



Appendix B

RF Test Data for BLE (Conducted Measurement)

Product Name: Single Hearing PSA
Test Model: PSA5035

Environmental Conditions

Temperature:	23.8° C
Relative Humidity:	52.1%
ATM Pressure:	100.0 kPa
Test Engineer:	Paddi Chen
Supervised by:	Ling Zhu





B.1 DTS Bandwidth

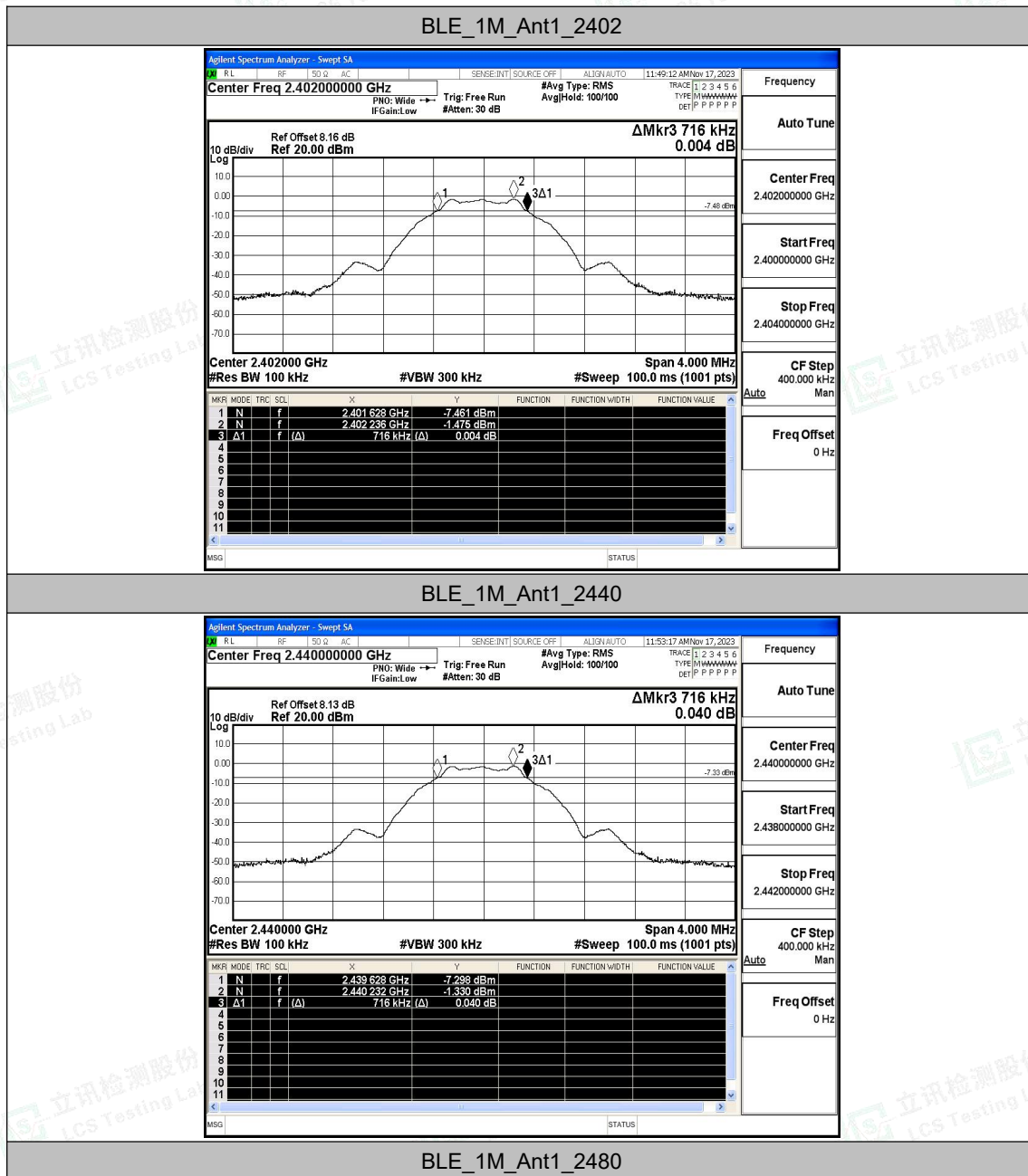
Test Result

TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.716	2401.628	2402.344	0.5	PASS
		2440	0.716	2439.628	2440.344	0.5	PASS
		2480	0.712	2479.632	2480.344	0.5	PASS





Test Graphs

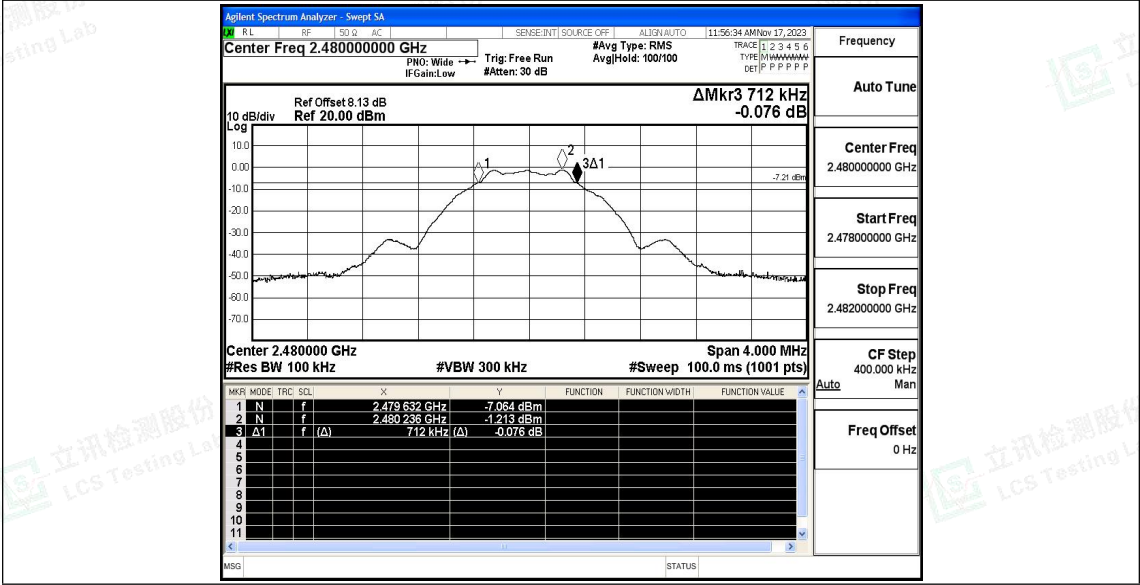


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B.2 Maximum conducted output power

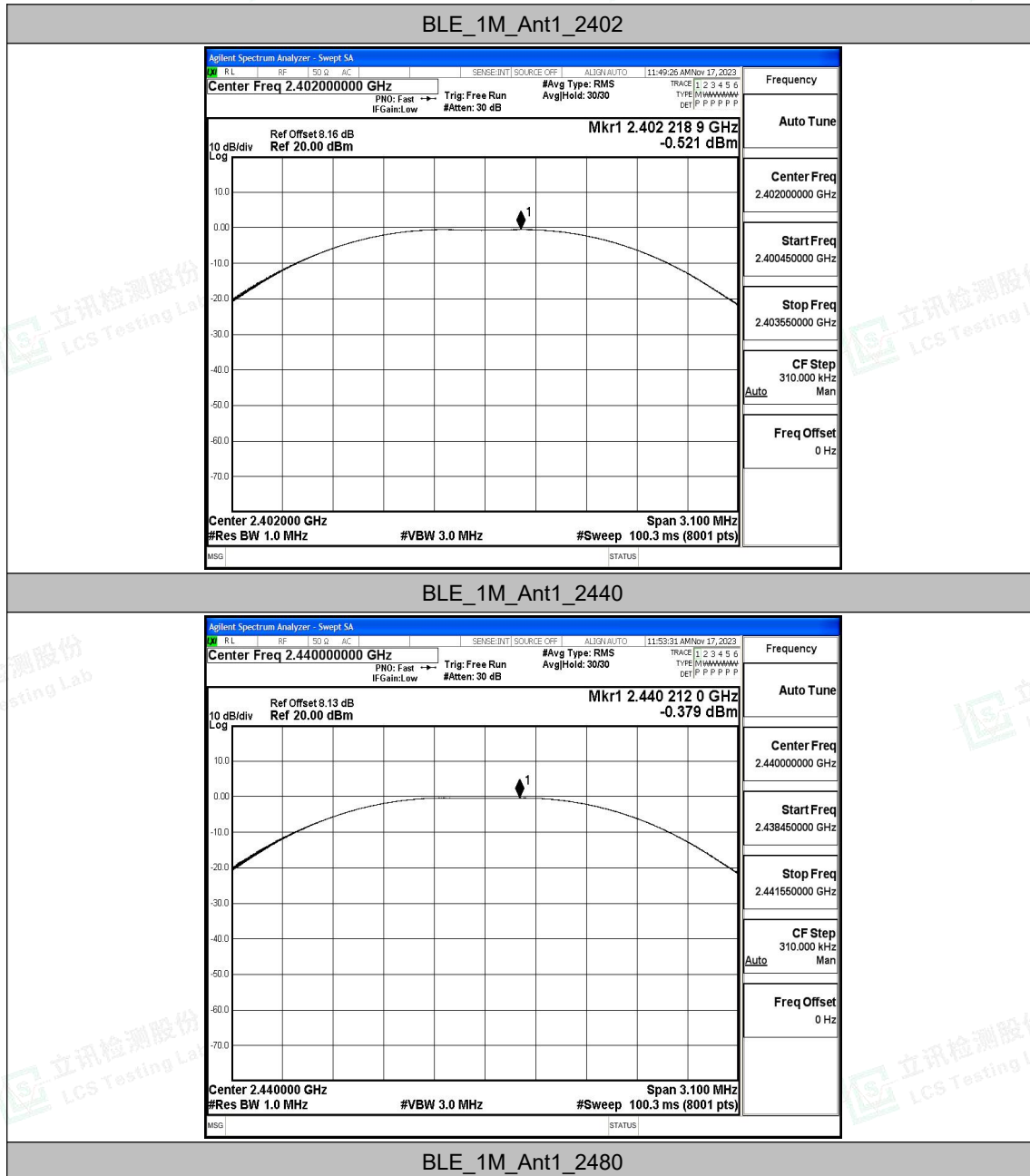
Test Result

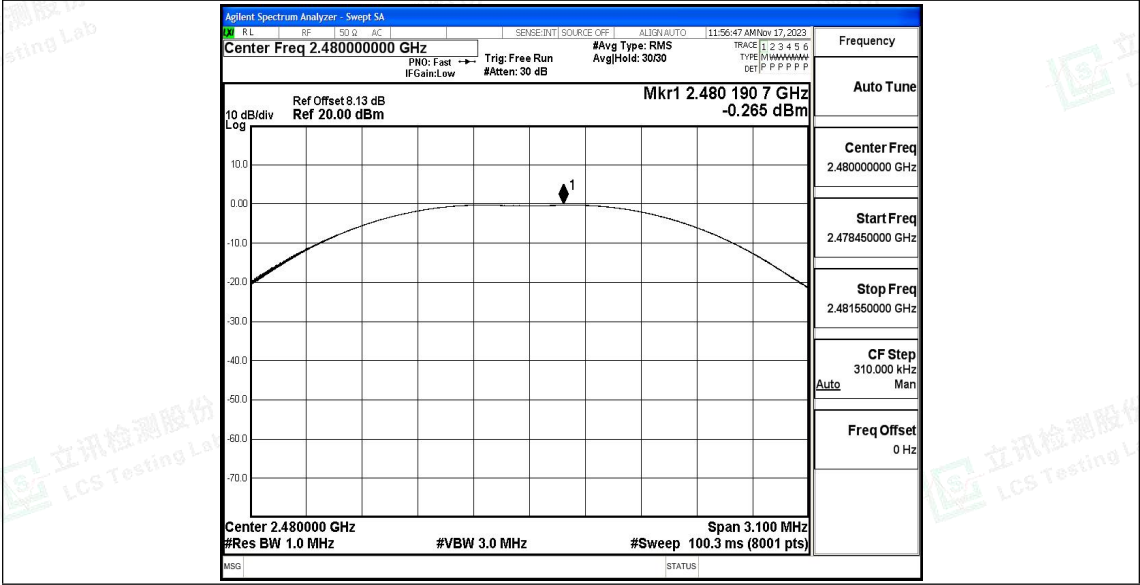
TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	-0.52	≤30	PASS
		2440	-0.38	≤30	PASS
		2480	-0.27	≤30	PASS





Test Graphs







B.3 Maximum power spectral density

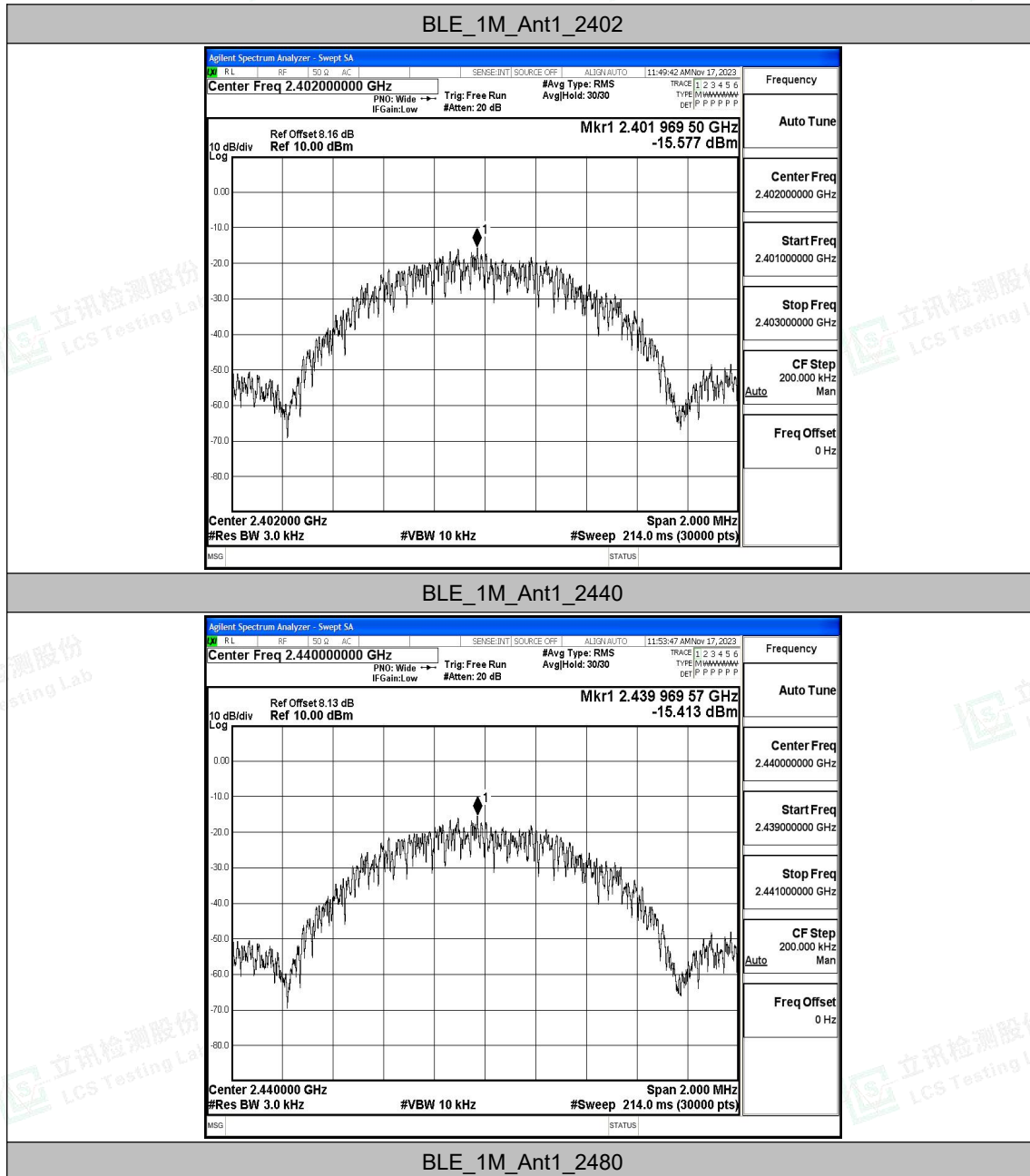
Test Result

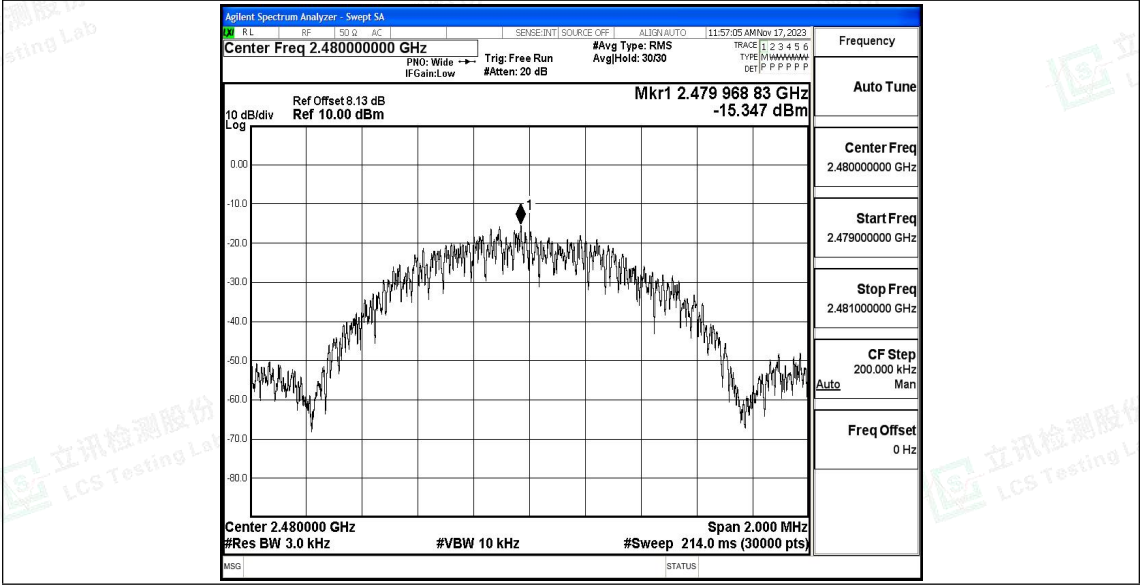
TestMode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-15.58	≤8.00	PASS
		2440	-15.41	≤8.00	PASS
		2480	-15.35	≤8.00	PASS





Test Graphs







B.4 Band edge measurements

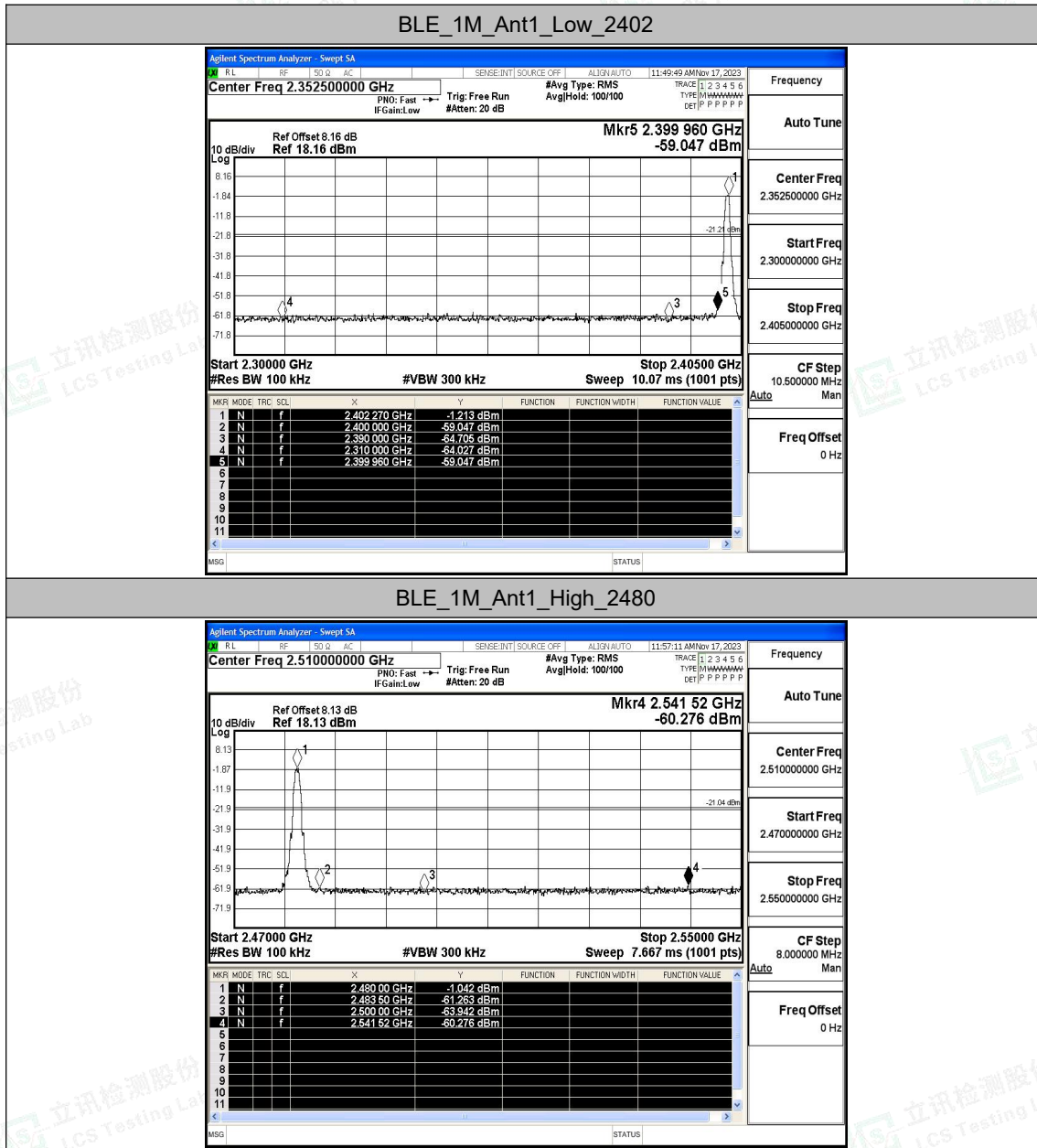
Test Result

TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	-1.21	-59.05	≤-21.21	PASS
		High	2480	-1.04	-60.28	≤-21.04	PASS





Test Graphs



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B.5 Conducted Spurious Emission

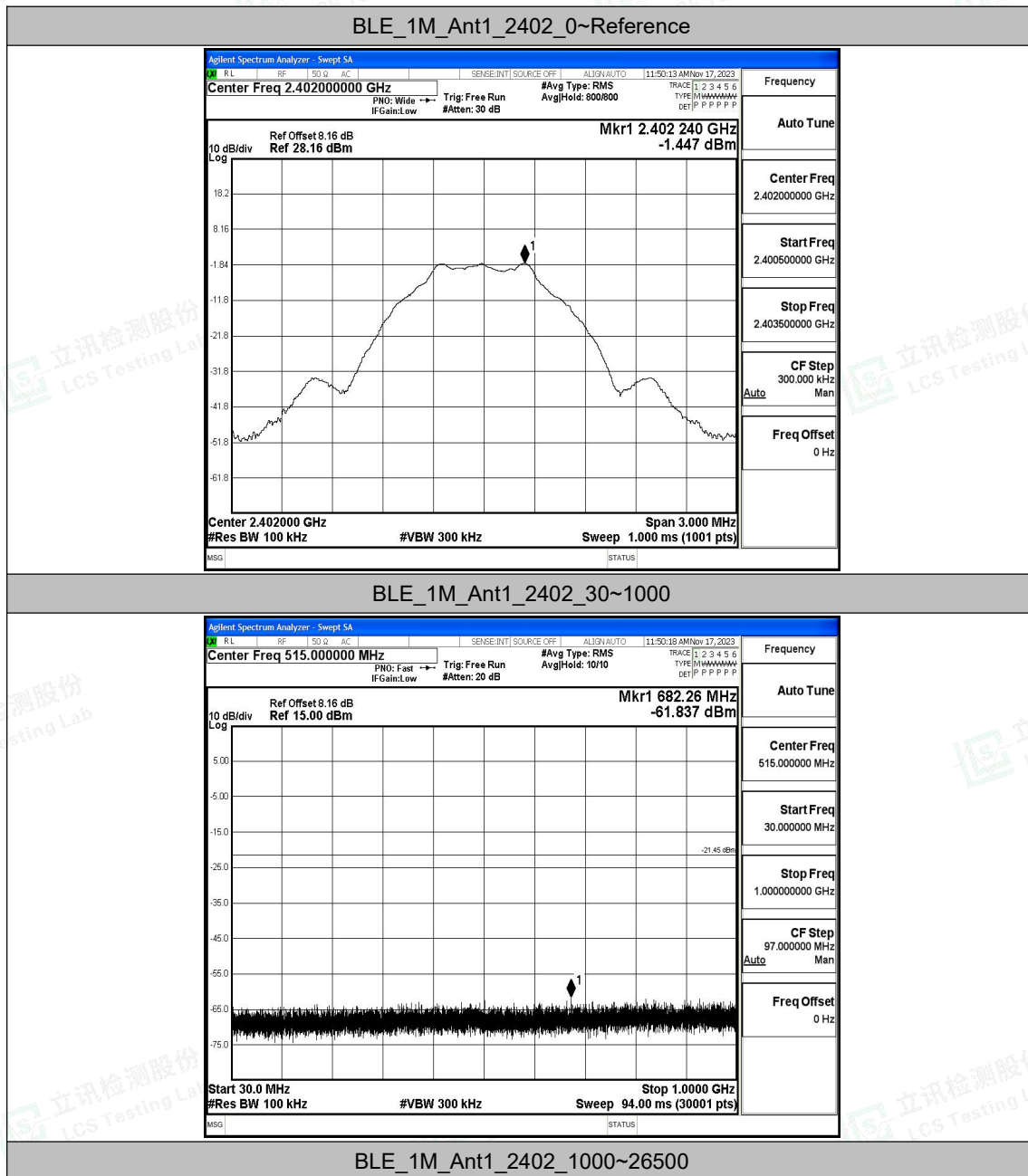
Test Result

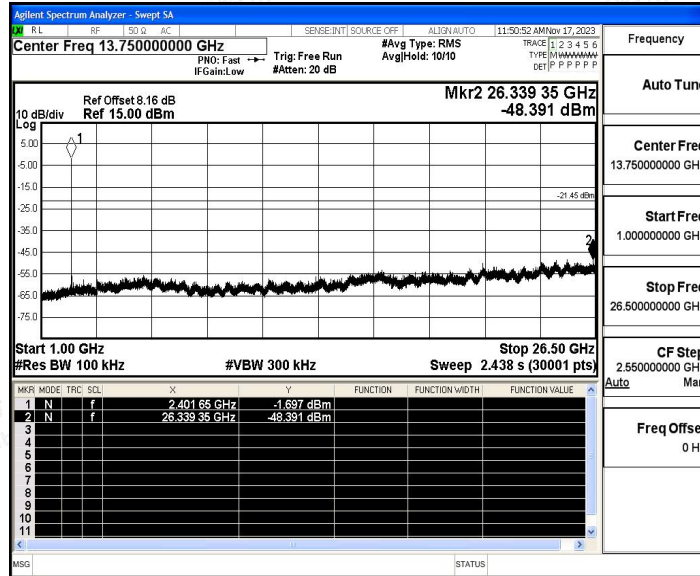
TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	-1.45	-1.45	---	PASS
			30~1000	-1.45	-61.84	≤-21.45	PASS
			1000~26500	-1.45	-48.39	≤-21.45	PASS
		2440	Reference	-1.31	-1.31	---	PASS
			30~1000	-1.31	-61.13	≤-21.31	PASS
			1000~26500	-1.31	-49.13	≤-21.31	PASS
		2480	Reference	-1.22	-1.22	---	PASS
			30~1000	-1.22	-61.61	≤-21.22	PASS
			1000~26500	-1.22	-48.54	≤-21.22	PASS



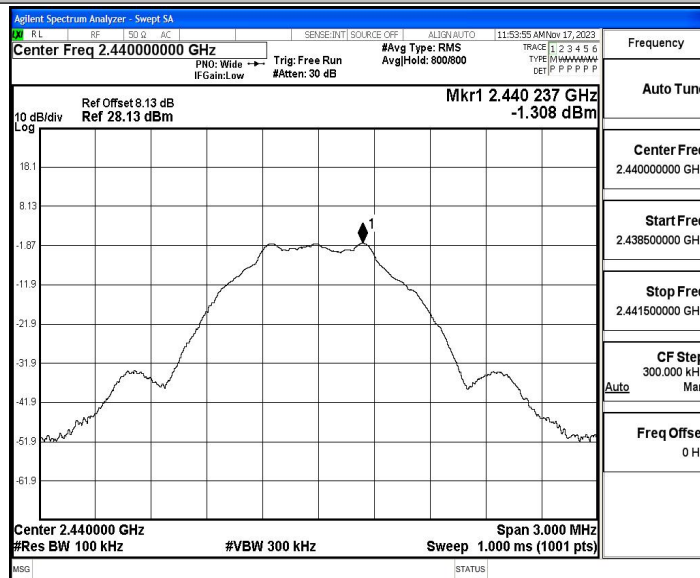


Test Graphs





BLE_1M_Ant1_2440_0~Reference



BLE_1M_Ant1_2440_30~1000

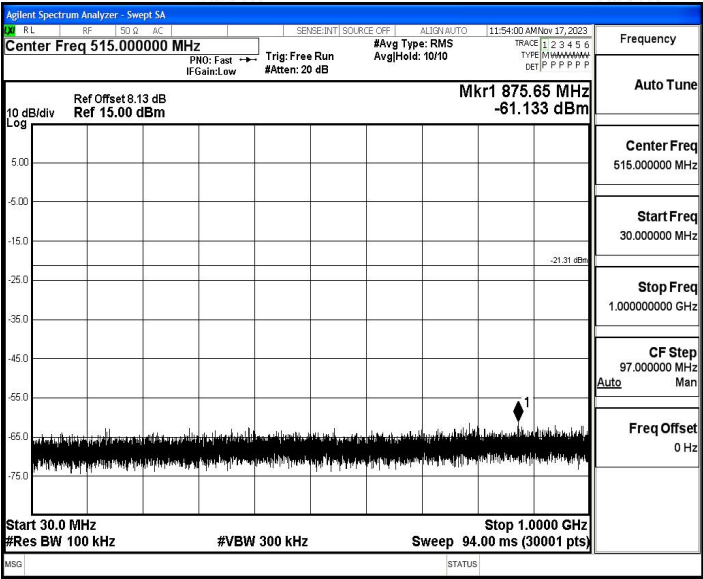


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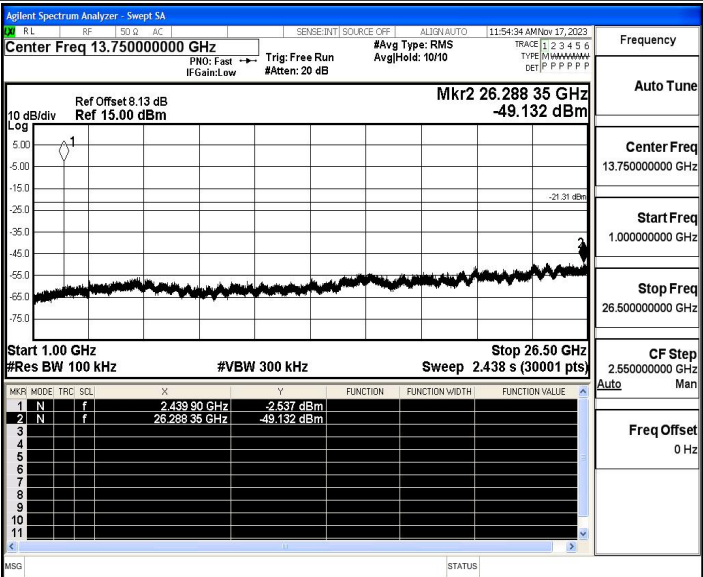
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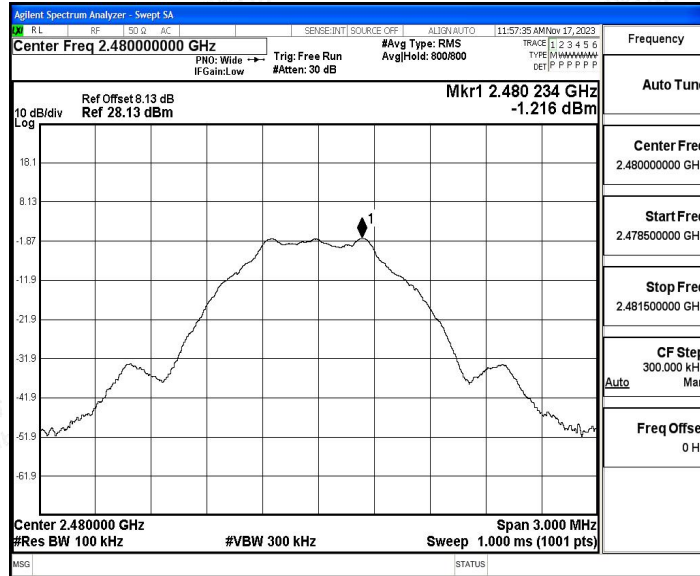


BLE_1M_Ant1_2440_1000~26500

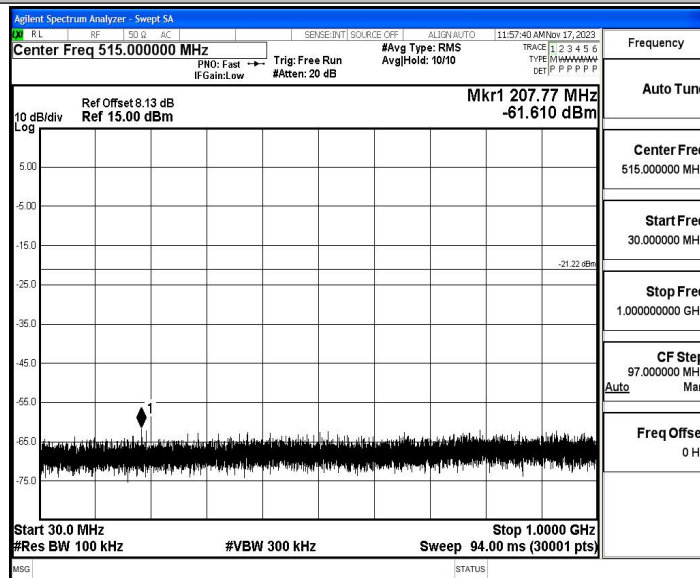


BLE_1M_Ant1_2480_0~Reference





BLE_1M_Ant1_2480_30~1000



BLE_1M_Ant1_2480_1000~26500

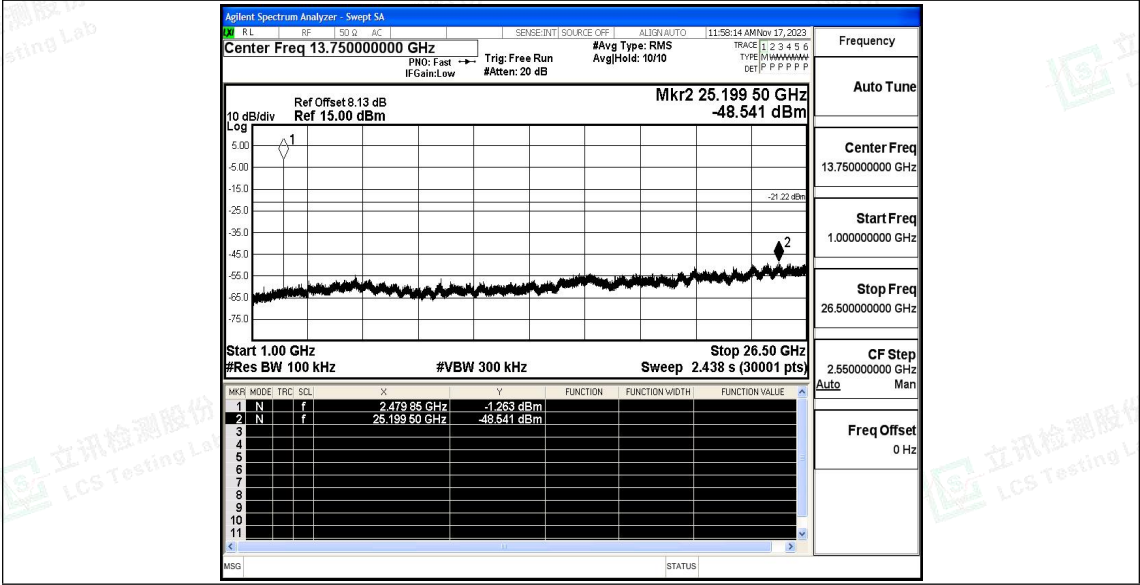


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B.6 Duty Cycle

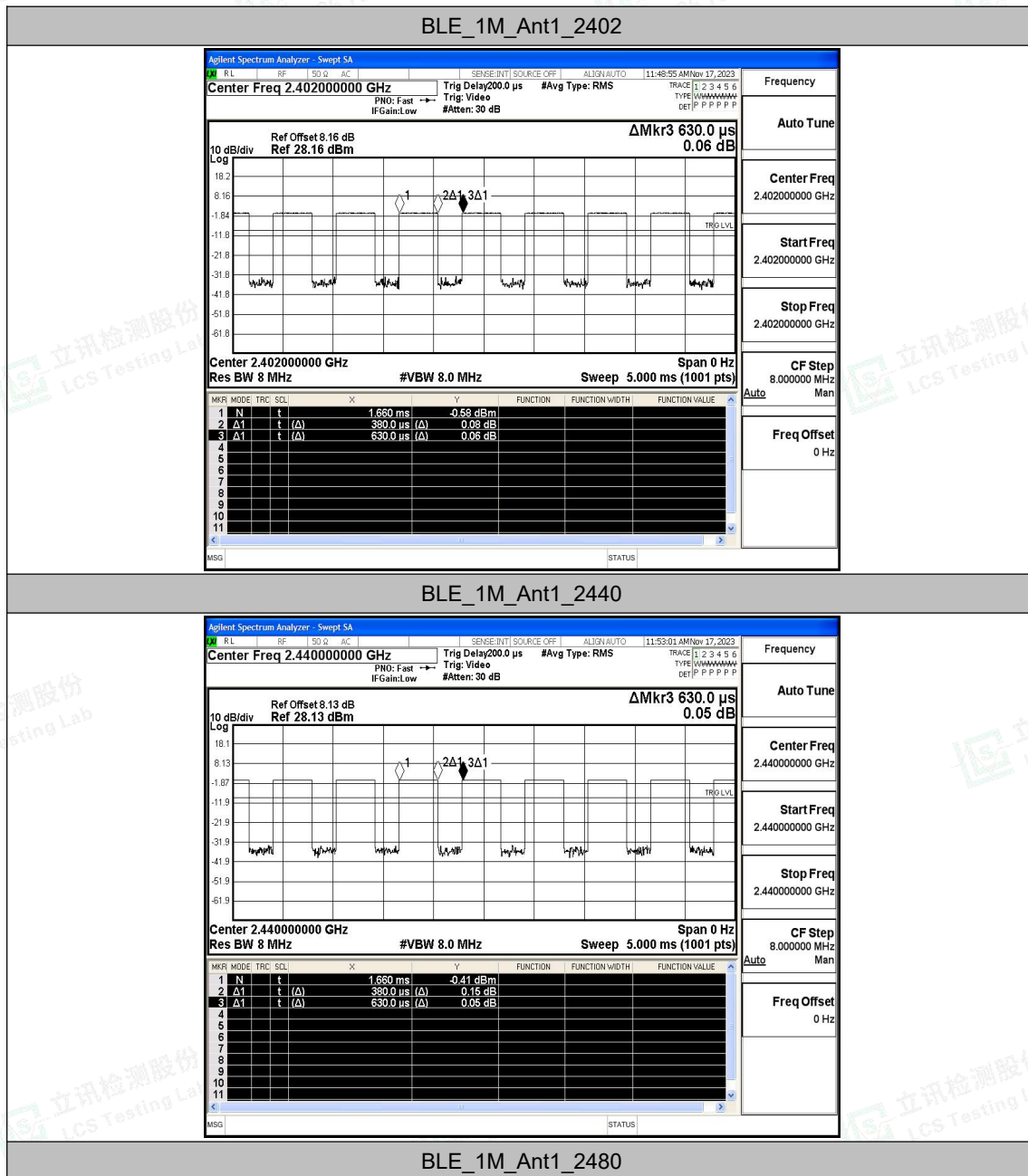
Test Result

TestMode	Antenna	Channel	ON Time [ms]	Period [ms]	X	DC [%]	xFactor	1/T	Limit	Verdict
BLE_1M	Ant1	2402	0.38	0.63	0.6032	60.32	2.20	2.63	---	---
		2440	0.38	0.63	0.6032	60.32	2.20	2.63	---	---
		2480	0.38	0.63	0.6032	60.32	2.20	2.63	---	---





Test Graphs

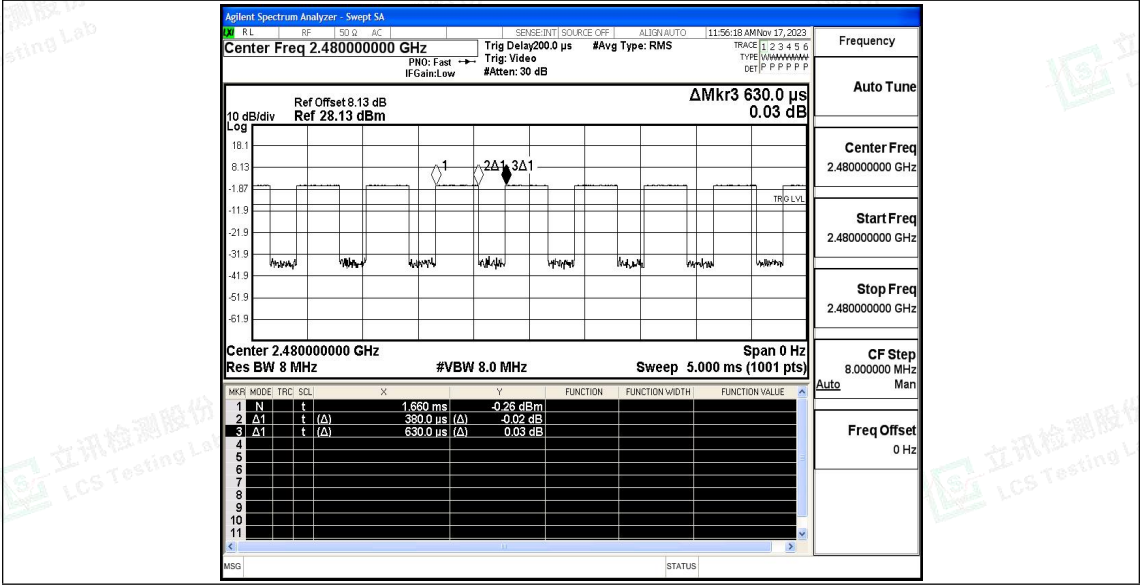


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B.7 Emissions in Restricted Bands

Test Result

TestMode	Antenna	ChName	Channel	Detector	Freq. [MHz]	Result [dBm]	Limit [dBm]	Result [dBuV/m]	Limit [dBuV/m]	Verdict
BLE_1M	Ant1	Low	2402	AV	2310.000	-58.49	≤-41.20	36.71	≤54	PASS
				AV	2384.735	-57.77	≤-41.20	37.43	≤54	PASS
				AV	2390.000	-58.05	≤-41.20	37.15	≤54	PASS
				Peak	2310.000	-52.07	≤-21.20	43.13	≤74	PASS
				Peak	2313.020	-48.52	≤-21.20	46.68	≤74	PASS
				Peak	2390.000	-52.2	≤-21.20	43.00	≤74	PASS
		High	2480	AV	2483.500	-54.29	≤-41.20	40.91	≤54	PASS
				AV	2483.520	-54.29	≤-41.20	40.91	≤54	PASS
				AV	2500.000	-57.91	≤-41.20	37.29	≤54	PASS
				Peak	2483.500	-51.09	≤-21.20	44.11	≤74	PASS
				Peak	2495.760	-49	≤-21.20	46.20	≤74	PASS
				Peak	2500.000	-51.97	≤-21.20	43.23	≤74	PASS

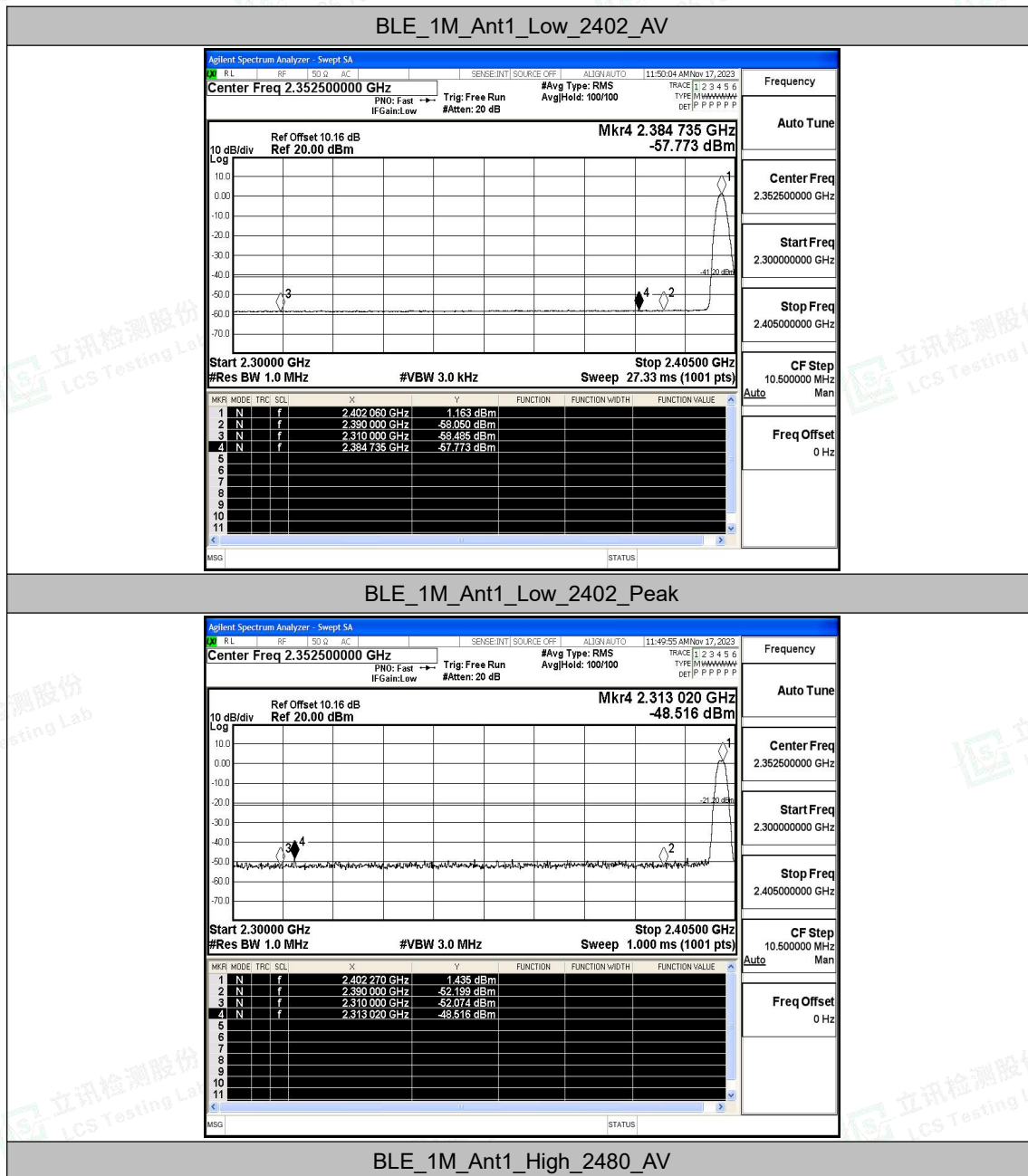
Note:

1. The Antenna Gain is compensated in the graph.
2. 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

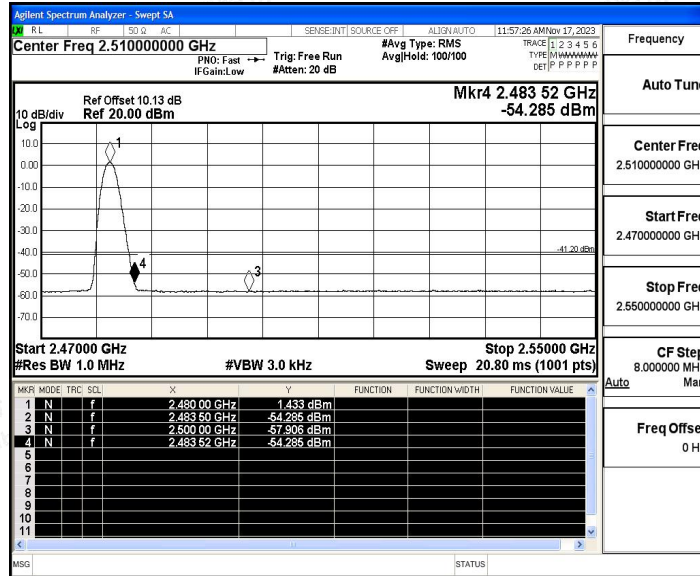


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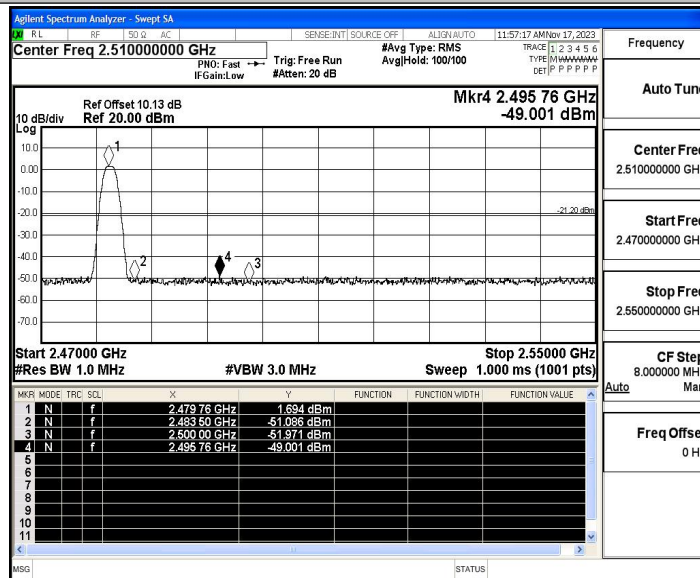
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BLE_1M_Ant1_High_2480_Peak



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