

Appendix B

RF Test Data for BT LE (Conducted Measurement)

Product Name: Tablet

Test Model: H9190L

Environmental Conditions

Temperature:	23.5°C
Relative Humidity:	54.3%
ATM Pressure:	100.0 kPa
Test Engineer:	Zhang hai
Supervised by:	Fengliu Tang

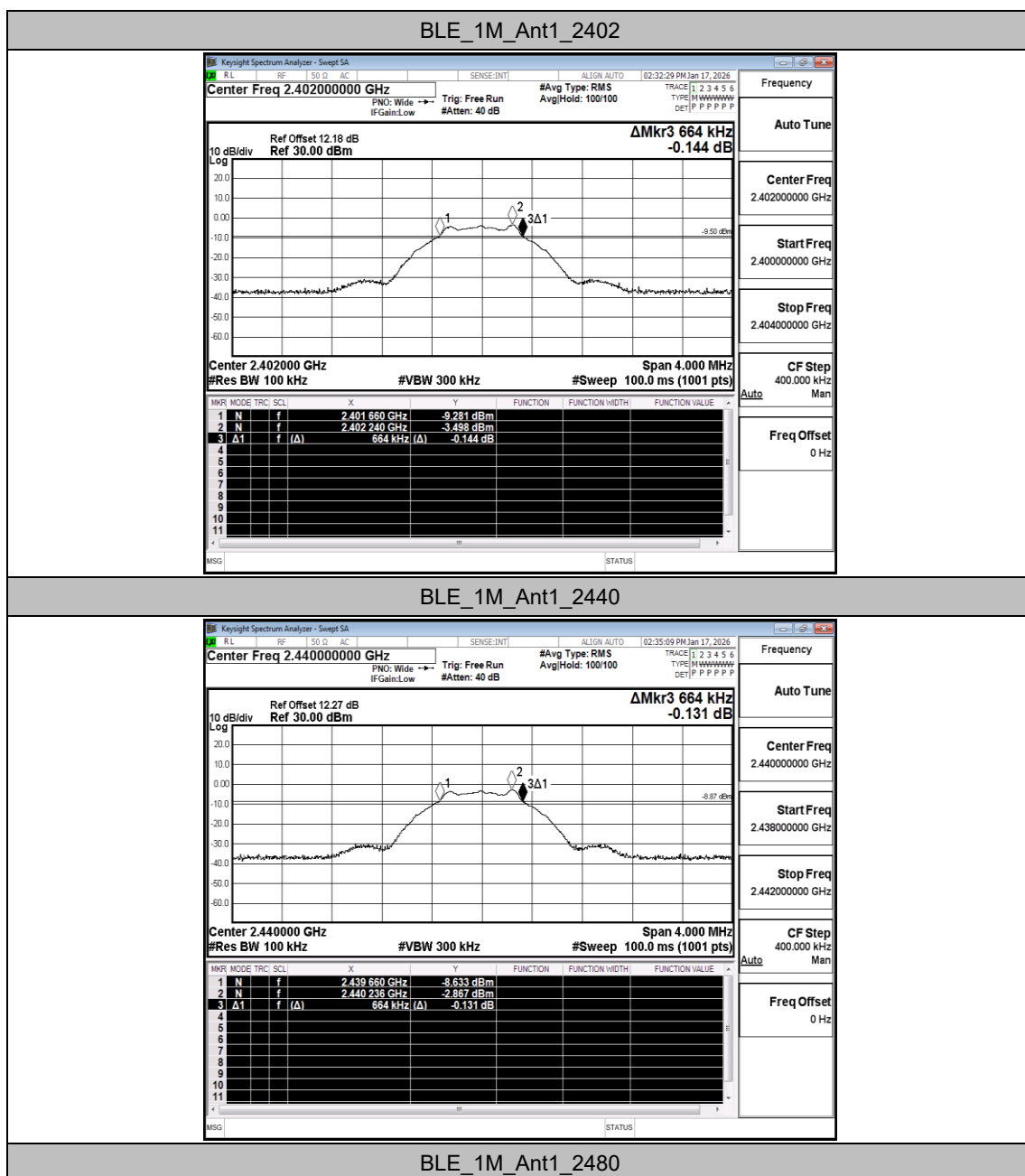
B.1 DTS Bandwidth

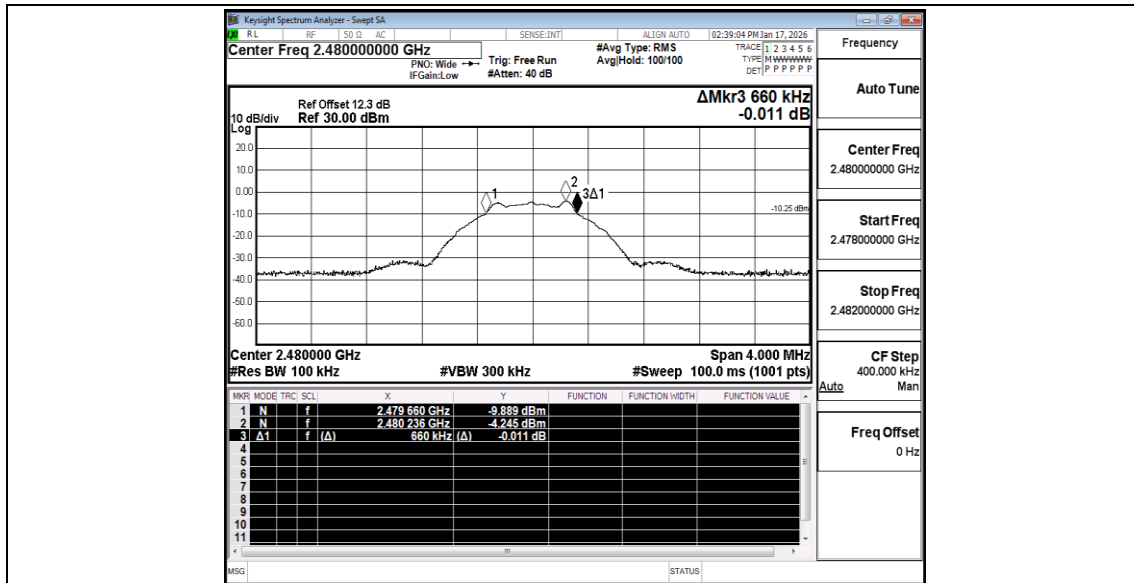
Test Result

TestMode	Antenna	Freq (MHz)	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit [MHz]	Verdict
BLE_1M	Ant1	2402	0.664	2401.660	2402.324	0.5	PASS
		2440	0.664	2439.660	2440.324	0.5	PASS
		2480	0.660	2479.660	2480.320	0.5	PASS
BLE_2M	Ant1	2404	1.164	2403.408	2404.572	0.5	PASS
		2440	1.160	2439.412	2440.572	0.5	PASS
		2478	1.164	2477.408	2478.572	0.5	PASS

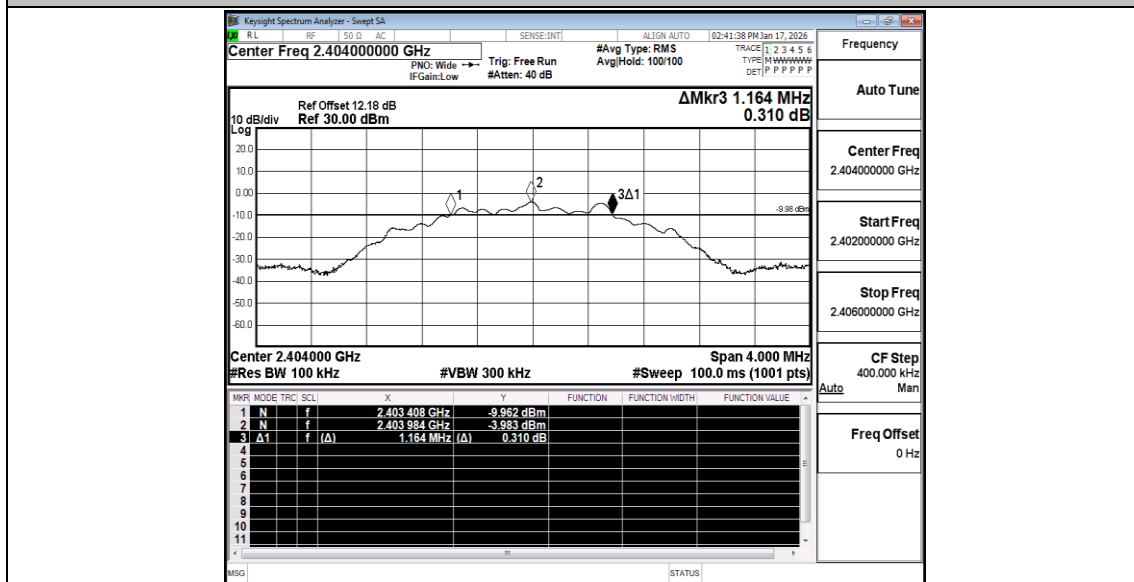
Note: offset=System attenuation +cabel loss

Test Graphs

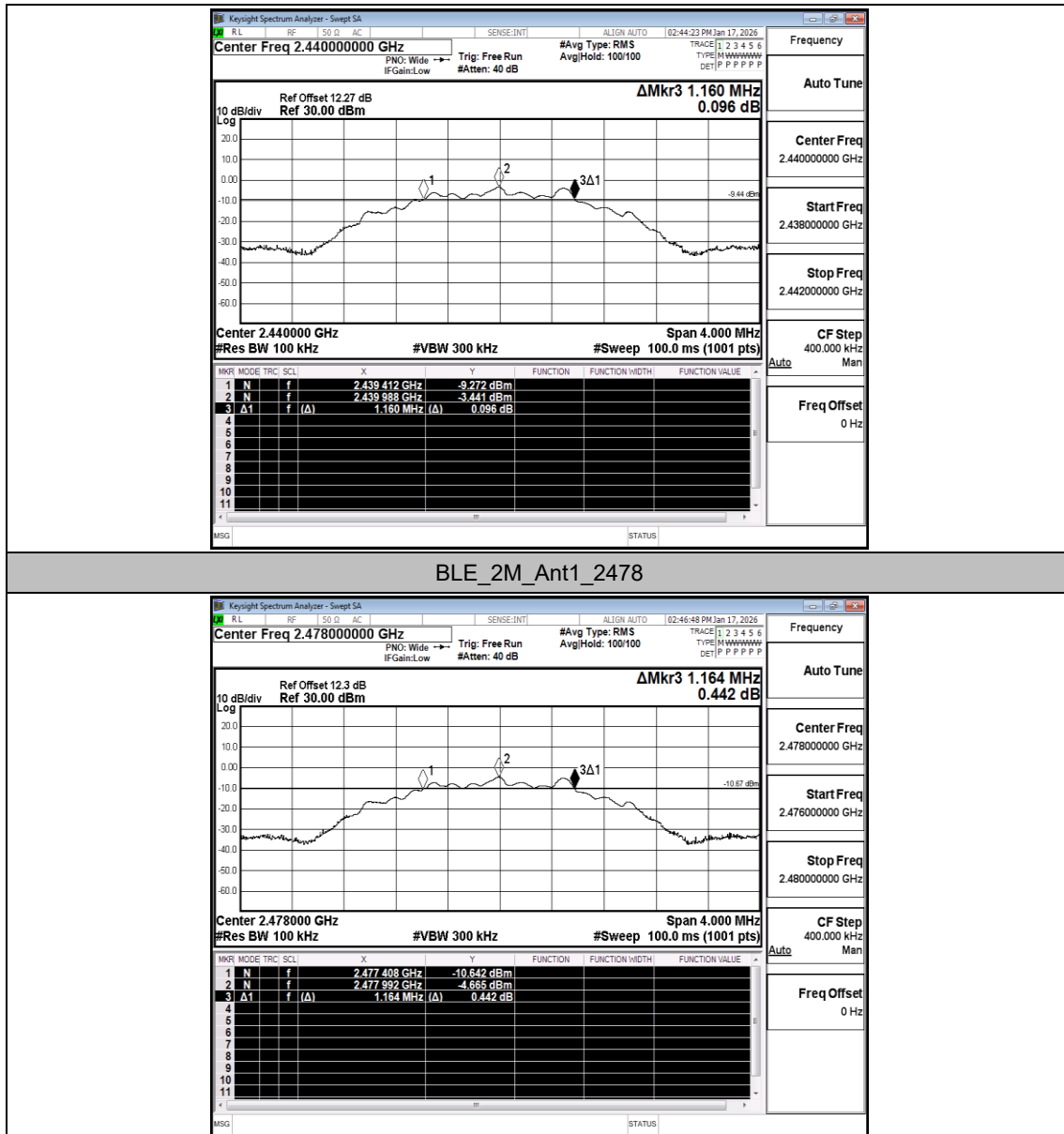




BLE_2M_Ant1_2404



BLE_2M_Ant1_2440



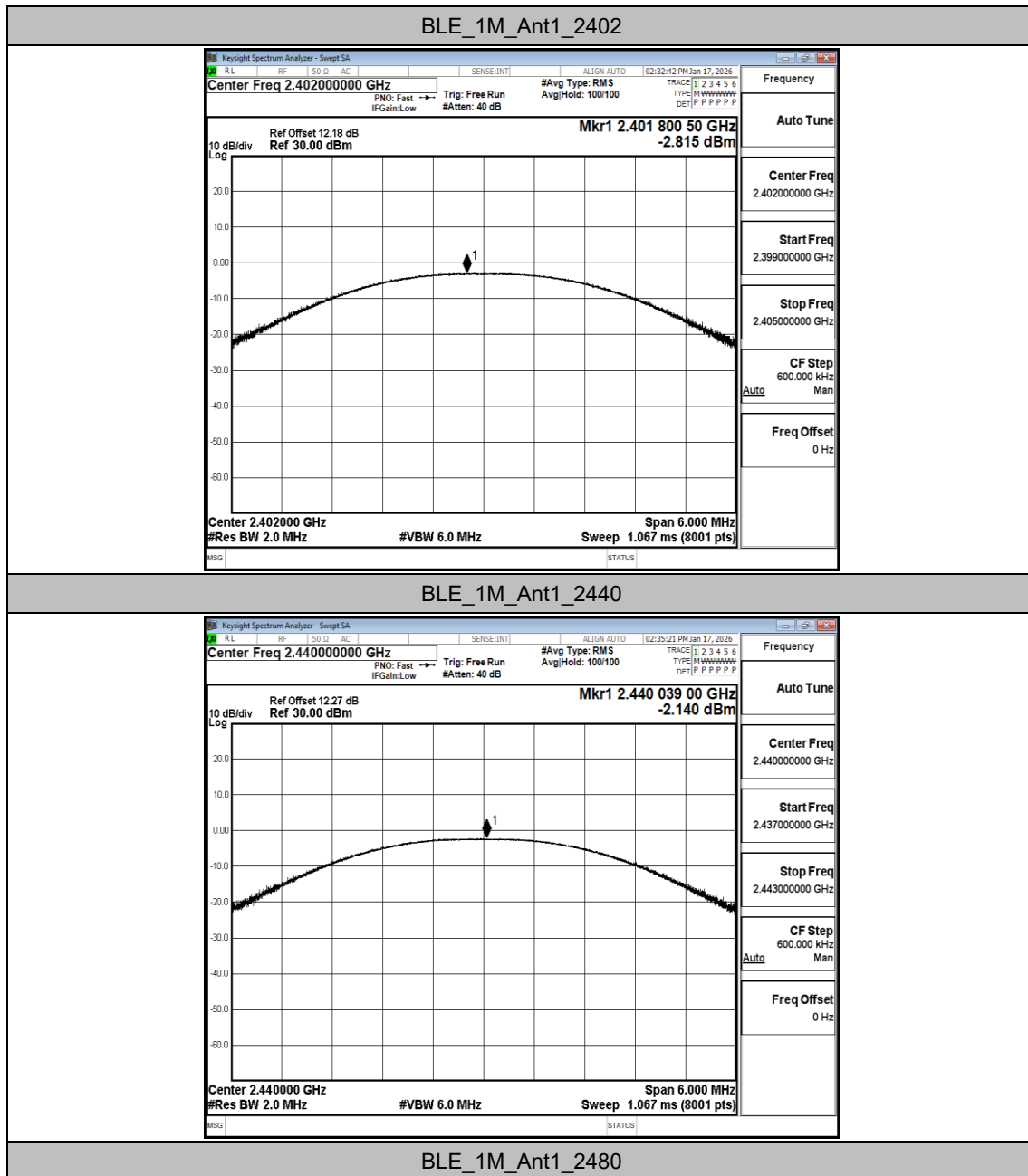
B.2 Maximum Peak conducted output power

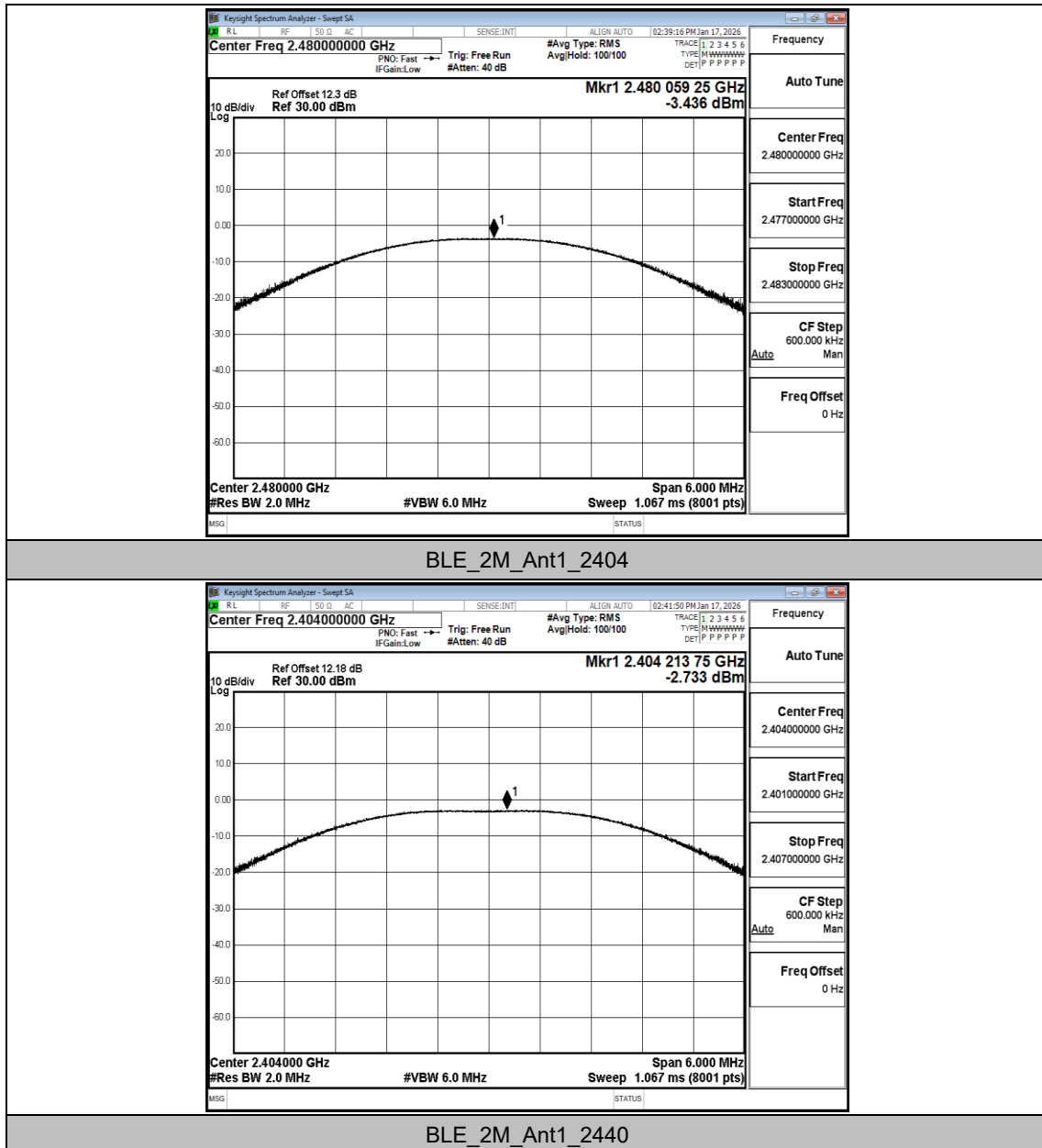
Test Result Peak

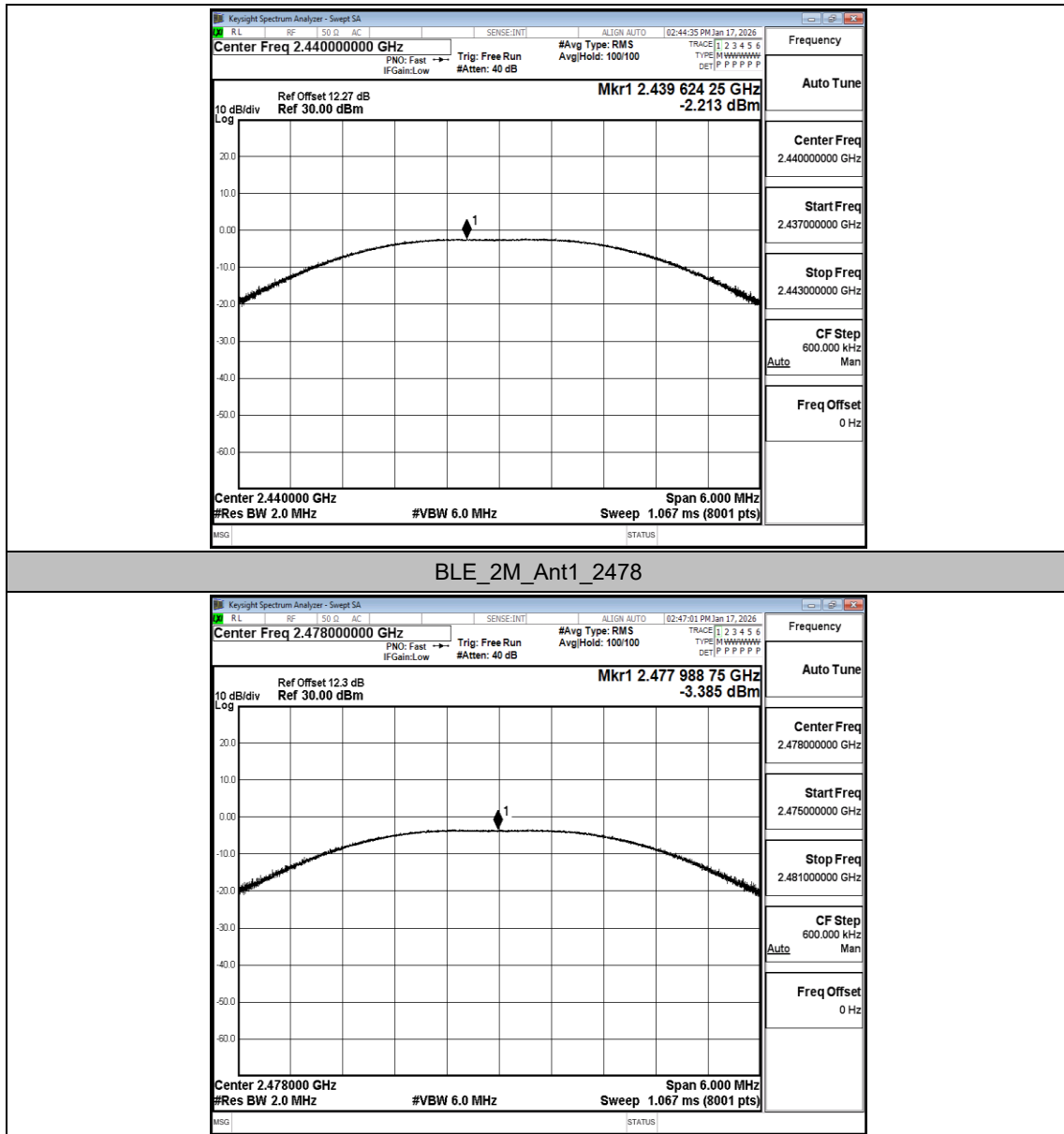
TestMode	Antenna	Freq (MHz)	Conducted Peak Power[dBm]	Conducted Limit[dBm]	Verdict
BLE_1M	Ant1	2402	-2.82	≤30	PASS
		2440	-2.14	≤30	PASS
		2480	-3.44	≤30	PASS
BLE_2M	Ant1	2404	-2.73	≤30	PASS
		2440	-2.21	≤30	PASS
		2478	-3.39	≤30	PASS

Note: offset=System attenuation +cable loss

Test Graphs Peak







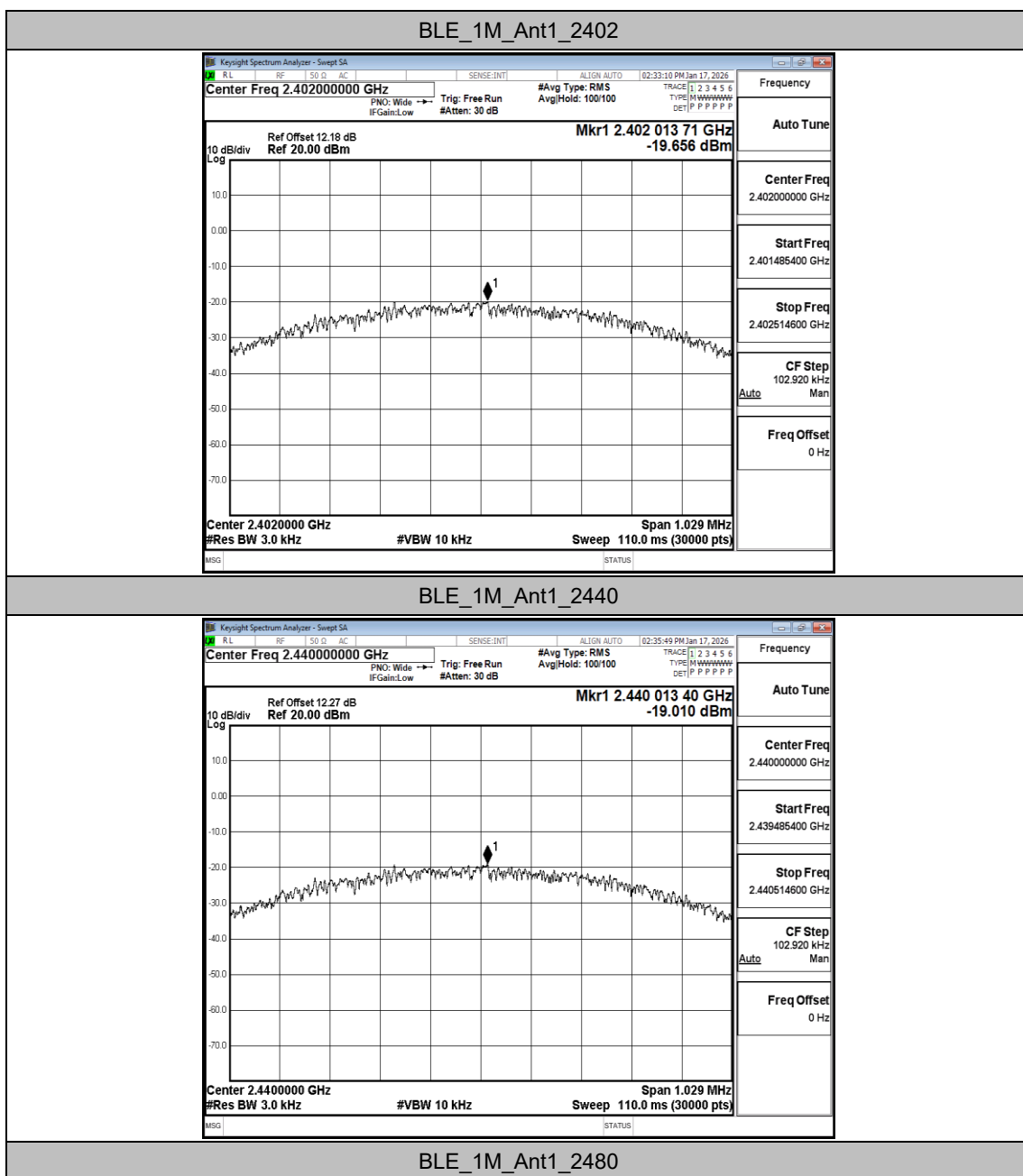
B.3 Maximum power spectral density

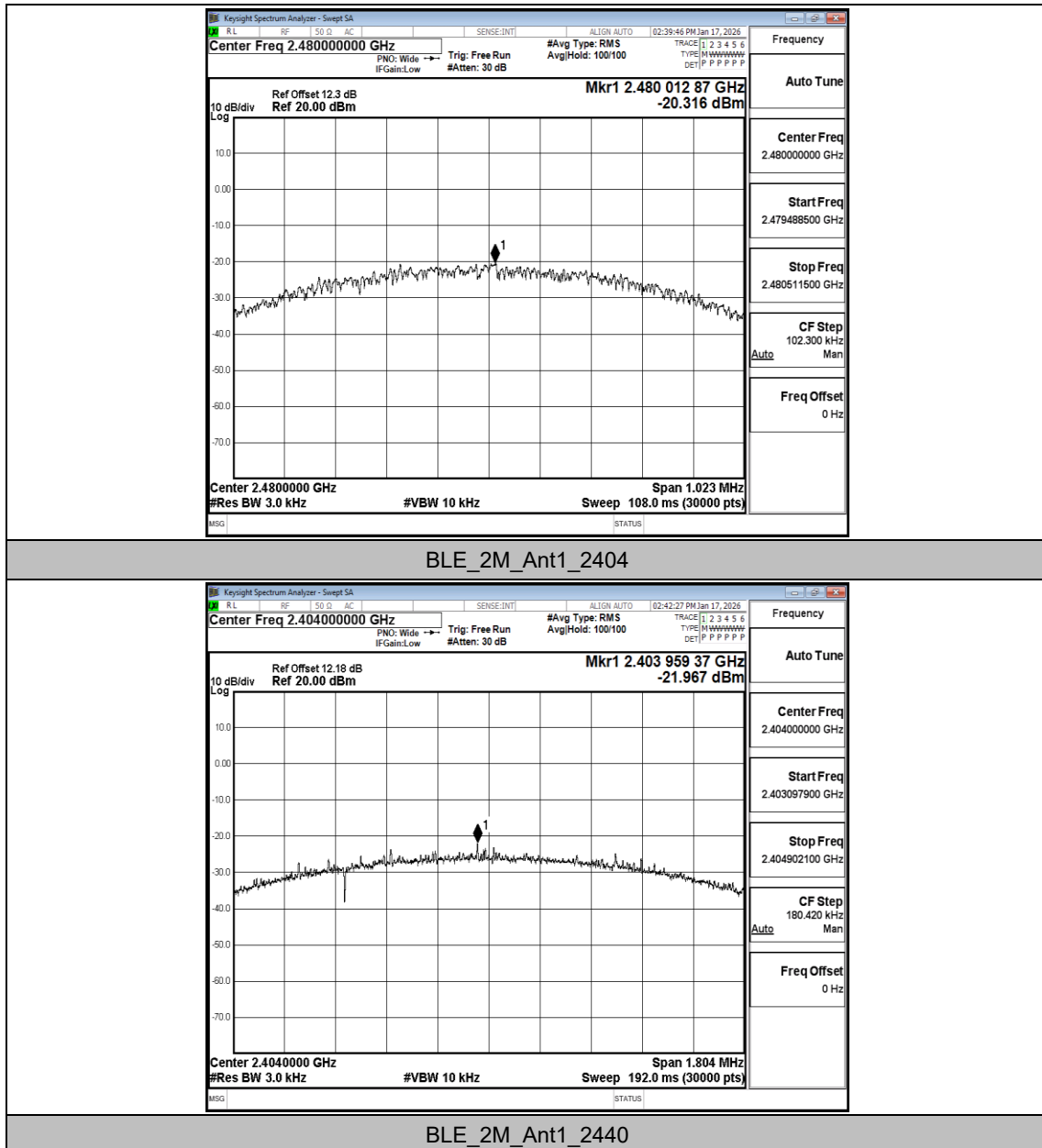
Test Result

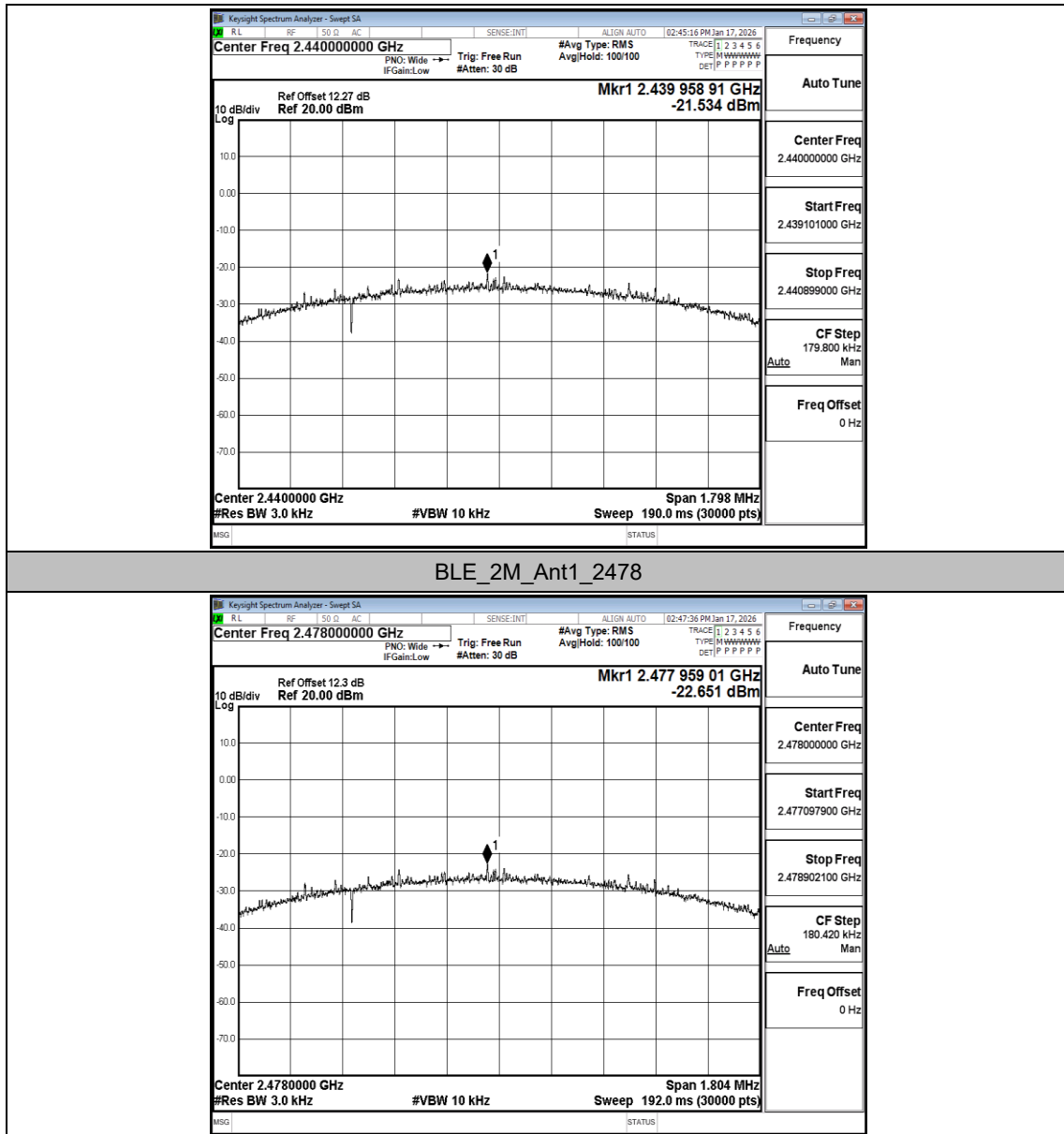
TestMode	Antenna	Freq (MHz)	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-19.66	≤8.00	PASS
		2440	-19.01	≤8.00	PASS
		2480	-20.32	≤8.00	PASS
BLE_2M	Ant1	2404	-21.97	≤8.00	PASS
		2440	-21.53	≤8.00	PASS
		2478	-22.65	≤8.00	PASS

Note: offset=System attenuation +cable loss

Test Graphs







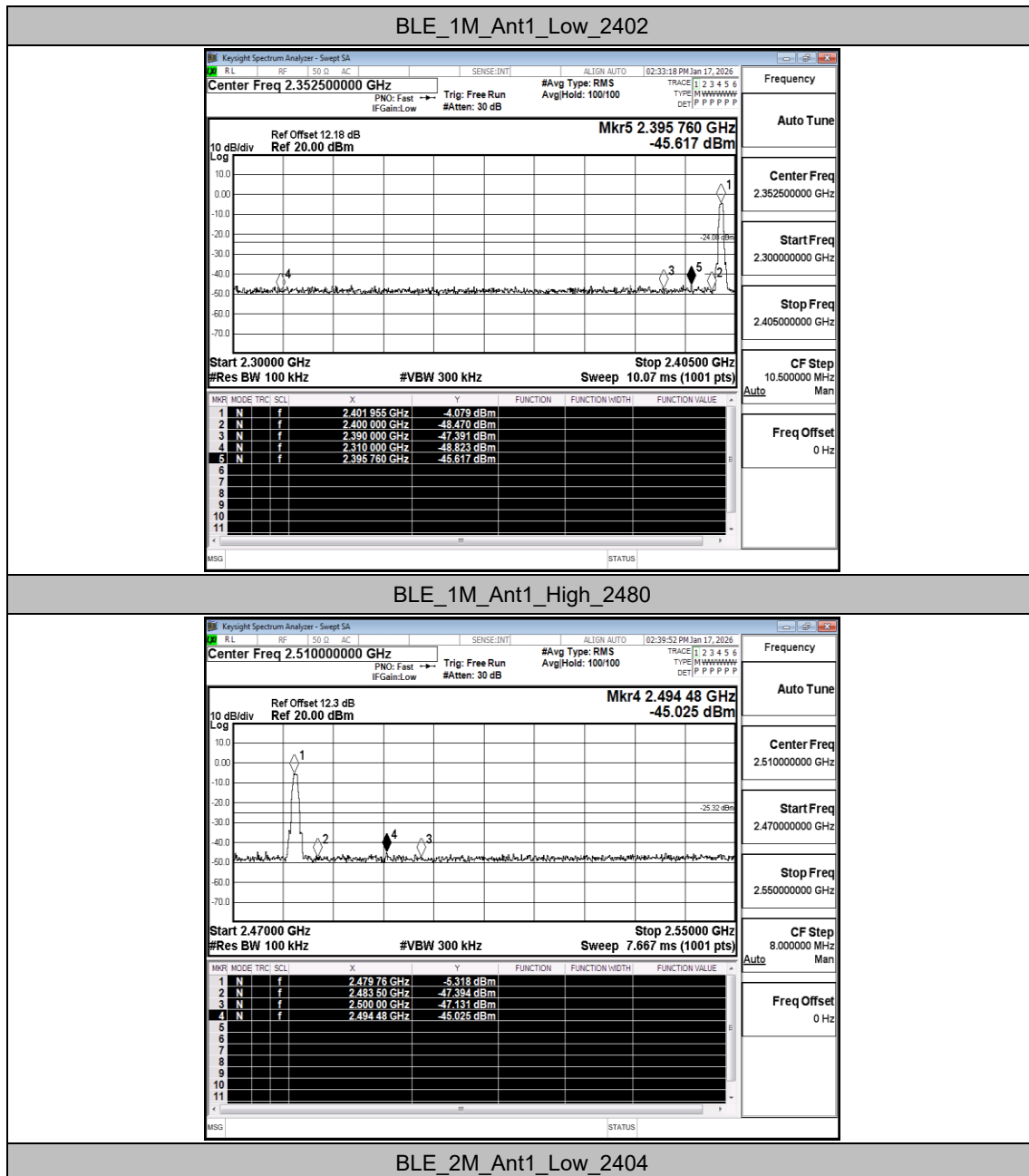
B.4 Band edge measurements

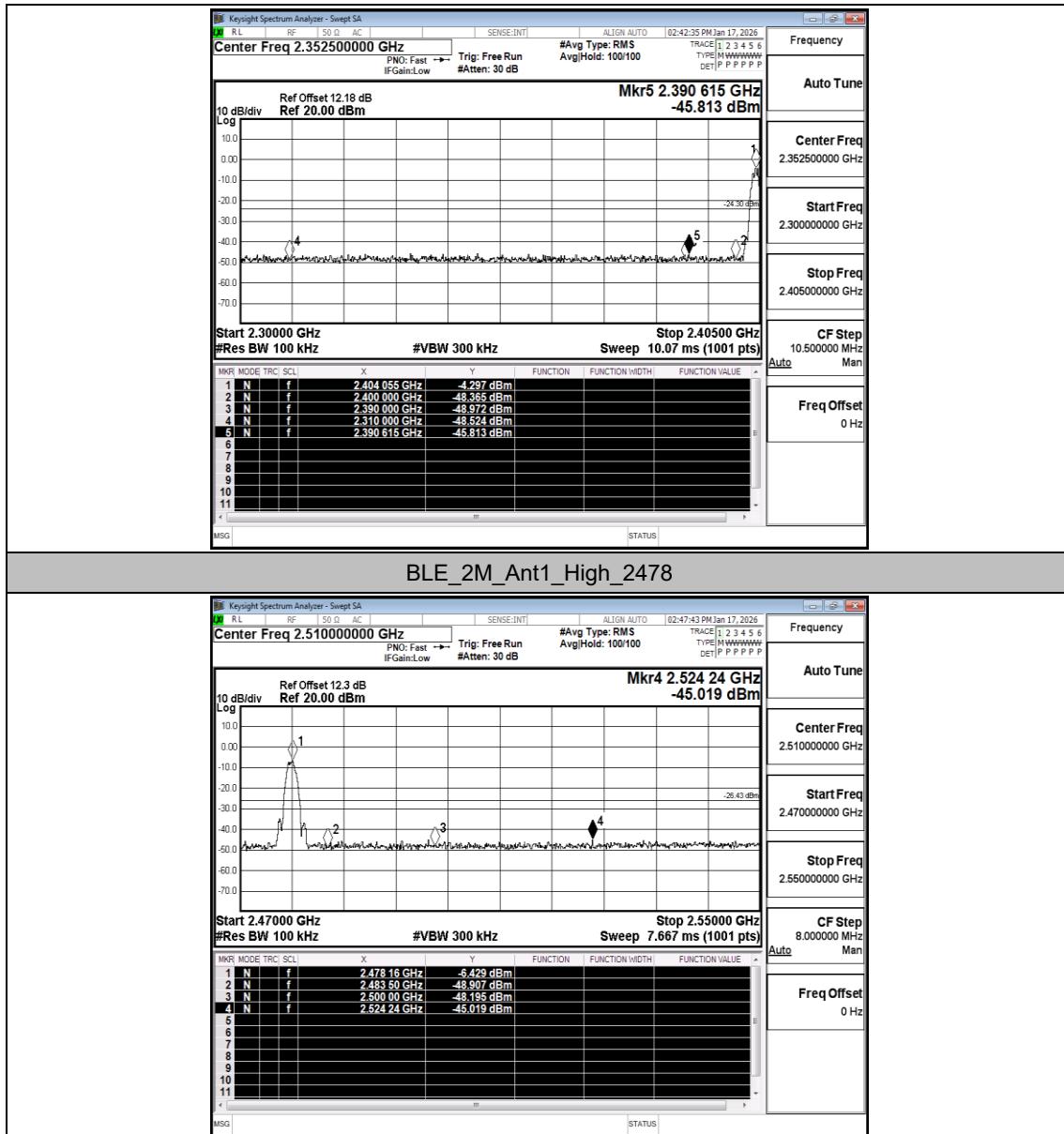
Test Result

TestMode	Antenna	ChName	Freq (MHz)	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	-4.08	-45.62	≤-24.08	PASS
		High	2480	-5.32	-45.03	≤-25.32	PASS
BLE_2M	Ant1	Low	2404	-4.30	-45.81	≤-24.3	PASS
		High	2478	-6.43	-45.02	≤-26.43	PASS

Note: offset=System attenuation +caval loss

Test Graphs





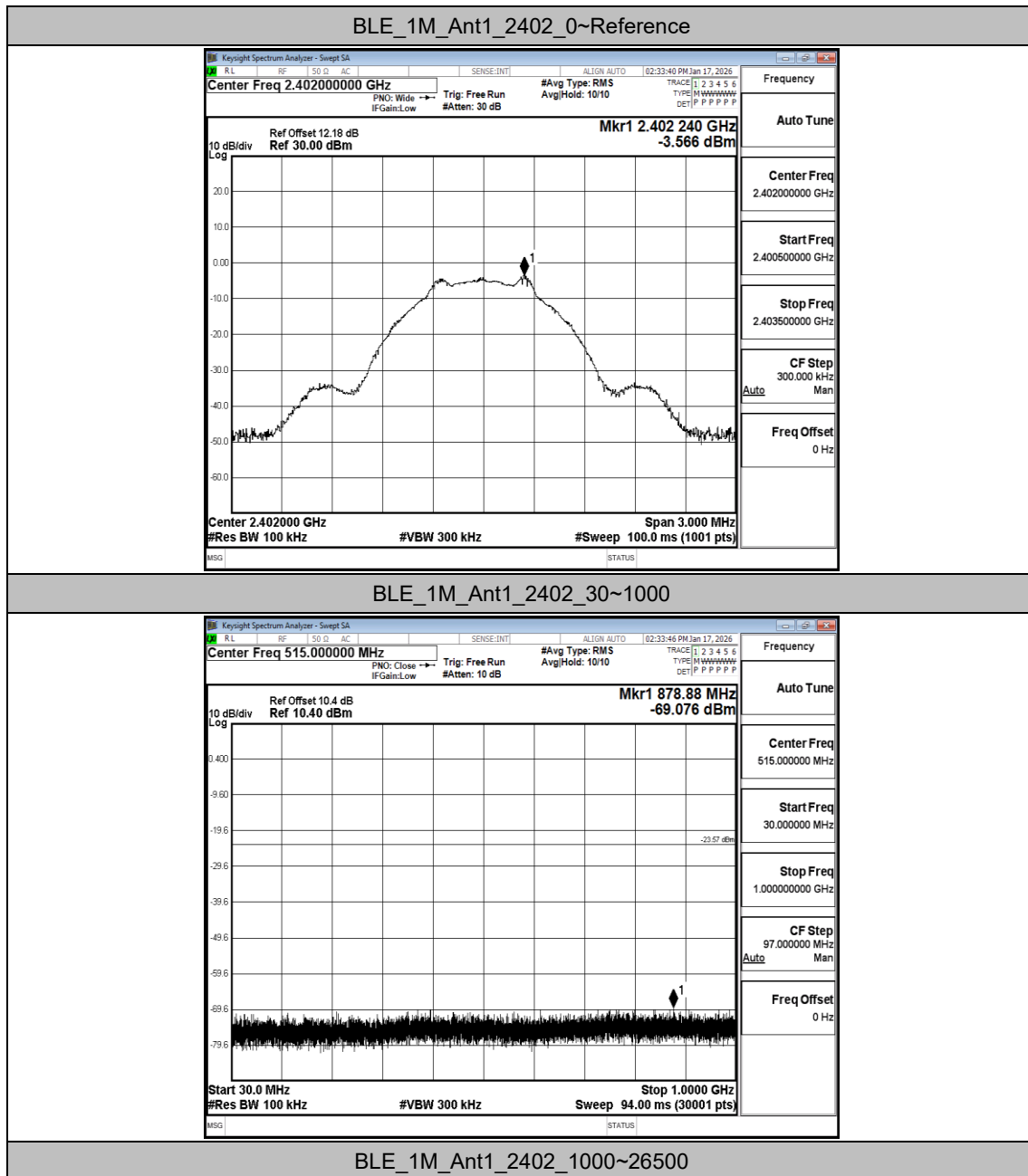
B.5 Conducted Spurious Emission

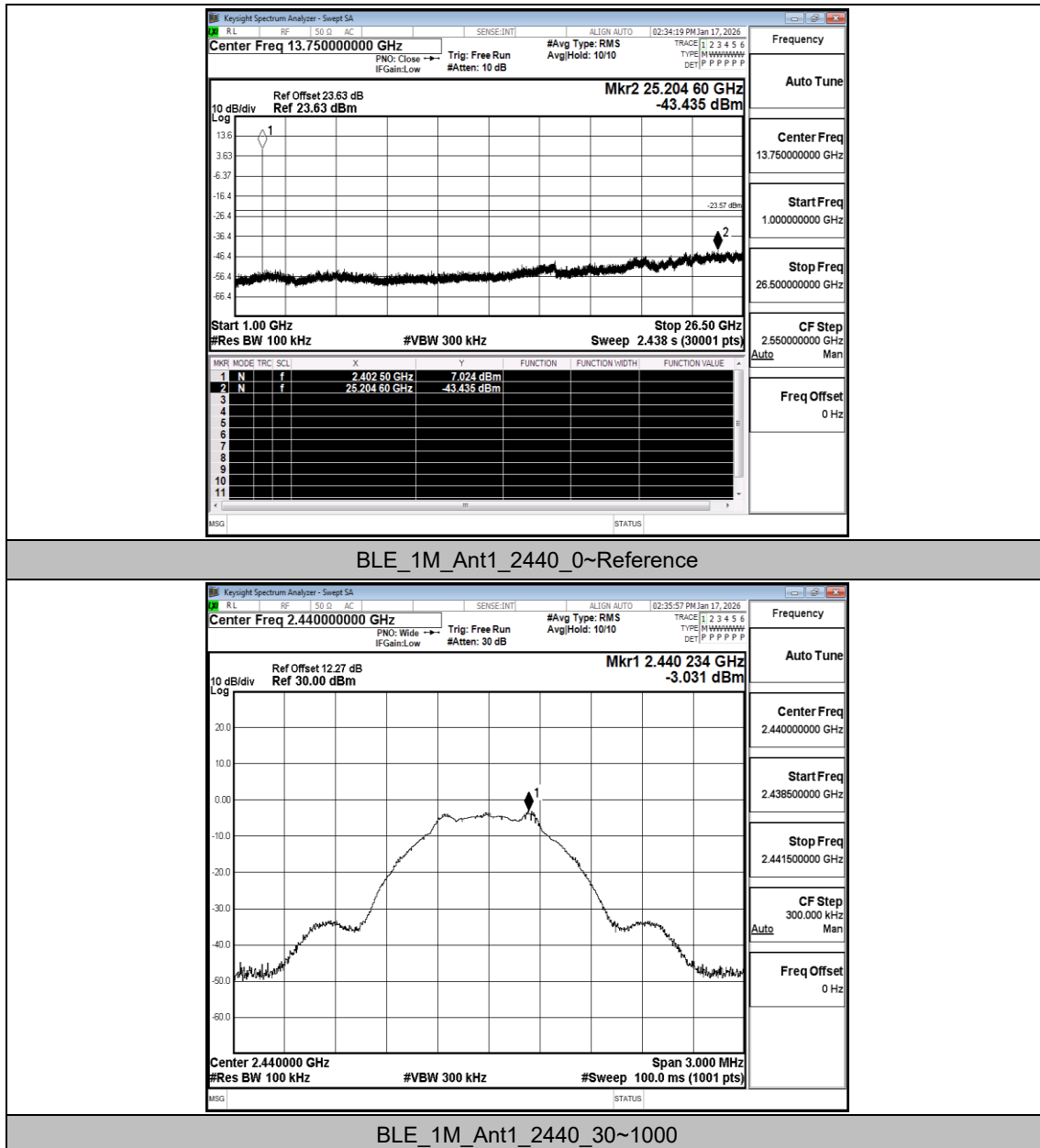
Test Result

TestMode	Antenna	Freq (MHz)	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	-3.57	-3.57	---	PASS
			30~1000	-3.57	-69.08	≤-23.57	PASS
			1000~26500	-3.57	-43.44	≤-23.57	PASS
		2440	Reference	-3.03	-3.03	---	PASS
			30~1000	-3.03	-68.55	≤-23.03	PASS
			1000~26500	-3.03	-43.15	≤-23.03	PASS
		2480	Reference	-4.32	-4.32	---	PASS
			30~1000	-4.32	-68.51	≤-24.32	PASS
			1000~26500	-4.32	-43.37	≤-24.32	PASS
BLE_2M	Ant1	2404	Reference	-4.05	-4.05	---	PASS
			30~1000	-4.05	-68.96	≤-24.05	PASS
			1000~26500	-4.05	-43.27	≤-24.05	PASS
		2440	Reference	-3.54	-3.54	---	PASS
			30~1000	-3.54	-69.24	≤-23.54	PASS
			1000~26500	-3.54	-42.75	≤-23.54	PASS
		2478	Reference	-4.73	-4.73	---	PASS
			30~1000	-4.73	-68.4	≤-24.73	PASS
			1000~26500	-4.73	-42.69	≤-24.73	PASS

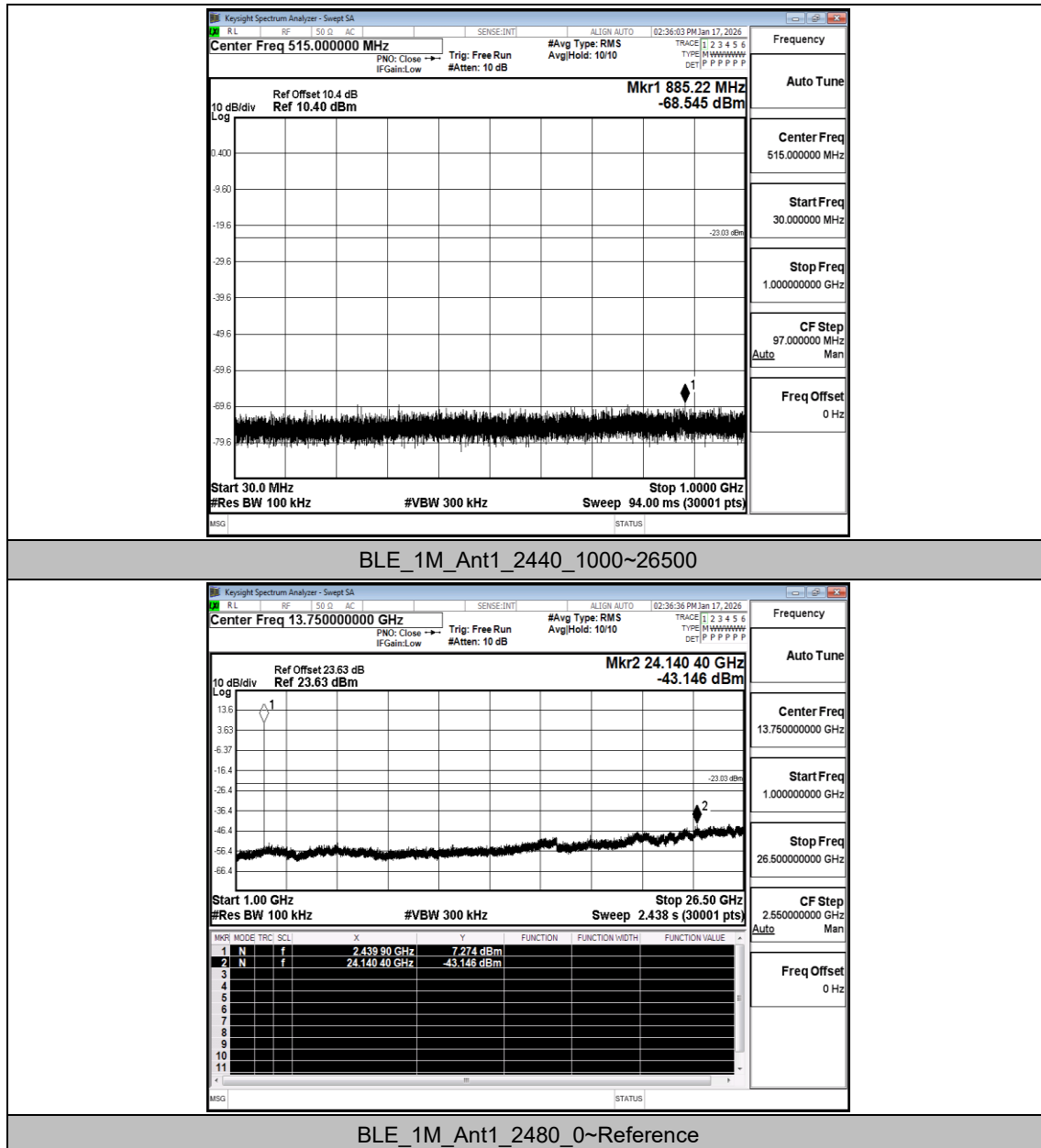
Note: Regarding the spurious emissions from 30MHz to 26.5GHz, the cable lose have been set in the CORREC' of the Spectrum Analyzer during the test.

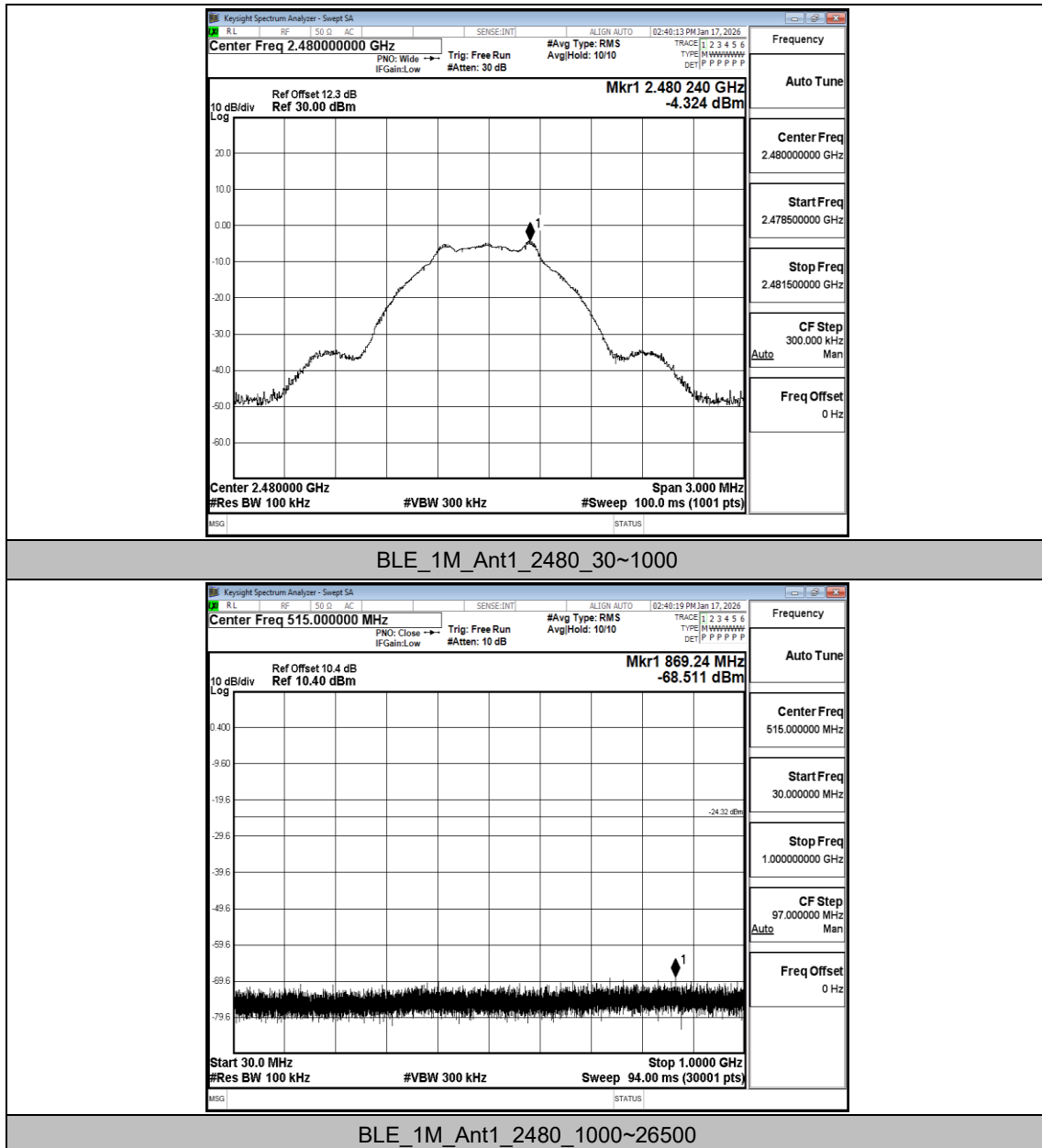
Test Graphs

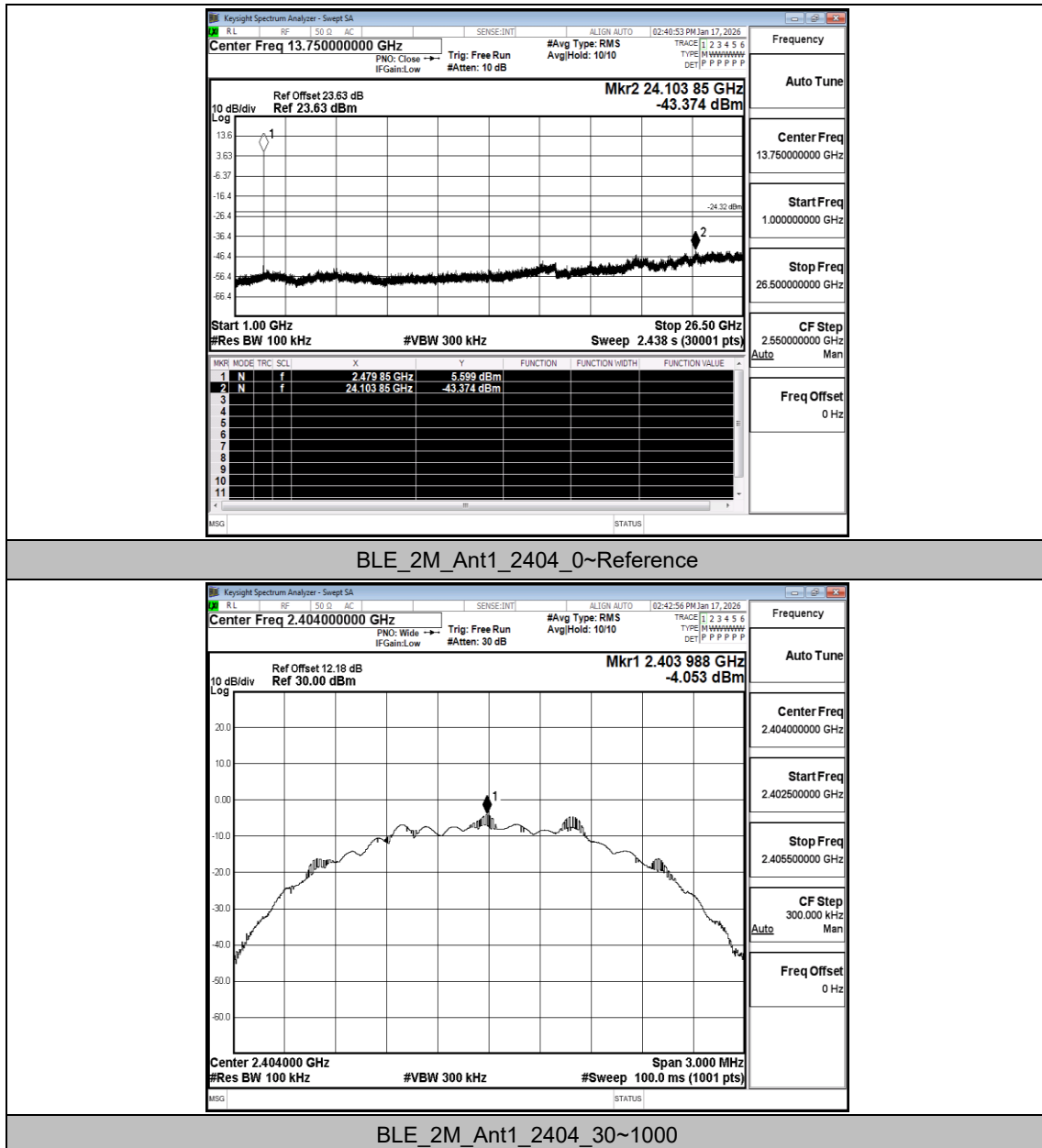


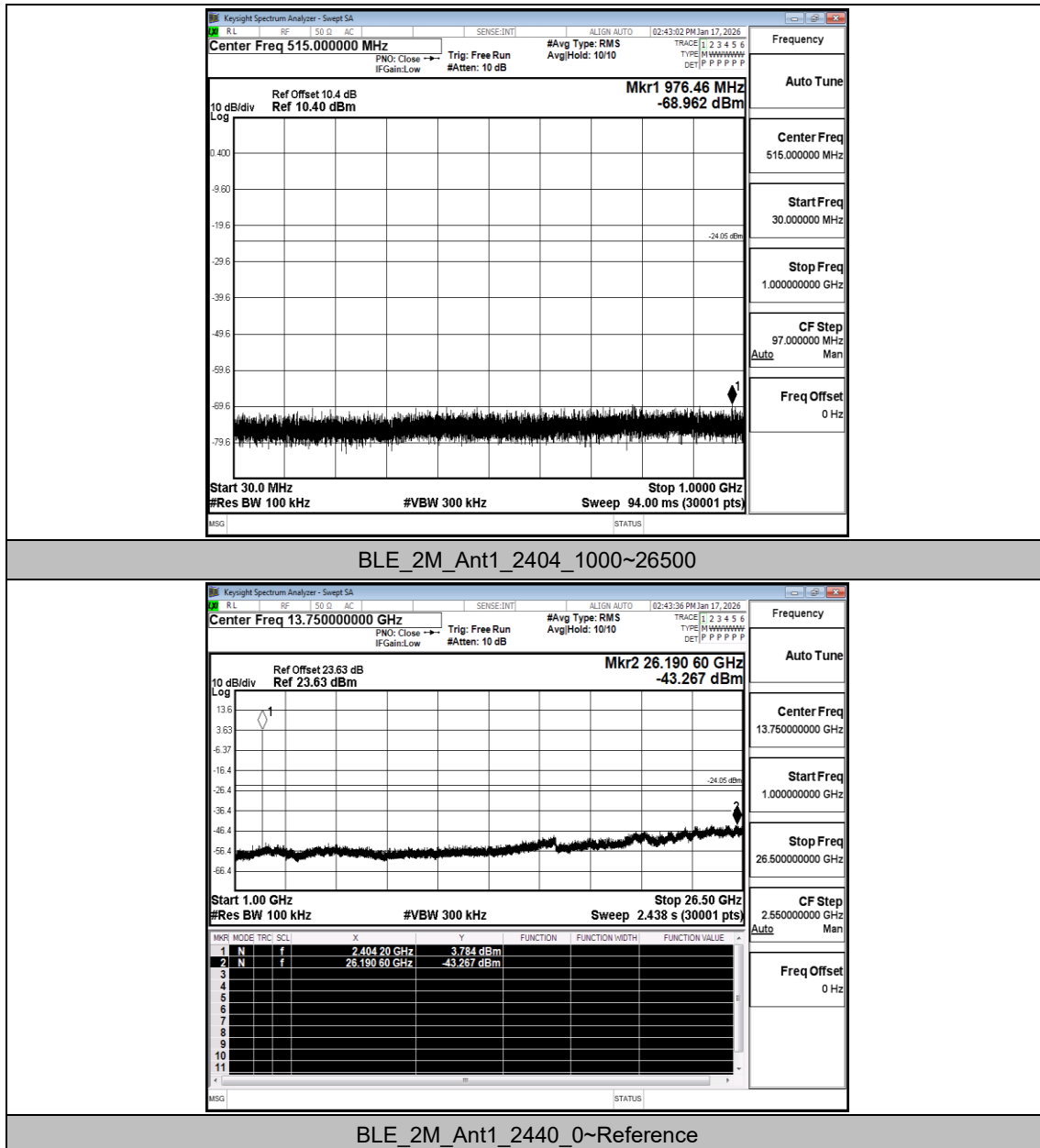


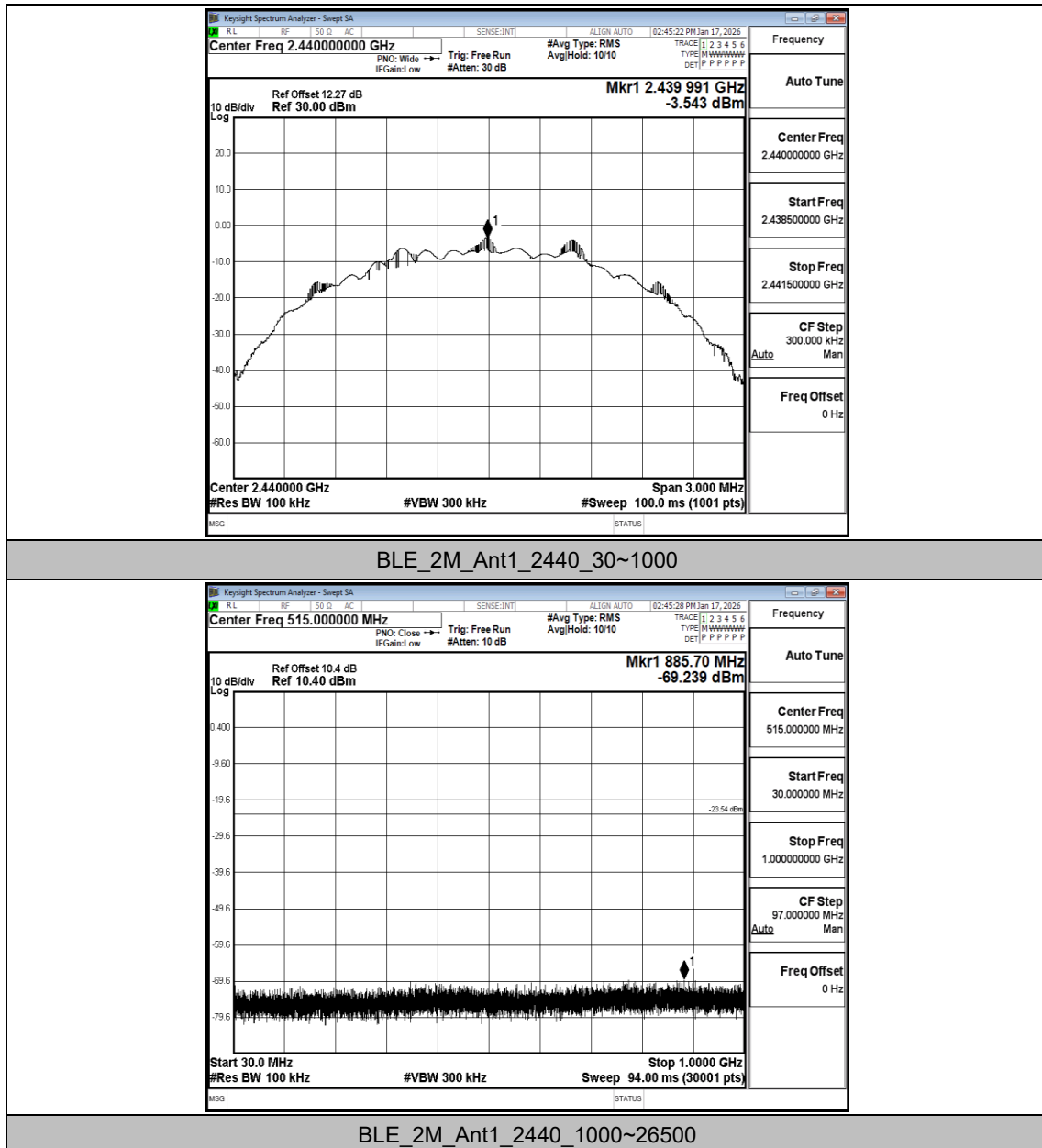
BLE_1M_Ant1_2440_30~1000

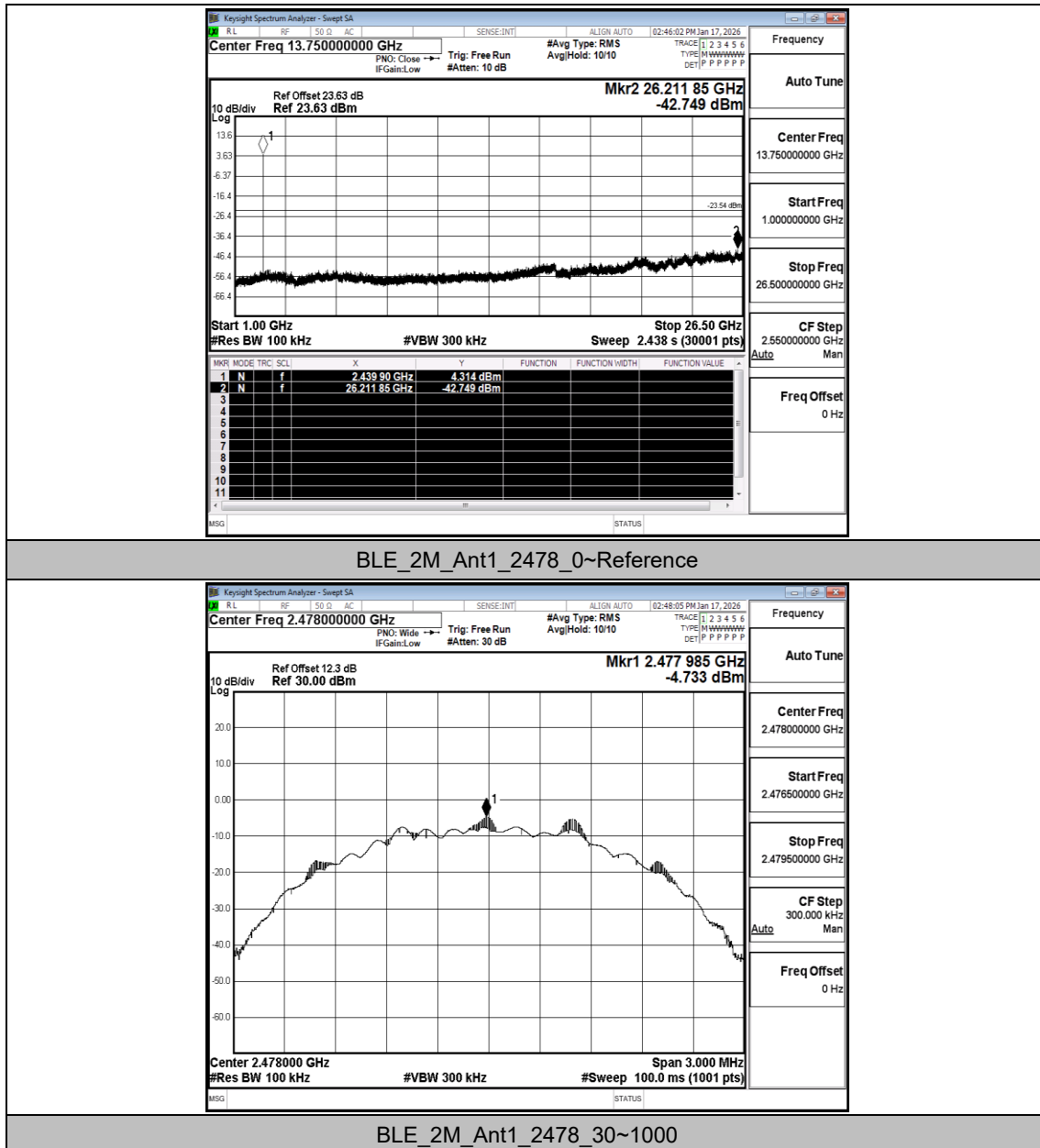


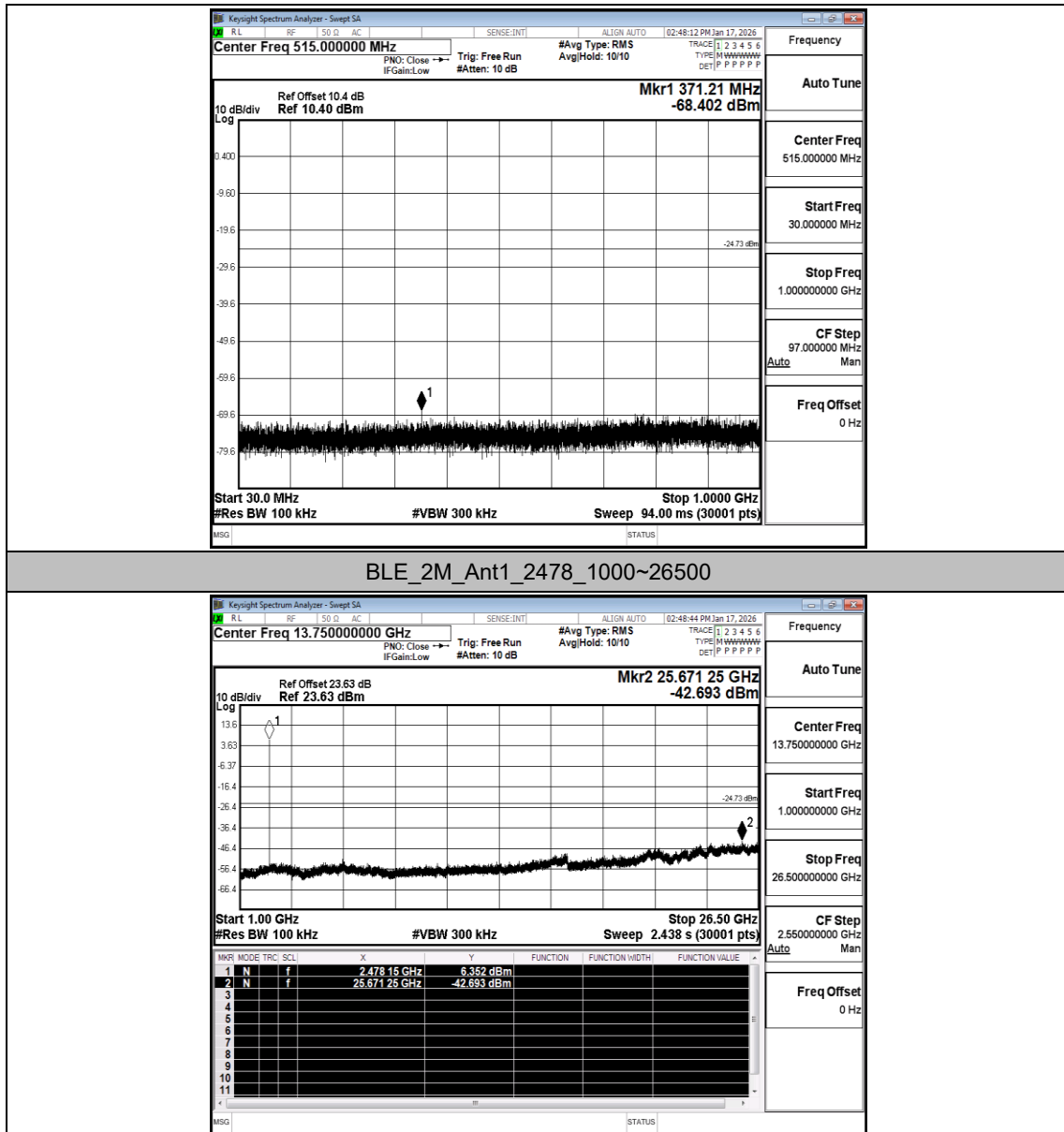












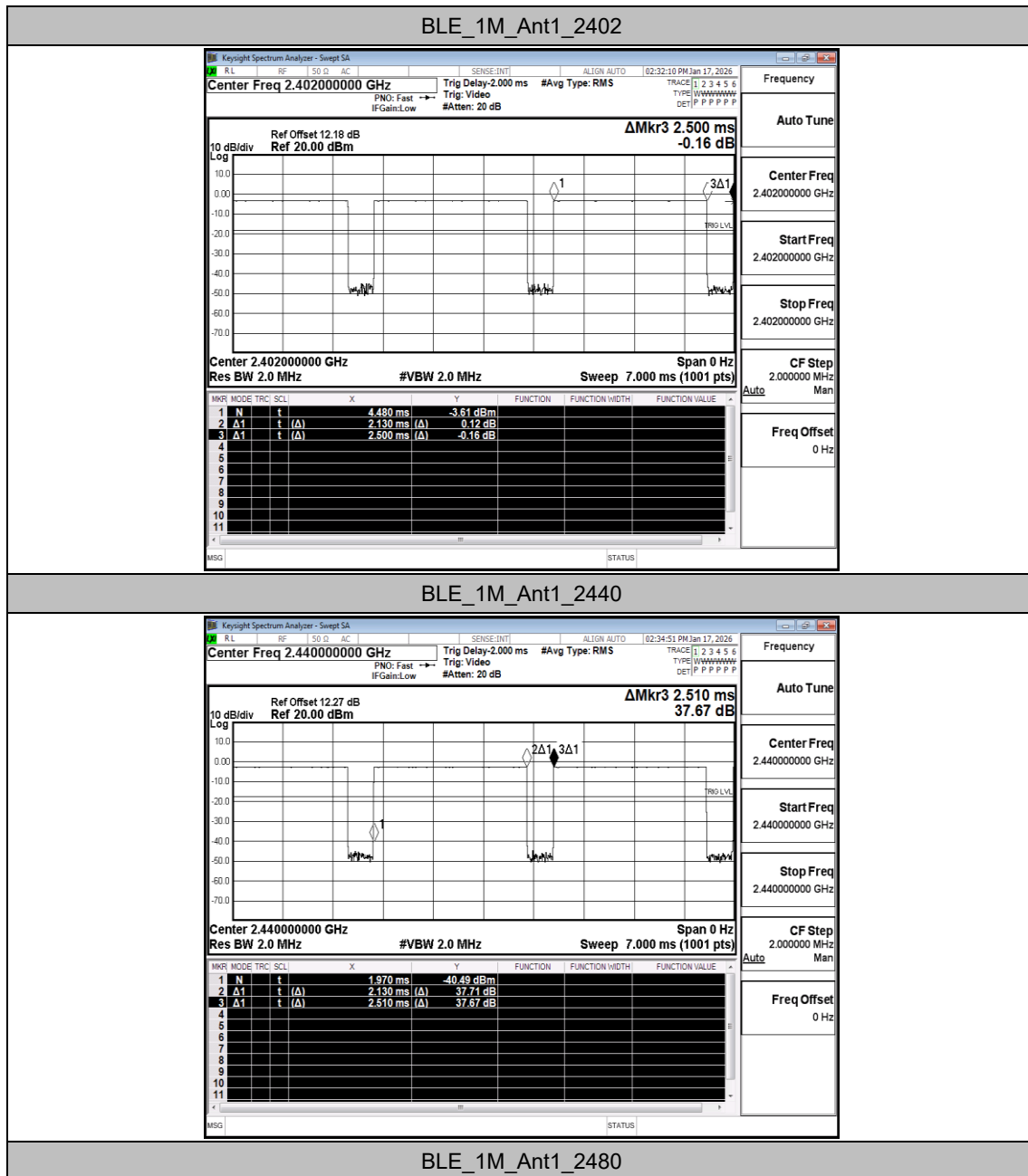
B.6 Duty Cycle

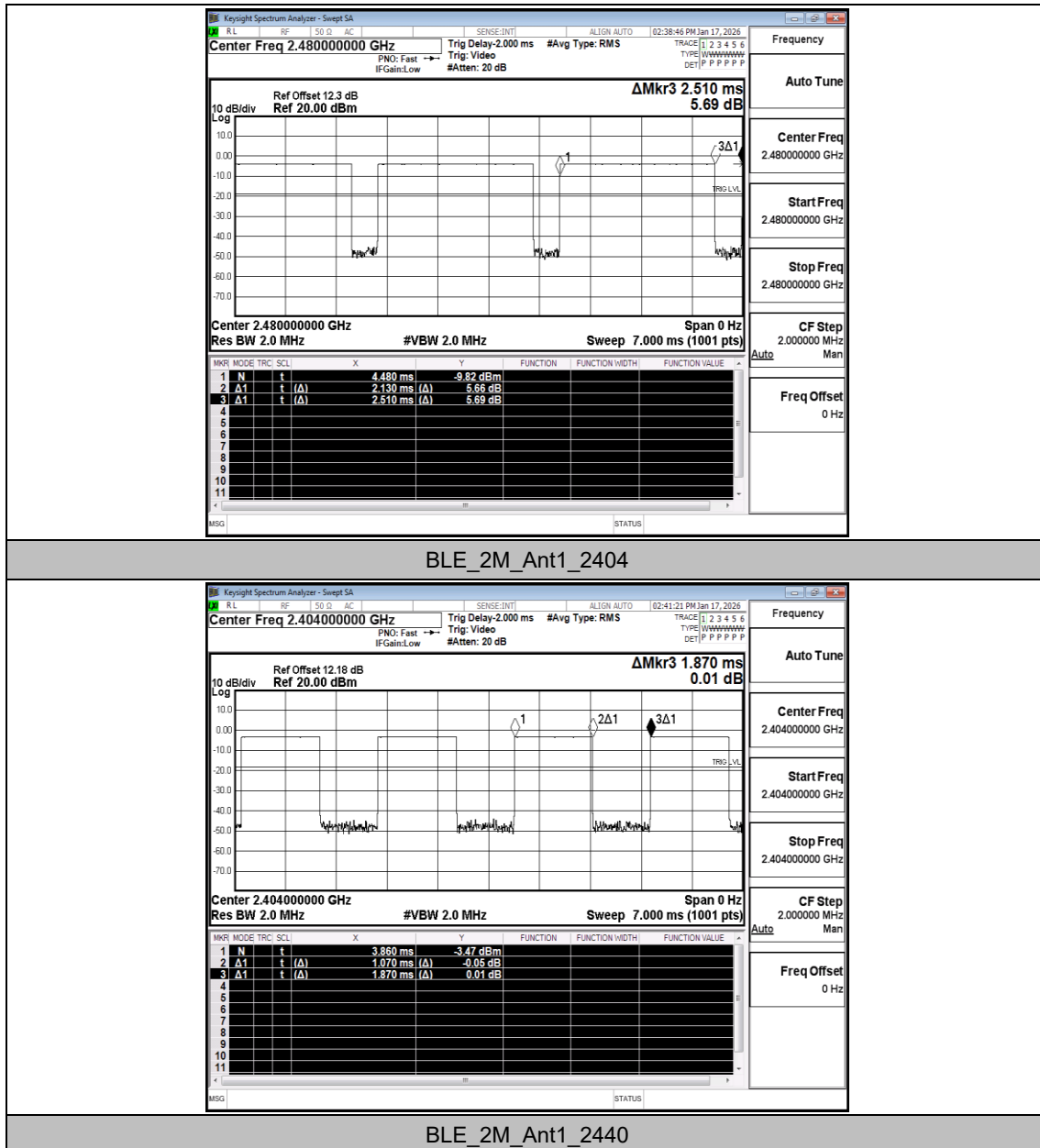
Test Result

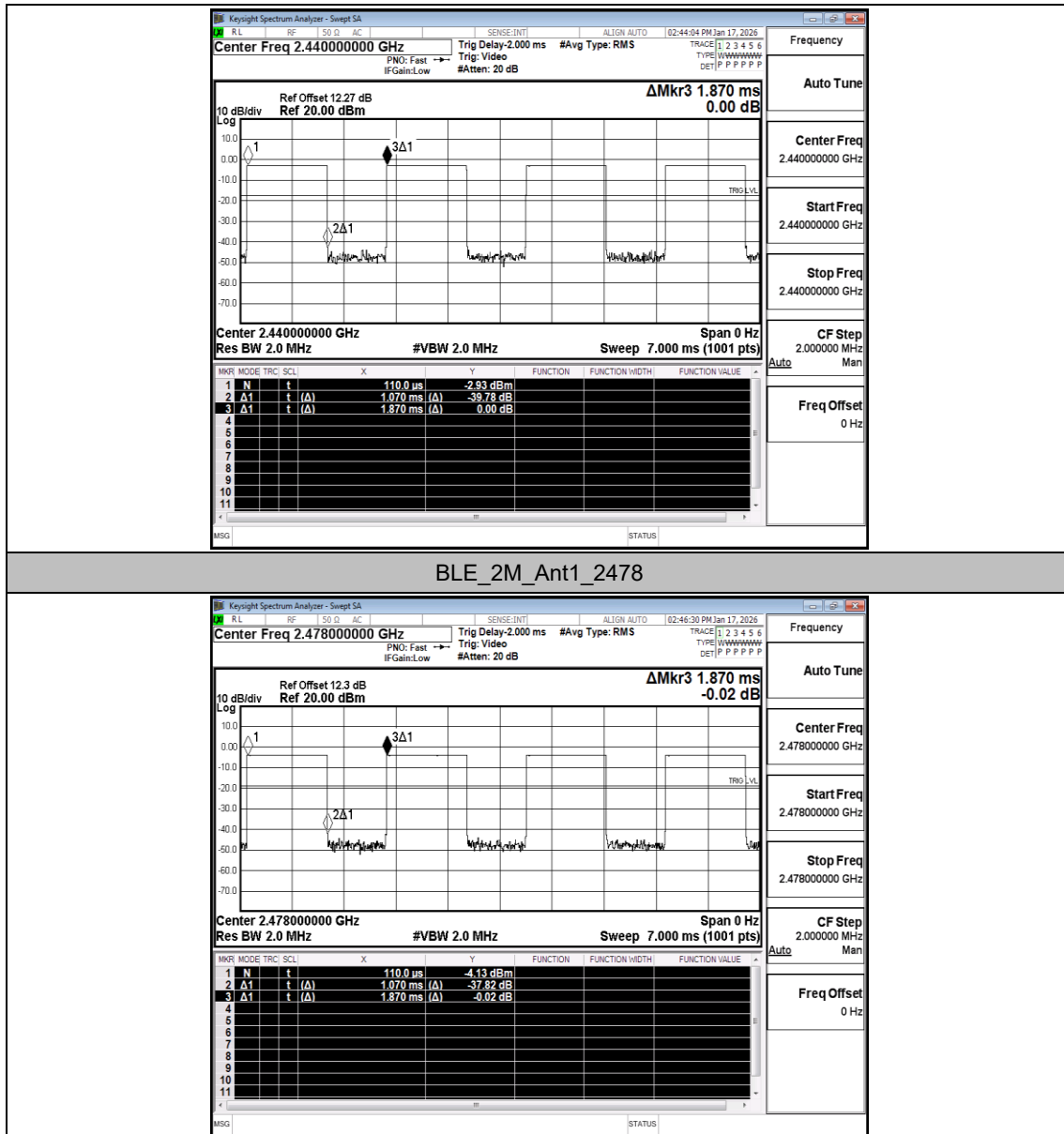
TestMode	Antenna	Freq (MHz)	ON Time [ms]	Period [ms]	X	DC [%]	xFactor	Limit	Verdict
BLE_1M	Ant1	2402	2.13	2.50	0.8520	85.20	0.70	---	---
		2440	2.13	2.51	0.8486	84.86	0.71	---	---
		2480	2.13	2.51	0.8486	84.86	0.71	---	---
BLE_2M	Ant1	2404	1.07	1.87	0.5722	57.22	2.42	---	---
		2440	1.07	1.87	0.5722	57.22	2.42	---	---
		2478	1.07	1.87	0.5722	57.22	2.42	---	---

Note: offset=System attenuation +cabel loss

Test Graphs







B.7 Emissions in Restricted Bands

Test Result

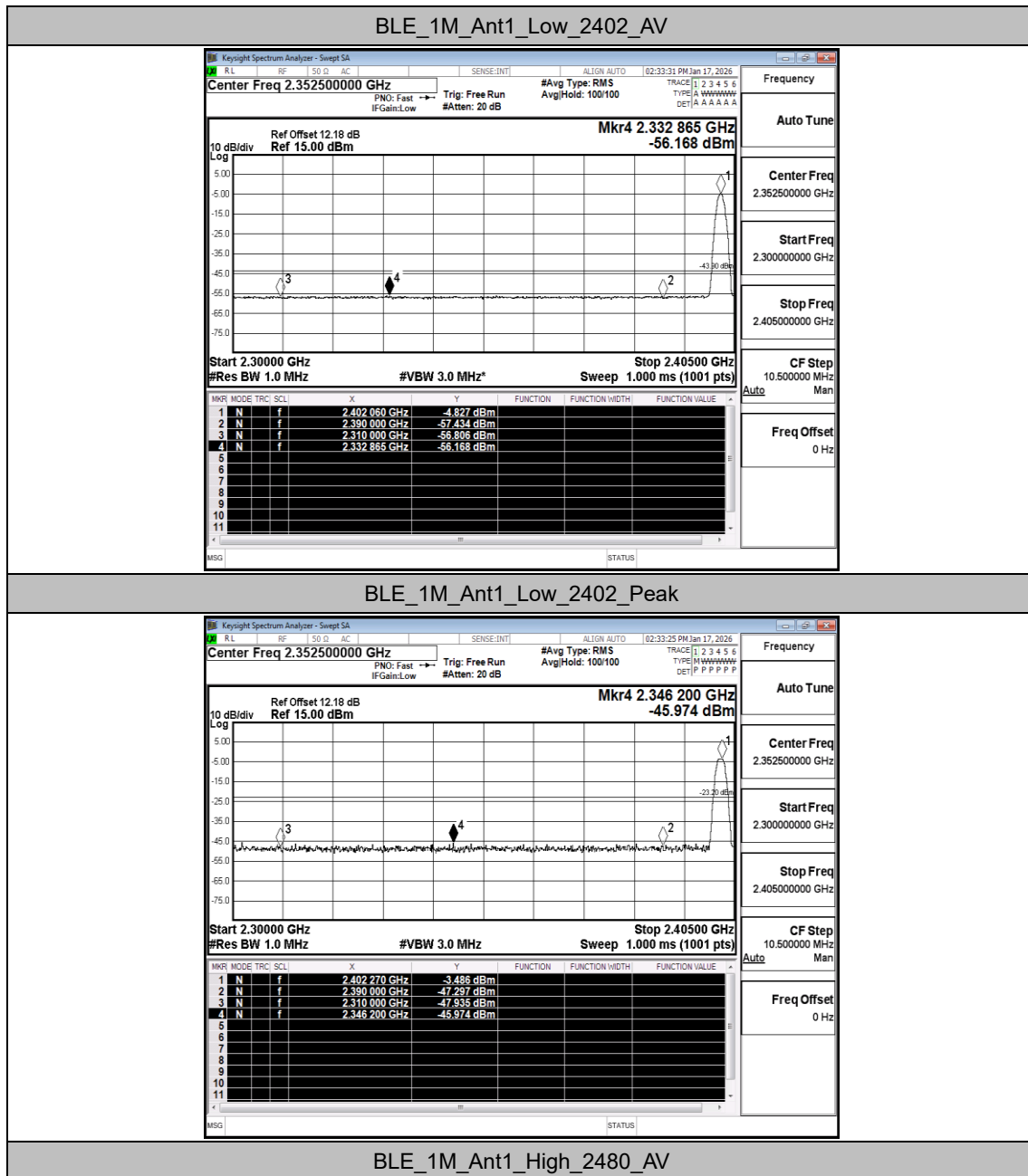
Test Mode	Antenna	ChName	Freq (MHz)	Detector	Freq [MHz]	Result [dBm]	Limit [dBm]	Gain [dBi]	DC Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Verdict
BLE_1M	Ant1	Low	2402	AV	2310.000	-56.81	≤-43.90	2.00	0.70	41.09	≤54	PASS
				AV	2332.865	-56.17	≤-43.90	2.00	0.70	41.73	≤54	PASS
				AV	2390.000	-57.43	≤-43.90	2.00	0.70	40.47	≤54	PASS
				Peak	2310.000	-47.94	≤-23.20	2.00	0.00	49.26	≤74	PASS
				Peak	2346.200	-45.97	≤-23.20	2.00	0.00	51.23	≤74	PASS
				Peak	2390.000	-47.3	≤-23.20	2.00	0.00	49.90	≤74	PASS
		High	2480	AV	2483.500	-56.33	≤-43.91	2.00	0.71	41.58	≤54	PASS
				AV	2494.240	-55.87	≤-43.91	2.00	0.71	42.04	≤54	PASS
				AV	2500.000	-56.71	≤-43.91	2.00	0.71	41.20	≤54	PASS
				Peak	2483.500	-46.11	≤-23.20	2.00	0.00	51.09	≤74	PASS
				Peak	2485.600	-45.66	≤-23.20	2.00	0.00	51.54	≤74	PASS
				Peak	2500.000	-49.43	≤-23.20	2.00	0.00	47.77	≤74	PASS
BLE_2M	Ant1	Low	2404	AV	2310.000	-56.7	≤-45.62	2.00	2.42	42.92	≤54	PASS
				AV	2389.880	-56.2	≤-45.62	2.00	2.42	43.42	≤54	PASS
				AV	2390.000	-56.69	≤-45.62	2.00	2.42	42.93	≤54	PASS
				Peak	2310.000	-49.38	≤-23.20	2.00	0.00	47.82	≤74	PASS
				Peak	2333.390	-45.87	≤-23.20	2.00	0.00	51.33	≤74	PASS
				Peak	2390.000	-48.52	≤-23.20	2.00	0.00	48.68	≤74	PASS
		High	2478	AV	2483.500	-56.43	≤-45.62	2.00	2.42	43.19	≤54	PASS
				AV	2494.800	-55.92	≤-45.62	2.00	2.42	43.70	≤54	PASS
				AV	2500.000	-56.9	≤-45.62	2.00	2.42	42.72	≤54	PASS
				Peak	2483.500	-46.7	≤-23.20	2.00	0.00	50.50	≤74	PASS
				Peak	2497.040	-46.29	≤-23.20	2.00	0.00	50.91	≤74	PASS
				Peak	2500.000	-49	≤-23.20	2.00	0.00	48.20	≤74	PASS

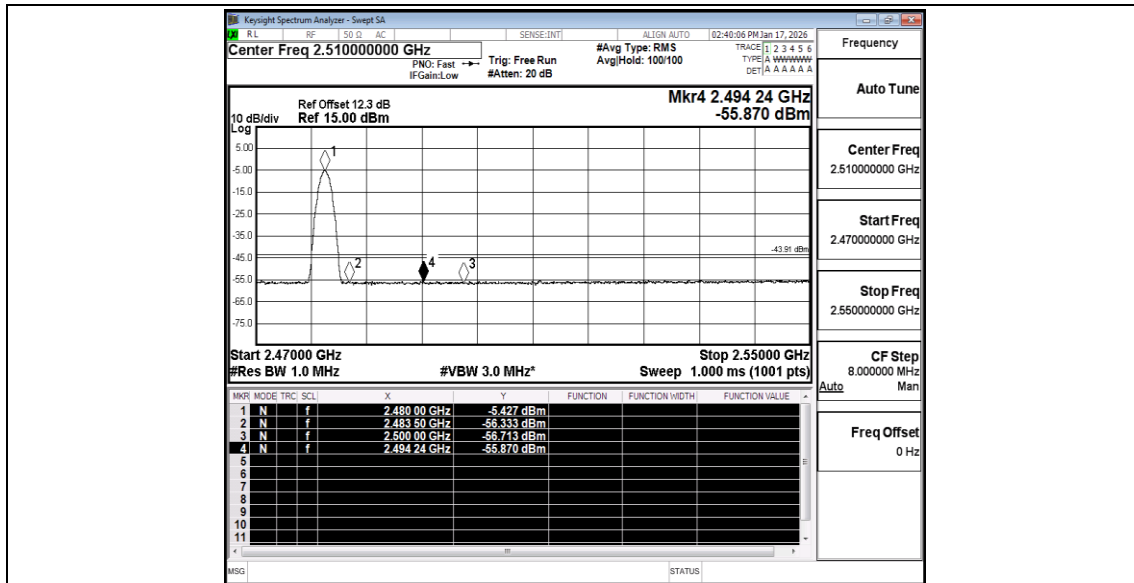
Note: offset=System attenuation +cabel loss

Note:

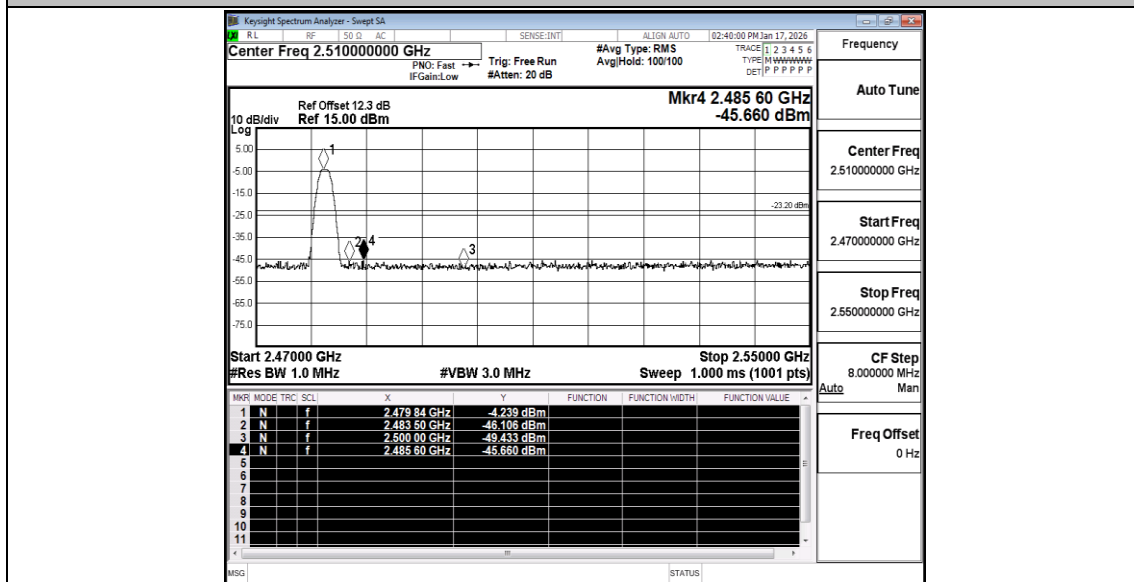
1. The Antenna Gain is compensated in the graph.
2. The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.

Test Graphs





BLE_1M_Ant1_High_2480_Peak



BLE_2M_Ant1_Low_2404_AV

