Mode	CH	Freq.[MHz]	Test Result[dBm]		
			ANT 1	ANT 2	ANT1+ANT2 (SDM)
802.11ac (VHT20)	36	5 180	14.91	14.99	17.96
	40	5 200	14.52	14.55	17.55
	48	5 240	14.49	14.19	17.35
	52	5 260	13.58	13.55	16.58
	60	5 300	13.71	14.58	17.18
	64	5 320	13.95	14.02	17.00
	100	5 500	13.99	14.15	17.08
	120	5 600	14.59	14.98	17.80
	144	5 720	14.60	13.58	17.13
	149	5 745	14.36	13.62	17.02
	157	5 785	14.37	14.40	17.40
	165	5 825	14.58	14.87	17.74

Mode	CH	Freq.[MHz]	Test Result[dBm]		
			ANT 1	ANT 2	ANT1+ANT2 (SDM)
802.11ac (VHT40)	38	5 190	14.74	14.99	17.88
	46	5 230	14.49	14.55	17.53
	54	5 270	14.16	14.13	17.16
	62	5 310	14.17	14.75	17.48
	102	5 510	14.29	14.45	17.38
	118	5 590	14.90	14.98	17.95
	142	5 710	14.81	13.94	17.41
	151	5 755	14.52	14.23	17.39
	159	5 795	14.64	14.78	17.72

Mode	CH	Freq.[MHz]	Test Result[dBm]		
			ANT 1	ANT 2	ANT1+ANT2 (SDM)
802.11ac (VHT80)	42	5 210	14.47	14.15	17.32
	58	5 290	13.33	13.75	16.56
	106	5 530	13.65	13.90	16.79
	122	5 610	14.35	14.48	17.43
	138	5 690	14.48	13.51	17.03
	155	5 775	14.15	13.77	16.97

8.4 Maximum Power Spectral Density

▣ Test requirements

Part. 15.407(a)

(1) For the band 5.15 GHz - 5.25 GHz.

(i) For an outdoor access point operating in the band 5.15 GHz - 5.25 GHz, the maximum power spectral density shall not exceed 17 dBm in any 1 MHz band. note1

(ii) For an indoor access point operating in the band 5.15 GHz - 5.25 GHz, the maximum power spectral density shall not exceed 17 dBm in any 1 MHz band. note1

(iii) For fixed point-to-point access points operating in the band 5.15 GHz - 5.25 GHz, transmitters that employ a directional antenna gain greater than 23 dBi, a 1 dB reduction in maximum power spectral density is required for each 1 dB of antenna gain in excess of 23 dBi.

(iv) For mobile and portable client devices in the 5.15 GHz - 5.25 GHz band, the maximum power spectral density shall not exceed 11 dBm in any 1 MHz band. note1

(2) For the 5.25 GHz - 5.35 GHz and 5.47 GHz - 5.725 GHz bands, the peak power spectral density shall not exceed 11 dBm in any 1 MHz band. note1

(3) For the band 5.725 GHz - 5.85 GHz, the maximum power spectral density shall not exceed 30 dBm in any 500 kHz band. note1,note2

Note1: If transmitting antennas of directional gain greater than 6 dBi are used, the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

Note2: Fixed point - to-point U-NII devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information.

- Peak Power Spectral Density Limit Calculation

Band	Limit [dBm]	Antenna Gain (Worst case) [dBi]	Determined Limit [dBm]
U-NII 1	11	-0.48	11
U-NII 2A	11	-0.48	11
U-NII 2C	11	1.77	11
U-NII 3	30	0.91	30

▣ Test Configuration

Refer to the APPENDIX I.

▣ **Test Procedure**

Maximum Power Spectral Density is measured using Measurement Procedure **of KDB789033 D02v02r01**

1) Create an average power spectrum for the EUT operating mode being tested by following the instructions in section II.E.2. for measuring maximum conducted output power using a spectrum analyzer or EMI receiver: select the appropriate test method (SA - 1, SA - 2, SA - 3, or alternatives to each) and apply it up to, but not including, the step labeled, “Compute power…”. (This procedure is required even if the maximum conducted output power measurement was performed using a power meter, method PM.)

2) Use the peak search function on the instrument to find the peak of the spectrum and record its value.

3) Make the following adjustments to the peak value of the spectrum, if applicable:

a) If Method SA - 2 or SA - 2 Alternative was used, add 10 log(1 / x), where x is the duty cycle, to the peak of the spectrum.

b) If Method SA - 3 Alternative was used and the linear mode was used in step II.E.2.g (viii), add 1 dB to the final result to compensate for the difference between linear averaging and power averaging.

4) The result is the Maximum PSD over 1 MHz reference bandwidth.

5) For devices operating in the bands 5.15 GHz - 5.25 GHz, 5.25 GHz - 5.35 GHz, and 5.47 GHz - 5.725 GHz, the above procedures make use of 1 MHz RBW to satisfy directly the 1 MHz reference bandwidth specified in §15.407(a)(5). For devices operating in the band 5.725 GHz - 5.85 GHz, the rules specify a measurement bandwidth of 500 kHz. Many spectrum analyzers do not have 500 kHz RBW, thus a narrower RBW may need to be used. The rules permit the use of a RBWs less than 1 MHz, or 500 kHz, “provided that the measured power is integrated over the full reference bandwidth” to show the total power over the specified measurement bandwidth (i.e., 1 MHz, or 500 kHz). If measurements are performed using a reduced resolution bandwidth (< 1 MHz, or < 500 kHz) and integrated over 1 MHz, or 500 kHz bandwidth, the following adjustments to the procedures apply:

a) Set RBW ≥ 1 / T, where T is defined in section II.B.1.a). (Refer to Appendix II)

b) Set VBW ≥ 3 RBW.

c) If measurement bandwidth of Maximum PSD is specified in 500 kHz, add 10 log(500 kHz / RBW) to the measured result, whereas RBW (< 500 kHz) is the reduced resolution bandwidth of the spectrum analyzer set during measurement.

d) If measurement bandwidth of Maximum PSD is specified in 1 MHz, add 10 log(1 MHz / RBW) to the measured result, whereas RBW (< 1 MHz) is the reduced resolution bandwidth of spectrum analyzer set during measurement.

e) Care must be taken to ensure that the measurements are performed during a period of continuous transmission or are corrected upward for duty cycle.

Note: As a practical matter, it is recommended to use reduced RBW of 100 kHz for the sections 5.c) and 5.d) above, since RBW = 100 kHz is available on nearly all spectrum analyzers.

▣ **Test Results: Comply**

- Summed Power spectral density:

Mode	Channel	Frequency [MHz]	Test Result [dBm]		Test Result [dBm]
			ANT 1	ANT 2	ANT1+ANT2 (CDD)
TM 1	36	5 180	6.72	6.93	9.84
	40	5 200	6.64	7.16	9.92
	48	5 240	6.56	6.49	9.54
	52	5 260	5.90	6.46	9.20
	60	5 300	5.65	6.49	9.10
	64	5 320	6.01	6.57	9.31
	100	5 500	6.44	6.38	9.42
	120	5 600	6.83	7.34	10.10
	144	5 720	6.78	5.89	9.37
	149	5 745	5.12	4.37	7.77
	157	5 785	4.60	4.45	7.54
	165	5 825	4.66	5.85	8.31
TM 2	36	5 180	5.59	5.76	8.69
	40	5 200	5.15	5.48	8.33
	48	5 240	5.24	5.32	8.29
	52	5 260	4.80	4.84	7.83
	60	5 300	4.68	5.27	8.00
	64	5 320	4.77	5.23	8.02
	100	5 500	4.97	5.14	8.07
	120	5 600	5.43	5.85	8.66
	144	5 720	5.54	4.57	8.09
	149	5 745	3.32	2.93	6.14
	157	5 785	3.57	3.46	6.53
	165	5 825	3.78	4.37	7.10
TM 3	38	5 190	3.16	3.19	6.19
	46	5 230	2.53	3.08	5.82
	54	5 270	2.23	2.12	5.19
	62	5 310	2.02	2.99	5.54
	102	5 510	2.94	2.55	5.76
	118	5 590	2.95	3.38	6.18
	142	5 710	3.25	1.91	5.64
	151	5 755	1.05	0.73	3.90
	159	5 795	0.82	1.20	4.02
TM 4	42	5 210	-0.45	-0.56	2.51
	58	5 290	-1.54	-0.74	1.89
	106	5 530	-1.04	-0.79	2.10
	122	5 610	-0.62	0.20	2.82
	138	5 690	0.04	-1.03	2.55
	155	5 775	-2.52	-3.19	0.17

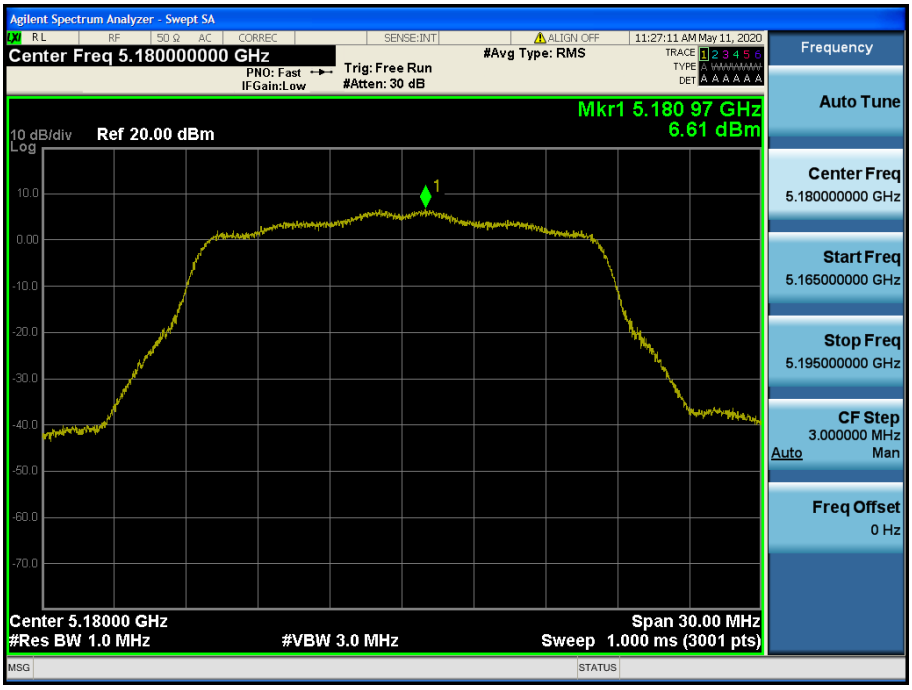
Note 1: "U-NII 3 [T.F] = 10*LOG(500kHz/100kHz) + DCCF" = 6.99dB + DCCF
For DCCF(Duty Cycle Correction Factor) please refer to appendix II.
Note 2: Test Result = Measurement Data + T.F

CC

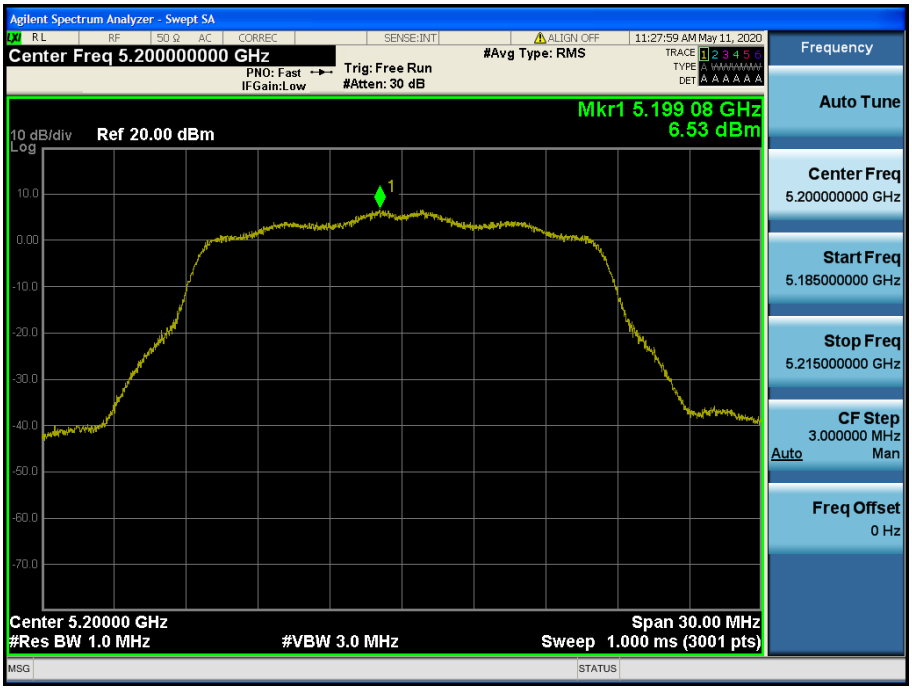
▣ RESULT PLOTS

- Power spectral density: Antenna 1

Maximum Power Spectral Density Test Mode: TM 1 & ANT 1 & Ch.36



Maximum Power Spectral Density Test Mode: TM 1 & ANT 1 & Ch.40



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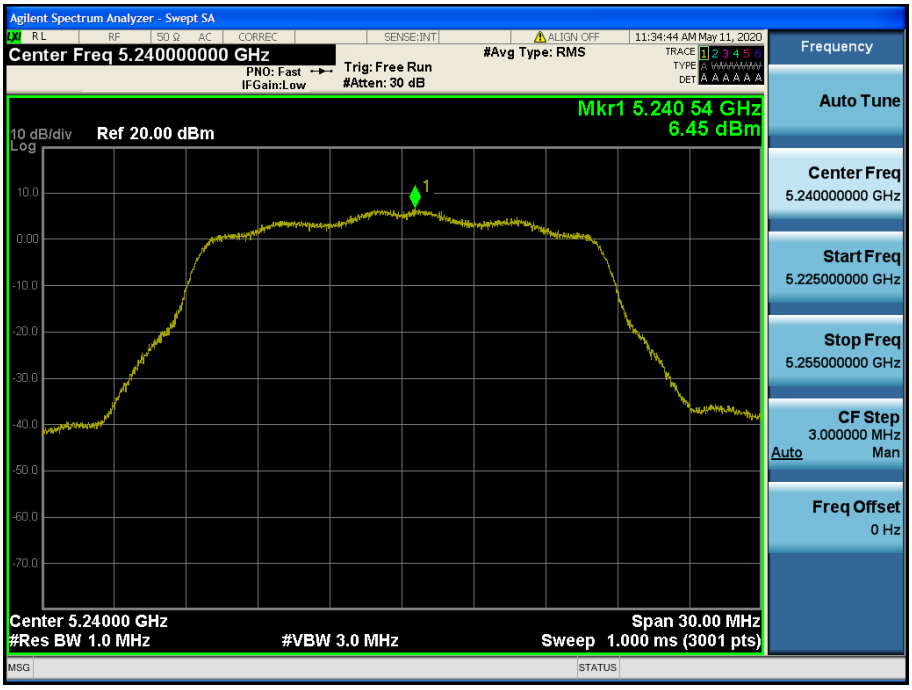

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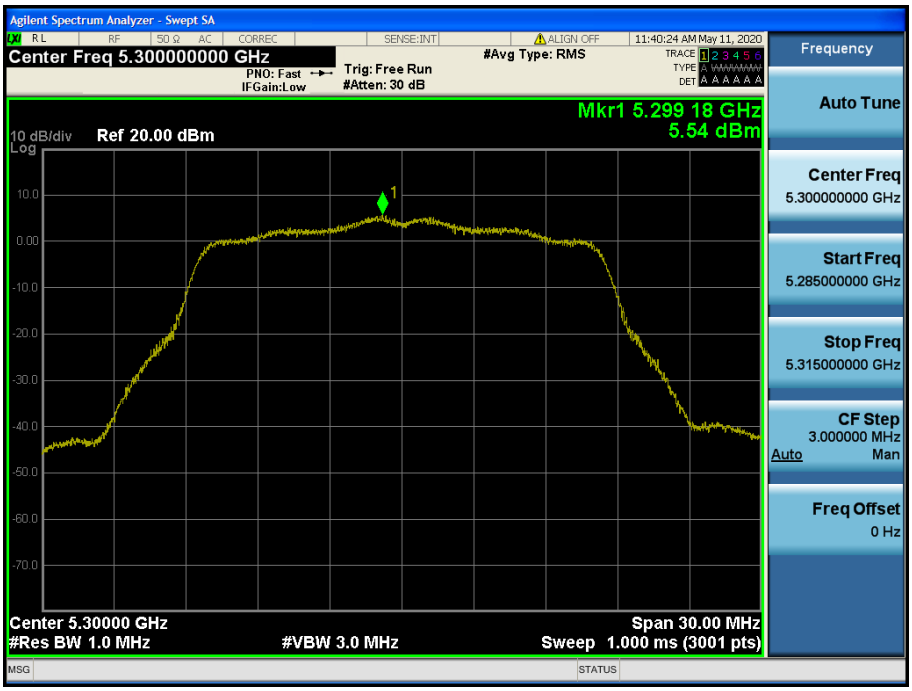

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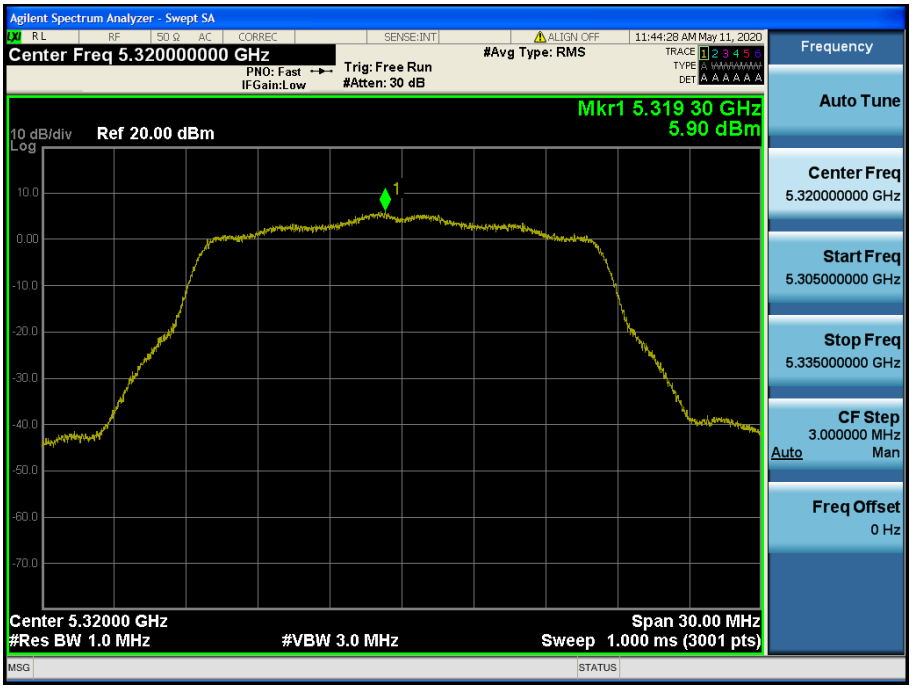

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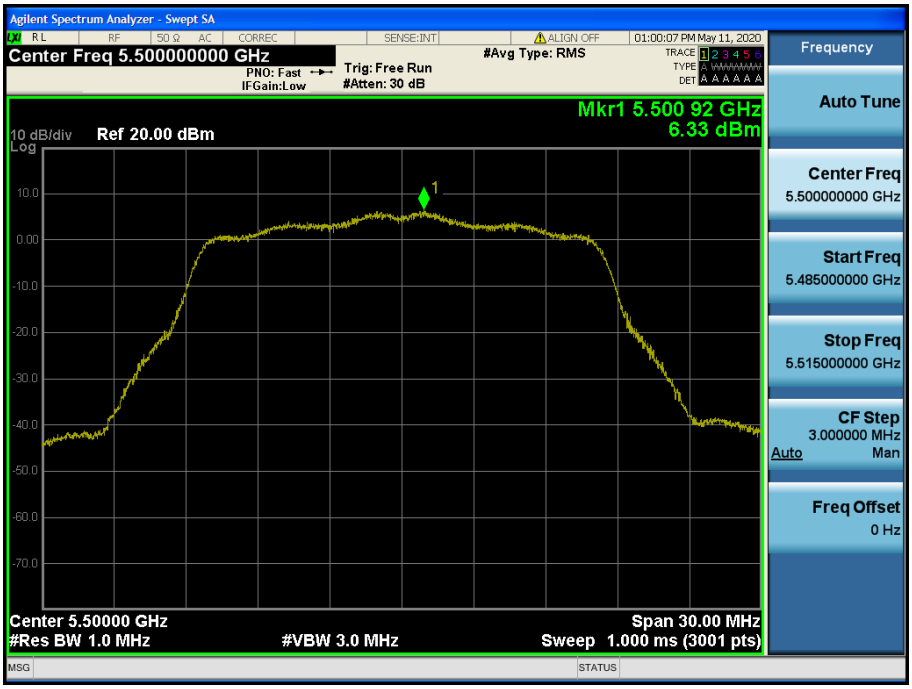
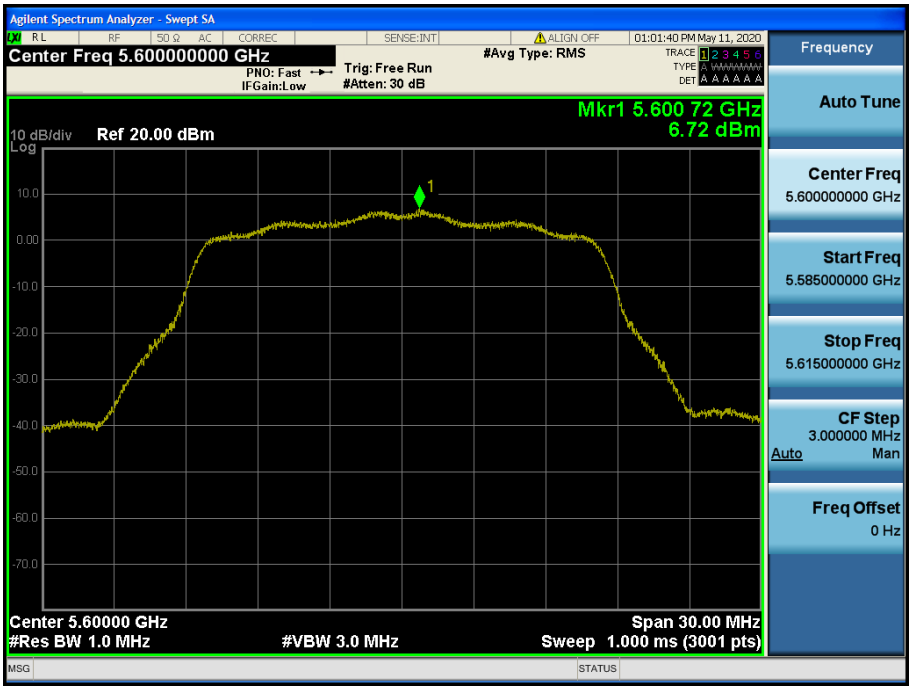


Maximum Power Spectral Density Test Mode: TM 1 & ANT 1 & Ch.120



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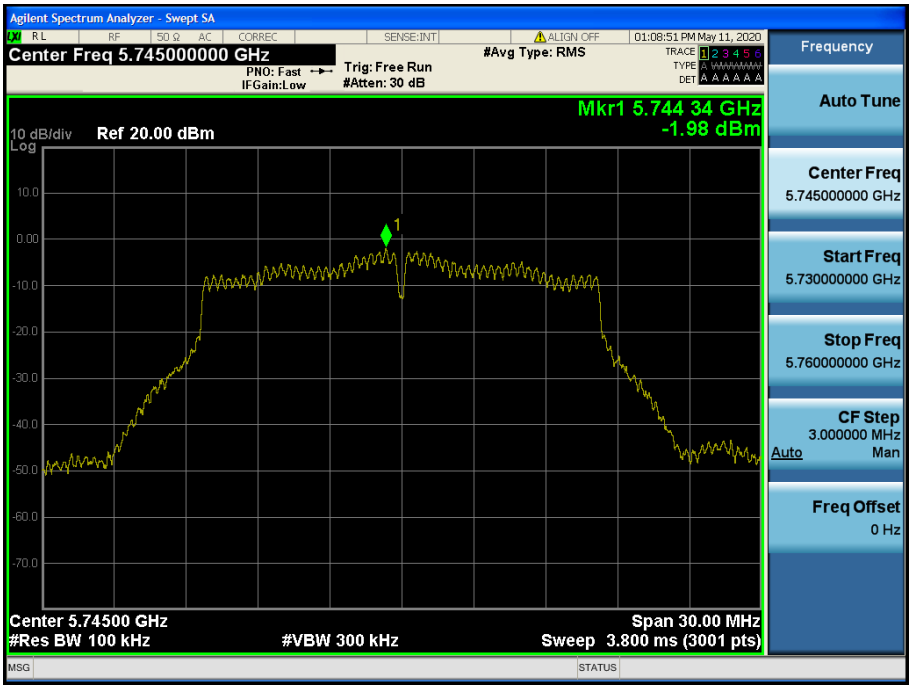
Maximum Power Spectral Density Test Mode: TM 1 & ANT 1 & Ch.149



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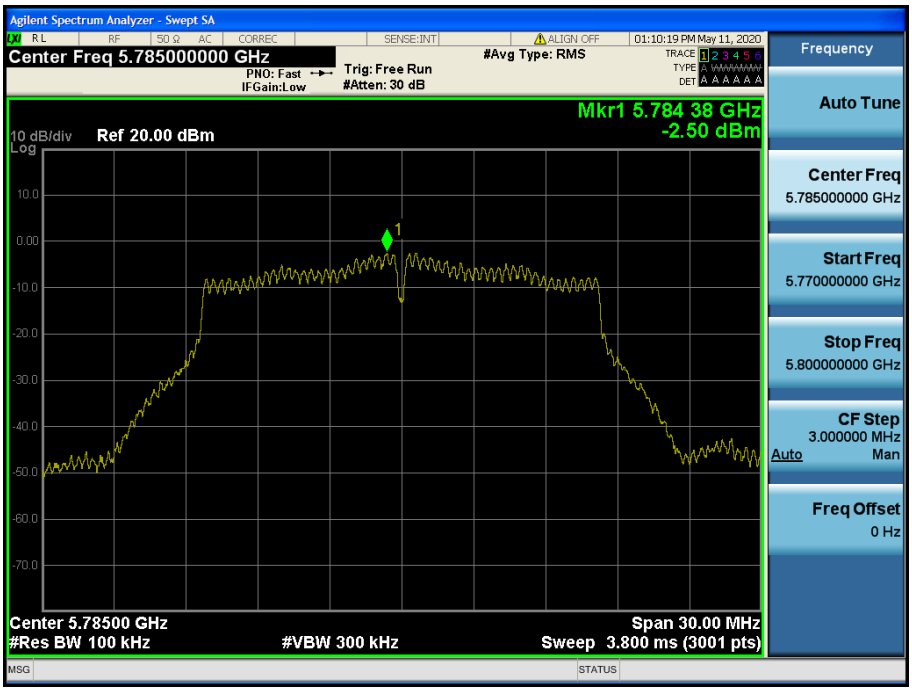

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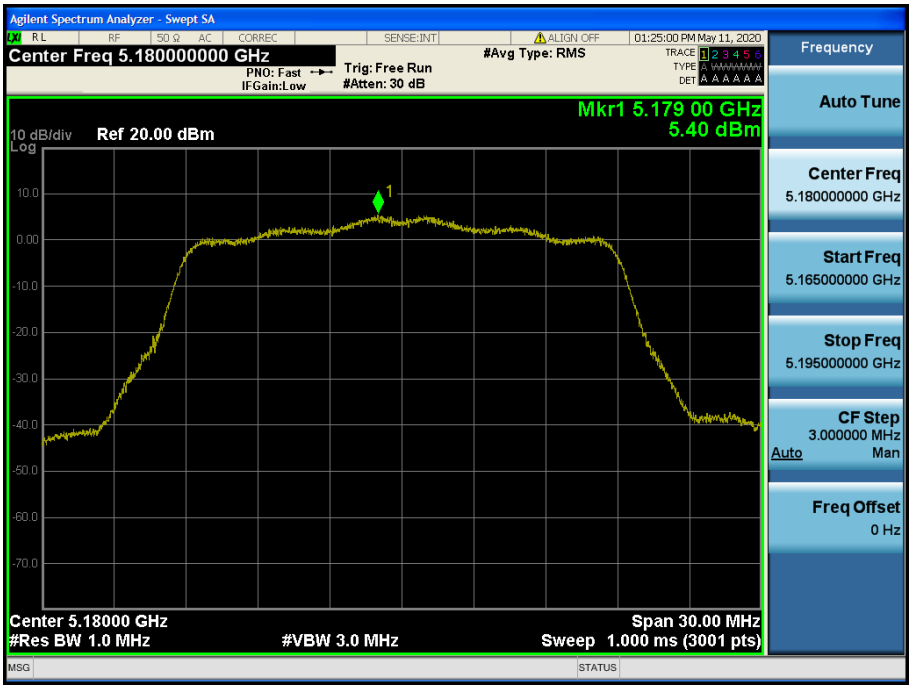
Maximum Power Spectral Density Test Mode: TM 2 & ANT 1 & Ch.36



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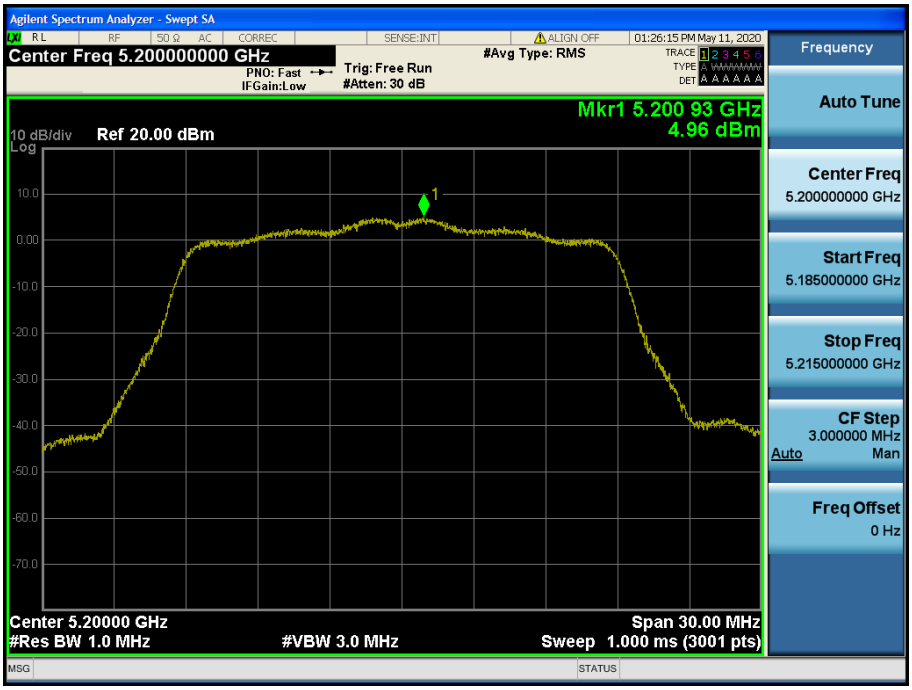

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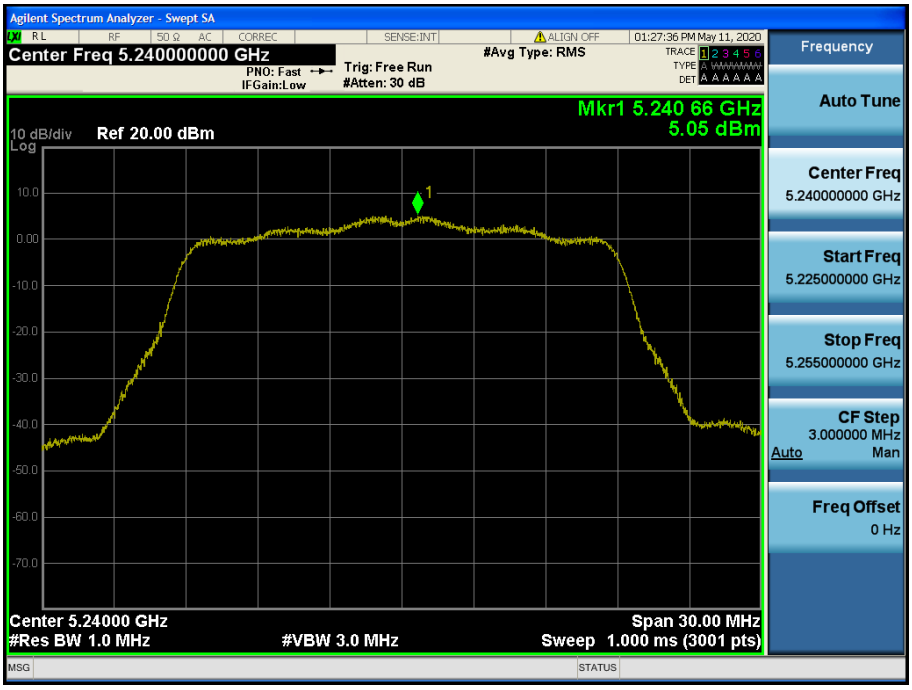

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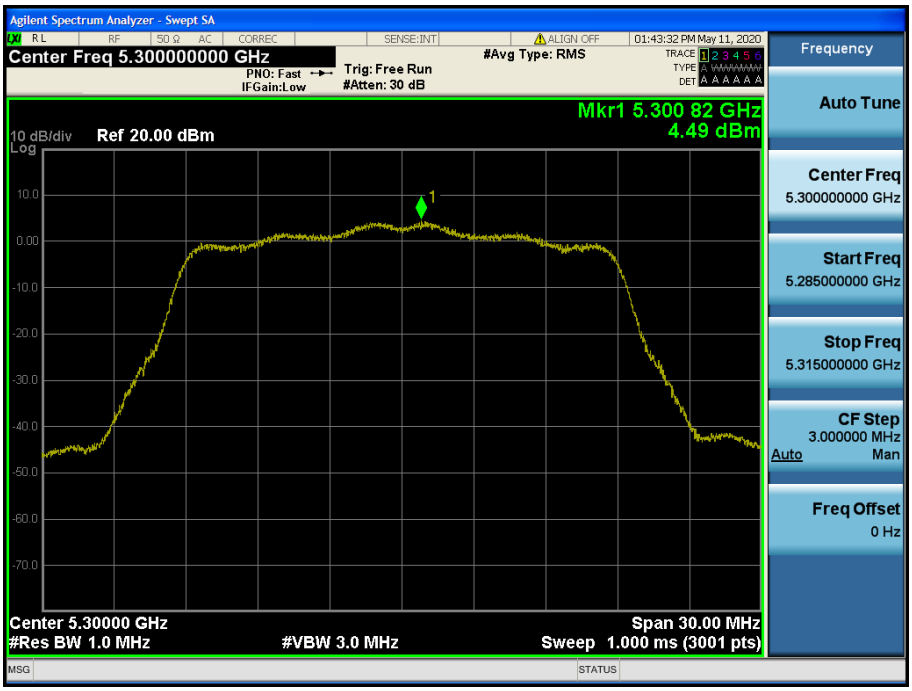

Maximum Power Spectral Density Test Mode: TM 2 & ANT 1 & Ch.64

Maximum Power Spectral Density Test Mode: TM 2 & ANT 1 & Ch.100

Maximum Power Spectral Density Test Mode: TM 2 & ANT 1 & Ch.120

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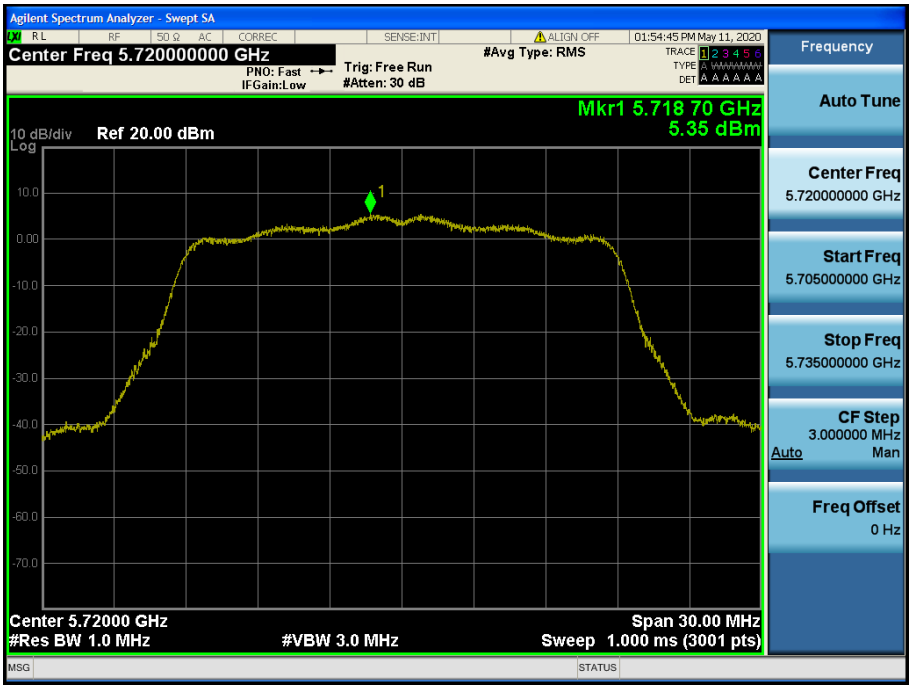

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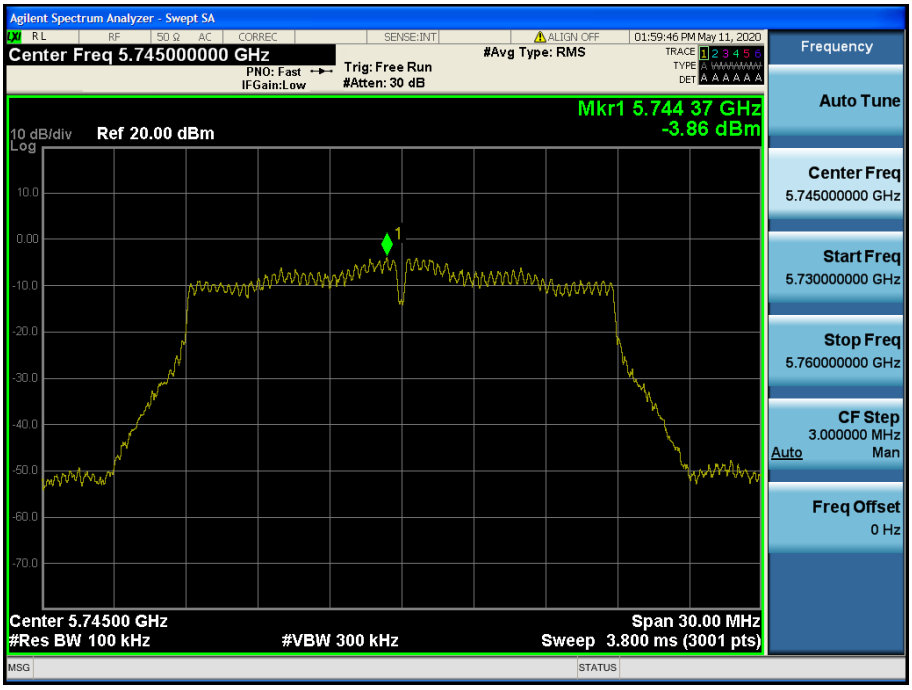
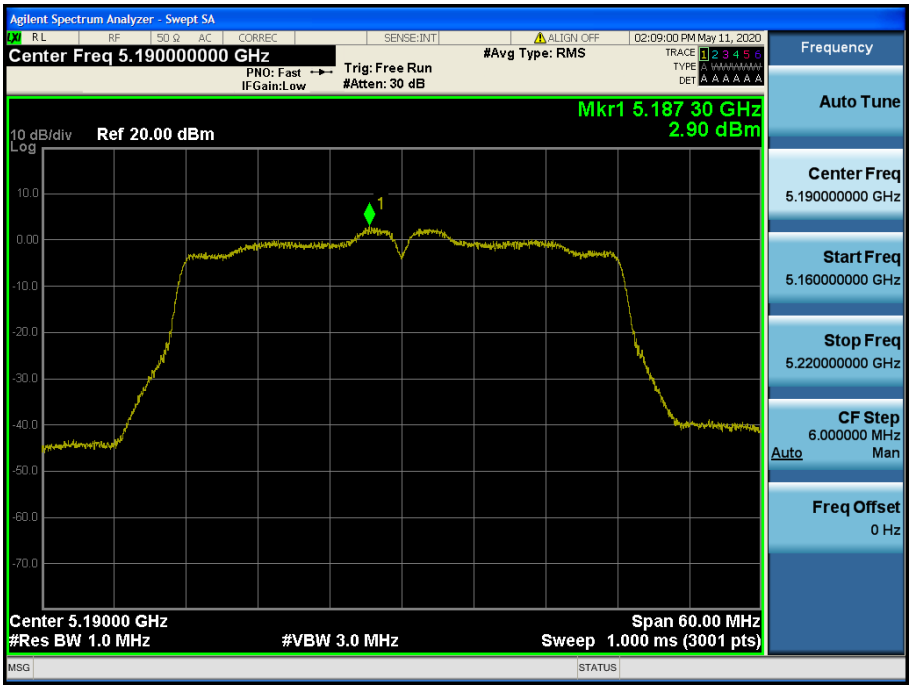


Maximum Power Spectral Density Test Mode: TM 2 & ANT 1 & Ch.157

Maximum Power Spectral Density Test Mode: TM 2 & ANT 1 & Ch.165

Maximum Power Spectral Density Test Mode: TM 3 & ANT 1 & Ch.38



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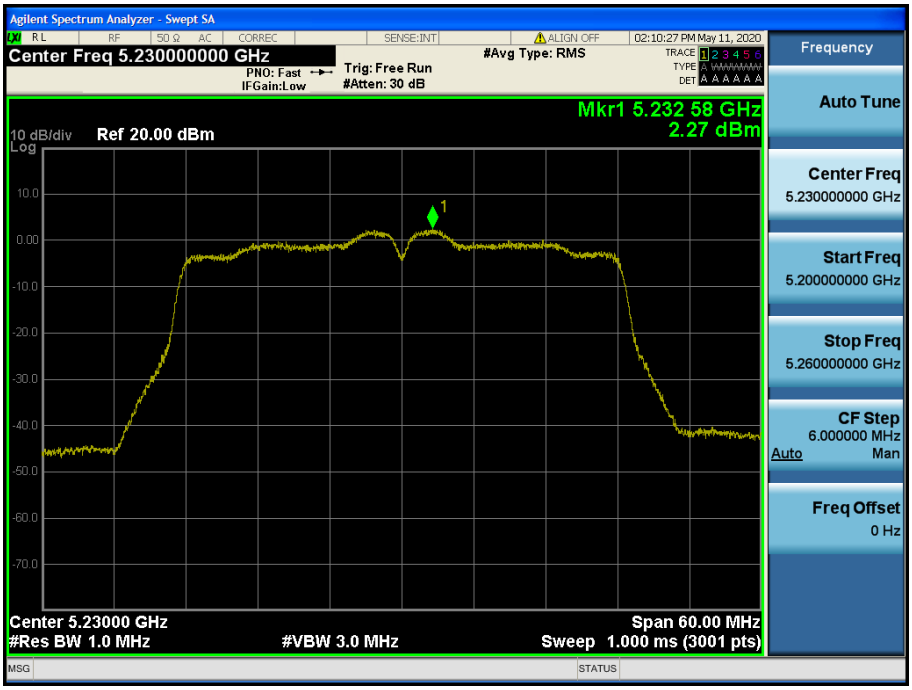

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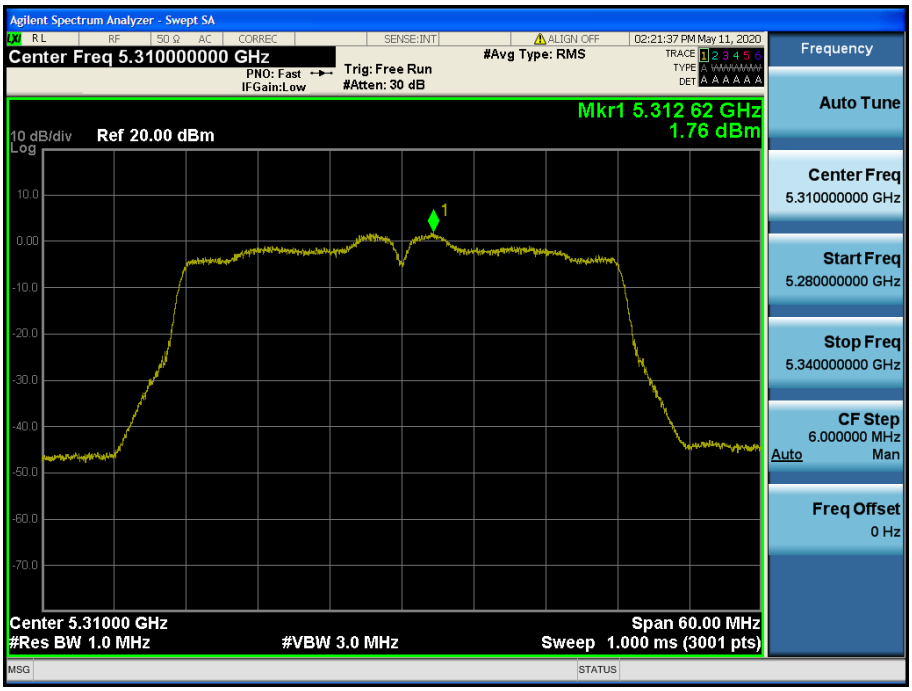
Maximum Power Spectral Density Test Mode: TM 3 & ANT 1 & Ch.62



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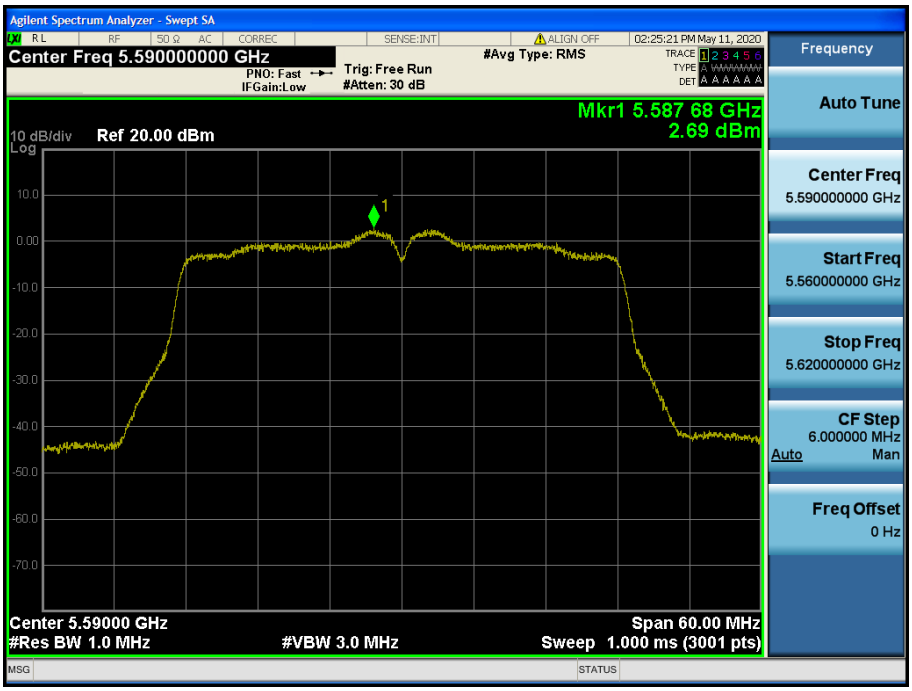

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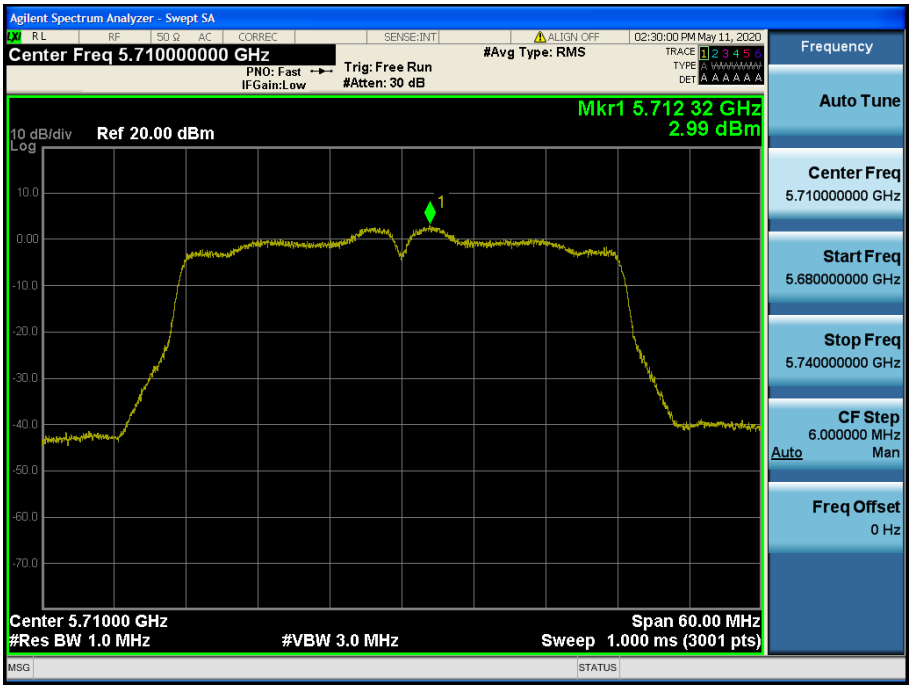

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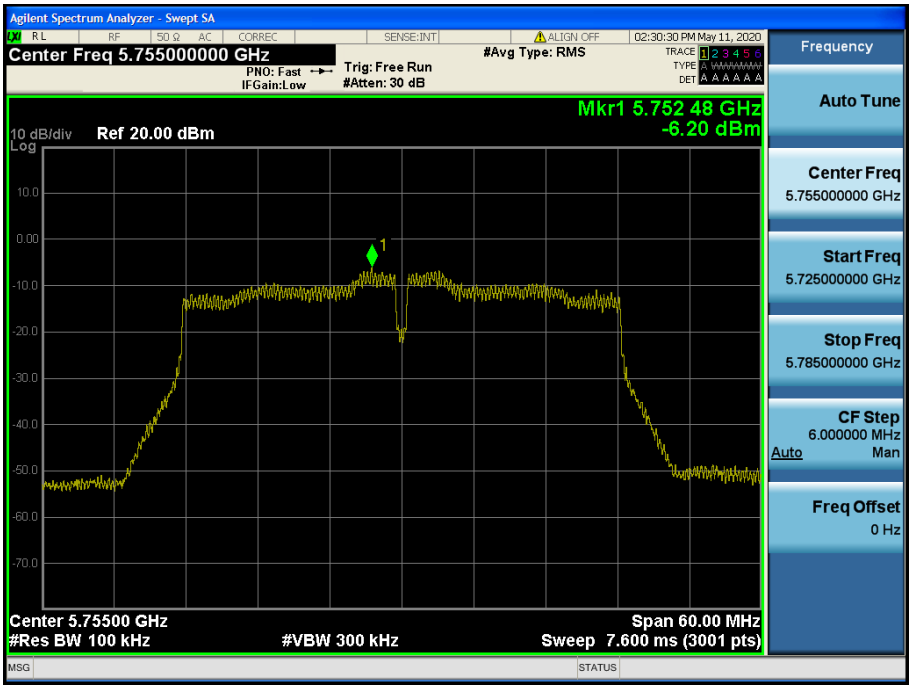

Maximum Power Spectral Density Test Mode: TM 3 & ANT 1 & Ch.159

Maximum Power Spectral Density Test Mode: TM 4 & ANT 1 & Ch.42

Maximum Power Spectral Density Test Mode: TM 4 & ANT 1 & Ch.58

Maximum Power Spectral Density Test Mode: TM 4 & ANT 1 & Ch.106

Maximum Power Spectral Density Test Mode: TM 4 & ANT 1 & Ch.122

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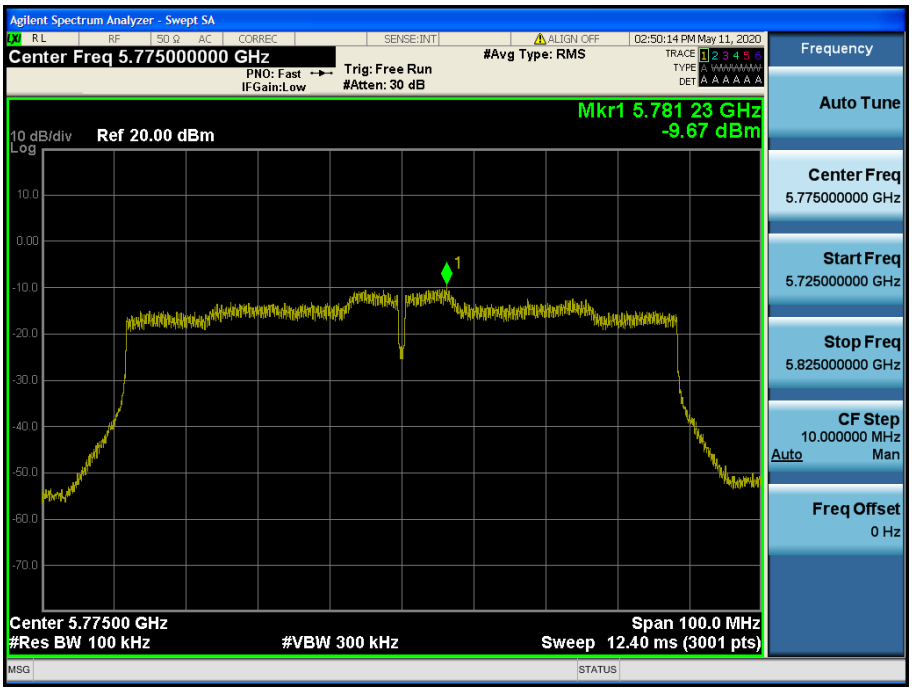
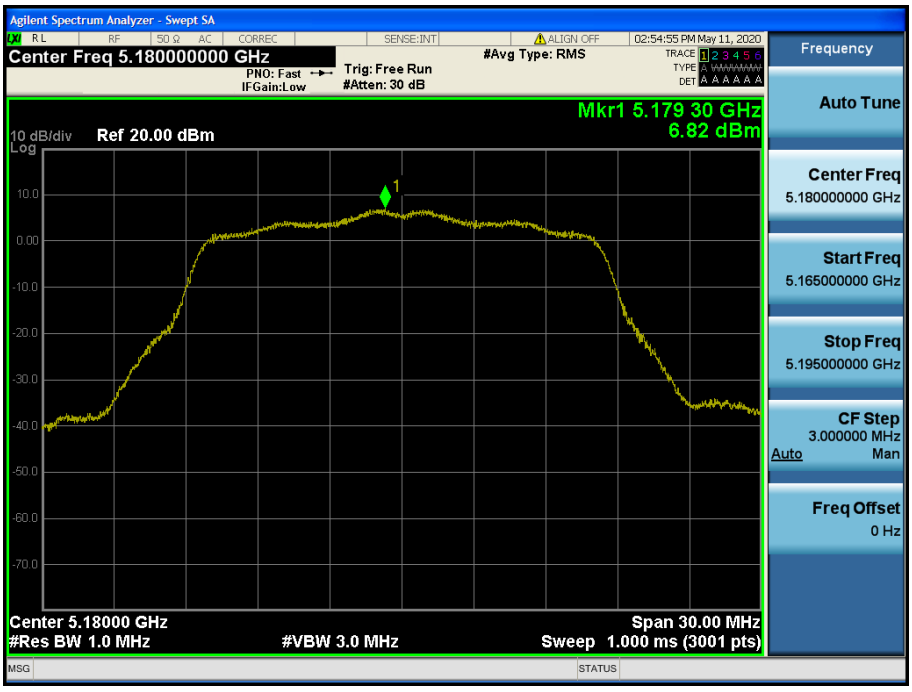
Maximum Power Spectral Density Test Mode: TM 4 & ANT 1 & Ch.155



- Power spectral density: Antenna 2

Maximum Power Spectral Density Test Mode: TM 1 & ANT 2 & Ch.36



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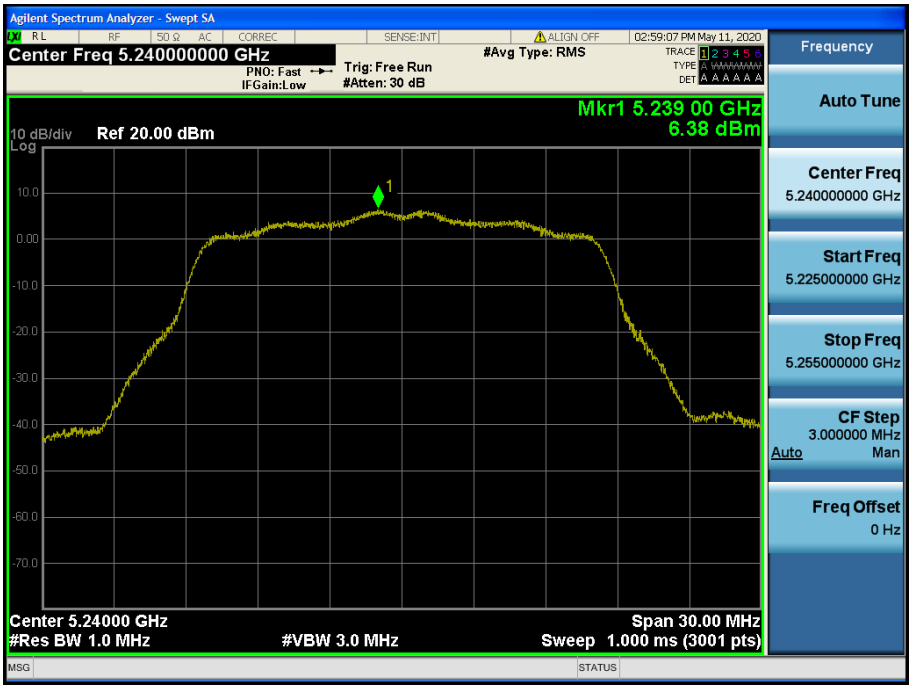
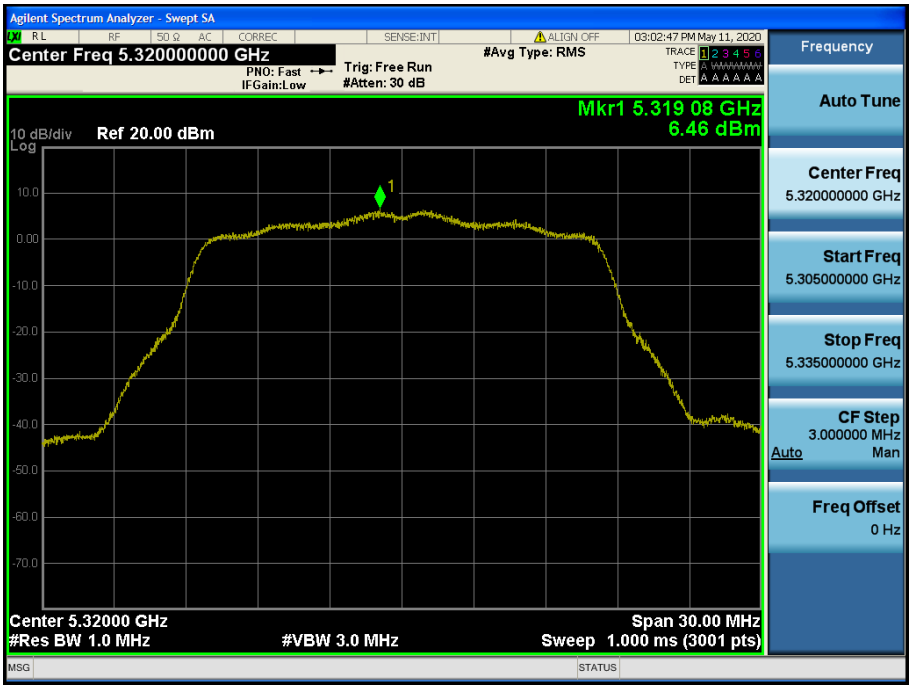
Maximum Power Spectral Density Test Mode: TM 1 & ANT 2 & Ch.48



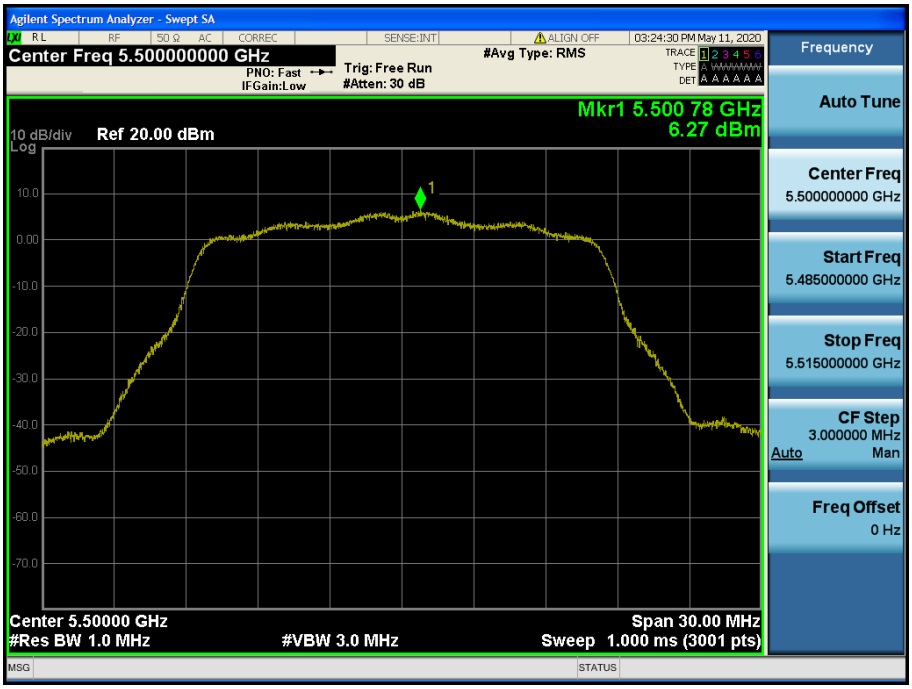
Maximum Power Spectral Density Test Mode: TM 1 & ANT 2 & Ch.52

Maximum Power Spectral Density Test Mode: TM 1 & ANT 2 & Ch.60

Maximum Power Spectral Density Test Mode: TM 1 & ANT 2 & Ch.64

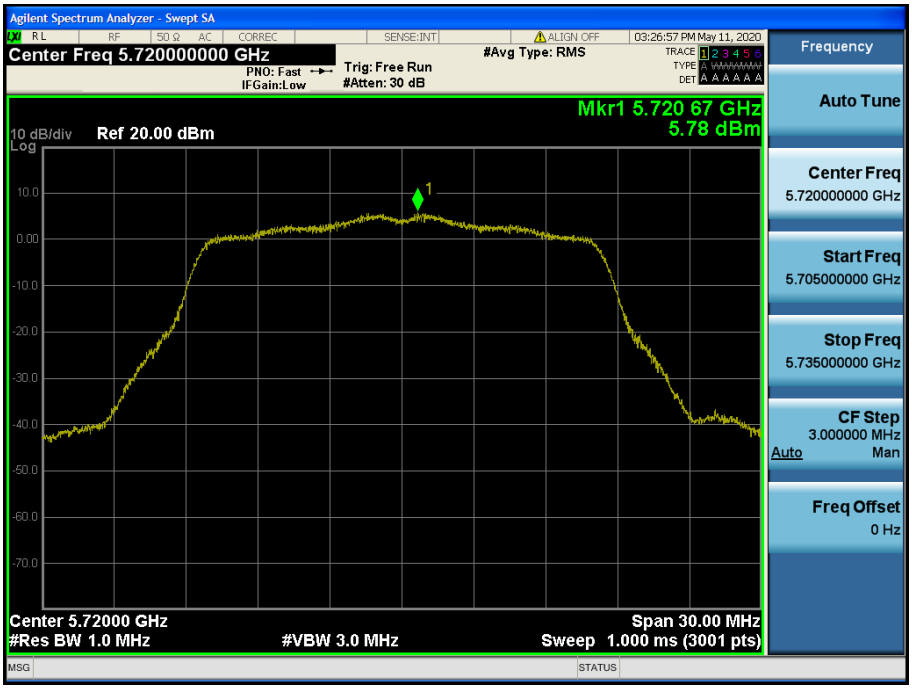


Maximum Power Spectral Density Test Mode: TM 1 & ANT 2 & Ch.100

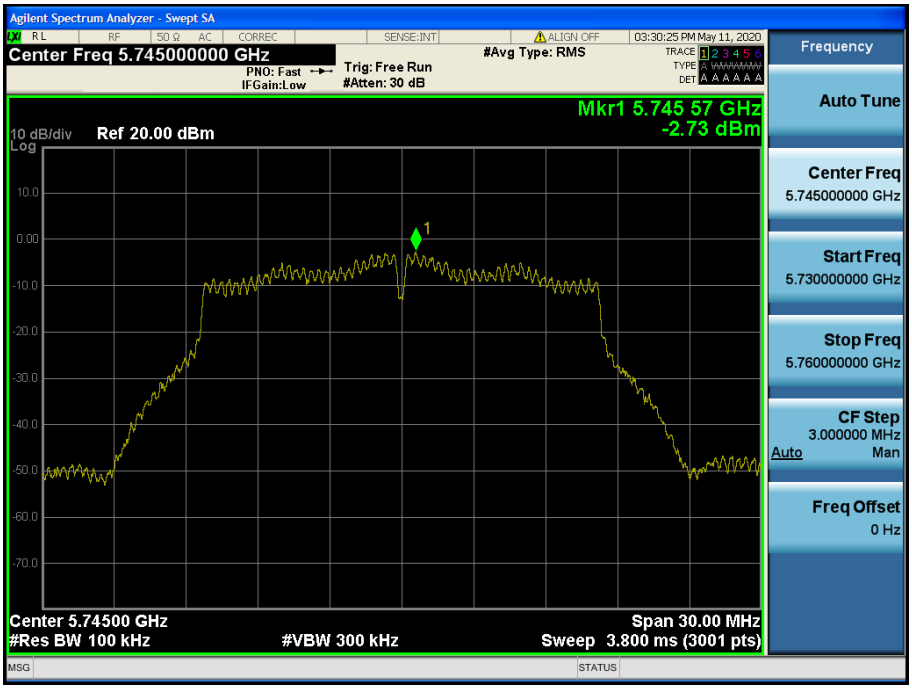


Maximum Power Spectral Density Test Mode: TM 1 & ANT 2 & Ch.120

Maximum Power Spectral Density Test Mode: TM 1 & ANT 2 & Ch.144



Maximum Power Spectral Density Test Mode: TM 1 & ANT 2 & Ch.149

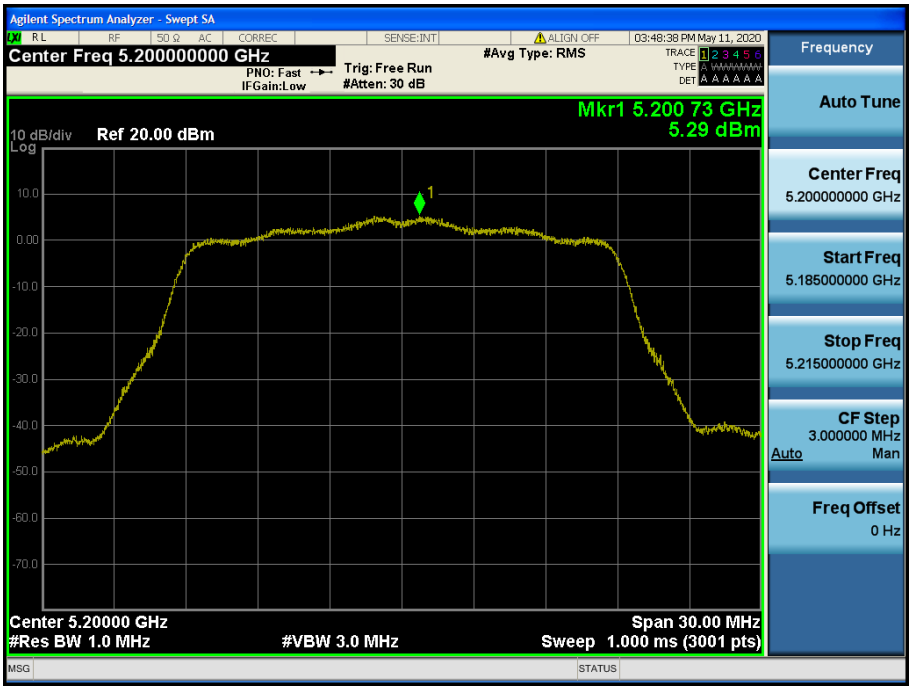


Maximum Power Spectral Density Test Mode: TM 1 & ANT 2 & Ch.157

Maximum Power Spectral Density Test Mode: TM 1 & ANT 2 & Ch.165

Maximum Power Spectral Density Test Mode: TM 2 & ANT 2 & Ch.36

Maximum Power Spectral Density Test Mode: TM 2 & ANT 2 & Ch.40



Maximum Power Spectral Density Test Mode: TM 2 & ANT 2 & Ch.48

Maximum Power Spectral Density Test Mode: TM 2 & ANT 2 & Ch.52

Maximum Power Spectral Density Test Mode: TM 2 & ANT 2 & Ch.60

Maximum Power Spectral Density Test Mode: TM 2 & ANT 2 & Ch.64

Maximum Power Spectral Density Test Mode: TM 2 & ANT 2 & Ch.100

Maximum Power Spectral Density Test Mode: TM 2 & ANT 2 & Ch.120

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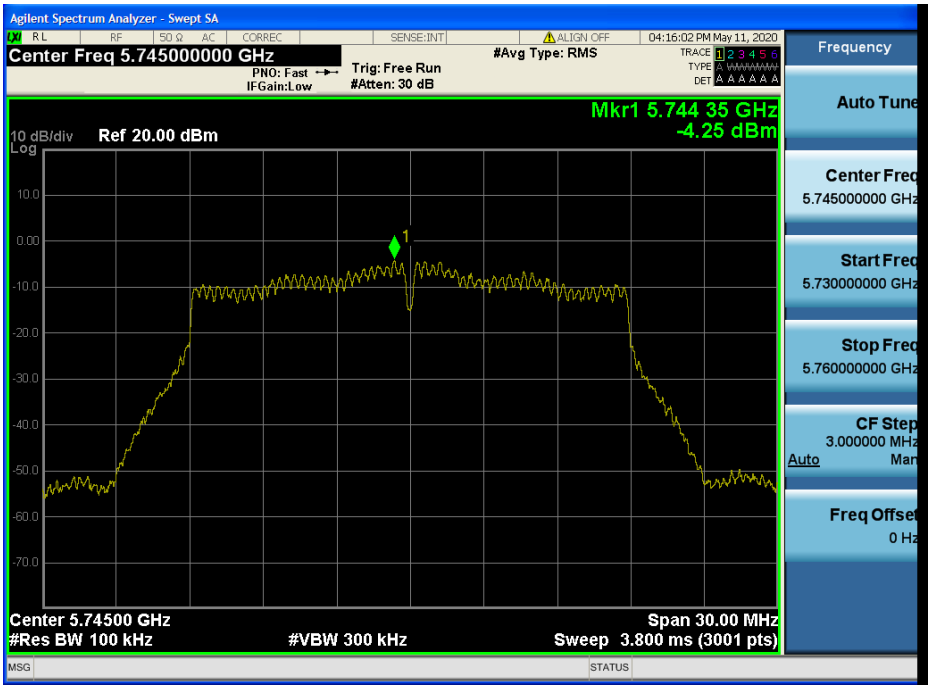
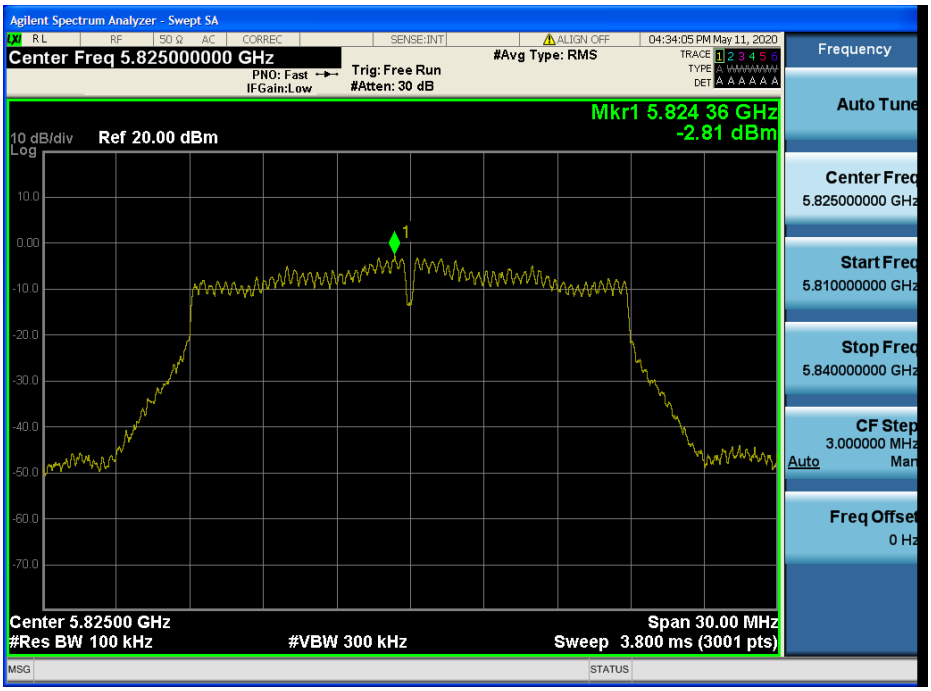
Maximum Power Spectral Density Test Mode: TM 2 & ANT 2 & Ch.149

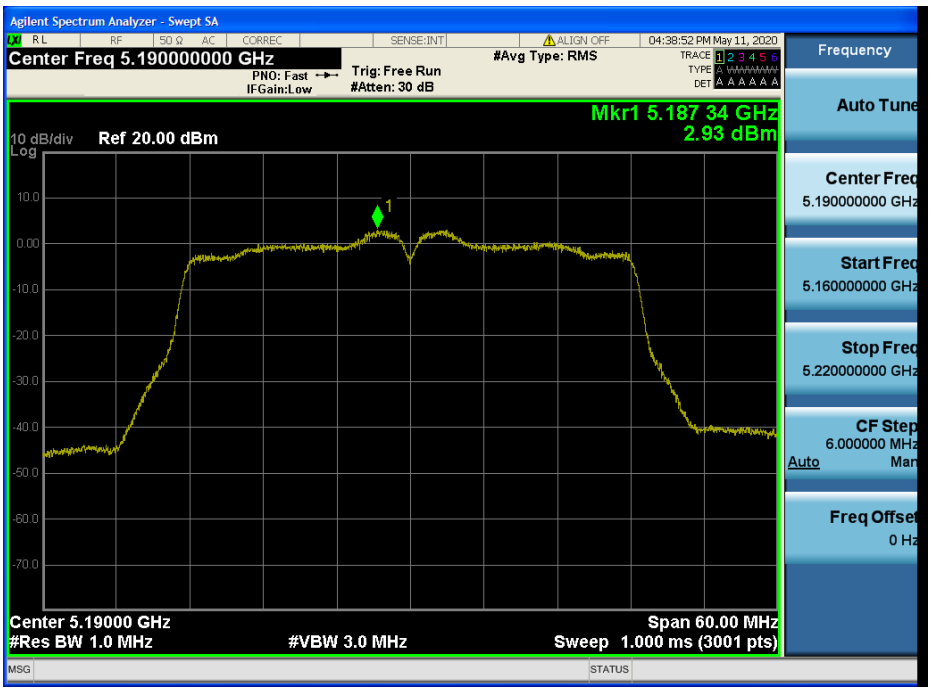


Maximum Power Spectral Density Test Mode: TM 2 & ANT 2 & Ch.157

Maximum Power Spectral Density Test Mode: TM 2 & ANT 2 & Ch.165



Maximum Power Spectral Density Test Mode: TM 3 & ANT 2 & Ch.38



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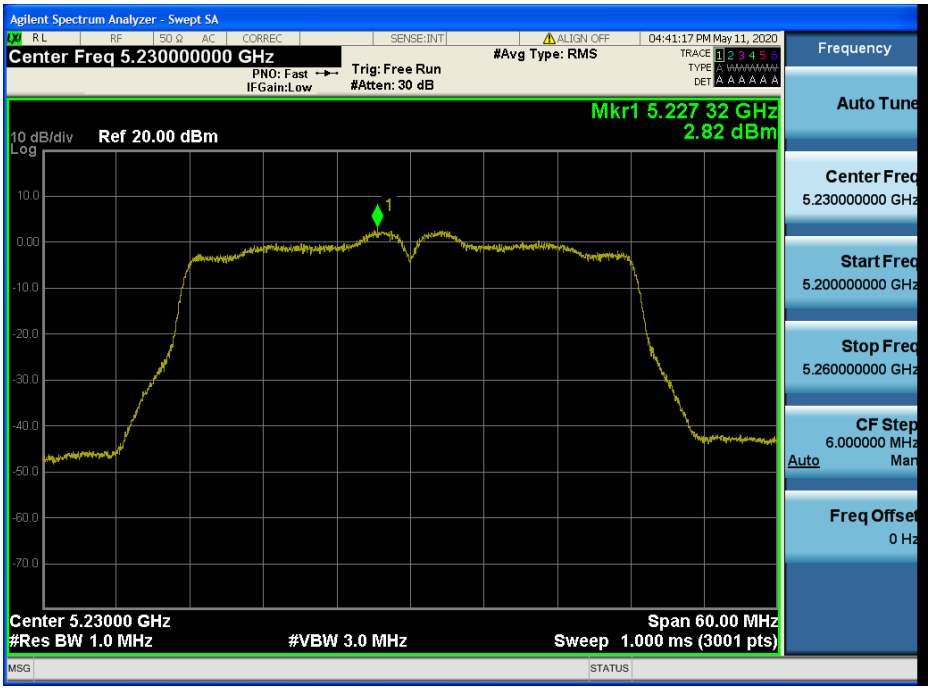
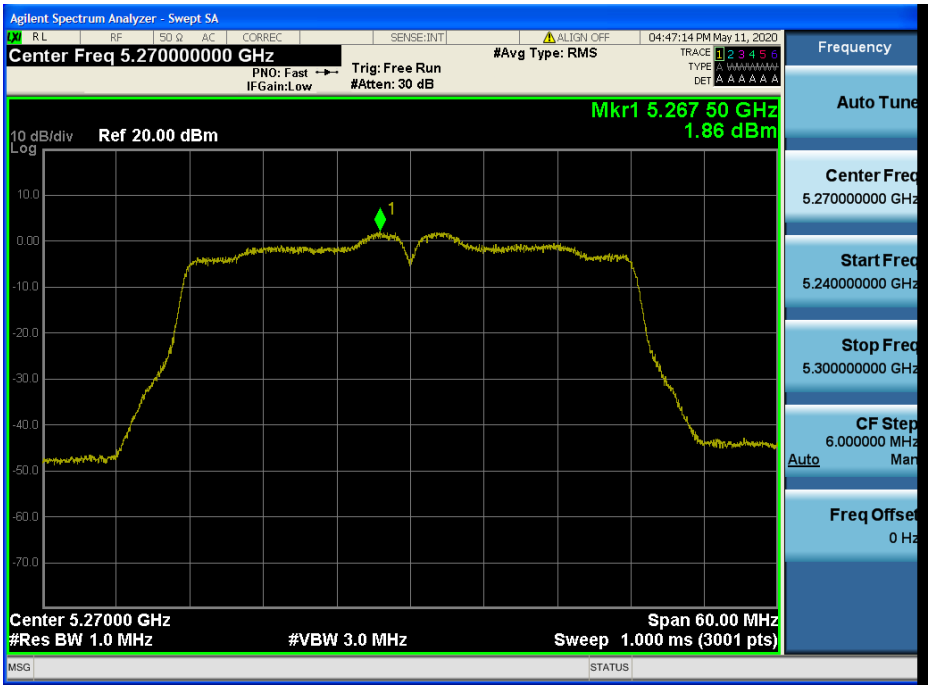


Maximum Power Spectral Density Test Mode: TM 3 & ANT 2 & Ch.54



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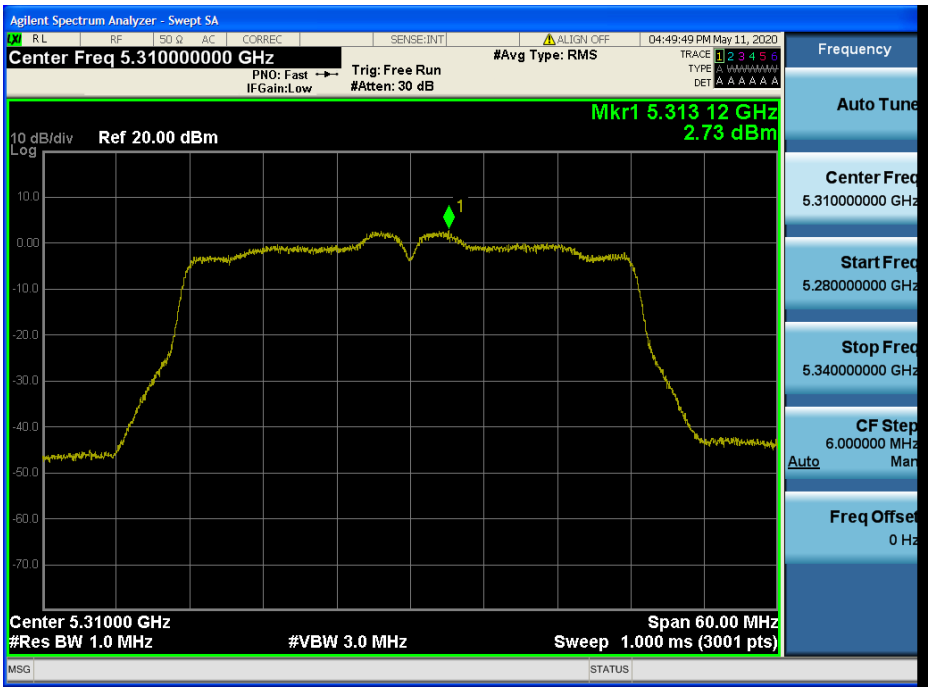
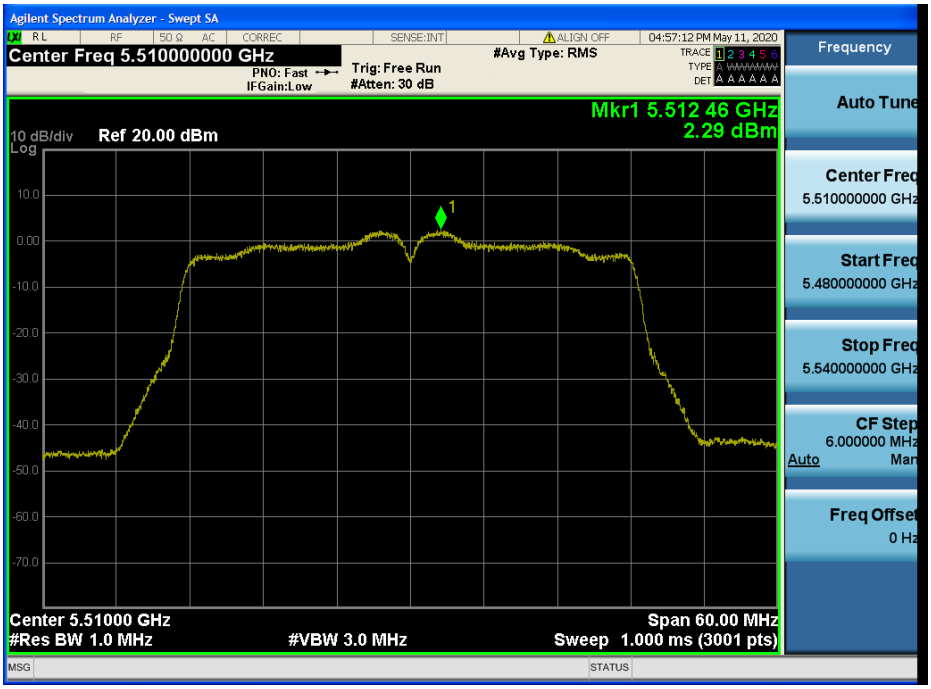
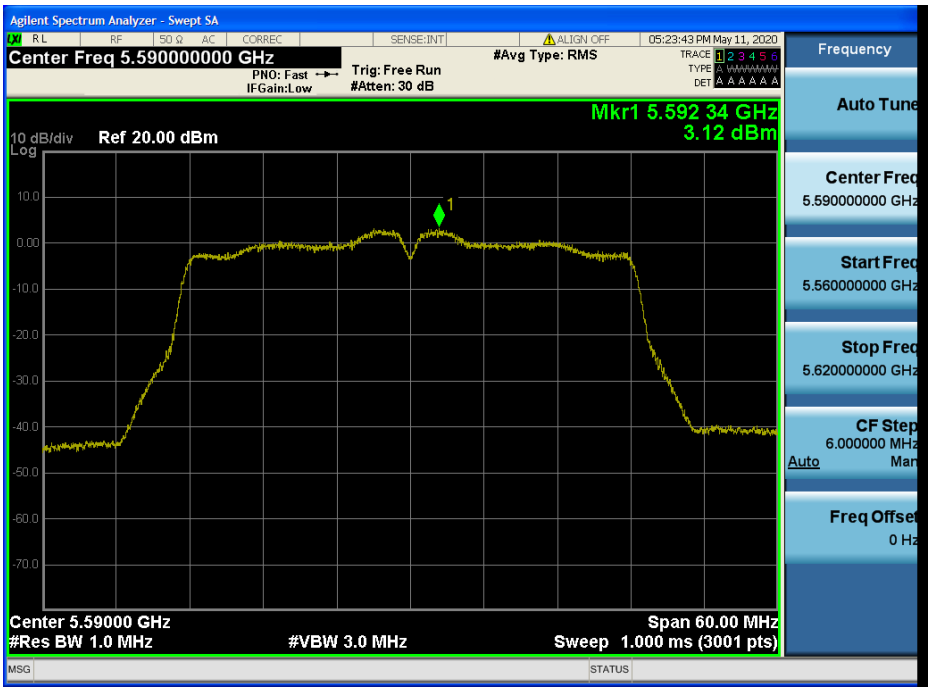


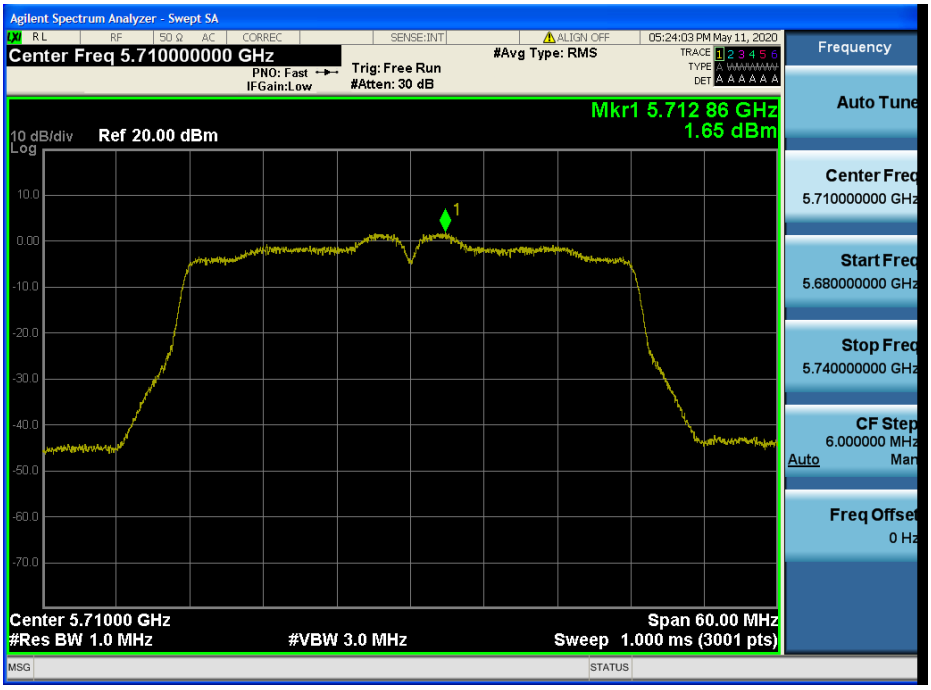
Maximum Power Spectral Density Test Mode: TM 3 & ANT 2 & Ch.102



Maximum Power Spectral Density Test Mode: TM 3 & ANT 2 & Ch.118

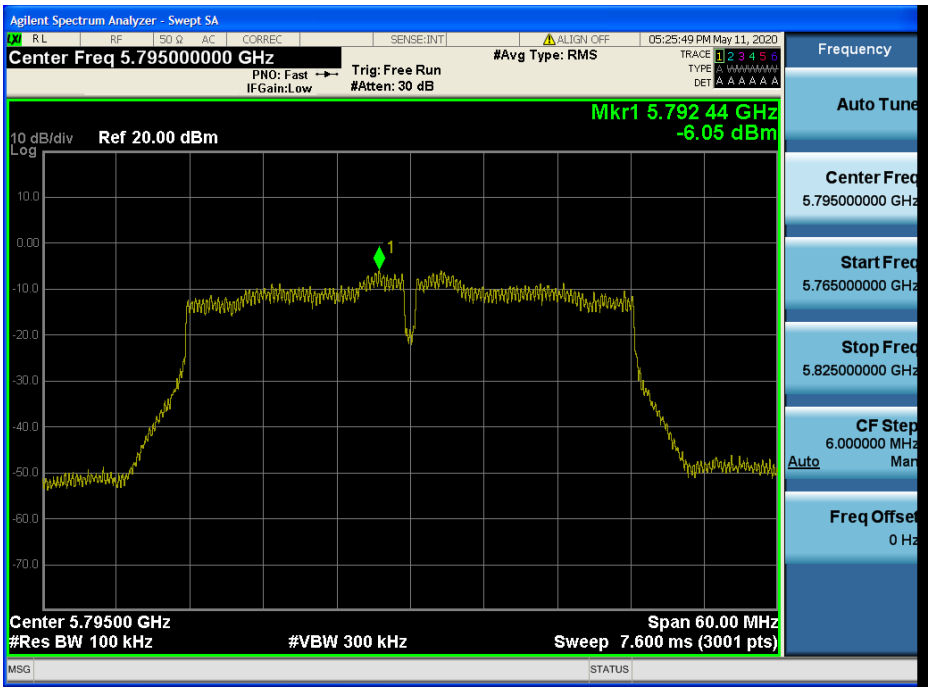


Maximum Power Spectral Density Test Mode: TM 3 & ANT 2 & Ch.142



Maximum Power Spectral Density Test Mode: TM 3 & ANT 2 & Ch.151

Maximum Power Spectral Density Test Mode: TM 3 & ANT 2 & Ch.159



Maximum Power Spectral Density Test Mode: TM 4 & ANT 2 & Ch.42

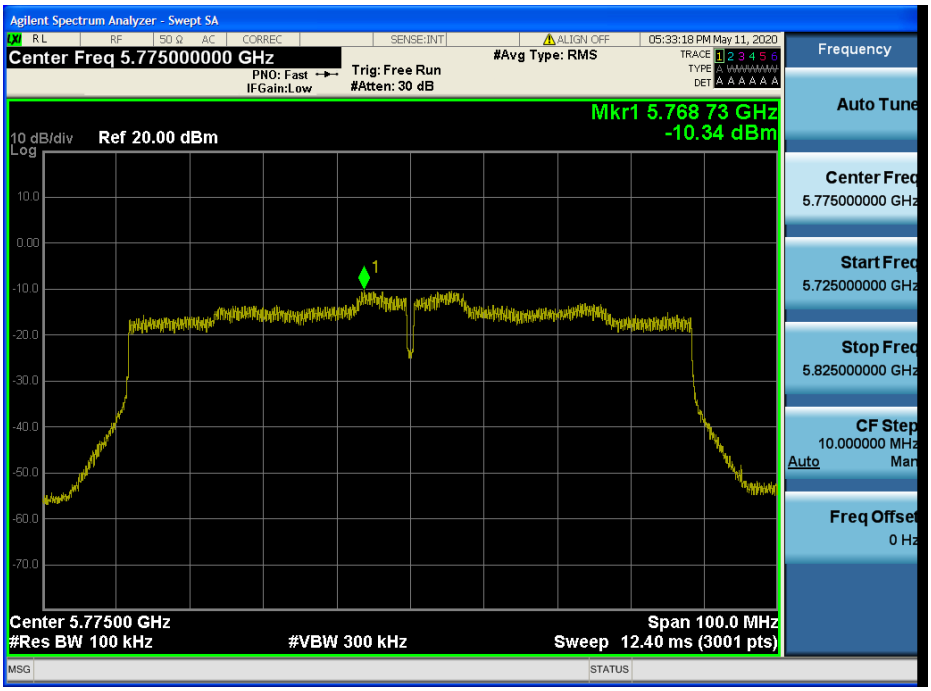
Maximum Power Spectral Density Test Mode: TM 4 & ANT 2 & Ch.58

Maximum Power Spectral Density Test Mode: TM 4 & ANT 2 & Ch.106

Maximum Power Spectral Density Test Mode: TM 4 & ANT 2 & Ch.122

Maximum Power Spectral Density Test Mode: TM 4 & ANT 2 & Ch.138

Maximum Power Spectral Density Test Mode: TM 4 & ANT 2 & Ch.155



8.5 Radiated Spurious Emission Measurements

▣ Test Requirements

▪ **FCC Part 15.209(a) and (b)**

Frequency (MHz)	Limit (uV/m)	Measurement Distance (meter)
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

** Except as provided in 15.209(g), fundamental emissions from intentional radiators operating under this Section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of this Part, e.g. 15.231 and 15.241.

▪ **FCC Part 15.205 (a):** Only spurious emissions are permitted in any of the frequency bands listed below:

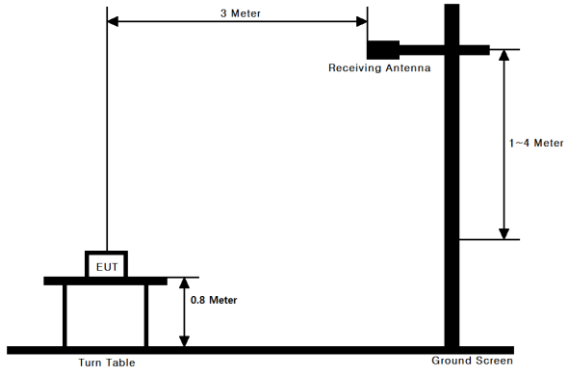
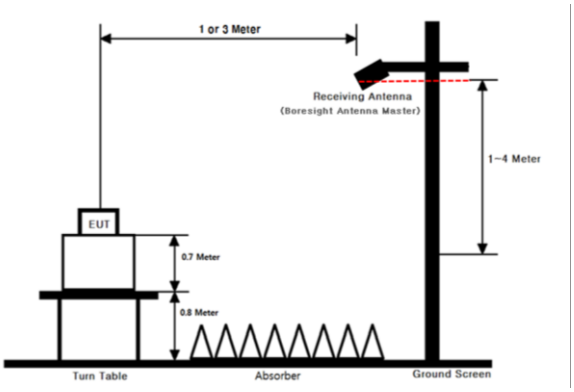
MHz	MHz	MHz	MHz	GHz	GHz
0.009 ~ 0.110	8.41425 ~ 8.41475	108 ~ 121.94	1300 ~ 1427	4.5 ~ 5.15	14.47 ~ 14.5
0.495 ~ 0.505	12.29 ~ 12.293	123 ~ 138	1435 ~ 1626.5	5.35 ~ 5.46	15.35 ~ 16.2
2.1735 ~ 2.1905	12.51975 ~	149.9 ~ 150.05	1645.5 ~ 1646.5	7.25 ~ 7.75	17.7 ~ 21.4
4.125 ~ 4.128	12.52025	160.52475 ~	1660 ~ 1710	8.025 ~ 8.5	22.01 ~ 23.12
4.17725 ~ 4.17775	12.57675 ~	160.52525	1718.8 ~ 1722.2	9.0 ~ 9.2	23.6 ~ 24.0
4.20725 ~ 4.20775	12.57725	160.7 ~ 160.9	2200 ~ 2300	9.3 ~ 9.5	31.2 ~ 31.8
6.215 ~ 6.218	13.36 ~ 13.41	162.0125 ~ 167.17	2310 ~ 2390	10.6 ~ 12.7	36.43 ~ 36.5
6.26775 ~ 6.26825	16.42 ~ 16.423	167.72 ~ 173.2	2483.5 ~ 2500	13.25 ~ 13.4	Above 38.6
6.31175 ~ 6.31225	16.69475 ~	240 ~ 285	2655 ~ 2900		
8.291 ~ 8.294	16.69525	322 ~ 335.4	3260 ~ 3267		
8.362 ~ 8.366	16.80425 ~	399.90 ~ 410	3332 ~ 3339		
8.37625 ~ 8.38675	16.80475	608 ~ 614	3345.8 ~ 3358		
	25.5 ~ 25.67	960 ~ 1240	3600 ~ 4000		
	37.5 ~ 38.25				
	73 ~ 74.6				
	74.8 ~ 75.2				

▪ **FCC Part 15.205(b):** The field strength of emissions appearing within these frequency bands shall not exceed the limits shown in §15.209. At frequencies equal to or less than 1000 MHz, compliance with the limits in §15.209 shall be demonstrated using measurement instrumentation employing a CISPR quasi-peak detector. Above 1000 MHz, compliance with the emission limits in §15.209 shall be demonstrated based on the average value of the measured emissions. The provisions in §15.35 apply to these measurements.

▪ **FCC Part 15.407 (b):** Undesirable emission limits. Except as shown in paragraph (b)(7) of this section, the maximum emissions outside of the frequency bands of operation shall be attenuated in accordance with the following limits:

(1) For transmitters operating in the **5.15 GHz -5.25 GHz band**: all emissions outside of the **5.15 GHz -5.35 GHz band** shall not exceed an **EIRP of -27 dBm/MHz**.
(2) For transmitters operating in the **5.25 GHz -5.35 GHz band**: all emissions outside of the **5.15 GHz -5.35 GHz band** shall not exceed an **EIRP of -27 dBm/MHz**.
(3) For transmitters operating in the **5.47 GHz -5.725 GHz band**: all emissions outside of the **5.47 GHz -5.725 GHz band** shall not exceed an **EIRP of -27 dBm/MHz.**
(4) For transmitters operating in the **5.725 GHz - 5.85 GHz band**: 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.
(5) The emission measurements shall be performed using a minimum resolution bandwidth of 1 MHz. A lower resolution bandwidth may be employed near the band edge, when necessary, provided the measured energy is integrated to show the total power over 1 MHz.
(6) Unwanted emissions **below 1 GHz** must comply with the general field strength limits set forth in **Section 15.209**. Further, any U-NII devices using an **AC power line** are required to comply also with the conducted limits set forth in **Section 15.207**.
(7) The provisions of §15.205 apply to intentional radiators operating under this section
(8) When measuring the emission limits, the nominal carrier frequency shall be adjusted as close to the upper and lower frequency band edges as the design of the equipment permits.

▣ Test Configuration

Below 1 GHz	Above 1 GHz
	

▣ Test Procedure

1. The EUT is placed on a non-conductive table. For emission measurements at or below 1 GHz, the table height is 80 cm. For emission measurements above 1 GHz, the table height is 1.5 m.
2. The turn table shall be rotated for 360 degrees to determine the position of maximum emission level.
3. EUT is set 1 m or 3 m away from the receiving antenna, which is varied from 1m to 4 m to find out the highest emissions.
4. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
5. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
6. Repeat above procedures until the measurements for all frequencies are complete.

Radiated spurious emission measured using following Measurement Procedure **of KDB789033 D02v02r01**

► General Requirements for Unwanted Emissions Measurements

The following requirements apply to all unwanted emissions measurements, both in and outside of the restricted bands:

- EUT Duty Cycle

(1) The EUT shall be configured or modified to **transmit continuously** except as stated in (ii), below. The intent is to test at 100 percent duty cycle; however a small reduction in duty cycle (**to no lower than 98 percent**) is permitted if required by the EUT for amplitude control purposes. Manufacturers are expected to provide software to the test lab to permit such continuous operation.

(2) If **continuous transmission (or at least 98 percent duty cycle) cannot be achieved** due to hardware limitations of the EUT (e.g., overheating), the following additions to the measurement and reporting procedures are required:

- The EUT shall be configured to operate at the maximum achievable duty cycle.
- Measure the duty cycle, x, of the transmitter output signal.
- Adjustments to measurement procedures (e.g., increasing test time and number of traces averaged) shall be performed as described in the procedures below.
- The test report shall include the following additional information:
  - The reason for the duty cycle limitation.
  - The duty cycle achieved for testing and the associated transmit duration and interval between transmissions.
  - The sweep time and the amount of time used for trace stabilization during max-hold measurements for peak emission measurements.

(3) Reduction of the measured emission amplitude levels to account for operational duty factor is not permitted. Compliance is based on emission levels occurring during transmission - not on an average across on and off times of the transmitter.

► **Measurements below 1 000 MHz**

a) Follow the requirements in section II.G.3, “General Requirements for Unwanted Emissions Measurements”.

b) Compliance shall be demonstrated using **CISPR quasi-peak detection**; however, **peak detection** is permitted as an alternative to quasi-peak detection.

► **Measurements Above 1 000 MHz (Peak)**

a) Follow the requirements in section II.G.3, “General Requirements for Unwanted Emissions Measurements”.

b) Peak emission levels are measured by setting the analyzer as follows:

(i) **RBW = 1 MHz.**

(ii) **VBW ≥ 3 MHz.**

(iii) **Detector = Peak.**

(iv) Sweep time = Auto.

(v) Trace mode = Max hold.

(vi) Allow sweeps to continue until the trace stabilizes. Note that if the transmission is not continuous, the time required for the trace to stabilize will increase by a factor of approximately 1/x, where x is the duty cycle. For example, at 50 percent duty cycle, the measurement time will increase by a factor of two relative to measurement time for continuous transmission.

► **Measurements Above 1 000 MHz (Method AD)**

(i) **RBW = 1 MHz.**

(ii) **VBW ≥ 3 MHz.**

(iii) **Detector = RMS**, if span / (# of points in sweep) ≤ RBW / 2. Satisfying this condition may require increasing the number of points in the sweep or reducing the span. If the condition is not satisfied, the detector mode shall be set to peak.

(iv) Averaging type = power (i.e., RMS)

- As an alternative, the detector and averaging type may be set for linear voltage averaging. Some analyzers require linear display mode in order to use linear voltage averaging. Log or dB averaging shall not be used.

(v) Sweep time = Auto.

(vi) Perform a trace average of at least 100 traces if the transmission is continuous. If the transmission is not continuous, the number of traces shall be increased by a factor of 1/x, where x is the duty cycle. For example, with 50 percent duty cycle, at least 200 traces shall be averaged.

(vii) If tests are performed with the EUT transmitting at a duty cycle less than 98 percent, a correction factor shall be added to the measurement results prior to comparing to the emission limit in order to compute the emission level that would have been measured had the test been performed at 100 percent duty cycle. The correction factor is computed as follows:

- **If power averaging (RMS) mode was used in step (iv) above, the correction factor is 10 log(1 / x), where x is the duty cycle.** For example, if the transmit duty cycle was 50 percent, then 3 dB must be added to the measured emission levels.
- If linear voltage averaging mode was used in step (iv) above, the correction factor is 20 log (1/x), where x is the duty cycle. For example, if the transmit duty cycle was 50 percent, then 6 dB must be added to the measured emission levels.
- If a specific emission is demonstrated to be continuous (100 percent duty cycle) rather than turning on and off with the transmit cycle, no duty cycle correction is required for that emission.

Please refer to Appendix II for the duty correction factor

▣ Test Results

Test Notes

1. No other spurious and harmonic emissions were found greater than listed emissions on below table.
2. Sample Calculation.
   Margin = Limit – Result / Result = Reading + T.F+ DCCF + DCF / T.F = AF + CL – AG
   Where, T.F = Total Factor, AF = Antenna Factor, CL = Cable Loss, AG = Amplifier Gain,
   DCCF = Duty Cycle Correction Factor, DCF = Distance Correction Factor
3. Information of Distance Factor
   For finding emissions, the test distance might be reduced from 3m to 1m. In this case, the distance factor(-9.54dB) is applied to the result.
   - Calculation of distance factor = 20 log(applied distance / required distance) = 20 log(1 m / 3 m) = -9.54 dB
   When distance factor is "N/A", the distance is 3 m and distance factor is not applied.
4. The limit is converted to field strength.
   E[dBuV/m] = EIRP[dBm] + 95.2 dB = -27 dBm + 95.2 = 68.2 dBuV/m

Radiated Spurious Emissions data(9 kHz ~ 40 GHz) : *TM1_Normal*

Band	Tested Channel	Freq. (MHz)	ANT Pol	EUT Position (Axis)	Detector Mode	Reading (dBuV)	T.F (dB/m)	DCCF (dB)	DCF (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)
U-NII 1	36 (5 180 MHz)	5 148.34	V	X	PK	51.83	1.78	N/A	N/A	53.61	74.00	20.39
		5 148.79	V	X	AV	42.72	1.79	0.11	N/A	44.62	54.00	9.38
		10 360.35	V	X	PK	43.53	10.68	N/A	N/A	54.21	68.20	13.99
	40 (5 200 MHz)	10 399.86	V	X	PK	44.16	10.73	N/A	N/A	54.89	68.20	13.31
	48 (5 240 MHz)	10 480.12	V	X	PK	44.10	10.72	N/A	N/A	54.82	68.20	13.38
U-NII 2A	52 (5 260 MHz)	10 520.25	V	X	PK	45.60	10.78	N/A	N/A	56.38	68.20	11.82
	60 (5 300 MHz)	10 600.14	V	X	PK	44.58	10.84	N/A	N/A	55.42	74.00	18.58
		10 600.17	V	X	AV	33.73	10.84	0.11	N/A	44.68	54.00	9.32
	64 (5 320 MHz)	5 351.42	V	X	PK	50.80	3.33	N/A	N/A	54.13	74.00	19.87
		5 351.59	V	X	AV	41.02	3.33	0.11	N/A	44.46	54.00	9.54
		10 639.70	V	X	PK	43.28	10.84	N/A	N/A	54.12	74.00	19.88
		10 639.60	V	X	AV	32.55	10.84	0.11	N/A	43.50	54.00	10.50
U-NII 2C	100 (5 500 MHz)	5 458.29	V	X	PK	51.31	3.43	N/A	N/A	54.74	74.00	19.26
		5 458.38	V	X	AV	40.86	3.43	0.11	N/A	44.40	54.00	9.60
		5 469.51	V	X	PK	50.99	3.43	N/A	N/A	54.42	68.20	13.78
		10 999.62	V	X	PK	43.79	10.95	N/A	N/A	54.74	74.00	19.26
		10 999.53	V	X	AV	33.32	10.95	0.11	N/A	44.38	54.00	9.62
	120 (5 600 MHz)	11 200.34	V	X	PK	44.26	10.97	N/A	N/A	55.23	74.00	18.77
		11 200.25	V	X	AV	34.04	10.97	0.11	N/A	45.12	54.00	8.88
	144 (5 720 MHz)	11 440.43	V	X	PK	43.99	11.06	N/A	N/A	55.05	74.00	18.95
		11 440.23	V	X	AV	33.48	11.06	0.11	N/A	44.65	54.00	9.35
U-NII 3	149 (5 745 MHz)	5 714.27	V	X	PK	51.38	3.30	N/A	N/A	54.68	68.20	13.52
		5 722.29	V	X	PK	53.75	3.17	N/A	N/A	56.92	78.20	21.28
		11 490.06	V	X	PK	44.07	11.14	N/A	N/A	55.21	74.00	18.79
		11 490.05	V	X	AV	33.81	11.14	0.11	N/A	45.06	54.00	8.94
	157 (5 785 MHz)	11 569.71	V	X	PK	44.64	11.53	N/A	N/A	56.17	74.00	17.83
		11 569.88	V	X	AV	33.92	11.53	0.11	N/A	45.56	54.00	8.44
	165 (5 825 MHz)	5 851.35	V	X	PK	52.48	3.69	N/A	N/A	56.17	78.20	22.03
		5 861.60	V	X	PK	51.29	3.73	N/A	N/A	55.02	68.20	13.18
		11 649.52	V	X	PK	43.85	11.85	N/A	N/A	55.70	74.00	18.30
		11 649.82	V	X	AV	34.10	11.85	0.11	N/A	46.06	54.00	7.94

Radiated Spurious Emissions data(9 kHz ~ 40 GHz) : *TM2_Normal*

Band	Tested Channel	Freq. (MHz)	ANT Pol	EUT Position (Axis)	Detector Mode	Reading (dBuV)	T.F (dB/m)	DCCF (dB)	DCF (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)
U-NII 1	36 (5 180 MHz)	5 147.71	V	X	PK	50.39	1.78	N/A	N/A	52.17	74.00	21.83
		5 147.74	V	X	AV	41.88	1.78	0.19	N/A	43.85	54.00	10.15
		10 360.17	V	X	PK	44.62	10.68	N/A	N/A	55.30	68.20	12.90
	40 (5 200 MHz)	10 400.04	V	X	PK	43.74	10.73	N/A	N/A	54.47	68.20	13.73
	48 (5 240 MHz)	10 480.08	V	X	PK	43.68	10.72	N/A	N/A	54.40	68.20	13.80
U-NII 2A	52 (5 260 MHz)	10 520.32	V	X	PK	43.38	10.78	N/A	N/A	54.16	68.20	14.04
	60 (5 300 MHz)	10 600.32	V	X	PK	44.29	10.84	N/A	N/A	55.13	74.00	18.87
		10 600.13	V	X	AV	33.53	10.84	0.19	N/A	44.56	54.00	9.44
	64 (5 320 MHz)	5 352.26	V	X	PK	51.19	3.33	N/A	N/A	54.52	74.00	19.48
		5 352.43	V	X	AV	41.20	3.33	0.19	N/A	44.72	54.00	9.28
		10 639.52	V	X	PK	42.76	10.84	N/A	N/A	53.60	74.00	20.40
		10 639.63	V	X	AV	32.53	10.84	0.19	N/A	43.56	54.00	10.44
U-NII 2C	100 (5 500 MHz)	5 459.20	V	X	PK	50.68	3.43	N/A	N/A	54.11	74.00	19.89
		5 458.94	V	X	AV	40.89	3.43	0.19	N/A	44.51	54.00	9.49
		5 468.48	V	X	PK	50.47	3.43	N/A	N/A	53.90	68.20	14.30
		11 000.11	V	X	PK	43.63	10.95	N/A	N/A	54.58	74.00	19.42
		11 000.03	V	X	AV	33.56	10.95	0.19	N/A	44.70	54.00	9.30
	120 (5 600 MHz)	11 200.14	V	X	PK	44.03	10.97	N/A	N/A	55.00	74.00	19.00
		11 200.32	V	X	AV	33.98	10.97	0.19	N/A	45.14	54.00	8.86
	144 (5 720 MHz)	11 439.85	V	X	PK	43.89	11.06	N/A	N/A	54.95	74.00	19.05
		11 439.51	V	X	AV	33.62	11.06	0.19	N/A	44.87	54.00	9.13
U-NII 3	149 (5 745 MHz)	5 713.05	V	X	PK	51.95	3.29	N/A	N/A	55.24	68.20	12.96
		5 721.64	V	X	PK	52.01	3.18	N/A	N/A	55.19	78.20	23.01
		11 490.26	V	X	PK	44.67	11.14	N/A	N/A	55.81	74.00	18.19
		11 490.14	V	X	AV	33.86	11.14	0.19	N/A	45.19	54.00	8.81
	157 (5 785 MHz)	11 570.32	V	X	PK	44.18	11.53	N/A	N/A	55.71	74.00	18.29
		11 570.34	V	X	AV	34.14	11.53	0.19	N/A	45.86	54.00	8.14
	165 (5 825 MHz)	5 850.61	V	X	PK	51.42	3.68	N/A	N/A	55.10	78.20	23.10
		5 860.73	V	X	PK	50.84	3.75	N/A	N/A	54.59	68.20	13.61
		11 649.55	V	X	PK	44.81	11.85	N/A	N/A	56.66	74.00	17.34
		11 649.54	V	X	AV	34.03	11.85	0.19	N/A	46.07	54.00	7.93

Radiated Spurious Emissions data(9 kHz ~ 40 GHz) : *TM3 _Normal*

Band	Tested Channel	Freq. (MHz)	ANT Pol	EUT Position (Axis)	Detector Mode	Reading (dBuV)	T.F (dB/m)	DCCF (dB)	DCF (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)
U-NII 1	38 (5 190 MHz)	5 149.30	V	X	PK	54.89	1.79	N/A	N/A	56.68	74.00	17.32
		5 149.56	V	X	AV	44.42	1.79	0.26	N/A	46.47	54.00	7.53
		10 379.83	V	X	PK	43.20	10.70	N/A	N/A	53.90	68.20	14.30
	46 (5 230 MHz)	10 460.09	V	X	PK	43.64	10.69	N/A	N/A	54.33	68.20	13.87
U-NII 2A	54 (5 270 MHz)	10 540.47	V	X	PK	43.51	10.82	N/A	N/A	54.33	68.20	13.87
	62 (5 310 MHz)	5 352.33	V	X	PK	51.94	3.33	N/A	N/A	55.27	74.00	18.73
		5 352.17	V	X	AV	42.39	3.33	0.26	N/A	45.98	54.00	8.02
		10 619.52	V	X	PK	43.50	10.84	N/A	N/A	54.34	74.00	19.66
		10 620.10	V	X	AV	32.90	10.84	0.26	N/A	44.00	54.00	10.00
U-NII 2C	102 (5 510 MHz)	5 458.61	V	X	PK	49.38	3.43	N/A	N/A	52.81	74.00	21.19
		5 458.75	V	X	AV	39.10	3.43	0.26	N/A	42.79	54.00	11.21
		5 468.02	V	X	PK	49.12	3.43	N/A	N/A	52.55	68.20	15.65
		11 019.60	V	X	PK	44.26	10.94	N/A	N/A	55.20	74.00	18.80
		11 019.92	V	X	AV	33.90	10.94	0.26	N/A	45.10	54.00	8.90
	118 (5 590 MHz)	11 180.29	V	X	PK	44.77	10.98	N/A	N/A	55.75	74.00	18.25
		11 180.31	V	X	AV	33.73	10.98	0.26	N/A	44.97	54.00	9.03
	142 (5 710 MHz)	11 419.90	V	X	PK	44.76	11.03	N/A	N/A	55.79	74.00	18.21
		11 419.76	V	X	AV	34.07	11.03	0.26	N/A	45.36	54.00	8.64
U-NII 3	151 (5 755 MHz)	5 712.98	V	X	PK	52.97	3.29	N/A	N/A	56.26	68.20	11.94
		5 723.46	V	X	PK	58.54	3.15	N/A	N/A	61.69	78.20	16.51
		11 510.23	V	X	PK	44.83	11.21	N/A	N/A	56.04	74.00	17.96
		11 510.50	V	X	AV	33.89	11.22	0.26	N/A	45.37	54.00	8.63
	159 (5 795 MHz)	5 851.47	V	X	PK	51.53	3.69	N/A	N/A	55.22	78.20	22.98
		5 861.73	V	X	PK	51.73	3.73	N/A	N/A	55.46	68.20	12.74
		11 589.81	V	X	PK	44.68	11.64	N/A	N/A	56.32	74.00	17.68
		11 589.81	V	X	AV	33.89	11.64	0.26	N/A	45.79	54.00	8.21

Radiated Spurious Emissions data(9 kHz ~ 40 GHz) : *TM4_Normal*

Band	Tested Channel	Freq. (MHz)	ANT Pol	EUT Position (Axis)	Detector Mode	Reading (dBuV)	T.F (dB/m)	DCCF (dB)	DCF (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)
U-NII 1	42 (5 210 MHz)	5 148.47	V	X	PK	56.29	1.78	N/A	N/A	58.07	74.00	15.93
		5 149.50	V	X	AV	46.88	1.79	0.16	N/A	48.83	54.00	5.17
		10 419.69	V	X	PK	43.93	10.71	N/A	N/A	54.64	68.20	13.56
U-NII 2A	58 (5 290 MHz)	5 351.10	V	X	PK	52.41	3.33	N/A	N/A	55.74	74.00	18.26
		5 350.30	V	X	AV	44.70	3.33	0.16	N/A	48.19	54.00	5.81
		10 579.65	V	X	PK	44.65	10.84	N/A	N/A	55.49	68.20	12.71
U-NII 2C	106 (5 530 MHz)	5 458.57	V	X	PK	49.40	3.43	N/A	N/A	52.83	74.00	21.17
		5 458.24	V	X	AV	39.15	3.43	0.16	N/A	42.74	54.00	11.26
		5 468.27	V	X	PK	48.58	3.43	N/A	N/A	52.01	68.20	16.19
		11 059.87	V	X	PK	45.38	10.93	N/A	N/A	56.31	74.00	17.69
		11 059.91	V	X	AV	33.92	10.93	0.16	N/A	45.01	54.00	8.99
	122 (5 610 MHz)	11 219.54	V	X	PK	44.14	10.93	N/A	N/A	55.07	74.00	18.93
		11 219.95	V	X	AV	33.81	10.93	0.16	N/A	44.90	54.00	9.10
	138 (5 690 MHz)	11 379.87	V	X	PK	44.66	10.97	N/A	N/A	55.63	74.00	18.37
		11 379.87	V	X	AV	33.74	10.97	0.16	N/A	44.87	54.00	9.13
U-NII 3	155 (5 775 MHz)	5 714.22	V	X	PK	53.21	3.30	N/A	N/A	56.51	68.20	11.69
		5 720.45	V	X	PK	53.58	3.20	N/A	N/A	56.78	78.20	21.42
		5 853.87	V	X	PK	54.62	3.71	N/A	N/A	58.33	78.20	19.87
		5 861.93	V	X	PK	51.29	3.72	N/A	N/A	55.01	68.20	13.19
		11 550.19	V	X	PK	44.62	11.43	N/A	N/A	56.05	74.00	17.95
		11 550.22	V	X	AV	33.74	11.43	0.16	N/A	45.33	54.00	8.67

Radiated Spurious Emissions data(9 kHz ~ 40 GHz) :*TM 4 & With Wireless charging pad*

Band	Tested Channel	Freq. (MHz)	ANT Pol	EUT Position (Axis)	Detector Mode	Reading (dBuV)	T.F (dB/m)	DCCF (dB)	DCF (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)
U-NII 1	42 (5 210 MHz)	5 149.21	V	X	PK	55.72	1.79	N/A	N/A	57.51	74.00	16.49
		5 149.65	V	X	AV	46.13	1.79	0.16	N/A	48.08	54.00	5.92
		10 420.45	H	X	PK	44.22	10.71	N/A	N/A	54.93	68.20	13.27

Radiated Spurious Emissions data(9 kHz ~ 40 GHz) : *TM 4 & With Wireless charging pad*

Band	Tested Channel	Freq. (MHz)	ANT Pol	EUT Position (Axis)	Detector Mode	Reading (dBuV)	T.F (dB/m)	DCCF (dB)	DCF (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)
U-NII 2A	58 (5 290 MHz)	5 350.56	V	X	PK	52.78	3.33	N/A	N/A	56.11	74.00	17.89
		5 350.82	V	X	AV	42.67	3.33	0.16	N/A	46.16	54.00	7.84
		10 580.03	H	X	PK	44.57	10.84	N/A	N/A	55.41	68.20	12.79

Radiated Spurious Emissions data(9 kHz ~ 40 GHz) : *TM 3 & With Wireless charging pad*

Band	Tested Channel	Freq. (MHz)	ANT Pol	EUT Position (Axis)	Detector Mode	Reading (dBuV)	T.F (dB/m)	DCCF (dB)	DCF (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)
U-NII 2C	142 (5 710 MHz)	11 420.30	H	X	44.41	PK	11.03	N/A	N/A	55.44	74.00	18.56
		11 420.05	H	X	34.04	AV	11.03	0.26	N/A	45.33	54.00	8.67

Radiated Spurious Emissions data(9 kHz ~ 40 GHz) : *TM 2 & With Wireless charging pad*

Band	Tested Channel	Freq. (MHz)	ANT Pol	EUT Position (Axis)	Detector Mode	Reading (dBuV)	T.F (dB/m)	DCCF (dB)	DCF (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)
U-NII 3	165 (5 825 MHz)	5 852.85	V	X	PK	51.46	3.70	N/A	N/A	55.16	78.20	23.04
		5 860.87	V	X	PK	50.52	3.75	N/A	N/A	54.27	68.20	13.93
		11 649.63	H	X	PK	44.05	11.85	N/A	N/A	55.90	74.00	18.10
		11 649.68	H	X	AV	33.88	11.85	0.19	N/A	45.92	54.00	8.08

Radiated Spurious Emissions data(9 kHz ~ 40 GHz) : *TM 4 & With Dual display*

Band	Tested Channel	Freq. (MHz)	ANT Pol	EUT Position (Axis)	Detector Mode	Reading (dBuV)	T.F (dB/m)	DCCF (dB)	DCF (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)
U-NII 1	42 (5 210 MHz)	5 142.95	V	X	PK	59.02	1.76	N/A	N/A	60.78	74.00	13.22
		5 142.60	V	X	AV	47.66	1.76	0.16	N/A	49.58	54.00	4.42
		10 420.14	V	X	PK	43.62	10.71	N/A	N/A	54.33	68.20	13.87
		15 629.92	V	X	PK	44.01	13.07	N/A	N/A	57.08	74.00	16.92
		15 629.64	V	X	AV	33.63	13.07	0.16	N/A	46.86	54.00	7.14

Radiated Spurious Emissions data(9 kHz ~ 40 GHz) : *TM 4 & With Dual display*

Band	Tested Channel	Freq. (MHz)	ANT Pol	EUT Position (Axis)	Detector Mode	Reading (dBuV)	T.F (dB/m)	DCCF (dB)	DCF (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)
U-NII 2A	58 (5 290 MHz)	5 350.93	V	X	PK	53.47	3.33	N/A	N/A	56.80	74.00	17.20
		5 350.44	V	X	AV	45.43	3.33	0.16	N/A	48.92	54.00	5.08
		10 580.45	V	X	PK	44.41	10.84	N/A	N/A	55.25	68.20	12.95
		15 870.48	V	X	PK	43.89	14.19	N/A	N/A	58.08	74.00	15.92
		15 870.10	V	X	AV	33.66	14.18	0.16	N/A	48.00	54.00	6.00

Radiated Spurious Emissions data(9 kHz ~ 40 GHz) : *TM 3 & With Dual display*

Band	Tested Channel	Freq. (MHz)	ANT Pol	EUT Position (Axis)	Detector Mode	Reading (dBuV)	T.F (dB/m)	DCCF (dB)	DCF (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)
U-NII 2C	102 (5 510 MHz)	5 459.29	V	X	PK	48.45	3.43	N/A	N/A	51.88	74.00	22.12
		5 459.45	V	X	AV	38.12	3.43	0.26	N/A	41.81	54.00	12.19
		5 467.34	V	X	PK	48.40	3.43	N/A	N/A	51.83	68.20	16.37
		11 020.00	V	X	PK	44.71	10.94	N/A	N/A	55.65	74.00	18.35
		11 020.17	V	X	AV	33.66	10.94	0.26	N/A	44.86	54.00	9.14
		16 529.90	V	X	PK	43.80	16.97	N/A	N/A	60.77	68.20	7.43

Radiated Spurious Emissions data(9 kHz ~ 40 GHz) : *TM 3 & With Dual display*

Band	Tested Channel	Freq. (MHz)	ANT Pol	EUT Position (Axis)	Detector Mode	Reading (dBuV)	T.F (dB/m)	DCCF (dB)	DCF (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)
U-NII 2C	142 (5 710 MHz)	11 419.70	V	X	PK	44.15	11.03	N/A	N/A	55.18	74.00	18.82
		11 419.53	V	X	AV	34.02	11.03	0.26	N/A	45.31	54.00	8.69
		17 129.57	V	X	PK	41.08	21.10	N/A	N/A	62.18	68.20	6.02

Radiated Spurious Emissions data(9 kHz ~ 40 GHz) : *TM 2 & With Dual display*

Band	Tested Channel	Freq. (MHz)	ANT Pol	EUT Position (Axis)	Detector Mode	Reading (dBuV)	T.F (dB/m)	DCCF (dB)	DCF (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)
U-NII 3	165 (5 825 MHz)	5 850.44	V	X	PK	52.32	3.68	N/A	N/A	56.00	78.20	22.20
		5 860.13	V	X	PK	50.83	3.77	N/A	N/A	54.60	68.20	13.60
		11 649.91	V	X	PK	44.94	11.85	N/A	N/A	56.79	74.00	17.21
		11 649.83	V	X	AV	34.11	11.85	0.19	N/A	46.15	54.00	7.85
		17 474.65	V	X	PK	40.73	23.70	N/A	N/A	64.43	68.20	3.77

Radiated Spurious Emissions data(9 kHz ~ 40 GHz) : *TM 4 & With Dual Display + WCP*

Band	Tested Channel	Freq. (MHz)	ANT Pol	EUT Position (Axis)	Detector Mode	Reading (dBuV)	T.F (dB/m)	DCCF (dB)	DCF (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)
U-NII 1	42 (5 210 MHz)	5 149.18	V	X	PK	55.63	1.79	N/A	N/A	57.42	74.00	16.58
		5 149.18	V	X	AV	45.37	1.79	0.16	N/A	47.32	54.00	6.68
		10 420.02	V	X	PK	44.15	10.71	N/A	N/A	54.86	68.20	13.34
		15 630.16	V	X	PK	43.94	13.07	N/A	N/A	57.01	74.00	16.99
		15 630.10	V	X	AV	34.08	13.07	0.16	N/A	47.31	54.00	6.69

Radiated Spurious Emissions data(9 kHz ~ 40 GHz) : *TM 4 & With Dual Display + WCP*

Band	Tested Channel	Freq. (MHz)	ANT Pol	EUT Position (Axis)	Detector Mode	Reading (dBuV)	T.F (dB/m)	DCCF (dB)	DCF (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)
U-NII 2A	58 (5 290 MHz)	5 351.21	V	X	PK	51.98	3.33	N/A	N/A	55.31	74.00	18.69
		5 350.72	V	X	AV	42.73	3.33	0.16	N/A	46.22	54.00	7.78
		10 579.68	V	X	PK	43.85	10.84	N/A	N/A	54.69	68.20	13.51
		15 870.06	V	X	PK	43.90	14.18	N/A	N/A	58.08	74.00	15.92
		15 870.61	V	X	AV	33.65	14.19	0.16	N/A	48.00	54.00	6.00

Radiated Spurious Emissions data(9 kHz ~ 40 GHz) : *TM 3 & With Dual Display + WCP*

Band	Tested Channel	Freq. (MHz)	ANT Pol	EUT Position (Axis)	Detector Mode	Reading (dBuV)	T.F (dB/m)	DCCF (dB)	DCF (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)
U-NII 2C	102 (5 510 MHz)	5 458.68	V	X	PK	48.32	3.43	N/A	N/A	51.75	74.00	22.25
		5 458.50	V	X	AV	38.30	3.43	0.26	N/A	41.99	54.00	12.01
		5 469.42	V	X	PK	48.23	3.43	N/A	N/A	51.66	68.20	16.54
		11 020.34	V	X	PK	44.49	10.94	N/A	N/A	55.43	74.00	18.57
		11 020.11	V	X	AV	34.00	10.94	0.26	N/A	45.20	54.00	8.80
		16 529.55	V	X	PK	43.39	16.97	N/A	N/A	60.36	68.20	7.84

Radiated Spurious Emissions data(9 kHz ~ 40 GHz) : *TM 3 & With Dual Display + WCP*

Band	Tested Channel	Freq. (MHz)	ANT Pol	EUT Position (Axis)	Detector Mode	Reading (dBuV)	T.F (dB/m)	DCCF (dB)	DCF (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)
U-NII 2C	142 (5 710 MHz)	11 419.70	V	X	PK	44.78	11.03	N/A	N/A	55.81	74.00	18.19
		11 419.64	V	X	AV	33.90	11.03	0.26	N/A	45.19	54.00	8.81
		17 129.73	V	X	PK	41.15	21.11	N/A	N/A	62.26	68.20	5.94

Radiated Spurious Emissions data(9 kHz ~ 40 GHz) : *TM 2 & With Dual Display + WCP*

Band	Tested Channel	Freq. (MHz)	ANT Pol	EUT Position (Axis)	Detector Mode	Reading (dBuV)	T.F (dB/m)	DCCF (dB)	DCF (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)
U-NII 3	165 (5 825 MHz)	5 850.70	V	X	PK	50.67	3.68	N/A	N/A	54.35	78.20	23.85
		5 861.74	V	X	PK	51.02	3.73	N/A	N/A	54.75	68.20	13.45
		11 650.43	V	X	PK	44.35	11.86	N/A	N/A	56.21	74.00	17.79
		11 650.23	V	X	AV	33.88	11.86	0.19	N/A	45.93	54.00	8.07
		17 474.95	V	X	PK	40.70	23.71	N/A	N/A	64.41	68.20	3.79

- WiFi DBS(Dual-Band Simultaneous) Test Results

Radiated Spurious Emissions data(9 kHz ~ 40 GHz) :
Simultaneously transmission - Normal

	Antenna	Band	Mode	TX Frequency(MHz)
Transmitting Configuration	1	2.4GHz	802.11g	2 462 MHz
	2	U-NII 1	802.11ac(VHT80)	5 210 MHz

Freq. (MHz)	ANT Pol	EUT Position (Axis)	Detector Mode	Reading (dBuV)	T.F (dB/m)	DCCF (dB)	DCF (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)
2 483.63	V	Z	PK	61.41	5.25	N/A	N/A	66.66	74.00	7.34
2 483.59	V	Z	AV	44.23	5.25	0.60	N/A	50.08	54.00	3.92
4 924.26	V	Y	PK	49.81	1.45	N/A	N/A	51.26	74.00	22.74
4 924.42	V	Y	AV	39.12	1.45	0.60	N/A	41.17	54.00	12.83
5 148.67	V	X	PK	49.61	1.78	N/A	N/A	51.39	74.00	22.61
5 148.46	V	X	AV	41.06	1.78	0.16	N/A	43.00	54.00	11.00
10 419.57	V	X	PK	43.57	10.71	N/A	N/A	54.28	68.20	13.92

Radiated Spurious Emissions data(9 kHz ~ 40 GHz) :
Simultaneously transmission - With Wireless charging pad

	Antenna	Band	Mode	TX Frequency(MHz)
Transmitting Configuration	1	2.4GHz	802.11g	2 462 MHz
	2	U-NII 1	802.11ac(VHT80)	5 210 MHz

Freq. (MHz)	ANT Pol	EUT Position (Axis)	Detector Mode	Reading (dBuV)	T.F (dB/m)	DCCF (dB)	DCF (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)
2 483.57	H	X	PK	57.43	5.25	N/A	N/A	62.68	74.00	11.32
2 483.72	H	X	AV	40.54	5.25	0.60	N/A	46.39	54.00	7.61
4 923.71	V	X	PK	49.52	1.44	N/A	N/A	50.96	74.00	23.04
4 923.57	V	X	AV	39.21	1.44	0.60	N/A	41.25	54.00	12.75
5 148.95	V	X	PK	49.35	1.79	N/A	N/A	51.14	74.00	22.86
5 149.09	V	X	AV	39.90	1.79	0.16	N/A	41.85	54.00	12.15
10 419.98	H	X	PK	43.74	10.71	N/A	N/A	54.45	68.20	13.75

Radiated Spurious Emissions data(9 kHz ~ 40 GHz) :
Simultaneously transmission - With Dual Display

	Antenna	Band	Mode	TX Frequency(MHz)
Transmitting Configuration	1	2.4GHz	802.11g	2 462 MHz
	2	U-NII 1	802.11ac(VHT80)	5 210 MHz

Freq. (MHz)	ANT Pol	EUT Position (Axis)	Detector Mode	Reading (dBuV)	T.F (dB/m)	DCCF (dB)	DCF (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)
2 483.82	V	Z	PK	57.45	5.26	N/A	N/A	62.71	74.00	11.29
2 483.63	V	Z	AV	42.28	5.25	0.60	N/A	48.13	54.00	5.87
4 924.43	V	Y	PK	49.99	1.45	N/A	N/A	51.44	74.00	22.56
4 924.08	V	Y	AV	39.11	1.45	0.60	N/A	41.16	54.00	12.84
5 148.11	V	X	PK	51.78	1.78	N/A	N/A	53.56	74.00	20.44
5 147.88	V	X	AV	41.47	1.78	0.16	N/A	43.41	54.00	10.59
10 419.74	V	X	PK	43.73	10.71	N/A	N/A	54.44	68.20	13.76

Radiated Spurious Emissions data(9 kHz ~ 40 GHz) :
Simultaneously transmission - With Dual Display + Wireless charging pad

	Antenna	Band	Mode	TX Frequency(MHz)
Transmitting Configuration	1	2.4GHz	802.11g	2 462 MHz
	2	U-NII 1	802.11ac(VHT80)	5 210 MHz

Freq. (MHz)	ANT Pol	EUT Position (Axis)	Detector Mode	Reading (dBuV)	T.F (dB/m)	DCCF (dB)	DCF (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)
2 483.78	H	X	PK	60.94	5.26	N/A	N/A	66.20	74.00	7.80
2 483.83	H	X	AV	44.06	5.26	0.60	N/A	49.92	54.00	4.08
4 923.62	V	X	PK	49.65	1.44	N/A	N/A	51.09	74.00	22.91
4 924.03	V	X	AV	39.23	1.45	0.60	N/A	41.28	54.00	12.72
5 149.18	V	X	PK	50.46	1.79	N/A	N/A	52.25	74.00	21.75
5 149.00	V	X	AV	40.58	1.79	0.16	N/A	42.53	54.00	11.47
10 419.60	H	X	PK	43.95	10.71	N/A	N/A	54.66	68.20	13.54

8.6 AC Conducted Emissions

▣ Test Requirements and limit, §15.207

For an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies, within the band 150 kHz to 30 MHz, shall not exceed the limits in the following table, as measured using a 50 μH/50 ohms line impedance stabilization network (LISN).

Frequency Range (MHz)	Conducted Limit (dBuV)	
	Quasi-Peak	Average
0.15 ~ 0.5	66 to 56 *	56 to 46 *
0.5 ~ 5	56	46
5 ~ 30	60	50

* Decreases with the logarithm of the frequency

Compliance with this provision shall be based on the measurement of the radio frequency voltage between each power line (LINE and NEUTRAL) and ground at the power terminals.

▣ Test Configuration

See test photographs for the actual connections between EUT and support equipment.

▣ Test Procedure

Conducted emissions from the EUT were measured according to the ANSI C63.10-2013.

1. The test procedure is performed in a 6.5 m × 3.5 m × 3.5 m (L × W × H) shielded room. The EUT along with its peripherals were placed on a 1.0 m (W) × 1.5 m (L) and 0.8 m in height wooden table and the EUT was adjusted to maintain a 0.4 meter space from a vertical reference plane.
2. The EUT was connected to power mains through a line impedance stabilization network (LISN) which provides 50 ohm coupling impedance for measuring instrument and the chassis ground was bounded to the horizontal ground plane of shielded room.
3. All peripherals were connected to the second LISN and the chassis ground also bounded to the horizontal ground plane of shielded room.
4. The excess power cable between the EUT and the LISN was bundled. The power cables of peripherals were unbundled. All connecting cables of EUT and peripherals were moved to find the maximum emission.

▣ Test Results: Comply

Note 1: See next pages for actual measured spectrum plots and data for worst case result.