

Appendix B: Test result for BLE

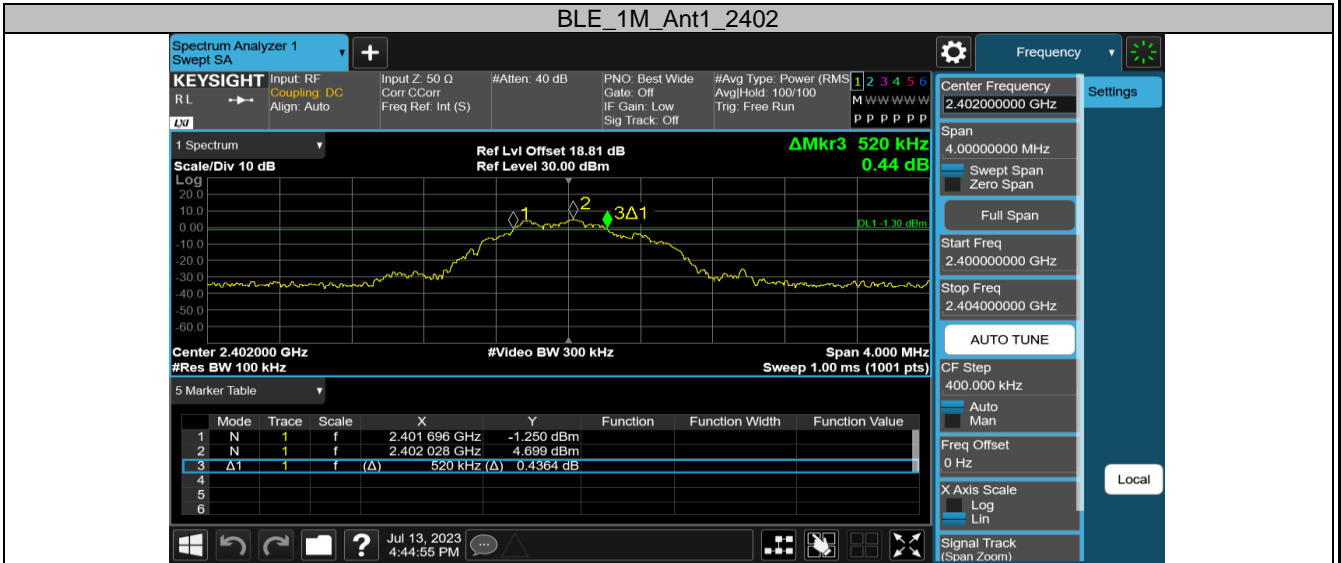
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1.1 Appendix A: DTS Bandwidth

1.1.1 Test Result

TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.520	2401.696	2402.216	0.5	PASS
		2440	0.528	2439.696	2440.224	0.5	PASS
		2480	0.520	2479.696	2480.216	0.5	PASS

1.1.2 Test Graphs

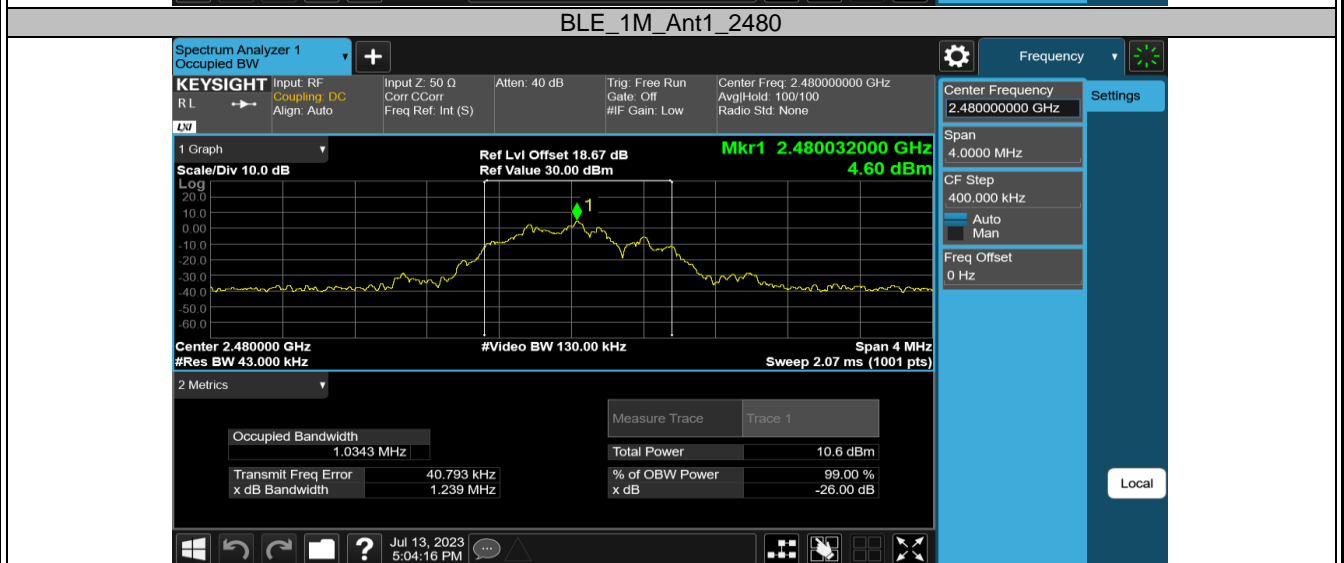
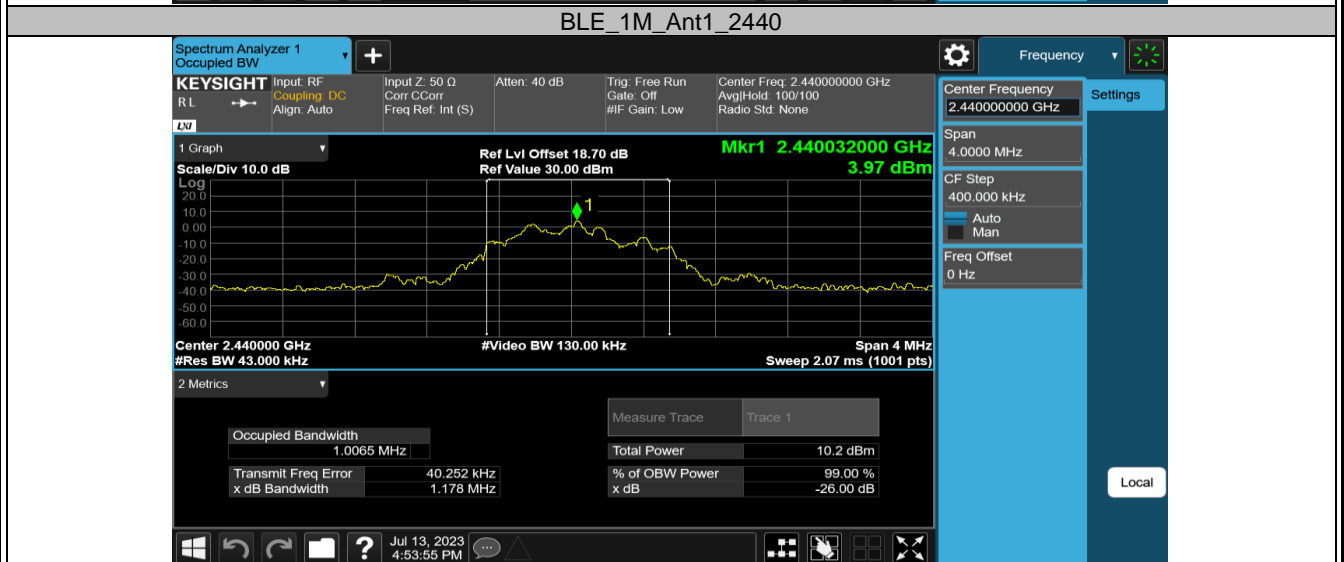
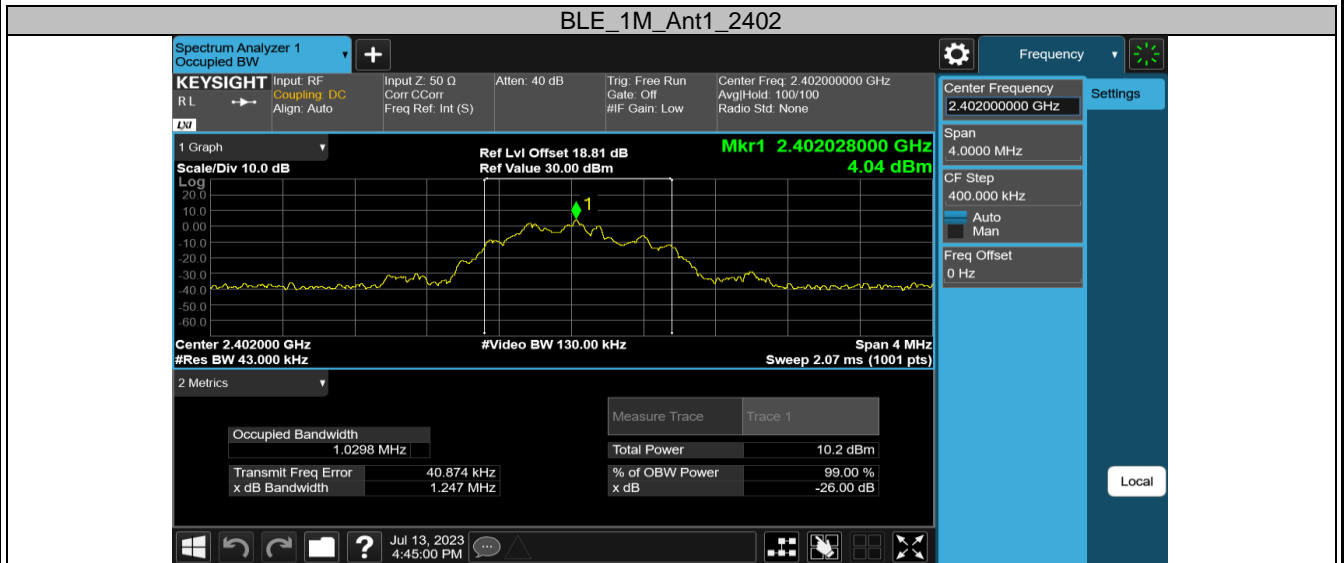


1.2 Appendix B: Occupied Channel Bandwidth

1.2.1 Test Result

TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	1.0298	2401.5260	2402.5558	---	---
		2440	1.0065	2439.5370	2440.5435	---	---
		2480	1.0343	2479.5236	2480.5579	---	---

1.2.2 Test Graphs



1.3 Appendix C: Maximum conducted output power

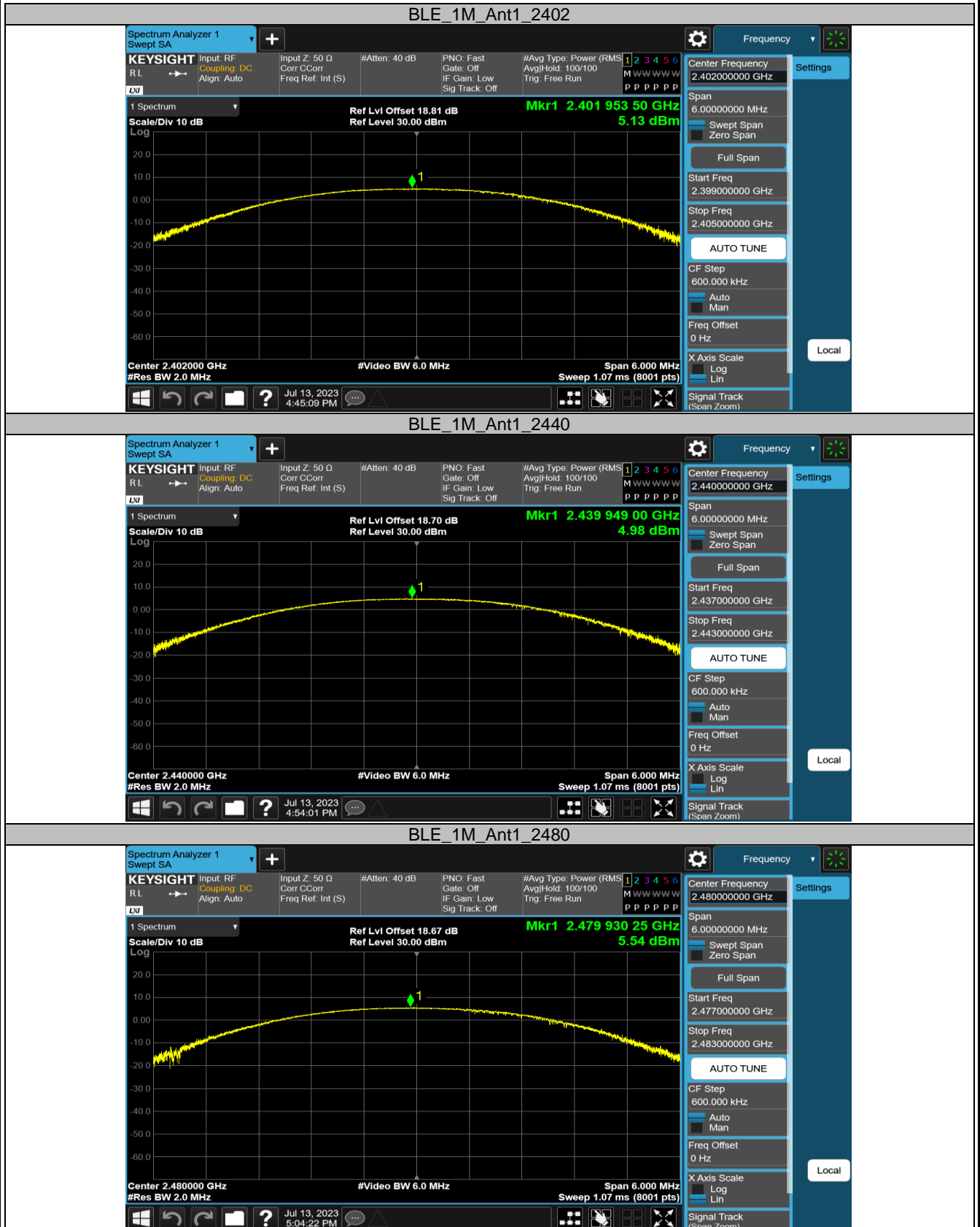
1.3.1 Test Result PK

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	5.13	≤30	PASS
		2440	4.98	≤30	PASS
		2480	5.54	≤30	PASS

1.3.2 Test Result AV

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	4.19	≤30	PASS
		2440	4.12	≤30	PASS
		2480	4.65	≤30	PASS

1.3.3 Test Graphs

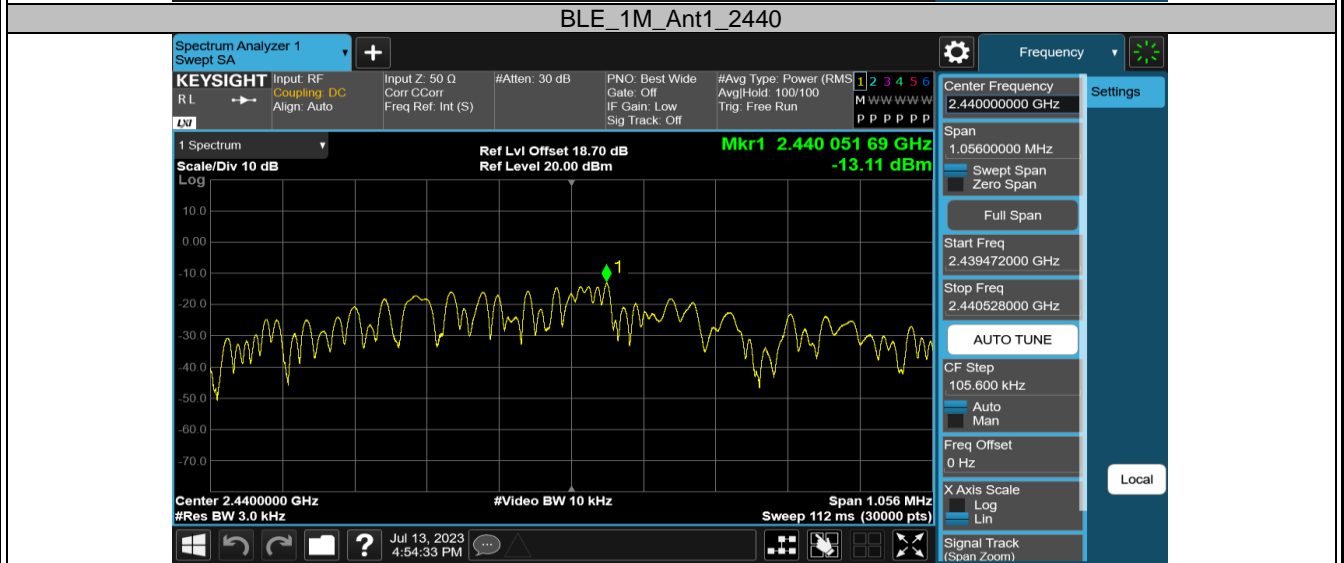
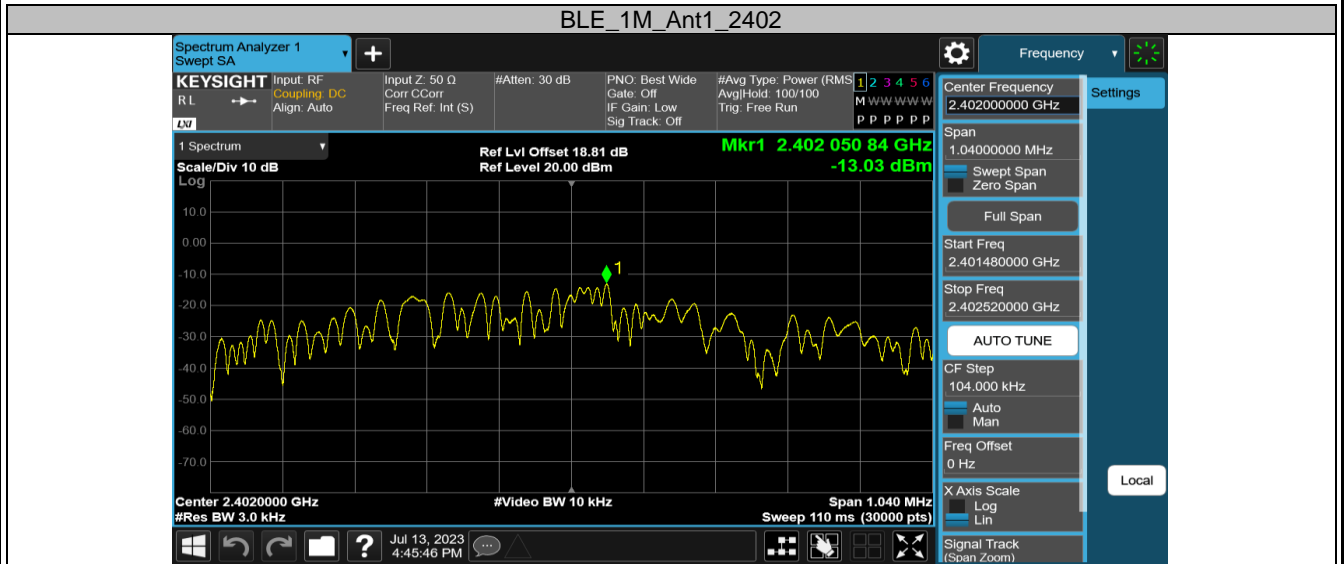


1.4 Appendix D: Maximum power spectral density

1.4.1 Test Result

TestMode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-13.03	≤8.00	PASS
		2440	-13.11	≤8.00	PASS
		2480	-12.57	≤8.00	PASS

1.4.2 Test Graphs

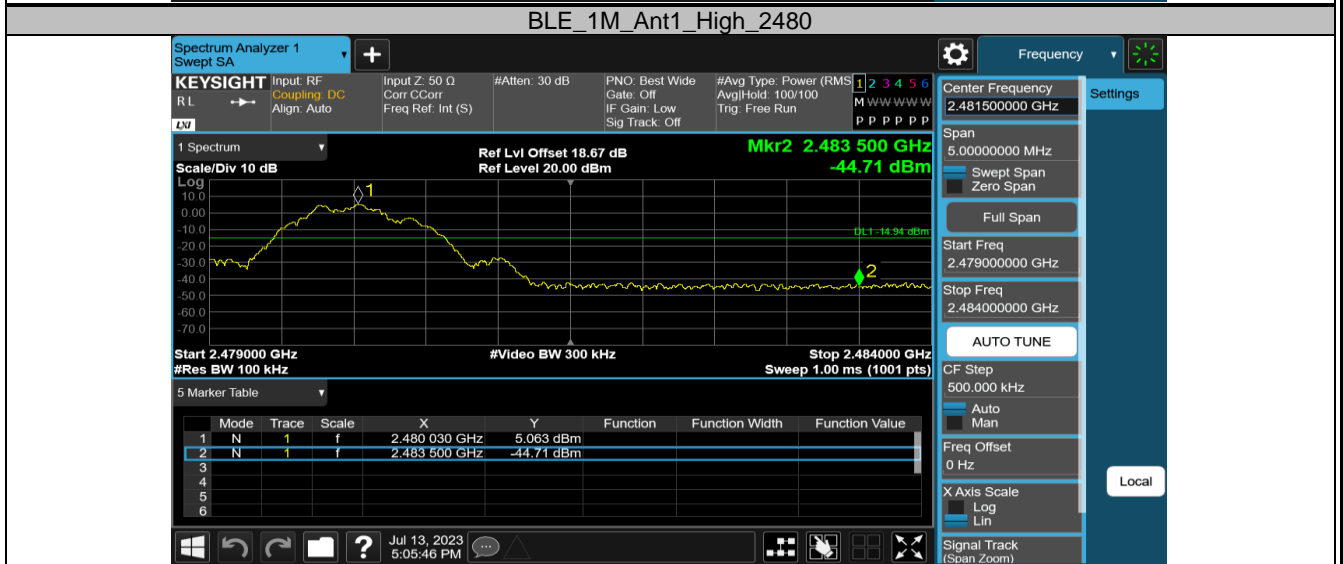
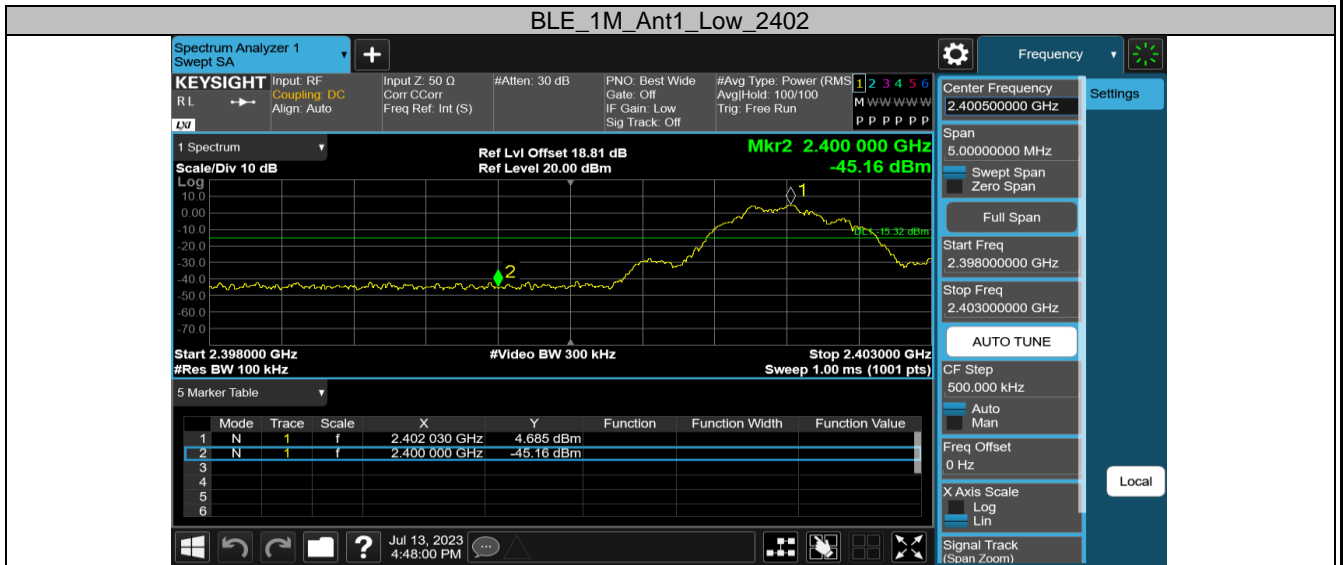


1.5 Appendix E: Band edge measurements

1.5.1 Test Result

TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	4.685	-45.16	≤-15.32	PASS
		High	2480	5.063	-44.71	≤-14.94	PASS

1.5.2 Test Graphs

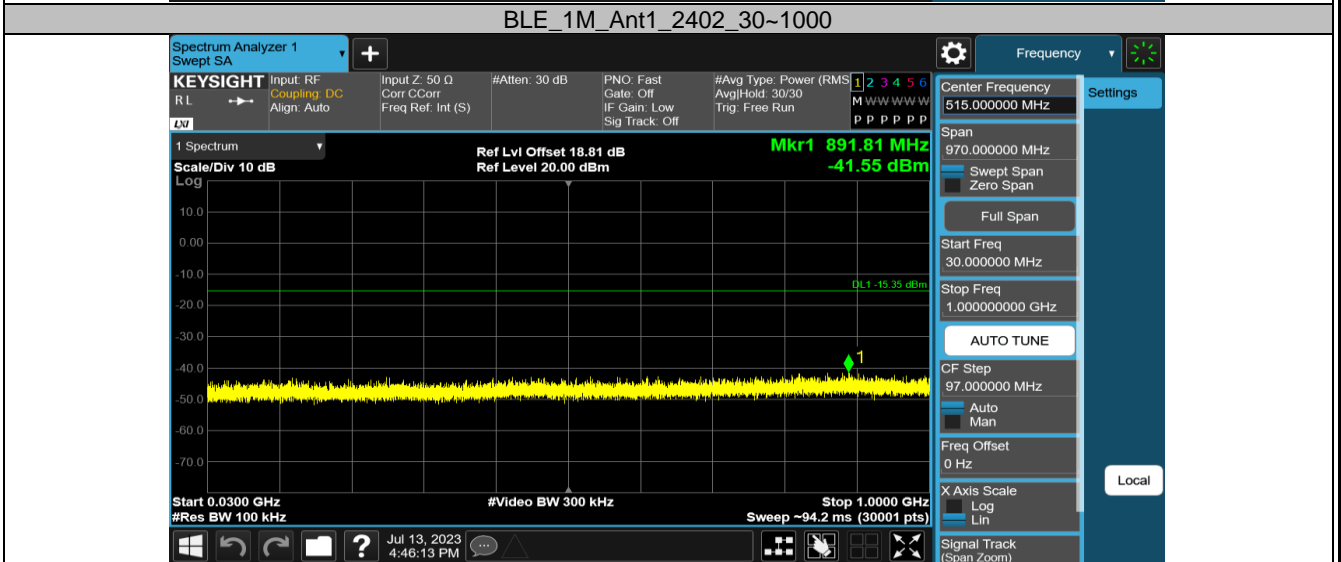
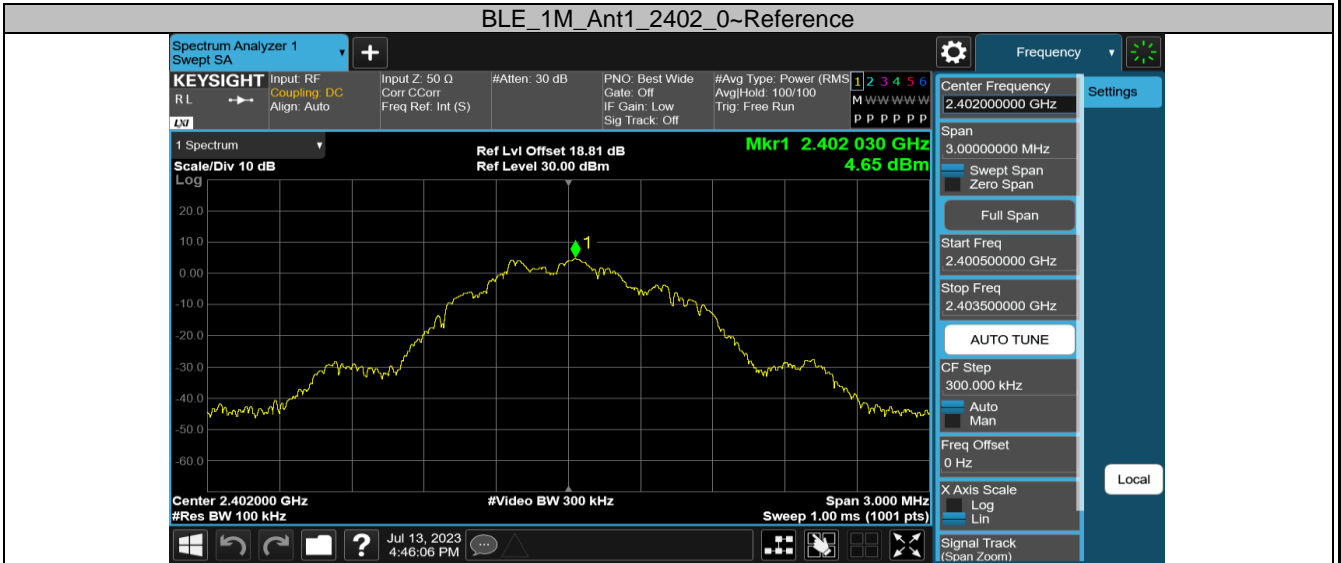


1.6 Appendix F: Conducted Spurious Emission

1.6.1 Test Result

TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	4.65	4.65	---	PASS
			30~1000	4.65	-41.55	≤-15.35	PASS
			1000~26500	4.65	-32.37	≤-15.35	PASS
		2440	Reference	4.49	4.49	---	PASS
			30~1000	4.49	-41.27	≤-15.51	PASS
			1000~26500	4.49	-32.51	≤-15.51	PASS
		2480	Reference	5.05	5.05	---	PASS
			30~1000	5.05	-41.75	≤-14.95	PASS
			1000~26500	5.05	-33	≤-14.95	PASS

1.6.2 Test Graphs



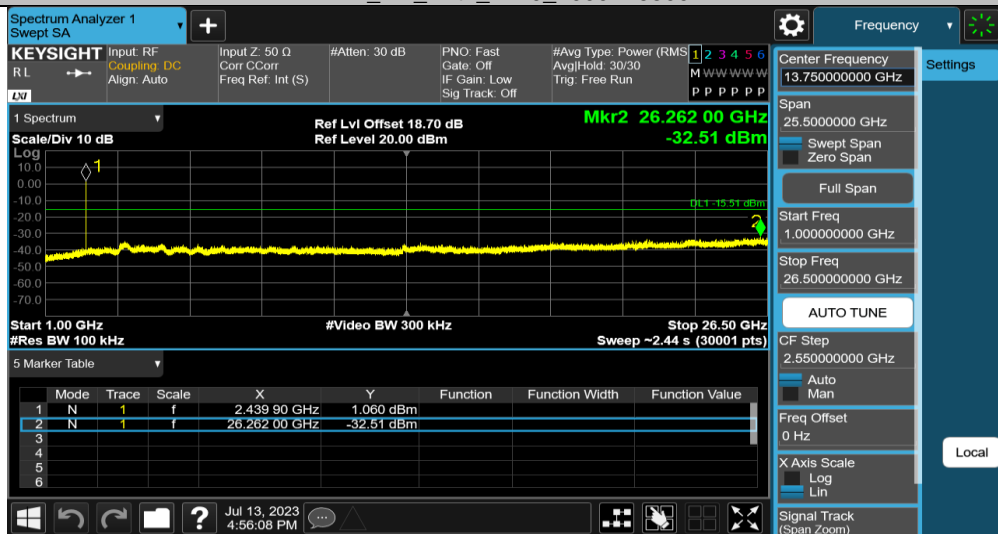
BLE_1M_Ant1_2440_0-Reference



BLE_1M_Ant1_2440_30~1000



BLE_1M_Ant1_2440_1000~26500



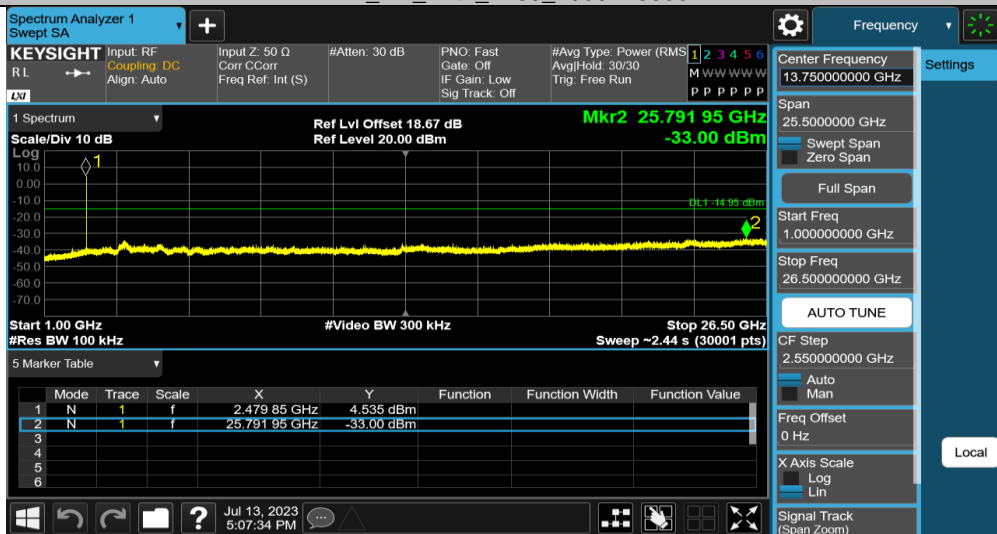
BLE_1M_Ant1_2480_0~Reference



BLE_1M Ant1 2480 30~1000



BLE_1M Ant1 2480 1000~26500

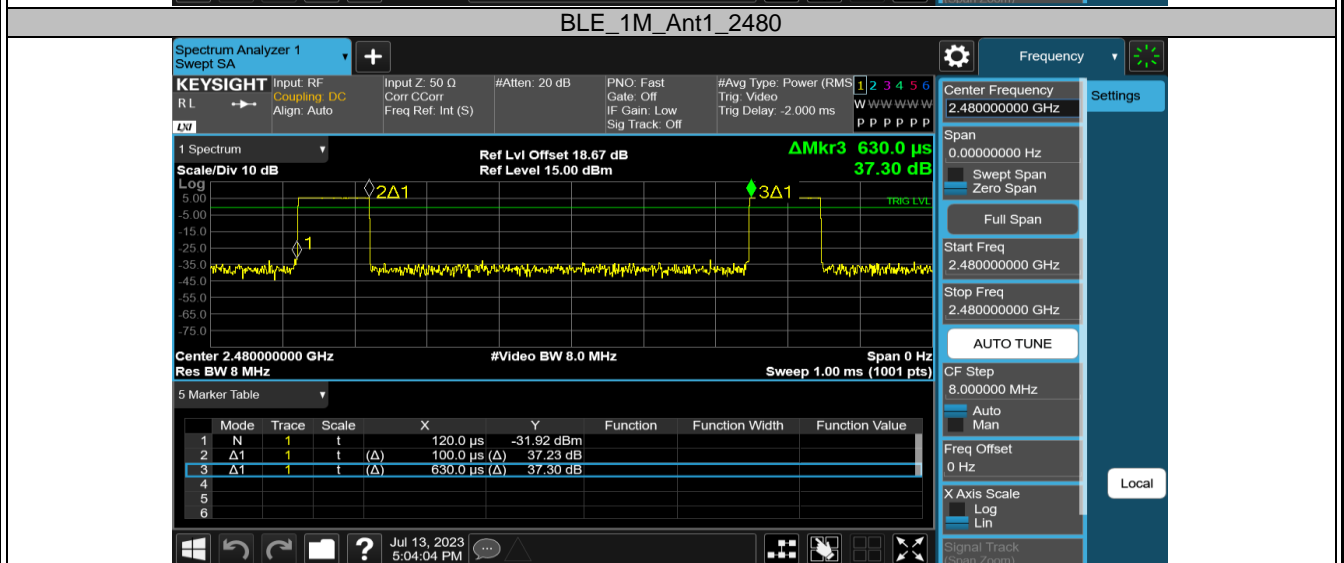
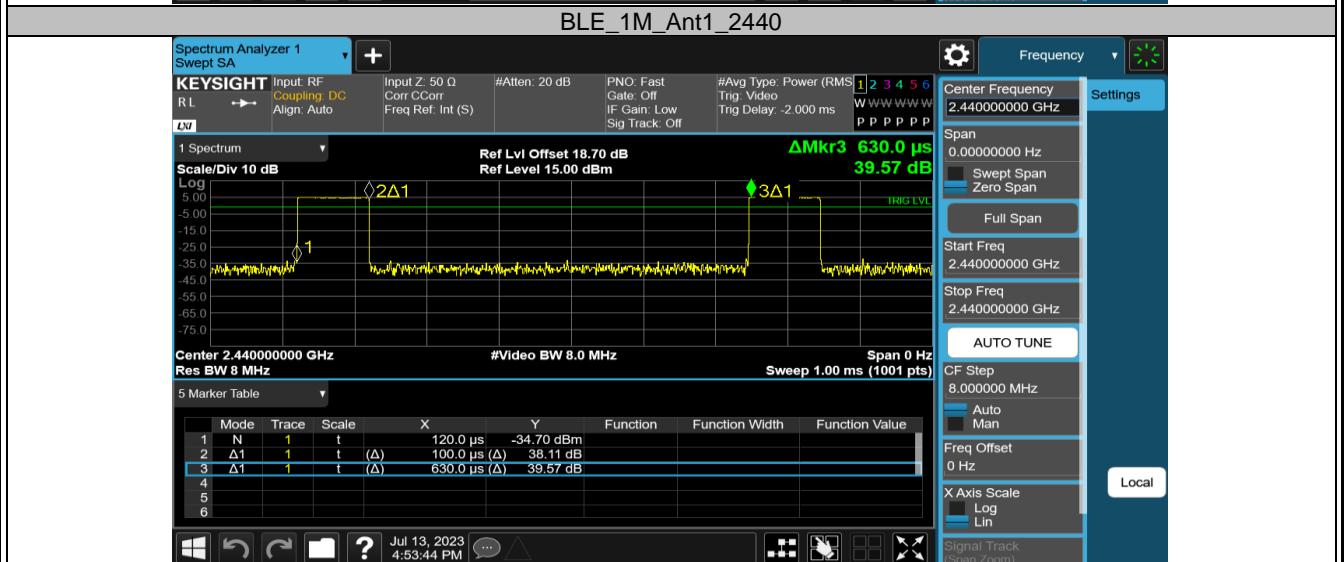
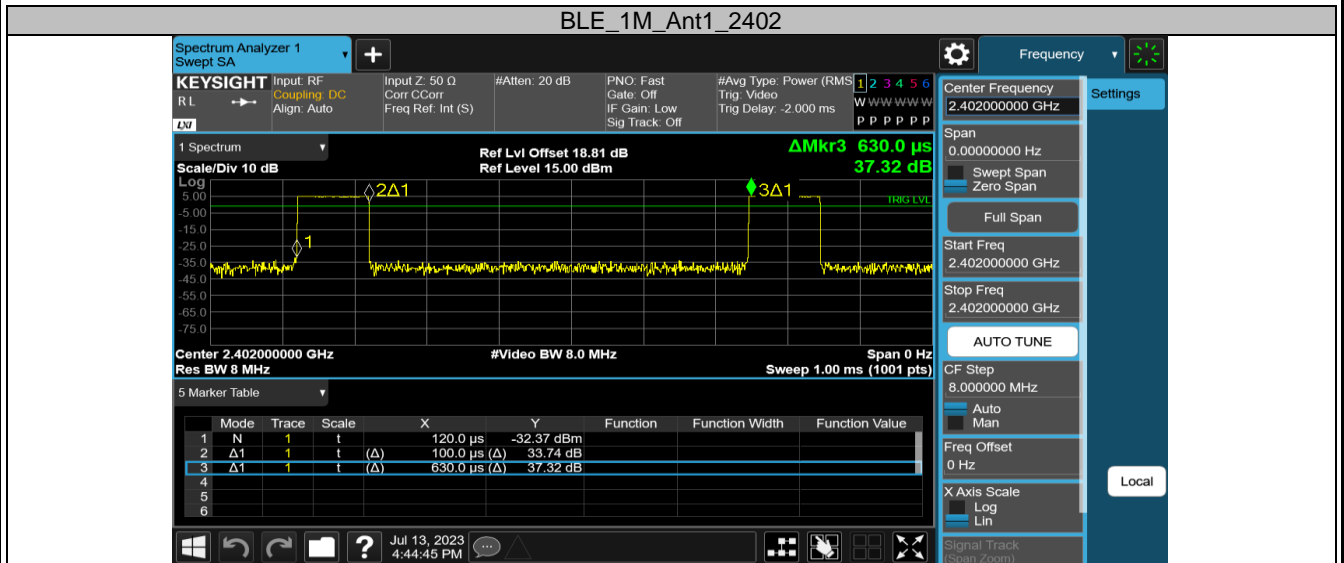


1.7 Appendix G: Duty Cycle

1.7.1 Test Result

TestMode	Antenna	Channel	ON Time [ms]	Period [ms]	X	DC [%]	xFactor	Limit	Verdict
BLE_1M	Ant1	2402	0.10	0.63	0.1587	15.87	7.99	---	---
		2440	0.10	0.63	0.1587	15.87	7.99	---	---
		2480	0.10	0.63	0.1587	15.87	7.99	---	---

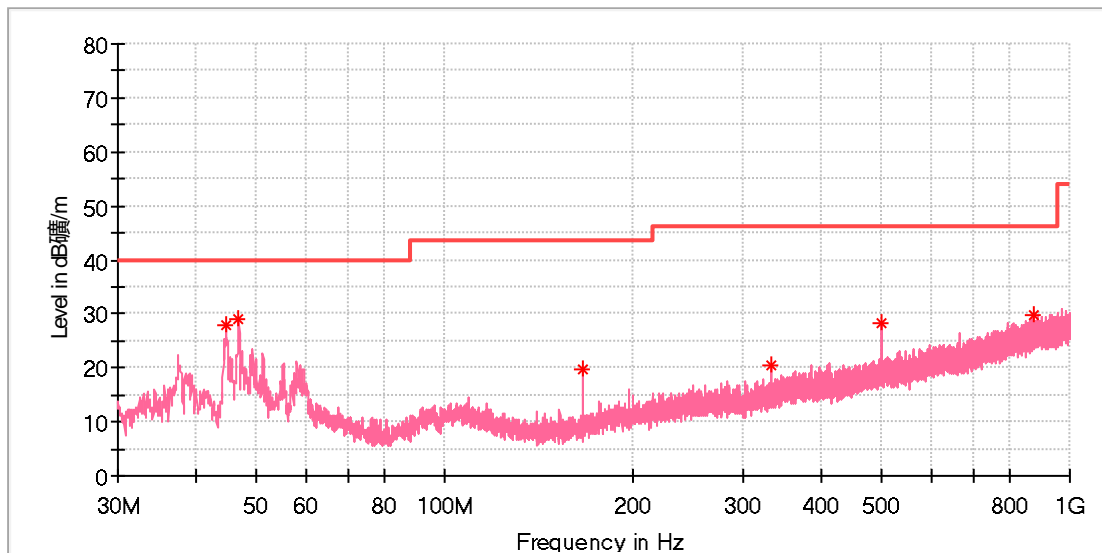
1.7.2 Test Graphs



Test Report

EUT Information

EUT Name:	Rokid Station
Model:	RES102
Test Mode:	BLE 1M_Mid channel
Order No/Sample No:	168429121/A003488166-001
Test Voltage::	Battery
Remark:	Temp 24 Humi:50%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical Freqs

Frequency (MHz)	MaxiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
44.647000	27.76	40.00	12.24	100.0	V	170.0	-18.9
46.829500	29.16	40.00	10.84	100.0	V	39.0	-18.5
166.673000	19.72	43.50	23.78	100.0	V	243.0	-21.4
333.367500	20.37	46.00	25.63	100.0	V	17.0	-15.3
500.062000	28.43	46.00	17.57	100.0	V	39.0	-11.8
877.586000	29.81	46.00	16.19	100.0	V	127.0	-5.2

Final Result

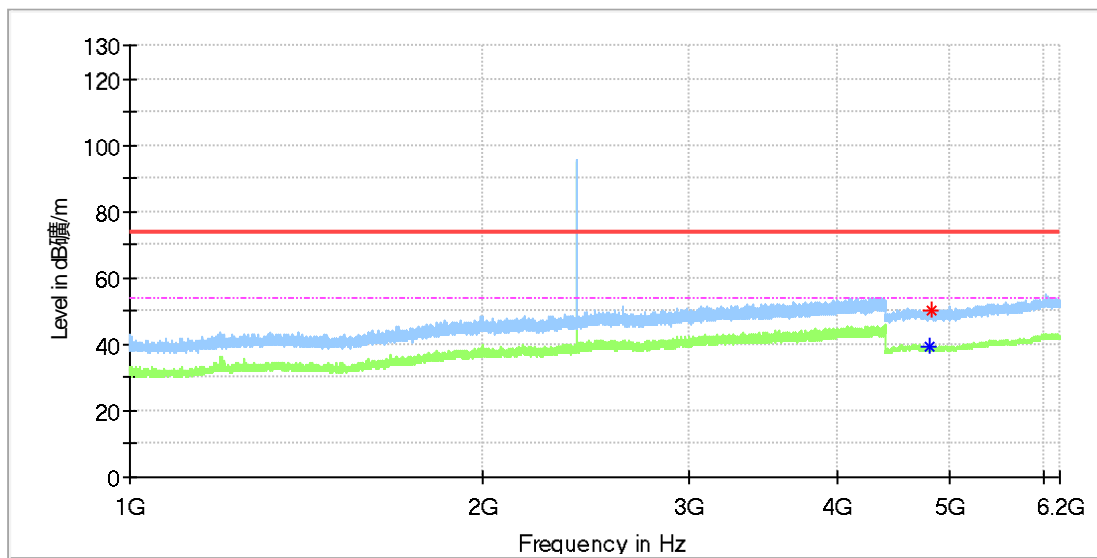
Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
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Test Report

EUT Information

EUT Name:	Rokid Station
Model:	RES102
Test Mode:	BLE 1M_Low channel

Order No/Sample No: 168429121/A003488166-001
 Test Voltage:: Battery
 Remark: Temp 24 Humi:50%
 Test Standard: FCC 15.247
 Tested By: Kei Zhang
 Reviewed By: Terry Yin



Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4806.500000	---	39.38	54.00	14.62	150.0	H	195.0	11.8
4815.500000	49.96	---	74.00	24.04	150.0	H	102.0	11.8

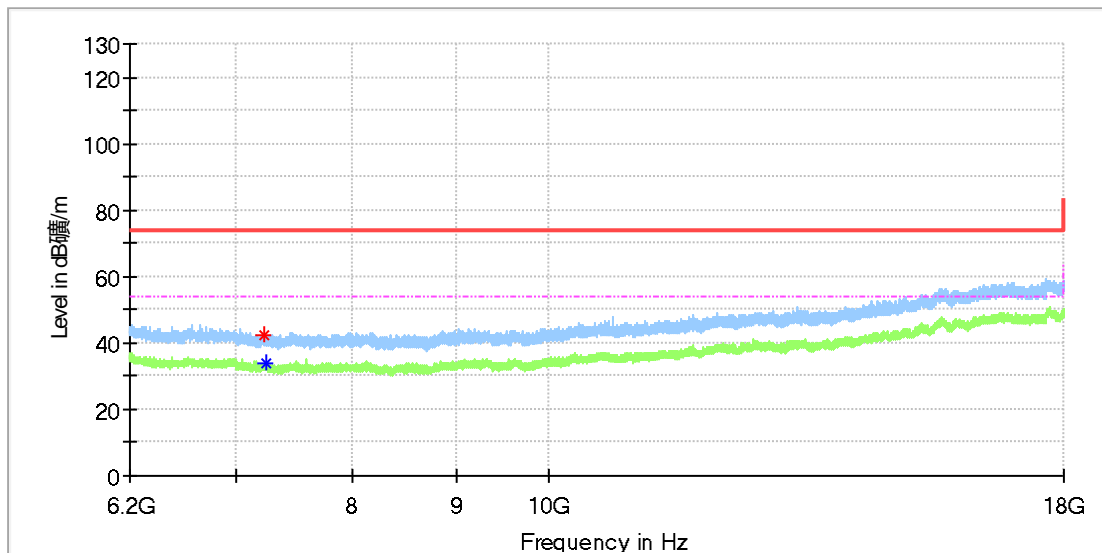
Final_Result

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---		---	---

Test Report

EUT Information

EUT Name:	Rokid Station
Model:	RES102
Test Mode:	BLE 1M_Low channel
Order No/Sample No:	168429121/A003488166-001
Test Voltage::	Battery
Remark:	Temp 24 Humi:50%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7224.633333	42.15	---	74.00	31.85	150.0	H	224.0	8.7
7245.775000	---	33.62	54.00	20.38	150.0	H	152.0	8.6

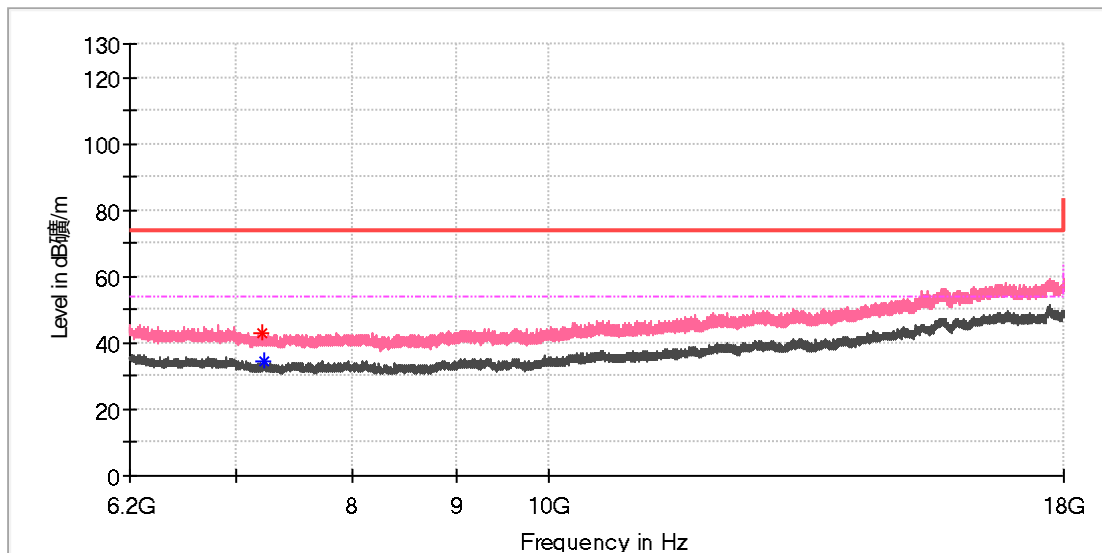
Final Result

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---		---	---

Test Report

EUT Information

EUT Name:	Rokid Station
Model:	RES102
Test Mode:	BLE 1M_Low channel
Order No/Sample No:	168429121/A003488166-001
Test Voltage::	Battery
Remark:	Temp 24 Humi:50%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7213.325000	42.87	---	74.00	31.13	150.0	V	22.0	8.7
7230.041667	---	34.77	54.00	19.23	150.0	V	60.0	8.6

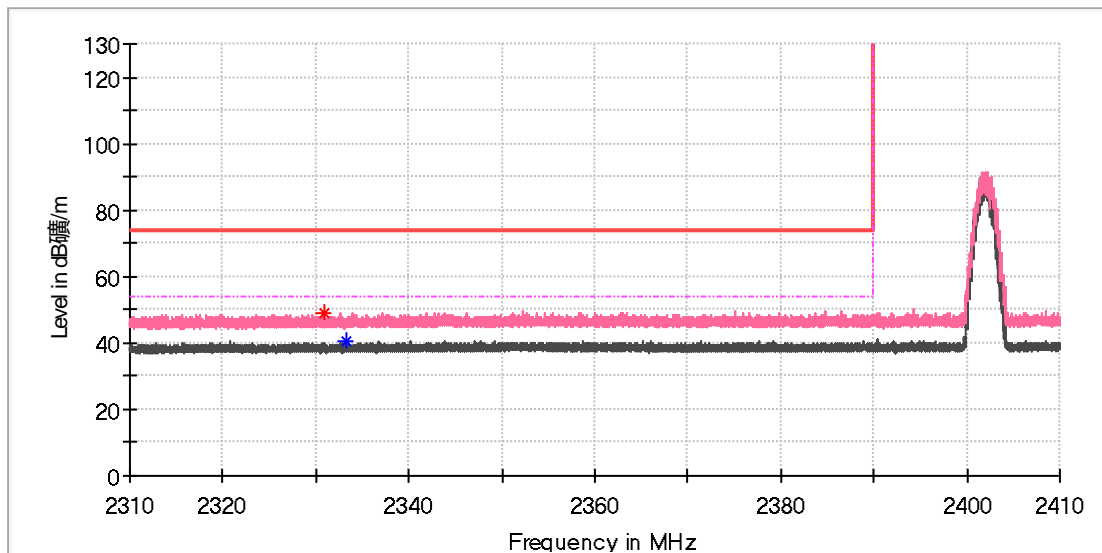
Final Result

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
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Test Report

EUT Information

EUT Name:	Rokid Station
Model:	RES102
Test Mode:	BLE 1M_Low channel
Order No/Sample No:	168429121/A003488166-001
Test Voltage::	Battery
Remark:	Temp 24 Humi:50%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical Freqs

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2330.970000	49.09	---	74.00	24.91	150.0	V	339.0	6.7
2333.370000	---	40.55	54.00	13.45	150.0	V	209.0	6.7

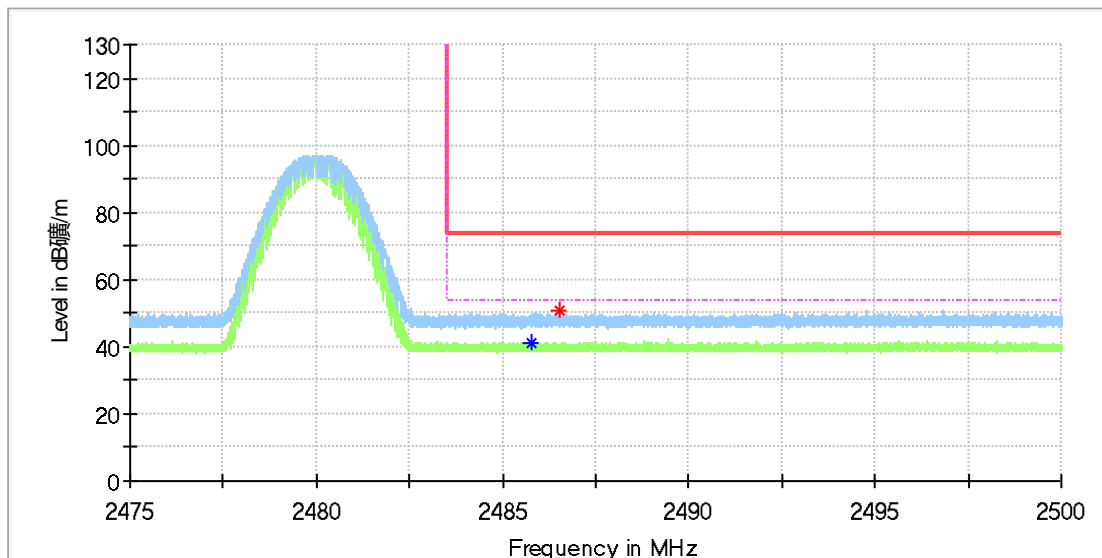
Final Result

Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
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Test Report

EUT Information

EUT Name:	Rokid Station
Model:	RES102
Test Mode:	BLE 1M_High channel
Order No/Sample No:	168429121/A003488166-001
Test Voltage::	Battery
Remark:	Temp 24 Humi:50%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2485.778750	---	41.40	54.00	12.60	150.0	H	144.0	7.4
2486.532500	50.54	---	74.00	23.46	150.0	H	129.0	7.4

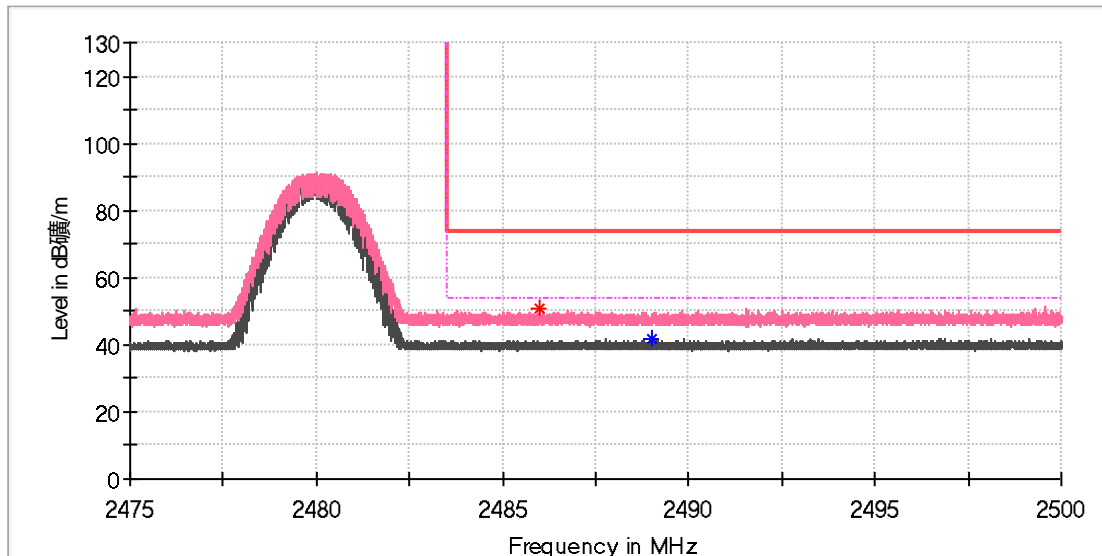
Final Result

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---		---	---

Test Report

EUT Information

EUT Name:	Rokid Station
Model:	RES102
Test Mode:	BLE 1M_High channel
Order No/Sample No:	168429121/A003488166-001
Test Voltage::	Battery
Remark:	Temp 24 Humi:50%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2486.017500	50.93	---	74.00	23.07	150.0	V	175.0	7.4
2488.986250	---	41.72	54.00	12.28	150.0	V	254.0	7.4

Final Result

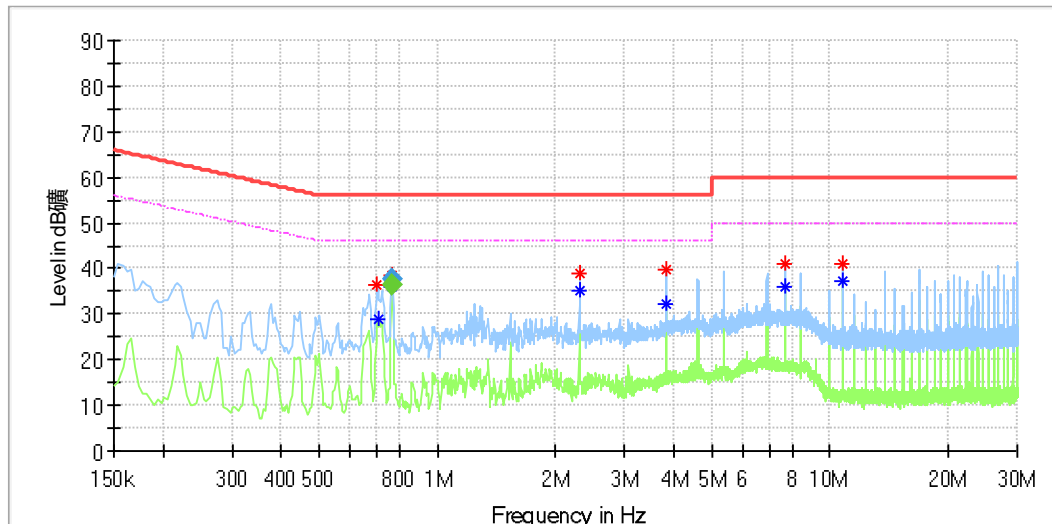
Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
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1.10 Appendix J: Conducted Emissions

Test Report

EUT Information

EUT Name:	Rokid Staion
Order Number:	168429121
Model:	RES102
Test Mode:	Operating mode(Bluetooth)
Test Voltage:	AC 120V/60Hz
Test Standard:	FCC Part 15.207
Test By./Review By:	Charlie Zha / Gary Chen
Tem./Hum./Pressure:	24.3°C/51.6%/101kPa
Remark:	SR2



Critical Freqs

Frequency (MHz)	MaxPeak (dBµV)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)
0.702000	36.29	---	56.00	19.71	L1	10.0
0.706000	---	28.94	46.00	17.06	L1	10.0
0.769500	---	36.08	46.00	9.92	L1	10.0
0.769500	38.56	---	56.00	17.44	L1	10.0
2.306000	---	35.02	46.00	10.98	L1	10.2
2.306000	38.86	---	56.00	17.14	L1	10.2
3.842000	39.67	---	56.00	16.33	L1	10.2
3.842000	---	32.41	46.00	13.59	L1	10.2
7.678000	---	36.15	50.00	13.85	L1	10.3
7.678000	41.17	---	60.00	18.83	L1	10.3
10.754000	---	37.26	50.00	12.74	L1	10.3
10.754000	41.18	---	60.00	18.82	L1	10.3

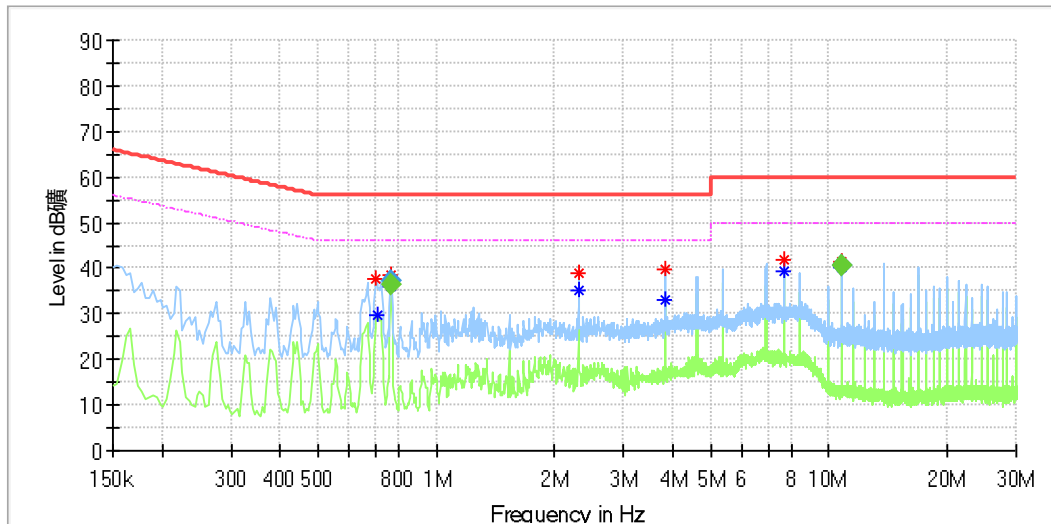
Final Result

Frequency (MHz)	QuasiPeak (dBµV)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.769500	---	36.53	46.00	9.47	1000.0	9.000	L1	10.0
0.769500	37.50	---	56.00	18.50	1000.0	9.000	L1	10.0

Test Report

EUT Information

EUT Name: Rokid Staion
 Order Number: 168429121
 Model: RES102
 Test Mode: Operating mode(Bluetooth)
 Test Voltage: AC 120V/60Hz
 Test Standard: FCC Part 15.207
 Test By:/Review By: Charlie Zha / Gary Chen
 Tem./Hum./Pressure: 24.3°C/51.6%/101kPa
 Remark: SR2



Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)
0.702000	37.51	---	56.00	18.49	N	9.8
0.706000	---	29.54	46.00	16.46	N	9.8
0.769500	---	35.81	46.00	10.19	N	9.8
0.769500	38.47	---	56.00	17.53	N	9.8
2.306000	39.04	---	56.00	16.96	N	9.9
2.306000	---	35.10	46.00	10.90	N	9.9
3.842000	---	32.96	46.00	13.04	N	9.9
3.842000	39.93	---	56.00	16.07	N	9.9
7.678000	41.69	---	60.00	18.31	N	10.0
7.682000	---	39.38	50.00	10.62	N	10.0
10.753500	41.36	---	60.00	18.64	N	10.0
10.753500	---	40.27	50.00	9.73	N	10.0

Final_Result

Frequency (MHz)	QuasiPeak (dBµV)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.769500	---	36.55	46.00	9.45	1000.0	9.000	N	9.8
0.769500	37.44	---	56.00	18.56	1000.0	9.000	N	9.8
10.753500	---	40.66	50.00	9.34	1000.0	9.000	N	10.0
10.753500	40.77	---	60.00	19.23	1000.0	9.000	N	10.0