- (6) The emission measurements shall be performed using a minimum resolution bandwidth of 1 MHz. A lower resolution bandwidth may be employed near the band edge, when necessary, provided the measured energy is integrated to show the total power over 1 MHz.
- (7) Unwanted emissions below 1 GHz must comply with the general field strength limits set forth in §15.209. Further, any U-NII devices using an AC power line are required to comply also with the conducted limits set forth in §15.207.
- (8) The provisions of §15.205 apply to intentional radiators operating under this section.
- (9) When measuring the emission limits, the nominal carrier frequency shall be adjusted as close to the upper and lower frequency band edges as the design of the equipment permits.

## <u>Note</u>

- Limit translation to field strength level (FCC §15.407)

E[dBuV/m] = EIRP[dBm] + 95.2 = -27dBm + 95.2 = 68.2dBuV/m

E[dBuV/m] = EIRP[dBm] + 95.2 = -17dBm + 95.2 = 78.2dBuV/m

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## TEST PROCEDURE

The EUT is placed on a non-conducting table 80 cm above the ground plane for below 1GHz and 100 cm for above 1GHz. EUT is set 3 meters away from the receiving antenna and scan from 1m to 4m to find out the highest emission.

The EUT is configured in accordance with ANSI C63.10. The EUT is set to transmit in a continuous mode.

For measurements below 1 GHz the resolution bandwidth is set to 100 kHz for peak detection measurements or 120 kHz for quasi-peak detection measurements. Peak detection is used unless otherwise noted as quasi-peak.

Reference to KDB 789033 D02 v02r01 UNII part G) 6) c) Method AD:

For measurements above 1 GHz the resolution bandwidth is set to 1 MHz; the video bandwidth is set to 3 MHz for peak measurements and add duty cycle factor to the reading offset for average measurements. In UNII-4, unwanted emissions outside of restricted bands are measured with an RMS detector.

Pre-scans to detect harmonic and spurious emissions, the resolution bandwidth is set to 1 MHz; the video bandwidth is set to 30 kHz for peak measurements.

The spectrum from 1GHz to 40 GHz is investigated with the transmitter set to the lowest, middle, and highest channels in each applicable band.

(From 30MHz to 1GHz, test was performed with the EUT set to transmit at the channel with highest output power)

The frequency range of interest is monitored at a fixed antenna height and EUT azimuth. The EUT is rotated through 360 degrees to maximize emissions received. The antenna is scanned from 1 to 4 meters above the ground plane to further maximize the emission. Measurements are made with the antenna polarized in both the vertical and the horizontal positions.

Note : Emission was pre-scanned from 9kHz to 30MHz; No emissions were detected which was at least 20dB below the specification limit (consider distance correction factor). Per FCC part 15.31(o), test results were not reported.

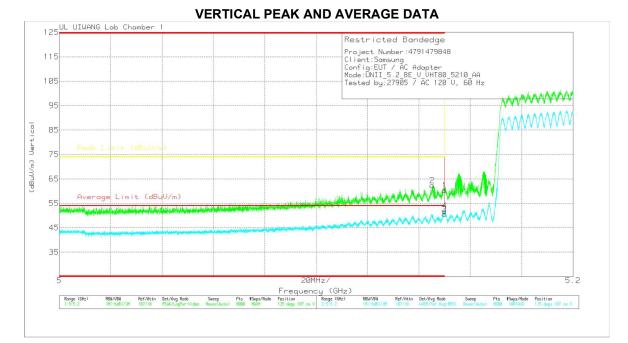
Although these tests were performed other than open field test site, adequate comparison measurements were confirmed against 30 m open are test site.

Therefore sufficient tests were made to demonstrate that the alternative site produces results that correlate with the one of tests made in an open field based on KDB 414788.

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# 12.1. TX ABOVE 1GHz 1Tx & 2Tx MODE IN THE 5.2GHz BAND

# BANDEDGE (WORST CASE: 802.11ac VHT80 / 5210 MHz)



# **Trace Markers**

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	CH2_AF_1- 18G_3117_240 920 (dB/m)	FB2_PL_1- 18G_10dB_240409 (dB)	CH2_CL_1- 40G_Thru_240617 (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	* 5.14999	45.67	Pk	34.2	-30.2	10.7	0	60.37	-	-	74	-13.63	135	107	V
2	* 5.14524	47.71	Pk	34.2	-30.2	10.6	0	62.31	-	-	74	-11.69	135	107	V
3	* 5.14999	34.83	RMS	34.2	-30.2	10.7	1.15	50.68	54	-3.32	-	-	135	107	V
4	* 5.14992	36.13	RMS	34.2	-30.2	10.7	1.15	51.98	54	-2.02	-	-	135	107	V

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

Pk - Peak detector RMS - RMS detection

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### BANDEDGE TEST DATA

Mode	Freq.	Antenna	Frequency	Reading		ANT Factor	FB Gain	Loss	DC Corr	Result		AV Margin				Height	Polarity
	[MHz]	Contest contest	[GHz]	[dBuV]	Mode	[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]	[dBuV/m]	[dB]	[dBuV/m]	[dB]	[Degs]	[cm]	212100
			* 5.14999	40.45	Pk	34.20	-30.20	10.70	0.00	55.15		-	74.00	-18.85	49	104	Н
			* 5.12026	42.48	Pk	34.10	-30.20	10.30	0.00	56.68	-	-	74.00	-17.32	49	104	Н
			* 5.14999	30.14	RMS	34.20	-30.20	10.70	0.66	45.50	54.00	-8.50	-	-	49	104	H
802.11a	5180	ANT1	* 5.14807	30.20	RMS	34.20	-30.20	10.70	0.66	45.56	54.00	-8.44		-	49	104	Н
			* 5.14999	40.19	Pk	34.20	-30.20	10.70	0.00	54.89	-	-	74.00	-19.11	324	100	V
			* 5.14682	41.90	Pk	34.20	-30.20	10.60	0.00	56.50	-	-	74.00	-17.50	324	100	V
			* 5.14999	28.55	RMS	34.20	-30.20	10.70	0.66	43.91	54.00	-10.09	-	-	324	100	V
			* 5.14752	29.63	RMS	34.20	-30.20	10.70	0.66	44.99	54.00	-9.01	-	-	324	100	V
			* 5.14999	45.24	Pk	34.20	-33.60	10.10	0.00	55.94		-	74.00	-18.06	316	102	Н
			* 5.14832	47.72	Pk	34.20	-33.60	10.10	0.00	58.42	-	-	74.00	-15.58	316	102	Н
			* 5.14999	34.82	RMS	34.20	-33.60	10.10	0.66	46.18	54.00	-7.82	-	-	316	102	Н
802.11a	5180	ANT2	* 5.14982	35.29	RMS	34.20	-33.60	10.10	0.66	46.65	54.00	-7.35	-	-	316	102	Н
002.114	0100	10012	* 5.14999	42.77	Pk	34.20	-33.60	10.10	0.00	53.47	-	-	74.00	-20.53	339	330	V
			* 5.00683	46.53	Pk	34.00	-33.70	9.80	0.00	56.63		-	74.00	-17.37	339	330	V
			* 5.14999	32.60	RMS	34.20	-33.60	10.10	0.66	43.96	54.00	-10.04	-	-	339	330	V
			* 5.0083	35.32	RMS	34.00	-33.70	9.80	0.66	46.08	54.00	-7.92	-	-	339	330	V
			* 5.14999	43.17	Pk	34.20	-30.20	10.70	0.00	57.87		-	74.00	-16.13	225	109	Н
			* 5.14752	45.69	Pk	34.20	-30.20	10.70	0.00	60.39	-	-	74.00	-13.61	225	109	Н
			* 5.14999	33.89	RMS	34.20	-30.20	10.70	0.43	49.02	54.00	-4.98	-	-	225	109	H
802.11n	5180	MIMO	* 5.14899	34.12	RMS	34.20	-30.20	10.70	0.43	49.25	54.00	-4.75	-	-	225	109	Н
(HT20)	0100	in in its	* 5.14999	45.06	Pk	34.20	-30.20	10.70	0.00	59.76	-	-	74.00	-14.24	135	106	V
			* 5.14587	45.49	Pk	34.20	-30.20	10.60	0.00	60.09	-	-	74.00	-13.91	135	106	V
			* 5.14999	33.84	RMS	34.20	-30.20	10.70	0.43	48.97	54.00	-5.03	-	-	135	106	V
			* 5.14974	34.22	RMS	34.20	-30.20	10.70	0.43	49.35	54.00	-4.65	-		135	106	V
			* 5.14999	46.34	Pk	34.20	-30.20	10.70	0.00	61.04		-	74.00	-12.96	223	131	Н
			* 5.14547	49.99	Pk	34.20	-30.20	10.60	0.00	64.59	-	-	74.00	-9.41	223	131	н
			* 5.14999	35.60	RMS	34.20	-30.20	10.70	0.58	50.88	54.00	-3.12	-	-	223	131	H
802.11n	5190	MIMO	* 5.14982	36.51	RMS	34.20	-30.20	10.70	0.58	51.79	54.00	-2.21	-	-	223	131	Н
(HT40)	0100	MIMO	* 5.14999	44.61	Pk	34.20	-30.20	10.70	0.00	59.31	-	-	74.00	-14.69	135	109	V
			* 5.14839	49.23	Pk	34.20	-30.20	10.70	0.00	63.93	-	-	74.00	-10.07	135	109	V
			* 5.14999	33.74	RMS	34.20	-30.20	10.70	0.58	49.02	54.00	-4.98	-	-	135	109	V
			* 5.14889	36.59	RMS	34.20	-30.20	10.70	0.58	51.87	54.00	-2.13	-	-	135	109	٧
			* 5.14999	46.57	Pk	34.20	-30.20	10.70	0.00	61.27	-	-	74.00	-12.73	310	108	H
			* 5.14982	48.30	Pk	34.20	-30.20	10.70	0.00	63.00	-	-	74.00	-11.00	310	108	н
			* 5.14999	35.69	RMS	34.20	-30.20	10.70	1.15	51.54	54.00	-2.46	-	-	310	108	н
802.11ac	5210	MIMO	* 5.14964	35.98	RMS	34.20	-30.20	10.70	1.15	51.83	54.00	-2.17	-	-	310	108	н
(VHT80)	5210	MIMO	* 5.14999	45.67	Pk	34.20	-30.20	10.70	0.00	60.37	-	-	74.00	-13.63	135	107	V
			* 5.14524	47.71	Pk	34.20	-30.20	10.60	0.00	62.31	-	-	74.00	-11.69	135	107	V
			* 5.14999	34.83	RMS	34.20	-30.20	10.70	1.15	50.68	54.00	-3.32	-	-	135	107	V
			* 5.14992	36.13	RMS	34.20	-30.20	10.70	1.15	51.98	54.00	-2.02		-	135	107	V
1			* 5.14999	44.71	Pk	34.20	-33.60	10.10	0.00	55.41	-	-	74.00	-18.59	303	102	Н
			* 5.12917	46.33	Pk	34.20	-33.60	10.00	0.00	56.93	-	-	74.00	-17.07	303	102	н
			* 5.14999	32.57	RMS	34.20	-33.60	10.10	1.35	44.62	54.00	-9.38	-	-	303	102	H
802.11ax	5180	MIMO	* 5.14814	33.92	RMS	34.20	-33.60	10.10	1.35	45.97	54.00	-8.03	-	-	303	102	Н
(HE20)	5160	MIMO	* 5.14999	44.65	Pk	34.20	-33.60	10.10	0.00	55.35	-	-	74.00	-18.65	132	102	V
			* 5.14404	46.15	Pk	34.20	-33.60	10.10	0.00	56.85	-	-	74.00	-17.15	132	102	V
			* 5.14999	33.78	RMS	34.20	-33.60	10.10	1.35	45.83	54.00	-8.17	-	-	132	102	V
			* 5.14139	34.48	RMS	34.20	-33.60	10.00	1.35	46.43	54.00	-7.57	-	-	132	102	V
			* 5.14999	48.67	Pk	34.20	-33.60	10.10	0.00	59.37		-	74.00	-14.63	48	107	н
	1		* 5.14902	52.99	Pk	34.20	-33.60	10.10	0.00	63.69		-	74.00	-10.31	48	107	н
			* 5.14999	35.46	RMS	34.20	-33.60	10.10	1.45	47.61	54.00	-6.39	-	-	48	107	Н
802.11ax	5190	MIMO	* 5.14874	37.65	RMS	34.20	-33.60	10.10	1.45	49.80	54.00	-4.20	-	-	48	107	Н
(HE40)	5150	MINIO	* 5.14999	50.19	Pk	34.20	-33.60	10.10	0.00	60.89	-	-	74.00	-13.11	210	110	V
			* 5.14987	51.72	Pk	34.20	-33.60	10.10	0.00	62.42	-	-	74.00	-11.58	210	110	V
			* 5.14999	36.85	RMS	34.20	-33.60	10.10	1.45	49.00	54.00	-5.00	-	-	210	110	V
			* 5.14779	37.36	RMS	34.20	-33.60	10.10	1.45	49.51	54.00	-4.49	-		210	110	V
			* 5.14999	49.31	Pk	34.20	-33.60	10.10	0.00	60.01		-	74.00	-13.99	315	109	н
			* 5.14272	54.07	Pk	34.20	-33.60	10.10	0.00	64.77		-	74.00	-9.23	315	109	н
			* 5.14999	36.08	RMS	34.20	-33.60	10.10	1.65	48.43	54.00	-5.57	-	-	315	109	H
802.11ax	5210	MIMO	* 5.14839	39.11	RMS	34.20	-33.60	10.10	1.65	51.46	54.00	-2.54	-	-	315	109	Н
(HE80)	0210	MIMO	* 5.14999	47.12	Pk	34.20	-33.60	10.10	0.00	57.82	-	-	74.00	-16.18	214	134	V
	1		* 5.14672	51.86	Pk	34.20	-33.60	10.10	0.00	62.56	-	-	74.00	-11.44	214	134	V
	1		* 5.14999	35.17	RMS	34.20	-33.60	10.10	1.65	47.52	54.00	-6.48	-	-	214	134	V
			* 5.14917	37.68	RMS	34.20	-33.60	10.10	1.65	50.03	54.00	-3.97	-	-	214	134	V
	1		* 5.14999	38.72	Pk	34.20	-30.20	10.70	0.00	53.42	-	-	74.00	-20.58	123	107	н
802.11ax	1		* 5.13677	40.35	Pk	34.20	-30.20	10.50	0.00	54.85	-	-	74.00	-19.15	123	107	н
	1		* 5.14999	28.05	RMS	34.20	-30.20	10.70	0.98	43.73	54.00	-10.27	-	-	123	107	Н
HE80					-	34.20	-30.20	10.50	0.98	44.42	54.00	-9.58	-	-	123	107	Н
RU mode	5040	MILLO	* 5.13362	28.94	RMS	34.20	-30.20		0.50	77.76							
	5210	MIMO	* 5.13362 * 5.14999	28.94 36.79	Pk	34.20	-30.20	10.70	0.00	51.49	-	-	74.00	-22.51	113	110	V
RU mode	5210	MIMO											74.00 74.00	-22.51 -19.51			V V
RU mode 26 Tone	5210	MIMO	* 5.14999	36.79	Pk	34.20	-30.20	10.70	0.00	51.49	54.00	-10.73			113	110	

Note1. Pk - Peak detector, RMS - RMS detection

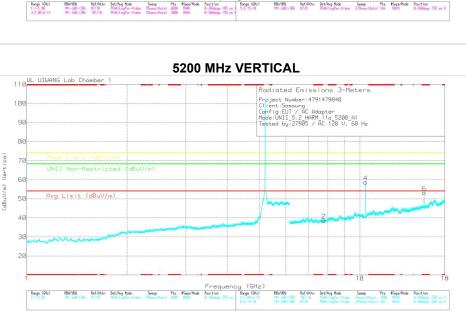
Note2. \* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

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### HARMONICS AND SPURIOUS EMISSIONS(WORST CASE: 802.11a / 5200 MHz / ANT1)

110 UL UIWANG Lab Chamber Radiated Emissions 3-Meters Project Number:4791479848 Client:Somsung Config:EUT / AC Adapter Mode:UNIT / AC Adapter Mode:UNIT / AC Adapter Tested by:27905 / AC 120 V, 60 Hz 100 C 8 antal Har 60 dBuU/m) 50 40 3 21 Frequency (GHz) Position 8-3604egs 105 cm (5:6.15-18 8-3604egs 138 cm (5:6.15-18) Ref/Attn 87/18 187/18 Det/Avg Mode PEAK/LogPur RBM/UBU Ref/Attn Det/Avg Mode Sweep Pts KSupa/Mode Positian 11K-3-80//30k 87/8 PEK/Lagher-Video 278meet/Auto/16k MAUN 8-360dees-158.cm H Range (GHz 1:1-5.88 3:5.88-6.1 REW/VEW 1M(-3dB)/38%



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

### 5200 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
7.79882	39.04	PK-U	35.9	-38.6	12.2	0	48.54	-	-	-	-	68.2	-19.66	0	100	н
7.80211	38.98	PK-U	35.9	-38.6	12.2	0	48.48	-	-	-	-	68.2	-19.72	0	100	V
10.40197	47.79	PK-U	37.3	-36.9	14.2	0	62.39	-	-	-	-	68.2	-5.81	16	296	н
10.39384	51.67	PK-U	37.3	-37	14.2	0	66.17	-	-	-	-	68.2	-2.03	86	102	V
* 15.60046	36.23	PK-U	39.9	-37.3	17.1	0	55.93	-	-	74	-18.07	-	-	67	257	н
* 15.59695	24.75	ADR	39.9	-37.3	17.1	.66	45.11	54	-8.89	-	-	-	-	67	257	н
* 15.60699	35.87	PK-U	39.9	-37.3	17.1	0	55.57	-	-	74	-18.43	-	-	317	110	V
* 15.59686	24.52	ADR	39.9	-37.3	17.1	.66	44.88	54	-9.12	-	-	-	-	317	110	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

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UL Korea, Ltd. Uiwang Laboratory 42, Obongsandan 1-ro, Uiwang-si, Gyeonggi-do, Republic of Korea FORM ID: FCC\_15E(05) TEL: (031) 389-9603 FAX: (031) 462-8355

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### 5200 MHz HORIZONTAL

# HARMONICS AND SPURIOUS EMISSIONS TEST DATA

	Freq.		Frequency	Reading	Detector	ANT Factor	FB Gain	Loss	DC Corr	Result	AV Limit	AV Margin	DK Limit	DK Margin	Non-Restricted	Margin	Azimuth	Height	
Mode	[MHz]	Antenna	[GHz]	[dBuV]	Mode	[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]	[ dBuV/m ]		[dBuV/m]	[dB]	[dBuV/m]	[dB]	[Degs]	[cm]	Polarity
			7.76937	39.19	PK-U	35.80	-38.70	12.40	0.00	48.69	-	-	-	-	68.20	-19.51	0	100	н
			7.77073	38.36	PK-U	35.80	-38.70	12.40	0.00	47.86 61.68	-	-	-	-	68.20	-20.34	0	100	V
			10.36158 10.36088	51.79	PK-U PK-U	37.20 37.20	-37.20 -37.20	14.00	0.00	65.79	-	-	-	-	68.20 68.20	-6.52 -2.41	277	106 278	H
	5180	ANT1	* 15.53445	36.06	PK-U	39.80	-37.20	17.00	0.00	55.66	-	-	74.00	-18.34	-	-	55	276	H
			* 15.5382	24.38	ADR	39.80	-37.20	17.00	0.66	44.64	54.00	-9.36	-	-			55	276	н
			* 15.53776 * 15.5378	35.79 24.06	PK-U ADR	39.80 39.80	-37.20 -37.20	17.00 17.00	0.00	55.39 44.32	- 54.00	-9.68	74.00	-18.61	-	-	70	257 257	V V
	-		7.79882	39.04	PK-U	35.90	-38.60	12.20	0.00	48.54	-	-3.00	-		68.20	-19.66	0	100	н
			7.80211	38.98	PK-U	35.90	-38.60	12.20	0.00	48.48	-	-	-	-	68.20	-19.72	0	100	V
			10.40197	47.79	PK-U	37.30	-36.90	14.20	0.00	62.39	-	-	-	-	68.20	-5.81	16	296	H
802.11a	5200	ANT1	10.39384 * 15.60046	51.67 36.23	PK-U PK-U	37.30 39.90	-37.00 -37.30	14.20 17.10	0.00	66.17 55.93	-		74.00	-18.07	68.20	-2.03	86 67	102 257	H
			* 15.59695	24.75	ADR	39.90	-37.30	17.10	0.66	45.11	54.00	-8.89	-	-	-	-	67	257	н
			* 15.60699	35.87	PK-U	39.90	-37.30	17.10	0.00	55.57	-	-	74.00	-18.43	-	-	317	110	V
			* 15.59686 7.85948	24.52 38.46	ADR PK-U	39.90 35.90	-37.30 -38.60	17.10 12.60	0.66	44.88 48.36	54.00	-9.12	-	-	68.20	-19.84	317 0	110 100	V H
			7.85590	38.81	PK-U	35.90	-38.70	12.60	0.00	48.61	-	-	-	-	68.20	-19.59	0	100	v
			10.47904	48.57	PK-U	37.40	-36.80	14.10	0.00	63.27	-	-	-	-	68.20	-4.93	28	100	Н
	5240	ANT1	10.48099 * 15.71871	51.13 41.40	PK-U PK-U	37.40 40.00	-36.80 -37.30	14.10 17.30	0.00	65.83 61.40	-		- 74.00	-12.60	68.20	-2.37	90 50	100 296	V H
			* 15.7213	24.70	ADR	40.00	-37.30	17.30	0.66	45.36	54.00	-8.64	- 14.00	-12.00	-	-	50	296	H
			* 15.7159	39.73	PK-U	40.00	-37.30	17.30	0.00	59.73	-	-	74.00	-14.27	-	-	61	257	V
	-		* 15.71505	24.07	ADR	40.00	-37.30	17.30	0.66	44.73	54.00	-9.27	-	-	-	-	61	257	V
			7.77064 7.76850	39.78 39.61	PK-U PK-U	35.70 35.70	-39.80 -39.80	12.10 12.10	0.00	47.78	-	-	-	-	68.20 68.20	-20.42 -20.59	0	100 100	H
			10.35585	52.88	PK-U	37.30	-38.50	14.20	0.00	65.88	-	-	-	-	68.20	-2.32	48	105	Ĥ
	5180	ANT2	10.36174	49.55	PK-U	37.30	-38.40	14.20	0.00	62.65	-	-		-	68.20	-5.55	60	106	V
	0100		* 15.55058 * 15.53368	35.85 23.90	PK-U	39.80 39.80	-39.00 -38.90	18.00 18.00	0.00	54.65 43.46	-	-	74.00	-19.35	-	-	189	357 357	H
			* 15.54122	37.04	ADR PK-U	39.80	-38.90	18.00	0.00	55.74	54.00	-10.54	- 74.00	-18.26		-	69	357	H V
			* 15.54175	24.58	ADR	39.80	-39.10	18.00	0.66	43.94	54.00	-10.06	-	-	-	-	69	357	V
			7.80683	38.61	PK-U	35.90	-38.60	12.30	0.00	48.21	-	-	-	-	68.20	-19.99	118	100	Н
			7.80022 10.39272	38.46 51.40	PK-U PK-U	35.90 37.30	-38.60 -37.00	12.20 14.20	0.00	47.96 65.90	-	-	-	-	68.20 68.20	-20.24 -2.30	227 337	100 106	V H
			10.39272	50.84	PK-U	37.30	-36.90	14.20	0.00	65.44	-	-	-	-	68.20	-2.30	156	287	V
802.11a	5200	ANT2	* 15.60425	35.62	PK-U	39.90	-37.30	17.10	0.00	55.32	-	-	74.00	-18.68	-	-	49	107	н
			* 15.60038	24.05	ADR	39.90	-37.30	17.10	0.66	44.41	54.00	-9.59	-	-	-		49	107	Н
			* 15.59329 * 15.60696	35.91 24.43	PK-U ADR	39.90 39.90	-37.30 -37.30	17.10 17.10	0.00	55.61 44.79	- 54.00	-9.21	74.00	-18.39	-	-	333	265 265	V V
			7.85627	38.50	PK-U	35.90	-38.70	12.60	0.00	48.30	-	-0.21	-	-	68.20	-19.90	129	100	н
			7.86755	38.64	PK-U	35.90	-38.60	12.70	0.00	48.64	-	-	-	-	68.20	-19.56	207	100	V
			10.47934	51.29	PK-U	37.40	-36.80	14.10	0.00	65.99	-	-	-	-	68.20	-2.21	331	114	H
	5240	ANT2	10.47865 * 15.71896	49.84 35.78	PK-U PK-U	37.40 40.00	-36.80 -37.30	14.10 17.30	0.00	64.54 55.78	-	-	74.00	-18.22	68.20	-3.66	142 48	266 109	H
			* 15.7212	24.02	ADR	40.00	-37.30	17.30	0.66	44.68	54.00	-9.32	-	-	-	-	48	109	H
			* 15.71785	38.77	PK-U	40.00	-37.30	17.30	0.00	58.77	-	-	74.00	-15.23	-	-	331	109	V V
	1		* 15.72033 7.76603	24.43	ADR PK-U	40.00 35.80	-37.30	17.30	0.66	45.09	54.00	-8.91	-	-	68.20	-20.08	331 335	109	н
			7.76371	39.30	PK-U	35.80	-38.70	12.40	0.00	48.80	-	-	-	-	68.20	-19.40	104	100	V
			10.36332	51.54	PK-U	37.20	-37.20	14.00	0.00	65.54	-	-	-	-	68.20	-2.66	142	105	Н
	5180	MIMO	10.36079 * 15.54176	51.94 35.51	PK-U PK-U	37.20 39.80	-37.20 -37.20	14.00 16.90	0.00	65.94 55.01	-	-	74.00	-18.99	68.20	-2.26	35	227 107	V H
			* 15.5379	23.74	ADR	39.80	-37.20	17.00	0.43	43.77	54.00	-10.23	-	-10.00	-	-	2	107	H
			* 15.54334	36.79	PK-U	39.80	-37.20	16.90	0.00	56.29	-	-	74.00	-17.71	-	-	356	104	V
	-		* 15.53944 7.79956	24.41 38.06	ADR PK-U	39.80 35.90	-37.20	17.00	0.43	44.44 47.56	54.00	-9.56	-	-	68.20	-20.64	356	104	V H
			7.79802	38.00	PK-U	35.90	-38.60	12.20	0.00	47.50	-	-		-	68.20	-20.04	143	100	v
802 11n			10.40041	51.05	PK-U	37.30	-36.90	14.20	0.00	65.65		-	-	-	68.20	-2.55	144	206	Н
HT20	5200	MIMO	10.40333 * 15.61131	50.79 35.78	PK-U PK-U	37.30 39.90	-36.90 -37.40	14.20 17.10	0.00	65.39 55.38	-		- 74.00	-18.62	68.20	-2.81	35 46	219 102	V H
			* 15.61027	23.88	ADR	39.90	-37.40	17.10	0.43	43.91	54.00	-10.09	-	-	-	-	46	102	H
			* 15.59643	36.70 24.43	PK-U	39.90 39.90	-37.30	17.10 17.10	0.00	56.40	-	-9.44	74.00	-17.60	-		357 357	105 105	V V
			* 15.6005 7.86327	38.48	ADR PK-U	35.90	-37.30 -38.60	12.70	0.43	44.56 48.48	54.00	-9.44	-	-	68.20	-19.72	0	100	Н
			7.86142	38.48	PK-U	35.90	-38.60	12.60	0.00	48.38	-	-	-	-	68.20	-19.82	0	100	V
			10.48042	51.17	PK-U	37.40	-36.80	14.10	0.00	65.87	-		-	-	68.20	-2.33	144 320	208	H
	5240	MIMO	10.48313 * 15.71678	51.06 39.95	PK-U PK-U	37.40 40.00	-36.80 -37.30	14.10 17.30	0.00	65.76 59.95	-	-	74.00	-14.05	68.20	-2.44	4	101 105	H
			* 15.71654	24.50	ADR	40.00	-37.30	17.30	0.43	44.93	54.00	-9.07	-	-	-	-	4	105	H
			* 15.71196 * 15.71789	43.29 25.65	PK-U ADR	40.00 40.00	-37.30 -37.30	17.20 17.30	0.00	63.19 46.08	54.00	-7.92	74.00	-10.81	-		355 355	102 102	V V
			7.78797	38.79	PK-U	35.90	-38.60	12.30	0.00	48.39	-	-1.52			68.20	-19.81	0	102	H
			7.78042	39.29	PK-U	35.90	-38.70	12.30	0.00	48.79	-	-	-	-	68.20	-19.41	0	100	V
			10.38052	50.66	PK-U	37.30	-37.10	14.10	0.00	64.96	-			-	68.20	-3.24	141	107	H
	5190	MIMO	10.37829 * 15.57716	51.11 37.60	PK-U PK-U	37.30 39.90	-37.10 -37.30	14.10 17.00	0.00	65.41 57.20	-	-	74.00	-16.80	68.20	-2.79	33 306	206	V H
			* 15.57462	24.99	ADR	39.80	-37.30	17.00	0.58	45.07	54.00	-8.93	-	-	-	-	306	202	Н
802.11n			* 15.5783 * 15.57742	39.65	PK-U	39.90 39.90	-37.30 -37.30	17.00	0.00	59.25	- 54.00	- -7.80	74.00	-14.75	-	-	354 354	104 104	V
HT40			7.84700	26.02 38.36	ADR PK-U	39.90	-37.30	17.00 12.50	0.58	46.20 48.06	-	-1.00	-	-	68.20	-20.14	354	104	н
			7.84765	38.77	PK-U	35.90	-38.70	12.60	0.00	48.57	-	-	-	-	68.20	-19.63	0	100	V
	All produced of		10.45991 10.46050	51.48 51.04	PK-U PK-U	37.30 37.30	-36.80 -36.80	14.10 14.10	0.00	66.08 65.64	-	-	-	-	68.20 68.20	-2.12 -2.56	147 321	104 105	H V
	5230	MIMO	* 15.69291	38.64	PK-U	40.00	-36.80	17.20	0.00	58.54	-	-	74.00	-15.46	-	-2.00	50	105	H
			* 15.69201	25.50	ADR	40.00	-37.30	17.20	0.58	45.98	54.00	-8.02	-	-		-	50	100	Н
			* 15.69609 * 15.69073	41.99 27.59	PK-U	40.00	-37.30	17.20	0.00	61.89 48.07	- 54.00	-5.93	74.00	-12.11	-	-	356 356	101 101	V V
	1		7.81571	38.92	ADR PK-U	35.90	-37.30	17.20	0.58	48.07	- 54.00	-0.93	-	-	68.20	-19.68	300	101	H
			7.81411	38.50	PK-U	35.90	-38.60	12.30	0.00	48.10	-	-	-	-	68.20	-20.10	0	100	V
802.11ac			10.43321 10.43734	47.16 47.49	PK-U PK-U	37.30 37.30	-36.80 -36.80	14.10 14.10	0.00	61.76 62.09	-		-	-	68.20 68.20	-6.44 -6.11	146 26	105 218	H V
	5210	MIMO	* 15.62949	24.07	ADR	40.00	-30.80	17.10	1.15	44.92	54.00	-9.08	-	-	-		145	101	H
VHT80	8134868	0.0000000											7		· · · · · · · · · · · · · · · · · · ·	[			
			* 15.62031 * 15.63833	35.44 24.21	PK-U ADR	39.90 40.00	-37.40 -37.50	17.10 17.10	0.00	55.04 44.96	- 54.00	-9.04	74.00	-18.96		-	145 359	101 102	H

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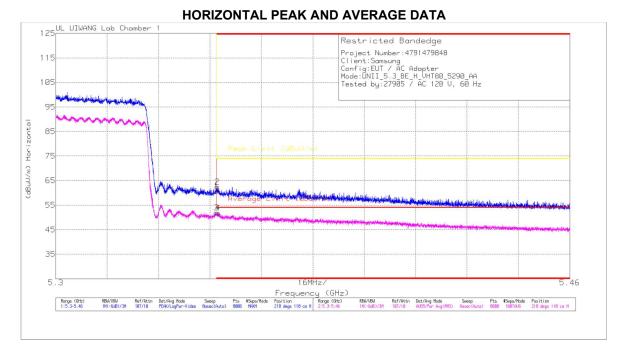
Mode	Freq. [MHz]	Antenna	Frequency [GHz]	Reading	Detector Mode	ANT Factor [dB/m]	FB Gain [dB]	Loss [dB]	DC Corr	Result [dBuV/m]	AV Limit	AV Margin	PK Limit	PK Margin	Non-Restricted	Margin [ dB ]	Azimuth [Degs]	Height [cm]	Polarity
	[minz]		* 8.2873	39.17	PK-U	35.80	-39.60	12.40	0.00	47.77	-	-	74.00	-26.23	-	[ub]	314	113	н
			* 8.28803	28.44	ADR	35.80	-39.60	12.40	1.35	38.39	54.00	-15.61	-	-	-	-	314	113	н
			* 8.28775	40.39	PK-U	35.80	-39.60	12.40	0.00	48.99	-	-	74.00	-25.01	-	-	194	113	V
			* 8.28793	30.63	ADR	35.80	-39.60	12.40	1.35	40.58	54.00	-13.42	-	-	-	-	194	113	V
	5180	MIMO	10.36604 10.35565	48.06 53.02	PK-U PK-U	37.30 37.30	-38.40 -38.50	14.20 14.20	0.00	61.16 66.02	-				68.20 68.20	-7.04 -2.18	325 216	103 121	H V
			* 15.54101	35.90	PK-U	39.80	-39.10	18.00	0.00	54.60		-	74.00	-19.40	00.20	-2.10	308	104	Ĥ
			* 15.54313	23.90	ADR	39.80	-39.10	18.00	1.35	43.95	54.00	-10.05	-	-	-	-	308	104	H
			* 15.52932	37.40	PK-U	39.80	-38.80	17.90	0.00	56.30	-	-	74.00	-17.70	-	-	3	101	V
			* 15.53462	24.06	ADR	39.80	-38.90	18.00	1.35	44.31	54.00	-9.69	-	-	-	-	3	101	V
			* 8.31937	39.27	PK-U	35.80	-39.80	12.50	0.00	47.77	-		74.00	-26.23	-	-	314	106	H
			* 8.31977 * 8.32012	28.71 40.62	ADR PK-U	35.80 35.80	-39.80 -39.90	12.50	1.35	38.56 49.02	54.00	-15.44	74.00	-24.98		-	314 194	106 129	H
			* 8.31991	31.20	ADR	35.80	-39.80	12.50	1.35	41.05	54.00	-12.95	-	-24.00	-	-	194	129	v
802.11ax	5000		10,40522	49.61	PK-U	37.40	-38.40	14.20	0.00	62.81	-	-	-	-	68.20	-5.39	196	344	Ĥ
HE20	5200	MIMO	10.40032	52.68	PK-U	37.40	-38.30	14.20	0.00	65.98	-	-	-	-	68.20	-2.22	189	230	V
			* 15.59637	37.89	PK-U	39.90	-39.10	18.00	0.00	56.69	-		74.00	-17.31	-	-	308	121	н
			* 15.60086	24.26	ADR	39.90	-39.10	18.00	1.35	44.41	54.00	-9.59	-	-	-	-	308	121	H
			* 15.59852 * 15.59597	38.37 24.09	PK-U ADR	39.90 39.90	-39.10 -39.10	18.00	0.00	57.17	54.00	-9.76	74.00	-16.83	-	-	180 180	109 109	V
			* 8.38339	40.58	PK-U	35.80	-40.10	12.70	0.00	48.98	54.00	-5.10	74.00	-25.02	-	-	168	269	H
			* 8.38405	30.12	ADR	35.80	-40.10	12.70	1.35	39.87	54.00	-14.13	-	-20.02	-	-	168	269	Ĥ
			* 8.38398	41.27	PK-U	35.80	-40.10	12.70	0.00	49.67	-	-	74.00	-24.33	-	-	198	112	V
			* 8.38393	32.34	ADR	35.80	-40.10	12.70	1.35	42.09	54.00	-11.91	-	-	-	-	198	112	V
	5240	MIMO	10.47596	50.01	PK-U	37.50	-39.00	14.30	0.00	62.81	-			-	68.20	-5.39	191	103	H
			10.48355	52.42	PK-U	37.50	-39.00	14.30	0.00	65.22	-		-	-	68.20	-2.98	216	111	N H
			* 15.71959 * 15.7198	38.58 24.39	PK-U ADR	40.10 40.10	-38.60 -38.60	17.60 17.60	0.00	57.68 44.84	54.00	-9.16	74.00	-16.32	-	-	51 51	105 105	H
			* 15.72922	41.21	PK-U	40.10	-38.70	17.60	0.00	60.31		-5.10	74.00	-13.69		-	355	109	v
			* 15.71871	24.72	ADR	40.10	-38.60	17.60	1.35	45.17	54.00	-8.83	-	-	-	-	355	109	v
			* 8.30342	39.77	PK-U	35.80	-39.80	12.40	0.00	48.17	-	-	74.00	-25.83	-	-	43	246	H
			* 8.30394	29.40	ADR	35.80	-39.80	12.40	1.45	39.25	54.00	-14.75	-	-			43	246	Н
			* 8.30397	40.06	PK-U	35.80	-39.80	12.40	0.00	48.46	-	-	74.00	-25.54	-	-	193	106	V V
	1.1	1000	* 8.30383 10.38039	30.42 50.05	ADR PK-U	35.80 37.40	-39.80 -38.30	12.40 14.20	1.45	40.27 63.35	54.00	-13.73		-	68.20	-4.85	193 5	106 112	H
	5190	MIMO	10.37597	52.53	PK-U	37.40	-38.30	14.20	0.00	65.83		<u>-</u>			68.20	-2.37	215	112	v
			* 15.58931	37.05	PK-U	39.90	-39.20	18.00	0.00	55.75	-	-	74.00	-18.25	-	-	303	107	Ĥ
			* 15.5669	24.55	ADR	39.80	-39.20	18.00	1.45	44.60	54.00	-9.40	-	-	-	-	303	107	Н
			* 15.56228	38.80	PK-U	39.80	-39.20	18.00	0.00	57.40	-		74.00	-16.60	-	-	355	104	V
802.11ax HE40	-		* 15.56304	25.06	ADR	39.80	-39.20	18.00	1.45	45.11	54.00	-8.89	-	-	-	-	355	104	V
HE40			* 8.36796 * 8.36782	40.02 29.66	PK-U ADR	35.80 35.80	-40.20 -40.20	12.60	0.00	48.22 39.31	- 54.00	-14.69	74.00	-25.78	-	-	41 41	251 251	H
			* 8.36812	41.04	PK-U	35.80	-40.20	12.60	0.00	49.24	- 54.00	-14.05	74.00	-24.76	-	-	197	134	v
			* 8.36796	31.93	ADR	35.80	-40.20	12.60	1.45	41.58	54.00	-12.42	-	-	-	-	197	134	v
	5230	MIMO	10.46800	49.03	PK-U	37.40	-39.00	14.20	0.00	61.63	-	-	-	-	68.20	-6.57	194	305	Н
	3230	WIIMO	10.45799	53.01	PK-U	37.40	-38.90	14.20	0.00	65.71	-	-	-	-	68.20	-2.49	176	224	V
			* 15.68958 * 15.69444	39.15 25.24	PK-U ADR	40.10 40.10	-38.80	17.70	0.00	58.15 45.69	-	-	74.00	-15.85	-	-	307	105	H
			* 15.69444	39.44	PK-U	40.10	-38.80 -38.80	17.70 17.80	0.00	45.69	54.00	-8.31	74.00	-15.46		-	307	105 118	V V
			* 15.69346	25.63	ADR	40.10	-38.80	17.70	1.45	46.08	54.00	-7.92		-15.40		-	354	118	v
			* 8.33668	40.07	PK-U	35.80	-40.00	12.50	0.00	48.37	-	-	74.00	-25.63	-	-	39	252	H
			* 8.3361	29.58	ADR	35.80	-40.00	12.50	1.65	39.53	54.00	-14.47	-	-	-	-	39	252	Н
			* 8.33582	40.90	PK-U	35.80	-40.00	12.50	0.00	49.20	-	-	74.00	-24.80	-	-	192	115	V
000 44			* 8.33589	31.76	ADR	35.80	-40.00	12.50	1.65	41.71	54.00	-12.29	-	-	-	-	192	115	V
802.11ax HE80	5210	MIMO	10.42097 10.41843	43.48 48.32	PK-U PK-U	37.40 37.40	-38.40 -38.40	14.20 14.20	0.00	56.68 61.52	-		-	-	68.20 68.20	-11.52 -6.68	323 173	101 106	H
TILOU			* 15.6164	35.61	PK-U	39.90	-39.00	18.00	0.00	54.51	-		74.00	-19.49	00.20		304	110	Ĥ
			* 15.60362	23.94	ADR	39.90	-39.10	18.00	1.65	44.39	54.00	-9.61	-	-	-	-	304	110	H
			* 15.59942	36.04	PK-U	39.90	-39.10	18.00	0.00	54.84	-	-	74.00	-19.16	-	-	357	110	V
			* 15.64553	24.02	ADR	40.00	-38.70	18.00	1.65	44.97	54.00	-9.03	-	-	-	-	357	110	V
000.44			* 8.38391	40.79	PK-U	35.80	-40.10	12.70	0.00	49.19	-	-	74.00	-24.81	-	-	63	224	H
802.11ax			* 8.38406	29.79	ADR	35.80	-40.10	12.70	0.98	39.17	54.00	-14.83	-	-		-	63	224 107	H
HE20 RU mode			* 8.38387 * 8.38401	41.44 32.62	PK-U ADR	35.80 35.80	-40.10 -40.10	12.70	0.00	49.84 42.00	54.00	-12.00	74.00	-24.16	-	-	181 181	107	v
26 Tone	5240	MIMO	10.49675	46.15	PK-U	37.50	-38.90	14.30	0.00	59.05	-	-12.00	-	-	68.20	-9.15	152	107	Ĥ
offset 8			10.49781	50.84	PK-U	37.50	-38.80	14.30	0.00	63.84	-	-	-	-	68.20	-4.36	195	102	v
Spot-check			* 15.73995	35.63	PK-U	40.20	-38.90	17.50	0.00	54.43	-	-	74.00	-19.57	-	-	154	100	н
			* 15.70523	35.68	PK-U	40.10	-38.70	17.60	0.00	54.68		1	74.00	-19.32			11	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

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#### TX ABOVE 1GHz 1Tx & 2Tx MODE IN THE 5.3GHz BAND 12.2.

# BANDEDGE (WORST CASE: 802.11ac VHT80 / 5290 MHz)



## **Trace Markers**

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	CH2_AF_1- 18G_3117_240 920 (dB/m)	FB2_PL_1- 18G_10dB_240409 (dB)	CH2_CL_1- 40G_Thru_240617 (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	* 5.35001	45.27	Pk	34.5	-30.3	11.1	0	60.57	-	-	74	-13.43	218	118	н
2	* 5.35031	47.15	Pk	34.5	-30.3	11.1	0	62.45	-	-	74	-11.55	218	118	н
3	* 5.35001	35.49	RMS	34.5	-30.3	11.1	1.15	51.94	54	-2.06	-	-	218	118	Н
4	* 5 35045	35.38	RMS	34.5	-30.3	11.1	1 15	51.83	54	-2 17		-	218	118	н

\* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band Pk - Peak detector RMS - RMS detection

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### BANDEDGE TEST DATA

Mode 802.11a 802.11a	Freq. [MHz] 5320	Antenna	Frequency [GHz] * 5.35001 * 5.35221	Reading [dBuV] 43.05	Mode	ANT Factor [dB/m]	FB Gain [dB]	Loss [dB]	DC Corr [dB]	Result [dBuV/m]		AV Margin [dB]	PK Limit [dBuV/m]	PK Margin [dB]	Azimuth [Degs]	Height [cm]	Polarity
			* 5.35001				[ab]									[Cm]	
	5320					34.50	-30.30	11.10	0.00	58.35	1		74.00	-15.65	44	112	н
	5320			46.74	Pk Pk	34.50	-30.30	11.10	0.00	62.04		-	74.00	-11.96	44	112	н
	5320	3	* 5.35001	33.21	RMS	34.50	-30.30	11.10	0.66	49.17	54.00	-4.83	14.00	-11.00	44	112	H
	5320		* 5.35243	33.42	RMS	34.50	-30.30	11.10	0.66	49.38	54.00	-4.62	-	-	44	112	н
802.11a		ANT1	* 5.35001	41.82	Pk	34.50	-30.30	11.10	0.00	57.12	-	-	74.00	-16.88	46	111	V
802.11a			* 5.35017	44.94	Pk	34.50	-30.30	11.10	0.00	60.24	-	-	74.00	-13.76	46	111	V
802.11a			* 5.35001	31.21	RMS	34.50	-30.30	11.10	0.66	47.17	54.00	-6.83	-	-	46	111	V
802.11a			* 5.35037	32.11	RMS	34.50	-30.30	11.10	0.66	48.07	54.00	-5.93	-	-	46	111	V
802.11a			* 5.35001	42.52	Pk	34.50	-30.30	11.10	0.00	57.82		-	74.00	-16.18	224	101	Н
802.11a			* 5.35087	46.05	Pk	34.50	-30.30	11.10	0.00	61.35	-	-	74.00	-12.65	224	101	Н
802.11a			* 5.35001	32.32	RMS	34.50	-30.30	11.10	0.66	48.28	54.00	-5.72	-	-	224	101	н
	5320	ANT2	* 5.35003 * 5.35001	32.52 42.08	RMS Pk	34.50 34.50	-30.30 -30.30	11.10 11.10	0.66	48.48 57.38	54.00	-5.52	74.00	-16.62	224 277	101 366	H V
			* 5.35001	42.08	Pk	34.50	-30.30	11.10	0.00	60.47		-	74.00	-13.53	277	366	v
			* 5.35001	31.55	RMS	34.50	-30.30	11.10	0.66	47.51	54.00	-6.49	-	-10.00	277	366	v
			* 5.35003	31.88	RMS	34.50	-30.30	11.10	0.66	47.84	54.00	-6.16	-	-	277	366	v
			* 5.35001	41.40	Pk	34.50	-30.30	11.10	0.00	56.70	-	-	74.00	-17.30	129	103	н
			* 5.37405	41.95	Pk	34.50	-30.40	11.50	0.00	57.55	-	-	74.00	-16.45	129	103	н
			* 5.35001	29.27	RMS	34.50	-30.30	11.10	0.43	45.00	54.00	-9.00	-	-	129	103	H
802.11n	5320	MIMO	* 5.39863	29.88	RMS	34.50	-30.40	12.00	0.43	46.41	54.00	-7.59	-	-	129	103	н
(HT20)	5520	minio	* 5.35001	39.58	Pk	34.50	-30.30	11.10	0.00	54.88	-	-	74.00	-19.12	140	106	V
			* 5.41226	41.47	Pk	34.50	-30.40	11.80	0.00	57.37	-	-	74.00	-16.63	140	106	V
			* 5.35001	29.35	RMS	34.50	-30.30	11.10	0.43	45.08	54.00	-8.92	-	-	140 140	106	V V
			* 5.37909 * 5.35001	29.58 43.85	RMS Pk	34.50 34.50	-30.40 -30.30	11.60 11.10	0.43	45.71 59.15	54.00	-8.29	74.00	-14.85	216	106 117	H
			* 5.35435	45.05	Pk	34.50	-30.30	11.20	0.00	61.46		-	74.00	-14.65	216	117	н
			* 5.35001	33.74	RMS	34.50	-30.30	11.10	0.58	49.62	54.00	-4.38	14.00	-12.04	216	117	H H
802.11n	Southeast and		* 5.35105	34.35	RMS	34.50	-30.30	11.10	0.58	50.23	54.00	-3.77	-	-	216	117	н
(HT40)	5310	MIMO	* 5.35001	41.19	Pk	34.50	-30.30	11.10	0.00	56.49	-	-	74.00	-17.51	125	105	V
			* 5.35067	44.16	Pk	34.50	-30.30	11.10	0.00	59.46	-	-	74.00	-14.54	125	105	V
			* 5.35001	31.50	RMS	34.50	-30.30	11.10	0.58	47.38	54.00	-6.62	-	-	125	105	V
			* 5.35083	32.16	RMS	34.50	-30.30	11.10	0.58	48.04	54.00	-5.96	-	-	125	105	V
			* 5.35001	45.27	Pk	34.50	-30.30	11.10	0.00	60.57		-	74.00	-13.43	218	118	Н
			* 5.35031	47.15	Pk	34.50	-30.30	11.10	0.00	62.45	-	-	74.00	-11.55	218	118	н
802.11ac			* 5.35001 * 5.35045	35.49 35.38	RMS RMS	34.50 34.50	-30.30 -30.30	11.10	1.15	51.94 51.83	54.00	-2.06	-	-	218 218	118 118	H
(VHT80)	5290	MIMO	* 5.35045	43.84	Pk	34.50	-30.30	11.10 11.10	1.15 0.00	59.14	54.00	-2.17	74.00	-14.86	1218	118	V
(11100)			* 5.35033	45.16	Pk	34.50	-30.30	11.10	0.00	60.46		-	74.00	-13.54	124	105	v
			* 5.35001	32.34	RMS	34.50	-30.30	11.10	1.15	48.79	54.00	-5.21	-	-	124	105	v
			* 5.35055	33.45	RMS	34.50	-30.30	11.10	1.15	49.90	54.00	-4.10	-	-	124	105	V
			* 5.35001	40.80	Pk	34.50	-30.30	11.10	0.00	56.10	-	-	74.00	-17.90	42	272	н
			* 5.38057	41.23	Pk	34.50	-30.40	11.70	0.00	57.03		-	74.00	-16.97	42	272	н
			* 5.35001	28.73	RMS	34.50	-30.30	11.10	1.35	45.38	54.00	-8.62	-	-	42	272	H
802.11ax	5320	MIMO	* 5.40136	29.23	RMS	34.50	-30.40	12.00	1.35	46.68	54.00	-7.32		-	42	272	Н
(HE20)			* 5.35001	39.84	Pk	34.50	-30.30	11.10	0.00	55.14		-	74.00	-18.86	118	104	V
			* 5.39963 * 5.35001	41.35 28.67	Pk RMS	34.50 34.50	-30.40 -30.30	12.00 11.10	0.00	57.45 45.32	- 54.00	-8.68	74.00	-16.55	118 118	104 104	v
			* 5,39859	28.67	RMS	34.50	-30.30	12.00	1.35	46.51	54.00	-8.68	-	-	118	104	V
			* 5.35001	43.49	Pk	34.50	-30.30	11.10	0.00	58.79			74.00	-15.21	228	104	Ĥ
			* 5.35169	46.97	Pk	34.50	-30.30	11.10	0.00	62.27	-	-	74.00	-11.73	228	105	н
			* 5.35001	32.00	RMS	34.50	-30.30	11.10	1.45	48.75	54.00	-5.25	-	-	228	105	H
802.11ax	5310	MIMO	* 5.35151	33.99	RMS	34.50	-30.30	11.10	1.45	50.74	54.00	-3.26	-	-	228	105	н
(HE40)	5310	MIMO	* 5.35001	40.52	Pk	34.50	-30.30	11.10	0.00	55.82	-	-	74.00	-18.18	344	113	V
			* 5.39165	41.54	Pk	34.50	-30.40	11.90	0.00	57.54	-	-	74.00	-16.46	344	113	V
			* 5.35001	28.62	RMS	34.50	-30.30	11.10	1.45	45.37	54.00	-8.63	-	-	344	113	V
			* 5.35221	30.14	RMS	34.50	-30.30	11.10	1.45	46.89	54.00	-7.11	-	-	344	113	V
			* 5.35001 * 5.35175	49.43 51.37	Pk Pk	34.40 34.40	-33.40 -33.40	10.10	0.00	60.53 62.47		-	74.00 74.00	-13.47 -11.53	314 314	106 106	H H
			* 5.35001	35.05	RMS	34.40	-33.40	10.10	1.65	47.80	54.00	-6.20	74.00	-11.55	314	106	H H
802.11ax			* 5.35353	36.59	RMS	34.40	-33.40	10.10	1.65	49.34	54.00	-4.66			314	106	H
(HE80)	5290	MIMO	* 5.35001	47.48	Pk	34.40	-33.40	10.10	0.00	58.58	-	-	74.00	-15.42	214	111	v
2			* 5.35377	51.44	Pk	34.40	-33.40	10.10	0.00	62.54	-	-	74.00	-11.46	214	111	V
	1		* 5.35001	34.64	RMS	34.40	-33.40	10.10	1.65	47.39	54.00	-6.61	-	-	214	111	V
			* 5.35183	37.02	RMS	34.40	-33.40	10.10	1.65	49.77	54.00	-4.23	-	-	214	111	V
			* 5.35001	41.36	Pk	34.40	-33.40	10.10	0.00	52.46		-	74.00	-21.54	309	105	н
802.11ax	1		* 5.4033	52.34	Pk	34.50	-33.40	10.20	0.00	63.64			74.00	-10.36	309	105	н
HE80			* 5.35001	30.33	RMS	34.40	-33.40	10.10	0.98	42.41	54.00	-11.59	-	-	309	105	н
RU mode 26 Tone	5290	MIMO	* 5.40346 * 5.35001	32.68 39.74	RMS Pk	34.50 34.40	-33.40 -33.40	10.20 10.10	0.98	44.96 50.84	54.00	-9.04	- 74.00	-23.16	309 54	105 115	H V
offset 36			* 5.4037	45.16	PK	34.40	-33.40	10.10	0.00	56.46	-	-	74.00	-23.10	54 54	115	v
	1		* 5.35001	30.28	RMS	34.40	-33.40	10.20	0.98	42.36	54.00	-11.64	-		54	115	v
Spot-check	1		* 5.36635	31.95	RMS	34.40	-33.40	10.10	0.98	44.03	54.00	-9.97	-	-	54	115	v

Note1. Pk - Peak detector, RMS - RMS detectior

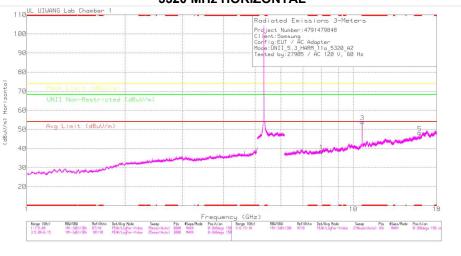
Note2. \* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

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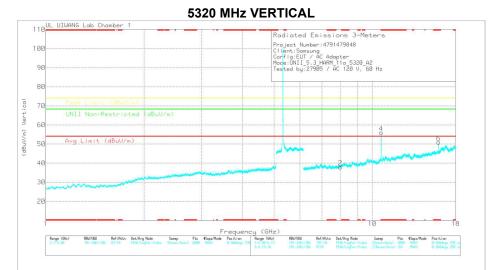
FORM ID: FCC\_15E(05) TEL: (031) 389-9603 FAX: (031) 462-8355

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### HARMONICS AND SPURIOUS EMISSIONS(WORST CASE: 802.11a / 5320 MHz / ANT2)



### 5320 MHz HORIZONTAL



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

### Radiated Emissions

### 5320 MHz DATA

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
7.97919	38.73	PK-U	35.9	-38.9	12.7	0	48.43	-	-	-	-	68.2	-19.77	0	100	н
7.98016	39.3	PK-U	35.9	-38.9	12.7	0	49	-	-	-	-	68.2	-19.2	0	100	V
* 10.63845	48.88	PK-U	37.5	-36.9	14.6	0	64.08	-	-	74	-9.92	-	-	346	100	н
* 10.63934	35.68	ADR	37.5	-36.9	14.5	.66	51.44	54	-2.56	-	-	-	-	346	100	н
* 10.63806	49.33	PK-U	37.5	-36.9	14.6	0	64.53	-	-	74	-9.47	-	-	144	107	V
* 10.641	36.11	ADR	37.5	-36.9	14.5	.66	51.87	54	-2.13	-	-	-	-	144	107	V
* 15.96536	36.19	PK-U	40.4	-37.4	17.5	0	56.69	-	-	74	-17.31	-	-	50	108	н
* 15.96473	23.8	ADR	40.4	-37.4	17.5	.66	44.96	54	-9.04	-	-	-	-	50	108	н
* 15.9647	39.58	PK-U	40.4	-37.4	17.5	0	60.08	-	-	74	-13.92	-	-	343	113	V
* 15.96102	24.64	ADR	40.4	-37.4	17.5	.66	45.8	54	-8.2	-	-	-	-	343	113	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

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# HARMONICS AND SPURIOUS EMISSIONS TEST DATA

2011 N. 1	Freq.	Constant .	Frequency	Reading		EIVII 33		Loss	DC Corr	Result	AVIimit	AV Margin	PK I imit	PK Margin	Non-Restricted	Margin	Azimuth	Height	
Mode	[MHz]	Antenna	[GHz]	[dBuV]	Mode	[dB/m]	[dB]	[dB]	[dB]	[dBuV/m			[dBuV/m]	[dB]	[dBuV/m]	[dB]	[Degs]	[cm]	Pola
			7.88310 7.89601	38.38 38.60	PK-U PK-U	35.90 35.90	-38.60 -38.50	12.80	0.00	48.48 48.90		-	-	-	68.20 68.20	-19.72	125 237	100	H V
			10.52322	45.31	PK-U	37.40	-36.80	14.30	0.00	60.21	-	-	-	-	68.20	-7.99	293	118	F
	5260	ANT1	10.52298 * 15.7801	50.50 41.93	PK-U PK-U	37.40 40.20	-36.80 -37.30	14.30 17.70	0.00	65.40 62.53	-		74.00	-11.47	68.20 -	-2.80	89 55	104	I V
			* 15.78007	24.95	ADR	40.20	-37.30	17.70	0.66	46.21	54.00	-7.79	-	-	-	-	55	108	H
			* 15.77964 * 15.77908	37.92 24.29	PK-U ADR	40.20 40.20	-37.30 -37.30	17.70 17.70	0.00	58.52 45.55	- 54.00	-8.45	74.00	-15.48	-	-	314 314	105	V
			7.94306	38.43	PK-U	35.90	-38.60	13.00	0.00	48.73	-	-	-	-	68.20	-19.47	141	100	H
			7.94170 * 10.60503	38.50 46.64	PK-U PK-U	35.90 37.50	-38.60 -37.00	13.00 14.80	0.00	48.80 61.94	-	-	74.00	-12.06	68.20 -	-19.40	313 33	100	- V
			* 10.6017	32.79	ADR	37.50	-37.00	14.90	0.66	48.85	54.00	-5.15	-	-	-	-	33	100	F
	5300	ANT1	* 10.60014 * 10.60005	49.02 35.79	PK-U ADR	37.50 37.50	-37.00 -37.00	14.90 14.90	0.00	64.42 51.85	- 54.00	-2.15	74.00	-9.58	-	-	90 90	100 100	V
802.11a			* 15.90168	40.57	PK-U	40.30	-37.40	17.60	0.00	61.07	-	-	74.00	-12.93	-	-	53	287	F
			* 15.90288 * 15.90308	24.56 39.05	ADR PK-U	40.30 40.30	-37.40 -37.40	17.60 17.60	0.66	45.72 59.55	54.00	-8.28	- 74.00	-14.45	-	-	53 89	287 104	H V
			* 15.90871	24.08	ADR	40.30	-37.40	17.60	0.66	45.24	54.00	-8.76	-	-	-	-	89	104	V
			7.97981 7.98431	38.39 39.60	PK-U PK-U	35.90	-38.90 -39.00	12.70	0.00	48.09		-	-	-	68.20 68.20	-20.11	0	100	H V
			* 10.64099	47.91	PK-U	37.50	-36.90	14.50	0.00	63.01	-	-	74.00	-10.99	-	-	22	100	F
	0000		* 10.63844 * 10.63994	33.66 49.76	ADR PK-U	37.50	-36.90 -36.90	14.60 14.50	0.66	49.52 64.86	54.00	-4.48	- 74.00	-9.14	-	-	22 88	100 106	L F
	5320	ANT1	* 10.64113	35.84	ADR	37.50	-36.90	14.50	0.66	51.60	54.00	-2.40	-	-	-	-	88	106	V
			* 15.9577 * 15.95798	24.24 39.33	ADR PK-U	40.40	-37.40 -37.40	17.50 17.50	0.66	45.40 59.83	54.00	-8.60	- 74.00	-14.17	-	-	39 39	102 102	H H
			* 15.95547	38.02	PK-U	40.40	-37.40	17.50	0.00	58.52	-	-	74.00	-15.48	-	-	90	100	V
			* 15.96023 7.89111	23.87 39.18	ADR PK-U	40.40	-37.40 -38.50	17.50 12.80	0.66	45.03 49.38	54.00	-8.97	-	-	- 68.20	-18.82	90 0	100	V H
			7.88443	39.01	PK-U	35.90	-38.60	12.80	0.00	49.11	-	-	-	-	68.20	-19.09	0	100	V
			10.51932 10.52082	49.26 51.14	PK-U PK-U	37.40	-36.80 -36.80	14.30 14.30	0.00	64.16 66.04	-	-	-	-	68.20 68.20	-4.04 -2.16	336 131	374 295	H V
	5260	ANT2	* 15.78268	24.86	ADR	40.20	-37.30	17.70	0.66	46.12	54.00	-7.88	-	-	-	-	43	102	F
			* 15.77752 * 15.77852	39.00 25.52	PK-U ADR	40.20	-37.30 -37.30	17.70 17.70	0.00	59.60 46.78	54.00	-7.22	74.00	-14.40	-	-	43 335	102 382	H
			* 15.77247	40.14	PK-U	40.10	-37.30	17.60	0.00	60.54	-	-	74.00	-13.46	-	-	335	382	V
			7.95200	38.73 38.72	PK-U PK-U	35.90	-38.60 -38.60	13.00	0.00	49.03 49.02		-	-	-	68.20 68.20	-19.17 -19.18	0	100	H V
			* 10.60107	47.62	PK-U	37.50	-37.00	14.90	0.00	63.02	-	-	74.00	-10.98	-	-	345	105	F
	2000		* 10.60014 * 10.60466	34.36 49.77	ADR PK-U	37.50	-37.00 -37.00	14.90 14.80	0.66	50.42 65.07	54.00	-3.58	- 74.00	-8.93	-		345 143	105	F V
302.11a	5300	ANT2	* 10.60019	35.56	ADR	37.50	-37.00	14.90	0.66	51.62	54.00	-2.38	-	-0.00	-	-	143	100	V
502.11d			* 15.90032 * 15.89633	36.79	PK-U	40.30	-37.40 -37.40	17.60	0.00	57.29	- 54.00	-	74.00	-16.71	-	-	49 49	113	H
			* 15.89272	24.18 40.90	ADR PK-U	40.30 40.30	-37.40	17.60 17.60	0.66	45.34 61.40	- 54.00	-8.66	74.00	-12.60	-	-	344	113 111	H V
			* 15.90308	24.92	ADR	40.30	-37.40	17.60	0.66	46.08	54.00	-7.92	-	-	-	-	344	111	V
			7.97919 7.98016	38.73 39.30	PK-U PK-U	35.90 35.90	-38.90 -38.90	12.70 12.70	0.00	48.43 49.00	-			-	68.20 68.20	-19.77 -19.20	0	100	H V
			* 10.63845	48.88	PK-U	37.50	-36.90	14.60	0.00	64.08	-	-	74.00	-9.92	-	-	346	100	ŀ
	5000		* 10.63934 * 10.63806	35.68 49.33	ADR PK-U	37.50 37.50	-36.90 -36.90	14.50 14.60	0.66	51.44 64.53	54.00	-2.56	74.00	-9.47	-	-	346 144	100	H V
	5320	ANT2	* 10.641	36.11	ADR	37.50	-36.90	14.50	0.66	51.87	54.00	-2.13	-	-	-	-	144	107	N.
			* 15.96536 * 15.96473	36.19 23.80	PK-U ADR	40.40	-37.40 -37.40	17.50 17.50	0.00	56.69 44.96	54.00	-9.04	74.00	-17.31	-	-	50 50	108 108	F
			* 15.9647	39.58	PK-U	40.40	-37.40	17.50	0.00	60.08	- 54.00	-	74.00	-13.92	-	-	343	113	V
			* 15.96102 7.88392	24.64 38.62	ADR PK-U	40.40 35.90	-37.40 -38.60	17.50 12.80	0.66	45.80 48.72	- 54.00	-8.20	-	-	68.20	-19.48	343 207	113	F
			7.88119	38.25	PK-U	35.90	-38.60	12.80	0.00	48.35	-	-	-	-	68.20	-19.85	219	100	V
	5260	MIMO	10.52264 10.52036	45.97 51.11	PK-U PK-U	37.40 37.40	-36.80 -36.80	14.30 14.30	0.00	60.87 66.01	-	-	-	-	68.20 68.20	-7.33 -2.19	37 91	108 114	H V
	5200	MIMO	* 15.77093 * 15.77577	35.45	PK-U ADR	40.10	-37.30 -37.30	17.60	0.00	55.85 44.66	-	-	74.00	-18.15	-	-	276	277	
			* 15.77265	23.63 38.74	PK-U	40.20	-37.30	17.70 17.60	0.43	59.14	54.00	-9.34	74.00	-14.86	-	-	276 270	277 120	H V
			* 15.77425 7.94460	23.97 38.27	ADR PK-U	40.10 35.90	-37.30 -38.60	17.60 13.00	0.43	44.80 48.57	54.00	-9.20	-	-	- 68.20	-19.63	270	120 100	V H
			7.94104	39.08	PK-U	35.90	-38.60	13.00	0.00	49.38	-	-	-	-	68.20	-18.82	126	100	V
			* 10.60017 * 10.60015	44.53 31.82	PK-U ADR	37.50 37.50	-37.00 -37.00	14.90 14.90	0.00	59.93 47.65	- 54.00	-6.35	74.00	-14.07	-		22 22	102 102	F
000 44	5300	MIMO	* 10.60527	48.79	PK-U	37.50	-37.00	14.80	0.00	64.09	-	-	74.00	-9.91	-	-	96	100	٧
302.11n HT20			* 10.60001 * 15.90272	35.75 35.23	ADR PK-U	37.50 40.30	-37.00 -37.40	14.90 17.60	0.43	51.58 55.73	54.00	-2.42	- 74.00	-18.27		-	96 3	100	I V
			* 15.90352 * 15.89884	23.69 35.71	ADR PK-U	40.30 40.30	-37.40 -37.40	17.60 17.60	0.43	44.62	54.00	-9.38	-	-	-	-	3	100 103	F
			* 15.89884	23.85	ADR	40.30	-37.40	17.60	0.00	56.21 44.78	54.00	-9.22	74.00	-17.79	-	-	272 272	103	v
			7.98561	38.21	PK-U	35.90	-39.00	12.60	0.00	47.71	-	-	-	-	68.20	-20.49	244	100	H V
			7.98561 * 10.63991	40.40 45.39	PK-U PK-U	35.90 37.50	-39.00 -36.90	12.60 14.50	0.00	49.90 60.49	-	-	74.00	-13.51	68.20 -	-18.30	292 21	100 100	H
			* 10.64011 * 10.6453	32.41 48.43	ADR PK-U	37.50 37.50	-36.90 -36.90	14.50 14.50	0.43	47.94 63.53	54.00	-6.06	- 74.00	- -10.47	-	-	21 92	100	H
	5320	MIMO	* 10.63771	35.98	ADR	37.50	-36.90	14.60	0.43	51.61	54.00	-2.39		-	-	-	92	101	1
			* 15.96057 * 15.96121	35.24 23.23	PK-U ADR	40.40	-37.40 -37.40	17.50 17.50	0.00	55.74 44.16	- 54.00	-9.84	74.00	-18.26	-	-	194 194	111	H H
			* 15.95631	35.71	PK-U	40.40	-37.40	17.50	0.00	56.21 44.27	- 54.00	-9.73	74.00	-17.79	-	-	224	102	
			* 15.95659 7.90163	23.34 37.91	ADR PK-U	40.40 35.90	-37.40	17.50	0.43	44.27	- 54.00	-9.73	-		68.20	-19.99	224	102	H
			7.90207	37.65	PK-U	35.90	-38.50	12.90	0.00	47.95	-	-	-	-	68.20	-20.25	145	100	1
	5270	MIMO	10.53818 10.54007	44.27 50.02	PK-U PK-U	37.50 37.50	-36.80 -36.80	14.50 14.50	0.00	59.47 65.22	-	-	-	-	68.20 68.20	-8.73 -2.98	266 98	100 104	+
	5270	MIMO	* 15.81519	35.39	PK-U	40.20	-37.30	17.70	0.00	55.99	-	-	74.00	-18.01	-	-	325	118	ŀ
			* 15.81411 * 15.7981	23.85 37.39	ADR PK-U	40.20	-37.30 -37.30	17.70 17.80	0.58	45.03 58.09	54.00	-8.97	74.00	-15.91	-	-	325 270	118 103	1
			* 15.80853 7.96602	24.41 38.87	ADR PK-U	40.20 35.90	-37.30 -38.80	17.80	0.58	45.69 48.77	54.00	-8.31	-	-	- 68.20	-19.43	270 0	103	)
02.11n			7.96540	38.59	PK-U	35.90	-38.80	12.80	0.00	48.49	-	-	-	-	68.20	-19.43	0	100	1
			* 10.62063 * 10.62075	45.14 32.04	PK-U ADR	37.50 37.50	-36.90 -36.90	14.70 14.70	0.00	60.44 47.92	- 54.00	6.08	74.00	-13.56	-	-	98 98	109	
			* 10.62015	48.40	PK-U	37.50	-36.90	14.70	0.00	63.70	-	-	74.00	-10.30	-	-	92	100	1
	5310	MIMO		35.77	ADR	37.50	-36.90 -37.40	14.70 17.60	0.58	51.65 56.06	54.00	-2.35	- 74.00	-17.94	-	-	92 318	100 118	\ 
	5310	MIMO	* 10.62003 * 15.92934	35.46	PK-U	40.40			0.58	45.04	54.00	-8.96	-	-	-	-	318	118	1
	5310	MIMO	* 10.62003 * 15.92934 * 15.92898	35.46 23.86	ADR	40.40	-37.40	17.60						10.00					
802.11n HT40	5310	MIMO	* 10.62003 * 15.92934	35.46				17.60 17.60 17.60	0.00	58.00 46.09	- 54.00	-7.91	74.00	-16.00		-	271 271	104 104	
	5310	MIMO	* 10.62003 * 15.92934 * 15.92898 * 15.92968 * 15.92968 * 15.92956 7.93470	35.46 23.86 37.40 24.91 39.09	ADR PK-U ADR PK-U	40.40 40.40 40.40 35.90	-37.40 -37.40 -37.40 -38.60	17.60 17.60 12.90	0.00 0.58 0.00	58.00 46.09 49.29	-	-		-16.00	- - 68.20 68.20	-18.91	271 271 0	104 104 100	) 
	5310	MIMO	* 10.62003 * 15.92934 * 15.92898 * 15.92968 * 15.92956 7.93470 7.93277 * 10.60889	35.46 23.86 37.40 24.91 39.09 39.10 41.33	ADR PK-U ADR PK-U PK-U PK-U	40.40 40.40 35.90 35.90 37.50	-37.40 -37.40 -38.60 -38.60 -37.00	17.60 17.60 12.90 12.90 14.80	0.00 0.58 0.00 0.00 0.00	58.00 46.09 49.29 49.30 56.63	- 54.00	-7.91 - - -	-	-	- - 68.20 68.20 -	- -18.91 -18.90 -	271 271 0 0 20	104 104 100 100 103	\ 
HT40			* 10.62003 * 15.92934 * 15.92998 * 15.92998 * 15.92956 7.93470 7.93277 * 10.60889 * 10.60238	35.46 23.86 37.40 24.91 39.09 39.10 41.33 27.87	ADR PK-U ADR PK-U PK-U PK-U ADR	40.40 40.40 35.90 35.90 37.50 37.50	-37.40 -37.40 -38.60 -38.60 -37.00 -37.00	17.60 17.60 12.90 12.90 14.80 14.90	0.00 0.58 0.00 0.00 0.00 1.15	58.00 46.09 49.29 49.30 56.63 44.42	- 54.00	-7.91	- - 74.00 -	- - -17.37			271 271 0 20 20 20	104 104 100 100 103 103	V V F V F
HT40 02.11ac	5310	MIMO	* 10.62003 * 15.92934 * 15.92998 * 15.92968 * 15.92968 7.93470 7.93277 * 10.60889 * 10.60238 * 10.60238	35.46 23.86 37.40 24.91 39.09 39.10 41.33 27.87 41.72 28.50	ADR PK-U PK-U PK-U PK-U ADR PK-U ADR	40.40 40.40 35.90 37.50 37.50 37.50 37.50 37.50 37.50	-37.40 -37.40 -38.60 -38.60 -37.00 -37.00 -37.00 -37.00 -37.00	17.60 17.60 12.90 12.90 14.80 14.90 14.90 14.90	0.00 0.58 0.00 0.00 1.15 0.00 1.15	58.00 46.09 49.29 49.30 56.63 44.42 57.12 45.05	- 54.00	-7.91 - - -	- - 74.00 - 74.00	-17.37 -16.88	68.20 -		271 271 0 20 20 93 93	104 104 100 100 103 103 254 254	V F F V
			* 10.62003 * 15.92934 * 15.92998 * 15.92968 * 15.92968 * 15.92966 7.93470 7.93470 7.93277 * 10.60889 * 10.60238 * 10.60016	35.46 23.86 37.40 24.91 39.09 39.10 41.33 27.87 41.72	ADR PK-U ADR PK-U PK-U PK-U ADR PK-U	40.40 40.40 35.90 35.90 37.50 37.50 37.50 37.50	-37.40 -37.40 -37.40 -38.60 -38.60 -38.60 -37.00 -37.00 -37.00 -37.00	17.60 17.60 12.90 12.90 14.80 14.90 14.90	0.00 0.58 0.00 0.00 0.00 1.15 0.00	58.00 46.09 49.29 49.30 56.63 44.42 57.12	- 54.00 - - 54.00	-7.91 -7.91 - - - -9.58	- - 74.00 -	- - -17.37	68.20 -		271 271 0 20 20 93	104 104 100 100 103 103 254	V F F F

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42, Obongsandan 1-ro, Uiwang-si, Gyeonggi-do, Republic of Korea UL KOREA LTD. Confidential

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### REPORT NO: U-4791479848-FR4V3 FCC ID: A3LWCF934M IC: 649E-WCF934M

Mode	Freq.	Antenna	Frequency	Reading	Detector		FB Gain	Loss	DC Corr	Result					Non-Restricted	Margin	Azimuth	Height	Polarity
1040305	[MHz]		[GHz]	[dBuV]	Mode	[dB/m]	[dB]	[dB]	[dB]		[dBuV/m]	[dB]	[dBuV/m]	[dB]	[dBuV/m]	[dB]	[Degs]	[cm]	1.000
			7.88558	38.27	PK-U	35.90	-38.60	12.80	0.00	48.37	-				68.20	-19.83	64	100	н
			7.88648	38.27	PK-U	35.90	-38.60	12.80	0.00	48.37					68.20	-19.83	146	100	V
			10.52281	45.19	PK-U	37.40	-36.80	14.30	0.00	60.09					68.20	-8.11	332	205	H
	5260	ANT1	10.51548	50.50	PK-U	37.40	-36.80	14.30	0.00	65.40	-		-	-	68.20	-2.80	88	104	V
			* 15.77142	35.17	PK-U	40.10	-37.30	17.60	0.00	55.57	-		74.00	-18.43	-	-	215	103	Н
			* 15.78839	23.70	ADR	40.20	-37.30	17.70	1.35	45.65	54.00	-8.35			-		215	103	н
			* 15.77775	36.70	PK-U	40.20	-37.30	17.70	0.00	57.30			74.00	-16.70	-	-	267	106	V
			* 15.78668	23.94	ADR	40.20	-37.30	17.70	1.35	45.89	54.00	-8.11	-	-	-	-	267	106	V
			7.94694	38.04	PK-U	35.90	-38.60	13.00	0.00	48.34		-	-	-	68.20	-19.86	134	100	н
			7.94290	38.53	PK-U	35.90	-38.60	13.00	0.00	48.83	-		-		68.20	-19.37	315	100	V
			* 10.60739	44.53	PK-U	37.50	-37.00	14.80	0.00	59.83		-	74.00	-14.17	-	-	33	106	н
			* 10.60018	30.90	ADR	37.50	-37.00	14.90	1.35	47.65	54.00	-6.35	-	-	-	-	33	106	н
	5300	ANT1	* 10.6002	48.21	PK-U	37.50	-37.00	14.90	0.00	63.61	-		74.00	-10.39	-	-	93	104	V
802.11ax	0000		* 10.60011	34.36	ADR	37.50	-37.00	14.90	1.35	51.11	54.00	-2.89	-		-		93	104	V
HE20			* 15.89926	34.99	PK-U	40.30	-37.40	17.60	0.00	55.49	-		74.00	-18.51	-	-	215	199	Н
			* 15.89203	23.50	ADR	40.30	-37.40	17.60	1.35	45.35	54.00	-8.65	-		-	-	215	199	Н
			* 15.88808	35.13	PK-U	40.30	-37.40	17.60	0.00	55.63	-	-	74.00	-18.37	-	-	253	103	V
			* 15.88622	23.55	ADR	40.30	-37.40	17.60	1.35	45.40	54.00	-8.60	-	-	-	-	253	103	V
			7.98272	38.59	PK-U	35.90	-39.00	12.70	0.00	48.19	- 1	-	-	-	68.20	-20.01	203	100	н
			7.98529	38.41	PK-U	35.90	-39.00	12.60	0.00	47.91	- 1	-	-	-	68.20	-20.29	14	100	V
			* 10.64013	44.92	PK-U	37.50	-36.90	14.50	0.00	60.02	-	-	74.00	-13.98	-	-	132	100	Н
			* 10.64053	31.64	ADR	37.50	-36.90	14.50	1.35	48.09	54.00	-5.91	-	-	-	-	132	100	Н
	5000	A1174	* 10.63749	49.21	PK-U	37.50	-36.90	14.60	0.00	64.41	-	-	74.00	-9.59	-	-	96	102	V
	5320	ANT1	* 10.64017	34.92	ADR	37,50	-36.90	14.50	1.35	51.37	54.00	-2.63	-		-	-	96	102	V
			* 15.97421	35.23	PK-U	40,40	-37.40	17.50	0.00	55.73	-	-	74.00	-18.27	-	-	204	248	н
			* 15.96483	23.23	ADR	40.40	-37.40	17.50	1.35	45.08	54.00	-8.92	-	-	-	-	204	248	H
			* 15.95956	37.04	PK-U	40.40	-37.40	17.50	0.00	57.54	-	-	74.00	-16.46	-	-	271	105	V
			* 15.96187	23.40	ADR	40.40	-37.40	17.50	1.35	45.25	54.00	-8.75			-	-	271	105	v
			7.90849	38.29	PK-U	35.90	-38.50	12.90	0.00	48.59	-	-	-	-	68.20	-19.61	147	100	Ĥ
			7.90335	38.27	PK-U	35.90	-38.50	12.90	0.00	48.57					68.20	-19.63	212	100	v
			10.53780	46.83	PK-U	37.50	-36.80	14.50	0.00	62.03					68.20	-6.17	329	214	Ĥ
			10.54050	50.70	PK-U	37.50	-36.80	14.50	0.00	65.90					68.20	-2.30	96	103	v
	5270	MIMO	* 15.82668	35.34	PK-U	40.30	-37.30	17.70	0.00	56.04			74.00	-17.96			203	103	Ĥ
			* 15.81685	23.78	ADR	40.30	-37.30	17.70	1.45	45.83	54.00	-8.17	14.00	-17.80	-	-	203	102	H
			* 15.81152	36.31	PK-U	40.20	-37.30	17.80		57.01	54.00	-0.17	74.00	- 10.00	-	-		102	V V
			* 15.81182	24.06	ADR	40.20	-37.30	17.80	0.00	46.21	-	-7.79	74.00	-16.99	-	-	259 259	100	v
802.11ax				38.68						46.21	54.00	-1.19	-	-	-	-19.22			
			7.95136		PK-U	35.90	-38.60	13.00	0.00		-				68.20		151	100	H
HE40			7.97793	39.40	PK-U	35.90	-38.90	12.70	0.00	49.10			-		68.20	-19.10	265	100	V
			* 10.61754	47.07	PK-U	37.50	-36.90	14.70	0.00	62.37			74.00	-11.63		-	32	102	H
			* 10.62503	32.74	ADR	37.50	-36.90	14.70	1.45	49.49	54.00	-4.51			-		32	102	H
	5310	MIMO	* 10.62051	49.22	PK-U	37.50	-36.90	14.70	0.00	64.52			74.00	-9.48	-	-	99	103	V
			* 10.62015	34.46	ADR	37.50	-36.90	14.70	1.45	51.21	54.00	-2.79	-	-	-	-	99	103	V
			* 15.90596	35.39	PK-U	40.30	-37.40	17.60	0.00	55.89	-	-	74.00	-18.11	-	-	323	101	н
			* 15.92167	23.52	ADR	40.30	-37.40	17.60	1.45	45.47	54.00	-8.53	-		-	-	323	101	Н
			* 15.92586	36.11	PK-U	40.40	-37.40	17.60	0.00	56.71	-		74.00	-17.29	-	-	262	114	V
			* 15.91208	23.53	ADR	40.30	-37.40	17.60	1.45	45.48	54.00	-8.52	-	-	-		262	114	V
			7.92039	40.74	PK-U	35.90	-38.60	12.90	0.00	50.94	- 1	-	-	-	68.20	-17.26	55	100	H
			7.90265	39.36	PK-U	35.90	-38.50	12.90	0.00	49.66	-		-	-	68.20	-18.54	247	100	V
			* 10.60077	42.63	PK-U	37.50	-37.00	14.90	0.00	58.03	-	-	74.00	-15.97	-	-	61	109	H
			* 10.60507	29.17	ADR	37.50	-37.00	14.80	1.65	46.12	54.00	-7.88	-	-	-	-	61	109	H
802.11ax	5290	MIMO	* 10.60082	45.86	PK-U	37.50	-37.00	14.90	0.00	61.26	-	-	74.00	-12.74	-	-	180	101	V
HE80	5290	MIMO	* 10.60033	32.07	ADR	37.50	-37.00	14.90	1.65	49.12	54.00	-4.88	-	-	-	-	180	101	V
			* 15.84735	35.59	PK-U	40.30	-37.30	17.60	0.00	56.19	-	-	74.00	-17.81	-	-	52	109	H
			* 15.87692	24.48	ADR	40.30	-37.40	17.60	1.65	46.63	54.00	-7.37	-	-	-	-	52	109	н
			* 15.88162	36.58	PK-U	40.30	-37.40	17.60	0.00	57.08	-	-	74.00	-16.92	-	-	46	103	V
			* 15.83087	24.27	ADR	40.30	-37.30	17.70	1.65	46.62	54.00	-7.38	-	-	-	-	46	103	V
			* 8,41671	40.44	PK-U	35.80	-39.80	12.80	0.00	49.24			74.00	-24.76	-	-	55	248	H
802.11ax			* 8,41589	29.95	ADR	35.80	-39.80	12.80	0.98	39.73	54.00	-14.27	-		-	-	55	248	H
HE20			* 8.41598	41.36	PK-U	35.80	-39.80	12.80	0.00	50.16			74.00	-23.84	-		186	105	v
RU mode			* 8.41593	32.05	ADR	35.80	-39.80	12.80	0.98	41.83	54.00	-12.17	14.00	-20.04	-		186	105	v
26 Tone	5260	MIMO	10.50329	44.60	PK-U	37.50	-38.80	14.30	0.00	57.60		-12.11			68.20	-10.60	12	112	Ĥ
offset 0			10.50329	44.00	PK-U	37.50	-38.80	14.30	0.00	62.06	-				68.20	-6.14	195	103	V
											-		74.00	-	00.20	-0.14			
pot-check			* 15.77743	36.49	PK-U	40.30	-39.20	17.40	0.00	54.99	-		74.00	-19.01	-	-	216	100	H
			* 15.79437	35.60	PK-U	40.30	-39.00	17.40	0.00	54.30	-	-	74.00	-19.70	-	-	68	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

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