



Appendix B

RF Test Data for BLE (Conducted Measurement)

Product Name: Smart phone

Test Model: NOVA 6.5

Environmental Conditions

Temperature:	23.8° C
Relative Humidity:	52.2%
ATM Pressure:	100.0 kPa
Test Engineer:	Ling Zhu
Supervised by:	Li huan





B.1 DTS Bandwidth

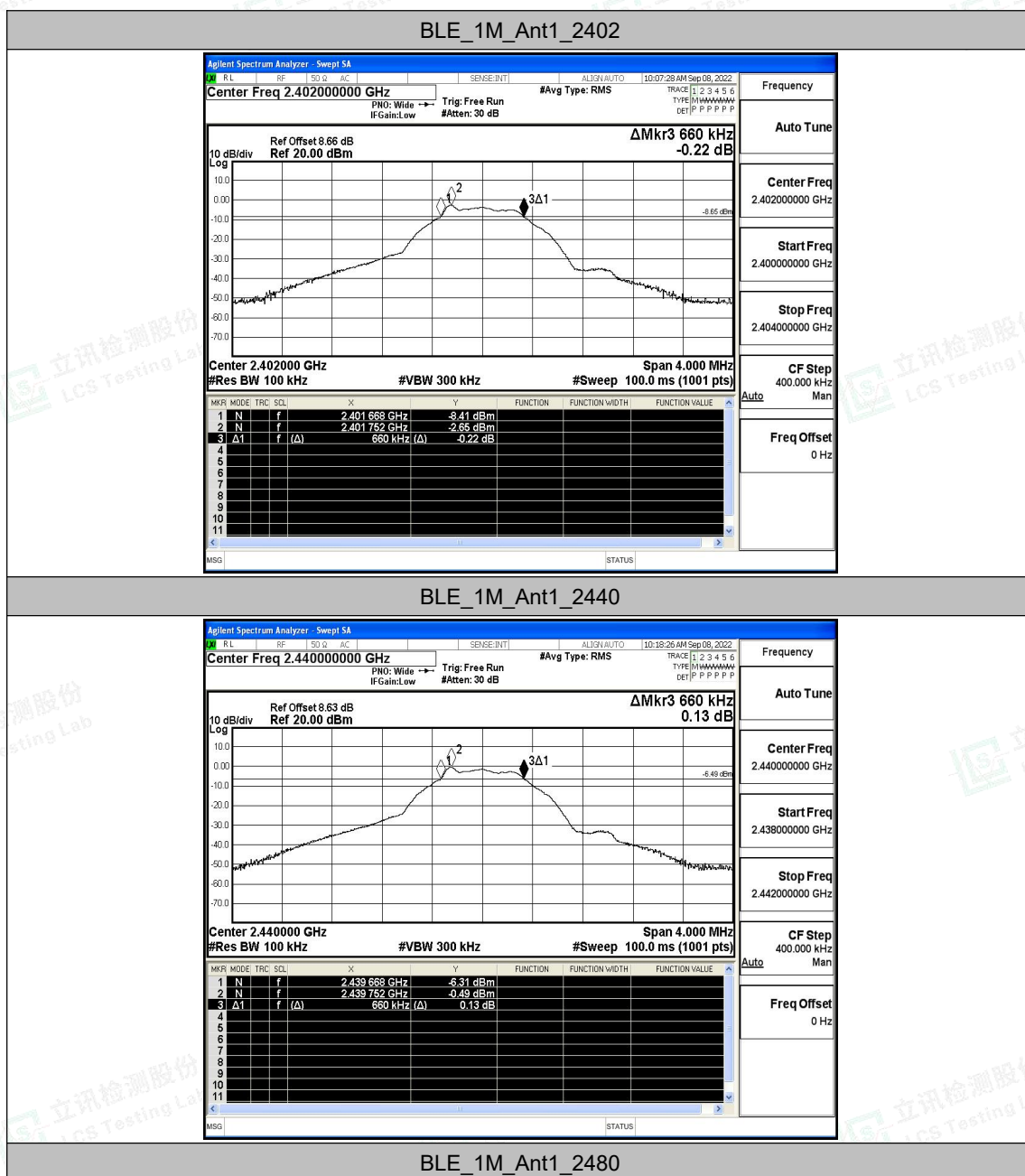
Test Result

TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.660	2401.668	2402.328	0.5	PASS
		2440	0.660	2439.668	2440.328	0.5	PASS
		2480	0.652	2479.672	2480.324	0.5	PASS





Test Graphs

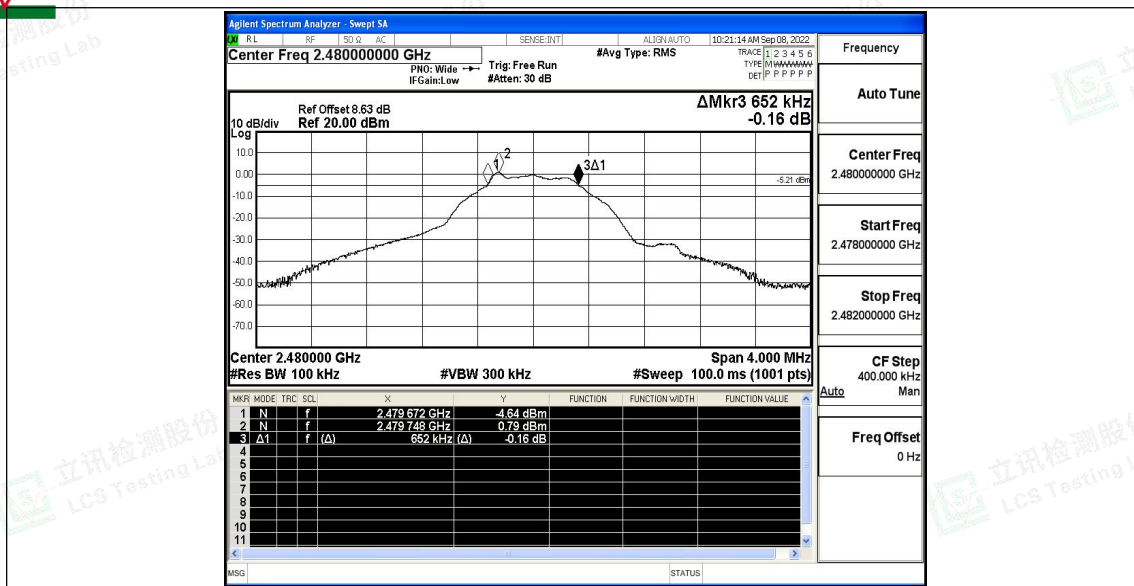


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B.2 Maximum conducted output power

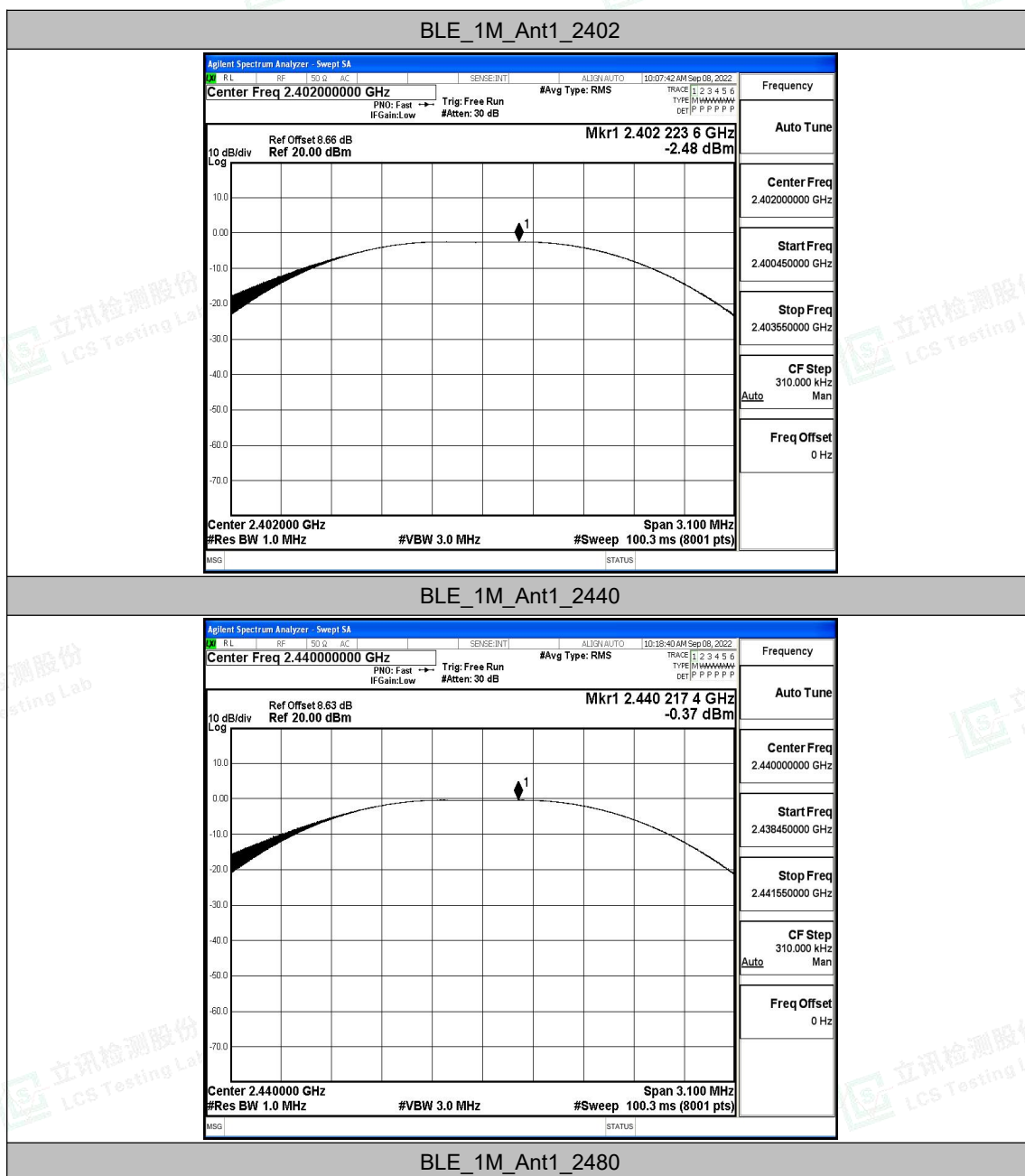
Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	-2.48	≤30	PASS
		2440	-0.37	≤30	PASS
		2480	0.31	≤30	PASS





Test Graphs

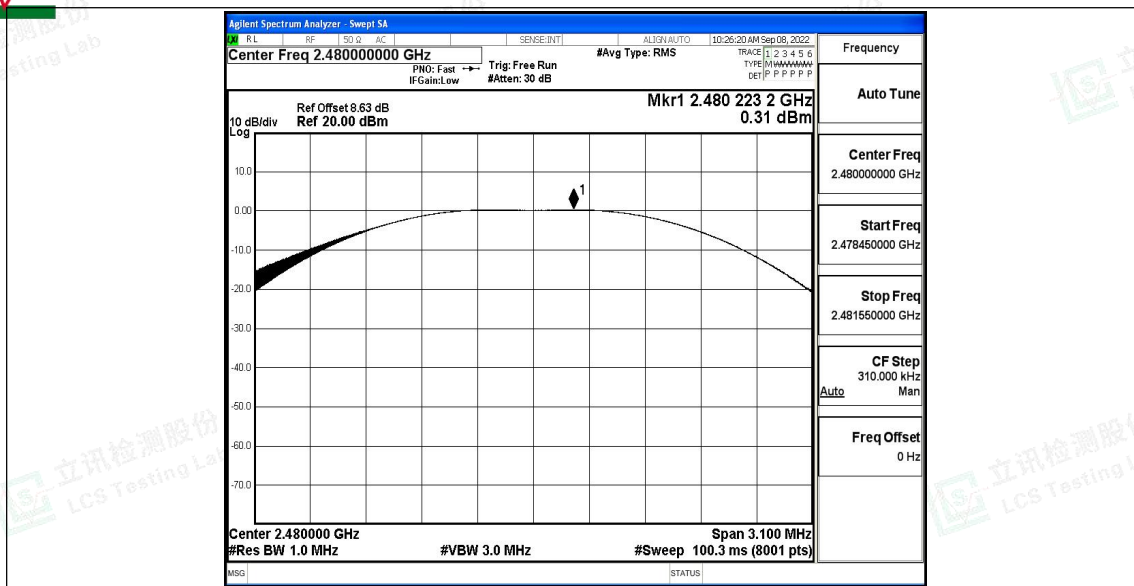


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B.3 Maximum power spectral density

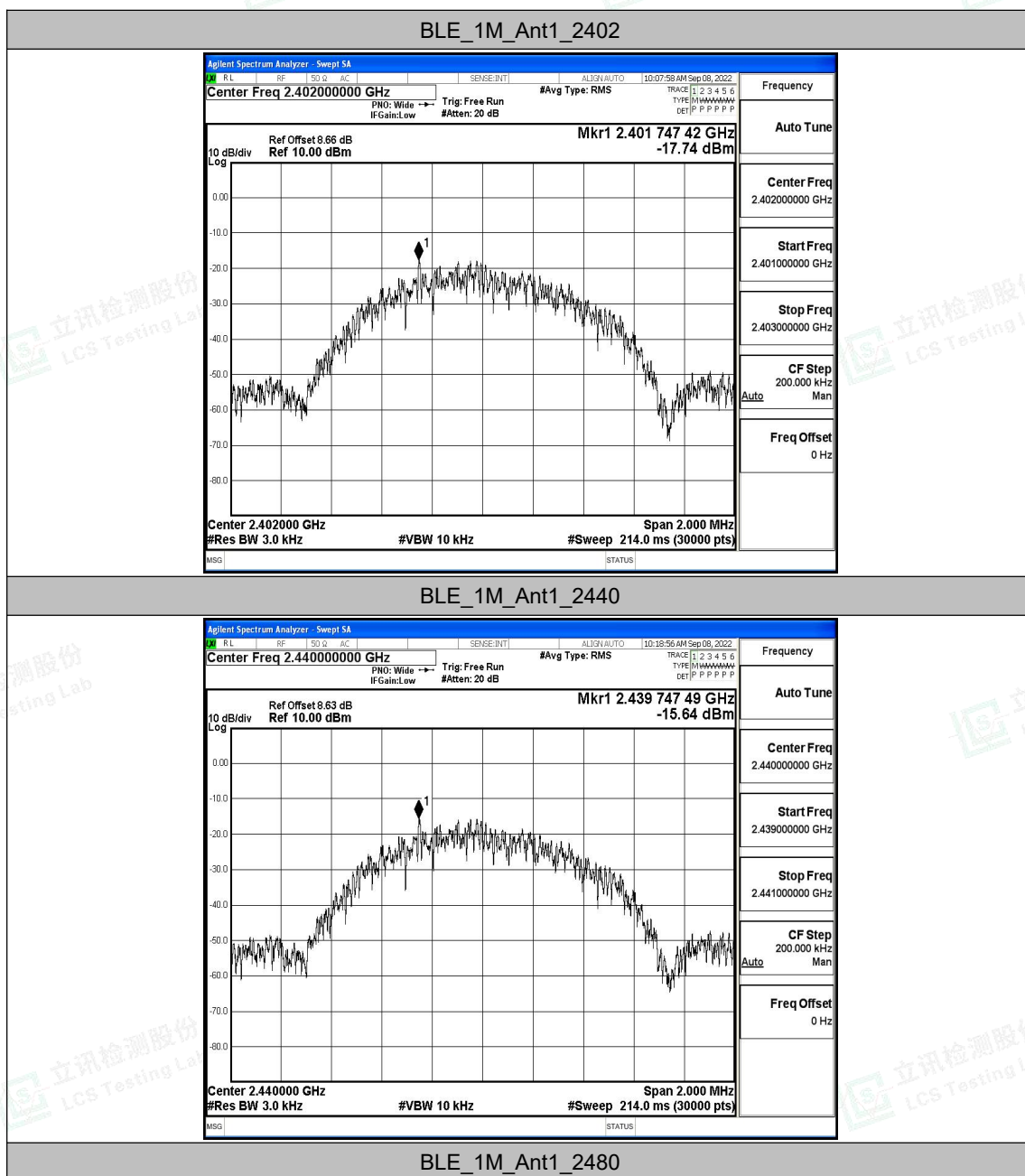
Test Result

TestMode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-17.74	≤8.00	PASS
		2440	-15.64	≤8.00	PASS
		2480	-14.32	≤8.00	PASS





Test Graphs

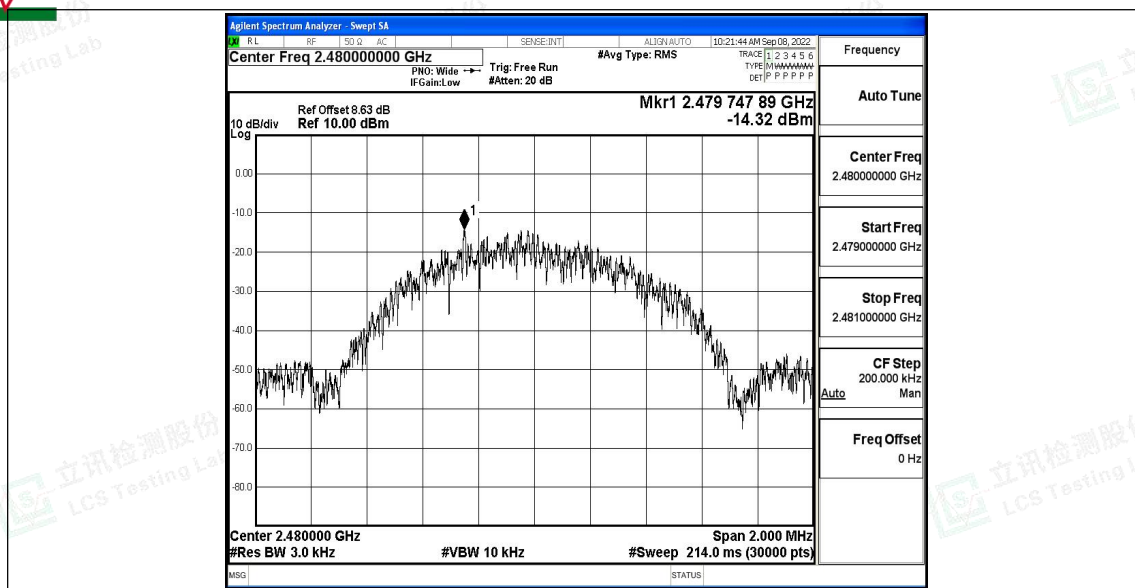


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B.4 Band edge measurements

Test Result

TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	-2.75	-58.85	≤-22.75	PASS
		High	2480	0.78	-58.57	≤-19.22	PASS





Test Graphs



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B.5 Conducted Spurious Emission

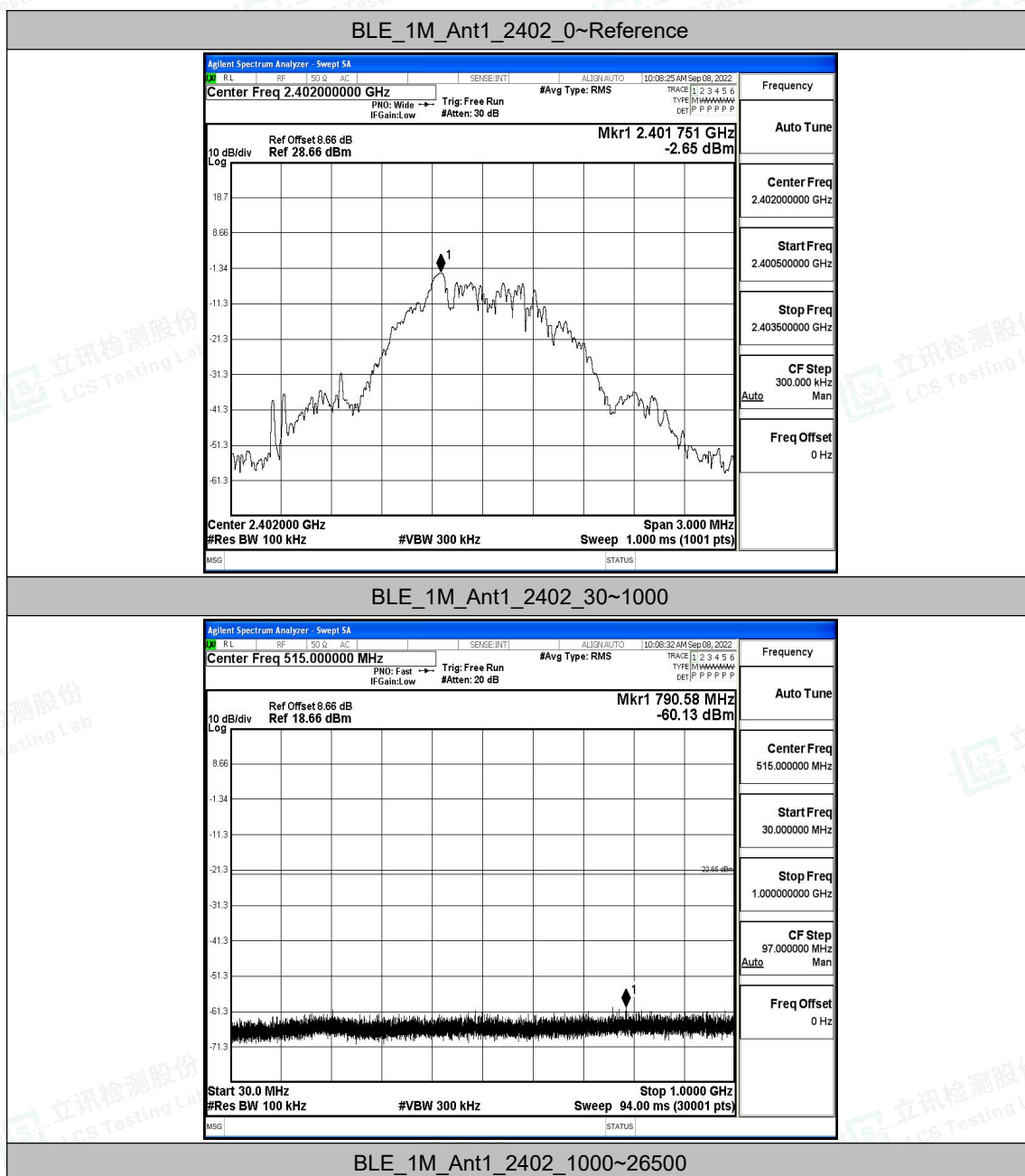
Test Result

TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	-2.65	-2.65	---	PASS
			30~1000	-2.65	-60.13	≤-22.65	PASS
			1000~26500	-2.65	-46.38	≤-22.65	PASS
		2440	Reference	-1.50	-1.50	---	PASS
			30~1000	-1.50	-60.7	≤-21.5	PASS
			1000~26500	-1.50	-45.34	≤-21.5	PASS
		2480	Reference	-1.07	-1.07	---	PASS
			30~1000	-1.07	-60.5	≤-21.07	PASS
			1000~26500	-1.07	-45.97	≤-21.07	PASS





Test Graphs

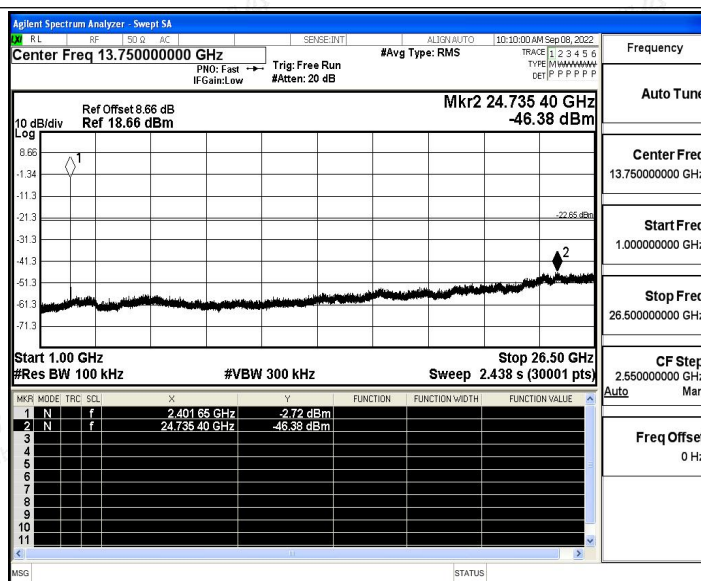


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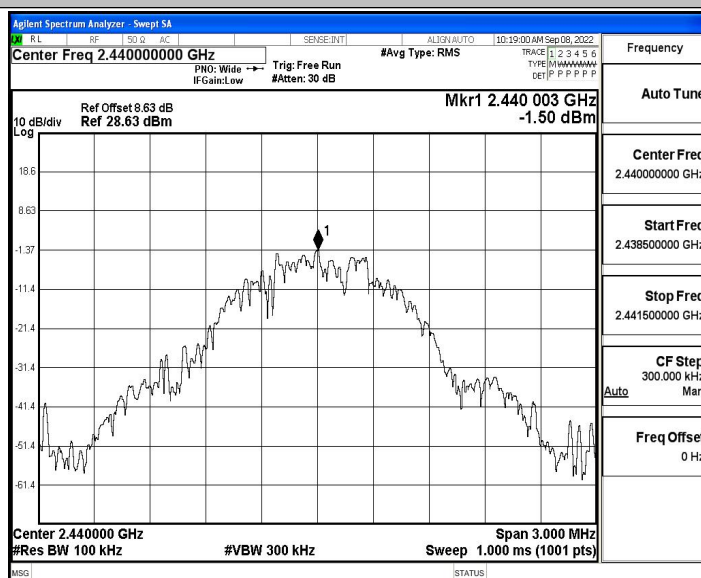
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BLE_1M_Ant1_2440_0~Reference



BLE_1M_Ant1_2440_30~1000

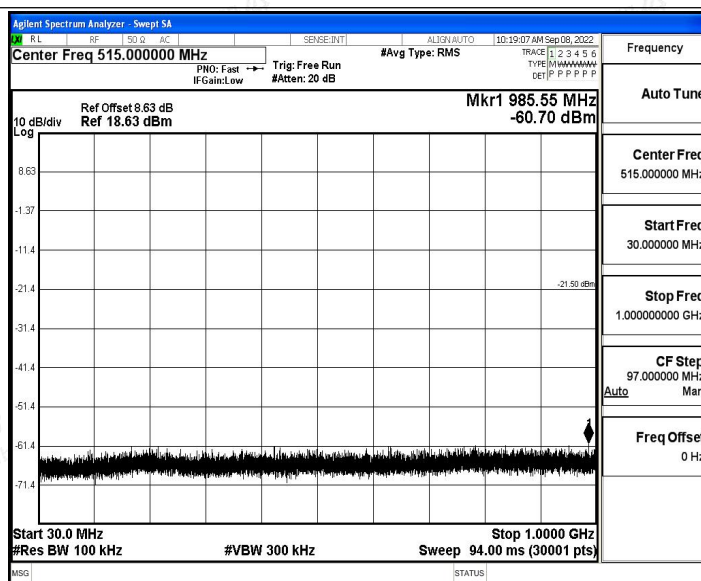


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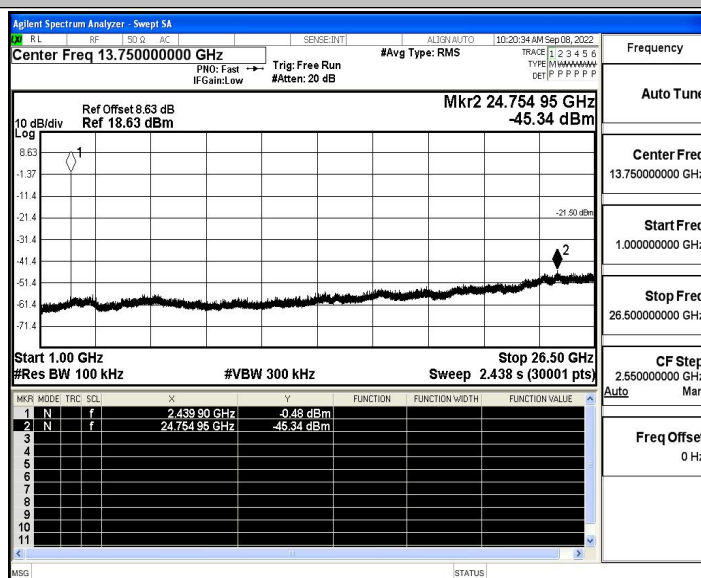
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BLE_1M_Ant1_2440_1000~26500



BLE_1M_Ant1_2480_0~Reference

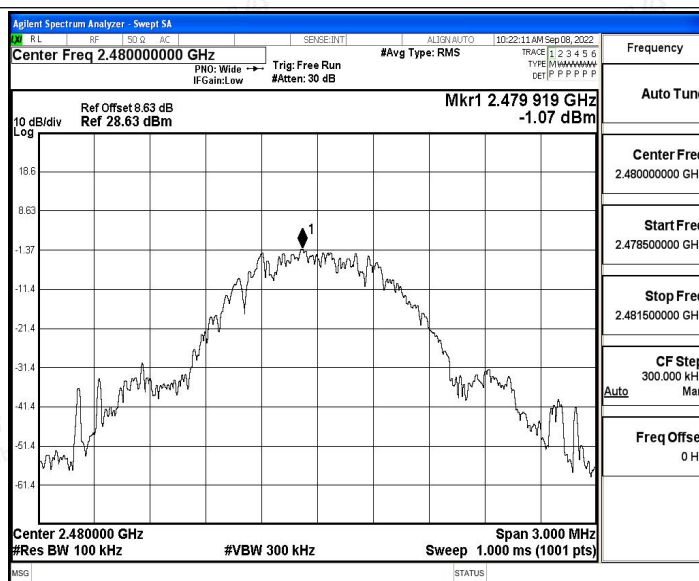


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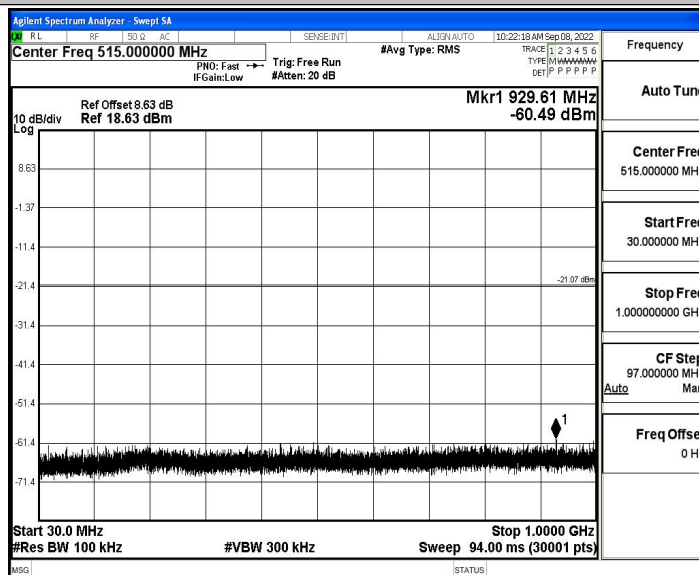
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BLE_1M_Ant1_2480_30~1000



BLE_1M_Ant1_2480_1000~26500

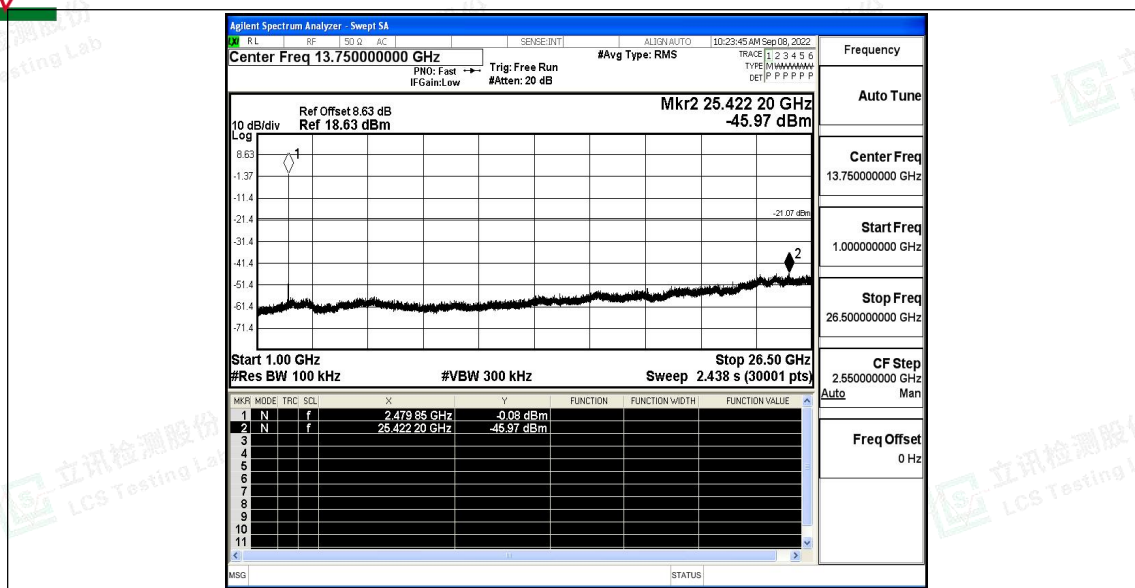


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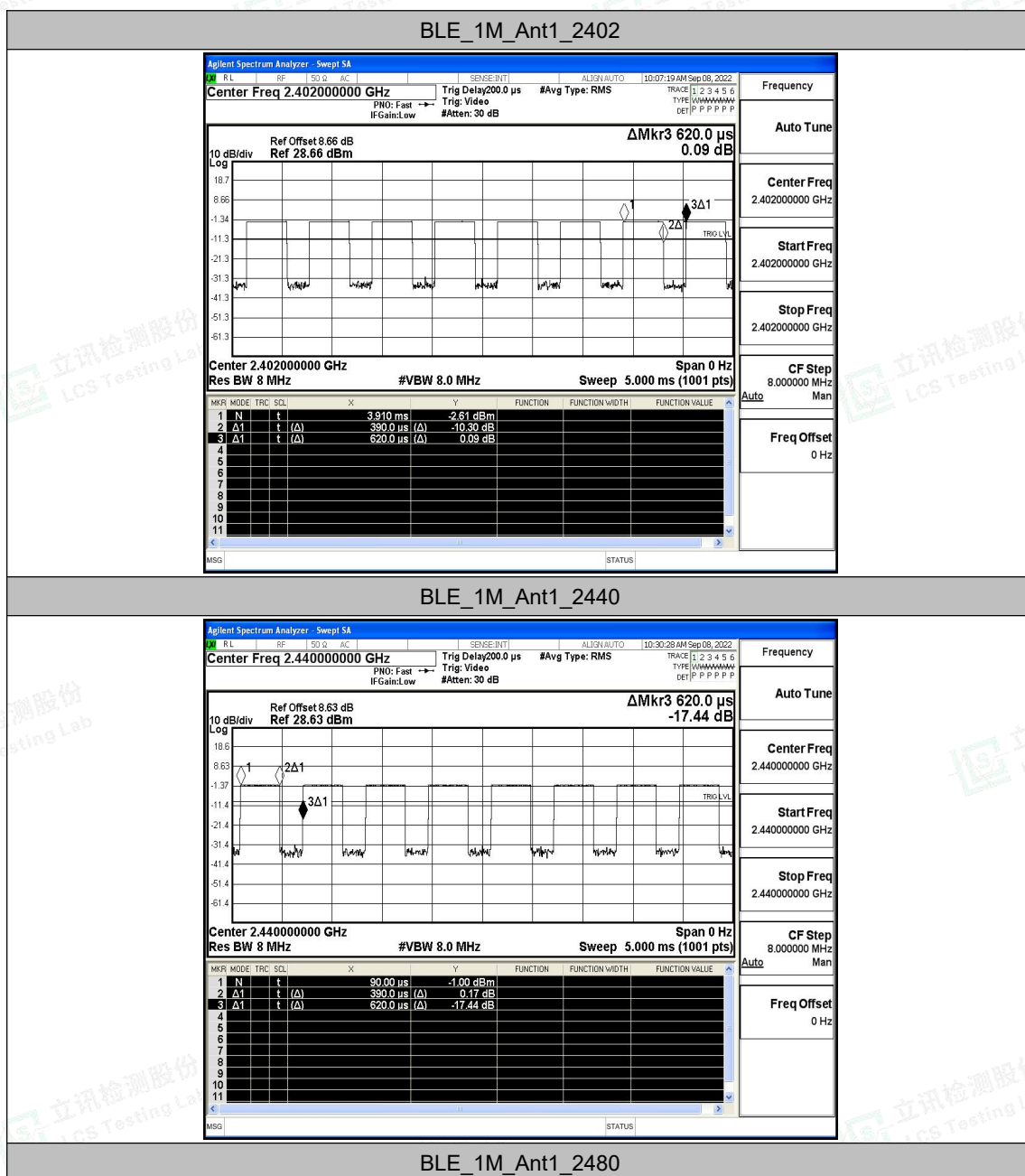
B.6 Duty Cycle

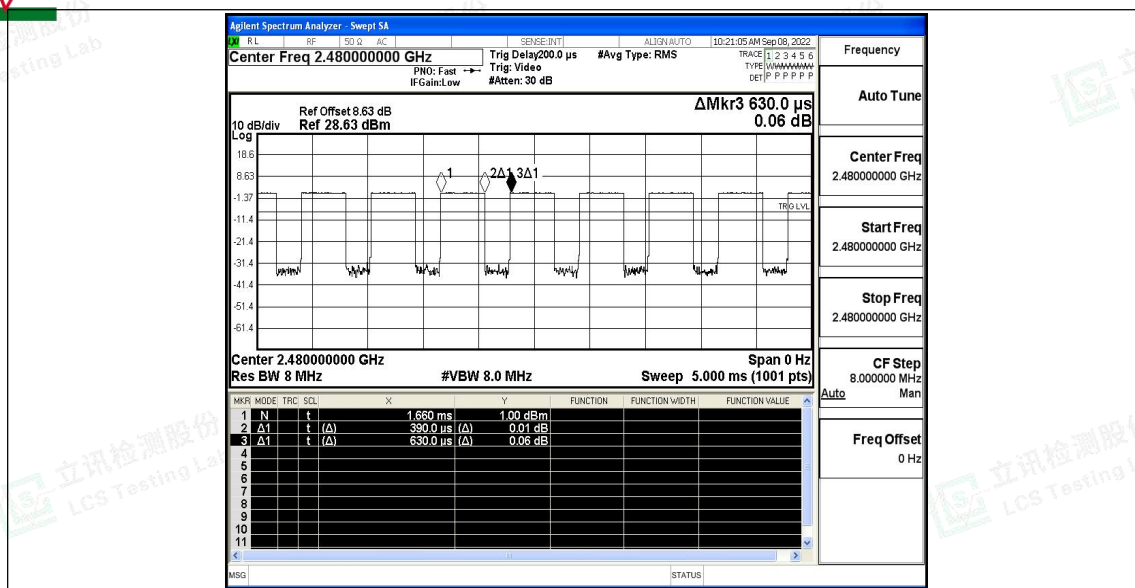
Test Result

TestMode	Antenna	Channel	ON Time [ms]	Period [ms]	X	DC [%]	xFactor	1/T	Limit	Verdict
BLE_1M	Ant1	2402	0.39	0.62	0.6290	62.90	2.01	2.56	---	---
		2440	0.39	0.62	0.6290	62.90	2.01	2.56	---	---
		2480	0.39	0.63	0.6190	61.90	2.08	2.56	---	---



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	-57.41	≤-41.20	37.79	≤54	PASS
				AV	2389.565	-56.54	≤-41.20	38.66	≤54	PASS
				AV	2390.000	-56.91	≤-41.20	38.29	≤54	PASS
				Peak	2310.000	-49.02	≤-21.20	46.18	≤74	PASS
				Peak	2350.085	-47.75	≤-21.20	47.45	≤74	PASS
				Peak	2390.000	-49.58	≤-21.20	45.62	≤74	PASS
		High	2480	AV	2483.500	-52.7	≤-41.20	42.50	≤54	PASS
				AV	2483.520	-52.69	≤-41.20	42.51	≤54	PASS
				AV	2500.000	-56.43	≤-41.20	38.77	≤54	PASS
				Peak	2483.500	-48.28	≤-21.20	46.92	≤74	PASS
				Peak	2485.280	-47.43	≤-21.20	47.77	≤74	PASS
				Peak	2500.000	-50.42	≤-21.20	44.78	≤74	PASS

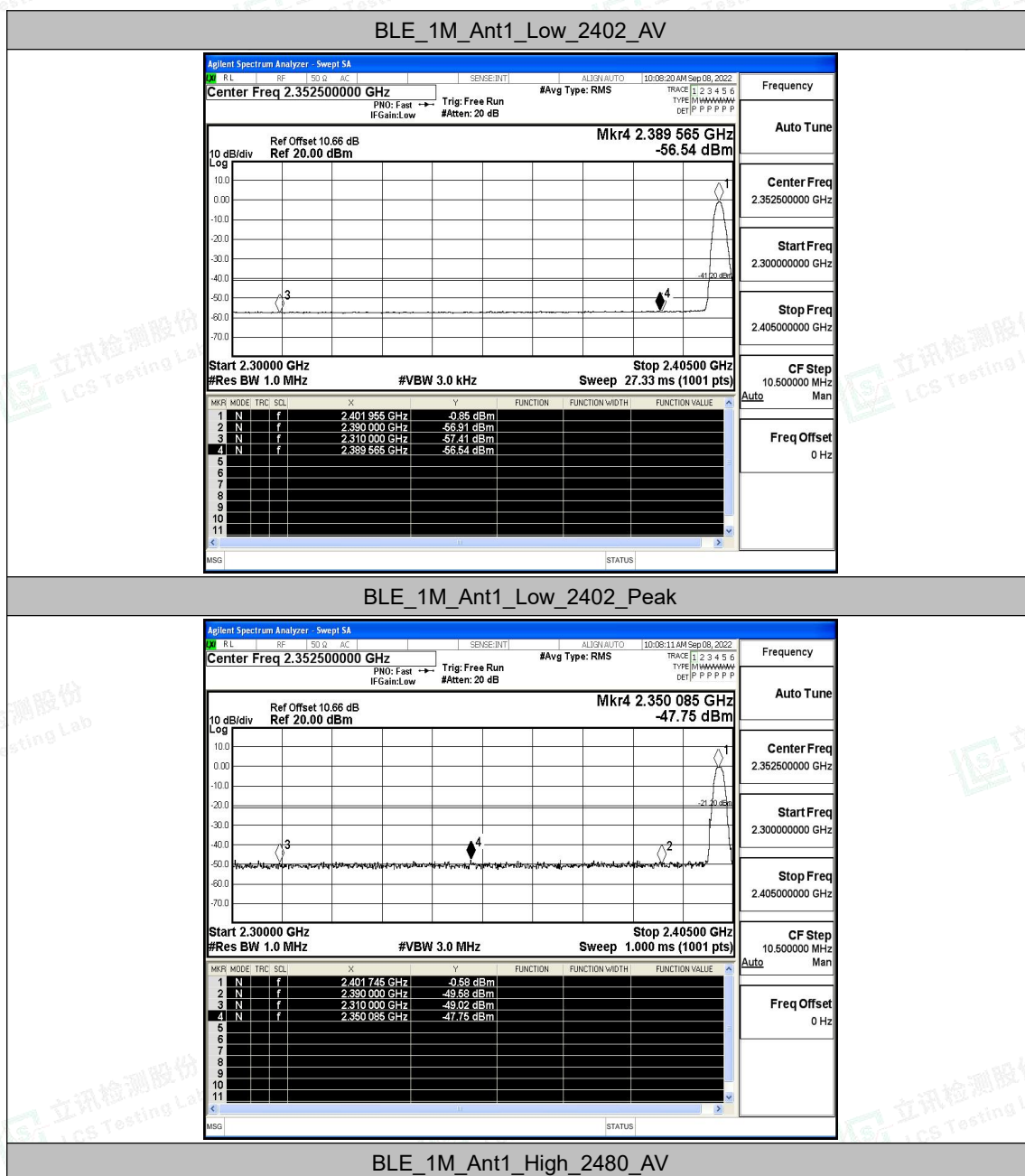
Note:

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

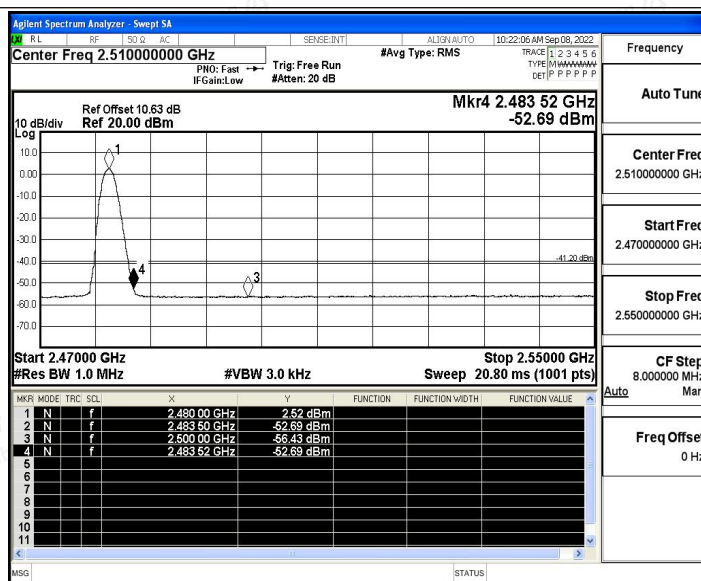


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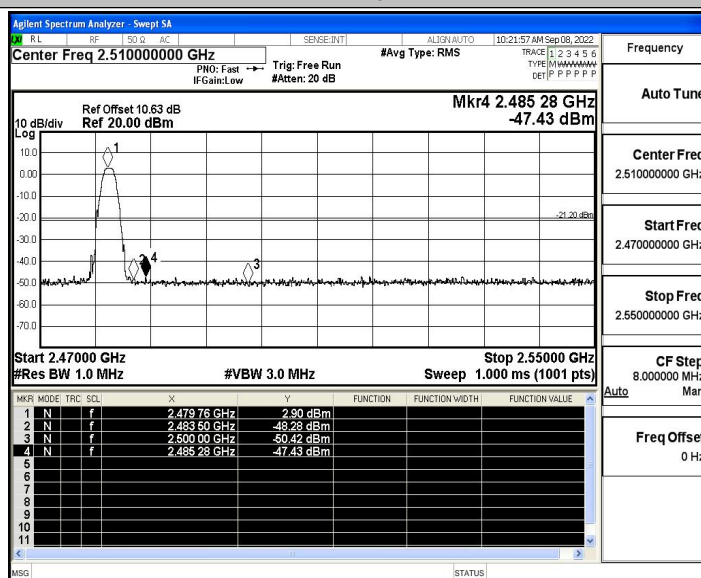
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BLE_1M_Ant1_High_2480_Peak



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