

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 (Z axis) and the loop antenna is coplanar, the others are vertical and horizontal. and the worst case was recorded.

1. Unwanted Emission

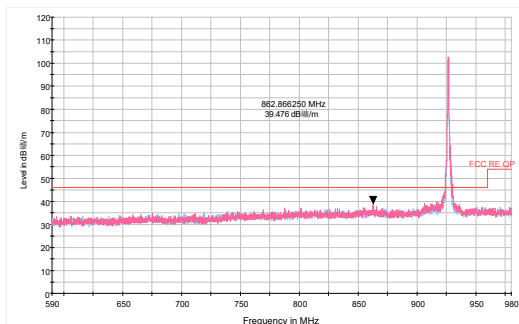
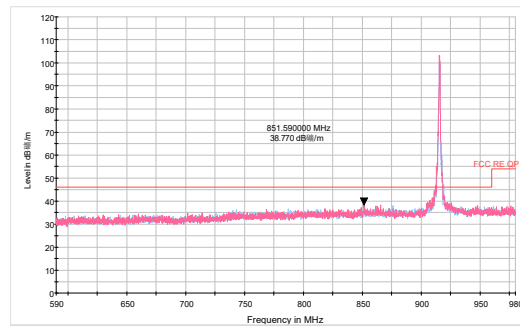
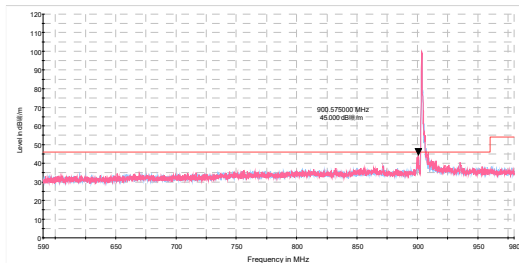
1.1. Hyper Wi-Fi

The following graphs display the maximum values of horizontal and vertical by software.

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

After the pretest, Hyper Wi-Fi (1M) was selected as the worst Mode for Hyper Wi-Fi.

The signal beyond the limit is carrier.



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 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. **The following graphs display the maximum values of coaxial and coplanar for 9k-30MHz; horizontal and vertical for above 30MHz by software.**
4. **For below 1GHz**

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

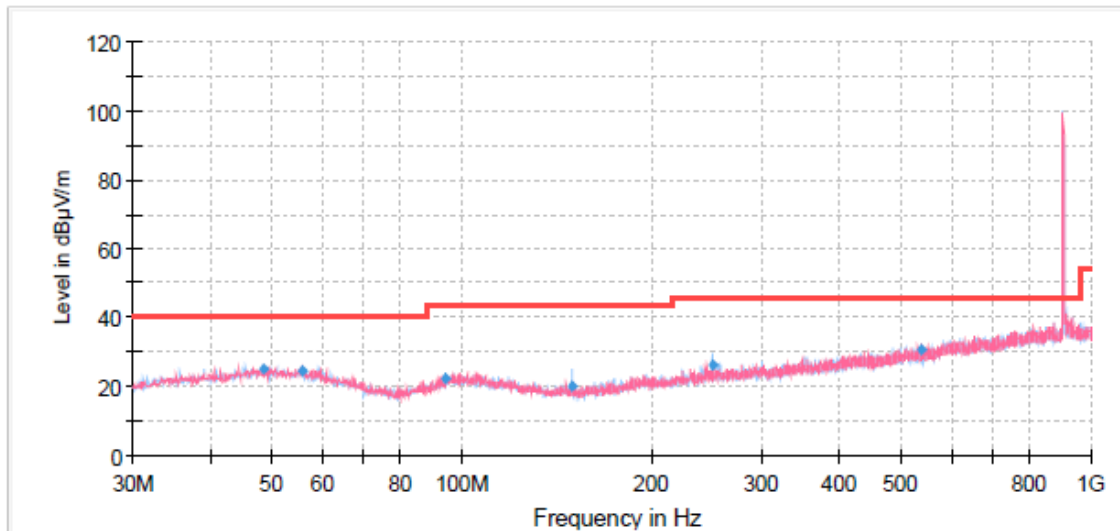
For above 1GHz

 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:

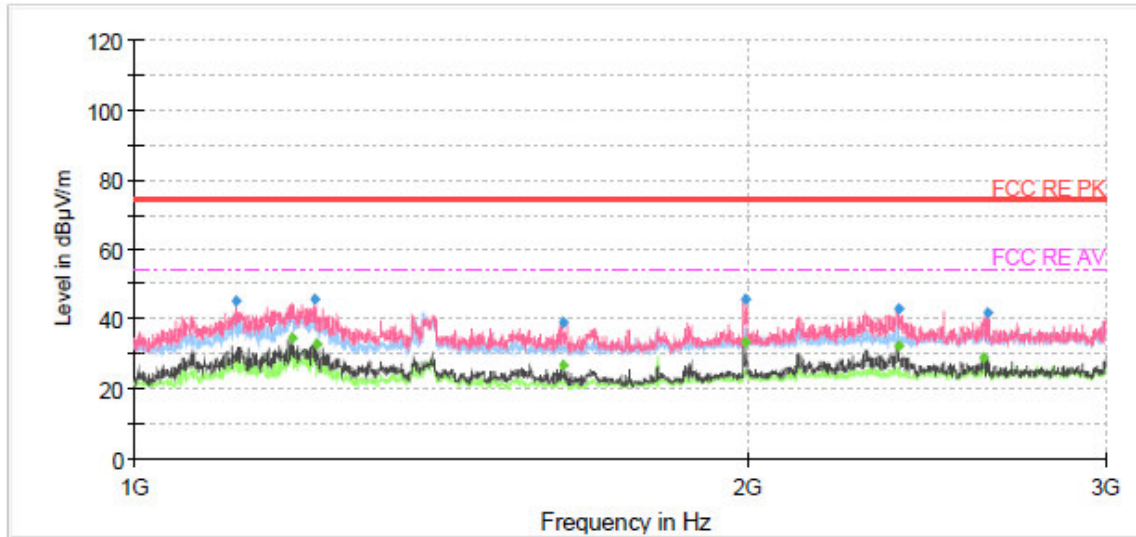
After the pretest, Hyper Wi-Fi (1M) was selected as the worst Mode for Hyper Wi-Fi.
903.5MHz



Note: The signal beyond the limit is carrier.

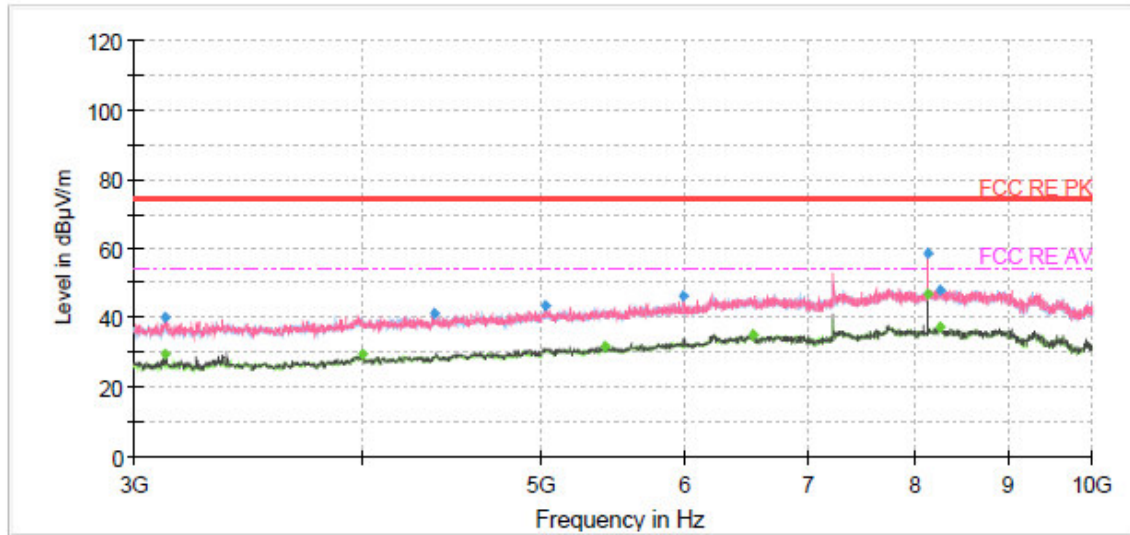
Radiates Emission from 30MHz to 1GHz

Frequency (MHz)	Quasi-Peak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Polarization	Azimuth (deg)	Correct Factor (dB)
48.43	24.92	40.00	15.08	100.0	H	1.00	20
55.95	24.55	40.00	15.45	100.0	V	356.00	20
94.38	22.49	43.50	21.01	100.0	H	108.00	18
149.92	19.96	43.50	23.54	200.0	H	145.00	15
249.95	26.48	46.00	19.52	100.0	H	282.00	20
538.64	30.66	46.00	15.34	100.0	V	0.00	26



Radiates Emission from 1GHz to 3GHz

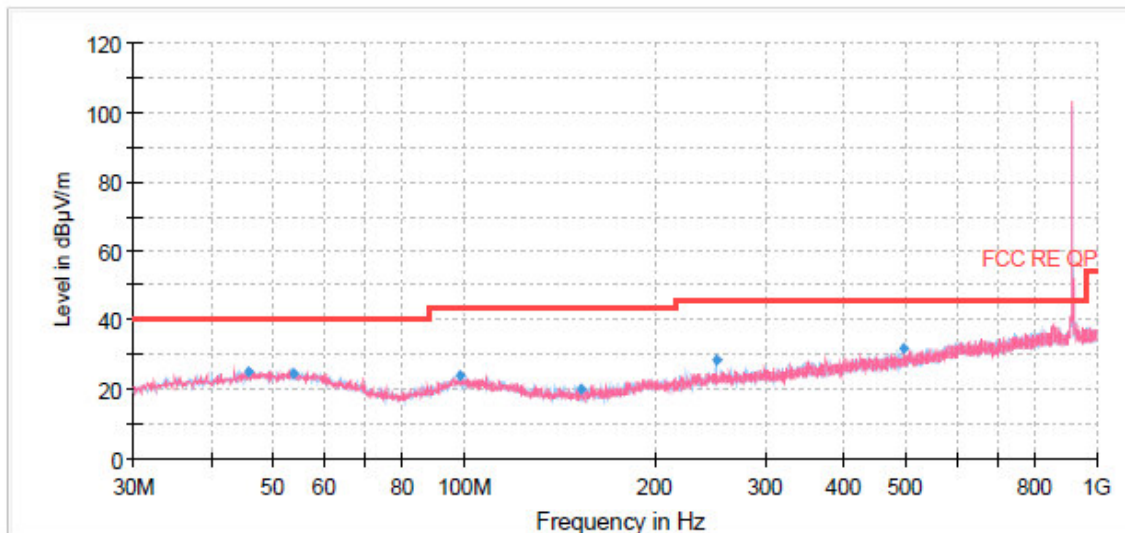
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1120.75	45.16	---	74.00	28.84	500.00	200.0	V	182.00	-22
1193.50	---	34.78	54.00	19.22	500.00	100.0	V	349.00	-22
1225.50	45.54	---	74.00	28.46	500.00	200.0	V	303.00	-22
1227.75	---	33.21	54.00	20.79	500.00	200.0	V	211.00	-22
1625.00	---	26.77	54.00	27.23	500.00	200.0	V	211.00	-20
1625.50	39.09	---	74.00	34.91	500.00	200.0	V	342.00	-20
1996.00	45.67	---	74.00	28.33	500.00	100.0	V	19.00	-18
1996.00	---	33.76	54.00	20.24	500.00	100.0	V	19.00	-18
2370.75	43.19	---	74.00	30.81	500.00	100.0	V	7.00	-17
2371.75	---	32.23	54.00	21.77	500.00	100.0	V	7.00	-17
2611.75	---	29.24	54.00	24.76	500.00	100.0	V	57.00	-16
2628.00	41.82	---	74.00	32.18	500.00	100.0	V	57.00	-16



Radiates Emission from 3GHz to 10GHz

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
3117.25	---	29.69	54.00	24.31	500.00	100.0	V	92.00	-14
3117.25	40.37	---	74.00	33.63	500.00	100.0	V	92.00	-14
3994.88	---	29.41	54.00	24.59	500.00	100.0	V	0.00	-11
4375.50	41.22	---	74.00	32.78	500.00	200.0	V	358.00	-11
5028.25	43.75	---	74.00	30.25	500.00	100.0	V	92.00	-9
5419.38	---	31.91	54.00	22.09	500.00	100.0	V	1.00	-8
5976.75	46.39	---	74.00	27.61	500.00	100.0	V	122.00	-6
6521.00	---	35.18	54.00	18.82	500.00	100.0	H	0.00	-3
8131.00	58.46	---	74.00	15.54	500.00	100.0	V	193.00	1
8131.88	---	47.12	54.00	6.88	500.00	100.0	V	193.00	1
8250.00	---	37.19	54.00	16.81	500.00	100.0	V	35.00	1
8252.63	48.26	---	74.00	25.74	500.00	200.0	H	5.00	1

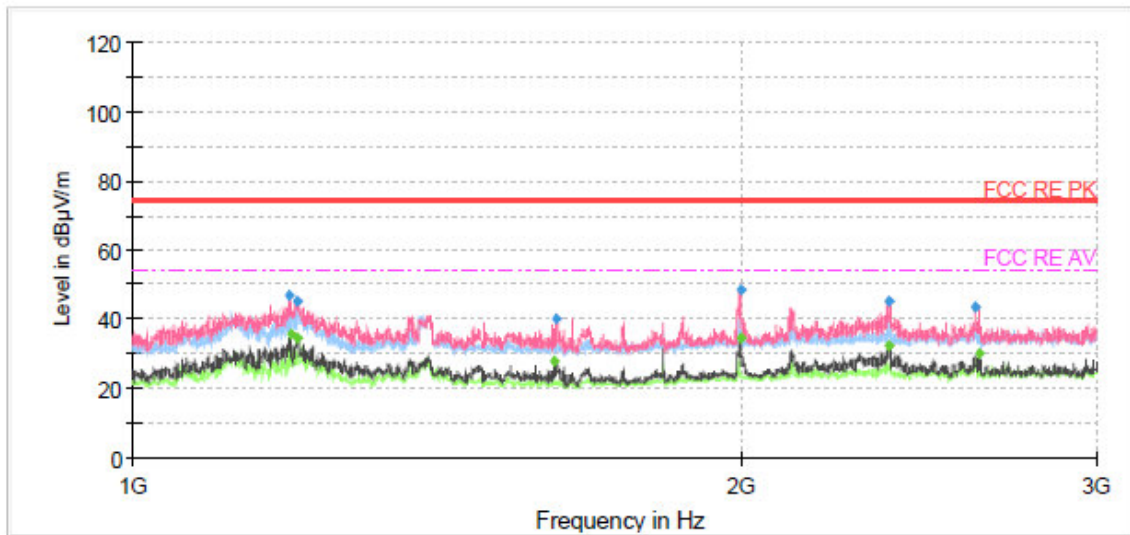
915.5MHz



Note: The signal beyond the limit is carrier.

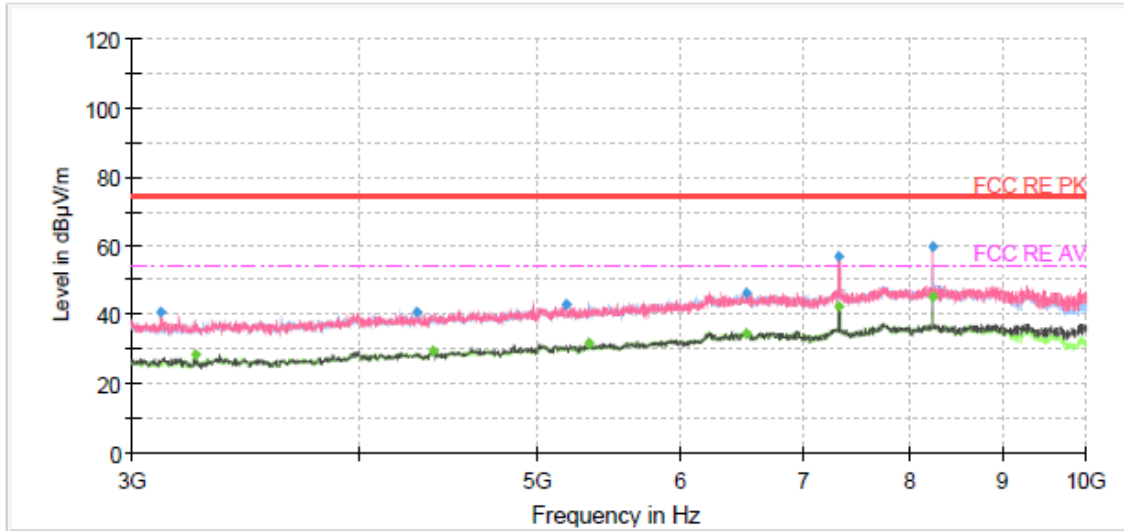
Radiates Emission from 30MHz to 1GHz

Frequency (MHz)	Quasi-Peak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Polarization	Azimuth (deg)	Correct Factor (dB)
45.76	25.34	40.00	14.66	100.0	V	170.00	20
53.89	24.82	40.00	15.18	200.0	V	57.00	20
98.51	24.09	43.50	19.41	100.0	V	106.00	19
153.68	19.90	43.50	23.60	200.0	V	264.00	15
250.07	28.23	46.00	17.77	100.0	H	303.00	20
495.24	31.96	46.00	14.04	100.0	V	0.00	25



Radiates Emission from 1GHz to 3GHz

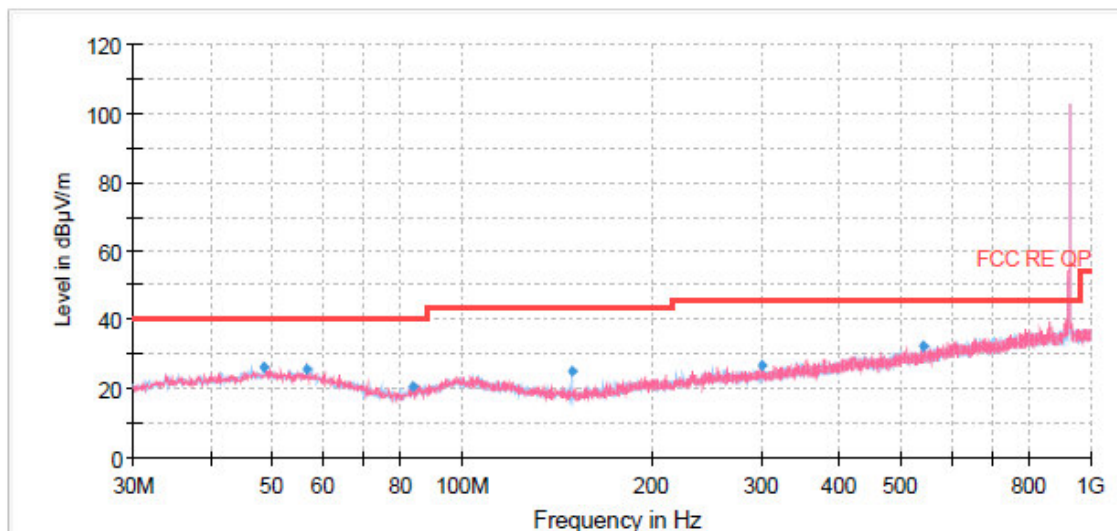
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1196.00	47.12	---	74.00	26.88	500.00	100.0	V	355.00	-22
1196.50	---	35.67	54.00	18.33	500.00	100.0	V	355.00	-22
1204.75	---	34.76	54.00	19.24	500.00	100.0	V	318.00	-22
1205.50	45.01	---	74.00	28.99	500.00	100.0	V	349.00	-22
1618.00	---	27.90	54.00	26.10	500.00	200.0	V	196.00	-20
1621.25	40.13	---	74.00	33.87	500.00	200.0	V	196.00	-20
1998.25	48.62	---	74.00	25.38	500.00	200.0	V	170.00	-18
1998.25	---	34.40	54.00	19.60	500.00	200.0	V	170.00	-18
2367.75	44.96	---	74.00	29.04	500.00	100.0	V	5.00	-17
2369.00	---	32.62	54.00	21.38	500.00	100.0	V	5.00	-17
2612.25	43.70	---	74.00	30.31	500.00	100.0	V	71.00	-16
2624.75	---	30.03	54.00	23.97	500.00	100.0	V	60.00	-16



Radiates Emission from 3GHz to 10GHz

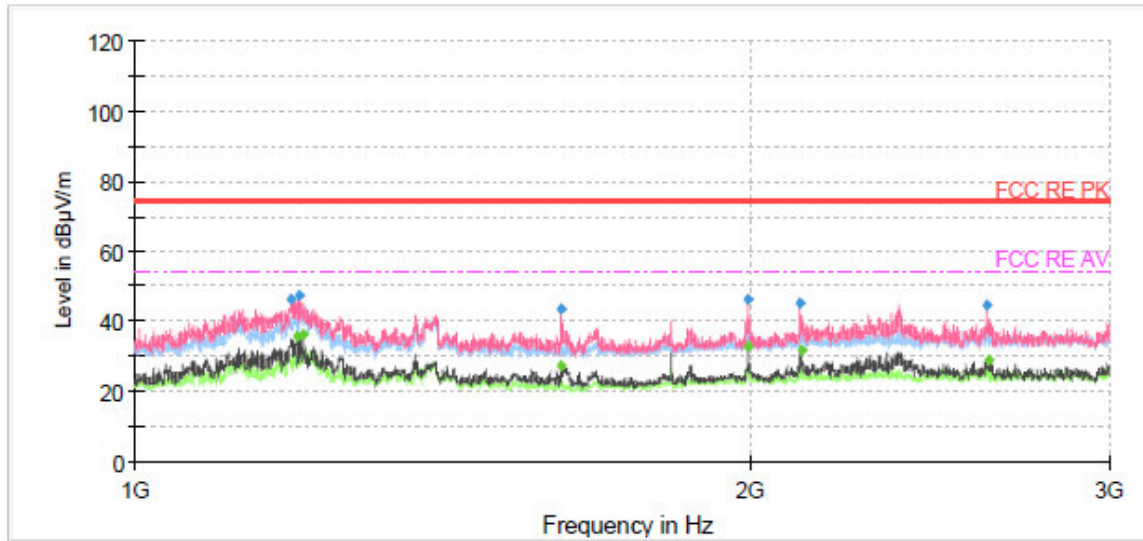
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
3113.75	40.66	---	74.00	33.34	500.00	100.0	V	62.00	-14
3251.13	---	28.59	54.00	25.41	500.00	200.0	V	154.00	-14
4295.00	40.58	---	74.00	33.42	500.00	200.0	H	90.00	-11
4386.88	---	29.44	54.00	24.56	500.00	200.0	V	183.00	-11
5189.25	43.08	---	74.00	30.92	500.00	100.0	V	282.00	-8
5339.75	---	31.60	54.00	22.40	500.00	100.0	V	92.00	-8
6516.63	46.18	---	74.00	27.82	500.00	100.0	H	0.00	-3
6518.38	---	34.83	54.00	19.17	500.00	100.0	H	235.00	-3
7324.25	56.95	---	74.00	17.05	500.00	100.0	V	194.00	-1
7324.25	---	42.54	54.00	11.46	500.00	100.0	V	194.00	-1
8238.63	59.68	---	74.00	14.32	500.00	200.0	V	169.00	1
8240.38	---	45.24	54.00	8.76	500.00	200.0	V	226.00	1

926.5MHz



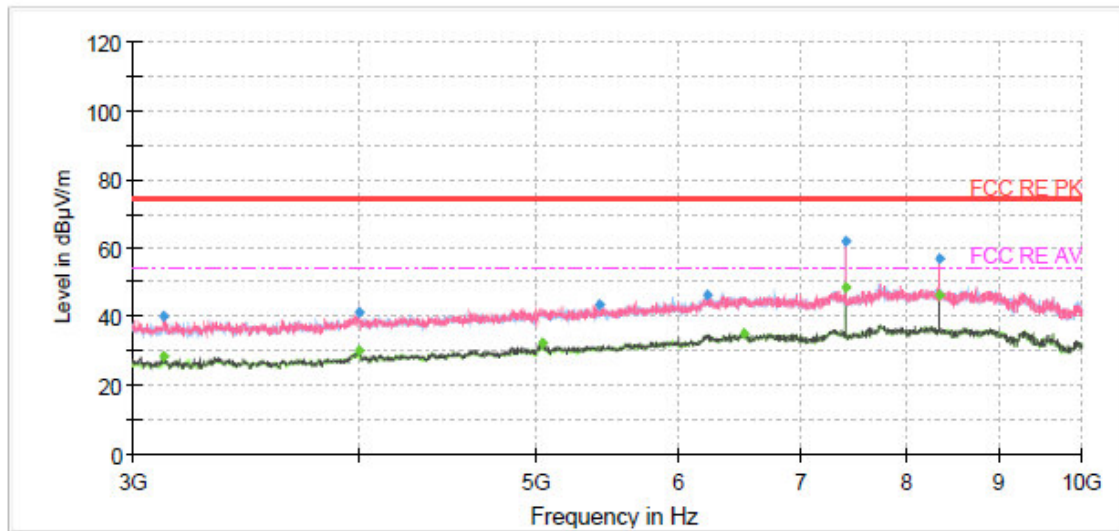
Note: The signal beyond the limit is carrier.
Radiates Emission from 30MHz to 1GHz

Frequency (MHz)	Quasi-Peak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Polarization	Azimuth (deg)	Correct Factor (dB)
48.43	26.15	40.00	13.85	100.0	H	13.00	20
56.80	25.93	40.00	14.07	200.0	V	0.00	20
83.47	20.51	40.00	19.49	200.0	V	36.00	15
150.04	25.00	43.50	18.50	200.0	H	5.00	15
300.02	26.83	46.00	19.17	100.0	H	258.00	21
540.83	32.52	46.00	13.48	100.0	H	193.00	26



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)
1191.25	46.46	---	74.00	27.54	500.00	100.0	V	349.00	-22
1200.00	---	35.63	54.00	18.37	500.00	100.0	V	349.00	-22
1203.75	47.20	---	74.00	26.80	500.00	100.0	V	349.00	-22
1208.25	---	36.12	54.00	17.88	500.00	100.0	V	349.00	-22
1617.75	43.31	---	74.00	30.69	500.00	200.0	V	217.00	-20
1618.25	---	27.32	54.00	26.68	500.00	200.0	V	191.00	-20
1995.75	46.27	---	74.00	27.73	500.00	100.0	V	6.00	-18
1996.00	---	33.07	54.00	20.93	500.00	100.0	V	6.00	-18
2115.50	45.43	---	74.00	28.57	500.00	100.0	V	8.00	-18
2120.00	---	31.55	54.00	22.45	500.00	100.0	V	108.00	-18
2611.50	44.49	---	74.00	29.51	500.00	100.0	V	94.00	-16
2616.25	---	28.98	54.00	25.02	500.00	200.0	V	217.00	-16



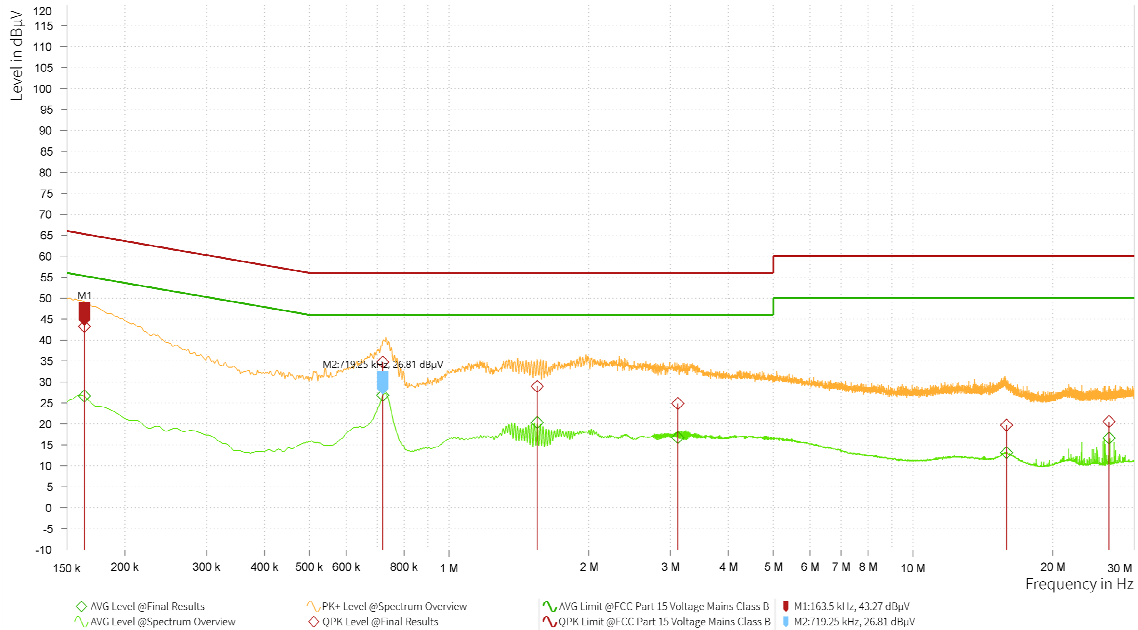
Radiates Emission from 3GHz to 10GHz

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
3119.88	---	28.58	54.00	25.42	500.00	100.0	V	72.00	-14
3119.88	40.26	---	74.00	33.74	500.00	100.0	V	72.00	-14
3991.38	41.37	---	74.00	32.63	500.00	100.0	V	174.00	-11
3995.75	---	30.13	54.00	23.87	500.00	100.0	V	174.00	-11
5037.00	---	32.35	54.00	21.65	500.00	100.0	V	348.00	-8
5419.38	43.62	---	74.00	30.38	500.00	100.0	H	234.00	-8
6213.88	46.08	---	74.00	27.92	500.00	200.0	H	14.00	-4
6516.63	---	35.29	54.00	18.71	500.00	100.0	V	101.00	-3
7411.75	62.08	---	74.00	11.92	500.00	200.0	V	212.00	0
7412.63	---	48.79	54.00	5.21	500.00	200.0	V	212.00	0
8339.25	---	46.26	54.00	7.74	500.00	200.0	V	212.00	1
8341.00	57.00	---	74.00	17.00	500.00	200.0	V	168.00	1

2. Conducted Emission

2.1. Hyper Wi-Fi

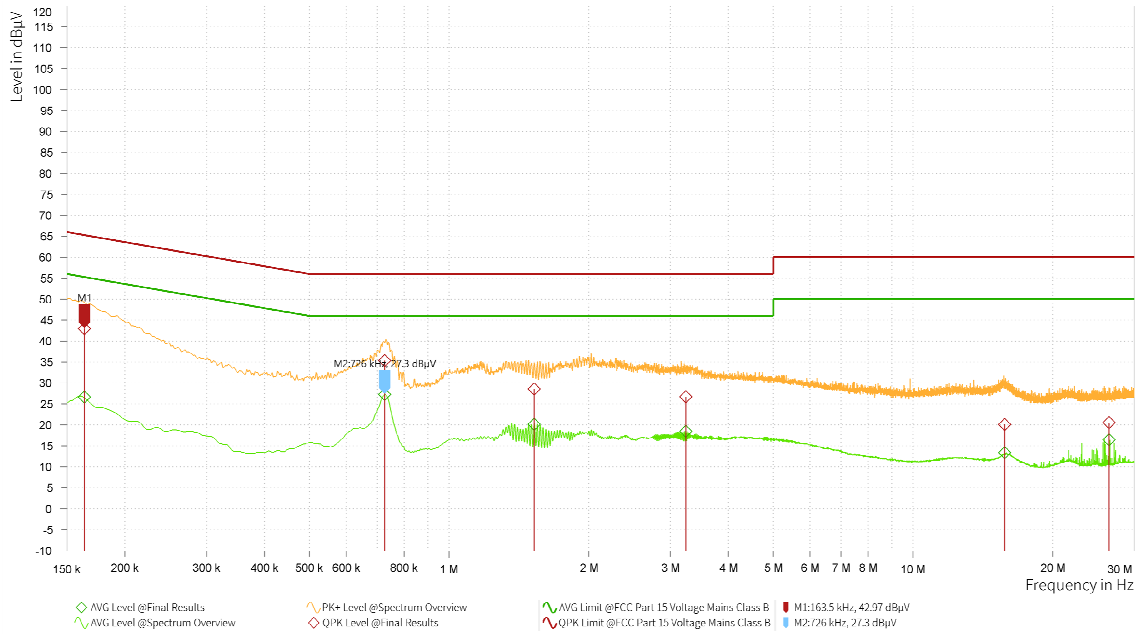
During the test, the Conducted Emission was performed in all modes with all channel. The test data of the worst-case condition (926.5MHz) was recorded in this report.



Frequency [MHz]	QPK Level [dBµV]	QPK Limit [dBµV]	QPK Margin [dB]	AVG Level [dBµV]	AVG Limit [dBµV]	AVG Margin [dB]	Correction [dB]	Line	Meas. BW [kHz]	Meas. Time [s]
0.164	43.27	65.28	22.01	26.65	55.28	28.64	20.89	L1	9.000	1.000
0.719	34.74	56.00	21.26	26.81	46.00	19.19	20.55	L1	9.000	1.000
1.550	28.99	56.00	27.01	20.32	46.00	25.68	19.82	L1	9.000	1.000
3.111	24.86	56.00	31.14	16.76	46.00	29.24	19.48	L1	9.000	1.000
15.925	19.69	60.00	40.31	13.15	50.00	36.85	19.53	L1	9.000	1.000
26.489	20.55	60.00	39.45	16.62	50.00	33.38	19.81	L1	9.000	1.000

Remark: Correct factor=cable loss + LISN factor

L line Conducted Emission from 150 kHz to 30 MHz



Frequency [MHz]	QPK Level [dBμV]	QPK Limit [dBμV]	QPK Margin [dB]	AVG Level [dBμV]	AVG Limit [dBμV]	AVG Margin [dB]	Correction [dB]	Line	Meas. BW [kHz]	Meas. Time [s]
0.164	42.97	65.28	22.32	26.66	55.28	28.63	20.90	N	9.000	1.000
0.726	35.37	56.00	20.63	27.30	46.00	18.70	20.52	N	9.000	1.000
1.525	28.59	56.00	27.41	20.16	46.00	25.84	19.84	N	9.000	1.000
3.237	26.73	56.00	29.27	18.46	46.00	27.54	19.48	N	9.000	1.000
15.776	20.10	60.00	39.90	13.38	50.00	36.62	19.56	N	9.000	1.000
26.486	20.53	60.00	39.47	16.45	50.00	33.55	19.88	N	9.000	1.000

Remark: Correct factor=cable loss + LISN factor

N line Conducted Emission from 150 kHz to 30 MHz