



Appendix A

RF Test Data for BT LE V5.1 (Conducted Measurement)

Product Name: Asset Tag

Trade Mark: 

Test Model: AT-1

Environmental Conditions

Temperature:	21.6° C
Relative Humidity:	52.7%
ATM Pressure:	100.0 kPa
Test Engineer:	Carl Fu
Supervised by:	Li Huan

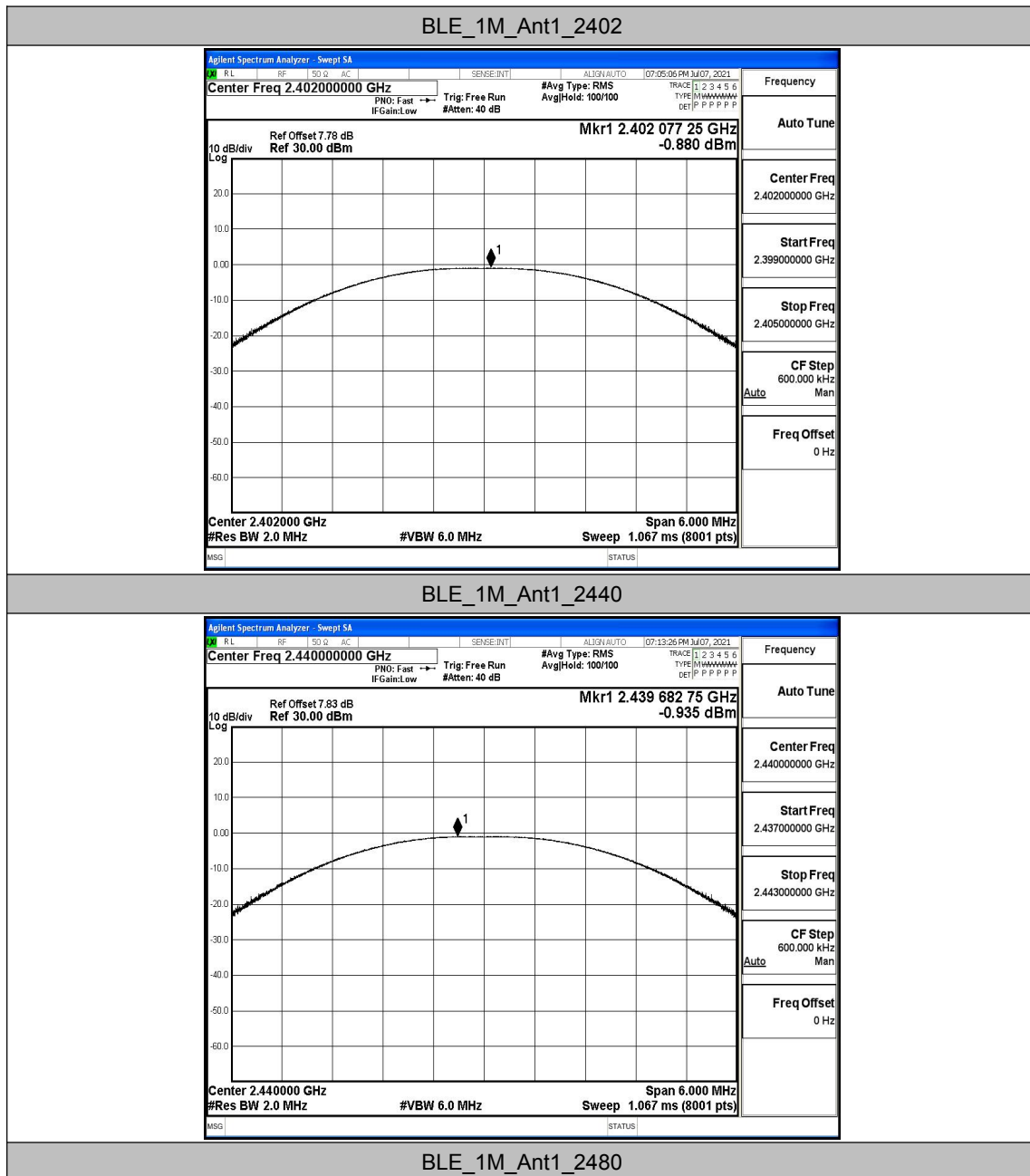


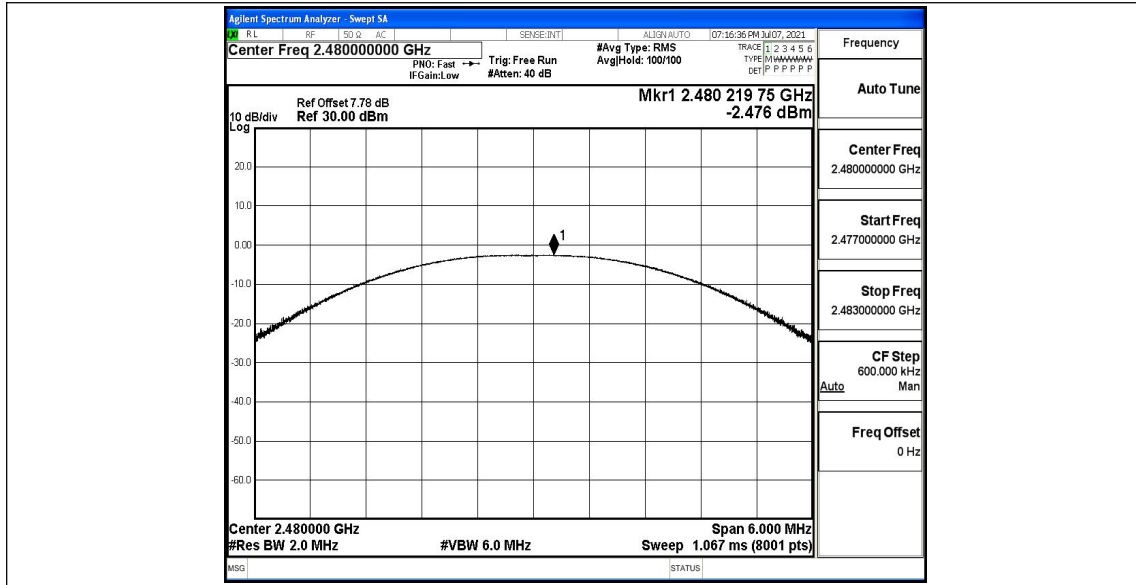
A.2 Maximum conducted output peak power

Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	-0.88	≤30	PASS
		2440	-0.94	≤30	PASS
		2480	-2.48	≤30	PASS

Test Graphs





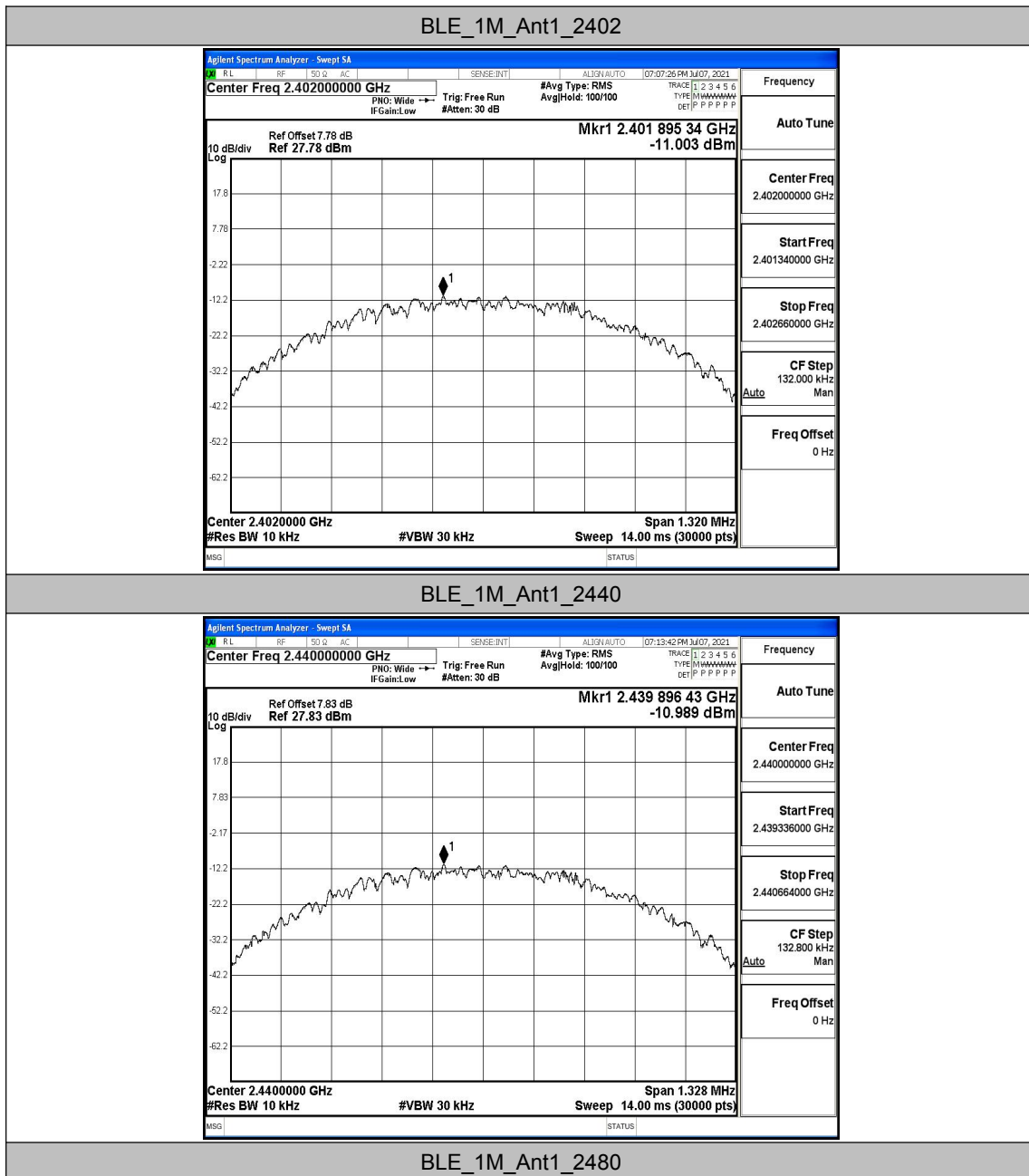


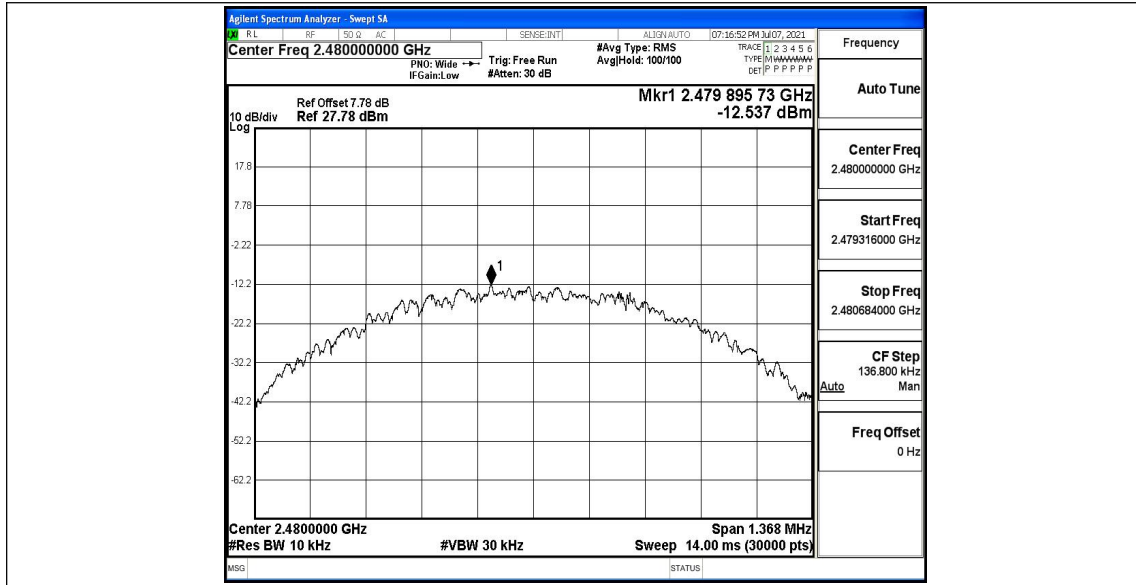
A.3 Maximum power spectral density

Test Result

TestMode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-11	≤8	PASS
		2440	-10.99	≤8	PASS
		2480	-12.54	≤8	PASS

Test Graphs





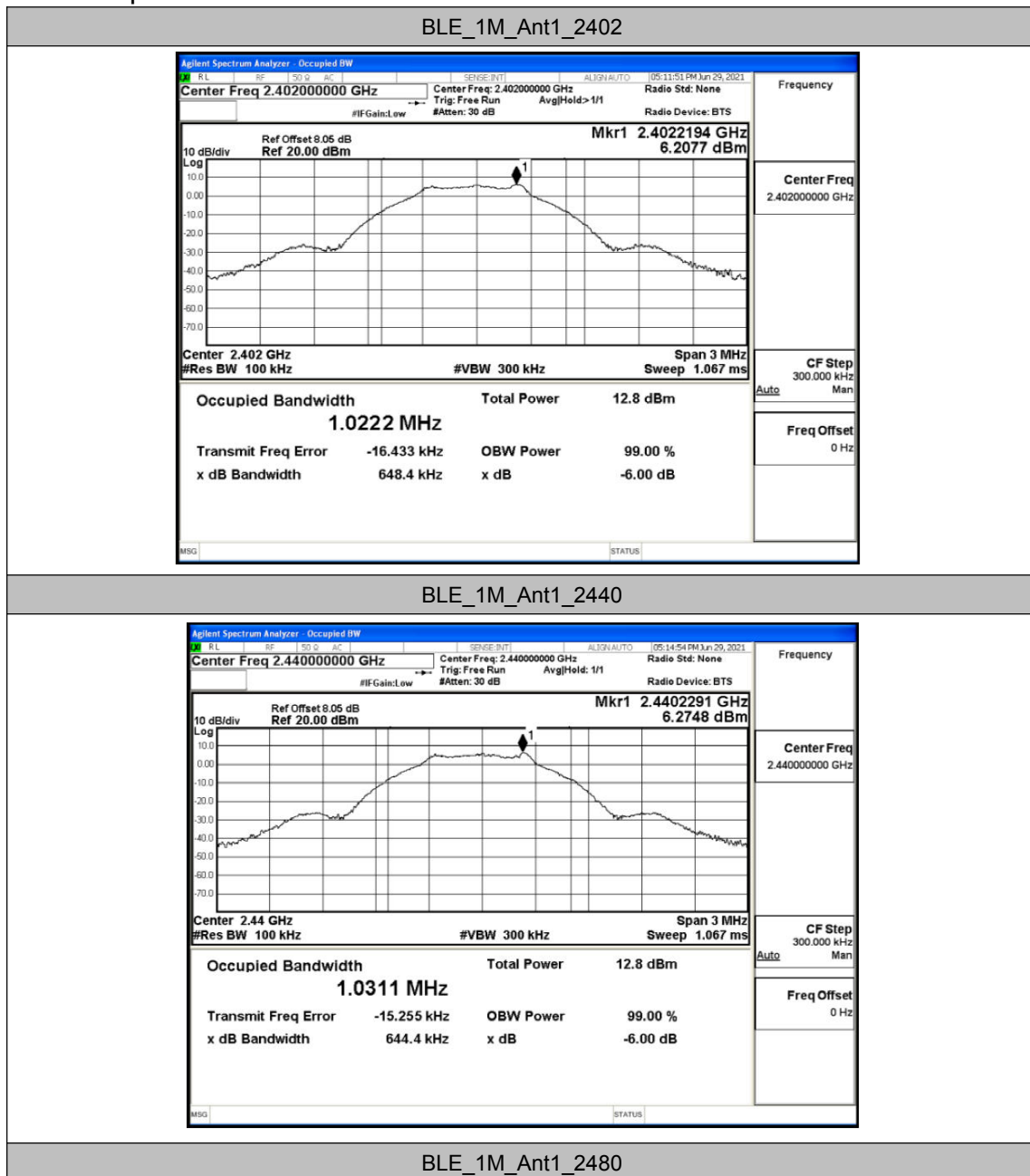


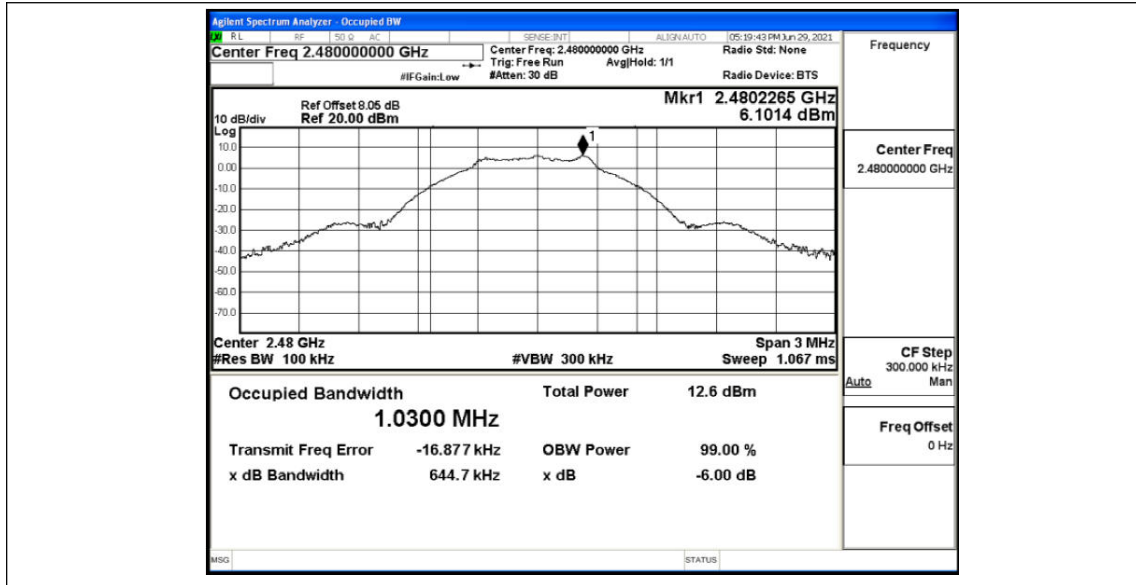
A.4 6dB Bandwidth

Test Result

TestMode	Antenna	Channel	BW [MHz]	Limit [MHz]	Verdict
BLE_1M	Ant1	2402	0.648	≥0.5	PASS
		2440	0.644	≥0.5	PASS
		2480	0.645	≥0.5	PASS

Test Graphs





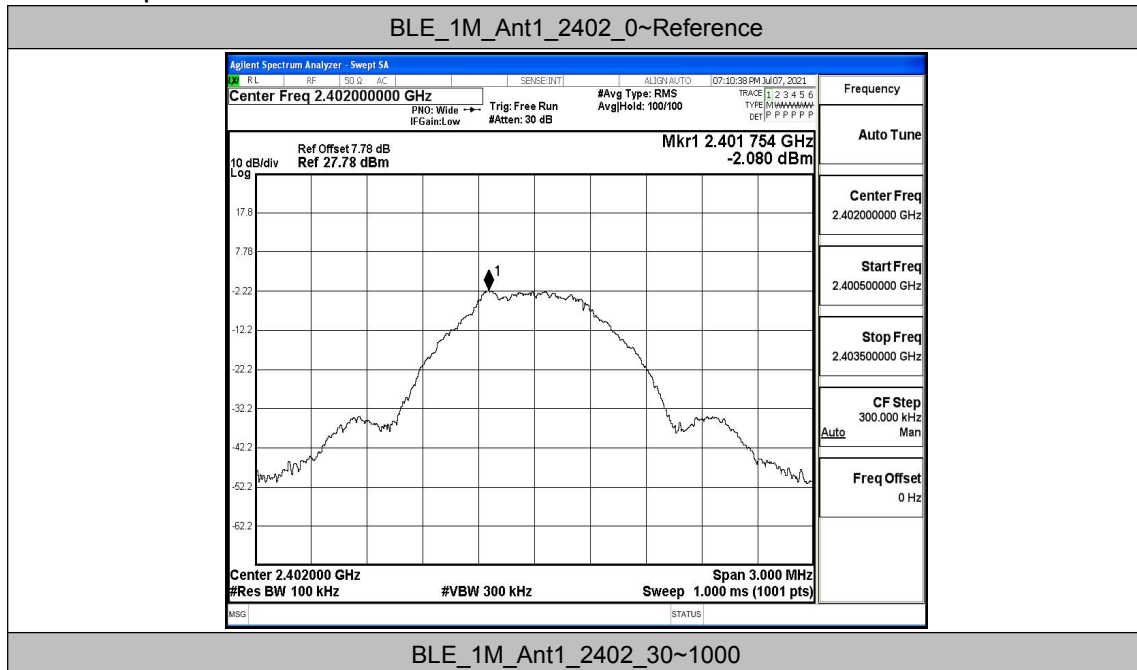


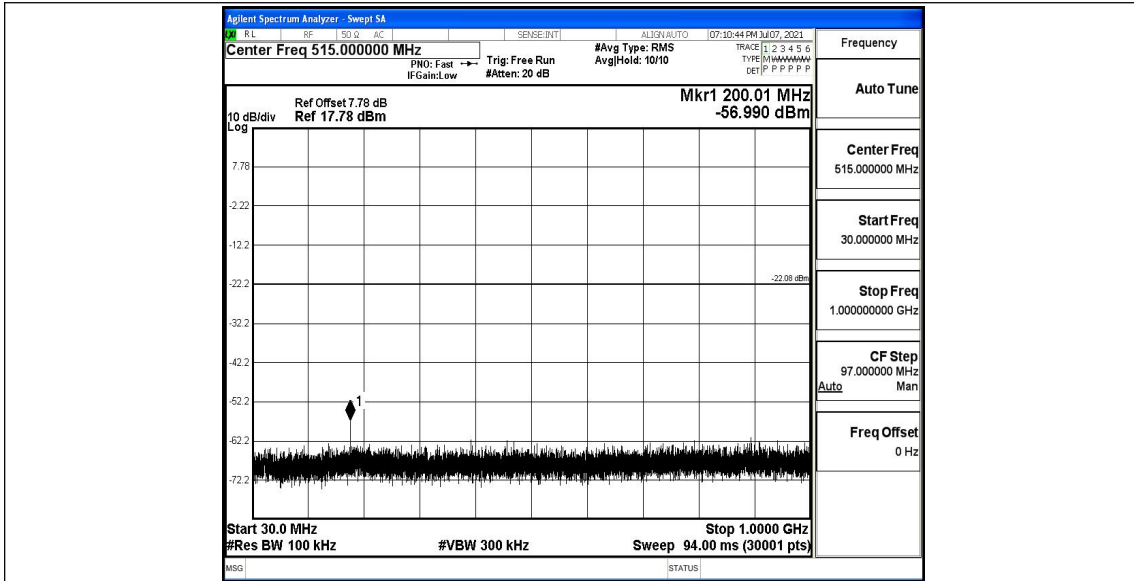
A.5 Conducted Spurious Emission

Test Result

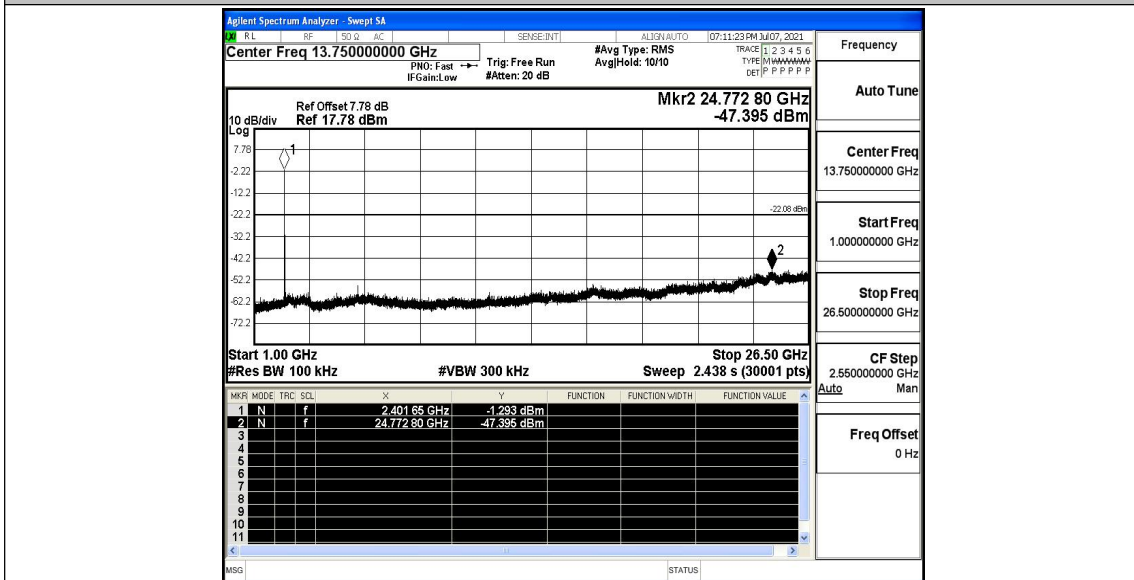
TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	-2.08	-2.08	---	PASS
			30~1000	-2.08	-56.99	≤-22.08	PASS
			1000~26500	-2.08	-47.4	≤-22.08	PASS
		2440	Reference	-2.14	-2.14	---	PASS
			30~1000	-2.14	-57.19	≤-22.14	PASS
			1000~26500	-2.14	-47.07	≤-22.14	PASS
		2480	Reference	-3.62	-3.62	---	PASS
			30~1000	-3.62	-57.16	≤-23.62	PASS
			1000~26500	-3.62	-47.38	≤-23.62	PASS

Test Graphs

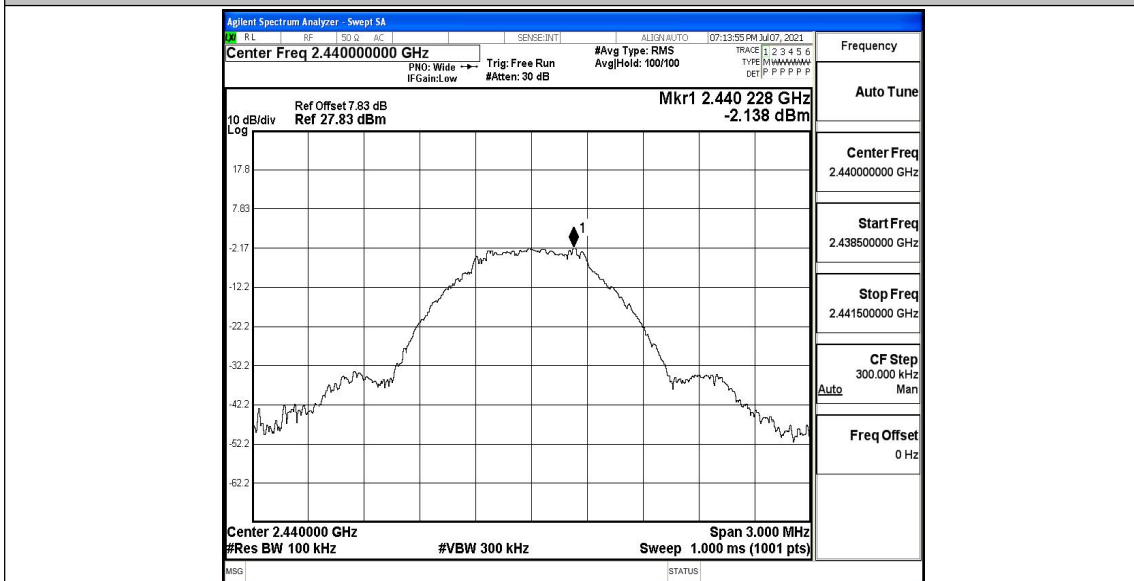




BLE_1M_Ant1_2402_1000~26500

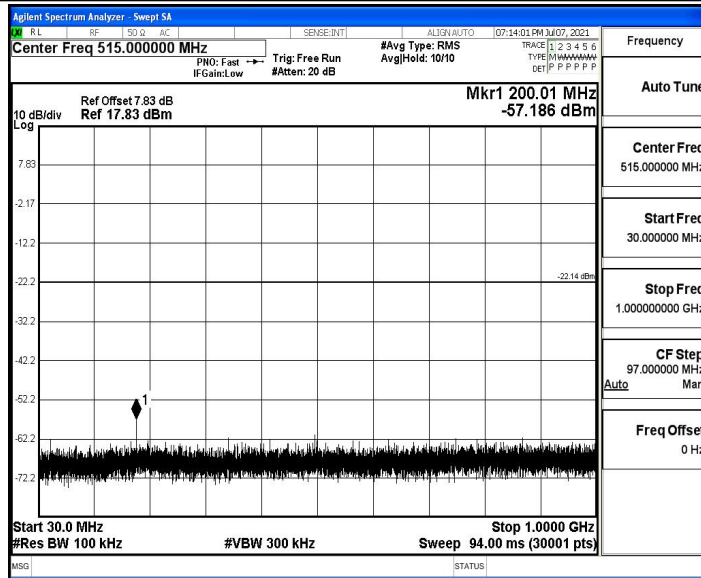


BLE_1M_Ant1_2440_0~Reference

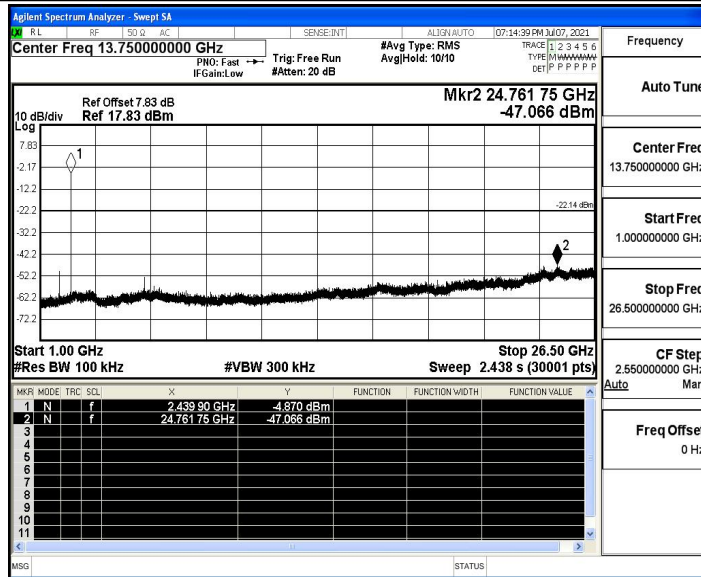




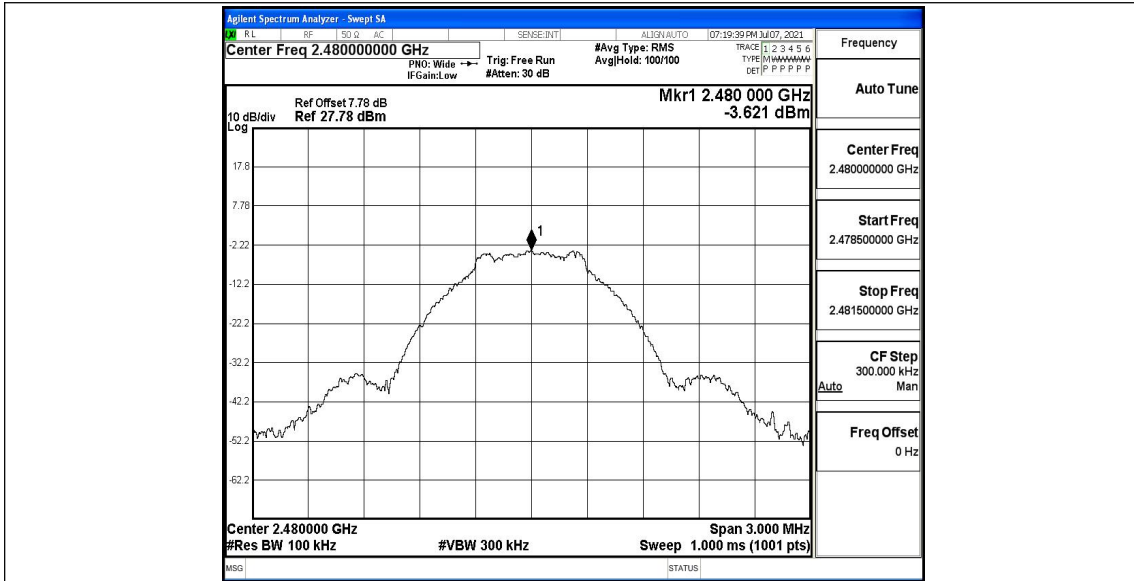
BLE_1M_Ant1_2440_30~1000



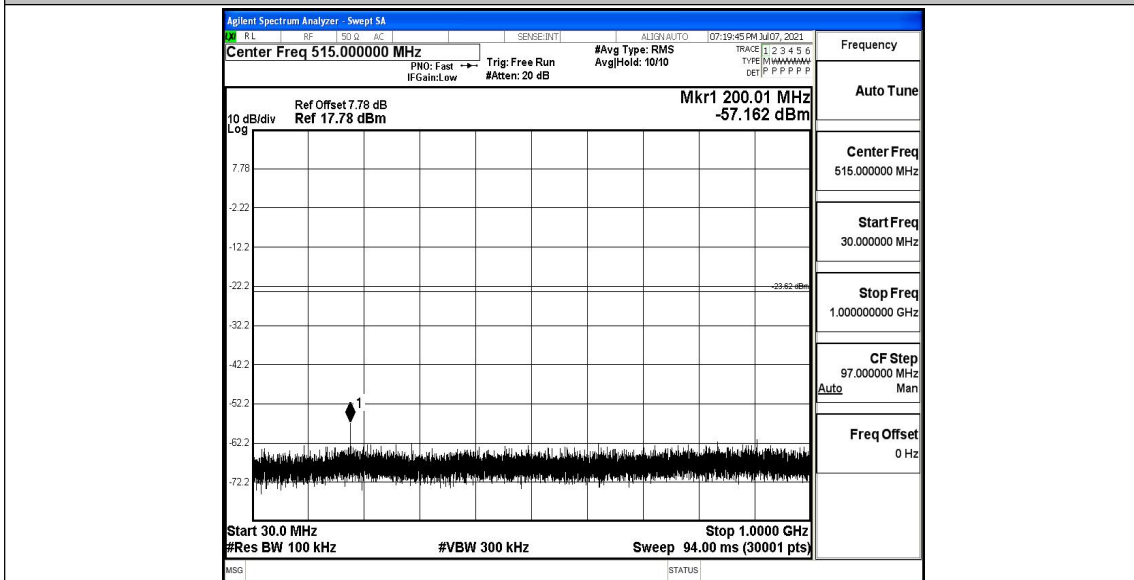
BLE_1M_Ant1_2440_1000~26500



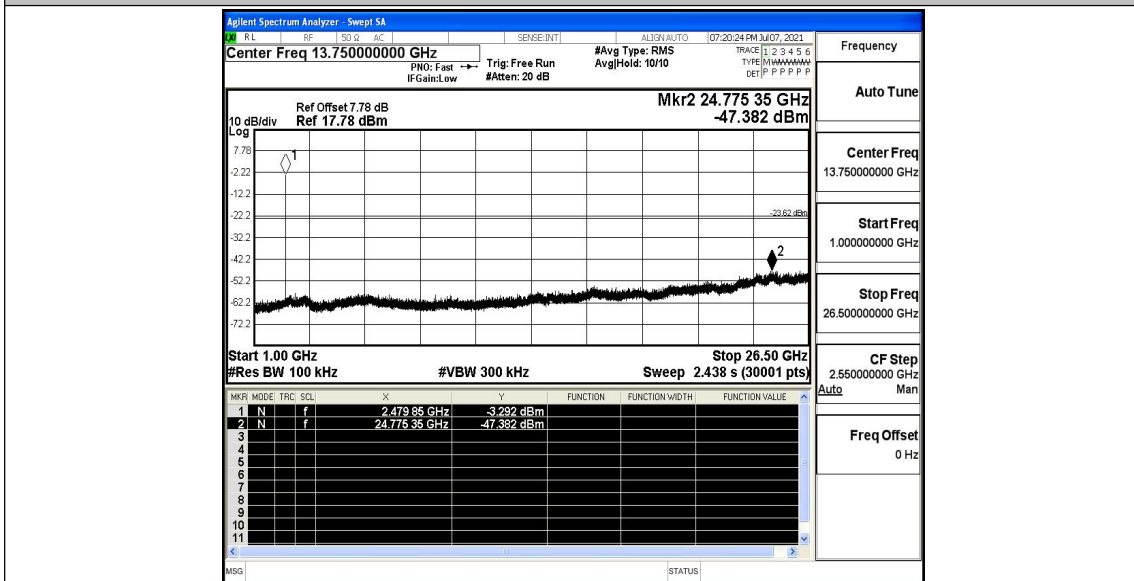
BLE_1M_Ant1_2480_0~Reference



BLE_1M_Ant1_2480_30~100



BLE_1M_Ant1_2480_1000~26500





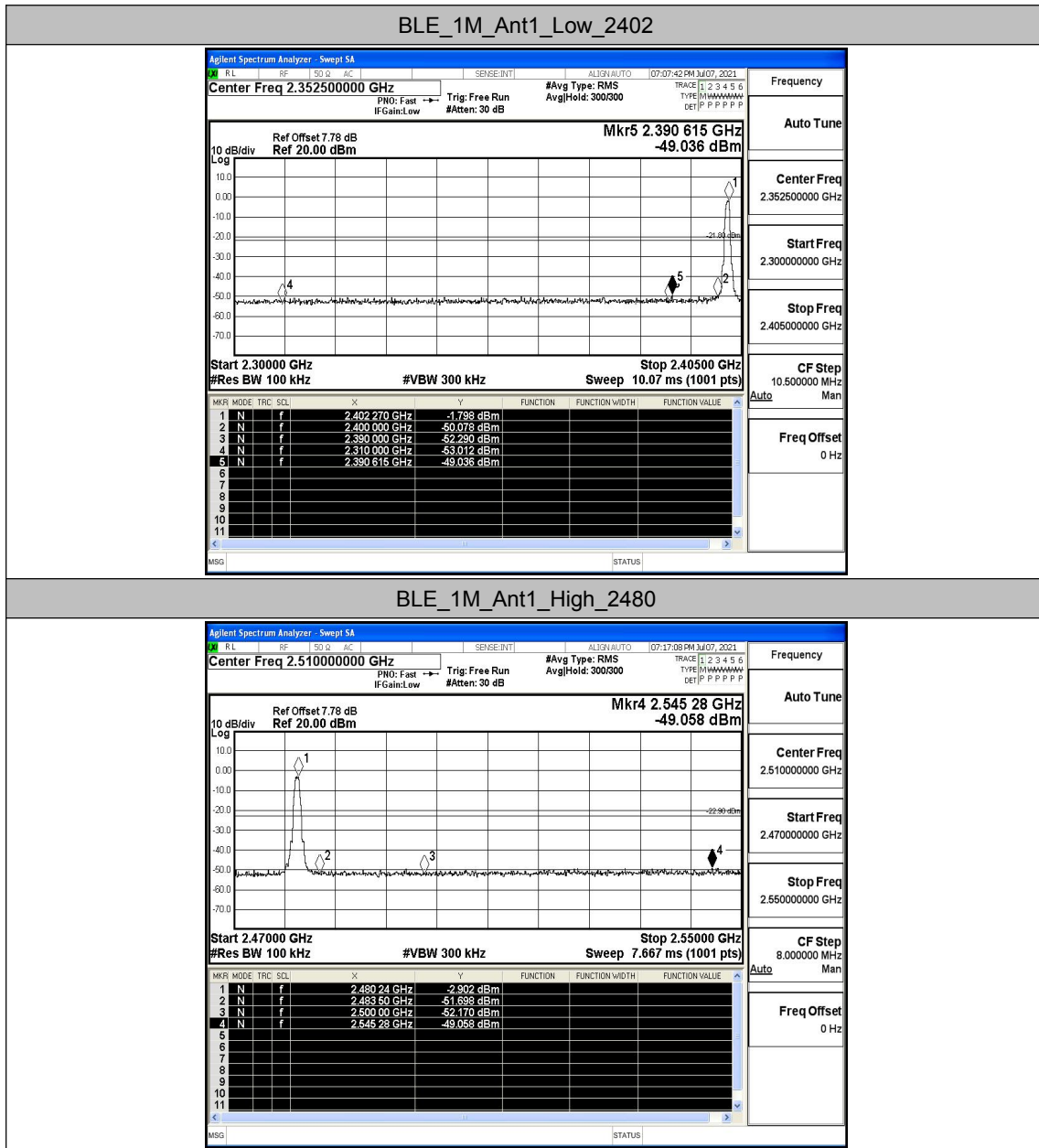
A.6 Band edge measurements

Test Result

TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	-1.80	-49.04	≤ -21.8	PASS
		High	2480	-2.90	-49.06	≤ -22.9	PASS



Test Graphs





A.7 Emissions in Restricted Bands

Test Result

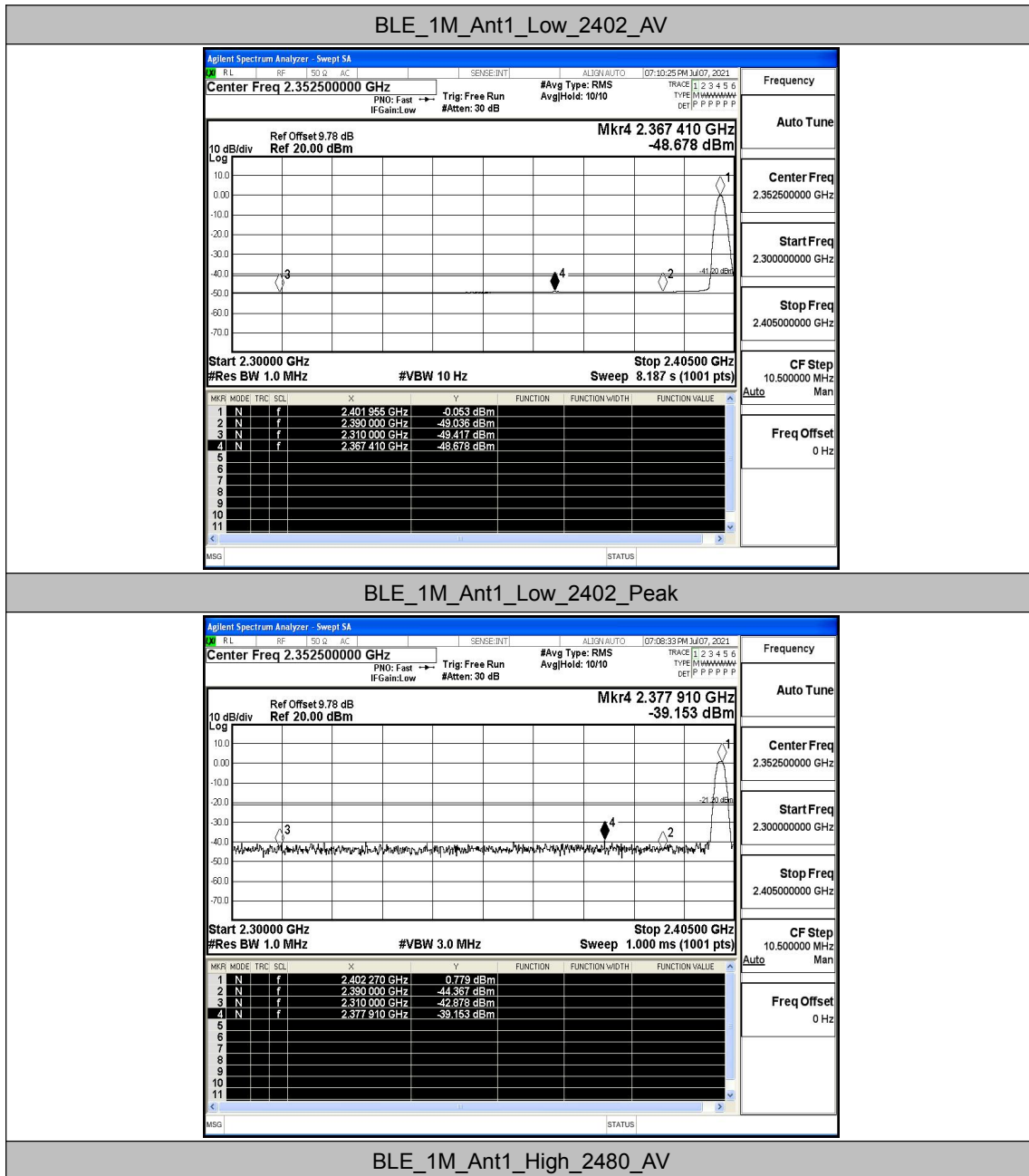
TestMode	Antenna	ChName	Channel	Detector	Freq. [MHz]	Result [dBm]	Limit [dBm]	Verdict
BLE_1M	Ant1	Low	2402	AV	2310.000	-49.42	≤-41.20	PASS
				AV	2367.410	-48.68	≤-41.20	PASS
				AV	2390.000	-49.04	≤-41.20	PASS
				Peak	2310.000	-42.88	≤-21.20	PASS
				Peak	2377.910	-39.15	≤-21.20	PASS
				Peak	2390.000	-44.37	≤-21.20	PASS
		High	2480	AV	2483.500	-48.09	≤-41.20	PASS
				AV	2483.520	-48.08	≤-41.20	PASS
				AV	2500.000	-48.45	≤-41.20	PASS
				Peak	2483.500	-42.25	≤-21.20	PASS
				Peak	2495.520	-39.29	≤-21.20	PASS
				Peak	2500.000	-42.2	≤-21.20	PASS

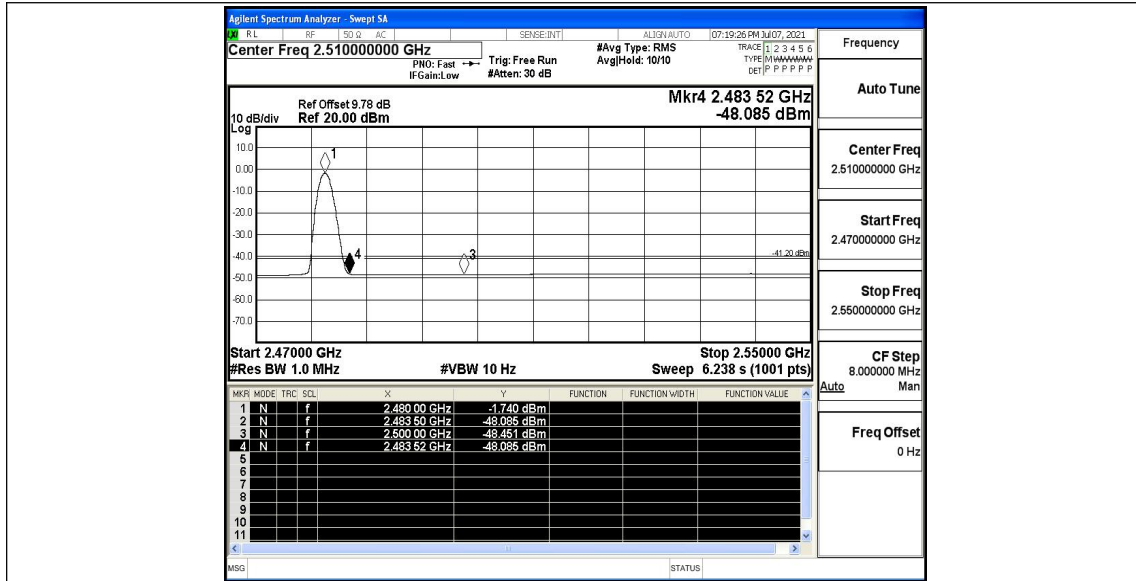
Note:

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

