

Appendix A

RF Test Data for BT(BLE) (Conducted Measurement)

Product Name: Bluetooth Beacon

Trade Mark: Feasycom

Test Model: FSC-BP103B

FCC ID: 2AMWO-FSC-BP103B

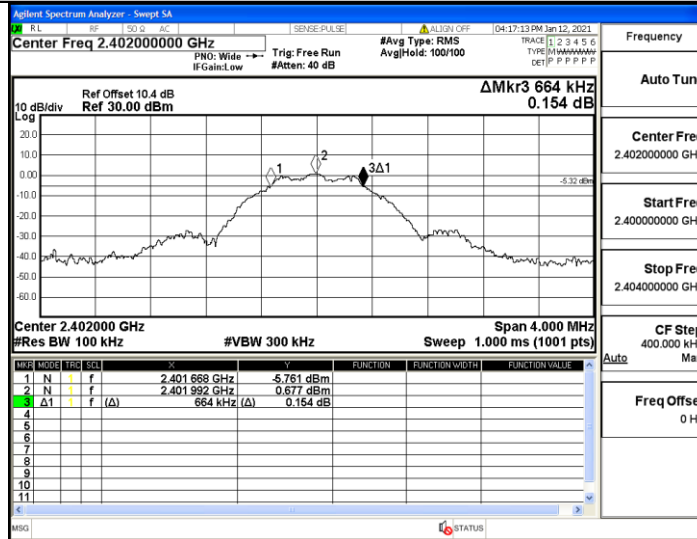
Environmental Conditions

Temperature:	22.8° C
Relative Humidity:	60%
ATM Pressure:	100.0 kPa
Test Engineer:	Nancy Li
Supervised by:	Hugo Chen
NOTE	N/A

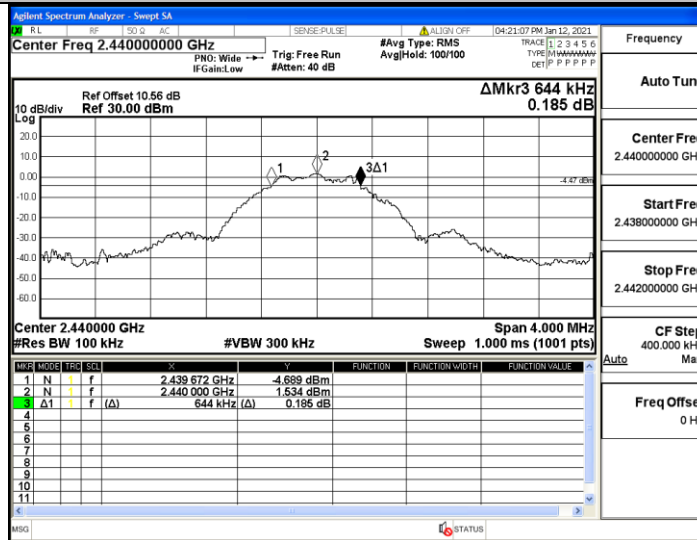
A.1. 6dB Bandwidth

TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.664	2401.668	2402.332	0.5	PASS
		2440	0.644	2439.672	2440.316	0.5	PASS
		2480	0.672	2479.664	2480.336	0.5	PASS

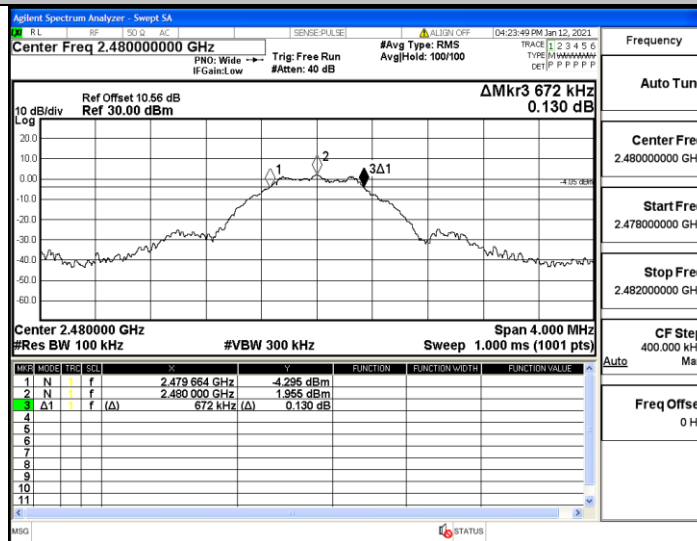
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480



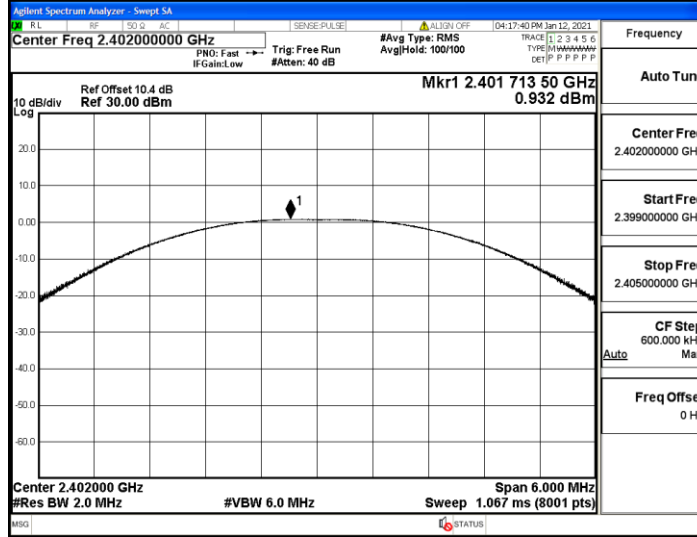
A.2. Occupied Bandwidth

Test Mode	Test Channel	Ant	OBW[MHz]	Limit[MHz]	Verdict
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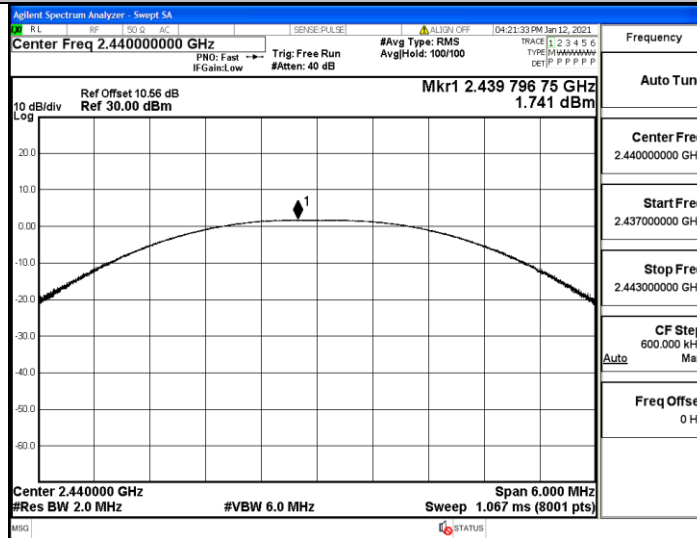
A.3. Maximum peak conducted output power

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	0.93	<=30	PASS
		2440	1.74	<=30	PASS
		2480	2.22	<=30	PASS

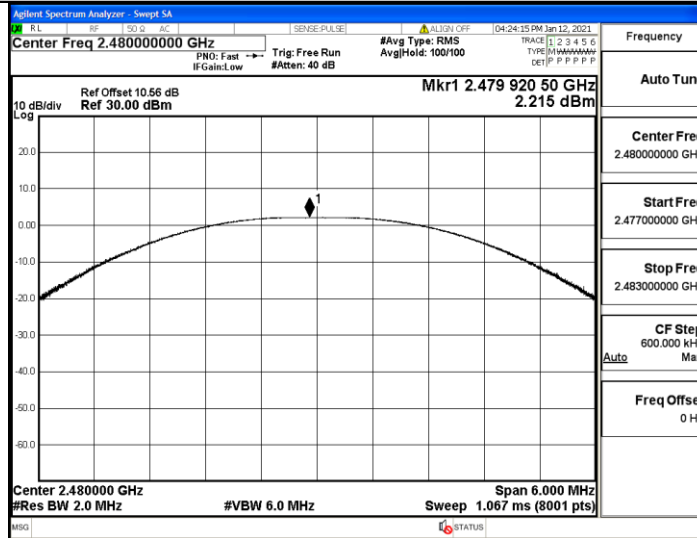
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



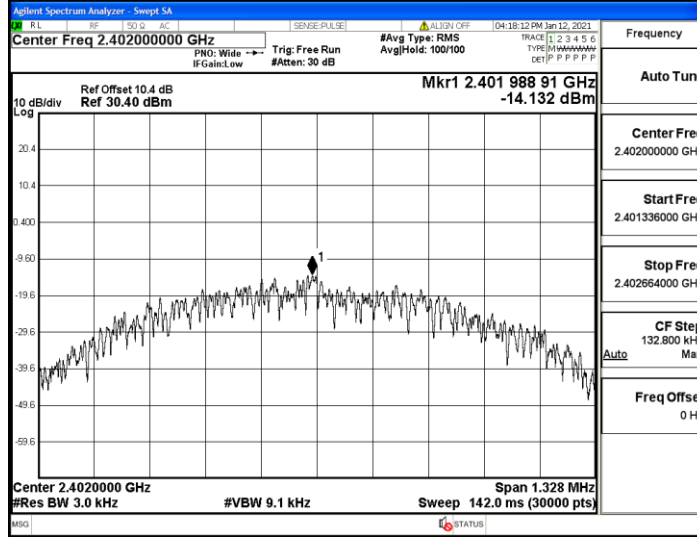
BLE_1M_Ant1_2480



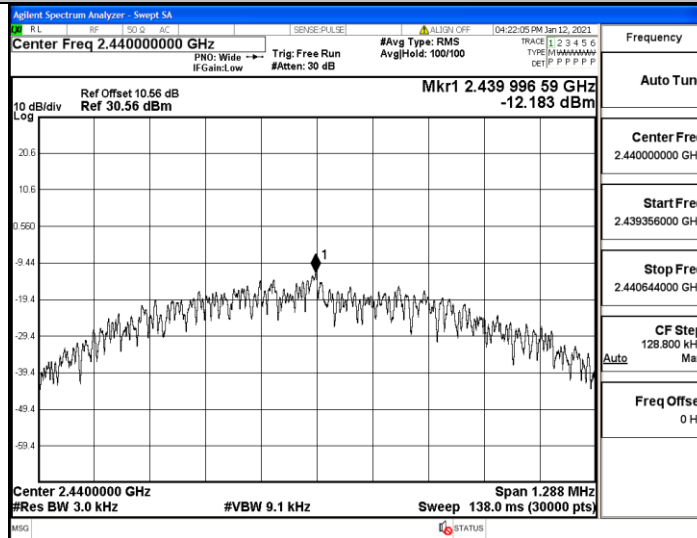
A.4. Maximum Peak power spectral density

TestMode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-14.13	<=8	PASS
		2440	-12.18	<=8	PASS
		2480	-11.39	<=8	PASS

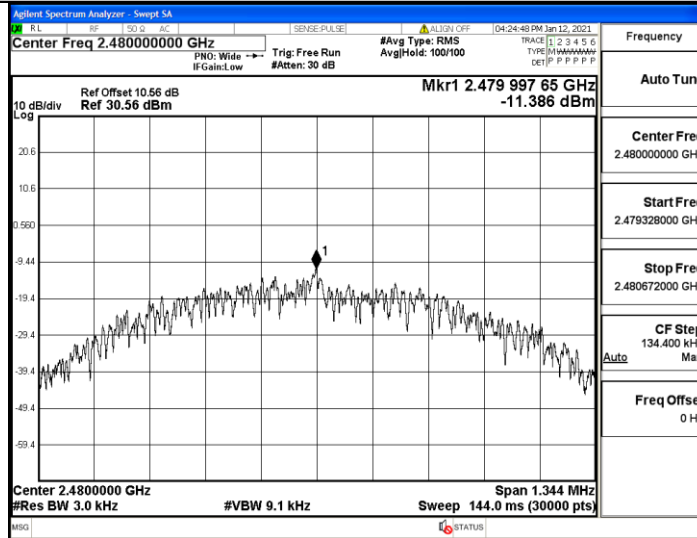
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



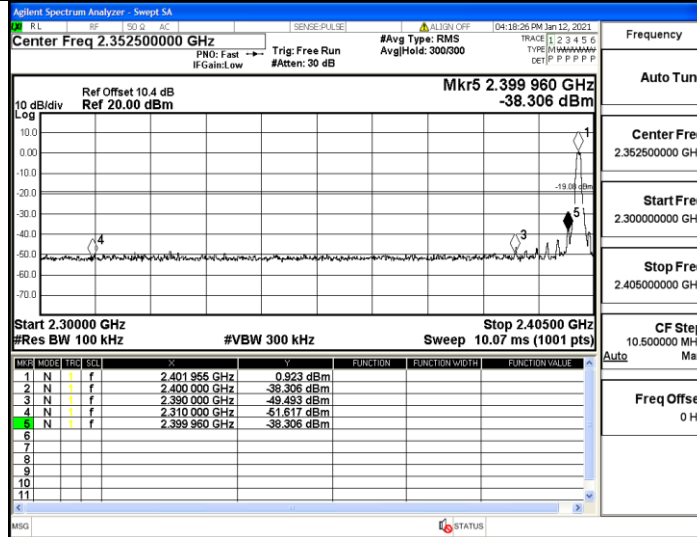
BLE_1M_Ant1_2480



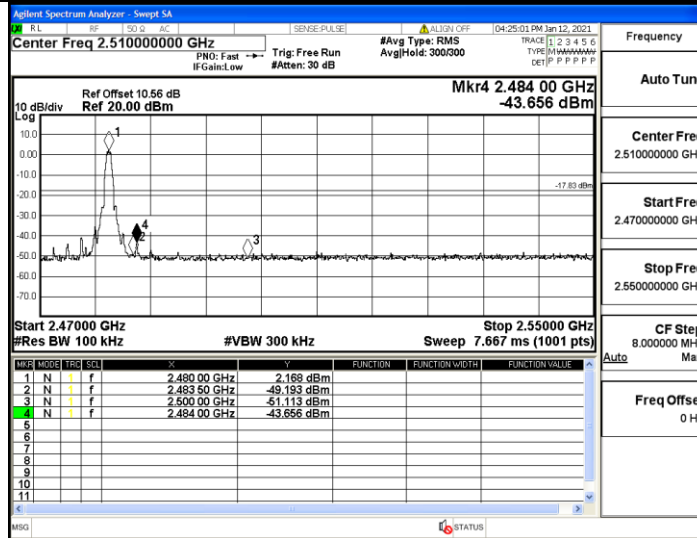
A.5. Band-edge for RF Conducted Emissions

TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	0.92	-38.31	<=-19.08	PASS
		High	2480	2.17	-43.66	<=-17.83	PASS

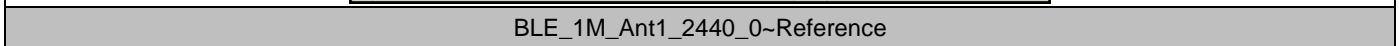
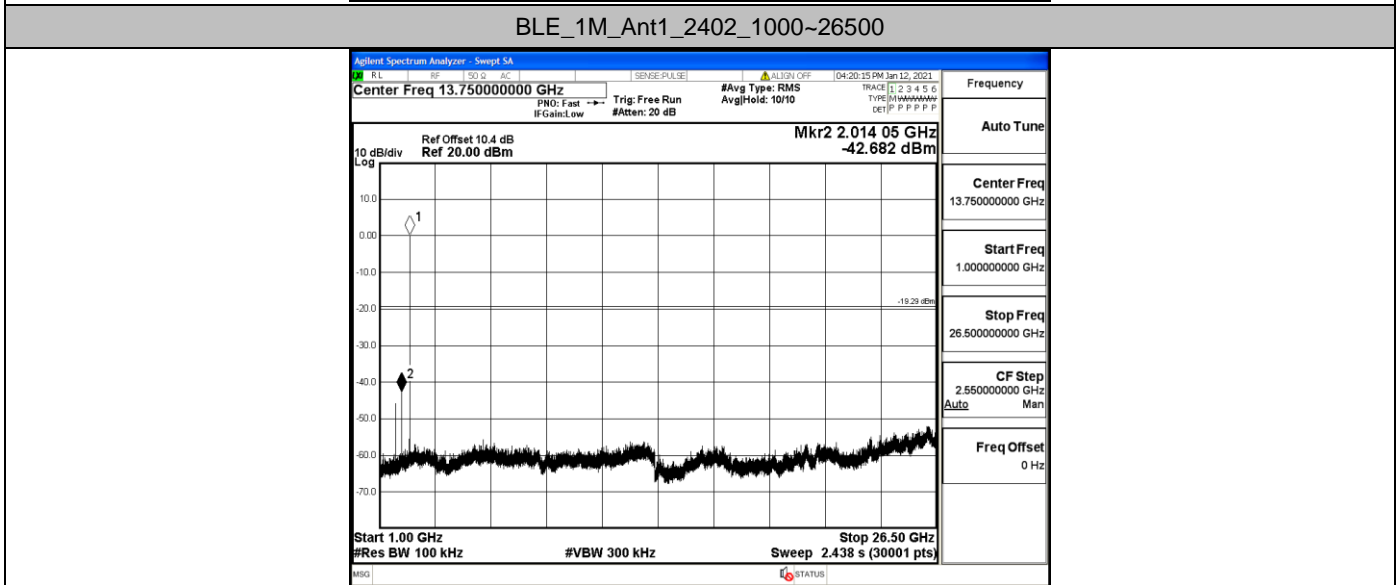
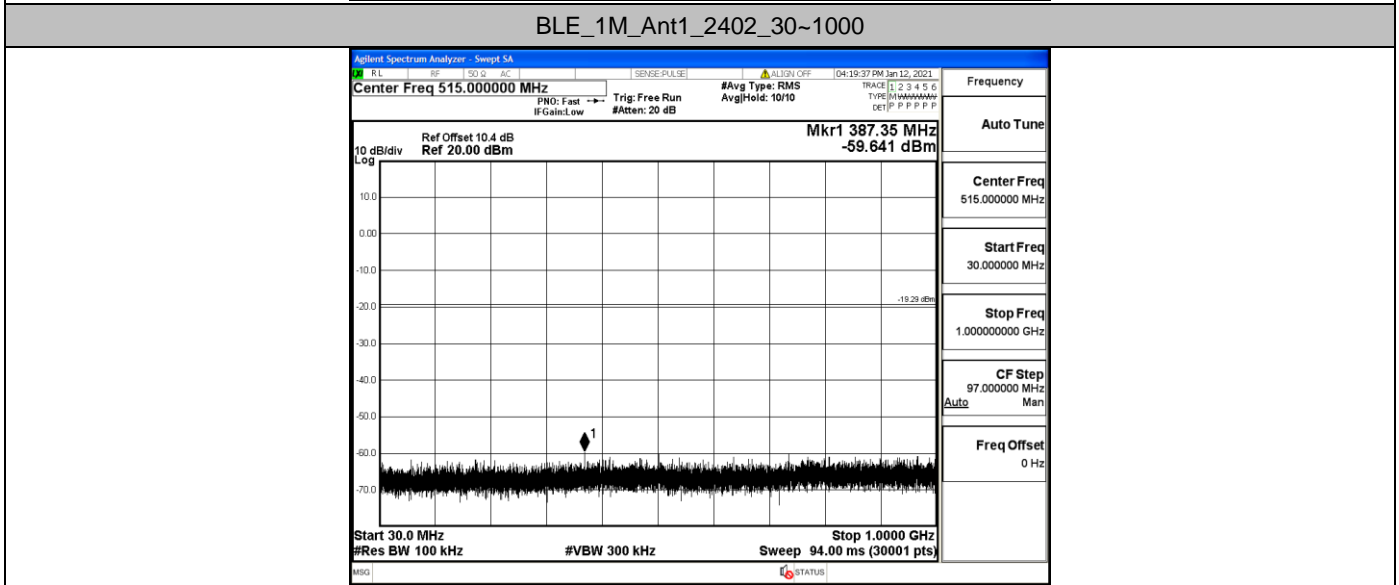
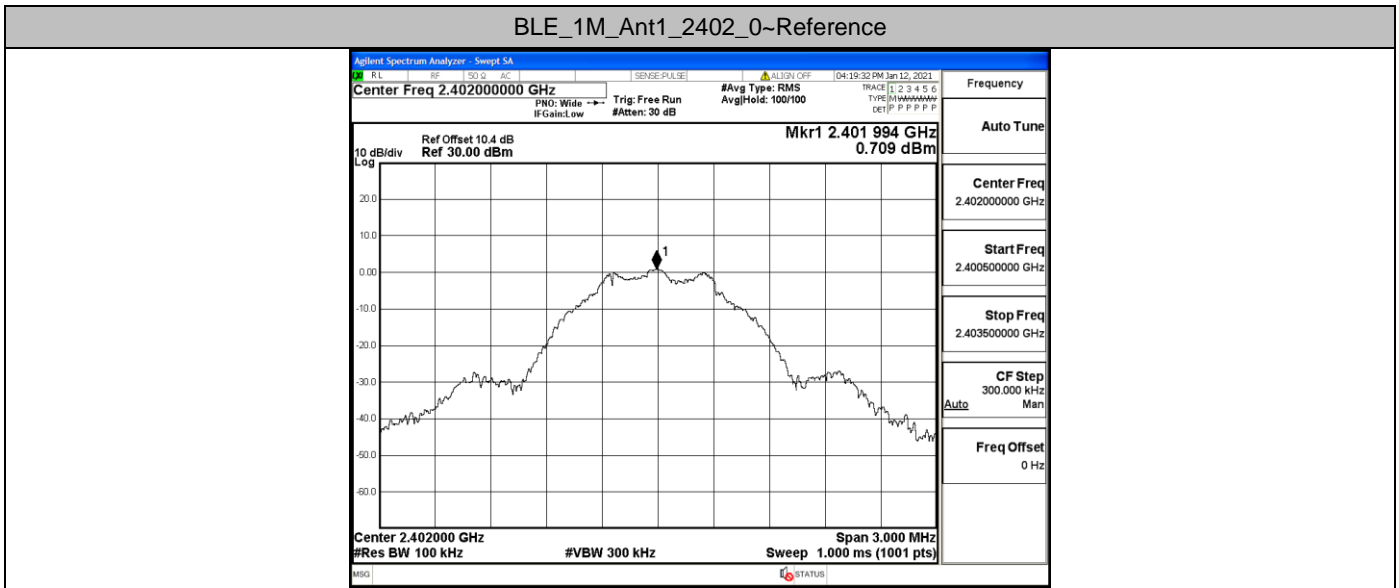
BLE_1M_Ant1_Low_2402

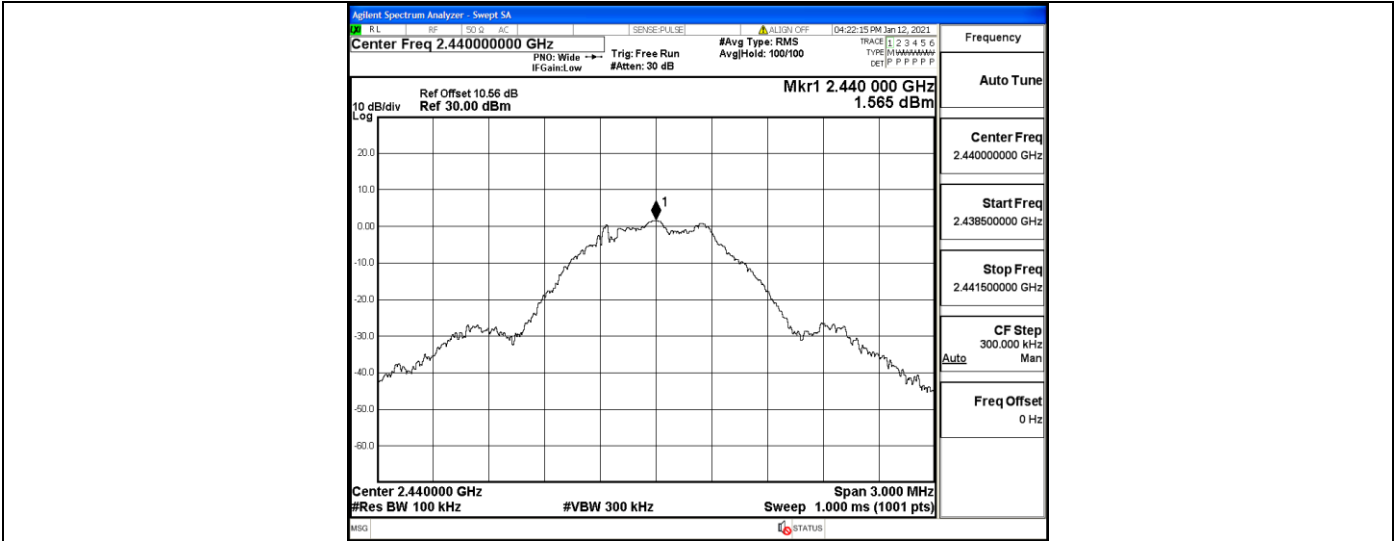


BLE_1M_Ant1_High_2480

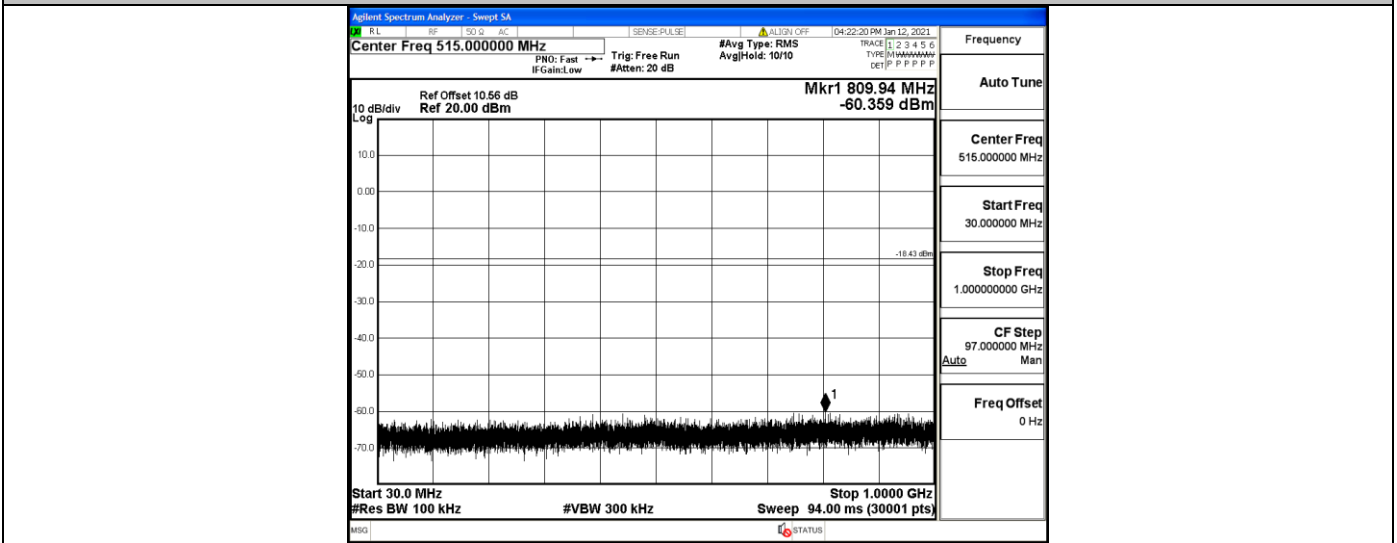


A.6. RF Conducted Spurious Emissions

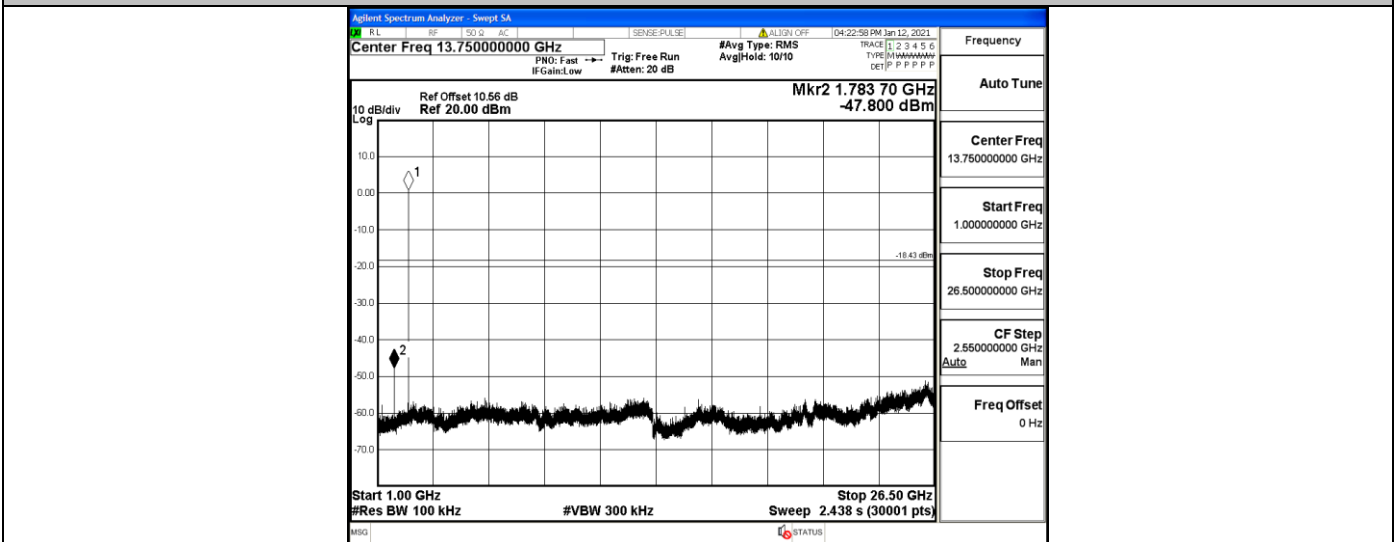




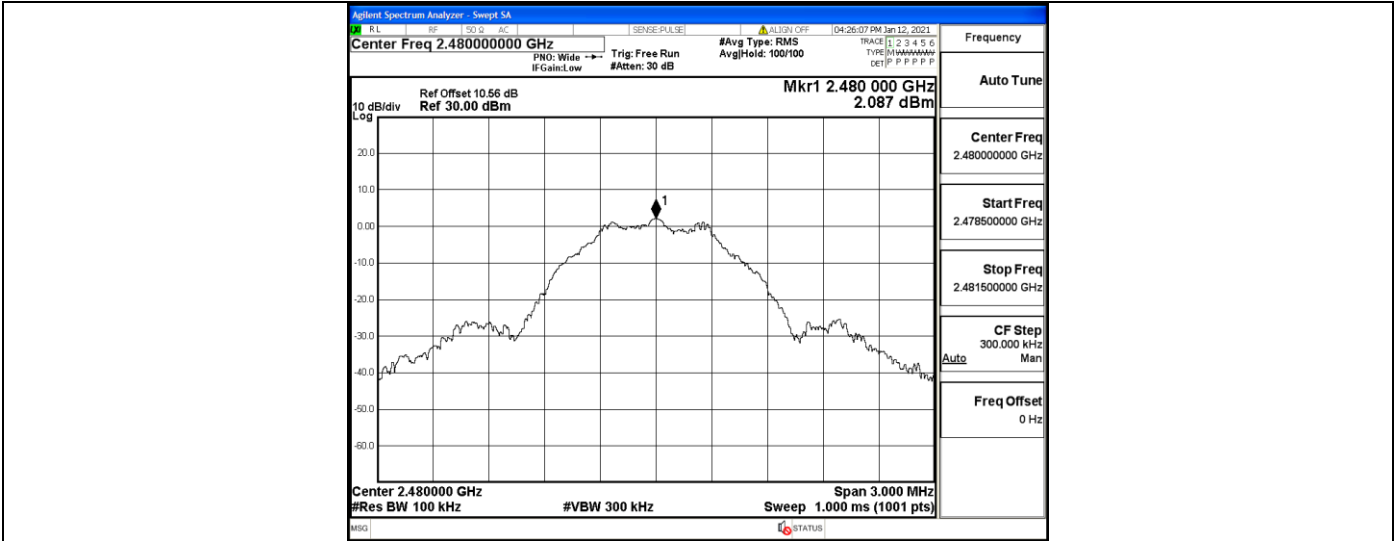
BLE_1M_Ant1_2440_30~1000



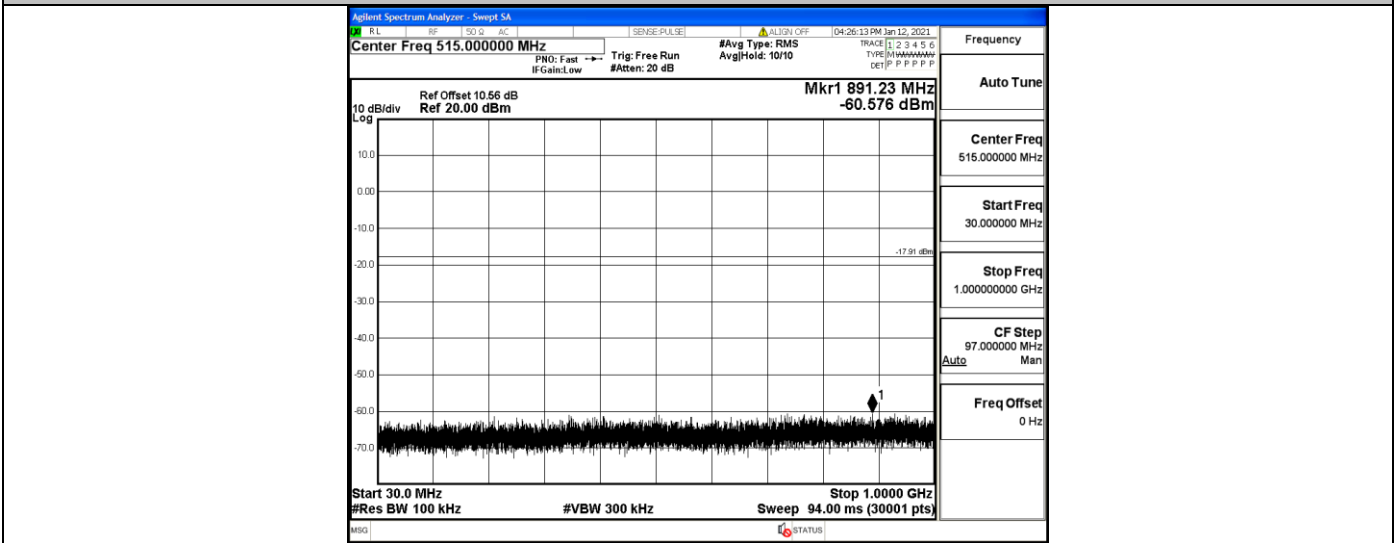
BLE_1M_Ant1_2440_1000~26500



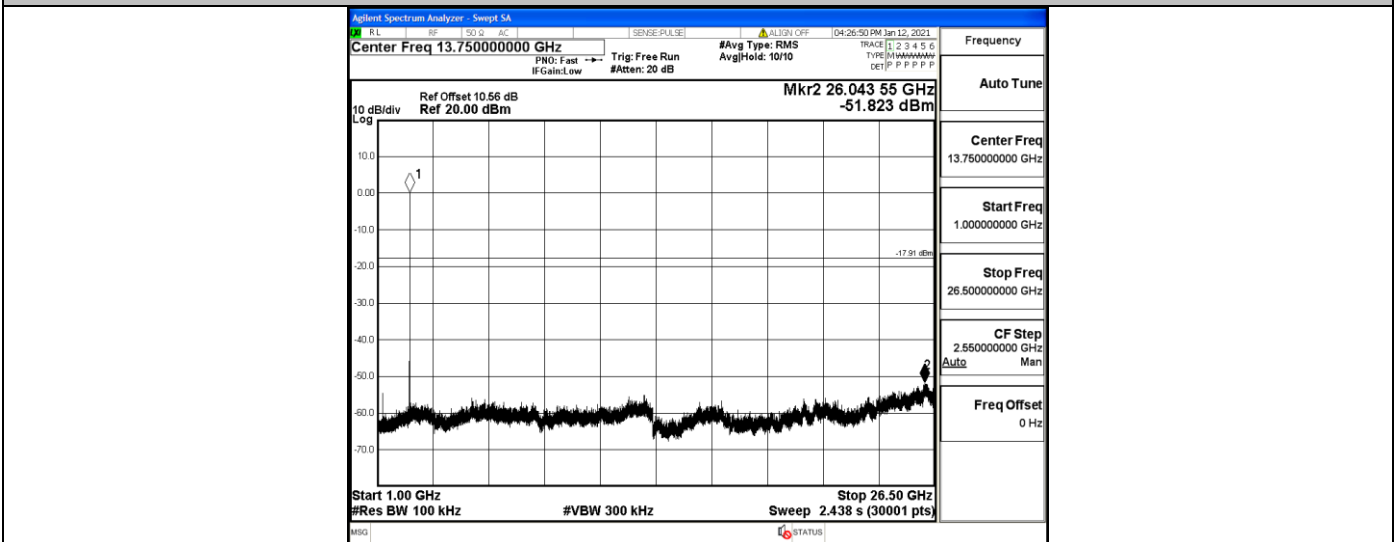
BLE_1M_Ant1_2480_0~Reference



BLE_1M_Ant1_2480_30~1000

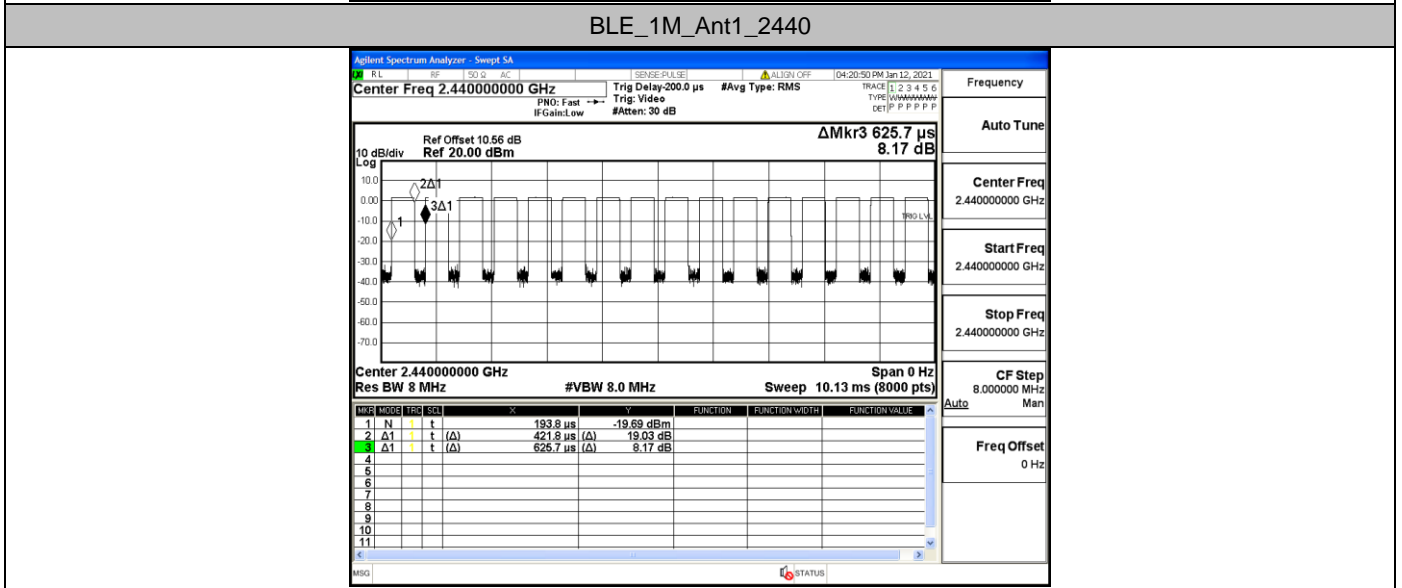
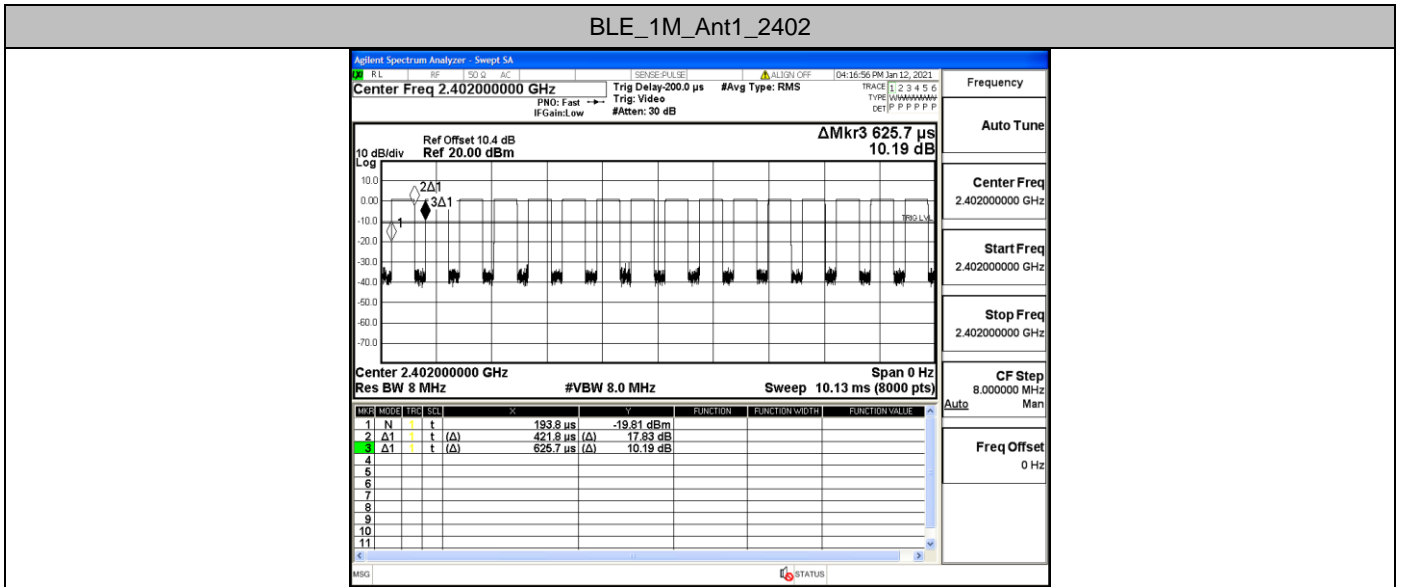


BLE_1M_Ant1_2480_1000~26500

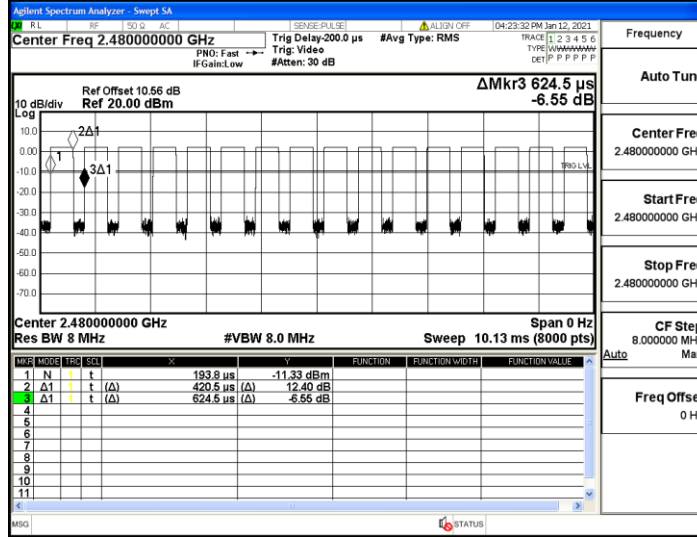


A.7. Duty Cycle

TestMode	Antenna	Channel	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	1/B Minimum VBW (KHz)
BLE_1M	Ant1	2402	0.42	0.63	66.67	2.38
		2440	0.42	0.63	66.67	2.38
		2480	0.42	0.62	67.74	2.38



BLE_1M_Ant1_2480

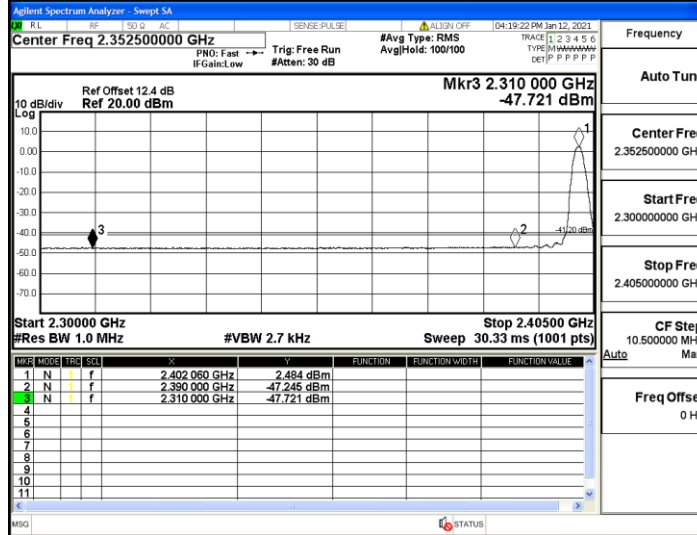


A.8. Restrict-band band-edge measurements

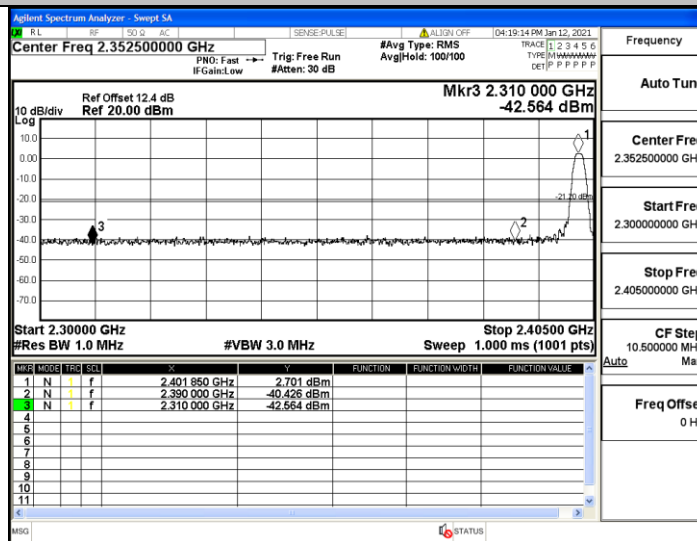
TestMode	Antenna	ChName	Channel	Detector	Freq. [MHz]	Result [dBm]	Limit [dBm]	Verdict
BLE_1M	Ant1	Low	2402	AV	2310.000	-47.73	<=-41.20	PASS
				AV	2390.000	-47.25	<=-41.20	PASS
				Peak	2310.000	-42.56	<=-21.20	PASS
				Peak	2390.000	-40.42	<=-21.20	PASS
		High	2480	AV	2483.500	-44.24	<=-41.20	PASS
				AV	2500.000	-46.56	<=-41.20	PASS
				Peak	2483.500	-37.86	<=-21.20	PASS
				Peak	2500.000	-41.12	<=-21.20	PASS

1. The Antenna Gain is compensated in the graph with 2dBi and Antenna Gain which is Higher.
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.

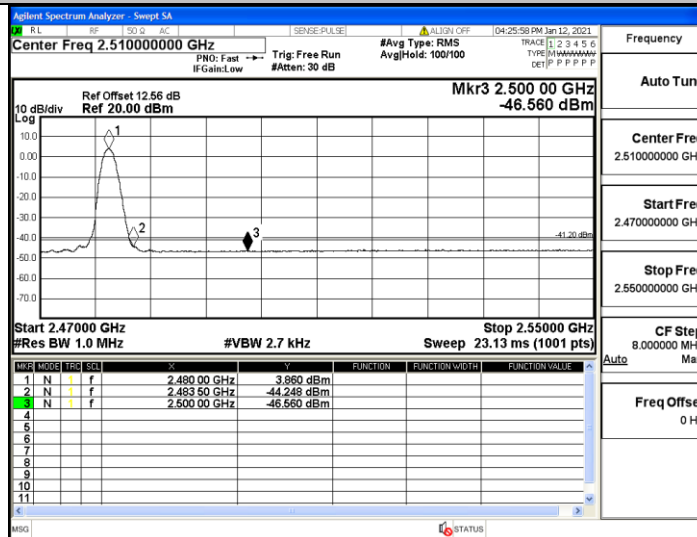
BLE_1M_Ant1_Low_2402_AV



BLE_1M_Ant1_Low_2402_Peak



BLE_1M_Ant1_High_2480_AV



BLE_1M_Ant1_High_2480_Peak

