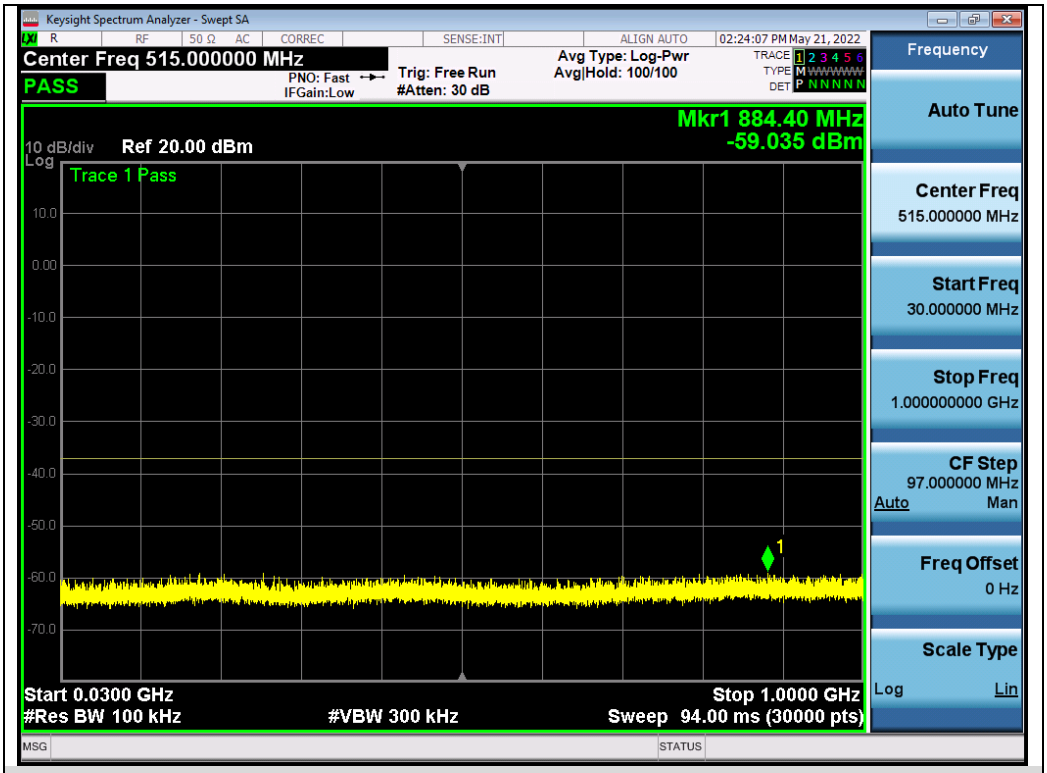
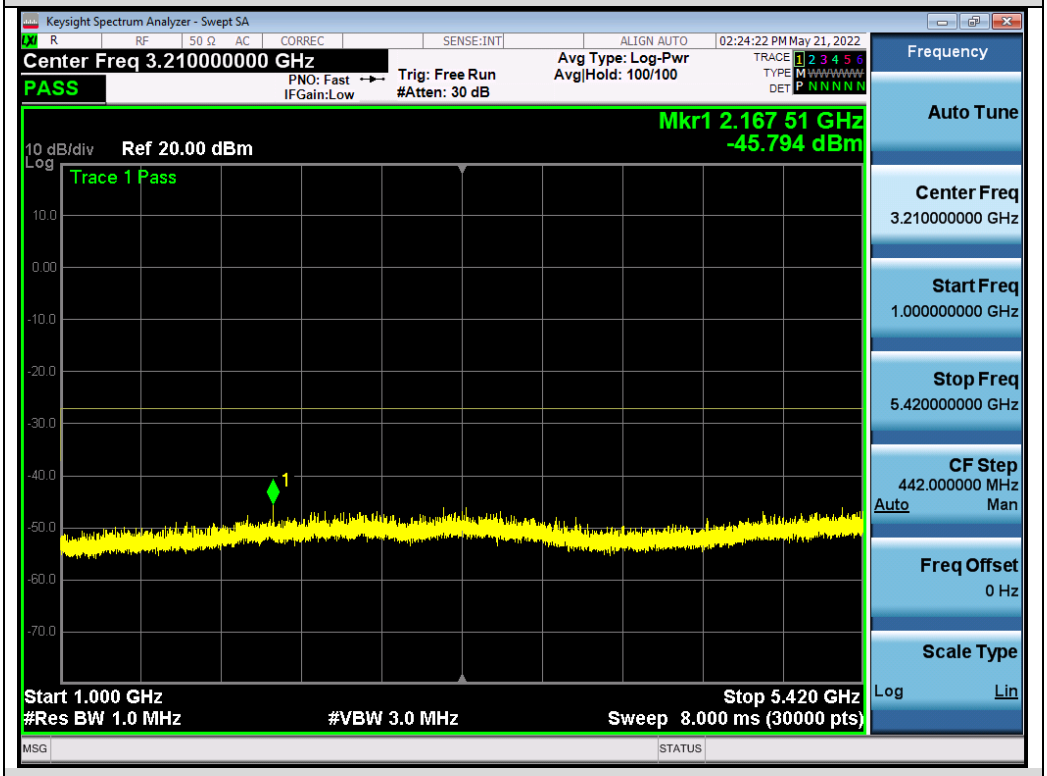
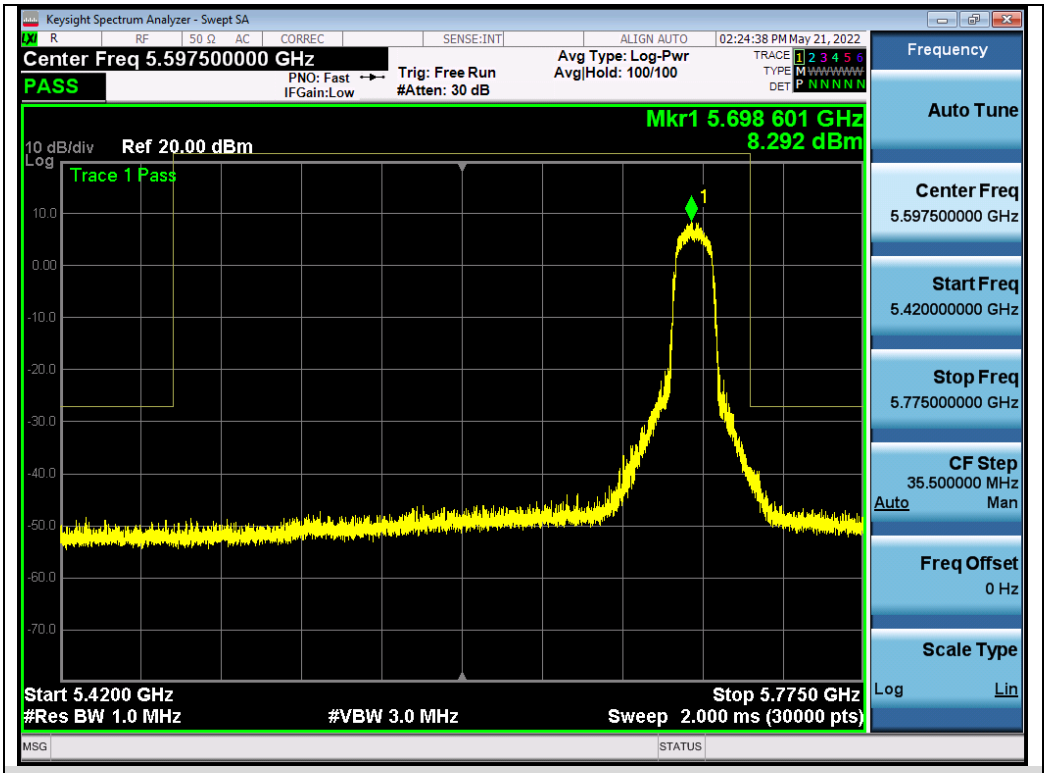


Test_Graph_802.11a_ANT1_5700_6Mbps_Frequency Band 1

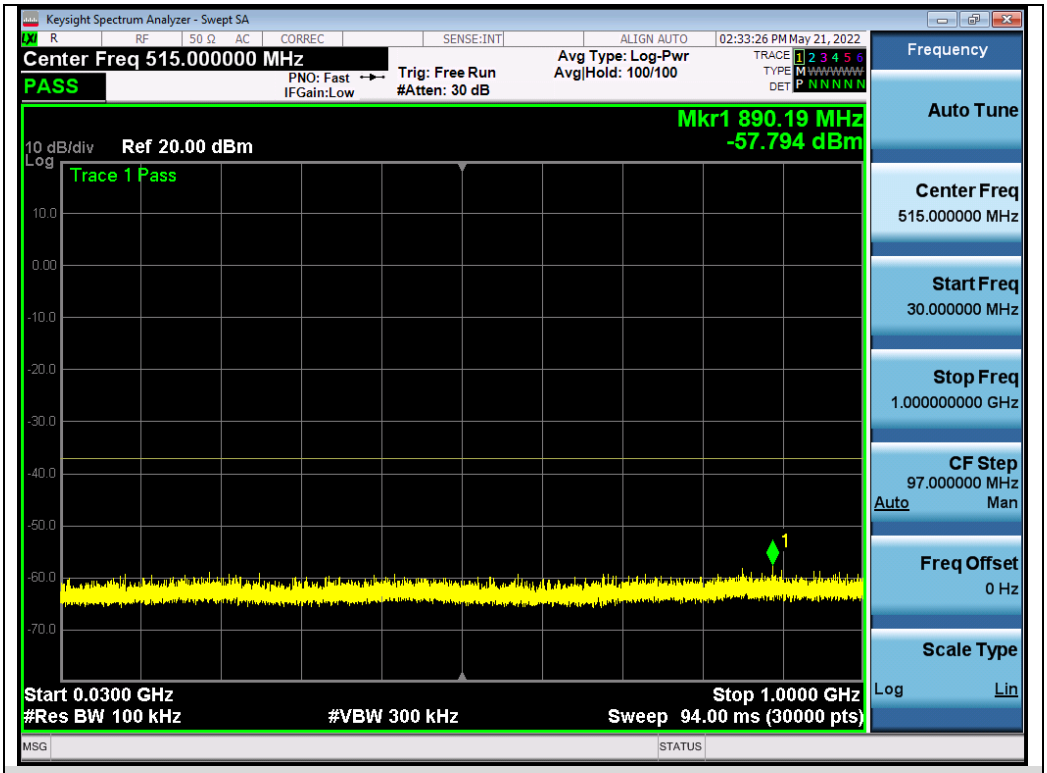


Test_Graph_802.11a_ANT1_5700_6Mbps_Frequency Band 2

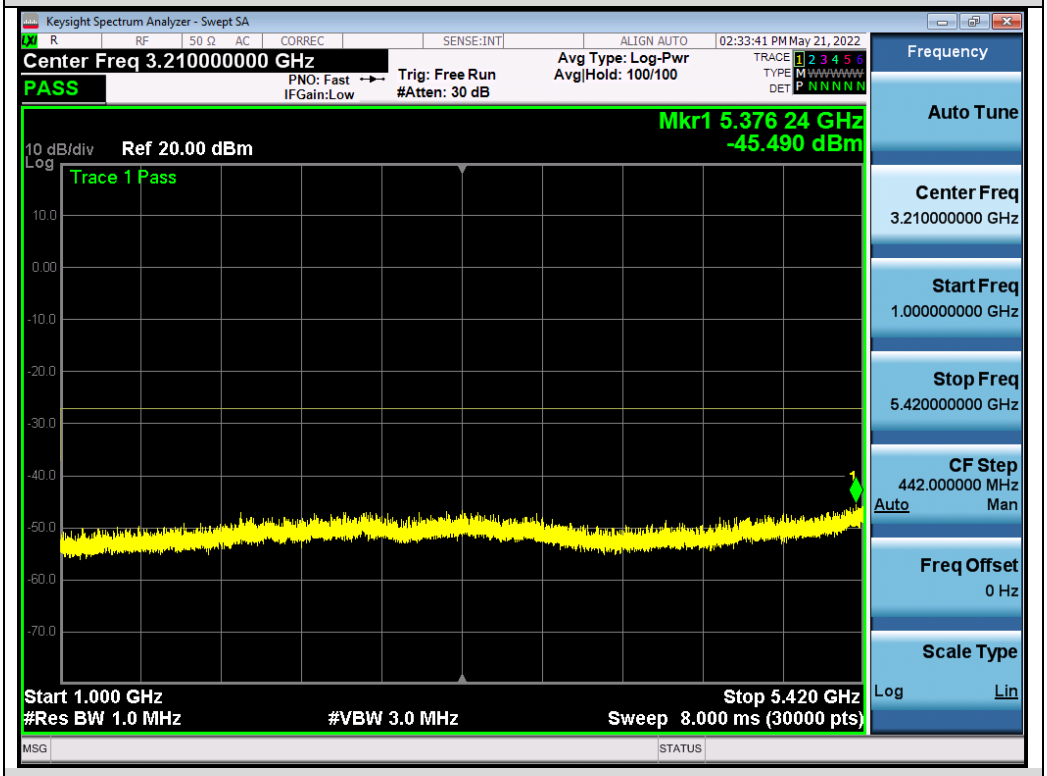


Test_Graph_802.11a_ANT1_5700_6Mbps_Frequency Band 3

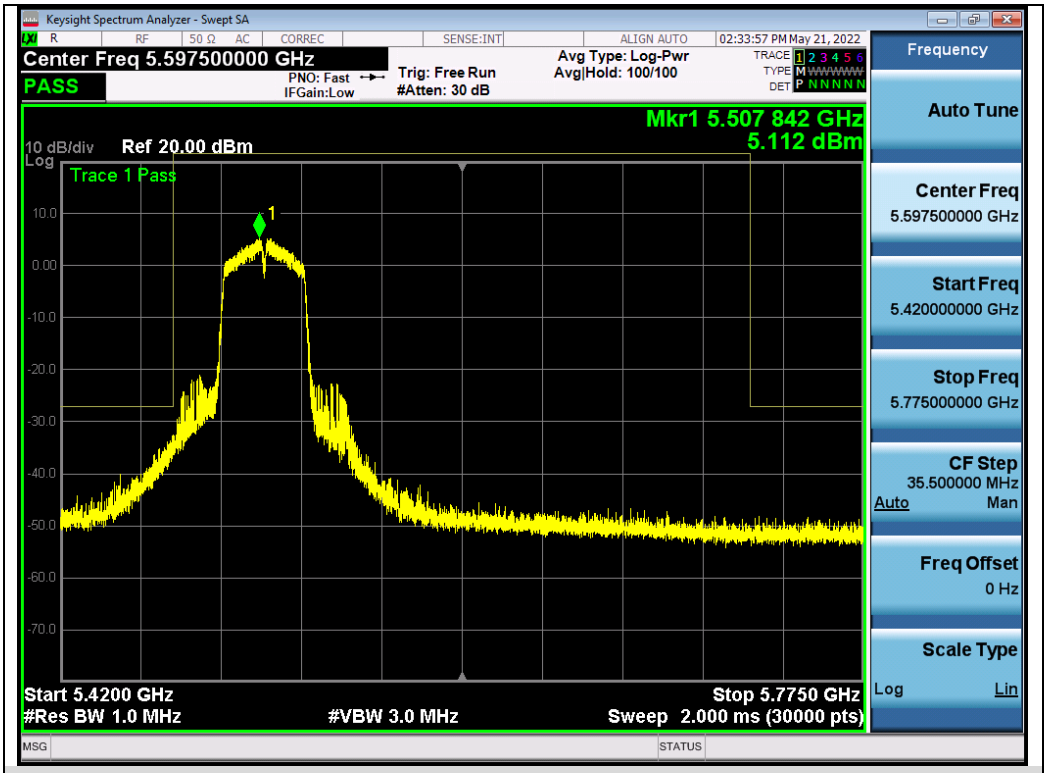
Test_Graph_802.11a_ANT1_5700_6Mbps_Frequency Band 4



Test_Graph_802.11n40_ANT1_5510_MCS0_Frequency Band 1

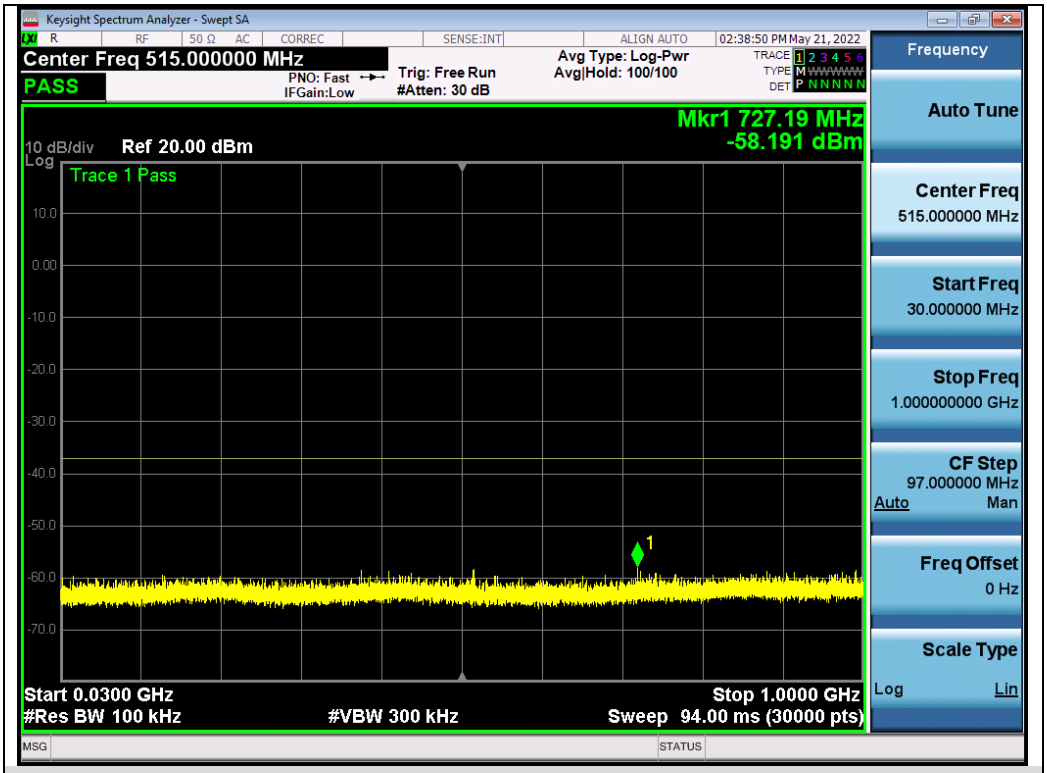


Test_Graph_802.11n40_ANT1_5510_MCS0_Frequency Band 2

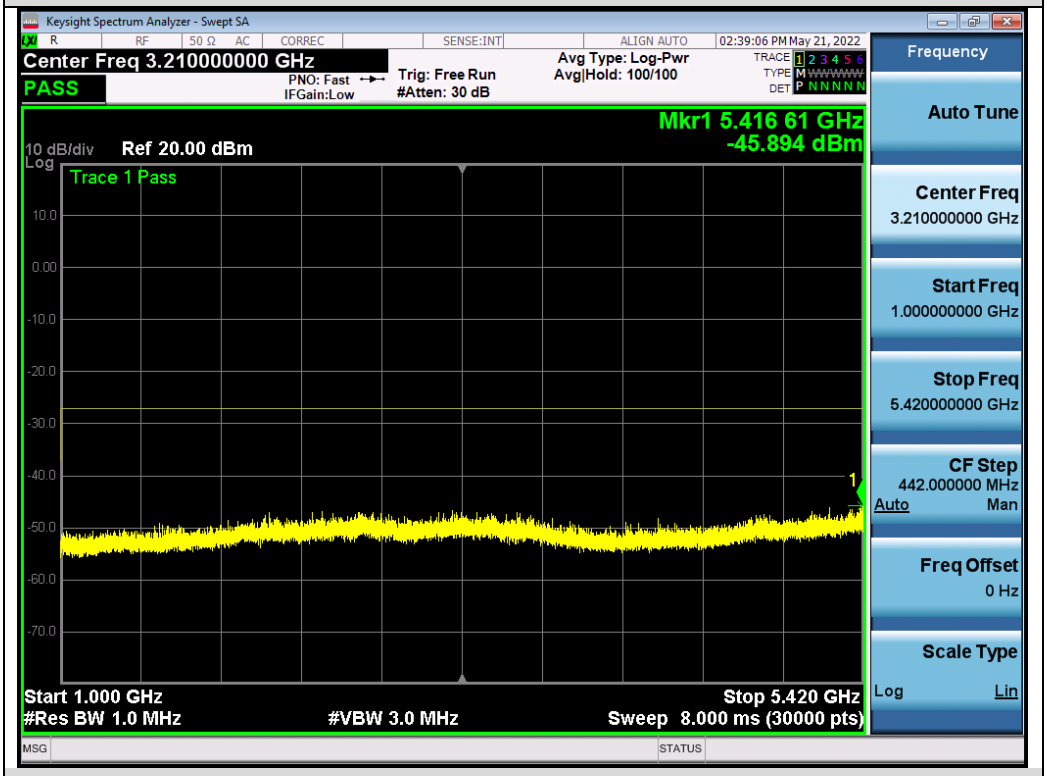


Test_Graph_802.11n40_ANT1_5510_MCS0_Frequency Band 3

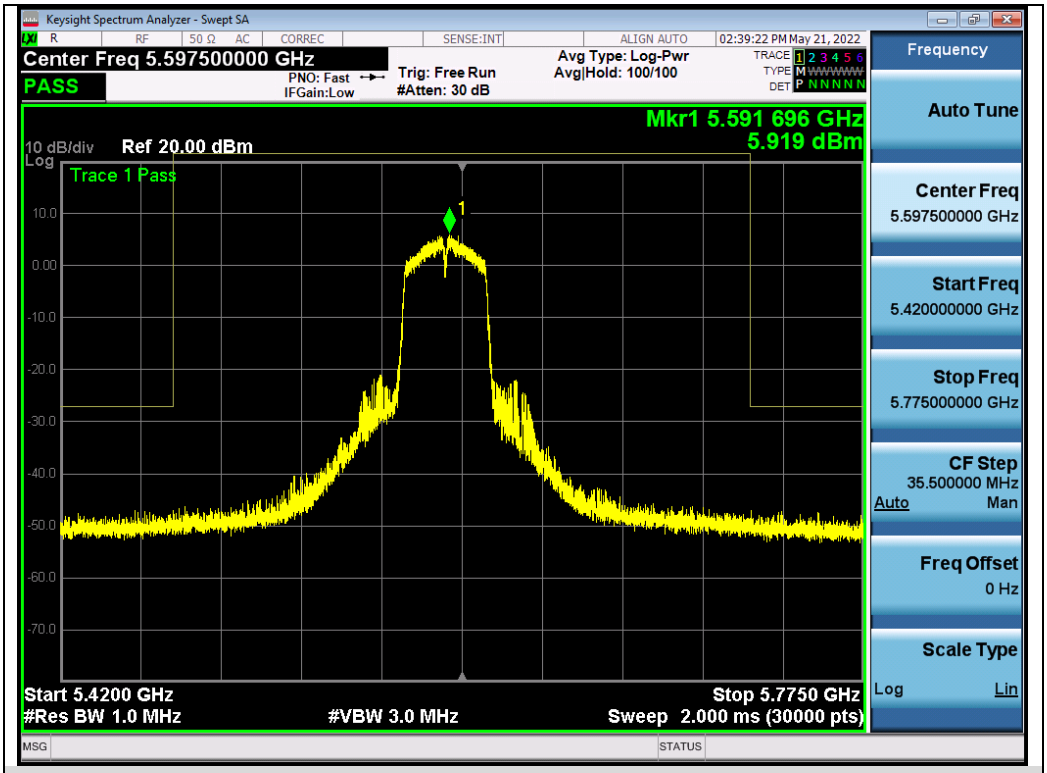
Test_Graph_802.11n40_ANT1_5510_MCS0_Frequency Band 4



Test_Graph_802.11n40_ANT1_5590_MCS0_Frequency Band 1

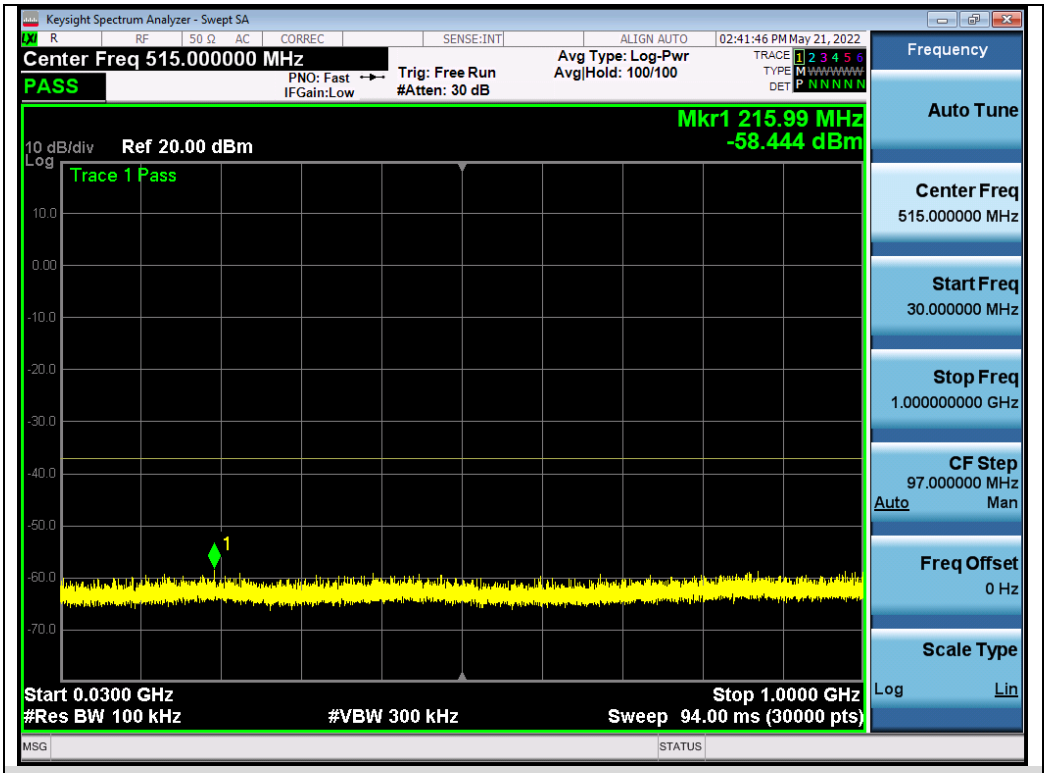


Test_Graph_802.11n40_ANT1_5590_MCS0_Frequency Band 2



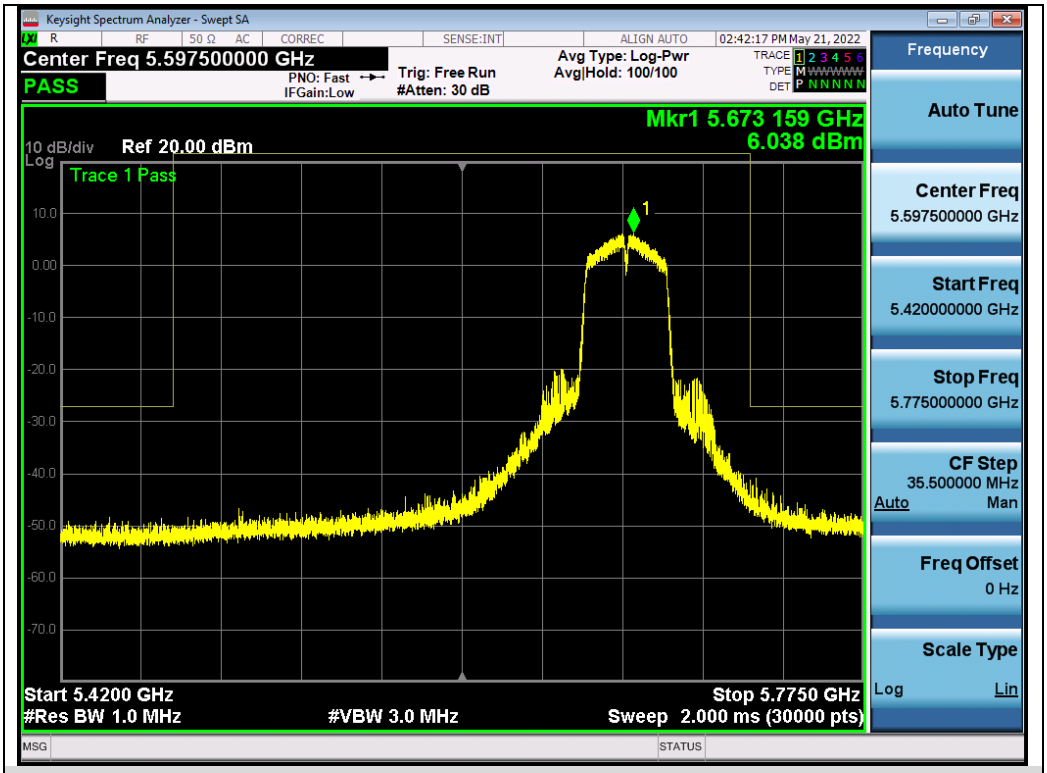
Test_Graph_802.11n40_ANT1_5590_MCS0_Frequency Band 3

Test_Graph_802.11n40_ANT1_5590_MCS0_Frequency Band 4



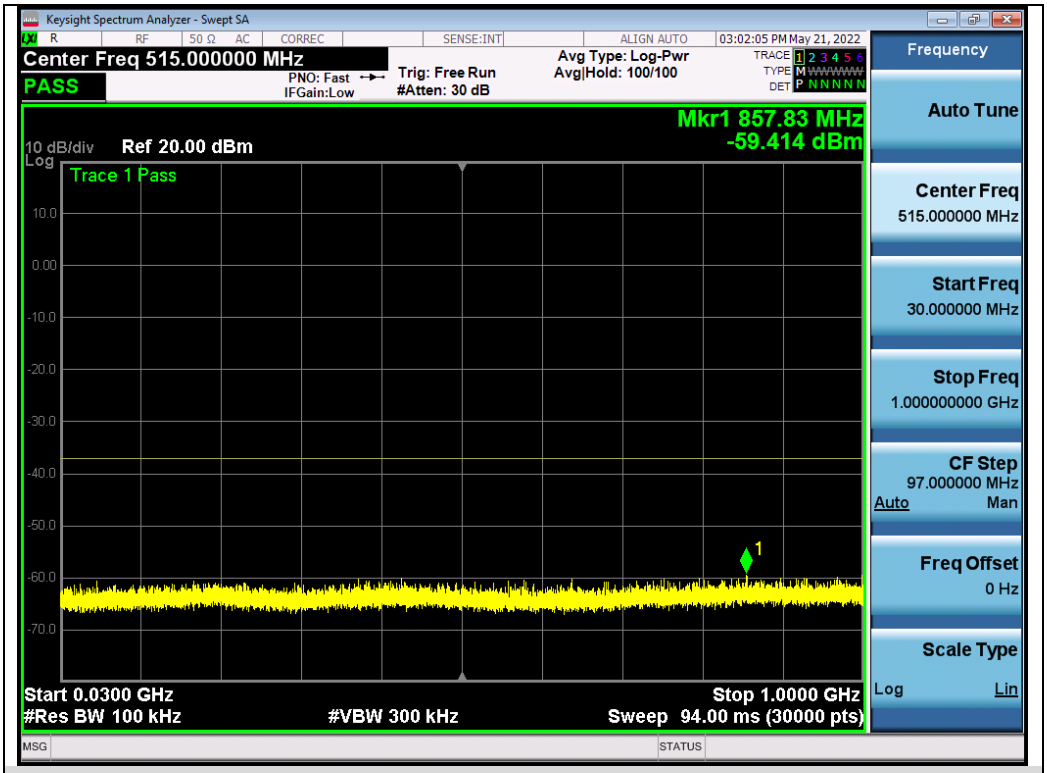
Test_Graph_802.11n40_ANT1_5670_MCS0_Frequency Band 1

Test_Graph_802.11n40_ANT1_5670_MCS0_Frequency Band 2



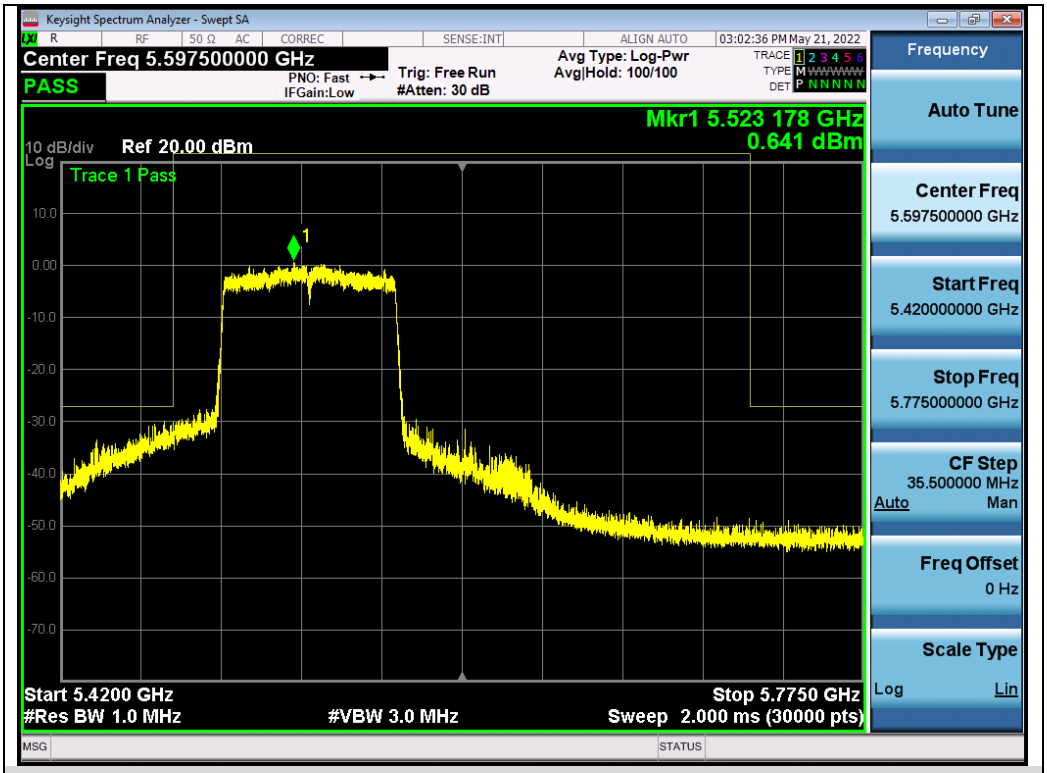
Test_Graph_802.11n40_ANT1_5670_MCS0_Frequency Band 3

Test_Graph_802.11n40_ANT1_5670_MCS0_Frequency Band 4

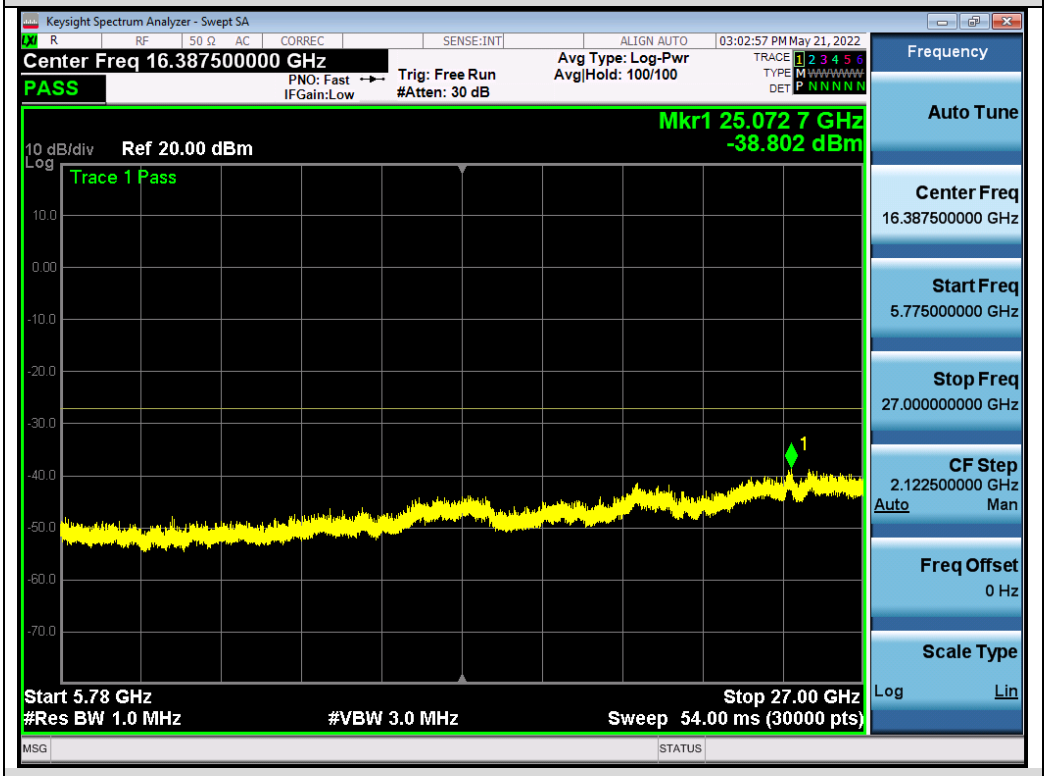


Test_Graph_802.11ac80_ANT1_5530_MCS9_Frequency Band 1

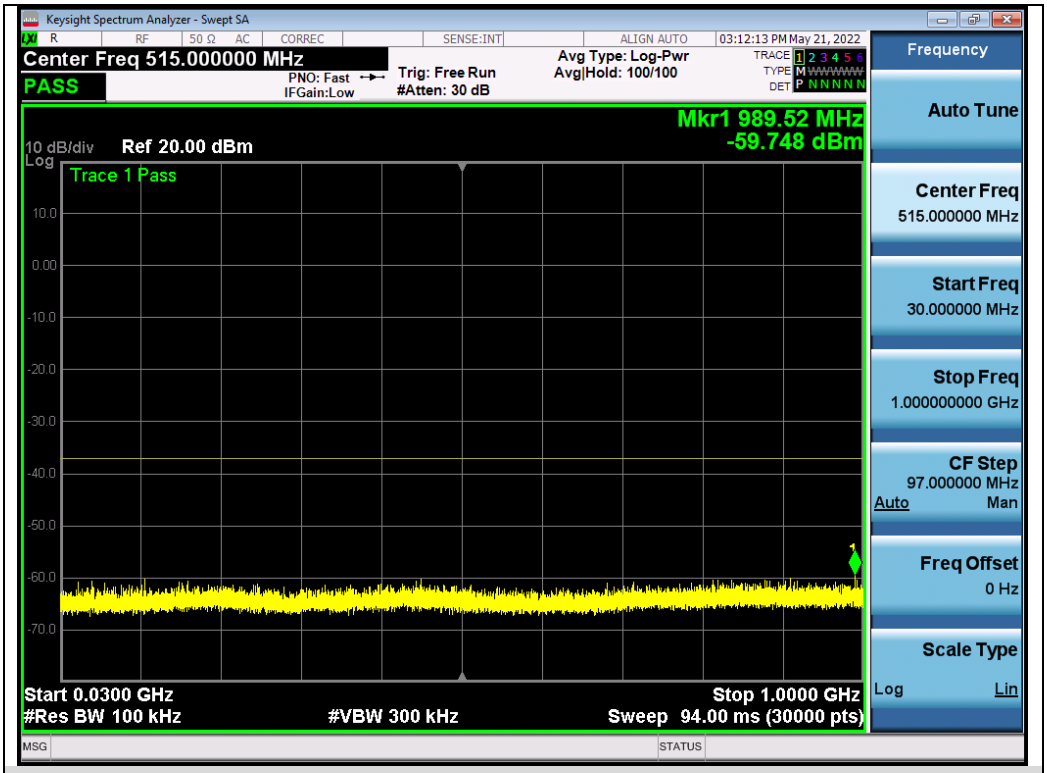
Test_Graph_802.11ac80_ANT1_5530_MCS9_Frequency Band 2



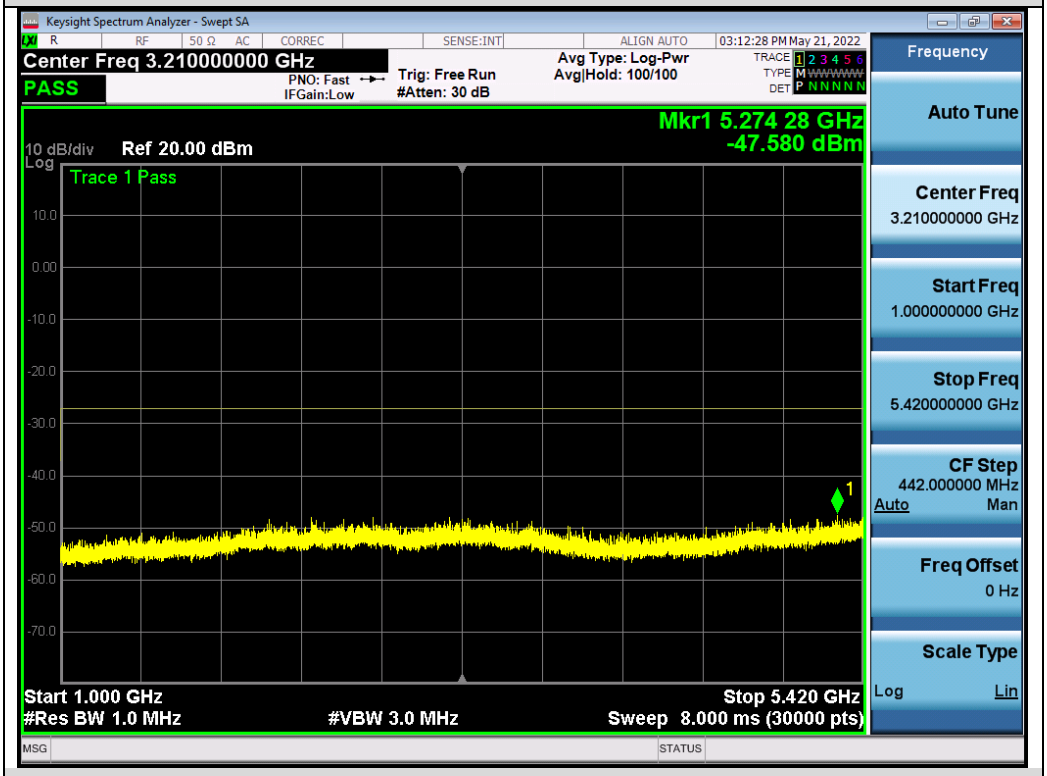
Test_Graph_802.11ac80_ANT1_5530_MCS9_Frequency Band 3



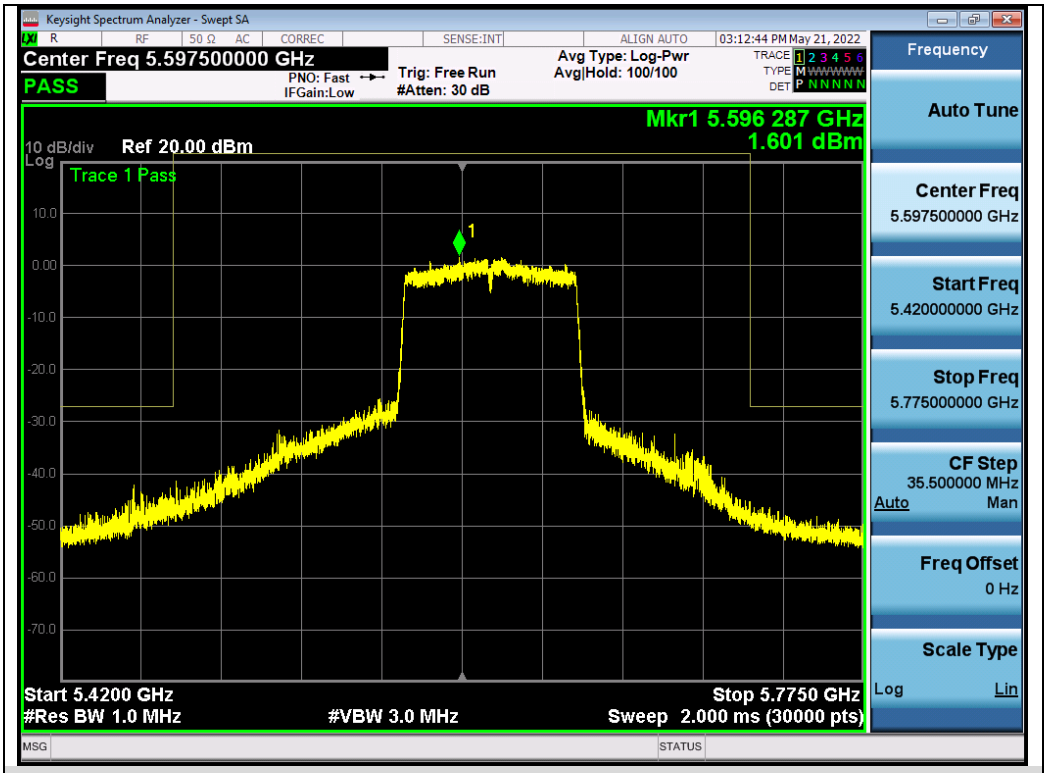
Test_Graph_802.11ac80_ANT1_5530_MCS9_Frequency Band 4



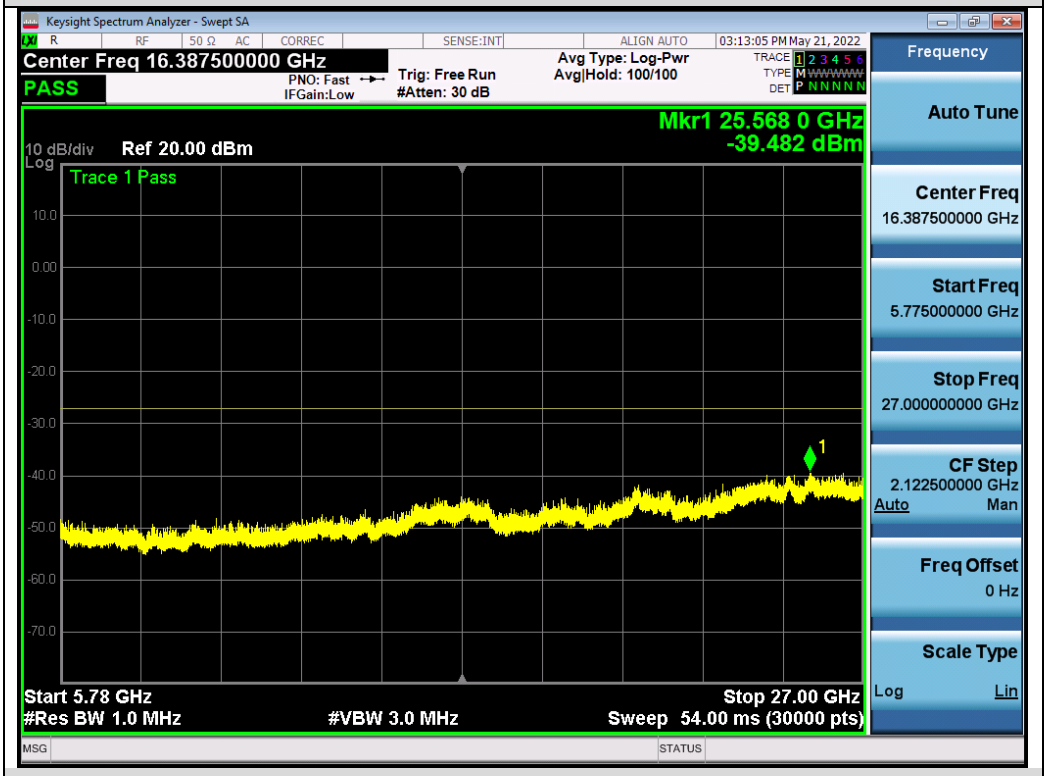
Test_Graph_802.11ac80_ANT1_5610_MCS9_Frequency Band 1



Test_Graph_802.11ac80_ANT1_5610_MCS9_Frequency Band 2

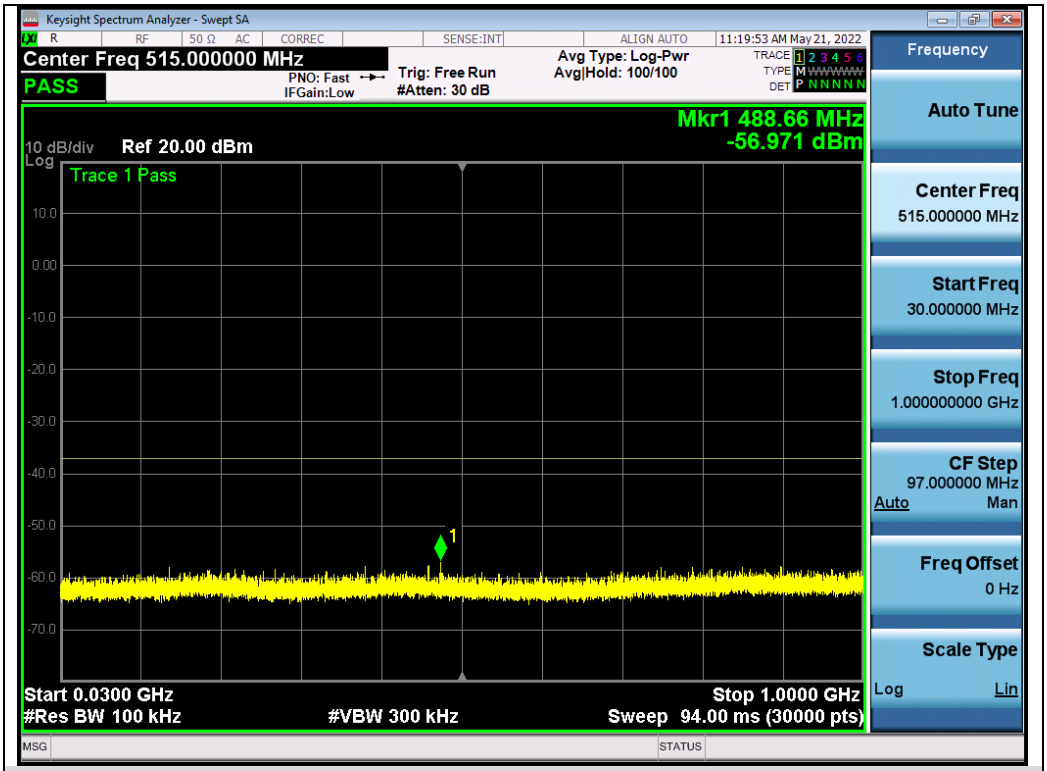


Test_Graph_802.11ac80_ANT1_5610_MCS9_Frequency Band 3

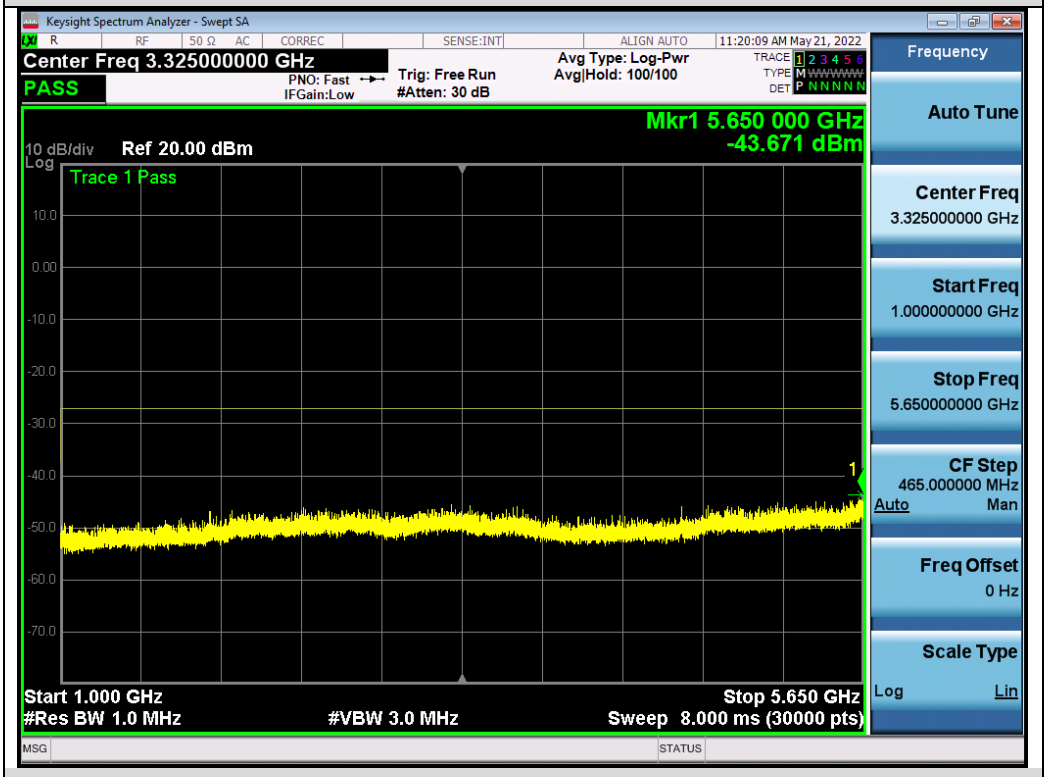


Test_Graph_802.11ac80_ANT1_5610_MCS9_Frequency Band 4

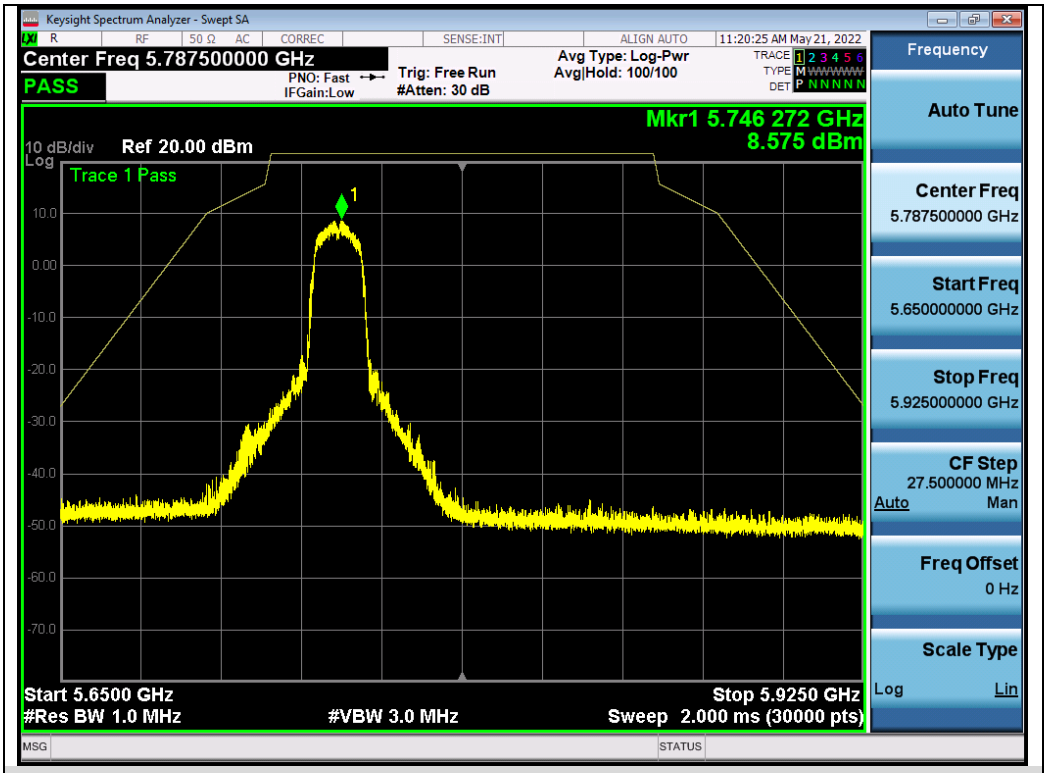
Test Graphs of Spurious Emissions outside of the 5.725-5.85 GHz band for transmitters operating in the 5.725-5.85 GHz band



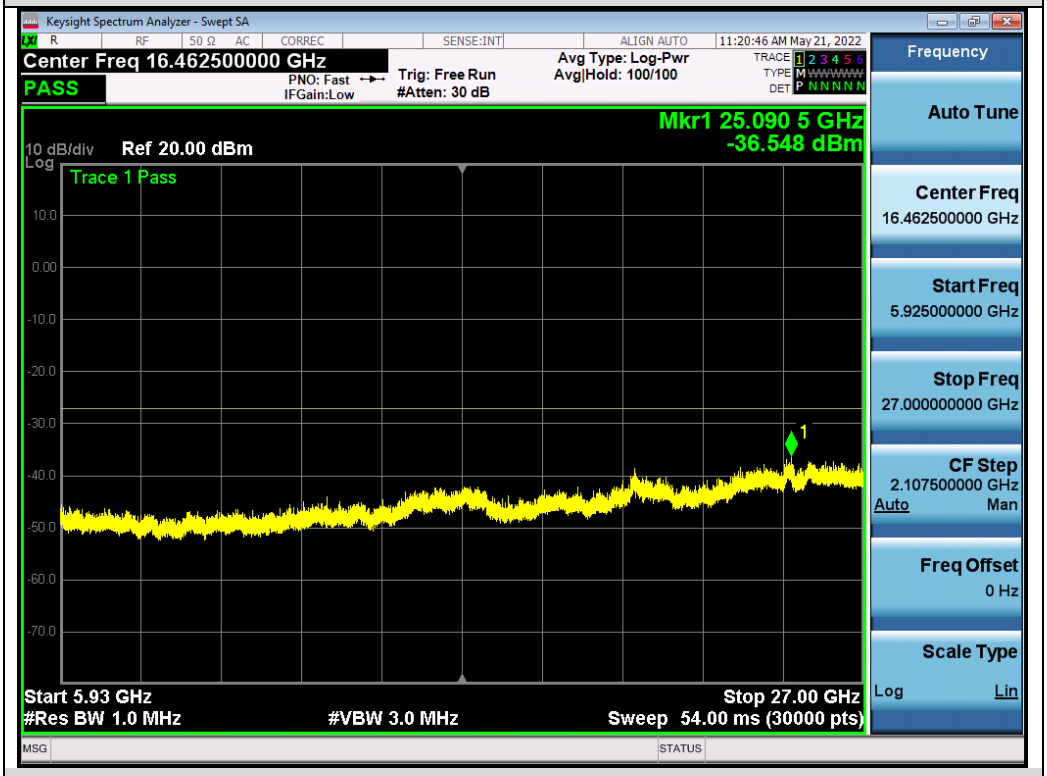
Test_Graph_802.11a_ANT1_5745_6Mbps_Frequency Band1



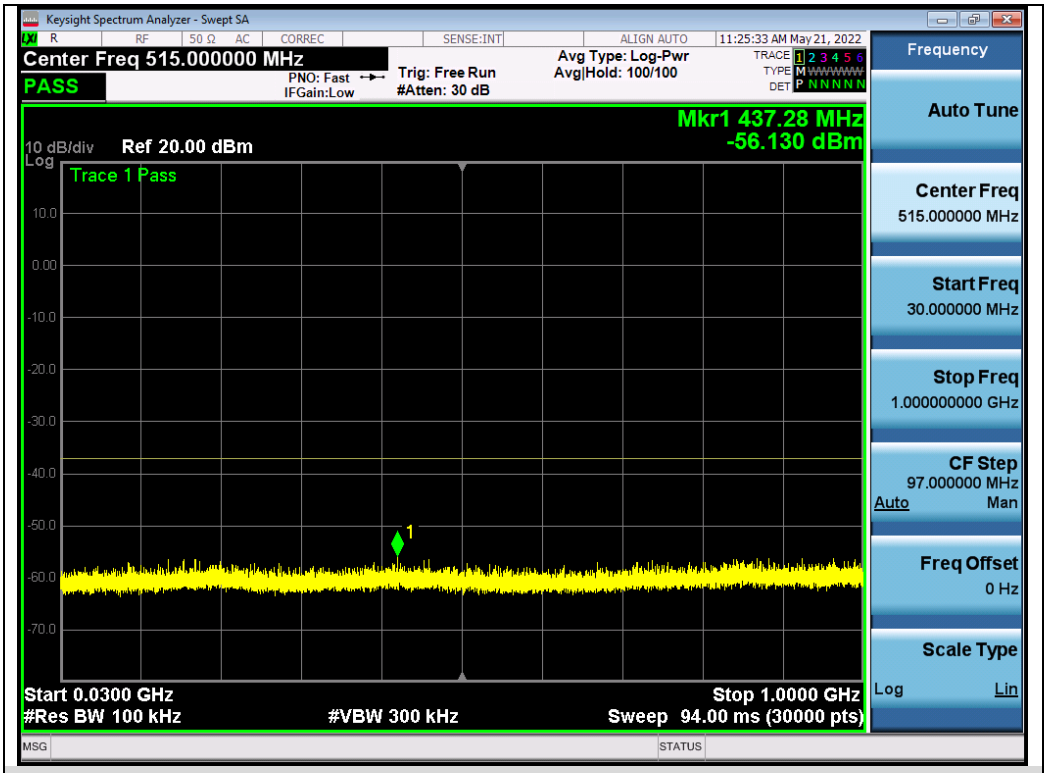
Test_Graph_802.11a_ANT1_5745_6Mbps_Frequency Band2



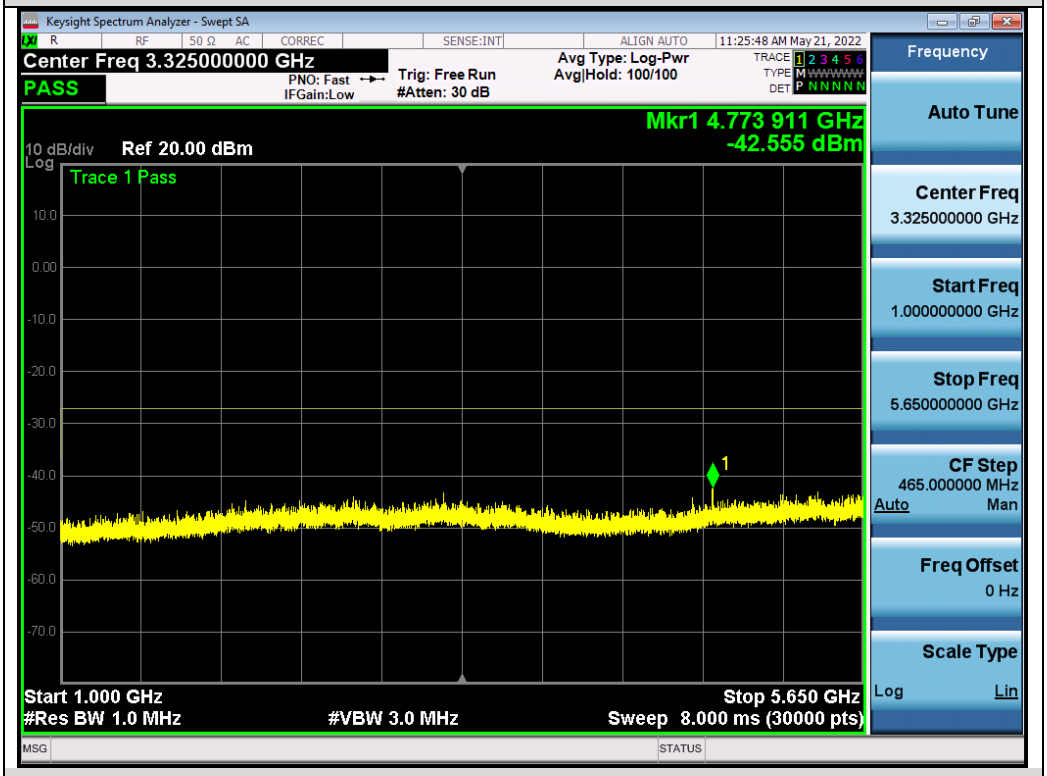
Test_Graph_802.11a_ANT1_5745_6Mbps_Frequency Band3



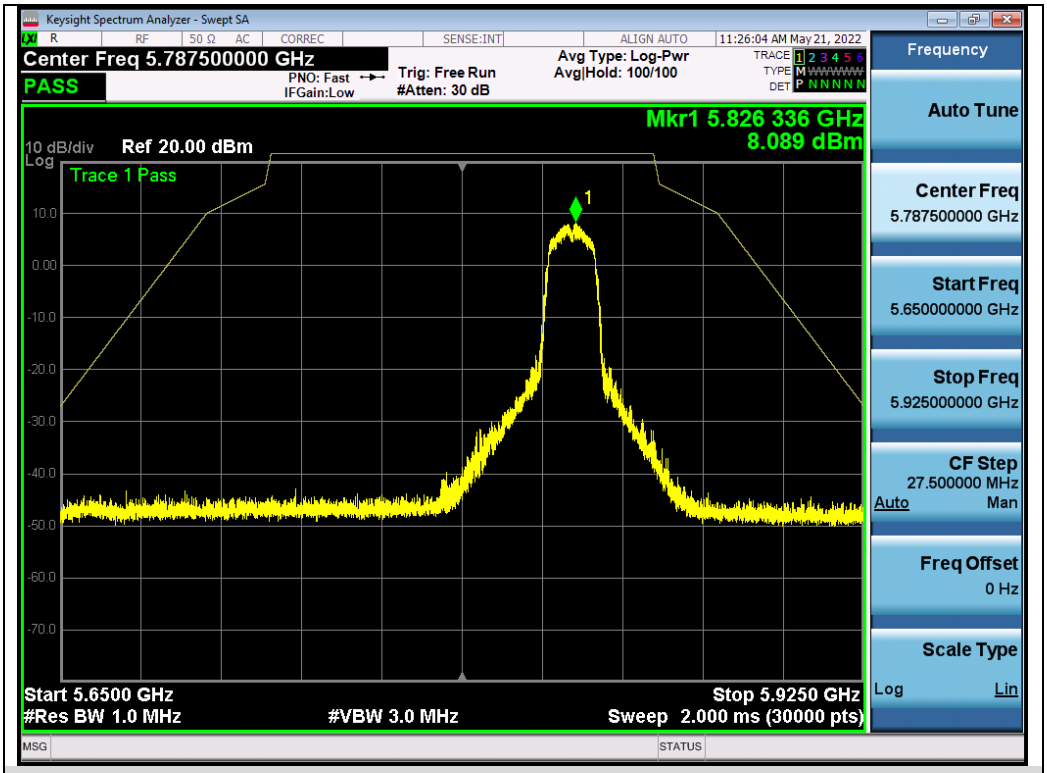
Test_Graph_802.11a_ANT1_5745_6Mbps_Frequency Band4



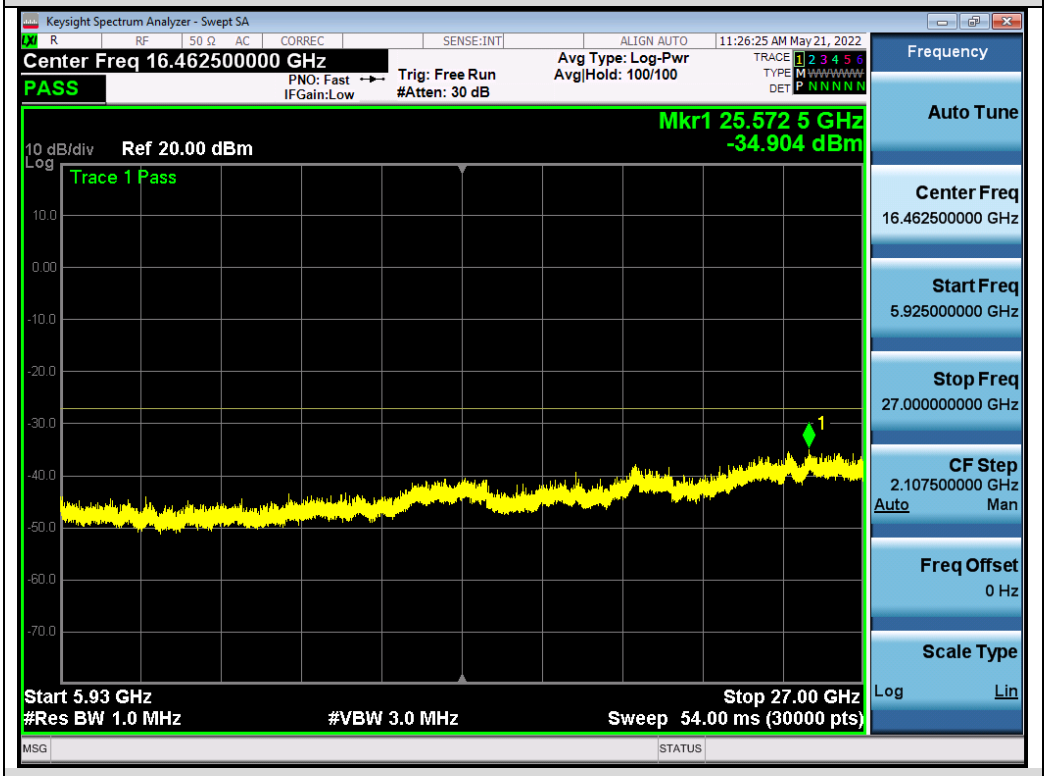
Test_Graph_802.11a_ANT1_5825_6Mbps_Frequency Band1



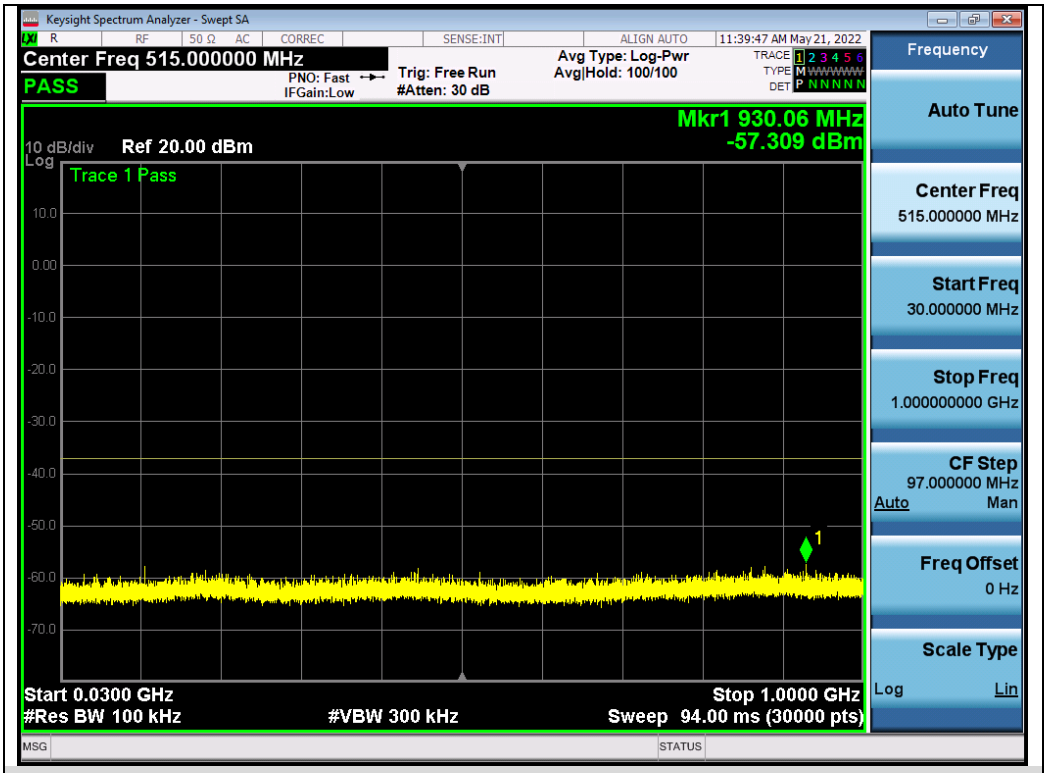
Test_Graph_802.11a_ANT1_5825_6Mbps_Frequency Band2



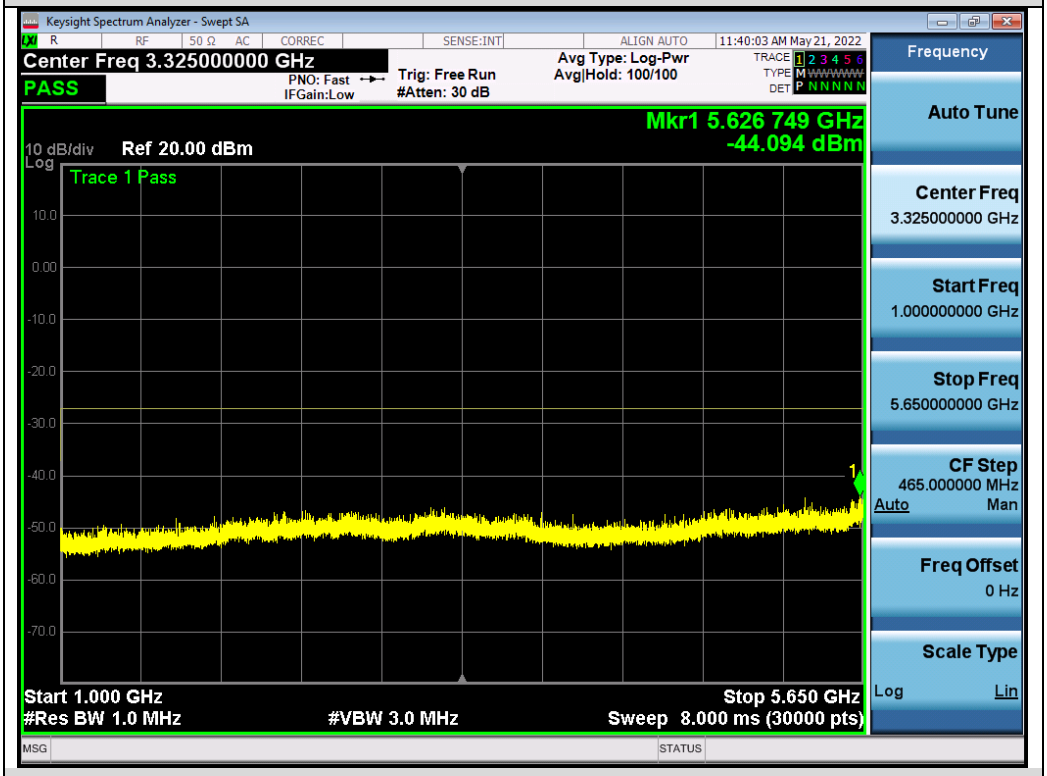
Test_Graph_802.11a_ANT1_5825_6Mbps_Frequency Band3



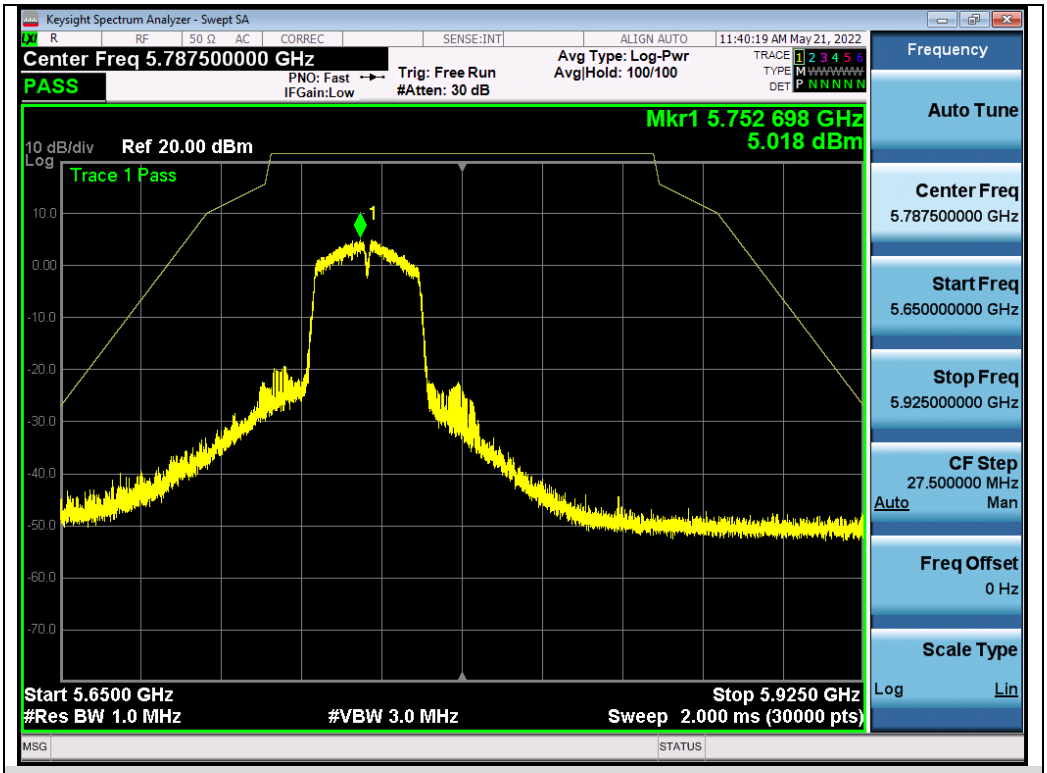
Test_Graph_802.11a_ANT1_5825_6Mbps_Frequency Band4



Test_Graph_802.11n40_ANT1_5755_MCS0_Frequency Band1

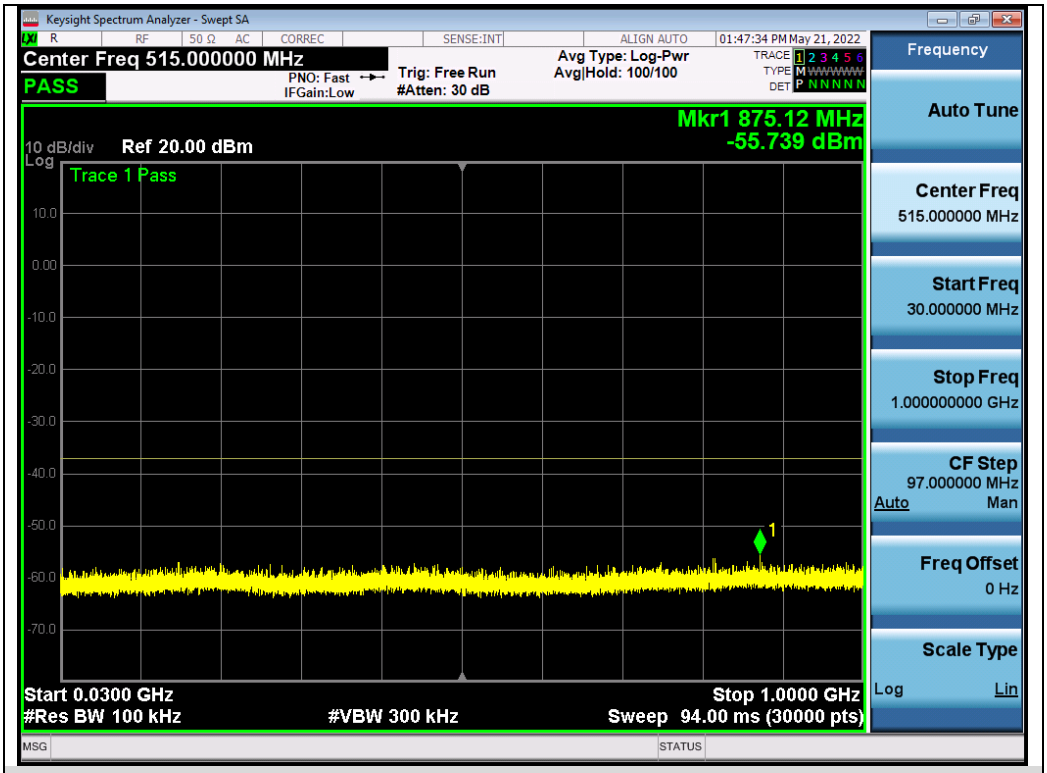


Test_Graph_802.11n40_ANT1_5755_MCS0_Frequency Band2

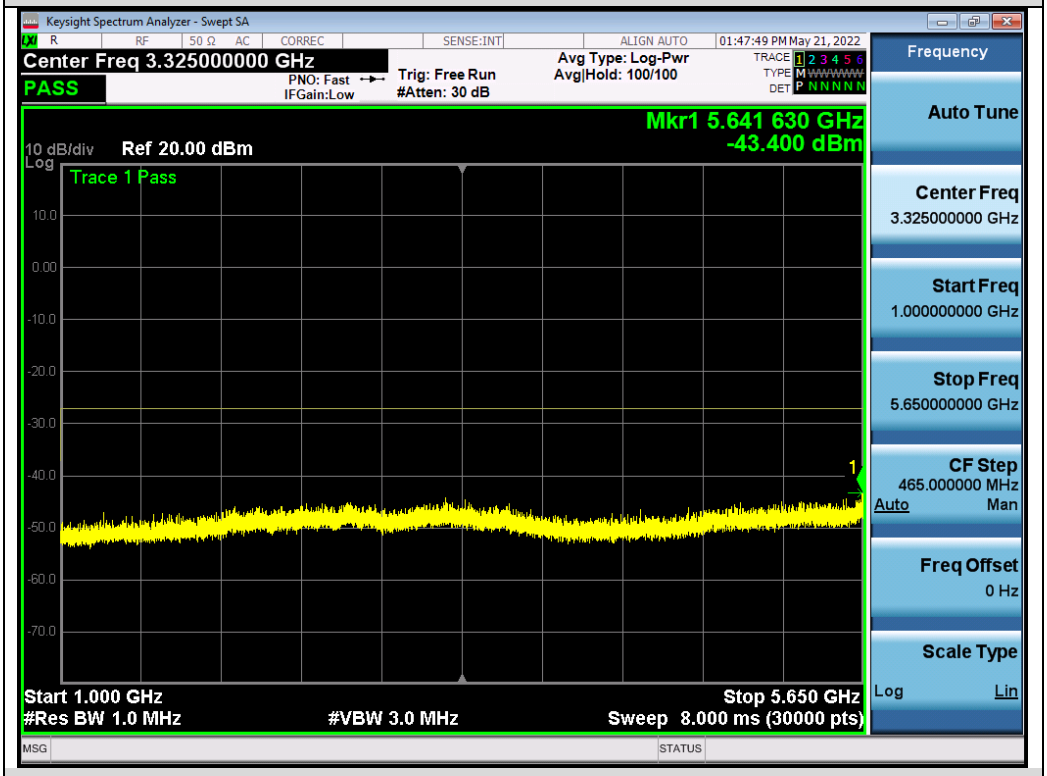


Test_Graph_802.11n40_ANT1_5755_MCS0_Frequency Band3

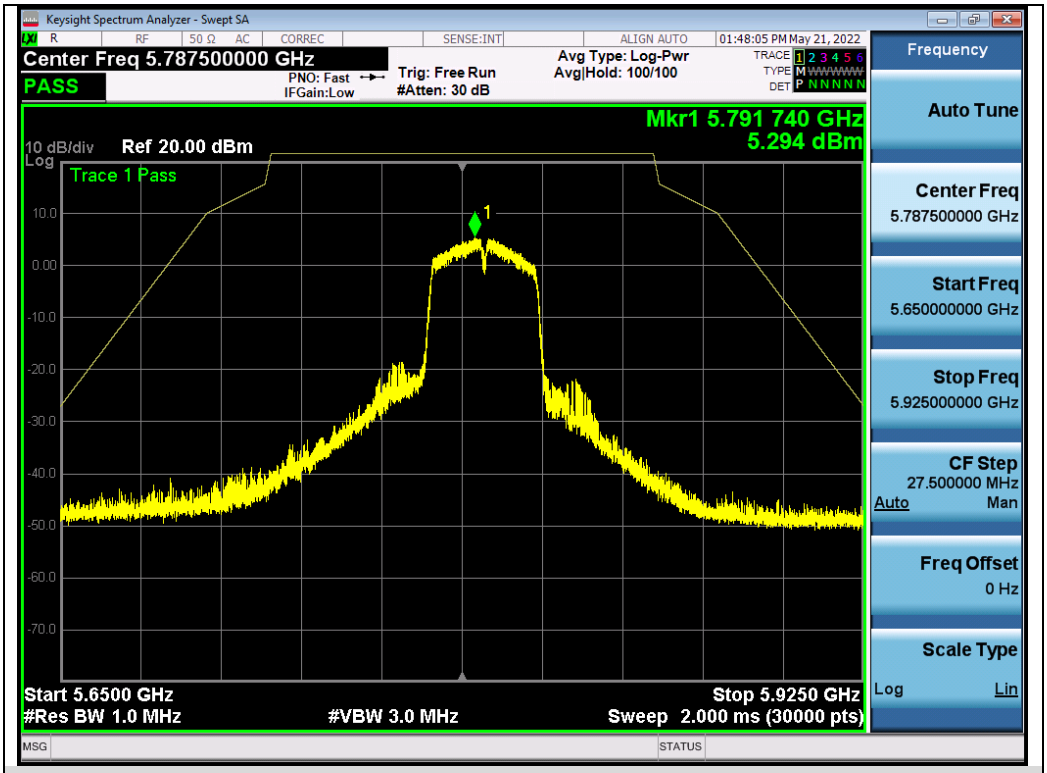
Test_Graph_802.11n40_ANT1_5755_MCS0_Frequency Band4



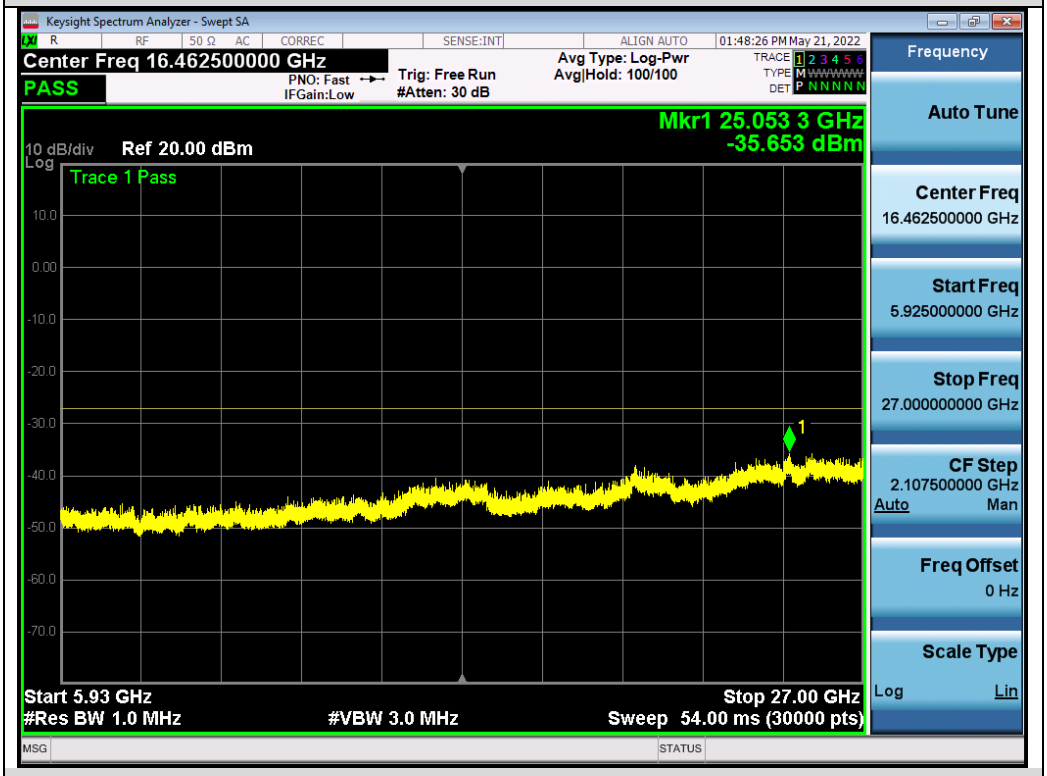
Test_Graph_802.11n40_ANT1_5795_MCS0_Frequency Band1



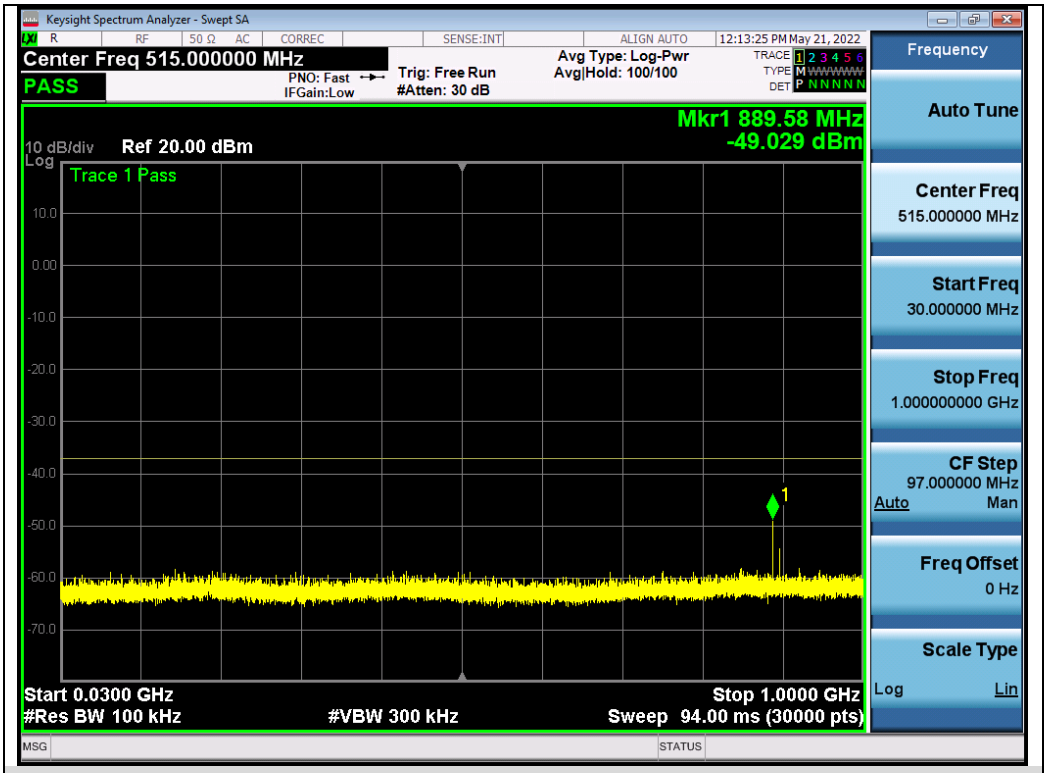
Test_Graph_802.11n40_ANT1_5795_MCS0_Frequency Band2



Test_Graph_802.11n40_ANT1_5795_MCS0_Frequency Band3

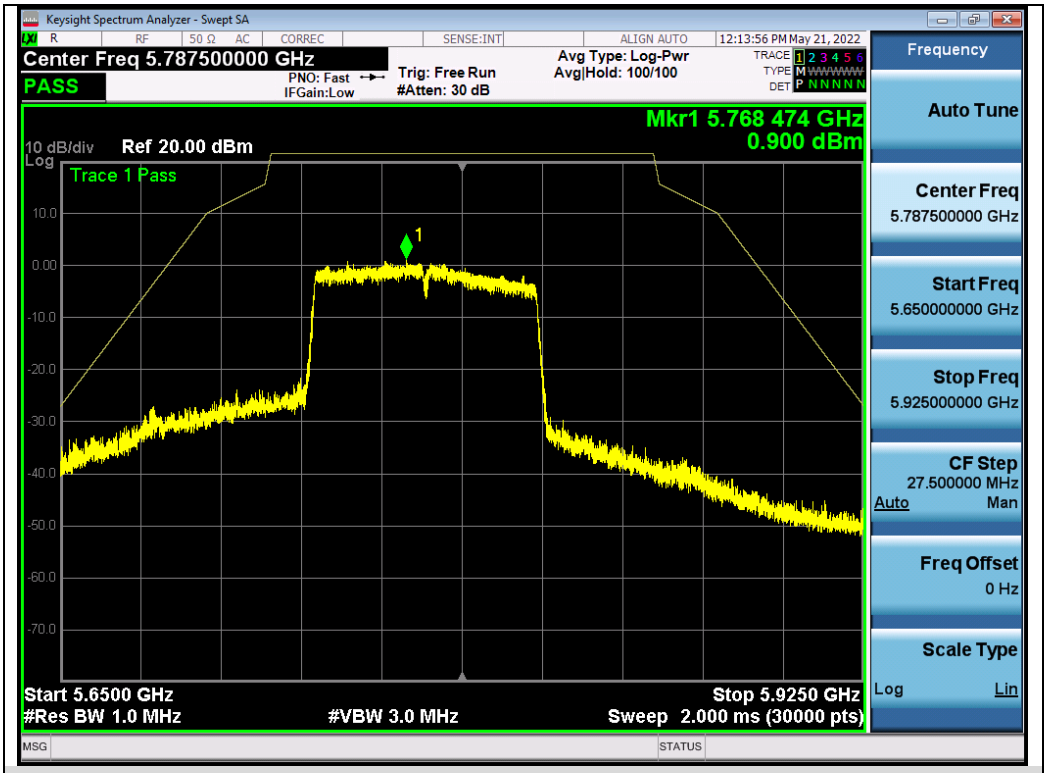


Test_Graph_802.11n40_ANT1_5795_MCS0_Frequency Band4

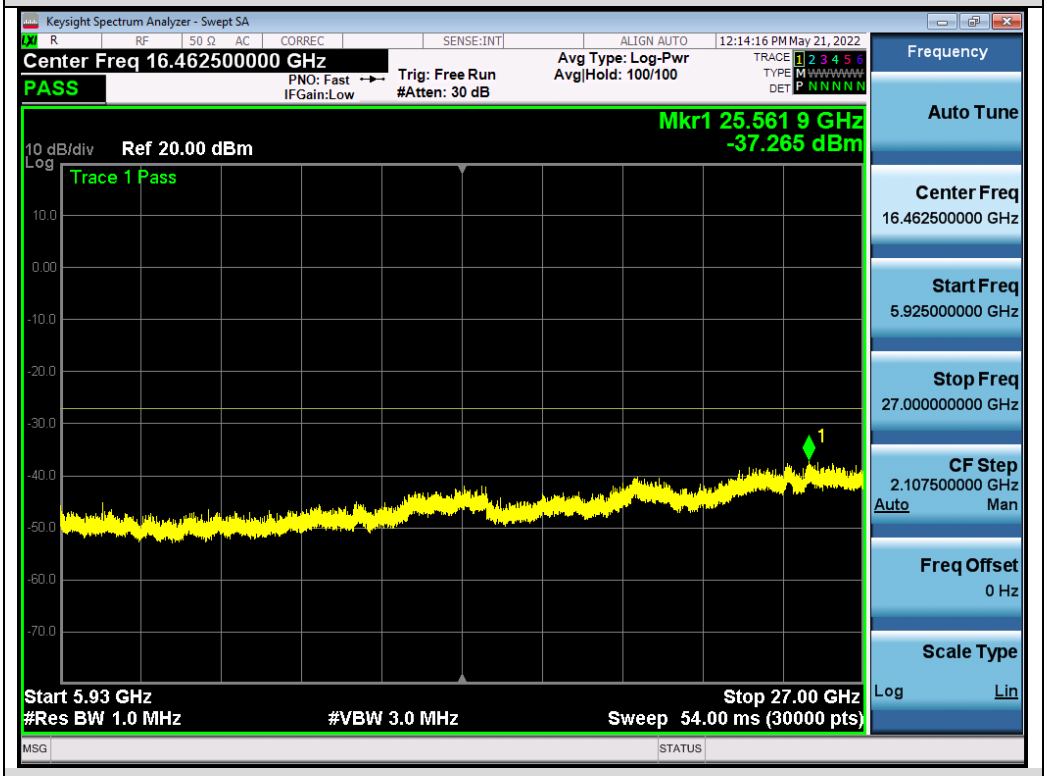


Test_Graph_802.11ac80_ANT1_5775_MCS9_Frequency Band1

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

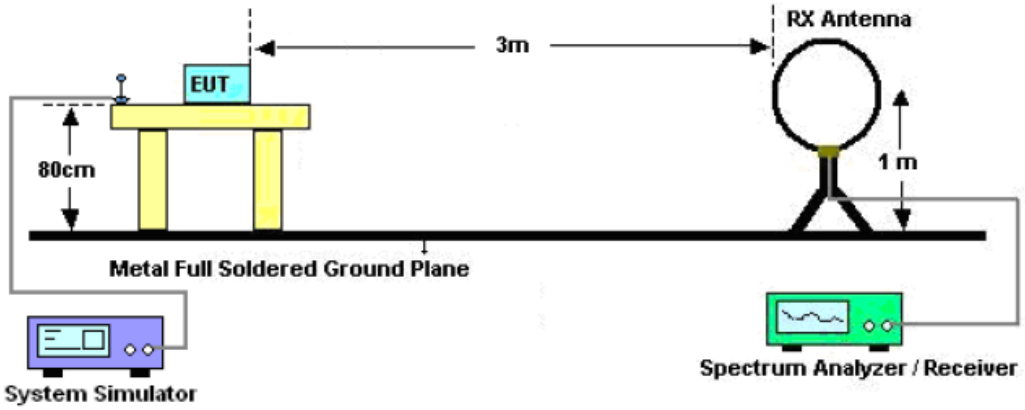
11. RADIATED EMISSION

11.1. MEASUREMENT PROCEDURE

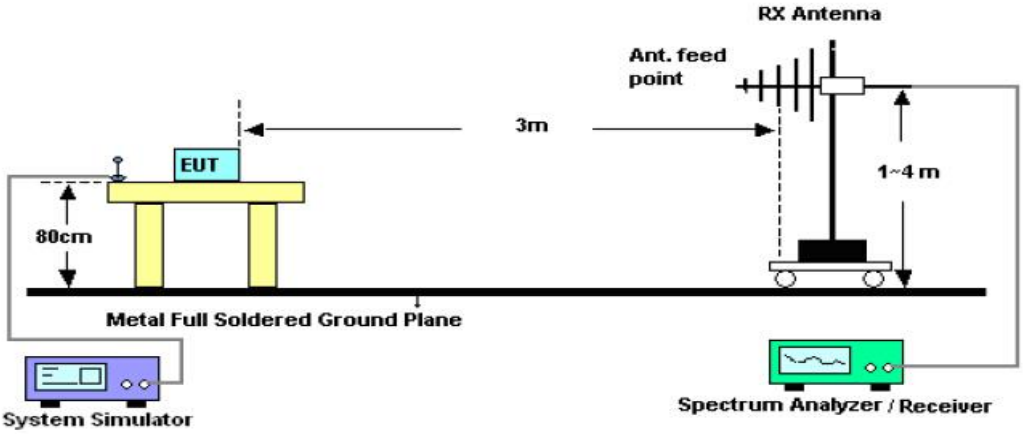
1. The EUT was placed on the top of the turntable 0.8 or 1.5 meter above ground. The phase center of the receiving antenna mounted on the top of a height-variable antenna tower was placed 3 meters far away from the turntable.
2. Power on the EUT and all the supporting units. The turntable was rotated 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 3M 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.

11.2. TEST SETUP

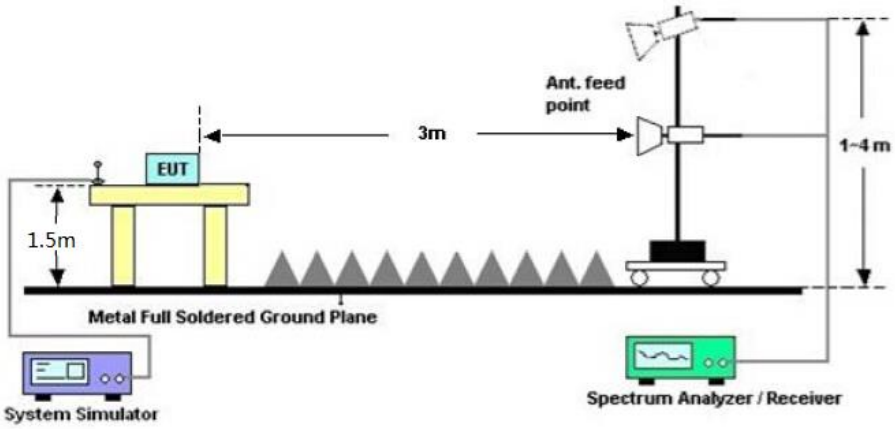
Radiated Emission Test-Setup Frequency Below 30MHz



RADIATED EMISSION TEST SETUP 30MHz-1000MHz



RADIATED EMISSION TEST SETUP ABOVE 1000MHz



11.3. LIMITS AND MEASUREMENT RESULT

15.209(a) Limit in the below table has to be followed

Frequencies (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: All modes were tested for restricted band radiated emission,
the test records reported below are the worst result compared to other modes.

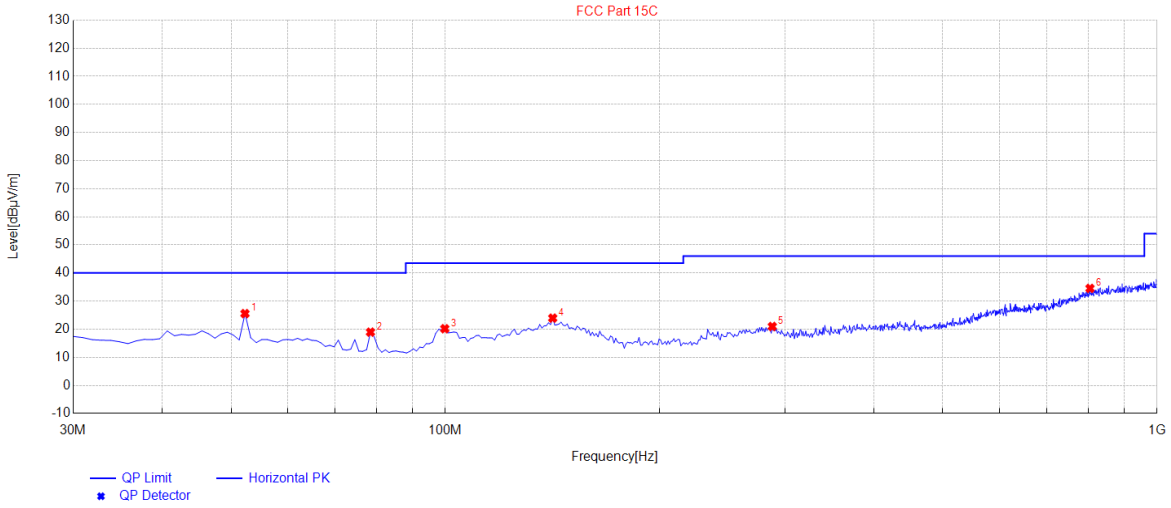
11.4. TEST RESULT

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

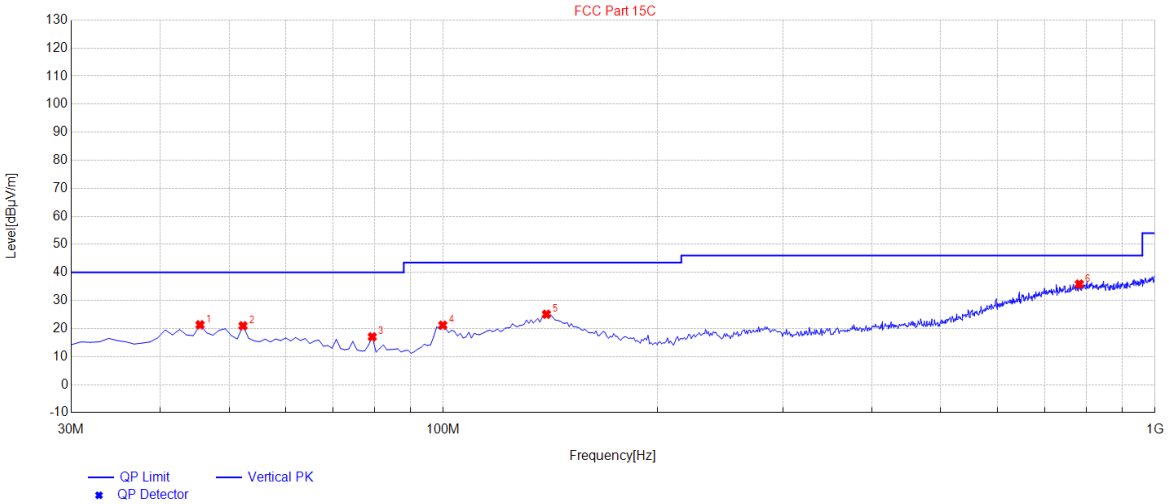
EUT	WiFi IP Camera	Model Name	RLC-510WA
Temperature	25°C	Relative Humidity	60%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11a20 5180MHz	Antenna	Horizontal



NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	52.31	25.54	11.49	40.00	14.46	150	50	Horizontal
2	78.5	18.95	7.46	40.00	21.05	150	320	Horizontal
3	99.84	20.16	11.30	43.50	23.34	150	180	Horizontal
4	141.55	23.94	17.65	43.50	19.56	150	20	Horizontal
5	288.02	20.96	15.68	46.00	25.04	150	300	Horizontal
6	805.03	34.51	29.24	46.00	11.49	150	170	Horizontal

RESULT: PASS

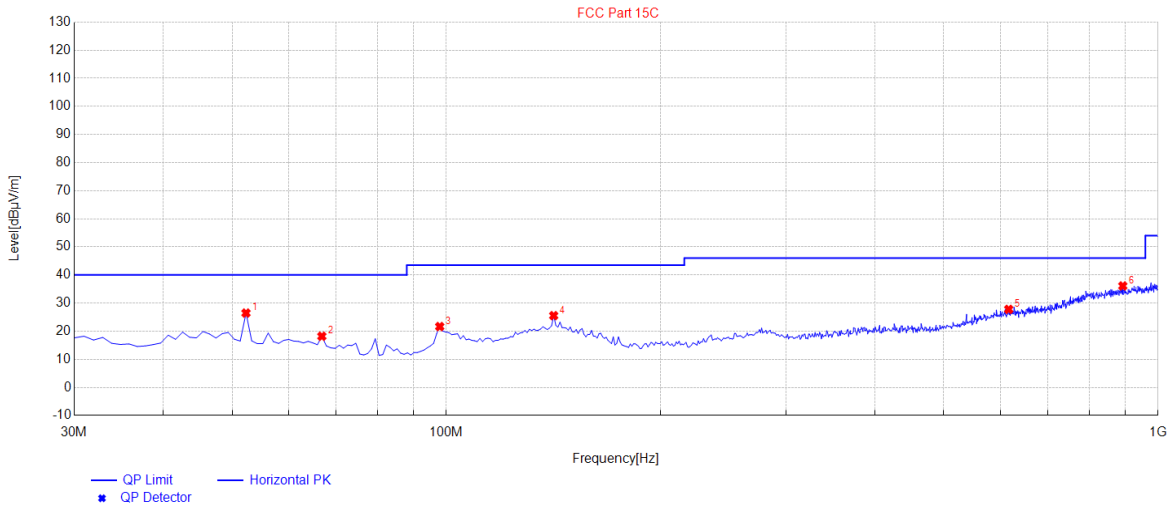
EUT	WiFi IP Camera	Model Name	RLC-510WA
Temperature	25°C	Relative Humidity	60%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11a20 510MHz	Antenna	Vertical



NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	45.52	21.33	11.26	40.00	18.67	150	60	Vertical
2	52.31	20.96	11.49	40.00	19.04	150	130	Vertical
3	79.47	17.05	7.26	40.00	22.95	150	50	Vertical
4	99.84	21.19	11.30	43.50	22.31	150	330	Vertical
5	139.61	25.09	19.79	43.50	18.41	150	130	Vertical
6	782.72	35.85	31.04	46.00	10.15	150	80	Vertical

Radiated emission from 30MHz to 1000MHz

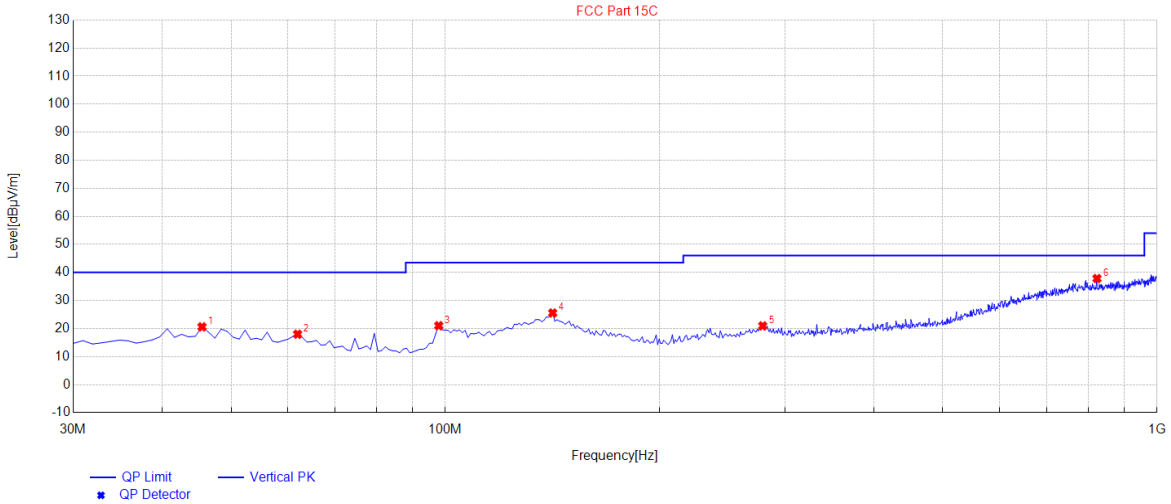
EUT	WiFi IP Camera	**Model Name**	RLC-510WA
Temperature	25℃	**Relative Humidity**	60%
Pressure	960hPa	**Test Voltage**	Normal Voltage
Test Mode	802.11a20 5260MHz	**Antenna**	Horizontal



NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	52.31	26.45	11.49	40.00	13.55	150	150	Horizontal
2	66.86	18.19	9.76	40.00	21.81	150	190	Horizontal
3	97.9	21.64	10.51	43.50	21.86	150	320	Horizontal
4	141.55	25.53	17.65	43.50	17.97	150	220	Horizontal
5	616.85	27.77	22.93	46.00	18.23	150	260	Horizontal
6	892.33	36.10	30.54	46.00	9.90	150	50	Horizontal

RESULT: PASS

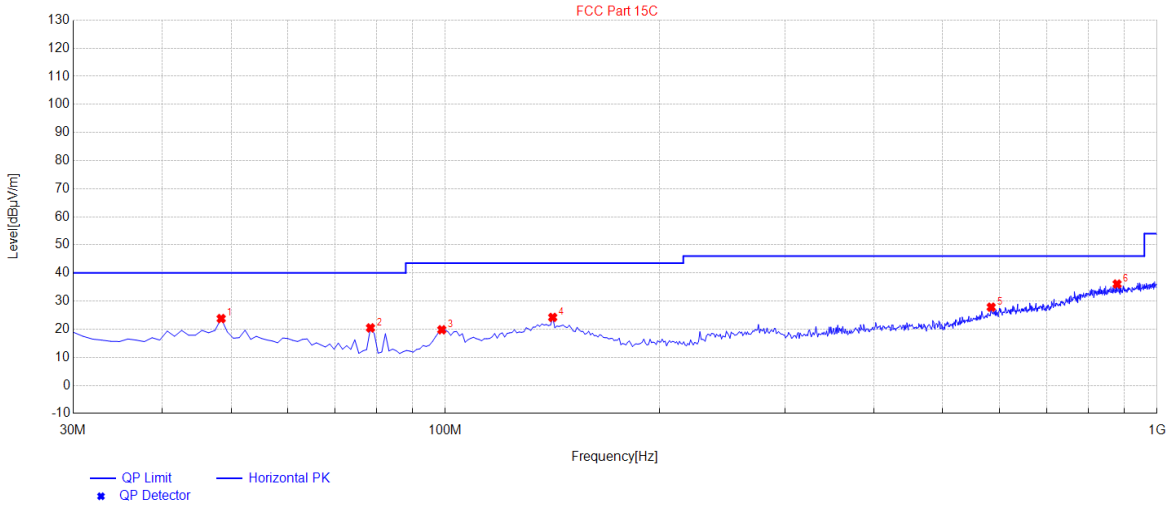
EUT	WiFi IP Camera	Model Name	RLC-510WA
Temperature	25°C	Relative Humidity	60%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11a20 5260MHz	Antenna	Vertical



NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	45.52	20.59	11.26	40.00	19.41	150	210	Vertical
2	62.01	17.97	10.58	40.00	22.03	150	280	Vertical
3	97.9	21.01	10.51	43.50	22.49	150	210	Vertical
4	141.55	25.54	19.49	43.50	17.96	150	170	Vertical
5	279.29	20.95	16.23	46.00	25.05	150	320	Vertical
6	823.46	37.82	31.52	46.00	8.18	150	340	Vertical

Radiated emission from 30MHz to 1000MHz

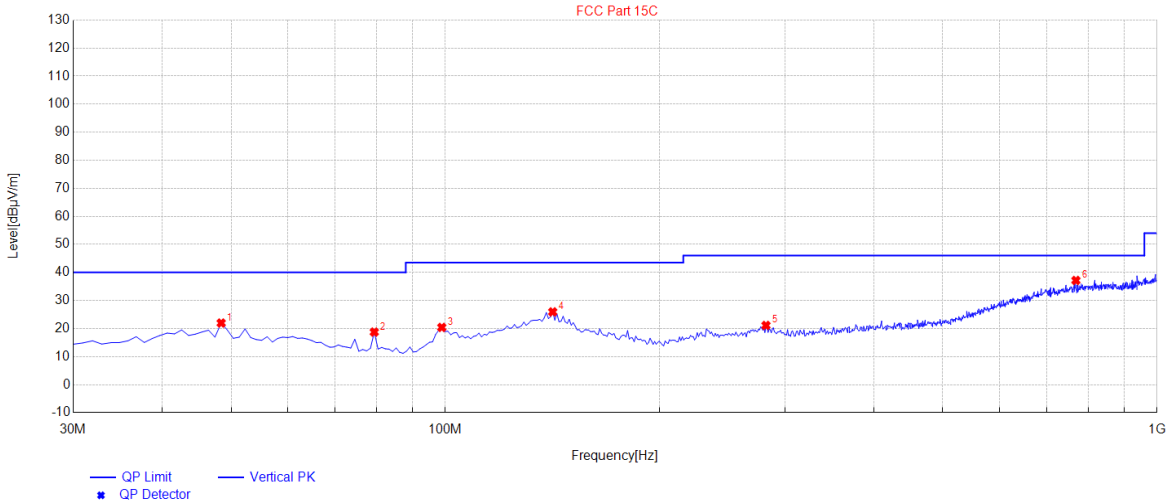
EUT	WiFi IP Camera	Model Name	RLC-510WA
Temperature	25°C	Relative Humidity	60%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11a20 5500MHz	Antenna	Horizontal



NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	48.43	23.77	11.53	40.00	16.23	150	140	Horizontal
2	78.5	20.46	7.46	40.00	19.54	150	180	Horizontal
3	98.87	19.79	10.91	43.50	23.71	150	200	Horizontal
4	141.55	24.19	17.65	43.50	19.31	150	240	Horizontal
5	584.84	27.83	22.00	46.00	18.17	150	110	Horizontal
6	878.75	36.06	30.26	46.00	9.94	150	330	Horizontal

RESULT: PASS

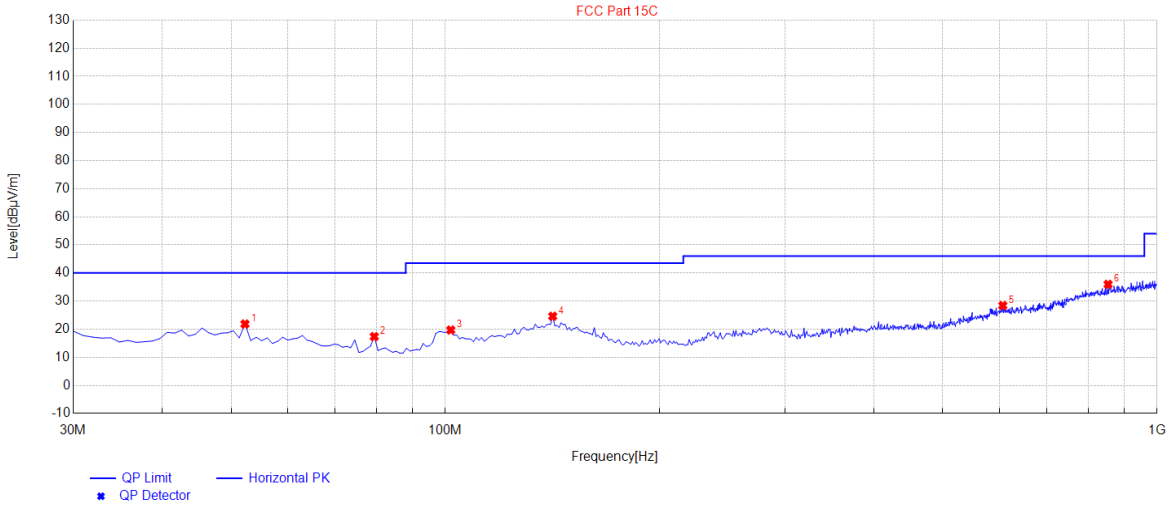
EUT	WiFi IP Camera	Model Name	RLC-510WA
Temperature	25°C	Relative Humidity	60%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11a20 5500MHz	Antenna	Vertical



NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	48.43	21.96	11.53	40.00	18.04	150	210	Vertical
2	79.47	18.73	7.26	40.00	21.27	150	290	Vertical
3	98.87	20.40	10.91	43.50	23.10	150	350	Vertical
4	141.55	25.93	19.49	43.50	17.57	150	250	Vertical
5	282.2	21.11	16.14	46.00	24.89	150	100	Vertical
6	769.14	37.15	30.70	46.00	8.85	150	120	Vertical

Radiated emission from 30MHz to 1000MHz

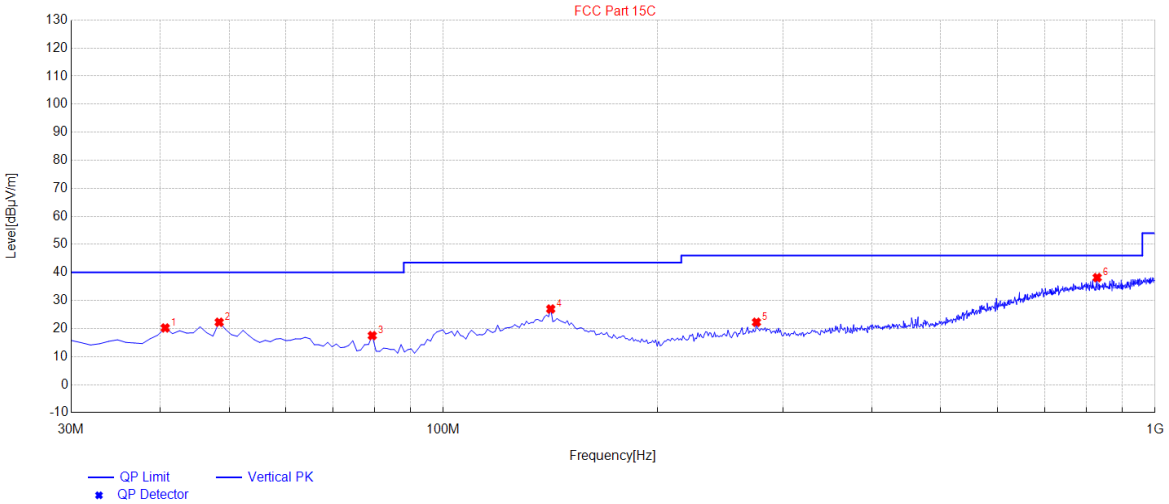
EUT	WiFi IP Camera	**Model Name**	RLC-510WA
Temperature	25°C	**Relative Humidity**	60%
Pressure	960hPa	**Test Voltage**	Normal Voltage
Test Mode	802.11a20 5745MHz	**Antenna**	Horizontal



NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	52.31	21.83	11.49	40.00	18.17	150	340	Horizontal
2	79.47	17.35	7.26	40.00	22.65	150	170	Horizontal
3	101.78	19.69	11.56	43.50	23.81	150	40	Horizontal
4	141.55	24.60	17.65	43.50	18.90	150	230	Horizontal
5	607.15	28.40	22.81	46.00	17.60	150	20	Horizontal
6	853.53	35.95	29.99	46.00	10.05	150	270	Horizontal

RESULT: PASS

EUT	WiFi IP Camera	Model Name	RLC-510WA
Temperature	25°C	Relative Humidity	60%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11a20 5745MHz	Antenna	Vertical



NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	40.67	20.20	10.79	40.00	19.80	150	220	Vertical
2	48.43	22.24	11.53	40.00	17.76	150	50	Vertical
3	79.47	17.47	7.26	40.00	22.53	150	70	Vertical
4	141.55	26.96	19.49	43.50	16.54	150	40	Vertical
5	275.41	22.24	15.88	46.00	23.76	150	260	Vertical
6	829.28	38.15	31.51	46.00	7.85	150	260	Vertical

RESULT: PASS

Note: All test channels had been tested. The 802.11a20 at 5180MHz, 5260MHz, 5500MHz and 5745MHz are 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	WiFi IP Camera	**Model Name**	RLC-510WA
Temperature	25°C	**Relative Humidity**	60%
Pressure	960hPa	**Test Voltage**	Normal Voltage
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	46.85	9.14	55.99	68.20	-12.21	peak
15540.063	40.24	10.22	50.46	74.00	-23.54	peak
15540.063	32.55	10.22	42.77	54.00	-11.23	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	46.85	9.14	55.99	68.20	-12.21	peak
15540.063	42.02	10.22	52.24	74.00	-21.76	peak
15540.063	31.53	10.22	41.75	54.00	-12.25	AVG
Remark:						
Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

EUT	WiFi IP Camera	Model Name	RLC-510WA
Temperature	25°C	Relative Humidity	60%
Pressure	960hPa	Test Voltage	Normal Voltage
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	47.23	9.14	56.37	68.20	-11.83	peak
15600.063	41.28	10.22	51.50	74.00	-22.50	peak
15600.063	33.28	10.22	43.50	54.00	-10.50	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	46.91	9.14	56.05	68.20	-12.15	peak
15600.063	40.75	10.22	50.97	74.00	-23.03	peak
15600.063	31.25	10.22	41.47	54.00	-12.53	AVG
Remark:						
Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

EUT	WiFi IP Camera	Model Name	RLC-510WA
Temperature	25°C	Relative Humidity	60%
Pressure	960hPa	Test Voltage	Normal Voltage
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	47.36	9.27	56.63	68.20	-11.57	peak
15720.063	41.85	10.38	52.23	74.00	-21.77	peak
15720.063	31.28	10.38	41.66	54.00	-12.34	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	46.96	9.27	56.23	68.20	-11.97	peak
15720.063	42.14	10.38	52.52	74.00	-21.48	peak
15720.063	31.78	10.38	42.16	54.00	-11.84	AVG
Remark:						
Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

Radiated emission above 1GHz

EUT	WiFi IP Camera	**Model Name**	RLC-510WA
Temperature	25°C	**Relative Humidity**	60%
Pressure	960hPa	**Test Voltage**	Normal Voltage
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
10520.022	48.96	9.14	58.10	68.20	-10.10	peak
15780.054	41.85	10.22	52.07	74.00	-21.93	peak
15780.054	32.88	10.22	43.10	54.00	-10.90	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
10520.022	48.12	9.14	57.26	68.20	-10.94	peak
15780.054	41.28	10.22	51.50	74.00	-22.50	peak
15780.054	32.05	10.22	42.27	54.00	-11.73	AVG
Remark:						
Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

EUT	WiFi IP Camera	Model Name	RLC-510WA
Temperature	25°C	Relative Humidity	60%
Pressure	960hPa	Test Voltage	Normal Voltage
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
10600.022	50.25	9.14	59.39	74.00	-14.61	peak
10600.022	32.28	9.14	41.42	54.00	-12.58	AVG
15900.045	49.52	10.22	59.74	74.00	-14.26	peak
15900.045	32.25	10.22	42.47	54.00	-11.53	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
10600.022	48.52	9.14	57.66	74.00	-16.34	peak
10600.022	32.74	9.14	41.88	54.00	-12.12	AVG
15900.045	48.37	10.22	58.59	74.00	-15.41	peak
15900.045	30.78	10.22	41.00	54.00	-13.00	AVG
Remark:						
Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

EUT	WiFi IP Camera	Model Name	RLC-510WA
Temperature	25°C	Relative Humidity	60%
Pressure	960hPa	Test Voltage	Normal Voltage
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
10640.015	47.85	9.14	56.99	74.00	-17.01	peak
10640.015	31.22	9.14	40.36	54.00	-13.64	AVG
15900.045	47.37	10.22	57.59	74.00	-16.41	peak
15900.045	32.05	10.22	42.27	54.00	-11.73	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
10640.015	48.52	9.14	57.66	74.00	-16.34	peak
10640.015	32.27	9.14	41.41	54.00	-12.59	AVG
15900.045	45.93	10.22	56.15	74.00	-17.85	peak
15900.045	30.25	10.22	40.47	54.00	-13.53	AVG
Remark:						
Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

Radiated emission above 1GHz

EUT	5G Smart phone	**Model Name**	Glory G1
Temperature	25°C	**Relative Humidity**	60%
Pressure	960hPa	**Test Voltage**	Normal Voltage
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
11000.056	48.02	9.14	57.16	74.00	-16.84	peak
11000.056	32.04	9.14	41.18	54.00	-12.82	AVG
16500.023	46.63	10.22	56.85	68.20	-11.35	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
11000.056	49.78	9.14	58.92	74.00	-15.08	peak
11000.056	32.22	9.14	41.36	54.00	-12.64	AVG
16500.023	43.58	10.22	53.80	68.20	-14.40	peak
Remark:						
Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

EUT	5G Smart phone	Model Name	Glory G1
Temperature	25°C	Relative Humidity	60%
Pressure	960hPa	Test Voltage	Normal Voltage
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
11200.022	46.59	9.14	55.73	74.00	-18.27	peak
11200.022	33.52	9.14	42.66	54.00	-11.34	AVG
16800.025	46.08	10.22	56.30	68.20	-11.90	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
11200.022	48.12	9.14	57.26	74.00	-16.74	peak
11200.022	31.96	9.14	41.10	54.00	-12.90	AVG
16800.025	41.85	10.22	52.07	68.20	-16.13	peak
Remark:						
Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

EUT	5G Smart phone	Model Name	Glory G1
Temperature	25°C	Relative Humidity	60%
Pressure	960hPa	Test Voltage	Normal Voltage
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
11400.025	48.58	9.14	57.72	74.00	-16.28	peak
11400.025	32.18	9.14	41.32	54.00	-12.68	AVG
17100.056	42.28	10.22	52.50	68.20	-15.70	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
11400.025	48.96	9.14	58.10	74.00	-15.90	peak
11400.025	32.04	9.14	41.18	54.00	-12.82	AVG
17100.056	41.89	10.22	52.11	68.20	-16.09	peak
Remark:						
Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

EUT	WiFi IP Camera	Model Name	RLC-510WA
Temperature	25°C	Relative Humidity	60%
Pressure	960hPa	Test Voltage	Normal Voltage
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	46.28	9.42	55.70	74.00	-18.30	peak
11490.042	36.87	9.42	46.29	54.00	-7.71	AVG
17235.063	40.34	10.51	50.85	68.20	-17.35	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	43.89	9.42	53.31	74.00	-20.69	peak
11490.042	35.47	9.42	44.89	54.00	-9.11	AVG
17235.063	41.27	10.51	51.78	68.20	-16.42	peak
Remark:						
Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

EUT	WiFi IP Camera	Model Name	RLC-510WA
Temperature	25°C	Relative Humidity	60%
Pressure	960hPa	Test Voltage	Normal Voltage
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	47.04	9.42	56.46	74.00	-17.54	peak
11570.042	35.85	9.42	45.27	54.00	-8.73	AVG
17355.063	42.37	10.51	52.88	68.20	-15.32	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	46.28	9.42	55.70	74.00	-18.30	peak
11570.042	36.38	9.42	45.80	54.00	-8.20	AVG
17355.063	41.74	10.51	52.25	68.20	-15.95	peak
Remark:						
Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

EUT	WiFi IP Camera	Model Name	RLC-510WA
Temperature	25°C	Relative Humidity	60%
Pressure	960hPa	Test Voltage	Normal Voltage
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	47.39	9.62	57.01	74.00	-16.99	peak
11650.042	38.12	9.62	47.74	54.00	-6.26	AVG
17475.063	43.11	10.75	53.86	68.20	-14.34	peak
Remark:						
Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

RADIATED EMISSION ABOVE 1GHZ–Vertical

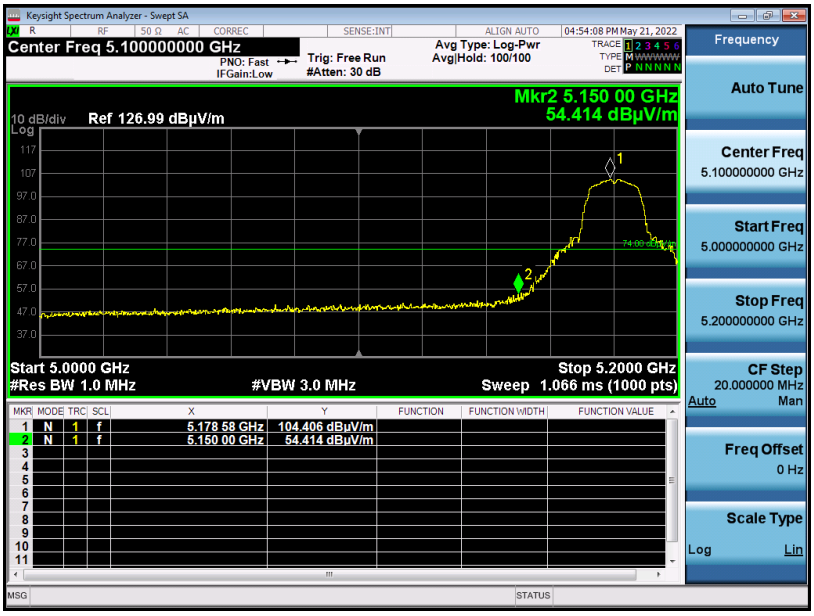
Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Value Type
11650.042	45.28	9.62	54.90	74.00	-19.10	peak
11650.042	36.12	9.62	45.74	54.00	-8.26	AVG
17475.063	40.91	10.75	51.66	68.20	-16.54	peak
Remark:						
Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

Note: All test channels had been tested. The 802.11a20 is the worst case and recorded in the test report.
Other frequencies radiation emission from 1GHz to 40GHz at least have 20dB margin and not 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.

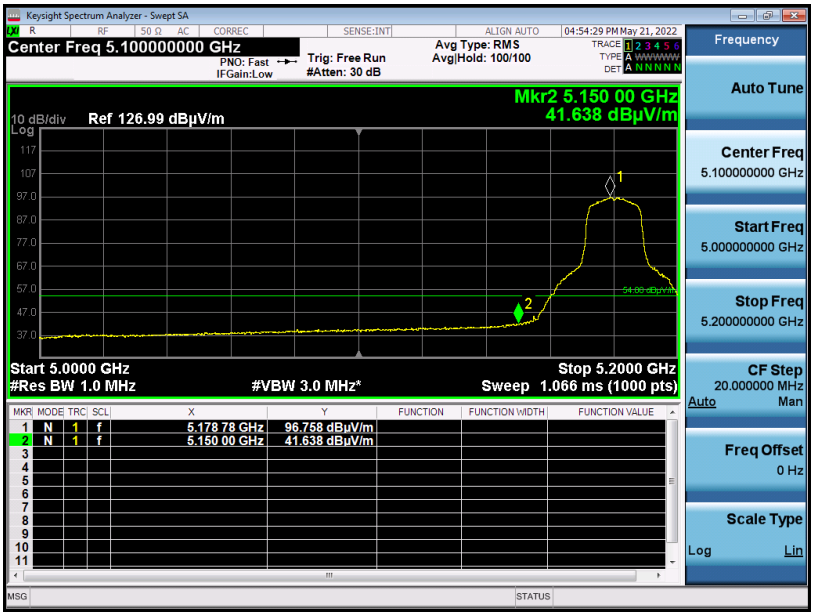
Test result for band edge emission at restricted bands

EUT	WiFi IP Camera	Model Name	RLC-510WA
Temperature	25℃	Relative Humidity	60%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11a20 5180MHz	Antenna	Horizontal

Test Graph for Peak Measurement



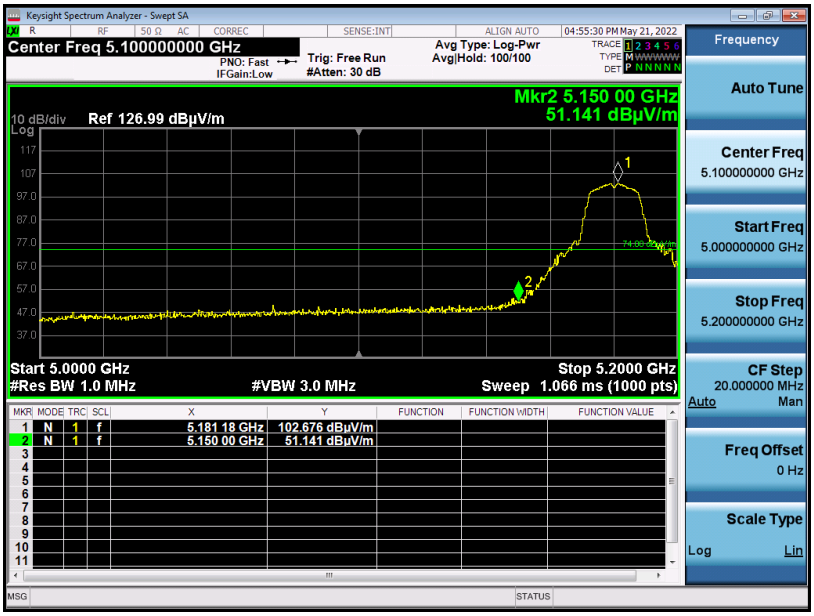
Test Graph for Average Measurement



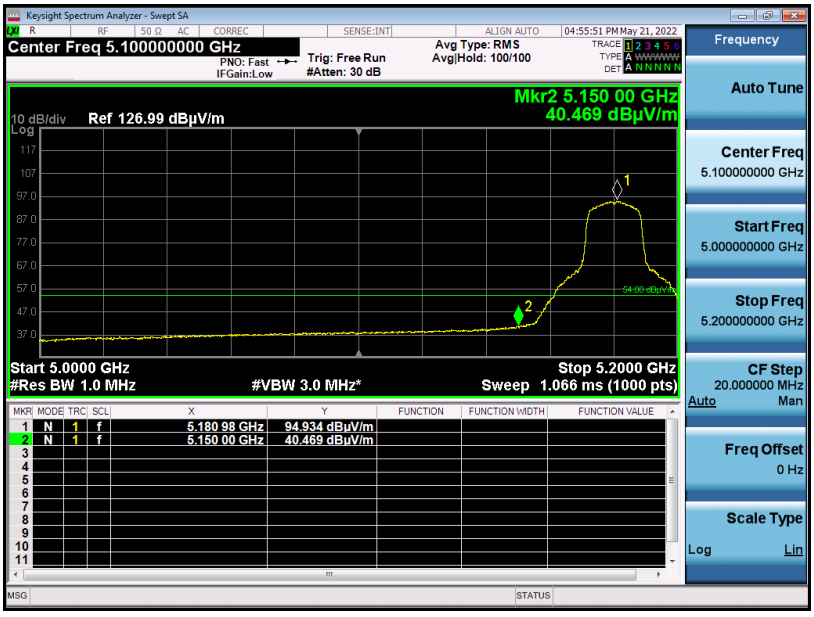
RESULT: PASS

EUT	WiFi IP Camera	Model Name	RLC-510WA
Temperature	25℃	Relative Humidity	60%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11a20 5180MHz	Antenna	Vertical

Test Graph for Peak Measurement



Test Graph for Average Measurement

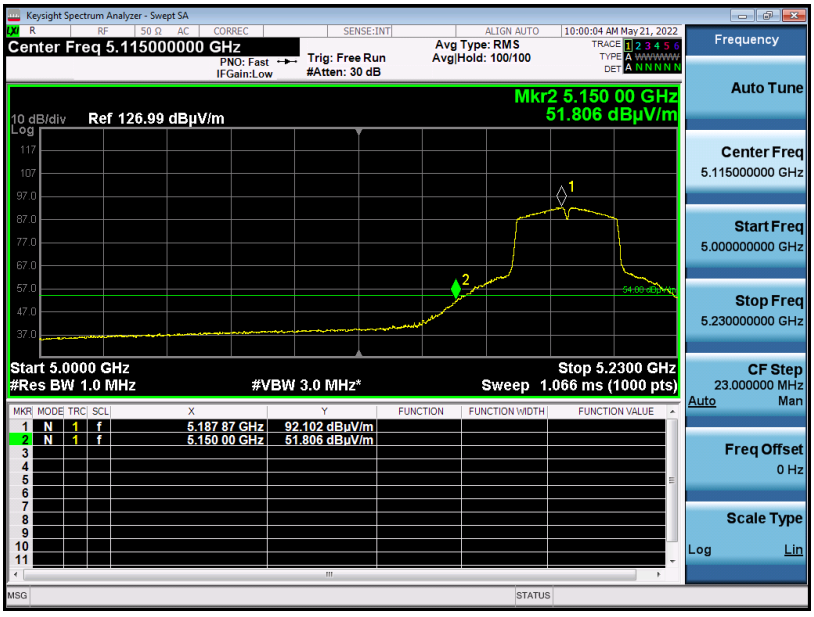


RESULT: PASS

EUT	WiFi IP Camera	Model Name	RLC-510WA
Temperature	25℃	Relative Humidity	60%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11n40 5190MHz	Antenna	Horizontal

Test Graph for Peak Measurement

Test Graph for Average Measurement

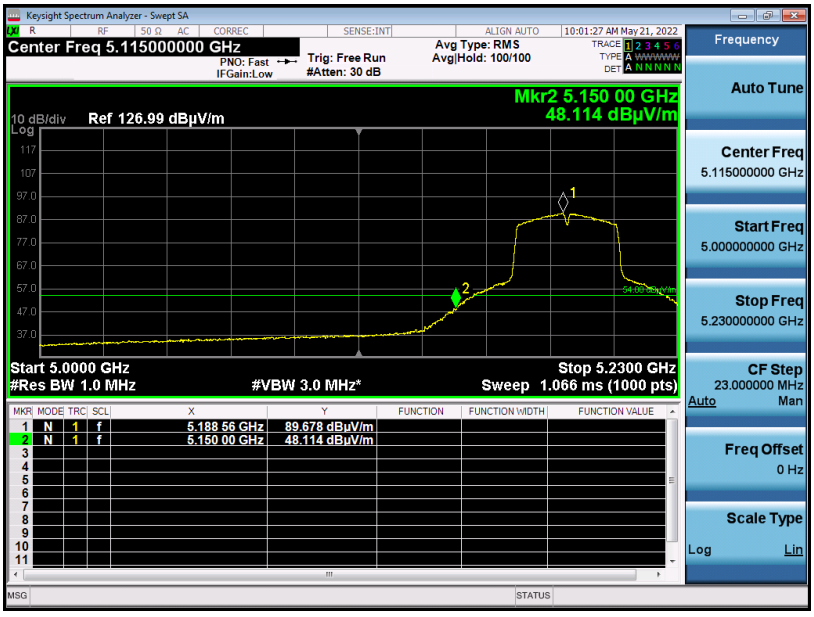


RESULT: PASS

EUT	WiFi IP Camera	Model Name	RLC-510WA
Temperature	25℃	Relative Humidity	60%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11n40 5190MHz	Antenna	Vertical

Test Graph for Peak Measurement

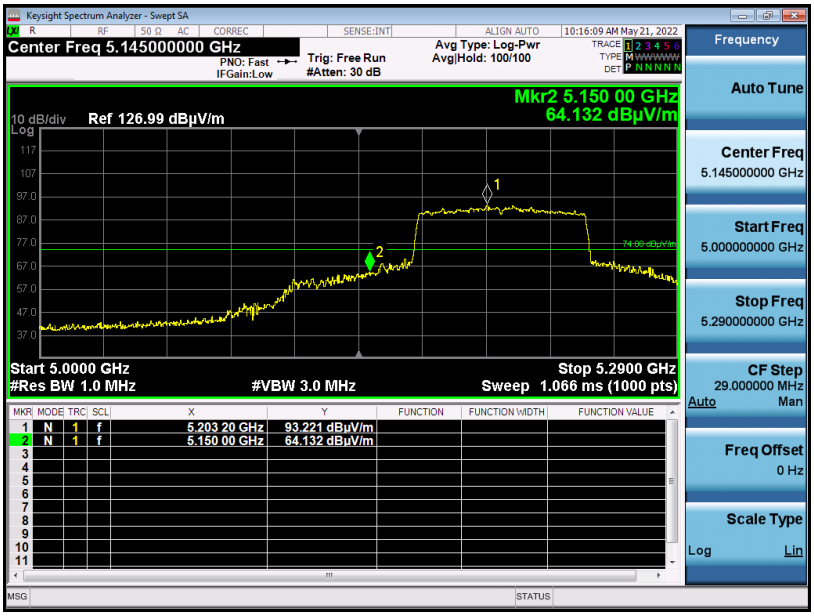
Test Graph for Average Measurement



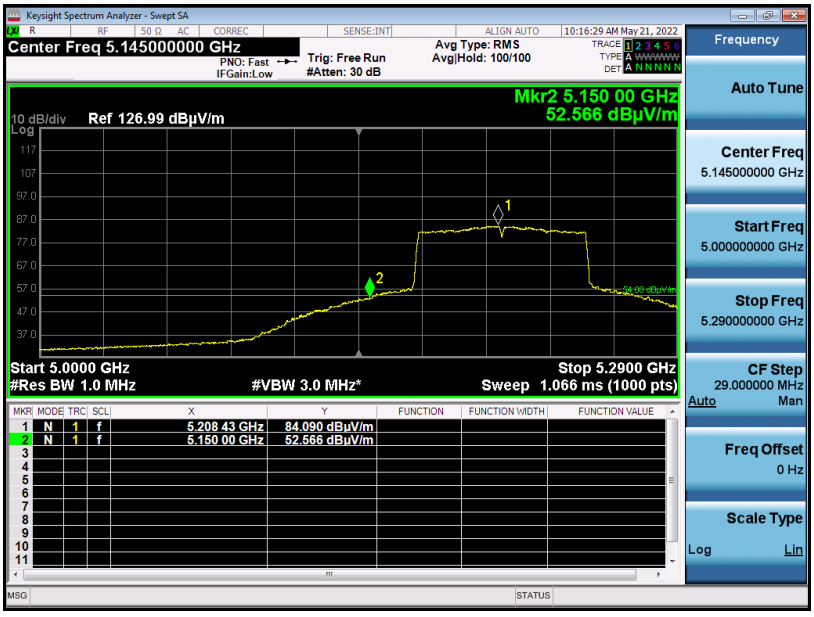
RESULT: PASS

EUT	WiFi IP Camera	Model Name	RLC-510WA
Temperature	25°C	Relative Humidity	60%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11ac80 5210MHz	Antenna	Horizontal

Test Graph for Peak Measurement



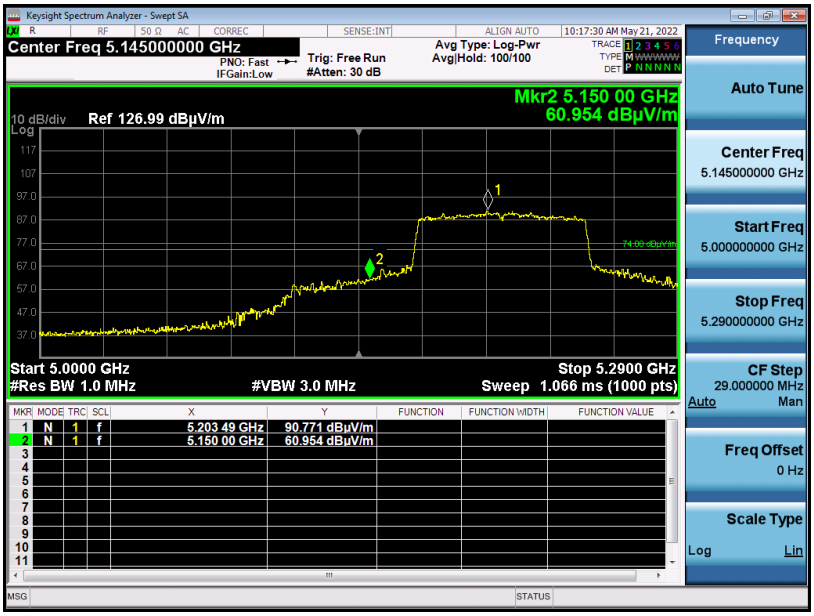
Test Graph for Average Measurement



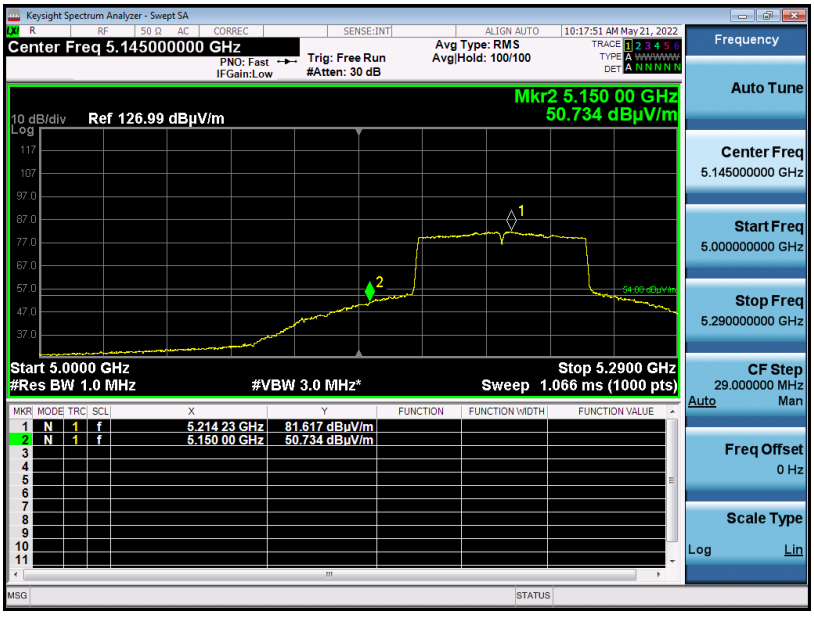
RESULT: PASS

EUT	WiFi IP Camera	Model Name	RLC-510WA
Temperature	25℃	Relative Humidity	60%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11ac80 5210MHz	Antenna	Vertical

Test Graph for Peak Measurement



Test Graph for Average Measurement



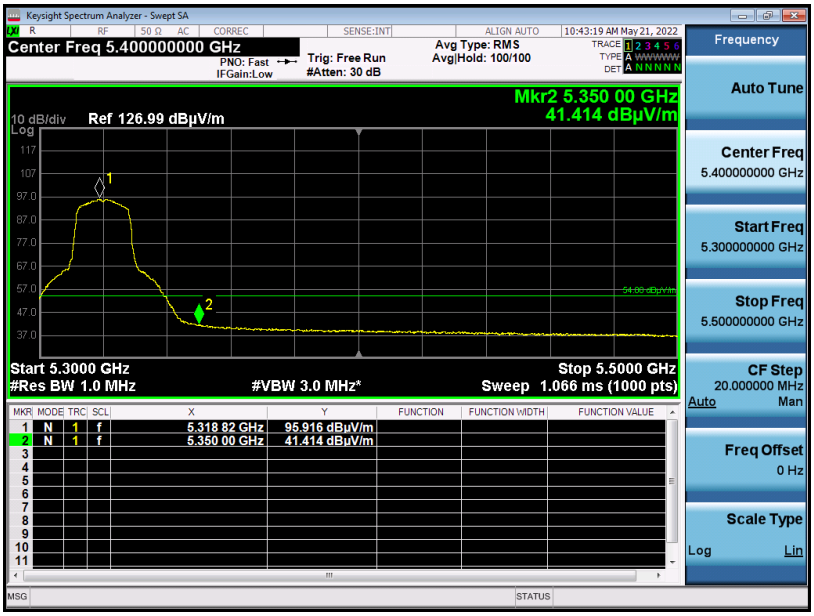
RESULT: PASS

Test result for band edge emission at restricted bands BAND 2

EUT	WiFi IP Camera	Model Name	RLC-510WA
Temperature	25℃	Relative Humidity	60%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11a20 5180MHz	Antenna	Horizontal

Test Graph for Peak Measurement

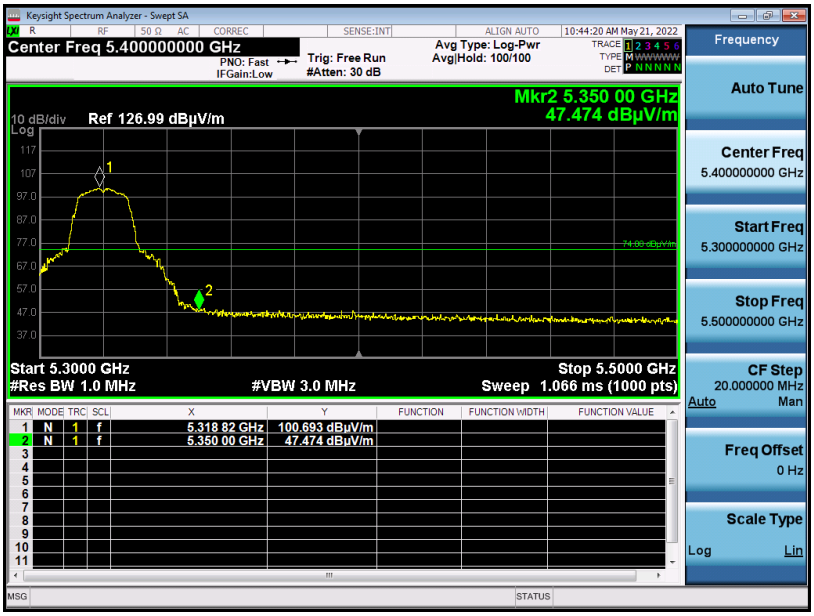
Test Graph for Average Measurement



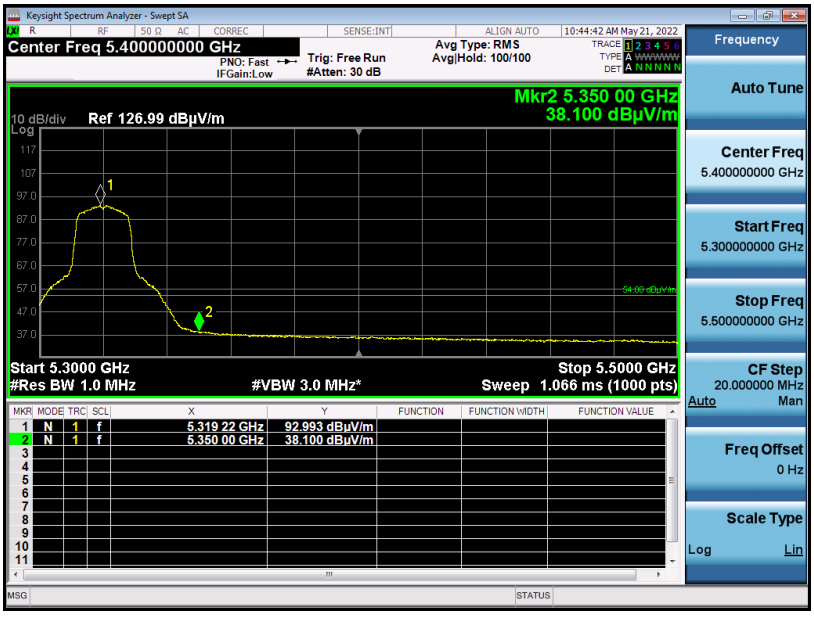
RESULT: PASS

EUT	WiFi IP Camera	Model Name	RLC-510WA
Temperature	25℃	Relative Humidity	60%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11a20 5180MHz	Antenna	Vertical

Test Graph for Peak Measurement



Test Graph for Average Measurement

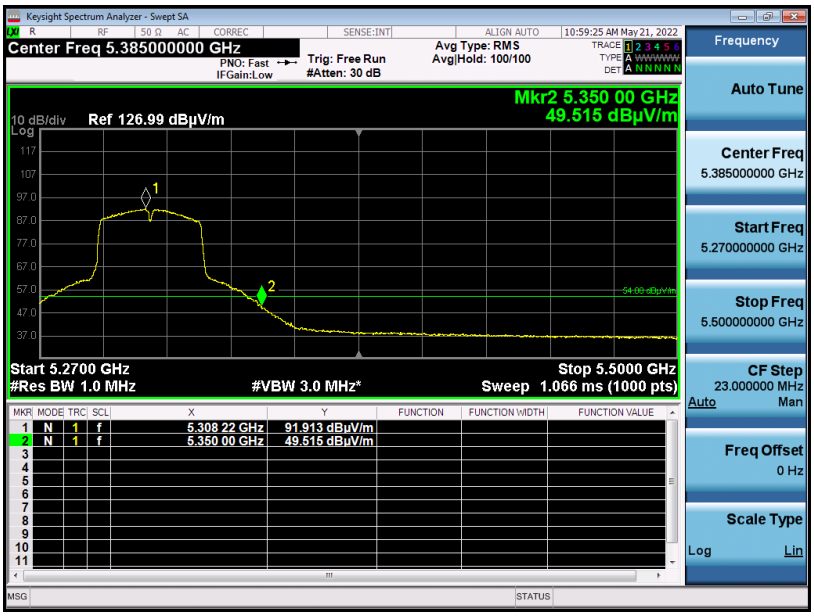


RESULT: PASS

EUT	WiFi IP Camera	Model Name	RLC-510WA
Temperature	25℃	Relative Humidity	60%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11n40 5190MHz	Antenna	Horizontal

Test Graph for Peak Measurement

Test Graph for Average Measurement

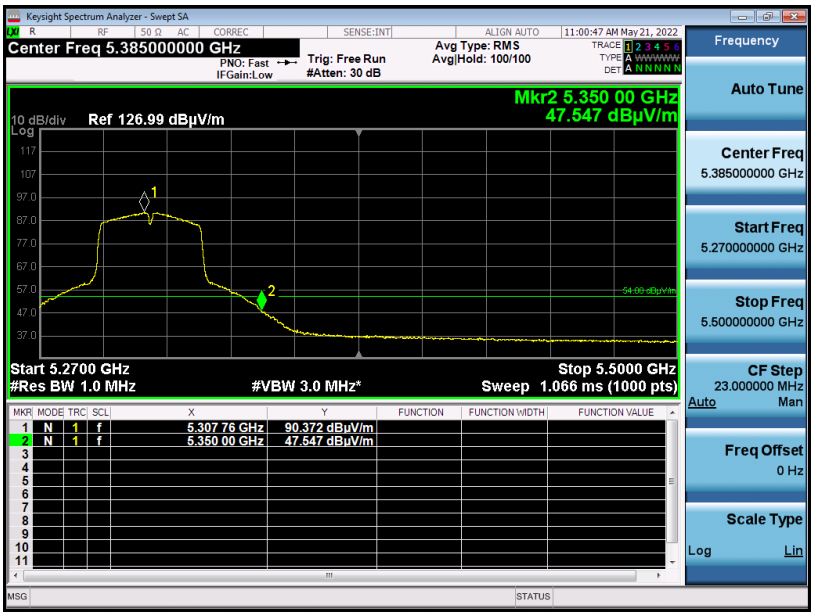


RESULT: PASS

EUT	WiFi IP Camera	Model Name	RLC-510WA
Temperature	25℃	Relative Humidity	60%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11n40 5190MHz	Antenna	Vertical

Test Graph for Peak Measurement

Test Graph for Average Measurement

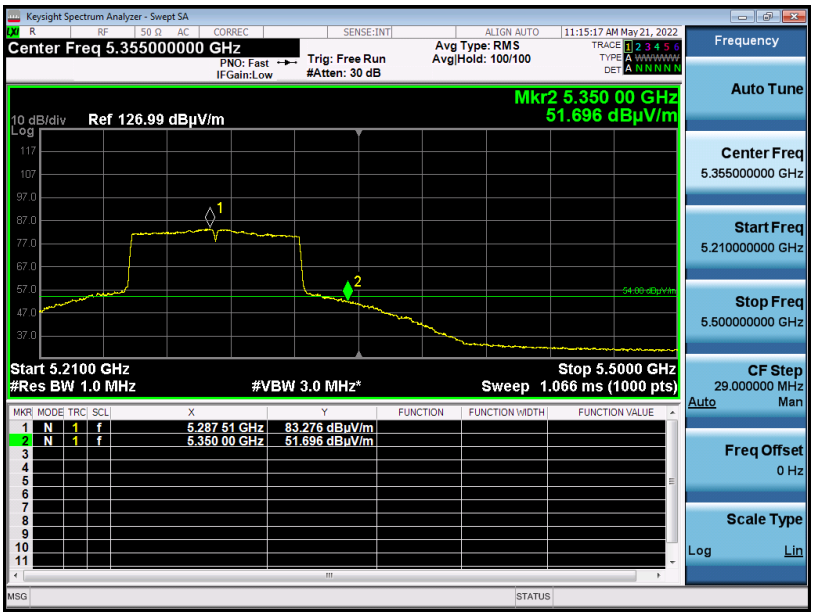


RESULT: PASS

EUT	WiFi IP Camera	Model Name	RLC-510WA
Temperature	25℃	Relative Humidity	60%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11ac80 5210MHz	Antenna	Horizontal

Test Graph for Peak Measurement

Test Graph for Average Measurement

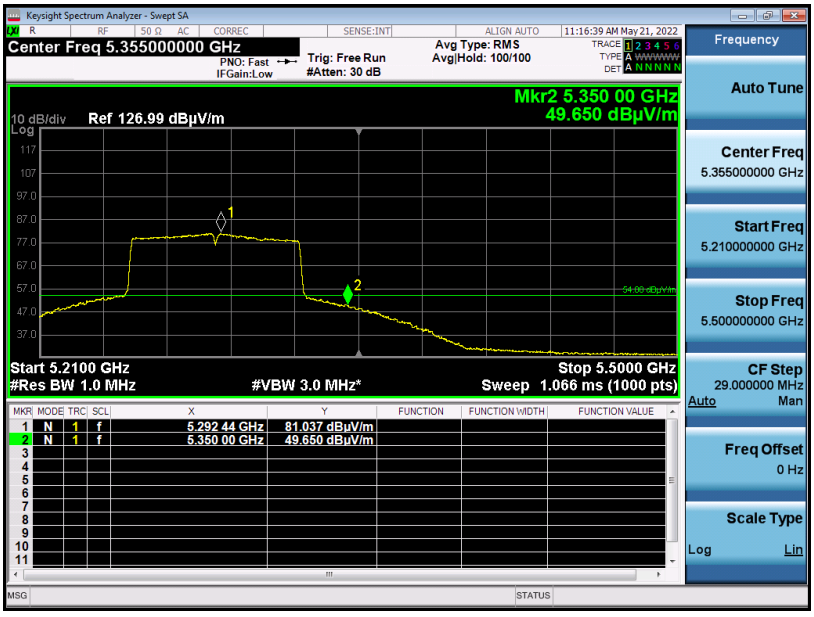


RESULT: PASS

EUT	WiFi IP Camera	Model Name	RLC-510WA
Temperature	25℃	Relative Humidity	60%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11ac80 5210MHz	Antenna	Vertical

Test Graph for Peak Measurement

Test Graph for Average Measurement

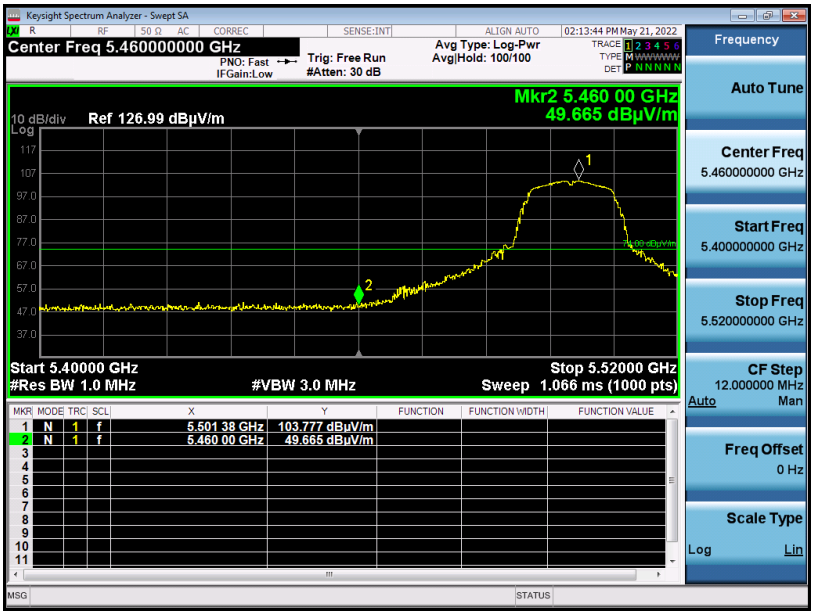


RESULT: PASS

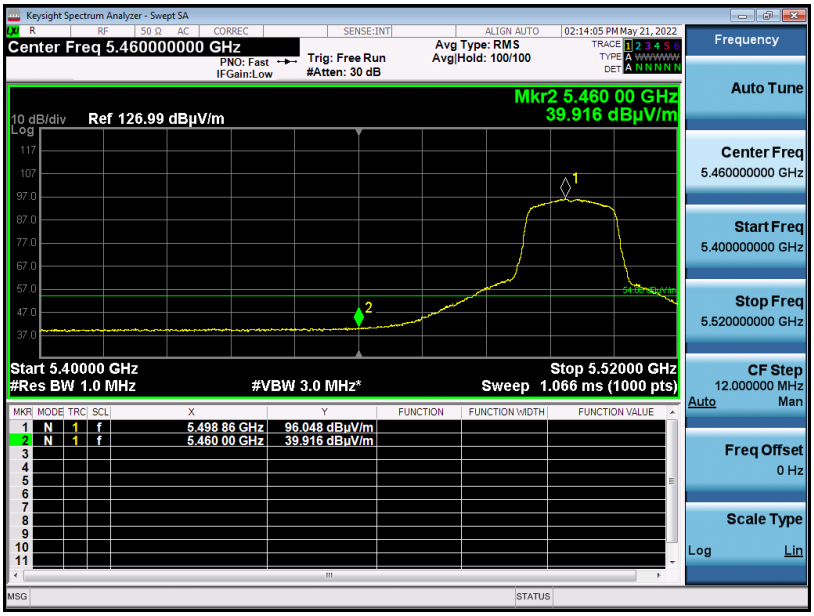
Test result for band edge emission at restricted bands BAND 3

EUT	WiFi IP Camera	Model Name	RLC-510WA
Temperature	25℃	Relative Humidity	60%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11a20 5180MHz	Antenna	Horizontal

Test Graph for Peak Measurement



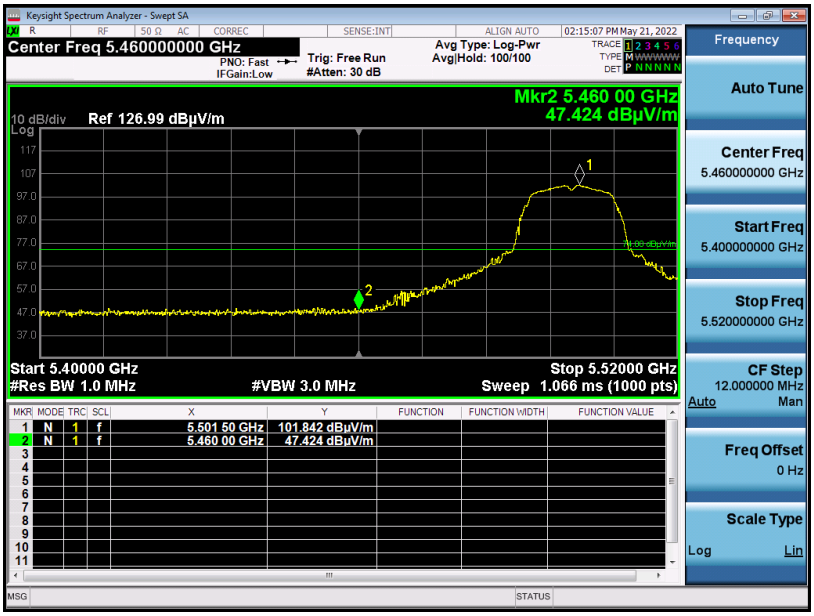
Test Graph for Average Measurement



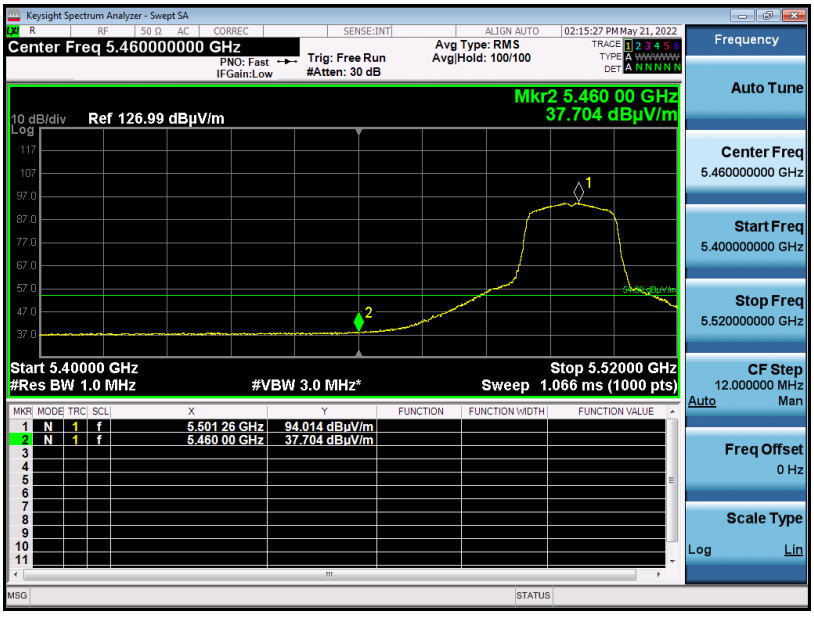
RESULT: PASS

EUT	WiFi IP Camera	Model Name	RLC-510WA
Temperature	25℃	Relative Humidity	60%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11a20 5180MHz	Antenna	Vertical

Test Graph for Peak Measurement



Test Graph for Average Measurement

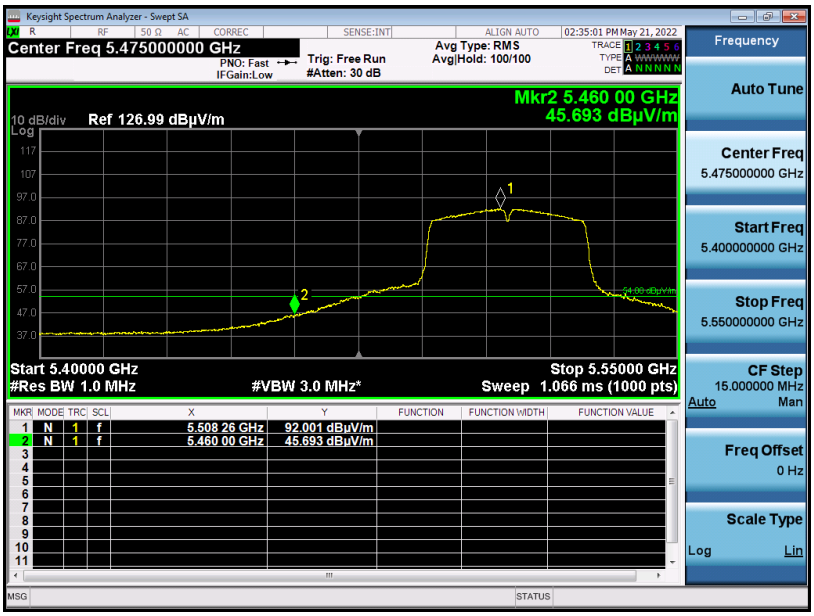


RESULT: PASS

EUT	WiFi IP Camera	Model Name	RLC-510WA
Temperature	25℃	Relative Humidity	60%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11n40 5190MHz	Antenna	Horizontal

Test Graph for Peak Measurement

Test Graph for Average Measurement

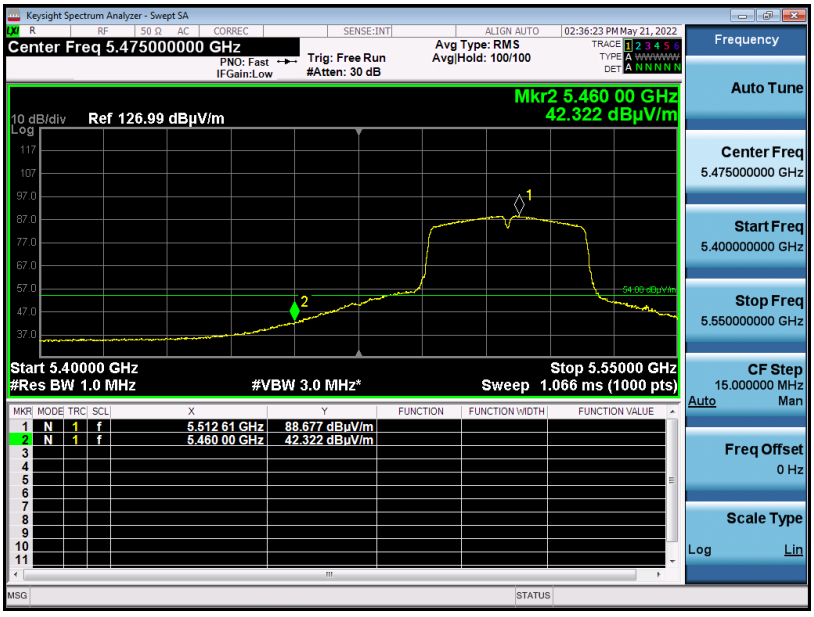


RESULT: PASS

EUT	WiFi IP Camera	Model Name	RLC-510WA
Temperature	25℃	Relative Humidity	60%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11n40 5190MHz	Antenna	Vertical

Test Graph for Peak Measurement

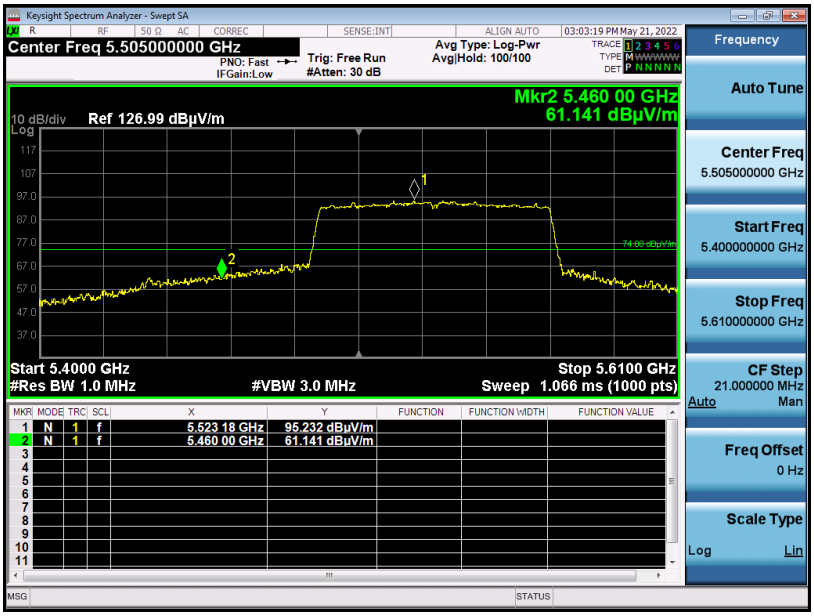
Test Graph for Average Measurement



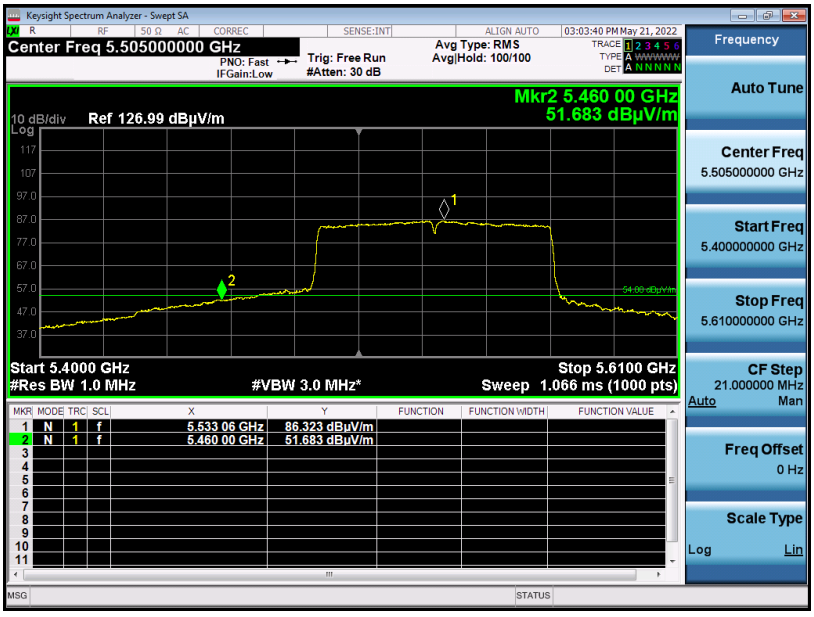
RESULT: PASS

EUT	WiFi IP Camera	Model Name	RLC-510WA
Temperature	25℃	Relative Humidity	60%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11ac80 5210MHz	Antenna	Horizontal

Test Graph for Peak Measurement



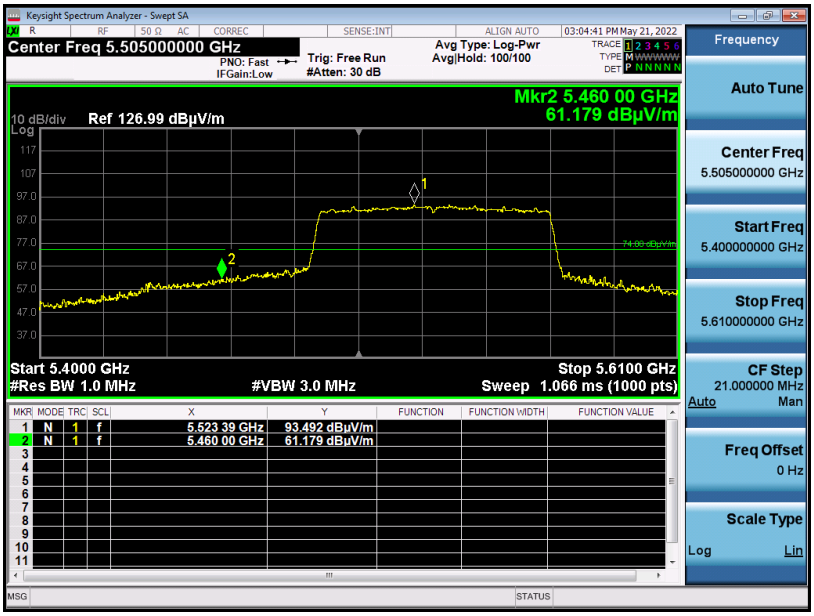
Test Graph for Average Measurement



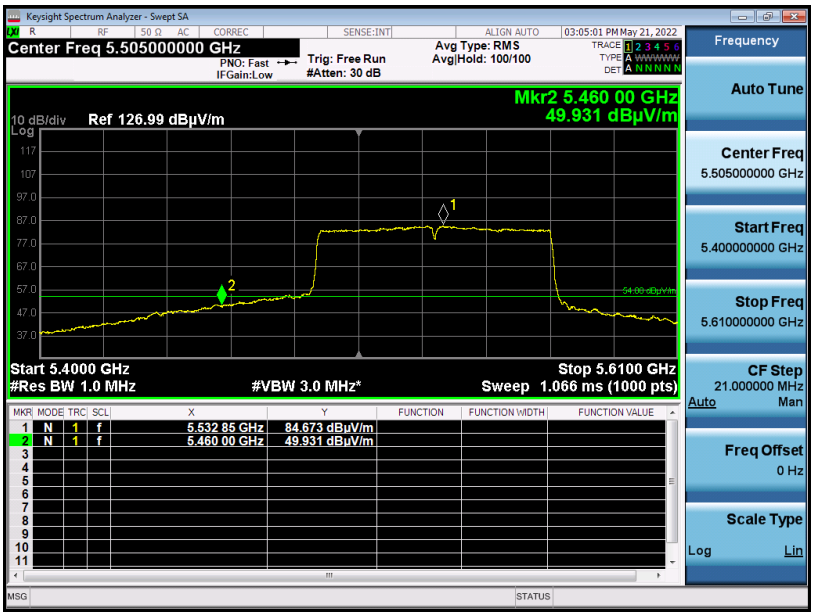
RESULT: PASS

EUT	WiFi IP Camera	Model Name	RLC-510WA
Temperature	25℃	Relative Humidity	60%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11ac80 5210MHz	Antenna	Vertical

Test Graph for Peak Measurement



Test Graph for Average Measurement



RESULT: PASS

Note: 1. All the 20MHz bandwidth modulation had been tested, the 802.11a20 at 5180MHz, 5260MHz, 5500MHz were the worst case and record in his test report. All the 40MHz bandwidth modulation had been tested, the 802.11N40 at 5190MHz, 5270MHz, 5510MHz were the worst case and record in his test report. All the 80MHz bandwidth modulation had been tested, the 802.11AC80 at 5210MHz, 5290MHz and 5610MHz were the worst case and record in his test report.

2. The factor had been edited in the “Input Correction” of the Spectrum Analyzer.

3. Only the data of band edge emission at the restricted band 4.5GHz-5.15GHz and 5.35GHz-5.46GHz record in the report. Other restricted band 7.25GHz-7.77GHz were considered as ambient noise. No recording in the test report.

4.The sideband standard of U NII-3 frequency band is not defined, the transmitted signal does not fall in the restricted band, and the edge signal is far away from the edge of other restricted bands, and it is not recorded in the report.

12. LINE CONDUCTED EMISSION TEST

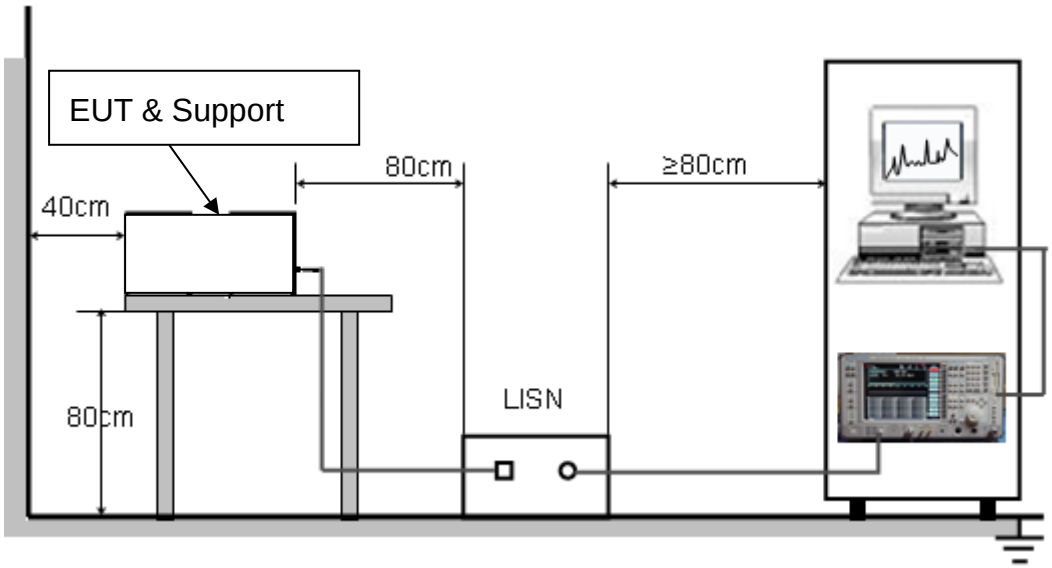
12.1. LIMITS OF LINE CONDUCTED EMISSION TEST

Frequency	Maximum RF Line Voltage	
	Q.P (dBμV)	Average (dBμV)
150kHz~500kHz	66-56	56-46
500kHz~5MHz	56	46
5MHz~30MHz	60	50

Note:

1. The lower limit shall apply at the transition frequency.
2. The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.50MHz.

12.2. BLOCK DIAGRAM OF LINE CONDUCTED EMISSION TEST



12.3. PRELIMINARY PROCEDURE OF LINE CONDUCTED EMISSION TEST

1. The equipment was set up as per the test configuration to simulate typical actual usage per the user's manual. When the EUT is a tabletop system, a wooden table with a height of 0.8 meters is used and is placed on the ground plane as per ANSI C63.10 (see Test Facility for the dimensions of the ground plane used). When the EUT is a floor-standing equipment, it is placed on the ground plane which has a 3-12 mm non-conductive covering to insulate the EUT from the ground plane.
2. Support equipment, if needed, was placed as per ANSI C63.10.
3. All I/O cables were positioned to simulate typical actual usage as per ANSI C63.10.
4. All support equipment received AC120V/60Hz power from a LISN, if any.
5. The EUT received charging voltage by adapter which received 120V/60Hzpower by a LISN.
6. The test program was started. Emissions were measured on each current carrying line of the EUT using a spectrum Analyzer / Receiver connected to the LISN powering the EUT. The LISN has two monitoring points: Line 1 (Hot Side) and Line 2 (Neutral Side). Two scans were taken: one with Line 1 connected to Analyzer / Receiver and Line 2 connected to a 50 Ohm load; the second scan had Line 1 connected to a 50 Ohm load and Line 2 connected to the Analyzer / Receiver.
7. Analyzer / Receiver scanned from 150 kHz to 30MHz for emissions in each of the test modes.
8. During the above scans, the emissions were maximized by cable manipulation.
9. The test mode(s) were scanned during the preliminary test.

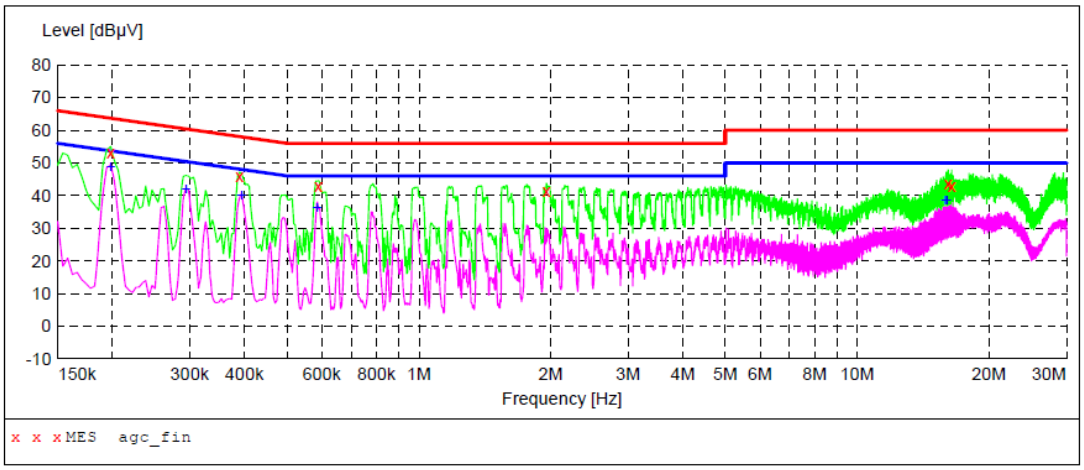
Then, the EUT configuration and cable configuration of the above highest emission level were recorded for reference of final testing.

12.4. FINAL PROCEDURE OF LINE CONDUCTED EMISSION TEST

1. EUT and support equipment was set up on the test bench as per step 2 of the preliminary test.
2. A scan was taken on both power lines, Line 1 and Line 2, recording at least the six highest emissions. Emission frequency and amplitude were recorded into a computer in which correction factors were used to calculate the emission level and compare reading to the applicable limit. If EUT emission level was less –2dB to the A.V. limit in Peak mode, then the emission signal was re-checked using Q.P and Average detector.
3. The test data of the worst case was reported on the Summary Data page.

12.5. TEST RESULT OF LINE CONDUCTED EMISSION TEST

LINE CONDUCTED EMISSION TEST-L



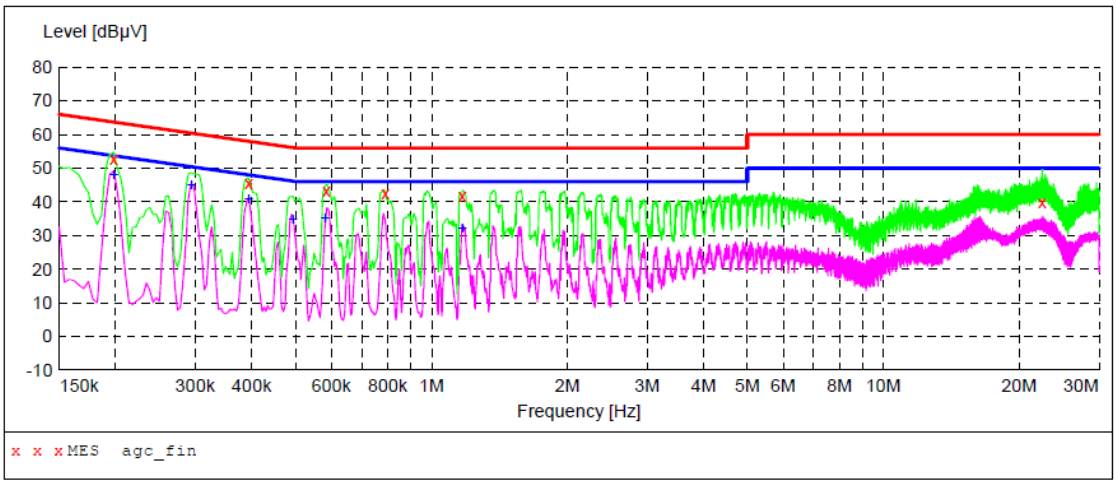
MEASUREMENT RESULT: "agc_fin"

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line
0.198000	53.30	6.6	64	10.4	QP	L1
0.390000	45.80	5.7	58	12.3	QP	L1
0.590000	42.90	5.4	56	13.1	QP	L1
1.954000	41.20	6.4	56	14.8	QP	L1
16.098000	43.50	8.4	60	16.5	QP	L1
16.418000	42.80	8.5	60	17.2	QP	L1

MEASUREMENT RESULT: "agc_fin2"

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line
0.198000	48.90	6.6	54	4.8	AV	L1
0.294000	42.30	6.1	50	8.1	AV	L1
0.394000	40.30	5.7	48	7.7	AV	L1
0.586000	36.40	5.4	46	9.6	AV	L1
15.898000	38.80	8.4	50	11.2	AV	L1
16.030000	38.60	8.4	50	11.4	AV	L1

LINE CONDUCTED EMISSION TEST-N



MEASUREMENT RESULT: "agc_fin"

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line
0.198000	52.90	6.6	64	10.8	QP	N
0.394000	45.50	5.7	58	12.5	QP	N
0.586000	43.40	5.4	56	12.6	QP	N
0.790000	42.40	5.4	56	13.6	QP	N
1.170000	41.90	5.7	56	14.1	QP	N
22.470000	39.80	9.0	60	20.2	QP	N

MEASUREMENT RESULT: "agc_fin2"

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line
0.198000	48.30	6.6	54	5.4	AV	N
0.294000	45.30	6.1	50	5.1	AV	N
0.394000	41.00	5.7	48	7.0	AV	N
0.494000	35.00	5.4	46	11.1	AV	N
0.582000	35.20	5.4	46	10.8	AV	N
1.170000	32.10	5.7	46	13.9	AV	N

RESULT: PASS

Note: All modes of each antenna are tested. The BAND 1 of 802.11a20 mode at 5180MHz is the worst case and is recorded in the test report.

APPENDIX A: PHOTOGRAPHS OF TEST SETUP

Refer to the Report No.: AGC11034220305AP02

APPENDIX B: PHOTOGRAPHS OF EUT

Refer to the Report No.: AGC11034220305AP02

----END OF REPORT----

Conditions of Issuance of Test Reports

1. All samples and goods are accepted by the Attestation of Global Compliance (Shenzhen) Co., Ltd. (the "Company") solely for testing and reporting in accordance with the following terms and conditions. The company provides its services on the basis that such terms and conditions constitute express agreement between the company and any person, firm or company requesting its services (the "Clients").
2. Any report issued by Company as a result of this application for testing services (the "Report") shall be issued in confidence to the Clients and the Report will be strictly treated as such by the Company. It may not be reproduced either in its entirety or in part and it may not be used for advertising or other unauthorized purposes without the written consent of the Company. The Clients to whom the Report is issued may, however, show or send it, or a certified copy thereof prepared by the Company to its customer, supplier or other persons directly concerned. The Company will not, without the consent of the Clients, enter into any discussion or correspondence with any third party concerning the contents of the Report, unless required by the relevant governmental authorities, laws or court orders.
3.The Company shall not be called or be liable to be called to give evidence or testimony on the Report in a court of law without its prior written consent, unless required by the relevant governmental authorities, laws or court orders.
4. In the event of the improper use of the report as determined by the Company, the Company reserves the right to withdraw it, and to adopt any other additional remedies which may be appropriate.
5. Samples submitted for testing are accepted on the understanding that the Report issued cannot form the basis of, or be the instrument for, any legal action against the Company.
6. The Company will not be liable for or accept responsibility for any loss or damage however arising from the use of information contained in any of its Reports or in any communication whatsoever about its said tests or investigations.
7.Clients wishing to use the Report in court proceedings or arbitration shall inform the Company to that effect prior to submitting the sample for testing.
8. The Company is not responsible for recalling the electronic version of the original report when any revision is made to them. The Client assumes the responsibility to providing the revised version to any interested party who uses them.
9. Subject to the variable length of retention time for test data and report stored hereinto as otherwise specifically required by individual accreditation authorities, the Company will only keep the supporting test data and information of the test report for a period of six years. The data and information will be disposed of after the aforementioned retention period has elapsed. Under no circumstances shall we provide any data and information which has been disposed of after retention period. Under no circumstances shall we be liable for damage of any kind, including (but not limited to) compensatory damages, lost profits, lost data, or any form of special, incidental, indirect, consequential or punitive damages of any kind, whether based on breach of contract of warranty, tort (including negligence), product liability or otherwise, even if we are informed in advance of the possibility of such damages.