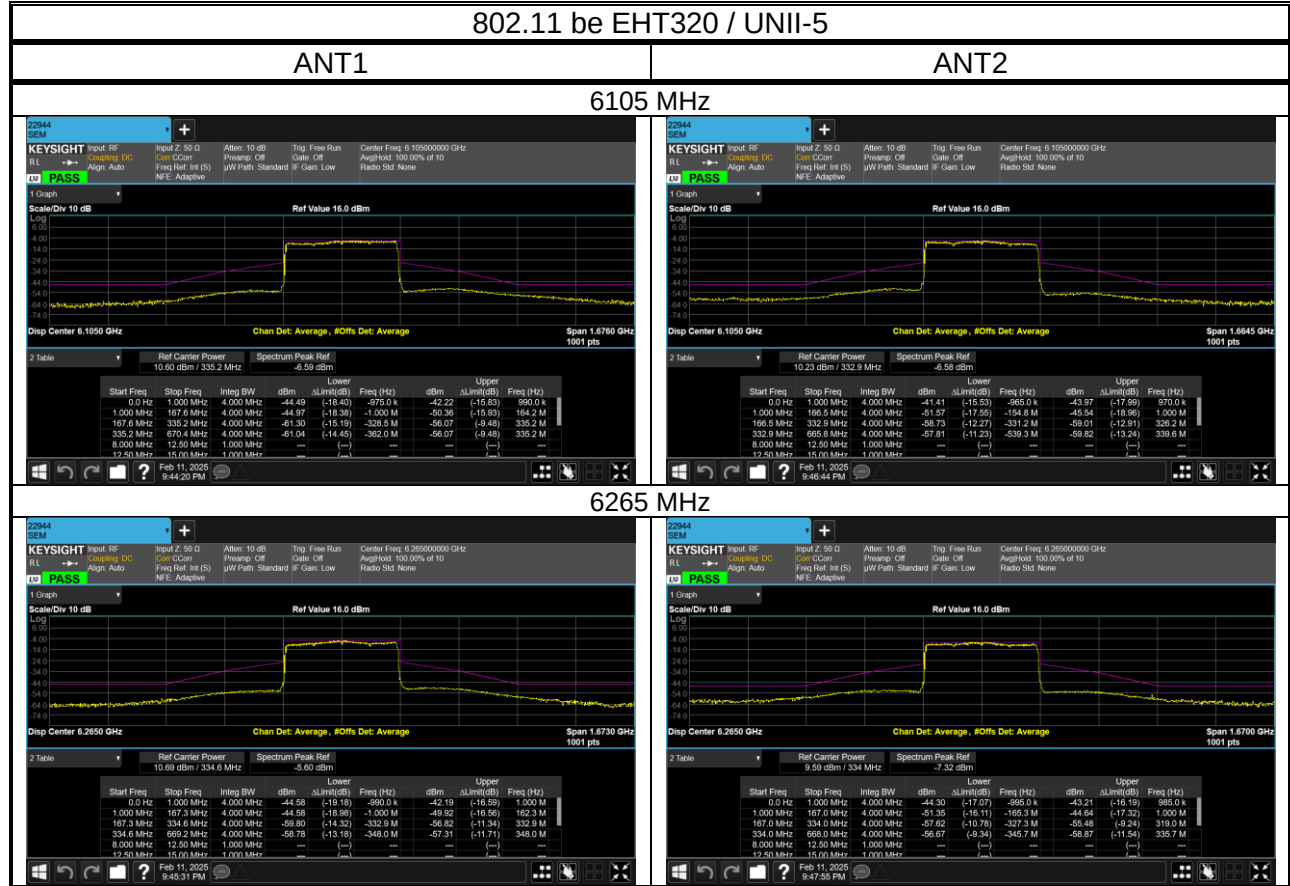
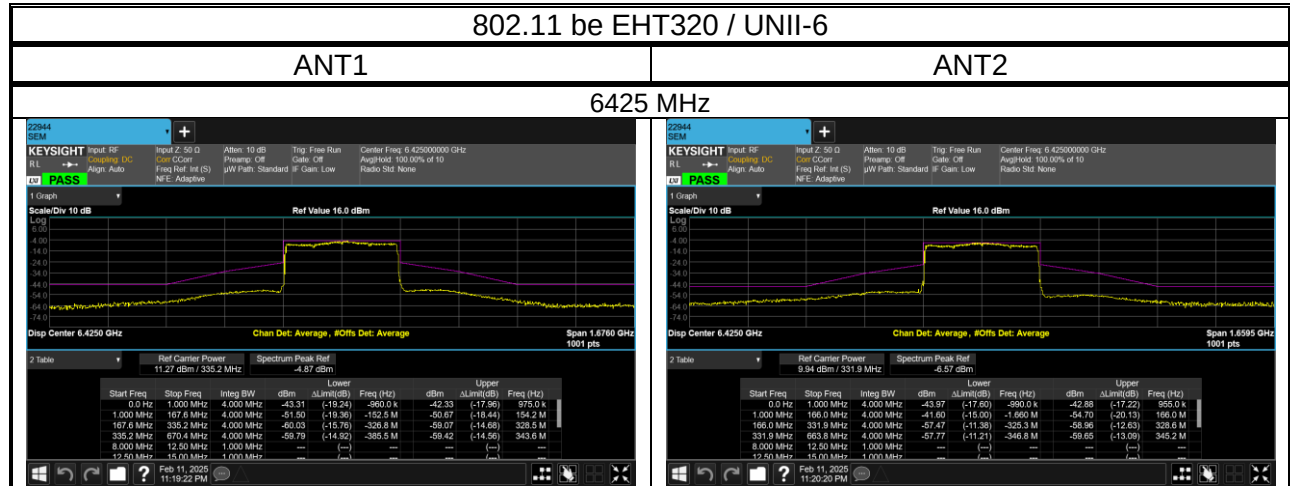


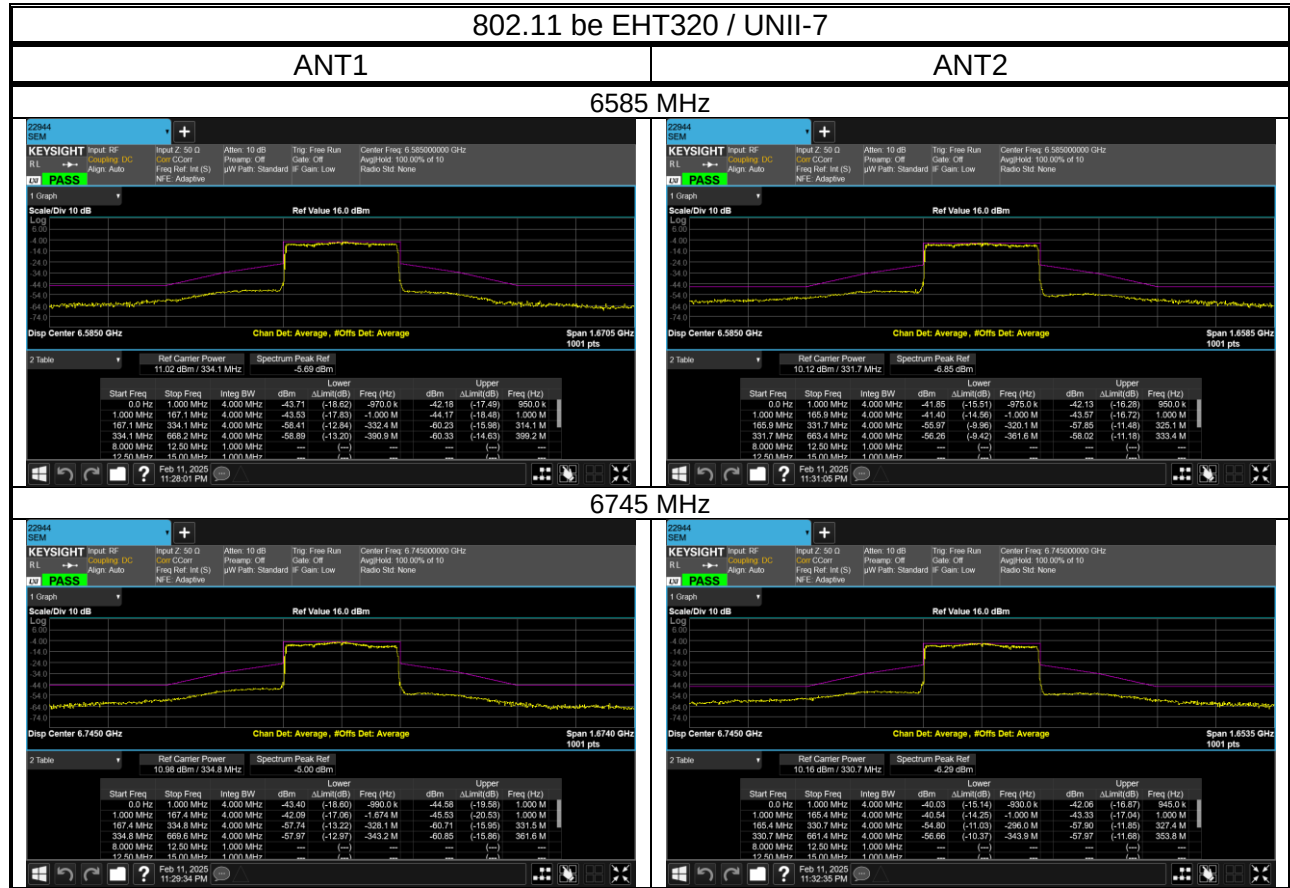
- LPI



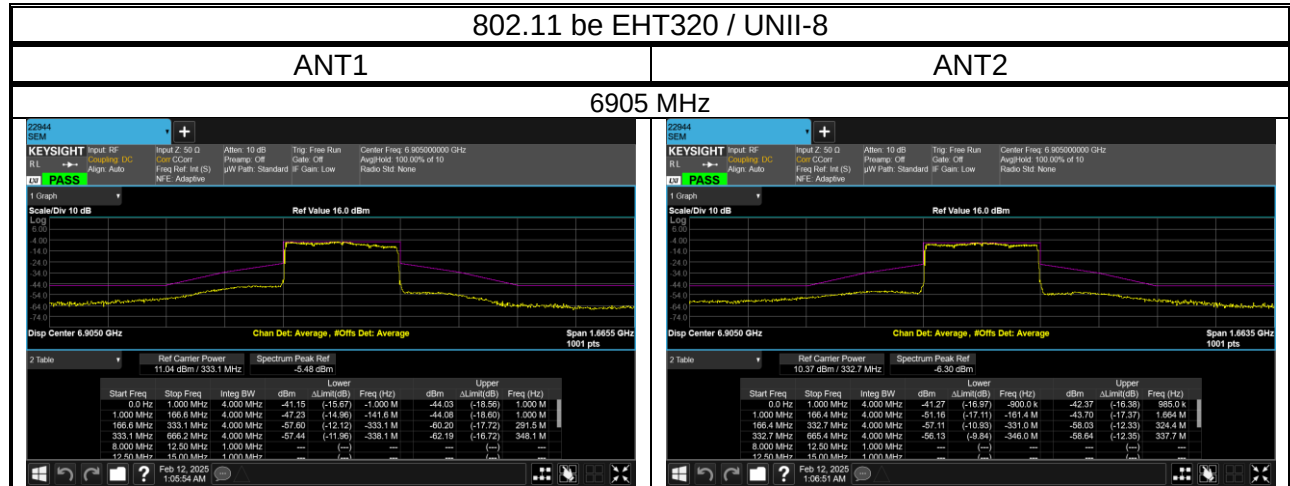
- LPI



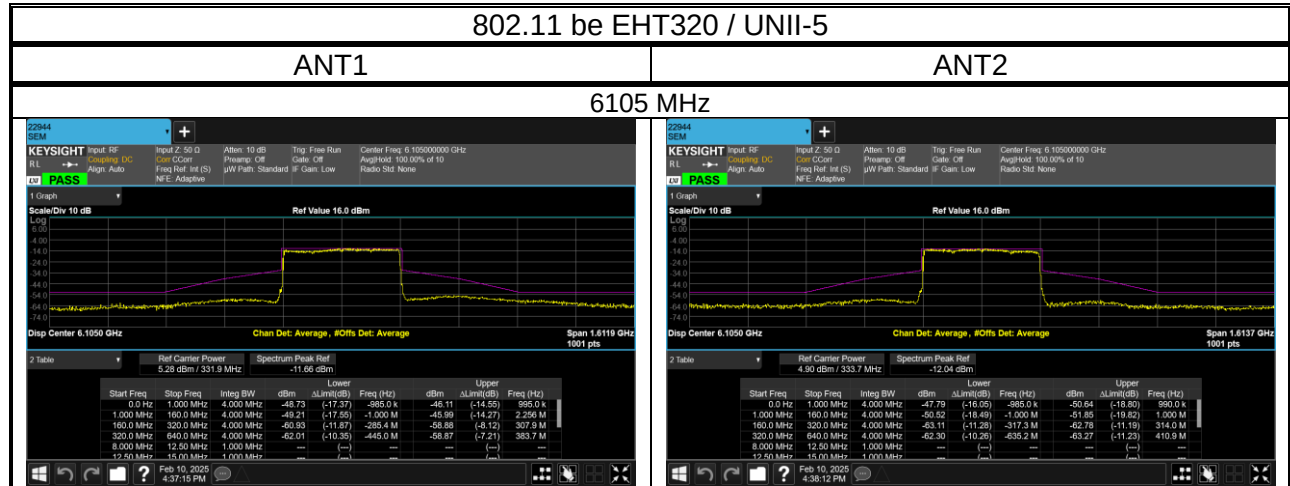
- LPI



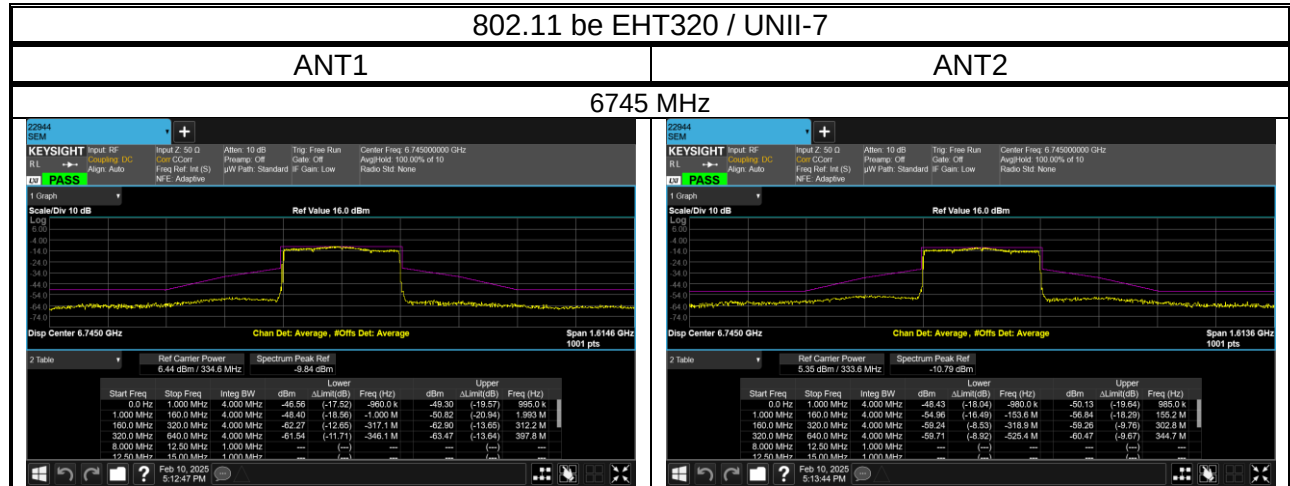
- LPI



- VLP

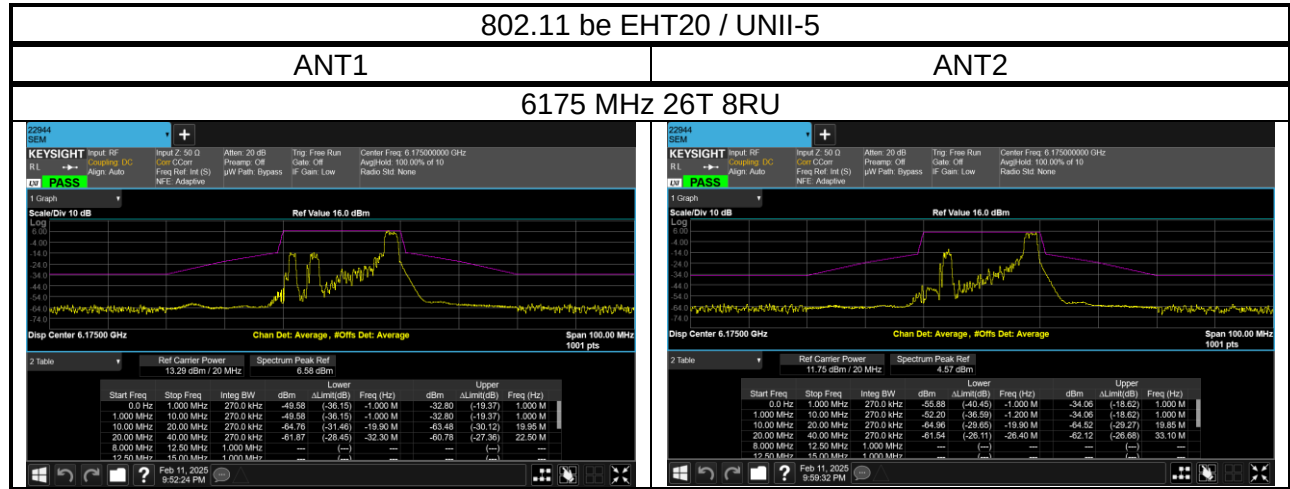


- VLP

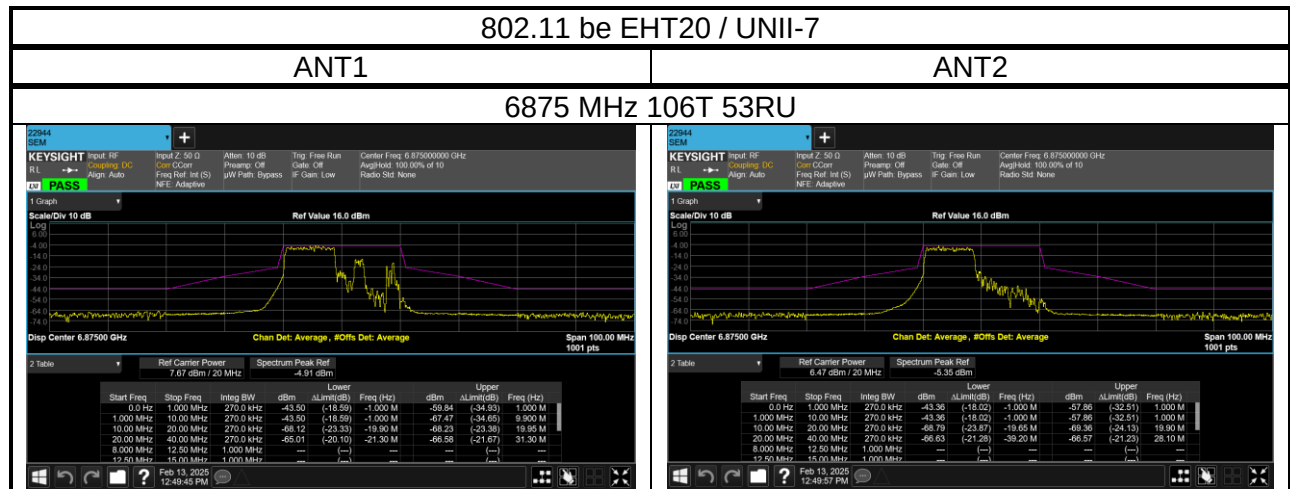


10.2.7. 802.11 be EHT20 RU MODE (WORST CASE)

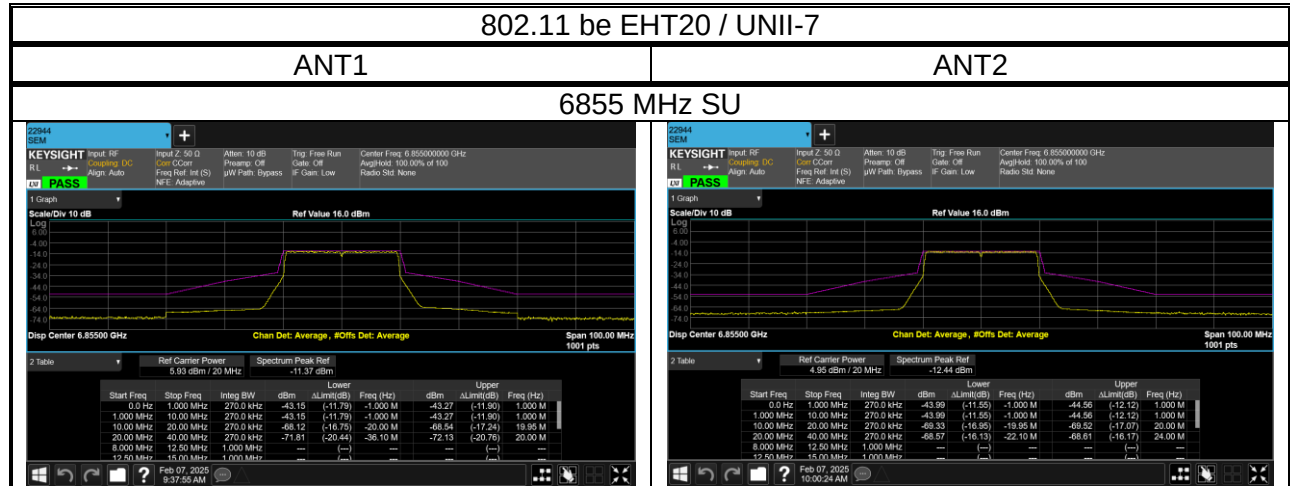
- SP



-LPI

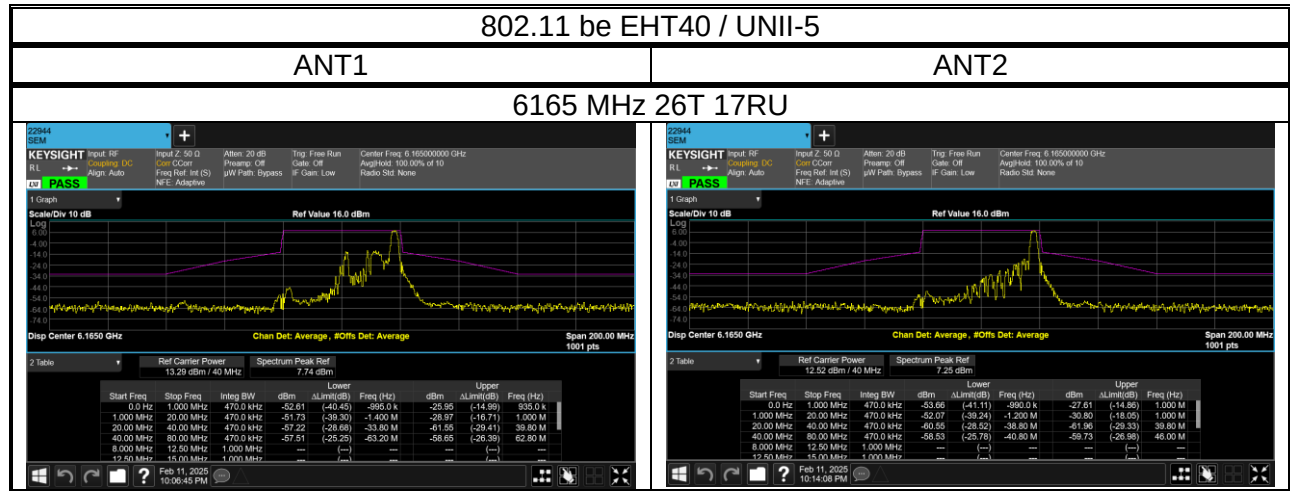


- VLP

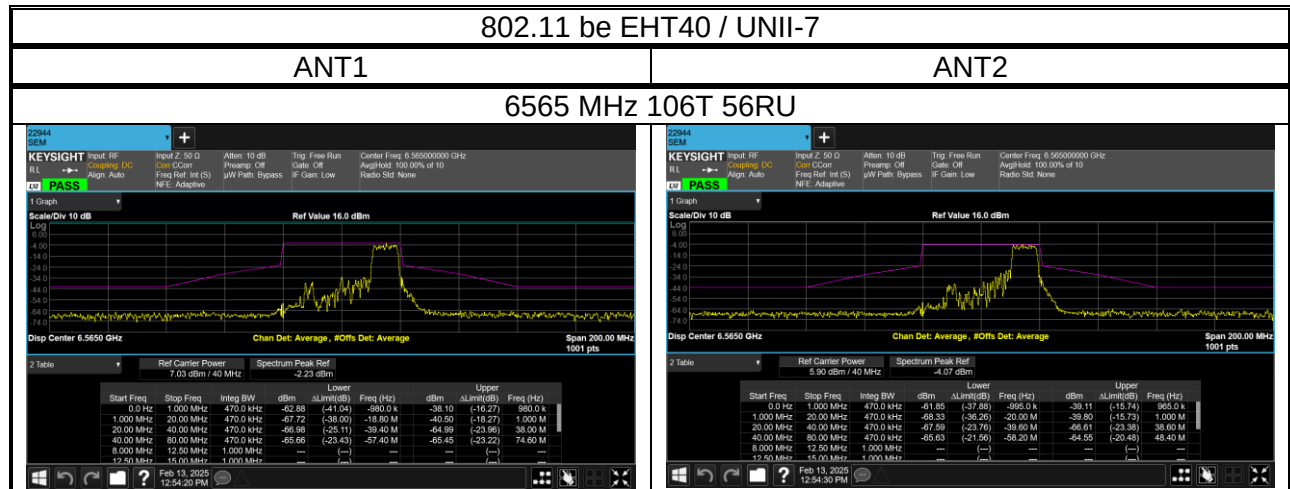


10.2.8. 802.11 be EHT40 RU MODE (WORST CASE)

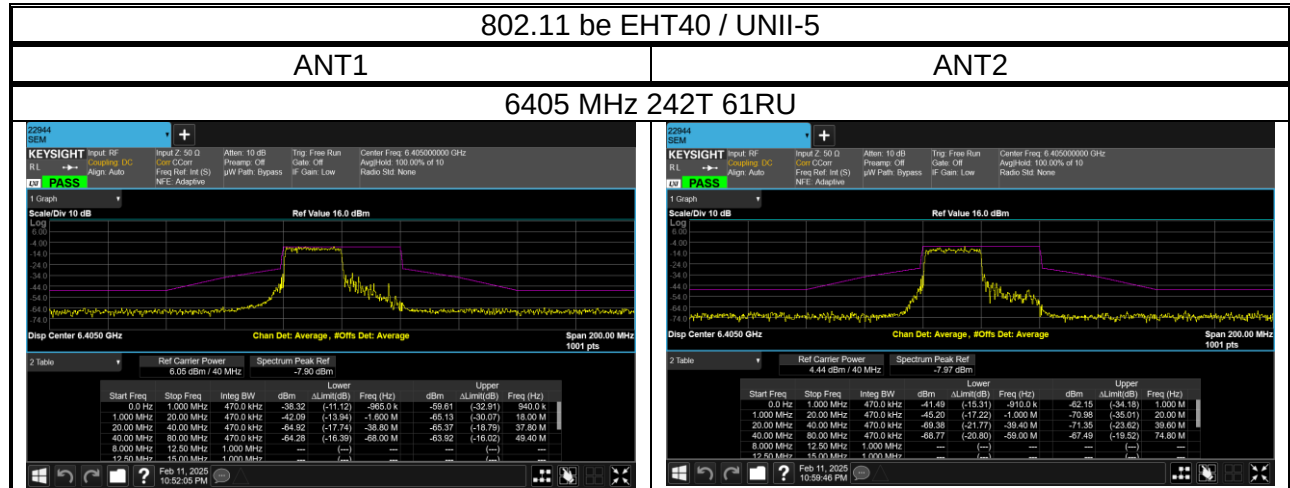
- SP



- LPI

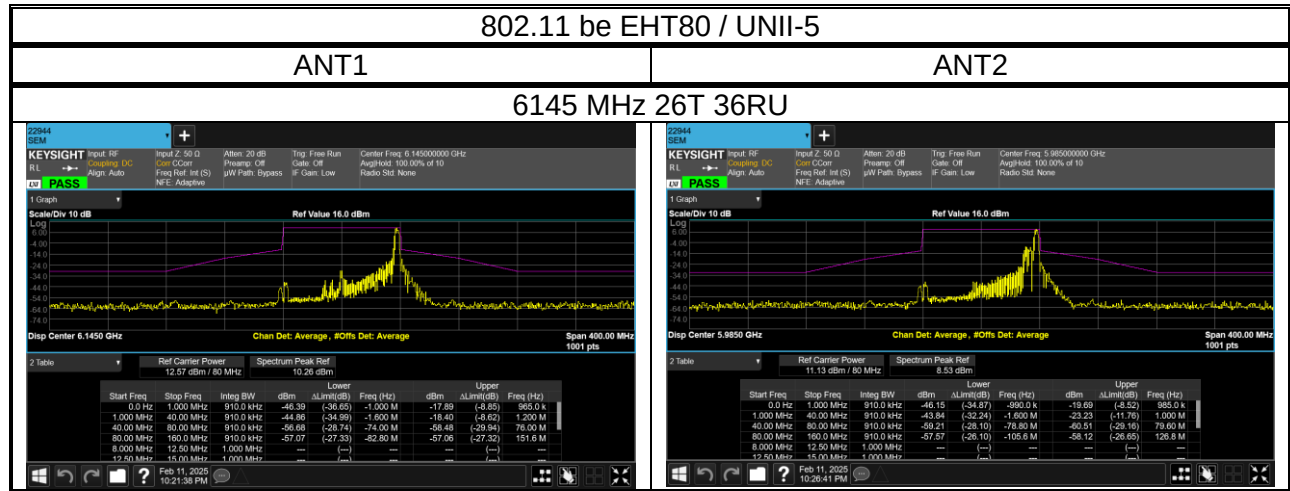


- VLP

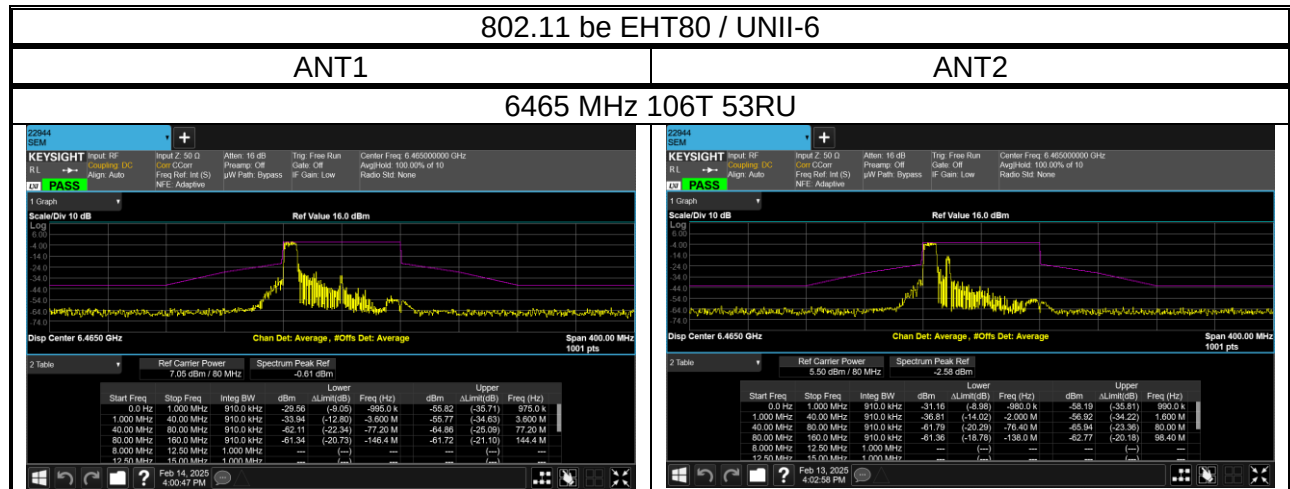


10.2.9. 802.11 be EHT80 RU MODE (WORST CASE)

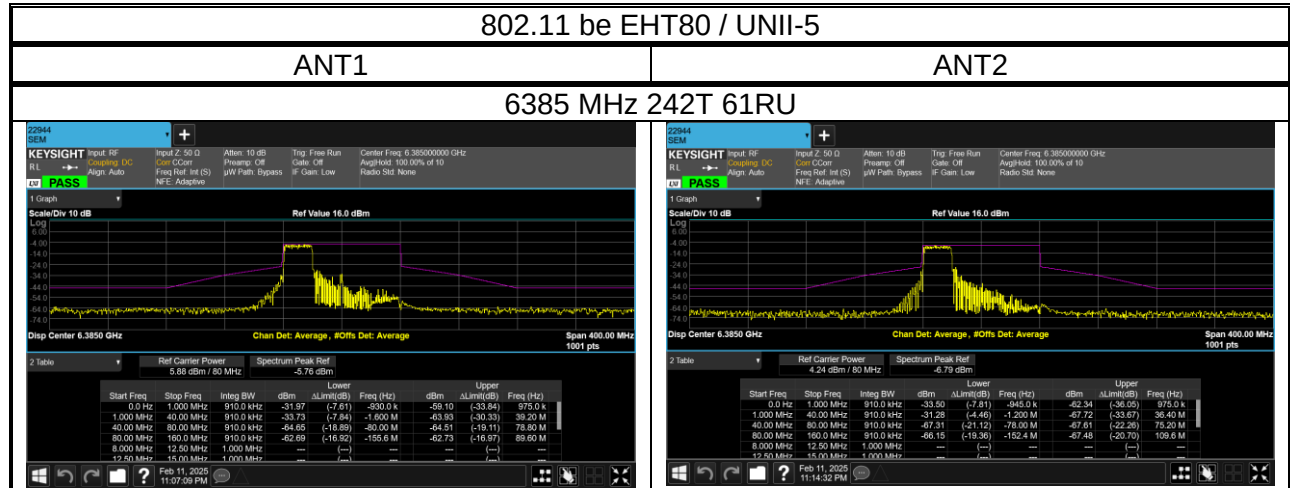
- SP



- LPI

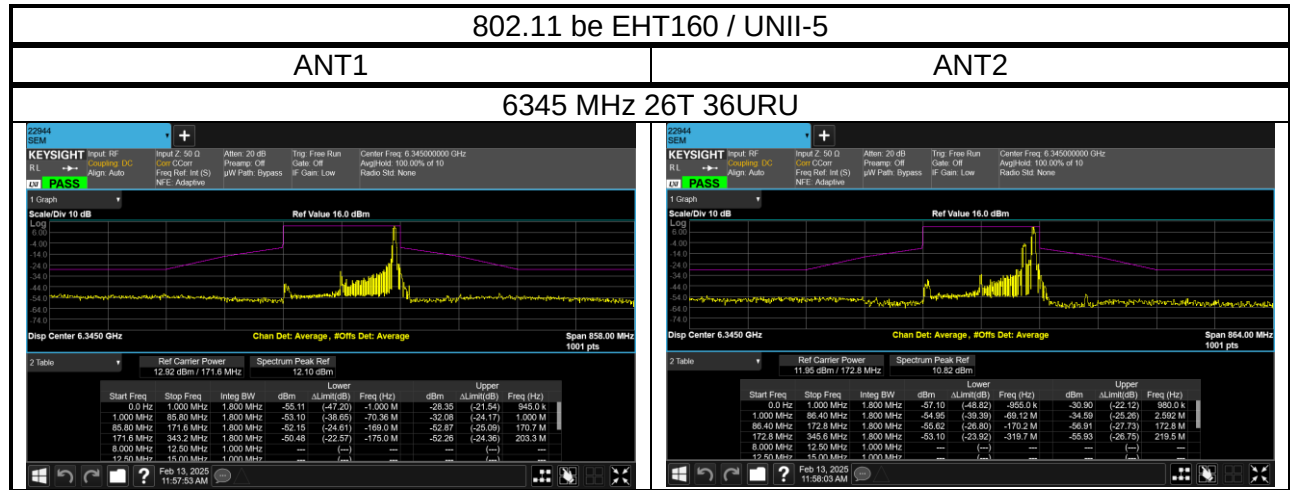


- VLP

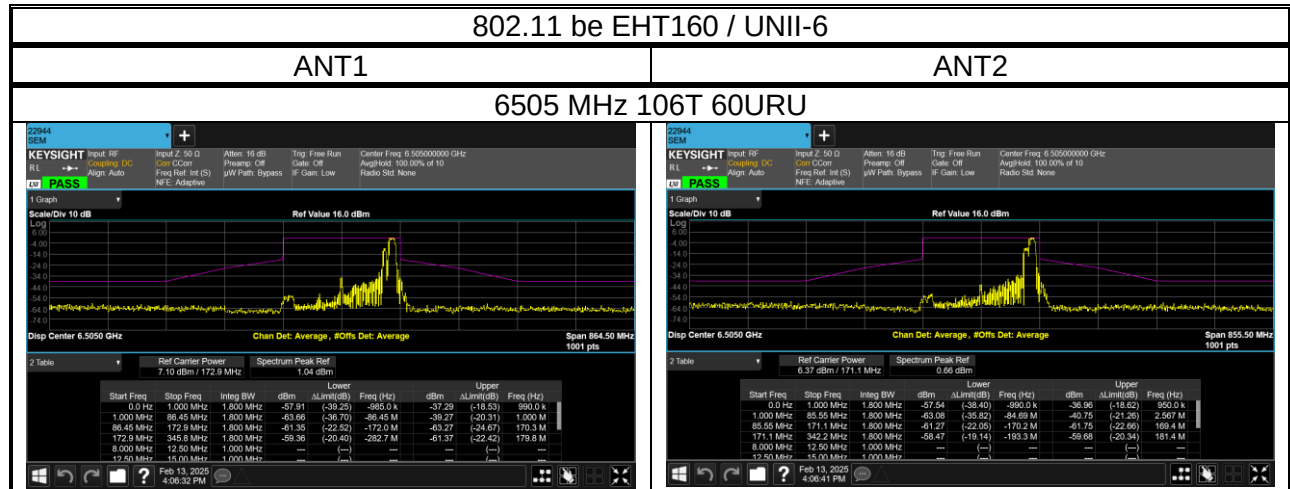


10.2.10. 802.11 be EHT160 RU MODE (WORST CASE)

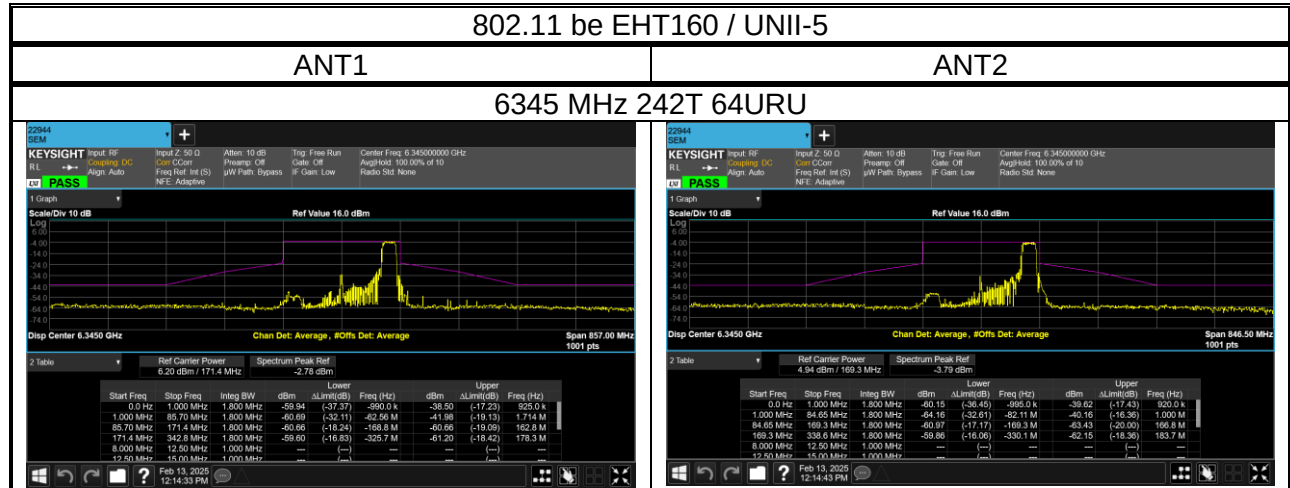
- SP



- LPI

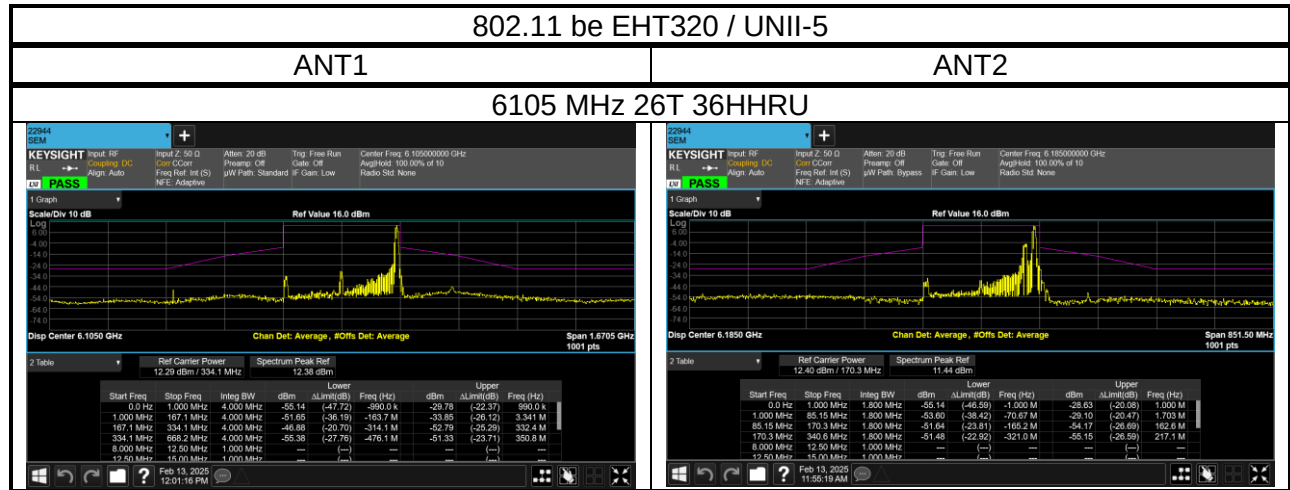


- VLP

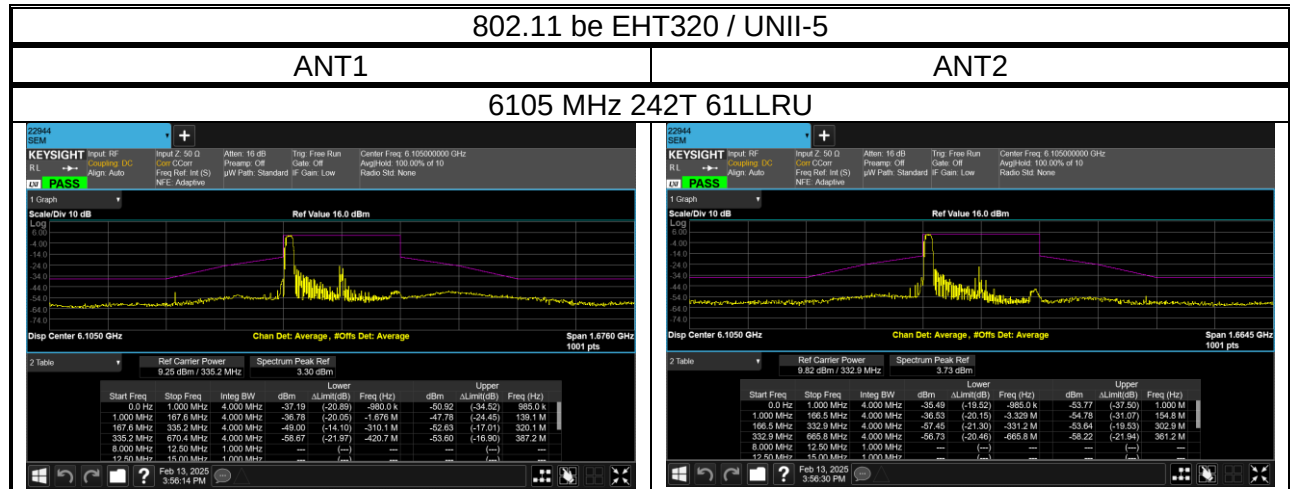


10.2.11. 802.11 be EHT320 RU MODE (WORST CASE)

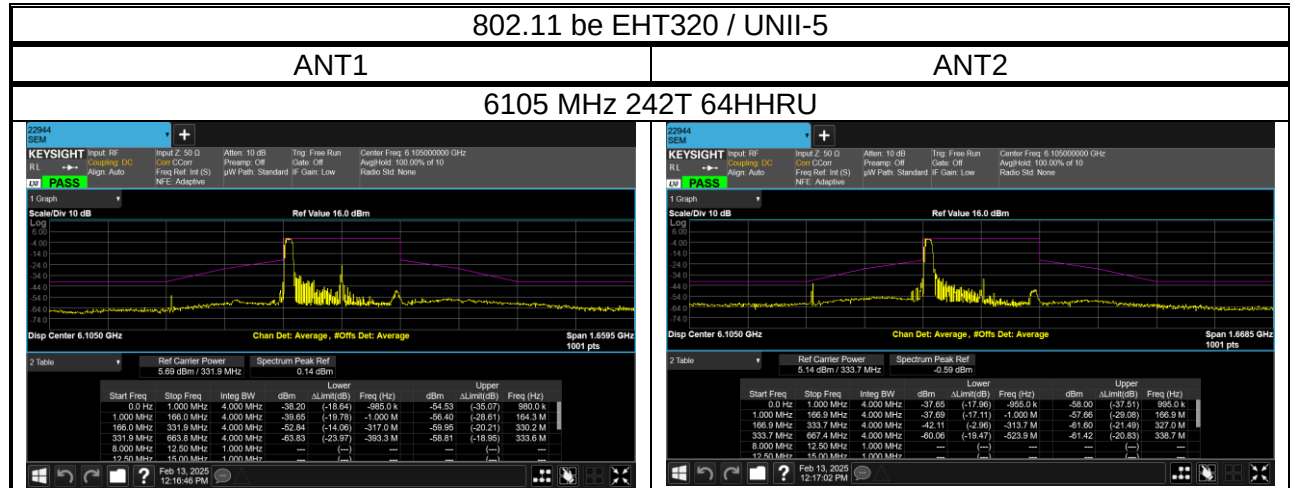
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- LPI

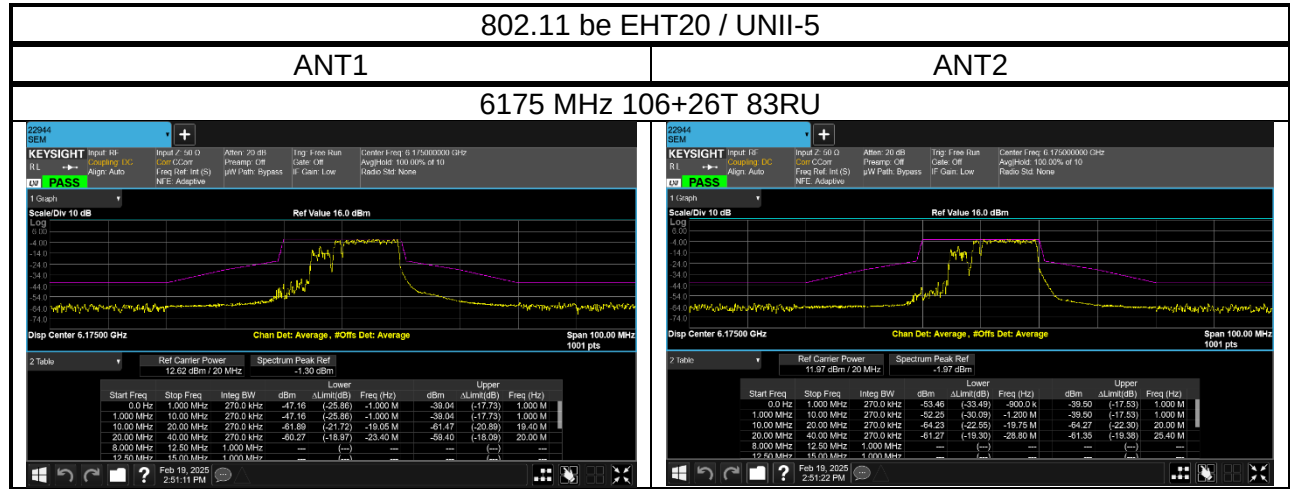


- VLP

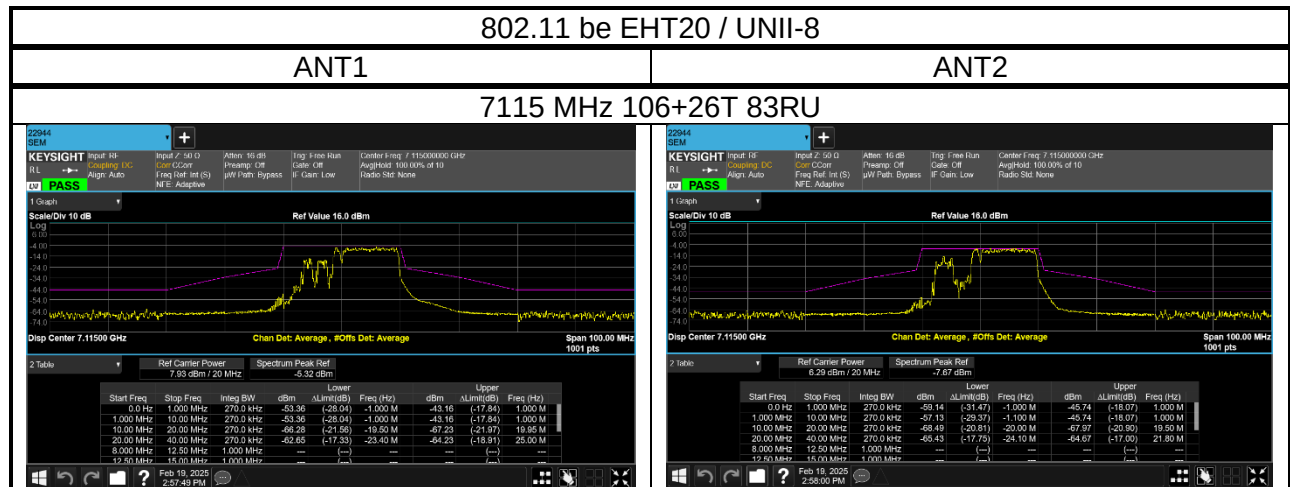


10.2.12. 802.11 be EHT20 MRU & PUNCTURE MODE (WORST CASE)

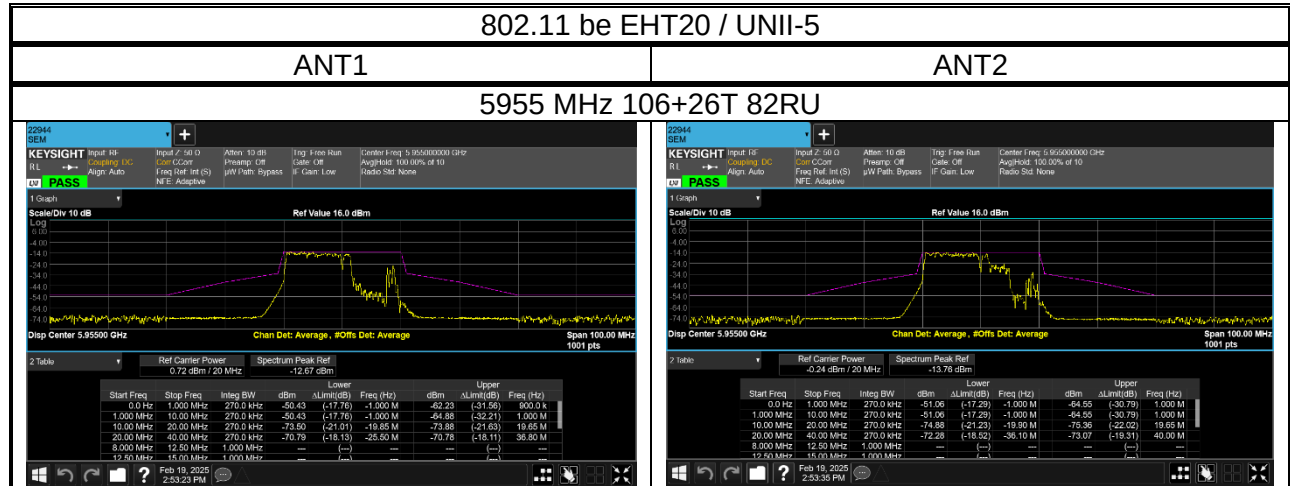
- SP



-LPI

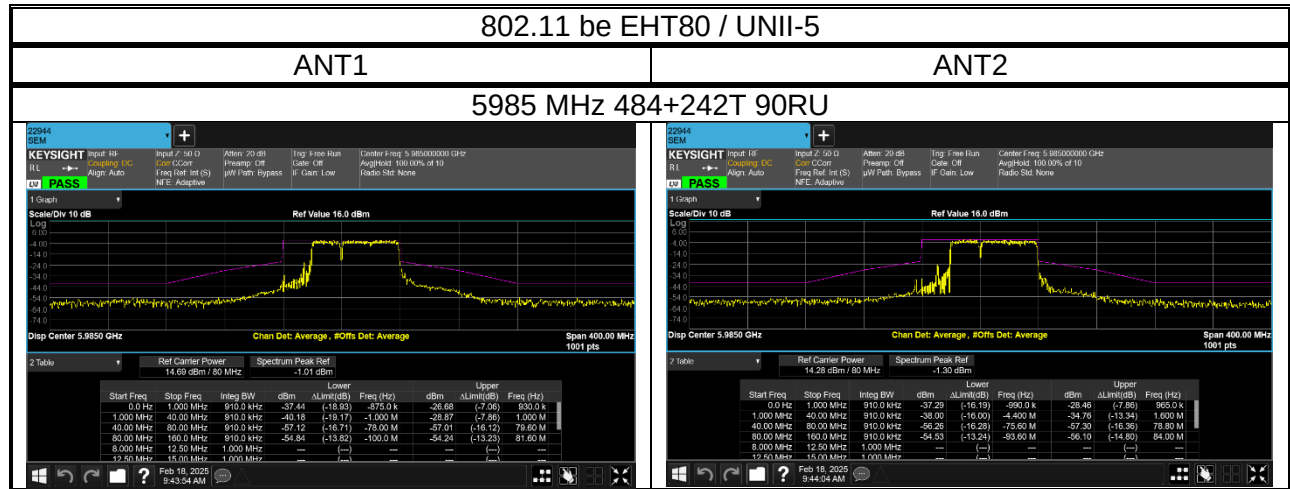


-VLP

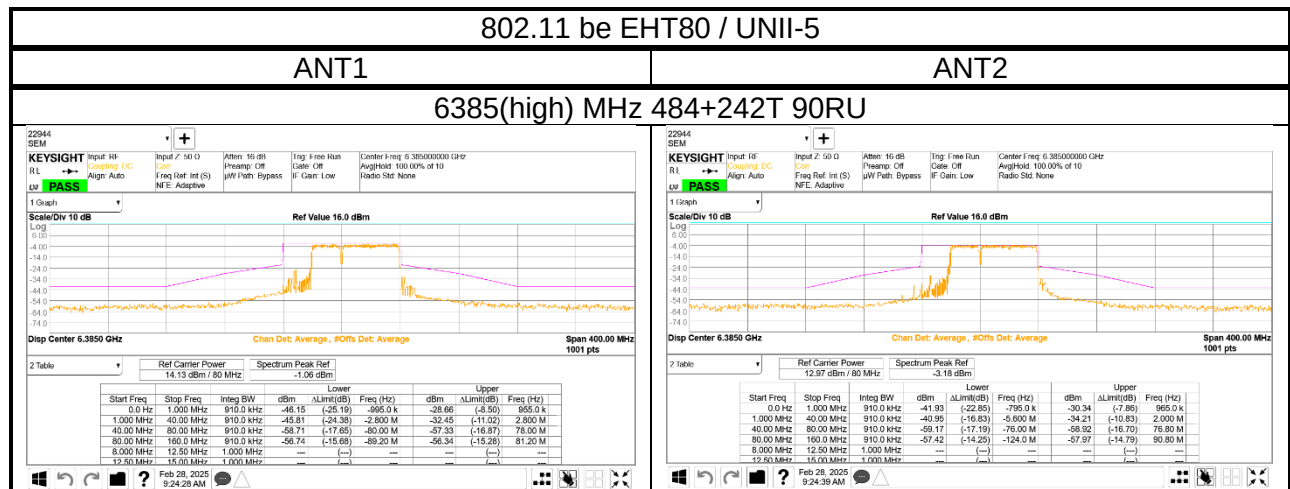


10.2.13. 802.11 be EHT80 MRU & PUNCTURE MODE (WORST CASE)

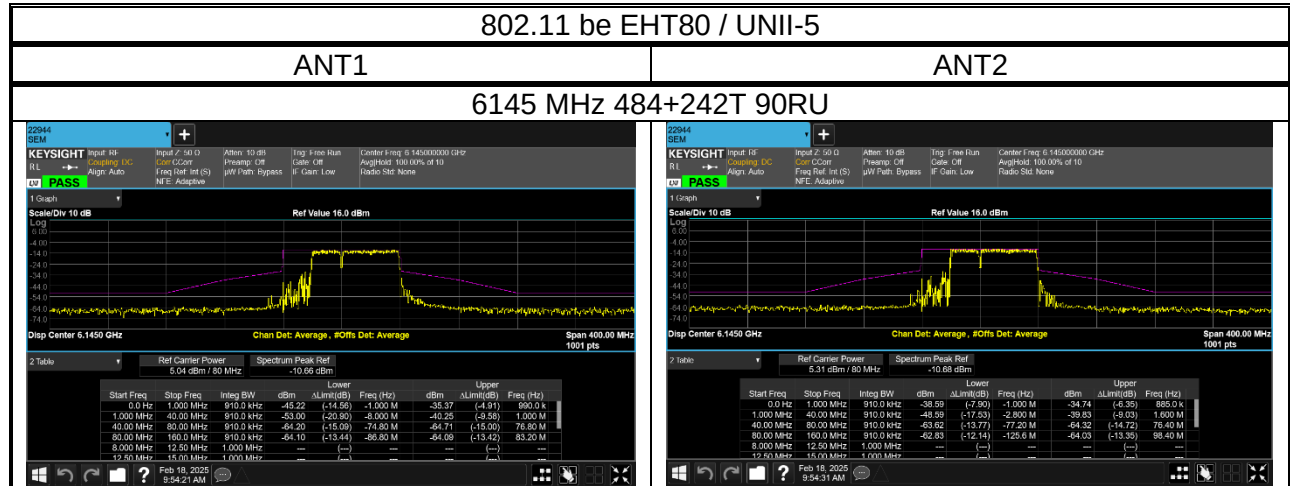
- SP



- LPI

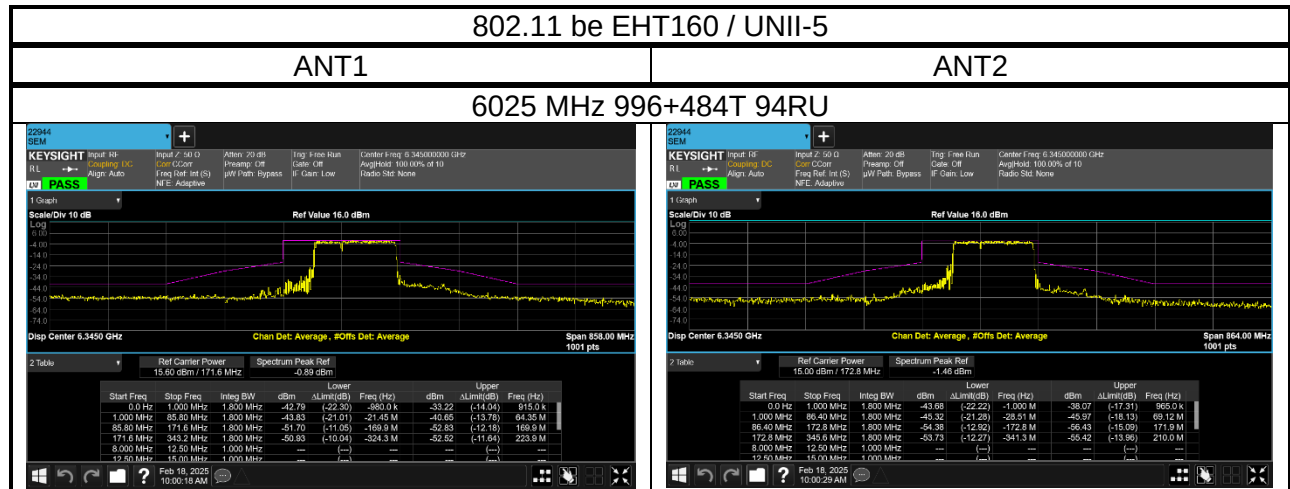


- VLP

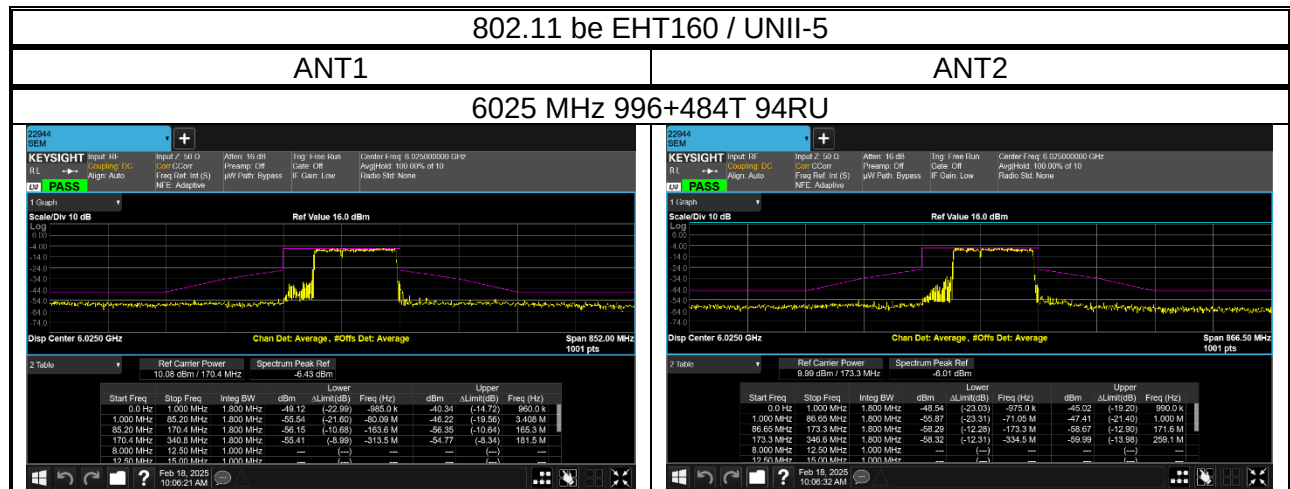


10.2.14. 802.11 be EHT160 MRU & CHANNEL PUNCTURE MODE (WORST CASE)

- SP

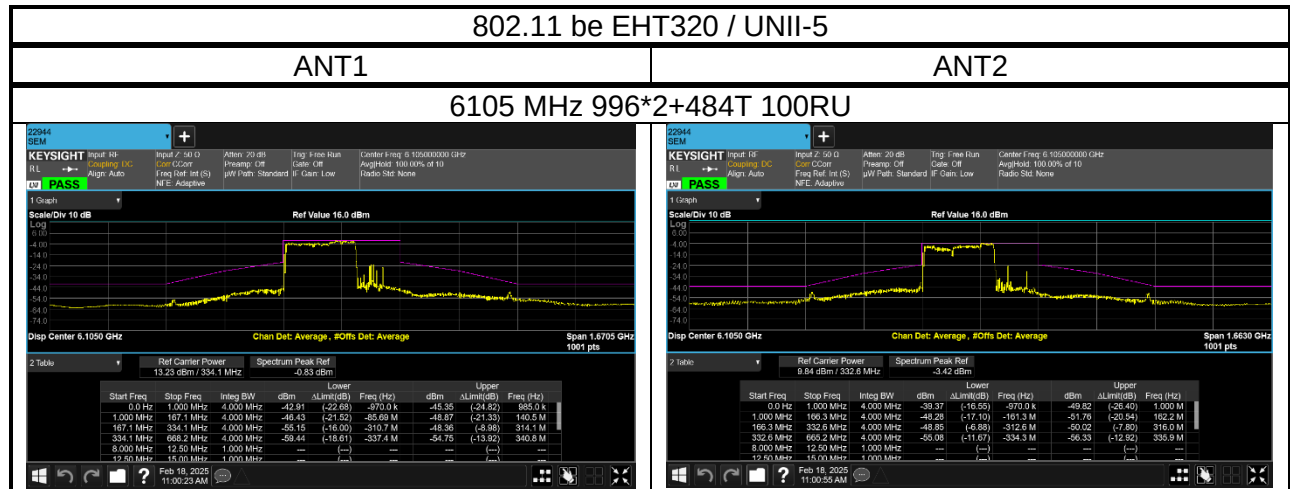


- LPI

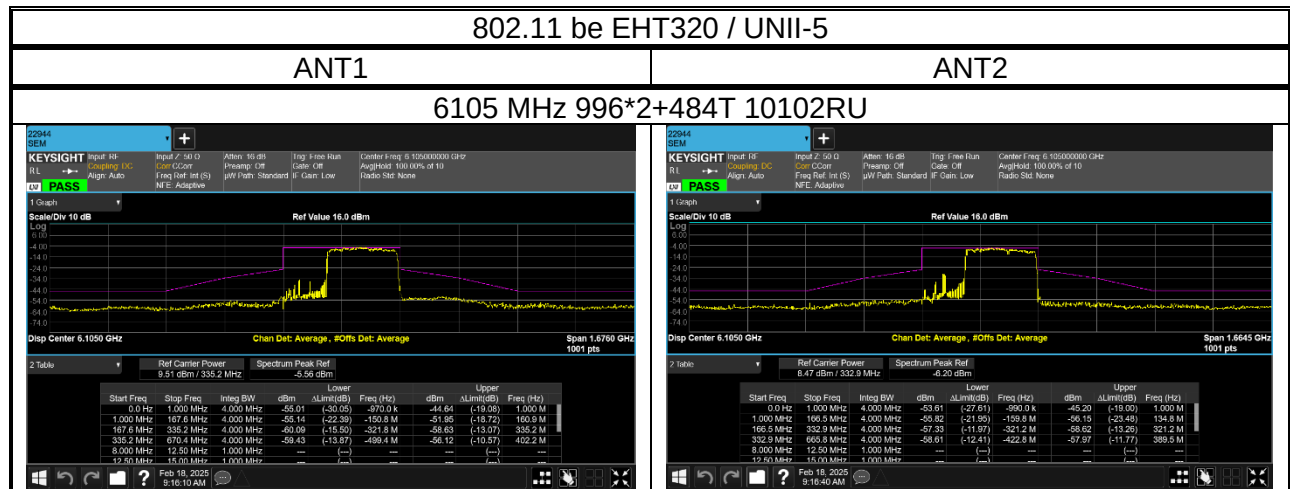


10.2.15. 802.11 be EHT320 MRU & CHANNEL PUNCTURE MODE (WORST CASE)

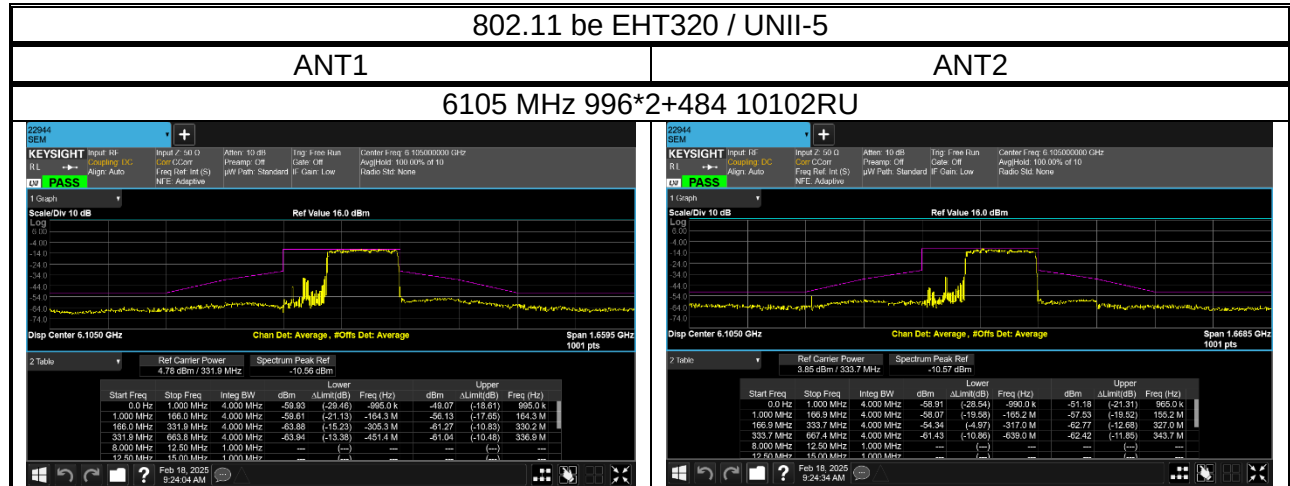
- SP



- LPI



- VLP



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)

(6) For transmitters operating within the 5.925-7.125 GHz band: Any emissions outside of the 5.925-7.125 GHz band must not exceed an e.i.r.p. of -27 dBm/MHz.

(8) 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.

(9) 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.

(10) The provisions of §15.205 apply to intentional radiators operating under this section.

(11) 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)

$$E[\text{dBuV/m}] = \text{EIRP}[\text{dBm}] + 95.2 = -27\text{dBm} + 95.2 = 68.2\text{dBuV/m}$$

TEST PROCEDURE

The EUT is placed on a non-conducting table 80 cm above the ground plane for below 1GHz and 150 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.

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.

Radiated harmonics spurious 1~18 GHz Low/Mid/High channels,18-40GHz were performed with the EUT set at the 2TX MIMO mode.

(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.

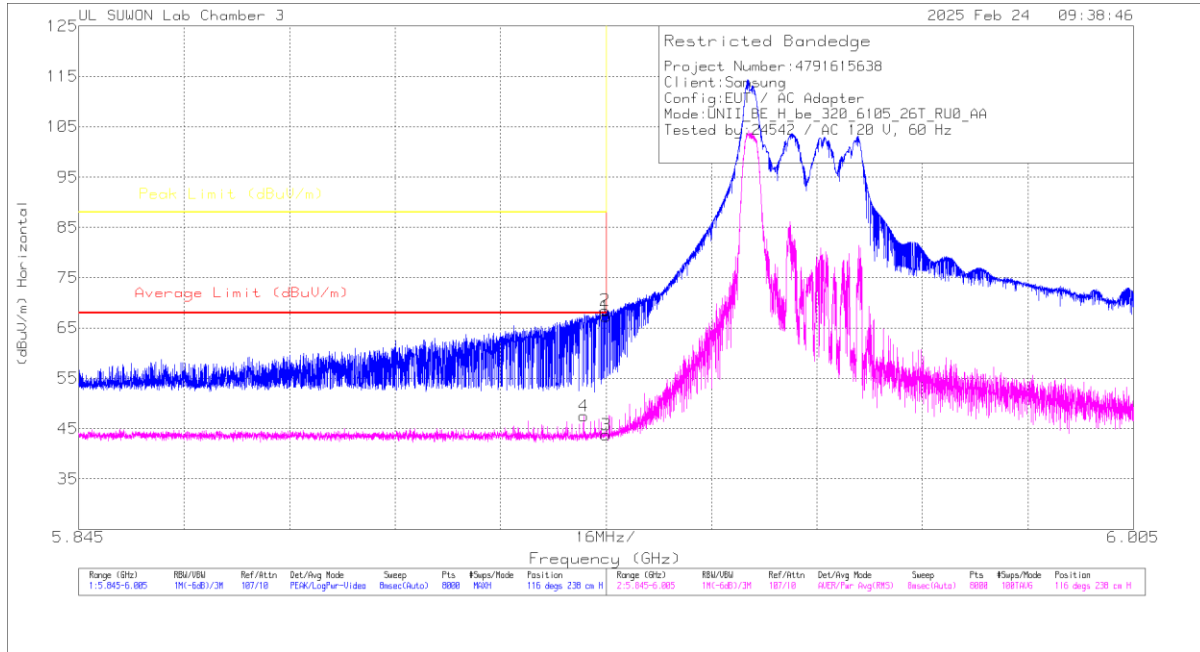
Although these tests were performed other than open field test site, adequate comparison measurements were confirmed against 30 m open are test site.

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.

11.1. TX ABOVE 1GHz 2Tx MODE IN U-NII-5 BAND

BANDEDGE (WORST CASE: 802.11be EHT320 / 6105 MHz / 26T / 0RU)

HORIZONTAL PEAK AND AVERAGE DATA



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	Antenna_Factor (dBm)	10dB_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	5.92499	51.24	PK	35.5	-19.4	0	67.34	-	-	88	-20.66	116	238	H
2	5.92487	52.41	PK	35.5	-19.4	0	68.51	-	-	88	-19.49	116	238	H
3	5.92499	27.63	RMS	35.5	-19.4	0	43.73	68	-24.27	-	-	116	238	H
4	5.92161	31.31	RMS	35.5	-19.3	0	47.51	68	-20.49	-	-	116	238	H

PK - Peak detector
RMS - RMS detection

BANDEDGE TEST DATA

Mode	Freq. [MHz]	Antenna	Frequency [GHz]	Reading [dBuV]	Detector Mode	ANT Factor [dB/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	5955	MIMO	5.92499	36.21	Pk	35.50	-19.40	0.00	52.31	-	-	88.00	-35.69	119	115	H
			5.90125	39.34	Pk	35.40	-19.40	0.00	55.34	-	-	88.00	-32.66	119	115	H
			5.92499	26.28	RMS	35.50	-19.40	0.15	42.53	68.00	-25.47	-	-	119	115	H
			5.92033	27.73	RMS	35.50	-19.30	0.15	44.08	68.00	-23.92	-	-	119	115	H
			5.92499	36.37	Pk	35.50	-19.40	0.00	52.47	-	-	88.00	-35.53	84	100	V
			5.90259	39.72	Pk	35.40	-19.40	0.00	55.72	-	-	88.00	-32.28	84	100	V
			5.92499	26.77	RMS	35.50	-19.40	0.15	43.02	68.00	-24.98	-	-	84	100	V
			5.90859	27.66	RMS	35.40	-19.40	0.15	43.81	68.00	-24.19	-	-	84	100	V
802.11be EHT20 SU mode	5955	MIMO	5.92499	36.73	Pk	35.50	-19.40	0.00	52.83	-	-	88.00	-35.17	117	238	H
			5.91899	38.73	Pk	35.50	-19.40	0.00	54.83	-	-	88.00	-33.17	117	238	H
			5.92499	27.01	RMS	35.50	-19.40	0.00	43.11	68.00	-24.89	-	-	117	238	H
			5.92265	27.24	RMS	35.50	-19.30	0.00	43.44	68.00	-24.56	-	-	117	238	H
			5.92499	35.66	Pk	35.50	-19.40	0.00	51.76	-	-	88.00	-36.24	89	116	V
			5.91039	39.52	Pk	35.40	-19.40	0.00	55.52	-	-	88.00	-32.48	89	116	V
			5.92499	26.16	RMS	35.50	-19.40	0.00	42.26	68.00	-25.74	-	-	89	116	V
			5.89863	27.47	RMS	35.40	-19.40	0.00	43.47	68.00	-24.53	-	-	89	116	V
802.11be EHT40 SU mode	5965	MIMO	5.92499	38.65	Pk	35.50	-19.40	0.00	54.75	-	-	88.00	-33.25	117	237	H
			5.92217	40.92	Pk	35.50	-19.30	0.00	57.12	-	-	88.00	-30.88	117	237	H
			5.92499	28.50	RMS	35.50	-19.40	0.00	44.60	68.00	-23.40	-	-	117	237	H
			5.92447	29.11	RMS	35.50	-19.30	0.00	45.31	68.00	-22.69	-	-	117	237	H
			5.92499	39.14	Pk	35.50	-19.40	0.00	55.24	-	-	88.00	-32.76	89	116	V
			5.91947	40.47	Pk	35.50	-19.40	0.00	56.57	-	-	88.00	-31.43	89	116	V
			5.92499	27.97	RMS	35.50	-19.40	0.00	44.07	68.00	-23.93	-	-	89	116	V
			5.92331	28.50	RMS	35.50	-19.30	0.00	44.70	68.00	-23.30	-	-	89	116	V
802.11be EHT80 SU mode	5985	MIMO	5.92499	37.52	Pk	35.50	-19.40	0.00	53.62	-	-	88.00	-34.38	117	238	H
			5.92205	40.95	Pk	35.50	-19.30	0.00	57.15	-	-	88.00	-30.85	117	238	H
			5.92499	28.82	RMS	35.50	-19.40	0.00	44.92	68.00	-23.08	-	-	117	238	H
			5.92275	29.03	RMS	35.50	-19.30	0.00	45.23	68.00	-22.77	-	-	117	238	H
			5.92499	37.26	Pk	35.50	-19.40	0.00	53.36	-	-	88.00	-34.64	88	116	V
			5.92399	39.63	Pk	35.50	-19.30	0.00	55.83	-	-	88.00	-32.17	88	116	V
			5.92499	27.88	RMS	35.50	-19.40	0.00	43.98	68.00	-24.02	-	-	88	116	V
			5.92371	28.72	RMS	35.50	-19.30	0.00	44.92	68.00	-23.08	-	-	88	116	V
802.11be EHT160 SU mode	6025	MIMO	5.92499	43.08	Pk	35.50	-19.40	0.00	59.18	-	-	88.00	-28.82	117	238	H
			5.92483	45.40	Pk	35.50	-19.40	0.00	61.50	-	-	88.00	-26.50	117	238	H
			5.92499	26.67	RMS	35.50	-19.40	0.00	44.77	68.00	-23.23	-	-	117	238	H
			5.89859	29.39	RMS	35.40	-19.40	0.00	45.39	68.00	-22.61	-	-	117	238	H
			5.92499	40.00	Pk	35.50	-19.40	0.00	56.10	-	-	88.00	-31.90	88	116	V
			5.92469	42.36	Pk	35.50	-19.40	0.00	58.46	-	-	88.00	-29.54	88	116	V
			5.92499	27.42	RMS	35.50	-19.40	0.00	43.52	68.00	-24.48	-	-	88	116	V
			5.89597	28.45	RMS	35.40	-19.40	0.00	44.45	68.00	-23.55	-	-	88	116	V
802.11be EHT320 SU mode (SU Worst case)	6105	MIMO	5.92499	38.64	Pk	35.50	-19.40	0.00	54.74	-	-	88.00	-33.26	116	238	H
			5.91377	42.67	Pk	35.50	-19.30	0.00	58.87	-	-	88.00	-29.13	116	238	H
			5.92499	29.30	RMS	35.50	-19.40	0.00	45.40	68.00	-22.60	-	-	116	238	H
			5.85398	30.73	RMS	35.20	-19.40	0.00	46.53	68.00	-21.47	-	-	116	238	H
			5.92499	38.62	Pk	35.50	-19.40	0.00	54.72	-	-	88.00	-33.28	90	116	V
			5.91609	41.79	Pk	35.50	-19.40	0.00	57.89	-	-	88.00	-30.11	90	116	V
			5.92499	29.38	RMS	35.50	-19.40	0.00	45.48	68.00	-22.52	-	-	90	116	V
			5.87432	29.86	RMS	35.30	-19.50	0.00	45.66	68.00	-22.34	-	-	90	116	V
802.11be EHT320 RU mode 26T Tone offset 0 Spot-check	6105	MIMO	5.92499	51.24	Pk	35.50	-19.40	0.00	67.34	-	-	88.00	-20.66	116	238	H
			5.92487	52.41	Pk	35.50	-19.40	0.00	68.51	-	-	88.00	-19.49	116	238	H
			5.92499	27.63	RMS	35.50	-19.40	0.00	43.73	68.00	-24.27	-	-	116	238	H
			5.92161	31.31	RMS	35.50	-19.30	0.00	47.51	68.00	-20.49	-	-	116	238	H
			5.92499	50.43	Pk	35.50	-19.40	0.00	66.53	-	-	88.00	-21.47	90	116	V
			5.92487	52.09	Pk	35.50	-19.40	0.00	68.19	-	-	88.00	-19.81	90	116	V
			5.92499	27.74	RMS	35.50	-19.40	0.00	43.84	68.00	-24.16	-	-	90	116	V
			5.92331	31.10	RMS	35.50	-19.30	0.00	47.30	68.00	-20.70	-	-	90	116	V
802.11be EHT320 RU mode 2996+484 Tone offset 1101 Spot-check	6105	MIMO	5.92499	41.45	Pk	35.50	-19.40	0.00	57.55	-	-	88.00	-30.45	116	238	H
			5.85848	45.55	Pk	35.20	-19.40	0.00	61.35	-	-	88.00	-26.65	116	238	H
			5.92499	29.59	RMS	35.50	-19.40	0.00	45.69	68.00	-22.31	-	-	116	238	H
			5.90049	31.40	RMS	35.40	-19.40	0.00	47.40	68.00	-20.60	-	-	116	238	H
			5.92499	38.47	Pk	35.50	-19.40	0.00	54.57	-	-	88.00	-33.43	90	116	V
			5.87072	43.10	Pk	35.30	-19.40	0.00	59.00	-	-	88.00	-29.00	90	116	V
			5.92499	28.55	RMS	35.50	-19.40	0.00	44.65	68.00	-23.35	-	-	90	116	V
			5.92457	30.02	RMS	35.50	-19.30	0.00	46.22	68.00	-21.78	-	-	90	116	V

Note1. Pk - Peak detector, RMS - RMS detector

Note2. * - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band