

Appendix B

RF Test Data for BT LE (Conducted Measurement)

Product Name: PicassoTab_ Z13

Test Model: PicassoTab_ Z13

Environmental Conditions

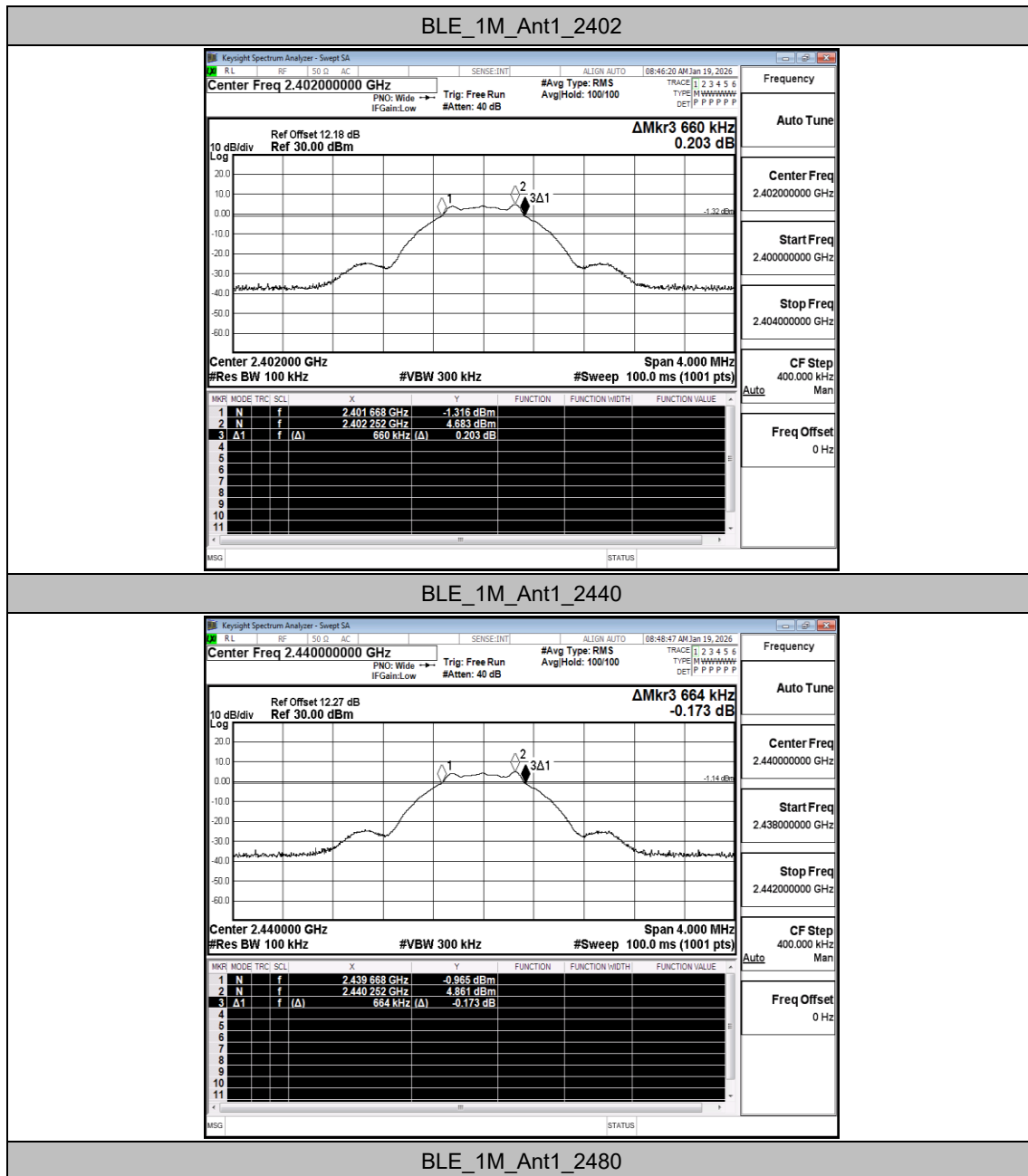
Temperature:	23.1°C
Relative Humidity:	54.2%
ATM Pressure:	100.0 kPa
Test Engineer:	Zhang hai
Supervised by:	Fengliu Tang

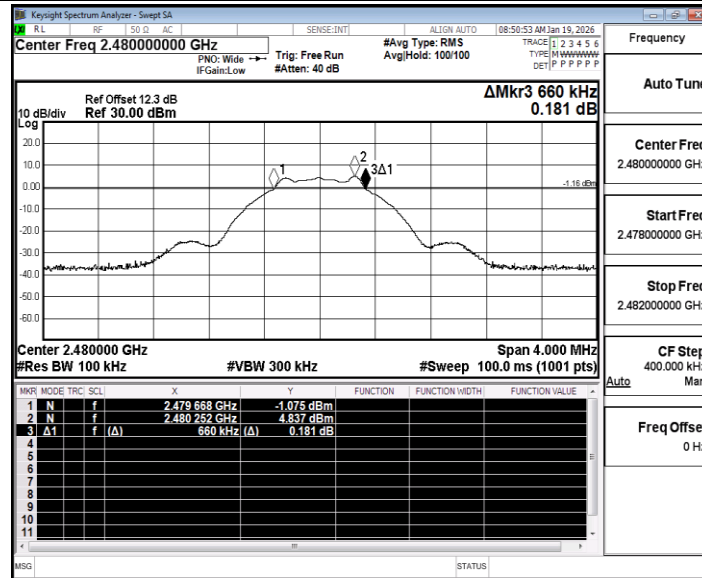
B.1 DTS Bandwidth

Test Result

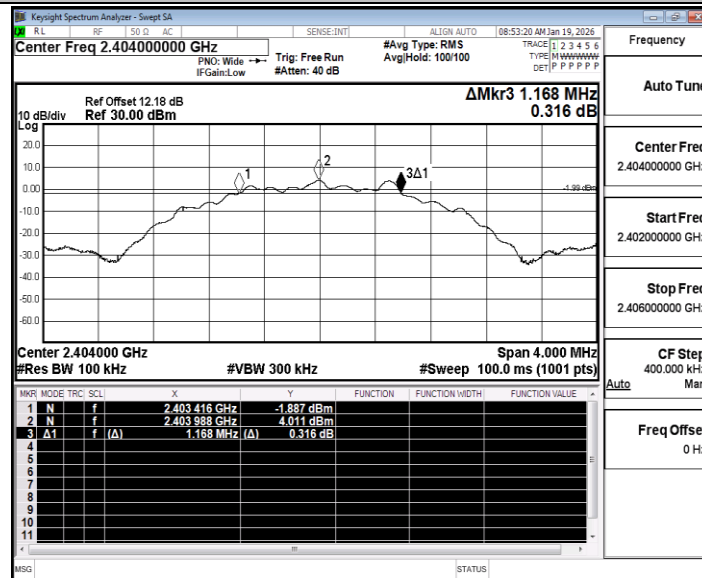
TestMode	Antenna	Freq (MHz)	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit [MHz]	Verdict
BLE_1M	Ant1	2402	0.660	2401.668	2402.328	0.5	PASS
		2440	0.664	2439.668	2440.332	0.5	PASS
		2480	0.660	2479.668	2480.328	0.5	PASS
BLE_2M	Ant1	2404	1.168	2403.416	2404.584	0.5	PASS
		2440	1.228	2439.356	2440.584	0.5	PASS
		2478	1.228	2477.356	2478.584	0.5	PASS

Test Graphs

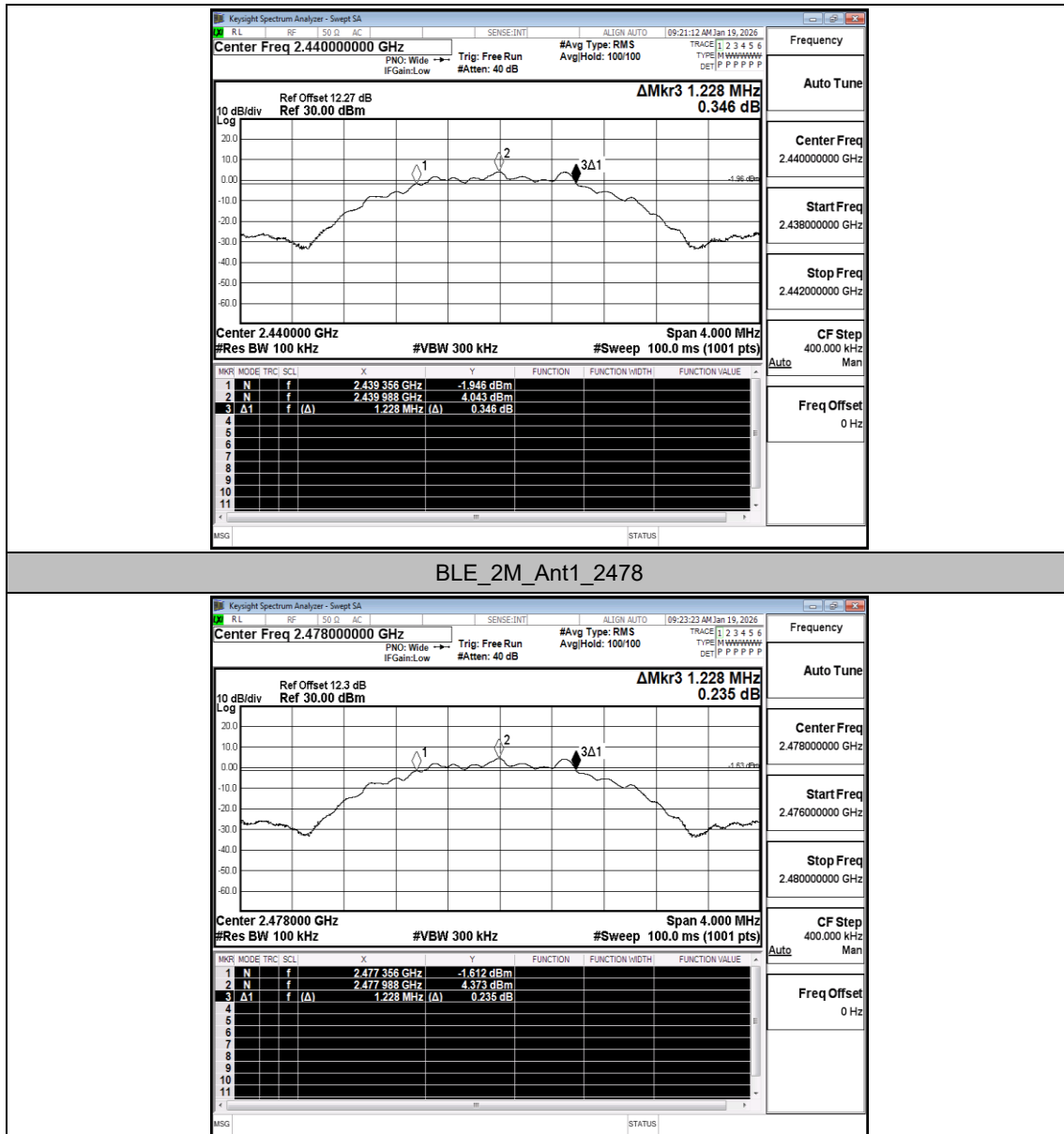




BLE_2M_Ant1_2404



BLE_2M_Ant1_2440

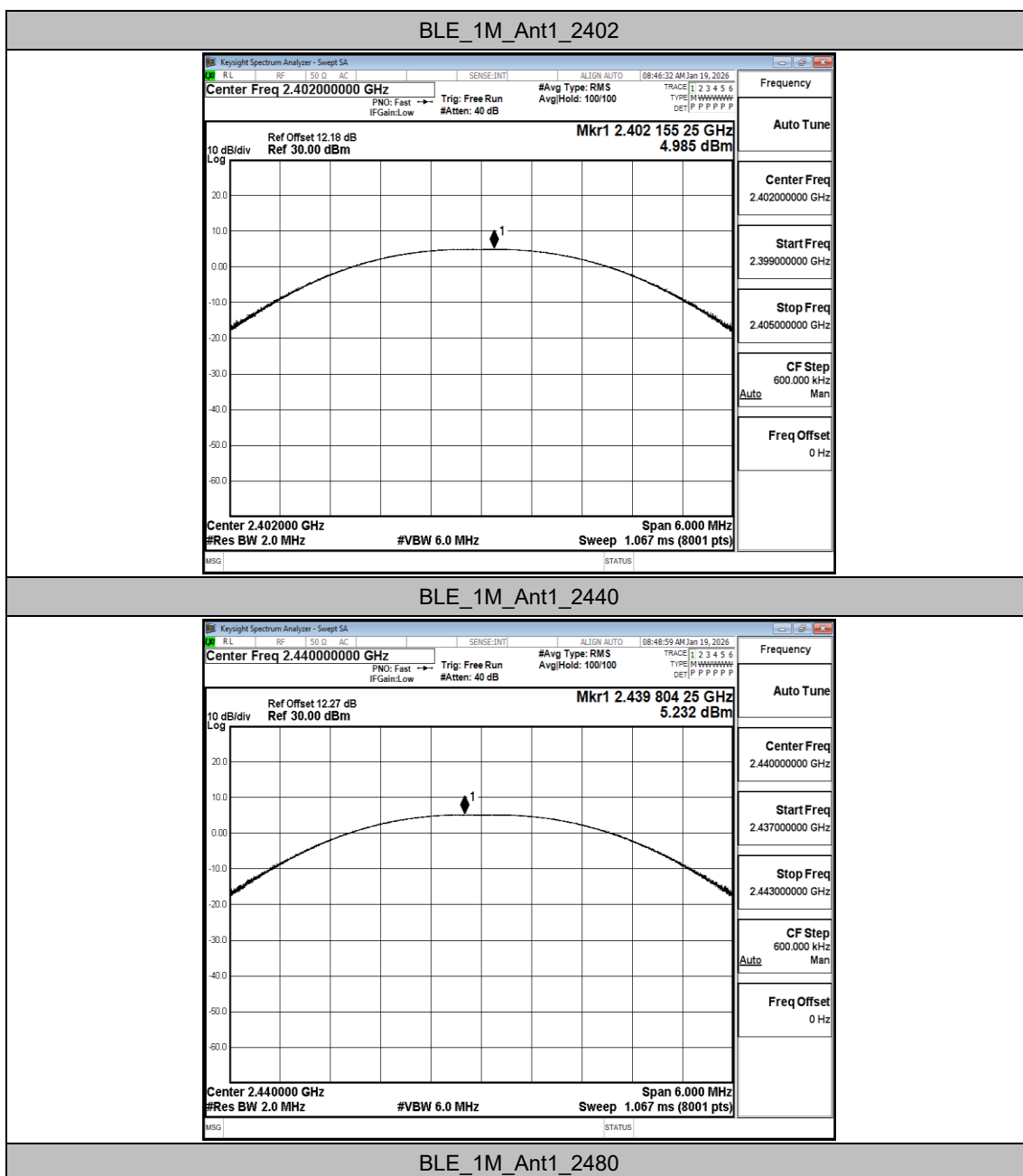


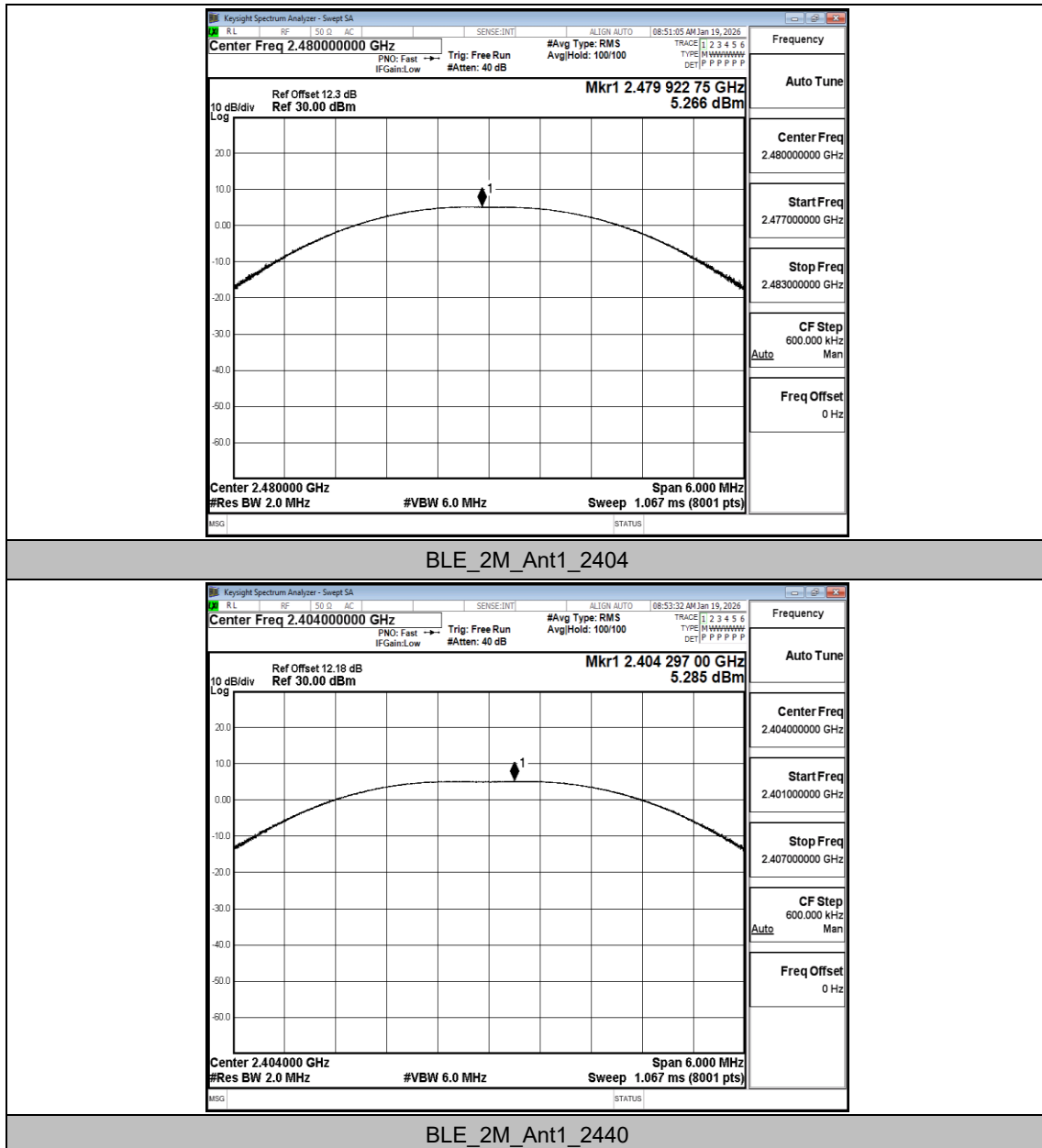
B.2 Maximum Peak conducted output power

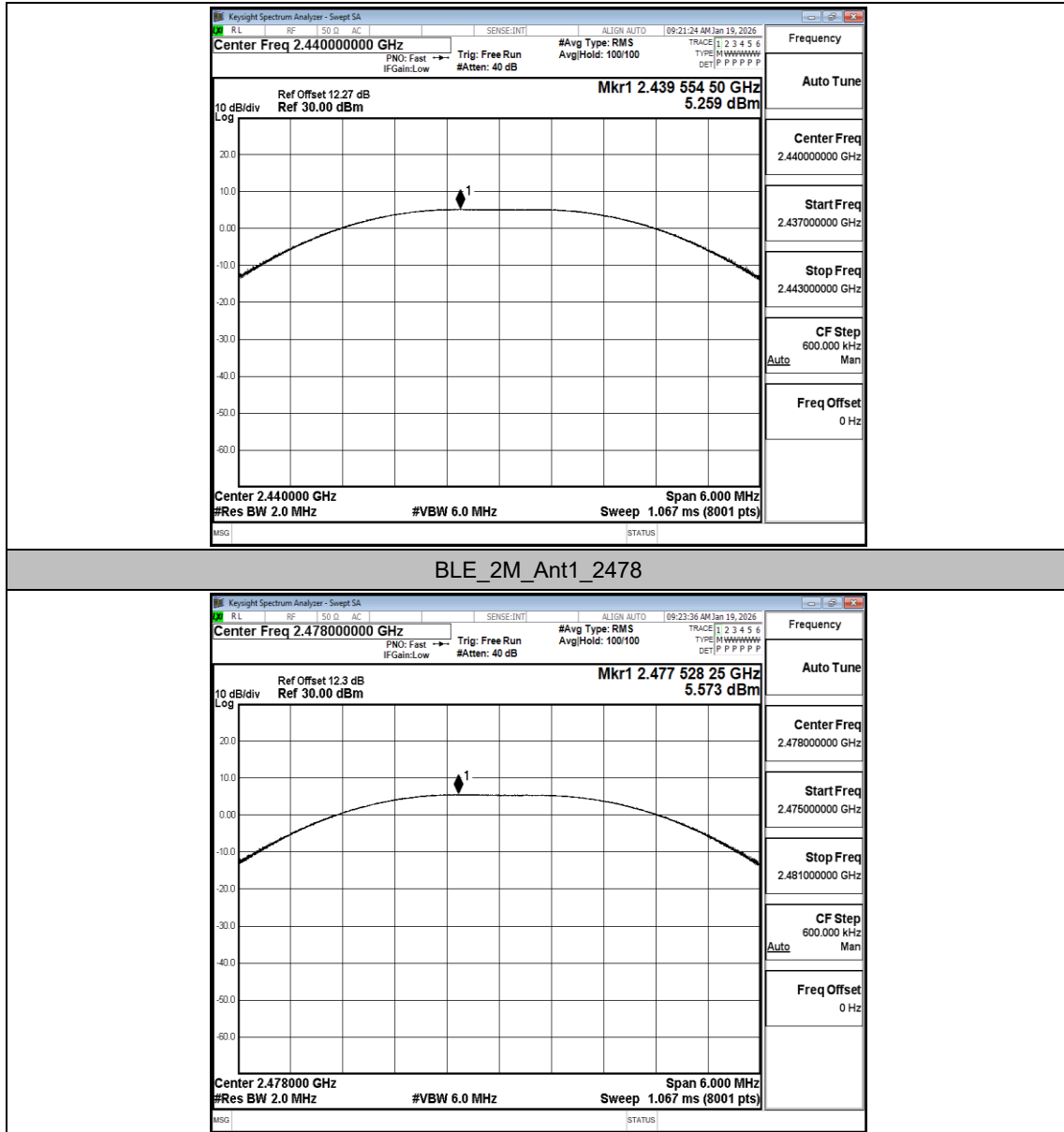
Test Result Peak

TestMode	Antenna	Freq (MHz)	Conducted Peak Power[dBm]	Conducted Limit[dBm]	Verdict
BLE_1M	Ant1	2402	4.99	≤30	PASS
		2440	5.23	≤30	PASS
		2480	5.27	≤30	PASS
BLE_2M	Ant1	2404	5.29	≤30	PASS
		2440	5.26	≤30	PASS
		2478	5.57	≤30	PASS

Test Graphs Peak





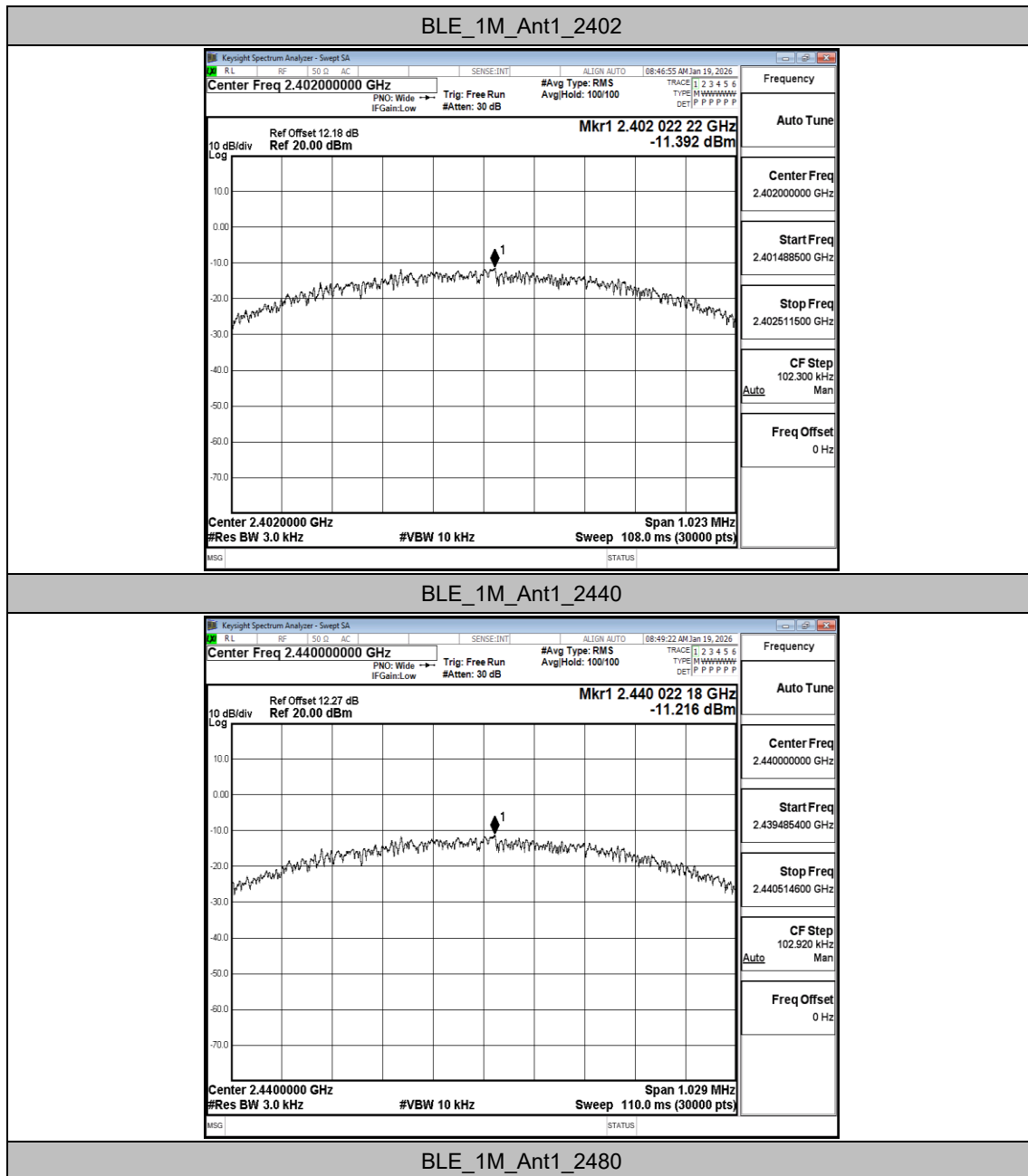


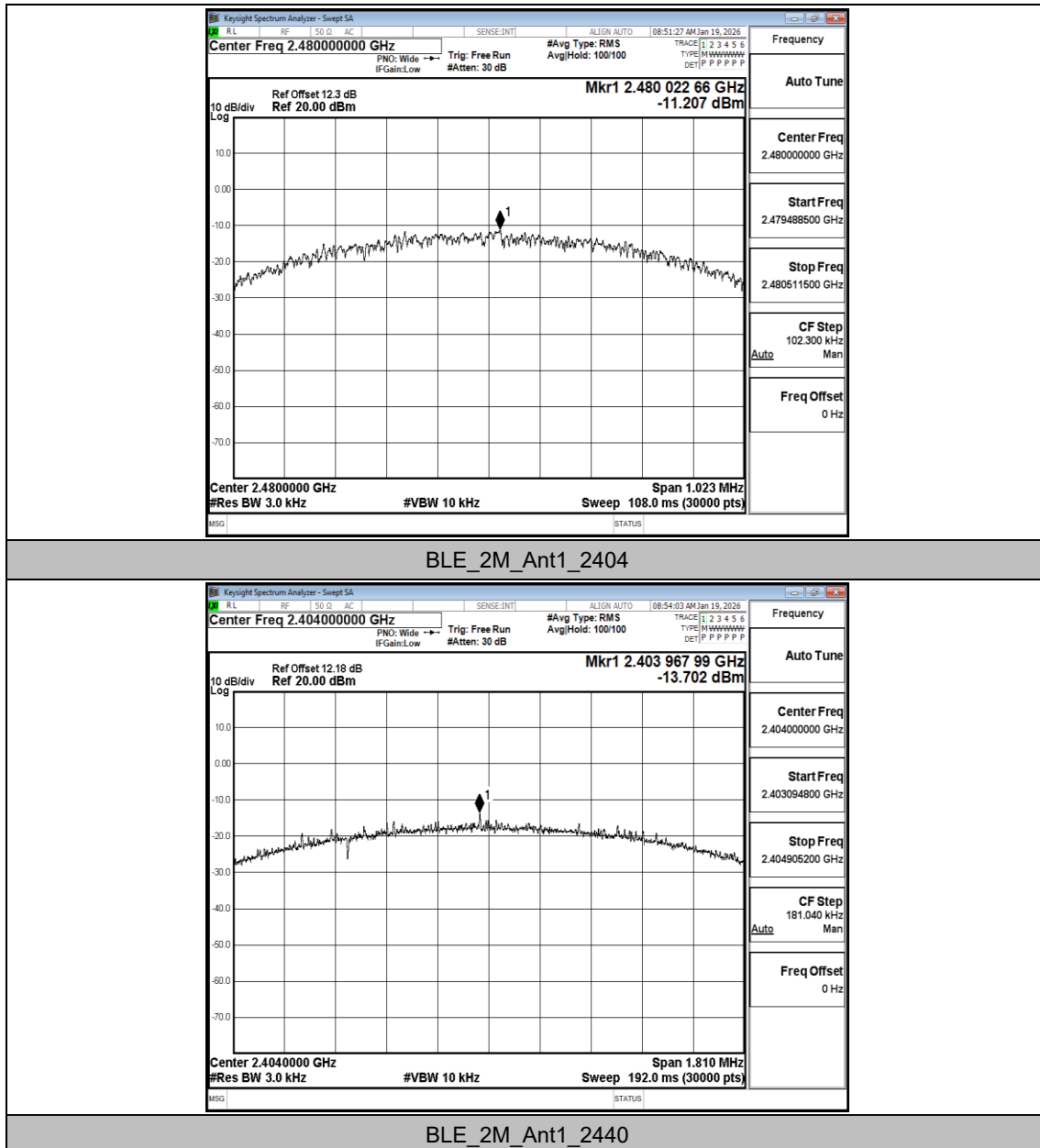
B.3 Maximum power spectral density

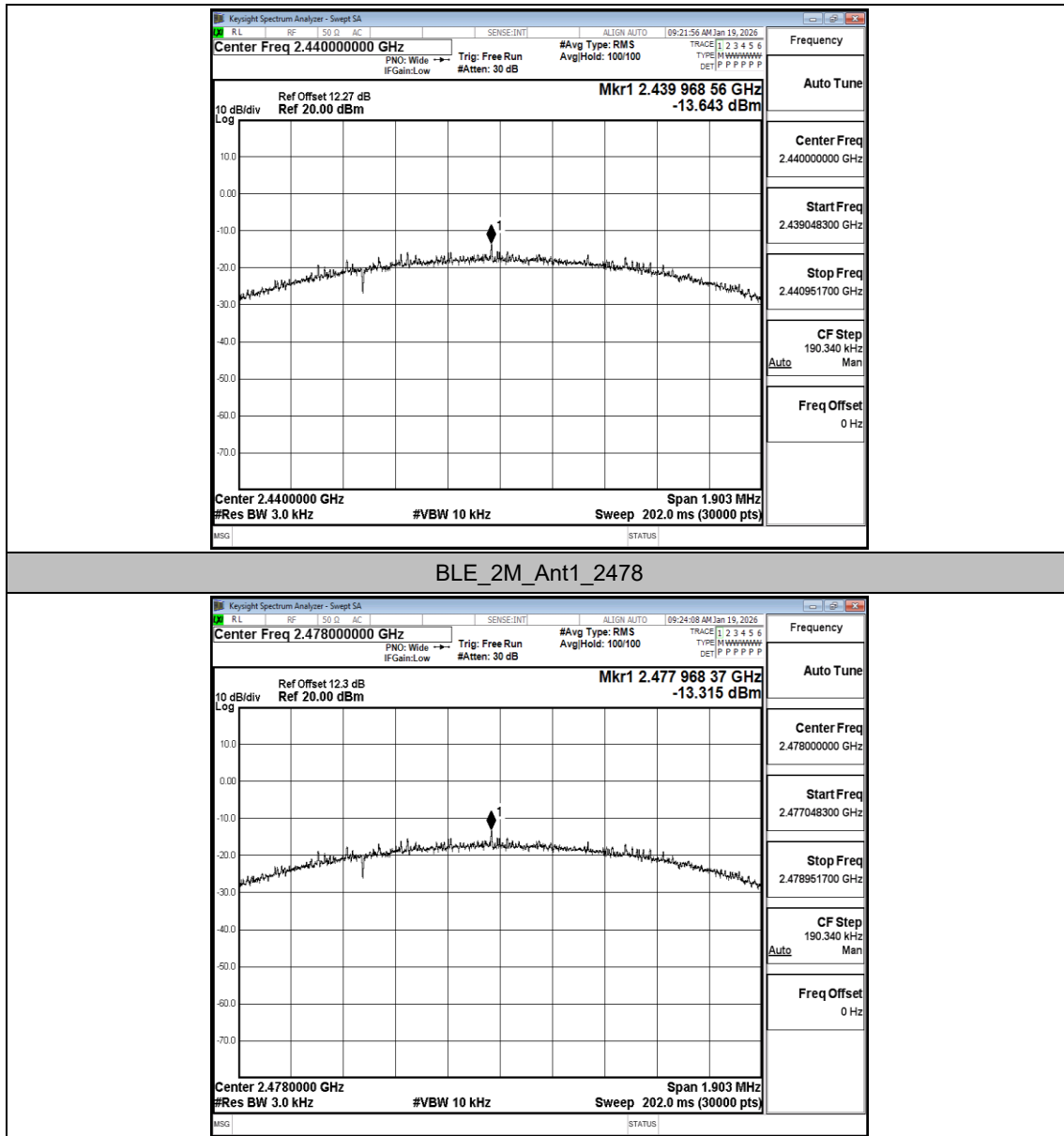
Test Result

TestMode	Antenna	Freq (MHz)	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-11.39	≤8.00	PASS
		2440	-11.22	≤8.00	PASS
		2480	-11.21	≤8.00	PASS
BLE_2M	Ant1	2404	-13.70	≤8.00	PASS
		2440	-13.64	≤8.00	PASS
		2478	-13.32	≤8.00	PASS

Test Graphs





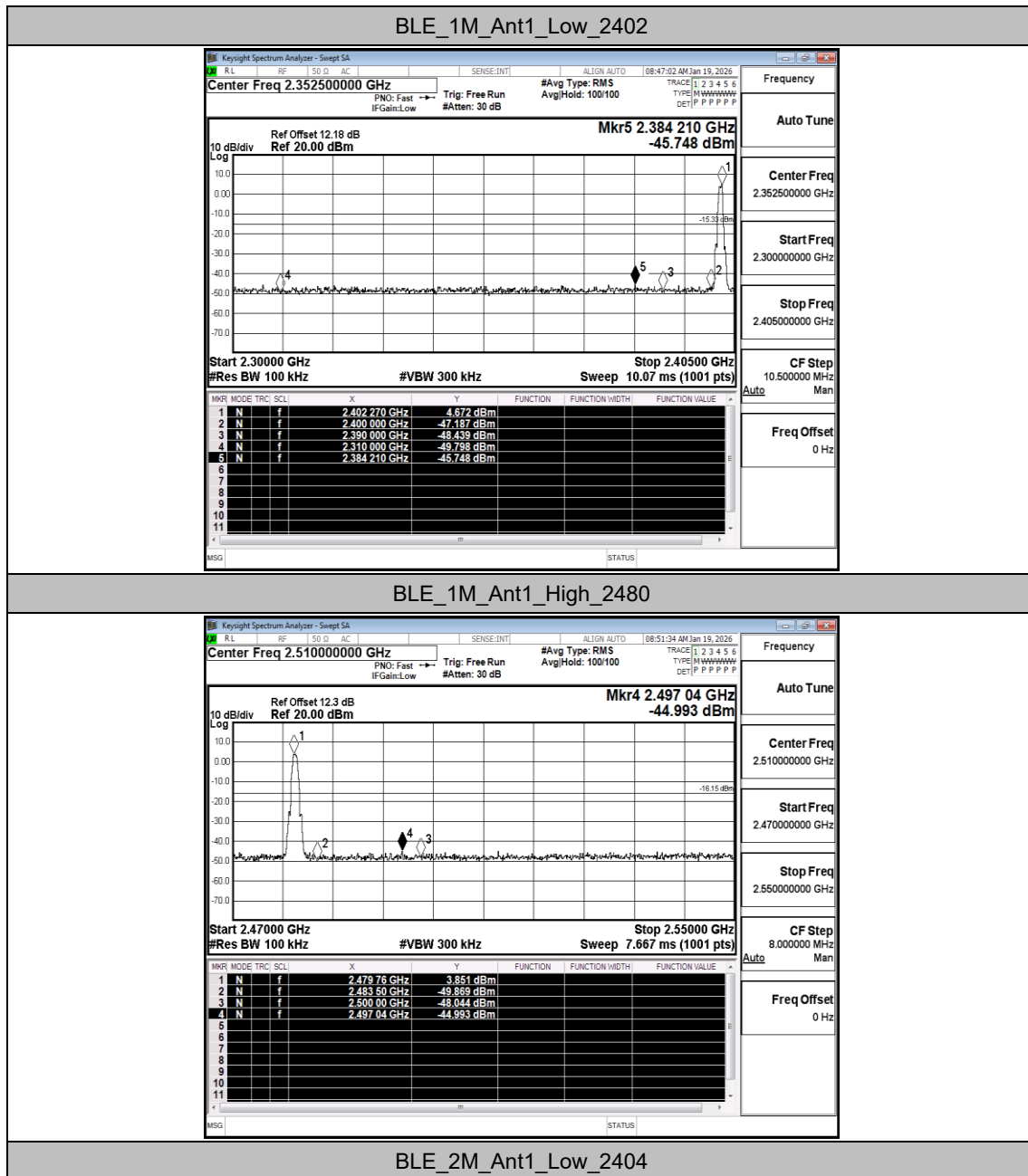


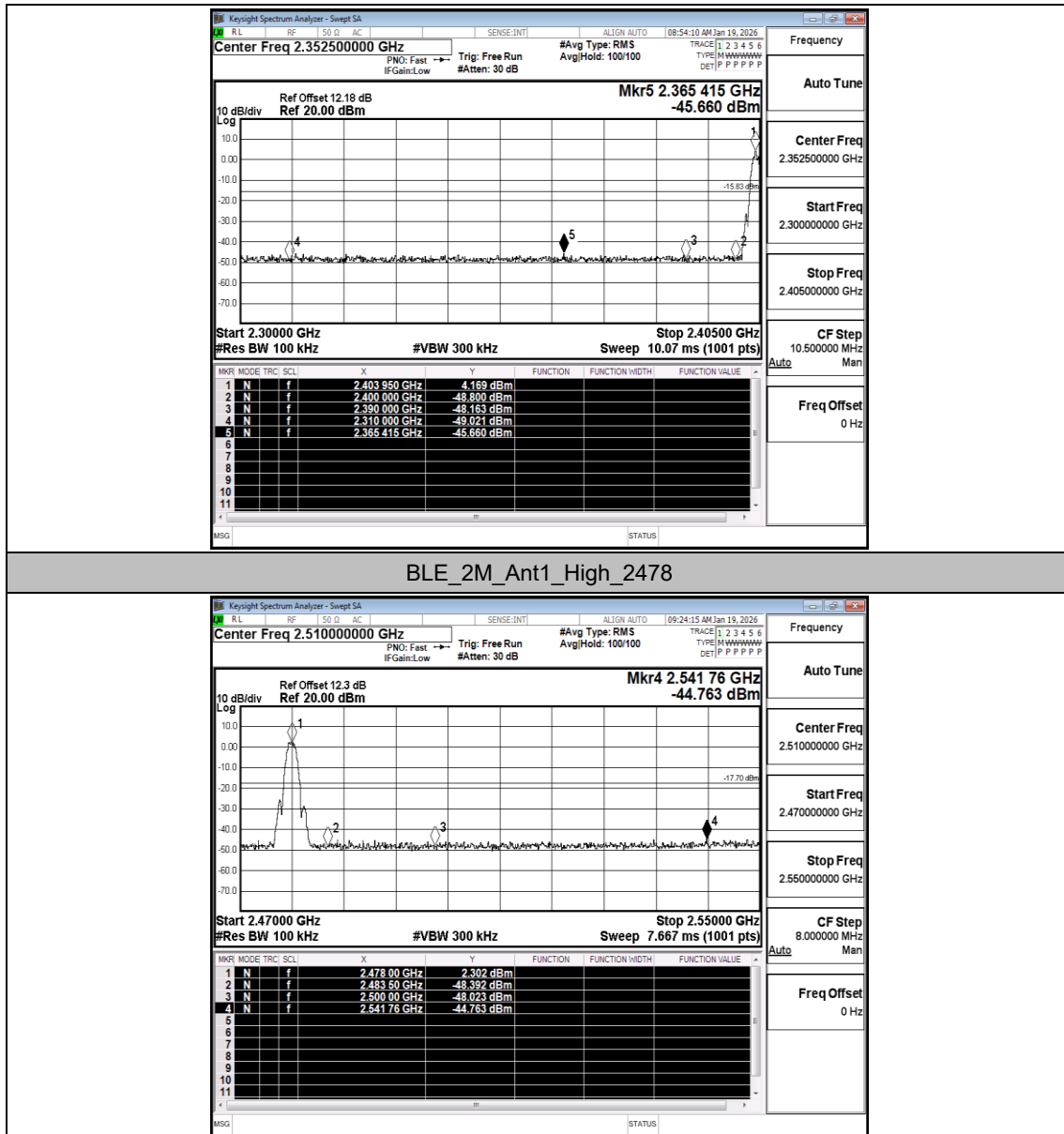
B.4 Band edge measurements

Test Result

TestMode	Antenna	ChName	Freq (MHz)	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	4.67	-45.75	≤-15.33	PASS
		High	2480	3.85	-44.99	≤-16.15	PASS
BLE_2M	Ant1	Low	2404	4.17	-45.66	≤-15.83	PASS
		High	2478	2.30	-44.76	≤-17.7	PASS

Test Graphs



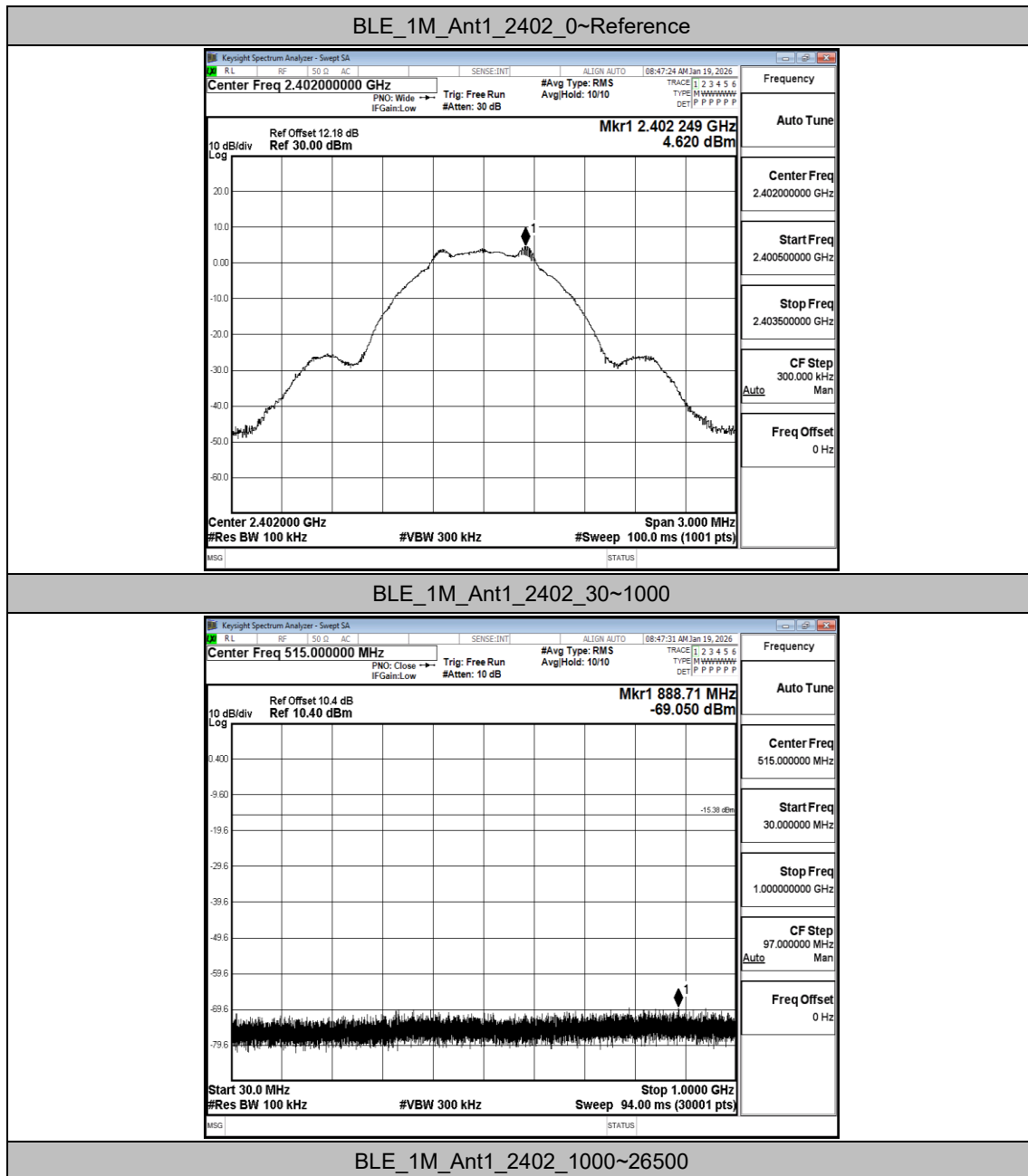


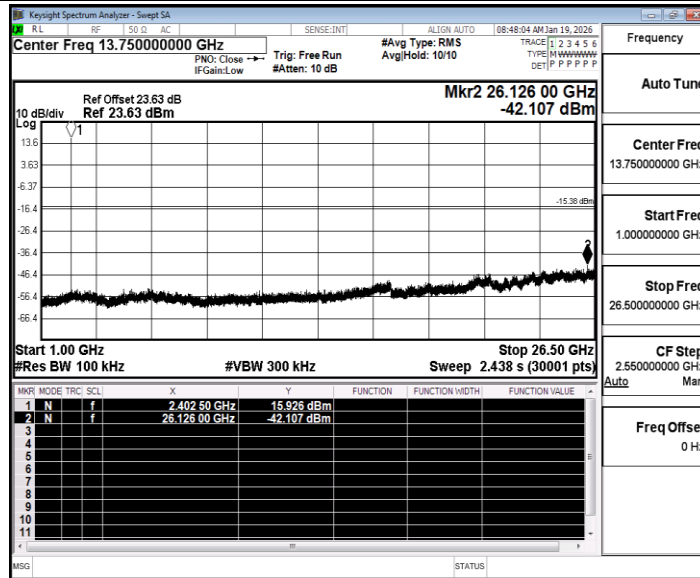
B.5 Conducted Spurious Emission

Test Result

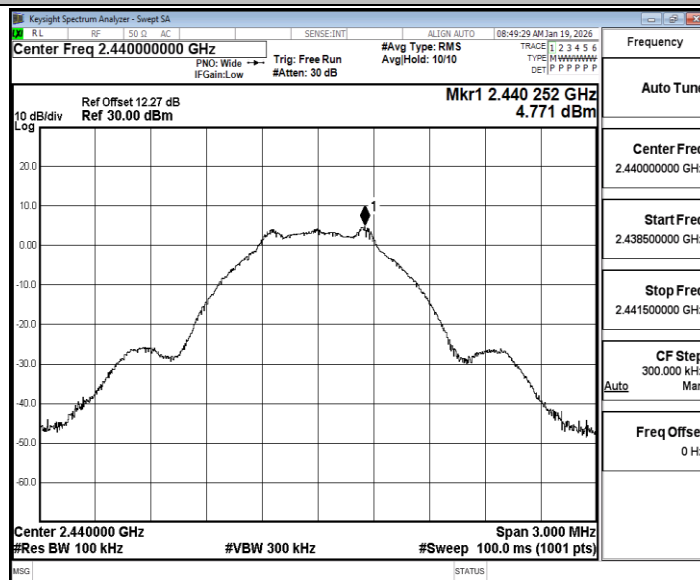
TestMode	Antenna	Freq (MHz)	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	4.62	4.62	---	PASS
			30~1000	4.62	-69.05	≤-15.38	PASS
			1000~26500	4.62	-42.11	≤-15.38	PASS
		2440	Reference	4.77	4.77	---	PASS
			30~1000	4.77	-68.77	≤-15.23	PASS
			1000~26500	4.77	-44	≤-15.23	PASS
		2480	Reference	4.77	4.77	---	PASS
			30~1000	4.77	-69.38	≤-15.23	PASS
			1000~26500	4.77	-43.38	≤-15.23	PASS
BLE_2M	Ant1	2404	Reference	3.96	3.96	---	PASS
			30~1000	3.96	-68.84	≤-16.04	PASS
			1000~26500	3.96	-43.39	≤-16.04	PASS
		2440	Reference	3.98	3.98	---	PASS
			30~1000	3.98	-69.09	≤-16.02	PASS
			1000~26500	3.98	-42.7	≤-16.02	PASS
		2478	Reference	4.35	4.35	---	PASS
			30~1000	4.35	-69.23	≤-15.65	PASS
			1000~26500	4.35	-43.46	≤-15.65	PASS

Test Graphs

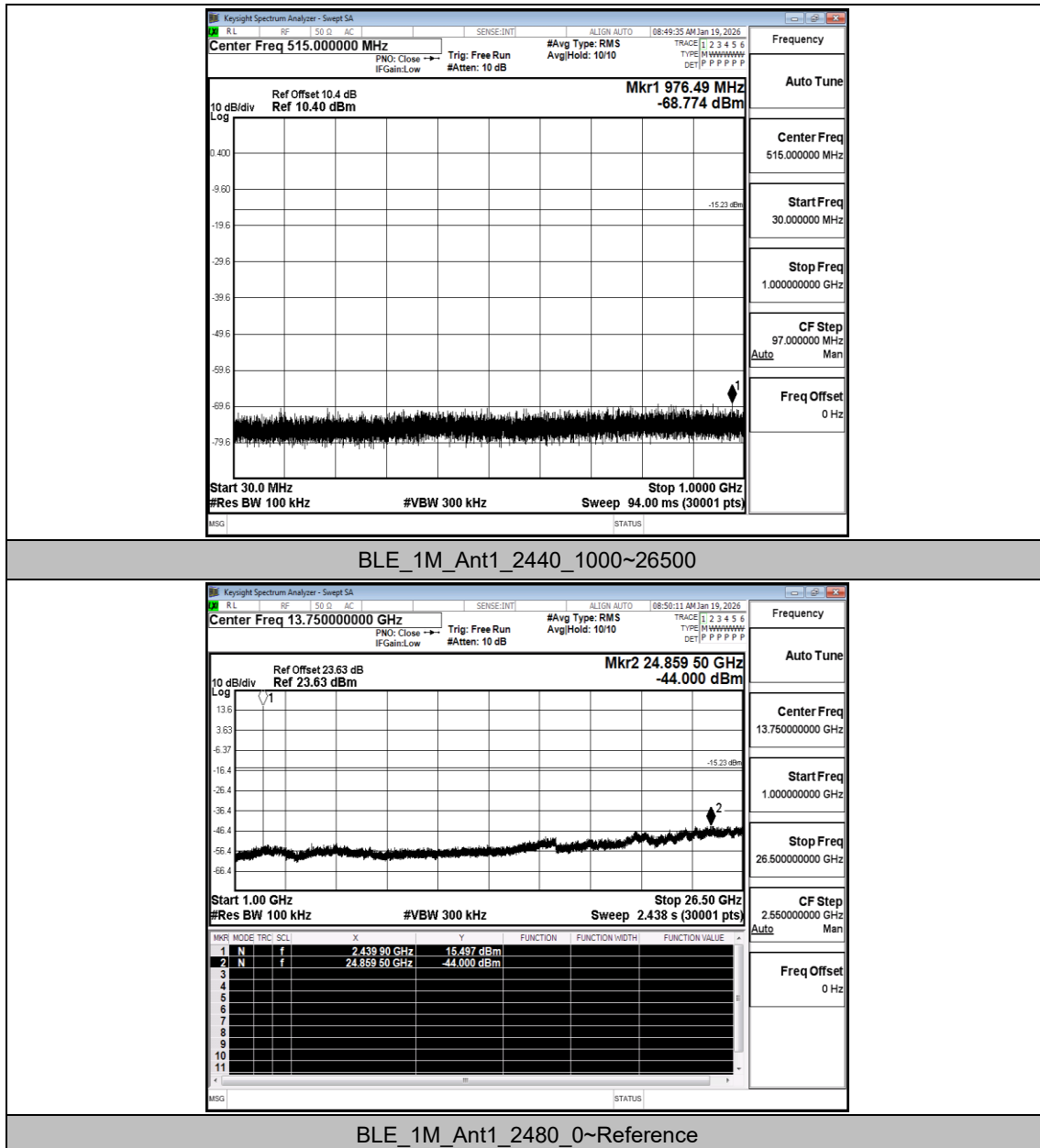


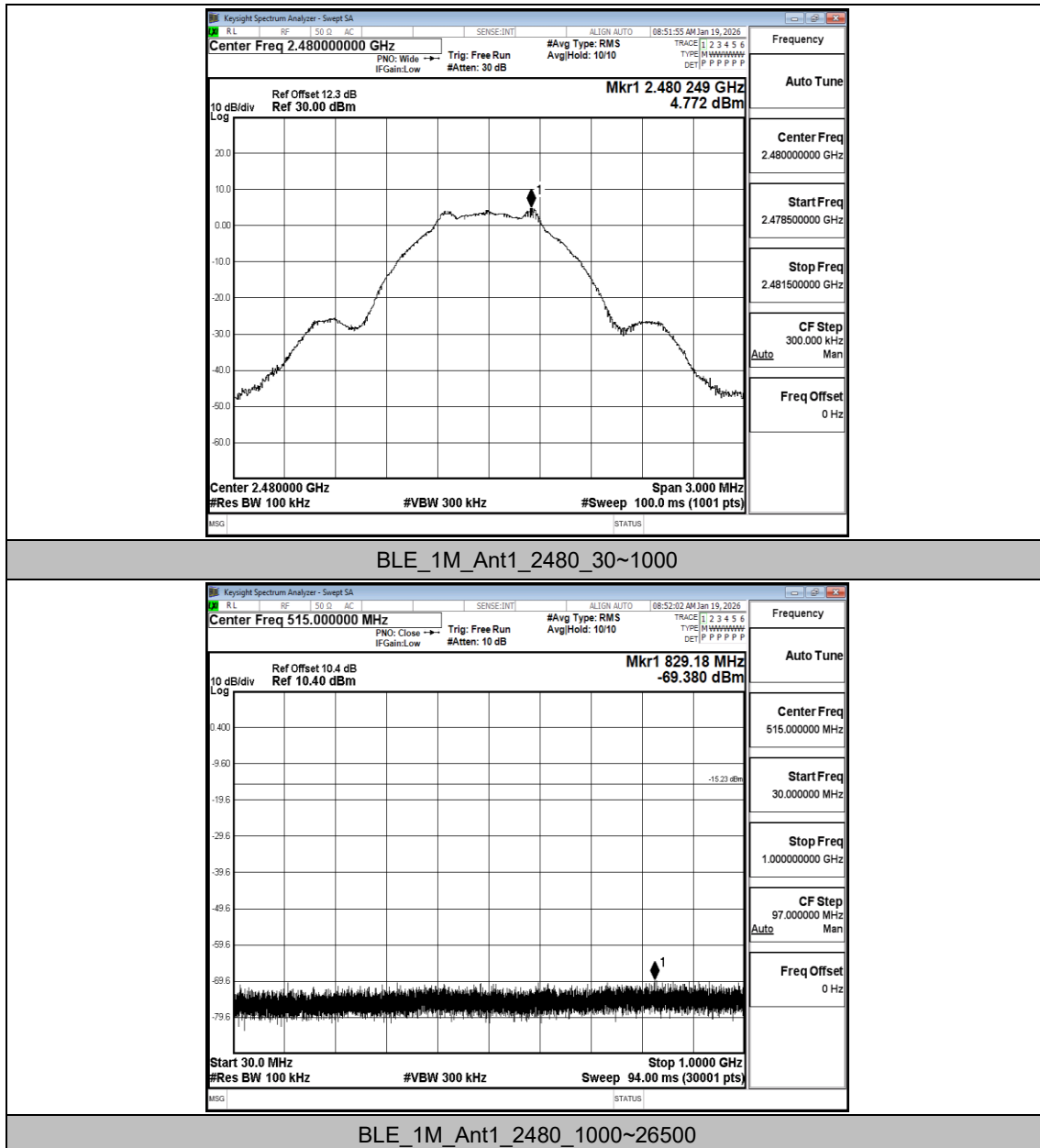


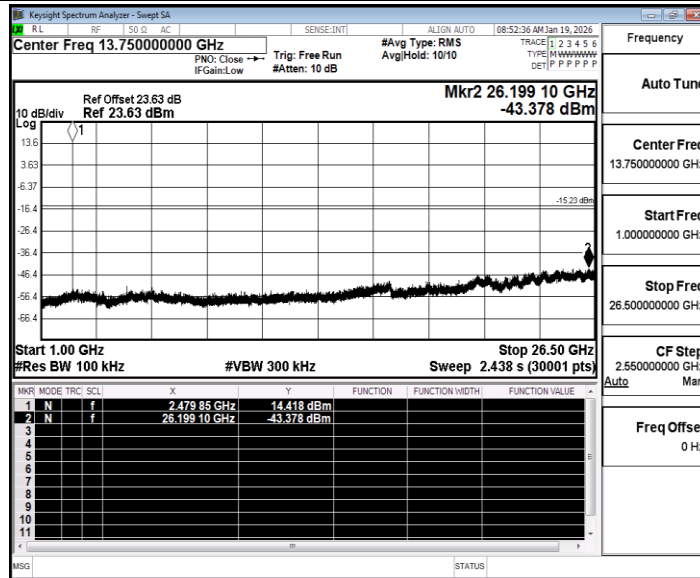
BLE_1M_Ant1_2440_0~Reference



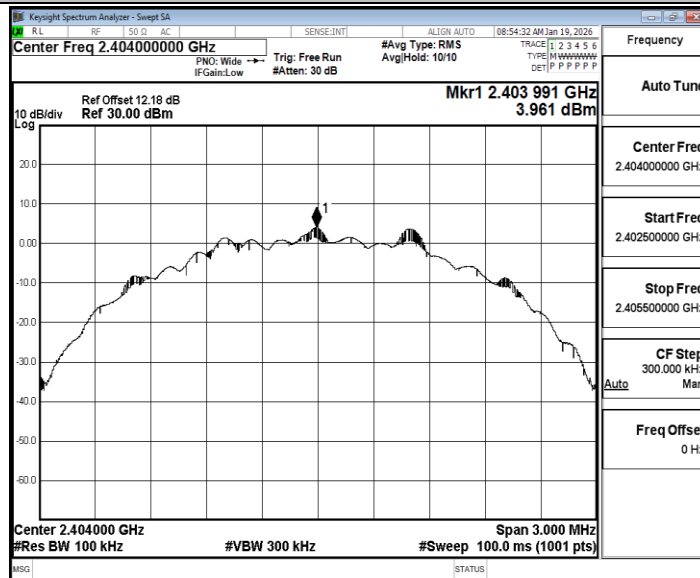
BLE_1M_Ant1_2440_30~1000



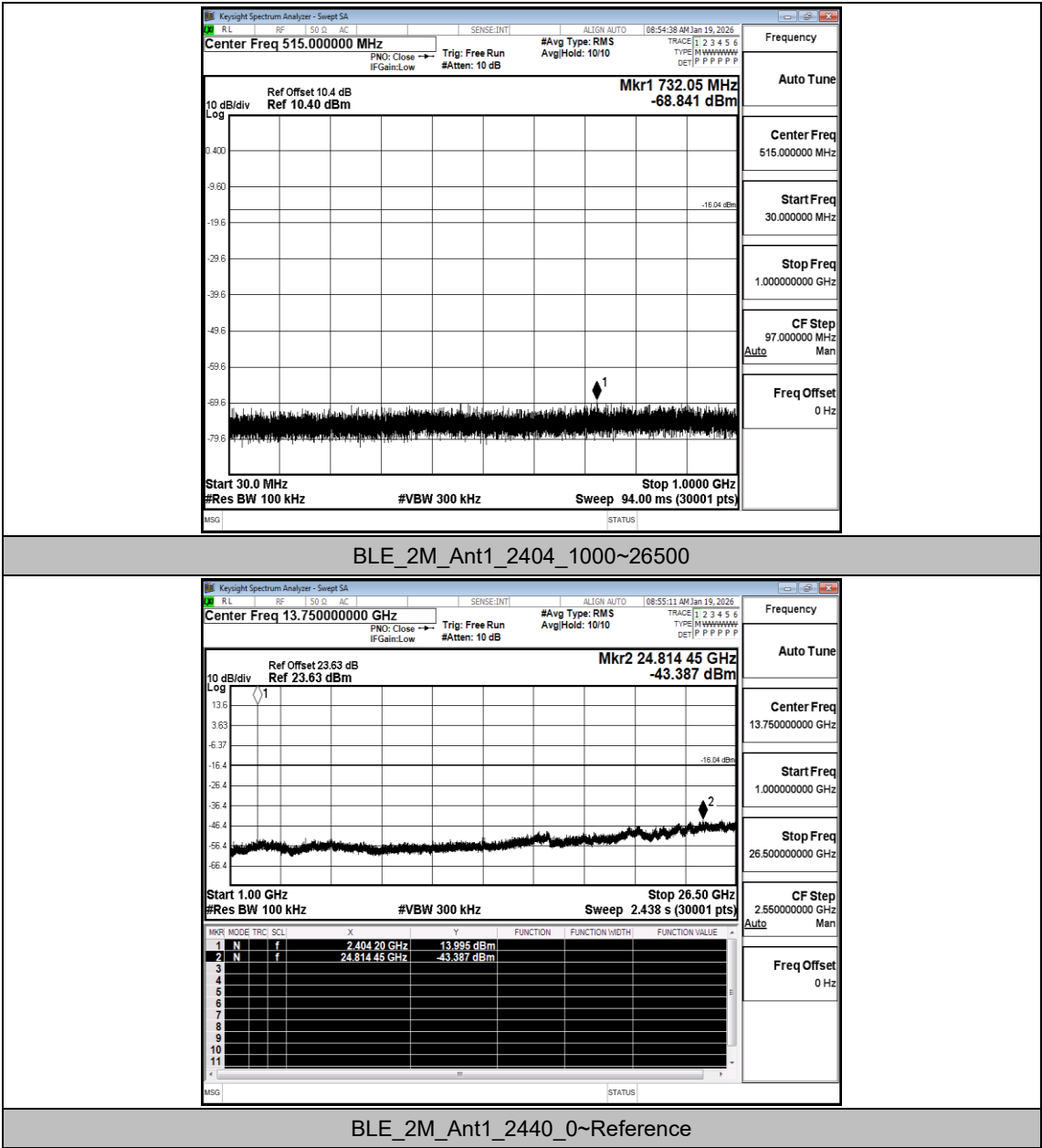


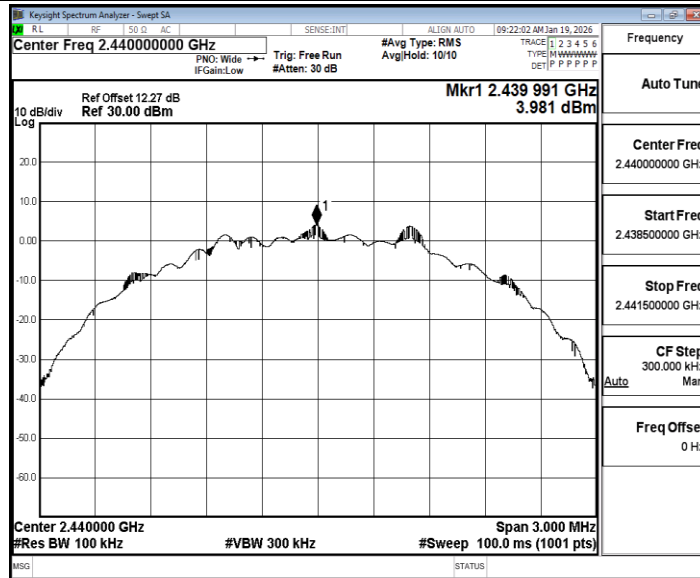


BLE_2M_Ant1_2404_0~Reference

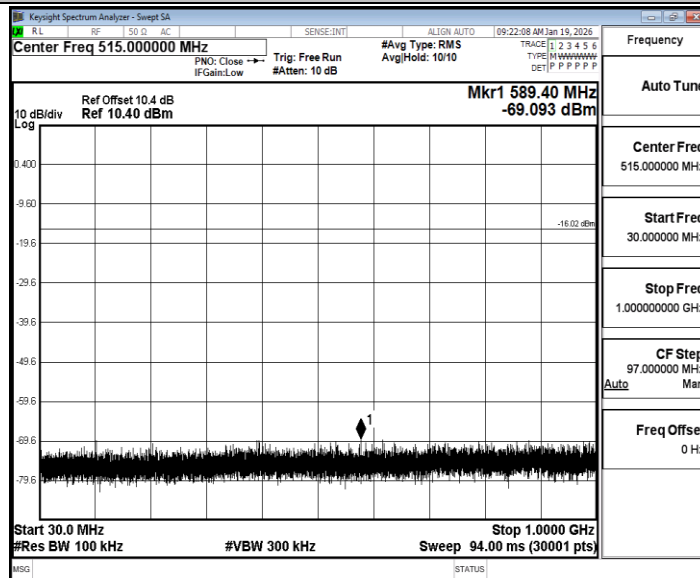


BLE_2M_Ant1_2404_30~1000

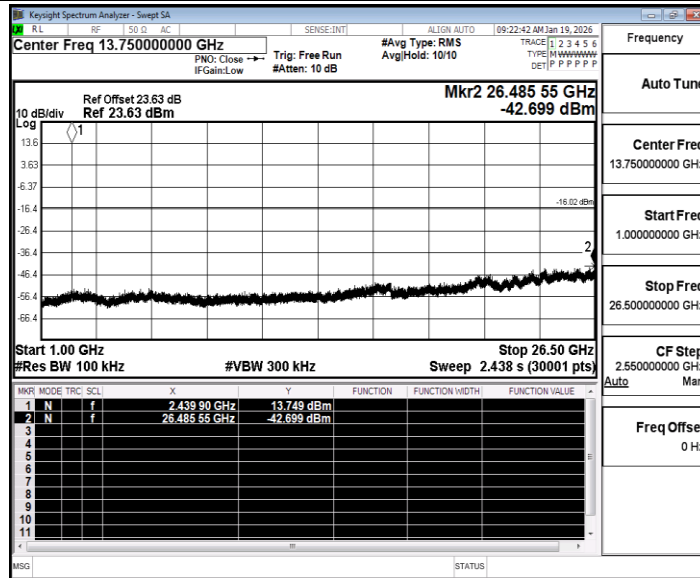




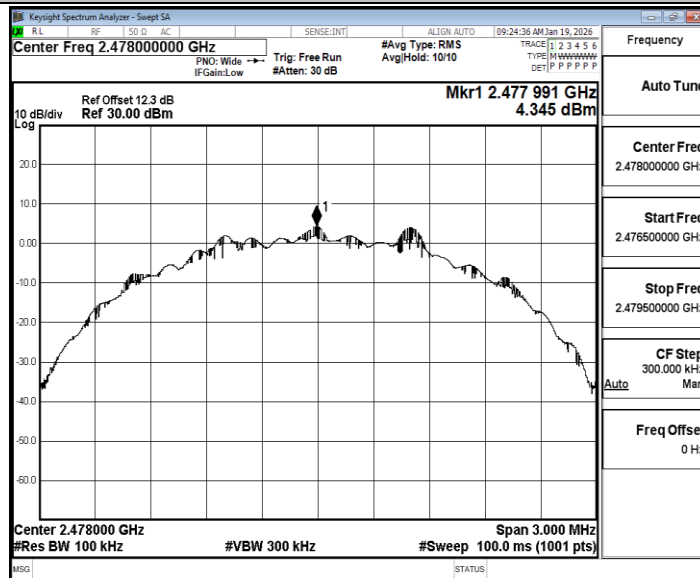
BLE_2M_Ant1_2440_30~1000



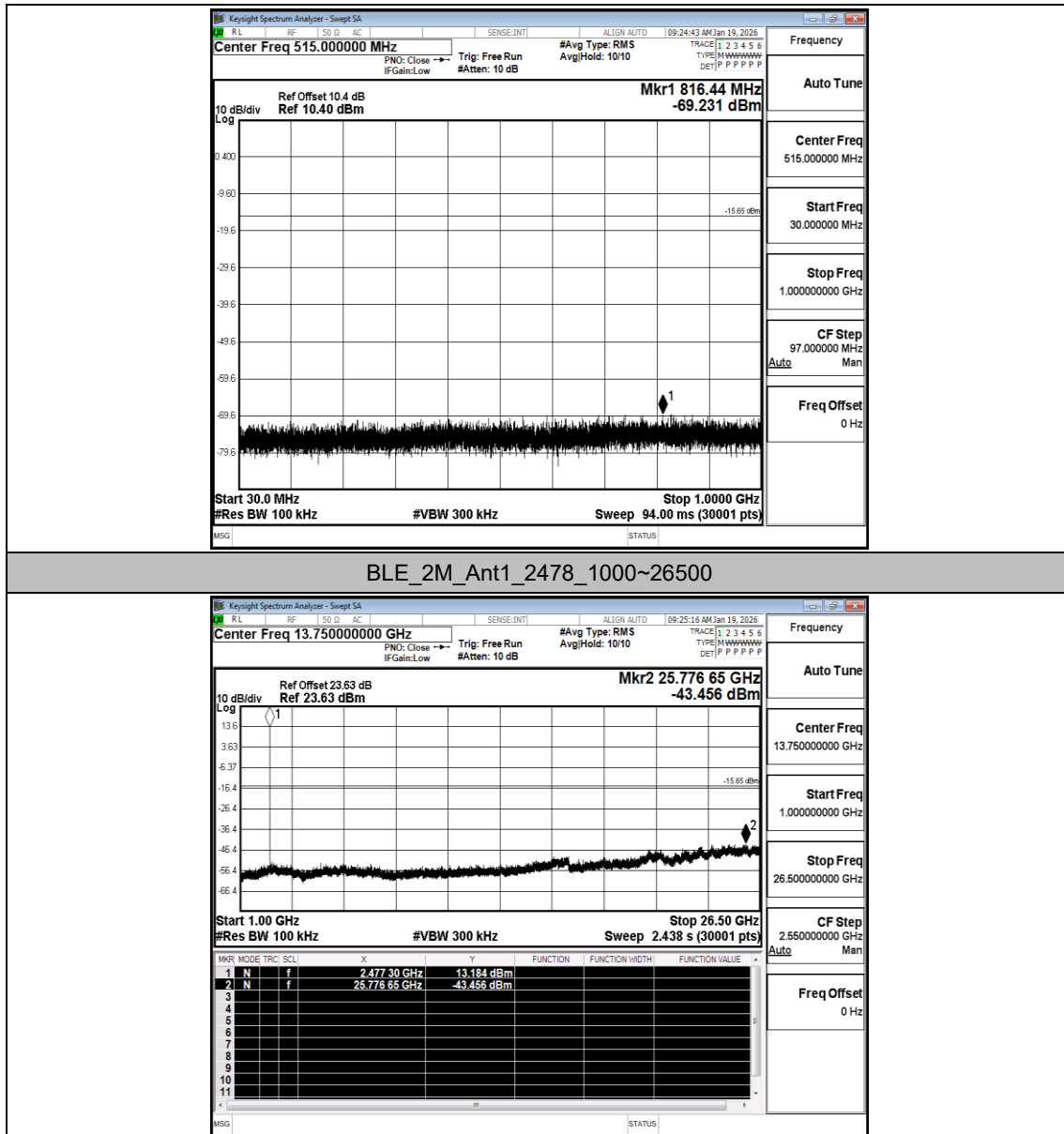
BLE_2M_Ant1_2440_1000~26500



BLE_2M_Ant1_2478_0~Reference



BLE_2M_Ant1_2478_30~1000

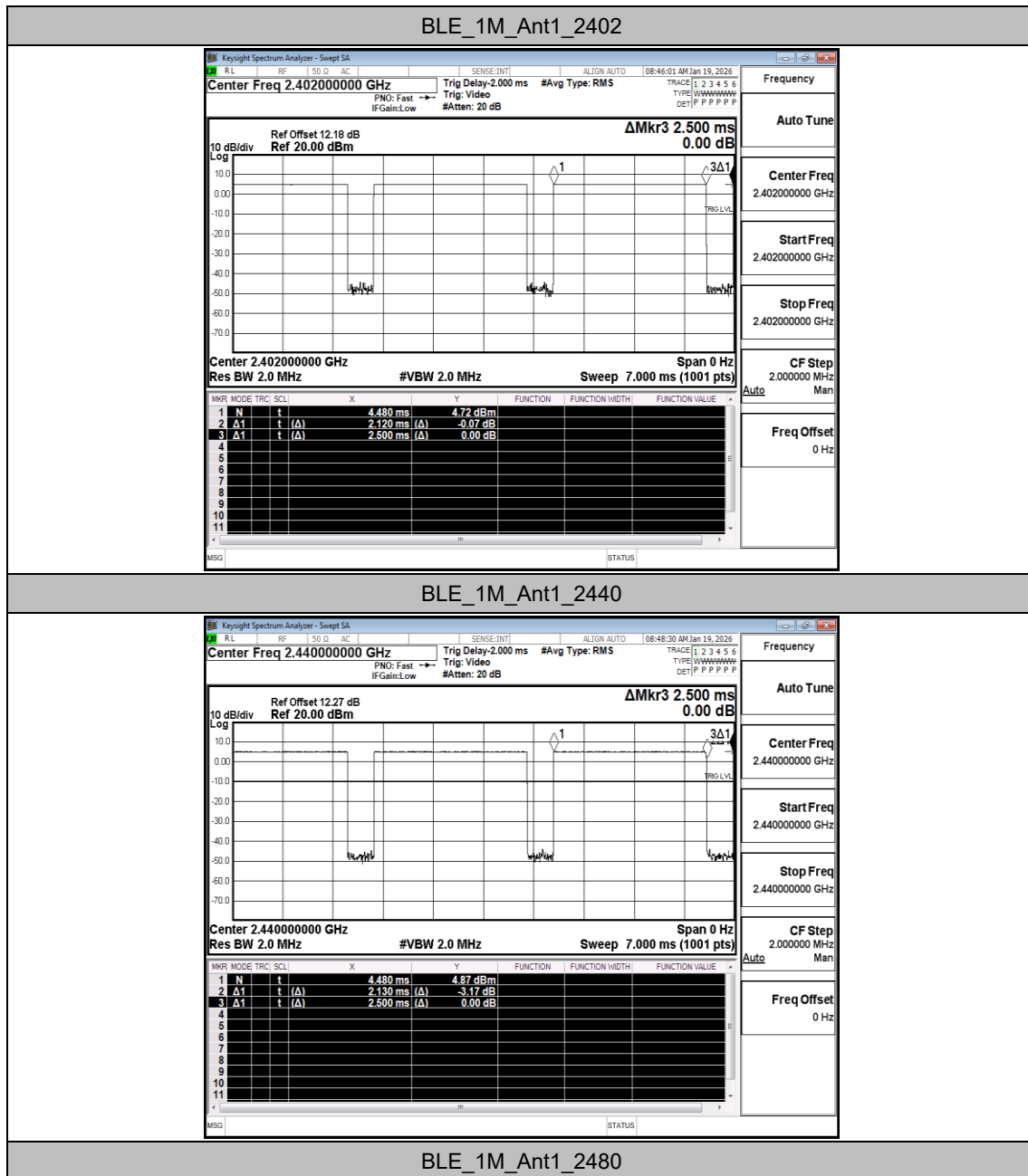


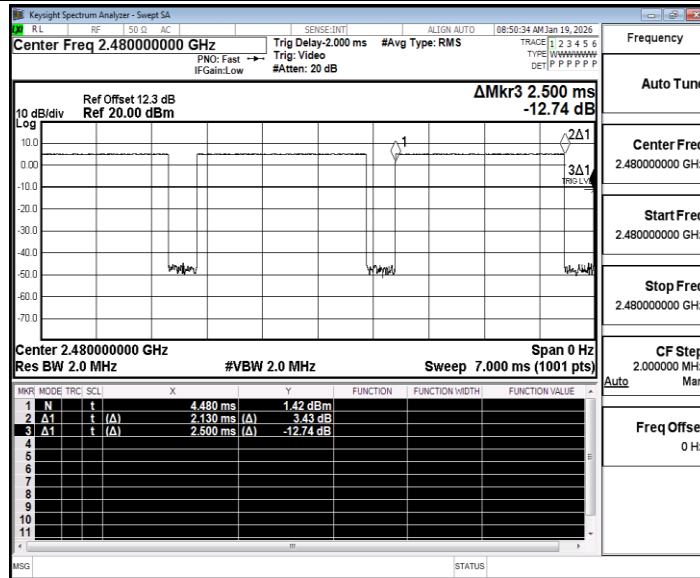
B.6 Duty Cycle

Test Result

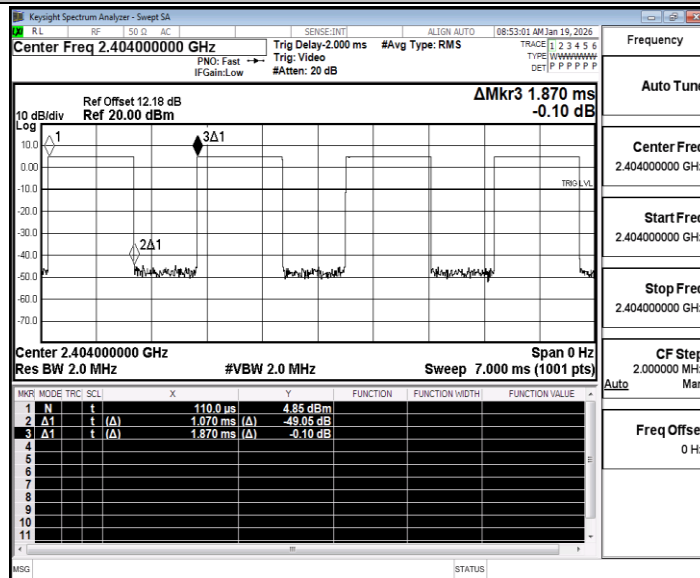
TestMode	Antenna	Freq (MHz)	ON Time [ms]	Period [ms]	X	DC [%]	xFactor	Limit	Verdict
BLE_1M	Ant1	2402	2.12	2.50	0.8480	84.80	0.72	---	---
		2440	2.13	2.50	0.8520	85.20	0.70	---	---
		2480	2.13	2.50	0.8520	85.20	0.70	---	---
BLE_2M	Ant1	2404	1.07	1.87	0.5722	57.22	2.42	---	---
		2440	1.07	1.88	0.5691	56.91	2.45	---	---
		2478	1.07	1.87	0.5722	57.22	2.42	---	---

Test Graphs

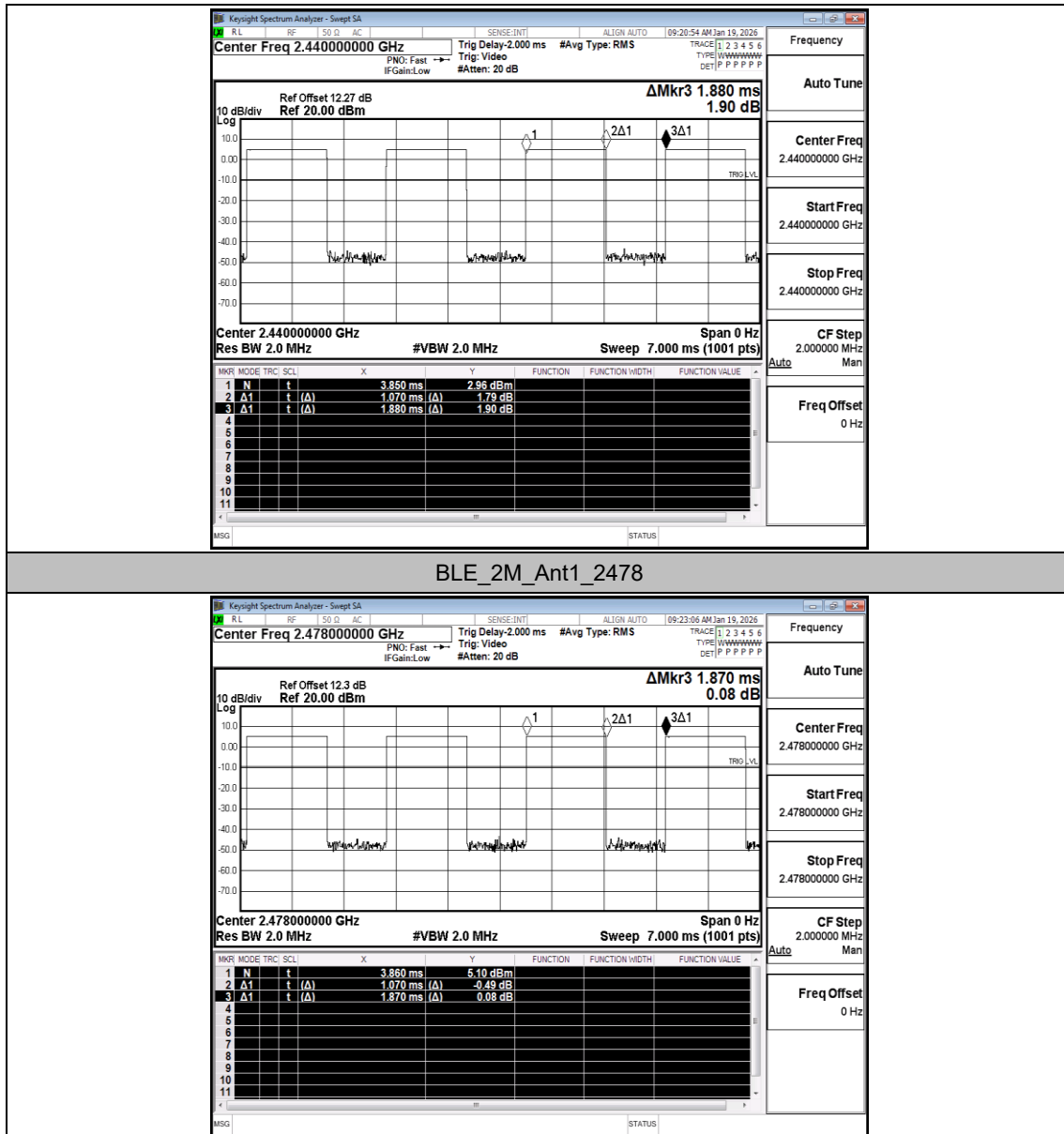




BLE_2M_Ant1_2404



BLE_2M_Ant1_2440



B.7 Emissions in Restricted Bands

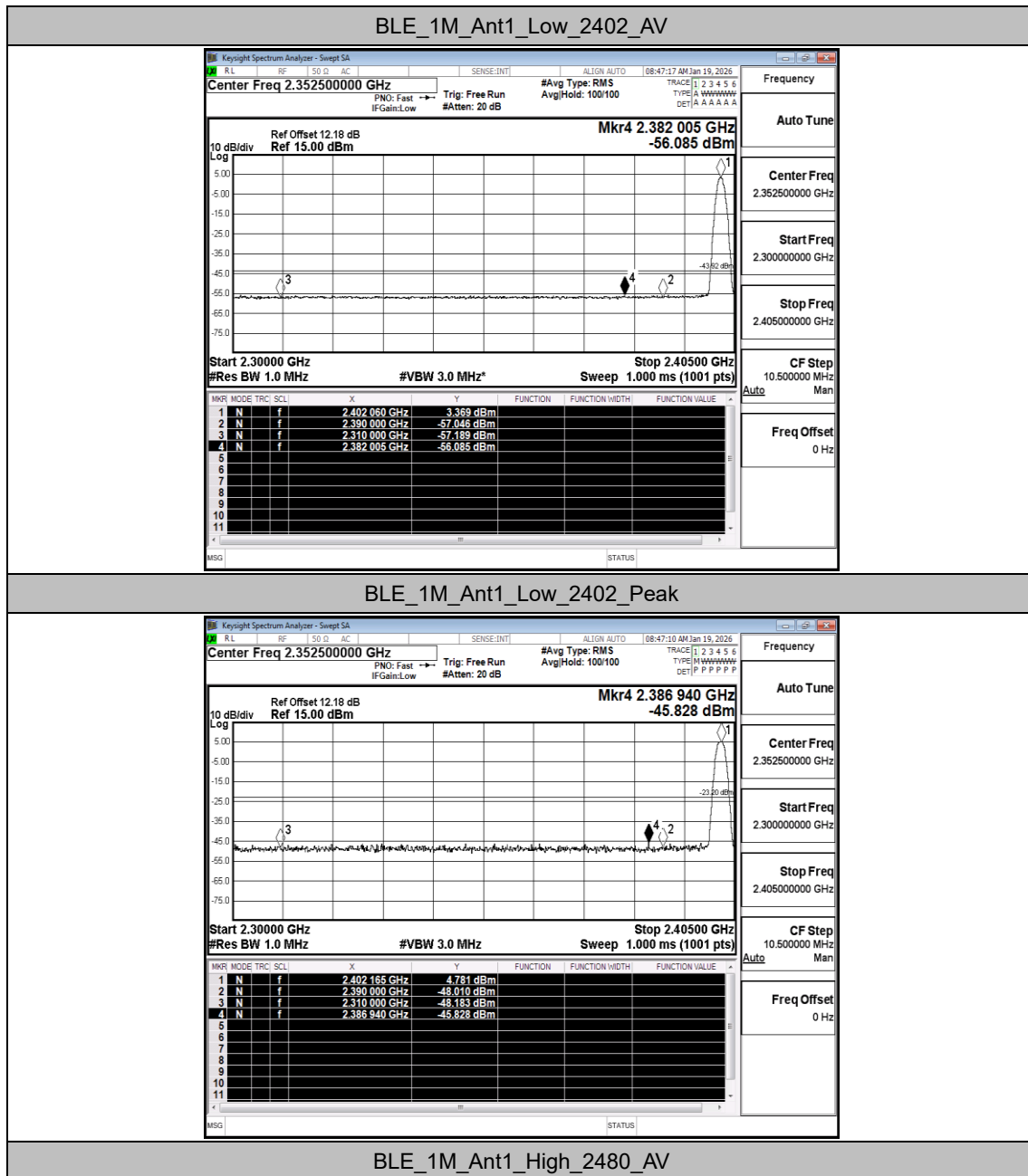
Test Result

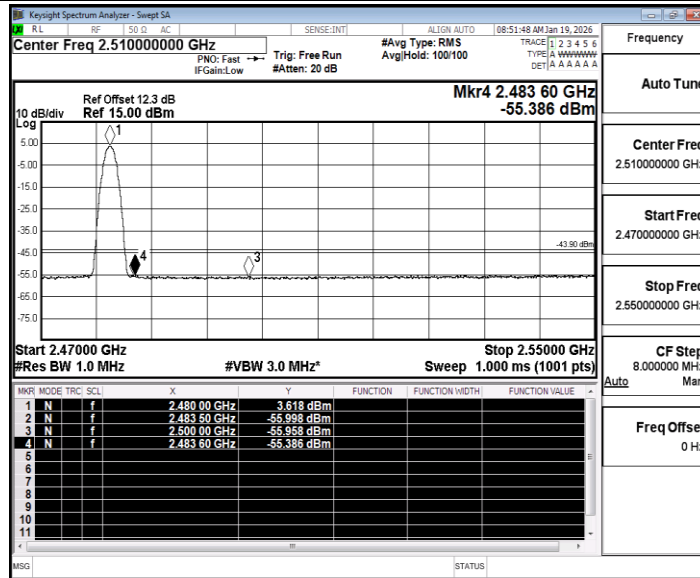
TestMode	Antenna	ChName	Freq (MHz)	Detector	Freq [MHz]	Result [dBm]	Limit [dBm]	Gain [dBi]	DC Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Verdict
BLE_1M	Ant1	Low	2402	AV	2310.000	-57.19	≤-43.92	2.00	0.72	40.73	≤54	PASS
				AV	2382.005	-56.08	≤-43.92	2.00	0.72	41.84	≤54	PASS
				AV	2390.000	-57.05	≤-43.92	2.00	0.72	40.87	≤54	PASS
				Peak	2310.000	-48.18	≤-23.20	2.00	0.00	49.02	≤74	PASS
				Peak	2386.940	-45.83	≤-23.20	2.00	0.00	51.37	≤74	PASS
				Peak	2390.000	-48.01	≤-23.20	2.00	0.00	49.19	≤74	PASS
		High	2480	AV	2483.500	-56	≤-43.90	2.00	0.70	41.90	≤54	PASS
				AV	2483.600	-55.39	≤-43.90	2.00	0.70	42.51	≤54	PASS
				AV	2500.000	-55.96	≤-43.90	2.00	0.70	41.94	≤54	PASS
				Peak	2483.500	-47.6	≤-23.20	2.00	0.00	49.60	≤74	PASS
				Peak	2486.480	-46.15	≤-23.20	2.00	0.00	51.05	≤74	PASS
				Peak	2500.000	-49.65	≤-23.20	2.00	0.00	47.55	≤74	PASS
BLE_2M	Ant1	Low	2404	AV	2310.000	-57.05	≤-45.62	2.00	2.42	42.57	≤54	PASS
				AV	2332.445	-56.15	≤-45.62	2.00	2.42	43.47	≤54	PASS
				AV	2390.000	-56.62	≤-45.62	2.00	2.42	43.00	≤54	PASS
				Peak	2310.000	-48.41	≤-23.20	2.00	0.00	48.79	≤74	PASS
				Peak	2328.350	-46.49	≤-23.20	2.00	0.00	50.71	≤74	PASS
				Peak	2390.000	-48.77	≤-23.20	2.00	0.00	48.43	≤74	PASS
		High	2478	AV	2483.500	-56.12	≤-45.62	2.00	2.42	43.50	≤54	PASS
				AV	2498.320	-55.8	≤-45.62	2.00	2.42	43.82	≤54	PASS
				AV	2500.000	-56.41	≤-45.62	2.00	2.42	43.21	≤54	PASS
				Peak	2483.500	-48.74	≤-23.20	2.00	0.00	48.46	≤74	PASS
				Peak	2486.880	-45.72	≤-23.20	2.00	0.00	51.48	≤74	PASS
				Peak	2500.000	-49.08	≤-23.20	2.00	0.00	48.12	≤74	PASS

Note:

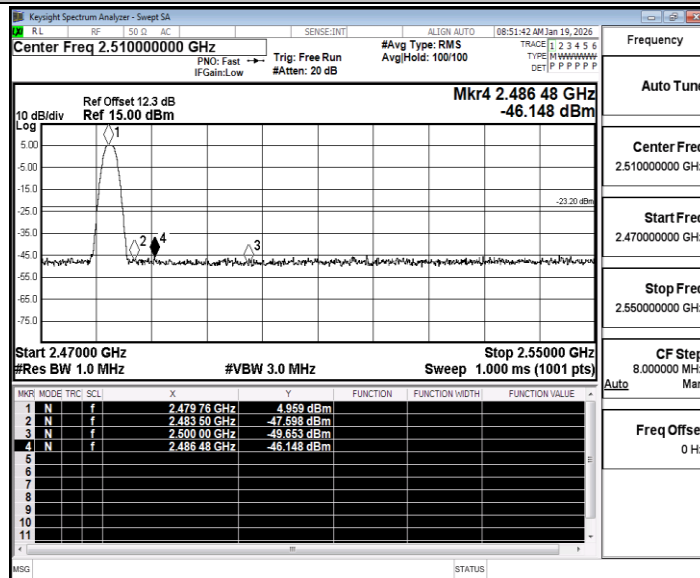
1. The Antenna Gain is compensated in the graph.
2. The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.

Test Graphs

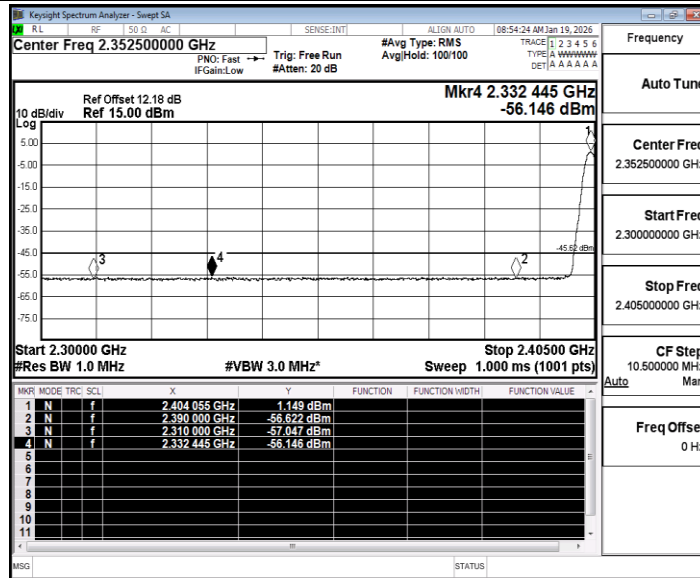




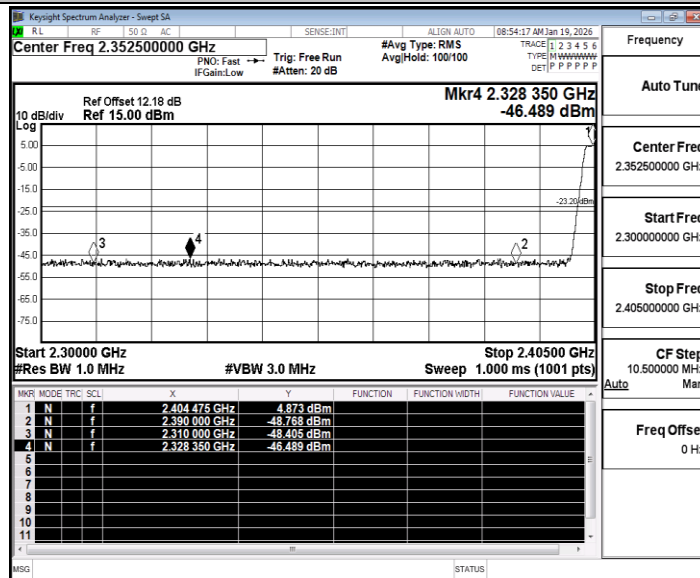
BLE_1M_Ant1_High_2480_Peak



BLE_2M_Ant1_Low_2404_AV



BLE_2M_Ant1_Low_2404_Peak



BLE_2M_Ant1_High_2478_AV

