

FCC Appendix RF Test Data for BLE

FCC ID : 2BYE7-XYJ-BA215TP

Company : Shenzhen New Yanjing Technology Co., Ltd.
Digital Signage Advertising Machines, Touch All-in-one Machines, All-in-one Machines, Teaching and

EUT : Conference Whiteboards, Smart Class Signs, Touch
self-service inquiry all-in-one machine, Splicing
Screen All-in-one Machines

Model Number : XYJ-BA215TP

Report No. : CTA26081801701

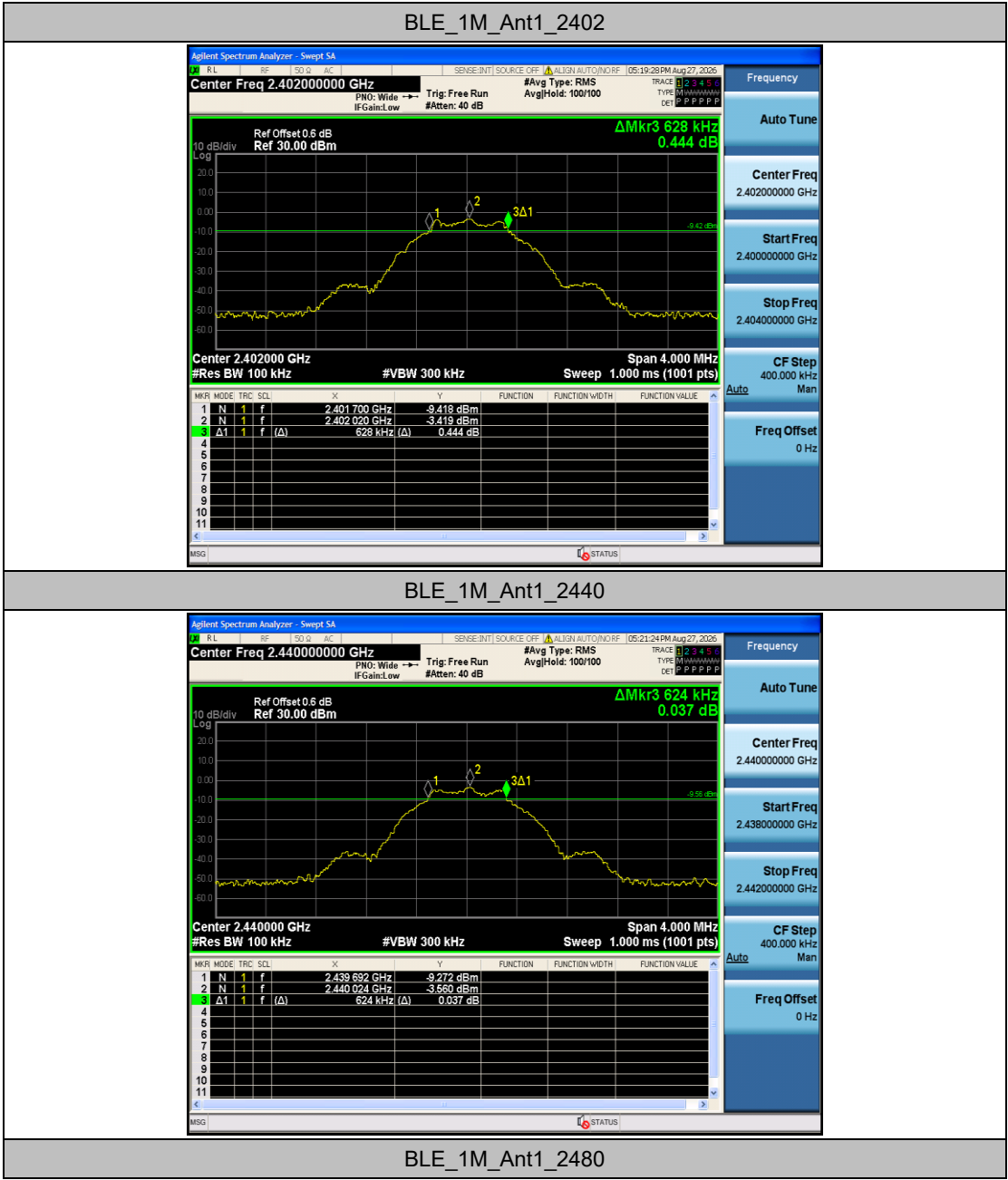
Reviewed By : Eric Wang

Appendix A: DTS Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.628	2401.700	2402.328	0.5	PASS
		2440	0.624	2439.692	2440.316	0.5	PASS
		2480	0.644	2479.692	2480.336	0.5	PASS

Test Graphs

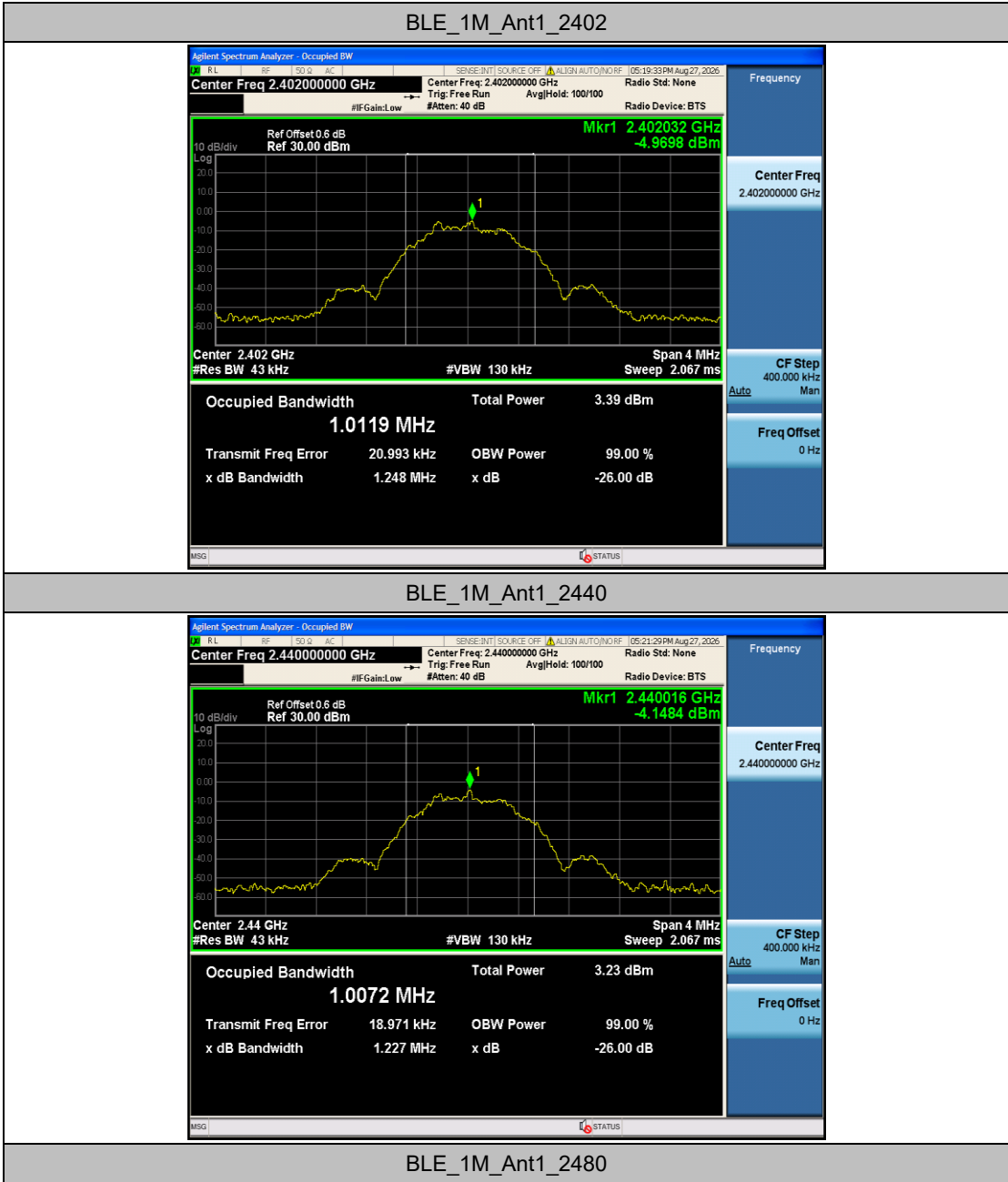


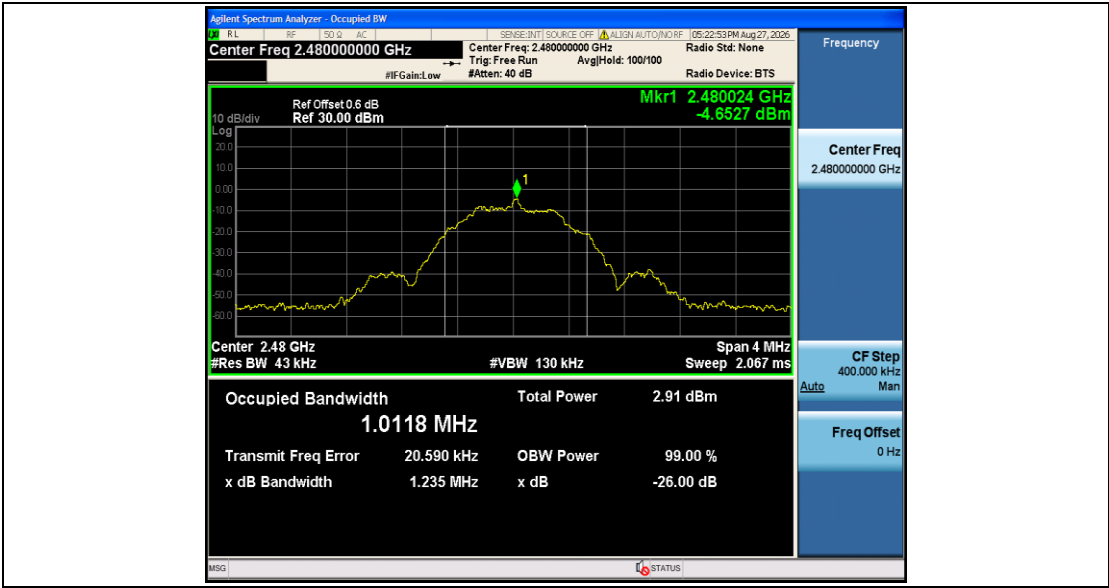
Appendix B: Occupied Channel Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	1.0119	2401.5150	2402.5269	---	---
		2440	1.0072	2439.5154	2440.5226	---	---
		2480	1.0118	2479.5147	2480.5265	---	---

Test Graphs





Appendix C: Maximum conducted output power

Test Result Peak

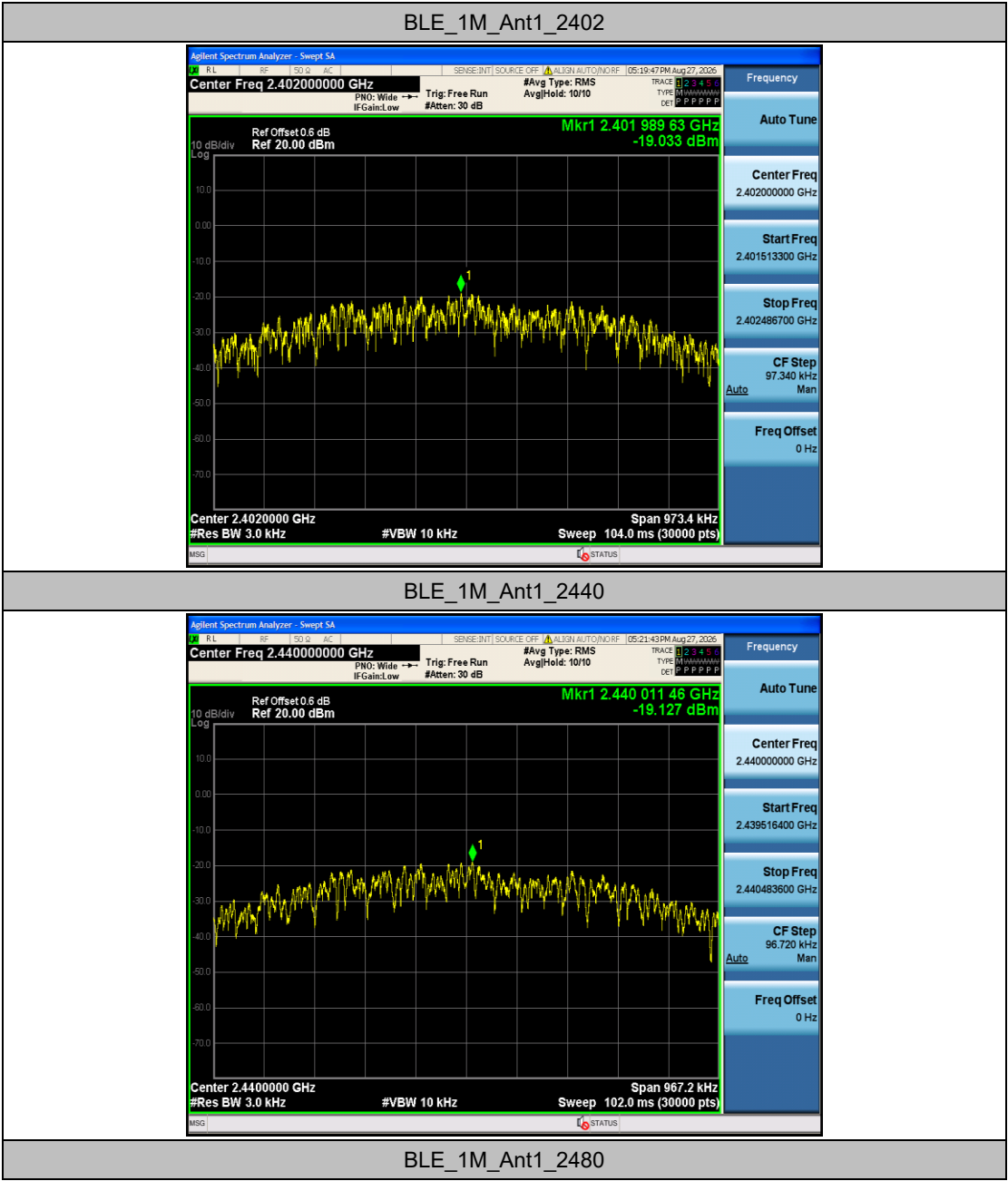
TestMode	Antenna	Freq(MHz)	Conducted Peak Power[dBm]	Conducted Limit[dBm]	Verdict
BLE_1M	Ant1	2402	-3.24	≤30	PASS
		2440	-3.32	≤30	PASS
		2480	-3.60	≤30	PASS

Appendix D: Maximum power spectral density

Test Result

TestMode	Antenna	Freq(MHz)	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-19.03	≤8.00	PASS
		2440	-19.13	≤8.00	PASS
		2480	-19.39	≤8.00	PASS

Test Graphs

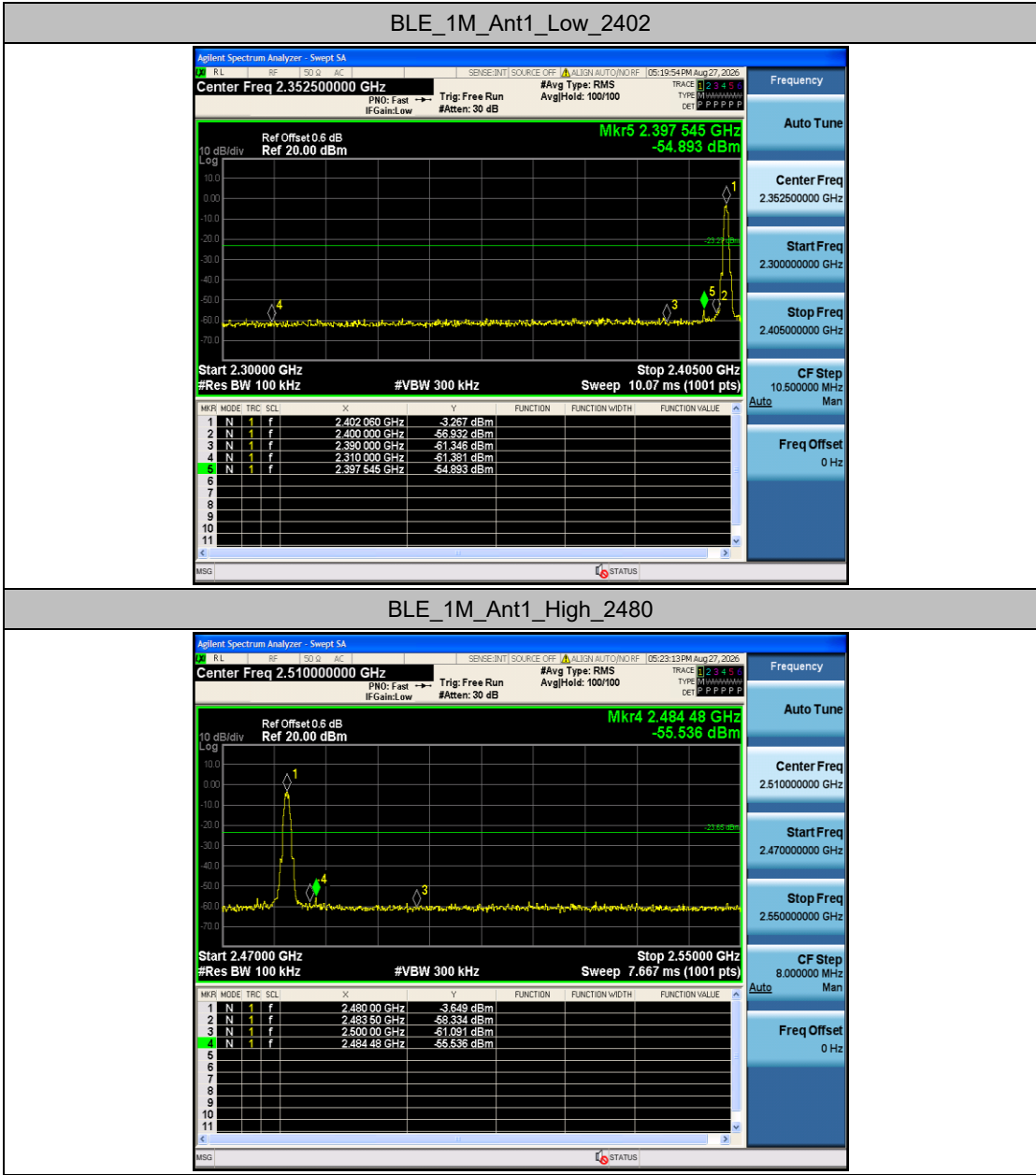


Appendix E: Band edge measurements

Test Result

TestMode	Antenna	Channel	Freq(MHz)	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	-3.27	-54.89	≤-23.27	PASS
		High	2480	-3.65	-55.54	≤-23.65	PASS

Test Graphs

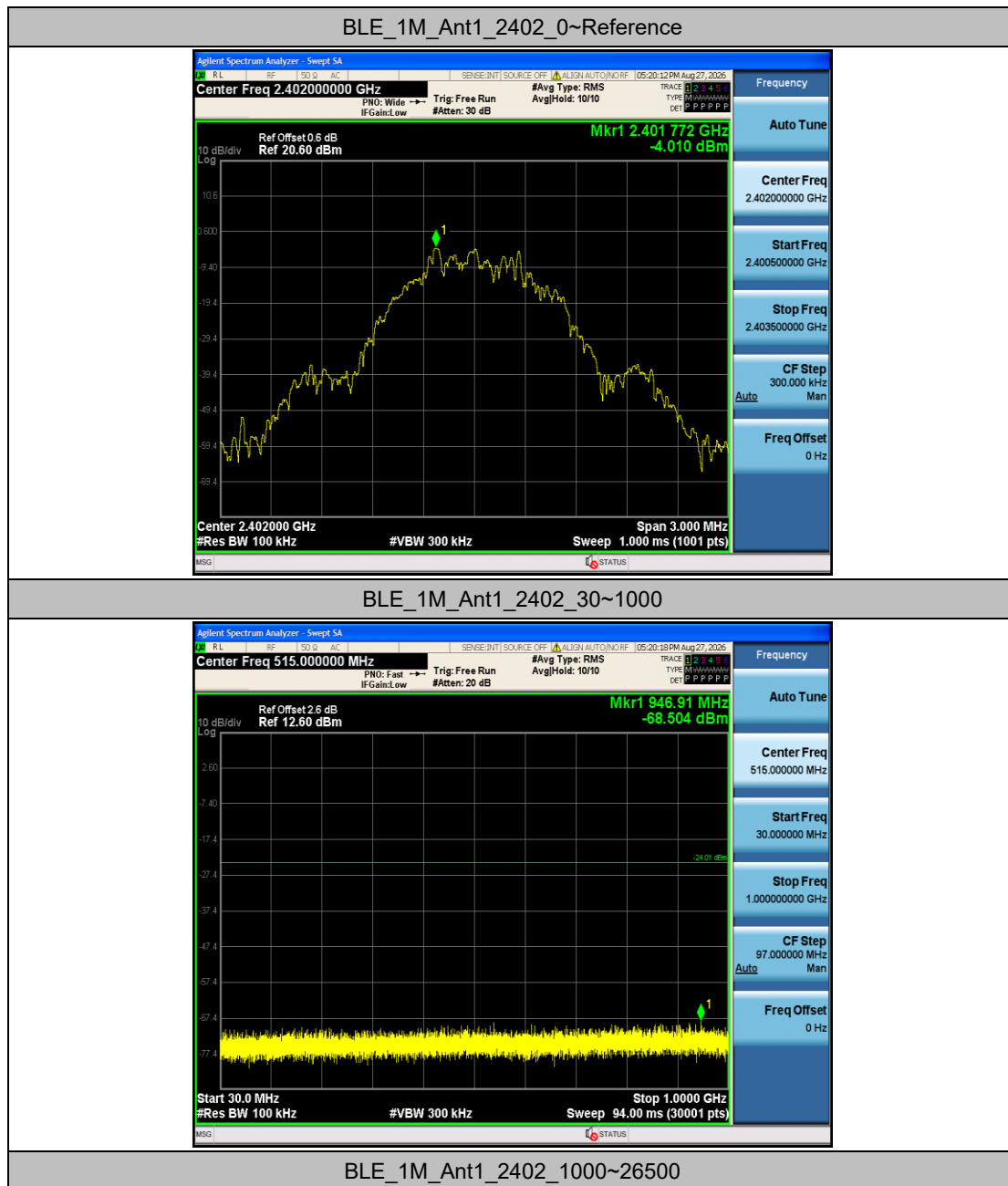


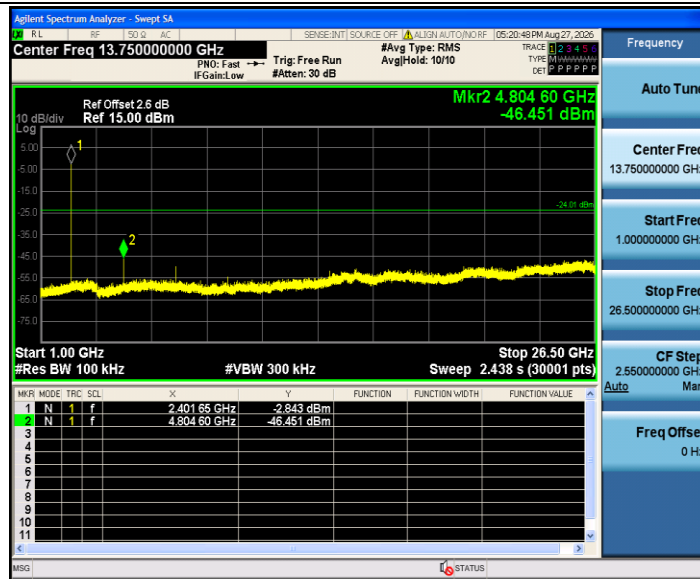
Appendix F: Conducted Spurious Emission

Test Result

TestMode	Antenna	Freq(MHz)	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	-4.01	-4.01	---	PASS
			30~1000	-4.01	-68.5	≤-24.01	PASS
			1000~26500	-4.01	-46.45	≤-24.01	PASS
		2440	Reference	-3.63	-3.63	---	PASS
			30~1000	-3.63	-68.3	≤-23.63	PASS
			1000~26500	-3.63	-43.94	≤-23.63	PASS
		2480	Reference	-5.16	-5.16	---	PASS
			30~1000	-5.16	-68.39	≤-25.16	PASS
			1000~26500	-5.16	-44.93	≤-25.16	PASS

Test Graphs

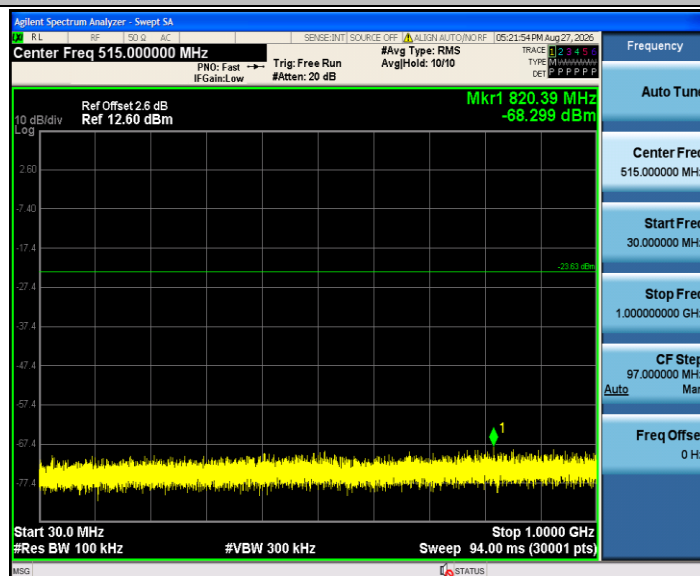




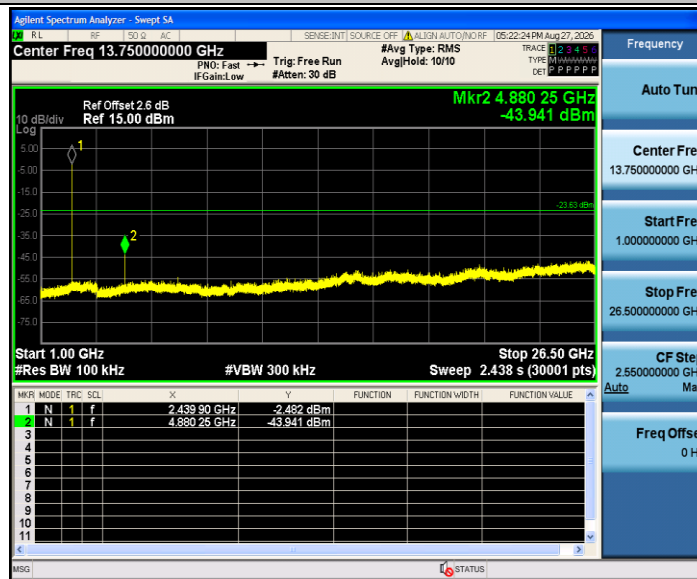
BLE_1M_Ant1_2440_0~Reference



BLE_1M_Ant1_2440_30~1000



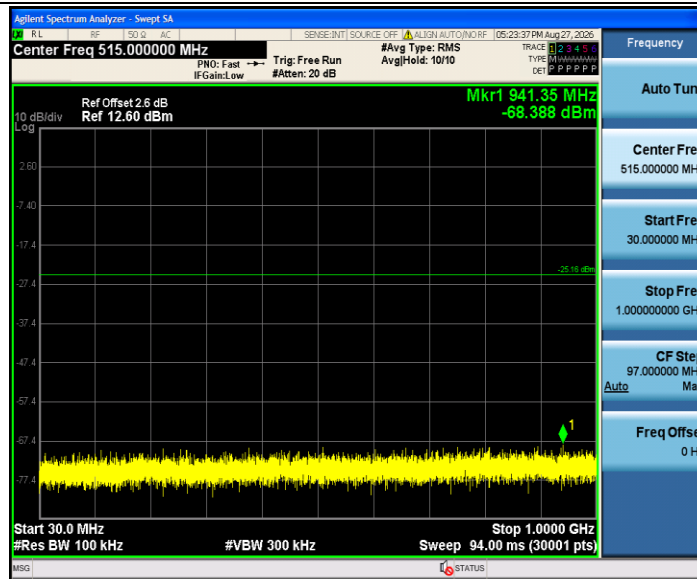
BLE_1M_Ant1_2440_1000~26500



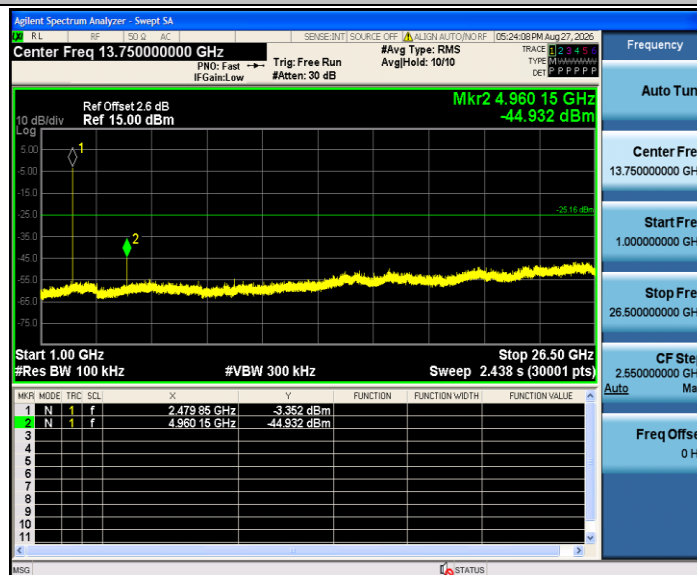
BLE_1M_Ant1_2480_0~Reference



BLE_1M_Ant1_2480_30~1000



BLE_1M_Ant1_2480_1000~26500

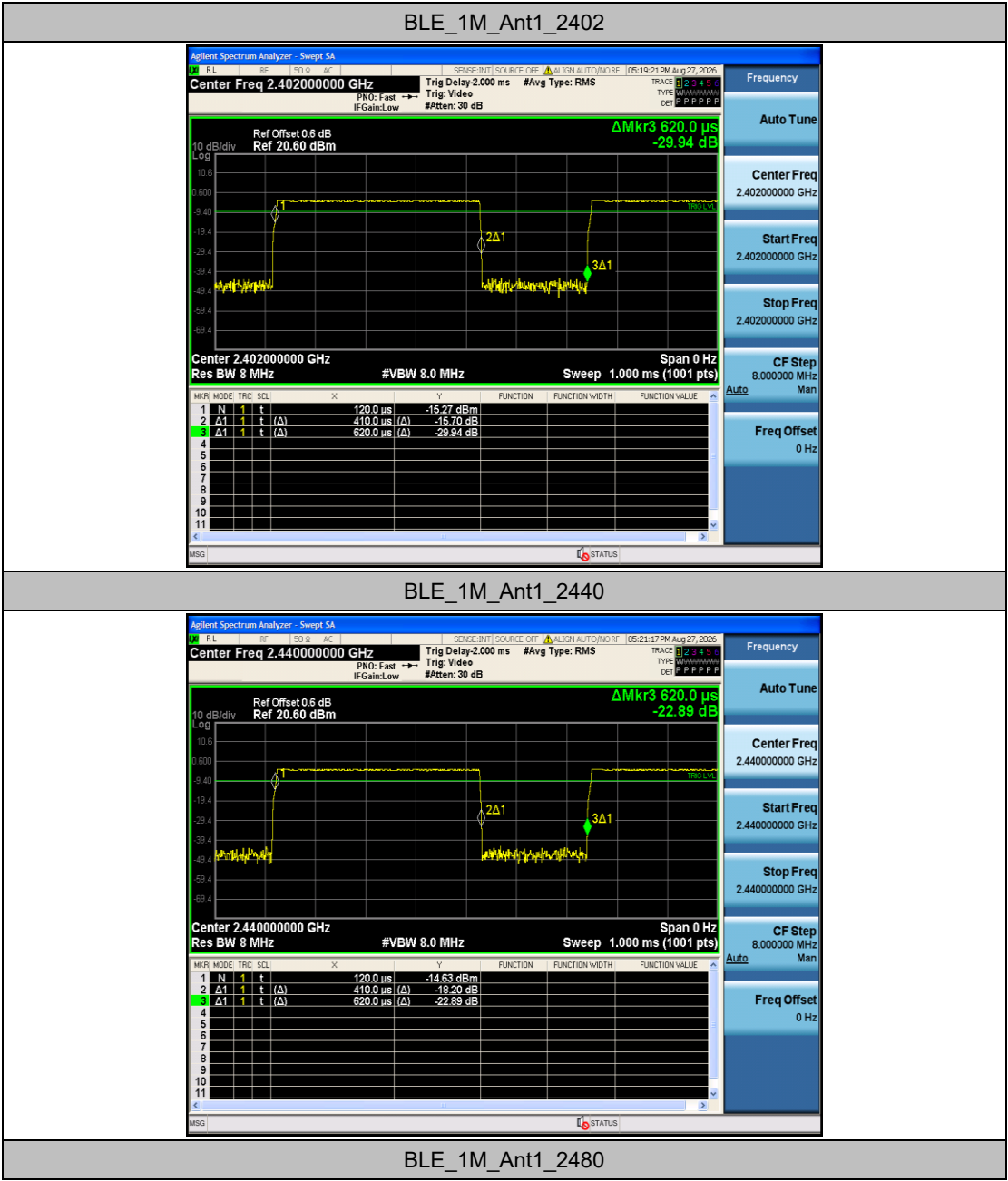


Appendix G: Duty Cycle

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

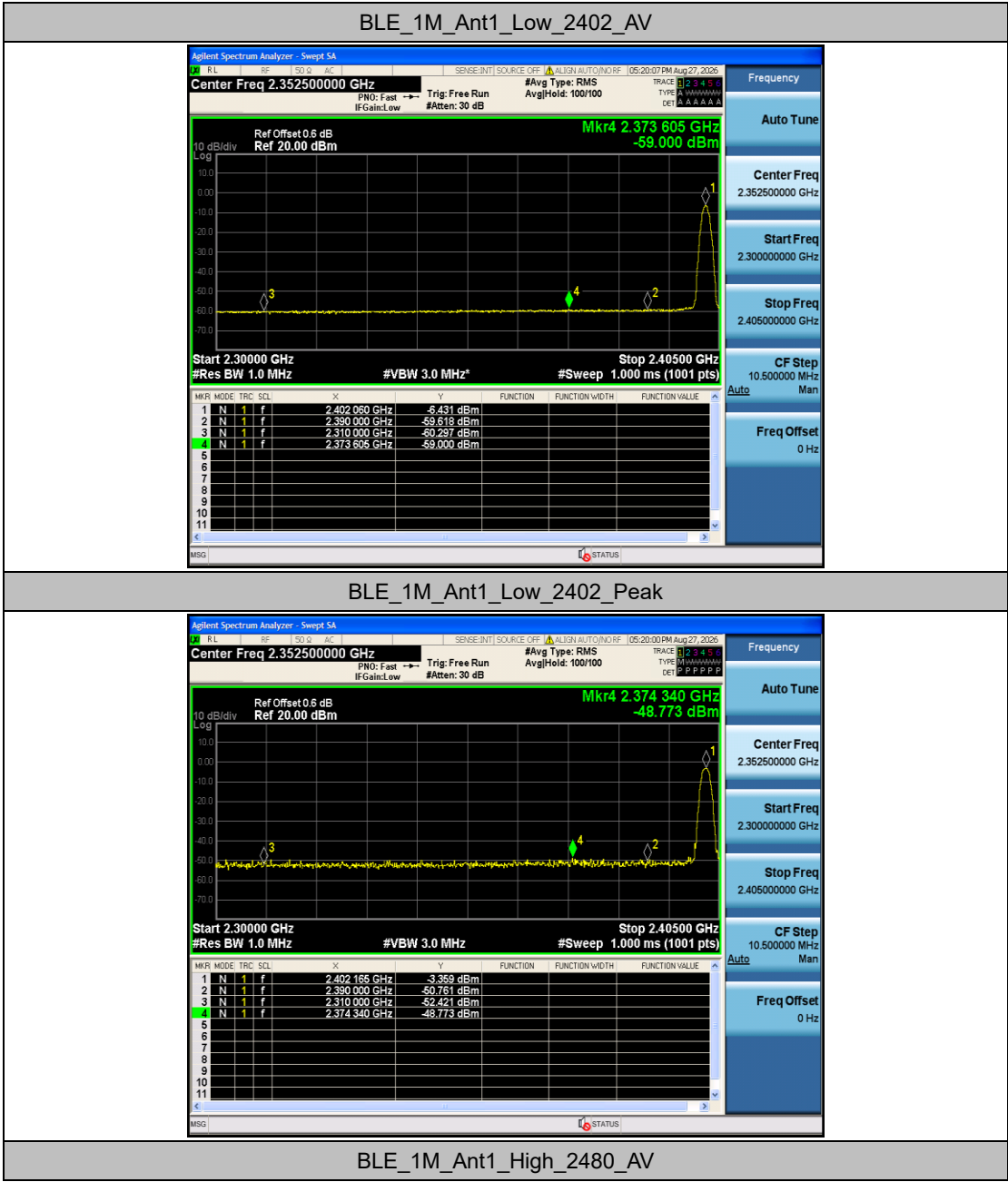
Test Result

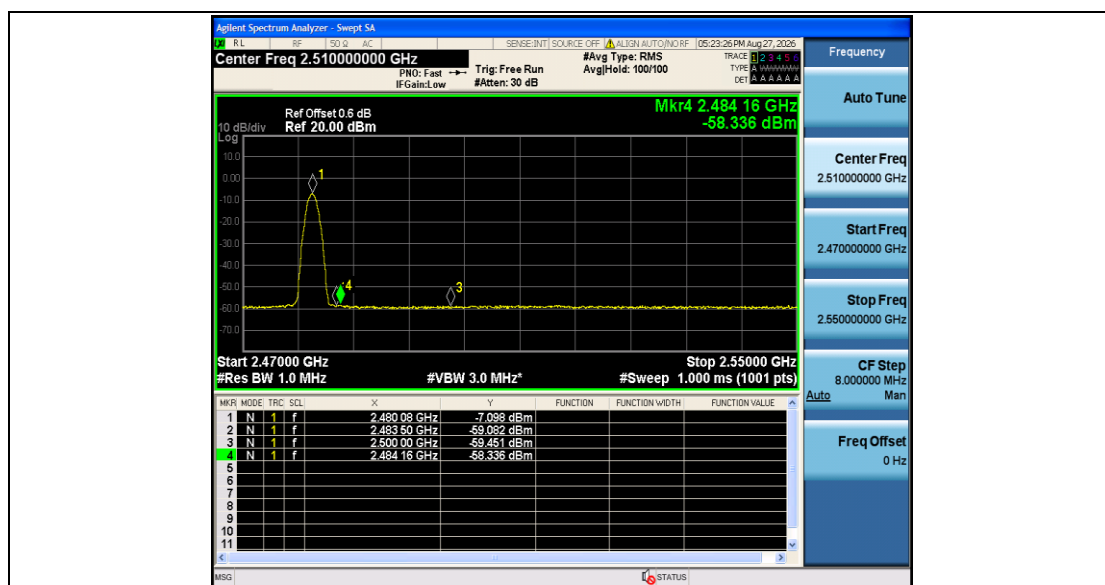
TestMode	Antenna	ChName	Freq(MHz)	Detector	Freq [MHz]	Result [dBm]	Gain [dB]	DC Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Verdict
BLE_1M	Ant1	Low	2402	AV	2310.000	-60.3	3.99	1.80	40.69	≤54	PASS
				AV	2373.605	-59	3.99	1.80	41.99	≤54	PASS
				AV	2390.000	-59.62	3.99	1.80	41.37	≤54	PASS
				Peak	2310.000	-52.42	3.99	0.00	46.77	≤74	PASS
				Peak	2374.340	-48.77	3.99	0.00	50.42	≤74	PASS
				Peak	2390.000	-50.76	3.99	0.00	48.43	≤74	PASS
		High	2480	AV	2483.500	-59.08	3.99	1.80	41.91	≤54	PASS
				AV	2484.160	-58.34	3.99	1.80	42.65	≤54	PASS
				AV	2500.000	-59.45	3.99	1.80	41.54	≤54	PASS
				Peak	2483.500	-49.16	3.99	0.00	50.03	≤74	PASS
				Peak	2484.720	-46.15	3.99	0.00	53.04	≤74	PASS
				Peak	2500.000	-50.42	3.99	0.00	48.77	≤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

