

Appendix A: DTS Bandwidth

Test Result

TestMode	Antenna	Frequency[MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.692	2401.648	2402.340	0.5	PASS
BLE_1M	Ant1	2440	0.704	2439.656	2440.360	0.5	PASS
BLE_1M	Ant1	2480	0.748	2479.640	2480.388	0.5	PASS

Test Graphs



Appendix B: Occupied Channel Bandwidth

Test Result

TestMode	Antenna	Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	1.0441	2401.4799	2402.5240	---	---
BLE_1M	Ant1	2440	1.0871	2439.4596	2440.5467	---	---
BLE_1M	Ant1	2480	1.0714	2479.4682	2480.5396	---	---

Test Graphs



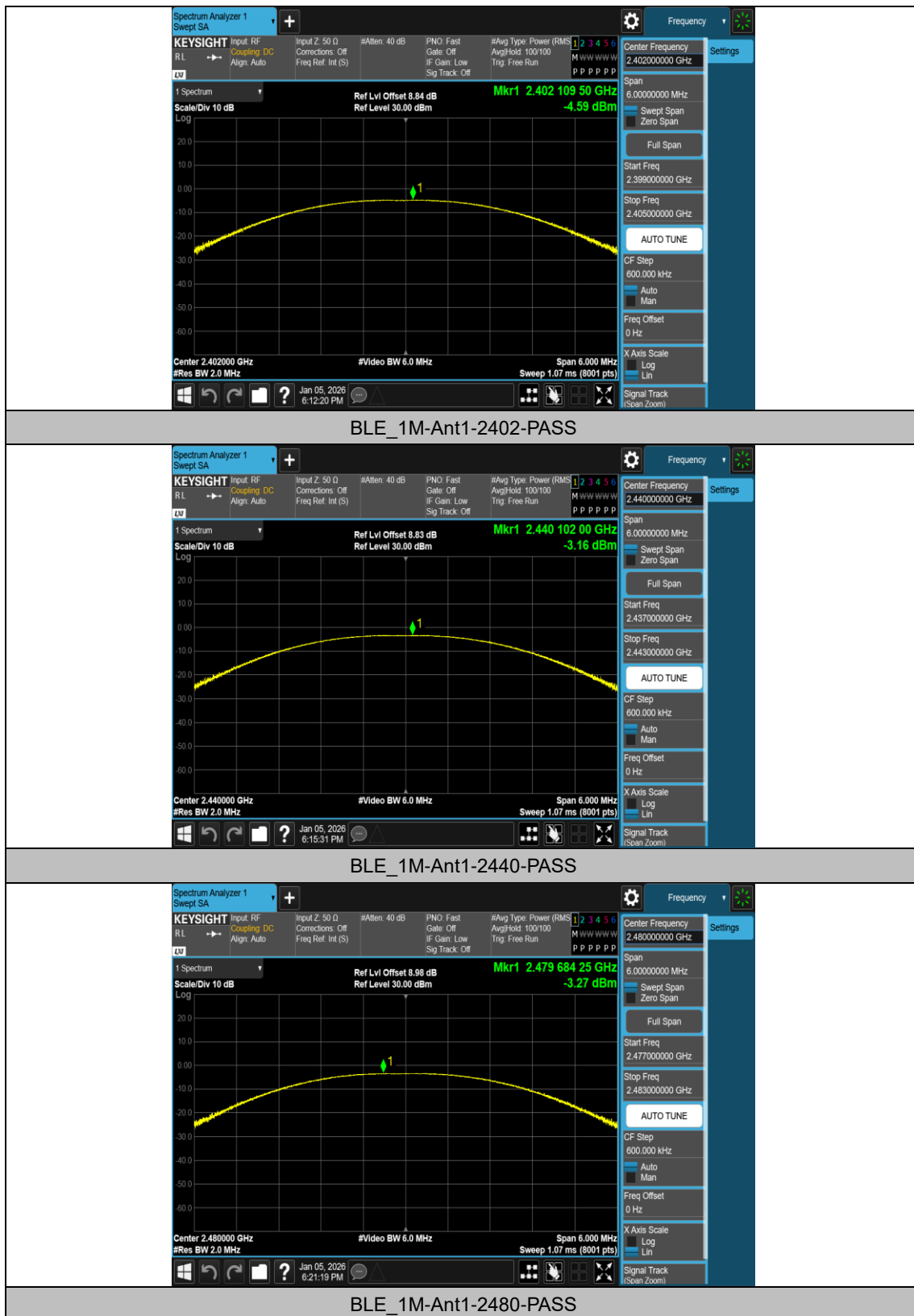
Appendix C: Maximum conducted output power

Test Result Peak

TestMode	Antenna	Frequency[MHz]	Conducted Peak Power[dBm]	Conducted Limit[dBm]	EIRP[dBm]	EIRP Limit[dBm]	Verdict
BLE_1M	Ant1	2402	-4.59	≤30	-0.69	≤36	PASS
BLE_1M	Ant1	2440	-3.16	≤30	0.74	≤36	PASS
BLE_1M	Ant1	2480	-3.27	≤30	0.63	≤36	PASS

Note: EIRP=Conducted Peak Power+Antenna Gain(3.9dBi).

Test Graphs Peak



Appendix D: Maximum power spectral density

Test Result

TestMode	Antenna	Frequency[MHz]	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-17.27	≤8.00	PASS
BLE_1M	Ant1	2440	-16.13	≤8.00	PASS
BLE_1M	Ant1	2480	-17.26	≤8.00	PASS

Test Graphs

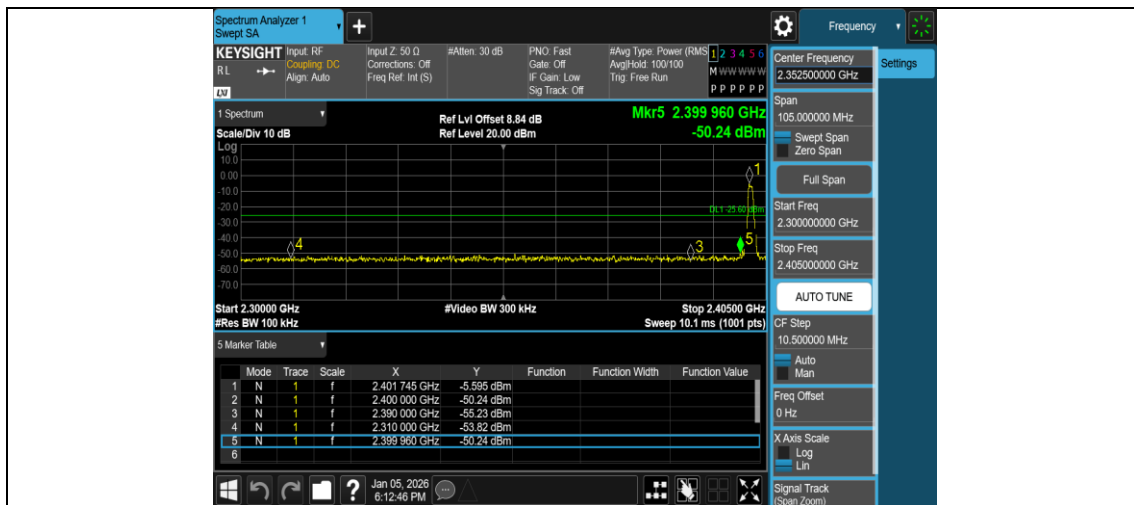


Appendix E: Band edge measurements

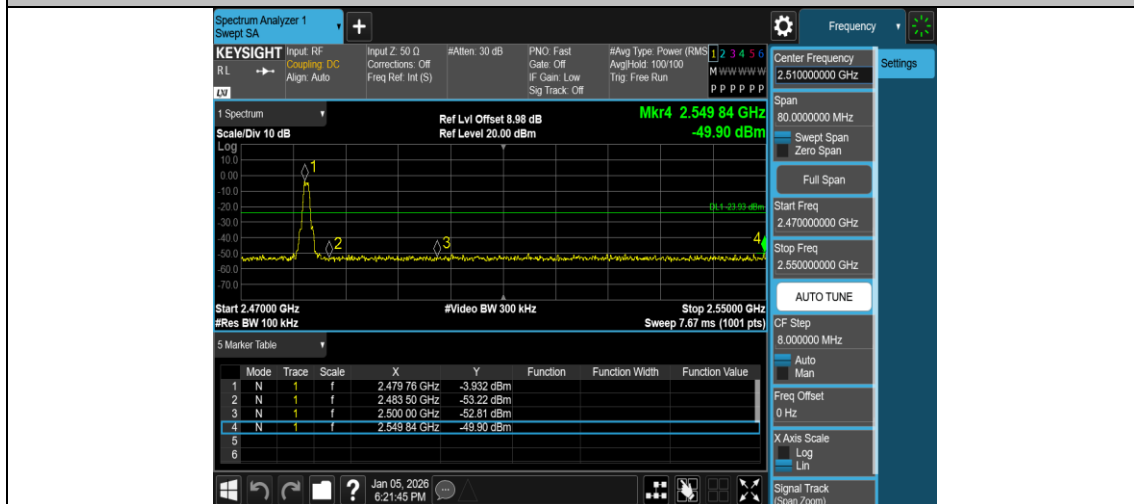
Test Result

TestMode	Antenna	ChName	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	-5.60	-50.24	≤ -25.6	PASS
BLE_1M	Ant1	High	2480	-3.93	-49.9	≤ -23.93	PASS

Test Graphs



BLE_1M-Ant1-2402-PASS



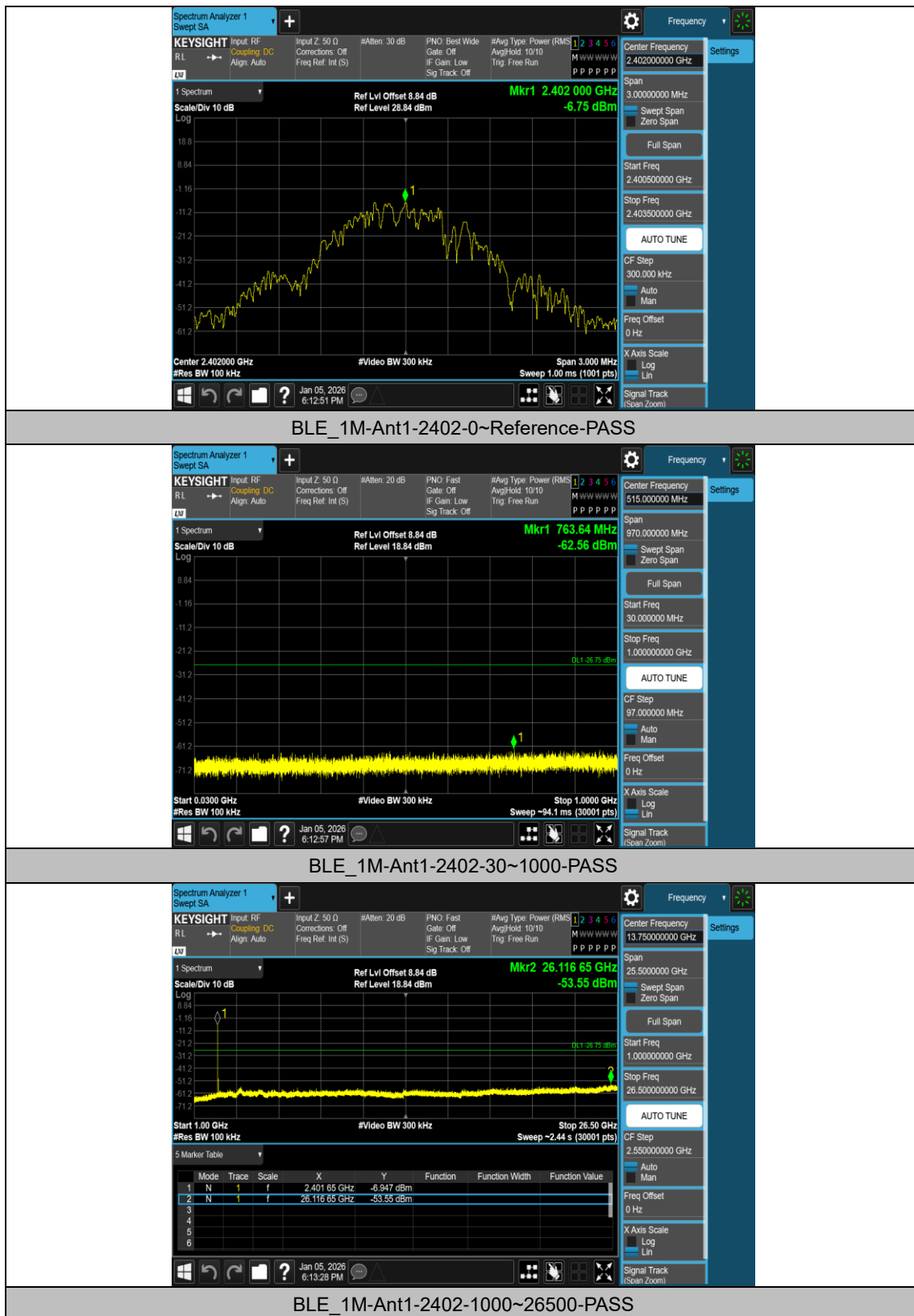
BLE_1M-Ant1-2480-PASS

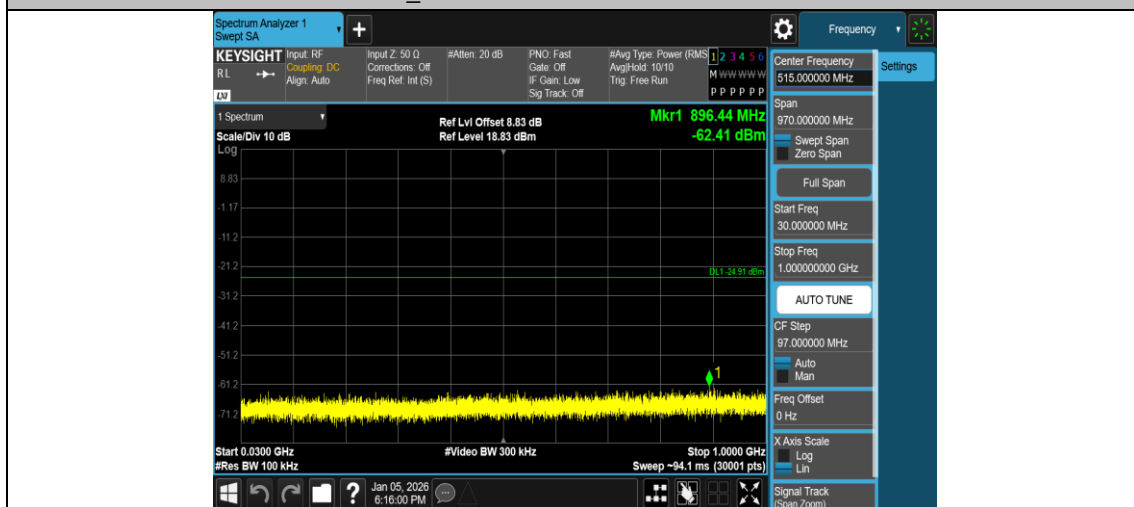
Appendix F: Conducted Spurious Emission

Test Result

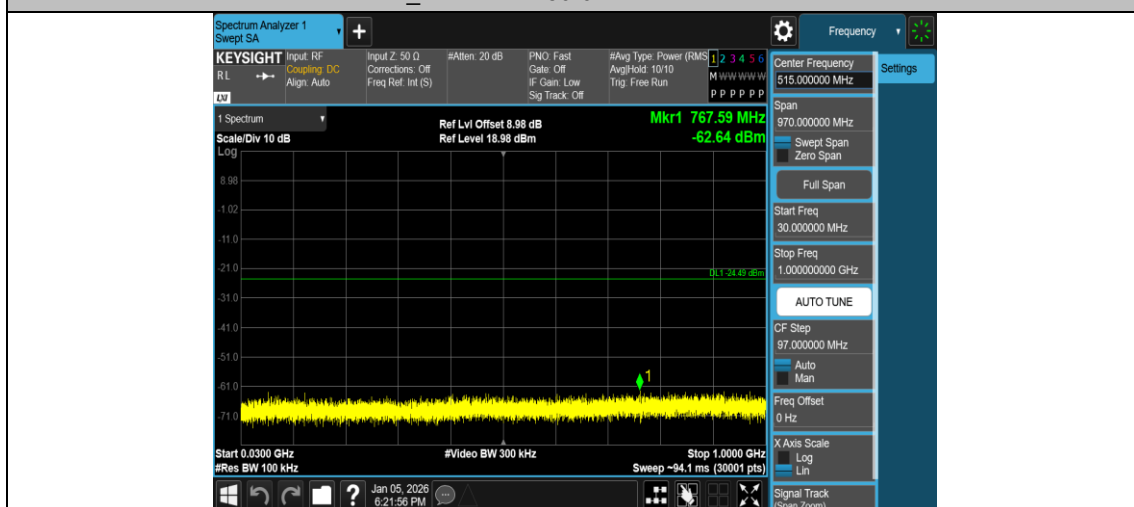
TestMode	Antenna	Frequency [MHz]	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	0~Reference	-6.75	-6.75	---	PASS
BLE_1M	Ant1	2402	30~1000	-6.75	-62.56	≤-26.75	PASS
BLE_1M	Ant1	2402	1000~26500	-6.75	-53.55	≤-26.75	PASS
BLE_1M	Ant1	2440	0~Reference	-4.91	-4.91	---	PASS
BLE_1M	Ant1	2440	30~1000	-4.91	-62.41	≤-24.91	PASS
BLE_1M	Ant1	2440	1000~26500	-4.91	-48.86	≤-24.91	PASS
BLE_1M	Ant1	2480	0~Reference	-4.49	-4.49	---	PASS
BLE_1M	Ant1	2480	30~1000	-4.49	-62.64	≤-24.49	PASS
BLE_1M	Ant1	2480	1000~26500	-4.49	-49.34	≤-24.49	PASS

Test Graphs




BLE_1M-Ant1-2440-0~Reference-PASS

BLE_1M-Ant1-2440-30~1000-PASS

BLE_1M-Ant1-2440-1000~26500-PASS


BLE_1M-Ant1-2480-0~Reference-PASS

BLE_1M-Ant1-2480-30~1000-PASS

BLE_1M-Ant1-2480-1000~26500-PASS

Appendix G: Duty Cycle

Test Result

TestMode	Antenna	Frequency[MHz]	ON Time [ms]	Period [ms]	Duty Cycle [%]
BLE_1M	Ant1	2402	2.12	6.99	30.33
BLE_1M	Ant1	2440	2.12	6.99	30.33
BLE_1M	Ant1	2480	2.12	6.99	30.33

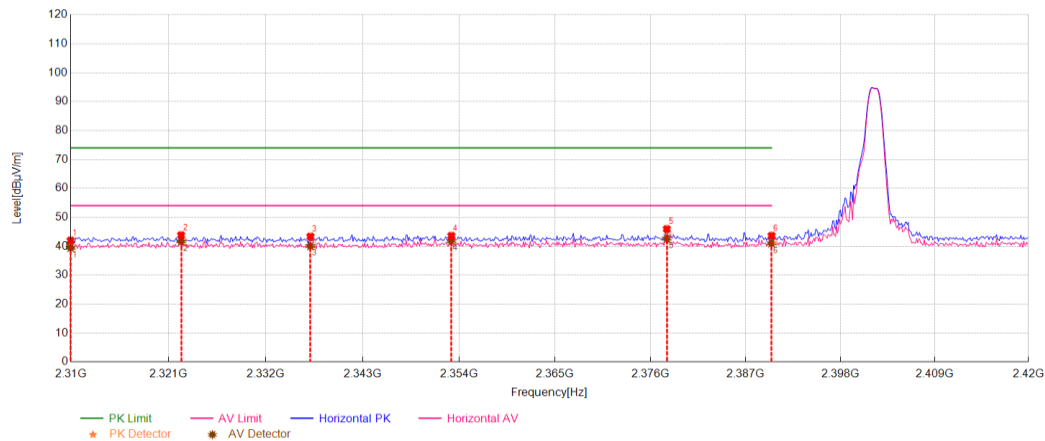
Test Graphs



Appendix H: Emissions in Restricted Bands-Left

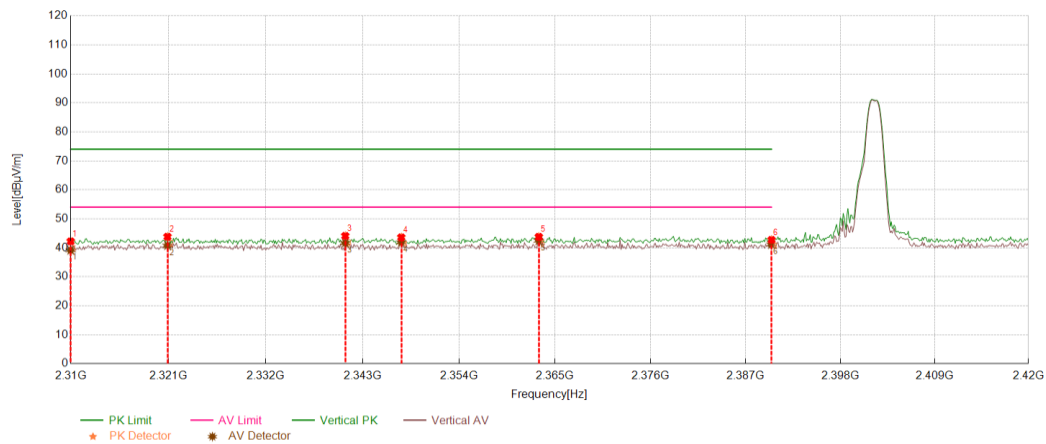
Test Result

Mode:	BLE 1M-2402
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Final Data List

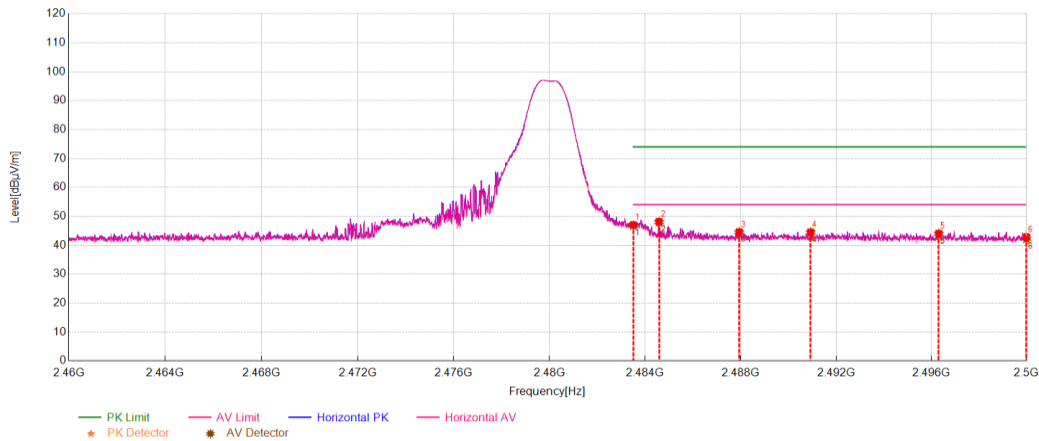
NO.	Frequency [MHz]	Factor [dB]	PK Reading [dBμV/m]	PK Value [dBμV/m]	PK Limit [dBμV/m]	PK Margin [dB]	AV Reading [dBμV/m]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Height [cm]	Angle [°]	Polarity	Verdict
1	2310.0000	4.67	37.32	41.99	74.00	32.01	34.80	39.47	54.00	14.53	100	315	Horizontal	PASS
2	2322.4300	4.87	38.96	43.83	74.00	30.17	36.80	41.67	54.00	12.33	100	87	Horizontal	PASS
3	2337.0600	4.81	38.54	43.35	74.00	30.65	35.27	40.08	54.00	13.92	100	215	Horizontal	PASS
4	2353.1200	4.96	38.64	43.60	74.00	30.40	36.81	41.77	54.00	12.23	100	289	Horizontal	PASS
5	2377.8700	5.08	40.87	45.95	74.00	28.05	37.52	42.60	54.00	11.40	100	21	Horizontal	PASS
6	2390.0000	4.95	38.69	43.64	74.00	30.36	36.05	41.00	54.00	13.00	100	61	Horizontal	PASS



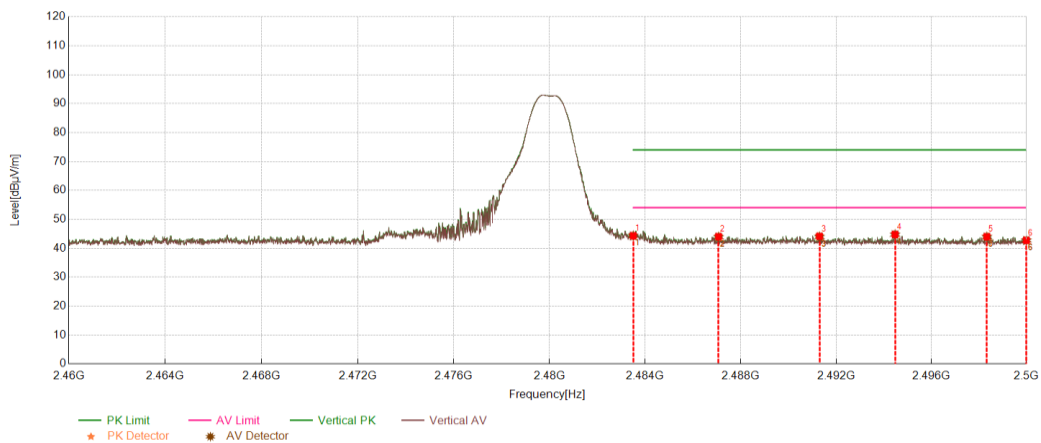
Final Data List

NO.	Frequency [MHz]	Factor [dB]	PK Reading [dBμV/m]	PK Value [dBμV/m]	PK Limit [dBμV/m]	PK Margin [dB]	AV Reading [dBμV/m]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Height [cm]	Angle [°]	Polarity	Verdict
1	2310.0000	4.67	37.55	42.22	74.00	31.78	34.47	39.14	54.00	14.86	100	65	Vertical	PASS
2	2320.8900	4.91	38.9	43.81	74.00	30.19	35.87	40.78	54.00	13.22	100	332	Vertical	PASS
3	2341.0200	4.87	39.23	44.10	74.00	29.90	36.76	41.63	54.00	12.37	100	46	Vertical	PASS
4	2347.4000	4.93	38.66	43.59	74.00	30.41	36.96	41.89	54.00	12.11	100	106	Vertical	PASS
5	2363.1300	4.92	38.87	43.79	74.00	30.21	37.52	42.44	54.00	11.56	100	334	Vertical	PASS
6	2390.0000	4.95	37.78	42.73	74.00	31.27	36.19	41.14	54.00	12.86	100	328	Vertical	PASS

Mode:	BLE 1M-2480
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Final Data List														
NO.	Frequency [MHz]	Factor [dB]	PK Reading [dBµV/m]	PK Value [dBµV/m]	PK Limit [dBµV/m]	PK Margin [dB]	AV Reading [dBµV/m]	AV Value [dBµV/m]	AV Limit [dBµV/m]	AV Margin [dB]	Height [cm]	Angle [°]	Polarity	Verdict
1	2483.5000	5.46	41.54	47.00	74.00	27.00	41.33	46.79	54.00	7.21	100	71	Horizontal	PASS
2	2484.5803	5.51	42.59	48.10	74.00	25.90	42.46	47.97	54.00	6.03	100	64	Horizontal	PASS
3	2487.9377	5.46	39.08	44.54	74.00	29.46	38.96	44.42	54.00	9.58	100	60	Horizontal	PASS
4	2490.9353	5.55	38.92	44.47	74.00	29.53	38.81	44.36	54.00	9.64	100	130	Horizontal	PASS
5	2496.3149	5.57	38.45	44.02	74.00	29.98	38.32	43.89	54.00	10.11	100	60	Horizontal	PASS
6	2500.0000	5.50	37.35	42.85	74.00	31.15	36.70	42.20	54.00	11.80	100	360	Horizontal	PASS



Final Data List														
NO.	Frequency [MHz]	Factor [dB]	PK Reading [dBµV/m]	PK Value [dBµV/m]	PK Limit [dBµV/m]	PK Margin [dB]	AV Reading [dBµV/m]	AV Value [dBµV/m]	AV Limit [dBµV/m]	AV Margin [dB]	Height [cm]	Angle [°]	Polarity	Verdict
1	2483.5000	5.46	38.85	44.31	74.00	29.69	38.81	44.27	54.00	9.73	100	43	Vertical	PASS
2	2487.0743	5.53	38.49	44.02	74.00	29.98	38.27	43.80	54.00	10.20	100	20	Vertical	PASS
3	2491.3030	5.55	38.57	44.12	74.00	29.88	38.31	43.86	54.00	10.14	100	157	Vertical	PASS
4	2494.4764	5.58	39.19	44.77	74.00	29.23	39.08	44.66	54.00	9.34	100	47	Vertical	PASS
5	2498.3373	5.55	38.45	44.00	74.00	30.00	38.30	43.85	54.00	10.15	100	337	Vertical	PASS
6	2500.0000	5.50	37.23	42.73	74.00	31.27	37.16	42.66	54.00	11.34	100	138	Vertical	PASS

Appendix I: Spurious emissions-Left

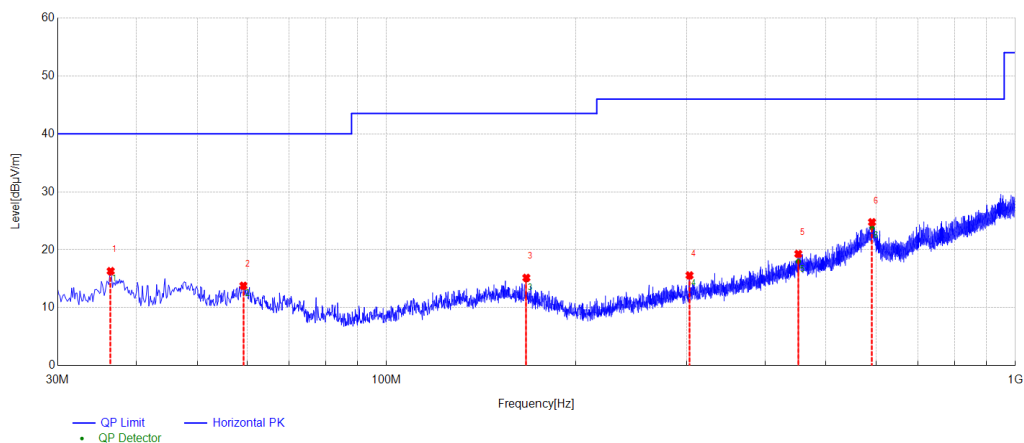
Test Result

Note:

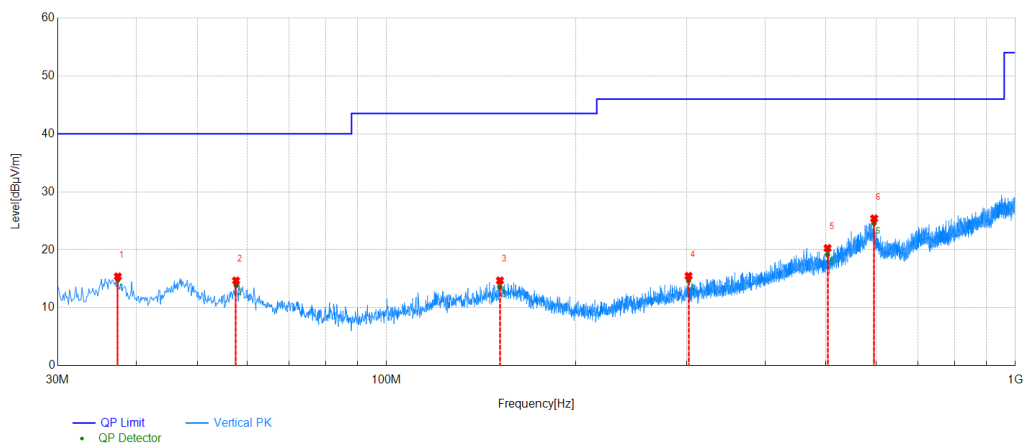
The low frequency, which starts from 9 kHz to 30 MHz, is pre-scanned and the result which is 20 dB lower than the limit line is not reported.

During the test, the Radiates Emission from 30MHz to 1GHz was performed in all modes with all channels. The test data of the worst-case (2442MHz) condition was recorded in this report.

The measurement results above 18GHz were greater than 20dB below the limit, so only the radiated spurious emissions from 30MHz to 18GHz are reported.



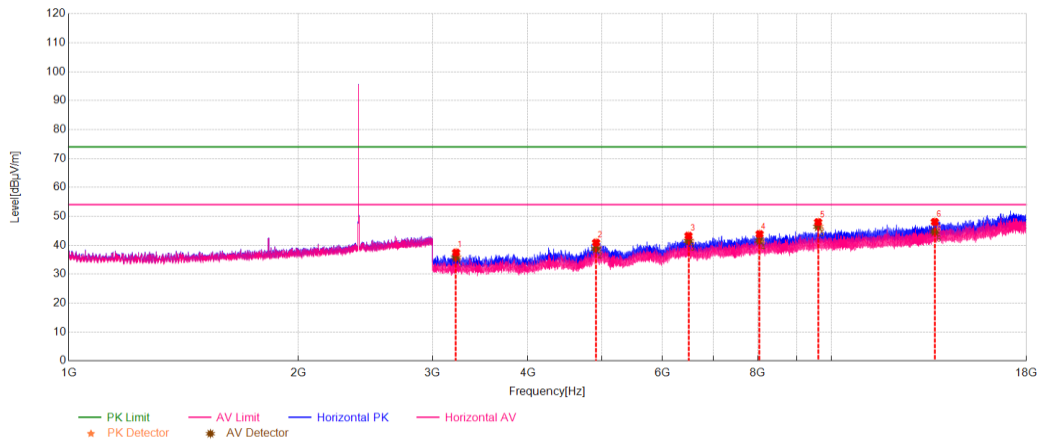
QP Final Data List									
NO.	Freq. [MHz]	Factor [dB/m]	QP Value [dBμV/m]	QP Limit [dBμV/m]	QP Margin [dB]	Height [cm]	Angle [°]	Polarity	Verdict
1	36.4263	-16.09	16.29	40.00	23.71	100	208	Horizontal	PASS
2	59.2212	-16.82	13.77	40.00	26.23	100	217	Horizontal	PASS
3	166.8913	-16.15	14.83	43.50	28.67	100	196	Horizontal	PASS
4	303.2975	-15.58	15.55	46.00	30.45	200	62	Horizontal	PASS
5	451.7075	-11.76	18.00	46.00	28.00	200	174	Horizontal	PASS
6	591.6300	-8.78	23.77	46.00	22.23	200	256	Horizontal	PASS



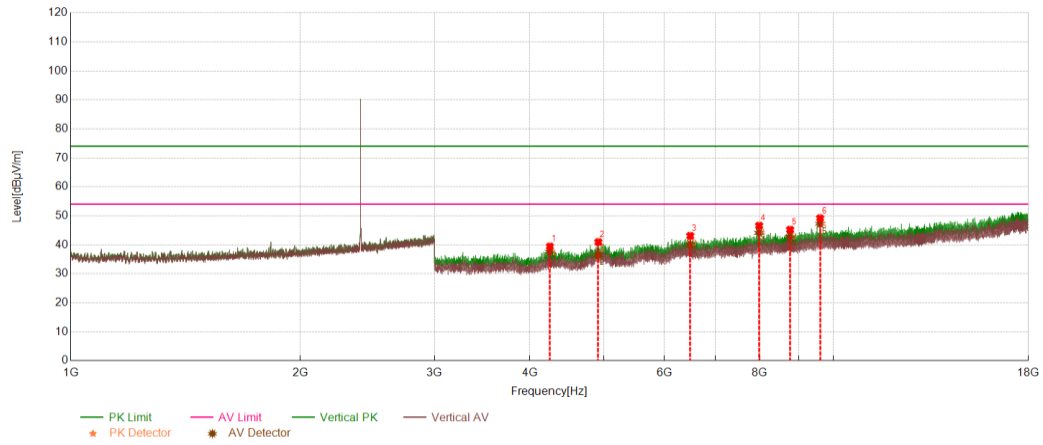
QP Final Data List									
NO.	Freq. [MHz]	Factor [dB/m]	QP Value [dBμV/m]	QP Limit [dBμV/m]	QP Margin [dB]	Height [cm]	Angle [°]	Polarity	Verdict
1	37.3962	-16.05	14.80	40.00	25.20	200	104	Vertical	PASS
2	57.6450	-16.67	13.84	40.00	26.16	200	174	Vertical	PASS
3	151.4925	-15.94	13.57	43.50	29.93	100	34	Vertical	PASS
4	302.2062	-15.61	14.65	46.00	31.35	100	344	Vertical	PASS
5	502.7538	-11.57	19.16	46.00	26.84	100	13	Vertical	PASS
6	596.3588	-8.90	24.56	46.00	21.44	100	174	Vertical	PASS

Mode:

BLE 1M-2402



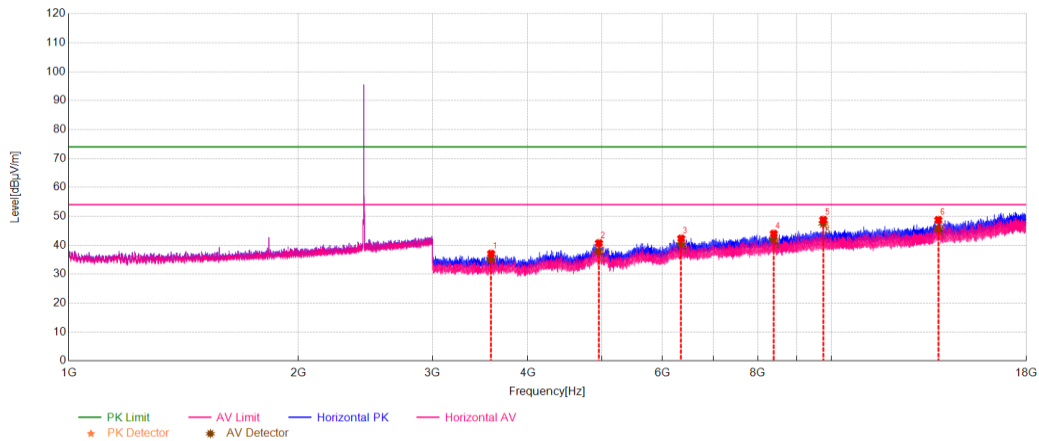
Final Data List														
NO.	Frequency [MHz]	Factor [dB]	PK Reading [dBµV/m]	PK Value [dBµV/m]	PK Limit [dBµV/m]	PK Margin [dB]	AV Reading [dBµV/m]	AV Value [dBµV/m]	AV Limit [dBµV/m]	AV Margin [dB]	Height [cm]	Angle [°]	Polarity	Verdict
1	3219.5000	-20.42	57.9	37.48	74.00	36.52	56.17	35.75	54.00	18.25	150	286	Horizontal	PASS
2	4913.0000	-13.23	54.14	40.91	74.00	33.09	51.98	38.75	54.00	15.25	150	105	Horizontal	PASS
3	6492.5000	-9.85	53.13	43.28	74.00	30.72	51.31	41.46	54.00	12.54	150	11	Horizontal	PASS
4	8047.0000	-7.95	51.83	43.88	74.00	30.12	49.49	41.54	54.00	12.46	150	348	Horizontal	PASS
5	9601.5000	-5.09	53.09	48.00	74.00	26.00	51.46	46.37	54.00	7.63	150	214	Horizontal	PASS
6	13654.500	1.18	46.9	48.08	74.00	25.92	43.45	44.63	54.00	9.37	150	11	Horizontal	PASS



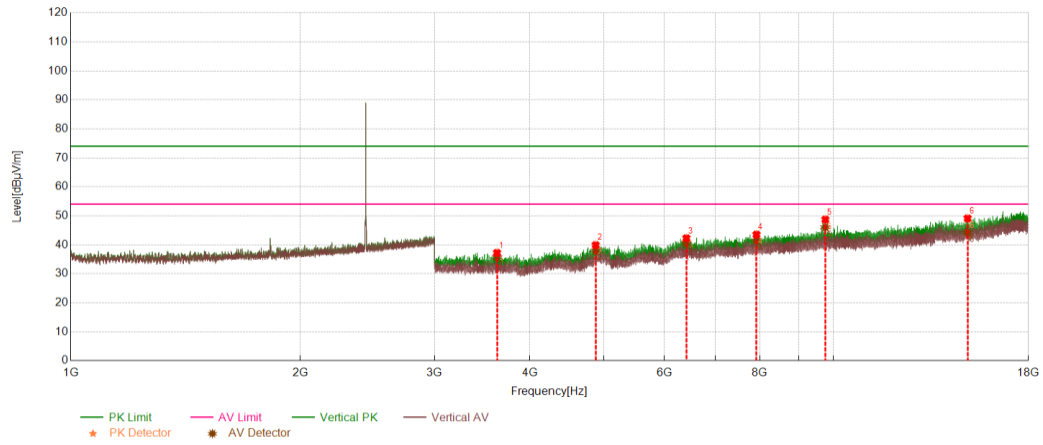
Final Data List

NO.	Frequency [MHz]	Factor [dB]	PK Reading [dBµV/m]	PK Value [dBµV/m]	PK Limit [dBµV/m]	PK Margin [dB]	AV Reading [dBµV/m]	AV Value [dBµV/m]	AV Limit [dBµV/m]	AV Margin [dB]	Height [cm]	Angle [°]	Polarity	Verdict
1	4247.5000	-16.96	56.38	39.42	74.00	34.58	54.53	37.57	54.00	16.43	150	253	Vertical	PASS
2	4916.5000	-13.37	54.31	40.94	74.00	33.06	49.80	36.43	54.00	17.57	150	324	Vertical	PASS
3	6488.5000	-9.86	52.94	43.08	74.00	30.92	49.96	40.10	54.00	13.90	150	199	Vertical	PASS
4	7987.0000	-7.32	53.91	46.59	74.00	27.41	51.43	44.11	54.00	9.89	150	57	Vertical	PASS
5	8770.5000	-6.61	51.81	45.20	74.00	28.80	49.43	42.82	54.00	11.18	150	4	Vertical	PASS
6	9601.5000	-5.09	54.25	49.16	74.00	24.84	52.34	47.25	54.00	6.75	150	120	Vertical	PASS

Mode:	BLE 1M-2440
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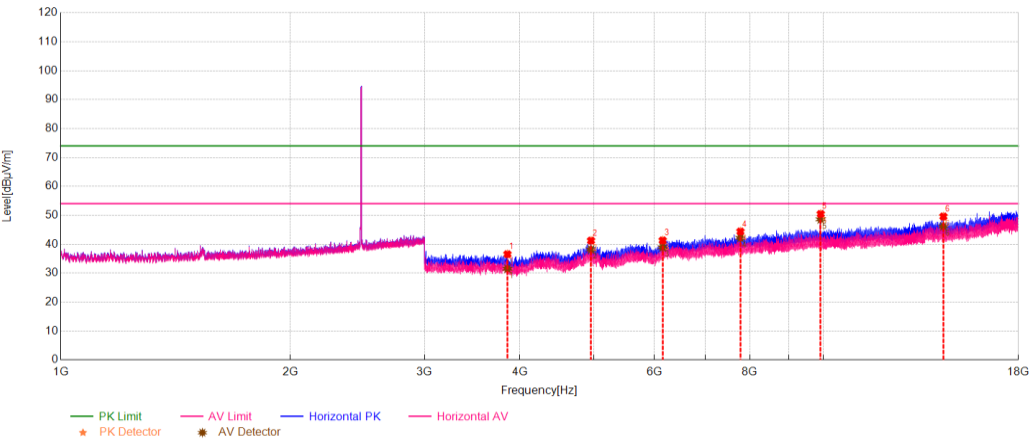


Final Data List														
NO.	Frequency [MHz]	Factor [dB]	PK Reading [dBµV/m]	PK Value [dBµV/m]	PK Limit [dBµV/m]	PK Margin [dB]	AV Reading [dBµV/m]	AV Value [dBµV/m]	AV Limit [dBµV/m]	AV Margin [dB]	Height [cm]	Angle [°]	Polarity	Verdict
1	3579.0000	-19.80	56.88	37.08	74.00	36.92	54.99	35.19	54.00	18.81	150	154	Horizontal	PASS
2	4955.0000	-14.34	55.07	40.73	74.00	33.27	52.21	37.87	54.00	16.13	150	131	Horizontal	PASS
3	6351.5000	-10.22	52.55	42.33	74.00	31.67	50.55	40.33	54.00	13.67	150	154	Horizontal	PASS
4	8399.0000	-7.56	51.55	43.99	74.00	30.01	49.44	41.88	54.00	12.12	150	178	Horizontal	PASS
5	9753.5000	-4.64	53.44	48.80	74.00	25.20	52.12	47.48	54.00	6.52	150	218	Horizontal	PASS
6	13800.500	1.18	47.57	48.75	74.00	25.25	44.45	45.63	54.00	8.37	150	92	Horizontal	PASS

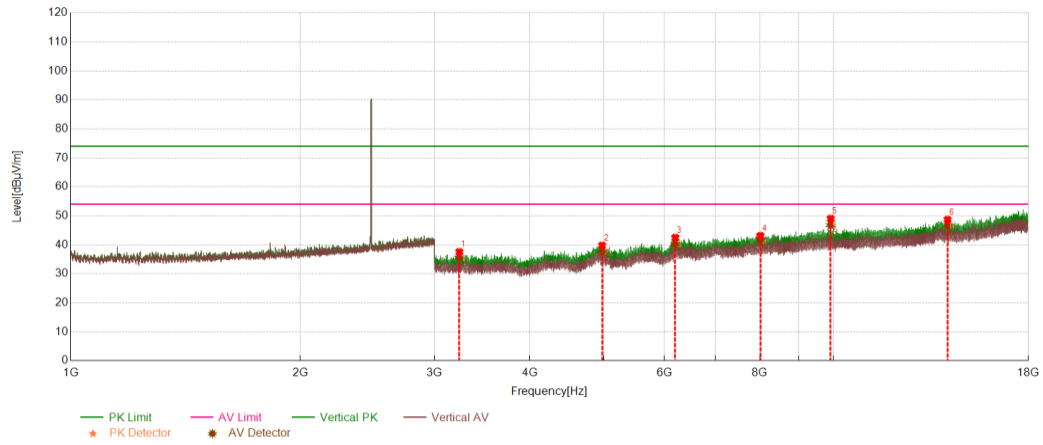


Final Data List														
NO.	Frequency [MHz]	Factor [dB]	PK Reading [dBµV/m]	PK Value [dBµV/m]	PK Limit [dBµV/m]	PK Margin [dB]	AV Reading [dBµV/m]	AV Value [dBµV/m]	AV Limit [dBµV/m]	AV Margin [dB]	Height [cm]	Angle [°]	Polarity	Verdict
1	3621.0000	-19.51	56.73	37.22	74.00	36.78	55.21	35.70	54.00	18.30	150	152	Vertical	PASS
2	4877.0000	-14.14	54.04	39.90	74.00	34.10	52.15	38.01	54.00	15.99	150	74	Vertical	PASS
3	6412.5000	-10.43	52.7	42.27	74.00	31.73	51.07	40.64	54.00	13.36	150	214	Vertical	PASS
4	7923.0000	-7.87	51.39	43.52	74.00	30.48	49.36	41.49	54.00	12.51	150	136	Vertical	PASS
5	9754.0000	-4.63	53.33	48.70	74.00	25.30	50.66	46.03	54.00	7.97	150	81	Vertical	PASS
6	14984.000	2.12	46.98	49.10	74.00	24.90	42.10	44.22	54.00	9.78	150	129	Vertical	PASS

Mode:	BLE 1M-2480
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Final Data List														
NO.	Frequency [MHz]	Factor [dB]	PK Reading [dBµV/m]	PK Value [dBµV/m]	PK Limit [dBµV/m]	PK Margin [dB]	AV Reading [dBµV/m]	AV Value [dBµV/m]	AV Limit [dBµV/m]	AV Margin [dB]	Height [cm]	Angle [°]	Polarity	Verdict
1	3851.5000	-18.09	54.65	36.56	74.00	37.44	49.60	31.51	54.00	22.49	150	84	Horizontal	PASS
2	4956.5000	-14.49	55.74	41.25	74.00	32.75	52.67	38.18	54.00	15.82	150	92	Horizontal	PASS
3	6153.0000	-10.65	51.97	41.32	74.00	32.68	49.59	38.94	54.00	15.06	150	169	Horizontal	PASS
4	7780.5000	-8.08	52.48	44.40	74.00	29.60	50.26	42.18	54.00	11.82	150	122	Horizontal	PASS
5	9913.5000	-4.35	54.8	50.45	74.00	23.55	52.96	48.61	54.00	5.39	150	92	Horizontal	PASS
6	14355.500	1.54	48.04	49.58	74.00	24.42	44.64	46.18	54.00	7.82	150	207	Horizontal	PASS



Final Data List														
NO.	Frequency [MHz]	Factor [dB]	PK Reading [dBµV/m]	PK Value [dBµV/m]	PK Limit [dBµV/m]	PK Margin [dB]	AV Reading [dBµV/m]	AV Value [dBµV/m]	AV Limit [dBµV/m]	AV Margin [dB]	Height [cm]	Angle [°]	Polarity	Verdict
1	3232.0000	-20.40	57.9	37.50	74.00	36.50	56.02	35.62	54.00	18.38	150	160	Vertical	PASS
2	4972.5000	-13.48	53.22	39.74	74.00	34.26	51.18	37.70	54.00	16.30	150	301	Vertical	PASS
3	6201.5000	-11.03	53.47	42.44	74.00	31.56	51.22	40.19	54.00	13.81	150	160	Vertical	PASS
4	8017.0000	-7.43	50.53	43.10	74.00	30.90	49.02	41.59	54.00	12.41	150	98	Vertical	PASS
5	9914.0000	-4.34	53.34	49.00	74.00	25.00	51.09	46.75	54.00	7.25	150	129	Vertical	PASS
6	14105.000	0.84	47.8	48.64	74.00	25.36	45.84	46.68	54.00	7.32	150	261	Vertical	PASS