

ANNEX A: Test Result

1. Unwanted Emission

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

1.1. Model 900MHz

Result of RE

Test result

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. **The following graphs display the maximum values of horizontal and vertical by software.**
4. A symbol ($\text{dB}\mu\text{V}$) in the test plot below means ($\text{dB}\mu\text{V/m}$)
5. **For below 1GHz**

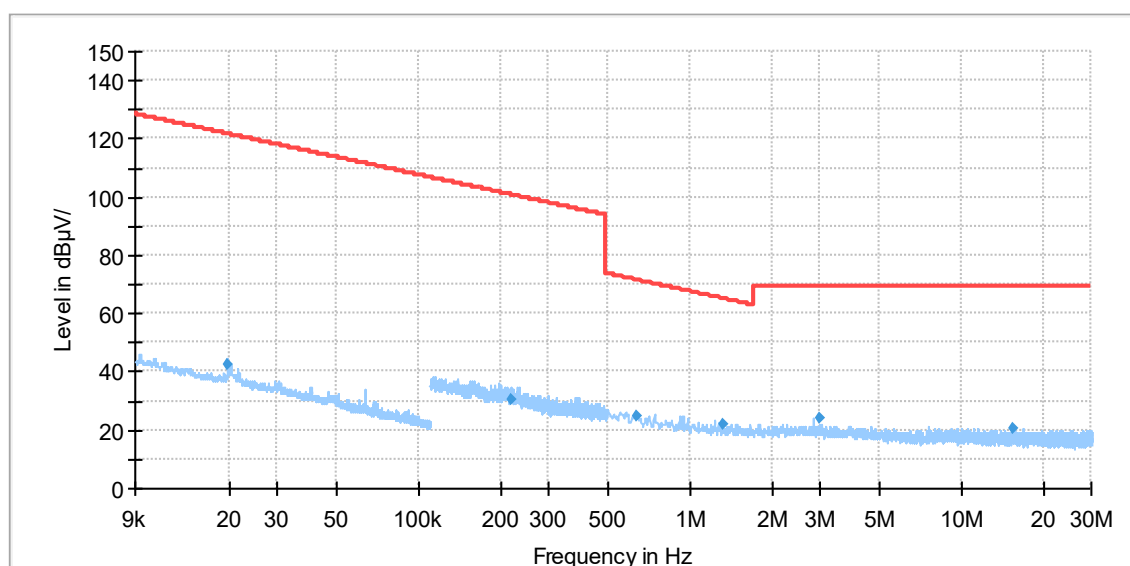
~ QP Level @Spectrum Overview H ~ QP Level @Spectrum Overview V ◆ QP Level @Final Results — QP Limit

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:

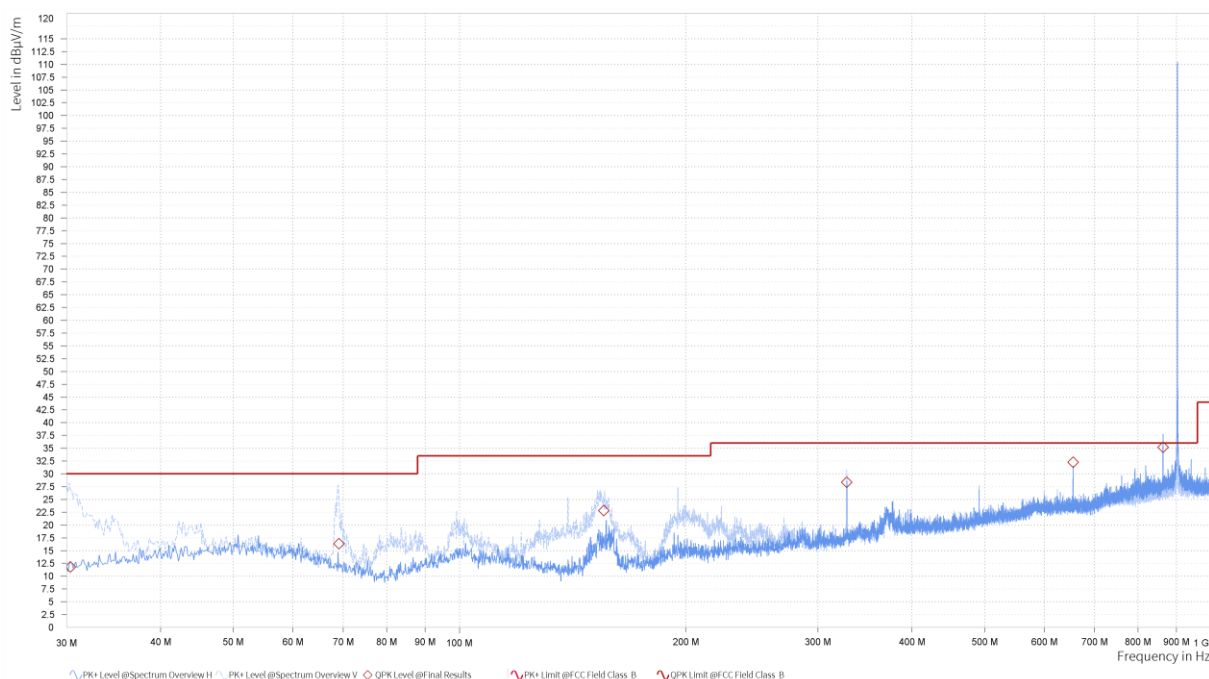
During the test, the Radiates Emission from 9kHz to 30MHz was performed in all modes with all channels. The test data of the worst-case (Model 900MHz CH66) condition was recorded in this report.



Radiates Emission from 9kHz to 30MHz

Model 900MHz CH0

Spectrum Overview H/V

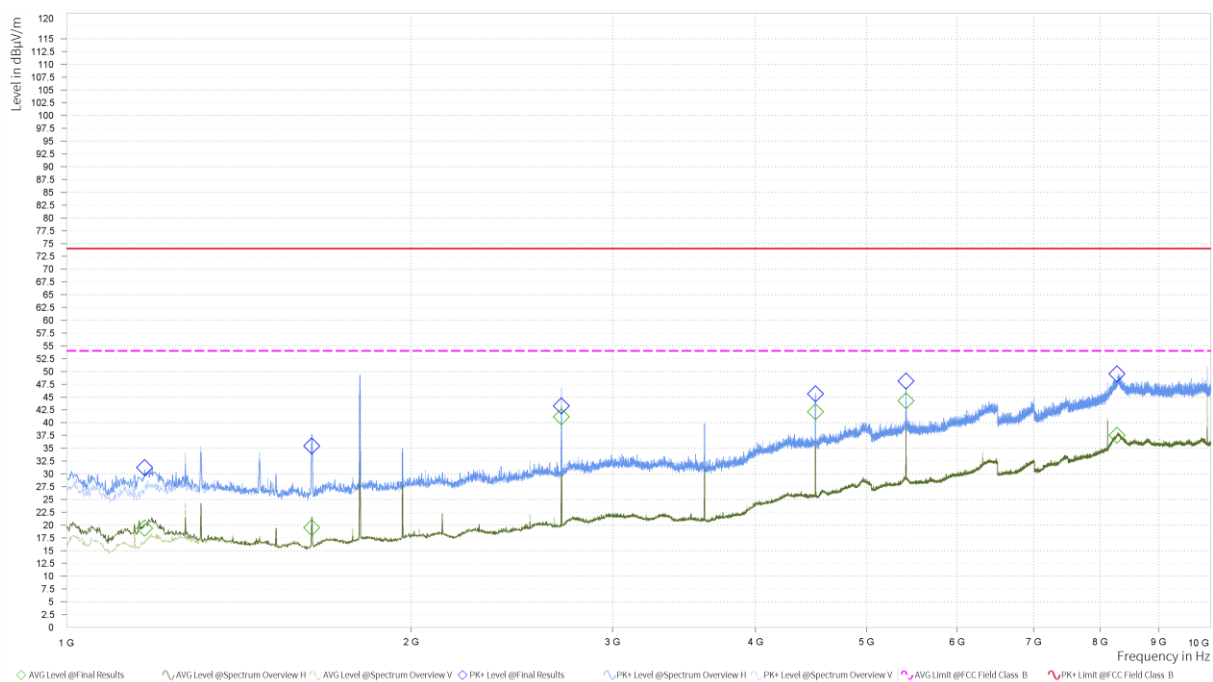


Frequency [MHz]	QPK Level [dBμV/m]	QPK Limit [dBμV/m]	QPK Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]	Meas. BW [kHz]	Meas. Time [s]
30.343	11.77	30.00	18.23	-12.27	V	216.7	2.11	120.000	1.000
69.128	16.31	30.00	13.69	-12.08	V	326.6	2.25	120.000	1.000
155.614	22.82	33.50	10.68	-12.81	V	82.7	1.23	120.000	1.000
327.724	28.31	36.00	7.69	-6.53	V	152.7	1.02	120.000	1.000
655.424	32.23	36.00	3.77	-0.91	H	6.3	1.79	120.000	1.000
863.421	35.15	36.00	0.85	1.26	H	330.7	1.00	120.000	1.000

Note: The signal beyond the limit is carrier.

Radiates Emission from 30MHz to 1GHz

Spectrum Overview H/V

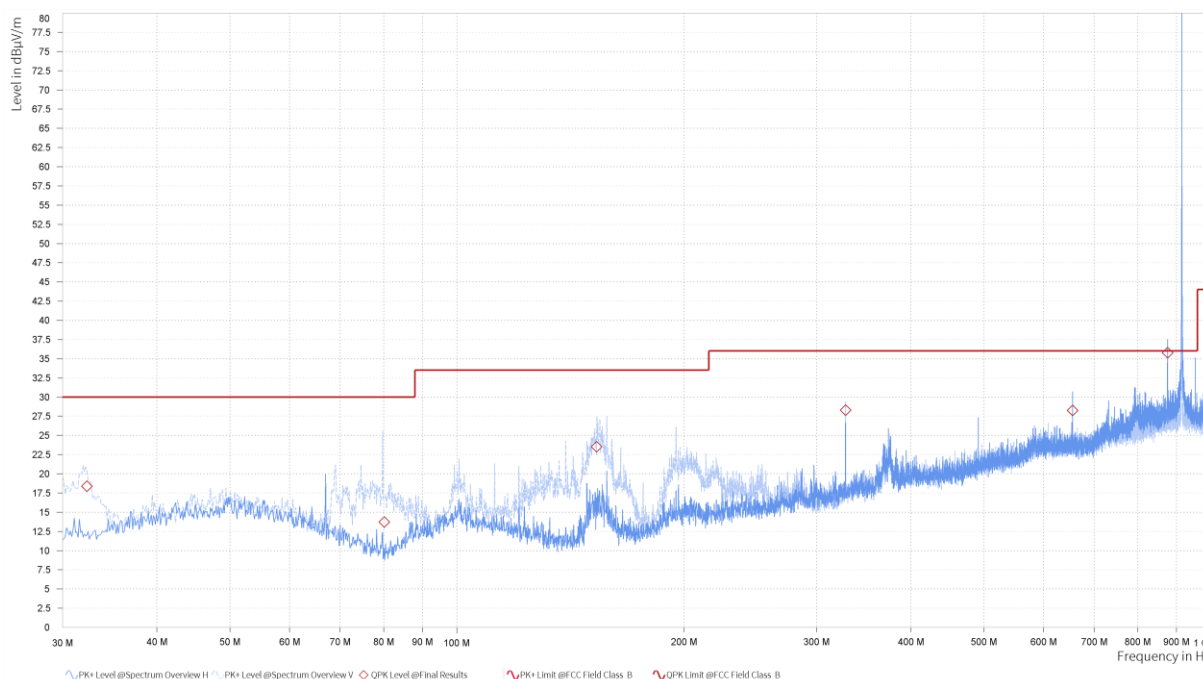


Frequency [MHz]	PK+ Level [dBμV/m]	PK+ Limit [dBμV/m]	PK+ Margin [dB]	AVG Level [dBμV/m]	AVG Limit [dBμV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]	Meas. Time [s]
1,169.875	31.22	74.00	42.78	19.35	54.00	34.65	-15.10	H	117.4	2.00	1.000
1,637.875	35.40	74.00	38.60	19.45	54.00	34.55	-14.22	H	79.8	2.00	1.000
2,706.625	43.23	74.00	30.77	41.13	54.00	12.87	-9.38	V	280.1	1.00	1.000
4,512.250	45.62	74.00	28.38	42.11	54.00	11.89	-3.32	V	76.3	2.00	1.000
5,414.500	48.08	74.00	25.92	44.24	54.00	9.76	-0.67	H	167.6	1.00	1.000
8,276.500	49.50	74.00	24.50	37.51	54.00	16.49	6.50	H	307.2	2.00	1.000

Radiates Emission from 1GHz to 10GHz

Model 900MHz CH33

Spectrum Overview H/V

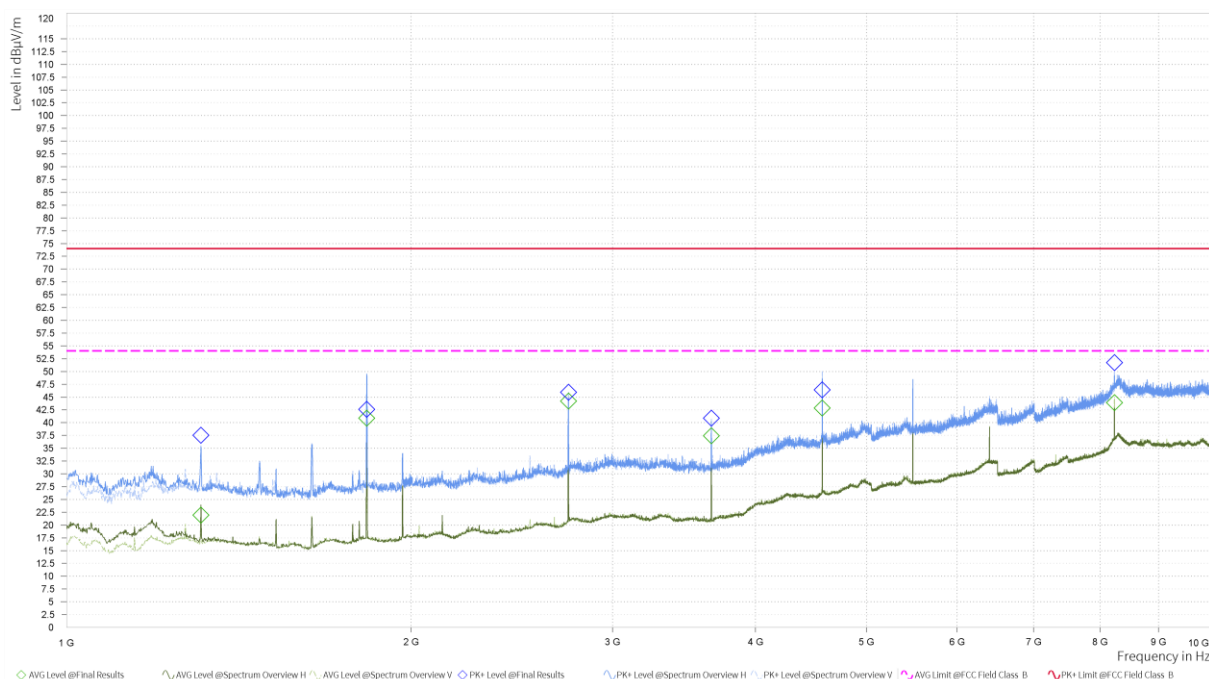


Frequency [MHz]	QPK Level [dBµV/m]	QPK Limit [dBµV/m]	QPK Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]	Meas. BW [kHz]	Meas. Time [s]
32.311	18.37	30.00	11.63	-11.59	V	358.6	1.00	120.000	1.000
80.120	13.70	30.00	16.30	-14.25	V	33	2.00	120.000	1.000
153.239	23.52	33.50	9.98	-12.90	V	100.1	1.00	120.000	1.000
327.717	28.29	36.00	7.71	-6.53	V	141.9	1.00	120.000	1.000
655.456	28.24	36.00	7.76	-0.91	H	27	1.00	120.000	1.000
875.970	35.76	36.00	0.24	1.42	H	357.6	1.00	120.000	1.000

Note: The signal beyond the limit is carrier.

Radiates Emission from 30MHz to 1GHz

Spectrum Overview H/V

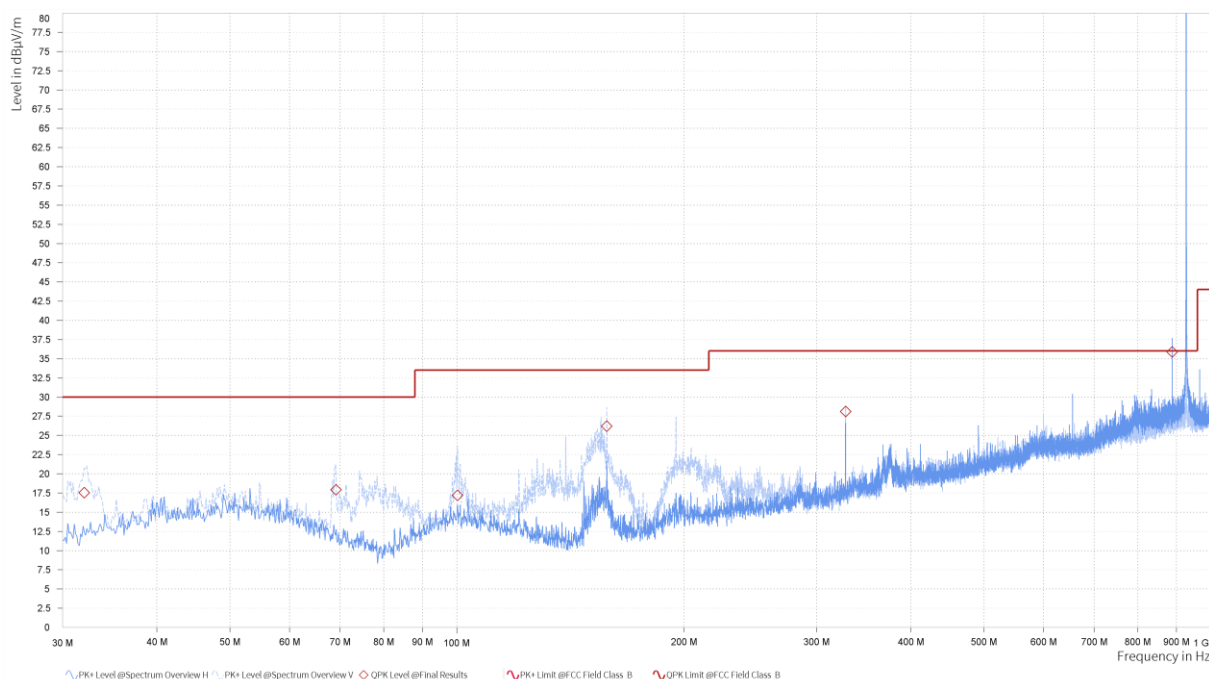


Frequency [MHz]	PK+ Level [dBµV/m]	PK+ Limit [dBµV/m]	PK+ Margin [dB]	AVG Level [dBµV/m]	AVG Limit [dBµV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]	Meas. Time [s]
1,310.500	37.51	74.00	36.49	21.90	54.00	32.10	-14.28	V	67.6	2.00	1.000
1,829.125	42.60	74.00	31.40	40.86	54.00	13.14	-13.27	H	158.4	1.00	1.000
2,744.875	45.90	74.00	28.10	44.19	54.00	9.81	-8.93	H	87.2	2.00	1.000
3,659.500	40.84	74.00	33.16	37.40	54.00	16.60	-8.10	V	293.7	2.00	1.000
4,574.125	46.39	74.00	27.61	42.82	54.00	11.18	-2.42	V	164.9	2.00	1.000
8,234.875	51.70	74.00	22.30	43.88	54.00	10.12	5.92	V	248.6	2.00	1.000

Radiates Emission from 1GHz to 10GHz

Model 900MHz CH66

Spectrum Overview H/V

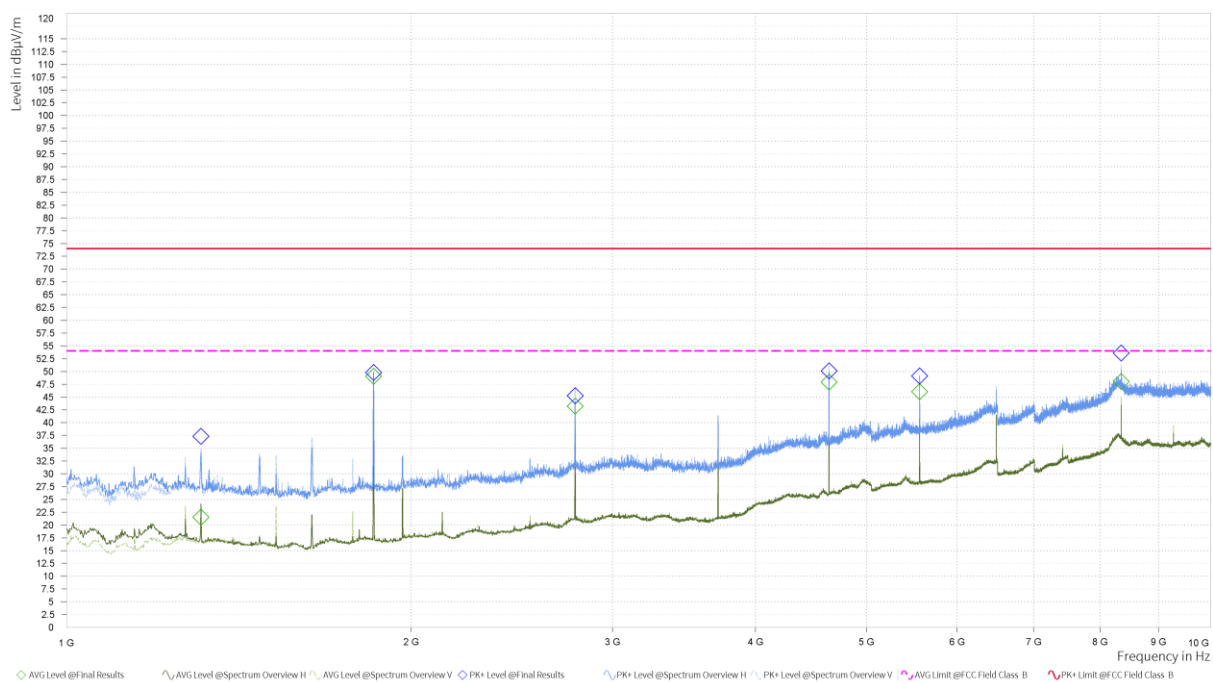


Frequency [MHz]	QPK Level [dBμV/m]	QPK Limit [dBμV/m]	QPK Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]	Meas. BW [kHz]	Meas. Time [s]
32.059	17.52	30.00	12.48	-11.67	V	221.1	1.25	120.000	1.000
69.135	17.92	30.00	12.08	-12.08	V	292.7	2.07	120.000	1.000
100.184	17.18	33.50	16.32	-9.65	V	206.4	1.07	120.000	1.000
158.076	26.21	33.50	7.29	-12.72	V	69.4	1.20	120.000	1.000
327.722	28.10	36.00	7.90	-6.53	V	148.7	1.11	120.000	1.000
888.499	35.87	36.00	0.13	1.54	H	342.6	1.10	120.000	1.000

Note: The signal beyond the limit is carrier.

Radiates Emission from 30MHz to 1GHz

Spectrum Overview H/V



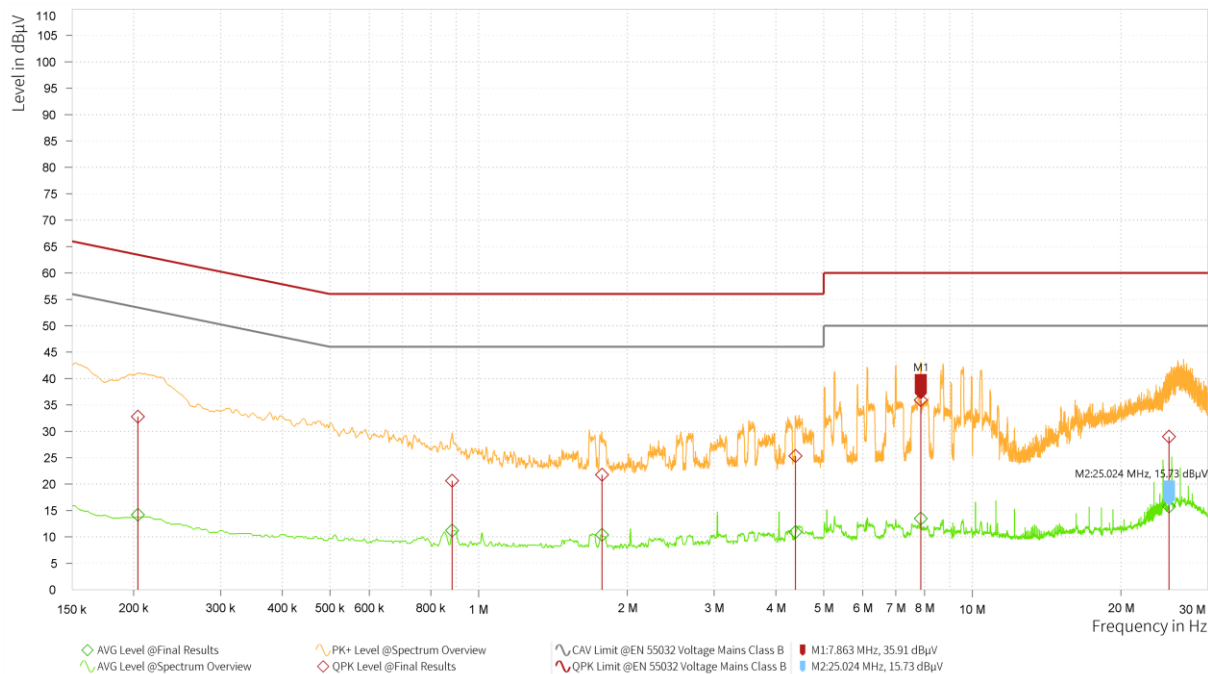
Frequency [MHz]	PK+ Level [dBμV/m]	PK+ Limit [dBμV/m]	PK+ Margin [dB]	AVG Level [dBμV/m]	AVG Limit [dBμV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]	Meas. Time [s]
1,310.500	37.33	74.00	36.67	21.49	54.00	32.51	-14.28	V	60.8	2.00	1.000
1,855.000	49.76	74.00	24.24	49.07	54.00	4.93	-13.13	H	160.4	1.00	1.000
2,782.000	45.25	74.00	28.75	43.18	54.00	10.82	-8.65	V	169.6	1.00	1.000
4,637.125	50.11	74.00	23.89	47.92	54.00	6.08	-2.81	V	166.7	2.00	1.000
5,565.250	49.07	74.00	24.93	46.01	54.00	7.99	-1.48	H	198.4	1.00	1.000
8,347.375	53.59	74.00	20.41	48.02	54.00	5.98	5.99	V	182	2.00	1.000

Radiates Emission from 1GHz to 10GHz

2. Conducted Emission

2.1. Model 900MHz

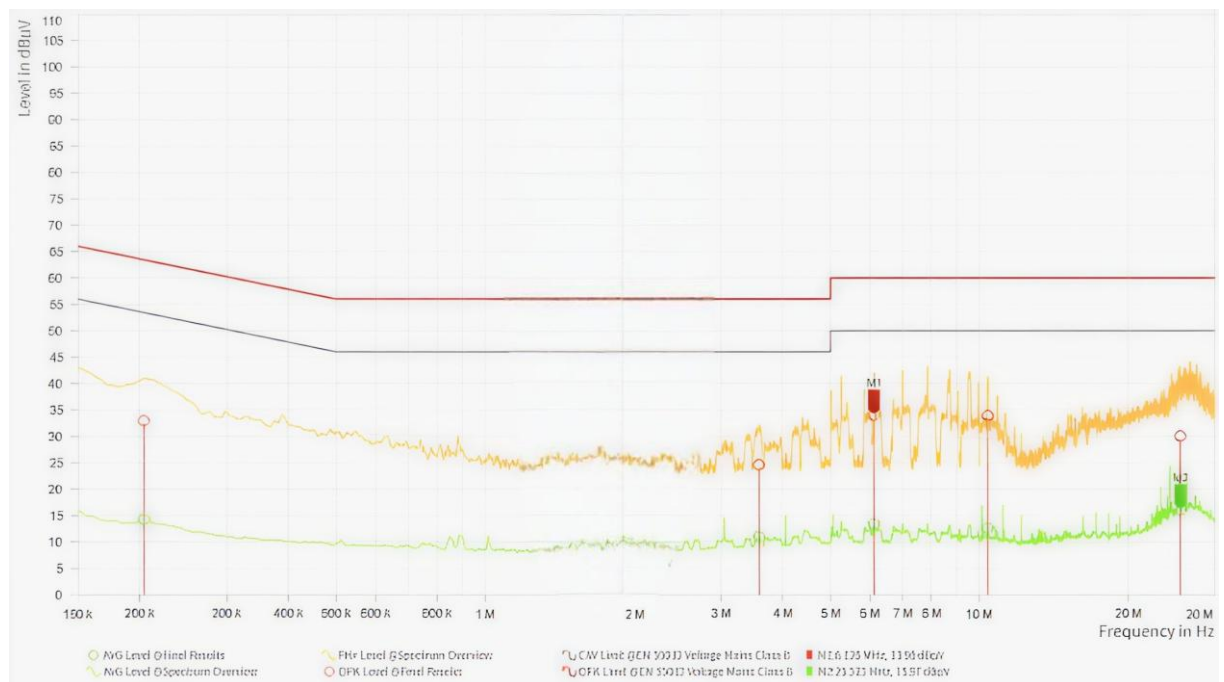
During the test, the Conducted Emission was performed in all modes with all channels. The test data of the worst-case (Model 900MHz CH66) condition was recorded in this report.



Frequency [MHz]	QPK Level [dBμV]	QPK Limit [dBμV]	QPK Margin [dB]	AVG Level [dBμV]	AVG: CAV Limit [dBμV]	AVG Margin [dB]	Correction [dB]	Line	Meas. BW [kHz]	Meas. Time [s]
0.204	32.79	63.45	30.65	14.20	53.45	39.25	21.01	L1	9.000	1.000
0.884	20.64	56.00	35.36	11.20	46.00	34.80	20.26	L1	9.000	1.000
1.777	21.78	56.00	34.22	10.37	46.00	35.63	19.72	L1	9.000	1.000
4.385	25.33	56.00	30.67	10.90	46.00	35.10	19.41	L1	9.000	1.000
7.863	35.91	60.00	24.09	13.49	50.00	36.51	19.41	L1	9.000	1.000
25.024	29.00	60.00	31.00	15.73	50.00	34.27	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: CAV Limit [dBμV]	AVG Margin [dB]	Correction [dB]	Line	Meas. BW [kHz]	Meas. Time [s]
0.204	32.90	63.45	30.55	14.25	53.45	39.20	21.02	N	9.000	1.000
1.793	21.63	56.00	34.37	10.37	46.00	35.63	19.73	N	9.000	1.000
3.584	24.55	56.00	31.45	11.02	46.00	34.98	19.45	N	9.000	1.000
6.128	33.98	60.00	26.02	13.40	50.00	36.60	19.41	N	9.000	1.000
10.410	33.94	60.00	26.06	12.67	50.00	37.33	19.44	N	9.000	1.000
25.523	30.05	60.00	29.95	15.97	50.00	34.03	19.87	N	9.000	1.000

Remark: Correct factor=cable loss + LISN factor

N line Conducted Emission from 150 kHz to 30 MHz