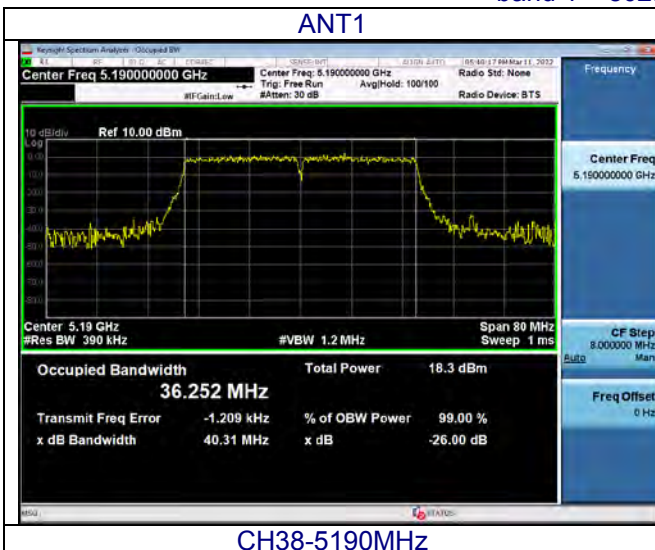


CH48-5240MHz

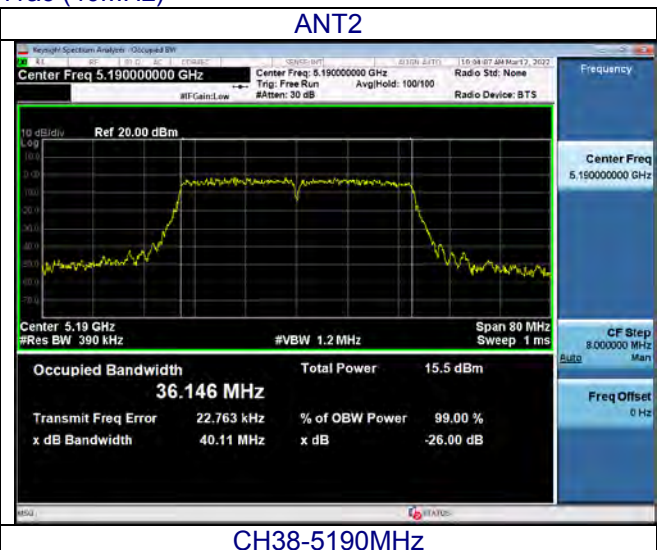


CH48-5240MHz

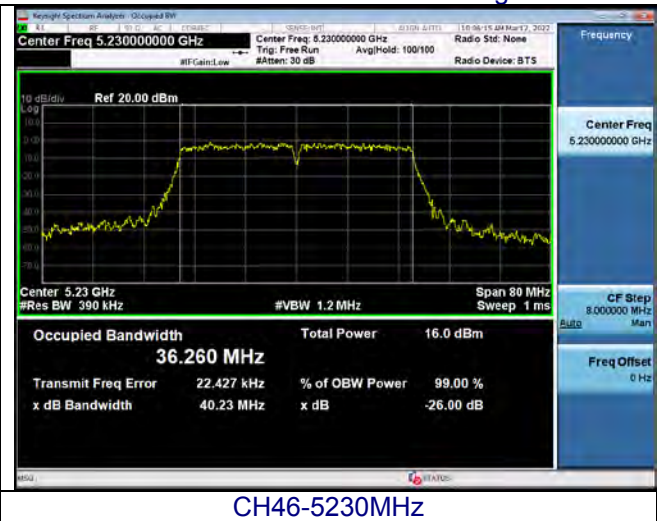
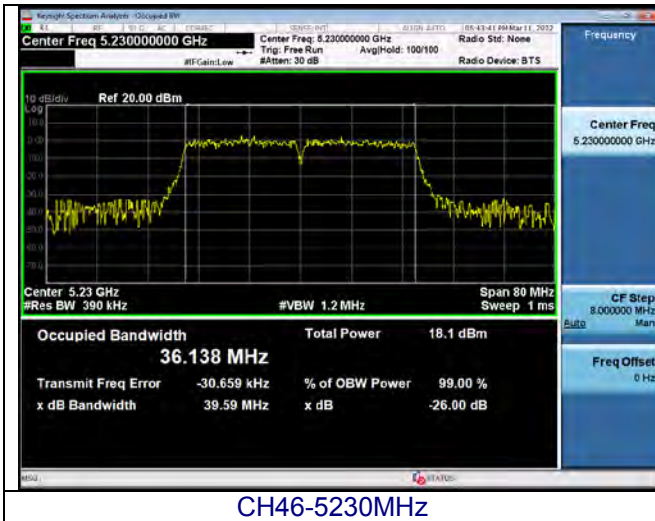
band 1 – 802.11ac (40MHz)



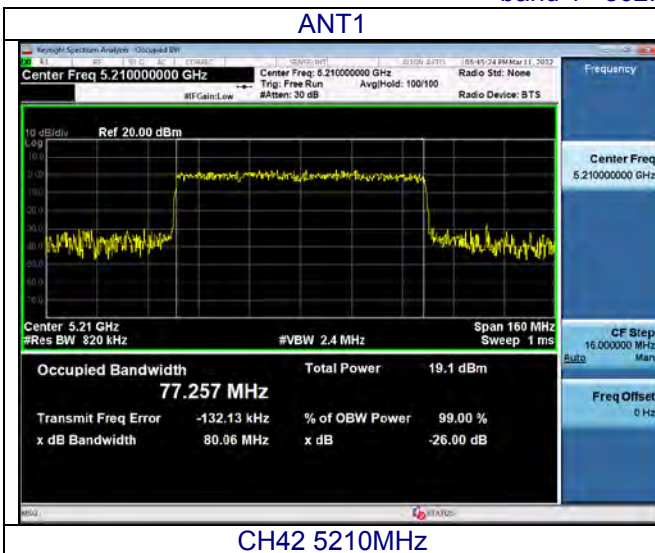
CH38-5190MHz



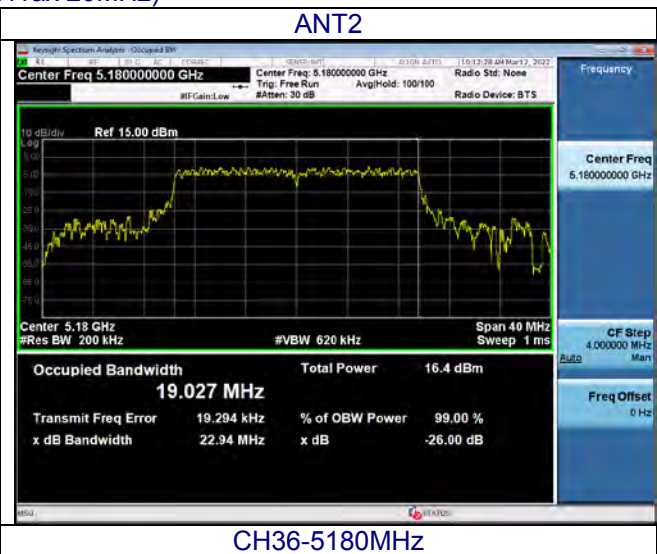
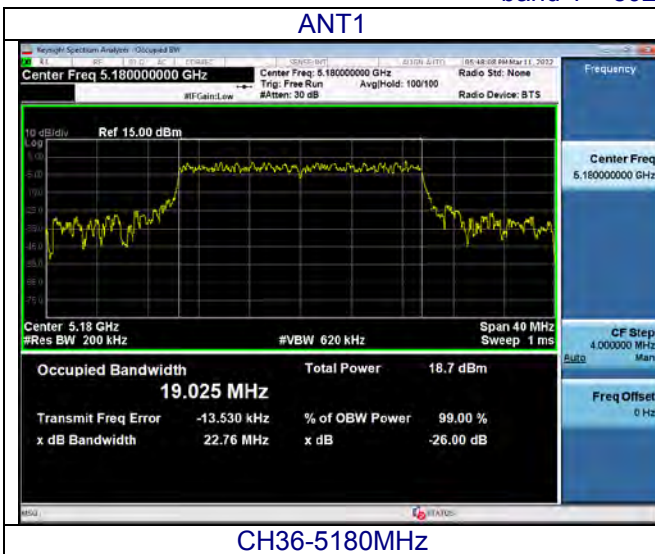
CH38-5190MHz

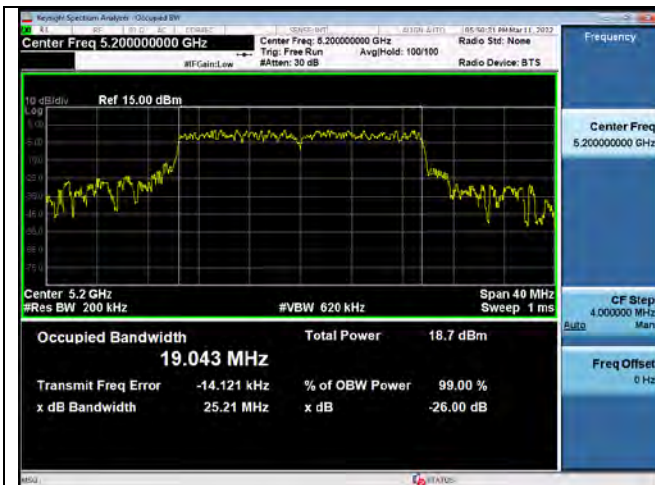


band 1 -802.11ac (80MHz)

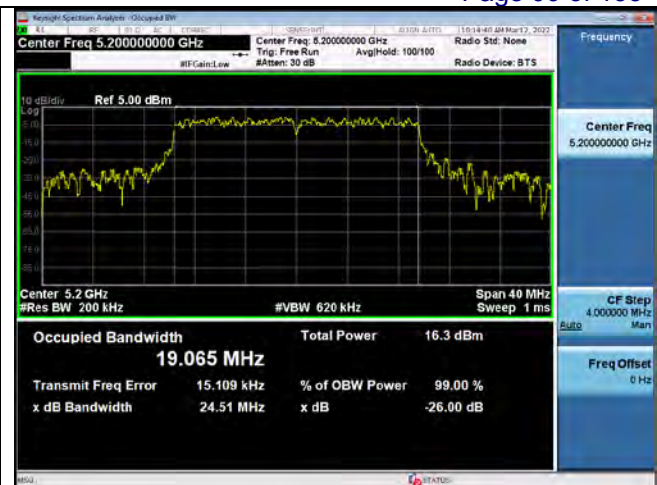


band 1 - 802.11ax 20MHz)

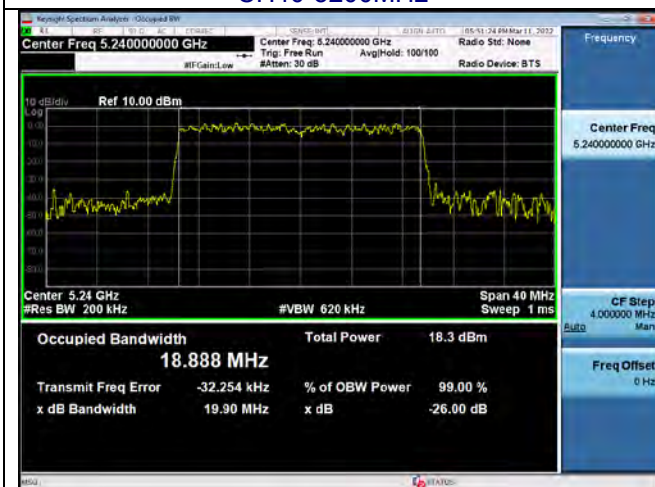




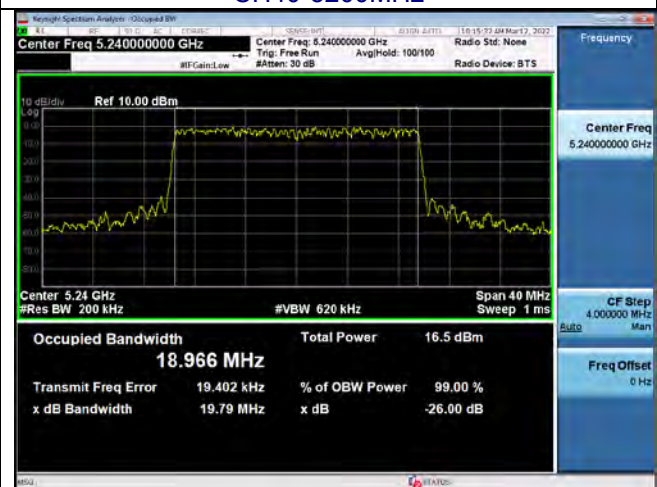
CH40-5200MHz



CH40-5200MHz

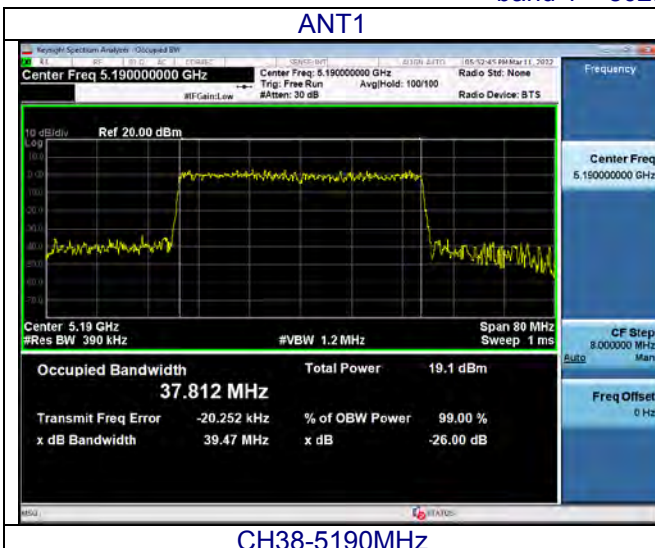


CH48-5240MHz

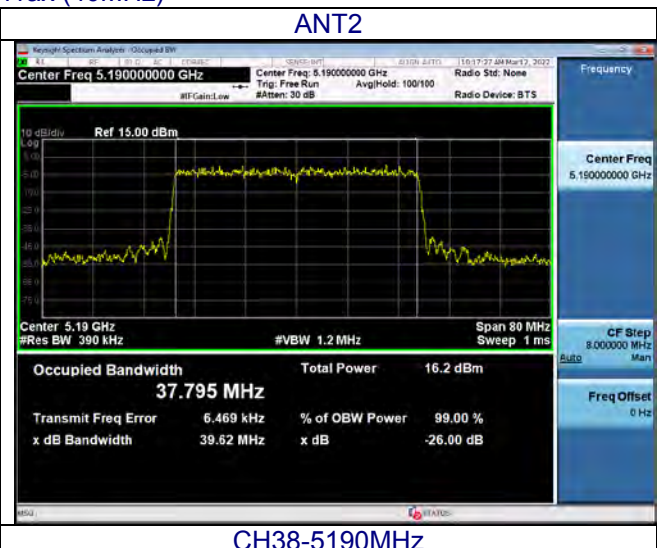


CH48-5240MHz

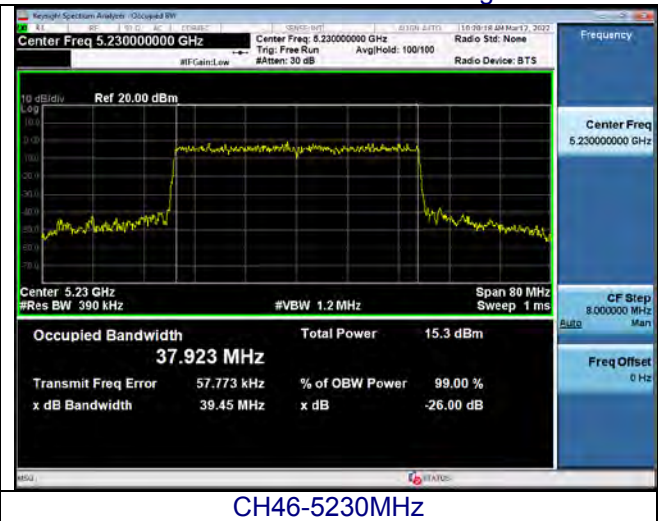
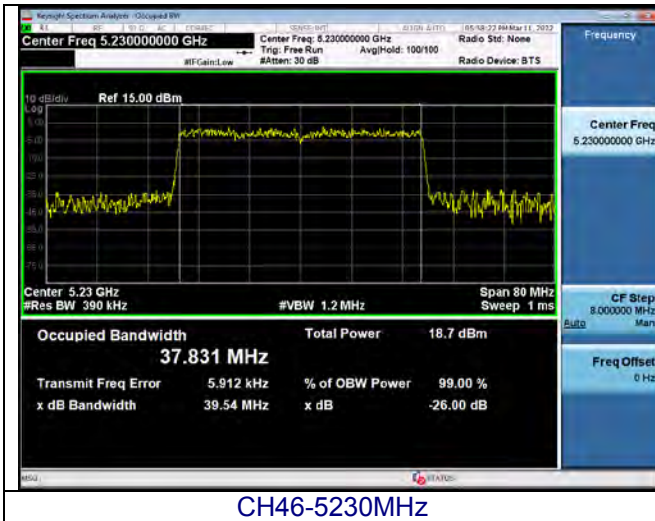
band 1 – 802.11ax (40MHz)



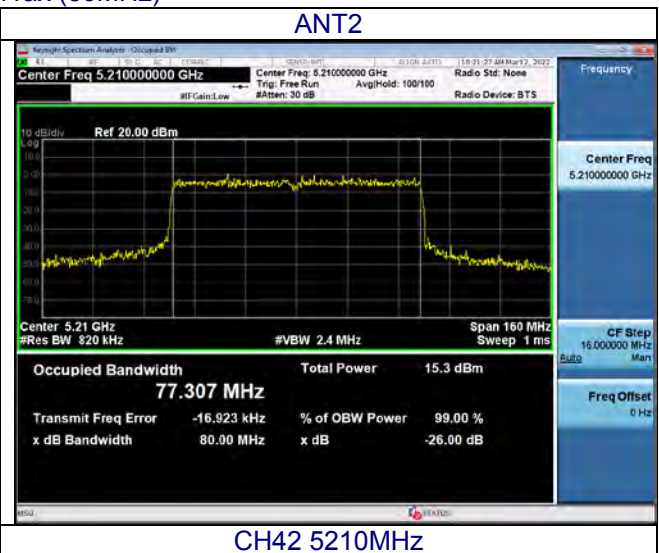
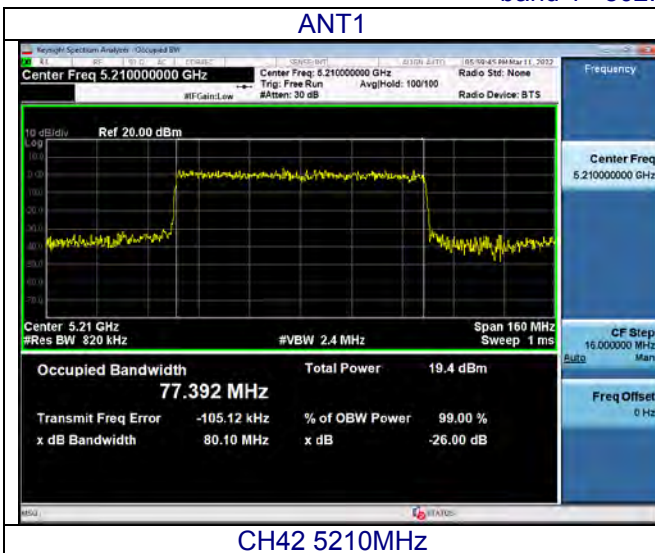
CH38-5190MHz



CH38-5190MHz

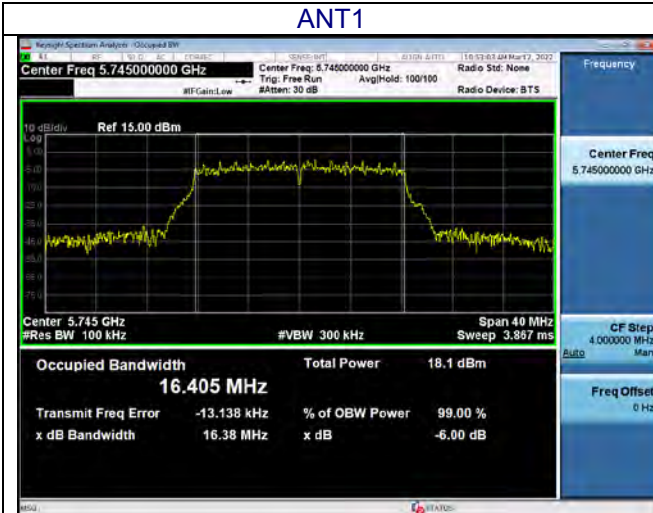


band 1 -802.11ax (80MHz)

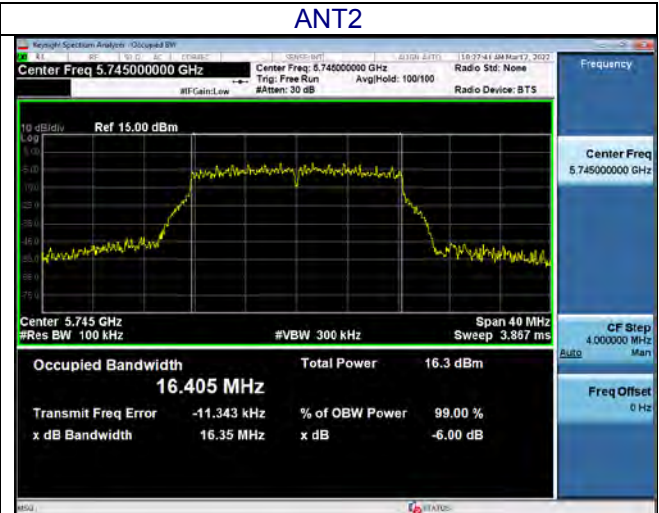


Band 4 -802.11a

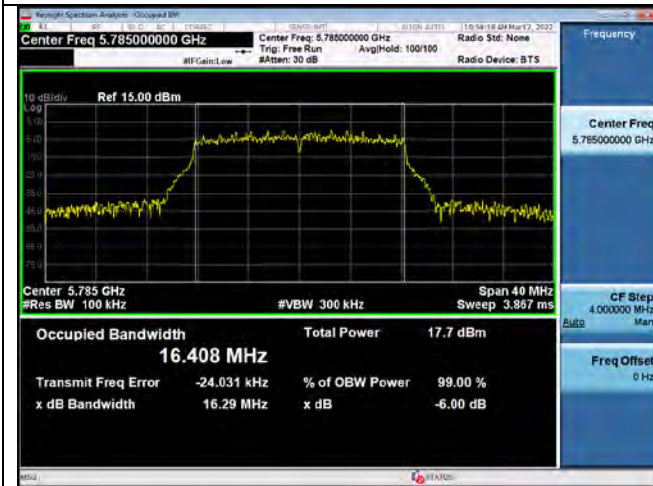
ANT1



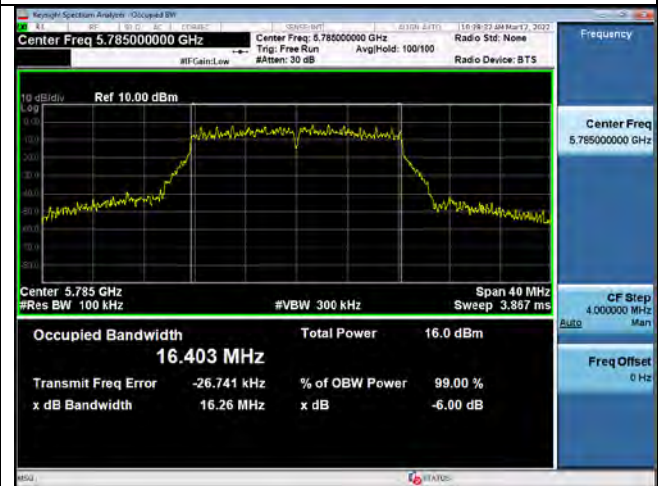
ANT2



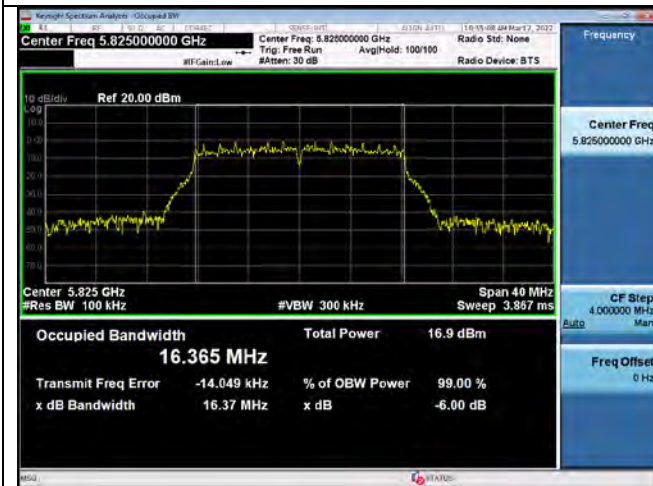
CH149 -5745MHz



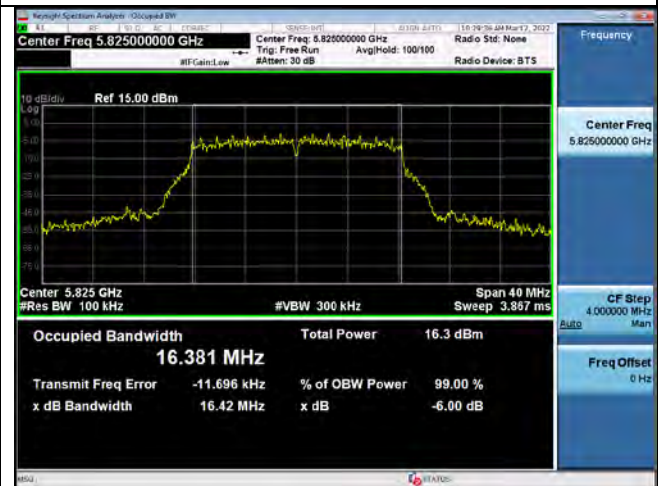
CH149 -5745MHz



CH157 -5785MHz



CH157 -5785MHz



CH165 -5825MHz

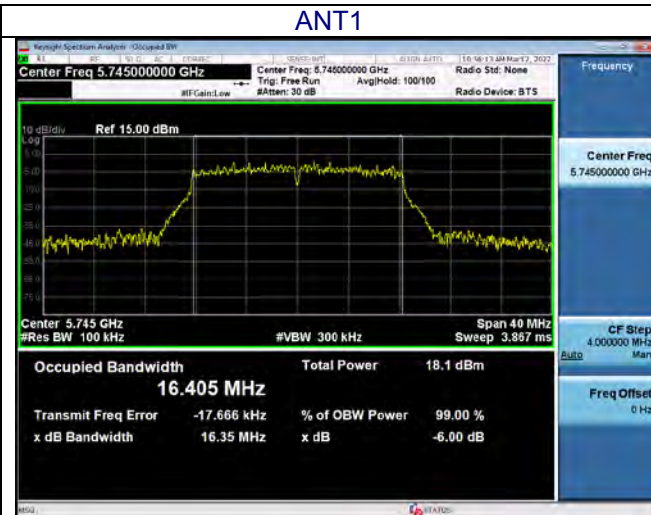


CH165 -5825MHz

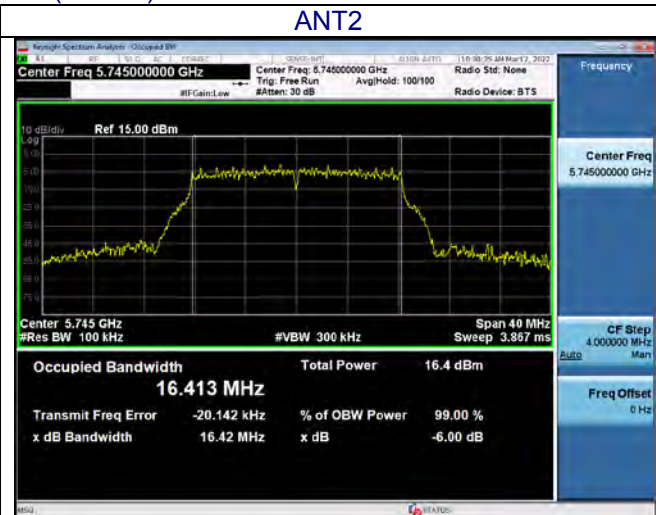


Band 4 -802.11n (20MHz)

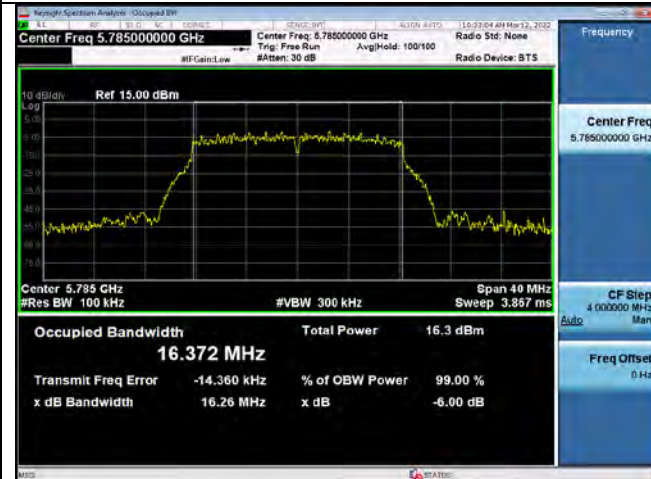
ANT1



ANT2



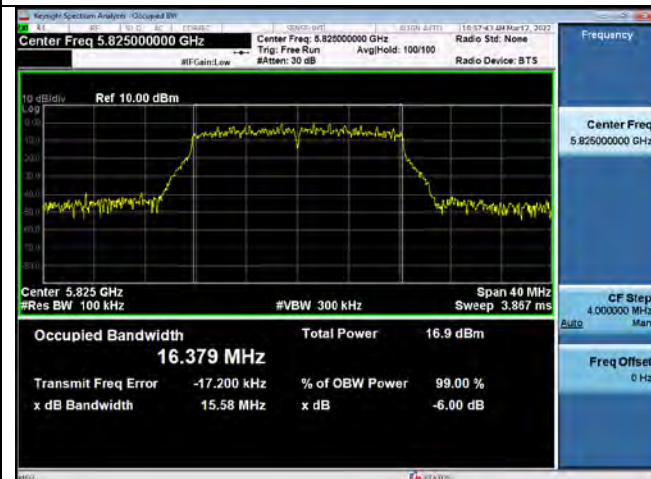
CH149 -5745MHz



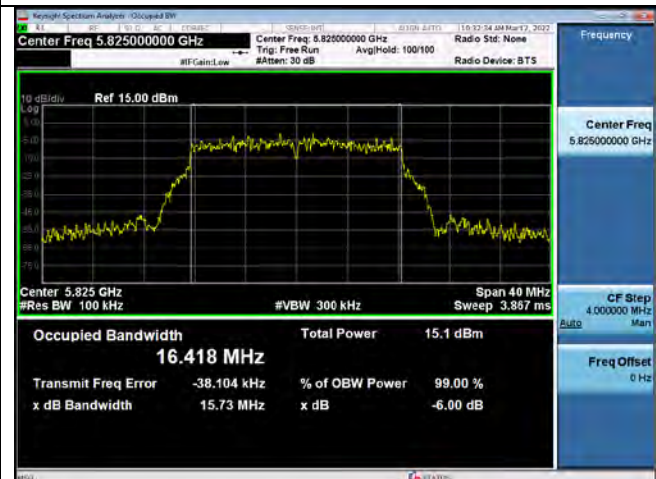
CH149 -5745MHz



CH157 -5785MHz



CH157 -5785MHz



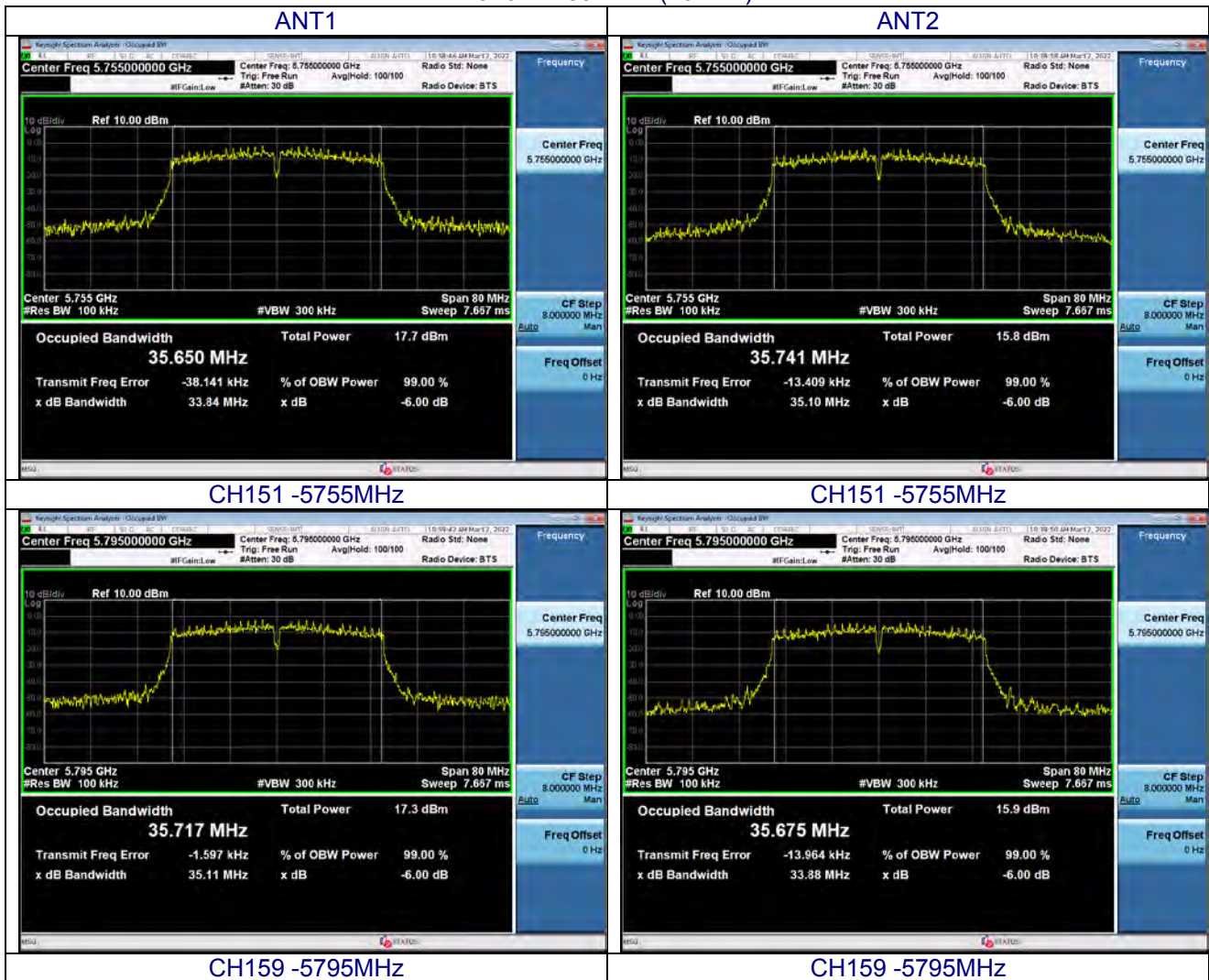
CH165 -5825MHz



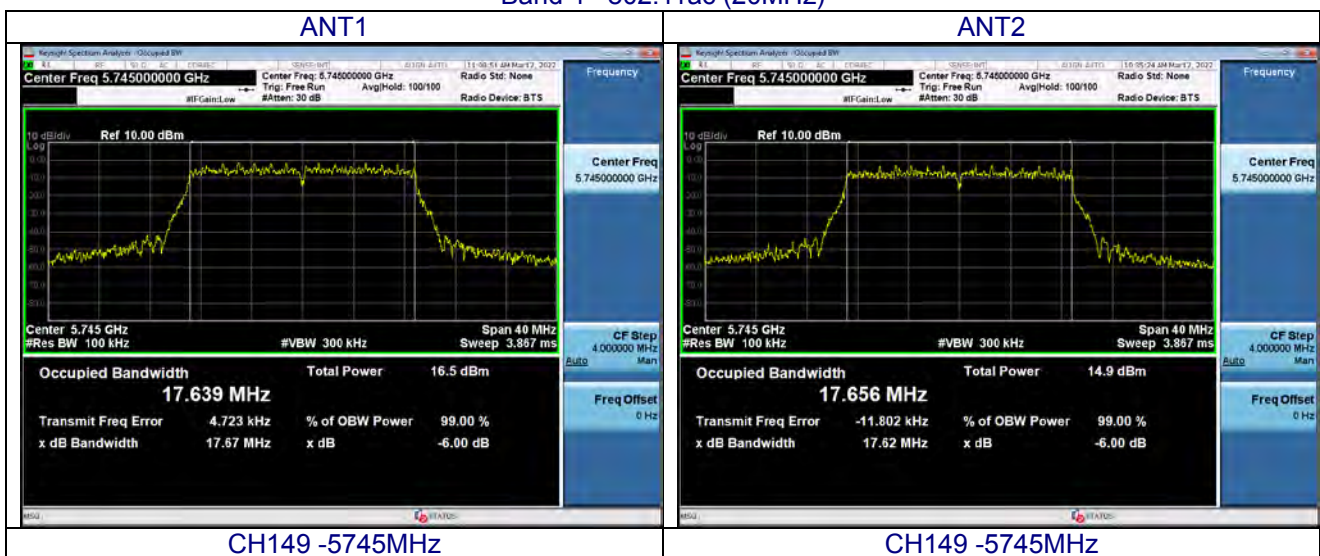
CH165 -5825MHz

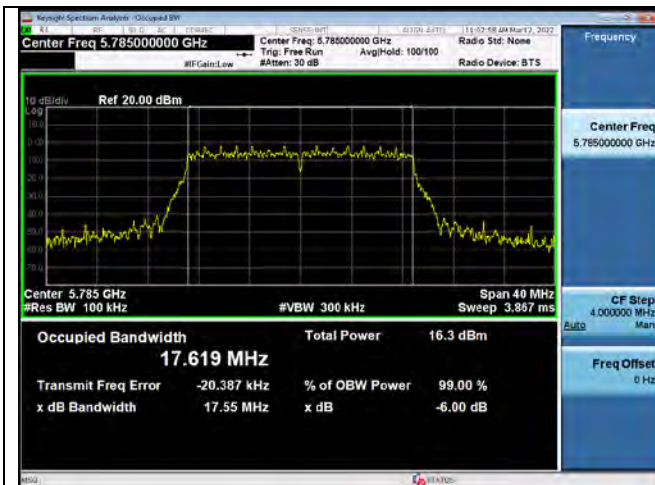


Band 4 – 802.11n (40MHz)

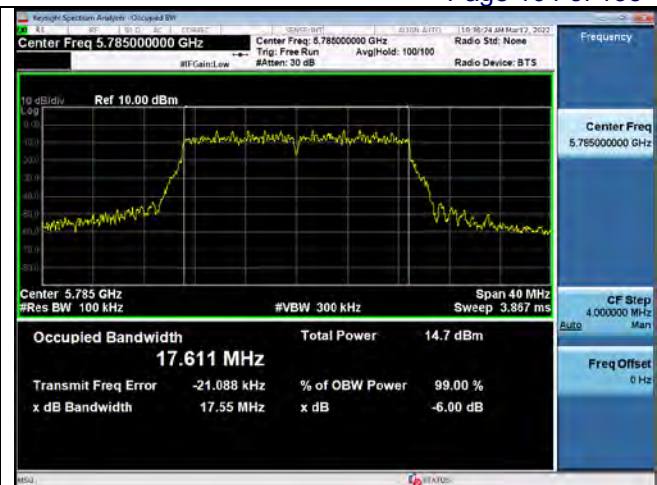


Band 4 – 802.11ac (20MHz)





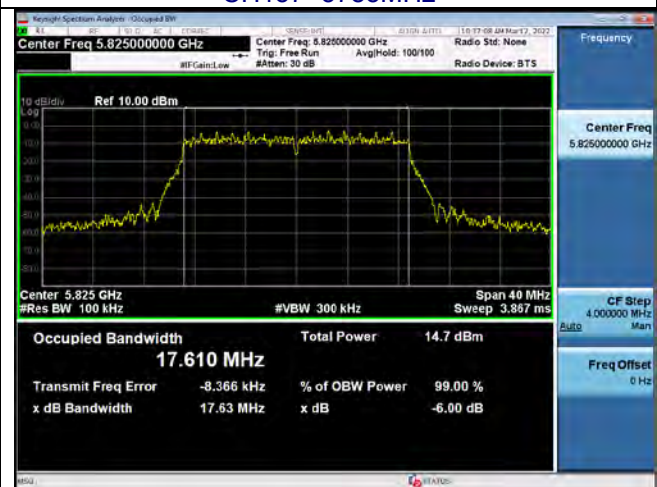
CH157 -5785MHz



CH157 -5785MHz

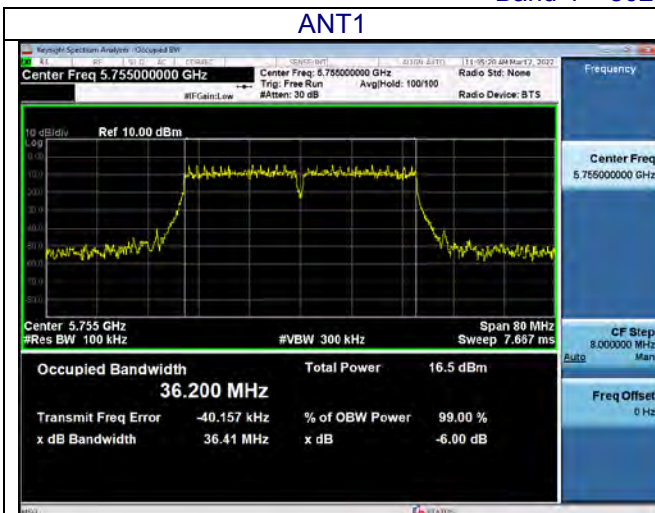


CH165 -5825MHz

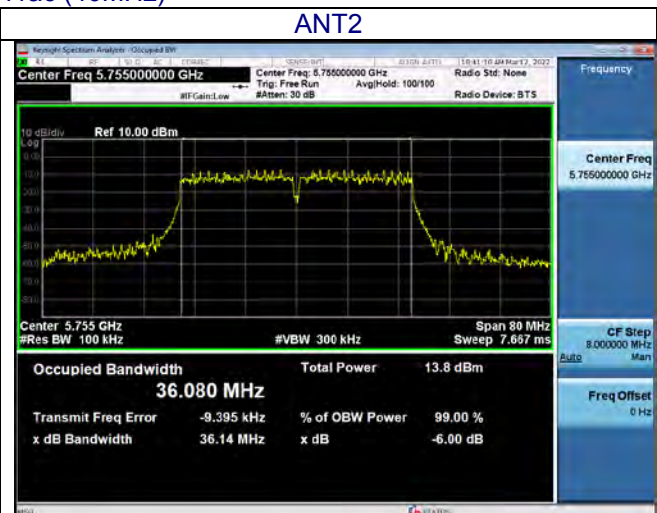


CH165 -5825MHz

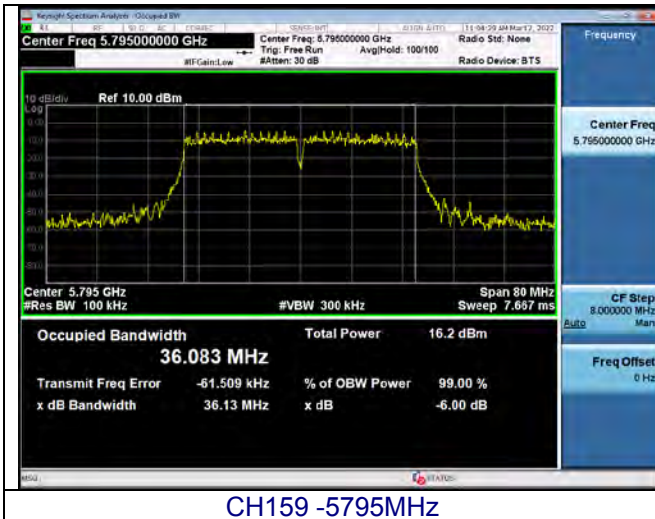
Band 4 – 802.11ac (40MHz)



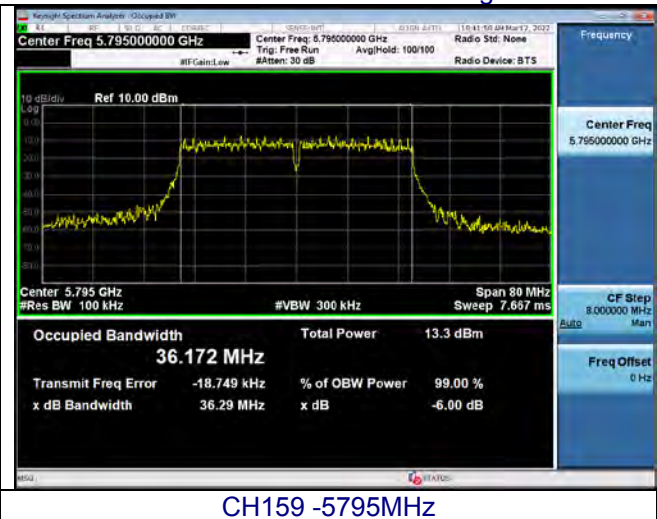
CH151 -5755MHz



CH151 -5755MHz

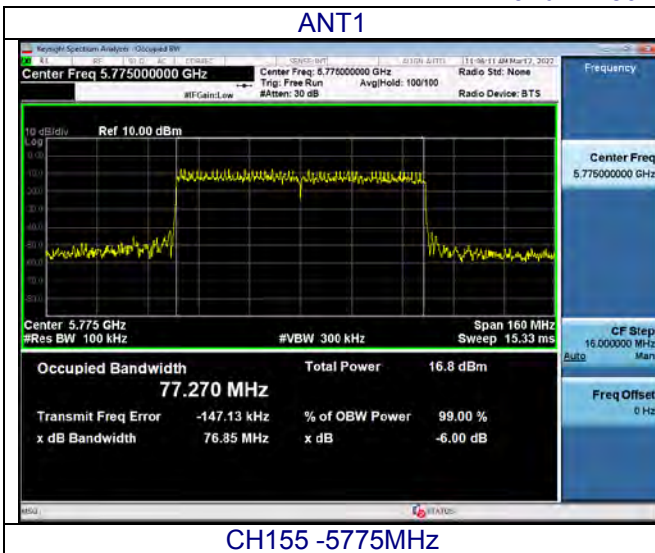


CH159 -5795MHz



CH159 -5795MHz

Band 4 – 802.11ac (80MHz)

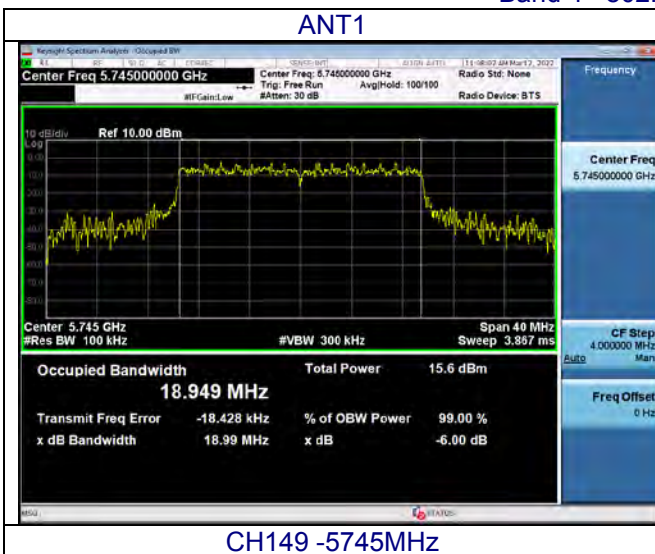


CH155 -5775MHz

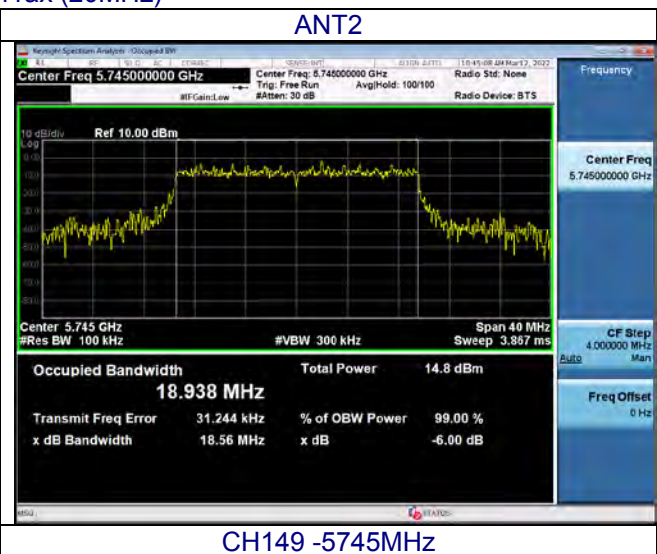


CH155 -5775MHz

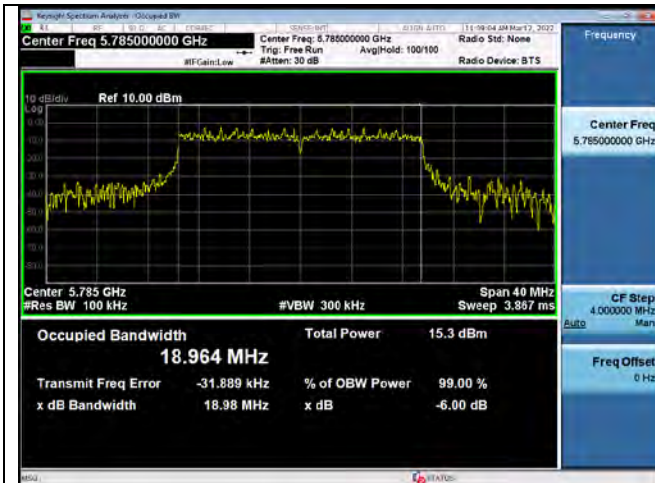
Band 4 – 802.11ax (20MHz)



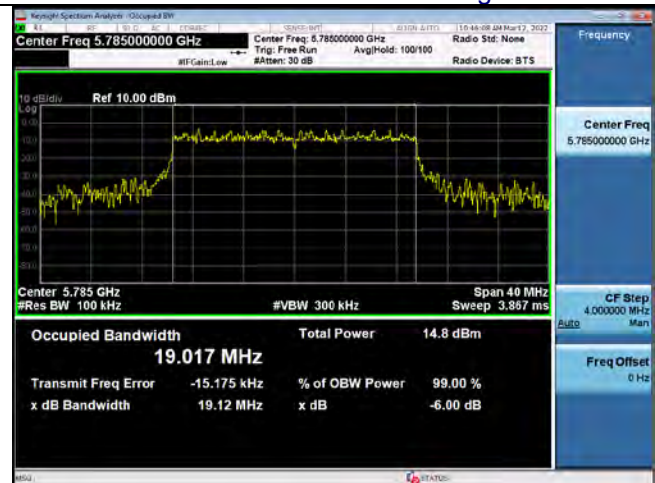
CH149 -5745MHz



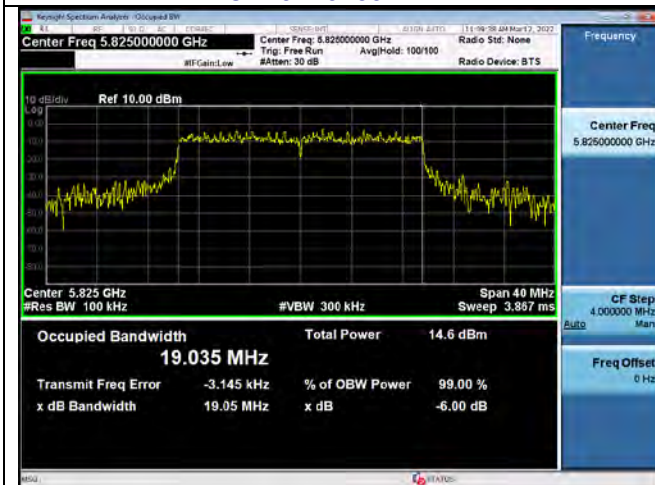
CH149 -5745MHz



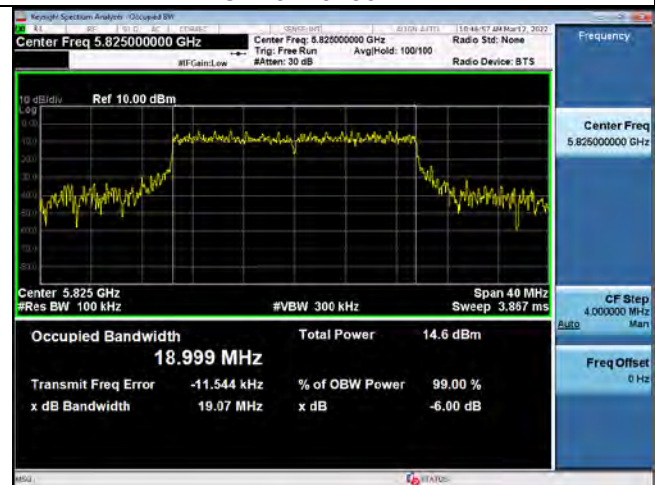
CH157 -5785MHz



CH157 -5785MHz

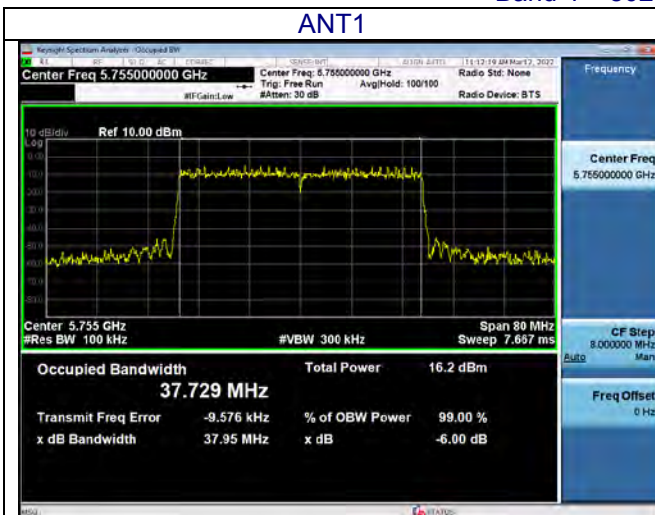


CH165 -5825MHz

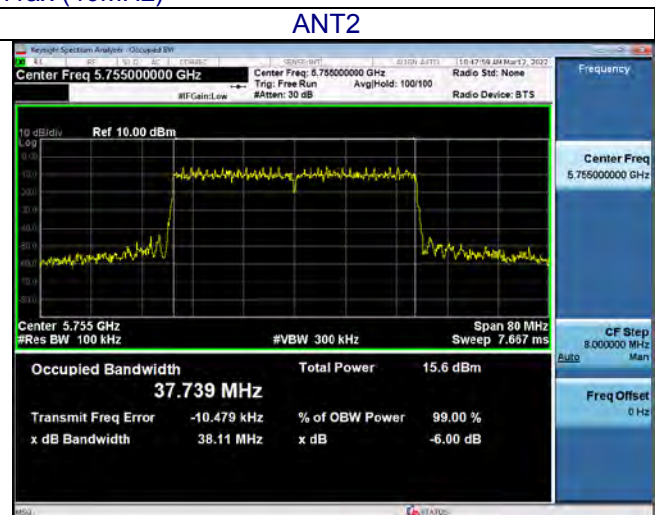


CH165 -5825MHz

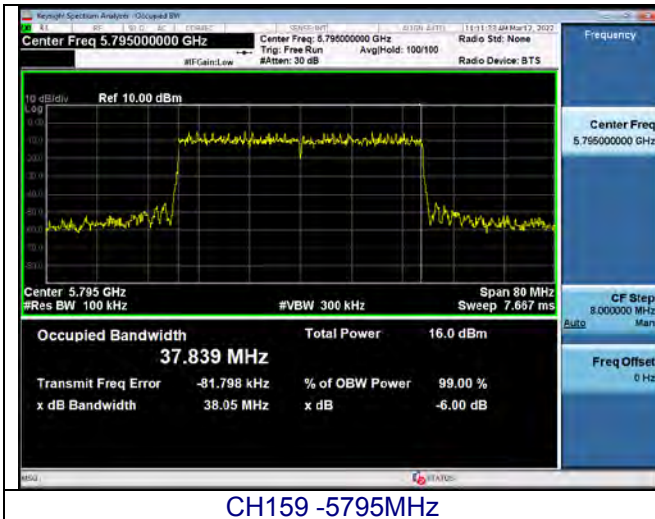
Band 4 – 802.11ax (40MHz)



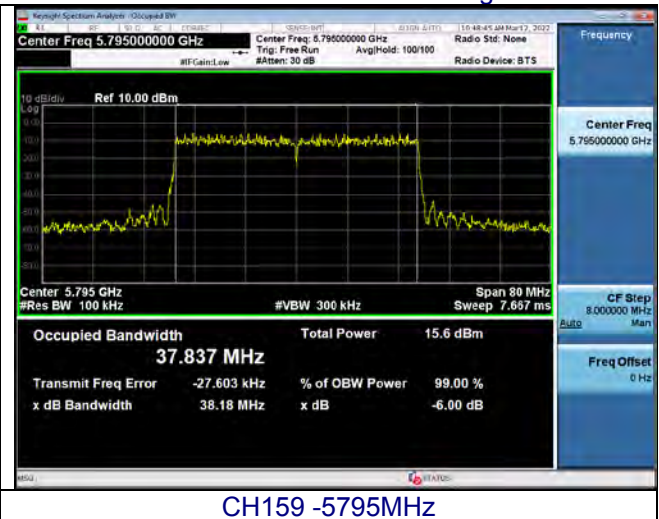
CH151 -5755MHz



CH151 -5755MHz

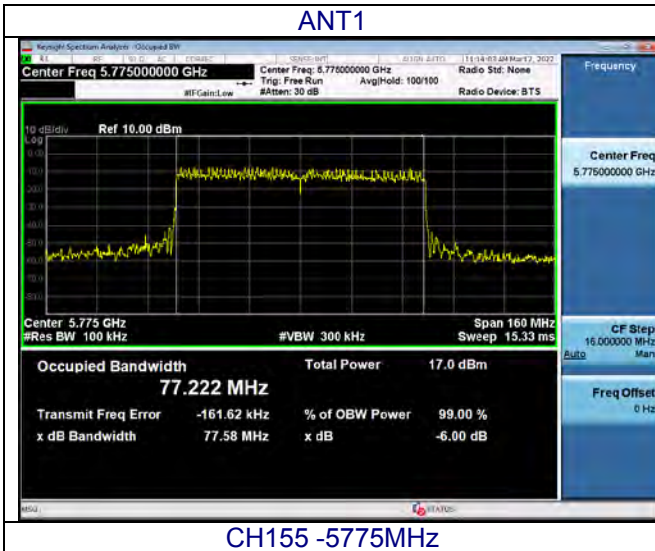


CH159 -5795MHz

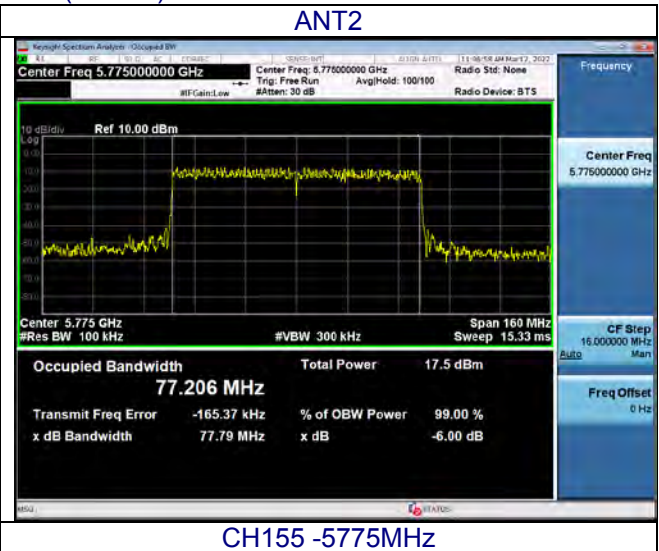


CH159 -5795MHz

Band 4 – 802.11ax (80MHz)



CH155 -5775MHz



CH155 -5775MHz

7. OUTPUT POWER TEST

Test Requirement:	15.407 (a)(1)(2)(3)
Test Method:	KDB 789033 D02 v02r01

7.1 APPLIED PROCEDURES/LIMIT

For an indoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi.

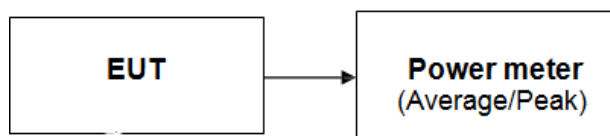
For the band 5.725-5.850 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band.

Test Item	Limit	Result
Max conducted output power	1W / 30dbm	Pass
Max conducted output power	1 W / 30dbm	Pass

7.2 DEVIATION FROM STANDARD

No deviation.

7.3 TEST SETUP



7.4 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 2.4 Unless otherwise a special operating condition is specified in the follows during the testing.

7.5 TEST RESULT

Temperature :	26°C	Relative Humidity :	54%
Pressure :	101kPa	Test Voltage :	AC120V

BAND 1

802.11 Mode	Channel No.	Frequency [MHz]	Conducted Power [dBm]		Limit [dBm]
			ANT1	ANT2	
a	36	5180	8.17	7.15	30.00
	40	5200	8.86	7.37	30.00
	48	5240	8.71	7.26	30.00
n(20MHz)	36	5180	8.61	7.29	30.00
	40	5200	8.35	7.47	30.00
	48	5240	8.19	7.92	30.00
n(40MHz)	38	5190	7.20	6.80	30.00
	46	5230	7.33	6.28	30.00
ac(20MHz)	36	5180	7.38	6.26	30.00
	40	5200	7.65	6.55	30.00
	48	5240	7.68	6.15	30.00
ac(40MHz)	38	5190	5.18	4.27	30.00
	46	5230	5.09	4.69	30.00
ac(80MHz)	42	5210	4.91	3.27	30.00
ax(20MHz)	36	5180	5.41	4.19	30.00
	40	5200	5.59	4.09	30.00
	48	5240	5.01	4.35	30.00
ax(40MHz)	38	5190	3.40	3.15	30.00
	46	5230	4.09	3.95	30.00
ax(80MHz)	42	5210	3.41	2.46	30.00

MIMO/CDD Maximum Conducted Output Power Measurements

802.11 Mode	Channel No.	Freq. [MHz]	Conducted Power [dBm]		MIMO [dBm]	Limit [dBm]
			ANT1	ANT2		
a	36	5180	8.17	7.15	/	/
	40	5200	8.86	7.37	/	/
	48	5240	8.71	7.26	/	/
n(20MHz)	36	5180	8.61	7.29	11.01	30.00
	40	5200	8.35	7.47	10.94	30.00
	48	5240	8.19	7.92	11.07	30.00
n(40MHz)	38	5190	7.20	6.80	10.01	30.00
	46	5230	7.33	6.28	9.85	30.00
ac(20MHz)	36	5180	7.38	6.26	9.87	30.00
	40	5200	7.65	6.55	10.15	30.00
	48	5240	7.68	6.15	9.99	30.00
ac(40MHz)	38	5190	5.18	4.27	7.76	30.00
	46	5230	5.09	4.69	7.90	30.00
ac(80MHz)	42	5210	4.91	3.27	7.18	30.00
ax(20MHz)	36	5180	5.41	4.19	7.85	30.00
	40	5200	5.59	4.09	7.91	30.00
	48	5240	5.01	4.35	7.70	30.00
ax(40MHz)	38	5190	3.40	3.15	6.29	30.00
	46	5230	4.09	3.95	7.03	30.00
ax(80MHz)	42	5210	3.41	2.46	5.97	30.00

BAND 4

802.11 Mode	Channel No.	Frequency [MHz]	Conducted Power [dBm]		Limit [dBm]
			ANT1	ANT2	
a	149	5745	6.78	5.49	30.00
	157	5785	6.69	5.50	30.00
	165	5825	5.54	5.11	30.00
n (20MHz)	149	5745	6.63	5.84	30.00
	157	5785	6.11	5.33	30.00
	165	5825	5.91	5.31	30.00
n (40MHz)	151	5755	4.33	3.98	30.00
	159	5795	4.27	3.74	30.00
ac (20MHz)	149	5745	4.93	3.42	30.00
	157	5785	4.35	3.97	30.00
	165	5825	3.70	2.71	30.00
ac(40MHz)	151	5755	2.98	1.49	30.00
	159	5795	3.30	1.16	30.00
ac(80MHz)	155	5775	1.90	1.21	30.00
ax(20MHz)	149	5745	3.04	2.23	30.00
	157	5785	2.60	1.84	30.00
	165	5825	1.83	1.46	30.00
ax(40MHz)	151	5755	2.42	1.61	30.00
	159	5795	2.22	1.45	30.00
ax(80MHz)	155	5775	2.03	1.24	30.00

MIMO/CDD Maximum Conducted Output Power Measurements

802.11 Mode	Channel No.	Freq. [MHz]	Conducted Power [dBm]		MIMO [dBm]	Limit [dBm]
			ANT1	ANT2		
a	149	5745	6.78	5.49	/	/
	157	5785	6.69	5.50	/	/
	165	5825	5.54	5.11	/	/
n(20MHz)	149	5745	6.63	5.84	9.26	30.00
	157	5785	6.11	5.33	8.75	30.00
	165	5825	5.91	5.31	8.63	30.00
n(40MHz)	151	5755	4.33	3.98	7.17	30.00
	159	5795	4.27	3.74	7.02	30.00
ac(20MHz)	149	5745	4.93	3.42	7.25	30.00
	157	5785	4.35	3.97	7.17	30.00
	165	5825	3.70	2.71	6.24	30.00
ac(40MHz)	151	5755	2.98	1.49	5.31	30.00
	159	5795	3.30	1.16	5.37	30.00
ac(80MHz)	155	5775	1.90	1.21	4.58	30.00
ax(20MHz)	149	5745	3.04	2.23	5.66	30.00
	157	5785	2.60	1.84	5.25	30.00
	165	5825	1.83	1.46	4.66	30.00
ax(40MHz)	151	5755	2.42	1.61	5.04	30.00
	159	5795	2.22	1.45	4.86	30.00
ax(80MHz)	155	5775	2.03	1.24	4.66	30.00

8. OUT OF BAND EDGE EMISSION

Test Requirement:	15.407 (b)
Test Method:	KDB 789033 D02 v02r01

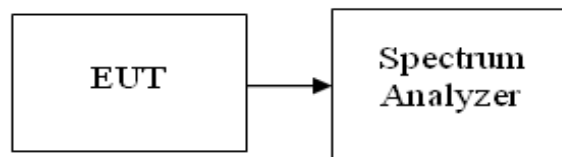
8.1 TEST PROCEDURE

1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
2. Position the EUT without connection to measurement instrument. Turn on the EUT and connect its antenna terminal to measurement instrument via a low loss cable. Then set it to any one measured frequency within its operating range, and make sure the instrument is operated in its linear range.
3. Set RBW of spectrum analyzer to 1 MHz with a convenient frequency span.
4. Measure the highest amplitude appearing on spectral display and set it as a reference level. Plot the graph with marking the highest point and edge frequency.
5. Repeat above procedures until all measured frequencies were complete.

8.2 DEVIATION FROM STANDARD

No deviation.

8.3 TEST SETUP



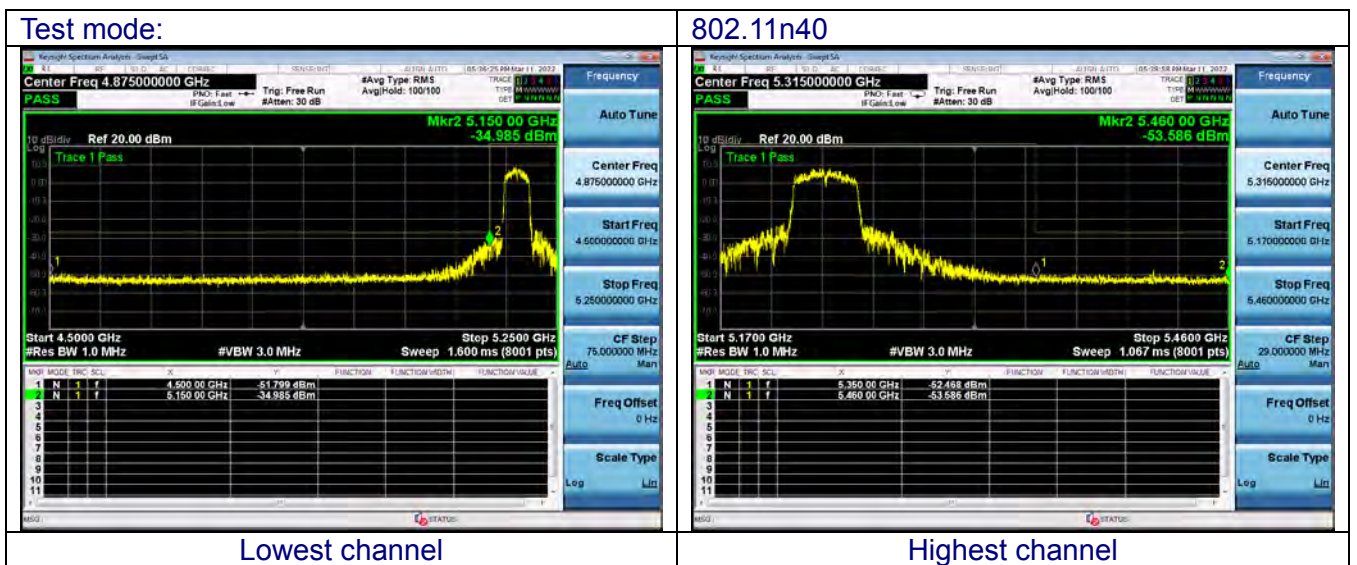
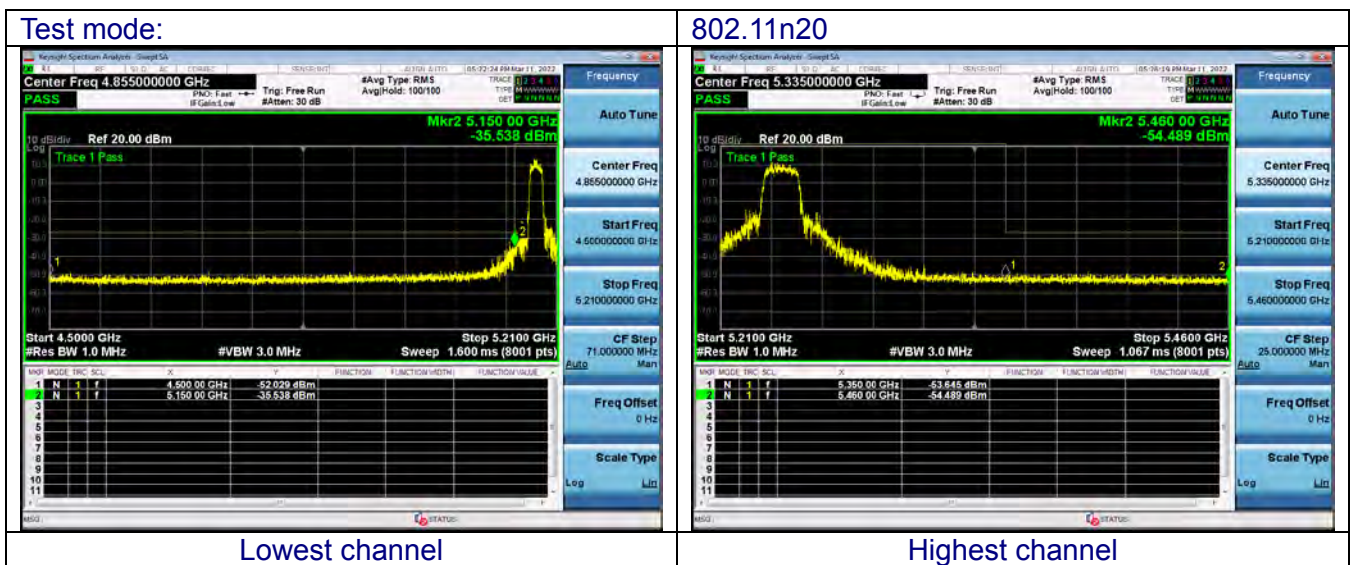
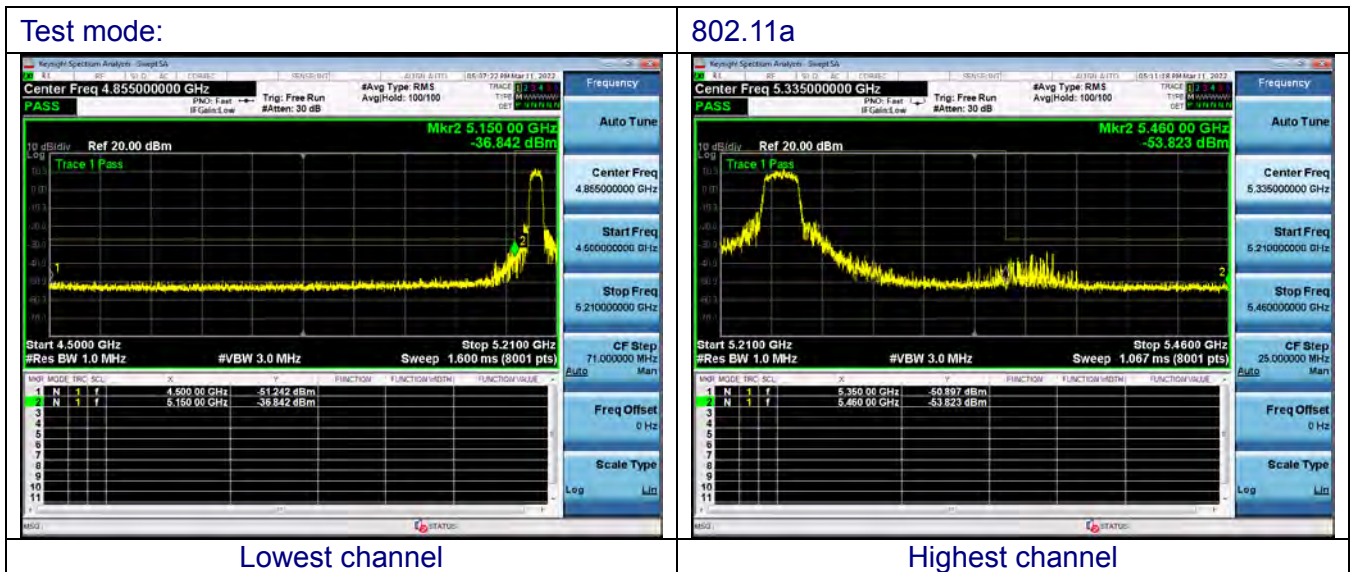
8.4 EUT OPERATION CONDITIONS

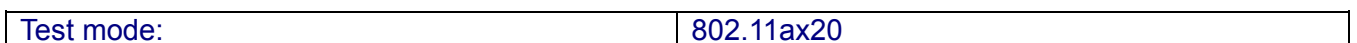
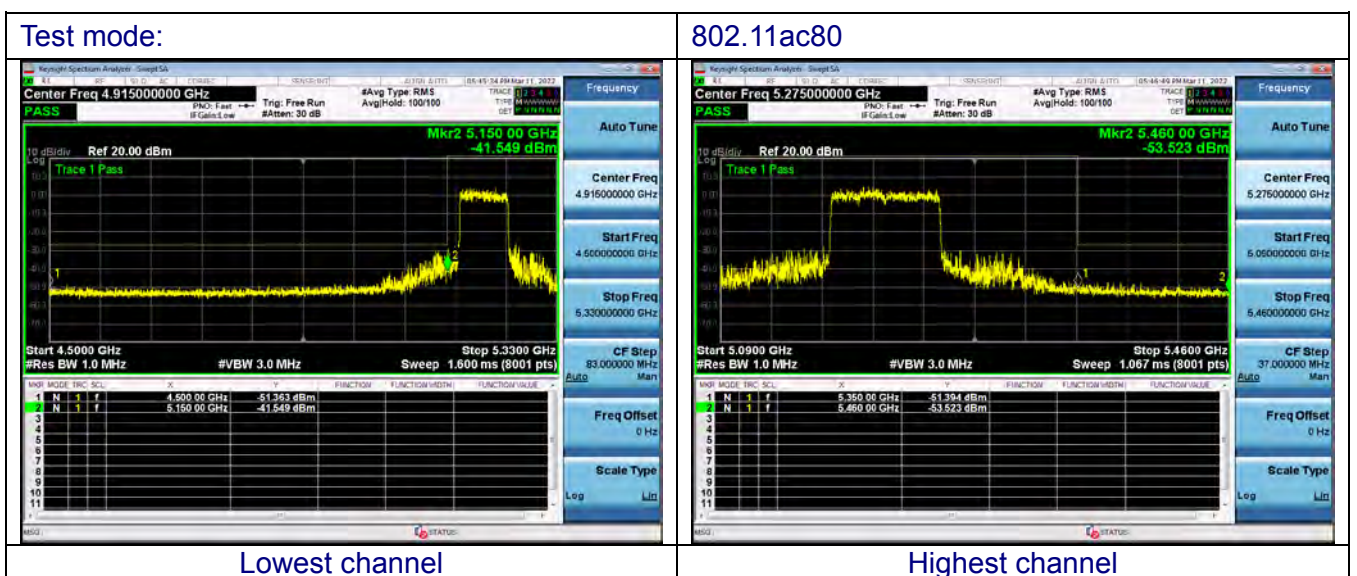
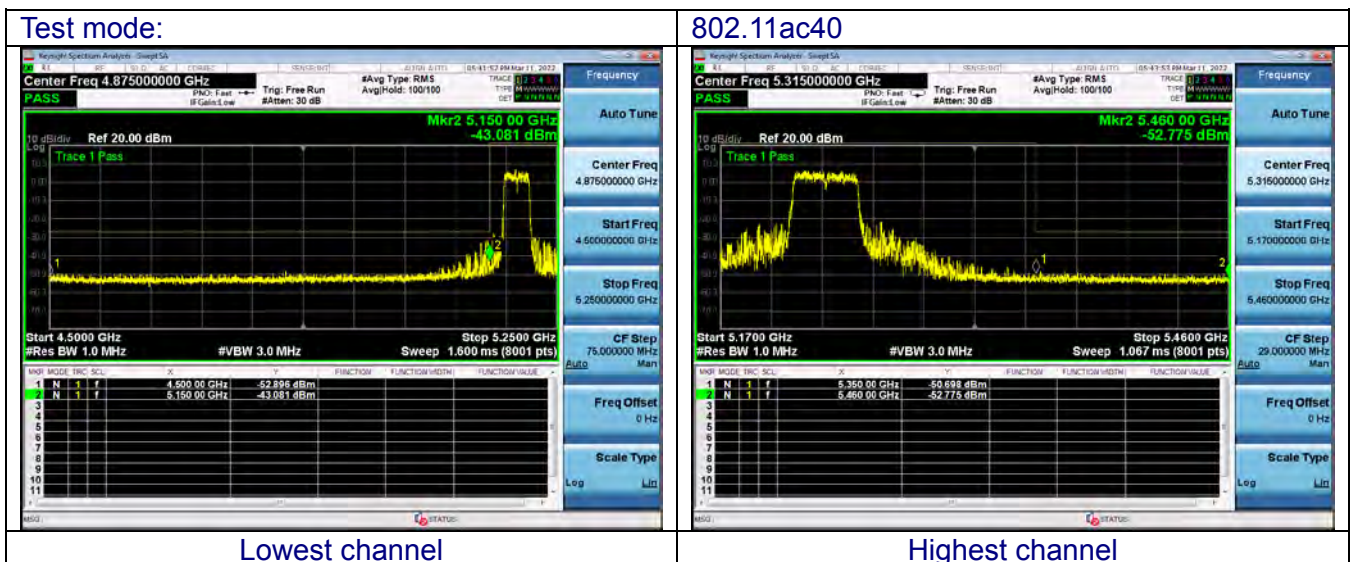
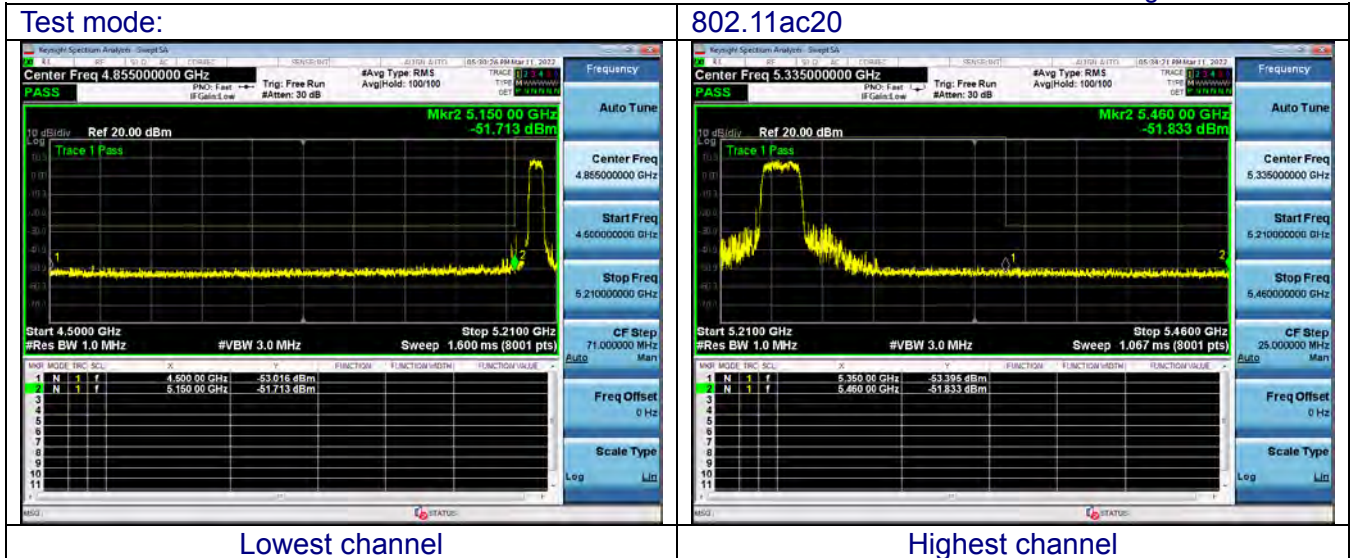
The EUT tested system was configured as the statements of 2.4 Unless otherwise a special operating condition is specified in the follows during the testing.

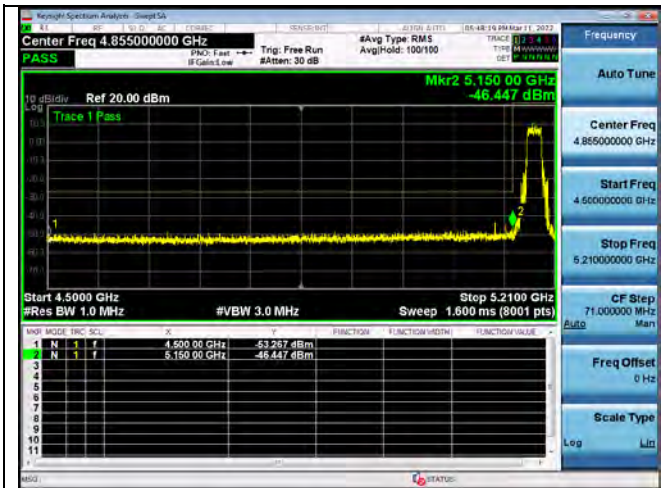
8.5 TEST RESULTS

Test plot as follows:

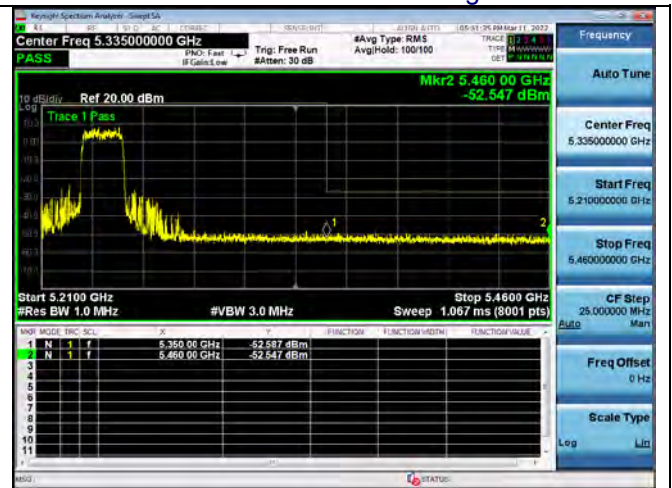
ANT1-band1





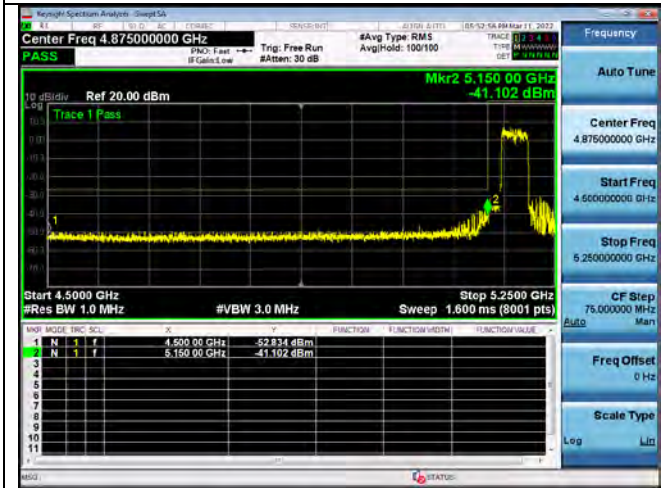


Lowest channel



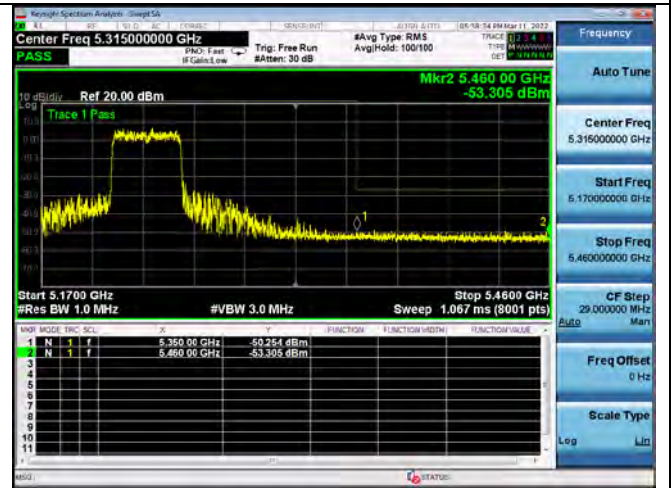
Highest channel

Test mode:



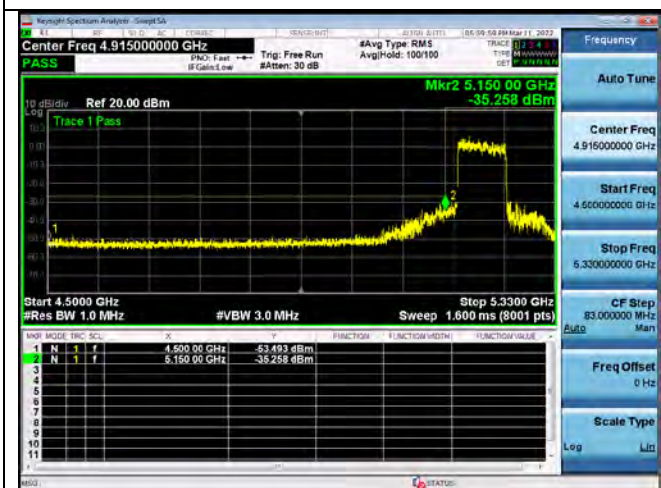
Lowest channel

802.11ax40



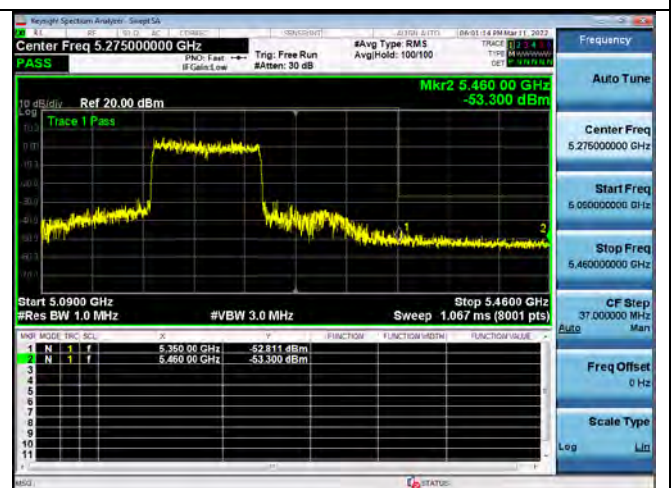
Highest channel

Test mode:



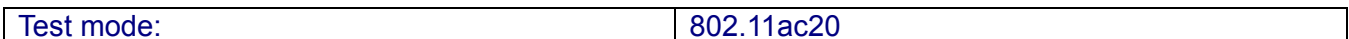
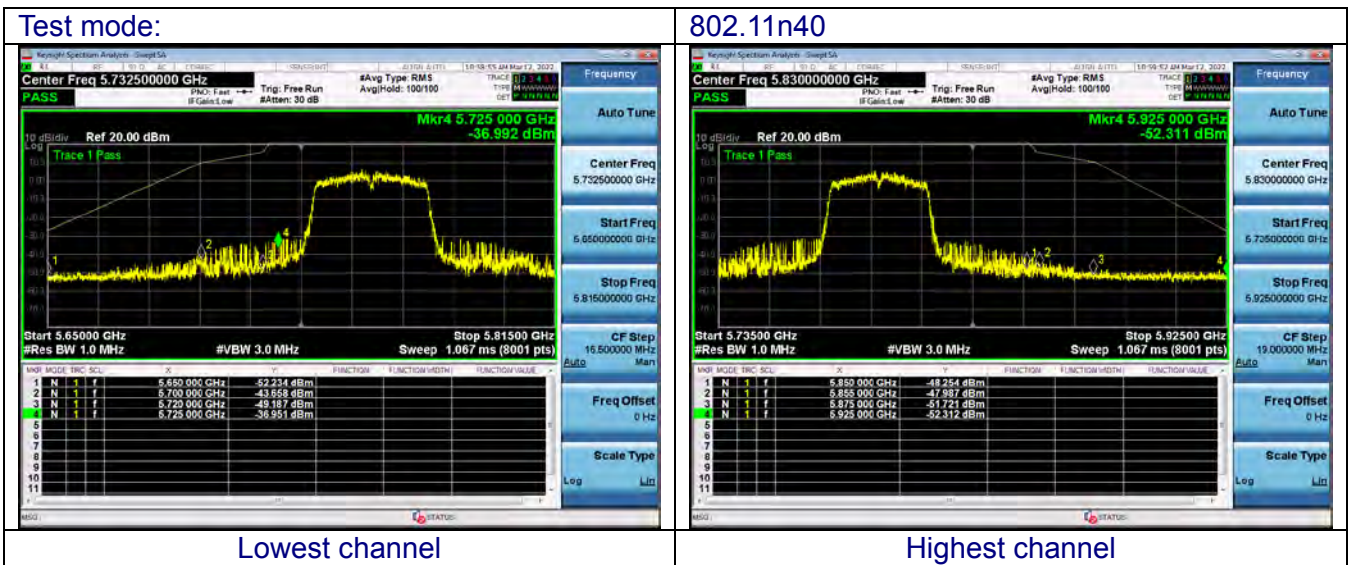
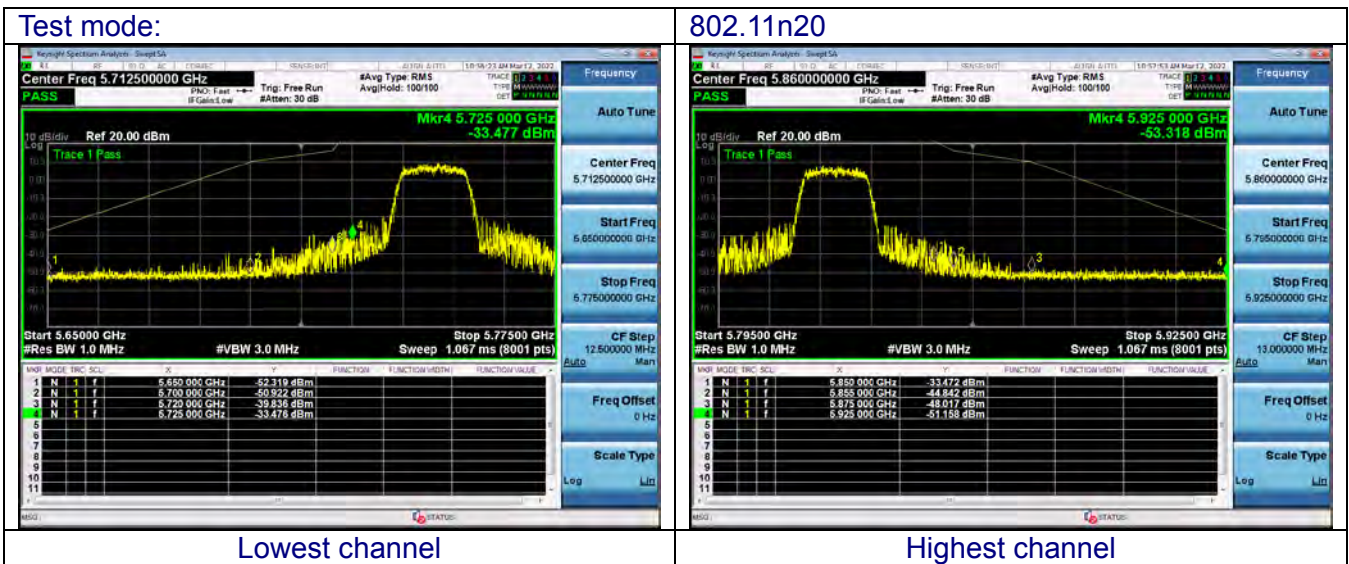
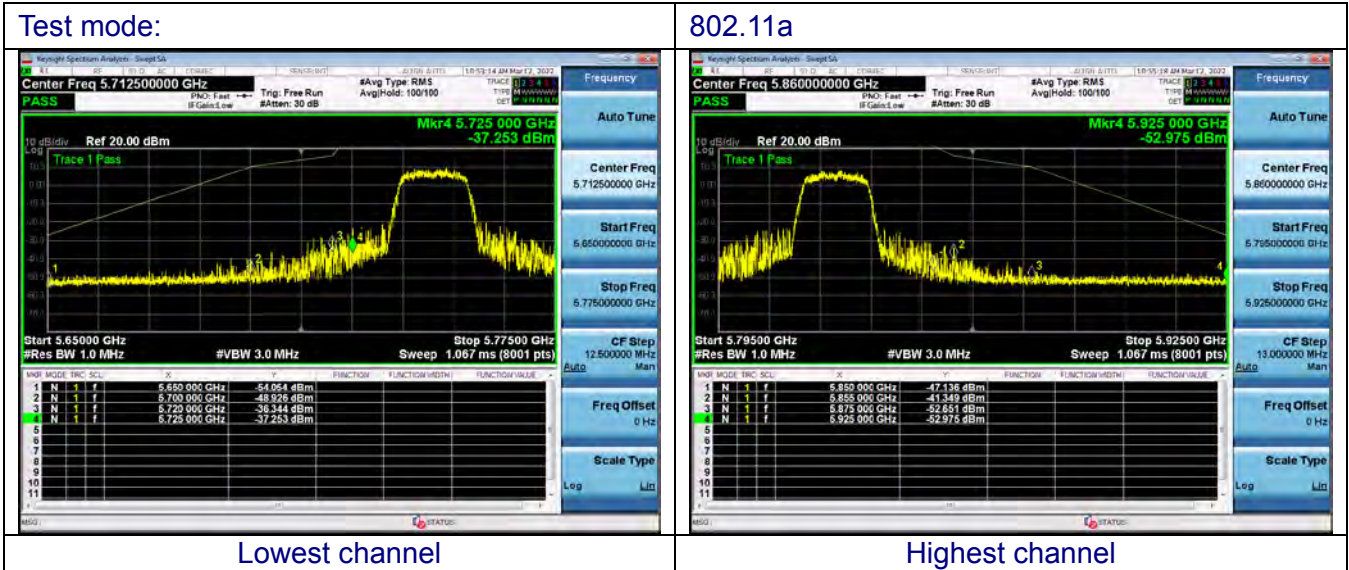
Lowest channel

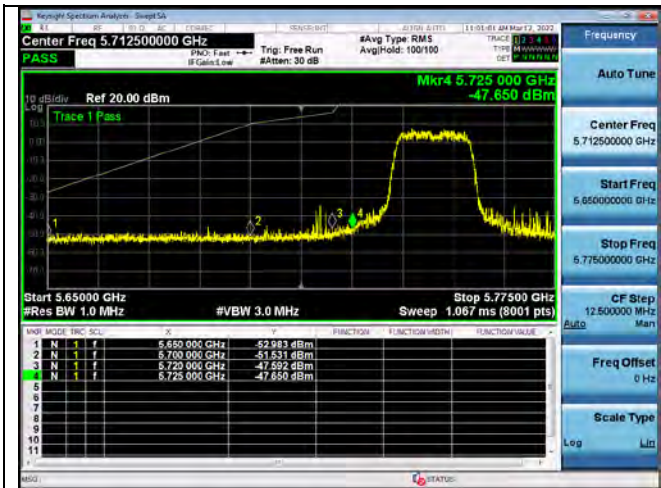
802.11ax80



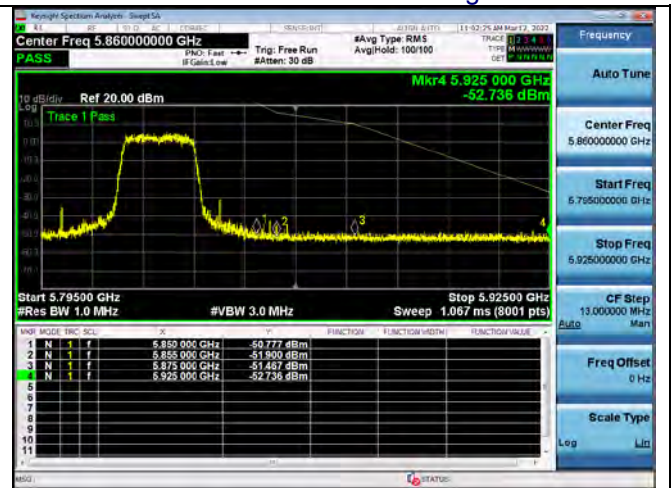
Highest channel

ANT1-band 4



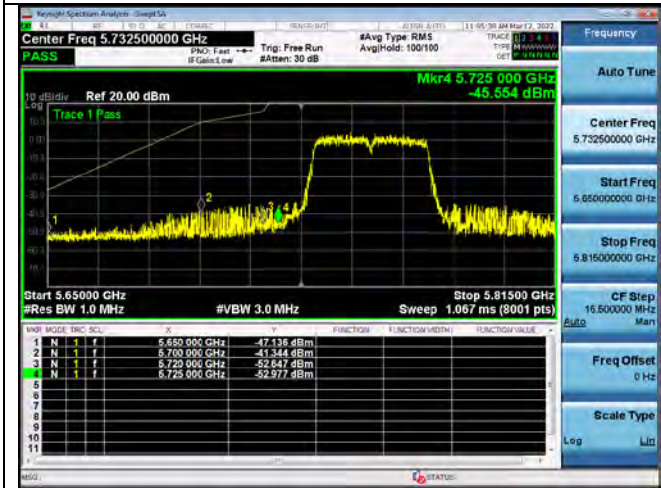


Lowest channel



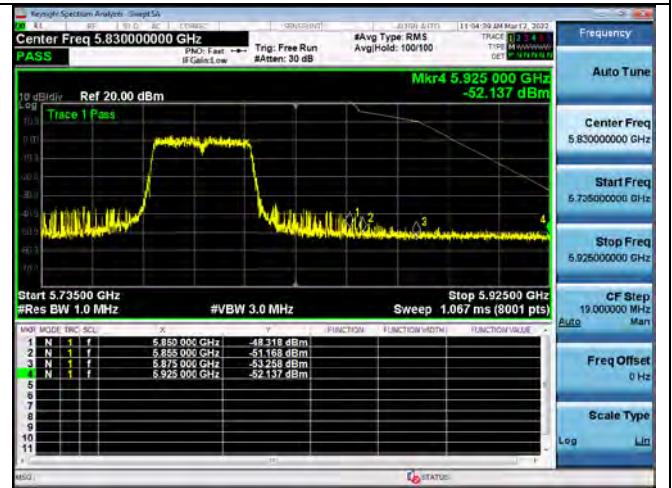
Highest channel

Test mode:



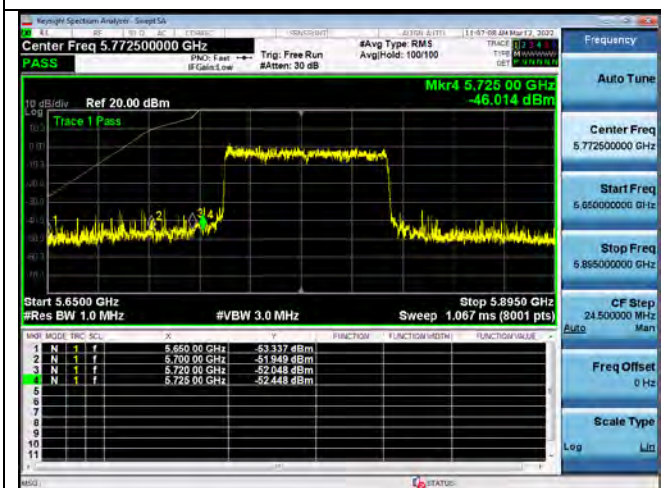
Lowest channel

802.11ac40



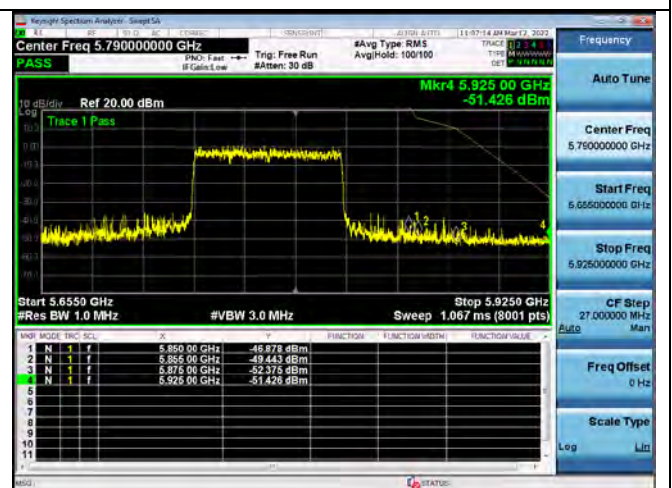
Highest channel

Test mode:



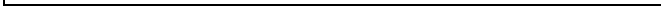
Lowest channel

802.11ac80



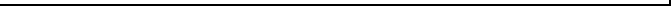
Highest channel

Test mode:

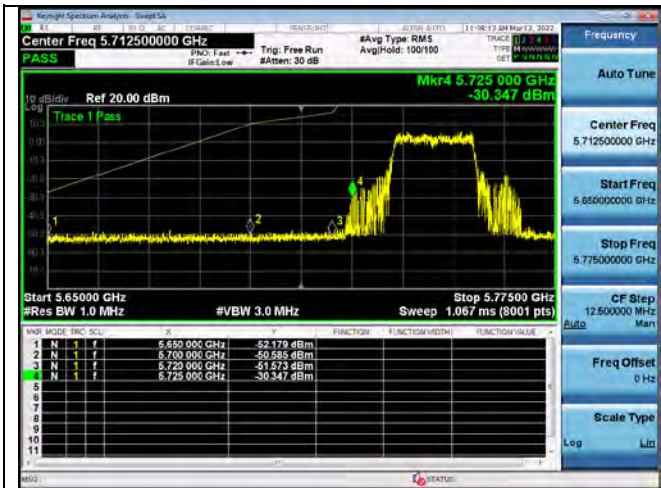


Lowest channel

802.11ax20



Highest channel

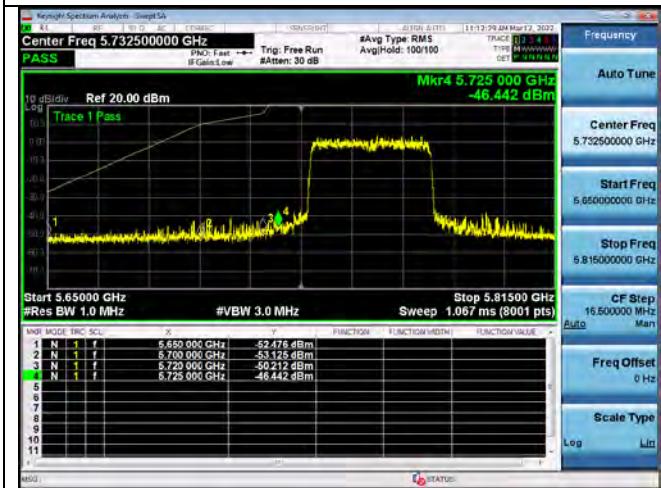


Lowest channel



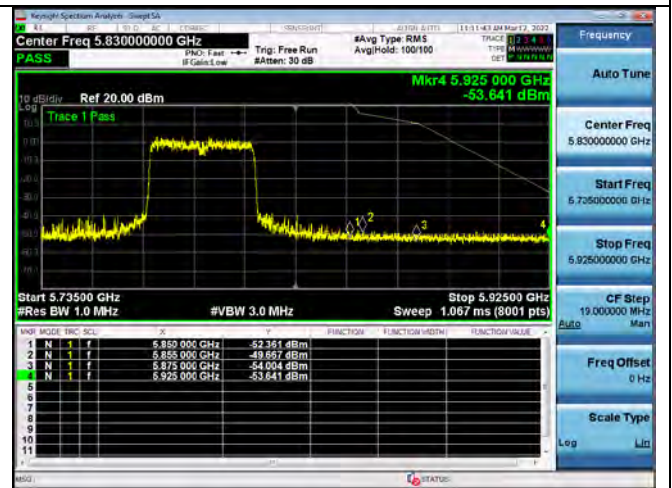
Highest channel

Test mode:



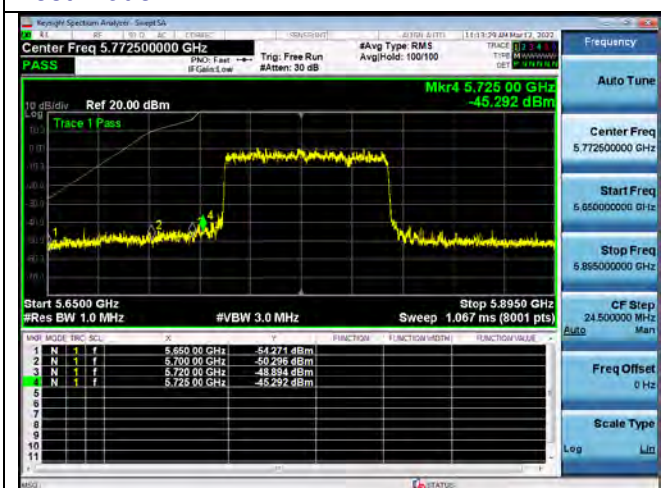
Lowest channel

802.11ax40



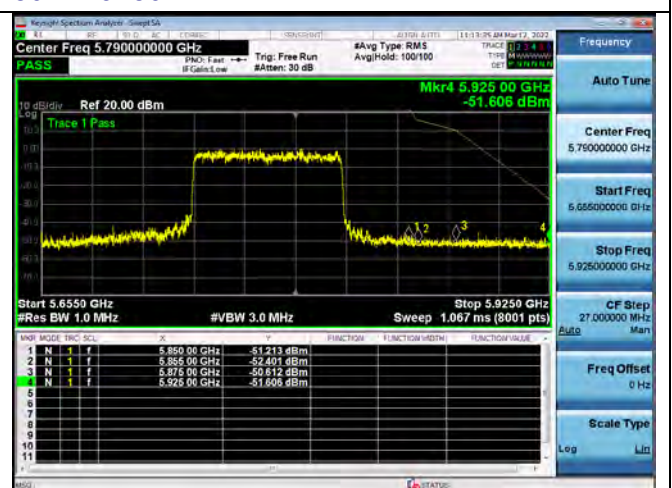
Highest channel

Test mode:



Lowest channel

802.11ax80



Highest channel

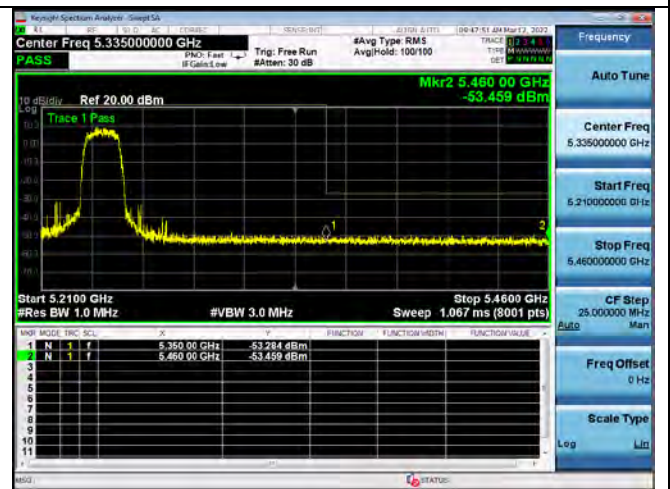
ANT2-band1

Test mode:



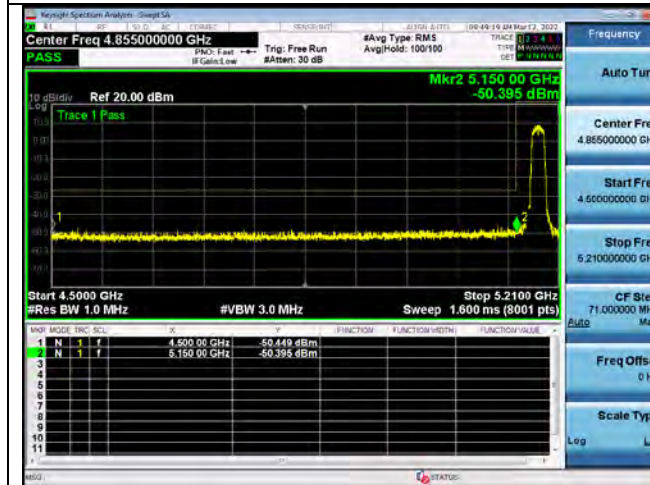
Lowest channel

802.11a



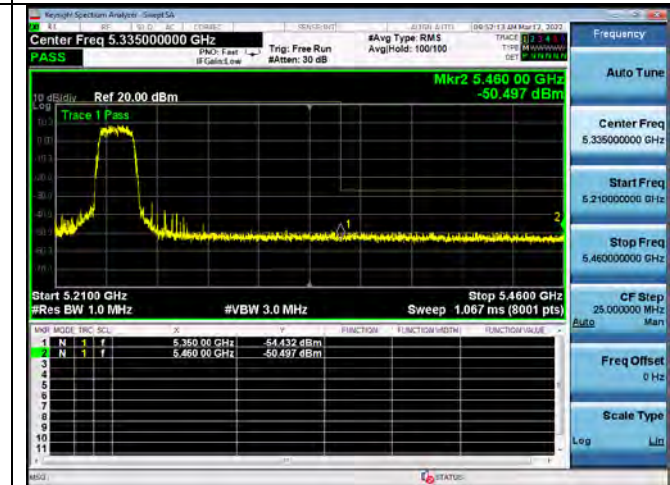
Highest channel

Test mode:



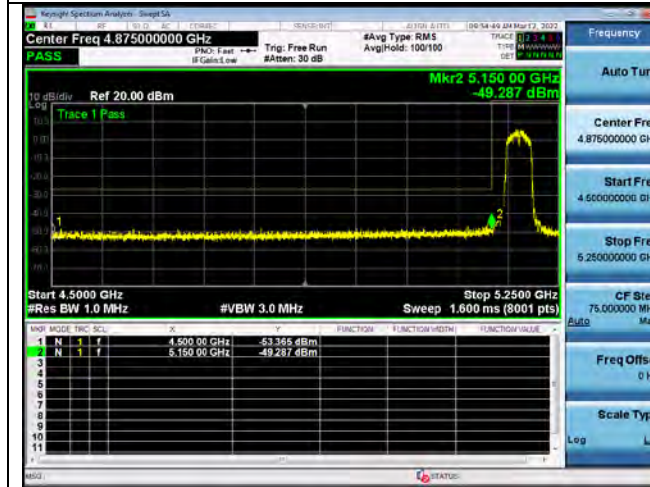
Lowest channel

802.11n20



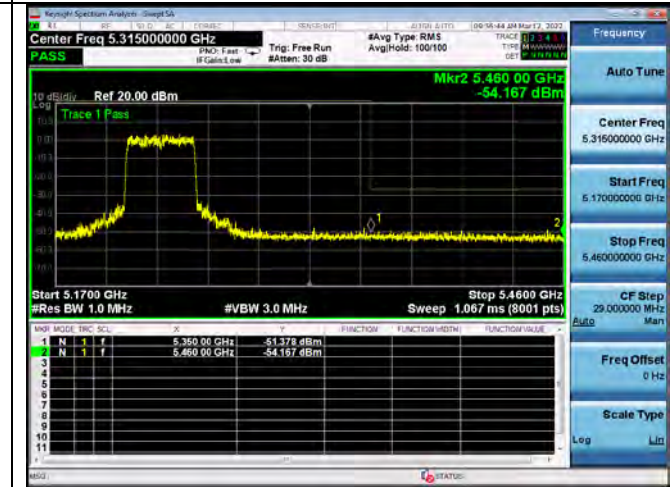
Highest channel

Test mode:

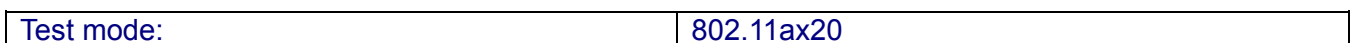
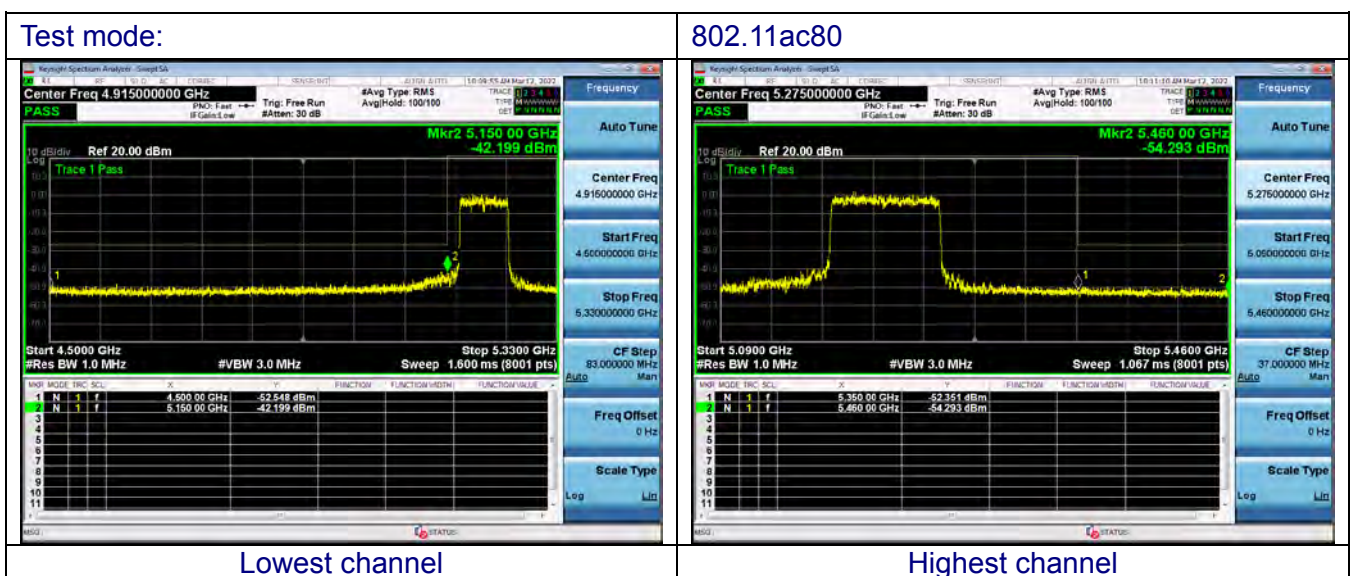
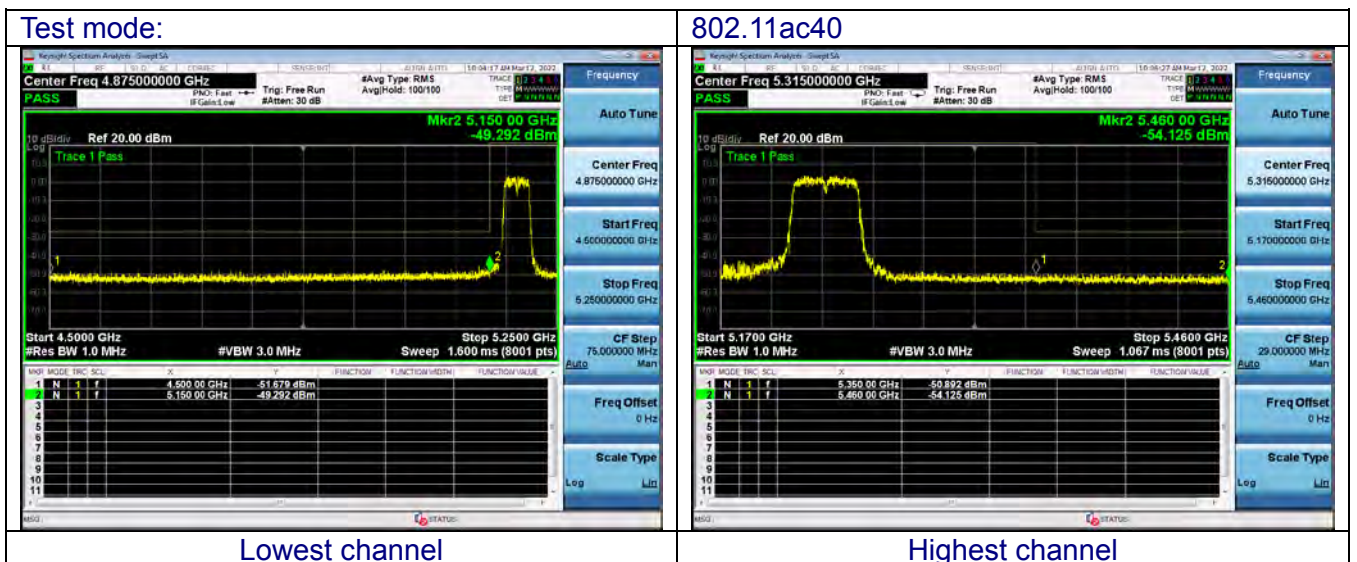
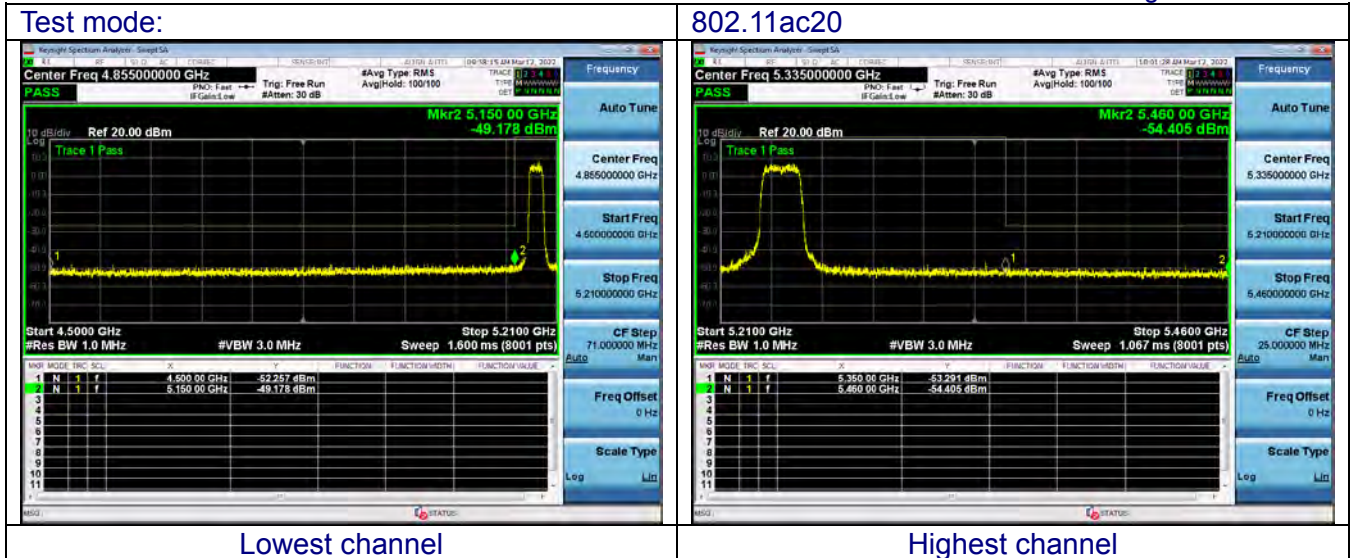


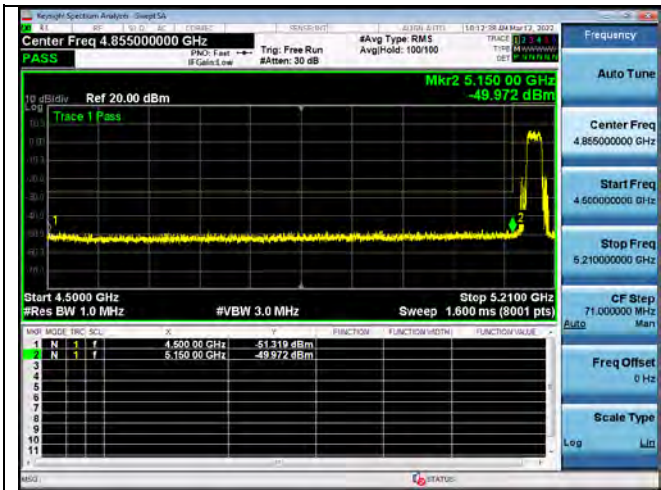
Lowest channel

802.11n40

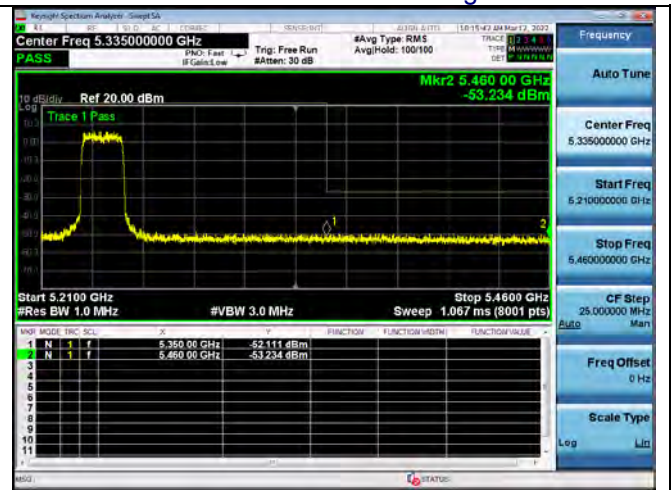


Highest channel



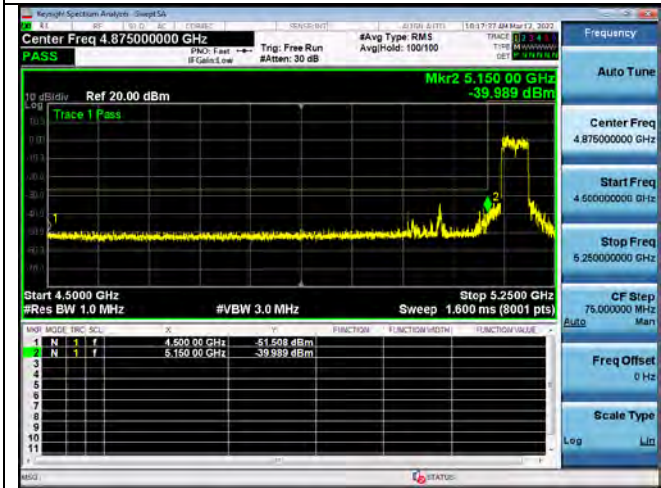


Lowest channel



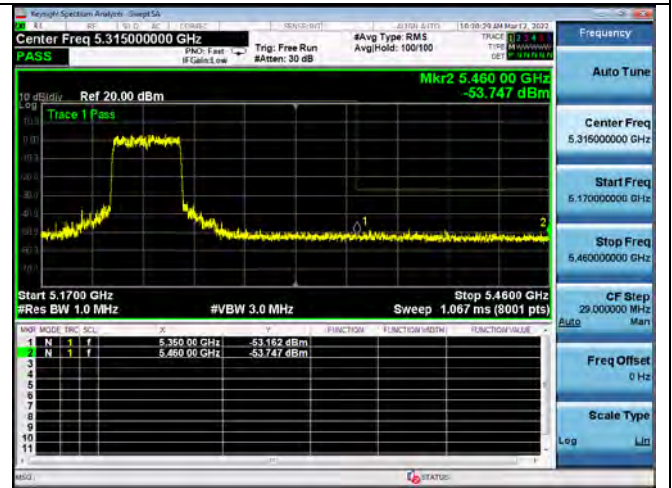
Highest channel

Test mode:



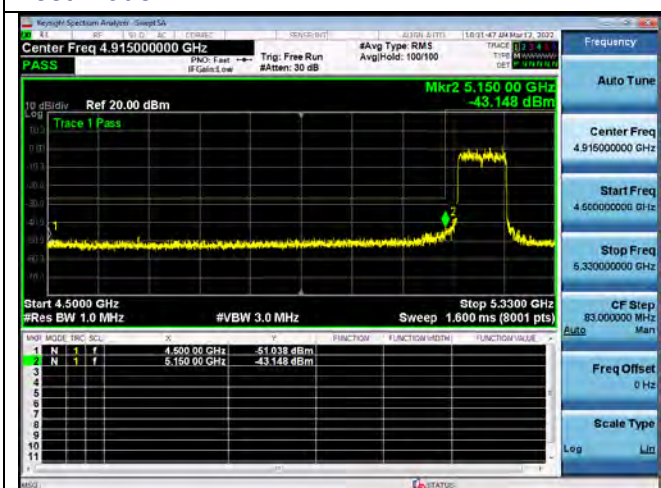
Lowest channel

802.11ax40



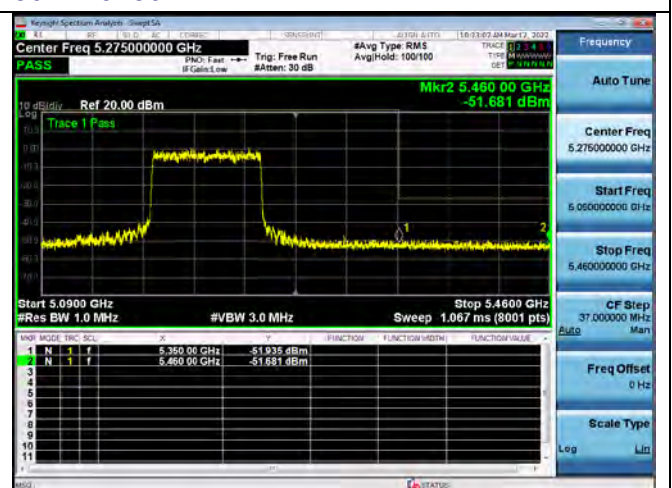
Highest channel

Test mode:



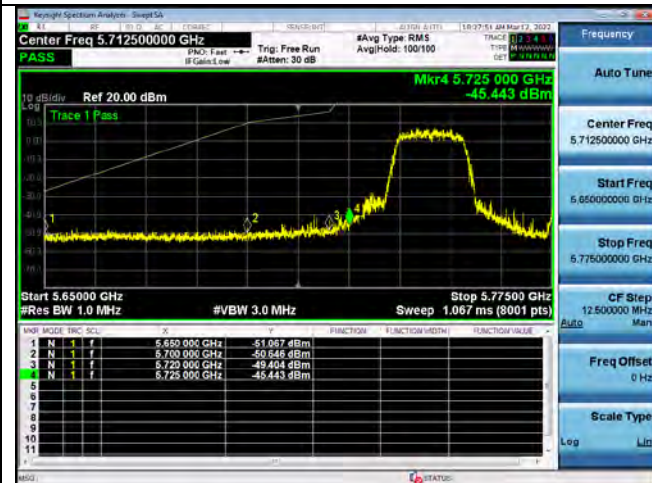
Lowest channel

802.11ax80



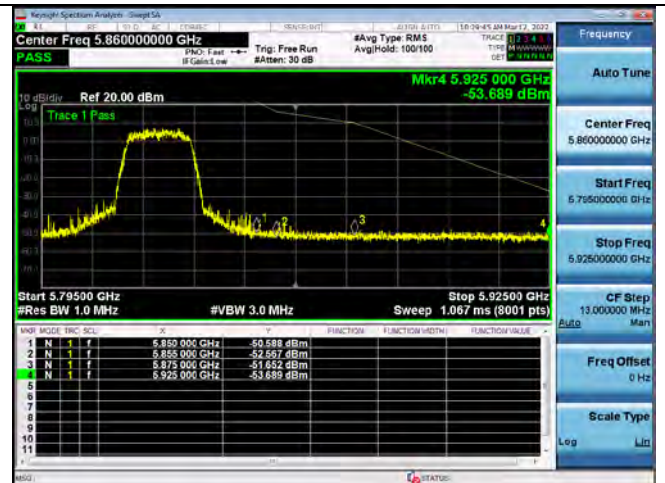
Highest channel

Test mode:



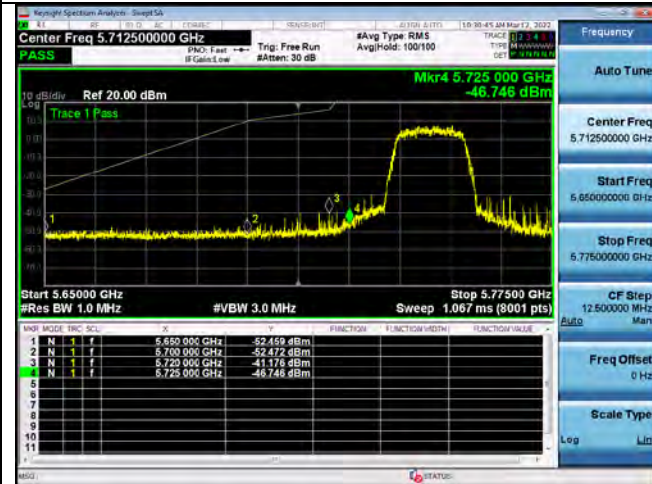
Lowest channel

802.11a



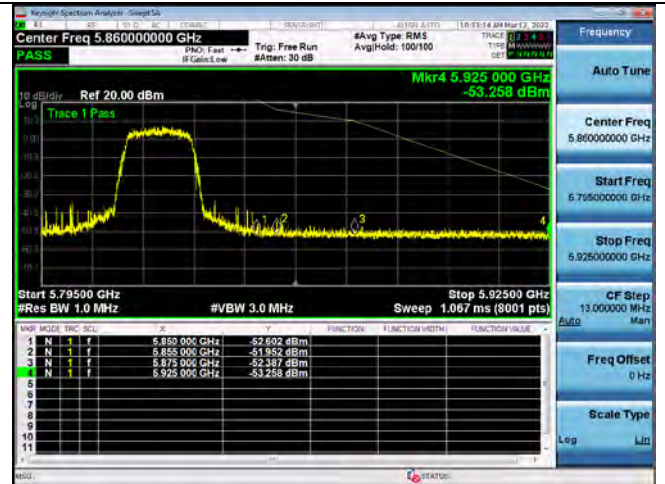
Highest channel

Test mode:



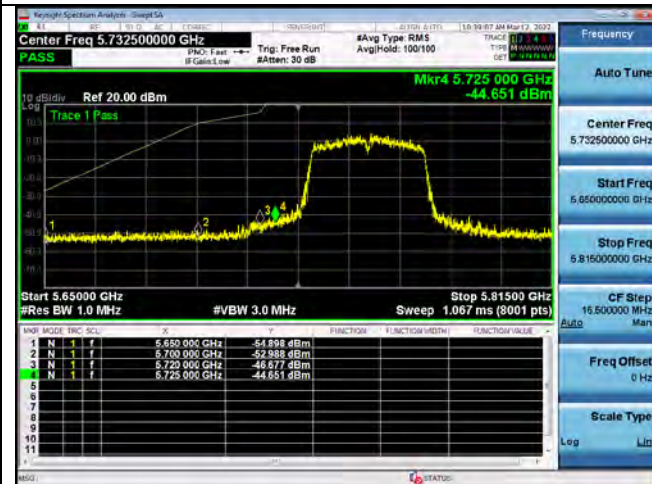
Lowest channel

802.11n20



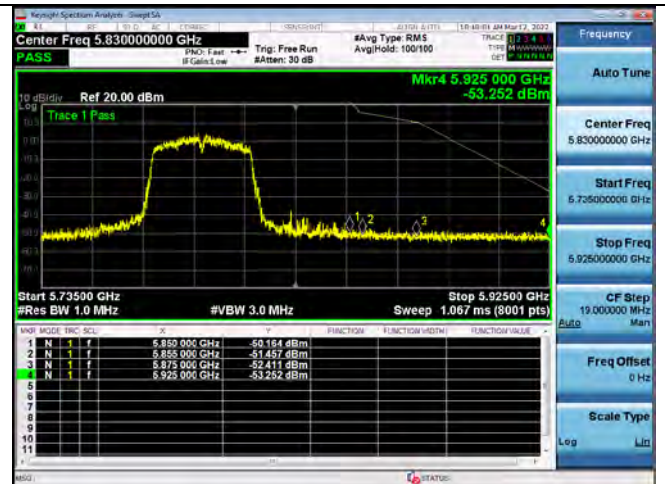
Highest channel

Test mode:



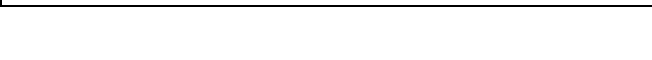
Lowest channel

802.11n40



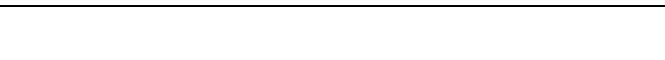
Highest channel

Test mode:

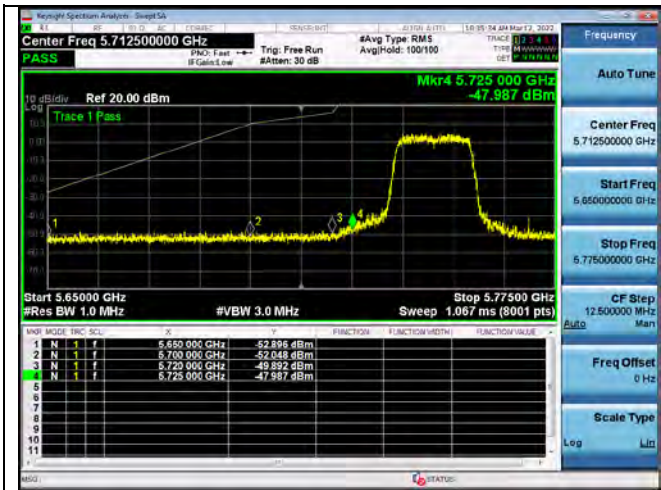


Lowest channel

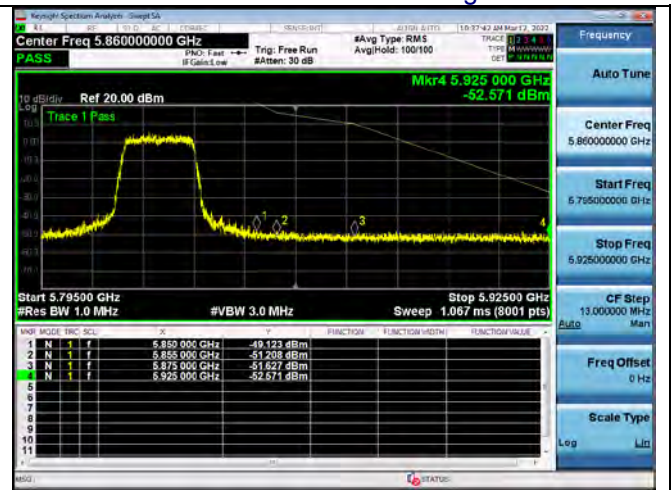
802.11ac20



Highest channel

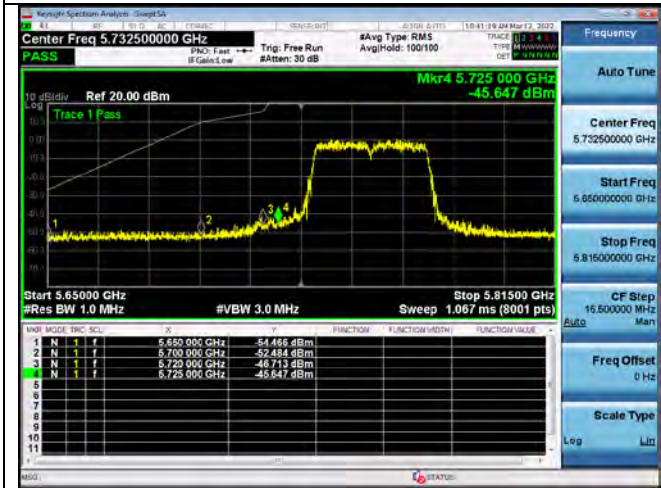


Lowest channel



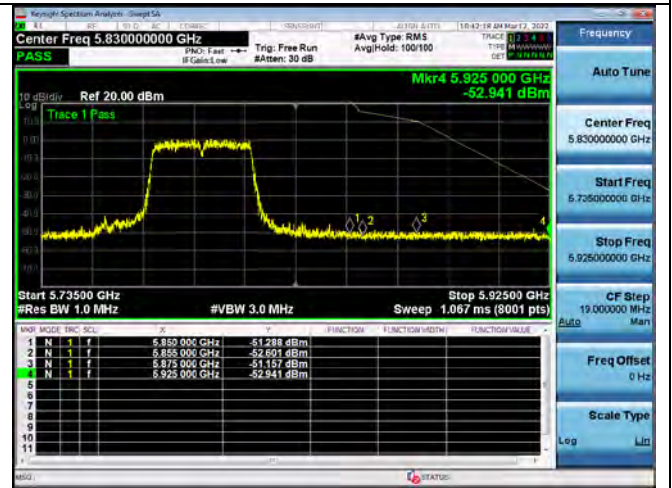
Highest channel

Test mode:



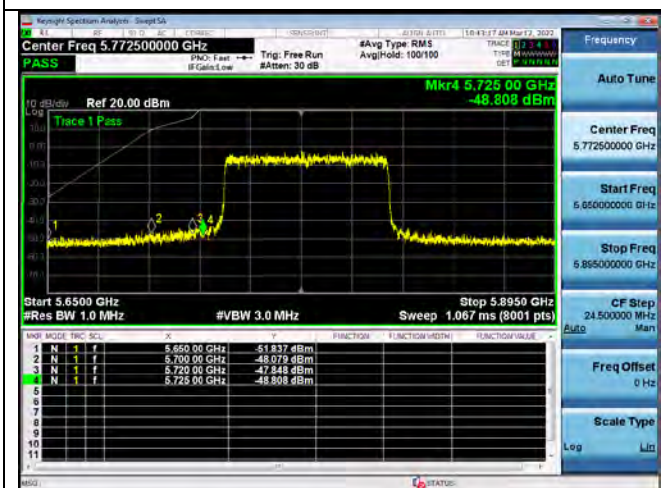
Lowest channel

802.11ac40



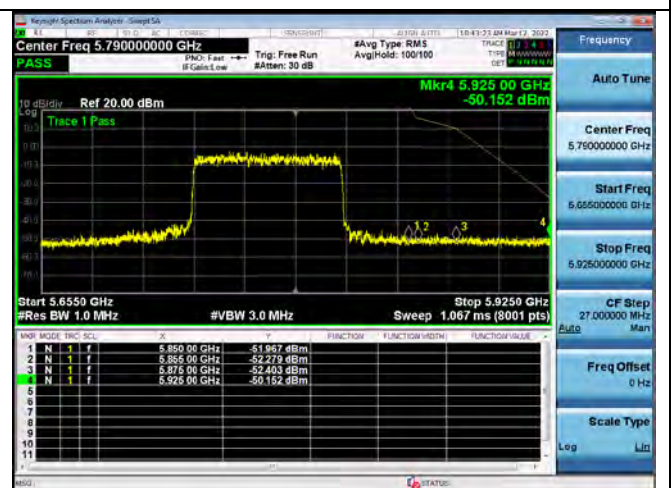
Highest channel

Test mode:



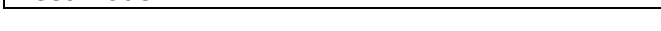
Lowest channel

802.11ac80



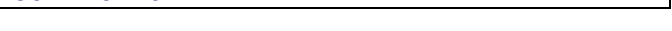
Highest channel

Test mode:

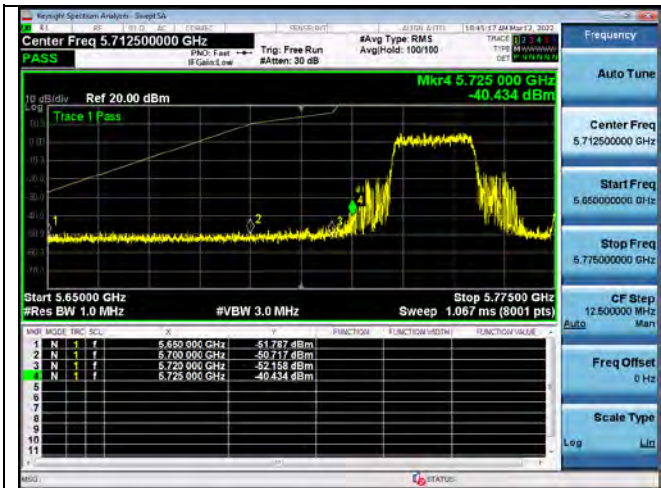


Lowest channel

802.11ax20



Highest channel

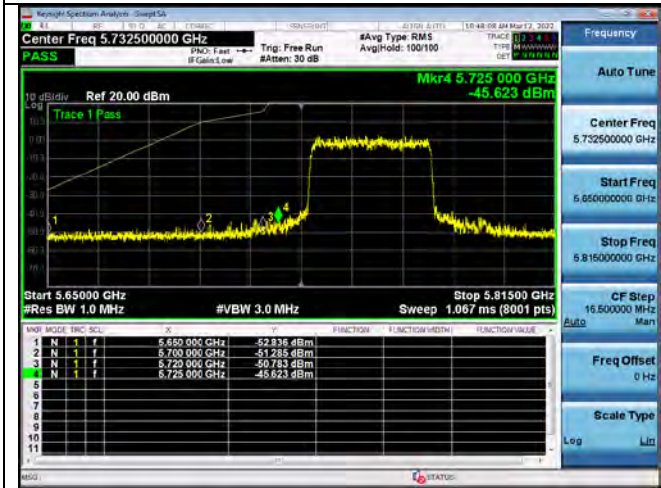


Lowest channel



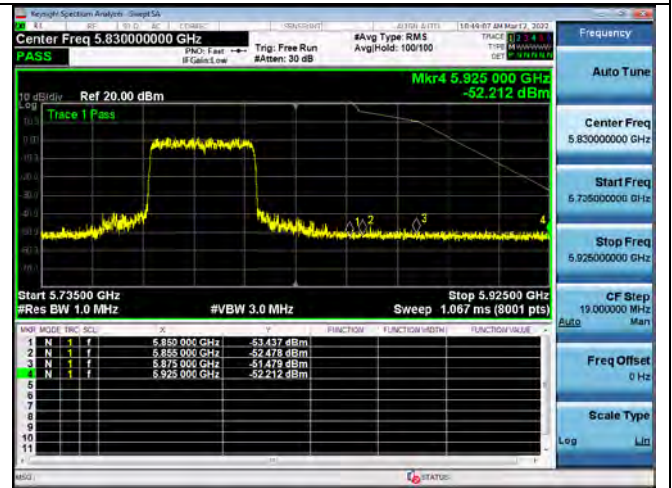
Highest channel

Test mode:



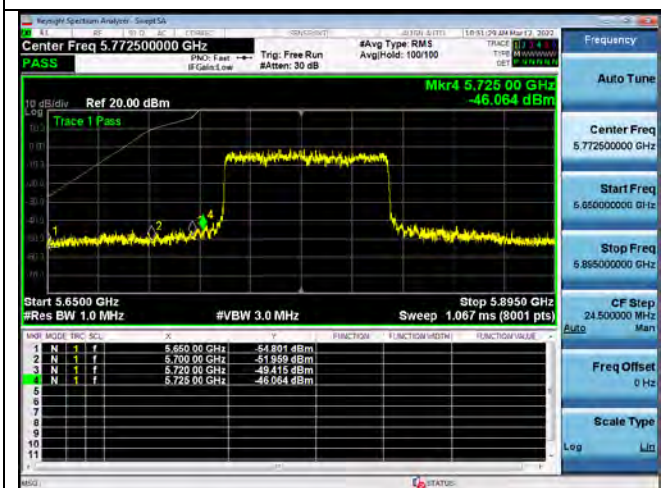
Lowest channel

802.11ax40



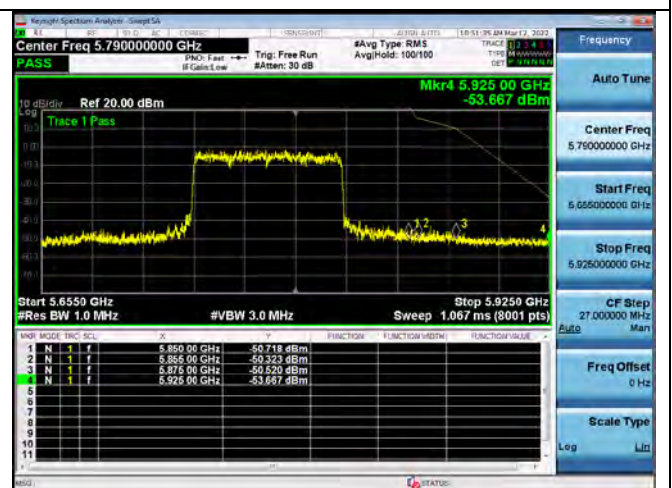
Highest channel

Test mode:



Lowest channel

802.11ax80



Highest channel

9. FREQUENCY STABILITY MEASUREMENT

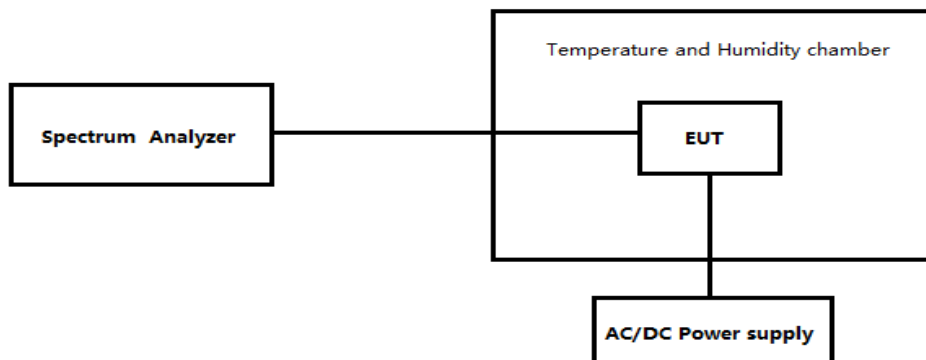
9.1 LIMIT

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 user's manual.

9.2 TESTPROCEDURE

1. To ensure emission at the band edge is maintained within the authorized band, those values shall be measured by radiation emissions at upper and lower frequency points, and finally compensated by frequency deviation as procedures below.
2. The EUT was operated at the maximum output power, and connected to the spectrum analyzer, which is set to maximum hold function and peak detector. The peak value of the power envelope was measured and noted. The upper and lower frequency points were respectively measured relatively 10dB lower than the measured peak value.
3. The frequency deviation was calculated by adding the upper frequency point and the lower frequency point divided by two. Those detailed values of frequency deviation are provided in table below.

9.3 TESTCONFIGURATION



9.4 TEST RESULT

Temperature :	26°C	Relative Humidity :	54%
Pressure :	101kPa	Test Voltage :	AC120V

Note: Only the test results of the worst channel are displayed

ANT1-802.11a- CH36

Temperature (°C)	Voltage (AC:V)	Frequency Measure with time Elapsed	
		MCF	(ppm)
50	120	86	0.0165
40	120	74	0.0144
30	120	94	0.0182
20	120	78	0.0151

10	120	90	0.0174
0	120	82	0.0158
-10	120	95	0.0184
-20	120	92	0.0178
-30	120	92	0.0177

ANT1-802.11a- CH48

Temperature (°C)	Voltage (AC:V)	Frequency Measure with time Elapsed	
		MCF	(ppm)
50	120	86	0.0164
40	120	86	0.0164
30	120	87	0.0166
20	120	90	0.0172
10	120	75	0.0144
0	120	62	0.0118
-10	120	67	0.0128
-20	120	95	0.0182
-30	120	63	0.0120

ANT1-802.11a- CH149

Temperature (°C)	Voltage (AC:V)	Frequency Measure with time Elapsed	
		MCF	(ppm)
50	120	64	0.0112
40	120	89	0.0155
30	120	66	0.0115
20	120	88	0.0153
10	120	62	0.0108
0	120	88	0.0154
-10	120	64	0.0111
-20	120	79	0.0138
-30	120	86	0.0150

ANT1-802.11a- CH165

Temperature (°C)	Voltage (AC:V)	Frequency Measure with time Elapsed	
		MCF	(ppm)
50	120	67	0.0116
40	120	66	0.0113
30	120	82	0.0141
20	120	70	0.0119
10	120	86	0.0148
0	120	68	0.0118
-10	120	69	0.0118
-20	120	78	0.0135
-30	120	69	0.0118

ANT1-802.11n20- CH36

Temperature (°C)	Voltage (AC:V)	Frequency Measure with time Elapsed	
		MCF	(ppm)
50	120	68	0.0131
40	120	91	0.0176
30	120	73	0.0140
20	120	77	0.0148
10	120	96	0.0185
0	120	84	0.0162
-10	120	60	0.0116
-20	120	67	0.0129
-30	120	68	0.0132

ANT1-802.11n20- CH48

Temperature (°C)	Voltage (AC:V)	Frequency Measure with time Elapsed	
		MCF	(ppm)
50	120	90	0.0172
40	120	85	0.0162
30	120	91	0.0174
20	120	66	0.0125
10	120	93	0.0178
0	120	61	0.0116
-10	120	94	0.0180
-20	120	78	0.0148
-30	120	92	0.0175

ANT1-802.11n20- CH149

Temperature (°C)	Voltage (AC:V)	Frequency Measure with time Elapsed	
		MCF	(ppm)
50	120	67	0.0116
40	120	93	0.0163
30	120	70	0.0123
20	120	82	0.0143
10	120	86	0.0150
0	120	70	0.0122
-10	120	74	0.0129
-20	120	88	0.0152
-30	120	75	0.0130

ANT1-802.11n20- CH165

Temperature (°C)	Voltage (AC:V)	Frequency Measure with time Elapsed	
		MCF	(ppm)
50	120	63	0.0108
40	120	95	0.0163
30	120	90	0.0155

20	120	82	0.0141
10	120	69	0.0118
0	120	65	0.0111
-10	120	96	0.0164
-20	120	72	0.0123
-30	120	74	0.0128

ANT1-802.11n40- CH38

Temperature (°C)	Voltage (AC:V)	Frequency Measure with time Elapsed	
		MCF	(ppm)
50	120	61	0.0117
40	120	81	0.0157
30	120	79	0.0153
20	120	87	0.0168
10	120	63	0.0121
0	120	74	0.0142
-10	120	93	0.0179
-20	120	89	0.0171
-30	120	68	0.0132

ANT1-802.11n40- CH46

Temperature (°C)	Voltage (AC:V)	Frequency Measure with time Elapsed	
		MCF	(ppm)
50	120	69	0.0132
40	120	67	0.0128
30	120	86	0.0165
20	120	73	0.0139
10	120	67	0.0128
0	120	82	0.0157
-10	120	67	0.0128
-20	120	81	0.0155
-30	120	80	0.0152

ANT1-802.11n40- CH151

Temperature (°C)	Voltage (AC:V)	Frequency Measure with time Elapsed	
		MCF	(ppm)
50	120	89	0.0154
40	120	96	0.0167
30	120	75	0.0130
20	120	72	0.0124
10	120	95	0.0165
0	120	85	0.0148
-10	120	90	0.0156
-20	120	68	0.0118
-30	120	67	0.0117

ANT1-802.11n40- CH159

Temperature (°C)	Voltage (AC:V)	Frequency Measure with time Elapsed	
		MCF	(ppm)
50	120	67	0.0116
40	120	70	0.0120
30	120	95	0.0164
20	120	62	0.0106
10	120	81	0.0140
0	120	70	0.0120
-10	120	69	0.0120
-20	120	76	0.0132
-30	120	76	0.0131

ANT1-802.11ac20- CH36

Temperature (°C)	Voltage (AC:V)	Frequency Measure with time Elapsed	
		MCF	(ppm)
50	120	78	0.0151
40	120	91	0.0175
30	120	89	0.0173
20	120	95	0.0184
10	120	76	0.0148
0	120	70	0.0136
-10	120	88	0.0170
-20	120	66	0.0126
-30	120	89	0.0172

ANT1-802.11ac20- CH48

Temperature (°C)	Voltage (AC:V)	Frequency Measure with time Elapsed	
		MCF	(ppm)
50	120	71	0.0135
40	120	95	0.0181
30	120	67	0.0128
20	120	85	0.0162
10	120	93	0.0177
0	120	83	0.0159
-10	120	93	0.0178
-20	120	90	0.0172
-30	120	87	0.0167

ANT1-802.11ac20- CH149

Temperature (°C)	Voltage (AC:V)	Frequency Measure with time Elapsed	
		MCF	(ppm)
50	120	85	0.0147
40	120	95	0.0165

30	120	71	0.0124
20	120	72	0.0125
10	120	66	0.0115
0	120	72	0.0125
-10	120	60	0.0105
-20	120	94	0.0164
-30	120	73	0.0126

ANT1-802.11ac20- CH165

Temperature (°C)	Voltage (AC:V)	Frequency Measure with time Elapsed	
		MCF	(ppm)
50	120	77	0.0132
40	120	73	0.0125
30	120	95	0.0163
20	120	66	0.0114
10	120	86	0.0148
0	120	70	0.0120
-10	120	92	0.0157
-20	120	81	0.0139
-30	120	69	0.0119

ANT1-802.11ac40- CH38

Temperature (°C)	Voltage (AC:V)	Frequency Measure with time Elapsed	
		MCF	(ppm)
50	120	83	0.0160
40	120	65	0.0125
30	120	74	0.0142
20	120	63	0.0121
10	120	62	0.0119
0	120	89	0.0171
-10	120	84	0.0161
-20	120	88	0.0170
-30	120	83	0.0161

ANT1-802.11ac40- CH46

Temperature (°C)	Voltage (AC:V)	Frequency Measure with time Elapsed	
		MCF	(ppm)
50	120	77	0.0147
40	120	83	0.0159
30	120	73	0.0139
20	120	66	0.0127
10	120	90	0.0173
0	120	81	0.0156
-10	120	68	0.0129
-20	120	84	0.0160
-30	120	86	0.0165

ANT1-802.11ac40- CH151

Temperature (°C)	Voltage (AC:V)	Frequency Measure with time Elapsed	
		MCF	(ppm)
50	120	91	0.0158
40	120	71	0.0124
30	120	84	0.0146
20	120	84	0.0147
10	120	64	0.0112
0	120	71	0.0124
-10	120	89	0.0155
-20	120	76	0.0132
-30	120	85	0.0147

ANT1-802.11ac40- CH159

Temperature (°C)	Voltage (AC:V)	Frequency Measure with time Elapsed	
		MCF	(ppm)
50	120	76	0.0131
40	120	85	0.0146
30	120	95	0.0164
20	120	61	0.0106
10	120	78	0.0135
0	120	80	0.0138
-10	120	93	0.0160
-20	120	73	0.0126
-30	120	91	0.0158

ANT1-802.11ac80- CH42

Temperature (°C)	Voltage (AC:V)	Frequency Measure with time Elapsed	
		MCF	(ppm)
50	120	91	0.0174
40	120	81	0.0156
30	120	75	0.0145
20	120	78	0.0151
10	120	71	0.0136
0	120	93	0.0178
-10	120	66	0.0127
-20	120	88	0.0169
-30	120	71	0.0136

ANT1-802.11ac80- CH155

Temperature (°C)	Voltage (AC:V)	Frequency Measure with time Elapsed	
		MCF	(ppm)
50	120	73	0.0126
40	120	61	0.0106
30	120	70	0.0120

20	120	61	0.0105
10	120	84	0.0145
0	120	87	0.0151
-10	120	86	0.0149
-20	120	76	0.0131
-30	120	87	0.0152

ANT1-802.11ax20- CH36

Temperature (°C)	Voltage (AC:V)	Frequency Measure with time Elapsed	
		MCF	(ppm)
50	120	81	0.0156
40	120	93	0.0180
30	120	72	0.0138
20	120	74	0.0143
10	120	65	0.0126
0	120	69	0.0134
-10	120	62	0.0120
-20	120	74	0.0142
-30	120	86	0.0166

ANT1-802.11ax20- CH48

Temperature (°C)	Voltage (AC:V)	Frequency Measure with time Elapsed	
		MCF	(ppm)
50	120	82	0.0156
40	120	96	0.0183
30	120	86	0.0164
20	120	79	0.0150
10	120	88	0.0168
0	120	80	0.0153
-10	120	74	0.0141
-20	120	70	0.0134
-30	120	69	0.0132

ANT1-802.11ax20- CH149

Temperature (°C)	Voltage (AC:V)	Frequency Measure with time Elapsed	
		MCF	(ppm)
50	120	73	0.0127
40	120	61	0.0107
30	120	81	0.0140
20	120	69	0.0120
10	120	70	0.0121
0	120	73	0.0127
-10	120	61	0.0107
-20	120	61	0.0106
-30	120	90	0.0157

ANT1-802.11ax20- CH165

Temperature (°C)	Voltage (AC:V)	Frequency Measure with time Elapsed	
		MCF	(ppm)
50	120	73	0.0125
40	120	87	0.0149
30	120	82	0.0141
20	120	92	0.0158
10	120	82	0.0141
0	120	94	0.0161
-10	120	78	0.0134
-20	120	71	0.0122
-30	120	80	0.0137

ANT1-802.11ax40- CH38

Temperature (°C)	Voltage (AC:V)	Frequency Measure with time Elapsed	
		MCF	(ppm)
50	120	65	0.0126
40	120	61	0.0117
30	120	89	0.0171
20	120	74	0.0143
10	120	86	0.0166
0	120	69	0.0133
-10	120	79	0.0153
-20	120	61	0.0117
-30	120	92	0.0177

ANT1-802.11ax40- CH46

Temperature (°C)	Voltage (AC:V)	Frequency Measure with time Elapsed	
		MCF	(ppm)
50	120	64	0.0122
40	120	92	0.0176
30	120	64	0.0123
20	120	68	0.0129
10	120	61	0.0117
0	120	71	0.0136
-10	120	95	0.0182
-20	120	93	0.0177
-30	120	63	0.0121

ANT1-802.11ax40- CH151

Temperature (°C)	Voltage (AC:V)	Frequency Measure with time Elapsed	
		MCF	(ppm)
50	120	64	0.0112
40	120	94	0.0164
30	120	89	0.0155

20	120	72	0.0125
10	120	60	0.0105
0	120	82	0.0142
-10	120	73	0.0126
-20	120	90	0.0156
-30	120	85	0.0147

ANT1-802.11ax40- CH159

Temperature (°C)	Voltage (AC:V)	Frequency Measure with time Elapsed	
		MCF	(ppm)
50	120	71	0.0122
40	120	80	0.0139
30	120	77	0.0132
20	120	70	0.0121
10	120	68	0.0117
0	120	71	0.0123
-10	120	93	0.0160
-20	120	67	0.0116
-30	120	73	0.0126


ANT1-802.11ax80- CH42

Temperature (°C)	Voltage (AC:V)	Frequency Measure with time Elapsed	
		MCF	(ppm)
50	120	61	0.0117
40	120	69	0.0132
30	120	93	0.0178
20	120	74	0.0141
10	120	82	0.0157
0	120	66	0.0126
-10	120	72	0.0138
-20	120	92	0.0177
-30	120	64	0.0122

ANT1-802.11ax80- CH155

Temperature (°C)	Voltage (AC:V)	Frequency Measure with time Elapsed	
		MCF	(ppm)
50	120	62	0.0107
40	120	89	0.0155
30	120	81	0.0141
20	120	95	0.0165
10	120	63	0.0109
0	120	88	0.0152
-10	120	68	0.0118
-20	120	75	0.0130
-30	120	82	0.0142

10.ANTENNA REQUIREMENT

Standard requirement:	FCC Part15 C Section 15.203 /247(c)
<p>For intentional device, according to FCC 47 CFR Section 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. And according to FCC 47 CFR Section 15.247, if transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.</p> <p>Refer to statement below for compliance.</p> <p>The manufacturer may design the unit so that the user can replace a broken antenna, but the use of a standard antenna jack or electrical connector is prohibited. Further, this requirement does not apply to intentional radiators that must be professionally installed.</p> <p>Antenna Connected Construction</p> <p>The antenna used in this product is a Glue stick antenna, and the best case gain of the antenna is antenna port 1:2dBi and Antenna port 2:2dBi.</p>	
<p>EUT Antenna:</p> <p>2.4G-ANT1 5G-ANT</p>  <p>The image shows a black, rectangular antenna unit with a red power button on the front. Two vertical antennas are attached to the top. The unit has the China Mobile logo at the bottom. Arrows from the labels '2.4G-ANT1' and '5G-ANT' point to the left and right antennas respectively.</p>	

10. TEST SETUP PHOTO

Reference to the test setup file for details.

11. EUT CONSTRUCTIONAL DETAILS

Reference to the external photos file and internal photos file for details.

******* END OF REPORT *******