



Appendix A

RF Test Data for BT LE (Conducted Measurement)

Product Name: WIM2480

Trade Mark: WiSilica

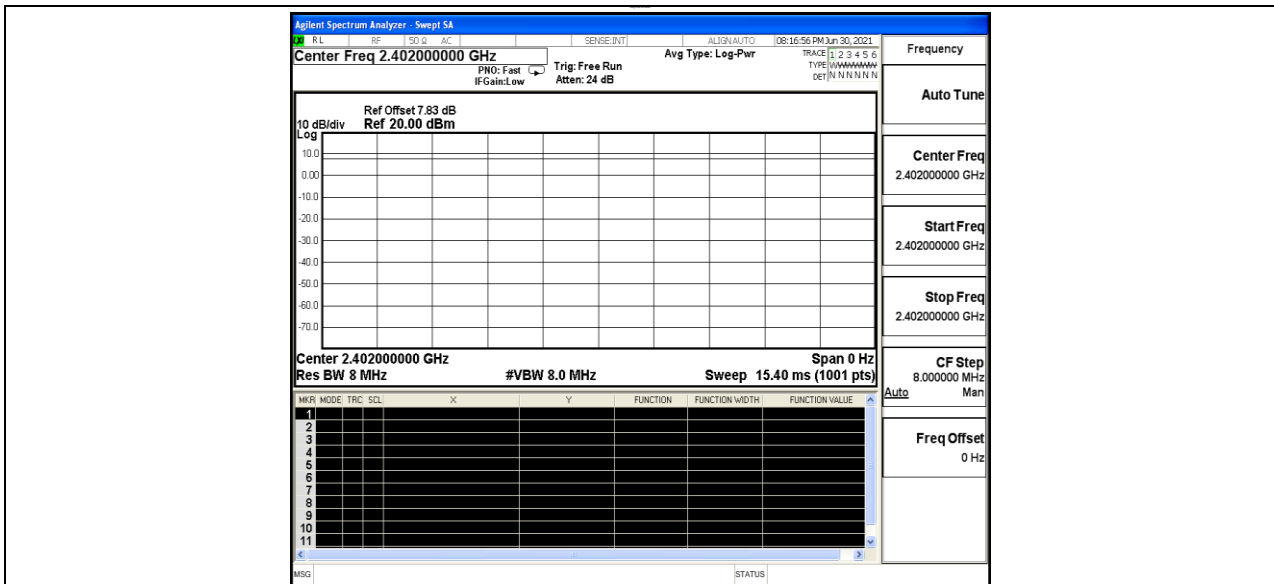
Test Model: WIM2480

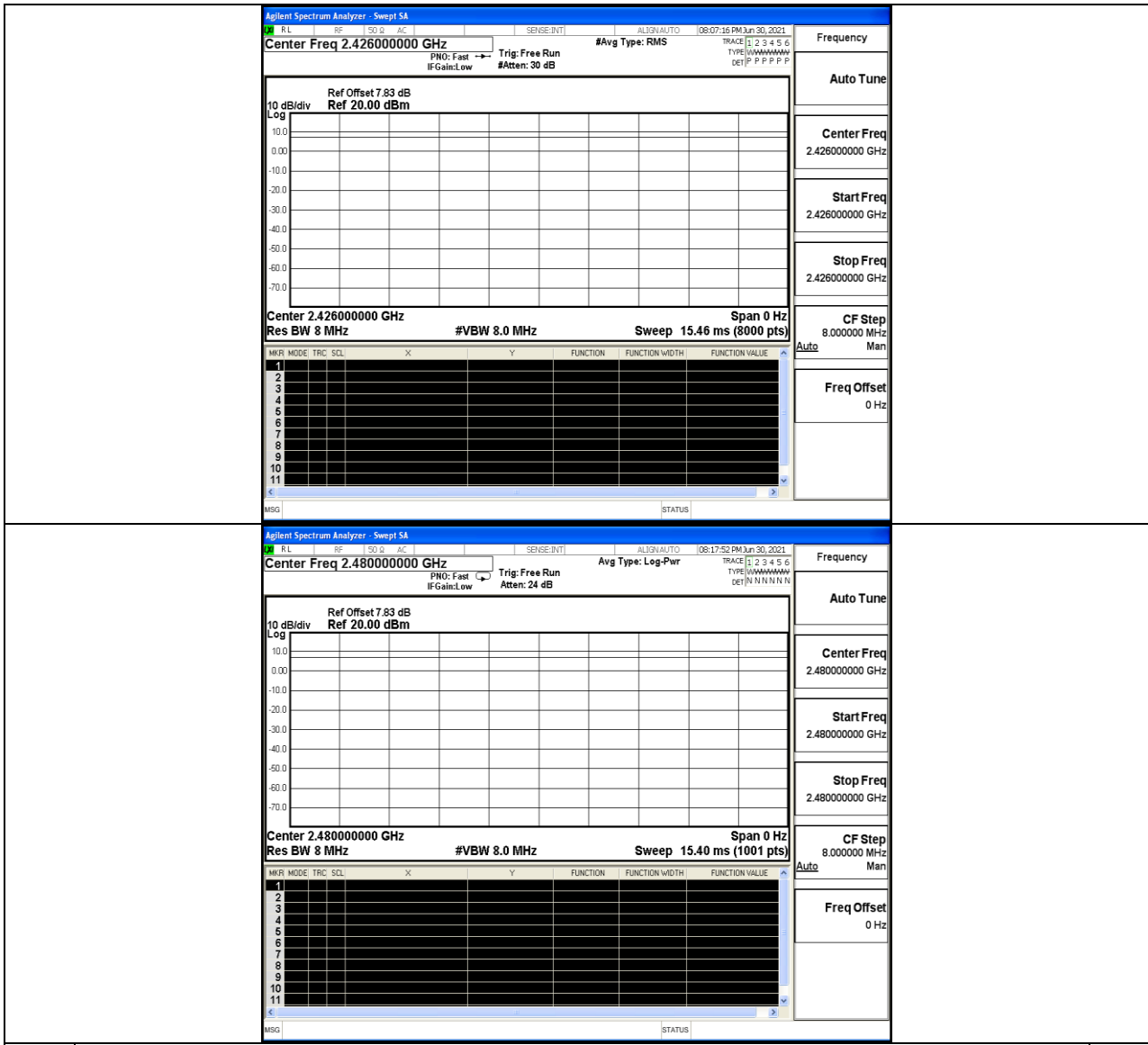
Environmental Conditions

Temperature:	25 ° C
Relative Humidity:	50%
ATM Pressure:	100.0 kPa
Test Engineer:	Carl Fu
Supervised by:	Li Huan

A.1 Duty Cycle

Test Mode	Test Channel	Ant	Duty Cycle[%]	Verdict
BT LE	2402	Ant1	100	PASS
BT LE	2426	Ant1	100	PASS
BT LE	2480	Ant1	100	PASS



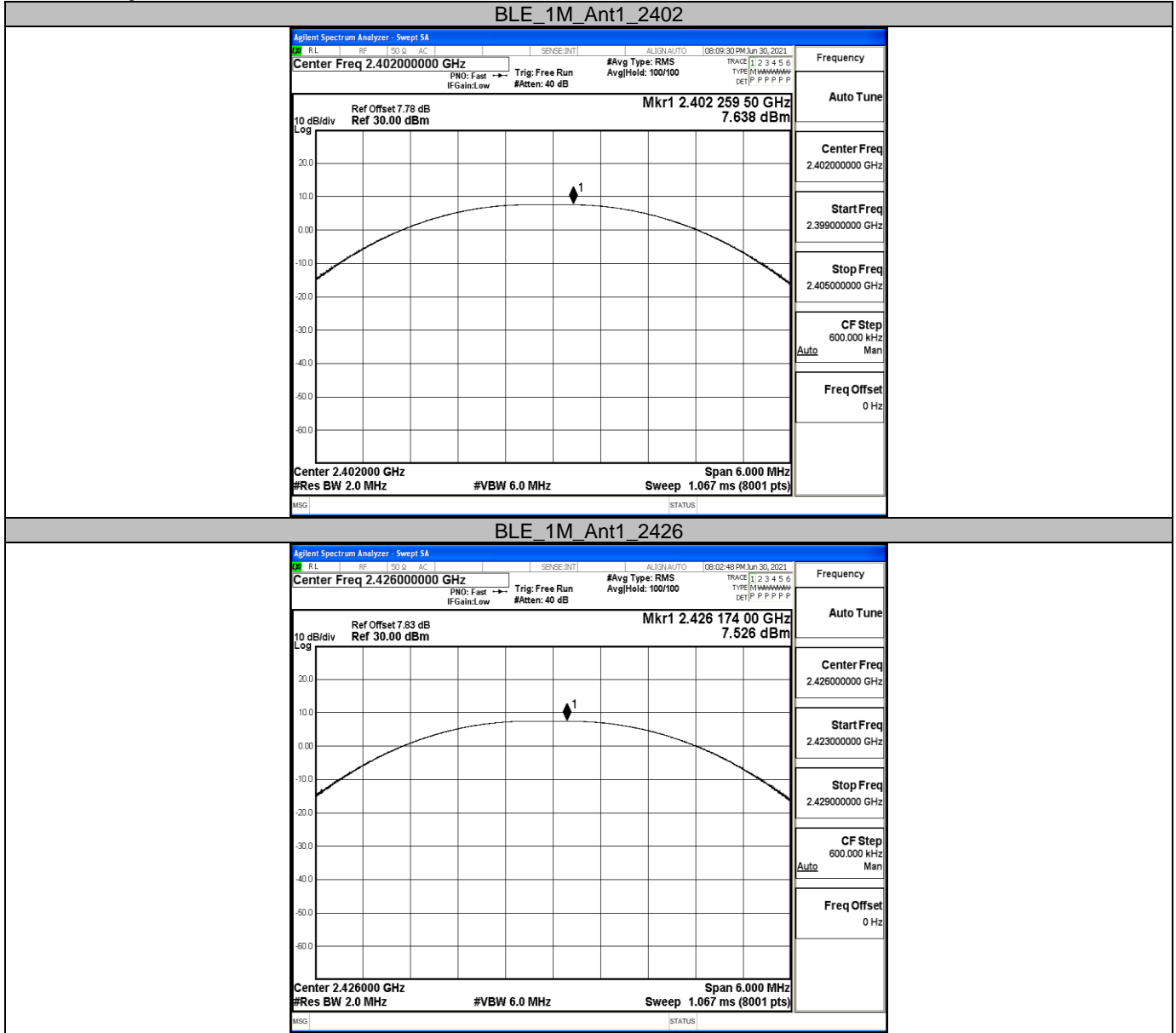


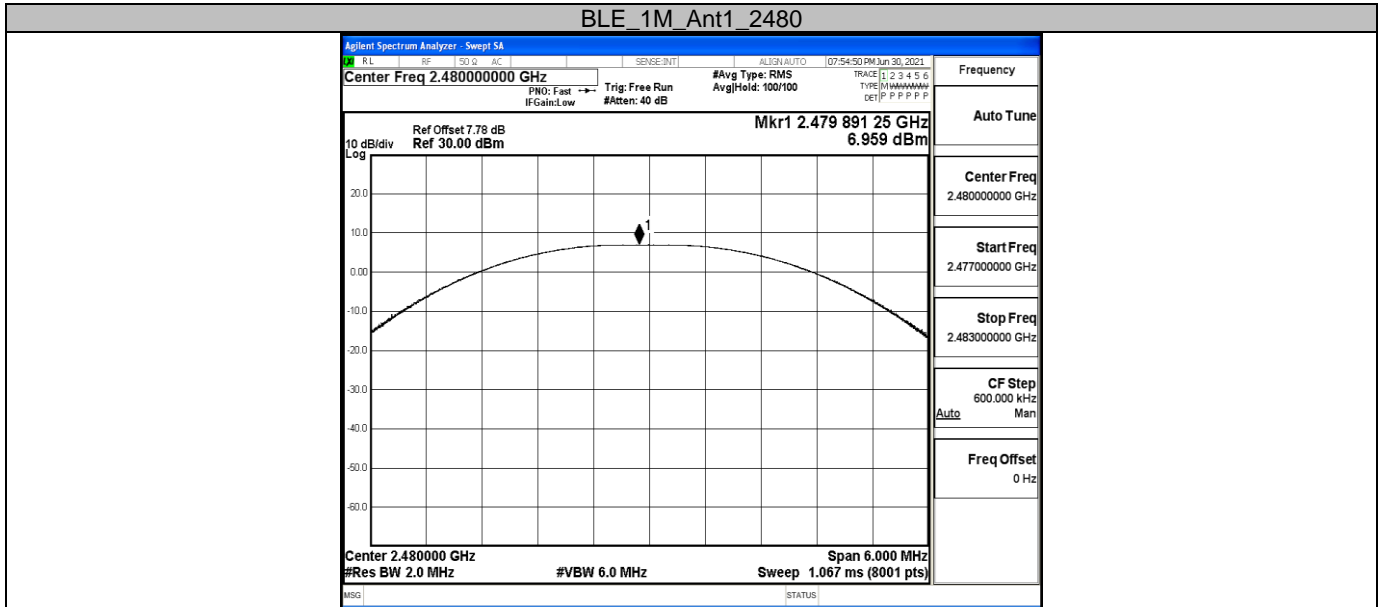


A.2 Maximum Conducted Peak Output Power

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	7.64	≤30	PASS
		2426	7.53	≤30	PASS
		2480	6.96	≤30	PASS

Test Graphs



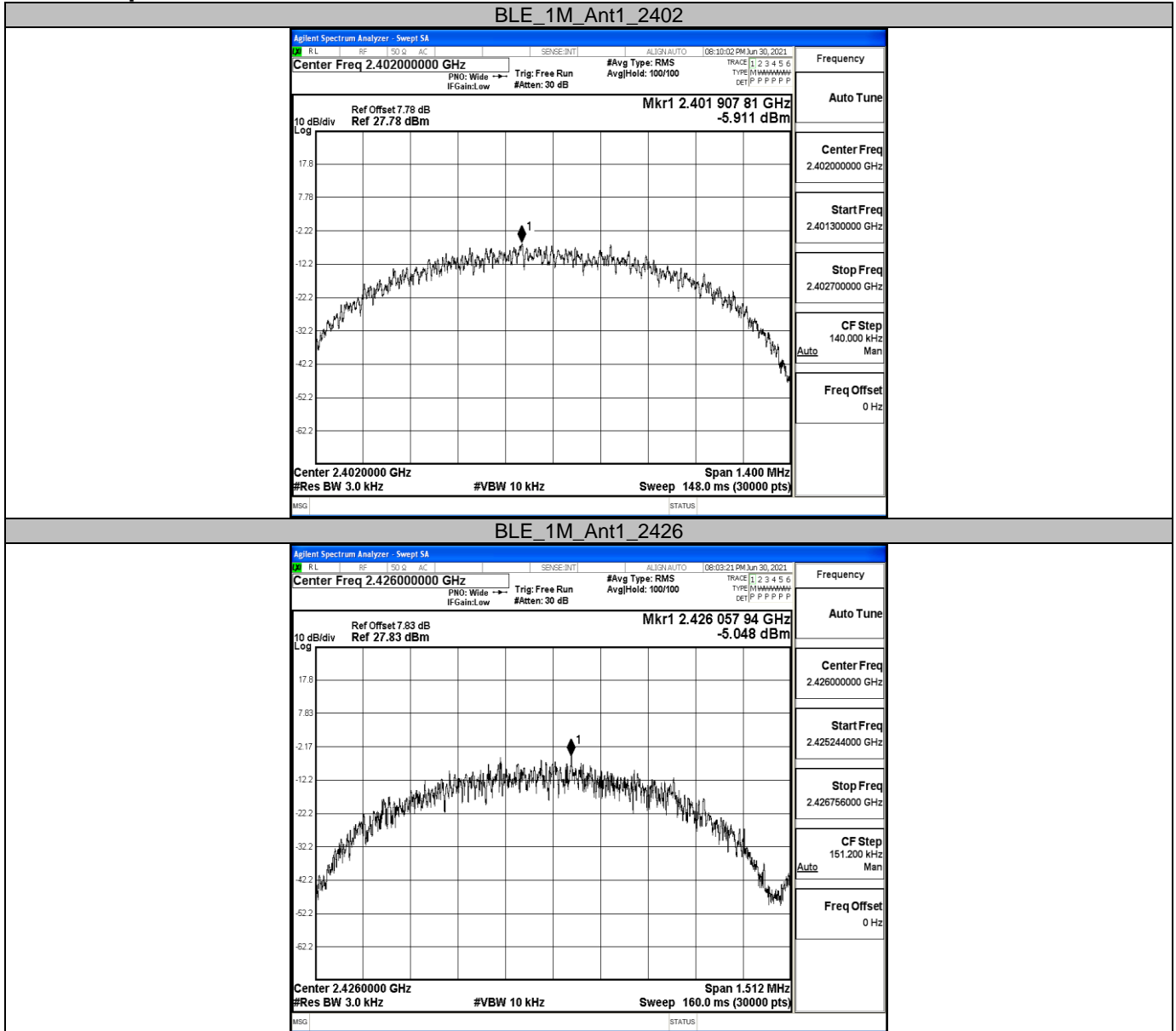


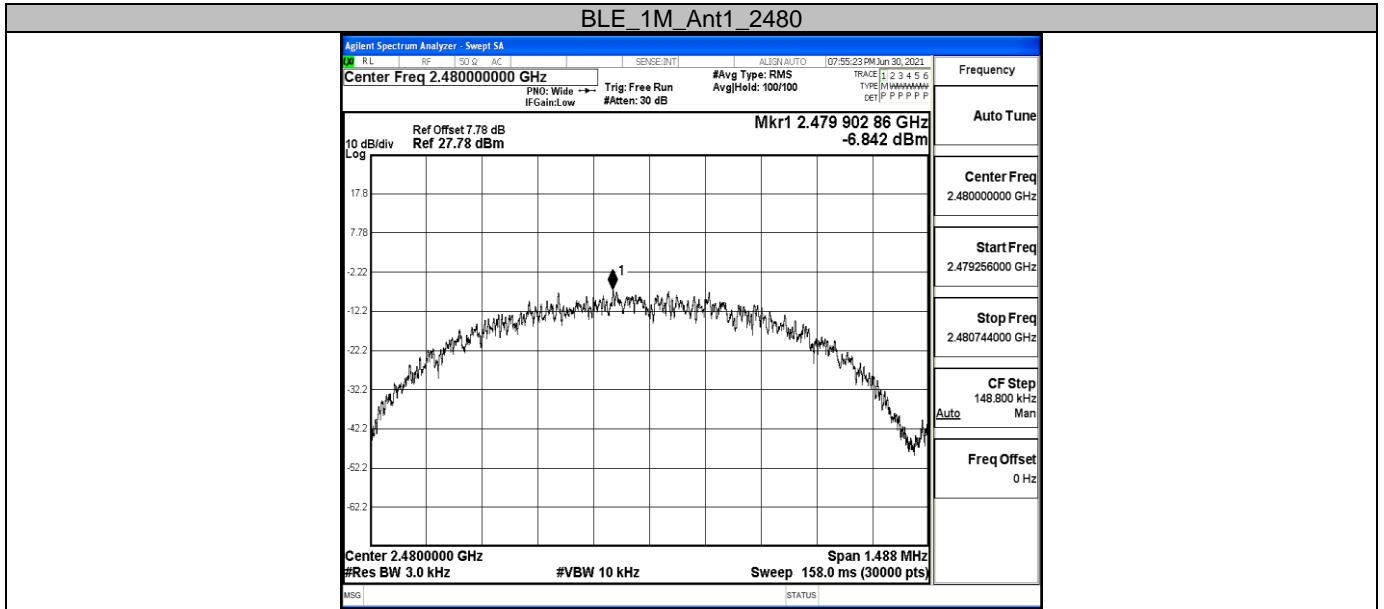


A.3 Maximum Power Spectral Density

TestMode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-5.91	≤8	PASS
		2426	-5.05	≤8	PASS
		2480	-6.84	≤8	PASS

Test Graphs



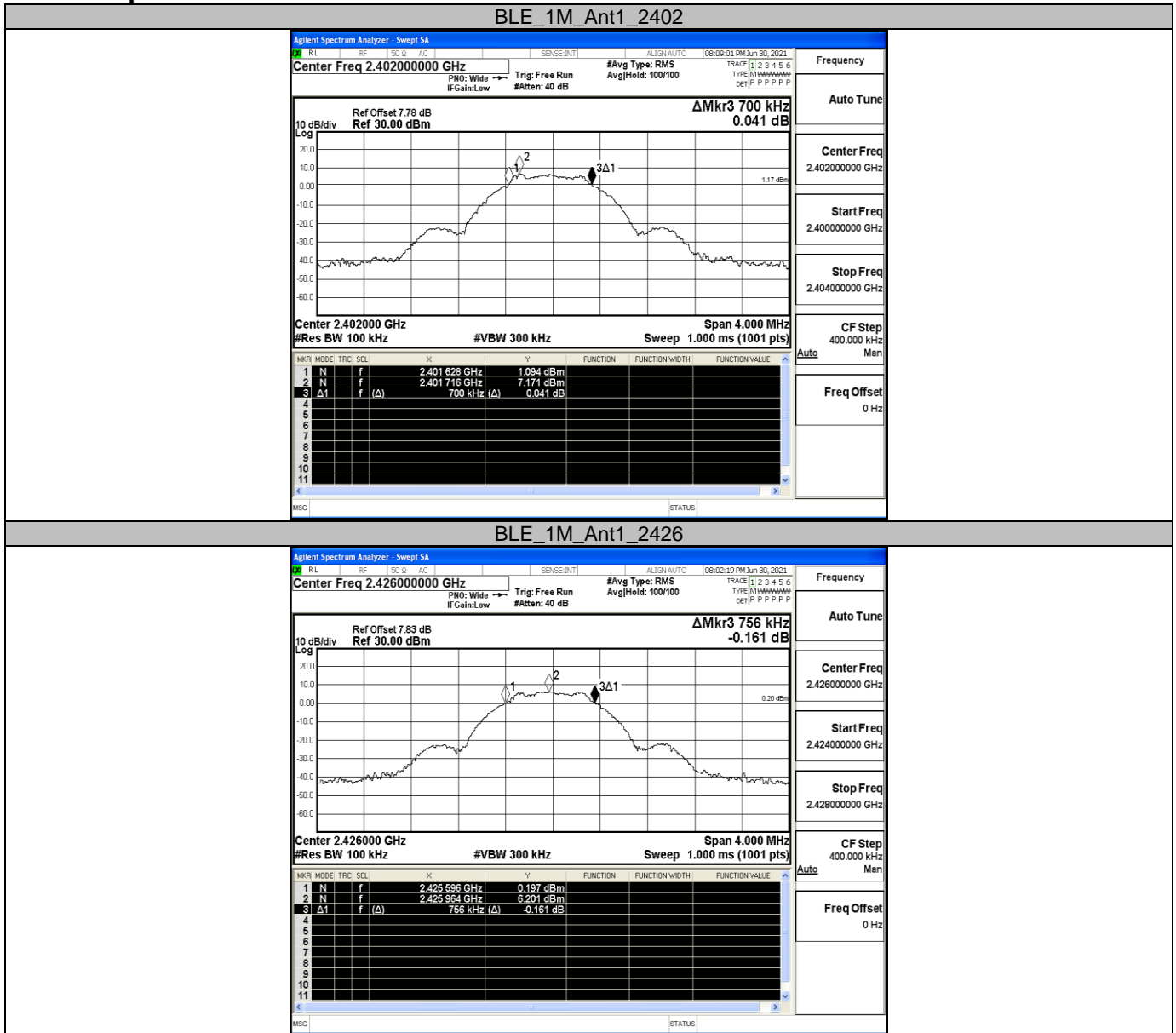


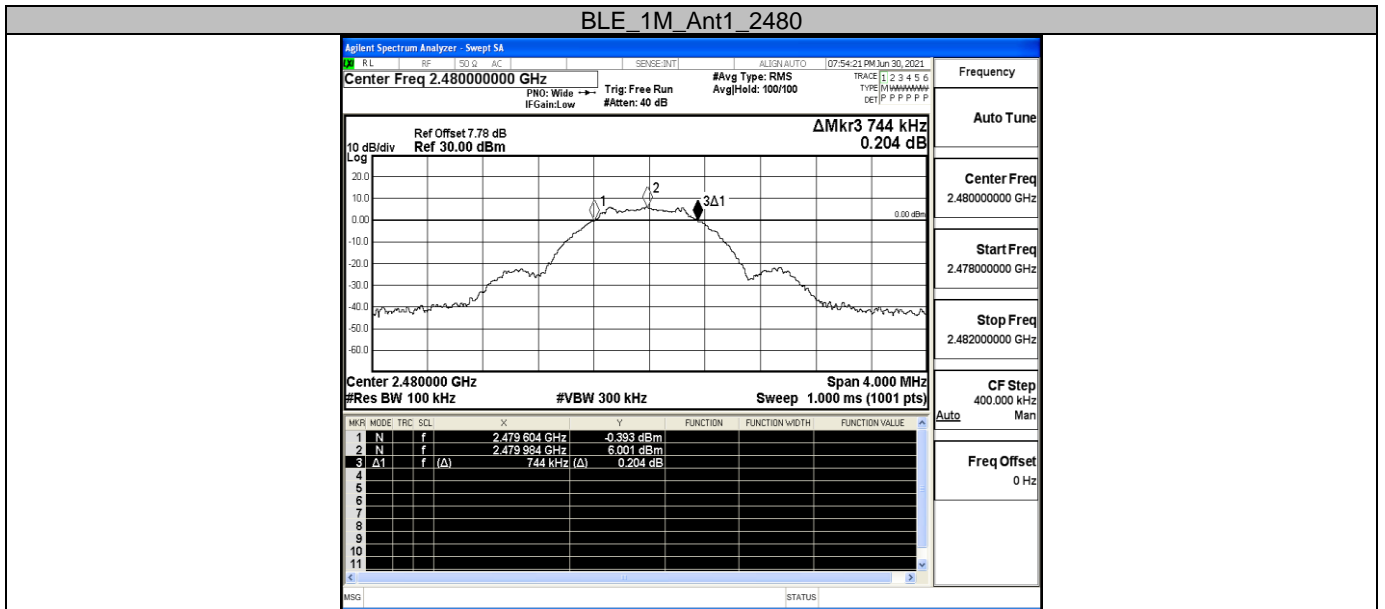


A.4 6dB Bandwidth

TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.700	2401.628	2402.328	0.5	PASS
		2426	0.756	2425.596	2426.352	0.5	PASS
		2480	0.744	2479.604	2480.348	0.5	PASS

Test Graphs





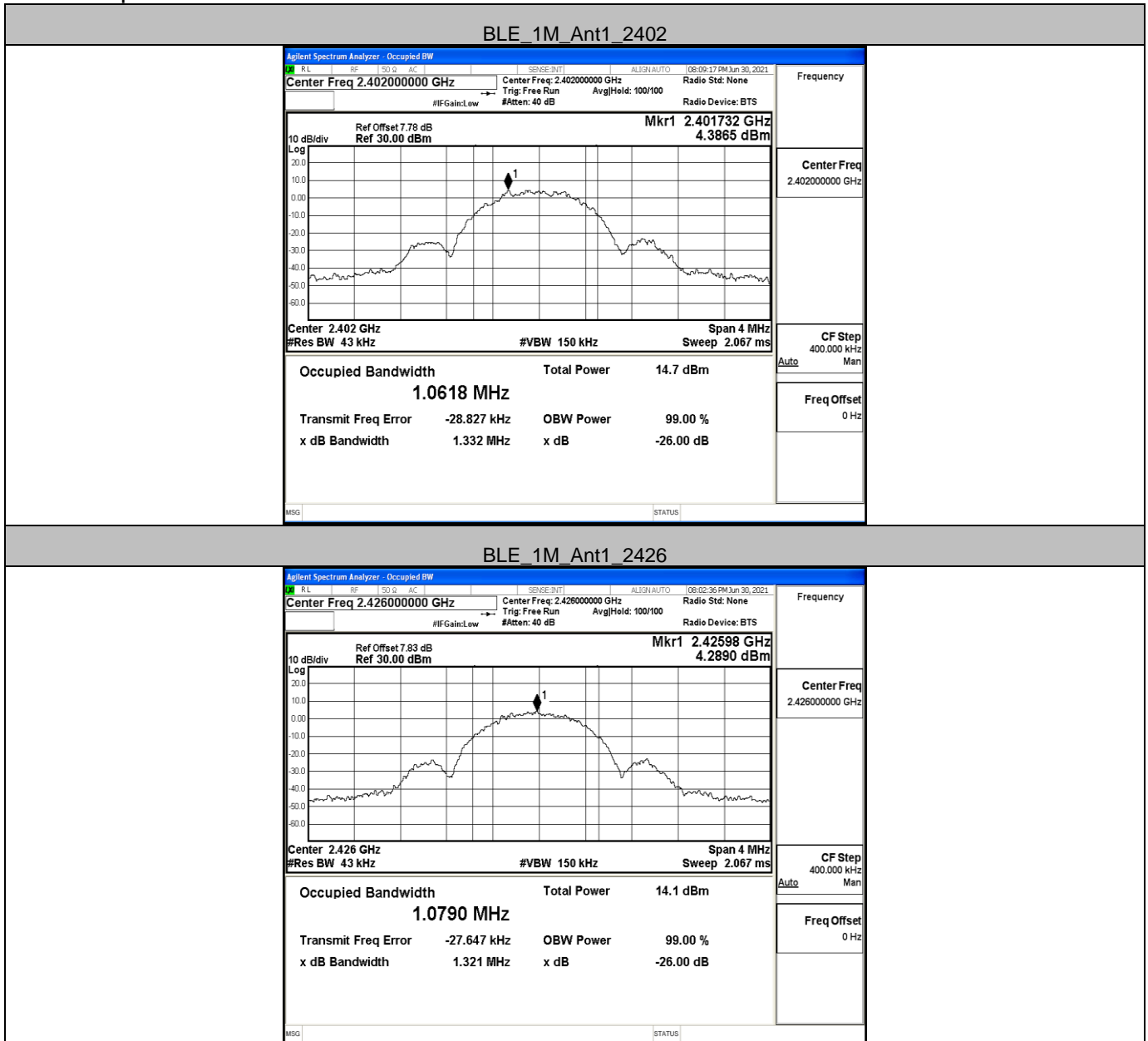


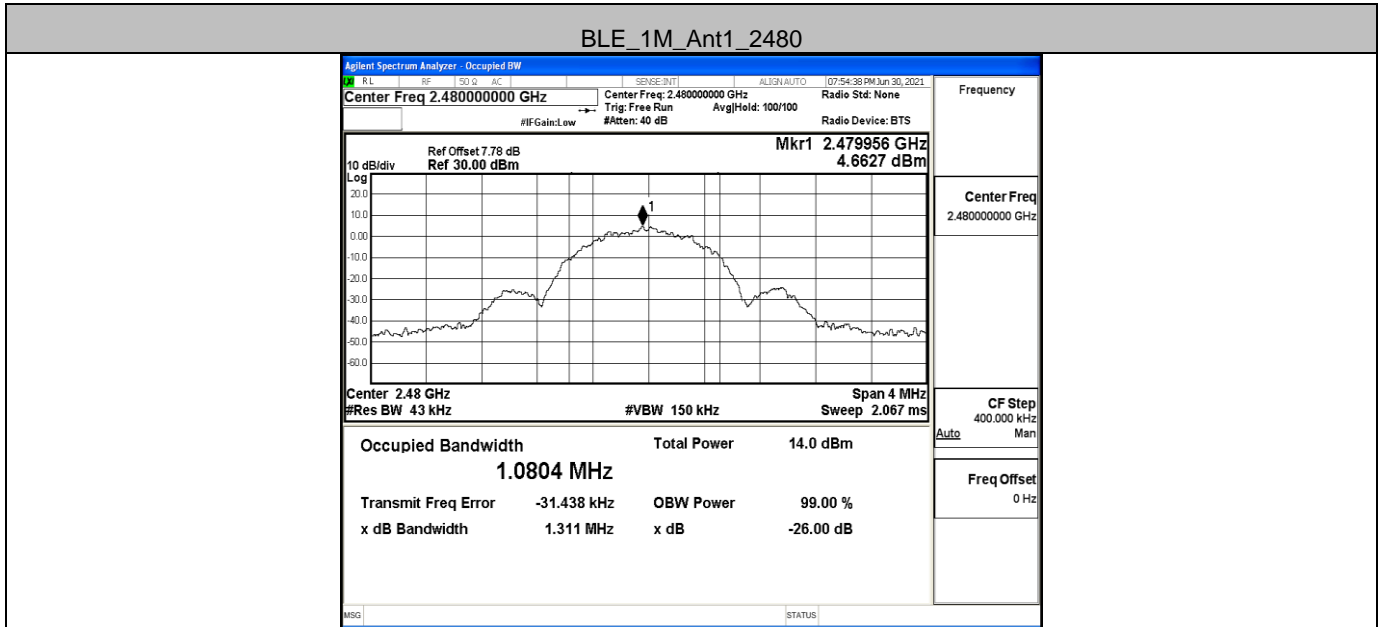
A.5 Occupied Bandwidth

Test Result

TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	1.0618	2401.440	2402.502	---	PASS
		2426	1.0790	2425.433	2426.512	---	PASS
		2480	1.0804	2479.428	2480.509	---	PASS

Test Graphs





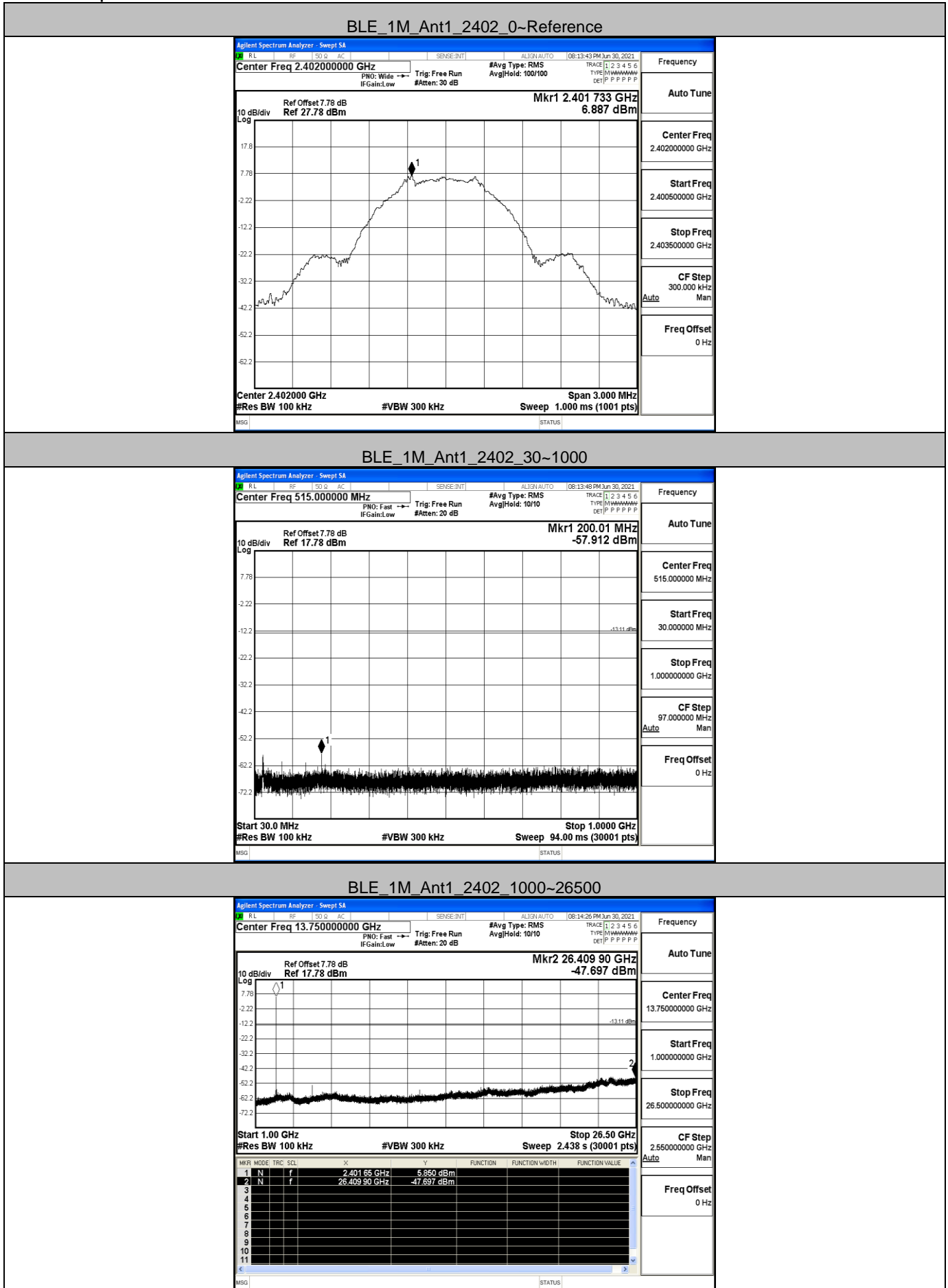


A.6 RF Conducted Spurious Emissions

TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	6.89	6.89	---	PASS
			30~1000	6.89	-57.91	≤-13.11	PASS
			1000~26500	6.89	-47.7	≤-13.11	PASS
		2426	Reference	6.24	6.24	---	PASS
			30~1000	6.24	-57.47	≤-13.77	PASS
			1000~26500	6.24	-47.31	≤-13.77	PASS
		2480	Reference	6.31	6.31	---	PASS
			30~1000	6.31	-57.89	≤-13.69	PASS
			1000~26500	6.31	-46.9	≤-13.69	PASS

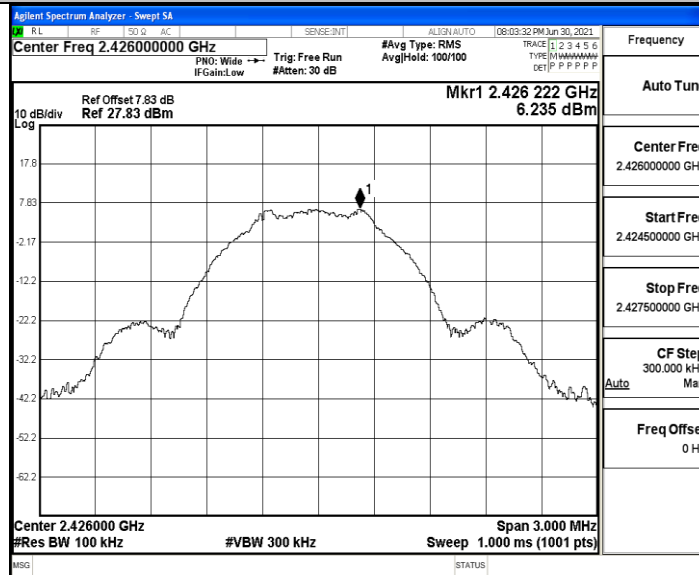


Test Graphs

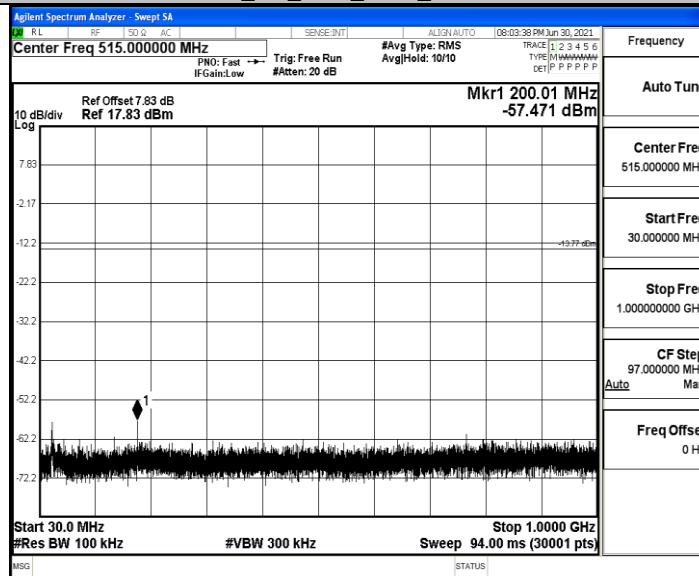




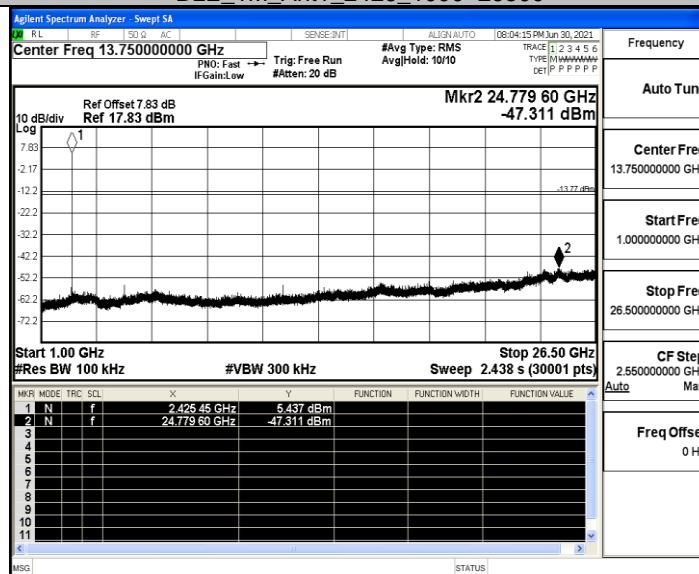
BLE_1M_Ant1_2426_0-Reference



BLE_1M_Ant1_2426_30-1000

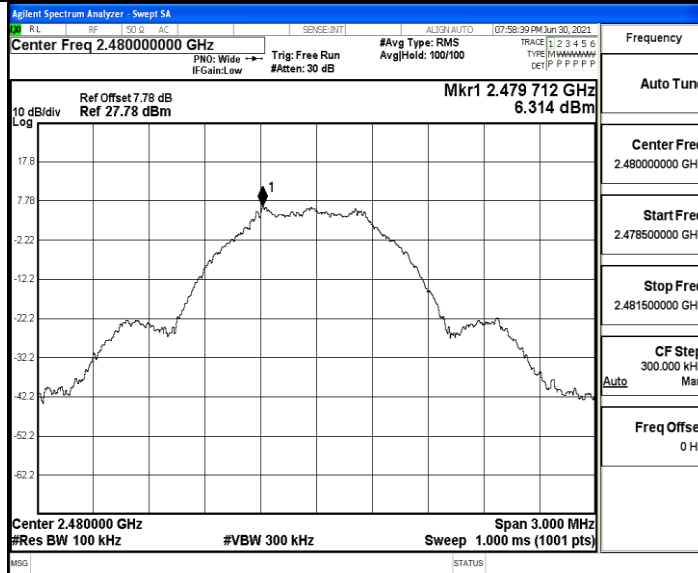


BLE_1M_Ant1_2426_1000-26500

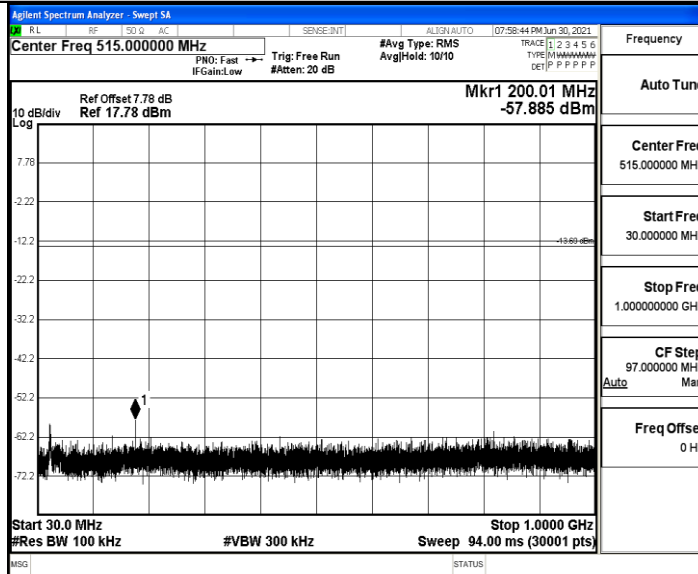




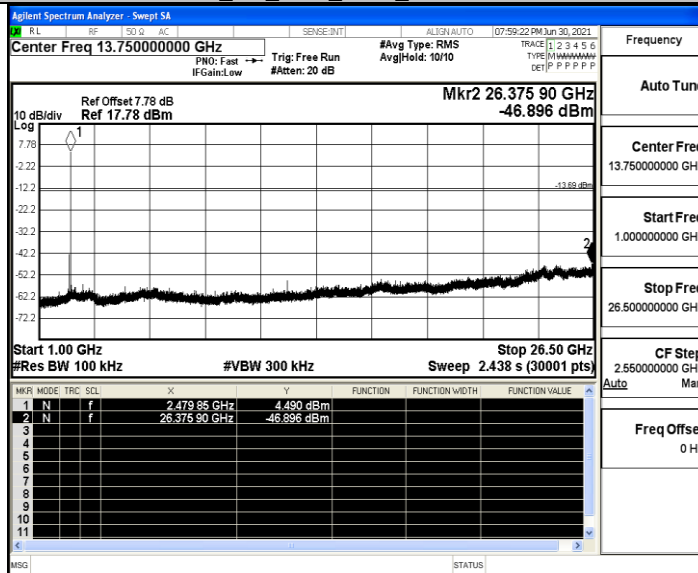
BLE_1M_Ant1_2480_0-Reference



BLE_1M_Ant1_2480_30~1000



BLE_1M_Ant1_2480_1000~26500

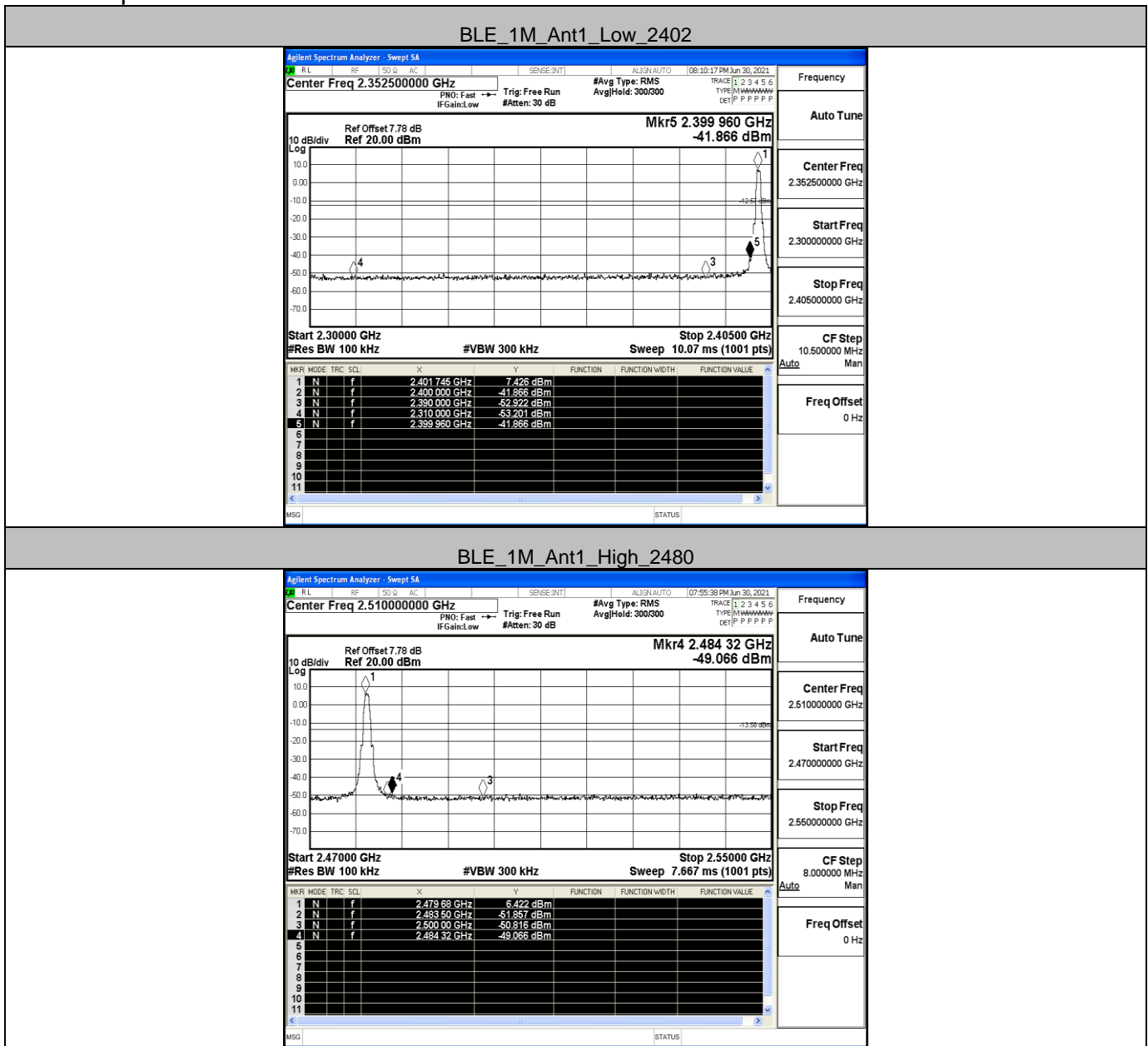




A.7 Band-edge for RF Conducted Emissions

TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	7.43	-41.87	≤-12.57	PASS
		High	2480	6.42	-49.07	≤-13.58	PASS

Test Graphs





A.8: Emissions in Restricted Bands

Test Result

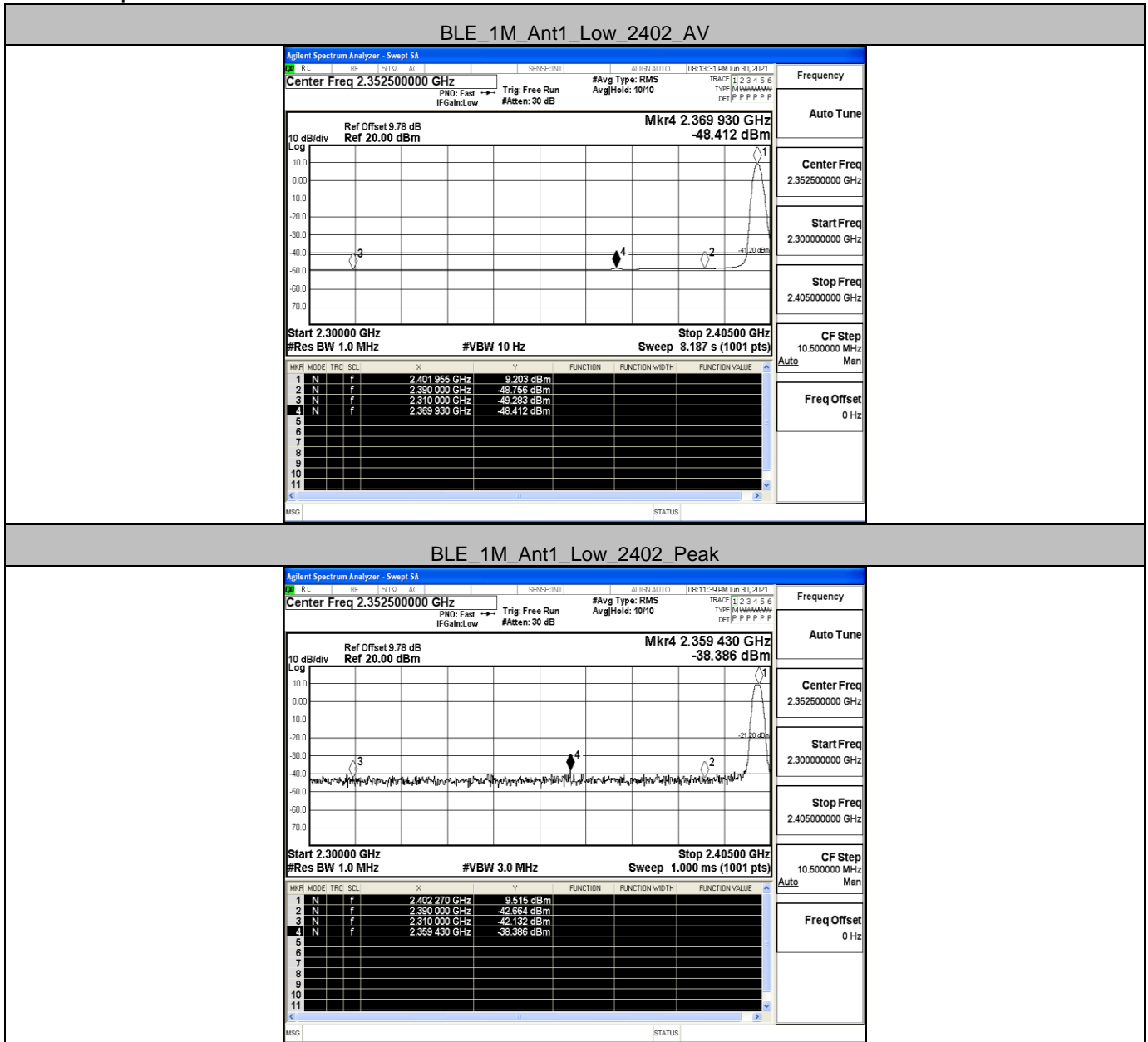
TestMode	Antenna	ChName	Channel	Detector	Freq. [MHz]	Result [dBm]	Limit [dBm]	Result [dBuV/m]	Limit [dBuV/m]	Verdict
BLE_1M	Ant1	Low	2402	AV	2310.000	-49.28	≤-41.20	48.95	≤54	PASS
				AV	2369.930	-48.41	≤-41.20	49.82	≤54	PASS
				AV	2390.000	-48.76	≤-41.20	49.47	≤54	PASS
				Peak	2310.000	-42.13	≤-21.20	56.1	≤74	PASS
				Peak	2359.430	-38.39	≤-21.20	59.84	≤74	PASS
				Peak	2390.000	-42.66	≤-21.20	55.57	≤74	PASS
		High	2480	AV	2483.500	-45.3	≤-41.20	52.93	≤54	PASS
				AV	2483.520	-45.3	≤-41.20	52.93	≤54	PASS
				AV	2500.000	-48.31	≤-41.20	49.92	≤54	PASS
				Peak	2483.500	-41.48	≤-21.20	56.75	≤74	PASS
				Peak	2485.200	-38.42	≤-21.20	59.81	≤74	PASS
				Peak	2500.000	-42.02	≤-21.20	56.21	≤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.

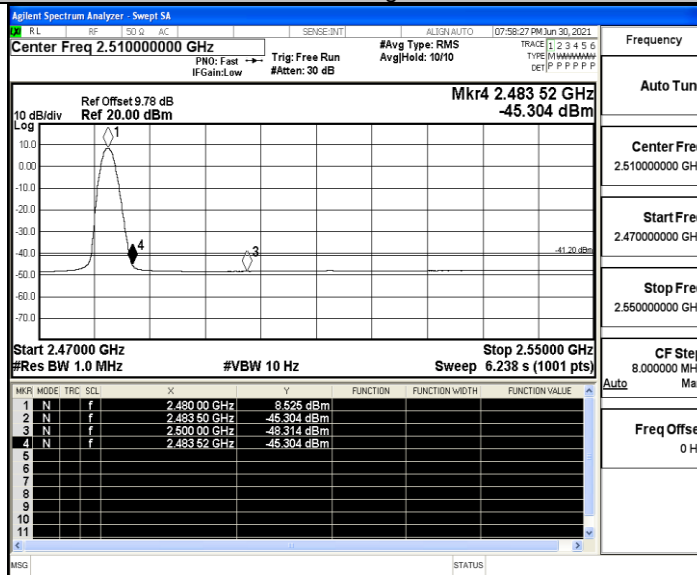


Test Graphs





BLE_1M_Ant1_High_2480_AV



BLE_1M_Ant1_High_2480_Peak

