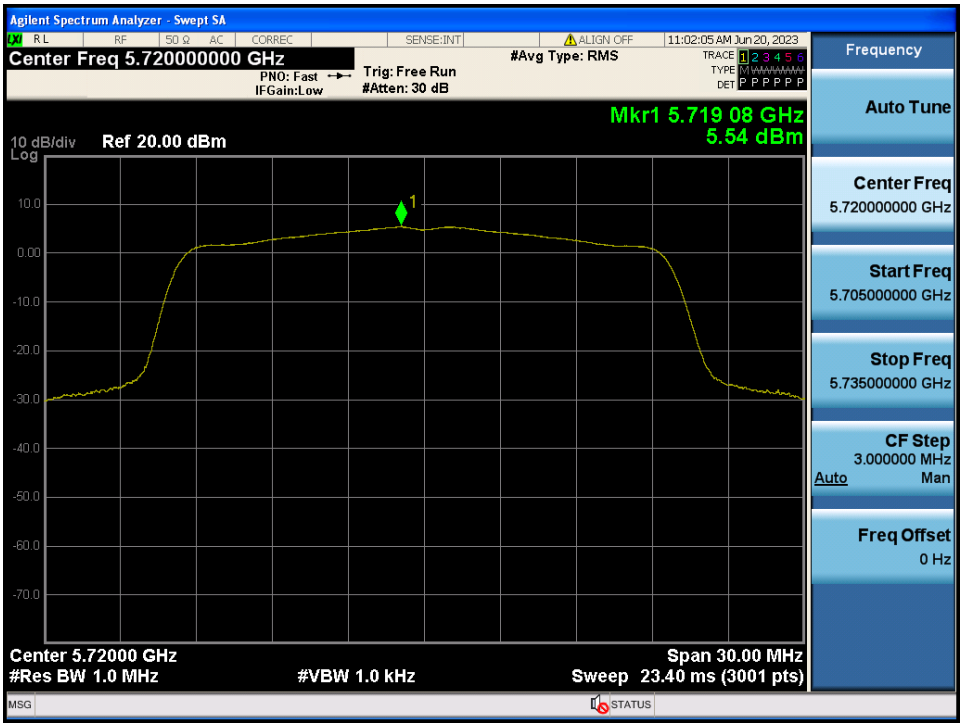
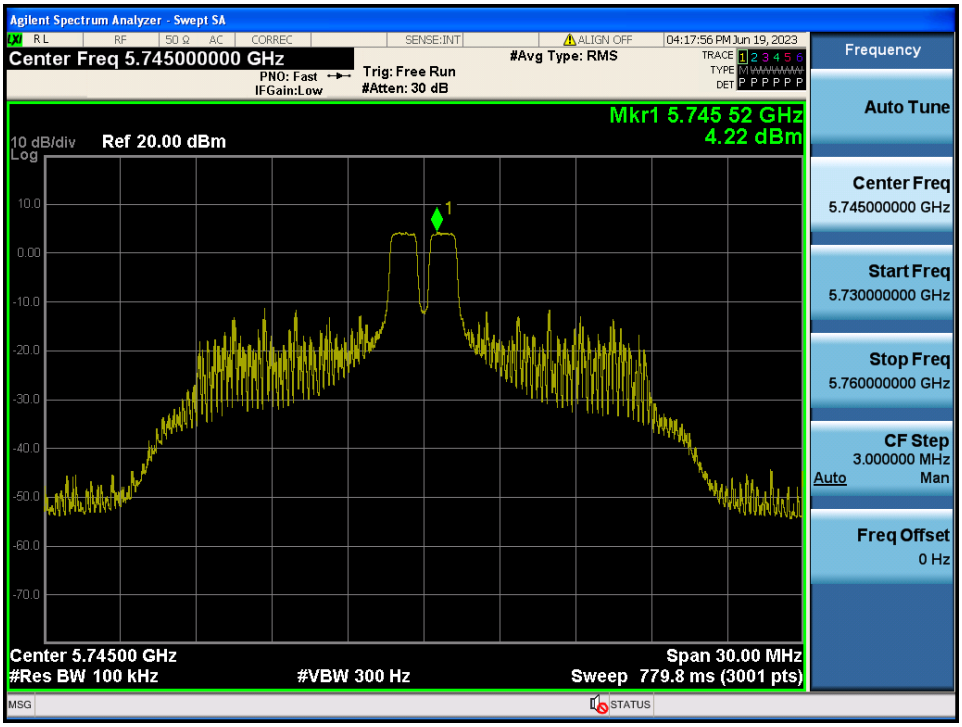
Maximum Power Spectral Density

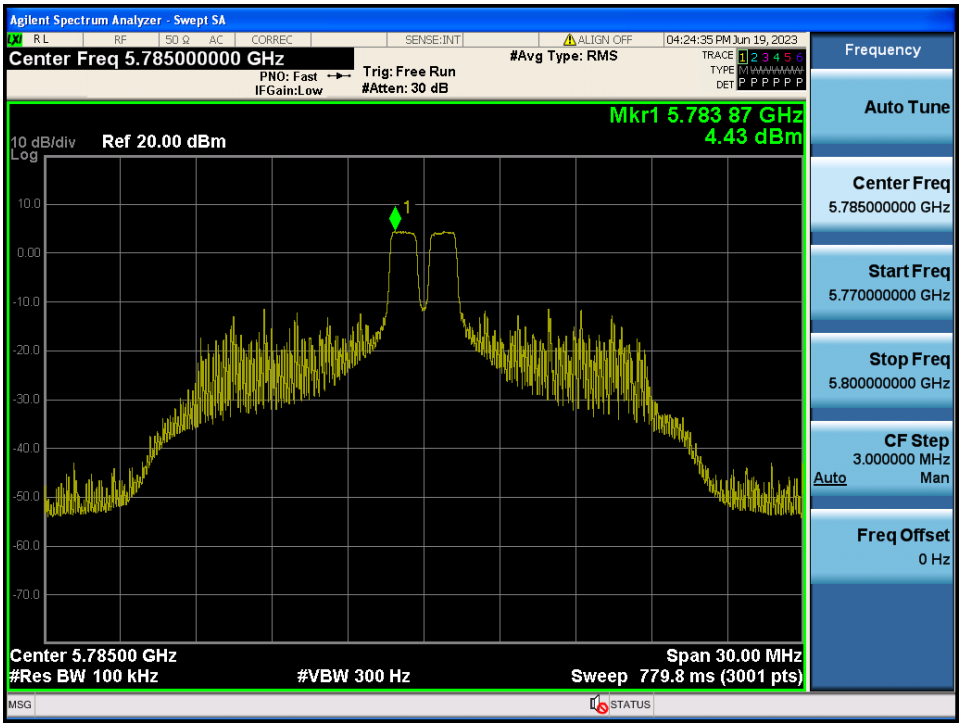
Test Mode: 802.11ax HE20 & ANT 1 & SU & Ch.144



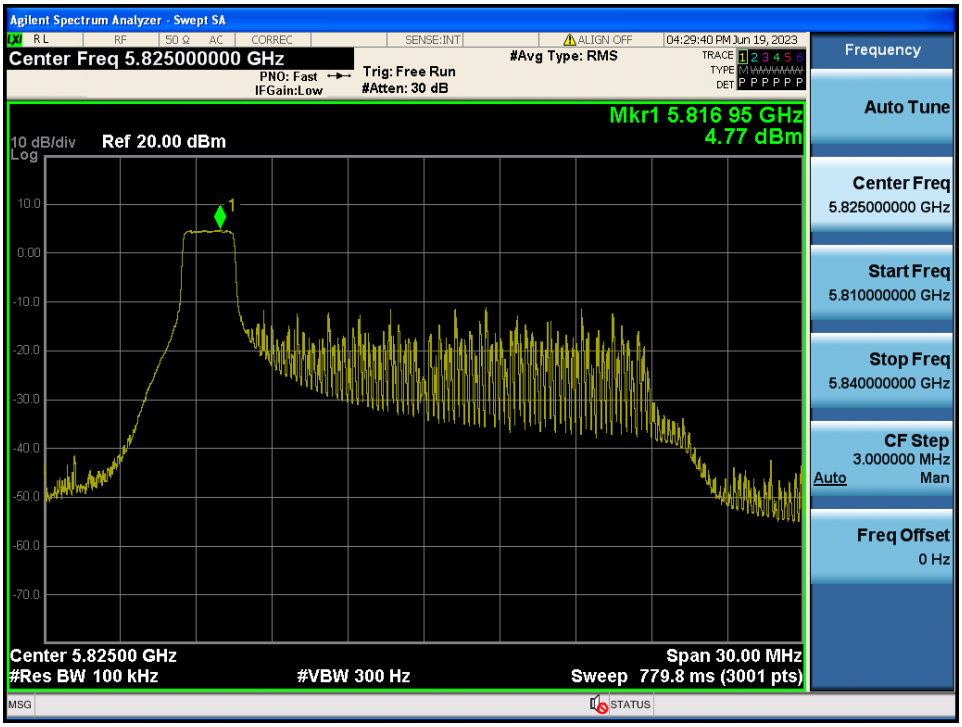
Maximum Power Spectral Density Test Mode: 802.11ax HE20 & ANT 1 & 26 Tone & 4 RU & Ch.149



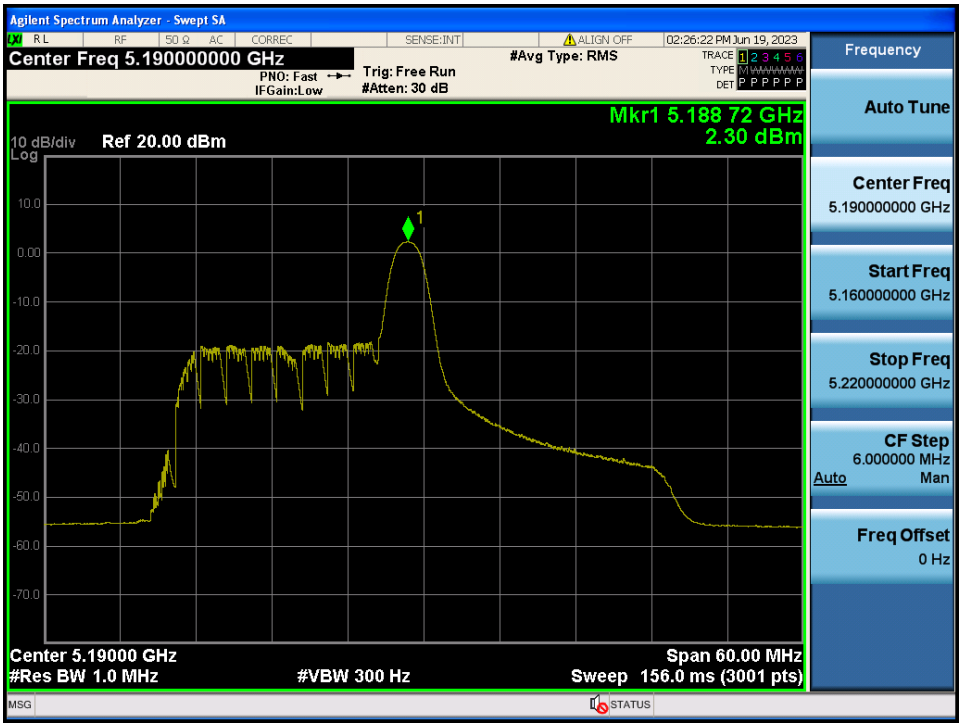
Maximum Power Spectral Density Test Mode: 802.11ax HE20 & ANT 1 & 26 Tone & 4 RU & Ch.157



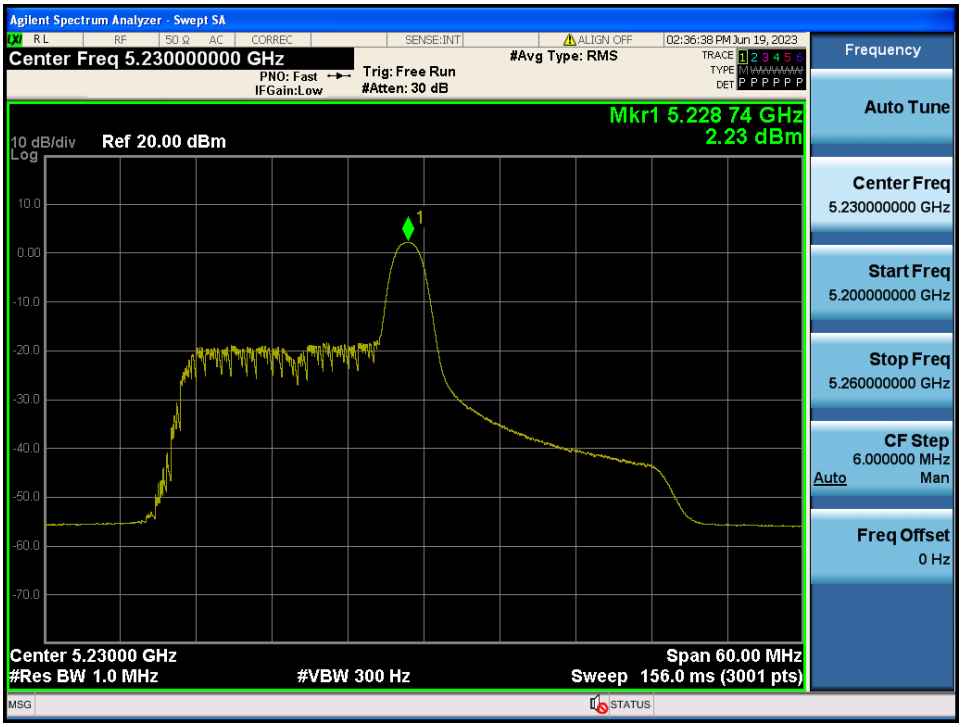
Maximum Power Spectral Density Test Mode: 802.11ax HE20 & ANT 1 & 26 Tone & 0 RU & Ch.165



Maximum Power Spectral Density Test Mode: 802.11ax HE40 & ANT 1 & 26 Tone & 8 RU & Ch.38

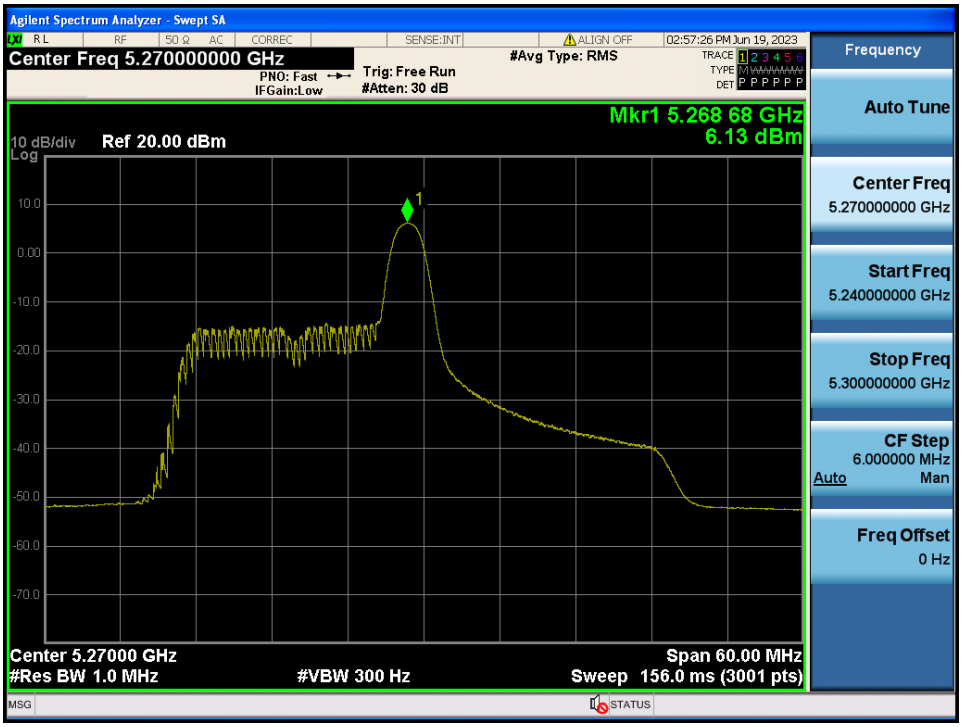


Maximum Power Spectral Density Test Mode: 802.11ax HE40 & ANT 1 & 26 Tone & 8 RU & Ch.46



Maximum Power Spectral Density

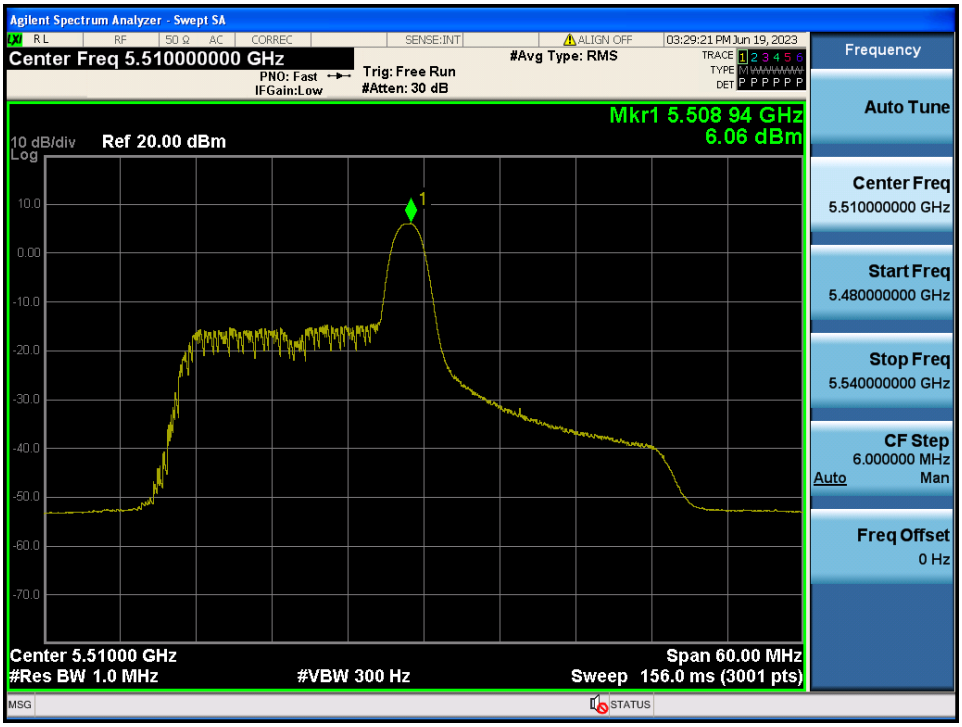
Test Mode: 802.11ax HE40 & ANT 1 & 26 Tone & 8 RU & Ch.54



Maximum Power Spectral Density

Test Mode: 802.11ax HE40 & ANT 1 & 26 Tone & 8 RU & Ch.62

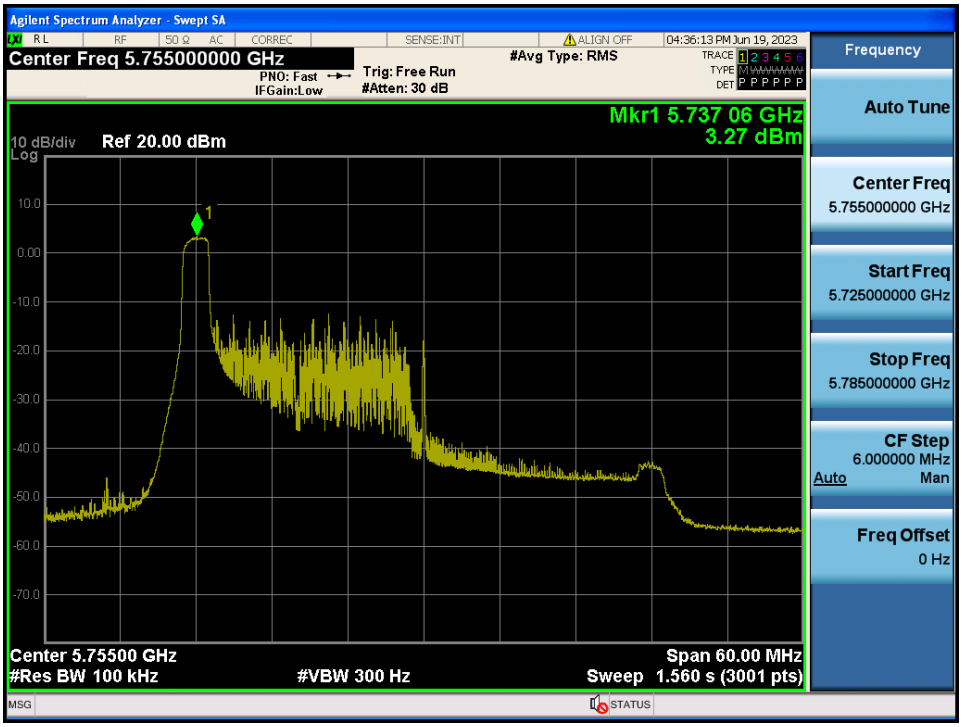
Maximum Power Spectral Density Test Mode: 802.11ax HE40 & ANT 1 & 26 Tone & 8 RU & Ch.102



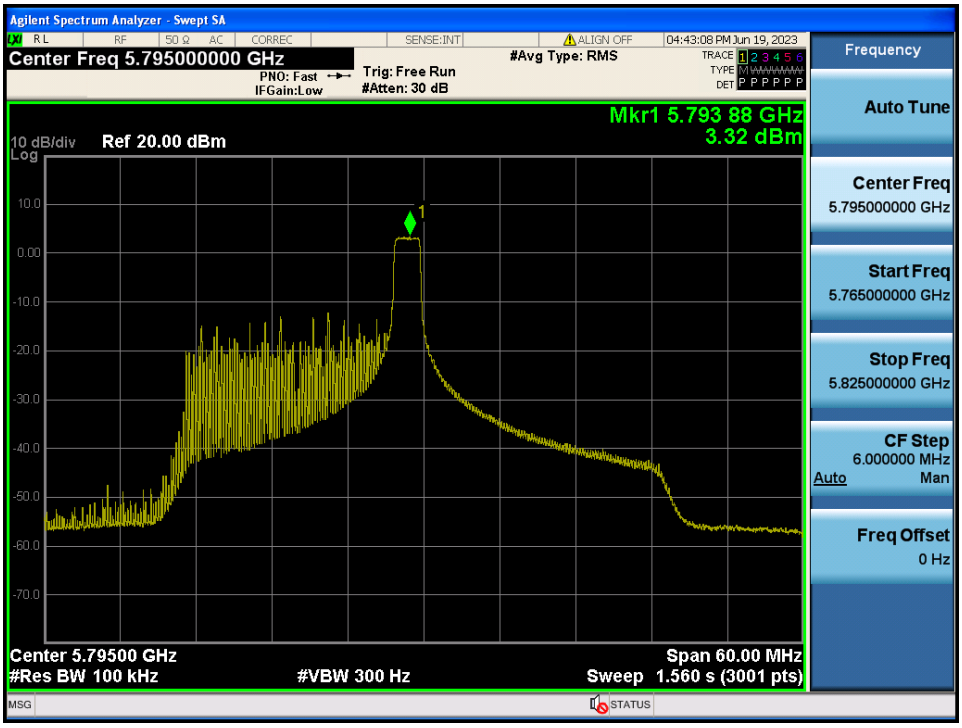
Maximum Power Spectral Density Test Mode: 802.11ax HE40 & ANT 1 & 26 Tone & 8 RU & Ch.110

Maximum Power Spectral Density Test Mode: 802.11ax HE40 & ANT 1 & 26 Tone & 8 RU & Ch.142

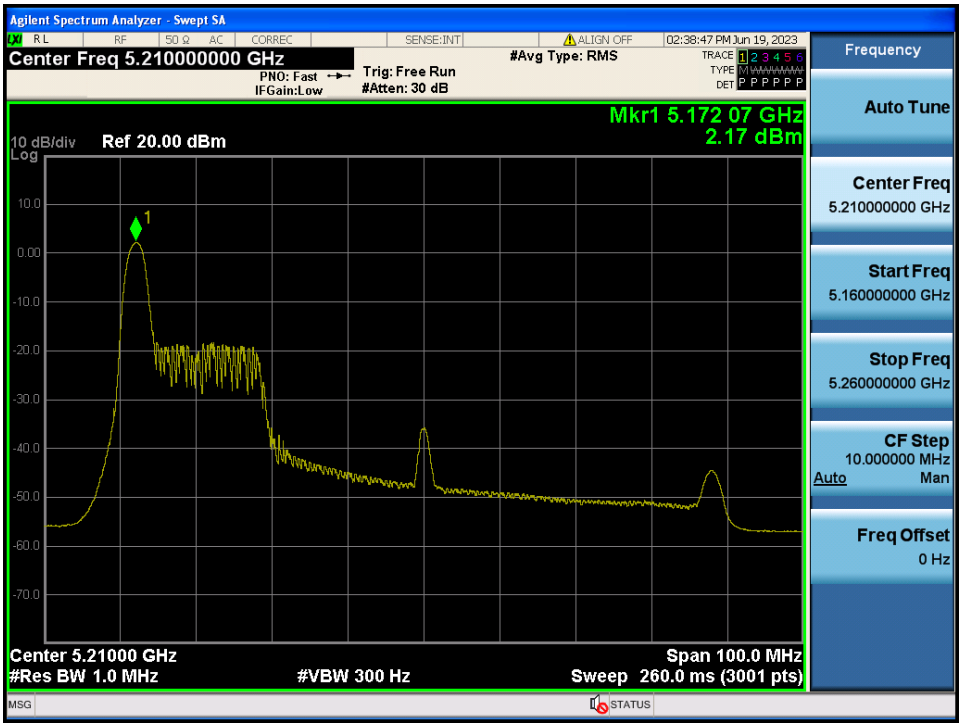
Maximum Power Spectral Density Test Mode: 802.11ax HE40 & ANT 1 & 26 Tone & 0 RU & Ch.151



Maximum Power Spectral Density Test Mode: 802.11ax HE40 & ANT 1 & 26 Tone & 8 RU & Ch.159



Maximum Power Spectral Density Test Mode: 802.11ax HE80 & ANT 1 & 26 Tone & 0 RU & Ch.42

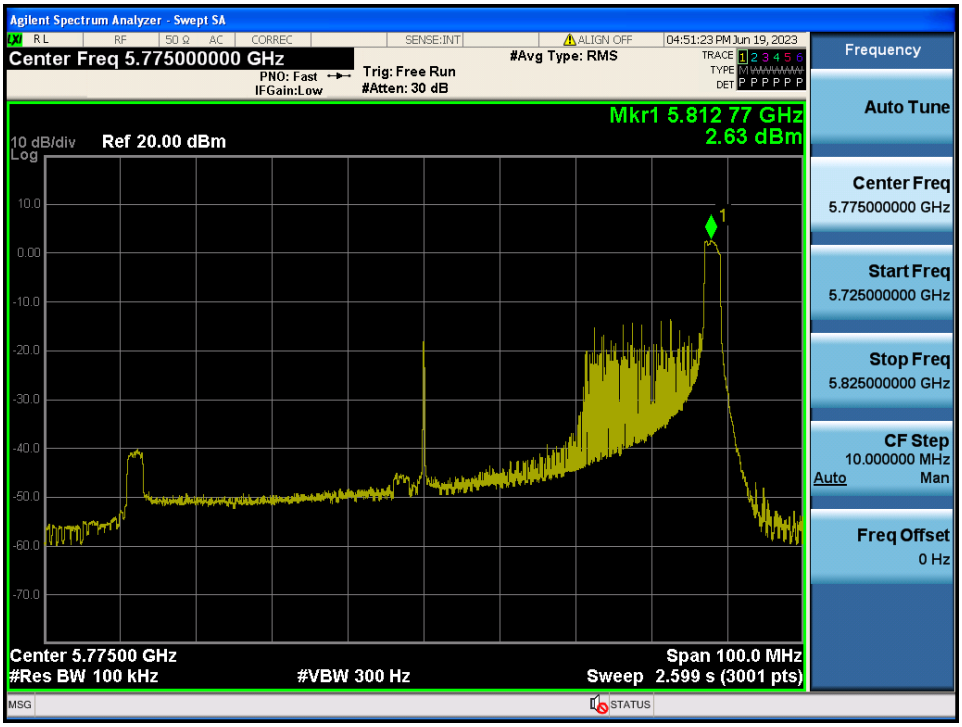


Maximum Power Spectral Density Test Mode: 802.11ax HE80 & ANT 1 & 26 Tone & 0 RU & Ch.58

Maximum Power Spectral Density Test Mode: 802.11ax HE80 & ANT 1 & 26 Tone & 0 RU & Ch.106

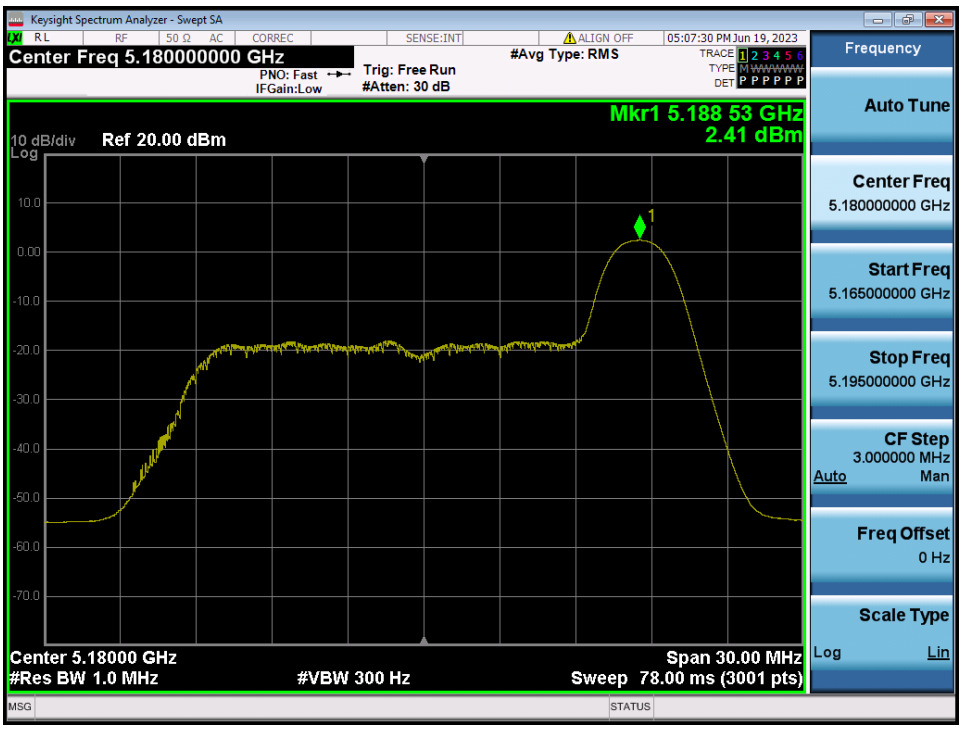
Maximum Power Spectral Density Test Mode: 802.11ax HE80 & ANT 1 & 26 Tone & 0 RU & Ch.138

Maximum Power Spectral Density Test Mode: 802.11ax HE80 & ANT 1 & 26 Tone & 36 RU & Ch.155

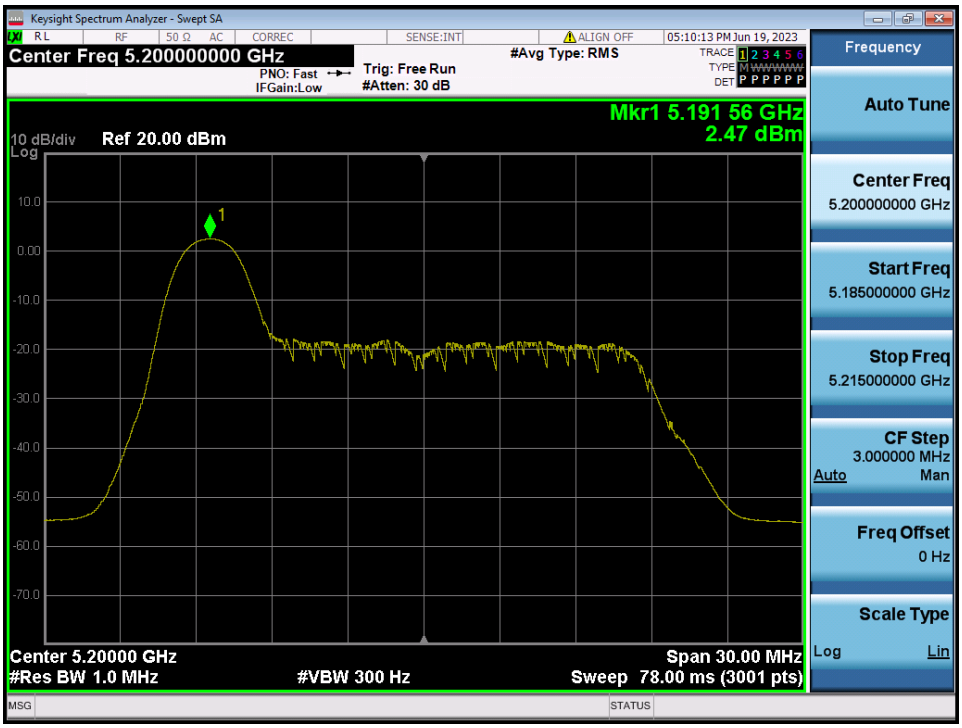


- Power spectral density: CDD-Antenna 2

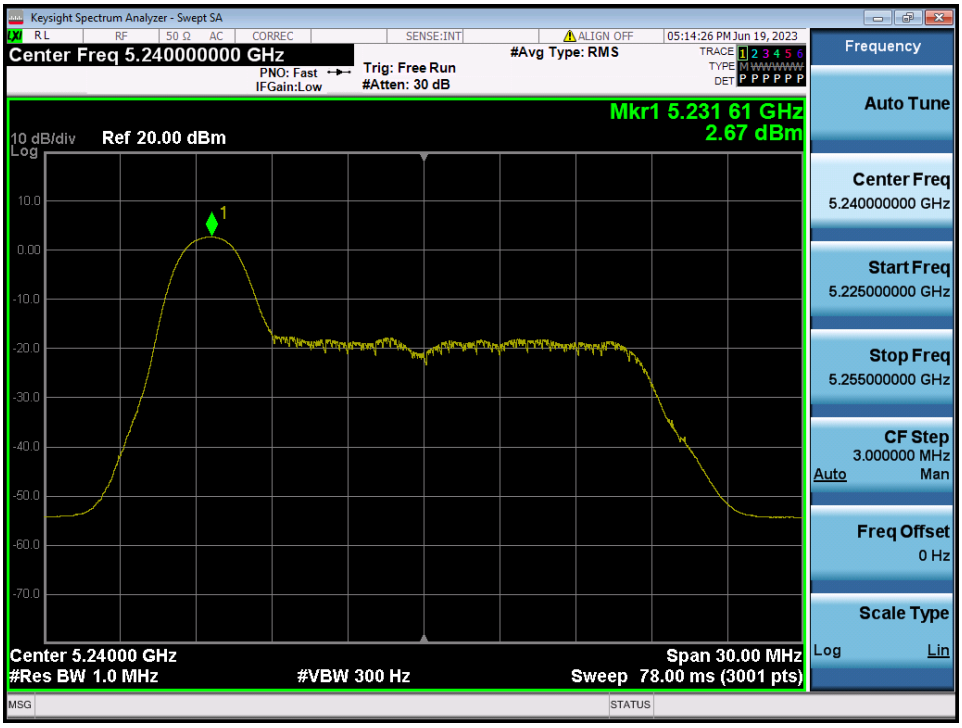
Maximum Power Spectral Density Test Mode: 802.11ax HE20 & ANT 2 & 26 Tone & 8 RU & Ch.36



Maximum Power Spectral Density Test Mode: 802.11ax HE20 & ANT 2 & 26 Tone & 0 RU & Ch.40

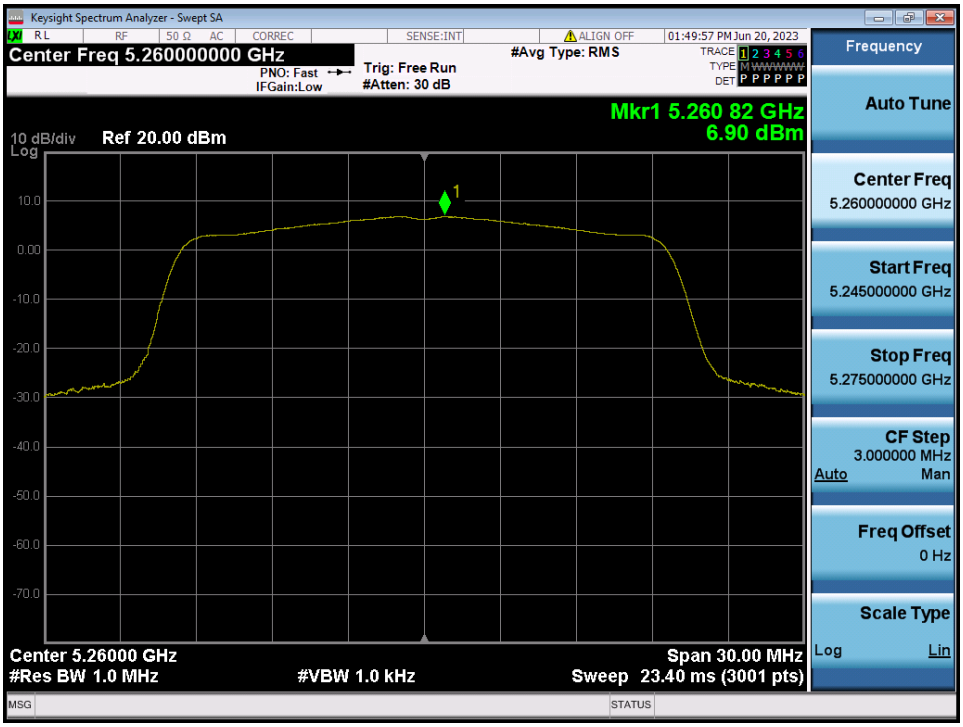


Maximum Power Spectral Density Test Mode: 802.11ax HE20 & ANT 2 & 26 Tone & 0 RU & Ch.48



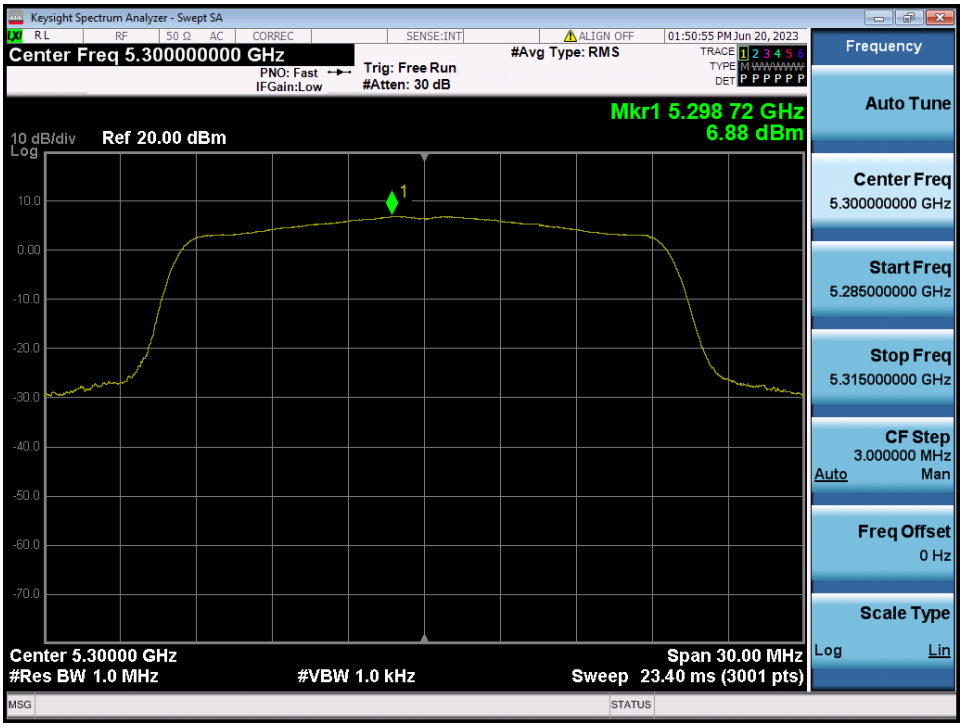
Maximum Power Spectral Density

Test Mode: 802.11ax HE20 & ANT 2 & SU & Ch.52



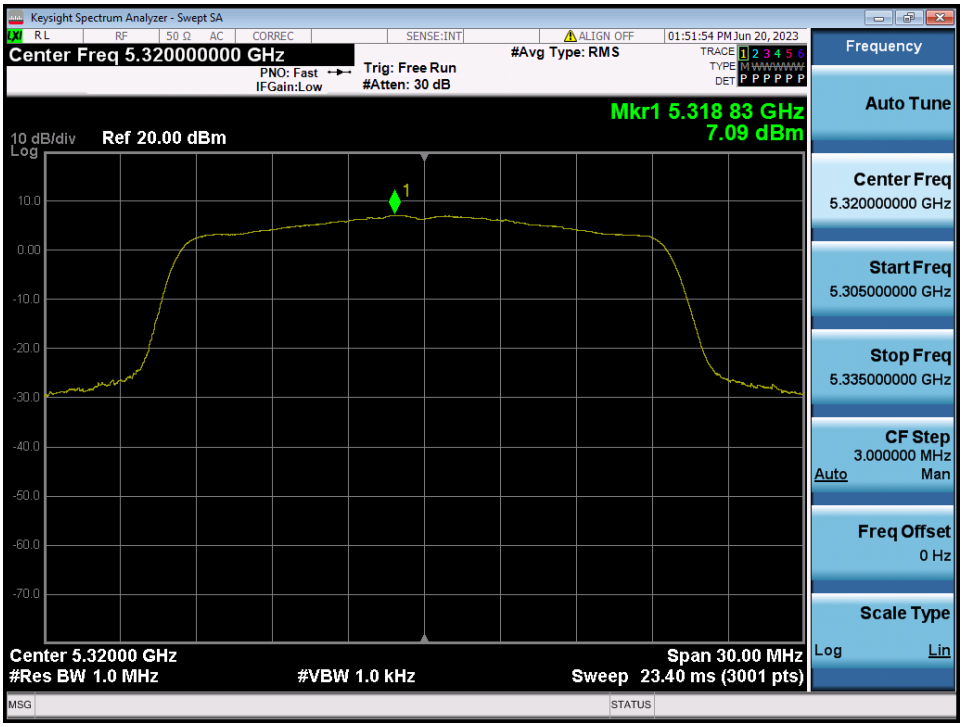
Maximum Power Spectral Density

Test Mode: 802.11ax HE20 & ANT 2 & SU & Ch.60



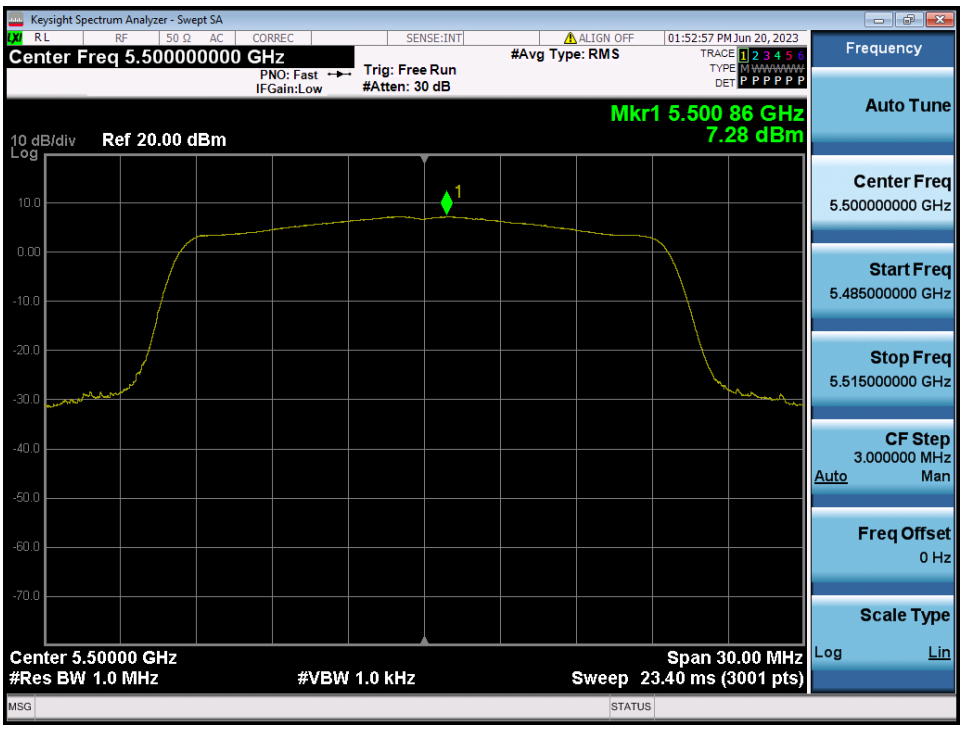
Maximum Power Spectral Density

Test Mode: 802.11ax HE20 & ANT 2 & SU & Ch.64



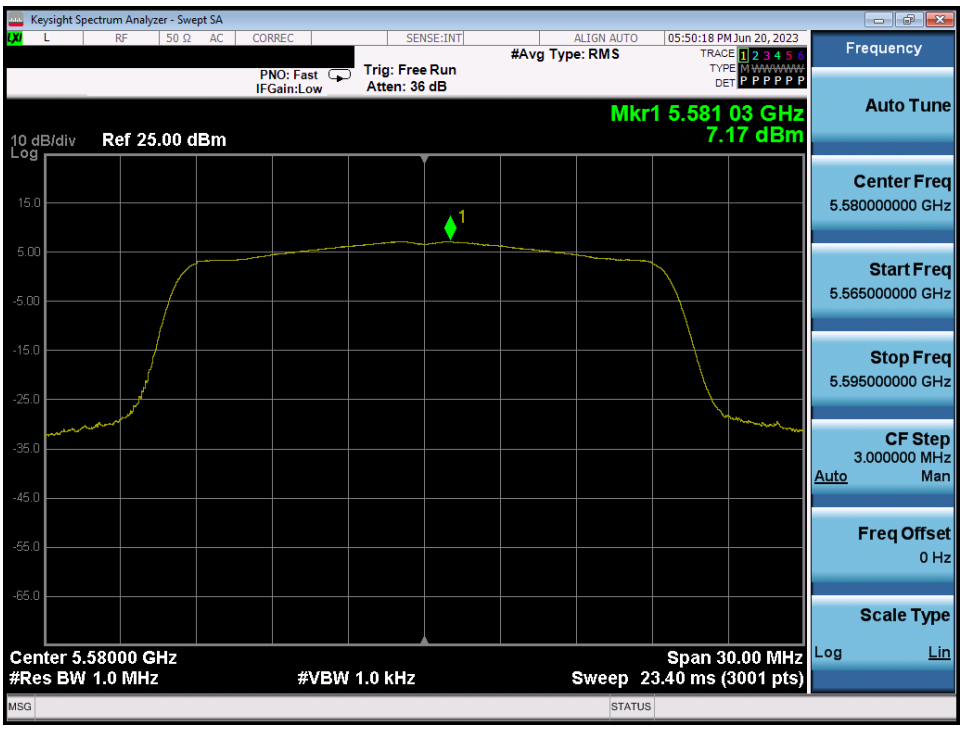
Maximum Power Spectral Density

Test Mode: 802.11ax HE20 & ANT 2 & SU & Ch.100



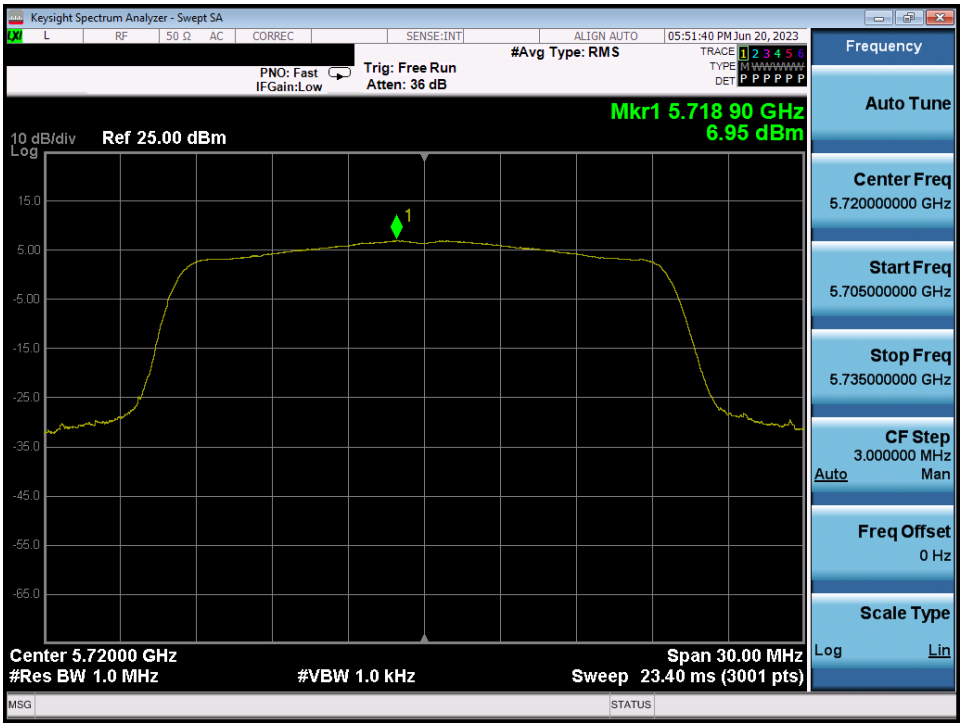
Maximum Power Spectral Density

Test Mode: 802.11ax HE20 & ANT 2 & SU & Ch.116

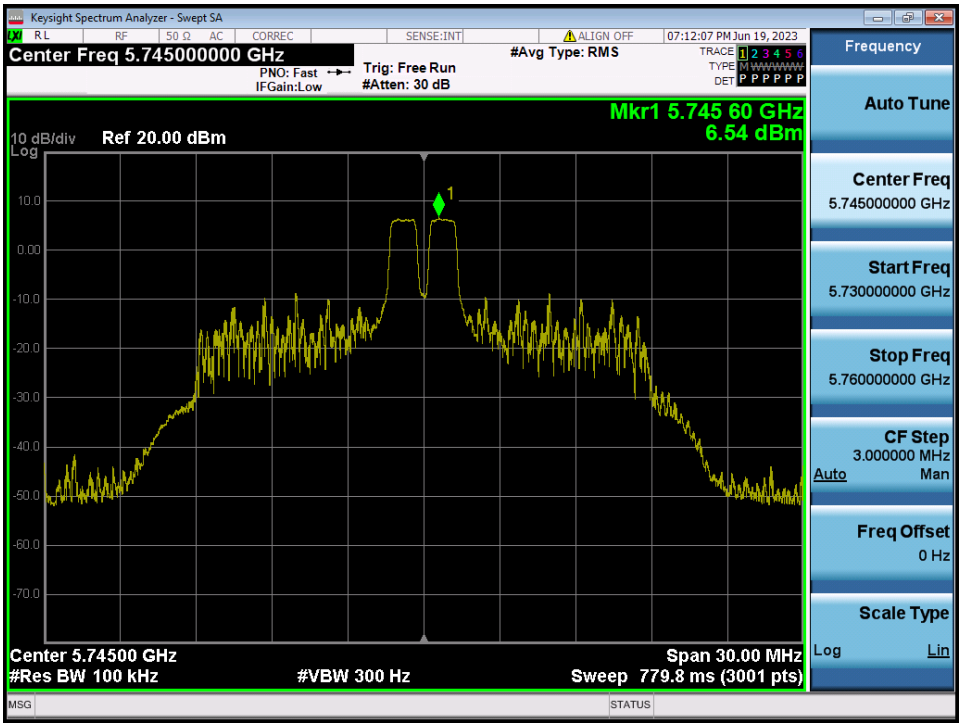


Maximum Power Spectral Density

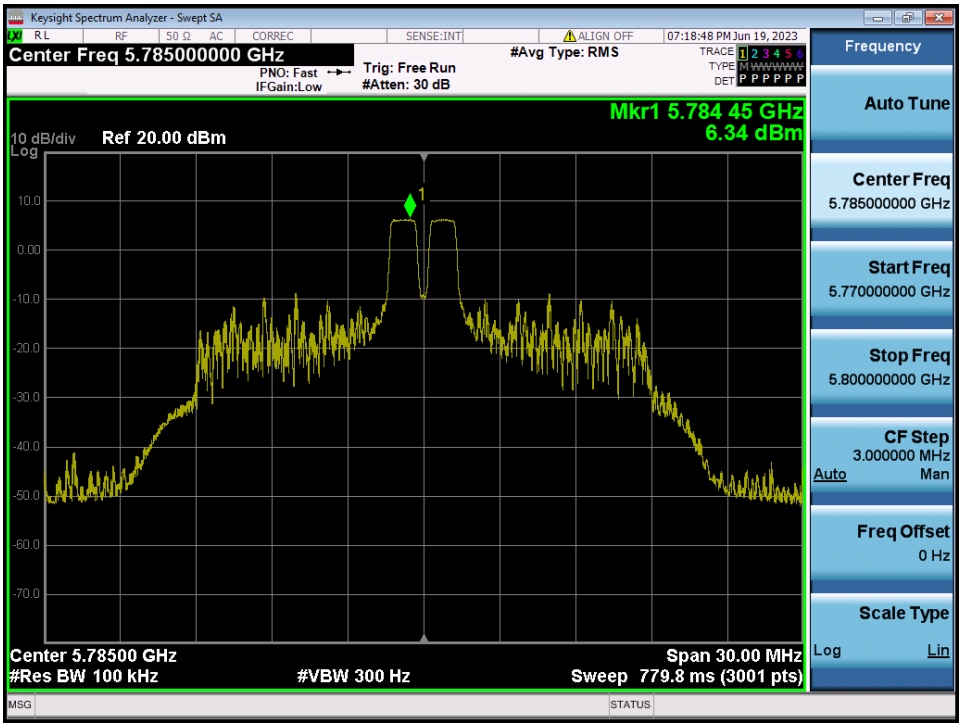
Test Mode: 802.11ax HE20 & ANT 2 & SU & Ch.144



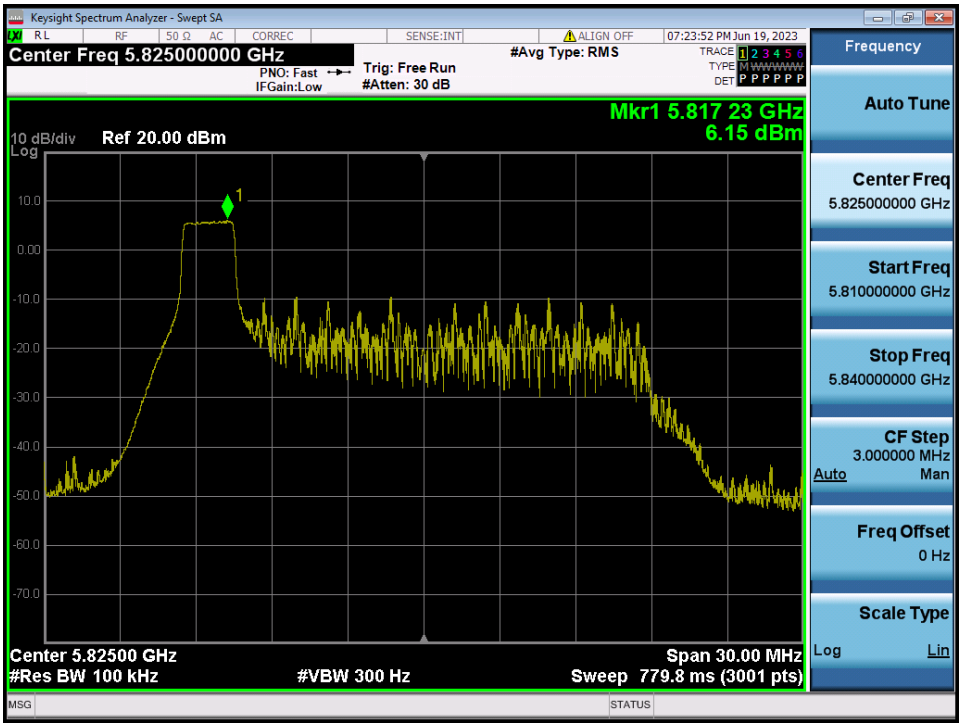
Maximum Power Spectral Density Test Mode: 802.11ax HE20 & ANT 2 & 26 Tone & 4 RU & Ch.149



Maximum Power Spectral Density Test Mode: 802.11ax HE20 & ANT 2 & 26 Tone & 4 RU & Ch.157



Maximum Power Spectral Density Test Mode: 802.11ax HE20 & ANT 2 & 26 Tone & 0 RU & Ch.165

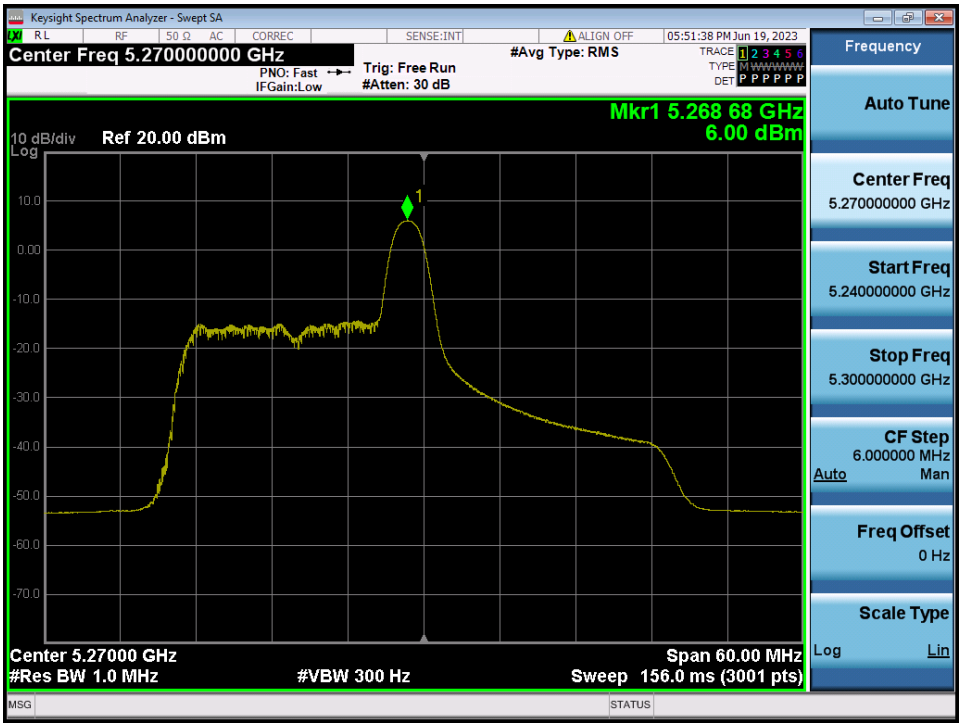


Maximum Power Spectral Density Test Mode: 802.11ax HE40 & ANT 2 & 26 Tone & 8 RU & Ch.38

Maximum Power Spectral Density Test Mode: 802.11ax HE40 & ANT 2 & 26 Tone & 8 RU & Ch.46

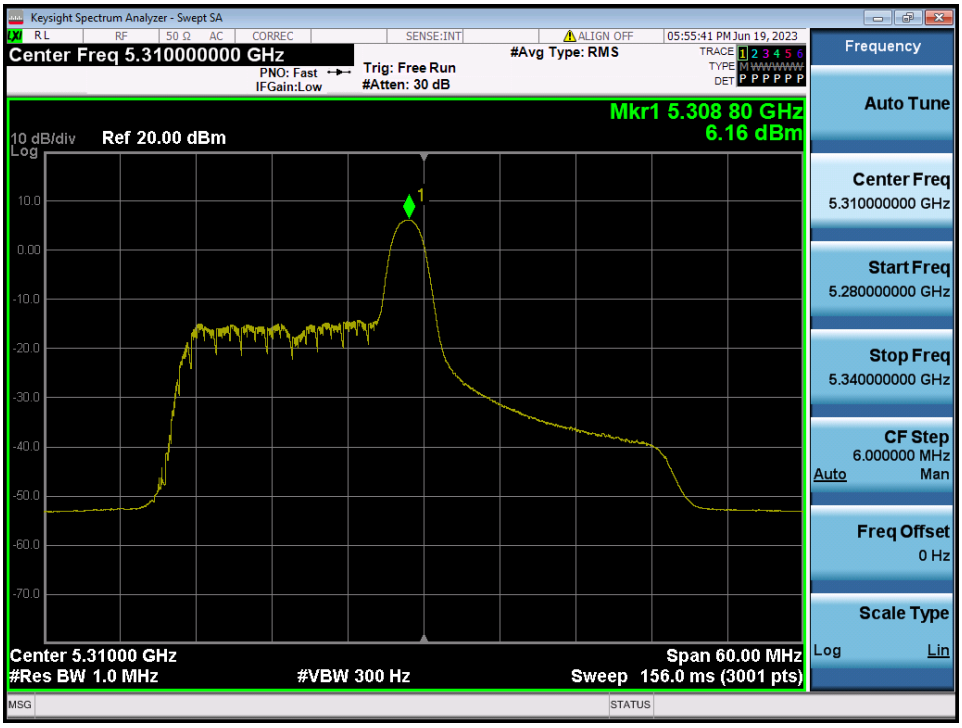
Maximum Power Spectral Density

Test Mode: 802.11ax HE40 & ANT 2 & 26 Tone & 8 RU & Ch.54

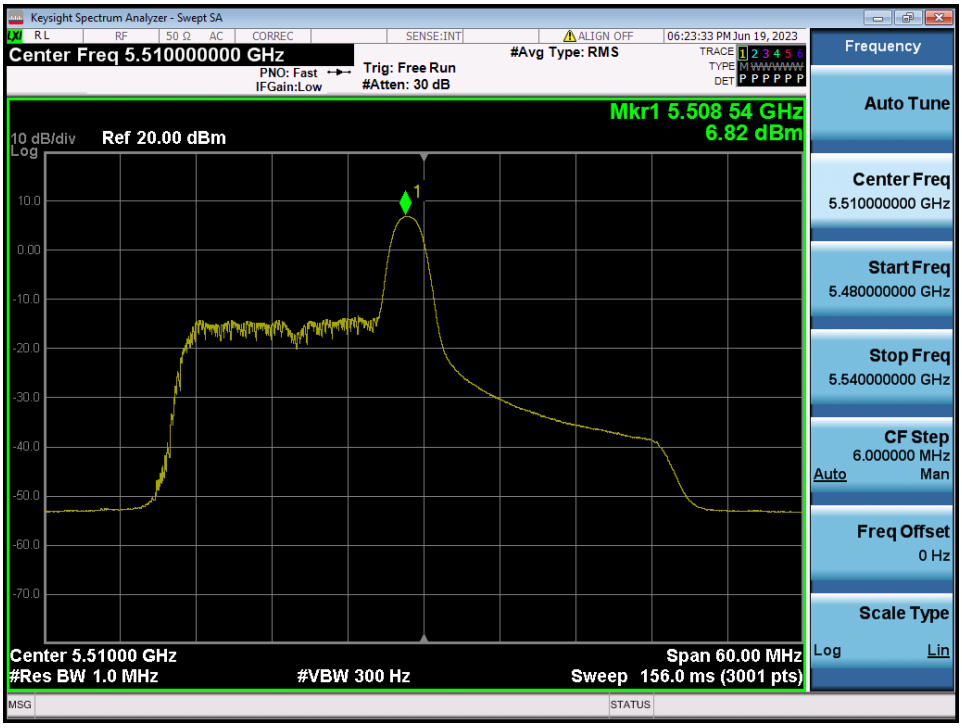


Maximum Power Spectral Density

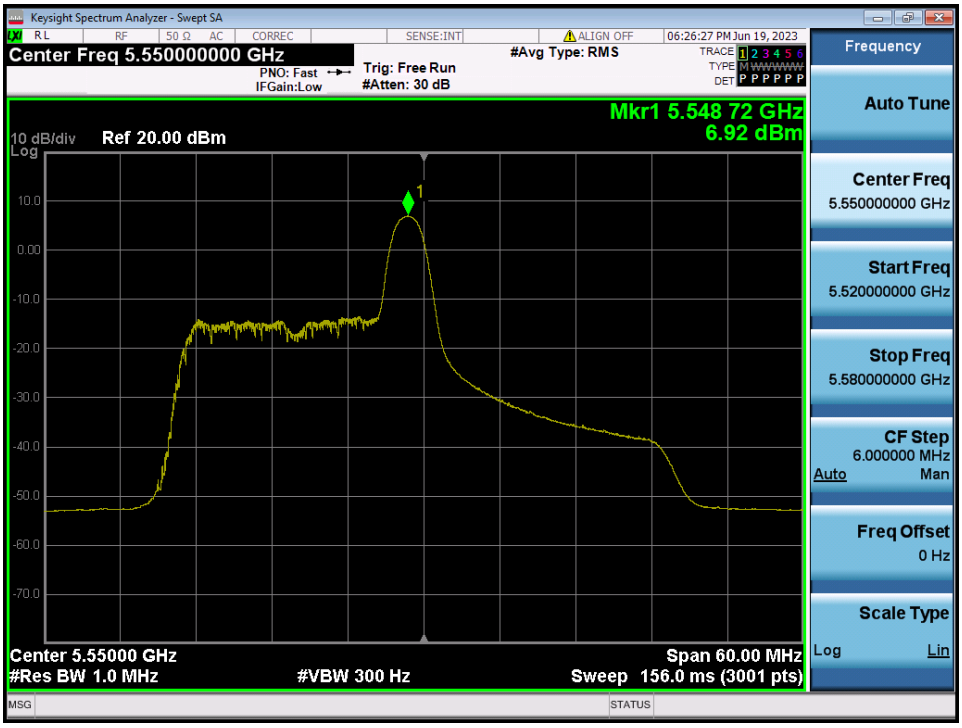
Test Mode: 802.11ax HE40 & ANT 2 & 26 Tone & 8 RU & Ch.62



Maximum Power Spectral Density Test Mode: 802.11ax HE40 & ANT 2 & 26 Tone & 8 RU & Ch.102

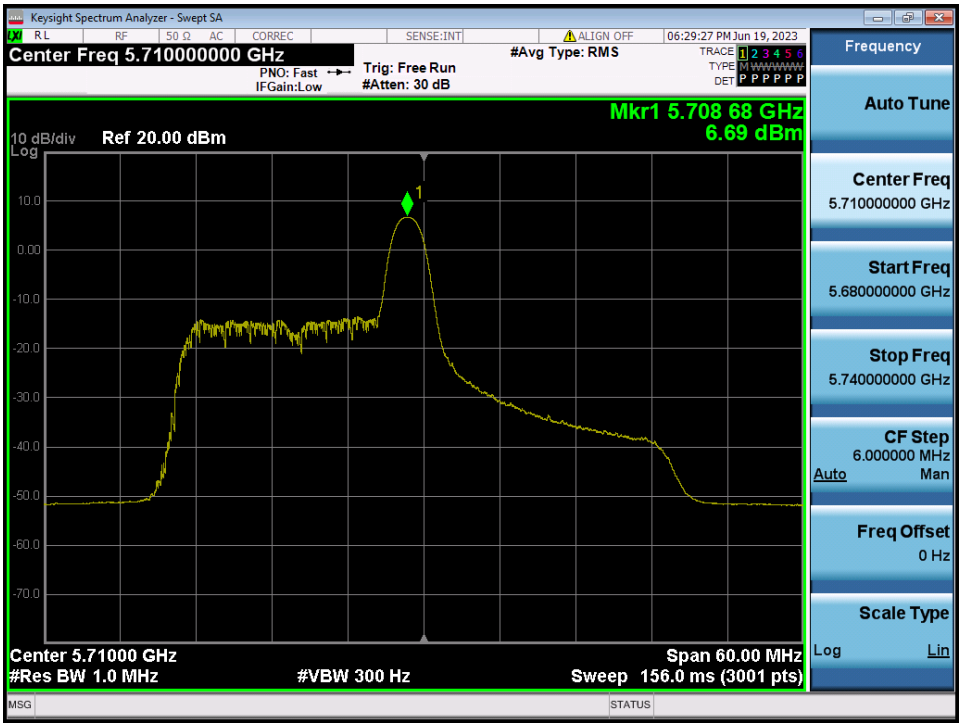


Maximum Power Spectral Density Test Mode: 802.11ax HE40 & ANT 2 & 26 Tone & 8 RU & Ch.110

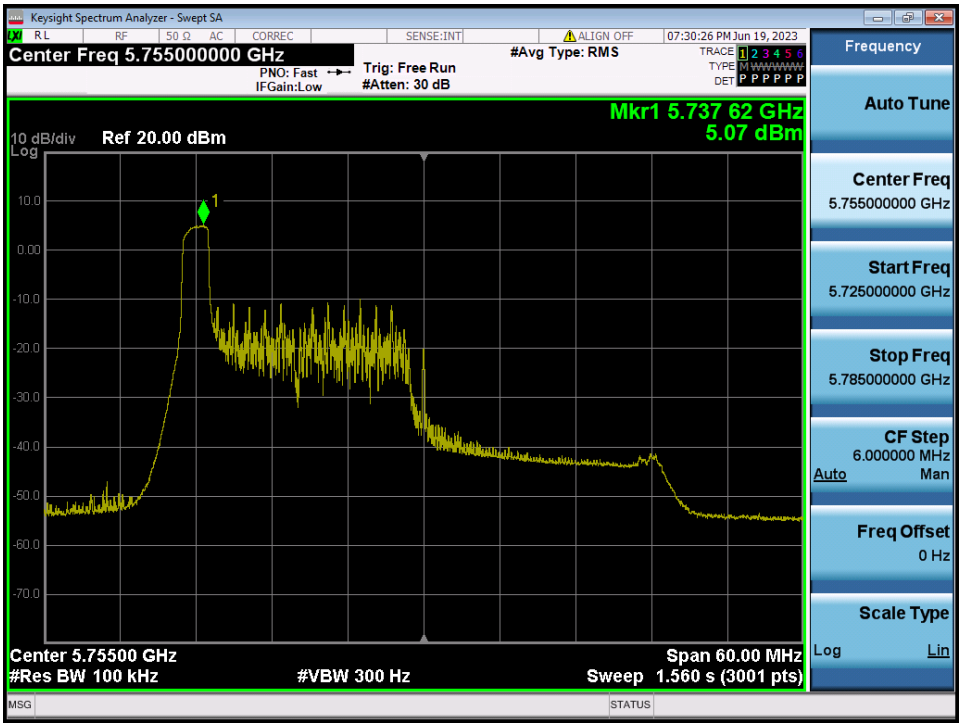


Maximum Power Spectral Density

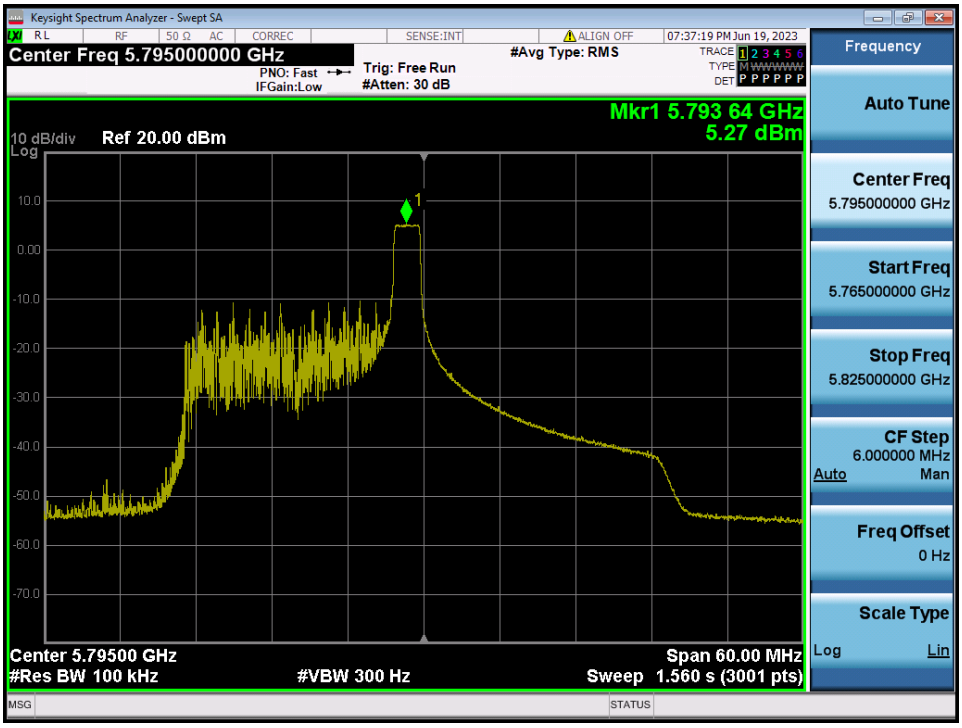
Test Mode: 802.11ax HE40 & ANT 2 & 26 Tone & 8 RU & Ch.142



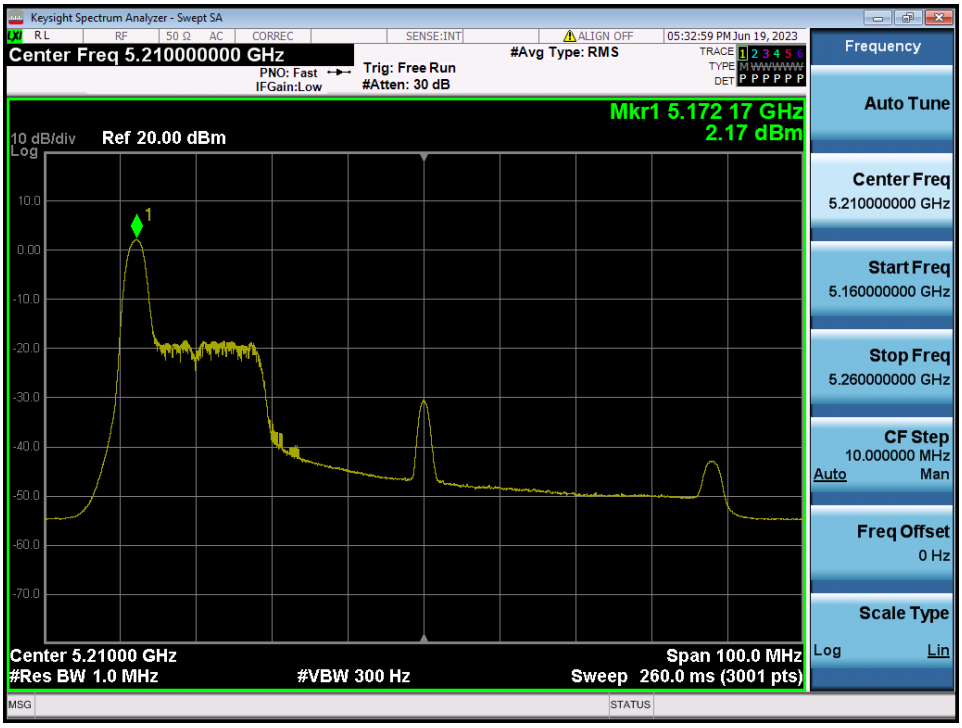
Maximum Power Spectral Density Test Mode: 802.11ax HE40 & ANT 2 & 26 Tone & 0 RU & Ch.151



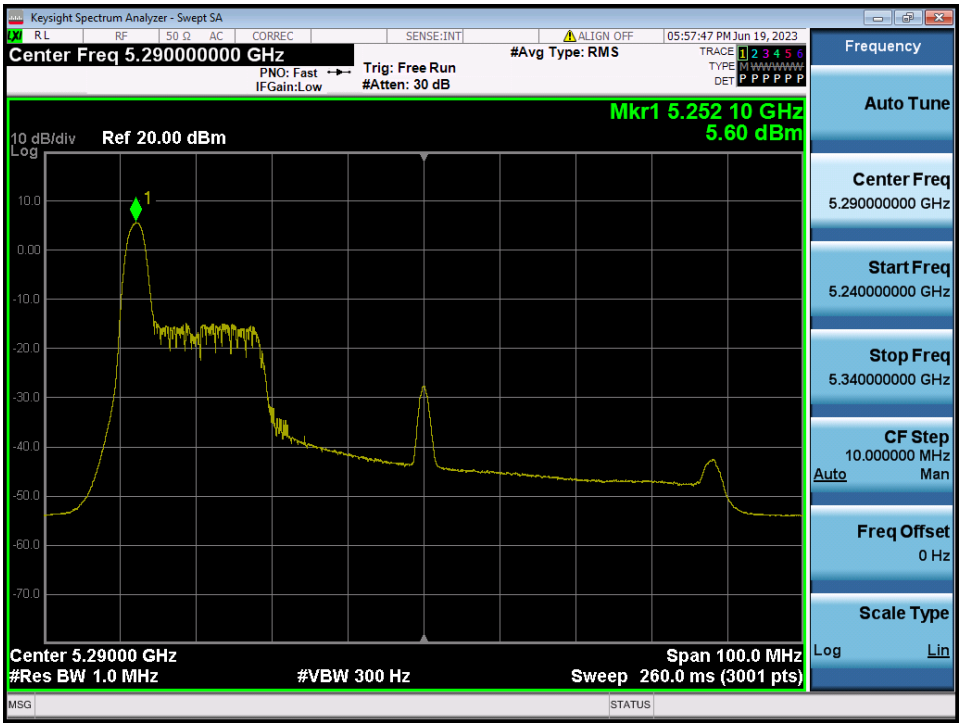
Maximum Power Spectral Density Test Mode: 802.11ax HE40 & ANT 2 & 26 Tone & 8 RU & Ch.159



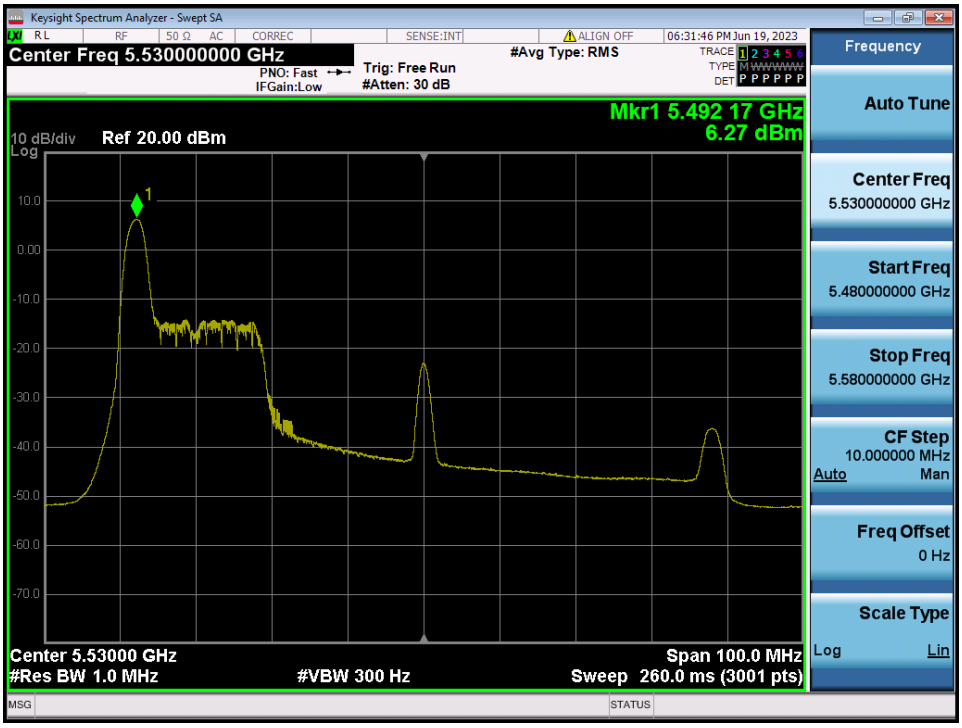
Maximum Power Spectral Density Test Mode: 802.11ax HE80 & ANT 2 & 26 Tone & 0 RU & Ch.42



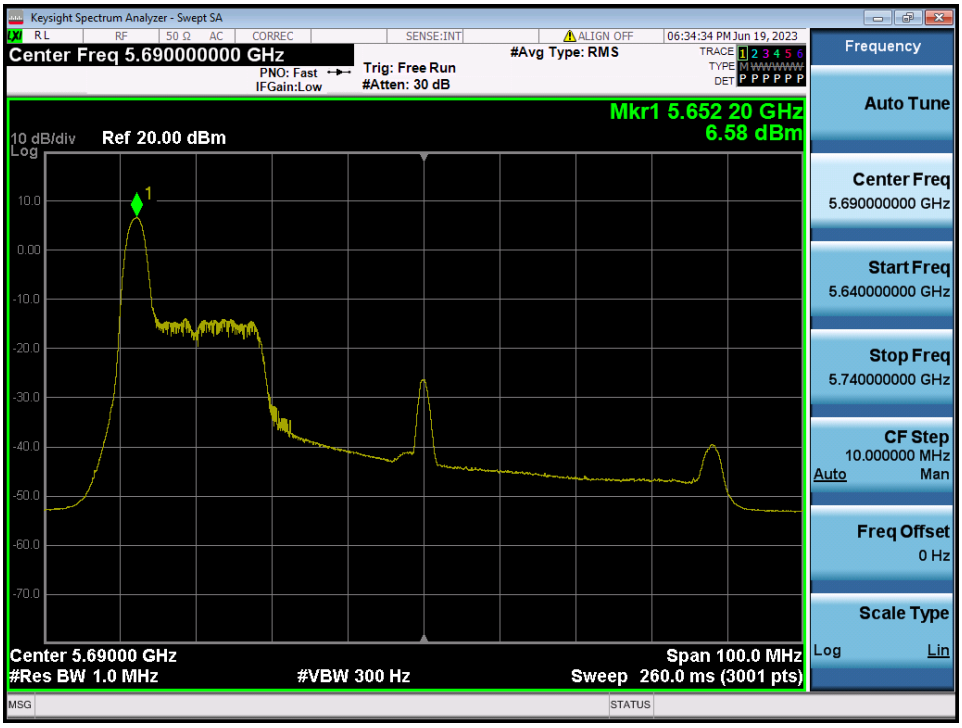
Maximum Power Spectral Density Test Mode: 802.11ax HE80 & ANT 2 & 26 Tone & 0 RU & Ch.58



Maximum Power Spectral Density Test Mode: 802.11ax HE80 & ANT 2 & 26 Tone & 0 RU & Ch.106

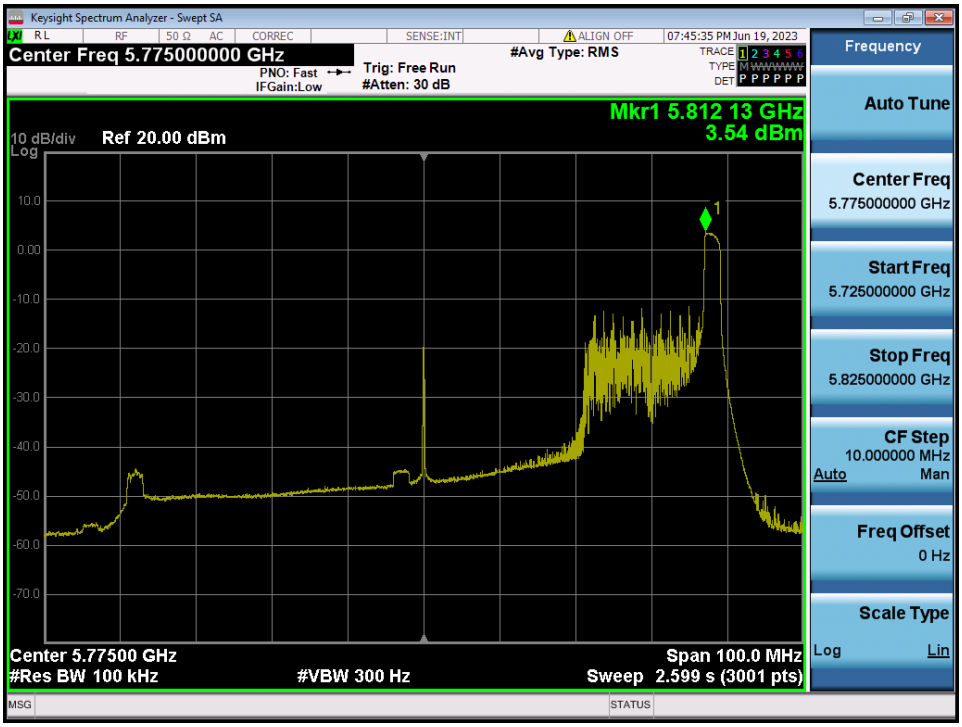


Maximum Power Spectral Density Test Mode: 802.11ax HE80 & ANT 2 & 26 Tone & 0 RU & Ch.138



Maximum Power Spectral Density

Test Mode: 802.11ax HE80 & ANT 2 & 26 Tone & 36 RU & Ch.155



5.5 Unwanted Emissions

▣ Test Requirements

- Part 15.407(b) & RSS-Gen[6.2]

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**: (i) 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. 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.

(5) 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**.

- Part 15.209 & RSS-247[8.9]: General requirements

Frequency (MHz)	FCC Limit (uV/m)	IC Limit (μA/m)	Measurement Distance (m)
0.009 – 0.490	2 400 / F (kHz)	6.37/F (F in kHz)	300
0.490 – 1.705	24 000 / F (kHz)	63.7/F (F in kHz)	30
1.705 – 30.0	30	0.08	30

Frequency (MHz)	FCC Limit (uV/m)	IC Limit (uV/m)	Measurement Distance (m)
30 ~ 88	100 **	100	3
88 ~ 216	150 **	150	3
216 ~ 960	200 **	200	3
Above 960	500	500	3

**Except as provided in paragraph (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.

- Part 15.205(a): Restricted band of operation

MHz	MHz	MHz	MHz	GHz	GHz
0.009 ~ 0.110	8.414 25 ~ 8.414 75	108 ~ 121.94	1 300 ~ 1 427	4.5 ~ 5.15	14.47 ~ 14.5
0.495 ~ 0.505	12.29 ~ 12.293	123 ~ 138	1 435 ~ 1 626.5	5.35 ~ 5.46	15.35 ~ 16.2
2.173 5 ~ 2.190 5	12.519 75 ~ 12.520 25	149.9 ~ 150.05	1 645.5 ~ 1 646.5	7.25 ~ 7.75	17.7 ~ 21.4
4.125 ~ 4.128	12.576 75 ~ 12.577 25	156.524 75 ~ 156.525 25	1 660 ~ 1 710	8.025 ~ 8.5	22.01 ~ 23.12
4.177 25 ~ 4.177 75	13.36 ~ 13.41	156.7 ~ 156.9	1 718.8 ~ 1 722.2	9.0 ~ 9.2	23.6 ~ 24.0
4.207 25 ~ 4.207 75	16.42 ~ 16.423	162.012 5 ~ 167.17	2 200 ~ 2 300	9.3 ~ 9.5	31.2 ~ 31.8
6.215 ~ 6.218	16.694 75 ~ 16.695 25	167.72 ~ 173.2	2 310 ~ 2 390	10.6 ~ 12.7	36.43 ~ 36.5
6.267 75 ~ 6.268 25	16.804 25 ~ 16.804 75	240 ~ 285	2 483.5 ~ 2 500	13.25 ~ 13.4	Above 38.6
6.311 75 ~ 6.312 25	25.5 ~ 25.67	322 ~ 335.4	2 655 ~ 2 900		
8.291 ~ 8.294	37.5 ~ 38.25	399.90 ~ 410	3 260 ~ 3 267		
8.362 ~ 8.366	73 ~ 74.6	608 ~ 614	3 332 ~ 3 339		
8.376 25 ~ 8.386 75	74.8 ~ 75.2	960 ~ 1 240	3 345.8 ~ 3 358		
			3 600 ~ 4 400		

- RSS-Gen[8.10]: Restricted frequency bands

MHz	MHz	MHz	MHz	MHz	GHz
0.090 ~ 0.110	8.362 ~ 8.366	73 ~ 74.6	608 ~ 614	3 345.8 ~ 3 358	9.0 ~ 9.2
0.495 ~ 0.505	8.376 25 ~ 8.386 75	74.8 ~ 75.2	960 ~ 1 427	3 500 ~ 4 400	9.3 ~ 9.5
2.173 5 ~ 2.190 5	8.414 25 ~ 8.414 75	108 ~ 138	1 435 ~ 1 626.5	4 500 ~ 5 150	10.6 ~ 12.7
3.020 ~ 3.026	12.29 ~ 12.293	149.9 ~ 150.05	1 645.5 ~ 1 646.5	5 350 ~ 5 460	13.25 ~ 13.4
4.125 ~ 4.128	12.519 75 ~ 12.520 25	156.524 75 ~	1 660 ~ 1 710	7 250 ~ 7 750	14.47 ~ 14.5
4.177 25 ~ 4.177 75	12.576 75 ~ 12.577 25	156.525 25	1 718.8 ~ 1 722.2	8 025 ~ 8 500	15.35 ~ 16.2
4.207 25 ~ 4.207 75	13.36 ~ 13.41	156.7 ~ 156.9	2 200 ~ 2 300		17.7 ~ 21.4
5.677 ~ 5.683	16.42 ~ 16.423	162.01 25 ~ 167.17	2 310 ~ 2 390		22.01 ~ 23.12
6.215 ~ 6.218	16.694 75 ~ 16.695 25	167.72 ~ 173.2	2 483.5 ~ 2 500		23.6 ~ 24.0
6.267 75 ~ 6.268 25	16.804 25 ~ 16.804 75	240 ~ 285	2 655 ~ 2 900		31.2 ~ 31.8
6.311 75 ~ 6.312 25	25.5 ~ 25.67	322 ~ 335.4	3 260 ~ 3 267		36.43 ~ 36.5
8.291 ~ 8.294	37.5 ~ 38.25	399.90 ~ 410	3 332 ~ 3 339		Above 38.6

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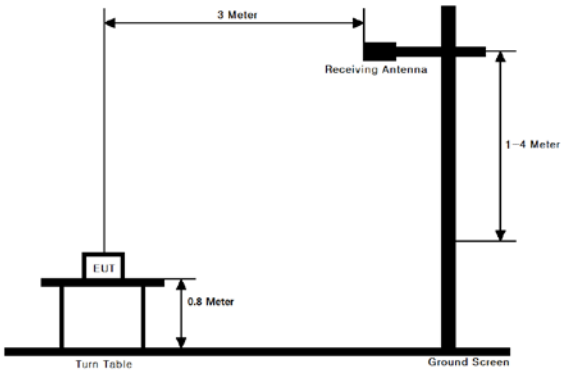
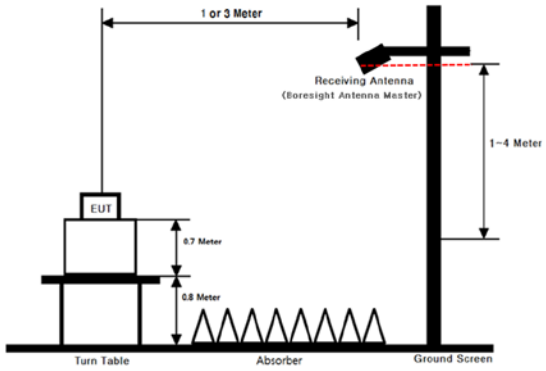
▣ Test Configuration

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 1 m 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 1000 MHz (Method –VB-A)**

a) **RBW = 1 MHz.**
b) Video bandwidth:
(i) If the EUT is configured to transmit with D ≥ 98%, then set VBW ≤ RBW / 100 (i.e., 10 kHz), but not less than 10 Hz.
(ii) **If the EUT D is < 98%, then set VBW ≥ 1 / T**, where T is defined in item a1) of 12.2.
c) Video bandwidth mode or display mode:
(i) The instrument shall be set with video filtering applied in the power domain. Typically, this requires setting the detector mode to RMS (power averaging) and setting the average-VBW type to power (rms).
(ii) As an alternative, the instrument may be set to linear detector mode. Video filtering shall be applied in linear voltage domain (rather than in a log or dB domain). Some instruments require linear display mode to \ accomplish this. Others have a setting for average-VBW type, which can be set to "voltage" regardless of the display mode.
d) **Detector = peak**.
e) Sweep time = auto.
f) Trace mode = max hold.
g) Allow max hold to run for at least 50 traces if the transmitted signal is continuous or has at least 98% duty cycle. For lower duty cycles, increase the minimum number of traces by a factor of 1/x, where D is the duty cycle. For example, use at least 200 traces if the duty cycle is 25%. (If a specific emission is demonstrated to be continuous—i.e., 100% duty cycle—then rather than turning ON and OFF with the transmit cycle, at least 50 traces should be averaged.)

Please refer to Appendix I for the 1 / T

▣ Test Results

Test Notes

1. The radiated emissions were investigated 9 kHz to 40 GHz. And no other spurious and harmonic emissions were found below listed frequencies.
2. Information of Distance Correction Factor
   For finding emissions, measurements may be performed at a distance closer than that specified in the regulations.
   In this case, the distance factor is applied to the result.
   - Calculation of distance correction factor
   At frequencies below 30 MHz = 40 log(tested distance / specified distance)
   At frequencies at or above 30 MHz = 20 log(tested distance / specified distance)
   When distance factor is "N/A", the measurements were performed at the specified distance and distance factor is not applied.
3. Sample Calculation.
   Margin = Limit – Result / Result = Reading + TF+ DCF / TF = AF + CL + HL + AL – AG
   Where, TF = Total Factor, AF = Antenna Factor, CL = Cable Loss, AG = Amplifier Gain, HL = High pass filter Loss, AL = Attenuator Loss, DCF = Distance Correction Factor
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) : *MIMO(CDD) & 802.11ax HE20*

Band	Tested Frequency (MHz)	Tone	RU	Freq. (MHz)	ANT Pol	EUT Position (Axis)	Detector Mode	Reading (dBuV)	TF (dB/m)	DCF (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)
U-NII 1	5 180	26	0	5 149.72	H	X	PK	51.80	3.39	N/A	55.19	74.00	18.81
		26	0	5 149.69	H	X	AV	40.85	3.39	N/A	44.24	54.00	9.76
		26	4	10 360.85	H	X	PK	41.96	10.14	N/A	52.10	68.20	16.10
		242	61	5 149.16	H	X	PK	52.95	3.39	N/A	56.34	74.00	17.66
		242	61	5 149.30	H	X	AV	43.08	3.39	N/A	46.47	54.00	7.53
		SU	NA	5 149.47	H	X	PK	52.96	3.39	N/A	56.35	74.00	17.65
		SU	NA	5 149.59	H	X	AV	43.01	3.39	N/A	46.40	54.00	7.60
		SU	NA	10 360.26	H	X	PK	43.08	10.14	N/A	53.22	68.20	14.98
	5 200	26	4	10 400.74	H	X	PK	43.11	10.48	N/A	53.59	68.20	14.61
		SU	NA	10 400.01	H	X	PK	43.28	10.48	N/A	53.76	68.20	14.44
	5 240	26	4	10 479.83	H	X	PK	43.91	11.26	N/A	55.17	68.20	13.03
		SU	NA	10 480.42	H	X	PK	43.55	11.26	N/A	54.81	68.20	13.39
U-NII 2A	5 260	26	4	10 520.30	H	X	PK	43.71	11.42	N/A	55.13	68.20	13.07
		SU	NA	10 519.52	H	X	PK	46.57	11.42	N/A	57.99	68.20	10.21
	5 300	26	4	10 599.09	H	X	PK	43.36	11.37	N/A	54.73	68.20	13.47
		26	4	10 601.88	H	X	AV	32.65	11.37	N/A	44.02	54.00	9.98
		SU	NA	10 599.90	H	X	PK	44.32	11.37	N/A	55.69	68.20	12.51
		SU	NA	10 600.43	H	X	AV	33.24	11.37	N/A	44.61	54.00	9.39
	5 320	26	8	5 351.04	H	X	PK	50.91	3.82	N/A	54.73	74.00	19.27
		26	8	5 350.53	H	X	AV	40.36	3.82	N/A	44.18	54.00	9.82
		26	4	10 640.53	H	X	PK	44.38	11.43	N/A	55.81	74.00	18.19
		26	4	10 640.95	H	X	AV	32.78	11.43	N/A	44.21	54.00	9.79
		242	61	5 351.90	H	X	PK	53.29	3.82	N/A	57.11	74.00	16.89
		242	61	5 350.83	H	X	AV	42.62	3.82	N/A	46.44	54.00	7.56
		SU	NA	5 350.83	H	X	PK	52.70	3.82	N/A	56.52	74.00	17.48
		SU	NA	5 350.38	H	X	AV	42.53	3.82	N/A	46.35	54.00	7.65
		SU	NA	10 640.33	H	X	PK	45.46	11.43	N/A	56.89	74.00	17.11
		SU	NA	10 639.39	H	X	AV	33.63	11.43	N/A	45.06	54.00	8.94

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Radiated Spurious Emissions data(9 kHz ~ 40 GHz) : *MIMO(CDD) & 802.11ax HE20*

Band	Tested Frequency (MHz)	Tone	RU	Freq. (MHz)	ANT Pol	EUT Position (Axis)	Detector Mode	Reading (dBuV)	TF (dB/m)	DCF (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)
U-NII 2C	5 500	26	0	5 459.32	H	X	PK	51.67	3.76	N/A	55.43	74.00	18.57
		26	0	5 459.50	H	X	AV	40.59	3.76	N/A	44.35	54.00	9.65
		26	0	5 464.82	H	X	PK	51.25	3.74	N/A	54.99	68.20	13.21
		26	4	10 999.72	H	X	PK	45.16	11.44	N/A	56.60	74.00	17.40
		26	4	11 000.10	H	X	AV	33.37	11.44	N/A	44.81	54.00	9.19
		242	61	5 459.51	H	X	PK	52.64	3.76	N/A	56.40	74.00	17.60
		242	61	5 459.02	H	X	AV	41.74	3.76	N/A	45.50	54.00	8.50
		242	61	5 461.98	H	X	PK	52.64	3.75	N/A	56.39	68.20	11.81
		SU	NA	5 458.60	H	X	PK	54.41	3.76	N/A	58.17	74.00	15.83
		SU	NA	5 458.70	H	X	AV	42.74	3.76	N/A	46.50	54.00	7.50
		SU	NA	5 468.11	H	X	PK	54.34	3.73	N/A	58.07	68.20	10.13
		SU	NA	10 999.82	H	X	PK	45.73	11.44	N/A	57.17	74.00	16.83
		SU	NA	10 999.22	H	X	AV	34.11	11.44	N/A	45.55	54.00	8.45
	5 580	26	4	11 158.59	H	X	PK	45.14	10.84	N/A	55.98	74.00	18.02
		26	4	11 158.02	H	X	AV	33.83	10.84	N/A	44.67	54.00	9.33
		SU	NA	11 160.18	H	X	PK	45.41	10.84	N/A	56.25	74.00	17.75
		SU	NA	11 159.69	H	X	AV	34.31	10.84	N/A	45.15	54.00	8.85
	5 720	26	8	11 440.79	H	X	PK	44.87	9.70	N/A	54.57	74.00	19.43
		26	8	11 441.09	H	X	AV	32.61	9.70	N/A	42.31	54.00	11.69
		SU	NA	11 440.46	H	X	PK	45.14	9.70	N/A	54.84	74.00	19.16
		SU	NA	11 440.15	H	X	AV	34.17	9.70	N/A	43.87	54.00	10.13
U-NII 3	5 745	26	0	5 645.58	H	X	PK	53.71	4.10	N/A	57.81	68.20	10.39
		26	0	5 655.50	H	X	PK	55.18	4.11	N/A	59.29	72.27	12.98
		26	4	11 488.89	H	X	PK	45.04	9.57	N/A	54.61	74.00	19.39
		26	4	11 489.05	H	X	AV	33.91	9.57	N/A	43.48	54.00	10.52
		242	61	5 640.18	H	X	PK	52.47	4.09	N/A	56.56	68.20	11.64
		242	61	5 683.10	H	X	PK	53.81	4.15	N/A	57.96	92.69	34.73
		SU	NA	5 630.13	H	X	PK	53.03	4.07	N/A	57.10	68.20	11.10
		SU	NA	5 684.58	H	X	PK	55.04	4.15	N/A	59.19	93.79	34.60
		SU	NA	11 490.46	H	X	PK	45.25	9.56	N/A	54.81	74.00	19.19
		SU	NA	11 490.32	H	X	AV	34.27	9.56	N/A	43.83	54.00	10.17
	5 785	26	4	11 567.76	H	X	PK	43.94	9.48	N/A	53.42	74.00	20.58
		26	4	11 567.63	H	X	AV	32.76	9.48	N/A	42.24	54.00	11.76
		SU	NA	11 569.47	H	X	PK	43.71	9.48	N/A	53.19	74.00	20.81
		SU	NA	11 568.83	H	X	AV	33.13	9.48	N/A	42.61	54.00	11.39
	5 825	26	8	5 912.56	H	X	PK	51.53	4.56	N/A	56.09	77.41	21.32
		26	8	5 973.11	H	X	PK	51.41	4.90	N/A	56.31	68.20	11.89
		26	4	11 650.03	H	X	PK	45.77	9.53	N/A	55.30	74.00	18.70
		26	4	11 650.70	H	X	AV	33.81	9.53	N/A	43.34	54.00	10.66
		242	61	5 875.94	H	X	PK	52.39	4.21	N/A	56.60	104.50	47.90
		242	61	5 926.16	H	X	PK	50.39	4.65	N/A	55.04	68.20	13.16
		SU	NA	5 877.42	H	X	PK	52.10	4.22	N/A	56.32	103.41	47.09
		SU	NA	5 978.15	H	X	PK	51.16	4.92	N/A	56.08	68.20	12.12
		SU	NA	11 649.72	H	X	PK	45.26	9.53	N/A	54.79	74.00	19.21
		SU	NA	11 650.17	H	X	AV	34.07	9.53	N/A	43.60	54.00	10.40

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Radiated Spurious Emissions data(9 kHz ~ 40 GHz) : *MIMO(CDD) & 802.11ax(HE40)*

Band	Tested Frequency (MHz)	Tone	RU	Freq. (MHz)	ANT Pol	EUT Position (Axis)	Detector Mode	Reading (dBuV)	TF (dB/m)	DCF (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)
U-NII 1	5 190	26	0	5 136.60	H	X	PK	51.92	3.33	N/A	55.25	74.00	18.75
		26	0	5 137.72	H	X	AV	40.88	3.33	N/A	44.21	54.00	9.79
		26	0	10 380.36	H	X	PK	43.39	10.31	N/A	53.70	68.20	14.50
		484	65	5 149.50	H	X	PK	56.54	3.39	N/A	59.93	74.00	14.07
		484	65	5 149.34	H	X	AV	45.65	3.39	N/A	49.04	54.00	4.96
		SU	NA	5 149.94	H	X	PK	57.22	3.39	N/A	60.61	74.00	13.39
		SU	NA	5 149.64	H	X	AV	46.63	3.39	N/A	50.02	54.00	3.98
		SU	NA	10 380.14	H	X	PK	42.86	10.31	N/A	53.17	68.20	15.03
	5 230	26	8	10 459.66	H	X	PK	44.08	11.09	N/A	55.17	68.20	13.03
		SU	NA	10 460.49	H	X	PK	44.14	11.09	N/A	55.23	68.20	12.97
U-NII 2A	5 270	26	8	10 540.49	H	X	PK	43.14	11.41	N/A	54.55	68.20	13.65
		SU	NA	10 540.39	H	X	PK	44.78	11.41	N/A	56.19	68.20	12.01
	5 310	26	17	5 350.87	H	X	PK	51.30	3.82	N/A	55.12	74.00	18.88
		26	17	5 350.57	H	X	AV	40.34	3.82	N/A	44.16	54.00	9.84
		26	8	10 618.64	H	X	PK	43.80	11.40	N/A	55.20	74.00	18.80
		26	8	10 617.72	H	X	AV	31.98	11.40	N/A	43.38	54.00	10.62
		484	65	5 350.24	H	X	PK	54.85	3.82	N/A	58.67	74.00	15.33
		484	65	5 350.80	H	X	AV	45.79	3.82	N/A	49.61	54.00	4.39
		SU	NA	5 351.02	H	X	PK	58.46	3.82	N/A	62.28	74.00	11.72
		SU	NA	5 350.63	H	X	AV	46.43	3.82	N/A	50.25	54.00	3.75
		SU	NA	10 619.40	H	X	PK	44.35	11.40	N/A	55.75	74.00	18.25
		SU	NA	10 619.33	H	X	AV	33.51	11.40	N/A	44.91	54.00	9.09
U-NII 2C	5 510	26	0	5 458.56	H	X	PK	52.81	3.76	N/A	56.57	74.00	17.43
		26	0	5 459.43	H	X	AV	41.29	3.76	N/A	45.05	54.00	8.95
		26	0	5 468.03	H	X	PK	52.21	3.73	N/A	55.94	68.20	12.26
		26	8	11 018.30	H	X	PK	45.19	11.36	N/A	56.55	74.00	17.45
		26	8	11 018.53	H	X	AV	33.25	11.36	N/A	44.61	54.00	9.39
		484	65	5 459.08	H	X	PK	55.12	3.76	N/A	58.88	74.00	15.12
		484	65	5 459.60	H	X	AV	43.42	3.76	N/A	47.18	54.00	6.82
		484	65	5 466.09	H	X	PK	58.62	3.74	N/A	62.36	68.20	5.84
		SU	NA	5 459.04	H	X	PK	54.69	3.76	N/A	58.45	74.00	15.55
		SU	NA	5 459.65	H	X	AV	43.38	3.76	N/A	47.14	54.00	6.86
		SU	NA	5 466.26	H	X	PK	57.56	3.74	N/A	61.30	68.20	6.90
		SU	NA	11 019.09	H	X	PK	45.23	11.36	N/A	56.59	74.00	17.41
		SU	NA	11 019.40	H	X	AV	34.32	11.35	N/A	45.67	54.00	8.33
	5 550	26	8	11 098.20	H	X	PK	43.74	11.10	N/A	54.84	74.00	19.16
		26	8	11 098.94	H	X	AV	32.52	11.10	N/A	43.62	54.00	10.38
		SU	NA	11 099.86	H	X	PK	44.09	11.10	N/A	55.19	74.00	18.81
		SU	NA	11 100.94	H	X	AV	33.41	11.10	N/A	44.51	54.00	9.49
	5 710	26	8	11 419.59	H	X	PK	43.77	9.79	N/A	53.56	74.00	20.44
		26	8	11 419.40	H	X	AV	32.18	9.79	N/A	41.97	54.00	12.03
		SU	NA	11 419.19	H	X	PK	44.42	9.80	N/A	54.22	74.00	19.78
		SU	NA	11 418.83	H	X	AV	33.90	9.80	N/A	43.70	54.00	10.30

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Radiated Spurious Emissions data(9 kHz ~ 40 GHz) : *MIMO(CDD) & 802.11ax(HE40)*

Band	Tested Frequency (MHz)	Tone	RU	Freq. (MHz)	ANT Pol	EUT Position (Axis)	Detector Mode	Reading (dBuV)	TF (dB/m)	DCF (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)
U-NII 3	5 755	26	0	5 628.45	H	X	PK	54.65	4.07	N/A	58.72	68.20	9.48
		26	0	5 717.95	H	X	PK	69.24	4.21	N/A	73.45	110.23	36.78
		26	8	11 509.13	H	X	PK	45.54	9.53	N/A	55.07	74.00	18.93
		26	8	11 509.19	H	X	AV	33.95	9.53	N/A	43.48	54.00	10.52
		484	65	5 647.20	H	X	PK	52.82	4.10	N/A	56.92	68.20	11.28
		484	65	5 664.48	H	X	PK	53.44	4.12	N/A	57.56	78.92	21.36
		SU	NA	5 633.53	H	X	PK	53.54	4.08	N/A	57.62	68.20	10.58
		SU	NA	5 718.00	H	X	PK	66.85	4.21	N/A	71.06	110.24	39.18
		SU	NA	11 509.74	H	X	PK	45.90	9.53	N/A	55.43	74.00	18.57
		SU	NA	11 508.85	H	X	AV	34.42	9.53	N/A	43.95	54.00	10.05
	5 795	26	17	5 878.16	H	X	PK	51.24	4.23	N/A	55.47	102.86	47.39
		26	17	5 944.63	H	X	PK	51.84	4.76	N/A	56.60	68.20	11.60
		26	8	11 588.65	H	X	PK	44.98	9.49	N/A	54.47	74.00	19.53
		26	8	11 588.02	H	X	AV	32.97	9.49	N/A	42.46	54.00	11.54
		484	65	5 883.76	H	X	PK	51.51	4.29	N/A	55.80	98.72	42.92
		484	65	5 926.47	H	X	PK	50.24	4.66	N/A	54.90	68.20	13.30
		SU	NA	5 905.12	H	X	PK	51.35	4.51	N/A	55.86	82.91	27.05
		SU	NA	5 927.35	H	X	PK	50.38	4.66	N/A	55.04	68.20	13.16
		SU	NA	11 588.69	H	X	PK	44.05	9.49	N/A	53.54	74.00	20.46
		SU	NA	11 589.01	H	X	AV	33.53	9.50	N/A	43.03	54.00	10.97

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Radiated Spurious Emissions data(9 kHz ~ 40 GHz) : *MIMO(CDD) & 802.11ax(HE80)*

Band	Tested Frequency (MHz)	Tone	RU	Freq. (MHz)	ANT Pol	EUT Position (Axis)	Detector Mode	Reading (dBuV)	TF (dB/m)	DCF (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)
U-NII 1	5 210	26	0	5 149.52	H	X	PK	50.93	3.39	N/A	54.32	74.00	19.68
		26	0	5 149.27	H	X	AV	38.98	3.39	N/A	42.37	54.00	11.63
		26	18	10 419.56	H	X	PK	43.09	10.68	N/A	53.77	68.20	14.43
		996	67	5 146.99	H	X	PK	54.24	3.38	N/A	57.62	74.00	16.38
		996	67	5 146.68	H	X	AV	44.27	3.37	N/A	47.64	54.00	6.36
		SU	NA	5 148.78	H	X	PK	56.15	3.38	N/A	59.53	74.00	14.47
		SU	NA	5 149.13	H	X	AV	45.28	3.39	N/A	48.67	54.00	5.33
		SU	NA	10 420.57	H	X	PK	43.31	10.69	N/A	54.00	68.20	14.20
U-NII 2A	5 290	26	36	5 350.52	H	X	PK	50.78	3.82	N/A	54.60	74.00	19.40
		26	36	5 350.32	H	X	AV	40.24	3.82	N/A	44.06	54.00	9.94
		26	36	10 654.38	H	X	PK	45.36	11.44	N/A	56.80	74.00	17.20
		26	36	10 653.17	H	X	AV	32.29	11.44	N/A	43.73	54.00	10.27
		996	67	5 350.07	H	X	PK	54.78	3.82	N/A	58.60	74.00	15.40
		996	67	5 350.78	H	X	AV	44.74	3.82	N/A	48.56	54.00	5.44
		SU	NA	5 351.34	H	X	PK	55.28	3.82	N/A	59.10	74.00	14.90
		SU	NA	5 350.92	H	X	AV	45.53	3.82	N/A	49.35	54.00	4.65
		SU	NA	10 579.62	H	X	PK	43.72	11.38	N/A	55.10	68.20	13.10
U-NII 2C	5 530	26	0	5 448.30	H	X	PK	52.87	3.78	N/A	56.65	74.00	17.35
		26	0	5 448.90	H	X	AV	43.66	3.78	N/A	47.44	54.00	6.56
		26	0	5 468.52	H	X	PK	51.82	3.73	N/A	55.55	68.20	12.65
		26	18	11 058.45	H	X	PK	43.89	11.20	N/A	55.09	74.00	18.91
		26	18	11 058.50	H	X	AV	32.65	11.20	N/A	43.85	54.00	10.15
		996	67	5 458.93	H	X	PK	56.32	3.76	N/A	60.08	74.00	13.92
		996	67	5 459.33	H	X	AV	45.12	3.76	N/A	48.88	54.00	5.12
		996	67	5 469.79	H	X	PK	58.86	3.73	N/A	62.59	68.20	5.61
		SU	NA	5 458.32	H	X	PK	55.92	3.76	N/A	59.68	74.00	14.32
		SU	NA	5 459.00	H	X	AV	46.04	3.76	N/A	49.80	54.00	4.20
		SU	NA	5 467.05	H	X	PK	58.70	3.74	N/A	62.44	68.20	5.76
		SU	NA	11 059.71	H	X	PK	44.34	11.20	N/A	55.54	74.00	18.46
		SU	NA	11 059.81	H	X	AV	33.58	11.20	N/A	44.78	54.00	9.22
	5 690	26	18	11 379.26	H	X	PK	42.93	9.93	N/A	52.86	74.00	21.14
		26	18	11 379.73	H	X	AV	32.10	9.93	N/A	42.03	54.00	11.97
		SU	NA	11 380.61	H	X	PK	44.23	9.93	N/A	54.16	74.00	19.84
		SU	NA	11 380.95	H	X	AV	33.59	9.93	N/A	43.52	54.00	10.48

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Radiated Spurious Emissions data(9 kHz ~ 40 GHz) : *MIMO(CDD) & 802.11ax(HE80)*

Band	Tested Frequency (MHz)	Tone	RU	Freq. (MHz)	ANT Pol	EUT Position (Axis)	Detector Mode	Reading (dBuV)	TF (dB/m)	DCF (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)
U-NII 3	5 775	26	0	5 629.45	H	X	PK	54.22	4.07	N/A	58.29	68.20	9.91
		26	0	5 698.63	H	X	PK	58.56	4.18	N/A	62.74	104.19	41.45
		26	36	5 916.96	H	X	PK	53.47	4.59	N/A	58.06	74.15	16.09
		26	36	5 965.71	H	X	PK	53.28	4.86	N/A	58.14	68.20	10.06
		26	18	11 548.73	H	X	PK	44.57	9.47	N/A	54.04	74.00	19.96
		26	18	11 548.09	H	X	AV	33.11	9.47	N/A	42.58	54.00	11.42
		996	67	5 641.55	H	X	PK	53.75	4.09	N/A	57.84	68.20	10.36
		996	67	5 695.43	H	X	PK	56.00	4.17	N/A	60.17	101.82	41.65
		996	67	5 879.56	H	X	PK	52.87	4.25	N/A	57.12	101.83	44.71
		996	67	5 958.55	H	X	PK	51.80	4.82	N/A	56.62	68.20	11.58
		SU	NA	5 641.23	H	X	PK	54.02	4.09	N/A	58.11	68.20	10.09
		SU	NA	5 696.65	H	X	PK	57.79	4.17	N/A	61.96	102.72	40.76
		SU	NA	5 880.36	H	X	PK	52.92	4.25	N/A	57.17	101.23	44.06
		SU	NA	5 965.83	H	X	PK	52.24	4.86	N/A	57.10	68.20	11.10
		SU	NA	11 550.11	H	X	PK	43.97	9.47	N/A	53.44	74.00	20.56
		SU	NA	11 549.22	H	X	AV	33.79	9.47	N/A	43.26	54.00	10.74

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5.6 AC Power-Line Conducted Emissions

▣ Test Requirements, §15.207 & RSS-Gen[8.8]

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 uH/50 ohm line impedance stabilization network (LISN).

Compliance with the provision of this paragraph shall on the measurement of the radio frequency voltage between each power line and ground at the power terminal. The lower applies at the boundary between the frequency ranges.

Frequency Range (MHz)	Conducted Limit (dBuV)	
	Quasi-Peak	Average
0.15 ~ 0.5	66 to 56 *	56 to 46 *
0.5 ~ 5.0	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

Refer to the next page. The worst case data was reported.

AC Line Conducted Emissions (Graph)

Test Mode: U-NII 1 & 802.11ax HE20 & MIMO(CDD) & 5 180 MHz

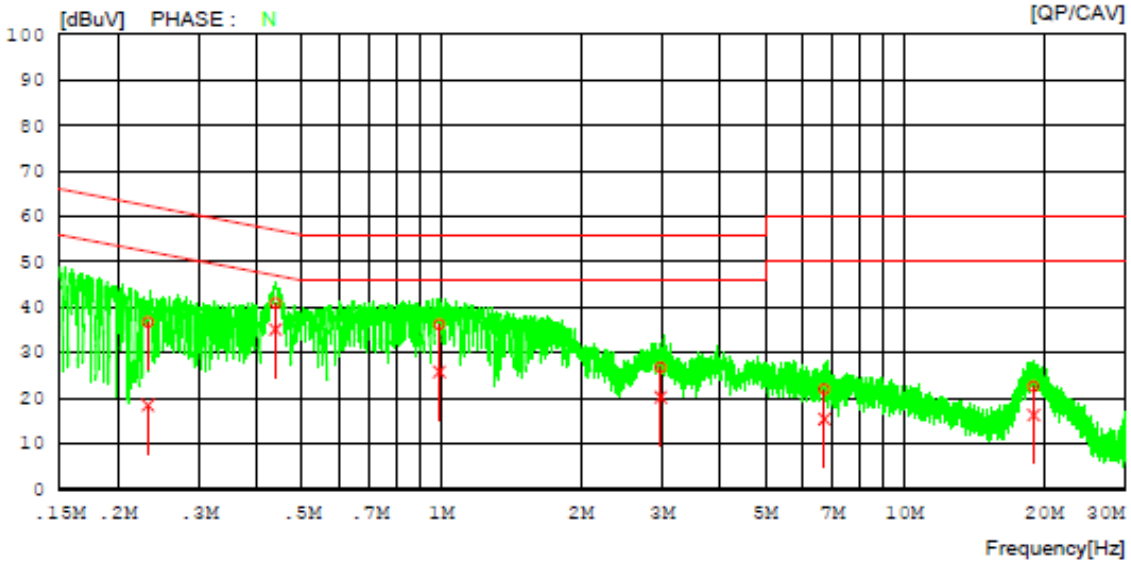
Results of Conducted Emission

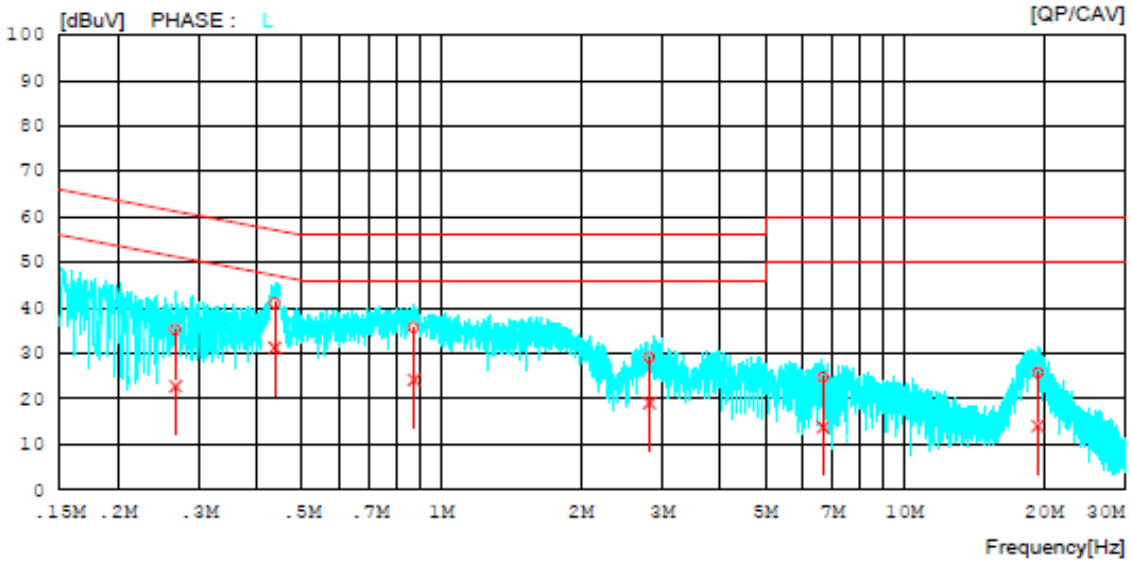
DTNC

Date 2023-05-12

Order No.		Referrence No.	
Model No.	PM86	Power Supply	
Serial No.		Temp/Humi.	21 'C / 41 %
Test Condition	WLAN 5.1G	Operator	S.M.Gil
Memo	ax_5180		

LIMIT : FCC P15.207 AV
FCC P15.207 QP





AC Line Conducted Emissions (Data List)

Test Mode: U-NII 1 & 802.11ax HE20 & MIMO(CDD) & 5 180 MHz

Results of Conducted Emission

DTNC

Date 2023-05-12

Order No.		Referrence No.	
Model No.	PM86	Power Supply	
Serial No.		Temp/Humi.	21 'C / 41 %
Test Condition	WLAN 5.1G	Operator	S.M.Gil
Memo	ax_5180		

LIMIT : FCC P15.207 AV
FCC P15.207 QP

NO	FREQ [MHz]	READING QP [dBuV]	READING CAV [dBuV]	C.FACTOR [dB]	RESULT QP [dBuV]	RESULT CAV [dBuV]	LIMIT QP [dBuV]	LIMIT CAV [dBuV]	MARGIN QP [dBuV]	MARGIN CAV [dBuV]	PHASE
1	0.23267	26.81	8.51	9.98	36.79	18.49	62.35	52.35	25.56	33.86	N
2	0.43859	30.86	25.12	10.00	40.86	35.12	57.09	47.09	16.23	11.97	N
3	0.98971	26.23	15.79	10.01	36.24	25.80	56.00	46.00	19.76	20.20	N
4	2.97600	16.70	10.19	10.06	26.76	20.25	56.00	46.00	29.24	25.75	N
5	6.71900	11.79	5.27	10.24	22.03	15.51	60.00	50.00	37.97	34.49	N
6	19.00160	12.02	5.81	10.56	22.58	16.37	60.00	50.00	37.42	33.63	N
7	0.26670	25.29	12.83	9.88	35.17	22.71	61.22	51.22	26.05	28.51	L
8	0.43679	31.07	21.30	9.90	40.97	31.20	57.12	47.12	16.15	15.92	L
9	0.87246	25.73	14.19	9.90	35.63	24.09	56.00	46.00	20.37	21.91	L
10	2.81480	19.09	9.03	10.05	29.14	19.08	56.00	46.00	26.86	26.92	L
11	6.66880	14.51	3.62	10.14	24.65	13.76	60.00	50.00	35.35	36.24	L
12	19.41960	15.32	3.64	10.35	25.67	13.99	60.00	50.00	34.33	36.01	L

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AC Line Conducted Emissions (Graph)

Test Mode: U-NII 2A & 802.11ax HE20 & MIMO(CDD) & 5 260 MHz

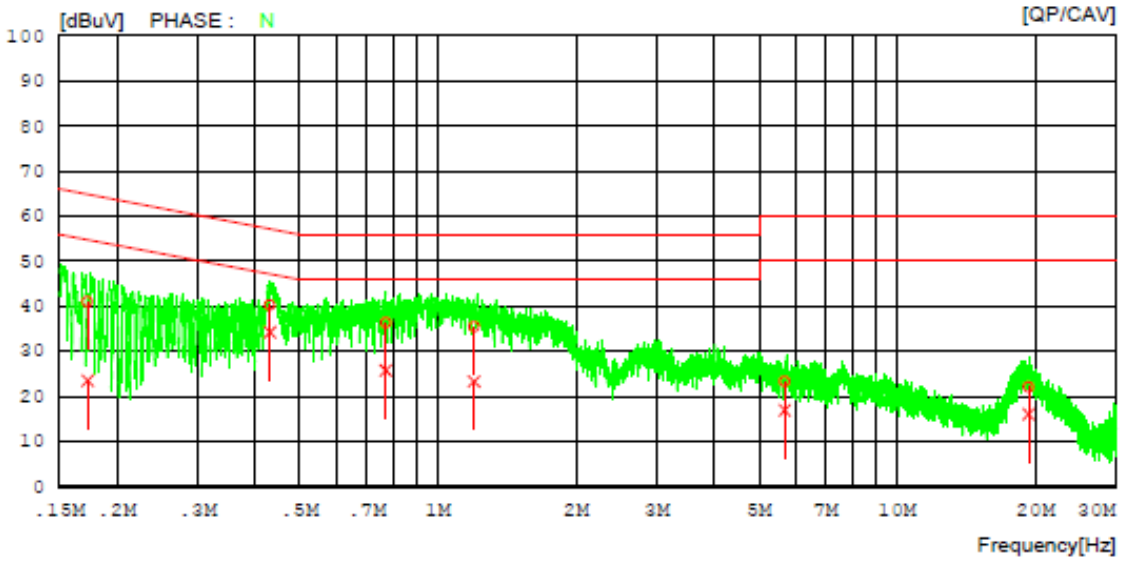
Results of Conducted Emission

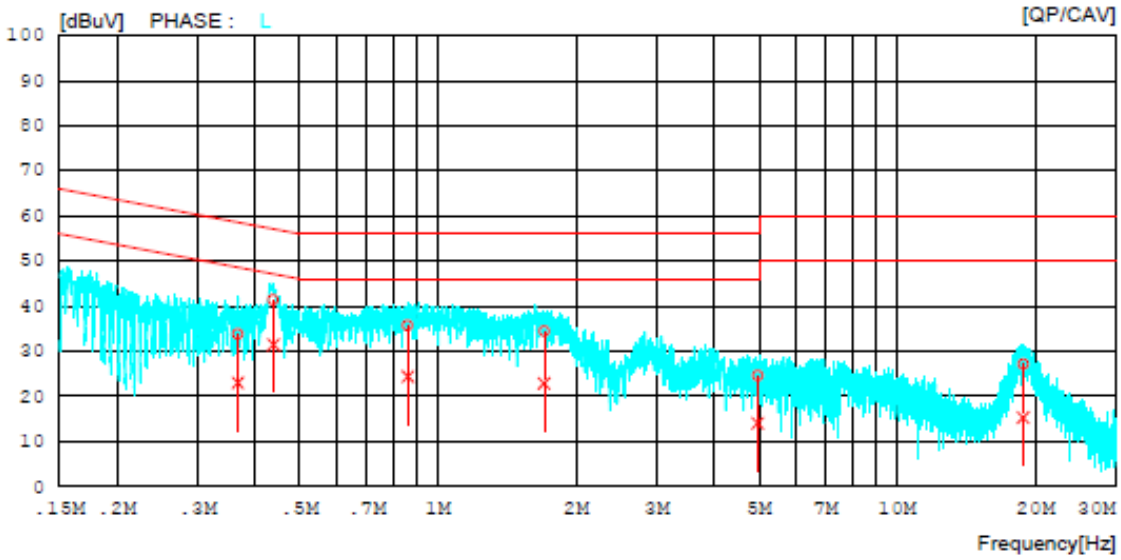
DTNC

Date 2023-05-12

Order No.		Referrence No.	
Model No.	PM86	Power Supply	
Serial No.		Temp/Humi.	21 'C / 41 %
Test Condition	WLAN 5.3G	Operator	S.M.Gil
Memo	ax_5260		

LIMIT : FCC P15.207 AV
FCC P15.207 QP





AC Line Conducted Emissions (Data List)

Test Mode: U-NII 2A & 802.11ax HE20 & MIMO(CDD) & 5 260 MHz

Results of Conducted Emission

DTNC

Date 2023-05-12

Order No.		Referrence No.	
Model No.	PM86	Power Supply	
Serial No.		Temp/Humi.	21 'C / 41 %
Test Condition	WLAN 5.3G	Operator	S.M.Gil
Memo	ax_5260		

LIMIT : FCC P15.207 AV
FCC P15.207 QP

NO	FREQ	READING		C.FACTOR	RESULT		LIMIT		MARGIN		PHASE
		QP	CAV		QP	CAV	QP	CAV	QP	CAV	
	[MHz]	[dBuV]	[dBuV]	[dB]	[dBuV]	[dBuV]	[dBuV]	[dBuV]	[dBuV]	[dBuV]	
1	0.17262	31.05	13.51	10.00	41.05	23.51	64.83	54.83	23.78	31.32	N
2	0.43078	30.26	24.23	10.00	40.26	34.23	57.24	47.24	16.98	13.01	N
3	0.76965	26.40	15.87	9.99	36.39	25.86	56.00	46.00	19.61	20.14	N
4	1.19800	25.45	13.37	10.01	35.46	23.38	56.00	46.00	20.54	22.62	N
5	5.69120	13.15	6.80	10.21	23.36	17.01	60.00	50.00	36.64	32.99	N
6	19.32680	11.62	5.54	10.55	22.17	16.09	60.00	50.00	37.83	33.91	N
7	0.36665	23.90	13.08	9.89	33.79	22.97	58.58	48.58	24.79	25.61	L
8	0.43819	31.44	21.58	9.90	41.34	31.48	57.10	47.10	15.76	15.62	L
9	0.85972	25.76	14.51	9.90	35.66	24.41	56.00	46.00	20.34	21.59	L
10	1.70400	24.36	12.87	10.03	34.39	22.90	56.00	46.00	21.61	23.10	L
11	4.96920	14.50	3.94	10.10	24.60	14.04	56.00	46.00	31.40	31.96	L
12	18.81440	16.80	4.96	10.36	27.16	15.32	60.00	50.00	32.84	34.68	L

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AC Line Conducted Emissions (Graph)

Test Mode: U-NII 2C & 802.11ax HE20 & MIMO(CDD) & 5 500 MHz

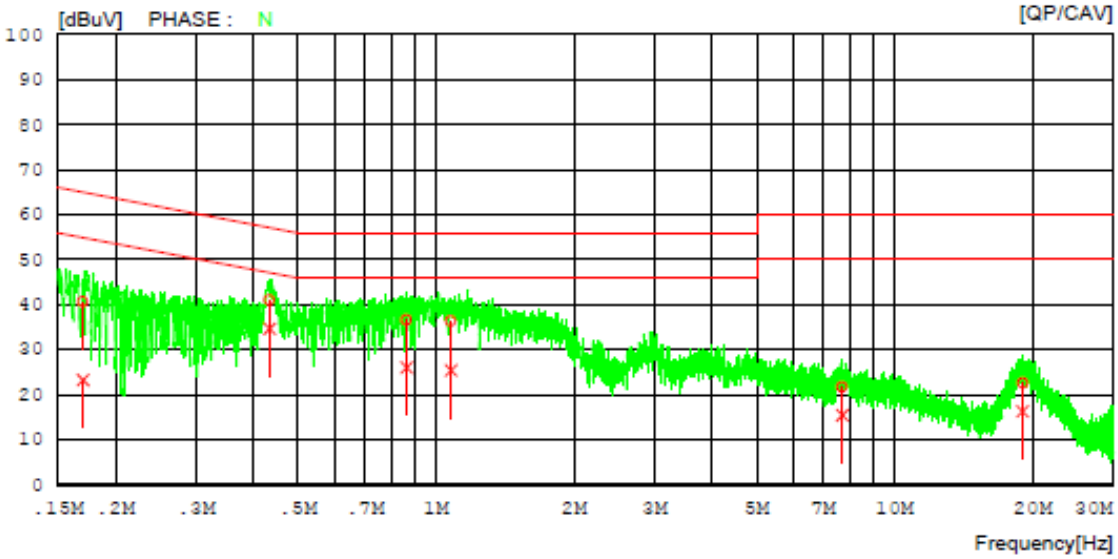
Results of Conducted Emission

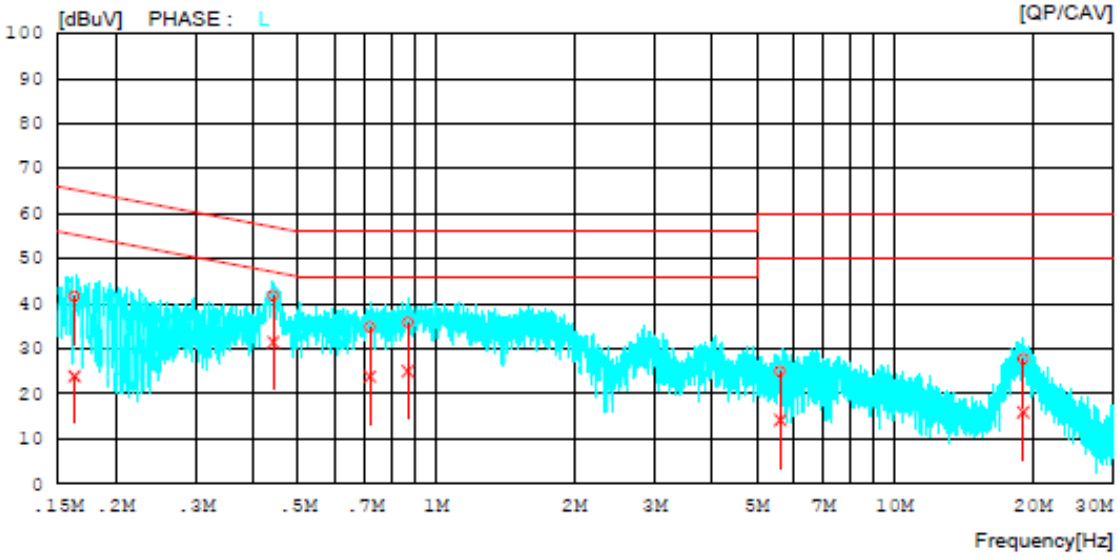
DTNC

Date 2023-05-12

Order No.		Referrence No.	
Model No.	PM86	Power Supply	
Serial No.		Temp/Humi.	21 'C / 41 %
Test Condition	WLAN 5.5G	Operator	S.M.Gil
Memo	ax_5500		

LIMIT : FCC P15.207 AV
FCC P15.207 QP





AC Line Conducted Emissions (Data List)

Test Mode: U-NII 2C & 802.11ax HE20 & MIMO(CDD) & 5 500 MHz

Results of Conducted Emission

DTNC

Date 2023-05-12

Order No.		Referrence No.	
Model No.	PM86	Power Supply	
Serial No.		Temp/Humi.	21 'C / 41 %
Test Condition	WLAN 5.5G	Operator	S.M.Gil
Memo	ax_5500		

LIMIT : FCC P15.207 AV
FCC P15.207 QP

NO	FREQ [MHz]	READING QP [dBuV]	READING CAV [dBuV]	C.FACTOR [dB]	RESULT QP [dBuV]	RESULT CAV [dBuV]	LIMIT QP [dBuV]	LIMIT CAV [dBuV]	MARGIN QP [dBuV]	MARGIN CAV [dBuV]	PHASE
1	0.16972	30.66	13.29	10.00	40.66	23.29	64.97	54.97	24.31	31.68	N
2	0.43303	31.11	24.67	10.00	41.11	34.67	57.19	47.19	16.08	12.52	N
3	0.86186	26.66	16.05	10.00	36.66	26.05	56.00	46.00	19.34	19.95	N
4	1.07720	26.40	15.44	10.01	36.41	25.45	56.00	46.00	19.59	20.55	N
5	7.68200	11.41	5.24	10.25	21.66	15.49	60.00	50.00	38.34	34.51	N
6	19.04440	12.09	5.80	10.56	22.65	16.36	60.00	50.00	37.35	33.64	N
7	0.16255	31.70	14.02	9.90	41.60	23.92	65.33	55.33	23.73	31.41	L
8	0.44150	31.88	21.60	9.90	41.78	31.50	57.03	47.03	15.25	15.53	L
9	0.71759	24.88	13.93	9.89	34.77	23.82	56.00	46.00	21.23	22.18	L
10	0.86779	25.94	15.10	9.90	35.84	25.00	56.00	46.00	20.16	21.00	L
11	5.62980	14.86	4.01	10.11	24.97	14.12	60.00	50.00	35.03	35.88	L
12	19.08520	17.32	5.59	10.36	27.68	15.95	60.00	50.00	32.32	34.05	L

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AC Line Conducted Emissions (Graph)

Test Mode: U-NII 3 & 802.11ax HE20 & MIMO(CDD) & 5 745 MHz

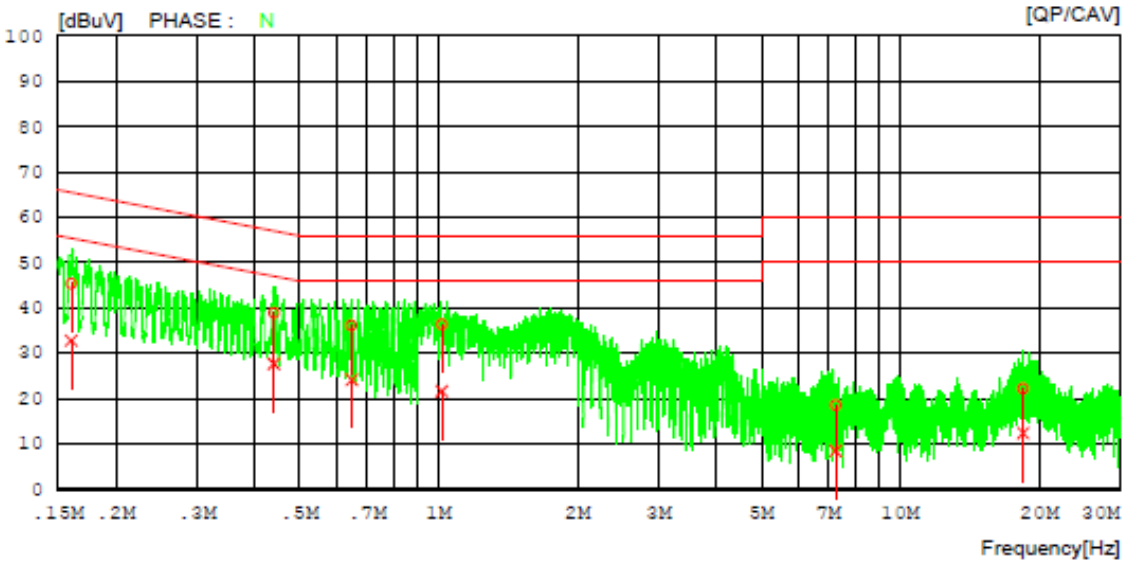
Results of Conducted Emission

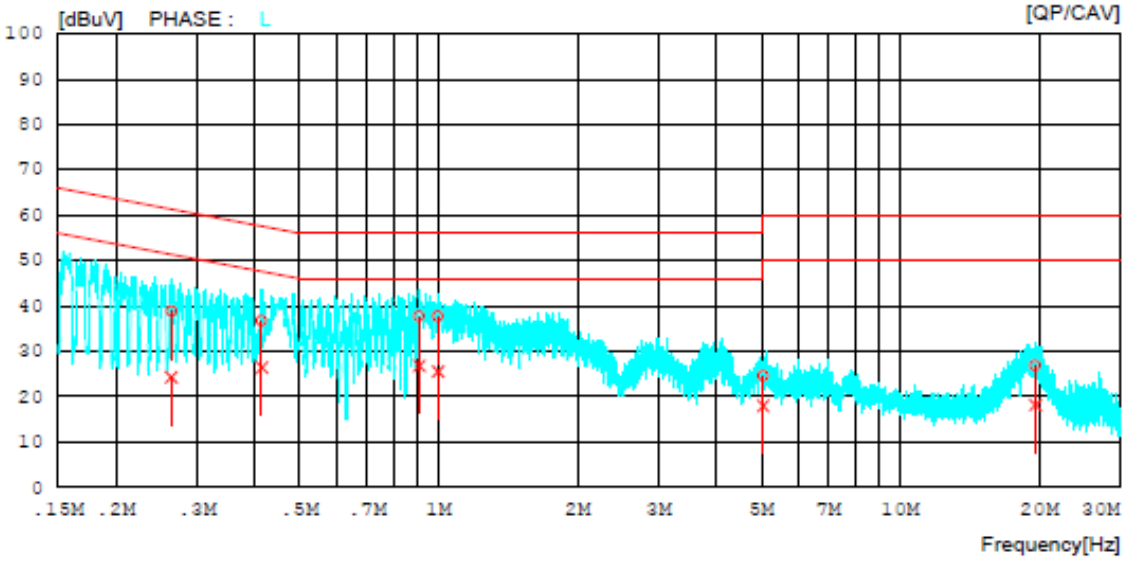
DTNC

Date 2023-05-26

Order No.		Referrence No.	
Model No.	PM86	Power Supply	
Serial No.		Temp/Humi.	21 'C / 41 %
Test Condition	WLAN 5.7G	Operator	S.M.Gil
Memo	ax_5745		

LIMIT : FCC P15.207 AV
FCC P15.207 QP





AC Line Conducted Emissions (Data List)

Test Mode: U-NII 3 & 802.11ax HE20 & MIMO(CDD) & 5 745 MHz

Results of Conducted Emission

DTNC

Date 2023-05-26

Order No.		Referrence No.	
Model No.	PM86	Power Supply	
Serial No.		Temp/Humi.	21 'C / 41 %
Test Condition	WLAN 5.7G	Operator	S.M.Gil
Memo	ax_5745		

LIMIT : FCC P15.207 AV
FCC P15.207 QP

NO	FREQ [MHz]	READING QP [dBuV]	READING CAV [dBuV]	C.FACTOR [dB]	RESULT QP [dBuV]	RESULT CAV [dBuV]	LIMIT QP [dBuV]	LIMIT CAV [dBuV]	MARGIN QP [dBuV]	MARGIN CAV [dBuV]	PHASE
1	0.16001	35.40	22.84	10.00	45.40	32.84	65.46	55.46	20.06	22.62	N
2	0.44011	28.92	17.75	10.00	38.92	27.75	57.06	47.06	18.14	19.31	N
3	0.64790	26.12	14.13	9.99	36.11	24.12	56.00	46.00	19.89	21.88	N
4	1.01520	26.32	11.64	10.01	36.33	21.65	56.00	46.00	19.67	24.35	N
5	7.24760	8.28	-1.69	10.24	18.52	8.55	60.00	50.00	41.48	41.45	N
6	18.46400	11.72	1.85	10.55	22.27	12.40	60.00	50.00	37.73	37.60	N
7	0.26370	28.95	14.36	9.88	38.83	24.24	61.31	51.31	22.48	27.07	L
8	0.41371	26.84	16.53	9.89	36.73	26.42	57.57	47.57	20.84	21.15	L
9	0.90794	27.78	16.90	9.91	37.69	26.81	56.00	46.00	18.31	19.19	L
10	0.99729	27.66	15.53	10.01	37.67	25.54	56.00	46.00	18.33	20.46	L
11	5.04800	14.50	7.86	10.10	24.60	17.96	60.00	50.00	35.40	32.04	L
12	19.62240	16.52	7.78	10.36	26.88	18.14	60.00	50.00	33.12	31.86	L

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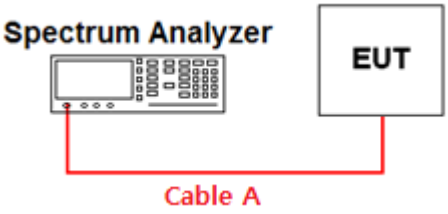
APPENDIX I

Conducted Test set up Diagram

▪ Conducted Measurement



APPENDIX II

Duty Cycle Information

▣ Test Procedure

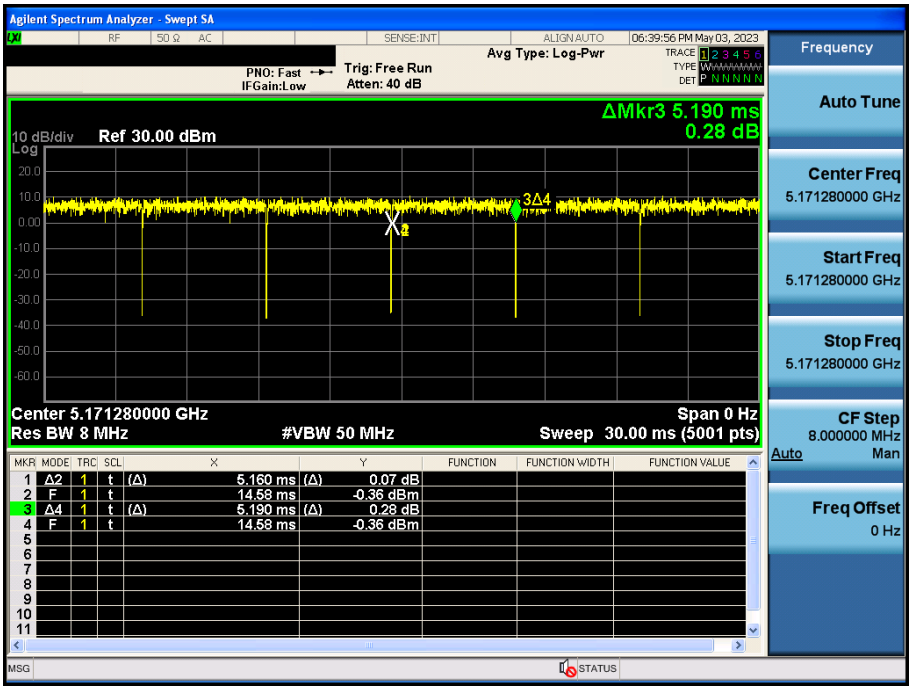
Duty Cycle [X = On Time / (On + Off time)] is measured using Measurement Procedure **of KDB789033 D02v02r01**

1. Set the center frequency of the spectrum analyzer to the center frequency of the transmission.
2. Set RBW ≥ EBW if possible; otherwise, set RBW to the largest available value.
3. Set VBW ≥ RBW. Set detector = peak.
4. Note : The zero-span measurement method shall not be used unless both **RBW and VBW are > 50 / *T***, where *T* is defined in section II.B.1.a), and **the number of sweep points across duration *T* exceeds 100**. (For example, if VBW and/or RBW are limited to 3 MHz, then the zero-span method of measuring duty cycle shall not be used if *T* ≤ 16.7 microseconds.)

T : The minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.
(***T* = On time** of the above table since the EUT operates with above fixed Duty Cycle and it is the minimum On time)

▪ T (On time)

Duty Cycle 802.11ax HE20 & MIMO & 5 180 MHz & & MCS 0 & 26 Tone



T_{on}(ms)	1/T [kHz]	VBW
5.160	0.194	300 Hz