

ANNEX A: Test Result

The radiated emission was measured in the following position: EUT stand-up position (Z axis), lie-down position (X, Y axis). The worst emission was found in stand-up position (Z axis) and the loop antenna is vertical, the others are vertical and horizontal. and the worst case was recorded.

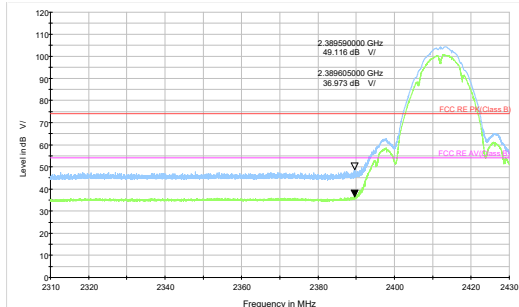
1. Unwanted Emission

1.1. Wi-Fi 2.4GHz

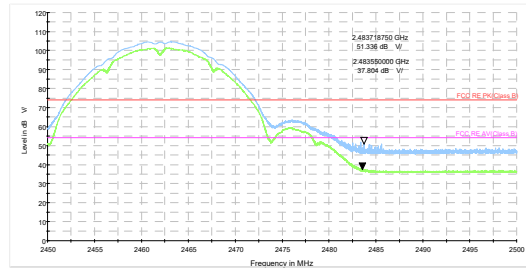
The following graphs display the maximum values of horizontal and vertical by software. Blue trace uses the peak detection, Green trace uses the average detection.

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

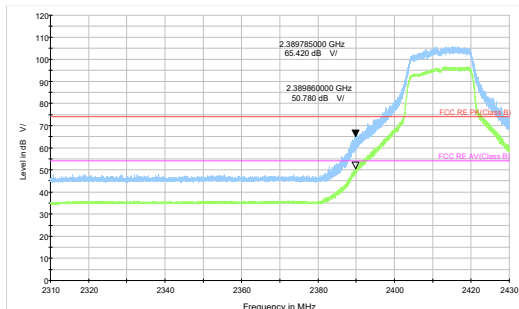
The signal beyond the limit is carrier.



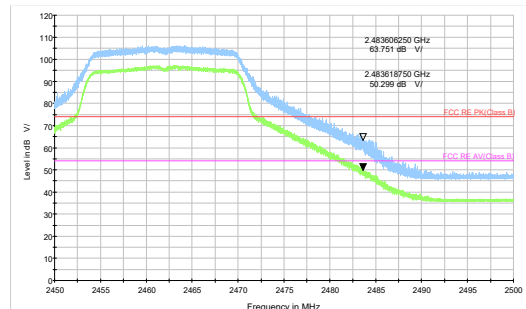
802.11b-Channel 1 Peak+ Average



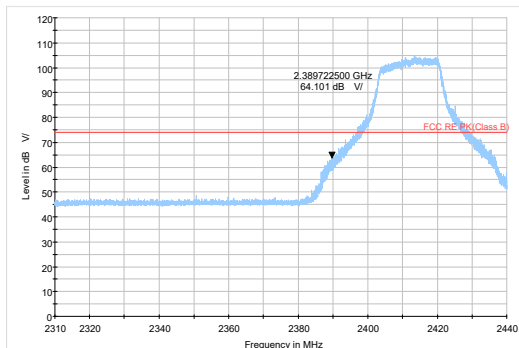
802.11b-Channel 11 Peak+ Average



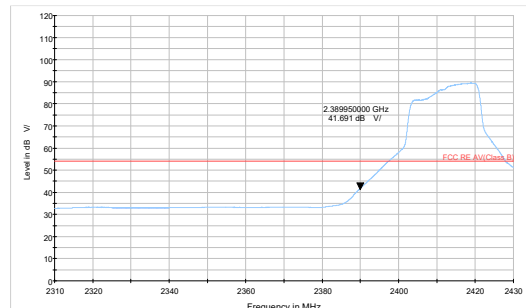
802.11g-Channel 1 Peak+ Average



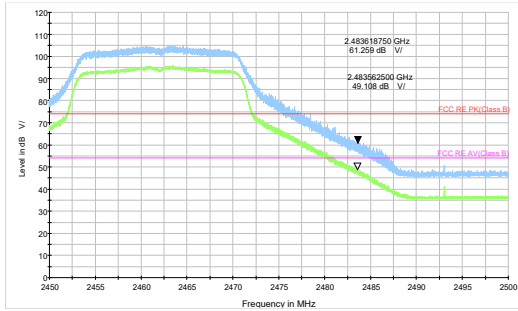
802.11g-Channel 11 Peak+ Average



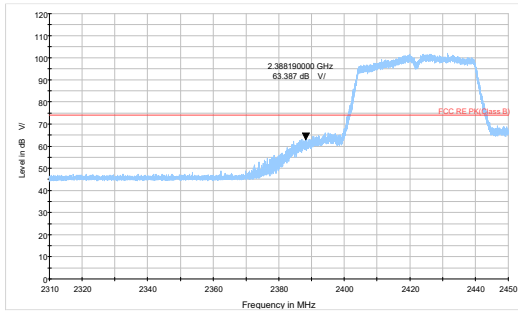
802.11n HT20-Channel 1 Peak



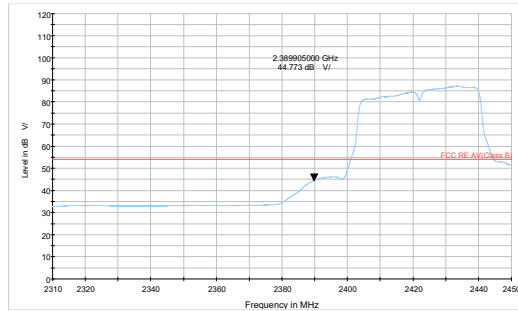
802.11n HT20-Channel 1 Average



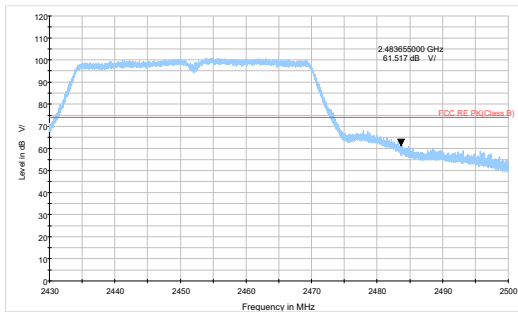
802.11n HT20-Channel 11 Peak+ Average



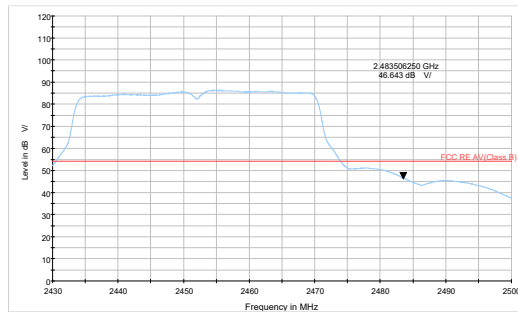
802.11n HT40-Channel 3 Peak



802.11n HT40-Channel 3 Average



802.11n HT40-Channel 9 Peak



802.11n HT40-Channel 9 Average

Result of RE

Sweep the whole frequency band through the range from 9kHz to the 10th harmonic of the carrier. The Radiates Emission from 9kHz to 30MHz and 18GHz to 26.5GHz are more than 20dB below the limit are not reported.

Remark:

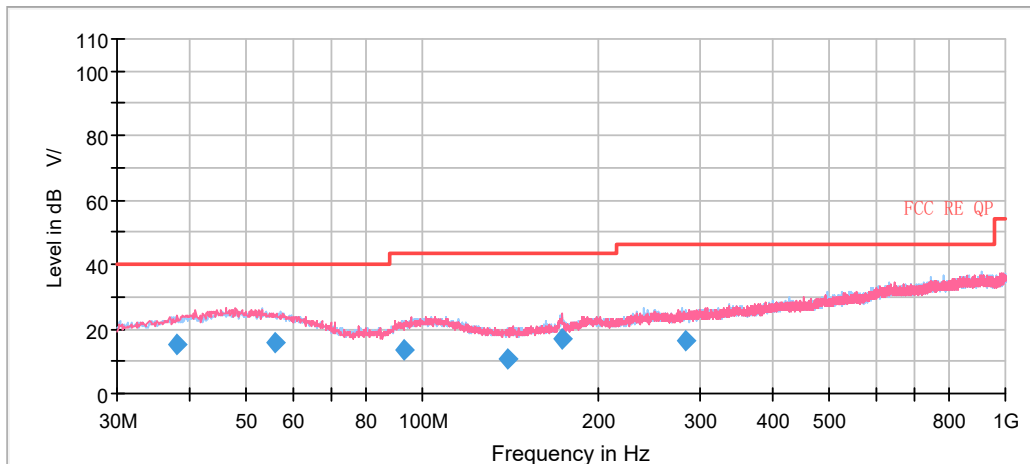
1. **Correction Factor = Antenna factor + Insertion loss (cable loss + amplifier gain)**
2. **Margin = Limit – Quasi-Peak/ MAX Peak/ Average**
3. **A symbol (dB μ V/m) in the test plot below means (dB μ V/m)**
4. **The following graphs display the maximum values of horizontal and vertical by software.**
5. **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

Continuous TX mode:

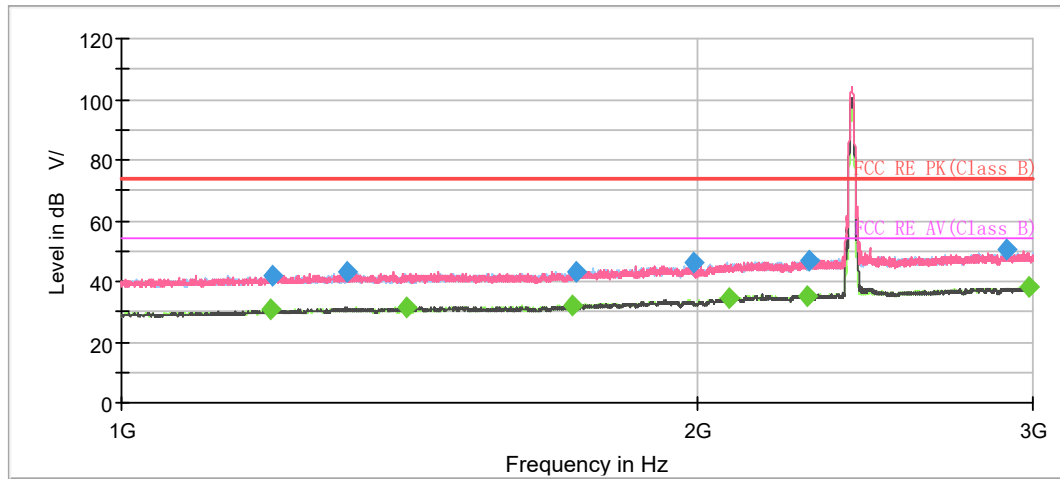
During the test, the Radiates Emission from 30MHz to 1GHz was performed in all modes with all channels, the test data of the worst-case condition was recorded in this report.



Radiates Emission from 30MHz to 1GHz

Frequency (MHz)	Quasi-Peak (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Height (cm)	Polarization	Azimuth (deg)	Correct Factor (dB)
38.031250	15.07	40.00	24.93	175.0	V	293.0	19.3
56.081250	15.91	40.00	24.09	221.0	H	164.0	20.5
93.403750	13.78	43.50	29.72	197.0	H	127.0	18.2
140.331250	10.86	43.50	32.64	125.0	H	23.0	15.6
174.005000	17.02	43.50	26.48	175.0	V	236.0	20.2
282.482500	16.23	46.00	29.77	100.0	H	151.0	20.7

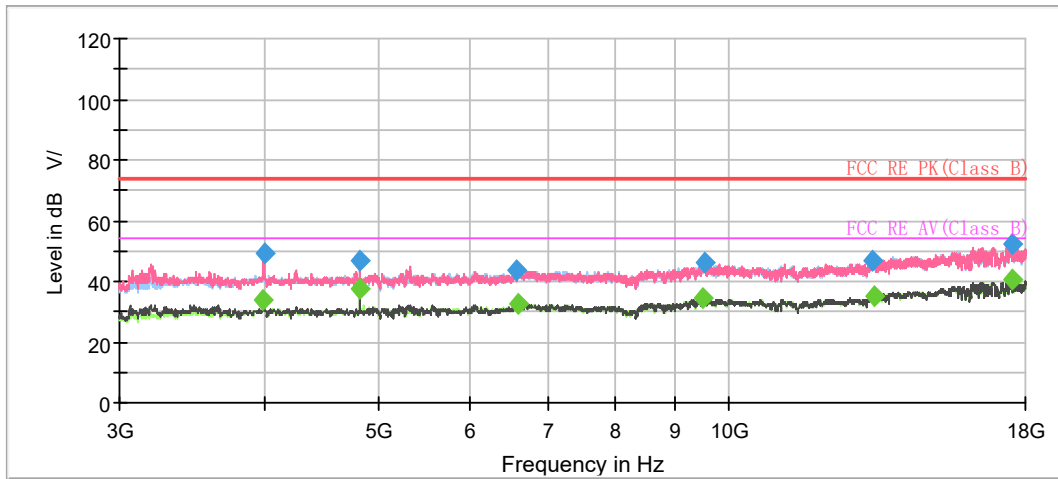
802.11b CH1



Note: The signal beyond the limit is carrier.

Radiates Emission from 1GHz to 3GHz

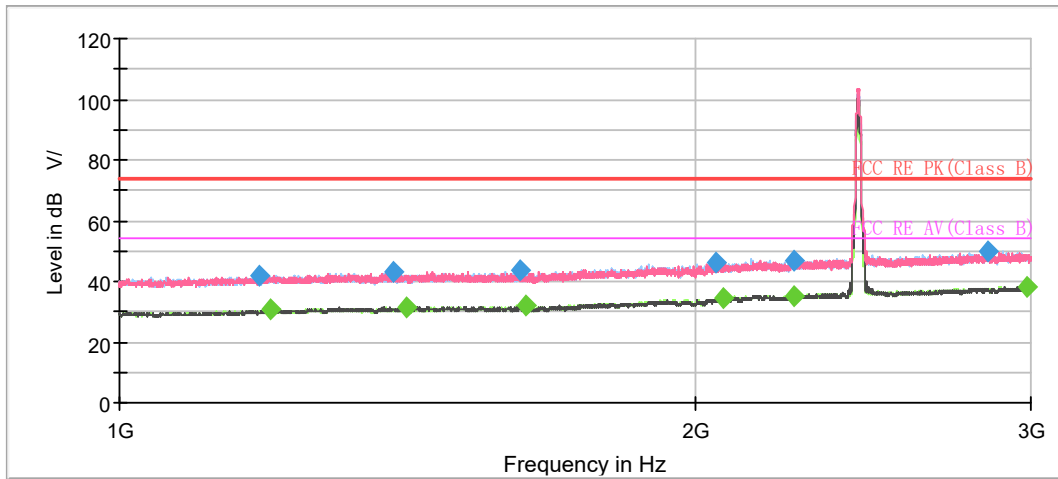
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1197.500000	---	30.59	54.00	23.41	500.0	100.0	V	337.0	-8.9
1199.250000	42.01	---	74.00	31.99	500.0	200.0	V	69.0	-8.8
1313.000000	43.18	---	74.00	30.82	500.0	200.0	H	344.0	-8.1
1411.750000	---	31.39	54.00	22.61	500.0	100.0	V	303.0	-7.5
1720.750000	---	31.92	54.00	22.08	500.0	200.0	H	320.0	-5.9
1729.000000	43.37	---	74.00	30.63	500.0	200.0	H	3.0	-5.8
1994.250000	46.23	---	74.00	27.77	500.0	200.0	V	196.0	-4.6
2078.750000	---	34.42	54.00	19.58	500.0	200.0	H	352.0	-3.9
2286.750000	---	35.24	54.00	18.76	500.0	100.0	H	213.0	-2.9
2288.750000	46.82	---	74.00	27.18	500.0	100.0	V	273.0	-2.9
2910.250000	50.27	---	74.00	23.73	500.0	200.0	V	0.0	-1.0
2986.500000	---	38.08	54.00	15.92	500.0	200.0	H	320.0	-0.7



Radiates Emission from 3GHz to 18GHz

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Meas. Time (ms)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
3991.875000	---	33.93	54.00	20.07	500.0	200.0	V	210.0	-6.8
3997.500000	49.14	---	74.00	24.86	500.0	200.0	V	210.0	-6.8
4824.375000	---	37.58	54.00	16.42	500.0	100.0	V	345.0	-6.1
4824.375000	46.76	---	74.00	27.24	500.0	100.0	V	345.0	-6.1
6585.000000	43.43	---	74.00	30.57	500.0	200.0	V	17.0	-3.4
6603.750000	---	32.60	54.00	21.40	500.0	100.0	V	318.0	-3.3
9511.875000	---	34.31	54.00	19.69	500.0	200.0	V	181.0	-0.1
9532.500000	45.89	---	74.00	28.11	500.0	200.0	V	108.0	-0.2
13314.375000	46.66	---	74.00	27.34	500.0	100.0	V	309.0	2.3
13348.125000	---	35.08	54.00	18.92	500.0	100.0	H	0.0	2.4
17516.250000	52.50	---	74.00	21.50	500.0	100.0	H	97.0	9.9
17516.250000	---	40.91	54.00	13.09	500.0	100.0	V	91.0	9.9

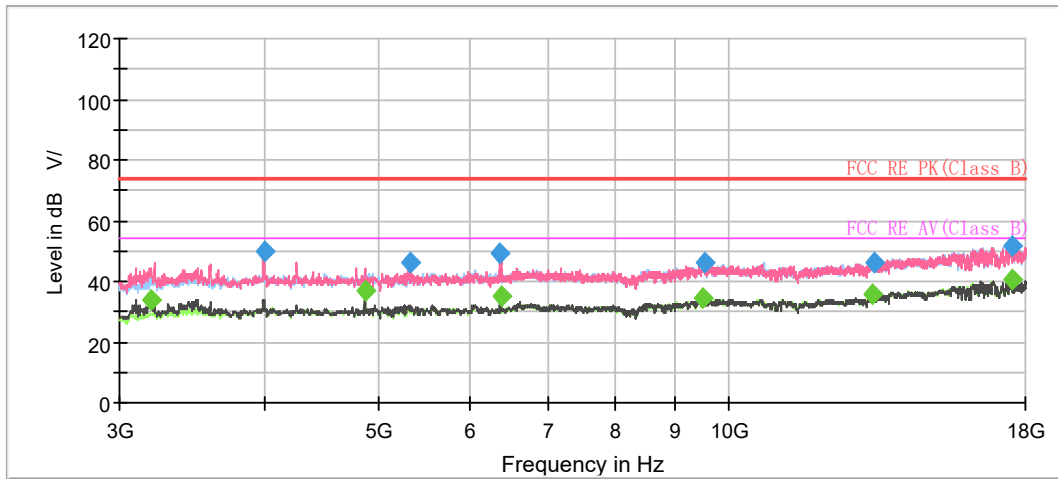
802.11b CH6



Note: The signal beyond the limit is carrier.

Radiates Emission from 1GHz to 3GHz

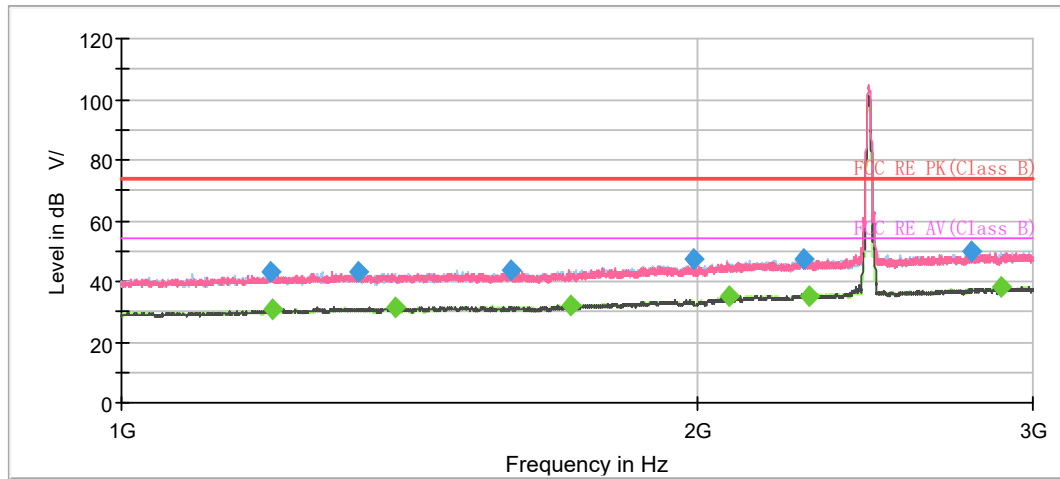
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1182.250000	41.99	---	74.00	32.01	500.0	100.0	H	288.0	-9.2
1198.250000	---	30.71	54.00	23.29	500.0	100.0	V	0.0	-8.8
1390.000000	42.79	---	74.00	31.21	500.0	100.0	H	33.0	-7.6
1414.250000	---	31.52	54.00	22.48	500.0	200.0	V	98.0	-7.5
1622.750000	43.39	---	74.00	30.61	500.0	100.0	V	130.0	-6.3
1630.250000	---	32.00	54.00	22.00	500.0	200.0	H	248.0	-6.2
2051.750000	46.20	---	74.00	27.80	500.0	100.0	H	16.0	-4.2
2072.500000	---	34.63	54.00	19.37	500.0	200.0	H	264.0	-4.0
2253.000000	---	35.16	54.00	18.84	500.0	200.0	H	239.0	-3.0
2253.750000	46.83	---	74.00	27.17	500.0	100.0	H	66.0	-3.0
2847.500000	49.97	---	74.00	24.03	500.0	100.0	V	354.0	-1.1
2986.500000	---	38.29	54.00	15.71	500.0	100.0	H	142.0	-0.7



Radiates Emission from 3GHz to 18GHz

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
3189.375000	---	34.14	54.00	19.86	500.0	200.0	V	219.0	-10.0
3997.500000	49.54	---	74.00	24.46	500.0	200.0	V	248.0	-6.8
4873.125000	---	36.62	54.00	17.38	500.0	100.0	V	247.0	-5.8
5323.125000	46.41	---	74.00	27.59	500.0	100.0	V	8.0	-4.7
6373.125000	49.49	---	74.00	24.51	500.0	200.0	V	191.0	-4.3
6376.875000	---	34.95	54.00	19.05	500.0	200.0	V	191.0	-4.2
9506.250000	---	34.44	54.00	19.56	500.0	200.0	V	87.0	-0.1
9530.625000	45.87	---	74.00	28.13	500.0	200.0	H	303.0	-0.2
13312.500000	---	35.59	54.00	18.41	500.0	100.0	V	313.0	2.3
13344.375000	46.40	---	74.00	27.60	500.0	200.0	V	22.0	2.3
17512.500000	51.98	---	74.00	22.02	500.0	100.0	H	69.0	9.8
17514.375000	---	40.74	54.00	13.26	500.0	100.0	V	57.0	9.8

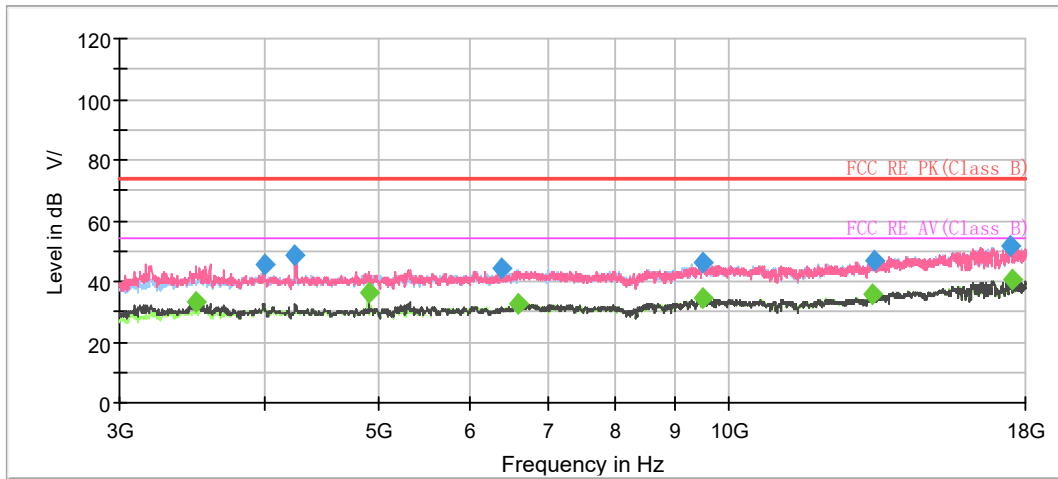
802.11b CH11



Note: The signal beyond the limit is carrier.

Radiates Emission from 1GHz to 3GHz

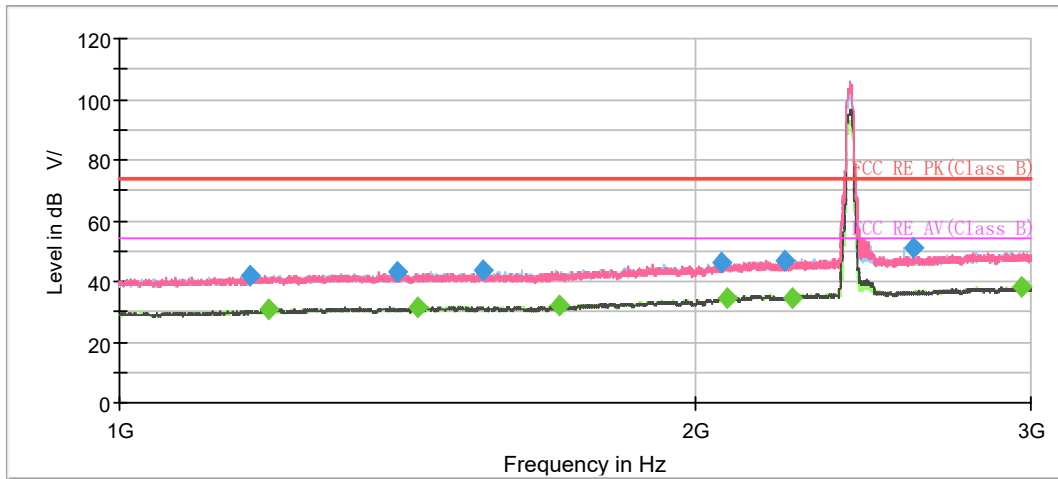
Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Meas. Time (ms)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1197.000000	42.80	---	74.00	31.20	500.0	200.0	H	209.0	-8.9
1199.750000	---	30.71	54.00	23.29	500.0	200.0	H	192.0	-8.8
1330.500000	43.08	---	74.00	30.92	500.0	100.0	V	0.0	-8.0
1391.500000	---	31.51	54.00	22.49	500.0	100.0	V	84.0	-7.6
1601.000000	43.75	---	74.00	30.25	500.0	200.0	V	134.0	-6.3
1718.250000	---	32.00	54.00	22.00	500.0	200.0	H	159.0	-5.9
1992.750000	47.41	---	74.00	26.59	500.0	200.0	V	74.0	-4.6
2079.500000	---	34.96	54.00	19.04	500.0	200.0	H	125.0	-3.9
2276.000000	47.15	---	74.00	26.85	500.0	100.0	H	0.0	-3.0
2289.250000	---	35.20	54.00	18.80	500.0	100.0	H	221.0	-2.9
2784.000000	50.03	---	74.00	23.97	500.0	200.0	V	125.0	-1.4
2890.500000	---	38.14	54.00	15.86	500.0	200.0	H	143.0	-1.1



Radiates Emission from 3GHz to 18GHz

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
3493.125000	---	33.09	54.00	20.91	500.0	200.0	V	191.0	-8.2
3995.625000	45.70	---	74.00	28.30	500.0	100.0	V	215.0	-6.8
4248.750000	48.73	---	74.00	25.27	500.0	100.0	V	215.0	-6.6
4923.750000	---	36.52	54.00	17.48	500.0	100.0	V	270.0	-5.3
6380.625000	44.24	---	74.00	29.76	500.0	100.0	V	270.0	-4.2
6609.375000	---	32.37	54.00	21.63	500.0	200.0	H	291.0	-3.4
9508.125000	---	34.22	54.00	19.78	500.0	100.0	H	124.0	-0.1
9521.250000	46.12	---	74.00	27.88	500.0	100.0	V	151.0	-0.1
13316.250000	---	35.43	54.00	18.57	500.0	100.0	H	23.0	2.3
13329.375000	46.67	---	74.00	27.33	500.0	200.0	H	0.0	2.3
17506.875000	51.91	---	74.00	22.09	500.0	100.0	H	143.0	9.8
17518.125000	---	40.82	54.00	13.19	500.0	100.0	H	321.0	9.9

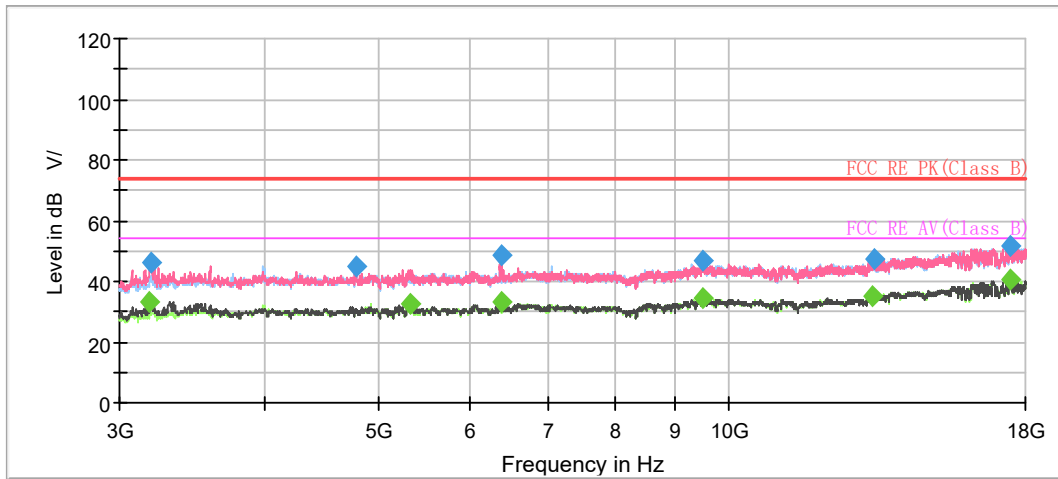
802.11g CH1



Note: The signal beyond the limit is carrier.

Radiates Emission from 1GHz to 3GHz

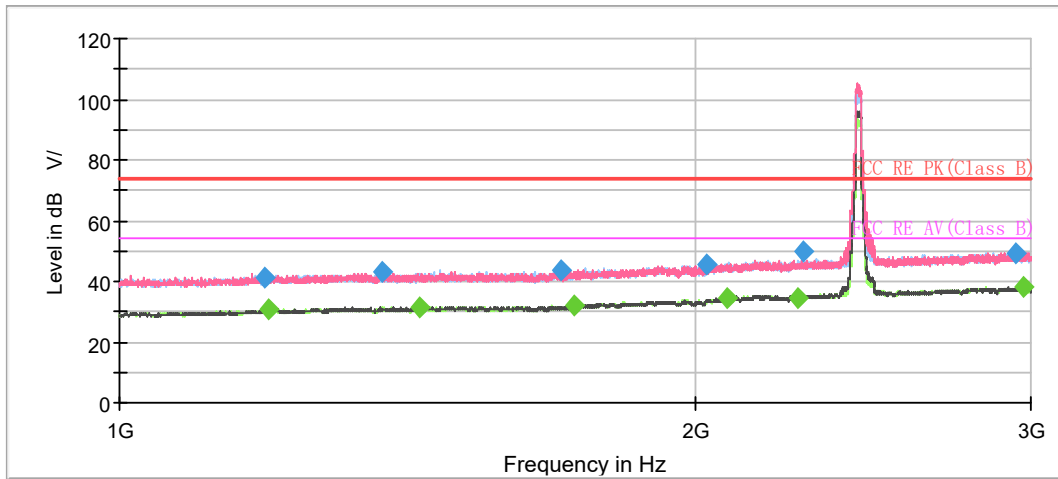
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1170.000000	41.80	---	74.00	32.20	500.0	100.0	H	112.0	-9.4
1197.750000	---	30.68	54.00	23.32	500.0	200.0	H	294.0	-8.8
1396.250000	43.11	---	74.00	30.89	500.0	200.0	V	295.0	-7.6
1433.500000	---	31.52	54.00	22.48	500.0	100.0	H	297.0	-7.4
1548.500000	43.68	---	74.00	30.32	500.0	200.0	H	235.0	-6.7
1697.500000	---	31.97	54.00	22.03	500.0	100.0	V	258.0	-6.0
2064.500000	46.05	---	74.00	27.95	500.0	200.0	H	211.0	-4.1
2078.000000	---	34.48	54.00	19.52	500.0	200.0	H	97.0	-3.9
2229.750000	46.59	---	74.00	27.41	500.0	100.0	V	275.0	-3.2
2249.500000	---	34.51	54.00	19.49	500.0	100.0	H	145.0	-3.1
2604.500000	50.98	---	74.00	23.02	500.0	100.0	H	145.0	-2.0
2967.750000	---	38.02	54.00	15.98	500.0	200.0	V	289.0	-0.8



Radiates Emission from 3GHz to 18GHz

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
3185.625000	---	33.27	54.00	20.73	500.0	200.0	V	177.0	-10.0
3195.000000	46.21	---	74.00	27.79	500.0	100.0	V	64.0	-10.0
4783.125000	45.00	---	74.00	29.00	500.0	100.0	V	46.0	-6.1
5328.750000	---	32.73	54.00	21.27	500.0	100.0	V	22.0	-4.7
6388.125000	48.50	---	74.00	25.50	500.0	100.0	V	325.0	-4.2
6390.000000	---	33.03	54.00	20.97	500.0	100.0	V	325.0	-4.2
9526.875000	46.66	---	74.00	27.34	500.0	100.0	H	321.0	-0.2
9528.750000	---	34.62	54.00	19.38	500.0	100.0	V	343.0	-0.2
13327.500000	---	35.21	54.00	18.79	500.0	100.0	V	334.0	2.3
13333.125000	47.13	---	74.00	26.87	500.0	100.0	V	41.0	2.3
17497.500000	51.73	---	74.00	22.27	500.0	100.0	V	250.0	9.8
17505.000000	---	40.72	54.00	13.28	500.0	200.0	V	258.0	9.8

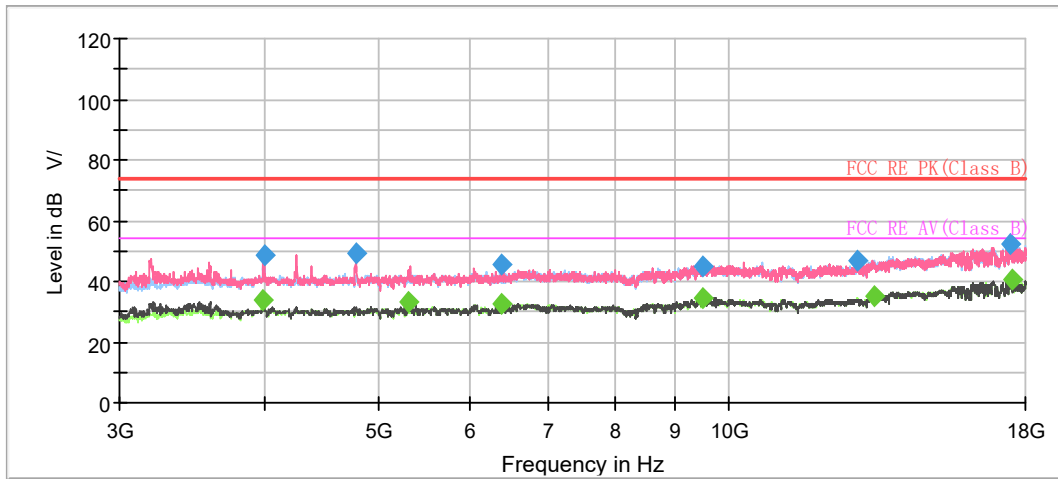
802.11g CH6



Note: The signal beyond the limit is carrier.

Radiates Emission from 1GHz to 3GHz

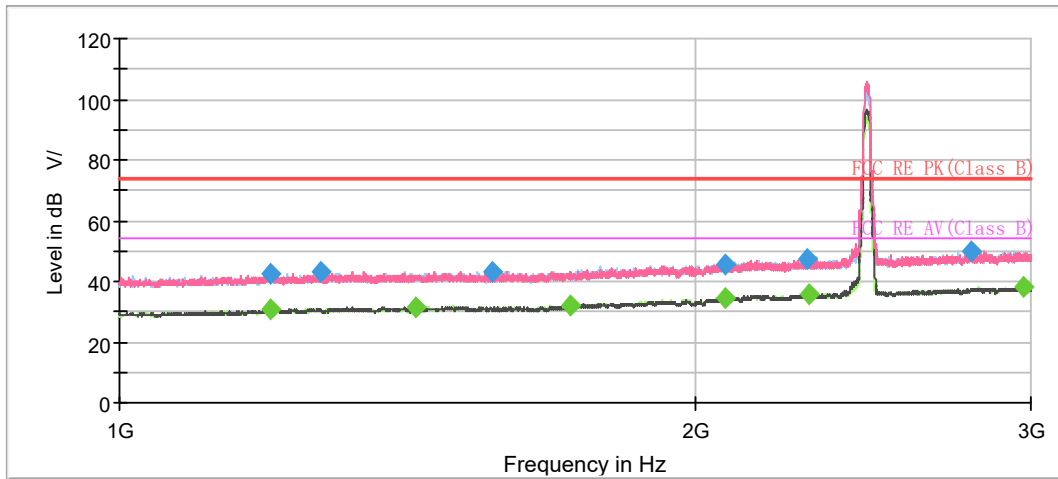
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1190.500000	41.22	---	74.00	32.79	500.0	100.0	H	13.0	-9.0
1196.500000	---	30.68	54.00	23.32	500.0	100.0	V	312.0	-8.9
1373.500000	42.77	---	74.00	31.23	500.0	200.0	V	281.0	-7.7
1435.750000	---	31.36	54.00	22.64	500.0	200.0	V	42.0	-7.4
1704.750000	43.68	---	74.00	30.32	500.0	200.0	V	209.0	-6.0
1728.750000	---	31.87	54.00	22.13	500.0	200.0	H	327.0	-5.8
2031.000000	45.82	---	74.00	28.18	500.0	200.0	H	114.0	-4.3
2078.250000	---	34.40	54.00	19.60	500.0	100.0	H	107.0	-3.9
2263.250000	---	34.47	54.00	19.53	500.0	200.0	H	301.0	-3.0
2280.500000	49.87	---	74.00	24.13	500.0	100.0	H	81.0	-3.0
2945.750000	49.38	---	74.00	24.62	500.0	200.0	H	106.0	-0.9
2972.250000	---	38.33	54.00	15.67	500.0	200.0	V	85.0	-0.7



Radiates Emission from 3GHz to 18GHz

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
3991.875000	---	33.84	54.00	20.16	500.0	200.0	V	205.0	-6.8
3993.750000	48.87	---	74.00	25.13	500.0	200.0	V	205.0	-6.8
4786.875000	49.21	---	74.00	24.79	500.0	200.0	V	196.0	-6.1
5319.375000	---	33.25	54.00	20.75	500.0	100.0	V	194.0	-4.7
6378.750000	---	32.46	54.00	21.54	500.0	200.0	H	83.0	-4.2
6399.375000	45.40	---	74.00	28.60	500.0	200.0	H	83.0	-4.2
9502.500000	45.22	---	74.00	28.78	500.0	100.0	V	194.0	0.0
9510.000000	---	34.24	54.00	19.76	500.0	200.0	H	244.0	-0.1
12898.125000	46.71	---	74.00	27.29	500.0	200.0	H	355.0	0.9
13346.250000	---	35.23	54.00	18.77	500.0	200.0	H	291.0	2.4
17505.000000	52.14	---	74.00	21.86	500.0	200.0	V	0.0	9.8
17516.250000	---	40.77	54.00	13.23	500.0	100.0	V	312.0	9.9

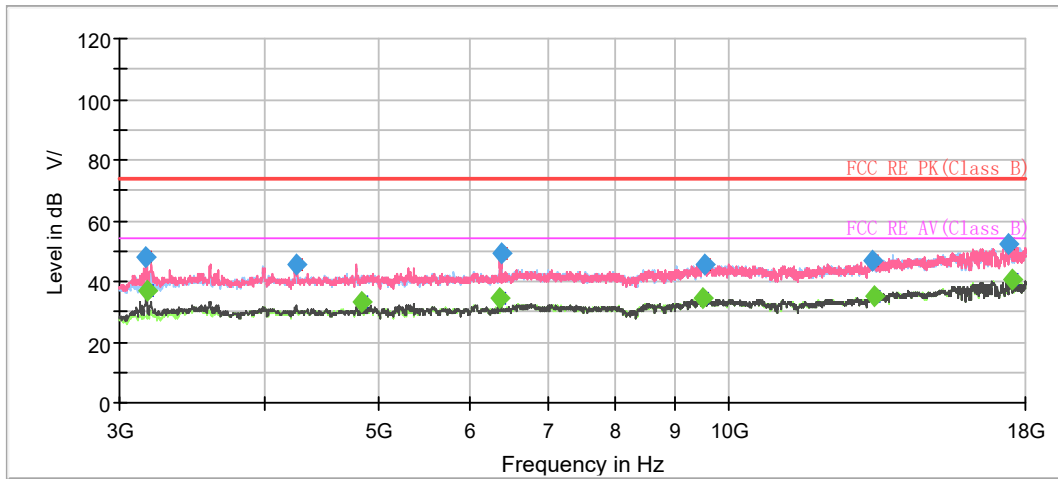
802.11g CH11



Note: The signal beyond the limit is carrier.

Radiates Emission from 1GHz to 3GHz

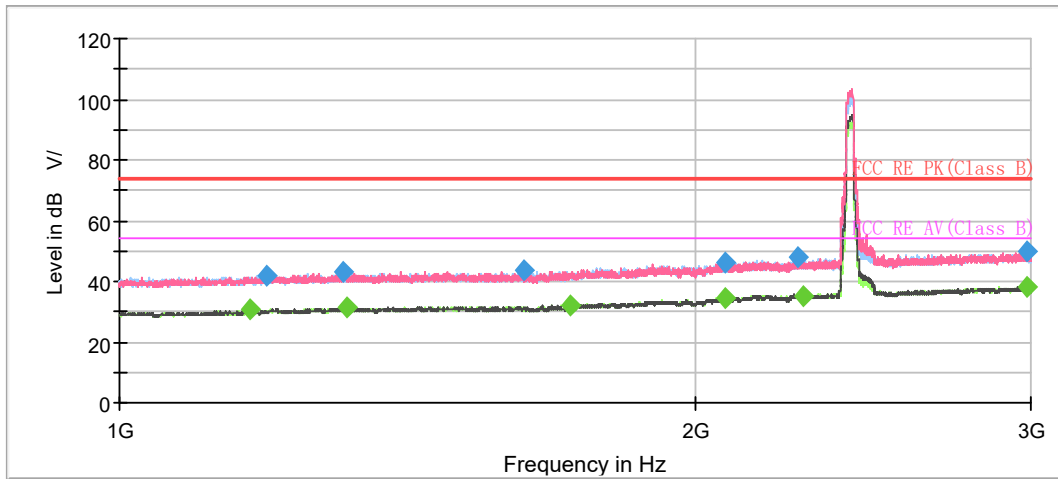
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1200.250000	---	30.76	54.00	23.24	500.0	200.0	V	115.0	-8.8
1200.750000	42.24	---	74.00	31.76	500.0	100.0	V	243.0	-8.8
1275.000000	43.24	---	74.00	30.76	500.0	100.0	H	71.0	-8.4
1429.250000	---	31.45	54.00	22.55	500.0	200.0	H	347.0	-7.4
1566.000000	43.18	---	74.00	30.82	500.0	100.0	V	124.0	-6.6
1720.500000	---	31.88	54.00	22.12	500.0	100.0	H	0.0	-5.9
2074.750000	---	34.61	54.00	19.39	500.0	200.0	V	297.0	-4.0
2077.000000	45.57	---	74.00	28.43	500.0	200.0	H	131.0	-3.9
2291.500000	47.57	---	74.00	26.43	500.0	100.0	H	122.0	-2.9
2296.250000	---	35.42	54.00	18.58	500.0	100.0	H	122.0	-2.8
2789.500000	49.82	---	74.00	24.18	500.0	100.0	H	38.0	-1.3
2976.000000	---	38.33	54.00	15.67	500.0	100.0	H	0.0	-0.7



Radiates Emission from 3GHz to 18GHz

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Meas. Time (ms)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
3163.125000	47.81	---	74.00	26.19	500.0	200.0	V	164.0	-10.2
3165.000000	---	37.15	54.00	16.85	500.0	200.0	V	164.0	-10.2
4265.625000	45.58	---	74.00	28.42	500.0	100.0	V	0.0	-6.5
4839.375000	---	33.19	54.00	20.81	500.0	200.0	H	154.0	-6.0
6375.000000	---	34.36	54.00	19.64	500.0	100.0	V	298.0	-4.3
6384.375000	49.31	---	74.00	24.69	500.0	100.0	V	298.0	-4.2
9508.125000	---	34.28	54.00	19.72	500.0	100.0	H	155.0	-0.1
9556.875000	45.41	---	74.00	28.59	500.0	100.0	V	54.0	-0.3
13316.250000	46.61	---	74.00	27.39	500.0	100.0	H	98.0	2.3
13344.375000	---	35.16	54.00	18.84	500.0	100.0	H	248.0	2.3
17381.250000	52.18	---	74.00	21.82	500.0	200.0	H	220.0	9.6
17523.750000	---	40.66	54.00	13.34	500.0	200.0	V	228.0	9.9

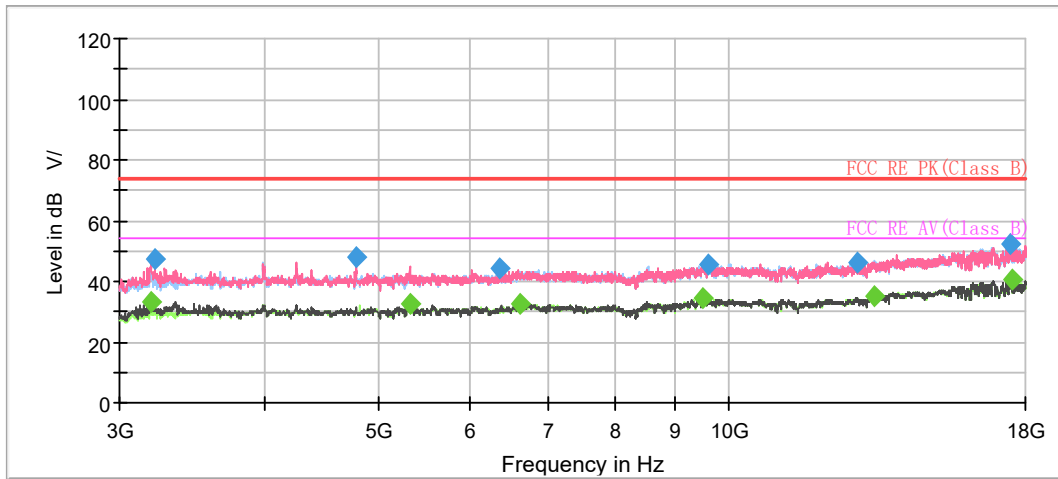
802.11n (HT20) CH1



Note: The signal beyond the limit is carrier.

Radiates Emission from 1GHz to 3GHz

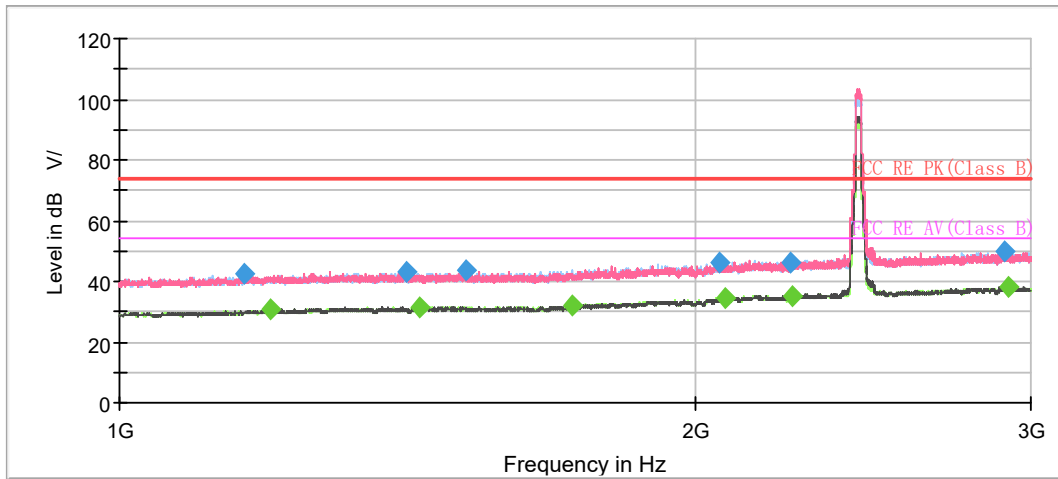
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1170.750000	---	30.93	54.00	23.07	500.0	200.0	H	133.0	-9.4
1195.500000	41.84	---	74.00	32.16	500.0	200.0	H	209.0	-8.9
1310.250000	43.03	---	74.00	30.97	500.0	100.0	V	328.0	-8.1
1315.500000	---	31.38	54.00	22.62	500.0	200.0	H	158.0	-8.1
1628.500000	43.40	---	74.00	30.60	500.0	100.0	V	175.0	-6.2
1722.750000	---	32.02	54.00	21.98	500.0	100.0	V	175.0	-5.9
2074.000000	45.99	---	74.00	28.01	500.0	100.0	H	15.0	-4.0
2075.750000	---	34.71	54.00	19.29	500.0	200.0	H	344.0	-4.0
2268.000000	47.84	---	74.00	26.16	500.0	100.0	V	108.0	-3.0
2281.000000	---	35.14	54.00	18.86	500.0	200.0	H	302.0	-3.0
2984.750000	---	38.11	54.00	15.89	500.0	100.0	V	269.0	-0.7
2989.750000	49.70	---	74.00	24.30	500.0	100.0	H	135.0	-0.6



Radiates Emission from 3GHz to 18GHz

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Meas. Time (ms)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
3191.250000	---	33.06	54.00	20.94	500.0	200.0	V	219.0	-10.0
3213.750000	47.55	---	74.00	26.45	500.0	200.0	V	219.0	-9.9
4790.625000	47.85	---	74.00	26.15	500.0	100.0	V	0.0	-6.1
5326.875000	---	32.52	54.00	21.48	500.0	100.0	V	5.0	-4.7
6371.250000	44.49	---	74.00	29.51	500.0	200.0	H	45.0	-4.3
6616.875000	---	32.52	54.00	21.48	500.0	200.0	H	353.0	-3.4
9504.375000	---	34.35	54.00	19.65	500.0	200.0	V	280.0	0.0
9607.500000	45.48	---	74.00	28.52	500.0	100.0	H	104.0	-0.7
12907.500000	46.28	---	74.00	27.73	500.0	200.0	V	317.0	1.0
13336.875000	---	35.31	54.00	18.69	500.0	200.0	V	0.0	2.3
17482.500000	52.01	---	74.00	21.99	500.0	100.0	V	237.0	9.8
17518.125000	---	40.81	54.00	13.19	500.0	100.0	H	76.0	9.9

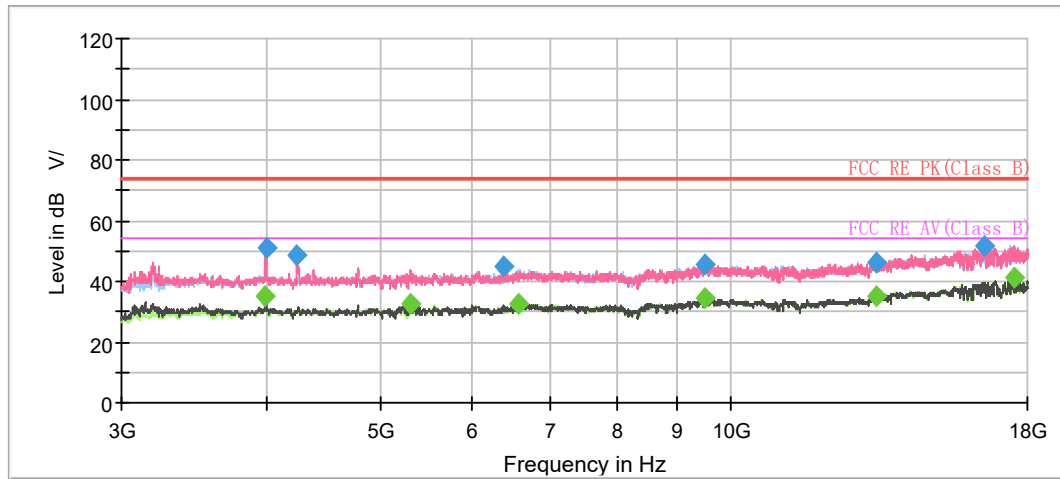
802.11n (HT20) CH6



Note: The signal beyond the limit is carrier.

Radiates Emission from 1GHz to 3GHz

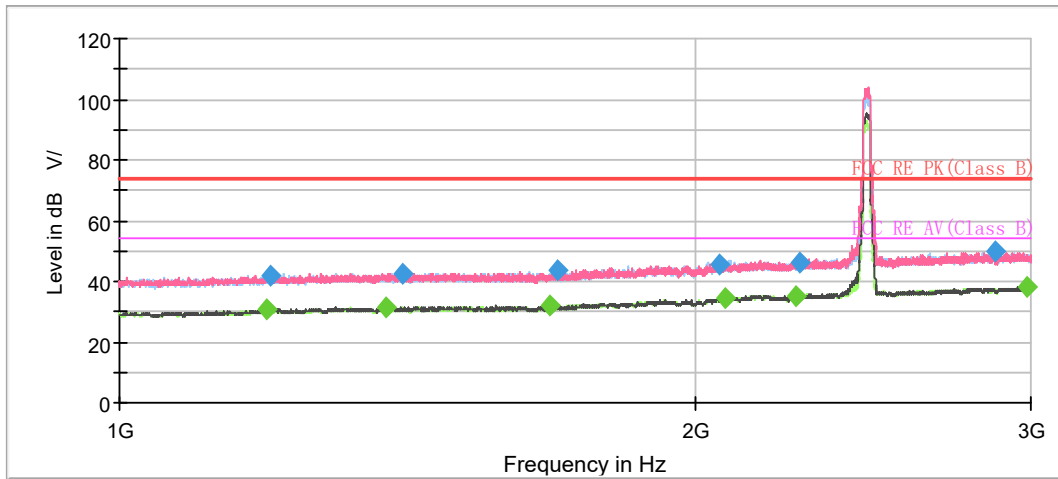
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1163.500000	42.20	---	74.00	31.80	500.0	200.0	H	74.0	-9.5
1200.250000	---	30.67	54.00	23.33	500.0	200.0	H	281.0	-8.8
1413.500000	43.16	---	74.00	30.84	500.0	200.0	H	206.0	-7.5
1434.750000	---	31.42	54.00	22.58	500.0	200.0	H	321.0	-7.4
1519.250000	43.46	---	74.00	30.54	500.0	200.0	H	215.0	-6.9
1725.000000	---	31.94	54.00	22.06	500.0	100.0	H	82.0	-5.9
2061.500000	45.95	---	74.00	28.05	500.0	200.0	H	264.0	-4.1
2075.750000	---	34.51	54.00	19.49	500.0	200.0	V	13.0	-4.0
2243.000000	46.15	---	74.00	27.85	500.0	100.0	H	132.0	-3.1
2251.750000	---	35.11	54.00	18.89	500.0	200.0	H	272.0	-3.1
2908.750000	49.63	---	74.00	24.37	500.0	100.0	H	141.0	-1.0
2918.500000	---	38.06	54.00	15.94	500.0	100.0	H	267.0	-1.0



Radiates Emission from 3GHz to 18GHz

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Meas. Time (ms)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
3991.875000	---	35.37	54.00	18.63	500.0	200.0	V	232.0	-6.8
3993.750000	50.95	---	74.00	23.05	500.0	200.0	V	232.0	-6.8
4248.750000	48.44	---	74.00	25.56	500.0	100.0	V	1.0	-6.6
5306.250000	---	32.56	54.00	21.44	500.0	100.0	V	41.0	-4.6
6380.625000	44.89	---	74.00	29.11	500.0	100.0	V	15.0	-4.2
6588.750000	---	32.32	54.00	21.68	500.0	100.0	V	53.0	-3.4
9510.000000	45.51	---	74.00	28.49	500.0	100.0	V	87.0	-0.1
9511.875000	---	34.18	54.00	19.82	500.0	200.0	H	2.0	-0.1
13329.375000	---	35.27	54.00	18.73	500.0	100.0	V	104.0	2.3
13342.500000	46.44	---	74.00	27.56	500.0	200.0	V	95.0	2.3
16561.875000	51.80	---	74.00	22.20	500.0	200.0	H	171.0	8.1
17518.125000	---	40.97	54.00	13.03	500.0	100.0	V	0.0	9.9

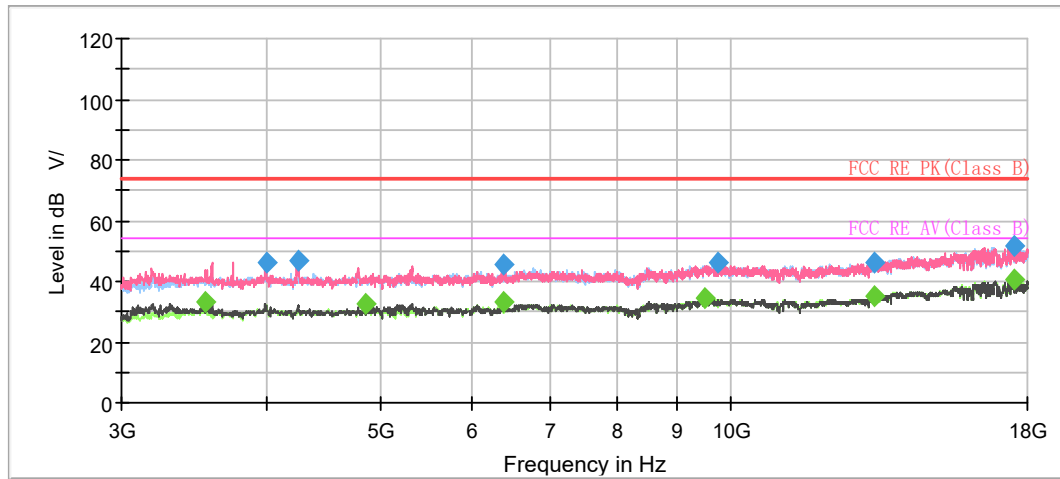
802.11n (HT20) CH11



Note: The signal beyond the limit is carrier.

Radiates Emission from 1GHz to 3GHz

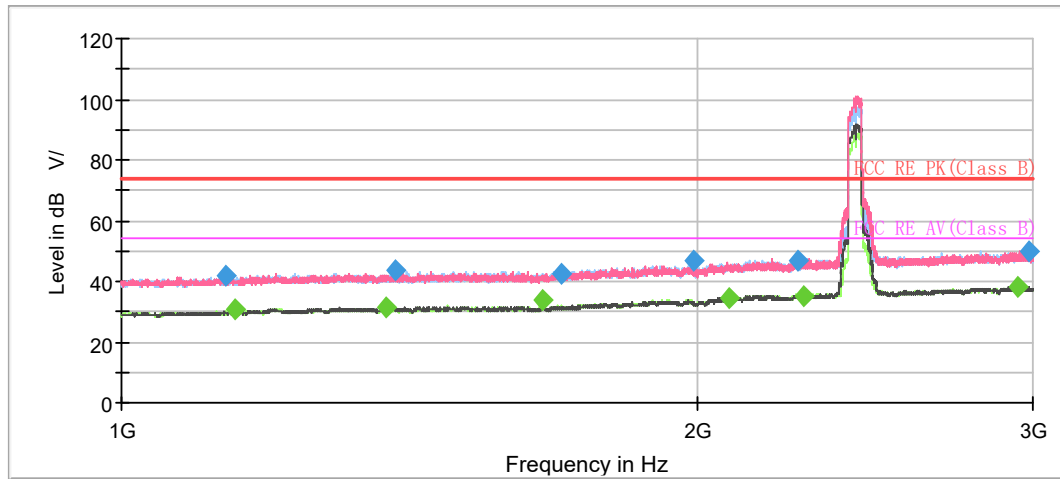
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1195.000000	---	30.76	54.00	23.24	500.0	200.0	V	50.0	-8.9
1198.750000	42.05	---	74.00	31.95	500.0	200.0	H	278.0	-8.8
1380.250000	---	31.54	54.00	22.46	500.0	100.0	V	154.0	-7.7
1408.500000	42.71	---	74.00	31.29	500.0	100.0	V	0.0	-7.5
1681.000000	---	31.91	54.00	22.09	500.0	100.0	V	128.0	-6.0
1694.000000	43.44	---	74.00	30.56	500.0	100.0	H	92.0	-6.0
2060.500000	45.55	---	74.00	28.45	500.0	100.0	H	297.0	-4.1
2074.250000	---	34.54	54.00	19.46	500.0	200.0	H	287.0	-4.0
2259.250000	---	35.14	54.00	18.86	500.0	100.0	V	332.0	-3.0
2271.500000	46.24	---	74.00	27.76	500.0	200.0	H	328.0	-3.0
2871.500000	49.57	---	74.00	24.43	500.0	200.0	H	0.0	-1.1
2985.750000	---	38.07	54.00	15.93	500.0	100.0	H	75.0	-0.7



Radiates Emission from 3GHz to 18GHz

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
3543.750000	---	33.29	54.00	20.72	500.0	200.0	V	222.0	-8.3
3999.375000	46.32	---	74.00	27.68	500.0	200.0	H	244.0	-6.8
4254.375000	46.52	---	74.00	27.48	500.0	100.0	V	220.0	-6.5
4863.750000	---	32.73	54.00	21.27	500.0	100.0	H	73.0	-5.9
6382.500000	45.82	---	74.00	28.18	500.0	100.0	V	258.0	-4.2
6382.500000	---	33.22	54.00	20.78	500.0	100.0	V	258.0	-4.2
9523.125000	---	34.17	54.00	19.83	500.0	200.0	V	301.0	-0.1
9778.125000	45.99	---	74.00	28.01	500.0	100.0	H	17.0	-0.5
13325.625000	46.31	---	74.00	27.69	500.0	100.0	H	315.0	2.3
13327.500000	---	35.16	54.00	18.84	500.0	100.0	V	287.0	2.3
17516.250000	51.69	---	74.00	22.31	500.0	100.0	V	287.0	9.9
17521.875000	---	40.84	54.00	13.16	500.0	200.0	V	114.0	9.9

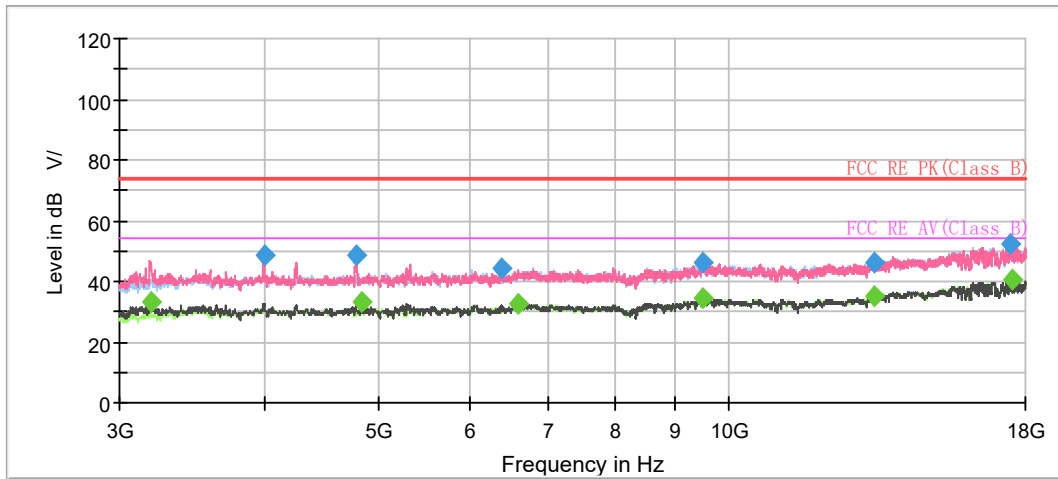
802.11n (HT40) CH3



Note: The signal beyond the limit is carrier.

Radiates Emission from 1GHz to 3GHz

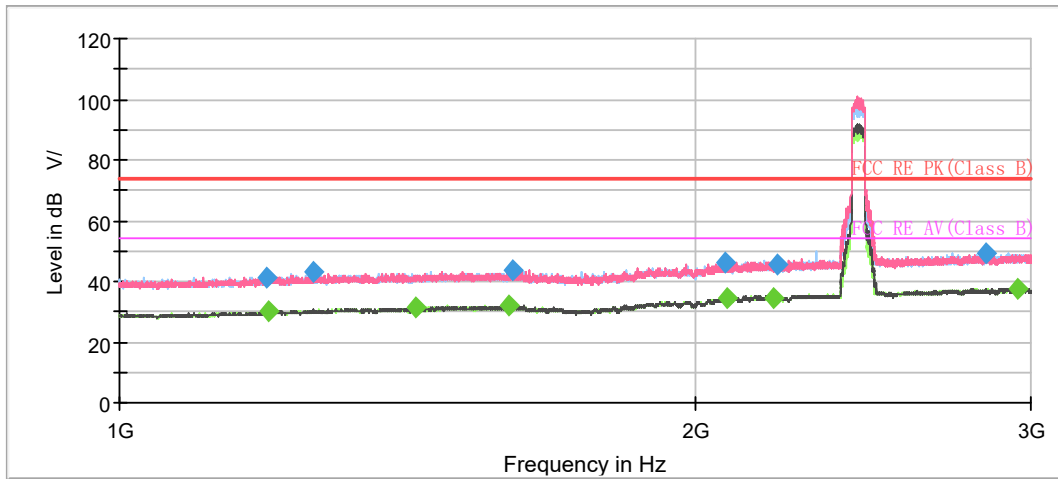
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1133.250000	41.92	---	74.00	32.08	500.0	200.0	V	48.0	-9.8
1145.750000	---	30.55	54.00	23.45	500.0	200.0	V	90.0	-9.8
1374.750000	---	31.41	54.00	22.59	500.0	100.0	V	345.0	-7.7
1391.000000	43.44	---	74.00	30.56	500.0	100.0	H	19.0	-7.6
1660.000000	---	33.60	54.00	20.40	500.0	100.0	H	155.0	-6.1
1700.750000	42.59	---	74.00	31.41	500.0	200.0	V	116.0	-6.0
1995.250000	46.47	---	74.00	27.53	500.0	200.0	V	202.0	-4.6
2078.000000	---	34.73	54.00	19.27	500.0	200.0	V	185.0	-3.9
2259.000000	46.58	---	74.00	27.42	500.0	200.0	H	357.0	-3.0
2274.750000	---	35.38	54.00	18.62	500.0	200.0	H	299.0	-3.0
2947.500000	---	37.94	54.00	16.06	500.0	200.0	H	231.0	-0.9
2985.000000	49.79	---	74.00	24.21	500.0	100.0	V	193.0	-0.7



Radiates Emission from 3GHz to 18GHz

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Meas. Time (ms)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
3196.875000	---	33.20	54.00	20.80	500.0	100.0	V	147.0	-9.9
3993.750000	48.57	---	74.00	25.43	500.0	200.0	V	185.0	-6.8
4786.875000	48.60	---	74.00	25.40	500.0	100.0	V	196.0	-6.1
4843.125000	---	33.06	54.00	20.94	500.0	100.0	H	80.0	-6.0
6386.250000	44.33	---	74.00	29.67	500.0	100.0	V	315.0	-4.2
6605.625000	---	32.50	54.00	21.50	500.0	200.0	H	346.0	-3.3
9508.125000	45.99	---	74.00	28.01	500.0	100.0	H	54.0	-0.1
9510.000000	---	34.28	54.00	19.72	500.0	200.0	H	2.0	-0.1
13331.250000	46.32	---	74.00	27.68	500.0	100.0	H	150.0	2.3
13344.375000	---	35.28	54.00	18.72	500.0	200.0	V	185.0	2.3
17475.000000	52.35	---	74.00	21.65	500.0	100.0	V	147.0	9.8
17520.000000	---	40.80	54.00	13.20	500.0	200.0	V	295.0	9.9

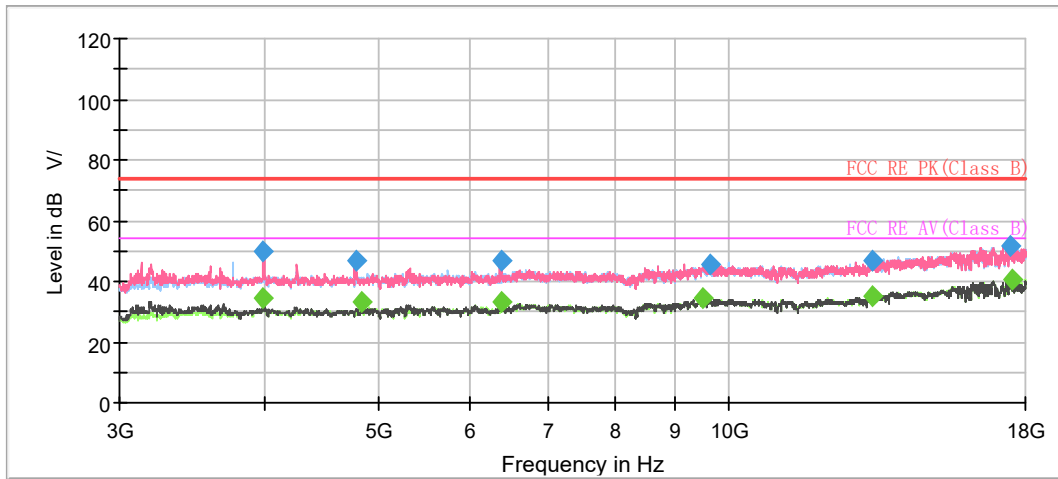
802.11n (HT40) CH6



Note: The signal beyond the limit is carrier.

Radiates Emission from 1GHz to 3GHz

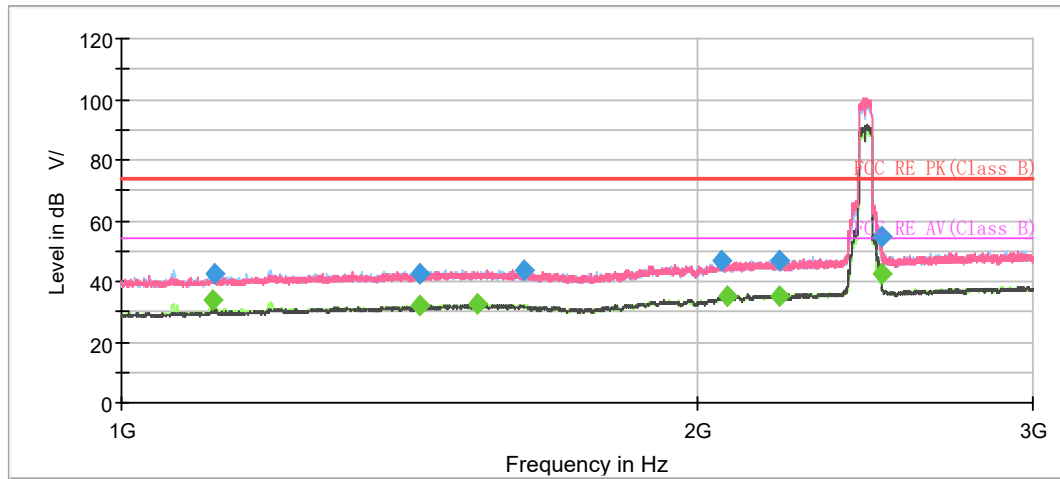
Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Meas. Time (ms)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1195.250000	41.18	---	74.00	32.82	500.0	100.0	V	0.0	-8.9
1196.500000	---	30.19	54.00	23.81	500.0	100.0	V	256.0	-8.9
1263.250000	43.02	---	74.00	30.98	500.0	200.0	V	209.0	-8.5
1430.000000	---	31.34	54.00	22.66	500.0	100.0	H	32.0	-7.4
1599.000000	---	31.82	54.00	22.18	500.0	100.0	V	181.0	-6.3
1607.750000	43.56	---	74.00	30.44	500.0	200.0	V	266.0	-6.3
2076.500000	45.99	---	74.00	28.01	500.0	200.0	H	331.0	-4.0
2079.250000	---	34.23	54.00	19.77	500.0	100.0	H	263.0	-3.9
2199.500000	---	34.69	54.00	19.31	500.0	100.0	H	74.0	-3.3
2211.500000	45.64	---	74.00	28.36	500.0	100.0	V	205.0	-3.3
2843.750000	49.50	---	74.00	24.50	500.0	200.0	H	271.0	-1.1
2955.250000	---	37.79	54.00	16.21	500.0	200.0	V	107.0	-0.8



Radiates Emission from 3GHz to 18GHz

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
3986.250000	---	34.60	54.00	19.40	500.0	200.0	V	217.0	-6.8
3988.125000	49.59	---	74.00	24.41	500.0	200.0	V	217.0	-6.8
4790.625000	46.59	---	74.00	27.41	500.0	200.0	V	0.0	-6.1
4839.375000	---	33.44	54.00	20.56	500.0	100.0	H	53.0	-6.0
6388.125000	---	33.21	54.00	20.79	500.0	200.0	V	268.0	-4.2
6388.125000	46.69	---	74.00	27.31	500.0	200.0	V	268.0	-4.2
9506.250000	---	34.30	54.00	19.70	500.0	200.0	V	88.0	-0.1
9656.250000	45.50	---	74.00	28.50	500.0	100.0	H	163.0	-0.6
13297.500000	---	35.32	54.00	18.68	500.0	100.0	H	126.0	2.3
13308.750000	46.64	---	74.00	27.36	500.0	100.0	H	318.0	2.3
17493.750000	51.96	---	74.00	22.04	500.0	100.0	V	111.0	9.8
17516.250000	---	40.75	54.00	13.25	500.0	200.0	V	172.0	9.9

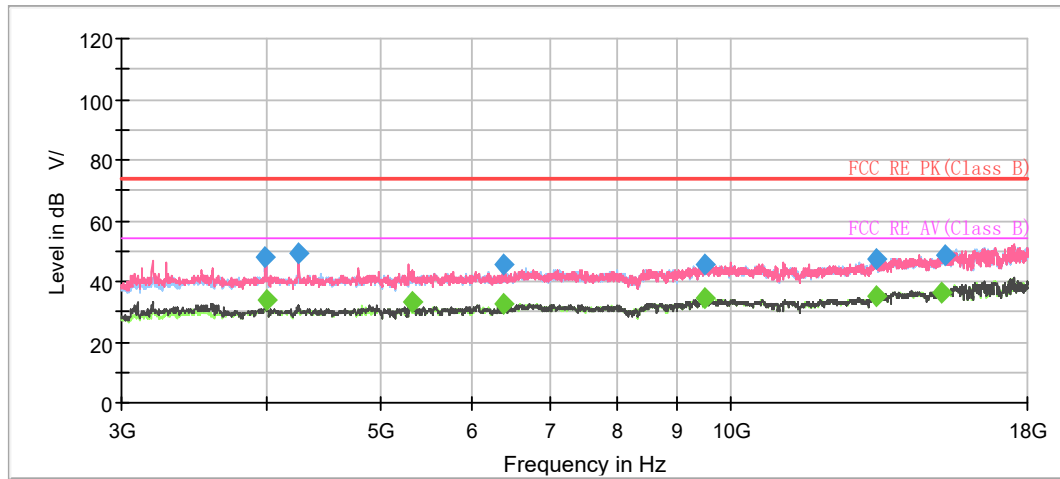
802.11n (HT40) CH9



Note: The signal beyond the limit is carrier.

Radiates Emission from 1GHz to 3GHz

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1116.500000	---	33.84	54.00	20.16	500.0	100.0	H	152.0	-10.0
1118.000000	42.32	---	74.00	31.68	500.0	100.0	H	160.0	-10.0
1431.750000	---	31.99	54.00	22.01	500.0	200.0	H	231.0	-7.4
1433.250000	42.17	---	74.00	31.83	500.0	200.0	H	231.0	-7.4
1536.500000	---	32.36	54.00	21.64	500.0	200.0	H	265.0	-6.8
1623.500000	43.70	---	74.00	30.30	500.0	100.0	H	0.0	-6.3
2059.500000	46.64	---	74.00	27.36	500.0	200.0	V	196.0	-4.1
2076.750000	---	34.79	54.00	19.21	500.0	100.0	V	316.0	-3.9
2209.750000	---	34.96	54.00	19.04	500.0	200.0	H	273.0	-3.3
2211.500000	46.84	---	74.00	27.16	500.0	200.0	V	220.0	-3.3
2498.750000	---	42.29	54.00	11.71	500.0	100.0	V	250.0	-2.1
2499.500000	55.04	---	74.00	18.96	500.0	100.0	V	250.0	-2.1



Radiates Emission from 3GHz to 18GHz

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Meas. Time (ms)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
3986.250000	48.06	---	74.00	25.94	500.0	100.0	V	243.0	-6.8
3999.375000	---	33.65	54.00	20.35	500.0	100.0	V	243.0	-6.8
4258.125000	49.16	---	74.00	24.84	500.0	100.0	V	354.0	-6.5
5326.875000	---	32.99	54.00	21.01	500.0	100.0	V	187.0	-4.7
6391.875000	---	32.57	54.00	21.43	500.0	200.0	H	101.0	-4.2
6391.875000	45.49	---	74.00	28.51	500.0	200.0	H	101.0	-4.2
9506.250000	45.34	---	74.00	28.66	500.0	100.0	H	119.0	-0.1
9510.000000	---	34.25	54.00	19.75	500.0	100.0	H	338.0	-0.1
13338.750000	47.14	---	74.00	26.86	500.0	200.0	H	0.0	2.3
13348.125000	---	35.33	54.00	18.67	500.0	100.0	H	100.0	2.4
15195.000000	---	36.40	54.00	17.60	500.0	100.0	H	215.0	5.4
15294.375000	48.70	---	74.00	25.30	500.0	100.0	H	91.0	5.6

1.2. Bluetooth LE

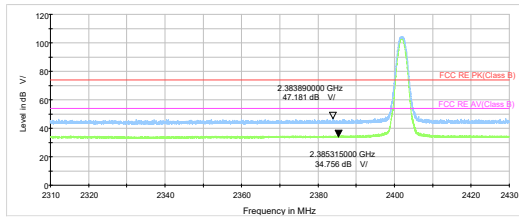
The following graphs display the maximum values of horizontal and vertical by software. Blue trace uses the peak detection, Green trace uses the average detection.

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

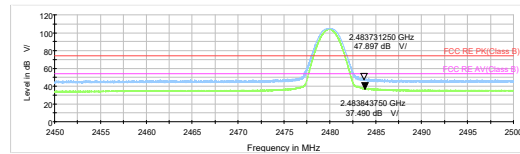
The signal beyond the limit is carrier.

Left

After the pretest, Bluetooth LE (2M) was selected as the worst Mode for Bluetooth LE.



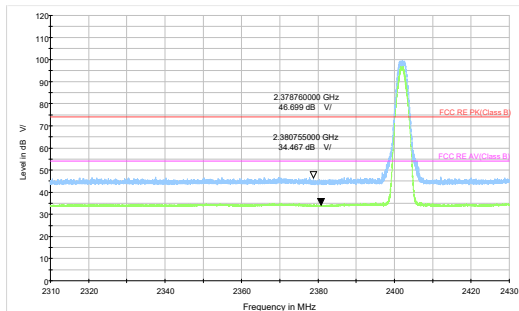
Bluetooth LE (2M) Channel 0 Peak+ Average



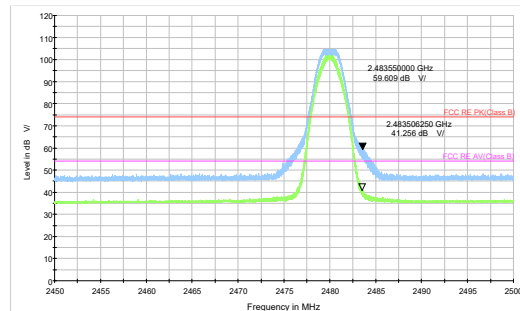
Bluetooth LE (2M) Channel 39 Peak+Average

Right

After the pretest, Bluetooth LE (2M) was selected as the worst Mode for Bluetooth LE.



Bluetooth LE (2M) Channel 0 Peak+ Average



Bluetooth LE (2M) Channel 39 Peak+Average

Result of RE

Sweep the whole frequency band through the range from 9kHz to the 10th harmonic of the carrier. The Radiates Emission from 9kHz to 30MHz and 18GHz to 26.5GHz are more than 20dB below the limit are not reported.

Remark:

1. **Correction Factor = Antenna factor + Insertion loss (cable loss + amplifier gain)**
2. **Margin = Limit – Quasi-Peak/ MAX Peak/ Average**
3. **A symbol ($\text{dB } \mu\text{V/m}$) in the test plot below means ($\text{dB}\mu\text{V/m}$)**
4. **The following graphs display the maximum values of horizontal and vertical by software.**
5. **For below 1GHz**

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

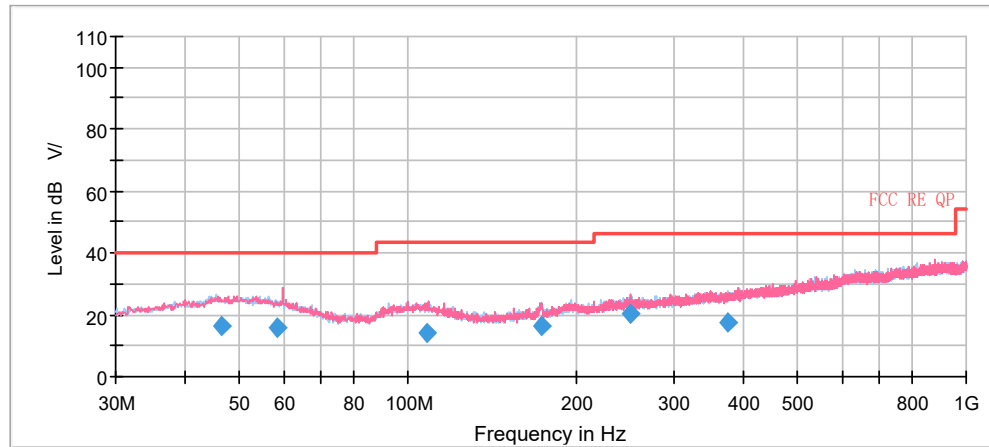
For above 1GHz

 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

Continuous TX mode:

During the test, the Radiates Emission from 30MHz to 1GHz was performed in all modes with all channels. The test data of the worst-case condition was recorded in this report.

Left



Radiates Emission from 30MHz to 1GHz

Frequency (MHz)	Quasi-Peak (dB $\mu\text{V/m}$)	Limit (dB $\mu\text{V/m}$)	Margin (dB)	Height (cm)	Polarization	Azimuth (deg)	Correct Factor (dB)
46.518750	16.44	40.00	23.56	184.0	H	302.0	21.2
58.506250	15.66	40.00	24.34	122.0	V	333.0	20.1
108.015000	14.26	43.50	29.24	210.0	V	339.0	19.0
174.006250	16.49	43.50	27.01	184.0	H	178.0	20.1
250.027500	20.07	46.00	25.93	125.0	V	109.0	20.6
374.958750	17.65	46.00	28.35	125.0	H	221.0	22.8