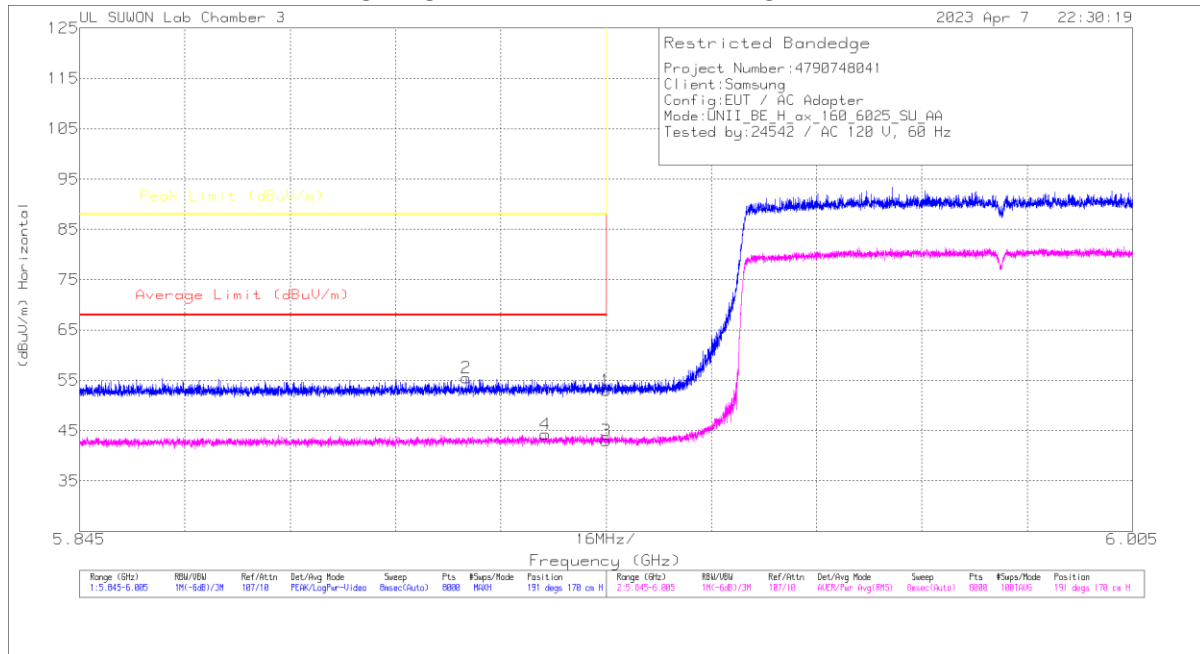


11.1. TX ABOVE 1GHz 2Tx MODE IN U-NII-5 BAND

BANDEDGE (WORST CASE: 802.11ax HE160 / 6025 MHz / SU Mode)

HORIZONTAL PEAK AND AVERAGE DATA



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00218957	10dB_ATT(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	37.01	PK	35.5	-19.5	0	53.01	-	-	88	-34.99	191	170	H
2	5.90377	39.63	PK	35.4	-19.5	0	55.53	-	-	88	-32.47	191	170	H
3	5.92499	26.99	RMS	35.5	-19.5	0	42.99	68	-25.01	-	-	191	170	H
4	5.91577	28.29	RMS	35.5	-19.5	0	44.29	68	-23.71	-	-	191	170	H

PK - Peak detector
 RMS - RMS detection

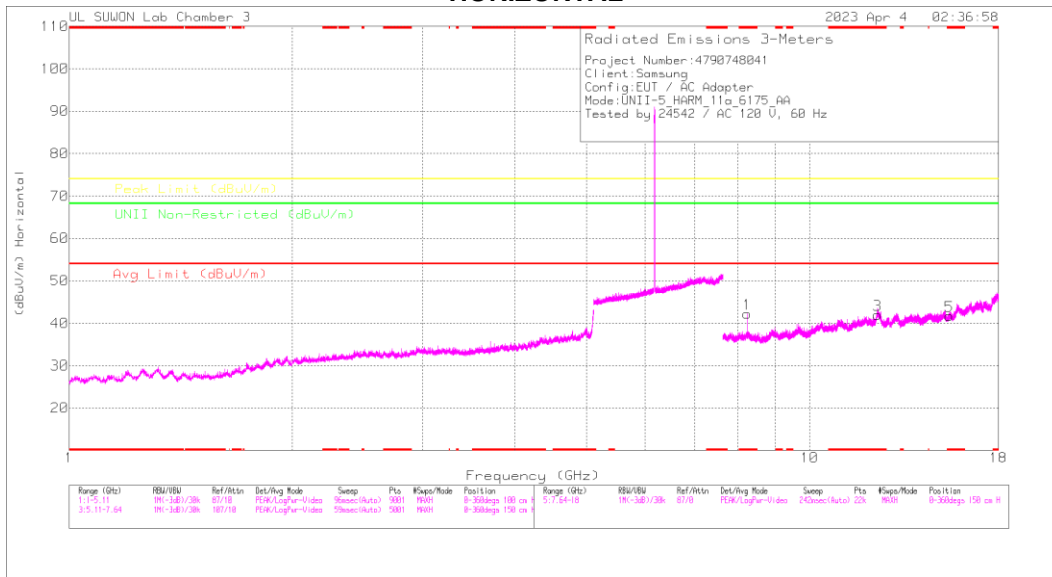
BANDEDGE TEST DATA

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	5.92499	36.48	Pk	35.50	-19.50	0.00	52.48	-	-	88.00	-35.52	197	168	H
			5.84506	39.99	Pk	35.20	-19.50	0.00	55.69	-	-	88.00	-32.31	197	168	H
			5.92499	26.28	RMS	35.50	-19.50	0.15	42.43	68.00	-25.57	-	-	197	168	H
			5.91475	28.05	RMS	35.50	-19.50	0.15	44.20	68.00	-23.80	-	-	197	168	H
			5.92499	36.99	Pk	35.50	-19.50	0.00	52.99	-	-	88.00	-35.01	274	329	V
			5.90121	39.67	Pk	35.40	-19.60	0.00	55.47	-	-	88.00	-32.53	274	329	V
			5.92499	26.67	RMS	35.50	-19.50	0.15	42.82	68.00	-25.18	-	-	274	329	V
			5.91637	27.80	RMS	35.50	-19.50	0.15	43.95	68.00	-24.05	-	-	274	329	V
802.11ax (HE20) SU	5955	MIMO	5.92499	37.41	Pk	35.50	-19.50	0.00	53.41	-	-	88.00	-34.59	114	101	H
			5.88095	39.96	Pk	35.30	-19.50	0.00	55.76	-	-	88.00	-32.24	114	101	H
			5.92499	27.37	RMS	35.50	-19.50	0.00	43.37	68.00	-24.63	-	-	114	101	H
			5.92237	27.95	RMS	35.50	-19.50	0.00	43.95	68.00	-24.05	-	-	114	101	H
			5.92499	36.64	Pk	35.50	-19.50	0.00	52.64	-	-	88.00	-35.36	139	125	V
			5.90573	39.22	Pk	35.40	-19.50	0.00	55.12	-	-	88.00	-32.88	139	125	V
			5.92499	26.39	RMS	35.50	-19.50	0.00	42.39	68.00	-25.61	-	-	139	125	V
			5.91487	27.80	RMS	35.50	-19.50	0.00	43.80	68.00	-24.20	-	-	139	125	V
802.11ax (HE40) SU	5965	MIMO	5.92499	38.15	Pk	35.50	-19.50	0.00	54.15	-	-	88.00	-33.85	191	160	H
			5.92331	39.04	Pk	35.50	-19.50	0.00	55.04	-	-	88.00	-32.96	191	160	H
			5.92499	26.71	RMS	35.50	-19.50	0.00	42.71	68.00	-25.29	-	-	191	160	H
			5.88061	28.15	RMS	35.30	-19.50	0.00	43.95	68.00	-24.05	-	-	191	160	H
			5.92499	36.64	Pk	35.50	-19.50	0.00	52.64	-	-	88.00	-35.36	139	126	V
			5.91269	39.05	Pk	35.50	-19.50	0.00	55.05	-	-	88.00	-32.95	139	126	V
			5.92499	26.30	RMS	35.50	-19.50	0.00	42.30	68.00	-25.70	-	-	139	126	V
			5.91401	27.82	RMS	35.50	-19.50	0.00	43.82	68.00	-24.18	-	-	139	126	V
802.11ax (HE80) SU	5985	MIMO	5.92499	37.21	Pk	35.50	-19.50	0.00	53.21	-	-	88.00	-34.79	191	186	H
			5.86598	39.40	Pk	35.30	-19.50	0.00	55.20	-	-	88.00	-32.80	191	186	H
			5.92499	27.02	RMS	35.50	-19.50	0.00	43.02	68.00	-24.98	-	-	191	186	H
			5.92149	28.08	RMS	35.50	-19.50	0.00	44.08	68.00	-23.92	-	-	191	186	H
			5.92499	37.72	Pk	35.50	-19.50	0.00	53.72	-	-	88.00	-34.28	271	348	V
			5.85770	39.61	Pk	35.20	-19.50	0.00	55.31	-	-	88.00	-32.69	271	348	V
			5.92499	26.39	RMS	35.50	-19.50	0.00	42.39	68.00	-25.61	-	-	271	348	V
			5.92063	27.75	RMS	35.50	-19.50	0.00	43.75	68.00	-24.25	-	-	271	348	V
802.11ax (HE160) SU	6025	MIMO	5.92499	37.01	Pk	35.50	-19.50	0.00	53.01	-	-	88.00	-34.99	191	170	H
			5.90377	39.63	Pk	35.40	-19.50	0.00	55.53	-	-	88.00	-32.47	191	170	H
			5.92499	26.99	RMS	35.50	-19.50	0.00	42.99	68.00	-25.01	-	-	191	170	H
			5.91577	28.29	RMS	35.50	-19.50	0.00	44.29	68.00	-23.71	-	-	191	170	H
			5.92499	37.47	Pk	35.50	-19.50	0.00	53.47	-	-	88.00	-34.53	204	100	V
			5.92243	39.44	Pk	35.50	-19.50	0.00	55.44	-	-	88.00	-32.56	204	100	V
			5.92499	26.02	RMS	35.50	-19.50	0.00	42.02	68.00	-25.98	-	-	204	100	V
			5.92113	27.95	RMS	35.50	-19.50	0.00	43.95	68.00	-24.05	-	-	204	100	V

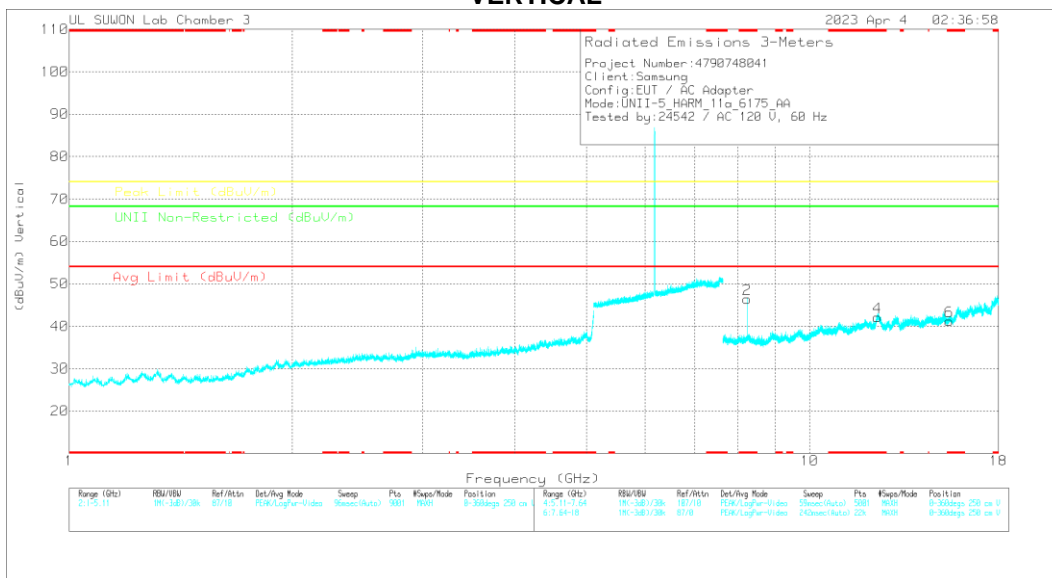
Note1. Pk - Peak detector, RMS - RMS detector
 Note2. * - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

HARMONICS AND SPURIOUS EMISSIONS(WORST CASE: 802.11a / 6175 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)	Main Reading (dBuV)	Det	317_0021867	8GHz_HPS(B)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Magn (dB)	Peak Limit (dBuV/m)	Magn (dB)	UNII Non-Restricted (dBuV/m)	Magn (dB)	Admitt (Ohm)	Height (cm)	Polarity
* 8.19353	38.01	PK-U	36.2	-23	0	51.21	-	-	74	-22.79	-	-	131	215	H
* 8.19333	31.44	ADR	36.2	-23	0	44.64	54	-0.36	-	-	-	-	131	215	H
* 8.19325	39.87	PK-U	36.2	-23	0	53.07	-	-	74	-20.93	-	-	152	101	V
* 8.19331	34.99	ADR	36.2	-23	0	48.19	54	-5.81	-	-	-	-	162	101	V
* 12.29544	34.2	PK-U	39.3	-21.5	0	52	-	-	74	-22	-	-	0	100	H
* 12.29749	34.18	PK-U	39.3	-21.5	0	51.98	-	-	74	-22.02	-	-	0	100	V
* 15.35564	33.76	PK-U	40.1	-21	0	52.86	-	-	74	-21.14	-	-	0	100	H
* 15.36721	34.09	PK-U	40.1	-21.1	0	53.09	-	-	74	-20.91	-	-	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	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	5955	MIMO	7.93994	37.82	PK-U	35.90	-24.80	0.00	48.92	-	-	-	-	68.20	-19.28	165	152	H			
			7.93989	40.02	PK-U	35.90	-24.80	0.00	51.12	-	-	-	-	68.20	-17.08	146	165	V			
			* 11.91055	33.24	PK-U	38.60	-22.50	0.00	49.34	-	-	74.00	-24.66	-	-	0	100	H			
			* 11.9109	33.60	PK-U	38.60	-22.50	0.00	49.70	-	-	74.00	-24.30	-	-	0	100	V			
			14.88659	33.55	PK-U	39.80	-23.20	0.00	50.15	-	-	-	-	-	68.20	-18.05	0	100	H		
			14.88725	33.80	PK-U	39.80	-23.20	0.00	50.40	-	-	-	-	-	68.20	-17.80	0	100	V		
	6175	MIMO	* 8.22018	34.80	PK-U	36.00	-23.70	0.00	47.10	-	-	74.00	-26.90	-	-	58	284	H			
			* 8.23342	23.63	ADR	36.00	-23.50	0.15	36.28	54.00	-17.72	-	-	-	-	58	284	H			
			* 8.2332	38.59	PK-U	36.00	-23.50	0.00	51.09	-	-	74.00	-22.91	-	-	166	126	V			
			* 8.23332	33.20	ADR	36.00	-23.50	0.15	45.85	54.00	-8.15	-	-	-	-	166	126	V			
			* 12.34988	34.87	PK-U	39.20	-22.30	0.00	51.77	-	-	74.00	-22.23	-	-	0	100	H			
			* 12.34883	34.40	PK-U	39.20	-22.30	0.00	51.30	-	-	74.00	-22.70	-	-	0	100	V			
			* 15.43744	33.96	PK-U	40.00	-22.60	0.00	51.36	-	-	74.00	-22.64	-	-	0	100	H			
			* 15.43971	34.10	PK-U	40.00	-22.70	0.00	51.40	-	-	74.00	-22.60	-	-	0	100	V			
			6415	MIMO	8.55312	36.43	PK-U	36.00	-23.70	0.00	48.73	-	-	-	-	68.20	-19.47	250	100	H	
					8.55337	37.80	PK-U	36.00	-23.70	0.00	50.10	-	-	-	-	68.20	-18.10	158	140	V	
	* 12.37924	34.31			PK-U	39.20	-22.50	0.00	51.01	-	-	74.00	-22.99	-	-	0	100	H			
	* 12.3796	34.39			PK-U	39.20	-22.50	0.00	51.09	-	-	74.00	-22.91	-	-	0	100	V			
	* 16.03852	33.22			PK-U	41.10	-21.60	0.00	52.72	-	-	74.00	-21.28	-	-	0	100	H			
	* 16.03932	33.17			PK-U	41.10	-21.60	0.00	52.67	-	-	74.00	-21.33	-	-	0	100	V			
	802.11ax (HE20) 4RU Spot-Check	6415			MIMO	8.55345	35.58	PK-U	36.00	-23.70	0.00	47.88	-	-	-	-	68.20	-20.32	248	100	H
						8.55330	37.85	PK-U	36.00	-23.70	0.00	50.15	-	-	-	-	68.20	-18.05	159	124	V
			12.83166	35.03		PK-U	39.30	-23.60	0.00	50.73	-	-	-	-	68.20	-17.47	0	100	H		
			12.83034	34.48		PK-U	39.30	-23.60	0.00	50.18	-	-	-	-	68.20	-18.02	0	100	V		
* 16.03791			33.53	PK-U		41.10	-21.60	0.00	53.03	-	-	74.00	-20.97	-	-	0	100	H			
* 16.03865			33.79	PK-U		41.10	-21.60	0.00	53.29	-	-	74.00	-20.71	-	-	0	100	V			

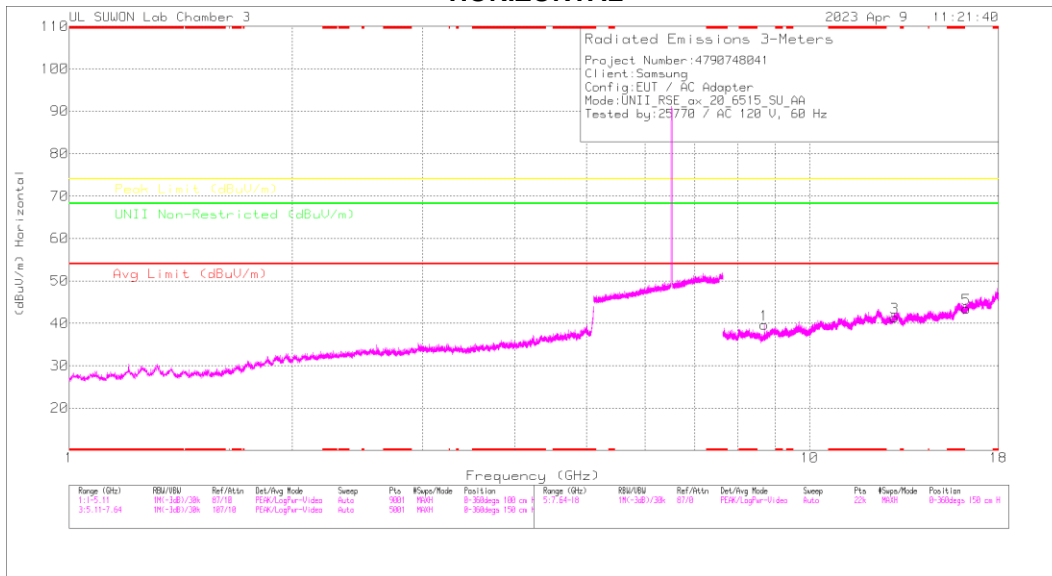
Note1. PK-U - U-NII: Maximum Peak

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

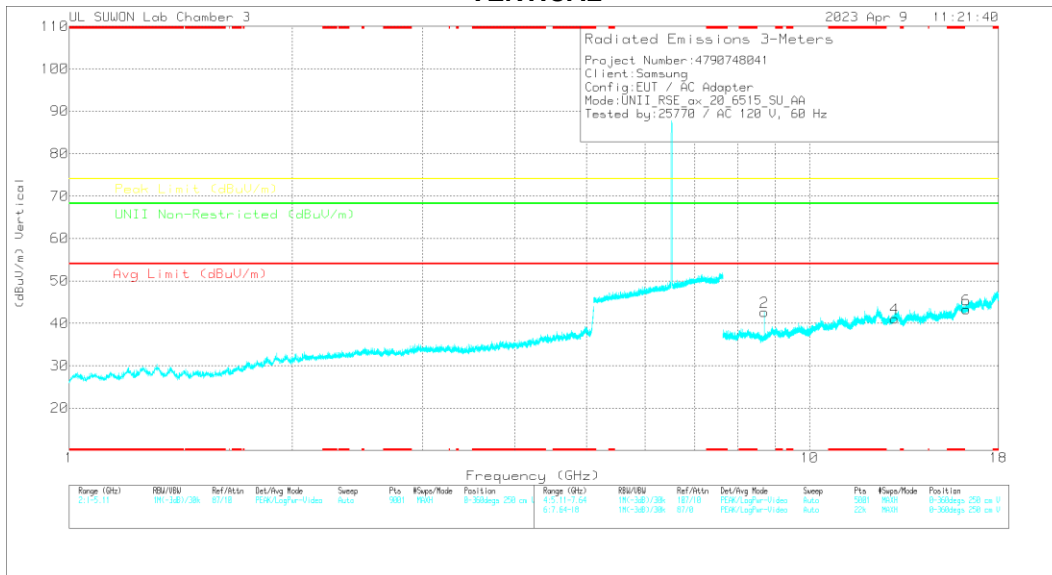
11.2. TX ABOVE 1GHz 2Tx MODE IN U-NII-6 BAND

HARMONICS AND SPURIOUS EMISSIONS(WORST CASE: 802.11ax HE20 / 6515 MHz / SU Mode)

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 (MHz)	Meas Reading (dBm)	Det	3117_00218057	ICHO_HPI(dB)	DC Corr (dB)	Corrected Reading (dBm)	Avg Limit (dBuV/m)	Magn (dB)	Peak Limit (dBuV/m)	Magn (dB)	UNII Non-Restricted (dBuV/m)	Magn (dB)	Acctm (dBm)	Height (cm)	Polarity
8.69664	35.79	PK-U	36.1	-23.6	0	48.29	-	-	-	-	68.2	-19.91	113	151	H
8.69685	36.81	PK-U	36.1	-23.6	0	49.31	-	-	-	-	68.2	-18.89	161	103	V
13.03461	35.2	PK-U	39.2	-22.6	0	51.8	-	-	-	-	68.2	-16.4	0	100	H
13.03345	34.59	PK-U	39.2	-22.6	0	51.59	-	-	-	-	68.2	-16.61	0	100	V
15.27987	33.49	PK-U	41.3	-21.5	0	53.29	-	-	-	-	68.2	-14.92	0	100	H
16.26885	32.07	PK-U	41.3	-21.5	0	52.77	-	-	-	-	68.2	-15.43	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	6435	MIMO	8.57985	36.26	PK-U	36.00	-23.80	0.00	48.46	-	-	-	-	68.20	-19.74	247	100	H
			8.57988	37.61	PK-U	36.00	-23.80	0.00	49.81	-	-	-	-	68.20	-18.39	160	124	V
			12.87094	34.41	PK-U	39.30	-23.40	0.00	50.31	-	-	-	-	68.20	-17.89	0	100	H
			12.87094	34.08	PK-U	39.30	-23.40	0.00	49.98	-	-	-	-	68.20	-18.22	0	100	V
			* 16.08767	33.19	PK-U	41.10	-21.50	0.00	52.79	-	-	74.00	-21.21	-	-	0	100	H
			* 16.08926	32.57	PK-U	41.10	-21.50	0.00	52.17	-	-	74.00	-21.83	-	-	0	100	V
	6475	MIMO	8.63352	35.51	PK-U	36.10	-23.70	0.00	47.91	-	-	-	-	68.20	-20.29	117	140	H
			8.63351	37.14	PK-U	36.10	-23.70	0.00	49.54	-	-	-	-	68.20	-18.66	166	107	V
			12.94862	33.85	PK-U	39.30	-22.90	0.00	50.25	-	-	-	-	68.20	-17.95	0	100	H
			12.95038	34.56	PK-U	39.30	-22.90	0.00	50.96	-	-	-	-	68.20	-17.24	0	100	V
			* 16.18514	32.77	PK-U	41.20	-21.20	0.00	52.77	-	-	74.00	-21.23	-	-	0	100	H
			* 16.18833	32.40	PK-U	41.20	-21.20	0.00	52.40	-	-	74.00	-21.60	-	-	0	100	V
	6515	MIMO	8.68685	35.23	PK-U	36.10	-23.60	0.00	47.73	-	-	-	-	68.20	-20.47	110	179	H
			8.68664	36.34	PK-U	36.10	-23.60	0.00	48.84	-	-	-	-	68.20	-19.36	166	112	V
			13.03153	34.54	PK-U	39.20	-22.60	0.00	51.14	-	-	-	-	68.20	-17.06	0	100	H
			13.03179	34.68	PK-U	39.20	-22.60	0.00	51.28	-	-	-	-	68.20	-16.92	0	100	V
			16.28695	32.49	PK-U	41.30	-21.50	0.00	52.29	-	-	-	-	68.20	-15.91	0	100	H
			16.28858	32.81	PK-U	41.30	-21.50	0.00	52.61	-	-	-	-	68.20	-15.59	0	100	V
802.11ax (HE20) SU Spot-Check	6515	MIMO	8.68664	35.79	PK-U	36.10	-23.60	0.00	48.29	-	-	-	-	68.20	-19.91	113	151	H
			8.68685	36.81	PK-U	36.10	-23.60	0.00	49.31	-	-	-	-	68.20	-18.89	161	103	V
			13.03461	35.20	PK-U	39.20	-22.60	0.00	51.80	-	-	-	-	68.20	-16.40	0	100	H
			13.03345	34.99	PK-U	39.20	-22.60	0.00	51.59	-	-	-	-	68.20	-16.61	0	100	V
			16.27887	33.48	PK-U	41.30	-21.50	0.00	53.28	-	-	-	-	68.20	-14.92	0	100	H
			16.28585	32.97	PK-U	41.30	-21.50	0.00	52.77	-	-	-	-	68.20	-15.43	0	100	V

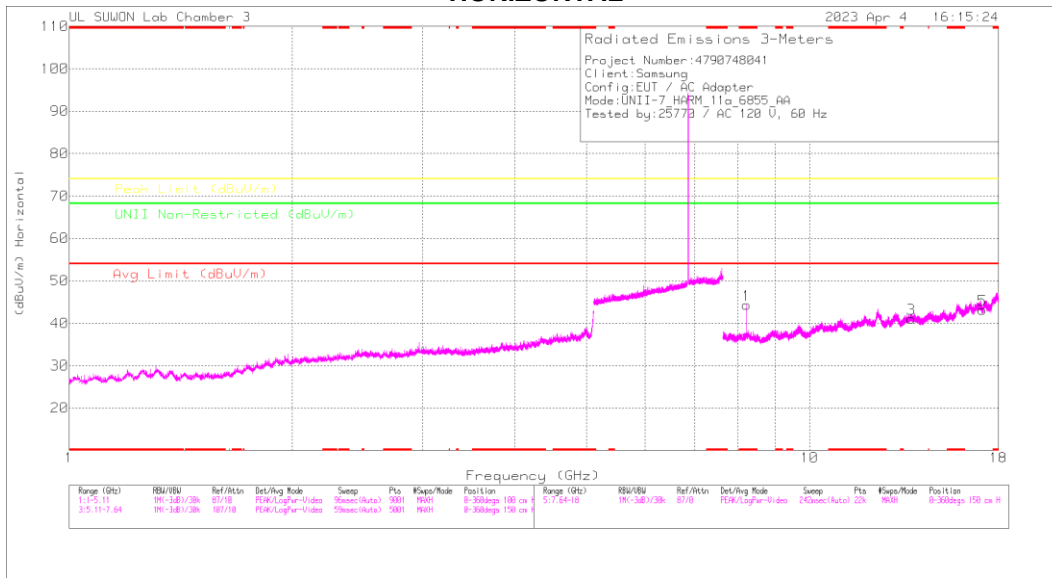
Note1. PK-U - U-NII: Maximum Peak / ADR - U-NII AD primary method, RMS average

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

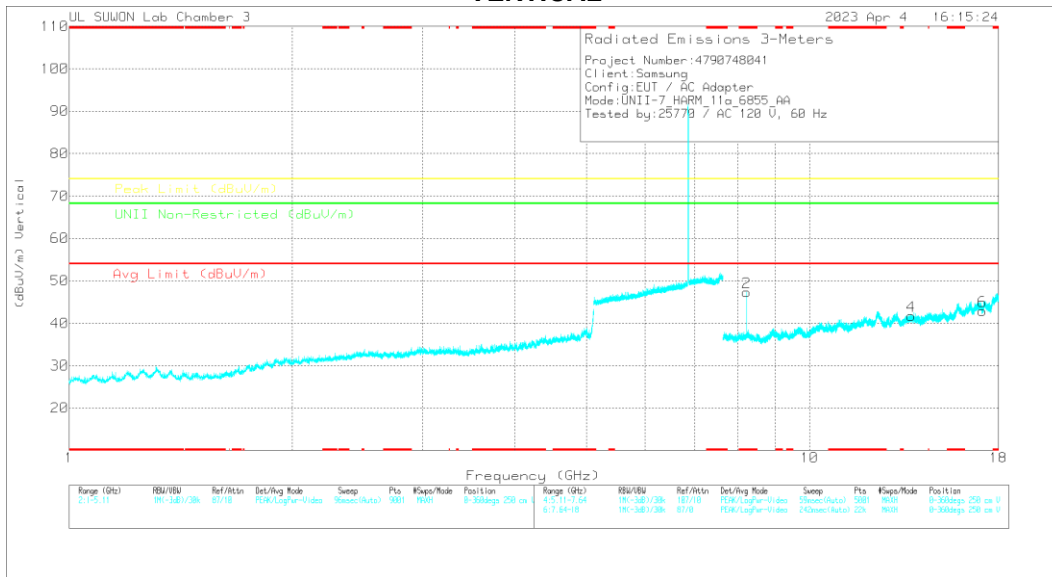
11.3. TX ABOVE 1GHz 2Tx MODE IN U-NII-7 BAND

HARMONICS AND SPURIOUS EMISSIONS(WORST CASE: 802.11a / 6855 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)	Mask Reading (dBuV/m)	Dir	3117_00218657	ISM_HPS(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 (Deg)	Height (cm)	Polarity	
* 8.2257	37.78	PK-U	36	-23.6	0	50.18	-	-	74	-	-	-	-	163	162	H
* 8.22593	30.84	ADR	36	-23.6	-15	43.39	54	-10.81	-	-23.84	-	-	-	163	162	H
* 8.22589	40.11	PK-U	36	-23.6	0	52.51	-	-	74	-21.49	-	-	-	165	119	V
* 8.22597	34.84	ADR	36	-23.6	-15	47.39	54	-6.61	-	-	-	-	-	165	119	V
13.71227	35.71	PK-U	38.7	-23.1	0	51.31	-	-	-	-	68.2	-16.89	0	100	H	
13.70871	35.46	PK-U	38.7	-23.2	0	50.96	-	-	-	-	68.2	-17.24	0	100	V	
17.13964	32.24	PK-U	41.3	-19.6	0	53.94	-	-	-	-	68.2	-14.26	0	100	H	
17.1369	32.09	PK-U	41.3	-19.6	0	53.79	-	-	-	-	68.2	-14.41	0	100	V	

PK-U - U-NII: Maximum Peak

HARMONICS AND SPURIOUS EMISSIONS TEST DATA

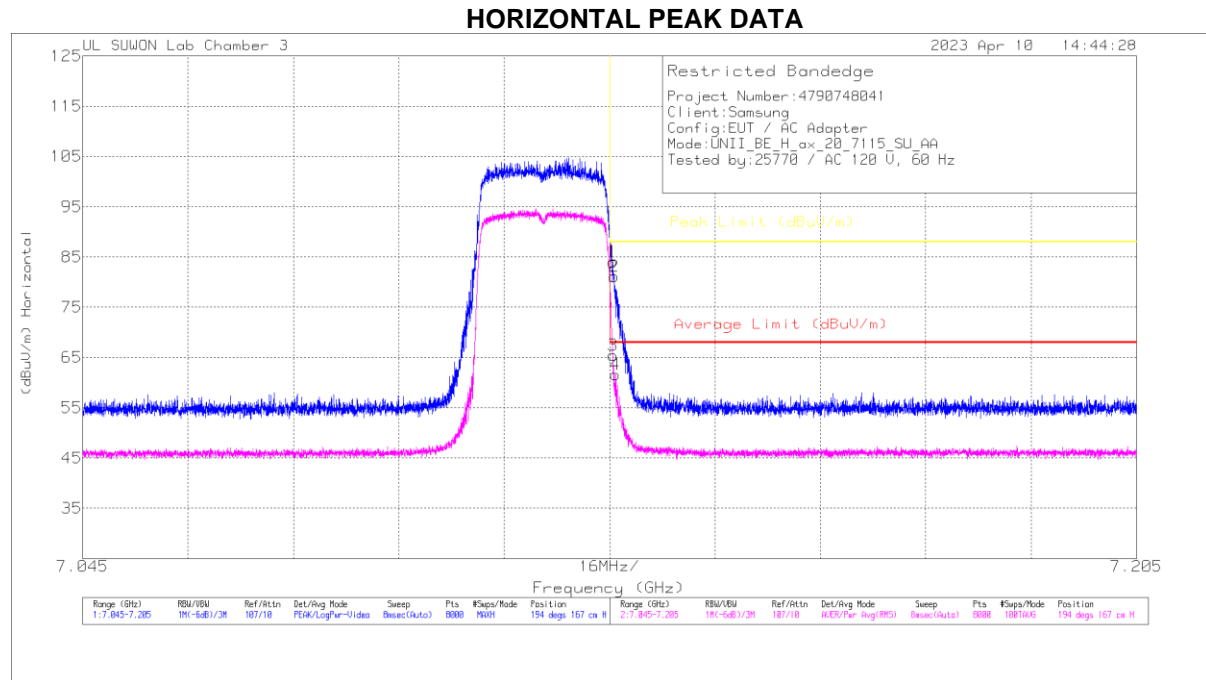
Mode	Freq. [MHz]	Antenna	Frequency [GHz]	Reading [dBuV]	Detector Mode	ANT Factor	Loss [dB]	DC Corr [dB]	Result [dBuV/m]	AV Limit [dBuV/m]	AV Margin [dB]	PK Limit [dBuV/m]	PK Margin [dB]	Non-Restricted [dBuV/m]	Margin [dB]	Azimuth [Degs]	Height [cm]	Polarity	
802.11a	6535	MIMO	8.71320	34.99	PK-U	36.10	-23.60	0.00	47.49	-	-	-	-	68.20	-20.71	112	162	H	
			8.71302	35.86	PK-U	36.10	-23.60	0.00	48.36	-	-	-	-	-	68.20	-19.84	166	119	V
			13.07098	34.54	PK-U	39.20	-22.70	0.00	51.04	-	-	-	-	-	68.20	-17.16	0	100	H
			13.07021	34.38	PK-U	39.20	-22.80	0.00	50.78	-	-	-	-	-	68.20	-17.42	0	100	V
			16.33661	32.45	PK-U	41.30	-21.60	0.00	52.15	-	-	-	-	-	68.20	-16.05	0	100	H
			16.33490	32.63	PK-U	41.30	-21.60	0.00	52.33	-	-	-	-	-	68.20	-15.87	0	100	V
	6695	MIMO	10.04247	22.72	PK	37.30	-22.00	0.00	38.02	-	-	-	-	68.20	-30.18	0-360	150	H	
			* 13.39001	24.09	PK	39.10	-22.90	0.00	40.29	-	-	74.00	-33.71	-	-	-	0-360	150	H
			16.73756	21.29	PK	41.80	-20.10	0.00	42.99	-	-	-	-	-	68.20	-25.21	0-360	150	H
			10.04247	22.40	PK	37.30	-22.00	0.00	37.70	-	-	-	-	-	68.20	-30.50	0-360	250	V
			* 13.39001	23.44	PK	39.10	-22.90	0.00	39.64	-	-	74.00	-34.36	-	-	-	0-360	250	V
			16.73709	21.62	PK	41.80	-20.10	0.00	43.32	-	-	-	-	-	68.20	-24.88	0-360	250	V
	6855	MIMO	* 8.2257	37.76	PK-U	36.00	-23.60	0.00	50.16	-	-	74.00	-23.84	-	-	-	163	162	H
			* 8.22593	30.84	ADR	36.00	-23.60	0.15	43.39	54.00	-10.61	-	-	-	-	-	163	162	H
			* 8.22589	40.11	PK-U	36.00	-23.60	0.00	52.51	-	-	74.00	-21.49	-	-	-	165	119	V
			* 8.22597	34.84	ADR	36.00	-23.60	0.15	47.39	54.00	-6.61	-	-	-	-	-	165	119	V
			13.71227	35.71	PK-U	38.70	-23.10	0.00	51.31	-	-	-	-	-	68.20	-16.89	0	100	H
			13.70871	35.46	PK-U	38.70	-23.20	0.00	50.96	-	-	-	-	-	68.20	-17.24	0	100	V
17.13964			32.24	PK-U	41.30	-19.60	0.00	53.94	-	-	-	-	-	68.20	-14.26	0	100	H	
17.13690			32.09	PK-U	41.30	-19.60	0.00	53.79	-	-	-	-	-	68.20	-14.41	0	100	V	
10.03600			33.15	PK-U	37.30	-22.10	0.00	48.35	-	-	-	-	-	68.20	-19.85	0	100	H	
10.03981			32.61	PK-U	37.30	-22.10	0.00	47.81	-	-	-	-	-	68.20	-20.39	0	100	V	
802.11ax (HE20) ORU Spot-Check	6695	MIMO	* 13.39349	33.73	PK-U	39.10	-23.00	0.00	49.83	-	-	74.00	-24.17	-	-	0	100	H	
			* 13.39093	33.59	PK-U	39.10	-22.90	0.00	49.79	-	-	74.00	-24.21	-	-	0	100	V	
			16.73733	31.63	PK-U	41.80	-20.10	0.00	53.33	-	-	-	-	-	68.20	-14.87	0	100	H
			16.72797	31.56	PK-U	41.80	-20.20	0.00	53.16	-	-	-	-	-	68.20	-15.04	0	100	V
802.11ax (HE40) ORU Spot-Check	6565	MIMO	9.84900	33.37	PK-U	37.10	-22.40	0.00	48.07	-	-	-	-	68.20	-20.13	0	100	H	
			9.85245	33.66	PK-U	37.10	-22.40	0.00	48.36	-	-	-	-	-	68.20	-19.84	0	100	V
			13.12547	34.99	PK-U	39.10	-22.60	0.00	51.49	-	-	-	-	-	68.20	-16.71	0	100	H
			13.13055	30.14	PK-U	39.10	-22.60	0.00	46.64	-	-	-	-	-	68.20	-21.56	0	100	V
			16.41978	33.41	PK-U	41.40	-21.30	0.00	53.51	-	-	-	-	-	68.20	-14.69	0	100	H
16.41350	33.40	PK-U	41.40	-21.30	0.00	53.50	-	-	-	-	-	68.20	-14.70	0	100	V			
802.11ax (HE80) ORU Spot-Check	6705	MIMO	10.05821	32.96	PK-U	37.30	-21.80	0.00	48.46	-	-	-	-	68.20	-19.74	0	100	H	
			10.06210	33.31	PK-U	37.30	-21.90	0.00	48.71	-	-	-	-	-	68.20	-19.49	0	100	V
			13.40965	34.42	PK-U	39.10	-23.10	0.00	50.42	-	-	-	-	-	68.20	-17.78	0	100	H
			13.41189	35.00	PK-U	39.10	-23.10	0.00	51.00	-	-	-	-	-	68.20	-17.20	0	100	V
			16.76635	31.94	PK-U	41.80	-19.90	0.00	53.84	-	-	-	-	-	68.20	-14.36	0	100	H
			16.76531	32.07	PK-U	41.80	-19.90	0.00	53.97	-	-	-	-	-	68.20	-14.23	0	100	V
802.11ax (HE160) 36RU Spot-Check	6665	MIMO	9.99628	33.48	PK-U	37.20	-22.20	0.00	48.48	-	-	-	-	68.20	-19.72	0	100	H	
			9.99247	33.12	PK-U	37.20	-22.10	0.00	48.22	-	-	-	-	-	68.20	-19.98	0	100	V
			* 13.32914	34.56	PK-U	39.10	-23.00	0.00	50.66	-	-	74.00	-23.34	-	-	-	0	100	H
			* 13.33424	34.36	PK-U	39.10	-23.00	0.00	50.46	-	-	74.00	-23.54	-	-	-	0	100	V
			16.66175	32.97	PK-U	41.80	-20.50	0.00	54.27	-	-	-	-	-	68.20	-13.93	0	100	H
10.00054	33.31	PK-U	37.20	-22.10	0.00	48.41	-	-	-	-	-	68.20	-19.79	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: 802.11ax HE20 / 7115 MHz / SU Mode)



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00218957	10dB_ATT(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	7.12547	64.72	PK	35.9	-16.6	0	84.02	-	-	88	-3.98	194	167	H
2	7.12567	61.89	PK	35.9	-16.6	0	81.19	-	-	88	-6.81	194	167	H
3	7.12549	46.21	RMS	35.9	-16.6	0	65.51	68	-2.49	-	-	194	167	H
4	7.12587	42.37	RMS	35.9	-16.7	0	61.57	68	-6.43	-	-	194	167	H

PK - Peak detector
 RMS - RMS detection

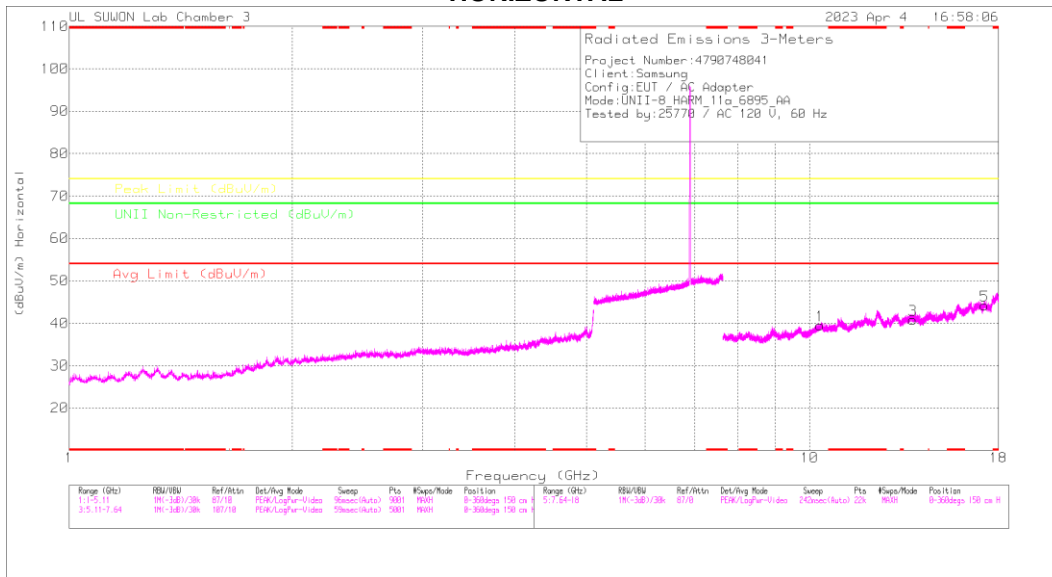
BANDEDGE TEST DATA

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	7115	MIMO	7.12501	59.99	Pk	35.90	-16.60	0.00	79.29	-	-	88.00	-8.71	195	178	H
			7.12507	59.56	Pk	35.90	-16.60	0.00	78.86	-	-	88.00	-9.14	195	178	H
			7.12501	44.15	RMS	35.90	-16.60	0.15	63.60	68.00	-4.40	-	-	195	178	H
			7.12503	44.40	RMS	35.90	-16.60	0.15	63.85	68.00	-4.15	-	-	195	178	H
			7.12501	48.23	Pk	35.90	-16.60	0.00	67.53	-	-	88.00	-20.47	22	101	V
			7.12511	47.89	Pk	35.90	-16.60	0.00	67.19	-	-	88.00	-20.81	22	101	V
			7.12501	33.72	RMS	35.90	-16.60	0.15	53.17	68.00	-14.83	-	-	22	100	V
7.12521	34.39	RMS	35.90	-16.60	0.15	53.84	68.00	-14.16	-	-	22	100	V			
802.11ax (HE20)	7115	MIMO	7.12547	64.72	Pk	35.90	-16.60	0.00	84.02	-	-	88.00	-3.98	194	167	H
			7.12567	61.89	Pk	35.90	-16.60	0.00	81.19	-	-	88.00	-6.81	194	167	H
			7.12549	46.21	RMS	35.90	-16.60	0.00	65.51	68.00	-2.49	-	-	194	167	H
			7.12587	42.37	RMS	35.90	-16.70	0.00	61.57	68.00	-6.43	-	-	194	167	H
			7.12545	57.15	Pk	35.90	-16.60	0.00	76.45	-	-	88.00	-11.55	19	101	V
			7.12569	53.20	Pk	35.90	-16.60	0.00	72.50	-	-	88.00	-15.50	19	101	V
			7.12549	38.38	RMS	35.90	-16.60	0.00	57.68	68.00	-10.32	-	-	19	100	V
7.12569	34.16	RMS	35.90	-16.60	0.00	53.46	68.00	-14.54	-	-	19	100	V			
802.11ax (HE40)	7085	MIMO	7.12501	36.43	Pk	35.90	-16.60	0.00	55.73	-	-	88.00	-32.27	196	179	H
			7.18974	38.74	Pk	35.80	-16.30	0.00	58.24	-	-	88.00	-29.76	196	179	H
			7.12501	26.30	RMS	35.90	-16.60	0.00	45.60	68.00	-22.40	-	-	196	179	H
			7.19802	27.43	RMS	35.80	-16.20	0.00	47.03	68.00	-20.97	-	-	196	179	H
			7.12501	35.70	Pk	35.90	-16.60	0.00	55.00	-	-	88.00	-33.00	22	100	V
			7.17154	39.34	Pk	35.90	-16.40	0.00	58.84	-	-	88.00	-29.16	22	100	V
			7.12501	25.99	RMS	35.90	-16.60	0.00	45.29	68.00	-22.71	-	-	22	100	V
7.20438	27.40	RMS	35.80	-16.20	0.00	47.00	68.00	-21.00	-	-	22	100	V			
802.11ax (HE80)	7025	MIMO	7.12501	36.14	Pk	35.90	-16.60	0.00	55.44	-	-	88.00	-32.56	172	148	H
			7.16088	40.03	Pk	35.90	-16.40	0.00	59.53	-	-	88.00	-28.47	172	148	H
			7.12501	26.13	RMS	35.90	-16.60	0.00	45.43	68.00	-22.57	-	-	172	148	H
			7.20040	27.59	RMS	35.80	-16.30	0.00	47.09	68.00	-20.91	-	-	172	148	H
			7.12501	37.21	Pk	35.90	-16.60	0.00	56.51	-	-	88.00	-31.49	180	187	V
			7.17998	38.96	Pk	35.80	-16.30	0.00	58.46	-	-	88.00	-29.54	180	187	V
			7.12501	26.00	RMS	35.90	-16.60	0.00	45.30	68.00	-22.70	-	-	180	187	V
7.17732	27.40	RMS	35.80	-16.30	0.00	46.90	68.00	-21.10	-	-	180	187	V			
802.11ax (HE160)	6985	MIMO	7.12501	36.16	Pk	35.90	-16.60	0.00	55.46	-	-	88.00	-32.54	173	148	H
			7.14796	39.32	Pk	35.90	-16.40	0.00	58.82	-	-	88.00	-29.18	173	148	H
			7.12501	27.59	RMS	35.90	-16.60	0.00	46.89	68.00	-21.11	-	-	173	148	H
			7.13933	27.89	RMS	35.90	-16.50	0.00	47.29	68.00	-20.71	-	-	173	148	H
			7.12501	36.99	Pk	35.90	-16.60	0.00	56.29	-	-	88.00	-31.71	182	155	V
			7.20044	39.55	Pk	35.80	-16.30	0.00	59.05	-	-	88.00	-28.95	182	155	V
			7.12501	25.89	RMS	35.90	-16.60	0.00	45.19	68.00	-22.81	-	-	182	155	V
7.19808	27.32	RMS	35.80	-16.20	0.00	46.92	68.00	-21.08	-	-	182	155	V			

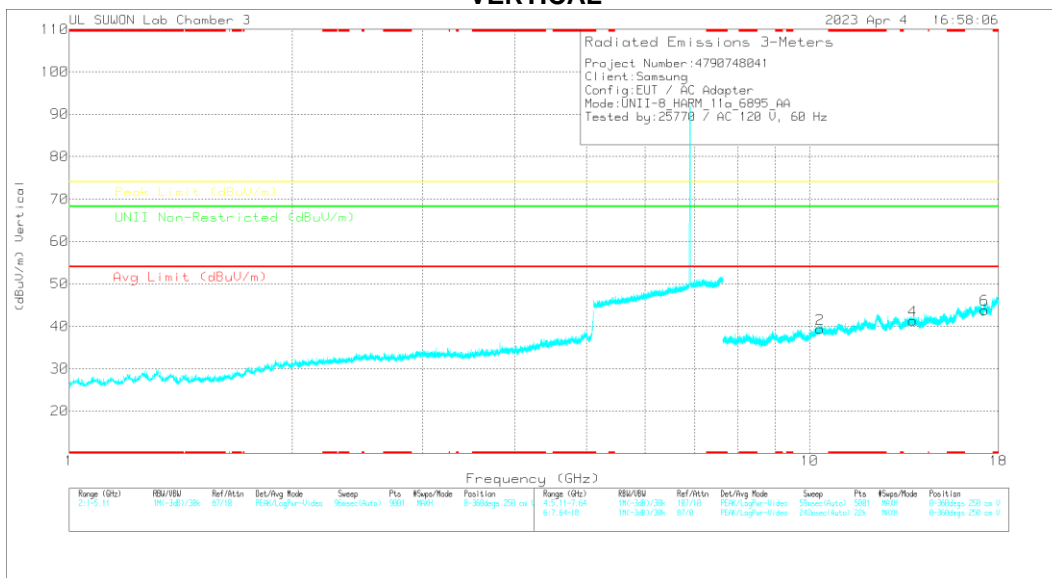
Note1. PK-U - U-NII: Maximum Peak / ADR - U-NII AD primary method, RMS average

HARMONICS AND SPURIOUS EMISSIONS(WORST CASE: 802.11a / 6895 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_00218967	9GHz_HSP(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)	Asmth (Degs)	Height (cm)	Polarity
10.34345	33.5	PK-U	37.5	-21.6	0	49.4	-	-	-	-	68.2	-18.8	0	100	H
10.34336	33.81	PK-U	37.5	-21.6	0	49.71	-	-	-	-	68.2	-18.49	0	100	V
13.79253	35.69	PK-U	38.7	-23.4	0	50.99	-	-	-	-	68.2	-17.21	0	100	H
13.78823	35.28	PK-U	38.7	-23.4	0	50.58	-	-	-	-	68.2	-17.82	0	100	V
17.23888	33.07	PK-U	41.1	-18.8	0	55.37	-	-	-	-	68.2	-12.83	0	100	H
17.23806	31.81	PK-U	41.1	-18.8	0	54.11	-	-	-	-	68.2	-14.09	0	100	V

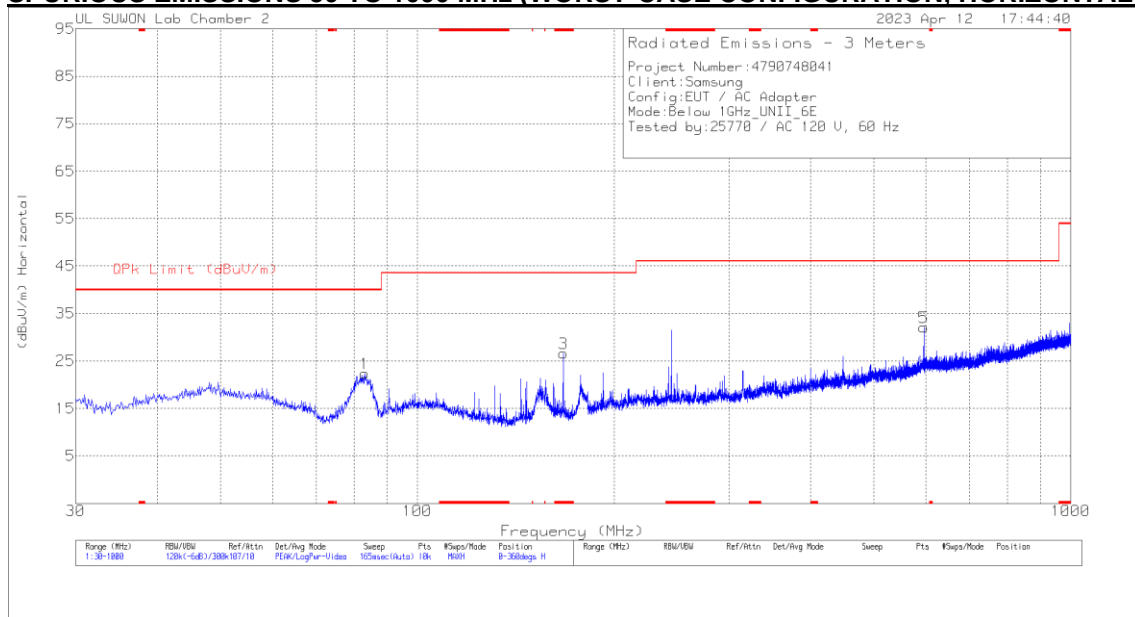
PK-U - U-NII: Maximum Peak

HARMONICS AND SPURIOUS EMISSIONS TEST DATA

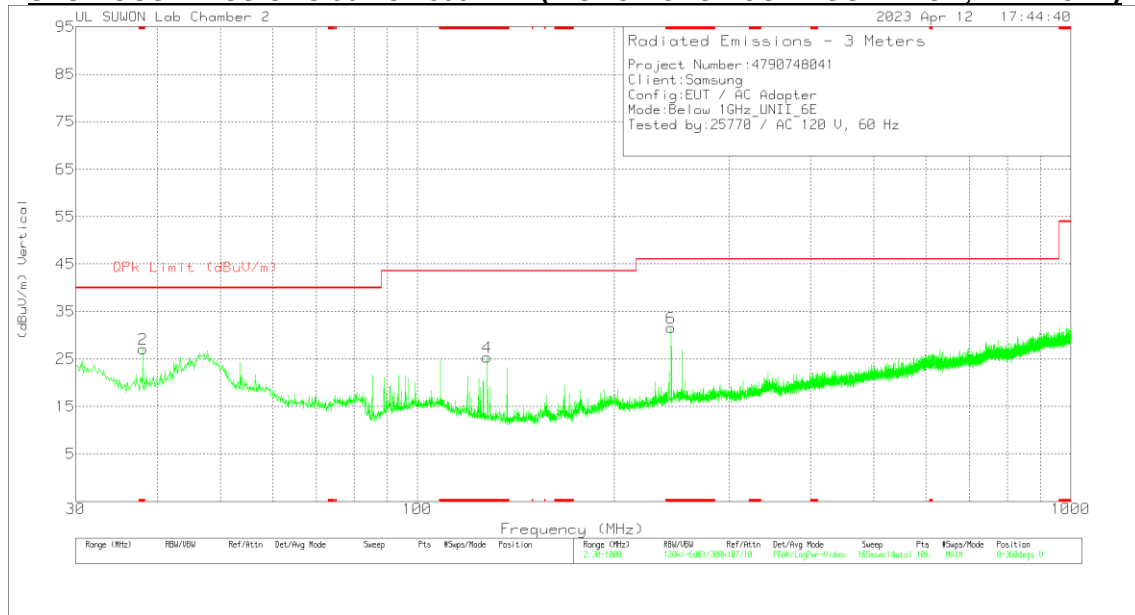
Mode	Freq. [MHz]	Antenna	Frequency [GHz]	Reading [dBuV]	Detector Mode	ANT Factor	Loss [dB]	DC Corr [dB]	Result [dBuV/m]	AV Limit [dBuV/m]	AV Margin [dB]	PK Limit [dBuV/m]	PK Margin [dB]	Non-Restricted [dBuV/m]	Margin [dB]	Azimuth [Degs]	Height [cm]	Polarity
802.11a	6895	MIMO	10.34345	33.50	PK-U	37.50	-21.60	0.00	49.40	-	-	-	-	68.20	-18.80	0	100	H
			10.34336	33.81	PK-U	37.50	-21.60	0.00	49.71	-	-	-	-	68.20	-18.49	0	100	V
			13.79253	35.69	PK-U	38.70	-23.40	0.00	50.99	-	-	-	-	68.20	-17.21	0	100	H
			13.78823	35.28	PK-U	38.70	-23.40	0.00	50.58	-	-	-	-	68.20	-17.62	0	100	V
			17.23888	33.07	PK-U	41.10	-18.80	0.00	55.37	-	-	-	-	68.20	-12.83	0	100	H
			17.23806	31.81	PK-U	41.10	-18.80	0.00	54.11	-	-	-	-	68.20	-14.09	0	100	V
	6995	MIMO	10.49455	33.14	PK-U	37.60	-22.10	0.00	48.64	-	-	-	-	68.20	-19.56	0	100	H
			10.49268	33.27	PK-U	37.60	-22.10	0.00	48.77	-	-	-	-	68.20	-19.43	0	100	V
			13.99080	36.41	PK-U	38.80	-23.70	0.00	51.51	-	-	-	-	68.20	-16.69	0	100	H
			13.98942	35.48	PK-U	38.80	-23.80	0.00	50.48	-	-	-	-	68.20	-17.72	0	100	V
			17.48750	31.00	PK-U	41.20	-18.30	0.00	53.90	-	-	-	-	68.20	-14.30	0	100	H
			17.48724	31.92	PK-U	41.20	-18.30	0.00	54.82	-	-	-	-	68.20	-13.38	0	100	V
	7115	MIMO	* 10.67155	33.09	PK-U	37.70	-21.60	0.00	49.19	-	-	74.00	-24.81	-	-	0	100	H
			* 10.67053	33.31	PK-U	37.70	-21.60	0.00	49.41	-	-	74.00	-24.59	-	-	0	100	V
			14.22927	35.11	PK-U	39.30	-24.00	0.00	50.41	-	-	-	-	68.20	-17.79	0	100	H
			14.22978	35.71	PK-U	39.30	-24.00	0.00	51.01	-	-	-	-	68.20	-17.19	0	100	V
			* 17.79005	31.43	PK-U	41.40	-17.90	0.00	54.93	-	-	74.00	-19.07	-	-	0	100	H
			* 17.78708	31.90	PK-U	41.40	-17.90	0.00	55.40	-	-	74.00	-18.60	-	-	0	100	V
802.11ax (HE20) SU Spot-check	7115	MIMO	* 10.68101	33.02	PK-U	37.80	-21.70	0.00	49.12	-	-	74.00	-24.88	-	-	0	100	H
			* 10.67943	33.64	PK-U	37.80	-21.60	0.00	49.84	-	-	74.00	-24.16	-	-	0	100	V
			14.22009	35.15	PK-U	39.20	-23.80	0.00	50.55	-	-	-	-	68.20	-17.65	0	100	H
			14.22821	35.59	PK-U	39.30	-24.00	0.00	50.89	-	-	-	-	68.20	-17.31	0	100	V
			* 17.78138	31.57	PK-U	41.40	-17.80	0.00	55.17	-	-	74.00	-18.83	-	-	0	100	H
			* 17.79034	31.08	PK-U	41.40	-17.90	0.00	54.58	-	-	74.00	-19.42	-	-	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

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	VULB9163_749	Below_1G(dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	OPK Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	83.059	40.31	Pk	13.5	-31.4	0	22.41	40	-17.59	0-360	100	H
3	* 167.158	42.87	Pk	14.5	-30.8	0	26.57	43.52	-16.95	0-360	100	H
5	595.801	36.74	Pk	24.9	-29.6	0	32.04	46.02	-13.98	0-360	100	H
2	* 38.051	40.95	Pk	18	-31.8	0	27.15	40	-12.85	0-360	100	V
4	* 127.97	42.01	Pk	14.6	-31.2	0	25.41	43.52	-18.11	0-360	100	V
6	* 244.661	43.68	Pk	18.4	-30.5	0	31.58	46.02	-14.44	0-360	100	V

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

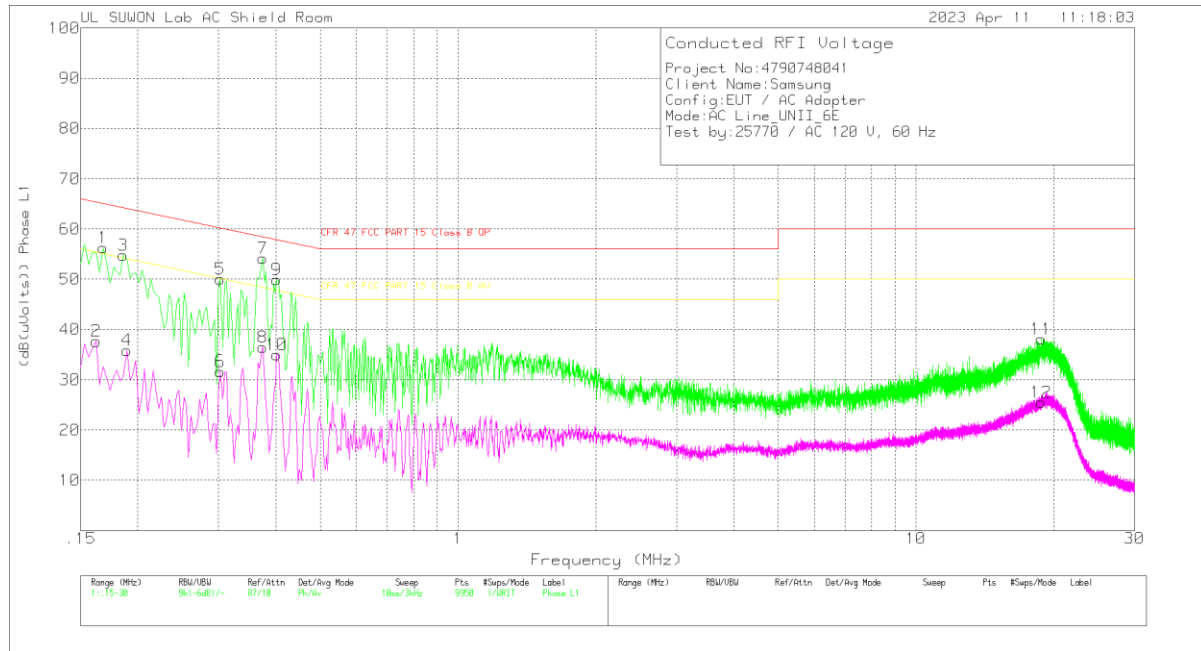
The receiver is set to a resolution bandwidth of 9 kHz. Peak detection is used unless otherwise noted as quasi-peak or average.

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_Wit h EX_L1[dB]	CABLELOS S(dB)	Corrected Reading (dB(uVolts))	CFR 47 FCC PART 15 Class B QP	Margin (dB)	CFR 47 FCC PART 15 Class B AV	Margin (dB)
1	.168	46.14	Pk	10	.1	56.24	65.06	-8.82	-	-
2	.162	27.66	Av	9.9	.1	37.66	-	-	55.36	-17.7
3	.186	44.74	Pk	9.9	.2	54.84	64.21	-9.37	-	-
4	.189	25.81	Av	9.9	.2	35.91	-	-	54.08	-18.17
5	.303	40.15	Pk	9.7	.2	50.05	60.16	-10.11	-	-
6	.303	21.77	Av	9.7	.2	31.67	-	-	50.16	-18.49
7	.375	44.17	Pk	9.8	.2	54.17	58.39	-4.22	-	-
8	.375	26.48	Av	9.8	.2	36.48	-	-	48.39	-11.91
9	.402	39.94	Pk	9.8	.2	49.94	57.81	-7.87	-	-
10	.402	24.92	Av	9.8	.2	34.92	-	-	47.81	-12.89
11	18.75	27.64	Pk	10.1	.4	38.14	60	-21.86	-	-
12	18.75	15.05	Av	10.1	.4	25.55	-	-	50	-24.45

Pk - Peak detector

Av - Average detection

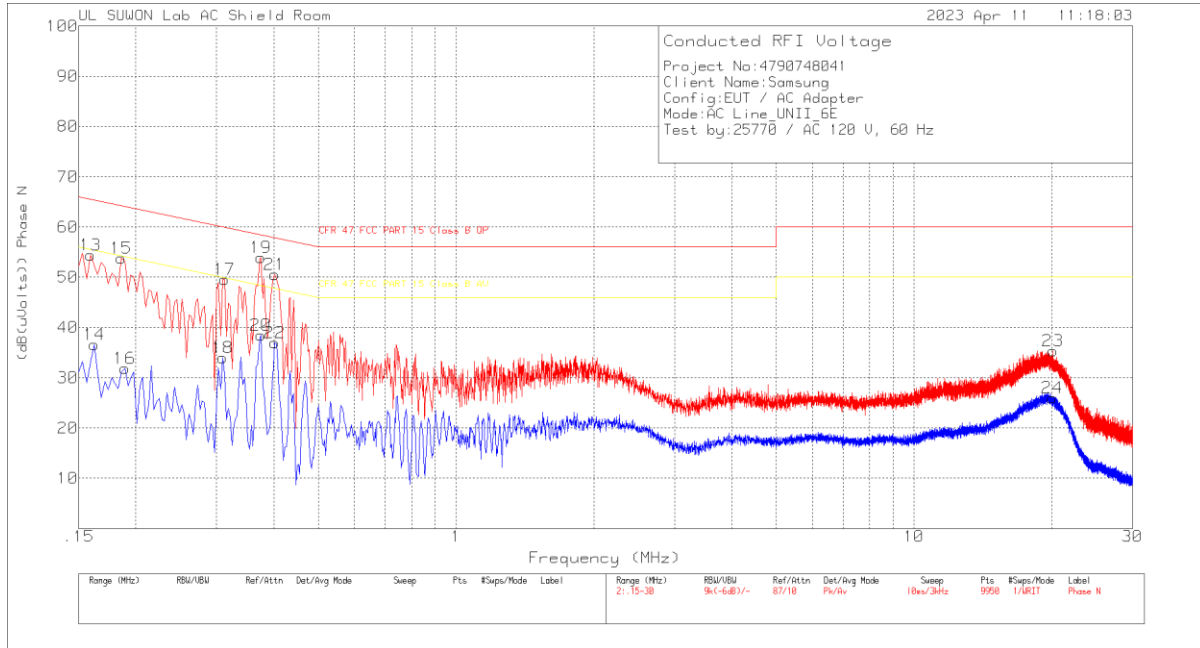
Quasi-Peak Emissions

Range 1: Phase L1 .15 - 30MHz

Frequency (MHz)	Meter Reading (dBuV)	Det	101836_Wit h EX_L1[dB]	CABLELOS S(dB)	Corrected Reading (dB(uVolts))	CFR 47 FCC PART 15 Class B QP	Margin (dB)	CFR 47 FCC PART 15 Class B AV	Margin (dB)
.16875	36.81	Qp	10	.1	46.91	65.02	-18.11	-	-
.18675	36.28	Qp	9.9	.2	46.38	64.18	-17.8	-	-
.37425	40.2	Qp	9.8	.2	50.2	58.41	-8.21	-	-
.40215	37.92	Qp	9.8	.2	47.92	57.81	-9.89	-	-

Qp - Quasi-Peak detector

LINE 2 DATA



Trace Markers

Range 2: Phase N .15 - 30MHz

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	101836_Wit h EX_N[dB]	CABLELOS S(dB)	Corrected Reading (dB(uVolts))	CFR 47 FCC PART 15 Class B QP	Margin (dB)	CFR 47 FCC PART 15 Class B AV	Margin (dB)
13	.159	44.48	Pk	9.8	.1	54.38	65.52	-11.14	-	-
14	.162	26.65	Av	9.9	.1	36.65	-	-	55.36	-18.71
15	.186	43.65	Pk	9.9	.2	53.75	64.21	-10.46	-	-
16	.189	21.73	Av	9.9	.2	31.83	-	-	54.08	-22.25
17	.312	39.7	Pk	9.7	.2	49.6	59.92	-10.32	-	-
18	.309	24.11	Av	9.7	.2	34.01	-	-	50	-15.99
19	.375	43.94	Pk	9.8	.2	53.94	58.39	-4.45	-	-
20	.375	28.5	Av	9.8	.2	38.5	-	-	48.39	-9.89
21	.402	40.52	Pk	9.8	.2	50.52	57.81	-7.29	-	-
22	.402	26.95	Av	9.8	.2	36.95	-	-	47.81	-10.86
23	20.082	24.69	Pk	10.3	.4	35.39	60	-24.61	-	-
24	20.076	15.33	Av	10.3	.4	26.03	-	-	50	-23.97

Pk - Peak detector

Av - Average detection

Quasi-Peak Emissions

Range 2: Phase N .15 - 30MHz

Frequency (MHz)	Meter Reading (dBuV)	Det	101836_Wit h EX_N[dB]	CABLELOS S(dB)	Corrected Reading (dB(uVolts))	CFR 47 FCC PART 15 Class B QP	Margin (dB)	CFR 47 FCC PART 15 Class B AV	Margin (dB)
.37425	40.79	Qp	9.8	.2	50.79	58.41	-7.62	-	-
.40275	39.26	Qp	9.8	.2	49.26	57.8	-8.54	-	-

Qp - Quasi-Peak detector

14. Contention Based Protocol

14.1. OVERVIEW

14.1.1. LIMITS

FCC

§15.407 (d) (6)
KDB 987594 D02

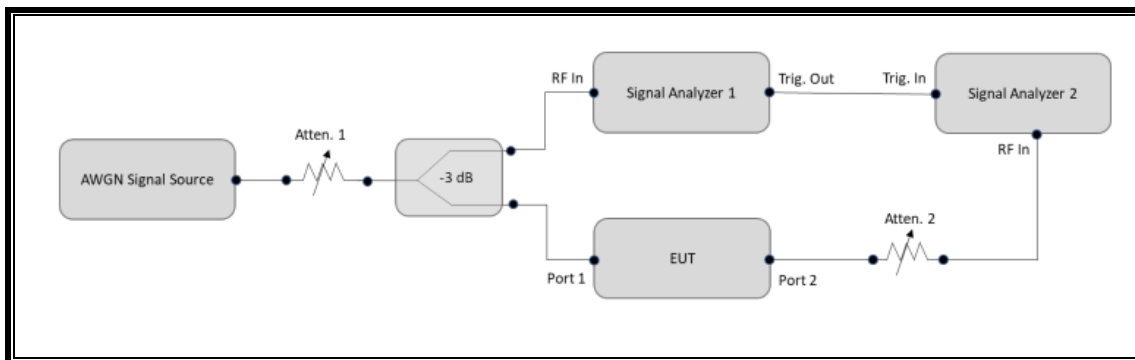
Indoor access points, subordinate devices and client devices operating in the 5.925-7.125 GHz band (herein referred to as unlicensed devices) are required to use technologies that include a contention-based protocol to avoid co-channel interference with incumbent devices sharing the band. To ensure incumbent co-channel operations are detected in a technology-agnostic manner, unlicensed devices are required to detect co-channel radio frequency energy (energy detect) and avoid simultaneous transmission.

Unlicensed low-power indoor devices must detect co-channel radio frequency power that is at least -62 dBm or lower. Upon detection of energy in the band, unlicensed low power indoor devices must vacate the channel (in which incumbent signal is transmitted) and stay off the incumbent channel as long as detected radio frequency power is equal to or greater than the threshold (-62 dBm)¹. The -62 dBm (or lower) threshold is referenced to a 0 dBi antenna gain.

To ensure incumbent operations are reliably detected in the band, low power indoor devices must detect RF energy throughout their intended operating channel. For example, an 802.11 device that plans to transmit a 40 MHz- wide signal (on a primary 20 MHz channel and a secondary 20 MHz channel) must detect energy throughout the entire 40 MHz channel. Additionally, low-power indoor devices must detect co-channel energy with 90% or greater certainty.

14.1.2. TEST AND MEASUREMENT SYSTEM

CONDUCTED METHOD SYSTEM BLOCK DIAGRAM



TEST SETTING

- 1) Configure the EUT to transmit with a constant duty cycle.
- 2) Set the operating parameters of the EUT including power level, operating frequency, modulation and bandwidth.
- 3) Set the signal analyzer center frequency to the nominal EUT channel center frequency. The span range of the signal analyzer shall be between two times and five times the OBW of the EUT. Connect the output port of the EUT to the signal analyzer 2, as shown in Figure 2. Ensure that the attenuator 2 provides enough attenuation to not overload the signal analyzer 2 receiver.
- 4) Monitoring the signal analyzer 2, verify the EUT is operating and transmitting with the parameters set at step two.
- 5) Using an AWGN signal source, generate (but do not transmit, i.e., RF OFF) a 10 MHz-wide AWGN signal. Use Table 1 to determine the center frequency of the 10 MHz AWGN signal relative to the EUT's channel bandwidth and center frequency.
- 6) Set the AWGN signal power to an extremely low level (more than 20 dB below the -62 dBm threshold). Connect the AWGN signal source, via a 3-dB splitter, to the signal analyzer 1 and the EUT as shown in Figure 2.
- 7) Transmit the AWGN signal (RF ON) and verify its characteristics on the signal analyzer 1.
- 8) Monitor the signal analyzer 2 to verify if the AWGN signal has been detected and the EUT has ceased transmission. If the EUT continues to transmit, then incrementally increase the AWGN signal power level until the EUT stops transmitting.
- 9) (Including all losses in the RF paths) Determine and record the AWGN signal power level (at the EUT's antenna port) at which the EUT ceased transmission. Repeat the procedure at least 10 times to verify the EUT can detect an AWGN signal with 90% (or better) level of certainty.
- 10) Refer to Table 1 to determine number of times the detection threshold testing needs to be repeated. If testing is required more than once, then go back to step 5, choose a different center frequency for the AWGN signal and repeat the process.

TEST AND MEASUREMENT EQUIPMENT

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

TEST EQUIPMENT LIST				
Description	Manufacturer	Model	S/N	Next Cal Due
Spectrum Analyzer	Keysight	N9030B	MY60070693	2024-01-09
Spectrum Analyzer	Agilent	N9030A	MY54170614	2023-08-03
Vector Signal Generator	R&S	SMW200A	110251	2023-08-04
Combiner	WEINSCHEL	WA1534	UL001	2024-01-13
Combiner	WEINSCHEL	WA1534	UL003	2024-01-09
Combiner	WEINSCHEL	WA1534	UL004	2024-01-09
Attenuator	WEINSCHEL	WA76-30-21	A015	2023-08-03
Attenuator	PASTERNAK	PE7087-10	A001	2023-08-03
Attenuator	PASTERNAK	PE7087-10	A008	2023-08-03

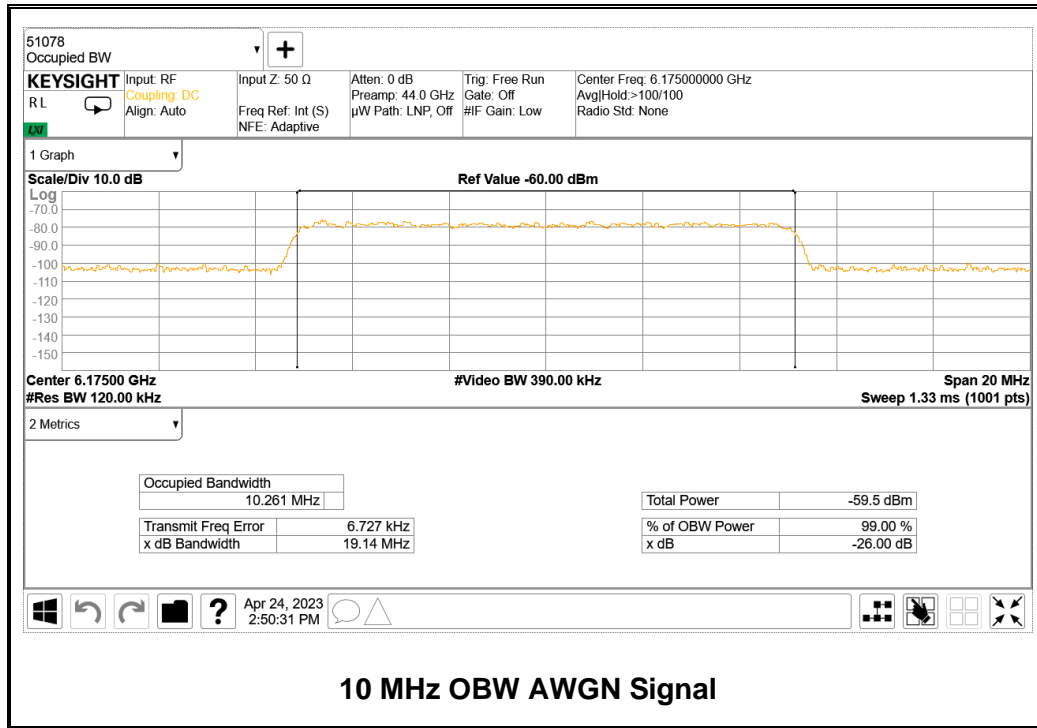
SUPPORT EQUIPMENT

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

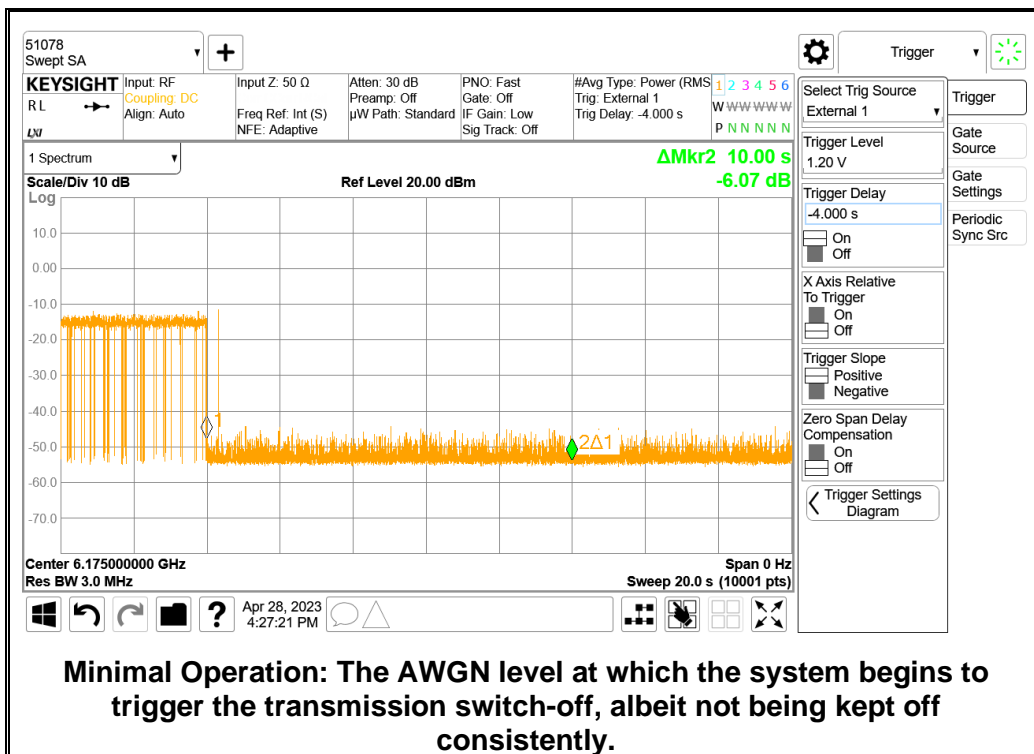
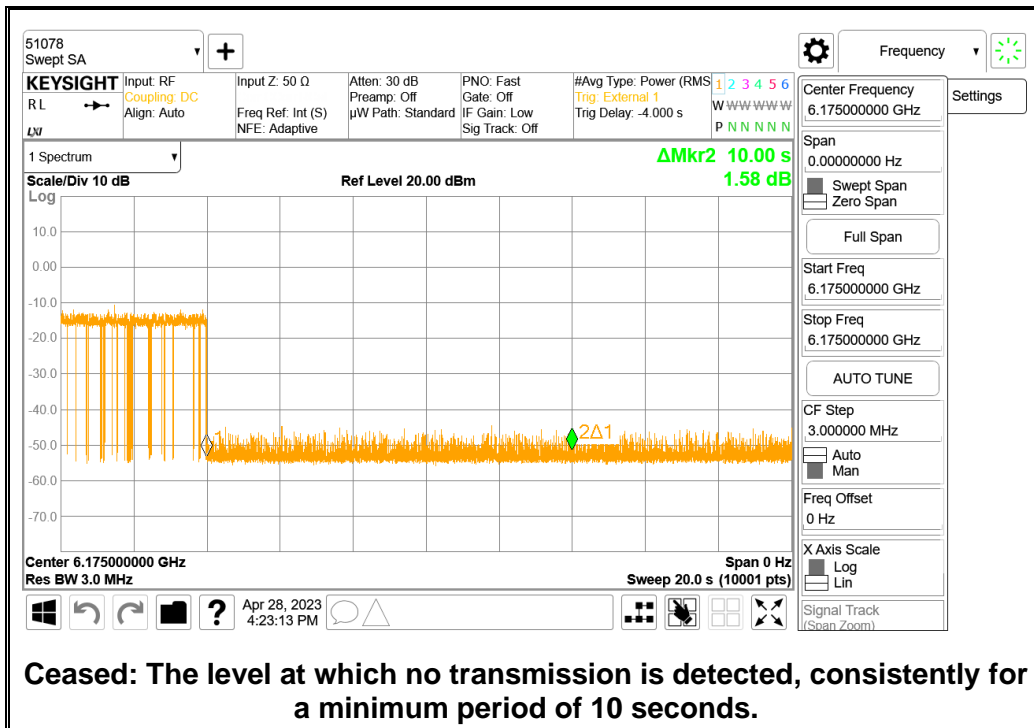
PERIPHERAL SUPPORT EQUIPMENT LIST				
Description	Manufacturer	Model	Serial Number	FCC ID
Wireless Access Point	ASUS	GT-AXE11000	M3IAJF200742	MSQ-RTAXJF00
Notebook PC (Controller/Server)	HP	HP EliteDesk 800 G1 TWR	CZC4125J25	DoC

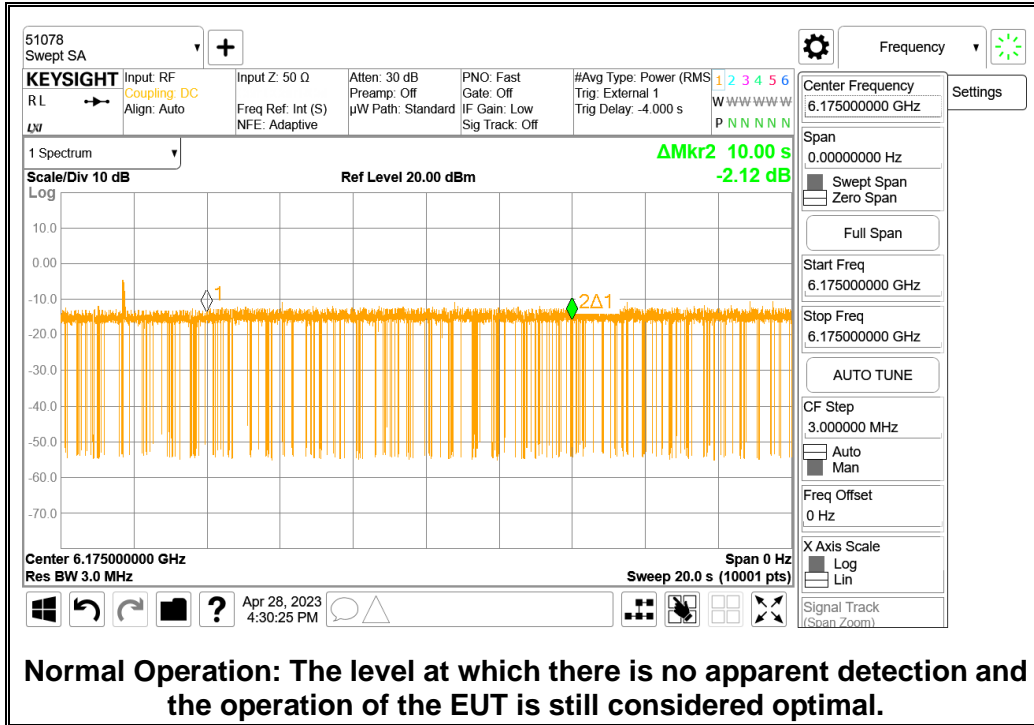
14.2. TEST RESULTS

14.2.1. AWGN Sample signal



14.2.2. Contention Based Protocol Timing Plot(Measurement Criteria)





14.2.3. Contention Based Protocol – Incumbent Detection & Trial Results

Band	Channel	Freq	BW	Inc. Freq	Detection power level (Prior)	Detection limit	Gain	Detection limit (include Gain)	Margin	Condition
5	45	6175	20	6175	-74.40	-62.00	-7.91	-69.91	-4.49	Ceased
					-77.42	-62.00	-7.91	-69.91	-7.51	Minimal
					-82.30	-62.00	-7.91	-69.91	-12.39	Normal
	47	6185	160	6110	-74.22	-62.00	-7.91	-69.91	-4.31	Ceased
					-78.28	-62.00	-7.91	-69.91	-8.37	Minimal
					-82.25	-62.00	-7.91	-69.91	-12.34	Normal
				6175	-73.37	-62.00	-7.91	-69.91	-3.46	Ceased
					-78.41	-62.00	-7.91	-69.91	-8.50	Minimal
					-81.67	-62.00	-7.91	-69.91	-11.76	Normal
				6260	-74.60	-62.00	-7.91	-69.91	-4.69	Ceased
					-78.50	-62.00	-7.91	-69.91	-8.59	Minimal
					-80.54	-62.00	-7.91	-69.91	-10.63	Normal
6	105	6475	20	6475	-74.58	-62.00	-7.63	-69.63	-4.95	Ceased
					-78.60	-62.00	-7.63	-69.63	-8.97	Minimal
					-80.62	-62.00	-7.63	-69.63	-10.99	Normal
	111	6505	160	6435	-73.35	-62.00	-7.63	-69.63	-3.72	Ceased
					-77.38	-62.00	-7.63	-69.63	-7.75	Minimal
					-78.28	-62.00	-7.63	-69.63	-8.65	Normal
				6495	-74.51	-62.00	-7.63	-69.63	-4.88	Ceased
					-78.48	-62.00	-7.63	-69.63	-8.85	Minimal
					-81.46	-62.00	-7.63	-69.63	-11.83	Normal
				6575	-73.39	-62.00	-7.63	-69.63	-3.76	Ceased
					-75.34	-62.00	-7.63	-69.63	-5.71	Minimal
					-78.33	-62.00	-7.63	-69.63	-8.70	Normal
7	149	6695	20	6695	-74.68	-62.00	-7.80	-69.80	-4.88	Ceased
					-77.73	-62.00	-7.80	-69.80	-7.93	Minimal
					-79.67	-62.00	-7.80	-69.80	-9.87	Normal
	143	6665	160	6595	-74.35	-62.00	-7.80	-69.80	-4.55	Ceased
					-76.38	-62.00	-7.80	-69.80	-6.58	Minimal
					-79.32	-62.00	-7.80	-69.80	-9.52	Normal
				6655	-74.56	-62.00	-7.80	-69.80	-4.76	Ceased
					-77.42	-62.00	-7.80	-69.80	-7.62	Minimal
					-80.11	-62.00	-7.80	-69.80	-10.31	Normal
				6735	-75.55	-62.00	-7.80	-69.80	-5.75	Ceased
					-78.42	-62.00	-7.80	-69.80	-8.62	Minimal
					-81.16	-62.00	-7.80	-69.80	-11.36	Normal
8	209	6995	20	6995	-76.52	-62.00	-9.71	-71.71	-4.81	Ceased
					-78.62	-62.00	-9.71	-71.71	-6.91	Minimal
					-80.61	-62.00	-9.71	-71.71	-8.90	Normal
	207	6985	160	6915	-72.50	-62.00	-9.71	-71.71	-0.79	Ceased
					-75.42	-62.00	-9.71	-71.71	-3.71	Minimal
					-83.43	-62.00	-9.71	-71.71	-11.72	Normal
				6975	-73.78	-62.00	-9.71	-71.71	-2.07	Ceased
					-75.63	-62.00	-9.71	-71.71	-3.92	Minimal
					-81.54	-62.00	-9.71	-71.71	-9.83	Normal
				7055	-73.51	-62.00	-9.71	-71.71	-1.80	Ceased
					-78.59	-62.00	-9.71	-71.71	-6.88	Minimal
					-82.16	-62.00	-9.71	-71.71	-10.45	Normal

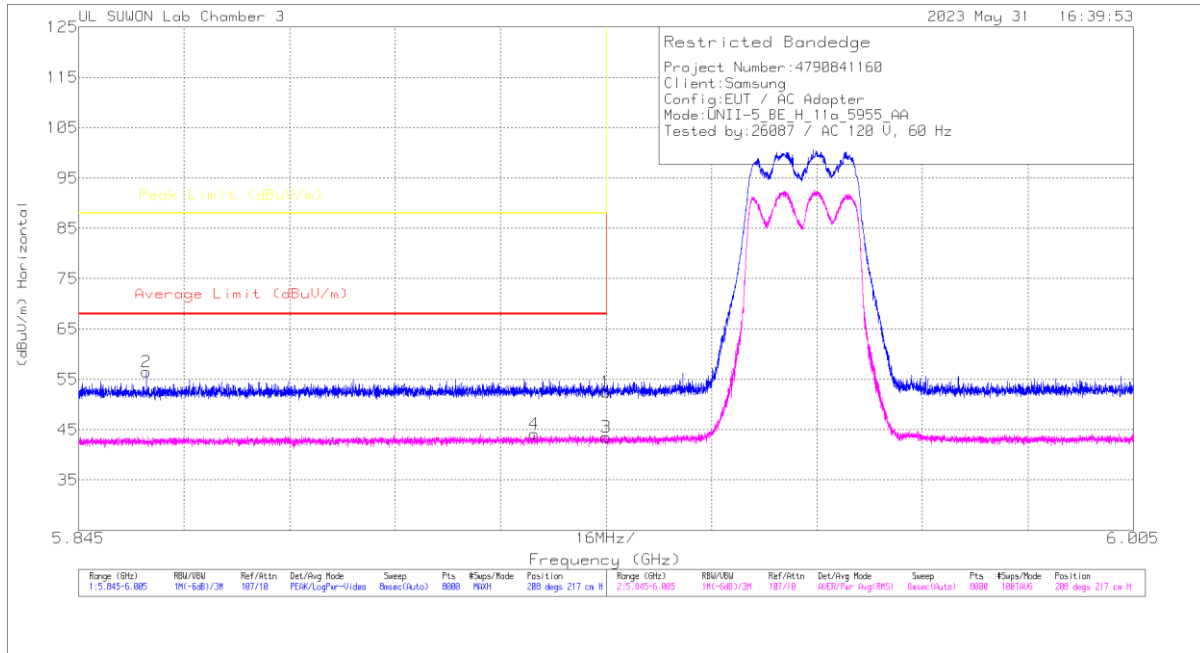
Band	Channel	Freq	BW	Inc. Freq	1	2	3	4	5	6	7	8	9	10	Detection Rate (%)
5	45	6175	20	6175	o	o	o	o	o	o	o	o	o	o	100
				6110	o	o	o	o	o	o	o	o	o	o	100
	47	6185	160	6185	o	o	o	o	o	o	o	o	o	o	100
				6260	o	o	o	o	o	o	o	o	o	o	100
6	105	6475	20	6475	o	o	o	o	o	o	o	o	o	o	100
				6435	o	o	o	o	o	o	o	o	o	x	90
	111	6505	160	6495	o	o	o	o	o	o	o	o	o	o	100
				6575	o	o	o	o	o	o	o	o	o	o	100
7	149	6695	20	6695	o	o	o	o	o	o	o	o	o	o	100
				6595	o	o	o	o	o	o	o	o	o	o	100
	143	6665	160	6655	o	o	o	o	o	o	o	o	o	o	100
				6735	o	o	o	o	o	o	o	o	o	o	100
8	209	6995	20	6995	o	o	o	o	o	o	o	o	o	o	100
				6915	o	o	x	o	o	o	o	o	o	o	90
	207	6985	160	6975	o	o	o	o	o	o	o	o	o	o	100
				7055	o	o	o	o	o	o	o	o	o	o	100

15. SPOT-CHECK TEST RESULT

2TX Antenna 1 + Antenna 2

BANDEDGE (WORST CASE: 802.11a / 5955 MHz)

5955 MHz HORIZONTAL



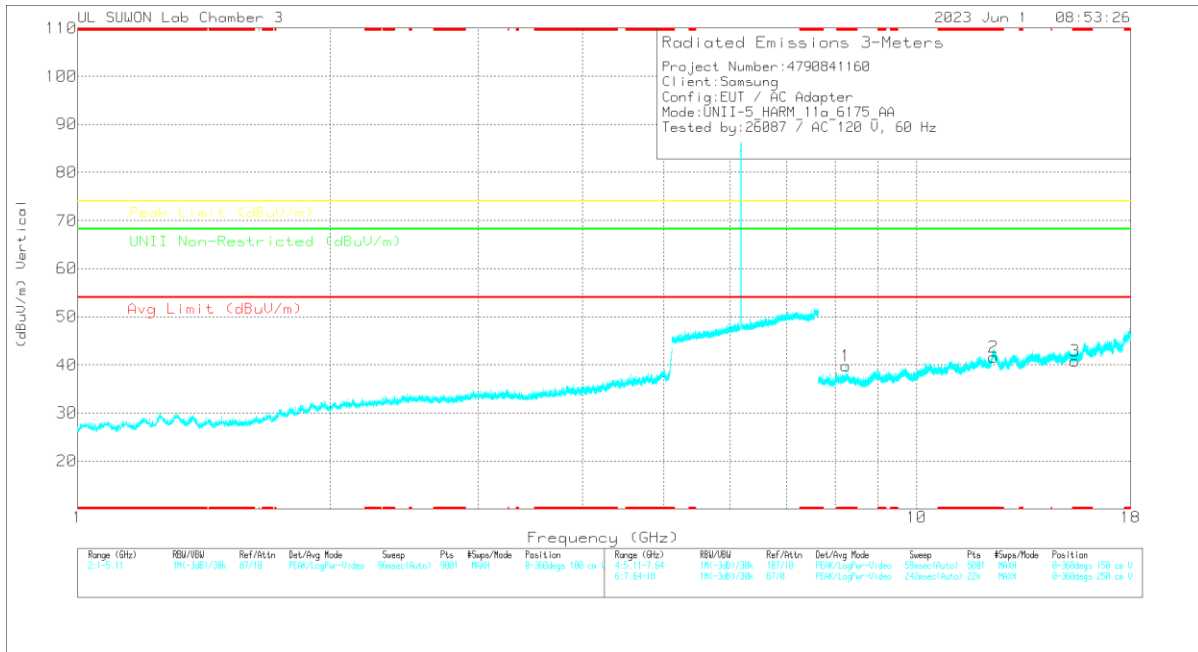
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBu)	Det	3117_00218957	10dB_ATT(dB)	DC Corr (dB)	Corrected Reading (dBu/m)	Average Limit (dBu/m)	Margin (dB)	Peak Limit (dBu/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.92499	36.5	Pk	35.5	-19.5	0	52.5	-	-	88	-35.5	208	217	H
2	5.85528	40.91	Pk	35.2	-19.6	0	56.51	-	-	88	-31.49	208	217	H
3	5.92499	27.33	RMS	35.5	-19.5	.15	43.48	68	-24.62	-	-	208	217	H
4	5.91407	28.02	RMS	35.5	-19.5	-15	44.17	68	-23.83	-	-	208	217	H

Pk - Peak detector
 RMS - RMS detection

HARMONICS AND SPURIOUS EMISSIONS(WORST CASE: 802.11a / 6175 MHz)

6175 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.

Radiated Emissions

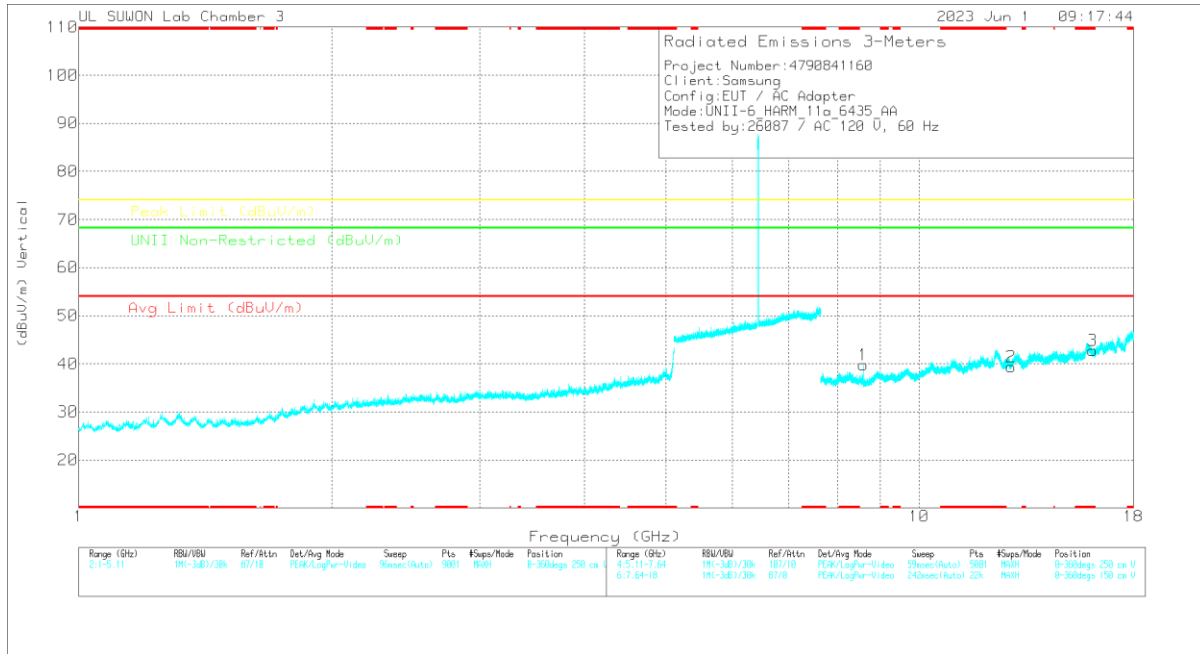
Frequency (GHz)	Mask Reading (dBuV)	Det	3117_20218657	dBm/100dB	DC Corr (dB)	Corrected Reading (dBuV)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted (dBuV/m)	Margin (dB)	Altitude (Degs)	Height (cm)	Polarity
* 8.2334	35.93	PK-U	36	-23.5	0	48.43	-	-	74	-25.57	-	-	205	392	V
* 8.2332	25.66	ADR	36	-23.5	15	36.91	54	-15.69	-	-	-	-	205	392	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

2TX Antenna 1 + Antenna 2

HARMONICS AND SPURIOUS EMISSIONS(WORST CASE: 802.11a / 6435 MHz)

6435 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.

Radiated Emissions

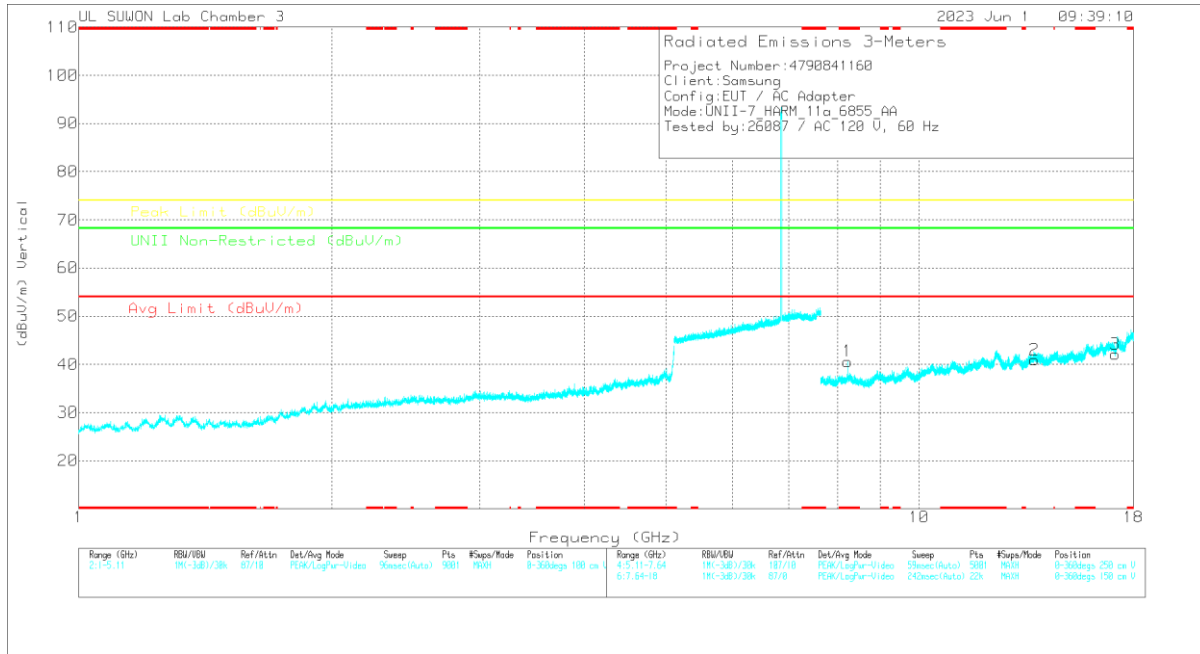
Frequency (GHz)	Max Reading (dBuV)	Det	3117_0001dB57	dBm_HPBdB	DC Cor (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
8.58006	35.36	PK-U	36	-23.8	0	47.56	-	-	-	-	68.2	-20.64	360	112	V

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

2TX Antenna 1 + Antenna 2

HARMONICS AND SPURIOUS EMISSIONS(WORST CASE: 802.11a / 6855 MHz)

6855 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.

Radiated Emissions

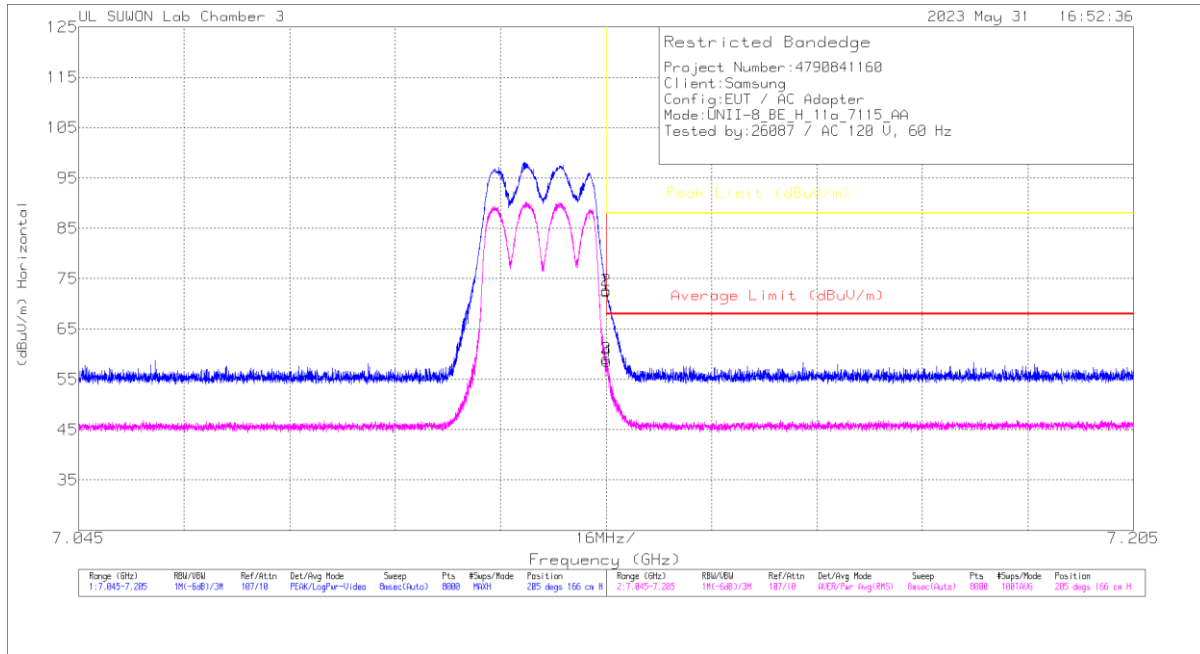
Frequency (GHz)	Mask Reading (dBuV)	Det	3117_0019807	80Hz_HPI(dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted (dBuV/m)	Margin (dB)	Altitude (Meters)	Height (cm)	Polarity
* 8.22592	36.13	PK-U	36	-23.6	0	48.53	-	-	74	-25.47	-	-	210	379	V
* 8.22594	26.15	ADR	36	-23.6	15	38.7	54	-15.3	-	-	-	-	210	379	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

2TX Antenna 1 + Antenna 2

BANDEDGE (WORST CASE: 802.11a / 7115 MHz)

7115 MHz HORIZONTAL



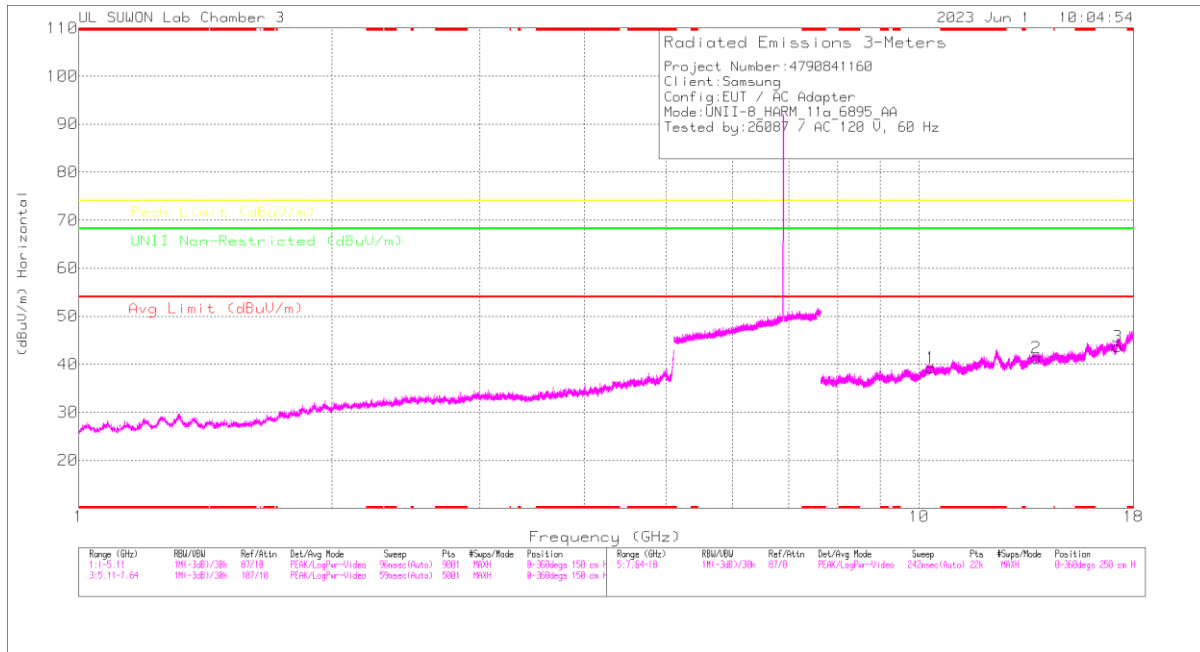
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBu/m)	Det	3117_00218957	10dB_ATT(dB)	DC Corr (dB)	Corrected Reading (dBu/m)	Average Limit (dBu/m)	Margin (dB)	Peak Limit (dBu/m)	PK Margin (dB)	Azimuth (Degs)	Height (m)	Polarity
1	7.12501	53.16	Pk	35.9	-16.6	0	72.46	-	-	88	-15.54	205	166	H
2	7.12505	53.44	Pk	35.9	-16.6	0	72.74	-	-	88	-15.26	205	166	H
3	7.12501	39.62	RMS	35.9	-16.6	.15	59.07	68	-8.93	-	-	205	166	H
4	7.12515	39.13	RMS	35.9	-16.6	.15	58.58	68	-9.42	-	-	205	166	H

Pk - Peak detector
 RMS - RMS detection

HARMONICS AND SPURIOUS EMISSIONS(WORST CASE: 802.11a / 6895 MHz)

6895 MHz HORIZONTAL



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

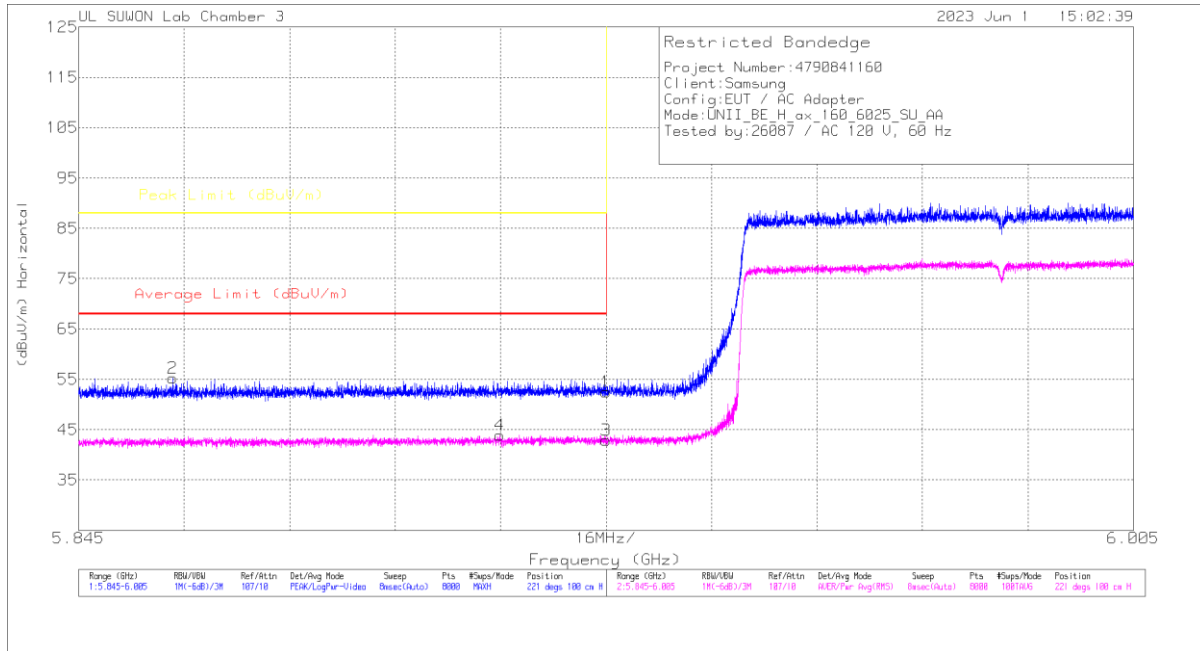
Frequency (GHz)	Mask Reading (dBuV)	Det	3117_0021867	dBZ_HP(dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
17.23806	31.99	PK-U	41.1	-18.8	0	54.29	-	-	-	-	68.2	-13.91	0	100	H

PK-U - U-NII: Maximum Peak

2TX Antenna 1 + Antenna 2

BANDEDGE (WORST CASE : 802.11ax HE160 SU / 6025 MHz)

6025 MHz HORIZONTAL



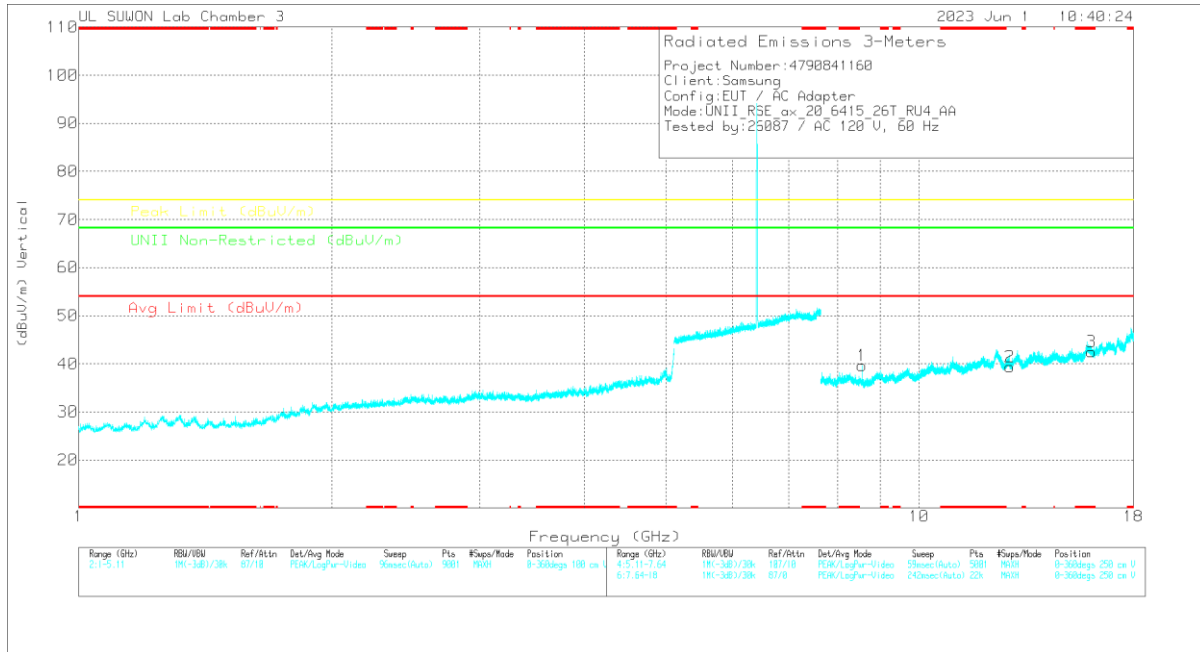
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBu/m)	Det	3117_00218957	10dB_ATT(dB)	DC Corr (dB)	Corrected Reading (dBu/m)	Average Limit (dBu/m)	Margin (dB)	Peak Limit (dBu/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.92499	36.51	PK	35.5	-19.5	0	52.51	-	-	88	-35.49	221	100	H
2	5.85928	39.53	PK	35.2	-19.5	0	55.23	-	-	88	-32.77	221	100	H
3	5.92499	26.93	RMS	35.5	-19.5	0	42.93	68	-25.07	-	-	221	100	H
4	5.90885	28.01	RMS	35.4	-19.5	0	43.91	68	-24.09	-	-	221	100	H

PK - Peak detector
 RMS - RMS detection

HARMONICS AND SPURIOUS EMISSIONS(WORST CASE: 802.11ax HE20 26T RU4 / 6415 MHz)

6415 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.

Radiated Emissions

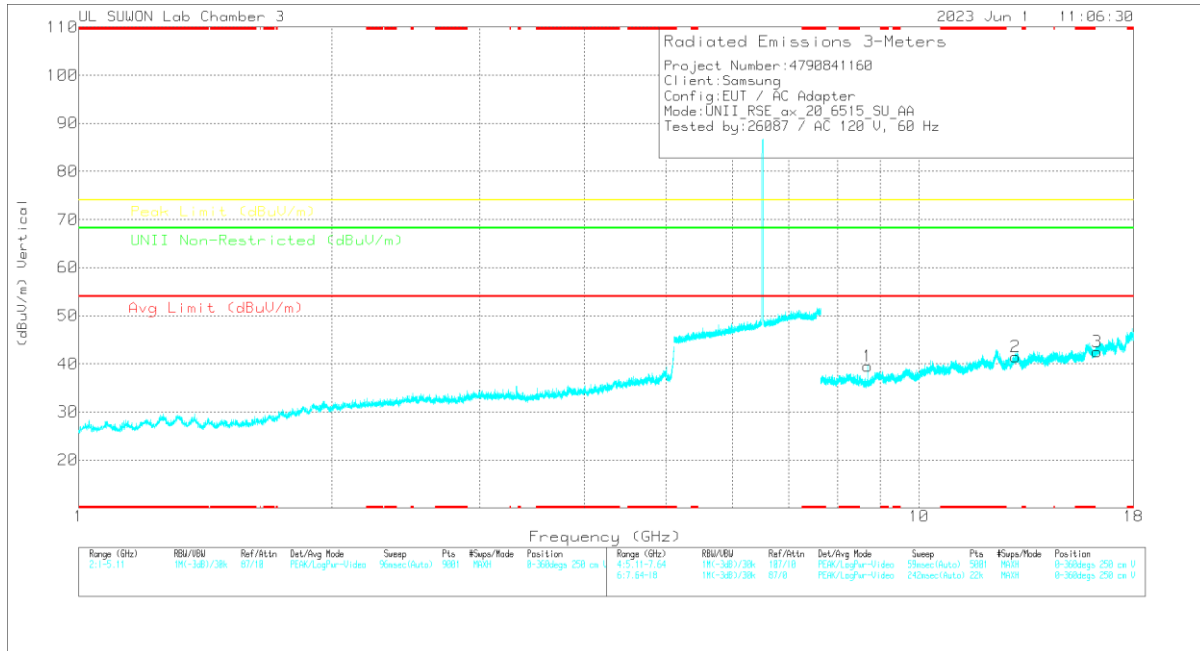
Frequency (GHz)	Miner Reading (dBuV)	Det	3117_00218957	80Hz_HPLdB	DC Corr (dB)	Corrected Reading (dBuV)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted (dBuV/m)	Margin (dB)	Altitude (m)	Height (m)	Polarity
8.55346	35.17	PK-U	36	-23.7	0	47.47	-	-	-	-	68.2	-20.73	161	202	V

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

2TX Antenna 1 + Antenna 2

HARMONICS AND SPURIOUS EMISSIONS(WORST CASE : 802.11ax HE20 SU / 6515 MHz)

6515 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.

Radiated Emissions

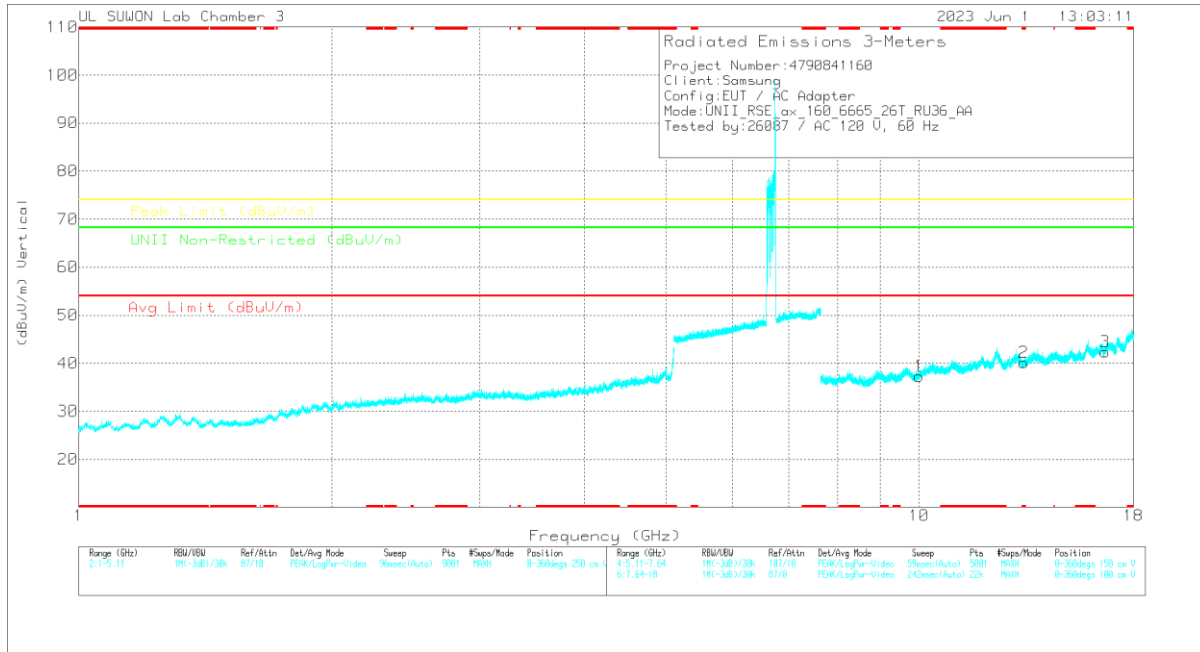
Frequency (GHz)	Mask Reading (dBm)	Det	317_00218667	8GHz_HF(US)	DC Corr (dB)	Corrected Reading (dBm)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted (dBuV/m)	Margin (dB)	Azimuth (Deg)	Height (cm)	Polarity
8.8886	-34.01	PK-U	-36.1	-23.6	0	-46.51	-	-	-	-	68.2	-21.69	156	206	V

PK-U - U-NII: Maximum Peak

2TX Antenna 1 + Antenna 2

HARMONICS AND SPURIOUS EMISSIONS(WORST CASE : 802.11ax HE160 26T RU36 / 6665 MHz)

6665 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.

Radiated Emissions

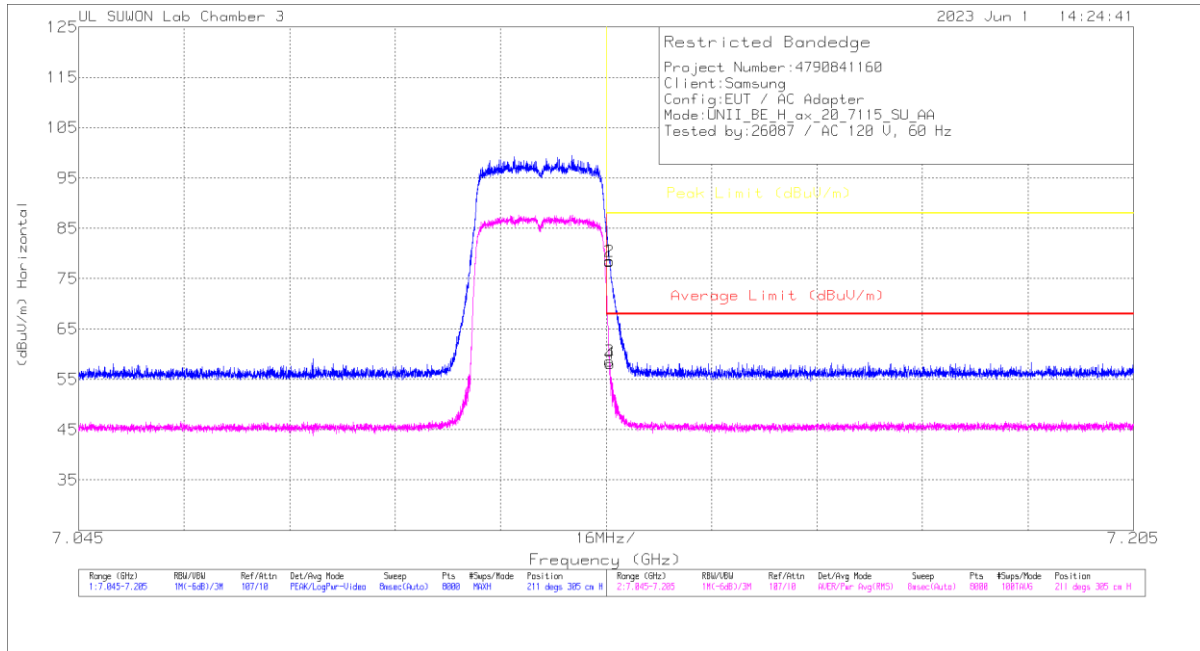
Frequency (GHz)	Mask Reading (dBuV)	Det	3117_00218957	8GHz_HF(dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted (dBuV/m)	Margin (dB)	Altitude (Meters)	Height (cm)	Polarity
16.65686	32.18	PK-U	41.8	-20.4	0	53.58	-	-	-	-	68.2	-14.62	0	100	V

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

2TX Antenna 1 + Antenna 2

BANDEDGE (WORST CASE : 802.11ax HE20 SU / 7115 MHz)

7115 MHz HORIZONTAL



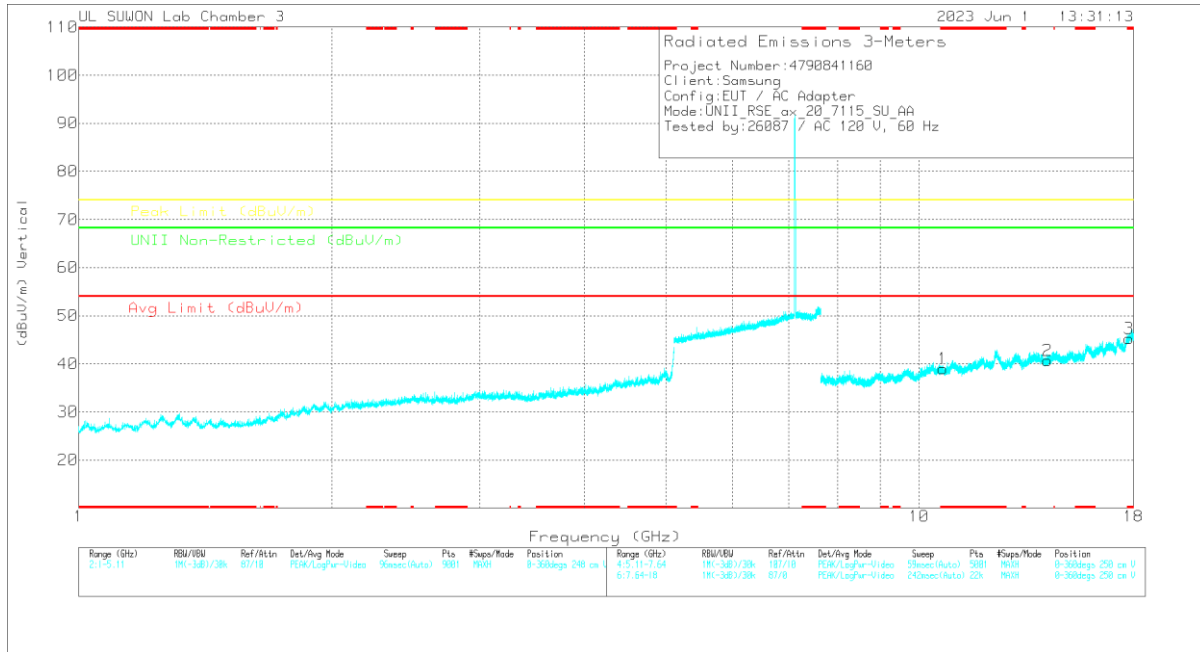
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBu)	Det	3117_00218957	10dB_ATT(dB)	DC Corr (dB)	Corrected Reading (dBu/m)	Average Limit (dBu/m)	Margin (dB)	Peak Limit (dBu/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	7.12549	59.23	PK	35.9	-16.6	0	78.53	-	-	88	-9.47	211	305	H
2	7.12553	59.13	PK	35.9	-16.6	0	78.43	-	-	88	-9.57	211	305	H
3	7.12549	39.25	RMS	35.9	-16.6	0	58.55	68	-9.45	-	-	211	305	H
4	7.12561	38.79	RMS	35.9	-16.6	0	58.09	68	-9.91	-	-	211	305	H

PK - Peak detector
 RMS - RMS detection

HARMONICS AND SPURIOUS EMISSIONS(WORST CASE : 802.11ax HE20 SU / 7115 MHz)

7115 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.

Radiated Emissions

Frequency (GHz)	Mask Reading (dBm)	Det	3117_00218607	@Hz_HPt(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
14.23703	34.77	PK-U	39.3	-24	0	50.07	-	-	-	-	68.2	-18.13	360	100	V

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

END OF TEST REPORT