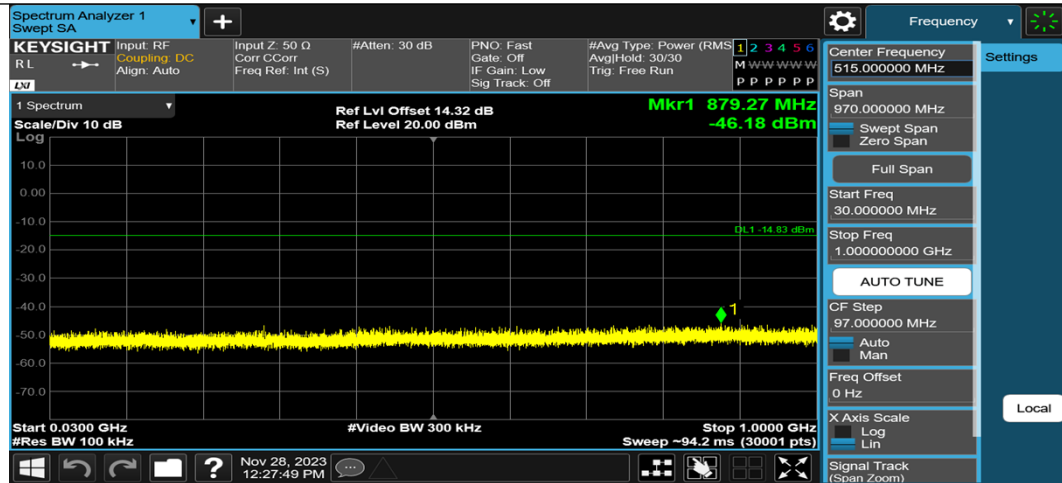
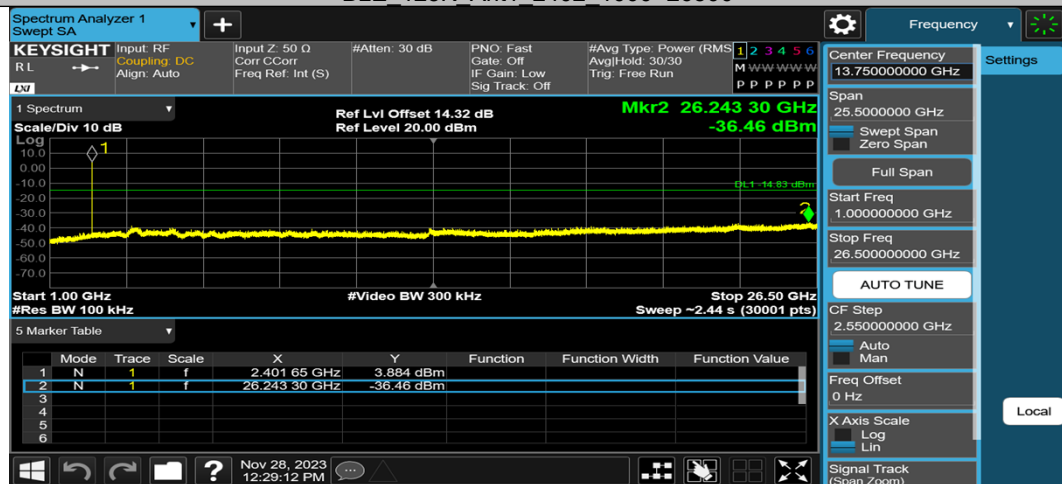




BLE_125K_Ant1_2402_1000~26500



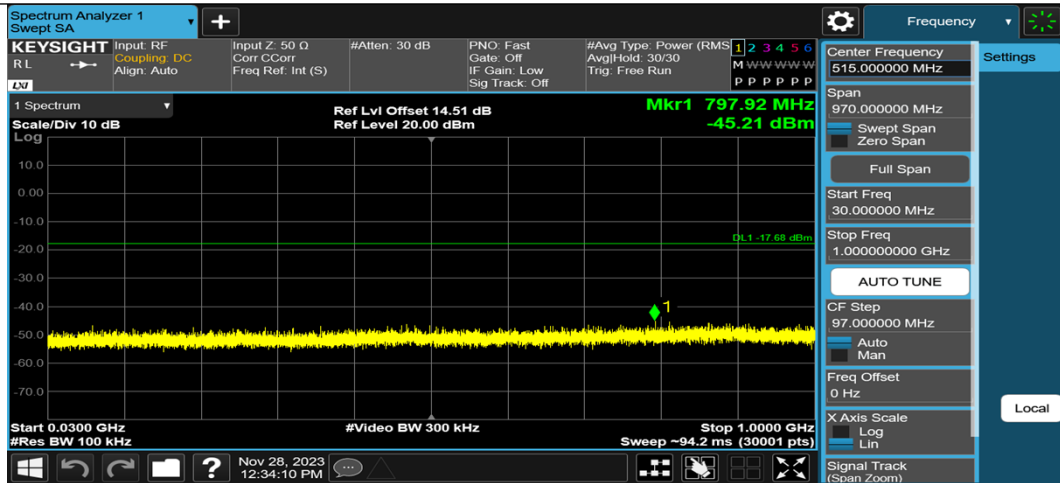
BLE_125K_Ant1_2440_0~Reference



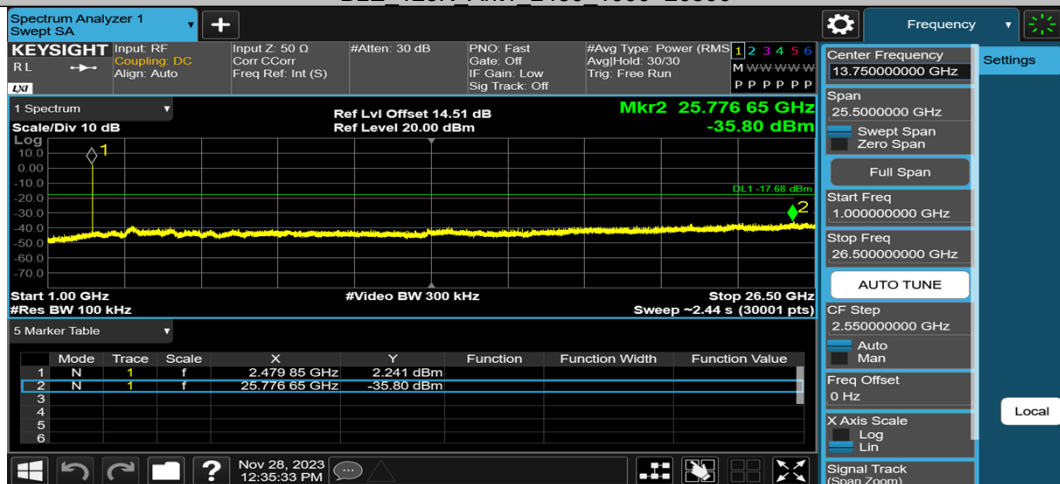
BLE_125K_Ant1_2440_30~1000



BLE 125K Ant1 2480 30~1000



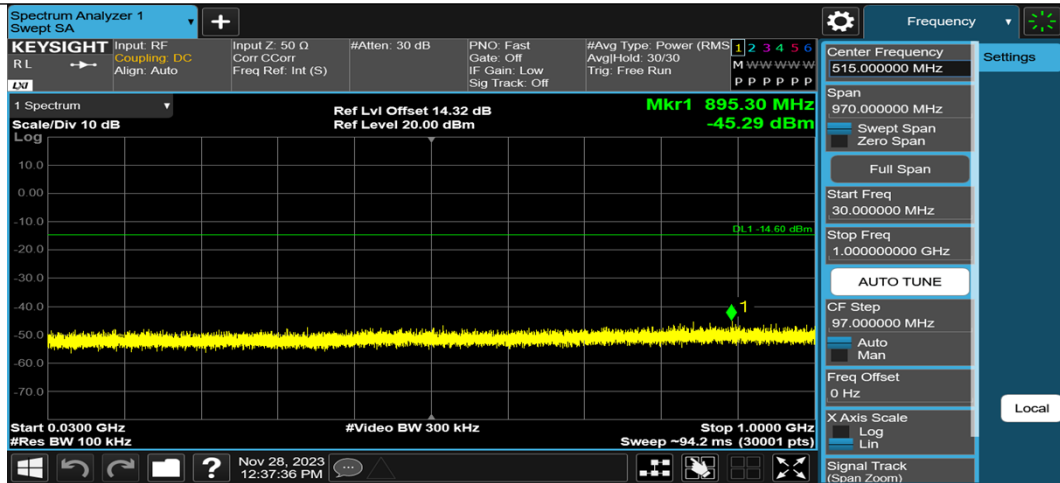
BLE_125K_Ant1_2480_1000~26500



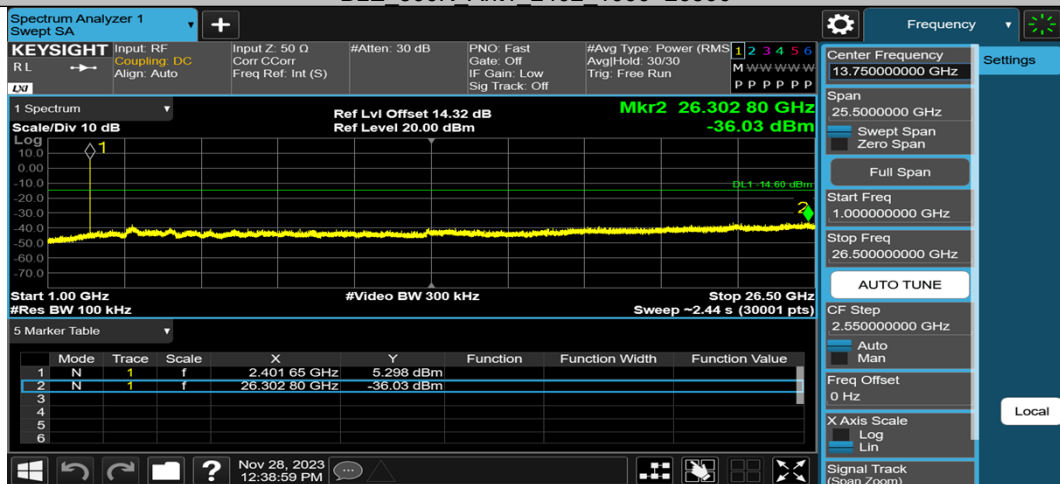
BLE_500K_Ant1_2402_0~Reference



BLE_500K_Ant1_2402_30~1000



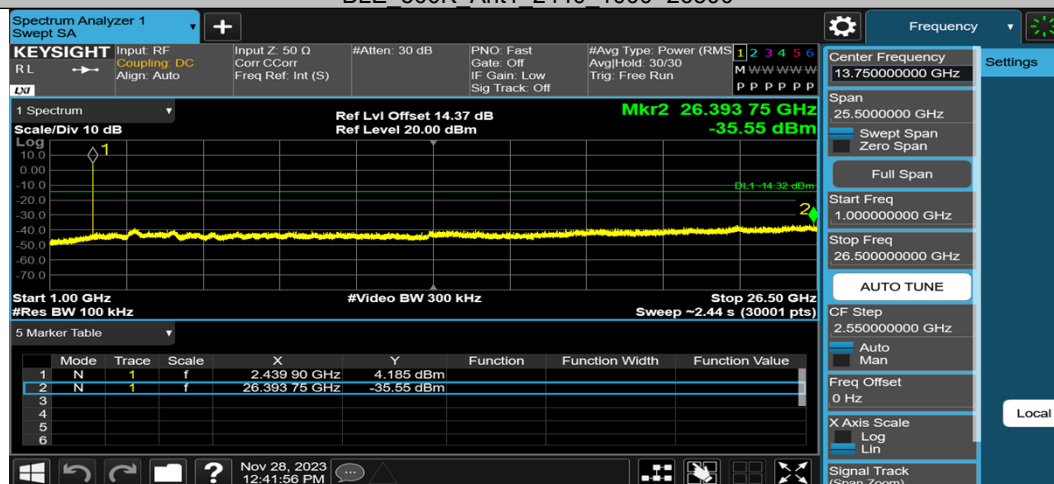
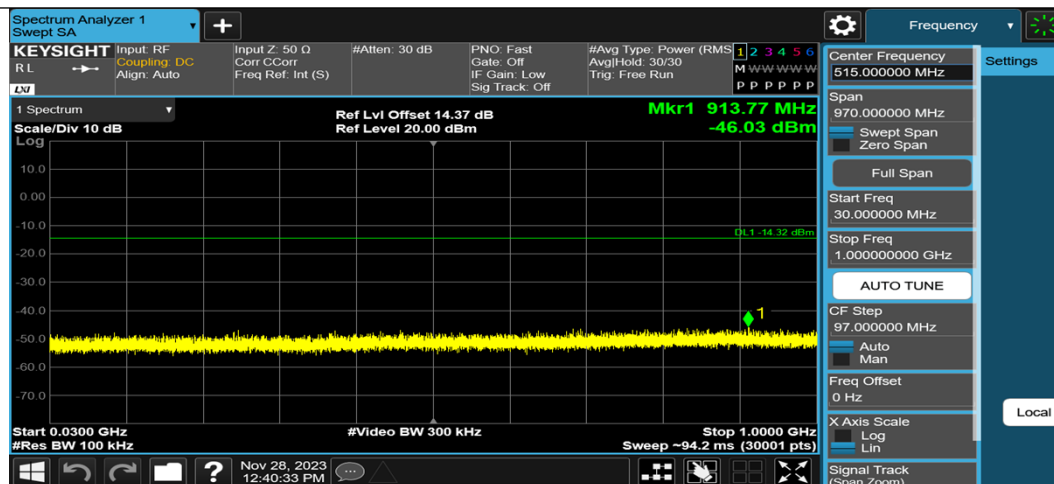
BLE_500K_Ant1_2402_1000~26500



BLE_500K_Ant1_2440_0~Reference



BLE_500K_Ant1_2440_30~1000



BLE 500K Ant1 2480 30~1000

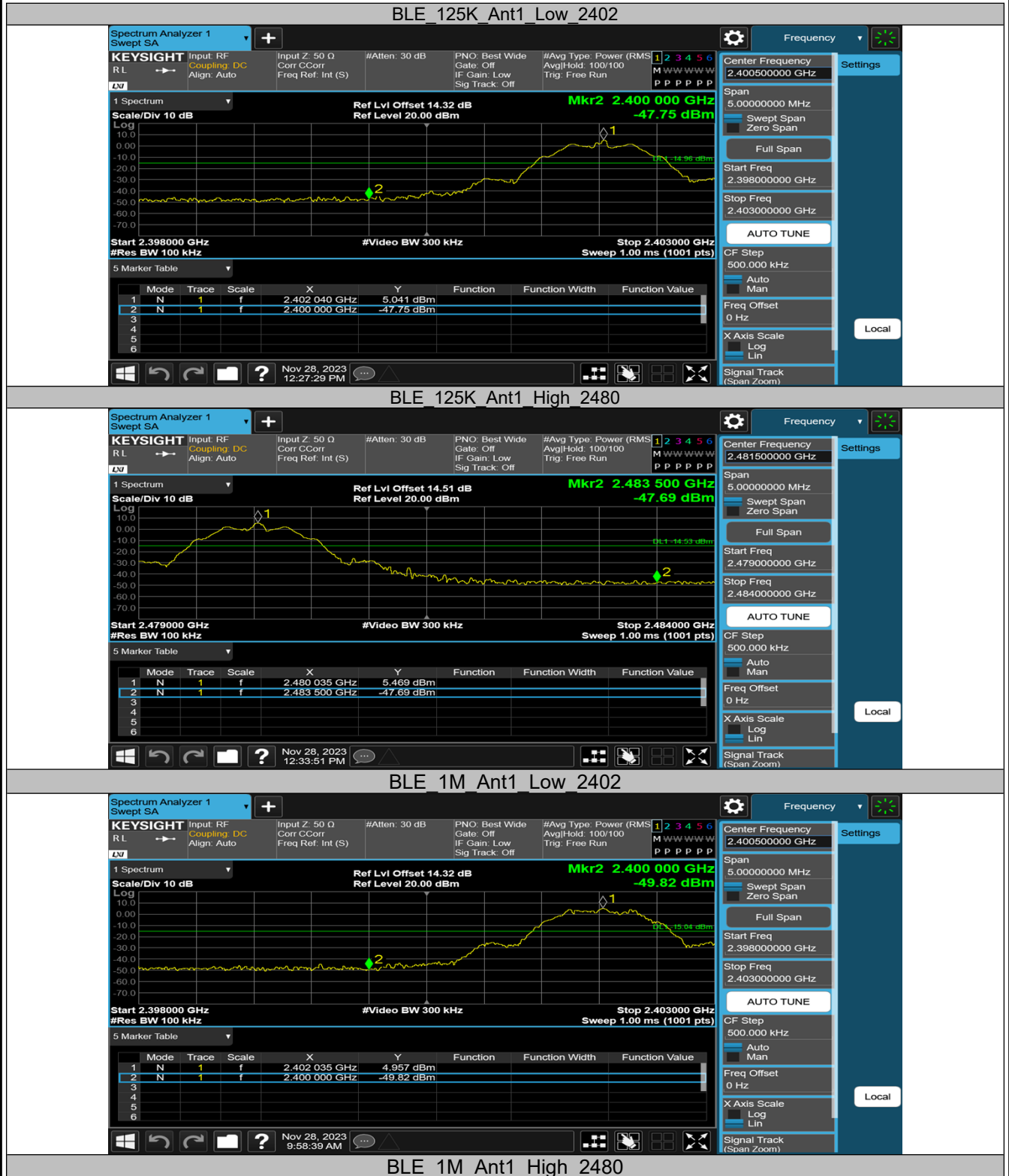


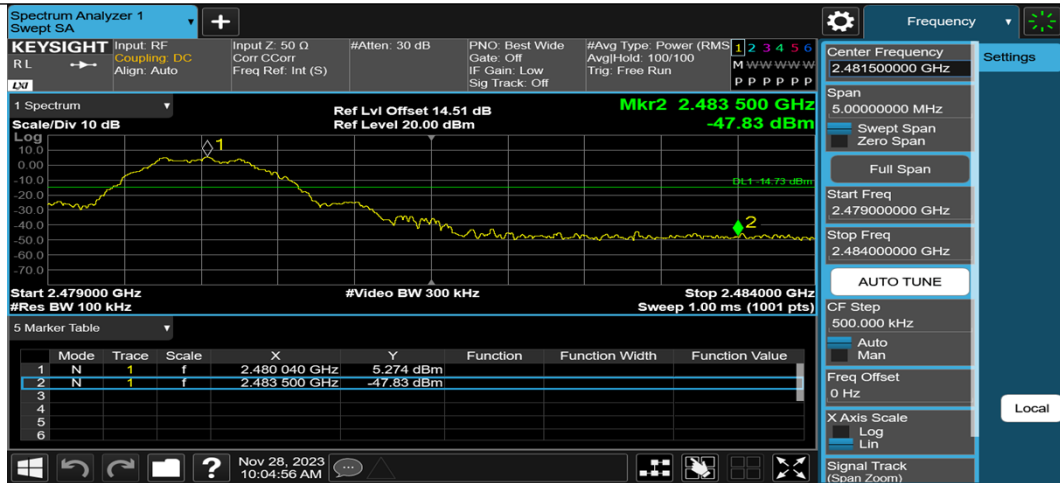
Band Edge

Test Result

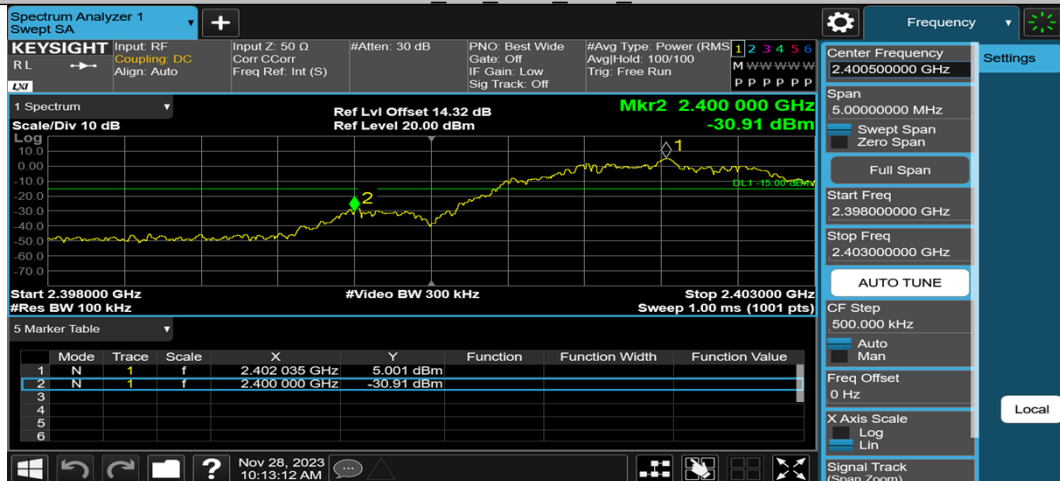
TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_125K	Ant1	Low	2402	5.041	-47.75	≤-14.96	PASS
		High	2480	5.469	-47.69	≤-14.53	PASS
BLE_1M	Ant1	Low	2402	4.957	-49.82	≤-15.04	PASS
		High	2480	5.274	-47.83	≤-14.73	PASS
BLE_2M	Ant1	Low	2402	5.001	-30.91	≤-15	PASS
		High	2480	5.083	-47.48	≤-14.92	PASS
BLE_500K	Ant1	Low	2402	5.372	-47.43	≤-14.63	PASS
		High	2480	5.303	-48.96	≤-14.7	PASS

Test Graphs





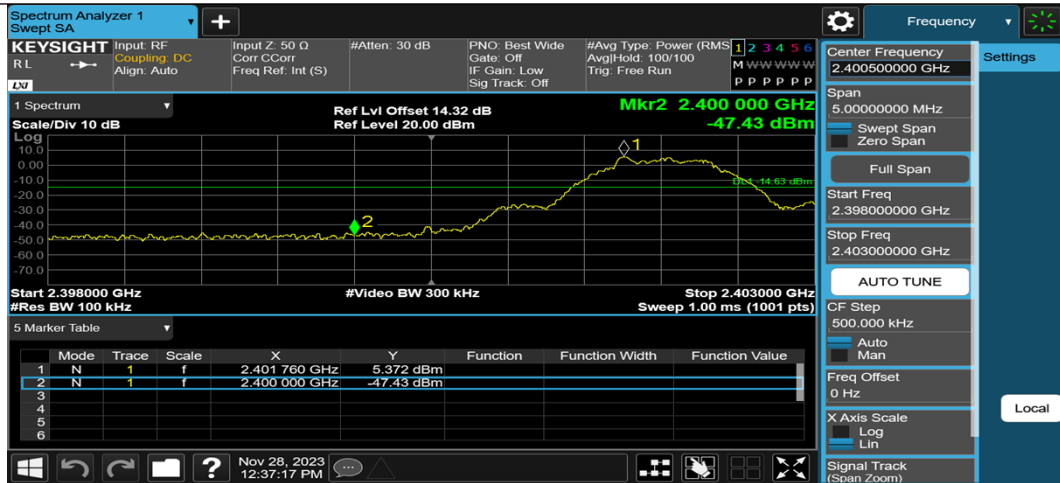
BLE 2M Ant1 Low 2402



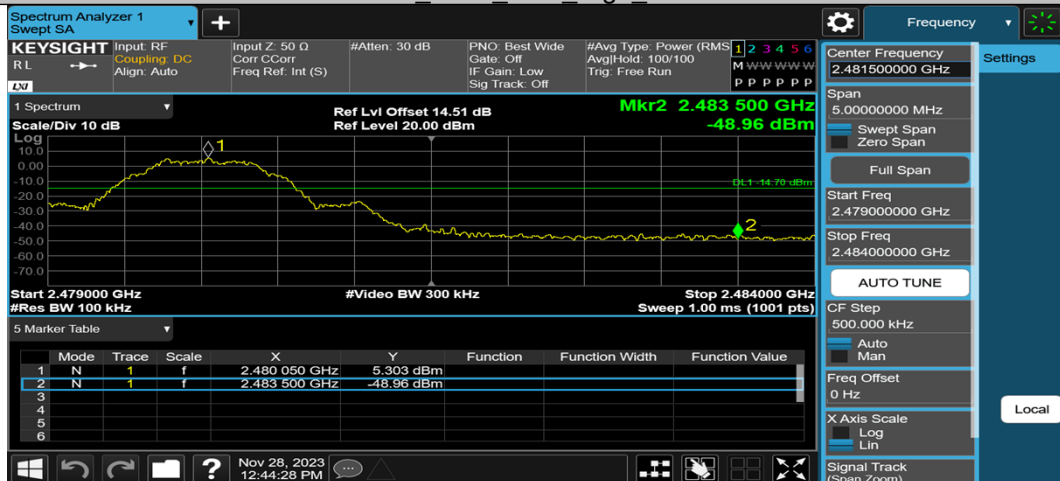
BLE 2M Ant1 High 2480



BLE 500K Ant1 Low 2402



BLE_500K_Ant1_High_2480

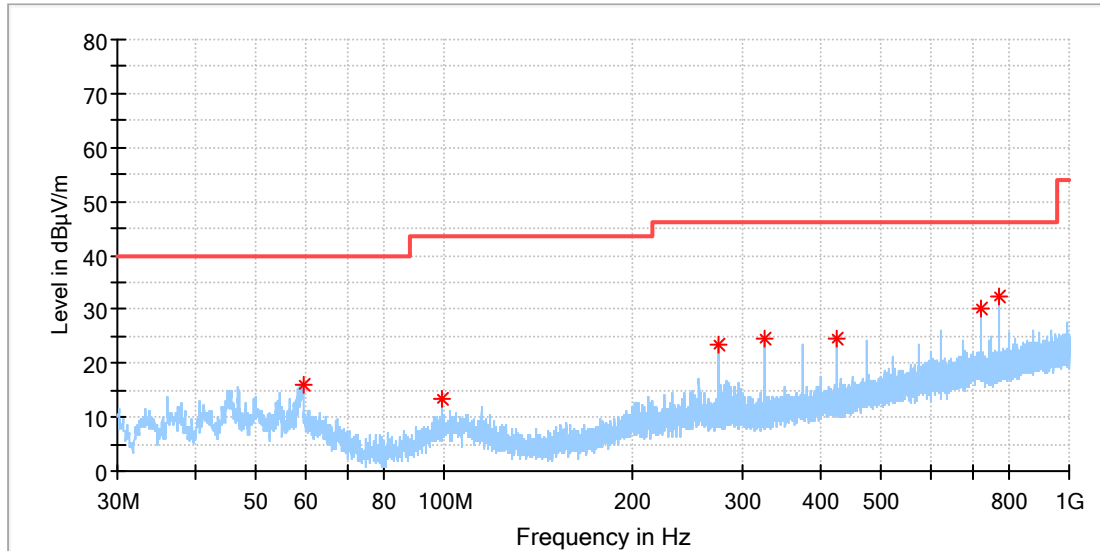


APPENDIX B.5: RADIATED SPURIOUS EMISSIONS

Note:

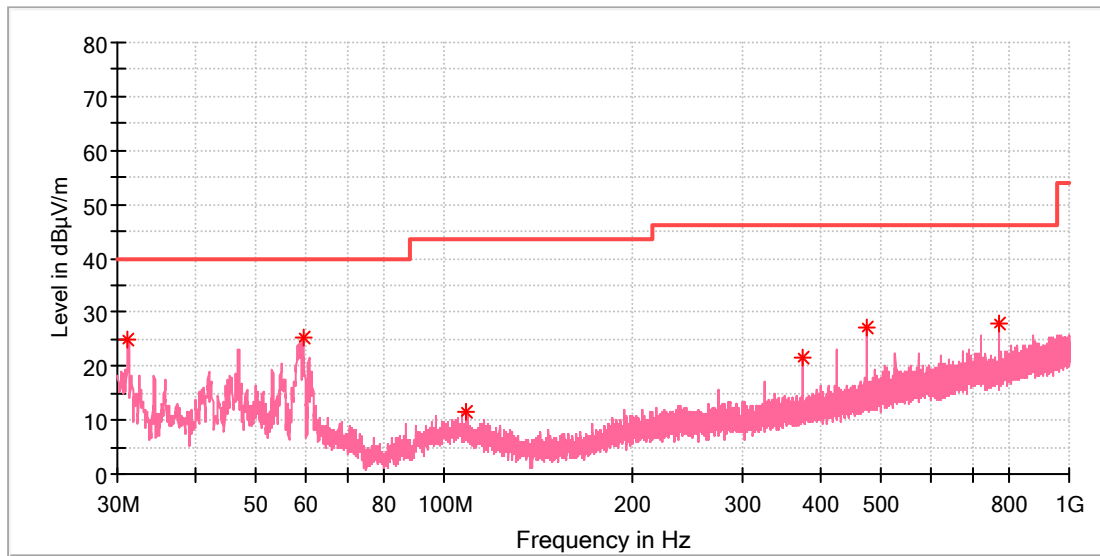
- 1) This testing was carried out on different modulations, but only the worst case was presented in this report.
- 2) Testing was carried out within frequency range 9kHz to the tenth harmonics. The measurement results below 30MHz and 18GHz - 26.5GHz were greater than 20dB below the limit, so only the radiated spurious emissions from 30MHz to 18GHz were reported.

Middle channel



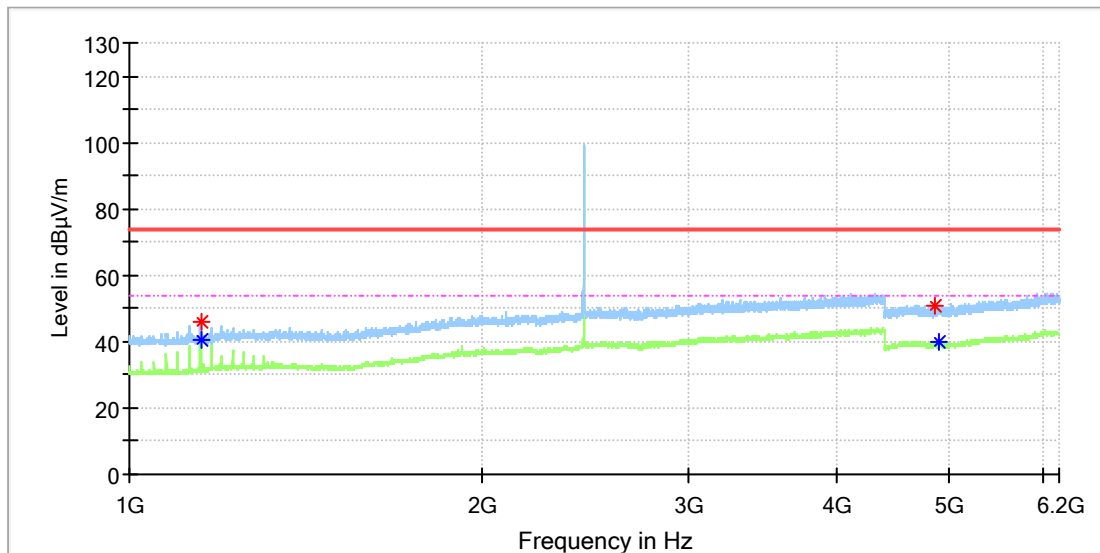
Critical Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
59.398462	16.14	40.00	23.86	100.0	H	153.0	-19.2
99.205769	13.41	43.50	30.09	100.0	H	323.0	-19.4
274.999615	23.36	46.00	22.64	100.0	H	176.0	-17.2
325.029231	24.59	46.00	21.41	100.0	H	145.0	-15.9
425.013846	24.52	46.00	21.48	100.0	H	161.0	-13.7
725.042308	30.10	46.00	15.90	100.0	H	0.0	-8.0
775.034615	32.21	46.00	13.79	100.0	H	96.0	-7.2



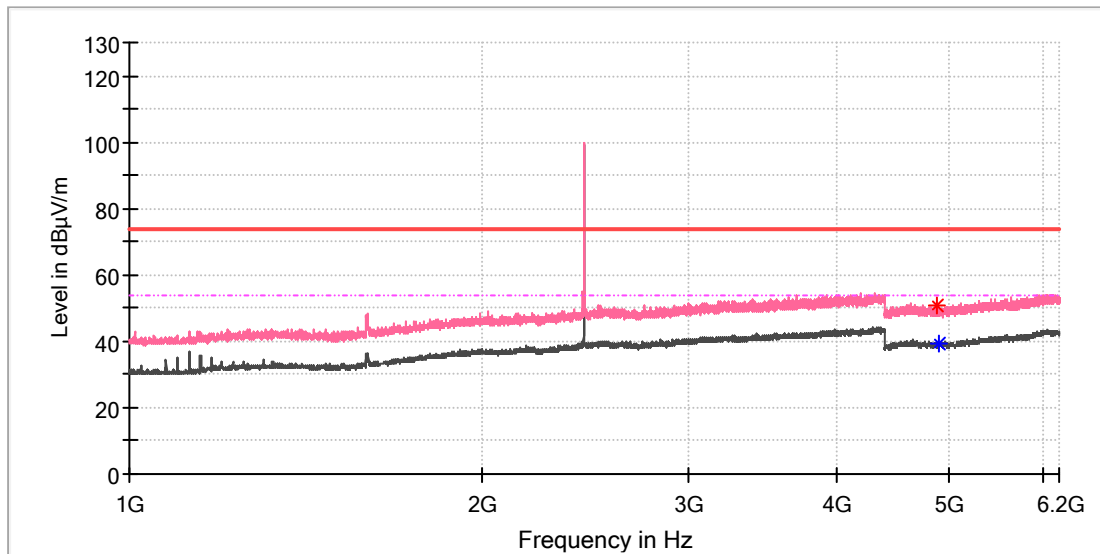
Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
31.231154	24.88	40.00	15.12	100.0	V	269.0	-23.1
59.398462	25.26	40.00	14.74	100.0	V	0.0	-19.2
108.308846	11.54	43.50	31.96	100.0	V	202.0	-19.3
375.021539	21.73	46.00	24.27	100.0	V	108.0	-14.7
475.006154	27.18	46.00	18.82	100.0	V	89.0	-12.7
775.034615	27.73	46.00	18.27	100.0	V	217.0	-7.2



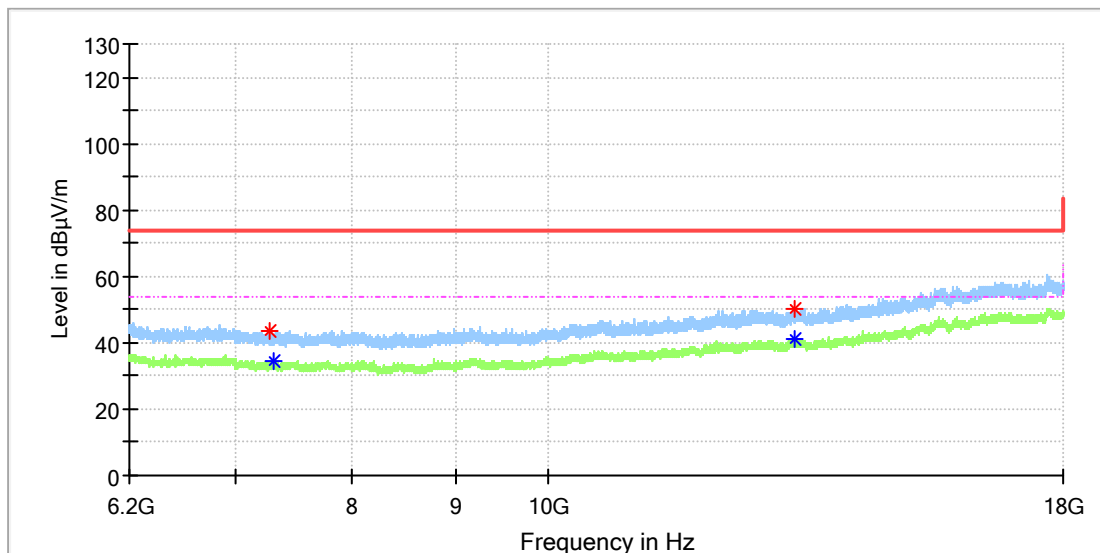
Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1150.000000	45.81	---	74.00	28.19	150.0	H	229.0	0.8
1150.000000	---	40.58	54.00	13.42	150.0	H	229.0	0.8
4865.500000	50.94	---	74.00	23.06	150.0	H	19.0	11.8
4900.500000	---	39.73	54.00	14.27	150.0	H	359.0	11.8



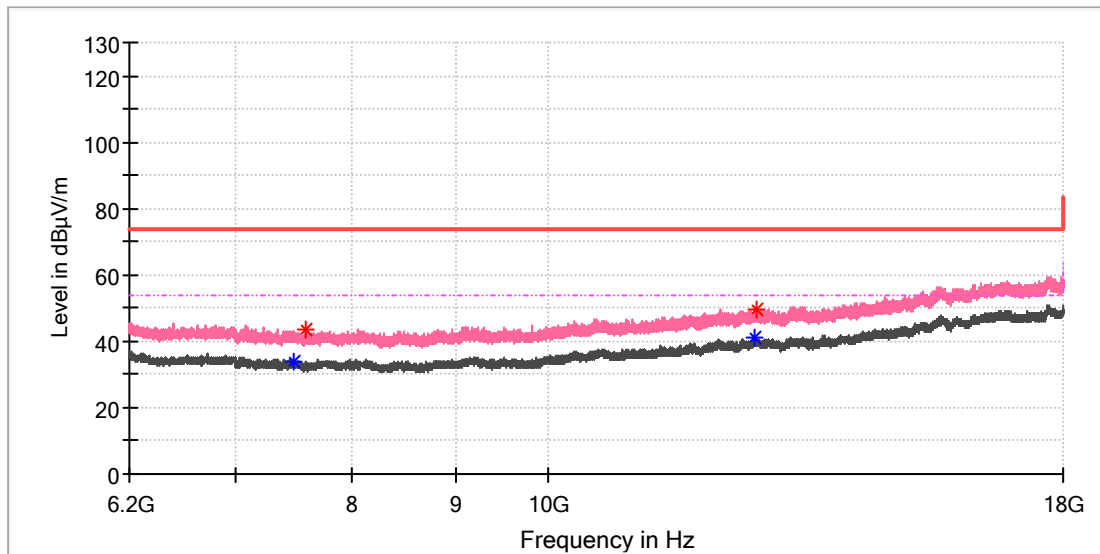
Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4883.500000	50.49	---	74.00	23.51	150.0	V	153.0	11.8
4900.500000	---	39.46	54.00	14.54	150.0	V	96.0	11.8



Critical_Freqs

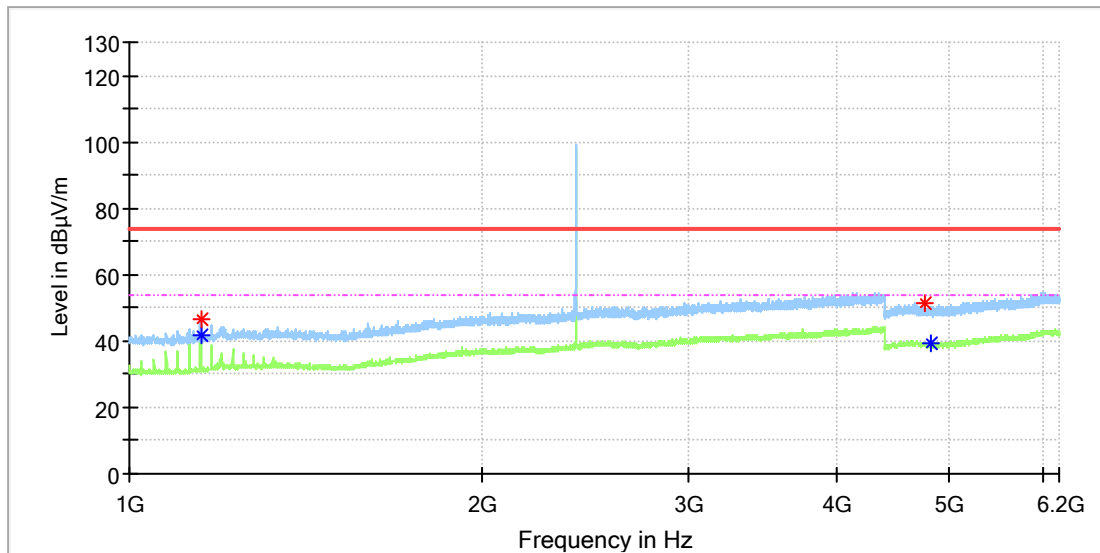
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7283.633333	43.56	---	74.00	30.44	150.0	H	0.0	8.4
7310.183333	---	34.41	54.00	19.59	150.0	H	262.0	8.2
13235.750000	50.14	---	74.00	23.86	150.0	H	248.0	15.5
13254.433333	---	40.87	54.00	13.13	150.0	H	175.0	15.5



Critical_Freqs

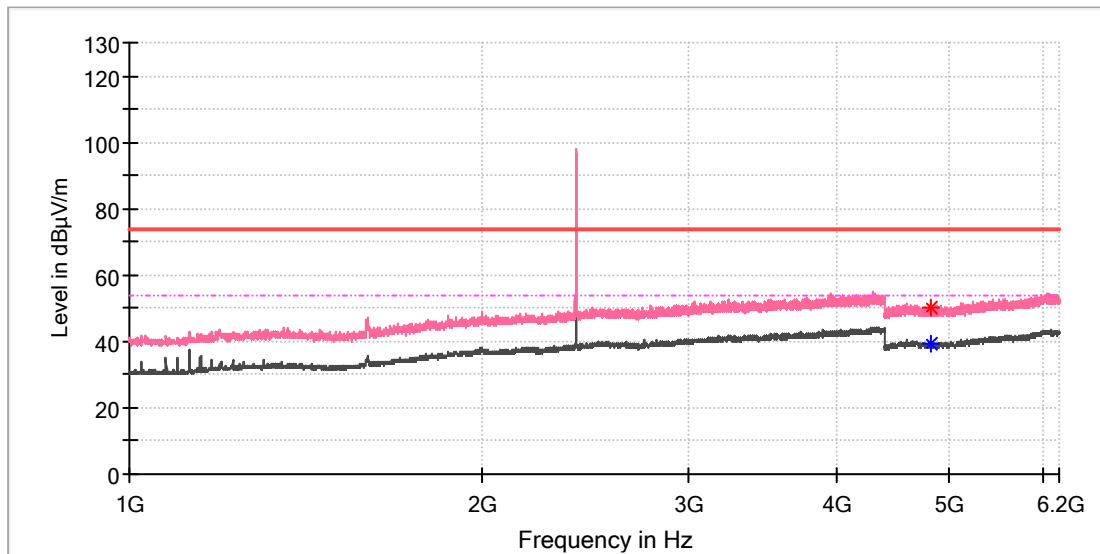
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7478.825000	---	34.11	54.00	19.89	150.0	V	160.0	8.7
7590.925000	43.39	---	74.00	30.61	150.0	V	40.0	8.7
12663.450000	---	40.91	54.00	13.09	150.0	V	15.0	15.0
12673.283333	49.79	---	74.00	24.21	150.0	V	64.0	15.1

Low channel



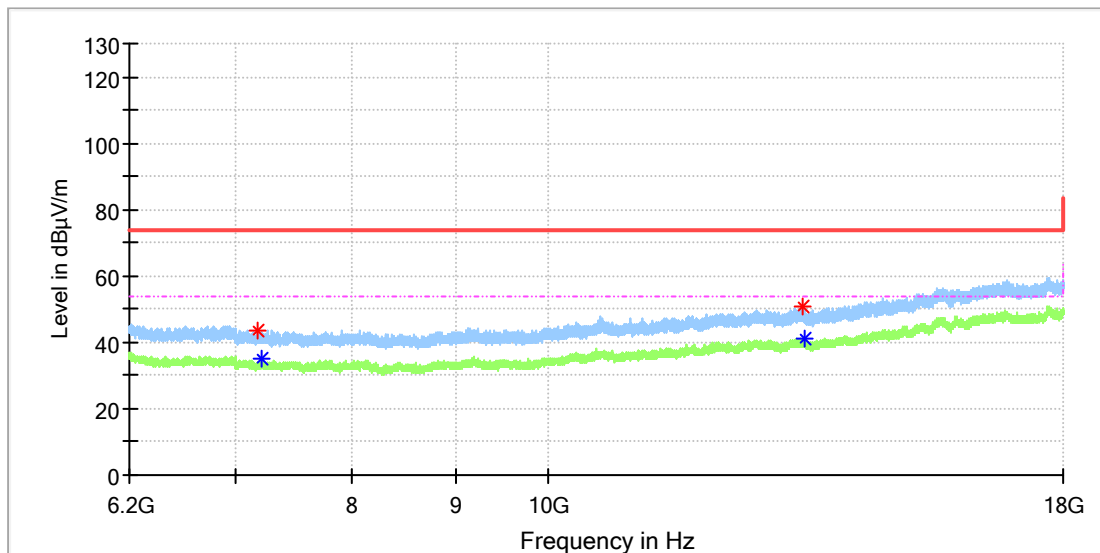
Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1150.000000	46.37	---	74.00	27.63	150.0	H	228.0	0.8
1150.000000	---	41.67	54.00	12.33	150.0	H	228.0	0.8
4770.500000	51.18	---	74.00	22.82	150.0	H	111.0	11.8
4822.000000	---	39.48	54.00	14.52	150.0	H	40.0	11.8



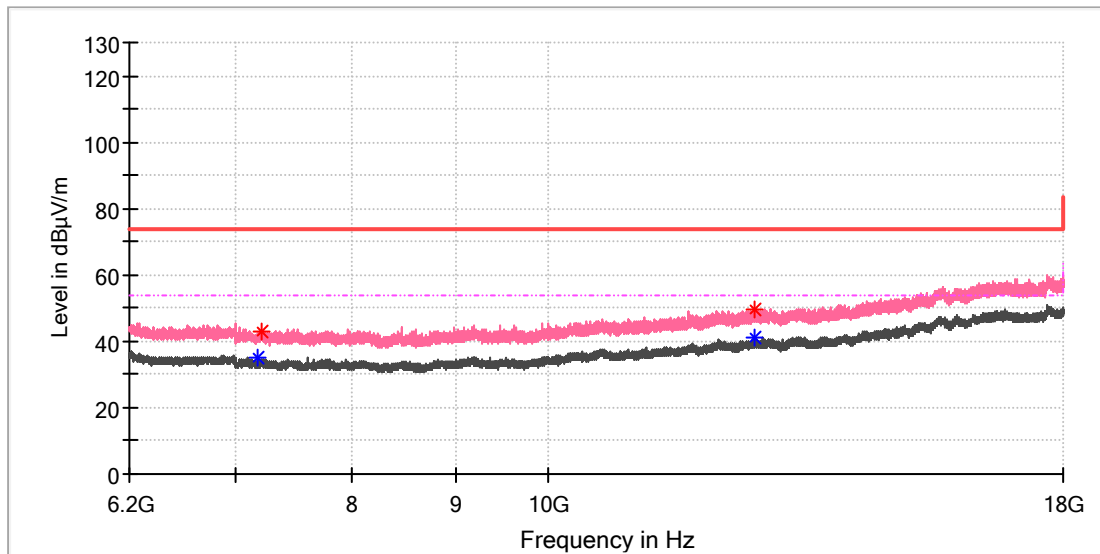
Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4811.500000	50.45	---	74.00	23.55	150.0	V	45.0	11.8
4815.500000	---	39.32	54.00	14.68	150.0	V	20.0	11.8



Critical_Freqs

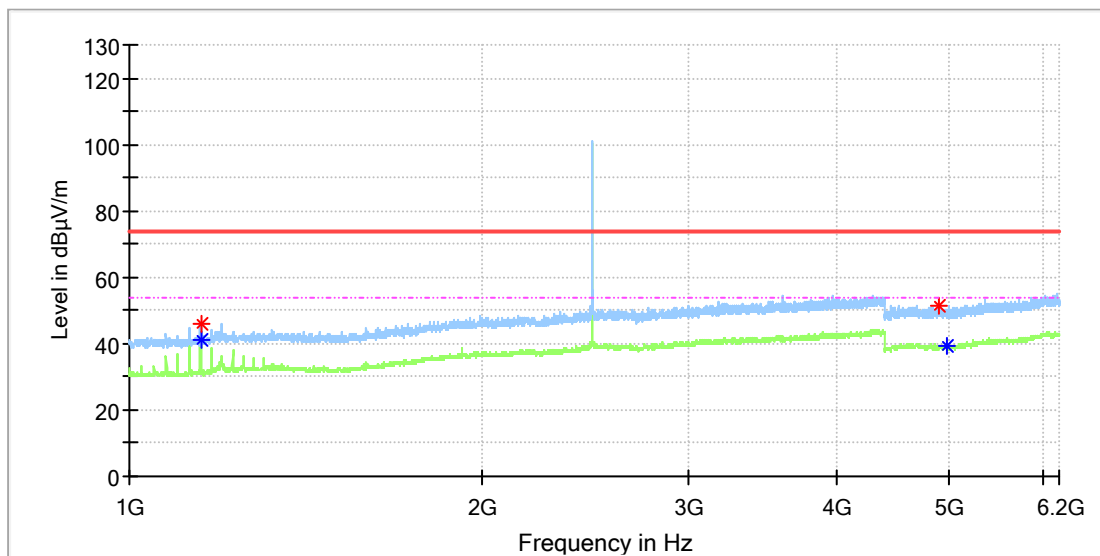
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7179.400000	43.35	---	74.00	30.65	150.0	H	4.0	8.8
7206.441667	---	34.90	54.00	19.10	150.0	H	4.0	8.8
13358.666667	50.60	---	74.00	23.40	150.0	H	77.0	15.5
13390.133333	---	41.40	54.00	12.60	150.0	H	14.0	15.6



Critical_Freqs

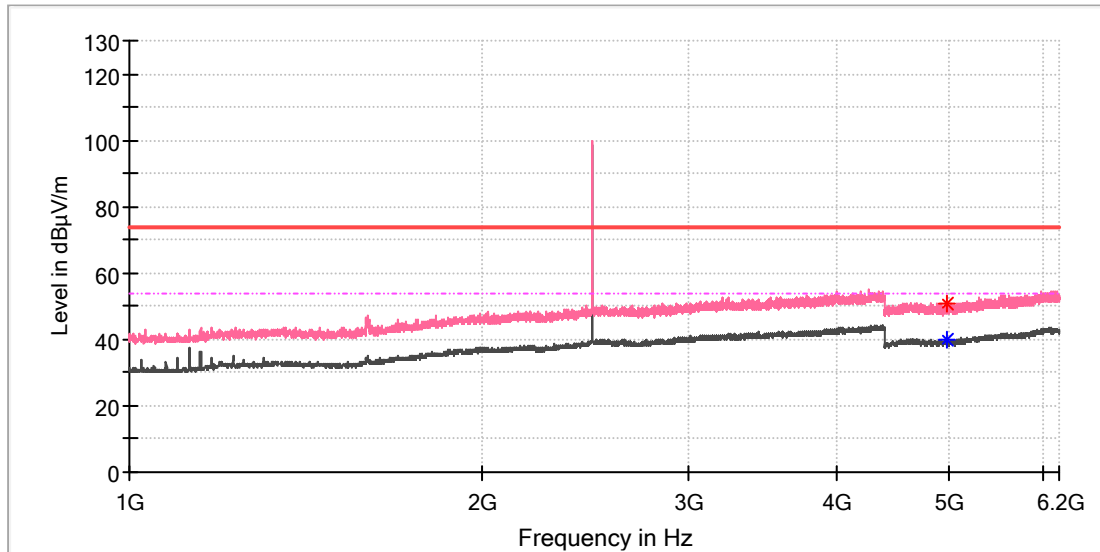
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7181.366667	---	34.92	54.00	19.08	150.0	V	166.0	8.8
7217.750000	43.08	---	74.00	30.92	150.0	V	325.0	8.7
12665.416667	49.56	---	74.00	24.44	150.0	V	249.0	15.1
12669.350000	---	40.92	54.00	13.08	150.0	V	191.0	15.1

High Channel



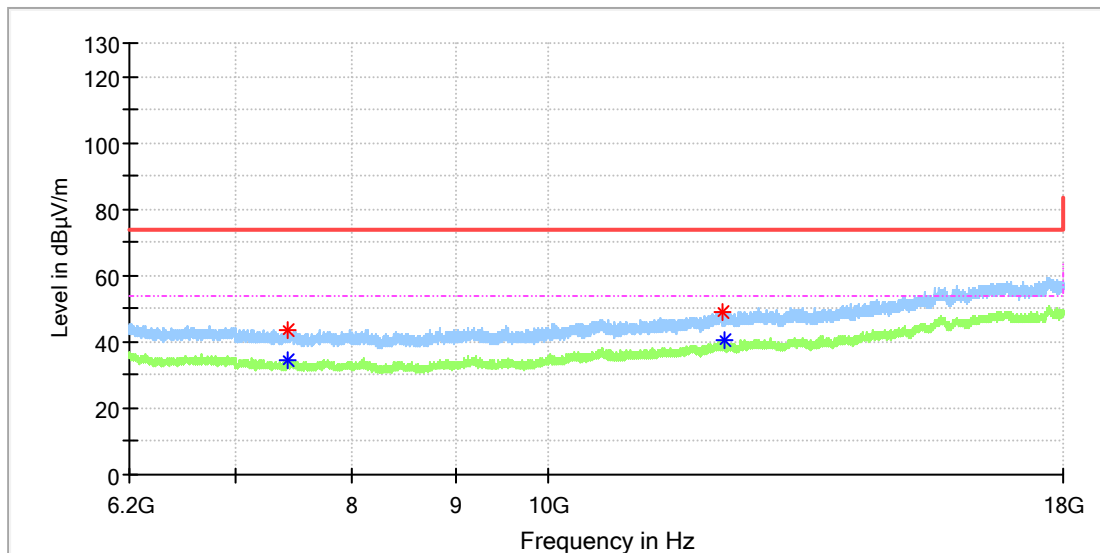
Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1150.000000	45.69	---	74.00	28.31	150.0	H	225.0	0.8
1150.000000	---	41.40	54.00	12.60	150.0	H	225.0	0.8
4906.500000	51.49	---	74.00	22.51	150.0	H	284.0	11.8
4967.500000	---	39.42	54.00	14.58	150.0	H	139.0	11.8



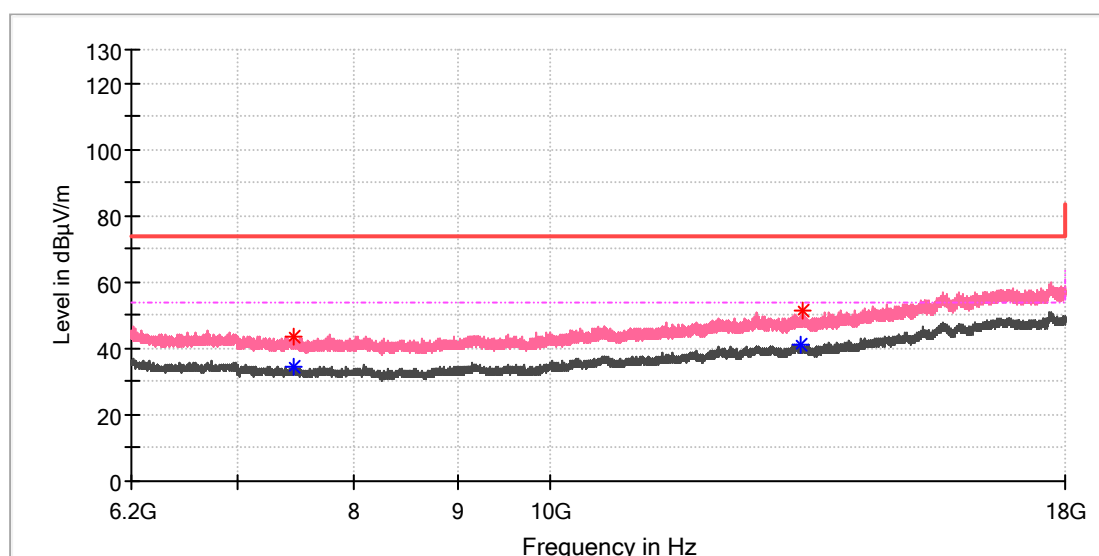
Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4967.500000	---	39.69	54.00	14.31	150.0	V	338.0	11.8
4971.500000	50.83	---	74.00	23.17	150.0	V	238.0	11.8



Critical_Freqs

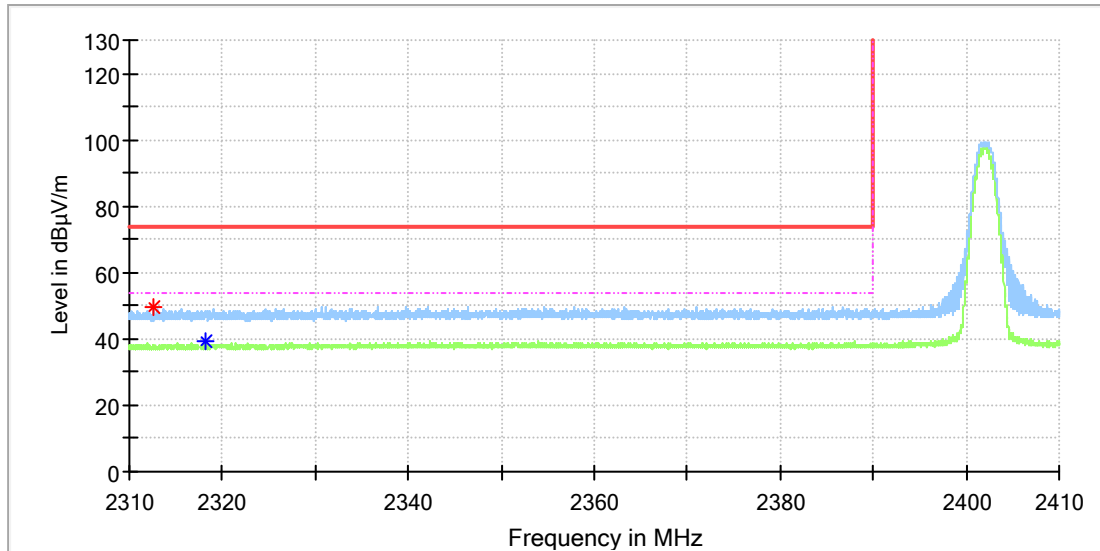
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7421.300000	43.75	---	74.00	30.25	150.0	H	116.0	8.4
7423.266667	---	34.66	54.00	19.34	150.0	H	288.0	8.4
12190.958333	48.82	---	74.00	25.18	150.0	H	252.0	14.6
12225.375000	---	40.62	54.00	13.38	150.0	H	264.0	14.7



Critical_Freqs

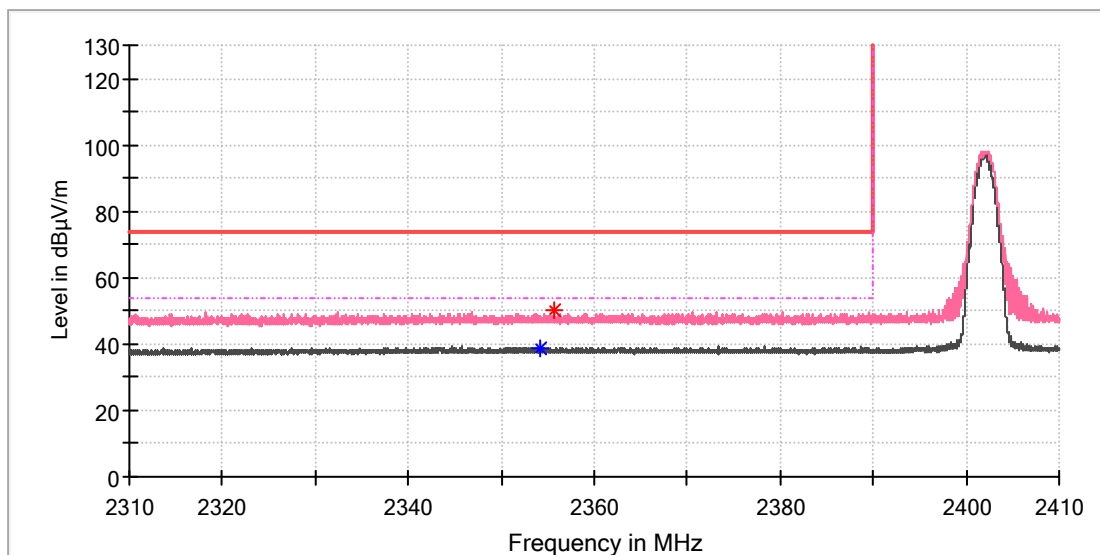
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7456.208333	---	34.69	54.00	19.31	150.0	V	72.0	8.5
7468.991667	43.40	---	74.00	30.60	150.0	V	120.0	8.6
13317.858333	---	41.35	54.00	12.65	150.0	V	2.0	15.5
13332.608333	51.60	---	74.00	22.40	150.0	V	2.0	15.5

APPENDIX B.6: RADIATED EMISSIONS IN RESTRICTED BANDS



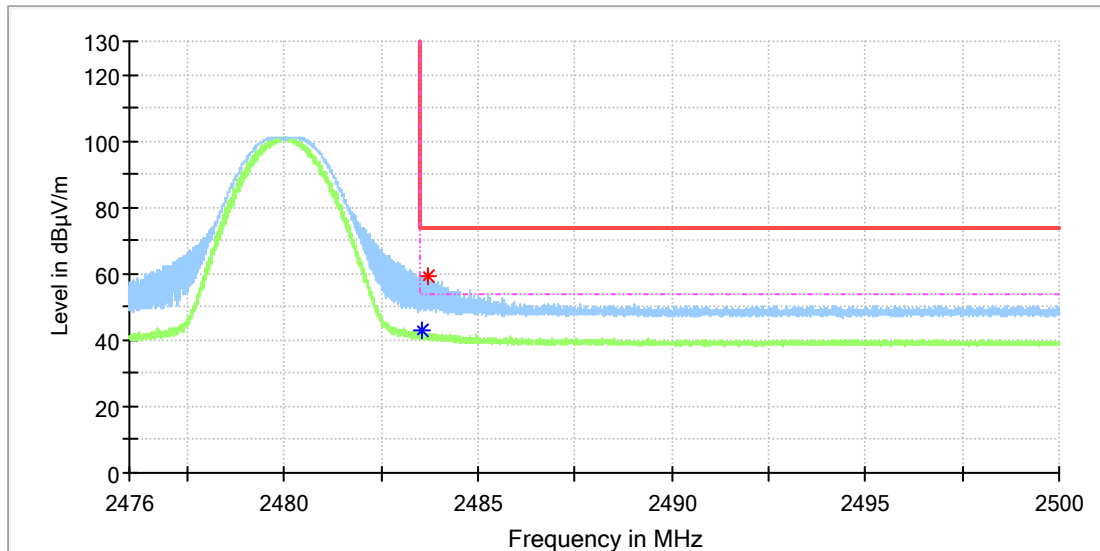
Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2312.602941	49.88	---	74.00	24.12	150.0	H	82.0	6.5
2318.102941	---	39.14	54.00	14.86	150.0	H	332.0	6.6



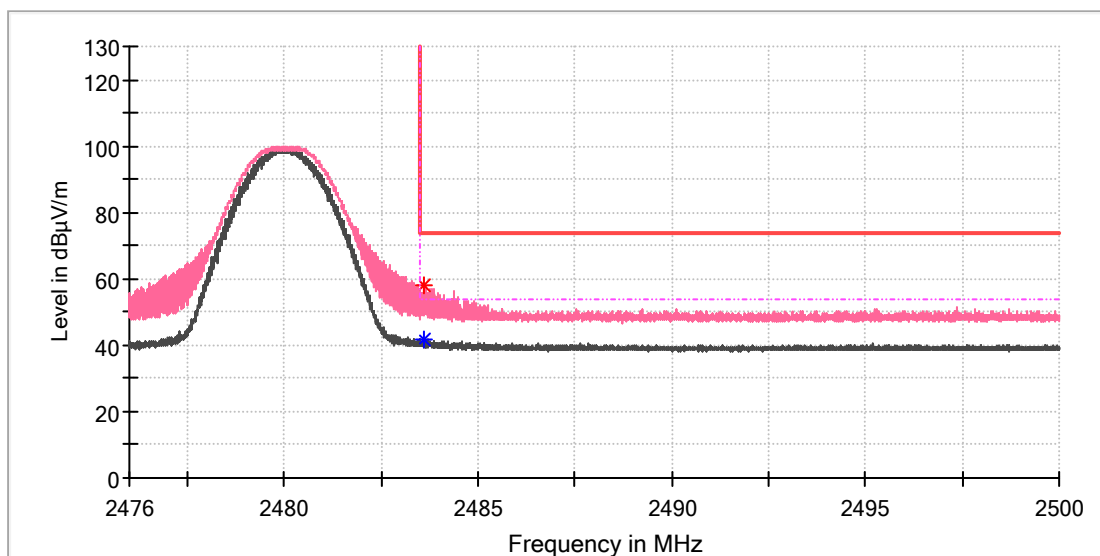
Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2354.176471	---	38.82	54.00	15.18	150.0	V	308.0	6.9
2355.647059	50.36	---	74.00	23.64	150.0	V	74.0	6.9



Critical Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2483.531765	---	42.97	54.00	11.03	150.0	H	329.0	7.4
2483.683530	59.02	---	74.00	14.98	150.0	H	336.0	7.4

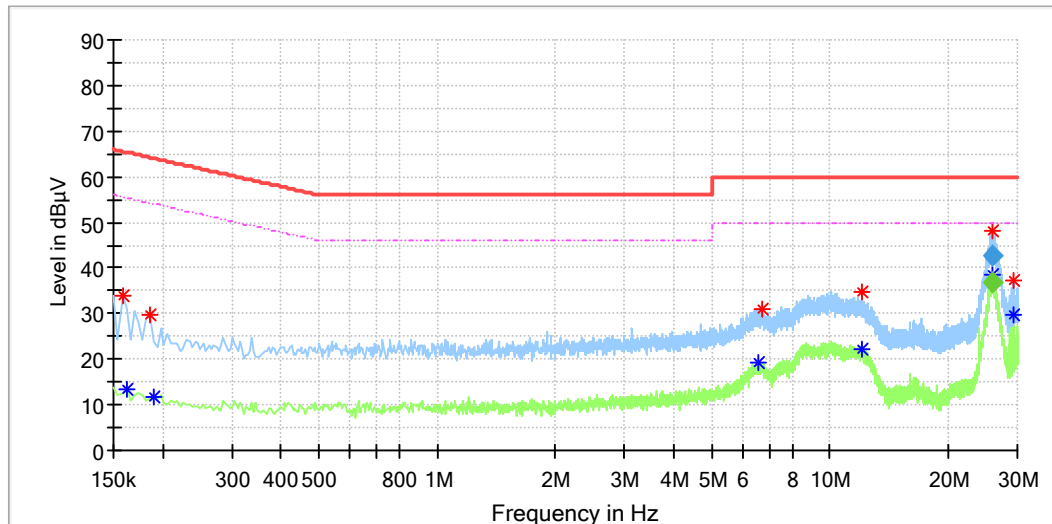


Critical Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2483.581177	58.13	---	74.00	15.87	150.0	V	324.0	7.4
2483.623530	---	41.58	54.00	12.42	150.0	V	246.0	7.4

APPENDIX B.7: CONDUCTED EMISSION ON AC MAINS

Normal Working with Bluetooth connected

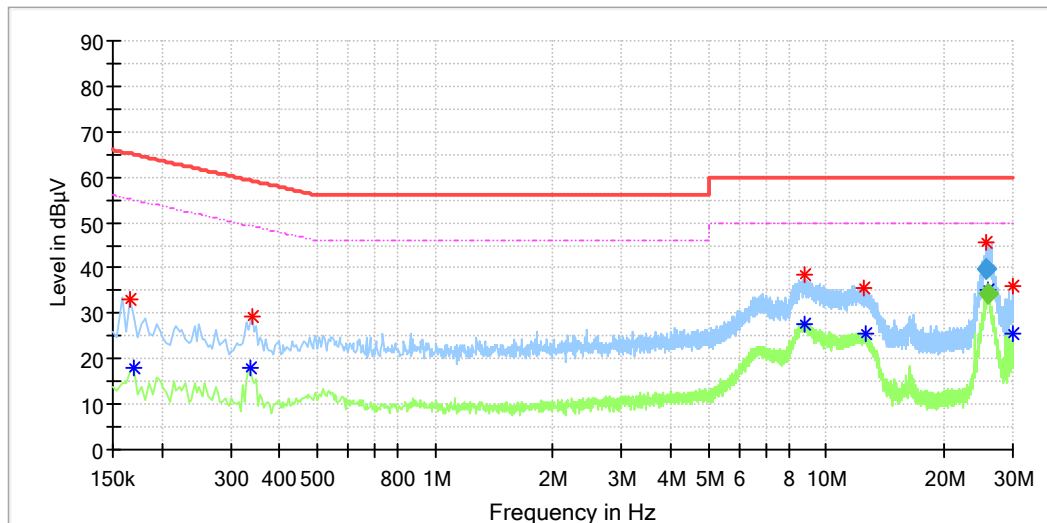


Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)
0.158000	33.70	---	65.57	31.87	L1	9.9
0.162000	---	13.25	55.36	42.11	L1	9.9
0.186000	29.52	---	64.21	34.70	L1	9.9
0.190000	---	11.89	54.04	42.15	L1	9.9
6.602000	---	19.22	50.00	30.78	L1	10.3
6.698000	30.89	---	60.00	29.11	L1	10.3
11.998000	---	22.37	50.00	27.63	L1	10.3
12.018000	34.89	---	60.00	25.11	L1	10.3
25.778500	48.19	---	60.00	11.81	L1	10.4
25.821500	---	38.42	50.00	11.58	L1	10.4
29.234000	---	29.78	50.00	20.22	L1	10.4
29.238000	37.12	---	60.00	22.88	L1	10.4

Final_Result

Frequency (MHz)	QuasiPeak (dBµV)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
25.778500	42.65	---	60.00	17.35	1000.0	9.000	L1	10.4
25.821500	---	36.69	50.00	13.31	1000.0	9.000	L1	10.4



Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)
0.166000	32.89	---	65.16	32.27	N	9.8
0.170000	---	17.88	54.96	37.08	N	9.8
0.338000	---	18.08	49.25	31.17	N	9.8
0.342000	29.47	---	59.16	29.69	N	9.8
8.766000	38.33	---	60.00	21.67	N	10.0
8.838000	---	27.58	50.00	22.42	N	10.0
12.458000	35.54	---	60.00	24.46	N	10.1
12.546000	---	25.33	50.00	24.67	N	10.1
25.697500	45.80	---	60.00	14.20	N	10.3
25.857500	---	35.09	50.00	14.91	N	10.3
29.906000	35.81	---	60.00	24.19	N	10.4
29.910000	---	25.55	50.00	24.45	N	10.4

Final_Result

Frequency (MHz)	QuasiPeak (dBµV)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
25.697500	39.74	---	60.00	20.26	1000.0	9.000	N	10.3
25.857500	---	34.20	50.00	15.80	1000.0	9.000	N	10.3