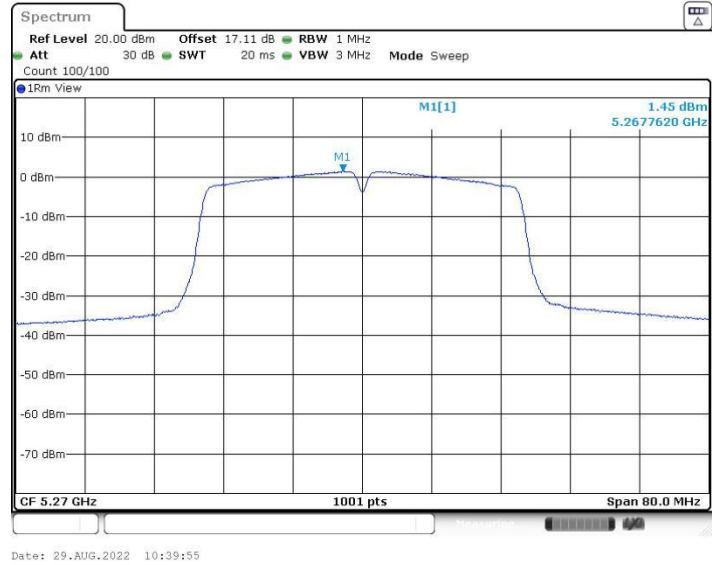
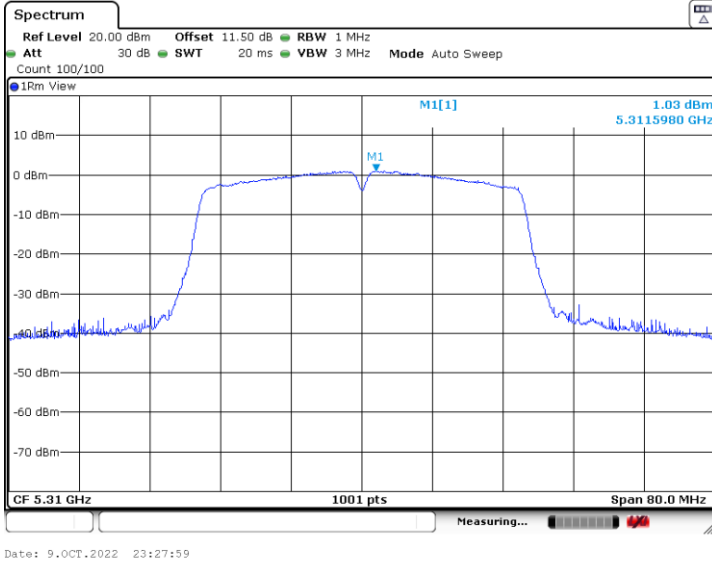




11AC40SISO_Ant1_5270



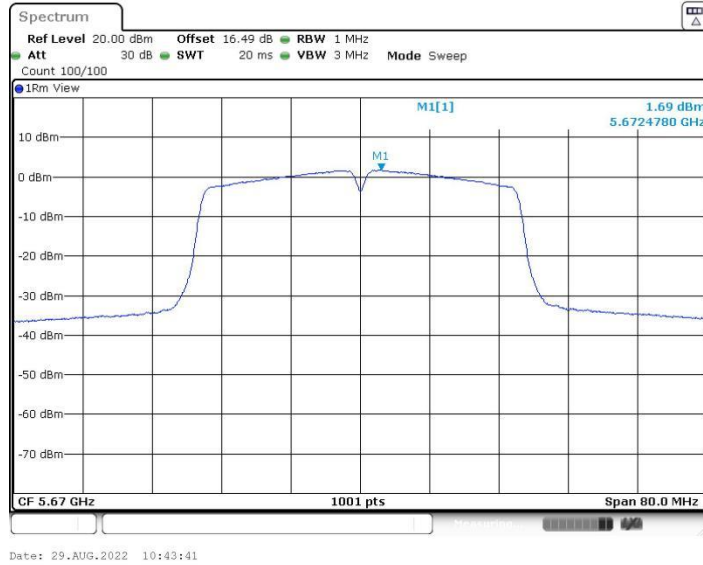
11AC40SISO_Ant1_5310







11AC40SISO_Ant1_5670

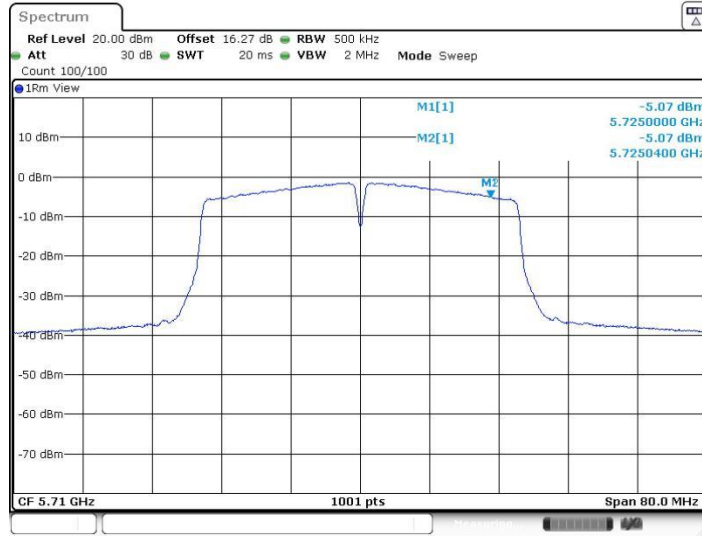


11AC40SISO_Ant1_5710_UNII-2C





11AC40SISO_Ant1_5710_UNII-3



Date: 29.AUG.2022 10:44:52

11AC40SISO_Ant1_5755



Date: 29.AUG.2022 10:46:05

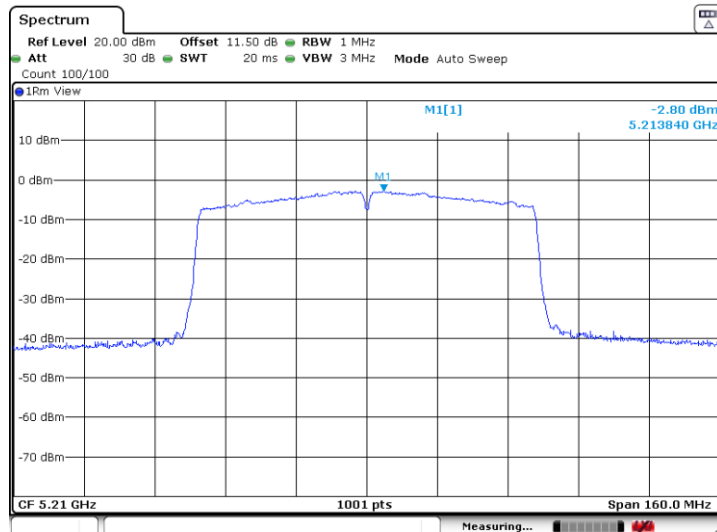


11AC40SISO_Ant1_5795



Date: 29.AUG.2022 10:47:15

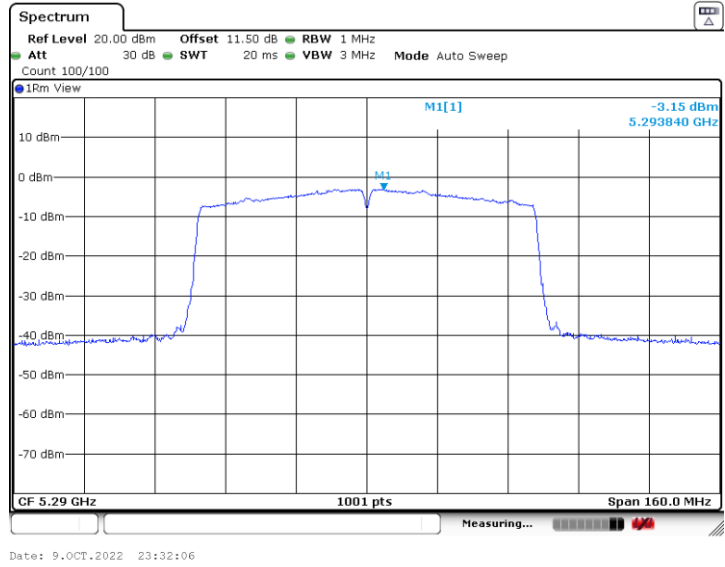
11AC80SISO_Ant1_5210



Date: 9.OCT.2022 23:30:41



11AC80SISO_Ant1_5290



11AC80SISO_Ant1_5530



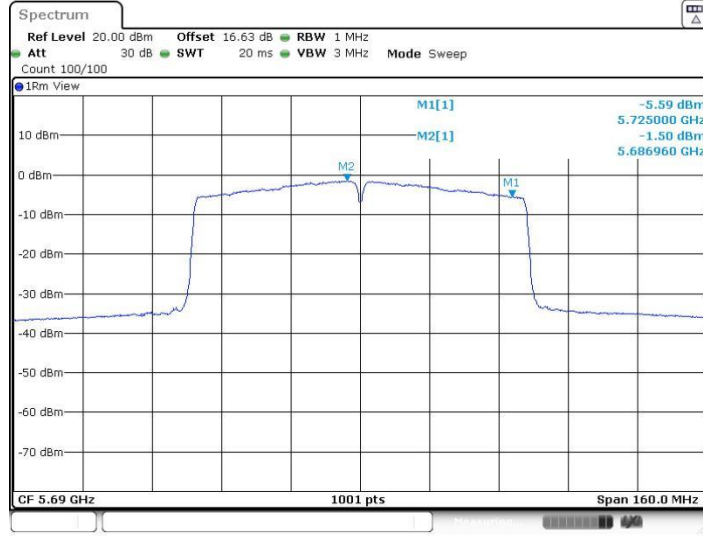


11AC80SISO_Ant1_5610



Date: 29.AUG.2022 10:51:11

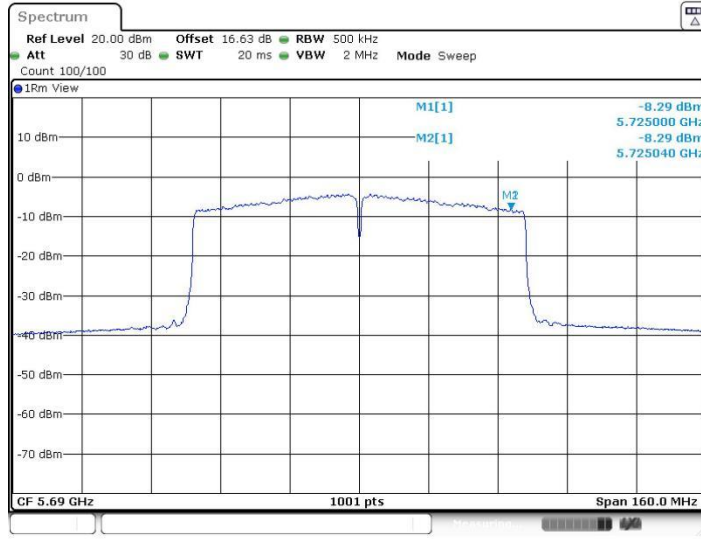
11AC80SISO_Ant1_5690_UNII-2C



Date: 29.AUG.2022 10:53:56

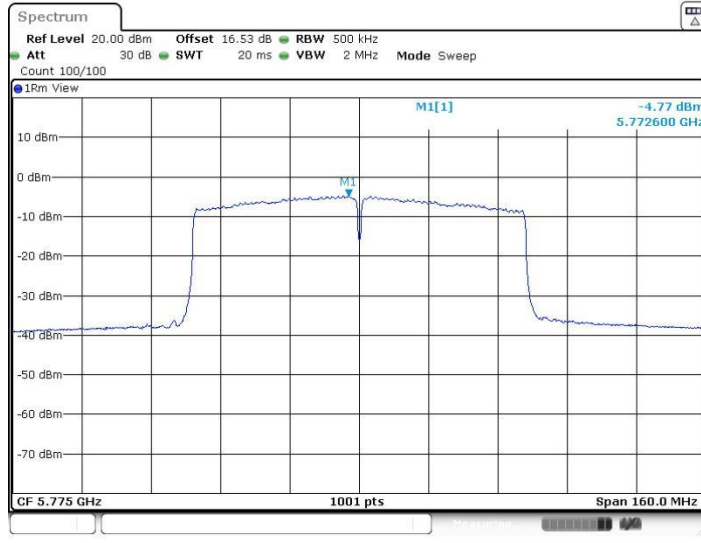


11AC80SISO_Ant1_5690_UNII-3



Date: 29.AUG.2022 10:54:06

11AC80SISO_Ant1_5775

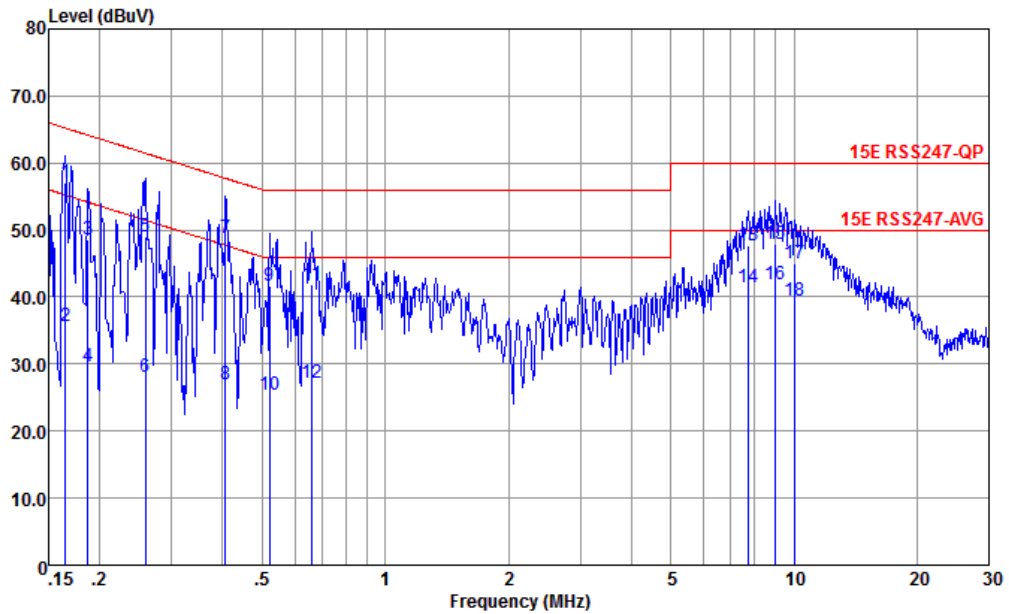


Date: 29.AUG.2022 10:53:23



Appendix B. AC Conducted Emission Test Results

Test Engineer :	Amos Zhang	Temperature :	25.3~26.2°C
		Relative Humidity :	38~40%
Test Voltage :	120Vac / 60Hz	Phase :	Line
Remark :	All emissions not reported here are more than 10 dB below the prescribed limit.		

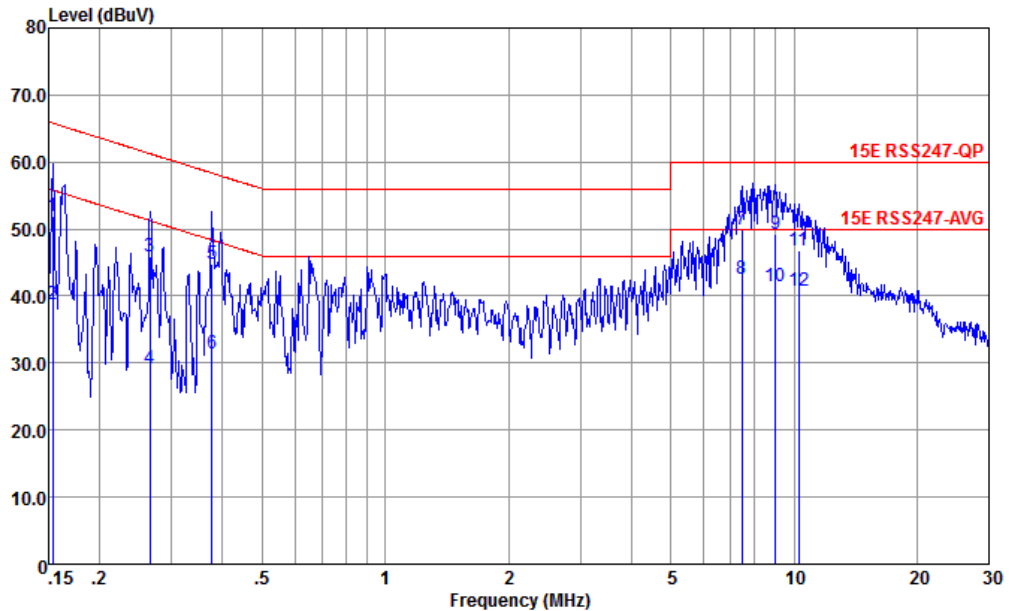


Site : CO01-KS
Condition : 15E RSS247-QP LISN-060105-LINE LINE

	Freq	Level	Over	Limit	Read	LISN	Cable	Remark
	MHz	dBuV	Limit	Line	Level	Factor	Loss	
			dB	dBuV	dBuV	dB	dB	
1 *	0.165	57.08	-8.13	65.21	46.60	0.05	10.43	QP
2	0.165	35.68	-29.53	65.21	25.20	0.05	10.43	Average
3	0.187	48.65	-15.50	64.15	38.20	0.03	10.42	QP
4	0.187	29.65	-34.50	64.15	19.20	0.03	10.42	Average
5	0.259	48.92	-12.55	61.47	38.49	0.05	10.38	QP
6	0.259	28.02	-33.45	61.47	17.59	0.05	10.38	Average
7	0.406	48.80	-8.93	57.73	38.50	0.01	10.29	QP
8	0.406	26.90	-30.83	57.73	16.60	0.01	10.29	Average
9	0.521	41.67	-14.33	56.00	31.51	-0.04	10.20	QP
10	0.521	25.42	-30.58	56.00	15.26	-0.04	10.20	Average
11	0.661	41.89	-14.11	56.00	31.80	-0.08	10.17	QP
12	0.661	27.29	-28.71	56.00	17.20	-0.08	10.17	Average
13	7.728	47.71	-12.29	60.00	37.50	-0.15	10.36	QP
14	7.728	41.41	-18.59	60.00	31.20	-0.15	10.36	Average
15	8.964	47.86	-12.14	60.00	37.50	-0.16	10.52	QP
16	8.964	41.96	-18.04	60.00	31.60	-0.16	10.52	Average
17	10.072	44.99	-15.01	60.00	34.50	-0.17	10.66	QP
18	10.072	39.39	-20.61	60.00	28.90	-0.17	10.66	Average



Test Engineer :	Amos Zhang	Temperature :	25.3~26.2°C
		Relative Humidity :	38~40%
Test Voltage :	120Vac / 60Hz	Phase :	Neutral
Remark :	All emissions not reported here are more than 10 dB below the prescribed limit.		



Site : CO01-KS
 Condition : 15E RSS247-QP LISN-060105-NEUTRAL NEUTRAL

	Freq	Level	Over	Limit	Read	LISN	Cable	Remark
	MHz	dBuV	Limit	Line	Level	Factor	Loss	
			dB	dBuV	dBuV	dB	dB	
1	0.153	51.96	-13.86	65.82	41.50	0.03	10.43	QP
2	0.153	38.76	-27.06	65.82	28.30	0.03	10.43	Average
3	0.266	45.95	-15.30	61.25	35.60	-0.02	10.37	QP
4	0.266	29.15	-32.10	61.25	18.80	-0.02	10.37	Average
5	0.377	44.85	-13.49	58.34	34.60	-0.06	10.31	QP
6	0.377	31.45	-26.89	58.34	21.20	-0.06	10.31	Average
7 *	7.446	49.99	-10.01	60.00	39.80	-0.13	10.32	QP
8	7.446	42.59	-17.41	60.00	32.40	-0.13	10.32	Average
9	9.011	49.16	-10.84	60.00	38.80	-0.17	10.53	QP
10	9.011	41.56	-18.44	60.00	31.20	-0.17	10.53	Average
11	10.288	46.71	-13.29	60.00	36.20	-0.19	10.70	QP
12	10.288	40.71	-19.29	60.00	30.20	-0.19	10.70	Average

Note:

- Level(dBμV) = Read Level(dBμV) + LISN Factor(dB) + Cable Loss(dB)
- Over Limit(dB) = Level(dBμV) – Limit Line(dBμV)



Appendix C. Radiated Spurious Emission

Note: All modes had been tested and only the worst channel test data of each bandwidth shown in the report

UNII-1 - 5150~5250MHz

WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11ac VHT80 CH 42 5210MHz		5148.96	63.88	-10.12	74	56.11	34.22	10.6	37.05	234	291	P	H
		5149.44	50.89	-3.11	54	43.12	34.22	10.6	37.05	234	291	A	H
	*	5206	96.5	-	-	88.5	34.3	10.66	36.96	234	291	P	H
		5206	89.26	-	-	81.26	34.3	10.66	36.96	234	291	A	H
		5351.04	47.76	-26.24	74	39.16	34.52	10.75	36.67	234	291	P	H
		5351.22	39.27	-14.73	54	30.67	34.52	10.75	36.67	234	291	A	H
		5146.88	60.98	-13.02	74	53.21	34.22	10.6	37.05	100	325	P	V
		5145.12	49.1	-4.9	54	41.33	34.22	10.6	37.05	100	325	A	V
	*	5212	95.33	-	-	87.25	34.33	10.67	36.92	100	325	P	V
		5212	88.73	-	-	80.65	34.33	10.67	36.92	100	325	A	V
		5353.38	48.84	-25.16	74	40.24	34.52	10.75	36.67	100	325	P	V
		5351.4	39.52	-14.48	54	30.92	34.52	10.75	36.67	100	325	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



UNII-1 5150~5250MHz
WIFI 802.11ac VHT80 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 42 5210MHz		10421	45.07	-23.23	68.3	59.18	37.5	15.51	67.12	300	0	P	H
		10421	43.91	-24.39	68.3	58.02	37.5	15.51	67.12	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

UNII-2A - 5250~5350MHz
WIFI 802.11a (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 64 5320MHz		5350.8	60.95	-13.05	74	52.35	34.52	10.75	36.67	307	318	P	H
		5350	48.43	-5.57	54	39.83	34.52	10.75	36.67	307	318	A	H
	*	5320	100.87	-	-	92.4	34.47	10.73	36.73	307	318	P	H
		5320	94.53	-	-	86.06	34.47	10.73	36.73	307	318	A	H
		5355.7	60.91	-13.09	74	52.31	34.52	10.75	36.67	155	349	P	V
		5350	50.82	-3.18	54	42.22	34.52	10.75	36.67	155	349	A	V
	*	5320	104.25	-	-	95.78	34.47	10.73	36.73	155	349	P	V
		5320	97.37	-	-	88.9	34.47	10.73	36.73	155	349	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



**UNII-2A 5250~5350MHz
WIFI 802.11a (Harmonic @ 3m)**

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 64 5320MHz		10641	46.74	-27.26	74	60.43	37.65	15.7	67.04	300	0	P	H
		15954	57.4	-16.6	74	61.79	40.47	19.32	64.18	100	51	P	H
		15954	47.1	-6.9	54	51.49	40.47	19.32	64.18	100	51	A	H
		-	-	-	-	-	-	-	-	-	-	-	H
		10641	44.03	-29.97	74	57.72	37.65	15.7	67.04	100	0	P	V
		15954	57.85	-16.15	74	62.24	40.47	19.32	64.18	100	45	P	V
		15954	47.68	-6.32	54	52.07	40.47	19.32	64.18	100	45	A	V
		-	-	-	-	-	-	-	-	-	-	-	-
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

UNII-2C - 5470~5725MHz

WIFI 802.11ac VHT20 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT20 CH 140 5700MHz	*	5698	100.92	-	-	92.23	34.59	11.13	37.03	120	33	P	H
		5698	93.81	-	-	85.12	34.59	11.13	37.03	120	33	A	H
		5725.08	61.76	-6.54	68.3	53.53	34.68	11.18	37.63	120	33	P	H
	*	5698	104.77	-	-	96.08	34.59	11.13	37.03	118	31	P	V
		5698	97.24	-	-	88.55	34.59	11.13	37.03	118	31	A	V
		5725.16	63.6	-4.7	68.3	55.37	34.68	11.18	37.63	118	31	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



UNII-2C - 5470~5725MHz
WIFI 802.11ac VHT20 (Harmonic @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11ac		11400	45.11	-28.89	74	57.36	38.23	16.29	66.77	300	0	P	H
VHT20													
CH 140		11400	45.05	-28.95	74	57.3	38.23	16.29	66.77	100	0	P	V
5700MHz													
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

UNII-2C - 5470~5725MHz
WIFI 802.11ac VHT40 (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.	
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.		
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)	
802.11ac		5458.8	58.12	-15.88	74	49.16	34.58	10.85	36.47	100	21	P	H	
		5468.88	63.9	-4.4	68.3	54.92	34.57	10.85	36.44	100	21	P	H	
		5459.92	46.86	-7.14	54	37.9	34.58	10.85	36.47	100	21	A	H	
	*	5518	98.22	-	-	89.11	34.55	10.91	36.35	100	21	P	H	
		5518	91.34	-	-	82.23	34.55	10.91	36.35	100	21	A	H	
	VHT40		5741.8	47.16	-21.14	68.3	39.15	34.73	11.21	37.93	100	21	P	H
	CH 102		5459.44	58.77	-15.23	74	49.81	34.58	10.85	36.47	100	346	P	V
			5467.12	63.48	-4.82	68.3	54.5	34.57	10.85	36.44	100	346	P	V
			5460	49.25	-4.75	54	40.29	34.58	10.85	36.47	100	346	A	V
		*	5512	100.84	-	-	91.77	34.56	10.89	36.38	100	346	P	V
			5512	94.73	-	-	85.66	34.56	10.89	36.38	100	346	A	V
			5745.32	47.07	-21.23	68.3	39.06	34.73	11.21	37.93	100	346	P	V
5510MHz														
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.													



UNII-2C - 5470~5725MHz
WIFI 802.11ac VHT40 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac		11015	44.46	-29.54	74	57.41	37.91	16.05	66.91	300	0	P	H
VHT40		16526	51.65	-16.65	68.3	55.4	40.92	19.69	64.36	300	0	P	H
CH 102		11020	43.28	-30.72	74	56.23	37.91	16.05	66.91	100	0	P	V
5510MHz		16515	50.23	-18.07	68.3	53.98	40.92	19.69	64.36	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Sample 3 ---WORSE From UNII-1- WIFI 802.11ac VHT80 CH42 5210MHz WIFI 802.11ac VHT80
UNII-1 5150~5250MHz
WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 42 5210MHz		5149.28	59.15	-14.85	74	51.38	34.22	10.6	37.05	100	121	P	H
		5137.44	47.92	-6.08	54	40.2	34.2	10.6	37.08	100	121	A	H
	*	5206	94.91	-	-	86.91	34.3	10.66	36.96	100	121	P	H
		5206	87.23	-	-	79.23	34.3	10.66	36.96	100	121	A	H
		5352.3	51.41	-22.59	74	42.81	34.52	10.75	36.67	100	121	P	H
		5354.46	39.97	-14.03	54	31.37	34.52	10.75	36.67	100	121	A	H
		5146.88	51.25	-22.75	74	43.48	34.22	10.6	37.05	368	103	P	V
		5145.92	41.32	-12.68	54	33.55	34.22	10.6	37.05	368	103	A	V
	*	5218	91.73	-	-	83.65	34.33	10.67	36.92	368	103	P	V
		5218	85.57	-	-	77.49	34.33	10.67	36.92	368	103	A	V
	5389.2	49.44	-24.56	74	40.7	34.57	10.77	36.6	368	103	P	V	
	5350	39.51	-14.49	54	30.91	34.52	10.75	36.67	368	103	A	V	
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



**UNII-1 5150~5250MHz
WIFI 802.11ac VHT80 (Harmonic @ 3m)**

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11ac VHT80 CH 42 5210MHz		10421	44.06	-24.24	68.3	58.17	37.5	15.51	67.12	300	0	P	H
		10421	44.03	-24.27	68.3	58.14	37.5	15.51	67.12	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

**Emission below 1GHz
5GHz WIFI 802.11ac VHT80 (LF)**

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
5GHz 802.11ac VHT80 LF		44.55	21.4	-18.6	40	36.89	16.47	1.02	32.98	-	-	P	H
		102.75	25.54	-17.96	43.5	39.86	17.02	1.53	32.87	-	-	P	H
		196.84	32.38	-11.12	43.5	47.62	15.47	2.13	32.84	-	-	P	H
		308.39	28.14	-17.86	46	38.79	19.51	2.68	32.84	-	-	P	H
		624.61	30.03	-15.97	46	34.15	25.08	3.81	33.01	-	-	P	H
		827.34	31.09	-14.91	46	32.8	26.44	4.39	32.54	-	-	P	H
		41.64	33.47	-6.53	40	47.35	18.11	0.97	32.96	-	-	P	V
		107.6	23.01	-20.49	43.5	37.34	16.96	1.57	32.86	-	-	P	V
		171.62	26.61	-16.89	43.5	41.47	15.98	1.99	32.83	-	-	P	V
		194.9	26.17	-17.33	43.5	41.38	15.51	2.12	32.84	-	-	P	V
		299.66	23.22	-22.78	46	34.08	19.32	2.64	32.82	-	-	P	V
	796.3	30.98	-15.02	46	33.18	26.23	4.31	32.74	-	-	P	V	
Remark	1. No other spurious found. 2. All results are PASS against limit line.												



UNII-3 - 5725~5850MHz

WIFI 802.11a (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 149 5745MHz		5648.4	48.13	-20.17	68.3	39.05	34.51	11.08	36.51	169	347	P	H
		5692.4	49.59	-50.11	99.7	40.43	34.59	11.13	36.56	169	347	P	H
		5720	59.59	-51.31	110.9	50.35	34.68	11.16	36.6	169	347	P	H
		5724	63.17	-56.85	120.02	53.91	34.68	11.18	36.6	169	347	P	H
		5746	99.73	-	-	90.41	34.73	11.21	36.62	169	347	P	H
		5746	93.46	-	-	84.14	34.73	11.21	36.62	169	347	A	H
		5646.8	48.55	-19.75	68.3	39.47	34.51	11.08	36.51	100	18	P	V
		5699.6	58.6	-46.41	105.01	49.44	34.59	11.13	36.56	100	18	P	V
		5710.8	65.28	-43.05	108.33	56.06	34.64	11.16	36.58	100	18	P	V
		5724.8	70.56	-51.28	121.84	61.3	34.68	11.18	36.6	100	18	P	V
		5746	105.51	-	-	96.19	34.73	11.21	36.62	100	18	P	V
	5746	99.01	-	-	89.69	34.73	11.21	36.62	100	18	A	V	
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



UNII-3 5725~5850MHz
WIFI 802.11a (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 149 5745MHz		11490	48.34	-25.66	74	60.18	38.29	16.35	66.48	300	0	P	H
		17241	54.25	-14.05	68.3	57.66	41.3	20.16	64.87	300	0	P	H
		11488	46.23	-27.77	74	58.07	38.29	16.35	66.48	100	0	P	V
		17230	52.39	-15.91	68.3	55.81	41.3	20.15	64.87	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

UNII-3 5725~5850MHz
WIFI 802.11ac VHT20 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT20 CH 149 5745MHz		5642.8	47.49	-20.81	68.3	38.44	34.51	11.05	36.51	168	347	P	H
		5699.6	50.62	-54.39	105.01	41.46	34.59	11.13	36.56	168	347	P	H
		5717.6	59.48	-50.75	110.23	50.24	34.68	11.16	36.6	168	347	P	H
		5724.4	65.58	-55.35	120.93	56.32	34.68	11.18	36.6	168	347	P	H
		5746	99.31	-22.99	122.3	89.99	34.73	11.21	36.62	168	347	P	H
		5746	93.14	-	-	83.82	34.73	11.21	36.62	168	347	A	H
		5620	49.3	-19	68.3	40.25	34.51	11.03	36.49	105	354	P	V
		5692.4	52.31	-47.39	99.7	43.15	34.59	11.13	36.56	105	354	P	V
		5720	66.46	-44.44	110.9	57.22	34.68	11.16	36.6	105	354	P	V
		5724.4	69.09	-51.84	120.93	59.83	34.68	11.18	36.6	105	354	P	V
		5740	104.62	-17.68	122.3	95.33	34.73	11.18	36.62	105	354	P	V
		5740	98.31	-	-	89.02	34.73	11.18	36.62	105	354	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



UNII-3 5725~5850MHz
WIFI 802.11ac VHT20 (Harmonic @ 3m)

Table with 14 columns: WIFI Ant. 1, Note, Frequency (MHz), Level (dBµV/m), Over Limit (dB), Limit Line (dBµV/m), Read Level (dBµV), Antenna Factor (dB/m), Path Loss (dB), Preamp Factor (dB), Ant Pos (cm), Table Pos (deg), Peak Avg. (P/A), Pol. (H/V). Rows include 802.11ac VHT20 CH 149 5745MHz and a Remark section.



**UNII-3 5725~5850MHz
WIFI 802.11ac VHT40 (Band Edge @ 3m)**

WIFI Ant.	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT40 CH 159 5795MHz		5622.8	49.12	-19.18	68.3	40.07	34.51	11.03	36.49	246	324	P	H
		5674.8	48.43	-38.26	86.69	39.32	34.55	11.11	36.55	246	324	P	H
		5718.4	50.19	-60.26	110.45	40.95	34.68	11.16	36.6	246	324	P	H
		5722.4	48.58	-67.79	116.37	39.32	34.68	11.18	36.6	246	324	P	H
		5794	96.94	-	-	87.49	34.86	11.26	36.67	246	324	P	H
		5794	90.34	-	-	80.89	34.86	11.26	36.67	246	324	A	H
		5850.4	54.84	-66.55	121.39	45.23	35	11.33	36.72	246	324	P	H
		5856.4	53.99	-56.52	110.51	44.36	35.03	11.34	36.74	246	324	P	H
		5880	52.72	-48.87	101.59	43.06	35.06	11.36	36.76	246	324	P	H
		5940.8	48.52	-19.78	68.3	38.76	35.17	11.42	36.83	246	324	P	H
		5648.8	48.27	-20.03	68.3	39.19	34.51	11.08	36.51	101	291	P	V
		5656.8	49.55	-23.8	73.35	40.5	34.5	11.08	36.53	101	291	P	V
		5719.6	53.27	-57.52	110.79	44.03	34.68	11.16	36.6	101	291	P	V
		5724	48.49	-71.53	120.02	39.23	34.68	11.18	36.6	101	291	P	V
		5788	101.7	-	-	92.25	34.86	11.26	36.67	101	291	P	V
		5788	94.93	-	-	85.48	34.86	11.26	36.67	101	291	A	V
		5852	60.51	-57.23	117.74	50.9	35	11.33	36.72	101	291	P	V
		5857.6	58.55	-51.62	110.17	48.92	35.03	11.34	36.74	101	291	P	V
	5880	53.63	-47.96	101.59	43.97	35.06	11.36	36.76	101	291	P	V	
	5937.6	50	-18.3	68.3	40.25	35.14	11.42	36.81	101	291	P	V	
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



UNII-3 5725~5850MHz
WIFI 802.11ac VHT40 (Harmonic @ 3m)

Table with 14 columns: WIFI Ant., Note, Frequency (MHz), Level (dBµV/m), Over Limit (dB), Limit Line (dBµV/m), Read Level (dBµV), Antenna Factor (dB/m), Path Loss (dB), Preamp Factor (dB), Ant Pos (cm), Table Pos (deg), Peak Avg. (P/A), Pol. (H/V). Rows include test data for 802.11ac VHT40 CH 159 5795MHz and a Remark section.



**UNII-3 5725~5850MHz
WIFI 802.11ac VHT80 (Band Edge @ 3m)**

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 155 5775MHz		5629.2	49.32	-18.98	68.3	40.25	34.51	11.05	36.49	235	323	P	H
		5689.6	60.7	-36.93	97.63	51.54	34.59	11.13	36.56	235	323	P	H
		5719.6	64	-46.79	110.79	54.76	34.68	11.16	36.6	235	323	P	H
		5722	63.82	-51.64	115.46	54.56	34.68	11.18	36.6	235	323	P	H
		5770	93.68	-	-	84.27	34.82	11.24	36.65	235	323	P	H
		5770	86.83	-	-	77.42	34.82	11.24	36.65	235	323	A	H
		5852	57.75	-59.99	117.74	48.14	35	11.33	36.72	235	323	P	H
		5869.2	58.72	-48.2	106.92	49.09	35.03	11.34	36.74	235	323	P	H
		5875.2	53.68	-51.47	105.15	44.02	35.06	11.36	36.76	235	323	P	H
		5934.8	48.95	-19.35	68.3	39.2	35.14	11.42	36.81	235	323	P	H
		5642	52.29	-16.01	68.3	43.24	34.51	11.05	36.51	100	19	P	V
		5698.4	65.17	-38.95	104.12	56.01	34.59	11.13	36.56	100	19	P	V
		5719.6	68.33	-42.46	110.79	59.09	34.68	11.16	36.6	100	19	P	V
		5722.8	69.84	-47.44	117.28	60.58	34.68	11.18	36.6	100	19	P	V
		5776	98.97	-	-	89.56	34.82	11.24	36.65	100	19	P	V
		5776	91.49	-	-	82.08	34.82	11.24	36.65	100	19	A	V
		5850.4	62.87	-58.52	121.39	53.26	35	11.33	36.72	100	19	P	V
		5868	61.87	-45.39	107.26	52.24	35.03	11.34	36.74	100	19	P	V
	5881.2	59.08	-41.61	100.69	49.42	35.06	11.36	36.76	100	19	P	V	
	5932	51.24	-17.06	68.3	41.49	35.14	11.42	36.81	100	19	P	V	
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



UNII-3 5725~5850MHz
WIFI 802.11ac VHT80 (Harmonic @ 3m)

Table with 14 columns: WIFI Ant., Note, Frequency (MHz), Level (dBµV/m), Over Limit (dB), Limit Line (dBµV/m), Read Level (dBµV), Antenna Factor (dB/m), Path Loss (dB), Preamp Factor (dB), Ant Pos (cm), Table Pos (deg), Peak Avg. (P/A), Pol. (H/V). Rows include data for 802.11ac VHT80 and CH 155 5775MHz, and a Remark section with two points.



**Emission below 1GHz
5GHz WIFI 802.11ac VHT20 (LF)**

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
5GHz 802.11ac VHT20 LF		30	22.41	-17.59	40	30.15	24.57	0.71	33.02	-	-	P	H
		165.8	29.22	-14.28	43.5	43.99	16.1	1.96	32.83	-	-	P	H
		278.32	23.84	-22.16	46	35.16	18.93	2.55	32.8	-	-	P	H
		471.35	23.67	-22.33	46	30.36	22.99	3.32	33	-	-	P	H
		715.79	32.2	-13.8	46	35.68	25.42	4.09	32.99	-	-	P	H
		854.5	30.77	-15.23	46	32.04	26.6	4.46	32.33	-	-	P	H
		30.97	27.44	-12.56	40	35.65	24.07	0.71	32.99	-	-	P	V
		136.7	26.1	-17.4	43.5	40.56	16.59	1.78	32.83	-	-	P	V
		170.65	29.66	-13.84	43.5	44.5	16	1.99	32.83	-	-	P	V
		422.85	23.2	-22.8	46	30.93	22.07	3.14	32.94	-	-	P	V
	597.45	27.32	-18.68	46	31.72	24.95	3.73	33.08	-	-	P	V	
	766.23	29.28	-16.72	46	31.85	25.97	4.23	32.77	-	-	P	V	
Remark	3. No other spurious found. 4. All results are PASS against limit line.												



CO-location

WIFI 802.11ac VHT80 <E Band 13 BW=5M

UNII-1 - 5150~5250MHz

WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 42 5210MHz		5149.44	62.15	-11.85	74	54.38	34.22	10.6	37.05	210	284	P	H
		5148.16	50.87	-3.13	54	43.1	34.22	10.6	37.05	210	284	A	H
	*	5212	96.05	-	-	87.97	34.33	10.67	36.92	210	284	P	H
		5212	89.4	-	-	81.32	34.33	10.67	36.92	210	284	A	H
		5357.7	48.12	-25.88	74	39.52	34.52	10.75	36.67	210	284	P	H
		5350.86	39.38	-14.62	54	30.78	34.52	10.75	36.67	210	284	A	H
		5149.28	61.13	-12.87	74	53.36	34.22	10.6	37.05	248	350	P	V
		5149.76	49.47	-4.53	54	41.7	34.22	10.6	37.05	248	350	A	V
	*	5206	94.97	-	-	86.97	34.3	10.66	36.96	248	350	P	V
		5206	88.31	-	-	80.31	34.3	10.66	36.96	248	350	A	V
		5350.32	47.48	-26.52	74	38.88	34.52	10.75	36.67	248	350	P	V
		5350.5	40	-14	54	31.4	34.52	10.75	36.67	248	350	A	V
Remark	3. No other spurious found. 4. All results are PASS against Peak and Average limit line.												



UNII-1 5150~5250MHz
WIFI 802.11ac VHT80 (Harmonic @ 3m)

Table with 14 columns: WIFI Ant. 1, Note, Frequency (MHz), Level (dBµV/m), Over Limit (dB), Limit Line (dBµV/m), Read Level (dBµV), Antenna Factor (dB/m), Path Loss (dB), Preamp Factor (dB), Ant Pos (cm), Table Pos (deg), Peak Avg. (P/A), Pol. (H/V). Rows include test data for 802.11ac VHT80 CH 42 5210MHz and a Remark section.

Note symbol

Table with 2 columns: Symbol and Description. Symbols include *, !, P/A, and H/V with their corresponding meanings.



A calculation example for radiated spurious emission is shown as below:

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11b		2390	55.45	-18.55	74	54.51	32.22	4.58	35.86	103	308	P	H
CH 01													
2412MHz		2390	43.54	-10.46	54	42.6	32.22	4.58	35.86	103	308	A	H

1. Path Loss(dB) = Cable loss(dB) + Filter loss(dB) + Attenuator loss(dB)
2. Level(dBμV/m) = Antenna Factor(dB/m) + Path Loss(dB) + Read Level(dBμV) - Preamp Factor(dB)
3. Over Limit(dB) = Level(dBμV/m) – Limit Line(dBμV/m)

For Peak Limit @ 2390MHz:

1. Level(dBμV/m)
= Antenna Factor(dB/m) + Path Loss(dB) + Read Level(dBμV) - Preamp Factor(dB)
= 32.22(dB/m) + 4.58(dB) + 54.51(dBμV) – 35.86 (dB)
= 55.45 (dBμV/m)
2. Over Limit(dB)
= Level(dBμV/m) – Limit Line(dBμV/m)
= 55.45(dBμV/m) – 74(dBμV/m)
= -18.55(dB)

For Average Limit @ 2390MHz:

1. Level(dBμV/m)
= Antenna Factor(dB/m) + Path Loss(dB) + Read Level(dBμV) - Preamp Factor(dB)
= 32.22(dB/m) + 4.58(dB) + 42.6(dBμV) – 35.86 (dB)
= 43.54 (dBμV/m)
2. Over Limit(dB) = Level(dBμV/m) – Limit Line(dBμV/m)
= 43.54(dBμV/m) – 54(dBμV/m)
= -10.46(dB)

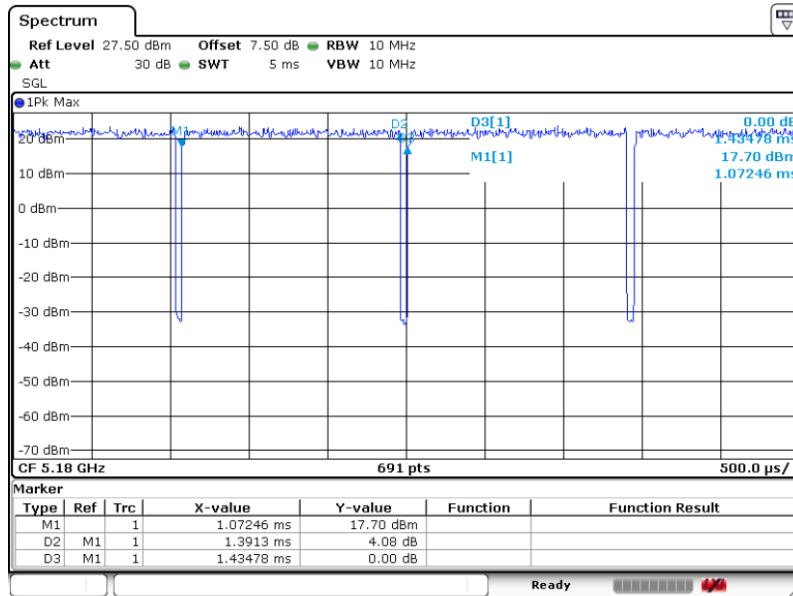
Both peak and average measured complies with the limit line, so test result is “PASS”.



Appendix D. Duty Cycle Plots

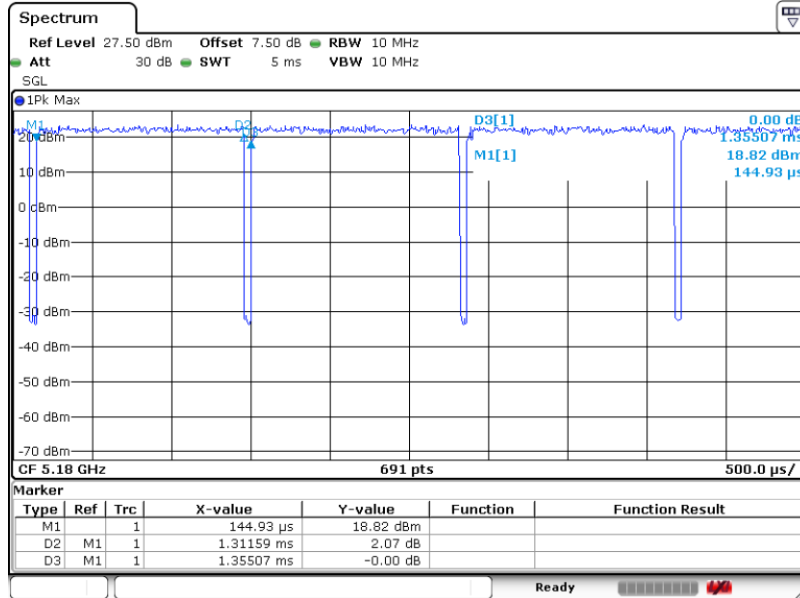
Band	Duty Cycle(%)	T(ms)	1/T(kHz)	VBW Setting
802.11a	96.97	1.391	0.719	0.75KHz
802.11ac VHT20	96.80	1.312	0.762	0.82KHz
802.11ac VHT40	93.75	0.652	1.533	1.6KHz
802.11ac VHT80	88.23	0.326	3.067	3.3KHz

802.11a

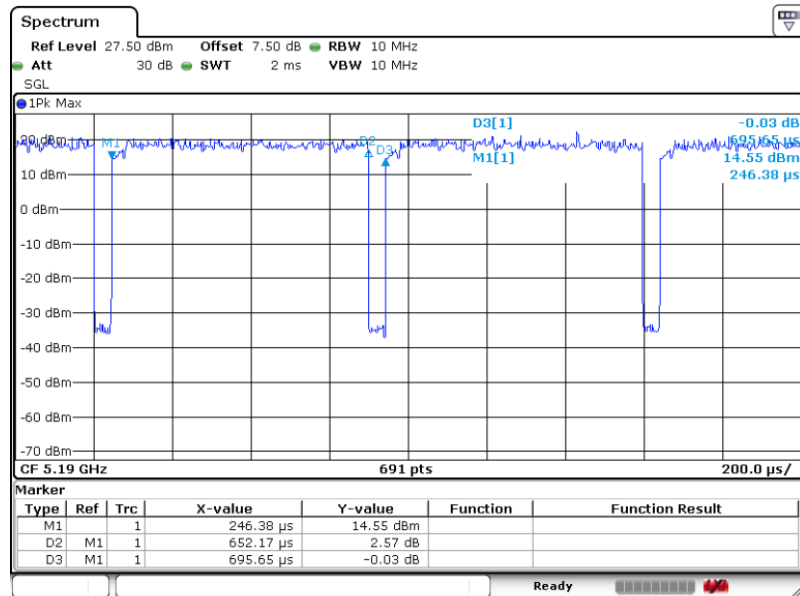




802.11ac VHT 20



802.11ac VHT40





802.11ac VHT80

