



Appendix A

RF Test Data for BLE (Conducted Measurement)

Product Name: Senor E

Test Model: WLUNE

Environmental Conditions

Temperature:	23.5° C
Relative Humidity:	52.2%
ATM Pressure:	100.0 kPa
Test Engineer:	Mark Chen
Supervised by:	Li Huan

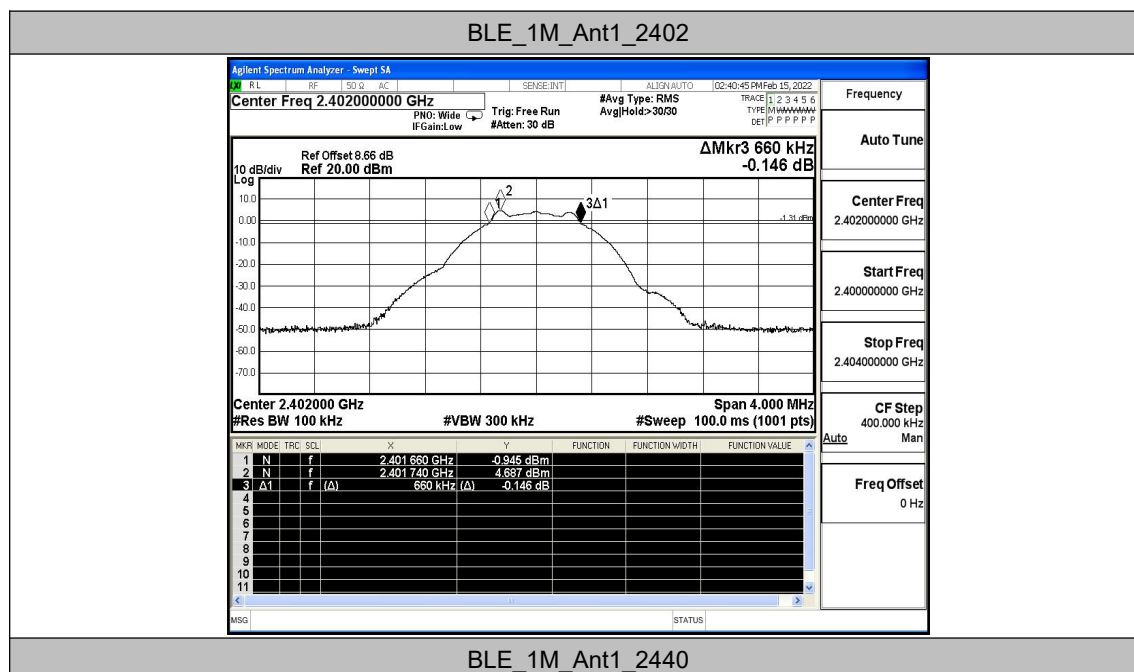


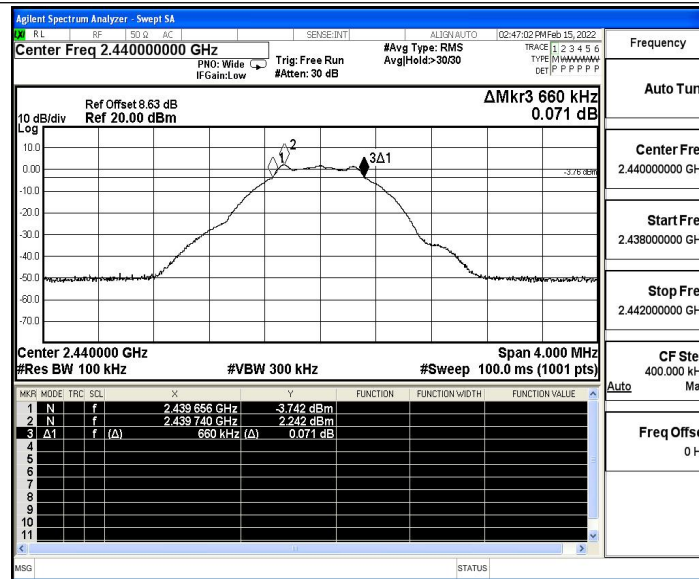
A.1 6dB Bandwidth

Test Result

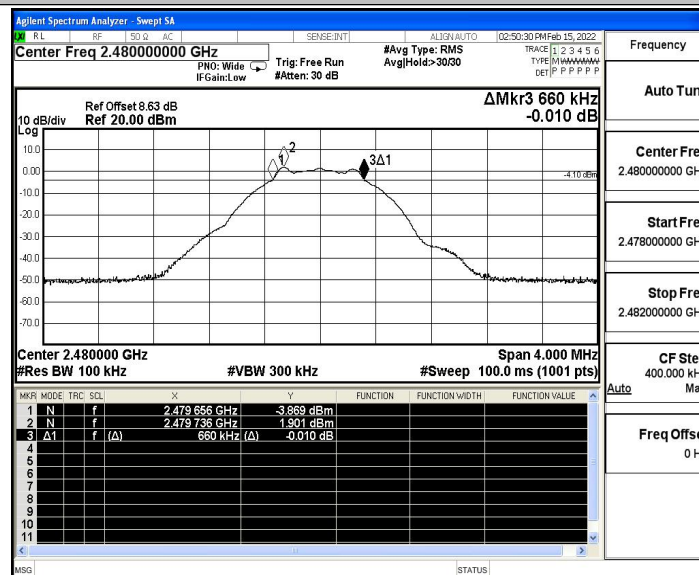
TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.660	2401.660	2402.320	0.5	PASS
		2440	0.660	2439.656	2440.316	0.5	PASS
		2480	0.660	2479.656	2480.316	0.5	PASS
BLE_2M	Ant1	2402	1.160	2401.400	2402.560	0.5	PASS
		2440	1.160	2439.396	2440.556	0.5	PASS
		2480	1.156	2479.396	2480.552	0.5	PASS

Test Graphs

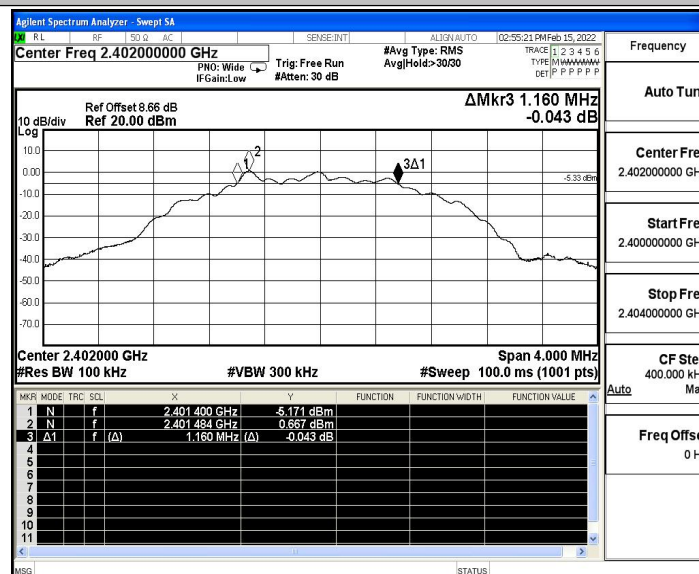




BLE_1M_Ant1_2480

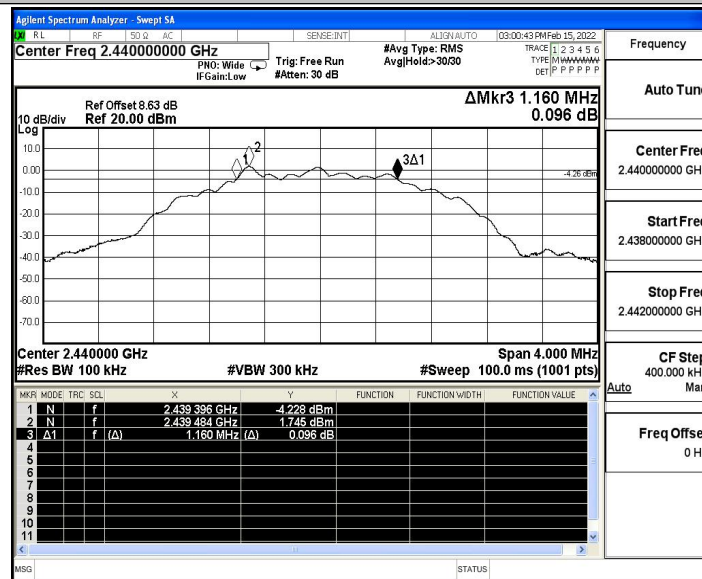


BLE_2M_Ant1_2402

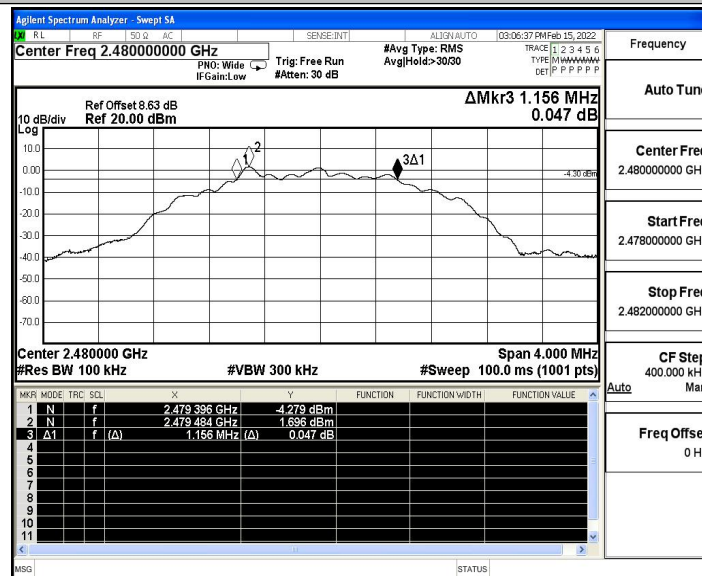




BLE_2M_Ant1_2440



BLE_2M_Ant1_2480



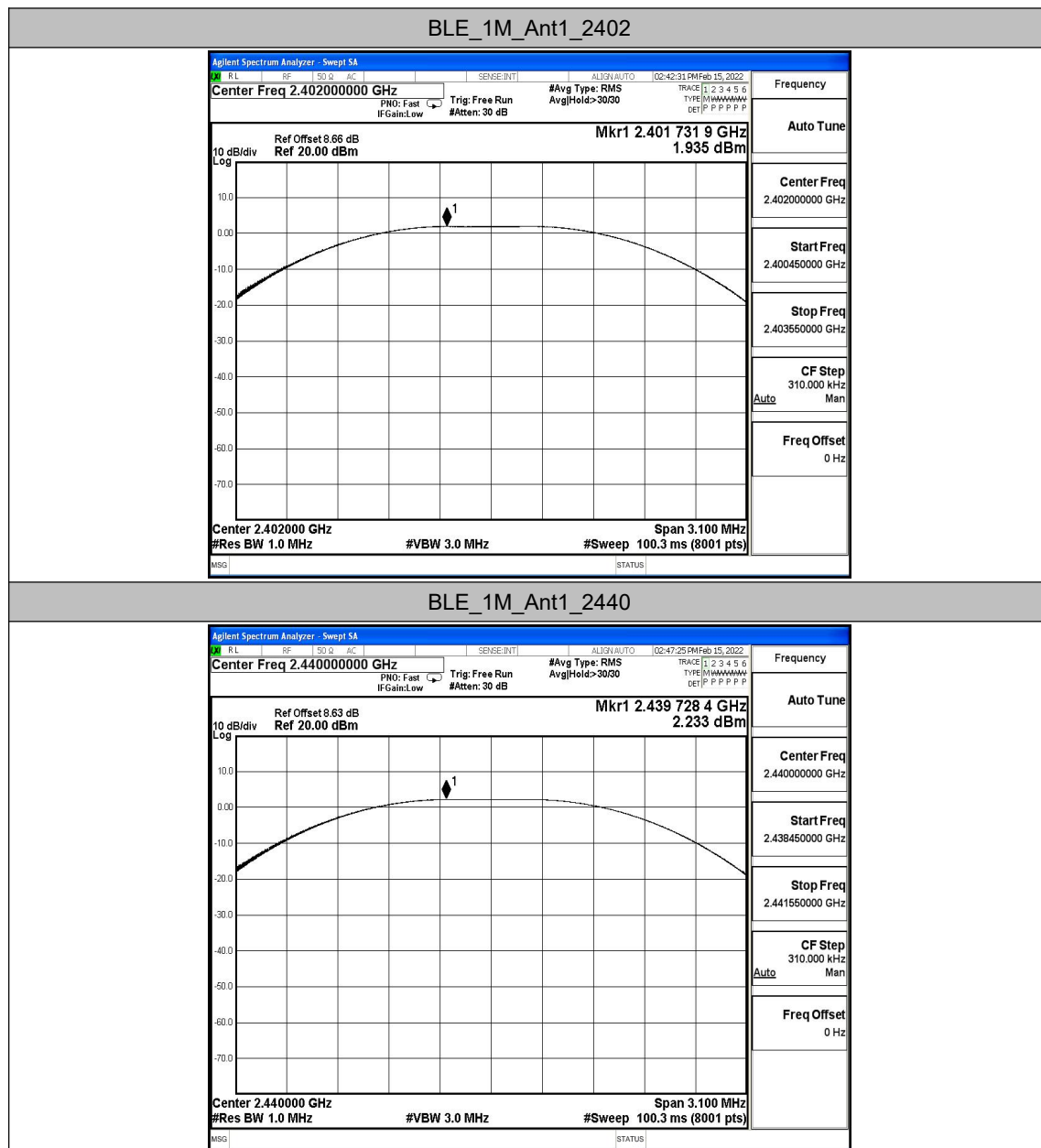


A.2 Maximum conducted output power

Test Result

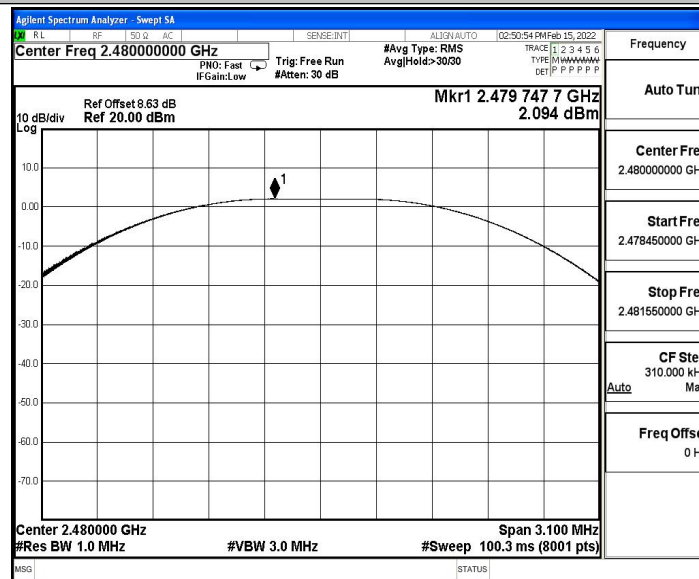
TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	1.94	≤30	PASS
		2440	2.23	≤30	PASS
		2480	2.09	≤30	PASS
BLE_2M	Ant1	2402	1.32	≤30	PASS
		2440	2.31	≤30	PASS
		2480	2.16	≤30	PASS

Test Graphs

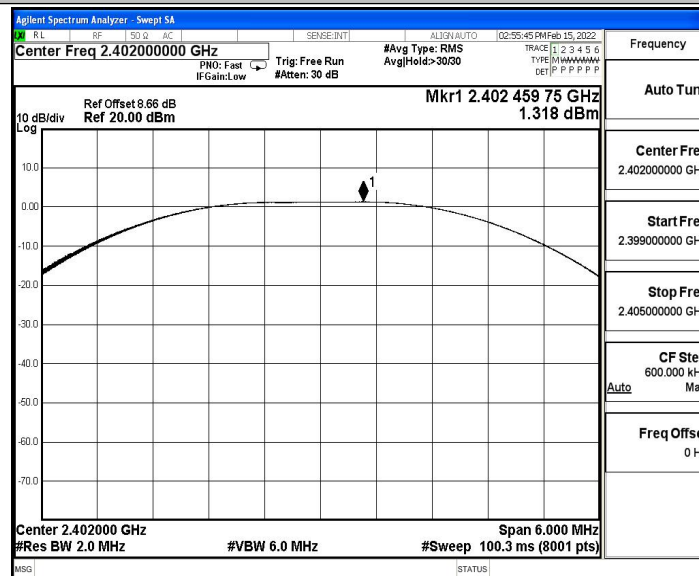




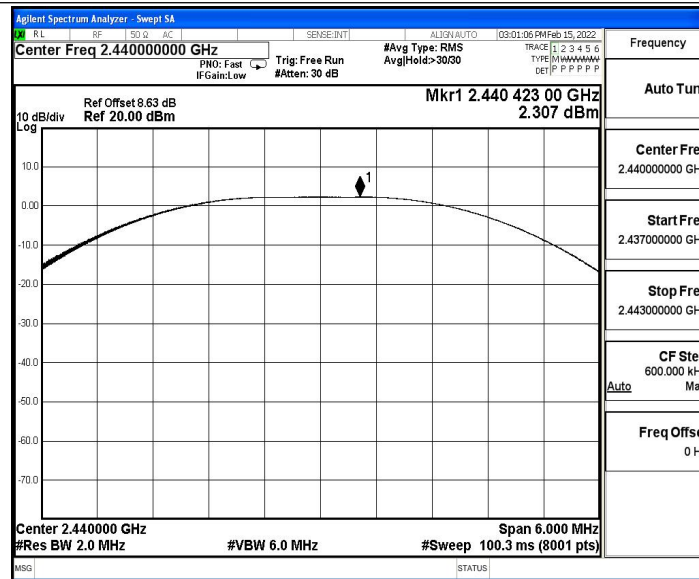
BLE_1M_Ant1_2480



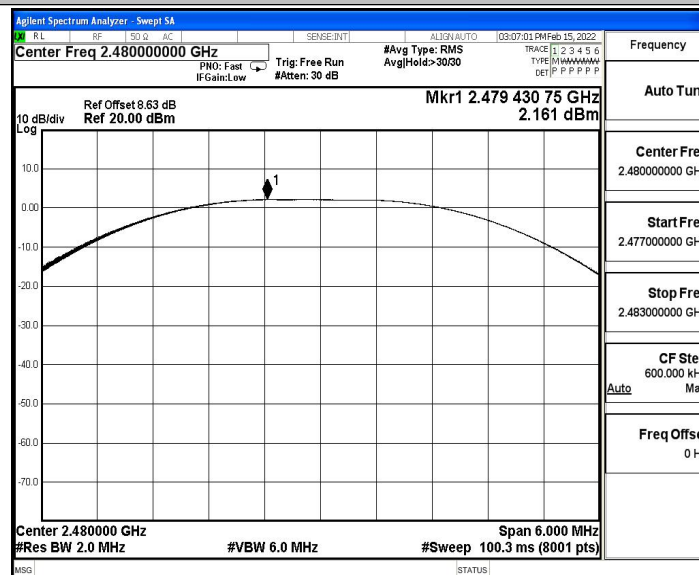
BLE_2M_Ant1_2402



BLE_2M_Ant1_2440



BLE_2M_Ant1_2480



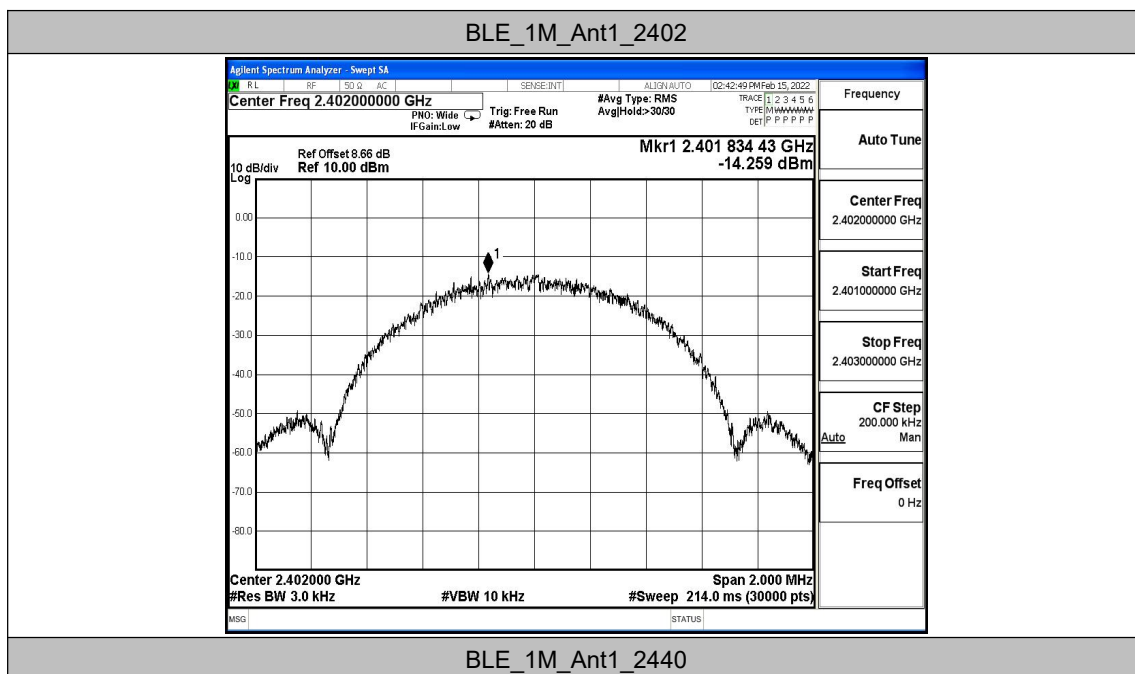


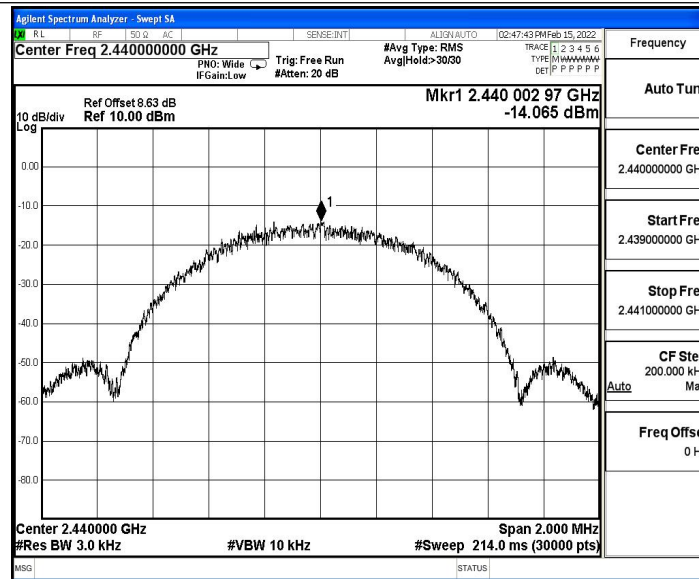
A.3 Maximum power spectral density

Test Result

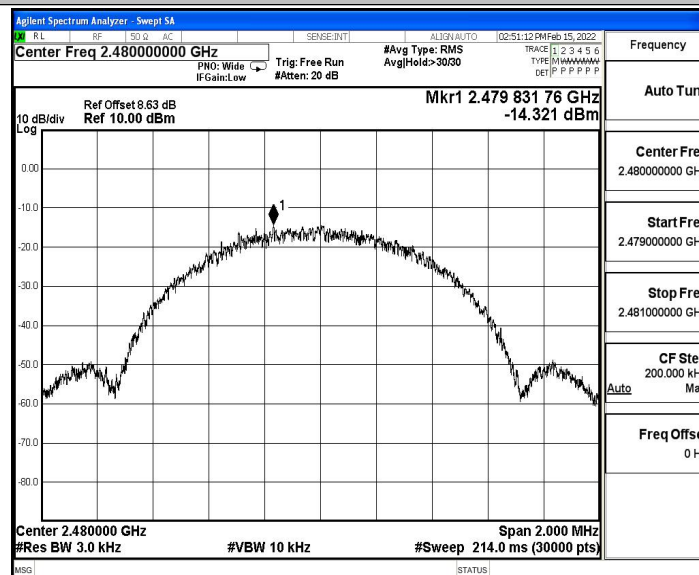
TestMode	Antenna	Channel	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-14.26	≤8.00	PASS
		2440	-14.07	≤8.00	PASS
		2480	-14.32	≤8.00	PASS
BLE_2M	Ant1	2402	-18.33	≤8.00	PASS
		2440	-17.21	≤8.00	PASS
		2480	-17.54	≤8.00	PASS

Test Graphs

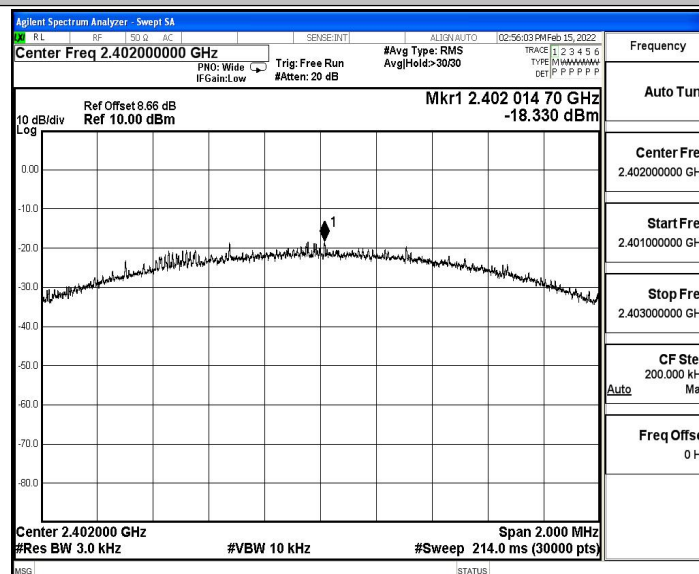




BLE_1M_Ant1_2480

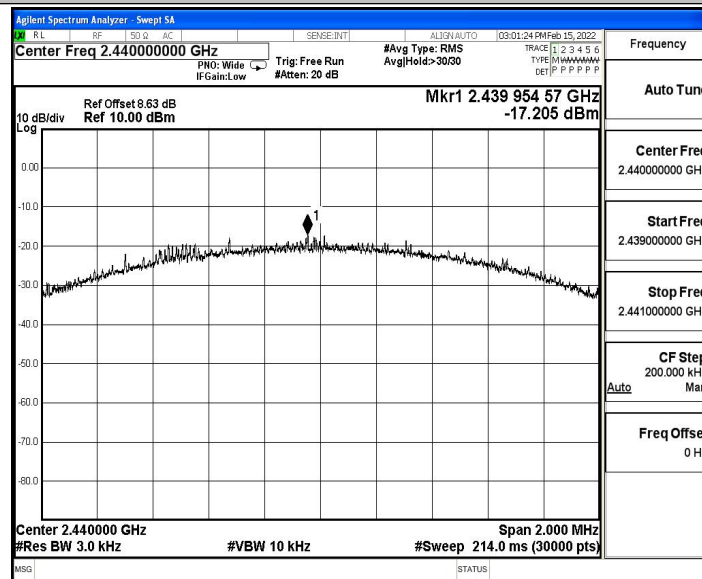


BLE_2M_Ant1_2402

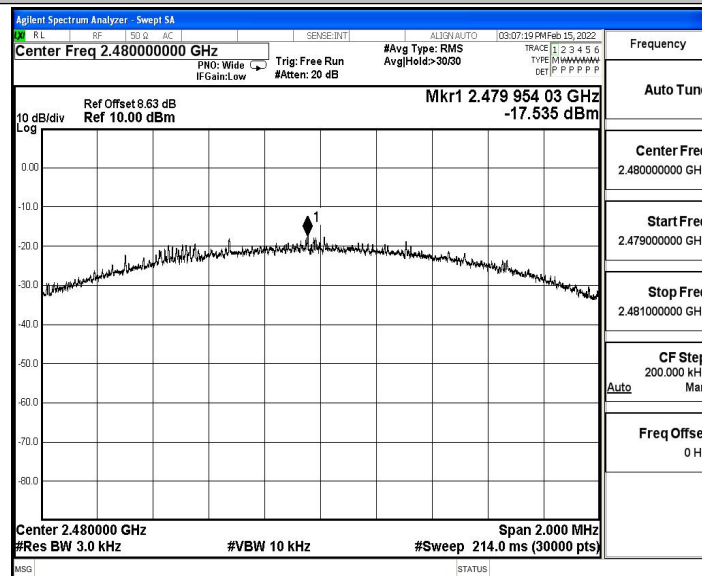




BLE_2M_Ant1_2440



BLE_2M_Ant1_2480



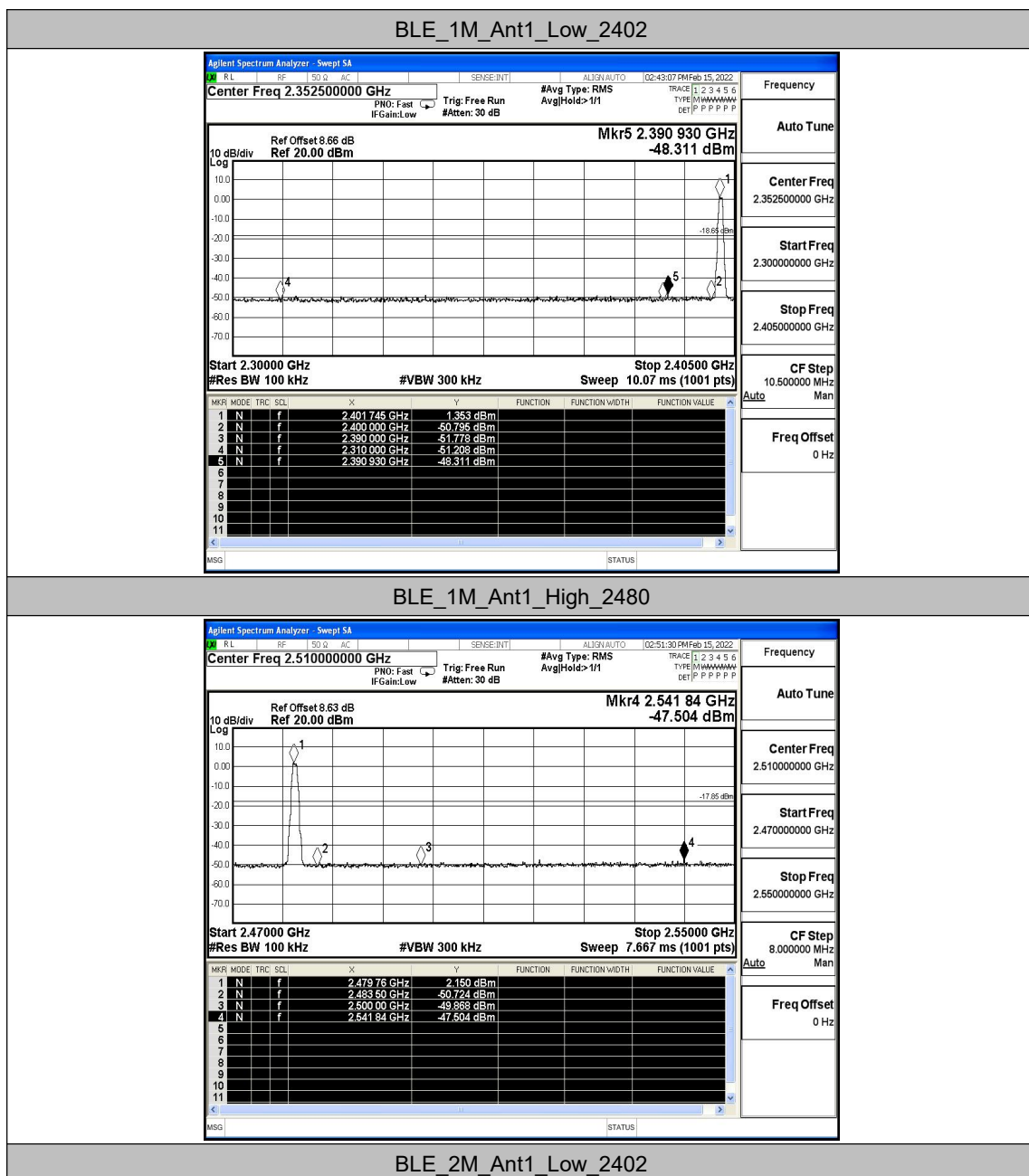


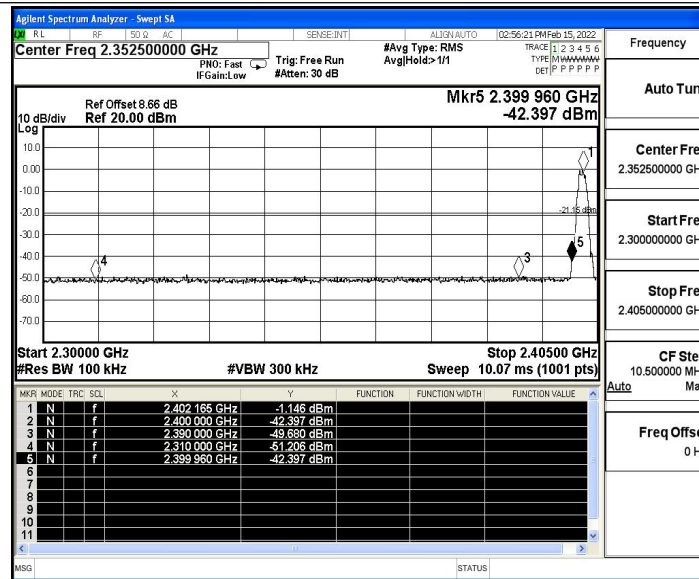
A.4 Band edge measurements

Test Result

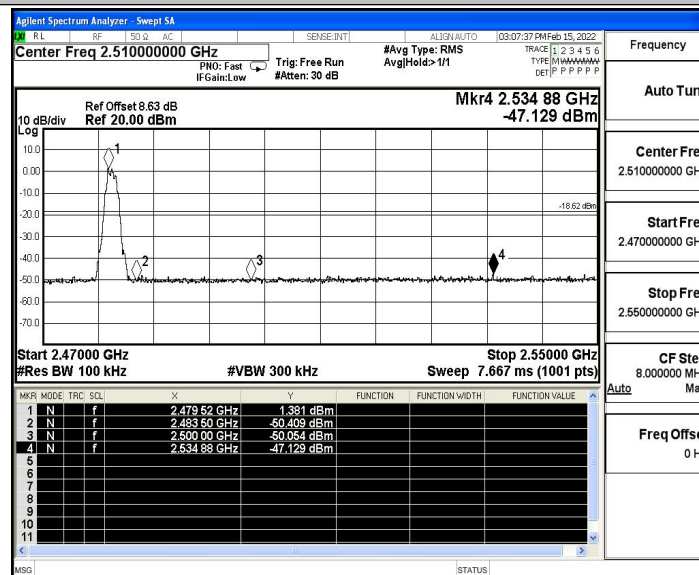
TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	1.35	-48.31	≤-18.65	PASS
		High	2480	2.15	-47.5	≤-17.85	PASS
BLE_2M	Ant1	Low	2402	-1.15	-42.4	≤-21.15	PASS
		High	2480	1.38	-47.13	≤-18.62	PASS

Test Graphs





BLE_2M_Ant1_High_2480





A.5 Conducted Spurious Emission

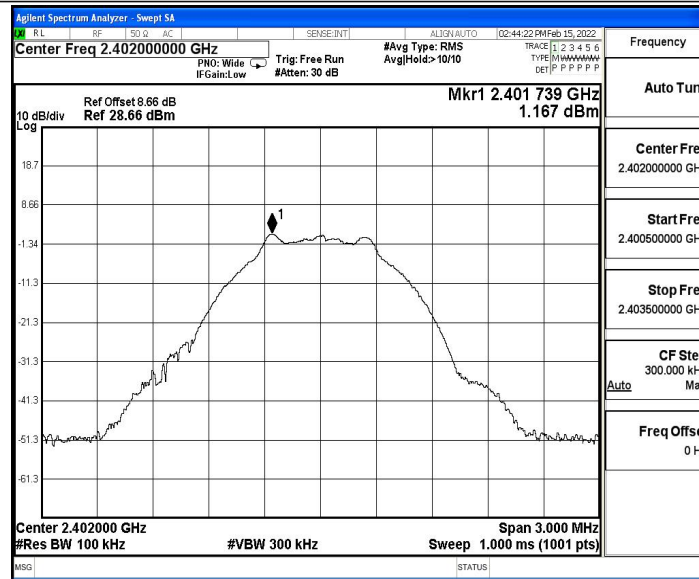
Test Result

TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	1.17	1.17	---	PASS
			30~1000	1.17	-60.67	≤-18.83	PASS
			1000~26500	1.17	-46.32	≤-18.83	PASS
		2440	Reference	2.03	2.03	---	PASS
			30~1000	2.03	-61.1	≤-17.97	PASS
			1000~26500	2.03	-46	≤-17.97	PASS
		2480	Reference	2.05	2.05	---	PASS
			30~1000	2.05	-59.65	≤-17.95	PASS
			1000~26500	2.05	-45.84	≤-17.95	PASS
BLE_2M	Ant1	2402	Reference	0.88	0.88	---	PASS
			30~1000	0.88	-60.22	≤-19.12	PASS
			1000~26500	0.88	-46.03	≤-19.12	PASS
		2440	Reference	1.72	1.72	---	PASS
			30~1000	1.72	-60.28	≤-18.28	PASS
			1000~26500	1.72	-45.51	≤-18.28	PASS
		2480	Reference	1.58	1.58	---	PASS
			30~1000	1.58	-60.78	≤-18.42	PASS
			1000~26500	1.58	-46.12	≤-18.42	PASS

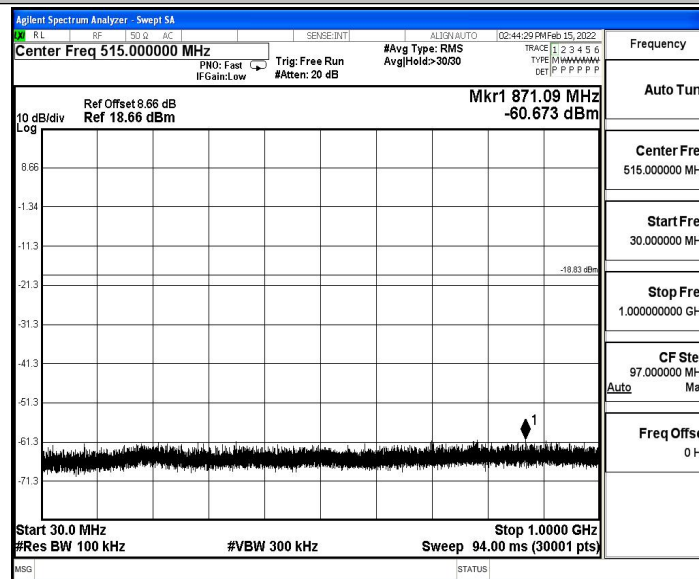


Test Graphs

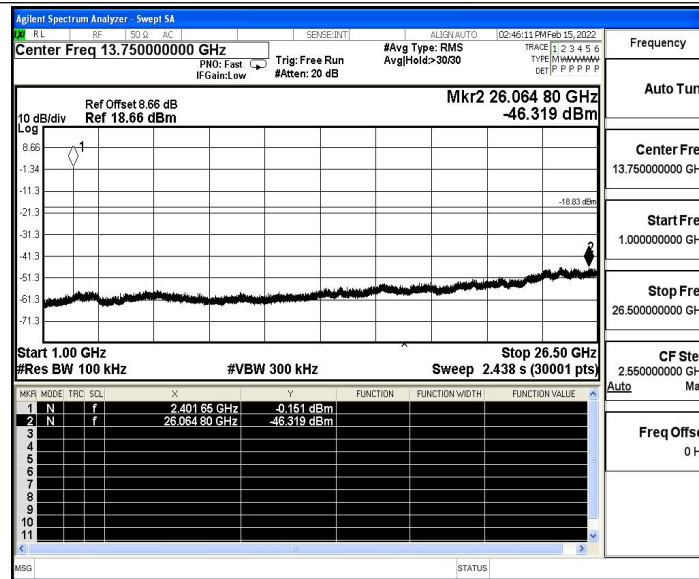
BLE_1M_Ant1_2402_0~Reference



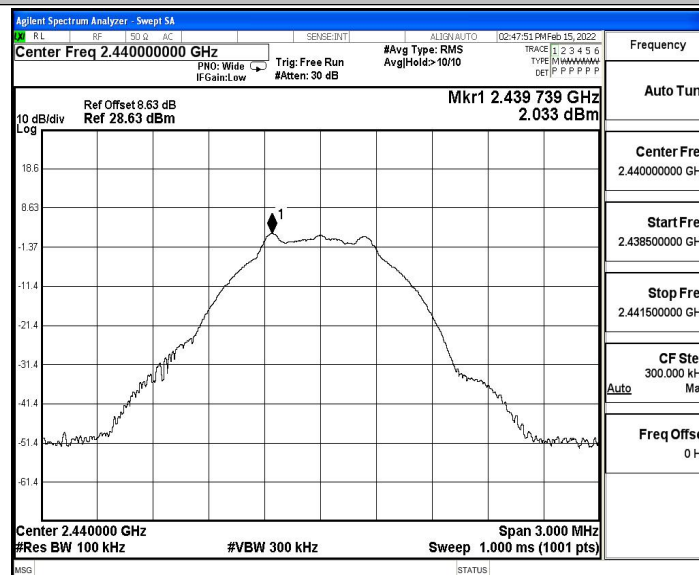
BLE_1M_Ant1_2402_30~1000



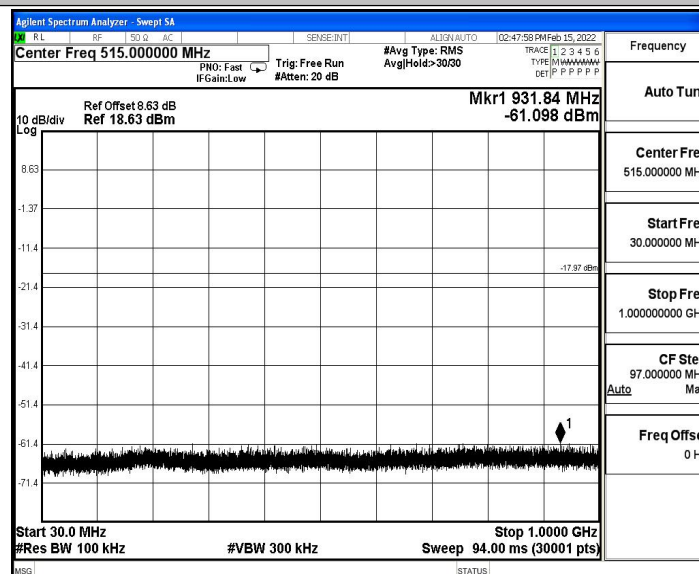
BLE_1M_Ant1_2402_1000~26500



BLE_1M_Ant1_2440_0~Reference

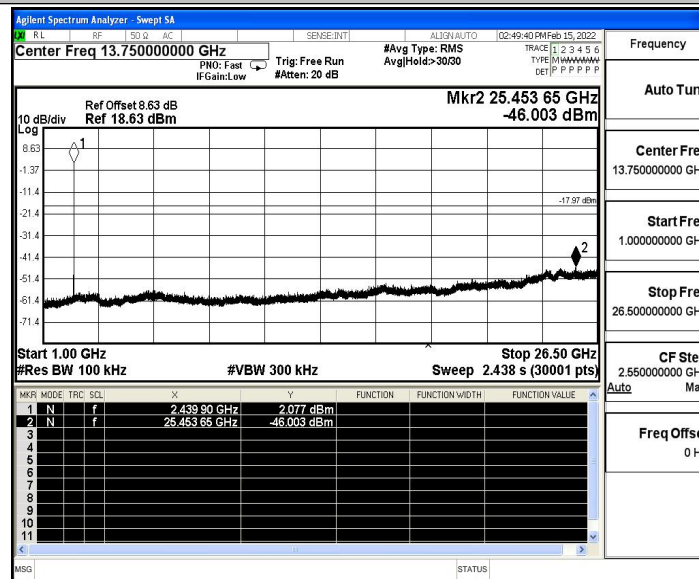


BLE_1M_Ant1_2440_30~1000

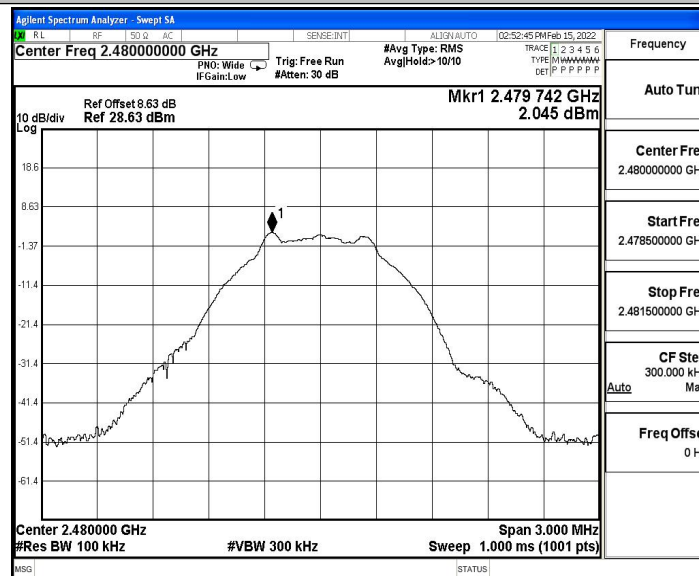




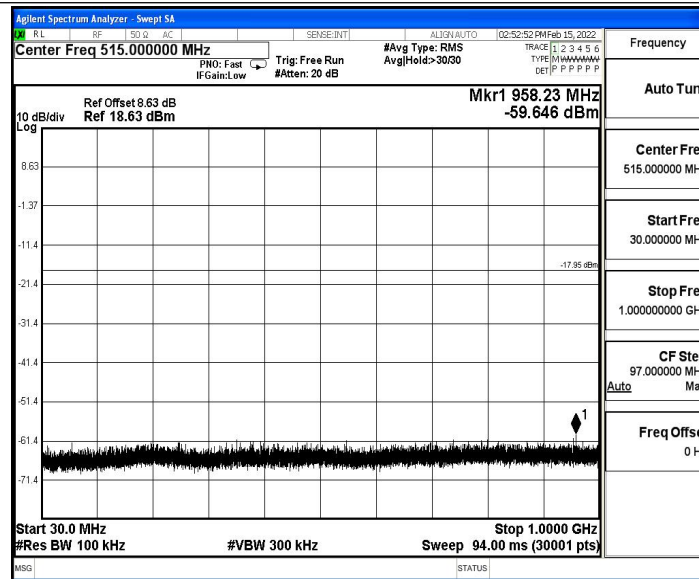
BLE_1M_Ant1_2440_1000~26500



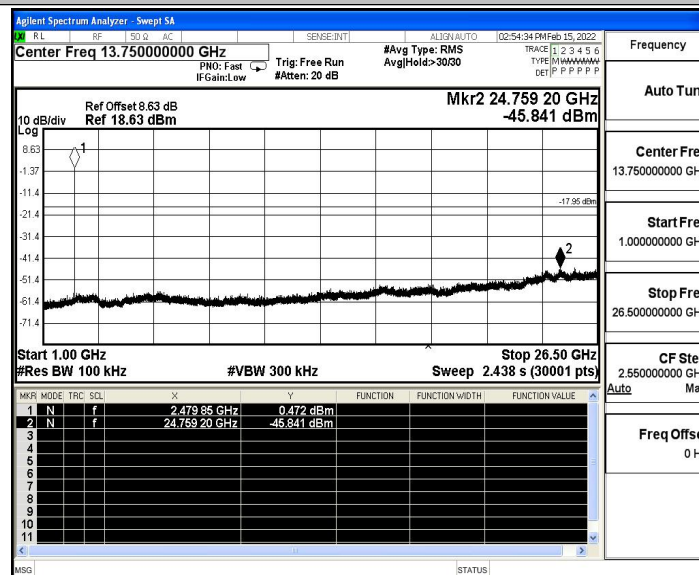
BLE_1M_Ant1_2480_0~Reference



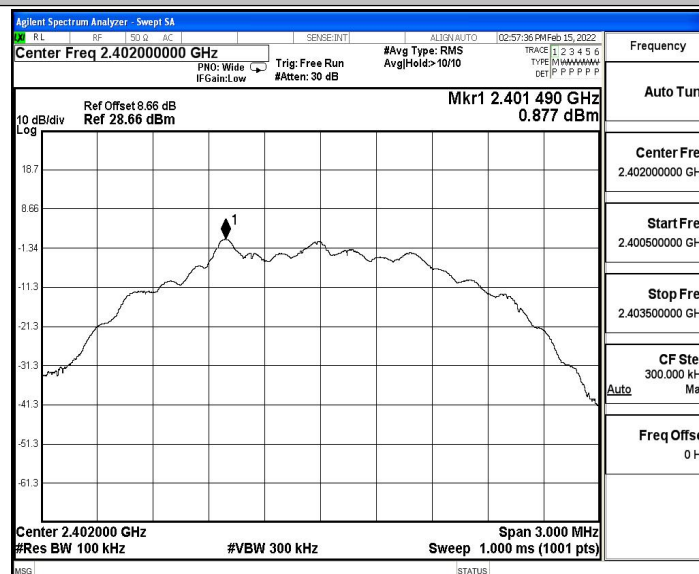
BLE_1M_Ant1_2480_30~1000



BLE_1M_Ant1_2480_1000~26500

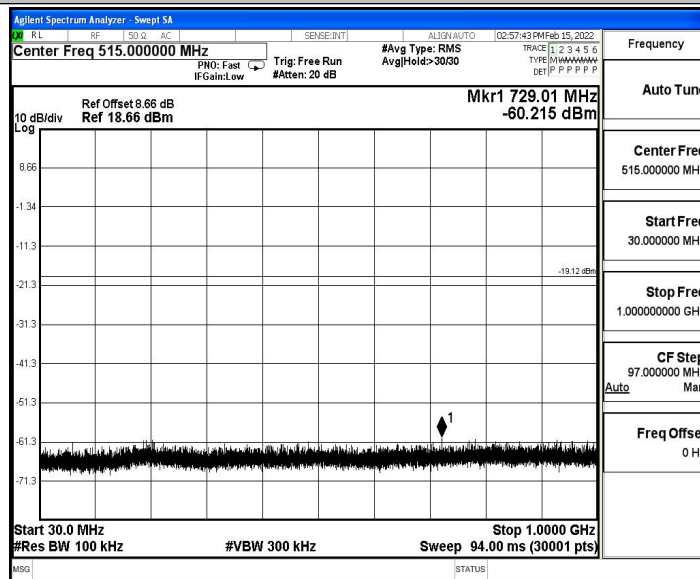


BLE_2M_Ant1_2402_0~Reference

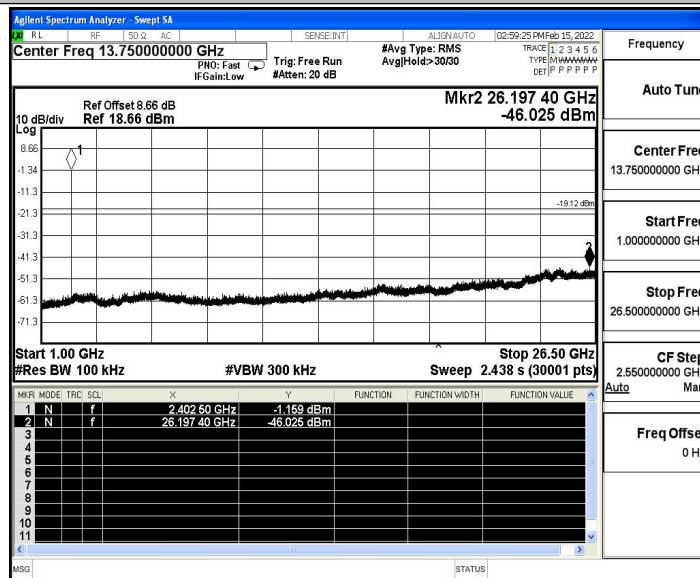




BLE_2M_Ant1_2402_30~1000



BLE_2M_Ant1_2402_1000~26500



BLE_2M_Ant1_2440_0~Reference