



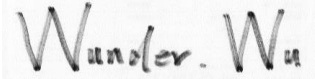
Appendix A

RF Test Data for 2.4G BLE (Conducted Measurement)

Product Name: Siren Move

Test Model: TBACAUR

Environmental Conditions

Temperature:	21.1 ° C
Relative Humidity:	52.2%
ATM Pressure:	100.0 kPa
Test Engineer:	
Supervised by:	



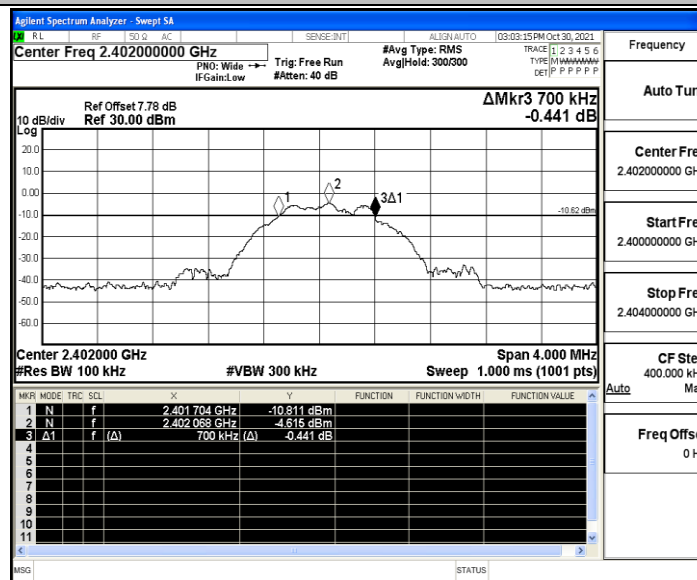
A.1 6dB Bandwidth

Test Result

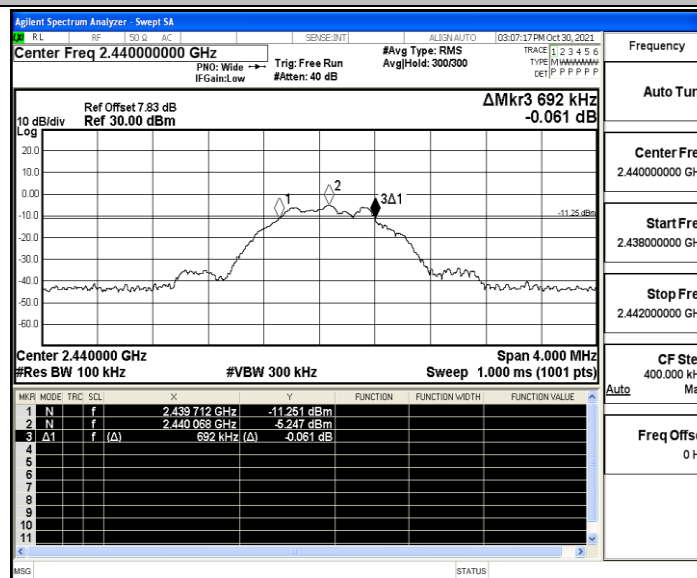
TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.700	2401.704	2402.404	≥ 0.5	PASS
		2440	0.692	2439.712	2440.404	≥ 0.5	PASS
		2480	0.660	2479.712	2480.372	≥ 0.5	PASS

Test Graphs

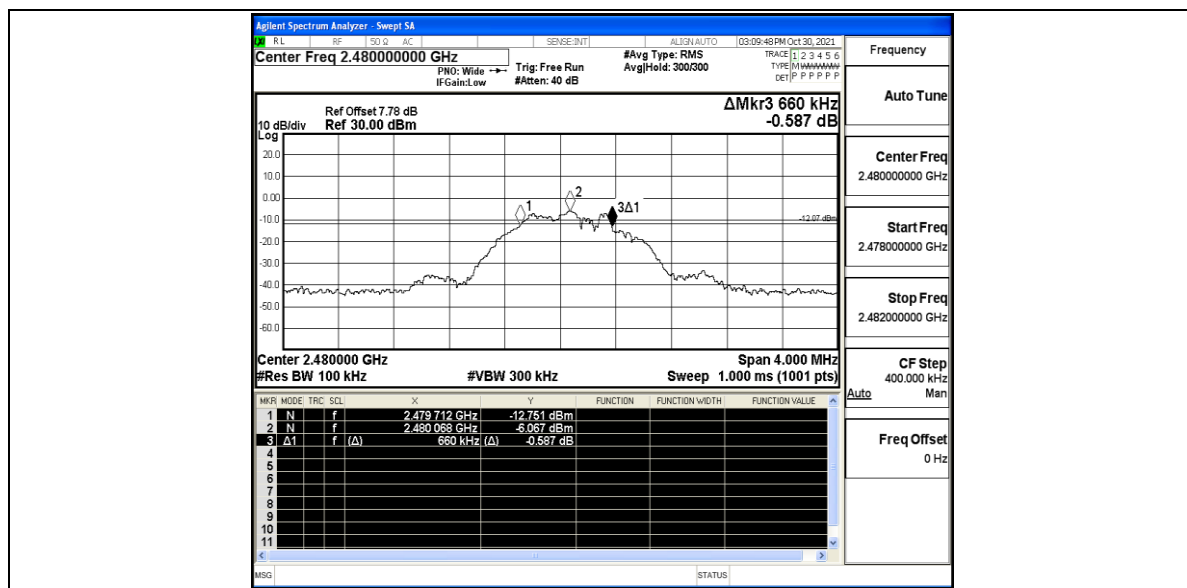
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480



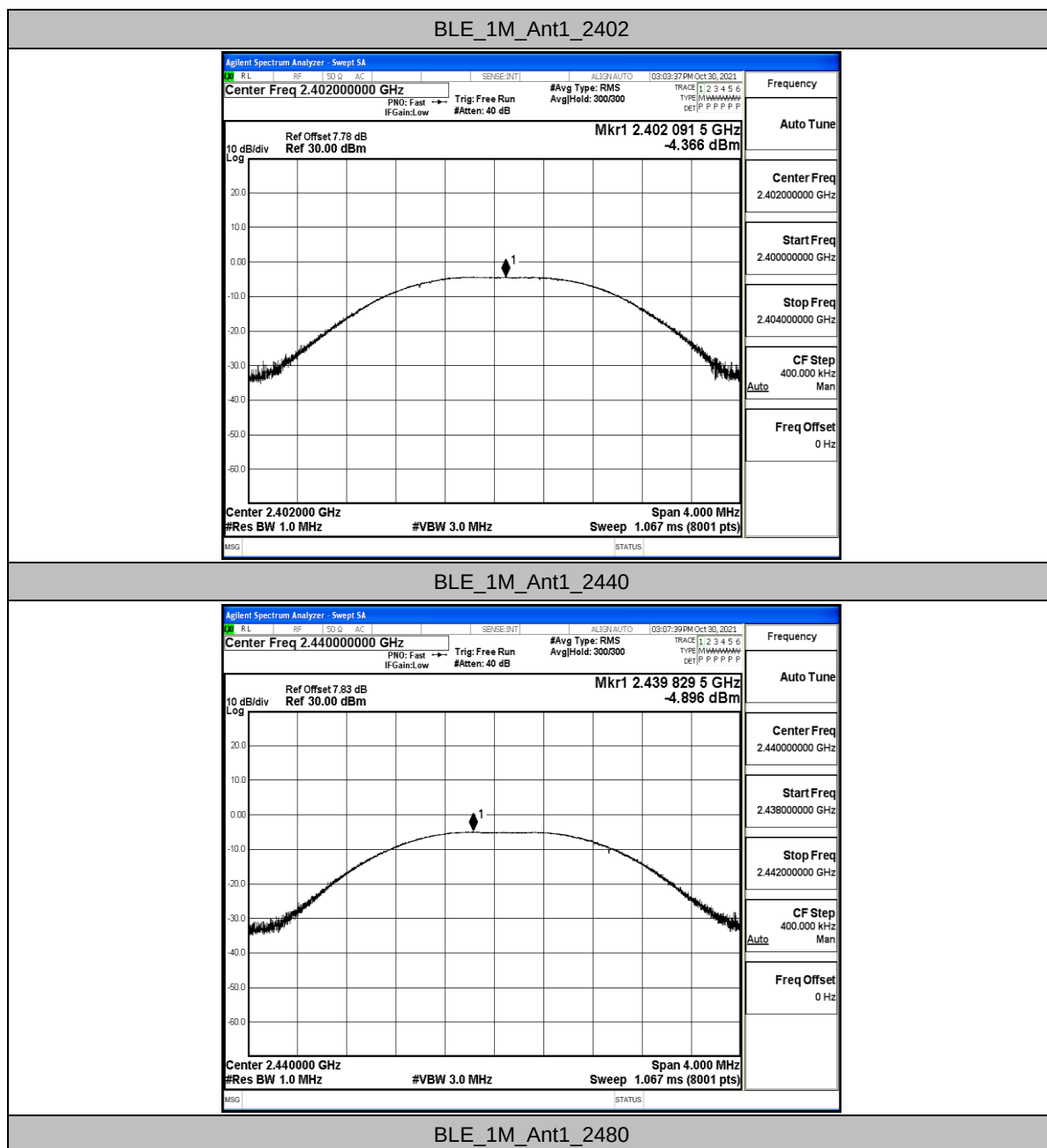


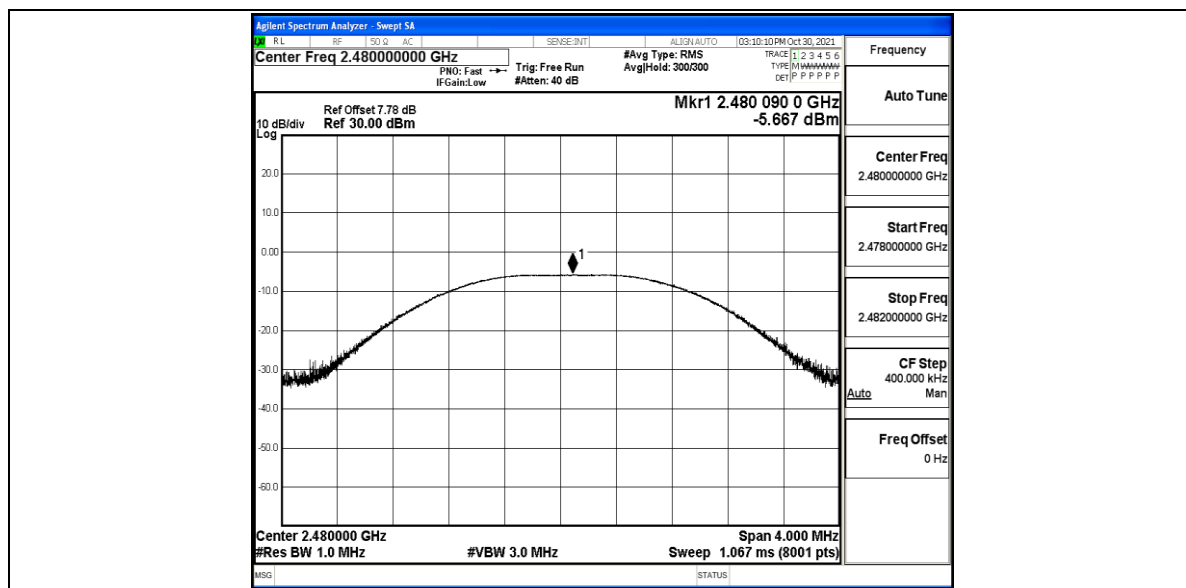
A.2 Maximum conducted output power

Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	-4.37	≤30	PASS
		2440	-4.9	≤30	PASS
		2480	-5.67	≤30	PASS

Test Graphs





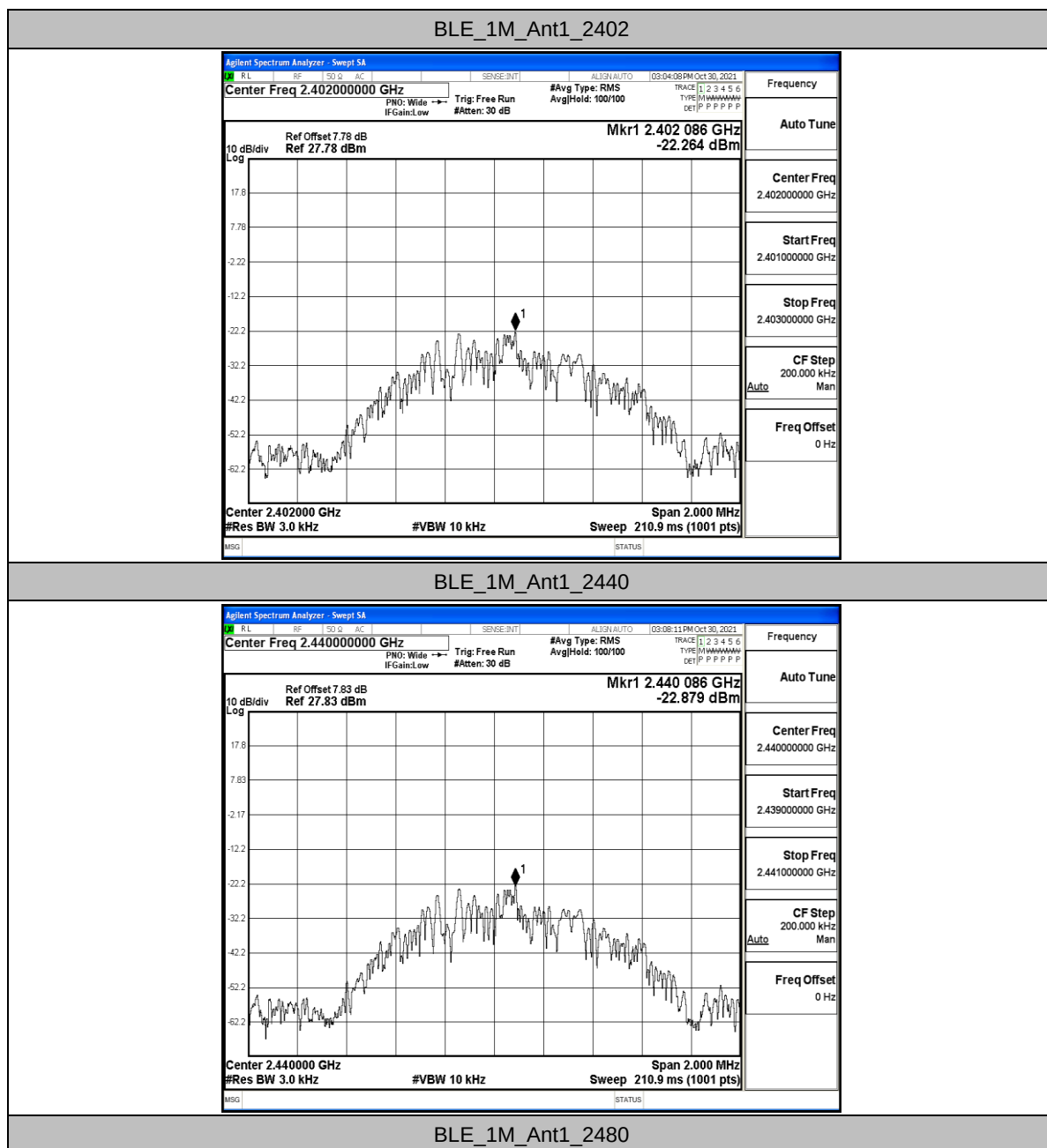


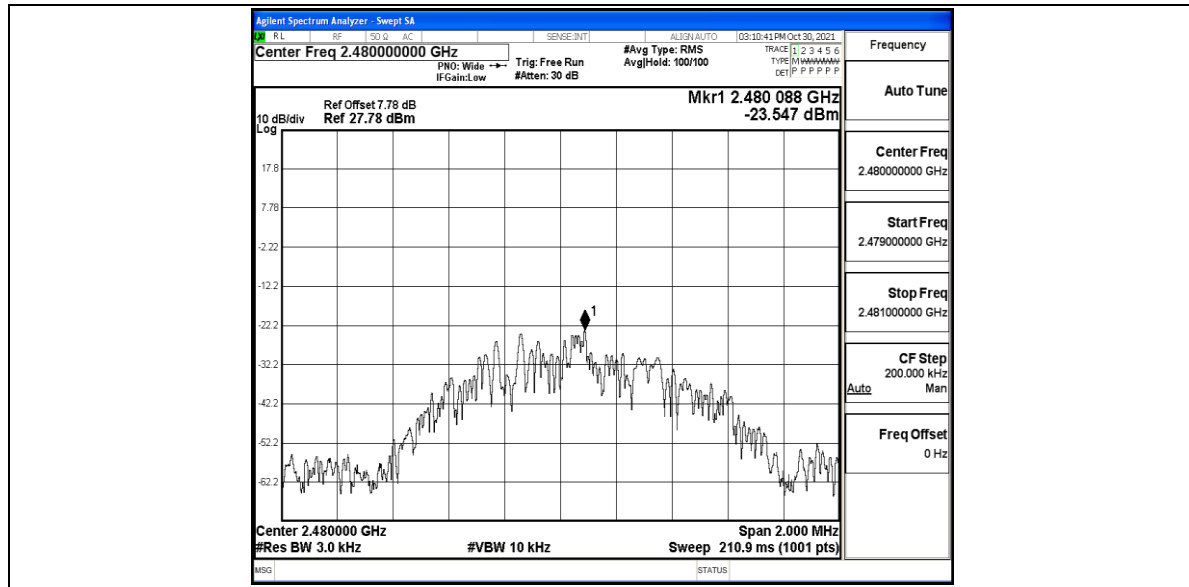
A.3 Maximum power spectral density

Test Result

TestMode	Antenna	Channel	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-22.26	≤8	PASS
		2440	-22.88	≤8	PASS
		2480	-23.55	≤8	PASS

Test Graphs





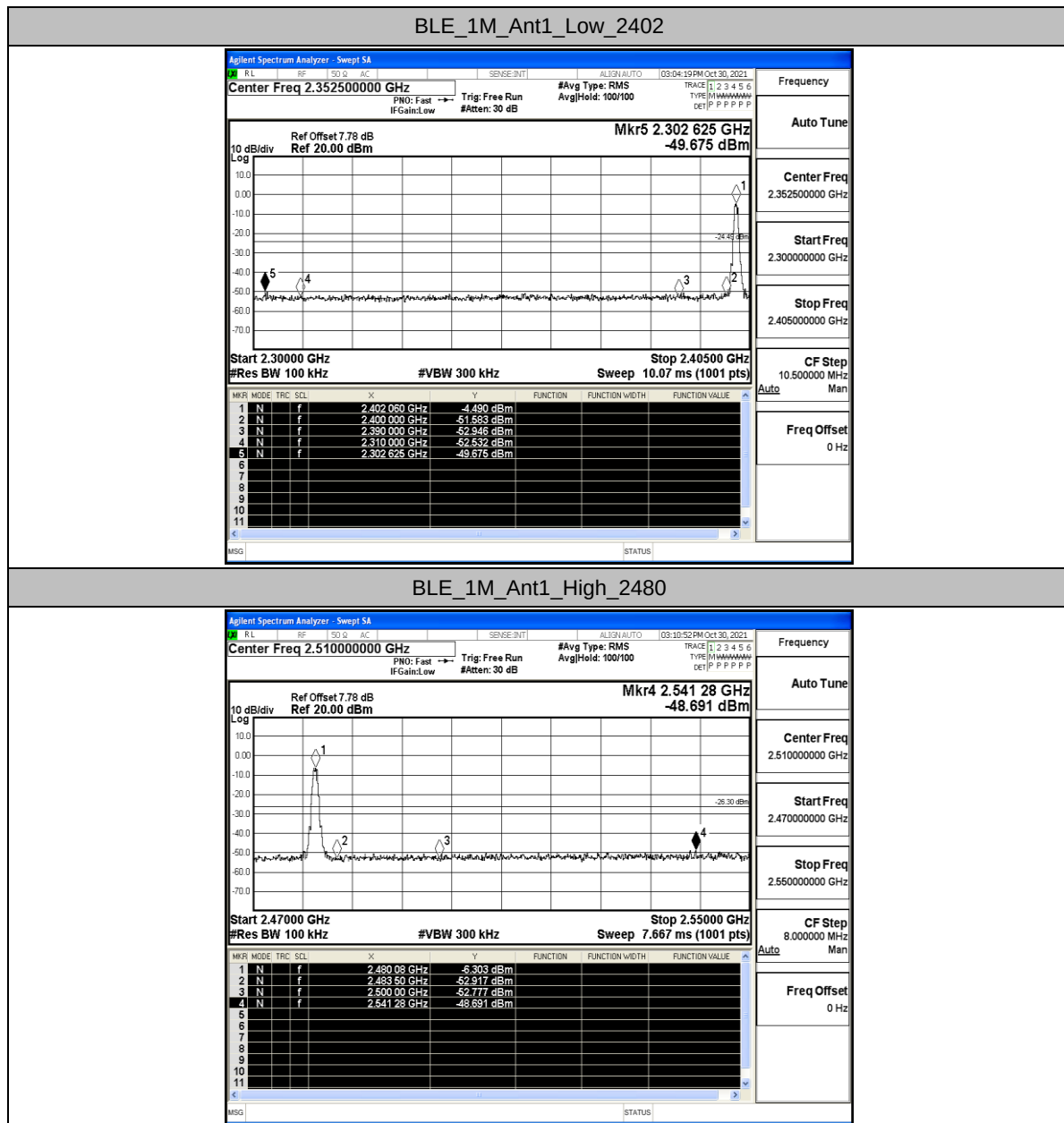


A.4 Band edge measurements

Test Result

TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	-4.49	-49.68	≤-24.49	PASS
		High	2480	-6.30	-48.69	≤-26.3	PASS

Test Graphs



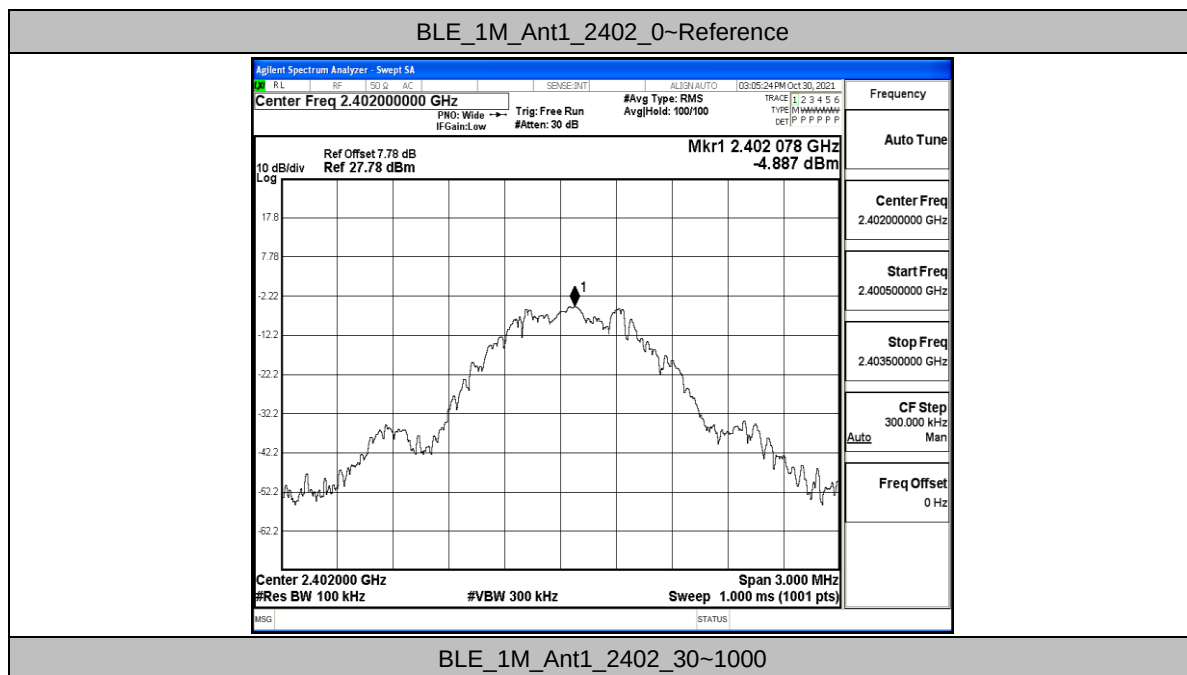


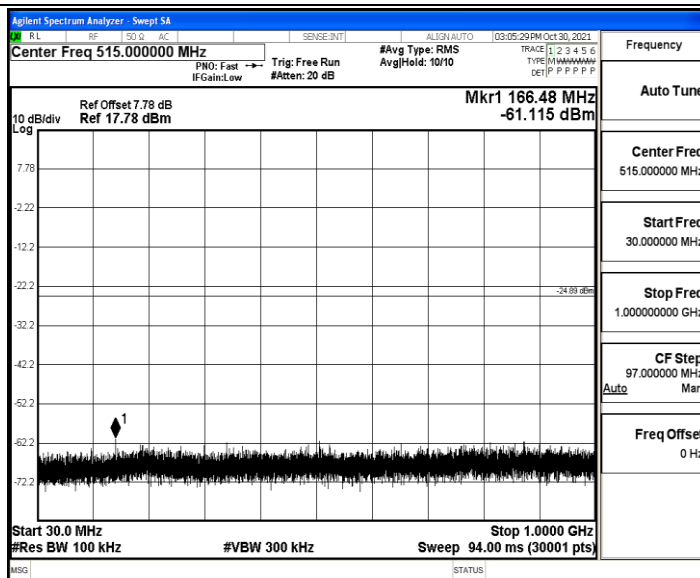
A.5 Conducted Spurious Emission

Test Result

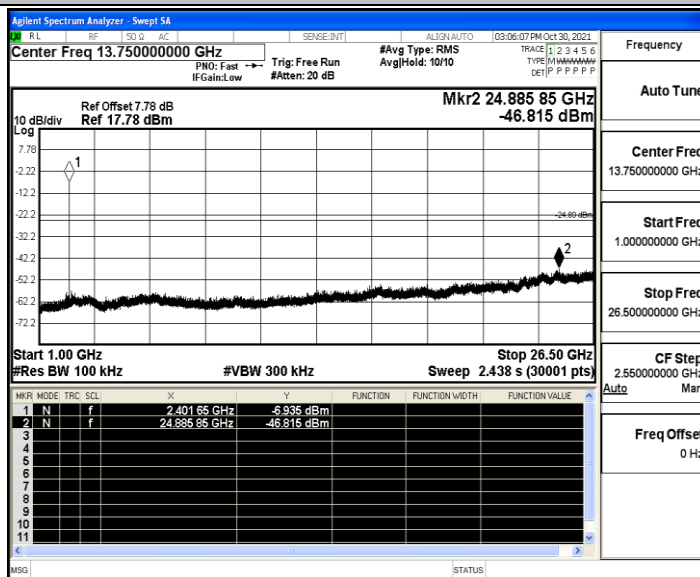
TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	-4.89	-4.89	---	PASS
			30~1000	-4.89	-61.12	≤ -24.89	PASS
			1000~26500	-4.89	-46.82	≤ -24.89	PASS
		2440	Reference	-5.50	-5.50	---	PASS
			30~1000	-5.50	-61.88	≤ -25.5	PASS
			1000~26500	-5.50	-47.13	≤ -25.5	PASS
		2480	Reference	-6.50	-6.50	---	PASS
			30~1000	-6.50	-61.75	≤ -26.5	PASS
			1000~26500	-6.50	-46.12	≤ -26.5	PASS

Test Graphs

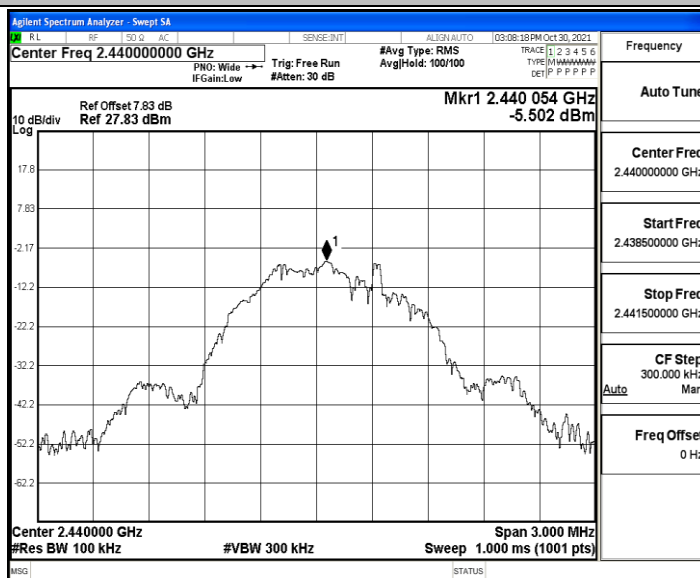




BLE_1M_Ant1_2402_1000~26500

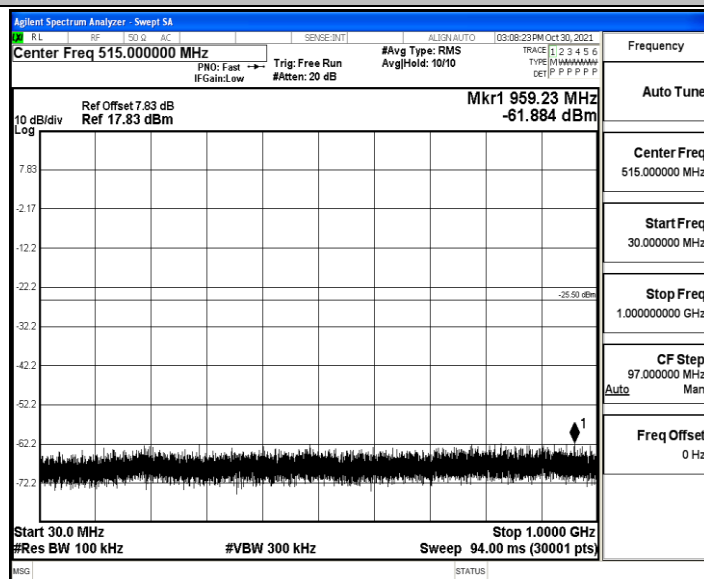


BLE_1M_Ant1_2440_0~Reference

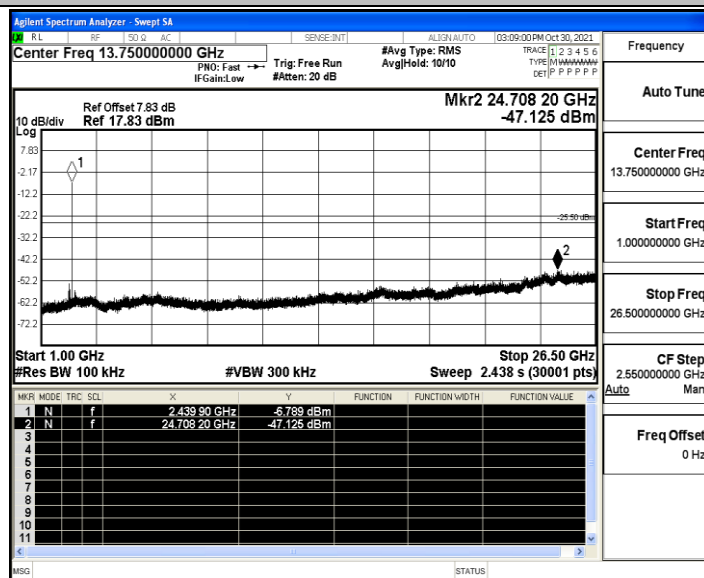




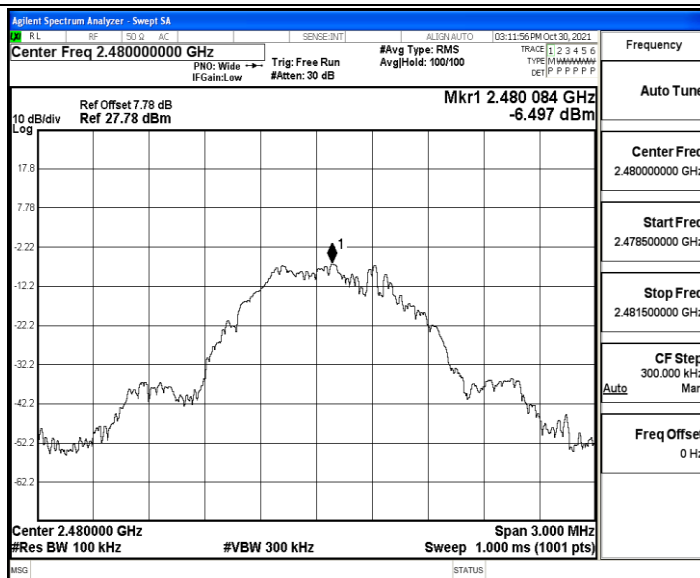
BLE_1M_Ant1_2440_30~1000



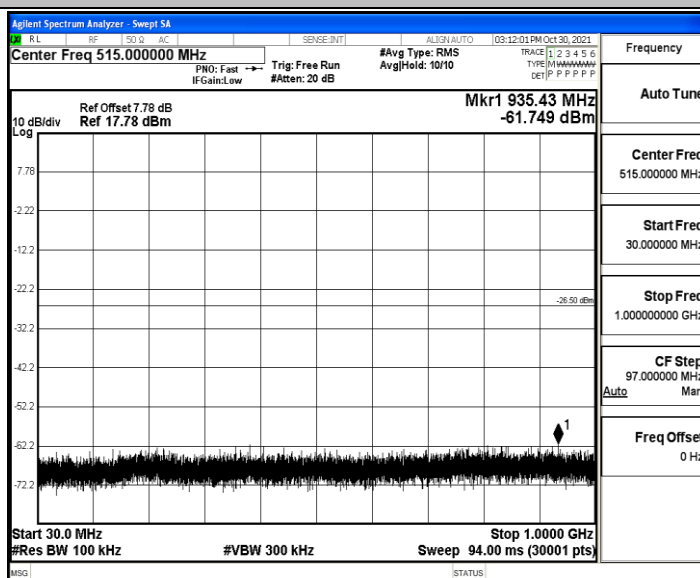
BLE_1M_Ant1_2440_1000~26500



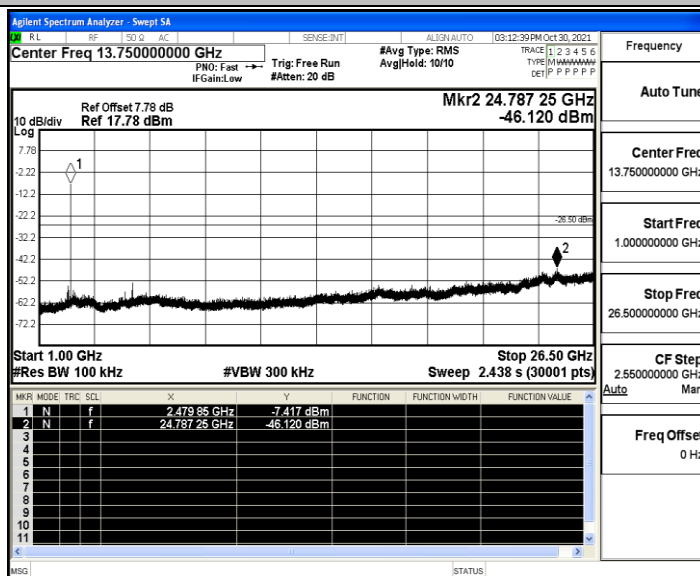
BLE_1M_Ant1_2480_0~Reference



BLE_1M_Ant1_2480_30~1000



BLE_1M_Ant1_2480_1000~26500





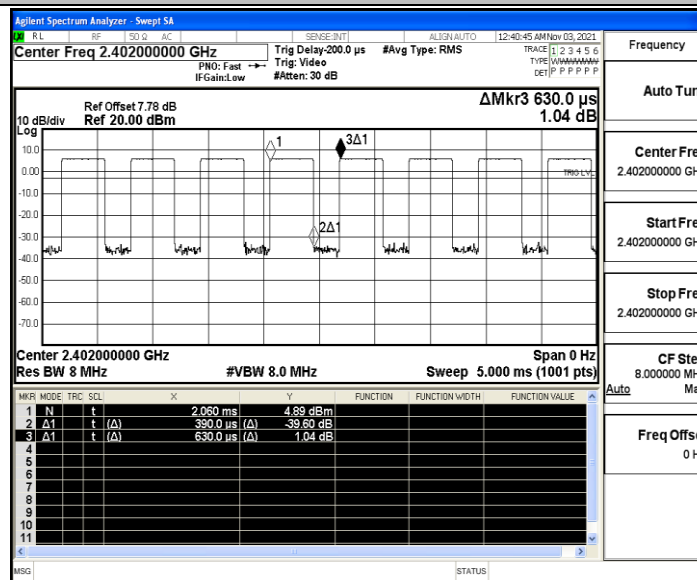
A.6 Duty Cycle

Test Result

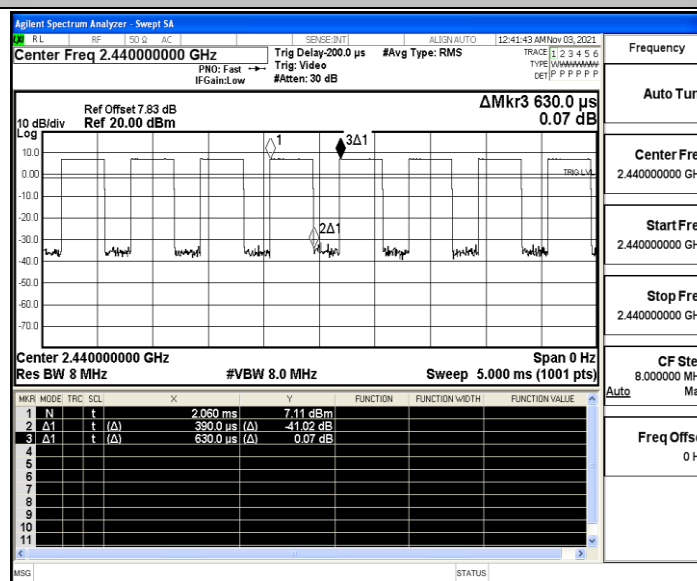
TestMode	Antenna	Channel	ON Time [ms]	Period [ms]	X	DC [%]	xFactor	Limit	Verdict
BLE_1M	Ant1	2402	0.39	0.63	0.6190	61.90	2.08	---	PASS
		2440	0.39	0.63	0.6190	61.90	2.08	---	PASS
		2480	0.38	0.63	0.6032	60.32	2.20	---	PASS

Test Graphs

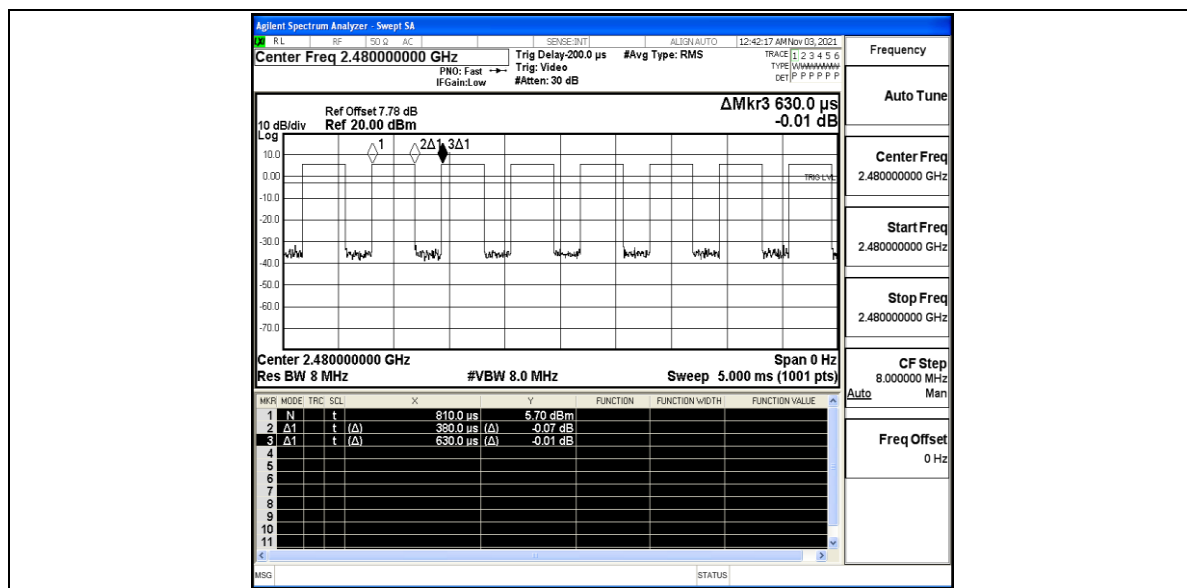
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480





A.7 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	-47.14	≤-41.20	48.06	≤54	PASS
				AV	2373.710	-45.97	≤-41.20	49.23	≤54	PASS
				AV	2390.000	-46.98	≤-41.20	48.22	≤54	PASS
				Peak	2310.000	-40.75	≤-21.20	54.45	≤74	PASS
				Peak	2385.575	-37.83	≤-21.20	57.37	≤74	PASS
				Peak	2390.000	-40.51	≤-21.20	54.69	≤74	PASS
		High	2480	AV	2483.500	-46.59	≤-41.20	48.61	≤54	PASS
				AV	2493.600	-45.74	≤-41.20	49.46	≤54	PASS
				AV	2500.000	-46.45	≤-41.20	48.75	≤54	PASS
				Peak	2483.500	-40.03	≤-21.20	55.17	≤74	PASS
				Peak	2497.120	-37.44	≤-21.20	57.76	≤74	PASS
				Peak	2500.000	-39.81	≤-21.20	55.39	≤74	PASS

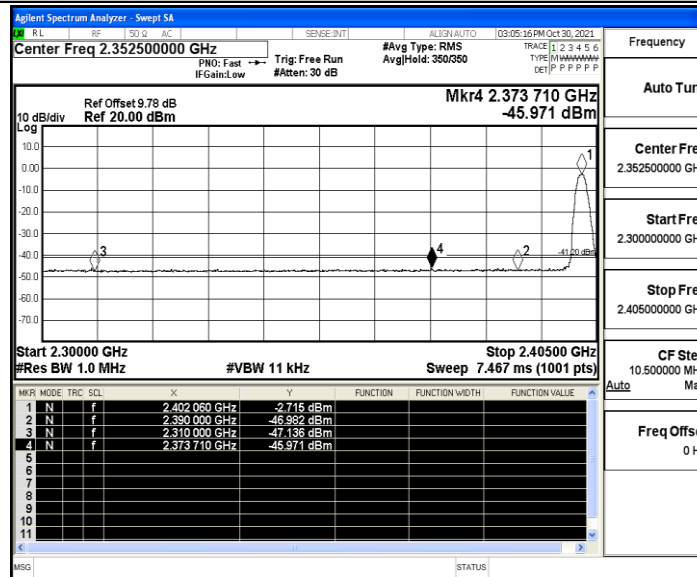
Note:

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.

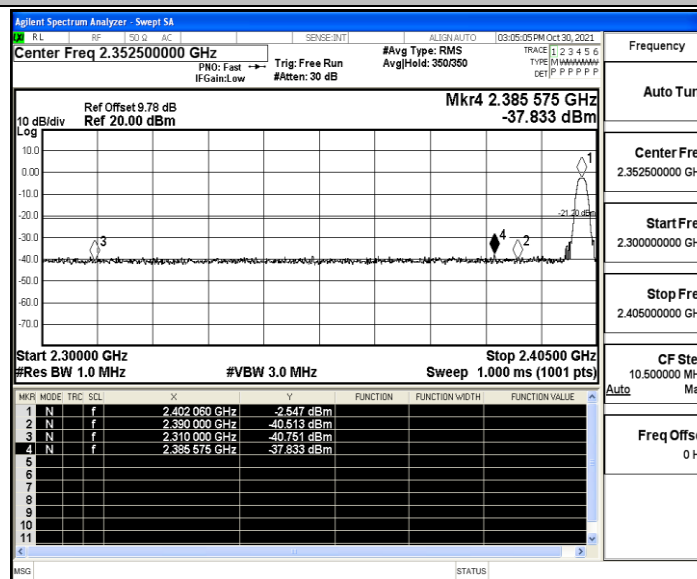


Test Graphs

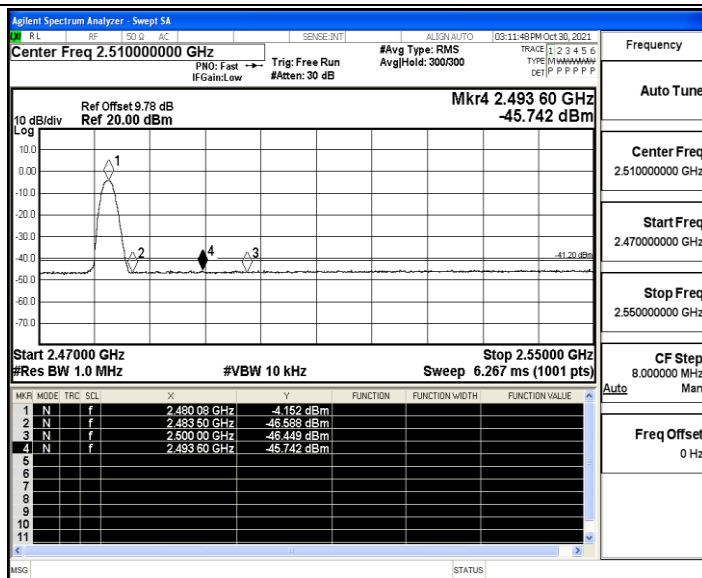
BLE_1M_Ant1_Low_2402_AV



BLE_1M_Ant1_Low_2402_Peak



BLE_1M_Ant1_High_2480_AV



BLE_1M_Ant1_High_2480_Peak

