

Appendix B

RF Test Data for BT LE (Conducted Measurement)

Product Name: Tablet

Test Model: HPD-AD610

Environmental Conditions

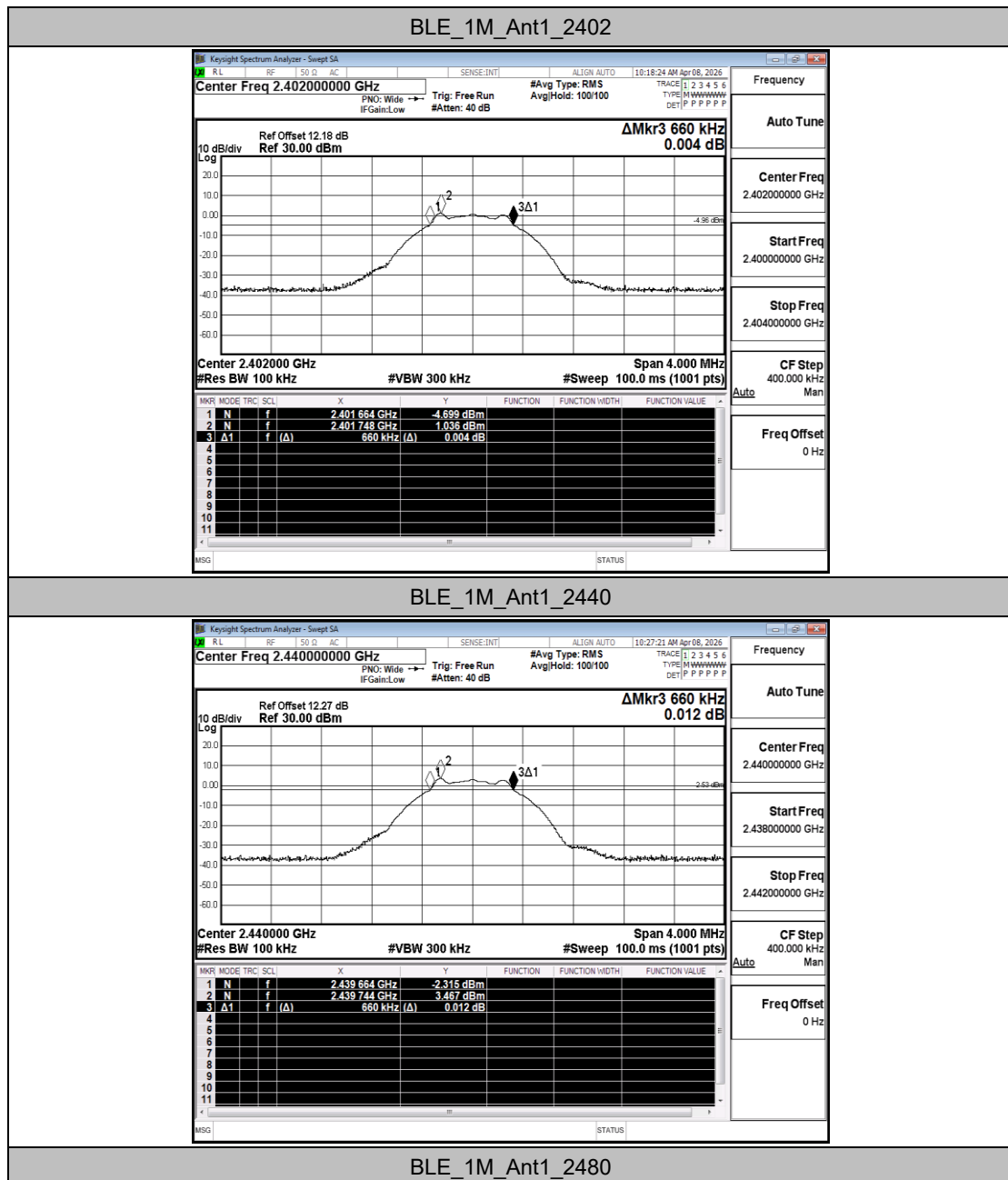
Temperature:	24.7°C
Relative Humidity:	55.2%
ATM Pressure:	100.0 kPa
Test Engineer:	Zhang hai
Supervised by:	Fengliu Tang

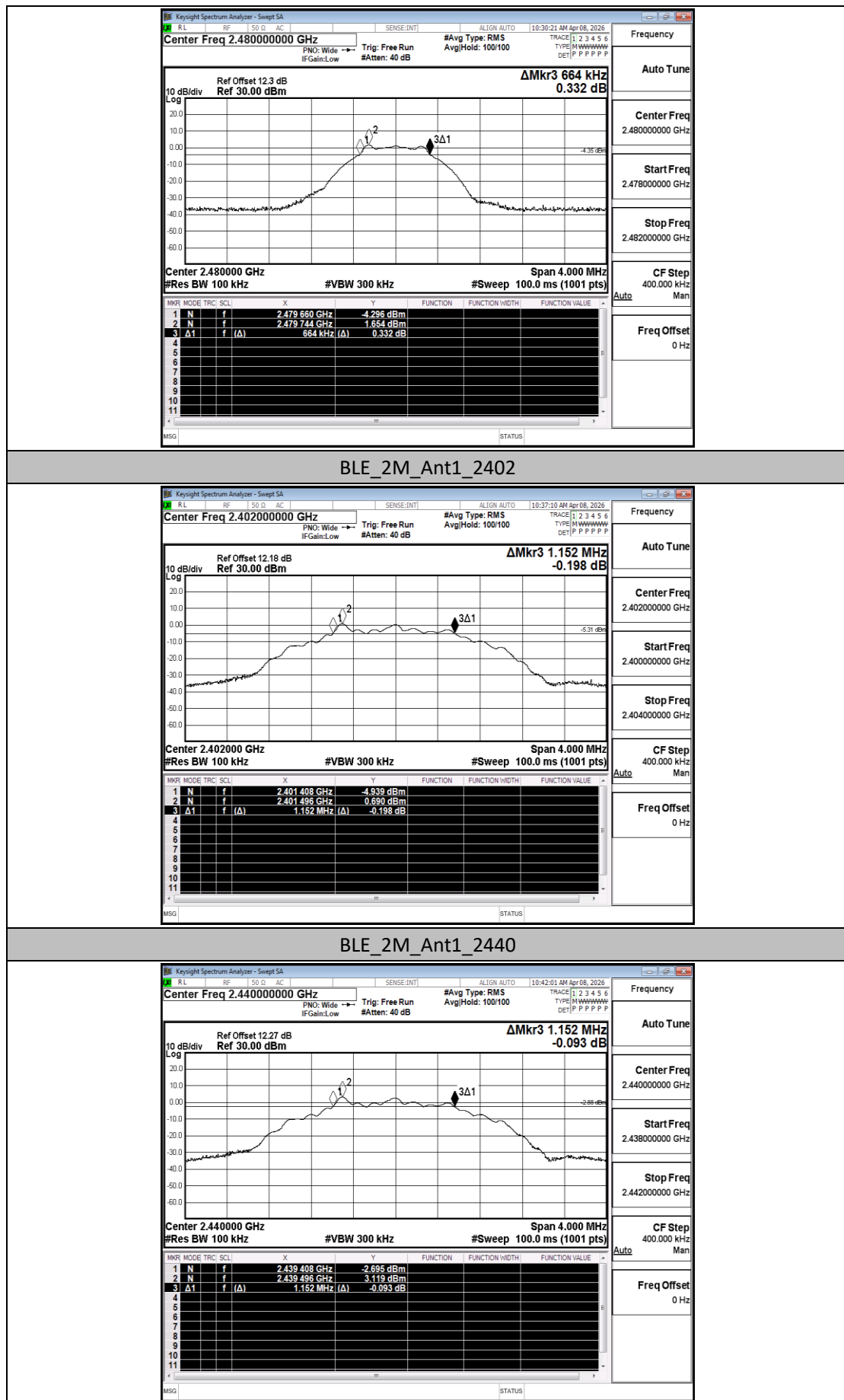
B.1 DTS Bandwidth

Test Result

TestMode	Antenna	Freq (MHz)	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit [MHz]	Verdict
BLE_1M	Ant1	2402	0.660	2401.664	2402.324	0.5	PASS
		2440	0.660	2439.664	2440.324	0.5	PASS
		2480	0.664	2479.660	2480.324	0.5	PASS
BLE_2M	Ant1	2402	1.152	2401.408	2402.560	0.5	PASS
		2440	1.152	2439.408	2440.560	0.5	PASS
		2480	1.152	2479.408	2480.560	0.5	PASS

Test Graphs

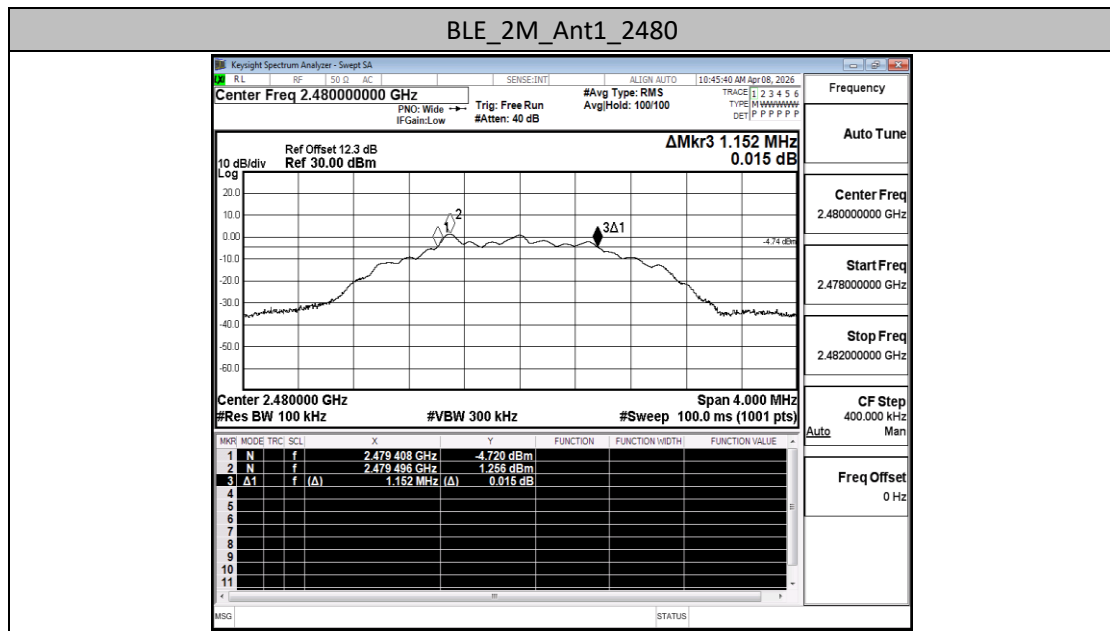




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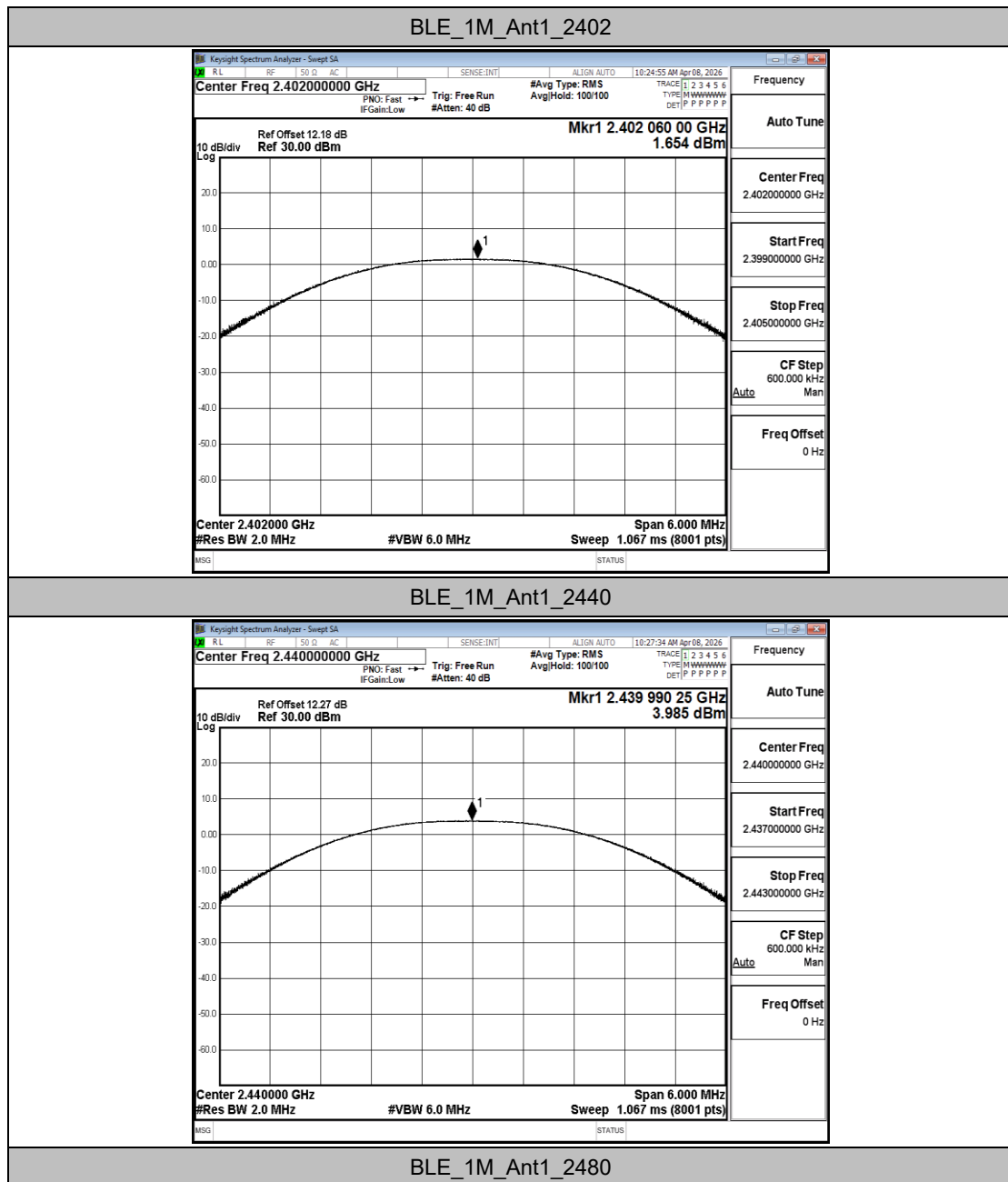


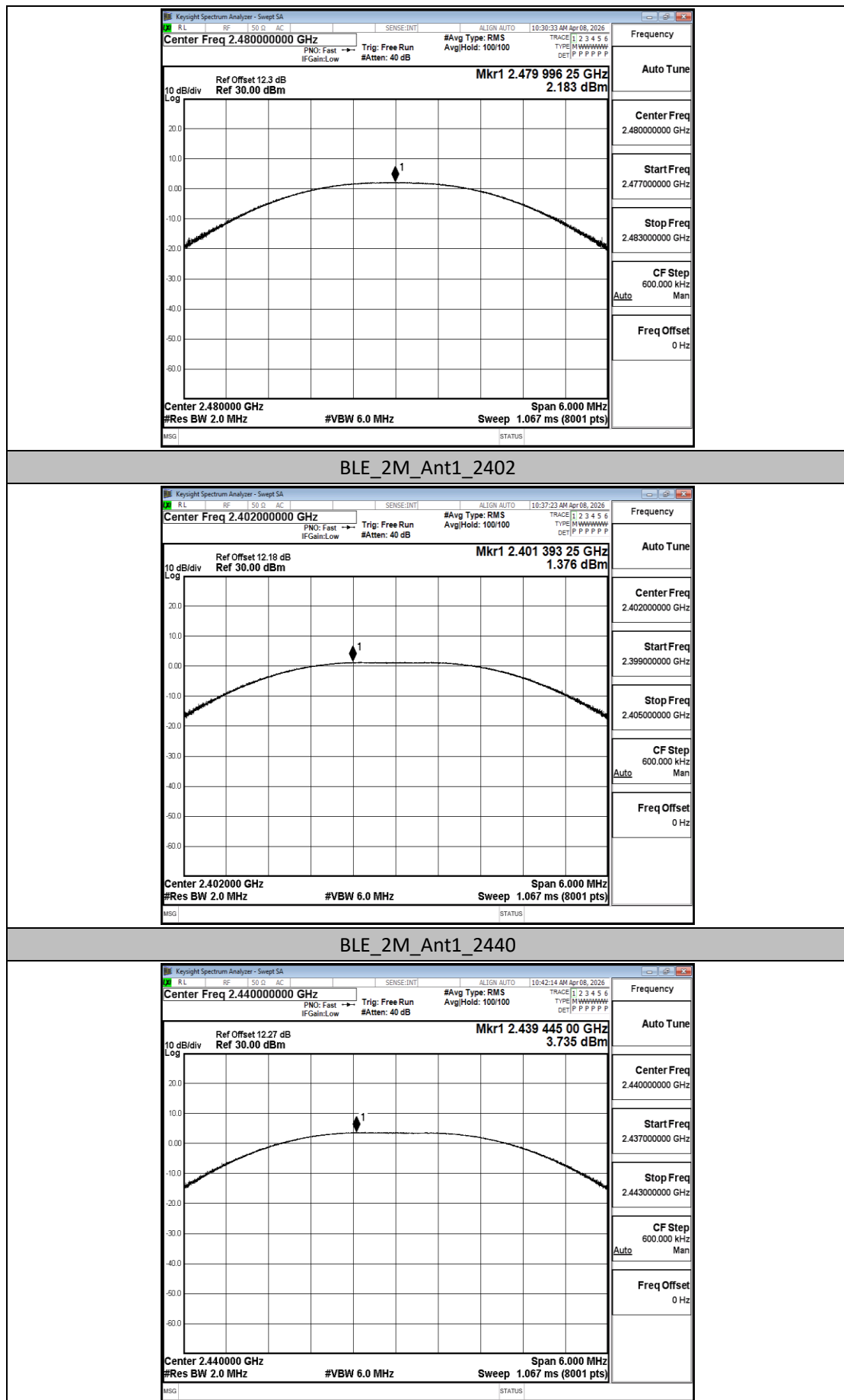
B.2 Maximum Peak conducted output power

Test Result Peak

TestMode	Antenna	Freq (MHz)	Conducted Peak Power[dBm]	EIRP Limit[dBm]	Verdict
BLE_1M	Ant1	2402	1.65	≤36	PASS
		2440	3.99	≤36	PASS
		2480	2.18	≤36	PASS
BLE_2M	Ant1	2402	1.38	≤36	PASS
		2440	3.74	≤36	PASS
		2480	1.97	≤36	PASS

Test Graphs Peak

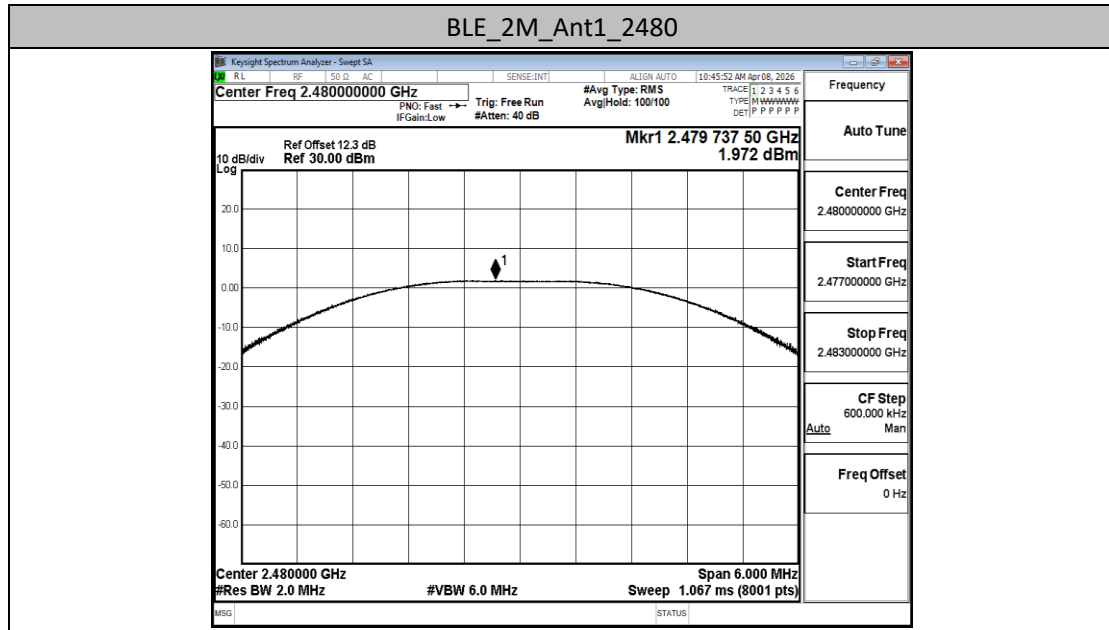




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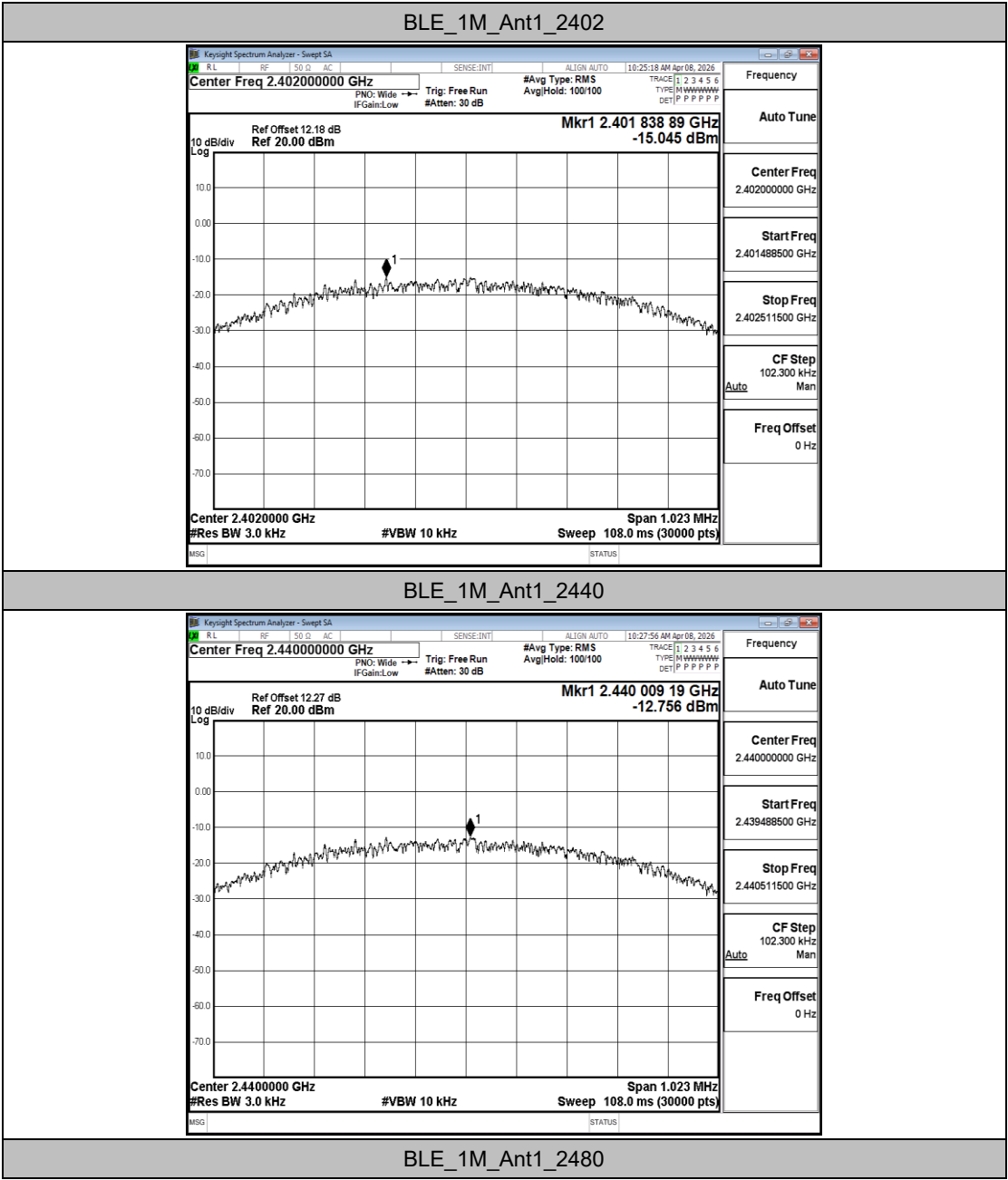


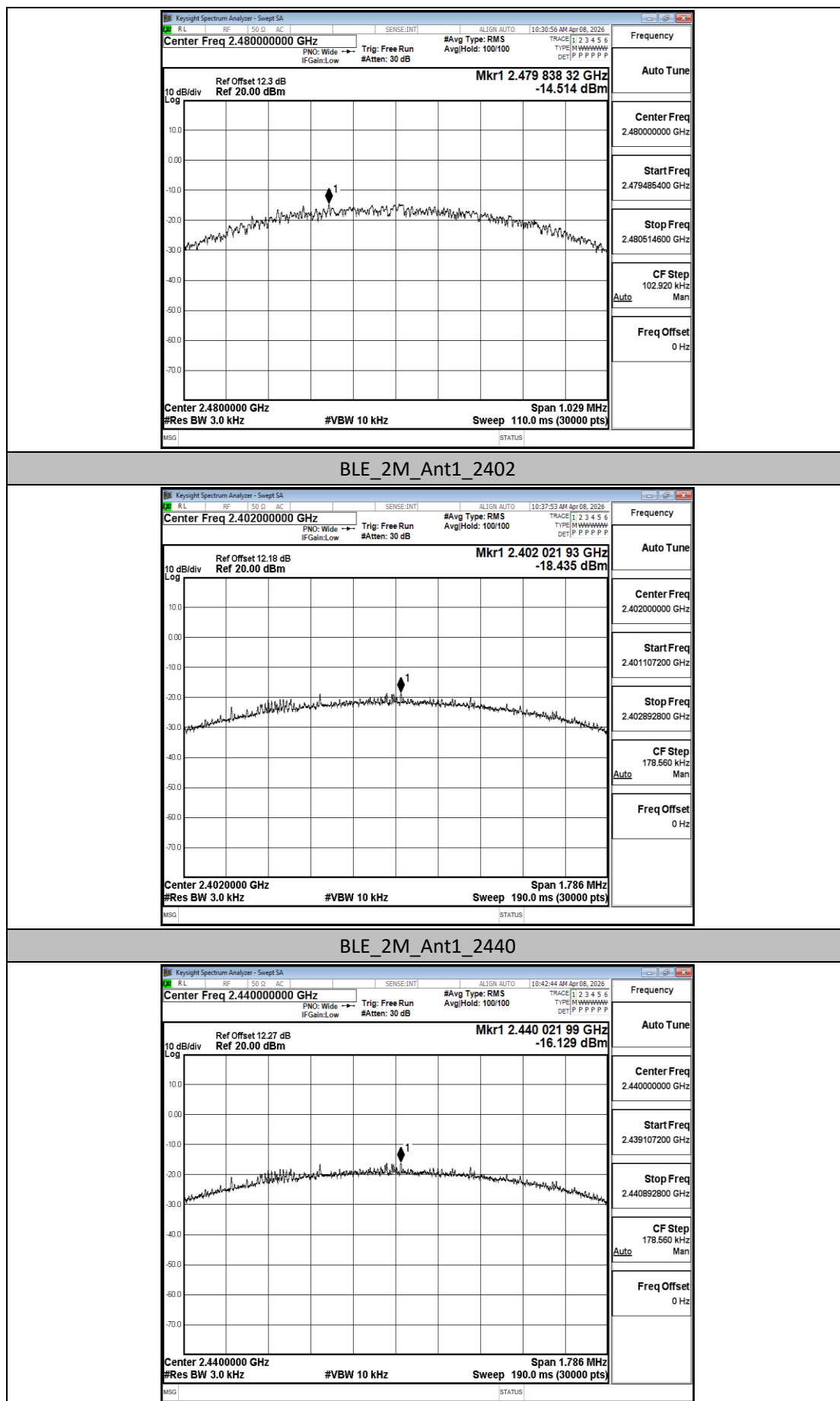
B.3 Maximum power spectral density

Test Result

TestMode	Antenna	Freq (MHz)	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-15.05	≤8.00	PASS
		2440	-12.76	≤8.00	PASS
		2480	-14.51	≤8.00	PASS
BLE_2M	Ant1	2402	-18.44	≤8.00	PASS
		2440	-16.13	≤8.00	PASS
		2480	-17.93	≤8.00	PASS

Test Graphs

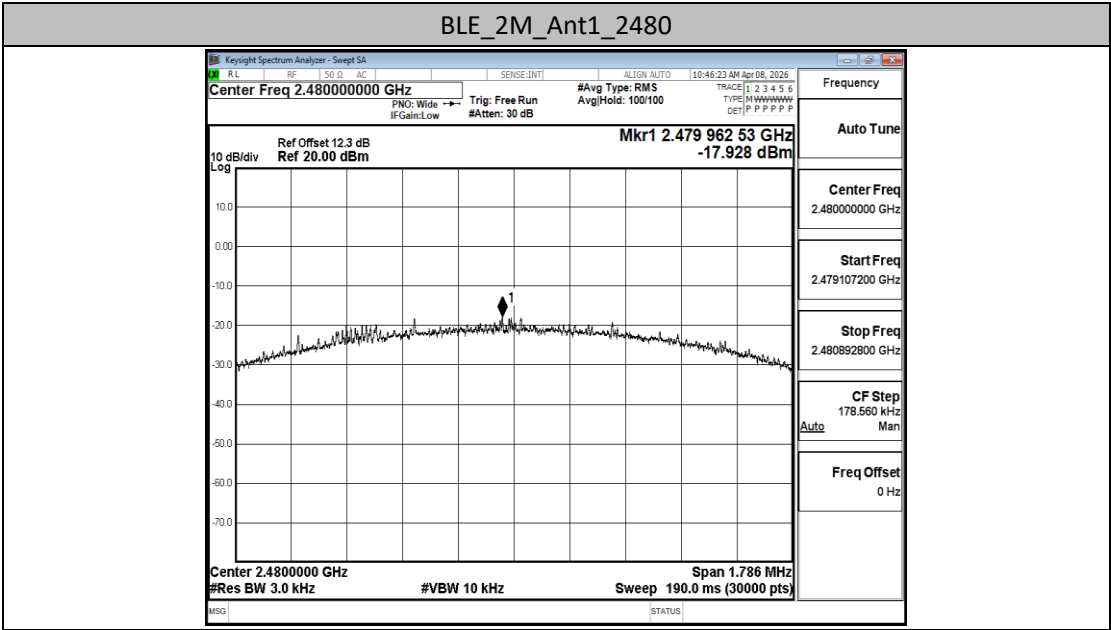




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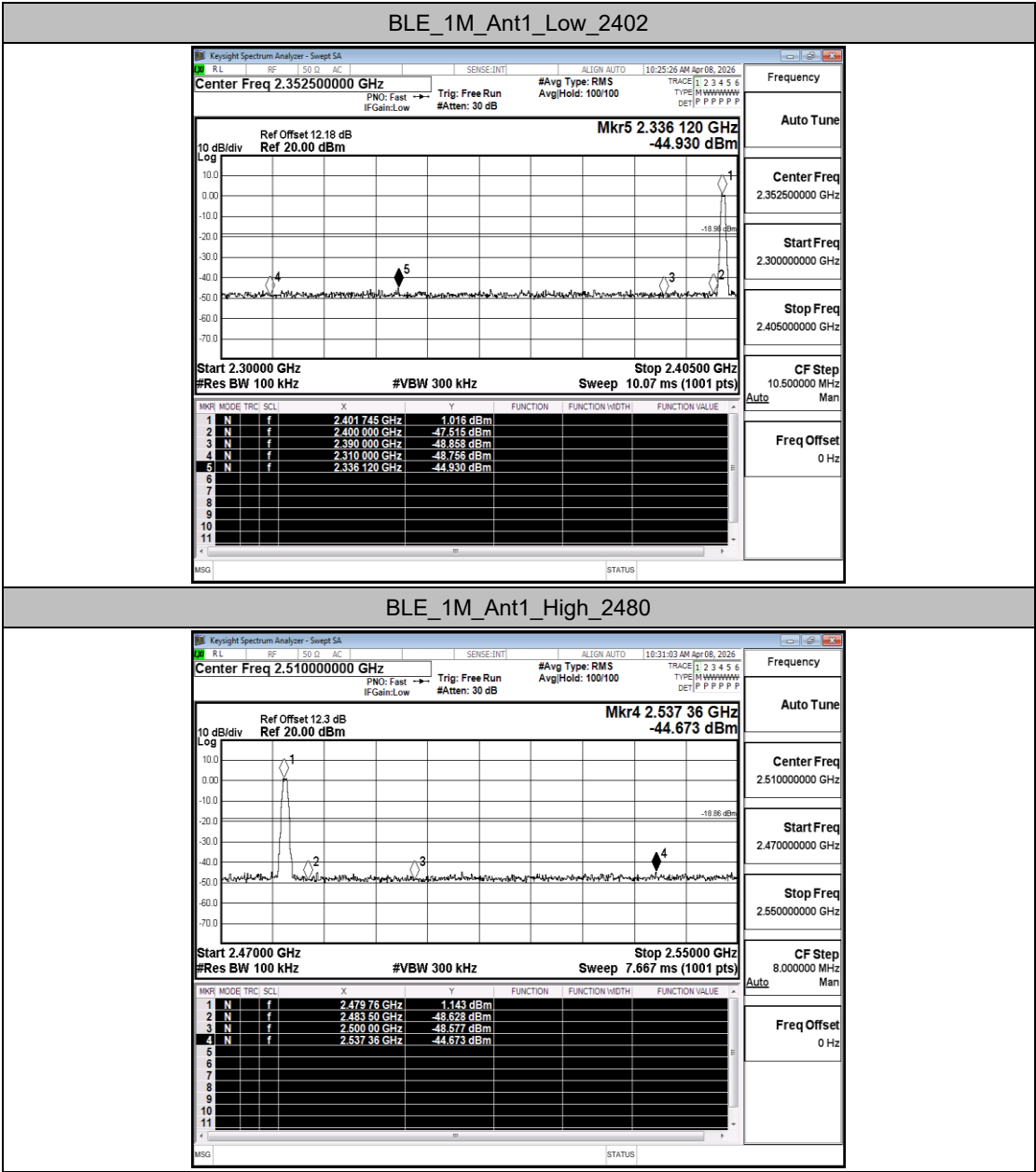


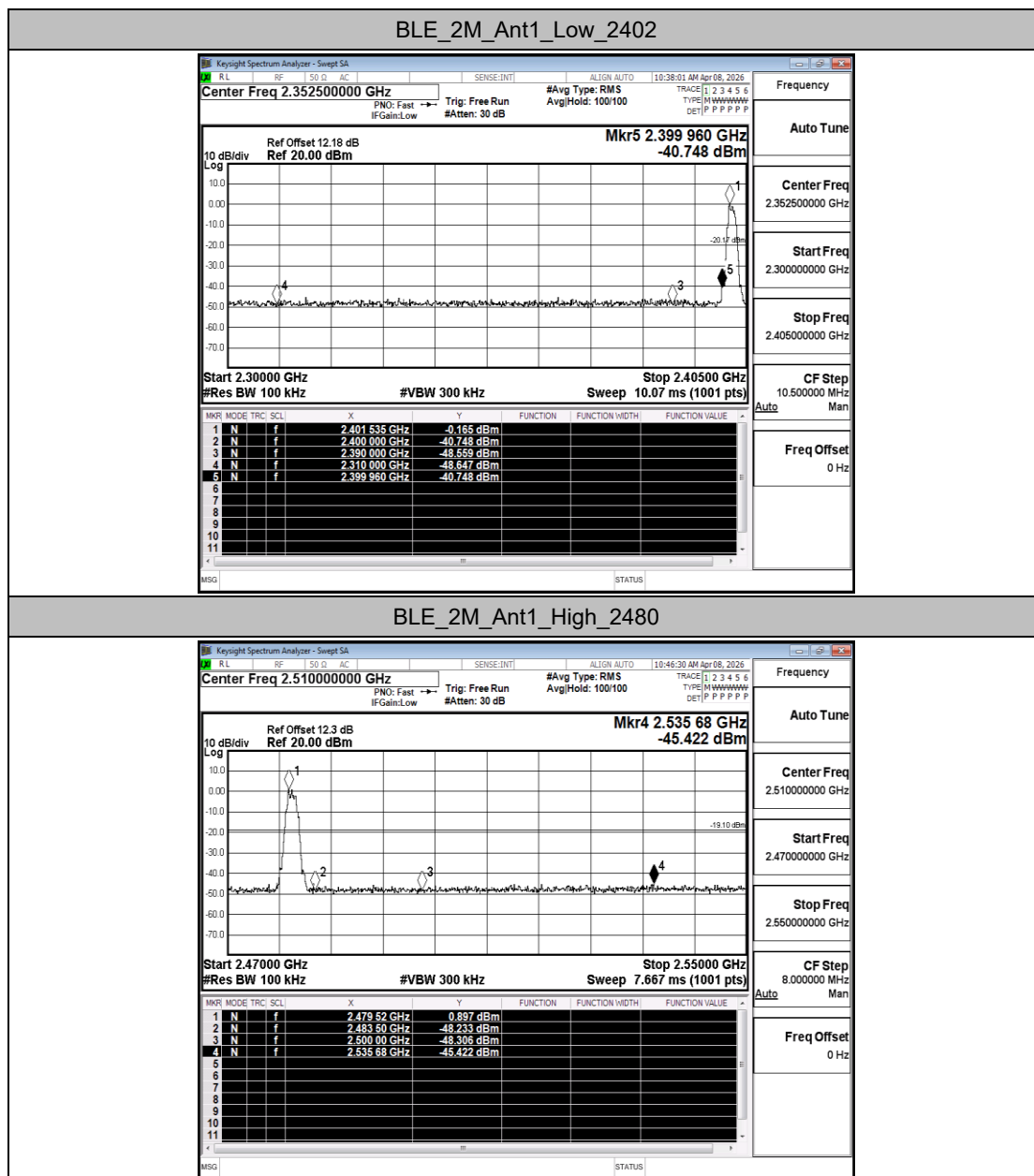
B.4 Band edge measurements

Test Result

TestMode	Antenna	ChName	Freq (MHz)	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	1.02	-44.93	≤-18.98	PASS
		High	2480	1.14	-44.67	≤-18.86	PASS
BLE_2M	Ant1	Low	2402	-0.17	-40.75	≤-20.17	PASS
		High	2480	0.90	-45.42	≤-19.1	PASS

Test Graphs



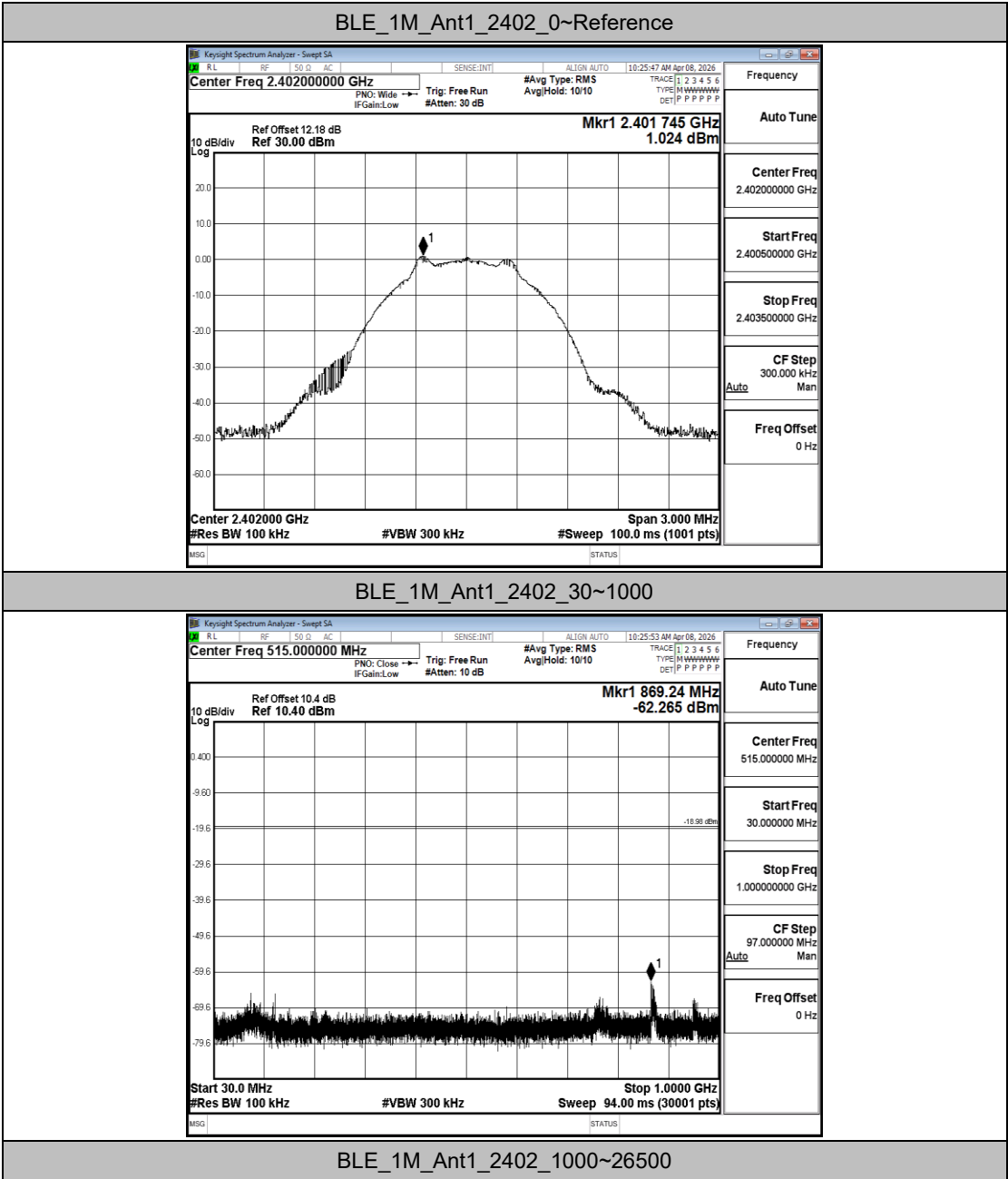


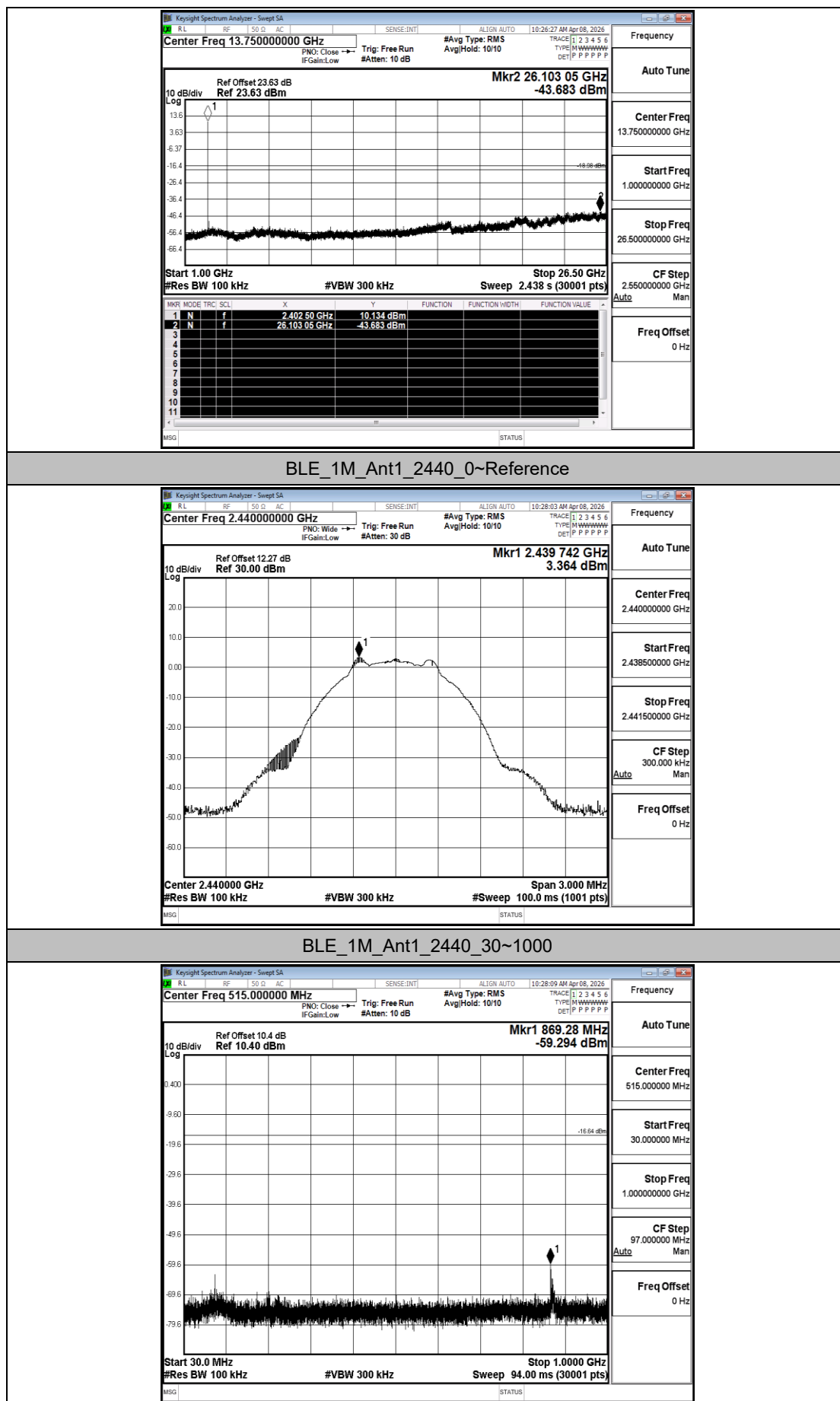
B.5 Conducted Spurious Emission

Test Result

TestMode	Antenna	Freq (MHz)	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	1.02	1.02	---	PASS
			30~1000	1.02	-62.27	≤-18.98	PASS
			1000~26500	1.02	-43.68	≤-18.98	PASS
		2440	Reference	3.36	3.36	---	PASS
			30~1000	3.36	-59.29	≤-16.64	PASS
			1000~26500	3.36	-43.52	≤-16.64	PASS
		2480	Reference	1.56	1.56	---	PASS
			30~1000	1.56	-62.44	≤-18.44	PASS
			1000~26500	1.56	-42.68	≤-18.44	PASS
BLE_2M	Ant1	2402	Reference	0.62	0.62	---	PASS
			30~1000	0.62	-60.88	≤-19.38	PASS
			1000~26500	0.62	-43.35	≤-19.38	PASS
		2440	Reference	3.01	3.01	---	PASS
			30~1000	3.01	-59	≤-16.99	PASS
			1000~26500	3.01	-42.96	≤-16.99	PASS
		2480	Reference	1.21	1.21	---	PASS
			30~1000	1.21	-59.9	≤-18.79	PASS
			1000~26500	1.21	-43.57	≤-18.79	PASS

Test Graphs

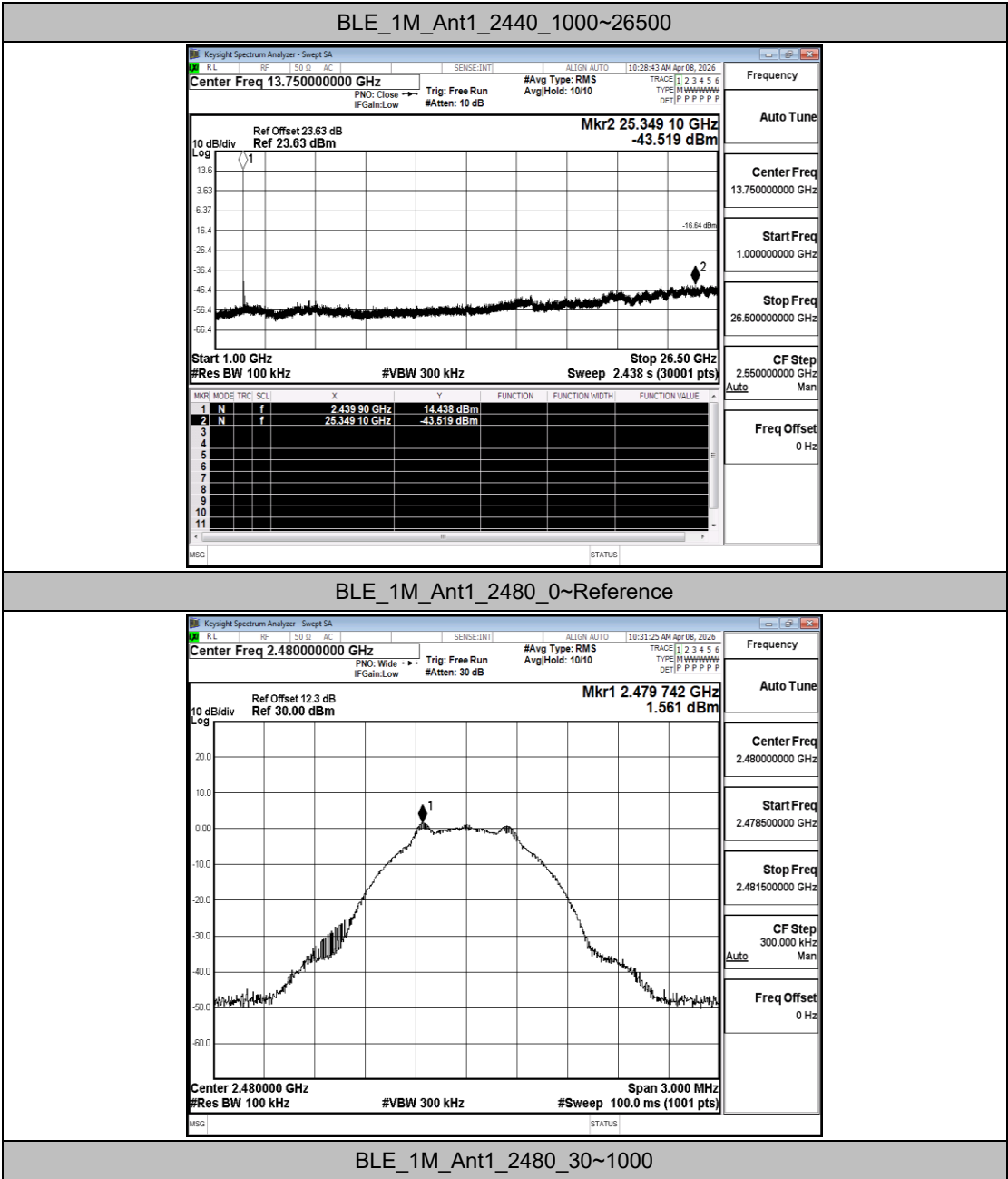


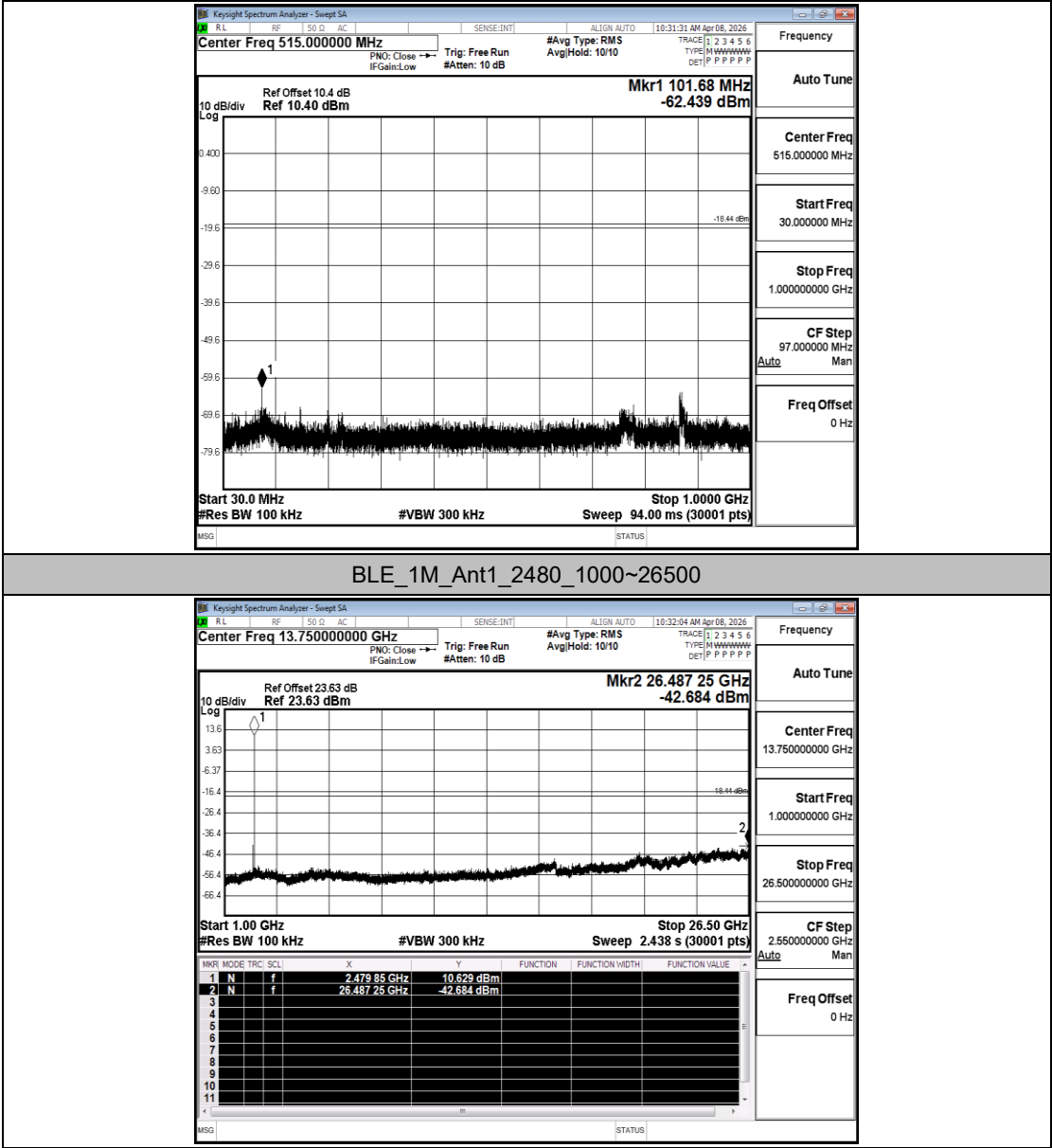


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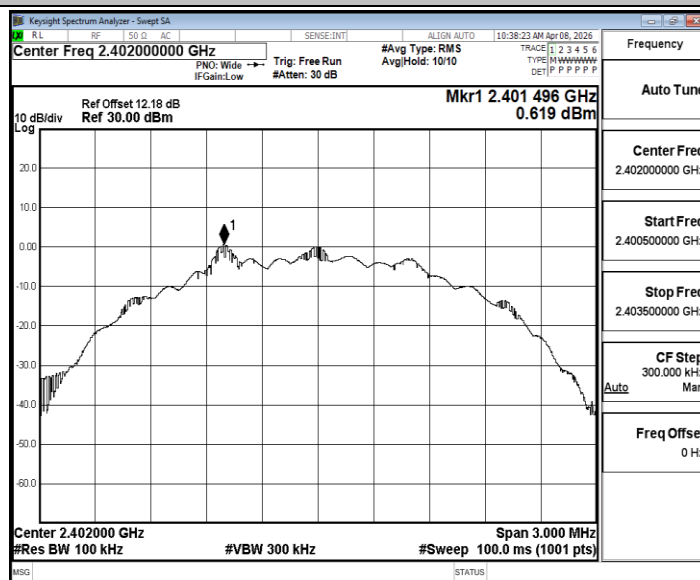
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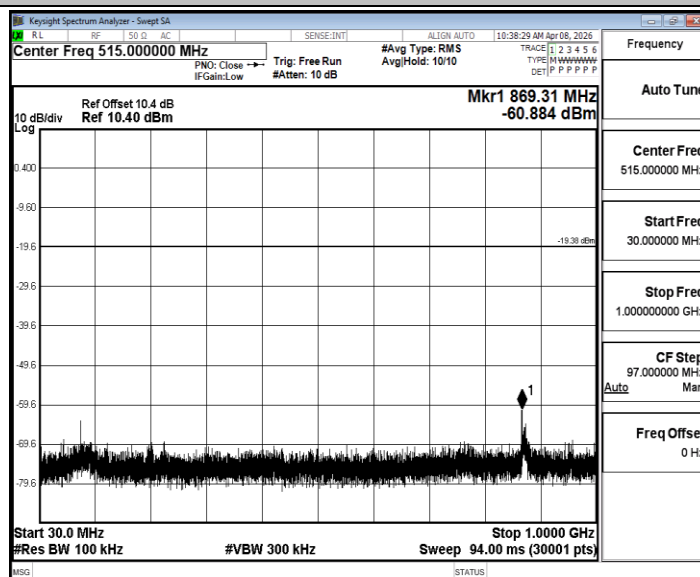




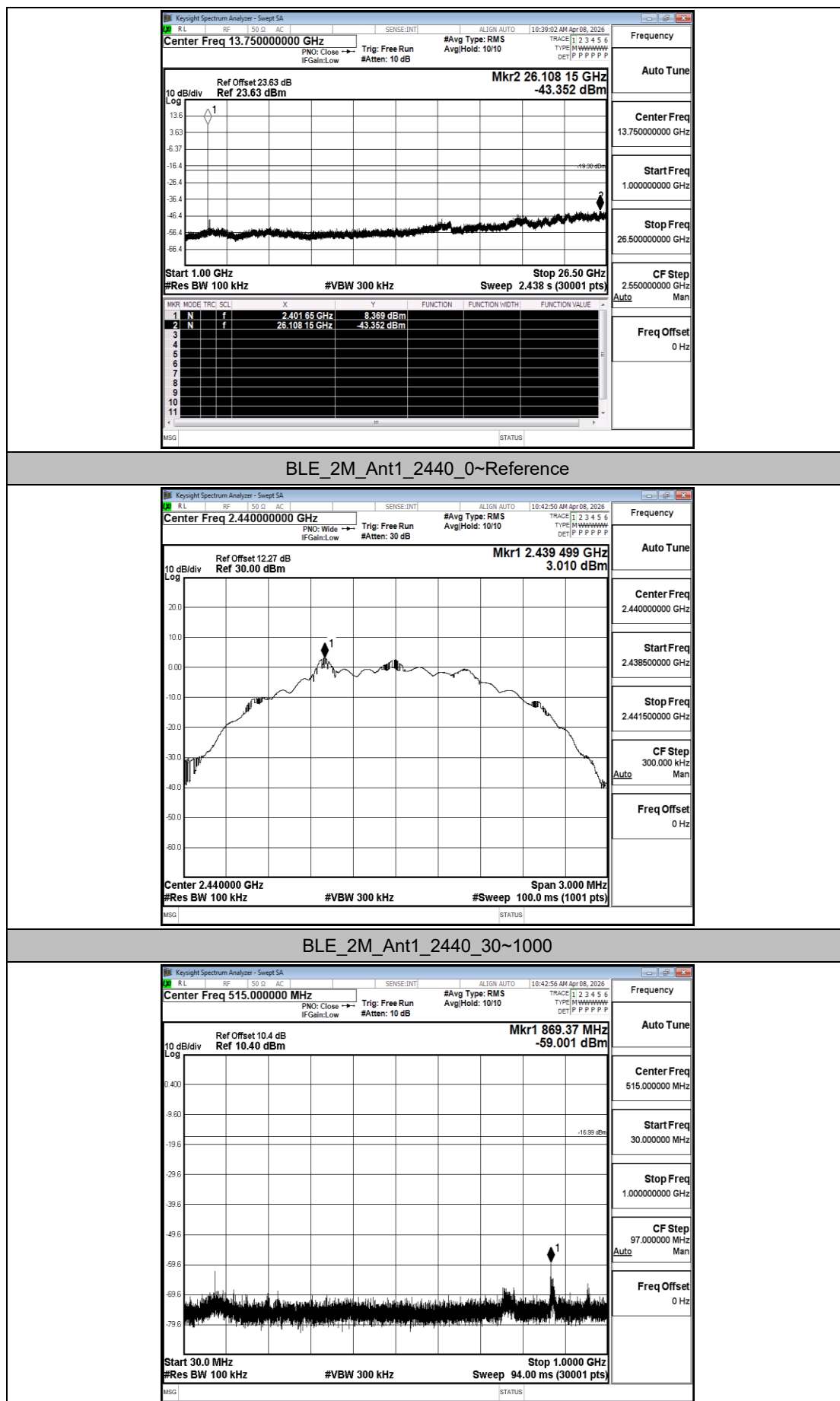
BLE_2M_Ant1_2402_0~Reference



BLE_2M_Ant1_2402_30~1000



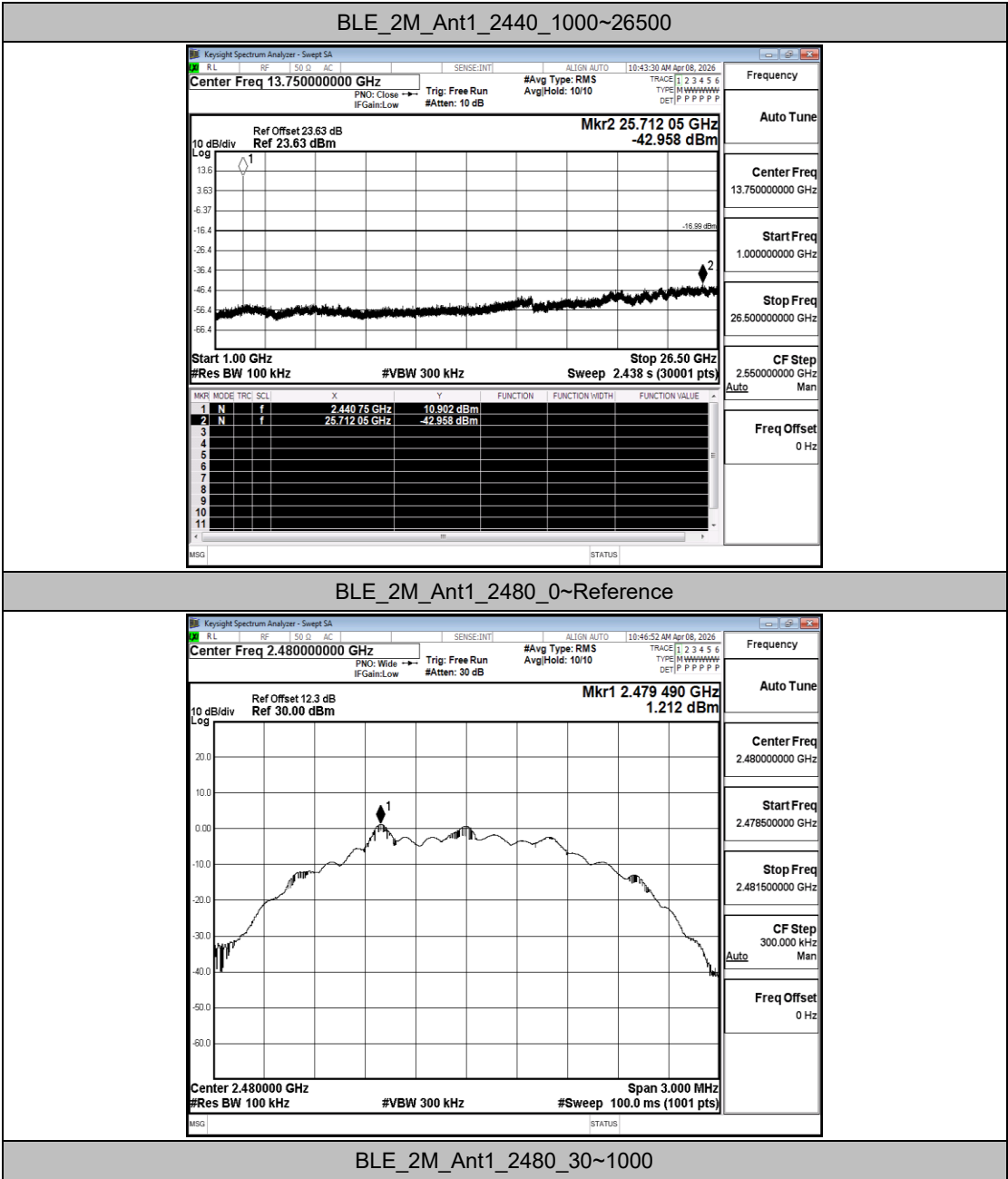
BLE_2M_Ant1_2402_1000~26500

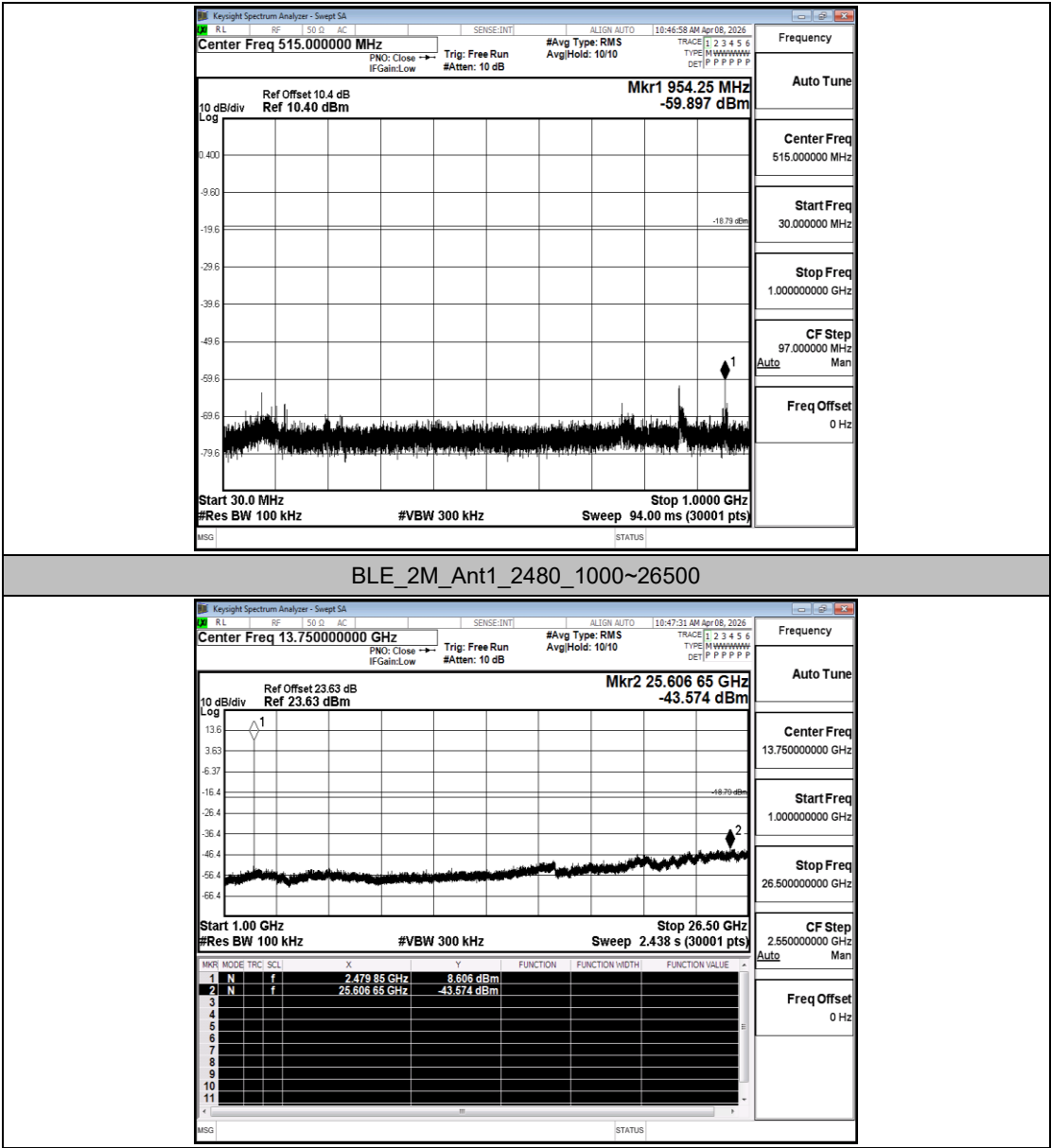


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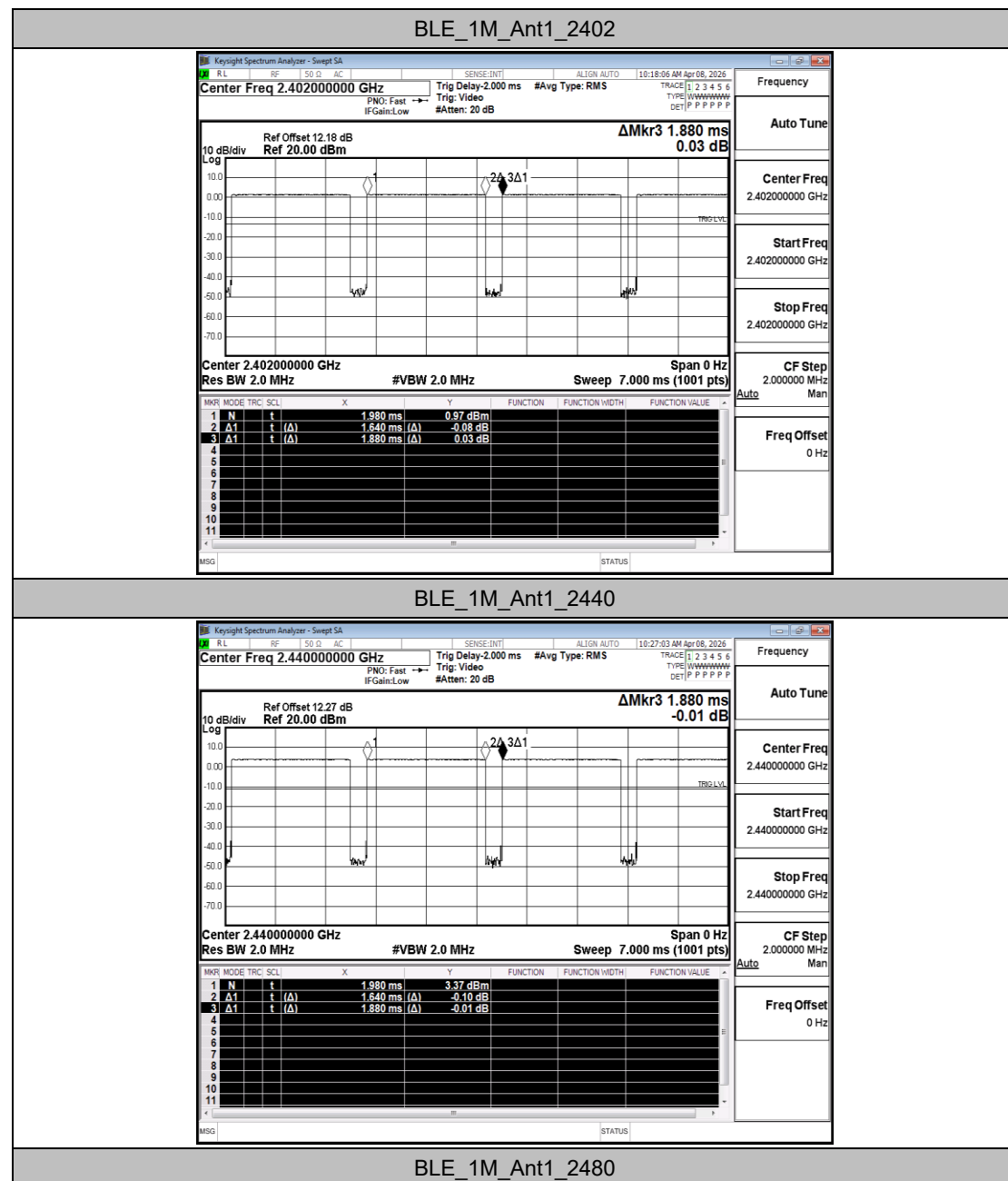


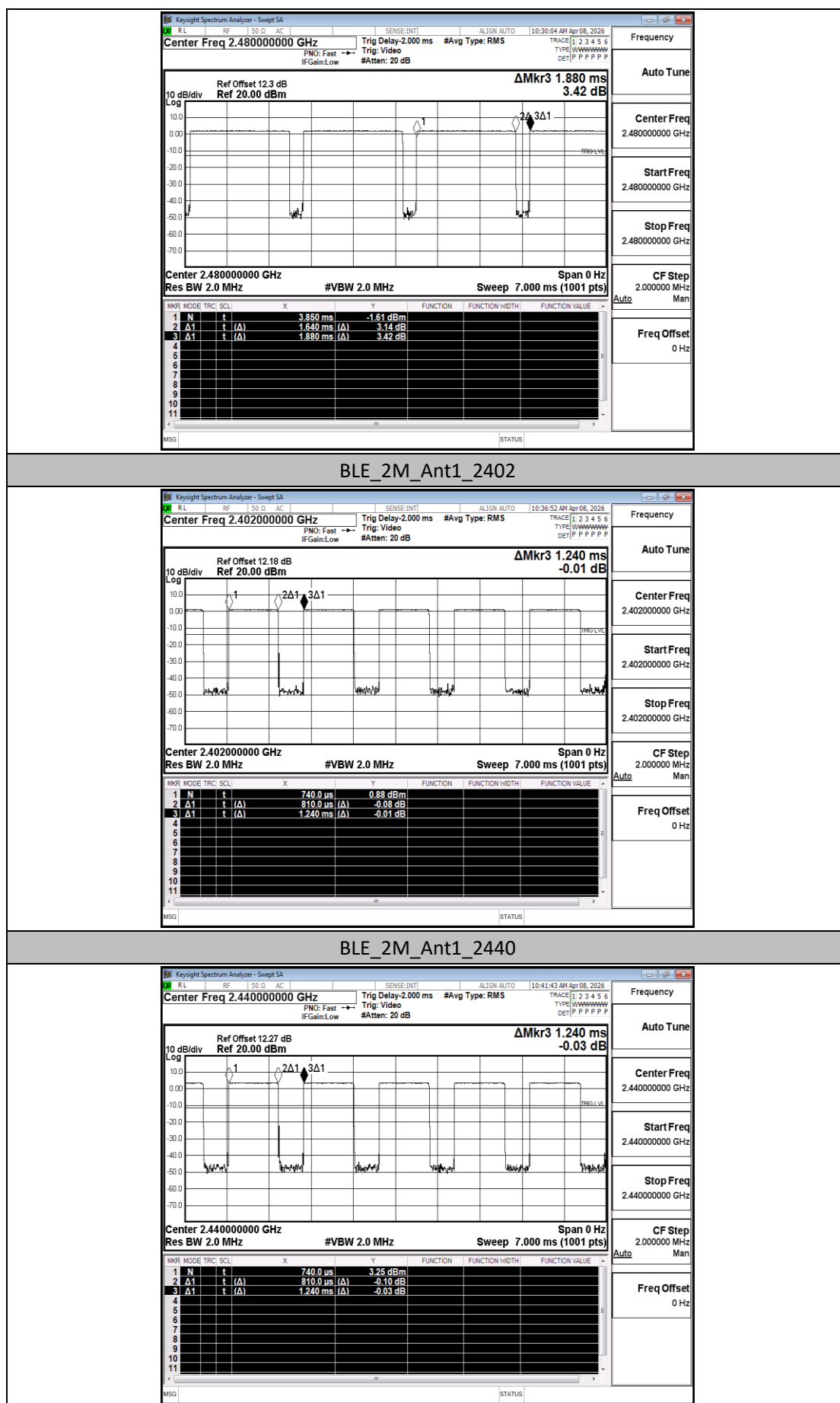
B.6 Duty Cycle

Test Result

TestMode	Antenna	Freq (MHz)	ON Time [ms]	Period [ms]	X	DC [%]	xFactor	Limit	Verdict
BLE_1M	Ant1	2402	1.64	1.88	0.8723	87.23	0.59	---	---
		2440	1.64	1.88	0.8723	87.23	0.59	---	---
		2480	1.64	1.88	0.8723	87.23	0.59	---	---
BLE_2M	Ant1	2402	0.81	1.24	0.6532	65.32	1.85	---	---
		2440	0.81	1.24	0.6532	65.32	1.85	---	---
		2480	0.82	1.25	0.6560	65.60	1.83	---	---

Test Graphs

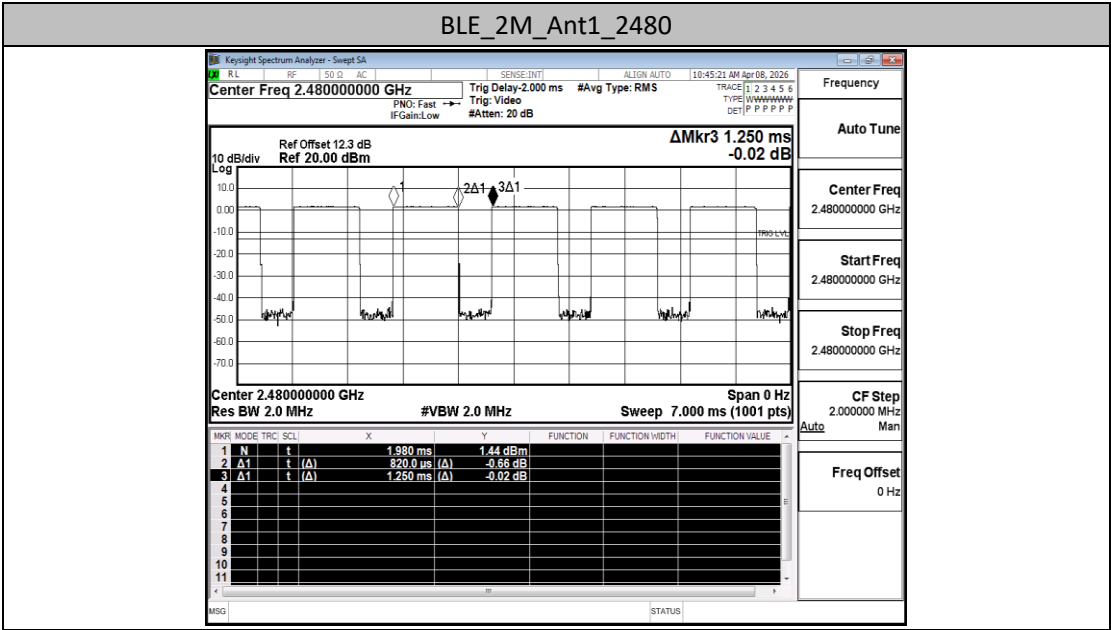




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B.7 Emissions in Restricted Bands

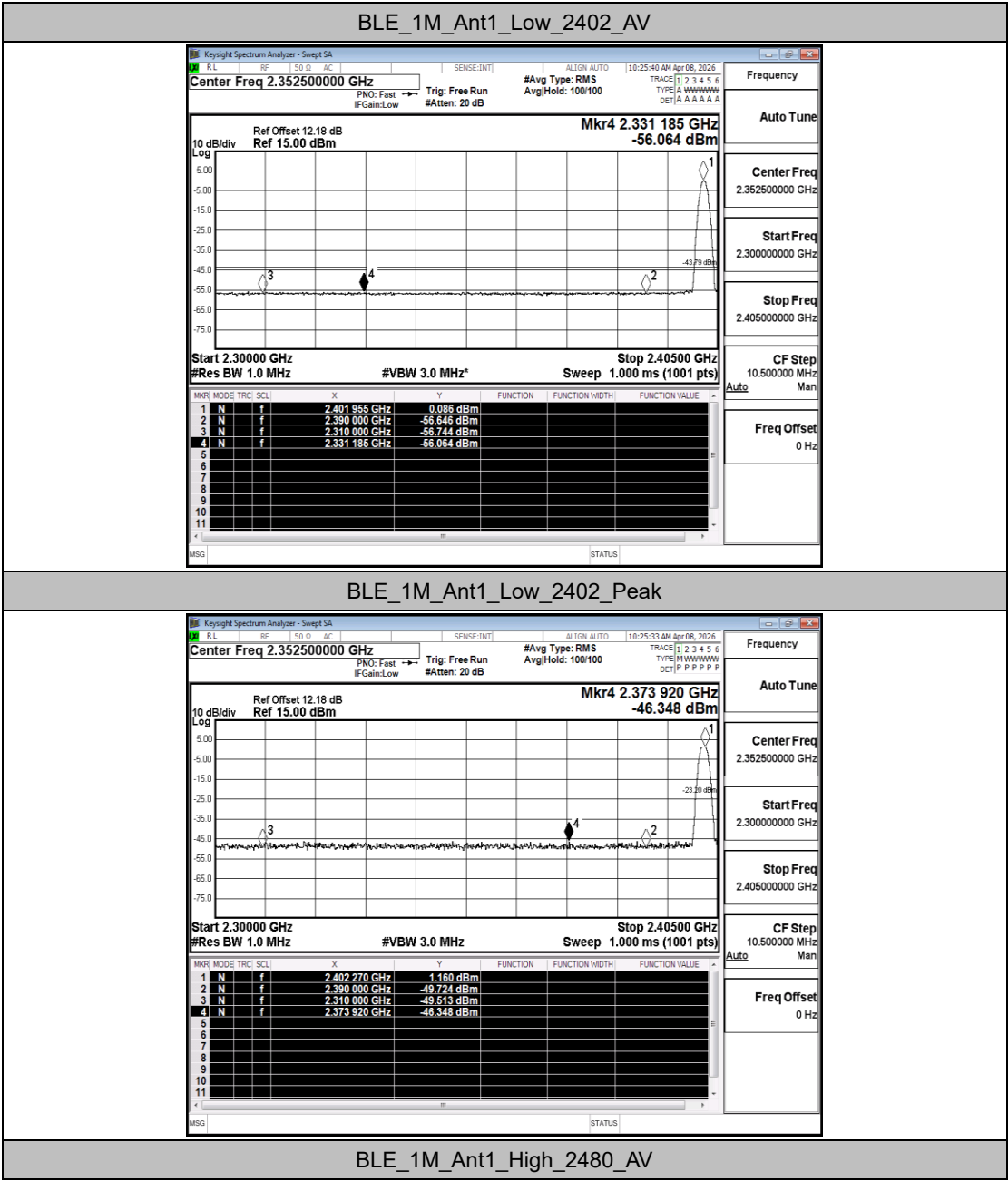
Test Result

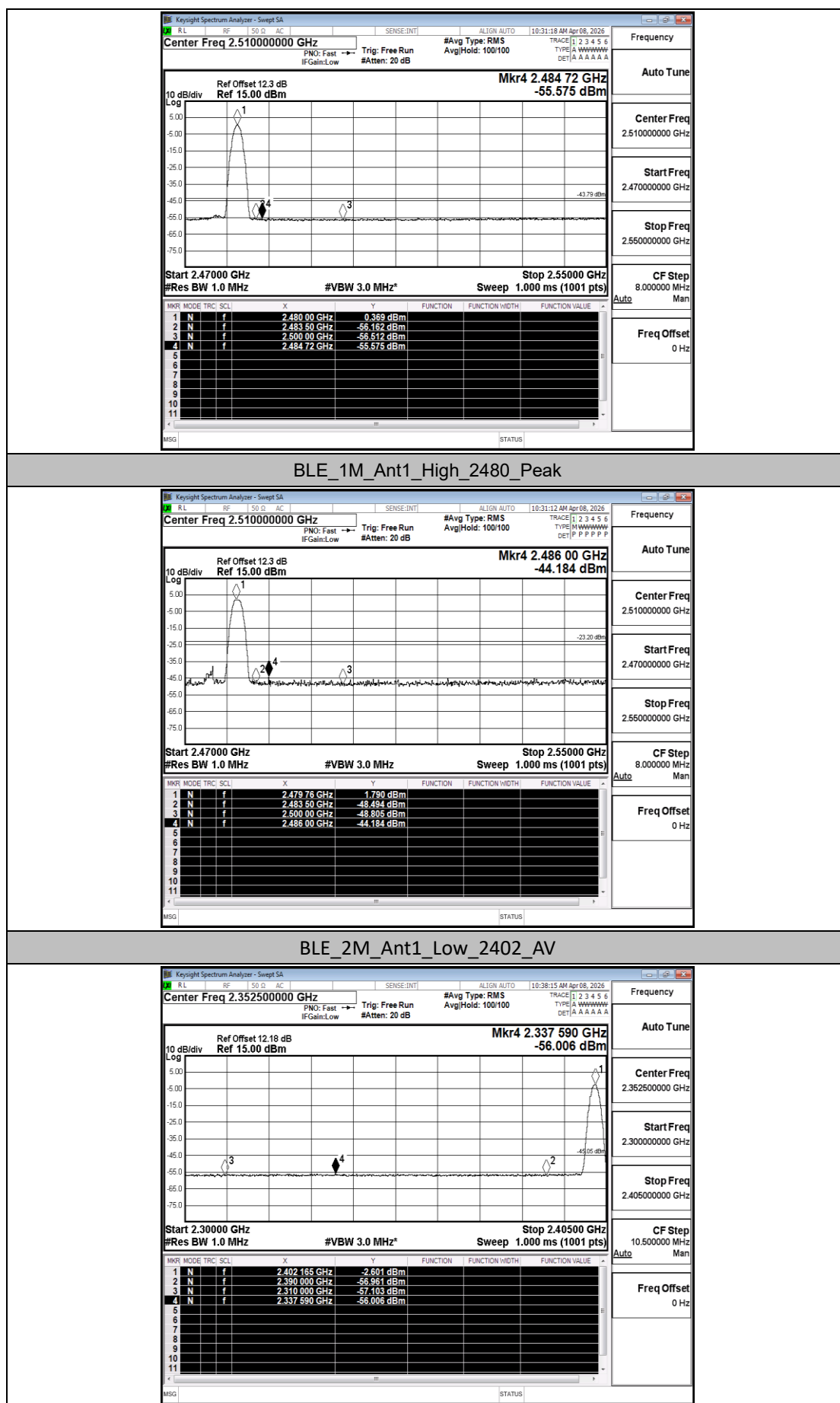
TestMode	Antenna	ChName	Freq (MHz)	Detector	Freq [MHz]	Result [dBm]	Limit [dBm]	Gain [dBi]	DC Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Verdict
BLE_1M	Ant1	Low	2402	AV	2310.000	-56.74	≤-43.79	2.00	0.59	41.05	≤54	PASS
				AV	2331.185	-56.06	≤-43.79	2.00	0.59	41.73	≤54	PASS
				AV	2390.000	-56.65	≤-43.79	2.00	0.59	41.14	≤54	PASS
				Peak	2310.000	-49.51	≤-23.20	2.00	0.00	47.69	≤74	PASS
				Peak	2373.920	-46.35	≤-23.20	2.00	0.00	50.85	≤74	PASS
				Peak	2390.000	-49.72	≤-23.20	2.00	0.00	47.48	≤74	PASS
		High	2480	AV	2483.500	-56.16	≤-43.79	2.00	0.59	41.63	≤54	PASS
				AV	2484.720	-55.58	≤-43.79	2.00	0.59	42.21	≤54	PASS
				AV	2500.000	-56.51	≤-43.79	2.00	0.59	41.28	≤54	PASS
				Peak	2483.500	-48.49	≤-23.20	2.00	0.00	48.71	≤74	PASS
				Peak	2486.000	-44.18	≤-23.20	2.00	0.00	53.02	≤74	PASS
				Peak	2500.000	-48.81	≤-23.20	2.00	0.00	48.39	≤74	PASS
BLE_2M	Ant1	Low	2402	AV	2310.000	-57.1	≤-45.05	2.00	1.85	41.95	≤54	PASS
				AV	2337.590	-56.01	≤-45.05	2.00	1.85	43.04	≤54	PASS
				AV	2390.000	-56.96	≤-45.05	2.00	1.85	42.09	≤54	PASS
				Peak	2310.000	-48.45	≤-23.20	2.00	0.00	48.75	≤74	PASS
				Peak	2352.395	-46.1	≤-23.20	2.00	0.00	51.10	≤74	PASS
				Peak	2390.000	-49.76	≤-23.20	2.00	0.00	47.44	≤74	PASS
		High	2480	AV	2483.500	-55.46	≤-45.03	2.00	1.83	43.57	≤54	PASS
				AV	2483.520	-55.46	≤-45.03	2.00	1.83	43.57	≤54	PASS
				AV	2500.000	-57.37	≤-45.03	2.00	1.83	41.66	≤54	PASS
				Peak	2483.500	-48.2	≤-23.20	2.00	0.00	49.00	≤74	PASS
				Peak	2483.760	-43.64	≤-23.20	2.00	0.00	53.56	≤74	PASS
				Peak	2500.000	-49.48	≤-23.20	2.00	0.00	47.72	≤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

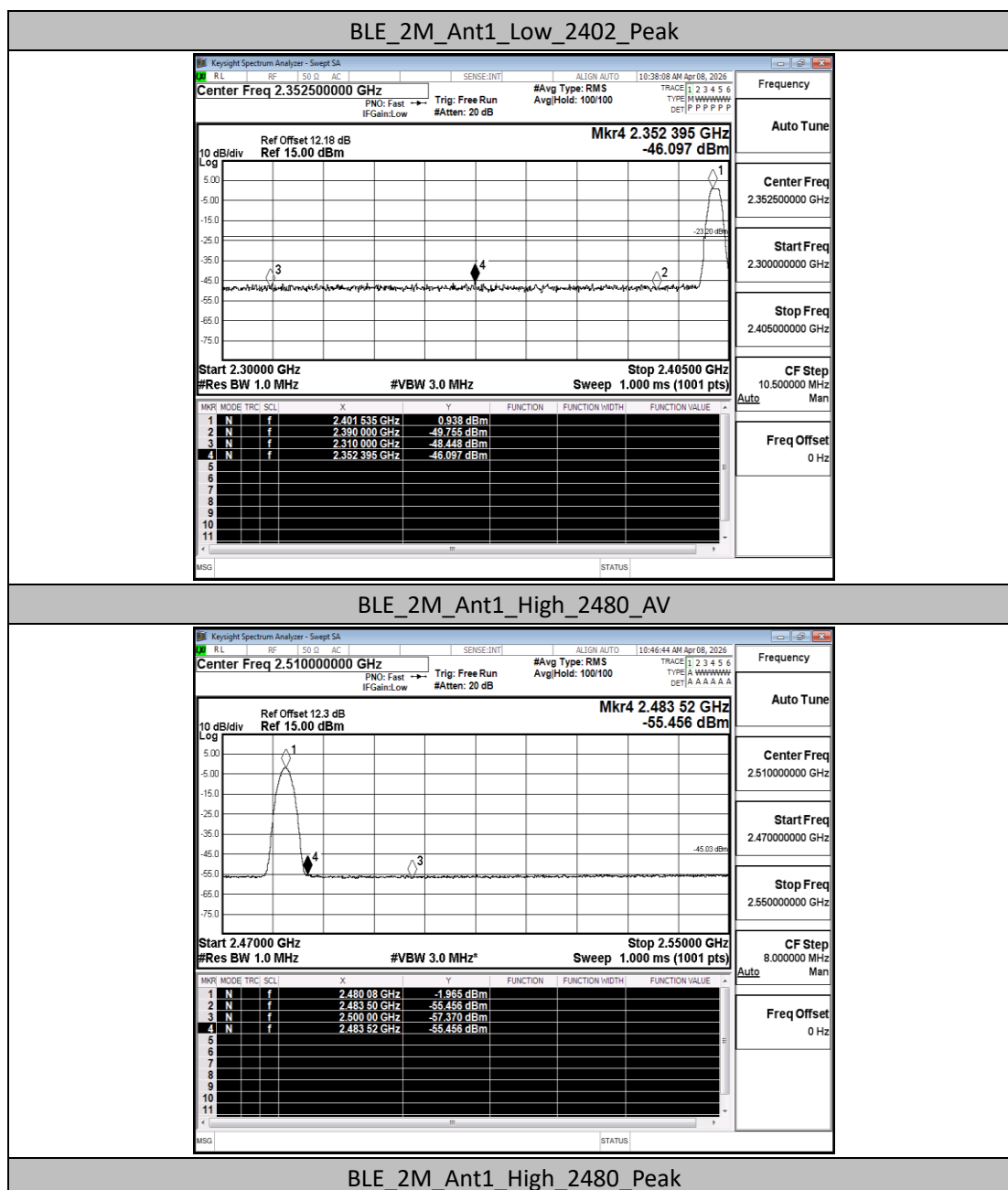




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BLE_2M_Ant1_High_2480_Peak

