

## 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 lie-down position (Y axis) and the loop antenna is coplanar, the others are vertical and horizontal. and the worst case was recorded.

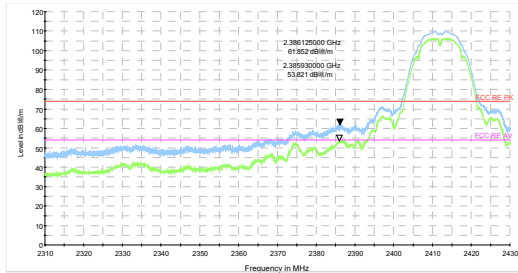
# 1. Unwanted Emission

## 1.1. Wi-Fi 2.4GHz

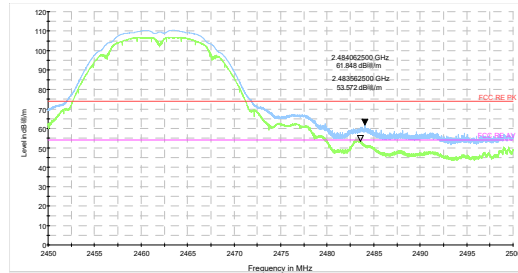
The following graphs display the maximum values of horizontal and vertical by software. Blue trace uses the peak detection, Green trace uses the average detection.

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

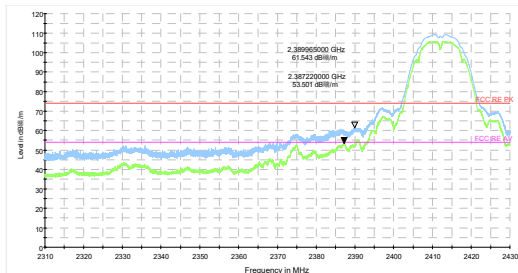
The signal beyond the limit is carrier.



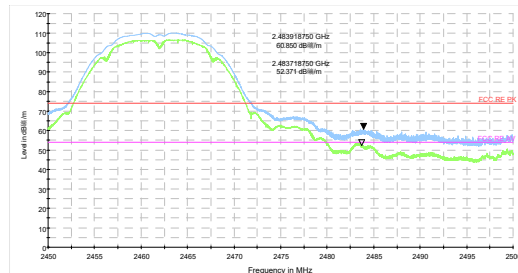
802.11b-Channel 1 Peak+ Average



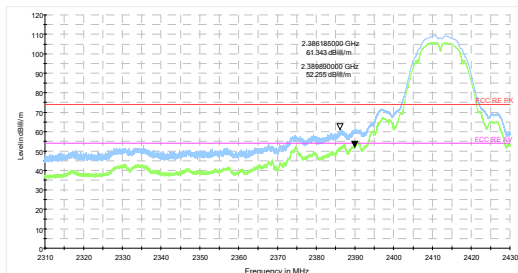
802.11b-Channel 11 Peak+ Average



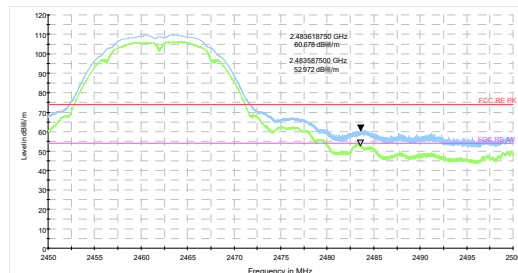
802.11g-Channel 1 Peak+ Average



802.11g-Channel 11 Peak+ Average



802.11n HT20-Channel 1 Peak+ Average



802.11n HT20-Channel 11 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 (dB $\mu$ V/m) in the test plot below means (dB $\mu$ V/m)
4. The following graphs display the maximum values of coaxial and coplanar for 9k-30MHz; horizontal and vertical for above 30MHz by software.
5. For below 1GHz

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

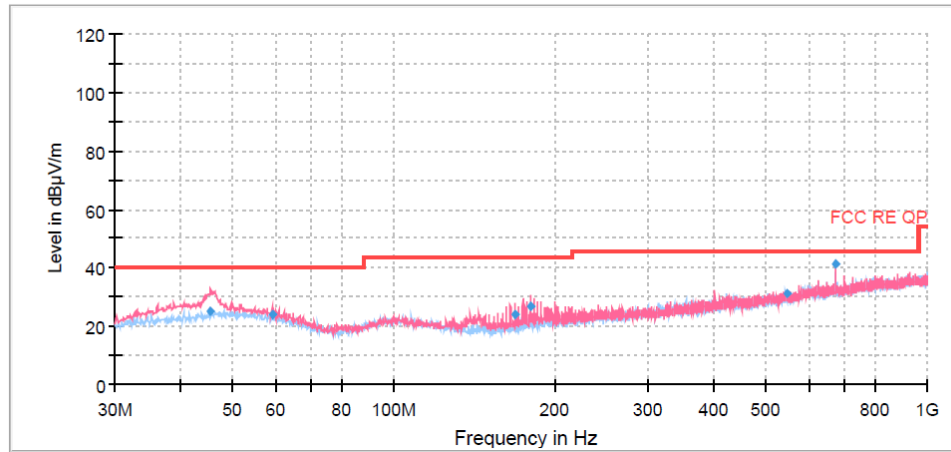
### For above 1GHz

 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 (802.11g CH11) was recorded in this report.

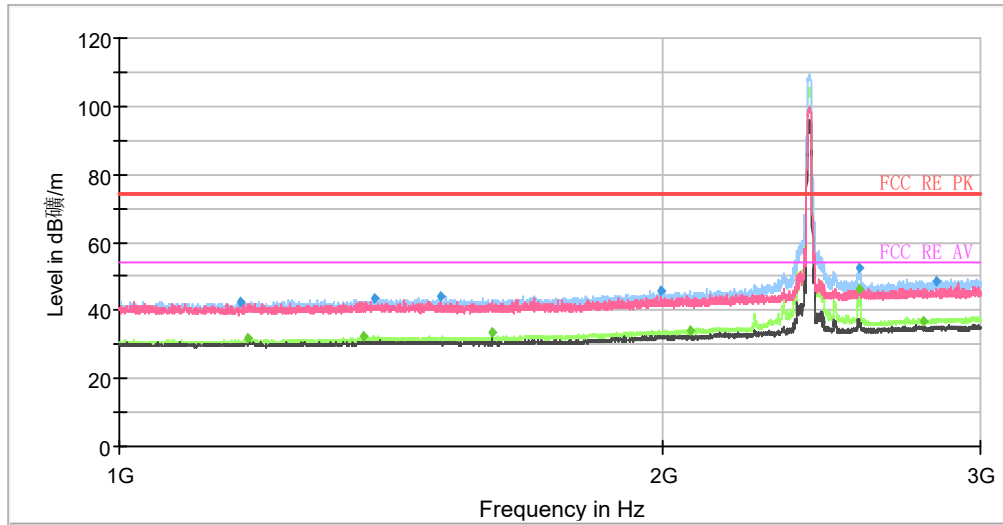


Radiates Emission from 30MHz to 1GHz

## Final Result

| Frequency (MHz) | QuasiPeak (dB $\mu$ V/m) | Limit (dB $\mu$ V/m) | Margin (dB) | Meas. Time (ms) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB/m) |
|-----------------|--------------------------|----------------------|-------------|-----------------|-------------|-----|---------------|--------------|
| 45.40           | 25.24                    | 40.00                | 14.76       | 1000.00         | 200.0       | V   | 355.00        | 20           |
| 59.10           | 24.20                    | 40.00                | 15.80       | 1000.00         | 100.0       | V   | 40.00         | 19           |
| 168.59          | 23.78                    | 43.50                | 19.72       | 1000.00         | 100.0       | V   | 83.00         | 16           |
| 180.47          | 26.80                    | 43.50                | 16.70       | 1000.00         | 100.0       | V   | 163.00        | 17           |
| 545.92          | 31.13                    | 46.00                | 14.87       | 1000.00         | 100.0       | V   | 291.00        | 26           |
| 675.05          | 41.25                    | 46.00                | 4.75        | 1000.00         | 100.0       | V   | 15.00         | 28           |

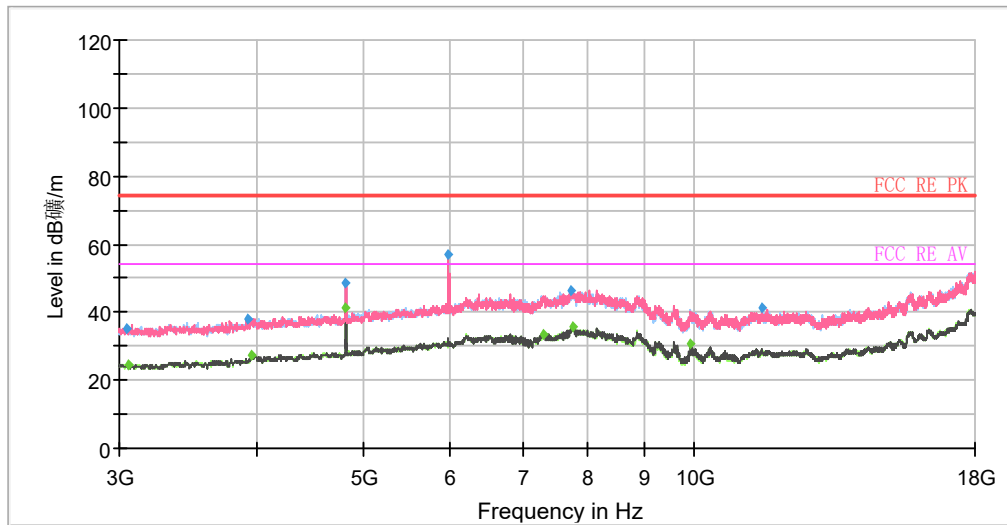
## 802.11b CH1



Note: The signal beyond the limit is carrier.

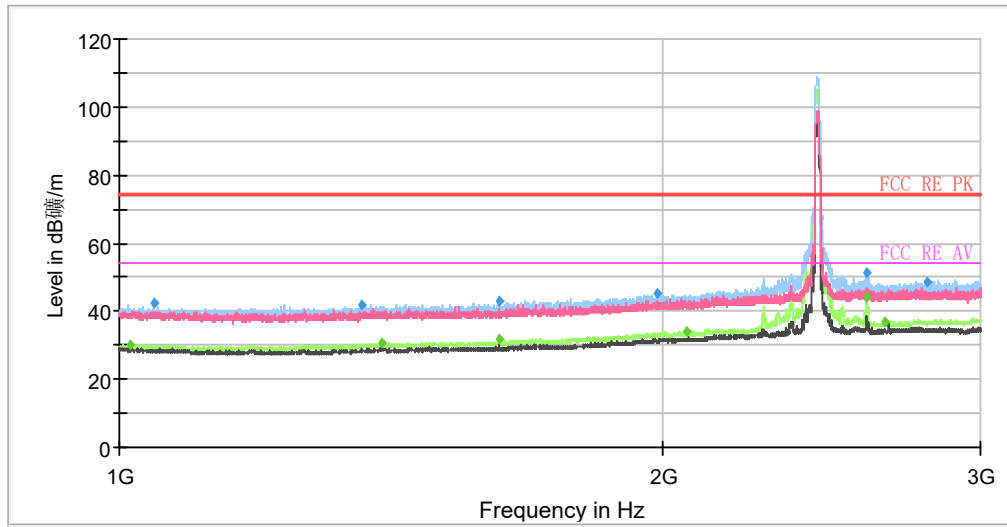
Radiates Emission from 1GHz to 3GHz

| Frequency (MHz) | MaxPeak (dBμV/m) | Average (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Meas. Time (ms) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB/m) |
|-----------------|------------------|------------------|----------------|-------------|-----------------|-------------|-----|---------------|--------------|
| 1166.00         | 42.63            | ---              | 74.00          | 31.37       | 500.00          | 100.0       | H   | 0.00          | -12          |
| 1179.50         | ---              | 31.80            | 54.00          | 22.20       | 500.00          | 200.0       | H   | 85.00         | -12          |
| 1364.00         | ---              | 32.27            | 54.00          | 21.73       | 500.00          | 100.0       | H   | 50.00         | -11          |
| 1385.50         | 43.33            | ---              | 74.00          | 30.67       | 500.00          | 200.0       | H   | 0.00          | -11          |
| 1505.50         | 44.01            | ---              | 74.00          | 29.99       | 500.00          | 100.0       | H   | 112.00        | -11          |
| 1608.00         | ---              | 33.58            | 54.00          | 20.42       | 500.00          | 200.0       | H   | 56.00         | -11          |
| 1996.00         | 45.83            | ---              | 74.00          | 28.17       | 500.00          | 200.0       | H   | 211.00        | -8           |
| 2070.00         | ---              | 34.04            | 54.00          | 19.96       | 500.00          | 100.0       | H   | 73.00         | -8           |
| 2569.50         | ---              | 46.30            | 54.00          | 7.70        | 500.00          | 100.0       | H   | 347.00        | -5           |
| 2570.25         | 52.64            | ---              | 74.00          | 21.36       | 500.00          | 100.0       | H   | 4.00          | -5           |
| 2787.25         | ---              | 37.11            | 54.00          | 16.89       | 500.00          | 200.0       | H   | 211.00        | -5           |
| 2838.75         | 48.63            | ---              | 74.00          | 25.37       | 500.00          | 100.0       | H   | 0.00          | -5           |



Radiates Emission from 3GHz to 18GHz

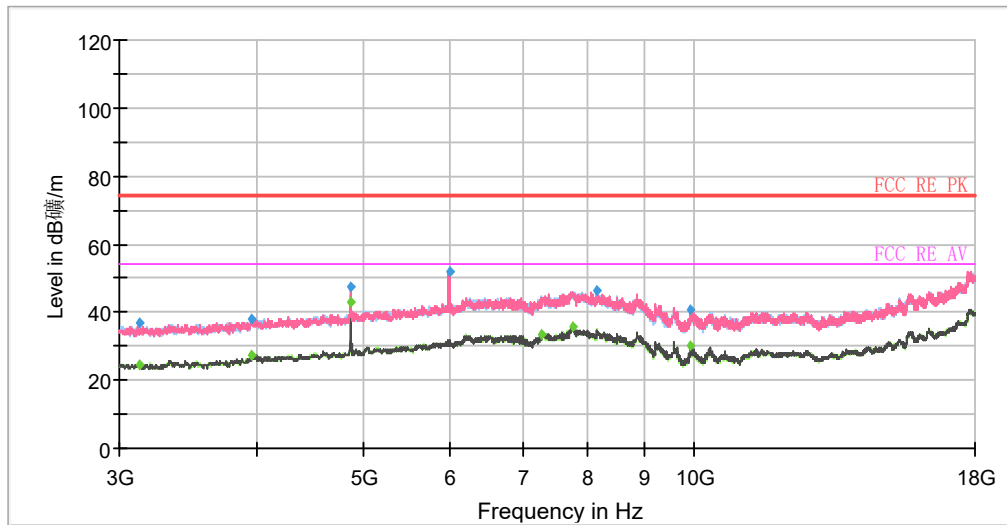
| Frequency (MHz) | MaxPeak (dBμV/m) | Average (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Meas. Time (ms) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB/m) |
|-----------------|------------------|------------------|----------------|-------------|-----------------|-------------|-----|---------------|--------------|
| 3050.63         | 35.08            | ---              | 74.00          | 38.92       | 500.00          | 200.0       | H   | 332.00        | -14          |
| 3056.25         | ---              | 24.38            | 54.00          | 29.62       | 500.00          | 200.0       | V   | 347.00        | -14          |
| 3926.25         | 38.16            | ---              | 74.00          | 35.84       | 500.00          | 100.0       | V   | 218.00        | -12          |
| 3958.13         | ---              | 27.33            | 54.00          | 26.67       | 500.00          | 200.0       | H   | 108.00        | -11          |
| 4822.50         | ---              | 41.40            | 54.00          | 12.60       | 500.00          | 200.0       | V   | 264.00        | -10          |
| 4822.50         | 48.81            | ---              | 74.00          | 25.19       | 500.00          | 200.0       | V   | 264.00        | -10          |
| 5971.88         | 56.69            | ---              | 74.00          | 17.31       | 500.00          | 100.0       | V   | 344.00        | -6           |
| 7284.38         | ---              | 33.62            | 54.00          | 20.38       | 500.00          | 100.0       | V   | 162.00        | 0            |
| 7736.25         | 46.60            | ---              | 74.00          | 27.40       | 500.00          | 100.0       | H   | 26.00         | 1            |
| 7745.63         | ---              | 35.82            | 54.00          | 18.18       | 500.00          | 100.0       | H   | 187.00        | 1            |
| 9933.75         | ---              | 30.58            | 54.00          | 23.42       | 500.00          | 100.0       | V   | 178.00        | 1            |
| 11542.50        | 41.16            | ---              | 74.00          | 32.84       | 500.00          | 100.0       | V   | 0.00          | 6            |



Note: The signal beyond the limit is carrier.

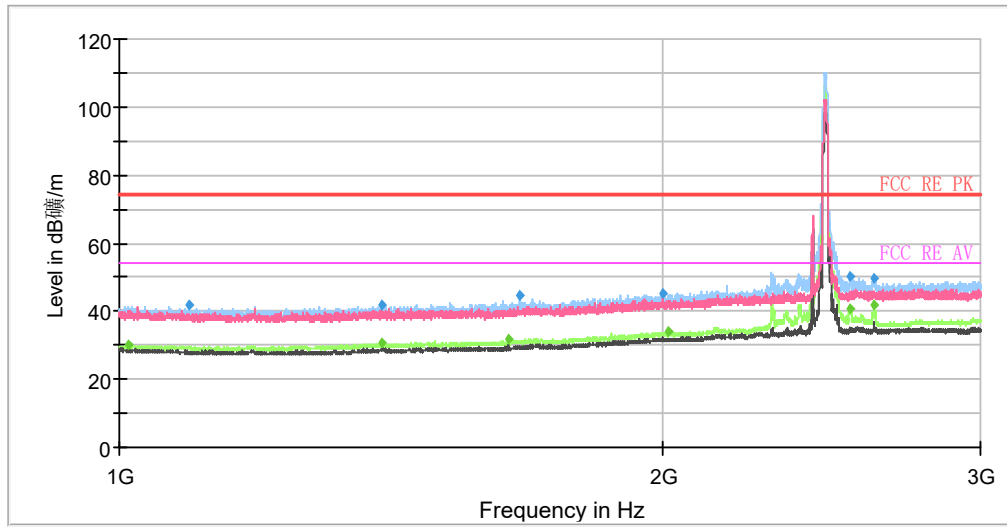
Radiates Emission from 1GHz to 3GHz

| Frequency (MHz) | MaxPeak (dBμV/m) | Average (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Meas. Time (ms) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB/m) |
|-----------------|------------------|------------------|----------------|-------------|-----------------|-------------|-----|---------------|--------------|
| 1013.25         | ---              | 29.97            | 54.00          | 24.03       | 500.00          | 100.0       | H   | 57.00         | -12          |
| 1044.50         | 42.34            | ---              | 74.00          | 31.66       | 500.00          | 100.0       | H   | 6.00          | -12          |
| 1361.25         | 42.07            | ---              | 74.00          | 31.93       | 500.00          | 100.0       | H   | 30.00         | -11          |
| 1398.25         | ---              | 30.45            | 54.00          | 23.55       | 500.00          | 100.0       | H   | 1.00          | -11          |
| 1624.75         | ---              | 32.00            | 54.00          | 22.00       | 500.00          | 200.0       | H   | 334.00        | -10          |
| 1624.75         | 43.12            | ---              | 74.00          | 30.88       | 500.00          | 200.0       | H   | 334.00        | -10          |
| 1985.50         | 44.94            | ---              | 74.00          | 29.06       | 500.00          | 100.0       | H   | 22.00         | -8           |
| 2061.75         | ---              | 33.85            | 54.00          | 20.15       | 500.00          | 200.0       | H   | 318.00        | -8           |
| 2594.50         | ---              | 43.82            | 54.00          | 10.18       | 500.00          | 100.0       | H   | 285.00        | -5           |
| 2595.75         | 51.45            | ---              | 74.00          | 22.55       | 500.00          | 100.0       | H   | 285.00        | -6           |
| 2657.00         | ---              | 36.67            | 54.00          | 17.33       | 500.00          | 200.0       | H   | 327.00        | -5           |
| 2804.25         | 48.36            | ---              | 74.00          | 25.64       | 500.00          | 200.0       | H   | 334.00        | -5           |



Radiates Emission from 3GHz to 18GHz

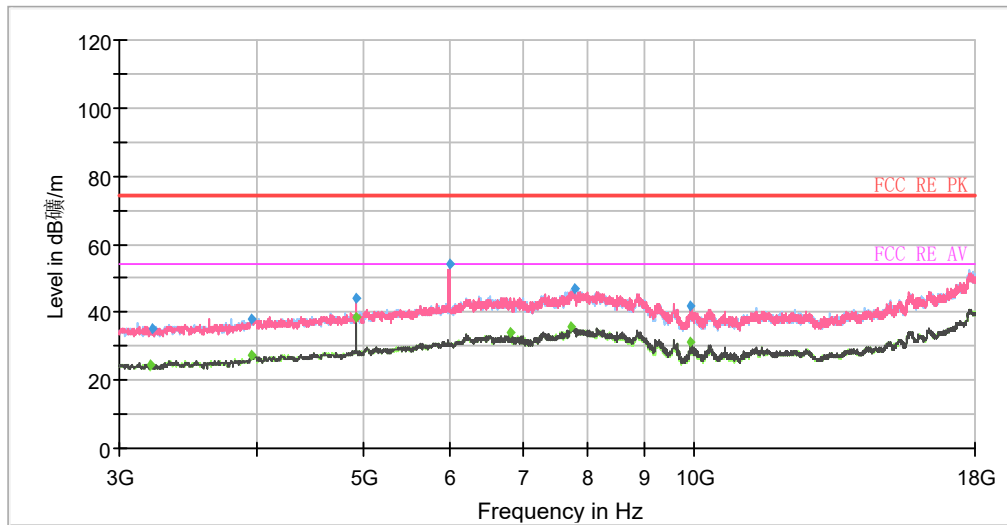
| Frequency (MHz) | MaxPeak (dBμV/m) | Average (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Meas. Time (ms) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB/m) |
|-----------------|------------------|------------------|----------------|-------------|-----------------|-------------|-----|---------------|--------------|
| 3127.50         | ---              | 24.37            | 54.00          | 29.63       | 500.00          | 100.0       | V   | 201.00        | -14          |
| 3131.25         | 36.82            | ---              | 74.00          | 37.18       | 500.00          | 200.0       | H   | 171.00        | -14          |
| 3958.13         | ---              | 27.50            | 54.00          | 26.50       | 500.00          | 100.0       | V   | 352.00        | -11          |
| 3961.88         | 38.12            | ---              | 74.00          | 35.88       | 500.00          | 200.0       | H   | 0.00          | -11          |
| 4873.13         | ---              | 42.96            | 54.00          | 11.04       | 500.00          | 200.0       | V   | 51.00         | -10          |
| 4873.13         | 47.39            | ---              | 74.00          | 26.61       | 500.00          | 200.0       | V   | 51.00         | -10          |
| 5994.38         | 52.02            | ---              | 74.00          | 21.98       | 500.00          | 200.0       | V   | 354.00        | -6           |
| 7263.75         | ---              | 33.60            | 54.00          | 20.40       | 500.00          | 100.0       | V   | 0.00          | -1           |
| 7740.00         | ---              | 35.63            | 54.00          | 18.37       | 500.00          | 100.0       | V   | 338.00        | 1            |
| 8146.88         | 46.42            | ---              | 74.00          | 27.58       | 500.00          | 200.0       | V   | 31.00         | 1            |
| 9930.00         | ---              | 30.26            | 54.00          | 23.74       | 500.00          | 100.0       | V   | 338.00        | 1            |
| 9935.63         | 40.99            | ---              | 74.00          | 33.01       | 500.00          | 200.0       | H   | 357.00        | 1            |



Note: The signal beyond the limit is carrier.

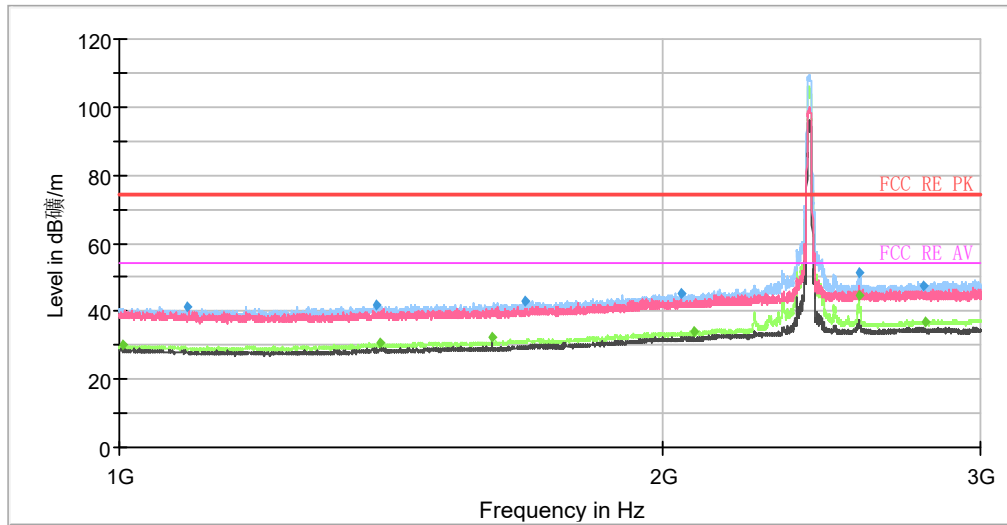
Radiates Emission from 1GHz to 3GHz

| Frequency (MHz) | MaxPeak (dBμV/m) | Average (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Meas. Time (ms) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB/m) |
|-----------------|------------------|------------------|----------------|-------------|-----------------|-------------|-----|---------------|--------------|
| 1012.00         | ---              | 29.86            | 54.00          | 24.14       | 500.00          | 200.0       | H   | 342.00        | -12          |
| 1092.50         | 41.96            | ---              | 74.00          | 32.04       | 500.00          | 200.0       | H   | 0.00          | -12          |
| 1396.50         | 41.73            | ---              | 74.00          | 32.27       | 500.00          | 100.0       | H   | 11.00         | -11          |
| 1397.25         | ---              | 30.56            | 54.00          | 23.44       | 500.00          | 200.0       | H   | 0.00          | -11          |
| 1641.75         | ---              | 31.82            | 54.00          | 22.18       | 500.00          | 200.0       | H   | 321.00        | -10          |
| 1668.25         | 44.52            | ---              | 74.00          | 29.48       | 500.00          | 100.0       | H   | 11.00         | -10          |
| 1999.50         | 45.24            | ---              | 74.00          | 28.76       | 500.00          | 200.0       | V   | 8.00          | -8           |
| 2015.75         | ---              | 34.04            | 54.00          | 19.96       | 500.00          | 200.0       | H   | 355.00        | -8           |
| 2538.25         | ---              | 40.93            | 54.00          | 13.07       | 500.00          | 100.0       | H   | 248.00        | -6           |
| 2540.75         | 50.46            | ---              | 74.00          | 23.54       | 500.00          | 100.0       | H   | 299.00        | -6           |
| 2618.75         | 49.77            | ---              | 74.00          | 24.23       | 500.00          | 100.0       | H   | 248.00        | -6           |
| 2619.25         | ---              | 41.97            | 54.00          | 12.03       | 500.00          | 200.0       | H   | 245.00        | -6           |



Radiates Emission from 3GHz to 18GHz

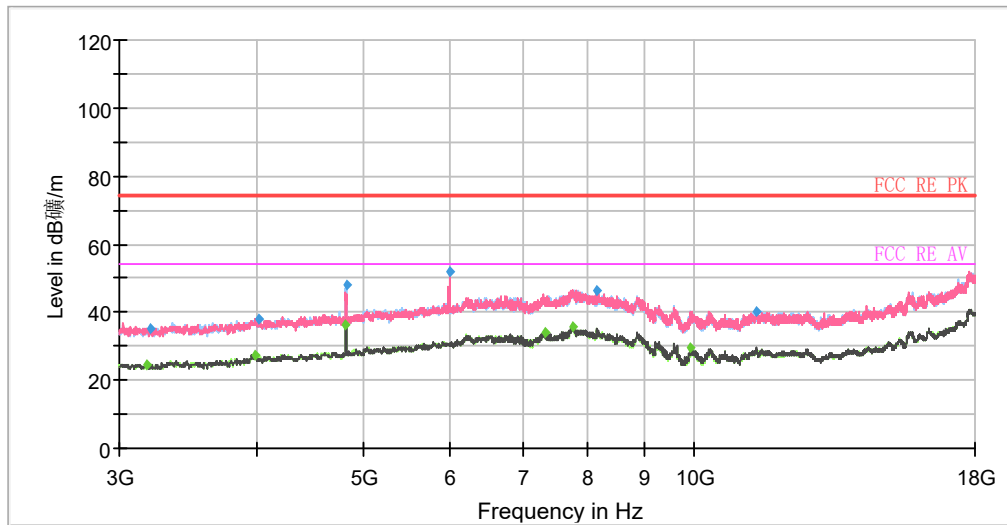
| Frequency (MHz) | MaxPeak (dBμV/m) | Average (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Meas. Time (ms) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB/m) |
|-----------------|------------------|------------------|----------------|-------------|-----------------|-------------|-----|---------------|--------------|
| 3206.25         | ---              | 24.39            | 54.00          | 29.61       | 500.00          | 200.0       | H   | 358.00        | -14          |
| 3210.00         | 35.06            | ---              | 74.00          | 38.94       | 500.00          | 100.0       | H   | 6.00          | -14          |
| 3960.00         | ---              | 27.30            | 54.00          | 26.70       | 500.00          | 200.0       | V   | 0.00          | -11          |
| 3960.00         | 38.14            | ---              | 74.00          | 35.86       | 500.00          | 200.0       | V   | 0.00          | -11          |
| 4923.75         | ---              | 38.41            | 54.00          | 15.59       | 500.00          | 200.0       | V   | 233.00        | -10          |
| 4923.75         | 44.23            | ---              | 74.00          | 29.77       | 500.00          | 200.0       | V   | 233.00        | -10          |
| 5985.00         | 54.04            | ---              | 74.00          | 19.96       | 500.00          | 100.0       | V   | 333.00        | -6           |
| 6800.63         | ---              | 33.92            | 54.00          | 20.08       | 500.00          | 100.0       | V   | 358.00        | -2           |
| 7738.13         | ---              | 35.73            | 54.00          | 18.27       | 500.00          | 100.0       | H   | 150.00        | 1            |
| 7790.63         | 46.73            | ---              | 74.00          | 27.27       | 500.00          | 100.0       | V   | 280.00        | 1            |
| 9924.38         | ---              | 31.05            | 54.00          | 22.95       | 500.00          | 100.0       | V   | 350.00        | 1            |
| 9924.38         | 41.91            | ---              | 74.00          | 32.09       | 500.00          | 100.0       | V   | 350.00        | 1            |



Note: The signal beyond the limit is carrier.

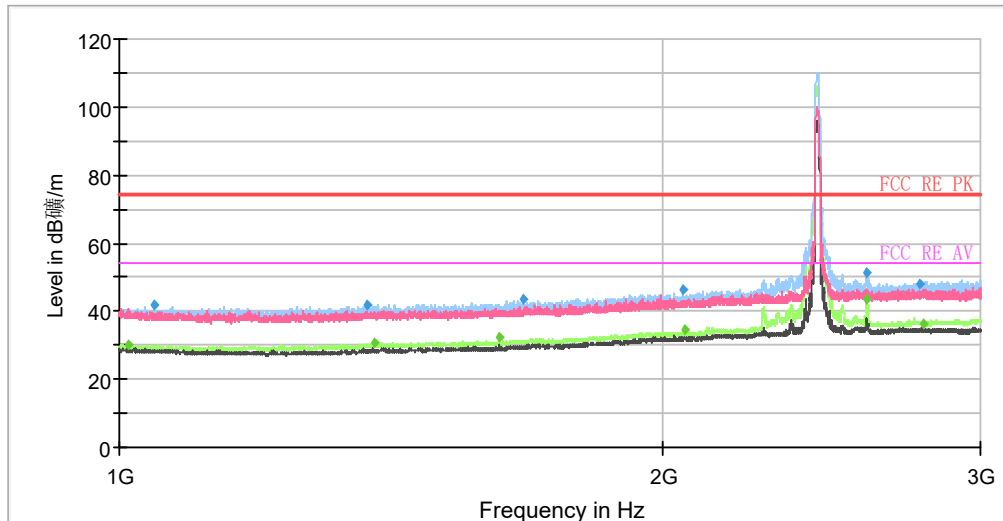
Radiates Emission from 1GHz to 3GHz

| Frequency (MHz) | MaxPeak (dBμV/m) | Average (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Meas. Time (ms) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB/m) |
|-----------------|------------------|------------------|----------------|-------------|-----------------|-------------|-----|---------------|--------------|
| 1005.25         | ---              | 30.02            | 54.00          | 23.98       | 500.00          | 100.0       | H   | 0.00          | -12          |
| 1089.50         | 41.31            | ---              | 74.00          | 32.69       | 500.00          | 100.0       | H   | 6.00          | -12          |
| 1389.25         | 41.93            | ---              | 74.00          | 32.07       | 500.00          | 200.0       | H   | 0.00          | -11          |
| 1393.25         | ---              | 30.46            | 54.00          | 23.54       | 500.00          | 200.0       | H   | 306.00        | -11          |
| 1608.00         | ---              | 32.18            | 54.00          | 21.82       | 500.00          | 200.0       | H   | 0.00          | -11          |
| 1679.50         | 43.01            | ---              | 74.00          | 30.99       | 500.00          | 100.0       | H   | 173.00        | -10          |
| 2049.75         | 45.35            | ---              | 74.00          | 28.65       | 500.00          | 200.0       | H   | 354.00        | -8           |
| 2079.50         | ---              | 33.91            | 54.00          | 20.09       | 500.00          | 100.0       | H   | 3.00          | -8           |
| 2569.25         | ---              | 44.52            | 54.00          | 9.48        | 500.00          | 200.0       | H   | 282.00        | -5           |
| 2569.50         | 51.11            | ---              | 74.00          | 22.89       | 500.00          | 100.0       | H   | 250.00        | -5           |
| 2793.00         | 47.42            | ---              | 74.00          | 26.58       | 500.00          | 100.0       | H   | 78.00         | -5           |
| 2795.00         | ---              | 36.60            | 54.00          | 17.40       | 500.00          | 100.0       | H   | 45.00         | -5           |



Radiates Emission from 3GHz to 18GHz

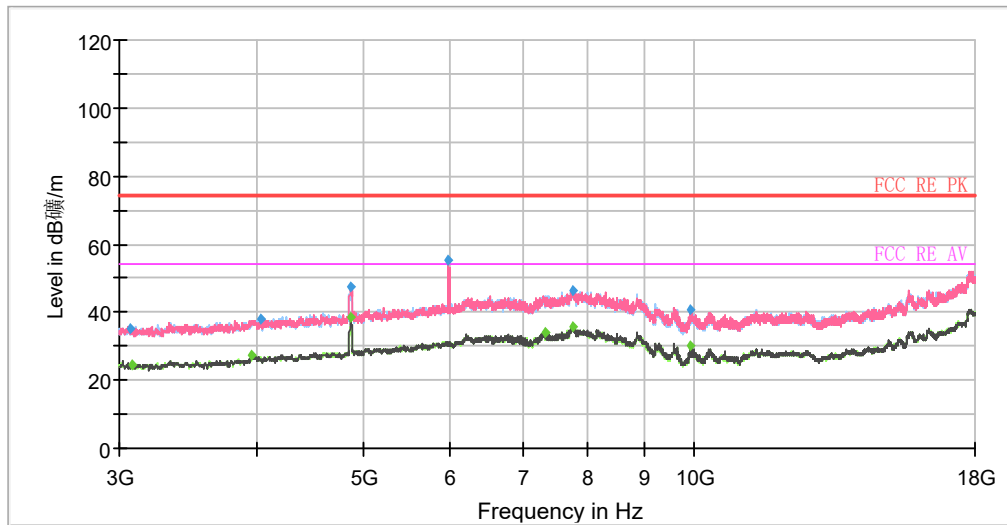
| Frequency (MHz) | MaxPeak (dBμV/m) | Average (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Meas. Time (ms) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB/m) |
|-----------------|------------------|------------------|----------------|-------------|-----------------|-------------|-----|---------------|--------------|
| 3183.75         | ---              | 24.61            | 54.00          | 29.39       | 500.00          | 200.0       | H   | 358.00        | -14          |
| 3206.25         | 35.04            | ---              | 74.00          | 38.96       | 500.00          | 100.0       | H   | 172.00        | -14          |
| 3993.75         | ---              | 27.44            | 54.00          | 26.56       | 500.00          | 200.0       | V   | 0.00          | -11          |
| 4025.63         | 37.98            | ---              | 74.00          | 36.02       | 500.00          | 200.0       | H   | 358.00        | -12          |
| 4822.50         | ---              | 36.39            | 54.00          | 17.61       | 500.00          | 200.0       | V   | 38.00         | -10          |
| 4824.38         | 47.97            | ---              | 74.00          | 26.03       | 500.00          | 100.0       | H   | 310.00        | -10          |
| 5992.50         | 51.76            | ---              | 74.00          | 22.24       | 500.00          | 200.0       | V   | 174.00        | -6           |
| 7321.88         | ---              | 33.79            | 54.00          | 20.21       | 500.00          | 200.0       | H   | 357.00        | -1           |
| 7741.88         | ---              | 35.69            | 54.00          | 18.31       | 500.00          | 200.0       | V   | 0.00          | 1            |
| 8150.63         | 46.44            | ---              | 74.00          | 27.56       | 500.00          | 200.0       | H   | 140.00        | 1            |
| 9928.13         | ---              | 29.81            | 54.00          | 24.19       | 500.00          | 100.0       | V   | 299.00        | 1            |
| 11405.63        | 40.41            | ---              | 74.00          | 33.59       | 500.00          | 100.0       | H   | 142.00        | 5            |



Note: The signal beyond the limit is carrier.

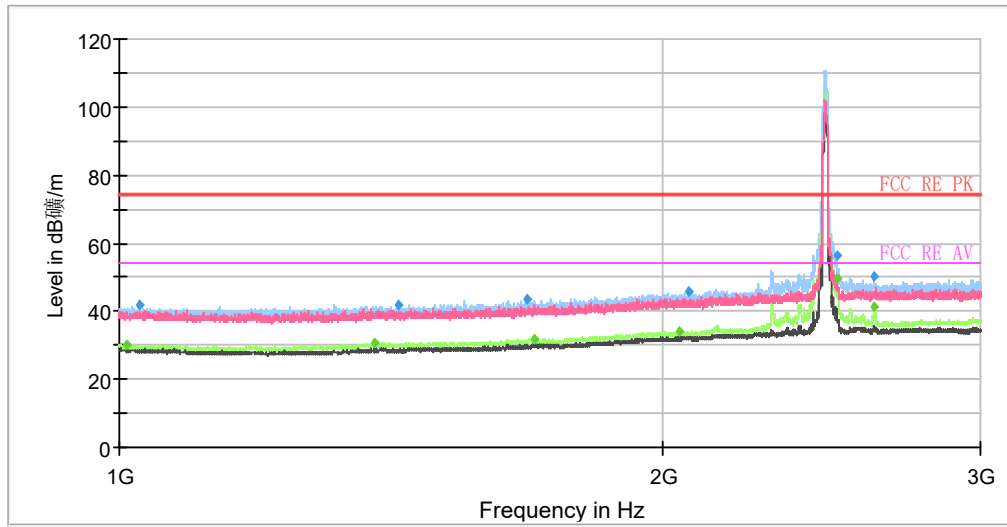
Radiates Emission from 1GHz to 3GHz

| Frequency (MHz) | MaxPeak (dBμV/m) | Average (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Meas. Time (ms) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB/m) |
|-----------------|------------------|------------------|----------------|-------------|-----------------|-------------|-----|---------------|--------------|
| 1012.25         | ---              | 30.14            | 54.00          | 23.86       | 500.00          | 100.0       | H   | 6.00          | -12          |
| 1044.75         | 41.59            | ---              | 74.00          | 32.41       | 500.00          | 200.0       | H   | 0.00          | -12          |
| 1371.50         | 41.88            | ---              | 74.00          | 32.12       | 500.00          | 100.0       | H   | 111.00        | -11          |
| 1383.50         | ---              | 30.54            | 54.00          | 23.46       | 500.00          | 200.0       | H   | 357.00        | -11          |
| 1624.50         | ---              | 32.29            | 54.00          | 21.71       | 500.00          | 200.0       | H   | 0.00          | -10          |
| 1673.00         | 43.47            | ---              | 74.00          | 30.53       | 500.00          | 200.0       | H   | 0.00          | -10          |
| 2052.75         | 46.51            | ---              | 74.00          | 27.49       | 500.00          | 100.0       | H   | 71.00         | -8           |
| 2058.25         | ---              | 34.33            | 54.00          | 19.67       | 500.00          | 100.0       | H   | 124.00        | -8           |
| 2593.75         | 51.52            | ---              | 74.00          | 22.48       | 500.00          | 200.0       | H   | 246.00        | -5           |
| 2594.50         | ---              | 43.37            | 54.00          | 10.63       | 500.00          | 200.0       | H   | 246.00        | -5           |
| 2773.75         | 48.15            | ---              | 74.00          | 25.85       | 500.00          | 100.0       | H   | 0.00          | -5           |
| 2792.25         | ---              | 36.54            | 54.00          | 17.46       | 500.00          | 100.0       | H   | 32.00         | -5           |



Radiates Emission from 3GHz to 18GHz

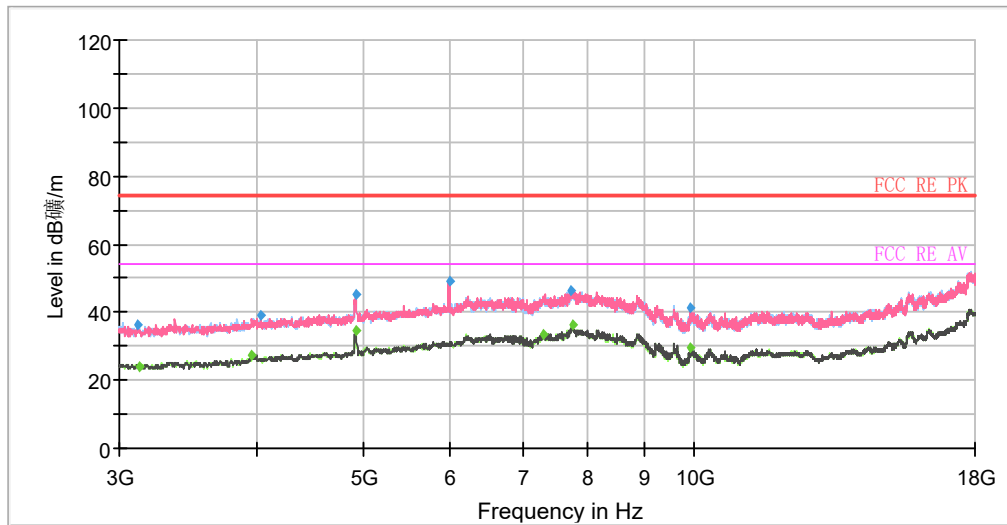
| Frequency (MHz) | MaxPeak (dBμV/m) | Average (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Meas. Time (ms) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB/m) |
|-----------------|------------------|------------------|----------------|-------------|-----------------|-------------|-----|---------------|--------------|
| 3073.13         | 35.33            | ---              | 74.00          | 38.67       | 500.00          | 200.0       | H   | 358.00        | -14          |
| 3080.63         | ---              | 24.36            | 54.00          | 29.64       | 500.00          | 200.0       | V   | 338.00        | -14          |
| 3956.25         | ---              | 27.29            | 54.00          | 26.71       | 500.00          | 100.0       | V   | 334.00        | -11          |
| 4035.00         | 37.70            | ---              | 74.00          | 36.30       | 500.00          | 200.0       | H   | 0.00          | -12          |
| 4865.63         | 47.33            | ---              | 74.00          | 26.67       | 500.00          | 200.0       | V   | 43.00         | -10          |
| 4873.13         | ---              | 38.69            | 54.00          | 15.31       | 500.00          | 200.0       | V   | 43.00         | -10          |
| 5979.38         | 55.30            | ---              | 74.00          | 18.70       | 500.00          | 100.0       | V   | 350.00        | -6           |
| 7306.88         | ---              | 34.08            | 54.00          | 19.92       | 500.00          | 200.0       | V   | 0.00          | -1           |
| 7740.00         | ---              | 35.69            | 54.00          | 18.31       | 500.00          | 200.0       | H   | 124.00        | 1            |
| 7762.50         | 46.54            | ---              | 74.00          | 27.46       | 500.00          | 200.0       | H   | 217.00        | 1            |
| 9924.38         | ---              | 30.02            | 54.00          | 23.98       | 500.00          | 100.0       | V   | 317.00        | 1            |
| 9930.00         | 40.58            | ---              | 74.00          | 33.42       | 500.00          | 200.0       | V   | 296.00        | 1            |



Note: The signal beyond the limit is carrier.

Radiates Emission from 1GHz to 3GHz

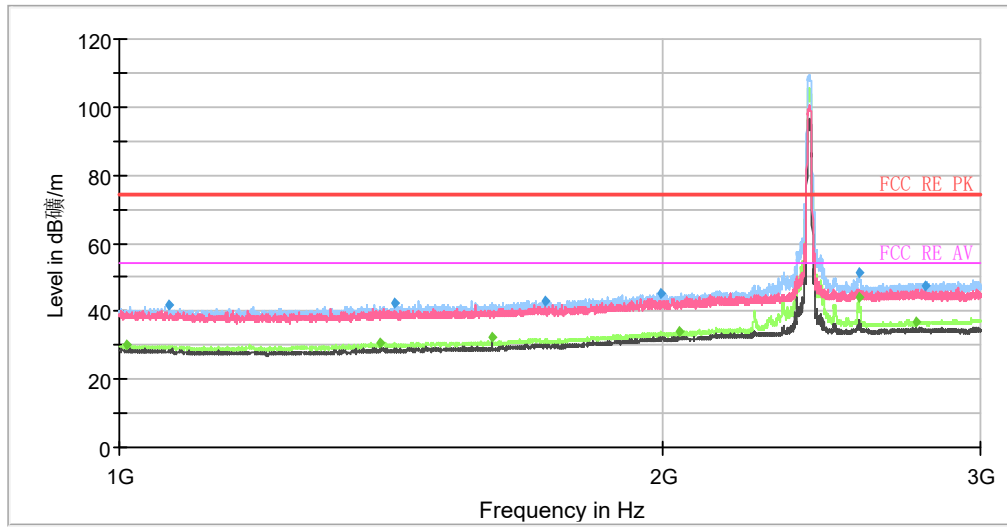
| Frequency (MHz) | MaxPeak (dBμV/m) | Average (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Meas. Time (ms) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB/m) |
|-----------------|------------------|------------------|----------------|-------------|-----------------|-------------|-----|---------------|--------------|
| 1009.50         | ---              | 30.01            | 54.00          | 23.99       | 500.00          | 100.0       | H   | 5.00          | -12          |
| 1025.50         | 42.08            | ---              | 74.00          | 31.92       | 500.00          | 100.0       | H   | 59.00         | -12          |
| 1385.75         | ---              | 30.72            | 54.00          | 23.28       | 500.00          | 100.0       | H   | 0.00          | -11          |
| 1428.50         | 41.60            | ---              | 74.00          | 32.40       | 500.00          | 100.0       | H   | 3.00          | -11          |
| 1680.50         | 43.62            | ---              | 74.00          | 30.38       | 500.00          | 200.0       | H   | 0.00          | -10          |
| 1696.25         | ---              | 32.01            | 54.00          | 21.99       | 500.00          | 100.0       | H   | 1.00          | -10          |
| 2040.75         | ---              | 34.01            | 54.00          | 19.99       | 500.00          | 100.0       | H   | 18.00         | -8           |
| 2065.50         | 45.81            | ---              | 74.00          | 28.19       | 500.00          | 200.0       | H   | 349.00        | -8           |
| 2499.00         | 56.21            | ---              | 74.00          | 17.79       | 500.00          | 100.0       | H   | 287.00        | -6           |
| 2499.00         | ---              | 49.51            | 54.00          | 4.49        | 500.00          | 100.0       | H   | 287.00        | -6           |
| 2618.50         | 50.24            | ---              | 74.00          | 23.76       | 500.00          | 100.0       | H   | 287.00        | -6           |
| 2620.00         | ---              | 41.57            | 54.00          | 12.43       | 500.00          | 200.0       | H   | 244.00        | -6           |



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) |
|-----------------|------------------|------------------|----------------|-------------|-----------------|-------------|-----|---------------|--------------|
| 3116.25         | 36.31            | ---              | 74.00          | 37.69       | 500.00          | 100.0       | H   | 347.00        | -14          |
| 3133.13         | ---              | 24.17            | 54.00          | 29.83       | 500.00          | 100.0       | H   | 127.00        | -14          |
| 3960.00         | ---              | 27.22            | 54.00          | 26.78       | 500.00          | 100.0       | H   | 142.00        | -11          |
| 4035.00         | 38.87            | ---              | 74.00          | 35.13       | 500.00          | 200.0       | V   | 70.00         | -12          |
| 4918.13         | 45.37            | ---              | 74.00          | 28.63       | 500.00          | 200.0       | V   | 46.00         | -10          |
| 4925.63         | ---              | 34.74            | 54.00          | 19.26       | 500.00          | 200.0       | V   | 267.00        | -10          |
| 5998.13         | 49.24            | ---              | 74.00          | 24.76       | 500.00          | 100.0       | V   | 354.00        | -6           |
| 7301.25         | ---              | 33.73            | 54.00          | 20.27       | 500.00          | 200.0       | H   | 0.00          | 0            |
| 7738.13         | 46.42            | ---              | 74.00          | 27.58       | 500.00          | 200.0       | V   | 70.00         | 1            |
| 7741.88         | ---              | 36.01            | 54.00          | 17.99       | 500.00          | 200.0       | V   | 174.00        | 1            |
| 9924.38         | ---              | 29.65            | 54.00          | 24.35       | 500.00          | 200.0       | V   | 2.00          | 1            |
| 9928.13         | 41.08            | ---              | 74.00          | 32.92       | 500.00          | 200.0       | V   | 115.00        | 1            |

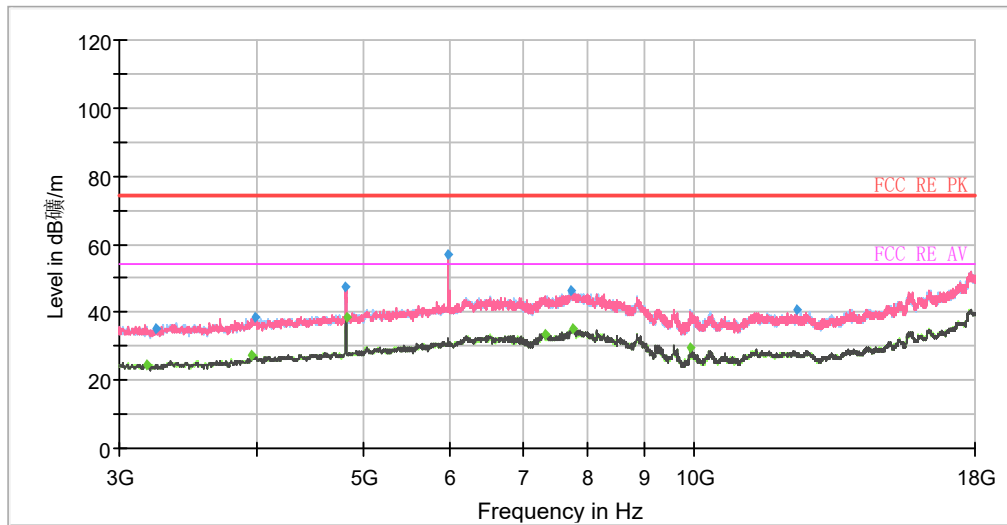
## 802.11n (HT20) CH1



Note: The signal beyond the limit is carrier.

Radiates Emission from 1GHz to 3GHz

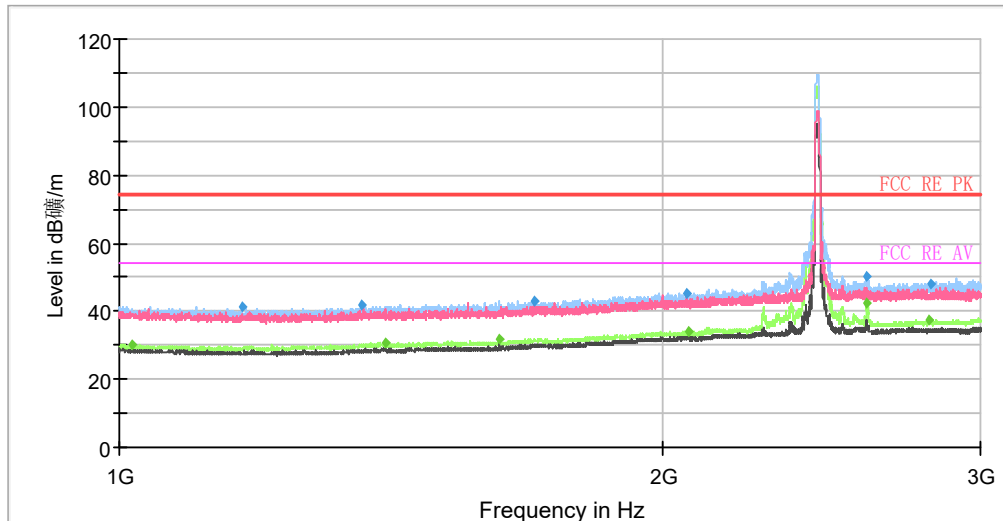
| Frequency (MHz) | MaxPeak (dBμV/m) | Average (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Meas. Time (ms) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB/m) |
|-----------------|------------------|------------------|----------------|-------------|-----------------|-------------|-----|---------------|--------------|
| 1008.50         | ---              | 30.11            | 54.00          | 23.89       | 500.00          | 100.0       | H   | 95.00         | -12          |
| 1066.50         | 41.61            | ---              | 74.00          | 32.39       | 500.00          | 100.0       | H   | 22.00         | -12          |
| 1393.25         | ---              | 30.69            | 54.00          | 23.31       | 500.00          | 100.0       | H   | 22.00         | -11          |
| 1422.50         | 42.17            | ---              | 74.00          | 31.83       | 500.00          | 100.0       | H   | 22.00         | -11          |
| 1607.75         | ---              | 32.11            | 54.00          | 21.89       | 500.00          | 200.0       | H   | 328.00        | -11          |
| 1723.75         | 42.91            | ---              | 74.00          | 31.09       | 500.00          | 100.0       | H   | 22.00         | -10          |
| 1995.25         | 45.27            | ---              | 74.00          | 28.73       | 500.00          | 100.0       | H   | 110.00        | -8           |
| 2045.00         | ---              | 34.18            | 54.00          | 19.82       | 500.00          | 100.0       | H   | 1.00          | -8           |
| 2569.25         | 51.09            | ---              | 74.00          | 22.91       | 500.00          | 200.0       | H   | 245.00        | -5           |
| 2569.25         | ---              | 44.03            | 54.00          | 9.97        | 500.00          | 200.0       | H   | 245.00        | -5           |
| 2762.75         | ---              | 36.68            | 54.00          | 17.32       | 500.00          | 200.0       | H   | 288.00        | -5           |
| 2799.25         | 47.21            | ---              | 74.00          | 26.79       | 500.00          | 200.0       | H   | 346.00        | -5           |



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) |
|-----------------|------------------|------------------|----------------|-------------|-----------------|-------------|-----|---------------|--------------|
| 3181.88         | ---              | 24.43            | 54.00          | 29.57       | 500.00          | 100.0       | H   | 5.00          | -14          |
| 3240.00         | 35.21            | ---              | 74.00          | 38.79       | 500.00          | 200.0       | H   | 80.00         | -14          |
| 3963.75         | ---              | 27.50            | 54.00          | 26.50       | 500.00          | 100.0       | H   | 3.00          | -11          |
| 3993.75         | 38.52            | ---              | 74.00          | 35.48       | 500.00          | 100.0       | V   | 339.00        | -11          |
| 4816.88         | 47.49            | ---              | 74.00          | 26.51       | 500.00          | 200.0       | V   | 49.00         | -10          |
| 4824.38         | ---              | 38.59            | 54.00          | 15.41       | 500.00          | 200.0       | V   | 6.00          | -10          |
| 5979.38         | 57.20            | ---              | 74.00          | 16.80       | 500.00          | 100.0       | V   | 345.00        | -6           |
| 7321.88         | ---              | 33.73            | 54.00          | 20.27       | 500.00          | 100.0       | H   | 56.00         | -1           |
| 7738.13         | 46.09            | ---              | 74.00          | 27.91       | 500.00          | 200.0       | H   | 0.00          | 1            |
| 7749.38         | ---              | 35.34            | 54.00          | 18.66       | 500.00          | 100.0       | V   | 358.00        | 1            |
| 9922.50         | ---              | 29.37            | 54.00          | 24.63       | 500.00          | 200.0       | V   | 232.00        | 1            |
| 12416.25        | 40.83            | ---              | 74.00          | 33.17       | 500.00          | 200.0       | H   | 346.00        | 5            |

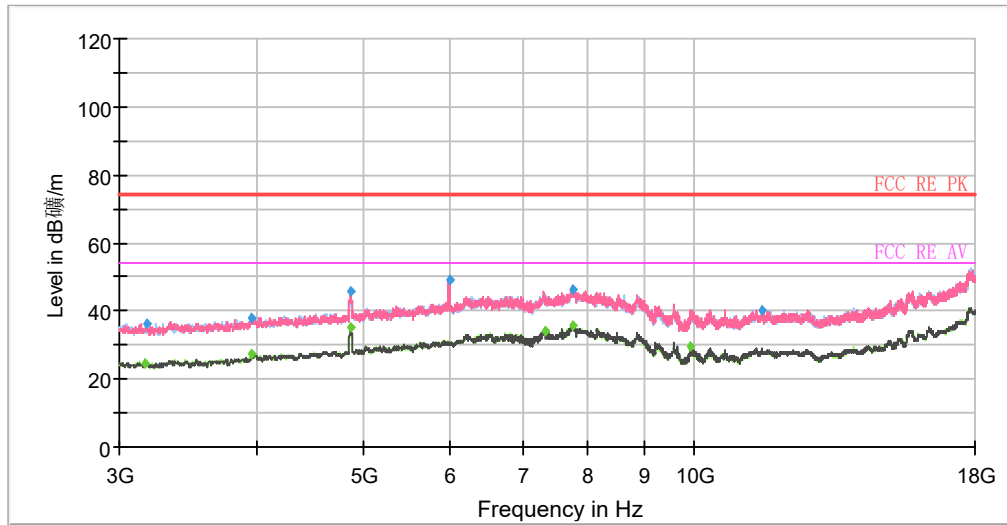
## 802.11n (HT20) CH6



Note: The signal beyond the limit is carrier.

Radiates Emission from 1GHz to 3GHz

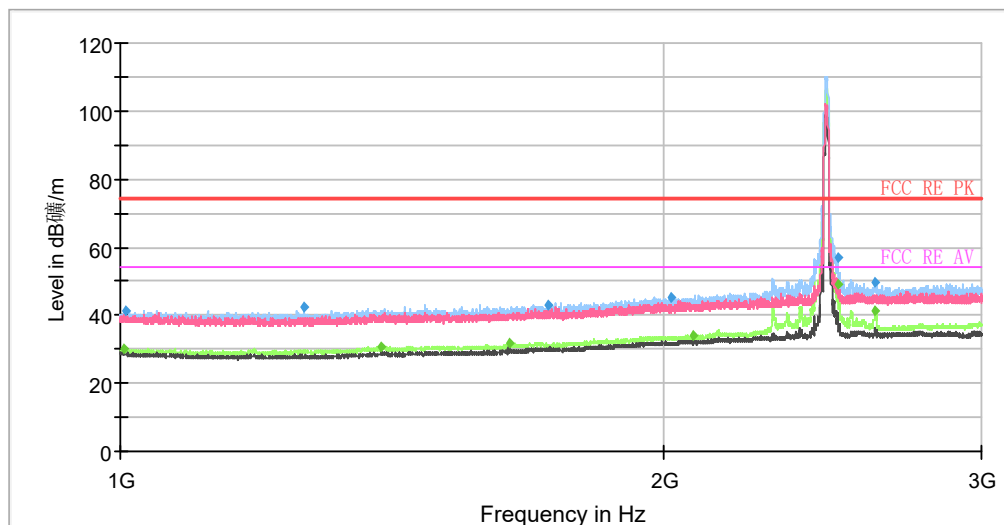
| Frequency (MHz) | MaxPeak (dBμV/m) | Average (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Meas. Time (ms) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB/m) |
|-----------------|------------------|------------------|----------------|-------------|-----------------|-------------|-----|---------------|--------------|
| 1016.00         | ---              | 30.05            | 54.00          | 23.95       | 500.00          | 200.0       | H   | 355.00        | -12          |
| 1169.50         | 41.46            | ---              | 74.00          | 32.54       | 500.00          | 200.0       | H   | 350.00        | -12          |
| 1361.50         | 41.90            | ---              | 74.00          | 32.10       | 500.00          | 100.0       | H   | 83.00         | -11          |
| 1405.75         | ---              | 30.83            | 54.00          | 23.17       | 500.00          | 200.0       | H   | 358.00        | -11          |
| 1624.50         | ---              | 32.03            | 54.00          | 21.97       | 500.00          | 100.0       | H   | 98.00         | -10          |
| 1697.75         | 43.16            | ---              | 74.00          | 30.84       | 500.00          | 200.0       | H   | 353.00        | -10          |
| 2062.75         | 45.40            | ---              | 74.00          | 28.60       | 500.00          | 100.0       | H   | 0.00          | -8           |
| 2065.25         | ---              | 34.00            | 54.00          | 20.00       | 500.00          | 200.0       | H   | 353.00        | -8           |
| 2592.75         | 50.48            | ---              | 74.00          | 23.52       | 500.00          | 100.0       | H   | 287.00        | -5           |
| 2594.50         | ---              | 42.69            | 54.00          | 11.31       | 500.00          | 100.0       | H   | 315.00        | -5           |
| 2812.00         | ---              | 37.28            | 54.00          | 16.72       | 500.00          | 100.0       | H   | 10.00         | -5           |
| 2819.25         | 47.74            | ---              | 74.00          | 26.26       | 500.00          | 200.0       | H   | 350.00        | -5           |



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) |
|-----------------|------------------|------------------|----------------|-------------|-----------------|-------------|-----|---------------|--------------|
| 3168.75         | ---              | 24.42            | 54.00          | 29.58       | 500.00          | 100.0       | H   | 44.00         | -14          |
| 3178.13         | 36.49            | ---              | 74.00          | 37.51       | 500.00          | 100.0       | V   | 0.00          | -14          |
| 3960.00         | 38.08            | ---              | 74.00          | 35.92       | 500.00          | 200.0       | H   | 340.00        | -11          |
| 3961.88         | ---              | 27.40            | 54.00          | 26.60       | 500.00          | 200.0       | V   | 19.00         | -11          |
| 4873.13         | ---              | 35.25            | 54.00          | 18.75       | 500.00          | 200.0       | V   | 53.00         | -10          |
| 4875.00         | 45.75            | ---              | 74.00          | 28.25       | 500.00          | 200.0       | V   | 25.00         | -10          |
| 5986.88         | 49.18            | ---              | 74.00          | 24.82       | 500.00          | 200.0       | V   | 354.00        | -6           |
| 7306.88         | ---              | 33.89            | 54.00          | 20.11       | 500.00          | 100.0       | V   | 50.00         | -1           |
| 7741.88         | 46.15            | ---              | 74.00          | 27.85       | 500.00          | 100.0       | H   | 67.00         | 1            |
| 7745.63         | ---              | 35.70            | 54.00          | 18.30       | 500.00          | 100.0       | H   | 44.00         | 1            |
| 9933.75         | ---              | 29.51            | 54.00          | 24.49       | 500.00          | 100.0       | V   | 0.00          | 1            |
| 11506.88        | 40.44            | ---              | 74.00          | 33.56       | 500.00          | 100.0       | V   | 65.00         | 6            |

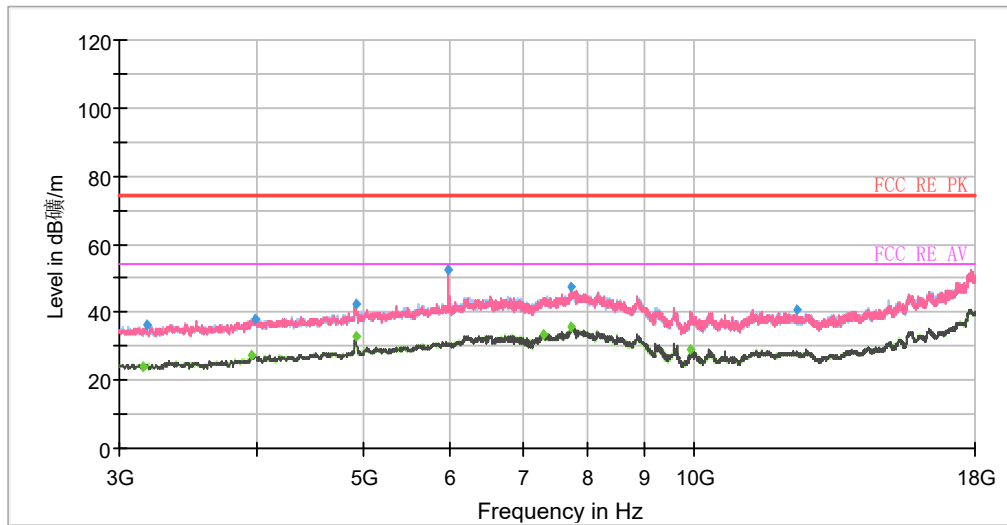
## 802.11n (HT20) CH11



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) |
|-----------------|------------------|------------------|----------------|-------------|-----------------|-------------|-----|---------------|--------------|
| 1004.00         | ---              | 30.14            | 54.00          | 23.86       | 500.00          | 100.0       | H   | 2.00          | -12          |
| 1007.50         | 41.31            | ---              | 74.00          | 32.69       | 500.00          | 200.0       | H   | 0.00          | -12          |
| 1263.75         | 42.38            | ---              | 74.00          | 31.62       | 500.00          | 100.0       | H   | 43.00         | -11          |
| 1394.00         | ---              | 30.95            | 54.00          | 23.05       | 500.00          | 200.0       | H   | 358.00        | -11          |
| 1641.25         | ---              | 31.84            | 54.00          | 22.16       | 500.00          | 100.0       | H   | 4.00          | -10          |
| 1725.00         | 42.88            | ---              | 74.00          | 31.12       | 500.00          | 100.0       | H   | 117.00        | -10          |
| 2019.00         | 45.13            | ---              | 74.00          | 28.87       | 500.00          | 100.0       | H   | 0.00          | -8           |
| 2078.25         | ---              | 34.04            | 54.00          | 19.96       | 500.00          | 100.0       | H   | 16.00         | -8           |
| 2499.00         | ---              | 49.17            | 54.00          | 4.83        | 500.00          | 100.0       | H   | 251.00        | -6           |
| 2499.25         | 56.84            | ---              | 74.00          | 17.16       | 500.00          | 100.0       | H   | 251.00        | -6           |
| 2616.75         | 49.62            | ---              | 74.00          | 24.38       | 500.00          | 100.0       | H   | 64.00         | -6           |
| 2619.75         | ---              | 41.16            | 54.00          | 12.84       | 500.00          | 100.0       | H   | 236.00        | -6           |



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) |
|-----------------|------------------|------------------|----------------|-------------|-----------------|-------------|-----|---------------|--------------|
| 3151.88         | ---              | 23.93            | 54.00          | 30.07       | 500.00          | 200.0       | H   | 290.00        | -14          |
| 3178.13         | 36.44            | ---              | 74.00          | 37.56       | 500.00          | 100.0       | V   | 184.00        | -14          |
| 3960.00         | ---              | 27.12            | 54.00          | 26.88       | 500.00          | 200.0       | V   | 109.00        | -11          |
| 3988.13         | 38.02            | ---              | 74.00          | 35.98       | 500.00          | 200.0       | V   | 4.00          | -11          |
| 4921.88         | ---              | 33.08            | 54.00          | 20.92       | 500.00          | 200.0       | V   | 53.00         | -10          |
| 4925.63         | 42.67            | ---              | 74.00          | 31.33       | 500.00          | 200.0       | V   | 43.00         | -10          |
| 5971.88         | 52.46            | ---              | 74.00          | 21.54       | 500.00          | 100.0       | V   | 0.00          | -6           |
| 7286.25         | ---              | 33.54            | 54.00          | 20.46       | 500.00          | 100.0       | V   | 355.00        | 0            |
| 7738.13         | 47.48            | ---              | 74.00          | 26.52       | 500.00          | 100.0       | V   | 0.00          | 1            |
| 7738.13         | ---              | 35.79            | 54.00          | 18.21       | 500.00          | 100.0       | V   | 0.00          | 1            |
| 9924.38         | ---              | 29.26            | 54.00          | 24.74       | 500.00          | 100.0       | V   | 358.00        | 1            |
| 12403.13        | 40.53            | ---              | 74.00          | 33.47       | 500.00          | 100.0       | H   | 0.00          | 5            |

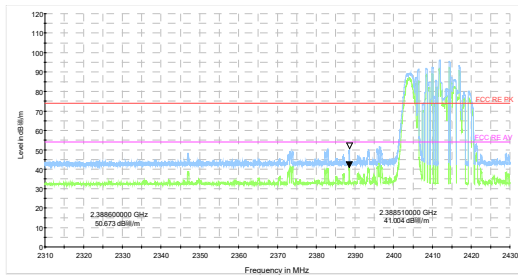
## 1.2. Bluetooth LE

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.

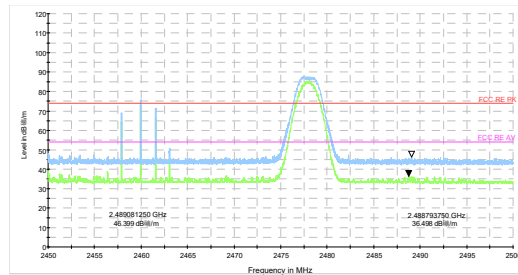
A symbol ( $\text{dB}\mu\text{V}/\text{m}$ ) in the test plot below means ( $\text{dB}\mu\text{V}/\text{m}$ )

The signal beyond the limit is carrier.

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



Bluetooth LE Channel 0 Peak+ Average



Bluetooth LE 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 (dB $\mu$ V/m) in the test plot below means (dB $\mu$ V/m)
4. The following graphs display the maximum values of coaxial and coplanar for 9k-30MHz; horizontal and vertical for above 30MHz by software.
5. For below 1GHz

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

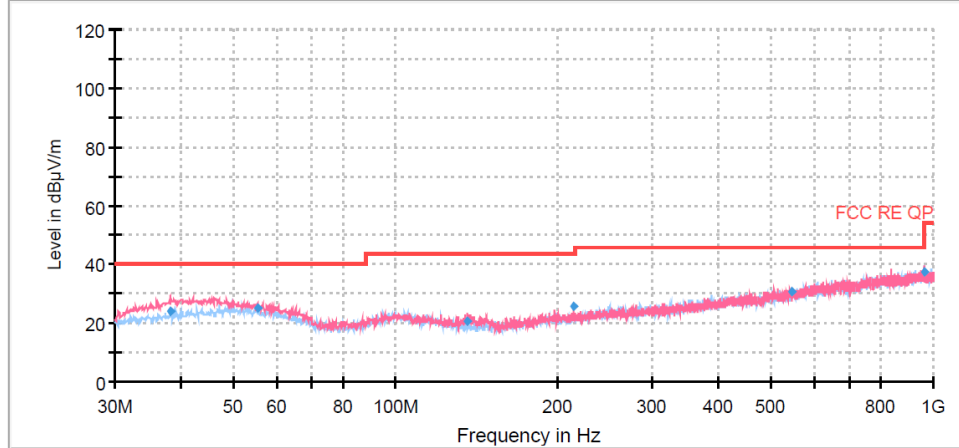
### For above 1GHz

 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

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

### 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 (Bluetooth LE-Channel 0) was recorded in this report.

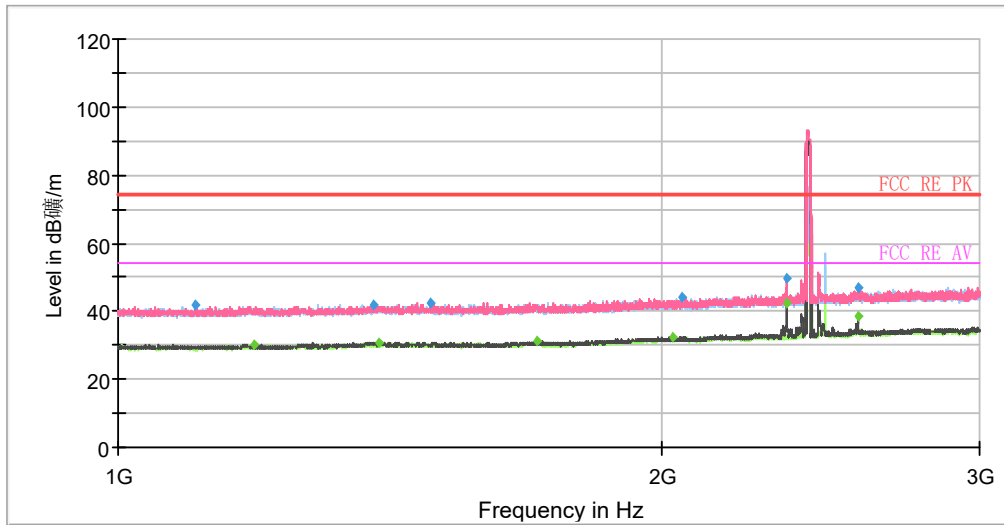


Radiates Emission from 30MHz to 1GHz

### Final Result

| Frequency (MHz) | QuasiPeak (dB $\mu$ V/m) | Limit (dB $\mu$ V/m) | Margin (dB) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB/m) |
|-----------------|--------------------------|----------------------|-------------|-----------------|-----------------|-------------|-----|---------------|--------------|
| 38.25           | 23.84                    | 40.00                | 16.16       | 1000.00         | 120.000         | 100.0       | V   | 44.00         | 19           |
| 55.22           | 24.89                    | 40.00                | 15.11       | 1000.00         | 120.000         | 100.0       | V   | 340.00        | 20           |
| 136.09          | 20.48                    | 43.50                | 23.02       | 1000.00         | 120.000         | 100.0       | V   | 69.00         | 15           |
| 214.54          | 25.63                    | 43.50                | 17.87       | 1000.00         | 120.000         | 200.0       | V   | 340.00        | 18           |
| 546.04          | 30.95                    | 46.00                | 15.05       | 1000.00         | 120.000         | 100.0       | V   | 21.00         | 26           |
| 959.87          | 37.60                    | 46.00                | 8.40        | 1000.00         | 120.000         | 100.0       | V   | 152.00        | 31           |

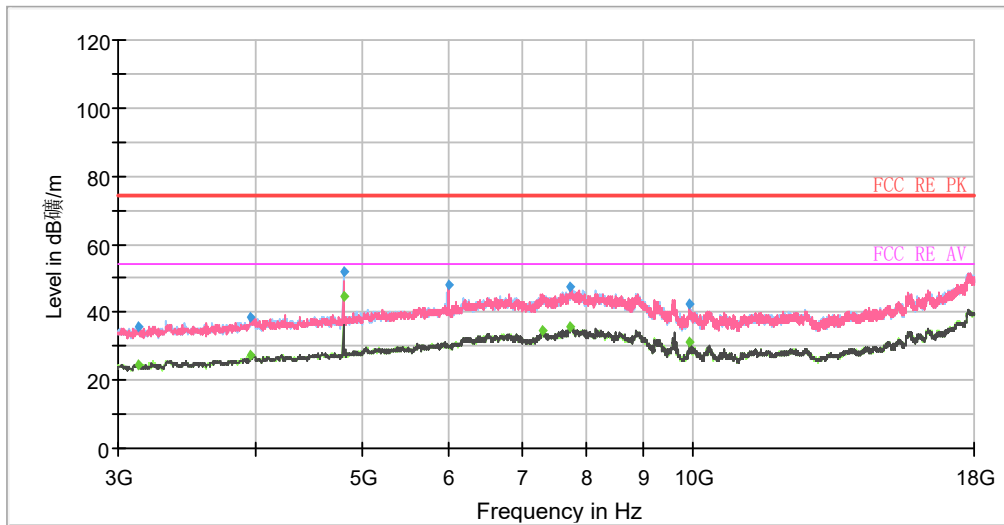
## Bluetooth LE-Channel 0



Note: The signal beyond the limit is carrier.

Radiates Emission from 1GHz to 3GHz

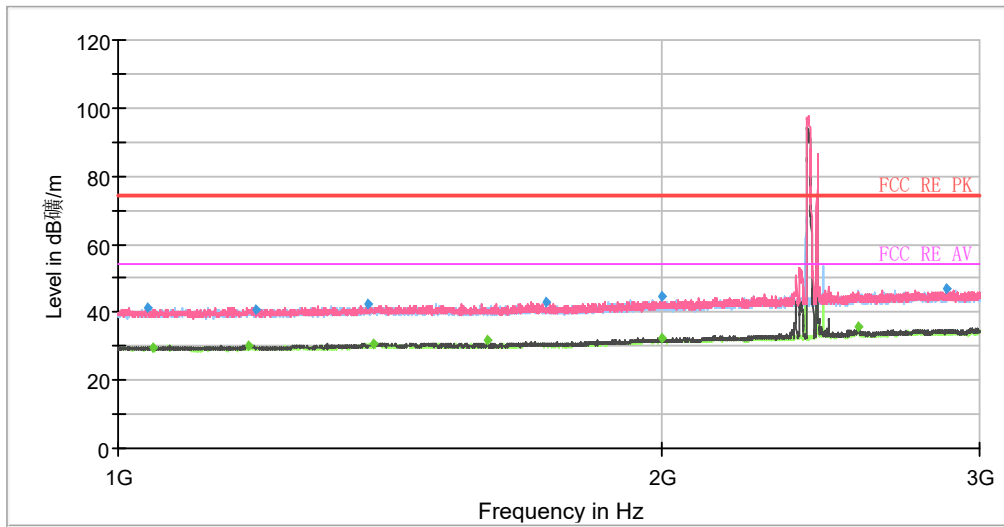
| Frequency (MHz) | MaxPeak (dBμV/m) | Average (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Meas. Time (ms) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB/m) |
|-----------------|------------------|------------------|----------------|-------------|-----------------|-------------|-----|---------------|--------------|
| 1103.50         | 42.08            | ---              | 74.00          | 31.92       | 500.00          | 100.0       | V   | 16.00         | -12          |
| 1188.50         | ---              | 30.23            | 54.00          | 23.77       | 500.00          | 200.0       | V   | 0.00          | -12          |
| 1383.50         | 41.97            | ---              | 74.00          | 32.03       | 500.00          | 200.0       | H   | 5.00          | -11          |
| 1395.00         | ---              | 30.77            | 54.00          | 23.23       | 500.00          | 200.0       | V   | 227.00        | -11          |
| 1490.50         | 42.31            | ---              | 74.00          | 31.69       | 500.00          | 100.0       | V   | 3.00          | -11          |
| 1707.00         | ---              | 31.20            | 54.00          | 22.80       | 500.00          | 100.0       | V   | 4.00          | -10          |
| 2028.50         | ---              | 32.44            | 54.00          | 21.56       | 500.00          | 200.0       | V   | 342.00        | -8           |
| 2051.00         | 44.28            | ---              | 74.00          | 29.72       | 500.00          | 200.0       | H   | 39.00         | -8           |
| 2346.75         | ---              | 42.69            | 54.00          | 11.31       | 500.00          | 100.0       | V   | 177.00        | -7           |
| 2347.50         | 49.44            | ---              | 74.00          | 24.56       | 500.00          | 100.0       | V   | 177.00        | -7           |
| 2569.50         | ---              | 38.52            | 54.00          | 15.48       | 500.00          | 100.0       | V   | 190.00        | -5           |
| 2569.75         | 46.83            | ---              | 74.00          | 27.17       | 500.00          | 100.0       | V   | 190.00        | -5           |



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) |
|-----------------|------------------|------------------|----------------|-------------|-----------------|-------------|-----|---------------|--------------|
| 3129.38         | ---              | 24.75            | 54.00          | 29.25       | 500.00          | 100.0       | H   | 352.00        | -14          |
| 3133.13         | 35.85            | ---              | 74.00          | 38.15       | 500.00          | 100.0       | V   | 41.00         | -14          |
| 3958.13         | 38.68            | ---              | 74.00          | 35.32       | 500.00          | 100.0       | V   | 3.00          | -11          |
| 3960.00         | ---              | 27.60            | 54.00          | 26.40       | 500.00          | 100.0       | V   | 9.00          | -11          |
| 4805.63         | 51.85            | ---              | 74.00          | 22.15       | 500.00          | 100.0       | H   | 48.00         | -10          |
| 4807.50         | ---              | 44.73            | 54.00          | 9.27        | 500.00          | 100.0       | H   | 48.00         | -10          |
| 5992.50         | 47.83            | ---              | 74.00          | 26.17       | 500.00          | 100.0       | V   | 32.00         | -6           |
| 7291.88         | ---              | 34.46            | 54.00          | 19.54       | 500.00          | 100.0       | H   | 259.00        | 0            |
| 7730.63         | 47.23            | ---              | 74.00          | 26.77       | 500.00          | 100.0       | H   | 230.00        | 1            |
| 7738.13         | ---              | 35.83            | 54.00          | 18.17       | 500.00          | 100.0       | V   | 5.00          | 1            |
| 9926.25         | 42.29            | ---              | 74.00          | 31.71       | 500.00          | 100.0       | H   | 108.00        | 1            |
| 9931.88         | ---              | 31.11            | 54.00          | 22.89       | 500.00          | 100.0       | V   | 9.00          | 1            |

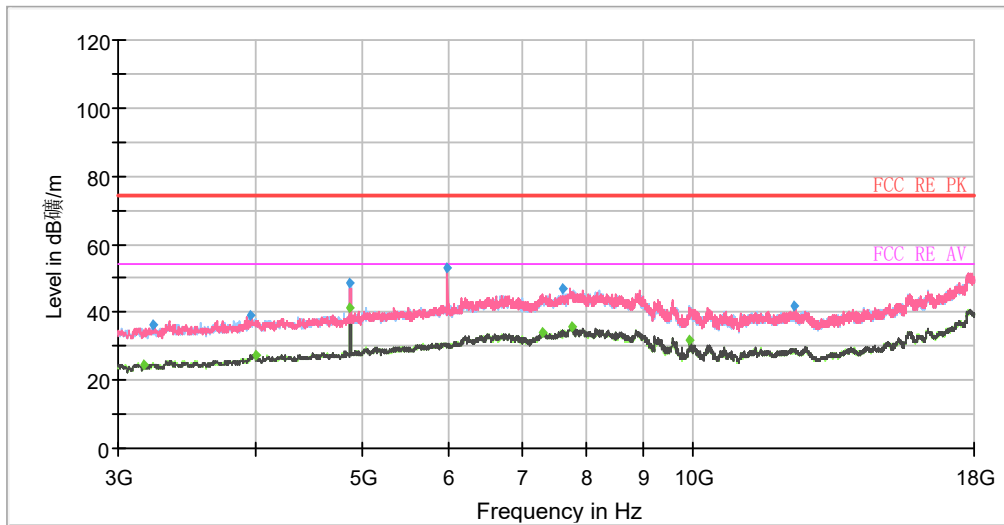
# Bluetooth LE-Channel 19



Note: The signal beyond the limit is carrier.

Radiates Emission from 1GHz to 3GHz

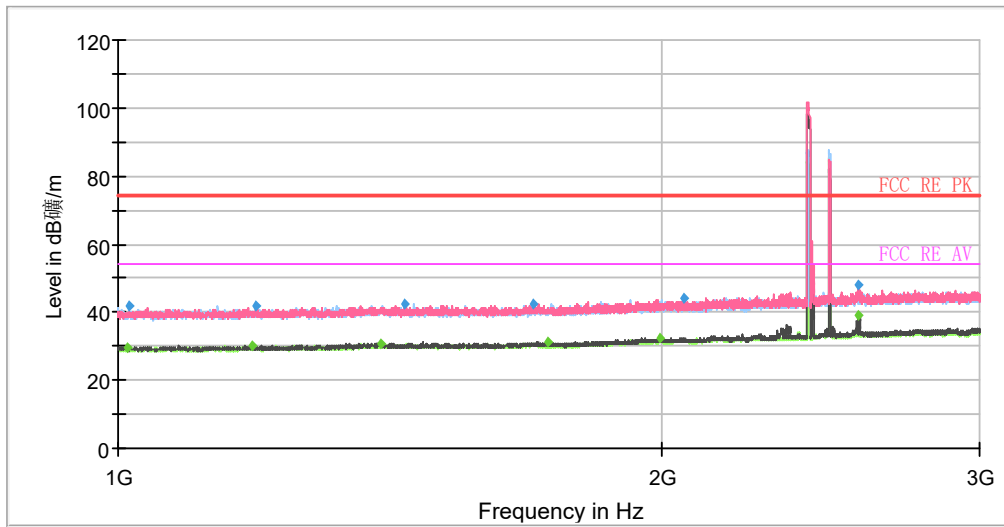
| Frequency (MHz) | MaxPeak (dBμV/m) | Average (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Meas. Time (ms) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB/m) |
|-----------------|------------------|------------------|----------------|-------------|-----------------|-------------|-----|---------------|--------------|
| 1039.25         | 41.53            | ---              | 74.00          | 32.47       | 500.00          | 200.0       | V   | 332.00        | -12          |
| 1045.50         | ---              | 29.69            | 54.00          | 24.31       | 500.00          | 200.0       | V   | 354.00        | -12          |
| 1182.00         | ---              | 30.22            | 54.00          | 23.78       | 500.00          | 200.0       | V   | 315.00        | -12          |
| 1191.50         | 40.93            | ---              | 74.00          | 33.07       | 500.00          | 200.0       | V   | 295.00        | -12          |
| 1375.75         | 42.14            | ---              | 74.00          | 31.86       | 500.00          | 200.0       | V   | 201.00        | -11          |
| 1386.00         | ---              | 30.77            | 54.00          | 23.23       | 500.00          | 200.0       | V   | 356.00        | -11          |
| 1600.00         | ---              | 32.02            | 54.00          | 21.98       | 500.00          | 100.0       | H   | 212.00        | -11          |
| 1725.25         | 42.90            | ---              | 74.00          | 31.10       | 500.00          | 100.0       | H   | 354.00        | -10          |
| 2000.00         | ---              | 32.61            | 54.00          | 21.39       | 500.00          | 200.0       | V   | 295.00        | -8           |
| 2002.00         | 44.55            | ---              | 74.00          | 29.45       | 500.00          | 100.0       | V   | 30.00         | -8           |
| 2572.25         | ---              | 35.60            | 54.00          | 18.40       | 500.00          | 100.0       | V   | 13.00         | -5           |
| 2878.75         | 46.94            | ---              | 74.00          | 27.06       | 500.00          | 200.0       | V   | 324.00        | -5           |



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) |
|-----------------|------------------|------------------|----------------|-------------|-----------------|-------------|-----|---------------|--------------|
| 3166.88         | ---              | 24.42            | 54.00          | 29.58       | 500.00          | 100.0       | H   | 354.00        | -14          |
| 3223.13         | 36.16            | ---              | 74.00          | 37.84       | 500.00          | 100.0       | V   | 114.00        | -14          |
| 3961.88         | 38.86            | ---              | 74.00          | 35.14       | 500.00          | 100.0       | H   | 351.00        | -11          |
| 3997.50         | ---              | 27.47            | 54.00          | 26.53       | 500.00          | 200.0       | H   | 354.00        | -11          |
| 4878.75         | ---              | 41.03            | 54.00          | 12.97       | 500.00          | 200.0       | H   | 342.00        | -10          |
| 4878.75         | 48.52            | ---              | 74.00          | 25.48       | 500.00          | 100.0       | H   | 342.00        | -10          |
| 5981.25         | 52.80            | ---              | 74.00          | 21.20       | 500.00          | 200.0       | V   | 250.00        | -6           |
| 7293.75         | ---              | 34.10            | 54.00          | 19.90       | 500.00          | 100.0       | H   | 266.00        | 0            |
| 7620.00         | 46.94            | ---              | 74.00          | 27.06       | 500.00          | 100.0       | H   | 351.00        | 0            |
| 7741.88         | ---              | 35.90            | 54.00          | 18.10       | 500.00          | 200.0       | H   | 266.00        | 1            |
| 9924.38         | ---              | 31.63            | 54.00          | 22.37       | 500.00          | 200.0       | V   | 0.00          | 1            |
| 12341.25        | 41.77            | ---              | 74.00          | 32.23       | 500.00          | 100.0       | V   | 129.00        | 6            |

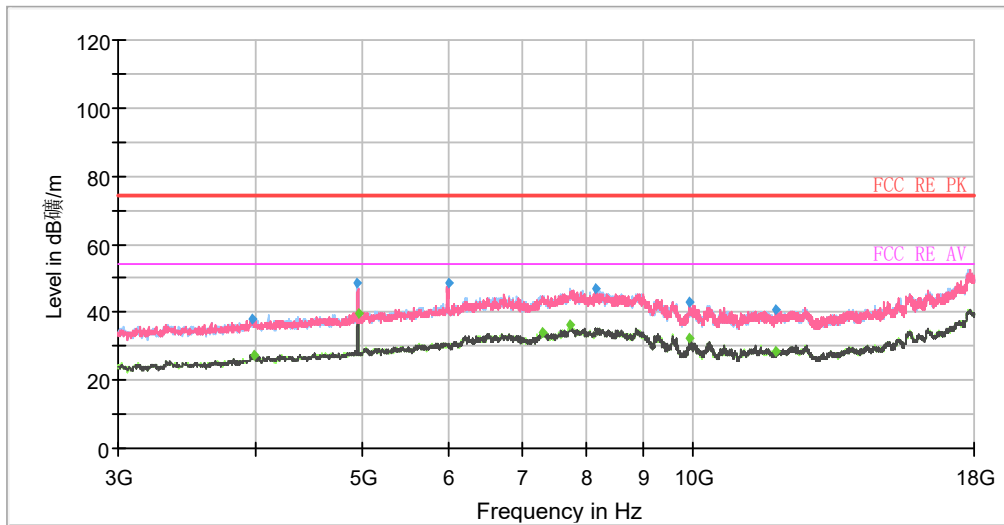
# Bluetooth LE-Channel 39



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) |
|-----------------|------------------|------------------|----------------|-------------|-----------------|-------------|-----|---------------|--------------|
| 1012.25         | ---              | 29.56            | 54.00          | 24.44       | 500.00          | 200.0       | V   | 8.00          | -12          |
| 1013.50         | 41.70            | ---              | 74.00          | 32.30       | 500.00          | 200.0       | H   | 357.00        | -12          |
| 1187.50         | ---              | 30.01            | 54.00          | 23.99       | 500.00          | 100.0       | H   | 359.00        | -12          |
| 1192.00         | 42.14            | ---              | 74.00          | 31.86       | 500.00          | 100.0       | V   | 303.00        | -12          |
| 1397.50         | ---              | 30.87            | 54.00          | 23.13       | 500.00          | 200.0       | H   | 354.00        | -11          |
| 1441.25         | 42.20            | ---              | 74.00          | 31.80       | 500.00          | 200.0       | H   | 82.00         | -11          |
| 1699.25         | 42.51            | ---              | 74.00          | 31.49       | 500.00          | 100.0       | V   | 2.00          | -10          |
| 1730.50         | ---              | 31.48            | 54.00          | 22.52       | 500.00          | 100.0       | V   | 158.00        | -10          |
| 1994.25         | ---              | 32.41            | 54.00          | 21.59       | 500.00          | 100.0       | V   | 2.00          | -8           |
| 2058.00         | 43.86            | ---              | 74.00          | 30.14       | 500.00          | 200.0       | V   | 1.00          | -8           |
| 2572.00         | 47.89            | ---              | 74.00          | 26.11       | 500.00          | 100.0       | V   | 35.00         | -5           |
| 2572.25         | ---              | 38.96            | 54.00          | 15.04       | 500.00          | 100.0       | V   | 35.00         | -5           |



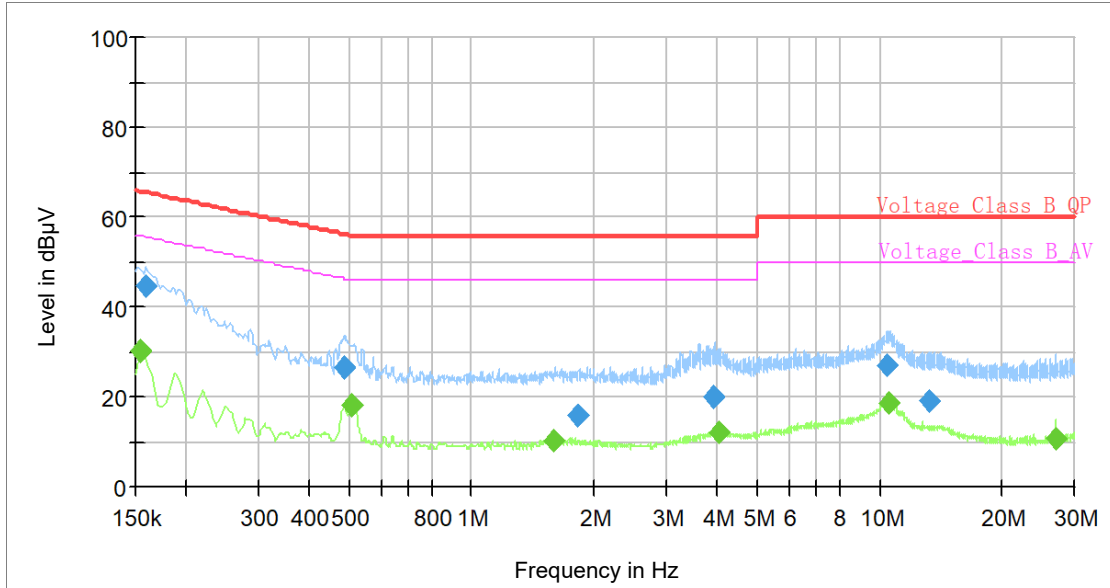
Radiates Emission from 3GHz to 18GHz

| Frequency (MHz) | MaxPeak (dBμV/m) | Average (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Meas. Time (ms) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB/m) |
|-----------------|------------------|------------------|----------------|-------------|-----------------|-------------|-----|---------------|--------------|
| 3967.50         | 38.15            | ---              | 74.00          | 35.85       | 500.00          | 100.0       | V   | 36.00         | -11          |
| 3993.75         | ---              | 27.23            | 54.00          | 26.77       | 500.00          | 100.0       | V   | 114.00        | -11          |
| 4953.75         | 48.45            | ---              | 74.00          | 25.55       | 500.00          | 100.0       | H   | 342.00        | -10          |
| 4955.63         | ---              | 39.47            | 54.00          | 14.53       | 500.00          | 100.0       | H   | 351.00        | -10          |
| 5985.00         | 48.48            | ---              | 74.00          | 25.52       | 500.00          | 100.0       | V   | 236.00        | -6           |
| 7288.13         | ---              | 34.17            | 54.00          | 19.83       | 500.00          | 100.0       | H   | 228.00        | 0            |
| 7734.38         | ---              | 36.04            | 54.00          | 17.96       | 500.00          | 100.0       | V   | 6.00          | 1            |
| 8158.13         | 46.84            | ---              | 74.00          | 27.16       | 500.00          | 100.0       | H   | 243.00        | 1            |
| 9911.25         | ---              | 32.27            | 54.00          | 21.73       | 500.00          | 100.0       | V   | 251.00        | 1            |
| 9920.63         | 42.80            | ---              | 74.00          | 31.20       | 500.00          | 100.0       | H   | 154.00        | 1            |
| 11885.63        | ---              | 28.29            | 54.00          | 25.71       | 500.00          | 100.0       | H   | 111.00        | 6            |
| 11889.38        | 40.84            | ---              | 74.00          | 33.16       | 500.00          | 100.0       | V   | 99.00         | 6            |

## 2. Conducted Emission

### 2.1. Wi-Fi 2.4GHz

During the test, the Conducted Emission was performed in all modes with all channel. The test data of the worst-case condition (**802.11g CH11**) was recorded in this report.

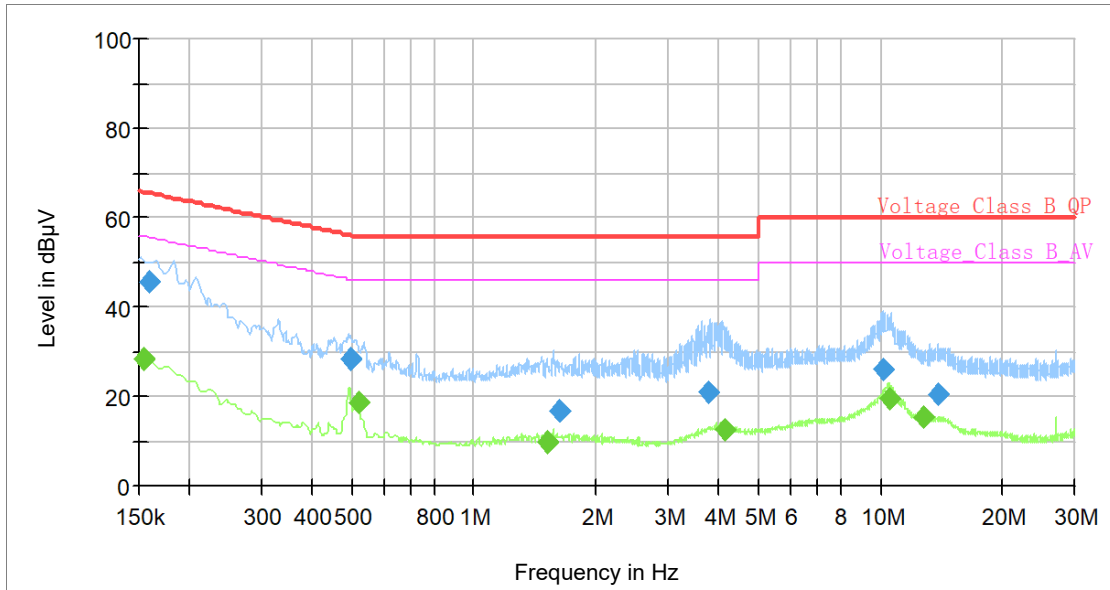


### Final Result

| Frequency (MHz) | QuasiPeak (dBμ V) | Average (dBμ V) | Limit (dBμ V) | Margin (dB) | Meas. Time (ms) | Bandwidth (kHz) | Line | Filter | Corr. (dB) |
|-----------------|-------------------|-----------------|---------------|-------------|-----------------|-----------------|------|--------|------------|
| 0.154000        | ---               | 30.31           | 55.78         | 25.47       | 1000.0          | 9.000           | L1   | ON     | 20.9       |
| 0.158000        | 44.65             | ---             | 65.57         | 20.92       | 1000.0          | 9.000           | L1   | ON     | 20.9       |
| 0.486750        | 26.65             | ---             | 56.22         | 29.57       | 1000.0          | 9.000           | L1   | ON     | 20.8       |
| 0.508500        | ---               | 18.08           | 46.00         | 27.92       | 1000.0          | 9.000           | L1   | ON     | 20.8       |
| 1.577500        | ---               | 10.20           | 46.00         | 35.80       | 1000.0          | 9.000           | L1   | ON     | 19.8       |
| 1.823500        | 15.66             | ---             | 56.00         | 40.34       | 1000.0          | 9.000           | L1   | ON     | 19.7       |
| 3.918250        | 20.21             | ---             | 56.00         | 35.79       | 1000.0          | 9.000           | L1   | ON     | 19.4       |
| 4.019500        | ---               | 11.99           | 46.00         | 34.01       | 1000.0          | 9.000           | L1   | ON     | 19.4       |
| 10.442250       | 27.01             | ---             | 60.00         | 32.99       | 1000.0          | 9.000           | L1   | ON     | 19.4       |
| 10.481750       | ---               | 18.75           | 50.00         | 31.25       | 1000.0          | 9.000           | L1   | ON     | 19.4       |
| 13.254000       | 19.02             | ---             | 60.00         | 40.99       | 1000.0          | 9.000           | L1   | ON     | 19.5       |
| 27.006000       | ---               | 10.86           | 50.00         | 39.14       | 1000.0          | 9.000           | L1   | ON     | 19.8       |

Remark: Correct factor=cable loss + LISN factor

L line Conducted Emission from 150 kHz to 30 MHz



## Final Result

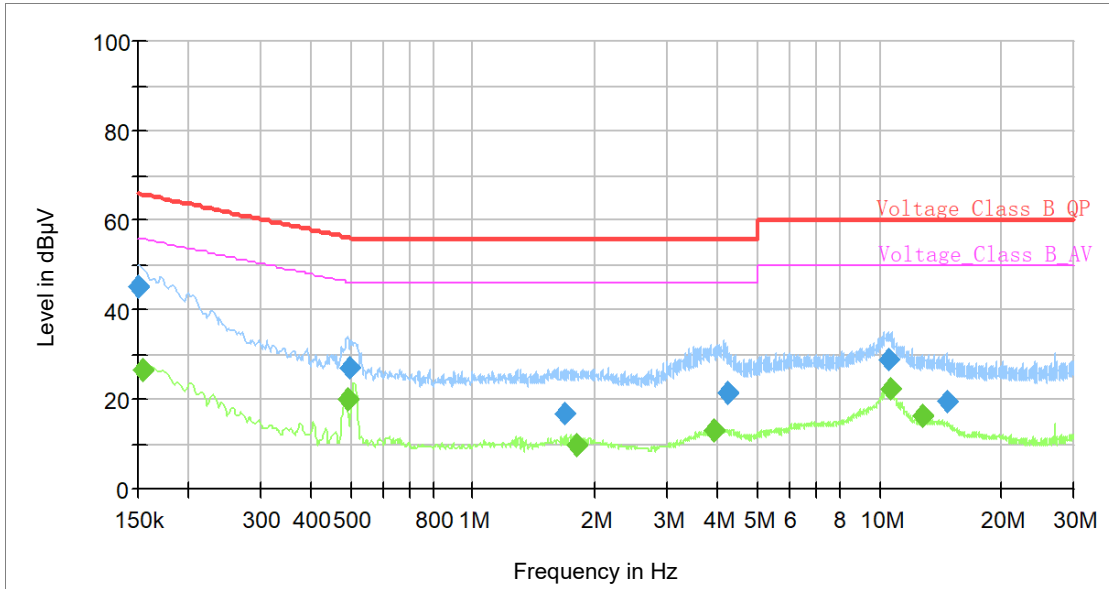
| Frequency (MHz) | QuasiPeak (dBμ V) | Average (dBμ V) | Limit (dBμ V) | Margin (dB) | Meas. Time (ms) | Bandwidth (kHz) | Line | Filter | Corr. (dB) |
|-----------------|-------------------|-----------------|---------------|-------------|-----------------|-----------------|------|--------|------------|
| 0.154000        | ---               | 28.39           | 55.78         | 27.39       | 1000.0          | 9.000           | N    | ON     | 20.9       |
| 0.158000        | 45.71             | ---             | 65.57         | 19.86       | 1000.0          | 9.000           | N    | ON     | 20.9       |
| 0.494500        | 28.34             | ---             | 56.09         | 27.75       | 1000.0          | 9.000           | N    | ON     | 20.8       |
| 0.518500        | ---               | 18.70           | 46.00         | 27.30       | 1000.0          | 9.000           | N    | ON     | 20.8       |
| 1.511250        | ---               | 9.99            | 46.00         | 36.01       | 1000.0          | 9.000           | N    | ON     | 19.8       |
| 1.626750        | 16.68             | ---             | 56.00         | 39.32       | 1000.0          | 9.000           | N    | ON     | 19.8       |
| 3.784000        | 20.97             | ---             | 56.00         | 35.03       | 1000.0          | 9.000           | N    | ON     | 19.4       |
| 4.154250        | ---               | 12.72           | 46.00         | 33.28       | 1000.0          | 9.000           | N    | ON     | 19.4       |
| 10.122750       | 26.08             | ---             | 60.00         | 33.92       | 1000.0          | 9.000           | N    | ON     | 19.4       |
| 10.479000       | ---               | 19.63           | 50.00         | 30.37       | 1000.0          | 9.000           | N    | ON     | 19.4       |
| 12.801500       | ---               | 15.56           | 50.00         | 34.44       | 1000.0          | 9.000           | N    | ON     | 19.5       |
| 13.845500       | 20.50             | ---             | 60.00         | 39.50       | 1000.0          | 9.000           | N    | ON     | 19.5       |

Remark: Correct factor=cable loss + LISN factor

N line Conducted Emission from 150 kHz to 30 MHz

## 2.2. Bluetooth LE

During the test, the Conducted Emission was performed in all modes with all channels. The test data of the worst-case condition (**Bluetooth LE-Channel 0**) was recorded in this report.

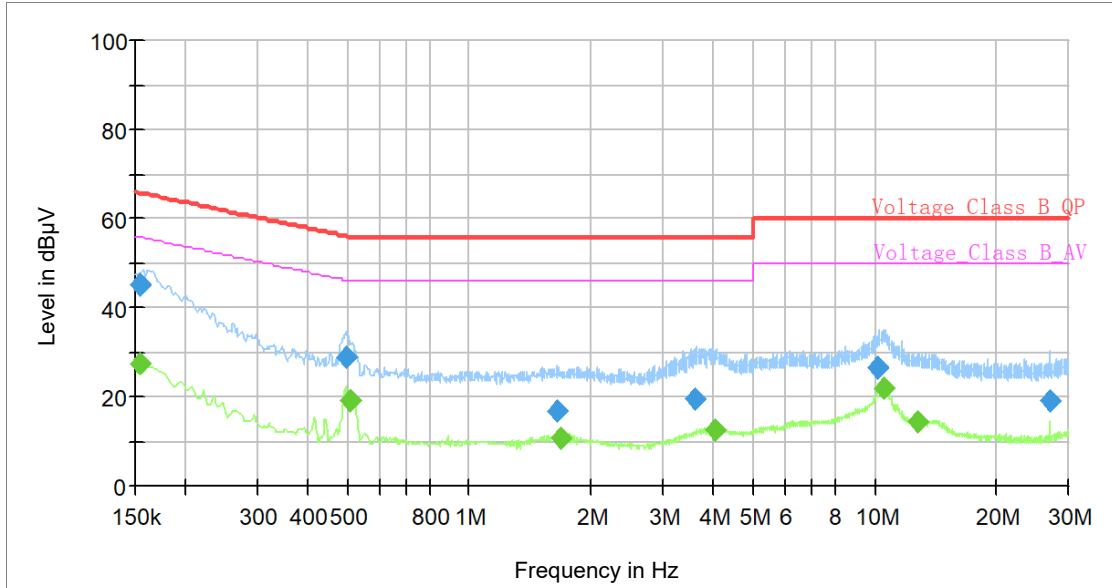


## Final Result

| Frequency (MHz) | QuasiPeak (dBμ V) | Average (dBμ V) | Limit (dBμ V) | Margin (dB) | Meas. Time (ms) | Bandwidth (kHz) | Line | Filter | Corr. (dB) |
|-----------------|-------------------|-----------------|---------------|-------------|-----------------|-----------------|------|--------|------------|
| 0.150000        | 44.93             | ---             | 66.00         | 21.07       | 1000.0          | 9.000           | L1   | ON     | 20.9       |
| 0.154000        | ---               | 26.50           | 55.78         | 29.28       | 1000.0          | 9.000           | L1   | ON     | 20.9       |
| 0.489750        | ---               | 20.16           | 46.17         | 26.01       | 1000.0          | 9.000           | L1   | ON     | 20.8       |
| 0.497500        | 26.93             | ---             | 56.04         | 29.11       | 1000.0          | 9.000           | L1   | ON     | 20.8       |
| 1.682500        | 16.83             | ---             | 56.00         | 39.17       | 1000.0          | 9.000           | L1   | ON     | 19.8       |
| 1.795500        | ---               | 9.96            | 46.00         | 36.04       | 1000.0          | 9.000           | L1   | ON     | 19.7       |
| 3.916250        | ---               | 13.05           | 46.00         | 32.95       | 1000.0          | 9.000           | L1   | ON     | 19.4       |
| 4.205500        | 21.34             | ---             | 56.00         | 34.66       | 1000.0          | 9.000           | L1   | ON     | 19.4       |
| 10.547750       | 28.88             | ---             | 60.00         | 31.12       | 1000.0          | 9.000           | L1   | ON     | 19.4       |
| 10.582250       | ---               | 22.52           | 50.00         | 27.49       | 1000.0          | 9.000           | L1   | ON     | 19.4       |
| 12.801500       | ---               | 16.51           | 50.00         | 33.49       | 1000.0          | 9.000           | L1   | ON     | 19.4       |
| 14.561500       | 19.40             | ---             | 60.00         | 40.60       | 1000.0          | 9.000           | L1   | ON     | 19.5       |

Remark: Correct factor=cable loss + LISN factor

L line Conducted Emission from 150 kHz to 30 MHz



## Final Result

| Frequency (MHz) | QuasiPeak (dBμ V) | Average (dBμ V) | Limit (dBμ V) | Margin (dB) | Meas. Time (ms) | Bandwidth (kHz) | Line | Filter | Corr. (dB) |
|-----------------|-------------------|-----------------|---------------|-------------|-----------------|-----------------|------|--------|------------|
| 0.154000        | ---               | 27.23           | 55.78         | 28.55       | 1000.0          | 9.000           | N    | ON     | 20.9       |
| 0.154000        | 45.33             | ---             | 65.78         | 20.45       | 1000.0          | 9.000           | N    | ON     | 20.9       |
| 0.494500        | 28.67             | ---             | 56.09         | 27.43       | 1000.0          | 9.000           | N    | ON     | 20.8       |
| 0.510500        | ---               | 18.94           | 46.00         | 27.06       | 1000.0          | 9.000           | N    | ON     | 20.8       |
| 1.646750        | 16.94             | ---             | 56.00         | 39.06       | 1000.0          | 9.000           | N    | ON     | 19.8       |
| 1.680000        | ---               | 10.60           | 46.00         | 35.40       | 1000.0          | 9.000           | N    | ON     | 19.8       |
| 3.608250        | 19.47             | ---             | 56.00         | 36.53       | 1000.0          | 9.000           | N    | ON     | 19.5       |
| 4.050750        | ---               | 12.76           | 46.00         | 33.24       | 1000.0          | 9.000           | N    | ON     | 19.4       |
| 10.193500       | 26.70             | ---             | 60.00         | 33.30       | 1000.0          | 9.000           | N    | ON     | 19.4       |
| 10.562000       | ---               | 21.96           | 50.00         | 28.04       | 1000.0          | 9.000           | N    | ON     | 19.4       |
| 12.783750       | ---               | 14.21           | 50.00         | 35.79       | 1000.0          | 9.000           | N    | ON     | 19.5       |
| 27.007750       | 19.14             | ---             | 60.00         | 40.86       | 1000.0          | 9.000           | N    | ON     | 19.9       |

Remark: Correct factor=cable loss + LISN factor

N line Conducted Emission from 150 kHz to 30 MHz