

ANNEX A: Test Result

1. Unwanted Emission

1.1. Wi-Fi 2.4GHz

Result of RE

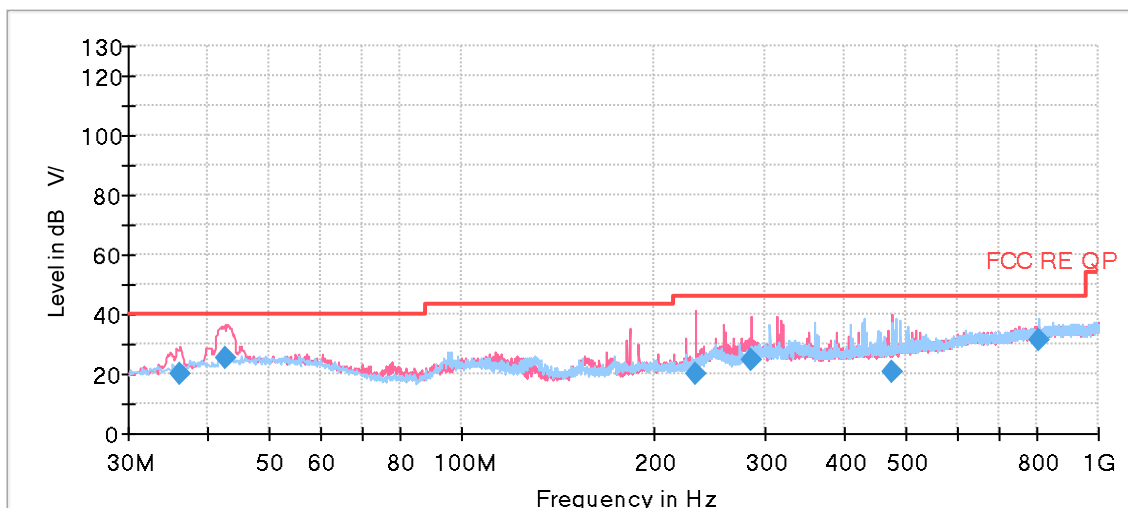
Remark:

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

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

Continuous TX mode:

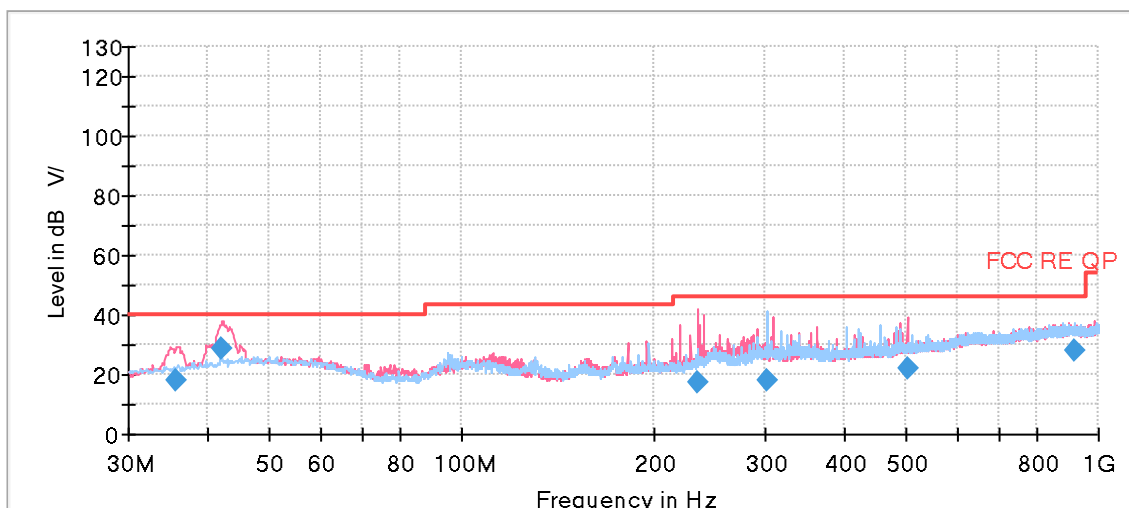
WR344



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)
36.183750	19.76	40.00	20.24	105.0	V	112.0	18.6
42.488750	25.32	40.00	14.68	212.0	V	122.0	19.8
233.215000	19.71	46.00	26.29	107.0	V	46.0	19.8
284.867500	24.83	46.00	21.17	115.0	V	98.0	20.8
474.745000	20.97	46.00	25.03	103.0	V	78.0	24.6
808.061250	31.21	46.00	14.79	121.0	H	30.0	29.8

WR346



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)
35.698750	18.31	40.00	21.69	103.0	V	120.0	18.5
42.125000	28.68	40.00	11.32	112.0	V	78.0	19.5
234.548750	17.51	46.00	28.49	105.0	V	51.0	19.8
302.085000	18.14	46.00	27.86	212.0	H	120.0	21.2
500.692500	22.27	46.00	23.73	107.0	V	113.0	25.3
916.337500	28.23	46.00	17.77	109.0	H	121.0	31.1

1.2. Bluetooth LE

Result of RE

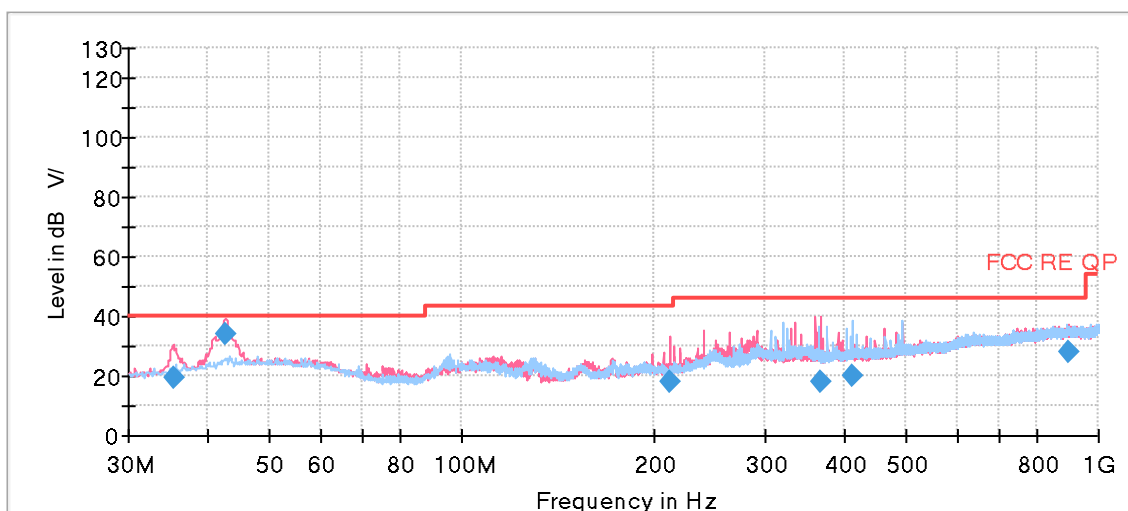
Remark:

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

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

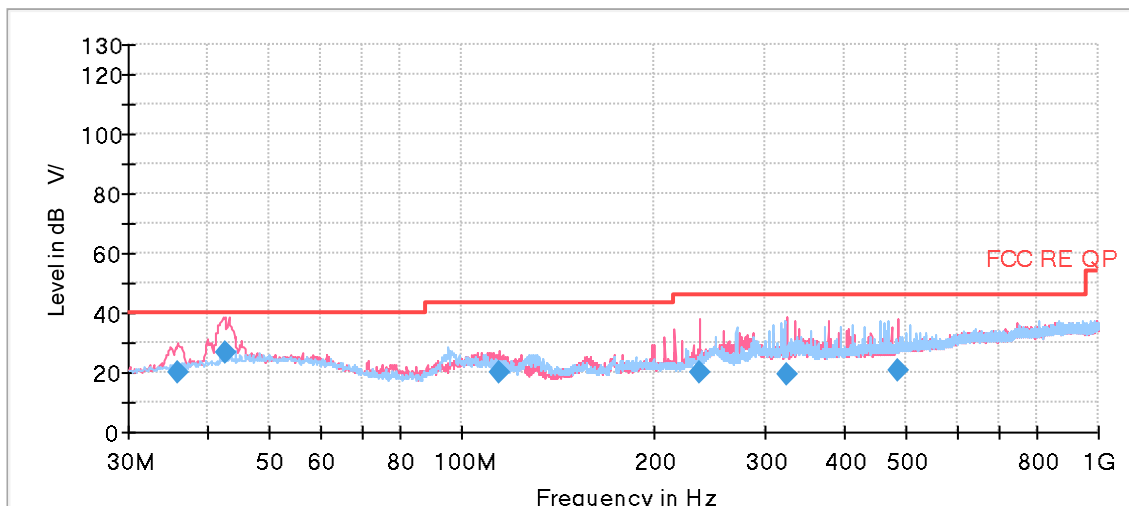
Continuous TX mode:

WR344



Radiates Emission from 30MHz to 1GHz

Frequency (MHz)	Quasi-Peak (dB $\mu\text{V/m}$)	Limit (dB $\mu\text{V/m}$)	Margin (dB)	Height (cm)	Polarization	Azimuth (deg)	Correct Factor (dB)
35.335000	19.49	40.00	20.51	105.0	V	205.0	18.4
42.488750	33.94	40.00	6.06	112.0	V	205.0	19.8
213.087500	18.22	43.50	25.28	107.0	V	58.0	18.5
366.711250	17.98	46.00	28.02	215.0	V	307.0	22.5
409.876250	19.94	46.00	26.06	198.0	H	98.0	23.7
895.240000	28.06	46.00	17.94	188.0	V	333.0	30.9



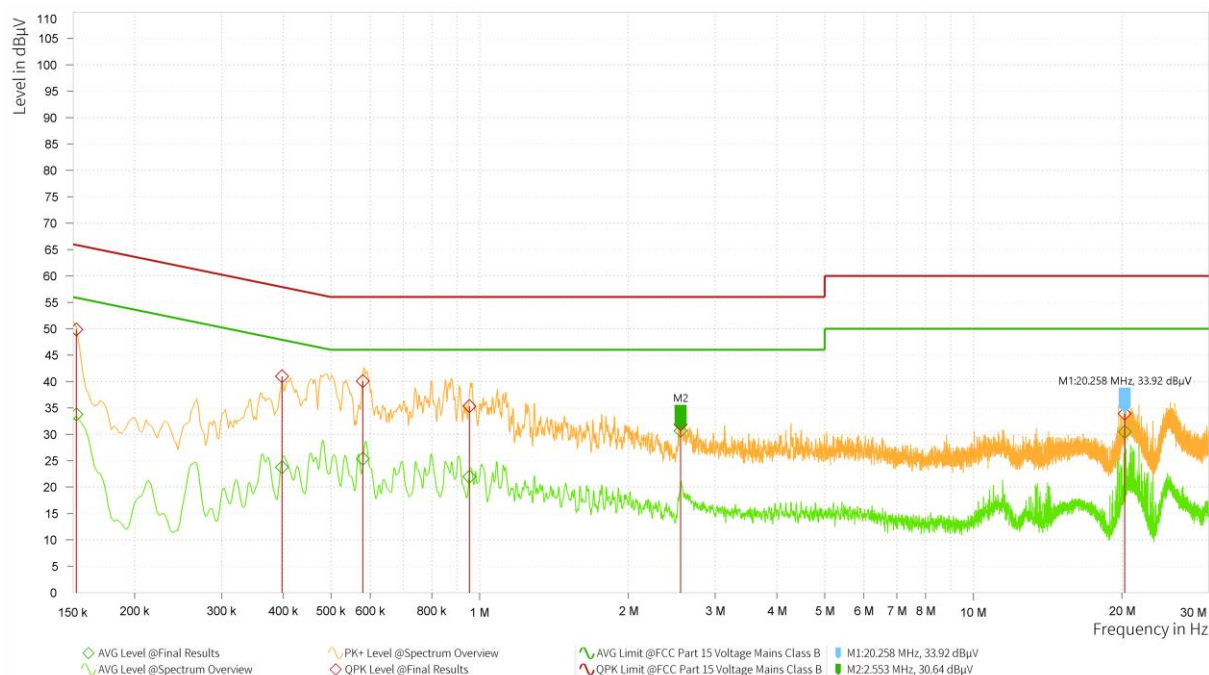
Radiates Emission from 30MHz to 1GHz

Frequency (MHz)	Quasi-Peak (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Height (cm)	Polarization	Azimuth (deg)	Correct Factor (dB)
35.820000	19.70	40.00	20.30	112.0	V	175.0	18.5
42.488750	26.89	40.00	13.11	105.0	V	196.0	19.8
114.753750	20.23	43.50	23.27	113.0	V	147.0	18.0
236.610000	19.71	46.00	26.29	215.0	V	0.0	19.9
325.243750	19.65	46.00	26.35	107.0	V	238.0	21.7
485.778750	20.71	46.00	25.29	109.0	V	354.0	25.0

2. Conducted Emission

2.1. Wi-Fi 2.4GHz

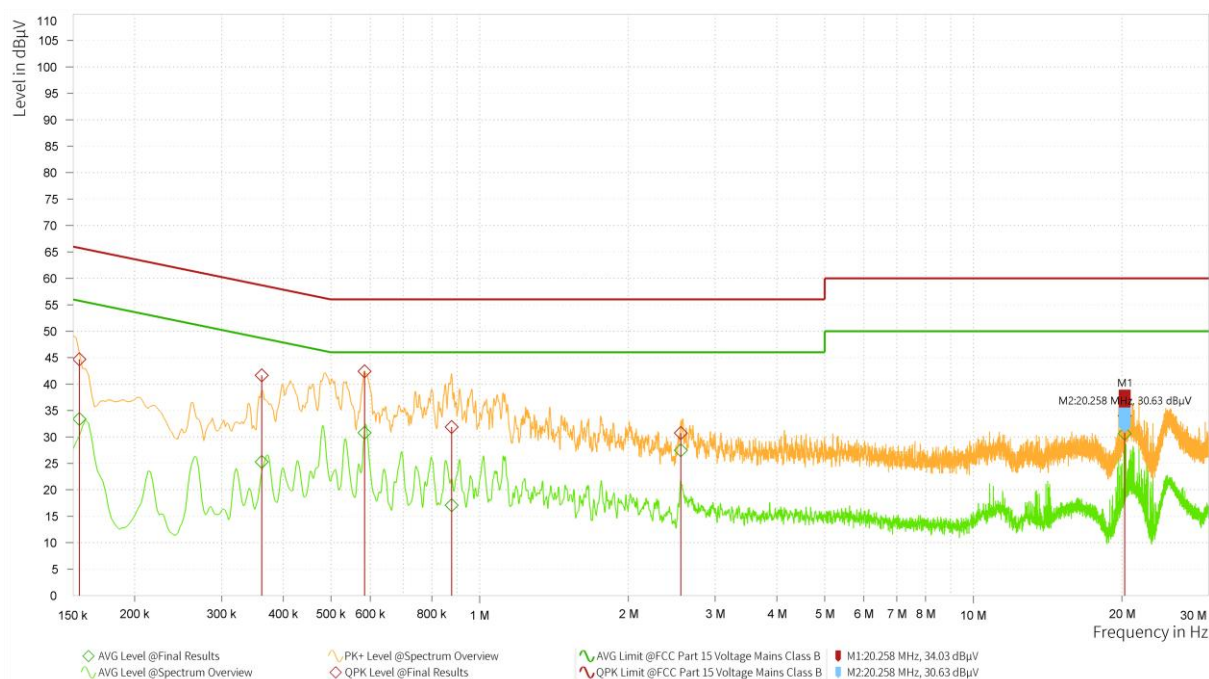
WR344



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	49.85	65.88	16.03	33.75	55.88	22.13	20.90	L1	9.000	1.000
0.398	41.00	57.91	16.91	23.76	47.91	24.15	20.88	L1	9.000	1.000
0.580	40.08	56.00	15.92	25.40	46.00	20.60	20.70	L1	9.000	1.000
0.953	35.32	56.00	20.68	21.95	46.00	24.05	20.20	L1	9.000	1.000
2.553	31.89	56.00	24.11	30.64	46.00	15.36	19.54	L1	9.000	1.000
20.258	33.92	60.00	26.08	30.46	50.00	19.54	19.67	L1	9.000	1.000

Remark: Correct factor=cable loss + LISN factor

L line Conducted Emission from 150 kHz to 30 MHz

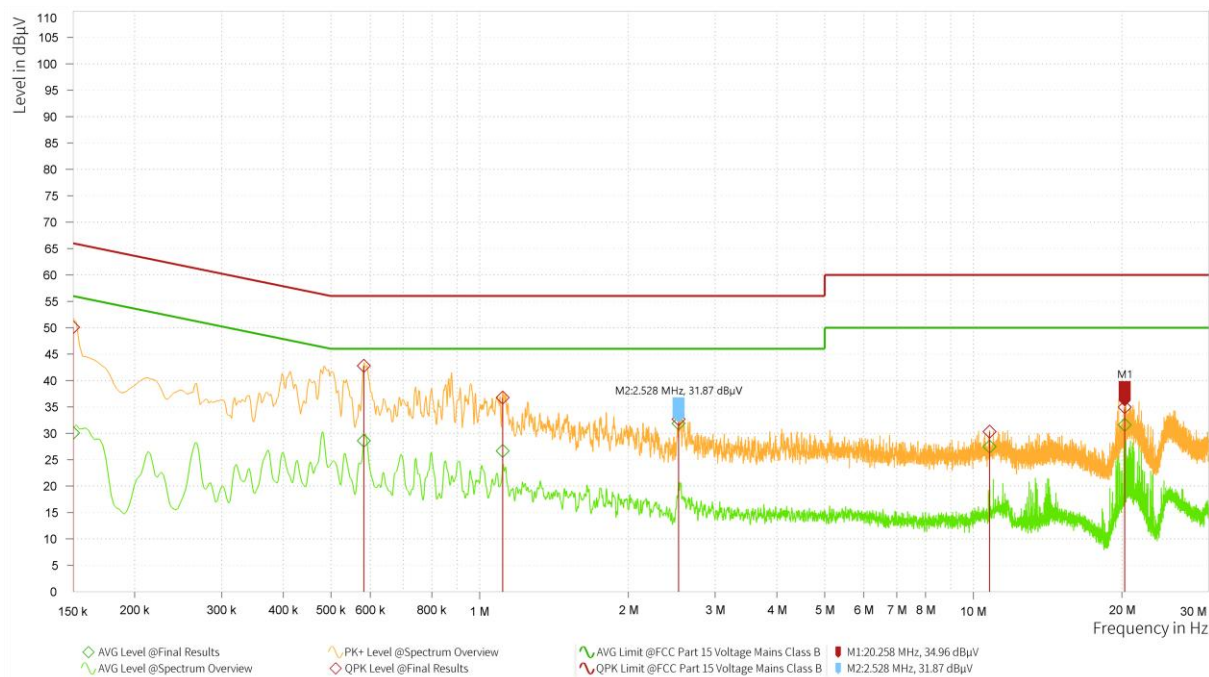


Frequency [MHz]	QPK Level [dBμV]	QPK Limit [dBμV]	QPK Margin [dB]	AVG Level [dBμV]	AVG Limit [dBμV]	AVG Margin [dB]	Correction [dB]	Line	Meas. BW [kHz]	Meas. Time [s]
0.155	44.70	65.75	21.05	33.39	55.75	22.36	20.91	N	9.000	1.000
0.362	41.65	58.69	17.04	25.27	48.69	23.42	20.92	N	9.000	1.000
0.584	42.42	56.00	13.58	30.78	46.00	15.22	20.70	N	9.000	1.000
0.877	31.88	56.00	24.12	17.10	46.00	28.90	20.27	N	9.000	1.000
2.555	30.72	56.00	25.28	27.46	46.00	18.54	19.55	N	9.000	1.000
20.258	34.03	60.00	25.97	30.63	50.00	19.37	19.72	N	9.000	1.000

Remark: Correct factor=cable loss + LISN factor

N line Conducted Emission from 150 kHz to 30 MHz

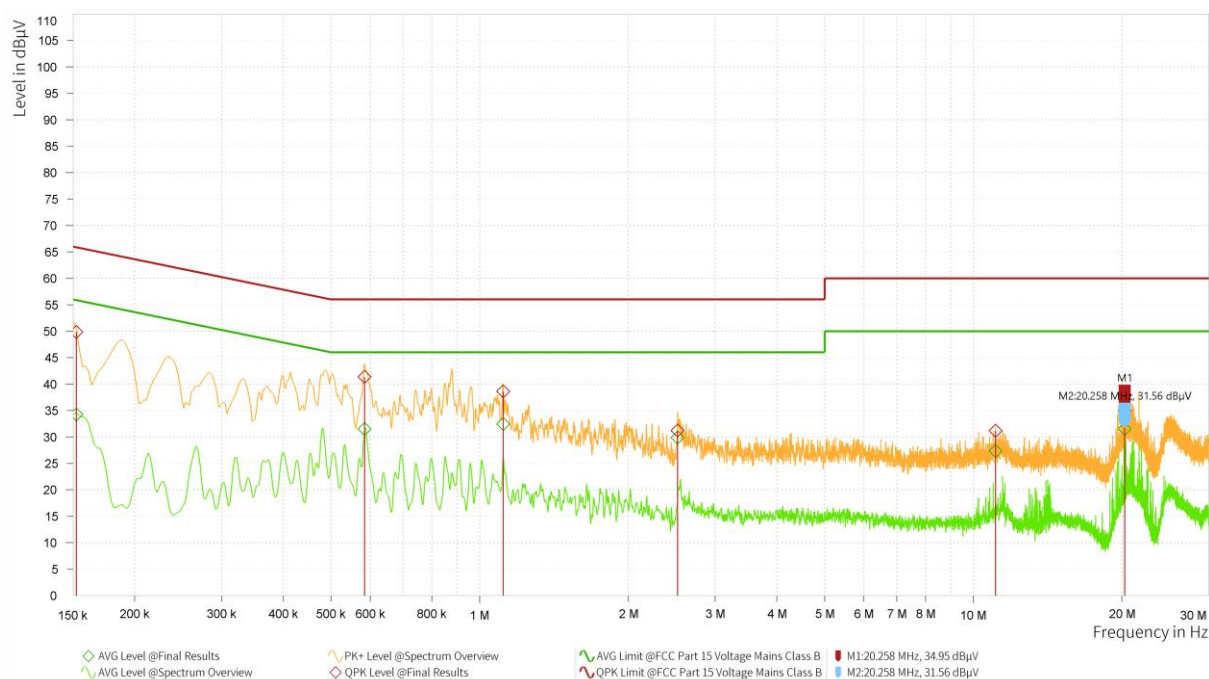
WR346



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	50.09	66.00	15.91	30.08	56.00	25.92	20.90	L1	9.000	1.000
0.582	42.79	56.00	13.21	28.59	46.00	17.41	20.69	L1	9.000	1.000
1.113	36.75	56.00	19.25	26.65	46.00	19.35	20.08	L1	9.000	1.000
2.528	32.66	56.00	23.34	31.87	46.00	14.13	19.54	L1	9.000	1.000
10.793	30.33	60.00	29.67	27.47	50.00	22.53	19.40	L1	9.000	1.000
20.258	34.96	60.00	25.04	31.58	50.00	18.42	19.67	L1	9.000	1.000

Remark: Correct factor=cable loss + LISN factor

L line Conducted Emission from 150 kHz to 30 MHz



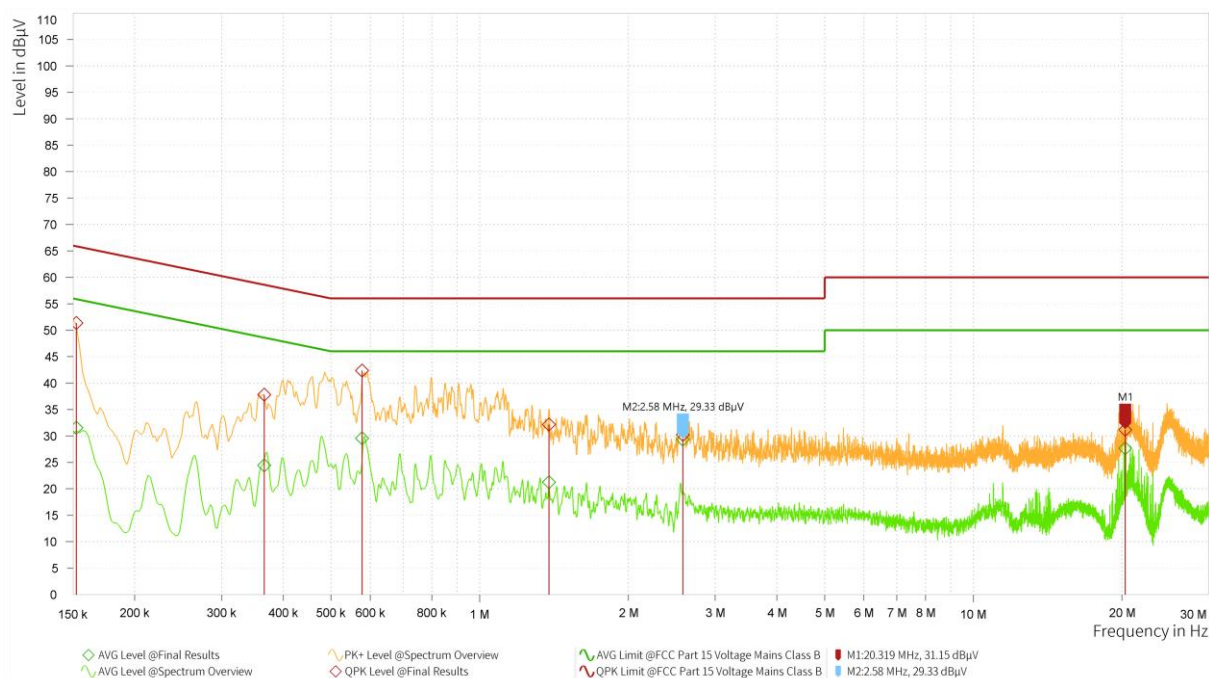
Frequency [MHz]	QPK Level [dBμV]	QPK Limit [dBμV]	QPK Margin [dB]	AVG Level [dBμV]	AVG Limit [dBμV]	AVG Margin [dB]	Correction [dB]	Line	Meas. BW [kHz]	Meas. Time [s]
0.152	49.83	65.88	16.05	34.27	55.88	21.61	20.91	N	9.000	1.000
0.584	41.37	56.00	14.63	31.51	46.00	14.49	20.70	N	9.000	1.000
1.115	38.61	56.00	17.39	32.43	46.00	13.57	20.08	N	9.000	1.000
2.517	31.22	56.00	24.78	29.91	46.00	16.09	19.55	N	9.000	1.000
11.099	31.15	60.00	28.85	27.32	50.00	22.68	19.43	N	9.000	1.000
20.258	34.95	60.00	25.05	31.56	50.00	18.44	19.72	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

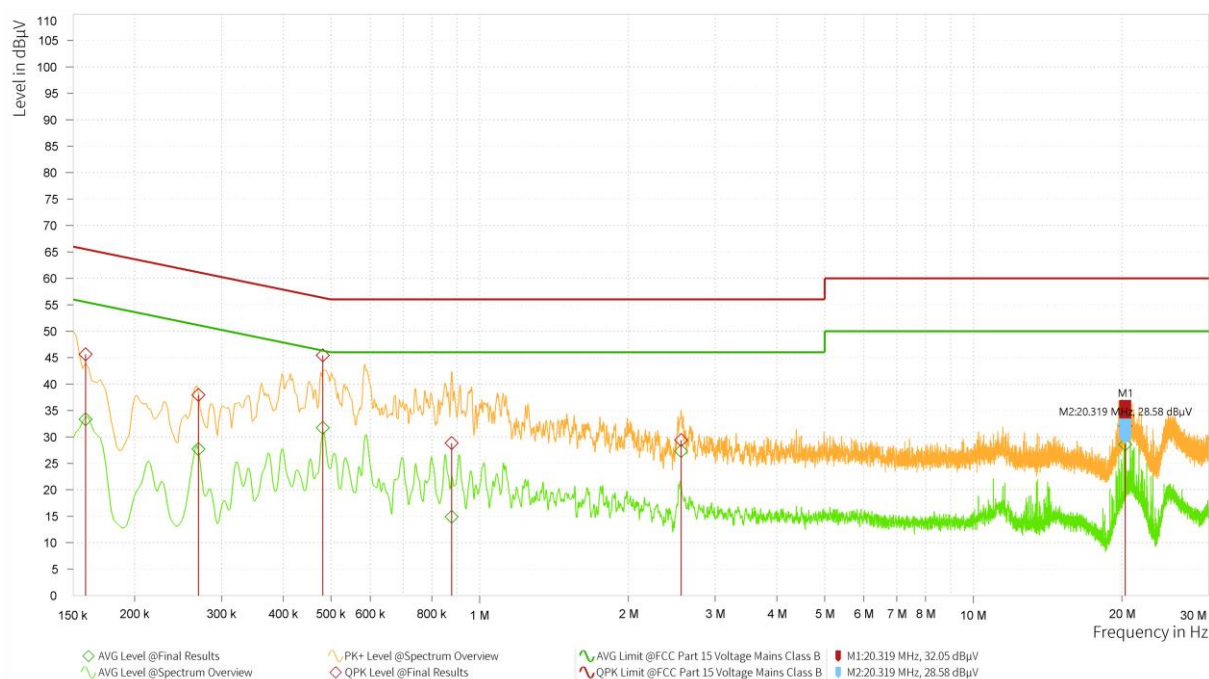
WR344



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	51.37	65.88	14.51	31.55	55.88	24.33	20.90	L1	9.000	1.000
0.366	37.79	58.59	20.80	24.43	48.59	24.16	20.91	L1	9.000	1.000
0.578	42.34	56.00	13.66	29.57	46.00	16.43	20.70	L1	9.000	1.000
1.381	32.15	56.00	23.85	21.26	46.00	24.74	19.90	L1	9.000	1.000
2.580	30.22	56.00	25.78	29.33	46.00	16.67	19.53	L1	9.000	1.000
20.319	31.15	60.00	28.85	27.64	50.00	22.36	19.67	L1	9.000	1.000

Remark: Correct factor=cable loss + LISN factor

L line Conducted Emission from 150 kHz to 30 MHz

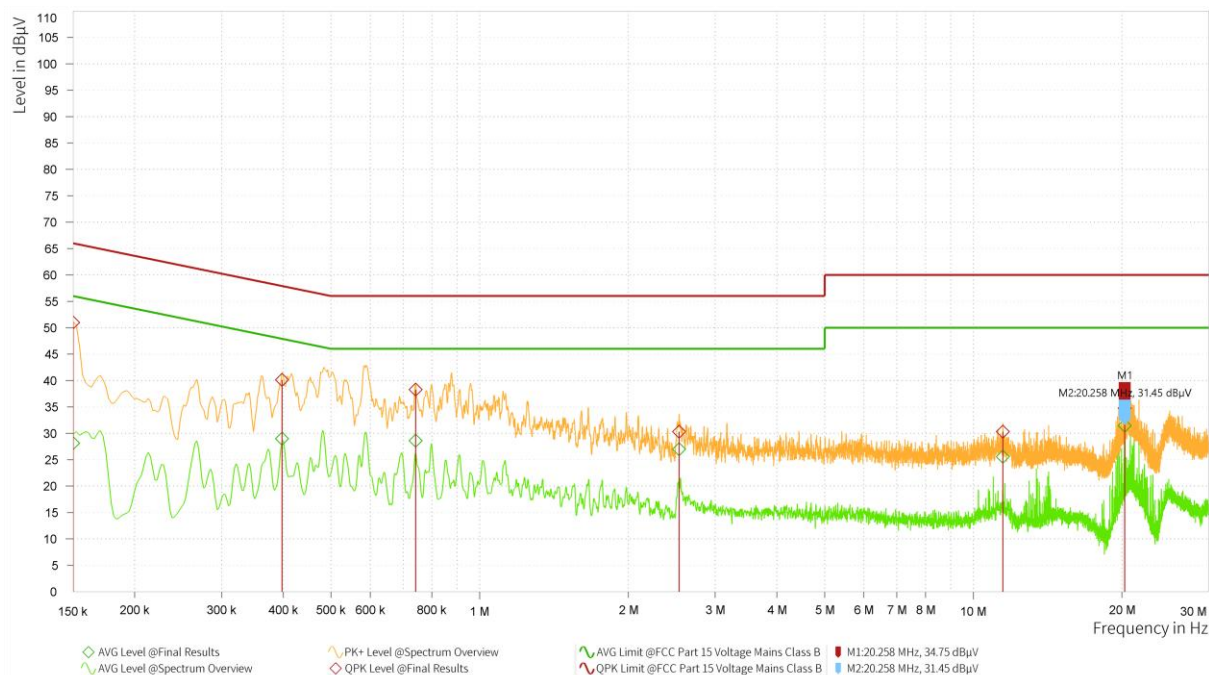


Frequency [MHz]	QPK Level [dBμV]	QPK Limit [dBμV]	QPK Margin [dB]	AVG Level [dBμV]	AVG Limit [dBμV]	AVG Margin [dB]	Correction [dB]	Line	Meas. BW [kHz]	Meas. Time [s]
0.159	45.61	65.52	19.91	33.33	55.52	22.19	20.91	N	9.000	1.000
0.269	37.94	61.14	23.20	27.68	51.14	23.46	20.97	N	9.000	1.000
0.481	45.46	56.33	10.87	31.73	46.33	14.60	20.81	N	9.000	1.000
0.877	28.83	56.00	27.17	14.88	46.00	31.12	20.27	N	9.000	1.000
2.558	29.42	56.00	26.58	27.30	46.00	18.70	19.55	N	9.000	1.000
20.319	32.05	60.00	27.95	28.58	50.00	21.42	19.72	N	9.000	1.000

Remark: Correct factor=cable loss + LISN factor

N line Conducted Emission from 150 kHz to 30 MHz

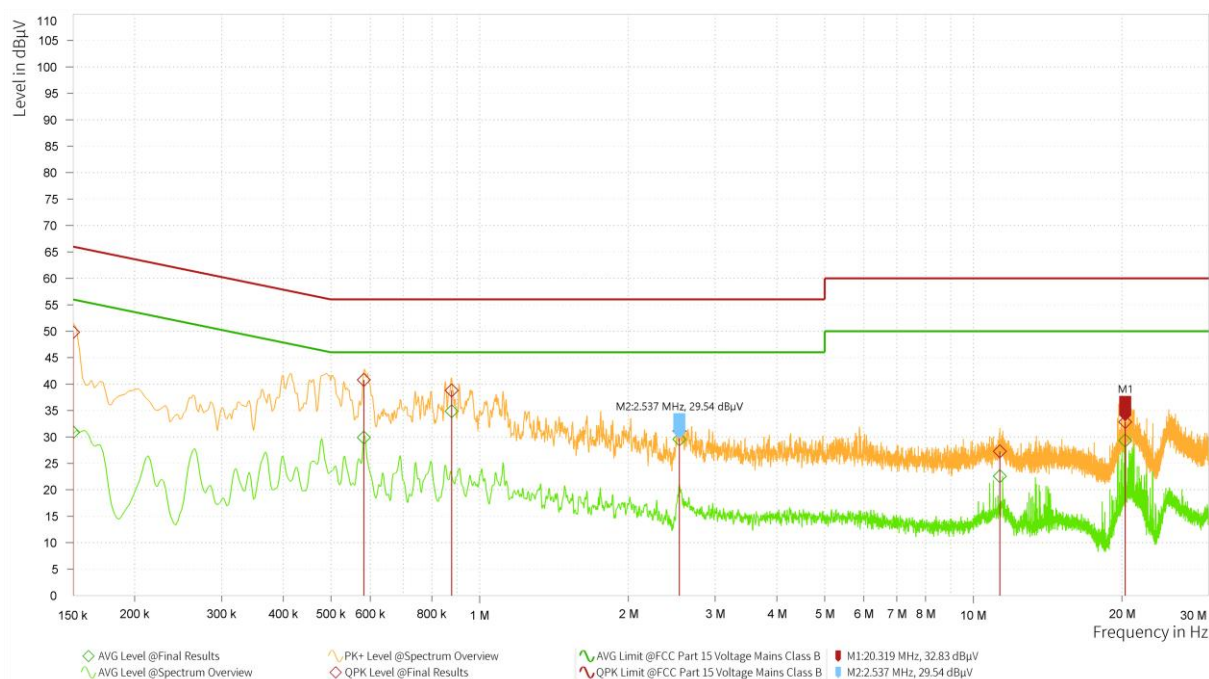
WR346



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	50.98	66.00	15.02	28.12	56.00	27.88	20.90	L1	9.000	1.000
0.398	40.14	57.91	17.77	28.98	47.91	18.93	20.88	L1	9.000	1.000
0.742	38.29	56.00	17.71	28.59	46.00	17.41	20.38	L1	9.000	1.000
2.535	30.33	56.00	25.67	27.00	46.00	19.00	19.54	L1	9.000	1.000
11.479	30.33	60.00	29.67	25.56	50.00	24.44	19.42	L1	9.000	1.000
20.258	34.75	60.00	25.25	31.45	50.00	18.55	19.67	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	49.80	66.00	16.20	30.88	56.00	25.12	20.91	N	9.000	1.000
0.582	40.79	56.00	15.21	29.90	46.00	16.10	20.70	N	9.000	1.000
0.877	38.78	56.00	17.22	34.88	46.00	11.12	20.27	N	9.000	1.000
2.537	31.10	56.00	24.90	29.54	46.00	16.46	19.55	N	9.000	1.000
11.315	27.28	60.00	32.72	22.57	50.00	27.43	19.44	N	9.000	1.000
20.319	32.83	60.00	27.17	29.30	50.00	20.70	19.72	N	9.000	1.000

Remark: Correct factor=cable loss + LISN factor

N line Conducted Emission from 150 kHz to 30 MHz