HARMONICS AND SPURIOUS EMISSIONS TEST DATA

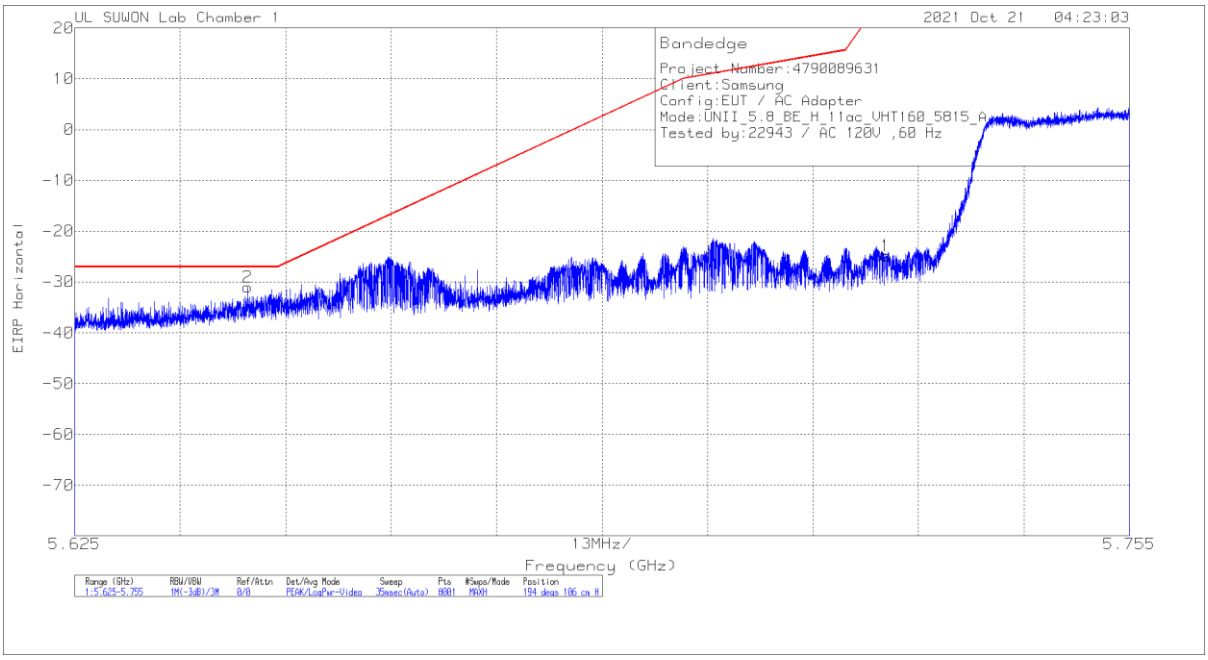
Mode	Freq. [MHz]	Antenna	Frequency [GHz]	Reading [dBuV]	Detector Mode	ANT Factor	Loss [dB]	DC Corr [dB]	Result [dBuV/m]	AV Limit [dBuV/m]	AV Margin [dB]	PK Limit [dBuV/m]	PK Margin [dB]	Non-Restricted [dBuV/m]	Margin [dB]	Azimuth [Degs]	Height [cm]	Polarity
802.11a	5500	MIMO	* 8.25369	35.10	PK-U	35.90	-23.00	0.00	48.00	-	-	74.00	-26.00	-	-	360	100	H
			* 8.25348	35.67	PK-U	35.90	-23.00	0.00	48.57	-	-	74.00	-25.43	-	-	360	100	V
			* 10.99858	44.21	PK-U	38.20	-20.40	0.00	62.01	-	-	74.00	-11.99	-	-	86	100	H
			* 11.00206	32.29	ADR	38.20	-20.40	0.16	50.25	54.00	**-3.75**	-	-	-	-	86	100	H
			* 10.99887	42.52	PK-U	38.20	-20.40	0.00	60.32	-	-	74.00	-13.68	-	-	194	100	V
			* 11.00181	29.56	ADR	38.20	-20.40	0.16	47.52	54.00	-6.48	-	-	-	-	194	100	V
			16.498	34.72	PK-U	40.80	-19.60	0.00	55.92	-	-	-	-	68.20	-12.28	360	100	H
			16.500	34.54	PK-U	40.80	-19.60	0.00	55.74	-	-	-	-	68.20	-12.46	360	100	V
	5580	MIMO	* 8.36938	35.06	PK-U	36.00	-23.60	0.00	47.46	-	-	74.00	-26.54	-	-	360	100	H
			* 8.36838	34.93	PK-U	36.00	-23.60	0.00	47.33	-	-	74.00	-26.67	-	-	360	100	V
			* 11.15836	43.95	PK-U	38.30	-19.60	0.00	62.65	-	-	74.00	-11.35	-	-	146	345	H
			* 11.16238	31.23	ADR	38.30	-19.60	0.16	50.09	54.00	-3.91	-	-	-	-	146	345	H
			* 11.15845	40.40	PK-U	38.30	-19.60	0.00	59.10	-	-	74.00	-14.90	-	-	213	106	V
			* 11.16118	27.33	ADR	38.30	-19.60	0.16	46.19	54.00	-7.81	-	-	-	-	213	106	V
			16.741	34.24	PK-U	41.10	-19.00	0.00	56.34	-	-	-	-	68.20	-11.86	0	100	H
			16.744	34.09	PK-U	41.10	-19.10	0.00	56.09	-	-	-	-	68.20	-12.11	0	100	V
	5700	MIMO	8.549	34.95	PK-U	36.00	-22.40	0.00	48.55	-	-	-	-	68.20	-19.65	0	100	H
			8.549	34.31	PK-U	36.00	-22.40	0.00	47.91	-	-	-	-	68.20	-20.29	0	100	V
			* 11.39863	43.30	PK-U	38.30	-20.20	0.00	61.40	-	-	74.00	-12.60	-	-	131	311	H
			* 11.39821	30.20	ADR	38.30	-20.20	0.16	48.46	54.00	-5.54	-	-	-	-	131	311	H
			* 11.39842	39.05	PK-U	38.30	-20.20	0.00	57.15	-	-	74.00	-16.85	-	-	212	117	V
			* 11.39785	26.60	ADR	38.30	-20.20	0.16	44.86	54.00	-9.14	-	-	-	-	212	117	V
			17.101	34.09	PK-U	41.00	-18.50	0.00	56.59	-	-	-	-	68.20	**-11.61**	0	100	H
			17.102	34.05	PK-U	41.00	-18.60	0.00	56.45	-	-	-	-	68.20	-11.75	0	100	V
	5720	MIMO	8.581	34.25	PK-U	36.10	-21.90	0.00	48.45	-	-	-	-	68.20	-19.75	0	100	H
			8.582	34.54	PK-U	36.10	-21.90	0.00	48.74	-	-	-	-	68.20	-19.46	0	100	V
			* 11.43901	43.33	PK-U	38.30	-20.10	0.00	61.53	-	-	74.00	-12.47	-	-	217	235	H
			* 11.43964	30.60	ADR	38.30	-20.10	0.16	48.96	54.00	-5.04	-	-	-	-	217	235	H
			* 11.44303	38.11	PK-U	38.30	-20.10	0.00	56.31	-	-	74.00	-17.69	-	-	212	100	V
			* 11.43871	25.07	ADR	38.30	-20.10	0.16	43.43	54.00	-10.57	-	-	-	-	212	100	V
			17.161	33.72	PK-U	40.90	-18.30	0.00	56.32	-	-	-	-	68.20	-11.88	360	100	H
			17.161	33.32	PK-U	40.90	-18.20	0.00	56.02	-	-	-	-	68.20	-12.18	360	100	V
802.11n (HT20) Spot-Check	5500	MIMO	* 8.24583	35.66	PK-U	35.90	-23.10	0.00	48.46	-	-	74.00	-25.54	-	-	360	100	H
			* 8.24111	35.09	PK-U	35.90	-23.20	0.00	47.79	-	-	74.00	-26.21	-	-	360	100	V
			* 11.00069	45.16	PK-U	38.20	-20.40	0.00	62.96	-	-	74.00	**-11.04**	-	-	141	345	H
			* 10.99881	32.17	ADR	38.20	-20.40	0.17	50.14	54.00	-3.86	-	-	-	-	141	345	H
			* 11.00301	43.32	PK-U	38.20	-20.40	0.00	61.12	-	-	74.00	-12.88	-	-	203	122	V
			* 11.00067	30.05	ADR	38.20	-20.40	0.17	48.02	54.00	-5.98	-	-	-	-	203	122	V
			16.498	35.21	PK-U	40.80	-19.60	0.00	56.41	-	-	-	-	68.20	-11.79	0	100	H
			16.510	34.80	PK-U	40.90	-19.60	0.00	56.10	-	-	-	-	68.20	-12.10	0	100	V
802.11ax (HE20) 0RU Spot-Check	5500	MIMO	* 8.24994	37.64	PK-U	35.90	-23.10	0.00	50.44	-	-	74.00	-23.56	-	-	180	127	H
			* 8.24994	29.36	ADR	35.90	-23.10	0.00	42.16	54.00	-11.84	-	-	-	-	180	127	H
			* 8.24986	36.45	PK-U	35.90	-23.10	0.00	49.25	-	-	74.00	-24.75	-	-	190	157	V
			* 8.24992	25.85	ADR	35.90	-23.10	0.00	38.65	54.00	-15.35	-	-	-	-	190	157	V
			* 11.00432	34.23	PK-U	38.20	-20.40	0.00	52.03	-	-	74.00	-21.97	-	-	360	100	H
			* 11.01884	34.38	PK-U	38.20	-20.40	0.00	52.18	-	-	74.00	-21.82	-	-	360	100	V
			16.493	34.83	PK-U	40.80	-19.70	0.00	55.93	-	-	-	-	68.20	-12.27	360	100	H
			16.506	34.90	PK-U	40.80	-19.60	0.00	56.10	-	-	-	-	68.20	-12.10	360	100	V
802.11ax (HE40) 17RU Spot-Check	5510	MIMO	* 8.26473	37.53	PK-U	36.20	-24.00	0.00	49.73	-	-	74.00	-24.27	-	-	151	120	H
			* 8.26487	29.86	ADR	36.20	-24.00	0.11	42.17	54.00	-11.83	-	-	-	-	151	120	H
			* 8.26491	36.86	PK-U	36.20	-24.00	0.00	49.06	-	-	74.00	-24.94	-	-	173	192	V
			* 8.26503	25.64	ADR	36.20	-24.00	0.11	37.95	54.00	-16.05	-	-	-	-	173	192	V
			* 11.01493	33.88	PK-U	38.50	-21.70	0.00	50.68	-	-	74.00	-23.32	-	-	0	100	H
			* 11.02016	34.08	PK-U	38.50	-21.70	0.00	50.88	-	-	74.00	-23.12	-	-	0	100	V
			16.531	32.75	PK-U	42.10	-19.80	0.00	55.05	-	-	-	-	68.20	-13.15	0	100	H
			16.524	32.85	PK-U	42.00	-19.70	0.00	55.15	-	-	-	-	68.20	-13.05	0	100	V
802.11ax (HE80) 0RU Spot-Check	5530	MIMO	* 8.29504	37.59	PK-U	36.20	-23.90	0.00	49.89	-	-	74.00	-24.11	-	-	151	111	H
			* 8.29502	30.34	ADR	36.20	-23.90	0.11	42.75	54.00	-11.25	-	-	-	-	151	111	H
			* 8.29466	35.86	PK-U	36.20	-23.90	0.00	48.16	-	-	74.00	-25.84	-	-	181	171	V
			* 8.295	25.84	ADR	36.20	-23.90	0.11	38.25	54.00	-15.75	-	-	-	-	181	171	V
			* 10.98358	39.51	PK-U	38.50	-21.60	0.00	56.41	-	-	74.00	-17.59	-	-	207	317	H
			* 10.98406	24.65	ADR	38.50	-21.60	0.11	41.66	54.00	-12.34	-	-	-	-	207	317	H
			* 10.98526	34.23	PK-U	38.50	-21.60	0.00	51.13	-	-	74.00	-22.87	-	-	168	219	V
			* 10.98436	22.36	ADR	38.50	-21.60	0.11	39.37	54.00	-14.63	-	-	-	-	168	219	V
			16.586	33.09	PK-U	42.20	-19.60	0.00	55.69	-	-	-	-	68.20	-12.51	0	100	H
			16.592	32.96	PK-U	42.20	-19.50	0.00	55.66	-	-	-	-	68.20	-12.54	0	100	V
802.11ax (HE160) 0RU Spot-Check	5570	MIMO	* 8.35484	38.18	PK-U	36.20	-23.90	0.00	50.48	-	-	74.00	-23.52	-	-	153	103	H
			* 8.35504	31.14	ADR	36.20	-23.90	0.11	43.55	54.00	-10.45	-	-	-	-	153	103	H
			* 8.35586	35.65	PK-U	36.20	-23.90	0.00	47.95	-	-	74.00	-26.05	-	-	183	193	V
			* 8.3552	25.57	ADR	36.20	-23.90	0.11	37.98	54.00	-16.02	-	-	-	-	183	193	V
			* 11.13539	33.75	PK-U	38.50	-21.90	0.00	50.35	-	-	74.00	-23.65	-	-	0	100	H
			* 11.142	34.73	PK-U	38.50	-21.80	0.00	51.43	-	-	74.00	-22.57	-	-	0	100	V
			16.701	33.54	PK-U	42.30	-19.50	0.00	56.34	-	-	-	-	68.20	-11.86	0	100	H
			16.708	32.87	PK-U	42.30	-19.40	0.00	55.77	-	-	-	-	68.20	-12.43	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

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

BANDEDGE (WORST CASE: 802.11ac VHT160 LOWER SIDE / 5815 MHz)

HORIZONTAL PEAK DATA



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	3117_00168717	10dB_ATT[dB]	Conversion Factor (dB)	DC Corr (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.72499	-50.6	Pk	34.9	-20.9	11.8	0	-24.8	26.97	-51.77	194	106	H
2	5.6463	-56.7	Pk	34.8	-20.9	11.8	0	-31	-27	-4	194	106	H

Pk - Peak detector

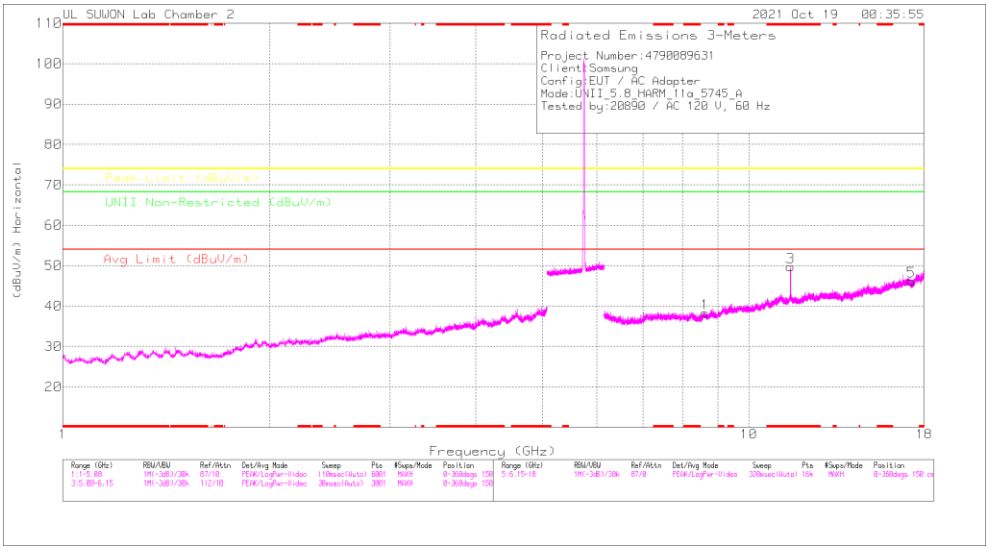
BANDEDGE TEST DATA

Mode	Freq. [MHz]	Antenna	Frequency [GHz]	Reading [dBm]	Detector Mode	ANT Factor	Loss [dB]	Conv. F [dB]	DC Corr [dB]	Result [dBm]	PK Limit [dBm]	PK Margin [dB]	Azimuth [Degs]	Height [cm]	Polarity
802.11a	5745	MIMO	5.72499	-48.58	Pk	34.70	-17.40	11.80	0.00	-19.48	26.97	-46.45	187	101	H
			5.62773	-65.91	Pk	34.60	-17.60	11.80	0.00	-37.11	-27.00	-10.11	187	101	H
			5.72499	-55.88	Pk	34.70	-17.40	11.80	0.00	-26.78	26.97	-53.75	95	100	V
			5.64583	-65.98	Pk	34.60	-17.50	11.80	0.00	-37.08	-27.00	-10.08	95	100	V
802.11n (HT20)	5745	MIMO	5.72499	-51.41	Pk	34.70	-17.40	11.80	0.00	-22.31	26.97	-49.28	185	101	H
			5.64743	-66.47	Pk	34.60	-17.50	11.80	0.00	-37.57	-27.00	-10.57	185	101	H
			5.72499	-53.62	Pk	34.70	-17.40	11.80	0.00	-24.52	26.97	-51.49	108	100	V
			5.62939	-65.91	Pk	34.60	-17.60	11.80	0.00	-37.11	-27.00	-10.11	108	100	V
802.11n (HT40)	5755	MIMO	5.72499	-47.56	Pk	34.70	-17.40	11.80	0.00	-18.46	26.97	-45.43	186	100	H
			5.64229	-66.36	Pk	34.60	-17.50	11.80	0.00	-37.46	-27.00	-10.46	186	100	H
			5.72499	-49.68	Pk	34.70	-17.40	11.80	0.00	-20.58	26.97	-47.55	130	106	V
			5.62794	-66.40	Pk	34.60	-17.60	11.80	0.00	-37.60	-27.00	-10.60	130	106	V
802.11ac (VHT80)	5775	MIMO	5.72499	-55.56	Pk	34.70	-17.40	11.80	0.00	-26.46	26.97	-53.43	226	101	H
			5.64445	-66.38	Pk	34.60	-17.50	11.80	0.00	-37.48	-27.00	-10.48	226	101	H
			5.72499	-61.67	Pk	34.70	-17.40	11.80	0.00	-32.57	26.97	-59.54	130	100	V
			5.62968	-65.60	Pk	34.60	-17.60	11.80	0.00	-36.80	-27.00	-9.80	130	100	V
802.11ac (VHT160)	5815 Lower	MIMO	5.72499	-50.60	Pk	34.90	-20.90	11.80	0.00	-24.80	26.97	-51.77	194	106	H
			5.64630	-56.70	Pk	34.80	-20.90	11.80	0.00	-31.00	-27.00	**-4.00**	194	106	H
			5.72499	-60.13	Pk	34.90	-20.90	11.80	0.00	-34.33	26.97	-61.30	138	100	V
			5.64736	-61.02	Pk	34.80	-20.80	11.80	0.00	-35.22	-27.00	-8.22	138	100	V
802.11ax (HE20)	5745	MIMO	5.72499	-48.61	Pk	34.70	-17.40	11.80	0.00	-19.51	26.97	-46.48	182	100	H
			5.64128	-66.48	Pk	34.60	-17.50	11.80	0.00	-37.58	-27.00	-10.58	182	100	H
			5.72499	-60.71	Pk	34.70	-17.40	11.80	0.00	-31.61	26.97	-58.58	142	110	V
			5.62552	-66.96	Pk	34.60	-17.50	11.80	0.00	-38.06	-27.00	-11.06	142	110	V
802.11ax (HE40)	5755	MIMO	5.72499	-51.11	Pk	34.70	-17.40	11.80	0.00	-22.01	26.97	-48.98	184	100	H
			5.64541	-66.98	Pk	34.60	-17.50	11.80	0.00	-38.08	-27.00	-11.08	184	100	H
			5.72499	-60.71	Pk	34.70	-17.40	11.80	0.00	-31.61	26.97	-58.58	142	110	V
			5.62552	-66.96	Pk	34.60	-17.50	11.80	0.00	-38.06	-27.00	-11.06	142	110	V
802.11ax (HE80)	5775	MIMO	5.72499	-55.68	Pk	34.70	-17.40	11.80	0.00	-26.58	26.97	-53.55	180	100	H
			5.65082	-65.65	Pk	34.60	-17.50	11.80	0.00	-36.75	-26.39	-10.36	180	100	H
			5.72499	-63.95	Pk	34.70	-17.40	11.80	0.00	-34.85	26.97	-61.82	146	100	V
			5.64383	-66.85	Pk	34.60	-17.50	11.80	0.00	-37.95	-27.00	-10.95	146	100	V
802.11ax (HE160)	5815 Lower	MIMO	5.72499	-62.85	Pk	34.70	-17.40	11.80	0.00	-33.75	26.97	-60.72	180	100	H
			5.64255	-65.17	Pk	34.60	-17.50	11.80	0.00	-36.27	-27.00	-9.27	180	100	H
			5.72499	-68.92	Pk	34.70	-17.40	11.80	0.00	-39.82	26.97	-66.79	179	100	V
			5.64273	-66.47	Pk	34.60	-17.50	11.80	0.00	-37.57	-27.00	-10.57	179	100	V

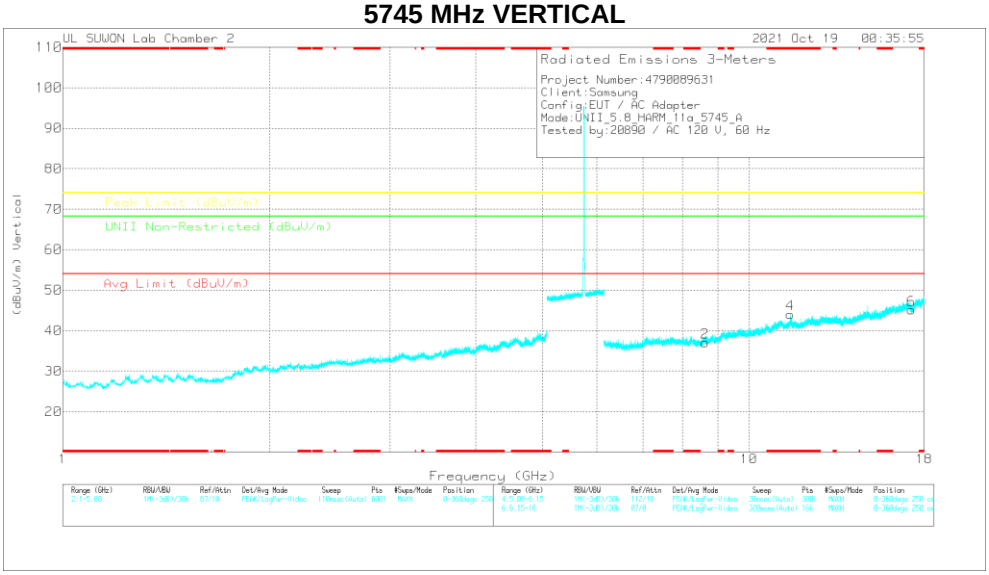
Note. Pk - Peak detector

HARMONICS AND SPURIOUS EMISSIONS(WORST CASE: 802.11a / 5745 MHz)

5745 MHz HORIZONTAL



5745 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.

5745 MHz DATA

Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00168724	6GHz_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
8.63549	33.79	PK-U	36.1	-22	0	47.89	-	-	-	-	68.2	-20.31	0	100	H
8.63252	34.18	PK-U	36.1	-21.9	0	48.38	-	-	-	-	68.2	-19.82	0	100	V
* 11.48895	42.08	PK-U	38.3	-19.8	0	60.58	-	-	74	-13.42	-	-	155	195	H
* 11.48979	29.49	ADR	38.3	-19.8	.16	48.15	54	-5.85	-	-	-	-	155	195	H
* 11.48913	37.08	PK-U	38.3	-19.8	0	55.58	-	-	74	-18.42	-	-	207	100	V
* 11.48925	24.08	ADR	38.3	-19.8	.16	42.74	54	-11.26	-	-	-	-	207	100	V
17.23515	34.28	PK-U	40.9	-18.7	0	56.48	-	-	-	-	68.2	-11.72	0	100	H
17.2349	34.21	PK-U	40.9	-18.7	0	56.41	-	-	-	-	68.2	-11.79	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

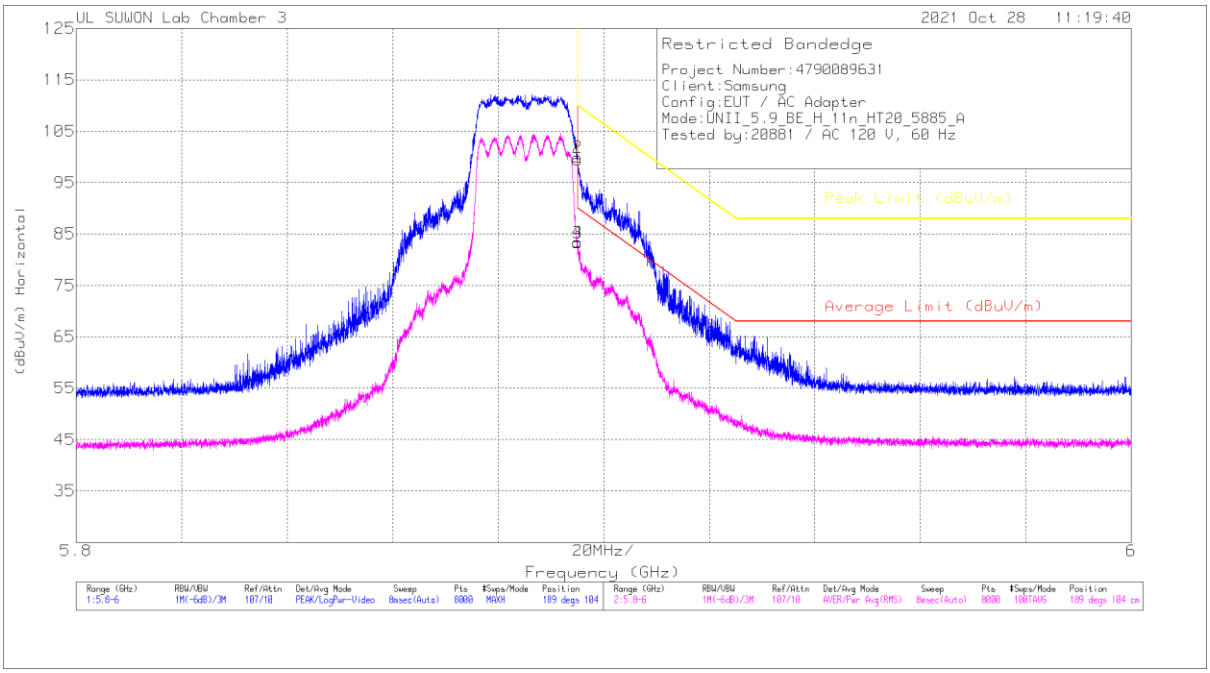
Mode	Freq. [MHz]	Antenna	Frequency [GHz]	Reading [dBuV]	Detector Mode	ANT Factor	Loss [dB]	DC Corr [dB]	Result [dBuV/m]	AV Limit [dBuV/m]	AV Margin [dB]	PK Limit [dBuV/m]	PK Margin [dB]	Non-Restricted [dBuV/m]	Margin [dB]	Azimuth [Degs]	Height [cm]	Polarity
802.11a	5745	MIMO	8.635	33.79	PK-U	36.10	-22.00	0.00	47.89	-	-	-	-	68.20	-20.31	0	100	H
			8.633	34.18	PK-U	36.10	-21.90	0.00	48.38	-	-	-	-	68.20	-19.82	0	100	V
			* 11.48895	42.08	PK-U	38.30	-19.80	0.00	60.58	-	-	74.00	-13.42	-	-	155	195	H
			* 11.48979	29.49	ADR	38.30	-19.80	0.16	48.15	54.00	**-5.85**	-	-	-	-	155	195	H
			* 11.48913	37.08	PK-U	38.30	-19.80	0.00	55.58	-	-	74.00	-18.42	-	-	207	100	V
			* 11.48925	24.08	ADR	38.30	-19.80	0.16	42.74	54.00	-11.26	-	-	-	-	207	100	V
			17.235	34.28	PK-U	40.90	-18.70	0.00	56.48	-	-	-	-	68.20	-11.72	0	100	H
			17.235	34.21	PK-U	40.90	-18.70	0.00	56.41	-	-	-	-	68.20	-11.79	0	100	V
	5785	MIMO	8.681	35.19	PK-U	36.20	-22.80	0.00	48.59	-	-	-	-	68.20	-19.61	360	100	H
			8.681	35.55	PK-U	36.20	-22.80	0.00	48.95	-	-	-	-	68.20	-19.25	360	100	V
			* 11.57572	41.30	PK-U	38.30	-19.90	0.00	59.70	-	-	74.00	-14.30	-	-	151	201	H
			* 11.5699	28.84	ADR	38.30	-19.90	0.16	47.40	54.00	-6.60	-	-	-	-	151	201	H
			* 11.5756	36.63	PK-U	38.30	-19.90	0.00	55.03	-	-	74.00	-18.97	-	-	156	100	V
			* 11.57077	23.71	ADR	38.30	-19.90	0.16	42.27	54.00	-11.73	-	-	-	-	156	100	V
			17.351	34.21	PK-U	41.00	-18.60	0.00	56.61	-	-	-	-	68.20	-11.59	0	100	H
			17.349	34.28	PK-U	41.00	-18.60	0.00	56.68	-	-	-	-	68.20	-11.52	0	100	V
	5825	MIMO	8.736	35.31	PK-U	36.20	-23.30	0.00	48.21	-	-	-	-	68.20	-19.99	0	100	H
			8.736	35.33	PK-U	36.20	-23.30	0.00	48.23	-	-	-	-	68.20	-19.97	0	100	V
			* 11.65562	39.49	PK-U	38.40	-19.70	0.00	58.19	-	-	74.00	-15.81	-	-	151	202	H
			* 11.65085	27.23	ADR	38.40	-19.80	0.16	45.99	54.00	-8.01	-	-	-	-	151	202	H
			* 11.64071	34.57	PK-U	38.40	-19.80	0.00	53.17	-	-	74.00	-20.83	-	-	153	100	V
			* 11.65061	22.63	ADR	38.40	-19.80	0.16	41.39	54.00	-12.61	-	-	-	-	153	100	V
			17.481	34.26	PK-U	41.20	-17.80	0.00	57.66	-	-	-	-	68.20	**-10.54**	0	100	H
			17.483	33.69	PK-U	41.20	-17.80	0.00	57.09	-	-	-	-	68.20	-11.11	0	100	V
802.11ax (HE20) 8RU Spot-check	5745	MIMO	8.608	34.31	PK-U	36.10	-21.70	0.00	48.71	-	-	-	-	68.20	-19.49	360	100	H
			8.610	34.27	PK-U	36.10	-21.70	0.00	48.67	-	-	-	-	68.20	-19.53	360	100	V
			* 11.50777	45.74	PK-U	38.30	-19.70	0.00	64.34	-	-	74.00	**-9.66**	-	-	154	195	H
			* 11.50679	29.55	ADR	38.30	-19.70	0.00	48.15	54.00	**-5.85**	-	-	-	-	154	195	H
			* 11.50705	40.24	PK-U	38.30	-19.70	0.00	58.84	-	-	74.00	-15.16	-	-	151	100	V
			* 11.50701	24.95	ADR	38.30	-19.70	0.00	43.55	54.00	-10.45	-	-	-	-	151	100	V
			17.237	33.74	PK-U	40.90	-18.60	0.00	56.04	-	-	-	-	68.20	-12.16	0	100	H
			17.241	33.73	PK-U	40.90	-18.70	0.00	55.93	-	-	-	-	68.20	-12.27	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

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

BANDEDGE (WORST CASE: 802.11n HT20 / 5885 MHz)

HORIZONTAL PEAK 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	5.89501	83.33	Pk	36	-19.9	0	99.43	-	-	109.99	-10.56	189	104	H
2	5.89506	83.8	Pk	36	-19.9	0	99.9	-	-	109.95	-10.05	189	104	H
3	5.89501	67	RMS	36	-19.9	.17	83.27	89.99	-6.72	-	-	189	104	H
4	5.89504	67.14	RMS	36	-19.9	.17	83.41	89.97	-6.56	-	-	189	104	H

Pk - Peak detector
RMS - RMS detection

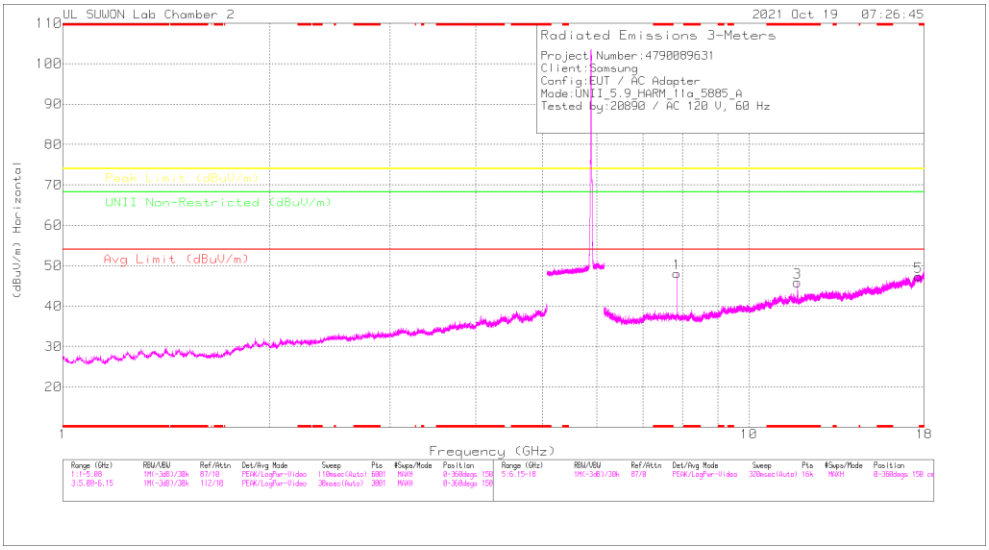
BANDEDGE TEST DATA

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	5885	MIMO	5.89501	79.48	Pk	36.00	-19.90	0.00	95.58	-	-	109.99	-14.41	191	100	H
			5.89504	79.81	Pk	36.00	-19.90	0.00	95.91	-	-	109.97	-14.06	191	100	H
			5.89501	65.65	RMS	36.00	-19.90	0.16	81.91	89.99	-8.08	-	-	191	100	H
			5.89504	66.28	RMS	36.00	-19.90	0.16	82.54	89.97	-7.43	-	-	191	100	H
			5.89501	68.38	Pk	36.00	-19.90	0.00	84.48	-	-	109.99	-25.51	239	109	V
			5.89509	68.51	Pk	36.00	-19.90	0.00	84.61	-	-	109.94	-25.33	239	109	V
			5.89501	54.33	RMS	36.00	-19.90	0.16	70.59	89.99	-19.40	-	-	239	109	V
			5.89509	54.06	RMS	36.00	-19.90	0.16	70.32	89.94	-19.62	-	-	239	109	V
802.11n (HT20)	5885	MIMO	5.89501	83.33	Pk	36.00	-19.90	0.00	99.43	-	-	109.99	-10.56	189	104	H
			5.89506	83.80	Pk	36.00	-19.90	0.00	99.90	-	-	109.95	**-10.05**	189	104	H
			5.89501	67.00	RMS	36.00	-19.90	0.17	83.27	89.99	-6.72	-	-	189	104	H
			5.89504	67.14	RMS	36.00	-19.90	0.17	83.41	89.97	**-6.56**	-	-	189	104	H
			5.89501	72.40	Pk	36.00	-19.90	0.00	88.50	-	-	109.99	-21.49	134	113	V
			5.89514	72.10	Pk	36.00	-19.90	0.00	88.20	-	-	109.90	-21.70	134	113	V
			5.89501	55.90	RMS	36.00	-19.90	0.17	72.17	89.99	-17.82	-	-	134	113	V
			5.89516	56.00	RMS	36.00	-19.90	0.17	72.27	89.88	-17.61	-	-	134	113	V
802.11n (HT40)	5875	MIMO	5.89501	66.81	Pk	36.00	-19.90	0.00	82.91	-	-	109.99	-27.08	189	171	H
			5.91959	62.39	Pk	36.00	-19.80	0.00	78.59	-	-	91.97	-13.38	189	171	H
			5.89501	53.70	RMS	36.00	-19.90	0.18	69.98	89.99	-20.01	-	-	189	171	H
			5.92021	43.76	RMS	36.00	-19.80	0.18	60.14	71.51	-11.37	-	-	189	171	H
			5.89501	60.21	Pk	36.00	-19.90	0.00	76.31	-	-	109.99	-33.68	249	100	V
			5.92001	52.63	Pk	36.00	-19.80	0.00	68.83	-	-	91.66	-22.83	249	100	V
			5.89501	45.30	RMS	36.00	-19.90	0.18	61.58	89.99	-28.41	-	-	249	100	V
			5.91559	38.49	RMS	36.00	-19.80	0.18	54.87	74.90	-20.03	-	-	249	100	V
802.11ac (VHT80)	5855	MIMO	5.89501	66.80	Pk	36.00	-19.90	0.00	82.90	-	-	109.99	-27.09	181	100	H
			5.93032	60.59	Pk	36.00	-19.80	0.00	76.79	-	-	88.00	-11.21	181	100	H
			5.89501	51.93	RMS	36.00	-19.90	0.25	68.28	89.99	-21.71	-	-	181	100	H
			5.92772	44.56	RMS	36.00	-19.80	0.25	61.01	68.00	-6.99	-	-	181	100	H
			5.89501	58.46	Pk	36.00	-19.90	0.00	74.56	-	-	109.99	-35.43	136	103	V
			5.92882	48.53	Pk	36.00	-19.80	0.00	64.73	-	-	88.00	-23.27	136	103	V
			5.89501	41.72	RMS	36.00	-19.90	0.25	58.07	89.99	-31.92	-	-	136	103	V
			5.92669	33.87	RMS	36.00	-19.80	0.25	50.32	68.00	-17.68	-	-	136	103	V
802.11ac (VHT160)	5815	MIMO	5.89501	66.85	Pk	36.00	-19.90	0.00	82.95	-	-	109.99	-27.04	189	103	H
			5.94377	58.73	Pk	36.00	-19.80	0.00	74.93	-	-	88.00	-13.07	189	103	H
			5.89501	49.72	RMS	36.00	-19.90	0.32	66.14	89.99	-23.85	-	-	189	103	H
			5.93752	40.53	RMS	36.00	-19.80	0.32	57.05	68.00	-10.95	-	-	189	103	H
			5.89501	56.21	Pk	36.00	-19.90	0.00	72.31	-	-	109.99	-37.68	249	100	V
			5.94622	48.83	Pk	36.00	-19.80	0.00	65.03	-	-	88.00	-22.97	249	100	V
			5.89501	38.95	RMS	36.00	-19.90	0.32	55.37	89.99	-34.62	-	-	249	100	V
			5.94727	30.87	RMS	36.00	-19.70	0.32	47.49	68.00	-20.51	-	-	249	100	V
802.11ax (HE20)	5885	MIMO	5.89551	79.06	Pk	36.00	-19.90	0.00	95.16	-	-	109.62	-14.46	189	104	H
			5.89571	78.47	Pk	36.00	-19.90	0.00	94.57	-	-	109.48	-14.91	189	104	H
			5.89551	59.99	RMS	36.00	-19.90	0.41	76.50	89.62	-13.12	-	-	189	104	H
			5.89911	54.82	RMS	36.00	-19.80	0.41	71.43	86.98	-15.55	-	-	189	104	H
			5.89501	73.62	Pk	36.00	-19.90	0.00	89.72	-	-	109.99	-20.27	136	103	V
			5.89506	73.37	Pk	36.00	-19.90	0.00	89.47	-	-	109.95	-20.48	136	103	V
			5.89501	61.59	RMS	36.00	-19.90	0.41	78.10	89.99	-11.89	-	-	136	103	V
			5.89521	55.61	RMS	36.00	-19.90	0.41	72.12	89.84	-17.72	-	-	136	103	V
802.11ax (HE40)	5875	MIMO	5.89501	71.47	Pk	36.00	-19.90	0.00	87.57	-	-	109.99	-22.42	179	100	H
			5.91946	57.94	Pk	36.00	-19.80	0.00	74.14	-	-	92.06	-17.92	179	100	H
			5.89501	51.11	RMS	36.00	-19.90	0.42	67.63	89.99	-22.36	-	-	179	100	H
			5.92484	35.25	RMS	36.00	-19.80	0.42	51.87	68.12	-16.25	-	-	179	100	H
			5.89501	58.48	Pk	36.00	-19.90	0.00	74.58	-	-	109.99	-35.41	261	111	V
			5.92654	42.13	Pk	36.00	-19.80	0.00	58.33	-	-	88.00	-29.67	261	111	V
			5.89501	39.18	RMS	36.00	-19.90	0.42	55.70	89.99	-34.29	-	-	261	111	V
			5.92502	28.31	RMS	36.00	-19.80	0.42	44.93	68.00	-23.07	-	-	261	111	V
802.11ax (HE80)	5855	MIMO	5.89501	68.32	Pk	36.00	-19.90	0.00	84.42	-	-	109.99	-25.57	200	104	H
			5.92537	57.04	Pk	36.00	-19.80	0.00	73.24	-	-	88.00	-14.76	200	104	H
			5.89501	46.66	RMS	36.00	-19.90	0.30	63.06	89.99	-26.93	-	-	200	104	H
			5.92454	36.37	RMS	36.00	-19.80	0.30	52.87	68.34	-15.47	-	-	200	104	H
			5.89501	56.39	Pk	36.00	-19.90	0.00	72.49	-	-	109.99	-37.50	259	111	V
			5.92584	44.31	Pk	36.00	-19.80	0.00	60.51	-	-	88.00	-27.49	259	111	V
			5.89501	37.31	RMS	36.00	-19.90	0.30	53.71	89.99	-36.28	-	-	259	111	V
			5.92677	29.38	RMS	36.00	-19.80	0.30	45.88	68.00	-22.12	-	-	259	111	V
802.11ax (HE160)	5815	MIMO	5.89501	66.56	Pk	36.00	-19.90	0.00	82.66	-	-	109.99	-27.33	192	100	H
			5.93792	51.99	Pk	36.00	-19.80	0.00	68.19	-	-	88.00	-19.81	192	100	H
			5.89501	47.68	RMS	36.00	-19.90	0.35	64.13	89.99	-25.86	-	-	192	100	H
			5.94299	34.82	RMS	36.00	-19.80	0.35	51.37	68.00	-16.63	-	-	192	100	H
			5.89501	54.06	Pk	36.00	-19.90	0.00	70.16	-	-	109.99	-39.83	260	111	V
			5.94692	41.39	Pk	36.00	-19.70	0.00	57.69	-	-	88.00	-30.31	260	111	V
			5.89501	35.64	RMS	36.00	-19.90	0.35	52.09	89.99	-37.90	-	-	260	111	V
			5.94009	28.29	RMS	36.00	-19.70	0.35	44.94	68.00	-23.06	-	-	260	111	V

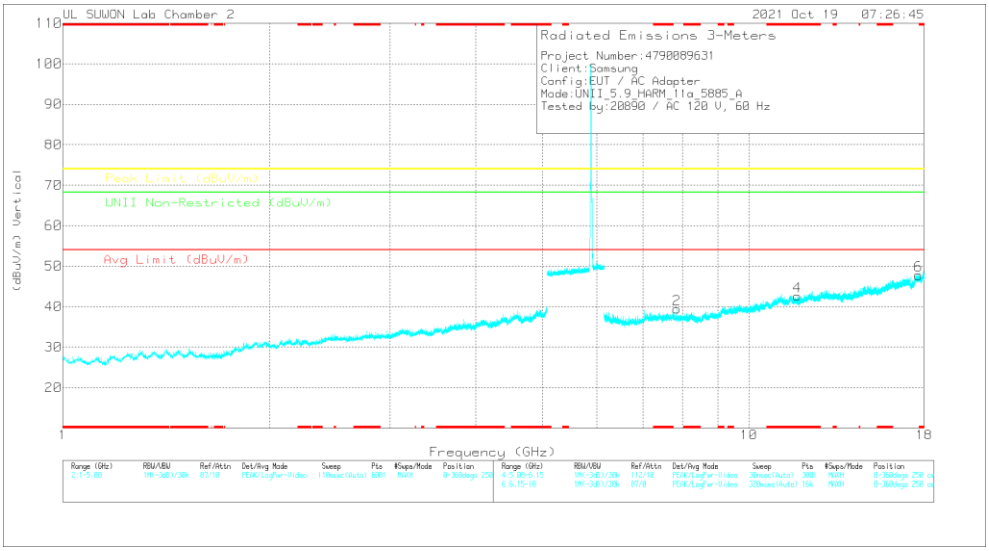
Note. RMS - RMS detection

HARMONICS AND SPURIOUS EMISSIONS(WORST CASE: 802.11a / 5885 MHz)

5885 MHz HORIZONTAL



5885 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.

5885 MHz DATA

Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00168724	6GHz_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
7.84657	42.3	PK-U	36	-24.4	0	53.9	-	-	-	-	68.2	-14.3	140	103	H
7.84681	39.1	PK-U	36	-24.4	0	50.7	-	-	-	-	68.2	-17.5	184	104	V
* 11.77063	37.91	PK-U	38.6	-20.1	0	56.41	-	-	74	-17.59	-	-	241	103	H
* 11.77121	26.15	ADR	38.6	-20.2	.16	44.71	54	-9.29	-	-	-	-	241	103	H
* 11.76599	34.98	PK-U	38.6	-20.2	0	53.38	-	-	74	-20.62	-	-	152	100	V
* 11.77043	22.78	ADR	38.6	-20.1	.16	41.44	54	-12.56	-	-	-	-	152	100	V
17.66188	33.91	PK-U	41.5	-17.9	0	57.51	-	-	-	-	68.2	-10.69	360	100	H
17.65088	33.9	PK-U	41.5	-17.9	0	57.5	-	-	-	-	68.2	-10.7	360	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

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
5845	MIMO	8.768	35.92	PK-U	36.30	-23.10	0.00	49.12	-	-	-	-	68.20	-19.08	0	100	H
		8.767	35.59	PK-U	36.30	-23.10	0.00	48.79	-	-	-	-	68.20	-19.41	0	100	V
		* 11.6867	36.33	PK-U	38.50	-19.70	0.00	55.13	-	-	74.00	-18.87	-	-	242	103	H
		* 11.6909	24.55	ADR	38.50	-19.70	0.16	43.51	54.00	-10.49	-	-	-	-	242	103	H
		* 11.68961	35.20	PK-U	38.50	-19.70	0.00	54.00	-	-	74.00	-20.00	-	-	166	100	V
		* 11.69051	22.56	ADR	38.50	-19.70	0.16	41.52	54.00	-12.48	-	-	-	-	166	100	V
		17.534	33.54	PK-U	41.30	-17.30	0.00	57.54	-	-	-	-	68.20	-10.66	360	100	H
		17.538	34.76	PK-U	41.30	-17.40	0.00	58.66	-	-	-	-	68.20	**-9.54**	360	100	V
5865	MIMO	7.820	42.08	PK-U	36.00	-24.20	0.00	53.88	-	-	-	-	68.20	-14.32	143	100	H
		7.820	37.45	PK-U	36.00	-24.20	0.00	49.25	-	-	-	-	68.20	-18.95	230	113	V
		* 11.73167	37.84	PK-U	38.50	-20.00	0.00	56.34	-	-	74.00	-17.66	-	-	244	100	H
		* 11.73092	25.85	ADR	38.50	-20.00	0.16	44.51	54.00	-9.49	-	-	-	-	244	100	H
		* 11.73231	35.18	PK-U	38.50	-20.00	0.00	53.68	-	-	74.00	-20.32	-	-	142	267	V
		* 11.73234	22.98	ADR	38.50	-20.00	0.16	41.64	54.00	-12.36	-	-	-	-	142	267	V
		17.601	33.79	PK-U	41.40	-17.70	0.00	57.49	-	-	-	-	68.20	-10.71	360	100	H
		17.603	34.02	PK-U	41.40	-17.70	0.00	57.72	-	-	-	-	68.20	-10.48	360	100	V
5885	MIMO	7.847	42.30	PK-U	36.00	-24.40	0.00	53.90	-	-	-	-	68.20	-14.30	140	103	H
		7.847	39.10	PK-U	36.00	-24.40	0.00	50.70	-	-	-	-	68.20	-17.50	184	104	V
		* 11.77063	37.91	PK-U	38.60	-20.10	0.00	56.41	-	-	74.00	**-17.59**	-	-	241	103	H
		* 11.77121	26.15	ADR	38.60	-20.20	0.16	44.71	54.00	**-9.29**	-	-	-	-	241	103	H
		* 11.76599	34.98	PK-U	38.60	-20.20	0.00	53.38	-	-	74.00	-20.62	-	-	152	100	V
		* 11.77043	22.78	ADR	38.60	-20.10	0.16	41.44	54.00	-12.56	-	-	-	-	152	100	V
		17.662	33.91	PK-U	41.50	-17.90	0.00	57.51	-	-	-	-	68.20	-10.69	360	100	H
		17.651	33.90	PK-U	41.50	-17.90	0.00	57.50	-	-	-	-	68.20	-10.70	360	100	V
5845	MIMO	8.774	34.78	PK-U	36.50	-22.90	0.00	48.38	-	-	-	-	68.20	-19.82	0	100	H
		8.768	34.44	PK-U	36.50	-22.90	0.00	48.04	-	-	-	-	68.20	-20.16	0	100	V
		* 11.6927	35.59	PK-U	38.90	-21.80	0.00	52.69	-	-	74.00	-21.31	-	-	0	100	H
		* 11.68267	34.99	PK-U	38.90	-21.80	0.00	52.09	-	-	74.00	-21.91	-	-	0	100	V
		17.543	32.16	PK-U	42.00	-17.50	0.00	56.66	-	-	-	-	68.20	-11.54	0	100	H
		17.544	31.76	PK-U	42.00	-17.40	0.00	56.36	-	-	-	-	68.20	-11.84	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

11.6. Spurious Emissions for Simultaneous Transmission

11.6.1. Worst test case RSDB condition

Case 1	2.4 GHz WLAN ANT2	5GHz WLAN ANT1 + ANT2
Mode	802.11b	802.11a
Channel	11	100
Frequency[MHz]	2462	5500
Tone	-	-
RU	-	-
Data Rate	1 Mbps	MCS 0
Axis (Worst)	X & Z	

Case 2	2.4 GHz WLAN ANT1 + ANT2	5GHz WLAN ANT1 + ANT2
Mode	802.11g	802.11a
Channel	1	100
Frequency[MHz]	2412	5500
Tone	-	-
RU	-	-
Data Rate	6 Mbps	MCS 0
Axis (Worst)	X & Z	

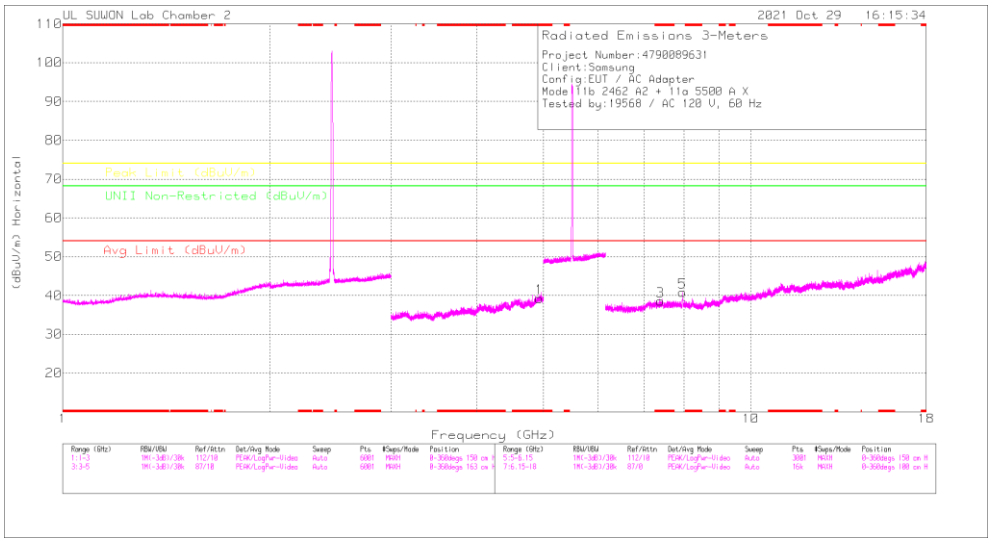
Case 3	2.4 GHz WLAN ANT1 + ANT2	5GHz WLAN ANT1 + ANT2
Mode	802.11ax HE20	802.11ax HE160
Channel	1	149
Frequency[MHz]	2412	5745
Tone	26T	26T
RU	4	8
Data Rate	MCS 0	MCS 0
Axis (Worst)	X & Z	

NOTE
The lowest margin condition among the channels and modes were selected for test.
Low, mid, and high channels of 2.4GH WLAN were tested, and the worst case configuration & data were listed in the test report.

11.6.1. Test Results

Spurious emission for Simultaneous Transmission
Case1. – X axis

HORIZONTAL



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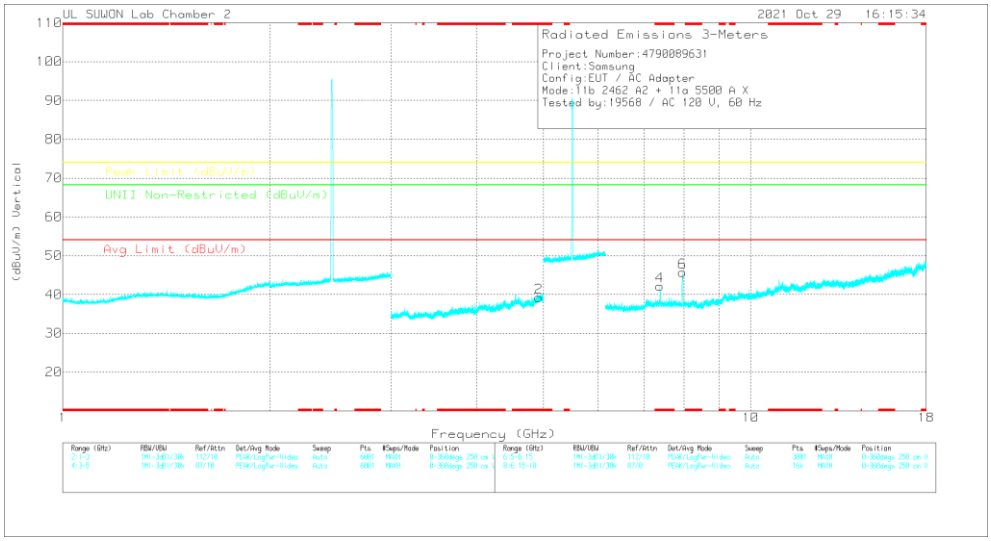


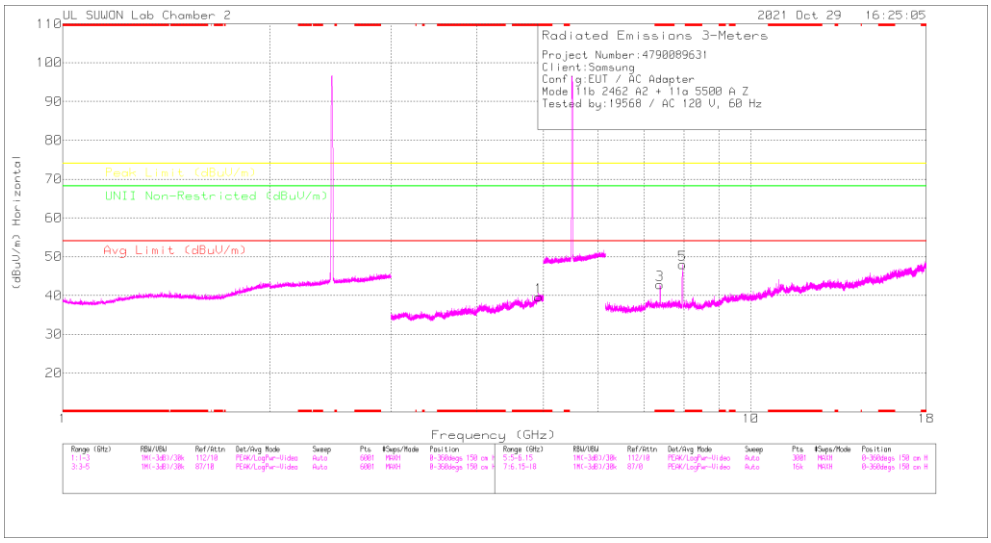
Radiated Emissions

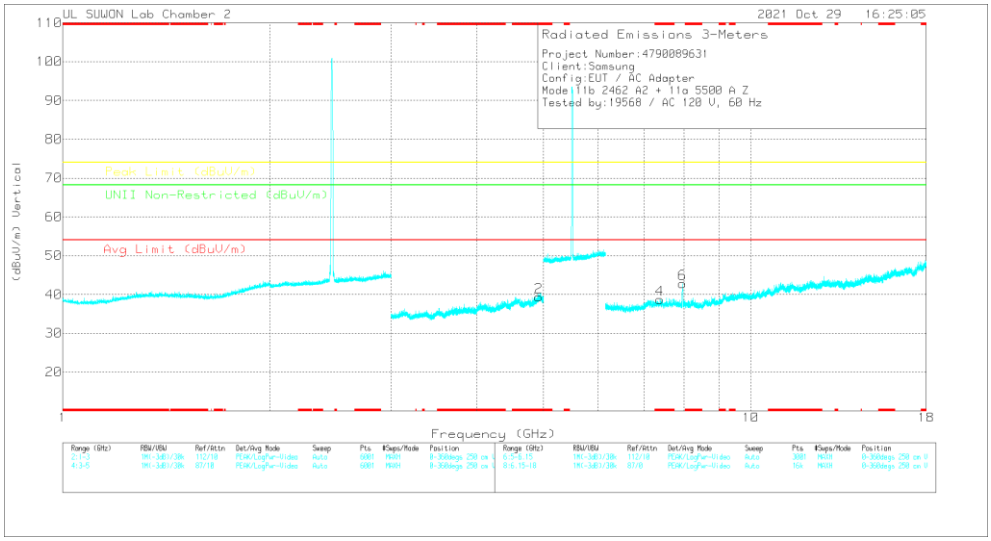
Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00168724	5GHz_LP[dB]	DTS Notch[dB]	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 4.9274	41.62	PK2	34.1	-26.2	.5	0	50.02	-	-	74	-23.98	-	-	0	100	H
* 4.92558	41.57	PK2	34.1	-26.2	.5	0	49.97	-	-	74	-24.03	-	-	0	100	V

Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00168724	6GHz_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
* 7.38723	37.66	PK-U	36.1	-24.4	0	49.36	-	-	74	-24.64	-	-	346	116	H
* 7.38687	26.23	ADR	36.1	-24.4	16	38.09	54	-15.91	-	-	-	-	346	116	H
* 7.38747	39.78	PK-U	36.1	-24.4	0	51.48	-	-	74	-22.52	-	-	101	113	V
* 7.38707	29.39	ADR	36.1	-24.4	16	41.25	54	-12.75	-	-	-	-	101	113	V
7.96539	41.99	PK-U	36	-23.9	0	54.09	-	-	-	-	68.2	-14.11	44	102	H
7.96735	48.22	PK-U	36	-23.8	0	60.42	-	-	-	-	68.2	-7.78	84	101	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
PK-U - U-NII: Maximum Peak
ADR - U-NII AD primary method, RMS average
PK2 - KDB558074 Method: Maximum Peak

Case1. – Z axis





Radiated Emissions

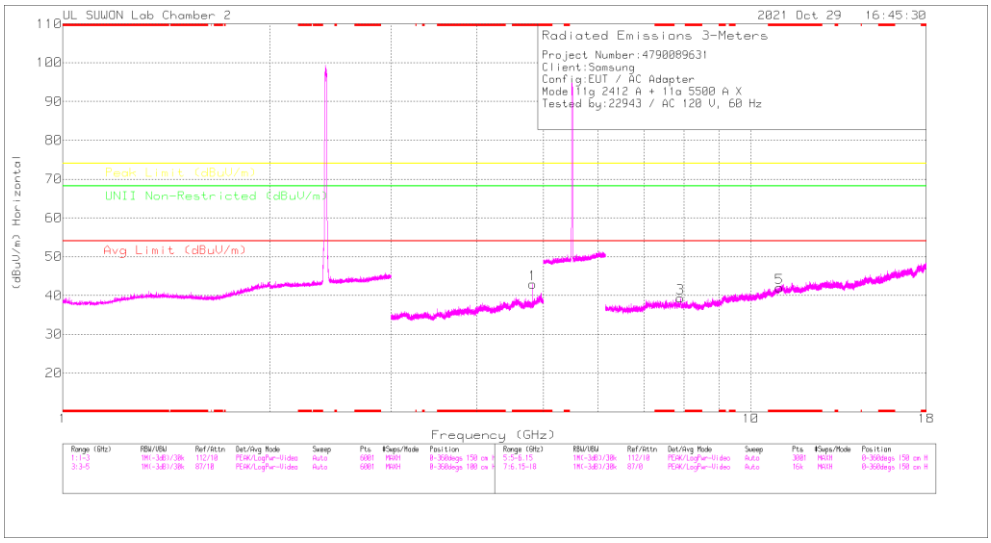
Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00168724	5GHz_LP[dB]	DTS Notch[dB]	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 4.92449	41.43	PK2	34.1	-26.2	.5	0	49.83	-	-	74	-24.17	-	-	0	100	H
* 4.92718	42.14	PK2	34.1	-26.2	.5	0	50.54	-	-	74	-23.46	-	-	0	100	V

Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00168724	6GHz_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
* 7.38453	40.6	PK-U	36.1	-24.4	0	52.3	-	-	74	-21.7	-	-	183	336	H
* 7.38699	31.31	ADR	36.1	-24.4	.16	43.17	54	-10.83	-	-	-	-	183	336	H
* 7.38564	37.73	PK-U	36.1	-24.4	0	49.43	-	-	74	-24.57	-	-	193	214	V
* 7.38714	26.16	ADR	36.1	-24.4	.16	38.02	54	-15.98	-	-	-	-	193	214	V
7.96701	48.51	PK-U	36	-23.9	0	60.61	-	-	-	-	68.2	-7.59	148	109	H
7.96491	44.03	PK-U	36	-23.9	0	56.13	-	-	-	-	68.2	-12.07	191	201	V

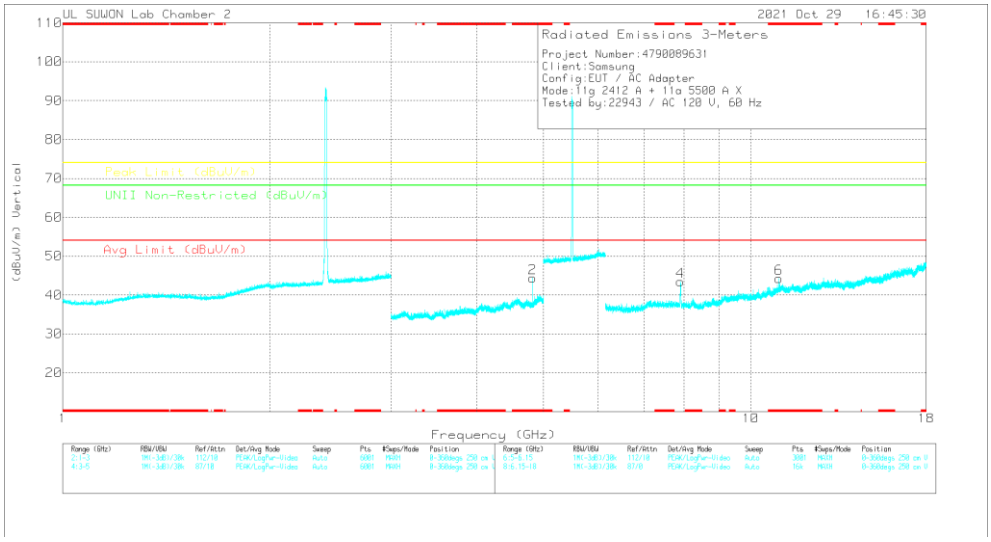
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
PK-U - U-NII: Maximum Peak
ADR - U-NII AD primary method, RMS average
PK2 - KDB558074 Method: Maximum Peak

Case2. – X axis

HORIZONTAL



VERTICAL



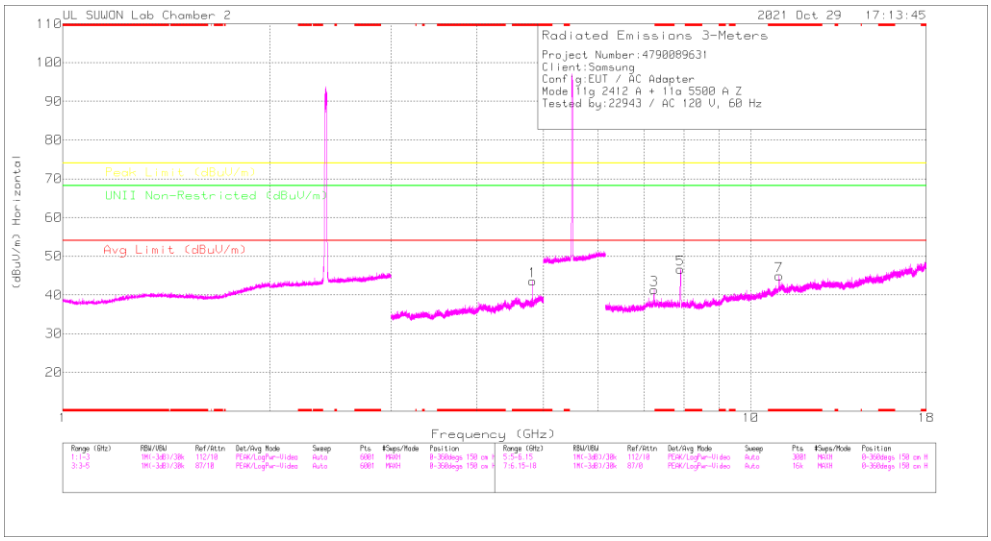
Radiated Emissions

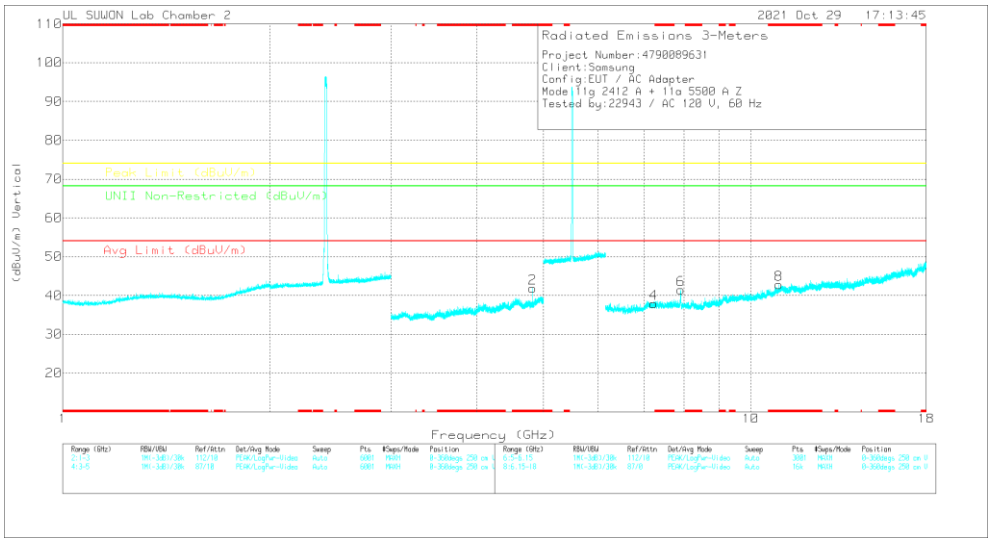
Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00168724	5GHz_LP[dB]	DTS Notch[dB]	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 4.82389	46.16	PK2	34.1	-27.7	.5	0	53.06	-	-	74	-20.94	-	-	149	100	H
* 4.82398	32.7	MAv1	34.1	-27.7	.5	.16	39.76	54	-14.24	-	-	-	-	149	100	H
* 4.82422	44.03	PK2	34.1	-27.7	.5	0	50.93	-	-	74	-23.07	-	-	289	109	V
* 4.82364	31.69	MAv1	34.1	-27.7	.5	.16	38.75	54	-15.25	-	-	-	-	289	109	V

Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00168724	6GHz_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
7.90849	41.69	PK-U	36	-24	0	53.69	-	-	-	-	68.2	-14.51	47	106	H
7.9081	47.56	PK-U	36	-24	0	59.56	-	-	-	-	68.2	-8.64	88	104	V
* 10.99484	35.44	PK-U	38.2	-20.4	0	53.24	-	-	74	-20.76	-	-	308	104	H
* 10.99922	23.1	ADR	38.2	-20.4	.16	41.06	54	-12.94	-	-	-	-	308	104	H
* 10.99847	39.38	PK-U	38.2	-20.4	0	57.18	-	-	74	-16.82	-	-	62	102	V
* 11.00093	25.55	ADR	38.2	-20.4	.16	43.51	54	-10.49	-	-	-	-	62	102	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
PK2 - KDB558074 Method: Maximum Peak
MAv1 - KDB558074 Option 1 Maximum RMS Average

Case2. – Z axis





Radiated Emissions

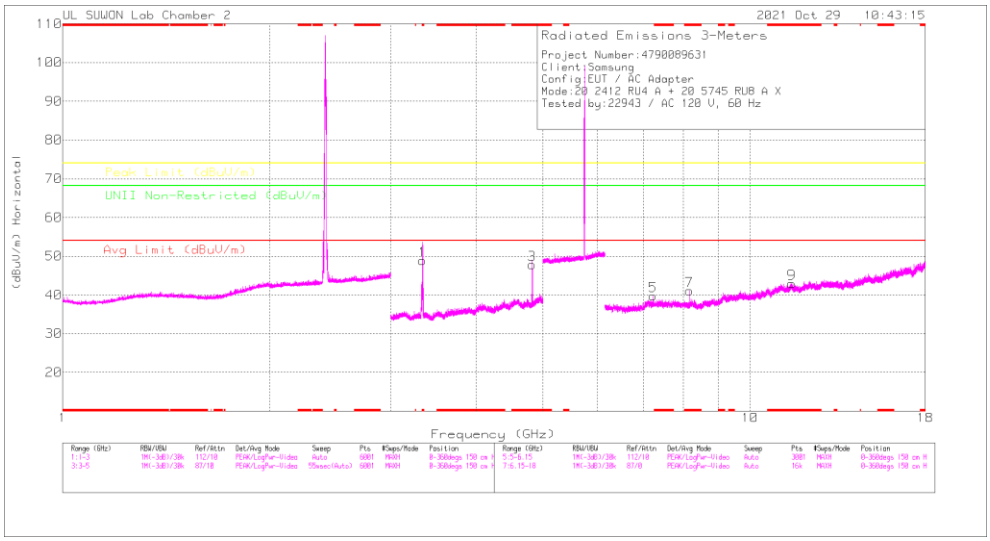
Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00168724	5GHz_LP[dB]	DTS Notch[dB]	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 4.8238	45.64	PK2	34.1	-27.7	.5	0	52.54	-	-	74	-21.46	-	-	149	100	H
* 4.8244	32.56	MAv1	34.1	-27.7	.5	.16	39.62	54	-14.38	-	-	-	-	149	100	H
* 4.8235	43.37	PK2	34.1	-27.7	.5	0	50.27	-	-	74	-23.73	-	-	108	339	V
* 4.82408	30.29	MAv1	34.1	-27.7	.5	.16	37.35	54	-16.65	-	-	-	-	108	339	V

Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00168724	6GHz_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
7.2428	40.78	PK-U	36.2	-25.3	0	51.68	-	-	-	-	68.2	-16.52	143	108	H
7.24294	42.36	PK-U	36.2	-25.3	0	53.26	-	-	-	-	68.2	-14.94	179	292	V
7.91048	50.98	PK-U	36	-24	0	62.98	-	-	-	-	68.2	-5.22	143	100	H
7.91303	46.01	PK-U	36	-23.9	0	58.11	-	-	-	-	68.2	-10.09	199	180	V
* 10.99844	42.26	PK-U	38.2	-20.4	0	60.06	-	-	74	-13.94	-	-	214	280	H
* 10.99934	27.99	ADR	38.2	-20.4	.16	45.95	54	-8.05	-	-	-	-	214	280	H
* 11.00246	36.54	PK-U	38.2	-20.4	0	54.34	-	-	74	-19.66	-	-	203	145	V
* 11.00075	23.97	ADR	38.2	-20.4	.16	41.93	54	-12.07	-	-	-	-	203	145	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
PK2 - KDB558074 Method: Maximum Peak
MAv1 - KDB558074 Option 1 Maximum RMS Average

Case3. – X axis

HORIZONTAL



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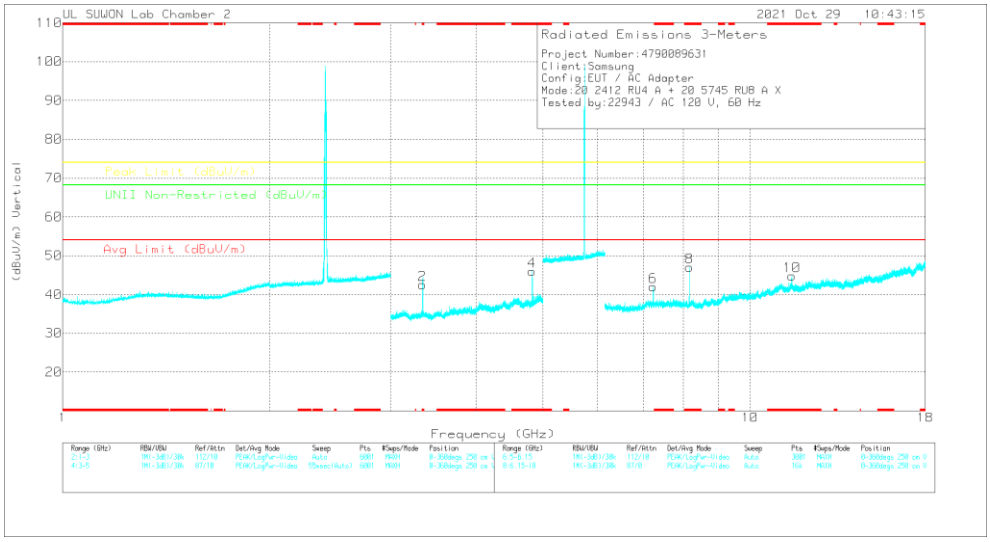


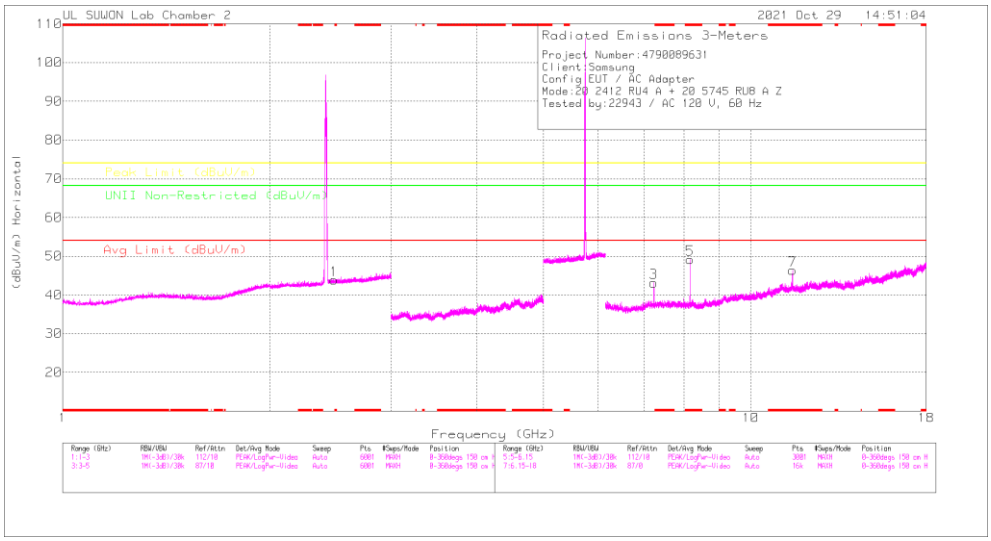
Radiated Emissions

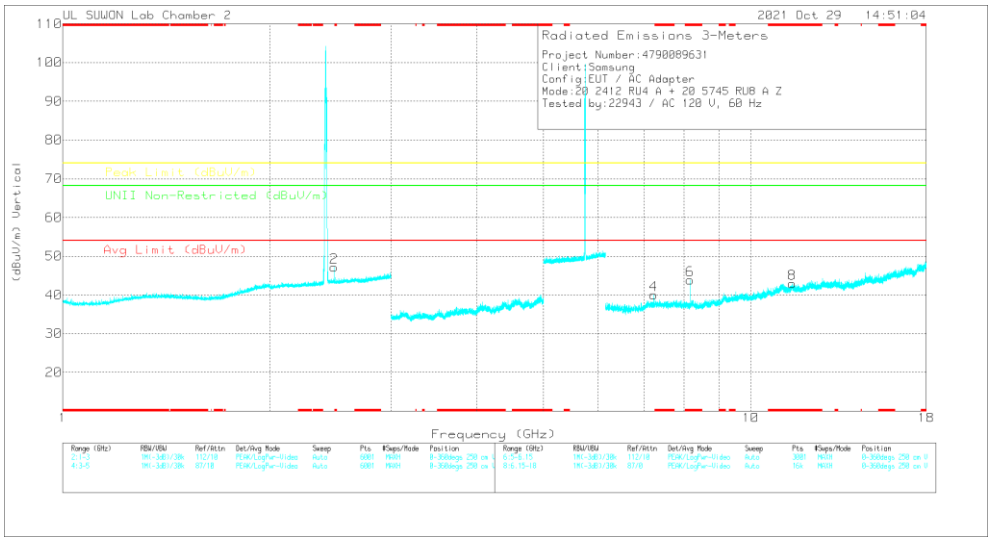
Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00168724	5GHz_LP[dB]	DTS Notch[dB]	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
3.34053	59.13	PK2	32.7	-28.3	.9	0	64.43	-	-	-	-	68.2	-3.77	141	122	H
3.34057	55.92	PK2	32.7	-28.3	.9	0	61.22	-	-	-	-	68.2	-6.98	196	100	V
* 4.82427	50.62	PK2	34.1	-27.7	.5	0	57.52	-	-	74	-16.48	-	-	152	109	H
* 4.824	35.5	MAv1	34.1	-27.7	.5	0	42.4	54	-11.6	-	-	-	-	152	109	H
* 4.82379	49.44	PK2	34.1	-27.7	.5	0	56.34	-	-	74	-17.66	-	-	196	104	V
* 4.82421	33.05	MAv1	34.1	-27.7	.5	0	39.95	54	-14.05	-	-	-	-	196	104	V

Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00168724	6GHz_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
7.23976	37.78	PK-U	36.2	-25.3	0	48.68	-	-	-	-	68.2	-19.52	160	104	H
7.23678	39.66	PK-U	36.2	-25.4	0	50.46	-	-	-	-	68.2	-17.74	269	100	V
* 8.16554	42.3	PK-U	35.9	-24.2	0	54	-	-	74	-20	-	-	38	100	H
* 8.16557	26.66	ADR	35.9	-24.2	0	38.36	54	-15.64	-	-	-	-	38	100	H
* 8.1655	46.21	PK-U	35.9	-24.2	0	57.91	-	-	74	-16.09	-	-	87	100	V
* 8.16536	30.92	ADR	35.9	-24.2	0	42.62	54	-11.38	-	-	-	-	87	100	V
* 11.50763	37.84	PK-U	38.3	-19.7	0	56.44	-	-	74	-17.56	-	-	310	100	H
* 11.50703	23.76	ADR	38.3	-19.7	0	42.36	54	-11.64	-	-	-	-	310	100	H
* 11.50762	43.3	PK-U	38.3	-19.7	0	61.9	-	-	74	-12.1	-	-	108	103	V
* 11.5069	26.78	ADR	38.3	-19.7	0	45.38	54	-8.62	-	-	-	-	108	103	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
PK2 - KDB558074 Method: Maximum Peak
MAv1 - KDB558074 Option 1 Maximum RMS Average

Case3. – Z axis





Radiated Emissions

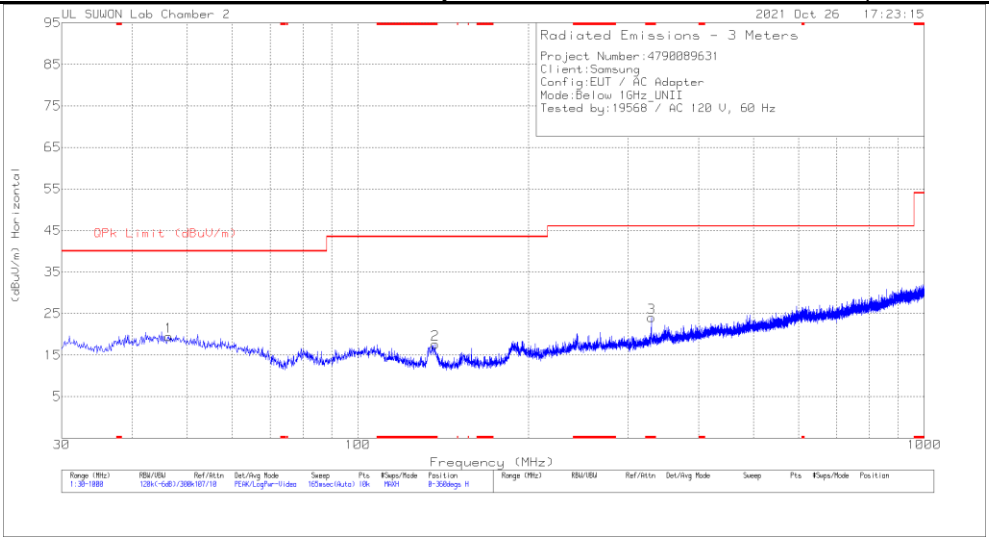
Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00168724	10dB_ATT[dB]	UNII Notch[dB]	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2.47557	42.22	PK2	32	-20.4	.5	0	54.32	-	-	-	-	68.2	-13.88	84	207	H
2.47988	42.07	PK2	32	-20.5	.5	0	54.07	-	-	-	-	68.2	-14.13	4	132	V

Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00168724	6GHz_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
7.23549	52.29	PK-U	36.2	-25.4	0	63.09	-	-	-	-	68.2	-5.11	207	139	H
7.23553	52.93	PK-U	36.2	-25.4	0	63.73	-	-	-	-	68.2	-4.47	174	277	V
* 8.16508	55.95	PK-U	35.9	-24.2	0	67.65	-	-	74	-6.35	-	-	128	115	H
* 8.16554	38.25	ADR	35.9	-24.2	0	49.95	54	-4.05	-	-	-	-	128	115	H
* 8.16469	49.62	PK-U	35.9	-24.2	0	61.32	-	-	74	-12.68	-	-	211	166	V
* 8.16527	33.52	ADR	35.9	-24.2	0	45.22	54	-8.78	-	-	-	-	211	166	V
* 11.50777	43.2	PK-U	38.3	-19.7	0	61.8	-	-	74	-12.2	-	-	115	240	H
* 11.50691	26.21	ADR	38.3	-19.7	0	44.81	54	-9.19	-	-	-	-	115	240	H
* 11.50772	34.71	PK-U	38.3	-19.7	0	53.31	-	-	74	-20.69	-	-	107	103	V
* 11.506	21.44	ADR	38.3	-19.7	0	40.04	54	-13.96	-	-	-	-	107	103	V

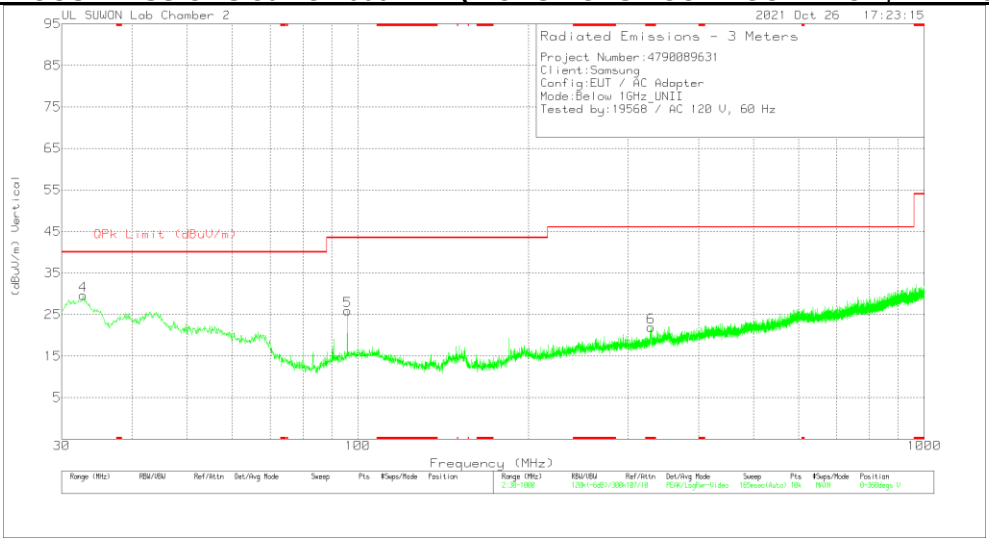
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
PK-U - U-NII: Maximum Peak
ADR - U-NII AD primary method, RMS average
PK2 - KDB558074 Method: Maximum Peak

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)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	46.393	31.54	Pk	19.7	-31.8	0	19.44	40	-20.56	0-360	200	H
2	* 136.894	34.89	Pk	13.8	-31.1	0	17.59	43.52	-25.93	0-360	100	H
3	* 329.827	34.38	Pk	19.9	-30.2	0	24.08	46.02	-21.94	0-360	100	H
4	32.716	46.03	Pk	15.5	-31.9	0	29.63	40	-10.37	0-360	100	V
5	95.863	40.37	Pk	16.8	-31.3	0	25.87	43.52	-17.65	0-360	100	V
6	* 329.051	32.2	Pk	19.9	-30.2	0	21.9	46.02	-24.12	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.

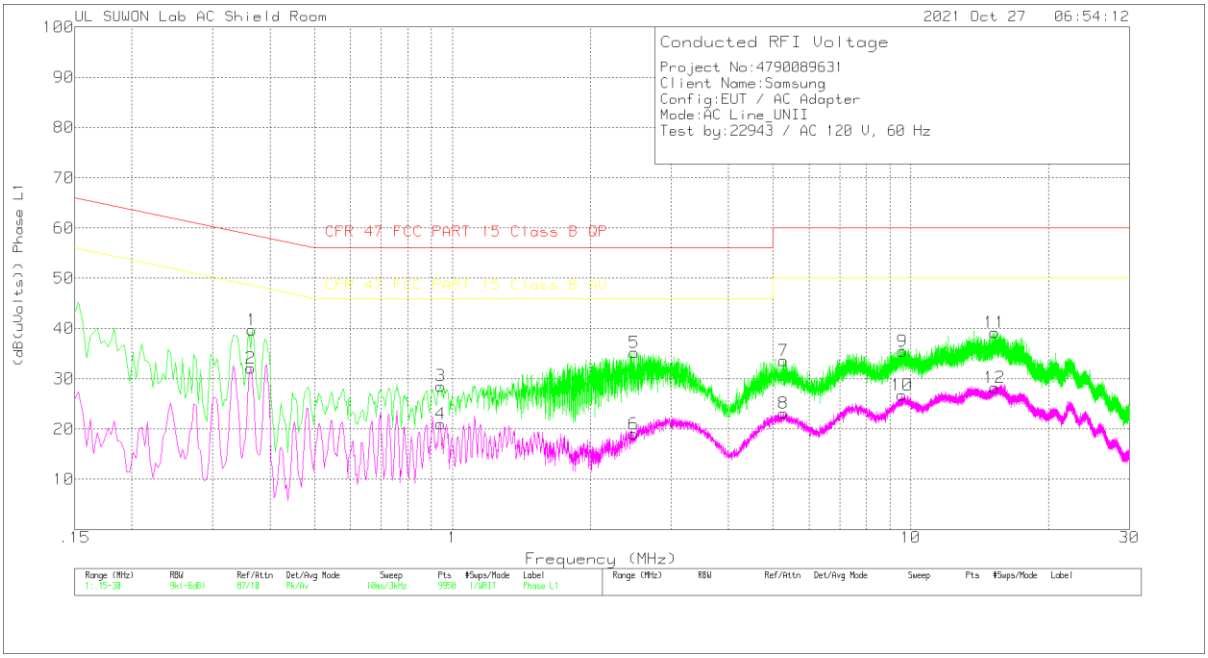
The receiver is set to a resolution bandwidth of 9 kHz. Peak detection is used unless otherwise noted as quasi-peak or average.

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

RESULTS

WORST EMISSIONS

LINE 1 DATA



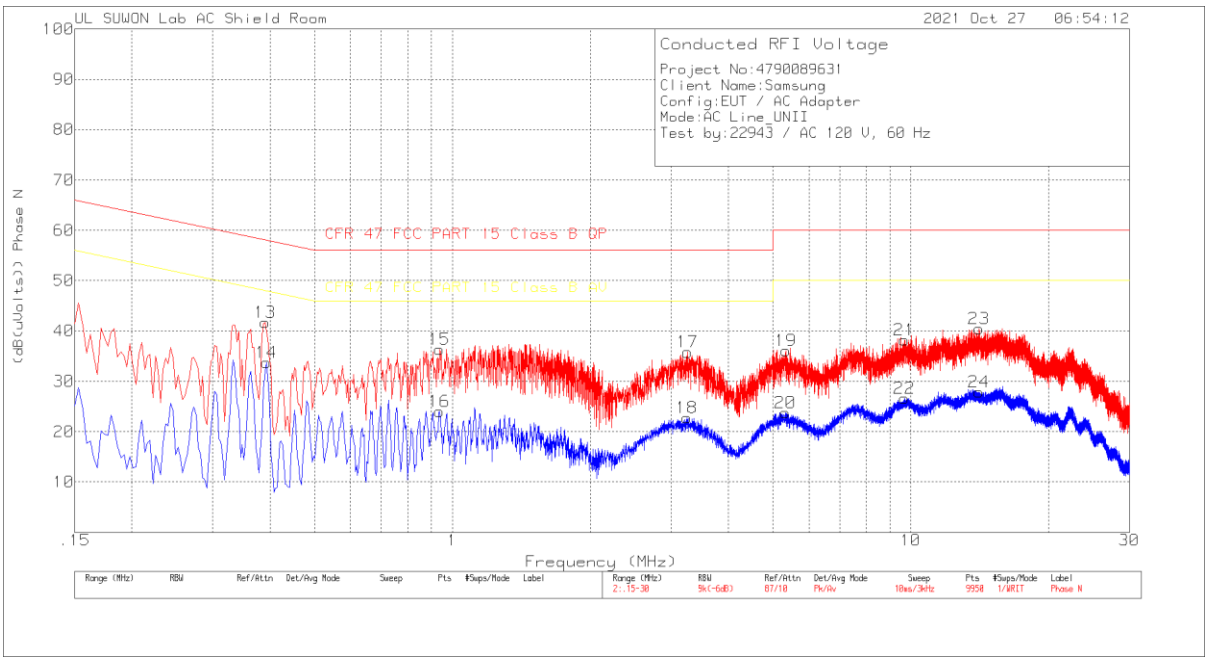
Trace Markers

Range 1: Phase L1 .15 - 30MHz

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	101836_With EX_L1[dB]	CABLELOSS(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	.366	29.66	Pk	9.8	.2	39.66	58.59	-18.93	-	-
2	.363	22.12	Av	9.8	.2	32.12	-	-	48.66	-16.54
3	.942	18.46	Pk	9.8	.3	28.56	56	-27.44	-	-
4	.942	10.97	Av	9.8	.3	21.07	-	-	46	-24.93
5	2.496	25.19	Pk	9.7	.3	35.19	56	-20.81	-	-
6	2.487	9.06	Av	9.7	.3	19.06	-	-	46	-26.94
7	5.283	23.57	Pk	9.7	.3	33.57	60	-26.43	-	-
8	5.283	13.14	Av	9.7	.3	23.14	-	-	50	-26.86
9	9.582	25.28	Pk	9.8	.4	35.48	60	-24.52	-	-
10	9.576	16.6	Av	9.8	.4	26.8	-	-	50	-23.2
11	15.24	28.86	Pk	10	.4	39.26	60	-20.74	-	-
12	15.24	17.89	Av	10	.4	28.29	-	-	50	-21.71

Pk - Peak detector
Av - Average detection

LINE 2 DATA



Trace Markers

Range 2: Phase N .15 - 30MHz

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	101836_With EX_N[dB]	CABLELOSS(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	.39	31.67	Pk	9.8	.2	41.67	58.06	-16.39	-	-
14	.393	23.71	Av	9.8	.2	33.71	-	-	48	-14.29
15	.936	26.22	Pk	9.8	.3	36.32	56	-19.68	-	-
16	.936	13.96	Av	9.8	.3	24.06	-	-	46	-21.94
17	3.258	25.79	Pk	9.7	.3	35.79	56	-20.21	-	-
18	3.252	12.73	Av	9.7	.3	22.73	-	-	46	-23.27
19	5.349	26.12	Pk	9.7	.3	36.12	60	-23.88	-	-
20	5.331	13.78	Av	9.7	.3	23.78	-	-	50	-26.22
21	9.693	27.96	Pk	9.9	.4	38.26	60	-21.74	-	-
22	9.681	16.31	Av	9.9	.4	26.61	-	-	50	-23.39
23	14.103	30.03	Pk	10	.4	40.43	60	-19.57	-	-
24	14.1	17.47	Av	10	.4	27.87	-	-	50	-22.13

Pk - Peak detector
Av - Average detection

14. DYNAMIC FREQUENCY SELECTION

14.1. OVERVIEW

14.1.1. LIMITS

FCC

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

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

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

Table 2: Applicability of DFS requirements during normal operation

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

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

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

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

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

Table 4: DFS Response requirement values

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

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

Table 5 – Short Pulse Radar Test Waveforms

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

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

Table 6 – Long Pulse Radar Test Signal

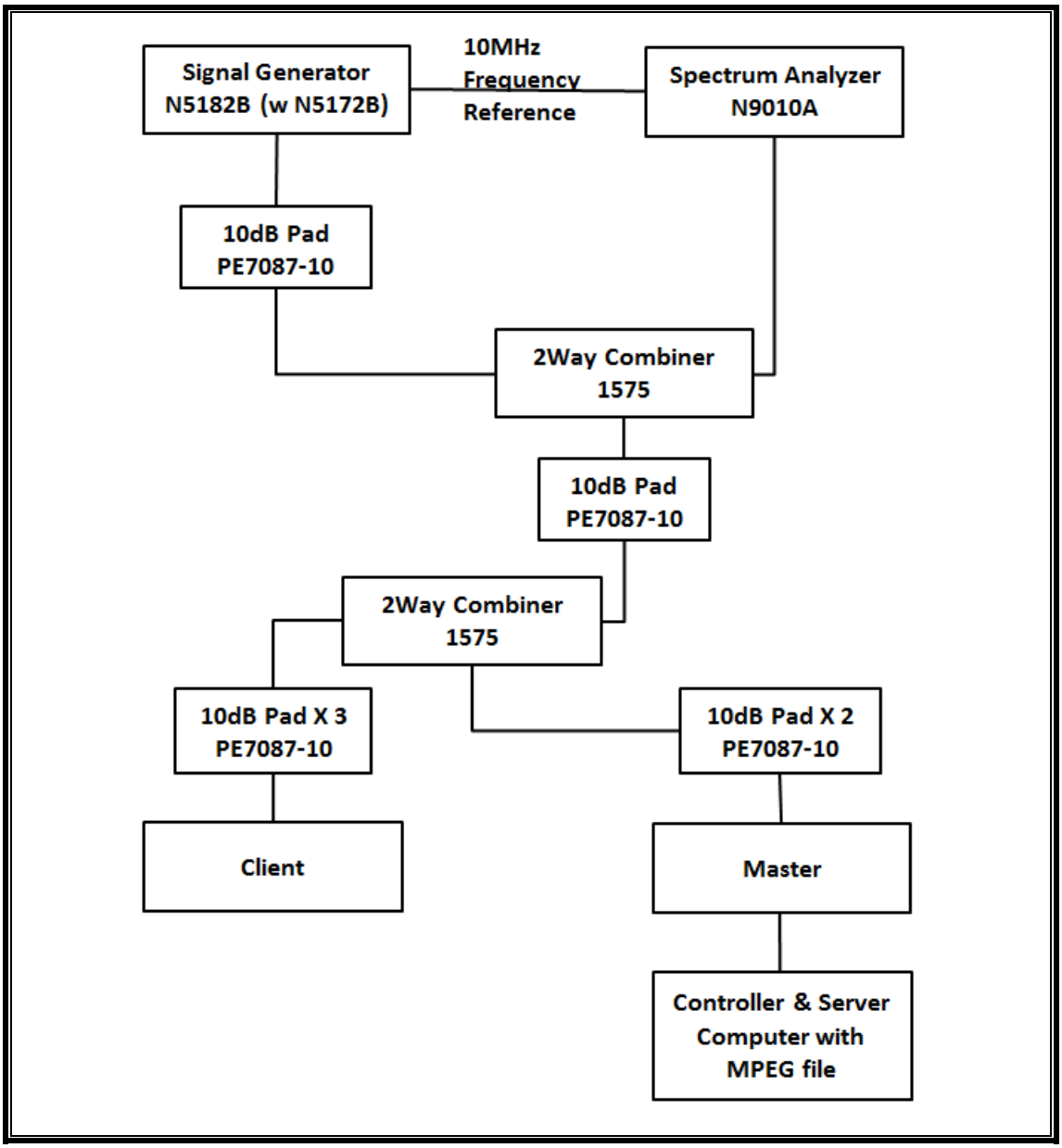
Radar Waveform Type	Pulse Width (µsec)	Chirp Width (MHz)	PRI (µsec)	Pulses per Burst	Number of Bursts	Minimum Percentage of Successful Detection	Minimum Trials
5	50-100	5-20	1000-2000	1-3	8-20	80%	30

Table 7 – Frequency Hopping Radar Test Signal

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

14.1.2. TEST AND MEASUREMENT SYSTEM

CONDUCTED METHOD SYSTEM BLOCK DIAGRAM



SYSTEM OVERVIEW

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

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

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

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

SYSTEM CALIBRATION

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

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

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

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ADJUSTMENT OF DISPLAYED TRAFFIC LEVEL

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

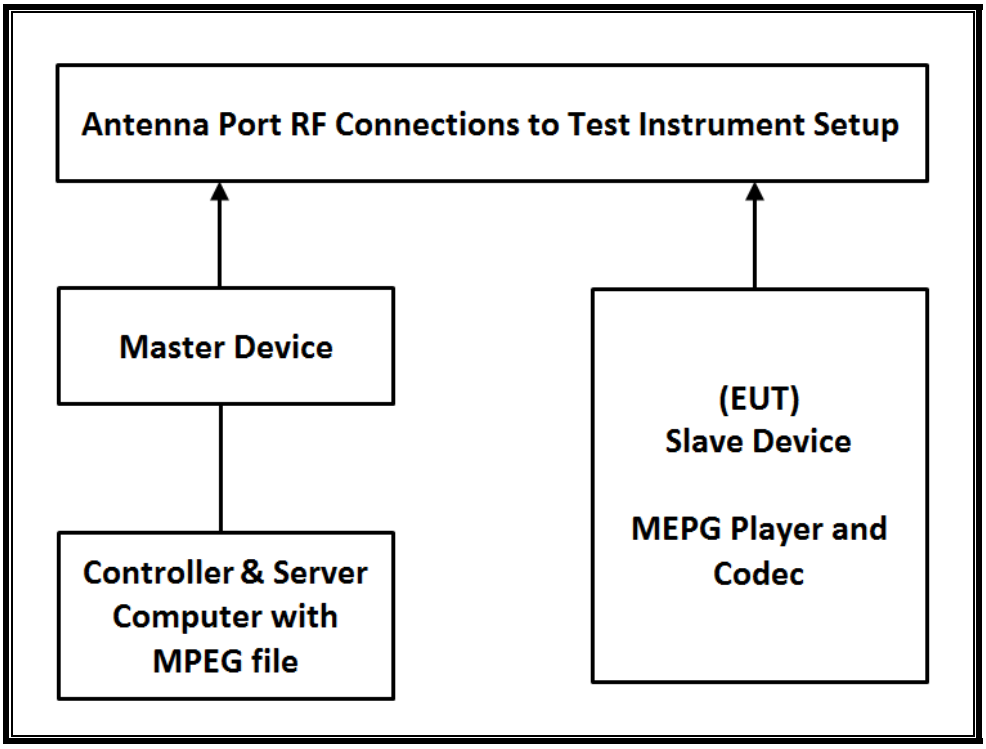
TEST AND MEASUREMENT EQUIPMENT

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

TEST EQUIPMENT LIST				
Description	**Manufacturer**	**Model**	**S/N**	**Next Cal Due**
Spectrum Analyzer, 7 GHz	Agilent / HP	N9010A	MY54200580	08-02-22
Vector Signal Generator, 6GHz	Agilent / HP	N5182B	MY53051241	08-02-22
Combiner	WEINSCHEL	WA1534	UL001	01-27-22
Combiner	WEINSCHEL	WA1535	UL002	01-27-22

14.1.3. SETUP OF EUT

CONDUCTED METHOD EUT TEST SETUP



SUPPORT EQUIPMENT

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

PERIPHERAL SUPPORT EQUIPMENT LIST				
Description	**Manufacturer**	**Model**	**Serial Number**	**FCC ID**
Wireless Access Point	Cisco	AIR-CAP3702E-A-K9	FTX182276QX	LDK102087
Notebook PC (Controller/Server)	HP	HP EliteDesk 800 G1 TWR	CZC4125J25	DoC

14.1.4. DESCRIPTION OF EUT

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

The EUT is a Slave Device without Radar Detection.

The highest power level of the widest bandwidth (802.11ac VHT80) within these bands is 14.84 dBm in the 5250-5350 MHz band and 14.97 dBm in the 5470-5725 MHz band.

The antenna assembly utilized two antenna.
Gain of ANT1 : -10.64 dBi for UNII 2A and -5.75 dBi for UNII 2C.
Gain of ANT2 : -7.28 dBi for UNII 2A and -5.73 dBi for UNII 2C.

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

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

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

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

UNIFORM CHANNEL SPREADING

This requirement is not applicable to Slave radio devices.

CHANNEL PUNCTURING(802.11ax)

This EUT does not support channel puncturing.

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

The Master Device is a Cisco Access Point, FCC ID: LDK102087. The minimum antenna gain for the Master Device is 6 dBi.

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

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

14.2. RESULTS FOR 80 MHz BANDWIDTH (UNII-2A BAND)

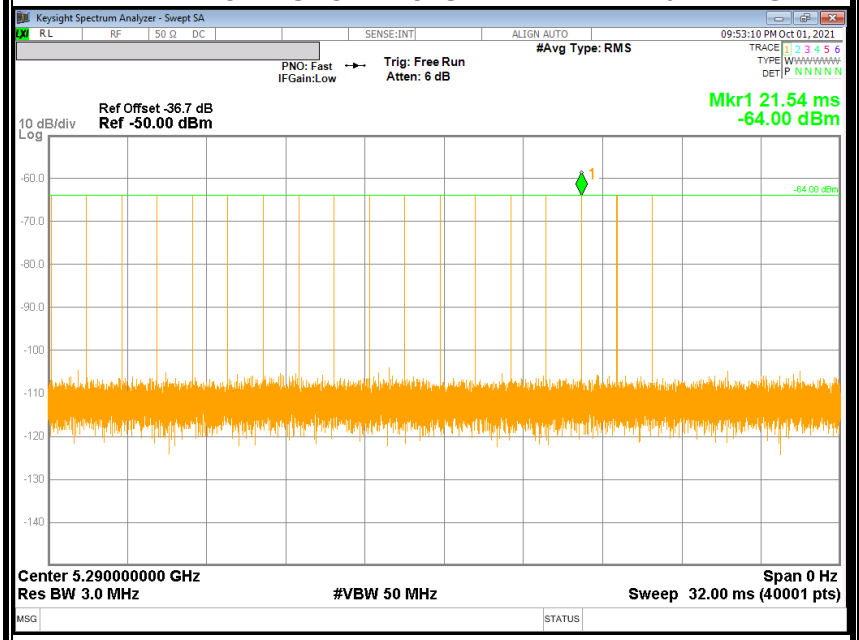
14.2.1. TEST CHANNEL

All tests were performed at a channel center frequency of 5290 MHz.

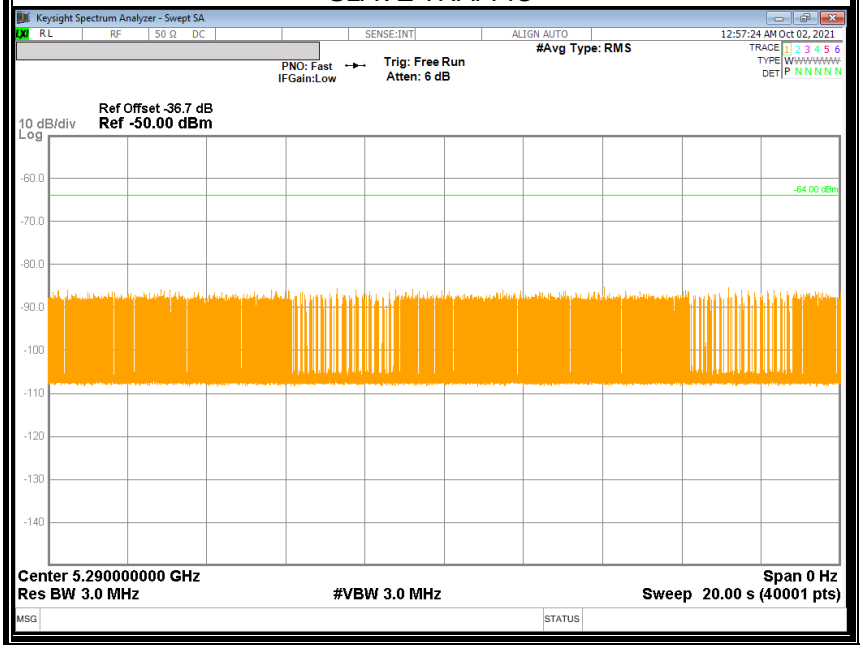
14.2.2. RADAR WAVEFORM AND TRAFFIC

RADAR WAVEFORM

RADAR WAVEFORM:SHORT PULSE RADAR TYPE 0 AT MASTER



SLAVE TRAFFIC



14.2.3. OVERLAPPING CHANNEL TESTS

RESULTS

These tests are not applicable.

14.2.4. MOVE AND CLOSING TIME

REPORTING NOTES

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

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

The aggregate channel closing transmission time is calculated as follows:

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

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

RESULTS

Channel Move Time (sec)	Limit (sec)
0.714	10

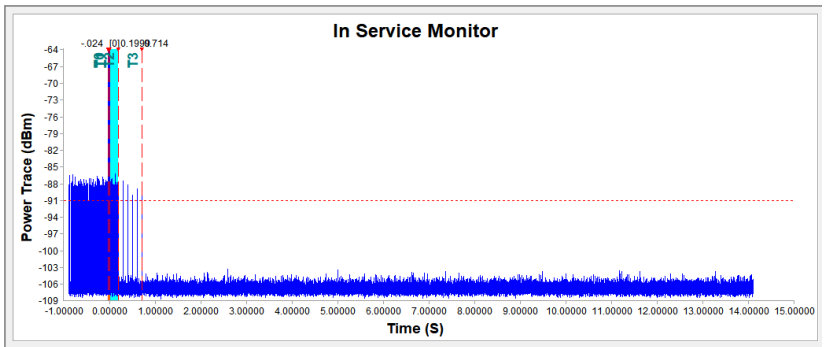
Aggregate Channel Closing Transmission Time (msec)	Limit (msec)
3.375	60

MOVE TIME & CHANNEL CLOSING TIME

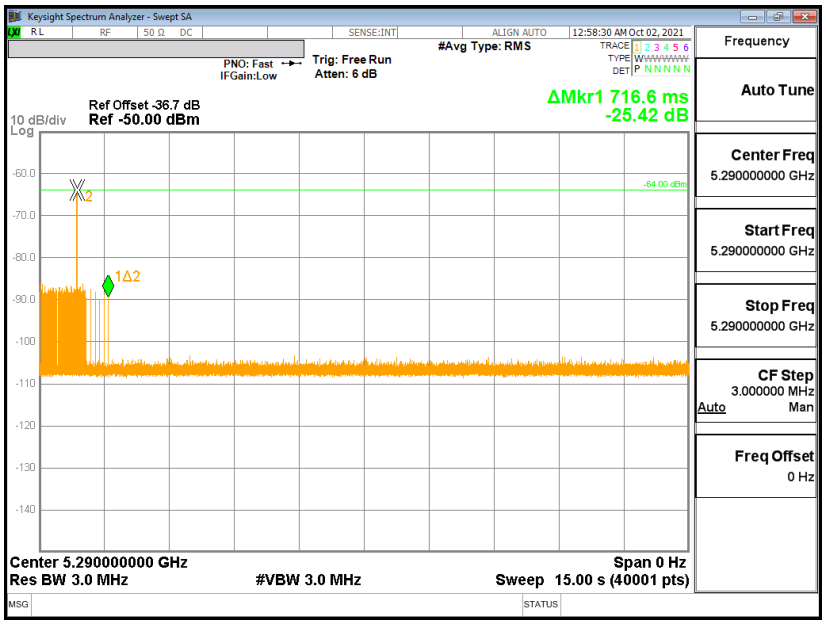
AGGREGATE CHANNEL CLOSING TRANSMISSION TIME

No transmissions are observed during the aggregate monitoring period.

MOVE TIME & AGGREGATE CHANNEL CLOSING TRANSMISSION TIME



MOVE TIME & CLOSING TIME AT IN SERVICE MONITOR

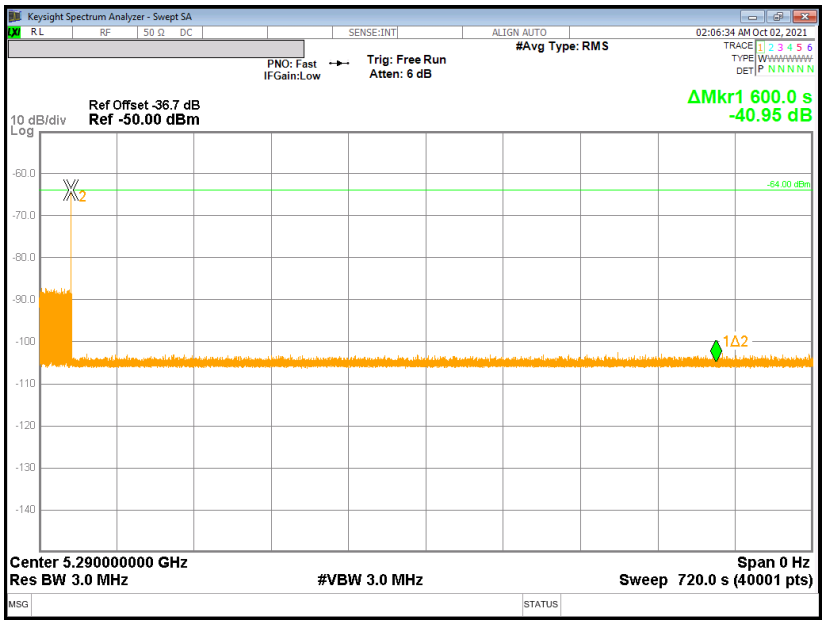


NON-OCCUPANCY PERIOD

RESULTS

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

10-MINUTE BEACON MONITORING PERIOD



14.3. RESULTS FOR 80 MHz BANDWIDTH (UNII-2C BAND)

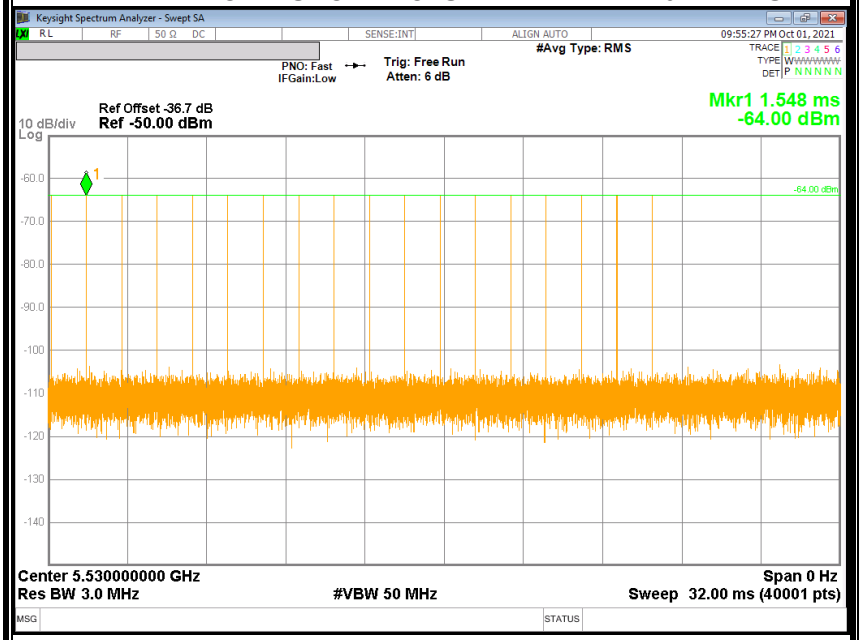
14.3.1. TEST CHANNEL

All tests were performed at a channel center frequency of 5530 MHz.

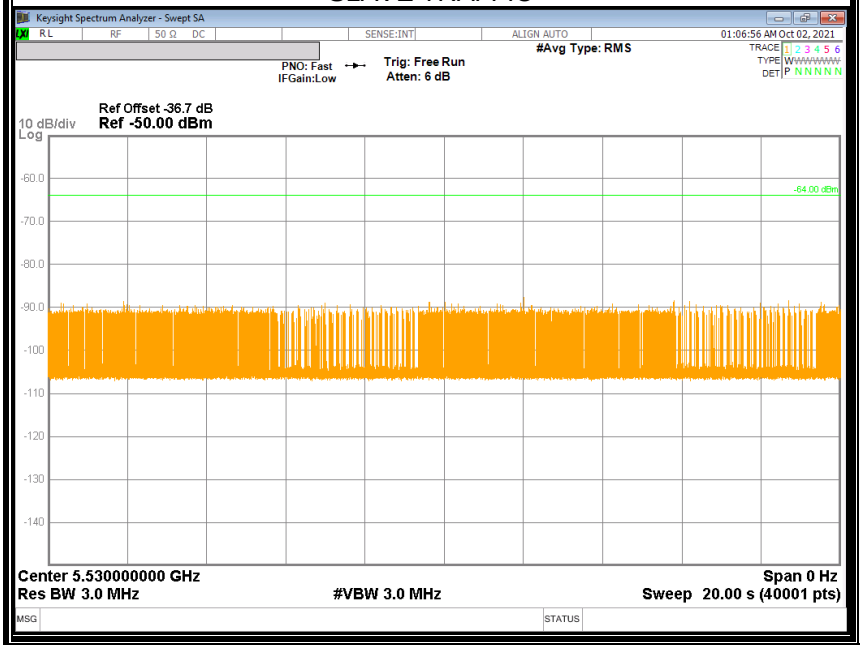
14.3.2. RADAR WAVEFORM AND TRAFFIC

RADAR WAVEFORM

RADAR WAVEFORM:SHORT PULSE RADAR TYPE 0 AT MASTER



SLAVE TRAFFIC



14.3.3. OVERLAPPING CHANNEL TESTS

RESULTS

These tests are not applicable.

14.3.4. MOVE AND CLOSING TIME

REPORTING NOTES

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

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

The aggregate channel closing transmission time is calculated as follows:

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

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

RESULTS

Channel Move Time (sec)	Limit (sec)
0.756	10

Aggregate Channel Closing Transmission Time (msec)	Limit (msec)
7.875	60

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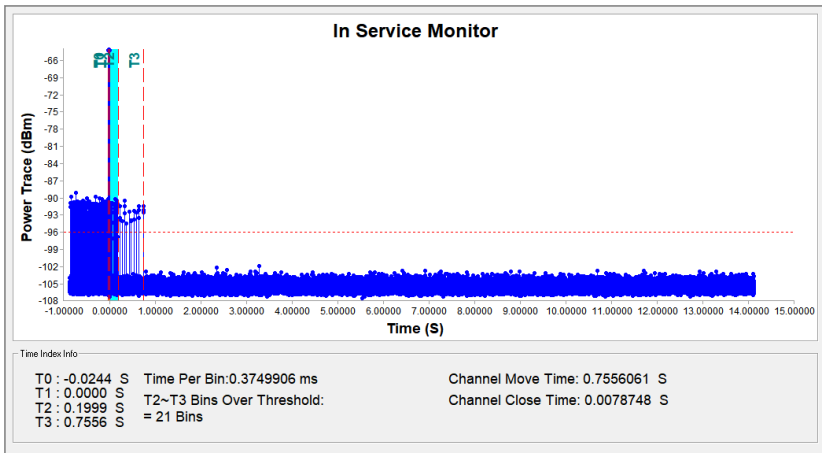
MOVE TIME & CHANNEL CLOSING TIME

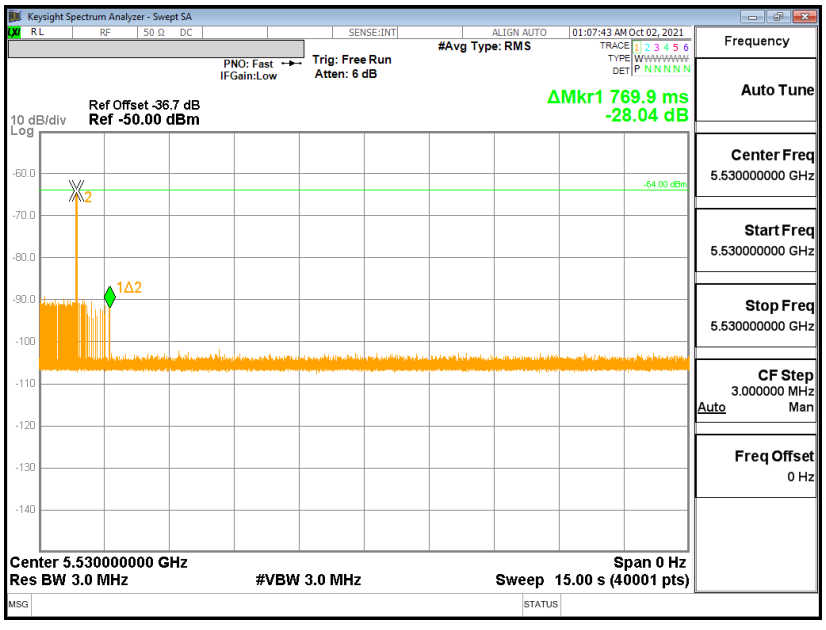
AGGREGATE CHANNEL CLOSING TRANSMISSION TIME

No transmissions are observed during the aggregate monitoring period.

MOVE TIME & AGGREGATE CHANNEL CLOSING TRANSMISSION TIME



MOVE TIME & CLOSING TIME AT IN SERVICE MONITOR

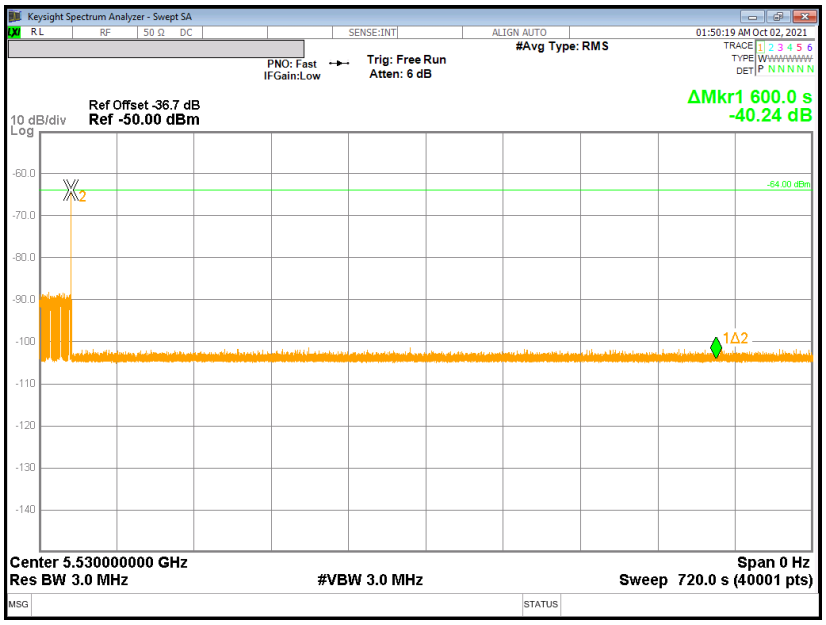


NON-OCCUPANCY PERIOD

RESULTS

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

10-MINUTE BEACON MONITORING PERIOD



END OF TEST REPORT