

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 (X 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

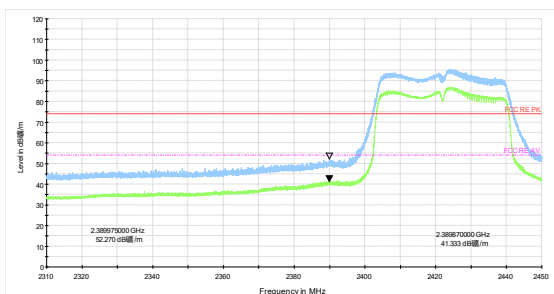
The following graphs display the maximum values of horizontal and vertical by software.
Blue trace uses the peak detection, Green trace uses the average detection.

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

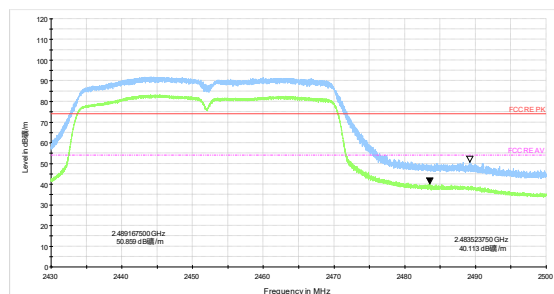
The signal beyond the limit is carrier.

Based on the worst mode (802.11n HT40) test of the Original.

Antenna model NO.: 3A-CDZXX-019

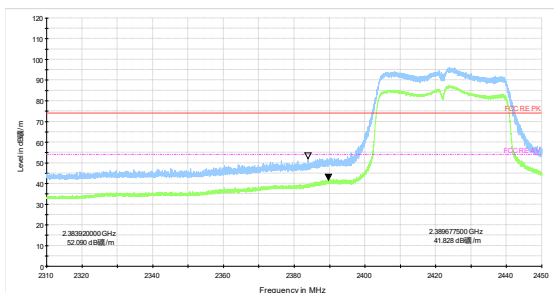


802.11n HT40 -Channel 3 Peak+ Average

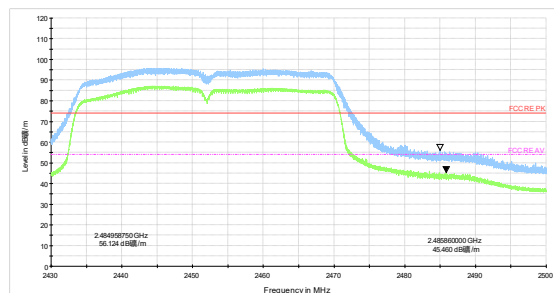


802.11n HT40 -Channel 9 Peak+ Average

Antenna model NO.: 160180-02031



802.11n HT40 -Channel 3 Peak+ Average



802.11n HT40 -Channel 9 Peak+ Average

Result of RE

Sweep the whole frequency band through the range from 9kHz to the 10th harmonic of the carrier.

Remark:

1. **Correction Factor = Antenna factor + Insertion loss (cable loss + amplifier gain)**
2. **Margin = Limit – Quasi-Peak/ MAX Peak/ Average**
3. **A symbol ($\text{dB}\mu\text{V}/\text{m}$) in the test plot below means (dB $\mu\text{V}/\text{m}$)**
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

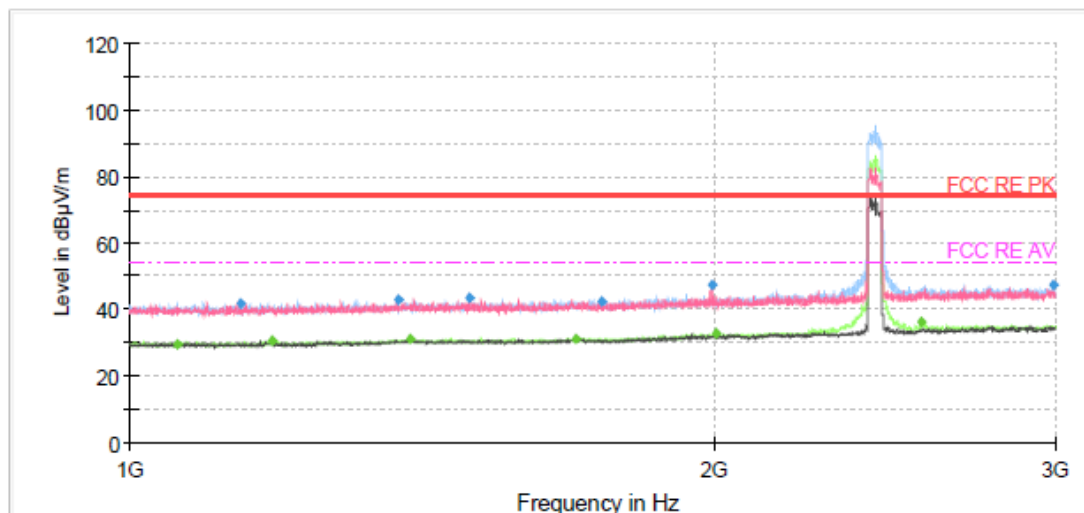
 PK Level @Spectrum Overview H
  PK Level @Spectrum Overview V
  PK Level @Final Results
  PK Limit

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

Continuous TX mode:

Antenna model NO.: 3A-CDZXX-019

802.11n (HT40) CH3

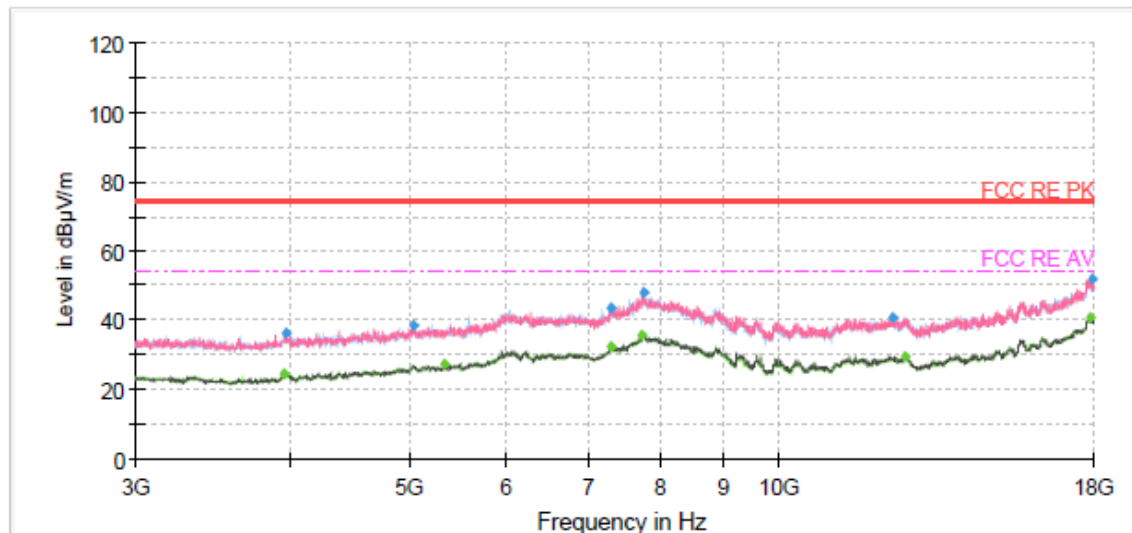


Final Result

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1059.00	---	29.70	54.00	24.30	500.00	200.0	H	0.00	-12
1141.50	42.09	---	74.00	31.91	500.00	100.0	H	0.00	-12
1184.75	---	30.44	54.00	23.56	500.00	200.0	H	0.00	-12
1376.25	43.00	---	74.00	31.00	500.00	200.0	H	12.00	-11
1394.50	---	31.20	54.00	22.80	500.00	200.0	H	278.00	-11
1496.00	43.50	---	74.00	30.50	500.00	100.0	H	129.00	-11
1699.00	---	31.44	54.00	22.56	500.00	200.0	H	321.00	-10
1752.00	42.59	---	74.00	31.41	500.00	200.0	V	0.00	-10
1995.75	47.44	---	74.00	26.56	500.00	200.0	V	233.00	-8
2003.50	---	32.69	54.00	21.31	500.00	100.0	H	21.00	-8
2560.25	---	36.51	54.00	17.49	500.00	200.0	H	329.00	-5
2994.75	47.29	---	74.00	26.71	500.00	100.0	H	0.00	-4

Note: The signal beyond the limit is carrier.

Radiates Emission from 1GHz to 3GHz

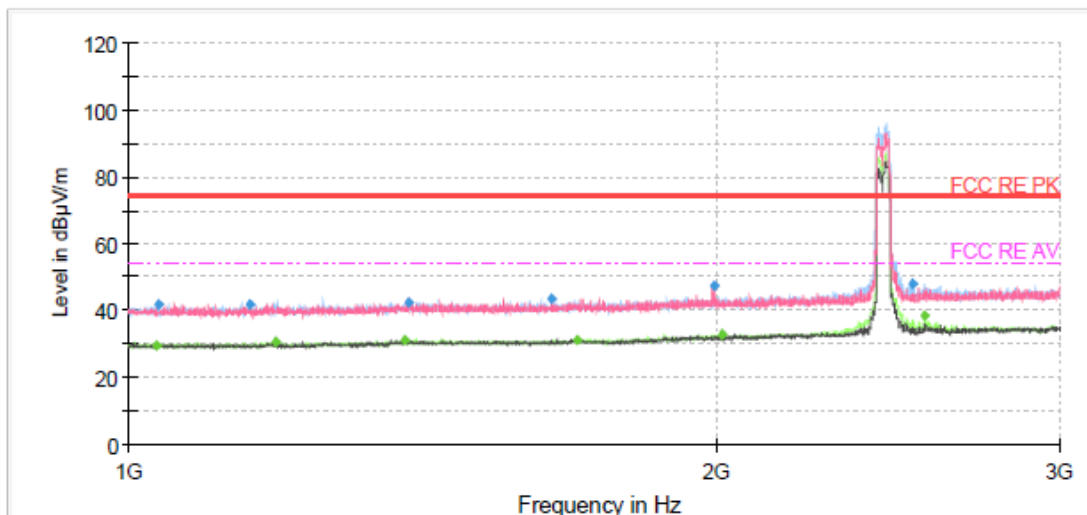


Final Result

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
3958.13	---	24.64	54.00	29.36	500.00	100.0	H	4.00	-11
3971.25	36.29	---	74.00	37.71	500.00	200.0	H	266.00	-11
5049.38	38.47	---	74.00	35.53	500.00	200.0	V	41.00	-8
5349.38	---	27.12	54.00	26.88	500.00	200.0	V	19.00	-8
7284.38	43.52	---	74.00	30.48	500.00	100.0	H	6.00	0
7303.13	---	32.48	54.00	21.52	500.00	200.0	V	4.00	-1
7738.13	---	35.62	54.00	18.38	500.00	200.0	V	76.00	1
7740.00	48.07	---	74.00	25.93	500.00	200.0	H	0.00	1
12369.38	40.80	---	74.00	33.20	500.00	100.0	H	219.00	6
12645.00	---	29.82	54.00	24.18	500.00	100.0	V	295.00	5
17842.50	---	40.87	54.00	13.13	500.00	100.0	H	312.00	15
17900.63	51.67	---	74.00	22.33	500.00	100.0	H	81.00	16

Radiates Emission from 3GHz to 18GHz

802.11n (HT40) CH6

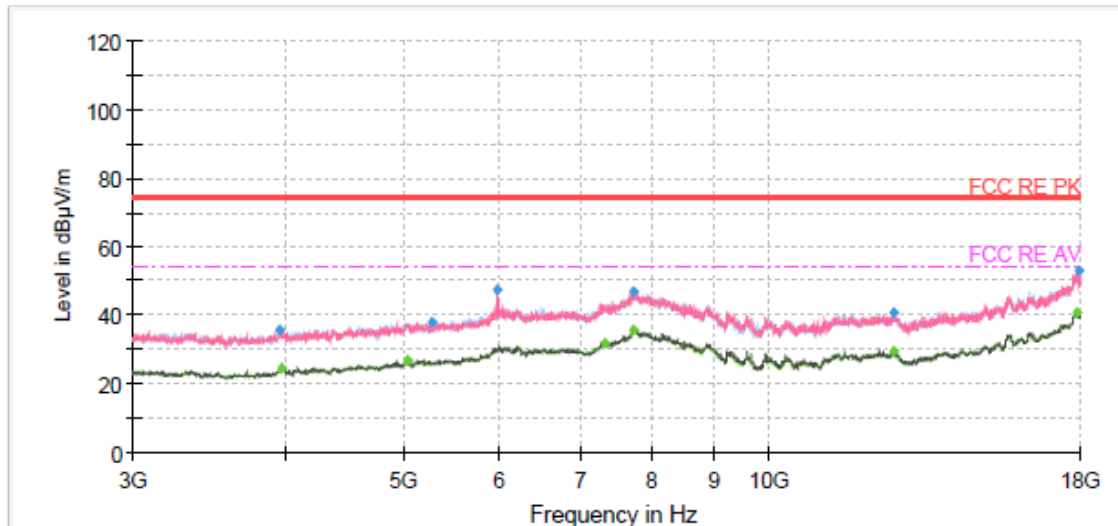


Final Result

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1034.25	---	29.68	54.00	24.32	500.00	200.0	H	321.00	-12
1036.25	41.80	---	74.00	32.20	500.00	100.0	H	197.00	-12
1154.25	41.88	---	74.00	32.12	500.00	100.0	H	143.00	-12
1189.00	---	30.42	54.00	23.58	500.00	200.0	H	336.00	-12
1385.00	---	31.22	54.00	22.78	500.00	100.0	H	73.00	-11
1391.00	42.68	---	74.00	31.32	500.00	100.0	V	326.00	-11
1646.75	43.69	---	74.00	30.31	500.00	100.0	V	317.00	-10
1699.75	---	31.42	54.00	22.59	500.00	200.0	V	101.00	-10
1995.00	47.34	---	74.00	26.66	500.00	100.0	V	354.00	-8
2012.50	---	32.75	54.00	21.25	500.00	200.0	H	359.00	-8
2521.75	48.01	---	74.00	25.99	500.00	100.0	H	73.00	-6
2560.00	---	38.62	54.00	15.38	500.00	100.0	H	73.00	-5

Note: The signal beyond the limit is carrier.

Radiates Emission from 1GHz to 3GHz

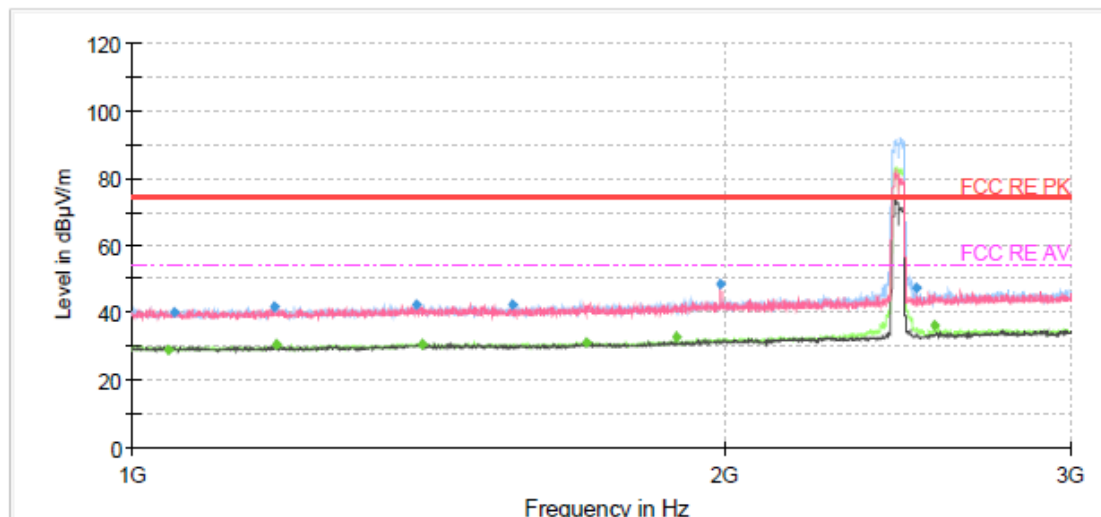


Final Result

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
3956.25	35.67	---	74.00	38.33	500.00	200.0	V	41.00	-11
3969.38	---	24.65	54.00	29.35	500.00	100.0	H	222.00	-11
5041.88	---	27.04	54.00	26.96	500.00	100.0	V	354.00	-8
5283.75	38.12	---	74.00	35.88	500.00	100.0	H	7.00	-9
5971.88	47.27	---	74.00	26.73	500.00	100.0	V	217.00	-6
7321.88	---	32.04	54.00	21.96	500.00	200.0	H	111.00	-1
7728.75	47.10	---	74.00	26.90	500.00	100.0	H	33.00	1
7736.25	---	35.75	54.00	18.25	500.00	100.0	V	356.00	1
12650.63	---	29.44	54.00	24.56	500.00	100.0	V	358.00	5
12652.50	40.67	---	74.00	33.33	500.00	100.0	H	5.00	5
17838.75	---	40.77	54.00	13.23	500.00	100.0	H	147.00	15
17936.25	53.04	---	74.00	20.96	500.00	200.0	V	94.00	16

Radiates Emission from 3GHz to 18GHz

802.11n (HT40) CH9

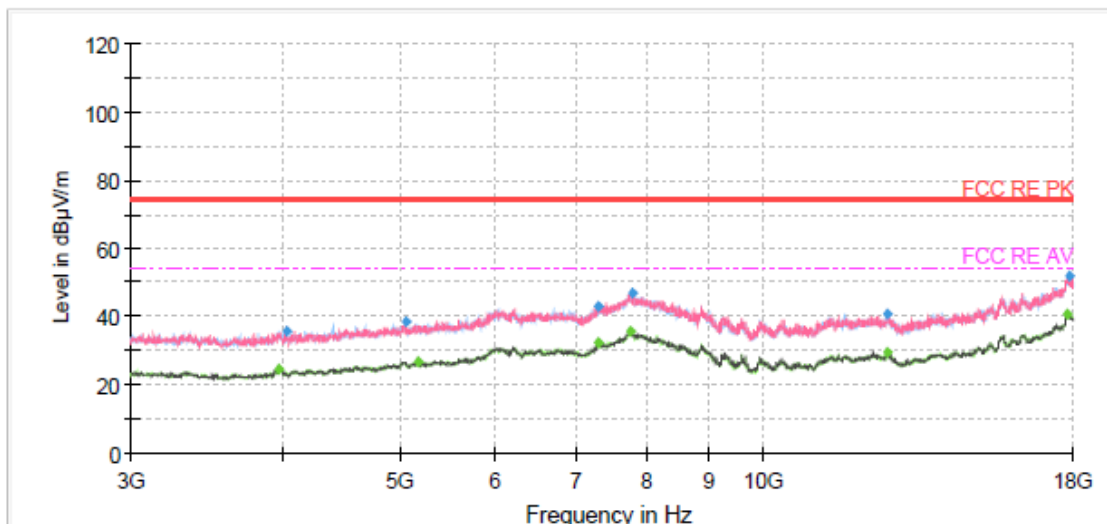


Final Result

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1043.75	---	28.99	54.00	25.01	500.00	200.0	H	252.00	-12
1049.25	40.17	---	74.00	33.83	500.00	100.0	V	358.00	-12
1181.25	41.88	---	74.00	32.12	500.00	200.0	V	46.00	-12
1184.25	---	30.48	54.00	23.52	500.00	100.0	H	23.00	-12
1395.50	42.38	---	74.00	31.62	500.00	100.0	H	260.00	-11
1404.25	---	30.97	54.00	23.03	500.00	200.0	H	347.00	-11
1560.25	42.63	---	74.00	31.37	500.00	100.0	H	46.00	-11
1701.75	---	31.22	54.00	22.78	500.00	200.0	H	359.00	-10
1891.25	---	33.17	54.00	20.83	500.00	200.0	V	304.00	-9
1991.25	48.53	---	74.00	25.47	500.00	200.0	V	30.00	-8
2507.00	47.22	---	74.00	26.78	500.00	200.0	H	279.00	-6
2560.25	---	36.33	54.00	17.67	500.00	100.0	H	274.00	-5

Note: The signal beyond the limit is carrier.

Radiates Emission from 1GHz to 3GHz



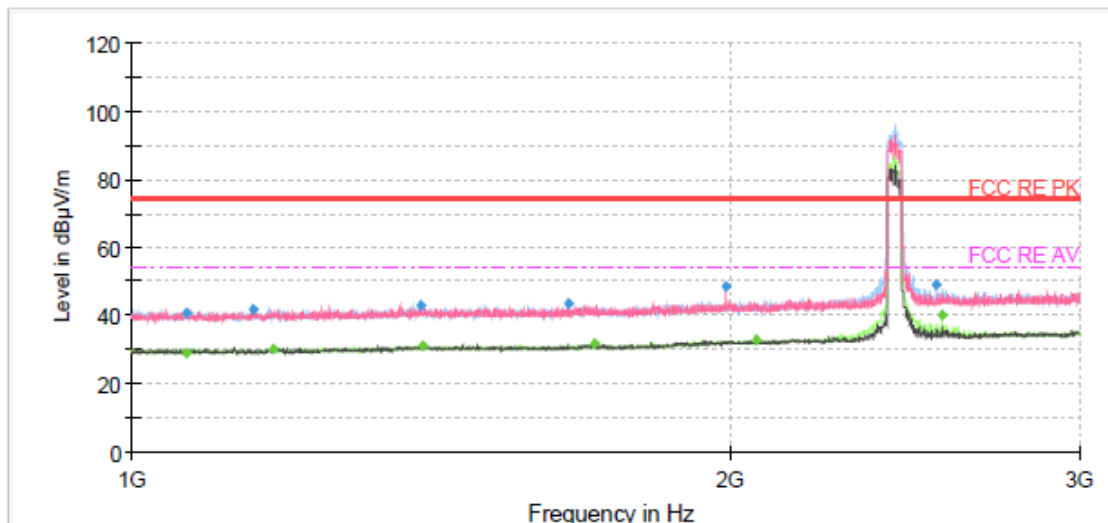
Final Result

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
3969.38	---	24.38	54.00	29.62	500.00	200.0	H	326.00	-11
4027.50	35.58	---	74.00	38.42	500.00	200.0	V	0.00	-12
5053.13	38.49	---	74.00	35.51	500.00	100.0	H	96.00	-8
5175.00	---	26.90	54.00	27.10	500.00	100.0	V	357.00	-8
7280.63	43.06	---	74.00	30.94	500.00	100.0	V	80.00	-1
7303.13	---	32.20	54.00	21.80	500.00	200.0	V	326.00	-1
7741.88	---	35.81	54.00	18.19	500.00	200.0	H	357.00	1
7792.50	46.63	---	74.00	27.37	500.00	100.0	H	10.00	1
12656.25	---	29.36	54.00	24.64	500.00	100.0	H	34.00	5
12656.25	40.67	---	74.00	33.33	500.00	200.0	V	313.00	5
17797.50	---	40.72	54.00	13.28	500.00	200.0	V	150.00	15
17840.63	52.12	---	74.00	21.88	500.00	100.0	H	187.00	15

Radiates Emission from 3GHz to 18GHz

Antenna model NO.: 160180-02031

802.11n (HT40) CH3

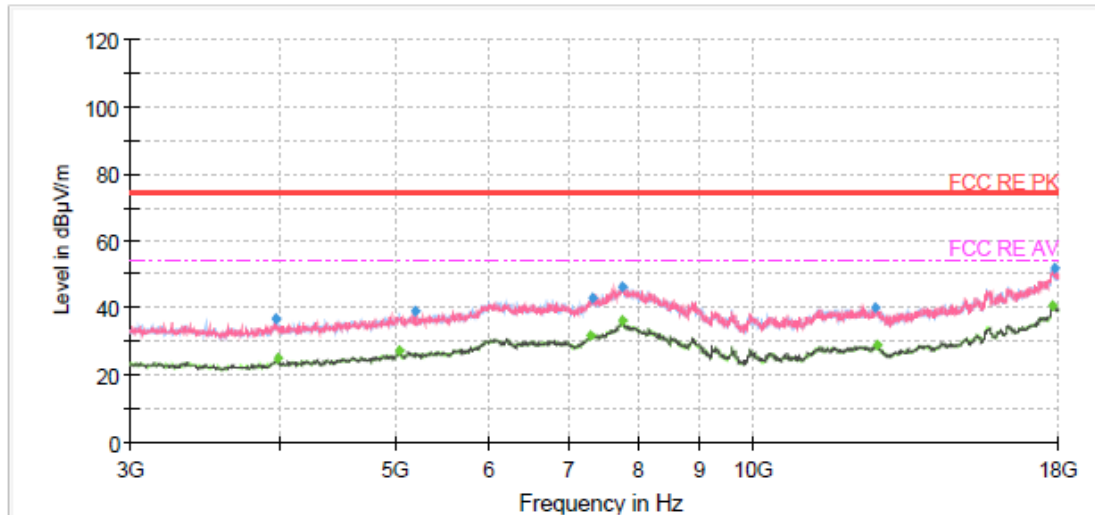


Final Result

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1064.75	---	29.21	54.00	24.79	500.00	100.0	H	12.00	-12
1066.50	40.99	---	74.00	33.01	500.00	100.0	H	115.00	-12
1150.50	41.96	---	74.00	32.04	500.00	100.0	V	192.00	-12
1177.75	---	30.39	54.00	23.61	500.00	200.0	H	359.00	-12
1396.50	43.05	---	74.00	30.95	500.00	200.0	H	314.00	-11
1400.75	---	31.45	54.00	22.55	500.00	200.0	H	305.00	-11
1660.25	43.44	---	74.00	30.56	500.00	200.0	V	34.00	-10
1709.75	---	31.68	54.00	22.32	500.00	100.0	H	115.00	-10
1992.00	48.42	---	74.00	25.58	500.00	200.0	V	1.00	-8
2062.25	---	32.73	54.00	21.27	500.00	200.0	H	253.00	-8
2541.00	49.11	---	74.00	24.89	500.00	100.0	H	76.00	-6
2560.00	---	39.98	54.00	14.02	500.00	100.0	H	76.00	-5

Note: The signal beyond the limit is carrier.

Radiates Emission from 1GHz to 3GHz

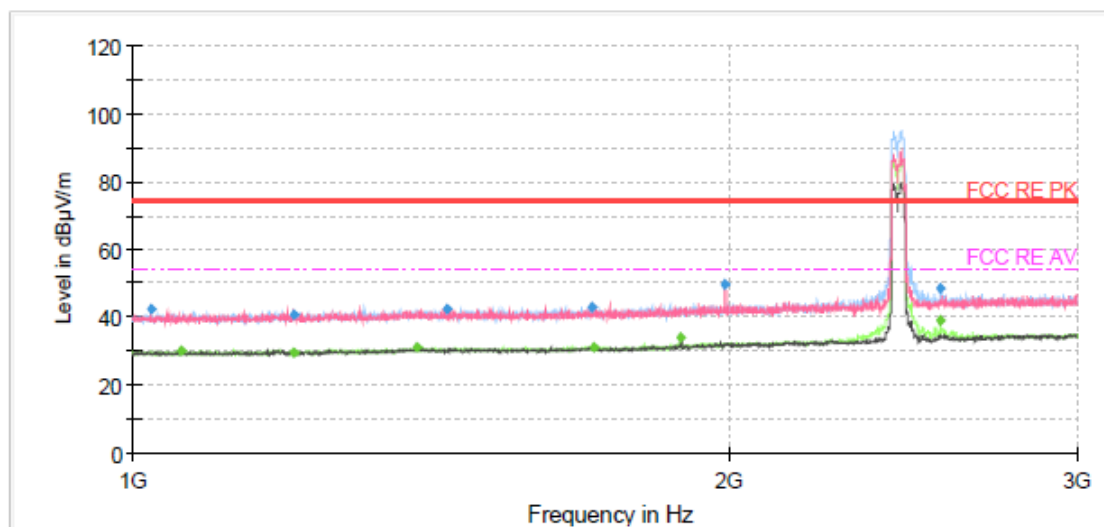


Final Result

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
3971.25	36.66	---	74.00	37.34	500.00	100.0	V	309.00	-11
3980.63	---	24.85	54.00	29.15	500.00	200.0	H	318.00	-11
5045.63	---	27.11	54.00	26.89	500.00	100.0	H	121.00	-8
5195.63	38.87	---	74.00	35.13	500.00	100.0	H	184.00	-8
7295.63	---	32.09	54.00	21.91	500.00	100.0	V	160.00	0
7318.13	43.12	---	74.00	30.88	500.00	200.0	H	356.00	-1
7740.00	---	36.10	54.00	17.90	500.00	100.0	V	270.00	1
7758.75	46.49	---	74.00	27.51	500.00	100.0	H	6.00	1
12660.00	40.44	---	74.00	33.56	500.00	200.0	H	80.00	5
12671.25	---	28.88	54.00	25.12	500.00	200.0	H	336.00	5
17782.50	---	40.94	54.00	13.06	500.00	100.0	V	342.00	14
17831.25	52.04	---	74.00	21.96	500.00	100.0	H	31.00	15

Radiates Emission from 3GHz to 18GHz

802.11n (HT40) CH6

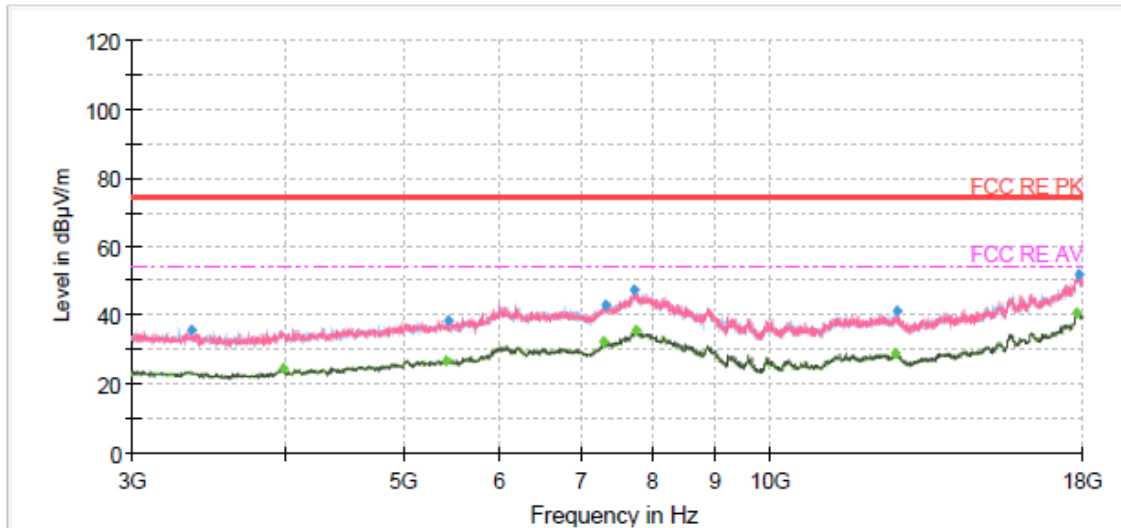


Final Result

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1020.75	42.34	---	74.00	31.66	500.00	200.0	V	2.00	-12
1059.00	---	30.27	54.00	23.73	500.00	200.0	H	164.00	-12
1206.75	41.02	---	74.00	32.98	500.00	100.0	V	305.00	-12
1207.00	---	29.48	54.00	24.52	500.00	200.0	H	328.00	-12
1390.50	---	31.29	54.00	22.71	500.00	100.0	H	1.00	-11
1441.50	42.50	---	74.00	31.50	500.00	200.0	V	32.00	-11
1706.25	42.93	---	74.00	31.07	500.00	200.0	H	334.00	-10
1709.75	---	31.47	54.00	22.53	500.00	200.0	H	205.00	-10
1889.50	---	33.96	54.00	20.04	500.00	200.0	V	348.00	-9
1992.75	49.81	---	74.00	24.19	500.00	200.0	V	238.00	-8
2560.25	---	39.15	54.00	14.85	500.00	100.0	H	76.00	-5
2560.25	48.30	---	74.00	25.70	500.00	100.0	H	76.00	-5

Note: The signal beyond the limit is carrier.

Radiates Emission from 1GHz to 3GHz

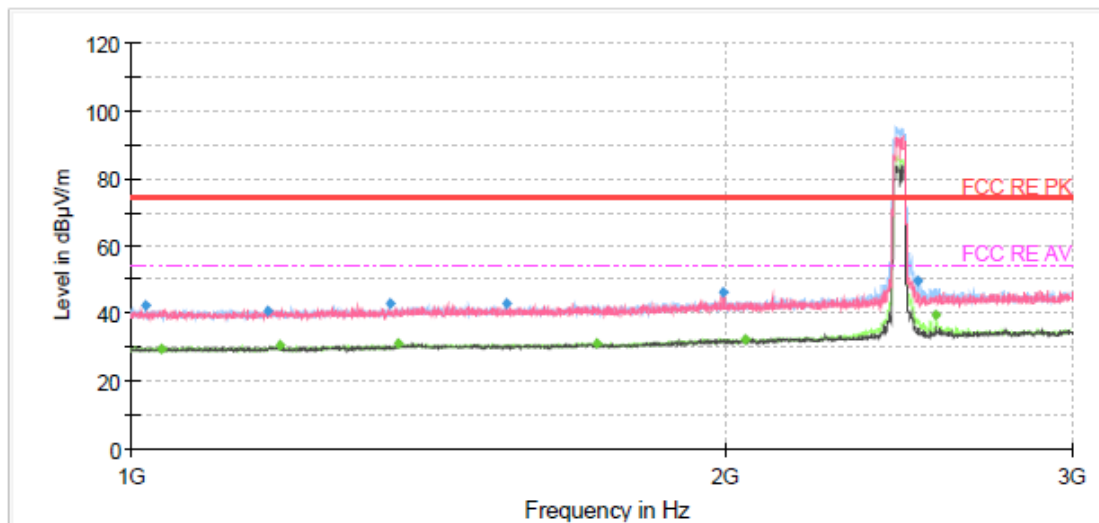


Final Result

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
3360.00	35.66	---	74.00	38.34	500.00	200.0	V	219.00	-13
3990.00	---	24.52	54.00	29.48	500.00	200.0	H	0.00	-11
5416.88	---	26.93	54.00	27.07	500.00	200.0	V	0.00	-8
5439.38	38.67	---	74.00	35.33	500.00	200.0	V	10.00	-8
7284.38	---	32.16	54.00	21.84	500.00	200.0	H	173.00	0
7333.13	43.13	---	74.00	30.87	500.00	200.0	V	7.00	-1
7726.88	47.32	---	74.00	26.68	500.00	200.0	H	218.00	1
7740.00	---	35.68	54.00	18.32	500.00	100.0	H	4.00	1
12648.75	---	28.94	54.00	25.06	500.00	100.0	H	4.00	5
12671.25	41.33	---	74.00	32.67	500.00	200.0	H	0.00	5
17825.63	---	40.98	54.00	13.02	500.00	200.0	H	188.00	15
17855.63	51.73	---	74.00	22.27	500.00	100.0	H	125.00	15

Radiates Emission from 3GHz to 18GHz

802.11n (HT40) CH9

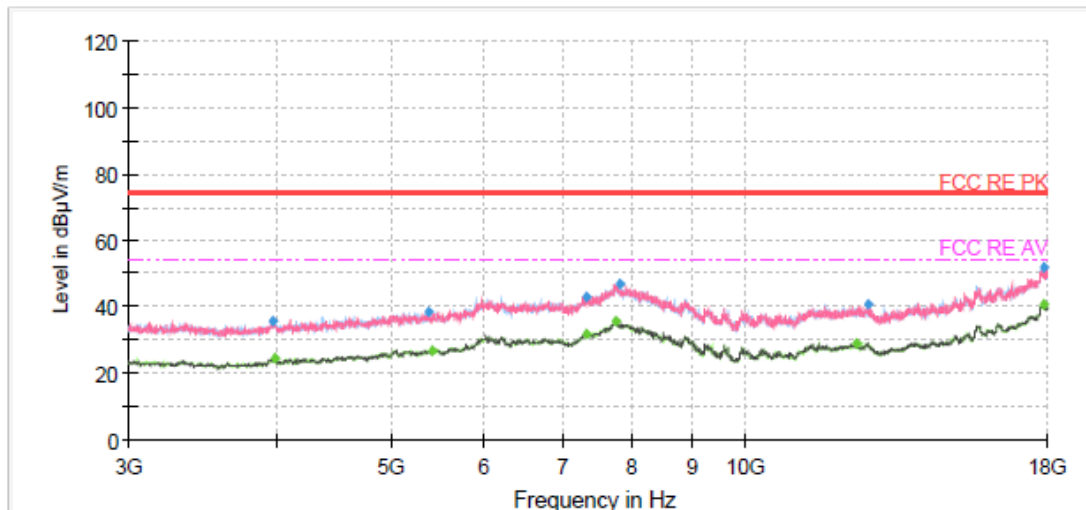


Final Result

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1015.75	42.21	---	74.00	31.79	500.00	100.0	H	31.00	-12
1035.25	---	29.35	54.00	24.65	500.00	200.0	H	272.00	-12
1171.50	40.99	---	74.00	33.01	500.00	100.0	H	0.00	-12
1189.50	---	30.43	54.00	23.57	500.00	200.0	V	1.00	-12
1351.50	42.88	---	74.00	31.12	500.00	100.0	H	7.00	-11
1366.25	---	31.18	54.00	22.82	500.00	200.0	V	3.00	-11
1550.25	42.84	---	74.00	31.16	500.00	100.0	V	0.00	-11
1720.75	---	31.48	54.00	22.52	500.00	100.0	H	9.00	-10
1993.75	46.24	---	74.00	27.76	500.00	100.0	V	355.00	-8
2046.00	---	32.58	54.00	21.42	500.00	100.0	H	62.00	-8
2505.00	49.91	---	74.00	24.09	500.00	100.0	H	74.00	-6
2560.00	---	39.78	54.00	14.22	500.00	100.0	H	74.00	-5

Note: The signal beyond the limit is carrier.

Radiates Emission from 1GHz to 3GHz



Final Result

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
3973.13	35.67	---	74.00	38.33	500.00	200.0	H	0.00	-11
3982.50	---	24.61	54.00	29.39	500.00	200.0	H	203.00	-11
5385.00	38.61	---	74.00	35.39	500.00	200.0	H	249.00	-8
5415.00	---	26.95	54.00	27.05	500.00	100.0	H	2.00	-8
7306.88	---	32.08	54.00	21.92	500.00	100.0	H	127.00	-1
7312.50	43.14	---	74.00	30.86	500.00	100.0	V	0.00	-1
7745.63	---	35.82	54.00	18.18	500.00	200.0	H	126.00	1
7828.13	47.12	---	74.00	26.88	500.00	100.0	H	218.00	1
12412.50	---	29.28	54.00	24.72	500.00	200.0	V	7.00	5
12690.00	40.66	---	74.00	33.34	500.00	100.0	H	7.00	5
17833.13	---	40.93	54.00	13.07	500.00	100.0	H	279.00	15
17870.63	52.00	---	74.00	22.00	500.00	100.0	H	310.00	15

Radiates Emission from 3GHz to 18GHz

1.2. Bluetooth LE

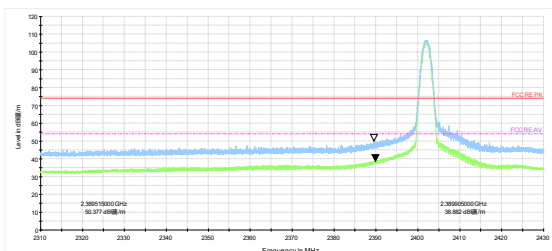
The following graphs display the maximum values of horizontal and vertical by software.
Blue trace uses the peak detection, Green trace uses the average detection.

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

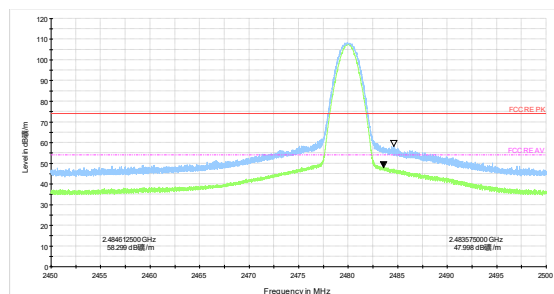
The signal beyond the limit is carrier.

Based on the worst mode (Bluetooth LE (1M)) test of the Original.

Antenna model NO.: 3A-CDZXX-019

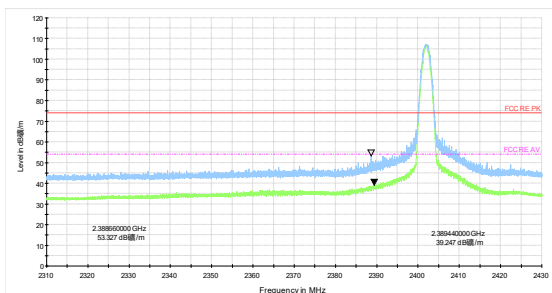


Bluetooth LE Channel 0 Peak+ Average

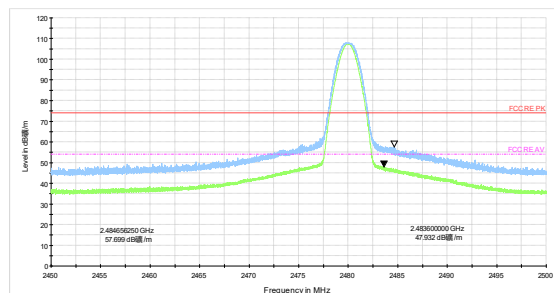


Bluetooth LE Channel 39 Peak+Average

Antenna model NO.: 160180-02031



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. 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

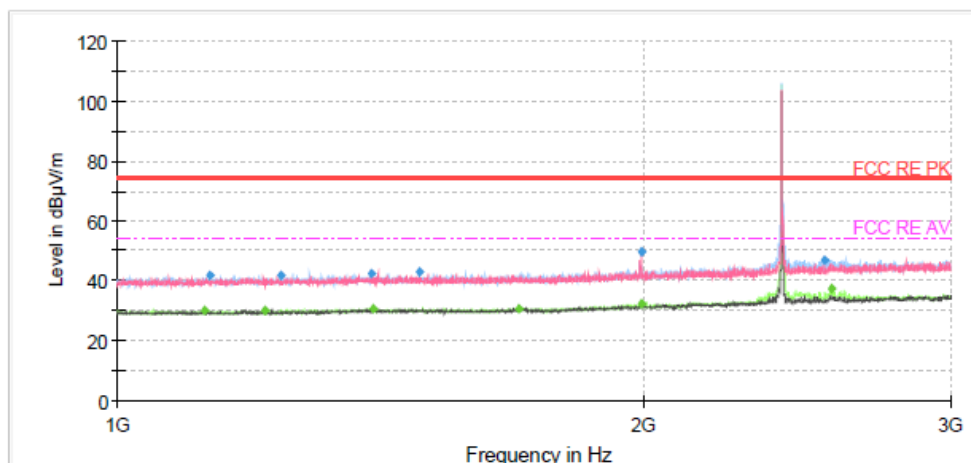
 PK Level @Spectrum Overview H
  PK Level @Spectrum Overview V
  PK Level @Final Results
  PK Limit

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

Continuous TX mode:

Antenna model NO.: 3A-CDZXX-019

Bluetooth LE-Channel 0

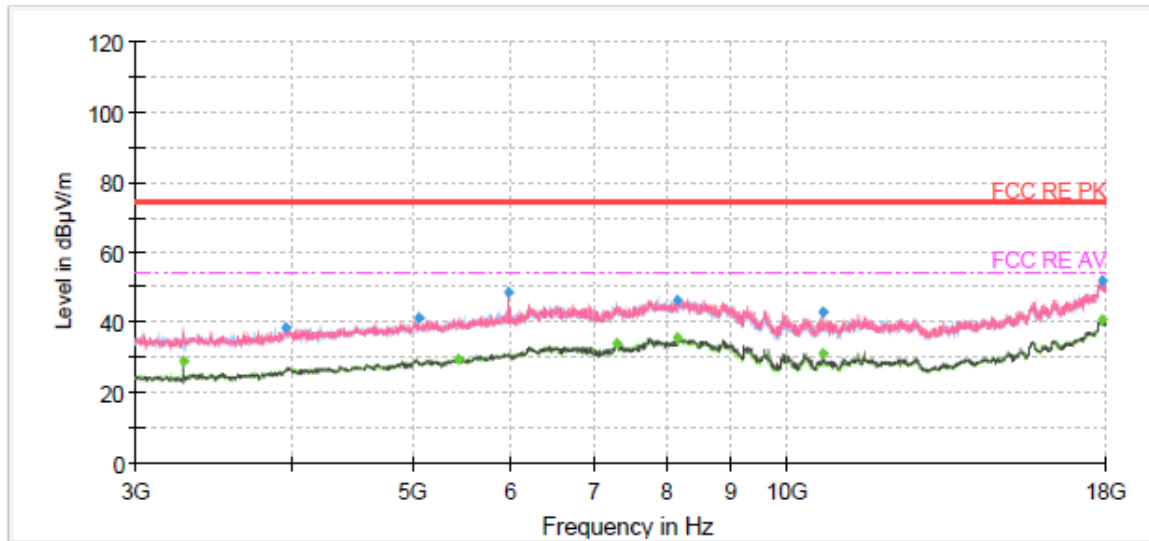


Final Result

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1121.50	---	30.03	54.00	23.97	500.00	200.0	V	19.00	-12
1130.25	41.82	---	74.00	32.18	500.00	100.0	H	0.00	-12
1214.50	---	29.89	54.00	24.11	500.00	100.0	H	171.00	-12
1241.00	41.77	---	74.00	32.23	500.00	200.0	V	10.00	-12
1399.25	42.56	---	74.00	31.44	500.00	200.0	H	48.00	-11
1401.25	---	30.83	54.00	23.17	500.00	100.0	H	186.00	-11
1488.50	42.87	---	74.00	31.13	500.00	200.0	H	346.00	-11
1697.75	---	30.85	54.00	23.15	500.00	100.0	H	3.00	-10
1993.75	49.45	---	74.00	24.55	500.00	200.0	V	231.00	-8
1997.75	---	32.34	54.00	21.66	500.00	100.0	H	241.00	-8
2542.75	46.94	---	74.00	27.06	500.00	100.0	H	15.00	-6
2562.25	---	37.39	54.00	16.61	500.00	100.0	H	186.00	-5

Note: The signal beyond the limit is carrier.

Radiates Emission from 1GHz to 3GHz

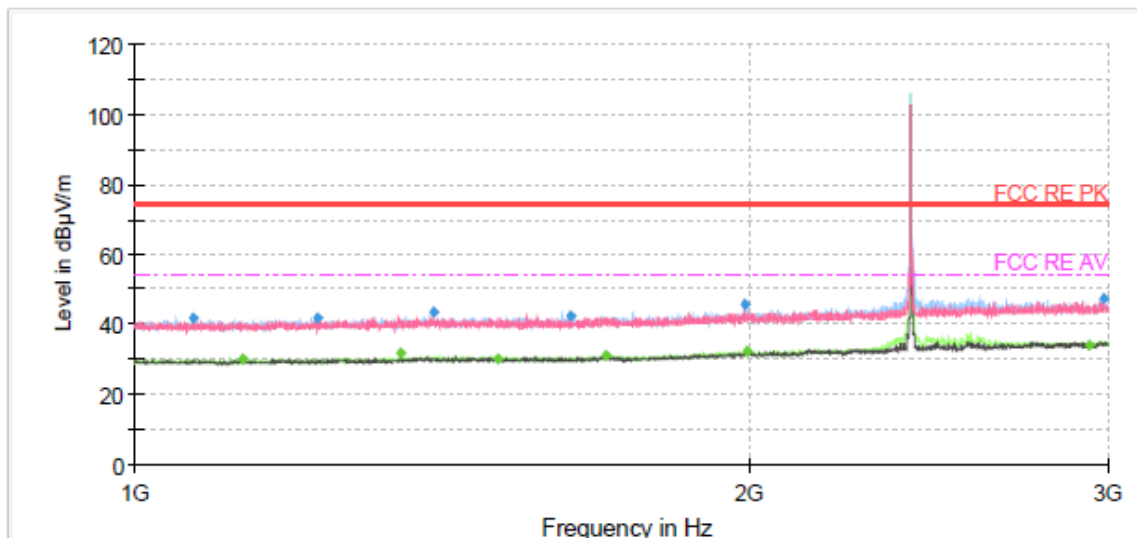


Final Result

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
3281.25	---	28.80	54.00	25.20	500.00	200.0	V	106.00	-14
3960.00	38.34	---	74.00	35.66	500.00	100.0	V	22.00	-11
5062.50	41.38	---	74.00	32.62	500.00	200.0	H	101.00	-9
5445.00	---	29.59	54.00	24.41	500.00	100.0	H	354.00	-8
5971.88	48.62	---	74.00	25.38	500.00	100.0	V	295.00	-6
7305.00	---	33.78	54.00	20.22	500.00	100.0	H	143.00	-1
8152.50	46.58	---	74.00	27.42	500.00	100.0	V	352.00	1
8167.50	---	35.82	54.00	18.18	500.00	100.0	V	96.00	1
10672.50	42.78	---	74.00	31.22	500.00	200.0	H	118.00	3
10672.50	---	31.39	54.00	22.61	500.00	100.0	V	352.00	3
17840.63	51.89	---	74.00	22.11	500.00	200.0	V	11.00	15
17846.25	---	40.78	54.00	13.22	500.00	100.0	V	204.00	15

Radiates Emission from 3GHz to 18GHz

Bluetooth LE-Channel 19

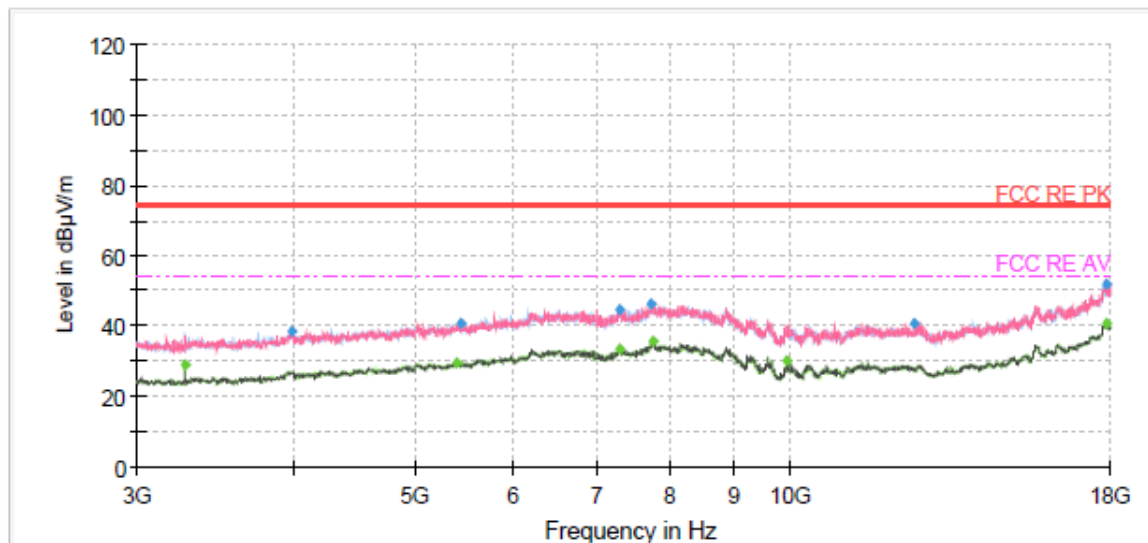


Final Result

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1068.00	42.10	---	74.00	31.90	500.00	100.0	V	142.00	-12
1128.75	---	30.07	54.00	23.93	500.00	200.0	V	49.00	-12
1228.00	41.83	---	74.00	32.17	500.00	200.0	H	233.00	-12
1350.00	---	31.86	54.00	22.14	500.00	200.0	V	32.00	-11
1401.50	43.63	---	74.00	30.37	500.00	100.0	V	354.00	-11
1507.75	---	30.20	54.00	23.80	500.00	100.0	H	22.00	-11
1635.25	42.20	---	74.00	31.80	500.00	100.0	H	353.00	-10
1701.50	---	31.08	54.00	22.92	500.00	200.0	H	0.00	-10
1992.50	45.56	---	74.00	28.44	500.00	100.0	V	157.00	-8
1993.50	---	32.41	54.00	21.59	500.00	200.0	H	287.00	-8
2936.75	---	34.10	54.00	19.90	500.00	200.0	H	92.00	-5
2985.50	47.63	---	74.00	26.37	500.00	100.0	H	45.00	-4

Note: The signal beyond the limit is carrier.

Radiates Emission from 1GHz to 3GHz

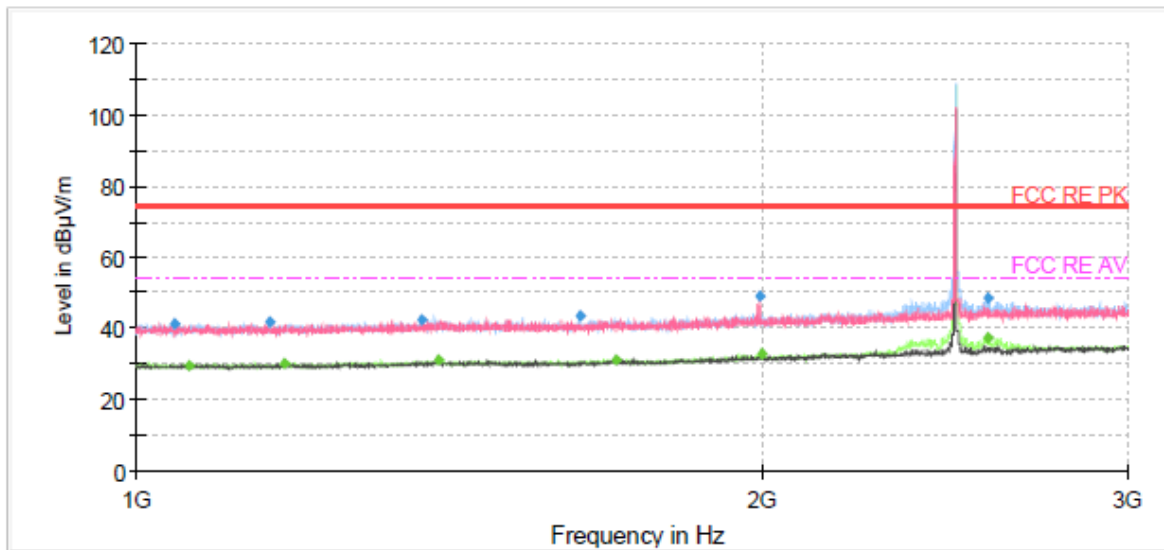


Final Result

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
3281.25	---	28.98	54.00	25.02	500.00	200.0	V	106.00	-14
3993.75	38.45	---	74.00	35.55	500.00	200.0	H	310.00	-11
5411.25	---	29.56	54.00	24.44	500.00	100.0	H	4.00	-8
5435.63	40.72	---	74.00	33.28	500.00	200.0	H	146.00	-8
7297.50	44.77	---	74.00	29.23	500.00	200.0	H	354.00	0
7305.00	---	33.54	54.00	20.46	500.00	100.0	H	3.00	-1
7732.50	46.09	---	74.00	27.91	500.00	100.0	V	338.00	1
7747.50	---	35.64	54.00	18.36	500.00	100.0	V	142.00	1
9926.25	---	29.93	54.00	24.07	500.00	100.0	H	6.00	1
12526.88	40.72	---	74.00	33.28	500.00	100.0	V	127.00	5
17857.50	---	40.83	54.00	13.17	500.00	200.0	V	21.00	15
17895.00	52.13	---	74.00	21.87	500.00	200.0	V	7.00	15

Radiates Emission from 3GHz to 18GHz

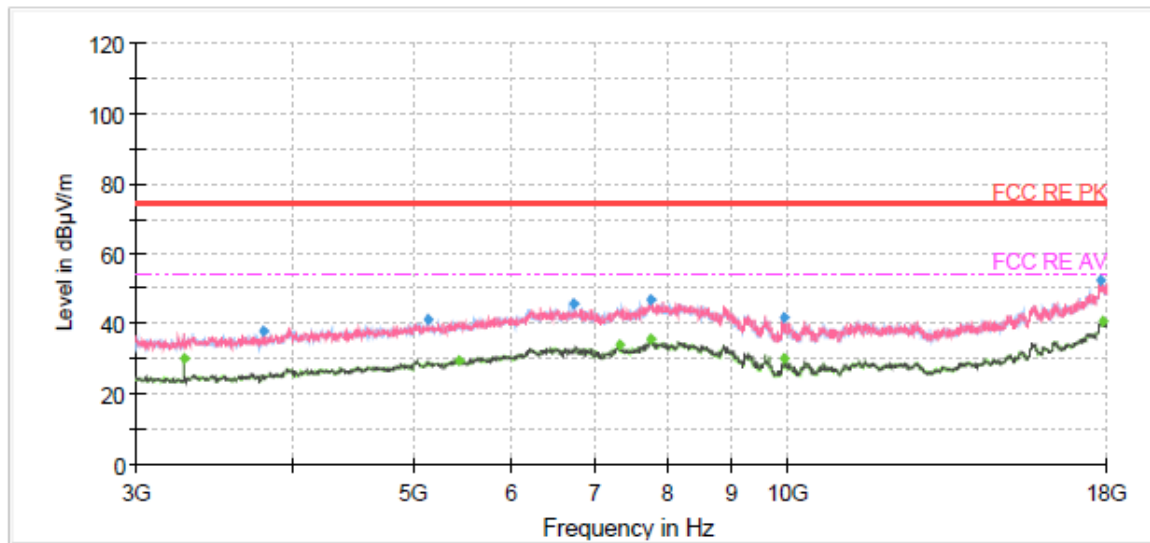
Bluetooth LE-Channel 39



Final Result

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1042.00	41.35	---	74.00	32.65	500.00	100.0	H	22.00	-12
1059.50	---	29.49	54.00	24.51	500.00	200.0	H	317.00	-12
1160.00	41.82	---	74.00	32.18	500.00	200.0	H	105.00	-12
1178.50	---	30.32	54.00	23.68	500.00	100.0	H	6.00	-12
1373.00	42.39	---	74.00	31.61	500.00	200.0	H	77.00	-11
1397.00	---	31.24	54.00	22.76	500.00	200.0	V	10.00	-11
1634.50	43.56	---	74.00	30.44	500.00	200.0	H	246.00	-10
1702.00	---	31.26	54.00	22.74	500.00	200.0	V	87.00	-10
1995.50	49.25	---	74.00	24.75	500.00	200.0	V	218.00	-8
2001.00	---	32.67	54.00	21.33	500.00	200.0	V	0.00	-8
2571.00	---	37.56	54.00	16.44	500.00	100.0	H	187.00	-5
2571.00	48.43	---	74.00	25.57	500.00	200.0	H	0.00	-5

Note: The signal beyond the limit is carrier.
Radiates Emission from 1GHz to 3GHz



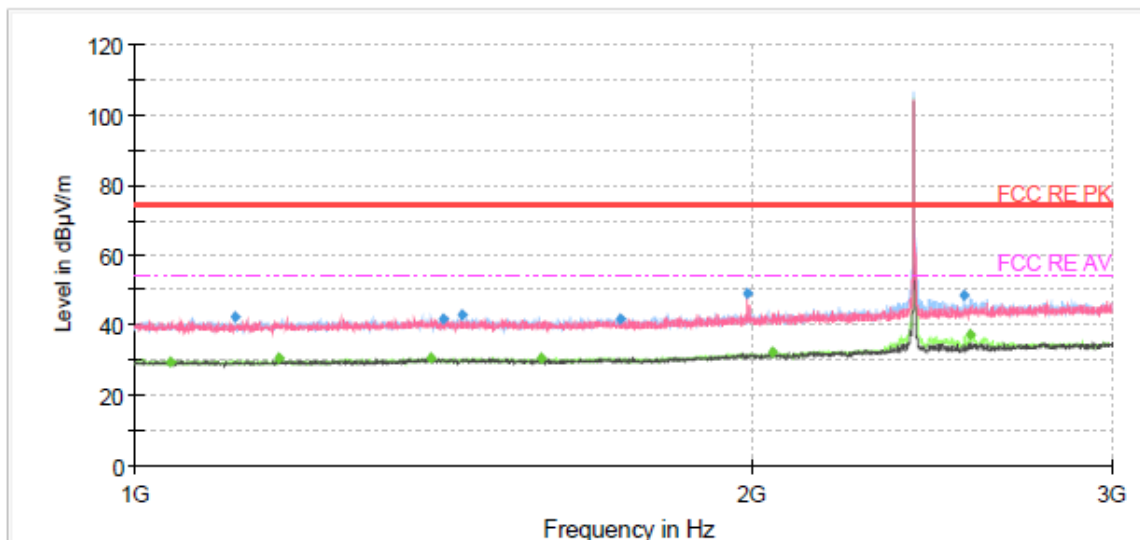
Final Result

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
3281.25	---	30.05	54.00	23.95	500.00	200.0	V	115.00	-14
3793.13	38.19	---	74.00	35.81	500.00	100.0	V	358.00	-13
5145.00	41.04	---	74.00	32.96	500.00	200.0	H	356.00	-8
5435.63	---	29.47	54.00	24.53	500.00	200.0	H	0.00	-8
6731.25	45.49	---	74.00	28.51	500.00	100.0	H	0.00	-2
7321.88	---	33.91	54.00	20.09	500.00	100.0	H	0.00	-1
7743.75	46.68	---	74.00	27.32	500.00	100.0	H	45.00	1
7747.50	---	35.47	54.00	18.53	500.00	100.0	V	344.00	1
9933.75	---	30.15	54.00	23.85	500.00	100.0	V	193.00	1
9935.63	41.63	---	74.00	32.37	500.00	200.0	V	215.00	1
17788.13	52.42	---	74.00	21.58	500.00	100.0	V	0.00	14
17838.75	---	40.90	54.00	13.10	500.00	200.0	H	224.00	15

Radiates Emission from 3GHz to 18GHz

Antenna model NO.: 160180-02031

Bluetooth LE-Channel 0

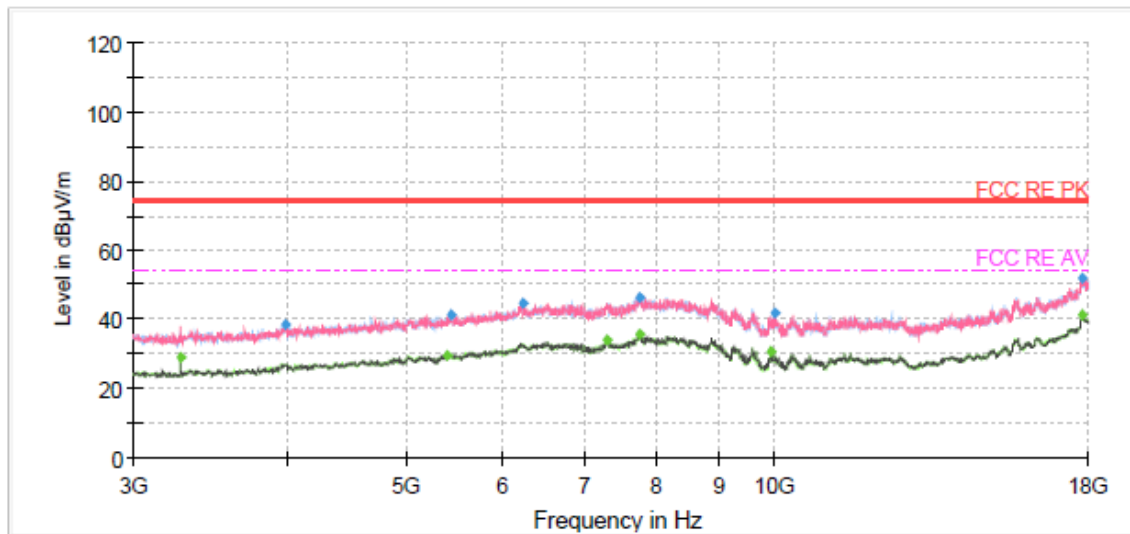


Final Result

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1041.75	---	29.47	54.00	24.53	500.00	200.0	H	0.00	-12
1119.50	42.60	---	74.00	31.40	500.00	100.0	H	229.00	-12
1175.50	---	30.43	54.00	23.57	500.00	200.0	V	84.00	-12
1394.25	---	30.66	54.00	23.34	500.00	200.0	H	217.00	-11
1414.75	42.10	---	74.00	31.90	500.00	200.0	V	24.00	-11
1444.50	42.70	---	74.00	31.30	500.00	100.0	H	229.00	-11
1579.25	---	30.84	54.00	23.16	500.00	100.0	H	12.00	-11
1726.00	41.73	---	74.00	32.27	500.00	200.0	V	14.00	-10
1992.25	49.03	---	74.00	24.97	500.00	200.0	V	230.00	-8
2049.50	---	32.18	54.00	21.82	500.00	100.0	H	6.00	-8
2540.25	48.56	---	74.00	25.44	500.00	200.0	H	172.00	-6
2560.00	---	37.39	54.00	16.61	500.00	100.0	H	3.00	-5

Note: The signal beyond the limit is carrier.

Radiates Emission from 1GHz to 3GHz

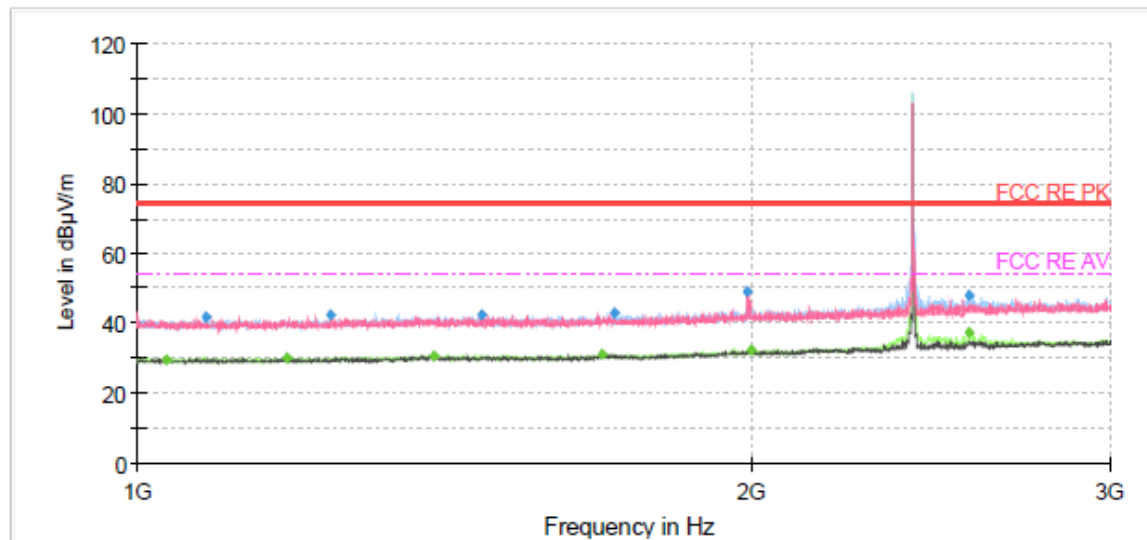


Final Result

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
3281.25	---	29.25	54.00	24.75	500.00	200.0	V	24.00	-14
3993.75	38.32	---	74.00	35.68	500.00	200.0	H	239.00	-11
5407.50	---	29.52	54.00	24.48	500.00	200.0	H	177.00	-8
5446.88	41.31	---	74.00	32.69	500.00	200.0	H	177.00	-8
6223.13	44.78	---	74.00	29.22	500.00	200.0	H	0.00	-4
7303.13	---	33.94	54.00	20.06	500.00	100.0	V	354.00	-1
7743.75	---	35.73	54.00	18.27	500.00	100.0	V	132.00	1
7760.63	46.19	---	74.00	27.81	500.00	200.0	V	92.00	1
9933.75	---	30.50	54.00	23.50	500.00	100.0	V	342.00	1
9976.88	41.72	---	74.00	32.28	500.00	100.0	V	251.00	1
17820.00	51.95	---	74.00	22.05	500.00	100.0	H	3.00	15
17821.88	---	41.11	54.00	12.89	500.00	200.0	V	106.00	15

Radiates Emission from 3GHz to 18GHz

Bluetooth LE-Channel 19

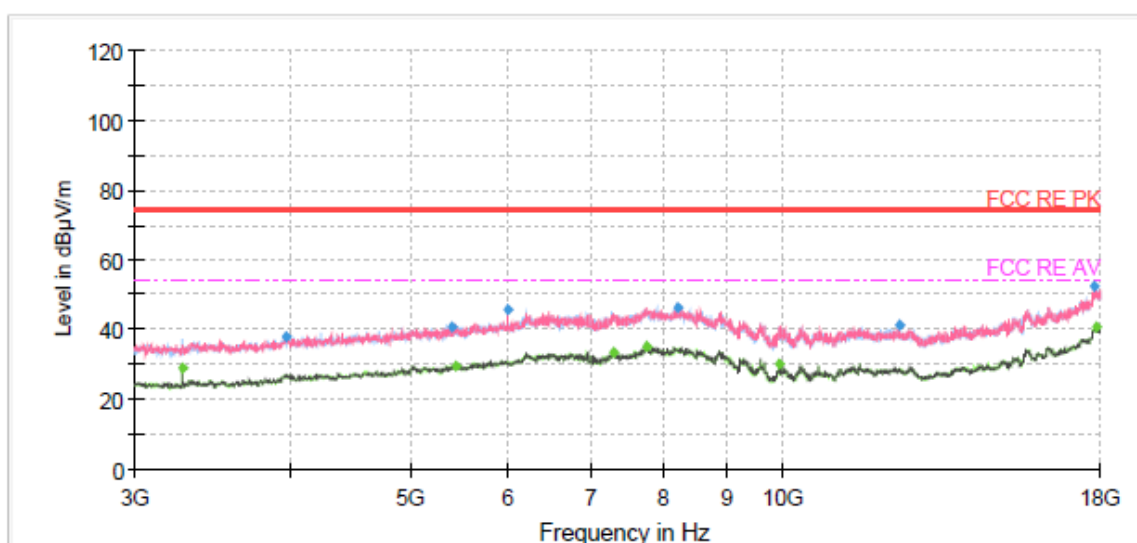


Final Result

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1034.00	---	29.39	54.00	24.61	500.00	100.0	H	19.00	-12
1080.50	41.98	---	74.00	32.02	500.00	200.0	H	14.00	-12
1184.25	---	29.96	54.00	24.04	500.00	200.0	H	353.00	-12
1244.25	42.21	---	74.00	31.79	500.00	200.0	V	0.00	-12
1398.50	---	30.83	54.00	23.17	500.00	200.0	V	4.00	-11
1476.75	42.60	---	74.00	31.40	500.00	200.0	H	342.00	-11
1691.25	---	31.21	54.00	22.79	500.00	200.0	V	4.00	-10
1712.25	43.10	---	74.00	30.90	500.00	200.0	H	357.00	-10
1993.25	49.25	---	74.00	24.75	500.00	100.0	V	337.00	-8
1998.25	---	32.33	54.00	21.67	500.00	200.0	H	0.00	-8
2560.25	---	37.19	54.00	16.81	500.00	100.0	H	0.00	-5
2561.00	48.14	---	74.00	25.86	500.00	100.0	H	19.00	-5

Note: The signal beyond the limit is carrier.

Radiates Emission from 1GHz to 3GHz

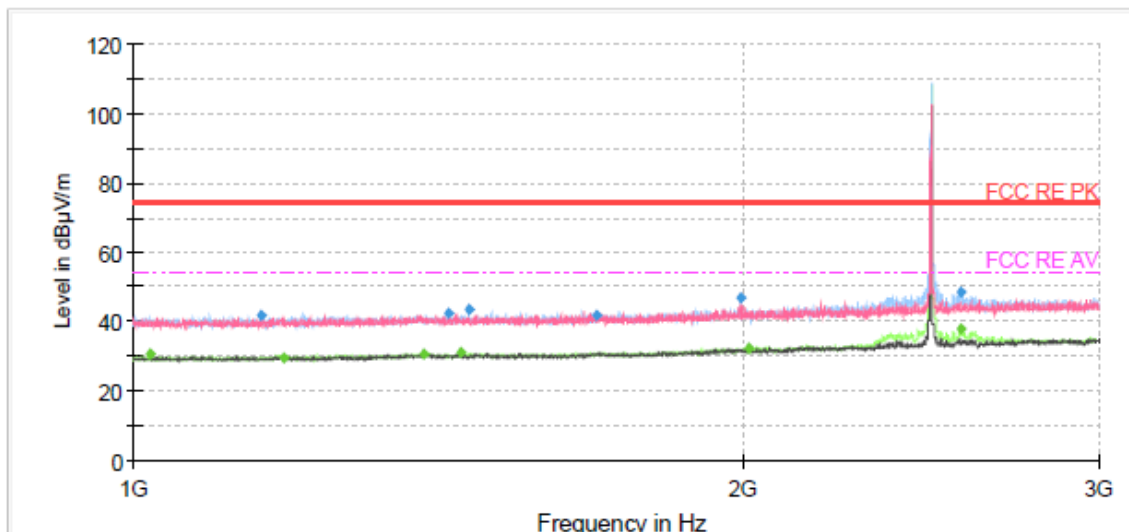


Final Result

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
3281.25	---	28.96	54.00	25.04	500.00	100.0	H	61.00	-14
3976.88	38.00	---	74.00	36.00	500.00	200.0	H	0.00	-11
5394.38	40.73	---	74.00	33.27	500.00	200.0	H	353.00	-8
5435.63	---	29.65	54.00	24.35	500.00	200.0	V	75.00	-8
5992.50	45.78	---	74.00	28.22	500.00	200.0	V	212.00	-6
7299.38	---	33.72	54.00	20.28	500.00	100.0	V	349.00	0
7747.50	---	35.36	54.00	18.64	500.00	100.0	H	247.00	1
8223.75	46.21	---	74.00	27.79	500.00	100.0	V	0.00	1
9926.25	---	30.18	54.00	23.82	500.00	200.0	V	38.00	1
12416.25	41.18	---	74.00	32.82	500.00	200.0	V	0.00	5
17827.50	52.36	---	74.00	21.64	500.00	200.0	V	16.00	15
17829.38	---	40.71	54.00	13.29	500.00	200.0	H	329.00	15

Radiates Emission from 3GHz to 18GHz

Bluetooth LE-Channel 39

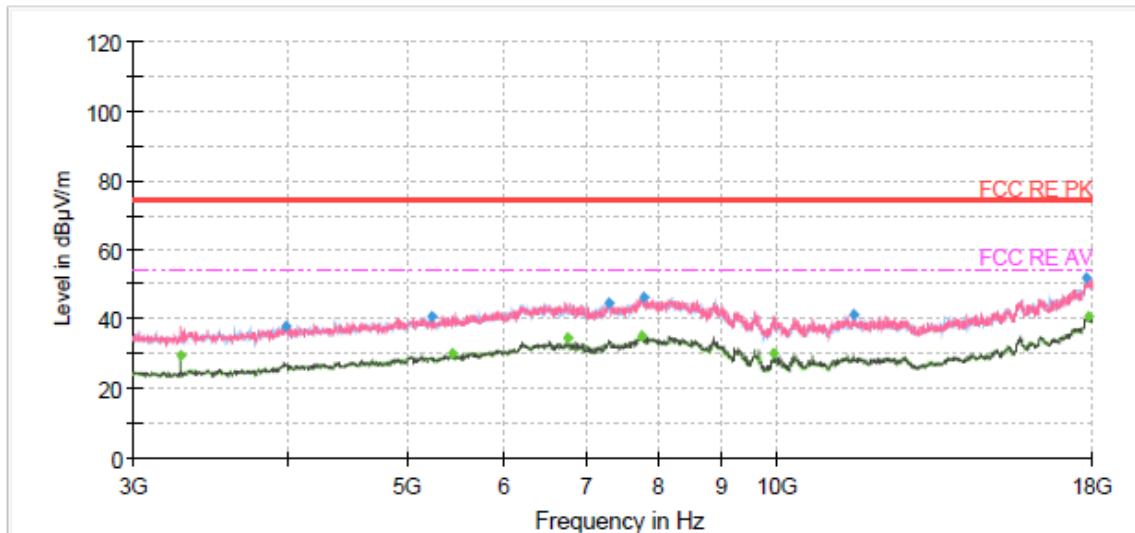


Final Result

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1019.75	---	30.47	54.00	23.53	500.00	200.0	H	356.00	-12
1157.25	41.62	---	74.00	32.38	500.00	200.0	H	351.00	-12
1186.00	---	29.31	54.00	24.69	500.00	100.0	V	333.00	-12
1390.00	---	30.94	54.00	23.06	500.00	200.0	H	144.00	-11
1429.75	42.27	---	74.00	31.73	500.00	200.0	H	324.00	-11
1451.00	---	31.21	54.00	22.79	500.00	100.0	H	346.00	-11
1465.50	43.41	---	74.00	30.59	500.00	100.0	H	0.00	-11
1695.25	41.99	---	74.00	32.01	500.00	100.0	H	115.00	-10
1994.00	47.14	---	74.00	26.86	500.00	100.0	H	313.00	-8
2016.25	---	32.47	54.00	21.53	500.00	200.0	V	102.00	-8
2562.25	---	37.91	54.00	16.09	500.00	200.0	H	172.00	-5
2563.00	48.32	---	74.00	25.68	500.00	200.0	H	172.00	-5

Note: The signal beyond the limit is carrier.

Radiates Emission from 1GHz to 3GHz



Final Result

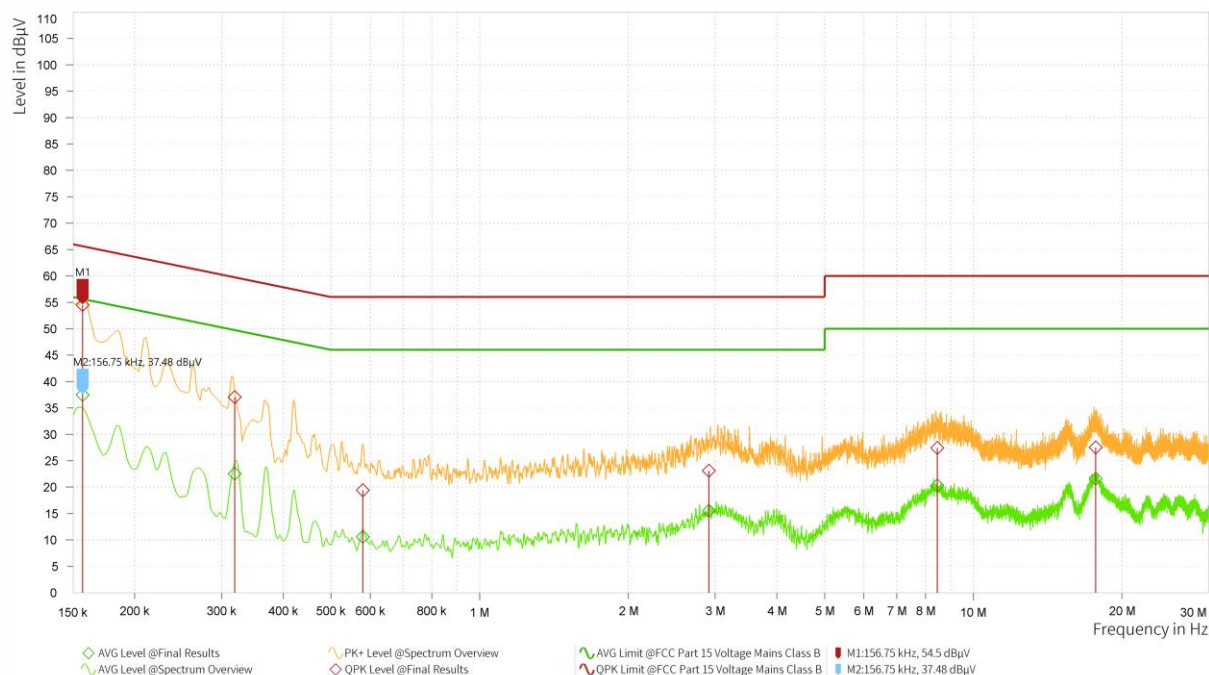
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
3281.25	---	29.58	54.00	24.42	500.00	200.0	V	118.00	-14
3988.13	38.00	---	74.00	36.00	500.00	100.0	V	132.00	-11
5240.63	40.91	---	74.00	33.09	500.00	200.0	V	21.00	-9
5441.25	---	29.88	54.00	24.12	500.00	200.0	V	21.00	-8
6750.00	---	34.76	54.00	19.24	500.00	100.0	V	240.00	-2
7284.38	44.58	---	74.00	29.42	500.00	100.0	V	225.00	0
7745.63	---	35.33	54.00	18.67	500.00	100.0	V	322.00	1
7775.63	46.26	---	74.00	27.74	500.00	100.0	V	348.00	1
9931.88	---	30.29	54.00	23.71	500.00	200.0	H	161.00	1
11503.13	41.48	---	74.00	32.52	500.00	200.0	V	260.00	6
17825.63	51.96	---	74.00	22.04	500.00	200.0	H	256.00	15
17836.88	---	41.00	54.00	13.00	500.00	200.0	H	270.00	15

Radiates Emission from 3GHz to 18GHz

2. Conducted Emission

2.1. Wi-Fi 2.4GHz

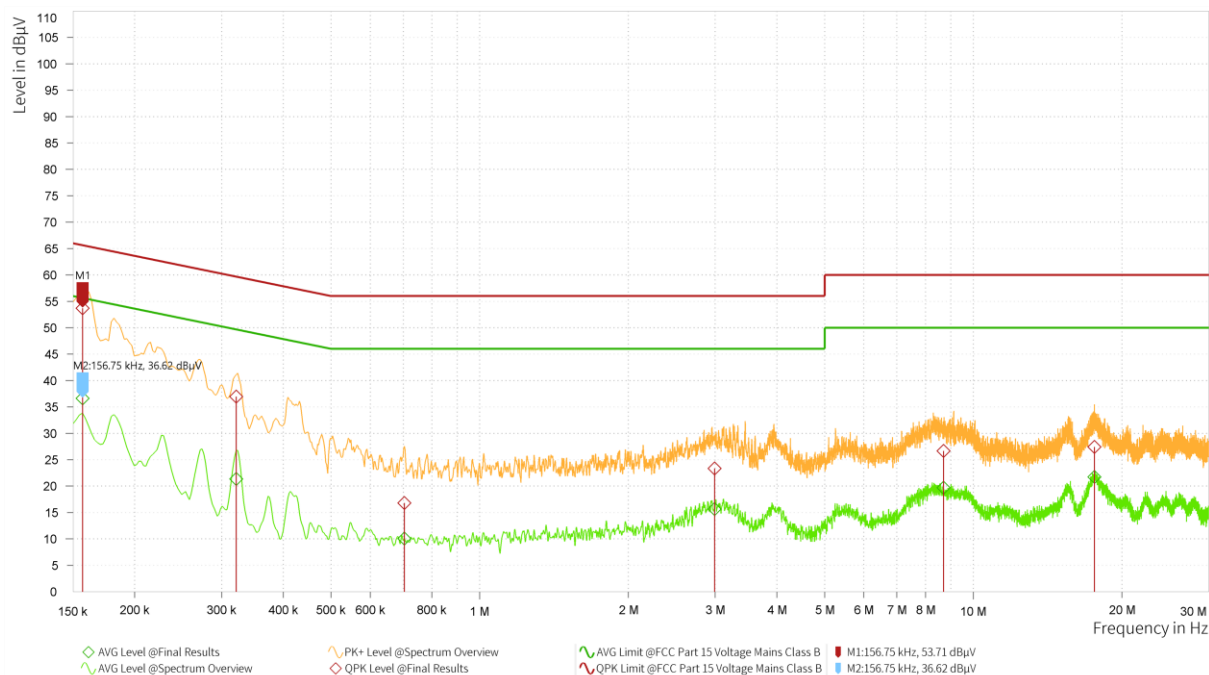
Antenna model NO.: 3A-CDZXX-019



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]
0.157	54.50	65.63	11.14	37.48	55.63	18.15	20.90	L1	9.000	1.000
0.319	37.07	59.74	22.67	22.55	49.74	27.19	20.92	L1	9.000	1.000
0.580	19.38	56.00	36.62	10.59	46.00	35.41	20.70	L1	9.000	1.000
2.911	23.08	56.00	32.92	15.51	46.00	30.49	19.49	L1	9.000	1.000
8.453	27.42	60.00	32.58	20.31	50.00	29.69	19.41	L1	9.000	1.000
17.702	27.49	60.00	32.51	21.56	50.00	28.44	19.59	L1	9.000	1.000

Remark: Correct factor=cable loss + LISN factor

L line Conducted Emission from 150 kHz to 30 MHz

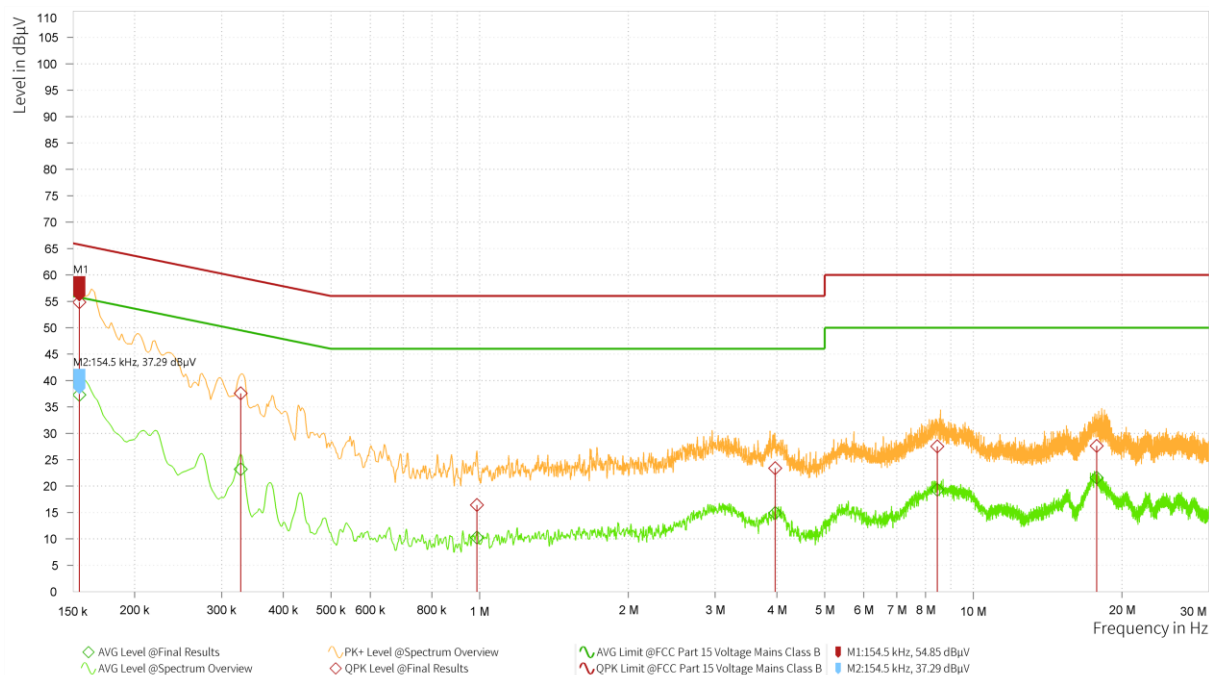


Frequency [MHz]	QPK Level [dBμV]	QPK Limit [dBμV]	QPK Margin [dB]	AVG Level [dBμV]	AVG Limit [dBμV]	AVG Margin [dB]	Correction [dB]	Line	Meas. BW [kHz]	Meas. Time [s]
0.157	53.71	65.63	11.92	36.62	55.63	19.02	20.91	N	9.000	1.000
0.321	36.97	59.68	22.72	21.35	49.68	28.33	20.93	N	9.000	1.000
0.704	16.78	56.00	39.22	10.05	46.00	35.95	20.57	N	9.000	1.000
2.992	23.34	56.00	32.66	15.65	46.00	30.35	19.50	N	9.000	1.000
8.707	26.65	60.00	33.35	19.70	50.00	30.30	19.42	N	9.000	1.000
17.599	27.40	60.00	32.60	21.71	50.00	28.29	19.62	N	9.000	1.000

Remark: Correct factor=cable loss + LISN factor

N line Conducted Emission from 150 kHz to 30 MHz

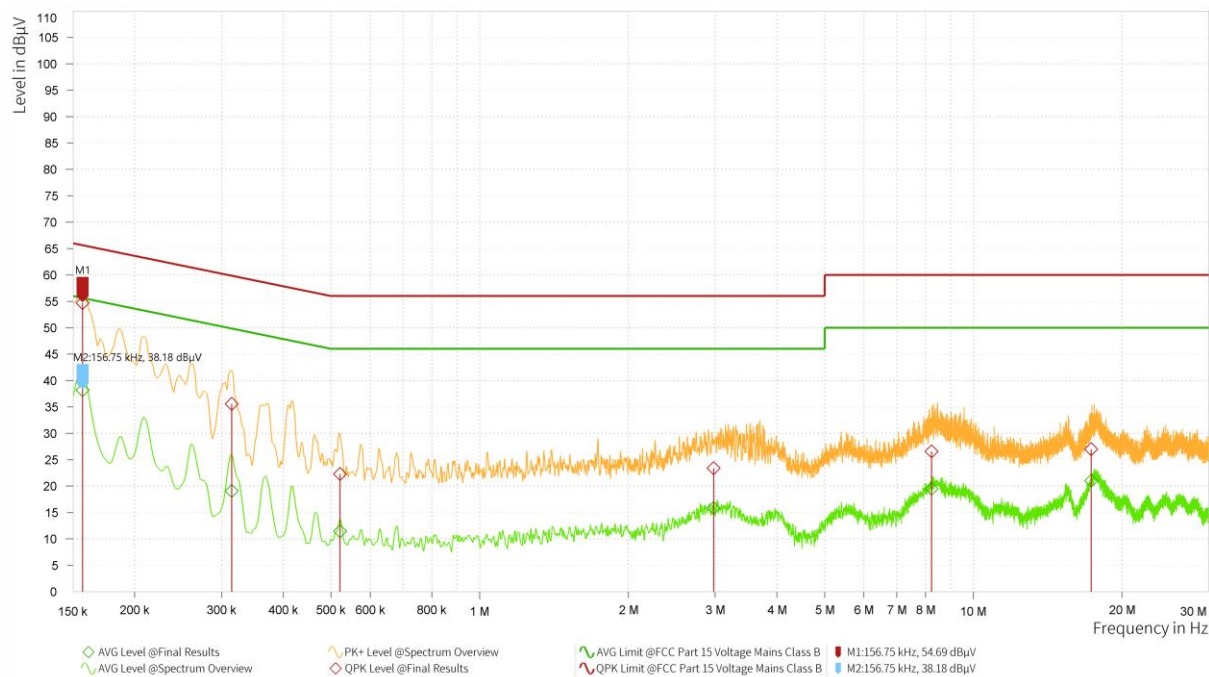
Antenna model NO.: 160180-02031



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]
0.155	54.85	65.75	10.90	37.29	55.75	18.46	20.90	L1	9.000	1.000
0.328	37.59	59.51	21.92	23.19	49.51	26.32	20.94	L1	9.000	1.000
0.987	16.42	56.00	39.58	10.25	46.00	35.75	20.17	L1	9.000	1.000
3.968	23.39	56.00	32.61	14.87	46.00	31.13	19.43	L1	9.000	1.000
8.453	27.50	60.00	32.50	19.29	50.00	30.71	19.41	L1	9.000	1.000
17.790	27.62	60.00	32.38	21.59	50.00	28.41	19.59	L1	9.000	1.000

Remark: Correct factor=cable loss + LISN factor

L line Conducted Emission from 150 kHz to 30 MHz



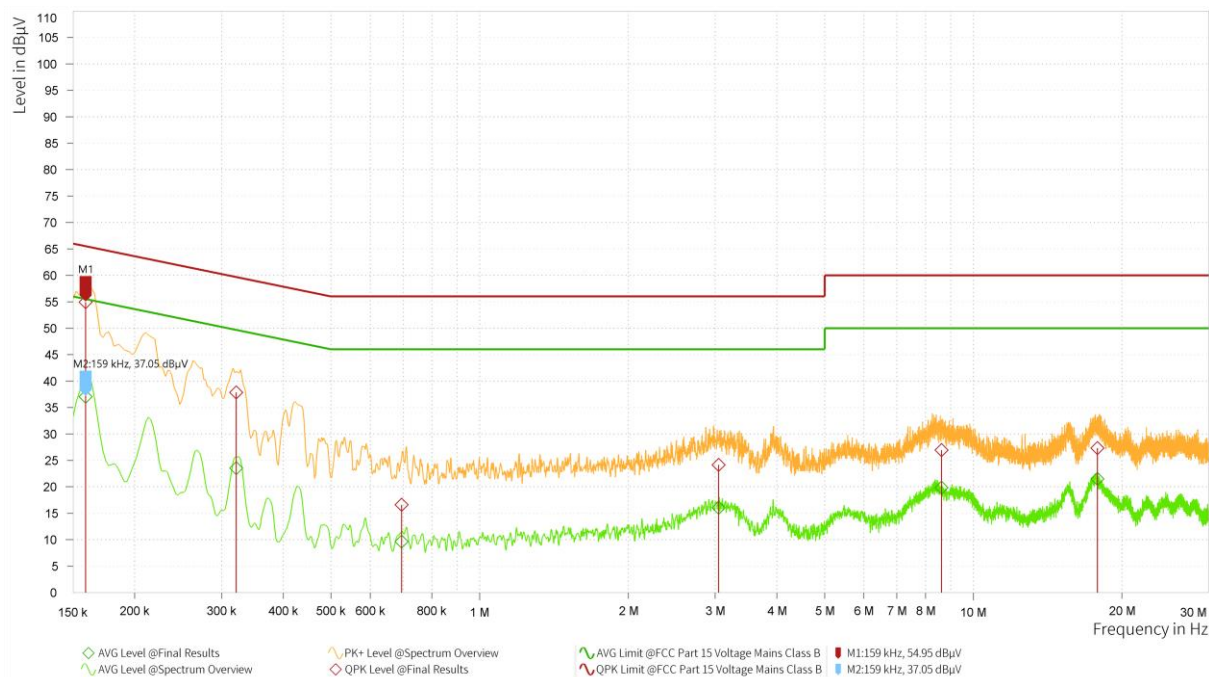
Frequency [MHz]	QPK Level [dBμV]	QPK Limit [dBμV]	QPK Margin [dB]	AVG Level [dBμV]	AVG Limit [dBμV]	AVG Margin [dB]	Correction [dB]	Line	Meas. BW [kHz]	Meas. Time [s]
0.157	54.69	65.63	10.95	38.18	55.63	17.45	20.91	N	9.000	1.000
0.314	35.58	59.86	24.27	19.08	49.86	30.78	20.94	N	9.000	1.000
0.521	22.30	56.00	33.70	11.46	46.00	34.54	20.77	N	9.000	1.000
2.976	23.39	56.00	32.61	15.86	46.00	30.14	19.50	N	9.000	1.000
8.230	26.54	60.00	33.46	19.52	50.00	30.48	19.42	N	9.000	1.000
17.340	27.01	60.00	32.99	21.04	50.00	28.96	19.62	N	9.000	1.000

Remark: Correct factor=cable loss + LISN factor

N line Conducted Emission from 150 kHz to 30 MHz

2.2. Bluetooth LE

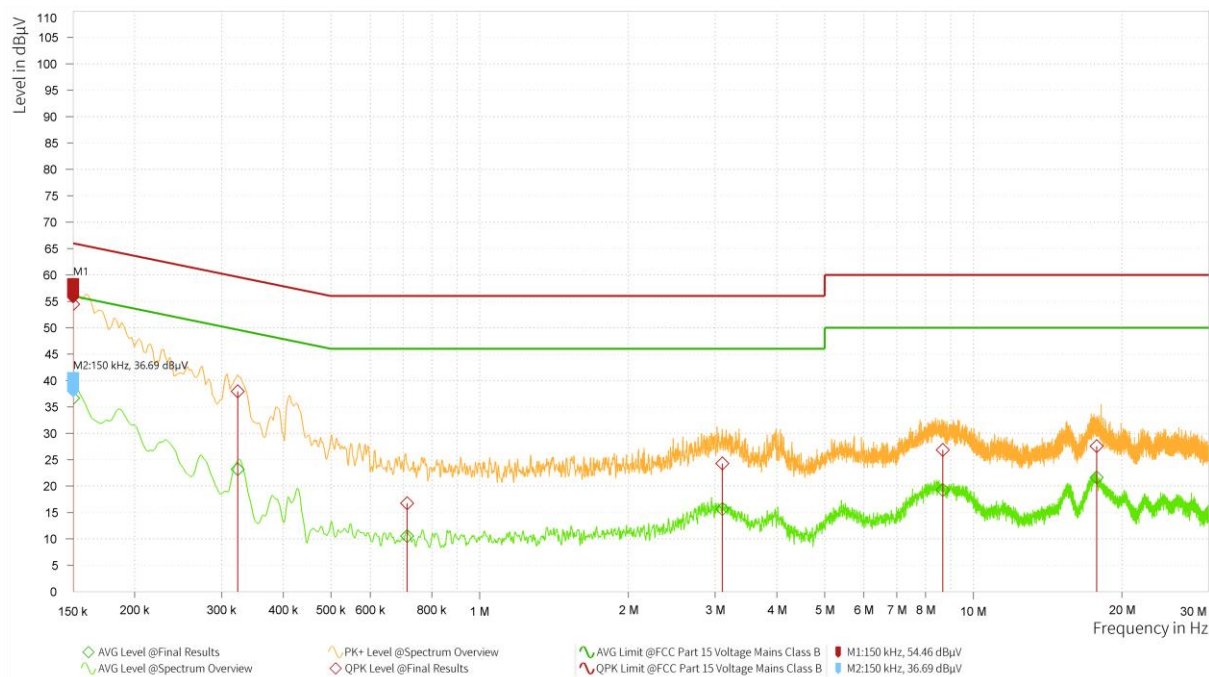
Antenna model NO.: 3A-CDZXX-019



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]
0.159	54.95	65.52	10.56	37.05	55.52	18.46	20.90	L1	9.000	1.000
0.321	37.86	59.68	21.82	23.53	49.68	26.16	20.92	L1	9.000	1.000
0.695	16.58	56.00	39.42	9.65	46.00	36.35	20.57	L1	9.000	1.000
3.048	24.16	56.00	31.84	16.03	46.00	29.97	19.48	L1	9.000	1.000
8.626	26.93	60.00	33.07	19.81	50.00	30.19	19.41	L1	9.000	1.000
17.851	27.34	60.00	32.66	21.47	50.00	28.53	19.59	L1	9.000	1.000

Remark: Correct factor=cable loss + LISN factor

L line Conducted Emission from 150 kHz to 30 MHz

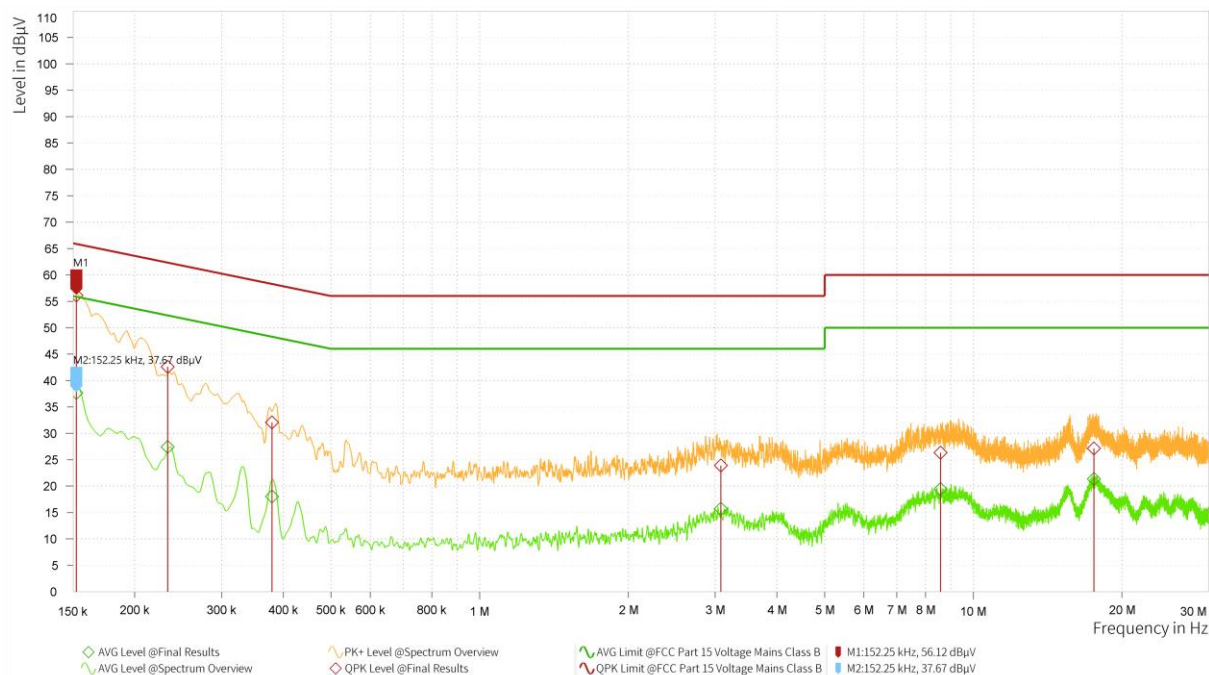


Frequency [MHz]	QPK Level [dBμV]	QPK Limit [dBμV]	QPK Margin [dB]	AVG Level [dBμV]	AVG Limit [dBμV]	AVG Margin [dB]	Correction [dB]	Line	Meas. BW [kHz]	Meas. Time [s]
0.150	54.46	66.00	11.54	36.69	56.00	19.31	20.91	N	9.000	1.000
0.323	37.93	59.62	21.70	23.18	49.62	26.44	20.93	N	9.000	1.000
0.713	16.75	56.00	39.25	10.54	46.00	35.46	20.56	N	9.000	1.000
3.102	24.27	56.00	31.73	15.63	46.00	30.37	19.49	N	9.000	1.000
8.678	26.85	60.00	33.15	19.28	50.00	30.72	19.42	N	9.000	1.000
17.779	27.54	60.00	32.46	21.63	50.00	28.37	19.63	N	9.000	1.000

Remark: Correct factor=cable loss + LISN factor

N line Conducted Emission from 150 kHz to 30 MHz

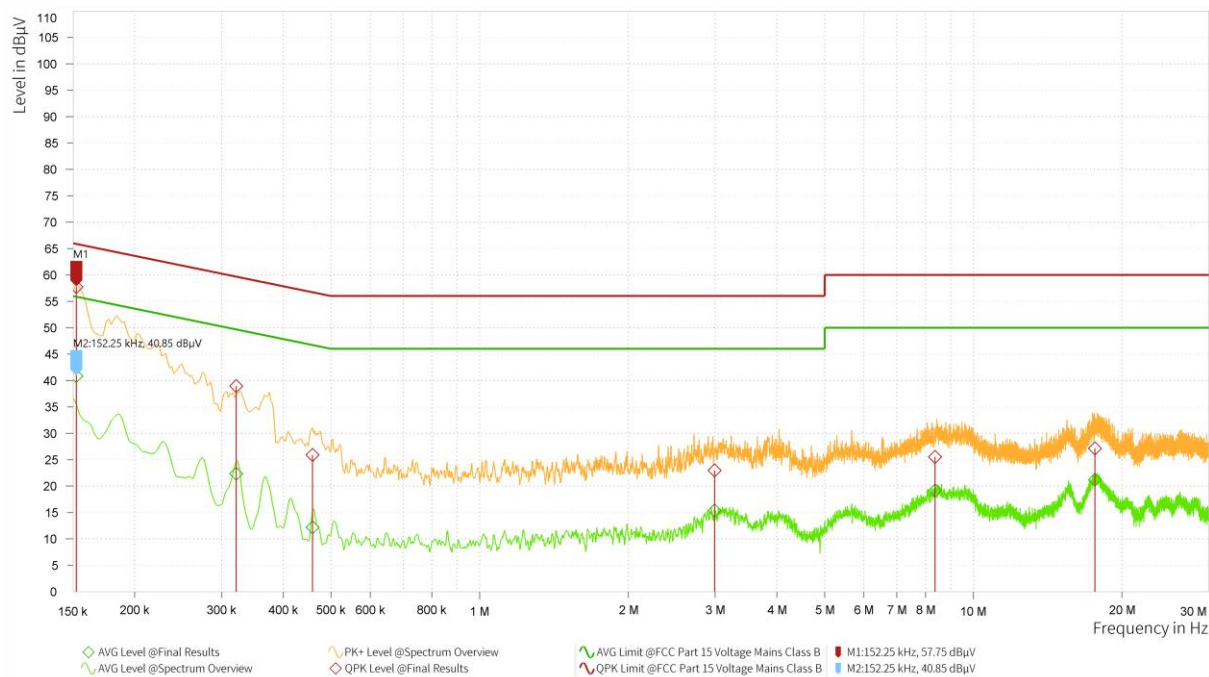
Antenna model NO.: 160180-02031



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]
0.152	56.12	65.88	9.76	37.67	55.88	18.21	20.90	L1	9.000	1.000
0.233	42.58	62.33	19.75	27.43	52.33	24.90	20.99	L1	9.000	1.000
0.380	32.09	58.29	26.20	18.04	48.29	30.25	20.90	L1	9.000	1.000
3.082	23.91	56.00	32.09	15.72	46.00	30.28	19.48	L1	9.000	1.000
8.581	26.31	60.00	33.69	19.44	50.00	30.56	19.41	L1	9.000	1.000
17.554	27.15	60.00	32.85	21.36	50.00	28.64	19.58	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]
0.152	57.75	65.88	8.13	40.85	55.88	15.02	20.91	N	9.000	1.000
0.321	38.96	59.68	20.72	22.33	49.68	27.35	20.93	N	9.000	1.000
0.458	25.90	56.72	30.82	12.18	46.72	34.55	20.83	N	9.000	1.000
2.992	22.95	56.00	33.05	15.35	46.00	30.65	19.50	N	9.000	1.000
8.369	25.50	60.00	34.50	19.15	50.00	30.85	19.42	N	9.000	1.000
17.644	27.13	60.00	32.87	21.21	50.00	28.79	19.63	N	9.000	1.000

Remark: Correct factor=cable loss + LISN factor

N line Conducted Emission from 150 kHz to 30 MHz