

FCC Appendix RF Test Data for BLE

FCC ID : **2A5HDHK300**

Company : **Shenzhen Hongkang International Electronic
Technology Co., Ltd.**

EUT : **Wireless meat thermometer**

Model Number : **HK-300**

Report No. : **CTA26060900501**

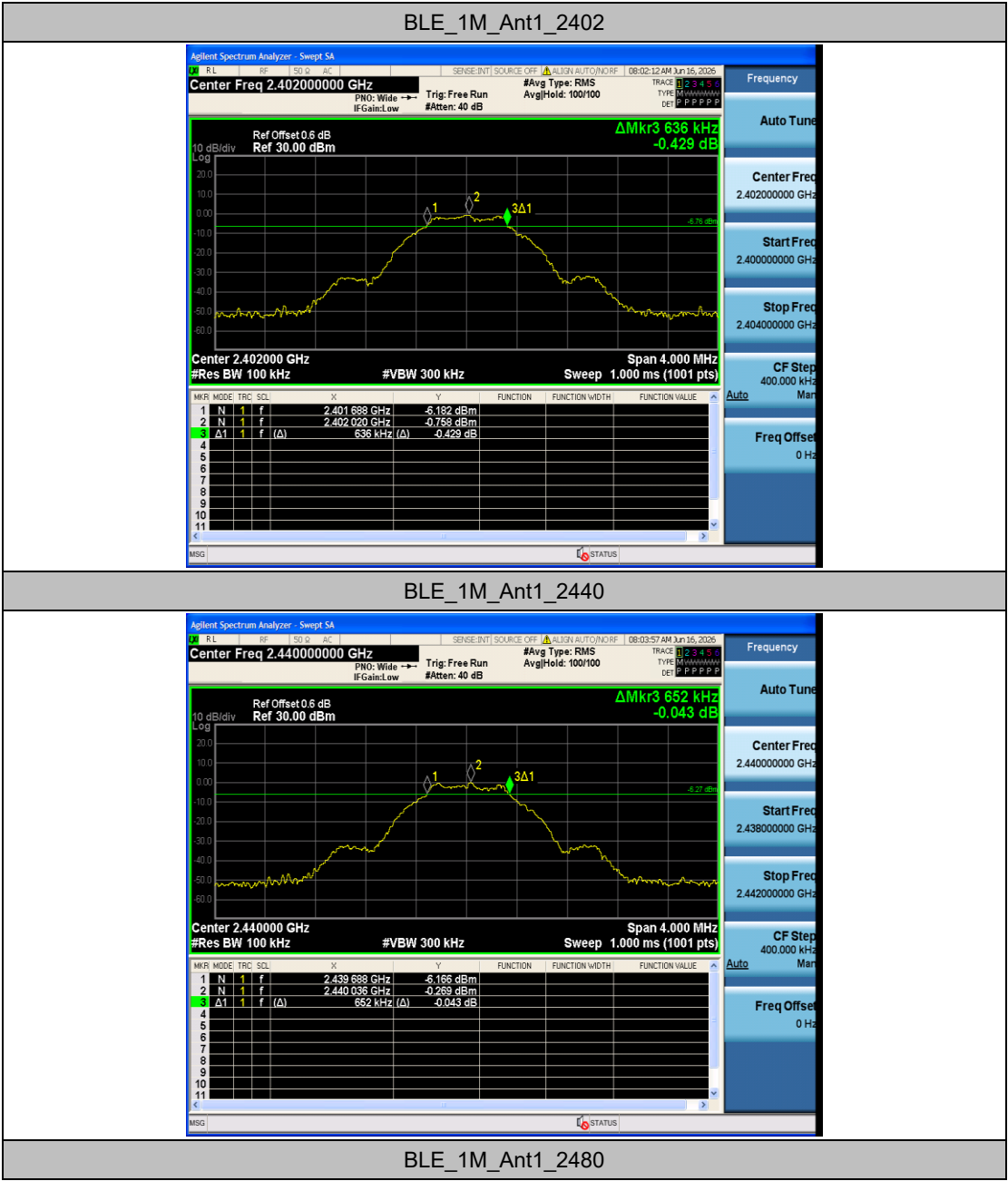
Reviewed By : **Eric Wang**

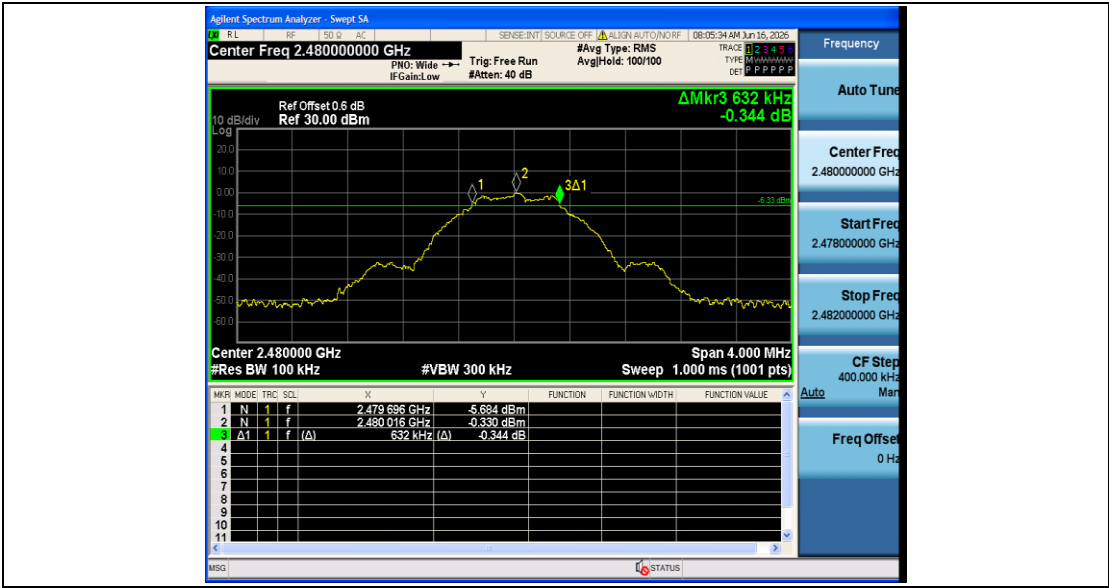
Appendix A: DTS Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.636	2401.688	2402.324	0.5	PASS
		2440	0.652	2439.688	2440.340	0.5	PASS
		2480	0.632	2479.696	2480.328	0.5	PASS

Test Graphs



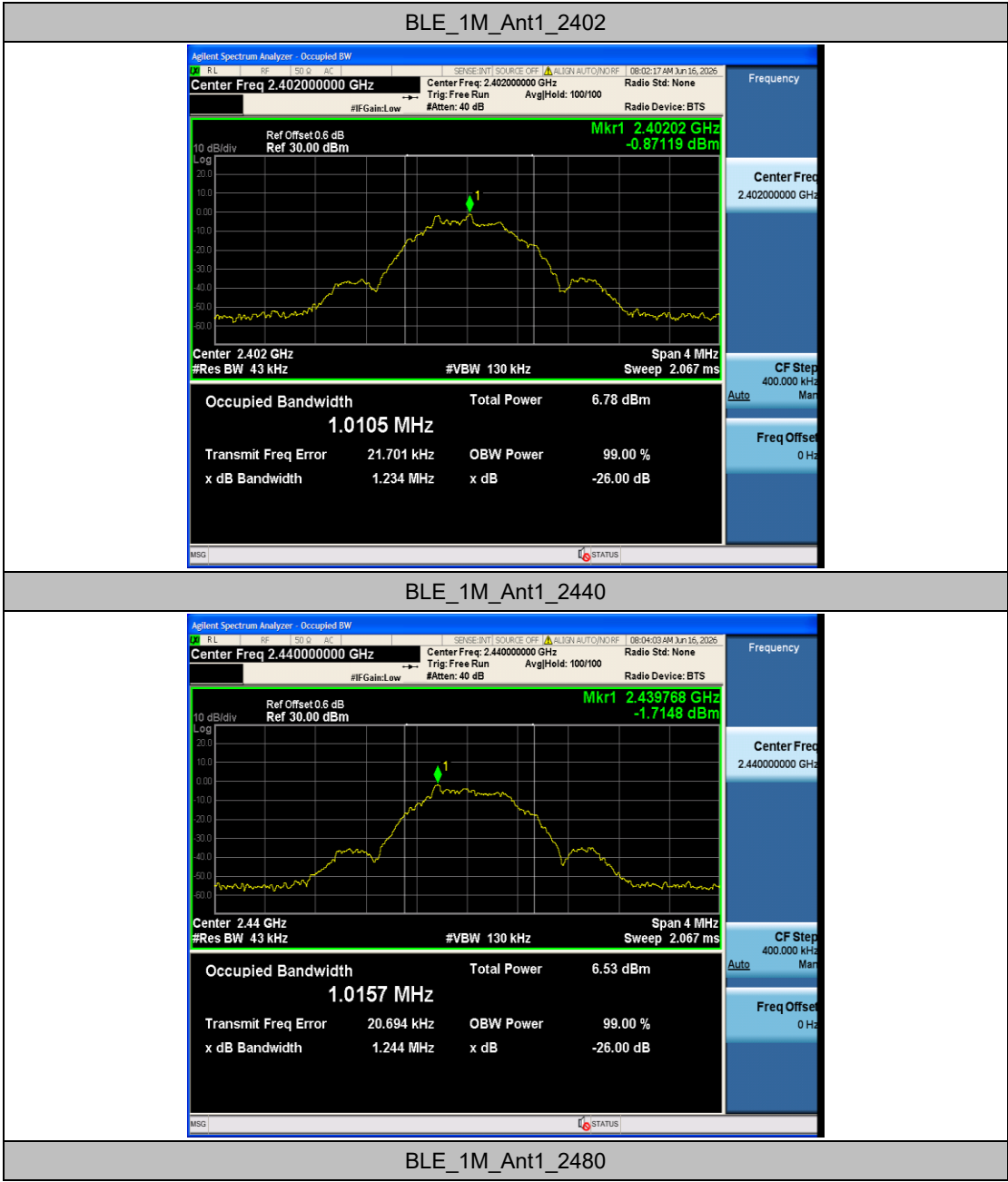


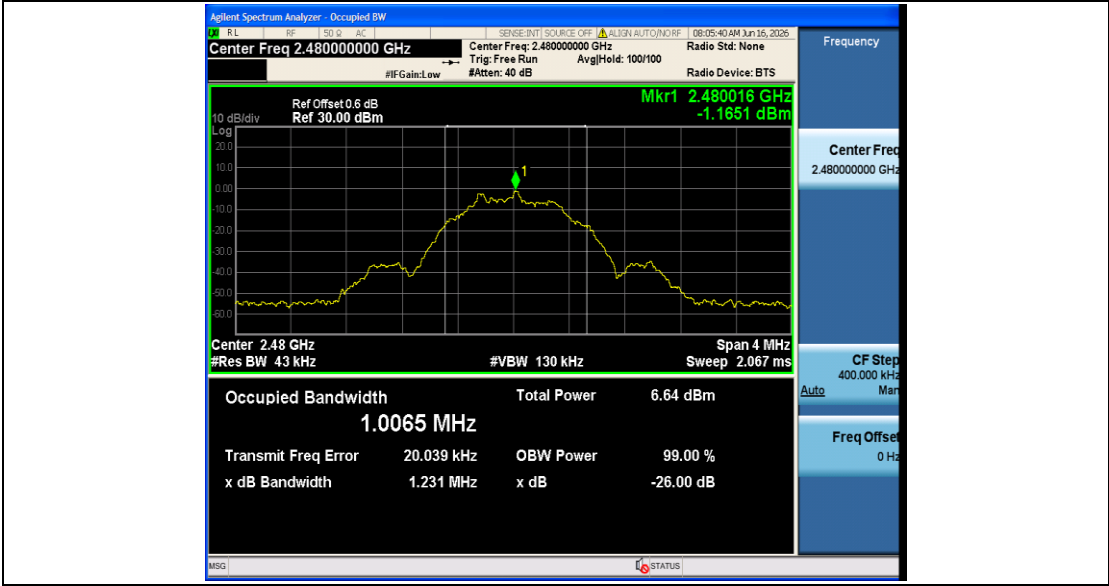
Appendix B: Occupied Channel Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	1.0105	2401.5165	2402.5270	---	---
		2440	1.0157	2439.5128	2440.5285	---	---
		2480	1.0065	2479.5168	2480.5233	---	---

Test Graphs





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	0.09	≤30	PASS
		2440	0.08	≤30	PASS
		2480	-0.15	≤30	PASS

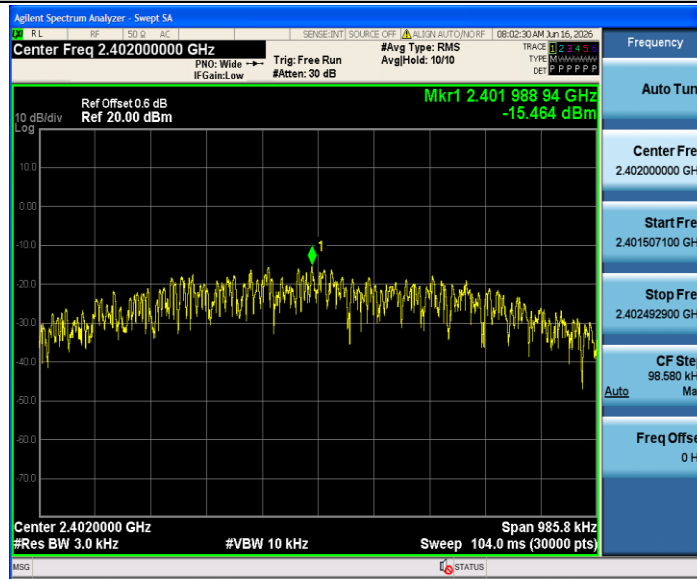
Appendix D: Maximum power spectral density

Test Result

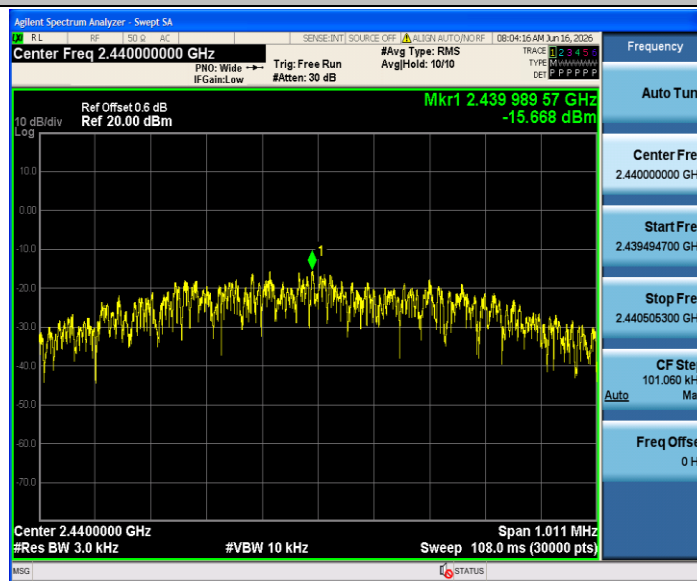
TestMode	Antenna	Freq(MHz)	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-15.46	≤8.00	PASS
		2440	-15.67	≤8.00	PASS
		2480	-15.60	≤8.00	PASS

Test Graphs

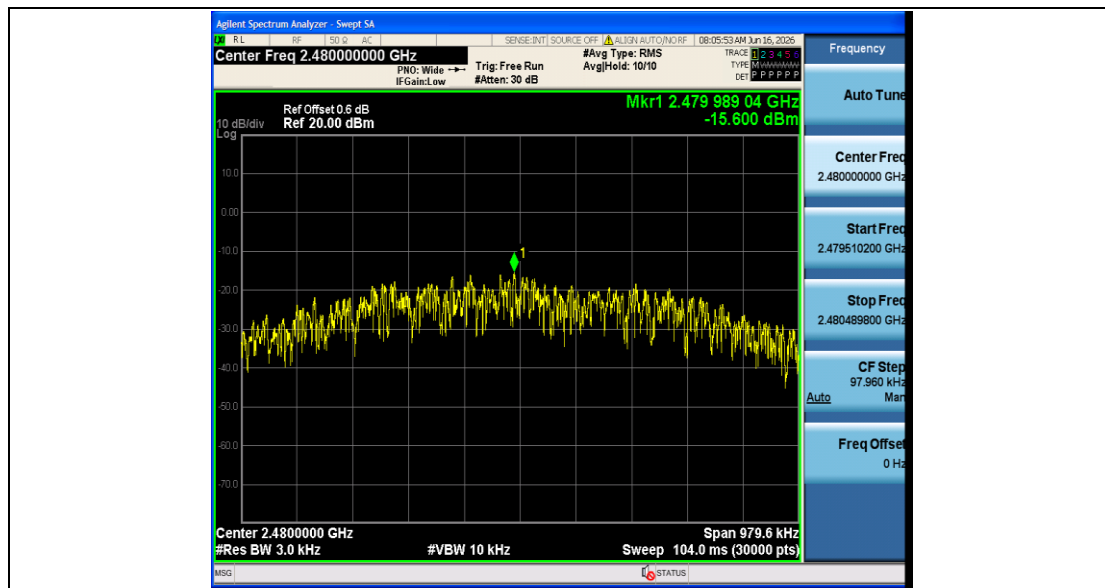
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480

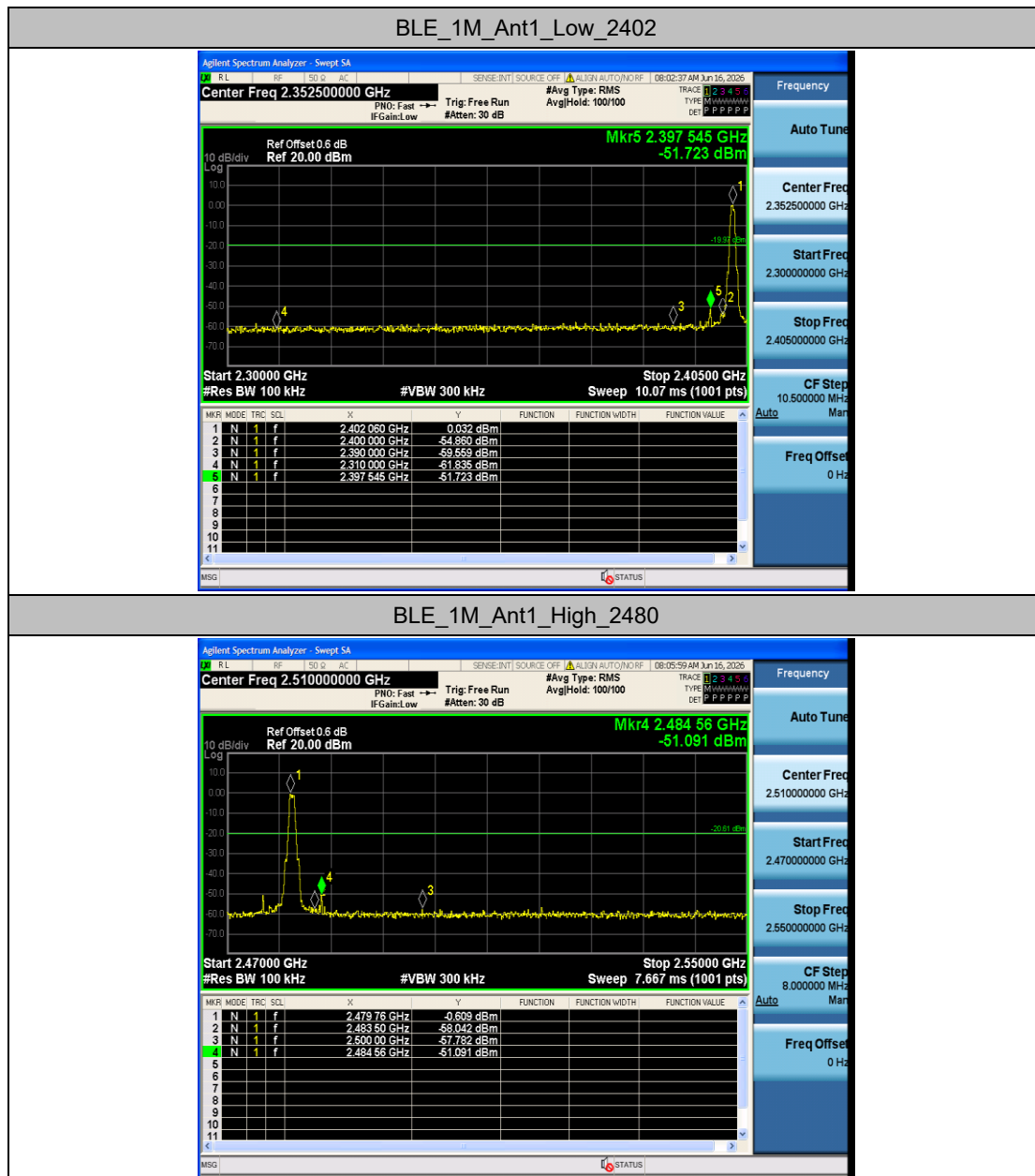


Appendix E: Band edge measurements

Test Result

TestMode	Antenna	Channel	Freq(MHz)	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	0.03	-51.72	≤-19.97	PASS
		High	2480	-0.61	-51.09	≤-20.61	PASS

Test Graphs



Appendix F: Conducted Spurious Emission

Test Result

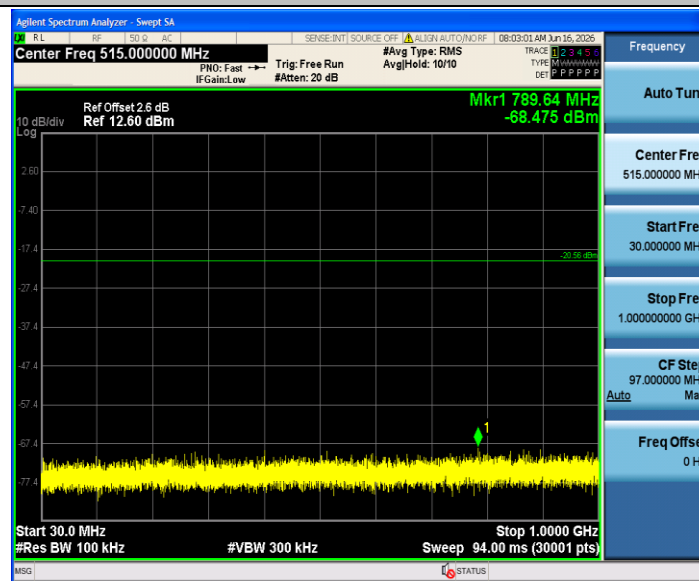
TestMode	Antenna	Freq(MHz)	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	-0.56	-0.56	---	PASS
			30~1000	-0.56	-68.48	≤-20.56	PASS
			1000~26500	-0.56	-40.17	≤-20.56	PASS
		2440	Reference	-0.44	-0.44	---	PASS
			30~1000	-0.44	-69.04	≤-20.44	PASS
			1000~26500	-0.44	-41.32	≤-20.44	PASS
		2480	Reference	-0.28	-0.28	---	PASS
			30~1000	-0.28	-68.44	≤-20.28	PASS
			1000~26500	-0.28	-39.97	≤-20.28	PASS

Test Graphs

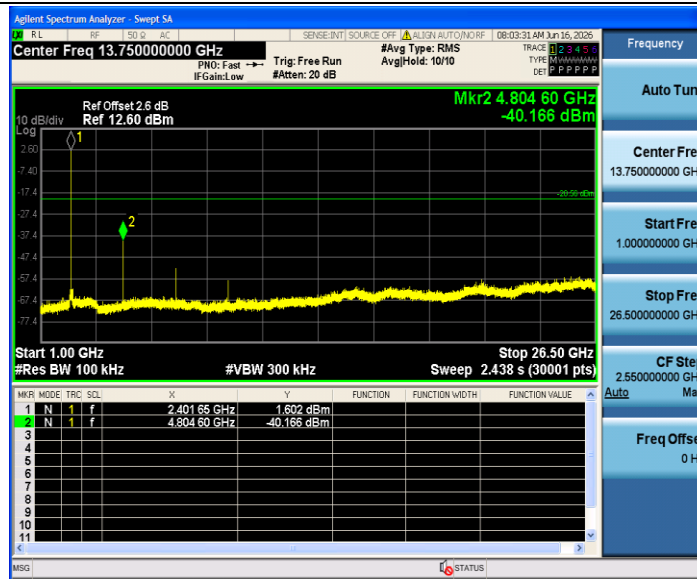
BLE_1M_Ant1_2402_0~Reference



BLE_1M_Ant1_2402_30~1000



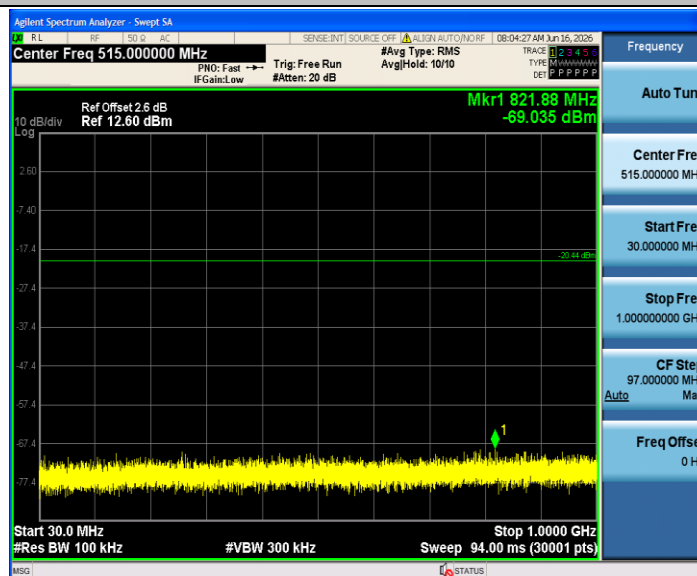
BLE_1M_Ant1_2402_1000~26500



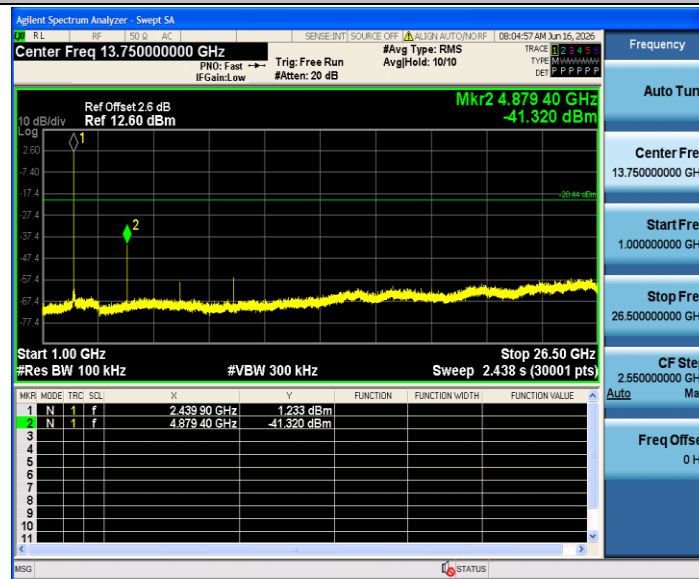
BLE_1M_Ant1_2440_0~Reference



BLE_1M_Ant1_2440_30~1000



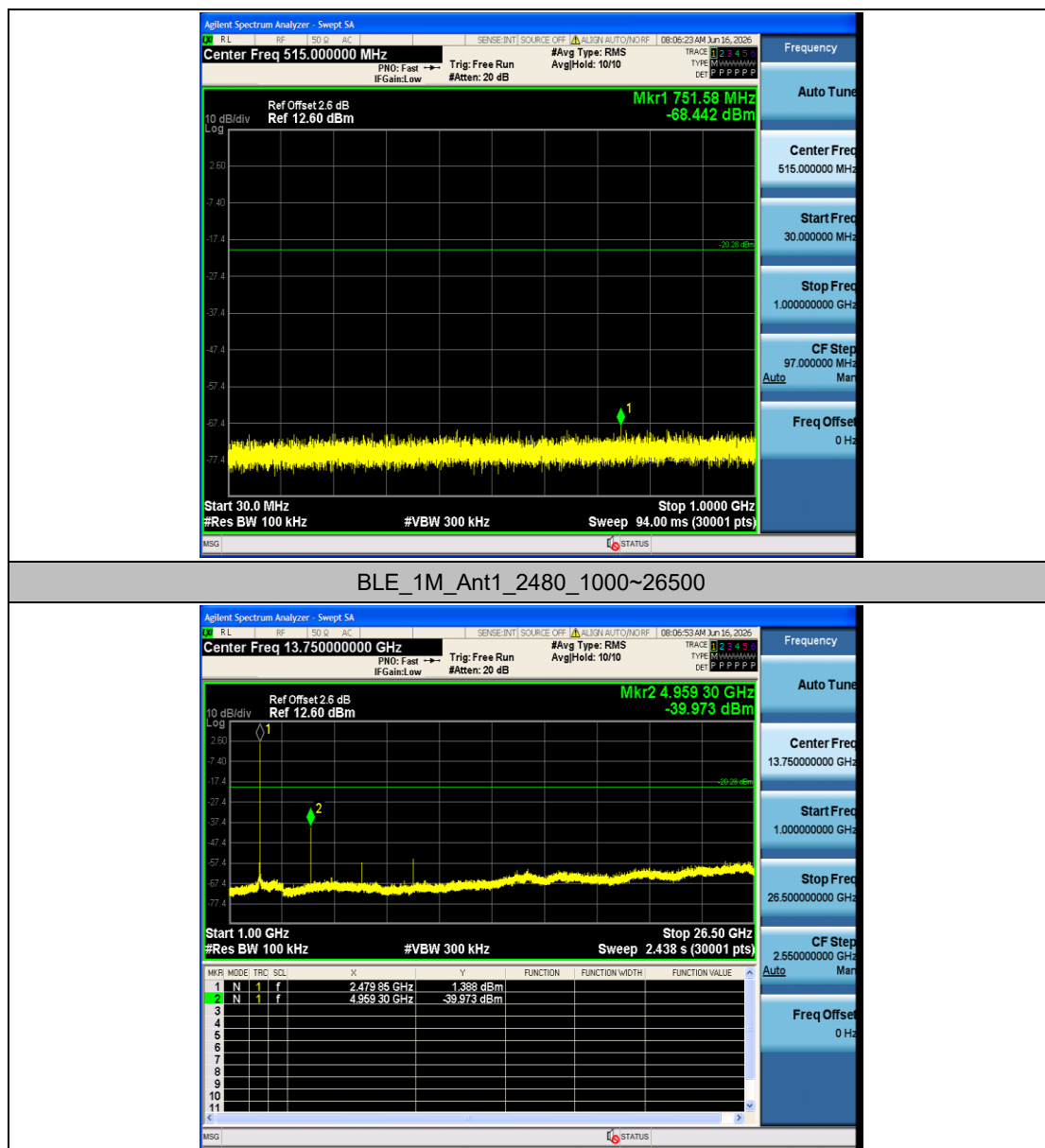
BLE_1M_Ant1_2440_1000~26500



BLE_1M_Ant1_2480_0~Reference



BLE_1M_Ant1_2480_30~1000

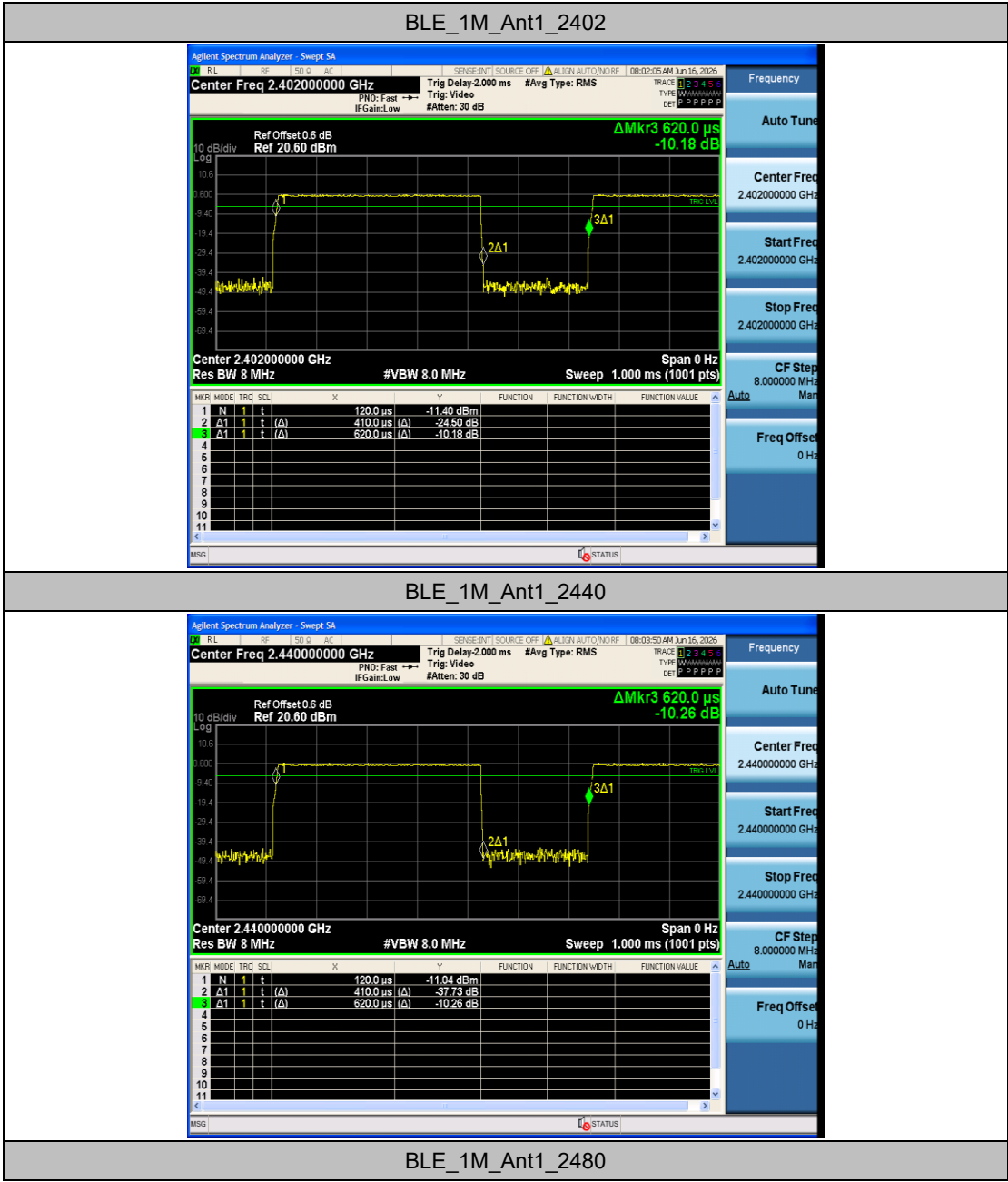


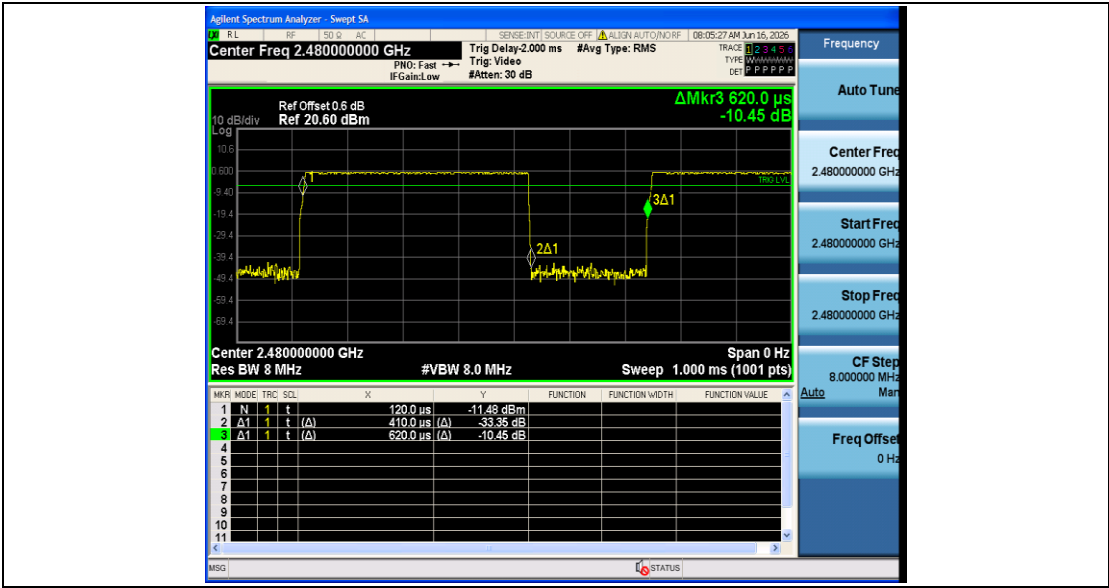
Appendix G: Duty Cycle

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

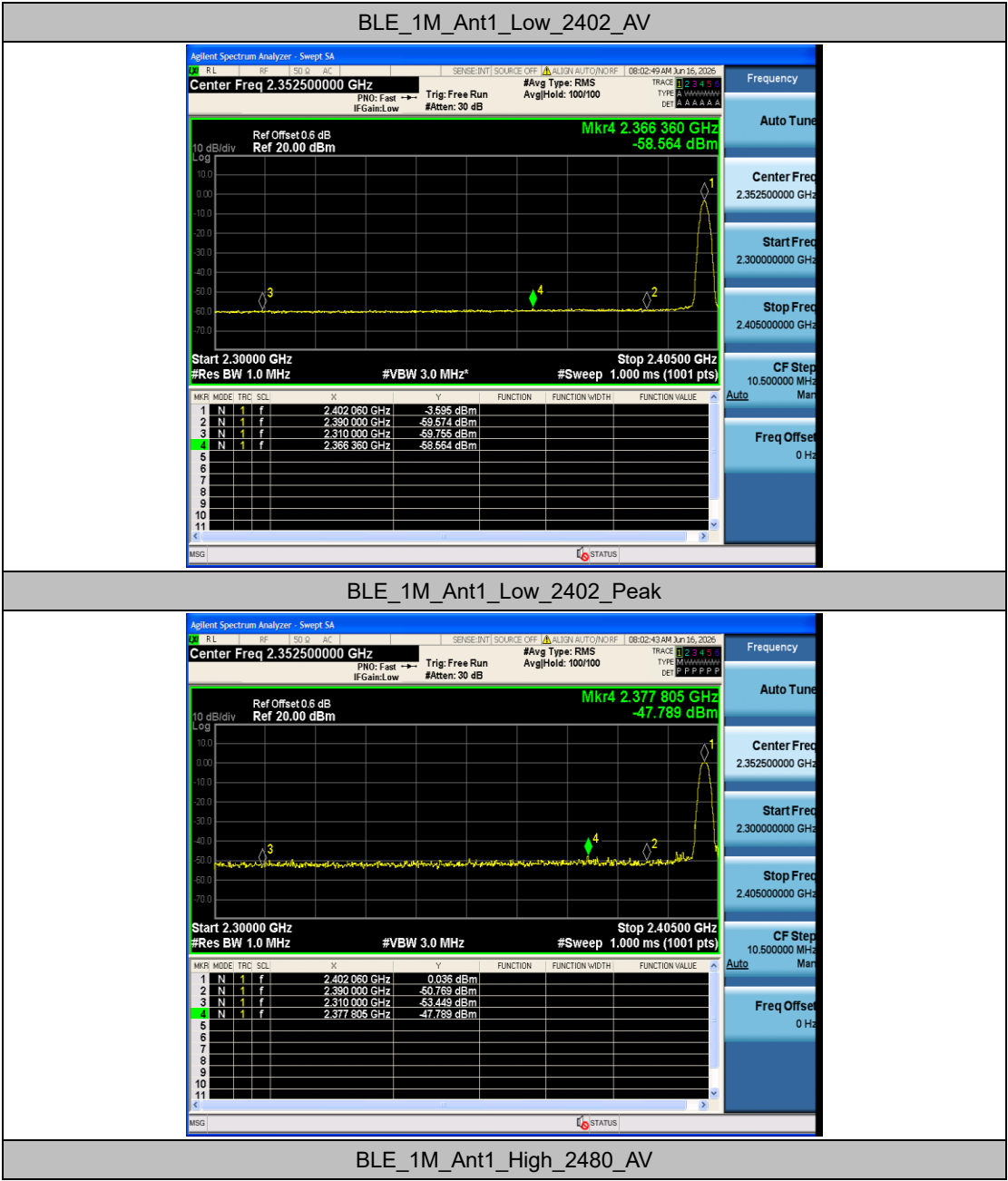
Test Result

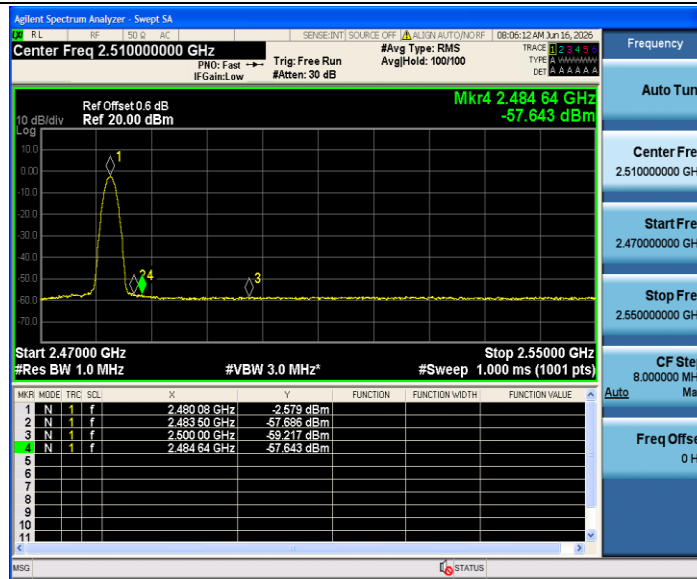
TestMode	Antenna	Channel	Freq(MHz)	Detector	Freq [MHz]	Result [dBm]	Gain [dB]	DC Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Verdict
BLE_1M	Ant1	Low	2402	AV	2310.000	-59.76	3.5	1.80	40.74	≤54	PASS
				AV	2366.360	-58.56	3.5	1.80	41.94	≤54	PASS
				AV	2390.000	-59.57	3.5	1.80	40.93	≤54	PASS
				Peak	2310.000	-53.45	3.5	0.00	45.25	≤74	PASS
				Peak	2377.805	-47.79	3.5	0.00	50.91	≤74	PASS
				Peak	2390.000	-50.77	3.5	0.00	47.93	≤74	PASS
		High	2480	AV	2483.500	-57.69	3.5	1.80	42.81	≤54	PASS
				AV	2484.640	-57.64	3.5	1.80	42.86	≤54	PASS
				AV	2500.000	-59.22	3.5	1.80	41.28	≤54	PASS
				Peak	2483.500	-49.55	3.5	0.00	49.15	≤74	PASS
				Peak	2485.280	-46.82	3.5	0.00	51.88	≤74	PASS
				Peak	2500.000	-51.54	3.5	0.00	47.16	≤74	PASS

Note:

1. 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

