



Appendix B

RF Test Data for BLE (Conducted Measurement)

Product Name: Smart phone

Test Model: Smooth 6.26 Max

Environmental Conditions

Temperature:	23.5° C
Relative Humidity:	52.2%
ATM Pressure:	100.0 kPa
Test Engineer:	Ling Zhu
Supervised by:	LI Huan

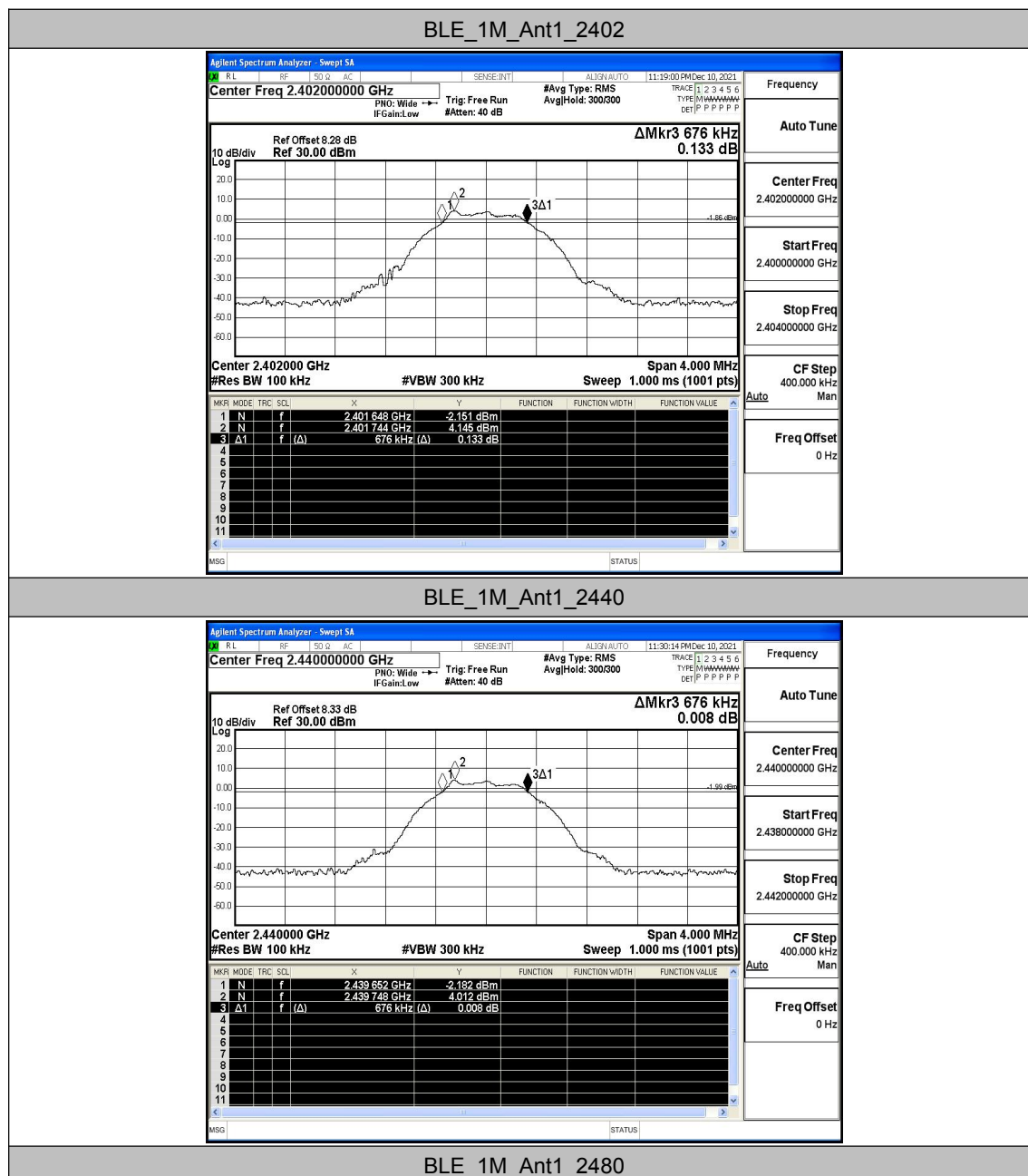


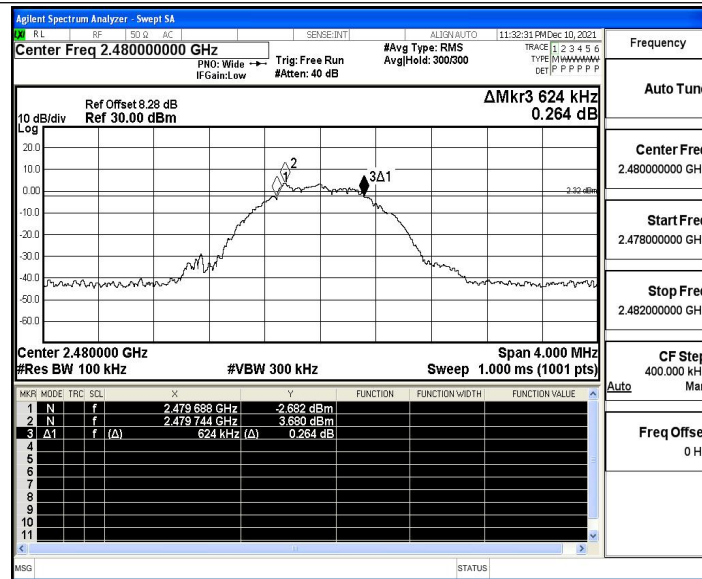
B.1 6dB Bandwidth

Test Result

TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.676	2401.648	2402.324	≥0.5	PASS
		2440	0.676	2439.652	2440.328	≥0.5	PASS
		2480	0.624	2479.688	2480.312	≥0.5	PASS

Test Graphs





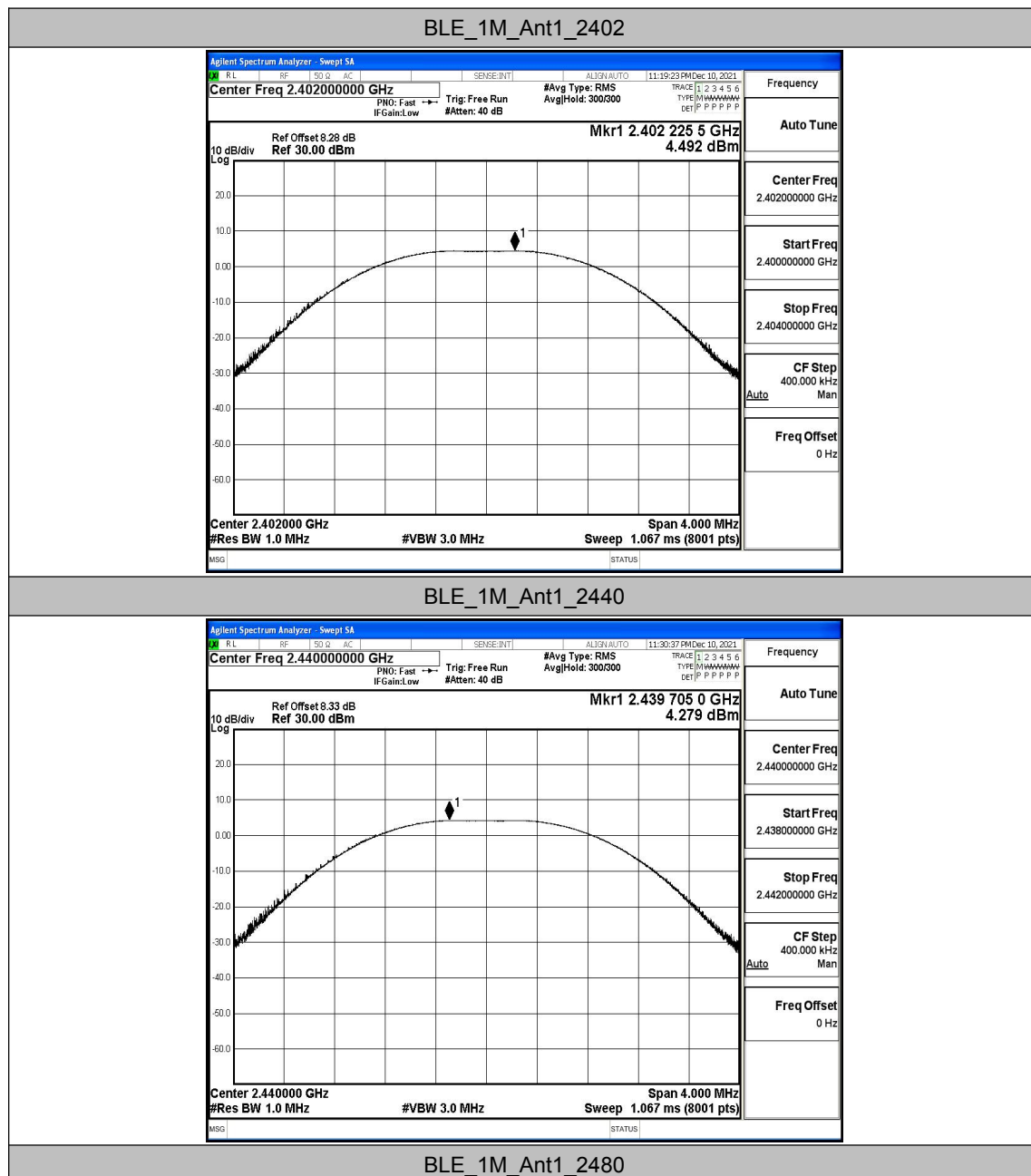


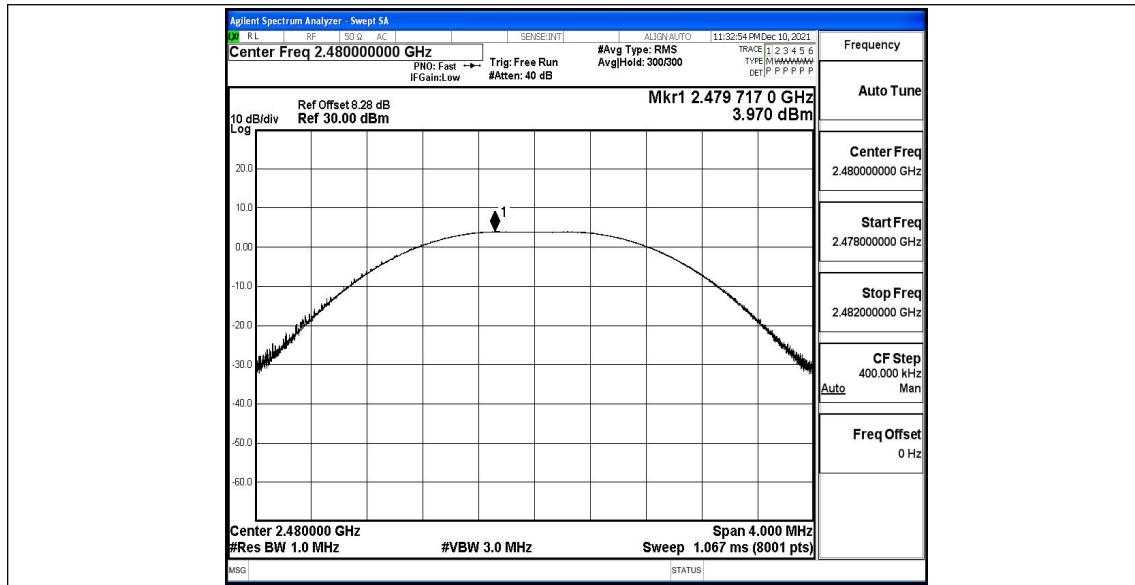
B.2 Maximum conducted output power

Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	4.49	≤30	PASS
		2440	4.28	≤30	PASS
		2480	3.97	≤30	PASS

Test Graphs





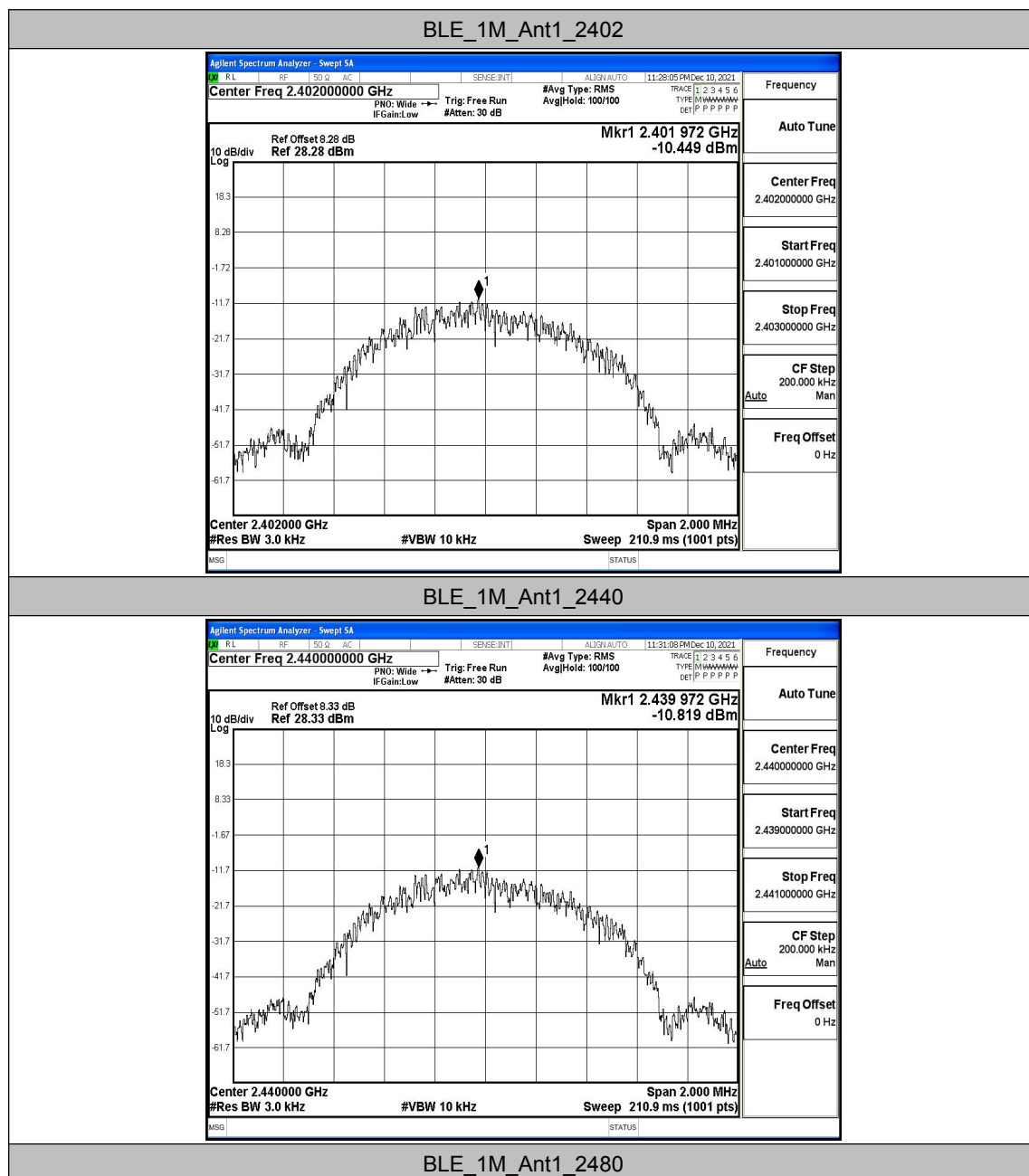


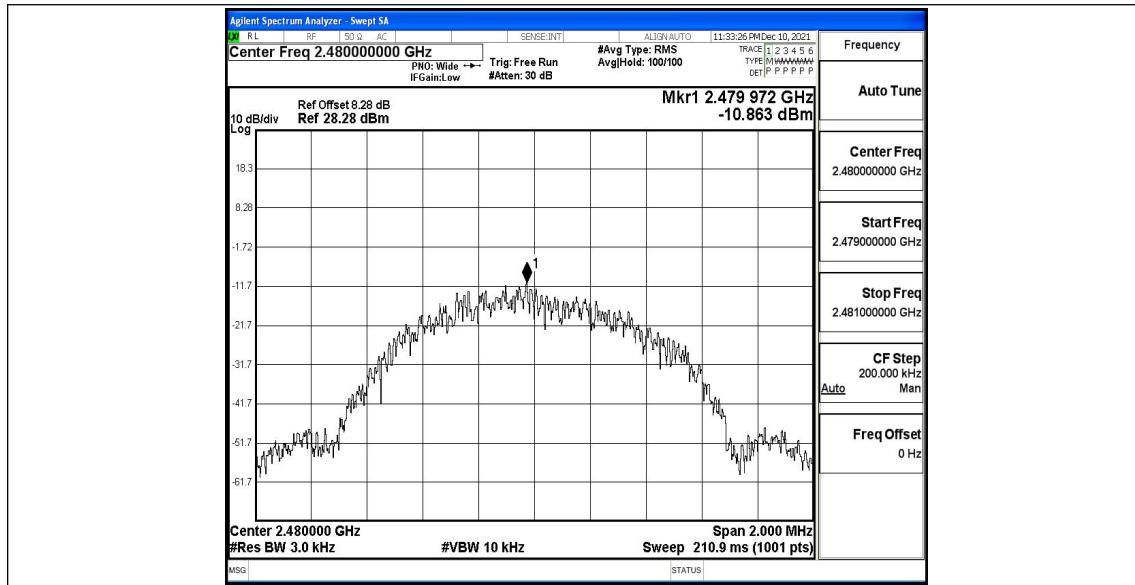
B.3 Maximum power spectral density

Test Result

TestMode	Antenna	Channel	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-10.45	≤8	PASS
		2440	-10.82	≤8	PASS
		2480	-10.86	≤8	PASS

Test Graphs





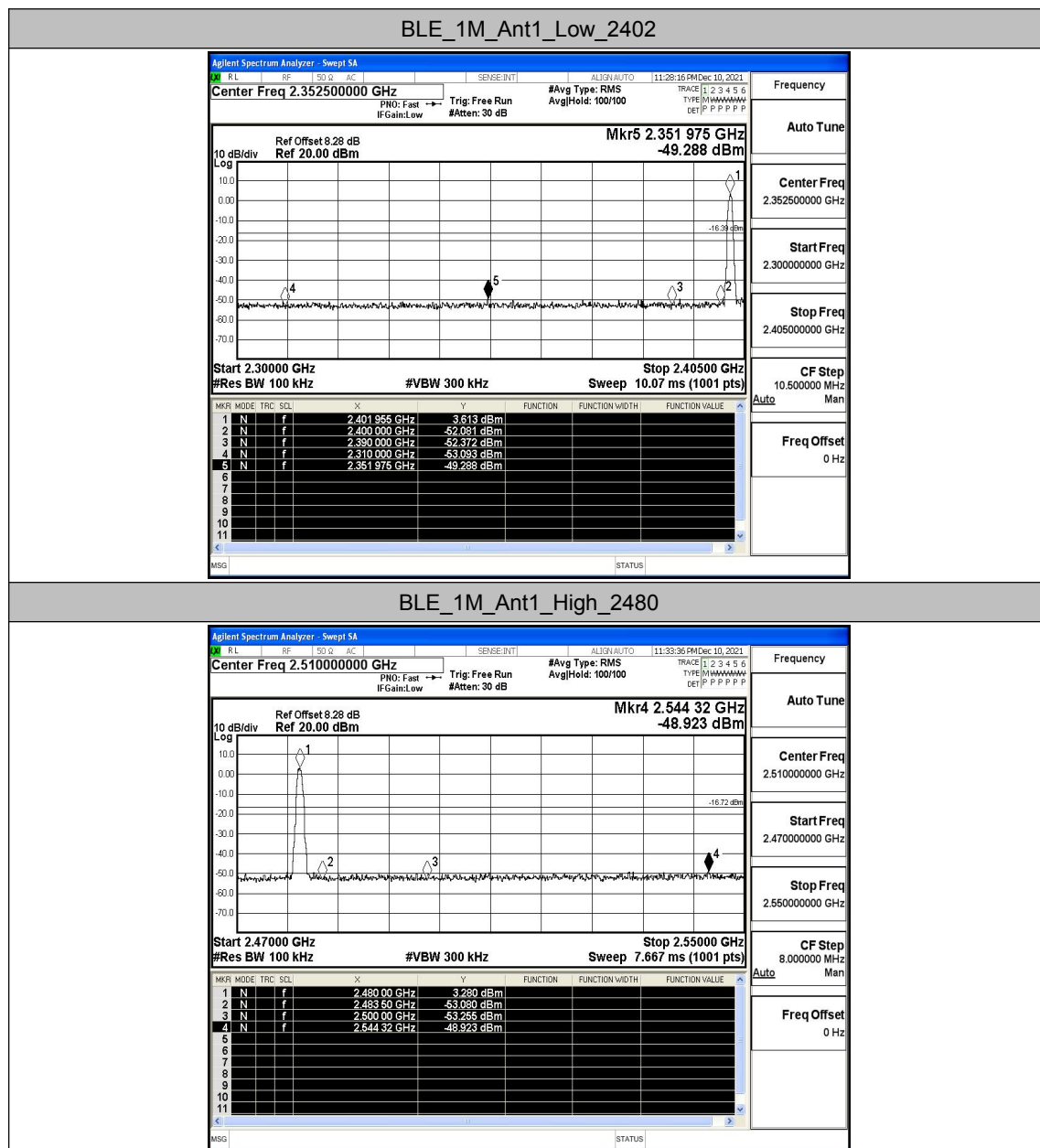


B.4 Band edge measurements

Test Result

TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	3.61	-49.29	≤-16.39	PASS
		High	2480	3.28	-48.92	≤-16.72	PASS

Test Graphs





B.5 Conducted Spurious Emission

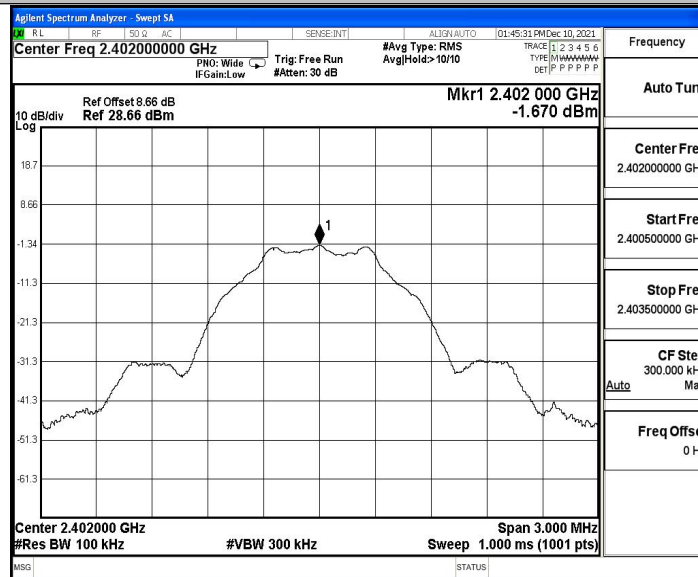
Test Result

TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	-1.68	-1.68	---	PASS
			30~1000	-1.68	-59.05	≤ -21.68	PASS
			1000~26500	-1.68	-45.91	≤ -21.68	PASS
		2440	Reference	-0.60	-0.60	---	PASS
			30~1000	-0.60	-60.93	≤ -20.6	PASS
			1000~26500	-0.60	-45.81	≤ -20.6	PASS
		2480	Reference	-2.82	-2.82	---	PASS
			30~1000	-2.82	-60.76	≤ -22.82	PASS
			1000~26500	-2.82	-45.75	≤ -22.82	PASS

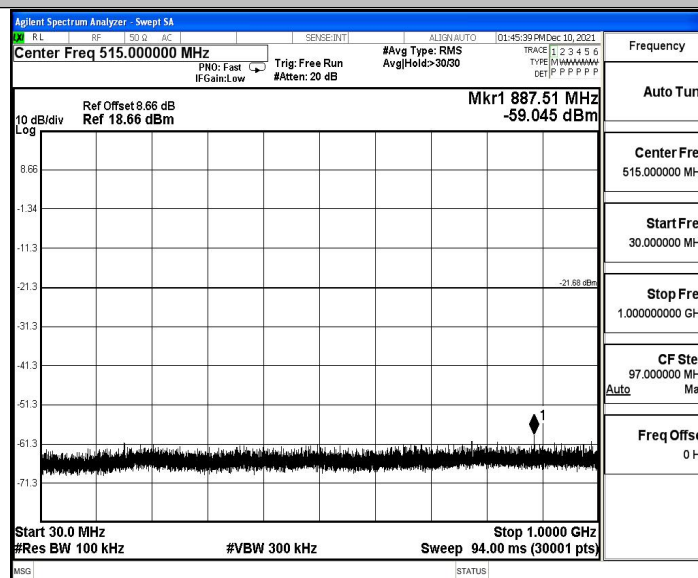


Test Graphs

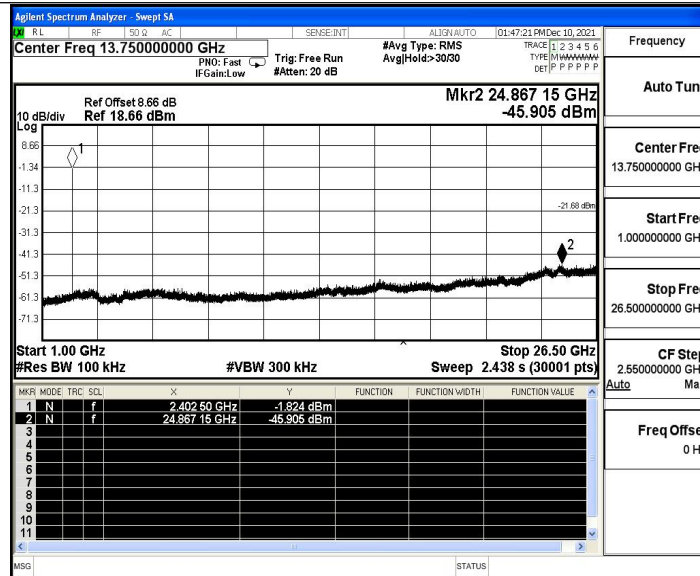
BLE_1M_Ant1_2402_0~Reference



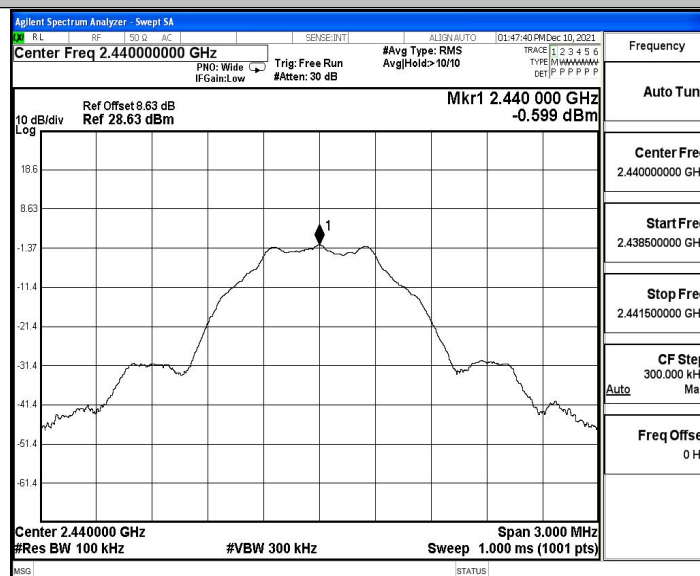
BLE_1M_Ant1_2402_30~1000



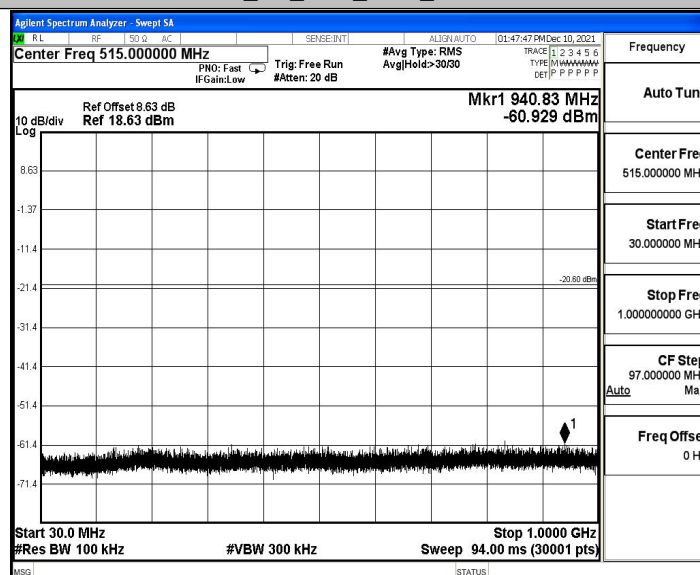
BLE_1M_Ant1_2402_1000~26500



BLE_1M_Ant1_2440_0~Reference

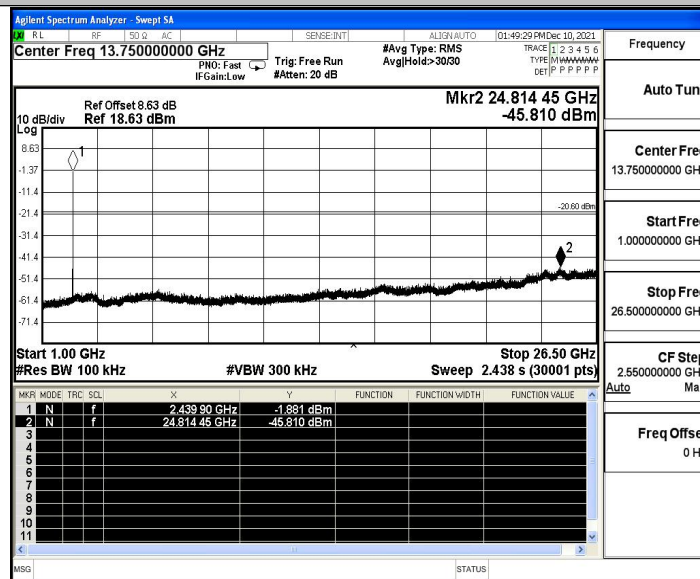


BLE_1M_Ant1_2440_30~1000

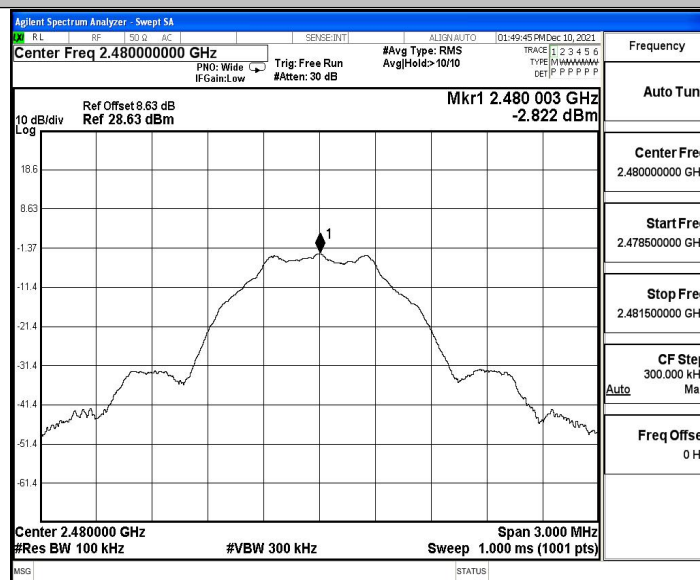




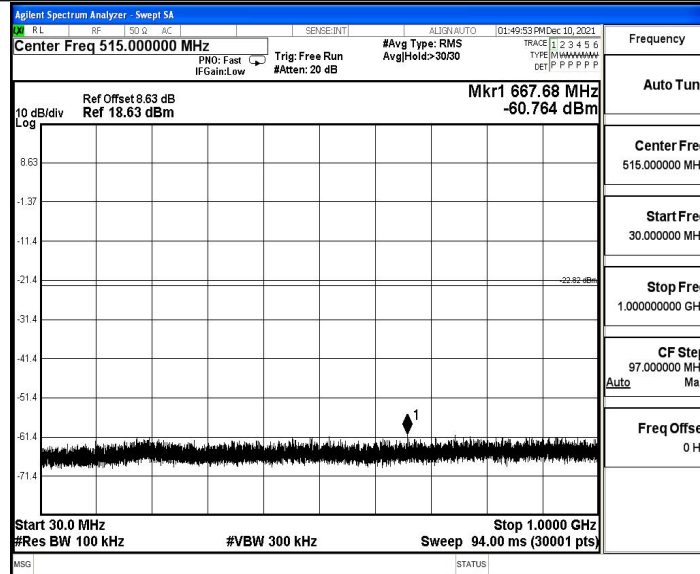
BLE_1M_Ant1_2440_1000~26500



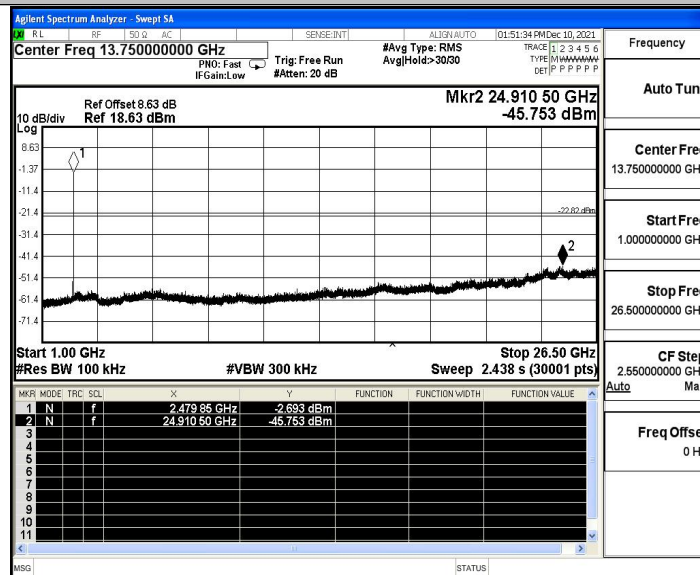
BLE_1M_Ant1_2480_0~Reference



BLE_1M_Ant1_2480_30~1000



BLE_1M_Ant1_2480_1000~26500



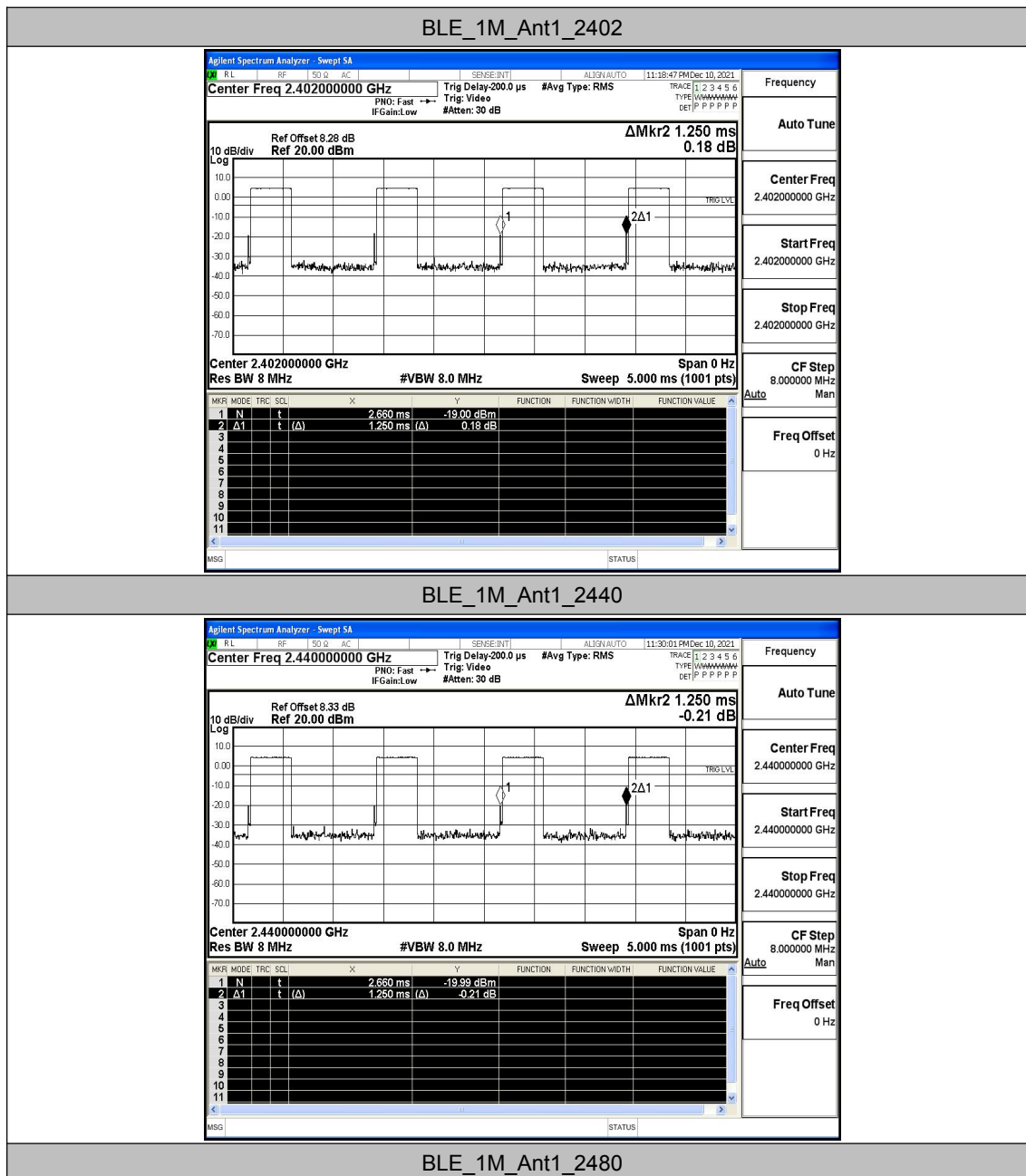


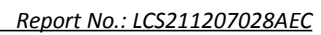
B.6 Duty Cycle

Test Result

TestMode	Antenna	Channel	ON Time [ms]	Period [ms]	X	DC [%]	xFactor	Limit	Verdict
BLE_1M	Ant1	2402	0.40	1.25	0.3200	32.00	4.95	---	PASS
		2440	0.40	1.25	0.3200	32.00	4.95	---	PASS
		2480	0.40	1.25	0.3200	32.00	4.95	---	PASS

Test Graphs







B.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	-47.91	≤-41.20	47.29	≤54	PASS
				AV	2362.055	-47.09	≤-41.20	48.11	≤54	PASS
				AV	2390.000	-47.67	≤-41.20	47.53	≤54	PASS
				Peak	2310.000	-40.6	≤-21.20	54.60	≤74	PASS
				Peak	2339.795	-38.42	≤-21.20	56.78	≤74	PASS
				Peak	2390.000	-40.33	≤-21.20	54.87	≤74	PASS
		High	2480	AV	2483.500	-46.55	≤-41.20	48.65	≤54	PASS
				AV	2483.600	-46.4	≤-41.20	48.80	≤54	PASS
				AV	2500.000	-47	≤-41.20	48.20	≤54	PASS
				Peak	2483.500	-40.91	≤-21.20	54.29	≤74	PASS
				Peak	2484.160	-33.44	≤-21.20	61.76	≤74	PASS
				Peak	2500.000	-39.81	≤-21.20	55.39	≤74	PASS

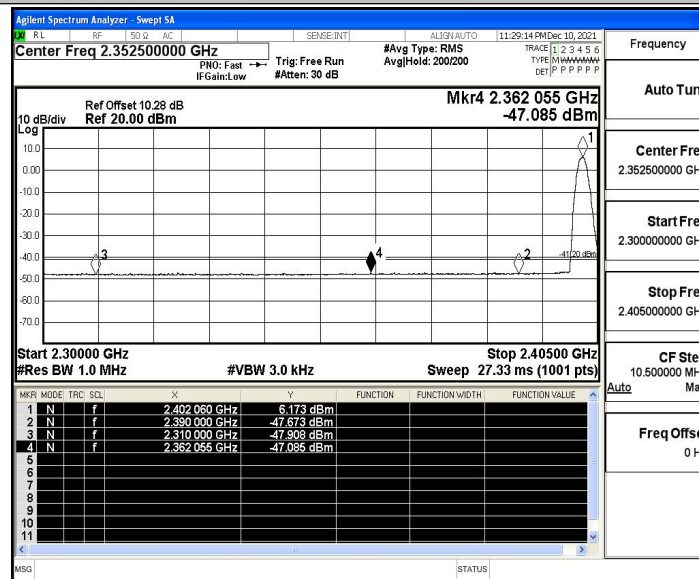
Note:

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.

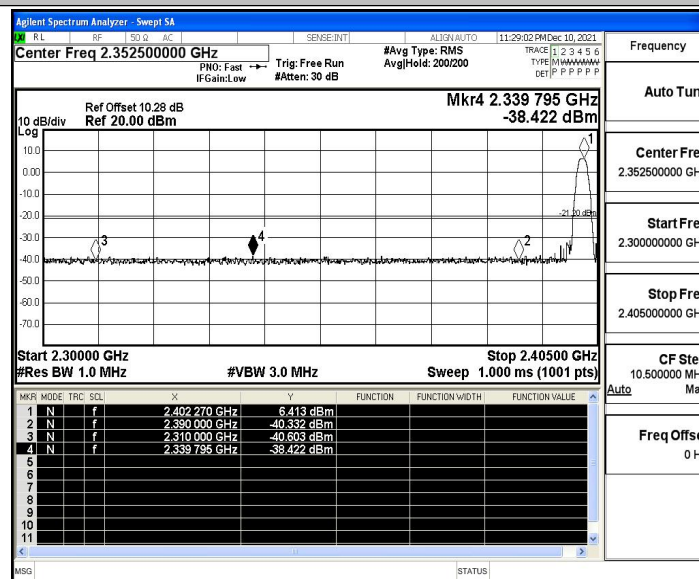


Test Graphs

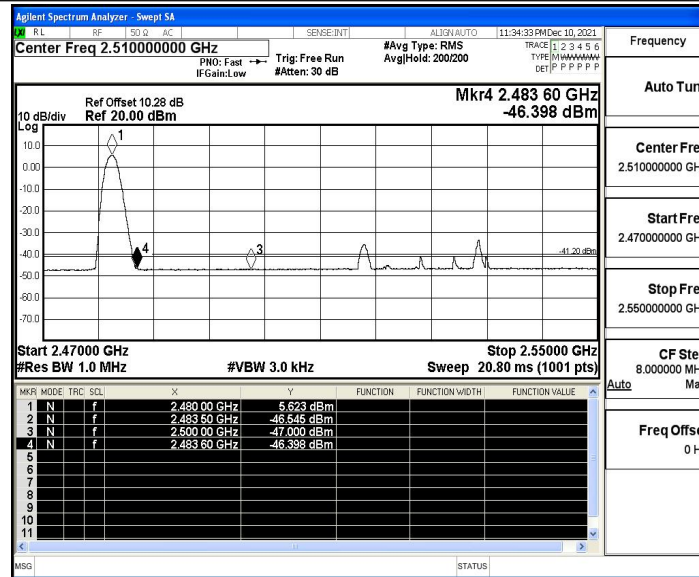
BLE_1M_Ant1_Low_2402_AV



BLE_1M_Ant1_Low_2402_Peak



BLE_1M_Ant1_High_2480_AV



BLE_1M_Ant1_High_2480_Peak

