Appendix A

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

Product Name: Aroma Diffuser

Trade Mark: N/A

Test Model: 500B

FCC ID: 2AYDA-500B

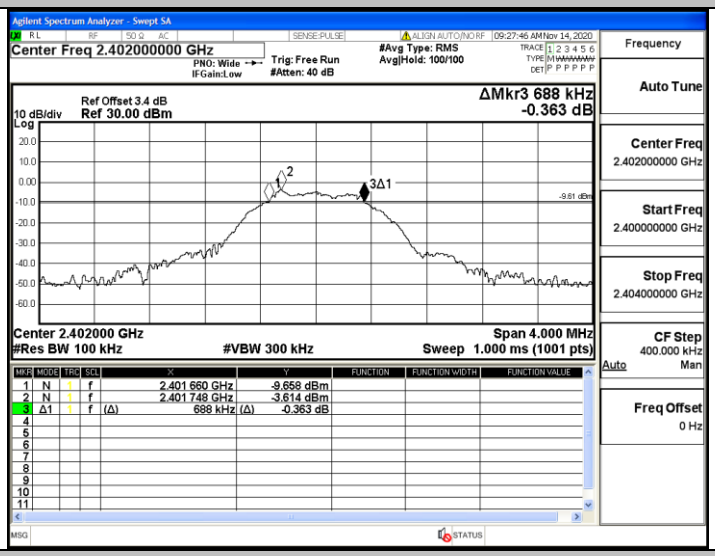
Environmental Conditions

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

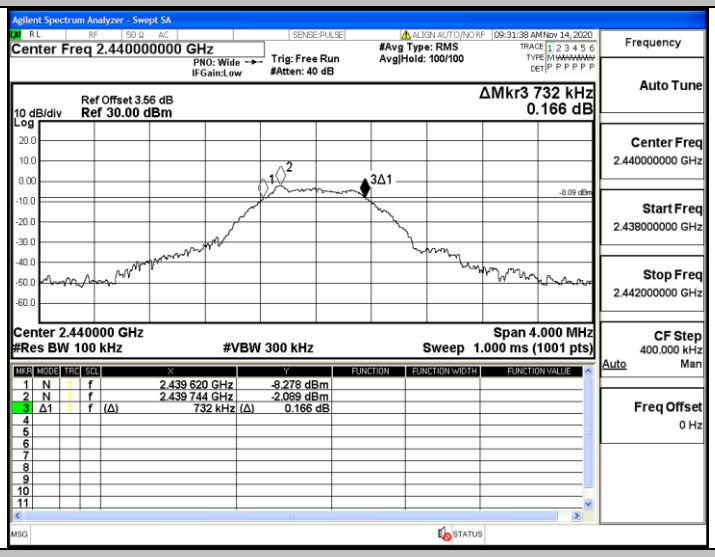
A.1. 6dB Bandwidth

TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.688	2401.660	2402.348	0.5	PASS
		2440	0.732	2439.620	2440.352	0.5	PASS
		2480	0.700	2479.660	2480.360	0.5	PASS

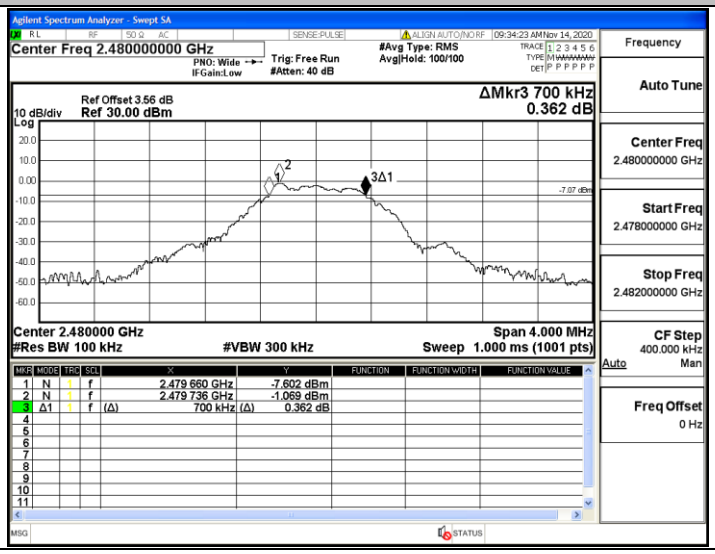
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480



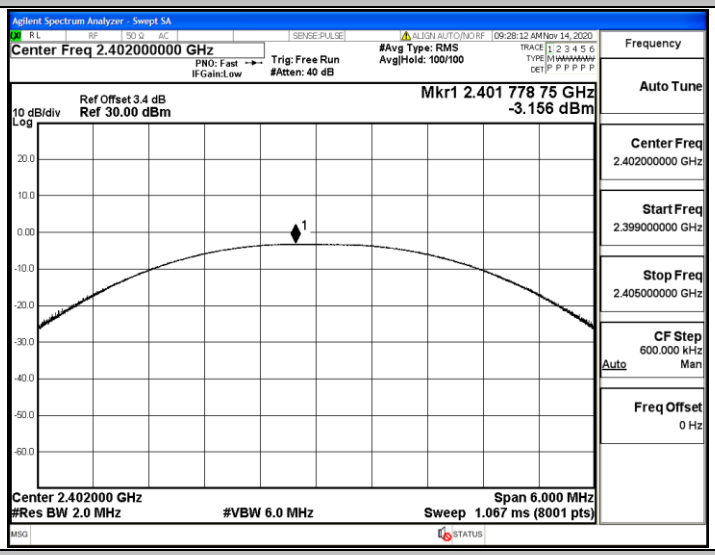
A.2. Occupied Bandwidth

Test Mode	Test Channel	Ant	OBW[MHz]	Limit[MHz]	Verdict

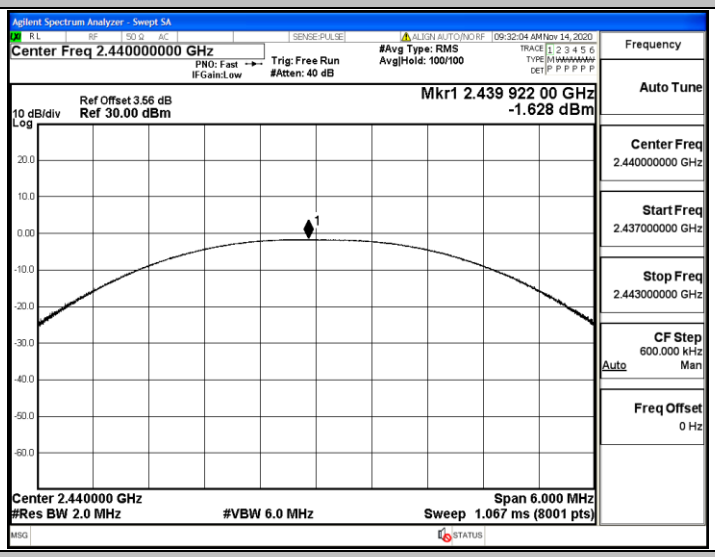
A.3. Maximum peak conducted output power

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	-3.16	<=30	PASS
		2440	-1.63	<=30	PASS
		2480	-0.52	<=30	PASS

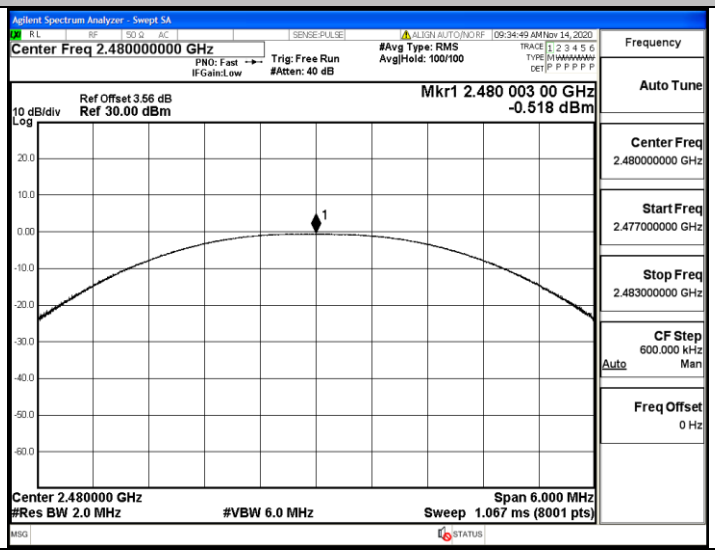
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



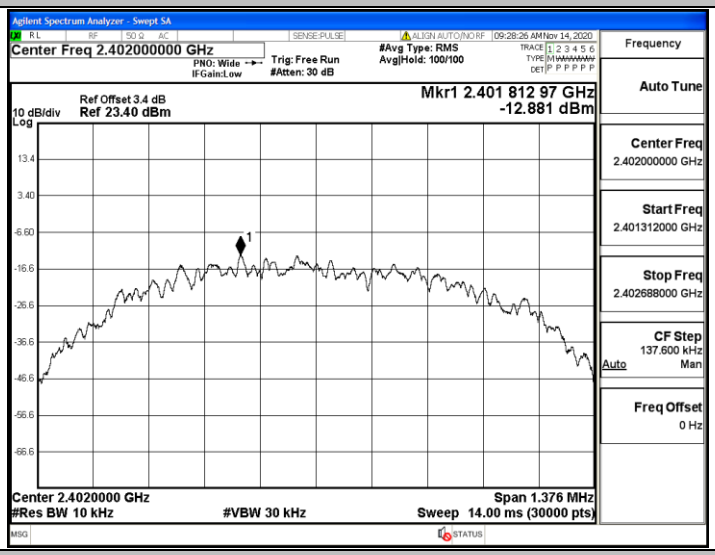
BLE_1M_Ant1_2480



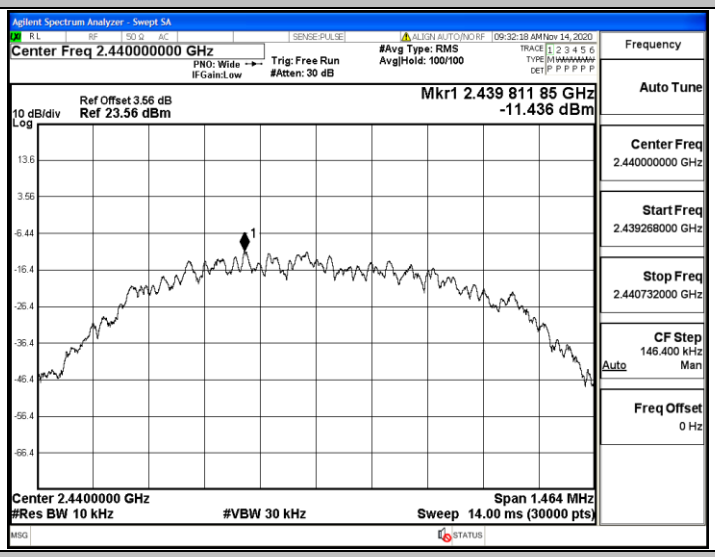
A.4. Maximum Peak power spectral density

TestMode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-12.88	<=8	PASS
		2440	-11.44	<=8	PASS
		2480	-10.28	<=8	PASS

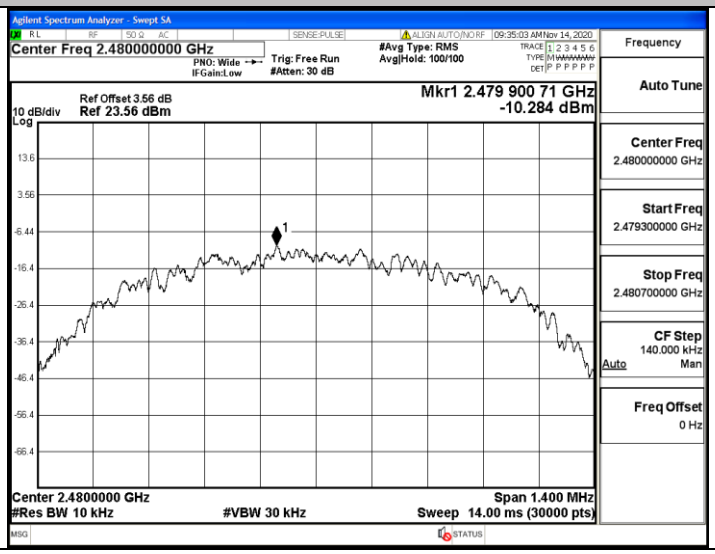
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



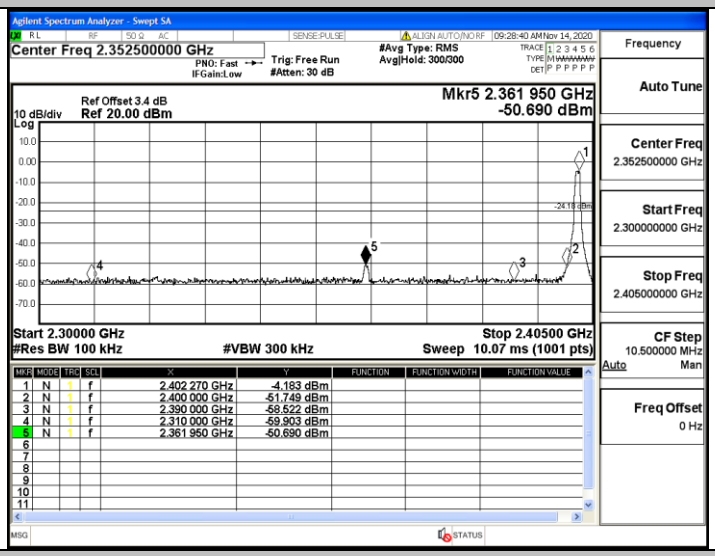
BLE_1M_Ant1_2480



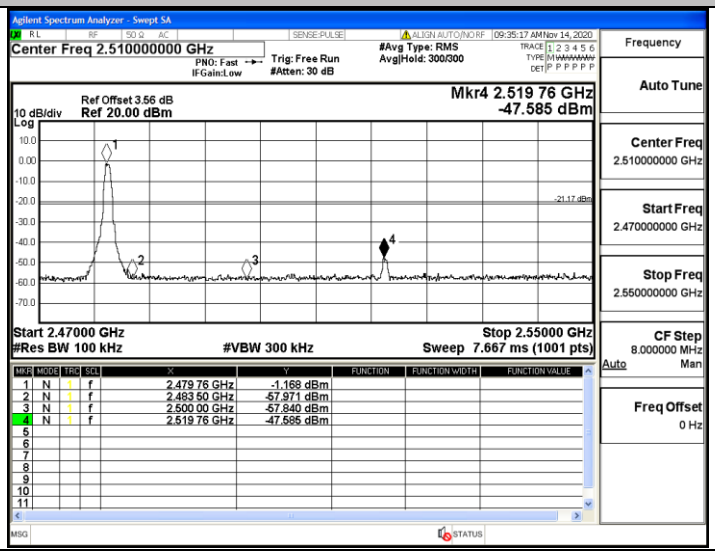
A.5. Band-edge for RF Conducted Emissions

TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	-4.18	-50.69	<=-24.18	PASS
		High	2480	-1.17	-47.59	<=-21.17	PASS

BLE_1M_Ant1_Low_2402



BLE_1M_Ant1_High_2480



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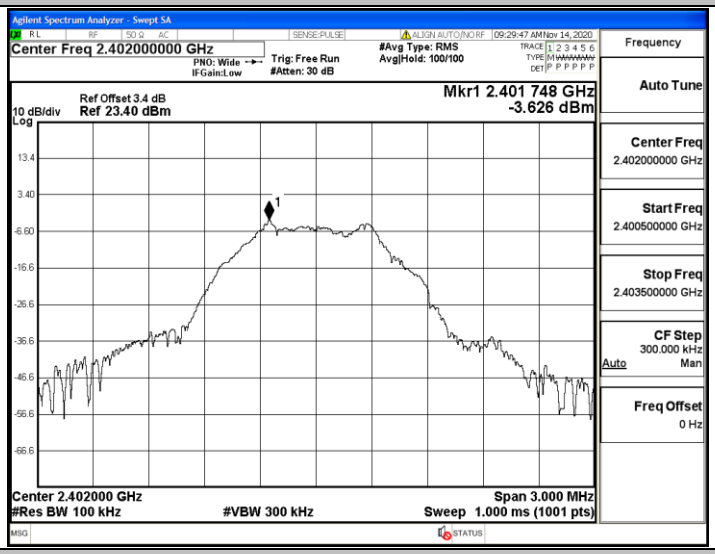
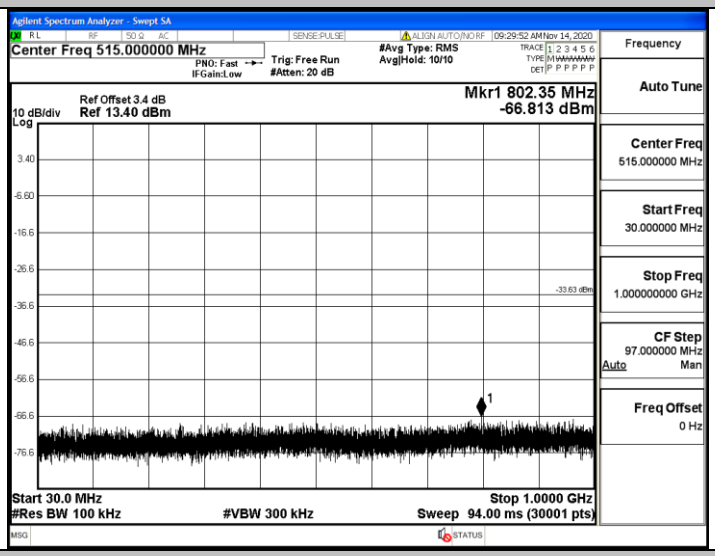
A.6. RF Conducted Spurious Emissions

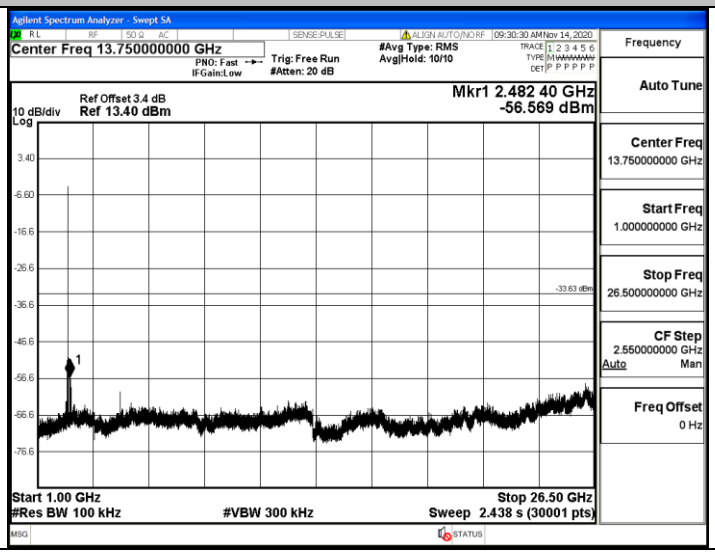
BLE_1M_Ant1_2402_0~Reference



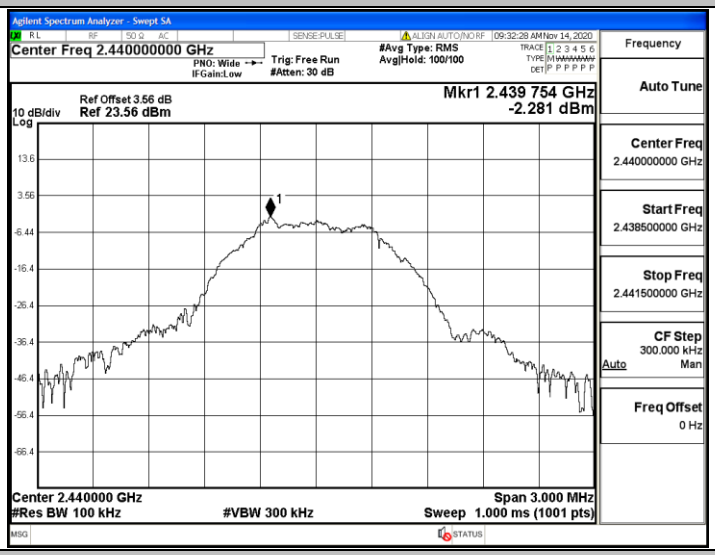
BLE_1M_Ant1_2402_30~1000



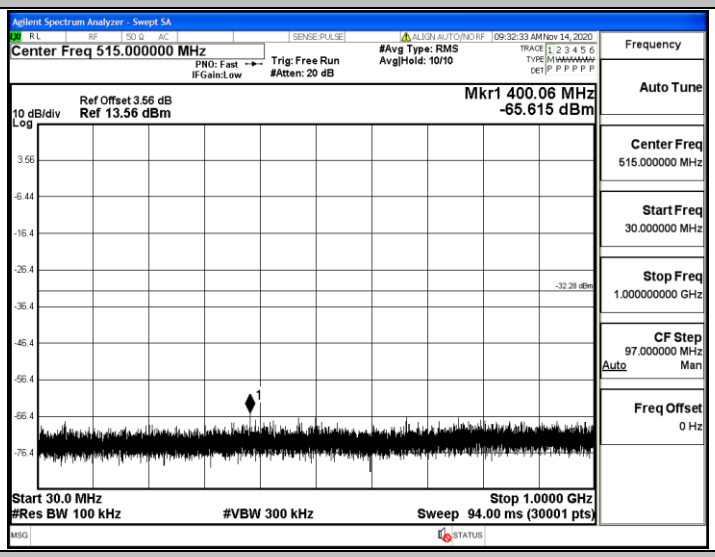
BLE_1M_Ant1_2402_1000~26500



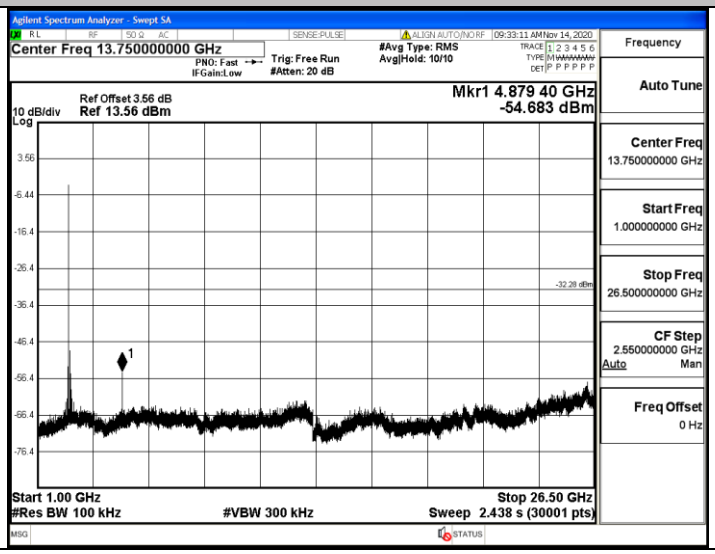
BLE_1M_Ant1_2440_0~Reference



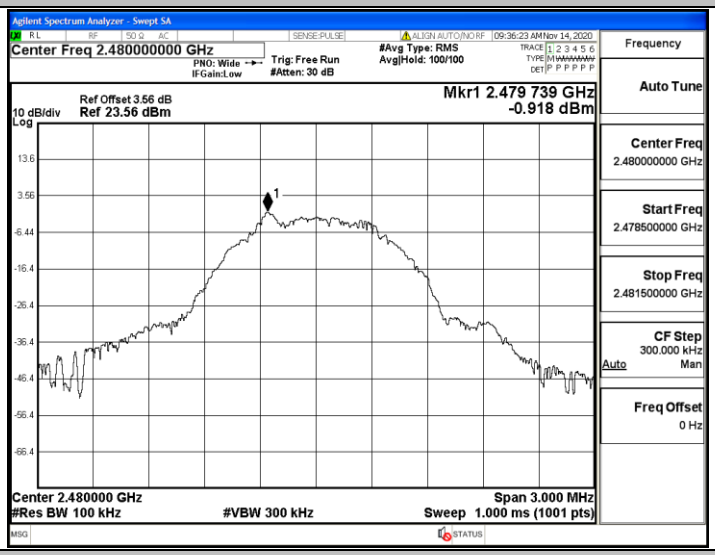
BLE_1M_Ant1_2440_30~1000



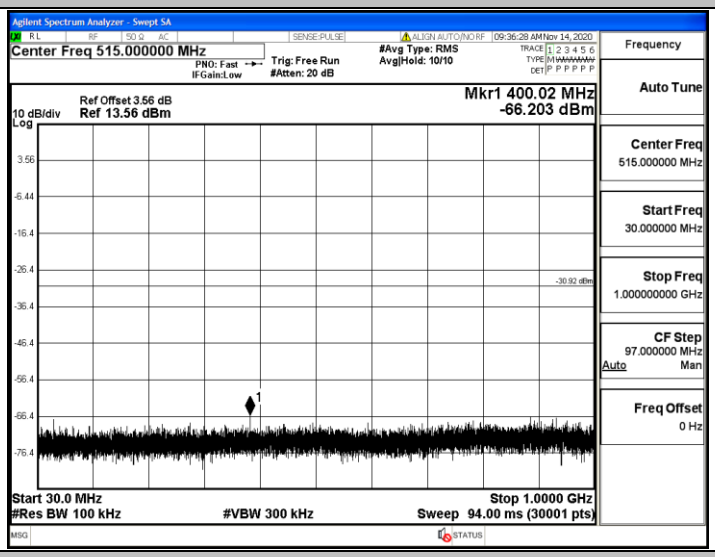
BLE_1M_Ant1_2440_1000~26500



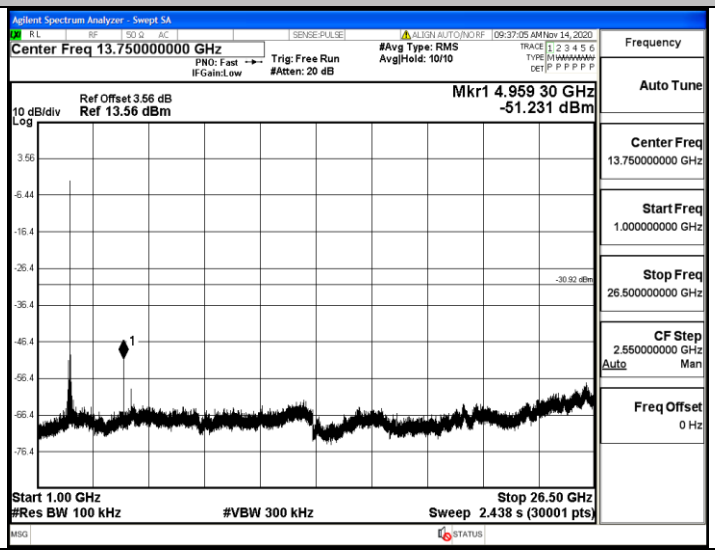
BLE_1M_Ant1_2480_0~Reference



BLE_1M_Ant1_2480_30~1000



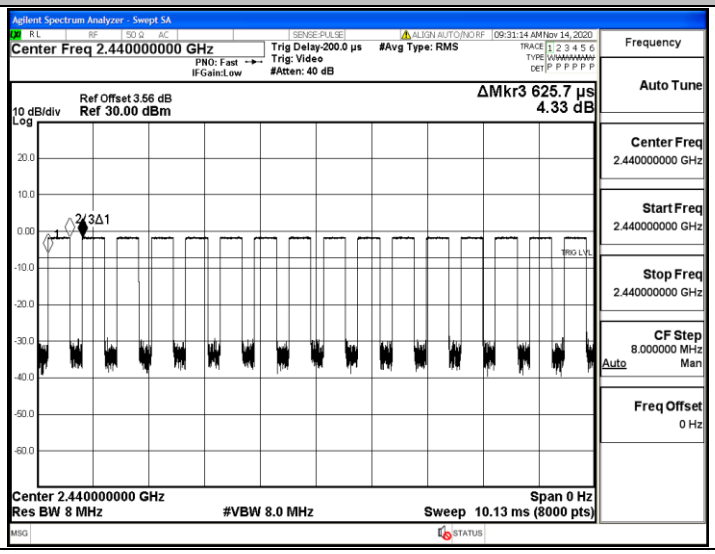
BLE_1M_Ant1_2480_1000~26500



A.7. Duty Cycle

Test Mode	Test Channel	Ant	Duty Cycle[%]	Verdict
BLE(1Mbps)	2440	Ant1	63.77	PASS

BLE_1M_Ant1_2440

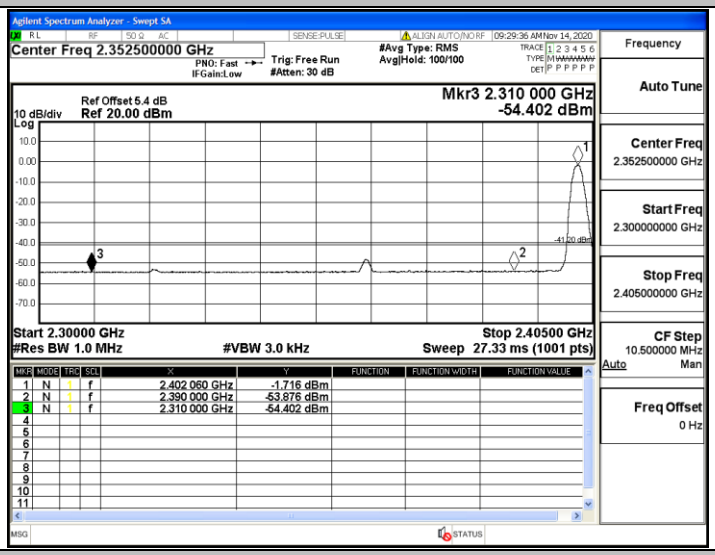


A.8. Restrict-band band-edge measurements

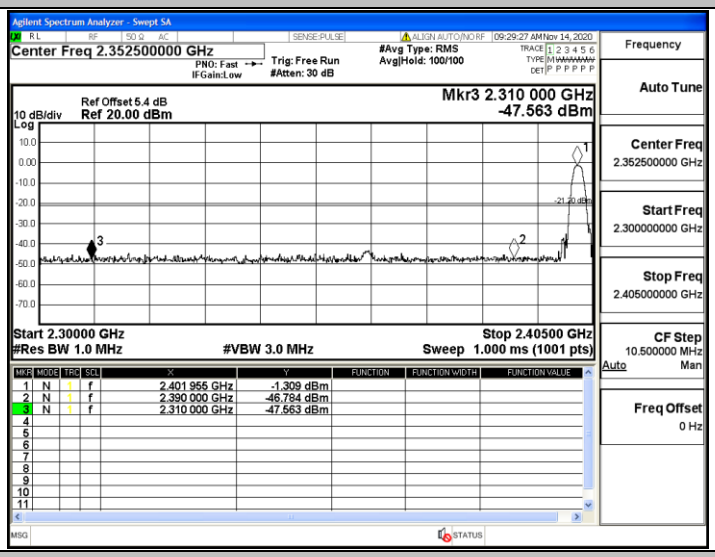
TestMode	Antenna	ChName	Channel	Detector	Freq. [MHz]	Result [dBm]	Limit [dBm]	Verdict
BLE_1M	Ant1	Low	2402	AV	2310.000	-54.40	<=-41.20	PASS
				AV	2390.000	-53.87	<=-41.20	PASS
				Peak	2310.000	-47.57	<=-21.20	PASS
				Peak	2390.000	-46.78	<=-21.20	PASS
		High	2480	AV	2483.500	-51.61	<=-41.20	PASS
				AV	2500.000	-53.43	<=-41.20	PASS
				Peak	2483.500	-47.40	<=-21.20	PASS
				Peak	2500.000	-45.62	<=-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.

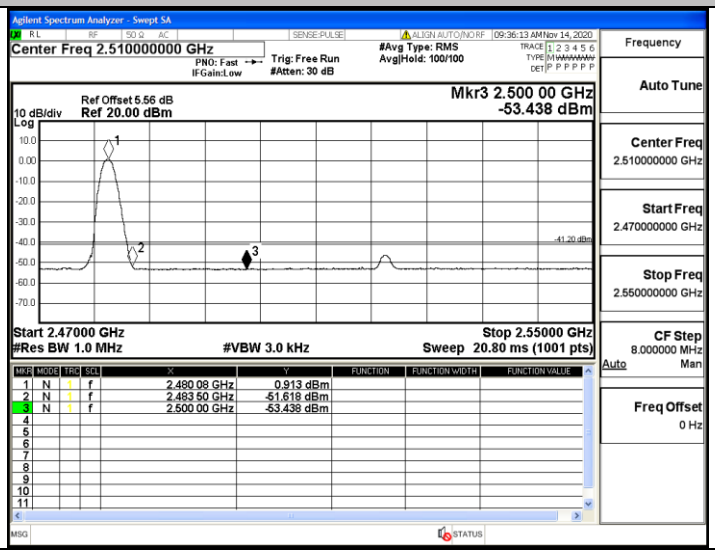
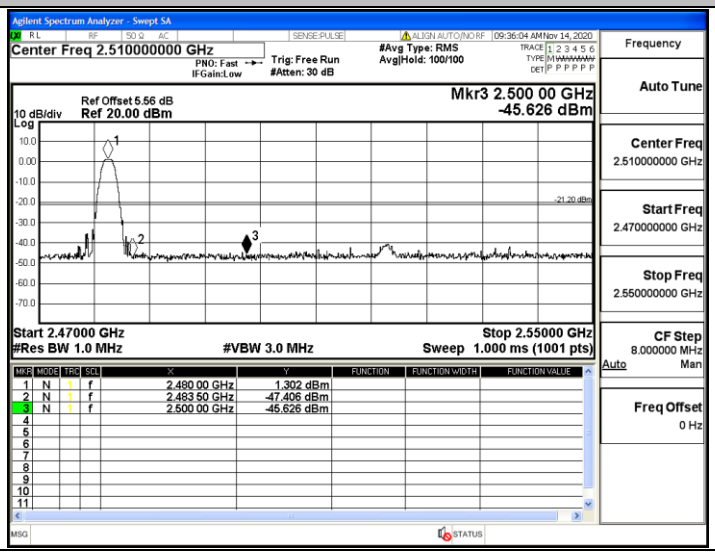
BLE_1M_Ant1_Low_2402_AV



BLE_1M_Ant1_Low_2402_Peak



BLE_1M_Ant1_High_2480_AV



BLE_1M_Ant1_High_2480_Peak