

Appendix B

RF Test Data for BT LE (Conducted Measurement)

Product Name: Multi-Functional Mag Table

Test Model: GF-20

Environmental Conditions

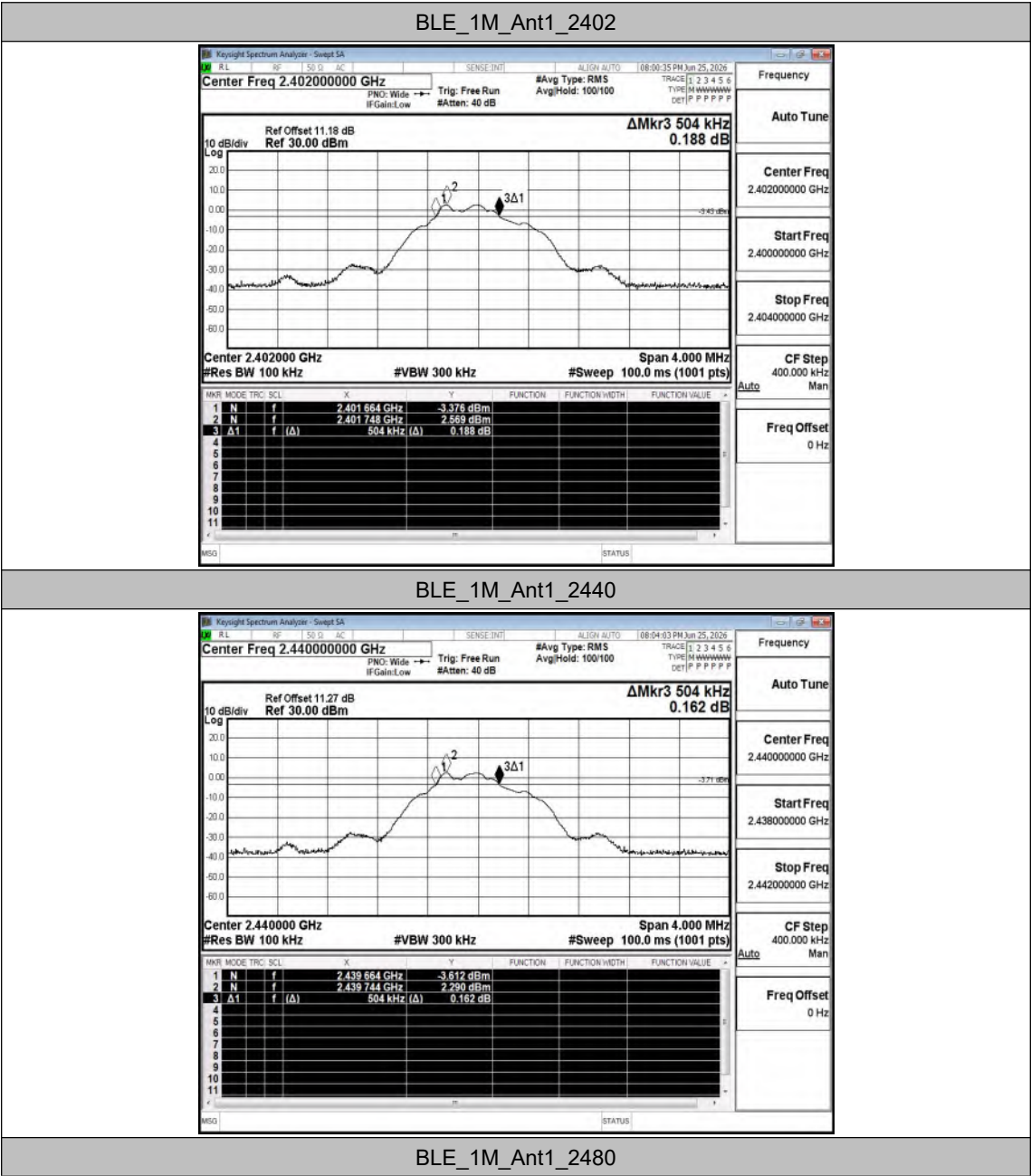
Temperature:	24.5°C
Relative Humidity:	53.2%
ATM Pressure:	100.0 kPa
Test Engineer:	Zhang hai
Supervised by:	Fengliu Tang

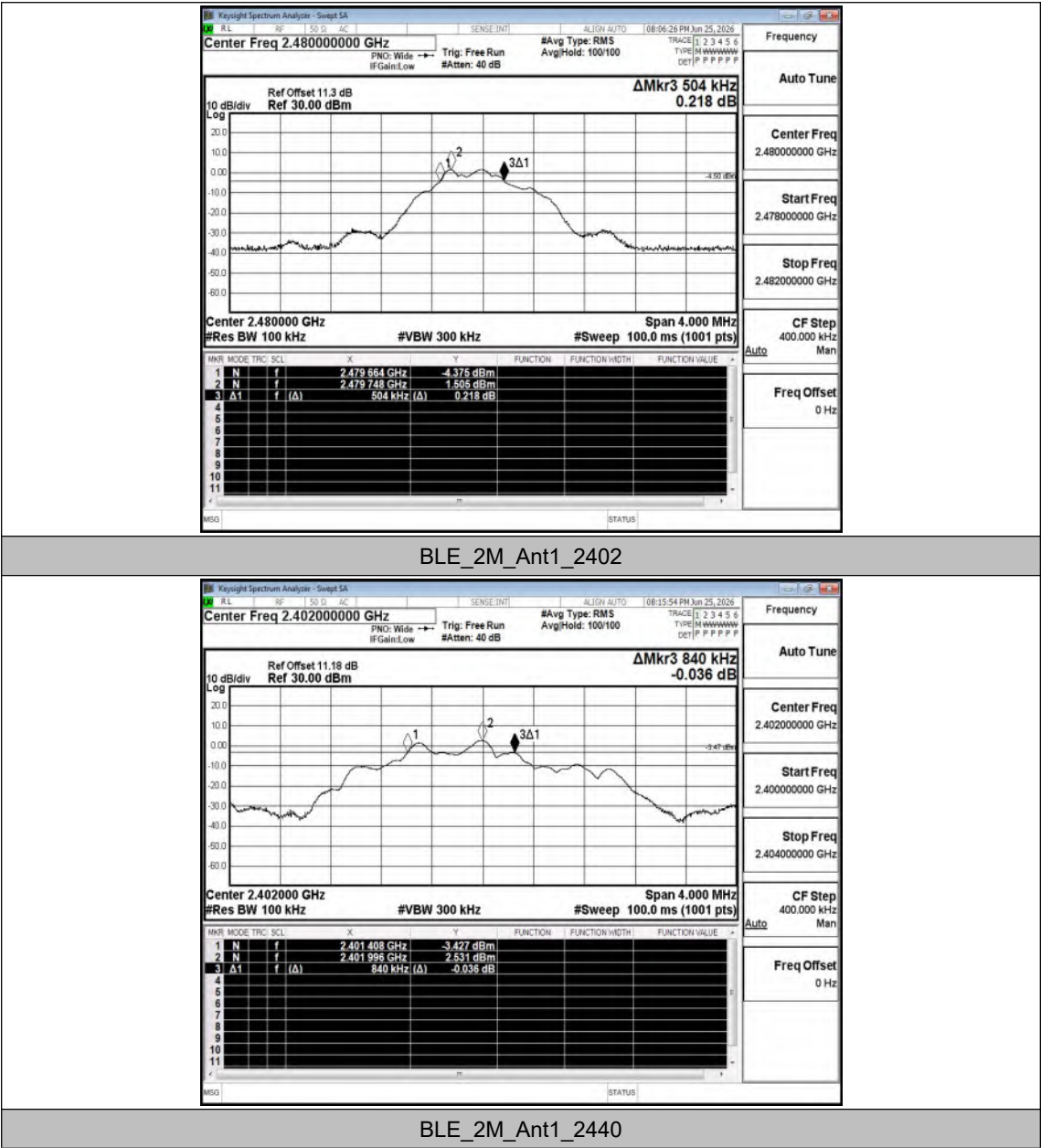
B.1 6dB Bandwidth

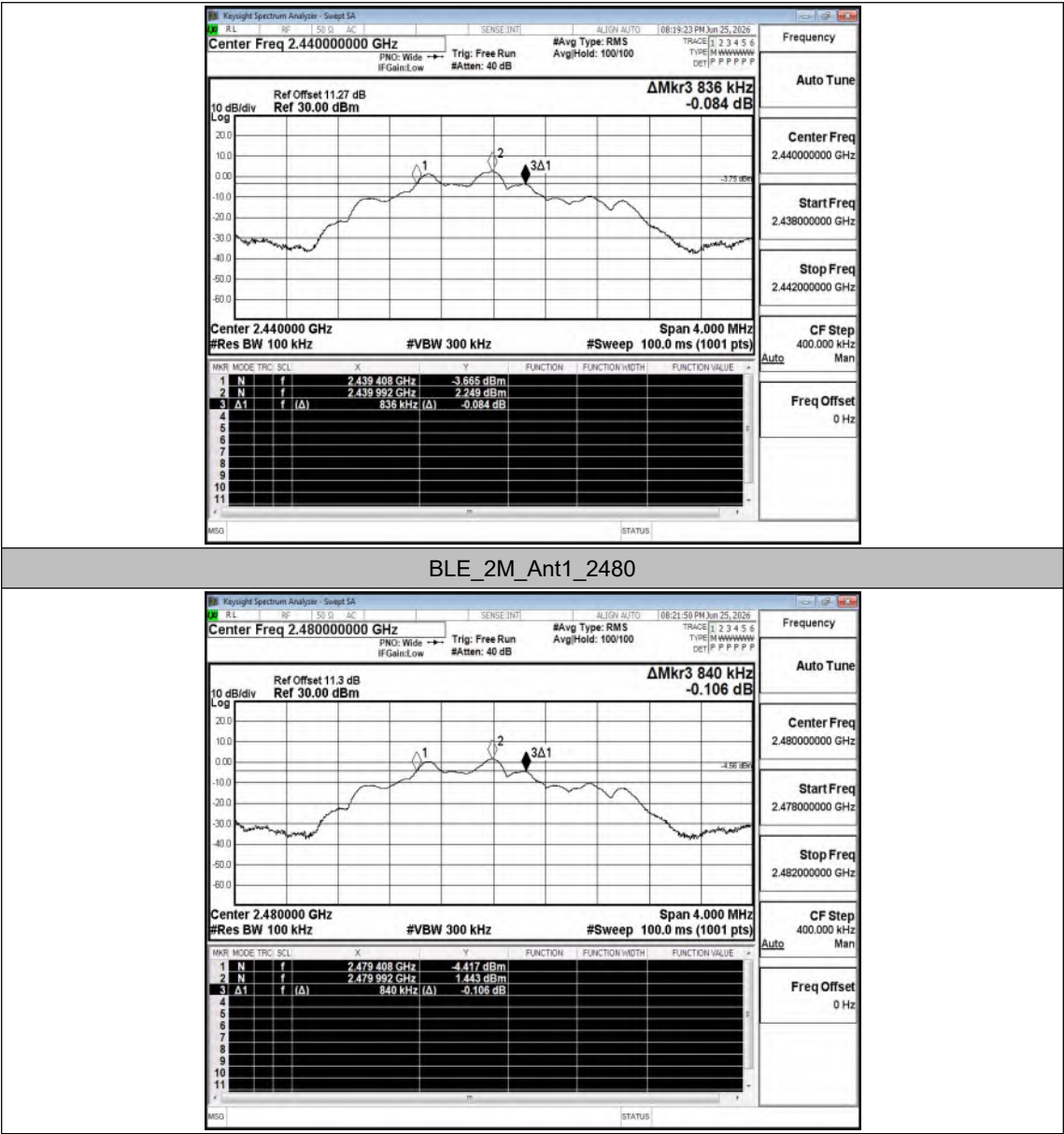
Test Result

TestMode	Antenna	Freq(MHz)	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.504	2401.664	2402.168	0.5	PASS
		2440	0.504	2439.664	2440.168	0.5	PASS
		2480	0.504	2479.664	2480.168	0.5	PASS
BLE_2M	Ant1	2402	0.840	2401.408	2402.248	0.5	PASS
		2440	0.836	2439.408	2440.244	0.5	PASS
		2480	0.840	2479.408	2480.248	0.5	PASS

Test Graphs





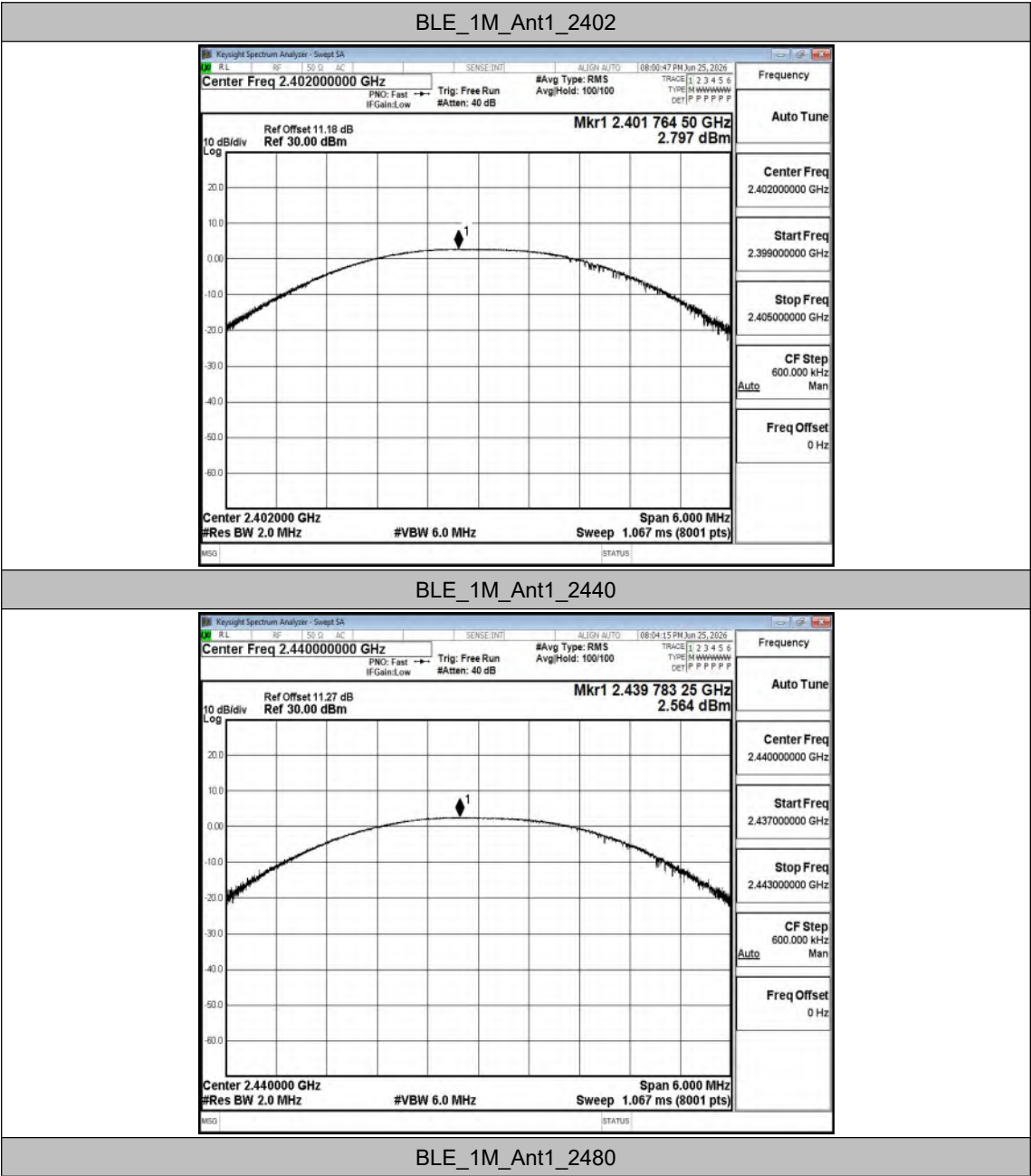


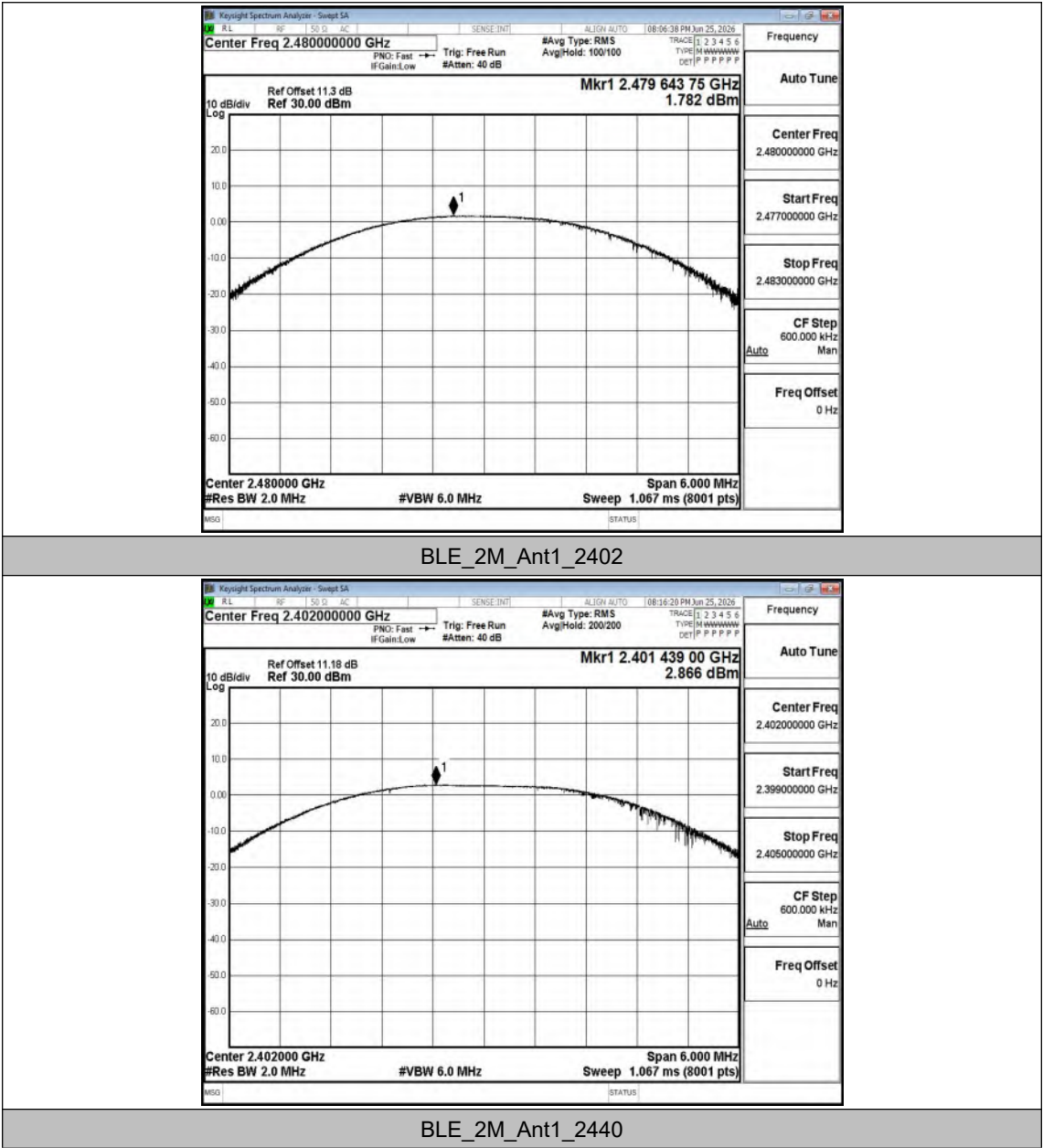
B.2 Maximum Peak conducted output power

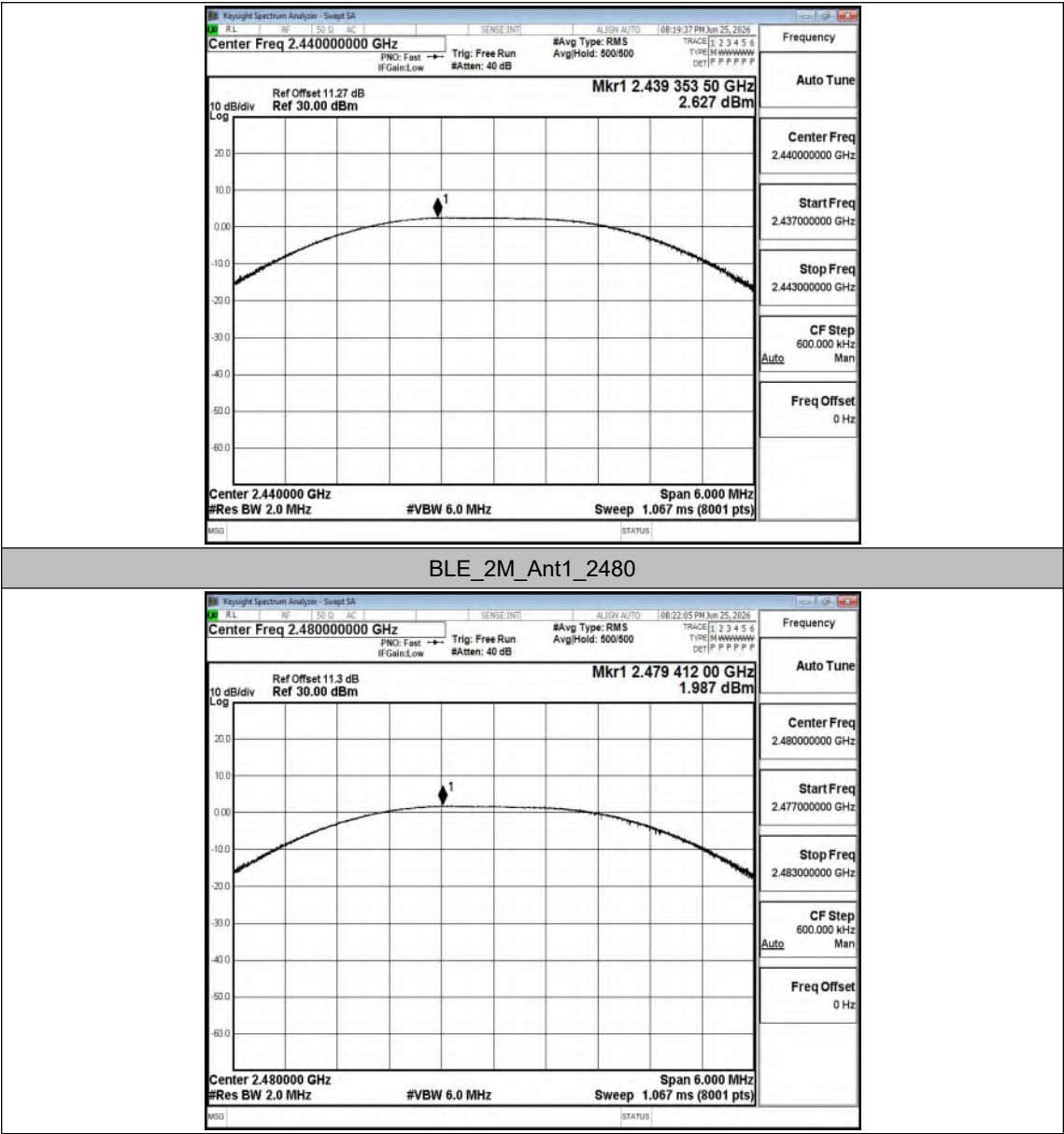
Test Result

TestMode	Antenna	Freq(MHz)	Conducted Peak Power[dBm]	Conducted Limit[dBm]	Verdict
BLE_1M	Ant1	2402	2.80	≤30	PASS
		2440	2.56	≤30	PASS
		2480	1.78	≤30	PASS
BLE_2M	Ant1	2402	2.87	≤30	PASS
		2440	2.63	≤30	PASS
		2480	1.99	≤30	PASS

Test Graphs





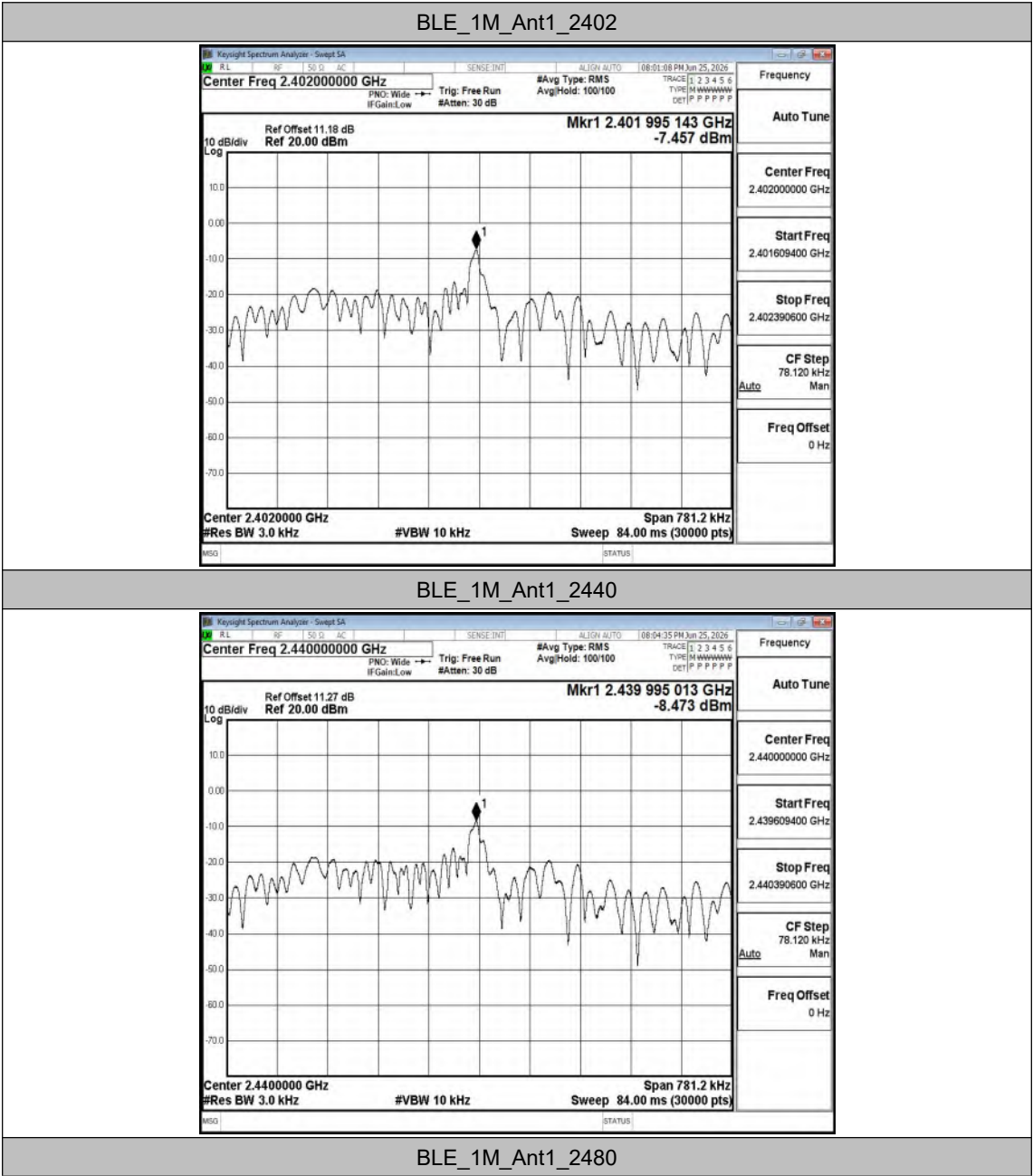


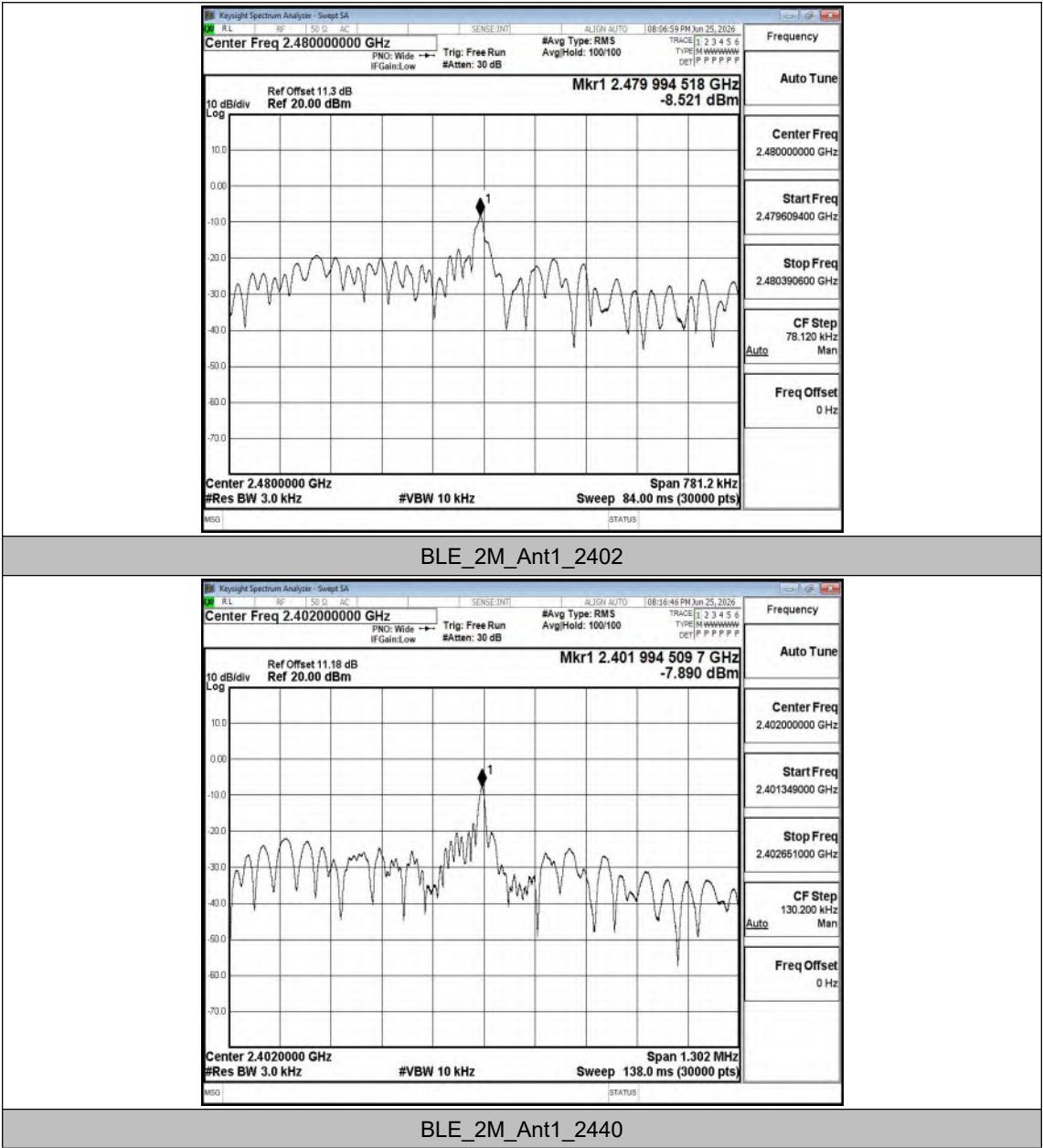
B.3 Maximum power spectral density

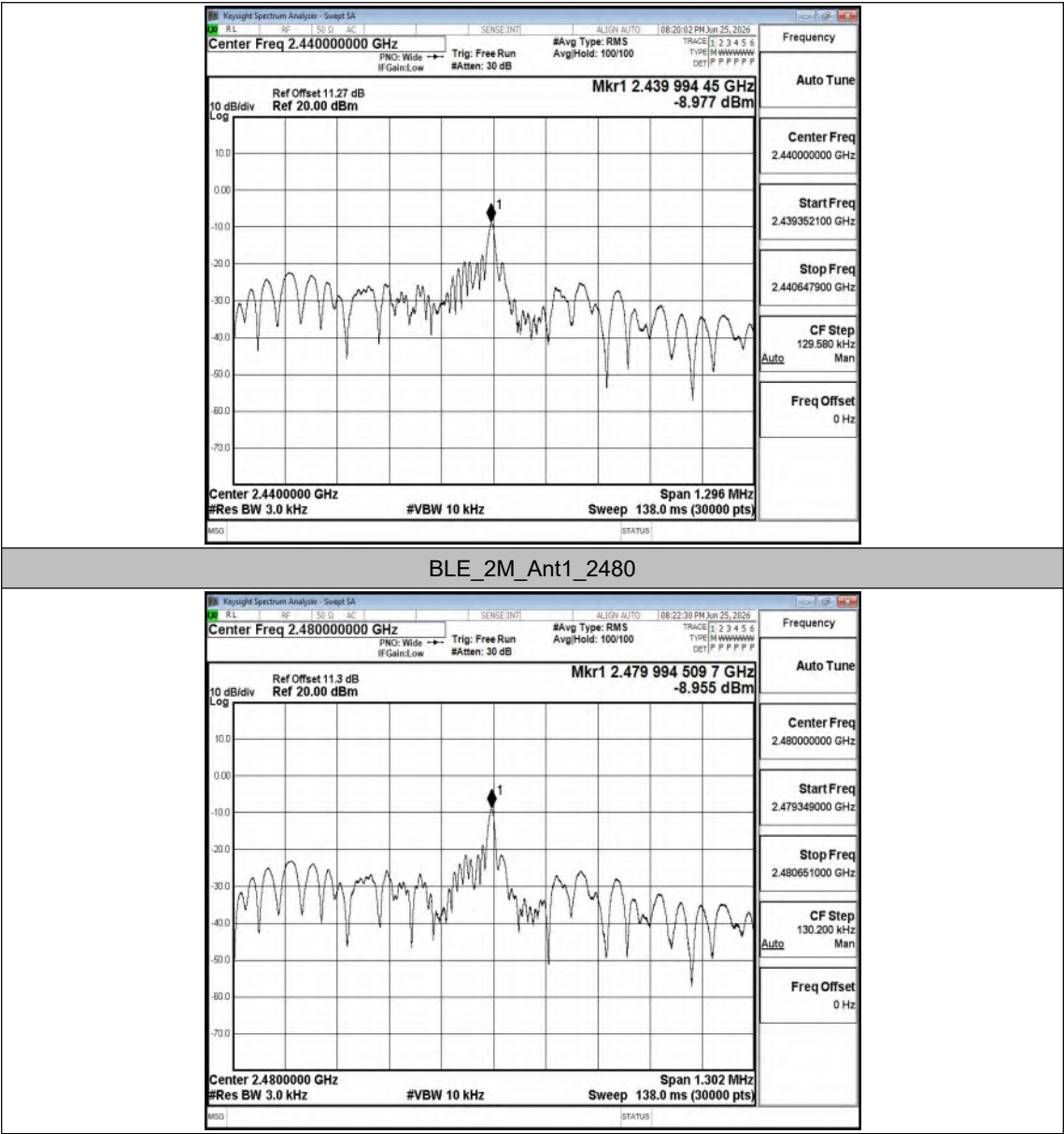
Test Result

TestMode	Antenna	Freq(MHz)	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-7.46	≤8.00	PASS
		2440	-8.47	≤8.00	PASS
		2480	-8.52	≤8.00	PASS
BLE_2M	Ant1	2402	-7.89	≤8.00	PASS
		2440	-8.98	≤8.00	PASS
		2480	-8.96	≤8.00	PASS

Test Graphs





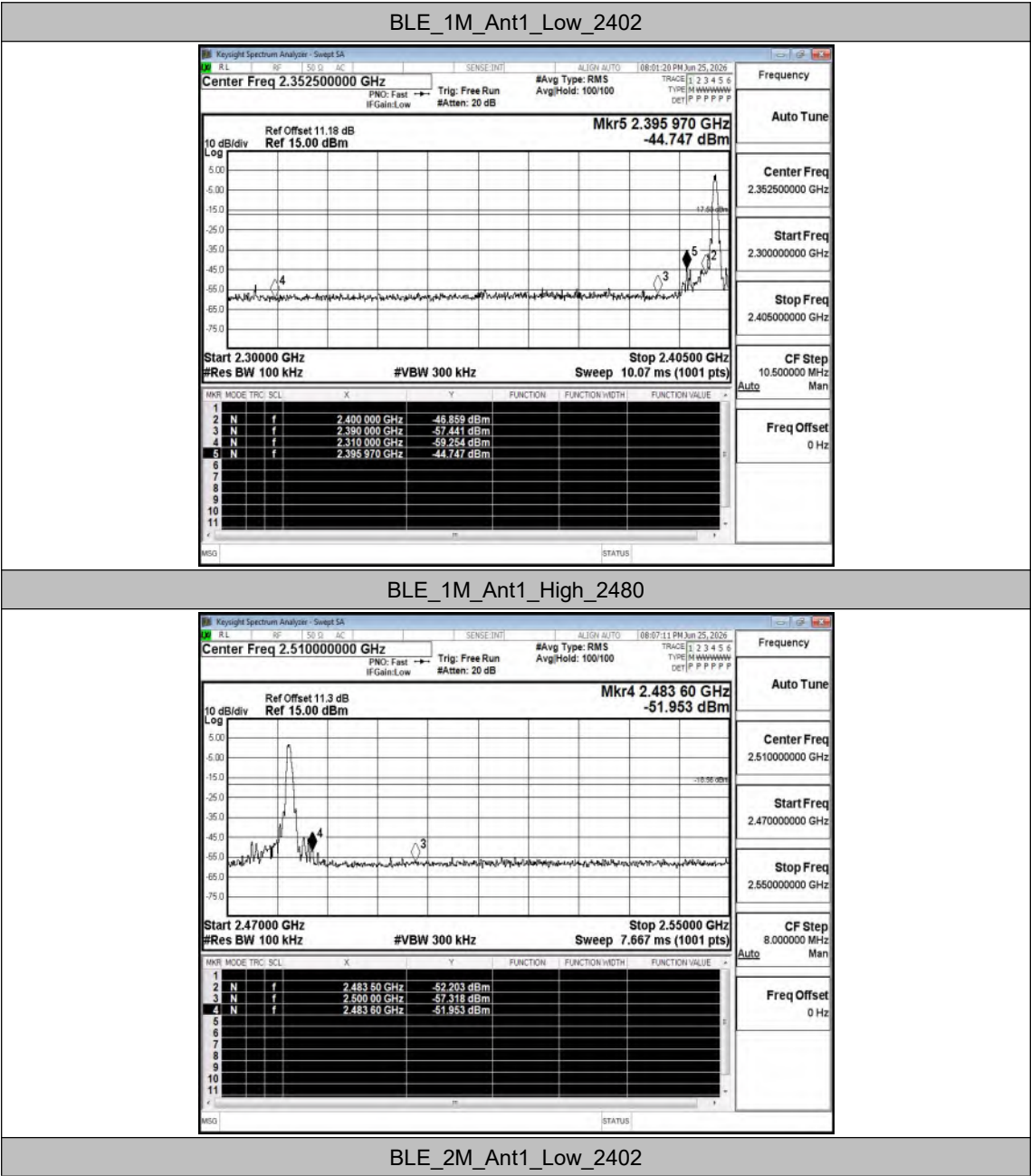


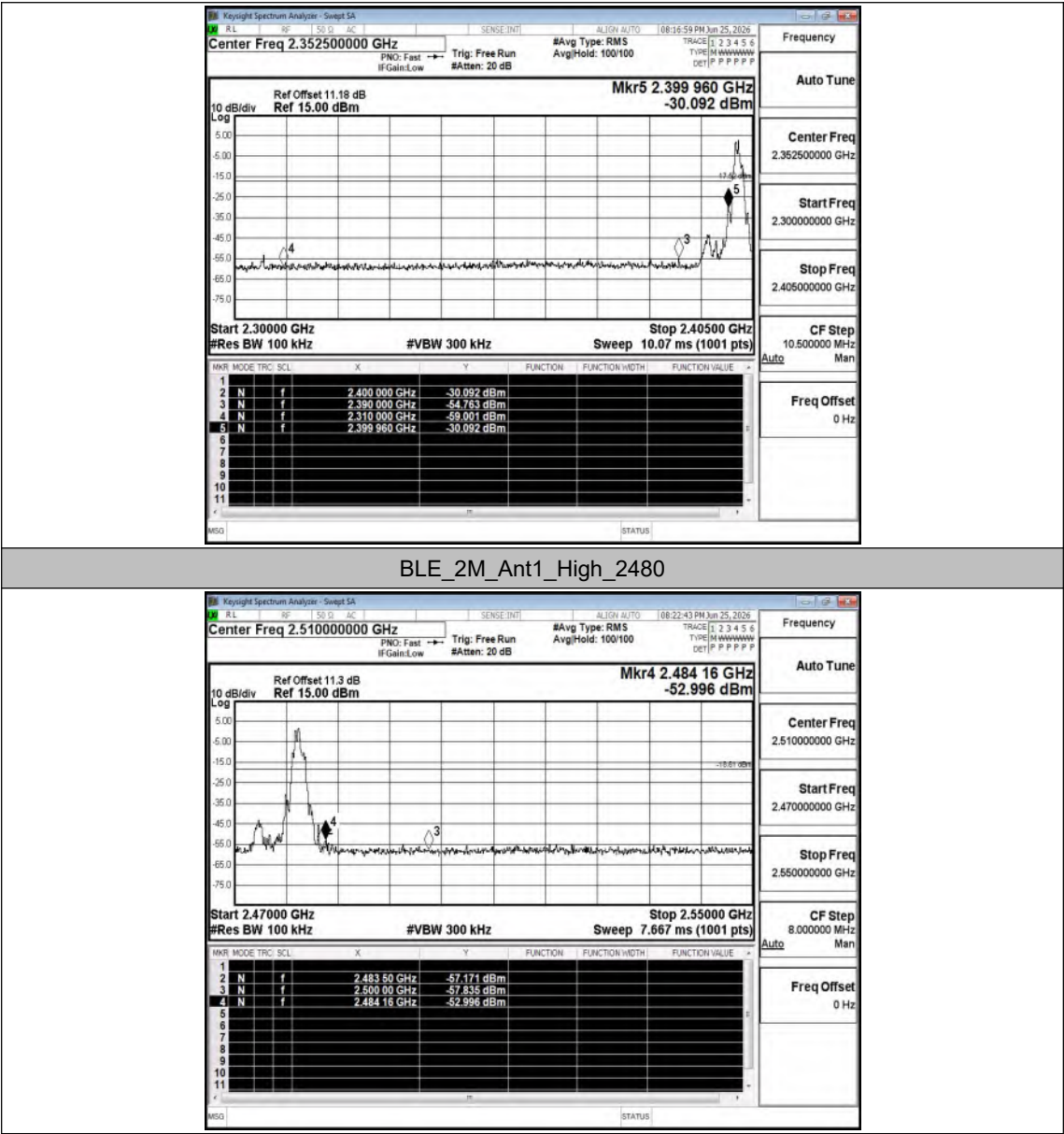
B.4 Band edge measurements

Test Result

TestMode	Antenna	ChName	Freq(MHz)	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	2.50	-44.75	≤-17.5	PASS
		High	2480	1.44	-51.95	≤-18.56	PASS
BLE_2M	Ant1	Low	2402	2.48	-30.09	≤-17.52	PASS
		High	2480	1.39	-53	≤-18.61	PASS

Test Graphs



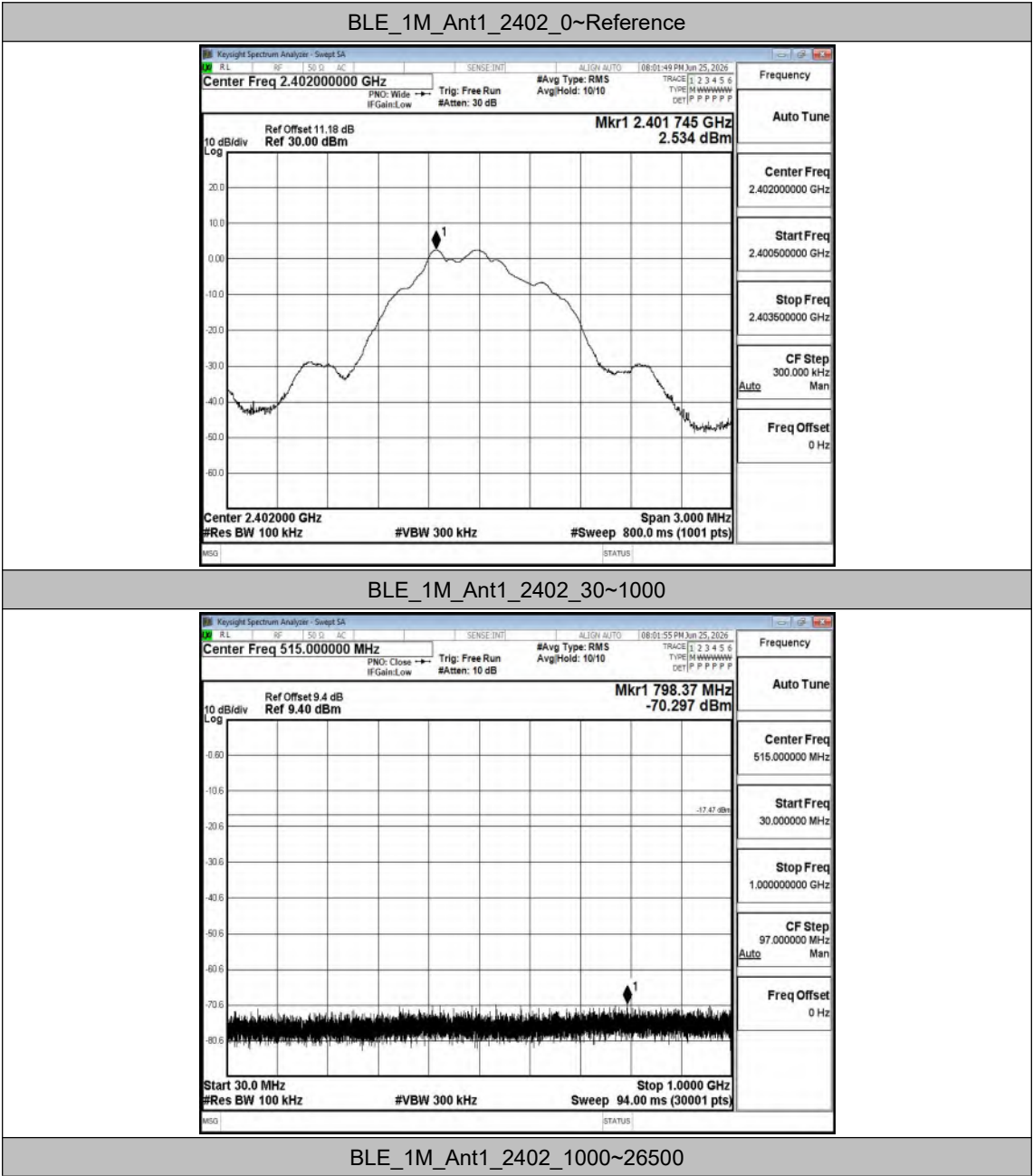


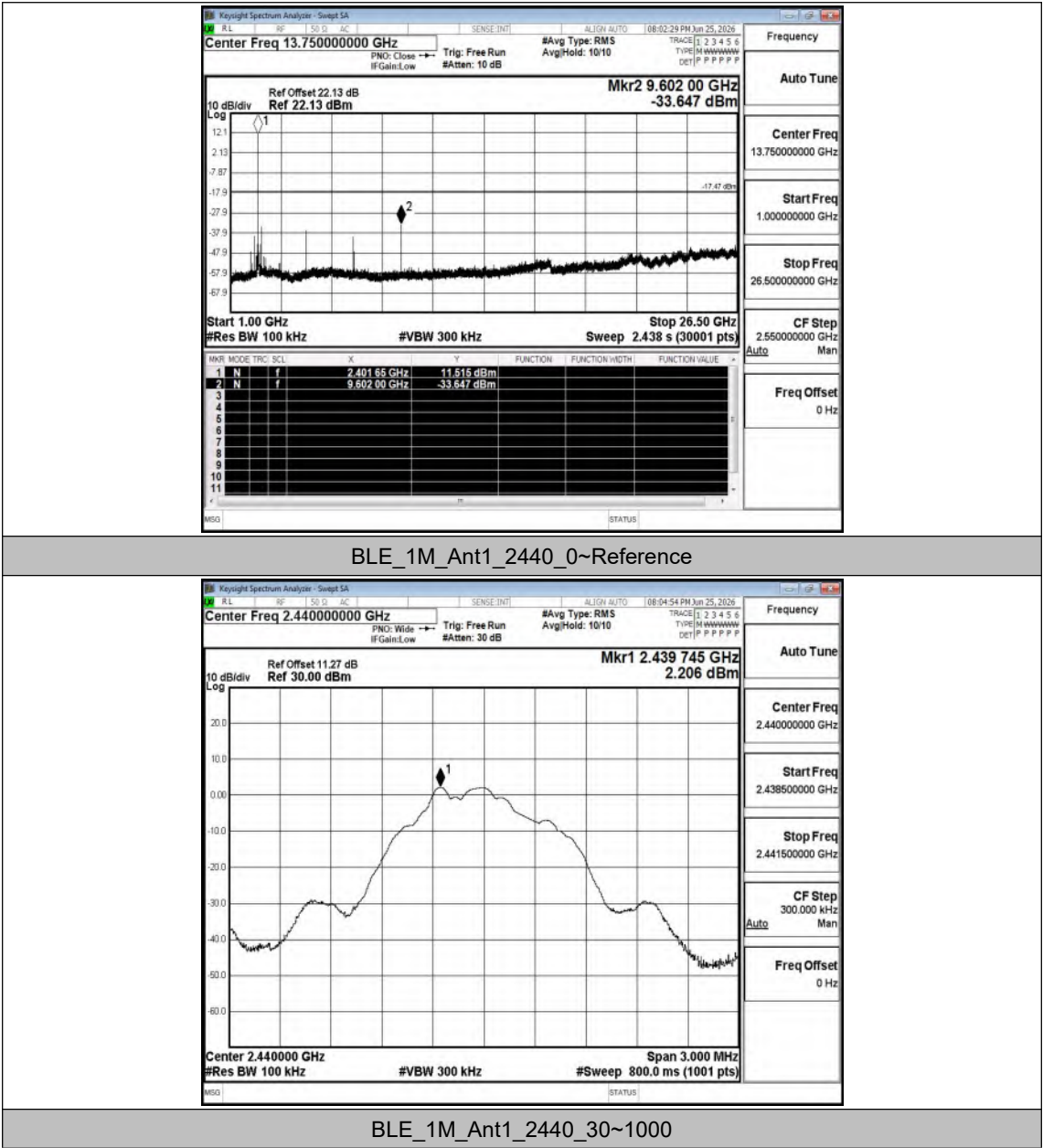
B.5 Conducted Spurious Emission

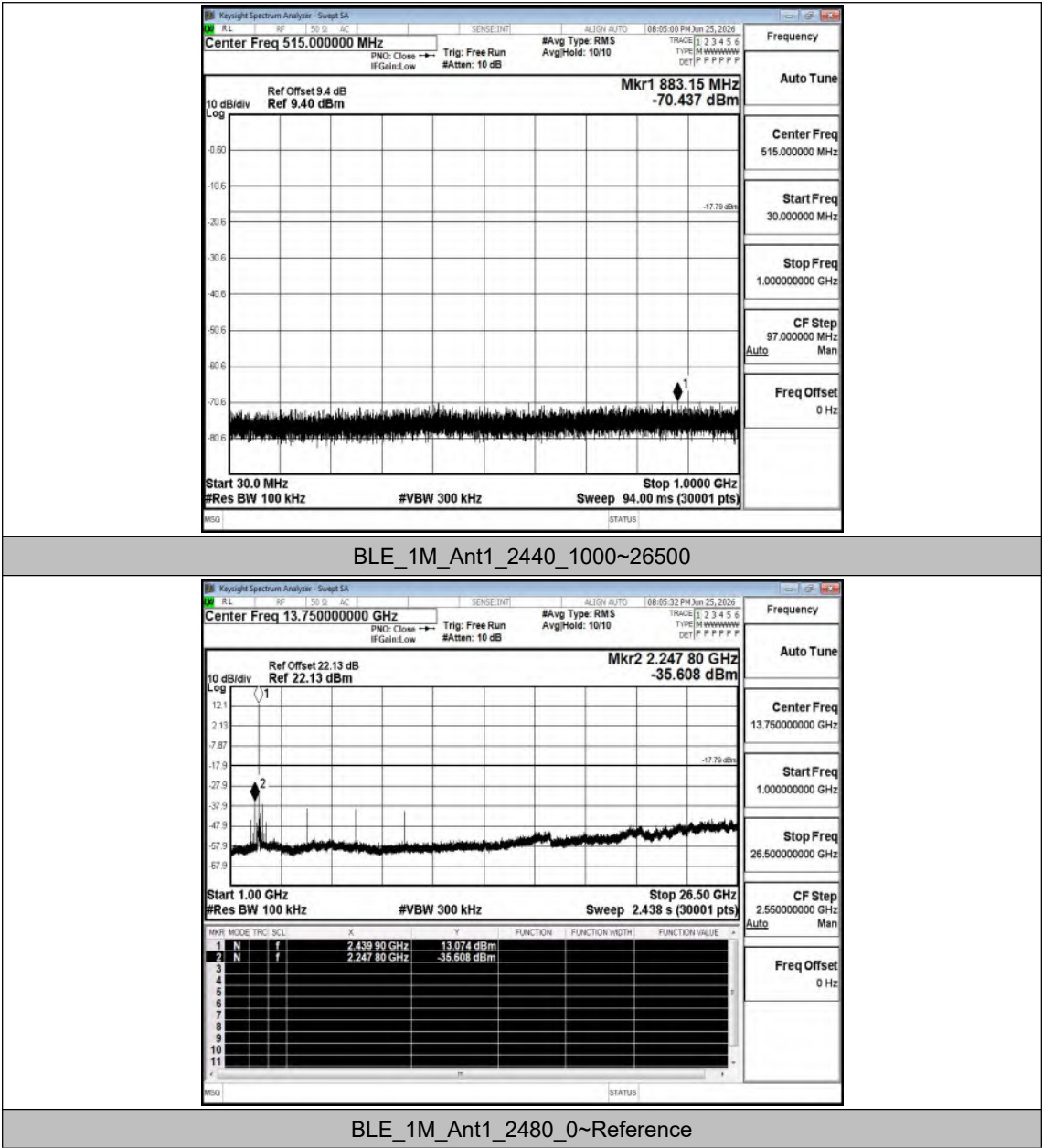
Test Result

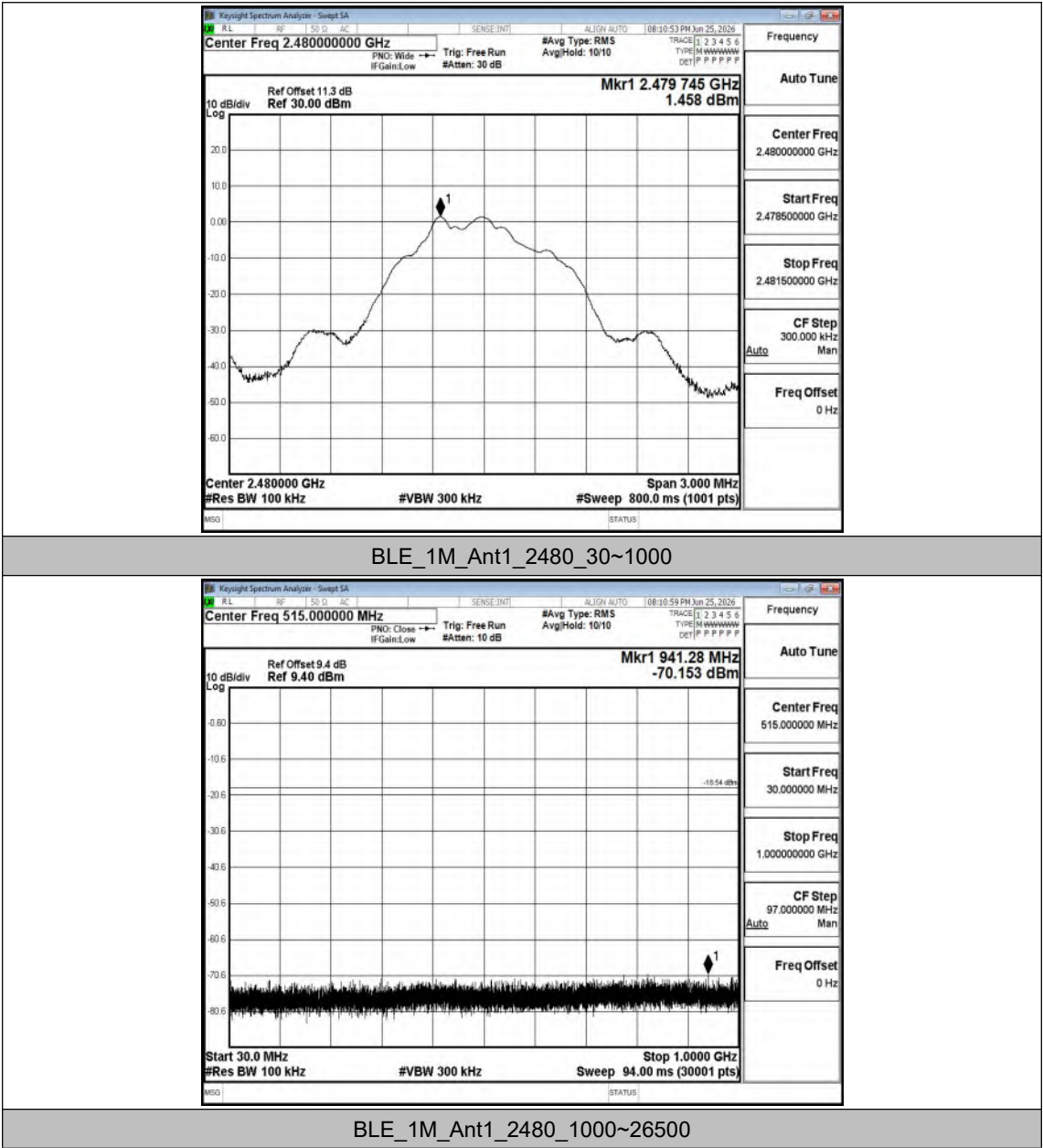
TestMode	Antenna	Freq(MHz)	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	2.53	2.53	---	PASS
			30~1000	2.53	-70.3	≤-17.47	PASS
			1000~26500	2.53	-33.65	≤-17.47	PASS
		2440	Reference	2.21	2.21	---	PASS
			30~1000	2.21	-70.44	≤-17.79	PASS
			1000~26500	2.21	-35.61	≤-17.79	PASS
		2480	Reference	1.46	1.46	---	PASS
			30~1000	1.46	-70.15	≤-18.54	PASS
			1000~26500	1.46	-32.72	≤-18.54	PASS
BLE_2M	Ant1	2402	Reference	2.47	2.47	---	PASS
			30~1000	2.47	-69.89	≤-17.53	PASS
			1000~26500	2.47	-33.91	≤-17.53	PASS
		2440	Reference	2.14	2.14	---	PASS
			30~1000	2.14	-69.66	≤-17.86	PASS
			1000~26500	2.14	-36.14	≤-17.86	PASS
		2480	Reference	1.39	1.39	---	PASS
			30~1000	1.39	-69.92	≤-18.61	PASS
			1000~26500	1.39	-38.06	≤-18.61	PASS

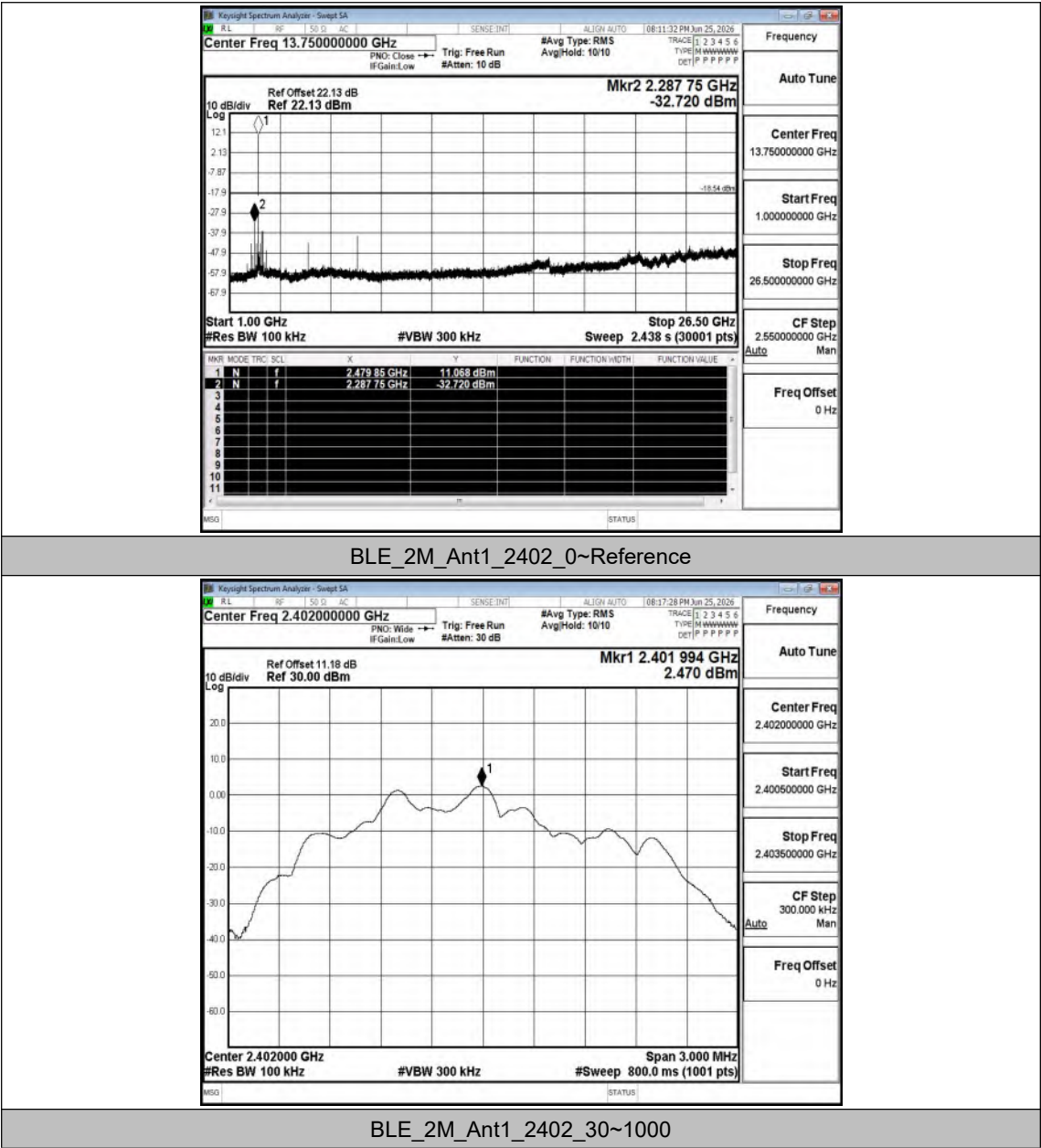
Test Graphs

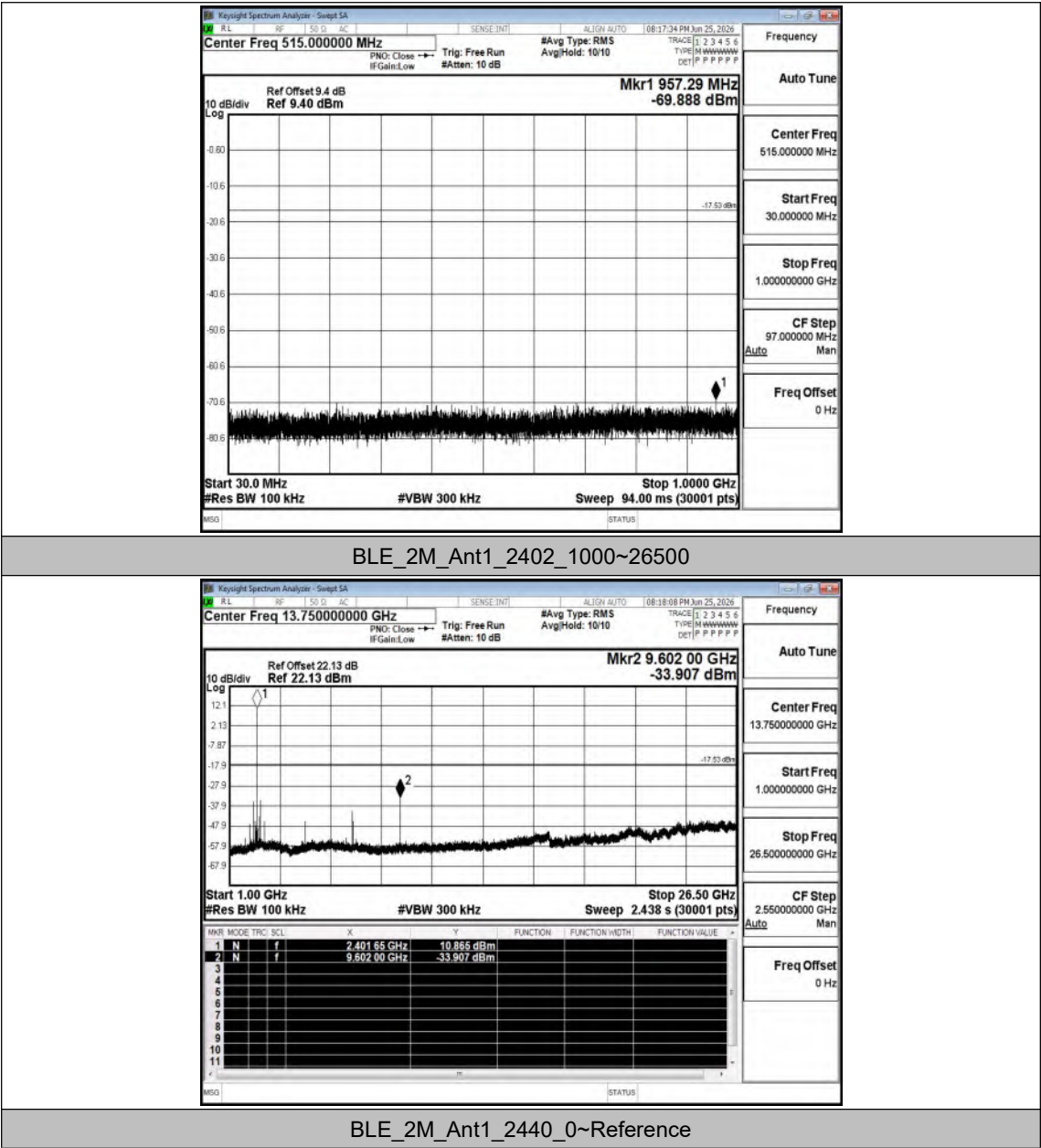


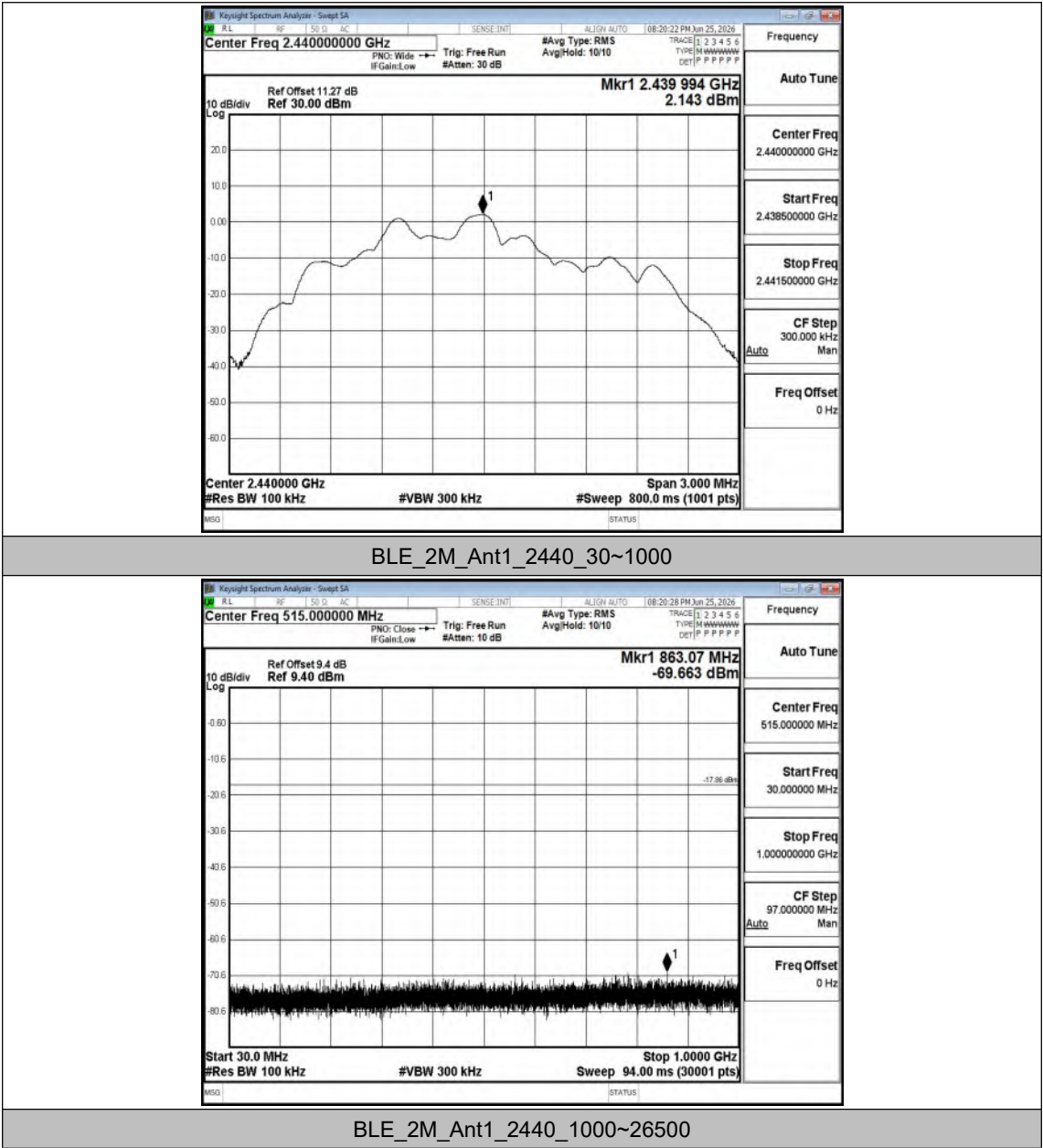


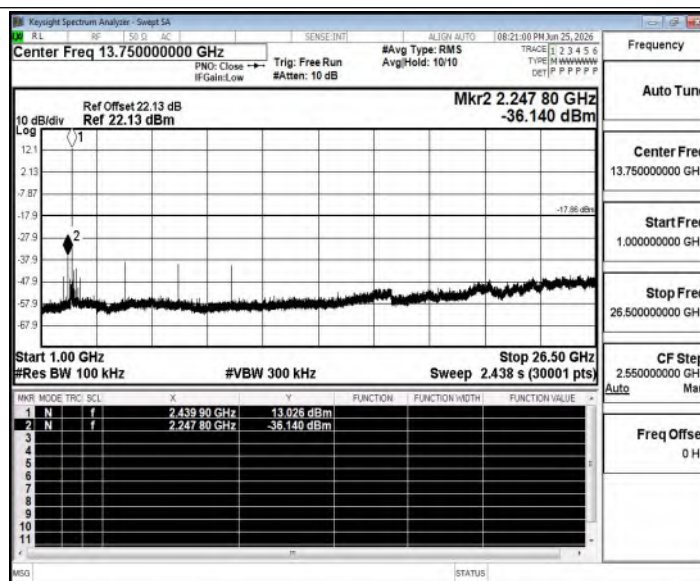




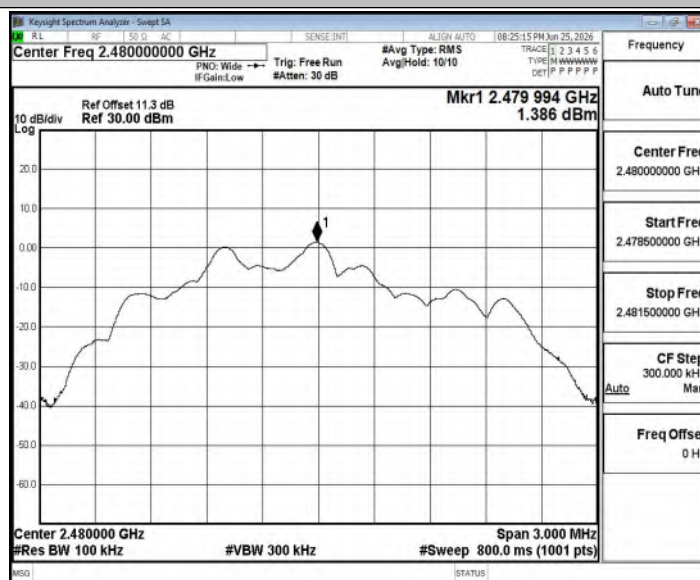




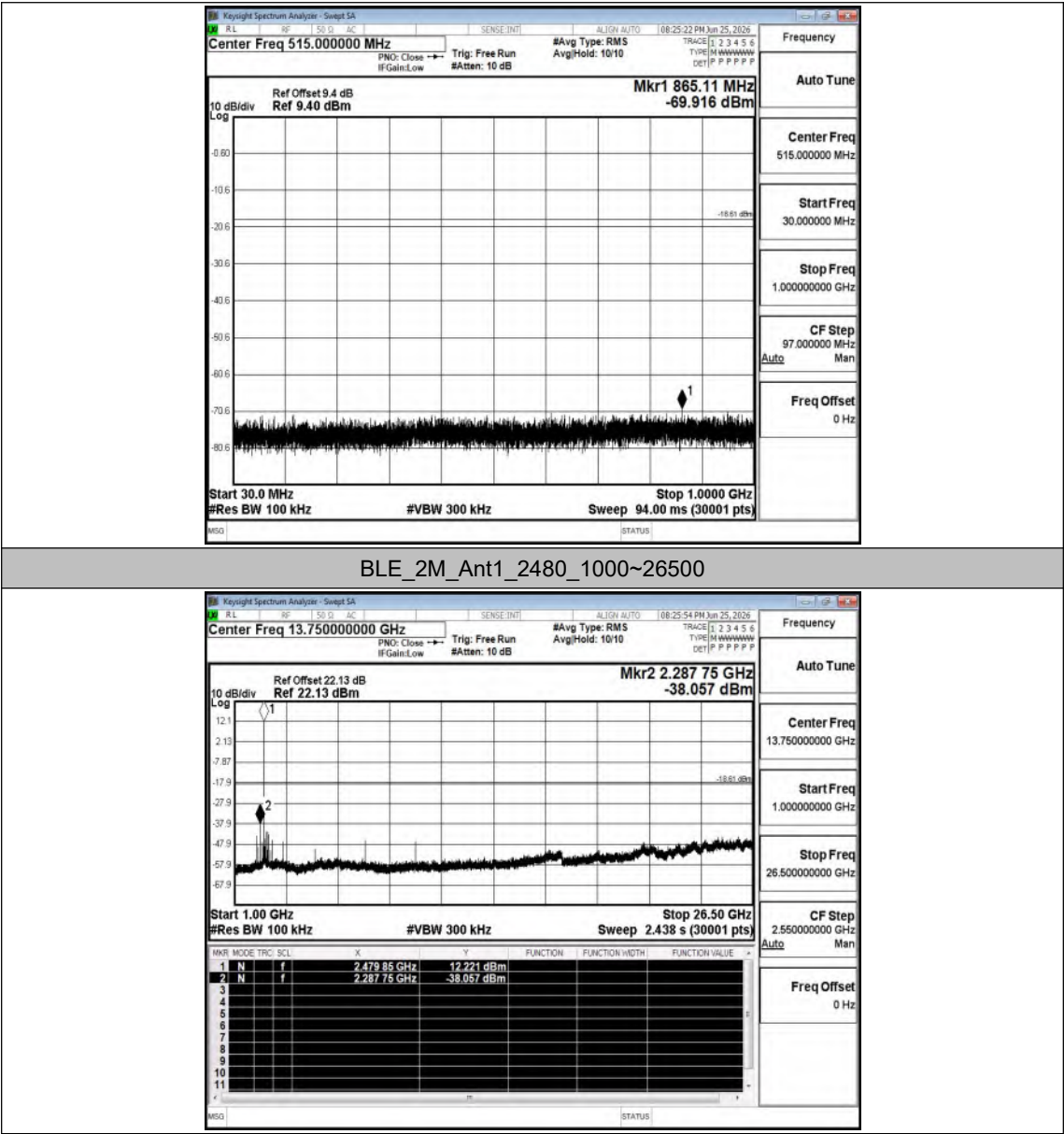




BLE 2M Ant1 2480 0~Reference



BLE	2M	Ant1	2480	30~1000
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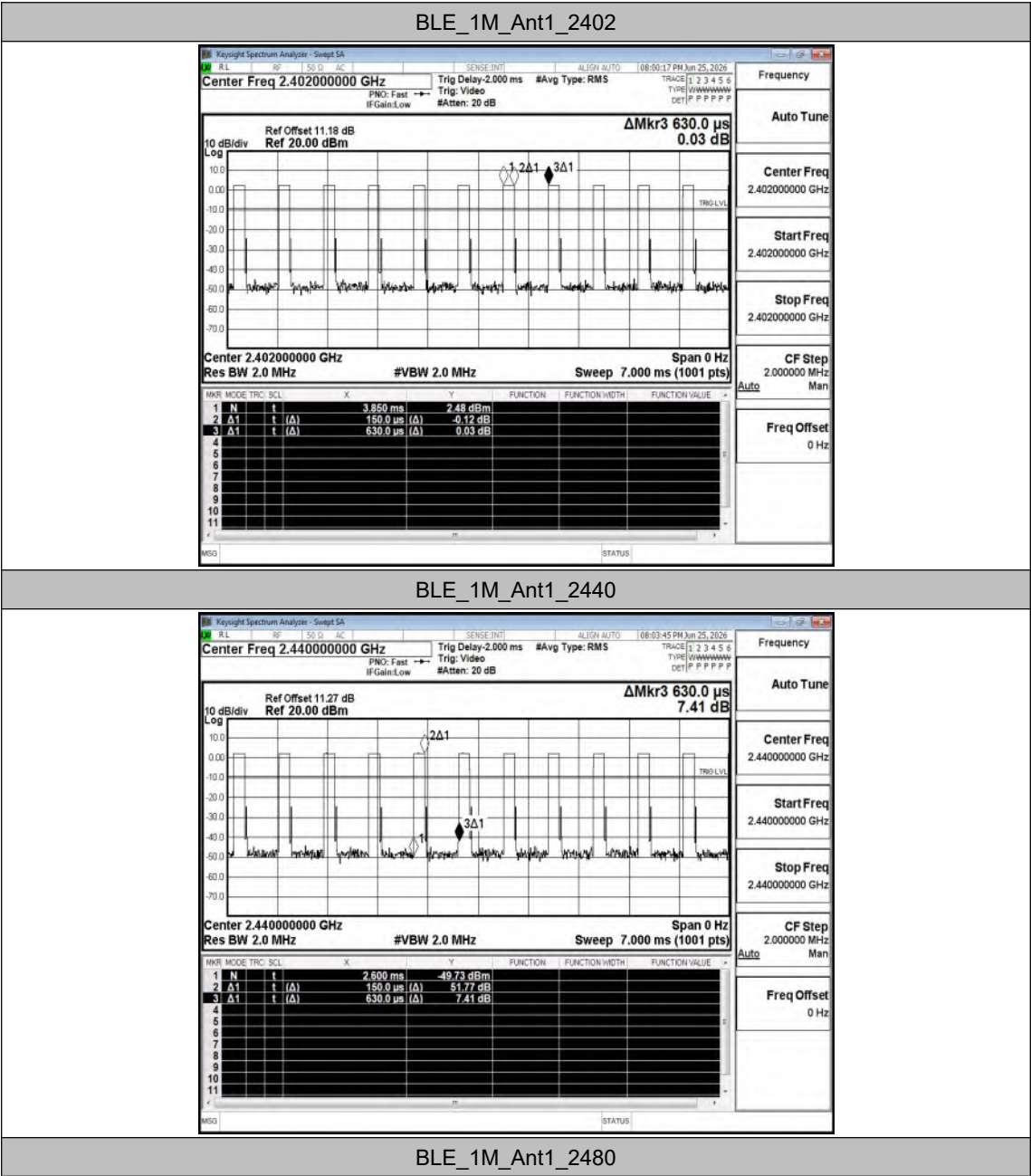


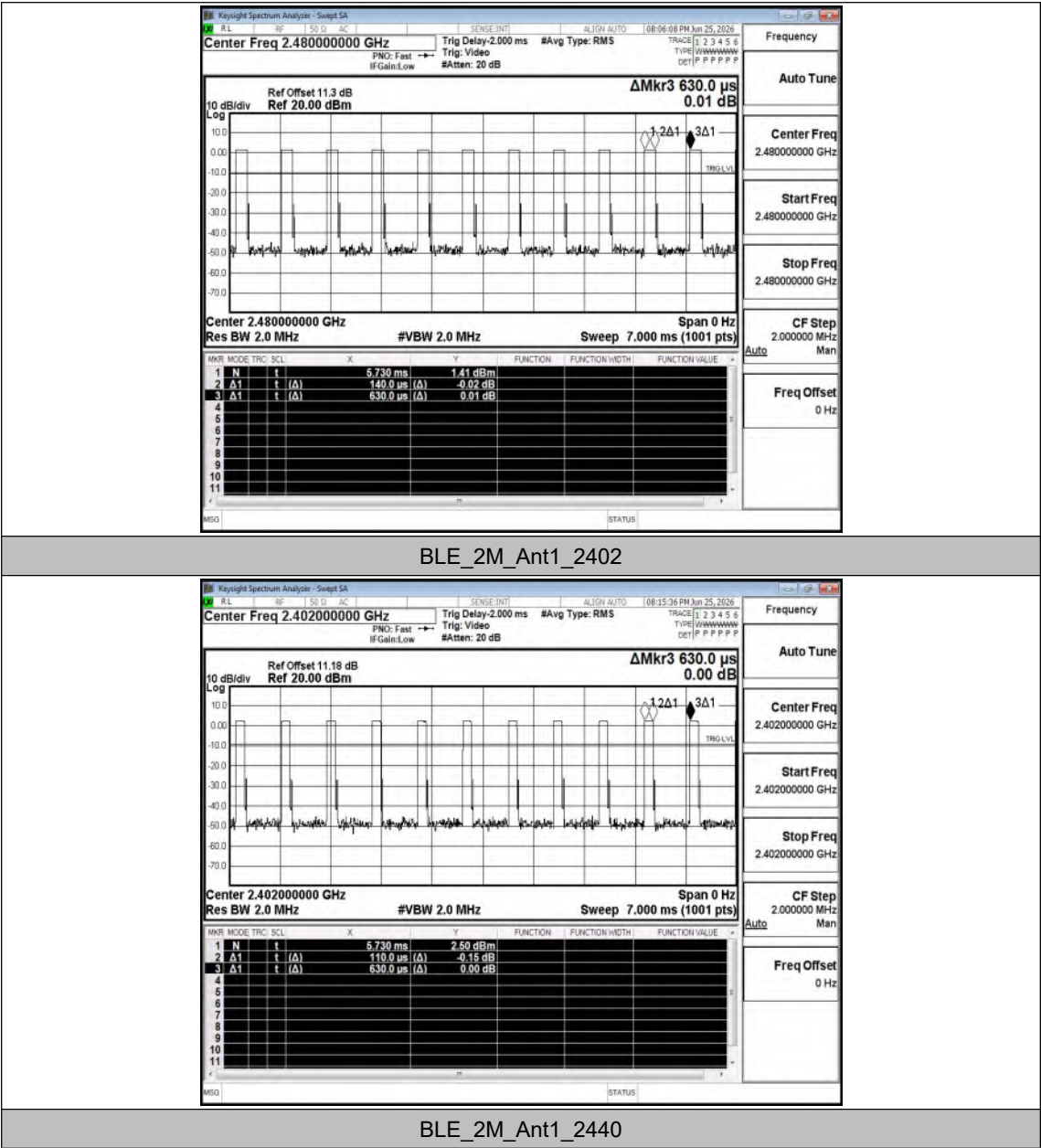
B.6 Duty Cycle

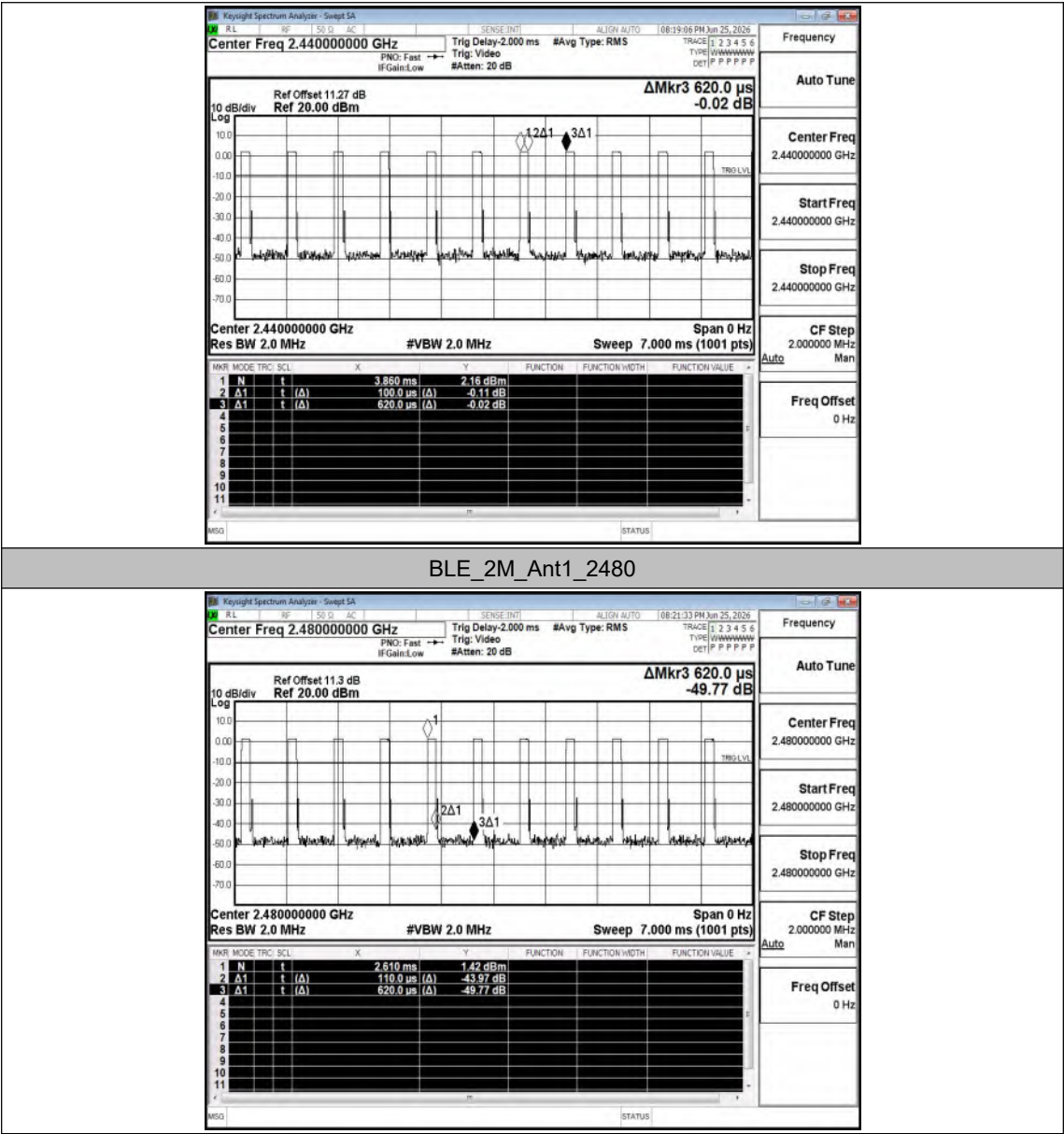
Test Result

TestMode	Antenna	Freq(MHz)	ON Time [ms]	Period [ms]	X	DC [%]	xFactor	Limit	Verdict
BLE_1M	Ant1	2402	0.15	0.63	0.2381	23.81	6.23	---	---
		2440	0.15	0.63	0.2381	23.81	6.23	---	---
		2480	0.14	0.63	0.2222	22.22	6.53	---	---
BLE_2M	Ant1	2402	0.11	0.63	0.1746	17.46	7.58	---	---
		2440	0.10	0.62	0.1613	16.13	7.92	---	---
		2480	0.11	0.62	0.1774	17.74	7.51	---	---

Test Graphs







B.7 Emissions in Restricted Bands

Test Result

TestMode	Antenna	ChName	Freq(MHz)	Detector	Freq [MHz]	Result [dBm]	Limit [dBm]	Gain [dBi]	DC Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Verdict
BLE_1M	Ant1	Low	2402	AV	2310.000	-57.73	≤-49.43	2.00	6.23	45.70	≤54	PASS
				AV	2361.740	-56.75	≤-49.43	2.00	6.23	46.68	≤54	PASS
				AV	2390.000	-57.4	≤-49.43	2.00	6.23	46.03	≤54	PASS
				Peak	2310.000	-49.87	≤-23.20	2.00	0.00	47.33	≤74	PASS
				Peak	2389.880	-44.78	≤-23.20	2.00	0.00	52.42	≤74	PASS
				Peak	2390.000	-46.39	≤-23.20	2.00	0.00	50.81	≤74	PASS
		High	2480	AV	2483.500	-54.89	≤-49.73	2.00	6.53	48.84	≤54	PASS
				AV	2483.600	-54.75	≤-49.73	2.00	6.53	48.98	≤54	PASS
				AV	2500.000	-57.26	≤-49.73	2.00	6.53	46.47	≤54	PASS
				Peak	2483.500	-44.28	≤-23.20	2.00	0.00	52.92	≤74	PASS
				Peak	2485.600	-42.83	≤-23.20	2.00	0.00	54.37	≤74	PASS
				Peak	2500.000	-46.36	≤-23.20	2.00	0.00	50.84	≤74	PASS
BLE_2M	Ant1	Low	2402	AV	2310.000	-57.78	≤-50.78	2.00	7.58	47.00	≤54	PASS
				AV	2356.385	-56.71	≤-50.78	2.00	7.58	48.07	≤54	PASS
				AV	2390.000	-57	≤-50.78	2.00	7.58	47.78	≤54	PASS
				Peak	2310.000	-48.96	≤-23.20	2.00	0.00	48.24	≤74	PASS
				Peak	2360.060	-45.16	≤-23.20	2.00	0.00	52.04	≤74	PASS
				Peak	2390.000	-47.66	≤-23.20	2.00	0.00	49.54	≤74	PASS
		High	2480	AV	2483.500	-54.81	≤-50.71	2.00	7.51	49.90	≤54	PASS
				AV	2483.520	-54.81	≤-50.71	2.00	7.51	49.90	≤54	PASS
				AV	2500.000	-56.98	≤-50.71	2.00	7.51	47.73	≤54	PASS
				Peak	2483.500	-43.4	≤-23.20	2.00	0.00	53.80	≤74	PASS
				Peak	2485.680	-43.22	≤-23.20	2.00	0.00	53.98	≤74	PASS
				Peak	2500.000	-47.62	≤-23.20	2.00	0.00	49.58	≤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

