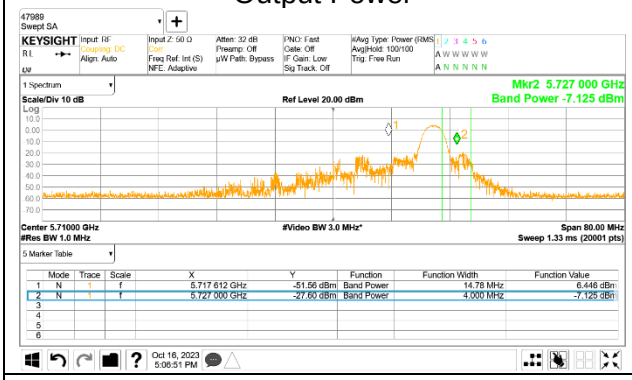
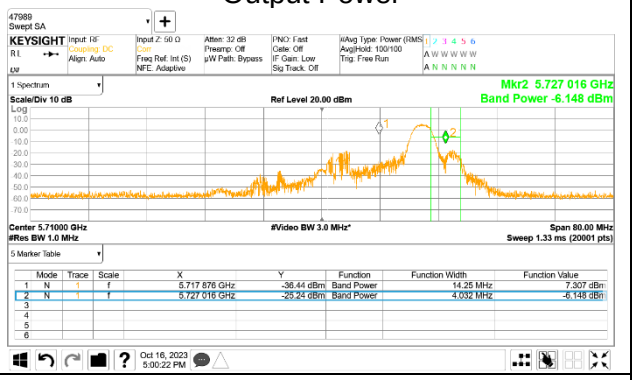
UNII Straddle Ch. IEEE 802.11ax HE40(15RU) mode Output Power and PSD

ANT1	ANT2
Output Power	Output Power
	
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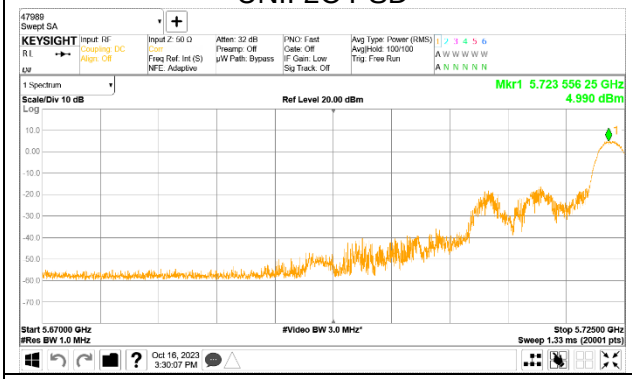	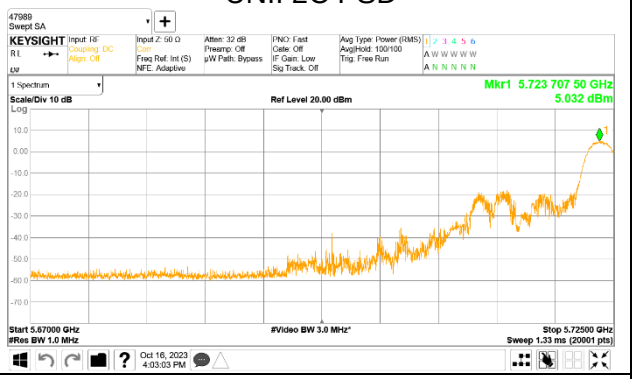
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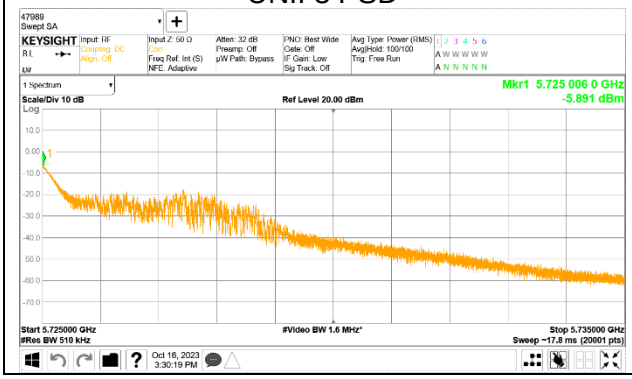
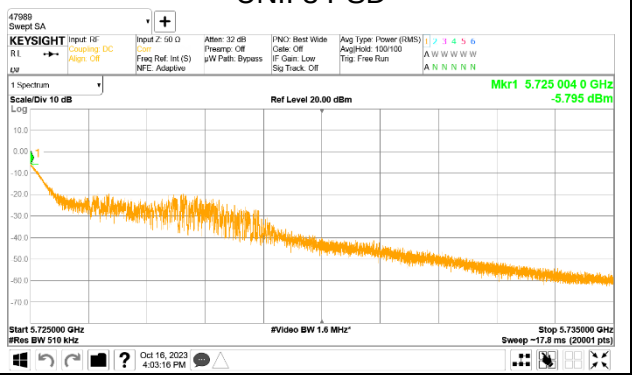
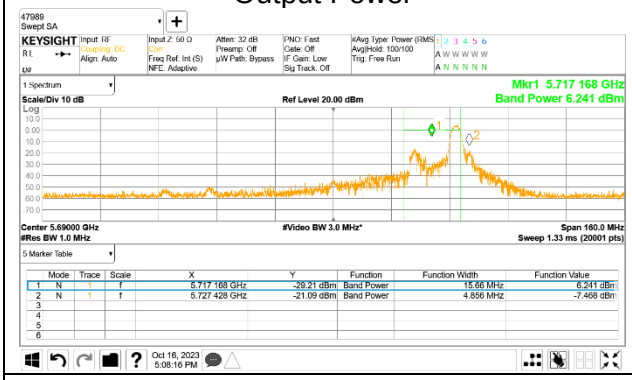
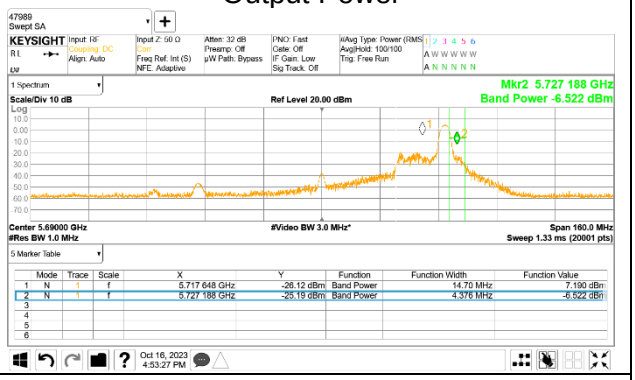
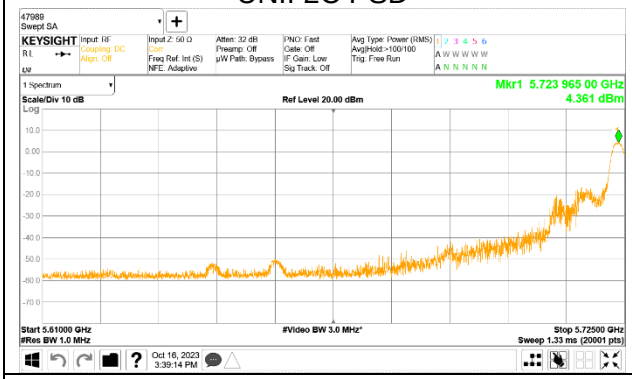
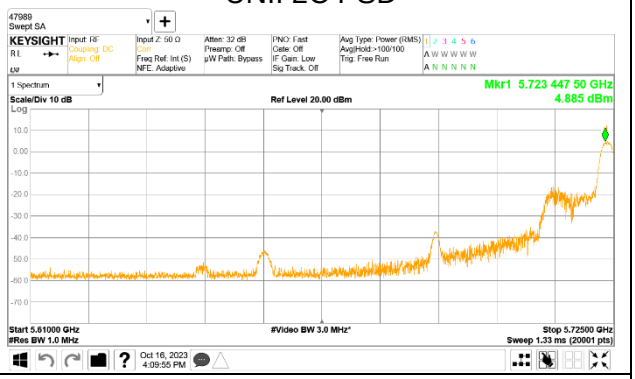
	

UNII Straddle Ch. IEEE 802.11ax HE80(34RU) mode Output Power and PSD

ANT1	ANT2
Output Power	Output Power
	
UNII 2C PSD	UNII 2C PSD
	
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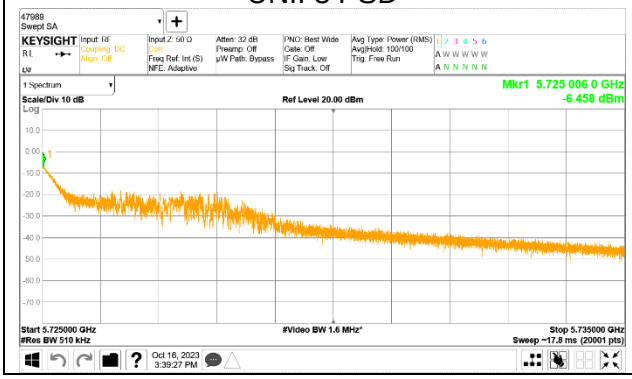	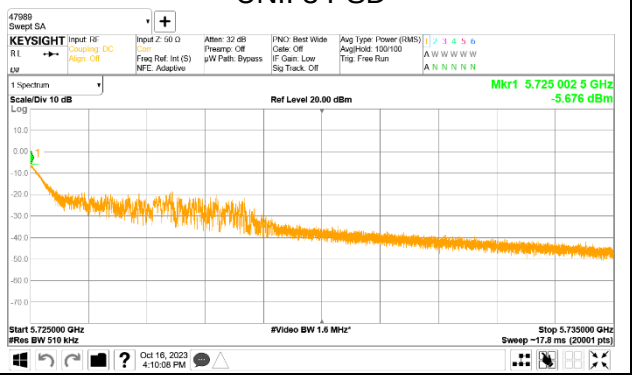

11. TRANSMITTER ABOVE 1 GHz

LIMITS

FCC §15.205 and §15.209

Limits for radiated disturbance of an intentional radiator		
Frequency range (MHz)	Limits (μV/m)	Measurement Distance (m)
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 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.

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 ~ 12.52025	149.9 ~ 150.05	1645.5 ~ 1646.5	7.25 ~ 7.75	17.7 ~ 21.4
4.125 ~ 4.128	12.57675 ~ 12.57725	156.52475 ~ 156.52525	1660 ~ 1710	8.025 ~ 8.5	22.01 ~ 23.12
4.17725 ~ 4.17775	13.36 ~ 13.41	156.7 ~ 156.9	1718.8 ~ 1722.2	9.0 ~ 9.2	23.6 ~ 24.0
4.20725 ~ 4.20775	16.42 ~ 16.423	162.0125 ~ 167.17	2200 ~ 2300	9.3 ~ 9.5	31.2 ~ 31.8
6.215 ~ 6.218	16.69475 ~ 16.69525	167.72 ~ 173.2	2310 ~ 2390	10.6 ~ 12.7	36.43 ~ 36.5
6.26775 ~ 6.26825	16.80425 ~ 16.80475	240 ~ 285	2483.5 ~ 2500	13.25 ~ 13.4	Above 38.6
6.31175 ~ 6.31225	25.5 ~ 25.67	322 ~ 335.4	2655 ~ 2900		
8.291 ~ 8.294	37.5 ~ 38.25	399.90 ~ 410	3260 ~ 3267		
8.362 ~ 8.366	73 ~ 74.6	608 ~ 614	3332 ~ 3339		
8.37625 ~ 8.38675	74.8 ~ 75.2	960 ~ 1240	3345.8 ~ 3358		
			3600 ~ 4400		

▪ 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 §15.407 (b)

(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 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz.
(2) For transmitters operating in the 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz.
(3) For transmitters operating in the 5.47-5.725 GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz.
(4) For transmitters operating solely in the 5.725–5.850 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.
(5)For transmitters operating solely in the 5.850-5.895 GHz band or operating on a channel that spans across 5.725-5.895 GHz:
(ii) For a client device, all emissions at or above 5.895 GHz shall not exceed an e.i.r.p. of −5 dBm/MHz and shall decrease linearly to an e.i.r.p. of −27 dBm/MHz at or above 5.925 GHz.
(iii) For a client device or indoor access point or subordinate device, all emissions below 5.725 GHz shall not exceed an e.i.r.p. of −27 dBm/MHz at 5.65 GHz increasing linearly to 10 dBm/MHz at 5.7 GHz, and from 5.7 GHz increasing linearly to a level of 15.6 dBm/MHz at 5.72 GHz, and from 5.72 GHz increasing linearly to a level of 27 dBm/MHz at 5.725 GHz.
(6) 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.
(7) Unwanted emissions below 1 GHz must comply with the general field strength limits set forth in §15.209. Further, any U-NII devices using an AC power line are required to comply also with the conducted limits set forth in §15.207.
(8) The provisions of §15.205 apply to intentional radiators operating under this section.
(9) 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.

Note

- Limit translation to field strength level (FCC §15.407)

E[dBuV/m] = EIRP[dBm] + 95.2 = -27dBm + 95.2 = 68.2dBuV/m

E[dBuV/m] = EIRP[dBm] + 95.2 = -17dBm + 95.2 = 78.2dBuV/m

UL KOREA LTD. Suwon Laboratory FORM ID: FCC_15E(05)
218 Maeyeong-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16675, Korea TEL: (031) 337-9902 FAX: (031) 213-5433

TEST PROCEDURE

The EUT is placed on a non-conducting table 80 cm above the ground plane for below 1GHz and 100 cm for above 1GHz. EUT is set 3 meters away from the receiving antenna and scan from 1m to 4m to find out the highest emission.
The EUT is configured in accordance with ANSI C63.10. The EUT is set to transmit in a continuous mode.

For measurements below 1 GHz the resolution bandwidth is set to 100 kHz for peak detection measurements or 120 kHz for quasi-peak detection measurements. Peak detection is used unless otherwise noted as quasi-peak.

Reference to KDB 789033 D02 v02r01 UNII part G) 6) c) Method AD:
For measurements above 1 GHz the resolution bandwidth is set to 1 MHz; the video bandwidth is set to 3 MHz for peak measurements and add duty cycle factor to the reading offset for average measurements.In UNII-4, unwanted emissions outside of restricted bands are measured with an RMS detector.

Pre-scans to detect harmonic and spurious emissions, the resolution bandwidth is set to 1 MHz; the video bandwidth is set to 30 kHz for peak measurements.

The spectrum from 1GHz to 40 GHz is investigated with the transmitter set to the lowest, middle, and highest channels in each applicable band.
(From 30MHz to 1GHz, test was performed with the EUT set to transmit at the channel with highest output power)

The frequency range of interest is monitored at a fixed antenna height and EUT azimuth. The EUT is rotated through 360 degrees to maximize emissions received. The antenna is scanned from 1 to 4 meters above the ground plane to further maximize the emission. Measurements are made with the antenna polarized in both the vertical and the horizontal positions.

Note : Emission was pre-scanned from 9kHz to 30MHz; No emissions were detected which was at least 20dB below the specification limit (consider distance correction factor).
Per FCC part 15.31(o), test results were not reported.

Although these tests were performed other than open field test site, adequate comparison measurements were confirmed against 30 m open are test site.
Therefore sufficient tests were made to demonstrate that the alternative site produces results that correlate with the one of tests made in an open field based on KDB 414788.

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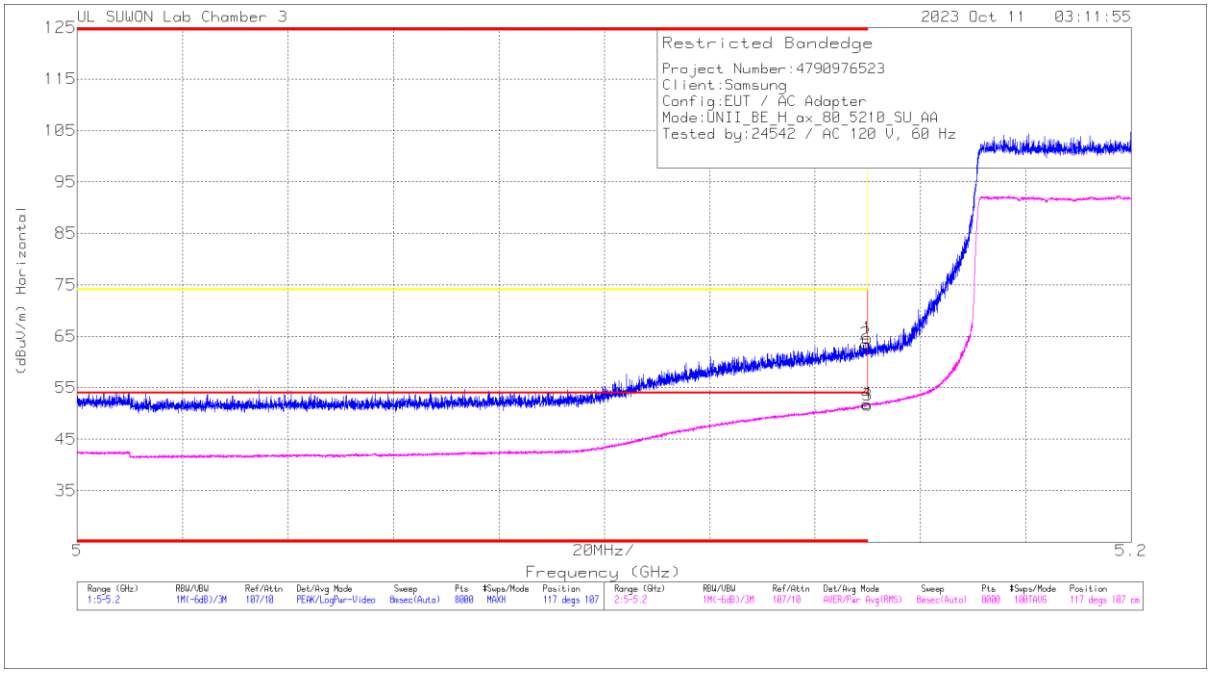
11.1. TX ABOVE 1GHz 2Tx MODE IN THE 5.2GHz BAND

BANDEDGE (WORST CASE: 802.11ax HE80 / 5210 MHz)

HORIZONTAL PEAK AND AVERAGE DATA



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	Antenna Correction Factor(dB(1/m))	Path Loss(dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.14999	50.87	Pk	34.4	-20.6	0	64.67	-	-	74	-9.33	117	107	H
2	* 5.14964	49.81	Pk	34.4	-20.7	0	63.51	-	-	74	-10.49	117	107	H
3	* 5.14999	37.8	RMS	34.4	-20.6	0	51.6	54	-2.4	-	-	117	107	H
4	* 5.14987	38.08	RMS	34.4	-20.6	0	51.88	54	-2.12	-	-	117	107	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

BANDEDGE TEST DATA

Mode	Freq. [MHz]	Antenna	Frequency [GHz]	Reading [dBuV]	Detector Mode	ANT Factor [dB(1/m)]	Loss [dB]	DC Corr [dB]	Result [dBuV/m]	AV Limit [dBuV/m]	AV Margin [dB]	PK Limit [dBuV/m]	PK Margin [dB]	Azimuth [Degs]	Height [cm]	Polarity
802.11a	5180	MIMO	* 5.14999	45.01	Pk	34.40	-20.60	0.00	58.81	-	-	74.00	-15.19	117	105	H
			* 5.14967	46.92	Pk	34.40	-20.60	0.00	60.72	-	-	74.00	-13.28	117	105	H
			* 5.14999	32.60	RMS	34.40	-20.60	0.15	46.55	54.00	-7.45	-	-	117	105	H
			* 5.14994	32.99	RMS	34.40	-20.60	0.15	46.94	54.00	-7.06	-	-	117	105	H
			* 5.14999	39.42	Pk	34.40	-20.60	0.00	53.22	-	-	74.00	-20.78	88	211	V
			* 5.14847	43.97	Pk	34.40	-20.80	0.00	57.57	-	-	74.00	-16.43	88	211	V
			* 5.14999	28.79	RMS	34.40	-20.60	0.15	42.74	54.00	-11.26	-	-	88	211	V
			* 5.14869	29.86	RMS	34.40	-20.70	0.15	43.71	54.00	-10.29	-	-	88	211	V
802.11n (HT20)	5180	MIMO	* 5.14999	42.40	Pk	34.40	-20.60	0.00	56.20	-	-	74.00	-17.80	253	101	H
			* 5.14919	45.18	Pk	34.40	-20.70	0.00	58.88	-	-	74.00	-15.12	253	101	H
			* 5.14999	29.55	RMS	34.40	-20.60	0.00	43.35	54.00	-10.65	-	-	253	101	H
			* 5.14977	30.67	RMS	34.40	-20.60	0.00	44.47	54.00	-9.53	-	-	253	101	H
			* 5.14999	43.84	Pk	34.40	-20.60	0.00	57.64	-	-	74.00	-16.36	192	399	V
			* 5.14972	44.07	Pk	34.40	-20.60	0.00	57.87	-	-	74.00	-16.13	192	399	V
			* 5.14999	29.32	RMS	34.40	-20.60	0.00	43.12	54.00	-10.88	-	-	192	399	V
			* 5.14964	30.05	RMS	34.40	-20.70	0.00	43.75	54.00	-10.25	-	-	192	399	V
802.11n (HT40)	5190	MIMO	* 5.14999	48.99	Pk	34.40	-20.60	0.00	62.79	-	-	74.00	-11.21	119	106	H
			* 5.14544	51.73	Pk	34.40	-20.80	0.00	65.33	-	-	74.00	-8.67	119	106	H
			* 5.14999	36.12	RMS	34.40	-20.60	0.00	49.92	54.00	-4.08	-	-	119	106	H
			* 5.14974	36.46	RMS	34.40	-20.60	0.00	50.26	54.00	-3.74	-	-	119	106	H
			* 5.14999	41.88	Pk	34.40	-20.60	0.00	55.68	-	-	74.00	-18.32	97	100	V
			* 5.14959	45.65	Pk	34.40	-20.70	0.00	59.35	-	-	74.00	-14.65	97	100	V
			* 5.14999	31.03	RMS	34.40	-20.60	0.00	44.83	54.00	-9.17	-	-	97	100	V
			* 5.14909	32.42	RMS	34.40	-20.70	0.00	46.12	54.00	-7.88	-	-	97	100	V
802.11ac (VHT80)	5210	MIMO	* 5.14999	47.84	Pk	34.40	-20.60	0.00	61.64	-	-	74.00	-12.36	117	105	H
			* 5.14867	49.58	Pk	34.40	-20.70	0.00	63.28	-	-	74.00	-10.72	117	105	H
			* 5.14999	37.50	RMS	34.40	-20.60	0.25	51.55	54.00	-2.45	-	-	117	105	H
			* 5.14964	37.61	RMS	34.40	-20.70	0.25	51.56	54.00	-2.44	-	-	117	105	H
			* 5.14999	41.66	Pk	34.40	-20.60	0.00	55.46	-	-	74.00	-18.54	96	100	V
			* 5.14994	45.88	Pk	34.40	-20.60	0.00	59.68	-	-	74.00	-14.32	96	100	V
			* 5.14999	32.55	RMS	34.40	-20.60	0.25	46.60	54.00	-7.40	-	-	96	100	V
			* 5.14819	33.20	RMS	34.40	-20.80	0.25	47.05	54.00	-6.95	-	-	96	100	V
802.11ac (VHT160)	5250 Lower	MIMO	* 5.14999	45.16	Pk	34.40	-20.60	0.00	58.96	-	-	74.00	-15.04	117	109	H
			* 5.14854	53.25	Pk	34.40	-20.80	0.00	66.85	-	-	74.00	**-7.15**	117	109	H
			* 5.14999	33.75	RMS	34.40	-20.60	0.24	47.79	54.00	-6.21	-	-	117	109	H
			* 5.14979	34.22	RMS	34.40	-20.60	0.24	48.26	54.00	-5.74	-	-	117	109	H
			* 5.14999	43.11	Pk	34.40	-20.60	0.00	56.91	-	-	74.00	-17.09	96	211	V
			* 5.14234	44.93	Pk	34.40	-20.80	0.00	58.53	-	-	74.00	-15.47	96	211	V
			* 5.14999	29.13	RMS	34.40	-20.60	0.24	43.17	54.00	-10.83	-	-	96	211	V
			* 5.14014	30.03	RMS	34.40	-20.80	0.24	43.87	54.00	-10.13	-	-	96	211	V
802.11ax (HE20) SU mode	5180	MIMO	* 5.14999	52.77	Pk	34.40	-20.60	0.00	66.57	-	-	74.00	-7.43	117	107	H
			* 5.14924	52.89	Pk	34.40	-20.70	0.00	66.59	-	-	74.00	-7.41	117	107	H
			* 5.14999	37.42	RMS	34.40	-20.60	0.00	51.22	54.00	-2.78	-	-	117	107	H
			* 5.14982	37.92	RMS	34.40	-20.60	0.00	51.72	54.00	-2.28	-	-	117	107	H
			* 5.14999	45.42	Pk	34.40	-20.60	0.00	59.22	-	-	74.00	-14.78	90	100	V
			* 5.14977	47.29	Pk	34.40	-20.60	0.00	61.09	-	-	74.00	-12.91	90	100	V
			* 5.14999	33.15	RMS	34.40	-20.60	0.00	46.95	54.00	-7.05	-	-	90	100	V
			* 5.14967	33.92	RMS	34.40	-20.60	0.00	47.72	54.00	-6.28	-	-	90	100	V
802.11ax (HE40) SU mode	5190	MIMO	* 5.14999	48.30	Pk	34.40	-20.60	0.00	62.10	-	-	74.00	-11.90	116	110	H
			* 5.14727	50.87	Pk	34.40	-20.80	0.00	64.47	-	-	74.00	-9.53	116	110	H
			* 5.14999	37.51	RMS	34.40	-20.60	0.00	51.31	54.00	-2.69	-	-	116	110	H
			* 5.14947	37.59	RMS	34.40	-20.70	0.00	51.29	54.00	-2.71	-	-	116	110	H
			* 5.14999	46.08	Pk	34.40	-20.60	0.00	59.88	-	-	74.00	-14.12	89	100	V
			* 5.14947	46.71	Pk	34.40	-20.70	0.00	60.41	-	-	74.00	-13.59	89	100	V
			* 5.14999	33.40	RMS	34.40	-20.60	0.00	47.20	54.00	-6.80	-	-	89	100	V
			* 5.14909	34.38	RMS	34.40	-20.70	0.00	48.08	54.00	-5.92	-	-	89	100	V
802.11ax (HE80) SU mode	5210	MIMO	* 5.14999	50.87	Pk	34.40	-20.60	0.00	64.67	-	-	74.00	-9.33	117	107	H
			* 5.14964	49.81	Pk	34.40	-20.70	0.00	63.51	-	-	74.00	-10.49	117	107	H
			* 5.14999	37.80	RMS	34.40	-20.60	0.00	51.60	54.00	-2.40	-	-	117	107	H
			* 5.14987	38.08	RMS	34.40	-20.60	0.00	51.88	54.00	**-2.12**	-	-	117	107	H
			* 5.14999	44.43	Pk	34.40	-20.60	0.00	58.23	-	-	74.00	-15.77	82	101	V
			* 5.14764	46.45	Pk	34.40	-20.80	0.00	60.05	-	-	74.00	-13.95	82	101	V
			* 5.14999	33.75	RMS	34.40	-20.60	0.00	47.55	54.00	-6.45	-	-	82	100	V
			* 5.14974	34.36	RMS	34.40	-20.60	0.00	48.16	54.00	-5.84	-	-	82	100	V
802.11ax (HE160) SU mode	5250 Lower	MIMO	* 5.14999	47.28	Pk	34.40	-20.60	0.00	61.08	-	-	74.00	-12.92	117	100	H
			* 5.14679	48.53	Pk	34.40	-20.80	0.00	62.13	-	-	74.00	-11.87	117	100	H
			* 5.14999	36.39	RMS	34.40	-20.60	0.00	50.19	54.00	-3.81	-	-	117	100	H
			* 5.14977	37.74	RMS	34.40	-20.60	0.00	51.54	54.00	-2.46	-	-	117	100	H
			* 5.14999	41.63	Pk	34.40	-20.60	0.00	55.43	-	-	74.00	-18.57	83	100	V
			* 5.14922	44.95	Pk	34.40	-20.70	0.00	58.65	-	-	74.00	-15.35	83	100	V
			* 5.14999	31.98	RMS	34.40	-20.60	0.00	45.78	54.00	-8.22	-	-	83	100	V
			* 5.14972	33.27	RMS	34.40	-20.60	0.00	47.07	54.00	-6.93	-	-	83	100	V

Note1. Pk - Peak detector, RMS - RMS detectior
Note2. * - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

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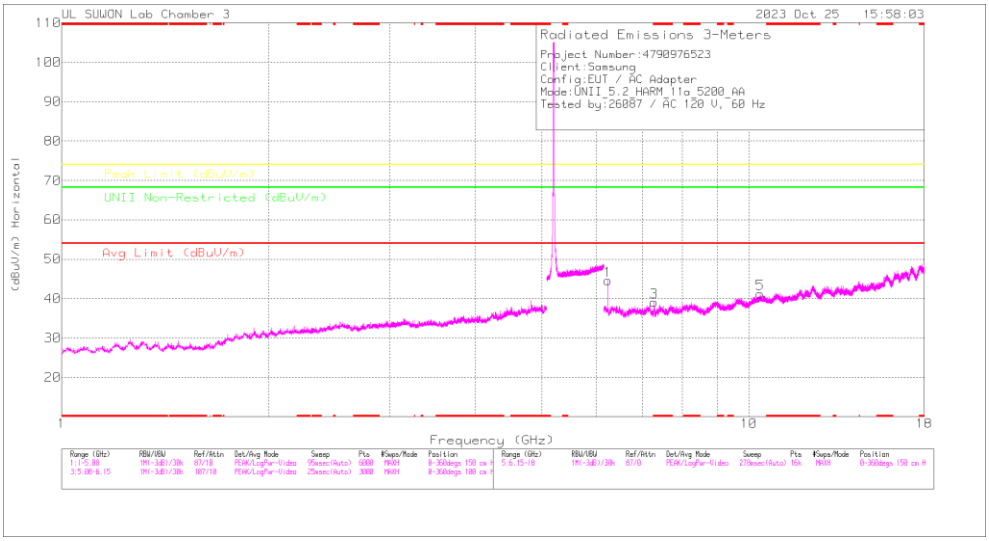
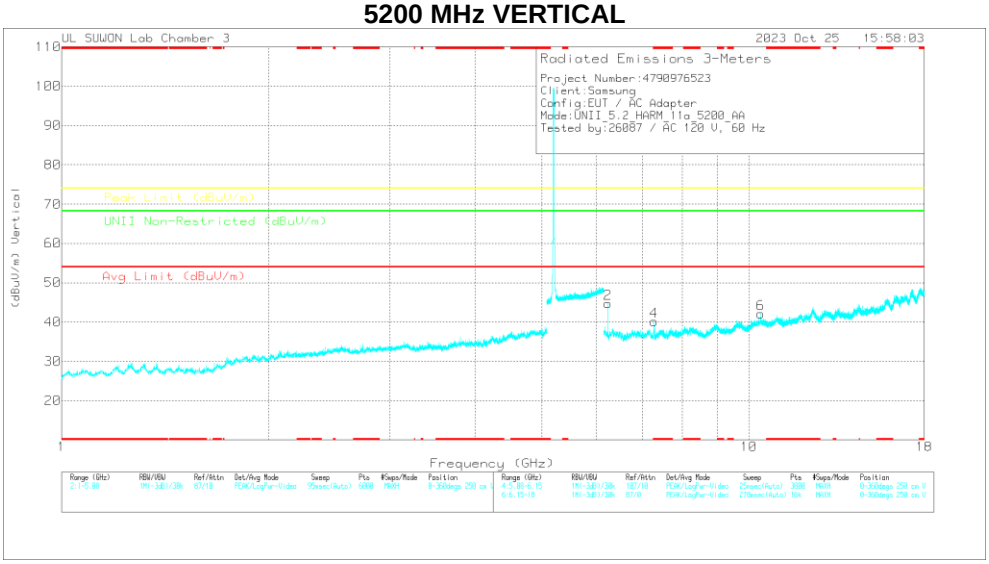
HARMONICS AND SPURIOUS EMISSIONS(WORST CASE: 802.11a / 5200 MHz)

5200 MHz HORIZONTAL



5200 MHz VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

5200 MHz DATA

Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	Antenna Correction Factor[dB/(Um)]	Path Loss(dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
6.23981	42.84	PK-U	36	-27.4	0	51.44	-	-	-	-	68.2	-16.76	48	100	H
6.23998	43.7	PK-U	36	-27.4	0	52.3	-	-	-	-	68.2	-15.9	194	302	V
* 7.27415	39.07	PK-U	35.8	-25.5	0	49.37	-	-	74	-24.63	-	-	156	103	H
* 7.27327	28.07	ADR	35.8	-25.6	.15	38.42	54	-15.58	-	-	-	-	156	103	H
* 7.28627	40.17	PK-U	35.8	-25.6	0	50.37	-	-	74	-23.63	-	-	125	100	V
* 7.28623	29.22	ADR	35.8	-25.6	.15	39.57	54	-14.43	-	-	-	-	125	100	V
10.38457	33.45	PK-U	37.5	-20.8	0	50.15	-	-	-	-	68.2	-18.05	0	100	H
10.38521	34.13	PK-U	37.5	-20.8	0	50.83	-	-	-	-	68.2	-17.37	0	100	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
PK-U - U-NII: Maximum Peak
ADR - U-NII AD primary method, RMS average

HARMONICS AND SPURIOUS EMISSIONS TEST DATA

Mode	Freq. [MHz]	Antenna	Frequency [GHz]	Reading [dBuV]	Detector Mode	ANT Factor [dB(1/m)]	Loss [dB]	DC Corr [dB]	Result [dBuV/m]	AV Limit [dBuV/m]	AV Margin [dB]	PK Limit [dBuV/m]	PK Margin [dB]	Non-Restricted [dBuV/m]	Margin [dB]	Azimuth [Degs]	Height [cm]	Polarity
802.11a	5180	MIMO	6.216	44.29	PK-U	36.00	-27.40	0.00	52.89	-	-	-	-	68.20	-15.31	115	140	H
			6.216	44.66	PK-U	36.00	-27.40	0.00	53.26	-	-	-	-	68.20	-14.94	100	106	V
			7.248	39.55	PK-U	35.80	-25.60	0.00	49.75	-	-	-	-	68.20	-18.45	66	143	H
			7.249	28.62	ADR	35.80	-25.60	0.15	38.97	-	-	-	-	-	-	66	143	H
			* 7.25591	38.63	PK-U	35.80	-25.60	0.00	48.83	-	-	74.00	-25.17	-	-	88	100	V
			* 7.25611	26.68	ADR	35.80	-25.60	0.15	37.03	54.00	-16.97	-	-	-	-	88	100	V
			10.359	38.86	PK-U	37.50	-21.00	0.00	55.36	-	-	-	-	68.20	**-12.84**	182	209	H
			10.358	37.76	PK-U	37.50	-21.00	0.00	54.26	-	-	-	-	68.20	-13.94	188	301	V
	5200	MIMO	6.240	42.84	PK-U	36.00	-27.40	0.00	51.44	-	-	-	-	68.20	-16.76	48	100	H
			6.240	43.70	PK-U	36.00	-27.40	0.00	52.30	-	-	-	-	68.20	-15.90	194	302	V
			* 7.27415	39.07	PK-U	35.80	-25.50	0.00	49.37	-	-	74.00	-24.63	-	-	156	103	H
			* 7.27327	28.07	ADR	35.80	-25.60	0.15	38.42	54.00	-15.58	-	-	-	-	156	103	H
			* 7.28627	40.17	PK-U	35.80	-25.60	0.00	50.37	-	-	74.00	-23.63	-	-	125	100	V
			* 7.28623	29.22	ADR	35.80	-25.60	0.15	39.57	54.00	-14.43	-	-	-	-	125	100	V
			10.385	33.45	PK-U	37.50	-20.80	0.00	50.15	-	-	-	-	68.20	-18.05	0	100	H
			10.385	34.13	PK-U	37.50	-20.80	0.00	50.83	-	-	-	-	68.20	-17.37	0	100	V
	5240	MIMO	6.288	43.12	PK-U	36.00	-27.30	0.00	51.82	-	-	-	-	68.20	-16.38	113	189	H
			6.288	43.46	PK-U	36.00	-27.30	0.00	52.16	-	-	-	-	68.20	-16.04	100	110	V
			* 7.34286	39.98	PK-U	35.80	-25.30	0.00	50.48	-	-	74.00	-23.52	-	-	67	131	H
			* 7.34265	28.87	ADR	35.80	-25.40	0.15	39.42	54.00	-14.58	-	-	-	-	67	131	H
			* 7.33586	37.98	PK-U	35.80	-25.30	0.00	48.48	-	-	74.00	-25.52	-	-	130	389	V
			* 7.33656	26.89	ADR	35.80	-25.40	0.15	37.44	54.00	-16.56	-	-	-	-	130	389	V
			10.475	38.16	PK-U	37.60	-21.10	0.00	54.66	-	-	-	-	68.20	-13.54	175	205	H
			10.477	35.95	PK-U	37.60	-21.10	0.00	52.45	-	-	-	-	68.20	-15.75	190	285	V
802.11ax (HE20) RU mode 26 Tone offset 8	5200	MIMO	6.240	41.10	PK-U	36.00	-27.40	0.00	49.70	-	-	-	-	68.20	-18.50	114	241	H
			6.240	41.52	PK-U	36.00	-27.40	0.00	50.12	-	-	-	-	68.20	-18.08	94	103	V
			10.400	33.54	PK-U	37.50	-20.80	0.00	50.24	-	-	-	-	68.20	-17.96	0	100	H
			10.401	33.72	PK-U	37.50	-20.90	0.00	50.32	-	-	-	-	68.20	-17.88	0	100	V
			* 15.59978	34.17	PK-U	40.20	-20.80	0.00	53.57	-	-	74.00	**-20.43**	-	-	0	100	H
			* 15.60106	33.94	PK-U	40.20	-20.80	0.00	53.34	-	-	74.00	-20.66	-	-	0	100	V
			* 15.59978	22.05	ADR	40.20	-20.80	0.00	41.45	54.00	**-12.55**	-	-	-	-	0	100	H
			* 15.60106	21.80	ADR	40.20	-20.80	0.00	41.20	54.00	-12.80	-	-	-	-	0	100	V

Note1. PK-U - U-NII: Maximum Peak
Note2. * - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

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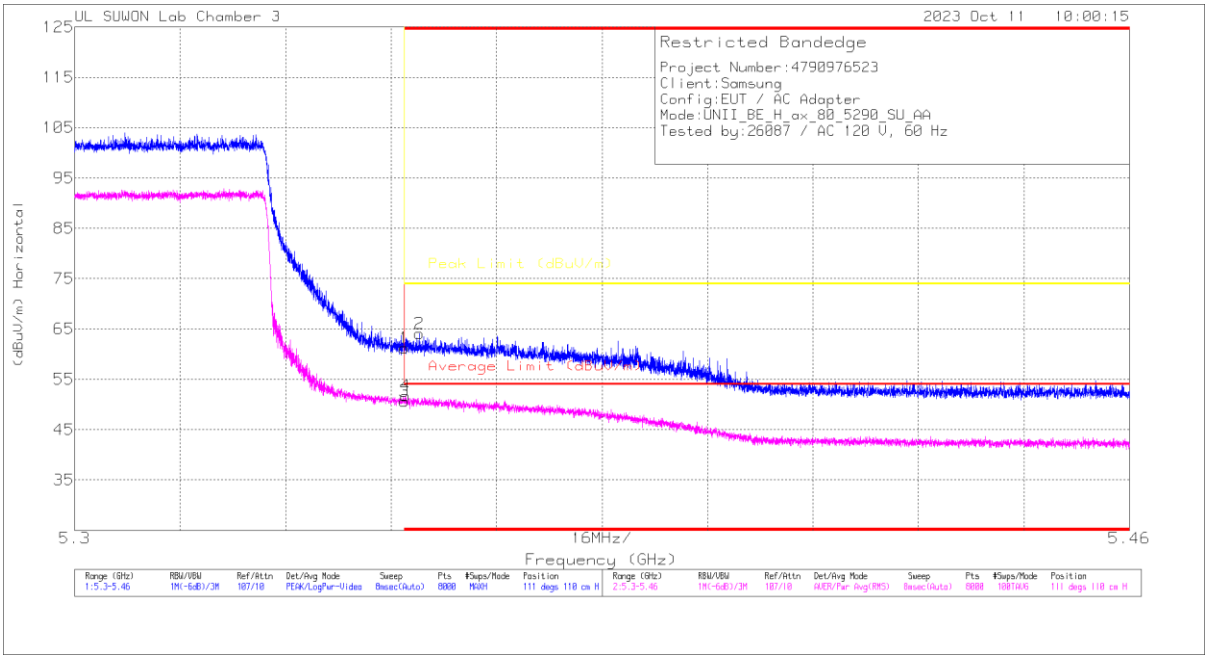
11.2. TX ABOVE 1GHz 2Tx MODE IN THE 5.3GHz BAND

BANDEDGE (WORST CASE: 802.11ax HE80 / 5290 MHz)

HORIZONTAL PEAK AND AVERAGE DATA



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	Antenna Correction Factor(dB/Um))	Path Loss(dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.35001	46.97	Pk	34.7	-20.4	0	61.27	-	-	74	-12.73	111	110	H
2	* 5.35231	49.69	Pk	34.7	-20.3	0	64.09	-	-	74	-9.91	111	110	H
3	* 5.35001	36.34	RMS	34.7	-20.4	0	50.64	54	-3.36	-	-	111	110	H
4	* 5.35015	37.46	RMS	34.7	-20.4	0	51.76	54	-2.24	-	-	111	110	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

BANDEDGE TEST DATA

Mode	Freq. [MHz]	Antenna	Frequency [GHz]	Reading [dBuV]	Detector Mode	ANT Factor [dB(1/m)]	Loss [dB]	DC Corr [dB]	Result [dBuV/m]	AV Limit [dBuV/m]	AV Margin [dB]	PK Limit [dBuV/m]	PK Margin [dB]	Azimuth [Degs]	Height [cm]	Polarity
802.11a	5320	MIMO	* 5.35001	47.76	Pk	34.70	-20.40	0.00	62.06	-	-	74.00	-11.94	116	115	H
			* 5.35029	51.89	Pk	34.70	-20.40	0.00	66.19	-	-	74.00	-7.81	116	115	H
			* 5.35001	36.71	RMS	34.70	-20.40	0.15	51.16	54.00	-2.84	-	-	116	115	H
			* 5.35005	37.07	RMS	34.70	-20.40	0.15	51.52	54.00	-2.48	-	-	116	115	H
			* 5.35001	47.59	Pk	34.70	-20.40	0.00	61.89	-	-	74.00	-12.11	94	100	V
			* 5.35019	48.90	Pk	34.70	-20.40	0.00	63.20	-	-	74.00	-10.80	94	100	V
			* 5.35001	33.82	RMS	34.70	-20.40	0.15	48.27	54.00	-5.73	-	-	94	100	V
			* 5.35003	34.82	RMS	34.70	-20.40	0.15	49.27	54.00	-4.73	-	-	94	100	V
802.11n (HT20)	5320	MIMO	* 5.35001	45.63	Pk	34.70	-20.40	0.00	59.93	-	-	74.00	-14.07	114	327	H
			* 5.35079	48.41	Pk	34.70	-20.40	0.00	62.71	-	-	74.00	-11.29	114	327	H
			* 5.35001	34.21	RMS	34.70	-20.40	0.00	48.51	54.00	-5.49	-	-	114	327	H
			* 5.35035	34.92	RMS	34.70	-20.40	0.00	49.22	54.00	-4.78	-	-	114	327	H
			* 5.35001	44.84	Pk	34.70	-20.40	0.00	59.14	-	-	74.00	-14.86	251	100	V
			* 5.35655	46.75	Pk	34.70	-20.30	0.00	61.15	-	-	74.00	-12.85	251	100	V
			* 5.35001	32.86	RMS	34.70	-20.40	0.00	47.16	54.00	-6.84	-	-	251	100	V
			* 5.35031	33.62	RMS	34.70	-20.40	0.00	47.92	54.00	-6.08	-	-	251	100	V
802.11n (HT40)	5310	MIMO	* 5.35001	47.99	Pk	34.70	-20.40	0.00	62.29	-	-	74.00	-11.71	116	113	H
			* 5.35473	50.94	Pk	34.70	-20.30	0.00	65.34	-	-	74.00	-8.66	116	113	H
			* 5.35001	36.76	RMS	34.70	-20.40	0.00	51.06	54.00	-2.94	-	-	116	113	H
			* 5.35031	37.09	RMS	34.70	-20.40	0.00	51.39	54.00	-2.61	-	-	116	113	H
			* 5.35001	38.99	Pk	34.70	-20.40	0.00	53.29	-	-	74.00	-20.71	252	293	V
			* 5.35125	41.92	Pk	34.70	-20.30	0.00	56.32	-	-	74.00	-17.68	252	293	V
			* 5.35001	29.62	RMS	34.70	-20.40	0.00	43.92	54.00	-10.08	-	-	252	293	V
			* 5.35007	30.16	RMS	34.70	-20.40	0.00	44.46	54.00	-9.54	-	-	252	293	V
802.11ac (VHT80)	5290	MIMO	* 5.35001	48.06	Pk	34.70	-20.40	0.00	62.36	-	-	74.00	-11.64	114	107	H
			* 5.35219	49.84	Pk	34.70	-20.30	0.00	64.24	-	-	74.00	-9.76	114	107	H
			* 5.35001	36.56	RMS	34.70	-20.40	0.25	51.11	54.00	-2.89	-	-	114	107	H
			* 5.35069	36.85	RMS	34.70	-20.40	0.25	51.40	54.00	-2.60	-	-	114	107	H
			* 5.35001	44.89	Pk	34.70	-20.40	0.00	59.19	-	-	74.00	-14.81	96	100	V
			* 5.35773	47.13	Pk	34.70	-20.30	0.00	61.53	-	-	74.00	-12.47	96	100	V
			* 5.35001	33.17	RMS	34.70	-20.40	0.25	47.72	54.00	-6.28	-	-	96	100	V
			* 5.35371	34.82	RMS	34.70	-20.30	0.25	49.47	54.00	-4.53	-	-	96	100	V
802.11ac (VHT160)	5250 Upper	MIMO	* 5.35001	46.39	Pk	34.70	-20.40	0.00	60.69	-	-	74.00	-13.31	115	114	H
			* 5.35253	55.01	Pk	34.70	-20.30	0.00	69.41	-	-	74.00	**-4.59**	115	114	H
			* 5.35001	36.21	RMS	34.70	-20.40	0.24	50.75	54.00	-3.25	-	-	115	114	H
			* 5.35167	36.24	RMS	34.70	-20.30	0.24	50.88	54.00	-3.12	-	-	115	114	H
			* 5.35001	43.13	Pk	34.70	-20.40	0.00	57.43	-	-	74.00	-16.57	94	100	V
			* 5.39523	48.71	Pk	34.80	-20.30	0.00	63.21	-	-	74.00	-10.79	94	100	V
			* 5.35001	33.28	RMS	34.70	-20.40	0.24	47.82	54.00	-6.18	-	-	94	100	V
			* 5.35069	33.96	RMS	34.70	-20.40	0.24	48.50	54.00	-5.50	-	-	94	100	V
802.11ax (HE20) SU mode	5320	MIMO	* 5.35001	46.95	Pk	34.70	-20.40	0.00	61.25	-	-	74.00	-12.75	117	112	H
			* 5.35305	48.15	Pk	34.70	-20.30	0.00	62.55	-	-	74.00	-11.45	117	112	H
			* 5.35001	34.62	RMS	34.70	-20.40	0.00	48.92	54.00	-5.08	-	-	117	112	H
			* 5.35009	35.63	RMS	34.70	-20.40	0.00	49.93	54.00	-4.07	-	-	117	112	H
			* 5.35001	44.89	Pk	34.70	-20.40	0.00	59.19	-	-	74.00	-14.81	86	100	V
			* 5.35121	48.59	Pk	34.70	-20.30	0.00	62.99	-	-	74.00	-11.01	86	100	V
			* 5.35001	33.86	RMS	34.70	-20.40	0.00	48.16	54.00	-5.84	-	-	86	100	V
			* 5.35041	34.37	RMS	34.70	-20.40	0.00	48.67	54.00	-5.33	-	-	86	100	V
802.11ax (HE40) SU mode	5310	MIMO	* 5.35001	47.02	Pk	34.70	-20.40	0.00	61.32	-	-	74.00	-12.68	111	108	H
			* 5.35079	50.94	Pk	34.70	-20.40	0.00	65.24	-	-	74.00	-8.76	111	108	H
			* 5.35001	37.02	RMS	34.70	-20.40	0.00	51.32	54.00	-2.68	-	-	111	108	H
			* 5.35011	37.29	RMS	34.70	-20.40	0.00	51.59	54.00	-2.41	-	-	111	108	H
			* 5.35001	45.63	Pk	34.70	-20.40	0.00	59.93	-	-	74.00	-14.07	88	106	V
			* 5.35113	48.02	Pk	34.70	-20.30	0.00	62.42	-	-	74.00	-11.58	88	106	V
			* 5.35001	34.31	RMS	34.70	-20.40	0.00	48.61	54.00	-5.39	-	-	88	106	V
			* 5.35031	34.90	RMS	34.70	-20.40	0.00	49.20	54.00	-4.80	-	-	88	106	V
802.11ax (HE80) SU mode	5290	MIMO	* 5.35001	46.97	Pk	34.70	-20.40	0.00	61.27	-	-	74.00	-12.73	111	110	H
			* 5.35231	49.69	Pk	34.70	-20.30	0.00	64.09	-	-	74.00	-9.91	111	110	H
			* 5.35001	36.34	RMS	34.70	-20.40	0.00	50.64	54.00	-3.36	-	-	111	110	H
			* 5.35015	37.46	RMS	34.70	-20.40	0.00	51.76	54.00	**-2.24**	-	-	111	110	H
			* 5.35001	44.53	Pk	34.70	-20.40	0.00	58.83	-	-	74.00	-15.17	86	102	V
			* 5.35507	47.04	Pk	34.70	-20.30	0.00	61.44	-	-	74.00	-12.56	86	102	V
			* 5.35001	33.68	RMS	34.70	-20.40	0.00	47.98	54.00	-6.02	-	-	86	102	V
			* 5.35163	34.24	RMS	34.70	-20.30	0.00	48.64	54.00	-5.36	-	-	86	102	V
802.11ax (HE160) SU mode	5250 Upper	MIMO	* 5.35001	47.88	Pk	34.70	-20.40	0.00	62.18	-	-	74.00	-11.82	113	110	H
			* 5.39549	50.23	Pk	34.80	-20.30	0.00	64.73	-	-	74.00	-9.27	113	110	H
			* 5.35001	36.15	RMS	34.70	-20.40	0.00	50.45	54.00	-3.55	-	-	113	110	H
			* 5.35663	37.03	RMS	34.70	-20.30	0.00	51.43	54.00	-2.57	-	-	113	110	H
			* 5.35001	42.49	Pk	34.70	-20.40	0.00	56.79	-	-	74.00	-17.21	86	101	V
			* 5.39523	46.15	Pk	34.80	-20.30	0.00	60.65	-	-	74.00	-13.35	86	101	V
			* 5.35001	33.60	RMS	34.70	-20.40	0.00	47.90	54.00	-6.10	-	-	86	100	V
			* 5.35123	34.22	RMS	34.70	-20.30	0.00	48.62	54.00	-5.38	-	-	86	100	V

Note1. Pk - Peak detector, RMS - RMS detectior
Note2. * - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

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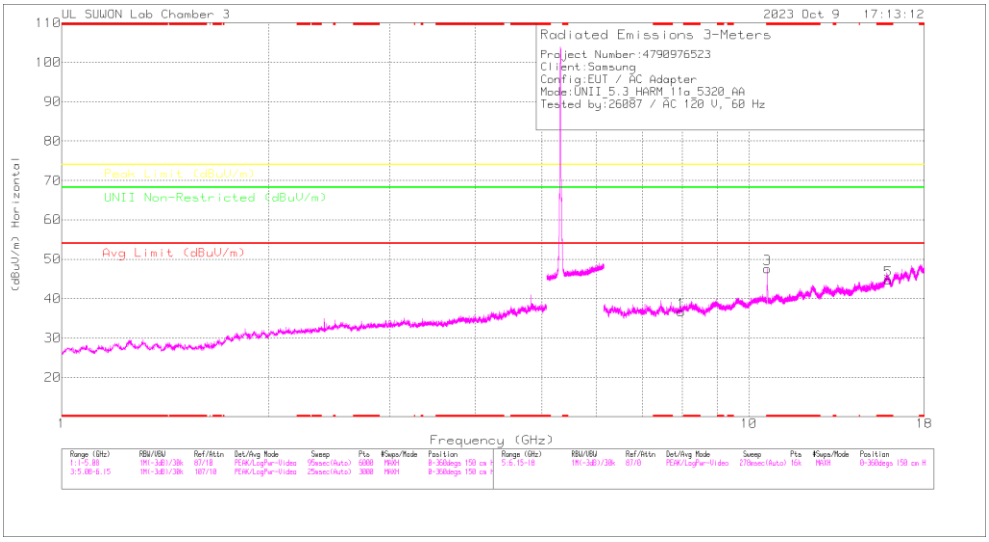
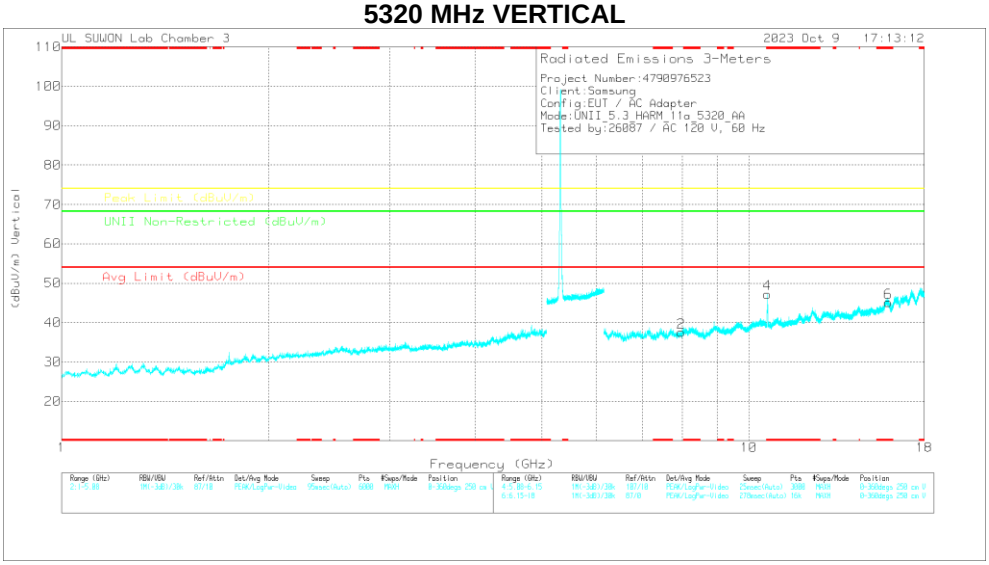
HARMONICS AND SPURIOUS EMISSIONS(WORST CASE: 802.11a / 5320 MHz)

5320 MHz HORIZONTAL



5320 MHz VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

5320 MHz DATA

Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	Antenna Correction Factor(dB/(1/m))	Path Loss(dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
7.98038	36.09	PK-U	35.9	-24.4	0	47.59	-	-	-	-	68.2	-20.61	0	100	H
7.9818	35.84	PK-U	35.9	-24.4	0	47.34	-	-	-	-	68.2	-20.86	0	100	V
* 10.6391	44.24	PK-U	37.7	-21.1	0	60.84	-	-	74	-13.16	-	-	168	100	H
* 10.63985	33.15	ADR	37.7	-21.1	.15	49.90	54	-4.1	-	-	-	-	168	100	H
* 10.64036	43.03	PK-U	37.7	-21.1	0	59.63	-	-	74	-14.37	-	-	156	101	V
* 10.64002	29.78	ADR	37.7	-21.1	.15	46.53	54	-7.47	-	-	-	-	156	101	V
* 15.95884	34.43	PK-U	40.9	-19.7	0	55.63	-	-	74	-18.37	-	-	0	100	H
* 15.95757	34.29	PK-U	40.9	-19.7	0	55.49	-	-	74	-18.51	-	-	0	100	V
* 15.95884	22.22	ADR	40.9	-19.7	0.15	43.57	54	-10.43	-	-	-	-	0	100	H
* 15.95757	21.92	ADR	40.9	-19.7	0.15	43.27	54	-10.73	-	-	-	-	0	100	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
PK-U - U-NII: Maximum Peak
ADR - U-NII AD primary method, RMS average

HARMONICS AND SPURIOUS EMISSIONS TEST DATA

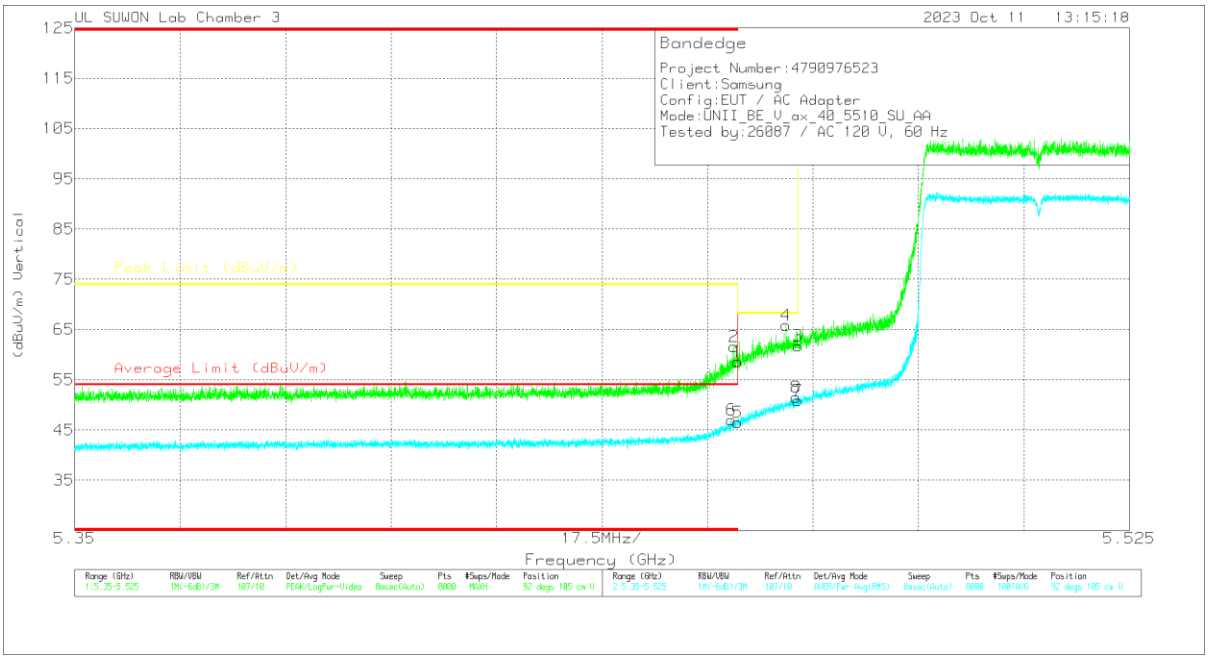
Mode	Freq. [MHz]	Antenna	Frequency [GHz]	Reading [dBuV]	Detector Mode	ANT Factor [dB(1/m)]	Loss [dB]	DC Corr [dB]	Result [dBuV/m]	AV Limit [dBuV/m]	AV Margin [dB]	PK Limit [dBuV/m]	PK Margin [dB]	Non-Restricted [dBuV/m]	Margin [dB]	Azimuth [Degs]	Height [cm]	Polarity
802.11a	5260	MIMO	6.312	43.14	PK-U	36.00	-27.30	0.00	51.84	-	-	-	-	68.20	-16.36	115	223	H
			6.312	39.18	PK-U	36.00	-27.30	0.00	47.88	-	-	-	-	68.20	-20.32	94	108	V
			* 7.3568	37.76	PK-U	35.80	-25.30	0.00	48.26	-	-	74.00	-25.74	-	-	71	115	H
			* 7.36088	33.45	ADR	35.80	-25.30	0.15	44.10	54.00	-9.90	-	-	-	-	71	115	H
			* 7.36052	29.57	PK-U	35.80	-25.30	0.00	40.07	-	-	74.00	-33.93	-	-	154	119	V
			* 7.37015	30.88	ADR	35.80	-25.30	0.15	41.53	54.00	-12.47	-	-	-	-	154	119	V
			10.519	23.13	PK-U	37.60	-21.10	0.00	39.63	-	-	-	-	68.20	-28.57	172	103	H
			10.522	35.29	PK-U	37.60	-21.10	0.00	51.79	-	-	-	-	68.20	-16.41	194	211	V
			* 15.77495	25.62	PK-U	40.50	-20.50	0.00	45.62	-	-	74.00	-28.38	-	-	0	100	H
			* 15.78226	34.13	PK-U	40.60	-20.50	0.00	54.23	-	-	74.00	-19.77	-	-	0	100	V
			* 15.78226	22.16	ADR	40.60	-20.50	0.00	42.26	54.00	-11.74	-	-	-	-	0	100	V
	5300	MIMO	6.360	41.72	PK-U	36.00	-27.20	0.00	50.52	-	-	-	-	68.20	-17.68	64	203	H
			6.363	32.32	PK-U	36.00	-27.20	0.00	41.12	-	-	-	-	68.20	-27.08	96	106	V
			* 7.41647	36.89	PK-U	35.70	-25.00	0.00	47.59	-	-	74.00	-26.41	-	-	67	137	H
			* 7.42651	31.71	ADR	35.70	-24.90	0.15	42.66	54.00	-11.34	-	-	-	-	67	137	H
			* 7.42396	30.92	PK-U	35.70	-24.90	0.00	41.72	-	-	74.00	-32.28	-	-	149	394	V
			* 7.41461	31.26	ADR	35.70	-24.90	0.15	42.21	54.00	-11.79	-	-	-	-	149	394	V
			* 10.60085	31.66	PK-U	37.70	-21.20	0.00	48.16	-	-	74.00	-25.84	-	-	183	206	H
			* 10.60118	25.92	ADR	37.70	-21.20	0.15	42.57	54.00	-11.43	-	-	-	-	183	206	H
			* 10.6015	25.39	PK-U	37.70	-21.20	0.00	41.89	-	-	74.00	-32.11	-	-	199	108	V
			* 10.60102	23.09	ADR	37.70	-21.20	0.15	39.74	54.00	-14.26	-	-	-	-	199	108	V
			* 15.9051	26.59	PK-U	40.80	-19.90	0.00	47.49	-	-	74.00	-26.51	-	-	0	100	H
			* 15.90416	26.88	PK-U	40.80	-19.90	0.00	47.78	-	-	74.00	-26.22	-	-	0	100	V
	5320	MIMO	7.980	36.09	PK-U	35.90	-24.40	0.00	47.59	-	-	-	-	68.20	-20.61	0	100	H
			7.982	35.84	PK-U	35.90	-24.40	0.00	47.34	-	-	-	-	68.20	-20.86	0	100	V
			* 10.6391	44.24	PK-U	37.70	-21.10	0.00	60.84	-	-	74.00	**-13.16**	-	-	168	100	H
			* 10.63985	33.15	ADR	37.70	-21.10	0.15	49.90	54.00	**-4.10**	-	-	-	-	168	100	H
			* 10.64036	43.03	PK-U	37.70	-21.10	0.00	59.63	-	-	74.00	-14.37	-	-	156	101	V
			* 10.64002	29.78	ADR	37.70	-21.10	0.15	46.53	54.00	-7.47	-	-	-	-	156	101	V
			* 15.95884	34.43	PK-U	40.90	-19.70	0.00	55.63	-	-	74.00	-18.37	-	-	0	100	H
			* 15.95757	34.29	PK-U	40.90	-19.70	0.00	55.49	-	-	74.00	-18.51	-	-	0	100	V
			* 15.95884	22.22	ADR	40.90	-19.70	0.15	43.57	54.00	-10.43	-	-	-	-	0	100	H
			* 15.95757	21.92	ADR	40.90	-19.70	0.15	43.27	54.00	-10.73	-	-	-	-	0	100	V
802.11n (HT20) Spot-Check	5260	MIMO	6.314	42.53	PK-U	36.00	-27.20	0.00	51.33	-	-	-	-	68.20	-16.87	61	256	H
			6.314	42.70	PK-U	36.00	-27.20	0.00	51.50	-	-	-	-	68.20	-16.70	91	130	V
			* 7.35736	42.55	PK-U	35.80	-25.40	0.00	52.95	-	-	74.00	-21.05	-	-	109	101	H
			* 7.356	31.99	ADR	35.80	-25.30	0.00	42.49	54.00	-11.51	-	-	-	-	109	101	H
			* 7.36794	41.21	PK-U	35.80	-25.30	0.00	51.71	-	-	74.00	-22.29	-	-	149	103	V
			* 7.36702	30.06	ADR	35.80	-25.30	0.00	40.56	54.00	-13.44	-	-	-	-	149	103	V
			10.518	43.40	PK-U	37.60	-21.10	0.00	59.90	-	-	-	-	68.20	**-8.30**	167	204	H
			10.523	40.33	PK-U	37.60	-21.10	0.00	56.83	-	-	-	-	68.20	-11.37	157	115	V
			* 15.77732	34.06	PK-U	40.60	-20.60	0.00	54.06	-	-	74.00	-19.94	-	-	0	100	H
			* 15.78483	34.71	PK-U	40.60	-20.50	0.00	54.81	-	-	74.00	-19.19	-	-	0	100	V
			* 15.77732	22.18	ADR	40.60	-20.60	0.00	42.18	54.00	-11.82	-	-	-	-	0	100	H
			* 15.78483	22.52	ADR	40.60	-20.50	0.00	42.62	54.00	-11.38	-	-	-	-	0	100	V
802.11n (HT40) Spot-Check	5270	MIMO	7.902	35.81	PK-U	35.90	-24.50	0.00	47.21	-	-	-	-	68.20	-20.99	0	100	H
			7.904	35.45	PK-U	35.90	-24.50	0.00	46.85	-	-	-	-	68.20	-21.35	0	100	V
			10.535	38.62	PK-U	37.70	-21.20	0.00	55.12	-	-	-	-	68.20	-13.08	194	206	H
			10.550	38.22	PK-U	37.70	-21.20	0.00	54.72	-	-	-	-	68.20	-13.48	197	315	V
			* 15.80643	33.95	PK-U	40.60	-20.60	0.00	53.95	-	-	74.00	-20.05	-	-	0	100	H
			* 15.80778	34.59	PK-U	40.60	-20.60	0.00	54.59	-	-	74.00	-19.41	-	-	0	100	V
			* 15.80643	22.23	ADR	40.60	-20.60	0.00	42.23	54.00	-11.77	-	-	-	-	0	100	H
			* 15.80778	22.38	ADR	40.60	-20.60	0.00	42.38	54.00	-11.62	-	-	-	-	0	100	V
802.11ac (VHT80) Spot-Check	5290	MIMO	7.936	36.13	PK-U	35.90	-24.50	0.00	47.53	-	-	-	-	68.20	-20.67	0	100	H
			7.935	36.08	PK-U	35.90	-24.50	0.00	47.48	-	-	-	-	68.20	-20.72	0	100	V
			10.579	33.31	PK-U	37.70	-21.20	0.00	49.81	-	-	-	-	68.20	-18.39	0	100	H
			10.581	33.33	PK-U	37.70	-21.10	0.00	49.93	-	-	-	-	68.20	-18.27	0	100	V
			* 15.87554	34.27	PK-U	40.80	-20.10	0.00	54.97	-	-	74.00	-19.03	-	-	0	100	H
			* 15.8753	34.30	PK-U	40.80	-20.10	0.00	55.00	-	-	74.00	-19.00	-	-	0	100	V
			* 15.87554	22.36	ADR	40.80	-20.10	0.25	43.31	54.00	-10.69	-	-	-	-	0	100	H
			* 15.8753	22.45	ADR	40.80	-20.10	0.25	43.40	54.00	-10.60	-	-	-	-	0	100	V
802.11ac (VHT160) Spot-Check	5250	MIMO	7.880	35.11	PK-U	35.90	-24.50	0.00	46.51	-	-	-	-	68.20	-21.69	0	100	H
			7.872	35.53	PK-U	35.90	-24.50	0.00	46.93	-	-	-	-	68.20	-21.27	0	100	V
			10.501	33.42	PK-U	37.60	-21.10	0.00	49.92	-	-	-	-	68.20	-18.28	0	100	H
			10.504	33.13	PK-U	37.60	-21.10	0.00	49.63	-	-	-	-	68.20	-18.57	0	100	V
			* 15.75253	34.26	PK-U	40.50	-20.60	0.00	54.16	-	-	74.00	-19.84	-	-	0	100	H
			* 15.74667	33.90	PK-U	40.50	-20.70	0.00	53.70	-	-	74.00	-20.30	-	-	0	100	V
			* 15.75253	21.52	ADR	40.50	-20.60	0.24	41.66	54.00	-12.34	-	-	-	-	0	100	H
			* 15.74667	21.05	ADR	40.50	-20.70	0.24	41.09	54.00	-12.91	-	-	-	-	0	100	V
802.11ax (HE20) RU mode 26 Tone offset 8 Spot-Check	5260	MIMO	* 7.3559	41.51	PK-U	35.80	-25.30	0.00	52.01	-	-	74.00	-21.99	-	-	112	100	H
			* 7.35517	30.48	ADR	35.80	-25.30	0.00	40.98	54.00	-13.02	-	-	-	-	112	100	H
			* 7.35502	39.08	PK-U	35.80	-25.30	0.00	49.58	-	-	74.00	-24.42	-	-	145	368	V
			* 7.35558	27.57	ADR	35.80	-25.30	0.00	38.07	54.00	-15.93	-	-	-	-	145	368	V
			10.523	34.00	PK-U	37.60	-21.10	0.00	50.50	-	-	-	-	68.20	-17.70	0	100	H
			10.521	33.53	PK-U	37.60	-21.10	0.00	50.03	-	-	-	-	68.20	-18.17	0	100	V
			* 15.7807	34.34	PK-U	40.60	-20.50	0.00	54.44	-	-	74.00	-19.56	-	-	0	100	H
			* 15.78139	34.91	PK-U	40.60	-20.50	0.00	55.01	-	-	74.00	-18.99	-	-	0	100	V
			* 15.7807	22.22	ADR	40.60	-20.50	0.00	42.32	54.00	-11.68	-	-	-	-	0	100	H
			* 15.78139	22.60	ADR	40.60	-20.50	0.00	42.70	54.00	-11.30	-	-	-	-	0	100	V
	5300	MIMO	7.951	36.15	PK-U	35.90	-24.40	0.00	47.65	-	-	-	-	68.20	-20.55	0	100	H
			7.950	36.28	PK-U	35.90	-24.40	0.00	47.78	-	-	-	-	68.20	-20.42	0	100	V
			* 10.60074	33.24	PK-U	37.70	-21.20	0.00	49.74	-	-	74.00	-24.26	-	-	0	100	H
			* 10.6007	33.34	PK-U	37.70	-21.20	0.00	49.84	-	-	74.00	-24.16	-	-	0	100	V
			* 15.90043	35.00	PK-U	40.80	-19.90	0.00	55.90	-	-	74.00	-18.10	-	-	0	100	H
			* 15.90008	34.78	PK-U	40.80	-19.90	0.00	55.68	-	-	74.00	-18.32	-	-	0	100	V
			* 15.90043	23.02	ADR	40.80	-19.90	0.00	43.92	54.00	-10.08	-	-	-	-	0	100	H
			* 15.90008	22.97	ADR	40.80	-19.90	0.00	43.87	54.00	-10.13	-	-	-	-	0	100	V
	5320	MIMO	7.978	35.84	PK-U	35.90	-24.40	0.00	47.34	-	-	-	-	68.20	-20.86	0	100	H
			7.983	36.33	PK-U	35.90	-24.40	0.00	47.83	-	-	-	-	68.20	-20.37	0	100	V
			* 10.64433	32.95	PK-U	37.70	-21.20	0.00	49.45	-	-	74.00	-24.55	-	-	0	100	H
			* 10.64116	32.94	PK-U	37.70	-21.10	0.00	49.54	-	-	74.00	-24.46	-	-	0	100	V
			* 15.96343	34.49	PK-U	40.90	-19.80	0.00	55.59	-	-	74.00	-18.41	-	-	0	100	H
			* 15.96428	34.37	PK-U	40.90	-19.80	0.00	55.47	-	-	74.00	-18.53	-	-	0	100	V
			* 15.96343	22.37	ADR	40.90	-19.80	0.00	43.47	54.00	-10.53	-	-	-	-	0	100	H
			* 15.96428	22.40	ADR	40.90	-19.80	0.00	43.50	54.00	-10.50	-	-	-	-	0	100	V

Note1. PK-U - U-NII: Maximum Peak / ADR - U-NII AD primary method, RMS average
Note2. * - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

11.3. TX ABOVE 1GHz 2Tx MODE IN THE 5.5 GHz BAND

BANDEDGE (WORST CASE: 802.11ax HE40 / 5510 MHz)

VERTICAL PEAK AND AVERAGE DATA



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	Antenna Correction Factor[dB(1/m)]	Path Loss(dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.45998	43.76	Pk	34.9	-20.1	0	58.56	-	-	74	-15.44	92	105	V
2	* 5.45941	46.84	Pk	34.9	-20.1	0	61.64	-	-	74	-12.36	92	105	V
3	5.46998	47.02	Pk	34.9	-20.2	0	61.72	-	-	68.2	-6.48	92	105	V
4	5.46805	51.19	Pk	34.9	-20.2	0	65.89	-	-	68.2	-2.31	92	105	V
5	* 5.45998	31.68	RMS	34.9	-20.1	0	46.48	54	-7.52	-	-	92	105	V
6	* 5.45893	32.21	RMS	34.9	-20.1	0	47.01	54	-6.99	-	-	92	105	V
7	5.46998	36.15	RMS	34.9	-20.2	0	50.85	-	-	-	-	92	105	V
8	5.46972	36.77	RMS	34.9	-20.2	0	51.47	-	-	-	-	92	105	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

BANDEDGE TEST DATA

Mode	Freq. [MHz]	Antenna	Frequency [GHz]	Reading [dBuV]	Detector Mode	ANT Factor [dB(1/m)]	Loss [dB]	DC Corr [dB]	Result [dBuV/m]	AV Limit [dBuV/m]	AV Margin [dB]	PK Limit [dBuV/m]	PK Margin [dB]	Azimuth [Degs]	Height [cm]	Polarity
802.11a	5500	MIMO	* 5.45998	42.12	Pk	34.90	-20.10	0.00	56.92	-	-	74.00	-17.08	119	100	H
			* 5.45935	42.91	Pk	34.90	-20.10	0.00	57.71	-	-	74.00	-16.29	119	100	H
			5.46998	50.01	Pk	34.90	-20.20	0.00	64.71	-	-	68.20	-3.49	119	100	H
			5.46895	49.28	Pk	34.90	-20.20	0.00	63.98	-	-	68.20	-4.22	119	100	H
			* 5.45998	31.02	RMS	34.90	-20.10	0.15	45.97	54.00	-8.03	-	-	119	100	H
			* 5.45963	31.58	RMS	34.90	-20.10	0.15	46.53	54.00	-7.47	-	-	119	100	H
			5.46998	34.21	RMS	34.90	-20.20	0.15	49.06	-	-	-	-	119	100	H
			5.46983	35.21	RMS	34.90	-20.20	0.15	50.06	-	-	-	-	119	100	H
			* 5.45998	39.79	Pk	34.90	-20.10	0.00	54.59	-	-	74.00	-19.41	90	104	V
			* 5.45985	41.35	Pk	34.90	-20.10	0.00	56.15	-	-	74.00	-17.85	90	104	V
			5.46998	44.31	Pk	34.90	-20.20	0.00	59.01	-	-	68.20	-9.19	90	104	V
			5.46991	47.08	Pk	34.90	-20.20	0.00	61.78	-	-	68.20	-6.42	90	104	V
			* 5.45998	28.97	RMS	34.90	-20.10	0.15	43.92	54.00	-10.08	-	-	90	104	V
			* 5.4572	29.73	RMS	34.90	-20.10	0.15	44.68	54.00	-9.32	-	-	90	104	V
			5.46998	30.98	RMS	34.90	-20.20	0.15	45.83	-	-	-	-	90	104	V
			5.46987	32.27	RMS	34.90	-20.20	0.15	47.12	-	-	-	-	90	104	V
	5700	MIMO	5.72500	45.40	Pk	35.00	-19.80	0.00	60.60	-	-	68.20	-7.60	119	105	H
			5.72532	47.51	Pk	35.00	-19.80	0.00	62.71	-	-	68.20	-5.49	119	105	H
			5.72500	43.90	Pk	35.00	-19.80	0.00	59.10	-	-	68.20	-9.10	95	103	V
			5.72764	46.95	Pk	35.00	-19.80	0.00	62.15	-	-	68.20	-6.05	95	103	V
802.11n (HT20)	5500	MIMO	* 5.45998	38.95	Pk	34.90	-20.10	0.00	53.75	-	-	74.00	-20.25	179	188	H
			* 5.45267	41.93	Pk	34.90	-20.10	0.00	56.73	-	-	74.00	-17.27	179	188	H
			5.46998	41.23	Pk	34.90	-20.20	0.00	55.93	-	-	68.20	-12.27	179	188	H
			5.46934	44.14	Pk	34.90	-20.20	0.00	58.84	-	-	68.20	-9.36	179	188	H
			* 5.45998	29.05	RMS	34.90	-20.10	0.00	43.85	54.00	-10.15	-	-	179	188	H
			* 5.45904	29.41	RMS	34.90	-20.10	0.00	44.21	54.00	-9.79	-	-	179	188	H
			5.46998	31.39	RMS	34.90	-20.20	0.00	46.09	-	-	-	-	179	188	H
			5.46996	31.67	RMS	34.90	-20.20	0.00	46.37	-	-	-	-	179	188	H
			* 5.45998	39.32	Pk	34.90	-20.10	0.00	54.12	-	-	74.00	-19.88	95	103	V
			* 5.44779	40.34	Pk	34.90	-20.10	0.00	55.14	-	-	74.00	-18.86	95	103	V
			5.46998	41.21	Pk	34.90	-20.20	0.00	55.91	-	-	68.20	-12.29	95	103	V
			5.46961	43.49	Pk	34.90	-20.20	0.00	58.19	-	-	68.20	-10.01	95	103	V
			* 5.45998	29.33	RMS	34.90	-20.10	0.00	44.13	54.00	-9.87	-	-	95	103	V
			* 5.44688	29.30	RMS	34.90	-20.10	0.00	44.10	54.00	-9.90	-	-	95	103	V
			5.46998	30.38	RMS	34.90	-20.20	0.00	45.08	-	-	-	-	95	103	V
			5.46965	31.12	RMS	34.90	-20.20	0.00	45.82	-	-	-	-	95	103	V
	5700	MIMO	5.72500	44.08	Pk	35.00	-19.80	0.00	59.28	-	-	68.20	-8.92	118	198	H
			5.72630	47.00	Pk	35.00	-19.80	0.00	62.20	-	-	68.20	-6.00	118	198	H
			5.72500	43.20	Pk	35.00	-19.80	0.00	58.40	-	-	68.20	-9.80	99	104	V
			5.72686	45.66	Pk	35.00	-19.80	0.00	60.86	-	-	68.20	-7.34	99	104	V
802.11n (HT40)	5510	MIMO	* 5.45998	39.99	Pk	34.90	-20.10	0.00	54.79	-	-	74.00	-19.21	118	116	H
			* 5.45976	42.23	Pk	34.90	-20.10	0.00	57.03	-	-	74.00	-16.97	118	116	H
			5.46998	49.82	Pk	34.90	-20.20	0.00	64.52	-	-	68.20	-3.68	118	116	H
			5.46928	49.88	Pk	34.90	-20.20	0.00	64.58	-	-	68.20	-3.62	118	116	H
			* 5.45998	29.62	RMS	34.90	-20.10	0.00	44.42	54.00	-9.58	-	-	118	116	H
			* 5.45946	30.34	RMS	34.90	-20.10	0.00	45.14	54.00	-8.86	-	-	118	116	H
			5.46998	35.86	RMS	34.90	-20.20	0.00	50.56	-	-	-	-	118	116	H
			5.46963	36.12	RMS	34.90	-20.20	0.00	50.82	-	-	-	-	118	116	H
			* 5.45998	38.09	Pk	34.90	-20.10	0.00	52.89	-	-	74.00	-21.11	90	104	V
			* 5.35742	41.89	Pk	34.70	-20.30	0.00	56.29	-	-	74.00	-17.71	90	104	V
			5.46998	43.50	Pk	34.90	-20.20	0.00	58.20	-	-	68.20	-10.00	90	104	V
			5.46989	46.51	Pk	34.90	-20.20	0.00	61.21	-	-	68.20	-6.99	90	104	V
			* 5.45998	29.16	RMS	34.90	-20.10	0.00	43.96	54.00	-10.04	-	-	90	104	V
			* 5.45978	29.66	RMS	34.90	-20.10	0.00	44.46	54.00	-9.54	-	-	90	104	V
			5.46998	32.20	RMS	34.90	-20.20	0.00	46.90	-	-	-	-	90	104	V
			5.46991	33.03	RMS	34.90	-20.20	0.00	47.73	-	-	-	-	90	104	V
	5670	MIMO	5.72500	42.19	Pk	35.00	-19.80	0.00	57.39	-	-	68.20	-10.81	120	126	H
			5.72675	45.41	Pk	35.00	-19.80	0.00	60.61	-	-	68.20	-7.59	120	126	H
			5.72500	40.04	Pk	35.00	-19.80	0.00	55.24	-	-	68.20	-12.96	86	100	V
			5.73252	43.93	Pk	35.00	-19.80	0.00	59.13	-	-	68.20	-9.07	86	100	V
802.11ac (VHT80)	5530	MIMO	* 5.45998	45.11	Pk	34.90	-20.10	0.00	59.91	-	-	74.00	-14.09	117	116	H
			* 5.4502	48.09	Pk	34.90	-20.10	0.00	62.89	-	-	74.00	-11.11	117	116	H
			5.46998	45.62	Pk	34.90	-20.20	0.00	60.32	-	-	68.20	-7.88	117	116	H
			5.46258	49.06	Pk	34.90	-20.20	0.00	63.76	-	-	68.20	-4.44	117	116	H
			* 5.45998	35.04	RMS	34.90	-20.10	0.25	50.09	54.00	-3.91	-	-	117	116	H
			* 5.4579	35.74	RMS	34.90	-20.10	0.25	50.79	54.00	-3.21	-	-	117	116	H
			5.46998	35.73	RMS	34.90	-20.20	0.25	50.68	-	-	-	-	117	116	H
			5.46983	36.25	RMS	34.90	-20.20	0.25	51.20	-	-	-	-	117	116	H
			* 5.45998	43.59	Pk	34.90	-20.10	0.00	58.39	-	-	74.00	-15.61	88	106	V
			* 5.45681	46.59	Pk	34.90	-20.20	0.00	61.29	-	-	74.00	-12.71	88	106	V
			5.46998	44.71	Pk	34.90	-20.20	0.00	59.41	-	-	68.20	-8.79	88	106	V
			5.46245	46.51	Pk	34.90	-20.20	0.00	61.21	-	-	68.20	-6.99	88	106	V
			* 5.45998	32.26	RMS	34.90	-20.10	0.25	47.31	54.00	-6.69	-	-	88	106	V
			* 5.45615	34.05	RMS	34.90	-20.20	0.25	49.00	54.00	-5.00	-	-	88	106	V
			5.46998	33.84	RMS	34.90	-20.20	0.25	48.79	-	-	-	-	88	106	V
			5.46258	34.48	RMS	34.90	-20.20	0.25	49.43	-	-	-	-	88	106	V
	5610	MIMO	5.72500	38.94	Pk	35.00	-19.80	0.00	54.14	-	-	68.20	-14.06	115	264	H
			5.72649	41.00	Pk	35.00	-19.80	0.00	56.20	-	-	68.20	-12.00	115	264	H
			5.72500	38.73	Pk	35.00	-19.80	0.00	53.93	-	-	68.20	-14.27	93	100	V
			5.74347	41.65	Pk	35.00	-19.80	0.00	56.85	-	-	68.20	-11.35	93	100	V

Mode	Freq. [MHz]	Antenna	Frequency [GHz]	Reading [dBuV]	Detector Mode	ANT Factor [dB(1/m)]	Loss [dB]	DC Corr [dB]	Result [dBuV/m]	AV Limit [dBuV/m]	AV Margin [dB]	PK Limit [dBuV/m]	PK Margin [dB]	Azimuth [Degs]	Height [cm]	Polarity
802.11ac (VHT160)	5570 Lower	MIMO	* 5.45998	42.39	Pk	34.90	-20.10	0.00	57.19	-	-	74.00	-16.81	117	113	H
			* 5.45801	50.57	Pk	34.90	-20.10	0.00	65.37	-	-	74.00	-8.63	117	113	H
			5.46998	43.49	Pk	34.90	-20.20	0.00	58.19	-	-	68.20	-10.01	117	113	H
			5.46409	50.81	Pk	34.90	-20.20	0.00	65.51	-	-	68.20	-2.69	117	113	H
			* 5.45998	33.24	RMS	34.90	-20.10	0.24	48.28	54.00	-5.72	-	-	117	113	H
			* 5.44607	35.88	RMS	34.90	-20.10	0.24	50.92	54.00	-3.08	-	-	117	113	H
			5.46998	32.71	RMS	34.90	-20.20	0.24	47.65	-	-	-	-	117	113	H
			5.46637	34.34	RMS	34.90	-20.20	0.24	49.28	-	-	-	-	117	113	H
			* 5.45998	42.24	Pk	34.90	-20.10	0.00	57.04	-	-	74.00	-16.96	98	104	V
			* 5.44257	48.35	Pk	34.90	-20.10	0.00	63.15	-	-	74.00	-10.85	98	104	V
			5.46998	44.81	Pk	34.90	-20.20	0.00	59.51	-	-	68.20	-8.69	98	104	V
			5.46692	49.81	Pk	34.90	-20.20	0.00	64.51	-	-	68.20	-3.69	98	104	V
			* 5.45998	31.70	RMS	34.90	-20.10	0.24	46.74	54.00	-7.26	-	-	98	104	V
			* 5.44134	34.08	RMS	34.90	-20.10	0.24	49.12	54.00	-4.88	-	-	98	104	V
			5.46998	32.53	RMS	34.90	-20.20	0.24	47.47	-	-	-	-	98	104	V
			5.46591	33.16	RMS	34.90	-20.10	0.24	48.20	-	-	-	-	98	104	V
	5570 Upper	MIMO	5.72501	44.31	Pk	35.00	-19.80	0.00	59.51	-	-	68.20	-8.69	117	264	H
			5.72627	48.77	Pk	35.00	-19.80	0.00	63.97	-	-	68.20	-4.23	117	264	H
			5.72501	42.98	Pk	35.00	-19.80	0.00	58.18	-	-	68.20	-10.02	95	100	V
			5.72619	47.15	Pk	35.00	-19.80	0.00	62.35	-	-	68.20	-5.85	95	100	V
802.11ax (HE20) SU mode	5500	MIMO	* 5.45998	42.59	Pk	34.90	-20.10	0.00	57.39	-	-	74.00	-16.61	176	250	H
			* 5.45985	43.70	Pk	34.90	-20.10	0.00	58.50	-	-	74.00	-15.50	176	250	H
			5.46998	45.59	Pk	34.90	-20.20	0.00	60.29	-	-	68.20	-7.91	176	250	H
			5.46974	48.77	Pk	34.90	-20.20	0.00	63.47	-	-	68.20	-4.73	176	250	H
			* 5.45998	30.91	RMS	34.90	-20.10	0.00	45.71	54.00	-8.29	-	-	176	250	H
			* 5.45992	31.11	RMS	34.90	-20.10	0.00	45.91	54.00	-8.09	-	-	176	250	H
			5.46998	34.14	RMS	34.90	-20.20	0.00	48.84	-	-	-	-	176	250	H
			5.46913	34.76	RMS	34.90	-20.20	0.00	49.46	-	-	-	-	176	250	H
			* 5.45998	41.83	Pk	34.90	-20.10	0.00	56.63	-	-	74.00	-17.37	92	103	V
			* 5.45987	43.38	Pk	34.90	-20.10	0.00	58.18	-	-	74.00	-15.82	92	103	V
			5.46998	44.82	Pk	34.90	-20.20	0.00	59.52	-	-	68.20	-8.68	92	103	V
			5.46889	48.07	Pk	34.90	-20.20	0.00	62.77	-	-	68.20	-5.43	92	103	V
			* 5.45998	30.13	RMS	34.90	-20.10	0.00	44.93	54.00	-9.07	-	-	92	103	V
			* 5.45978	30.85	RMS	34.90	-20.10	0.00	45.65	54.00	-8.35	-	-	92	103	V
			5.46998	33.37	RMS	34.90	-20.20	0.00	48.07	-	-	-	-	92	103	V
			5.46980	34.84	RMS	34.90	-20.20	0.00	49.54	-	-	-	-	92	103	V
	5700	MIMO	5.72500	48.42	Pk	35.00	-19.80	0.00	63.62	-	-	68.20	-4.58	117	237	H
			5.72530	50.22	Pk	35.00	-19.80	0.00	65.42	-	-	68.20	-2.78	117	237	H
			5.72500	48.22	Pk	35.00	-19.80	0.00	63.42	-	-	68.20	-4.78	96	105	V
			5.72511	50.57	Pk	35.00	-19.80	0.00	65.77	-	-	68.20	-2.43	96	105	V
802.11ax (HE40) SU mode	5510	MIMO	* 5.45998	42.49	Pk	34.90	-20.10	0.00	57.29	-	-	74.00	-16.71	119	251	H
			* 5.4586	46.85	Pk	34.90	-20.10	0.00	61.65	-	-	74.00	-12.35	119	251	H
			5.46998	49.98	Pk	34.90	-20.20	0.00	64.68	-	-	68.20	-3.52	119	251	H
			5.46748	50.24	Pk	34.90	-20.20	0.00	64.94	-	-	68.20	-3.26	119	251	H
			* 5.45998	31.17	RMS	34.90	-20.10	0.00	45.97	54.00	-8.03	-	-	119	251	H
			* 5.45946	32.42	RMS	34.90	-20.10	0.00	47.22	54.00	-6.78	-	-	119	251	H
			5.46998	36.83	RMS	34.90	-20.20	0.00	51.53	-	-	-	-	119	251	H
			5.46987	37.60	RMS	34.90	-20.20	0.00	52.30	-	-	-	-	119	251	H
			* 5.45998	43.76	Pk	34.90	-20.10	0.00	58.56	-	-	74.00	-15.44	92	105	V
			* 5.45941	46.84	Pk	34.90	-20.10	0.00	61.64	-	-	74.00	-12.36	92	105	V
			5.46998	47.02	Pk	34.90	-20.20	0.00	61.72	-	-	68.20	-6.48	92	105	V
			5.46805	51.19	Pk	34.90	-20.20	0.00	65.89	-	-	68.20	**-2.31**	92	105	V
			* 5.45998	31.68	RMS	34.90	-20.10	0.00	46.48	54.00	-7.52	-	-	92	105	V
			* 5.45893	32.21	RMS	34.90	-20.10	0.00	47.01	54.00	-6.99	-	-	92	105	V
			5.46998	36.15	RMS	34.90	-20.20	0.00	50.85	-	-	-	-	92	105	V
			5.46972	36.77	RMS	34.90	-20.20	0.00	51.47	-	-	-	-	92	105	V
	5670	MIMO	5.72500	45.88	Pk	35.00	-19.80	0.00	61.08	-	-	68.20	-7.12	120	238	H
			5.72757	48.69	Pk	35.00	-19.80	0.00	63.89	-	-	68.20	-4.31	120	238	H
			5.72500	46.28	Pk	35.00	-19.80	0.00	61.48	-	-	68.20	-6.72	94	107	V
			5.72753	47.89	Pk	35.00	-19.80	0.00	63.09	-	-	68.20	-5.11	94	107	V
802.11ax (HE80) SU mode	5530	MIMO	* 5.45998	45.86	Pk	34.90	-20.10	0.00	60.66	-	-	74.00	-13.34	154	308	H
			* 5.45283	47.14	Pk	34.90	-20.10	0.00	61.94	-	-	74.00	-12.06	154	308	H
			5.46998	45.91	Pk	34.90	-20.20	0.00	60.61	-	-	68.20	-7.59	154	308	H
			5.46335	49.14	Pk	34.90	-20.20	0.00	63.84	-	-	68.20	-4.36	154	308	H
			* 5.45998	34.46	RMS	34.90	-20.10	0.00	49.26	54.00	-4.74	-	-	154	308	H
			* 5.4553	35.27	RMS	34.90	-20.20	0.00	49.97	54.00	-4.03	-	-	154	308	H
			5.46998	35.97	RMS	34.90	-20.20	0.00	50.67	-	-	-	-	154	308	H
			5.46709	36.39	RMS	34.90	-20.20	0.00	51.09	-	-	-	-	154	308	H
			* 5.45998	45.05	Pk	34.90	-20.10	0.00	59.85	-	-	74.00	-14.15	93	105	V
			* 5.45523	47.35	Pk	34.90	-20.20	0.00	62.05	-	-	74.00	-11.95	93	105	V
			5.46998	44.96	Pk	34.90	-20.20	0.00	59.66	-	-	68.20	-8.54	93	105	V
			5.46606	47.58	Pk	34.90	-20.10	0.00	62.38	-	-	68.20	-5.82	93	105	V
			* 5.45998	34.09	RMS	34.90	-20.10	0.00	48.89	54.00	-5.11	-	-	93	105	V
			* 5.45869	35.10	RMS	34.90	-20.10	0.00	49.90	54.00	-4.10	-	-	93	105	V
			5.46998	34.59	RMS	34.90	-20.20	0.00	49.29	-	-	-	-	93	105	V
			5.46974	35.90	RMS	34.90	-20.20	0.00	50.60	-	-	-	-	93	105	V
	5610	MIMO	5.72500	49.32	Pk	35.00	-19.80	0.00	64.52	-	-	68.20	-3.68	120	265	H
			5.72693	49.15	Pk	35.00	-19.80	0.00	64.35	-	-	68.20	-3.85	120	265	H
			5.72500	47.25	Pk	35.00	-19.80	0.00	62.45	-	-	68.20	-5.75	94	100	V
			5.72608	49.70	Pk	35.00	-19.80	0.00	64.90	-	-	68.20	-3.30	94	100	V

Mode	Freq. [MHz]	Antenna	Frequency [GHz]	Reading [dBuV]	Detector Mode	ANT Factor [dB(1/m)]	Loss [dB]	DC Corr [dB]	Result [dBuV/m]	AV Limit [dBuV/m]	AV Margin [dB]	PK Limit [dBuV/m]	PK Margin [dB]	Azimuth [Degs]	Height [cm]	Polarity
802.11ax (HE160) SU mode	5570 Lower	MIMO	* 5.45998	46.43	Pk	34.90	-20.10	0.00	61.23	-	-	74.00	-12.77	119	293	H
			* 5.44602	50.01	Pk	34.90	-20.10	0.00	64.81	-	-	74.00	-9.19	119	293	H
			5.46998	48.21	Pk	34.90	-20.20	0.00	62.91	-	-	68.20	-5.29	119	293	H
			5.46864	50.26	Pk	34.90	-20.20	0.00	64.96	-	-	68.20	-3.24	119	293	H
			* 5.45998	36.77	RMS	34.90	-20.10	0.00	51.57	54.00	-2.43	-	-	119	293	H
			* 5.45893	36.88	RMS	34.90	-20.10	0.00	51.68	54.00	**-2.32**	-	-	119	293	H
			5.46998	37.27	RMS	34.90	-20.20	0.00	51.97	-	-	-	-	119	293	H
			5.46538	37.76	RMS	34.90	-20.20	0.00	52.46	-	-	-	-	119	293	H
			* 5.45998	47.99	Pk	34.90	-20.10	0.00	62.79	-	-	74.00	-11.21	93	105	V
			* 5.43412	49.16	Pk	34.90	-20.20	0.00	63.86	-	-	74.00	-10.14	93	105	V
			5.46998	46.24	Pk	34.90	-20.20	0.00	60.94	-	-	68.20	-7.26	93	105	V
			5.46057	48.83	Pk	34.90	-20.20	0.00	63.53	-	-	68.20	-4.67	93	105	V
			* 5.45998	35.82	RMS	34.90	-20.10	0.00	50.62	54.00	-3.38	-	-	93	105	V
			* 5.45983	36.42	RMS	34.90	-20.10	0.00	51.22	54.00	-2.78	-	-	93	105	V
			5.46998	35.87	RMS	34.90	-20.20	0.00	50.57	-	-	-	-	93	105	V
			5.46066	36.46	RMS	34.90	-20.20	0.00	51.16	-	-	-	-	93	105	V
	5570 Upper	MIMO	5.72501	44.05	Pk	35.00	-19.80	0.00	59.25	-	-	68.20	-8.95	121	264	H
			5.72627	48.20	Pk	35.00	-19.80	0.00	63.40	-	-	68.20	-4.80	121	264	H
			5.72501	42.23	Pk	35.00	-19.80	0.00	57.43	-	-	68.20	-10.77	95	100	V
			5.72636	46.96	Pk	35.00	-19.80	0.00	62.16	-	-	68.20	-6.04	95	100	V

Note1. Pk - Peak detector, RMS - RMS detectior
Note2. * - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

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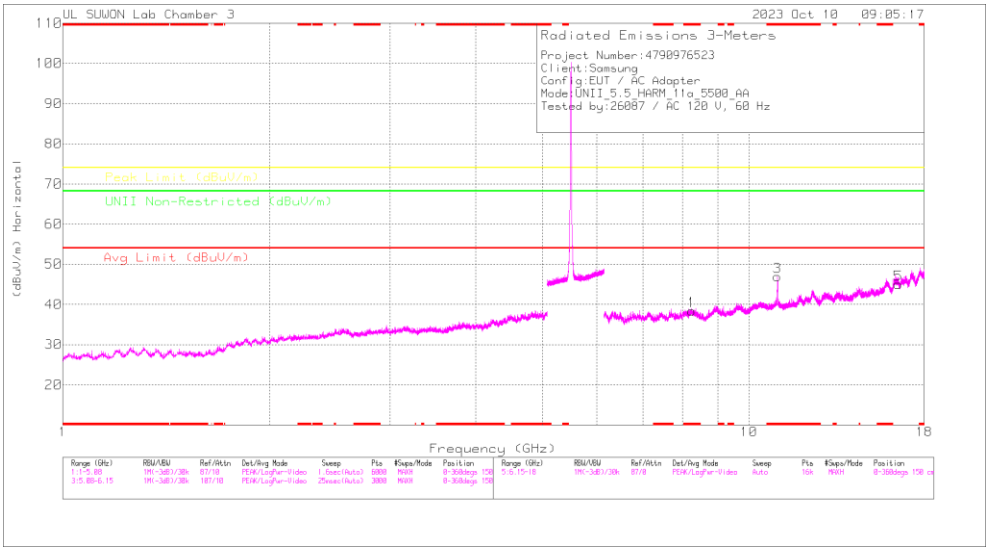
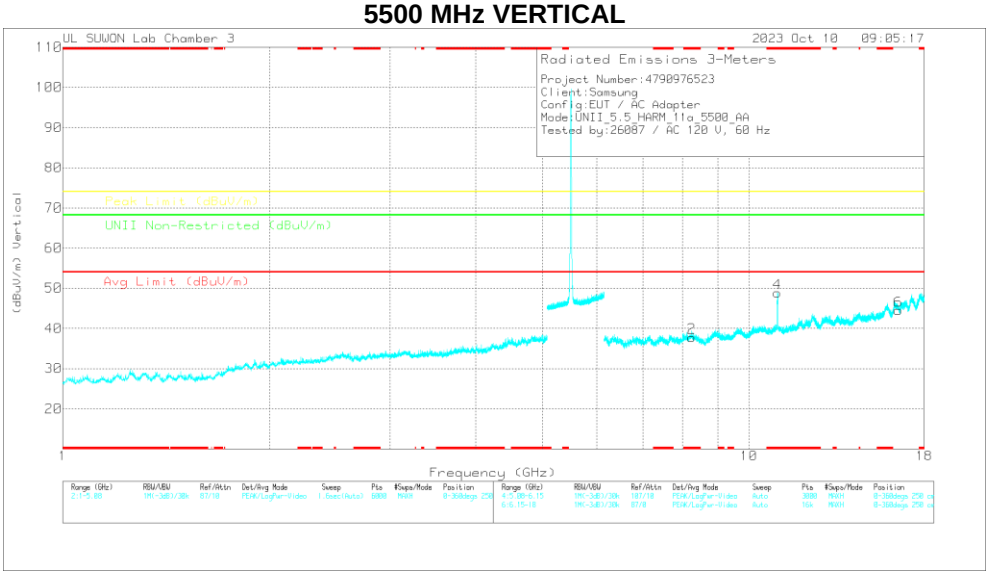
HARMONICS AND SPURIOUS EMISSIONS(WORST CASE: 802.11a / 5500 MHz)

5500 MHz HORIZONTAL



5500 MHz VERTICAL



Note. Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

5500 MHz DATA

Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	Antenna Correction Factor(dB/(1m))	Path Loss(dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 8.25033	36.27	PK-U	36	-23.8	0	48.47	-	-	74	-25.53	-	-	0	100	H
* 8.2496	35.99	PK-U	36	-23.8	0	48.19	-	-	74	-25.81	-	-	0	100	V
* 10.99805	44.96	PK-U	38	-21.1	0	61.86	-	-	74	-12.14	-	-	179	103	H
* 10.99939	31.92	ADR	38	-21.1	.15	48.97	54	-5.03	-	-	-	-	179	103	H
* 11.0046	45.59	PK-U	38	-21.1	0	62.49	-	-	74	-11.51	-	-	154	101	V
* 11.00453	32.74	ADR	38	-21.1	.15	49.79	54	-4.21	-	-	-	-	154	101	V
16.50208	32.83	PK-U	41.6	-18.8	0	55.63	-	-	-	-	68.2	-12.57	0	100	H
16.5007	32.96	PK-U	41.6	-18.7	0	55.86	-	-	-	-	68.2	-12.34	0	100	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
PK-U - U-NII: Maximum Peak
ADR - U-NII AD primary method, RMS average

HARMONICS AND SPURIOUS EMISSIONS TEST DATA

Mode	Freq. [MHz]	Antenna	Frequency [GHz]	Reading [dBuV]	Detector Mode	ANT Factor [dB(1/m)]	Loss [dB]	DC Corr [dB]	Result [dBuV/m]	AV Limit [dBuV/m]	AV Margin [dB]	PK Limit [dBuV/m]	PK Margin [dB]	Non-Restricted [dBuV/m]	Margin [dB]	Azimuth [Degs]	Height [cm]	Polarity
802.11a	5500	MIMO	* 8.25033	36.27	PK-U	36.00	-23.80	0.00	48.47	-	-	74.00	-25.53	-	-	0	100	H
			* 8.2496	35.99	PK-U	36.00	-23.80	0.00	48.19	-	-	74.00	-25.81	-	-	0	100	V
			* 10.99805	44.96	PK-U	38.00	-21.10	0.00	61.86	-	-	74.00	-12.14	-	-	179	103	H
			* 10.99939	31.92	ADR	38.00	-21.10	0.15	48.97	54.00	-5.03	-	-	-	-	179	103	H
			* 11.0046	45.59	PK-U	38.00	-21.10	0.00	62.49	-	-	74.00	-11.51	-	-	154	101	V
			* 11.00453	32.74	ADR	38.00	-21.10	0.15	49.79	54.00	**-4.21**	-	-	-	-	154	101	V
			16.502	32.83	PK-U	41.60	-18.80	0.00	55.63	-	-	-	-	68.20	-12.57	0	100	H
			16.501	32.96	PK-U	41.60	-18.70	0.00	55.86	-	-	-	-	68.20	-12.34	0	100	V
	5580	MIMO	* 8.37039	36.05	PK-U	36.00	-23.70	0.00	48.35	-	-	74.00	-25.65	-	-	0	100	H
			* 8.36734	35.65	PK-U	36.00	-23.70	0.00	47.95	-	-	74.00	-26.05	-	-	0	100	V
			* 11.16979	46.04	PK-U	38.10	-21.40	0.00	62.74	-	-	74.00	**-11.26**	-	-	104	103	H
			* 11.16769	32.43	ADR	38.10	-21.40	0.15	49.28	54.00	-4.72	-	-	-	-	104	103	H
			* 11.16588	44.35	PK-U	38.10	-21.40	0.00	61.05	-	-	74.00	-12.95	-	-	161	100	V
			* 11.16446	31.62	ADR	38.10	-21.40	0.15	48.47	54.00	-5.53	-	-	-	-	161	100	V
			16.739	32.87	PK-U	41.80	-18.20	0.00	56.47	-	-	-	-	68.20	-11.73	0	100	H
			16.737	32.20	PK-U	41.80	-18.30	0.00	55.70	-	-	-	-	68.20	-12.50	0	100	V
	5700	MIMO	8.551	35.63	PK-U	36.00	-23.40	0.00	48.23	-	-	-	-	68.20	-19.97	0	100	H
			8.550	34.77	PK-U	36.00	-23.40	0.00	47.37	-	-	-	-	68.20	-20.83	0	100	V
			* 11.41077	42.02	PK-U	38.10	-21.40	0.00	58.72	-	-	74.00	-15.28	-	-	106	104	H
			* 11.40951	28.36	ADR	38.10	-21.40	0.15	45.21	54.00	-8.79	-	-	-	-	106	104	H
			* 11.41029	39.32	PK-U	38.10	-21.40	0.00	56.02	-	-	74.00	-17.98	-	-	156	100	V
			* 11.40797	25.89	ADR	38.10	-21.40	0.15	42.74	54.00	-11.26	-	-	-	-	156	100	V
			17.091	31.84	PK-U	41.40	-17.30	0.00	55.94	-	-	-	-	68.20	-12.26	0	100	H
			17.096	31.57	PK-U	41.40	-17.40	0.00	55.57	-	-	-	-	68.20	-12.63	0	100	V
	5720	MIMO	8.581	34.43	PK-U	36.00	-23.40	0.00	47.03	-	-	-	-	68.20	-21.17	0	100	H
			8.582	34.56	PK-U	36.00	-23.40	0.00	47.16	-	-	-	-	68.20	-21.04	0	100	V
			* 11.45085	43.03	PK-U	38.20	-21.30	0.00	59.93	-	-	74.00	-14.07	-	-	104	100	H
			* 11.44929	29.09	ADR	38.20	-21.30	0.15	46.14	54.00	-7.86	-	-	-	-	104	100	H
			* 11.44896	38.74	PK-U	38.20	-21.30	0.00	55.64	-	-	74.00	-18.36	-	-	165	100	V
			* 11.44888	26.31	ADR	38.20	-21.30	0.15	43.36	54.00	-10.64	-	-	-	-	165	100	V
			17.162	32.42	PK-U	41.30	-17.10	0.00	56.62	-	-	-	-	68.20	-11.58	0	100	H
			17.161	32.62	PK-U	41.30	-17.00	0.00	56.92	-	-	-	-	68.20	**-11.28**	0	100	V
802.11ax (HE20) RU mode 26 Tone offset 0	5720	MIMO	8.581	34.18	PK-U	36.00	-23.40	0.00	46.78	-	-	-	-	68.20	-21.42	0	100	H
			8.582	34.65	PK-U	36.00	-23.40	0.00	47.25	-	-	-	-	68.20	-20.95	0	100	V
			* 11.43955	34.64	PK-U	38.20	-21.30	0.00	51.54	-	-	74.00	-22.46	-	-	105	100	H
			* 11.43991	25.82	ADR	38.20	-21.30	0.00	42.72	54.00	-11.28	-	-	-	-	105	100	H
			* 11.4395	33.46	PK-U	38.20	-21.30	0.00	50.36	-	-	74.00	-23.64	-	-	141	229	V
			* 11.44004	22.24	ADR	38.20	-21.30	0.00	39.14	54.00	-14.86	-	-	-	-	141	229	V
			17.159	32.63	PK-U	41.30	-17.10	0.00	56.83	-	-	-	-	68.20	-11.37	0	100	H
			17.162	32.48	PK-U	41.30	-17.10	0.00	56.68	-	-	-	-	68.20	-11.52	0	100	V

Note1. PK-U - U-NII: Maximum Peak / ADR - U-NII AD primary method, RMS average
Note2. * - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

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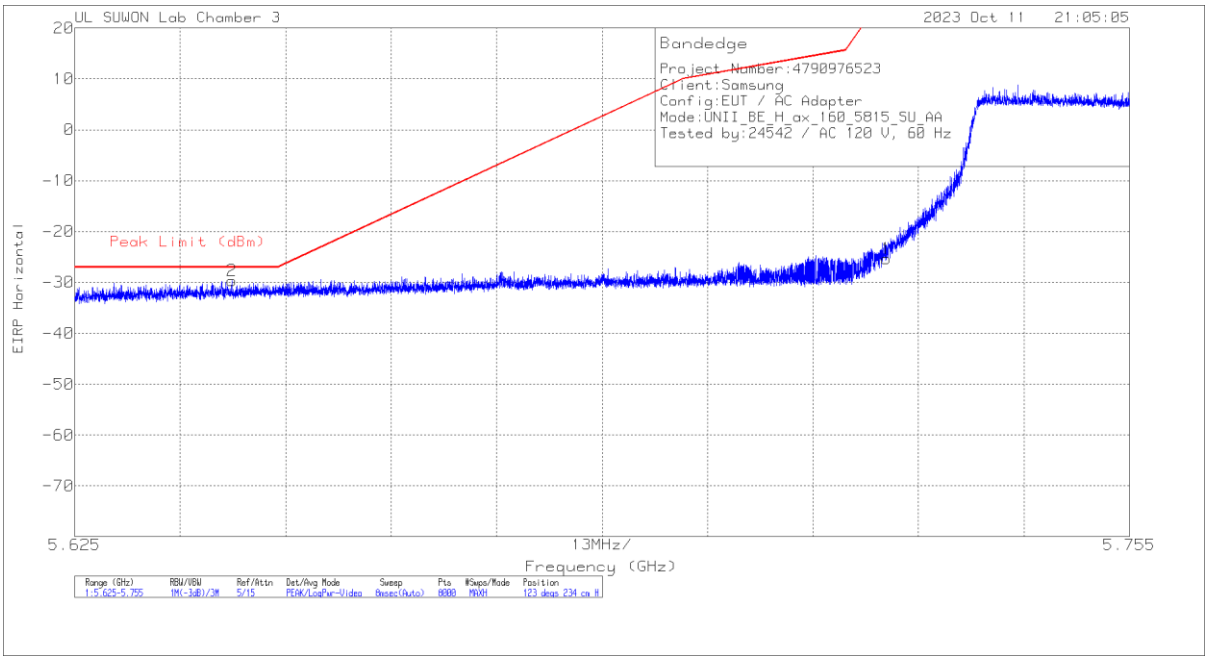
11.4. TX ABOVE 1GHz 2Tx MODE IN THE 5.8 GHz BAND

BANDEDGE (WORST CASE: 802.11ax HE160 SU / 5815 MHz Lower)

HORIZONTAL PEAK DATA



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	Antenna Correction Factor[dB(1/m)]	Path Loss(dB)	Conversion Factor (dB)	DC Corr (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.725	-52.21	Pk	34.9	-19.8	11.8	0	-25.31	27	-52.31	123	234	H
2	5.64436	-56.39	Pk	34.9	-20	11.8	0	-29.69	-27	-2.69	123	234	H

Pk - Peak detector

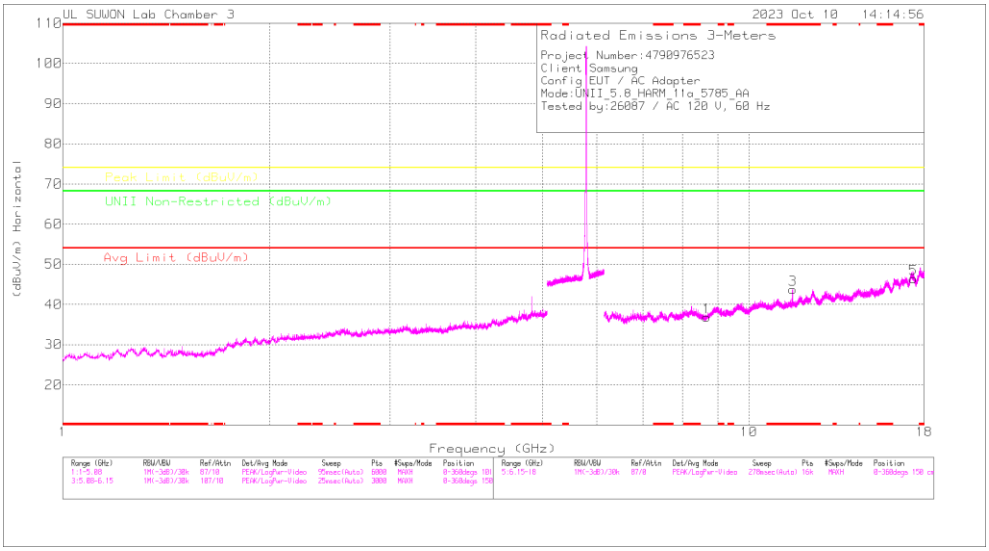
BANDEDGE TEST DATA

Mode	Freq. [MHz]	Antenna	Frequency [GHz]	Reading [dBm]	Detector Mode	ANT Factor [dB(1/m)]	Loss [dB]	Conv. F [dB]	DC Corr [dB]	Result [dBm]	PK Limit [dBm]	PK Margin [dB]	Azimuth [Degs]	Height [cm]	Polarity
802.11a	5745	MIMO	5.72500	-53.48	Pk	34.90	-19.80	11.80	0.00	-26.58	27.00	-53.58	123	270	H
			5.63896	-63.31	Pk	34.90	-20.00	11.80	0.00	-36.61	-27.00	-9.61	123	270	H
			5.72500	-55.23	Pk	34.90	-19.80	11.80	0.00	-28.33	27.00	-55.33	102	114	V
			5.64491	-63.52	Pk	34.90	-20.00	11.80	0.00	-36.82	-27.00	-9.82	102	114	V
802.11n (HT20)	5745	MIMO	5.72500	-53.74	Pk	34.90	-19.80	11.80	0.00	-26.84	27.00	-53.84	118	212	H
			5.64660	-62.59	Pk	34.90	-20.00	11.80	0.00	-35.89	-27.00	-8.89	118	212	H
			5.72500	-54.96	Pk	34.90	-19.80	11.80	0.00	-28.06	27.00	-55.06	107	103	V
			5.64293	-63.31	Pk	34.90	-20.00	11.80	0.00	-36.61	-27.00	-9.61	107	103	V
802.11n (HT40)	5755	MIMO	5.72500	-55.16	Pk	34.90	-19.80	11.80	0.00	-28.26	27.00	-55.26	117	299	H
			5.64702	-62.77	Pk	34.90	-20.00	11.80	0.00	-36.07	-27.00	-9.07	117	299	H
			5.72500	-57.86	Pk	34.90	-19.80	11.80	0.00	-30.96	27.00	-57.96	93	101	V
			5.64478	-63.39	Pk	34.90	-20.00	11.80	0.00	-36.69	-27.00	-9.69	93	101	V
802.11ac (VHT80)	5775 (Lower Side)	MIMO	5.72500	-49.33	Pk	34.90	-19.80	11.80	0.00	-22.43	27.00	-49.43	118	234	H
			5.63581	-62.50	Pk	34.90	-19.90	11.80	0.00	-35.70	-27.00	-8.70	118	234	H
			5.72500	-50.71	Pk	34.90	-19.80	11.80	0.00	-23.81	27.00	-50.81	93	101	V
			5.62719	-63.16	Pk	34.90	-20.00	11.80	0.00	-36.46	-27.00	-9.46	93	101	V
802.11ac (VHT160)	5815 (Lower Side)	MIMO	5.72500	-51.00	Pk	34.90	-19.80	11.80	0.00	-24.10	27.00	-51.10	119	235	H
			5.65024	-56.38	Pk	34.90	-19.90	11.80	0.00	-29.58	-26.82	-2.76	119	235	H
			5.72500	-51.78	Pk	34.90	-19.80	11.80	0.00	-24.88	27.00	-51.88	97	101	V
			5.64041	-57.18	Pk	34.90	-20.00	11.80	0.00	-30.48	-27.00	-3.48	97	101	V
802.11ax (HE20) SU mode	5745	MIMO	5.72500	-52.84	Pk	34.90	-19.80	11.80	0.00	-25.94	27.00	-52.94	117	234	H
			5.62815	-63.57	Pk	34.90	-20.00	11.80	0.00	-36.87	-27.00	-9.87	117	234	H
			5.72500	-56.06	Pk	34.90	-19.80	11.80	0.00	-29.16	27.00	-56.16	99	103	V
			5.63291	-63.05	Pk	34.90	-20.00	11.80	0.00	-36.35	-27.00	-9.35	99	103	V
802.11ax (HE40) SU mode	5755	MIMO	5.72500	-51.10	Pk	34.90	-19.80	11.80	0.00	-24.20	27.00	-51.20	117	234	H
			5.64241	-62.10	Pk	34.90	-20.00	11.80	0.00	-35.40	-27.00	-8.40	117	234	H
			5.72500	-54.15	Pk	34.90	-19.80	11.80	0.00	-27.25	27.00	-54.25	97	103	V
			5.63381	-62.54	Pk	34.90	-19.90	11.80	0.00	-35.74	-27.00	-8.74	97	103	V
802.11ax (HE80) SU mode	5775 (Lower Side)	MIMO	5.72500	-50.24	Pk	34.90	-19.80	11.80	0.00	-23.34	27.00	-50.34	121	234	H
			5.63974	-59.67	Pk	34.90	-20.00	11.80	0.00	-32.97	-27.00	-5.97	121	234	H
			5.72500	-49.43	Pk	34.90	-19.80	11.80	0.00	-22.53	27.00	-49.53	97	101	V
			5.64967	-61.11	Pk	34.90	-19.90	11.80	0.00	-34.31	-27.00	-7.31	97	101	V
802.11ax (HE160) SU mode	5815 Lower	MIMO	5.72500	-52.21	Pk	34.90	-19.80	11.80	0.00	-25.31	27.00	-52.31	123	234	H
			5.64436	-56.39	Pk	34.90	-20.00	11.80	0.00	-29.69	-27.00	**-2.69**	123	234	H
			5.72500	-52.53	Pk	34.90	-19.80	11.80	0.00	-25.63	27.00	-52.63	93	103	V
			5.63630	-57.09	Pk	34.90	-20.00	11.80	0.00	-30.39	-27.00	-3.39	93	103	V

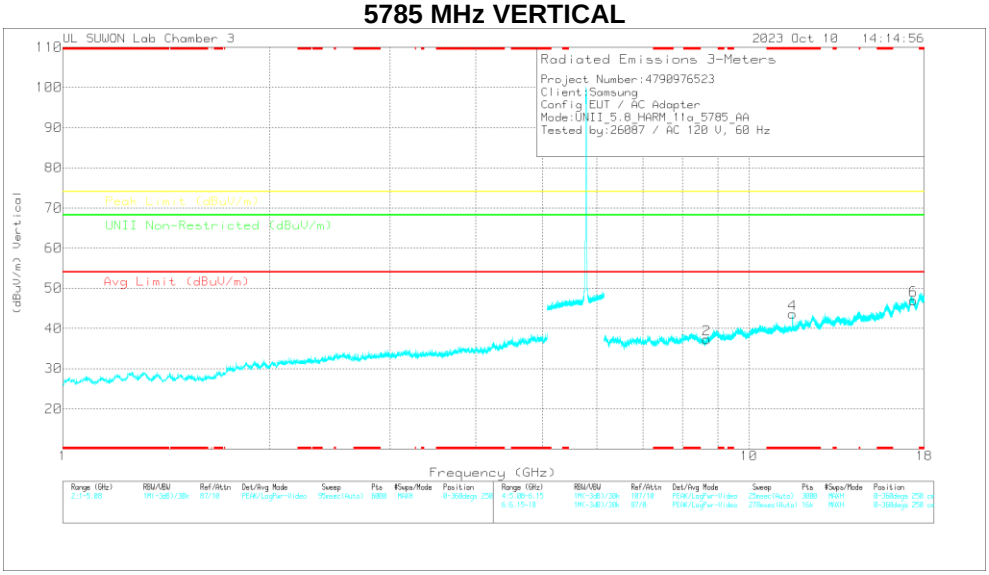
Note. Pk - Peak detector

HARMONICS AND SPURIOUS EMISSIONS(WORST CASE: 802.11a / 5785 MHz)

5785 MHz HORIZONTAL



5785 MHz VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

5785 MHz DATA

Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	Antenna Correction Factor(dB/(A/m))	Path Loss(dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
8.67711	34.68	PK-U	36.1	-23.2	0	47.58	-	-	-	-	68.2	-20.62	0	100	H
8.67513	34.14	PK-U	36.1	-23.2	0	47.04	-	-	-	-	68.2	-21.16	0	100	V
* 11.58076	42.36	PK-U	38.3	-21.6	0	59.06	-	-	74	-14.94	-	-	122	100	H
* 11.57833	28.64	ADR	38.3	-21.6	.15	45.49	54	-8.51	-	-	-	-	122	100	H
* 11.57439	39.45	PK-U	38.2	-21.5	0	56.15	-	-	74	-17.85	-	-	152	325	V
* 11.57422	26.06	ADR	38.2	-21.5	.15	42.91	54	-11.09	-	-	-	-	152	325	V
17.35187	32.21	PK-U	41.1	-16.6	0	56.71	-	-	-	-	68.2	-11.49	0	100	H
17.35954	32.24	PK-U	41.1	-16.6	0	56.74	-	-	-	-	68.2	-11.46	0	100	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
PK-U - U-NII: Maximum Peak
ADR - U-NII AD primary method, RMS average

HARMONICS AND SPURIOUS EMISSIONS TEST DATA

Mode	Freq. [MHz]	Antenna	Frequency [GHz]	Reading [dBuV]	Detector Mode	ANT Factor [dB(1/m)]	Loss [dB]	DC Corr [dB]	Result [dBuV/m]	AV Limit [dBuV/m]	AV Margin [dB]	PK Limit [dBuV/m]	PK Margin [dB]	Non-Restricted [dBuV/m]	Margin [dB]	Azimuth [Degs]	Height [cm]	Polarity
802.11a	5745	MIMO	8.618	34.44	PK-U	36.00	-23.40	0.00	47.04	-	-	-	-	68.20	-21.16	1	100	H
			8.617	34.46	PK-U	36.00	-23.40	0.00	47.06	-	-	-	-	68.20	-21.14	0	100	V
			* 11.49257	38.49	PK-U	38.20	-21.40	0.00	55.29	-	-	74.00	-18.71	-	-	103	100	H
			* 11.49011	26.99	ADR	38.20	-21.40	0.15	43.94	54.00	-10.06	-	-	-	-	103	100	H
			* 11.49518	38.30	PK-U	38.20	-21.40	0.00	55.10	-	-	74.00	-18.90	-	-	163	101	V
			* 11.49812	25.65	ADR	38.20	-21.40	0.15	42.60	54.00	-11.40	-	-	-	-	163	101	V
			17.235	32.93	PK-U	41.10	-16.50	0.00	57.53	-	-	-	-	68.20	**-10.67**	0	100	H
			17.236	32.46	PK-U	41.10	-16.40	0.00	57.16	-	-	-	-	68.20	-11.04	0	100	V
	5785	MIMO	8.677	34.68	PK-U	36.10	-23.20	0.00	47.58	-	-	-	-	68.20	-20.62	0	100	H
			8.675	34.14	PK-U	36.10	-23.20	0.00	47.04	-	-	-	-	68.20	-21.16	0	100	V
			* 11.58076	42.36	PK-U	38.30	-21.60	0.00	59.06	-	-	74.00	**-14.94**	-	-	122	100	H
			* 11.57833	28.64	ADR	38.30	-21.60	0.15	45.49	54.00	**-8.51**	-	-	-	-	122	100	H
			* 11.57439	39.45	PK-U	38.20	-21.50	0.00	56.15	-	-	74.00	-17.85	-	-	152	325	V
			* 11.57422	26.06	ADR	38.20	-21.50	0.15	42.91	54.00	-11.09	-	-	-	-	152	325	V
			17.352	32.21	PK-U	41.10	-16.60	0.00	56.71	-	-	-	-	68.20	-11.49	0	100	H
			17.360	32.24	PK-U	41.10	-16.60	0.00	56.74	-	-	-	-	68.20	-11.46	0	100	V
	5825	MIMO	8.738	35.47	PK-U	36.10	-23.10	0.00	48.47	-	-	-	-	68.20	-19.73	0	100	H
			8.738	34.72	PK-U	36.10	-23.10	0.00	47.72	-	-	-	-	68.20	-20.48	0	100	V
			* 11.66016	40.83	PK-U	38.30	-21.60	0.00	57.53	-	-	74.00	-16.47	-	-	112	100	H
			* 11.6595	27.39	ADR	38.30	-21.60	0.15	44.24	54.00	-9.76	-	-	-	-	112	100	H
			* 11.65328	38.47	PK-U	38.30	-21.60	0.00	55.17	-	-	74.00	-18.83	-	-	171	400	V
			* 11.65503	26.01	ADR	38.30	-21.60	0.15	42.86	54.00	-11.14	-	-	-	-	171	400	V
			17.475	31.49	PK-U	41.20	-16.30	0.00	56.39	-	-	-	-	68.20	-11.81	0	100	H
			17.488	31.01	PK-U	41.20	-16.40	0.00	55.81	-	-	-	-	68.20	-12.39	171	400	V
802.11ax (HE20) RU mode 26 Tone offset 0 Spot-check	5825	MIMO	8.737	34.89	PK-U	36.10	-23.10	0.00	47.89	-	-	-	-	68.20	-20.31	0	100	H
			8.738	34.45	PK-U	36.10	-23.10	0.00	47.45	-	-	-	-	68.20	-20.75	0	100	V
			* 11.6498	36.23	PK-U	38.30	-21.60	0.00	52.93	-	-	74.00	-21.07	-	-	112	100	H
			* 11.64995	26.54	ADR	38.30	-21.60	0.00	43.24	54.00	-10.76	-	-	-	-	112	100	H
			* 11.65014	35.19	PK-U	38.30	-21.60	0.00	51.89	-	-	74.00	-22.11	-	-	154	234	V
			* 11.64993	24.21	ADR	38.30	-21.60	0.00	40.91	54.00	-13.09	-	-	-	-	154	234	V
			17.477	31.83	PK-U	41.20	-16.40	0.00	56.63	-	-	-	-	68.20	-11.57	0	100	H
			17.477	31.37	PK-U	41.20	-16.40	0.00	56.17	-	-	-	-	68.20	-12.03	0	100	V

Note1. PK-U - U-NII: Maximum Peak / ADR - U-NII AD primary method, RMS average
Note2. * - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

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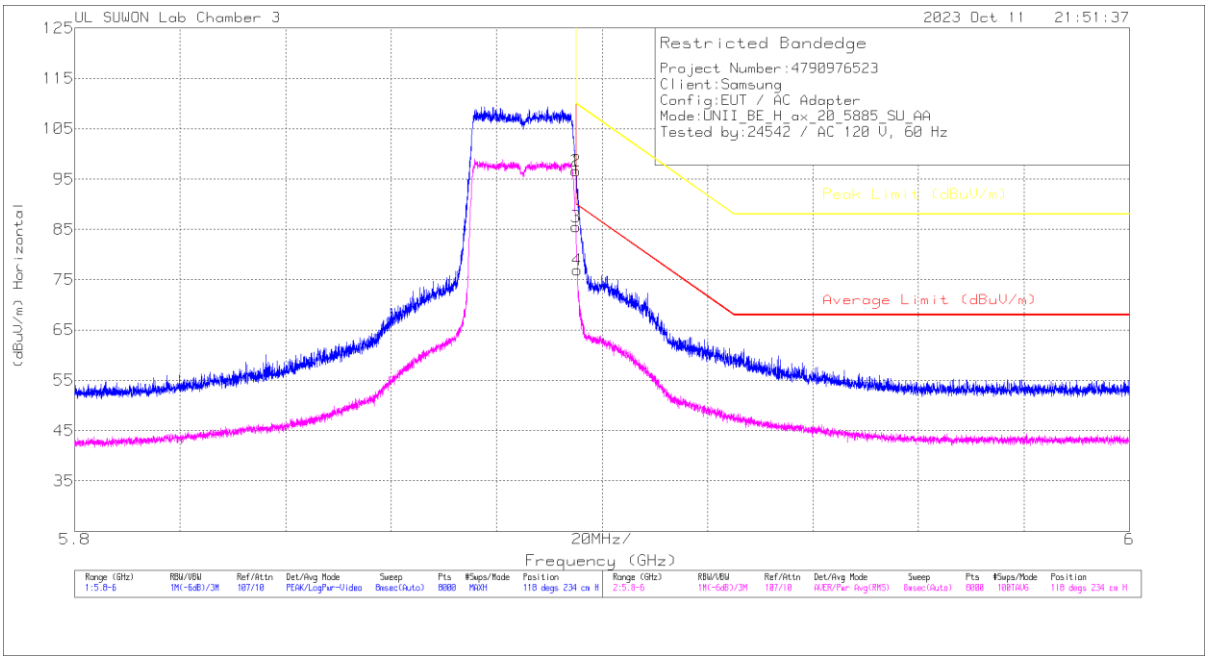
11.5. TX ABOVE 1GHz 2Tx MODE IN THE 5.9 GHz BAND

BANDEDGE (WORST CASE: 802.11ax HE20 / 5885 MHz)

HORIZONTAL PEAK DATA



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	Antenna Correction Factor[dB(1/m)]	Path Loss(dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.89501	80.62	Pk	35.4	-19.4	0	96.62	-	-	109.99	-13.37	118	234	H
2	5.89506	80.6	Pk	35.4	-19.4	0	96.6	-	-	109.95	-13.35	118	234	H
3	5.89501	69.51	RMS	35.4	-19.4	0	85.51	89.99	-4.48	-	-	118	234	H
4	5.89531	60.89	RMS	35.4	-19.4	0	76.89	89.77	-12.88	-	-	118	234	H

Pk - Peak detector
RMS - RMS detection

BANDEDGE TEST DATA

Mode	Freq. [MHz]	Antenna	Frequency [GHz]	Reading [dBuV]	Detector Mode	ANT Factor [dB(1/m)]	Loss [dB]	DC Corr [dB]	Result [dBuV/m]	AV Limit [dBuV/m]	AV Margin [dB]	PK Limit [dBuV/m]	PK Margin [dB]	Azimuth [Degs]	Height [cm]	Polarity
802.11a	5885	MIMO	5.895	71.35	Pk	35.40	-19.40	0.00	87.35	-	-	109.99	-22.64	114	235	H
			5.895	71.86	Pk	35.40	-19.40	0.00	87.86	-	-	109.95	-22.09	114	235	H
			5.895	56.36	RMS	35.40	-19.40	0.15	72.51	89.99	-17.48	-	-	114	235	H
			5.895	56.20	RMS	35.40	-19.40	0.15	72.35	89.83	-17.48	-	-	114	235	H
			5.895	69.58	Pk	35.40	-19.40	0.00	85.58	-	-	109.99	-24.41	92	125	V
			5.895	70.41	Pk	35.40	-19.40	0.00	86.41	-	-	109.70	-23.29	92	125	V
			5.895	55.22	RMS	35.40	-19.40	0.15	71.37	89.99	-18.62	-	-	92	125	V
			5.895	54.79	RMS	35.40	-19.40	0.15	70.94	89.92	-18.98	-	-	92	125	V
802.11n (HT20)	5885	MIMO	5.895	75.38	Pk	35.40	-19.40	0.00	91.38	-	-	109.99	-18.61	112	232	H
			5.895	74.85	Pk	35.40	-19.40	0.00	90.85	-	-	109.95	-19.10	112	232	H
			5.895	59.62	RMS	35.40	-19.40	0.00	75.62	89.99	-14.37	-	-	112	232	H
			5.895	58.87	RMS	35.40	-19.40	0.00	74.87	89.84	-14.97	-	-	112	232	H
			5.895	73.68	Pk	35.40	-19.40	0.00	89.68	-	-	109.99	-20.31	94	109	V
			5.895	74.46	Pk	35.40	-19.40	0.00	90.46	-	-	109.94	-19.48	94	109	V
			5.895	57.05	RMS	35.40	-19.40	0.00	73.05	89.99	-16.94	-	-	94	109	V
			5.895	57.82	RMS	35.40	-19.40	0.00	73.82	89.97	-16.15	-	-	94	109	V
802.11n (HT40)	5875	MIMO	5.895	67.98	Pk	35.40	-19.40	0.00	83.98	-	-	109.99	-26.01	112	101	H
			5.895	68.20	Pk	35.40	-19.40	0.00	84.20	-	-	109.90	-25.70	112	101	H
			5.895	50.61	RMS	35.40	-19.40	0.00	66.61	89.99	-23.38	-	-	112	100	H
			5.925	31.14	RMS	35.50	-19.40	0.00	47.24	68.00	-20.76	-	-	112	100	H
			5.895	63.81	Pk	35.40	-19.40	0.00	79.81	-	-	109.99	-30.18	92	115	V
			5.924	45.65	Pk	35.50	-19.40	0.00	61.75	-	-	88.47	-26.72	92	115	V
			5.895	49.04	RMS	35.40	-19.40	0.00	65.04	89.99	-24.95	-	-	92	115	V
			5.923	33.27	RMS	35.50	-19.40	0.00	49.37	69.53	-20.16	-	-	92	115	V
802.11ac (VHT80)	5855	MIMO	5.895	67.75	Pk	35.40	-19.40	0.00	83.75	-	-	109.99	-26.24	115	234	H
			5.925	48.33	Pk	35.50	-19.40	0.00	64.43	-	-	88.00	-23.57	115	234	H
			5.895	53.58	RMS	35.40	-19.40	0.25	69.83	89.99	-20.16	-	-	115	234	H
			5.926	36.74	RMS	35.50	-19.40	0.25	53.09	68.00	-14.91	-	-	115	234	H
			5.895	67.57	Pk	35.40	-19.40	0.00	83.57	-	-	109.99	-26.42	92	116	V
			5.895	70.11	Pk	35.40	-19.40	0.00	86.11	-	-	109.88	-23.77	92	116	V
			5.895	50.07	RMS	35.40	-19.40	0.25	66.32	89.99	-23.67	-	-	92	116	V
			5.928	35.19	RMS	35.50	-19.40	0.25	51.54	68.00	-16.46	-	-	92	116	V
802.11ac (VHT160)	5815 Upper	MIMO	5.895	69.71	Pk	35.40	-19.40	0.00	85.71	-	-	109.99	-24.28	120	234	H
			5.949	48.49	Pk	35.60	-19.40	0.00	64.69	-	-	88.00	-23.31	120	234	H
			5.895	49.61	RMS	35.40	-19.40	0.24	65.85	89.99	-24.14	-	-	120	234	H
			5.939	36.99	RMS	35.60	-19.40	0.24	53.43	68.00	-14.57	-	-	120	234	H
			5.895	69.07	Pk	35.40	-19.40	0.00	85.07	-	-	109.99	-24.92	94	115	V
			5.895	70.01	Pk	35.40	-19.40	0.00	86.01	-	-	109.92	-23.91	94	115	V
			5.895	48.90	RMS	35.40	-19.40	0.24	65.14	89.99	-24.85	-	-	94	115	V
			5.932	35.80	RMS	35.50	-19.30	0.24	52.24	68.00	-15.76	-	-	94	115	V
802.11ax (HE20) SU mode	5885	MIMO	5.895	80.62	Pk	35.40	-19.40	0.00	96.62	-	-	109.99	-13.37	118	234	H
			5.895	80.60	Pk	35.40	-19.40	0.00	96.60	-	-	109.95	**-13.35**	118	234	H
			5.895	69.51	RMS	35.40	-19.40	0.00	85.51	89.99	**-4.48**	-	-	118	234	H
			5.895	60.89	RMS	35.40	-19.40	0.00	76.89	89.77	-12.88	-	-	118	234	H
			5.895	80.28	Pk	35.40	-19.40	0.00	96.28	-	-	109.99	-13.71	96	115	V
			5.895	78.31	Pk	35.40	-19.40	0.00	94.31	-	-	109.86	-15.55	96	115	V
			5.895	68.68	RMS	35.40	-19.40	0.00	84.68	89.99	-5.31	-	-	96	115	V
			5.895	60.64	RMS	35.40	-19.40	0.00	76.64	89.81	-13.17	-	-	96	115	V
802.11ax (HE40) SU mode	5875	MIMO	5.895	73.78	Pk	35.40	-19.40	0.00	89.78	-	-	109.99	-20.21	118	234	H
			5.895	74.46	Pk	35.40	-19.40	0.00	90.46	-	-	109.92	-19.46	118	234	H
			5.895	52.92	RMS	35.40	-19.40	0.00	68.92	89.99	-21.07	-	-	118	234	H
			5.925	35.53	RMS	35.50	-19.40	0.00	51.63	68.00	-16.37	-	-	118	234	H
			5.895	70.37	Pk	35.40	-19.40	0.00	86.37	-	-	109.99	-23.62	92	110	V
			5.895	70.85	Pk	35.40	-19.40	0.00	86.85	-	-	109.94	-23.09	92	110	V
			5.895	51.84	RMS	35.40	-19.40	0.00	67.84	89.99	-22.15	-	-	92	110	V
			5.925	33.36	RMS	35.50	-19.40	0.00	49.46	68.00	-18.54	-	-	92	110	V
802.11ax (HE80) SU mode	5855	MIMO	5.895	71.83	Pk	35.40	-19.40	0.00	87.83	-	-	109.99	-22.16	113	226	H
			5.927	57.03	Pk	35.50	-19.40	0.00	73.13	-	-	88.00	-14.87	113	226	H
			5.895	50.15	RMS	35.40	-19.40	0.00	66.15	89.99	-23.84	-	-	113	226	H
			5.925	43.83	RMS	35.50	-19.40	0.00	59.93	68.14	-8.21	-	-	113	226	H
			5.895	71.36	Pk	35.40	-19.40	0.00	87.36	-	-	109.99	-22.63	90	115	V
			5.928	52.34	Pk	35.50	-19.40	0.00	68.44	-	-	88.00	-19.56	90	115	V
			5.895	49.62	RMS	35.40	-19.40	0.00	65.62	89.99	-24.37	-	-	90	115	V
			5.925	39.97	RMS	35.50	-19.40	0.00	56.07	68.00	-11.93	-	-	90	115	V
802.11ax (HE160) SU mode	5815 Upper	MIMO	5.895	70.20	Pk	35.40	-19.40	0.00	86.20	-	-	109.99	-23.79	125	215	H
			5.931	52.68	Pk	35.50	-19.40	0.00	68.78	-	-	88.00	-19.22	125	215	H
			5.895	49.53	RMS	35.40	-19.40	0.00	65.53	89.99	-24.46	-	-	125	215	H
			5.927	40.09	RMS	35.50	-19.40	0.00	56.19	68.00	-11.81	-	-	125	215	H
			5.895	67.98	Pk	35.40	-19.40	0.00	83.98	-	-	109.99	-26.01	103	115	V
			5.928	48.46	Pk	35.50	-19.40	0.00	64.56	-	-	88.00	-23.44	103	115	V
			5.895	47.01	RMS	35.40	-19.40	0.00	63.01	89.99	-26.98	-	-	103	115	V
			5.932	36.81	RMS	35.50	-19.30	0.00	53.01	68.00	-14.99	-	-	103	115	V

Note1. PK: Maximum Peak / ADR - U-NII AD primary method, RMS average
Note2. * - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

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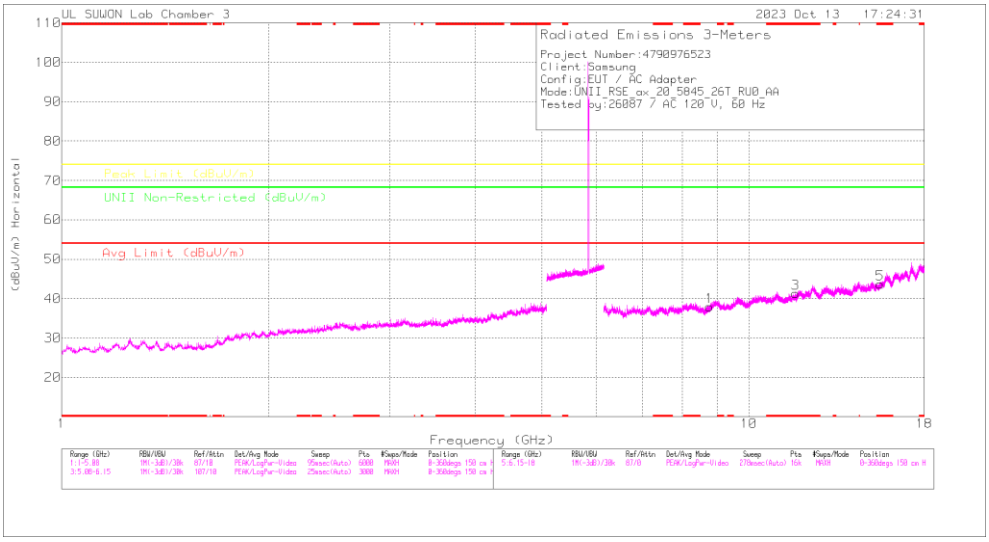
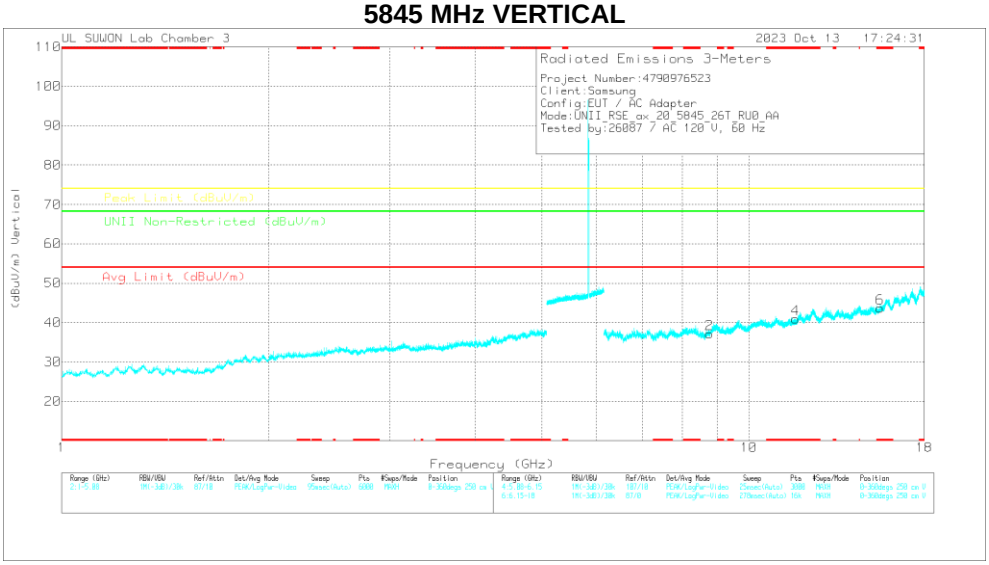
HARMONICS AND SPURIOUS EMISSIONS(WORST CASE: 802.11ax HE20 0RU / 5845 MHz)

5845 MHz HORIZONTAL



5845 MHz VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

5845 MHz DATA

Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	Antenna Correction Factor[dB(1/m)]	Path Loss(dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
8.76747	34.51	PK-U	36.1	-23.1	0	47.51	-	-	-	-	68.2	-20.69	0	100	H
8.7645	34.52	PK-U	36.1	-23	0	47.62	-	-	-	-	68.2	-20.58	0	101	V
* 11.69006	35.86	PK-U	38.4	-21.4	0	52.86	-	-	74	-21.14	-	-	107	101	H
* 11.68999	26.73	ADR	38.4	-21.4	0	43.73	54	-10.27	-	-	-	-	107	101	H
* 11.6899	34.36	PK-U	38.4	-21.4	0	51.36	-	-	74	-22.64	-	-	141	279	V
* 11.69009	23.76	ADR	38.4	-21.4	0	40.76	54	-13.24	-	-	-	-	141	279	V
* 15.53219	34.18	PK-U	40.1	-21	0	53.28	-	-	74	-20.72	-	-	0	101	H
* 15.5375	34.24	PK-U	40.1	-21	0	53.34	-	-	74	-20.66	-	-	0	101	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
PK-U - U-NII: Maximum Peak
ADR - U-NII AD primary method, RMS average

HARMONICS AND SPURIOUS EMISSIONS TEST DATA

Mode	Freq. [MHz]	Antenna	Frequency [GHz]	Reading [dBuV]	Detector Mode	ANT Factor [dB(1/m)]	Loss [dB]	DC Corr [dB]	Result [dBuV/m]	AV Limit [dBuV/m]	AV Margin [dB]	PK Limit [dBuV/m]	PK Margin [dB]	Non-Restricted [dBuV/m]	Margin [dB]	Azimuth [Degs]	Height [cm]	Polarity
802.11a	5845	MIMO	8.767	34.85	PK-U	36.10	-23.10	0.00	47.85	-	-	-	-	68.20	-20.35	0	100	H
			8.751	34.28	PK-U	36.10	-23.10	0.00	47.28	-	-	-	-	68.20	-20.92	0	100	V
			* 11.70037	38.39	PK-U	38.40	-21.50	0.00	55.29	-	-	74.00	-18.71	-	-	105	232	H
			* 11.69502	26.36	ADR	38.40	-21.40	0.15	43.51	54.00	-10.49	-	-	-	-	105	232	H
			* 11.69468	37.17	PK-U	38.40	-21.40	0.00	54.17	-	-	74.00	-19.83	-	-	171	387	V
			* 11.69583	25.41	ADR	38.40	-21.50	0.15	42.46	54.00	-11.54	-	-	-	-	171	387	V
			17.518	31.41	PK-U	41.20	-16.30	0.00	56.31	-	-	-	-	68.20	-11.89	0	100	H
			17.527	31.71	PK-U	41.20	-16.30	0.00	56.61	-	-	-	-	68.20	-11.59	0	100	V
	5865	MIMO	8.798	34.75	PK-U	36.10	-22.90	0.00	47.95	-	-	-	-	68.20	-20.25	0	100	H
			8.796	34.62	PK-U	36.10	-22.90	0.00	47.82	-	-	-	-	68.20	-20.38	0	100	V
			* 11.7218	39.32	PK-U	38.40	-21.60	0.00	56.12	-	-	74.00	**-17.88**	-	-	113	101	H
			* 11.73778	26.32	ADR	38.40	-21.50	0.15	43.37	54.00	-10.63	-	-	-	-	113	101	H
			* 11.73324	37.19	PK-U	38.40	-21.50	0.00	54.09	-	-	74.00	-19.91	-	-	180	392	V
			* 11.73563	25.27	ADR	38.40	-21.50	0.15	42.32	54.00	-11.68	-	-	-	-	180	392	V
			17.595	31.38	PK-U	41.30	-16.30	0.00	56.38	-	-	-	-	68.20	-11.82	0	100	H
			17.593	31.39	PK-U	41.30	-16.30	0.00	56.39	-	-	-	-	68.20	-11.81	0	100	V
	5885	MIMO	8.829	34.83	PK-U	36.10	-22.70	0.00	48.23	-	-	-	-	68.20	-19.97	0	100	H
			8.830	35.49	PK-U	36.10	-22.70	0.00	48.89	-	-	-	-	68.20	-19.31	0	100	V
			* 11.76733	37.03	PK-U	38.40	-21.40	0.00	54.03	-	-	74.00	-19.97	-	-	114	263	H
			* 11.77005	25.06	ADR	38.40	-21.40	0.15	42.21	54.00	-11.79	-	-	-	-	114	263	H
			* 11.77159	35.69	PK-U	38.40	-21.50	0.00	52.59	-	-	74.00	-21.41	-	-	184	398	V
			* 11.76592	24.17	ADR	38.40	-21.50	0.15	41.22	54.00	-12.78	-	-	-	-	184	398	V
			17.659	31.37	PK-U	41.30	-15.60	0.00	57.07	-	-	-	-	68.20	**-11.13**	0	100	H
			17.651	31.05	PK-U	41.30	-15.80	0.00	56.55	-	-	-	-	68.20	-11.65	0	100	V
802.11ax (HE20) RU mode 26 Tone offset 0 Spot-check	5845	MIMO	8.767	34.51	PK-U	36.10	-23.10	0.00	47.51	-	-	-	-	68.20	-20.69	0	100	H
			8.765	34.52	PK-U	36.10	-23.00	0.00	47.62	-	-	-	-	68.20	-20.58	0	101	V
			* 11.69006	35.86	PK-U	38.40	-21.40	0.00	52.86	-	-	74.00	-21.14	-	-	107	101	H
			* 11.68999	26.73	ADR	38.40	-21.40	0.00	43.73	54.00	**-10.27**	-	-	-	-	107	101	H
			* 11.6899	34.36	PK-U	38.40	-21.40	0.00	51.36	-	-	74.00	-22.64	-	-	141	279	V
			* 11.69009	23.76	ADR	38.40	-21.40	0.00	40.76	54.00	-13.24	-	-	-	-	141	279	V
			* 15.53219	34.18	PK-U	40.10	-21.00	0.00	53.28	-	-	74.00	-20.72	-	-	0	101	H
			* 15.5375	34.24	PK-U	40.10	-21.00	0.00	53.34	-	-	74.00	-20.66	-	-	0	101	V
802.11ax (HE40) RU mode 26 Tone offset 17 Spot-check	5835	MIMO	8.750	34.43	PK-U	36.10	-23.10	0.00	47.43	-	-	-	-	68.20	-20.77	0	100	H
			8.748	34.17	PK-U	36.10	-23.10	0.00	47.17	-	-	-	-	68.20	-21.03	0	100	V
			* 11.67024	34.33	PK-U	38.30	-21.60	0.00	51.03	-	-	74.00	-22.97	-	-	0	100	H
			* 11.66809	34.42	PK-U	38.30	-21.60	0.00	51.12	-	-	74.00	-22.88	-	-	0	100	V
			17.504	31.35	PK-U	41.20	-16.30	0.00	56.25	-	-	-	-	68.20	-11.95	0	100	H
			17.505	31.77	PK-U	41.20	-16.30	0.00	56.67	-	-	-	-	68.20	-11.53	0	100	V
802.11ax (HE80) RU mode 26 Tone offset 0 Spot-check	5855	MIMO	8.778	35.07	PK-U	36.10	-23.00	0.00	48.17	-	-	-	-	68.20	-20.03	0	100	H
			8.782	34.88	PK-U	36.10	-23.00	0.00	47.98	-	-	-	-	68.20	-20.22	0	100	V
			* 11.70981	34.86	PK-U	38.40	-21.60	0.00	51.66	-	-	74.00	-22.34	-	-	0	100	H
			* 11.70637	34.44	PK-U	38.40	-21.50	0.00	51.34	-	-	74.00	-22.66	-	-	0	100	V
			17.565	32.27	PK-U	41.20	-16.40	0.00	57.07	-	-	-	-	68.20	**-11.13**	0	100	H
			17.563	31.41	PK-U	41.20	-16.40	0.00	56.21	-	-	-	-	68.20	-11.99	0	100	V
802.11ax (HE160) RU mode 26 Tone offset 0 Spot-check	5815	MIMO	8.724	34.44	PK-U	36.10	-23.20	0.00	47.34	-	-	-	-	68.20	-20.86	0	100	H
			8.718	35.41	PK-U	36.10	-23.10	0.00	48.41	-	-	-	-	68.20	-19.79	0	100	V
			* 11.62952	34.39	PK-U	38.30	-21.60	0.00	51.09	-	-	74.00	-22.91	-	-	0	100	H
			* 11.6287	34.34	PK-U	38.30	-21.70	0.00	50.94	-	-	74.00	-23.06	-	-	0	100	V
			17.443	32.31	PK-U	41.10	-16.40	0.00	57.01	-	-	-	-	68.20	-11.19	0	100	H
			17.442	31.92	PK-U	41.10	-16.40	0.00	56.62	-	-	-	-	68.20	-11.58	0	100	V

Note1. PK-U - U-NII: Maximum Peak / ADR - U-NII AD primary method, RMS average
Note2. * - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

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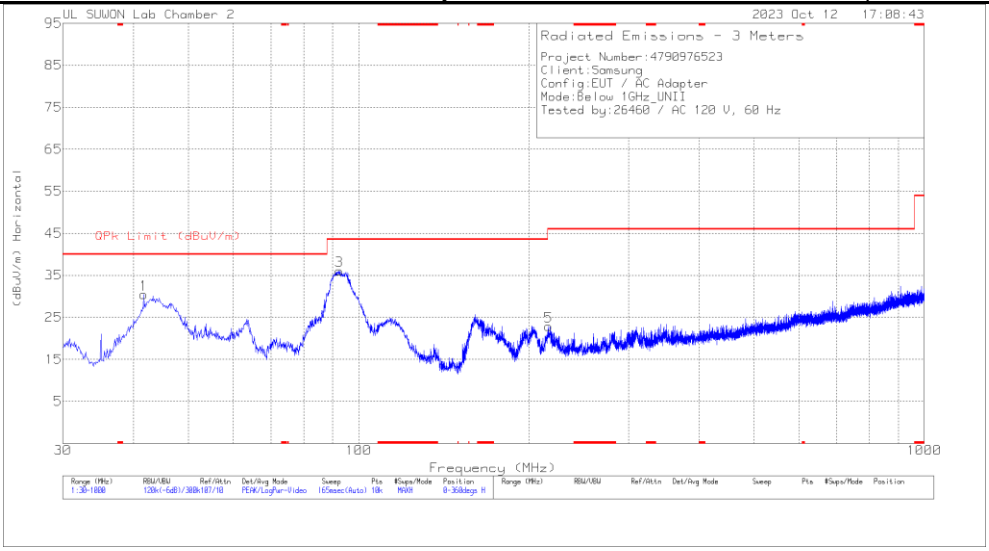
12. WORST-CASE BELOW 1 GHz

SPURIOUS EMISSIONS 30 TO 1000 MHz (WORST-CASE CONFIGURATION, HORIZONTAL)



SPURIOUS EMISSIONS 30 TO 1000 MHz (WORST-CASE CONFIGURATION, VERTICAL)

Trace Markers

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Antenna Correction Factor[dB(1/m)]	Path Loss(dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	41.737	43.05	Pk	19.2	-31.8	0	30.45	40	-9.55	0-360	200	H
3	92.468	51.02	Pk	16.3	-31.2	0	36.12	43.52	-7.4	0-360	200	H
5	216.725	36.39	Pk	17	-30.5	0	22.89	46.02	-23.13	0-360	100	H
2	43.58	50.87	Pk	19.6	-31.8	0	38.67	40	-1.33	0-360	100	V
4	92.177	49.24	Pk	16.3	-31.2	0	34.34	43.52	-9.18	0-360	100	V
6	218.956	33.83	Pk	17.1	-30.5	0	20.43	46.02	-25.59	0-360	100	V

Pk - Peak detector

Radiated Emissions

Frequency (MHz)	Meter Reading (dBuV)	Det	Antenna Correction Factor[dB(1/m)]	Path Loss(dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
43.58	48.39	Qp	19.6	-31.8	.15	36.34	40	-3.66	277	100	V

Qp - Quasi-Peak detector

13. AC POWER LINE CONDUCTED EMISSIONS

LIMITS

FCC §15.207 (a)
IC RSS-GEN Clause 8.8

Frequency of Emission (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.

TEST PROCEDURE

The EUT is placed on a non-conducting table 40 cm from the vertical ground plane and 80 cm above the horizontal ground plane. The EUT is configured in accordance with ANSI C63.10.

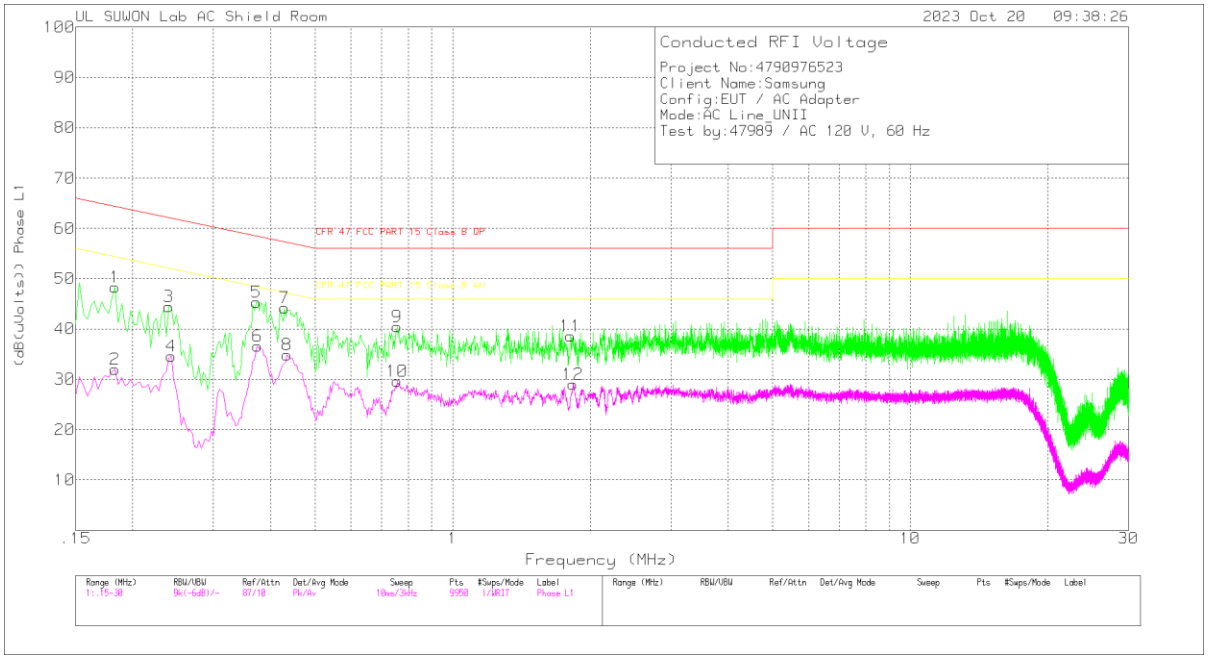
The receiver is set to a resolution bandwidth of 9 kHz. Peak detection is used unless otherwise noted as quasi-peak or average.

Line conducted data is recorded for both NEUTRAL and HOT lines.

RESULTS

WORST EMISSIONS

LINE 1 DATA



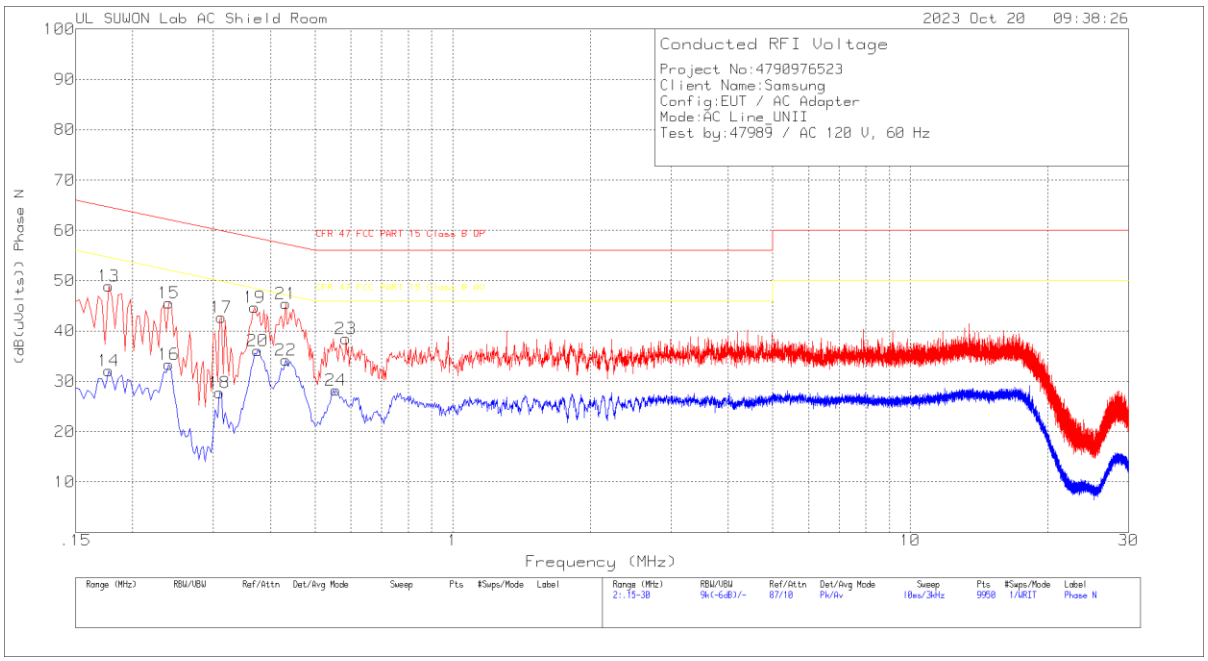
Trace Markers

Range 1: Phase L1 .15 - 30MHz

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	101836_AUTO_With EX_L1[dB]	CABLELOSS[dB]	Corrected Reading (dB(uVolts))	CFR 47 FCC PART 15 Class B QP (dB(uVolts))	Margin (dB)	CFR 47 FCC PART 15 Class B AV (dB(uVolts))	Margin (dB)
1	.183	38.61	Pk	9.5	.2	48.31	64.35	-16.04	-	-
2	.183	22.32	Av	9.5	.2	32.02	-	-	54.35	-22.33
3	.24	34.77	Pk	9.5	.2	44.47	62.1	-17.63	-	-
4	.243	24.95	Av	9.5	.2	34.65	-	-	51.99	-17.34
5	.372	35.64	Pk	9.5	.2	45.34	58.46	-13.12	-	-
6	.375	26.88	Av	9.5	.2	36.58	-	-	48.39	-11.81
7	.429	34.53	Pk	9.5	.2	44.23	57.27	-13.04	-	-
8	.435	25.21	Av	9.5	.2	34.91	-	-	47.16	-12.25
9	.756	30.64	Pk	9.6	.2	40.44	56	-15.56	-	-
10	.756	19.85	Av	9.6	.2	29.65	-	-	46	-16.35
11	1.809	28.66	Pk	9.6	.3	38.56	56	-17.44	-	-
12	1.83	19.08	Av	9.6	.3	28.98	-	-	46	-17.02

Pk - Peak detector
Av - Average detection

LINE 2 DATA



Trace Markers

Range 2: Phase N .15 - 30MHz

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	101836_AUTO_With EX_N[dB]	CABLELOSS[dB]	Corrected Reading (dB(uVolts))	CFR 47 FCC PART 15 Class B QP (dB(uVolts))	Margin (dB)	CFR 47 FCC PART 15 Class B AV (dB(uVolts))	Margin (dB)
13	.177	39.26	Pk	9.5	.2	48.96	64.63	-15.67	-	-
14	.177	22.37	Av	9.5	.2	32.07	-	-	54.63	-22.56
15	.24	35.89	Pk	9.5	.2	45.59	62.1	-16.51	-	-
16	.24	23.62	Av	9.5	.2	33.32	-	-	52.1	-18.78
17	.312	33.02	Pk	9.5	.2	42.72	59.92	-17.2	-	-
18	.309	18.05	Av	9.5	.2	27.75	-	-	50	-22.25
19	.369	34.97	Pk	9.5	.2	44.67	58.52	-13.85	-	-
20	.375	26.41	Av	9.5	.2	36.11	-	-	48.39	-12.28
21	.432	35.71	Pk	9.5	.2	45.41	57.21	-11.8	-	-
22	.432	24.49	Av	9.5	.2	34.19	-	-	47.21	-13.02
23	.585	28.72	Pk	9.6	.2	38.52	56	-17.48	-	-
24	.555	18.39	Av	9.6	.2	28.19	-	-	46	-17.81

Pk - Peak detector
Av - Average detection

14. DYNAMIC FREQUENCY SELECTION

14.1. OVERVIEW

14.1.1. LIMITS

FCC

§15.407 (h), FCC KDB 905462 D02 “COMPLIANCE MEASUREMENT PROCEDURES FOR UNLICENSED-NATIONAL INFORMATION INFRASTRUCTURE DEVICES OPERATING IN THE 5250-5350 MHz AND 5470-5725 MHz BANDS INCORPORATING DYNAMIC FREQUENCY SELECTION” and KDB 905462 D03 “U-NII CLIENT DEVICES WITHOUT RADAR DETECTION CAPABILITY”.

Table 1: Applicability of DFS requirements prior to use of a channel

Requirement	Operational Mode		
	Master	Client (without radar detection)	Client (with radar detection)
Non-Occupancy Period	Yes	Not required	Yes
DFS Detection Threshold	Yes	Not required	Yes
Channel Availability Check Time	Yes	Not required	Not required
U-NII Detection Bandwidth	Yes	Not required	Yes

Table 2: Applicability of DFS requirements during normal operation

Requirement	Operational Mode		
	Master	Client **(without DFS)**	Client **(with DFS)**
DFS Detection Threshold	Yes	Not required	Yes
Channel Closing Transmission Time	Yes	Yes	Yes
Channel Move Time	Yes	Yes	Yes
U-NII Detection Bandwidth	Yes	Not required	Yes

Additional requirements for devices with multiple bandwidth modes	Master Device or Client with Radar DFS	Client (without DFS)
U-NII Detection Bandwidth and Statistical Performance Check	All BW modes must be tested	Not required
Channel Move Time and Channel Closing Transmission Time	Test using widest BW mode available	Test using the widest BW mode available for the link
All other tests	Any single BW mode	Not required
Note: Frequencies selected for statistical performance check (Section 7.8.4) should include several frequencies within the radar detection bandwidth and frequencies near the edge of the radar detection bandwidth. For 802.11 devices it is suggested to select frequencies in all 20 MHz channel blocks and a null frequency between the bonded 20 MHz channel blocks.		

Table 3: Interference Threshold values, Master or Client incorporating In-Service Monitoring

Maximum Transmit Power	Value (see notes)
E.I.R.P. ≥ 200 mill watt	-64 dBm
E.I.R.P. < 200 mill watt and power spectral density < 10 dBm/MHz	-62 dBm
E.I.R.P. < 200 mill watt that do not meet power spectral density requirement	-64 dBm

Note 1: This is the level at the input of the receiver assuming a 0 dBi receive antenna
Note 2: Throughout these test procedures an additional 1 dB has been added to the amplitude of the test transmission waveforms to account for variations in measurement equipment. This will ensure that the test signal is at or above the detection threshold level to trigger a DFS response.
Note 3: E.I.R.P. is based on the highest antenna gain. For MIMO devices refer to KDB publication 662911 D01.

Table 4: DFS Response requirement values

Parameter	Value
Non-occupancy period	30 minutes
Channel Availability Check Time	60 seconds
Channel Move Time	10 seconds (See Note 1)
Channel Closing Transmission Time	200 milliseconds + approx. 60 milliseconds over remaining 10 second period. (See Notes 1 and 2)
U-NII Detection Bandwidth	Minimum 100% of the U-NII 99% transmission power bandwidth. (See Note 3)

Note 1: *Channel Move Time* and the *Channel Closing Transmission Time* should be performed with Radar Type 0. The measurement timing begins at the end of the Radar Type 0 burst.
Note 2: The *Channel Closing Transmission Time* is comprised of 200 milliseconds starting at the beginning of the *Channel Move Time* plus any additional intermittent control signals required to facilitate a *Channel* move (an aggregate of 60 milliseconds) during the remainder of the 10 second period. The aggregate duration of control signals will not count quiet periods in between transmissions.
Note 3: During the *U-NII Detection Bandwidth* detection test, radar type 0 should be used. For each frequency step the minimum percentage of detection is 90 percent. Measurements are performed with no data traffic.

Table 5 – Short Pulse Radar Test Waveforms

Radar Type	Pulse Width (usec)	PRI (usec)	Pulses	Minimum Percentage of Successful Detection	Minimum Trials
0	1	1428	18	See Note 1	See Note 1
1	1	Test A: 15 unique PRI values randomly selected from the list of 23 PRI values in table 5a	Roundup: {(1/360) x (19 x 10^6 PRI_{usec})}	60%	30
		Test B: 15 unique PRI values randomly selected within the range of 518-3066 usec. With a minimum increment of 1 usec, excluding PRI values selected in Test A			
2	1-5	150-230	23-29	60%	30
3	6-10	200-500	16-18	60%	30
4	11-20	200-500	12-16	60%	30
Aggregate (Radar Types 1-4)				80%	120

Note 1: Short Pulse Radar Type 0 should be used for the *Detection Bandwidth* test, *Channel Move Time*, and *Channel Closing Time* tests.

Table 6 – Long Pulse Radar Test Signal

Radar Waveform Type	Pulse Width (µsec)	Chirp Width (MHz)	PRI (µsec)	Pulses per Burst	Number of Bursts	Minimum Percentage of Successful Detection	Minimum Trials
5	50-100	5-20	1000-2000	1-3	8-20	80%	30

Table 7 – Frequency Hopping Radar Test Signal

Radar Waveform Type	Pulse Width (µsec)	PRI (µsec)	Pulses per Hop	Hopping Rate (kHz)	Hopping Sequence Length (msec)	Minimum Percentage of Successful Detection	Minimum Trials
6	1	333	9	0.333	300	70%	30

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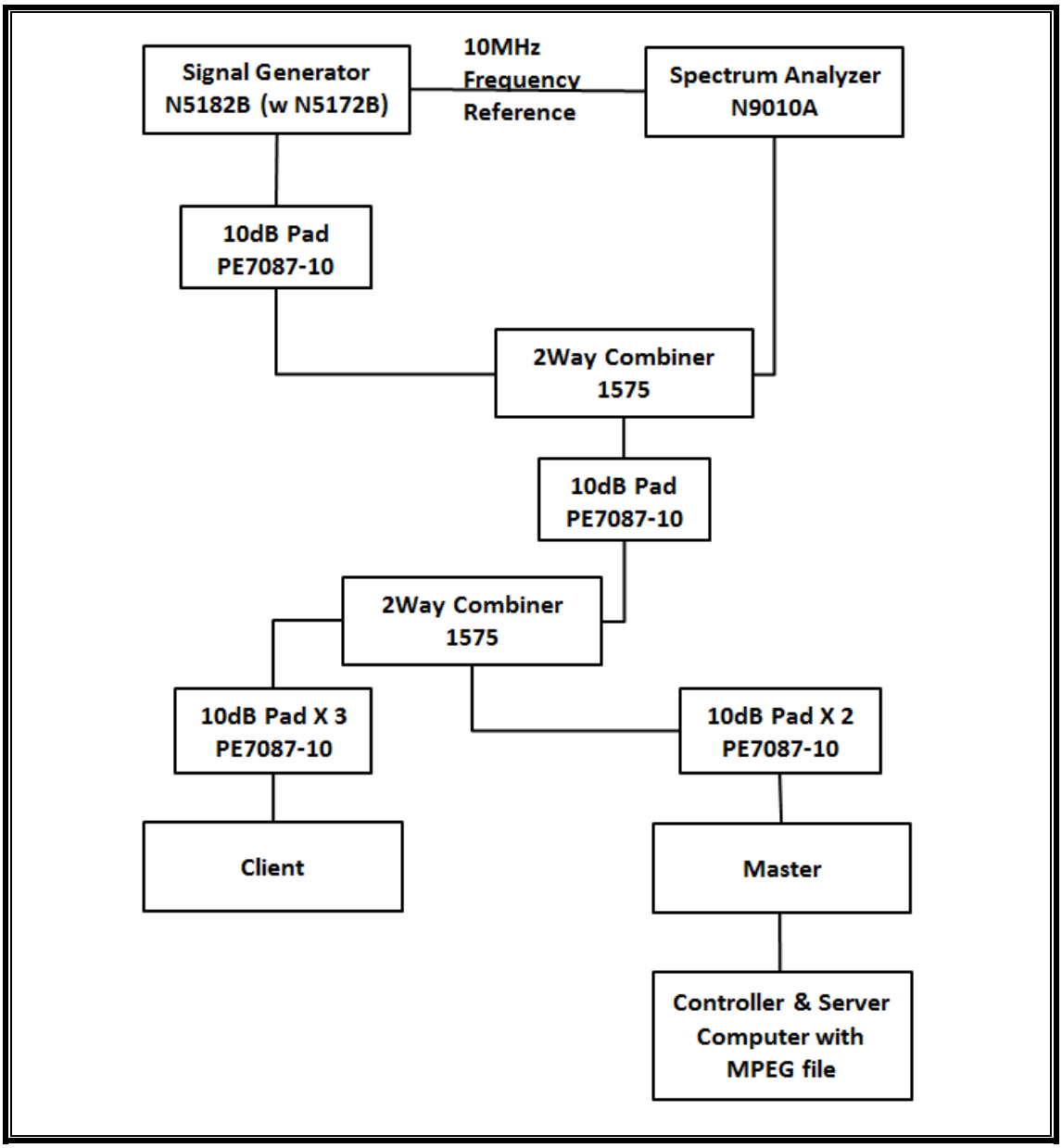
14.1.2. TEST AND MEASUREMENT SYSTEM

CONDUCTED METHOD SYSTEM BLOCK DIAGRAM



SYSTEM OVERVIEW

The short pulse and long pulse signal generating system utilizes the Keysite Signal Studio for Pulse Building as N5172B. The Vector Signal Generator has been validated by the NTIA. The hopping signal generating system utilizes the CCS simulated hopping method and system, which has been validated by the DoD, FCC and NTIA. The software selects waveform parameters from within the bounds of the signal type on a random basis using uniform distribution.

The short pulse types 1, 2, 3 and 4, and the long pulse type 5 parameters are randomized at run-time.

The hopping type 6 pulse parameters are fixed while the hopping sequence is based on the August 2005 NTIA Hopping Frequency List. The initial starting point randomized at run-time and each subsequent starting point is incremented by 475. Each frequency in the 100-length segment is compared to the boundaries of the EUT Detection Bandwidth and the software creates a hopping burst pattern in accordance with Section 7.4.1.3 Method #2 Simulated Frequency Hopping Radar Waveform Generating Subsystem of KDB 905462 D02. The frequency of the signal generator is incremented in 1 MHz steps from F_L to F_H for each successive trial. This incremental sequence is repeated as required to generate a minimum of 30 total trials and to maintain a uniform frequency distribution over the entire Detection Bandwidth.

The signal monitoring equipment consists of a spectrum analyzer. The aggregate ON time is calculated by multiplying the number of bins above a threshold during a particular observation period by the dwell time per bin, with the analyzer set to peak detection and max hold.

SYSTEM CALIBRATION

A 50-ohm load is connected in place of the spectrum analyzer, and the spectrum analyzer is connected to a horn antenna via a coaxial cable, with the reference level offset set to (horn antenna gain – coaxial cable loss). The signal generator is set to CW mode. The amplitude of the signal generator is adjusted to yield a level of –64 dBm as measured on the spectrum analyzer.

Without changing any of the instrument settings, the spectrum analyzer is reconnected to the Common port of the Spectrum Analyzer Combiner/Divider. The Reference Level Offset of the spectrum analyzer is adjusted so that the displayed amplitude of the signal is –64 dBm.

The spectrum analyzer displays the level of the signal generator as received at the antenna ports of the Master Device. The interference detection threshold may be varied from the calibrated value of –64 dBm and the spectrum analyzer will still indicate the level as received by the Master Device.

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ADJUSTMENT OF DISPLAYED TRAFFIC LEVEL

A link is established between the Master and Slave and the distance between the units is adjusted as needed to provide a suitable received level at the Master and Slave devices. The video test file is streamed to generate WLAN traffic. The monitoring antenna is adjusted so that the WLAN traffic level, as displayed on the spectrum analyzer, is at lower amplitude than the radar detection threshold.

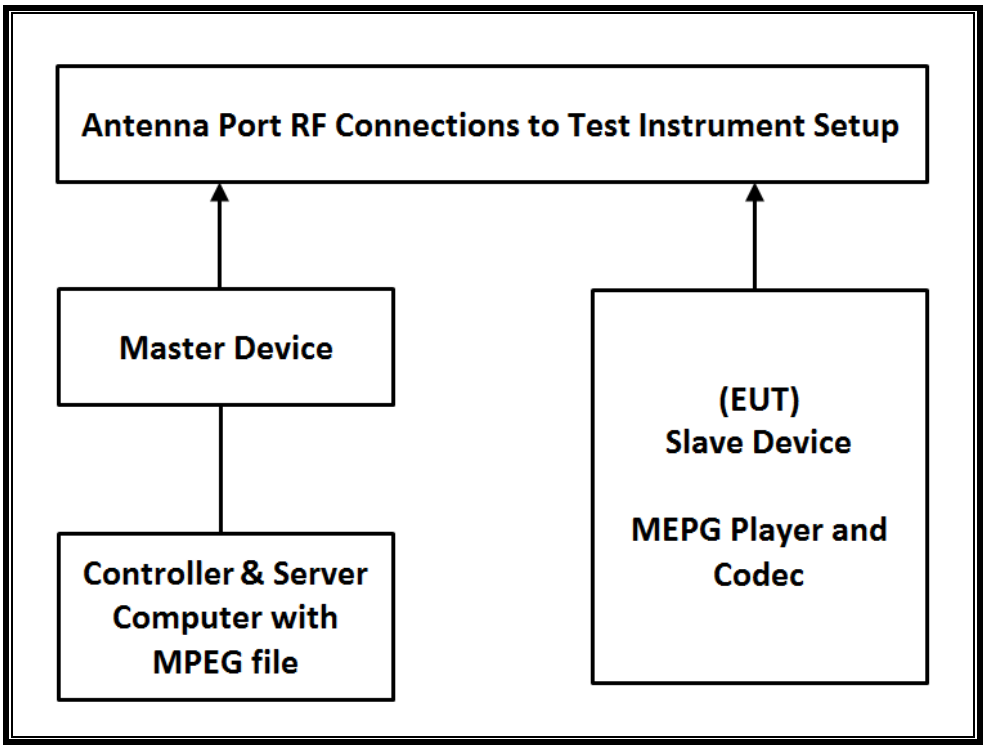
TEST AND MEASUREMENT EQUIPMENT

The following test and measurement equipment was utilized for the DFS tests documented in this report:

TEST EQUIPMENT LIST				
Description	**Manufacturer**	**Model**	**S/N**	**Next Cal Due**
Spectrum Analyzer, 7 GHz	Agilent / HP	N9010A	MY54200580	07-23-24
Vector Signal Generator, 6GHz	Agilent / HP	N5182B	MY53051241	07-23-24
Combiner	WEINSCHEL	WA1534	UL001	01-13-24
Combiner	WEINSCHEL	WA1534	UL003	01-09-24

14.1.3. SETUP OF EUT

CONDUCTED METHOD EUT TEST SETUP



SUPPORT EQUIPMENT

The following support equipment was utilized for the DFS tests documented in this report:

PERIPHERAL SUPPORT EQUIPMENT LIST				
Description	**Manufacturer**	**Model**	**Serial Number**	**FCC ID**
Wireless Access Point	ASUS	GT-AXE11000	M3IAJF200742	MSQ-RTAXJF00
Notebook PC (Controller/Server)	HP	HP EliteDesk 800 G1 TWR	CZC4125J25	DoC

14.1.4. DESCRIPTION OF EUT

The EUT operates over the 5250-5350 MHz and 5470-5725 MHz ranges.

The EUT is a Slave Device without Radar Detection.

The highest power level of the widest bandwidth (802.11ac VHT160) within these bands is 15.71 dBm in the 5250-5350 MHz band and 5470-5725 MHz band.

The antenna assembly utilized two antenna.
Gain of ANT1 : -3.30 dBi for UNII 2A and -2.90 dBi for UNII 2C.
Gain of ANT2 : -5.50 dBi for UNII 2A and -4.22 dBi for UNII 2C.

The rated output power of the Master unit is > 23dBm (EIRP). Therefore the required interference threshold level is –64 dBm. After correction for procedural adjustments, the required conducted threshold at the antenna port is –64 + 1 = -63 dBm.

The calibrated radiated DFS Detection Threshold level is set to –64 dBm. The tested level is lower than the required level hence it provides a margin to the limit.
The EUT uses one transmitter/receiver chain connected to an antenna to perform radiated tests. WLAN traffic that meets or exceeds the minimum required loading was generated by transferring a data stream from the controller/server PC to the EUT using iPerf version 2.0.5 software package.

TPC is not required since the maximum EIRP is less than 500 mW (27 dBm).
The EUT utilizes the 802.11 architecture. 4 nominal channel bandwidth are implemented: 20 MHz, 40 MHz, 80 MHz and 160 MHz.

The software installed in the access point is 12.4(25d)JA1.

UNIFORM CHANNEL SPREADING

This requirement is not applicable to Slave radio devices.

CHANNEL PUNCTURING(802.11ax)

This EUT does not support channel puncturing.

OVERVIEW OF MASTER DEVICE WITH RESPECT TO §15.407 (h) REQUIREMENTS

The Master Device is a ASUS Access Point, FCC ID: MSQ-RTAXJF00. The minimum antenna gain for the Master Device is 6 dBi.

The rated output power of the Master unit is > 23dBm (EIRP). Therefore the required interference threshold level is –64 dBm. After correction for procedural adjustments, the required radiated threshold at the antenna port is –64 + 1 = -63 dBm.

The calibrated radiated DFS Detection Threshold level is set to –64 dBm. The tested level is lower than the required level hence it provides a margin to the limit.

14.2. RESULTS FOR 160 MHz BANDWIDTH (UNII-2A & 2C BANDS)

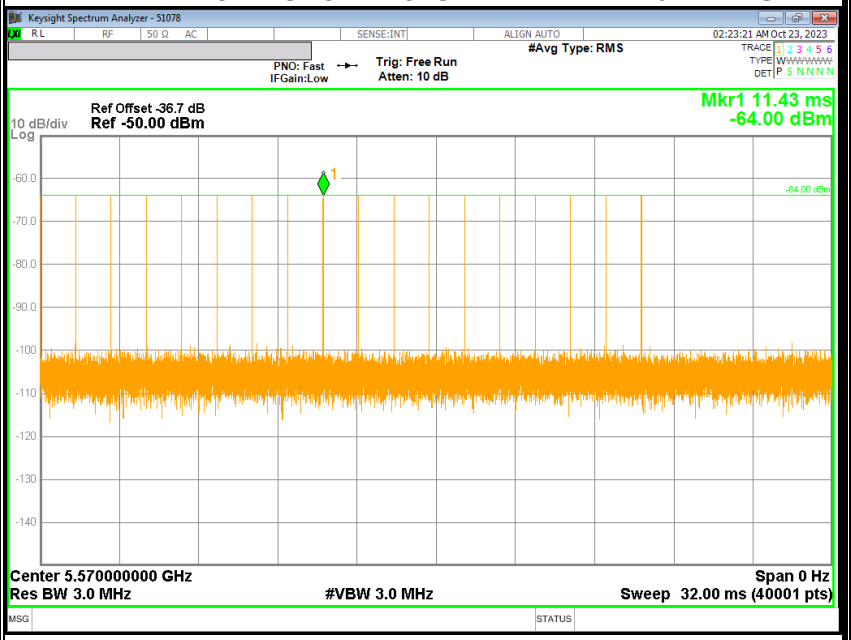
14.2.1. TEST CHANNEL

All tests were performed at a channel center frequency of 5570 MHz.

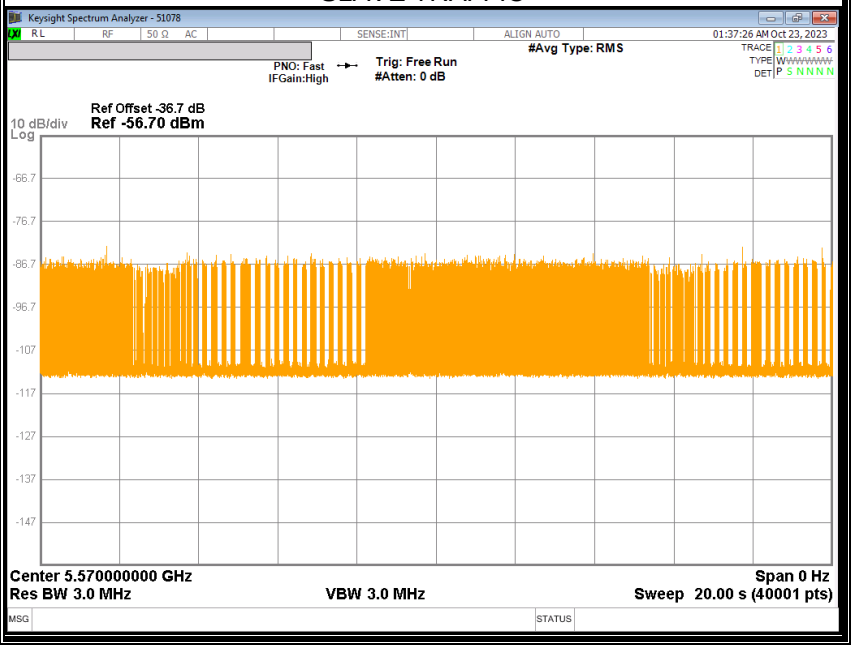
14.2.2. RADAR WAVEFORM AND TRAFFIC

RADAR WAVEFORM

RADAR WAVEFORM:SHORT PULSE RADAR TYPE 0 AT MASTER



SLAVE TRAFFIC



14.2.3. OVERLAPPING CHANNEL TESTS

RESULTS

These tests are not applicable.

14.2.4. MOVE AND CLOSING TIME

REPORTING NOTES

The reference marker is set at the end of last radar pulse.

The delta marker is set at the end of the last WLAN transmission following the radar pulse. This delta is the channel move time.

The aggregate channel closing transmission time is calculated as follows:

Aggregate Transmission Time =
(Number of analyzer bins showing transmission) * (dwell time per bin)

The observation period over which the aggregate time is calculated begins at (Reference Marker + 200 msec) and ends no earlier than (Reference Marker + 10 sec).

RESULTS

Channel Move Time (sec)	Limit (sec)
0.137	10

Aggregate Channel Closing Transmission Time (msec)	Limit (msec)
0	60

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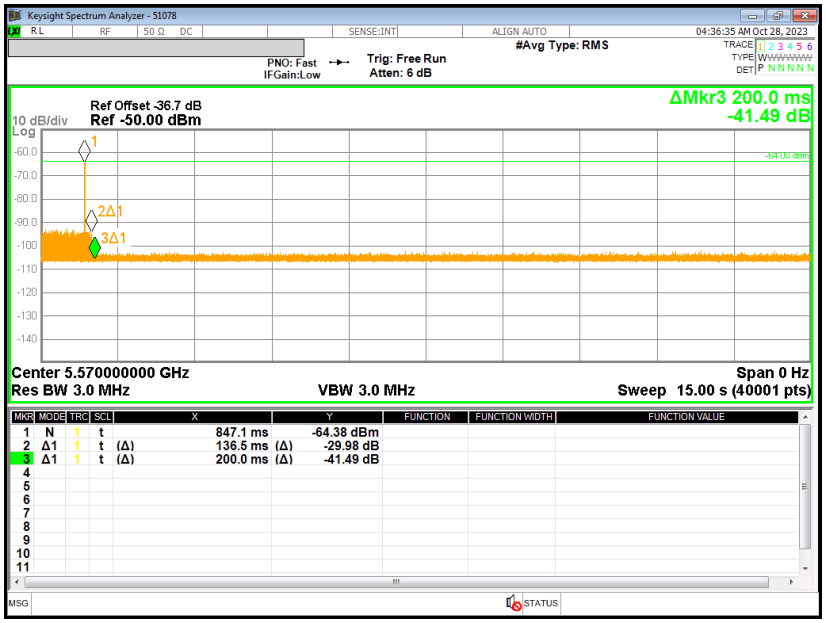
MOVE TIME & CHANNEL CLOSING TIME

AGGREGATE CHANNEL CLOSING TRANSMISSION TIME

No transmissions are observed during the aggregate monitoring period.

MOVE TIME & AGGREGATE CHANNEL CLOSING TRANSMISSION TIME

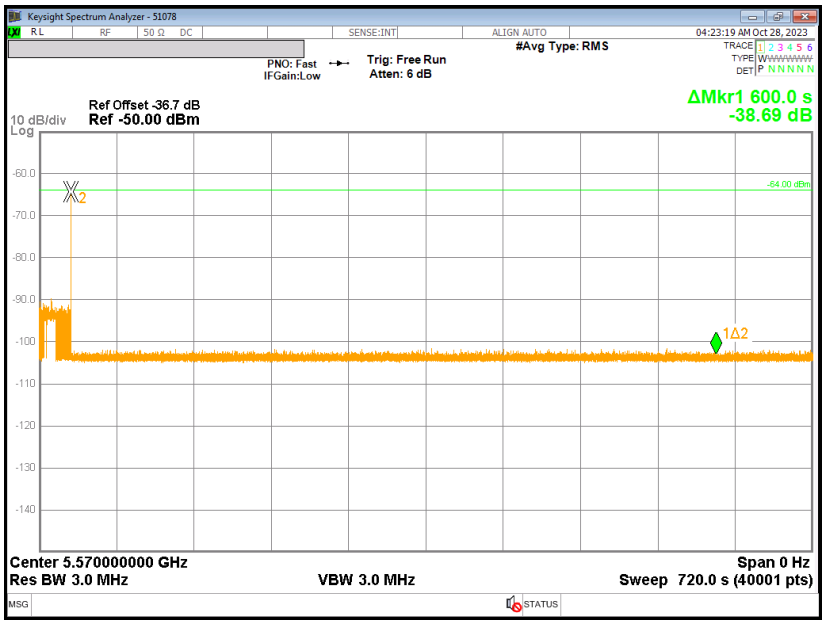


NON-OCCUPANCY PERIOD

RESULTS

No EUT transmissions were observed on the test channel during the 10-minute observation time.

10-MINUTE BEACON MONITORING PERIOD



END OF TEST REPORT