

FCC Appendix RF Test Data for BLE

FCC ID : 2BDX6-RS1-S01

Company : RVLOCK & CO, LLC

EUT : RVLock Scout Tire Pressure Sensor

Model Number : RS1-S01

Report No. : CTA26041600401

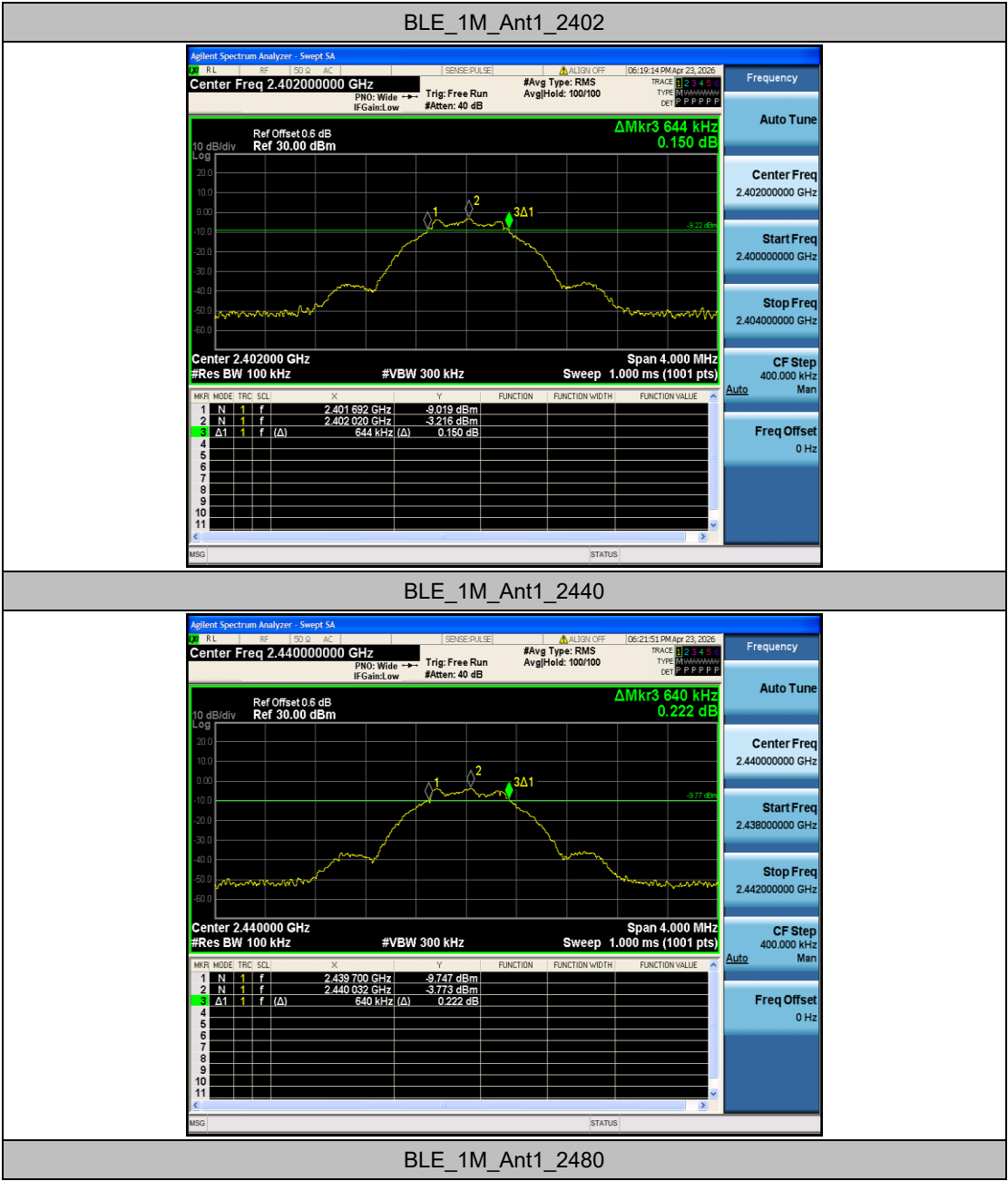
Reviewed By : Eric Wang

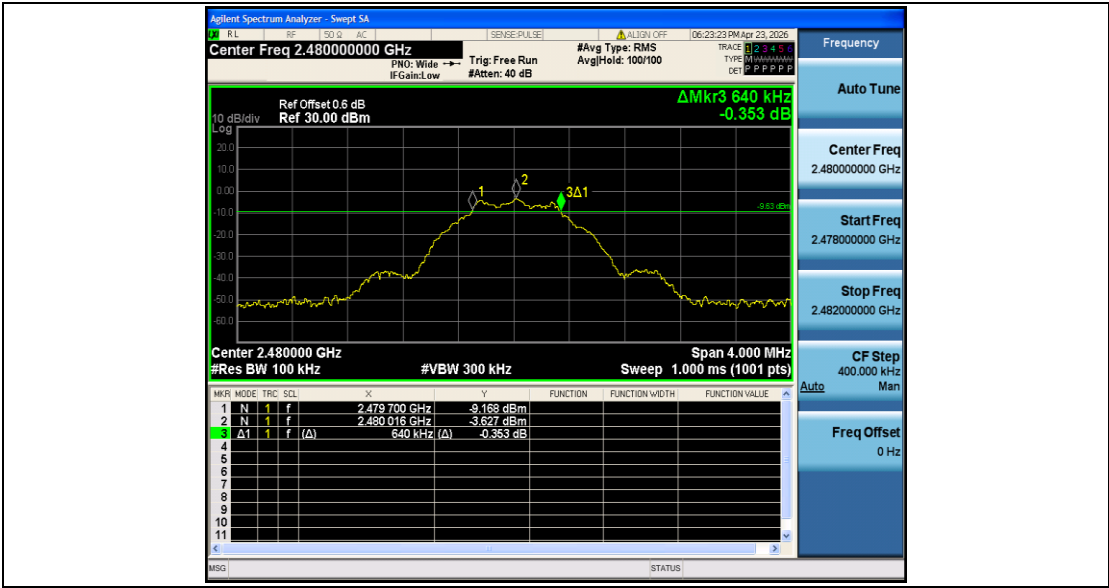
Appendix A: DTS Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.644	2401.692	2402.336	0.5	PASS
		2440	0.640	2439.700	2440.340	0.5	PASS
		2480	0.640	2479.700	2480.340	0.5	PASS

Test Graphs





Appendix B: Occupied Channel Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	1.0063	2401.5185	2402.5248	---	---
		2440	1.0054	2439.5180	2440.5234	---	---
		2480	1.0046	2479.5208	2480.5254	---	---

Test Graphs

BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480



Appendix C: Maximum conducted output power

Test Result Peak

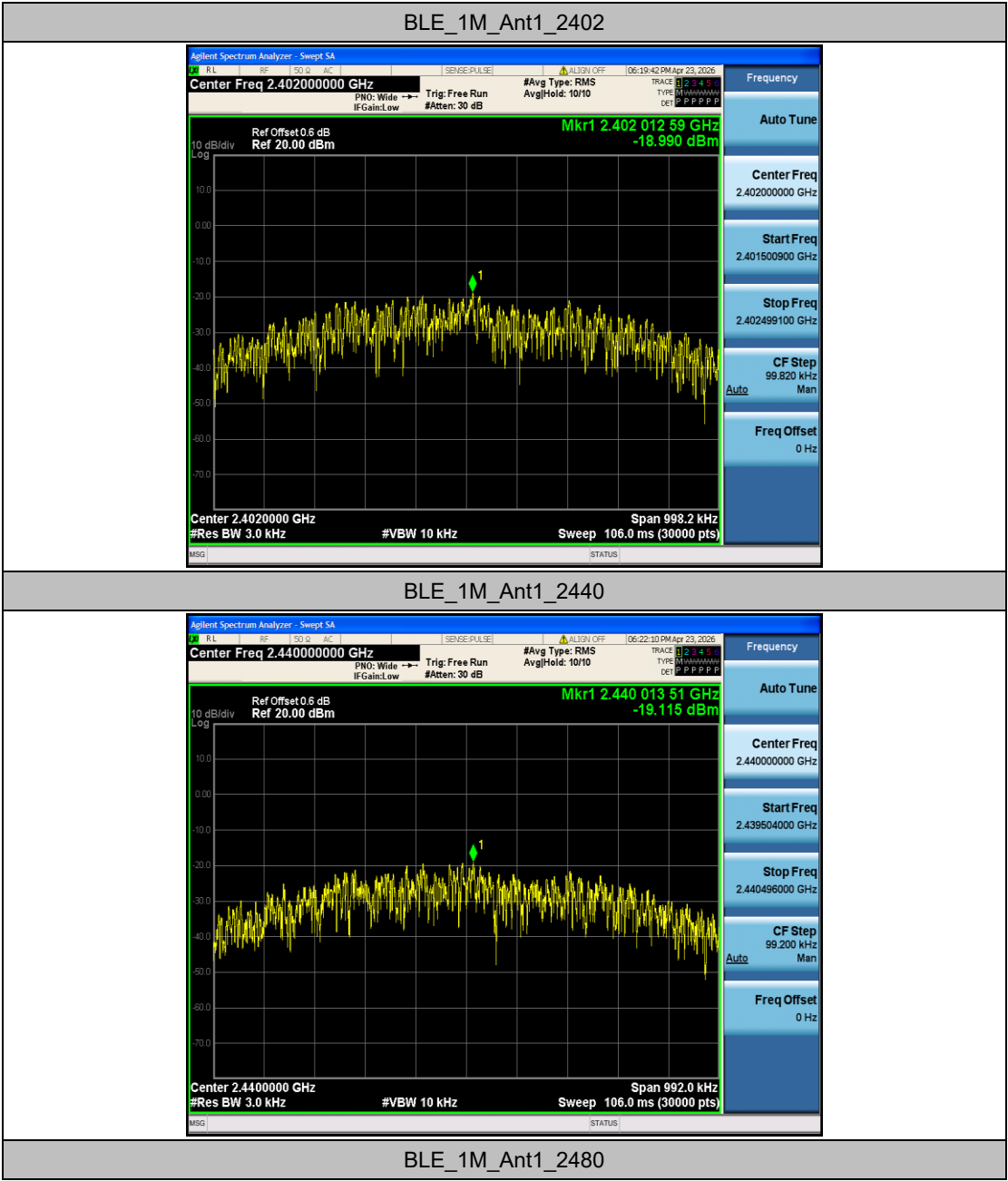
TestMode	Antenna	Freq(MHz)	Conducted Peak Power[dBm]	Conducted Limit[dBm]	Verdict
BLE_1M	Ant1	2402	-3.09	≤30	PASS
		2440	-3.38	≤30	PASS
		2480	-3.44	≤30	PASS

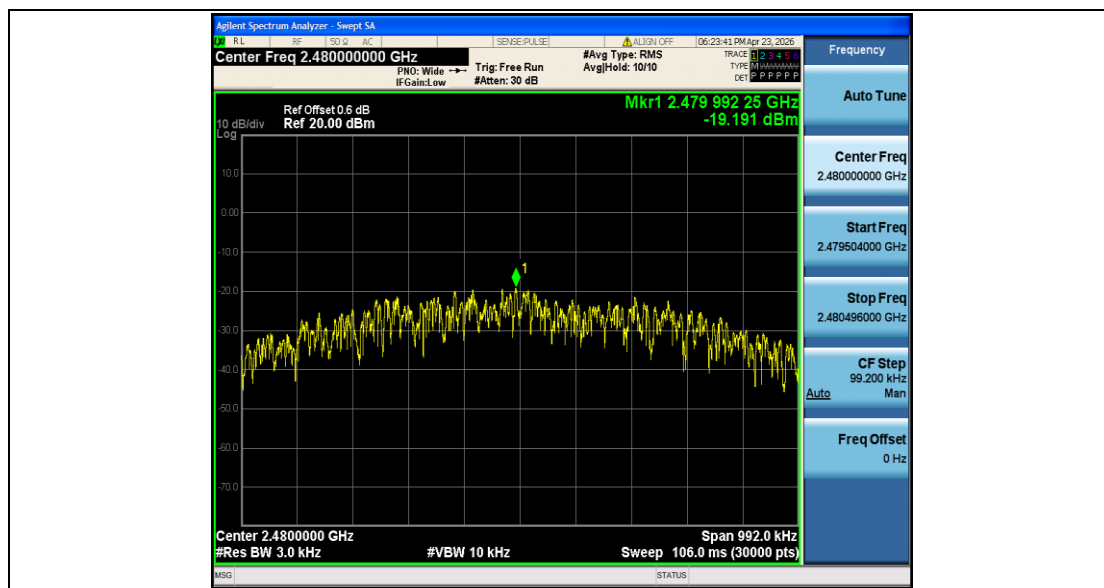
Appendix D: Maximum power spectral density

Test Result

TestMode	Antenna	Freq(MHz)	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-18.99	≤8.00	PASS
		2440	-19.12	≤8.00	PASS
		2480	-19.19	≤8.00	PASS

Test Graphs



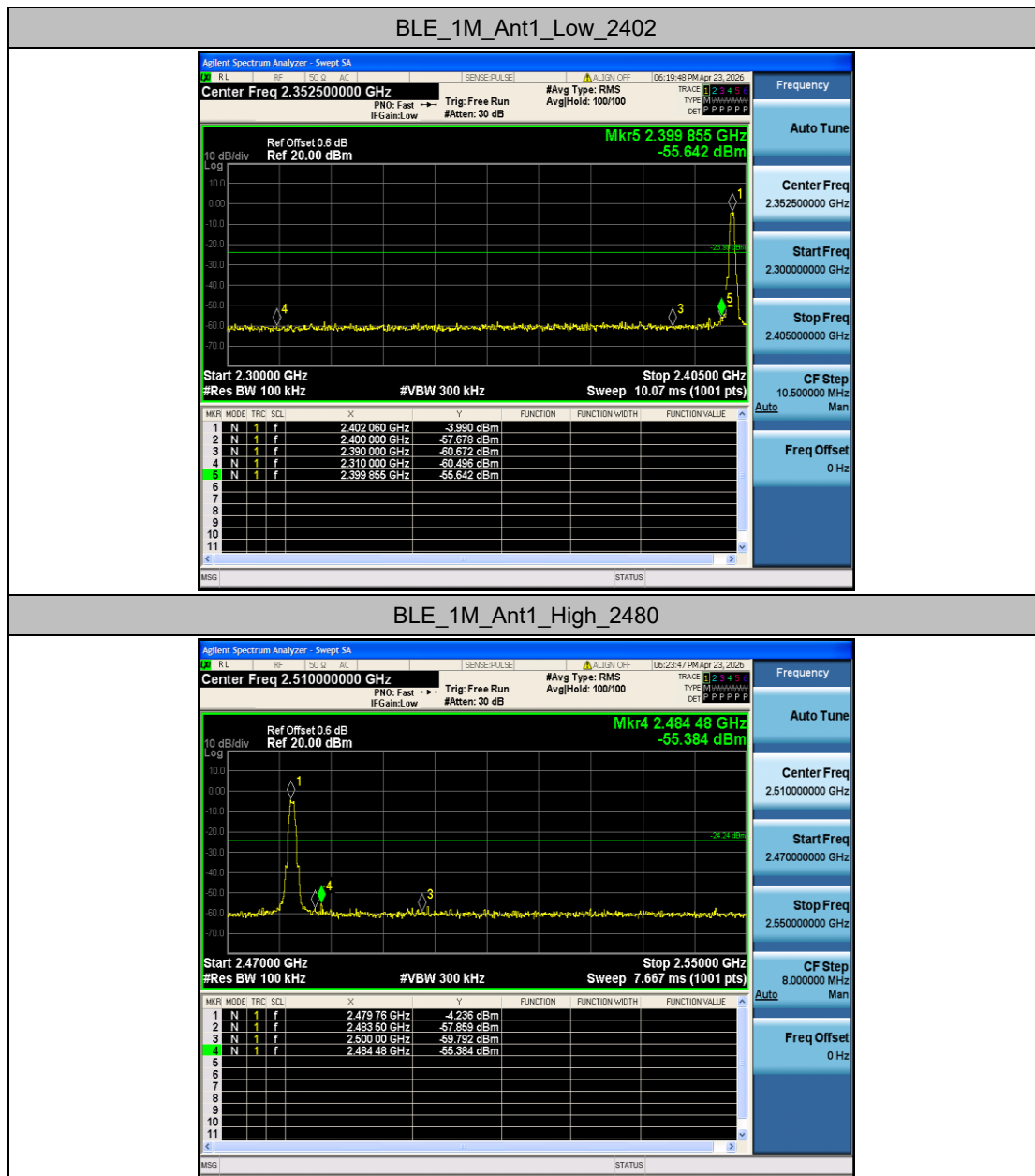


Appendix E: Band edge measurements

Test Result

TestMod e	Antenn a	ChNam e	Freq(MHz)	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdic t
BLE_1M	Ant1	Low	2402	-3.99	-55.64	≤-23.99	PASS
		High	2480	-4.24	-55.38	≤-24.24	PASS

Test Graphs


BLE_1M_Ant1_High_2480

Center Freq 2.510000000 GHz

Start 2.47000 GHz

Stop 2.55000 GHz

Res BW 100 kHz

#VBW 300 kHz

Sweep 7.667 ms (1001 pts)

Ref Offset 0.6 dB

Ref 20.00 dBm

Mkr4 2.484 48 GHz

-55.384 dBm

Frequency

Auto Tune

Center Freq 2.510000000 GHz

Start Freq 2.470000000 GHz

Stop Freq 2.550000000 GHz

CF Step 8.000000 MHz

Freq Offset 0 Hz

Appendix F: Conducted Spurious Emission

Test Result

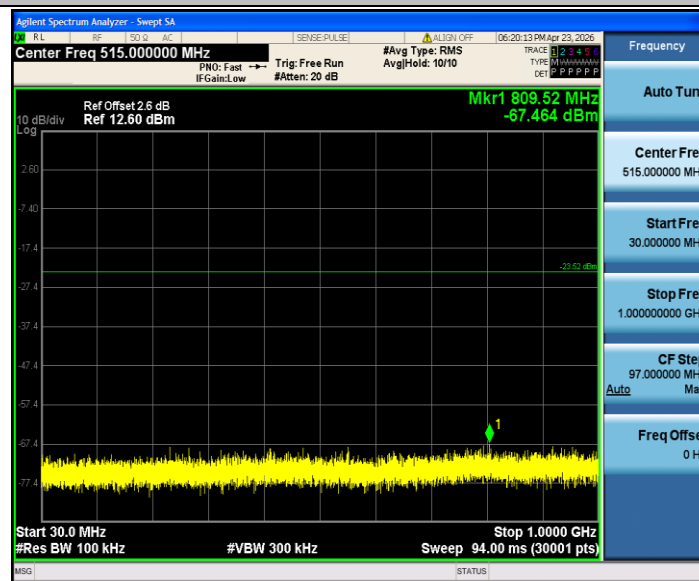
TestMode	Antenna	Freq(MHz)	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	-3.52	-3.52	---	PASS
			30~1000	-3.52	-67.46	≤-23.52	PASS
			1000~26500	-3.52	-47.83	≤-23.52	PASS
		2440	Reference	-4.57	-4.57	---	PASS
			30~1000	-4.57	-68.18	≤-24.57	PASS
			1000~26500	-4.57	-46.65	≤-24.57	PASS
		2480	Reference	-4.69	-4.69	---	PASS
			30~1000	-4.69	-67.26	≤-24.69	PASS
			1000~26500	-4.69	-47.33	≤-24.69	PASS

Test Graphs

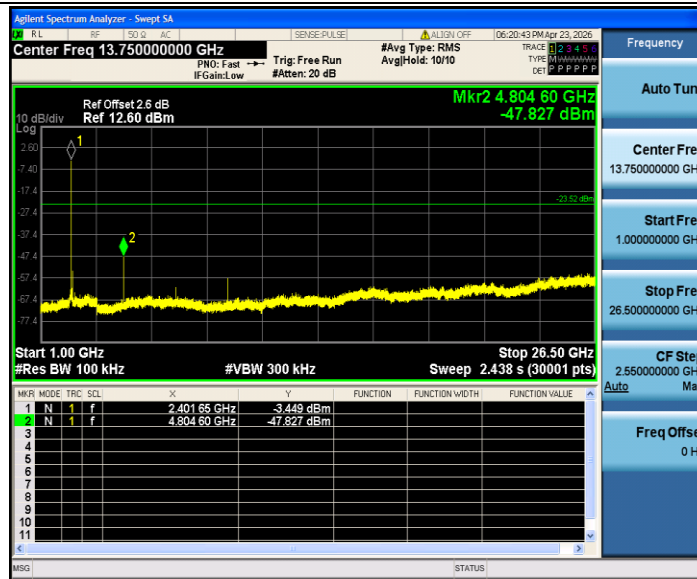
BLE_1M_Ant1_2402_0~Reference



BLE_1M_Ant1_2402_30~1000



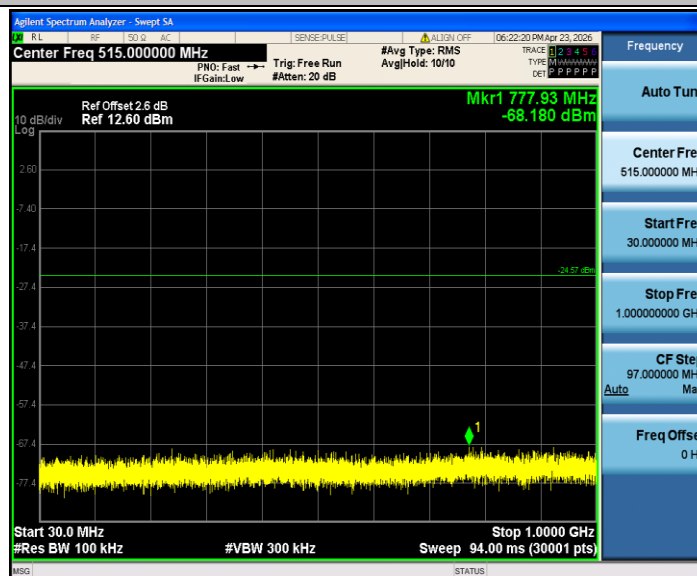
BLE_1M_Ant1_2402_1000~26500



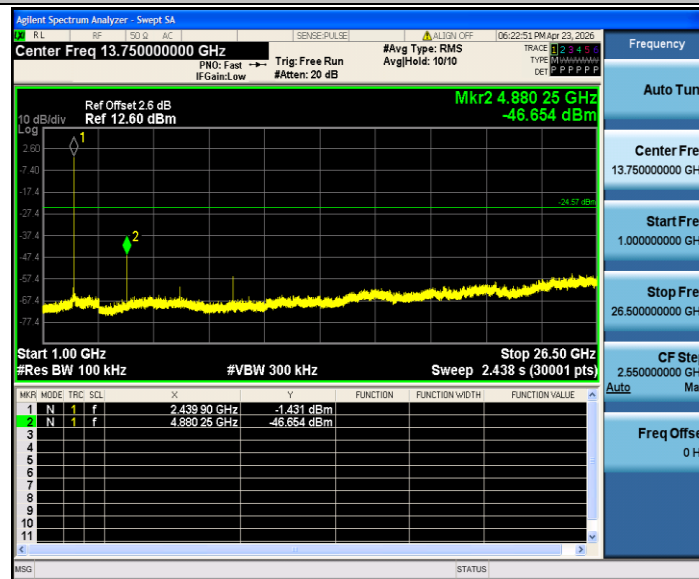
BLE_1M_Ant1_2440_0~Reference



BLE_1M_Ant1_2440_30~1000



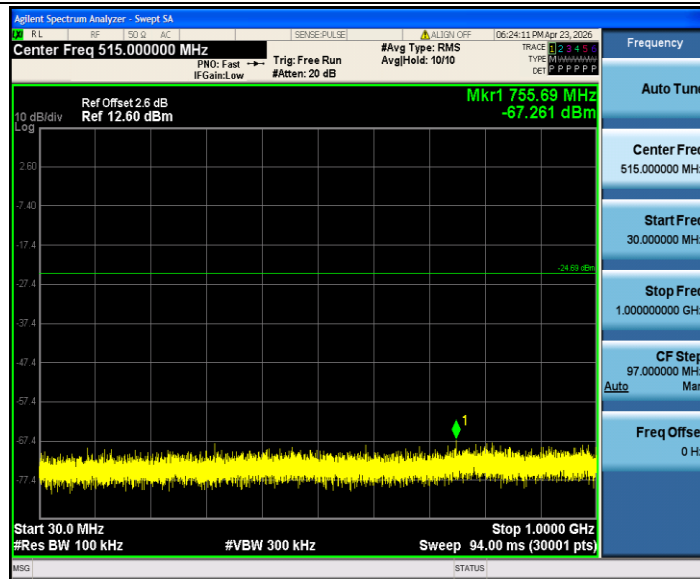
BLE_1M_Ant1_2440_1000~26500



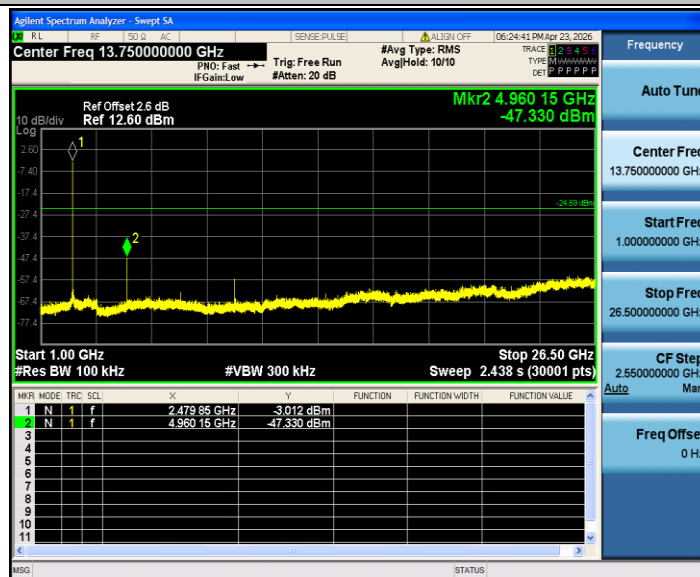
BLE_1M_Ant1_2480_0~Reference



BLE_1M_Ant1_2480_30~1000



BLE_1M_Ant1_2480_1000~26500

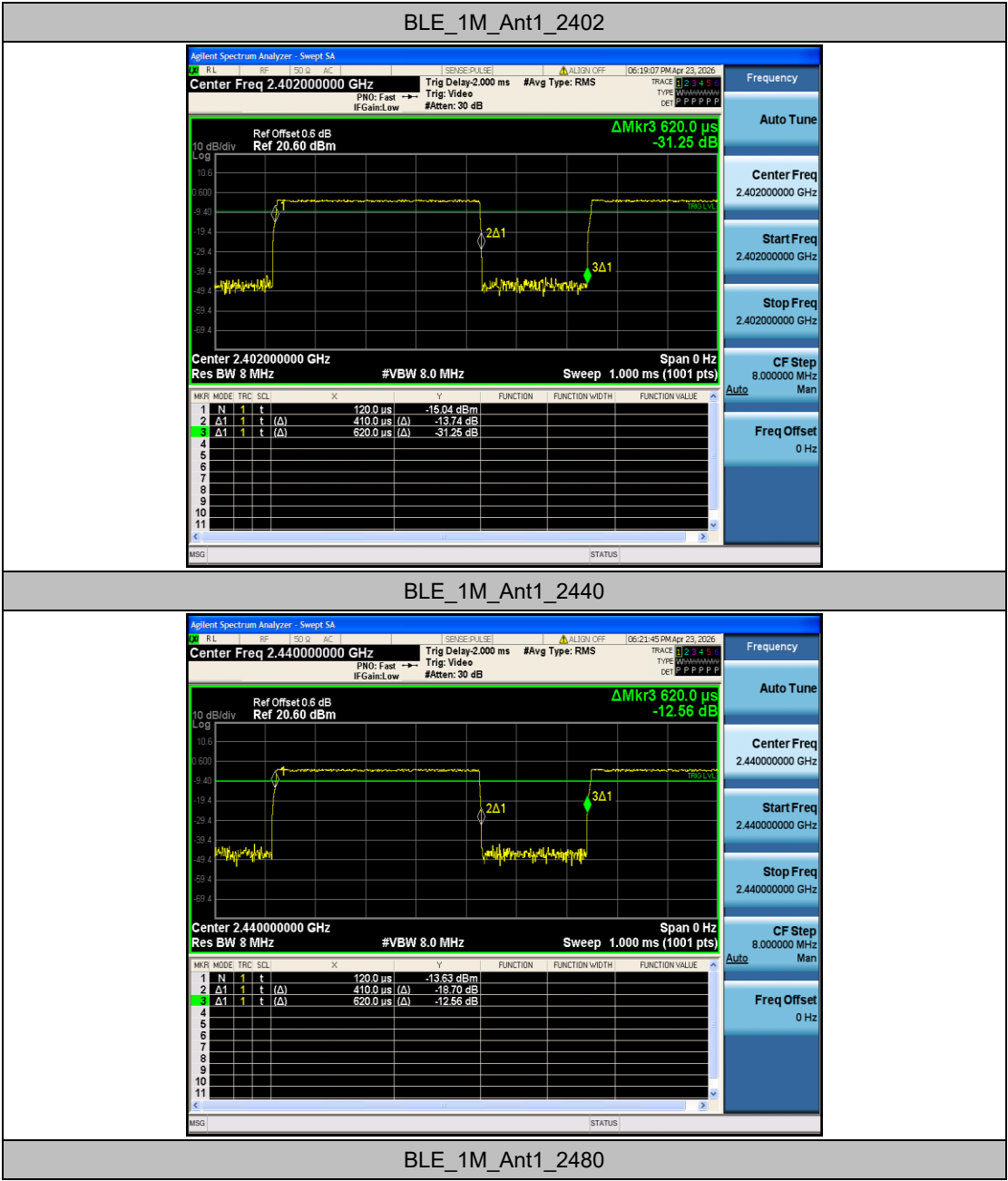


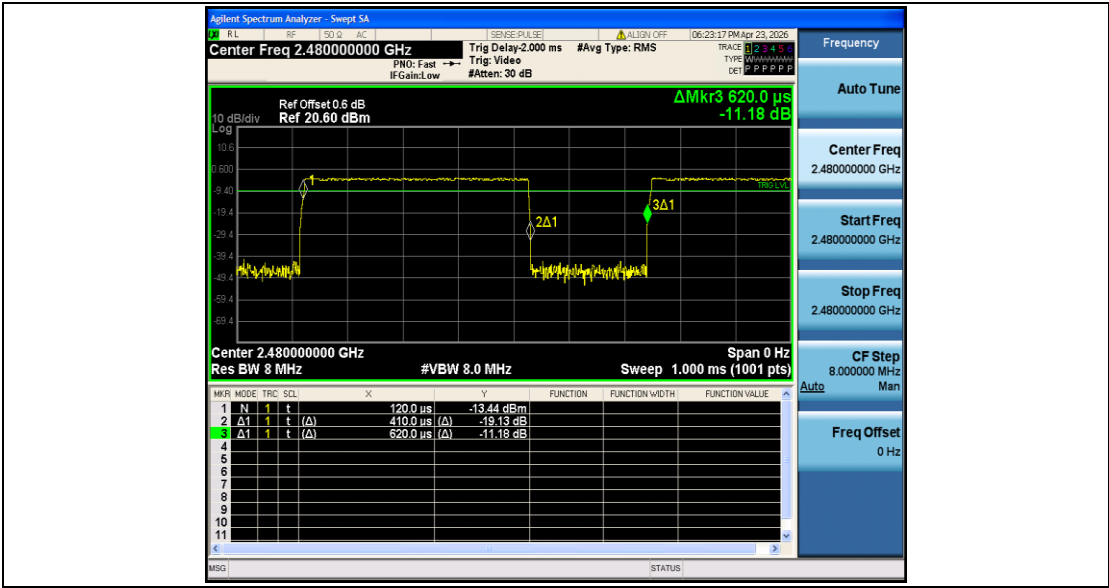
Appendix G: Duty Cycle

Test Result

TestMode	Antenna	Freq(MHz)	ON Time [ms]	Period [ms]	X	DC [%]	xFactor	Limit	Verdict
BLE_1M	Ant1	2402	0.41	0.62	0.6613	66.13	1.80	---	---
		2440	0.41	0.62	0.6613	66.13	1.80	---	---
		2480	0.41	0.62	0.6613	66.13	1.80	---	---

Test Graphs





Appendix H: Emissions in Restricted Bands

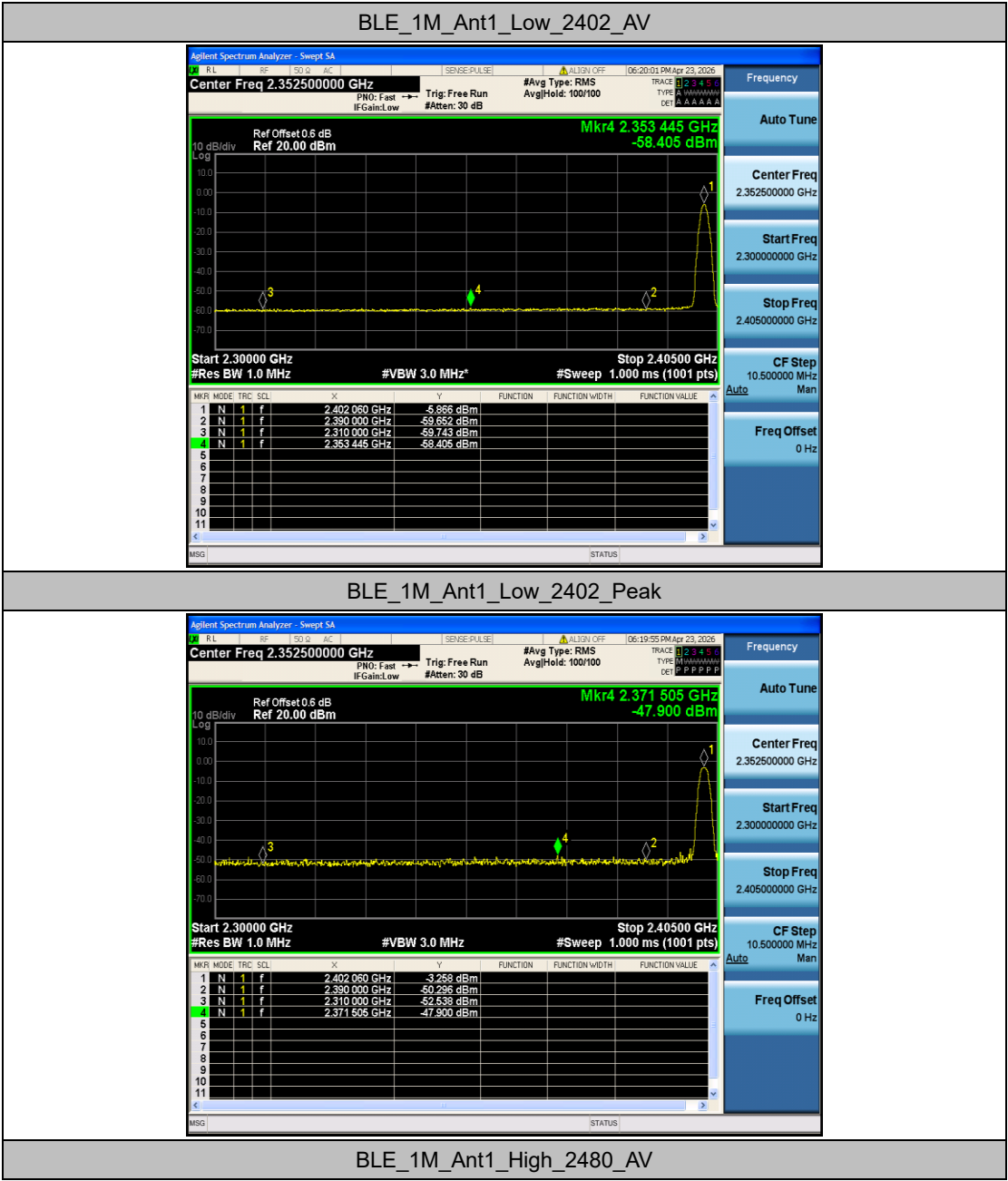
Test Result

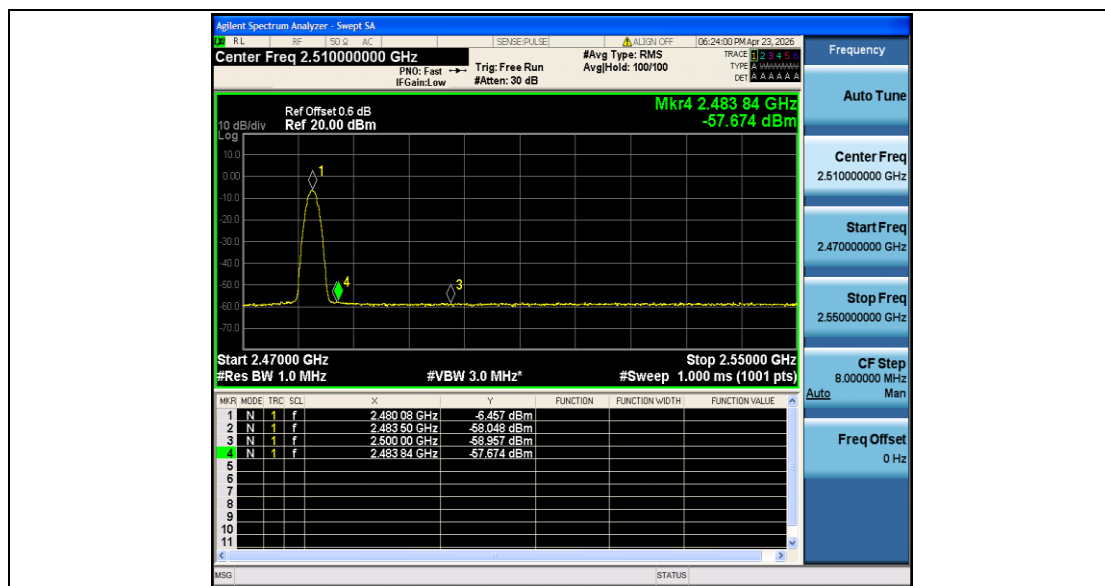
TestMode	Antenna	ChName	Freq(MHz)	Detector	Freq [MHz]	Result [dBm]	Gain [dB]	DC Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Verdict
BLE_1M	Ant1	Low	2402	AV	2310.000	-59.74	2.00	1.80	39.26	≤54	PASS
				AV	2353.445	-58.4	2.00	1.80	40.60	≤54	PASS
				AV	2390.000	-59.65	2.00	1.80	39.35	≤54	PASS
				Peak	2310.000	-52.54	2.00	0.00	44.66	≤74	PASS
				Peak	2371.505	-47.9	2.00	0.00	49.30	≤74	PASS
				Peak	2390.000	-50.3	2.00	0.00	46.90	≤74	PASS
		High	2480	AV	2483.500	-58.05	2.00	1.80	40.95	≤54	PASS
				AV	2483.840	-57.67	2.00	1.80	41.33	≤54	PASS
				AV	2500.000	-58.96	2.00	1.80	40.04	≤54	PASS
				Peak	2483.500	-49.39	2.00	0.00	47.81	≤74	PASS
				Peak	2484.960	-46.76	2.00	0.00	50.44	≤74	PASS
				Peak	2500.000	-49.32	2.00	0.00	47.88	≤74	PASS

Note:

The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.

Test Graphs





BLE_1M_Ant1_High_2480_Peak

