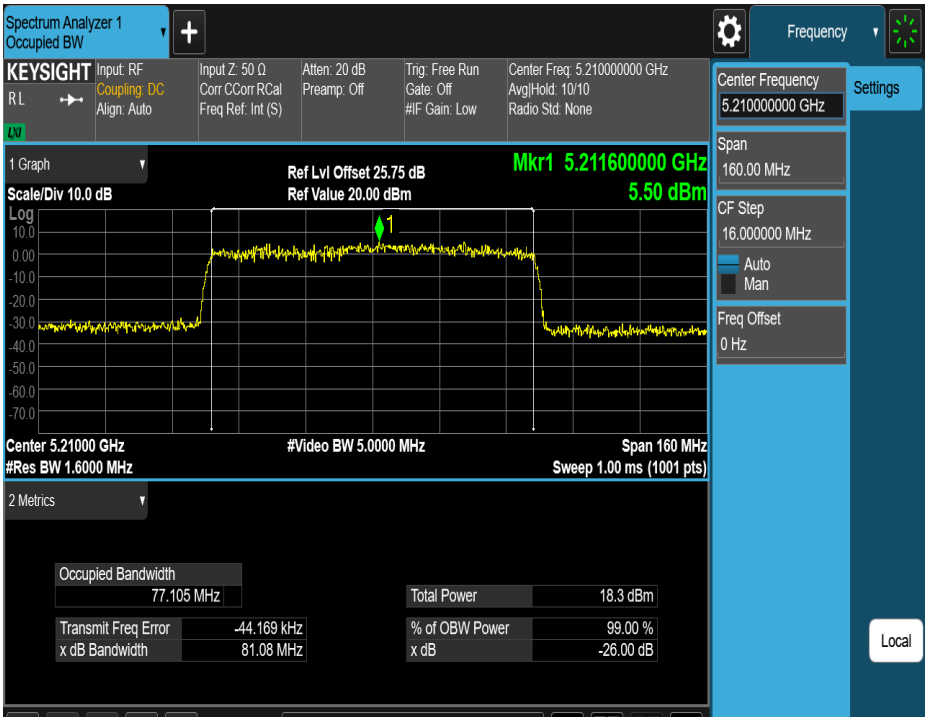
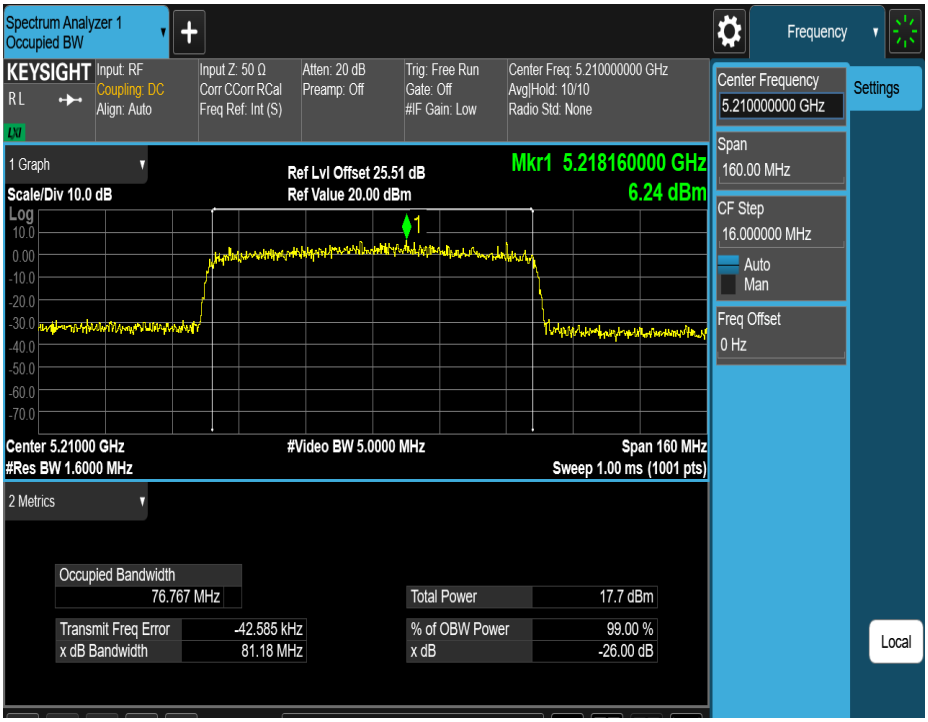
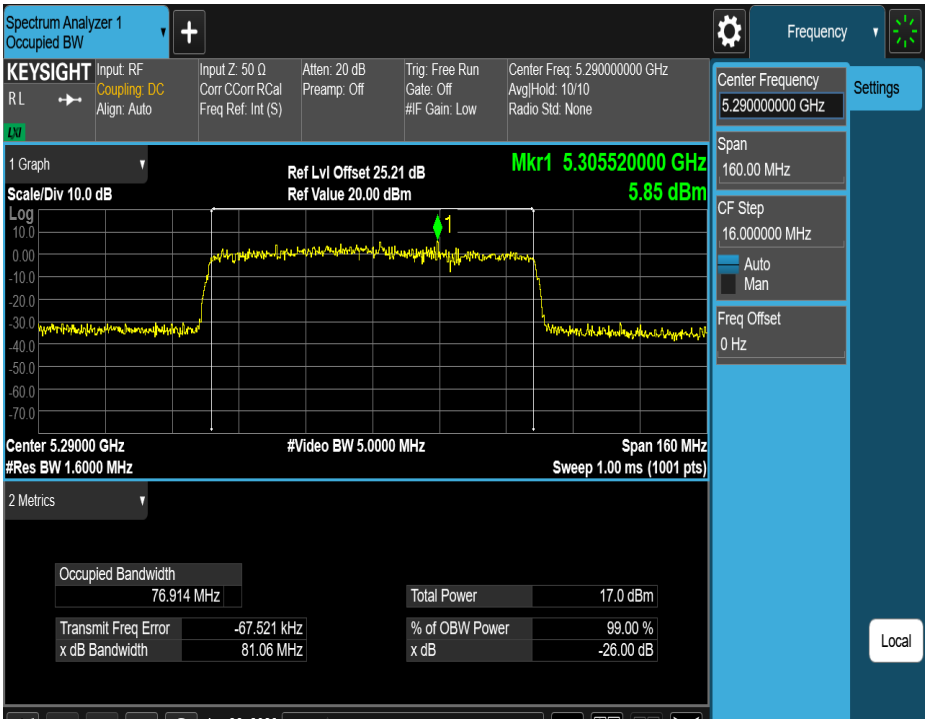
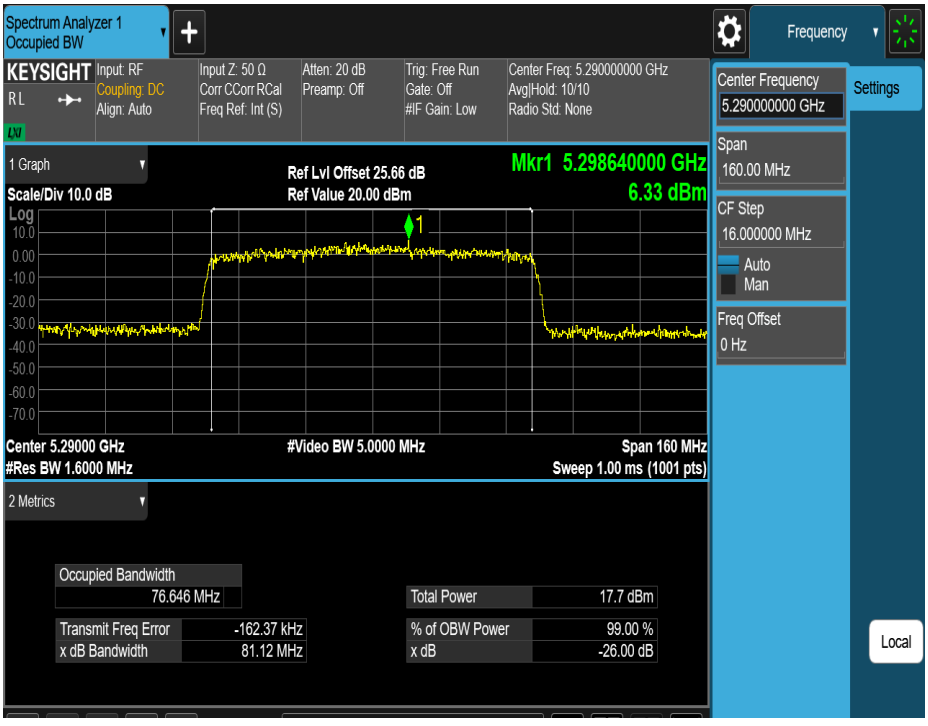
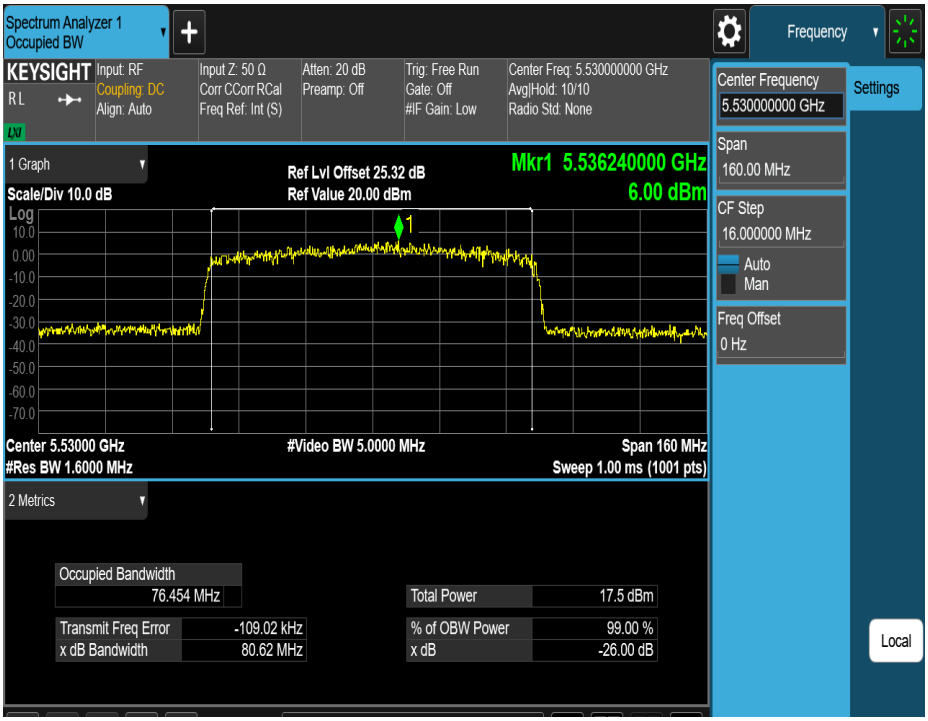
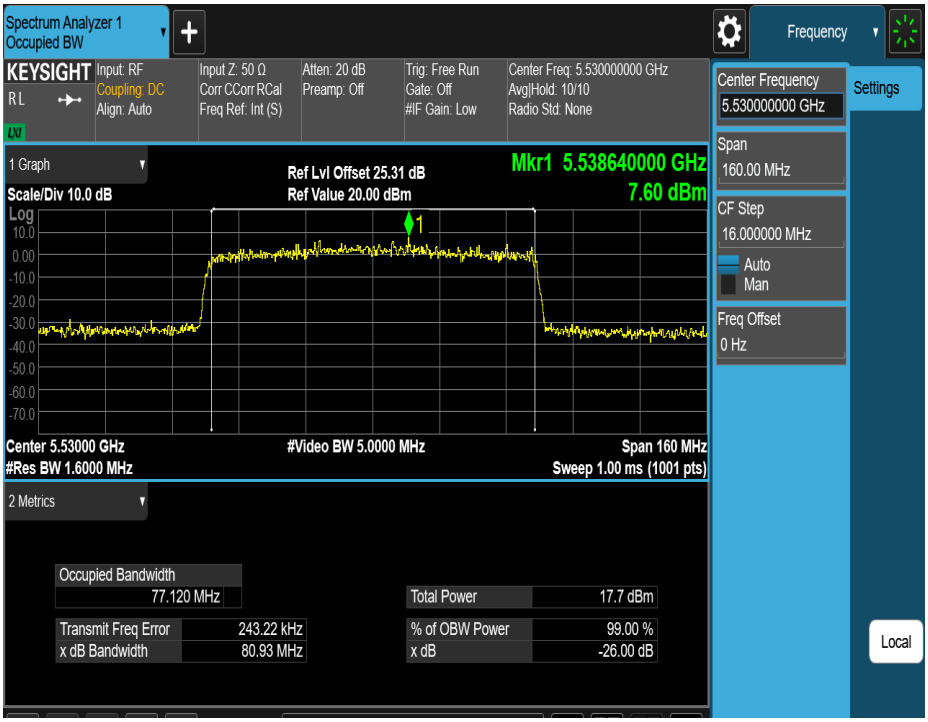
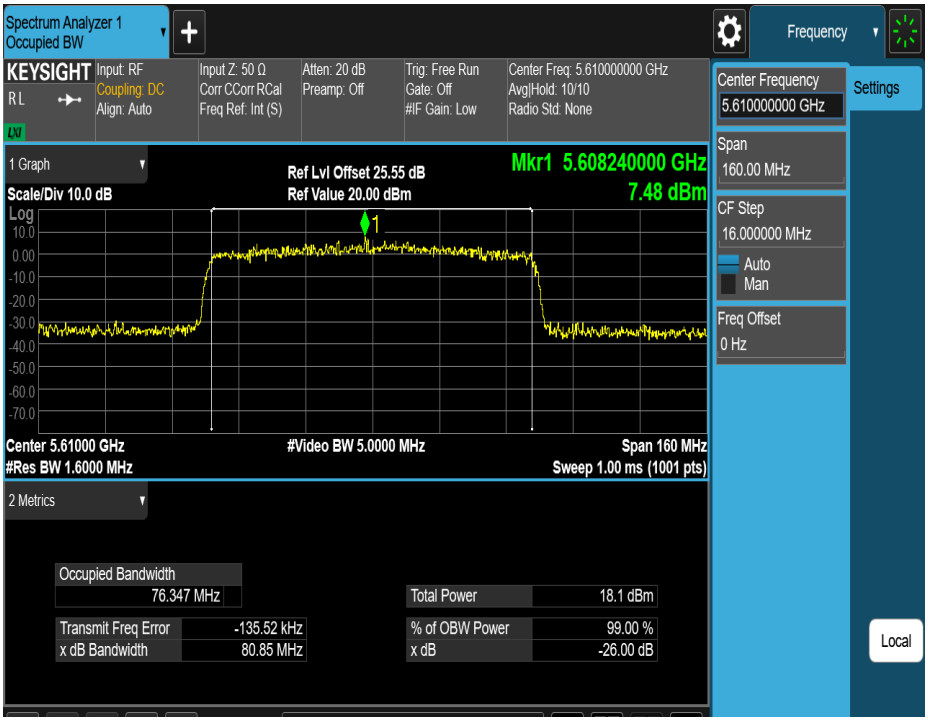
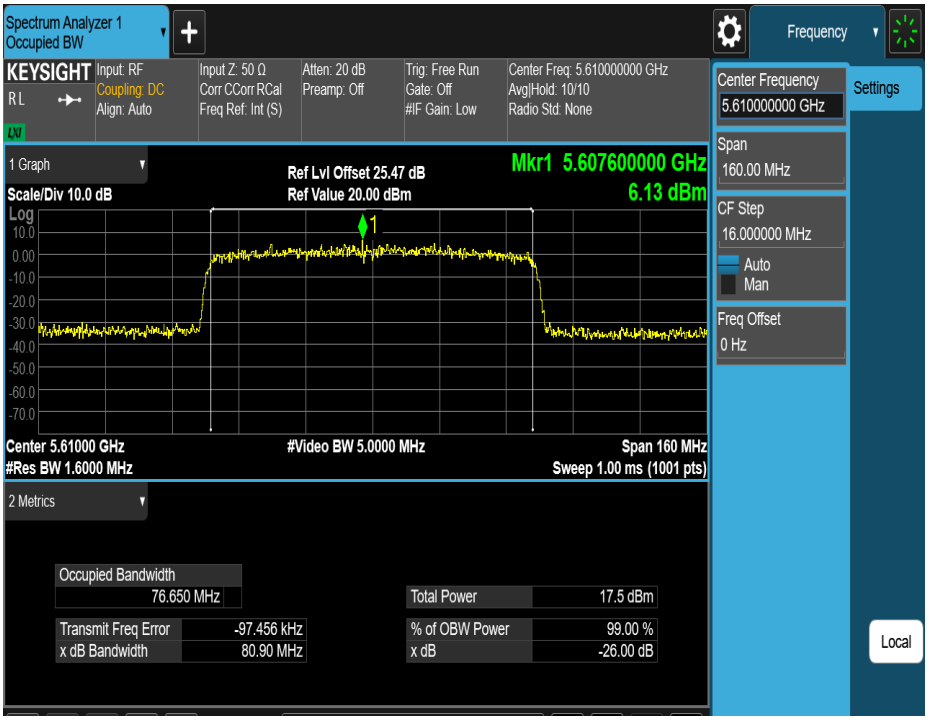
11AX80MIMO_Ant1_5210

11AX80MIMO_Ant2_5210


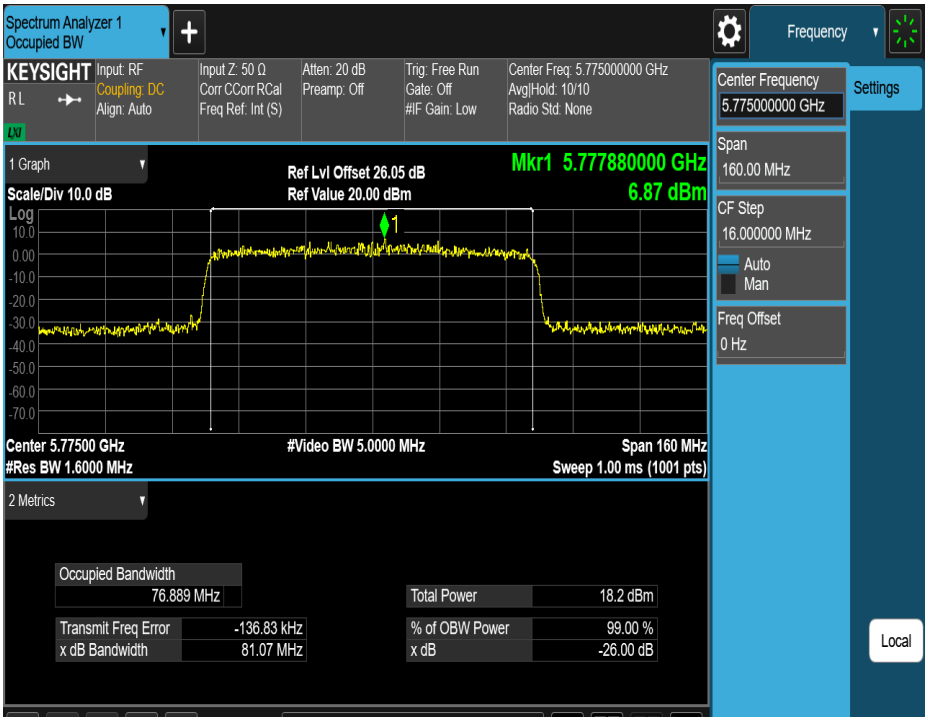
11AX80MIMO_Ant1_5290


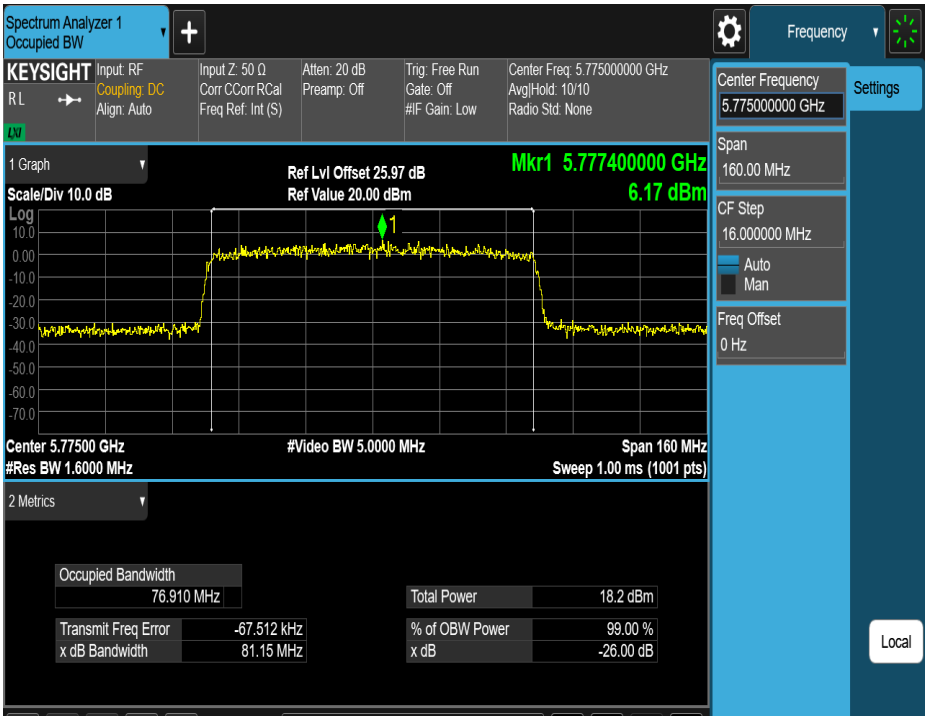
11AX80MIMO_Ant2_5290


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	Ant1	5745	16.440	5736.720	5753.160	0.5	PASS
	Ant2	5745	16.200	5736.760	5752.960	0.5	PASS
	Ant1	5785	16.120	5776.840	5792.960	0.5	PASS
	Ant2	5785	15.040	5777.640	5792.680	0.5	PASS
	Ant1	5825	16.360	5816.760	5833.120	0.5	PASS
	Ant2	5825	16.360	5816.760	5833.120	0.5	PASS
11N20MIMO	Ant1	5745	17.560	5736.160	5753.720	0.5	PASS
	Ant2	5745	17.440	5736.160	5753.600	0.5	PASS
	Ant1	5785	17.640	5776.120	5793.760	0.5	PASS
	Ant2	5785	17.520	5776.200	5793.720	0.5	PASS
	Ant1	5825	17.600	5816.160	5833.760	0.5	PASS
	Ant2	5825	17.560	5816.160	5833.720	0.5	PASS
11N40MIMO	Ant1	5755	30.880	5738.440	5769.320	0.5	PASS
	Ant2	5755	23.680	5746.200	5769.880	0.5	PASS
	Ant1	5795	30.800	5780.520	5811.320	0.5	PASS
	Ant2	5795	32.160	5778.680	5810.840	0.5	PASS
11AC20MIMO	Ant1	5745	16.680	5737.040	5753.720	0.5	PASS
	Ant2	5745	14.400	5738.040	5752.440	0.5	PASS
	Ant1	5785	17.600	5776.120	5793.720	0.5	PASS
	Ant2	5785	17.560	5776.160	5793.720	0.5	PASS
	Ant1	5825	17.560	5816.160	5833.720	0.5	PASS
	Ant2	5825	17.560	5816.160	5833.720	0.5	PASS
11AC40MIMO	Ant1	5755	27.280	5740.840	5768.120	0.5	PASS
	Ant2	5755	25.200	5746.040	5771.240	0.5	PASS
	Ant1	5795	28.880	5779.880	5808.760	0.5	PASS
	Ant2	5795	25.040	5782.440	5807.480	0.5	PASS
11AC80MIMO	Ant1	5775	70.080	5739.960	5810.040	0.5	PASS
	Ant2	5775	72.000	5738.680	5810.680	0.5	PASS
11AX20MIMO	Ant1	5745	17.520	5736.200	5753.720	0.5	PASS
	Ant2	5745	17.320	5736.880	5754.200	0.5	PASS
	Ant1	5785	18.520	5775.480	5794.000	0.5	PASS
	Ant2	5785	17.520	5776.000	5793.520	0.5	PASS
	Ant1	5825	18.360	5815.760	5834.120	0.5	PASS
	Ant2	5825	18.360	5815.680	5834.040	0.5	PASS
11AX40MIMO	Ant1	5755	31.520	5736.200	5767.720	0.5	PASS
	Ant2	5755	36.320	5737.400	5773.720	0.5	PASS
	Ant1	5795	33.840	5778.680	5812.520	0.5	PASS
	Ant2	5795	34.560	5777.960	5812.520	0.5	PASS
11AX80MIMO	Ant1	5775	66.400	5739.960	5806.360	0.5	PASS
	Ant2	5775	56.800	5751.160	5807.960	0.5	PASS

11A_Ant1_5745

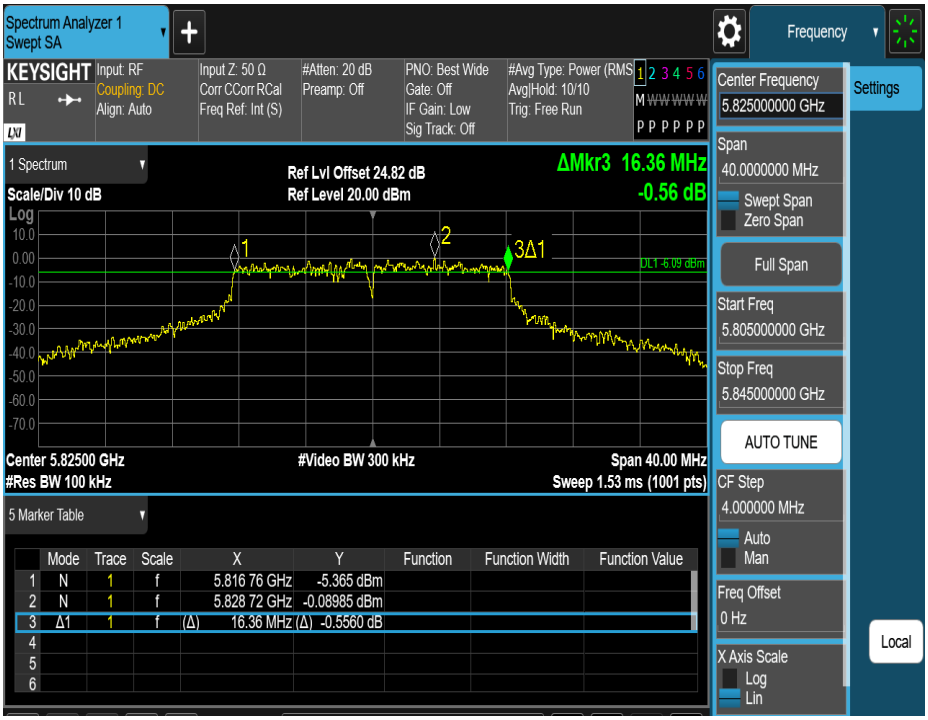
11A_Ant2_5745

11A_Ant1_5785

11A_Ant2_5785

11A_Ant1_5825

11A_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	16	16	16
IEEE 802.11n(HT20)	8	8	8
IEEE 802.11ac(VHT20)	8	8	8
IEEE 802.11ax(HE20)	10	10	10
Frequency (MHz)	5190	5230	
IEEE 802.11n(HT40)	11	11	
IEEE 802.11ac(VHT40)	11	11	
IEEE 802.11ax(HE40)	12	12	
Frequency (MHz)	5210		
IEEE 802.11ac(VHT80)	12		
IEEE 802.11ax(HE80)	12		

UNII-2A			
Test Software Version	MT7961 QA_0.0.2.39		
Frequency (MHz)	5260	5300	5320
IEEE 802.11a	16	16	16
IEEE 802.11n(HT20)	16	16	16
IEEE 802.11ac(VHT20)	16	16	16
IEEE 802.11ax(HE20)	16	16	16
Frequency (MHz)	5270	5310	
IEEE 802.11n(HT40)	16	16	
IEEE 802.11ac(VHT40)	16	16	
IEEE 802.11ax(HE40)	16	16	
Frequency (MHz)	5290		
IEEE 802.11ac(VHT80)	16		
IEEE 802.11ax(HE80)	16		

UNII-2C			
Test Software Version	MT7961 QA_0.0.2.39		
Frequency (MHz)	5500	5580	5700
IEEE 802.11a	16	16	16
IEEE 802.11n(HT20)	16	16	16
IEEE 802.11ac(VHT20)	16	16	16
IEEE 802.11ax(HE20)	16	16	16
Frequency (MHz)	5510	5550	5670
IEEE 802.11n(HT40)	16	16	16
IEEE 802.11ac(VHT40)	16	16	16
IEEE 802.11ax(HE40)	16	16	16
Frequency (MHz)	5530	5610	
IEEE 802.11ac(VHT80)	16	16	
IEEE 802.11ax(HE80)	16	16	

UNII-3			
Test Software Version	MT7961 QA_0.0.2.39		
Frequency (MHz)	5745	5785	5825
IEEE 802.11a	16	16	16
IEEE 802.11n(HT20)	16	16	16
IEEE 802.11ac(VHT20)	16	16	16
IEEE 802.11ax(HE20)	16	16	16
Frequency (MHz)	5755	5795	
IEEE 802.11n(HT40)	16	16	
IEEE 802.11ac(VHT40)	16	16	
IEEE 802.11ax(HE40)	16	16	
Frequency (MHz)	5775		
IEEE 802.11ac(VHT80)	16		
IEEE 802.11ax(HE80)	16		

3.4.5 The Result

Test Mode	Antenna	Freq(MHz)	Result [dBm]	Limit [dBm]	Verdict
11A	Ant1	5180	14.49	≤23.98	PASS
	Ant2	5180	13.59	≤23.98	PASS
	Ant1	5200	14.02	≤23.98	PASS
	Ant2	5200	13.15	≤23.98	PASS
	Ant1	5240	14.00	≤23.98	PASS
	Ant2	5240	12.88	≤23.98	PASS
	Ant1	5260	14.06	≤23.98	PASS
	Ant2	5260	13.62	≤23.98	PASS
	Ant1	5280	13.31	≤23.98	PASS
	Ant2	5280	13.57	≤23.98	PASS
	Ant1	5320	13.47	≤23.98	PASS
	Ant2	5320	14.32	≤23.98	PASS
	Ant1	5500	13.06	≤23.98	PASS
	Ant2	5500	12.96	≤23.98	PASS
	Ant1	5580	13.73	≤23.98	PASS
	Ant2	5580	13.08	≤23.98	PASS
	Ant1	5700	13.22	≤23.98	PASS
	Ant2	5700	13.51	≤23.98	PASS
	Ant1	5745	14.32	≤30.00	PASS
	Ant2	5745	13.63	≤30.00	PASS
	Ant1	5785	13.98	≤30.00	PASS
	Ant2	5785	13.91	≤30.00	PASS
	Ant1	5825	13.55	≤30.00	PASS
	Ant2	5825	13.84	≤30.00	PASS
11N20MIMO	Ant1	5180	7.95	≤22.57	PASS
	Ant2	5180	8.66	≤22.57	PASS
	total	5180	11.33	≤22.57	PASS
	Ant1	5200	6.86	≤22.57	PASS
	Ant2	5200	8.68	≤22.57	PASS
	total	5200	10.87	≤22.57	PASS
	Ant1	5240	7.76	≤22.57	PASS
	Ant2	5240	7.62	≤22.57	PASS
	total	5240	10.70	≤22.57	PASS
	Ant1	5260	14.84	≤22.57	PASS
	Ant2	5260	14.23	≤22.57	PASS
	total	5260	17.56	≤22.57	PASS
	Ant1	5280	14.85	≤22.57	PASS
	Ant2	5280	14.19	≤22.57	PASS
	total	5280	17.54	≤22.57	PASS