

Spurious Radiated Emissions are permitted in any of the frequency bands listed below:

MHz	MHz	MHz	GHz
0.090-0.110	16.42-16.423	399.9-410	4.5-5.15
¹ 0.495-0.505	16.69475-16.69525	608-614	5.35-5.46
2.1735-2.1905	16.80425-16.80475	960-1240	7.25-7.75
4.125-4.128	25.5-25.67	1300-1427	8.025-8.5
4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2
4.20725-4.20775	73-74.6	1645.5-1646.5	9.3-9.5
6.215-6.218	74.8-75.2	1660-1710	10.6-12.7
6.26775-6.26825	108-121.94	1718.8-1722.2	13.25-13.4
6.31175-6.31225	123-138	2200-2300	14.47-14.5
8.291-8.294	149.9-150.05	2310-2390	15.35-16.2
8.362-8.366	156.52475-156.52525	2483.5-2500	17.7-21.4
8.37625-8.38675	156.7-156.9	2690-2900	22.01-23.12
8.41425-8.41475	162.0125-167.17	3260-3267	23.6-24.0
12.29-12.293	167.72-173.2	3332-3339	31.2-31.8
12.51975-12.52025	240-285	3345.8-3358	36.43-36.5
12.57675-12.57725	322-335.4	3600-4400	(²)
13.36-13.41			

Measurement Uncertainty

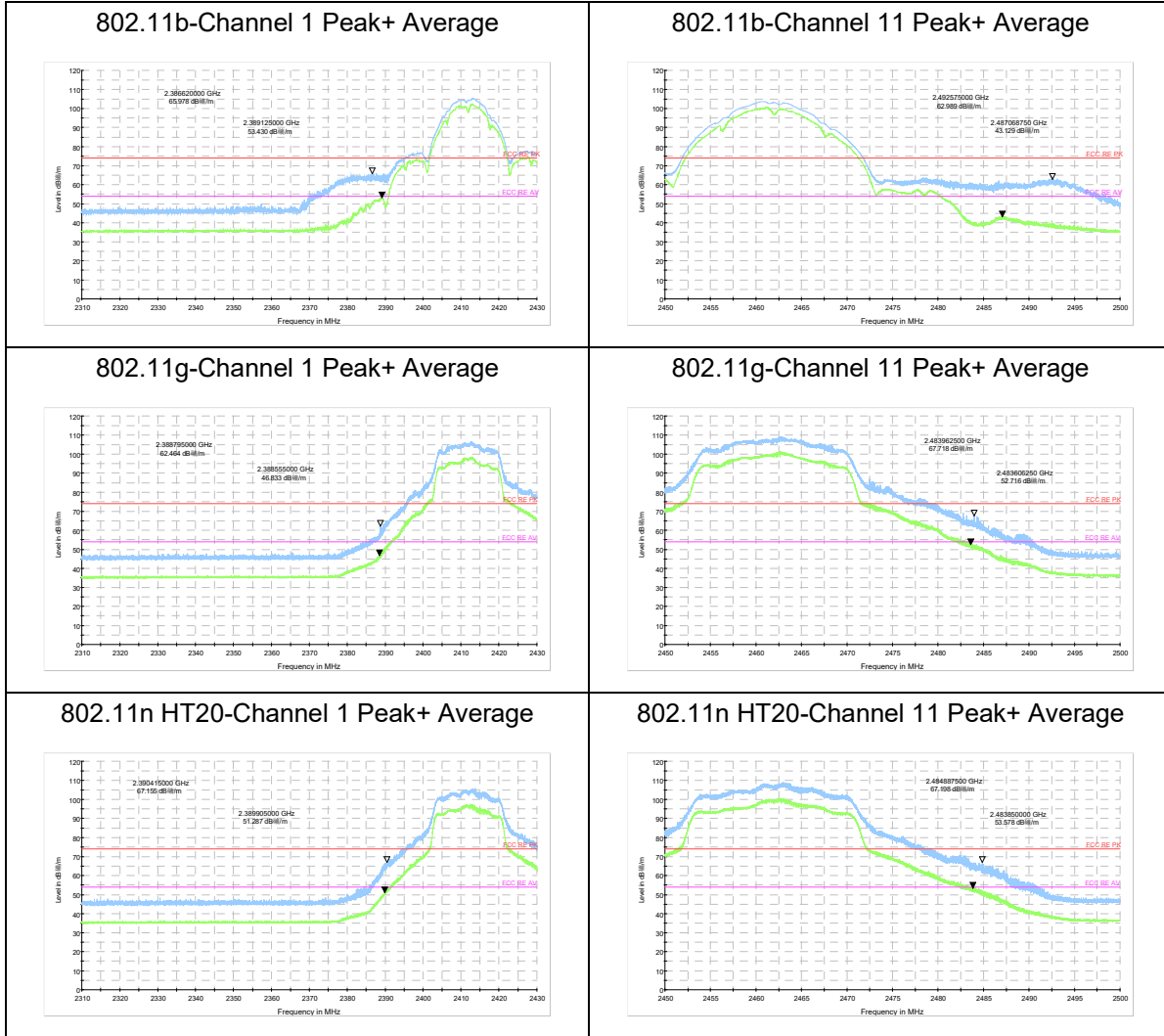
The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor $k = 1.96$.

Frequency	Uncertainty
9kHz-30MHz	3.55 dB
30MHz-200MHz	4.17 dB
200MHz-1GHz	4.84 dB
1-18GHz	4.35 dB
18-26.5GHz	5.90 dB
26.5GHz~40GHz	5.92 dB

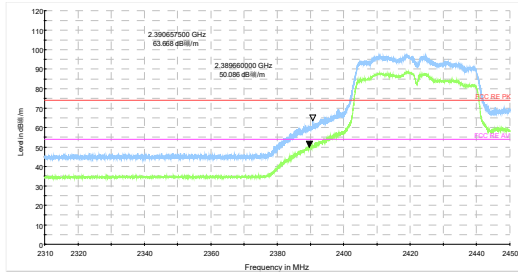
Test Results:

The following graphs display the maximum values of horizontal and vertical by software.
Blue trace uses the peak detection, Green trace uses the average detection.

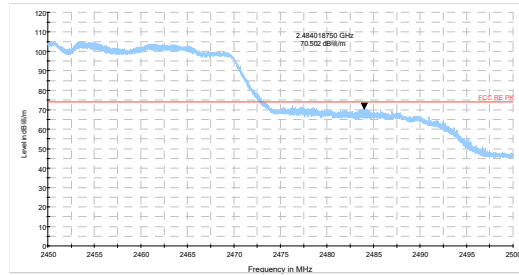
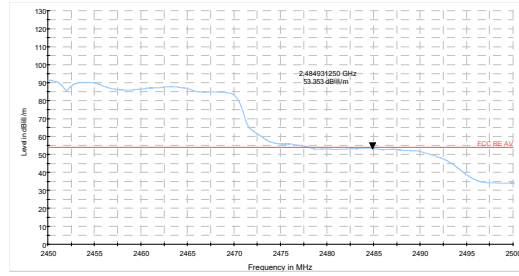
A symbol ($\text{dB}\mu\text{V/m}$) in the test plot below means ($\text{dB}\mu\text{V/m}$)



802.11n HT40-Channel 3 Peak+ Average

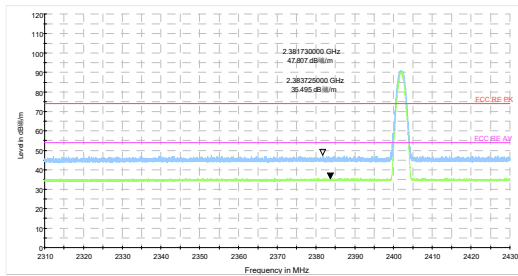


802.11n HT40-Channel 9 Peak+ Average

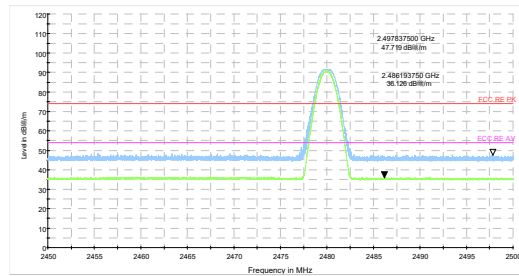


After the pretest, Bluetooth LE (1M) was selected as the worst Mode for Bluetooth LE.

Bluetooth LE (1M) Channel 0 Peak+ Average



Bluetooth LE (1M) Channel 39 Peak+Average



Result of RE

Test result

Sweep the whole frequency band through the range from 9kHz to the 10th harmonic of the carrier.
The Radiates Emission from 18GHz to 26.5GHz are more than 20dB below the limit are not reported.

Continuous TX mode:

Remark:

1. **Correction Factor = Antenna factor + Insertion loss (cable loss + amplifier gain)**
2. **Margin = Limit – Quasi-Peak/ MAX Peak/ Average**
3. **For below 1GHz**

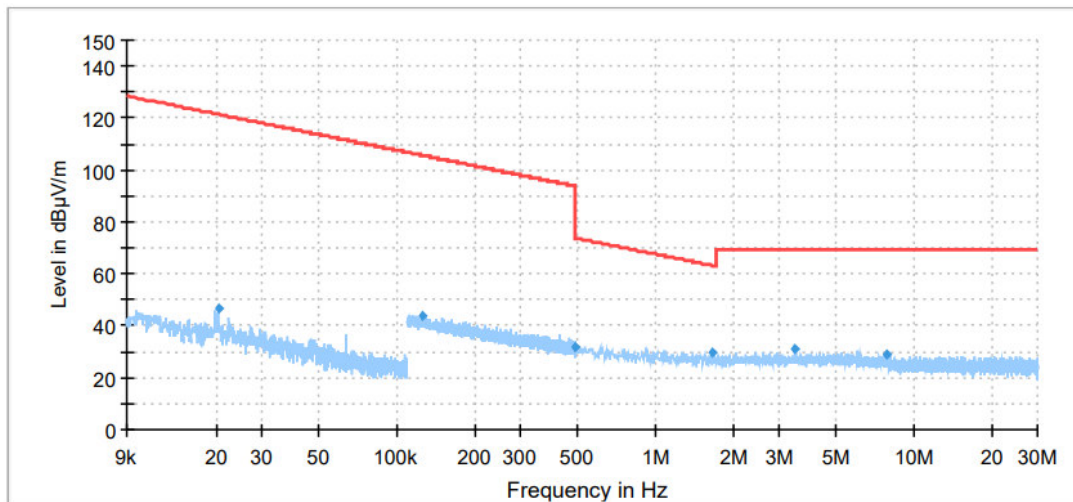
 QP Level @Spectrum Overview H
  QP Level @Spectrum Overview V
  QP Level @Final Results
  QP Limit

For above 1GHz

 PK Level @Spectrum Overview H
  PK Level @Spectrum Overview V
  PK Level @Final Results
  PK Limit
 AVG Level @Spectrum Overview H
  AVG Level @Spectrum Overview V
  AVG Level @Final Results
  AVG Limit

Wi-Fi 2.4GHz

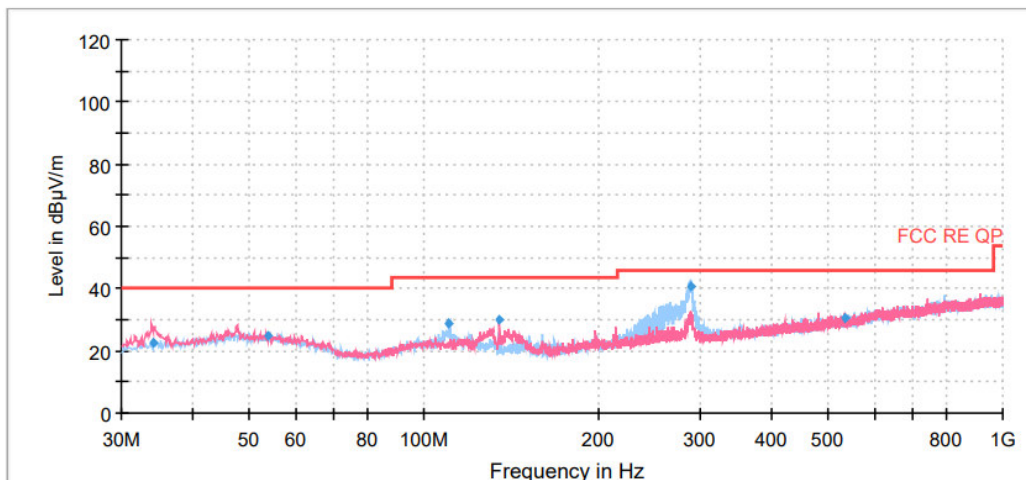
During the test, the Radiates Emission from 9kHz to 1GHz was performed in all modes with all channels, the test data of the worst-case condition was recorded in this report.



Final Result

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Azimuth (deg)	Corr. (dB/m)
0.02	46.67	121.43	74.76	500.00	187.00	17
0.13	43.92	105.62	61.70	150.00	2.00	17
0.49	31.65	73.80	42.15	150.00	245.00	17
1.65	29.85	63.25	33.40	150.00	104.00	17
3.48	31.04	69.50	38.46	150.00	1.00	17
7.80	28.77	69.50	40.73	150.00	265.00	17

Radiates Emission from 9kHz to 30MHz

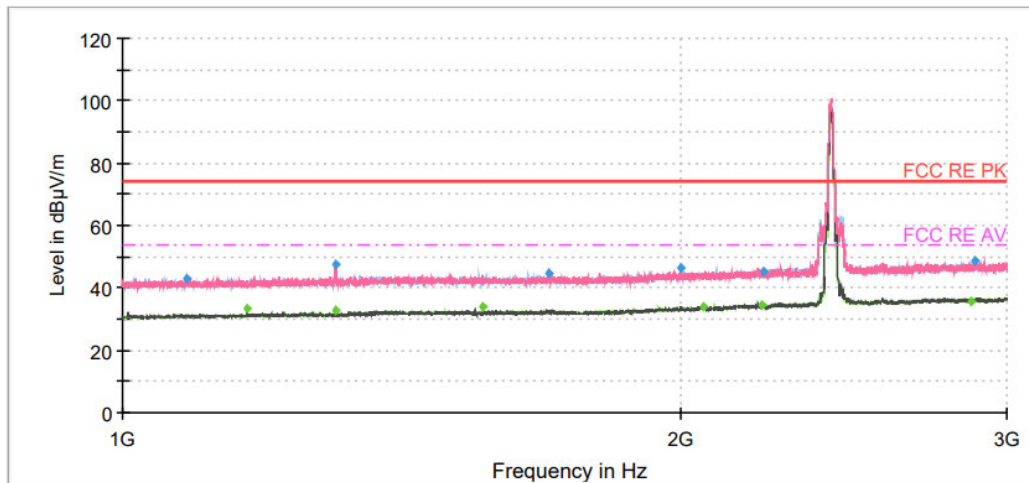


Final Result

Frequency (MHz)	QuasiPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
34.00	22.46	40.00	17.54	1000.00	120.000	124.0	V	19.00	18
53.85	24.72	40.00	15.28	1000.00	120.000	100.0	H	150.00	20
110.59	28.76	43.50	14.74	1000.00	120.000	225.0	H	93.00	18
135.16	30.16	43.50	13.34	1000.00	120.000	100.0	V	26.00	15
288.19	40.79	46.00	5.21	1000.00	120.000	100.0	H	237.00	21
533.83	30.49	46.00	15.51	1000.00	120.000	124.0	V	336.00	26

Radiates Emission from 30MHz to 1GHz

802.11b CH1

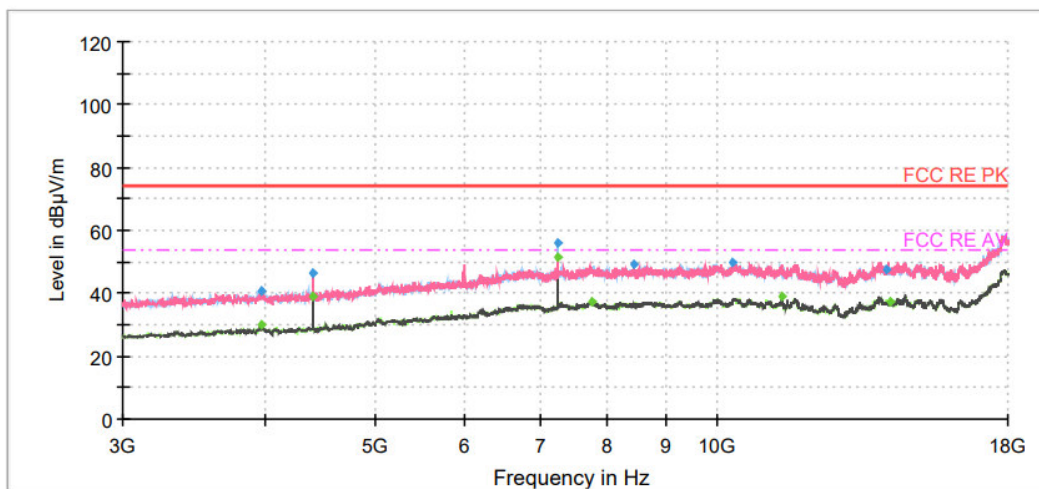


Final Result

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1083.50	43.24	---	74.00	30.76	500.00	100.0	V	20.00	-5
1167.25	---	33.45	54.00	20.55	500.00	100.0	H	122.00	-5
1302.25	47.64	---	74.00	26.36	500.00	200.0	V	234.00	-4
1303.00	---	33.04	54.00	20.96	500.00	100.0	H	143.00	-4
1563.50	---	34.00	54.00	20.00	500.00	200.0	H	23.00	-2
1699.00	44.65	---	74.00	29.35	500.00	200.0	H	358.00	-2
1999.00	46.57	---	74.00	27.43	500.00	200.0	V	167.00	0
2056.00	---	34.08	54.00	19.92	500.00	100.0	V	247.00	0
2214.75	---	34.26	54.00	19.74	500.00	200.0	H	243.00	1
2218.00	45.08	---	74.00	28.92	500.00	100.0	H	204.00	1
2871.50	---	35.75	54.00	18.25	500.00	100.0	H	1.00	3
2885.75	48.43	---	74.00	25.57	500.00	100.0	V	357.00	3

Note: The signal beyond the limit is carrier.

Radiates Emission from 1GHz to 3GHz

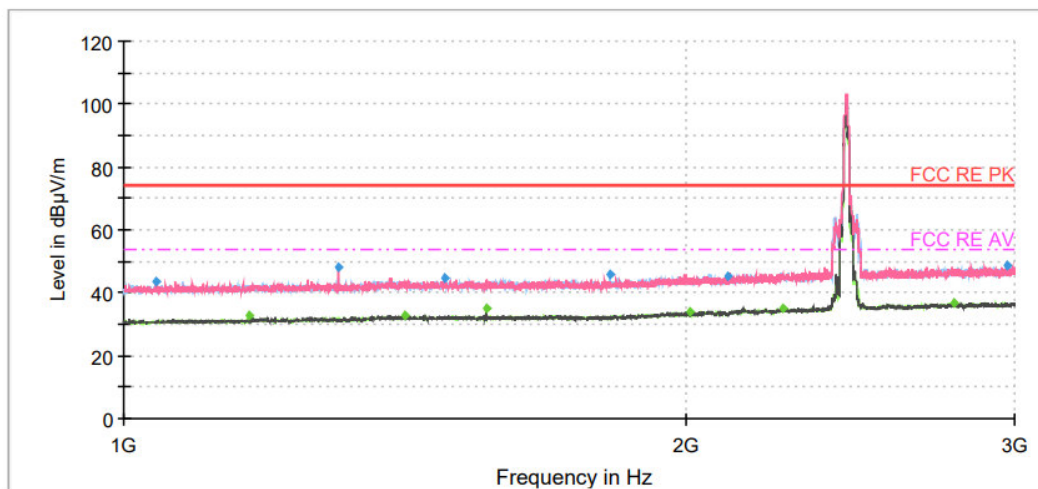


Final Result

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
3965.63	---	29.75	54.00	24.25	500.00	100.0	V	351.00	-3
3965.63	40.85	---	74.00	33.15	500.00	100.0	H	1.00	-3
4408.13	---	39.01	54.00	14.99	500.00	200.0	V	346.00	-3
4408.13	46.58	---	74.00	27.42	500.00	200.0	V	346.00	-3
7233.75	---	51.66	54.00	2.34	500.00	200.0	H	13.00	5
7233.75	56.20	---	74.00	17.80	500.00	200.0	H	13.00	5
7768.13	---	37.64	54.00	16.36	500.00	200.0	V	108.00	7
8441.25	49.35	---	74.00	24.65	500.00	200.0	V	10.00	6
10318.13	49.67	---	74.00	24.33	500.00	100.0	H	354.00	8
11383.13	---	38.78	54.00	15.22	500.00	200.0	V	4.00	9
14092.50	47.67	---	74.00	26.33	500.00	200.0	H	268.00	11
14176.88	---	37.16	54.00	16.84	500.00	200.0	H	0.00	11

Radiates Emission from 3GHz to 18GHz

802.11b CH6

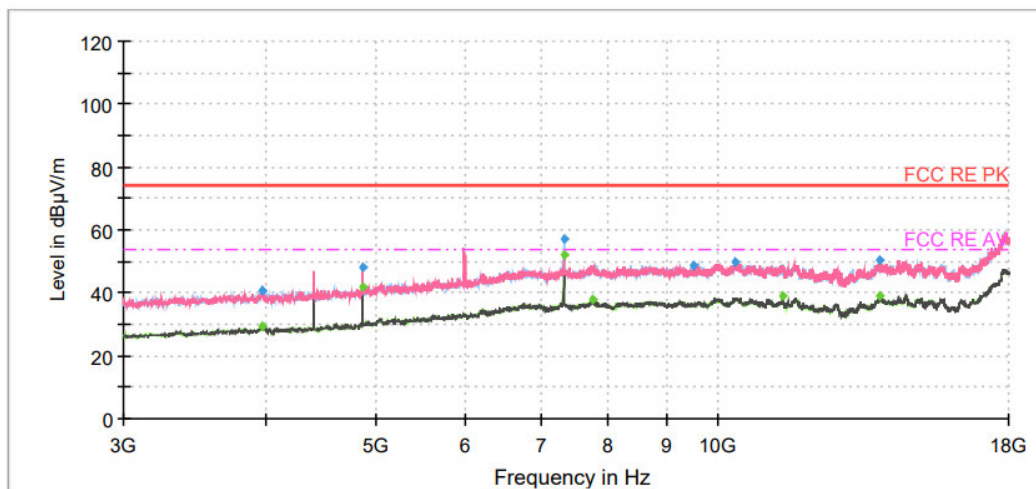


Final Result

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1040.50	43.37	---	74.00	30.63	500.00	200.0	V	1.00	-5
1167.25	---	32.81	54.00	21.19	500.00	200.0	V	144.00	-5
1302.00	48.01	---	74.00	25.99	500.00	200.0	V	258.00	-4
1414.50	---	32.69	54.00	21.31	500.00	100.0	V	0.00	-3
1485.50	44.55	---	74.00	29.45	500.00	100.0	H	66.00	-3
1563.00	---	35.09	54.00	18.92	500.00	100.0	V	355.00	-2
1823.25	45.93	---	74.00	28.07	500.00	100.0	H	157.00	-1
2008.50	---	34.02	54.00	19.98	500.00	200.0	H	259.00	0
2108.00	45.15	---	74.00	28.85	500.00	100.0	H	354.00	0
2255.50	---	34.96	54.00	19.04	500.00	200.0	H	259.00	1
2781.00	---	36.95	54.00	17.05	500.00	200.0	V	0.00	3
2972.25	48.73	---	74.00	25.27	500.00	200.0	H	357.00	3

Note: The signal beyond the limit is carrier.

Radiates Emission from 1GHz to 3GHz

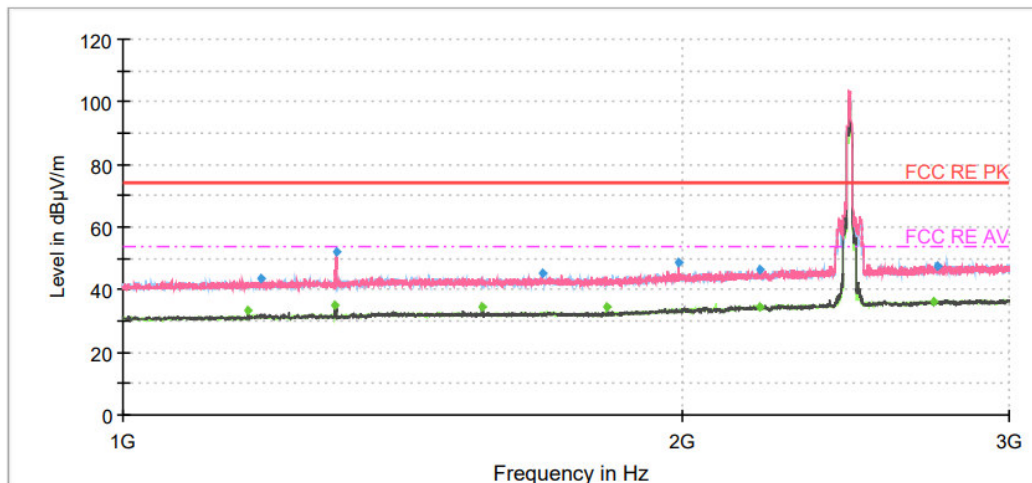


Final Result

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
3969.38	---	29.59	54.00	24.41	500.00	100.0	V	0.00	-3
3971.25	40.54	---	74.00	33.46	500.00	100.0	H	0.00	-3
4873.13	---	42.08	54.00	11.92	500.00	100.0	H	18.00	-1
4873.13	47.92	---	74.00	26.08	500.00	100.0	H	18.00	-1
7308.75	---	52.32	54.00	1.68	500.00	200.0	H	13.00	6
7308.75	57.15	---	74.00	16.85	500.00	100.0	H	18.00	6
7762.50	---	37.87	54.00	16.13	500.00	100.0	H	0.00	7
9493.13	48.69	---	74.00	25.31	500.00	100.0	H	5.00	7
10342.50	49.69	---	74.00	24.31	500.00	200.0	H	353.00	8
11385.00	---	38.93	54.00	15.07	500.00	100.0	V	63.00	9
13867.50	---	39.05	54.00	14.95	500.00	100.0	V	131.00	11
13882.50	50.57	---	74.00	23.43	500.00	100.0	V	267.00	11

Radiates Emission from 3GHz to 18GHz

802.11b CH11

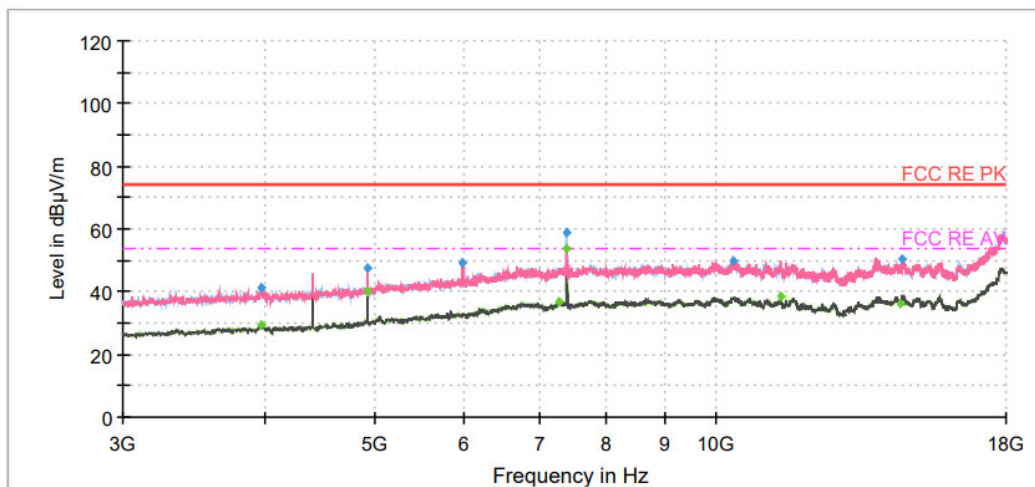


Final Result

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1167.25	---	33.20	54.00	20.80	500.00	200.0	H	150.00	-5
1187.00	43.53	---	74.00	30.47	500.00	200.0	H	262.00	-4
1301.25	---	35.05	54.00	18.95	500.00	200.0	V	132.00	-4
1302.50	52.08	---	74.00	21.92	500.00	200.0	V	256.00	-4
1562.25	---	34.73	54.00	19.27	500.00	200.0	V	341.00	-2
1682.50	45.11	---	74.00	28.89	500.00	100.0	V	347.00	-2
1822.00	---	34.68	54.00	19.32	500.00	100.0	H	319.00	-1
1991.75	48.85	---	74.00	25.15	500.00	200.0	V	163.00	0
2204.25	---	34.58	54.00	19.42	500.00	200.0	H	358.00	1
2204.50	46.18	---	74.00	27.82	500.00	100.0	H	163.00	1
2732.75	---	36.08	54.00	17.92	500.00	200.0	H	323.00	3
2744.75	47.79	---	74.00	26.21	500.00	200.0	V	153.00	3

Note: The signal beyond the limit is carrier.

Radiates Emission from 1GHz to 3GHz

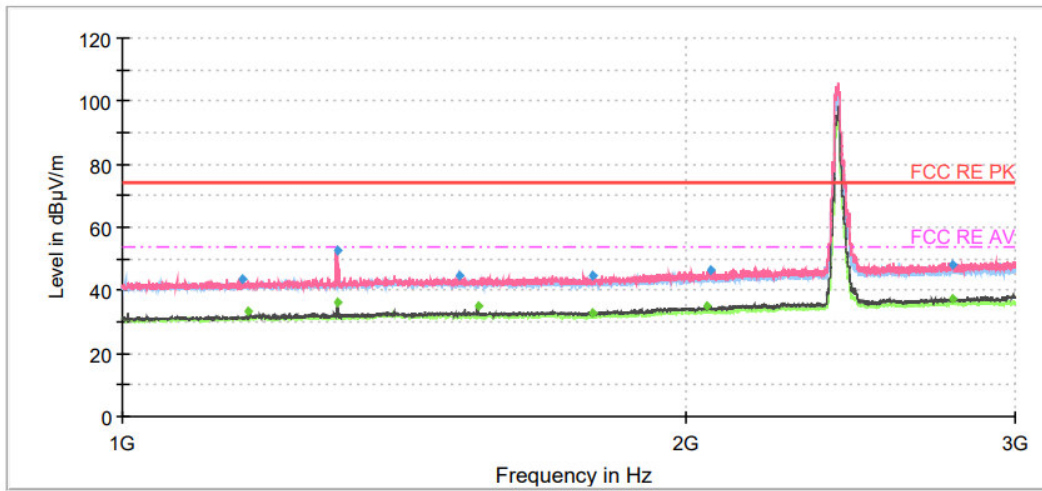


Final Result

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
3967.50	---	29.64	54.00	24.36	500.00	100.0	H	160.00	-3
3967.50	41.25	---	74.00	32.75	500.00	200.0	H	316.00	-3
4923.75	---	40.33	54.00	13.67	500.00	200.0	H	116.00	-1
4923.75	47.37	---	74.00	26.63	500.00	200.0	H	116.00	-1
5970.00	49.35	---	74.00	24.65	500.00	100.0	V	171.00	2
7276.88	---	36.85	54.00	17.15	500.00	100.0	H	0.00	6
7383.75	58.90	---	74.00	15.10	500.00	200.0	H	12.00	6
7383.75	---	53.76	54.00	0.24	500.00	200.0	H	12.00	6
10365.00	49.72	---	74.00	24.28	500.00	200.0	H	0.00	8
11383.13	---	38.62	54.00	15.38	500.00	200.0	V	225.00	9
14516.25	---	36.21	54.00	17.79	500.00	200.0	H	142.00	11
14583.75	50.33	---	74.00	23.67	500.00	100.0	V	250.00	11

Radiates Emission from 3GHz to 18GHz

802.11g CH1

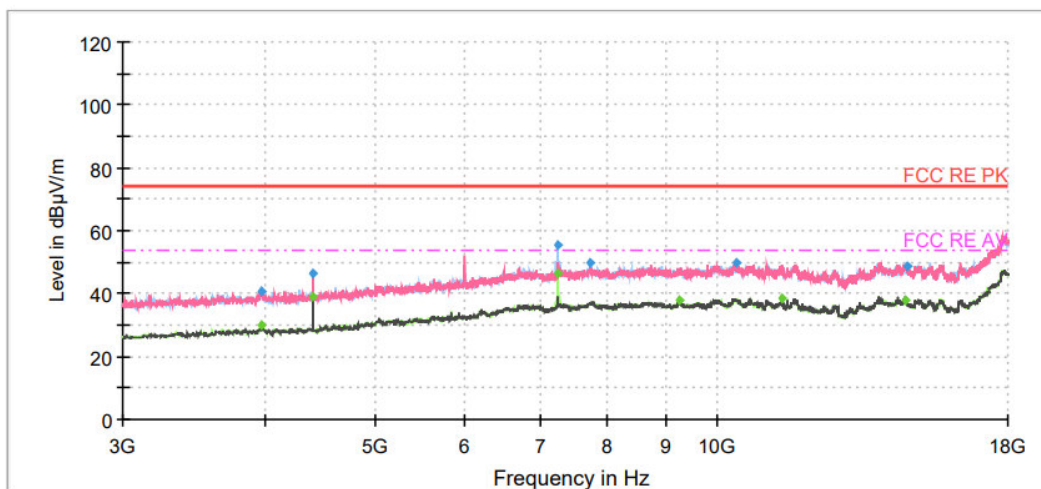


Final Result

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1160.00	43.74	---	74.00	30.26	500.00	200.0	V	293.00	-5
1167.25	---	33.54	54.00	20.46	500.00	100.0	V	176.00	-5
1302.75	---	36.33	54.00	17.67	500.00	200.0	V	159.00	-4
1302.75	52.87	---	74.00	21.13	500.00	200.0	V	159.00	-4
1515.50	44.89	---	74.00	29.11	500.00	200.0	V	267.00	-3
1548.25	---	34.89	54.00	19.11	500.00	200.0	V	39.00	-3
1782.25	44.49	---	74.00	29.51	500.00	200.0	V	340.00	-2
1782.50	---	32.95	54.00	21.05	500.00	200.0	V	142.00	-2
2054.75	---	35.07	54.00	18.93	500.00	200.0	V	0.00	0
2062.50	46.19	---	74.00	27.81	500.00	200.0	V	349.00	0
2778.25	---	37.62	54.00	16.38	500.00	200.0	V	345.00	3
2779.50	48.00	---	74.00	26.00	500.00	200.0	V	293.00	3

Note: The signal beyond the limit is carrier.

Radiates Emission from 1GHz to 3GHz

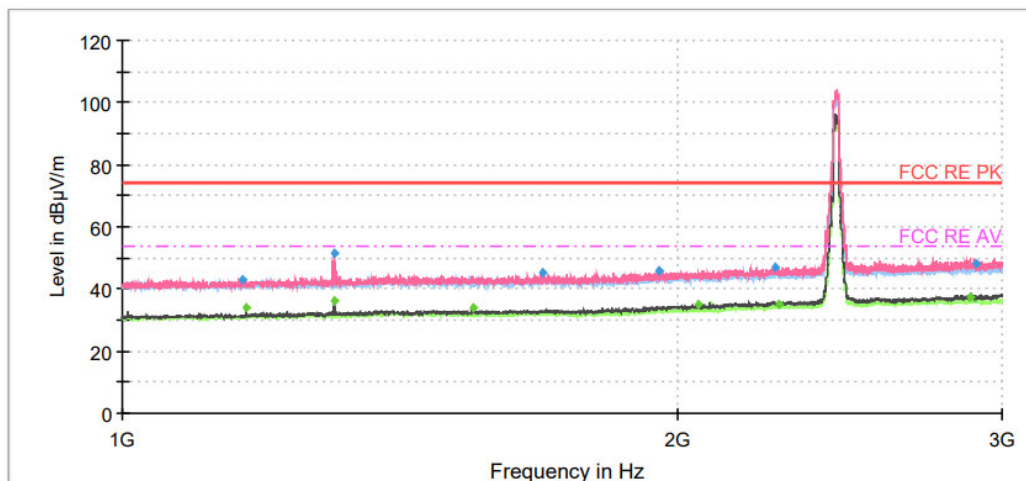


Final Result

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
3967.50	---	30.07	54.00	23.93	500.00	100.0	H	298.00	-3
3969.38	40.58	---	74.00	33.42	500.00	100.0	H	0.00	-3
4408.13	---	39.22	54.00	14.78	500.00	200.0	V	347.00	-3
4408.13	46.15	---	74.00	27.85	500.00	200.0	V	347.00	-3
7239.38	---	46.57	54.00	7.43	500.00	200.0	H	100.00	5
7243.13	55.62	---	74.00	18.38	500.00	200.0	H	100.00	5
7732.50	49.57	---	74.00	24.43	500.00	200.0	V	69.00	7
9270.00	---	37.84	54.00	16.16	500.00	200.0	V	229.00	7
10400.63	50.01	---	74.00	23.99	500.00	200.0	V	202.00	8
11386.88	---	38.71	54.00	15.29	500.00	200.0	V	297.00	9
14615.63	---	38.18	54.00	15.82	500.00	100.0	H	133.00	11
14656.88	48.54	---	74.00	25.46	500.00	100.0	H	66.00	11

Radiates Emission from 3GHz to 18GHz

802.11g CH6

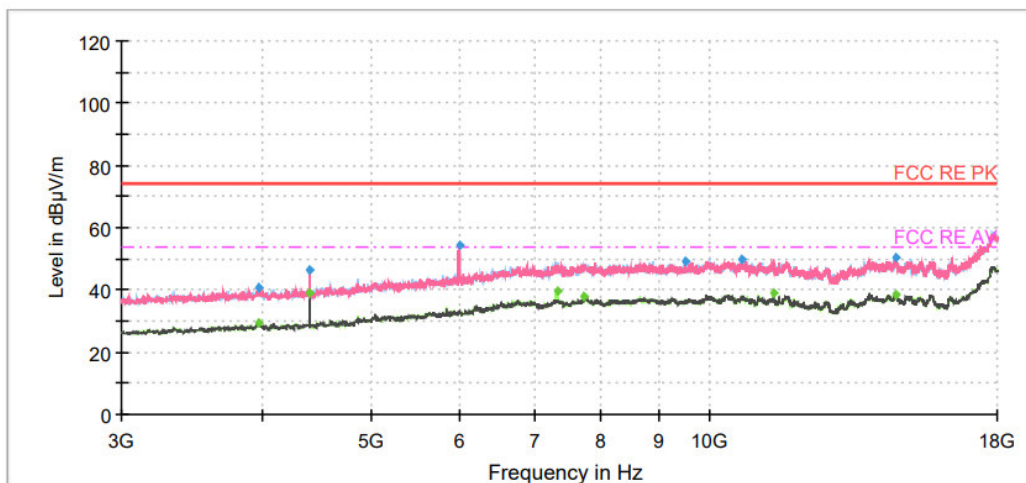


Final Result

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1161.75	43.30	---	74.00	30.70	500.00	200.0	V	310.00	-5
1167.00	---	33.99	54.00	20.01	500.00	200.0	V	180.00	-5
1302.00	---	36.26	54.00	17.74	500.00	200.0	V	119.00	-4
1302.00	51.57	---	74.00	22.43	500.00	200.0	V	119.00	-4
1548.25	---	33.92	54.00	20.08	500.00	200.0	V	216.00	-3
1691.50	45.28	---	74.00	28.72	500.00	200.0	V	168.00	-2
1952.00	46.06	---	74.00	27.94	500.00	200.0	V	0.00	0
2051.75	---	35.06	54.00	18.94	500.00	200.0	V	299.00	0
2259.50	46.93	---	74.00	27.07	500.00	200.0	V	251.00	1
2269.00	---	35.35	54.00	18.65	500.00	200.0	V	275.00	1
2881.50	---	37.49	54.00	16.51	500.00	200.0	V	350.00	3
2905.25	48.27	---	74.00	25.73	500.00	200.0	V	310.00	3

Note: The signal beyond the limit is carrier.

Radiates Emission from 1GHz to 3GHz



Final Result

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
3967.50	---	29.58	54.00	24.42	500.00	200.0	H	358.00	-3
3973.13	40.79	---	74.00	33.21	500.00	200.0	V	3.00	-3
4408.13	---	39.11	54.00	14.89	500.00	200.0	V	346.00	-3
4408.13	46.14	---	74.00	27.86	500.00	200.0	V	346.00	-3
5983.13	54.17	---	74.00	19.83	500.00	100.0	V	352.00	2
7308.75	---	39.75	54.00	14.25	500.00	200.0	H	77.00	6
7728.75	---	37.81	54.00	16.19	500.00	100.0	H	0.00	7
9519.38	49.07	---	74.00	24.93	500.00	200.0	V	161.00	7
10659.38	49.59	---	74.00	24.41	500.00	100.0	H	258.00	8
11386.88	---	39.00	54.00	15.00	500.00	200.0	V	15.00	9
14602.50	---	38.69	54.00	15.31	500.00	200.0	H	276.00	11
14613.75	50.60	---	74.00	23.40	500.00	100.0	H	22.00	11

Radiates Emission from 3GHz to 18GHz