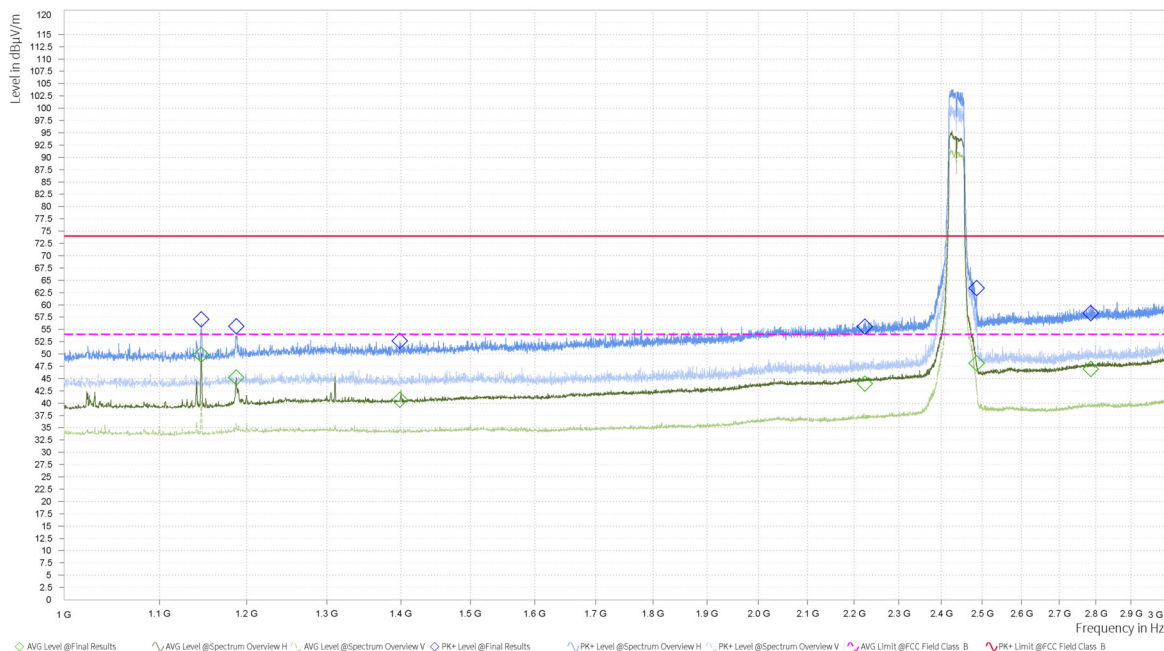
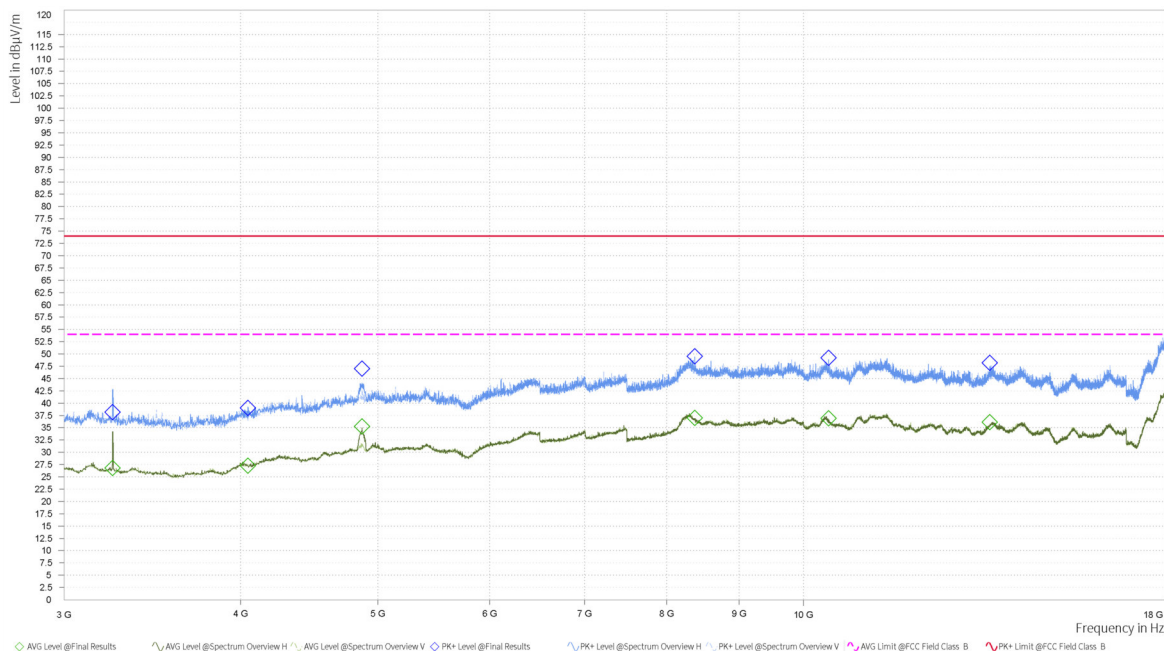


802.11n (HT40) CH6



EMI Final Results

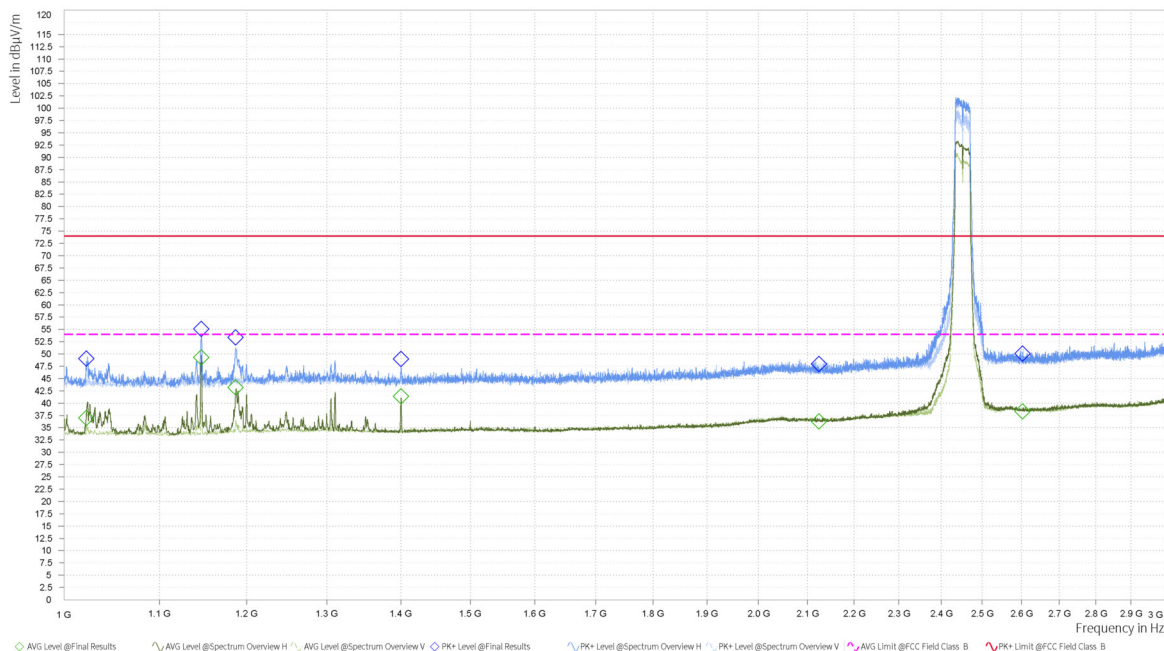
Rg	Frequency [MHz]	PK+ Level [dBμV/m]	PK+ Limit [dBμV/m]	PK+ Margin [dB]	AVG Level [dBμV/m]	AVG Limit [dBμV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]	Meas. Time [s]	Time of Meas.
1	1,146.750	57.08	74.00	16.92	49.86	54.00	4.14	-5.44	H	218.2	2.00	1.000	2:54:43
1	1,187.750	55.68	74.00	18.32	45.25	54.00	8.75	-4.71	H	221.6	1.00	1.000	2:56:23
1	1,398.000	52.65	74.00	21.35	40.65	54.00	13.35	-4.47	H	21.6	1.00	1.000	2:55:33
1	2,224.000	55.56	74.00	18.44	43.95	54.00	10.05	-1.03	H	14.8	1.00	1.000	2:55:23
1	2,486.000	63.40	74.00	10.60	48.09	54.00	5.91	-0.23	H	207.7	1.00	1.000	2:56:10
1	2,786.000	58.32	74.00	15.68	46.95	54.00	7.05	1.39	H	340.1	1.00	1.000	2:56:51



EMI Final Results

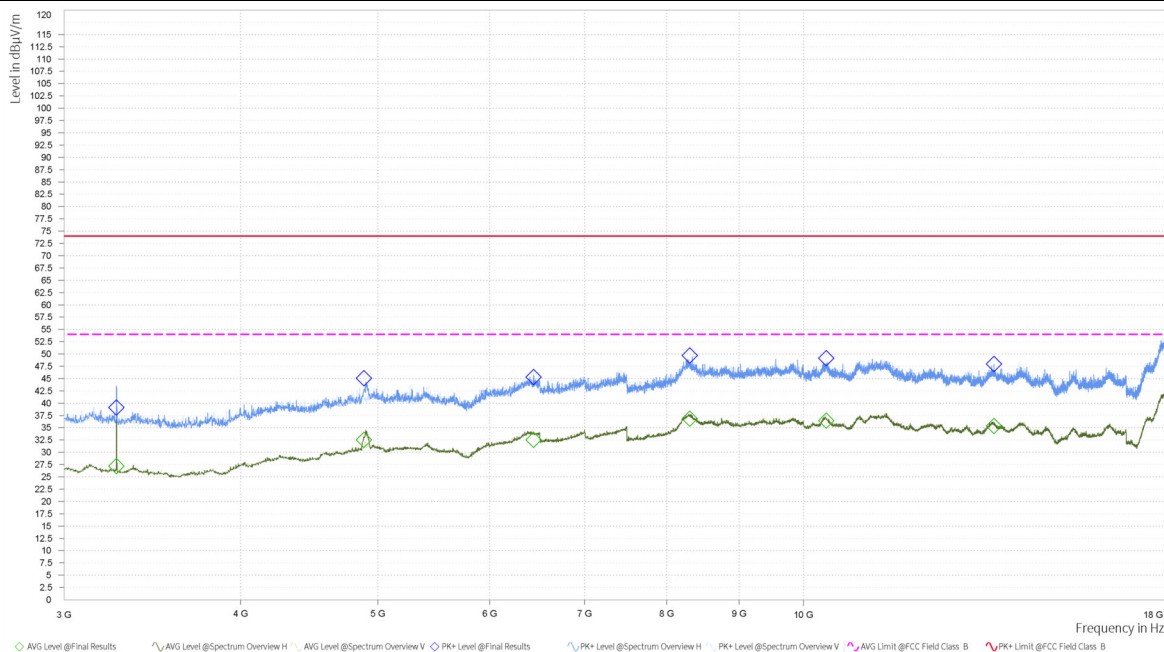
Rg	Frequency [MHz]	PK+ Level [dBµV/m]	PK+ Limit [dBµV/m]	PK+ Margin [dB]	AVG Level [dBµV/m]	AVG Limit [dBµV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]	Meas. Time [s]	Time of Meas.
1	3,247.500	38.14	74.00	35.86	26.78	54.00	27.22	-7.69	V	240.6	1.00	1.000	6:12:57
1	4,048.125	39.03	74.00	34.97	27.31	54.00	26.69	-5.53	H	113.3	1.00	1.000	6:12:28
1	4,873.125	47.01	74.00	26.99	35.27	54.00	18.73	-1.76	H	210.5	2.00	1.000	6:11:07
1	8,375.625	49.55	74.00	24.45	36.97	54.00	17.03	5.54	H	173	2.00	1.000	6:10:51
1	10,413.750	49.21	74.00	24.79	36.88	54.00	17.12	5.97	H	284.9	2.00	1.000	6:11:29
1	13,541.250	48.24	74.00	25.76	36.13	54.00	17.87	6.97	H	68.9	1.00	1.000	6:12:10

802.11n (HT40) CH9



EMI Final Results

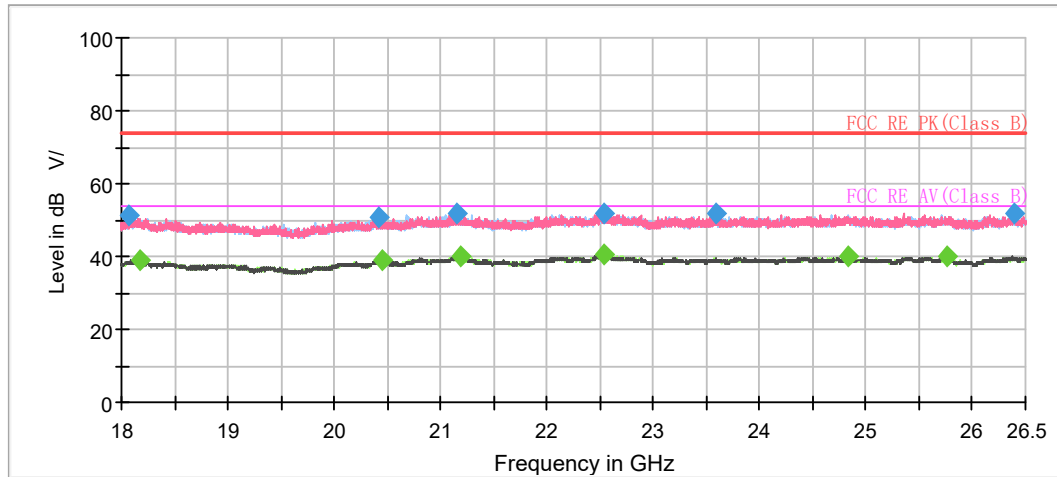
Rg	Frequency [MHz]	PK+ Level [dBμV/m]	PK+ Limit [dBμV/m]	PK+ Margin [dB]	AVG Level [dBμV/m]	AVG Limit [dBμV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]	Meas. Time [s]	Time of Meas.
1	1,022.500	49.10	74.00	24.90	37.01	54.00	16.99	-5.94	H	159.6	2.00	1.000	4:20:39
1	1,146.750	55.08	74.00	18.92	49.29	54.00	4.71	-5.44	H	194.9	2.00	1.000	4:21:05
1	1,187.000	53.41	74.00	20.59	43.22	54.00	10.78	-4.71	H	213.2	1.00	1.000	4:21:26
1	1,400.000	49.01	74.00	24.99	41.40	54.00	12.60	-4.48	H	180.9	2.00	1.000	4:20:52
1	2,124.000	47.99	74.00	26.01	36.26	54.00	17.74	-1.66	V	241.8	1.00	1.000	4:21:50
1	2,602.750	50.05	74.00	23.95	38.29	54.00	15.71	0.51	H	220.4	1.00	1.000	4:21:36



EMI Final Results

Rg	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]	Time of Meas.
1	3,268.125	39.11	74.00	34.89	27.20	54.00	26.80	-7.56	H	210.3	1.00	1.000	5:48:26
1	4,888.125	45.06	74.00	28.94	32.54	54.00	21.46	-1.86	H	134.9	2.00	1.000	5:47:37
1	6,444.375	45.32	74.00	28.68	32.55	54.00	21.45	1.43	H	82.8	1.00	1.000	5:47:57
1	8,306.250	49.68	74.00	24.32	36.85	54.00	17.15	6.60	V	30.8	2.00	1.000	5:50:05
1	10,372.500	49.11	74.00	24.89	36.45	54.00	17.55	6.23	V	180.1	2.00	1.000	5:50:37
1	13,629.375	47.94	74.00	26.06	35.31	54.00	18.69	6.90	H	360	1.00	1.000	5:48:58

During the test, the Radiates Emission from 18GHz to 26.5GHz was performed in all modes with all channels, The test data of the worst-case condition was recorded in this report.



Radiates Emission from 18GHz to 26.5GHz

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
18066.937500	51.54	---	74.00	22.46	500.0	200.0	V	0.0	-3.7
18172.125000	---	38.99	54.00	15.01	500.0	200.0	H	231.0	-3.8
20410.812500	50.79	---	74.00	23.21	500.0	100.0	V	184.0	-3.1
20451.187500	---	38.85	54.00	15.15	500.0	200.0	V	211.0	-2.9
21153.500000	51.86	---	74.00	22.14	500.0	200.0	H	56.0	-2.2
21183.250000	---	40.14	54.00	13.86	500.0	100.0	H	124.0	-2.3
22536.875000	51.71	---	74.00	22.29	500.0	200.0	H	310.0	-1.4
22537.937500	---	40.31	54.00	13.69	500.0	200.0	H	117.0	-1.4
23589.812500	51.74	---	74.00	22.26	500.0	200.0	H	203.0	-1.3
24832.937500	---	39.80	54.00	14.20	500.0	200.0	V	206.0	-0.8
25755.187500	---	40.06	54.00	13.94	500.0	100.0	H	0.0	-0.4
26398.000000	51.72	---	74.00	22.28	500.0	100.0	V	194.0	-0.2

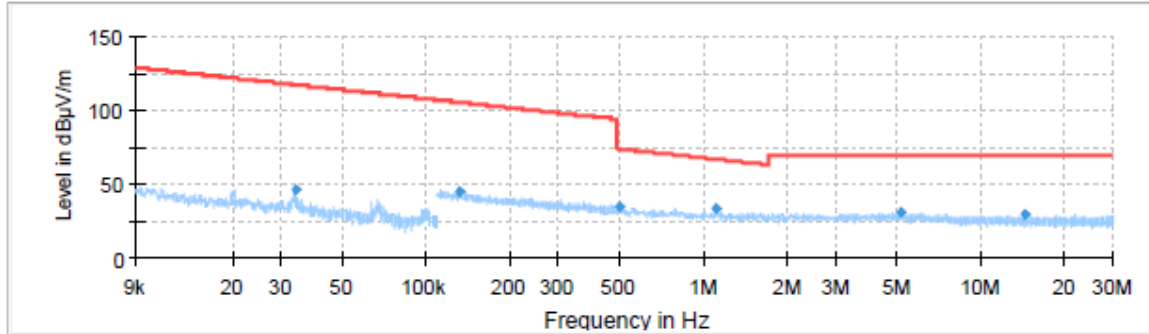
Remark: 1. Correction Factor = Antenna factor + Insertion loss (cable loss + amplifier gain)

2. Margin = Limit –MAX Peak/ Average

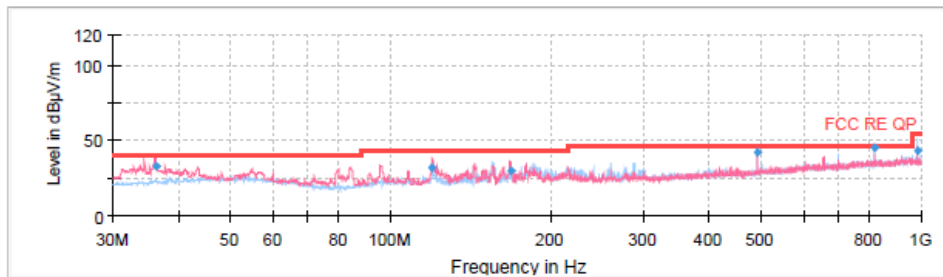
Bluetooth LE

During the test, the Radiates Emission from 9kHz to 1GHz was performed in all modes with all channels, The test data of the worst-case condition was recorded in this report.

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



Radiates Emission from 9kHz to 90kHz



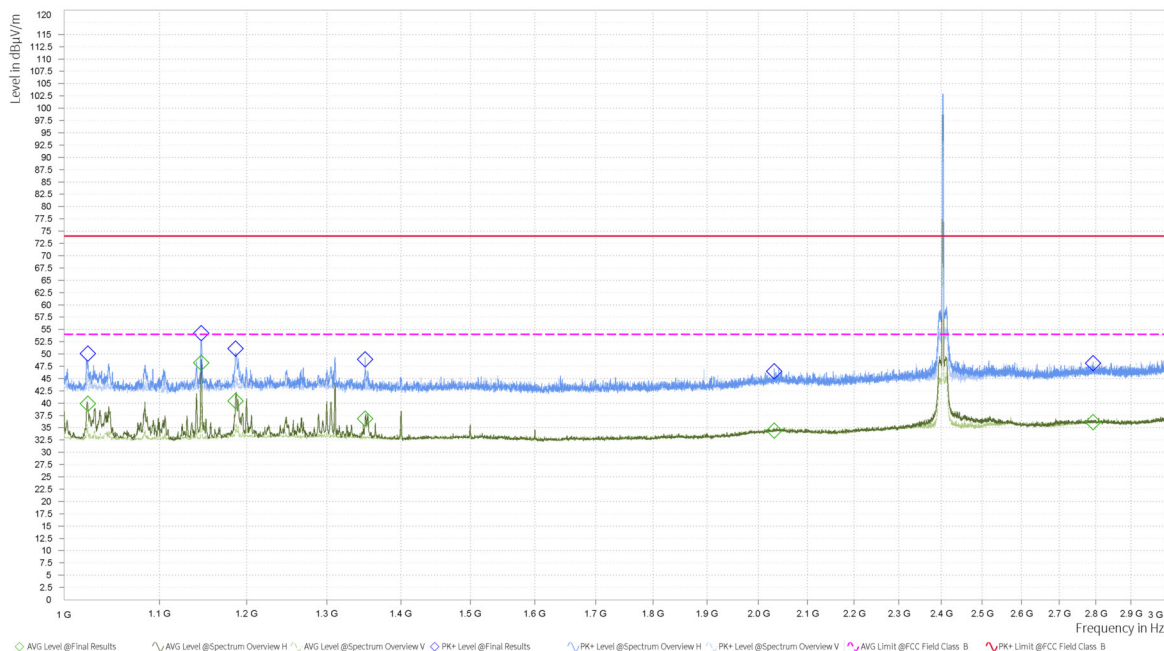
Final Result

Frequency (MHz)	QuasiPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
36.06	32.48	40.00	7.52	1000.00	120.000	104.0	V	60.00	18
119.97	31.59	43.50	11.91	1000.00	120.000	176.0	V	122.00	17
168.47	30.17	43.50	13.33	1000.00	120.000	102.0	V	286.00	16
491.60	41.93	46.00	4.07	1000.00	120.000	102.0	V	114.00	25
819.34	45.09	46.00	0.91	1000.00	120.000	101.0	H	347.00	30
983.27	43.12	54.00	10.88	1000.00	120.000	201.0	H	11.00	31

Remark: 1. Correction Factor = Antenna factor + Insertion loss (cable loss + amplifier gain)

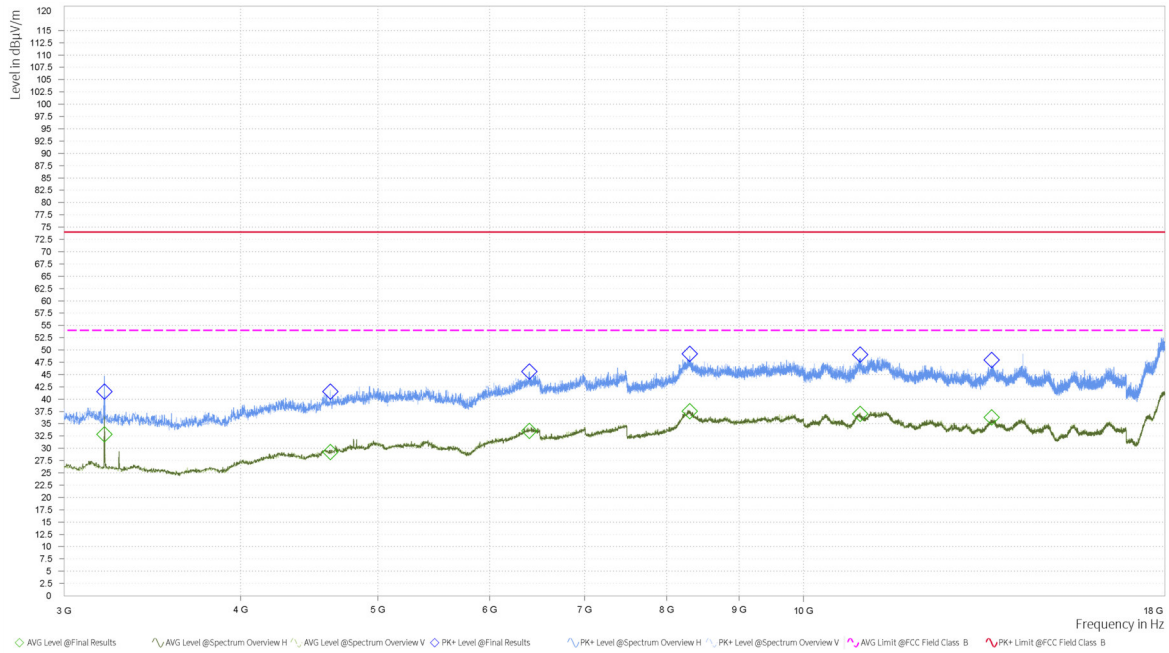
2. Margin = Limit – Quasi-Peak

Bluetooth LE-Channel 0



EMI Final Results

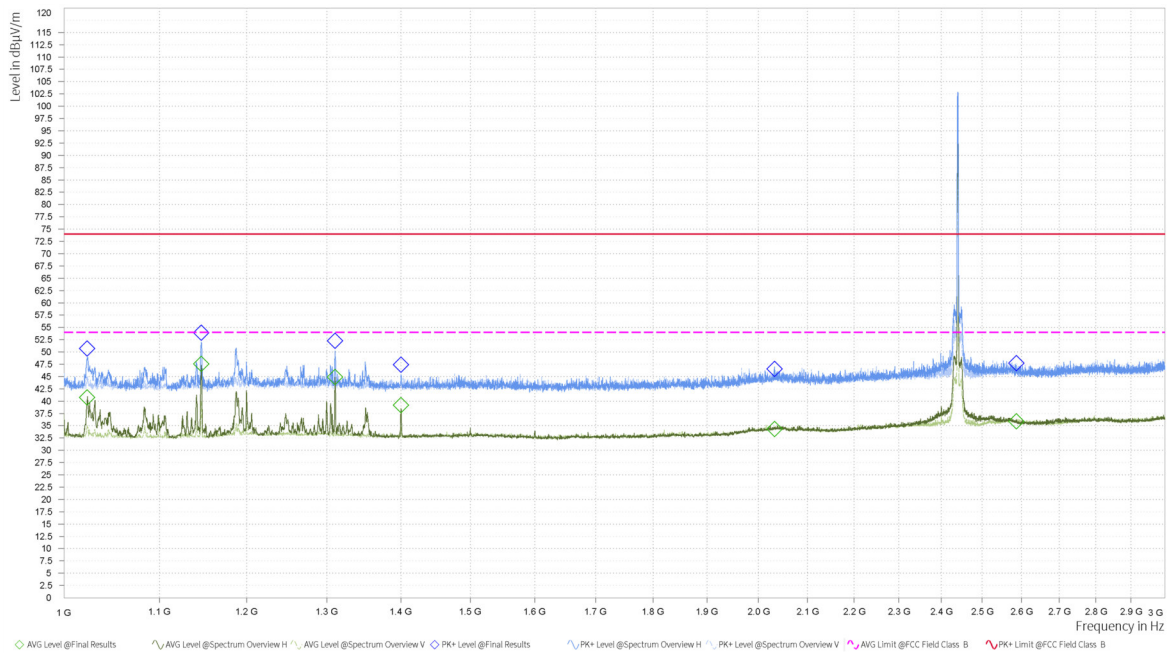
Rg	Frequency [MHz]	PK+ Level [dBμV/m]	PK+ Limit [dBμV/m]	PK+ Margin [dB]	AVG Level [dBμV/m]	AVG Limit [dBμV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]	Meas. Time [s]	Time of Meas.
1	1,024.250	50.11	74.00	23.89	39.88	54.00	14.12	-5.92	H	211.8	2.00	1.000	1:44:31
1	1,146.750	54.21	74.00	19.79	48.24	54.00	5.76	-5.44	H	191.5	2.00	1.000	1:44:08
1	1,186.750	51.11	74.00	22.89	40.47	54.00	13.53	-4.71	H	198.4	2.00	1.000	1:44:19
1	1,350.500	48.91	74.00	25.09	36.82	54.00	17.18	-4.42	H	217.4	1.00	1.000	1:45:05
1	2,031.500	46.50	74.00	27.50	34.42	54.00	19.58	-1.37	H	67.7	2.00	1.000	1:43:40
1	2,792.500	48.15	74.00	25.85	36.14	54.00	17.86	1.42	H	203.8	1.00	1.000	1:44:52



EMI Final Results

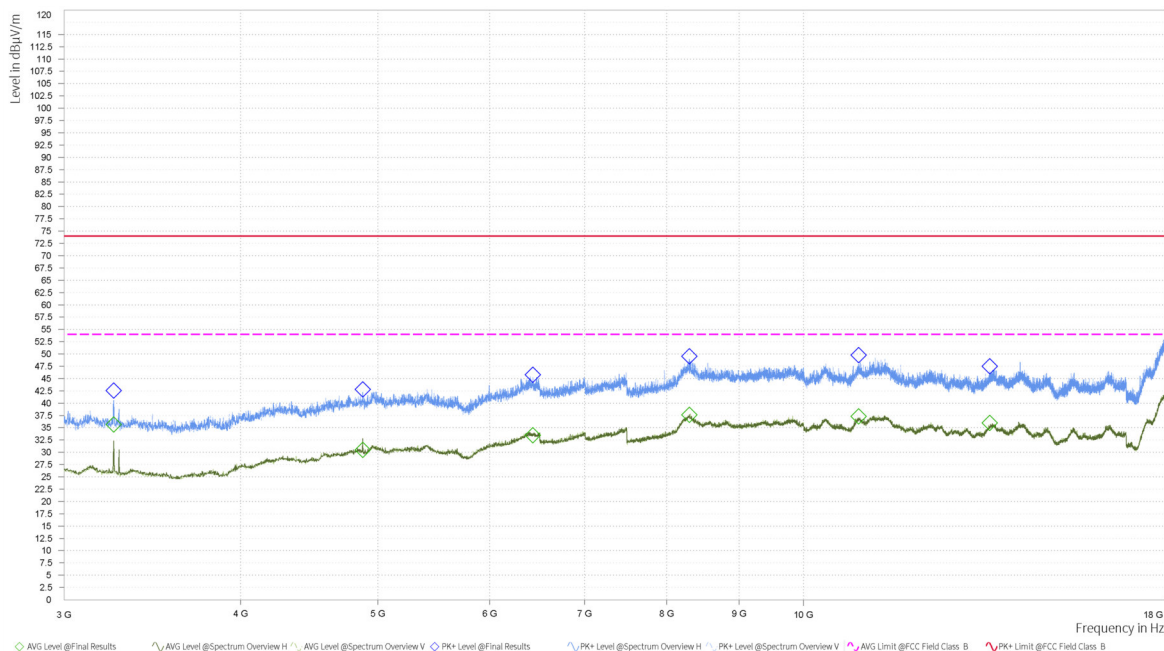
Rg	Frequency [MHz]	PK+ Level [dBμV/m]	PK+ Limit [dBμV/m]	PK+ Margin [dB]	AVG Level [dBμV/m]	AVG Limit [dBμV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]	Meas. Time [s]	Time of Meas.
1	3,204.375	41.55	74.00	32.45	32.86	54.00	21.14	-7.89	H	180	2.00	1.000	7:32:54
1	4,627.500	41.56	74.00	32.44	29.22	54.00	24.78	-2.87	V	101.5	2.00	1.000	7:33:16
1	6,397.500	45.58	74.00	28.42	33.53	54.00	20.47	1.62	H	171.7	2.00	1.000	7:32:43
1	8,306.250	49.23	74.00	24.77	37.58	54.00	16.42	6.60	H	2.9	2.00	1.000	7:31:57
1	10,966.875	49.03	74.00	24.97	37.01	54.00	16.99	6.66	H	93.6	2.00	1.000	7:32:21
1	13,578.750	47.96	74.00	26.04	36.33	54.00	17.67	7.04	H	0	2.00	1.000	7:31:49

Bluetooth LE-Channel 19



EMI Final Results

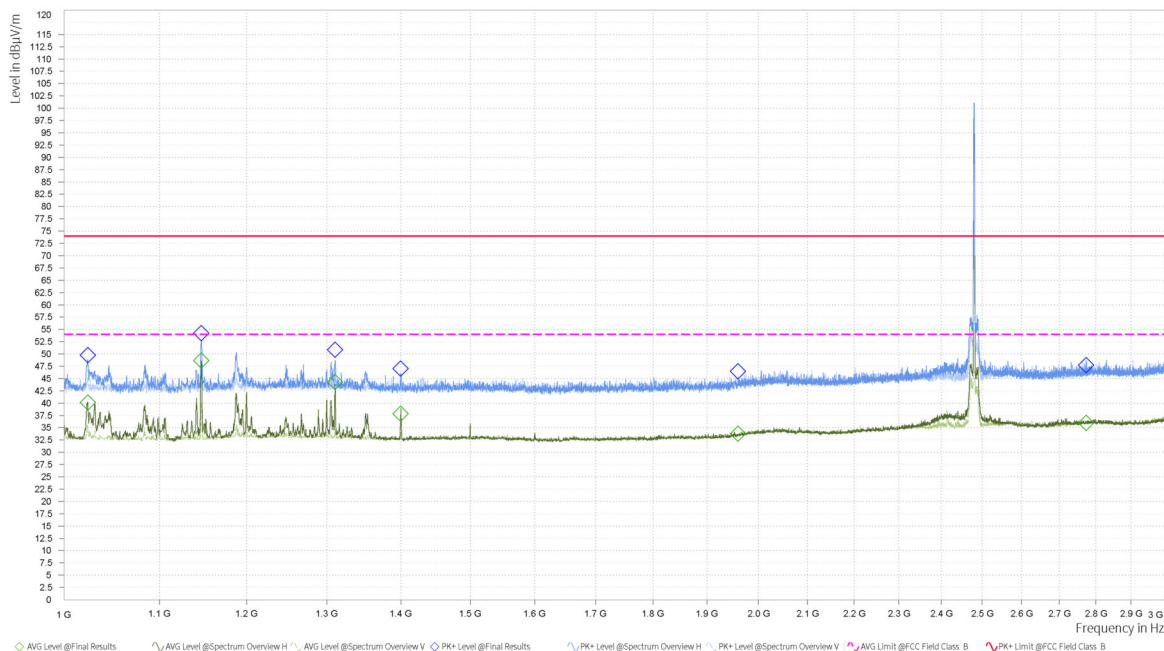
Rg	Frequency [MHz]	PK+ Level [dBµV/m]	PK+ Limit [dBµV/m]	PK+ Margin [dB]	AVG Level [dBµV/m]	AVG Limit [dBµV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]	Meas. Time [s]	Time of Meas.
1	1,023.500	50.72	74.00	23.28	40.75	54.00	13.25	-5.93	H	204.9	2.00	1.000	1:54:58
1	1,146.750	53.93	74.00	20.07	47.56	54.00	6.44	-5.44	H	222.6	1.00	1.000	1:56:15
1	1,310.500	52.25	74.00	21.75	44.91	54.00	9.09	-4.28	H	208.9	1.00	1.000	1:56:03
1	1,400.000	47.39	74.00	26.61	39.15	54.00	14.85	-4.48	H	188.1	1.00	1.000	1:55:49
1	2,032.000	46.55	74.00	27.45	34.35	54.00	19.65	-1.37	H	127	1.00	1.000	1:55:20
1	2,587.000	47.76	74.00	26.24	35.86	54.00	18.14	0.61	H	181.2	1.00	1.000	1:55:39



EMI Final Results

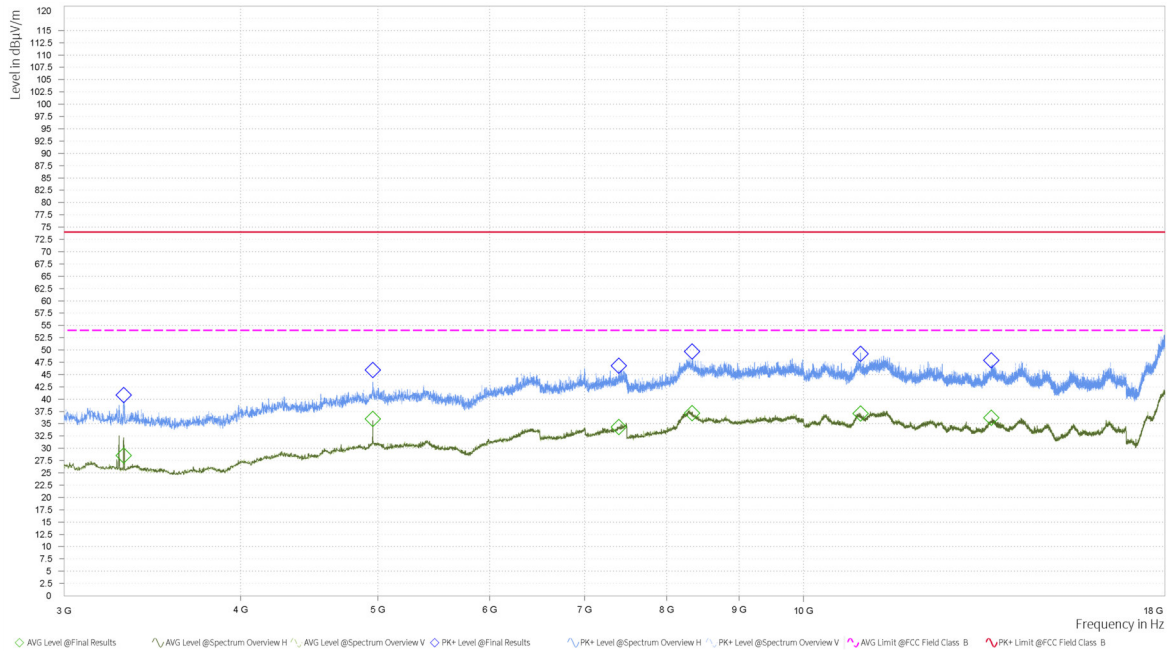
Rg	Frequency [MHz]	PK+ Level [dBμV/m]	PK+ Limit [dBμV/m]	PK+ Margin [dB]	AVG Level [dBμV/m]	AVG Limit [dBμV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]	Meas. Time [s]	Time of Meas.
1	3,253.125	42.53	74.00	31.47	35.69	54.00	18.31	-7.64	H	14.8	2.00	1.000	7:37:29
1	4,878.750	42.83	74.00	31.17	30.47	54.00	23.53	-1.80	H	61.4	2.00	1.000	7:37:47
1	6,436.875	45.74	74.00	28.26	33.43	54.00	20.57	1.48	V	94.1	2.00	1.000	7:38:02
1	8,302.500	49.54	74.00	24.46	37.63	54.00	16.37	6.65	H	2.2	2.00	1.000	7:37:09
1	10,936.875	49.76	74.00	24.24	37.29	54.00	16.71	6.69	H	7	2.00	1.000	7:37:19
1	13,541.250	47.53	74.00	26.47	36.00	54.00	18.00	6.97	V	180	2.00	1.000	7:38:25

Bluetooth LE-Channel 39



EMI Final Results

Rg	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]	Time of Meas.
1	1,024.000	49.80	74.00	24.20	40.12	54.00	13.88	-5.92	H	181.5	1.00	1.000	2:08:31
1	1,146.750	54.25	74.00	19.75	48.66	54.00	5.34	-5.44	H	212.3	2.00	1.000	2:07:02
1	1,310.750	50.84	74.00	23.16	44.25	54.00	9.75	-4.28	H	167.9	1.00	1.000	2:08:18
1	1,399.500	47.06	74.00	26.94	37.86	54.00	16.14	-4.47	H	291.6	1.00	1.000	2:08:58
1	1,959.250	46.47	74.00	27.53	33.77	54.00	20.23	-2.32	V	358.2	1.00	1.000	2:09:18
1	2,774.000	47.76	74.00	26.24	35.98	54.00	18.02	1.30	H	1.3	1.00	1.000	2:07:43



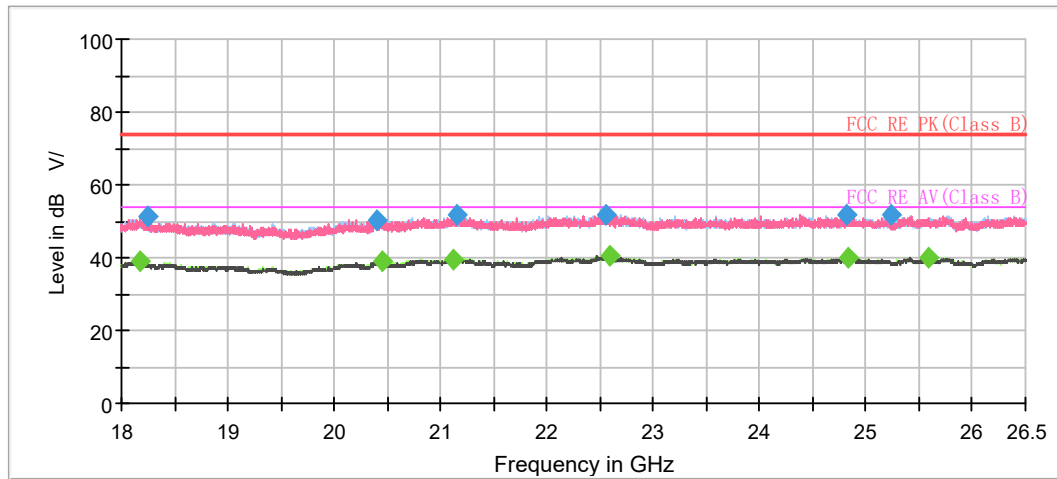
EMI Final Results

Rg	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]	Time of Meas.
1	3,307.500	40.81	74.00	33.19	28.50	54.00	25.50	-7.52	H	164.4	2.00	1.000	7:43:21
1	4,959.375	45.95	74.00	28.05	35.98	54.00	18.02	-0.89	H	148.5	2.00	1.000	7:43:06
1	7,402.500	46.78	74.00	27.22	34.30	54.00	19.70	1.27	H	8.5	2.00	1.000	7:42:25
1	8,338.125	49.70	74.00	24.30	37.17	54.00	16.83	6.14	H	62.8	2.00	1.000	7:42:43
1	10,970.625	49.20	74.00	24.80	37.08	54.00	16.92	6.63	H	0	2.00	1.000	7:42:14
1	13,571.250	47.86	74.00	26.14	36.19	54.00	17.81	7.06	H	148.5	2.00	1.000	7:43:08

Note: The signal beyond the limit is carrier.

Radiates Emission from 1GHz to 3GHz

During the test, the Radiates Emission from 18GHz to 26.5GHz was performed in all modes with all channels. The test data of the worst-case condition was recorded in this report.



Radiates Emission from 18GHz to 26.5GHz

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
18170.000000	---	39.11	54.00	14.89	500.0	200.0	H	206.0	-3.8
18238.000000	51.07	---	74.00	22.93	500.0	200.0	V	23.0	-3.8
20393.812500	50.18	---	74.00	23.82	500.0	100.0	H	352.0	-3.2
20458.625000	---	38.96	54.00	15.04	500.0	200.0	V	342.0	-2.9
21128.000000	---	39.67	54.00	14.33	500.0	200.0	H	309.0	-2.1
21150.312500	51.59	---	74.00	22.41	500.0	100.0	H	53.0	-2.2
22554.937500	52.00	---	74.00	22.00	500.0	200.0	H	0.0	-1.4
22590.000000	---	40.50	54.00	13.50	500.0	200.0	H	300.0	-1.4
24819.125000	51.94	---	74.00	22.06	500.0	100.0	H	5.0	-0.7
24828.687500	---	39.79	54.00	14.21	500.0	200.0	V	69.0	-0.8
25238.812500	51.84	---	74.00	22.16	500.0	100.0	H	214.0	-0.8
25582.000000	---	39.92	54.00	14.08	500.0	100.0	H	25.0	-0.5

Remark: 1. Correction Factor = Antenna factor + Insertion loss (cable loss + amplifier gain)

2. Margin = Limit –MAX Peak/ Average

5.2. Conducted Emission

Ambient Condition

Temperature	Relative humidity
15°C ~ 35°C	20% ~ 80%

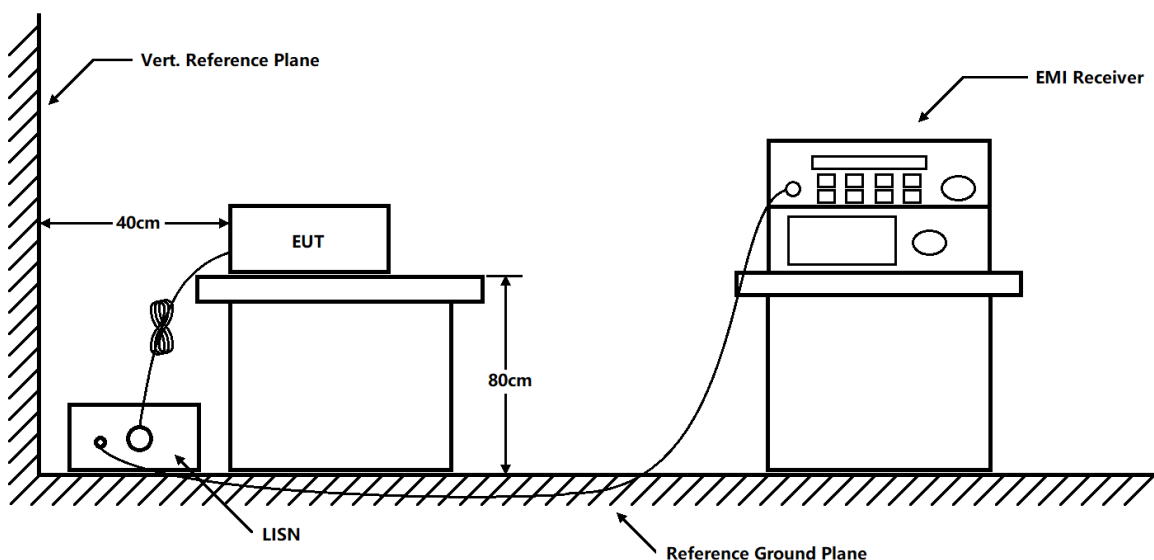
Methods of Measurement

The EUT is placed on a non-metallic table of 80cm height above the horizontal metal reference ground plane. During the test, the EUT was operating in its typical mode. The test method is according to ANSI C63.10. Connect the AC power line of the EUT to the L.I.S.N. Use EMI receiver to detect the average and Quasi-peak value. RBW is set to 9 kHz, VBW is set to 30kHz.

The measurement result should include both L line and N line.

The test is in transmitting mode.

Test Setup



Note: AC Power source is used to change the voltage 120V/60Hz.

Limits

Frequency (MHz)	Conducted Limits(dBμV)	
	Quasi-peak	Average
0.15 - 0.5	66 to 56 *	56 to 46*
0.5 - 5	56	46
5 - 30	60	50
*: Decreases with the logarithm of the frequency.		

Measurement Uncertainty

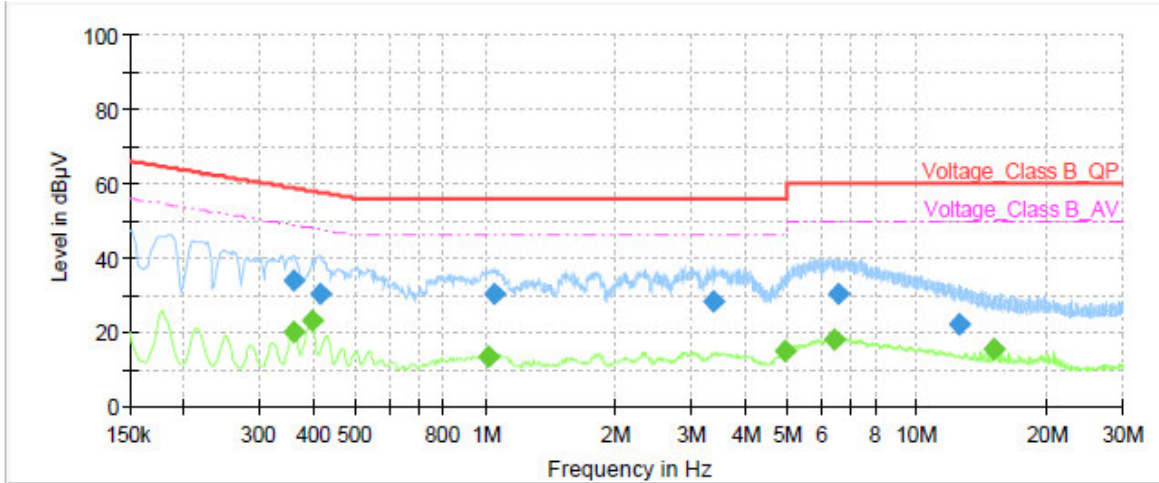
The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor $k = 1.96$, $U = 2.69$ dB.

Test Results:

Following plots, Blue trace uses the peak detection and Green trace uses the average detection.

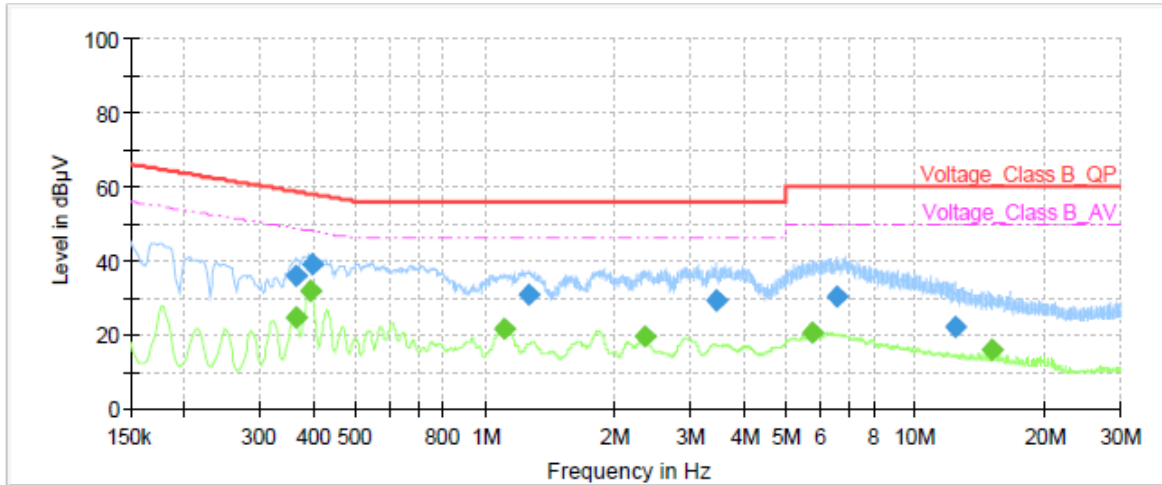
Wi-Fi 2.4GHz

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



Remark: Correct factor=cable loss + LISN factor

L line Conducted Emission from 150 kHz to 30 MHz



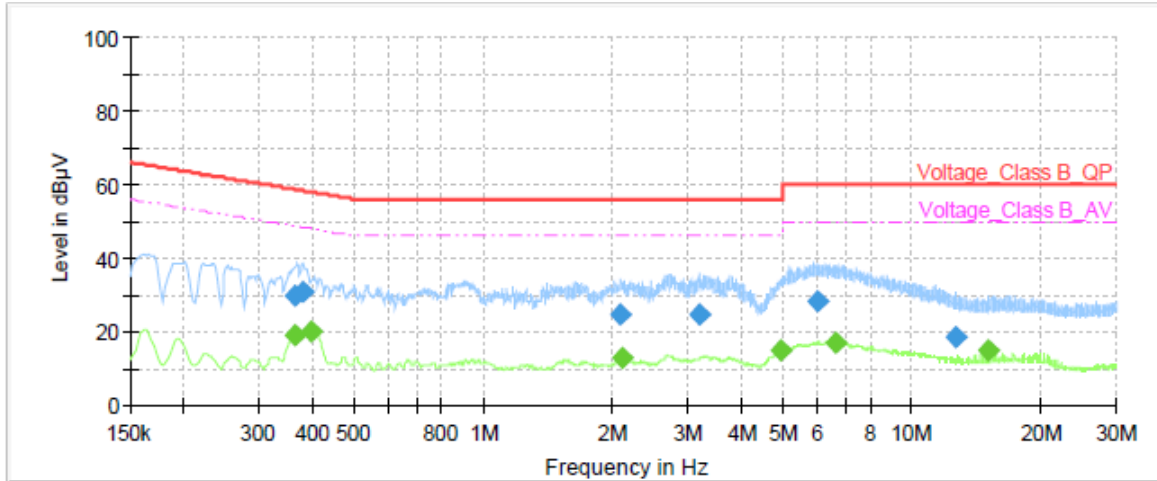
Frequency (MHz)	QuasiPeak (dBμV)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Filter	Corr. (dB)
0.36	---	24.83	48.69	23.86	1000.0	9.000	N	ON	20.9
0.36	36.15	---	58.69	22.54	1000.0	9.000	N	ON	20.9
0.39	---	31.93	48.05	16.12	1000.0	9.000	N	ON	20.9
0.40	38.90	---	57.95	19.05	1000.0	9.000	N	ON	20.9
1.11	---	21.56	46.00	24.44	1000.0	9.000	N	ON	20.1
1.26	30.57	---	56.00	25.43	1000.0	9.000	N	ON	20.0
2.36	---	19.59	46.00	26.41	1000.0	9.000	N	ON	19.6
3.45	29.20	---	56.00	26.80	1000.0	9.000	N	ON	19.5
5.76	---	20.40	50.00	29.60	1000.0	9.000	N	ON	19.4
6.54	30.27	---	60.00	29.73	1000.0	9.000	N	ON	19.4
12.41	22.23	---	60.00	37.77	1000.0	9.000	N	ON	19.5
15.08	---	15.85	50.00	34.15	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

Bluetooth LE

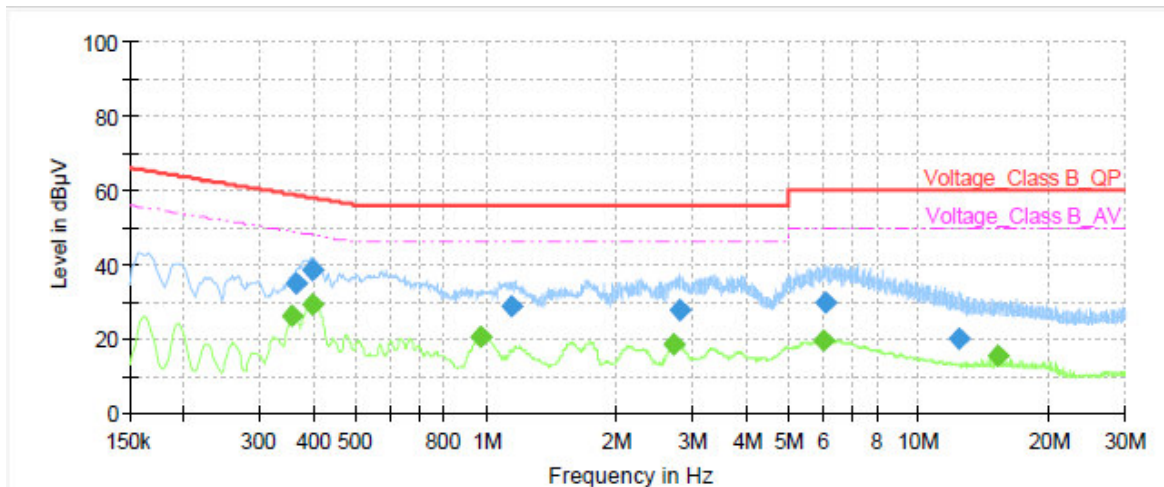
During the test, the Conducted Emission was performed in all modes with all channels. The test data of the worst-case condition was recorded in this report.



Frequency (MHz)	QuasiPeak (dBμV)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Filter	Corr. (dB)
0.36	---	18.93	48.69	29.76	1000.0	9.000	L1	ON	20.9
0.36	29.82	---	58.69	28.87	1000.0	9.000	L1	ON	20.9
0.38	30.66	---	58.29	27.63	1000.0	9.000	L1	ON	20.9
0.40	---	20.15	47.91	27.76	1000.0	9.000	L1	ON	20.9
2.09	24.67	---	56.00	31.33	1000.0	9.000	L1	ON	19.6
2.10	---	12.85	46.00	33.15	1000.0	9.000	L1	ON	19.6
3.18	24.71	---	56.00	31.29	1000.0	9.000	L1	ON	19.5
4.92	---	14.74	46.00	31.26	1000.0	9.000	L1	ON	19.4
6.05	28.40	---	60.00	31.60	1000.0	9.000	L1	ON	19.4
6.62	---	17.16	50.00	32.84	1000.0	9.000	L1	ON	19.4
12.62	18.54	---	60.00	41.46	1000.0	9.000	L1	ON	19.4
15.08	---	15.03	50.00	34.97	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



Frequency (MHz)	QuasiPeak (dBμV)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Filter	Corr. (dB)
0.36	---	26.34	48.80	22.46	1000.0	9.000	N	ON	20.9
0.36	34.99	---	58.69	23.70	1000.0	9.000	N	ON	20.9
0.40	---	29.38	47.95	18.57	1000.0	9.000	N	ON	20.9
0.40	38.69	---	57.91	19.22	1000.0	9.000	N	ON	20.9
0.98	---	20.58	46.00	25.42	1000.0	9.000	N	ON	20.2
1.15	28.89	---	56.00	27.11	1000.0	9.000	N	ON	20.1
2.71	---	18.66	46.00	27.34	1000.0	9.000	N	ON	19.5
2.81	27.82	---	56.00	28.18	1000.0	9.000	N	ON	19.5
6.00	---	19.64	50.00	30.36	1000.0	9.000	N	ON	19.4
6.10	29.64	---	60.00	30.36	1000.0	9.000	N	ON	19.4
12.45	20.24	---	60.00	39.76	1000.0	9.000	N	ON	19.5
15.16	---	15.61	50.00	34.39	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

6. Main Test Instruments

Name	Manufacturer	Type	Serial Number	Calibration Date	Expiration Date
EMI Test Receiver	R&S	ESCI3	100948	2024-05-07	2025-05-06
Loop Antenna	SCHWARZBECK	FMZB1519	1519-047	2023-04-16	2026-04-15
TRILOG Broadband Antenna	SCHWARZBECK	VULB 9163	1023	2023-07-14	2026-07-13
Horn Antenna	ETS-Lindgren	3160-09	00102643	2024-09-24	2027-09-23
Amplifier	MicroWave	KLNA-1804 0050	220826001	2024-05-08	2025-05-07
Software	R&S	EMC32	9.26.01	/	/
Artificial main network	R&S	ENV216	102191	2024-12-02	2026-12-01
EMI Test Receiver	R&S	ESR	101667	2024-05-07	2025-05-06
Software	R&S	EMC32	10.35.10	/	/

ANNEX A: The EUT Appearance

The EUT Appearance are submitted separately.

ANNEX B: Test Setup Photos

The Test Setup Photos are submitted separately.

***** END OF REPORT *****