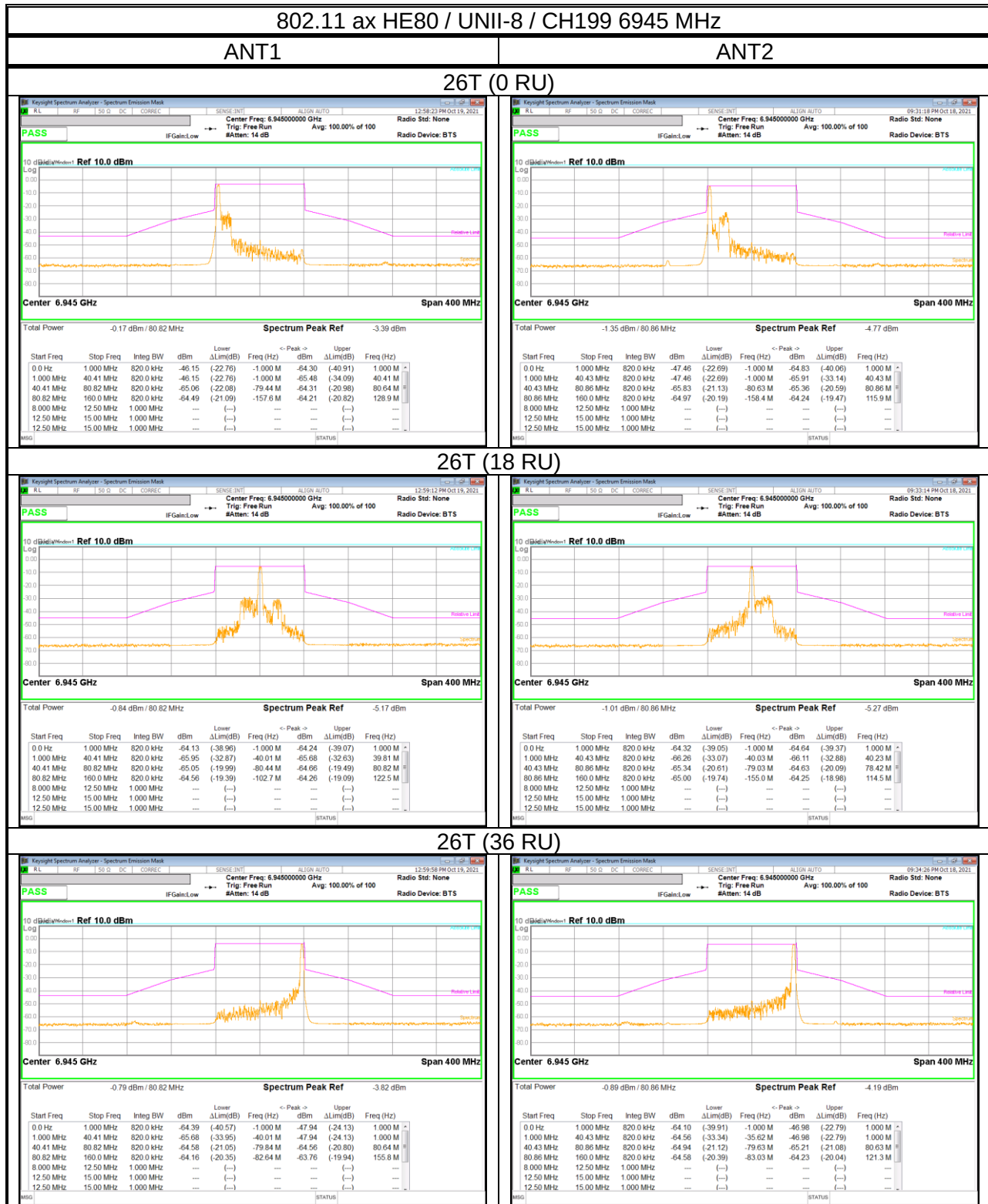
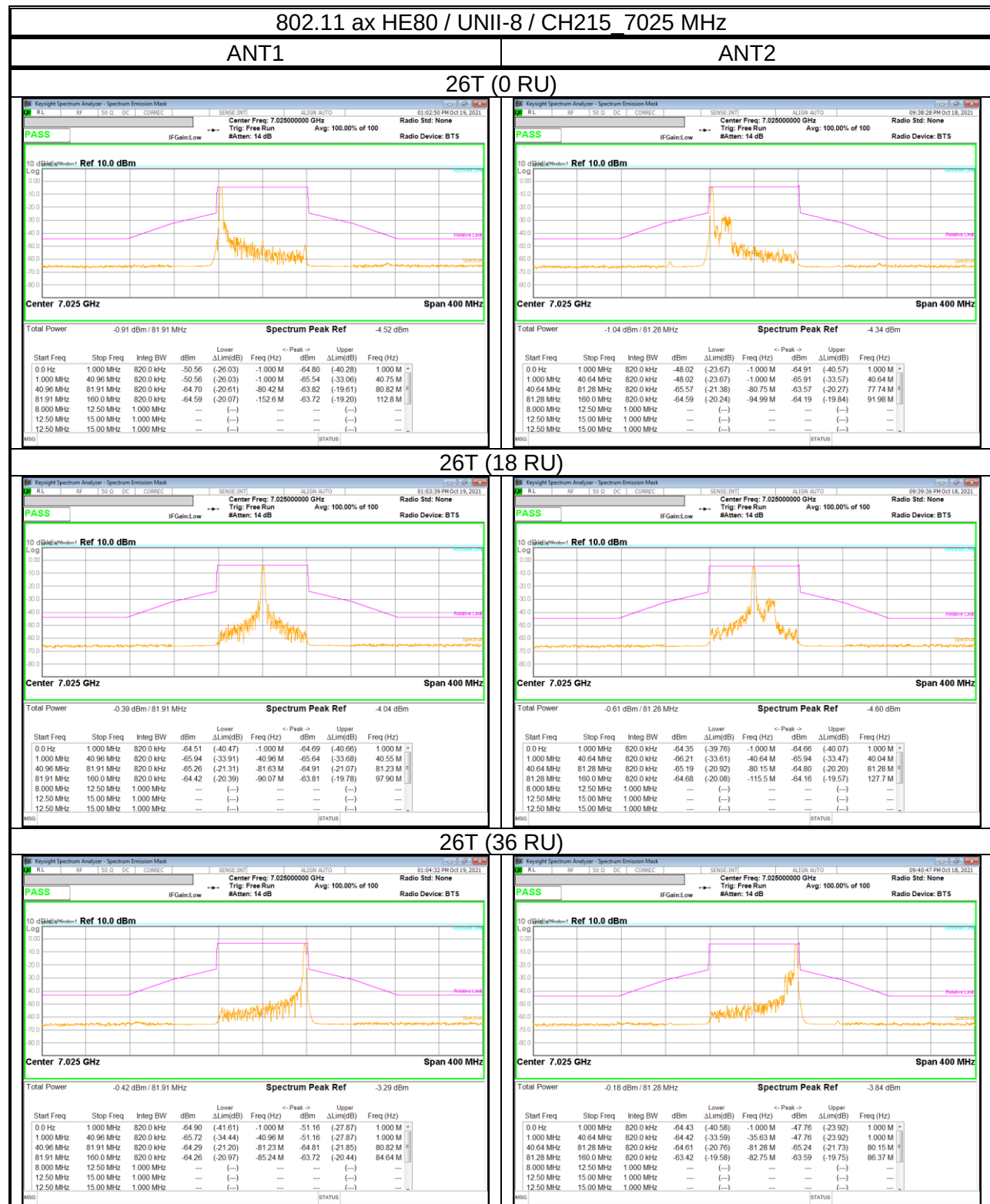
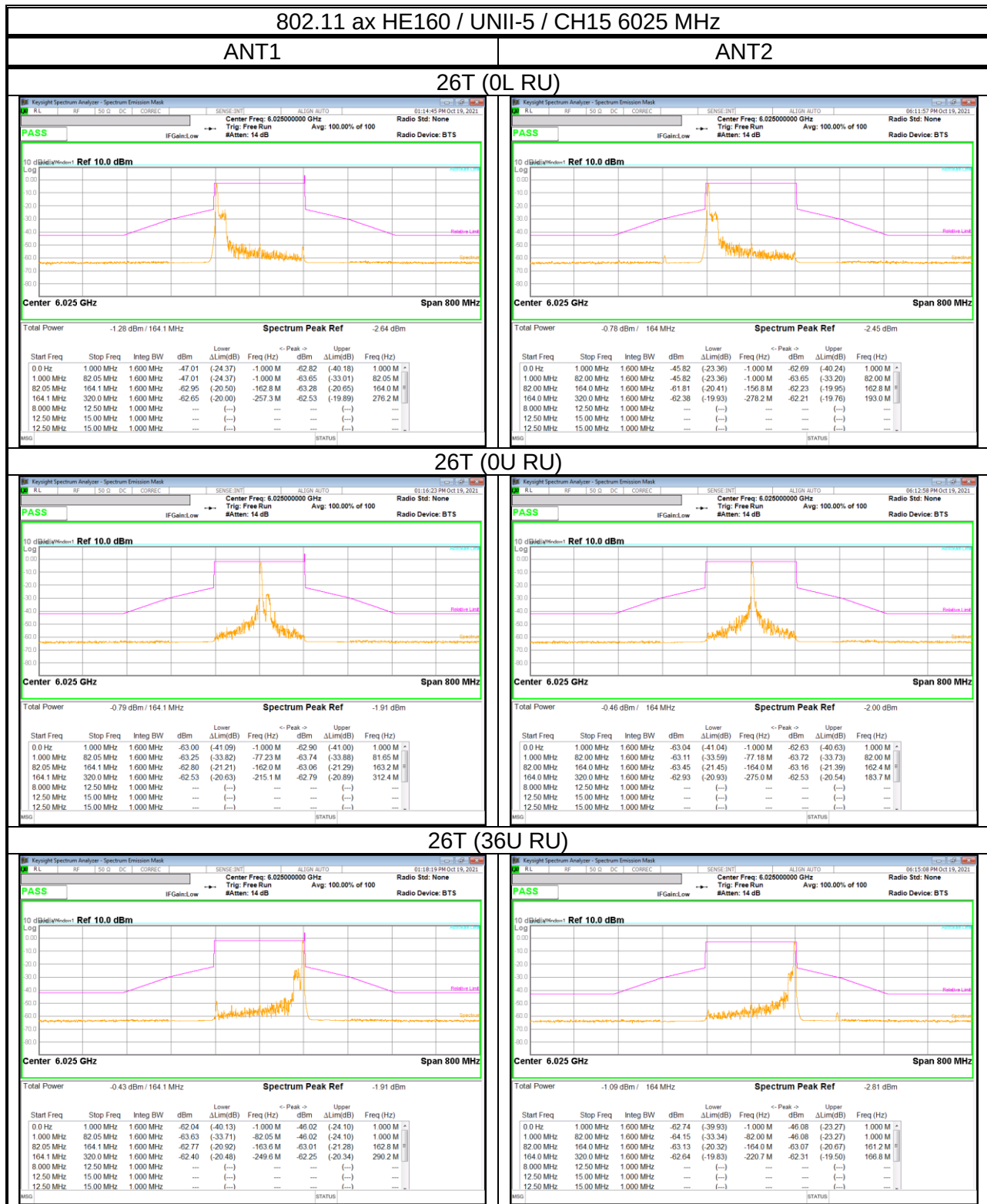
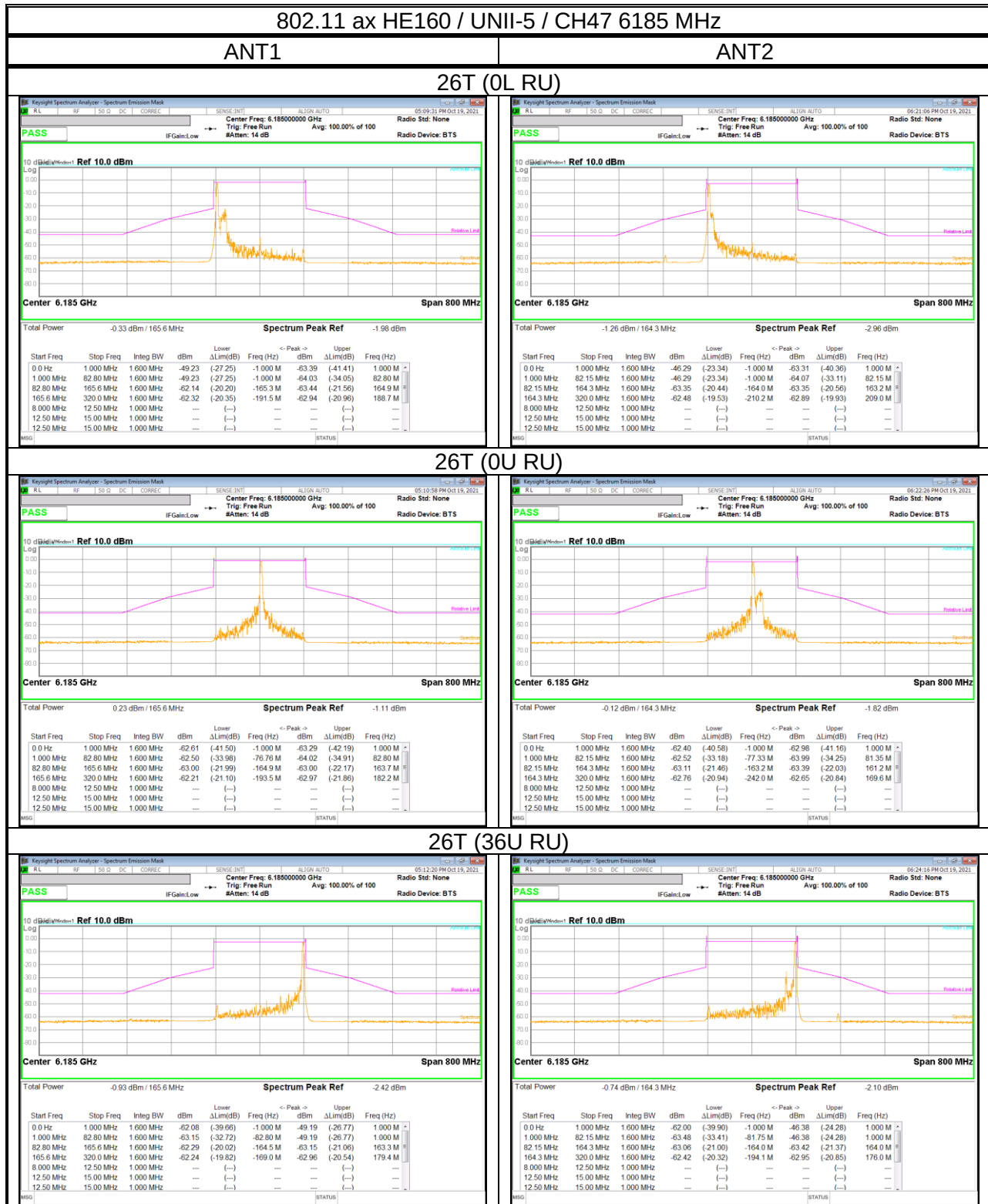


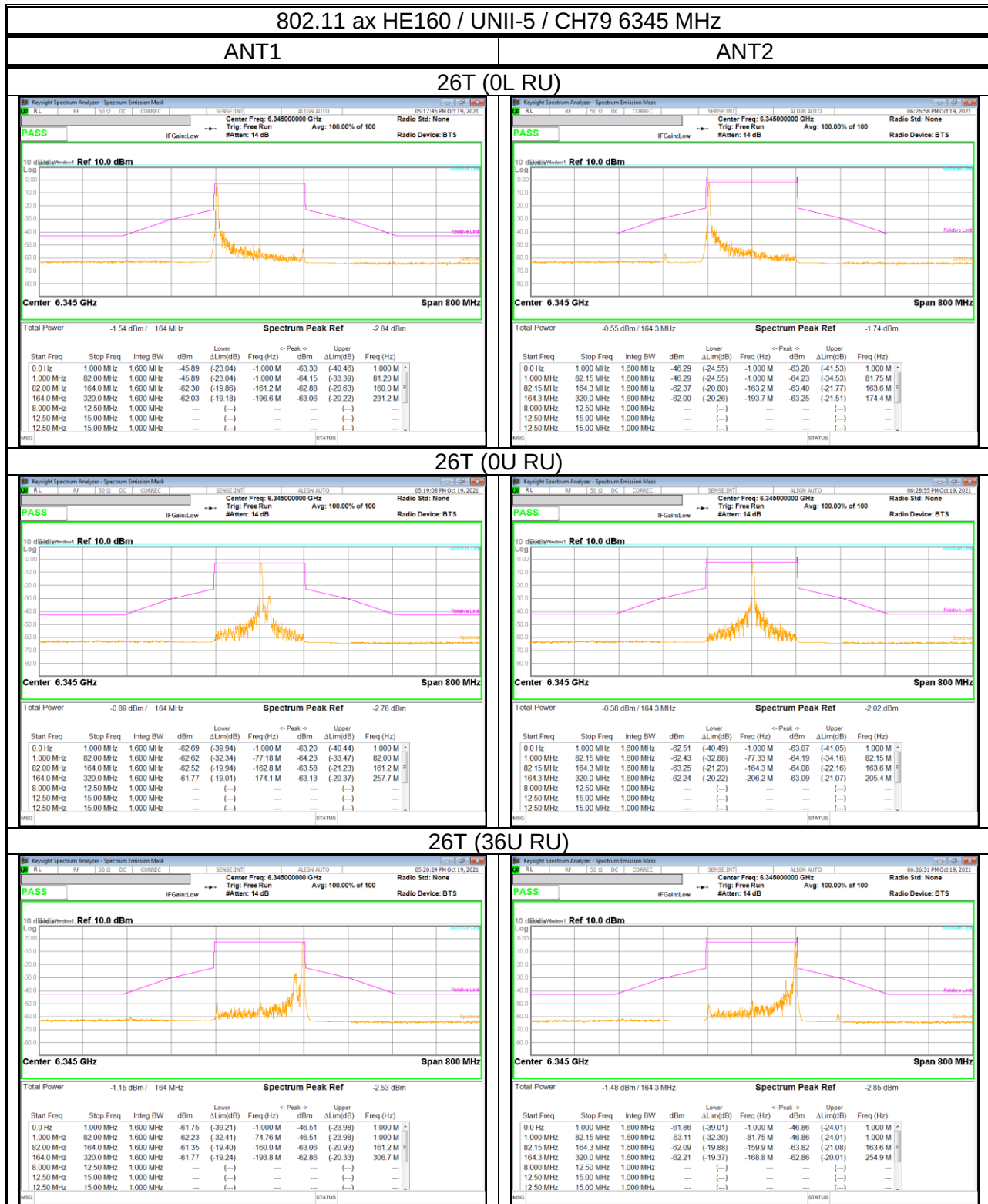


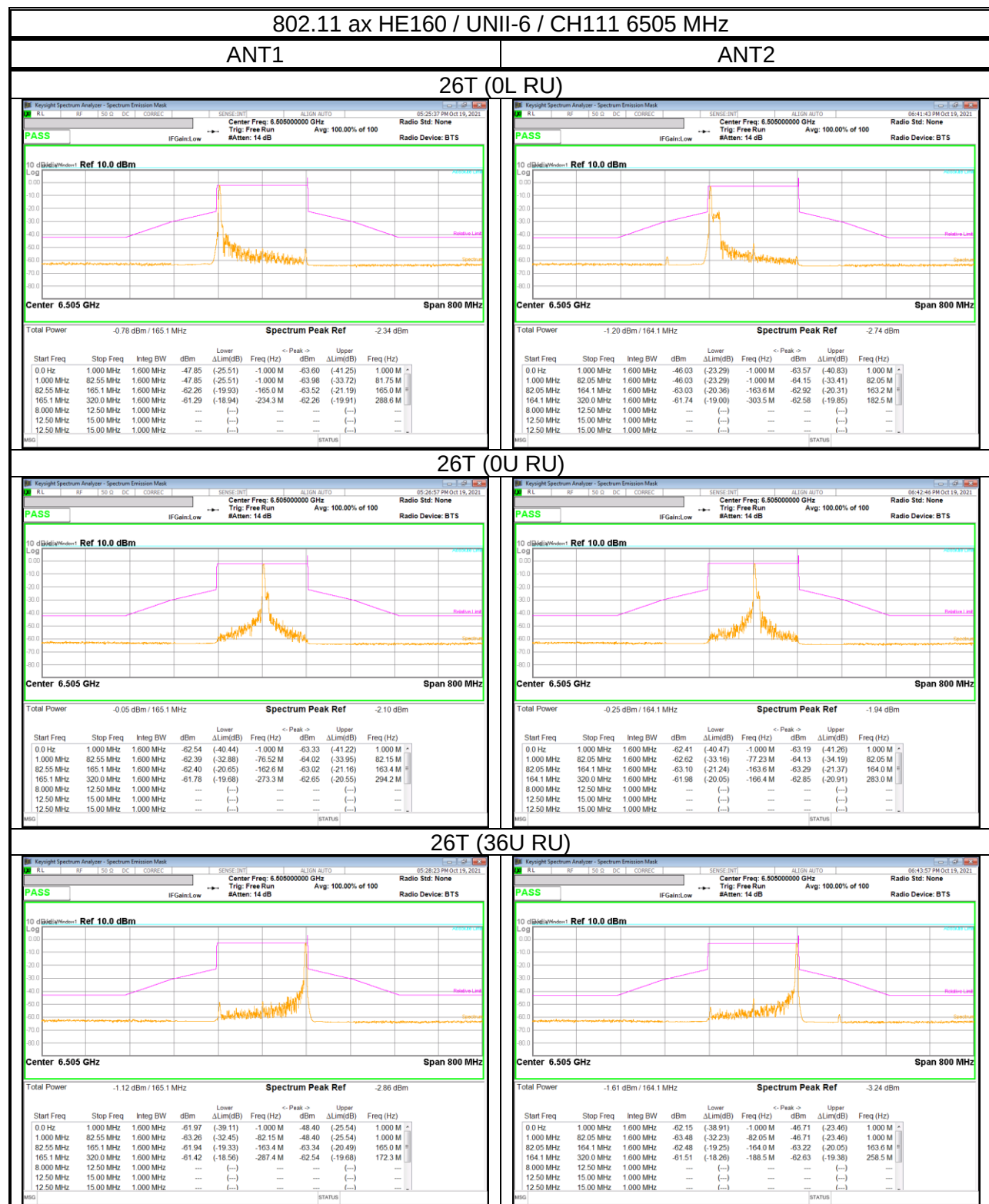


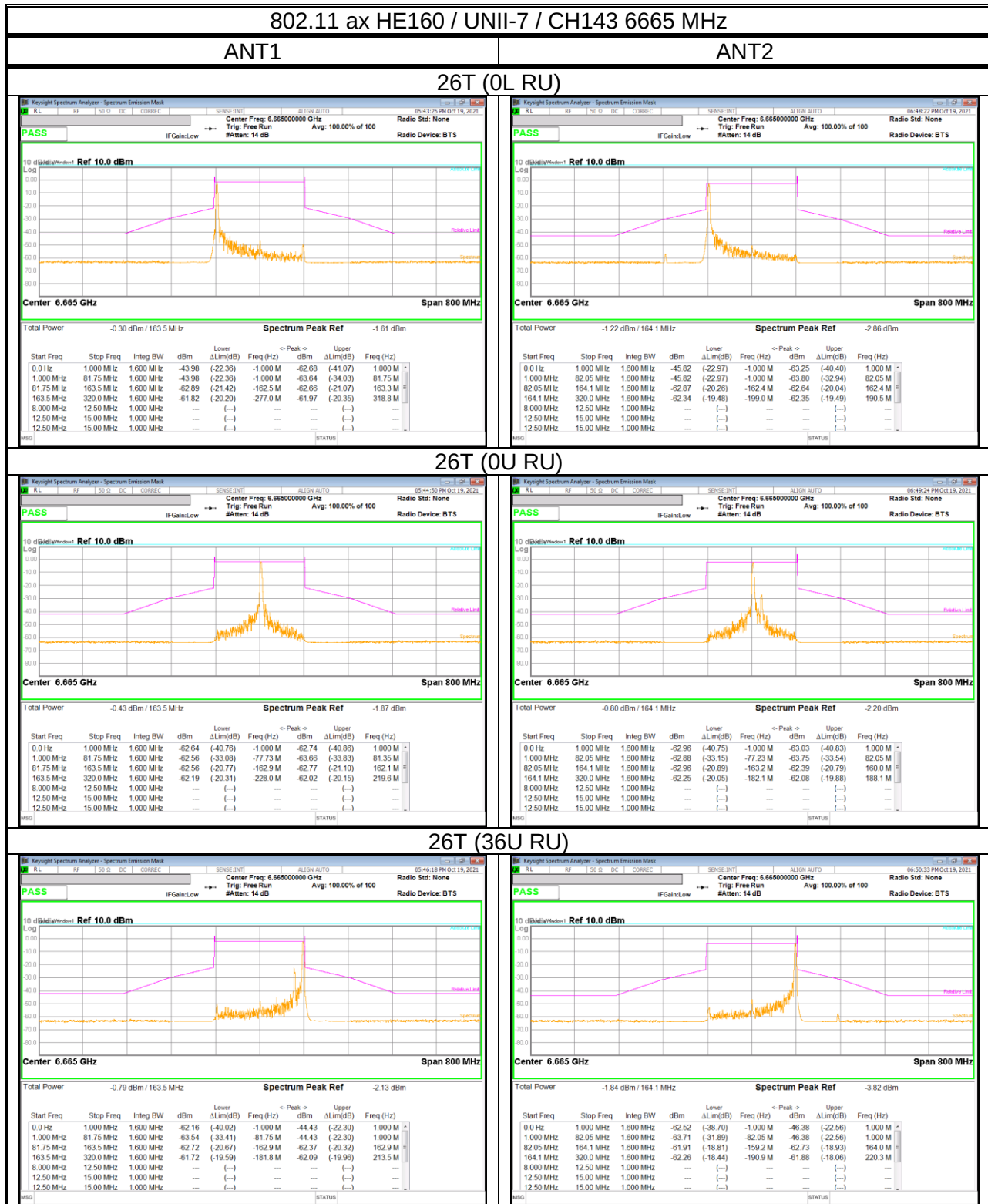
10.2.9. 802.11 ax HE160 RU MODE

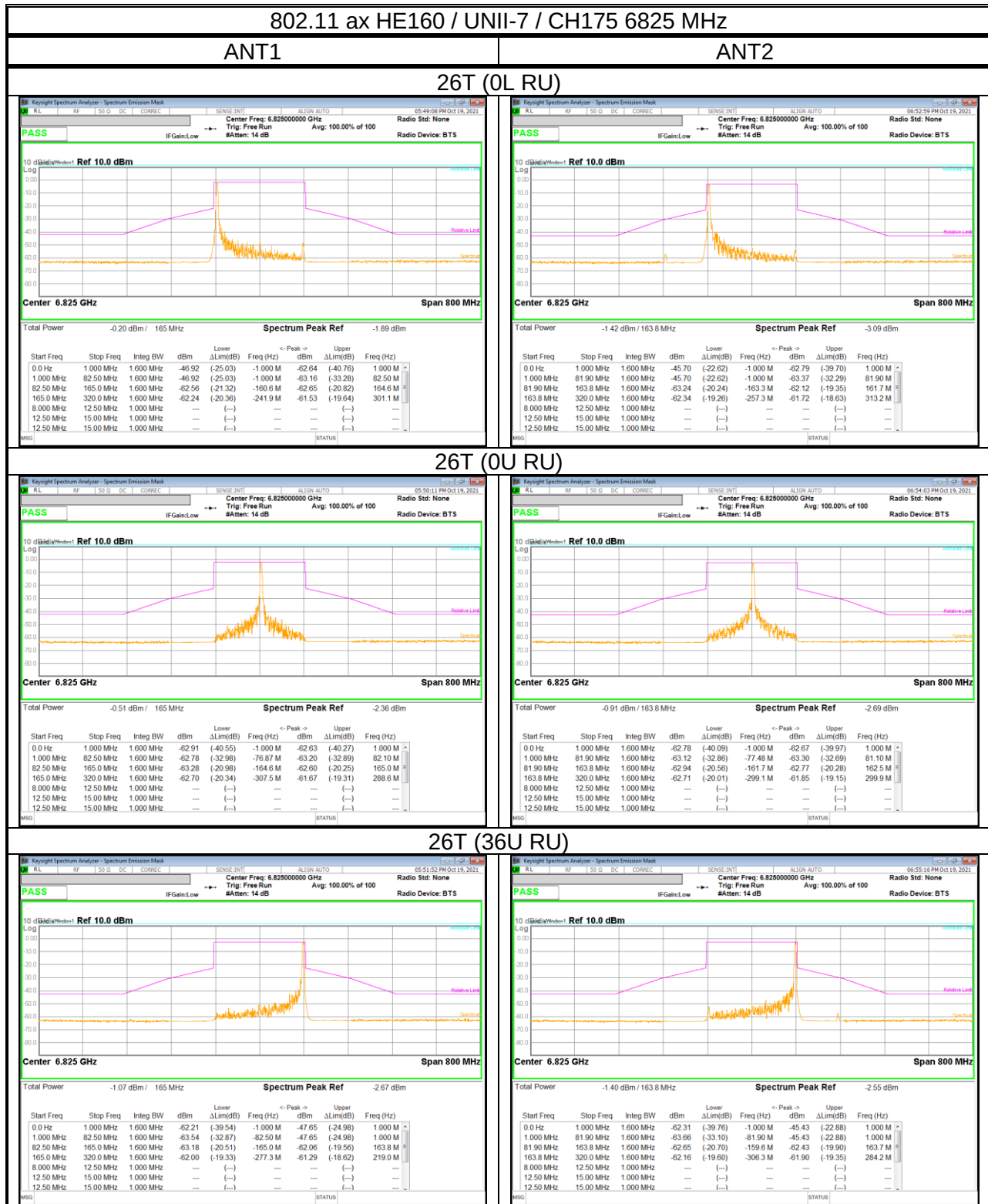


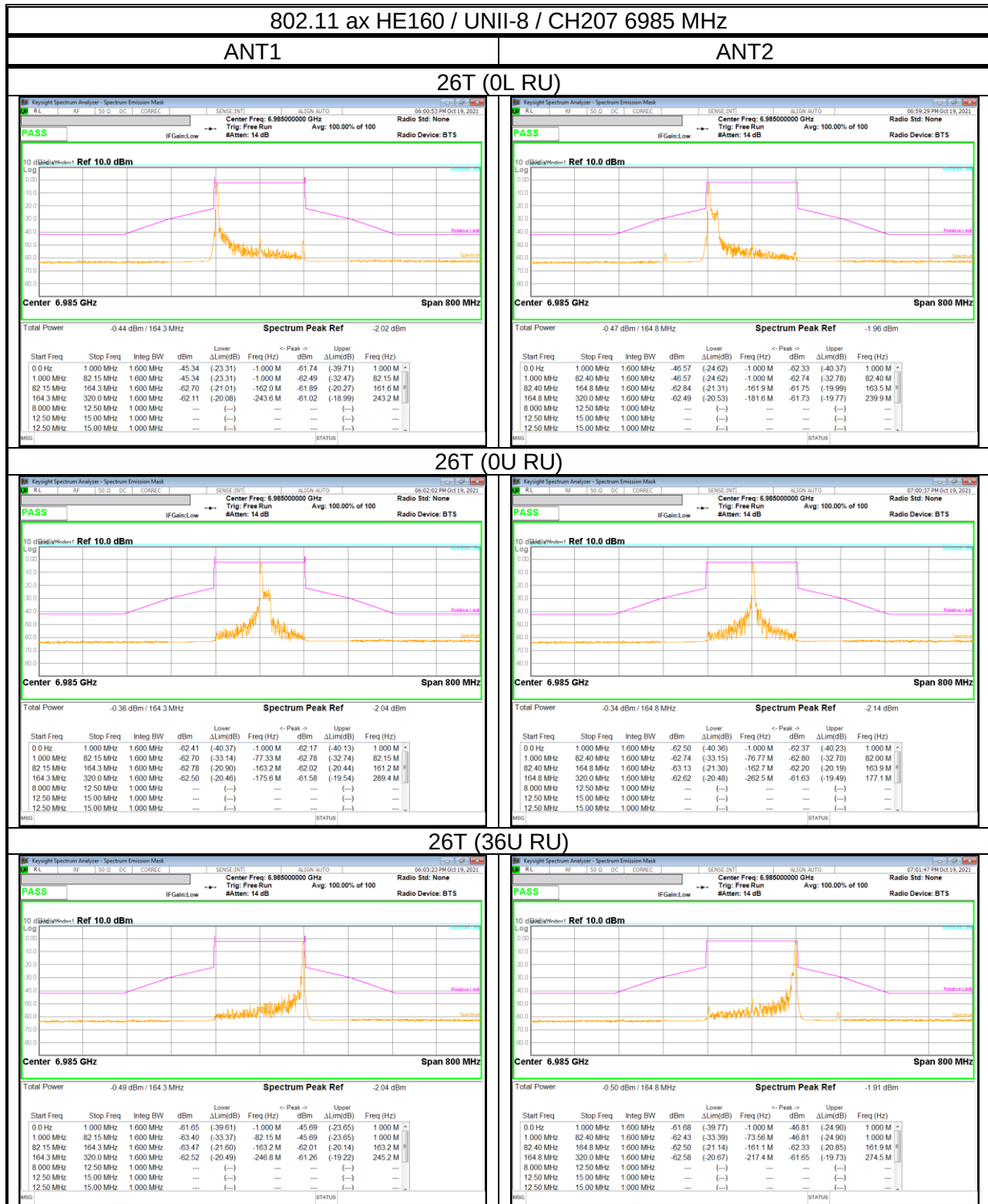












11. TRANSMITTER ABOVE 1 GHz

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 100 cm for above 1GHz. The antenna to EUT distance is 3 meters. 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.

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.

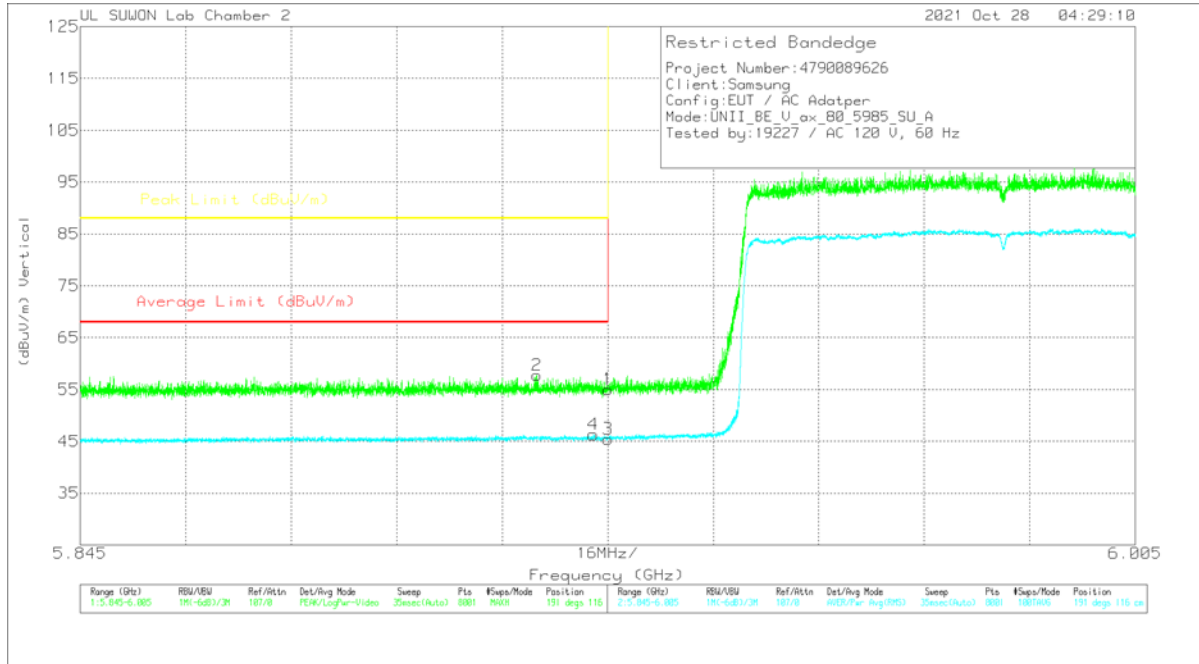
Although these tests were performed other than open field test site, adequate comparison measurements were confirmed against 30 m open are test site.

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.

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

BANDEDGE (WORST CASE: 802.11ax HE80 / 5985 MHz / SU Mode)

HORIZONTAL PEAK AND AVERAGE DATA



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00168724	10dB_ATT(dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Altitude (Degs)	Height (cm)	Polarity
1	5.925	36.79	PK	35.1	-16.9	0	54.99	-	-	88	-33.01	191	116	V
2	5.91424	39.54	PK	35	-16.8	0	57.74	-	-	88	-30.26	191	116	V
3	5.925	26.92	RMS	35.1	-16.9	-3	45.42	68	-22.58	-	-	191	116	V
4	5.9228	27.91	RMS	35	-16.9	-3	46.31	68	-21.69	-	-	191	116	V

PK - Peak detector
RMS - RMS detection

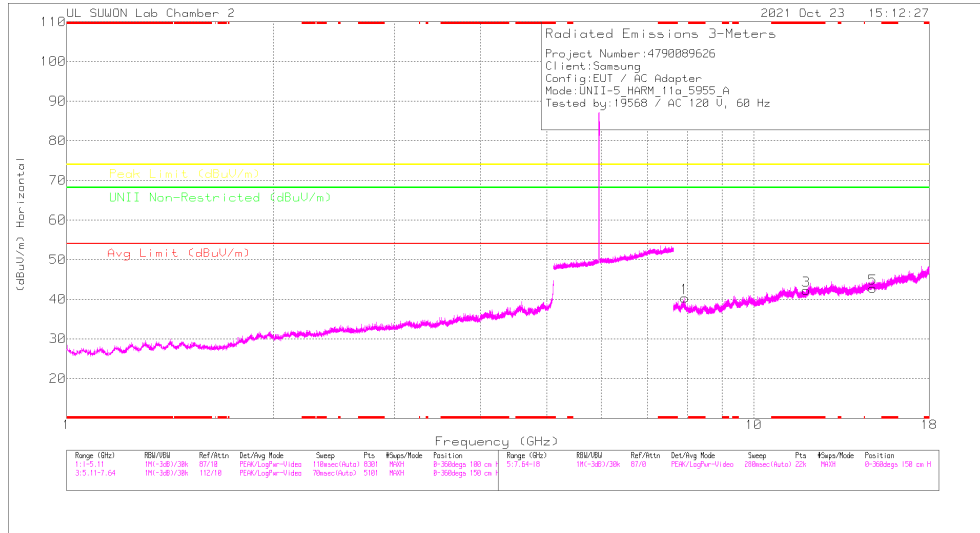
BANDEDGE TEST DATA

Mode	Freq. [MHz]	Antenna	Frequency [GHz]	Reading [dBuV]	Detector Mode	ANT Factor	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	5.925	36.52	Pk	35.10	-16.90	0.00	54.72	-	-	88.00	-33.28	316	100	H
			5.906	39.43	Pk	35.00	-16.90	0.00	57.53	-	-	88.00	-30.47	316	100	H
			5.925	26.27	RMS	35.10	-16.90	0.16	44.63	68.00	-23.37	-	-	316	100	H
			5.903	27.33	RMS	35.00	-16.90	0.16	45.59	68.00	-22.41	-	-	316	100	H
			5.925	35.88	Pk	35.10	-16.90	0.00	54.08	-	-	88.00	-33.92	199	100	V
			5.847	40.15	Pk	34.90	-16.90	0.00	58.15	-	-	88.00	-29.85	199	100	V
			5.925	26.77	RMS	35.10	-16.90	0.16	45.13	68.00	-22.87	-	-	199	100	V
802.11ax (HE20) SU	5955	MIMO	5.905	27.95	RMS	35.00	-16.90	0.16	45.91	68.00	-22.09	-	-	199	100	V
			5.925	36.48	Pk	35.10	-16.90	0.00	54.68	-	-	88.00	-33.32	244	236	H
			5.904	39.72	Pk	35.00	-16.90	0.00	57.82	-	-	88.00	-30.18	244	236	H
			5.925	26.88	RMS	35.10	-16.90	0.41	45.49	68.00	-22.51	-	-	244	236	H
			5.923	27.49	RMS	35.00	-16.90	0.41	46.00	68.00	-22.00	-	-	244	236	H
			5.925	36.29	Pk	35.10	-16.90	0.00	54.49	-	-	88.00	-33.51	202	212	V
			5.896	39.33	Pk	35.00	-16.90	0.00	57.43	-	-	88.00	-30.57	202	212	V
802.11ax (HE20) SU	5965	MIMO	5.925	26.75	RMS	35.10	-16.90	0.41	45.36	68.00	-22.64	-	-	202	212	V
			5.884	27.41	RMS	35.00	-16.90	0.41	45.92	68.00	-22.08	-	-	202	212	V
			5.925	36.11	Pk	35.10	-16.90	0.00	54.31	-	-	88.00	-33.69	233	287	H
			5.907	39.70	Pk	35.00	-16.90	0.00	57.80	-	-	88.00	-30.20	233	287	H
			5.925	26.73	RMS	35.10	-16.90	0.41	45.34	68.00	-22.66	-	-	233	287	H
			5.903	27.58	RMS	35.00	-16.90	0.41	46.09	68.00	-21.91	-	-	233	287	H
			5.925	36.79	Pk	35.10	-16.90	0.00	54.99	-	-	88.00	-33.01	192	109	V
802.11ax (HE80) SU	5985	MIMO	5.879	39.78	Pk	35.00	-16.80	0.00	57.98	-	-	88.00	-30.02	192	109	V
			5.925	26.56	RMS	35.10	-16.90	0.41	45.17	68.00	-22.83	-	-	192	109	V
			5.873	27.40	RMS	35.00	-16.80	0.41	46.01	68.00	-21.99	-	-	192	109	V
			5.925	36.08	Pk	35.10	-16.90	0.00	54.28	-	-	88.00	-33.72	231	290	H
			5.852	40.14	Pk	34.90	-17.00	0.00	58.04	-	-	88.00	-29.96	231	290	H
			5.925	27.29	RMS	35.10	-16.90	0.30	45.79	68.00	-22.21	-	-	231	290	H
			5.904	27.75	RMS	35.00	-16.90	0.30	46.15	68.00	-21.85	-	-	231	290	H
802.11ax (HE160) SU	6025	MIMO	5.925	36.79	Pk	35.10	-16.90	0.00	54.99	-	-	88.00	-33.01	191	116	V
			5.914	39.54	Pk	35.00	-16.80	0.00	57.74	-	-	88.00	-30.26	191	116	V
			5.925	26.92	RMS	35.10	-16.90	0.30	45.42	68.00	-22.58	-	-	191	116	V
			5.923	27.91	RMS	35.00	-16.90	0.30	46.31	68.00	-21.69	-	-	191	116	V
			5.925	35.86	Pk	35.10	-16.90	0.00	54.06	-	-	88.00	-33.94	232	288	H
			5.860	39.98	Pk	34.90	-17.00	0.00	57.88	-	-	88.00	-30.12	232	288	H
			5.925	26.43	RMS	35.10	-16.90	0.34	44.97	68.00	-23.03	-	-	232	288	H
802.11ax (HE160) SU	6025	MIMO	5.968	27.48	RMS	35.00	-16.90	0.34	45.92	68.00	-22.08	-	-	232	288	H
			5.925	37.22	Pk	35.10	-16.90	0.00	55.42	-	-	88.00	-32.58	193	117	V
			5.915	40.24	Pk	35.00	-16.80	0.00	58.44	-	-	88.00	-29.56	193	117	V
			5.925	26.52	RMS	35.10	-16.90	0.34	45.06	68.00	-22.94	-	-	193	117	V
			5.916	27.52	RMS	35.00	-16.90	0.34	45.96	68.00	-22.04	-	-	193	117	V

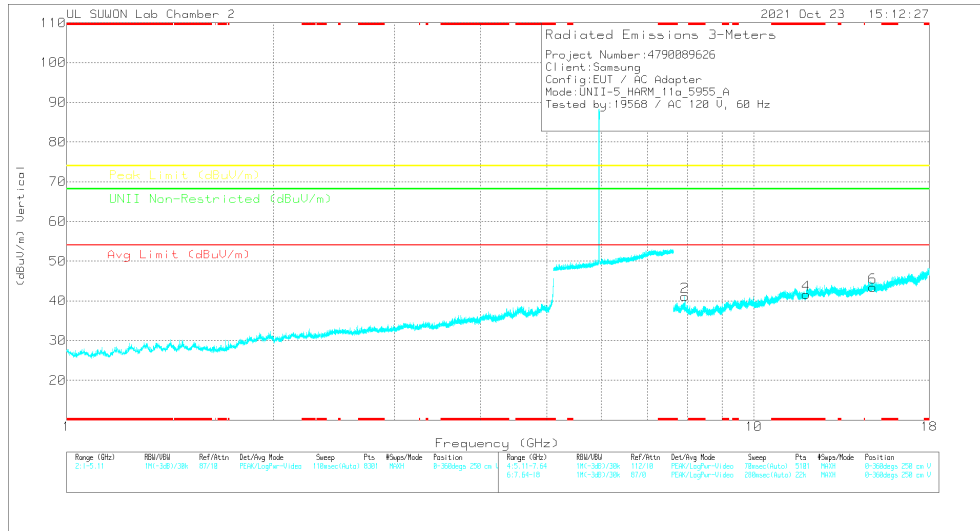
Note1. Pk - Peak detector, RMS - RMS detector

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

HARMONICS AND SPURIOUS EMISSIONS(WORST CASE: 802.11a / 5955 MHz)
HORIZONTAL



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.

Radiated Emissions

Frequency (GHz)	Meas. Reading (dBm)	Det	3127_0038724	802.11a_HPSDR	DC Corr (dB)	Corrected Reading (dBm)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted (dBuV/m)	Margin (dB)	Altitude (m)	Height (m)	Polarity
7.93948	36.95	PK-U	36	-22.8	0	50.15	-	-	-	-	68.2	-18.05	303	100	H
7.93978	37.98	PK-U	36	-22.9	0	51.08	-	-	-	-	68.2	-17.12	203	100	V
*11.91534	33.33	PK-U	38.8	-20.4	0	51.73	-	-	74	-22.27	-	-	360	100	H
*11.91445	33.65	PK-U	38.8	-20.3	0	52.15	-	-	74	-21.85	-	-	360	100	V
14.89045	34.97	PK-U	39.7	-20.2	0	54.47	-	-	-	-	68.2	-13.73	360	100	H
14.89104	35.75	PK-U	39.7	-20.2	0	55.25	-	-	-	-	68.2	-12.95	360	100	V

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

HARMONICS AND SPURIOUS EMISSIONS TEST DATA

Freq. [MHz]	Antenna	Frequency [GHz]	Reading [dBuV]	Detector Mode	ANT Factor	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
5955	MIMO	7.93948	36.95	PK-U	36.00	-22.80	0.00	50.15	-	-	-	-	68.20	-18.05	303	100	H
		7.93978	37.98	PK-U	36.00	-22.90	0.00	51.08	-	-	-	-	68.20	-17.12	203	100	V
		* 11.91534	33.33	PK-U	38.80	-20.40	0.00	51.73	-	-	74.00	-22.27	-	-	360	100	H
		* 11.91445	33.65	PK-U	38.80	-20.30	0.00	52.15	-	-	74.00	-21.85	-	-	360	100	V
		14.89045	34.97	PK-U	39.70	-20.20	0.00	54.47	-	-	-	-	68.20	-13.73	360	100	H
		14.89104	35.75	PK-U	39.70	-20.20	0.00	55.25	-	-	-	-	68.20	-12.95	360	100	V
6175	MIMO	9.26968	33.91	PK-U	37.10	-21.60	0.00	49.41	-	-	-	-	68.20	-18.79	0	100	H
		9.26400	33.50	PK-U	37.10	-21.60	0.00	49.00	-	-	-	-	68.20	-19.20	0	100	V
		* 12.35773	34.90	PK-U	39.30	-22.30	0.00	51.90	-	-	74.00	-22.10	-	-	0	100	H
		* 12.35353	35.41	PK-U	39.30	-22.30	0.00	52.41	-	-	74.00	-21.59	-	-	0	100	V
		* 15.445	34.48	PK-U	40.10	-21.80	0.00	52.78	-	-	74.00	-21.22	-	-	0	100	H
		* 15.44678	34.67	PK-U	40.10	-21.80	0.00	52.97	-	-	74.00	-21.03	-	-	0	100	V
6415	MIMO	9.63193	35.41	PK-U	37.40	-21.90	0.00	50.91	-	-	-	-	68.20	-17.29	360	100	H
		9.62812	34.56	PK-U	37.40	-21.90	0.00	50.06	-	-	-	-	68.20	-18.14	360	100	V
		12.83088	34.59	PK-U	39.50	-23.10	0.00	50.99	-	-	-	-	68.20	-17.21	360	100	H
		12.82660	34.57	PK-U	39.50	-23.10	0.00	50.97	-	-	-	-	68.20	-17.23	360	100	V
		* 16.03278	33.43	PK-U	41.10	-20.80	0.00	53.73	-	-	74.00	-20.27	-	-	360	100	H
		* 16.04021	33.62	PK-U	41.10	-20.80	0.00	53.92	-	-	74.00	-20.08	-	-	360	100	V
5955	MIMO	8.93345	37.32	PK-U	36.50	-24.10	0.00	49.72	-	-	-	-	68.20	-18.48	0	100	H
		8.93181	37.58	PK-U	36.50	-24.10	0.00	49.98	-	-	-	-	68.20	-18.22	0	100	V
		* 11.91091	36.52	PK-U	38.50	-22.20	0.00	52.82	-	-	74.00	-21.18	-	-	0	100	V
		* 11.9112	36.34	PK-U	38.50	-22.20	0.00	52.64	-	-	74.00	-21.36	-	-	0	100	H
		* 17.86688	33.95	PK-U	41.30	-16.10	0.00	59.15	-	-	74.00	-14.85	-	-	0	100	H
		* 17.86639	34.75	PK-U	41.30	-16.00	0.00	60.05	-	-	74.00	-13.95	-	-	0	100	V

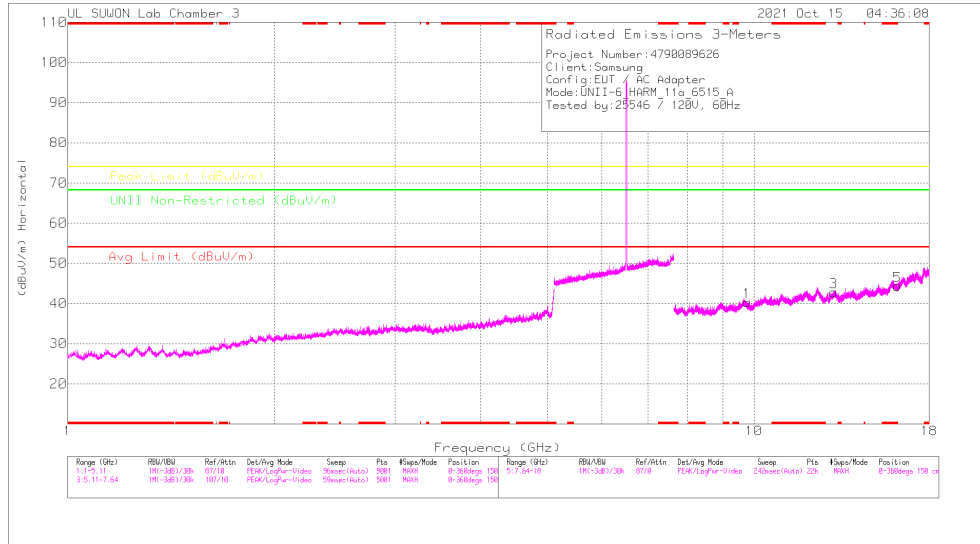
Note1. PK-U - U-NII: Maximum Peak

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

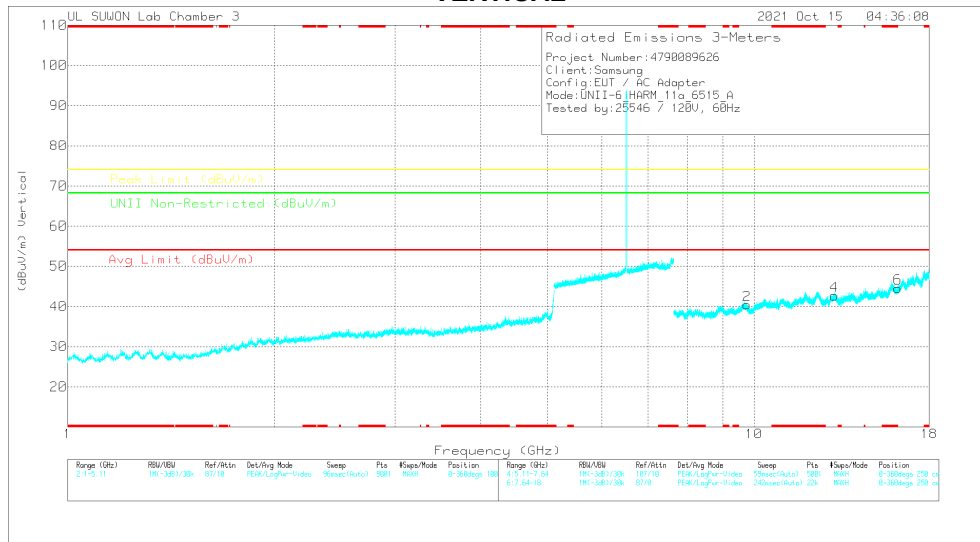
11.2. TX ABOVE 1GHz 2Tx MODE IN U-NII-6 BAND

HARMONICS AND SPURIOUS EMISSIONS(WORST CASE: 802.11a / 6515 MHz)

HORIZONTAL



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.

Radiated Emissions

Frequency (GHz)	Meas Reading (dBuV)	Det	3117_00218957	8GHz_HIP(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)	Asimuth (Deg)	Height (cm)	Polarity
9.75479	34.4	PK-U	37.5	-22	0	49.9	-	-	-	-	68.2	-18.3	0	100	H
9.78213	34.05	PK-U	37.6	-22	0	49.65	-	-	-	-	68.2	-18.55	0	100	V
13.03906	34.99	PK-U	39.4	-22.3	0	52.09	-	-	-	-	68.2	-16.11	0	100	H
13.03655	35.49	PK-U	39.4	-22.3	0	52.59	-	-	-	-	68.2	-15.61	0	100	V
16.28427	33.09	PK-U	41.5	-20.7	0	53.89	-	-	-	-	68.2	-14.31	0	100	H
16.28571	33.8	PK-U	41.5	-20.7	0	54.6	-	-	-	-	68.2	-13.6	0	100	V

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

HARMONICS AND SPURIOUS EMISSIONS TEST DATA

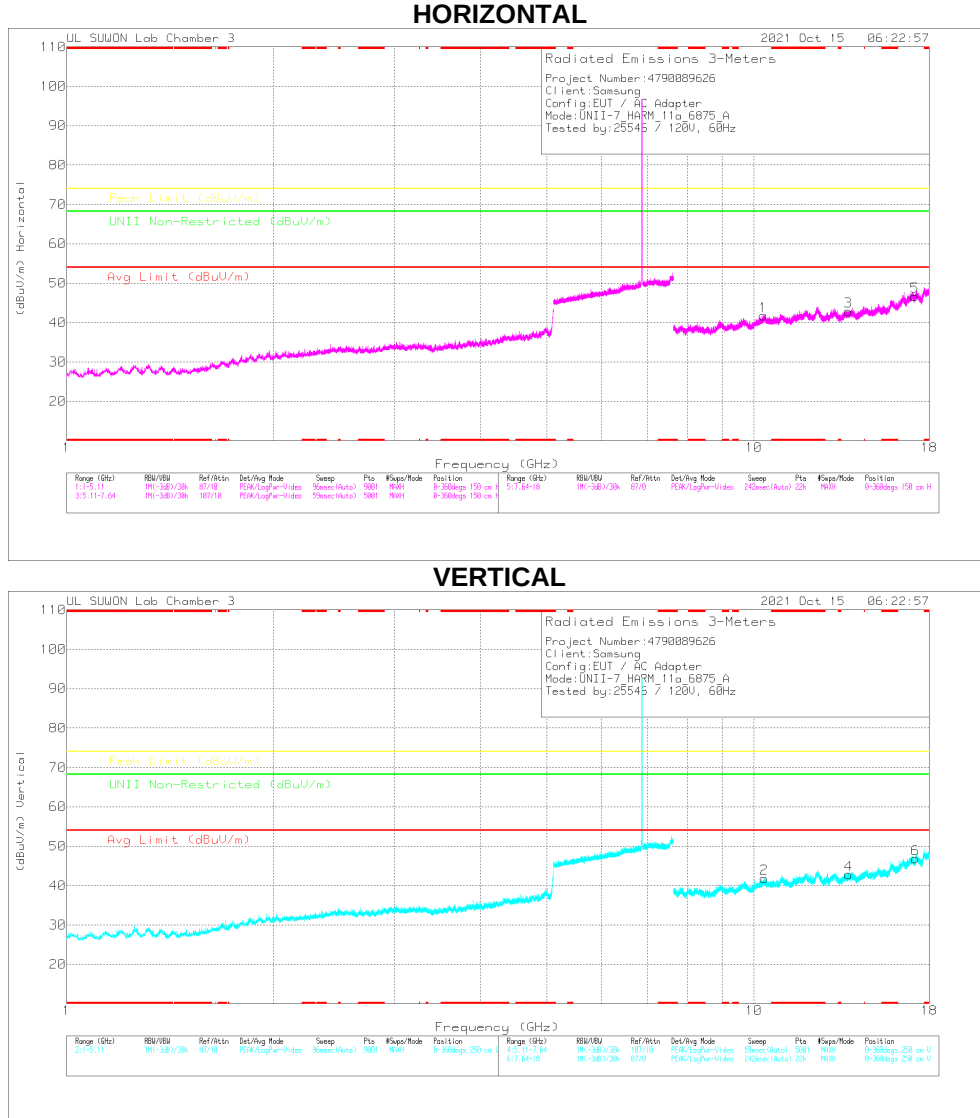
Mode	Freq. [MHz]	Antenna	Frequency [GHz]	Reading [dBuV]	Detector Mode	ANT Factor	Loss [dB]	DC Corr [dB]	Result [dBuV/m]	AV Limit [dBuV/m]	AV Margin [dB]	PK Limit [dBuV/m]	PK Margin [dB]	Non-Restricted [dBuV/m]	Margin [dB]	Azimuth [Degs]	Height [cm]	Polarity
802.11a	6435	MIMO	9.65713	35.28	PK-U	37.40	-21.70	0.00	50.98	-	-	-	-	68.20	-17.22	0	100	H
			9.65596	34.53	PK-U	37.40	-21.70	0.00	50.23	-	-	-	-	68.20	-17.97	0	100	V
			12.87894	36.09	PK-U	39.50	-23.00	0.00	52.59	-	-	-	-	68.20	-15.61	0	100	H
			12.86640	34.44	PK-U	39.50	-23.00	0.00	50.94	-	-	-	-	68.20	-17.26	0	100	V
			* 16.08395	33.41	PK-U	41.20	-20.70	0.00	53.91	-	-	74.00	-20.09	-	-	0	100	H
			* 16.09634	33.51	PK-U	41.20	-20.70	0.00	54.01	-	-	74.00	-19.99	-	-	0	100	V
			7.77011	39.87	PK-U	36.30	-24.60	0.00	51.57	-	-	-	-	68.20	-16.63	158	229	H
			7.77017	37.72	PK-U	36.30	-24.60	0.00	49.42	-	-	-	-	68.20	-18.78	192	248	V
	6475	MIMO	9.71722	34.35	PK-U	37.40	-21.90	0.00	49.85	-	-	-	-	68.20	-18.35	0	100	H
			9.71904	34.27	PK-U	37.40	-21.90	0.00	49.77	-	-	-	-	68.20	-18.43	0	100	V
			12.94051	34.57	PK-U	39.50	-22.50	0.00	51.57	-	-	-	-	68.20	-16.63	0	100	H
			12.94983	34.59	PK-U	39.50	-22.50	0.00	51.59	-	-	-	-	68.20	-16.61	0	100	V
			9.76479	34.40	PK-U	37.50	-22.00	0.00	49.90	-	-	-	-	68.20	-18.30	0	100	H
			9.78213	34.05	PK-U	37.60	-22.00	0.00	49.65	-	-	-	-	68.20	-18.55	0	100	V
			13.03906	34.99	PK-U	39.40	-22.30	0.00	52.09	-	-	-	-	68.20	-16.11	0	100	H
			13.03685	35.49	PK-U	39.40	-22.30	0.00	52.59	-	-	-	-	68.20	-15.61	0	100	V
	6515	MIMO	16.28427	33.09	PK-U	41.50	-20.70	0.00	53.89	-	-	-	-	68.20	-14.31	0	100	H
			16.28571	33.80	PK-U	41.50	-20.70	0.00	54.60	-	-	-	-	68.20	-13.60	0	100	V
			7.76982	39.29	PK-U	36.30	-24.70	0.00	50.89	-	-	-	-	68.20	-17.31	307	100	H
			7.77040	37.85	PK-U	36.30	-24.60	0.00	49.55	-	-	-	-	68.20	-18.65	184	115	V
			9.71760	34.41	PK-U	37.40	-21.90	0.00	49.91	-	-	-	-	68.20	-18.29	360	100	H
			9.71244	34.61	PK-U	37.40	-21.90	0.00	50.11	-	-	-	-	68.20	-18.09	360	100	V
			12.95046	35.12	PK-U	39.40	-22.50	0.00	52.02	-	-	-	-	68.20	-16.18	360	100	H
			12.94981	35.44	PK-U	39.50	-22.50	0.00	52.44	-	-	-	-	68.20	-15.76	360	100	V
802.11ax (HE20) 4RU Spot-Check	6475	MIMO	* 7.73324	38.98	PK-U	35.80	-26.00	0.00	48.78	-	-	74.00	-25.22	-	-	360	100	H
			* 7.73492	39.23	PK-U	35.80	-26.00	0.00	49.03	-	-	74.00	-24.97	-	-	360	100	V
			9.66741	36.50	PK-U	37.30	-23.60	0.00	50.20	-	-	-	-	68.20	-18.00	360	100	V
			9.66644	36.61	PK-U	37.30	-23.60	0.00	50.31	-	-	-	-	68.20	-17.89	360	100	H
			12.89192	36.33	PK-U	39.00	-22.20	0.00	53.13	-	-	-	-	68.20	-15.07	360	100	H
			12.88883	37.21	PK-U	39.00	-22.30	0.00	53.91	-	-	-	-	68.20	-14.29	360	100	V
			7.75846	38.59	PK-U	35.80	-25.90	0.00	48.49	-	-	-	-	68.20	-19.71	0	100	H
			7.75967	38.44	PK-U	35.80	-25.80	0.00	48.44	-	-	-	-	68.20	-19.76	0	100	V
	6445	MIMO	9.69991	36.63	PK-U	37.30	-23.40	0.00	50.53	-	-	-	-	68.20	-17.67	0	100	H
			9.68830	36.91	PK-U	37.30	-23.40	0.00	50.81	-	-	-	-	68.20	-17.39	0	100	V
			12.92330	37.08	PK-U	39.00	-22.30	0.00	53.78	-	-	-	-	68.20	-14.42	0	100	H
			12.92447	37.23	PK-U	39.00	-22.30	0.00	53.93	-	-	-	-	68.20	-14.27	0	100	V
802.11ax (HE160) 0URU Spot-Check	6505	MIMO	9.780293	28.35	Avg	35.80	-24.90	0.00	39.25	-	-	-	-	68.20	-28.95	0-360	150	H
			9.75476	26.35	Avg	37.40	-23.40	0.00	40.35	-	-	-	-	68.20	-27.85	0-360	150	H
			13.01236	26.96	Avg	38.90	-22.50	0.00	43.36	-	-	-	-	68.20	-24.84	0-360	150	H
			7.80246	28.43	Avg	35.80	-24.90	0.00	39.33	-	-	-	-	68.20	-28.67	0-360	250	V
			9.75570	25.76	Avg	37.40	-23.40	0.00	39.76	-	-	-	-	68.20	-28.44	0-360	250	V
			13.01142	27.87	Avg	38.90	-22.50	0.00	44.27	-	-	-	-	68.20	-23.93	0-360	250	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 U-NII-7 BAND

HARMONICS AND SPURIOUS EMISSIONS(WORST CASE: 802.11a / 6875 MHz)



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

Radiated Emissions

Frequency (GHz)	Wave Reading (dBuV)	Det	3117_0021957	ISM_HTS(8)	DC Corr (dB)	Corrected Reading (dBuV)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted (dBuV/m)	Margin (dB)	Altitude (m)	Height (m)	Polarity
10.31776	34.65	PK-U	38	-21.3	0	51.35	-	-	-	-	68.2	-16.85	0	100	H
10.31095	34.81	PK-U	38	-21.3	0	51.51	-	-	-	-	68.2	-16.69	0	100	V
13.74822	36.09	PK-U	38.9	-23.3	0	51.69	-	-	-	-	68.2	-16.51	0	100	H
13.7486	36.47	PK-U	38.9	-23.3	0	52.07	-	-	-	-	68.2	-16.13	0	100	V
17.19142	32.54	PK-U	42.1	-18.3	0	50.74	-	-	-	-	68.2	-11.46	0	100	H
17.19548	33.16	PK-U	42.1	-18.3	0	50.96	-	-	-	-	68.2	-11.24	0	100	V

PK-U - U-NII: Maximum Peak

HARMONICS AND SPURIOUS EMISSIONS TEST DATA

Mode	Freq. [MHz]	Antenna	Frequency [GHz]	Reading [dBuV]	Detector Mode	ANT Factor	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	6535	MIMO	9.80348	33.94	PK-U	37.60	-22.00	0.00	49.54	-	-	-	-	68.20	-18.66	0	100	H
			9.79893	34.22	PK-U	37.60	-22.00	0.00	49.82	-	-	-	-	68.20	-18.38	0	100	V
			13.07752	35.09	PK-U	39.30	-22.40	0.00	51.99	-	-	-	-	68.20	-16.21	0	100	H
			13.07808	35.41	PK-U	39.30	-22.40	0.00	52.31	-	-	-	-	68.20	-15.89	0	100	V
			16.33755	33.03	PK-U	41.60	-20.70	0.00	53.93	-	-	-	-	68.20	-14.27	0	100	H
			16.34463	33.56	PK-U	41.60	-20.70	0.00	54.46	-	-	-	-	68.20	-13.74	0	100	V
	6695	MIMO	10.04861	33.07	PK-U	37.90	-21.30	0.00	49.67	-	-	-	-	68.20	-18.53	0	150	H
			10.04442	33.32	PK-U	37.90	-21.30	0.00	49.92	-	-	-	-	68.20	-18.28	0	100	V
			* 13.38486	33.99	PK-U	39.20	-22.70	0.00	50.49	-	-	74.00	-23.51	-	-	0	150	H
			* 13.39897	33.85	PK-U	39.20	-22.80	0.00	50.25	-	-	74.00	-23.75	-	-	0	100	V
			16.72927	31.67	PK-U	42.30	-19.30	0.00	54.67	-	-	-	-	68.20	-13.53	0	150	H
			16.73913	32.16	PK-U	42.30	-19.20	0.00	55.26	-	-	-	-	68.20	-12.94	0	100	V
	6875	MIMO	10.31776	34.65	PK-U	38.00	-21.30	0.00	51.35	-	-	-	-	68.20	-16.85	0	100	H
			10.31095	34.81	PK-U	38.00	-21.30	0.00	51.51	-	-	-	-	68.20	-16.69	0	100	V
			13.74822	36.09	PK-U	38.90	-23.30	0.00	51.69	-	-	-	-	68.20	-16.51	0	100	H
			13.74860	36.47	PK-U	38.90	-23.30	0.00	52.07	-	-	-	-	68.20	-16.13	0	100	V
			17.19142	32.94	PK-U	42.10	-18.30	0.00	56.74	-	-	-	-	68.20	-11.46	0	100	H
			17.19548	33.16	PK-U	42.10	-18.30	0.00	56.96	-	-	-	-	68.20	-11.24	0	100	V
802.11ax (HE20) 4RU Spot-Check	6695	MIMO	10.04978	33.55	PK-U	37.90	-21.30	0.00	50.15	-	-	-	-	68.20	-18.05	0	100	H
			10.04752	33.30	PK-U	37.90	-21.30	0.00	49.90	-	-	-	-	68.20	-18.30	0	100	V
			* 13.39802	34.64	PK-U	39.20	-22.80	0.00	51.04	-	-	74.00	-22.96	-	-	0	100	H
			* 13.39519	35.10	PK-U	39.20	-22.80	0.00	51.50	-	-	74.00	-22.50	-	-	0	100	V
			16.73474	32.77	PK-U	42.30	-19.20	0.00	55.87	-	-	-	-	68.20	-12.33	0	100	H
			16.73541	32.23	PK-U	42.30	-19.20	0.00	55.33	-	-	-	-	68.20	-12.87	0	100	V

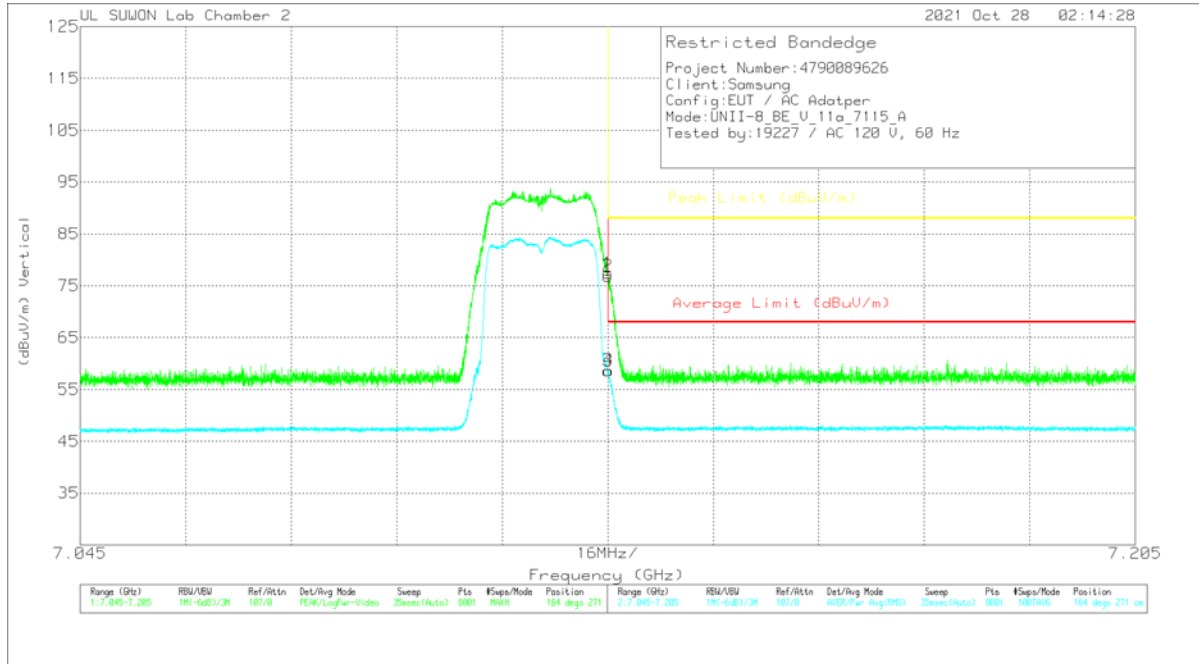
Note1. PK-U - U-NII: Maximum Peak / ADR - U-NII AD primary method, RMS average

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

11.4. TX ABOVE 1GHz 2Tx MODE IN U-NII-8 BAND

BANDEDGE (WORST CASE: 802.11a / 7115 MHz)

VERTICAL PEAK DATA



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00168724	10dB_ATT(dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Altitude (Degs)	Height (cm)	Polarity
1	7.12502	56.51	PK	36.1	-15.2	0	77.41	-	-	88	-10.59	164	271	V
2	7.12506	55.95	PK	36.1	-15.2	0	76.85	-	-	88	-11.15	164	271	V
3	7.12502	37.59	RMS	36.1	-15.2	-16	58.65	68	-9.35	-	-	164	271	V
4	7.12512	37.59	RMS	36.1	-15.2	-16	58.65	68	-9.35	-	-	164	271	V

PK - Peak detector
RMS - RMS detection