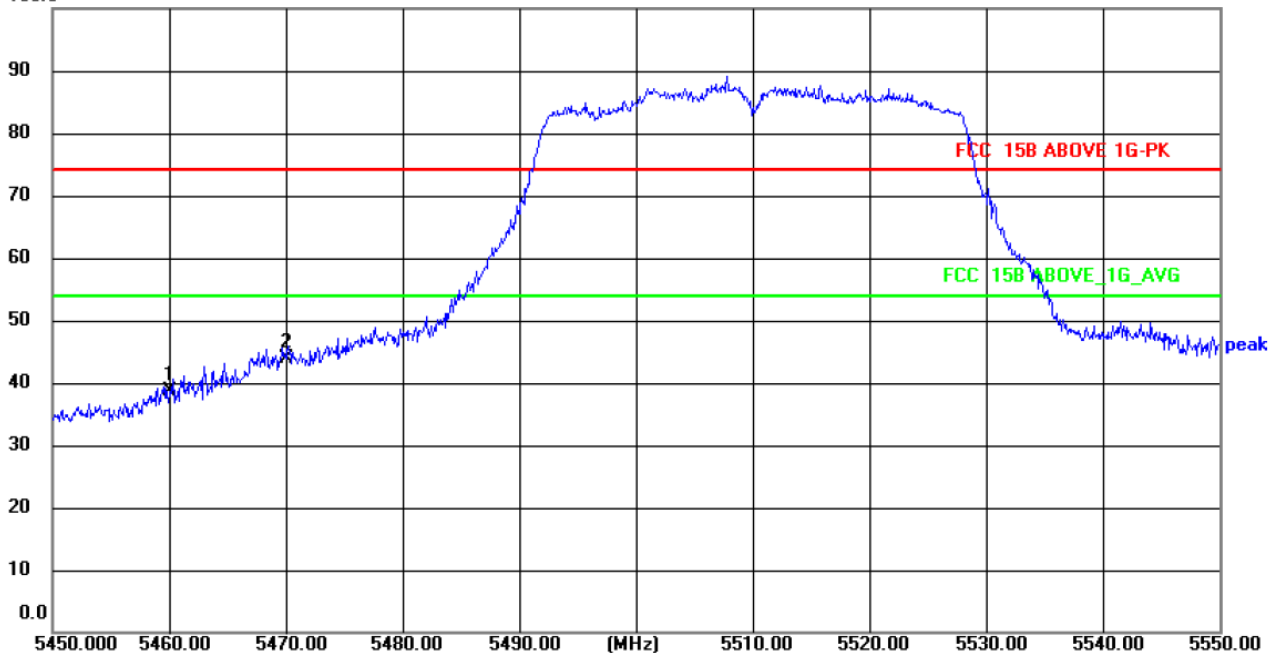




Vertical:

100.0 dBuV/m



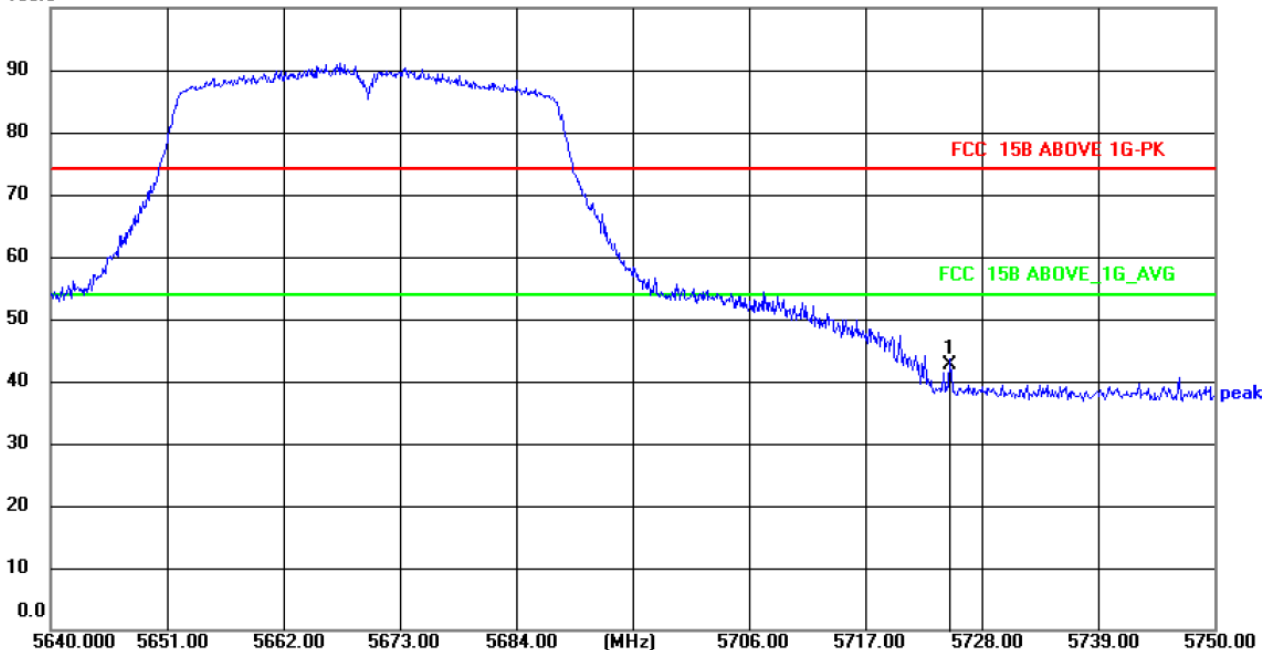
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	5460.000	55.98	-17.28	38.70	68.20	29.50	peak
2 *	5470.000	61.26	-17.26	44.00	68.20	24.40	peak



802.11ac40 5670MHz

Horizontal:

100.0 dBuV/m

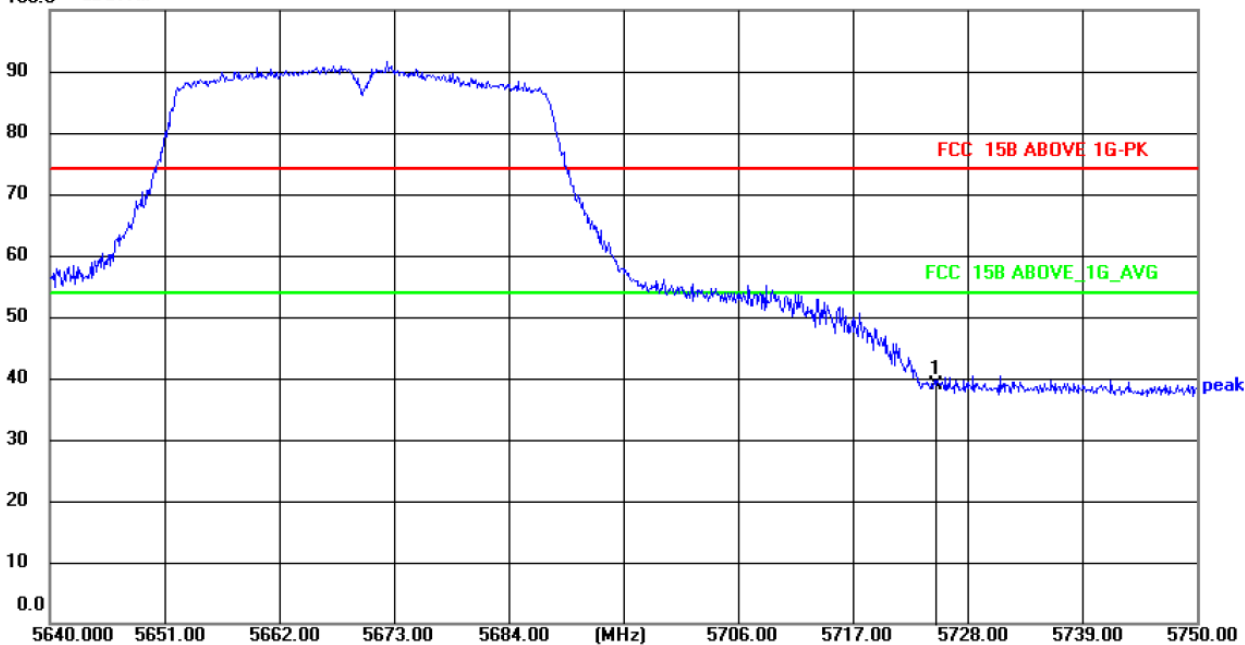


No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	5725.000	59.87	-17.13	42.74	68.20	25.46	peak



Vertical:

100.0 dBuV/m



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	5725.000	56.11	-17.13	38.98	68.20	29.22	peak

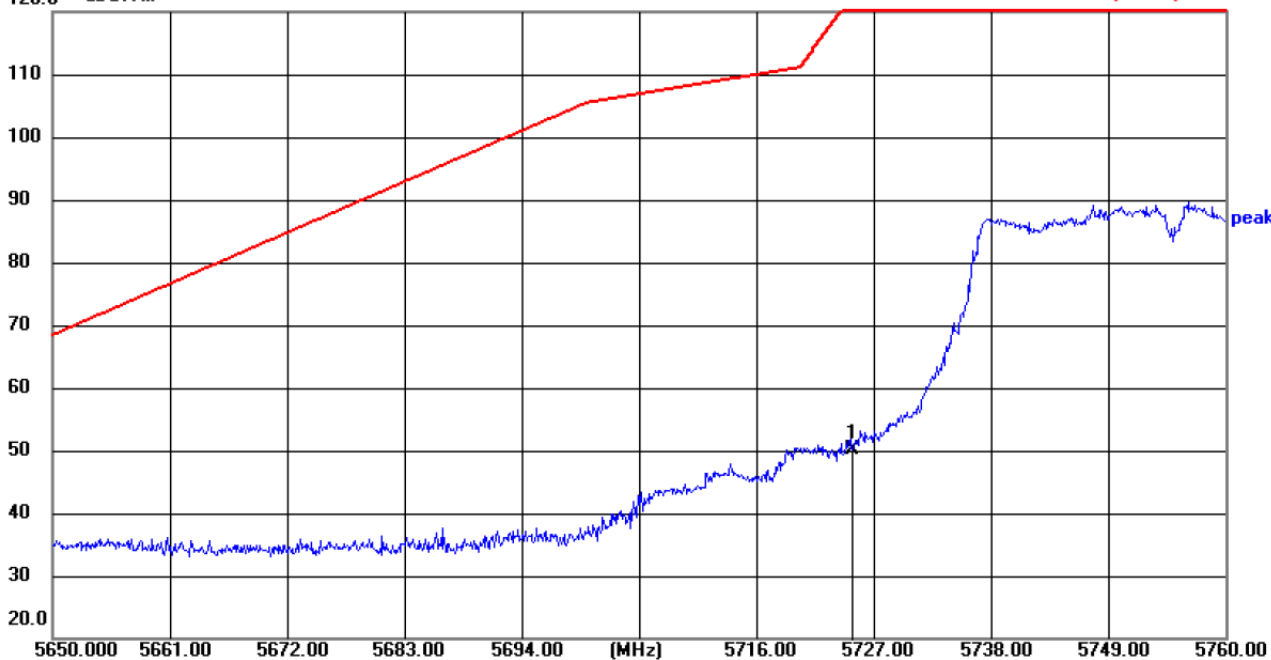


802.11ac40 5755MHz

Horizontal:

120.0 dBuV/m

FCC 15 (5G B4)



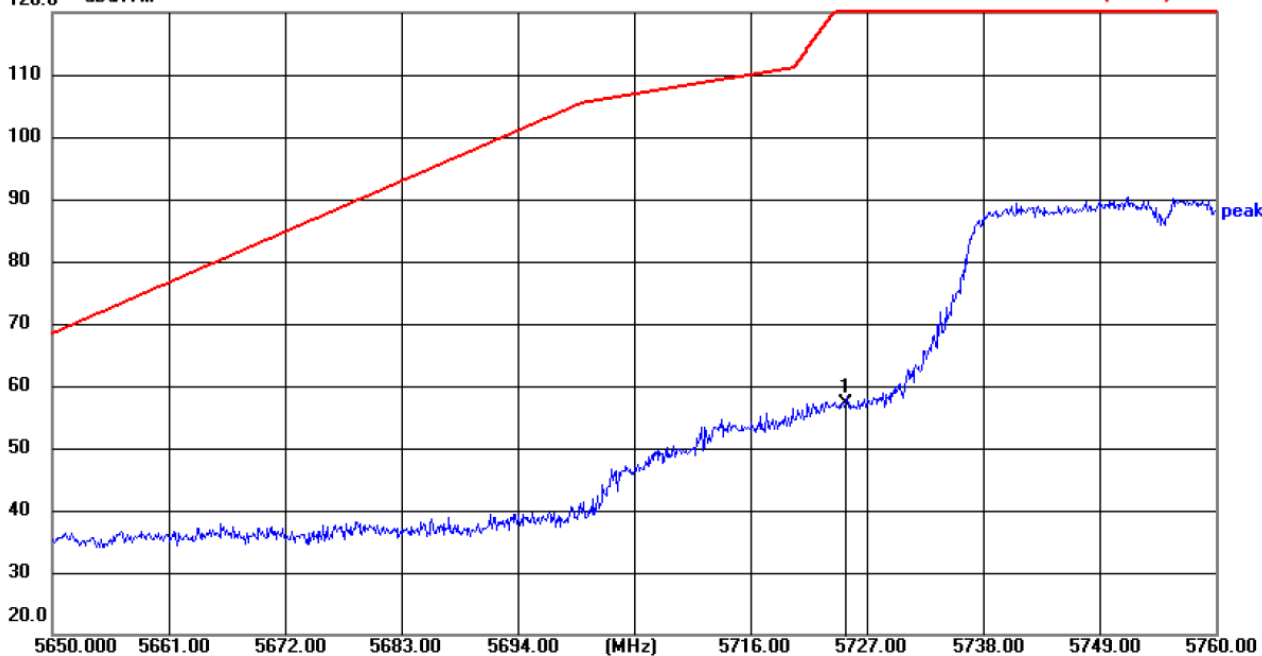
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	5725.000	67.34	-17.13	50.21	122.23	72.02	peak



Vertical:

120.0 dBuV/m

FCC 15 (5G B4)



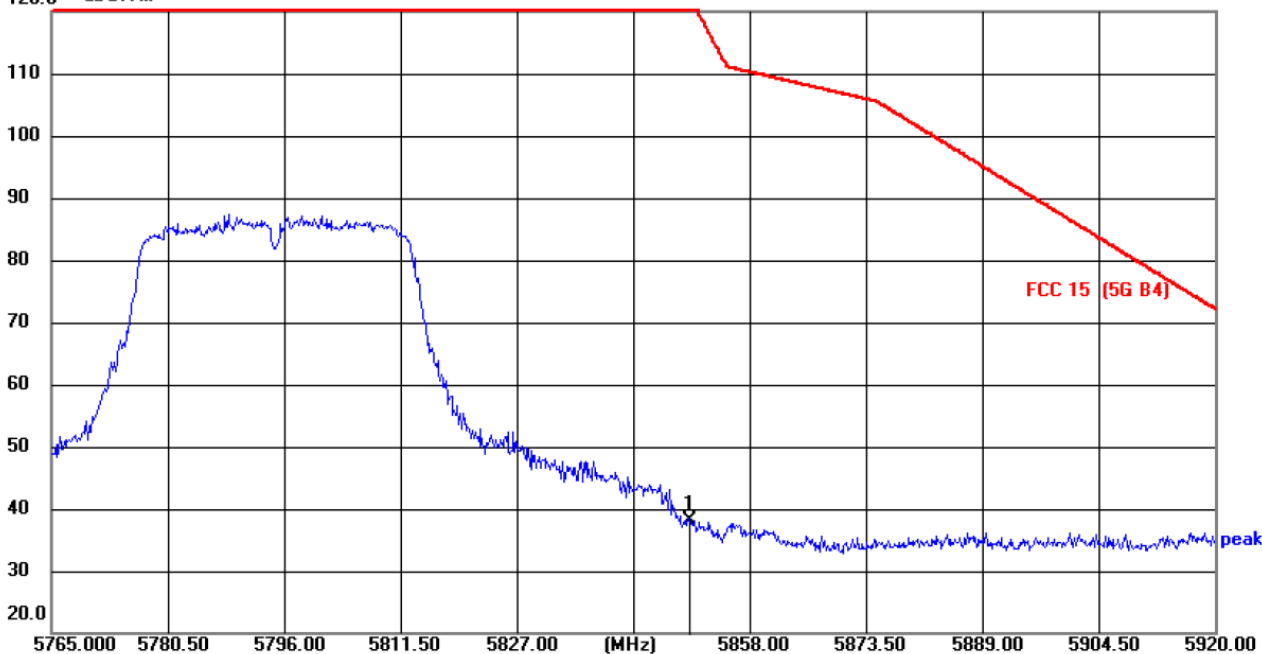
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	5725.000	74.23	-17.13	57.10	122.23	65.13	peak



802.11ac40 5795MHz

Horizontal:

120.0 dBuV/m

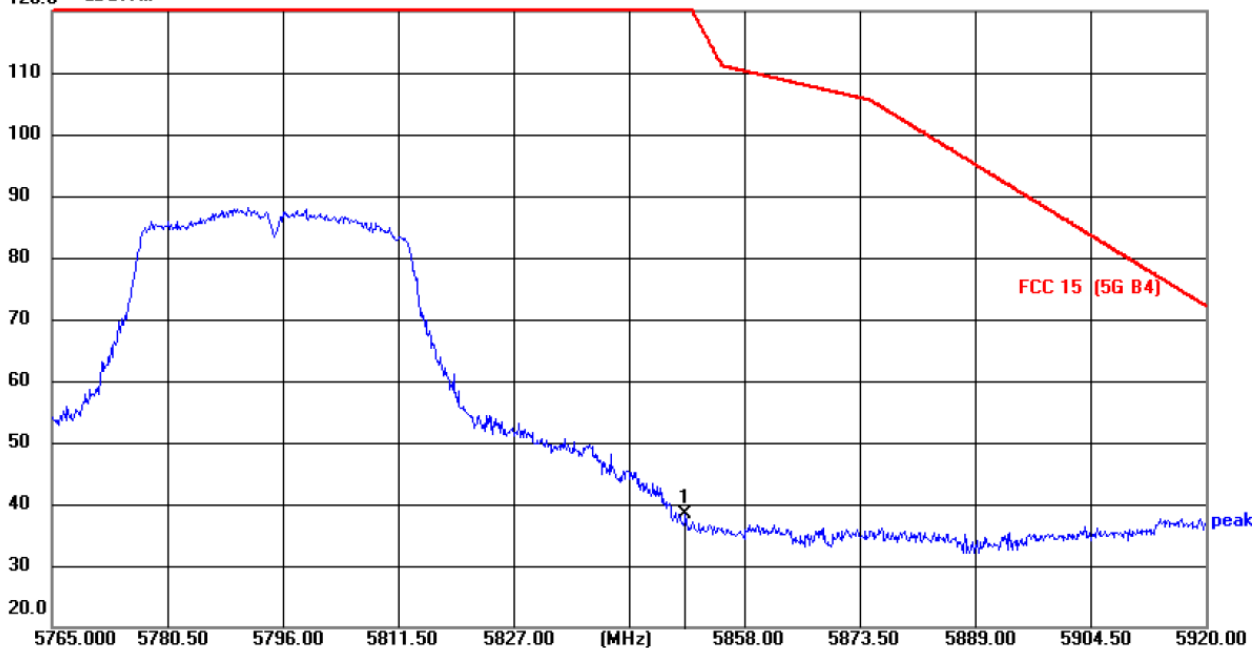


No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	5850.000	55.18	-17.09	38.09	122.23	84.14	peak



Vertical:

120.0 dBuV/m



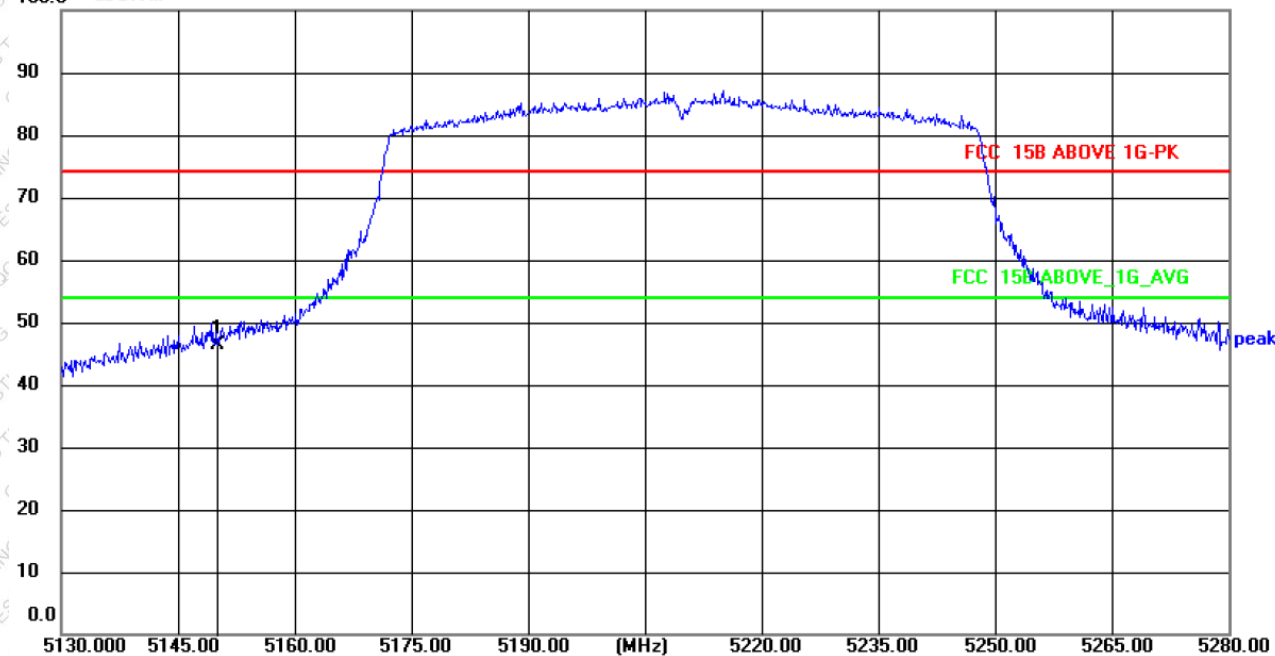
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	5850.000	55.45	-17.09	38.36	122.23	83.87	peak



802.11ac80 5210MHz

Horizontal:

100.0 dBuV/m

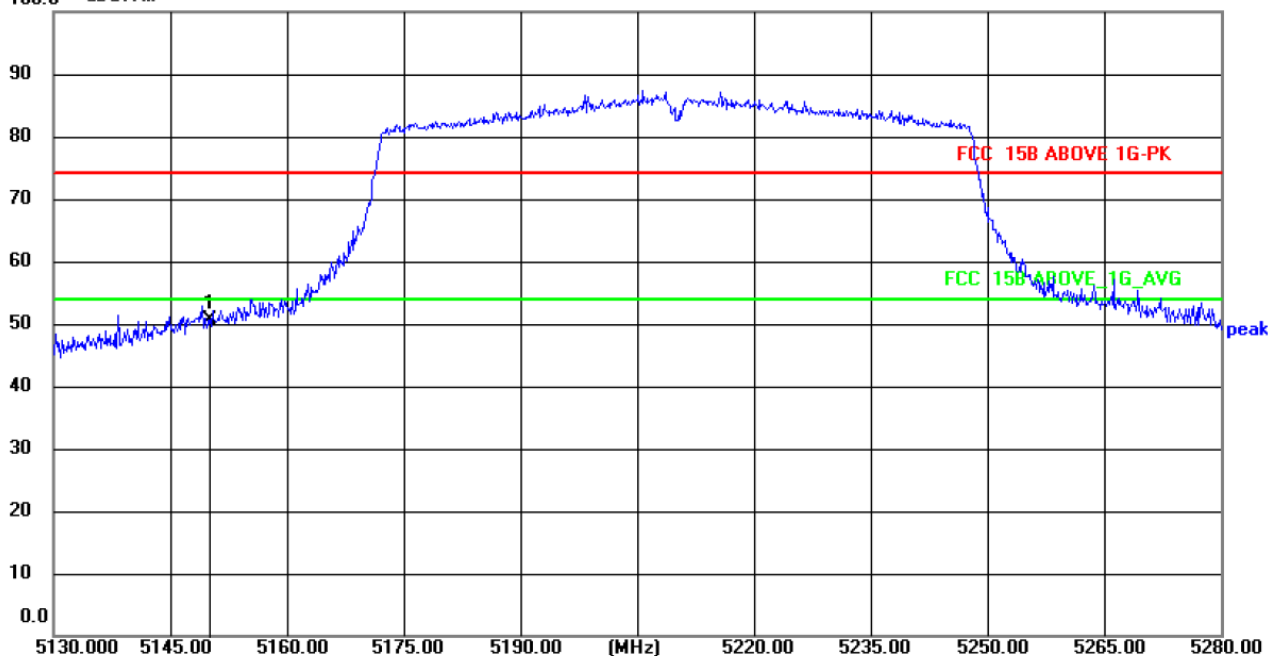


No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	5150.000	64.36	-17.94	46.42	74.00	27.58	peak



Vertical:

100.0 dBuV/m



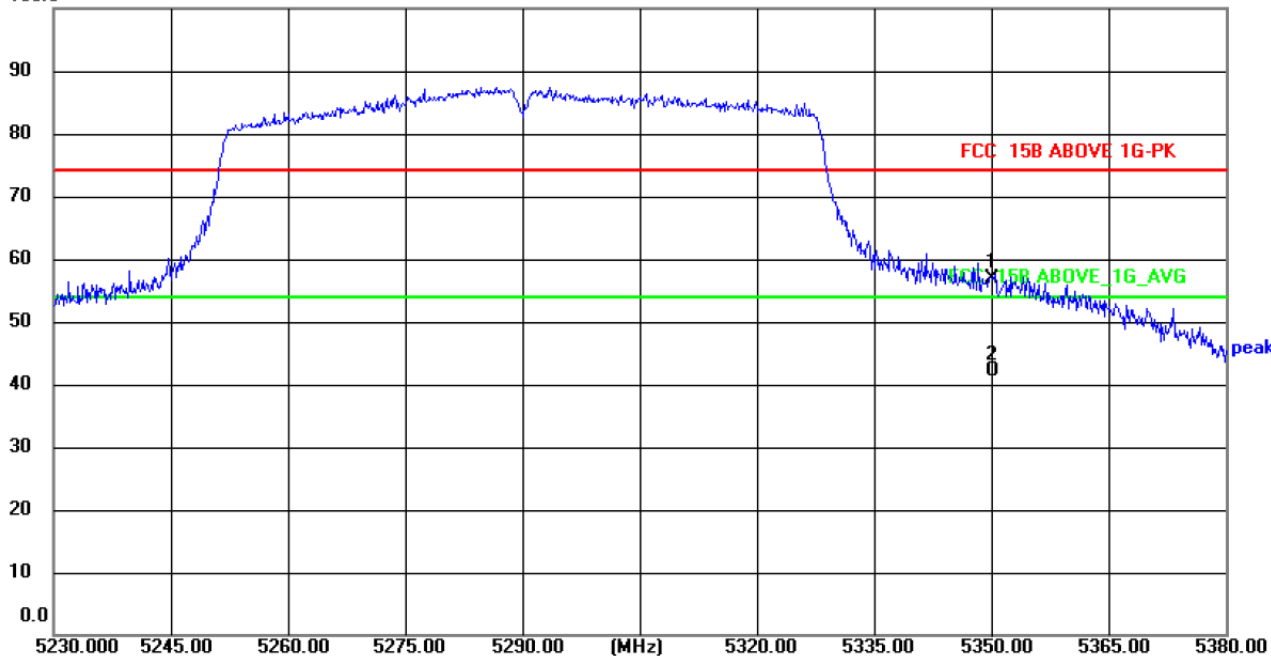
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	5150.000	68.67	-17.94	50.73	74.00	23.27	peak



802.11ac80 5290MHz

Horizontal:

100.0 dBuV/m

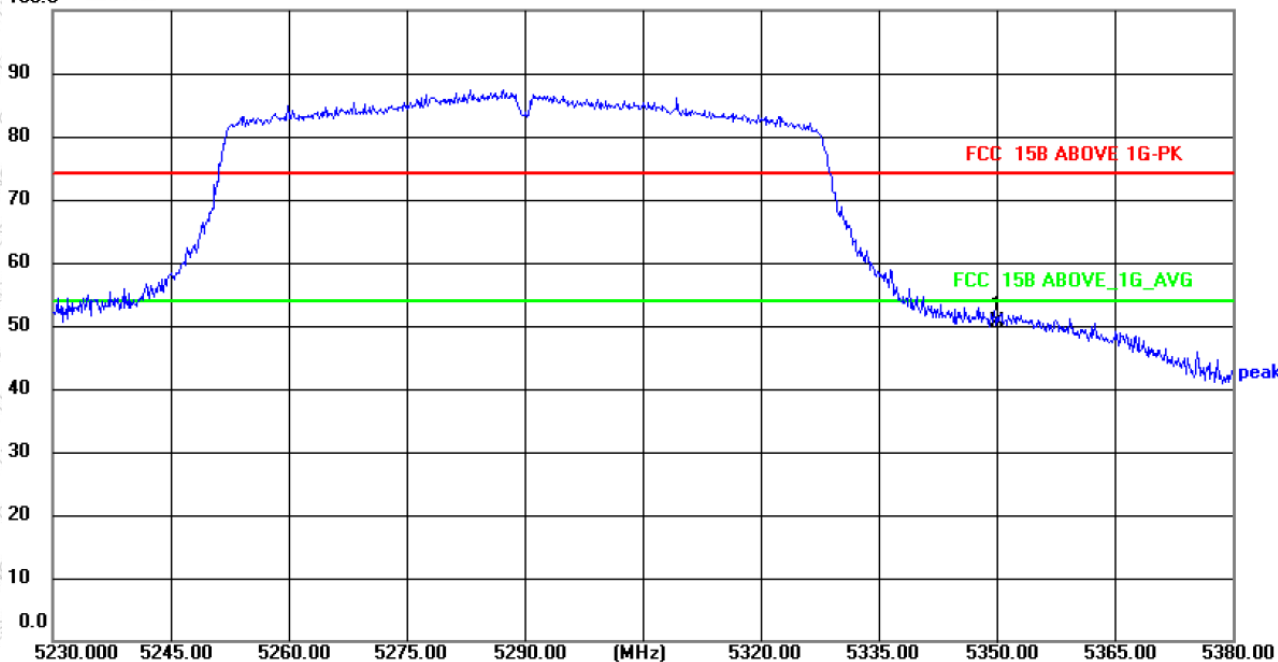


No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	5350.000	74.48	-17.51	56.97	74.00	17.03	peak
2 *	5350.000	59.70	-17.51	42.19	54.00	11.81	AVG



Vertical:

100.0 dBuV/m



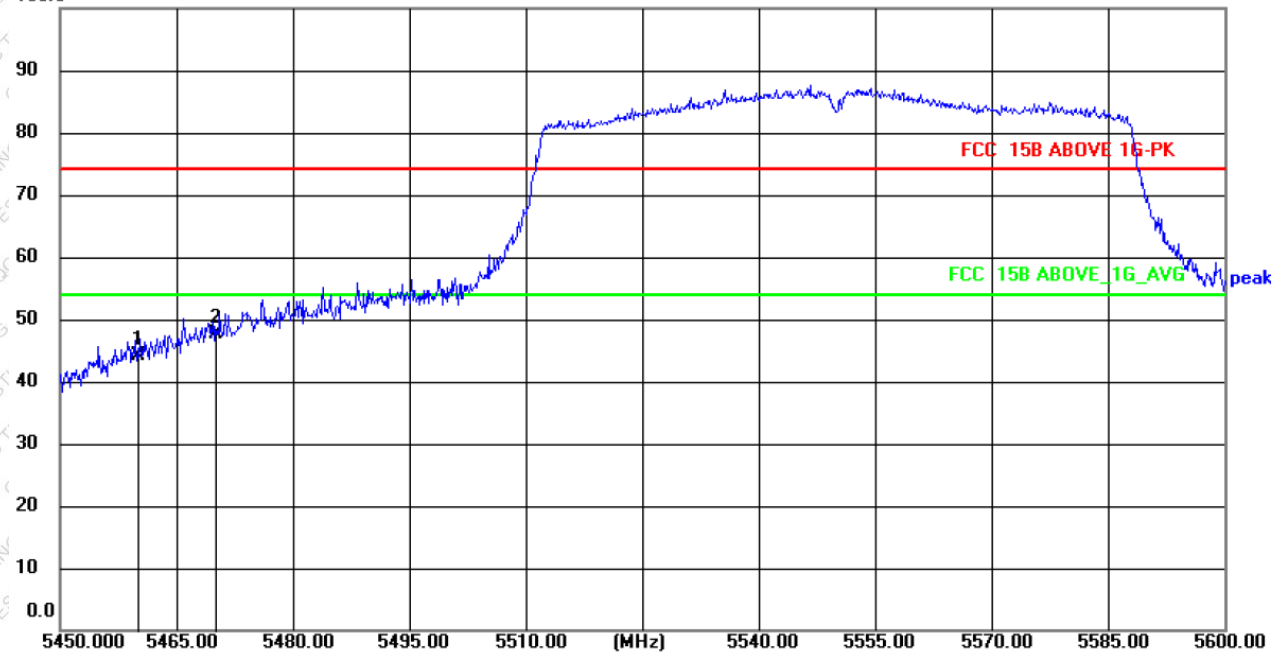
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	5350.000	68.16	-17.51	50.65	74.00	23.35	peak



802.11ac80 5530MHz

Horizontal:

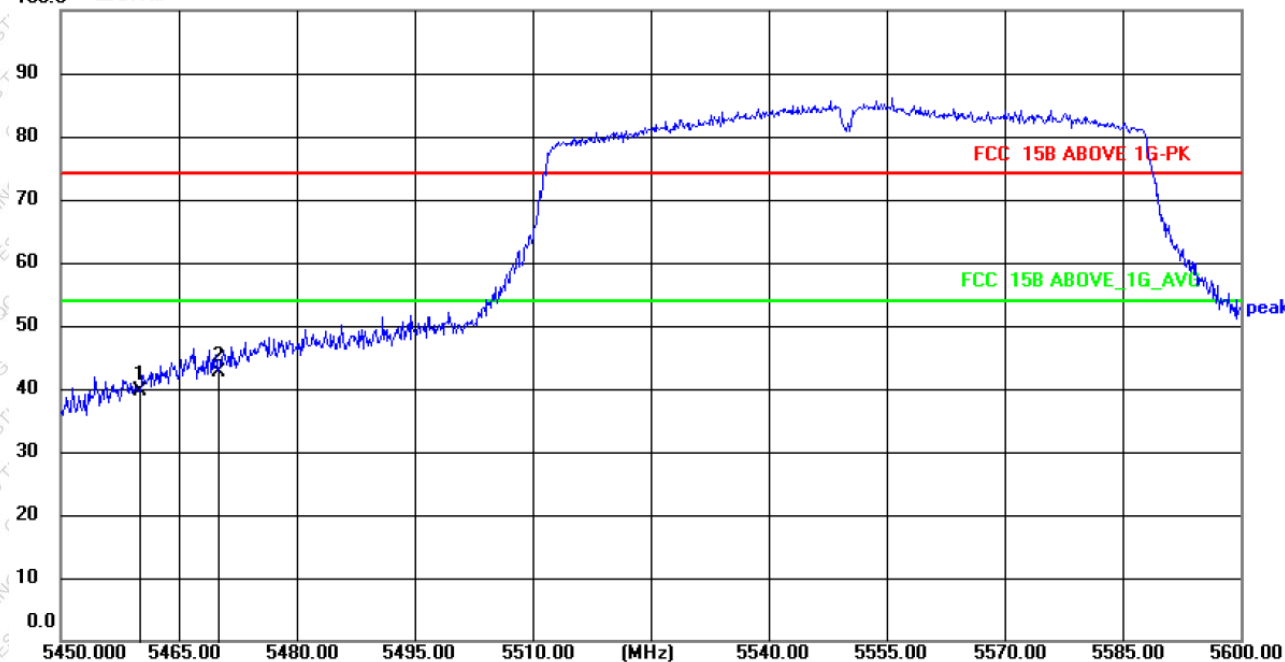
100.0 dBuV/m



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	5460.000	61.30	-17.28	44.02	68.20	24.18	peak
2 *	5470.000	64.99	-17.26	47.73	68.20	20.47	peak



Vertical:
100.0 dBuV/m



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	5460.000	56.85	-17.28	39.57	68.20	28.63	peak
2 *	5470.000	59.93	-17.26	42.67	68.20	25.53	peak



802.11ac80 5610MHz

Horizontal:

100.0 dBuV/m

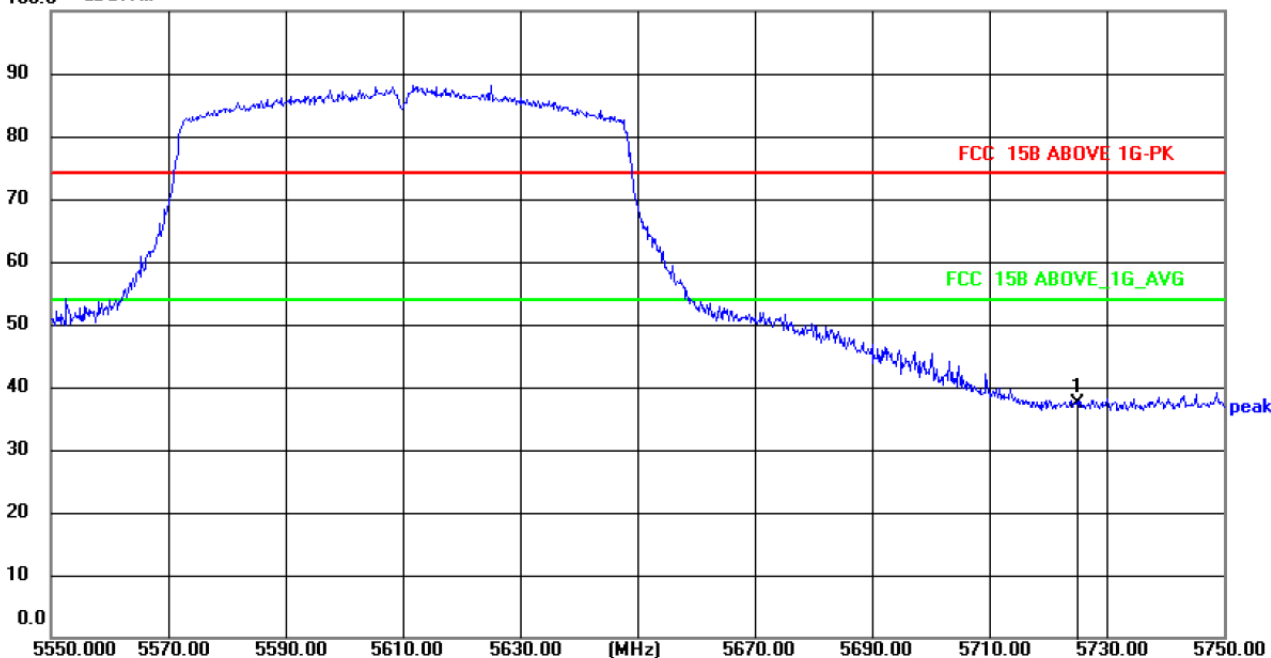


No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	5725.000	53.10	-17.13	35.97	68.20	32.23	peak



Vertical:

100.0 dBuV/m



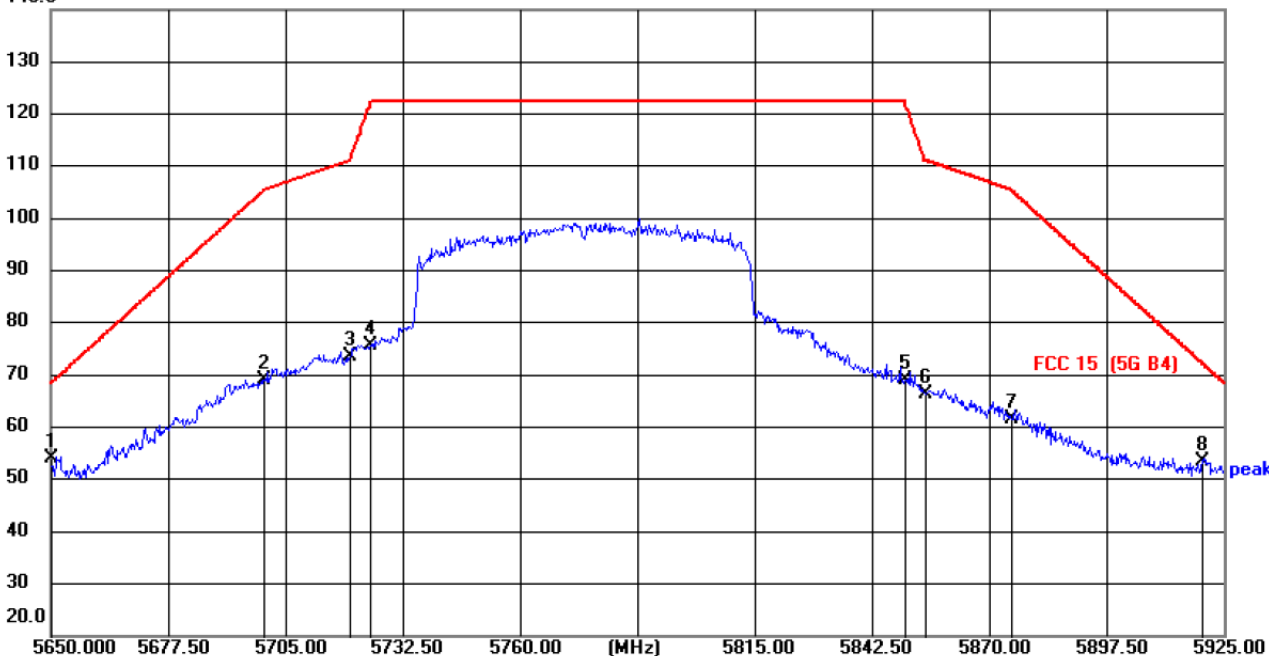
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	5725.000	54.41	-17.13	37.28	68.20	30.92	peak



802.11ac80 5775MHz

Horizontal:

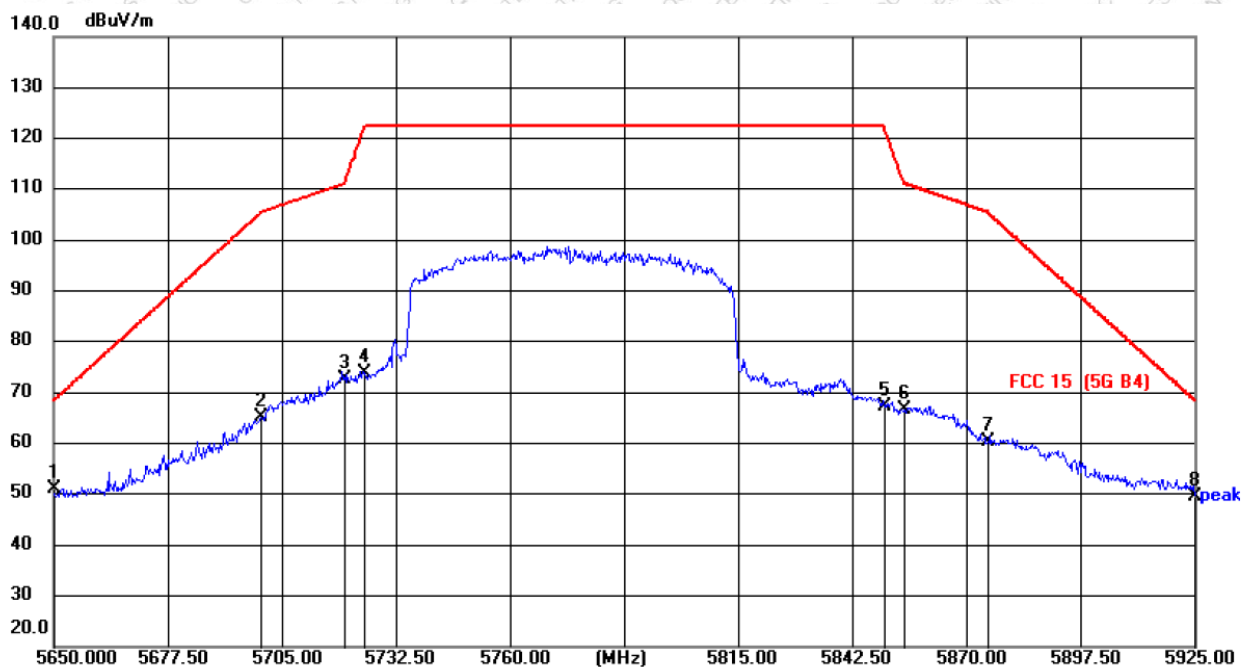
140.0 dBuV/m



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	5650.000	71.12	-17.16	53.96	68.23	14.27	peak
2	5700.000	86.14	-17.14	69.00	105.23	36.23	peak
3	5720.000	90.80	-17.14	73.66	110.83	37.17	peak
4	5725.000	92.92	-17.13	75.79	122.23	46.44	peak
5	5850.000	86.00	-17.09	68.91	122.23	53.32	peak
6	5855.000	83.52	-17.09	66.43	110.83	44.40	peak
7	5875.000	78.61	-17.08	61.53	105.23	43.70	peak
8	5920.000	70.61	-17.08	53.53	71.93	18.40	peak



Vertical:



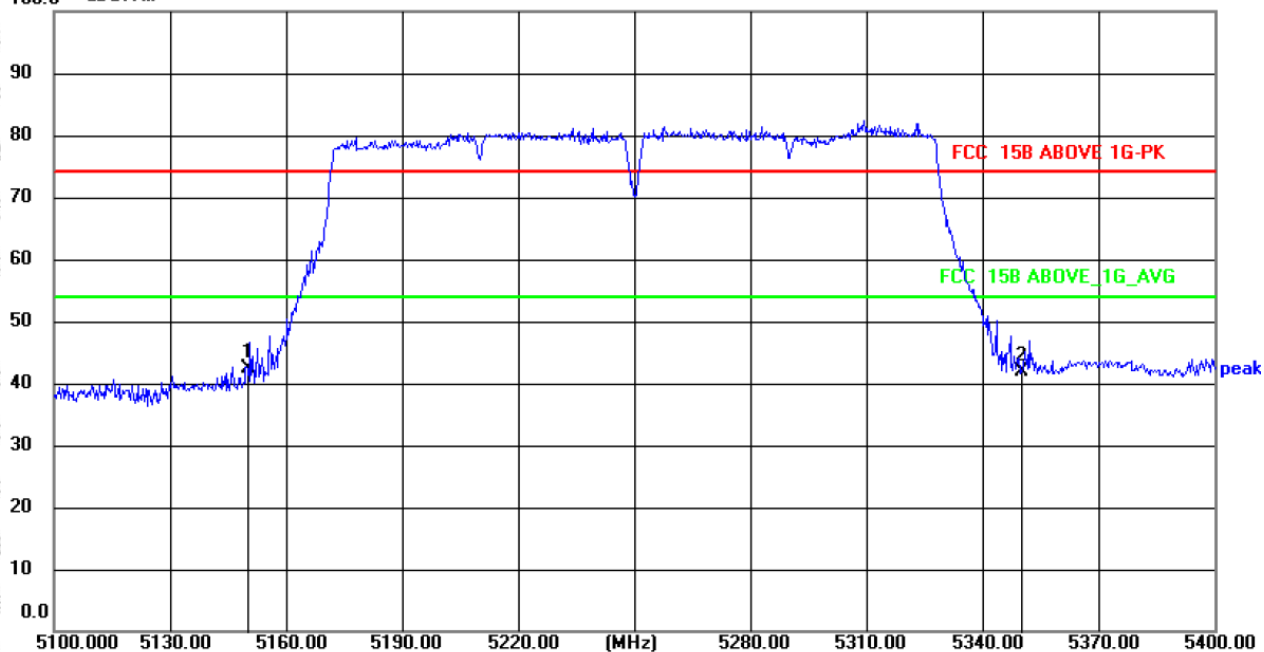
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	5650.000	68.13	-17.16	50.97	68.23	17.26	peak
2	5700.000	82.15	-17.14	65.01	105.23	40.22	peak
3	5720.000	89.74	-17.14	72.60	110.83	38.23	peak
4	5725.000	90.91	-17.13	73.78	122.23	48.45	peak
5	5850.000	84.39	-17.09	67.30	122.23	54.93	peak
6	5855.000	83.63	-17.09	66.54	110.83	44.29	peak
7	5875.000	77.48	-17.08	60.40	105.23	44.83	peak
8	5925.000	66.71	-17.08	49.63	68.23	18.60	peak



802.11ac160 5250MHz

Horizontal:

100.0 dBuV/m

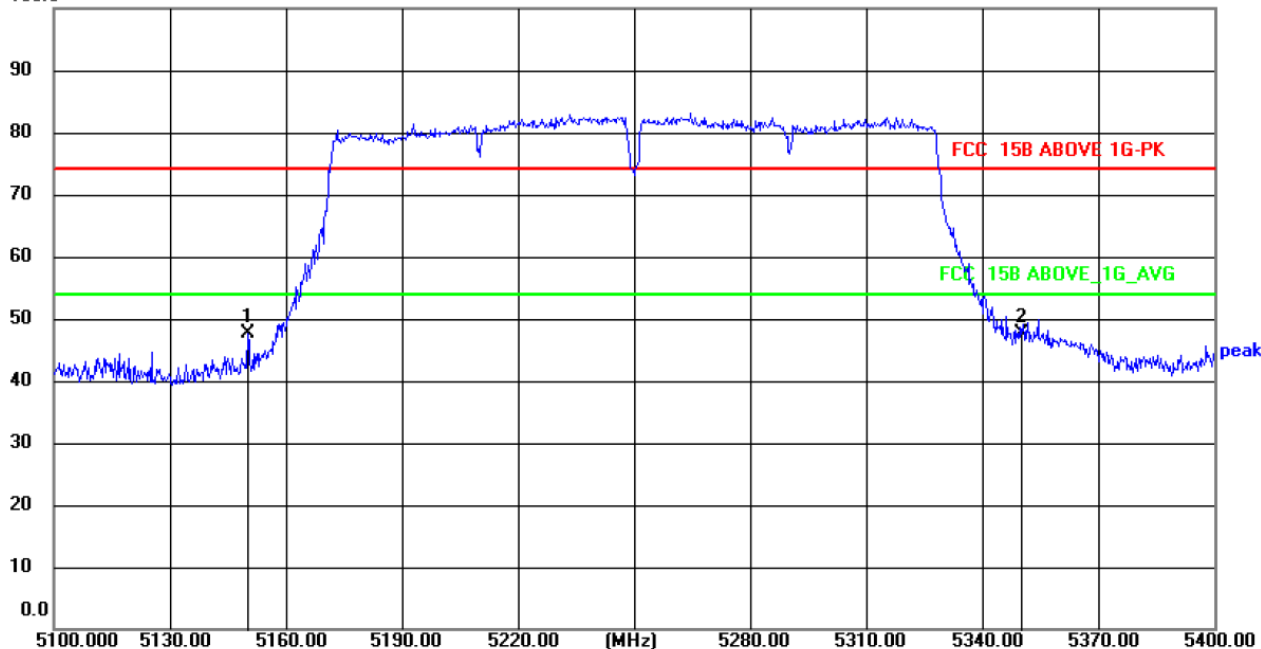


No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	5150.000	60.22	-17.94	42.28	74.00	31.72	peak
2	5350.000	59.30	-17.51	41.79	74.00	32.21	peak



Vertical:

100.0 dBuV/m



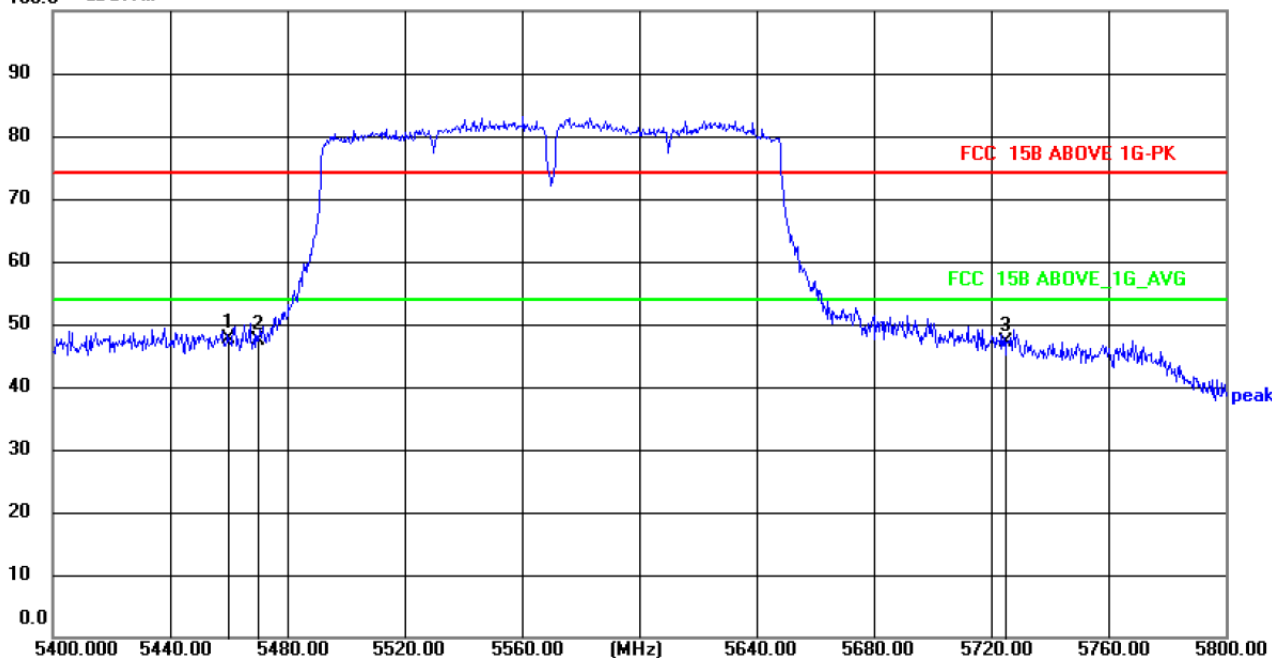
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	5150.000	65.49	-17.94	47.55	74.00	26.45	peak
2 *	5350.000	65.09	-17.51	47.58	74.00	26.42	peak



802.11ac160 5570MHz

Horizontal:

100.0 dBuV/m

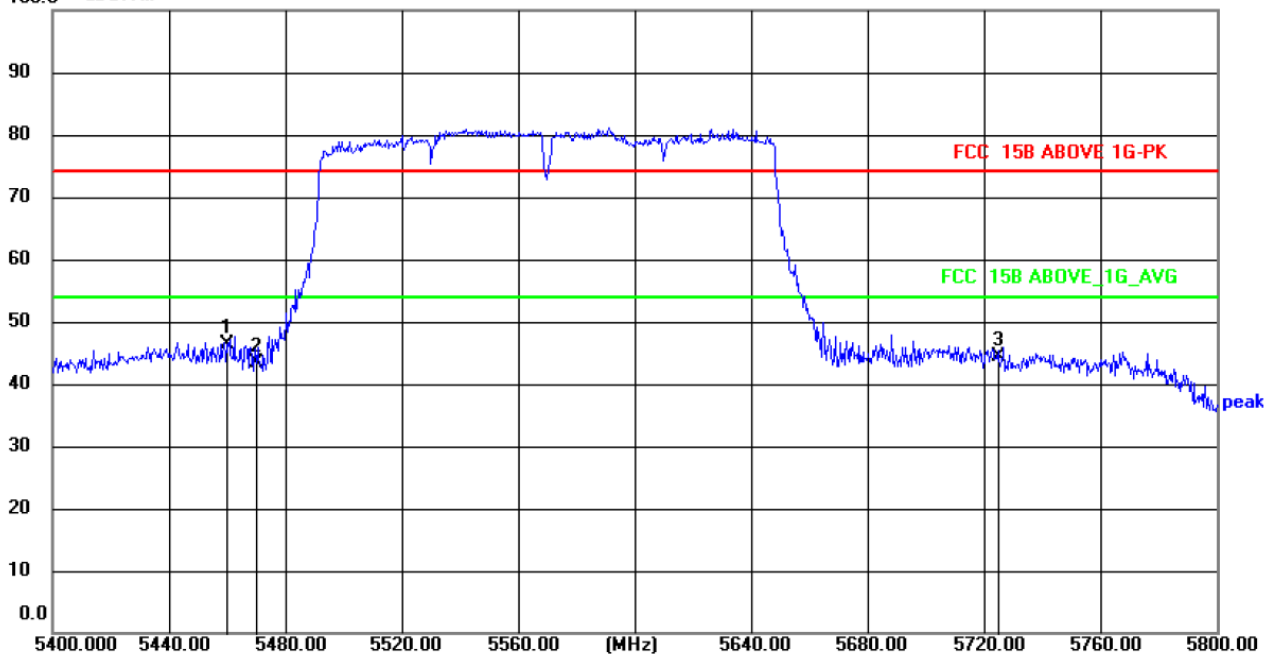


No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	5460.000	64.87	-17.28	47.59	68.20	20.61	peak
2	5470.000	64.62	-17.26	47.36	68.20	20.84	peak
3	5725.000	64.24	-17.13	47.11	68.20	21.09	peak



Vertical:

100.0 dBuV/m



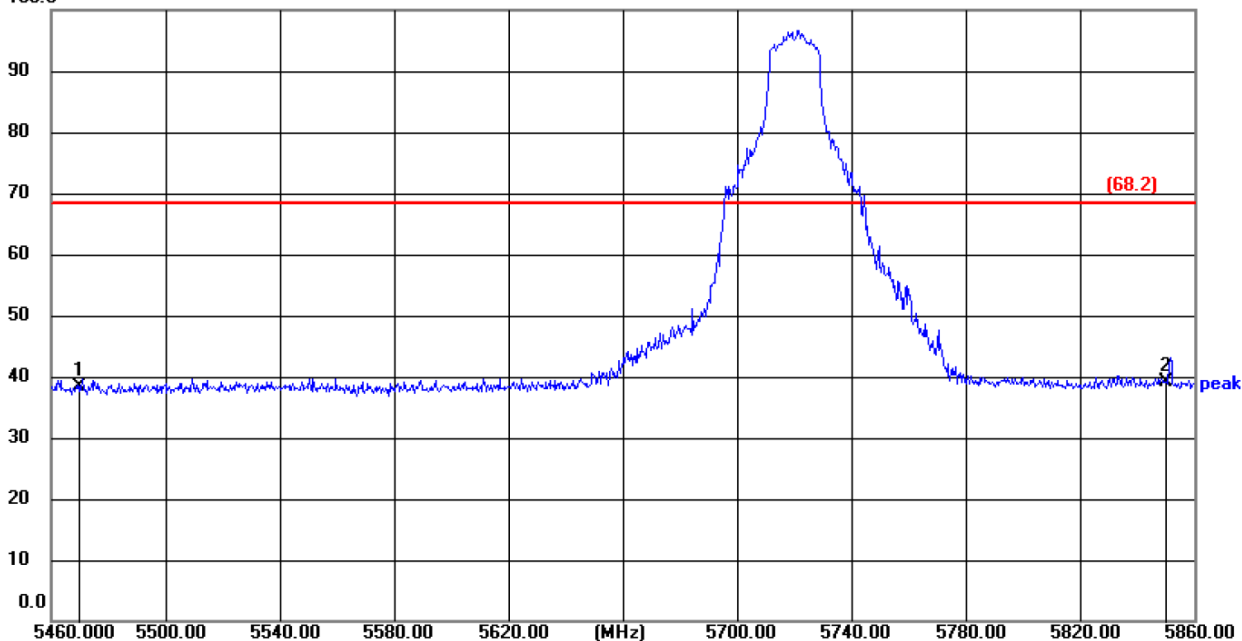
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	5460.000	63.76	-17.28	46.48	68.20	21.72	peak
2	5470.000	60.71	-17.26	43.45	68.20	24.75	peak
3	5725.000	61.40	-17.13	44.27	68.20	23.93	peak



802.11ac20 5720MHz

Horizontal:

100.0 dBuV/m

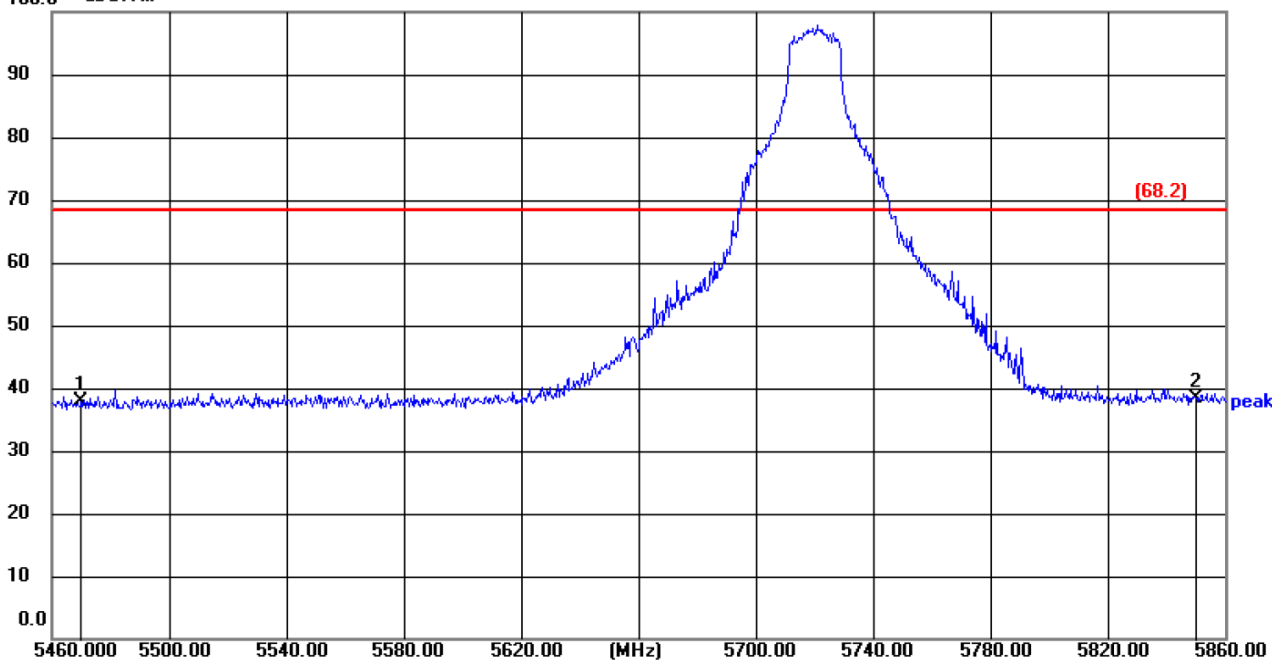


No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	5470.000	55.70	-17.26	38.44	68.20	29.76	peak
2 *	5850.000	56.15	-17.09	39.06	68.20	29.14	peak



Vertical:

100.0 dBuV/m



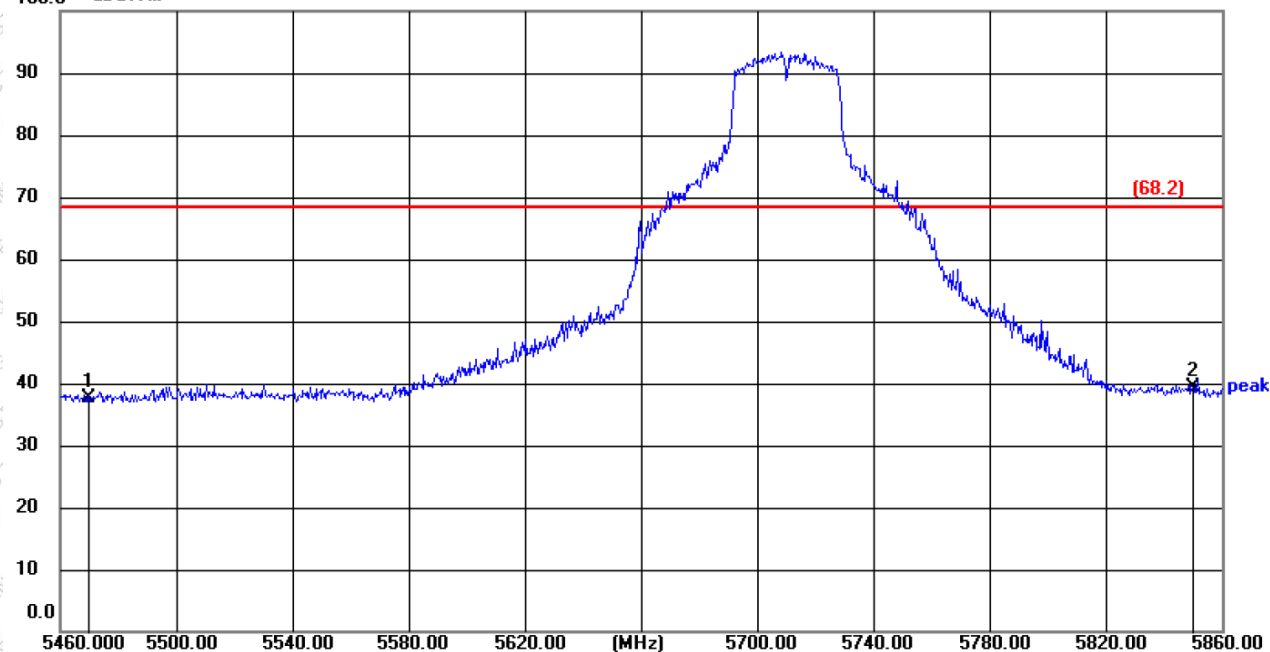
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	5470.000	55.12	-17.26	37.86	68.20	30.34	peak
2 *	5850.000	55.47	-17.09	38.38	68.20	29.82	peak



802.11ac40 5710MHz

Horizontal:

100.0 dBuV/m

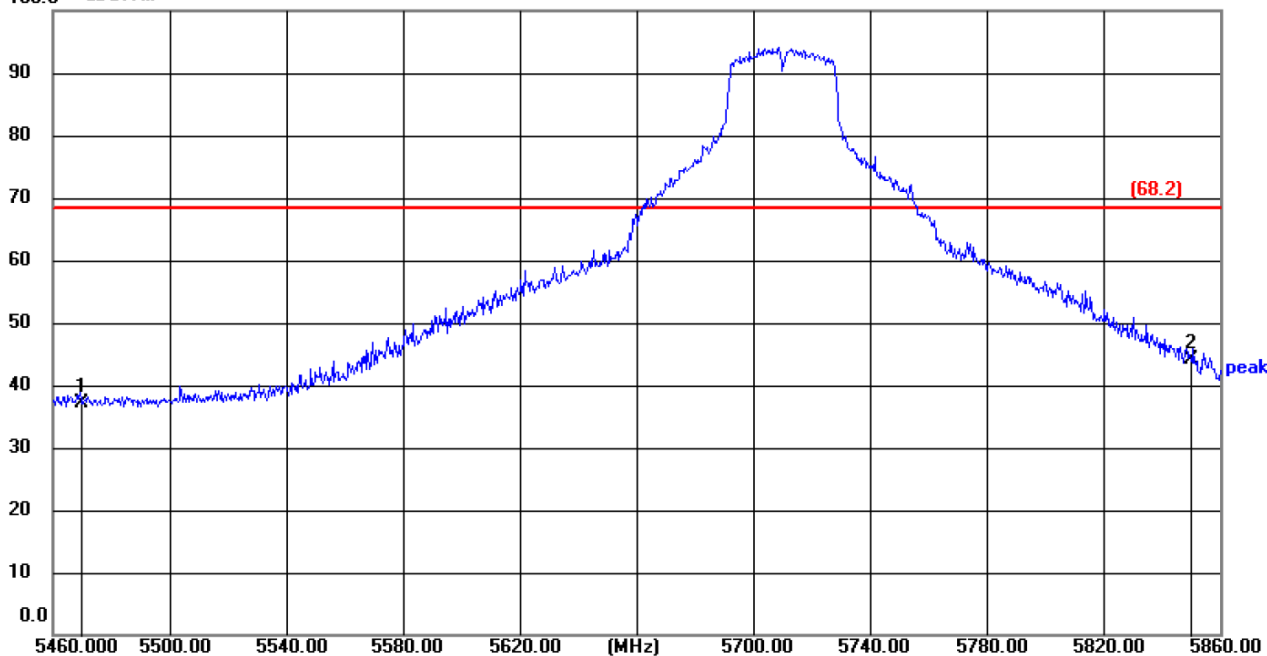


No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	5470.000	54.99	-17.26	37.73	68.20	30.47	peak
2 *	5850.000	56.49	-17.09	39.40	68.20	28.80	peak



Vertical:

100.0 dBuV/m

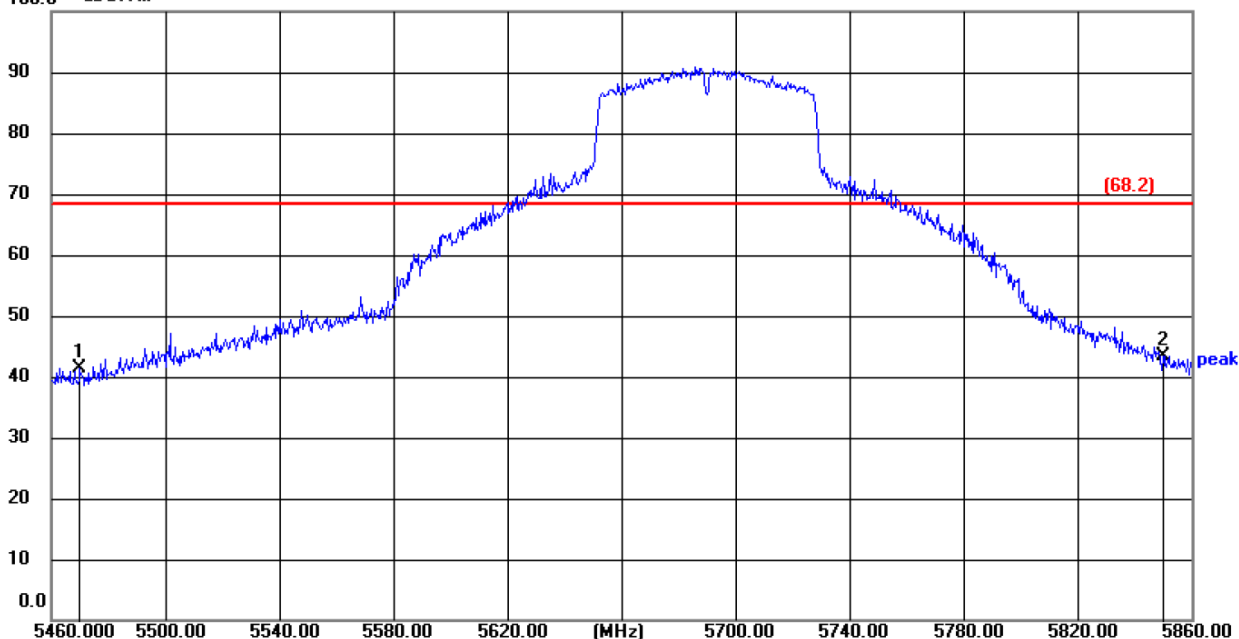


No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	5470.000	54.47	-17.26	37.21	68.23	31.02	peak
2 *	5850.000	61.14	-17.09	44.05	68.23	24.18	peak



802.11ac80 5690MHz

Horizontal:
100.0 dBuV/m

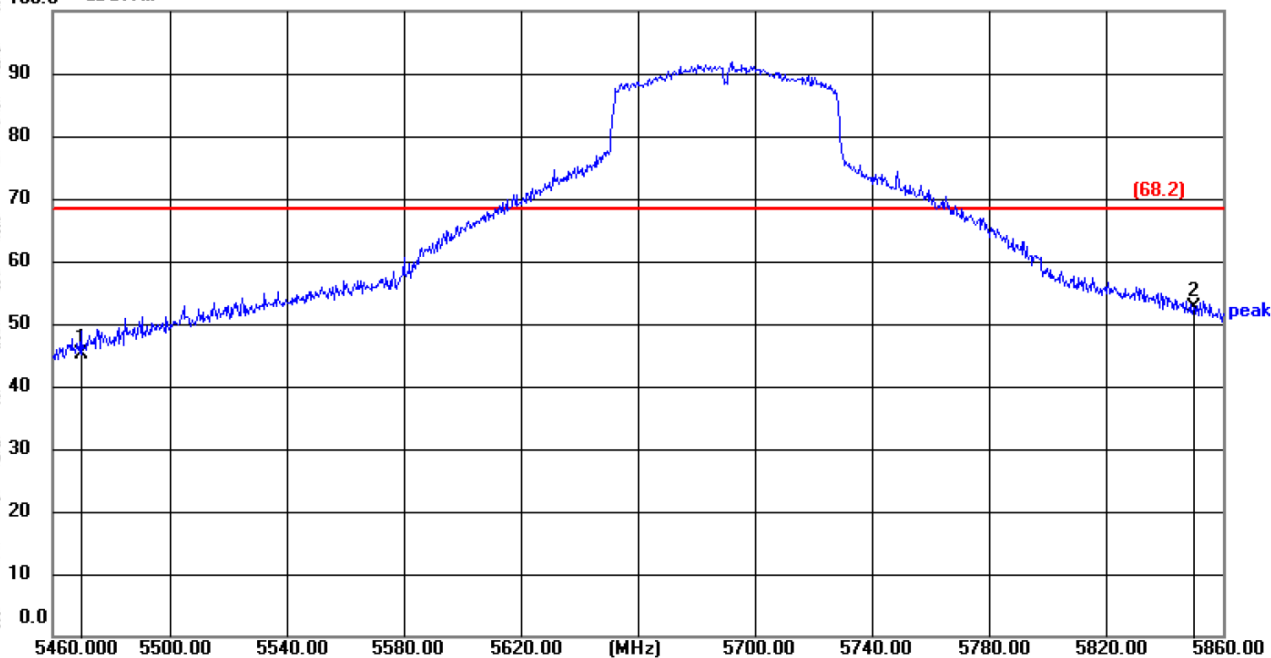


No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	5470.000	58.55	-17.26	41.29	68.20	26.91	peak
2 *	5850.000	60.37	-17.09	43.28	68.20	24.92	peak



Vertical:

100.0 dBuV/m



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	5470.000	62.46	-17.26	45.20	68.20	23.00	peak
2 *	5850.000	69.75	-17.09	52.66	68.20	15.54	peak

9. Radiated Emission Method

9.1 Applicable Standard

FCC Part15 C Section 15.209, Part 15E Section 15.407(b)(4)

9.2 Limit

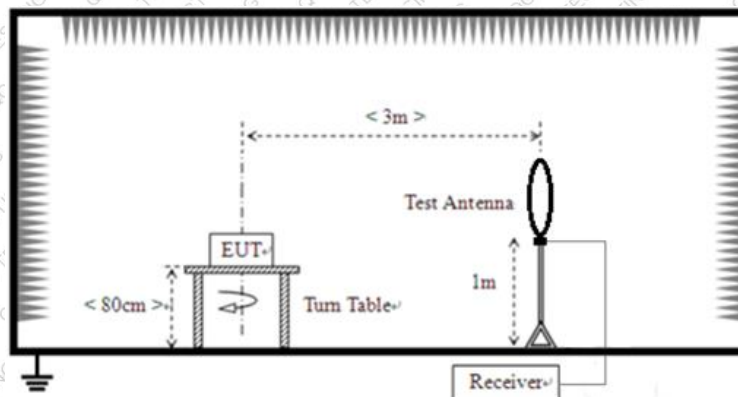
Frequency	Limit (uV/m)	Value	Measurement Distance
0.009MHz-0.490MHz	2400/F(KHz)	QP	300m
0.490MHz-1.705MHz	24000/F(KHz)	QP	30m
1.705MHz-30MHz	30	QP	30m

Frequency	Field Strengths Limits ($\mu\text{V/m}$ at 3 m)	Field Strengths Limits (dB $\mu\text{V/m}$ at 3 m)	Remark
30 – 88	100	40.0	Quasi-peak
88 – 216	150	43.5	Quasi-peak
216 – 960	200	46.0	Quasi-peak
Above 960	500	54.0	Quasi-peak
Above 1GHz	/	54.0	Peak
		74.0	Average

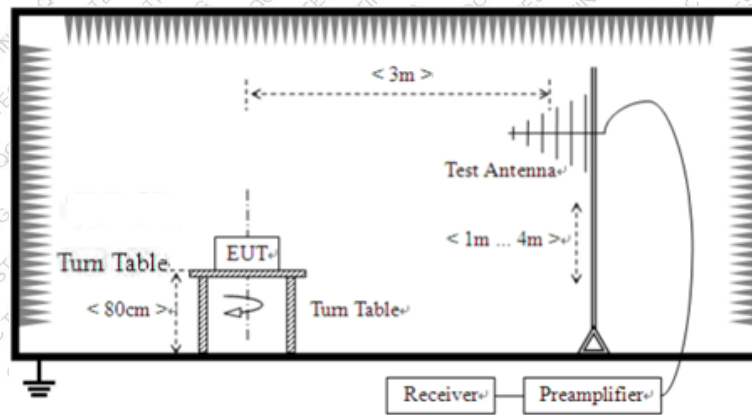
Note: dB $\mu\text{V/m}$ = 20log($\mu\text{V/m}$)

9.3 Test setup

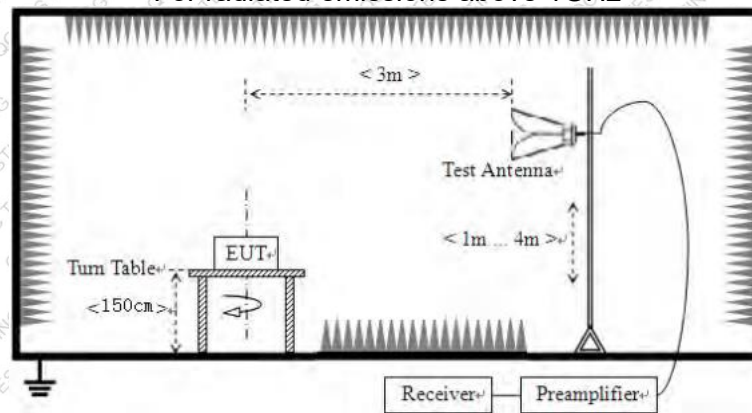
For radiated emissions from 9kHz to 30MHz



For radiated emissions from 30MHz to 1GHz



For radiated emissions above 1GHz



9.4 EMI Test Receiver Setup

Frequency	RBW	VBW	IF B/W	Measurement
9KHz-150KHz	200Hz	600Hz	/	QP
150KHz-30MHz	9KHz	30KHz	/	QP
30 MHz – 1000 MHz	100 kHz	300 kHz	120 kHz	QP
Above 1 GHz	1 MHz	3 MHz	/	Peak
	1 MHz	10 Hz ^{Note 1}	/	Average
1MHz	1MHz	> 1/T ^{Note 2}	/	Average

Note 1: when duty cycle is no less than 98%

Note 2: when duty cycle is less than 98%

Remark: For the frequency bands 9-90 kHz, 110-490 kHz and above 1000 MHz. Radiated emission test in these three bands are based on measurements employing an average detector.

9.5 Test procedure

- The EUT was placed on the top of a rotating table (0.8m for below 1G and 1.5m for above 1G) above the ground at a 3 meter camber. The table was rotated 360 degrees to determine the position of the highest radiation.
- The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.



- For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rota table was turned from 0 degrees to 360 degrees to find the maximum reading.
- The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.

9.6 Test Data

Temperature	26 °C	Humidity	54%
ATM Pressure	101.1kPa	Antenna Gain	1.49dBi
Test by	LBi Li	Test result	PASS

Remarks:

- Pre-scan all kind of the place mode (X-axis, Y-axis, Z-axis), and found the Y-axis which it is worse case.
- Data of measurement within frequency range 9kHz-30MHz, 18-40GHz are the noise floor or attenuated more than 20dB below the permissible limits or the field strength is too small to be measured, so test data does not present in this report.

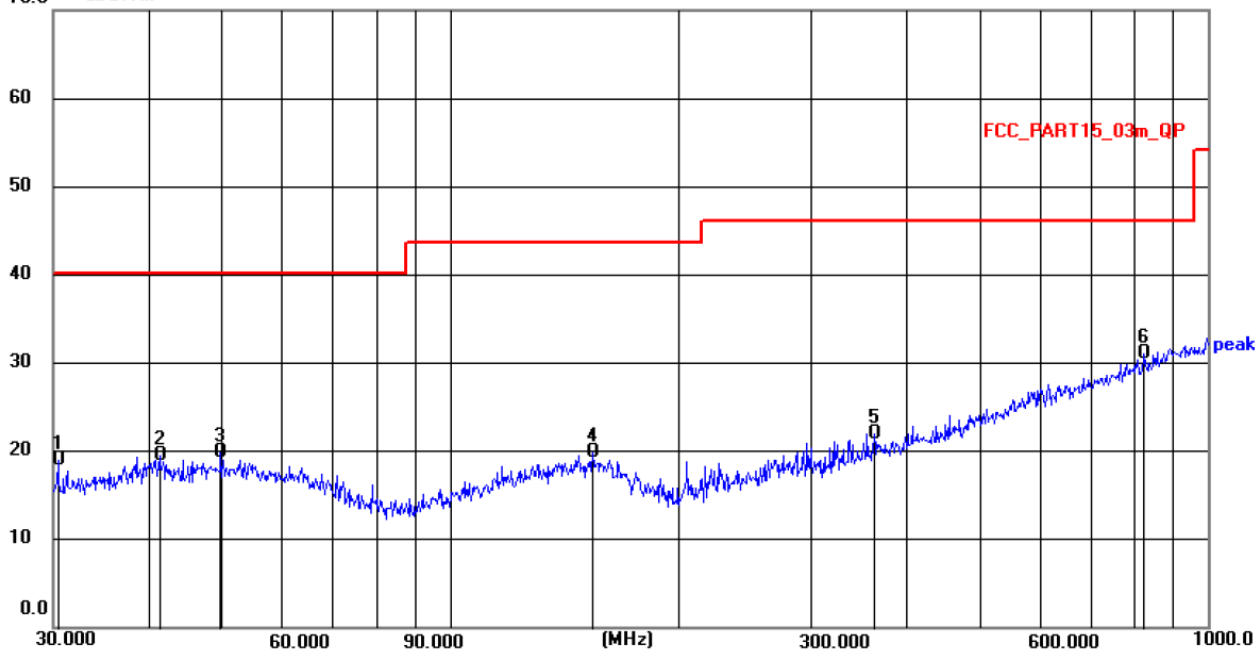


Below 1GHz

Pre-scan all test modes, found worst case at 802.11a mode bandwidth is 20MHz, and so only show the test result of 802.11a mode 5180MHz.

Horizontal:

70.0 dBuV/m

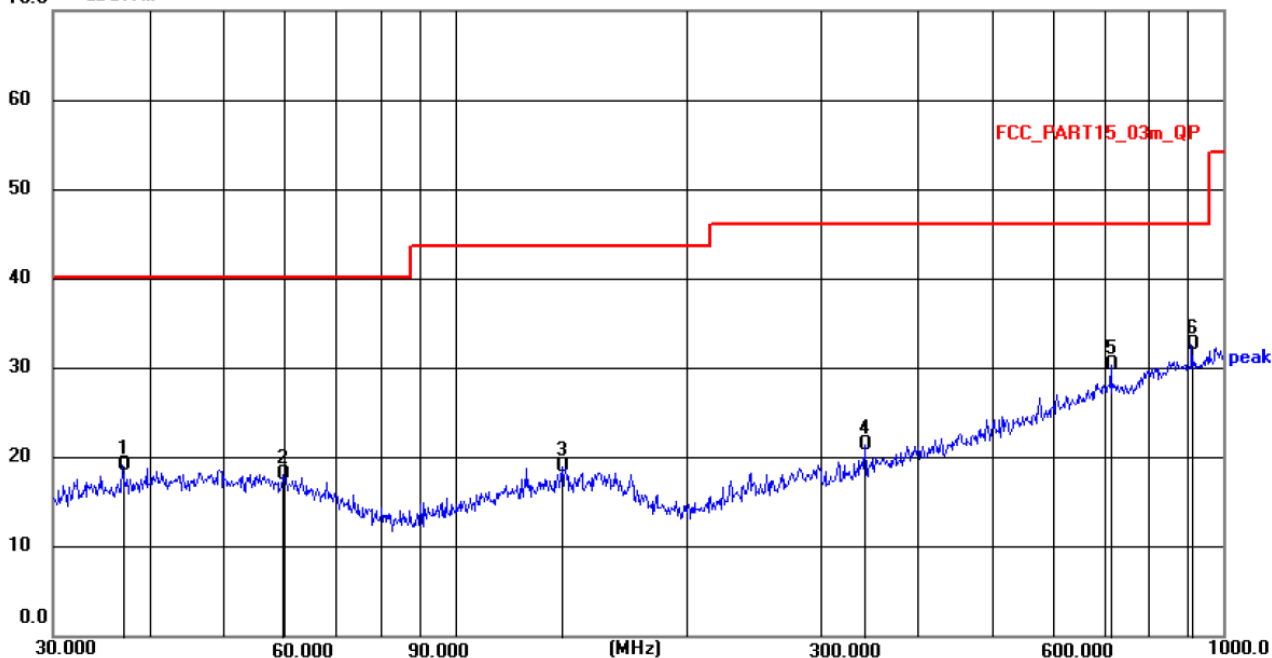


No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	30.4237	5.96	13.09	19.05	40.00	20.95	QP
2	41.4215	4.72	14.77	19.49	40.00	20.51	QP
3	49.8813	5.16	14.64	19.80	40.00	20.20	QP
4	154.2785	5.31	14.63	19.94	43.50	23.56	QP
5	362.9843	5.40	16.61	22.01	46.00	23.99	QP
6 *	824.5968	6.10	24.97	31.07	46.00	14.93	QP



Vertical:

70.0 dBuV/m



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	36.8953	5.23	13.86	19.09	40.00	20.91	QP
2	59.8588	4.53	13.60	18.13	40.00	21.87	QP
3	137.9028	4.79	14.18	18.97	43.50	24.53	QP
4	341.9786	5.69	15.67	21.36	46.00	24.64	QP
5	714.1734	7.31	23.07	30.38	46.00	15.62	QP
6 *	909.6667	6.50	26.22	32.72	46.00	13.28	QP



Above 1GHz

Frequency (MHz)	Read Level (dBμV)	polarization	Factor (dB/m)	Level (dBμV/m)	Limit Line (dBμV/m)	Margin (dB)	Detector
802.11a 5180MHz							
10360	50.22	H	-5.39	44.83	68.2	23.37	peak
10360	49.57	V	-5.39	44.18	68.2	24.02	peak
802.11a 5200MHz							
10400	48.33	H	-5.29	43.04	68.2	25.16	peak
10400	46.91	V	-5.29	41.62	68.2	26.58	peak
802.11a 5240MHz							
10480	48.58	H	-5.08	43.5	68.2	24.7	peak
10480	47.9	V	-5.08	42.82	68.2	25.38	peak
802.11a 5260MHz							
10520	48.43	H	-4.97	43.46	68.2	24.74	peak
10520	46.98	V	-4.97	42.01	68.2	26.19	peak
802.11a 5300MHz							
10600	48.7	H	-4.76	43.94	68.2	24.26	peak
10600	47.14	V	-4.76	42.38	68.2	25.82	peak
802.11a 5320MHz							
10640	46.93	H	-4.66	42.27	68.2	25.93	peak
10640	47.15	V	-4.66	42.49	68.2	25.71	peak
802.11a 5500MHz							
11000	47.58	H	-3.71	43.87	68.2	24.33	peak
11000	47.54	V	-3.71	43.83	68.2	24.37	peak
802.11a 5580MHz							
11160	46.55	H	-3.56	42.99	68.2	25.21	peak
11160	45.62	V	-3.56	42.06	68.2	26.14	peak
802.11a 5700MHz							
11400	47.29	H	-3.34	43.95	68.2	24.25	peak
11400	46.98	V	-3.34	43.64	68.2	24.56	peak
802.11a 5720MHz							
11440	45.62	H	-3.3	42.32	68.2	25.88	peak
11440	46	V	-3.3	42.7	68.2	25.5	peak
802.11a 5745MHz							
11490	45.97	H	-3.25	42.72	68.2	25.48	peak
11490	47.4	V	-3.25	44.15	68.2	24.05	peak
802.11a 5785MHz							
11570	47.46	H	-3.18	44.28	68.2	23.92	peak
11570	47.75	V	-3.18	44.57	68.2	23.63	peak
802.11a 5825MHz							
11650	46.93	H	-3.12	43.81	68.2	24.39	peak
11650	47.44	V	-3.12	44.32	68.2	23.88	peak
802.11n20 5180MHz							
10360	49.22	H	-5.39	43.83	68.2	24.37	peak



10360	49.07	V	-5.39	43.68	68.2	24.52	peak
802.11n20 5200MHz							
10400	47.83	H	-5.29	42.54	68.2	25.66	peak
10400	47.91	V	-5.29	42.62	68.2	25.58	peak
802.11n20 5240MHz							
10480	48.08	H	-5.08	43	68.2	25.2	peak
10480	47.4	V	-5.08	42.32	68.2	25.88	peak
802.11n20 5260MHz							
10520	47.43	H	-4.97	42.46	68.2	25.74	peak
10520	46.48	V	-4.97	41.51	68.2	26.69	peak
802.11n20 5300MHz							
10600	46.2	H	-4.76	41.44	68.2	26.76	peak
10600	45.64	V	-4.76	40.88	68.2	27.32	peak
802.11n20 5320MHz							
10640	46.43	H	-4.66	41.77	68.2	26.43	peak
10640	46.15	V	-4.66	41.49	68.2	26.71	peak
802.11n20 5500MHz							
11000	46.08	H	-3.71	42.37	68.2	25.83	peak
11000	47.54	V	-3.71	43.83	68.2	24.37	peak
802.11n20 5580MHz							
11160	46.05	H	-3.56	42.49	68.2	25.71	peak
11160	45.12	V	-3.56	41.56	68.2	26.64	peak
802.11n20 5700MHz							
11400	45.79	H	-3.34	42.45	68.2	25.75	peak
11400	46.48	V	-3.34	43.14	68.2	25.06	peak
802.11n20 5720MHz							
11440	45.62	H	-3.3	42.32	68.2	25.88	peak
11440	46.5	V	-3.3	43.2	68.2	25	peak
802.11n20 5745MHz							
11490	46.45	H	-3.25	43.2	68.2	25	peak
11490	46.9	V	-3.25	43.65	68.2	24.55	peak
802.11n20 5785MHz							
11570	47.46	H	-3.18	44.28	68.2	23.92	peak
11570	47.75	V	-3.18	44.57	68.2	23.63	peak
802.11n20 5825MHz							
11650	46.9	H	-3.12	43.78	68.2	24.42	peak
11650	47.69	V	-3.12	44.57	68.2	23.63	peak
802.11ac20 5180MHz							
10360	49.22	H	-5.39	43.83	68.2	24.37	peak
10360	49.07	V	-5.39	43.68	68.2	24.52	peak
802.11ac20 5200MHz							
10400	48.33	H	-5.29	43.04	68.2	25.16	peak
10400	45.91	V	-5.29	40.62	68.2	27.58	peak
802.11ac20 5240MHz							



10480	47.08	H	-5.08	42	68.2	26.2	peak
10480	47.4	V	-5.08	42.32	68.2	25.88	peak
802.11ac20 5260MHz							
10520	47.93	H	-4.97	42.96	68.2	25.24	peak
10520	46.98	V	-4.97	42.01	68.2	26.19	peak
802.11ac20 5300MHz							
10600	47.7	H	-4.76	42.94	68.2	25.26	peak
10600	47.64	V	-4.76	42.88	68.2	25.32	peak
802.11ac20 5320MHz							
10640	46.43	H	-4.66	41.77	68.2	26.43	peak
10640	47.15	V	-4.66	42.49	68.2	25.71	peak
802.11ac20 5500MHz							
11000	46.58	H	-3.71	42.87	68.2	25.33	peak
11000	47.04	V	-3.71	43.33	68.2	24.87	peak
802.11ac20 5580MHz							
11160	47.05	H	-3.56	43.49	68.2	24.71	peak
11160	45.12	V	-3.56	41.56	68.2	26.64	peak
802.11ac20 5700MHz							
11400	45.59	H	-3.34	42.25	68.2	25.95	peak
11400	46.02	V	-3.34	42.68	68.2	25.52	peak
802.11ac20 5720MHz							
11440	46.62	H	-3.3	43.32	68.2	24.88	peak
11440	46	V	-3.3	42.7	68.2	25.5	peak
802.11ac20 5745MHz							
11490	44.97	H	-3.25	41.72	68.2	26.48	peak
11490	47.4	V	-3.25	44.15	68.2	24.05	peak
802.11ac20 5785MHz							
11570	46.96	H	-3.18	43.78	68.2	24.42	peak
11570	46.75	V	-3.18	43.57	68.2	24.63	peak
802.11ac20 5825MHz							
11650	45.93	H	-3.12	42.81	68.2	25.39	peak
11650	46.94	V	-3.12	43.82	68.2	24.38	peak
802.11ax20 5180MHz							
10360	48.72	H	-5.39	43.33	68.2	24.87	peak
10360	49.07	V	-5.39	43.68	68.2	24.52	peak
802.11ax20 5200MHz							
10400	48.83	H	-5.29	43.54	68.2	24.66	peak
10400	46.91	V	-5.29	41.62	68.2	26.58	peak
802.11ax20 5240MHz							
10480	48.58	H	-5.08	43.5	68.2	24.7	peak
10480	46.4	V	-5.08	41.32	68.2	26.88	peak
802.11ax20 5260MHz							
10520	47.93	H	-4.97	42.96	68.2	25.24	peak
10520	47.48	V	-4.97	42.51	68.2	25.69	peak



802.11ax20 5300MHz							
10600	48.7	H	-4.76	43.94	68.2	24.26	peak
10600	47.14	V	-4.76	42.38	68.2	25.82	peak
802.11ax20 5320MHz							
10640	46.43	H	-4.66	41.77	68.2	26.43	peak
10640	47.15	V	-4.66	42.49	68.2	25.71	peak
802.11ax20 5500MHz							
11000	47.58	H	-3.71	43.87	68.2	24.33	peak
11000	47.54	V	-3.71	43.83	68.2	24.37	peak
802.11ax20 5580MHz							
11160	46.55	H	-3.56	42.99	68.2	25.21	peak
11160	45.62	V	-3.56	42.06	68.2	26.14	peak
802.11ax20 5700MHz							
11400	47.29	H	-3.34	43.95	68.2	24.25	peak
11400	45.98	V	-3.34	42.64	68.2	25.56	peak
802.11ax20 5720MHz							
11440	45.62	H	-3.3	42.32	68.2	25.88	peak
11440	44.5	V	-3.3	41.2	68.2	27	peak
802.11ax20 5745MHz							
11490	44.97	H	-3.25	41.72	68.2	26.48	peak
11490	45.9	V	-3.25	42.65	68.2	25.55	peak
802.11ax20 5785MHz							
11570	46.46	H	-3.18	43.28	68.2	24.92	peak
11570	46.75	V	-3.18	43.57	68.2	24.63	peak
802.11ax20 5825MHz							
11650	45.43	H	-3.12	42.31	68.2	25.89	peak
11650	46.94	V	-3.12	43.82	68.2	24.38	peak
802.11n40 5190MHz							
10380	46.69	H	-5.35	41.34	68.2	26.86	peak
10380	47.9	V	-5.35	42.55	68.2	25.65	peak
802.11n40 5320MHz							
10460	47.13	H	-5.13	42	68.2	26.2	peak
10460	46.45	V	-5.13	41.32	68.2	26.88	peak
802.11n40 5270MHz							
10540	46.38	H	-4.92	41.46	68.2	26.74	peak
10540	46.43	V	-4.92	41.51	68.2	26.69	peak
802.11n40 5310MHz							
10620	47.91	H	-4.7	43.21	68.2	24.99	peak
10620	46.58	V	-4.7	41.88	68.2	26.32	peak
802.11n40 5510MHz							
11020	45.89	H	-3.69	42.2	68.2	26	peak
11020	47.23	V	-3.69	43.54	68.2	24.66	peak
802.11n40 5550MHz							
11100	45.92	H	-3.62	42.3	68.2	25.9	peak



11100	46.84	V	-3.62	43.22	68.2	24.98	peak
802.11n40 5670MHz							
11340	46.92	H	-3.4	43.52	68.2	24.68	peak
11340	45.21	V	-3.4	41.81	68.2	26.39	peak
802.11n40 5710MHz							
11420	44.28	H	-3.32	40.96	68.2	27.24	peak
11420	44.42	V	-3.32	41.1	68.2	27.1	peak
802.11n40 5755MHz							
11510	45.95	H	-3.25	42.7	68.2	25.5	peak
11510	46.16	V	-3.25	42.91	68.2	25.29	peak
802.11n40 5795MHz							
11590	45.94	H	-3.16	42.78	68.2	25.42	peak
11590	46.73	V	-3.16	43.57	68.2	24.63	peak
802.11ac40 5190MHz							
10380	45.69	H	-5.35	40.34	68.2	27.86	peak
10380	46.9	V	-5.35	41.55	68.2	26.65	peak
802.11ac40 5320MHz							
10460	47.63	H	-5.13	42.5	68.2	25.7	peak
10460	44.95	V	-5.13	39.82	68.2	28.38	peak
802.11ac40 5270MHz							
10540	42.88	H	-4.92	37.96	68.2	30.24	peak
10540	47.43	V	-4.92	42.51	68.2	25.69	peak
802.11ac40 5310MHz							
10620	45.41	H	-4.7	40.71	68.2	27.49	peak
10620	45.08	V	-4.7	40.38	68.2	27.82	peak
802.11ac40 5510MHz							
11020	46.39	H	-3.69	42.7	68.2	25.5	peak
11020	44.73	V	-3.69	41.04	68.2	27.16	peak
802.11ac40 5550MHz							
11100	43.92	H	-3.62	40.3	68.2	27.9	peak
11100	43.84	V	-3.62	40.22	68.2	27.98	peak
802.11ac40 5670MHz							
11340	44.42	H	-3.4	41.02	68.2	27.18	peak
11340	44.71	V	-3.4	41.31	68.2	26.89	peak
802.11ac40 5710MHz							
11420	43.28	H	-3.32	39.96	68.2	28.24	peak
11420	42.92	V	-3.32	39.6	68.2	28.6	peak
802.11ac40 5755MHz							
11510	45.45	H	-3.25	42.2	68.2	26	peak
11510	42.16	V	-3.25	38.91	68.2	29.29	peak
802.11ac40 5795MHz							
11590	42.94	H	-3.16	39.78	68.2	28.42	peak
11590	45.23	V	-3.16	42.07	68.2	26.13	peak
802.11ax40 5190MHz							



10380	44.19	H	-5.35	38.84	68.2	29.36	peak
10380	45.4	V	-5.35	40.05	68.2	28.15	peak
802.11ax40 5320MHz							
10460	45.63	H	-5.13	40.5	68.2	27.7	peak
10460	44.45	V	-5.13	39.32	68.2	28.88	peak
802.11ax40 5270MHz							
10540	45.38	H	-4.92	40.46	68.2	27.74	peak
10540	44.93	V	-4.92	40.01	68.2	28.19	peak
802.11ax40 5310MHz							
10620	46.41	H	-4.7	41.71	68.2	26.49	peak
10620	45.08	V	-4.7	40.38	68.2	27.82	peak
802.11ax40 5510MHz							
11020	44.89	H	-3.69	41.2	68.2	27	peak
11020	45.23	V	-3.69	41.54	68.2	26.66	peak
802.11ax40 5550MHz							
11100	43.92	H	-3.62	40.3	68.2	27.9	peak
11100	45.84	V	-3.62	42.22	68.2	25.98	peak
802.11ax40 5670MHz							
11340	44.92	H	-3.4	41.52	68.2	26.68	peak
11340	46.21	V	-3.4	42.81	68.2	25.39	peak
802.11ax40 5710MHz							
11420	42.78	H	-3.32	39.46	68.2	28.74	peak
11420	41.42	V	-3.32	38.1	68.2	30.1	peak
802.11ax40 5755MHz							
11510	45.95	H	-3.25	42.7	68.2	25.5	peak
11510	44.16	V	-3.25	40.91	68.2	27.29	peak
802.11ax40 5795MHz							
11590	44.44	H	-3.16	41.28	68.2	26.92	peak
11590	47.23	V	-3.16	44.07	68.2	24.13	peak
802.11ac80 5210MHz							
10420	46.77	H	-5.23	41.54	68.2	26.66	peak
10420	45.35	V	-5.23	40.12	68.2	28.08	peak
802.11ac80 5290MHz							
10580	46.76	H	-4.82	41.94	68.2	26.26	peak
10580	45.2	V	-4.82	40.38	68.2	27.82	peak
802.11ac80 5530MHz							
11060	45.33	H	-3.66	41.67	68.2	26.53	peak
11060	45.64	V	-3.66	41.98	68.2	26.22	peak
802.11ac80 5610MHz							
11220	46.01	H	-3.5	42.51	68.2	25.69	peak
11220	44.77	V	-3.5	41.27	68.2	26.93	peak
802.11ac80 5690MHz							
11380	43.32	H	-3.37	39.95	68.2	28.25	peak
11380	43.01	V	-3.37	39.64	68.2	28.56	peak



802.11ac80 5775MHz							
11550	43.44	H	-3.21	40.23	68.2	27.97	peak
11550	44.37	V	-3.21	41.16	68.2	27.04	peak
802.11ax80 5210MHz							
10420	39.19	H	-5.23	33.96	68.2	34.24	peak
10420	44.35	V	-5.23	39.12	68.2	29.08	peak
802.11ax80 5290MHz							
10580	46.26	H	-4.82	41.44	68.2	26.76	peak
10580	45.7	V	-4.82	40.88	68.2	27.32	peak
802.11ax80 5530MHz							
11060	45.83	H	-3.66	42.17	68.2	26.03	peak
11060	44.64	V	-3.66	40.98	68.2	27.22	peak
802.11ax80 5610MHz							
11220	46.01	H	-3.5	42.51	68.2	25.69	peak
11220	46.77	V	-3.5	43.27	68.2	24.93	peak
802.11ax80 5690MHz							
11380	44.61	H	-3.37	41.24	68.2	26.96	peak
11380	44.42	V	-3.37	41.05	68.2	27.15	peak
802.11ax80 5775MHz							
11550	44.94	H	-3.21	41.73	68.2	26.47	peak
11550	46.87	V	-3.21	43.66	68.2	24.54	peak
802.11ac160 5250MHz							
10500	44.41	H	-5.03	39.38	68.2	28.82	peak
10500	46.07	V	-5.03	41.04	68.2	27.16	peak
802.11ac160 5570MHz							
11140	42.77	H	-3.58	39.19	68.2	29.01	peak
11140	45.77	V	-3.58	42.19	68.2	26.01	peak
802.11ax160 5250MHz							
10500	46.41	H	-5.03	41.38	68.2	26.82	peak
10500	47.19	V	-5.03	42.16	68.2	26.04	peak
802.11ax160 5570MHz							
11140	45.77	H	-3.58	42.19	68.2	26.01	peak
11140	47.27	V	-3.58	43.69	68.2	24.51	peak

Remarks:

1. Level = Read level + Factor
2. The emission levels of other frequencies are very lower than the limit and not show in test report.
3. If the peak (or quasi-peak) measured value complies with the average limit, it is unnecessary to perform an average measurement, so AV emission value did not show in below table if the peak value complies with average limit.

10. Frequencies Stability

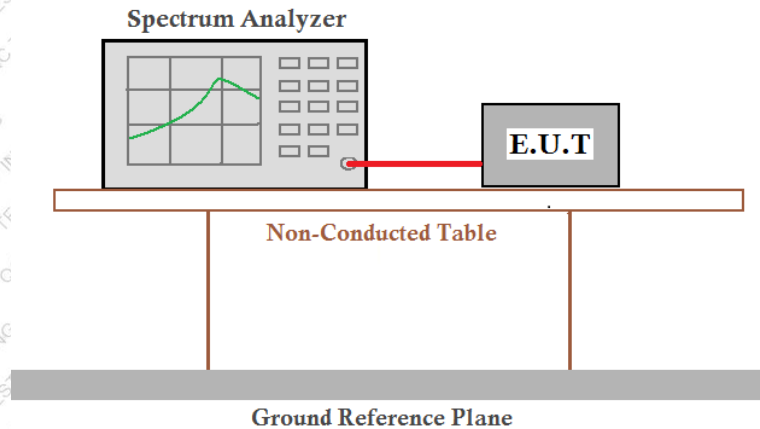
10.1 Applicable Standard

FCC Part15 E Section 15.407(g)

10.2 Limit

It is required that that the emissions are maintained within the band of operation under all conditions of normal operation as specified in the user's manual.

10.3 Test setup



10.4 Test Procedure

1. The EUT was placed on 0.8m height table, the RF output of EUT was connected to the test receiver by RF cable. The path loss was compensated to the results for each measurement.
2. Set Centre Frequency of the channel under test.
3. Set Detector PEAK
4. Set RBW: 10kHz, VBW: 3RBW
5. Set Span: Encompass the entire emissions bandwidth (EBW) of the signal.
6. Allow the trace to stabilize, find the peak value of the power envelope and record the frequency, then calculated the frequency drift.

The test extreme voltage is to change the primary supply voltage from 85 to 115 percent of the nominal value.

User manual temperature is -20°C to +55°C, normal Temperature is +25°C.

Manufacturers of UNII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified in the user's manual.

Test Results (All conditions and all modes were performed, only list Worst-Case in the report)



10.5 Test Data

Temperature	21.9 °C	Humidity	50%
ATM Pressure	101.1kPa	Antenna Gain	1.49dBi
Test by	LBi Li	Test result	PASS

Test result as below table

Mode	Frequency (MHz)	Temperature (°C)	Voltage (DC)	Measured Frequency (MHz)	Limit (MHz)	Verdict
802.11ac (VHT20)	5180	25	3.29	5180.0195	5150 to 5250	PASS
			3.87	5180.0232	5150 to 5250	PASS
			4.45	5179.9901	5150 to 5250	PASS
		-20	3.87	5179.9748	5150 to 5250	PASS
		-10	3.87	5180.0214	5150 to 5250	PASS
		0	3.87	5179.9551	5150 to 5250	PASS
		10	3.87	5179.9510	5150 to 5250	PASS
		30	3.87	5180.0251	5150 to 5250	PASS
	5200	25	3.87	5179.9955	5150 to 5250	PASS
			3.29	5200.0231	5150 to 5250	PASS
			3.87	5199.9935	5150 to 5250	PASS
		-20	4.45	5199.9834	5150 to 5250	PASS
			3.87	5200.0226	5150 to 5250	PASS
			3.87	5199.9574	5150 to 5250	PASS
		0	3.87	5199.9487	5150 to 5250	PASS
		10	3.87	5200.0159	5150 to 5250	PASS
	5240	25	3.87	5200.0052	5150 to 5250	PASS
			3.87	5200.0164	5150 to 5250	PASS
			3.29	5239.9933	5150 to 5250	PASS
		-20	3.87	5239.9745	5150 to 5250	PASS
			4.45	5240.0169	5150 to 5250	PASS
			3.87	5239.9600	5150 to 5250	PASS
		-10	3.87	5239.9478	5150 to 5250	PASS
		0	3.87	5240.0250	5150 to 5250	PASS
	5260	25	3.87	5239.9995	5150 to 5250	PASS
			3.87	5240.0171	5150 to 5250	PASS
			3.87	5239.9851	5150 to 5250	PASS
		-20	3.29	5259.9741	5250 to 5350	PASS
			3.87	5260.0160	5250 to 5350	PASS
			4.45	5259.9619	5250 to 5350	PASS
		-10	3.87	5259.9526	5250 to 5350	PASS
		0	3.87	5260.0171	5250 to 5350	PASS
	5300	25	3.87	5260.0074	5250 to 5350	PASS
			3.87	5260.0162	5250 to 5350	PASS
			3.87	5259.9915	5250 to 5350	PASS
		-20	3.87	5259.9839	5250 to 5350	PASS
			3.29	5300.0190	5250 to 5350	PASS
			3.87	5299.9553	5250 to 5350	PASS
		-10	4.45	5299.9495	5250 to 5350	PASS
			3.87	5300.0166	5250 to 5350	PASS
		25	3.87	5300.0097	5250 to 5350	PASS
			3.87	5300.0214	5250 to 5350	PASS
			3.87	5299.9872	5250 to 5350	PASS
		-20	3.87	5299.9828	5250 to 5350	PASS
			3.87			
			3.87			
		0	3.87			
		10	3.87			



	5320	40	3.87	5300.0232	5250 to 5350	PASS
		25	3.29	5319.9561	5250 to 5350	PASS
			3.87	5319.9491	5250 to 5350	PASS
		-20	4.45	5320.0222	5250 to 5350	PASS
			3.87	5320.0079	5250 to 5350	PASS
		-10	3.87	5320.0257	5250 to 5350	PASS
		0	3.87	5319.9910	5250 to 5350	PASS
		10	3.87	5319.9745	5250 to 5350	PASS
	5500	30	3.87	5320.0195	5250 to 5350	PASS
		40	3.87	5319.9563	5250 to 5350	PASS
		25	3.29	5499.9497	5470 to 5725	PASS
			3.87	5500.0221	5470 to 5725	PASS
		-20	4.45	5499.9985	5470 to 5725	PASS
			3.87	5500.0151	5470 to 5725	PASS
		-10	3.87	5499.9850	5470 to 5725	PASS
		0	3.87	5499.9790	5470 to 5725	PASS
	5580	10	3.87	5500.0177	5470 to 5725	PASS
		30	3.87	5499.9511	5470 to 5725	PASS
		40	3.87	5499.9498	5470 to 5725	PASS
		25	3.29	5580.0262	5470 to 5725	PASS
			3.87	5580.0107	5470 to 5725	PASS
		-20	4.45	5580.0252	5470 to 5725	PASS
			3.87	5579.9852	5470 to 5725	PASS
		-10	3.87	5579.9807	5470 to 5725	PASS
	5700	0	3.87	5580.0205	5470 to 5725	PASS
		10	3.87	5579.9598	5470 to 5725	PASS
		30	3.87	5579.9476	5470 to 5725	PASS
		40	3.87	5580.0257	5470 to 5725	PASS
		25	3.29	5699.9950	5470 to 5725	PASS
			3.87	5700.0261	5470 to 5725	PASS
		-20	4.45	5699.9871	5470 to 5725	PASS
			3.87	5699.9821	5470 to 5725	PASS
	5745	-10	3.87	5700.0190	5470 to 5725	PASS
		0	3.87	5699.9598	5470 to 5725	PASS
		10	3.87	5699.9481	5470 to 5725	PASS
		30	3.87	5700.0250	5470 to 5725	PASS
		40	3.87	5699.9953	5470 to 5725	PASS
		25	3.29	5745.0260	5725 to 5850	PASS
			3.87	5744.9864	5725 to 5850	PASS
		-20	4.45	5744.9760	5725 to 5850	PASS
			3.87	5745.0276	5725 to 5850	PASS
	5785	-10	3.87	5744.9594	5725 to 5850	PASS
		0	3.87	5744.9481	5725 to 5850	PASS
		10	3.87	5745.0201	5725 to 5850	PASS
		30	3.87	5745.0076	5725 to 5850	PASS
		40	3.87	5745.0140	5725 to 5850	PASS
		25	3.29	5784.9929	5725 to 5850	PASS
			3.87	5784.9814	5725 to 5850	PASS
		-20	4.45	5785.0272	5725 to 5850	PASS
			3.87	5784.9590	5725 to 5850	PASS
	5825	-10	3.87	5784.9457	5725 to 5850	PASS
		0	3.87	5785.0224	5725 to 5850	PASS
		10	3.87	5785.0060	5725 to 5850	PASS
		30	3.87	5785.0135	5725 to 5850	PASS
		40	3.87	5784.9926	5725 to 5850	PASS
		25	3.29	5824.9825	5725 to 5850	PASS
			3.87	5824.9825	5725 to 5850	PASS
		-20	4.45	5824.9825	5725 to 5850	PASS
			3.87	5824.9825	5725 to 5850	PASS



802.11ac (VHT40)				3.87	5825.0261	5725 to 5850	PASS
				4.45	5824.9503	5725 to 5850	PASS
			-20	3.87	5824.9445	5725 to 5850	PASS
			-10	3.87	5825.0273	5725 to 5850	PASS
			0	3.87	5825.0032	5725 to 5850	PASS
			10	3.87	5825.0146	5725 to 5850	PASS
			30	3.87	5824.9877	5725 to 5850	PASS
			40	3.87	5824.9814	5725 to 5850	PASS
	5190	25		3.29	5190.0254	5150 to 5250	PASS
				3.87	5189.9597	5150 to 5250	PASS
				4.45	5189.9483	5150 to 5250	PASS
		-20	3.87	5190.0174	5150 to 5250	PASS	
		-10	3.87	5190.0000	5150 to 5250	PASS	
		0	3.87	5190.0110	5150 to 5250	PASS	
		10	3.87	5189.9923	5150 to 5250	PASS	
		30	3.87	5189.9826	5150 to 5250	PASS	
	40	3.87	5190.0159	5150 to 5250	PASS		
	5230	25		3.29	5229.9599	5150 to 5250	PASS
				3.87	5229.9512	5150 to 5250	PASS
				4.45	5230.0190	5150 to 5250	PASS
		-20	3.87	5230.0022	5150 to 5250	PASS	
		-10	3.87	5230.0232	5150 to 5250	PASS	
		0	3.87	5229.9850	5150 to 5250	PASS	
		10	3.87	5229.9811	5150 to 5250	PASS	
		30	3.87	5230.0236	5150 to 5250	PASS	
	40	3.87	5229.9572	5150 to 5250	PASS		
	5270	25		3.29	5269.9510	5250 to 5350	PASS
				3.87	5270.0189	5250 to 5350	PASS
				4.45	5270.0046	5250 to 5350	PASS
		-20	3.87	5270.0197	5250 to 5350	PASS	
		-10	3.87	5269.9846	5250 to 5350	PASS	
		0	3.87	5269.9797	5250 to 5350	PASS	
		10	3.87	5270.0190	5250 to 5350	PASS	
		30	3.87	5269.9549	5250 to 5350	PASS	
	40	3.87	5269.9488	5250 to 5350	PASS		
	5310	25		3.29	5310.0187	5250 to 5350	PASS
				3.87	5309.9951	5250 to 5350	PASS
				4.45	5310.0237	5250 to 5350	PASS
		-20	3.87	5309.9900	5250 to 5350	PASS	
		-10	3.87	5309.9792	5250 to 5350	PASS	
		0	3.87	5310.0245	5250 to 5350	PASS	
		10	3.87	5309.9620	5250 to 5350	PASS	
		30	3.87	5309.9499	5250 to 5350	PASS	
	40	3.87	5310.0200	5250 to 5350	PASS		
	5510	25		3.29	5509.9997	5470 to 5725	PASS
				3.87	5510.0196	5470 to 5725	PASS
				4.45	5509.9838	5470 to 5725	PASS
		-20	3.87	5509.9804	5470 to 5725	PASS	
		-10	3.87	5510.0251	5470 to 5725	PASS	
		0	3.87	5509.9582	5470 to 5725	PASS	
		10	3.87	5509.9462	5470 to 5725	PASS	
		30	3.87	5510.0201	5470 to 5725	PASS	
	40	3.87	5510.0066	5470 to 5725	PASS		
	5550	25		3.29	5550.0239	5470 to 5725	PASS
				3.87	5549.9890	5470 to 5725	PASS
				4.45	5549.9783	5470 to 5725	PASS



802.11ac (VHT80)		-20	3.87	5550.0228	5470 to 5725	PASS
		-10	3.87	5549.9539	5470 to 5725	PASS
		0	3.87	5549.9489	5470 to 5725	PASS
		10	3.87	5550.0213	5470 to 5725	PASS
		30	3.87	5550.0031	5470 to 5725	PASS
		40	3.87	5550.0214	5470 to 5725	PASS
	5670	25	3.29	5669.9852	5470 to 5725	PASS
			3.87	5669.9819	5470 to 5725	PASS
			4.45	5670.0266	5470 to 5725	PASS
		-20	3.87	5669.9498	5470 to 5725	PASS
		-10	3.87	5669.9435	5470 to 5725	PASS
		0	3.87	5670.0280	5470 to 5725	PASS
		10	3.87	5670.0064	5470 to 5725	PASS
		30	3.87	5670.0174	5470 to 5725	PASS
		40	3.87	5669.9841	5470 to 5725	PASS
		5755	25	3.29	5754.9816	5725 to 5850
	3.87			5755.0272	5725 to 5850	PASS
	4.45			5754.9564	5725 to 5850	PASS
	-20		3.87	5754.9439	5725 to 5850	PASS
	-10		3.87	5755.0242	5725 to 5850	PASS
	0		3.87	5755.0037	5725 to 5850	PASS
	10		3.87	5755.0268	5725 to 5850	PASS
	30		3.87	5754.9906	5725 to 5850	PASS
	40		3.87	5754.9736	5725 to 5850	PASS
	5795		25	3.29	5795.0284	5725 to 5850
		3.87		5794.9582	5725 to 5850	PASS
		4.45		5794.9444	5725 to 5850	PASS
		-20	3.87	5795.0285	5725 to 5850	PASS
		-10	3.87	5795.0093	5725 to 5850	PASS
		0	3.87	5795.0277	5725 to 5850	PASS
		10	3.87	5794.9911	5725 to 5850	PASS
		30	3.87	5794.9822	5725 to 5850	PASS
		40	3.87	5795.0181	5725 to 5850	PASS
		5710	25	3.29	5709.9490	5725 to 5850
	3.87			5709.9467	5725 to 5850	PASS
	4.45			5710.0228	5725 to 5850	PASS
	-20		3.87	5710.0065	5725 to 5850	PASS
	-10		3.87	5710.0200	5725 to 5850	PASS
	0		3.87	5709.9896	5725 to 5850	PASS
	10		3.87	5709.9721	5725 to 5850	PASS
	30		3.87	5710.0253	5725 to 5850	PASS
	40		3.87	5709.9509	5725 to 5850	PASS
	5210		25	3.29	5209.9485	5150 to 5250
		3.87		5210.0244	5150 to 5250	PASS
		4.45		5210.0023	5150 to 5250	PASS
		-20	3.87	5210.0194	5150 to 5250	PASS
		-10	3.87	5209.9850	5150 to 5250	PASS
		0	3.87	5209.9806	5150 to 5250	PASS
		10	3.87	5210.0159	5150 to 5250	PASS
		30	3.87	5209.9567	5150 to 5250	PASS
		40	3.87	5209.9520	5150 to 5250	PASS
		5290	25	3.29	5290.0245	5250 to 5350
	3.87			5290.0058	5250 to 5350	PASS
	4.45			5290.0200	5250 to 5350	PASS
	-20		3.87	5289.9848	5250 to 5350	PASS
	-10		3.87	5289.9742	5250 to 5350	PASS



802.11ac (VHT160)	5530	0	3.87	5290.0217	5250 to 5350	PASS
		10	3.87	5289.9618	5250 to 5350	PASS
		30	3.87	5289.9471	5250 to 5350	PASS
		40	3.87	5290.0223	5250 to 5350	PASS
		25	3.29	5530.0048	5470 to 5725	PASS
			3.87	5530.0147	5470 to 5725	PASS
			4.45	5529.9845	5470 to 5725	PASS
		-20	3.87	5529.9736	5470 to 5725	PASS
		-10	3.87	5530.0203	5470 to 5725	PASS
		0	3.87	5529.9529	5470 to 5725	PASS
		10	3.87	5529.9485	5470 to 5725	PASS
		30	3.87	5530.0184	5470 to 5725	PASS
		40	3.87	5529.9991	5470 to 5725	PASS
	5775	25	3.29	5775.0281	5725 to 5850	PASS
			3.87	5774.9831	5725 to 5850	PASS
			4.45	5774.9735	5725 to 5850	PASS
		-20	3.87	5775.0246	5725 to 5850	PASS
		-10	3.87	5774.9553	5725 to 5850	PASS
		0	3.87	5774.9439	5725 to 5850	PASS
		10	3.87	5775.0185	5725 to 5850	PASS
		30	3.87	5775.0017	5725 to 5850	PASS
		40	3.87	5775.0238	5725 to 5850	PASS
		25	3.29	5689.9911	5725 to 5850	PASS
			3.87	5689.9788	5725 to 5850	PASS
			4.45	5690.0271	5725 to 5850	PASS
	5690	-20	3.87	5689.9528	5725 to 5850	PASS
		-10	3.87	5689.9434	5725 to 5850	PASS
		0	3.87	5690.0222	5725 to 5850	PASS
		10	3.87	5689.9954	5725 to 5850	PASS
		30	3.87	5690.0133	5725 to 5850	PASS
		40	3.87	5689.9831	5725 to 5850	PASS
	5250	25	3.29	5249.9803	5150 to 5350	PASS
			3.87	5250.0234	5150 to 5350	PASS
			4.45	5249.9549	5150 to 5350	PASS
		-20	3.87	5249.9500	5150 to 5350	PASS
		-10	3.87	5250.0212	5150 to 5350	PASS
		0	3.87	5250.0062	5150 to 5350	PASS
		10	3.87	5250.0200	5150 to 5350	PASS
		30	3.87	5249.9868	5150 to 5350	PASS
		40	3.87	5249.9767	5150 to 5350	PASS
	5570	25	3.29	5570.0233	5470 to 5725	PASS
			3.87	5569.9564	5470 to 5725	PASS
			4.45	5569.9468	5470 to 5725	PASS
		-20	3.87	5570.0266	5470 to 5725	PASS
		-10	3.87	5570.0089	5470 to 5725	PASS
		0	3.87	5570.0213	5470 to 5725	PASS
		10	3.87	5569.9928	5470 to 5725	PASS
		30	3.87	5569.9779	5470 to 5725	PASS
		40	3.87	5570.0264	5470 to 5725	PASS

11. Dynamic Frequency Selection (DFS)

Table 4 below provides the DFS Detection Thresholds for Master Devices as well as Client Devices incorporating In-Service Monitoring.

Table 4: DFS Detection Thresholds for Master Devices and Client Devices with Radar Detection

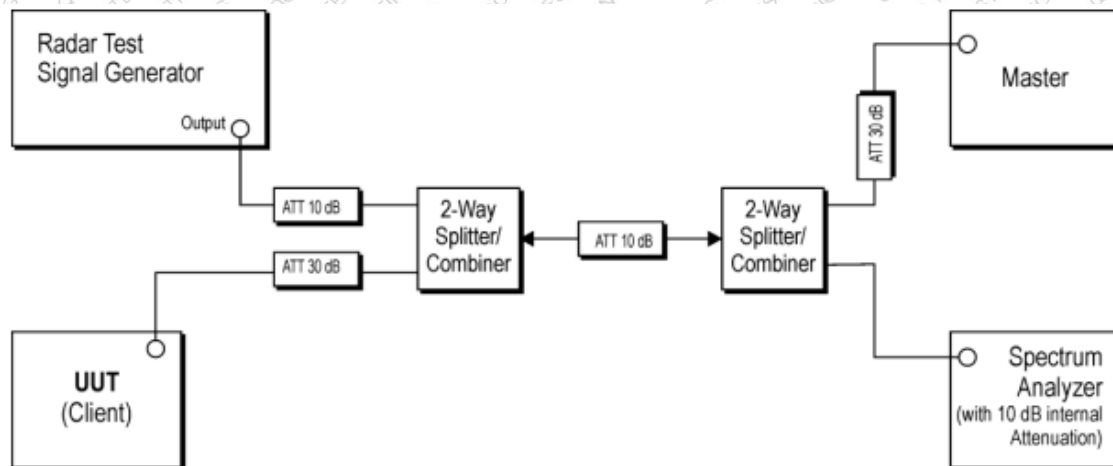
Maximum Transmit Power	Value (See Notes 1, 2, and 3)
EIRP $\geq$ 200 milliwatt	-64 dBm
EIRP $<$ 200 milliwatt and power spectral density $<$ 10 dBm/MHz	-62 dBm
EIRP $<$ 200 milliwatt that do not meet the power spectral density requirement	-64 dBm

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.
 Note3: EIRP is based on the highest antenna gain. For MIMO devices refer to KDB Publication 662911 D01.

Test Procedure

The FCC KDB 905462 D02 v02 describes a radiated test setup and a conducted test setup. A conducted test setup was used for this testing. Figure 1 shows the typical test setup. One channel selected between 5260 and 5350 MHz is chosen for the testing.

Figure 1. Test Setup for DFS



Channel Closing Transmission Time, Channel Move Time and Non-Occupancy Period.

Block Diagram of test setup test procedure.

- (1) The Radar Pulse generator is setup to provide a pulse at frequency that the master and client are operating. A type 0 radar pulse is used for the testing.
- (2) The vector signal generator is adjusted to provide the radar burst (18 pulses) at the level of approximately 62dBm at the antenna of the master device.
- (3) A trigger is provided from the pulse generator to the DFS monitoring system in order to capture the traffic and the occurrence of the radar pulse.

- (4) The Client Device (EUT) is set up per the diagram in Figure 1 and communications between the Master device and the Client is established.
- (5) Iperf software is used to properly load the test channel.
- (6) The real time spectrum analyzer is set to record a 16sec window to any transmissions occurring up to and after 10sec.
- (7) The system is again setup and the monitoring time is shortened in order to capture the Channel Closing Transmission Time. This time is measured to ensure that the Client ceases transmission within 200ms and the aggregate of emissions occurring after 200ms up to 10 sec do not exceed 60ms. (Note: the channel may be different since the Master and Client have changed channels due to the detection of an initial radar pulse.)
- (8) After the initial radar burst the channel is monitored for 30 minutes to ensure no transmissions or beacons occur. A second monitoring setup is used to verify that the Master and Client have both moved to different channels.

Test Result

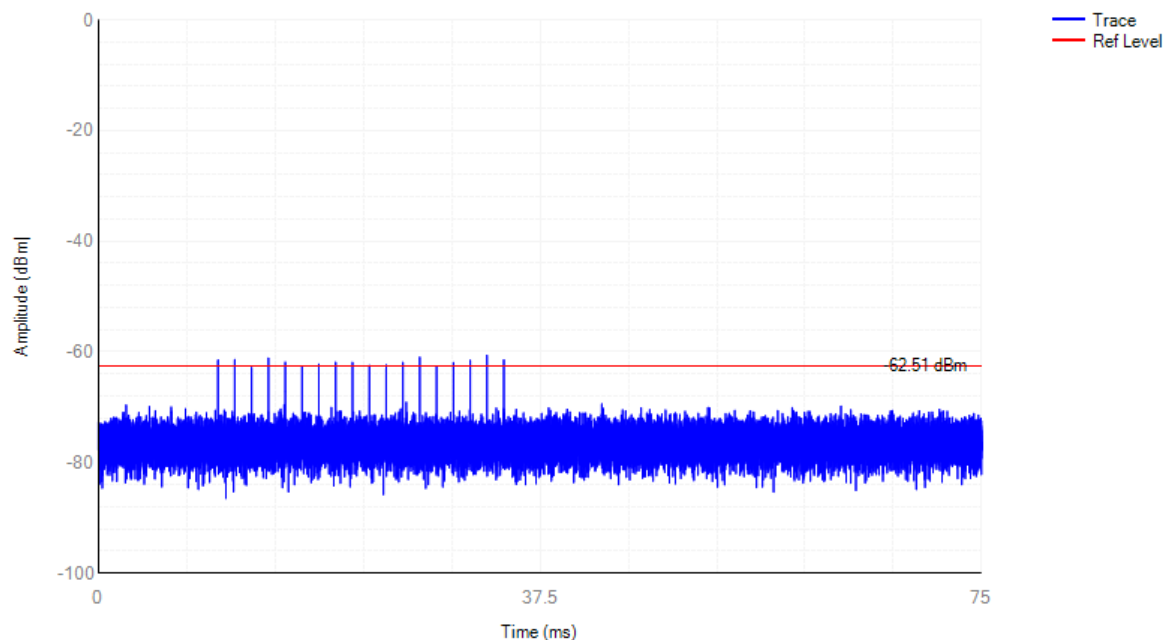
Clause	Test Parameter	Verdict
15.407	DFS Detection Threshold	Not Applicable
15.407	Channel Availability Check time	Not Applicable
15.407	Channel Move time	Pass
15.407	Channel Closing Transmission time	Pass
15.407	Non-occupancy Period	Not Applicable
15.407	Uniform Spreading	Not Applicable
15.407	UNII Detection Bandwidth	Not Applicable

Test Mode	Channel	Channel Move Time (s)	Limit Channel Move Time (s)	Close Transmission Time (s)	Limit Close Transmission Time (s)	Close Transmission Time after 200ms(s)	Limit Close Transmission Time after 200ms (s)	Verdict
ax160	5250	0.5561	10	0.0136	0.26	0.0036	0.06	PASS
	5570	0.4573	10	0.0148	0.26	0.0024	0.06	PASS



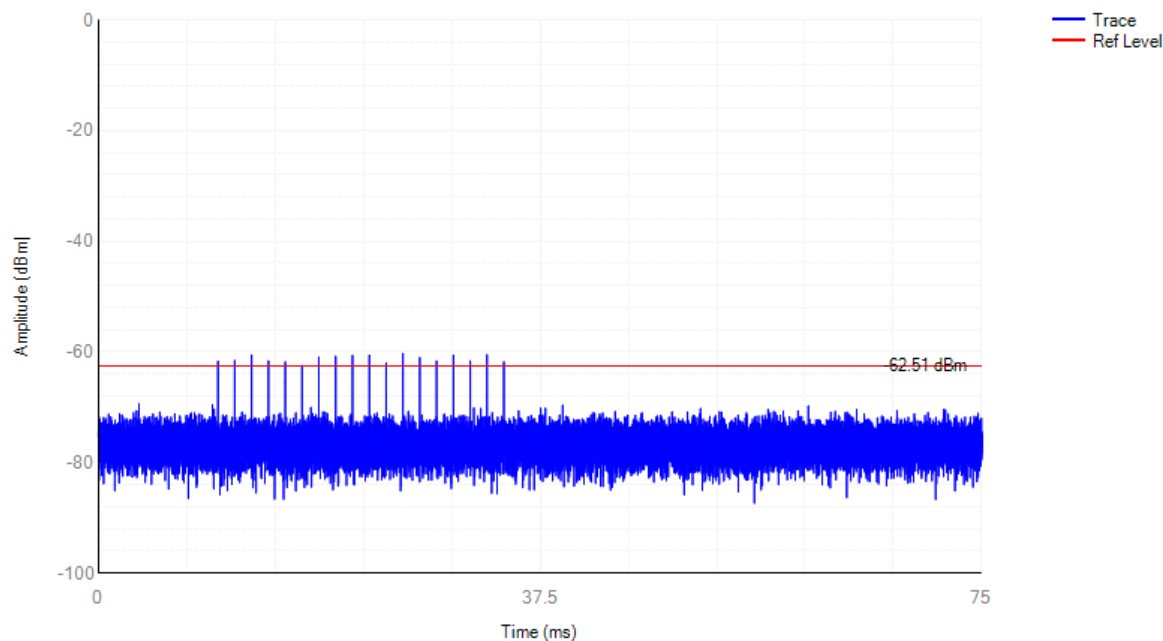
5250MHz DFS_FCC_T0

Radar Calibration



5570MHz DFS_FCC_T0

Radar Calibration

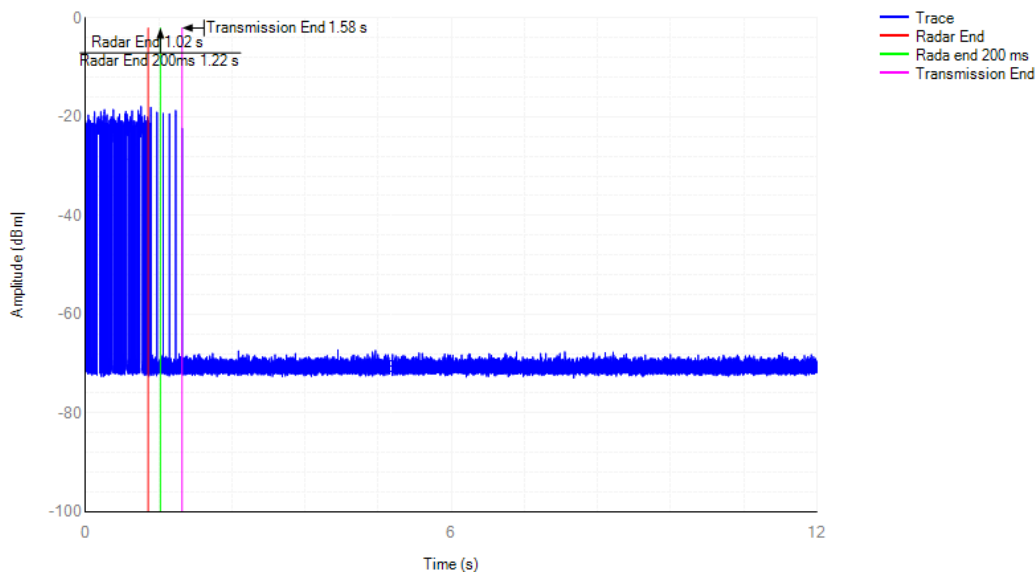




5250MHz Shutdown Time

Radar signal:	DFS_FCC_T0	5250.00 MHz	-62.51 dBm	Channel Move Time	0.556 s	Max	10.00 s
Sweep time	12.00 s			Total CCTT	0.014 s	Max	0.26 s
Radar on time	1.00 s	Threshold: -60.00 dBm	Calculate	CCTT after 200 ms	0.004 s	Max	0.06 s

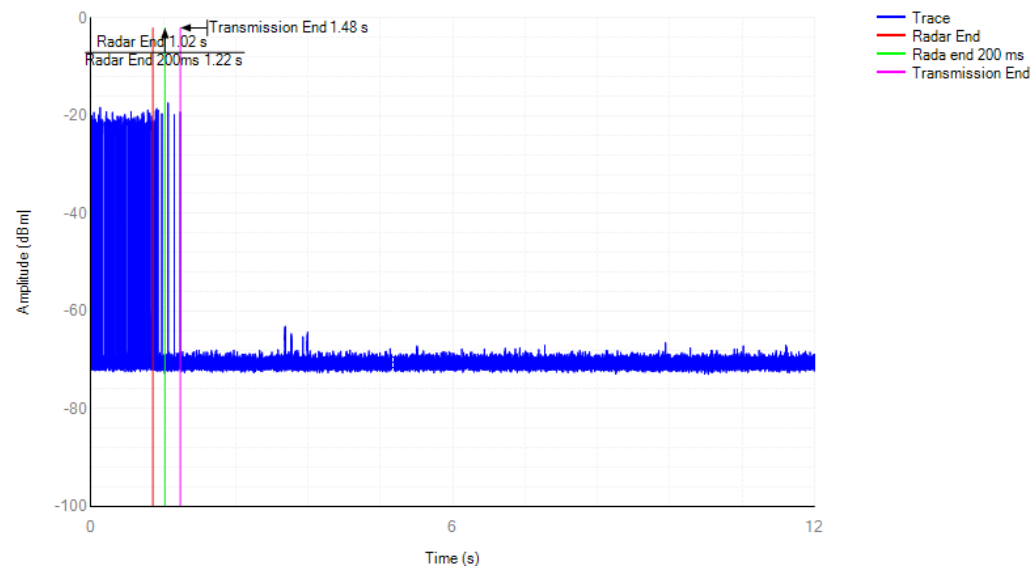
Channel Shutdown



5570MHz Shutdown Time

Radar signal:	DFS_FCC_T0	5570.00 MHz	-62.51 dBm	Channel Move Time	0.457 s	Max	10.00 s
Sweep time	12.00 s			Total CCTT	0.015 s	Max	0.26 s
Radar on time	1.00 s	Threshold: -60.00 dBm	Calculate	CCTT after 200 ms	0.002 s	Max	0.06 s

Channel Shutdown



----- THE END OF TEST REPORT -----