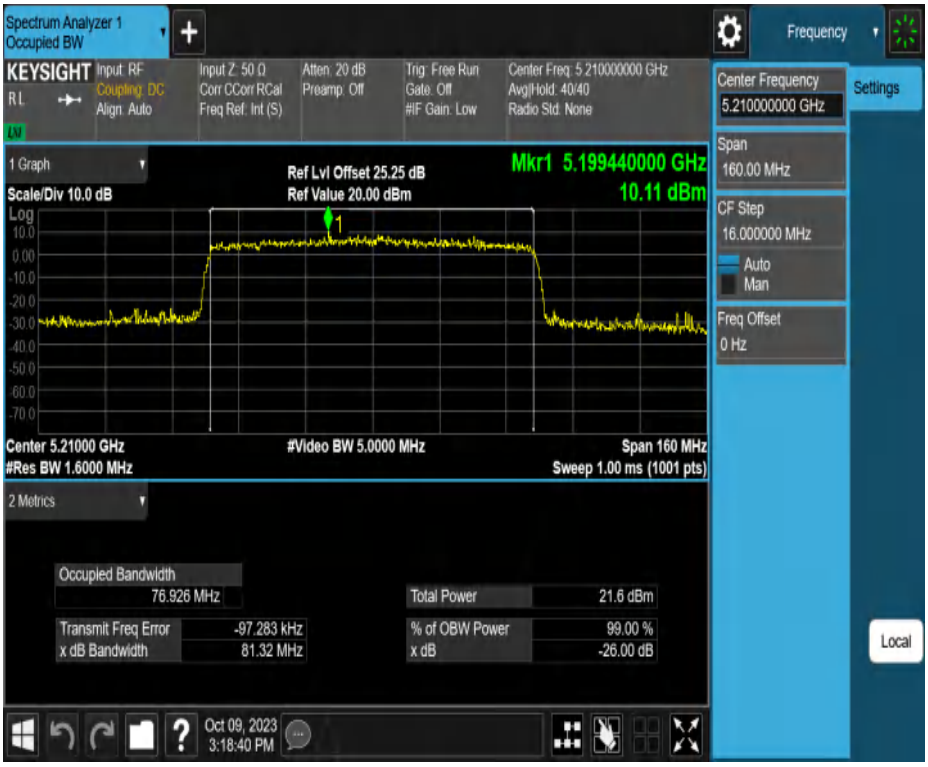
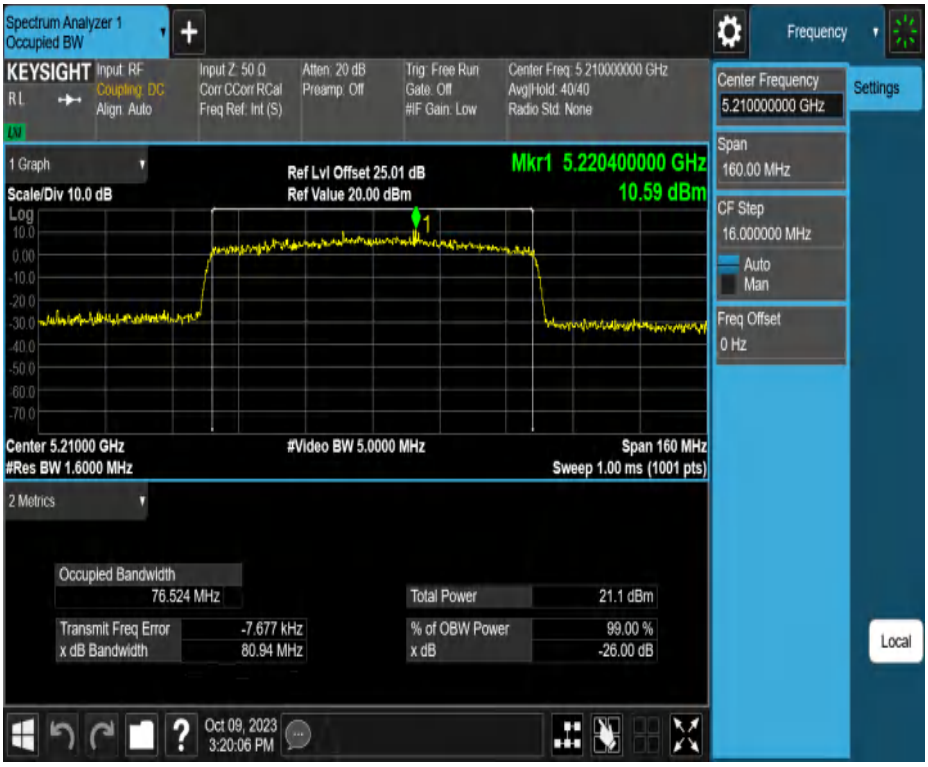
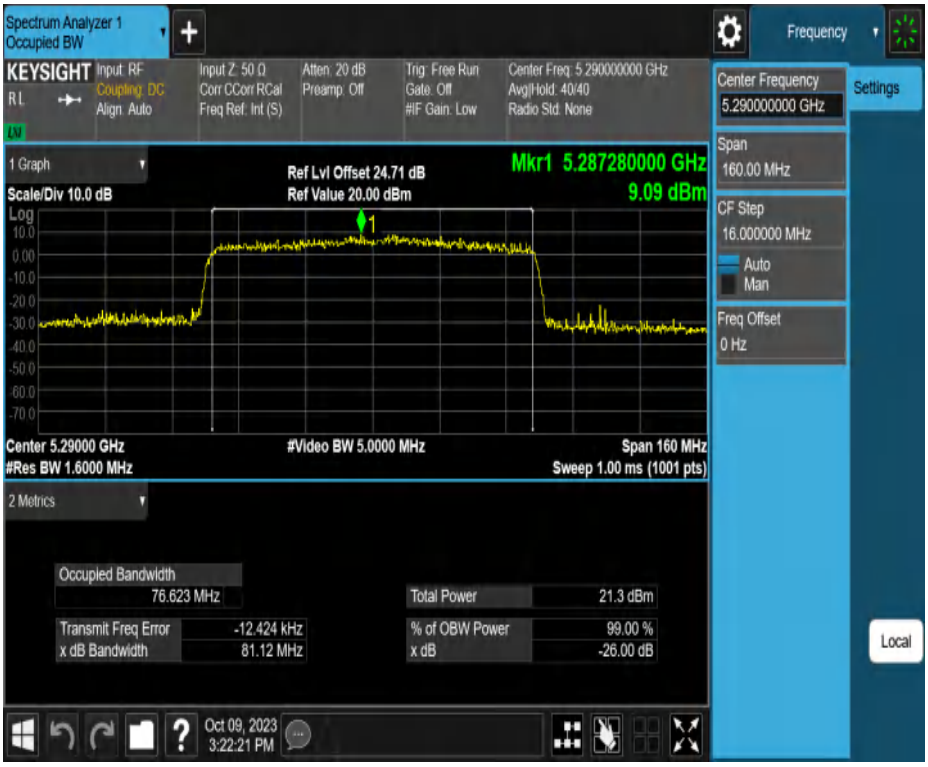
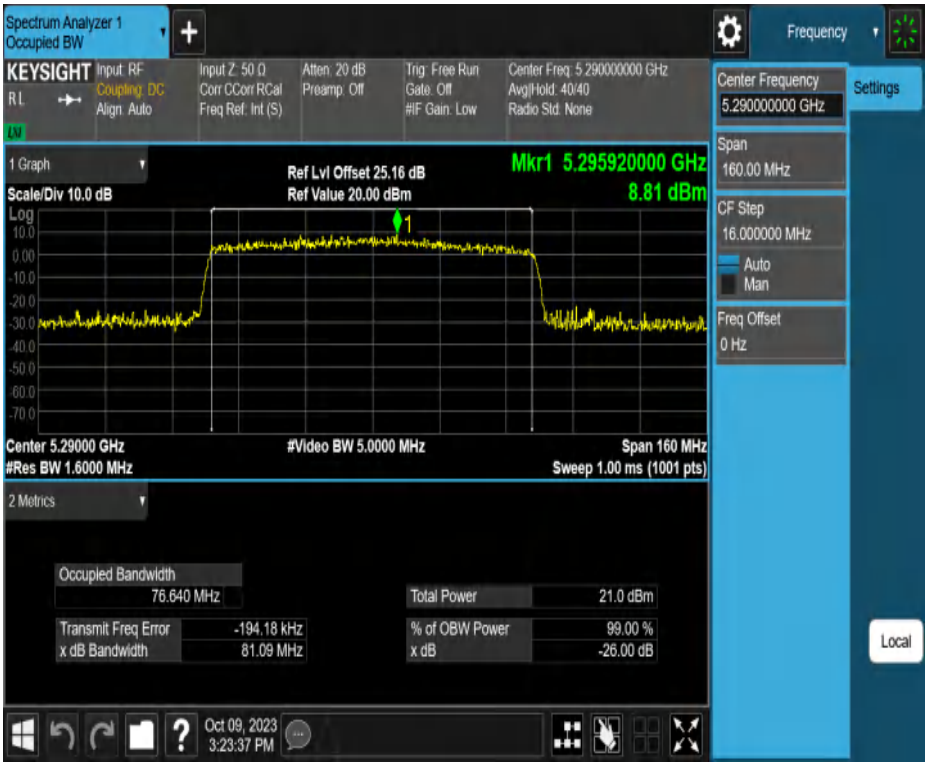
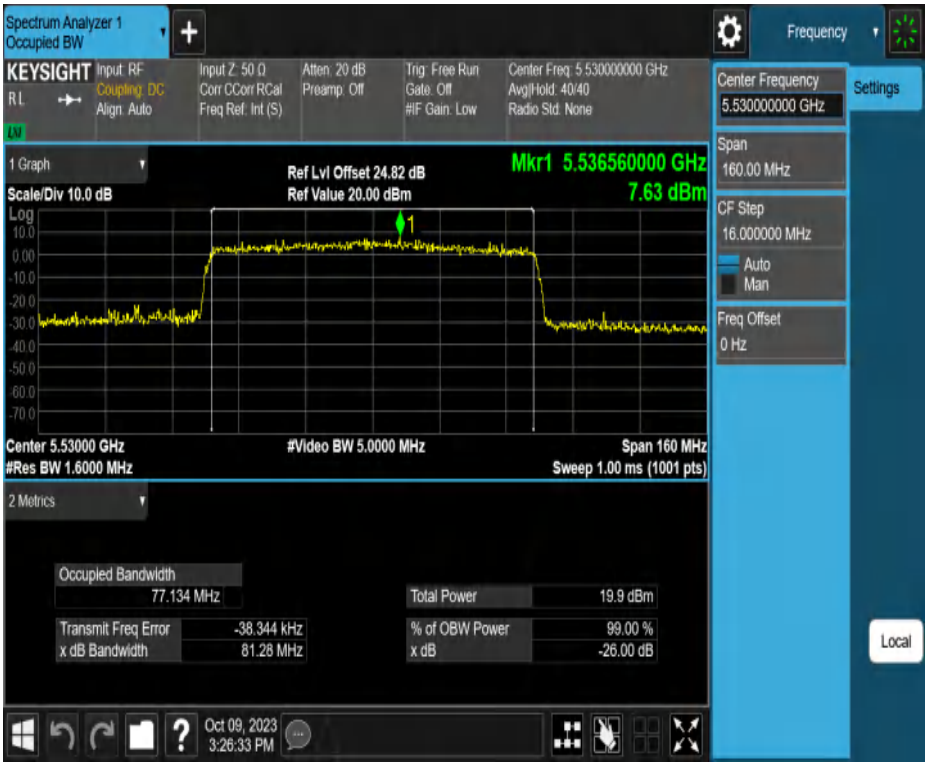
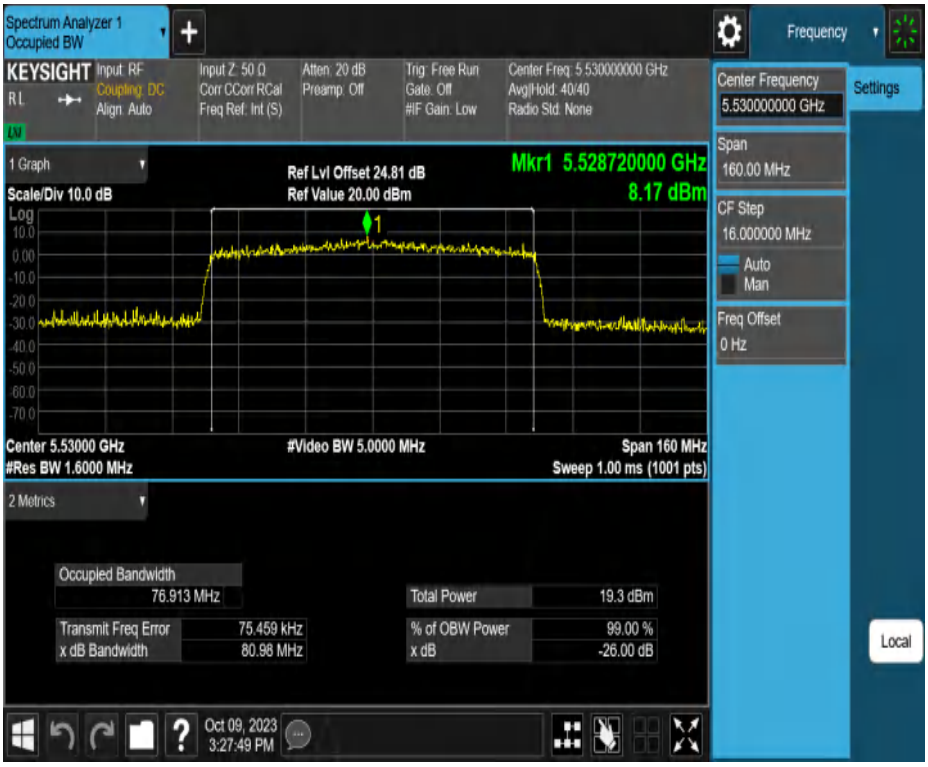
11AX80MIMO_Ant1_5210


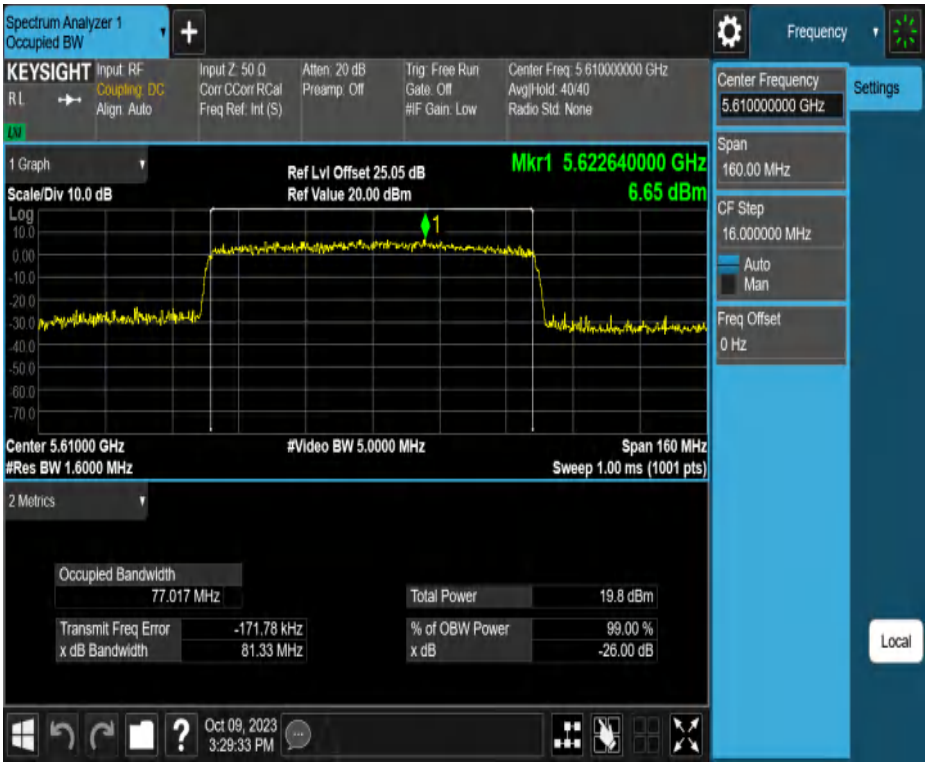
11AX80MIMO_Ant2_5210


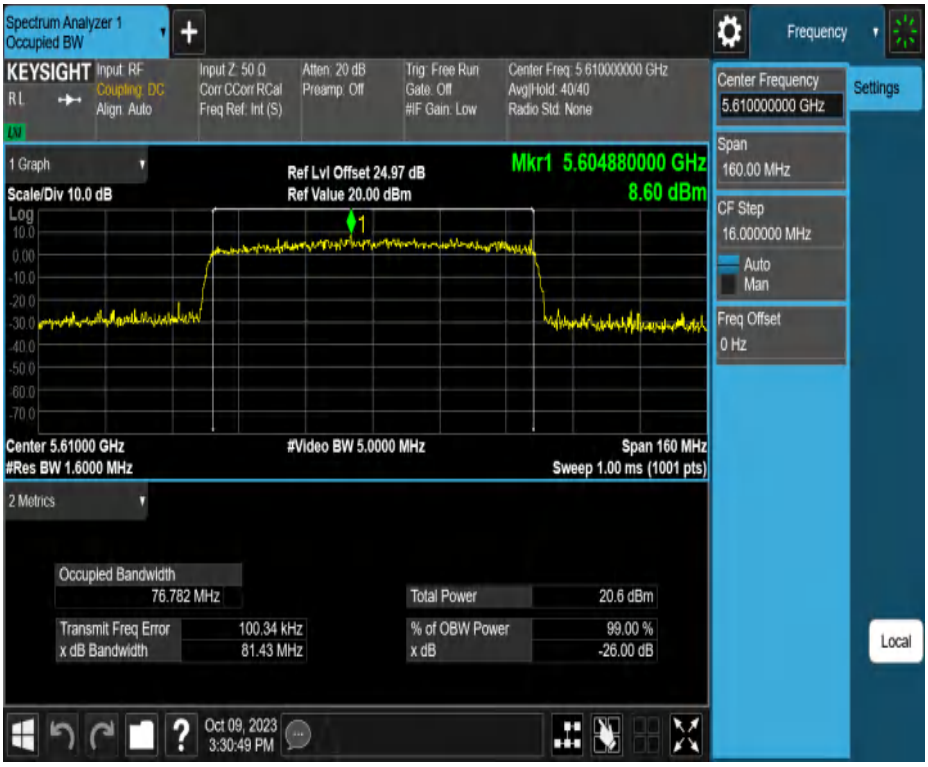
11AX80MIMO_Ant1_5290


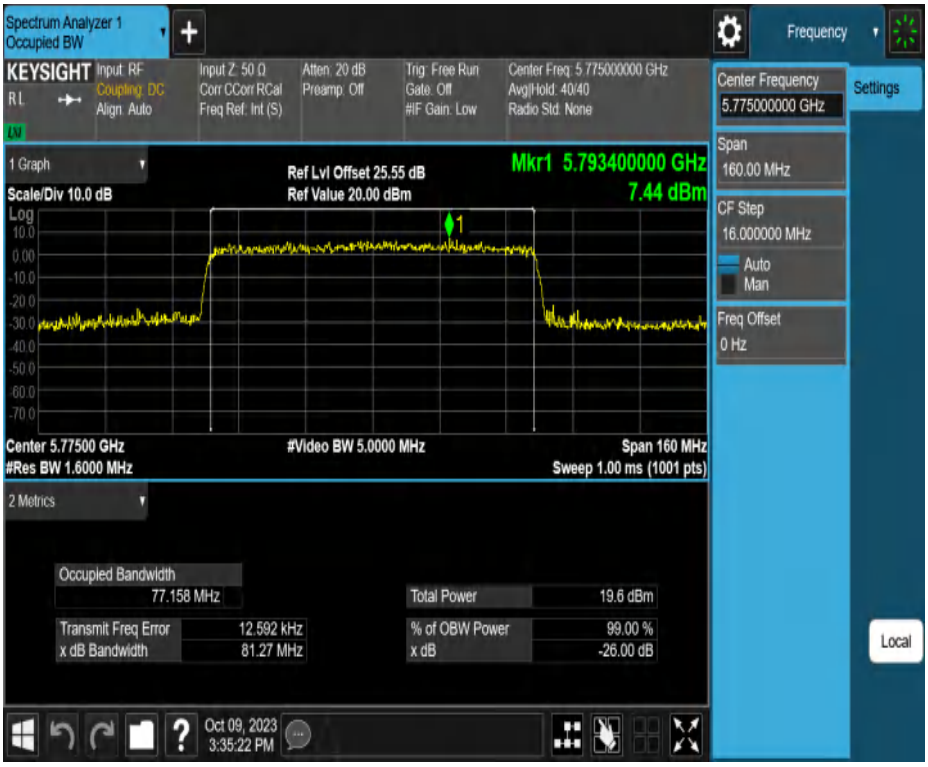
11AX80MIMO_Ant2_5290


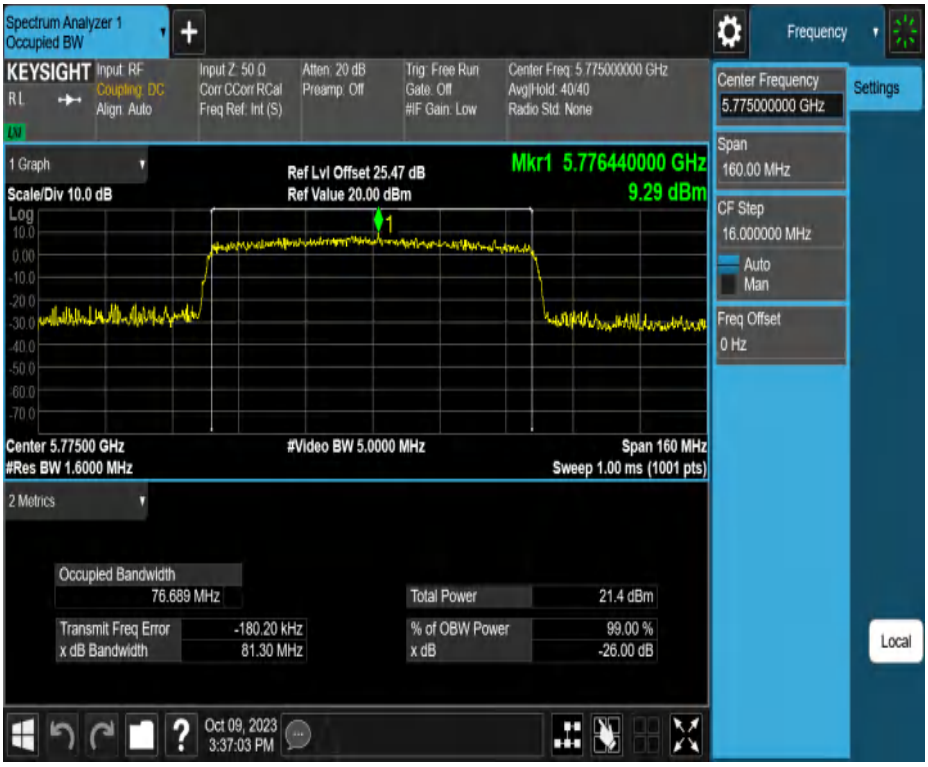
11AX80MIMO_Ant1_5530


11AX80MIMO_Ant2_5530


11AX80MIMO_Ant1_5610


11AX80MIMO_Ant2_5610


11AX80MIMO_Ant1_5775


11AX80MIMO_Ant2_5775


3.3.5.3 Min emission bandwidth

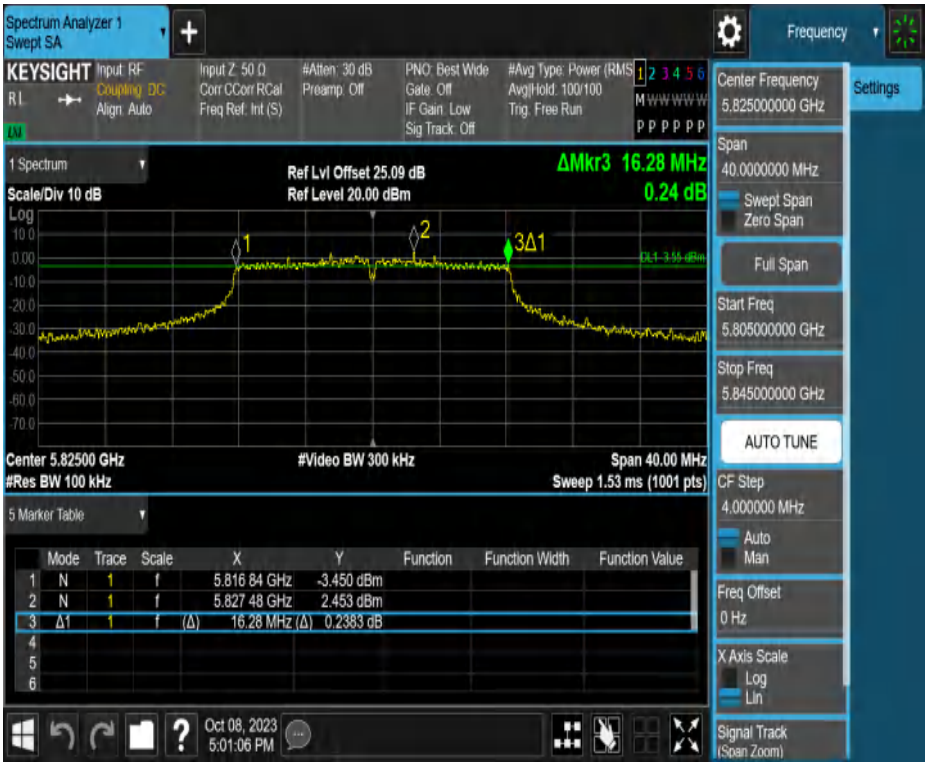
Test Mode	Antenna	Freq(MHz)	6db EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A-CDD	Ant1	5745	15.880	5736.880	5752.760	0.5	PASS
	Ant2	5745	15.080	5737.480	5752.560	0.5	PASS
	Ant1	5785	16.000	5777.120	5793.120	0.5	PASS
	Ant2	5785	16.320	5776.840	5793.160	0.5	PASS
	Ant1	5825	16.280	5816.840	5833.120	0.5	PASS
	Ant2	5825	16.360	5816.800	5833.160	0.5	PASS
11N20MIMO	Ant1	5745	13.160	5737.240	5750.400	0.5	PASS
	Ant2	5745	17.160	5736.600	5753.760	0.5	PASS
	Ant1	5785	17.600	5776.200	5793.800	0.5	PASS
	Ant2	5785	17.560	5776.200	5793.760	0.5	PASS
	Ant1	5825	15.920	5816.840	5832.760	0.5	PASS
	Ant2	5825	17.560	5816.200	5833.760	0.5	PASS
11N40MIMO	Ant1	5755	35.040	5737.480	5772.520	0.5	PASS
	Ant2	5755	35.040	5737.480	5772.520	0.5	PASS
	Ant1	5795	35.040	5777.480	5812.520	0.5	PASS
	Ant2	5795	34.960	5777.560	5812.520	0.5	PASS
11AC20MIMO	Ant1	5745	16.560	5736.840	5753.400	0.5	PASS
	Ant2	5745	17.520	5736.240	5753.760	0.5	PASS
	Ant1	5785	17.160	5776.240	5793.400	0.5	PASS
	Ant2	5785	16.320	5776.240	5792.560	0.5	PASS
	Ant1	5825	15.720	5816.840	5832.560	0.5	PASS
	Ant2	5825	17.520	5816.240	5833.760	0.5	PASS
11AC40MIMO	Ant1	5755	33.840	5738.680	5772.520	0.5	PASS
	Ant2	5755	33.840	5737.480	5771.320	0.5	PASS
	Ant1	5795	35.120	5777.480	5812.600	0.5	PASS
	Ant2	5795	32.560	5779.960	5812.520	0.5	PASS
11AC80MIMO	Ant1	5775	73.920	5738.680	5812.600	0.5	PASS
	Ant2	5775	75.040	5737.400	5812.440	0.5	PASS
11AX20MIMO	Ant1	5745	16.680	5737.440	5754.120	0.5	PASS
	Ant2	5745	17.360	5736.160	5753.520	0.5	PASS
	Ant1	5785	18.520	5775.720	5794.240	0.5	PASS
	Ant2	5785	16.800	5776.720	5793.520	0.5	PASS
	Ant1	5825	16.760	5817.000	5833.760	0.5	PASS
	Ant2	5825	17.560	5815.760	5833.320	0.5	PASS
11AX40MIMO	Ant1	5755	35.680	5737.480	5773.160	0.5	PASS
	Ant2	5755	36.320	5737.480	5773.800	0.5	PASS
	Ant1	5795	36.080	5776.520	5812.600	0.5	PASS
	Ant2	5795	35.840	5776.760	5812.600	0.5	PASS
11AX80MIMO	Ant1	5775	75.840	5736.760	5812.600	0.5	PASS
	Ant2	5775	73.920	5738.680	5812.600	0.5	PASS

11A-CDD_Ant1_5745


11A-CDD_Ant2_5745


11A-CDD_Ant1_5785


11A-CDD_Ant2_5785


11A-CDD_Ant1_5825


11A-CDD_Ant2_5825


11N20MIMO_Ant1_5745

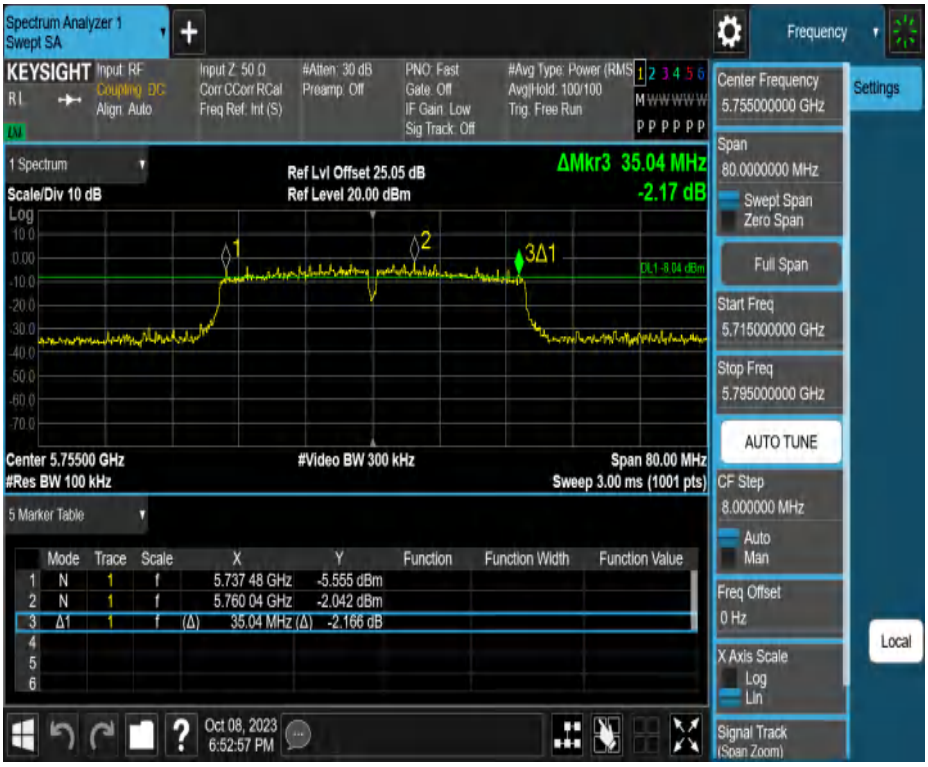

11N20MIMO_Ant2_5745

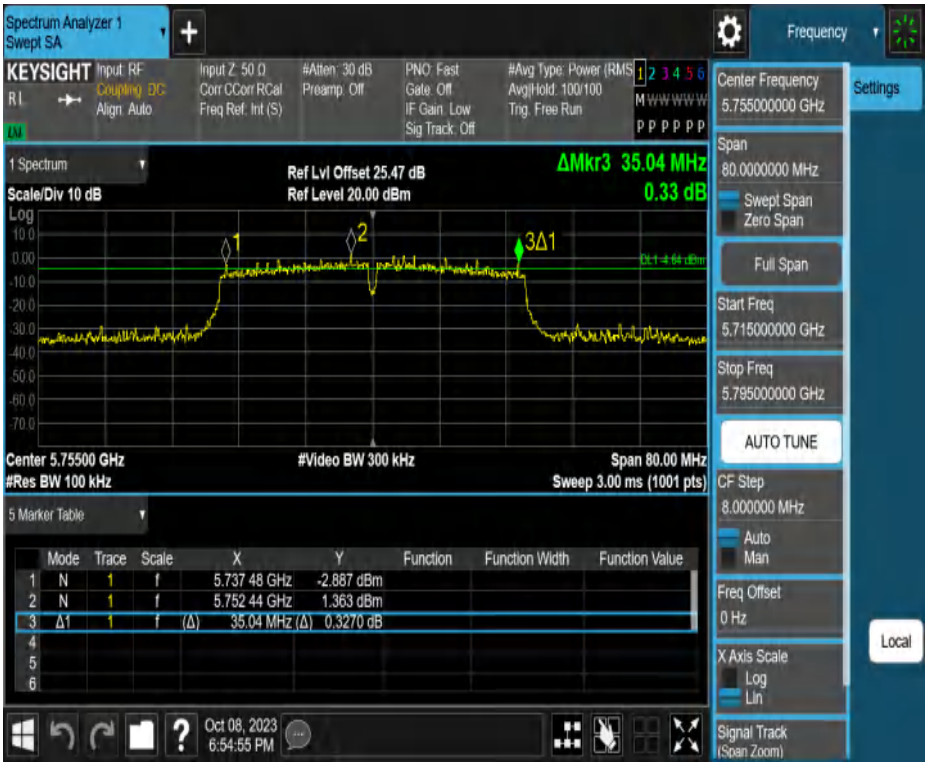

11N20MIMO_Ant1_5785

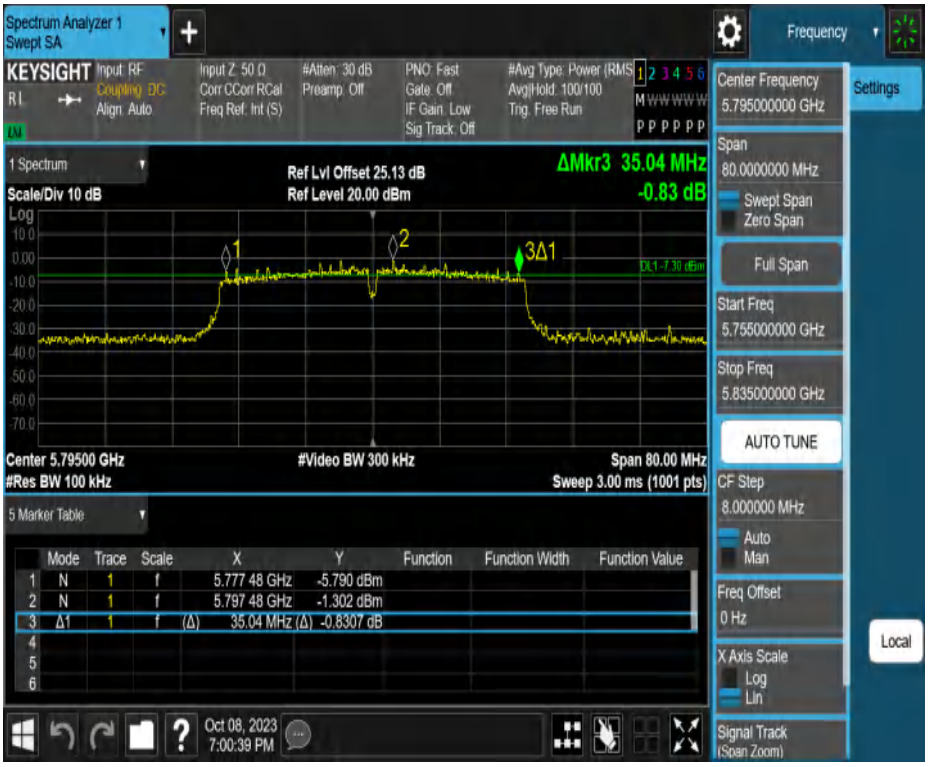

11N20MIMO_Ant2_5785

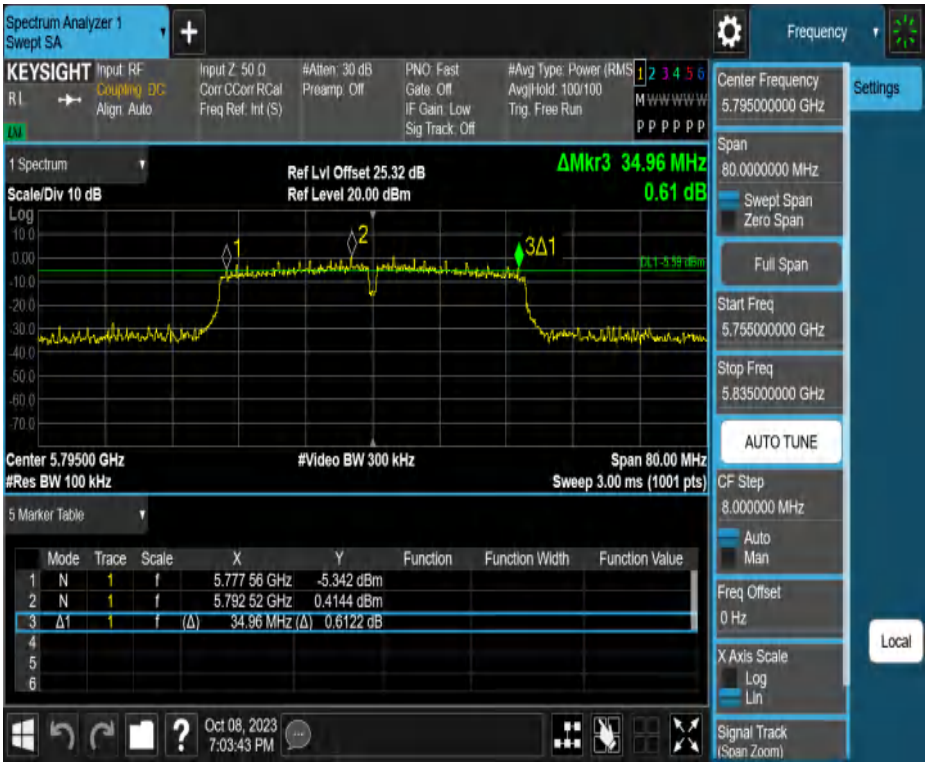

11N20MIMO_Ant1_5825


11N20MIMO_Ant2_5825


11N40MIMO_Ant1_5755


11N40MIMO_Ant2_5755


11N40MIMO_Ant1_5795


11N40MIMO_Ant2_5795


11AC20MIMO_Ant1_5745

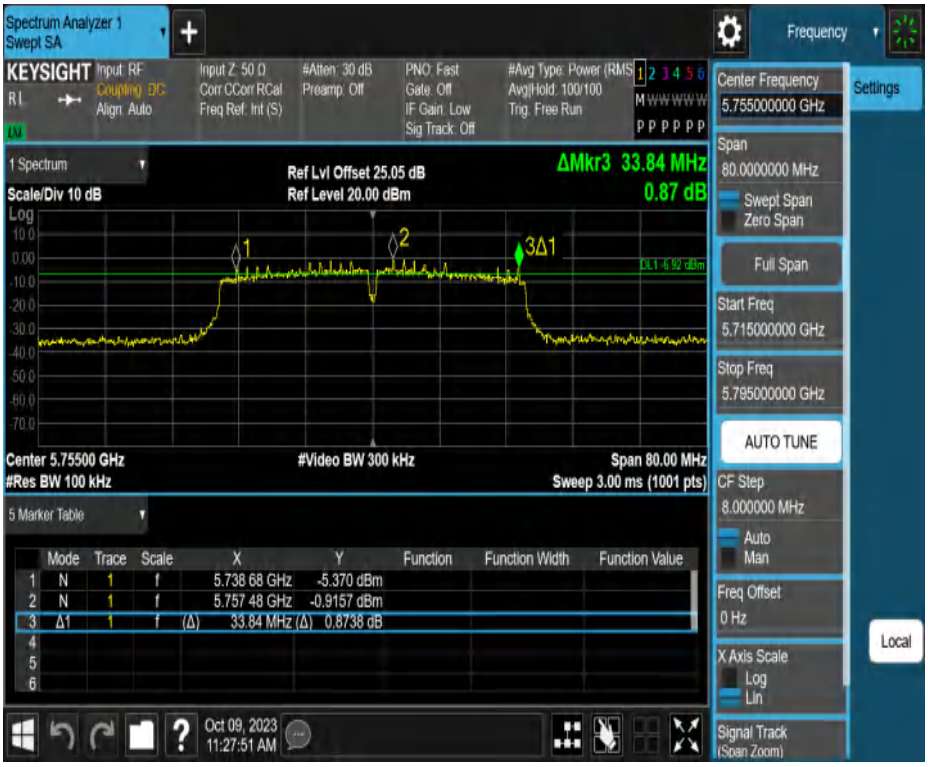

11AC20MIMO_Ant2_5745

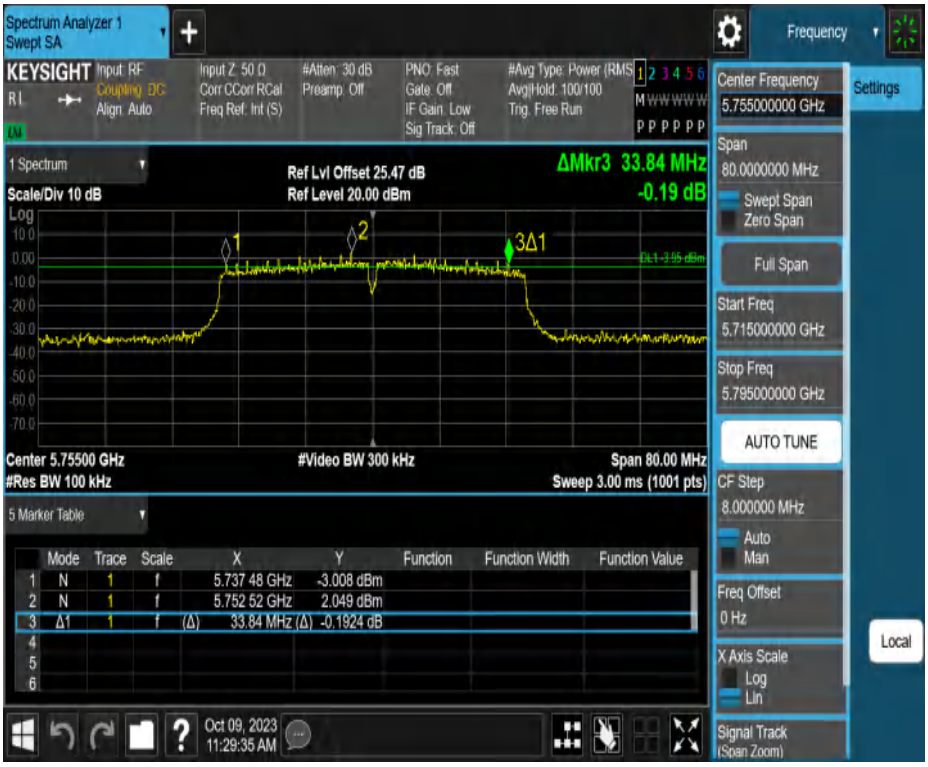

11AC20MIMO_Ant1_5785

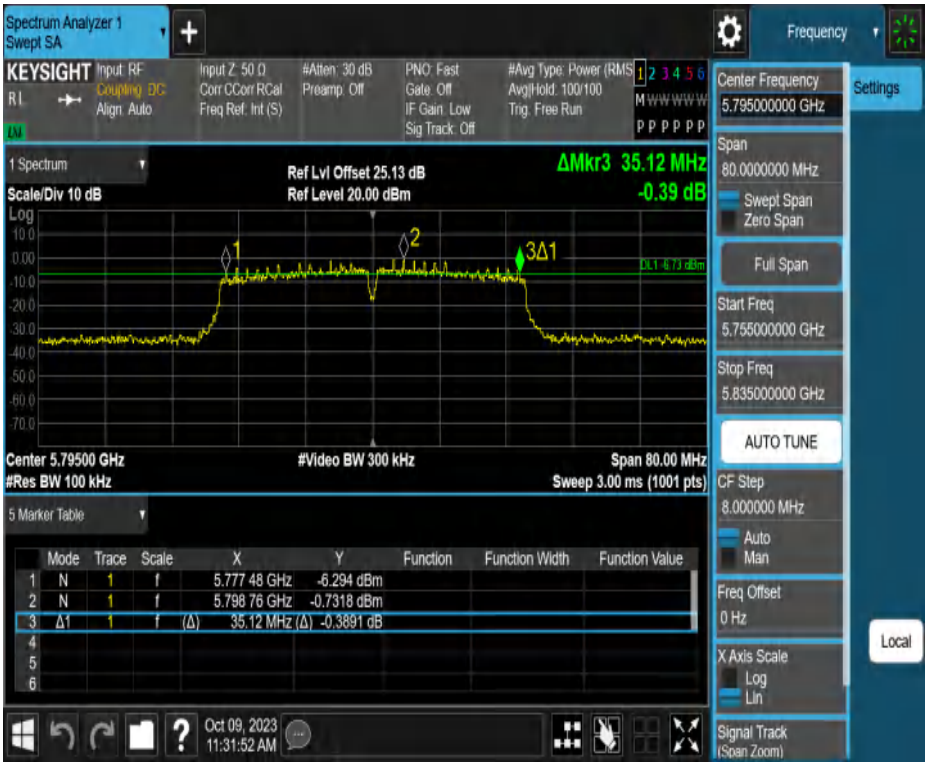

11AC20MIMO_Ant2_5785


11AC20MIMO_Ant1_5825

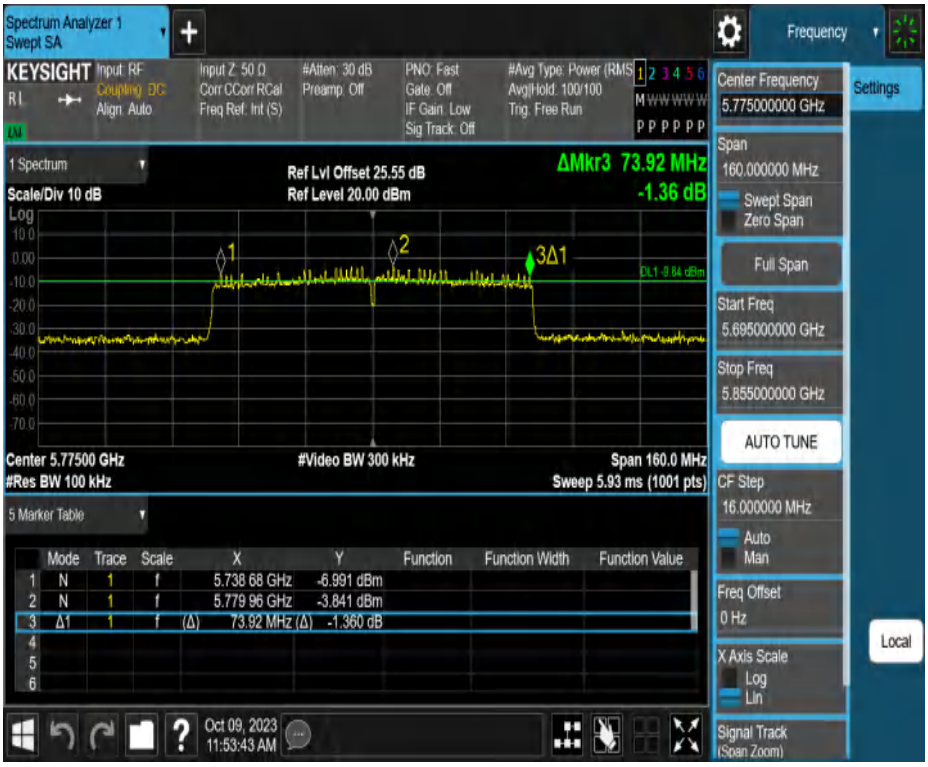

11AC20MIMO_Ant2_5825

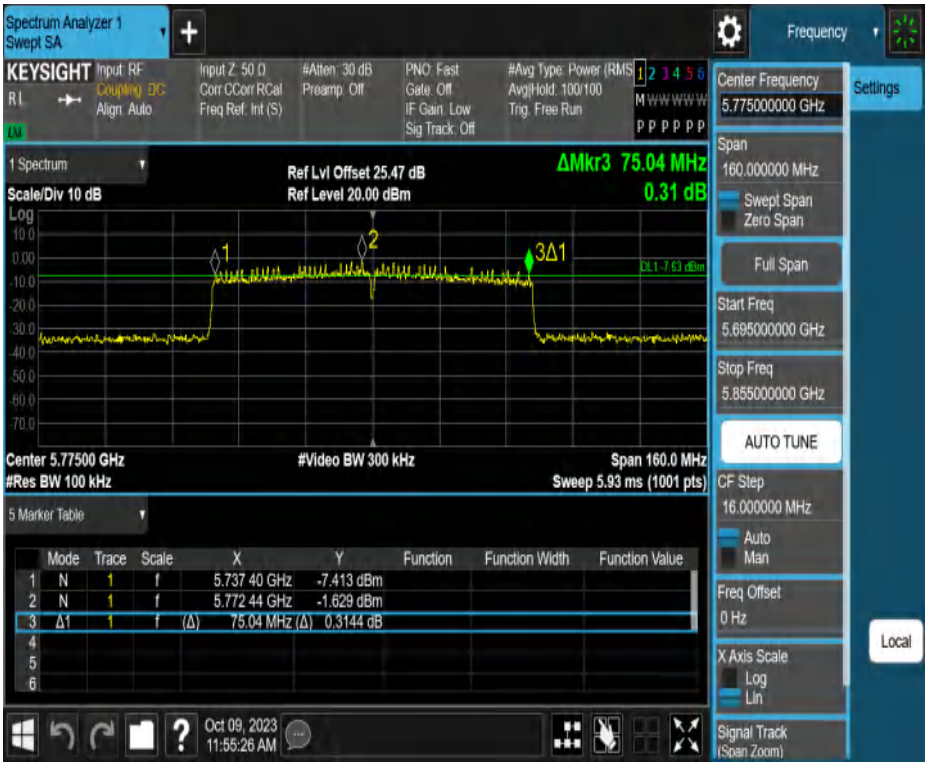

11AC40MIMO_Ant1_5755


11AC40MIMO_Ant2_5755


11AC40MIMO_Ant1_5795


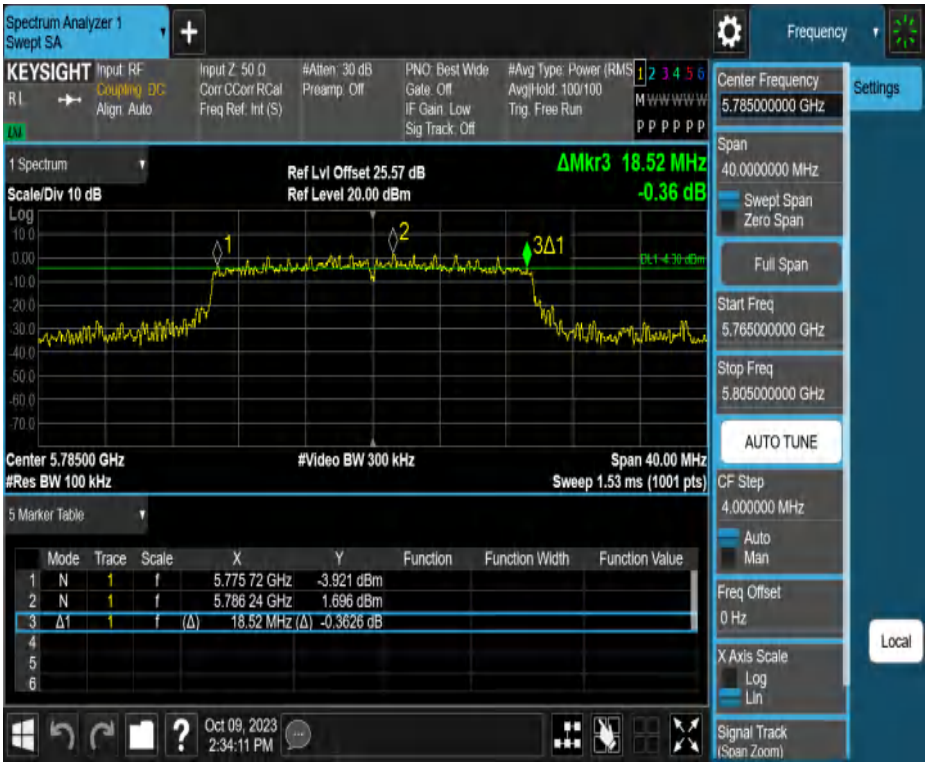
11AC40MIMO_Ant2_5795

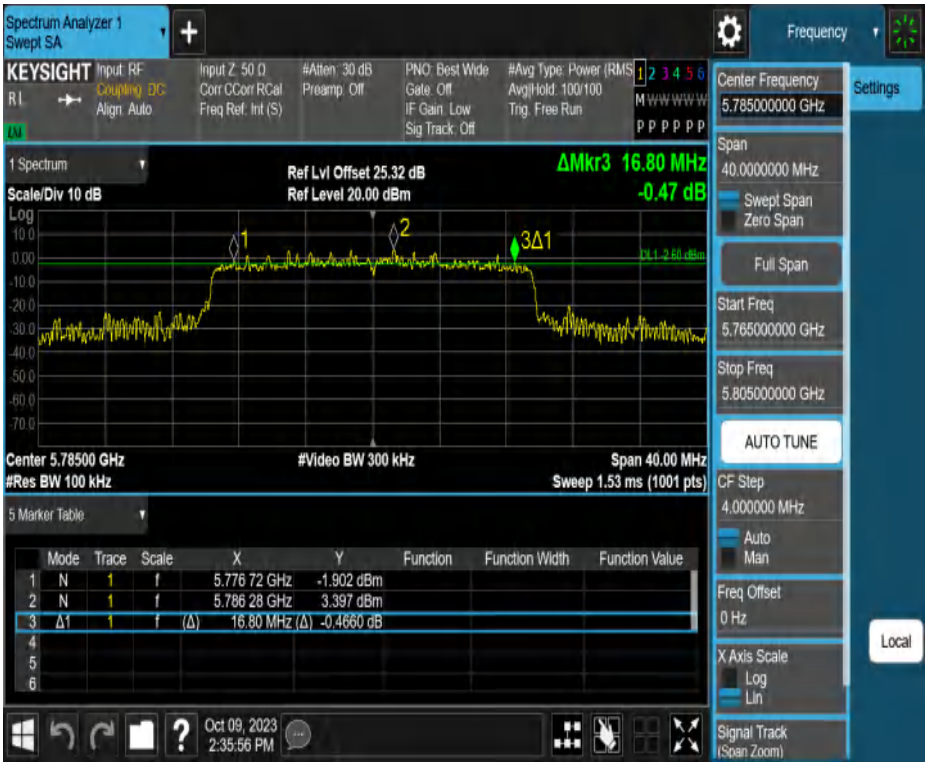

11AC80MIMO_Ant1_5775


11AC80MIMO_Ant2_5775


11AX20MIMO_Ant1_5745

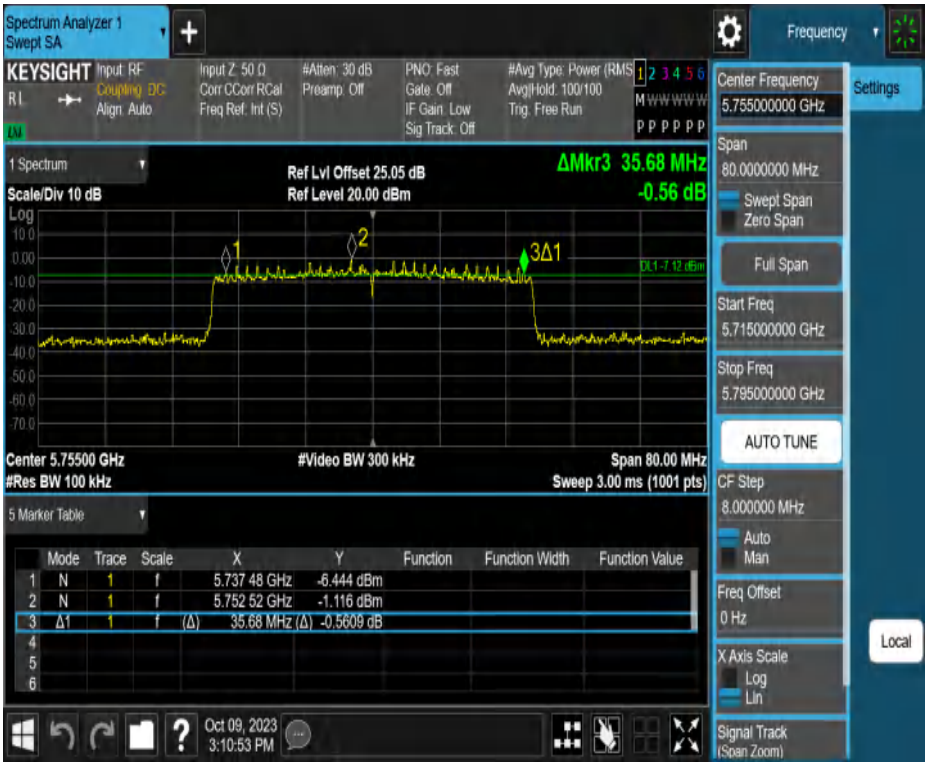

11AX20MIMO_Ant2_5745

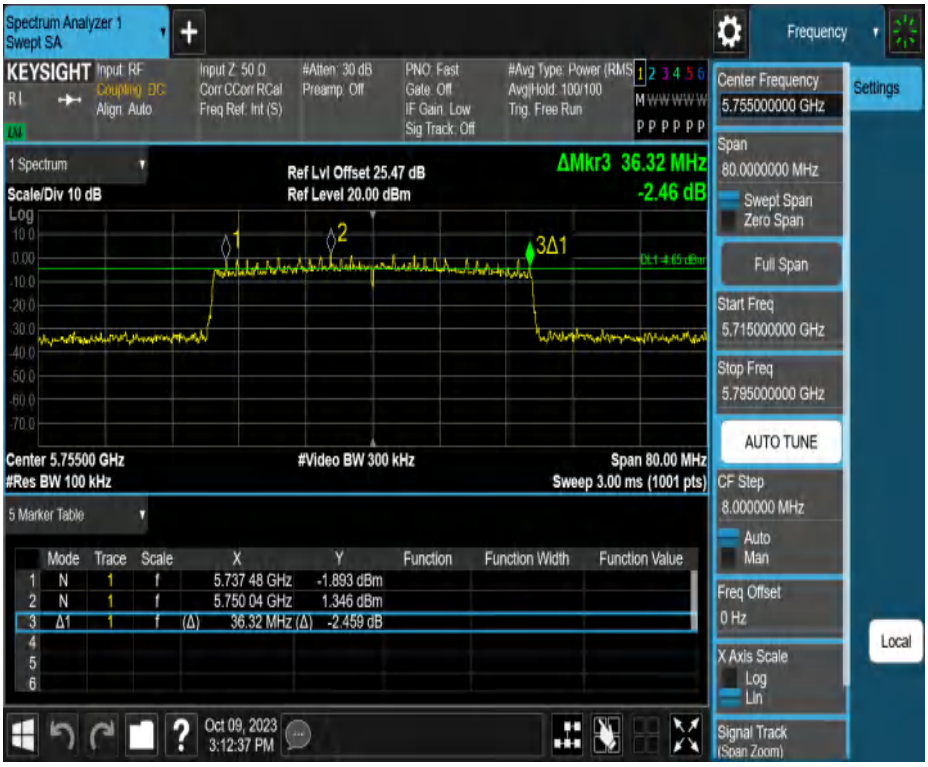

11AX20MIMO_Ant1_5785


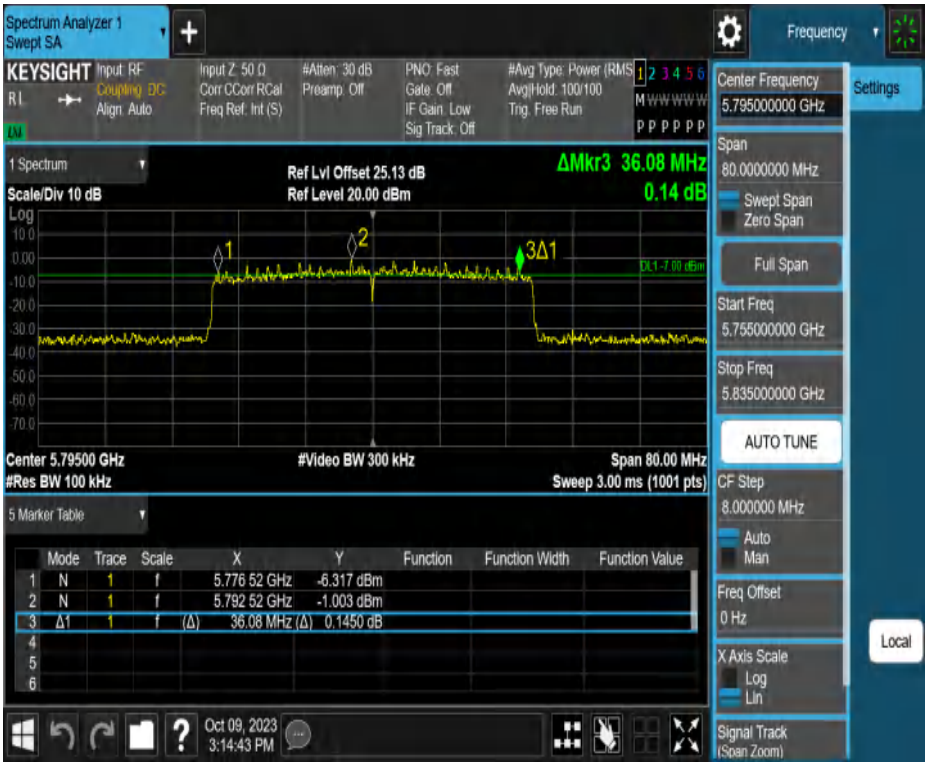
11AX20MIMO_Ant2_5785


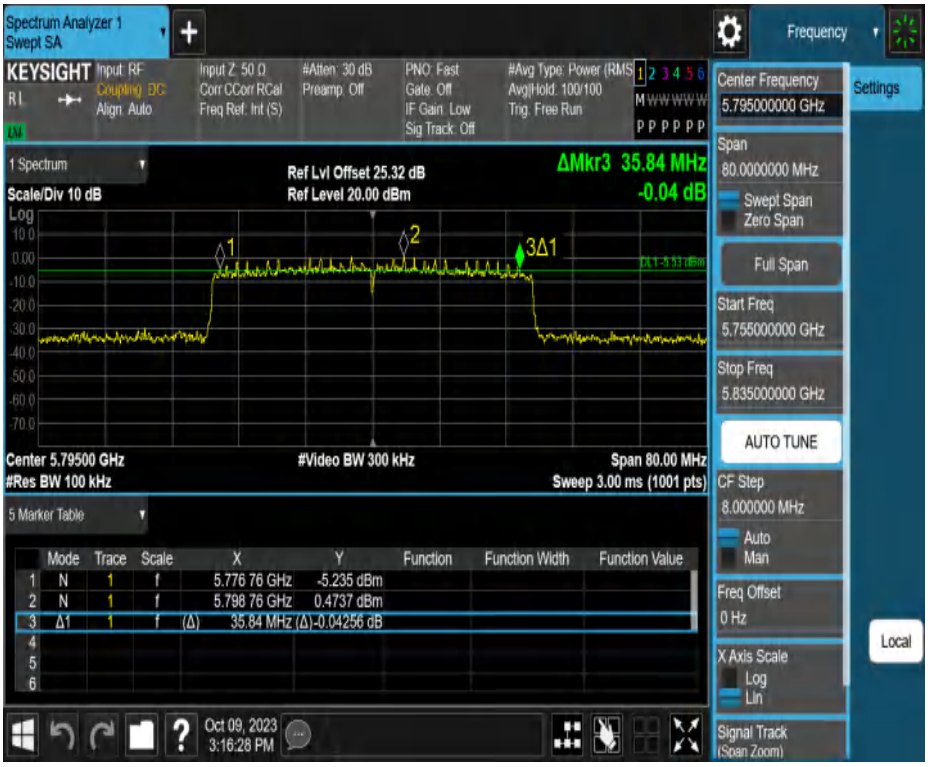
11AX20MIMO_Ant1_5825

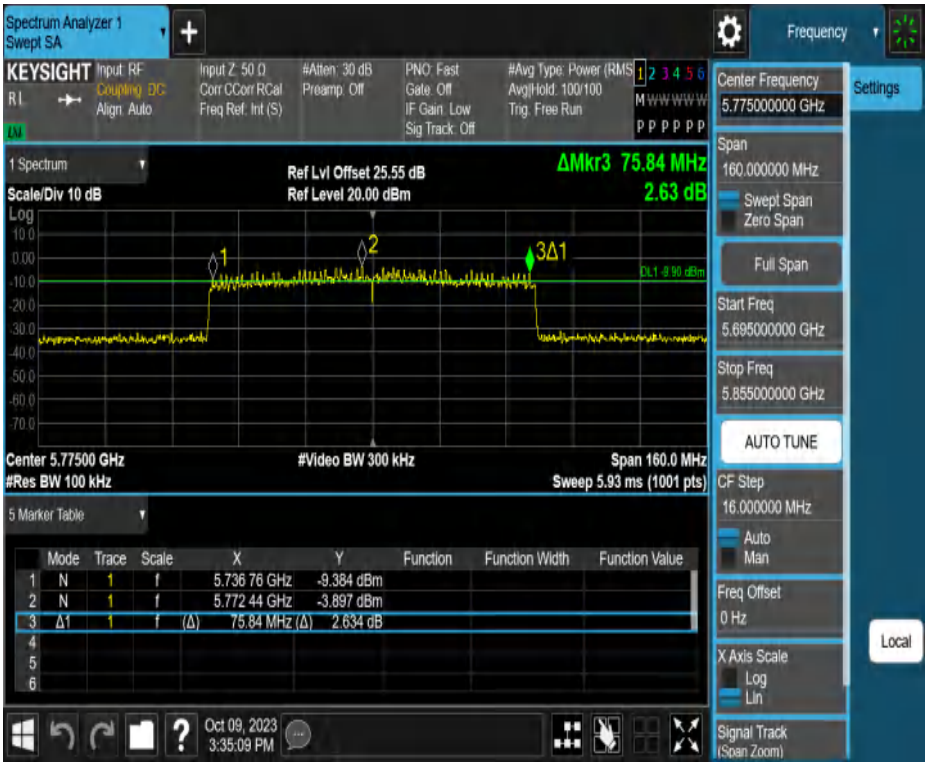

11AX20MIMO_Ant2_5825

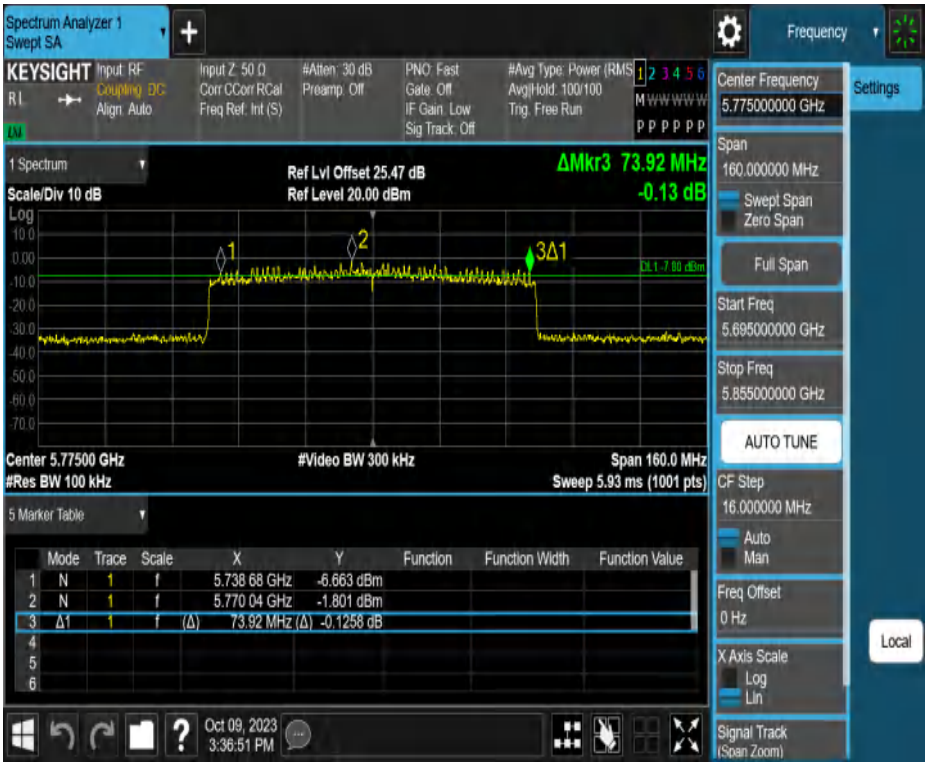

11AX40MIMO_Ant1_5755


11AX40MIMO_Ant2_5755


11AX40MIMO_Ant1_5795


11AX40MIMO_Ant2_5795


11AX80MIMO_Ant1_5775


11AX80MIMO_Ant2_5775


3.4 Conducted Output Power

3.4.1 Limit

FCC Part15, Subpart E (15.407)			
Section	Test Item	Limit	Frequency Range (MHz)
15.407(a)	Conducted Output Power	Master device: 1 Watt (30 dBm) Client device: 250 mW (23.98 dBm)	5150-5250
		250 mW (23.98 dBm)	5250-5350
		250 mW (23.98 dBm)	5470-5725
		1 Watt (30dBm)	5725-5850

Note:

a. 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. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

b. For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or 11 dBm + 10log B, where B is the 26dB Bandwidth in megahertz.

3.4.2 Test Procedure

Test Method	
●Conducted Measurement	○Radiated Measurement
Test Channels	
●Lowest, Middle and Highest Channel	○ Lowest and Highest Channel
Environmental conditions	
●Normal	○Normal and Extreme
Note:●:Test ○:No Test	

a) The EUT was directly connected to the power meter and antenna output port as show in the block diagram below.

b) Test was performed in accordance with method of FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01.

3.4.3 Test Setup

3.4.4 Table of Parameters of Text Software Setting

UNII-1			
Test Software Version	MT7961 QA_0.0.2.39		
Frequency (MHz)	5180	5200	5240
IEEE 802.11a	7	7	7
IEEE 802.11n(HT20)	8	8	8
IEEE 802.11ac(VHT20)	8	8	8
IEEE 802.11ax(HE20)	7	7	7
Frequency (MHz)	5190	5230	
IEEE 802.11n(HT40)	10	10	
IEEE 802.11ac(VHT40)	10	10	
IEEE 802.11ax(HE40)	9	9	
Frequency (MHz)	5210		
IEEE 802.11ac(VHT80)	11		
IEEE 802.11ax(HE80)	11		

UNII-2A			
Test Software Version	MT7961 QA_0.0.2.39		
Frequency (MHz)	5260	5300	5320
IEEE 802.11a	14.5	14.5	14.5
IEEE 802.11n(HT20)	14.5	14.5	14.5
IEEE 802.11ac(VHT20)	14.5	14.5	14.5
IEEE 802.11ax(HE20)	14.5	14.5	14.5
Frequency (MHz)	5270	5310	
IEEE 802.11n(HT40)	14.5	14.5	
IEEE 802.11ac(VHT40)	14.5	14.5	
IEEE 802.11ax(HE40)	14.5	14.5	
Frequency (MHz)	5290		
IEEE 802.11ac(VHT80)	14.5		
IEEE 802.11ax(HE80)	14.5		

UNII-2C			
Test Software Version	MT7961 QA_0.0.2.39		
Frequency (MHz)	5500	5580	5700
IEEE 802.11a	14.5	14.5	14.5
IEEE 802.11n(HT20)	14.5	14.5	14.5
IEEE 802.11ac(VHT20)	14.5	14.5	14.5
IEEE 802.11ax(HE20)	14.5	14.5	14.5
Frequency (MHz)	5510	5550	5670
IEEE 802.11n(HT40)	14.5	14.5	14.5
IEEE 802.11ac(VHT40)	14.5	14.5	14.5
IEEE 802.11ax(HE40)	14.5	14.5	14.5
Frequency (MHz)	5530	5610	
IEEE 802.11ac(VHT80)	14.5	14.5	
IEEE 802.11ax(HE80)	14.5	14.5	

UNII-3			
Test Software Version	MT7961 QA_0.0.2.39		
Frequency (MHz)	5745	5785	5825
IEEE 802.11a	14.5	14.5	14.5
IEEE 802.11n(HT20)	14.5	14.5	14.5
IEEE 802.11ac(VHT20)	14.5	14.5	14.5
IEEE 802.11ax(HE20)	14.5	14.5	14.5
Frequency (MHz)	5755	5795	
IEEE 802.11n(HT40)	14.5	14.5	
IEEE 802.11ac(VHT40)	14.5	14.5	
IEEE 802.11ax(HE40)	14.5	14.5	
Frequency (MHz)	5775		
IEEE 802.11ac(VHT80)	14.5		
IEEE 802.11ax(HE80)	14.5		

3.4.5 The Result

Test Mode	Antenna	Freq(MHz)	Result [dBm]	Limit [dBm]	Verdict
11A-CDD	Ant1	5180	8.91	≤23.52	PASS
	Ant2	5180	9.62	≤23.52	PASS
	total	5180	12.29	≤23.52	PASS
	Ant1	5200	10.04	≤23.52	PASS
	Ant2	5200	9.71	≤23.52	PASS
	total	5200	12.89	≤23.52	PASS
	Ant1	5240	9.94	≤23.52	PASS
	Ant2	5240	8.96	≤23.52	PASS
	total	5240	12.49	≤23.52	PASS
	Ant1	5260	16.33	≤23.52	PASS
	Ant2	5260	14.54	≤23.52	PASS
	total	5260	18.54	≤23.52	PASS
	Ant1	5280	16.07	≤23.52	PASS
	Ant2	5280	14.17	≤23.52	PASS
	total	5280	18.23	≤23.52	PASS
	Ant1	5320	16.23	≤23.52	PASS
	Ant2	5320	14.14	≤23.52	PASS
	total	5320	18.32	≤23.52	PASS
	Ant1	5500	15.30	≤23.52	PASS
	Ant2	5500	13.37	≤23.52	PASS
	total	5500	17.45	≤23.52	PASS
	Ant1	5580	14.51	≤23.52	PASS
	Ant2	5580	15.03	≤23.52	PASS
	total	5580	17.79	≤23.52	PASS
	Ant1	5700	13.94	≤23.52	PASS
	Ant2	5700	15.82	≤23.52	PASS
	total	5700	17.99	≤23.52	PASS
	Ant1	5745	13.31	≤29.54	PASS
	Ant2	5745	15.81	≤29.54	PASS
	total	5745	17.75	≤29.54	PASS
	Ant1	5785	13.61	≤29.54	PASS
	Ant2	5785	14.71	≤29.54	PASS
	total	5785	17.21	≤29.54	PASS
	Ant1	5825	13.45	≤29.54	PASS
	Ant2	5825	14.60	≤29.54	PASS
	total	5825	17.07	≤29.54	PASS
11N20MIMO	Ant1	5180	9.71	≤23.52	PASS
	Ant2	5180	9.49	≤23.52	PASS
	total	5180	12.61	≤23.52	PASS

	Ant1	5200	9.37	≤23.52	PASS
	Ant2	5200	8.71	≤23.52	PASS
	total	5200	12.06	≤23.52	PASS
	Ant1	5240	10.04	≤23.52	PASS
	Ant2	5240	9.04	≤23.52	PASS
	total	5240	12.58	≤23.52	PASS
	Ant1	5260	15.38	≤23.52	PASS
	Ant2	5260	13.53	≤23.52	PASS
	total	5260	17.56	≤23.52	PASS
	Ant1	5280	15.40	≤23.52	PASS
	Ant2	5280	13.37	≤23.52	PASS
	total	5280	17.51	≤23.52	PASS
	Ant1	5320	15.18	≤23.52	PASS
	Ant2	5320	12.88	≤23.52	PASS
	total	5320	17.19	≤23.52	PASS
	Ant1	5500	14.19	≤23.52	PASS
	Ant2	5500	12.34	≤23.52	PASS
	total	5500	16.37	≤23.52	PASS
	Ant1	5580	13.51	≤23.52	PASS
	Ant2	5580	13.79	≤23.52	PASS
	total	5580	16.66	≤23.52	PASS
	Ant1	5700	12.47	≤23.52	PASS
	Ant2	5700	14.74	≤23.52	PASS
	total	5700	16.76	≤23.52	PASS
	Ant1	5745	12.40	≤29.54	PASS
	Ant2	5745	14.80	≤29.54	PASS
	total	5745	16.77	≤29.54	PASS
	Ant1	5785	12.74	≤29.54	PASS
	Ant2	5785	13.90	≤29.54	PASS
	total	5785	16.37	≤29.54	PASS
	Ant1	5825	12.90	≤29.54	PASS
	Ant2	5825	13.50	≤29.54	PASS
	total	5825	16.22	≤29.54	PASS
11N40MIMO	Ant1	5190	11.58	≤23.52	PASS
	Ant2	5190	11.70	≤23.52	PASS
	total	5190	14.65	≤23.52	PASS
	Ant1	5230	11.15	≤23.52	PASS
	Ant2	5230	12.65	≤23.52	PASS
	total	5230	14.97	≤23.52	PASS
	Ant1	5270	15.29	≤23.52	PASS
	Ant2	5270	13.55	≤23.52	PASS
	total	5270	17.52	≤23.52	PASS

	Ant1	5310	15.43	≤23.52	PASS
	Ant2	5310	13.36	≤23.52	PASS
	total	5310	17.53	≤23.52	PASS
	Ant1	5510	13.92	≤23.52	PASS
	Ant2	5510	12.75	≤23.52	PASS
	total	5510	16.38	≤23.52	PASS
	Ant1	5550	13.57	≤23.52	PASS
	Ant2	5550	13.47	≤23.52	PASS
	total	5550	16.53	≤23.52	PASS
	Ant1	5670	12.86	≤23.52	PASS
	Ant2	5670	14.17	≤23.52	PASS
	total	5670	16.57	≤23.52	PASS
	Ant1	5755	12.41	≤29.54	PASS
	Ant2	5755	14.35	≤29.54	PASS
	total	5755	16.50	≤29.54	PASS
	Ant1	5795	13.10	≤29.54	PASS
	Ant2	5795	13.45	≤29.54	PASS
	total	5795	16.29	≤29.54	PASS
11AC20MIMO	Ant1	5180	9.41	≤23.52	PASS
	Ant2	5180	9.42	≤23.52	PASS
	total	5180	12.43	≤23.52	PASS
	Ant1	5200	9.56	≤23.52	PASS
	Ant2	5200	9.51	≤23.52	PASS
	total	5200	12.55	≤23.52	PASS
	Ant1	5240	9.81	≤23.52	PASS
	Ant2	5240	8.96	≤23.52	PASS
	total	5240	12.42	≤23.52	PASS
	Ant1	5260	15.04	≤23.52	PASS
	Ant2	5260	14.19	≤23.52	PASS
	total	5260	17.65	≤23.52	PASS
	Ant1	5280	15.18	≤23.52	PASS
	Ant2	5280	13.85	≤23.52	PASS
	total	5280	17.58	≤23.52	PASS
	Ant1	5320	15.11	≤23.52	PASS
	Ant2	5320	13.52	≤23.52	PASS
	total	5320	17.40	≤23.52	PASS
	Ant1	5500	14.19	≤23.52	PASS
	Ant2	5500	12.30	≤23.52	PASS
	total	5500	16.36	≤23.52	PASS
	Ant1	5580	13.39	≤23.52	PASS
	Ant2	5580	13.39	≤23.52	PASS
	total	5580	16.40	≤23.52	PASS

	Ant1	5700	12.95	≤23.52	PASS
	Ant2	5700	14.96	≤23.52	PASS
	total	5700	17.08	≤23.52	PASS
	Ant1	5745	12.73	≤29.54	PASS
	Ant2	5745	15.52	≤29.54	PASS
	total	5745	17.36	≤29.54	PASS
	Ant1	5785	13.34	≤29.54	PASS
	Ant2	5785	14.55	≤29.54	PASS
	total	5785	17.00	≤29.54	PASS
	Ant1	5825	13.38	≤29.54	PASS
	Ant2	5825	14.05	≤29.54	PASS
	total	5825	16.74	≤29.54	PASS
11AC40MIMO	Ant1	5190	11.64	≤23.52	PASS
	Ant2	5190	11.64	≤23.52	PASS
	total	5190	14.65	≤23.52	PASS
	Ant1	5230	11.84	≤23.52	PASS
	Ant2	5230	11.57	≤23.52	PASS
	total	5230	14.72	≤23.52	PASS
	Ant1	5270	14.69	≤23.52	PASS
	Ant2	5270	13.39	≤23.52	PASS
	total	5270	17.10	≤23.52	PASS
	Ant1	5310	15.26	≤23.52	PASS
	Ant2	5310	13.60	≤23.52	PASS
	total	5310	17.52	≤23.52	PASS
	Ant1	5510	13.98	≤23.52	PASS
	Ant2	5510	12.91	≤23.52	PASS
	total	5510	16.49	≤23.52	PASS
	Ant1	5550	13.86	≤23.52	PASS
	Ant2	5550	13.50	≤23.52	PASS
	total	5550	16.69	≤23.52	PASS
	Ant1	5670	12.98	≤23.52	PASS
	Ant2	5670	14.58	≤23.52	PASS
	total	5670	16.86	≤23.52	PASS
	Ant1	5755	12.43	≤29.54	PASS
	Ant2	5755	14.68	≤29.54	PASS
	total	5755	16.71	≤29.54	PASS
	Ant1	5795	12.80	≤29.54	PASS
	Ant2	5795	14.79	≤29.54	PASS
	total	5795	16.92	≤29.54	PASS
11AC80MIMO	Ant1	5210	12.47	≤23.52	PASS
	Ant2	5210	11.55	≤23.52	PASS
	total	5210	15.04	≤23.52	PASS

	Ant1	5290	14.54	≤23.52	PASS
	Ant2	5290	14.41	≤23.52	PASS
	total	5290	17.49	≤23.52	PASS
	Ant1	5530	12.73	≤23.52	PASS
	Ant2	5530	12.18	≤23.52	PASS
	total	5530	15.47	≤23.52	PASS
	Ant1	5610	12.97	≤23.52	PASS
	Ant2	5610	13.25	≤23.52	PASS
	total	5610	16.12	≤23.52	PASS
	Ant1	5775	12.44	≤29.54	PASS
	Ant2	5775	14.67	≤29.54	PASS
	total	5775	16.71	≤29.54	PASS
11AX20MIMO	Ant1	5180	10.21	≤23.52	PASS
	Ant2	5180	10.65	≤23.52	PASS
	total	5180	13.45	≤23.52	PASS
	Ant1	5200	10.05	≤23.52	PASS
	Ant2	5200	10.26	≤23.52	PASS
	total	5200	13.17	≤23.52	PASS
	Ant1	5240	10.37	≤23.52	PASS
	Ant2	5240	9.37	≤23.52	PASS
	total	5240	12.91	≤23.52	PASS
	Ant1	5260	14.95	≤23.52	PASS
	Ant2	5260	14.13	≤23.52	PASS
	total	5260	17.57	≤23.52	PASS
	Ant1	5280	15.16	≤23.52	PASS
	Ant2	5280	13.88	≤23.52	PASS
	total	5280	17.58	≤23.52	PASS
	Ant1	5320	15.25	≤23.52	PASS
	Ant2	5320	14.02	≤23.52	PASS
	total	5320	17.69	≤23.52	PASS
	Ant1	5500	14.69	≤23.52	PASS
	Ant2	5500	12.90	≤23.52	PASS
	total	5500	16.90	≤23.52	PASS
	Ant1	5580	13.98	≤23.52	PASS
	Ant2	5580	13.95	≤23.52	PASS
	total	5580	16.98	≤23.52	PASS
	Ant1	5700	12.82	≤23.52	PASS
	Ant2	5700	15.16	≤23.52	PASS
	total	5700	17.16	≤23.52	PASS
	Ant1	5745	12.46	≤29.54	PASS
	Ant2	5745	15.20	≤29.54	PASS
	total	5745	17.05	≤29.54	PASS

	Ant1	5785	13.25	≤29.54	PASS
	Ant2	5785	14.69	≤29.54	PASS
	total	5785	17.04	≤29.54	PASS
	Ant1	5825	13.35	≤29.54	PASS
	Ant2	5825	14.26	≤29.54	PASS
	total	5825	16.84	≤29.54	PASS
11AX40MIMO	Ant1	5190	12.09	≤23.52	PASS
	Ant2	5190	11.64	≤23.52	PASS
	total	5190	14.88	≤23.52	PASS
	Ant1	5230	11.80	≤23.52	PASS
	Ant2	5230	11.30	≤23.52	PASS
	total	5230	14.57	≤23.52	PASS
	Ant1	5270	15.07	≤23.52	PASS
	Ant2	5270	14.28	≤23.52	PASS
	total	5270	17.70	≤23.52	PASS
	Ant1	5310	15.11	≤23.52	PASS
	Ant2	5310	14.15	≤23.52	PASS
	total	5310	17.67	≤23.52	PASS
	Ant1	5510	14.00	≤23.52	PASS
	Ant2	5510	12.79	≤23.52	PASS
	total	5510	16.45	≤23.52	PASS
	Ant1	5550	13.77	≤23.52	PASS
	Ant2	5550	13.45	≤23.52	PASS
	total	5550	16.62	≤23.52	PASS
	Ant1	5670	13.11	≤23.52	PASS
	Ant2	5670	14.91	≤23.52	PASS
	total	5670	17.11	≤23.52	PASS
	Ant1	5755	12.63	≤29.54	PASS
	Ant2	5755	15.21	≤29.54	PASS
	total	5755	17.12	≤29.54	PASS
	Ant1	5795	13.16	≤29.54	PASS
	Ant2	5795	14.81	≤29.54	PASS
	total	5795	17.07	≤29.54	PASS
11AX80MIMO	Ant1	5210	12.79	≤23.52	PASS
	Ant2	5210	11.97	≤23.52	PASS
	total	5210	15.41	≤23.52	PASS
	Ant1	5290	14.76	≤23.52	PASS
	Ant2	5290	13.98	≤23.52	PASS
	total	5290	17.40	≤23.52	PASS
	Ant1	5530	13.29	≤23.52	PASS
	Ant2	5530	12.50	≤23.52	PASS
	total	5530	15.92	≤23.52	PASS

	Ant1	5610	13.01	≤23.52	PASS
	Ant2	5610	13.71	≤23.52	PASS
	total	5610	16.38	≤23.52	PASS
	Ant1	5775	12.56	≤29.54	PASS
	Ant2	5775	14.54	≤29.54	PASS
	total	5775	16.67	≤29.54	PASS

Note: The Duty Cycle Factor is compensated in the test system
For MIMO mode
Unequal antenna gains, with equal transmit powers. For antenna gains given by G_1, G_2, …, G_N dBi
If transmit signals are correlated, then Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + \ldots + 10^{GN/20})^2 / N_{ANT}$] dBi
[Note the “20”s in the denominator of each exponent and the square of the sum of terms; the object is to combine the signal levels coherently.]
Directional gain = 10log[$(10^{3.7/20} + 10^{3.2/20})^2/N_{ANT}$] dBi=6.46 dBi

3.5 Power Spectral Density

3.5.1 Limit

FCC Part15, Subpart E (15.407)			
Section	Test Item	Limit	Frequency Range (MHz)
15.407(a)	Power Spectral Density	Master device: 17 dBm/MHz Client device: 11 dBm/MHz	5150-5250
		11 dBm/MHz	5250-5350
		11 dBm/MHz	5470-5725
		30 dBm/500 kHz	5725-5850

Note:

1. For UNII-3, according to KDB publication 789033 D02 General UNII Test Procedures New Rules v02r01, section II.F.5., it is acceptable to set RBW at 300kHz and VBW at 1500kHz if the spectrum analyzer does not have 500 kHz RBW. Then, add 10 log (500 kHz/300 kHz) to the measured result, i.e. 2.22 dB.
2. During the test of U-NII 3 PSD, the measurement result with RBW=300kHz has been added 2.22 dB by compensating offset, offset=cable loss+duty factor+10log(500kHz/300kHz).

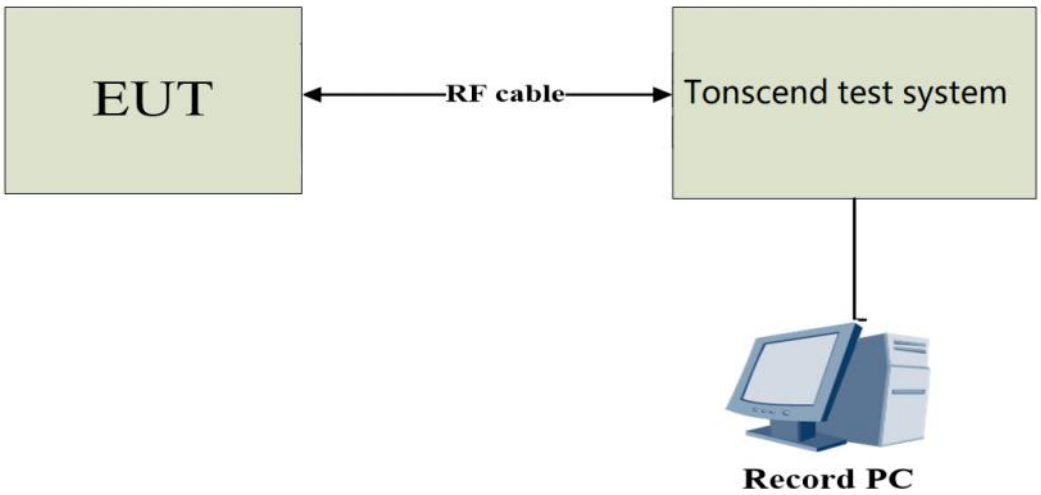
3.5.2 Test Procedure

Test Method	
●Conducted Measurement	○Radiated Measurement
Test Channels	
●Lowest, Middle and Highest Channel	○ Lowest and Highest Channel
Environmental conditions	
●Normal	○Normal and Extreme
Note:●:Test ○:No Test	

a) The EUT was directly connected to the tonscend test system and antenna output port as show in the block diagram below. Spectrum analyser settings as following:

Centre Frequency	The centre frequency of the channel under test
RBW	= 1 MHz (Band1/2/3); = 500kHz (Band4)
VBW	≥3 x RBW
Frequency span	2 x Nominal Channel Bandwidth
Detector Mode	RMS
Trace Mode	Max Hold
Sweep Time	Auto Couple

3.5.3 Test Setup



3.5.4 The Result

Test Mode	Antenna	Freq(MHz)	Result [dBm/MHz]	Limit[dBm/MHz]	Verdict
11A-CDD	Ant1	5180	-1.08	≤10.54	PASS
	Ant2	5180	-0.23	≤10.54	PASS
	total	5180	2.38	≤10.54	PASS
	Ant1	5200	-0.23	≤10.54	PASS
	Ant2	5200	-0.55	≤10.54	PASS
	total	5200	2.62	≤10.54	PASS
	Ant1	5240	-0.12	≤10.54	PASS
	Ant2	5240	-1.26	≤10.54	PASS
	total	5240	2.36	≤10.54	PASS
	Ant1	5260	6.00	≤10.54	PASS
	Ant2	5260	4.75	≤10.54	PASS
	total	5260	8.43	≤10.54	PASS
	Ant1	5280	6.13	≤10.54	PASS
	Ant2	5280	4.12	≤10.54	PASS
	total	5280	8.25	≤10.54	PASS
	Ant1	5320	6.01	≤10.54	PASS
	Ant2	5320	3.84	≤10.54	PASS
	total	5320	8.07	≤10.54	PASS
	Ant1	5500	5.43	≤10.54	PASS
	Ant2	5500	3.31	≤10.54	PASS
	total	5500	7.51	≤10.54	PASS
	Ant1	5580	4.23	≤10.54	PASS
	Ant2	5580	4.44	≤10.54	PASS
	total	5580	7.35	≤10.54	PASS
	Ant1	5700	3.59	≤10.54	PASS
	Ant2	5700	5.97	≤10.54	PASS
	total	5700	7.95	≤10.54	PASS
	Ant1	5745	0.65	≤29.54	PASS
	Ant2	5745	2.86	≤29.54	PASS
	total	5745	4.90	≤29.54	PASS
	Ant1	5785	1.37	≤29.54	PASS
	Ant2	5785	2.18	≤29.54	PASS
	total	5785	4.80	≤29.54	PASS
	Ant1	5825	0.86	≤29.54	PASS
	Ant2	5825	1.73	≤29.54	PASS
	total	5825	4.33	≤29.54	PASS
11N20MIMO	Ant1	5180	-0.55	≤10.54	PASS
	Ant2	5180	-0.61	≤10.54	PASS
	total	5180	2.43	≤10.54	PASS

	Ant1	5200	-0.70	≤10.54	PASS
	Ant2	5200	-0.79	≤10.54	PASS
	total	5200	2.27	≤10.54	PASS
	Ant1	5240	-0.60	≤10.54	PASS
	Ant2	5240	-1.24	≤10.54	PASS
	total	5240	2.10	≤10.54	PASS
	Ant1	5260	4.73	≤10.54	PASS
	Ant2	5260	3.32	≤10.54	PASS
	total	5260	7.09	≤10.54	PASS
	Ant1	5280	4.72	≤10.54	PASS
	Ant2	5280	3.16	≤10.54	PASS
	total	5280	7.02	≤10.54	PASS
	Ant1	5320	4.99	≤10.54	PASS
	Ant2	5320	2.71	≤10.54	PASS
	total	5320	7.01	≤10.54	PASS
	Ant1	5500	3.39	≤10.54	PASS
	Ant2	5500	2.17	≤10.54	PASS
	total	5500	5.83	≤10.54	PASS
	Ant1	5580	3.07	≤10.54	PASS
	Ant2	5580	3.64	≤10.54	PASS
	total	5580	6.37	≤10.54	PASS
	Ant1	5700	2.09	≤10.54	PASS
	Ant2	5700	4.70	≤10.54	PASS
	total	5700	6.60	≤10.54	PASS
	Ant1	5745	-1.23	≤29.54	PASS
	Ant2	5745	1.36	≤29.54	PASS
	total	5745	3.27	≤29.54	PASS
	Ant1	5785	-0.44	≤29.54	PASS
	Ant2	5785	0.52	≤29.54	PASS
	total	5785	3.08	≤29.54	PASS
	Ant1	5825	-0.45	≤29.54	PASS
	Ant2	5825	-0.07	≤29.54	PASS
	total	5825	2.75	≤29.54	PASS
11N40MIMO	Ant1	5190	-0.99	≤10.54	PASS
	Ant2	5190	-1.57	≤10.54	PASS
	total	5190	1.74	≤10.54	PASS
	Ant1	5230	-2.22	≤10.54	PASS
	Ant2	5230	-0.90	≤10.54	PASS
	total	5230	1.50	≤10.54	PASS
	Ant1	5270	1.88	≤10.54	PASS
	Ant2	5270	0.11	≤10.54	PASS
	total	5270	4.09	≤10.54	PASS

	Ant1	5310	2.19	≤10.54	PASS
	Ant2	5310	0.33	≤10.54	PASS
	total	5310	4.37	≤10.54	PASS
	Ant1	5510	0.88	≤10.54	PASS
	Ant2	5510	-0.26	≤10.54	PASS
	total	5510	3.36	≤10.54	PASS
	Ant1	5550	0.69	≤10.54	PASS
	Ant2	5550	0.40	≤10.54	PASS
	total	5550	3.56	≤10.54	PASS
	Ant1	5670	-0.54	≤10.54	PASS
	Ant2	5670	1.23	≤10.54	PASS
	total	5670	3.44	≤10.54	PASS
	Ant1	5755	-4.06	≤29.54	PASS
	Ant2	5755	-1.41	≤29.54	PASS
	total	5755	0.47	≤29.54	PASS
	Ant1	5795	-3.13	≤29.54	PASS
	Ant2	5795	-2.15	≤29.54	PASS
	total	5795	0.40	≤29.54	PASS
11AC20MIMO	Ant1	5180	-0.59	≤10.54	PASS
	Ant2	5180	-0.76	≤10.54	PASS
	total	5180	2.34	≤10.54	PASS
	Ant1	5200	-0.62	≤10.54	PASS
	Ant2	5200	-0.85	≤10.54	PASS
	total	5200	2.28	≤10.54	PASS
	Ant1	5240	-0.08	≤10.54	PASS
	Ant2	5240	-2.15	≤10.54	PASS
	total	5240	2.02	≤10.54	PASS
	Ant1	5260	4.44	≤10.54	PASS
	Ant2	5260	4.16	≤10.54	PASS
	total	5260	7.31	≤10.54	PASS
	Ant1	5280	4.83	≤10.54	PASS
	Ant2	5280	3.81	≤10.54	PASS
	total	5280	7.36	≤10.54	PASS
	Ant1	5320	4.95	≤10.54	PASS
	Ant2	5320	3.47	≤10.54	PASS
	total	5320	7.28	≤10.54	PASS
	Ant1	5500	3.72	≤10.54	PASS
	Ant2	5500	2.28	≤10.54	PASS
	total	5500	6.07	≤10.54	PASS
	Ant1	5580	3.56	≤10.54	PASS
	Ant2	5580	3.65	≤10.54	PASS
	total	5580	6.62	≤10.54	PASS

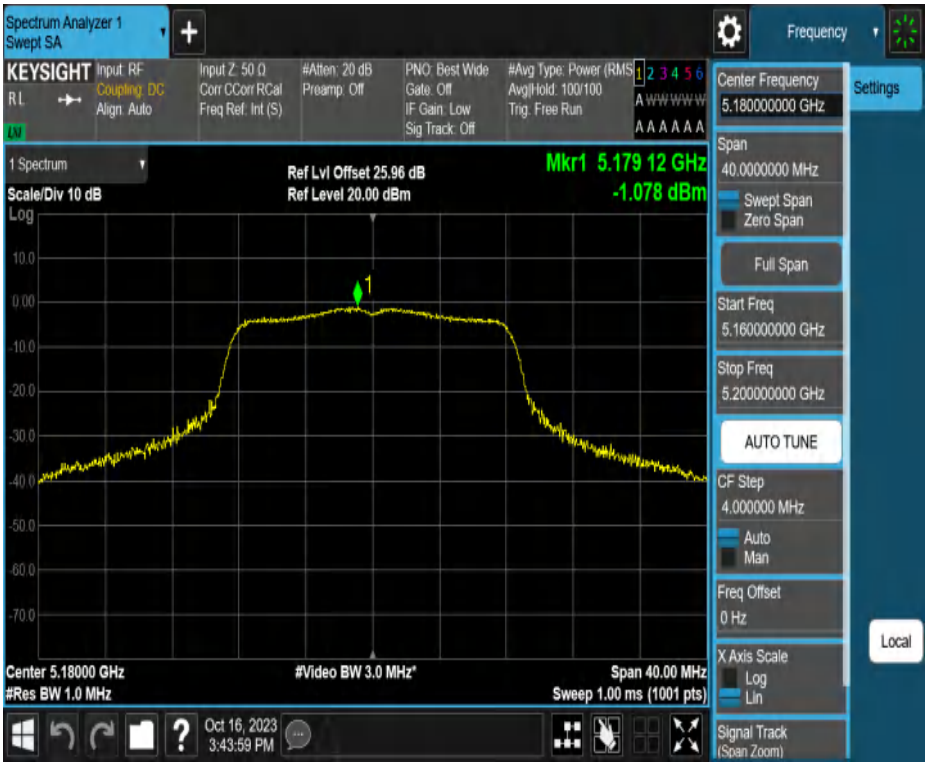
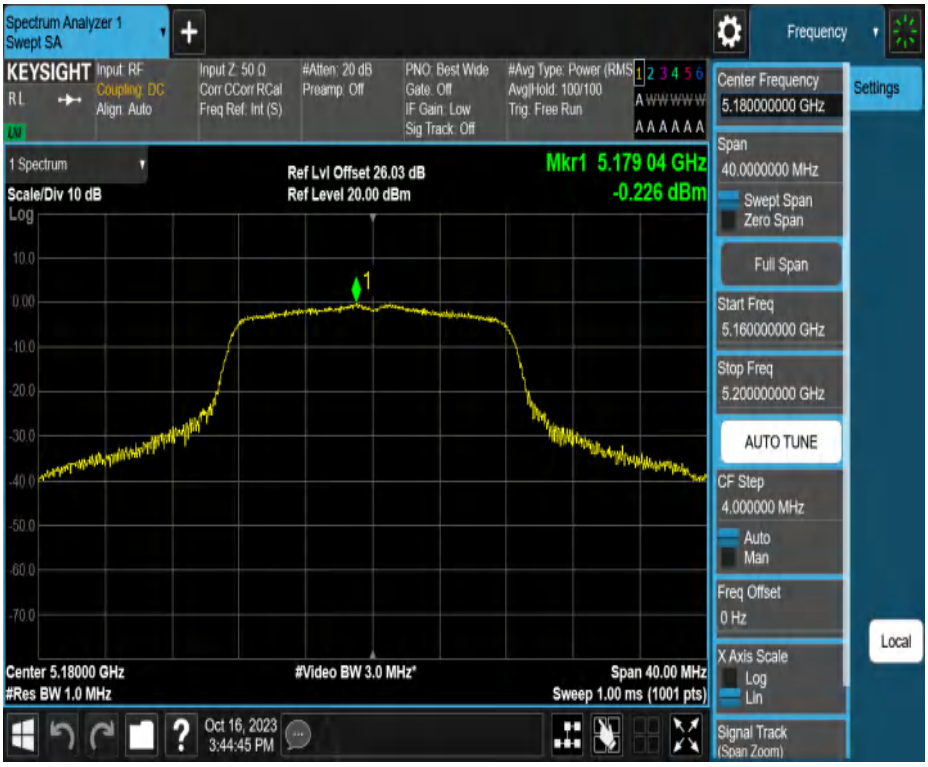
	Ant1	5700	2.31	≤10.54	PASS
	Ant2	5700	4.89	≤10.54	PASS
	total	5700	6.80	≤10.54	PASS
	Ant1	5745	-0.46	≤29.54	PASS
	Ant2	5745	2.33	≤29.54	PASS
	total	5745	4.17	≤29.54	PASS
	Ant1	5785	0.11	≤29.54	PASS
	Ant2	5785	1.91	≤29.54	PASS
	total	5785	4.11	≤29.54	PASS
	Ant1	5825	0.47	≤29.54	PASS
	Ant2	5825	1.51	≤29.54	PASS
	total	5825	4.03	≤29.54	PASS
11AC40MIMO	Ant1	5190	-2.12	≤10.54	PASS
	Ant2	5190	-1.65	≤10.54	PASS
	total	5190	1.13	≤10.54	PASS
	Ant1	5230	-0.89	≤10.54	PASS
	Ant2	5230	-1.72	≤10.54	PASS
	total	5230	1.73	≤10.54	PASS
	Ant1	5270	2.04	≤10.54	PASS
	Ant2	5270	0.95	≤10.54	PASS
	total	5270	4.54	≤10.54	PASS
	Ant1	5310	2.28	≤10.54	PASS
	Ant2	5310	0.34	≤10.54	PASS
	total	5310	4.43	≤10.54	PASS
	Ant1	5510	0.82	≤10.54	PASS
	Ant2	5510	-0.13	≤10.54	PASS
	total	5510	3.38	≤10.54	PASS
	Ant1	5550	1.00	≤10.54	PASS
	Ant2	5550	-0.13	≤10.54	PASS
	total	5550	3.48	≤10.54	PASS
	Ant1	5670	0.24	≤10.54	PASS
	Ant2	5670	1.43	≤10.54	PASS
	total	5670	3.89	≤10.54	PASS
	Ant1	5755	-3.33	≤29.54	PASS
	Ant2	5755	-0.38	≤29.54	PASS
	total	5755	1.40	≤29.54	PASS
	Ant1	5795	-3.01	≤29.54	PASS
	Ant2	5795	-1.05	≤29.54	PASS
	total	5795	1.09	≤29.54	PASS
11AC80MIMO	Ant1	5210	-3.13	≤10.54	PASS
	Ant2	5210	-3.91	≤10.54	PASS
	total	5210	-0.49	≤10.54	PASS

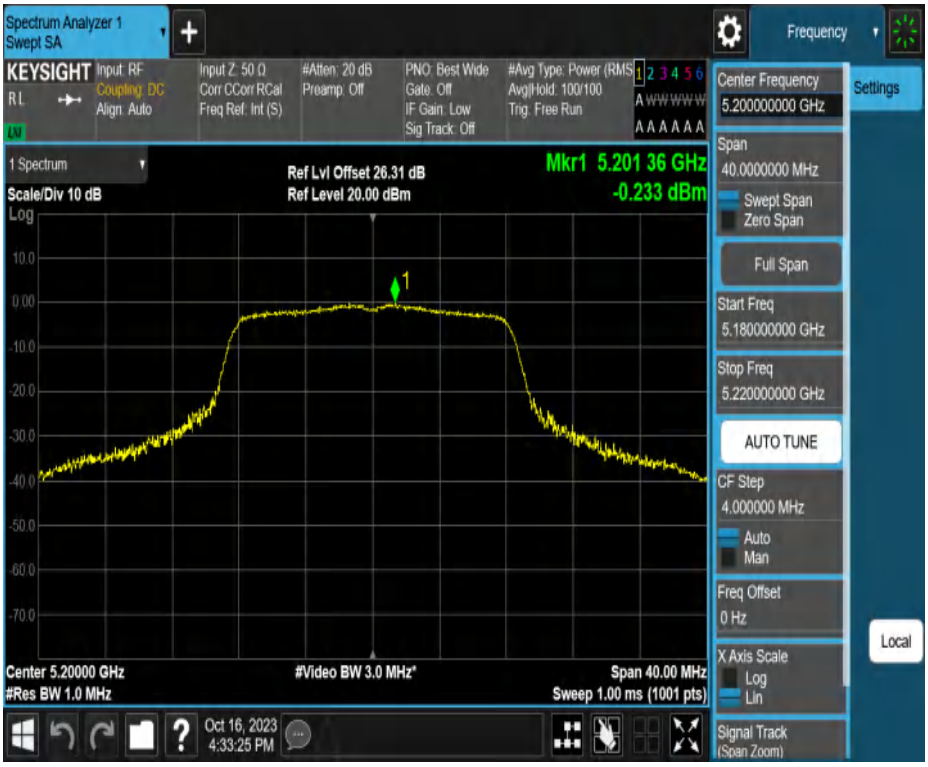
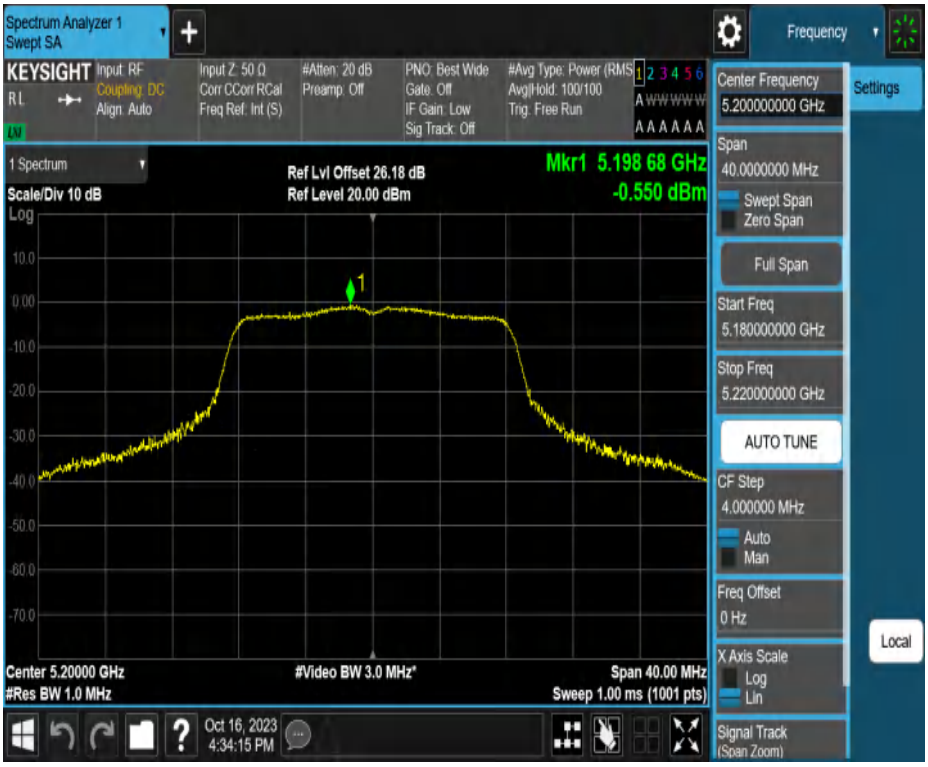
	Ant1	5290	-1.46	≤10.54	PASS
	Ant2	5290	-1.28	≤10.54	PASS
	total	5290	1.64	≤10.54	PASS
	Ant1	5530	-2.53	≤10.54	PASS
	Ant2	5530	-4.28	≤10.54	PASS
	total	5530	-0.31	≤10.54	PASS
	Ant1	5610	-2.64	≤10.54	PASS
	Ant2	5610	-2.42	≤10.54	PASS
	total	5610	0.48	≤10.54	PASS
	Ant1	5775	-6.16	≤29.54	PASS
	Ant2	5775	-3.18	≤29.54	PASS
	total	5775	-1.41	≤29.54	PASS
11AX20MIMO	Ant1	5180	0.04	≤10.54	PASS
	Ant2	5180	-0.27	≤10.54	PASS
	total	5180	2.90	≤10.54	PASS
	Ant1	5200	-0.62	≤10.54	PASS
	Ant2	5200	-0.30	≤10.54	PASS
	total	5200	2.55	≤10.54	PASS
	Ant1	5240	0.22	≤10.54	PASS
	Ant2	5240	-0.81	≤10.54	PASS
	total	5240	2.75	≤10.54	PASS
	Ant1	5260	4.92	≤10.54	PASS
	Ant2	5260	4.24	≤10.54	PASS
	total	5260	7.60	≤10.54	PASS
	Ant1	5280	4.65	≤10.54	PASS
	Ant2	5280	3.76	≤10.54	PASS
	total	5280	7.24	≤10.54	PASS
	Ant1	5320	4.73	≤10.54	PASS
	Ant2	5320	3.30	≤10.54	PASS
	total	5320	7.08	≤10.54	PASS
	Ant1	5500	4.57	≤10.54	PASS
	Ant2	5500	2.31	≤10.54	PASS
	total	5500	6.60	≤10.54	PASS
	Ant1	5580	3.34	≤10.54	PASS
	Ant2	5580	3.13	≤10.54	PASS
	total	5580	6.25	≤10.54	PASS
	Ant1	5700	2.62	≤10.54	PASS
	Ant2	5700	4.78	≤10.54	PASS
	total	5700	6.84	≤10.54	PASS
	Ant1	5745	-0.04	≤29.54	PASS
	Ant2	5745	2.00	≤29.54	PASS
	total	5745	4.11	≤29.54	PASS

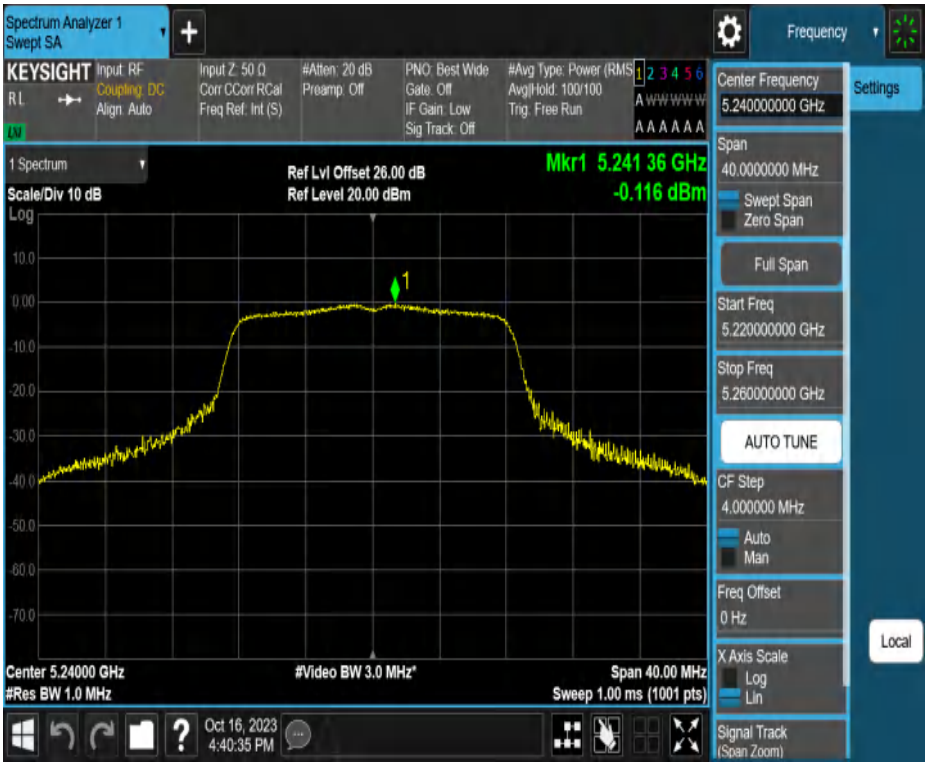
	Ant1	5785	0.36	≤29.54	PASS
	Ant2	5785	1.99	≤29.54	PASS
	total	5785	4.26	≤29.54	PASS
	Ant1	5825	0.03	≤29.54	PASS
	Ant2	5825	1.98	≤29.54	PASS
	total	5825	4.12	≤29.54	PASS
11AX40MIMO	Ant1	5190	-1.68	≤10.54	PASS
	Ant2	5190	-1.87	≤10.54	PASS
	total	5190	1.24	≤10.54	PASS
	Ant1	5230	-0.91	≤10.54	PASS
	Ant2	5230	-1.62	≤10.54	PASS
	total	5230	1.76	≤10.54	PASS
	Ant1	5270	1.77	≤10.54	PASS
	Ant2	5270	0.86	≤10.54	PASS
	total	5270	4.35	≤10.54	PASS
	Ant1	5310	1.58	≤10.54	PASS
	Ant2	5310	1.16	≤10.54	PASS
	total	5310	4.39	≤10.54	PASS
	Ant1	5510	0.97	≤10.54	PASS
	Ant2	5510	-1.37	≤10.54	PASS
	total	5510	2.97	≤10.54	PASS
	Ant1	5550	-0.26	≤10.54	PASS
	Ant2	5550	0.51	≤10.54	PASS
	total	5550	3.15	≤10.54	PASS
	Ant1	5670	-0.98	≤10.54	PASS
	Ant2	5670	2.21	≤10.54	PASS
	total	5670	3.91	≤10.54	PASS
	Ant1	5755	-2.73	≤29.54	PASS
	Ant2	5755	-1.29	≤29.54	PASS
	total	5755	1.06	≤29.54	PASS
	Ant1	5795	-2.30	≤29.54	PASS
	Ant2	5795	-1.02	≤29.54	PASS
	total	5795	1.40	≤29.54	PASS
11AX80MIMO	Ant1	5210	-3.36	≤10.54	PASS
	Ant2	5210	-4.12	≤10.54	PASS
	total	5210	-0.71	≤10.54	PASS
	Ant1	5290	-1.04	≤10.54	PASS
	Ant2	5290	-2.13	≤10.54	PASS
	total	5290	1.46	≤10.54	PASS
	Ant1	5530	-2.73	≤10.54	PASS
	Ant2	5530	-3.23	≤10.54	PASS
	total	5530	0.04	≤10.54	PASS

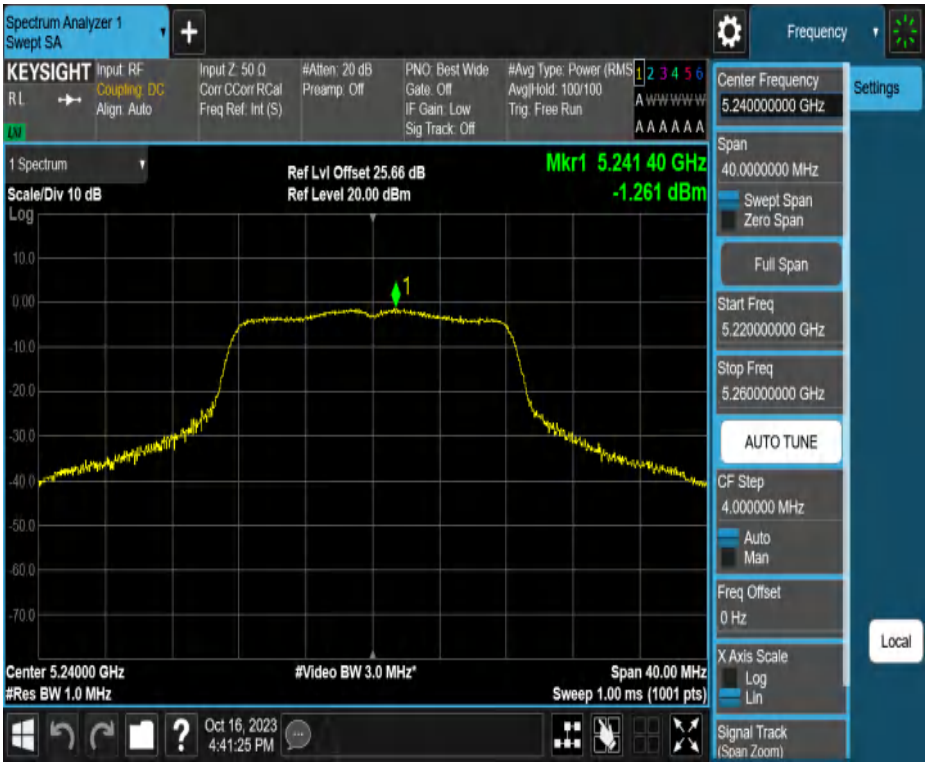
	Ant1	5610	-3.32	≤10.54	PASS
	Ant2	5610	-3.13	≤10.54	PASS
	total	5610	-0.21	≤10.54	PASS
	Ant1	5775	-5.14	≤29.54	PASS
	Ant2	5775	-3.98	≤29.54	PASS
	total	5775	-1.51	≤29.54	PASS

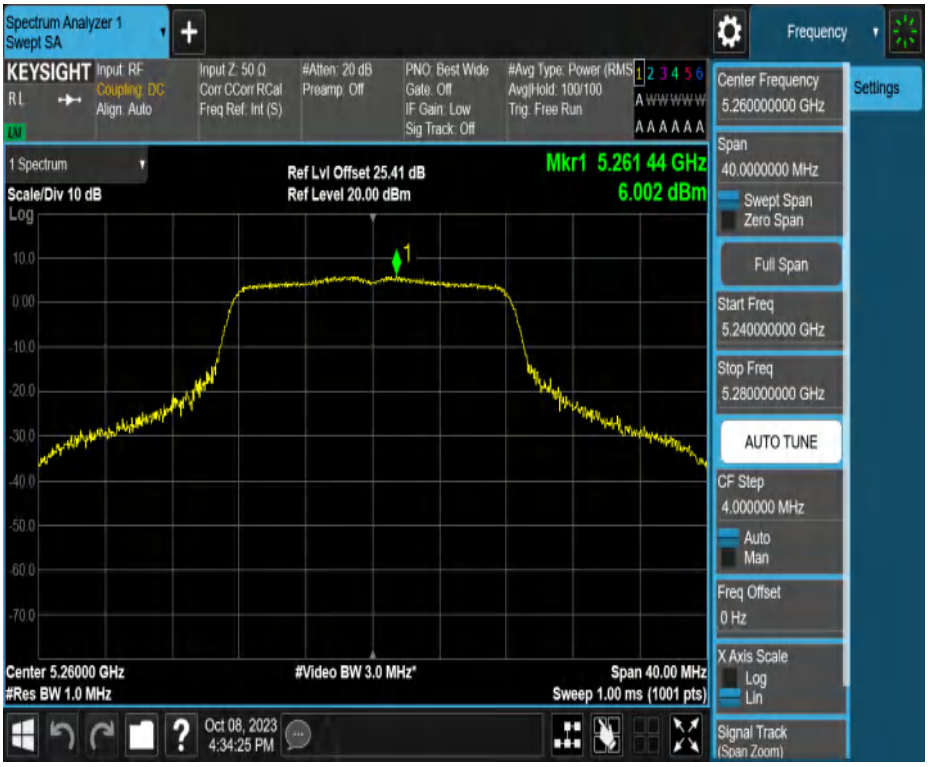
Note: The Duty Cycle Factor is compensated in the test system
For MIMO mode
Unequal antenna gains, with equal transmit powers. For antenna gains given by G_1, G_2, …, G_N dBi
If transmit signals are correlated, then Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + \ldots + 10^{GN/20})^2 / N_{ANT}$] dBi
[Note the “20”s in the denominator of each exponent and the square of the sum of terms; the object is to combine the signal levels coherently.]
Directional gain = 10log[$(10^{3.7/20} + 10^{3.2/20})^2/N_{ANT}$] dBi=6.46 dBi

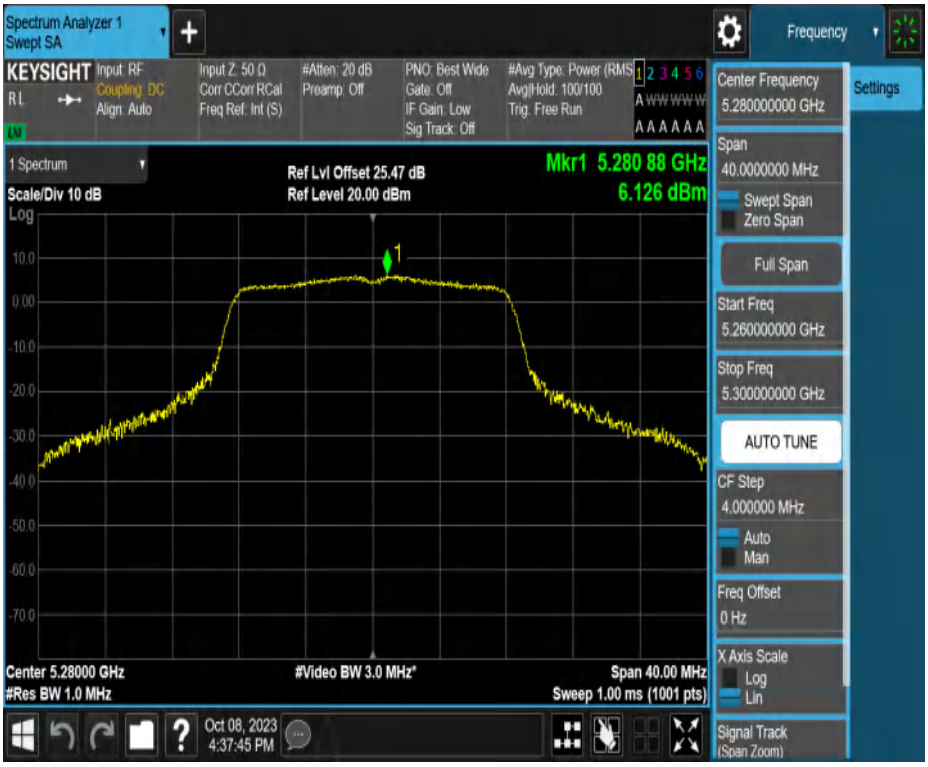
11A-CDD_Ant1_5180

11A-CDD_Ant2_5180


11A-CDD_Ant1_5200

11A-CDD_Ant2_5200


11A-CDD_Ant1_5240


11A-CDD_Ant2_5240


11A-CDD_Ant1_5260

11A-CDD_Ant2_5260


11A-CDD_Ant1_5280


11A-CDD_Ant2_5280