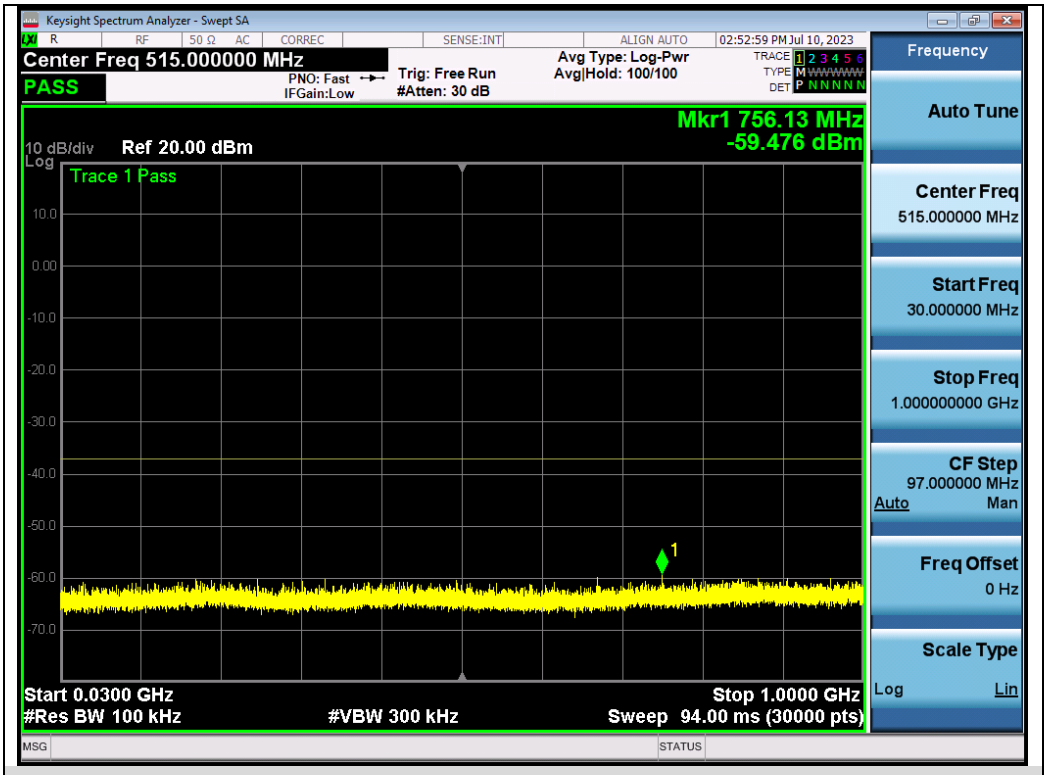
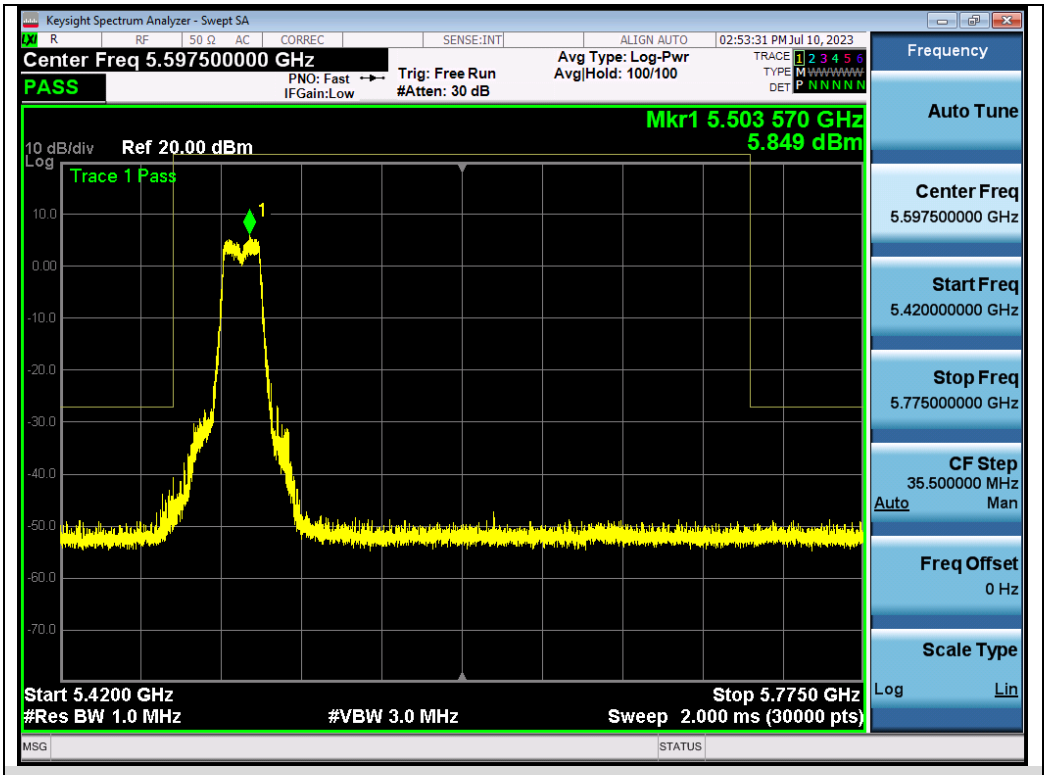
Test Graphs of Spurious Emissions outside of the 5.470-5.725 GHz band for transmitters operating in the 5.470-5.725 GHz band



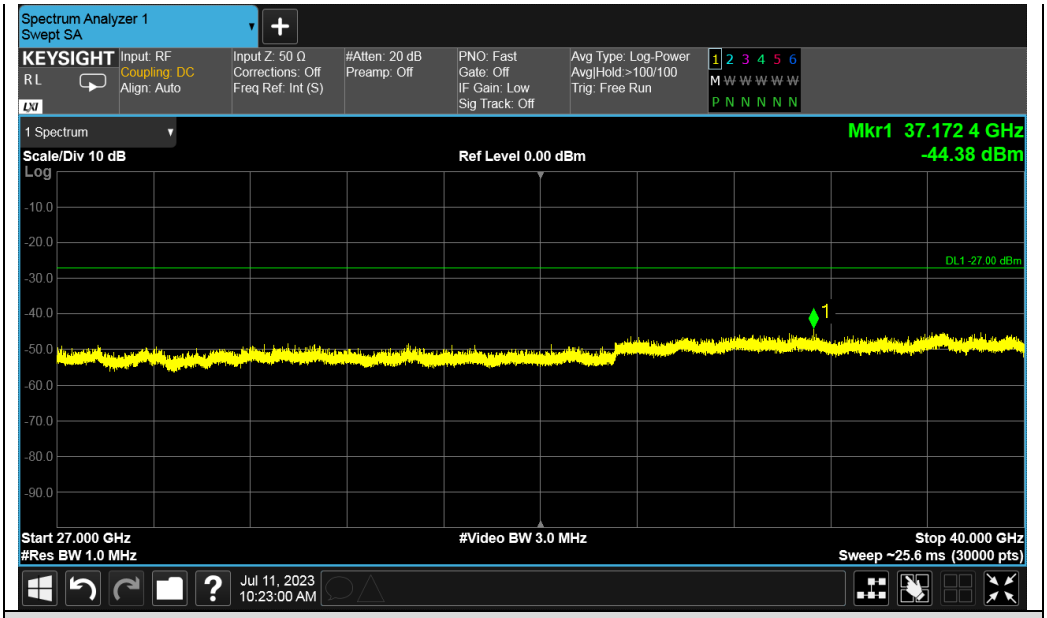
Test_Graph_802.11a_ANT1_5500_6Mbps_Frequency Band 1

Test_Graph_802.11a_ANT1_5500_6Mbps_Frequency Band 2

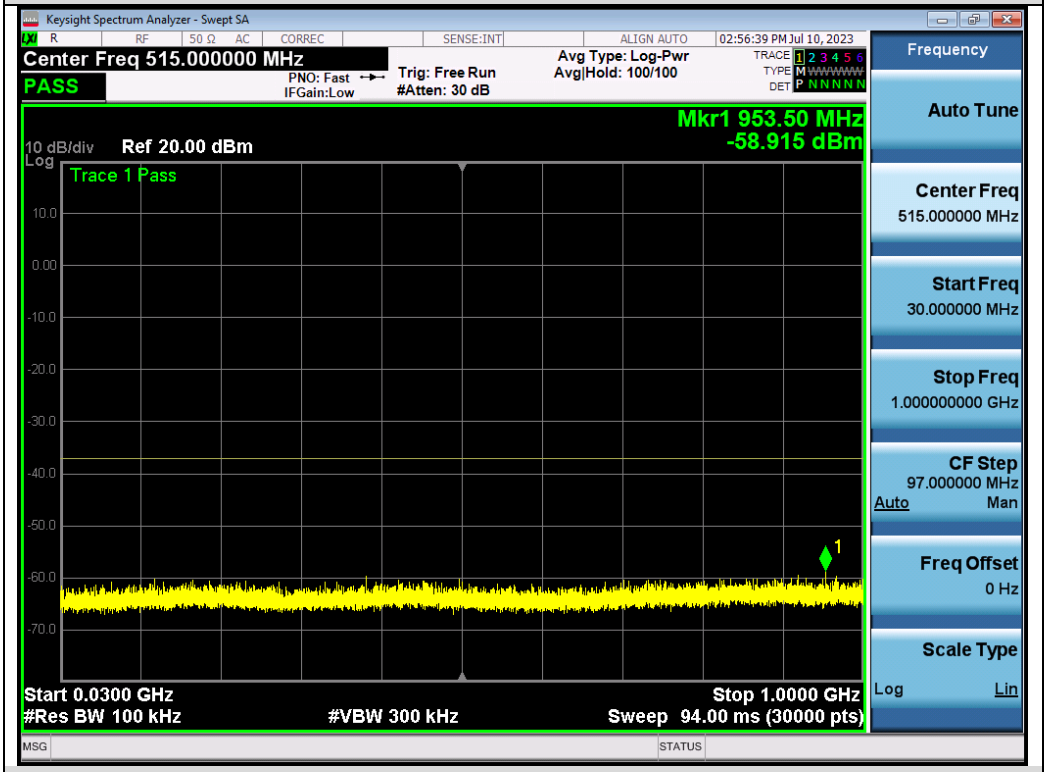


Test_Graph_802.11a_ANT1_5500_6Mbps_Frequency Band 3

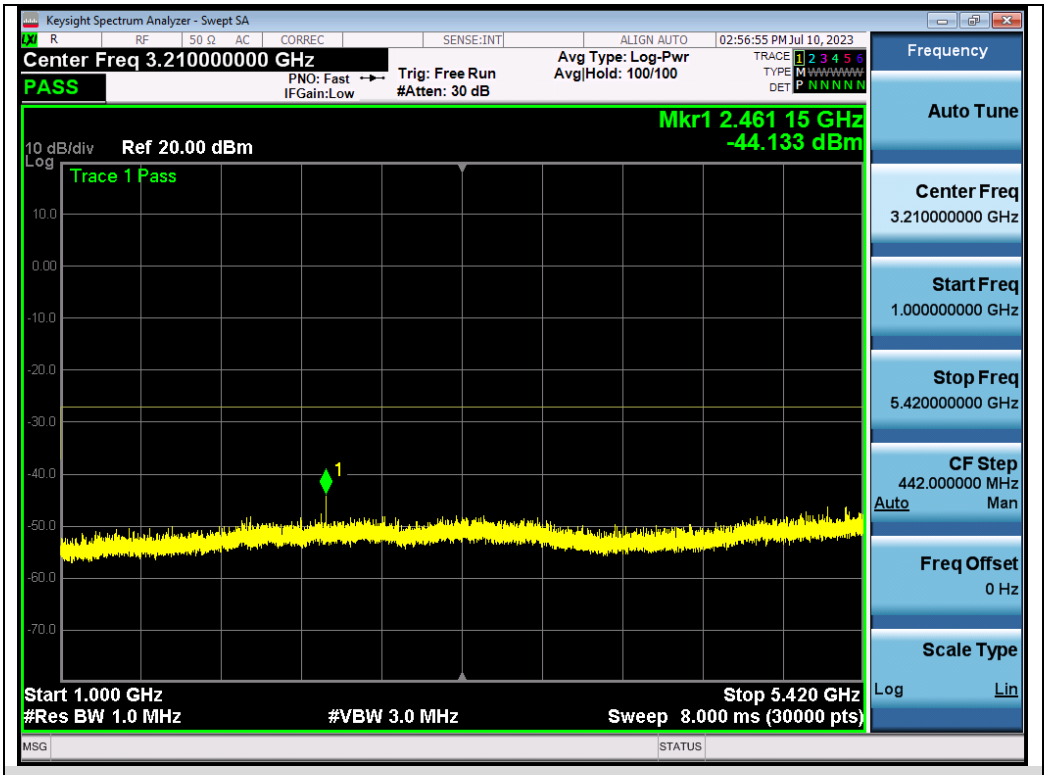
Test_Graph_802.11a_ANT1_5500_6Mbps_Frequency Band 4



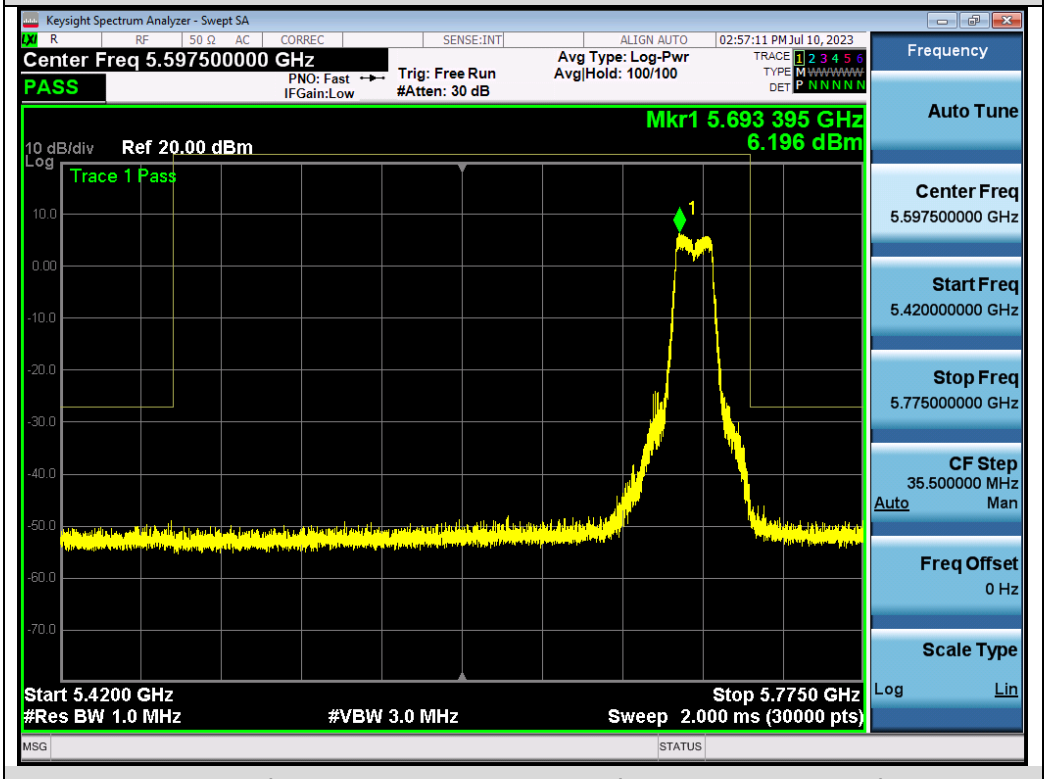
Test_Graph_802.11a_ANT1_5500_6Mbps_Frequency Band 5



Test_Graph_802.11a_ANT1_5700_6Mbps_Frequency Band 1

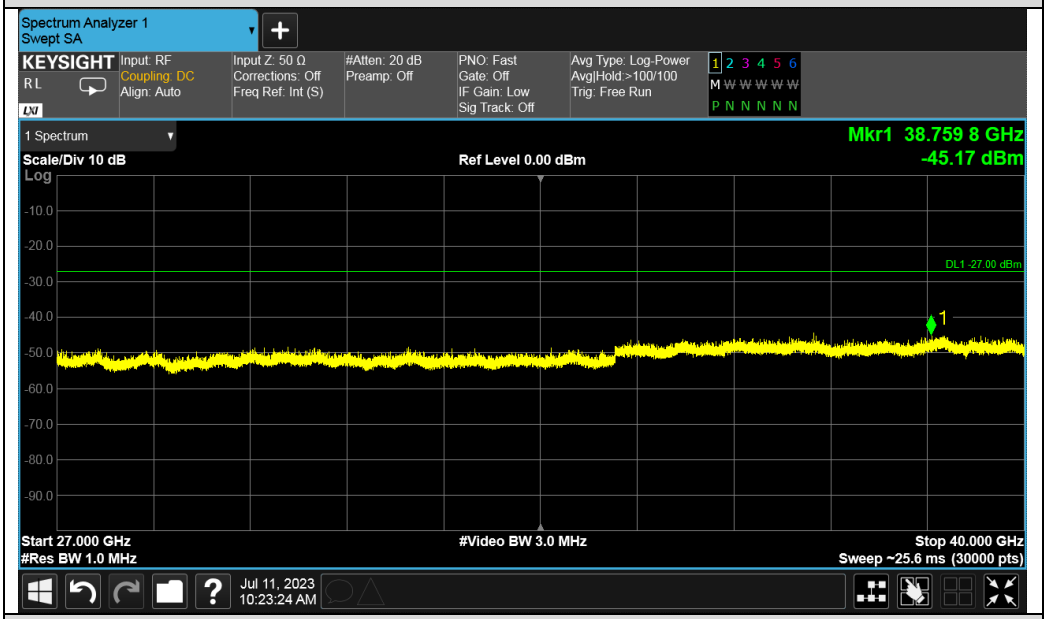


Test_Graph_802.11a_ANT1_5700_6Mbps_Frequency Band 2

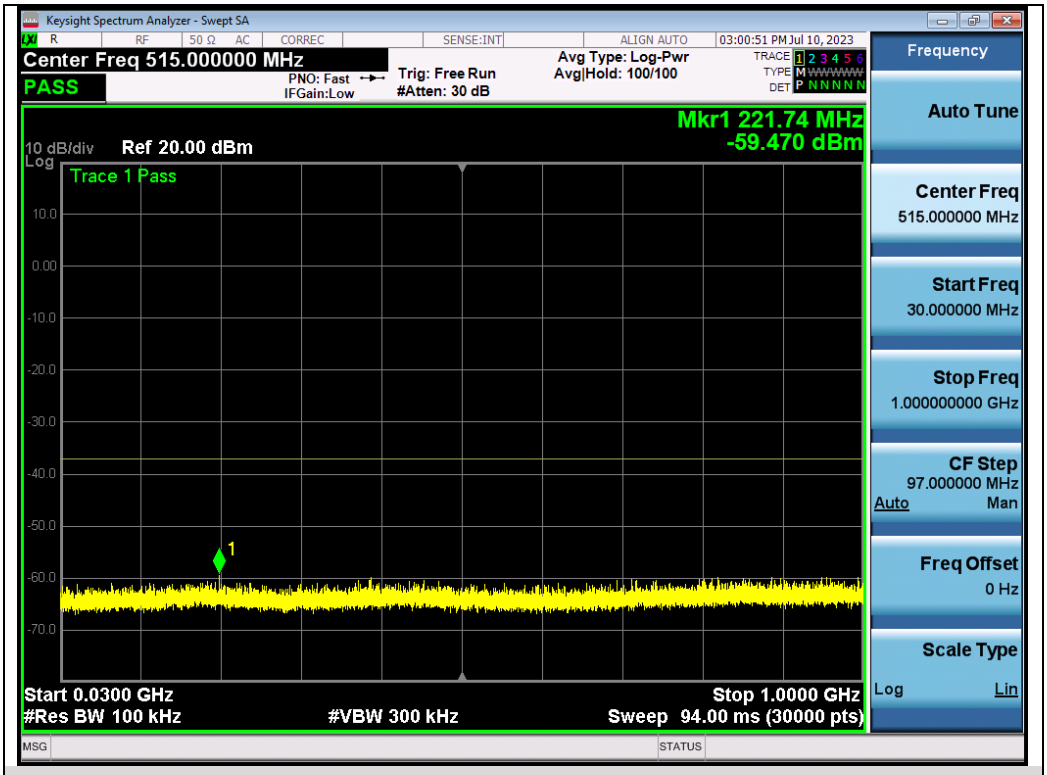


Test_Graph_802.11a_ANT1_5700_6Mbps_Frequency Band 3

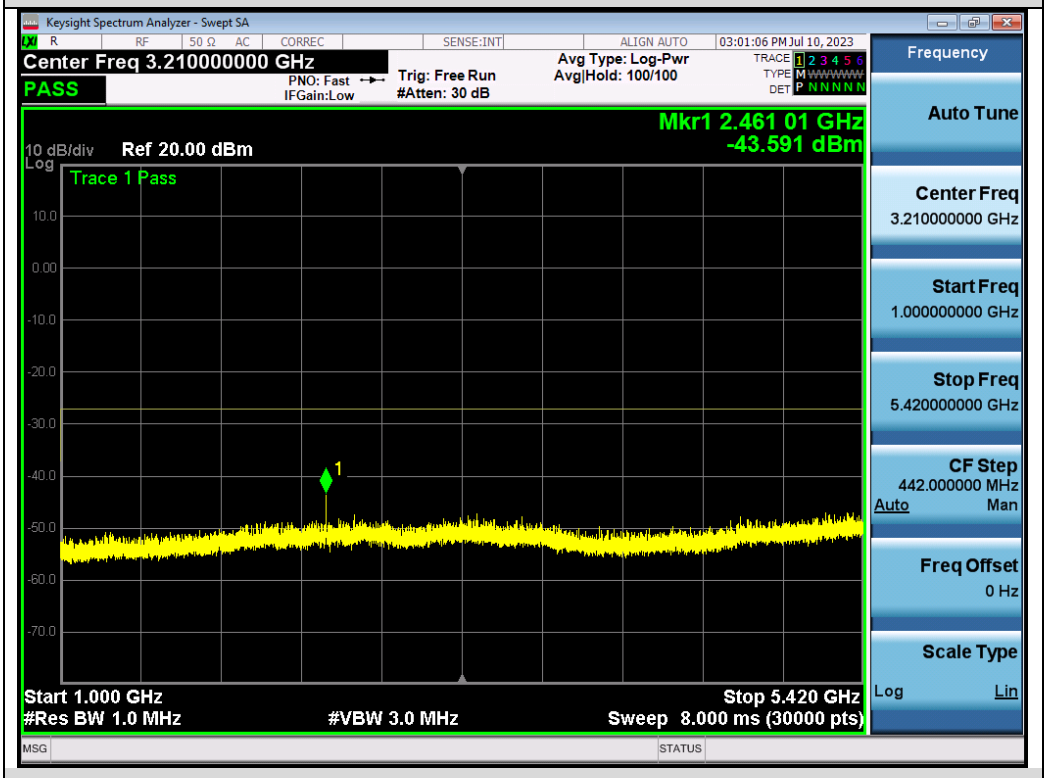
Test_Graph_802.11a_ANT1_5700_6Mbps_Frequency Band 4



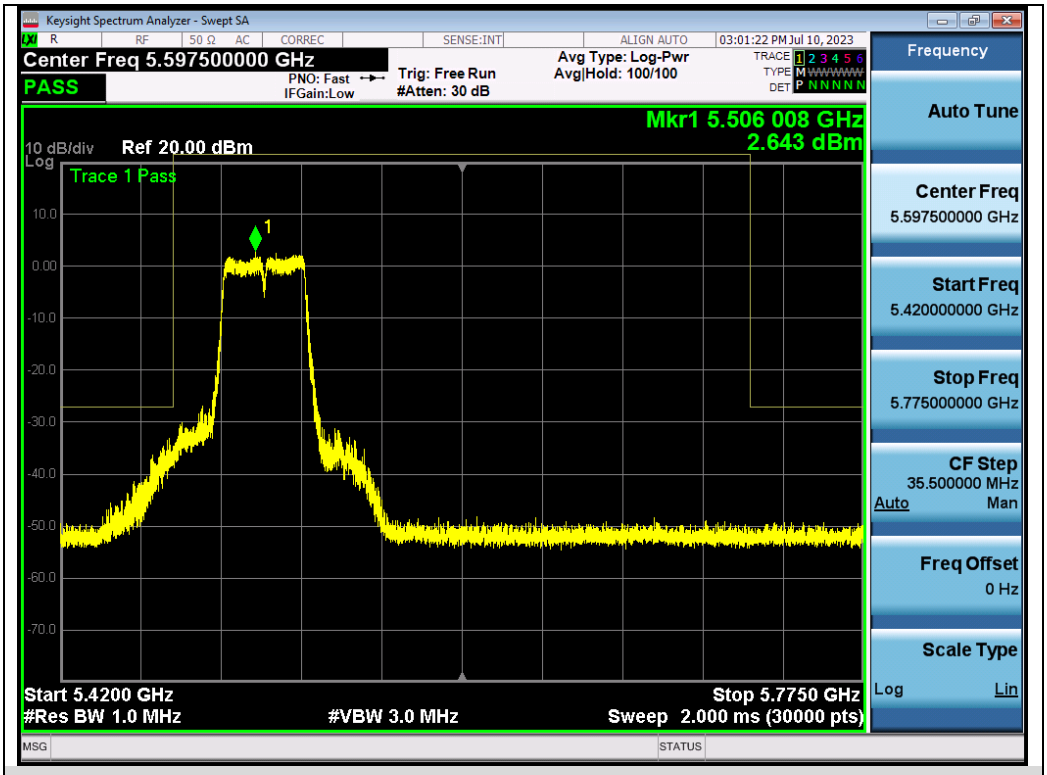
Test_Graph_802.11a_ANT1_5700_6Mbps_Frequency Band 5



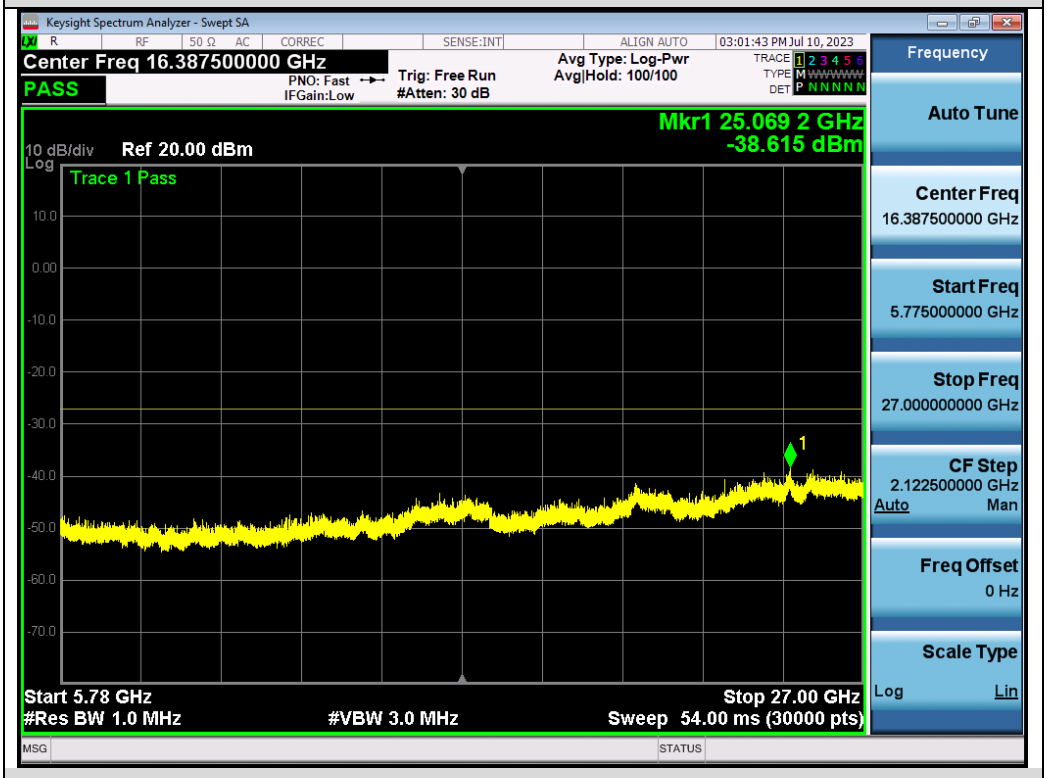
Test_Graph_802.11n40_ANT1_5510_MCS0_Frequency Band 1



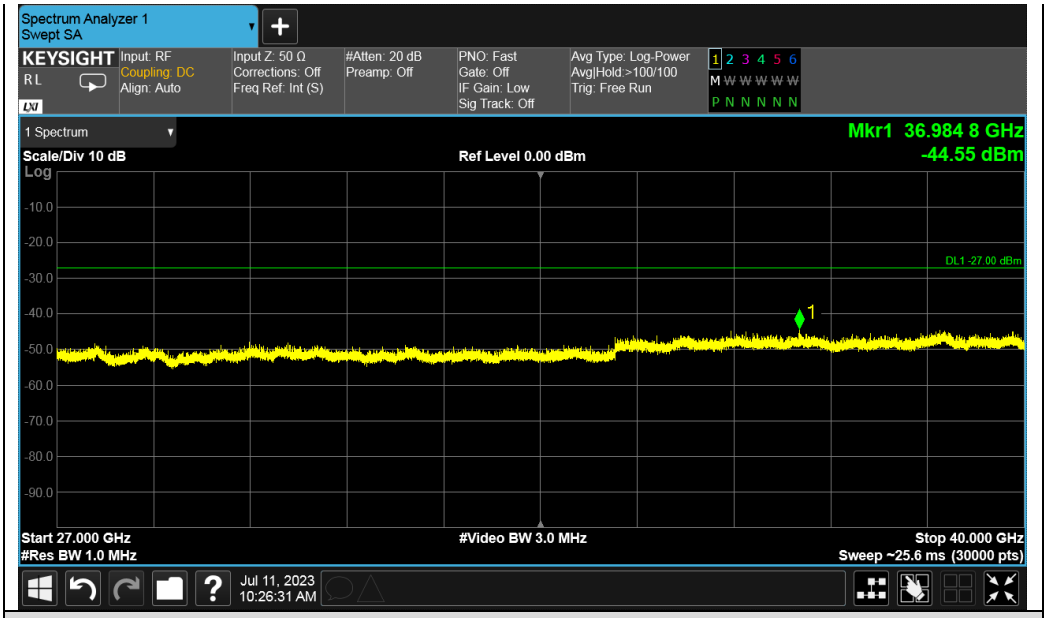
Test_Graph_802.11n40_ANT1_5510_MCS0_Frequency Band 2



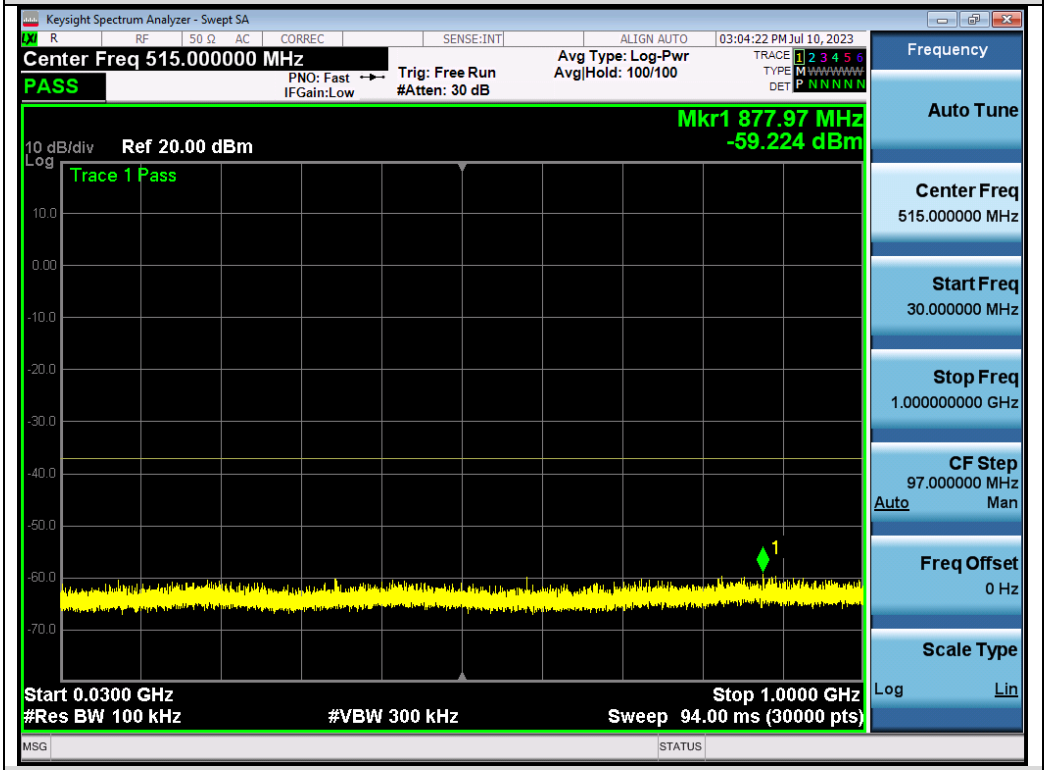
Test_Graph_802.11n40_ANT1_5510_MCS0_Frequency Band 3



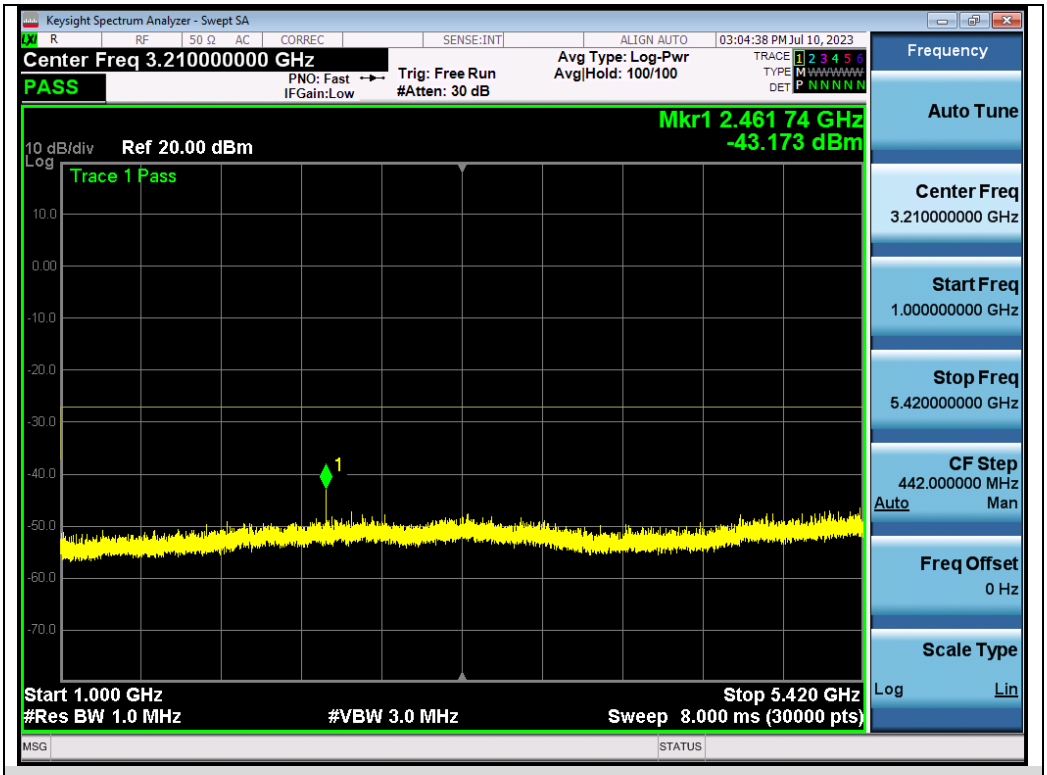
Test_Graph_802.11n40_ANT1_5510_MCS0_Frequency Band 4



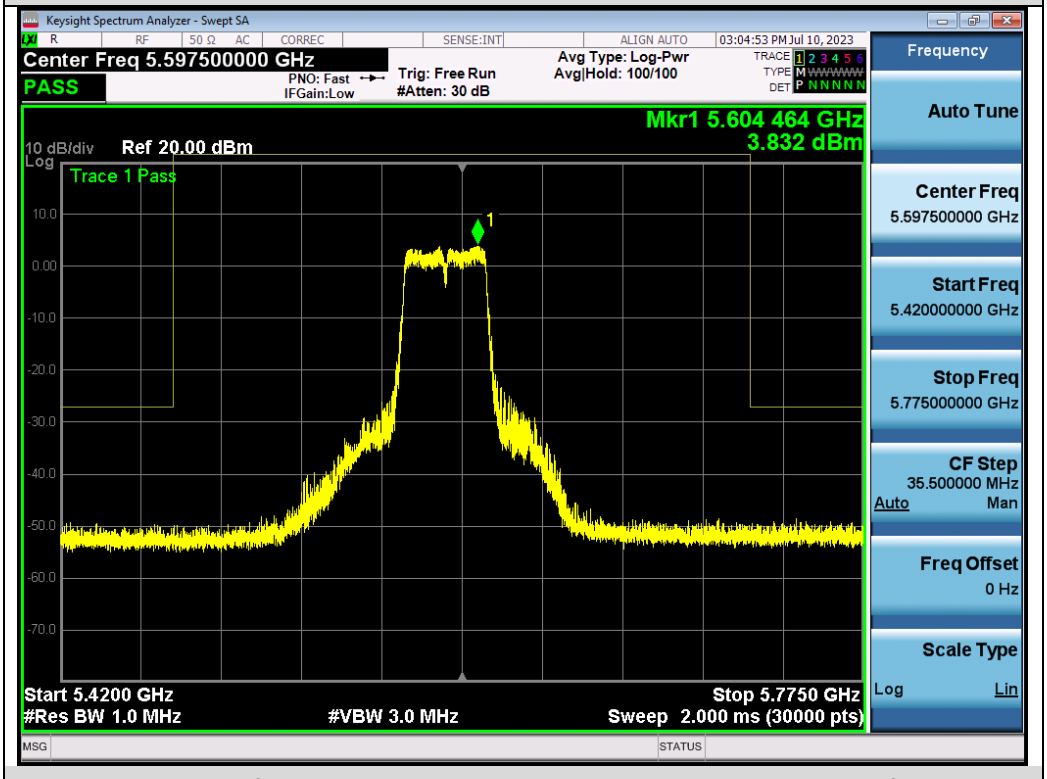
Test_Graph_802.11n40_ANT1_5510_MCS0_Frequency Band 5



Test_Graph_802.11n40_ANT1_5590_MCS0_Frequency Band 1

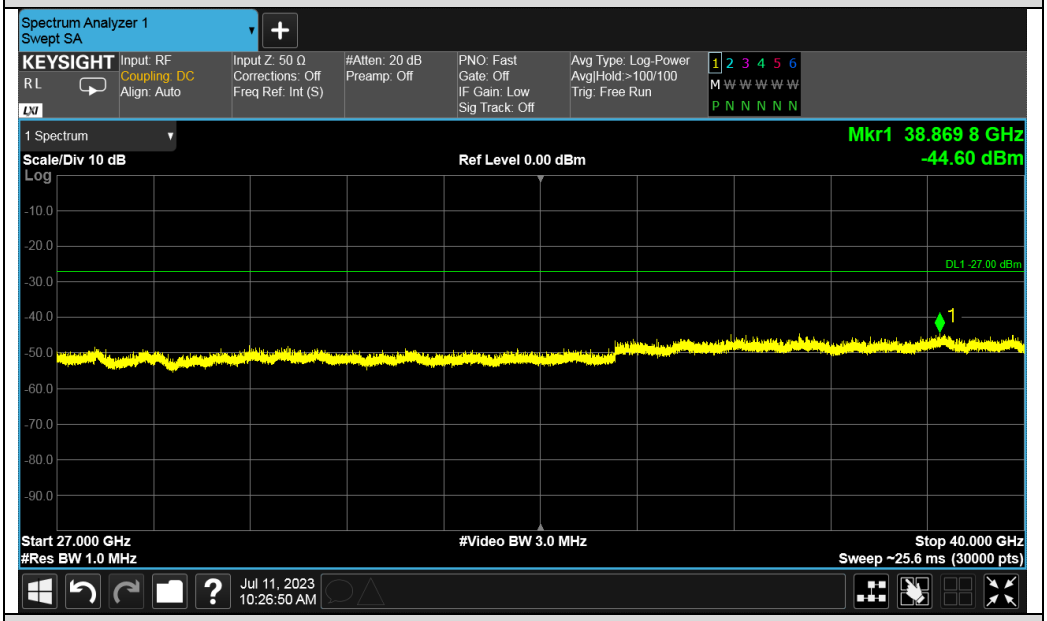


Test_Graph_802.11n40_ANT1_5590_MCS0_Frequency Band 2

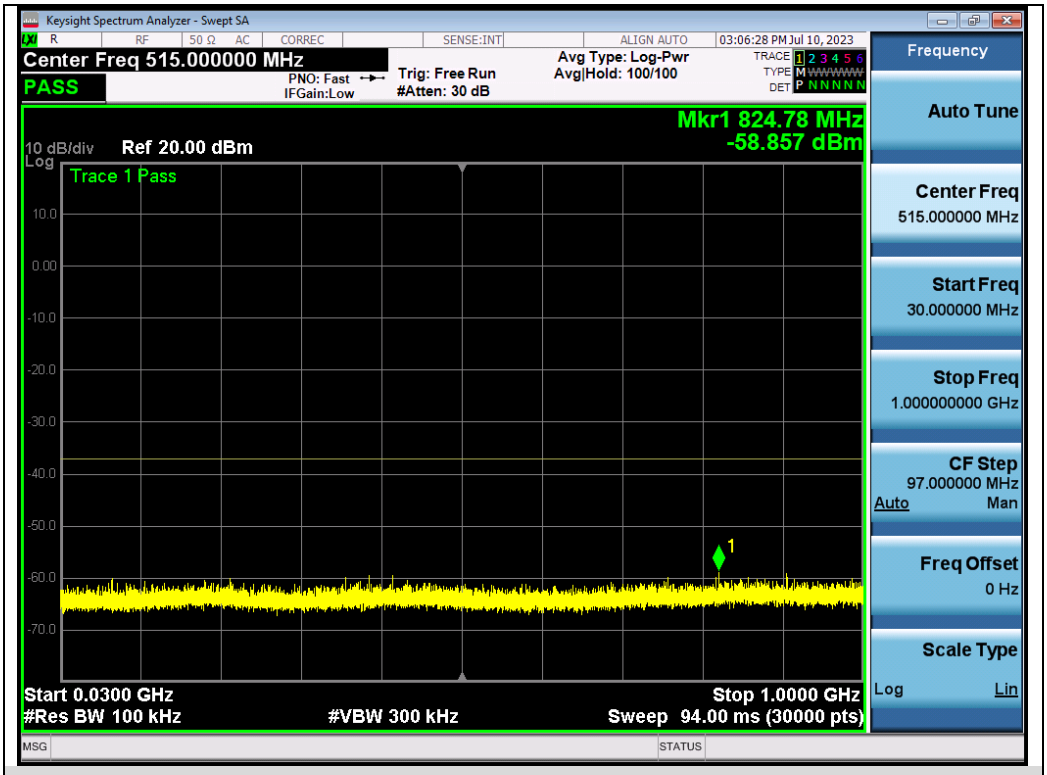


Test_Graph_802.11n40_ANT1_5590_MCS0_Frequency Band 3

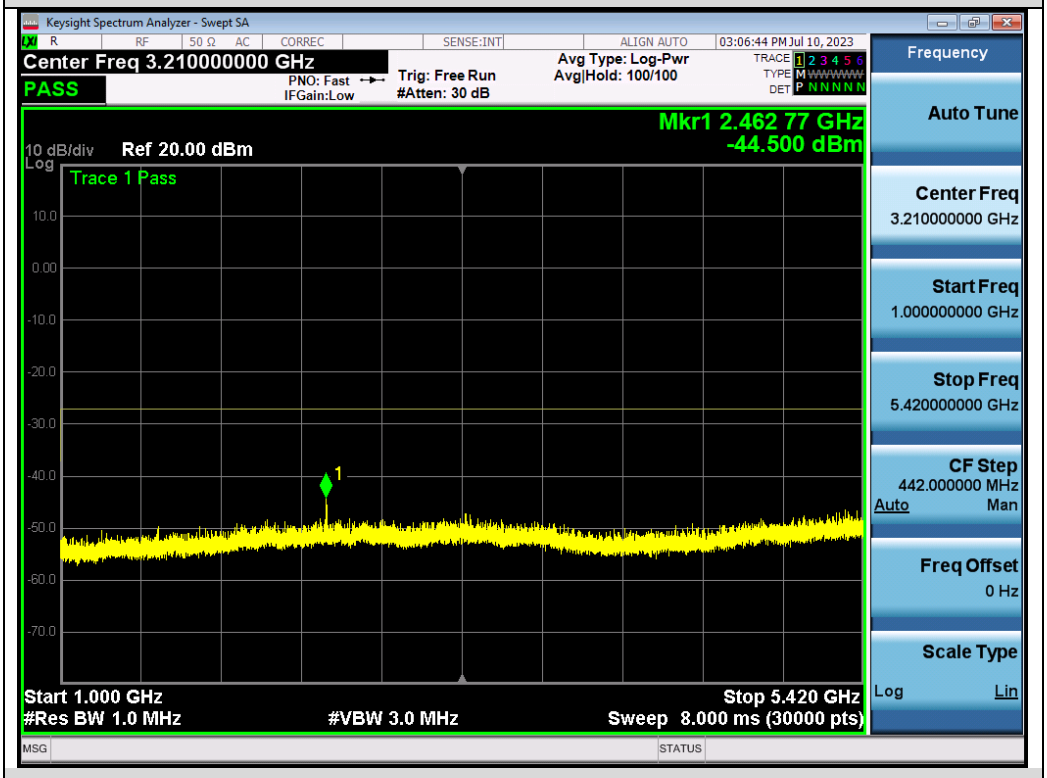
Test_Graph_802.11n40_ANT1_5590_MCS0_Frequency Band 4



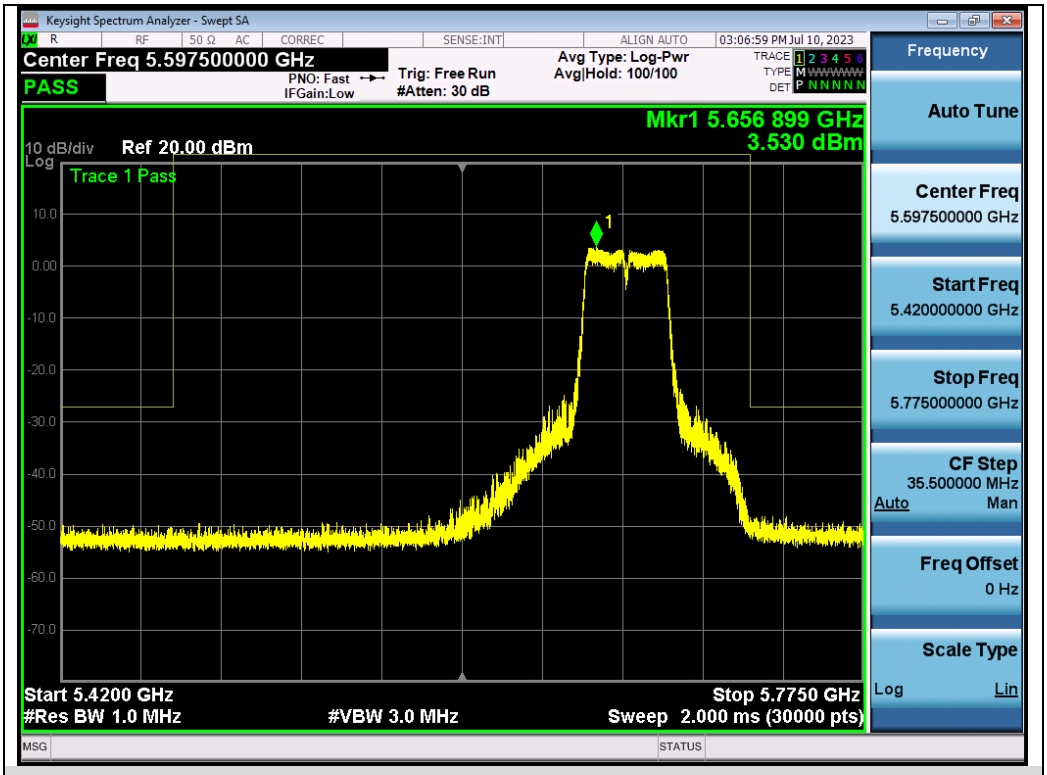
Test_Graph_802.11n40_ANT1_5590_MCS0_Frequency Band 5



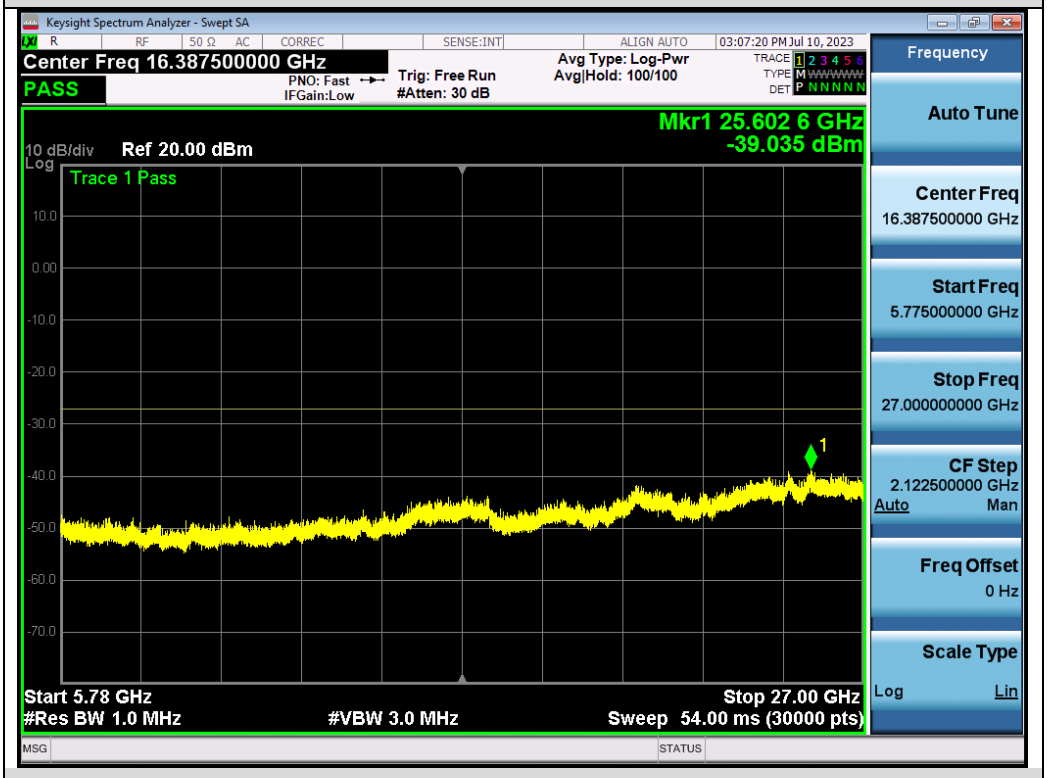
Test_Graph_802.11n40_ANT1_5670_MCS0_Frequency Band 1



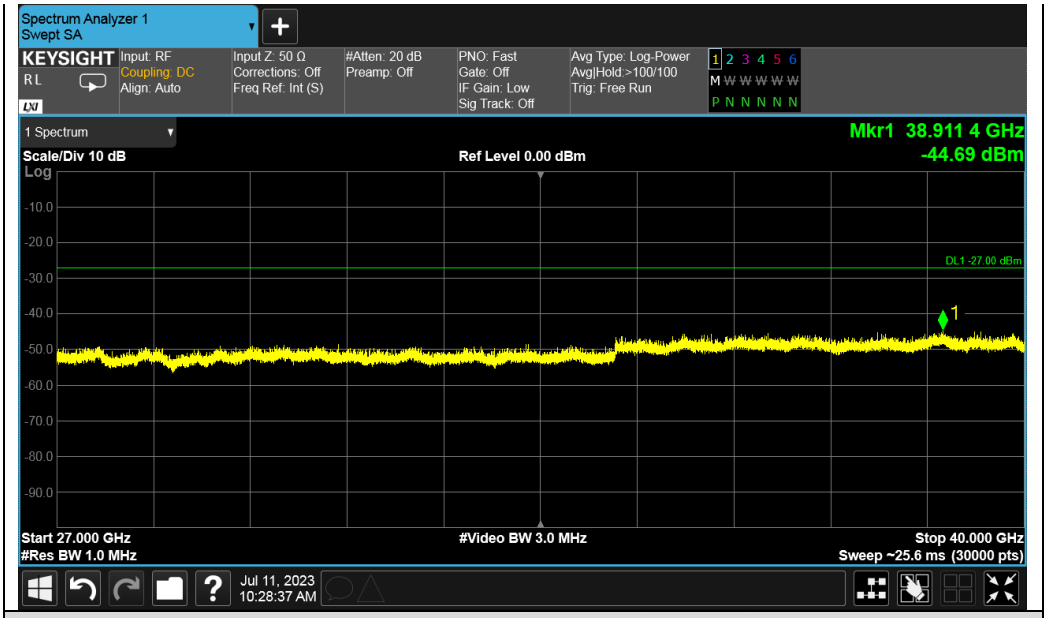
Test_Graph_802.11n40_ANT1_5670_MCS0_Frequency Band 2



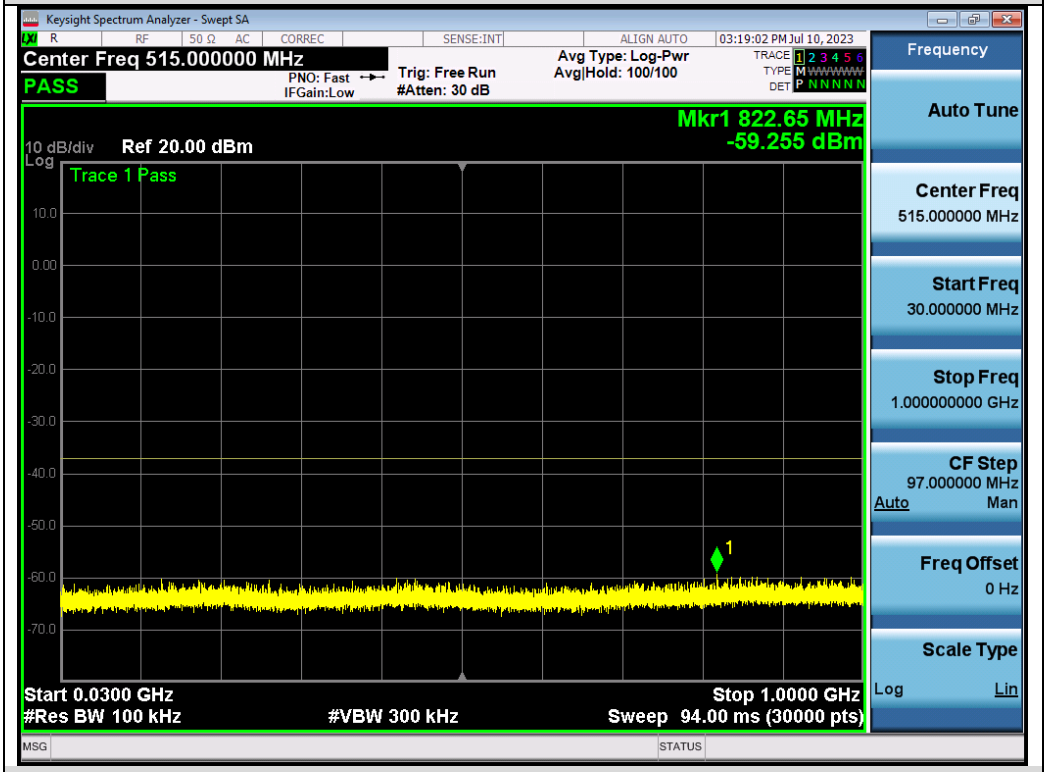
Test_Graph_802.11n40_ANT1_5670_MCS0_Frequency Band 3



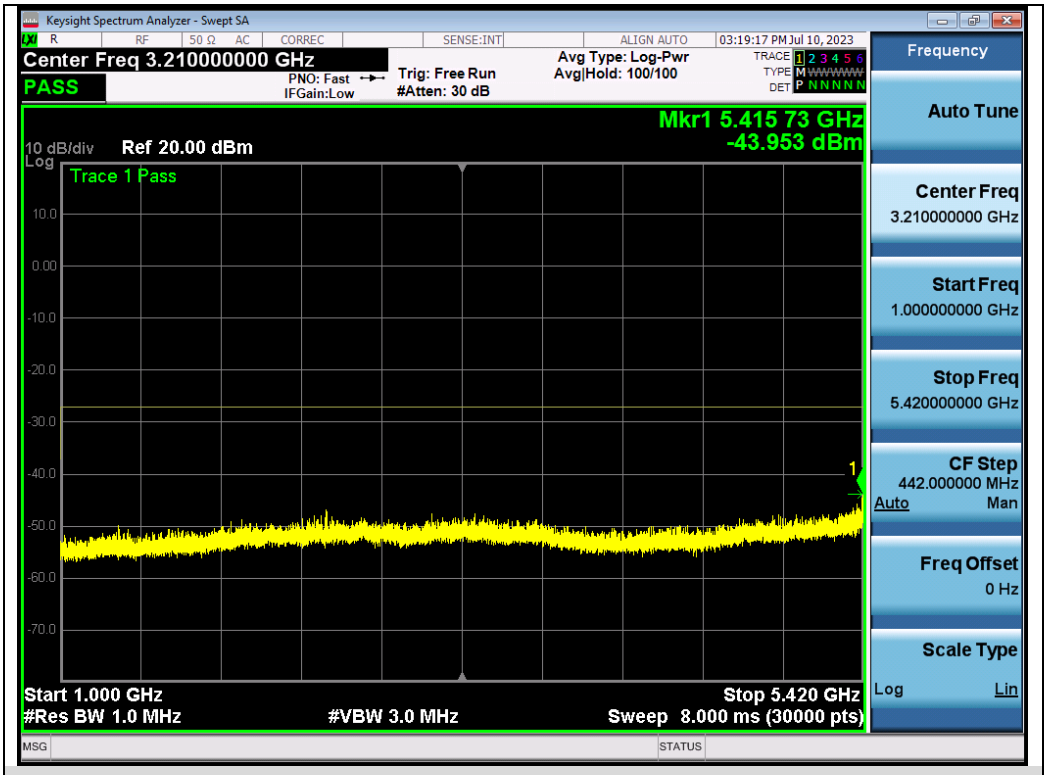
Test_Graph_802.11n40_ANT1_5670_MCS0_Frequency Band 4



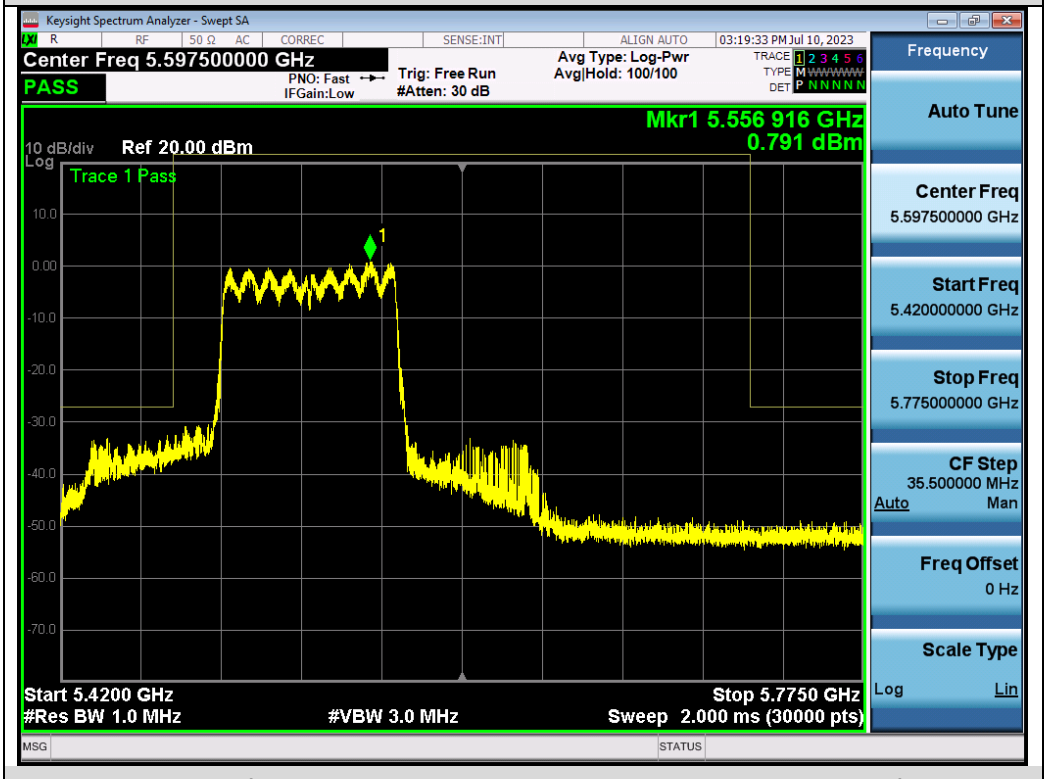
Test_Graph_802.11n40_ANT1_5670_MCS0_Frequency Band 5



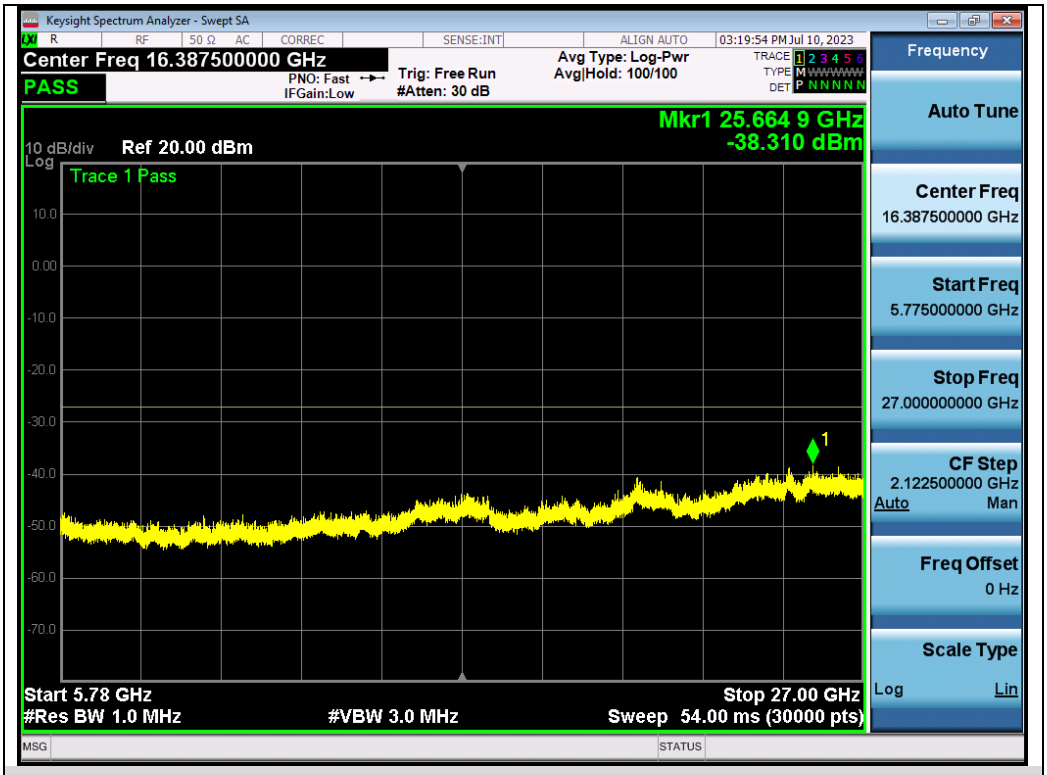
Test_Graph_802.11ac80_ANT1_5530_MCS9_Frequency Band 1



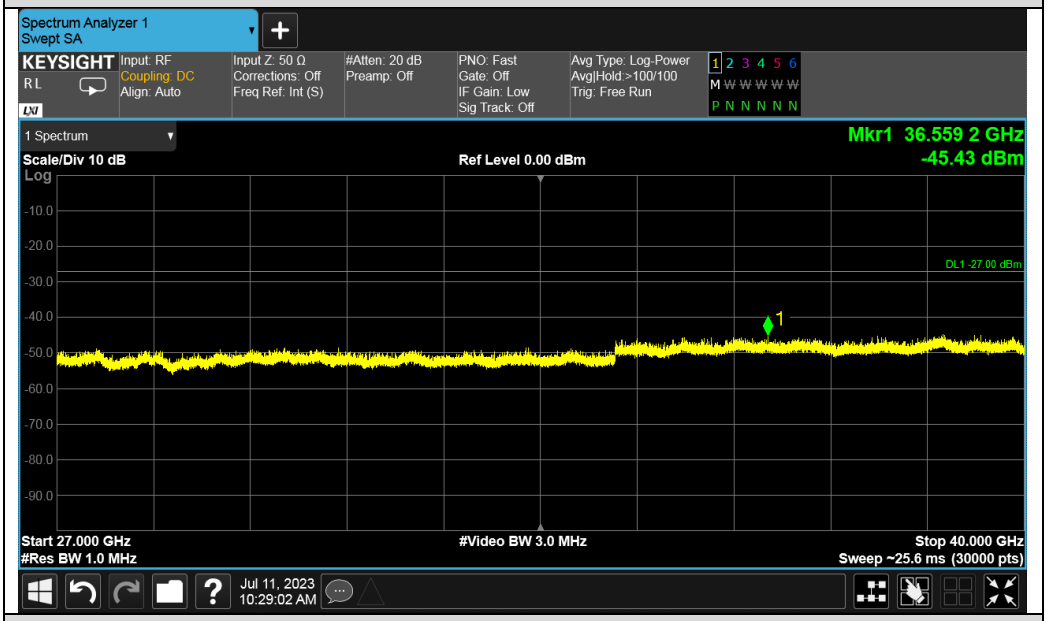
Test_Graph_802.11ac80_ANT1_5530_MCS9_Frequency Band 2



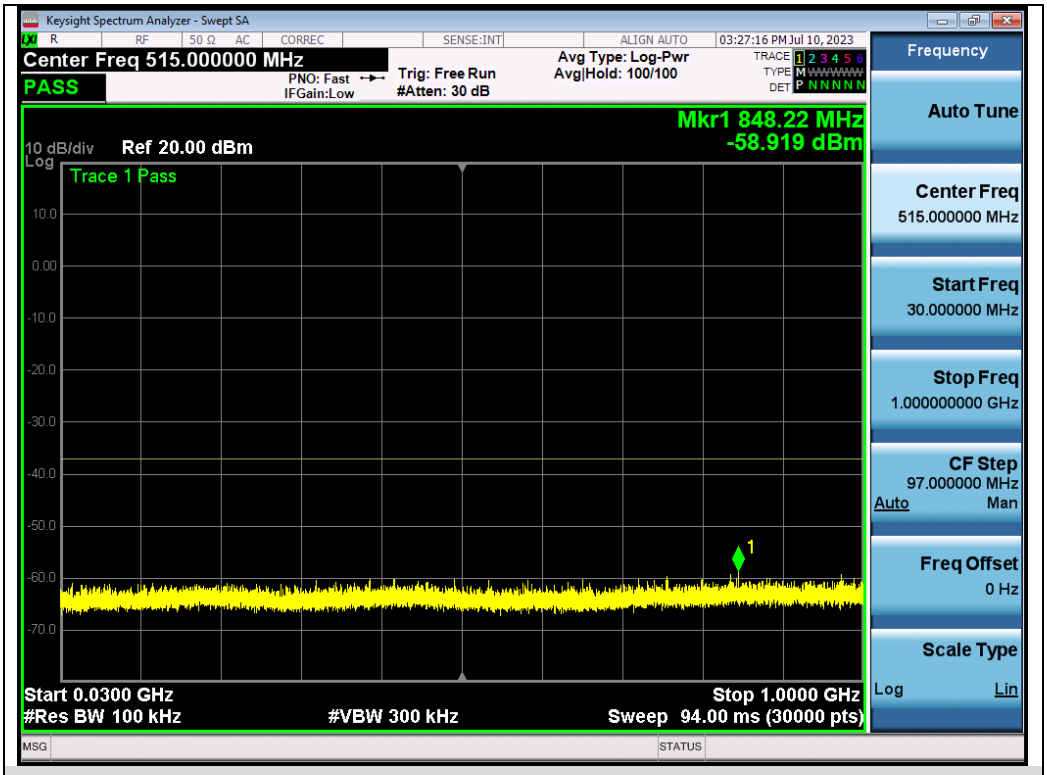
Test_Graph_802.11ac80_ANT1_5530_MCS9_Frequency Band 3



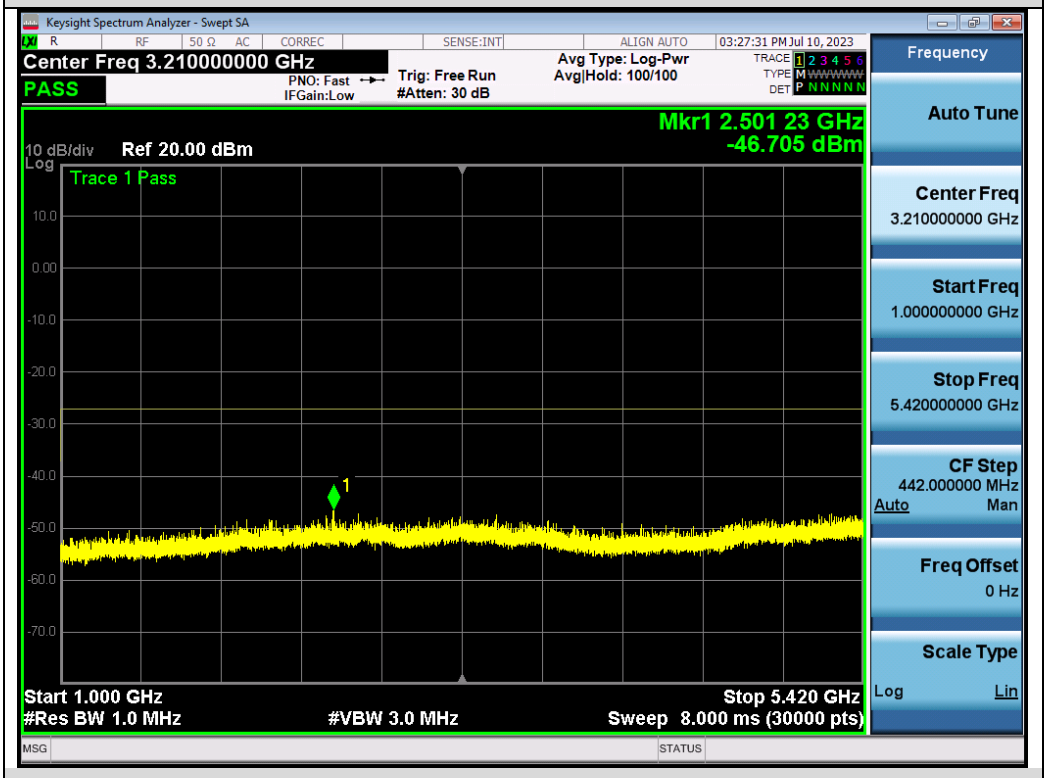
Test_Graph_802.11ac80_ANT1_5530_MCS9_Frequency Band 4



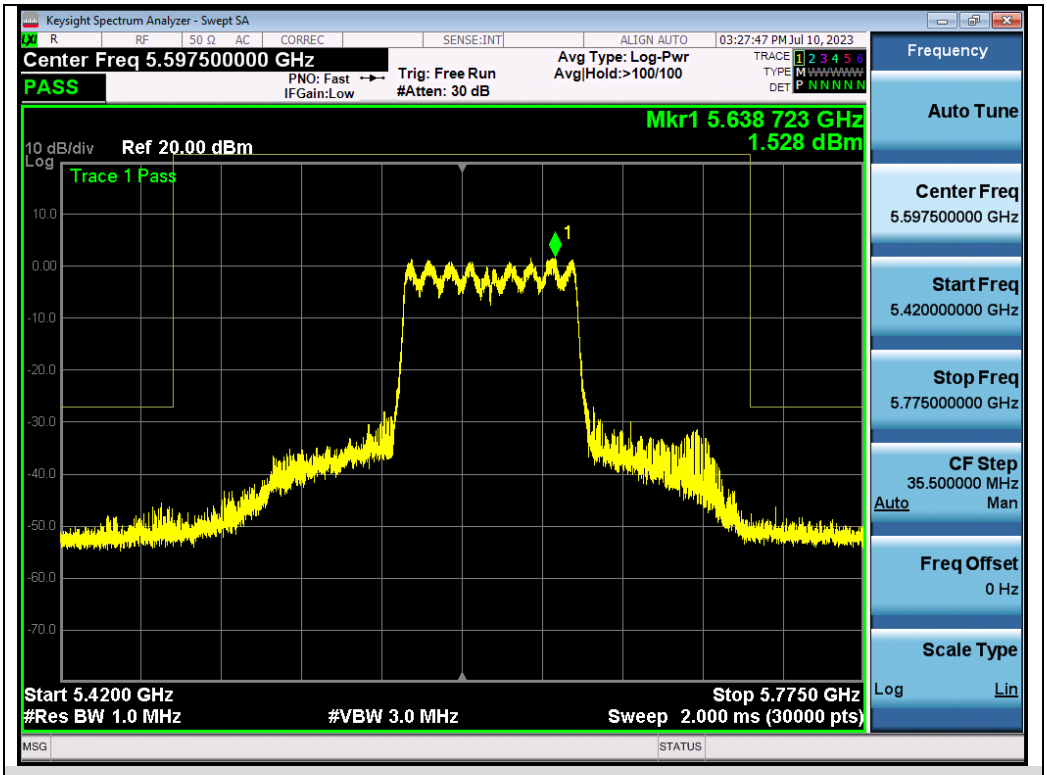
Test_Graph_802.11ac80_ANT1_5530_MCS9_Frequency Band 5



Test_Graph_802.11ac80_ANT1_5610_MCS9_Frequency Band 1

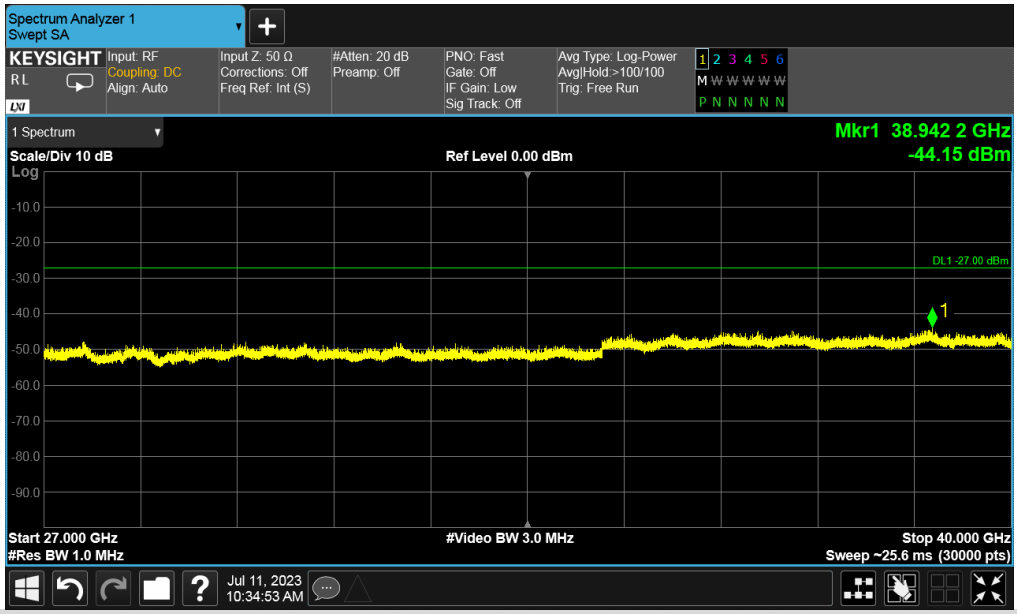


Test_Graph_802.11ac80_ANT1_5610_MCS9_Frequency Band 2



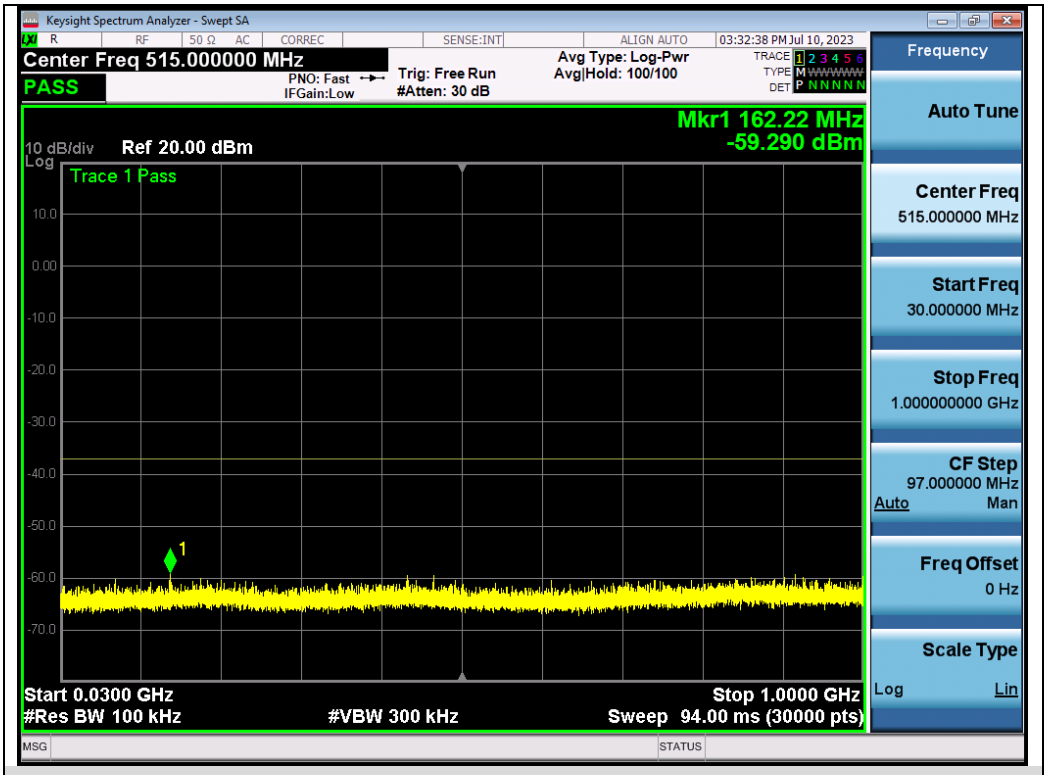
Test_Graph_802.11ac80_ANT1_5610_MCS9_Frequency Band 3

Test_Graph_802.11ac80_ANT1_5610_MCS9_Frequency Band 4



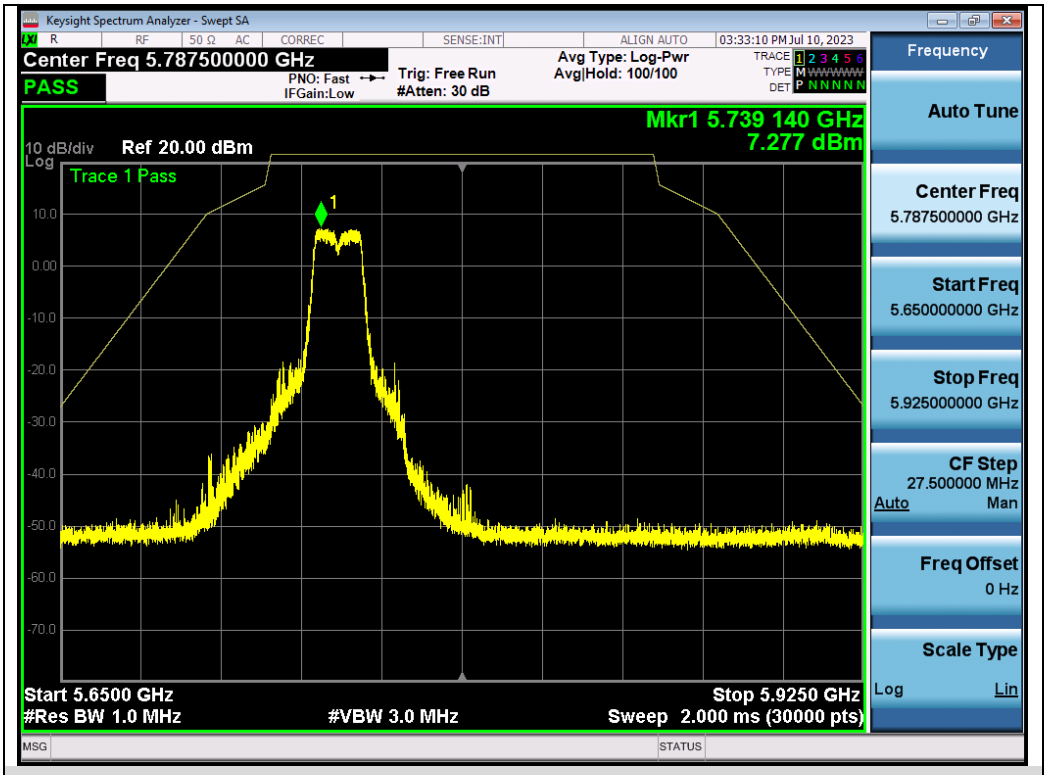
Test_Graph_802.11ac80_ANT1_5610_MCS9_Frequency Band 5

Test Graphs of Spurious Emissions outside of the 5.725-5.85 GHz band for transmitters operating in the 5.725-5.85 GHz band



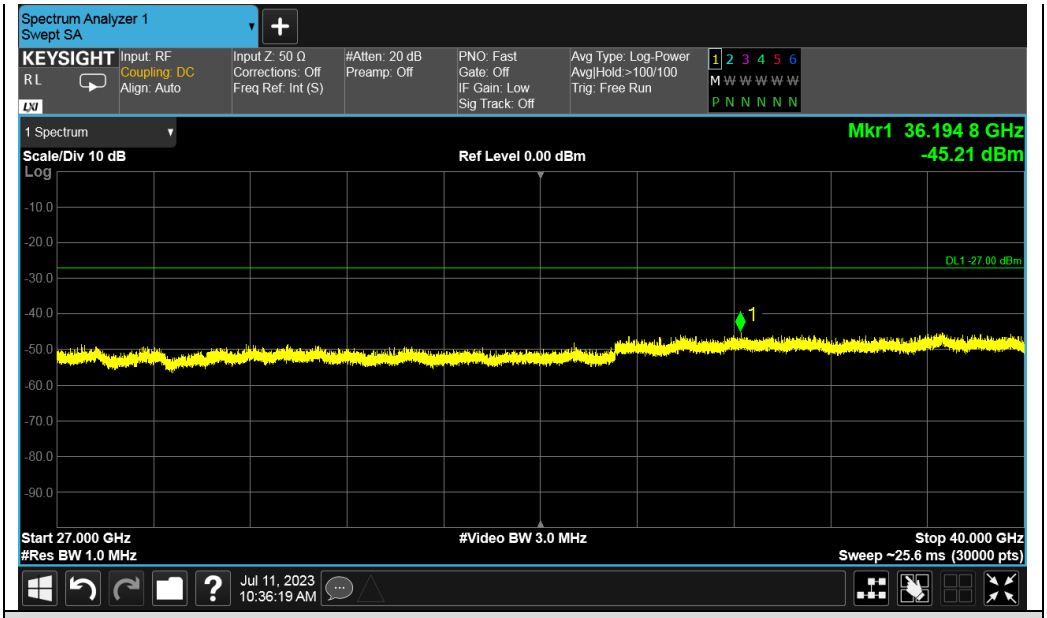
Test_Graph_802.11a_ANT1_5745_6Mbps_Frequency Band1

Test_Graph_802.11a_ANT1_5745_6Mbps_Frequency Band2

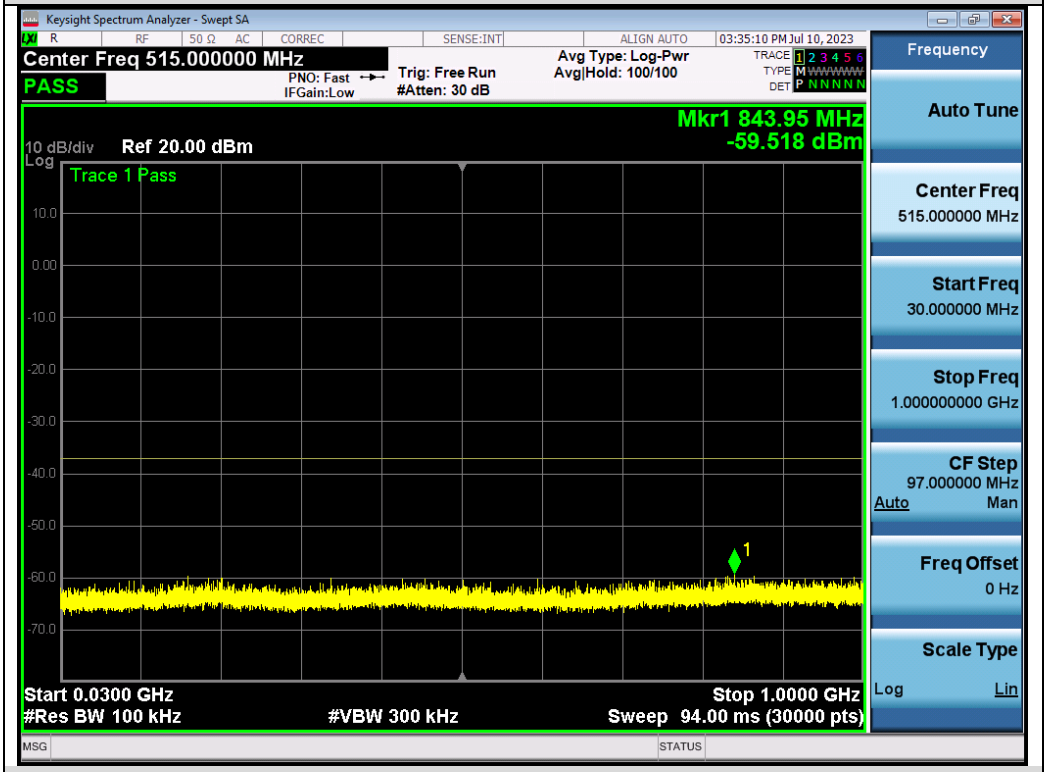


Test_Graph_802.11a_ANT1_5745_6Mbps_Frequency Band3

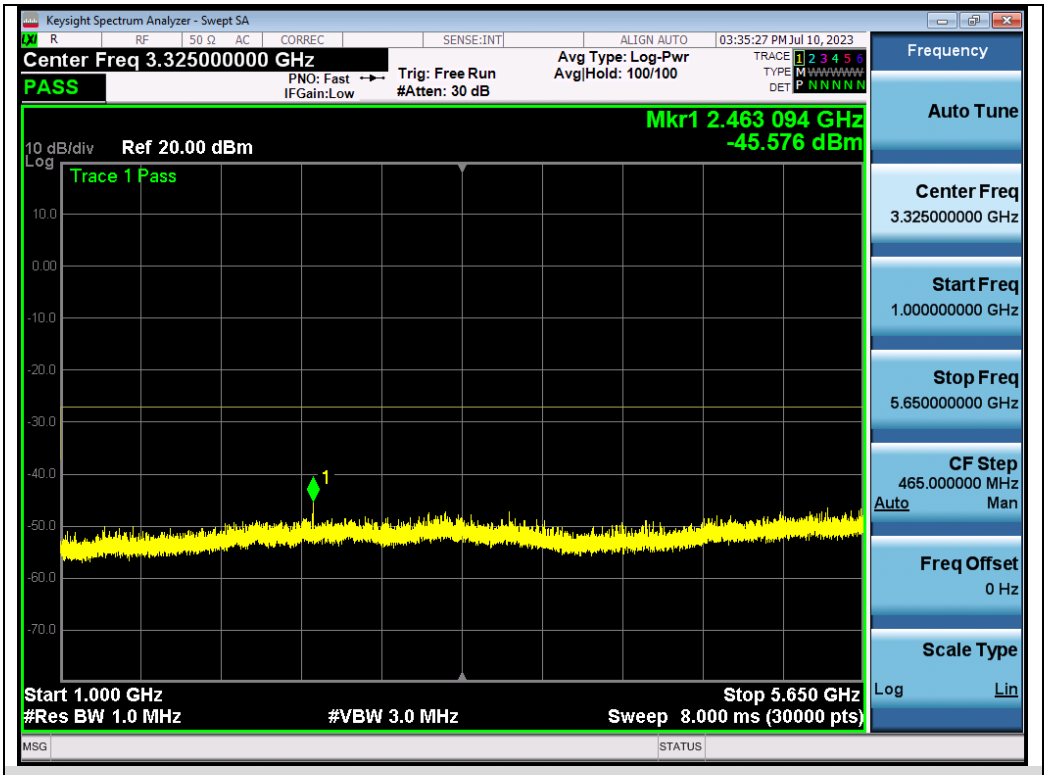
Test_Graph_802.11a_ANT1_5745_6Mbps_Frequency Band4



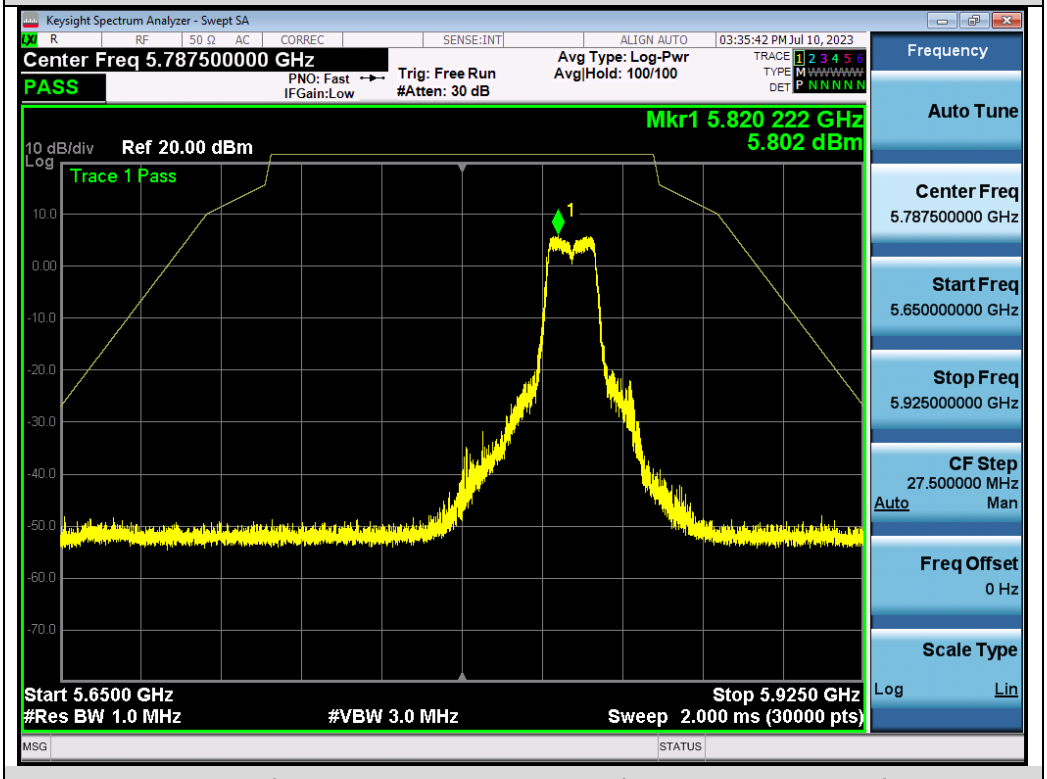
Test_Graph_802.11a_ANT1_5745_6Mbps_Frequency Band5



Test_Graph_802.11a_ANT1_5825_6Mbps_Frequency Band1

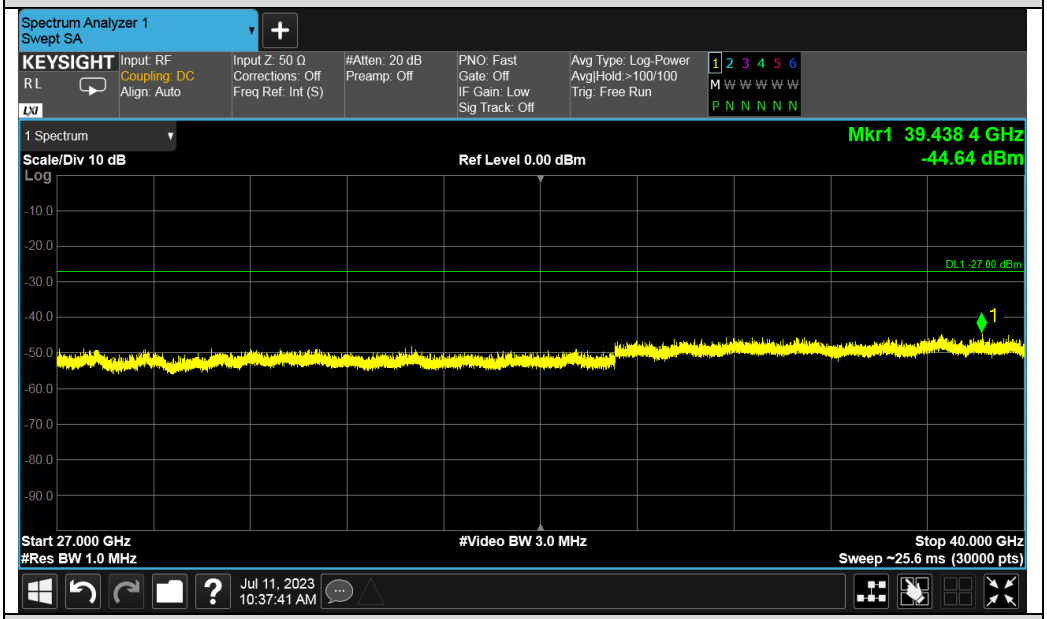


Test_Graph_802.11a_ANT1_5825_6Mbps_Frequency Band2

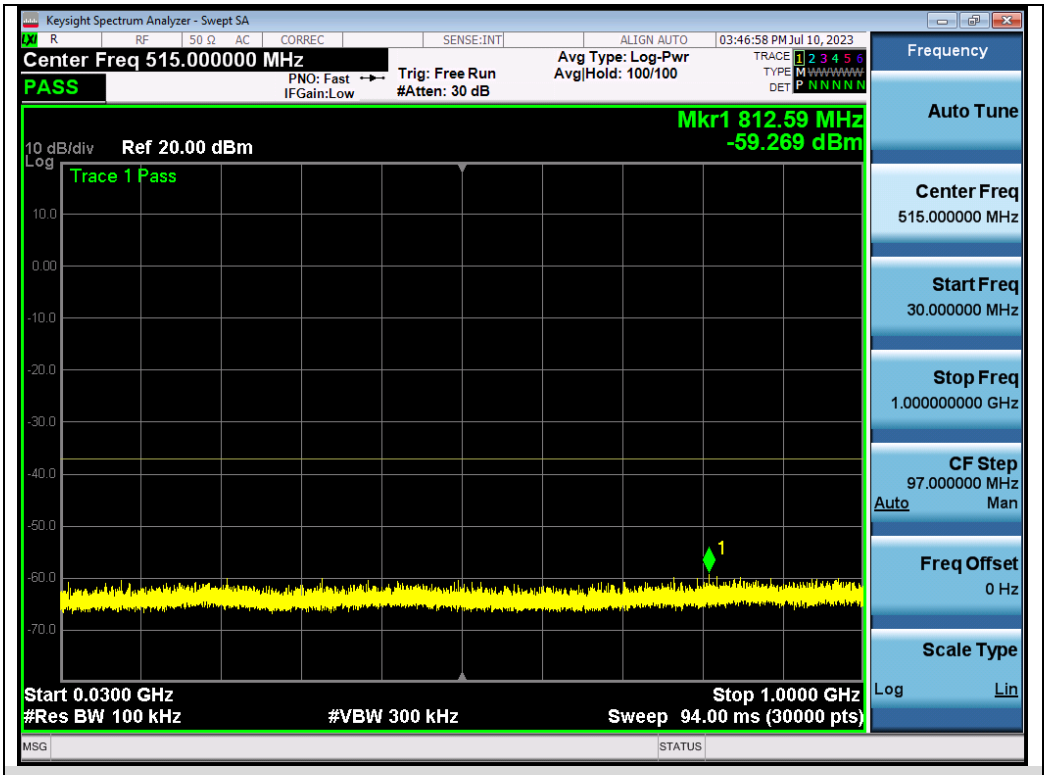


Test_Graph_802.11a_ANT1_5825_6Mbps_Frequency Band3

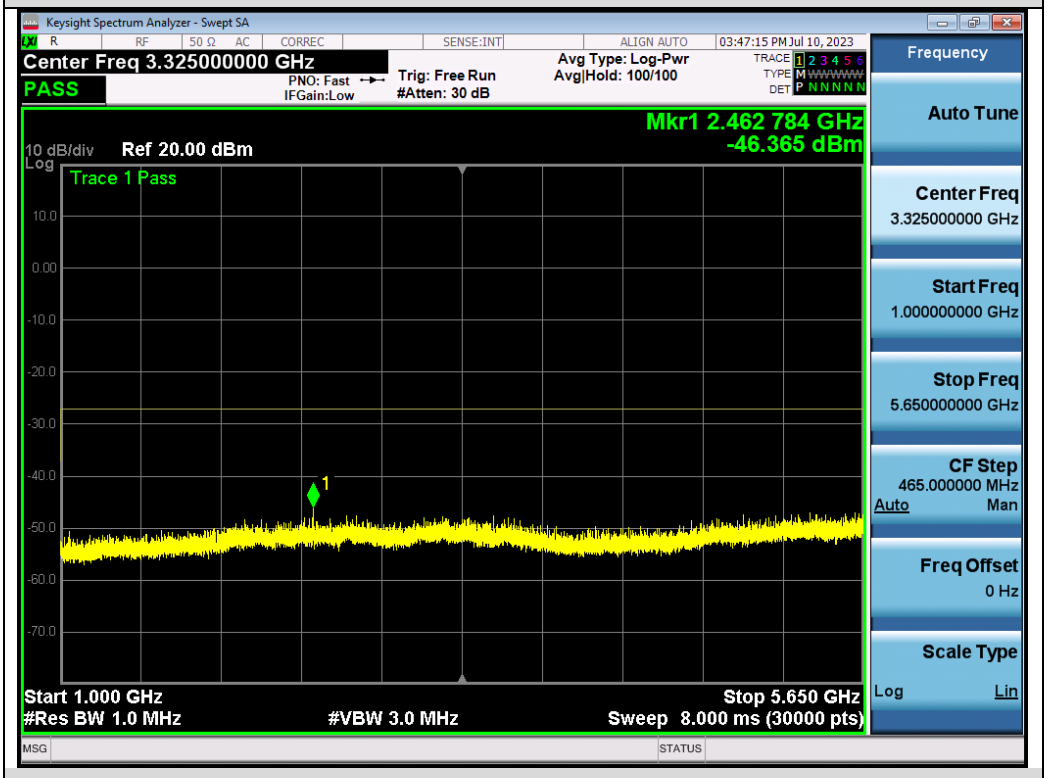
Test_Graph_802.11a_ANT1_5825_6Mbps_Frequency Band4



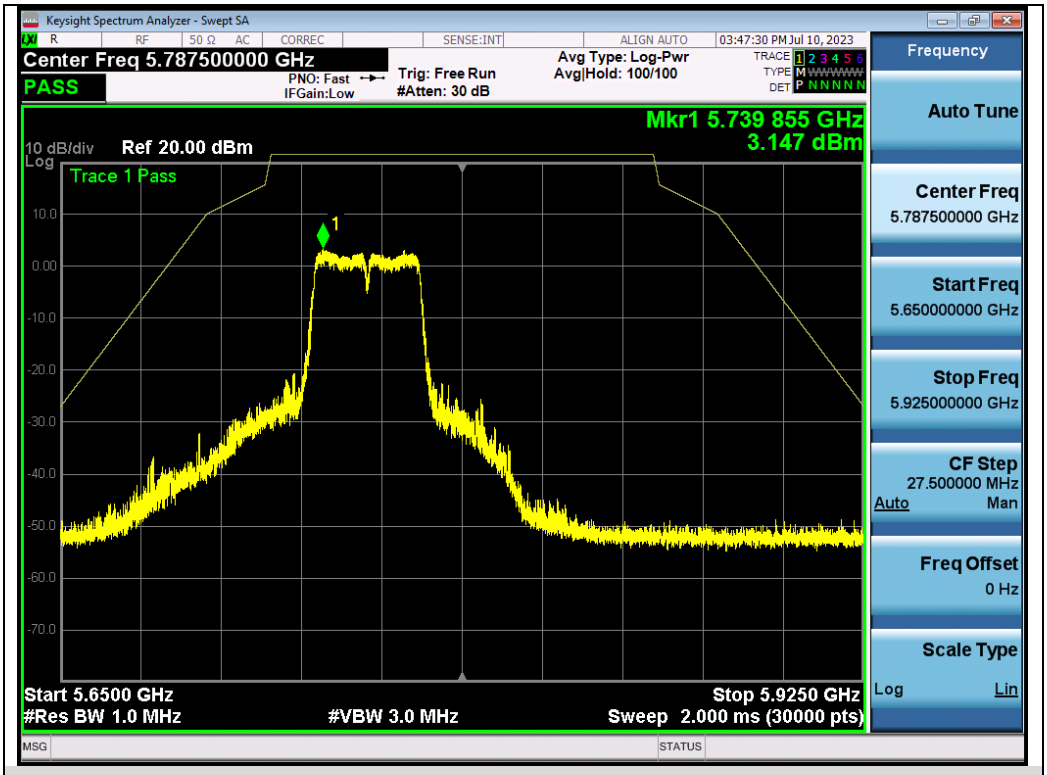
Test_Graph_802.11a_ANT1_5825_6Mbps_Frequency Band5



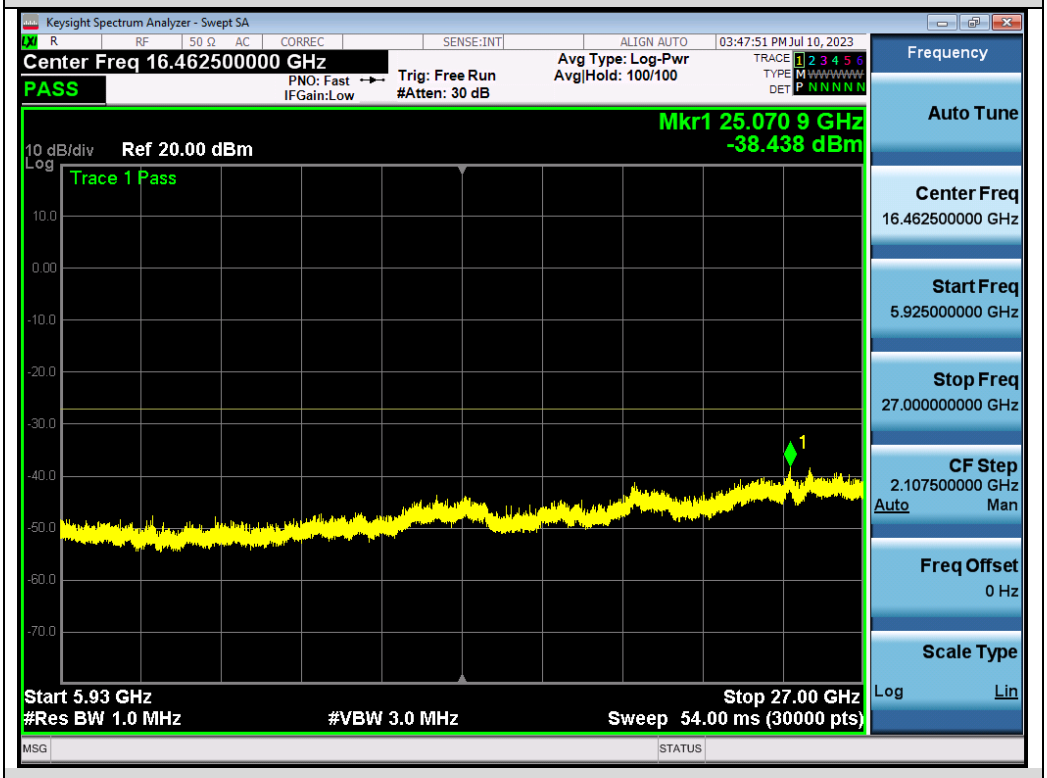
Test_Graph_802.11n40_ANT1_5755_MCS0_Frequency Band1



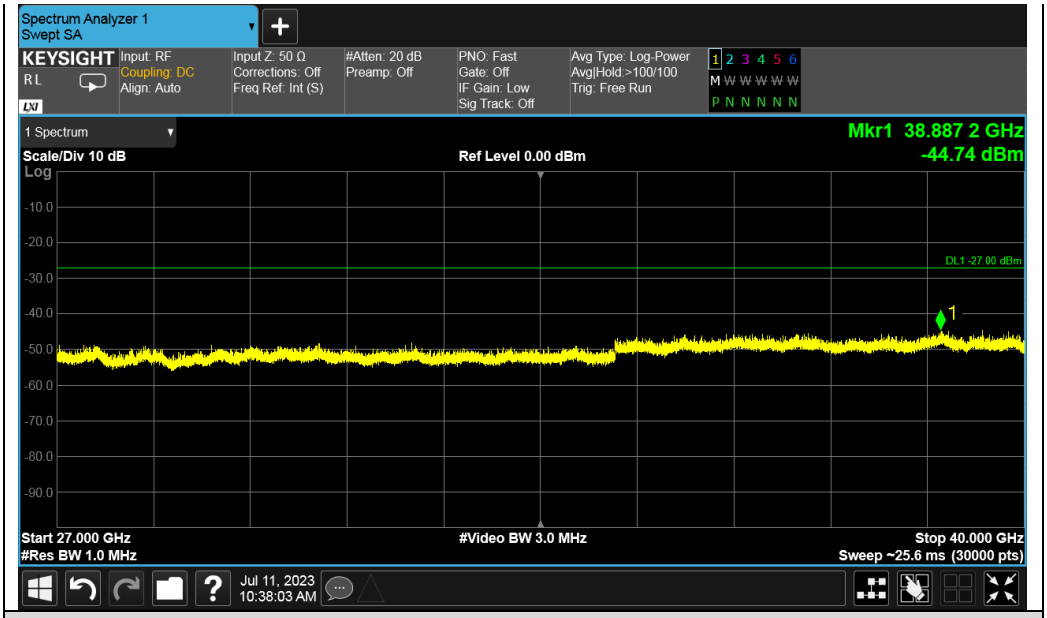
Test_Graph_802.11n40_ANT1_5755_MCS0_Frequency Band2



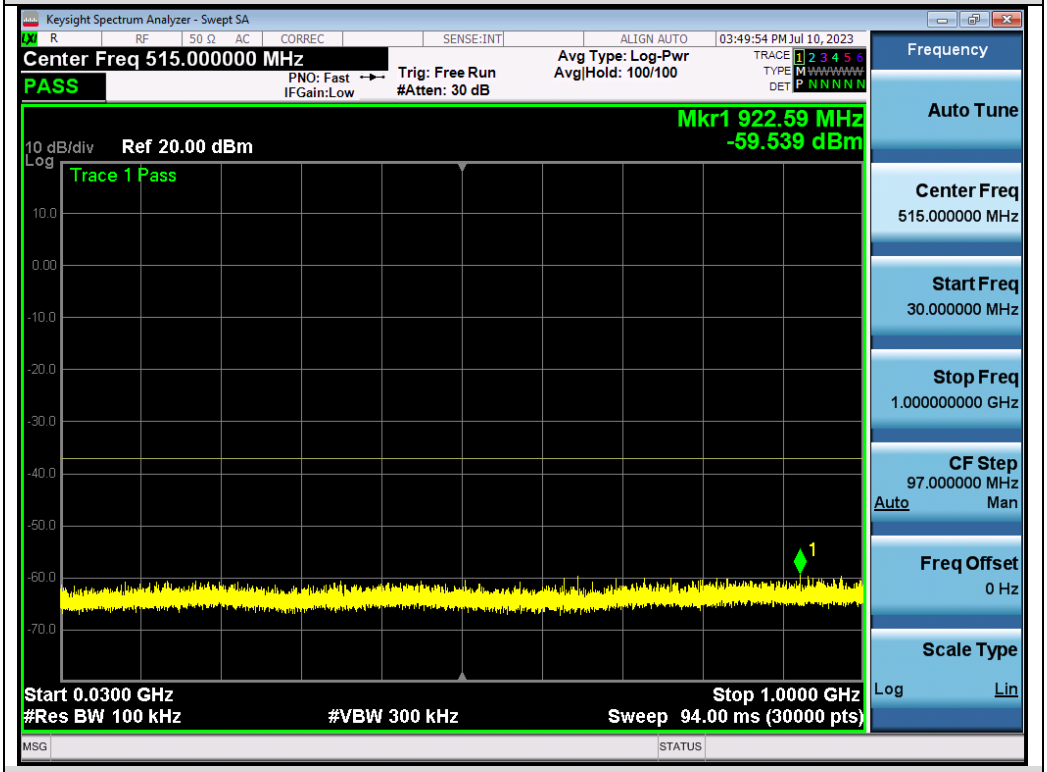
Test_Graph_802.11n40_ANT1_5755_MCS0_Frequency Band3



Test_Graph_802.11n40_ANT1_5755_MCS0_Frequency Band4

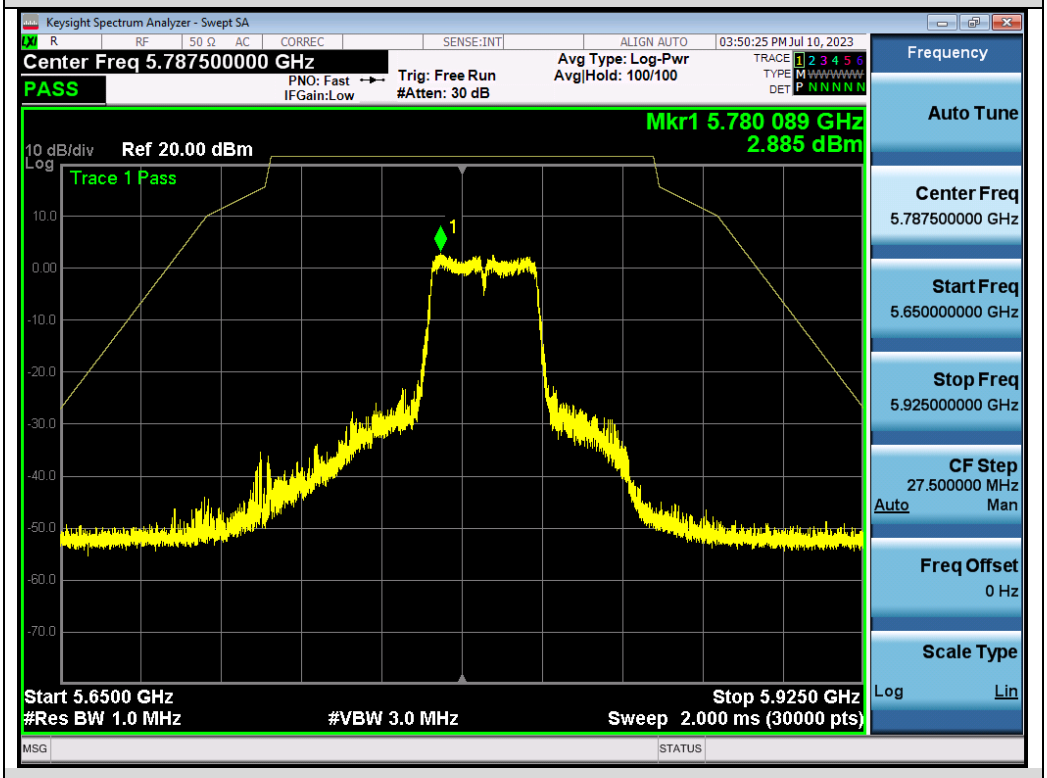


Test_Graph_802.11n40_ANT1_5755_MCS0_Frequency Band5



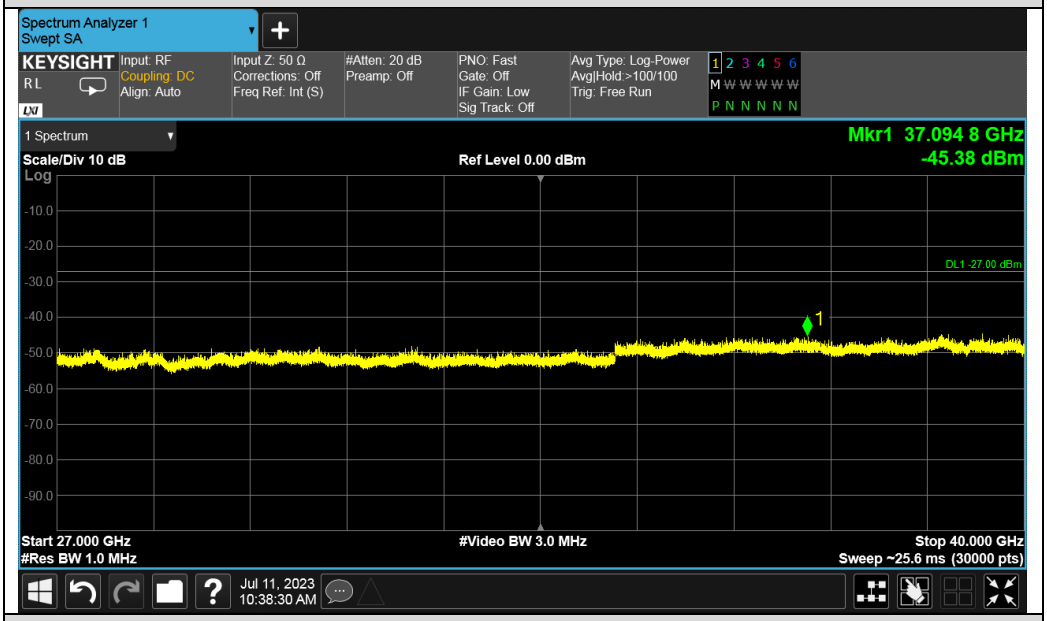
Test_Graph_802.11n40_ANT1_5795_MCS0_Frequency Band1

Test_Graph_802.11n40_ANT1_5795_MCS0_Frequency Band2

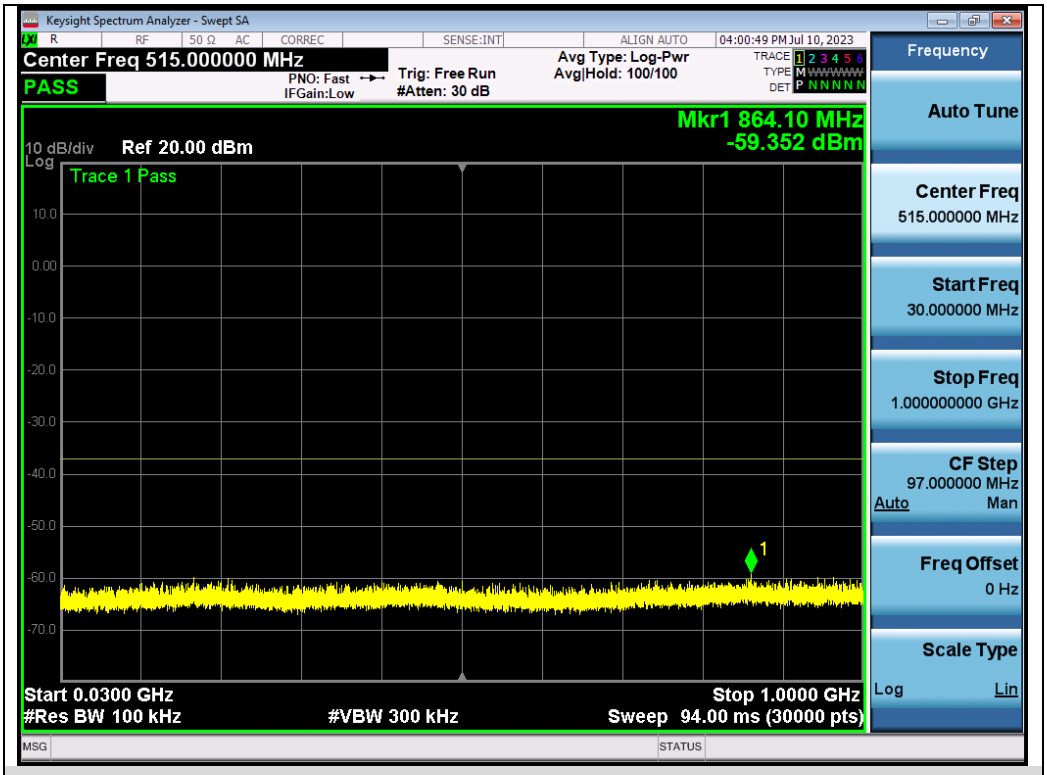


Test_Graph_802.11n40_ANT1_5795_MCS0_Frequency Band3

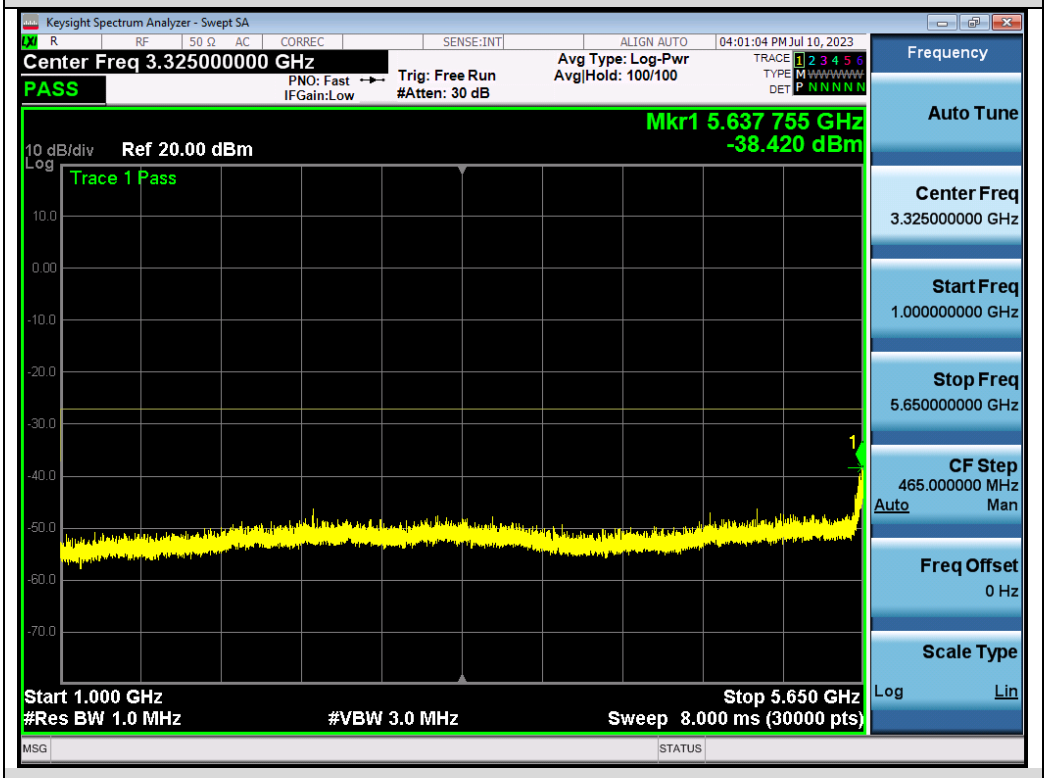
Test_Graph_802.11n40_ANT1_5795_MCS0_Frequency Band4



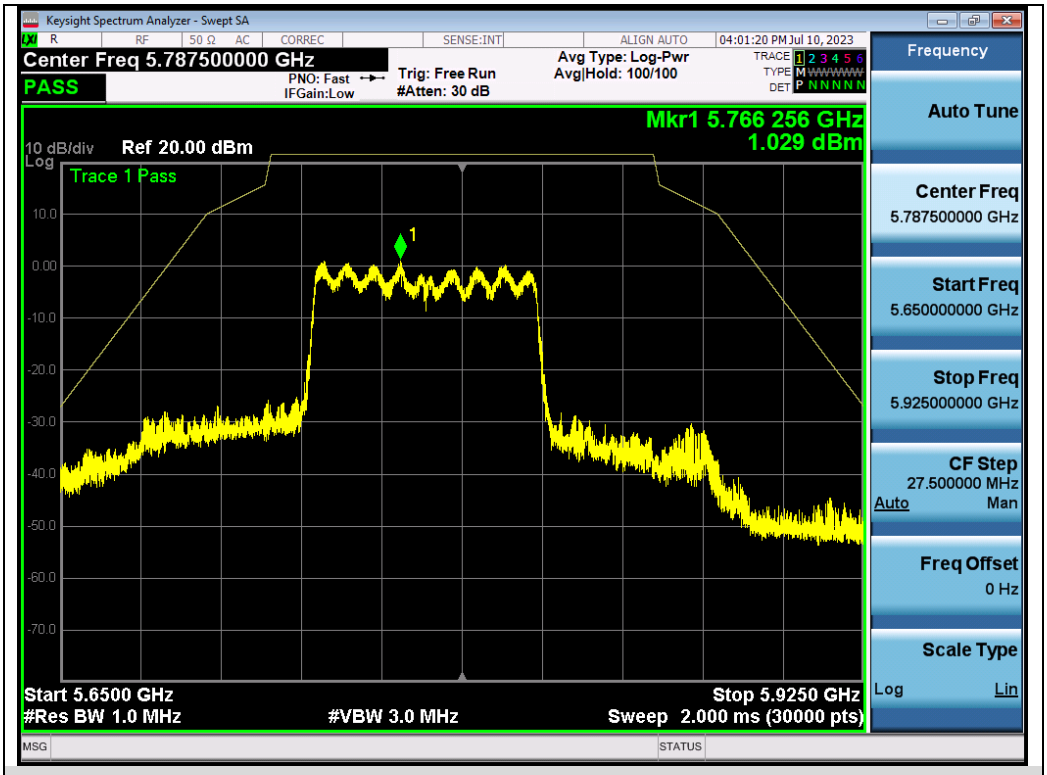
Test_Graph_802.11n40_ANT1_5795_MCS0_Frequency Band5



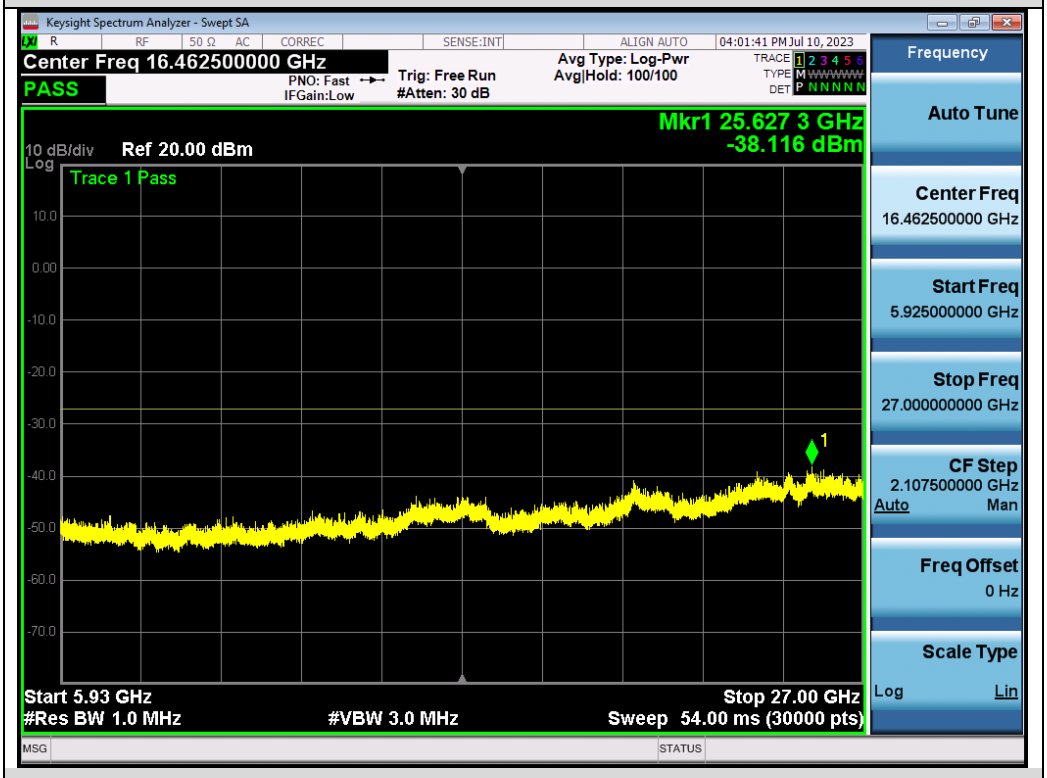
Test_Graph_802.11ac80_ANT1_5775_MCS9_Frequency Band1



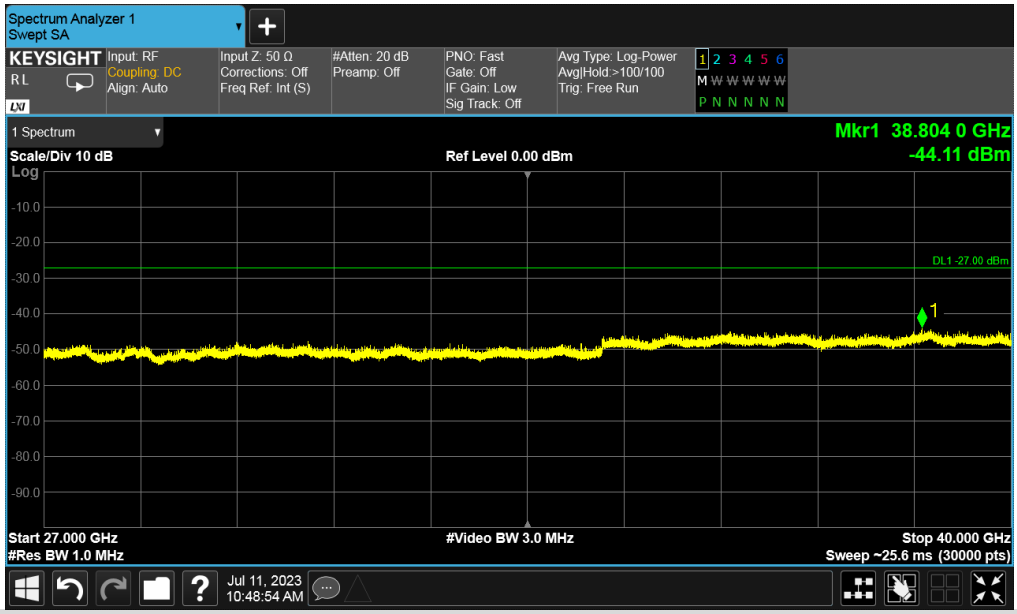
Test_Graph_802.11ac80_ANT1_5775_MCS9_Frequency Band2



Test_Graph_802.11ac80_ANT1_5775_MCS9_Frequency Band3



Test_Graph_802.11ac80_ANT1_5775_MCS9_Frequency Band4



Test_Graph_802.11ac80_ANT1_5775_MCS9_Frequency Band5

10. RADIATED EMISSION

10.1 LIMITS OF RADIATED EMISSION TEST

Radiated emissions which fall in the restricted bands must comply with the radiated emission limits specified as below table:

Frequency (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
0.009 - 0.490	2400/F(kHz)	300
0.490 - 1.705	24000/F(kHz)	30
1.705 - 30.0	30	30
30 - 88	100	3
88 - 216	150	3
216 - 960	200	3
Above 960	500	3

NOTE:

1. The lower limit shall apply at the transition frequencies.
2. Emission level (dBuV/m) = 20 log Emission level (uV/m).
3. For frequencies above 1000MHz, the field strength limits are based on average detector, however, the peak field strength of any emission shall not exceed the maximum permitted average limits, specified above by more than 20dB under any condition of modulation.

Restricted bands	Applicable to	Limit	
	789033 D02 General UNII Test Procedures New Rules v02r01	Field strength at 3m (dBuV/m)	
		PK: 74	AV: 54
Out of the restricted bands	Applicable to	EIRP Limit (dBm/MHz)	Equivalent field Strength at 3m (dBuV/m)
	FCC 15.407(b)(1)	PK: -27	PK: 68.2
	15.407(b)(2)		
	15.407(b)(3)		
	15.407(b)(4)	See Note 2	

Note 1: The following formula is used to convert the equipment isotropic radiated power (eirp) to field strength:

$$E = \frac{1000000 \quad \sqrt{30\ P}}{3}$$ μV/m, where P is the eirp (Watts).

Note 2: All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

10.2 MEASUREMENT PROCEDURE

1. The EUT was placed on the top of the turntable 0.8 or 1.5 meter above ground. The phase center of the receiving antenna mounted on the top of a height-variable antenna tower was placed 3 meters far away from the turntable.
2. Power on the EUT and all the supporting units. The turntable was rotated by 360 degrees to determine the position of the highest radiation.
3. The height of the broadband receiving antenna was varied between one meter and four meters above ground to find the maximum emissions field strength of both horizontal and vertical polarization.
4. For each suspected emission, the antenna tower was scan (from 1 M to 4 M) and then the turntable was rotated (from 0 degree to 360 degrees) to find the maximum reading.
5. Set the test-receiver system to Peak or CISPR quasi-peak Detect Function with specified bandwidth under Maximum Hold Mode.
6. For emissions above 1GHz, use 1MHz RBW and 3MHz VBW for peak reading. Place the measurement antenna away from each area of the EUT determined to be a source of emissions at the specified measurement distance, while keeping the measurement antenna aimed at the source of emissions at each frequency of significant emissions, with polarization oriented for maximum response. The measurement antenna may have to be higher or lower than the EUT, depending on the radiation pattern of the emission and staying aimed at the emission source for receiving the maximum signal. The final measurement antenna elevation shall be that which maximizes the emissions. The measurement antenna elevation for maximum emissions shall be restricted to a range of heights of from 1 m to 4 m above the ground or reference ground plane.
7. When the radiated emissions limits are expressed in terms of the average value of the emissions, and pulsed operation is employed, the measurement field strength shall be determined by averaging over one complete pulse train, including blanking intervals, as long as the pulse train does not exceed 0.1 seconds. As an alternative (provided the transmitter operates for longer than 0.1 seconds) or in cases where the pulse train exceeds 0.1 seconds, the measured field strength shall be determined from the average absolute voltage during a 0.1 second interval during which the field strength is at its maximum values.
8. If the emissions level of the EUT in peak mode was 3 dB lower than the average limit specified, then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions which do not have 3 dB margin will be repeated one by one using the quasi-peak method for below 1GHz.
9. For testing above 1GHz, the emissions level of the EUT in peak mode was lower than average limit (that means the emissions level in peak mode also complies with the limit in average mode), then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.
10. In case the emission is lower than 30MHz, loop antenna has to be used for measurement and the recorded data should be QP measured by receiver. High - Low scan is not required in this case.

The following table is the setting of spectrum analyzer and receiver.

Receiver Parameter	Setting
Start ~Stop Frequency	9KHz~150KHz/RB 200Hz for QP
Start ~Stop Frequency	150KHz~30MHz/RB 9KHz for QP
Start ~Stop Frequency	30MHz~1000MHz/RB 120KHz for QP

The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v01r04.Section G) Unwanted emissions measurement.

(1) Procedure for Unwanted Emissions Measurements Below 1000MHz:

- RBW = 120 kHz
- VBW = 300 kHz
- Detector = Peak
- Trace mode = max hold

(2) Procedure for Peak Unwanted Emissions Measurements Above 1000 MHz:

- RBW = 1 MHz
- VBW ≥ 3 MHz
- Detector = Peak
- Sweep time = auto
- Trace mode = max hold

(3) Procedures for Average Unwanted Emissions Measurements Above 1000MHz:

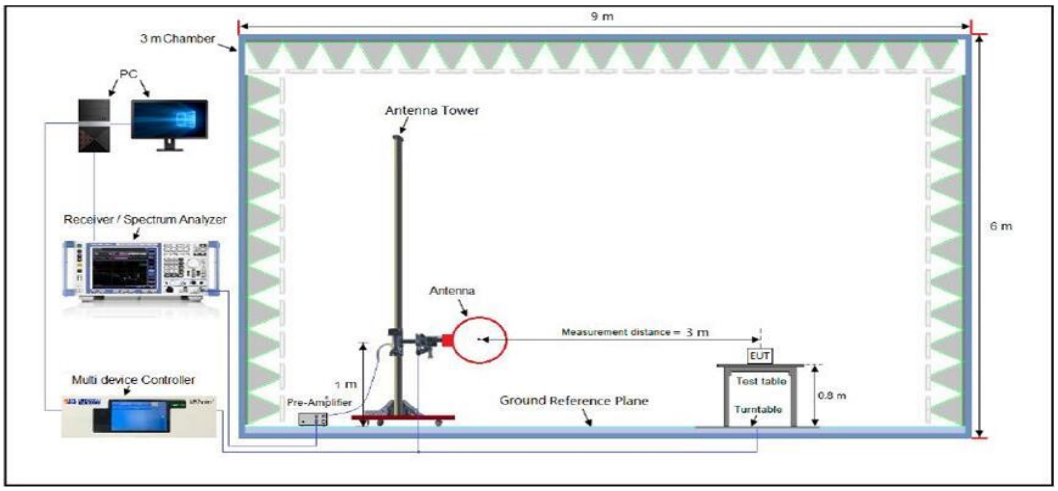
- RBW = 1 MHz
- VBW = 10 Hz, when duty cycle is no less than 98 percent.
- VBW ≥ 1/T, when duty cycle is less than 98 percent where T is the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.

(4) Procedures for Average Unwanted Emissions Measurements Above 1000MHz:

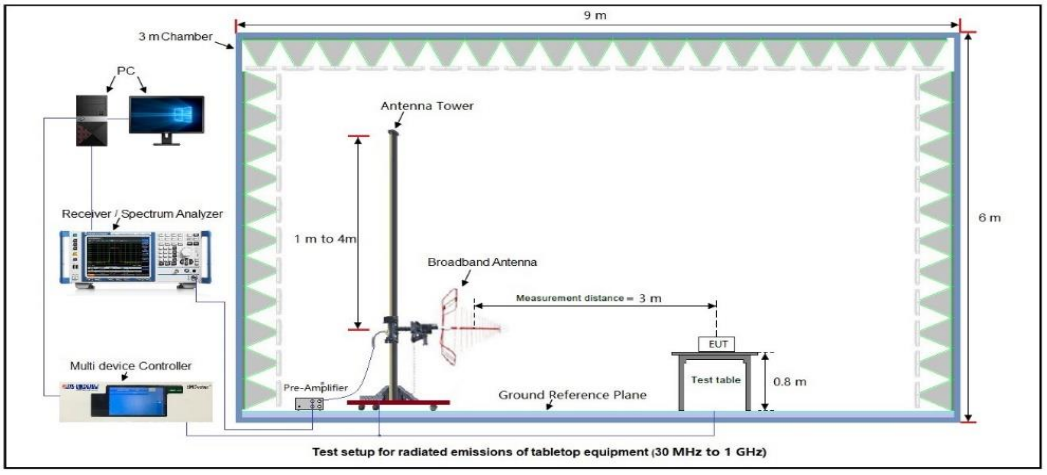
- RBW = 1 MHz
- VBW = 3 MHz • Detector = power averaging (rms), set span/(# of points in sweep) ≥ RBW/2.
- Averaging type = power averaging (RMS)
- The correction factor shall be offset is 10 log (1/x), where x is the duty cycle.

10.3 MEASUREMENT SETUP (BLOCK DIAGRAM OF CONFIGURATION)

RADIATED EMISSION TEST SETUP 9KHz-30MHz

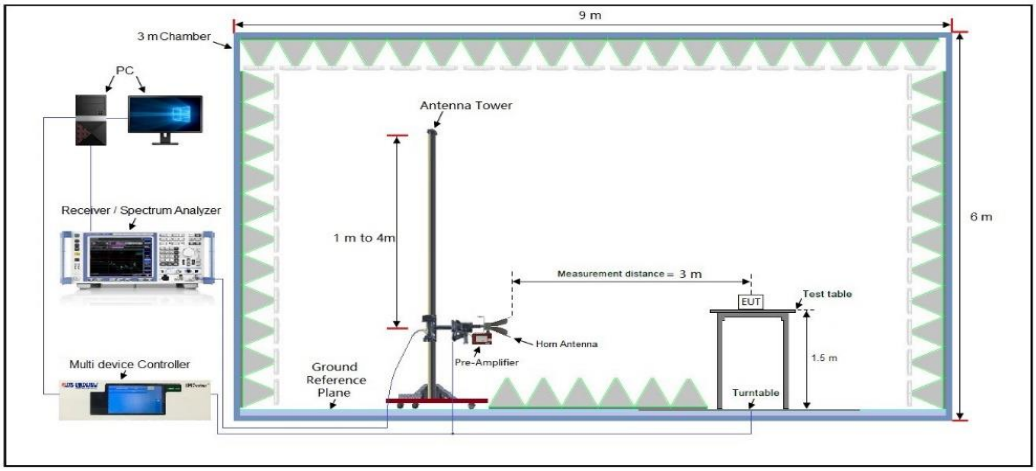


RADIATED EMISSION TEST SETUP 30MHz-1000MHz



Test setup for radiated emissions of tabletop equipment (30 MHz to 1 GHz)

RADIATED EMISSION TEST SETUP ABOVE 1000MHz



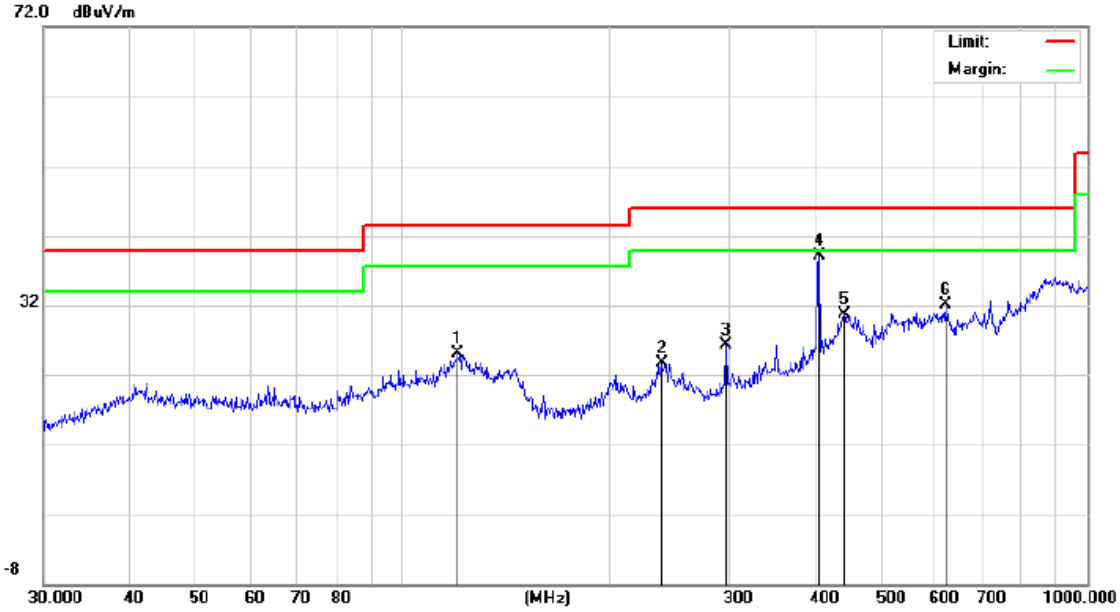
10.4 MEASUREMENT RESULT

Radiated Emission Below 30MHz

The amplitude of spurious emissions from 9kHz to 30MHz which are attenuated more than 20 dB below the permissible value need not be reported.

Radiated emission from 30MHz to 1000MHz

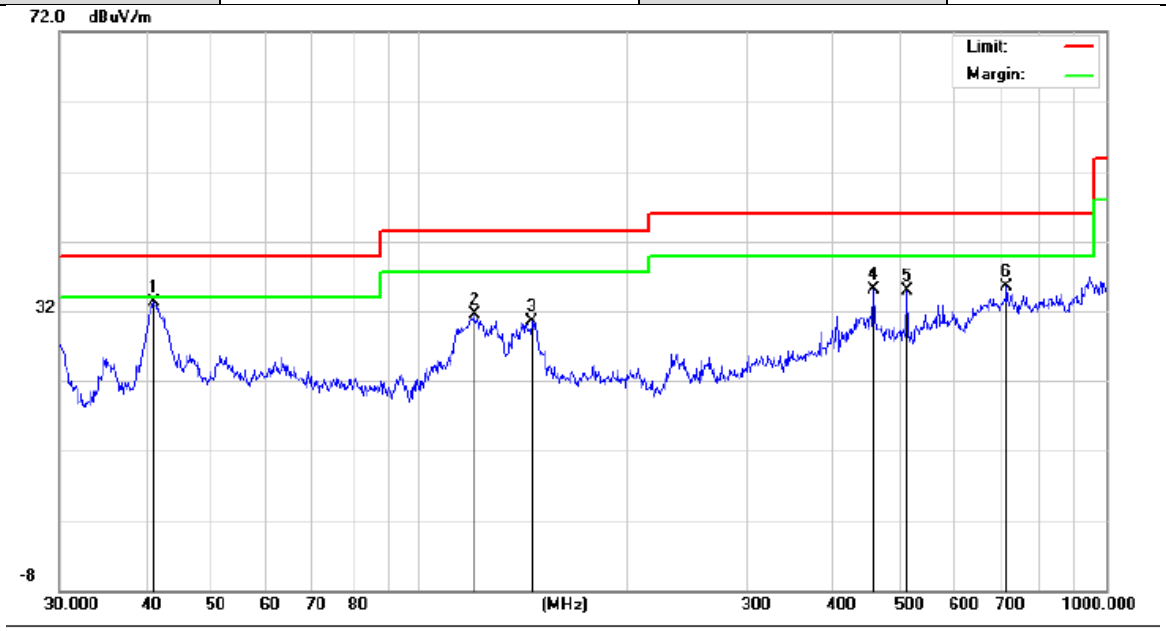
EUT	IP Phone	**Model Name**	X305
Temperature	25°C	**Relative Humidity**	60%
Pressure	960hPa	**Test Voltage**	DC 5V
Test Mode	802.11a20 5180MHz	**Antenna**	Horizontal



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dB/m	dB	Detector
1		120.6991	8.67	16.36	25.03	43.50	-18.47	peak
2		239.1473	8.33	15.36	23.69	46.00	-22.31	peak
3		297.2241	10.97	15.28	26.25	46.00	-19.75	peak
4	*	406.0880	18.61	20.52	39.13	46.00	-6.87	peak
5		441.7426	5.58	25.04	30.62	46.00	-15.38	peak
6		620.7096	7.07	25.13	32.20	46.00	-13.80	peak

RESULT: PASS

EUT	IP Phone	Model Name	X305
Temperature	25°C	Relative Humidity	60%
Pressure	960hPa	Test Voltage	DC 5V
Test Mode	802.11a20 5180MHz	Antenna	Vertical

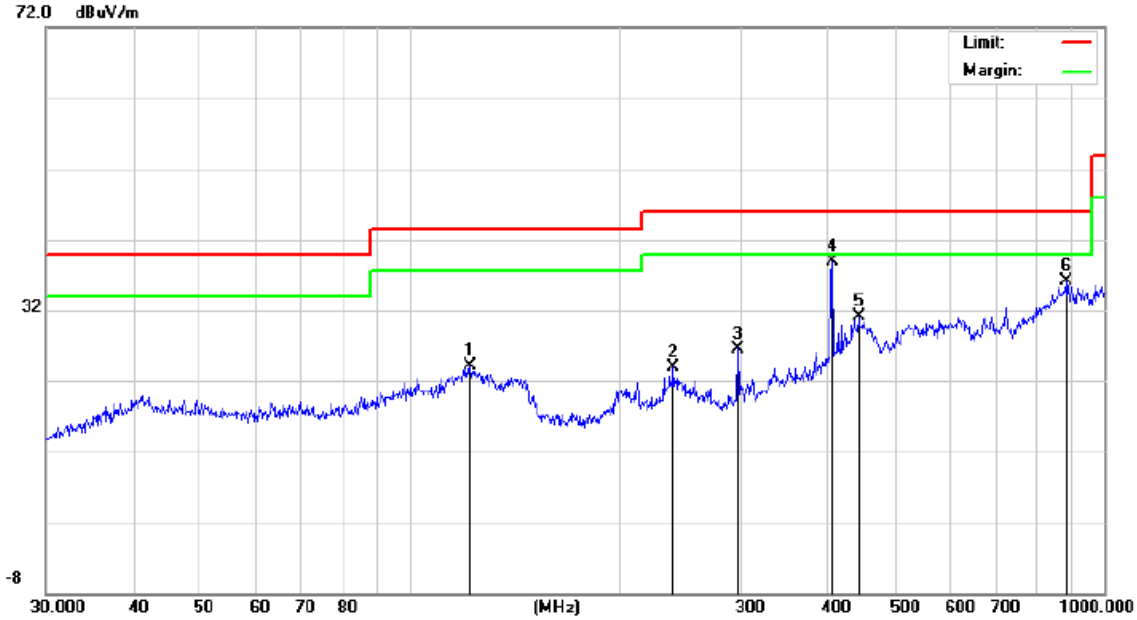


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dB/m	dB	Detector
1	*	41.1320	16.33	16.91	33.24	40.00	-6.76	peak
2		120.2766	13.78	17.71	31.49	43.50	-12.01	peak
3		145.8611	12.27	18.20	30.47	43.50	-13.03	peak
4		459.1144	9.82	25.24	35.06	46.00	-10.94	peak
5		513.6331	11.39	23.49	34.88	46.00	-11.12	peak
6		716.6820	6.82	28.68	35.50	46.00	-10.50	peak

RESULT: PASS

Radiated emission from 30MHz to 1000MHz

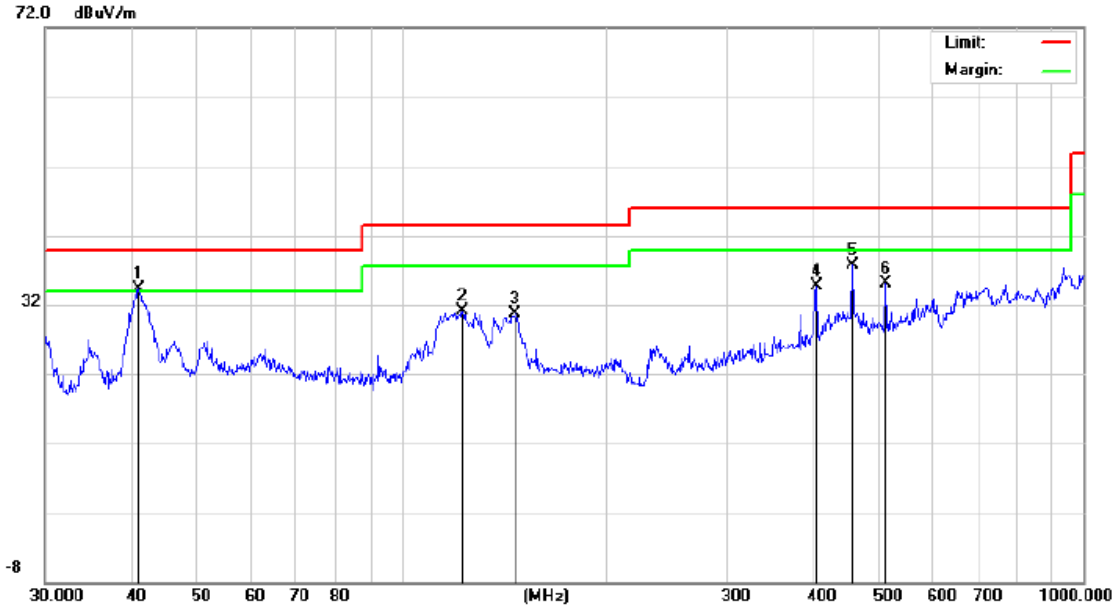
EUT	IP Phone	**Model Name**	X305
Temperature	25°C	**Relative Humidity**	60%
Pressure	960hPa	**Test Voltage**	DC 5V
Test Mode	802.11a20 5260MHz	**Antenna**	Horizontal



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dB/m	dB	Detector
1		121.9755	7.81	16.28	24.09	43.50	-19.41	peak
2		239.9874	8.45	15.40	23.85	46.00	-22.15	peak
3		297.2241	11.32	15.28	26.60	46.00	-19.40	peak
4	*	406.0880	18.45	20.52	38.97	46.00	-7.03	peak
5		443.2943	6.11	24.98	31.09	46.00	-14.91	peak
6		884.5028	6.20	29.86	36.06	46.00	-9.94	peak

RESULT: PASS

EUT	IP Phone	Model Name	X305
Temperature	25°C	Relative Humidity	60%
Pressure	960hPa	Test Voltage	DC 5V
Test Mode	802.11a20 5260MHz	Antenna	Vertical

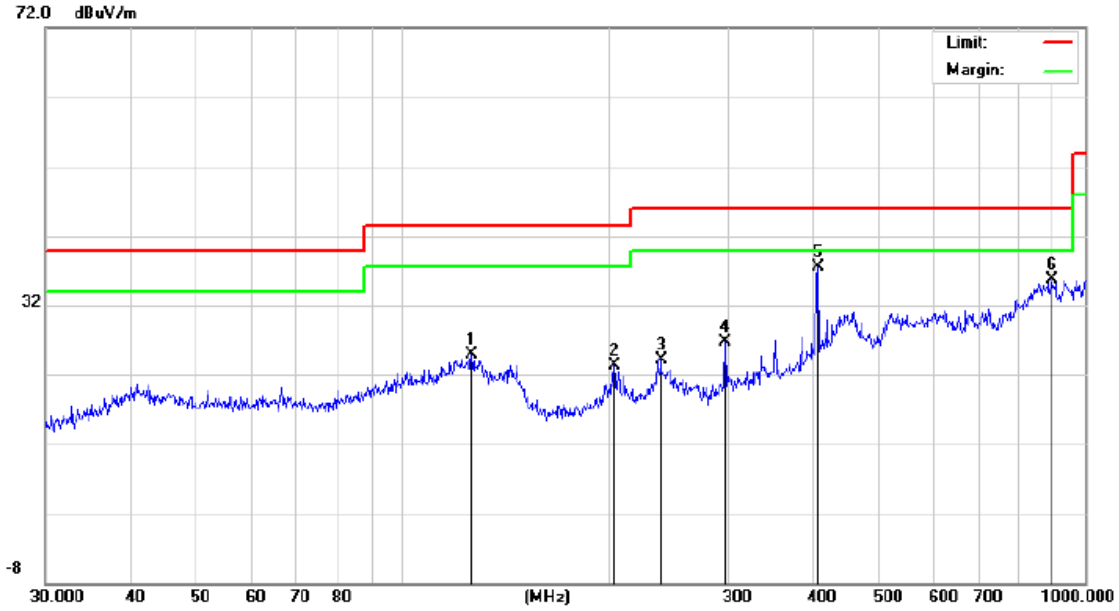


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dB/m	dB	Detector
1	*	41.1320	17.32	16.91	34.23	40.00	-5.77	peak
2		122.8340	13.31	17.77	31.08	43.50	-12.42	peak
3		146.8877	12.45	18.20	30.65	43.50	-12.85	peak
4		406.0880	12.23	22.41	34.64	46.00	-11.36	peak
5		459.1144	12.53	25.24	37.77	46.00	-8.23	peak
6		513.6331	11.69	23.49	35.18	46.00	-10.82	peak

RESULT: PASS

Radiated emission from 30MHz to 1000MHz

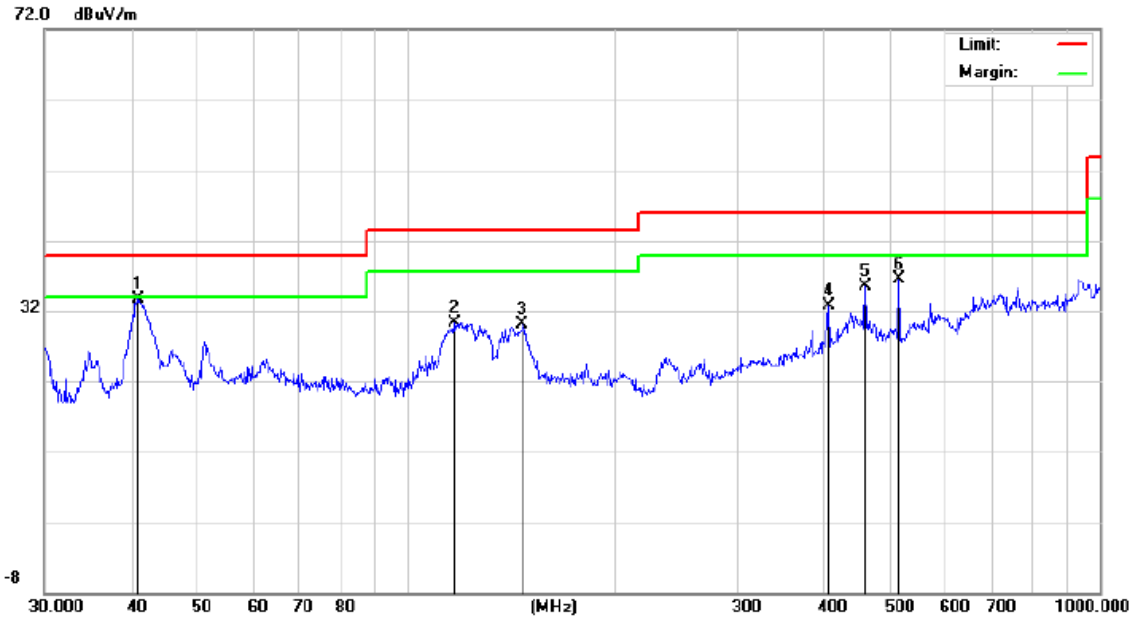
EUT	IP Phone	**Model Name**	X305
Temperature	25°C	**Relative Humidity**	60%
Pressure	960hPa	**Test Voltage**	DC 5V
Test Mode	802.11a20 5500MHz	**Antenna**	Horizontal



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dB/m	dB	Detector
1		126.3286	8.86	16.02	24.88	43.50	-18.62	peak
2		204.2377	8.81	14.48	23.29	43.50	-20.21	peak
3		239.1473	8.82	15.36	24.18	46.00	-21.82	peak
4		297.2241	11.49	15.28	26.77	46.00	-19.23	peak
5	*	406.0880	16.94	20.52	37.46	46.00	-8.54	peak
6		893.8567	4.70	31.03	35.73	46.00	-10.27	peak

RESULT: PASS

EUT	IP Phone	Model Name	X305
Temperature	25°C	Relative Humidity	60%
Pressure	960hPa	Test Voltage	DC 5V
Test Mode	802.11a20 5500MHz	Antenna	Vertical

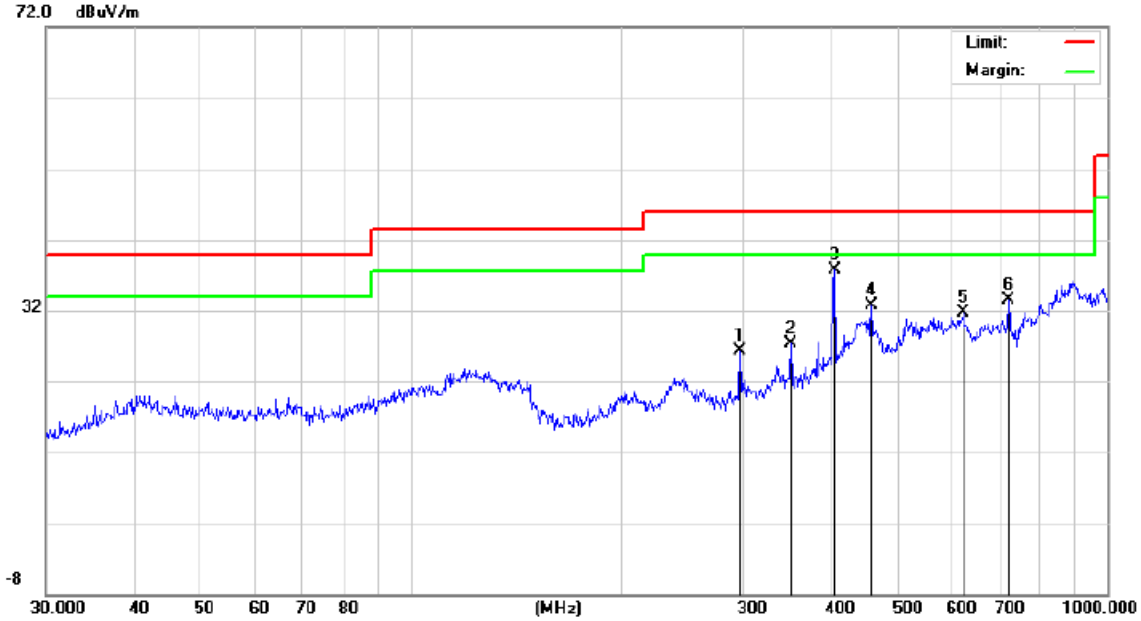


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dB/m	dB	Detector
1	*	40.9881	16.81	16.91	33.72	40.00	-6.28	peak
2		116.9495	13.07	17.17	30.24	43.50	-13.26	peak
3		146.8877	11.98	18.20	30.18	43.50	-13.32	peak
4		406.0880	10.34	22.41	32.75	46.00	-13.25	peak
5		459.1144	10.19	25.24	35.43	46.00	-10.57	peak
6		513.6331	12.94	23.49	36.43	46.00	-9.57	peak

RESULT: PASS

Radiated emission from 30MHz to 1000MHz

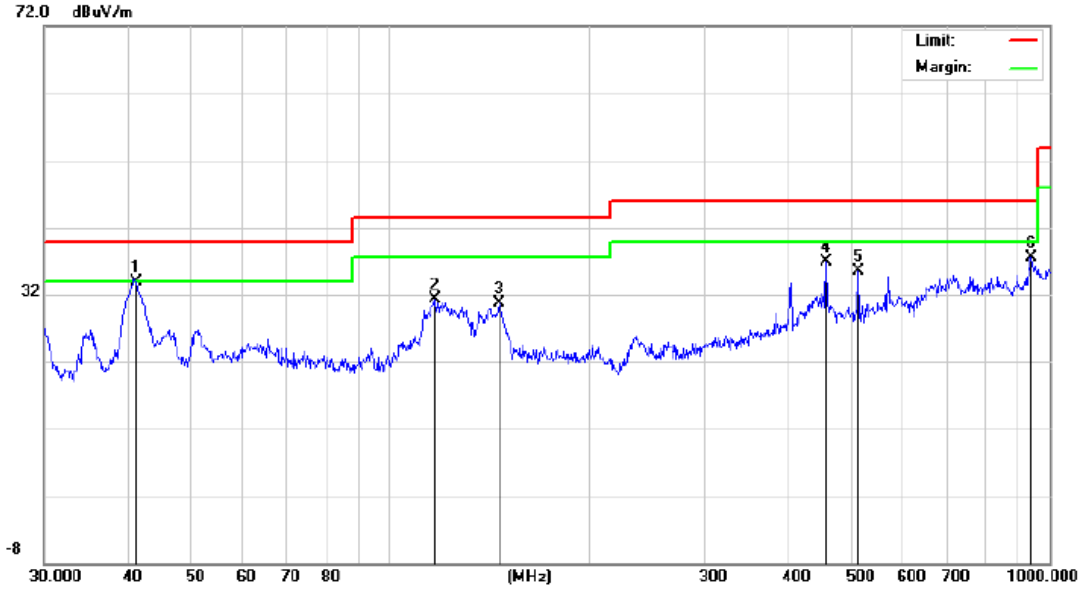
EUT	IP Phone	**Model Name**	X305
Temperature	25°C	**Relative Humidity**	60%
Pressure	960hPa	**Test Voltage**	DC 5V
Test Mode	802.11a20 5745MHz	**Antenna**	Horizontal



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dB/m	dB	Detector
1		297.2241	11.02	15.28	26.30	46.00	-19.70	peak
2		351.7079	9.94	17.39	27.33	46.00	-18.67	peak
3	*	406.0880	17.11	20.52	37.63	46.00	-8.37	peak
4		459.1144	8.24	24.43	32.67	46.00	-13.33	peak
5		620.7096	6.48	25.13	31.61	46.00	-14.39	peak
6		721.7259	8.82	24.64	33.46	46.00	-12.54	peak

RESULT: PASS

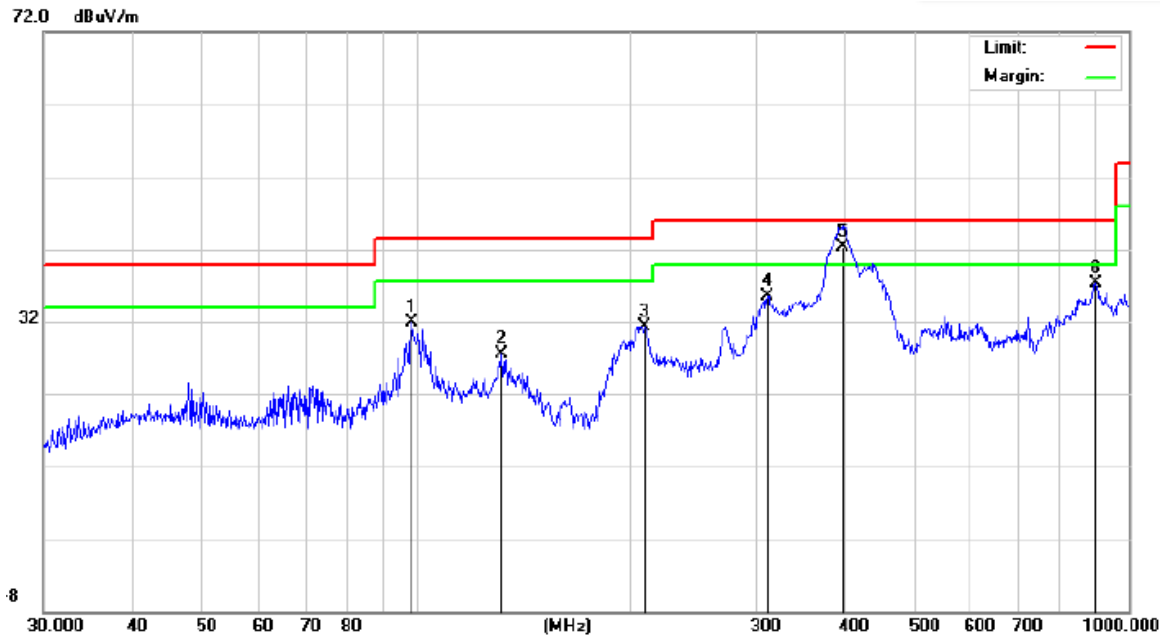
EUT	IP Phone	Model Name	X305
Temperature	25°C	Relative Humidity	60%
Pressure	960hPa	Test Voltage	DC 5V
Test Mode	802.11a20 5745MHz	Antenna	Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dB/m	dB	Detector
1	*	41.2765	16.90	16.91	33.81	40.00	-6.19	peak
2		116.9495	14.06	17.17	31.23	43.50	-12.27	peak
3		146.3735	12.50	18.20	30.70	43.50	-12.80	peak
4		459.1144	11.60	25.24	36.84	46.00	-9.16	peak
5		513.6331	11.97	23.49	35.46	46.00	-10.54	peak
6		938.8326	6.71	30.84	37.55	46.00	-8.45	peak

Radiated emission from 30MHz to 1000MHz

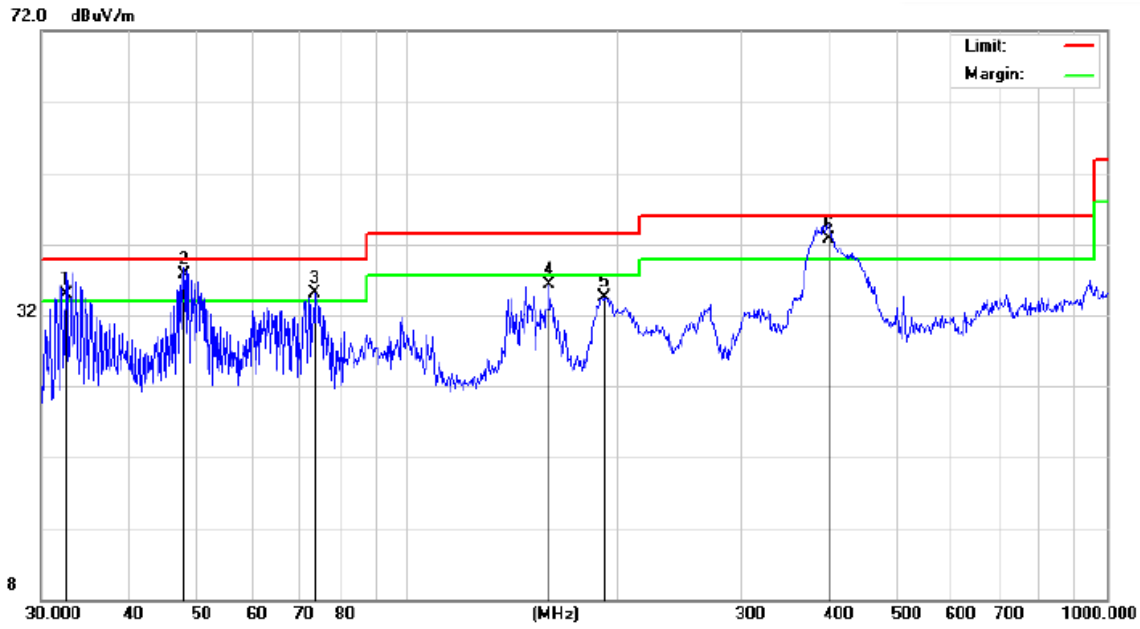
EUT	IP Phone	**Model Name**	X305
Temperature	25°C	**Relative Humidity**	60%
Pressure	960hPa	**Test Voltage**	DC 48V
Test Mode	802.11a20 5180MHz	**Antenna**	Horizontal



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dB/m	dB	Detector
1		98.4866	15.90	15.97	31.87	43.50	-11.63	peak
2		131.7577	11.83	15.69	27.52	43.50	-15.98	peak
3		209.3129	16.95	14.45	31.40	43.50	-12.10	peak
4		311.0867	19.98	15.50	35.48	46.00	-10.52	peak
5	*	396.2415	22.33	19.99	42.32	46.00	-3.68	QP
6		900.1474	5.48	31.78	37.26	46.00	-8.74	peak

RESULT: PASS

EUT	IP Phone	Model Name	X305
Temperature	25°C	Relative Humidity	60%
Pressure	960hPa	Test Voltage	DC 48V
Test Mode	802.11a20 5180MHz	Antenna	Vertical

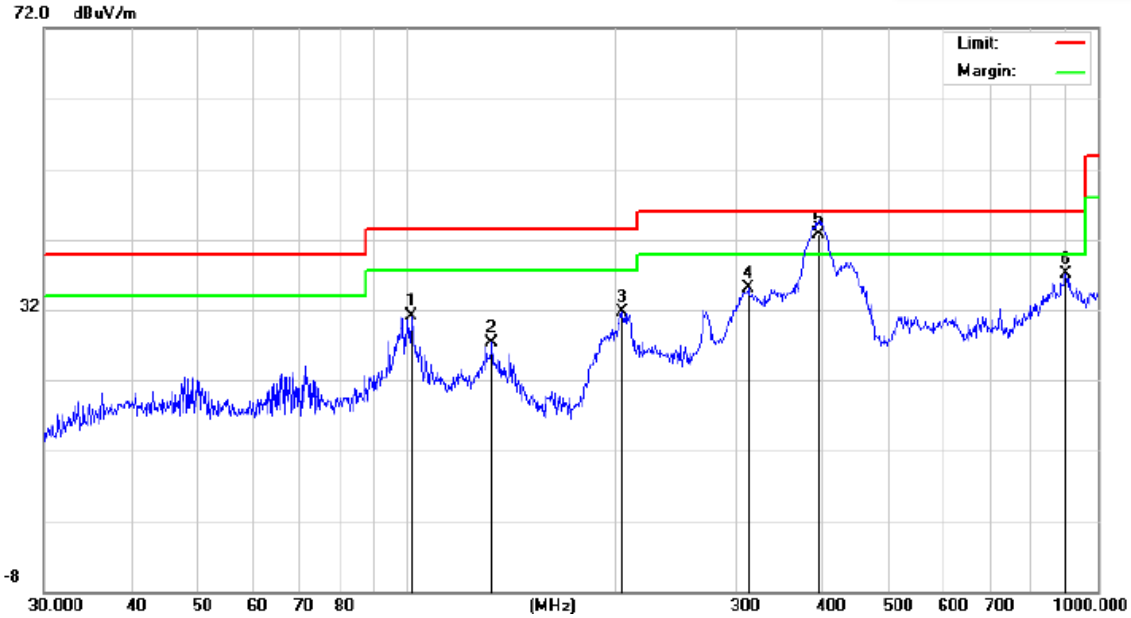


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dB/m	dB	Detector
1	!	32.5198	20.42	14.43	34.85	40.00	-5.15	QP
2	*	47.9940	19.72	16.98	36.70	40.00	-3.30	QP
3	!	73.8756	18.13	16.96	35.09	40.00	-4.91	peak
4		159.7844	18.05	18.20	36.25	43.50	-7.25	peak
5		191.0738	16.40	18.17	34.57	43.50	-8.93	peak
6	!	400.4319	20.59	22.21	42.80	46.00	-3.20	QP

RESULT: PASS

Radiated emission from 30MHz to 1000MHz

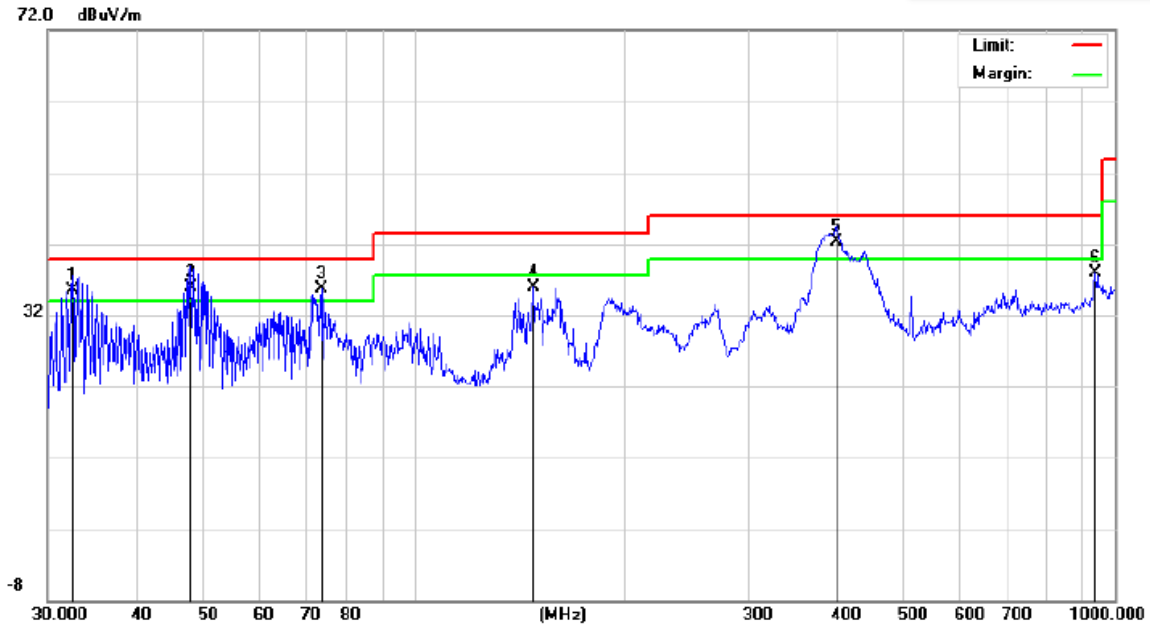
EUT	IP Phone	**Model Name**	X305
Temperature	25°C	**Relative Humidity**	60%
Pressure	960hPa	**Test Voltage**	DC 48V
Test Mode	802.11a20 5260MHz	**Antenna**	Horizontal



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dB/m	dB	Detector
1		102.0014	14.87	16.22	31.09	43.50	-12.41	peak
2		133.1511	11.73	15.61	27.34	43.50	-16.16	peak
3		204.9551	17.22	14.48	31.70	43.50	-11.80	peak
4		312.1794	19.56	15.50	35.06	46.00	-10.94	peak
5	*	394.8545	22.92	19.83	42.75	46.00	-3.25	QP
6		900.1474	5.41	31.78	37.19	46.00	-8.81	peak

RESULT: PASS

EUT	IP Phone	Model Name	X305
Temperature	25°C	Relative Humidity	60%
Pressure	960hPa	Test Voltage	DC 48V
Test Mode	802.11a20 5260MHz	Antenna	Vertical

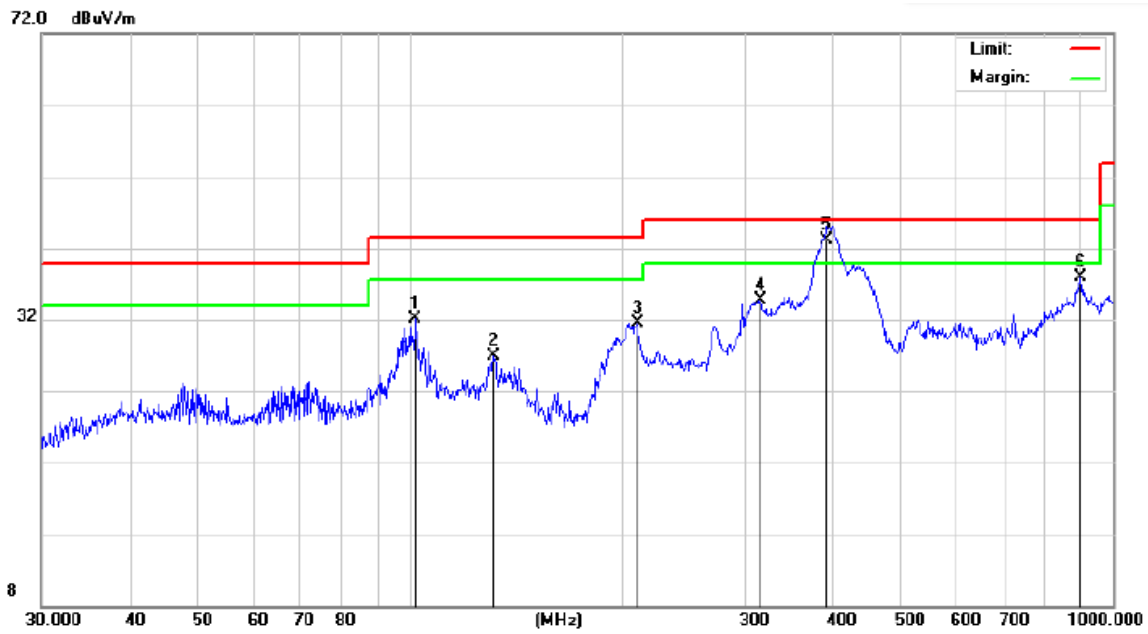


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dB/m	dB	Detector
1	!	32.5198	21.00	14.43	35.43	40.00	-4.57	QP
2	!	47.9940	18.93	16.98	35.91	40.00	-4.09	QP
3	!	73.8756	18.65	16.96	35.61	40.00	-4.39	peak
4		147.9214	17.77	18.20	35.97	43.50	-7.53	peak
5	*	400.4319	20.19	22.21	42.40	46.00	-3.60	QP
6		938.8326	7.08	30.84	37.92	46.00	-8.08	peak

RESULT: PASS

Radiated emission from 30MHz to 1000MHz

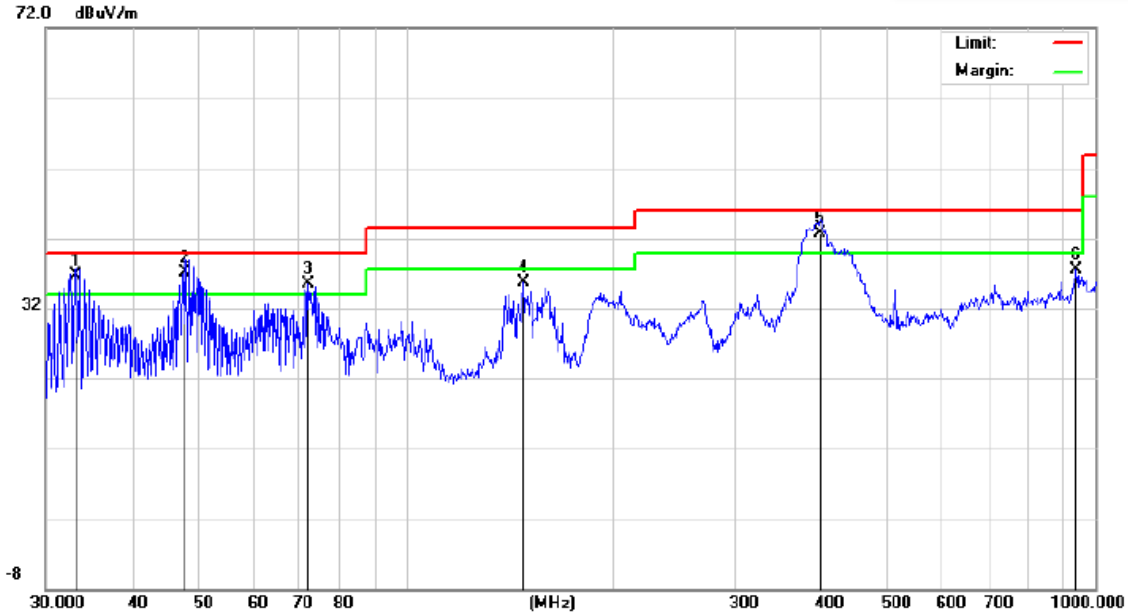
EUT	IP Phone	**Model Name**	X305
Temperature	25°C	**Relative Humidity**	60%
Pressure	960hPa	**Test Voltage**	DC 48V
Test Mode	802.11a20 5500MHz	**Antenna**	Horizontal



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dB/m	dB	Detector
1		102.0014	15.97	16.22	32.19	43.50	-11.31	peak
2		131.7577	11.21	15.69	26.90	43.50	-16.60	peak
3		210.7860	17.04	14.45	31.49	43.50	-12.01	peak
4		315.4808	19.15	15.50	34.65	46.00	-11.35	peak
5	*	392.0951	23.10	19.53	42.63	46.00	-3.37	QP
6		900.1474	6.05	31.78	37.83	46.00	-8.17	peak

RESULT: PASS

EUT	IP Phone	Model Name	X305
Temperature	25°C	Relative Humidity	60%
Pressure	960hPa	Test Voltage	DC 48V
Test Mode	802.11a20 5500MHz	Antenna	Vertical

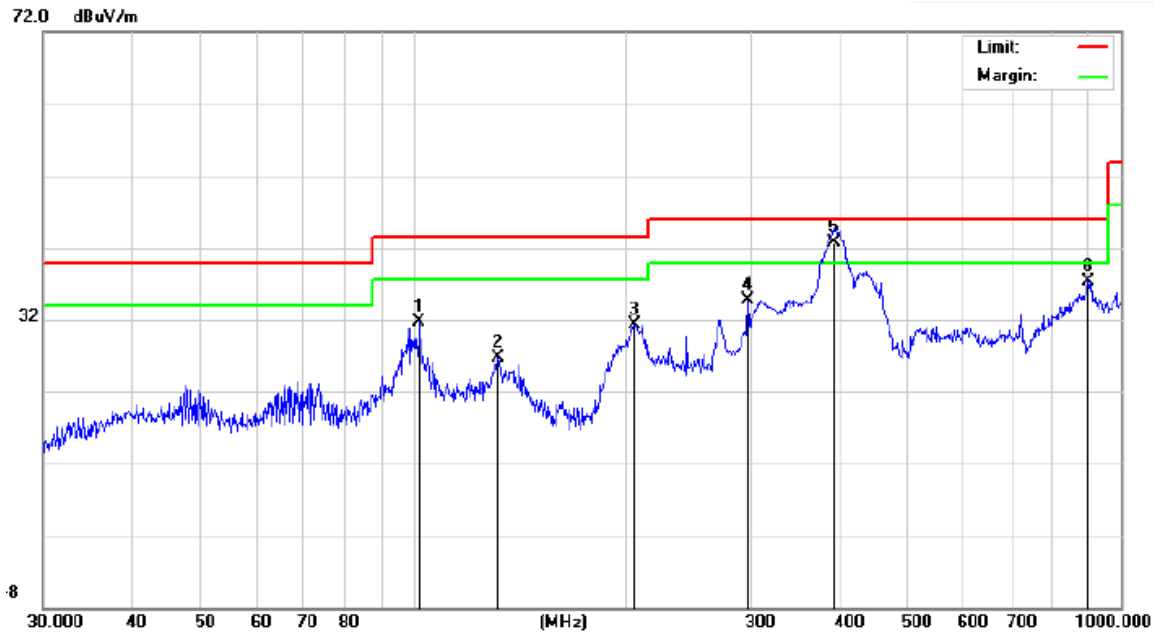


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dB/m	dB	Detector
1	!	33.0950	22.10	14.62	36.72	40.00	-3.28	QP
2	*	47.8260	19.57	16.98	36.55	40.00	-3.45	QP
3	!	72.0843	18.56	16.98	35.54	40.00	-4.46	peak
4		147.9214	17.43	18.20	35.63	43.50	-7.87	peak
5	!	399.0302	20.47	22.16	42.63	46.00	-3.37	QP
6		938.8326	6.60	30.84	37.44	46.00	-8.56	peak

RESULT: PASS

Radiated emission from 30MHz to 1000MHz

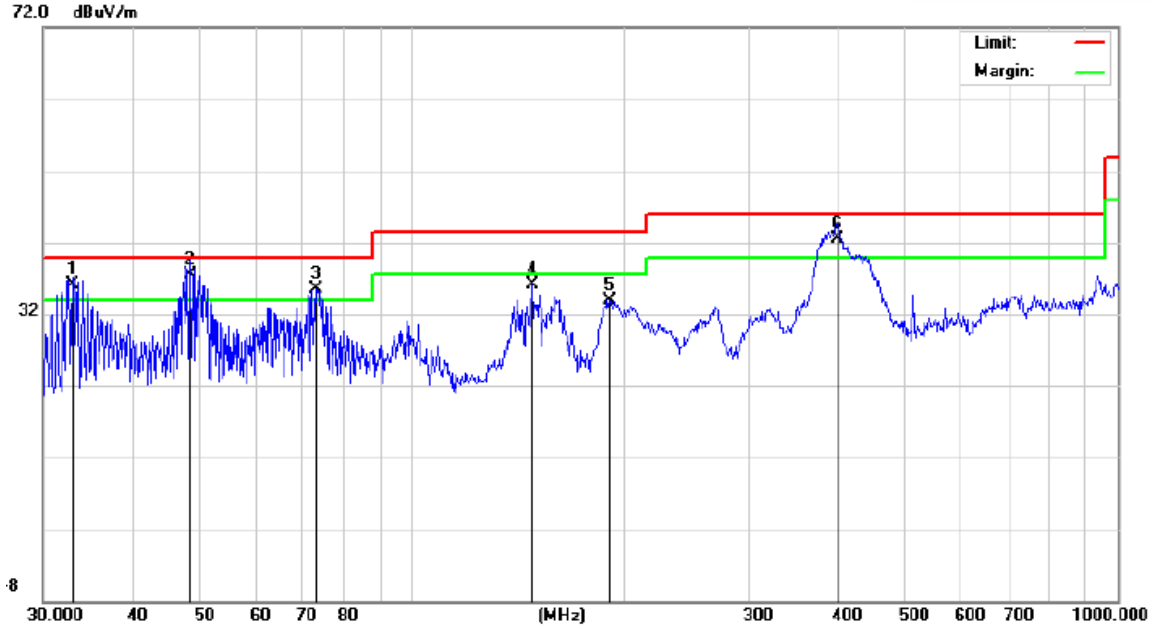
EUT	IP Phone	**Model Name**	X305
Temperature	25°C	**Relative Humidity**	60%
Pressure	960hPa	**Test Voltage**	DC 48V
Test Mode	802.11a20 5745MHz	**Antenna**	Horizontal



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dB/m	dB	Detector
1		102.0014	15.47	16.22	31.69	43.50	-11.81	peak
2		131.7577	11.07	15.69	26.76	43.50	-16.74	peak
3		204.9551	16.82	14.48	31.30	43.50	-12.20	peak
4		297.2241	19.45	15.28	34.73	46.00	-11.27	peak
5	*	393.4723	23.01	19.68	42.69	46.00	-3.31	QP
6		900.1474	5.59	31.78	37.37	46.00	-8.63	peak

RESULT: PASS

EUT	IP Phone	Model Name	X305
Temperature	25°C	Relative Humidity	60%
Pressure	960hPa	Test Voltage	DC 48V
Test Mode	802.11a20 5745MHz	Antenna	Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dB/m	dB	Detector
1	!	32.9791	21.53	14.58	36.11	40.00	-3.89	QP
2	*	48.5016	19.93	16.98	36.91	40.00	-3.09	QP
3	!	73.1025	18.44	16.97	35.41	40.00	-4.59	peak
4		147.9214	17.93	18.20	36.13	43.50	-7.37	peak
5		190.4050	15.79	18.19	33.98	43.50	-9.52	peak
6	!	400.4319	20.32	22.21	42.53	46.00	-3.47	QP

RESULT: PASS

Note: All test channels had been tested. The 802.11a20 at 5180MHz is the worst case and recorded in the test report.

Factor = Antenna Factor + Cable loss - Amplifier gain, Margin= Limit-Level.

The “Factor” value can be calculated automatically by software of measurement system.

Radiated emission above 1GHz

EUT	IP Phone	**Model Name**	X305
Temperature	25°C	**Relative Humidity**	60%
Pressure	960hPa	**Test Voltage**	DC 5V
Test Mode	802.11a20 5180MHz	**Antenna**	Horizontal/Vertical

RADIATED EMISSION ABOVE 1GHZ–Horizontal

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Value Type
10360.042	48.37	9.14	57.51	68.20	-10.69	peak
15540.063	43.33	10.22	53.55	74.00	-20.45	peak
15540.063	31.25	10.22	41.47	54.00	-12.53	AVG
Remark:						
Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

RADIATED EMISSION ABOVE 1GHZ–Vertical

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Value Type
10360.042	47.96	9.14	57.10	68.20	-11.10	peak
15540.063	42.17	10.22	52.39	74.00	-21.61	peak
15540.063	32.74	10.22	42.96	54.00	-11.04	AVG
Remark:						
Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

EUT	IP Phone	Model Name	X305
Temperature	25°C	Relative Humidity	60%
Pressure	960hPa	Test Voltage	DC 5V
Test Mode	802.11a20 5200MHz	Antenna	Horizontal/Vertical

RADIATED EMISSION ABOVE 1GHZ–Horizontal

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Value Type
10400.042	48.15	9.14	57.29	68.20	-10.91	peak
15600.063	43.35	10.22	53.57	74.00	-20.43	peak
15600.063	34.51	10.22	44.73	54.00	-9.27	AVG
Remark:						
Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

RADIATED EMISSION ABOVE 1GHZ–Vertical

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Value Type
10400.042	49.52	9.14	58.66	68.20	-9.54	peak
15600.063	42.37	10.22	52.59	74.00	-21.41	peak
15600.063	35.12	10.22	45.34	54.00	-8.66	AVG
Remark:						
Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

EUT	IP Phone	Model Name	X305
Temperature	25°C	Relative Humidity	60%
Pressure	960hPa	Test Voltage	DC 5V
Test Mode	802.11a20 5240MHz	Antenna	Horizontal/Vertical

RADIATED EMISSION ABOVE 1GHZ–Horizontal

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Value Type
10480.042	49.74	9.27	59.01	68.20	-9.19	peak
15720.063	41.05	10.38	51.43	74.00	-22.57	peak
15720.063	31.17	10.38	41.55	54.00	-12.45	AVG
Remark:						
Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

RADIATED EMISSION ABOVE 1GHZ–Vertical

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Value Type
10480.042	47.97	9.27	57.24	68.20	-10.96	peak
15720.063	42.58	10.38	52.96	74.00	-21.04	peak
15720.063	33.15	10.38	43.53	54.00	-10.47	AVG
Remark:						
Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

Radiated emission above 1GHz

EUT	IP Phone	**Model Name**	X305
Temperature	25°C	**Relative Humidity**	60%
Pressure	960hPa	**Test Voltage**	DC 5V
Test Mode	802.11a20 5260MHz	**Antenna**	Horizontal/Vertical

RADIATED EMISSION ABOVE 1GHZ–Horizontal

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Value Type
10520.051	46.32	9.31	55.63	68.20	-12.57	peak
15780.033	39.74	10.42	50.16	74.00	-23.84	peak
15780.033	33.58	10.42	44.00	54.00	-10.00	AVG
Remark:						
Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

RADIATED EMISSION ABOVE 1GHZ–Vertical

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Value Type
10520.051	47.12	9.31	56.43	68.20	-11.77	peak
15780.033	38.51	10.42	48.93	74.00	-25.07	peak
15780.033	34.28	10.42	44.70	54.00	-9.30	AVG
Remark:						
Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

EUT	IP Phone	Model Name	X305
Temperature	25°C	Relative Humidity	60%
Pressure	960hPa	Test Voltage	DC 5V
Test Mode	802.11a20 5300MHz	Antenna	Horizontal/Vertical

RADIATED EMISSION ABOVE 1GHZ–Horizontal

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Value Type
10600.025	48.31	9.33	57.64	74.00	-16.36	peak
10600.025	31.17	9.33	40.50	54.00	-13.50	AVG
15900.036	48.93	10.44	59.37	74.00	-14.63	peak
15900.036	32.89	10.44	43.33	54.00	-10.67	AVG
Remark:						
Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

RADIATED EMISSION ABOVE 1GHZ–Vertical

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Value Type
10600.025	49.17	9.33	58.50	74.00	-15.50	peak
10600.025	32.05	9.33	41.38	54.00	-12.62	AVG
15900.036	49.31	10.44	59.75	74.00	-14.25	peak
15900.036	31.74	10.44	42.18	54.00	-11.82	AVG
Remark:						
Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

EUT	IP Phone	Model Name	X305
Temperature	25°C	Relative Humidity	60%
Pressure	960hPa	Test Voltage	DC 5V
Test Mode	802.11a20 5320MHz	Antenna	Horizontal/Vertical

RADIATED EMISSION ABOVE 1GHZ–Horizontal

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Value Type
10640.055	50.19	9.35	59.54	74.00	-14.46	peak
10640.055	32.75	9.35	42.10	54.00	-11.90	AVG
15960.042	42.03	10.46	52.49	74.00	-21.51	peak
15960.042	31.07	10.46	41.53	54.00	-12.47	AVG
Remark:						
Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

RADIATED EMISSION ABOVE 1GHZ–Vertical

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Value Type
10640.055	48.36	9.35	57.71	74.00	-16.29	peak
10640.055	31.96	9.35	41.31	54.00	-12.69	AVG
15960.042	41.57	10.46	52.03	74.00	-21.97	peak
15960.042	30.79	10.46	41.25	54.00	-12.75	AVG
Remark:						
Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

Radiated emission above 1GHz

EUT	IP Phone	**Model Name**	X305
Temperature	25°C	**Relative Humidity**	60%
Pressure	960hPa	**Test Voltage**	DC 5V
Test Mode	802.11a20 5500MHz	**Antenna**	Horizontal/Vertical

RADIATED EMISSION ABOVE 1GHZ–Horizontal

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Value Type
11000.024	48.36	9.38	57.74	74.00	-16.26	peak
11000.024	31.35	9.38	40.73	54.00	-13.27	AVG
16500.033	41.78	10.51	52.29	68.20	-15.91	peak
Remark:						
Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

RADIATED EMISSION ABOVE 1GHZ–Vertical

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Value Type
11000.024	48.12	9.38	57.50	74.00	-16.50	peak
11000.024	32.67	9.38	42.05	54.00	-11.95	AVG
16500.033	40.96	10.51	51.47	68.20	-16.73	peak
Remark:						
Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

EUT	IP Phone	Model Name	X305
Temperature	25°C	Relative Humidity	60%
Pressure	960hPa	Test Voltage	DC 5V
Test Mode	802.11a20 5600MHz	Antenna	Horizontal/Vertical

RADIATED EMISSION ABOVE 1GHZ–Horizontal

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Value Type
11200.035	47.97	9.38	57.35	74.00	-16.65	peak
11200.035	31.81	9.38	41.19	54.00	-12.81	AVG
16800.041	40.56	10.51	51.07	68.20	-17.13	peak
Remark:						
Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

RADIATED EMISSION ABOVE 1GHZ–Vertical

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Value Type
11200.035	48.05	9.38	57.43	74.00	-16.57	peak
11200.035	32.33	9.38	41.71	54.00	-12.29	AVG
16800.041	39.74	10.51	50.25	68.20	-17.95	peak
Remark:						
Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

EUT	IP Phone	Model Name	X305
Temperature	25°C	Relative Humidity	60%
Pressure	960hPa	Test Voltage	DC 5V
Test Mode	802.11a20 5700MHz	Antenna	Horizontal/Vertical

RADIATED EMISSION ABOVE 1GHZ–Horizontal

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Value Type
11400.058	48.52	9.41	57.93	74.00	-16.07	peak
11400.058	32.15	9.41	41.56	54.00	-12.44	AVG
17100.042	42.34	10.5	52.84	68.20	-15.36	peak
Remark:						
Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

RADIATED EMISSION ABOVE 1GHZ–Vertical

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Value Type
11400.058	49.21	9.41	58.62	74.00	-15.38	peak
11400.058	31.74	9.41	41.15	54.00	-12.85	AVG
17100.042	41.39	10.5	51.89	68.20	-16.31	peak
Remark:						
Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

EUT	IP Phone	Model Name	X305
Temperature	25°C	Relative Humidity	60%
Pressure	960hPa	Test Voltage	DC 5V
Test Mode	802.11a20 5745MHz	Antenna	Horizontal/Vertical

RADIATED EMISSION ABOVE 1GHZ–Horizontal

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Value Type
11490.042	48.36	9.42	57.78	74.00	-16.22	peak
11490.042	32.69	9.42	42.11	54.00	-11.89	AVG
17253.063	36.14	10.51	46.65	68.20	-21.55	peak
Remark:						
Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

RADIATED EMISSION ABOVE 1GHZ–Vertical

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Value Type
11490.042	49.36	9.42	58.78	74.00	-15.22	peak
11490.042	31.52	9.42	40.94	54.00	-13.06	AVG
17253.063	32.28	10.51	42.79	68.20	-25.41	peak
Remark:						
Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

EUT	IP Phone	Model Name	X305
Temperature	25°C	Relative Humidity	60%
Pressure	960hPa	Test Voltage	DC 5V
Test Mode	802.11a20 5785MHz	Antenna	Horizontal/Vertical

RADIATED EMISSION ABOVE 1GHZ–Horizontal

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Value Type
11570.042	49.36	9.42	58.78	74.00	-15.22	peak
11570.042	30.52	9.42	39.94	54.00	-14.06	AVG
17355.063	35.60	10.51	46.11	68.20	-22.09	peak
Remark:						
Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

RADIATED EMISSION ABOVE 1GHZ–Vertical

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Value Type
11570.042	48.96	9.42	58.38	74.00	-15.62	peak
11570.042	31.58	9.42	41.00	54.00	-13.00	AVG
17355.063	34.25	10.51	44.76	68.20	-23.44	peak
Remark:						
Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

EUT	IP Phone	Model Name	X305
Temperature	25°C	Relative Humidity	60%
Pressure	960hPa	Test Voltage	DC 5V
Test Mode	802.11a20 5825MHz	Antenna	Horizontal/Vertical

RADIATED EMISSION ABOVE 1GHZ–Horizontal

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Value Type
11650.042	48.51	9.62	58.13	74.00	-15.87	peak
11650.042	32.52	9.62	42.14	54.00	-11.86	AVG
17475.063	36.79	10.75	47.54	68.20	-20.66	peak
Remark:						
Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

RADIATED EMISSION ABOVE 1GHZ–Vertical

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Value Type
11650.042	49.58	9.62	59.20	74.00	-14.80	peak
11650.042	31.28	9.62	40.90	54.00	-13.10	AVG
17475.063	35.74	10.75	46.49	68.20	-21.71	peak
Remark:						
Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

Radiated emission above 1GHz

EUT	IP Phone	**Model Name**	X305
Temperature	25°C	**Relative Humidity**	60%
Pressure	960hPa	**Test Voltage**	DC 48V
Test Mode	802.11a20 5180MHz	**Antenna**	Horizontal/Vertical

RADIATED EMISSION ABOVE 1GHZ–Horizontal

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Value Type
10360.000	48.63	9.14	57.77	68.20	-10.43	peak
15540.000	41.23	10.22	51.45	74.00	-22.55	peak
15540.000	31.52	10.22	41.74	54.00	-12.26	AVG
Remark:						
Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

RADIATED EMISSION ABOVE 1GHZ–Vertical

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Value Type
10360.000	50.41	9.14	59.55	68.20	-8.65	peak
15540.000	40.31	10.22	50.53	74.00	-23.47	peak
15540.000	32.27	10.22	42.49	54.00	-11.51	AVG
Remark:						
Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

EUT	IP Phone	Model Name	X305
Temperature	25°C	Relative Humidity	60%
Pressure	960hPa	Test Voltage	DC 48V
Test Mode	802.11a20 5200MHz	Antenna	Horizontal/Vertical

RADIATED EMISSION ABOVE 1GHZ–Horizontal

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Value Type
10400.000	47.23	9.14	56.37	68.20	-11.83	peak
15600.000	42.18	10.22	52.40	74.00	-21.60	peak
15600.000	32.18	10.22	42.40	54.00	-11.60	AVG
Remark:						
Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

RADIATED EMISSION ABOVE 1GHZ–Vertical

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Value Type
10400.000	48.52	9.14	57.66	68.20	-10.54	peak
15600.000	41.25	10.22	51.47	74.00	-22.53	peak
15600.000	33.63	10.22	43.85	54.00	-10.15	AVG
Remark:						
Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

EUT	IP Phone	Model Name	X305
Temperature	25°C	Relative Humidity	60%
Pressure	960hPa	Test Voltage	DC 48V
Test Mode	802.11a20 5240MHz	Antenna	Horizontal/Vertical

RADIATED EMISSION ABOVE 1GHZ–Horizontal

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Value Type
10480.000	48.69	9.27	57.96	68.20	-10.24	peak
15720.000	44.22	10.38	54.60	74.00	-19.40	peak
15720.000	30.96	10.38	41.34	54.00	-12.66	AVG
Remark:						
Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

RADIATED EMISSION ABOVE 1GHZ–Vertical

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Value Type
10480.000	49.11	9.27	58.38	68.20	-9.82	peak
15720.000	43.27	10.38	53.65	74.00	-20.35	peak
15720.000	32.87	10.38	43.25	54.00	-10.75	AVG
Remark:						
Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

Radiated emission above 1GHz

EUT	IP Phone	**Model Name**	X305
Temperature	25°C	**Relative Humidity**	60%
Pressure	960hPa	**Test Voltage**	DC 48V
Test Mode	802.11a20 5260MHz	**Antenna**	Horizontal/Vertical

RADIATED EMISSION ABOVE 1GHZ–Horizontal

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Value Type
10520.051	46.64	9.31	55.95	68.20	-12.25	peak
15780.033	45.91	10.42	56.33	74.00	-17.67	peak
15780.033	30.61	10.42	41.03	54.00	-12.97	AVG
Remark:						
Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

RADIATED EMISSION ABOVE 1GHZ–Vertical

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Value Type
10520.051	47.36	9.31	56.67	68.20	-11.53	peak
15780.033	46.16	10.42	56.58	74.00	-17.42	peak
15780.033	31.25	10.42	41.67	54.00	-12.33	AVG
Remark:						
Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

EUT	IP Phone	Model Name	X305
Temperature	25°C	Relative Humidity	60%
Pressure	960hPa	Test Voltage	DC 48V
Test Mode	802.11a20 5300MHz	Antenna	Horizontal/Vertical

RADIATED EMISSION ABOVE 1GHZ–Horizontal

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Value Type
10600.025	49.31	9.33	58.64	74.00	-15.36	peak
10600.025	32.85	9.33	42.18	54.00	-11.82	AVG
15900.036	49.12	10.44	59.56	74.00	-14.44	peak
15900.036	33.05	10.44	43.49	54.00	-10.51	AVG
Remark:						
Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

RADIATED EMISSION ABOVE 1GHZ–Vertical

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Value Type
10600.025	48.96	9.33	58.29	74.00	-15.71	peak
10600.025	33.15	9.33	42.48	54.00	-11.52	AVG
15900.036	48.69	10.44	59.13	74.00	-14.87	peak
15900.036	32.16	10.44	42.60	54.00	-11.40	AVG
Remark:						
Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

EUT	IP Phone	Model Name	X305
Temperature	25°C	Relative Humidity	60%
Pressure	960hPa	Test Voltage	DC 48V
Test Mode	802.11a20 5320MHz	Antenna	Horizontal/Vertical

RADIATED EMISSION ABOVE 1GHZ–Horizontal

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Value Type
10640.055	52.13	9.35	61.48	74.00	-12.52	peak
10640.055	31.52	9.35	40.87	54.00	-13.13	AVG
15960.042	41.36	10.46	51.82	74.00	-22.18	peak
15960.042	30.70	10.46	41.16	54.00	-12.84	AVG
Remark:						
Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

RADIATED EMISSION ABOVE 1GHZ–Vertical

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Value Type
10640.055	49.36	9.35	58.71	74.00	-15.29	peak
10640.055	32.52	9.35	41.87	54.00	-12.13	AVG
15960.042	45.56	10.46	56.02	74.00	-17.98	peak
15960.042	31.69	10.46	42.15	54.00	-11.85	AVG
Remark:						
Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

Radiated emission above 1GHz

EUT	IP Phone	**Model Name**	X305
Temperature	25°C	**Relative Humidity**	60%
Pressure	960hPa	**Test Voltage**	DC 48V
Test Mode	802.11a20 5500MHz	**Antenna**	Horizontal/Vertical

RADIATED EMISSION ABOVE 1GHZ–Horizontal

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Value Type
11000.024	50.33	9.38	59.71	74.00	-14.29	peak
11000.024	31.91	9.38	41.29	54.00	-12.71	AVG
16500.033	47.56	10.51	58.07	68.20	-10.13	peak
Remark:						
Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

RADIATED EMISSION ABOVE 1GHZ–Vertical

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Value Type
11000.024	48.36	9.38	57.74	74.00	-16.26	peak
11000.024	31.53	9.38	40.91	54.00	-13.09	AVG
16500.033	46.74	10.51	57.25	68.20	-10.95	peak
Remark:						
Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

EUT	IP Phone	Model Name	X305
Temperature	25°C	Relative Humidity	60%
Pressure	960hPa	Test Voltage	DC 48V
Test Mode	802.11a20 5600MHz	Antenna	Horizontal/Vertical

RADIATED EMISSION ABOVE 1GHZ–Horizontal

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Value Type
11200.035	51.25	9.38	60.63	74.00	-13.37	peak
11200.035	31.96	9.38	41.34	54.00	-12.66	AVG
16800.041	41.51	10.51	52.02	68.20	-16.18	peak
Remark:						
Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

RADIATED EMISSION ABOVE 1GHZ–Vertical

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Value Type
11200.035	49.59	9.38	58.97	74.00	-15.03	peak
11200.035	33.35	9.38	42.73	54.00	-11.27	AVG
16800.041	39.85	10.51	50.36	68.20	-17.84	peak
Remark:						
Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

EUT	IP Phone	Model Name	X305
Temperature	25°C	Relative Humidity	60%
Pressure	960hPa	Test Voltage	DC 48V
Test Mode	802.11a20 5700MHz	Antenna	Horizontal/Vertical

RADIATED EMISSION ABOVE 1GHZ–Horizontal

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Value Type
11400.058	49.74	9.41	59.15	74.00	-14.85	peak
11400.058	32.51	9.41	41.92	54.00	-12.08	AVG
17100.042	43.34	10.5	53.84	68.20	-14.36	peak
Remark:						
Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

RADIATED EMISSION ABOVE 1GHZ–Vertical

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Value Type
11400.058	48.58	9.41	57.99	74.00	-16.01	peak
11400.058	31.69	9.41	41.10	54.00	-12.90	AVG
17100.042	42.44	10.5	52.94	68.20	-15.26	peak
Remark:						
Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

EUT	IP Phone	Model Name	X305
Temperature	25°C	Relative Humidity	60%
Pressure	960hPa	Test Voltage	DC 48V
Test Mode	802.11a20 5745MHz	Antenna	Horizontal/Vertical

RADIATED EMISSION ABOVE 1GHZ–Horizontal

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Value Type
11490.420	49.74	9.42	59.16	74.00	-14.84	peak
11490.420	31.31	9.42	40.73	54.00	-13.27	AVG
17253.063	40.22	10.51	50.73	68.20	-17.47	peak
Remark:						
Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

RADIATED EMISSION ABOVE 1GHZ–Vertical

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Value Type
11490.420	50.25	9.42	59.67	74.00	-14.33	peak
11490.420	32.61	9.42	42.03	54.00	-11.97	AVG
17253.063	41.19	10.51	51.70	68.20	-16.50	peak
Remark:						
Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

EUT	IP Phone	Model Name	X305
Temperature	25°C	Relative Humidity	60%
Pressure	960hPa	Test Voltage	DC 48V
Test Mode	802.11a20 5785MHz	Antenna	Horizontal/Vertical

RADIATED EMISSION ABOVE 1GHZ–Horizontal

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Value Type
11570.042	49.63	9.42	59.05	74.00	-14.95	peak
11570.042	32.59	9.42	42.01	54.00	-11.99	AVG
17355.063	42.39	10.51	52.90	68.20	-15.30	peak
Remark:						
Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

RADIATED EMISSION ABOVE 1GHZ–Vertical

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Value Type
11570.042	47.36	9.42	56.78	74.00	-17.22	peak
11570.042	32.94	9.42	42.36	54.00	-11.64	AVG
17355.063	41.64	10.51	52.15	68.20	-16.05	peak
Remark:						
Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

EUT	IP Phone	Model Name	X305
Temperature	25°C	Relative Humidity	60%
Pressure	960hPa	Test Voltage	DC 48V
Test Mode	802.11a20 5825MHz	Antenna	Horizontal/Vertical

RADIATED EMISSION ABOVE 1GHZ–Horizontal

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Value Type
11650.042	50.94	9.62	60.56	74.00	-13.44	peak
11650.042	31.57	9.62	41.19	54.00	-12.81	AVG
17475.063	41.69	10.75	52.44	68.20	-15.76	peak
Remark:						
Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

RADIATED EMISSION ABOVE 1GHZ–Vertical

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Value Type
11650.042	51.73	9.62	61.35	74.00	-12.65	peak
11650.042	33.69	9.62	43.31	54.00	-10.69	AVG
17475.063	40.73	10.75	51.48	68.20	-16.72	peak
Remark:						
Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

RESULT: PASS

Note:

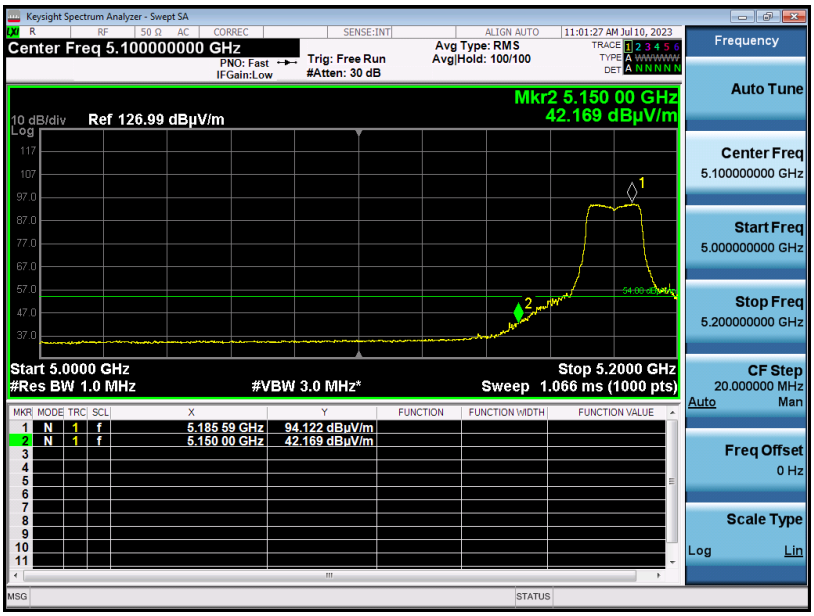
1. All test channels had been tested. The 802.11a20 is the worst case and recorded in the test report.
2. Other frequencies radiation emission from 1GHz to 40GHz at least have 20dB margin and not recorded in the test report.
3. Factor = Antenna Factor + Cable loss - Amplifier gain, Margin= Limit-Level.
4. The “Factor” value can be calculated automatically by software of measurement system.

Test result for band edge emission at restricted bands 5.150GHz~5.250GHz

EUT	IP Phone	Model Name	X305
Temperature	25°C	Relative Humidity	60%
Pressure	960hPa	Test Voltage	DC 5V
Test Mode	802.11a20 5180MHz	Antenna	Horizontal

Test Graph for Peak Measurement

Test Graph for Average Measurement

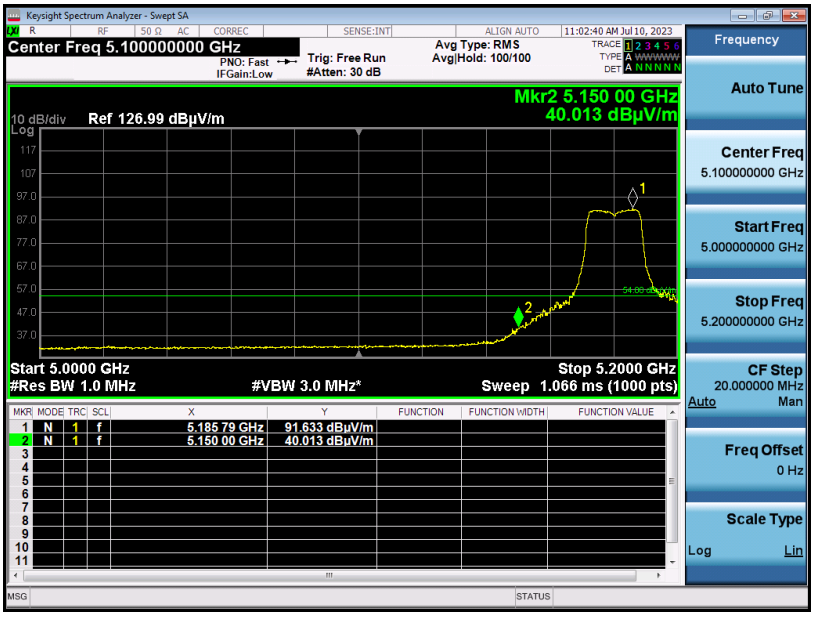


RESULT: PASS

EUT	IP Phone	Model Name	X305
Temperature	25°C	Relative Humidity	60%
Pressure	960hPa	Test Voltage	DC 5V
Test Mode	802.11a20 5180MHz	Antenna	Vertical

Test Graph for Peak Measurement

Test Graph for Average Measurement

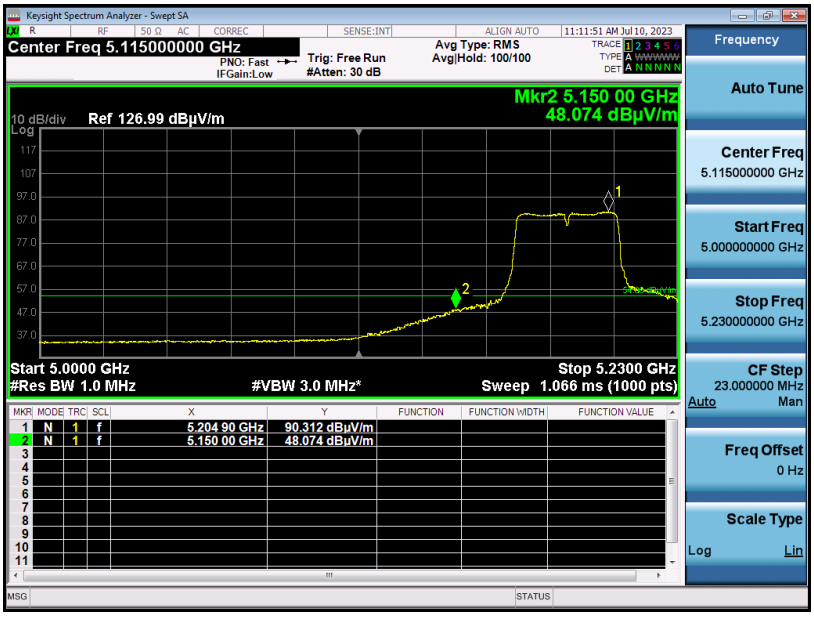


RESULT: PASS

EUT	IP Phone	Model Name	X305
Temperature	25°C	Relative Humidity	60%
Pressure	960hPa	Test Voltage	DC 5V
Test Mode	802.11n40 5190MHz	Antenna	Horizontal

Test Graph for Peak Measurement

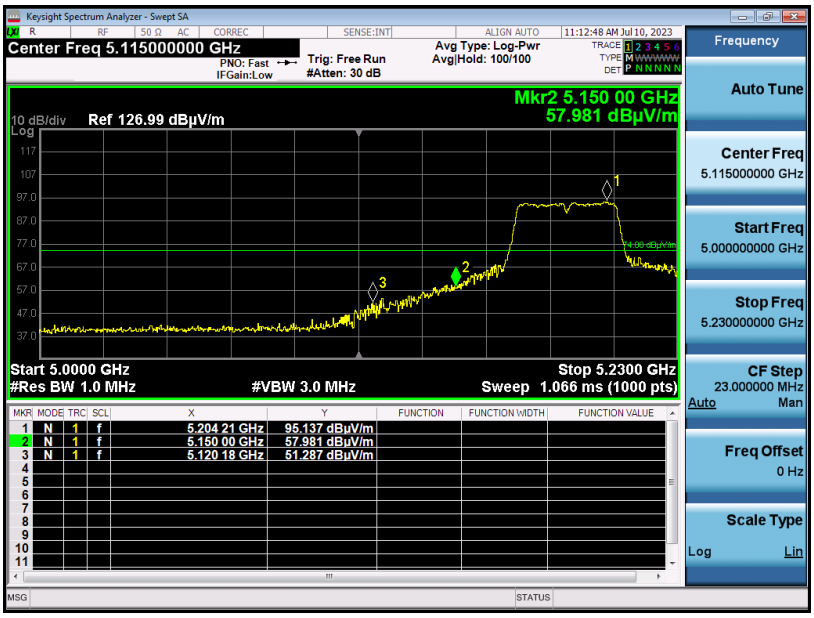
Test Graph for Average Measurement



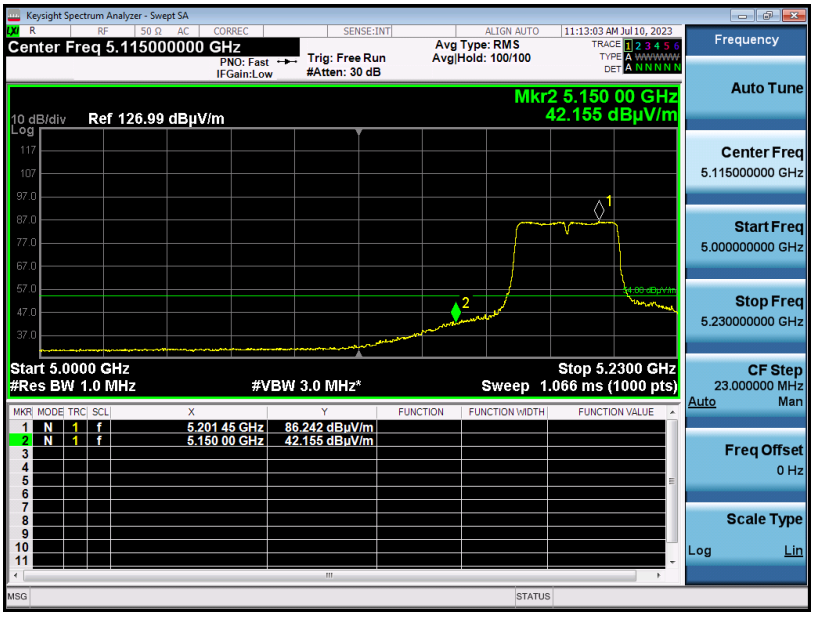
RESULT: PASS

EUT	IP Phone	Model Name	X305
Temperature	25°C	Relative Humidity	60%
Pressure	960hPa	Test Voltage	DC 5V
Test Mode	802.11n40 5190MHz	Antenna	Vertical

Test Graph for Peak Measurement



Test Graph for Average Measurement

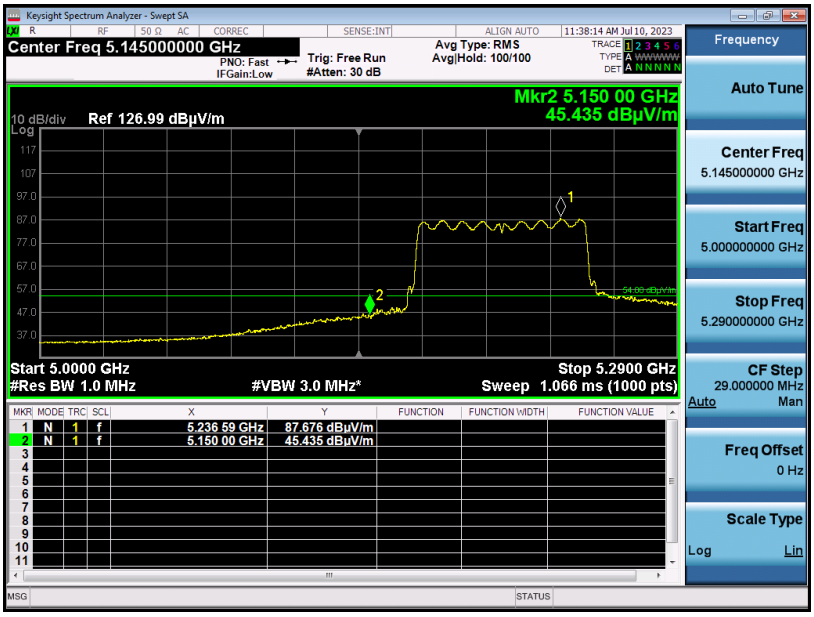


RESULT: PASS

EUT	IP Phone	Model Name	X305
Temperature	25°C	Relative Humidity	60%
Pressure	960hPa	Test Voltage	DC 5V
Test Mode	802.11ac80 5210MHz	Antenna	Horizontal

Test Graph for Peak Measurement

Test Graph for Average Measurement

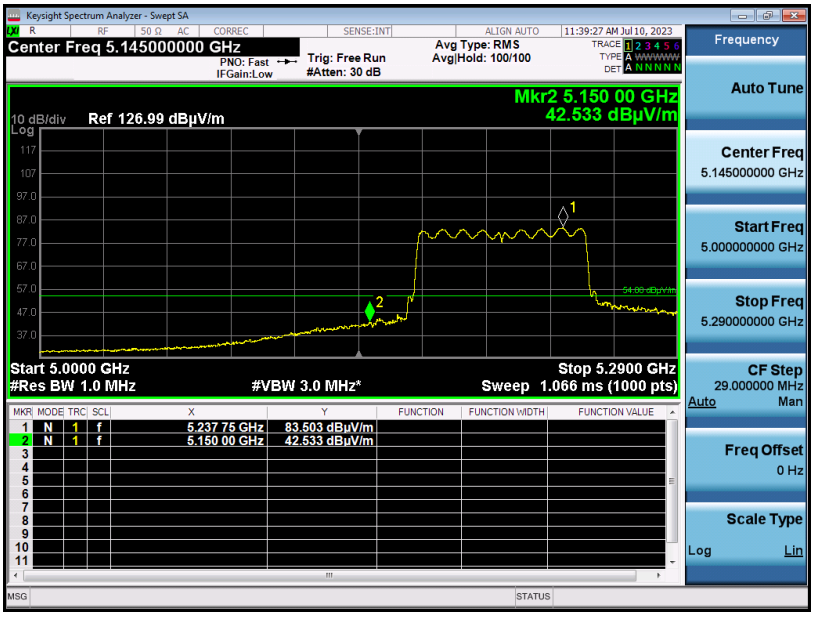


RESULT: PASS

EUT	IP Phone	Model Name	X305
Temperature	25°C	Relative Humidity	60%
Pressure	960hPa	Test Voltage	DC 5V
Test Mode	802.11ac80 5210MHz	Antenna	Vertical

Test Graph for Peak Measurement

Test Graph for Average Measurement



RESULT: PASS

Test result for band edge emission at restricted bands 5.25GHz~5.35GHz

EUT	IP Phone	Model Name	X305
Temperature	25°C	Relative Humidity	60%
Pressure	960hPa	Test Voltage	DC 5V
Test Mode	802.11a20 5320MHz	Antenna	Horizontal

Test Graph for Peak Measurement

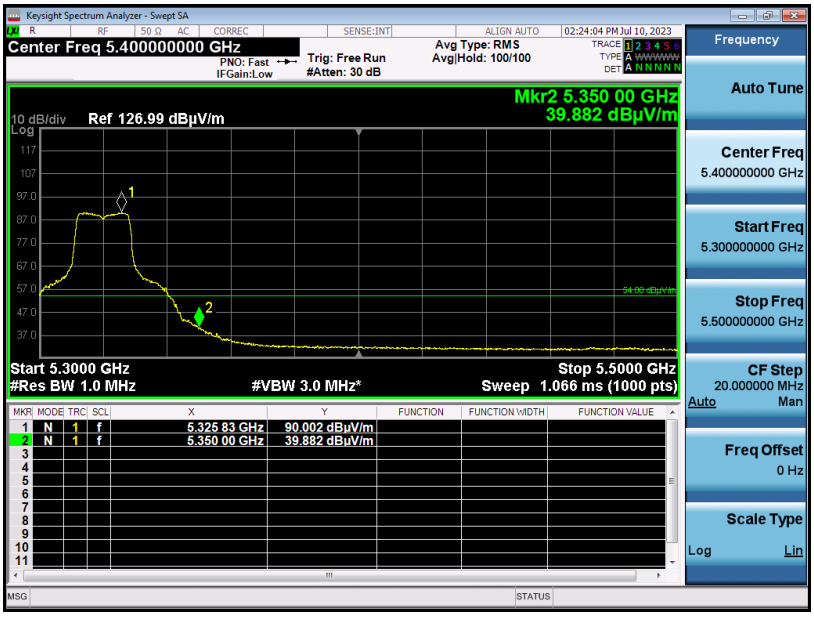
Test Graph for Average Measurement

RESULT: PASS

EUT	IP Phone	Model Name	X305
Temperature	25°C	Relative Humidity	60%
Pressure	960hPa	Test Voltage	DC 5V
Test Mode	802.11a20 5320MHz	Antenna	Vertical

Test Graph for Peak Measurement

Test Graph for Average Measurement

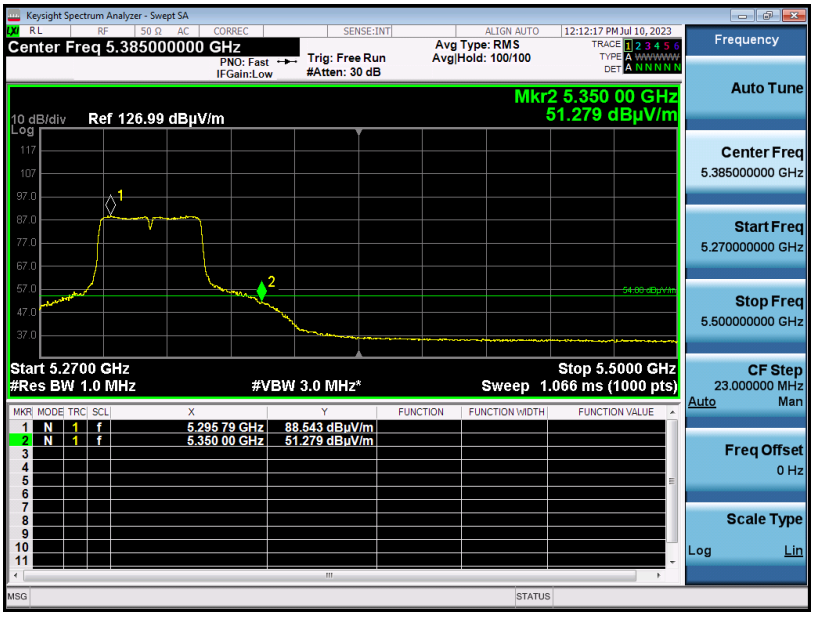


RESULT: PASS

EUT	IP Phone	Model Name	X305
Temperature	25°C	Relative Humidity	60%
Pressure	960hPa	Test Voltage	DC 5V
Test Mode	802.11n40 5310MHz	Antenna	Horizontal

Test Graph for Peak Measurement

Test Graph for Average Measurement



RESULT: PASS