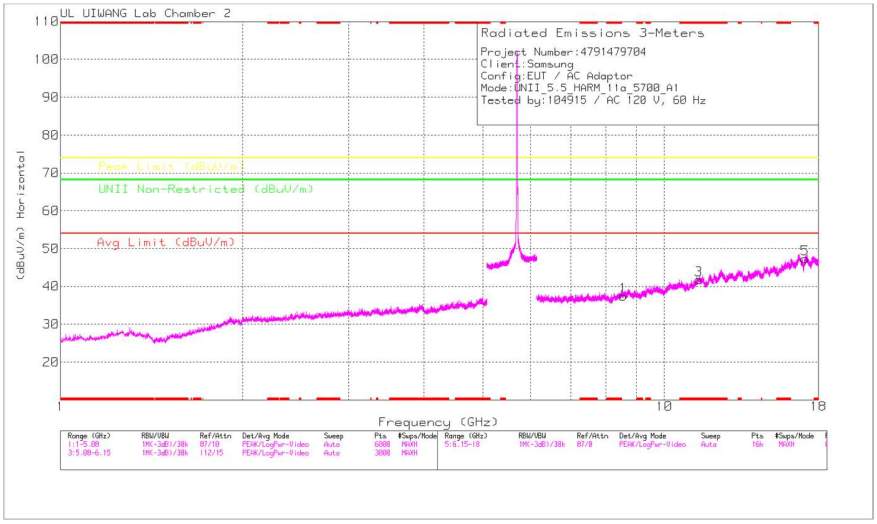
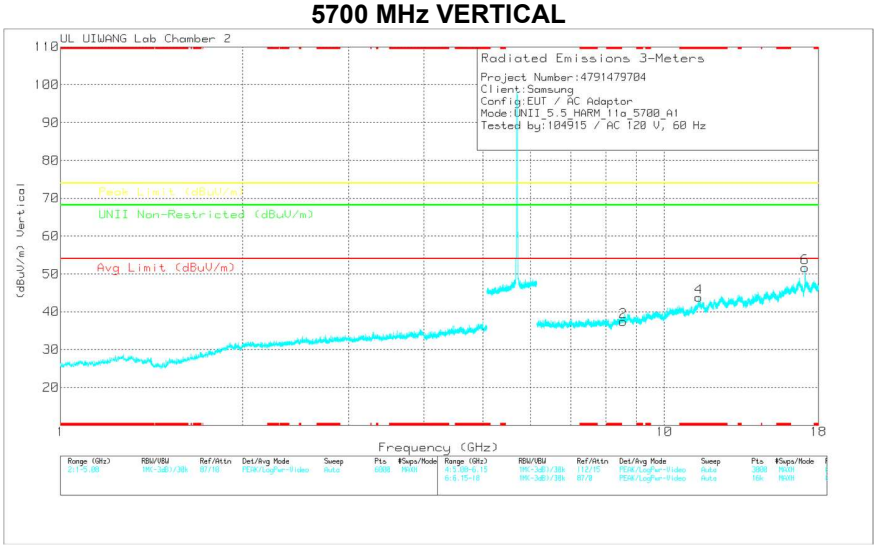
HARMONICS AND SPURIOUS EMISSIONS(WORST CASE: 802.11a / 5700 MHz / ANT1)

5700 MHz HORIZONTAL



5700 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.

5700 MHz DATA

Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	CH2_AF_1-18G_3117_240920 (dB/m)	FB2_PL_1-18G_6G HP_240409 (dB)	CH2_CL_1-40G_Thru_24 0617 (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
8.5476	38.77	PK-U	35.8	-39.2	12.8	0	48.17	-	-	-	-	68.2	-20.03	215	100	H
8.54634	39.21	PK-U	35.8	-39.2	12.8	0	48.61	-	-	-	-	68.2	-19.59	196	100	V
* 11.39981	37.41	PK-U	38.1	-38.2	14.9	0	52.21	-	-	74	-21.79	-	-	248	219	H
* 11.39998	26.66	ADR	38.1	-38.2	14.9	.66	42.12	54	-11.88	-	-	-	-	248	219	H
* 11.40033	37.26	PK-U	38.1	-38.2	14.9	0	52.06	-	-	74	-21.94	-	-	312	103	V
* 11.39993	26.93	ADR	38.1	-38.2	14.9	.66	42.39	54	-11.61	-	-	-	-	312	103	V
17.1051	37.76	PK-U	41.4	-39	18.4	0	58.56	-	-	-	-	68.2	-9.64	117	115	H
17.10161	42.03	PK-U	41.4	-39	18.4	0	62.83	-	-	-	-	68.2	-5.37	76	107	V

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

HARMONICS AND SPURIOUS EMISSIONS TEST DATA

Mode	Freq. [MHz]	Antenna	Frequency [GHz]	Reading [dBuV]	Detector Mode	ANT Factor [dB/m]	FB Gain [dB]	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	ANT0	* 8.25318	38.77	PK-U	35.80	-39.40	12.30	0.00	47.47	-	-	74.00	-26.53	-	-	349	100	H
			* 8.24079	38.84	PK-U	35.80	-39.40	12.30	0.00	47.54	-	-	74.00	-26.46	-	-	96	100	V
			* 10.99999	40.96	PK-U	37.80	-39.00	14.50	0.00	54.26	-	-	74.00	-19.74	-	-	132	108	H
			* 10.99991	29.81	ADR	37.80	-39.00	14.50	0.66	43.77	54.00	-10.23	-	-	-	-	132	108	H
			* 11.00009	41.64	PK-U	37.80	-39.00	14.50	0.00	54.94	-	-	74.00	-19.06	-	-	312	103	V
			* 10.99973	30.72	ADR	37.80	-39.00	14.50	0.66	44.68	54.00	-9.32	-	-	-	-	312	103	V
			16.494	37.00	PK-U	41.20	-38.80	18.30	0.00	57.70	-	-	-	-	68.20	-10.50	115	112	H
			16.497	36.95	PK-U	41.20	-38.80	18.40	0.00	57.75	-	-	-	-	68.20	-10.45	139	112	V
	5580	ANT0	* 8.37695	39.17	PK-U	35.80	-40.20	12.70	0.00	47.47	-	-	74.00	-26.53	-	-	311	100	H
			* 8.3617	39.29	PK-U	35.80	-40.20	12.60	0.00	47.49	-	-	74.00	-26.51	-	-	113	100	V
			* 11.15544	43.46	PK-U	37.90	-38.50	14.70	0.00	57.56	-	-	74.00	-16.44	-	-	127	111	H
			* 11.15974	31.25	ADR	37.90	-38.50	14.70	0.66	46.01	54.00	-7.99	-	-	-	-	127	111	H
			* 11.15964	43.46	PK-U	37.90	-38.50	14.70	0.00	57.56	-	-	74.00	-16.44	-	-	312	102	V
			* 11.1598	32.06	ADR	37.90	-38.50	14.70	0.66	46.82	54.00	-7.18	-	-	-	-	312	102	V
			16.739	35.53	PK-U	41.70	-37.80	18.30	0.00	57.73	-	-	-	-	68.20	-10.47	123	108	H
			16.739	38.46	PK-U	41.70	-37.80	18.30	0.00	60.66	-	-	-	-	68.20	-7.54	99	326	V
	5700	ANT0	8.541	39.61	PK-U	35.80	-39.20	12.80	0.00	49.01	-	-	-	-	68.20	-19.19	83	100	H
			8.541	38.86	PK-U	35.80	-39.20	12.80	0.00	48.26	-	-	-	-	68.20	-19.94	193	100	V
			* 11.39996	39.19	PK-U	38.10	-38.20	14.90	0.00	53.99	-	-	74.00	-20.01	-	-	123	106	H
			* 11.39972	27.89	ADR	38.10	-38.20	14.90	0.66	43.35	54.00	-10.65	-	-	-	-	123	106	H
			* 11.40011	40.57	PK-U	38.10	-38.20	14.90	0.00	55.37	-	-	74.00	-18.63	-	-	240	102	V
			* 11.39971	29.31	ADR	38.10	-38.20	14.90	0.66	44.77	54.00	-9.23	-	-	-	-	240	102	V
			17.098	36.84	PK-U	41.40	-39.10	18.40	0.00	57.54	-	-	-	-	68.20	-10.66	123	121	H
			17.104	39.36	PK-U	41.40	-39.00	18.40	0.00	60.16	-	-	-	-	68.20	-8.04	103	332	V
	5720	ANT0	8.571	39.15	PK-U	35.80	-39.00	12.80	0.00	48.75	-	-	-	-	68.20	-19.45	208	100	H
			8.581	39.00	PK-U	35.80	-38.90	12.80	0.00	48.70	-	-	-	-	68.20	-19.50	20	100	V
			* 11.43997	39.05	PK-U	38.10	-38.30	14.80	0.00	53.65	-	-	74.00	-20.35	-	-	125	111	H
			* 11.43953	27.60	ADR	38.10	-38.30	14.80	0.66	42.86	54.00	-11.14	-	-	-	-	125	111	H
			* 11.43983	40.11	PK-U	38.10	-38.30	14.80	0.00	54.71	-	-	74.00	-19.29	-	-	312	103	V
			* 11.43975	28.94	ADR	38.10	-38.30	14.80	0.66	44.20	54.00	-9.80	-	-	-	-	312	103	V
			17.146	35.19	PK-U	41.20	-38.50	18.40	0.00	56.29	-	-	-	-	68.20	-11.91	121	113	H
			17.164	36.33	PK-U	41.10	-38.20	18.50	0.00	57.73	-	-	-	-	68.20	-10.47	98	248	V
802.11a	5500	ANT1	* 8.24693	39.20	PK-U	35.80	-39.40	12.30	0.00	47.90	-	-	74.00	-26.10	-	-	12	100	H
			* 8.25378	39.05	PK-U	35.80	-39.40	12.30	0.00	47.75	-	-	74.00	-26.25	-	-	255	100	V
			* 10.99981	38.23	PK-U	37.80	-39.00	14.50	0.00	51.53	-	-	74.00	-22.47	-	-	252	104	H
			* 10.9998	28.30	ADR	37.80	-39.00	14.50	0.66	42.26	54.00	-11.74	-	-	-	-	252	104	H
			* 10.99972	37.55	PK-U	37.80	-39.00	14.50	0.00	50.85	-	-	74.00	-23.15	-	-	289	113	V
			* 10.99986	27.25	ADR	37.80	-39.00	14.50	0.66	41.21	54.00	-12.79	-	-	-	-	289	113	V
			16.499	38.44	PK-U	41.20	-38.80	18.40	0.00	59.24	-	-	-	-	68.20	-8.96	114	105	H
			16.498	39.97	PK-U	41.20	-38.80	18.40	0.00	60.77	-	-	-	-	68.20	-7.43	195	106	V
	5580	ANT1	* 8.36206	39.28	PK-U	35.80	-40.20	12.60	0.00	47.48	-	-	74.00	-26.52	-	-	66	100	H
			* 8.3637	39.18	PK-U	35.80	-40.20	12.60	0.00	47.38	-	-	74.00	-26.62	-	-	207	100	V
			* 11.16155	38.20	PK-U	37.90	-38.50	14.70	0.00	52.30	-	-	74.00	-21.70	-	-	125	110	H
			* 11.1598	27.33	ADR	37.90	-38.50	14.70	0.66	42.09	54.00	-11.91	-	-	-	-	125	110	H
			* 11.15984	38.57	PK-U	37.90	-38.50	14.70	0.00	52.67	-	-	74.00	-21.33	-	-	311	102	V
			* 11.15999	28.33	ADR	37.90	-38.50	14.70	0.66	43.09	54.00	-10.91	-	-	-	-	311	102	V
			16.744	35.84	PK-U	41.70	-37.90	18.30	0.00	57.94	-	-	-	-	68.20	-10.26	111	104	H
			16.745	39.59	PK-U	41.70	-37.90	18.30	0.00	61.69	-	-	-	-	68.20	-6.51	91	376	V
	5700	ANT1	8.548	38.77	PK-U	35.80	-39.20	12.80	0.00	48.17	-	-	-	-	68.20	-20.03	215	100	H
			8.546	39.21	PK-U	35.80	-39.20	12.80	0.00	48.61	-	-	-	-	68.20	-19.59	196	100	V
			* 11.39981	37.41	PK-U	38.10	-38.20	14.90	0.00	52.21	-	-	74.00	-21.79	-	-	248	219	H
			* 11.39998	26.66	ADR	38.10	-38.20	14.90	0.66	42.12	54.00	-11.88	-	-	-	-	248	219	H
			* 11.40033	37.26	PK-U	38.10	-38.20	14.90	0.00	52.06	-	-	74.00	-21.94	-	-	312	103	V
			* 11.39993	26.93	ADR	38.10	-38.20	14.90	0.66	42.39	54.00	-11.61	-	-	-	-	312	103	V
			17.105	37.76	PK-U	41.40	-39.00	18.40	0.00	58.56	-	-	-	-	68.20	-9.64	117	115	H
			17.102	42.03	PK-U	41.40	-39.00	18.40	0.00	62.83	-	-	-	-	68.20	-5.37	76	107	V
	5720	ANT1	8.579	38.92	PK-U	35.80	-38.90	12.80	0.00	48.62	-	-	-	-	68.20	-19.58	104	100	H
			8.579	38.74	PK-U	35.80	-38.90	12.80	0.00	48.44	-	-	-	-	68.20	-19.76	112	100	V
			* 11.43958	37.03	PK-U	38.10	-38.30	14.80	0.00	51.63	-	-	74.00	-22.37	-	-	123	106	H
			* 11.43974	25.92	ADR	38.10	-38.30	14.80	0.66	41.18	54.00	-12.82	-	-	-	-	123	106	H
			* 11.44042	37.33	PK-U	38.10	-38.30	14.80	0.00	51.93	-	-	74.00	-22.07	-	-	309	100	V
			* 11.43979	26.42	ADR	38.10	-38.30	14.80	0.66	41.68	54.00	-12.32	-	-	-	-	309	100	V
			17.162	35.91	PK-U	41.20	-38.20	18.50	0.00	57.41	-	-	-	-	68.20	-10.79	114	111	H
			17.158	39.17	PK-U	41.20	-38.30	18.50	0.00	60.57	-	-	-	-	68.20	-7.63	78	102	V
802.11n (HT20)	5500	MIMO	* 8.2491	39.18	PK-U	35.80	-39.40	12.30	0.00	47.88	-	-	74.00	-26.12	-	-	25	100	H
			* 8.24653	39.17	PK-U	35.80	-39.40	12.30	0.00	47.87	-	-	74.00	-26.13	-	-	183	100	V
			* 10.99645	43.77	PK-U	37.80	-39.00	14.50	0.00	57.07	-	-	74.00	-16.93	-	-	129	112	H
			* 10.9998	32.09	ADR	37.80	-39.00	14.50	0.44	45.83	54.00	-8.17	-	-	-	-	129	112	H
			* 11.00176	44.09	PK-U	37.80	-38.90	14.50	0.00	57.49	-	-	74.00	-16.51	-	-	239	104	V
			* 10.99971	32.33	ADR	37.80	-39.00	14.50	0.44	46.07	54.00	-7.93	-	-	-	-	239	104	V
			16.501	39.12	PK-U	41.20	-38.80	18.40	0.00	59.92	-	-	-	-	68.20	-8.28	113	100	H
			16.494	39.40	PK-U	41.20	-38.80	18.30	0.00	60.10	-	-	-	-	68.20	-8.10	74	109	V
	5580	MIMO	* 8.36925	40.66	PK-U	35.80	-40.20	12.60	0.00	48.86	-	-	74.00	-25.14	-	-	66	100	H
			* 8.38004	39.55	PK-U	35.80	-40.10	12.70	0.00	47.95	-	-	74.00	-26.05	-	-	265	100	V
			* 11.17687	39.31	PK-U	38.00	-38.60	14.70	0.00	53.41	-	-	74.00	-20.59	-	-	124	107	H
			* 11.16838	27.68	ADR	37.90	-38.50	14.70	0.44	42.22	54.00	-11.78	-	-	-	-	124	107	H
			* 11.17654	40.70	PK-U	38.00	-38.60	14.70	0.00	54.80	-	-	74.00	-19.20	-	-	233	104	V
			* 11.1787	28.88	ADR	38.00	-38.60	14.70	0.44	43.42	54.00	-10.58	-	-	-	-	233	104	V
			16.756	35.10	PK-U	41.70	-38.10	18.30	0.00	57.00	-	-	-	-	68.20	-11.20	172	371	H
			16.739	34.81	PK-U	41.70	-37.80	18.30	0.00	57.01	-	-	-	-	68.20	-11.19	40	105	V
	5700	MIMO	8.556	38.74	PK-U	35.80	-39.10	12.80	0.00	48.24	-	-	-	-	68.20	-19.96	165	100	H
			8.545	38.86	PK-U	35.80	-39.20	12.80	0.00	48.26	-	-	-	-	68.20	-19.94	259	100	V
			* 11.39929	39.02	PK-U	38.10	-38.20	14.90	0.00	53.82	-	-	74.00	-20.18	-	-	126	107	H
			* 11.39889	27.67	ADR	38.10	-38.20	14.90	0.44	42.91	54.00	-11.09	-	-	-	-	126	107	H
			* 11.39908	40.48	PK-U	38.10	-38.20	14.90	0.00	55.28	-	-	74.00	-18.72	-	-	313	101	V
			* 11.40116	28.54	ADR	38.10	-38.20	14.90	0.44	43.78	54.00	-10.22	-	-	-	-	313	101	V
			17.101	36.28	PK-U	41.40	-39.00	18.40	0.00	57.08	-	-	-	-	68.20	-11.12	116	111	H
			17.093	38.18	PK-U	41.40	-39.10	18.40	0.00	58.88	-	-	-	-	68.20	-9.32	80	318	V
	5720	MIMO	8.582	38.84	PK-U	35.80	-38.90	12.80	0.00	48.54	-	-	-	-	68.20	-19.66	197	100	H
			8.580	38.89	PK-U	35.80	-38.90	12.80	0.00	48.59	-	-	-	-	68.20	-19.61	286	100	V
			* 11.44624	38.49	PK-U	38.10	-38.30	14.80	0.00	53.09	-	-	74.00	-20.91	-	-	128	114	H
			* 11.43869	26.99	ADR	38.10	-38.30	14.80	0.44	42.03	54.00	-11.97	-	-	-	-	128	114	H
			* 11.44135	39.89	PK-U	38.10	-38.30	14.80	0.00	54.49	-	-	74.00	-19.51	-	-	233	103	V
			* 11.44123	28.40	ADR	38.10	-38.30	14.80	0.44	43.44	54.00	-10.56	-	-	-	-	233	103	V
			17.153	35.78	PK-U	41.20	-38.40	18.40	0.00	56.98	-	-	-	-	68.20	-11.22	115	110	H
			17.152	38.87	PK-U	41.20	-38.40	18.40	0.00	60.07	-	-	-	-	68.20	-8.13	76	102	V

UL Korea, Ltd. Uiwang Laboratory FORM ID: FCC_15E(05)
42, Obongsandan 1-ro, Uiwang-si, Gyeonggi-do, Republic of Korea TEL: (031) 389-9603 FAX: (031) 462-8355

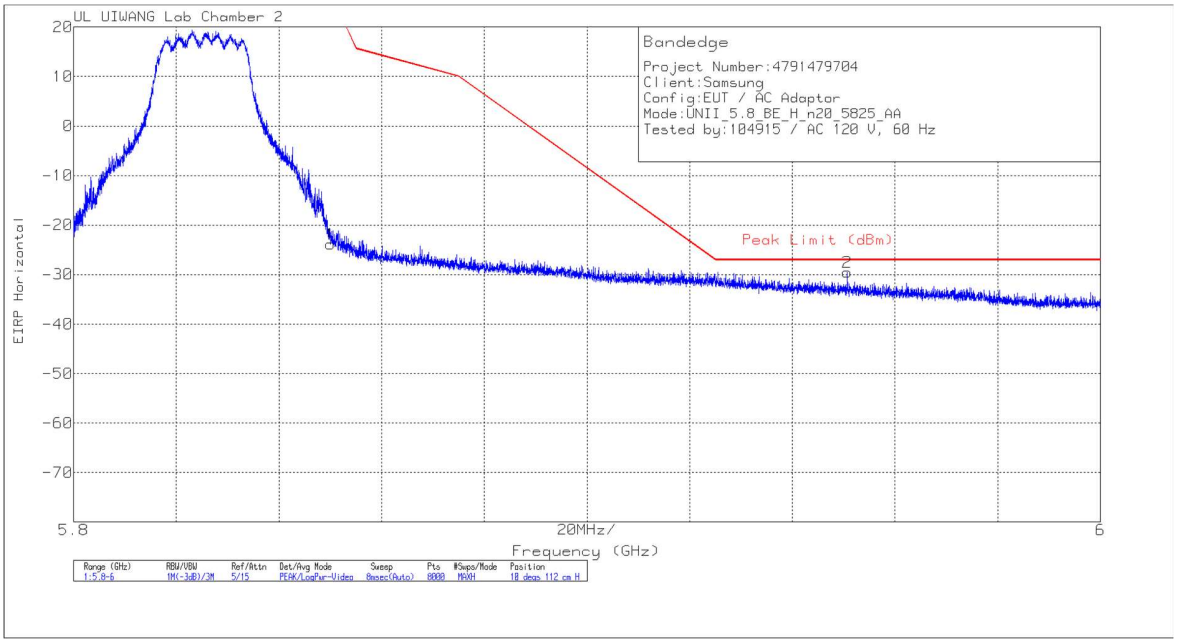
802.11n (HT40)	5510	MIMO	* 8.25838	38.83	PK-U	35.80	-39.30	12.30	0.00	47.63	-	-	74.00	-26.37	-	-	52	100	H
			* 8.26234	38.68	PK-U	35.80	-39.40	12.30	0.00	47.38	-	-	74.00	-26.62	-	-	119	100	V
			* 11.01428	40.11	PK-U	37.80	-38.80	14.50	0.00	53.61	-	-	74.00	-20.39	-	-	129	109	H
			* 11.01952	28.91	ADR	37.80	-38.70	14.50	0.58	43.09	54.00	-10.91	-	-	-	-	129	109	H
			* 11.01913	41.52	PK-U	37.80	-38.70	14.50	0.00	55.12	-	-	74.00	-18.88	-	-	313	101	V
			* 11.01993	30.12	ADR	37.80	-38.70	14.50	0.58	44.30	54.00	-9.70	-	-	-	-	313	101	V
			16.536	35.21	PK-U	41.30	-38.50	18.50	0.00	56.51	-	-	-	-	68.20	-11.69	114	105	H
			16.534	37.41	PK-U	41.30	-38.60	18.40	0.00	58.51	-	-	-	-	68.20	-9.69	94	259	V
	5550	MIMO	* 8.32245	38.06	PK-U	35.80	-39.90	12.50	0.00	46.46	-	-	74.00	-27.54	-	-	117	100	H
			* 8.32957	38.30	PK-U	35.80	-39.90	12.50	0.00	46.70	-	-	74.00	-27.30	-	-	90	100	V
			* 11.09986	39.72	PK-U	37.90	-37.80	14.50	0.00	54.32	-	-	74.00	-19.68	-	-	126	103	H
			* 11.09994	28.50	ADR	37.90	-37.80	14.50	0.58	43.68	54.00	-10.32	-	-	-	-	126	103	H
			* 11.09954	40.36	PK-U	37.90	-37.80	14.50	0.00	54.96	-	-	74.00	-19.04	-	-	310	104	V
			* 11.09974	29.38	ADR	37.90	-37.80	14.50	0.58	44.56	54.00	-9.44	-	-	-	-	310	104	V
			16.636	34.33	PK-U	41.60	-38.40	18.10	0.00	55.63	-	-	-	-	68.20	-12.57	0	351	H
			16.660	36.05	PK-U	41.60	-37.90	18.10	0.00	57.85	-	-	-	-	68.20	-10.35	97	274	V
	5670	MIMO	8.508	38.94	PK-U	35.80	-39.40	12.90	0.00	48.24	-	-	-	-	68.20	-19.96	270	100	H
			8.501	39.84	PK-U	35.80	-39.40	12.90	0.00	49.14	-	-	-	-	68.20	-19.06	110	100	V
			* 11.33917	38.95	PK-U	38.10	-38.90	14.90	0.00	53.05	-	-	74.00	-20.95	-	-	124	111	H
			* 11.33983	27.61	ADR	38.10	-38.90	14.90	0.58	42.29	54.00	-11.71	-	-	-	-	124	111	H
			17.004	34.82	PK-U	41.60	-38.80	17.40	0.00	55.02	-	-	-	-	68.20	-13.18	114	111	H
			17.010	36.26	PK-U	41.60	-38.90	17.60	0.00	56.56	-	-	-	-	68.20	-11.64	80	103	V
	5710	MIMO	8.558	39.05	PK-U	35.80	-39.10	12.80	0.00	48.55	-	-	-	-	68.20	-19.65	78	100	H
			8.558	39.17	PK-U	35.80	-39.10	12.80	0.00	48.67	-	-	-	-	68.20	-19.53	19	100	V
			* 11.40325	37.66	PK-U	38.10	-38.20	14.90	0.00	52.46	-	-	74.00	-21.54	-	-	126	104	H
			* 11.41907	25.78	ADR	38.10	-38.30	14.90	0.58	41.06	54.00	-12.94	-	-	-	-	126	104	H
			* 11.41609	38.29	PK-U	38.10	-38.30	14.90	0.00	52.99	-	-	74.00	-21.01	-	-	229	104	V
			* 11.42133	26.99	ADR	38.10	-38.30	14.90	0.58	42.27	54.00	-11.73	-	-	-	-	229	104	V
			17.123	34.82	PK-U	41.30	-38.70	18.40	0.00	55.82	-	-	-	-	68.20	-12.38	114	109	H
			17.120	36.65	PK-U	41.30	-38.80	18.40	0.00	57.55	-	-	-	-	68.20	-10.65	79	101	V
802.11ac (VHT80)	5530	MIMO	6.358	41.21	PK-U	35.40	-41.00	11.00	0.00	46.61	-	-	-	-	68.20	-21.59	360	100	H
			6.365	41.13	PK-U	35.40	-41.00	11.00	0.00	46.53	-	-	-	-	68.20	-21.67	0	100	V
			* 8.29019	38.88	PK-U	35.80	-39.70	12.40	0.00	47.38	-	-	74.00	-26.62	-	-	0	100	H
			* 8.29628	27.13	ADR	35.80	-39.70	12.40	1.15	36.78	54.00	-17.22	-	-	-	-	0	100	H
			* 8.2993	38.53	PK-U	35.80	-39.70	12.40	0.00	47.03	-	-	74.00	-26.97	-	-	0	100	V
			* 8.30013	27.20	ADR	35.80	-39.70	12.40	1.15	36.85	54.00	-17.15	-	-	-	-	0	100	V
			* 11.05971	38.18	PK-U	37.90	-38.10	14.50	0.00	52.48	-	-	74.00	-21.52	-	-	126	105	H
			* 11.05987	27.11	ADR	37.90	-38.10	14.50	1.15	42.56	54.00	-11.44	-	-	-	-	126	105	H
			* 11.05951	37.44	PK-U	37.90	-38.10	14.50	0.00	51.74	-	-	74.00	-22.26	-	-	58	109	V
			* 11.05994	25.95	ADR	37.90	-38.10	14.50	1.15	41.40	54.00	-12.60	-	-	-	-	58	109	V
			16.595	35.31	PK-U	41.50	-39.10	18.20	0.00	55.91	-	-	-	-	68.20	-12.29	0	105	H
			16.593	36.00	PK-U	41.50	-39.10	18.30	0.00	56.70	-	-	-	-	68.20	-11.50	0	100	V
	5610	MIMO	* 8.42041	39.19	PK-U	35.80	-39.80	12.80	0.00	47.99	-	-	74.00	-26.01	-	-	0	100	H
			* 8.41964	27.68	ADR	35.80	-39.80	12.80	1.15	37.63	54.00	-16.37	-	-	-	-	0	100	H
			* 8.41194	39.09	PK-U	35.80	-39.90	12.80	0.00	47.79	-	-	74.00	-26.21	-	-	0	100	V
			* 8.40999	27.75	ADR	35.80	-39.90	12.80	1.15	37.60	54.00	-16.40	-	-	-	-	0	100	V
			* 11.21926	38.77	PK-U	38.00	-38.40	14.70	0.00	53.07	-	-	74.00	-20.93	-	-	126	112	H
			* 11.21994	27.33	ADR	38.00	-38.40	14.70	1.15	42.78	54.00	-11.22	-	-	-	-	126	112	H
			* 11.22051	38.36	PK-U	38.00	-38.40	14.70	0.00	52.66	-	-	74.00	-21.34	-	-	310	100	V
			* 11.21987	27.90	ADR	38.00	-38.40	14.70	1.15	43.35	54.00	-10.65	-	-	-	-	310	100	V
			16.834	34.91	PK-U	41.70	-38.60	18.10	0.00	56.11	-	-	-	-	68.20	-12.09	0	100	H
			16.820	34.61	PK-U	41.80	-38.50	18.20	0.00	56.11	-	-	-	-	68.20	-12.09	0	100	V
802.11ax (HE20)	5500	MIMO	* 8.24465	38.78	PK-U	35.80	-39.40	12.30	0.00	47.48	-	-	74.00	-26.52	-	-	232	100	H
			* 8.2535	37.91	PK-U	35.80	-39.40	12.30	0.00	46.61	-	-	74.00	-27.39	-	-	272	100	V
			* 11.00107	42.66	PK-U	37.80	-38.90	14.50	0.00	56.06	-	-	74.00	-17.94	-	-	128	110	H
			* 10.99971	30.73	ADR	37.80	-39.00	14.50	1.35	45.38	54.00	-8.62	-	-	-	-	128	110	H
			* 10.99857	42.07	PK-U	37.80	-39.00	14.50	0.00	55.37	-	-	74.00	-18.63	-	-	316	114	V
			* 10.99897	30.12	ADR	37.80	-39.00	14.50	1.35	44.77	54.00	-9.23	-	-	-	-	316	114	V
			16.499	37.33	PK-U	41.20	-38.80	18.40	0.00	58.13	-	-	-	-	68.20	-10.07	114	106	H
			16.498	42.04	PK-U	41.20	-38.80	18.40	0.00	62.84	-	-	-	-	68.20	-5.36	81	285	V
	5580	MIMO	* 8.36967	39.66	PK-U	35.80	-40.20	12.60	0.00	47.86	-	-	74.00	-26.14	-	-	58	100	H
			* 8.36244	39.19	PK-U	35.80	-40.20	12.60	0.00	47.39	-	-	74.00	-26.61	-	-	312	100	V
			* 11.1597	41.18	PK-U	37.90	-38.50	14.70	0.00	55.28	-	-	74.00	-18.72	-	-	124	103	H
			* 11.15918	29.06	ADR	37.90	-38.50	14.70	1.35	44.51	54.00	-9.49	-	-	-	-	124	103	H
			* 11.15656	42.17	PK-U	37.90	-38.50	14.70	0.00	56.27	-	-	74.00	-17.73	-	-	312	104	V
			* 11.15939	30.65	ADR	37.90	-38.50	14.70	1.35	46.10	54.00	-7.90	-	-	-	-	312	104	V
			16.739	33.58	PK-U	41.70	-37.80	18.30	0.00	55.78	-	-	-	-	68.20	-12.42	115	109	H
			16.738	36.70	PK-U	41.70	-37.80	18.30	0.00	58.90	-	-	-	-	68.20	-9.30	89	279	V
	5700	MIMO	8.543	39.23	PK-U	35.80	-39.20	12.80	0.00	48.63	-	-	-	-	68.20	-19.57	41	100	H
			8.556	38.61	PK-U	35.80	-39.10	12.80	0.00	48.11	-	-	-	-	68.20	-20.09	232	100	V
			* 11.39639	38.90	PK-U	38.10	-38.20	14.90	0.00	53.70	-	-	74.00	-20.30	-	-	126	115	H
			* 11.39927	26.64	ADR	38.10	-38.20	14.90	1.35	42.79	54.00	-11.21	-	-	-	-	126	115	H
			* 11.3985	40.54	PK-U	38.10	-38.20	14.90	0.00	55.34	-	-	74.00	-18.66	-	-	233	117	V
			* 11.39886	28.29	ADR	38.10	-38.20	14.90	1.35	44.44	54.00	-9.56	-	-	-	-	233	117	V
			17.096	36.84	PK-U	41.40	-39.10	18.40	0.00	57.54	-	-	-	-	68.20	-10.66	115	108	H
			17.101	38.93	PK-U	41.40	-39.00	18.40	0.00	59.73	-	-	-	-	68.20	-8.47	83	237	V
	5720	MIMO	8.585	39.15	PK-U	35.80	-38.90	12.80	0.00	48.85	-	-	-	-	68.20	-19.35	80	100	H
			8.578	39.16	PK-U	35.80	-38.90	12.80	0.00	48.86	-	-	-	-	68.20	-19.34	205	100	V
			* 11.44029	37.59	PK-U	38.10	-38.30	14.80	0.00	52.19	-	-	74.00	-21.81	-	-	122	104	H
			* 11.43925	26.17	ADR	38.10	-38.30	14.80	1.35	42.12	54.00	-11.88	-	-	-	-	122	104	H
			* 11.43648	40.58	PK-U	38.10	-38.30	14.80	0.00	55.18	-	-	74.00	-18.82	-	-	233	112	V
			* 11.43884	28.42	ADR	38.10	-38.30	14.80	1.35	44.37	54.00	-9.63	-	-	-	-	233	112	V
			17.164	35.66	PK-U	41.10	-38.20	18.50	0.00	57.06	-	-	-	-	68.20	-11.14	117	115	H
			17.158	37.48	PK-U	41.20	-38.30	18.50	0.00	58.88	-	-	-	-	68.20	-9.32	81	252	V
802.11ax HE20 RU mode 26 Tone offset 8 Spot-check	5700	MIMO	8.554	39.19	PK-U	35.70	-38.60	13.10	0.00	49.39	-	-	-	-	68.20	-18.81	14	100	H
			8.548	39.02	PK-U	35.70	-38.60	13.10	0.00	49.22	-	-	-	-	68.20	-18.98	217	100	V
			* 11.39978	36.74	PK-U	38.00	-36.40	15.10	0.00	53.44	-	-	74.00	-20.56	-	-	335	215	H
			* 11.39989	25.37	ADR	38.00	-36.40	15.10	1.00	43.07	54.00	-10.93	-	-	-	-	335	215	H
			* 11.3993	36.27	PK-U	38.00	-36.40	15.10	0.00	52.97	-	-	74.00	-21.03	-	-	35	105	V
			* 11.39977	25.54	ADR	38.00	-36.40	15.10	1.00	43.24	54.00	-10.76	-	-	-	-	35	105	V
			17.101	35.69	PK-U	41.00	-37.50	17.90	0.00	57.09	-	-	-	-	68.20	-11.11	205	151	H
			17.101	35.95	PK-U	41.00	-37.50	17.90	0.00	57.35	-	-	-	-	68.20	-10.85	240	340	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

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

BANDEDGE (WORST CASE: 802.11n 20 / 5825 MHz)

HORIZONTAL PEAK DATA



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	CH2_AF_1-18G_3117_240 920 (dB/m)	FB2_PL_1-18G_10dB_240 409 (dB)	CH2_CL_1-40G_Thru_2406 17 (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.85001	-48.12	Pk	34.8	-32.9	11.8	10.6	-23.82	26.99	-50.81	10	112	H
2	5.95072	-54.2	Pk	35.1	-32.8	11.8	10.6	-29.5	-27	-2.5	10	112	H

Pk - Peak detector

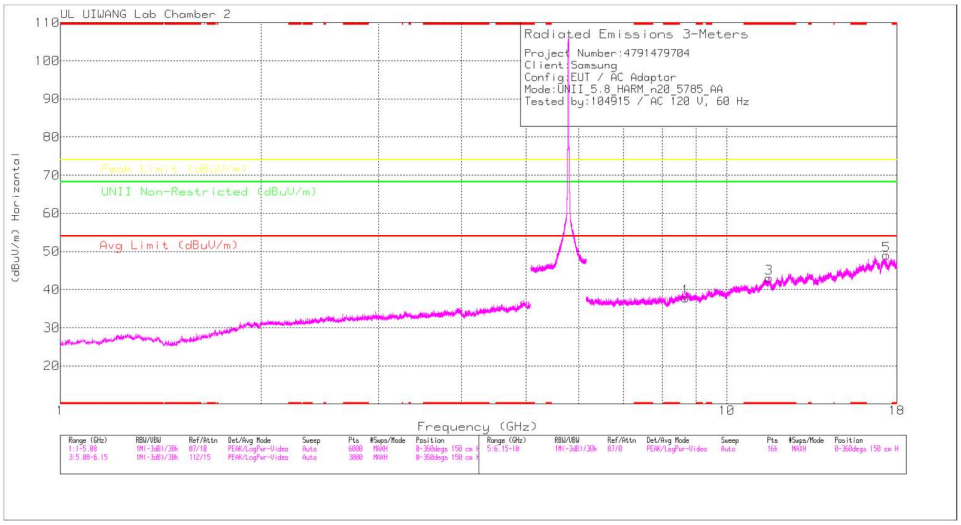
BANDEDGE TEST DATA

Mode	Freq. [MHz]	Antenna	Frequency [GHz]	Reading [dBm]	Detector Mode	ANT Factor [dB/m]	FB Gain [dB]	Conv. F [dB]	Loss [dB]	DC Corr [dB]	Result [dBm]	PK Limit [dBm]	PK Margin [dB]	Azimuth [Degs]	Height [cm]	Polarity
802.11a	5745	ANT0	5.72500	-30.11	Pk	34.50	-33.10	11.80	10.40	0.00	-6.51	27.00	-33.51	313	111	H
			5.64861	-60.02	Pk	34.50	-33.20	11.80	10.40	0.00	-36.52	-27.00	-9.52	313	111	H
			5.72500	-37.48	Pk	34.50	-33.10	11.80	10.40	0.00	-13.88	27.00	-40.88	106	370	V
			5.63183	-61.77	Pk	34.50	-33.20	11.80	10.40	0.00	-38.27	-27.00	-11.27	106	370	V
	5825	ANT0	5.85001	-47.16	Pk	34.80	-32.90	11.80	10.60	0.00	-22.86	26.99	-49.85	316	111	H
			5.92492	-62.12	Pk	35.00	-32.90	11.80	10.60	0.00	-37.62	-26.94	-10.68	316	111	H
			5.85001	-54.11	Pk	34.80	-32.90	11.80	10.60	0.00	-29.81	26.99	-56.80	107	323	V
			5.98470	-62.86	Pk	35.20	-32.80	11.80	10.70	0.00	-37.96	-27.00	-10.96	107	323	V
802.11a	5745	ANT1	5.72500	-39.72	Pk	34.50	-33.10	11.80	10.40	0.00	-16.12	27.00	-43.12	11	113	H
			5.64371	-55.97	Pk	34.50	-33.20	11.80	10.40	0.00	-32.47	-27.00	-5.47	11	113	H
			5.72500	-45.07	Pk	34.50	-33.10	11.80	10.40	0.00	-21.47	27.00	-48.47	274	380	V
			5.62793	-60.38	Pk	34.50	-33.20	11.80	10.30	0.00	-36.98	-27.00	-9.98	274	380	V
	5825	ANT1	5.85001	-45.09	Pk	34.80	-32.90	11.80	10.60	0.00	-20.79	26.99	-47.78	9	110	H
			5.93947	-60.39	Pk	35.10	-32.90	11.80	10.60	0.00	-35.79	-27.00	-8.79	9	110	H
			5.85001	-45.21	Pk	34.80	-32.90	11.80	10.60	0.00	-20.91	26.99	-47.90	108	400	V
			5.94804	-61.84	Pk	35.10	-32.80	11.80	10.60	0.00	-37.14	-27.00	-10.14	108	400	V
802.11n (HT20)	5745	MIMO	5.72500	-30.95	Pk	34.50	-33.10	11.80	10.40	0.00	-7.35	27.00	-34.35	53	120	H
			5.64275	-55.19	Pk	34.50	-33.20	11.80	10.40	0.00	-31.69	-27.00	-4.69	53	120	H
			5.72500	-35.22	Pk	34.50	-33.10	11.80	10.40	0.00	-11.62	27.00	-38.62	103	352	V
			5.62931	-56.73	Pk	34.50	-33.20	11.80	10.30	0.00	-33.33	-27.00	-6.33	103	352	V
	5825	MIMO	5.85001	-48.12	Pk	34.80	-32.90	11.80	10.60	0.00	-23.82	26.99	-50.81	10	112	H
			5.95072	-54.20	Pk	35.10	-32.80	11.80	10.60	0.00	-29.50	-27.00	**-2.50**	10	112	H
			5.85001	-49.97	Pk	34.80	-32.90	11.80	10.60	0.00	-25.67	26.99	-52.66	106	398	V
			5.95949	-58.28	Pk	35.10	-32.80	11.80	10.60	0.00	-33.58	-27.00	-6.58	106	398	V
802.11n (HT40)	5755	MIMO	5.72500	-35.00	Pk	34.50	-33.10	11.80	10.40	0.00	-11.40	27.00	-38.40	358	111	H
			5.64811	-53.49	Pk	34.50	-33.20	11.80	10.40	0.00	-29.99	-27.00	-2.99	358	111	H
			5.72500	-41.46	Pk	34.50	-33.10	11.80	10.40	0.00	-17.86	27.00	-44.86	106	392	V
			5.64304	-55.83	Pk	34.50	-33.20	11.80	10.40	0.00	-32.33	-27.00	-5.33	106	392	V
	5795	MIMO	5.85001	-50.13	Pk	34.80	-32.90	11.80	10.60	0.00	-25.83	26.99	-52.82	10	106	H
			5.92577	-54.64	Pk	35.10	-32.90	11.80	10.60	0.00	-30.04	-27.00	-3.04	10	106	H
			5.85001	-53.15	Pk	34.80	-32.90	11.80	10.60	0.00	-28.85	26.99	-55.84	98	380	V
			5.93479	-57.06	Pk	35.10	-32.90	11.80	10.60	0.00	-32.46	-27.00	-5.46	98	380	V
802.11ac (VHT80)	5775 (Lower Side)	MIMO	5.72500	-38.82	Pk	34.50	-33.10	11.80	10.40	0.00	-15.22	27.00	-42.22	51	106	H
			5.63457	-53.19	Pk	34.50	-33.20	11.80	10.40	0.00	-29.69	-27.00	-2.69	51	106	H
			5.72500	-41.28	Pk	34.50	-33.10	11.80	10.40	0.00	-17.68	27.00	-44.68	94	371	V
			5.63413	-56.19	Pk	34.50	-33.20	11.80	10.40	0.00	-32.69	-27.00	-5.69	94	371	V
	5775 (Upper Side)	MIMO	5.85001	-52.98	Pk	34.80	-32.90	11.80	10.60	0.00	-28.68	26.99	-55.67	9	113	H
			5.92527	-59.30	Pk	35.10	-32.90	11.80	10.60	0.00	-34.70	-27.00	-7.70	9	113	H
			5.85001	-54.55	Pk	34.80	-32.90	11.80	10.60	0.00	-30.25	26.99	-57.24	92	361	V
			5.92854	-60.73	Pk	35.10	-32.90	11.80	10.60	0.00	-36.13	-27.00	-9.13	92	361	V
802.11ax (HE20)	5745	MIMO	5.72500	-33.64	Pk	34.50	-33.10	11.80	10.40	0.00	-10.04	27.00	-37.04	315	103	H
			5.64891	-58.73	Pk	34.50	-33.20	11.80	10.40	0.00	-35.23	-27.00	-8.23	315	103	H
			5.72500	-34.72	Pk	34.50	-33.10	11.80	10.40	0.00	-11.12	27.00	-38.12	109	393	V
			5.64046	-59.51	Pk	34.50	-33.20	11.80	10.40	0.00	-36.01	-27.00	-9.01	109	393	V
	5825	MIMO	5.85001	-42.90	Pk	34.80	-32.90	11.80	10.60	0.00	-18.60	26.99	-45.59	12	101	H
			5.93079	-59.15	Pk	35.10	-32.90	11.80	10.60	0.00	-34.55	-27.00	-7.55	12	101	H
			5.85001	-48.00	Pk	34.80	-32.90	11.80	10.60	0.00	-23.70	26.99	-50.69	123	377	V
			5.94009	-61.77	Pk	35.10	-32.90	11.80	10.60	0.00	-37.17	-27.00	-10.17	123	377	V
802.11ax (HE40)	5755	MIMO	5.72500	-35.82	Pk	34.50	-33.10	11.80	10.40	0.00	-12.22	27.00	-39.22	1	103	H
			5.64956	-56.83	Pk	34.50	-33.20	11.80	10.40	0.00	-33.33	-27.00	-6.33	1	103	H
			5.72500	-39.79	Pk	34.50	-33.10	11.80	10.40	0.00	-16.19	27.00	-43.19	99	390	V
			5.63847	-58.12	Pk	34.50	-33.20	11.80	10.40	0.00	-34.62	-27.00	-7.62	99	390	V
	5795	MIMO	5.85001	-50.53	Pk	34.80	-32.90	11.80	10.60	0.00	-26.23	26.99	-53.22	1	110	H
			5.92637	-60.42	Pk	35.10	-32.90	11.80	10.60	0.00	-35.82	-27.00	-8.82	1	110	H
			5.85001	-54.76	Pk	34.80	-32.90	11.80	10.60	0.00	-30.46	26.99	-57.45	101	341	V
			5.93012	-61.22	Pk	35.10	-32.90	11.80	10.60	0.00	-36.62	-27.00	-9.62	101	341	V
802.11ax (HE80)	5775 (Lower Side)	MIMO	5.72500	-46.42	Pk	34.50	-33.10	11.80	10.40	0.00	-22.82	27.00	-49.82	322	105	H
			5.64772	-59.18	Pk	34.50	-33.20	11.80	10.40	0.00	-35.68	-27.00	-8.68	322	105	H
			5.72500	-48.62	Pk	34.50	-33.10	11.80	10.40	0.00	-25.02	27.00	-52.02	107	349	V
			5.65013	-59.67	Pk	34.50	-33.20	11.80	10.40	0.00	-36.17	-26.91	-9.26	107	349	V
	5775 (Upper Side)	MIMO	5.85001	-54.58	Pk	34.80	-32.90	11.80	10.60	0.00	-30.28	26.99	-57.27	6	100	H
			5.94574	-61.77	Pk	35.10	-32.80	11.80	10.60	0.00	-37.07	-27.00	-10.07	6	100	H
			5.85001	-63.38	Pk	34.80	-32.90	11.80	10.60	0.00	-39.08	26.99	-66.07	215	357	V
			5.98062	-62.98	Pk	35.20	-32.80	11.80	10.70	0.00	-38.08	-27.00	-11.08	215	357	V
802.11ax HE80 RU mode 26 Tone offset 0/36 Spot-check	5775 (Lower Side)	MIMO	5.72500	-61.54	Pk	34.40	-30.20	11.80	10.90	0.00	-34.64	27.00	-61.64	67	378	H
			5.63306	-62.26	Pk	34.40	-30.20	11.80	11.70	0.00	-34.56	-27.00	-7.56	67	378	H
			5.72500	-61.67	Pk	34.40	-30.20	11.80	10.90	0.00	-34.77	27.00	-61.77	204	369	V
			5.62957	-62.77	Pk	34.40	-30.20	11.80	11.70	0.00	-35.07	-27.00	-8.07	204	369	V
	5775 (Upper Side)	MIMO	5.85001	-62.96	Pk	34.80	-30.30	11.80	11.60	0.00	-35.06	26.99	-62.05	85	100	H
			5.99112	-62.81	Pk	35.10	-30.30	11.80	11.00	0.00	-35.21	-27.00	-8.21	85	100	H
			5.85001	-65.70	Pk	34.80	-30.30	11.80	11.60	0.00	-37.80	26.99	-64.79	315	382	V
			5.97975	-63.30	Pk	35.10	-30.30	11.80	11.00	0.00	-35.70	-27.00	-8.70	315	382	V

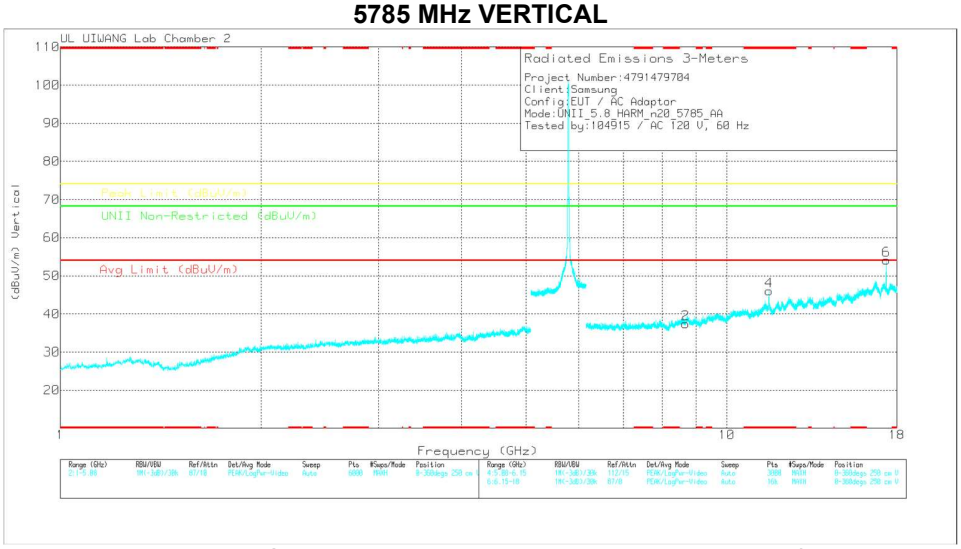
Note. Pk - Peak detector

HARMONICS AND SPURIOUS EMISSIONS(WORST CASE: 802.11n HT20 / 5785 MHz)

5785 MHz HORIZONTAL



5785 MHz VERTICAL



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

5785 MHz DATA

Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	CH2_AF_1-18G_3117_240920 (dB/m)	FB2_PL_1-18G_6G HP_240409 (dB)	CH2_CL_1-40G_Thru_24 0617 (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
8.69271	39.24	PK-U	35.7	-39.2	12.8	0	48.54	-	-	-	-	68.2	-19.66	242	100	H
8.68592	38.26	PK-U	35.7	-39.3	12.8	0	47.46	-	-	-	-	68.2	-20.74	247	100	V
* 11.56963	40.27	PK-U	38.2	-37.9	14.9	0	55.47	-	-	74	-18.53	-	-	248	222	H
* 11.56948	28.67	ADR	38.2	-37.9	14.9	.44	44.31	54	-9.69	-	-	-	-	248	222	H
* 11.5723	43.4	PK-U	38.2	-37.9	14.9	0	58.6	-	-	74	-15.4	-	-	242	103	V
* 11.56976	30.52	ADR	38.2	-37.9	14.9	.44	46.16	54	-7.84	-	-	-	-	242	103	V
17.35364	41.42	PK-U	40.9	-38.5	18.3	0	62.12	-	-	-	-	68.2	-6.08	118	114	H
17.35111	45.34	PK-U	40.9	-38.5	18.3	0	66.04	-	-	-	-	68.2	-2.16	95	112	V

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

HARMONICS AND SPURIOUS EMISSIONS TEST DATA

Mode	Freq. [MHz]	Antenna	Frequency [GHz]	Reading [dBuV]	Detector Mode	ANT Factor [dB/m]	FB Gain [dB]	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	ANT0	8.610	38.51	PK-U	35.80	-39.20	12.80	0.00	47.91	-	-	-	-	68.20	-20.29	58	100	H
			8.619	38.58	PK-U	35.80	-39.30	12.80	0.00	47.88	-	-	-	-	68.20	-20.32	233	100	V
			* 11.49468	40.28	PK-U	38.20	-38.80	14.70	0.00	54.38	-	-	74.00	-19.62	-	-	255	110	H
			* 11.48992	28.50	ADR	38.20	-38.70	14.70	0.66	43.36	54.00	-10.64	-	-	-	-	255	110	H
			* 11.49104	41.08	PK-U	38.20	-38.80	14.70	0.00	55.18	-	-	74.00	-18.82	-	-	231	102	V
			* 11.49026	28.70	ADR	38.20	-38.80	14.70	0.66	43.46	54.00	-10.54	-	-	-	-	231	102	V
			17.231	38.77	PK-U	40.90	-37.80	18.50	0.00	60.37	-	-	-	-	68.20	-7.83	117	115	H
			17.240	44.24	PK-U	40.90	-37.80	18.50	0.00	65.84	-	-	-	-	68.20	-2.36	95	307	V
	5785	ANT0	8.682	39.13	PK-U	35.70	-39.30	12.80	0.00	48.33	-	-	-	-	68.20	-19.87	0	100	H
			8.678	39.28	PK-U	35.70	-39.40	12.80	0.00	48.38	-	-	-	-	68.20	-19.82	0	100	V
			* 11.57018	42.29	PK-U	38.20	-37.90	14.90	0.00	57.49	-	-	74.00	-16.51	-	-	73	104	H
			* 11.57018	42.56	PK-U	38.20	-37.90	14.90	0.00	57.76	-	-	74.00	-16.24	-	-	70	278	V
			17.350	41.48	PK-U	40.90	-38.60	18.30	0.00	62.08	-	-	-	-	68.20	-6.12	298	112	V
			17.358	35.46	PK-U	40.90	-38.50	18.30	0.00	56.16	-	-	-	-	68.20	-12.04	303	109	H
	5825	ANT0	8.731	38.06	PK-U	35.80	-39.10	12.80	0.00	47.56	-	-	-	-	68.20	-20.64	240	100	H
			8.731	38.43	PK-U	35.80	-39.10	12.80	0.00	47.93	-	-	-	-	68.20	-20.27	202	100	V
			* 11.65041	42.53	PK-U	38.30	-38.50	15.20	0.00	57.53	-	-	74.00	-16.47	-	-	256	106	H
			* 11.65001	28.31	ADR	38.30	-38.50	15.20	0.66	43.97	54.00	-10.03	-	-	-	-	256	106	H
			* 11.65185	41.11	PK-U	38.30	-38.60	15.20	0.00	56.01	-	-	74.00	-17.99	-	-	233	115	V
			* 11.64736	28.02	ADR	38.30	-38.40	15.20	0.66	43.78	54.00	-10.22	-	-	-	-	233	115	V
			17.486	36.32	PK-U	41.00	-38.80	18.70	0.00	57.22	-	-	-	-	68.20	-10.98	115	111	H
			17.475	39.24	PK-U	41.00	-38.90	18.70	0.00	60.04	-	-	-	-	68.20	-8.16	288	113	V
802.11a	5745	ANT1	8.623	39.39	PK-U	35.80	-39.30	12.80	0.00	48.69	-	-	-	-	68.20	-19.51	53	101	H
			8.600	38.94	PK-U	35.80	-39.00	12.80	0.00	48.54	-	-	-	-	68.20	-19.66	235	100	V
			* 11.48928	38.10	PK-U	38.20	-38.70	14.70	0.00	52.30	-	-	74.00	-21.70	-	-	245	109	H
			* 11.48984	26.58	ADR	38.20	-38.70	14.70	0.66	41.44	54.00	-12.56	-	-	-	-	245	109	H
			* 11.49052	39.49	PK-U	38.20	-38.80	14.70	0.00	53.59	-	-	74.00	-20.41	-	-	241	101	V
			* 11.48984	26.56	ADR	38.20	-38.70	14.70	0.66	43.42	54.00	-10.58	-	-	-	-	241	101	V
			17.230	39.25	PK-U	40.90	-37.80	18.50	0.00	60.85	-	-	-	-	68.20	-7.35	117	111	H
			17.230	44.38	PK-U	40.90	-37.80	18.50	0.00	65.98	-	-	-	-	68.20	-2.22	71	100	V
	5785	ANT1	8.677	38.63	PK-U	35.70	-39.40	12.80	0.00	47.73	-	-	-	-	68.20	-20.47	176	106	H
			8.687	39.56	PK-U	35.70	-39.20	12.80	0.00	48.86	-	-	-	-	68.20	-19.34	12	100	V
			* 11.5639	37.83	PK-U	38.20	-37.90	14.90	0.00	53.03	-	-	74.00	-20.97	-	-	246	106	H
			* 11.5699	26.86	ADR	38.20	-37.90	14.90	0.66	42.72	54.00	-11.28	-	-	-	-	246	106	H
			* 11.56958	40.05	PK-U	38.20	-37.90	14.90	0.00	55.25	-	-	74.00	-18.75	-	-	238	104	V
			* 11.57058	28.68	ADR	38.20	-37.90	14.90	0.66	44.54	54.00	-9.46	-	-	-	-	238	104	V
			17.348	42.09	PK-U	40.90	-38.60	18.30	0.00	62.69	-	-	-	-	68.20	-5.51	114	112	H
			17.362	45.23	PK-U	40.90	-38.40	18.30	0.00	66.03	-	-	-	-	68.20	-2.17	90	113	V
	5825	ANT1	8.742	38.71	PK-U	35.80	-39.00	12.80	0.00	48.31	-	-	-	-	68.20	-19.89	146	100	H
			8.731	38.68	PK-U	35.80	-39.10	12.80	0.00	48.18	-	-	-	-	68.20	-20.02	106	100	V
			* 11.64809	37.35	PK-U	38.30	-38.40	15.20	0.00	52.45	-	-	74.00	-21.55	-	-	139	284	H
			* 11.64964	25.90	ADR	38.30	-38.50	15.20	0.66	41.56	54.00	-12.44	-	-	-	-	139	284	H
			* 11.66035	40.22	PK-U	38.30	-38.70	15.20	0.00	55.02	-	-	74.00	-18.98	-	-	239	103	V
			* 11.65336	28.91	ADR	38.30	-38.60	15.20	0.66	44.47	54.00	-9.53	-	-	-	-	239	103	V
			17.474	39.03	PK-U	40.90	-38.90	18.70	0.00	59.73	-	-	-	-	68.20	-8.47	116	111	H
			17.479	43.11	PK-U	41.00	-38.90	18.70	0.00	63.91	-	-	-	-	68.20	-4.29	79	112	V
802.11n (HT20)	5745	MIMO	8.614	38.86	PK-U	35.80	-39.20	12.80	0.00	48.26	-	-	-	-	68.20	-19.94	0	101	H
			8.611	38.04	PK-U	35.80	-39.20	12.80	0.00	47.44	-	-	-	-	68.20	-20.76	300	100	V
			* 11.4849	40.63	PK-U	38.20	-38.70	14.70	0.00	54.83	-	-	74.00	-19.17	-	-	253	109	H
			* 11.48975	28.43	ADR	38.20	-38.70	14.70	0.44	43.07	54.00	-10.93	-	-	-	-	253	109	H
			* 11.48929	42.42	PK-U	38.20	-38.70	14.70	0.00	56.62	-	-	74.00	-17.38	-	-	233	101	V
			* 11.48925	30.59	ADR	38.20	-38.70	14.70	0.44	45.23	54.00	-8.77	-	-	-	-	233	101	V
			17.234	40.97	PK-U	40.90	-37.80	18.50	0.00	62.57	-	-	-	-	68.20	-5.63	117	113	H
			17.234	44.40	PK-U	40.90	-37.80	18.50	0.00	66.00	-	-	-	-	68.20	-2.20	75	112	V
	5785	MIMO	8.693	39.24	PK-U	35.70	-39.20	12.80	0.00	48.54	-	-	-	-	68.20	-19.66	242	100	H
			8.686	38.26	PK-U	35.70	-39.30	12.80	0.00	47.46	-	-	-	-	68.20	-20.74	247	100	V
			* 11.56963	40.27	PK-U	38.20	-37.90	14.90	0.00	55.47	-	-	74.00	-18.53	-	-	248	222	H
			* 11.56948	28.67	ADR	38.20	-37.90	14.90	0.44	44.31	54.00	-9.69	-	-	-	-	248	222	H
			* 11.5723	43.40	PK-U	38.20	-37.90	14.90	0.00	58.60	-	-	74.00	-15.40	-	-	242	103	V
			* 11.56976	30.52	ADR	38.20	-37.90	14.90	0.44	46.16	54.00	-7.84	-	-	-	-	242	103	V
			17.354	41.42	PK-U	40.90	-38.50	18.30	0.00	62.12	-	-	-	-	68.20	-6.08	118	114	H
			17.351	45.34	PK-U	40.90	-38.50	18.30	0.00	66.04	-	-	-	-	68.20	-2.16	95	112	V
	5825	MIMO	8.732	39.50	PK-U	35.80	-39.10	12.80	0.00	49.00	-	-	-	-	68.20	-19.20	139	100	H
			8.747	38.34	PK-U	35.80	-39.00	12.80	0.00	47.94	-	-	-	-	68.20	-20.26	153	100	V
			* 11.64381	40.30	PK-U	38.30	-38.30	15.20	0.00	55.50	-	-	74.00	-18.50	-	-	255	101	H
			* 11.64981	28.10	ADR	38.30	-38.50	15.20	0.44	43.54	54.00	-10.46	-	-	-	-	255	101	H
			* 11.65355	42.43	PK-U	38.30	-38.60	15.20	0.00	57.33	-	-	74.00	-16.67	-	-	231	108	V
			* 11.6515	30.91	ADR	38.30	-38.50	15.20	0.44	46.35	54.00	-7.65	-	-	-	-	231	108	V
			17.472	37.59	PK-U	40.90	-38.90	18.70	0.00	58.29	-	-	-	-	68.20	-9.91	117	100	H
			17.470	41.42	PK-U	40.90	-38.90	18.70	0.00	62.12	-	-	-	-	68.20	-6.08	88	112	V
802.11n (HT40)	5755	MIMO	8.630	38.02	PK-U	35.80	-39.40	12.80	0.00	47.22	-	-	-	-	68.20	-20.98	144	100	H
			8.634	38.59	PK-U	35.80	-39.40	12.80	0.00	47.79	-	-	-	-	68.20	-20.41	81	100	V
			* 11.50945	38.99	PK-U	38.20	-38.80	14.70	0.00	53.09	-	-	74.00	-20.91	-	-	254	102	H
			* 11.50985	27.72	ADR	38.20	-38.80	14.70	0.58	42.40	54.00	-11.60	-	-	-	-	254	102	H
			* 11.52154	40.18	PK-U	38.20	-38.70	14.80	0.00	54.48	-	-	74.00	-19.52	-	-	231	106	V
			* 11.51363	28.92	ADR	38.20	-38.70	14.80	0.58	43.80	54.00	-10.20	-	-	-	-	231	106	V
			17.265	38.09	PK-U	40.90	-38.00	18.30	0.00	59.29	-	-	-	-	68.20	-8.91	116	110	H
			17.274	40.77	PK-U	40.90	-38.10	18.30	0.00	61.87	-	-	-	-	68.20	-6.33	74	110	V
	5795	MIMO	8.685	38.73	PK-U	35.70	-39.30	12.80	0.00	47.93	-	-	-	-	68.20	-20.27	11	100	H
			8.684	38.32	PK-U	35.70	-39.30	12.80	0.00	47.52	-	-	-	-	68.20	-20.68	26	100	V
			* 11.58158	37.93	PK-U	38.30	-37.80	14.90	0.00	53.33	-	-	74.00	-20.67	-	-	129	102	H
			* 11.5898	26.46	ADR	38.30	-37.80	14.90	0.58	42.44	54.00	-11.56	-	-	-	-	129	102	H
			* 11.57906	39.76	PK-U	38.30	-37.80	14.90	0.00	55.16	-	-	74.00	-18.84	-	-	240	102	V
			* 11.59189	28.61	ADR	38.30	-37.80	15.00	0.58	44.69	54.00	-9.31	-	-	-	-	240	102	V
			17.379	37.20	PK-U	40.90	-38.40	18.30	0.00	58.00	-	-	-	-	68.20	-10.20	122	113	H
			17.391	40.20	PK-U	40.90	-38.50	18.40	0.00	61.00	-	-	-	-	68.20	-7.20	96	112	V
802.11ac (VHT80)	5775	MIMO	8.665	38.70	PK-U	35.80	-39.50	12.80	0.00	47.80	-	-	-	-	68.20	-20.40	7	100	H
			8.655	38.92	PK-U	35.80	-39.50	12.80	0.00	48.02	-	-	-	-	68.20	-20.18	320	100	V
			* 11.54905	38.84	PK-U	38.20	-38.10	14.80	0.00	53.74	-	-	74.00	-20.26	-	-	254	109	H
			* 11.54971	27.05	ADR	38.20	-38.10	14.80	1.15	43.10	54.00	-10.90	-	-	-	-	254	109	H
			* 11.54932	37.18	PK-U	38.20	-38.10	14.80	0.00	52.08	-	-	74.00	-21.92	-	-	54	250	V
			* 11.54945	26.43	ADR	38.20	-38.10	14.80	1.15	42.48	54.00	-11.52	-	-	-	-	54	250	V
			17.322	36.44	PK-U	40.90	-38.60	18.20	0.00	56.94	-	-	-	-	68.20	-11.26	115	114	H
			17.365	35.98	PK-U	40.90	-38.40	18.30	0.00	56.78	-	-	-	-	68.20	-11.42	76	387	V

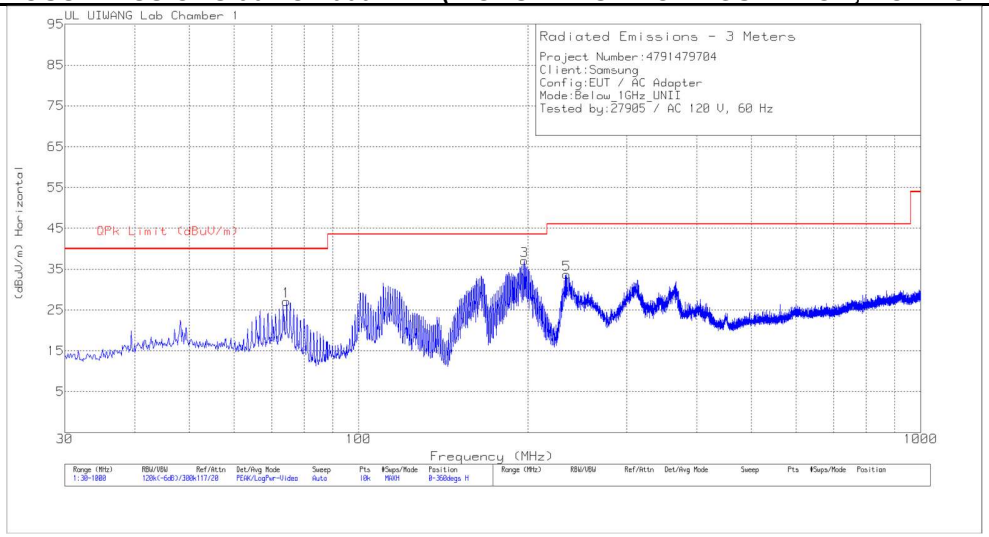
802.11ax (HE20)	5745	MIMO	8.613	38.48	PK-U	35.80	-39.20	12.80	0.00	47.88	-	-	-	-	68.20	-20.32	174	100	H
			8.611	38.55	PK-U	35.80	-39.20	12.80	0.00	47.95	-	-	-	-	68.20	-20.25	84	100	V
			* 11.48892	38.15	PK-U	38.20	-38.70	14.70	0.00	52.35	-	-	74.00	-21.65	-	-	245	261	H
			* 11.48984	26.62	ADR	38.20	-38.70	14.70	1.35	42.17	54.00	-11.83	-	-	-	-	245	261	H
			* 11.49167	40.98	PK-U	38.20	-38.80	14.70	0.00	55.08	-	-	74.00	-18.92	-	-	233	112	V
			* 11.48896	28.84	ADR	38.20	-38.70	14.70	1.35	44.39	54.00	-9.61	-	-	-	-	233	112	V
			17.238	35.77	PK-U	40.90	-37.80	18.50	0.00	57.37	-	-	-	-	68.20	-10.83	245	100	H
			17.238	44.03	PK-U	40.90	-37.80	18.50	0.00	65.63	-	-	-	-	68.20	-2.57	90	352	V
	5785	MIMO	8.686	37.91	PK-U	35.70	-39.30	12.80	0.00	47.11	-	-	-	-	68.20	-21.09	63	100	H
			8.675	39.00	PK-U	35.70	-39.40	12.80	0.00	48.10	-	-	-	-	68.20	-20.10	237	100	V
			* 11.5747	39.48	PK-U	38.20	-37.80	14.90	0.00	54.78	-	-	74.00	-19.22	-	-	128	105	H
			* 11.56927	27.33	ADR	38.20	-37.90	14.90	1.35	43.88	54.00	-10.12	-	-	-	-	128	105	H
			* 11.57214	41.59	PK-U	38.20	-37.90	14.90	0.00	56.79	-	-	74.00	-17.21	-	-	232	106	V
			* 11.56951	29.33	ADR	38.20	-37.90	14.90	1.35	45.88	54.00	-8.12	-	-	-	-	232	106	V
			17.361	39.20	PK-U	40.90	-38.40	18.30	0.00	60.00	-	-	-	-	68.20	-8.20	114	107	H
			17.361	43.69	PK-U	40.90	-38.40	18.30	0.00	64.49	-	-	-	-	68.20	-3.71	91	100	V
	5825	MIMO	8.731	38.54	PK-U	35.80	-39.10	12.80	0.00	48.04	-	-	-	-	68.20	-20.16	11	100	H
			8.730	38.09	PK-U	35.80	-39.10	12.80	0.00	47.59	-	-	-	-	68.20	-20.61	256	100	V
			* 11.65987	38.13	PK-U	38.30	-38.70	15.20	0.00	52.93	-	-	74.00	-21.07	-	-	131	107	H
			* 11.64928	26.37	ADR	38.30	-38.50	15.20	1.35	42.72	54.00	-11.28	-	-	-	-	131	107	H
			* 11.64848	41.42	PK-U	38.30	-38.40	15.20	0.00	56.52	-	-	74.00	-17.48	-	-	231	100	V
			* 11.65416	29.17	ADR	38.30	-38.60	15.20	1.35	45.42	54.00	-8.58	-	-	-	-	231	100	V
			17.476	39.08	PK-U	41.00	-38.90	18.70	0.00	59.88	-	-	-	-	68.20	-8.32	119	107	H
			17.464	42.62	PK-U	40.90	-38.80	18.60	0.00	63.22	-	-	-	-	68.20	-4.98	93	113	V
802.11ax (HE40)	5755	MIMO	8.625	38.65	PK-U	35.80	-39.30	12.80	0.00	47.95	-	-	-	-	68.20	-20.25	360	100	H
			8.634	38.56	PK-U	35.80	-39.40	12.80	0.00	47.76	-	-	-	-	68.20	-20.44	360	100	V
			* 11.50962	37.76	PK-U	38.20	-38.80	14.70	0.00	51.86	-	-	74.00	-22.14	-	-	127	109	H
			* 11.50984	25.86	ADR	38.20	-38.80	14.70	1.45	41.41	54.00	-12.59	-	-	-	-	127	109	H
			* 11.50977	37.85	PK-U	38.20	-38.80	14.70	0.00	51.95	-	-	74.00	-22.05	-	-	310	101	V
			* 11.50985	26.98	ADR	38.20	-38.80	14.70	1.45	42.53	54.00	-11.47	-	-	-	-	310	101	V
			17.273	37.39	PK-U	40.90	-38.10	18.30	0.00	58.49	-	-	-	-	68.20	-9.71	114	113	H
			17.270	37.88	PK-U	40.90	-38.00	18.30	0.00	59.08	-	-	-	-	68.20	-9.12	71	369	V
	5795	MIMO	8.697	38.76	PK-U	35.70	-39.20	12.80	0.00	48.06	-	-	-	-	68.20	-20.14	0	100	H
			8.696	38.83	PK-U	35.70	-39.20	12.80	0.00	48.13	-	-	-	-	68.20	-20.07	0	100	V
			* 11.59137	37.97	PK-U	38.30	-37.80	15.00	0.00	53.47	-	-	74.00	-20.53	-	-	307	106	H
			* 11.58993	26.17	ADR	38.30	-37.80	14.90	1.45	43.02	54.00	-10.98	-	-	-	-	307	106	H
			* 11.58383	40.15	PK-U	38.30	-37.80	14.90	0.00	55.55	-	-	74.00	-18.45	-	-	232	101	V
			* 11.58891	27.69	ADR	38.30	-37.80	14.90	1.45	44.54	54.00	-9.46	-	-	-	-	232	101	V
			17.381	38.31	PK-U	40.90	-38.40	18.40	0.00	59.21	-	-	-	-	68.20	-8.99	122	122	H
			17.377	39.93	PK-U	40.90	-38.40	18.30	0.00	60.73	-	-	-	-	68.20	-7.47	74	111	V
802.11ax (HE80)	5775	MIMO	8.661	39.15	PK-U	35.80	-39.50	12.80	0.00	48.25	-	-	-	-	68.20	-19.95	360	100	H
			8.658	38.32	PK-U	35.80	-39.50	12.80	0.00	47.42	-	-	-	-	68.20	-20.78	360	100	V
			* 11.54918	37.09	PK-U	38.20	-38.10	14.80	0.00	51.99	-	-	74.00	-22.01	-	-	126	110	H
			* 11.54978	26.00	ADR	38.20	-38.10	14.80	1.65	42.55	54.00	-11.45	-	-	-	-	126	110	H
			* 11.5448	36.82	PK-U	38.20	-38.30	14.80	0.00	51.52	-	-	74.00	-22.48	-	-	308	107	V
			* 11.54979	26.61	ADR	38.20	-38.10	14.80	1.65	43.16	54.00	-10.84	-	-	-	-	308	107	V
			17.321	35.13	PK-U	40.90	-38.60	18.20	0.00	55.63	-	-	-	-	68.20	-12.57	360	100	H
			17.316	34.93	PK-U	40.90	-38.50	18.20	0.00	55.53	-	-	-	-	68.20	-12.67	360	100	V
802.11ax HE20 RU mode 26 Tone offset 8 Spot-check	5785	MIMO	8.681	38.57	PK-U	35.90	-38.20	13.80	0.00	50.07	-	-	-	-	68.20	-18.13	13	100	H
			8.679	38.44	PK-U	35.90	-38.20	13.70	0.00	49.84	-	-	-	-	68.20	-18.36	176	100	V
			* 11.58616	40.40	PK-U	38.10	-36.50	14.90	0.00	56.90	-	-	74.00	-17.10	-	-	227	100	H
			* 11.58641	29.54	ADR	38.10	-36.50	14.90	1.00	47.04	54.00	-6.96	-	-	-	-	227	100	H
			* 11.58705	46.20	PK-U	38.10	-36.50	14.90	0.00	62.70	-	-	74.00	**-11.30**	-	-	323	101	V
			* 11.58627	34.15	ADR	38.10	-36.50	14.90	1.00	51.65	54.00	**-2.35**	-	-	-	-	323	101	V
			17.380	42.34	PK-U	40.80	-37.70	18.40	0.00	63.84	-	-	-	-	68.20	-4.36	206	113	H
			17.380	43.48	PK-U	40.80	-37.70	18.40	0.00	64.98	-	-	-	-	68.20	-3.22	136	297	V
802.11ax HE40 RU mode 26 Tone offset 9 Spot-check	5795	MIMO	8.700	38.22	PK-U	35.70	-39.10	12.80	0.00	47.62	-	-	-	-	68.20	-20.58	0	100	H
			8.692	38.33	PK-U	35.70	-39.20	12.80	0.00	47.63	-	-	-	-	68.20	-20.57	360	100	V
			* 11.59177	38.91	PK-U	38.30	-37.80	15.00	0.00	54.41	-	-	74.00	-19.59	-	-	33	107	H
			* 11.59173	28.18	ADR	38.30	-37.80	15.00	1.00	44.68	54.00	-9.32	-	-	-	-	33	107	H
			* 11.59221	45.91	PK-U	38.30	-37.80	15.00	0.00	61.41	-	-	74.00	-12.59	-	-	322	107	V
			* 11.59143	33.09	ADR	38.30	-37.80	15.00	1.00	49.59	54.00	-4.41	-	-	-	-	322	107	V
			17.389	44.02	PK-U	40.90	-38.50	18.40	0.00	64.82	-	-	-	-	68.20	-3.38	215	113	H
			17.389	45.09	PK-U	40.90	-38.50	18.40	0.00	65.89	-	-	-	-	68.20	-2.31	169	359	V
802.11ax HE80 RU mode 26 Tone offset 36 Spot-check	5775	MIMO	8.646	39.67	PK-U	35.80	-39.50	12.80	0.00	48.77	-	-	-	-	68.20	-19.43	63	100	H
			8.628	38.60	PK-U	35.80	-39.30	12.80	0.00	47.90	-	-	-	-	68.20	-20.30	155	100	V
			* 11.62639	40.05	PK-U	38.30	-37.70	15.10	0.00	55.75	-	-	74.00	-18.25	-	-	226	100	H
			* 11.62648	27.06	ADR	38.30	-37.70	15.10	1.00	43.76	54.00	-10.24	-	-	-	-	226	100	H
			* 11.62623	44.51	PK-U	38.30	-37.70	15.10	0.00	60.21	-	-	74.00	-13.79	-	-	320	105	V
			* 11.62631	30.48	ADR	38.30	-37.70	15.10	1.00	47.18	54.00	-6.82	-	-	-	-	320	105	V
			17.317	36.17	PK-U	40.90	-38.50	18.20	0.00	56.77	-	-	-	-	68.20	-11.43	258	369	H
			17.335	36.05	PK-U	40.90	-38.70	18.20	0.00	56.45	-	-	-	-	68.20	-11.75	31	310	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

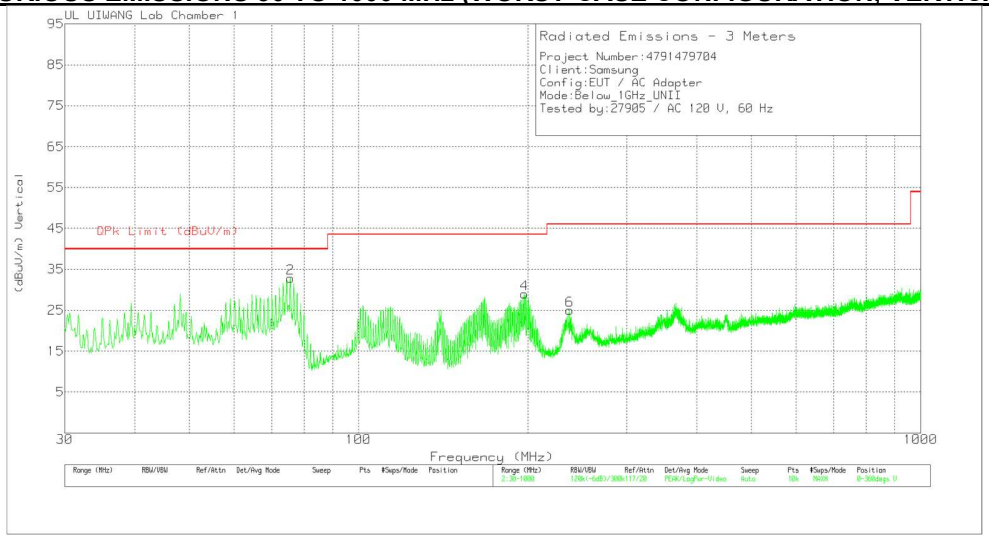
UL Korea, Ltd. Uiwang Laboratory FORM ID: FCC_15E(05)
42, Obongsandan 1-ro, Uiwang-si, Gyeonggi-do, Republic of Korea TEL: (031) 389-9603 FAX: (031) 462-8355

13. 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	VULB 9163	1Cham_30M-1000M_AMP(ELNA 03-40D	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	74.4306	53.37	Pk	13.5	-39.7	27.17	40	-12.83	0-360	100	H
2	75.5947	59.43	Pk	13.1	-39.7	32.83	40	-7.17	0-360	100	V
3	197.1482	58.6	Pk	17.6	-39.1	37.1	43.52	-6.42	0-360	100	H
4	197.1487	57.36	Qp	17.6	-39.1	35.86	43.52	-7.66	37	155	H
5	197.2452	50.49	Pk	17.6	-39.1	28.99	43.52	-14.53	0-360	100	V
6	234.3031	54.96	Pk	17.8	-39	33.76	46.02	-12.26	0-360	100	H
7	237.5044	45.97	Pk	18	-39	24.97	46.02	-21.05	0-360	100	V

Pk - Peak detector
Qp - Quasi-Peak detector

14. 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

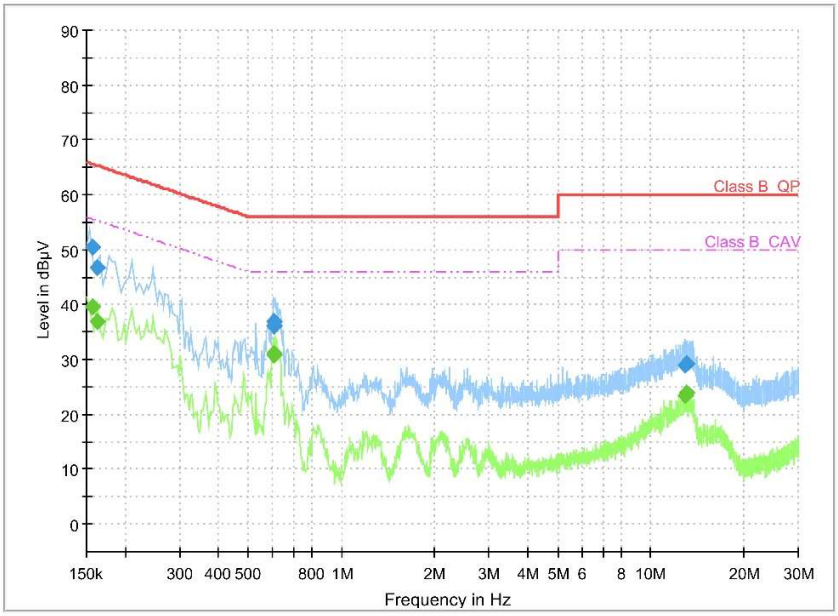
LINE 1 DATA

AC LINE UNII-L 1 / 1

Test Report

Common Information

Project No:	4791479704
Test Description:	Shielded Room#1, Conducted Emission
Test Standard:	FCC Part 15 Subpart C
Model Name:	WCF933M
Test Voltage:	AC 120 V, 60 Hz
Test Mode:	AC Line UNII
Opeartor:	27905
Line:	LINE
Remark:	



Final_Result

Frequency (MHz)	QuasiPeak (dBµV)	CAverage (dBµV)	Limit (dBµV)	Margin (dB)	Bandwidth (kHz)	Line	Filter	Corr. (dB)
0.157760	50.42	---	65.58	15.16	9.000	L1	ON	9.8
0.157760	---	39.49	55.58	16.09	9.000	L1	ON	9.8
0.162430	46.77	---	65.34	18.57	9.000	L1	ON	9.8
0.162430	---	36.84	55.34	18.50	9.000	L1	ON	9.8
0.603620	36.08	---	56.00	19.92	9.000	L1	ON	9.8
0.603620	---	30.70	46.00	15.30	9.000	L1	ON	9.8
0.607200	37.06	---	56.00	18.94	9.000	L1	ON	9.8
0.607200	---	31.12	46.00	14.88	9.000	L1	ON	9.8
12.946660	28.97	---	60.00	31.03	9.000	L1	ON	10.0
12.946660	---	23.49	50.00	26.51	9.000	L1	ON	10.0
13.032820	29.30	---	60.00	30.70	9.000	L1	ON	10.0
13.032820	---	23.91	50.00	26.09	9.000	L1	ON	10.0

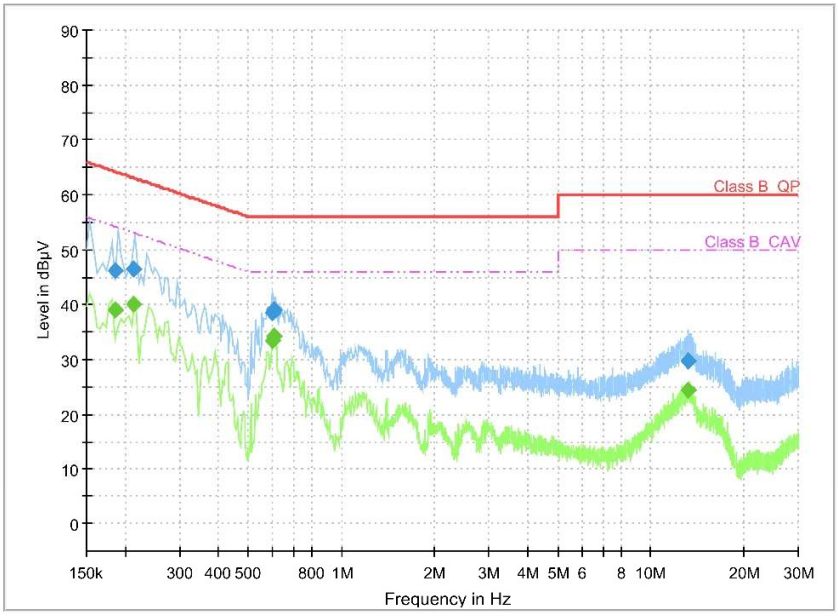
LINE 2 DATA

AC LINE UNII-N 1 / 1

Test Report

Common Information

Project No:	4791479704
Test Description:	Shielded Room#1, Conducted Emission
Test Standard:	FCC Part 15 Subpart C
Model Name:	WCF933M
Test Voltage:	AC 120 V, 60 Hz
Test Mode:	AC Line UNII
Opeartor:	27905
Line:	NEUTRAL
Remark:	



Final_Result

Frequency (MHz)	QuasiPeak (dBµV)	CAverage (dBµV)	Limit (dBµV)	Margin (dB)	Bandwidth (kHz)	Line	Filter	Corr. (dB)
0.186000	46.24	---	64.21	17.98	9.000	N	ON	9.9
0.186000	---	38.93	54.21	15.28	9.000	N	ON	9.9
0.211860	46.41	---	63.13	16.72	9.000	N	ON	9.8
0.211860	---	40.11	53.13	13.02	9.000	N	ON	9.8
0.599600	38.65	---	56.00	17.35	9.000	N	ON	9.9
0.599600	---	33.38	46.00	12.62	9.000	N	ON	9.9
0.602800	39.15	---	56.00	16.85	9.000	N	ON	9.8
0.602800	---	34.22	46.00	11.78	9.000	N	ON	9.8
13.219240	29.83	---	60.00	30.17	9.000	N	ON	10.0
13.219240	---	24.41	50.00	25.59	9.000	N	ON	10.0
13.246450	29.88	---	60.00	30.12	9.000	N	ON	10.0
13.246450	---	24.46	50.00	25.54	9.000	N	ON	10.0

15. DYNAMIC FREQUENCY SELECTION

15.1. OVERVIEW

15.1.1. 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”.

RSS-247 Section 6.3

ISED requires the use of either the FCC KDB Procedure 905462 or the DFS test procedure in the ETSI EN 301 893 for demonstrating compliance with the DFS radar detection requirements set out in this section.If any part of an operating device’s emission bandwidth falls in the bands 5250-5350 MHz, 5470-5600 MHz or 5650-5725 MHz, the device shall comply with requirements in the following sections.

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

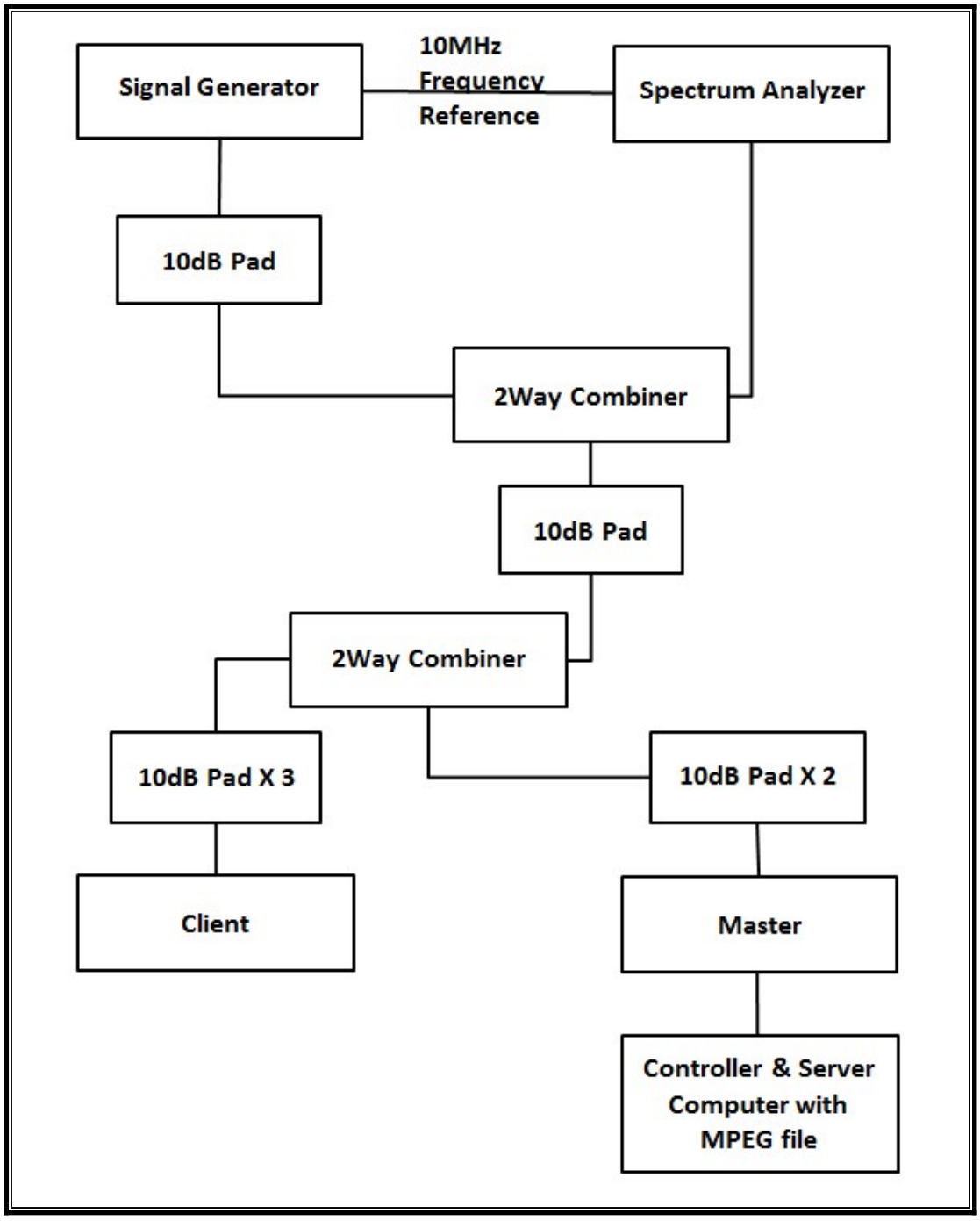
Table 7 – Frequency Hopping Radar Test Signal

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

UL Korea, Ltd. Uiwang Laboratory FORM ID: FCC_15E(05)
42, Obongsandan 1-ro, Uiwang-si, Gyeonggi-do, Republic of Korea TEL: (031) 389-9603 FAX: (031) 462-8355

15.1.2. 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 N5182B. 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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42, Obongsandan 1-ro, Uiwang-si, Gyeonggi-do, Republic of Korea TEL: (031) 389-9603 FAX: (031) 462-8355

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.

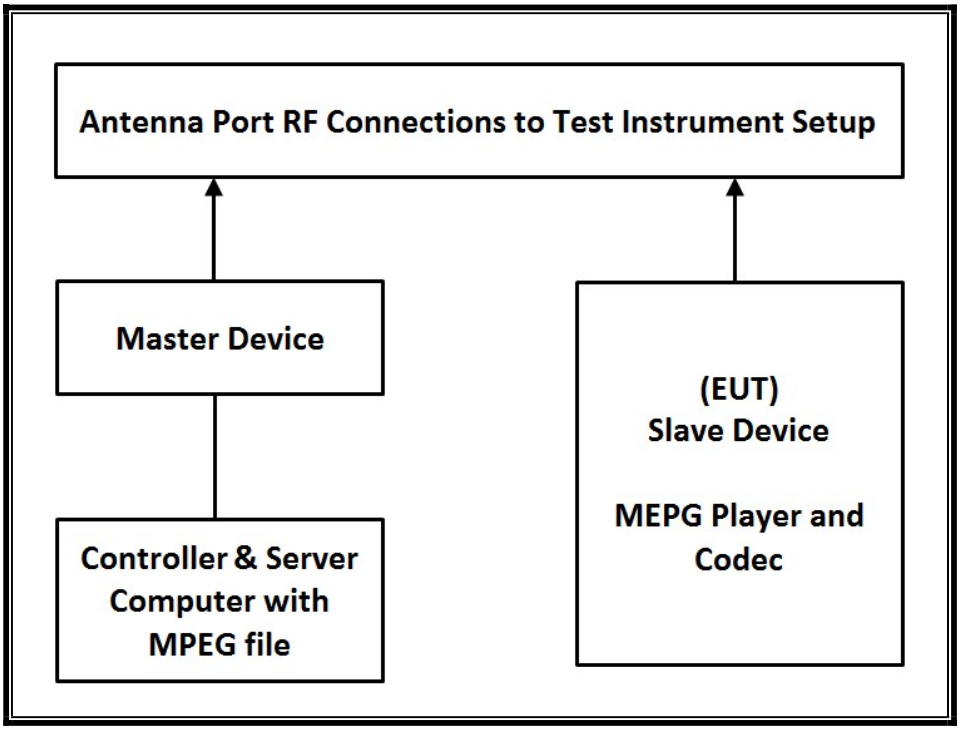
TEST AND MEASUREMENT EQUIPMENT

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	Keysight	N9030B	MY57143652	2025-07-24
Vector Signal Generator	Agilent / HP	N5182B	MY53051241	2025-07-24
Power Divider	WEINSCHEL	1580	SQ373	2025-07-24
Power Splitter	WEINSCHEL	WA1534	UL009	2025-07-26
Attenuator	AEROFLEX/WEINSCHEL	2	CE9521	2025-07-23
Attenuator	PASTERNACK	PE7087-10	A001	2025-07-23
Attenuator	PASTERNACK	PE7087-10	A002	2025-07-23
Attenuator	PASTERNACK	PE7087-10	A004	2025-07-23

15.1.3. SETUP OF EUT

CONDUCTED METHOD EUT TEST SETUP



SUPPORT EQUIPMENT

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

PERIPHERAL SUPPORT EQUIPMENT LIST				
Description	**Manufacturer**	**Model**	**Serial Number**	**FCC ID**
Wireless Access Point	ASUS	GT-AXE11000	NBIG0X401037X8D	MSQ-RTAXJF00
Notebook PC (Controller/Server)	Lenovo	TP00050C	XU100606-15005A	-

15.1.4. 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 14.39 dBm in the 5250-5350 MHz band and 5470-5725 MHz band.

The antenna assembly utilized two antenna.
Gain of ANT0 : 1.66 dBi for UNII 2A and 1.75 dBi for UNII 2C.
Gain of ANT1 : 0.79 dBi for UNII 2A and 1.74 dBi for UNII 2C.

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

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

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

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

UNIFORM CHANNEL SPREADING

This requirement is not applicable to Slave radio devices.

CHANNEL PUNCTURING(802.11ax)

This EUT does not support channel puncturing.

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

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

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

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

15.2. RESULTS FOR 80 MHz BANDWIDTH (UNII-2A & 2C BANDS)

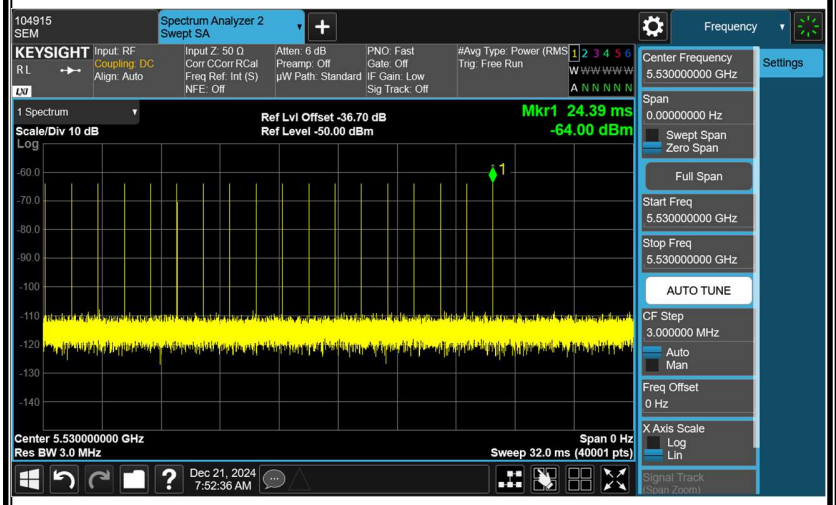
15.2.1. TEST CHANNEL

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

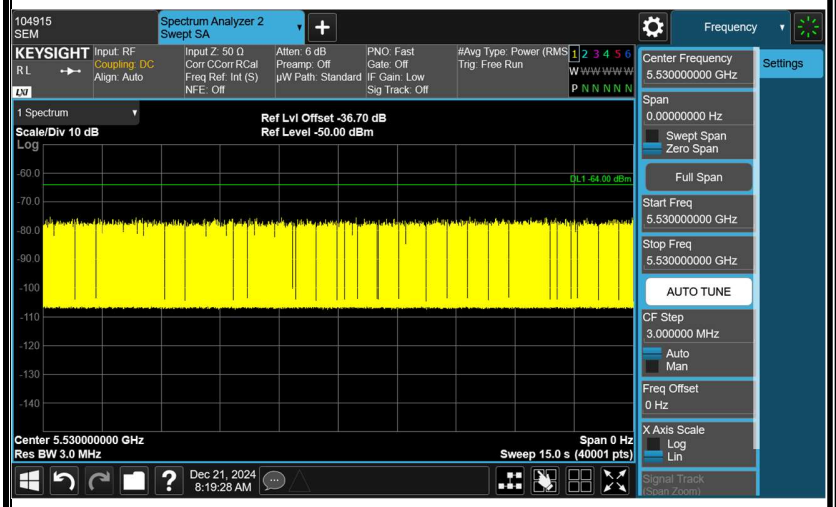
15.2.2. RADAR WAVEFORM AND TRAFFIC

RADAR WAVEFORM

RADAR WAVEFORM:SHORT PULSE RADAR TYPE 0 AT MASTER



SLAVE TRAFFIC



15.2.3. OVERLAPPING CHANNEL TESTS

RESULTS

These tests are not applicable.

15.2.4. 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)
0.799	10

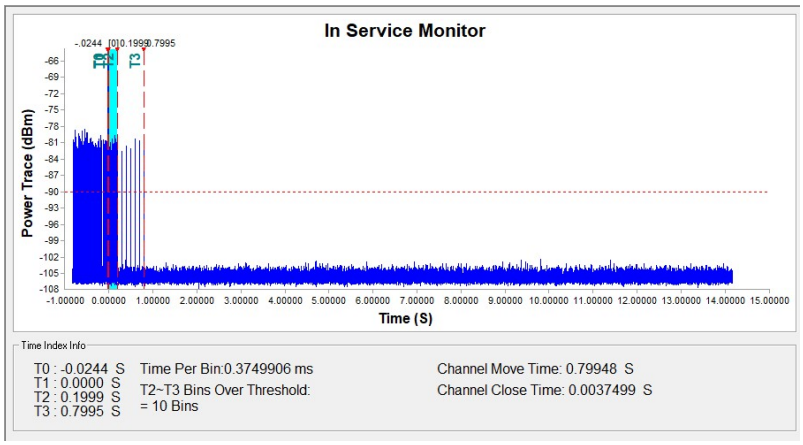
Aggregate Channel Closing Transmission Time (msec)	Limit (msec)
3.750	60

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



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