



Appendix B

RF Test Data for BT LE (Conducted Measurement)

Product Name: GNSS RECEIVER

Test Model: G2

Environmental Conditions

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

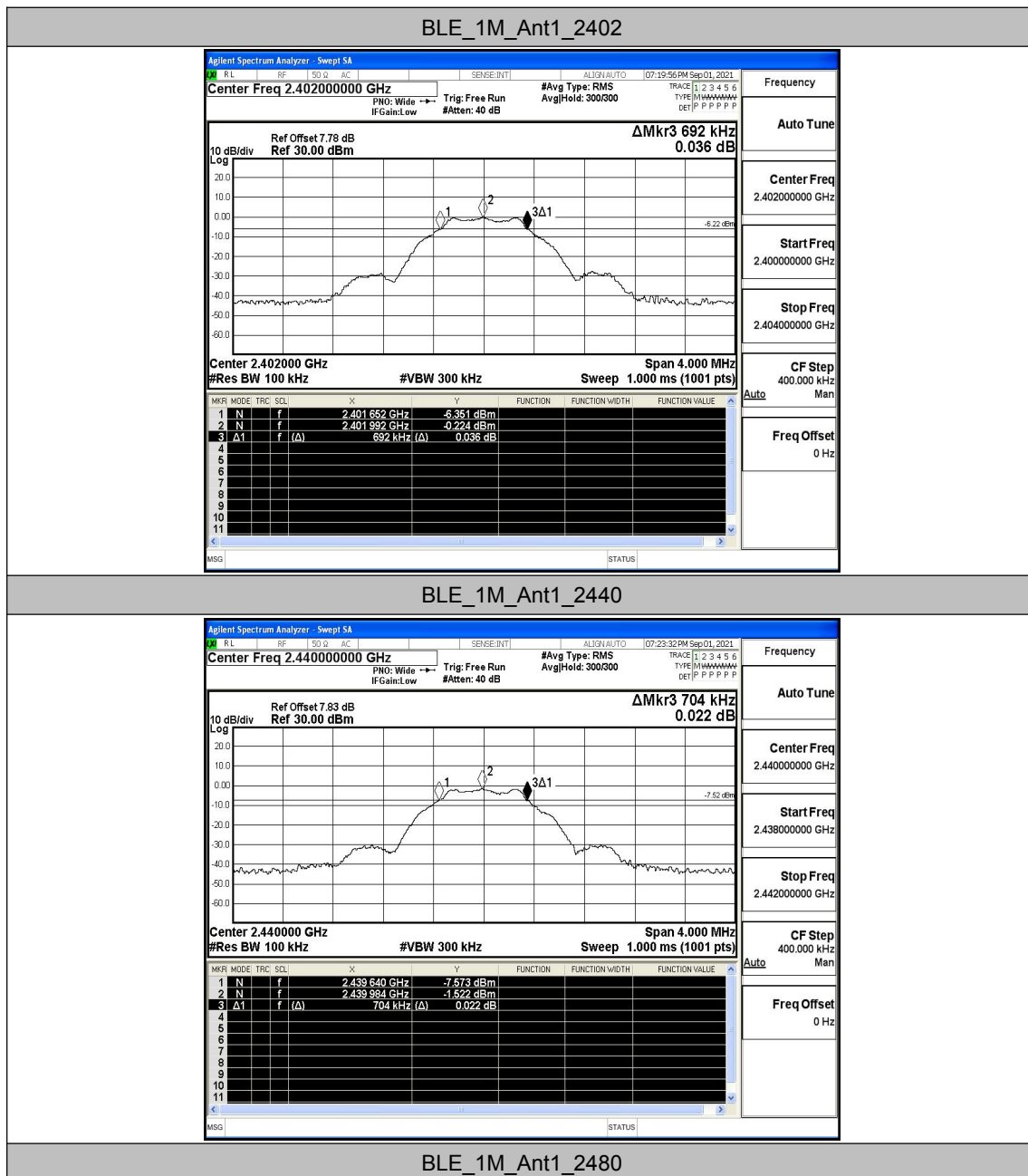


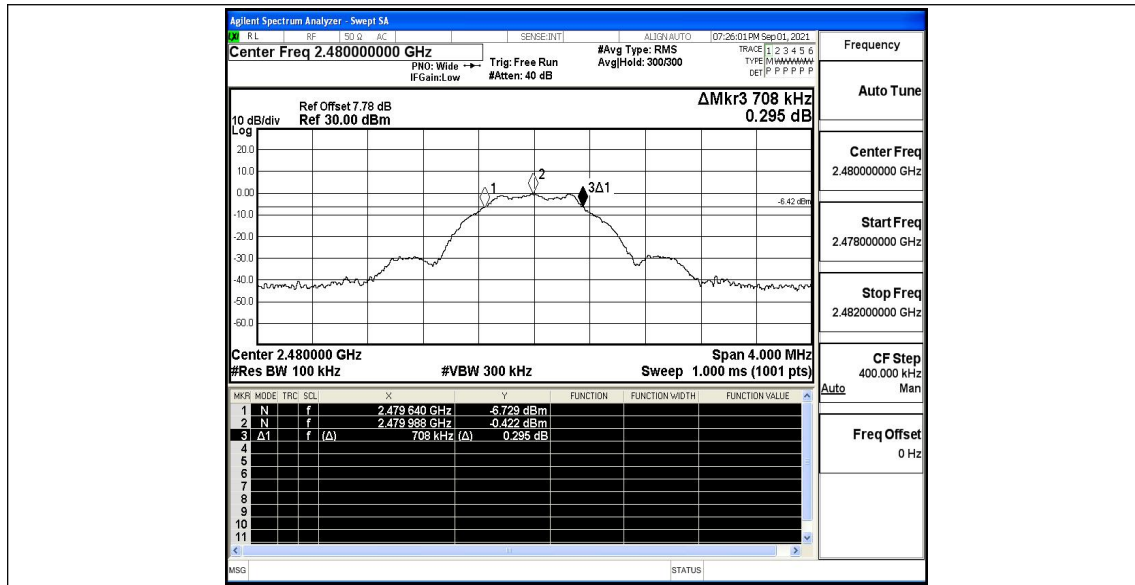
B.1 6dB Bandwidth

Test Result

TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.692	2401.652	2402.344	≥ 0.5	PASS
		2440	0.704	2439.640	2440.344	≥ 0.5	PASS
		2480	0.708	2479.640	2480.348	≥ 0.5	PASS

Test Graphs





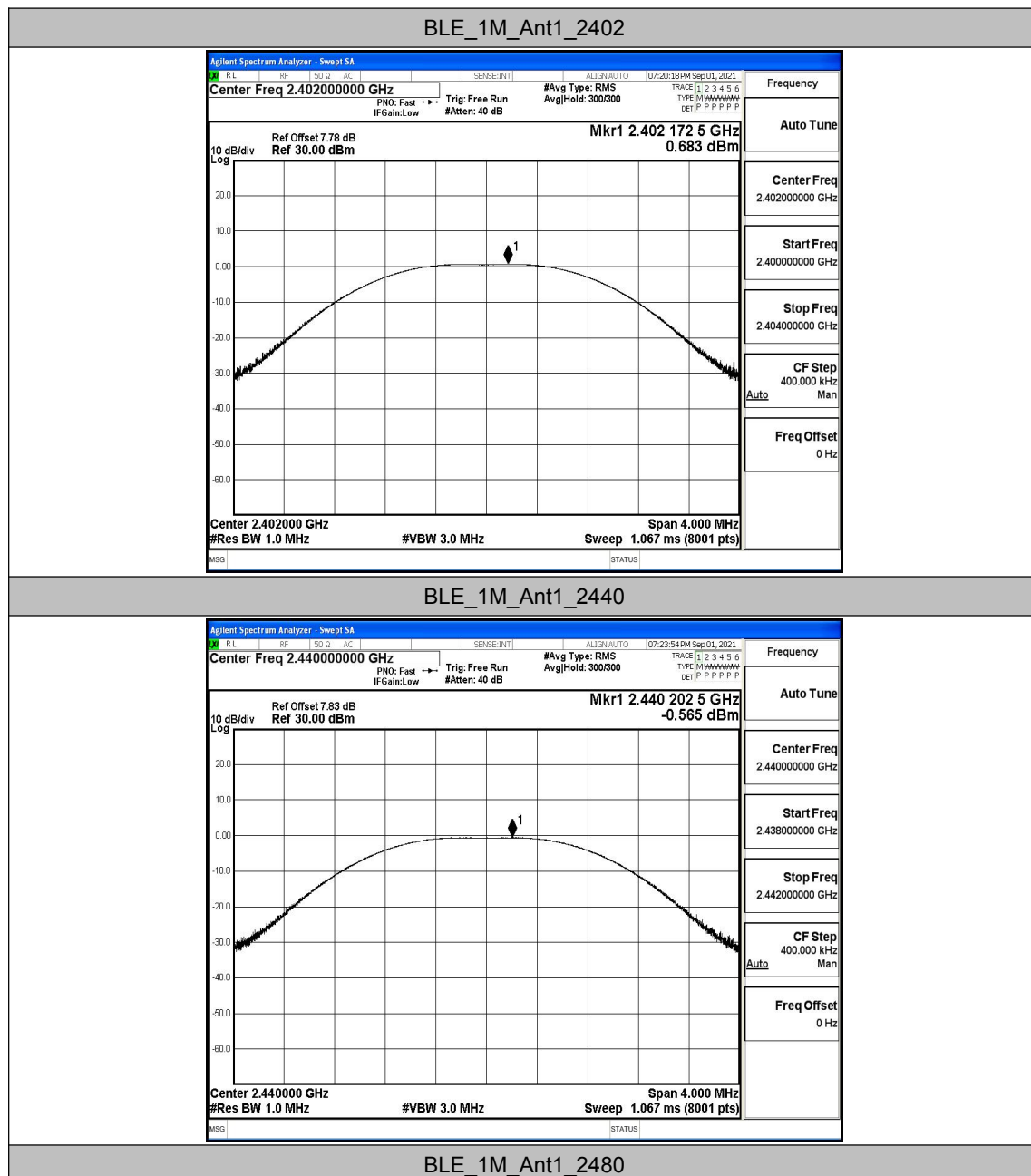


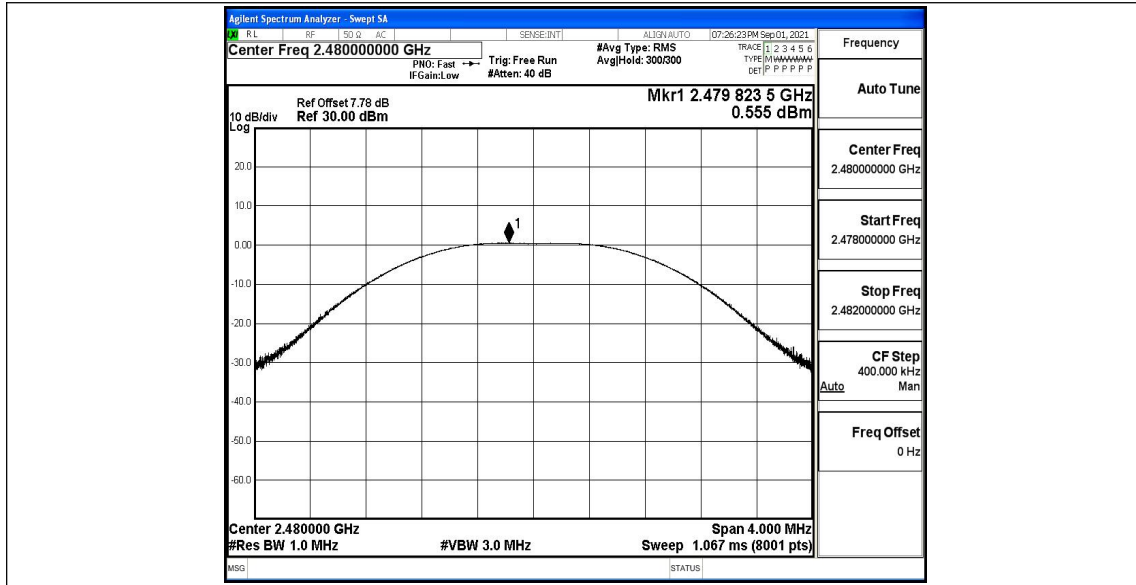
B.2 Maximum Peak Conducted Output Power

Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	0.68	≤30	PASS
		2440	-0.57	≤30	PASS
		2480	0.56	≤30	PASS

Test Graphs





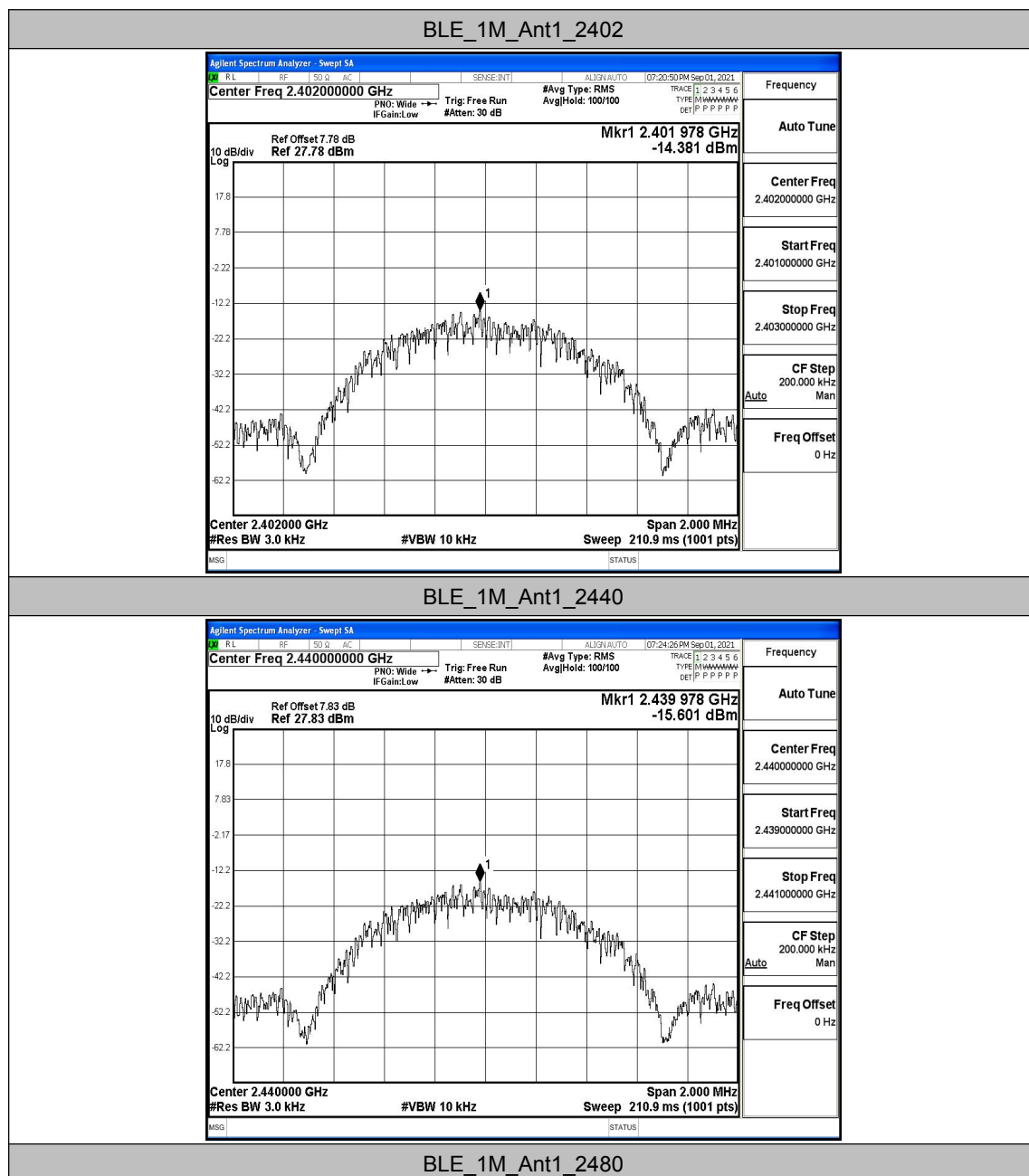


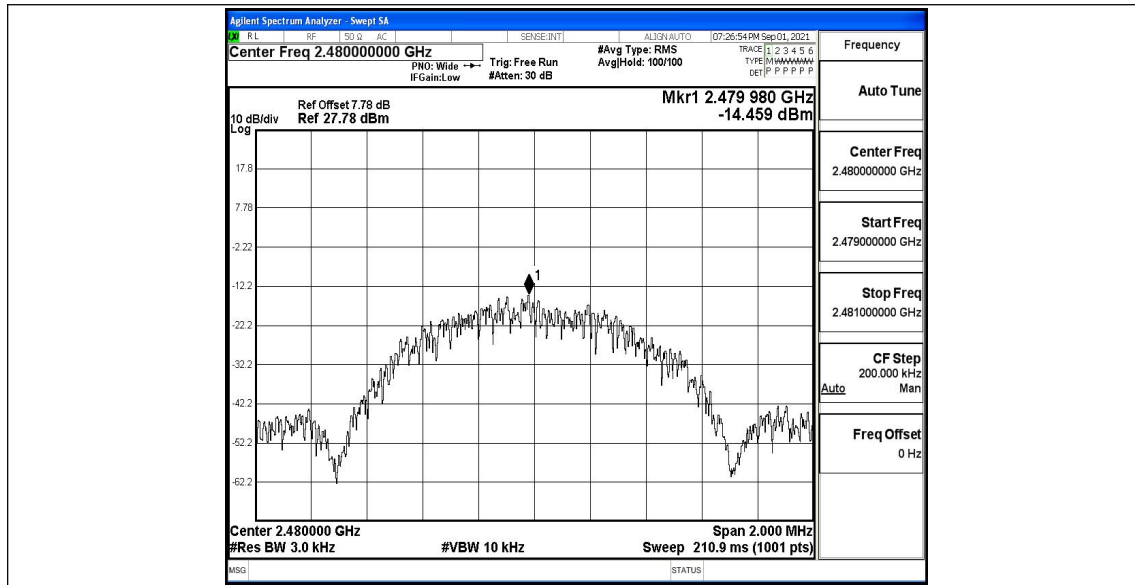
B.3 Maximum power spectral density

Test Result

TestMode	Antenna	Channel	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-14.38	≤8	PASS
		2440	-15.6	≤8	PASS
		2480	-14.46	≤8	PASS

Test Graphs





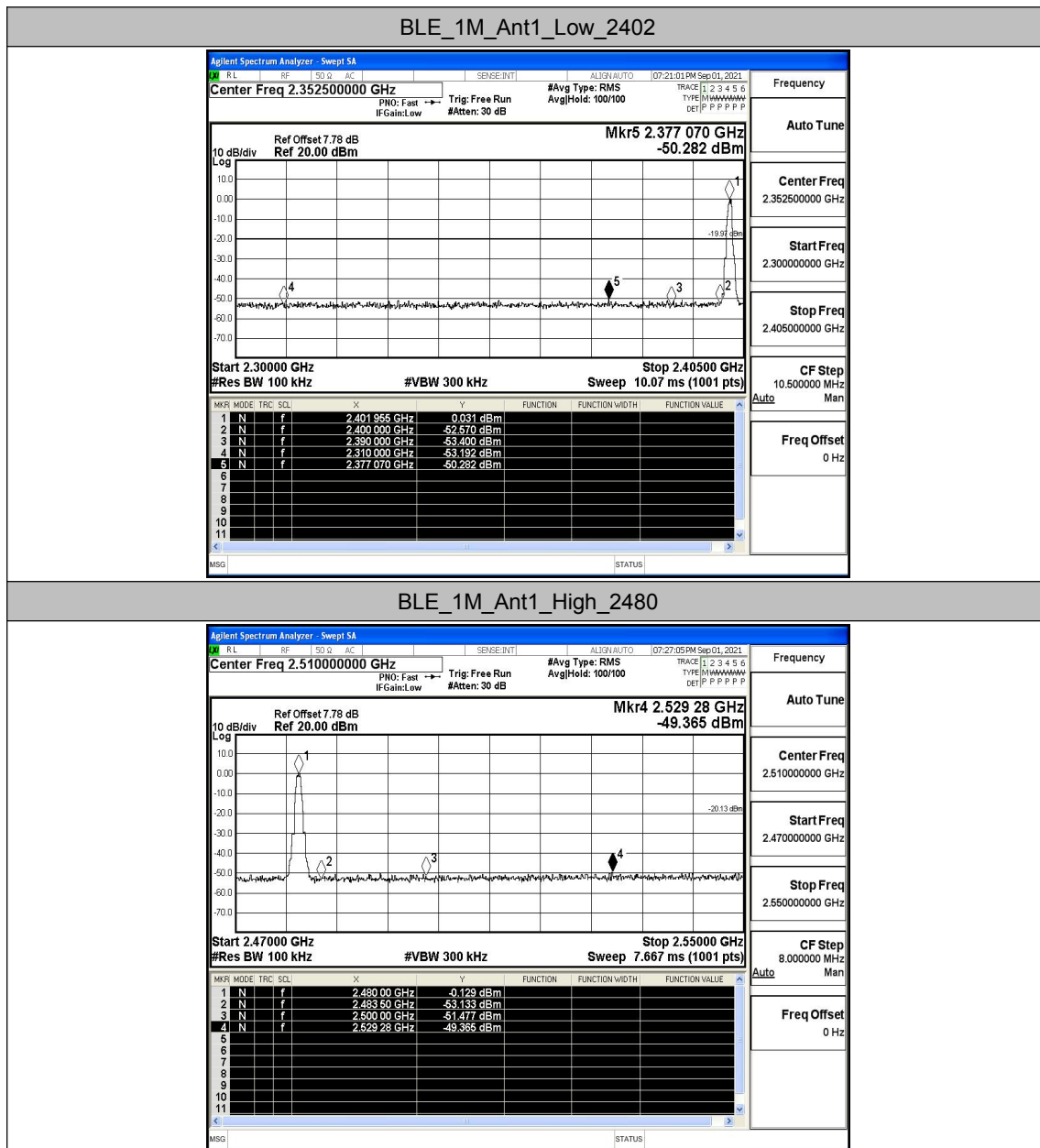


B.4 Band edge measurements

Test Result

TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	0.03	-50.28	≤ -19.97	PASS
		High	2480	-0.13	-49.37	≤ -20.13	PASS

Test Graphs



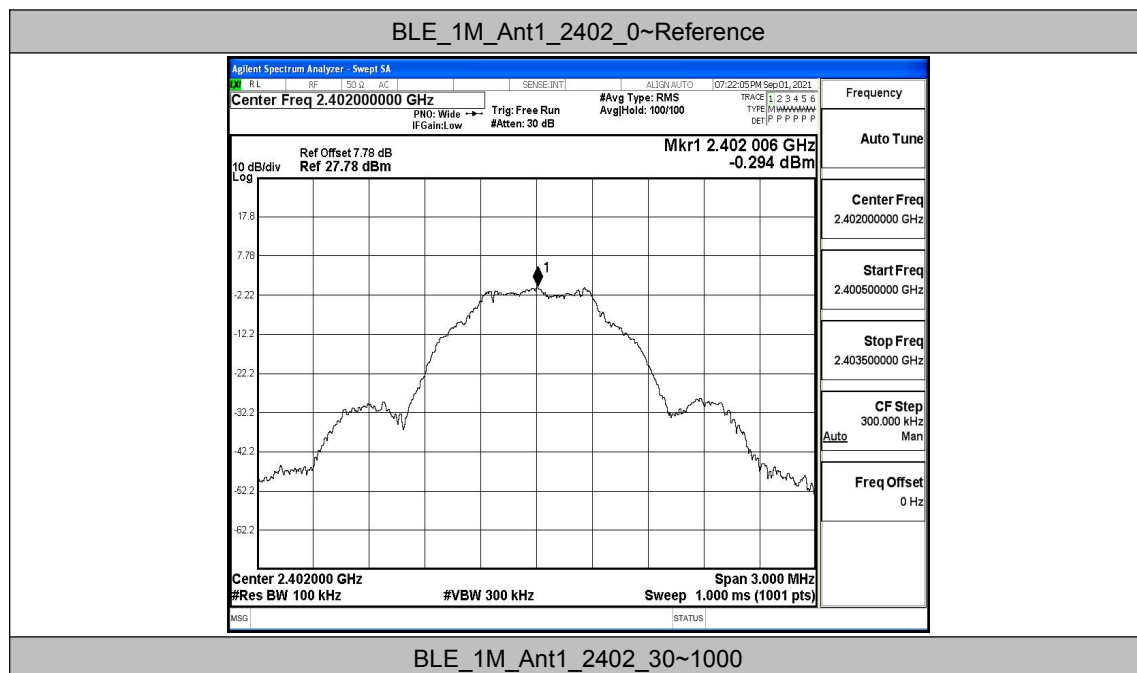


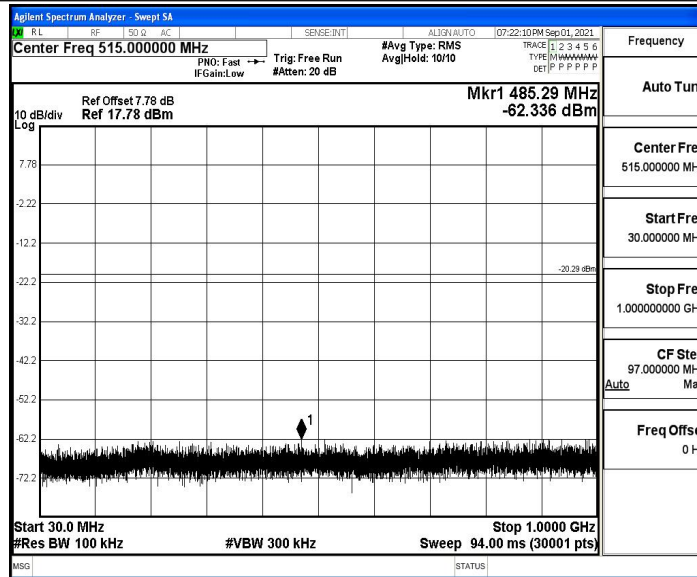
B.5 Conducted Spurious Emission

Test Result

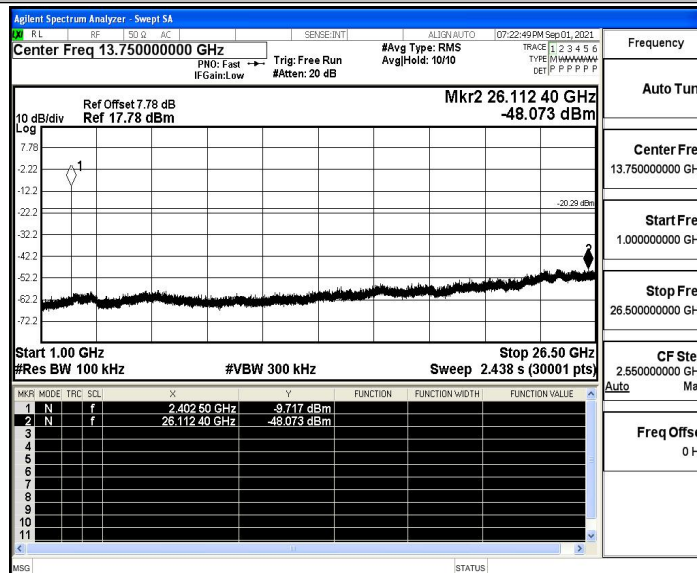
TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	-0.29	-0.29	---	PASS
			30~1000	-0.29	-62.34	≤-20.29	PASS
			1000~26500	-0.29	-48.07	≤-20.29	PASS
		2440	Reference	-1.51	-1.51	---	PASS
			30~1000	-1.51	-61.33	≤-21.51	PASS
			1000~26500	-1.51	-47.61	≤-21.51	PASS
		2480	Reference	-0.59	-0.59	---	PASS
			30~1000	-0.59	-61.93	≤-20.59	PASS
			1000~26500	-0.59	-47.3	≤-20.59	PASS

Test Graphs

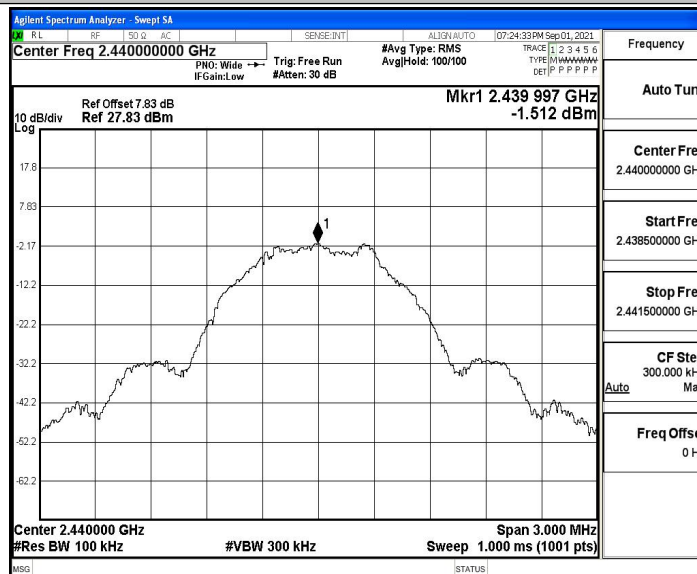




BLE_1M_Ant1_2402_1000~26500

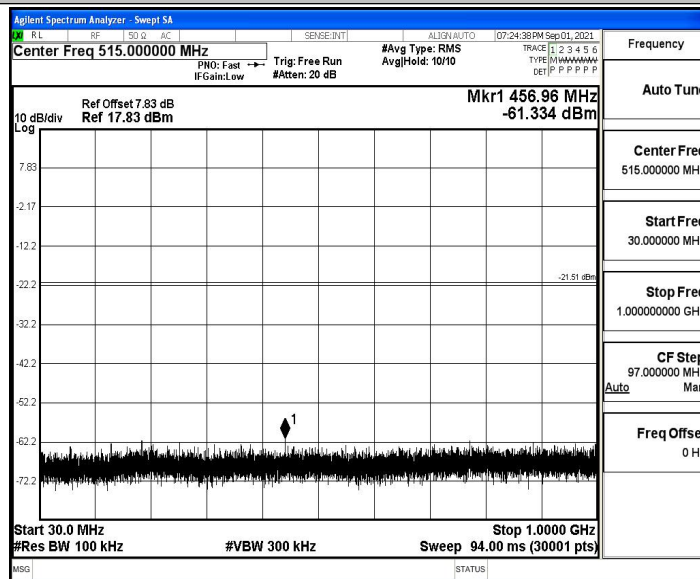


BLE_1M_Ant1_2440_0~Reference

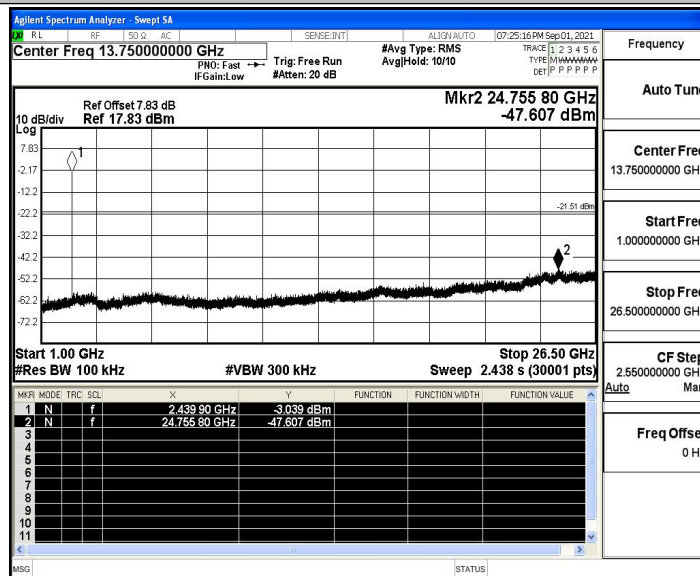




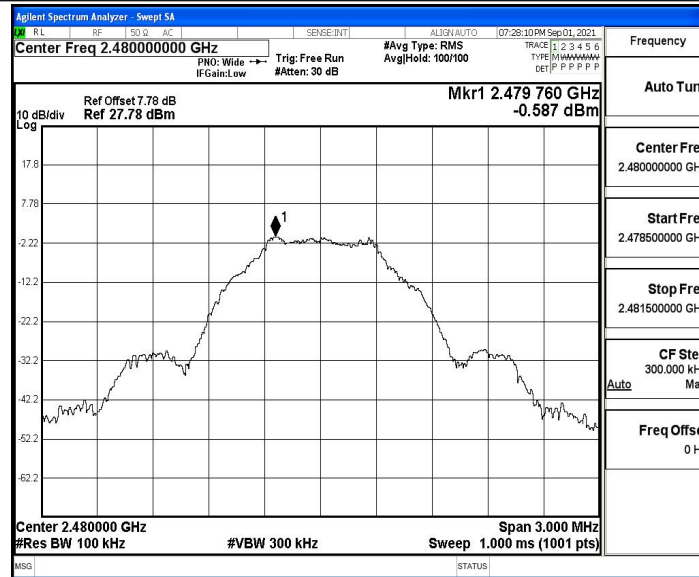
BLE_1M_Ant1_2440_30~1000



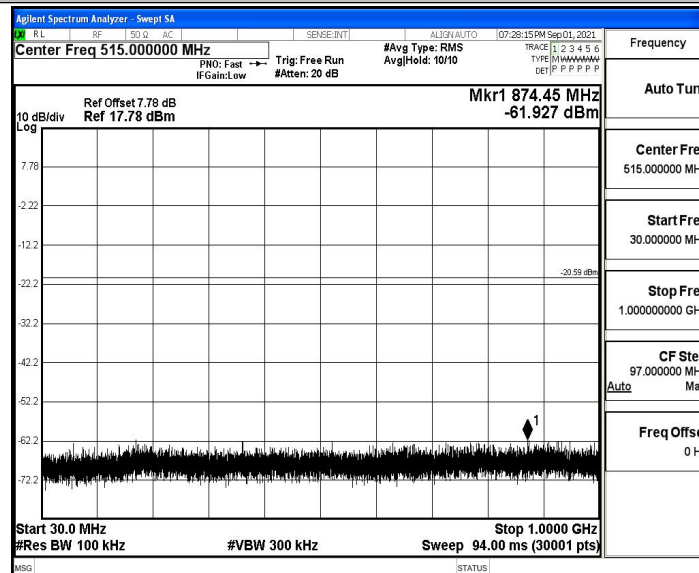
BLE_1M_Ant1_2440_1000~26500



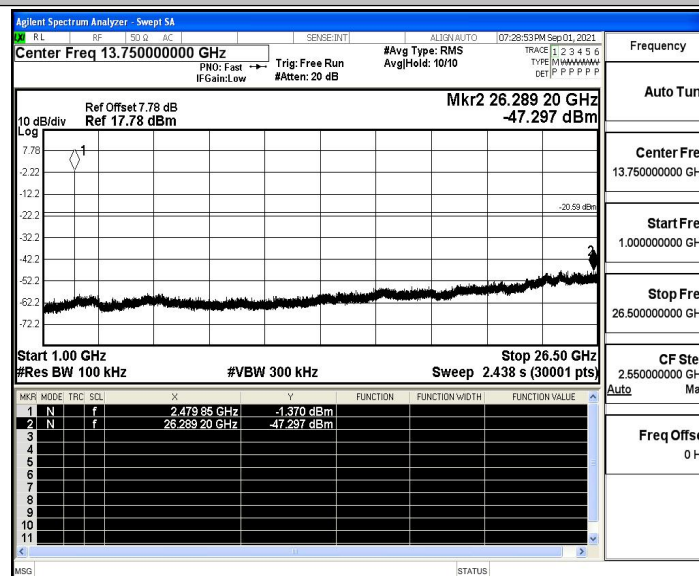
BLE_1M_Ant1_2480_0~Reference



BLE_1M_Ant1_2480_30~1000



BLE_1M_Ant1_2480_1000~26500



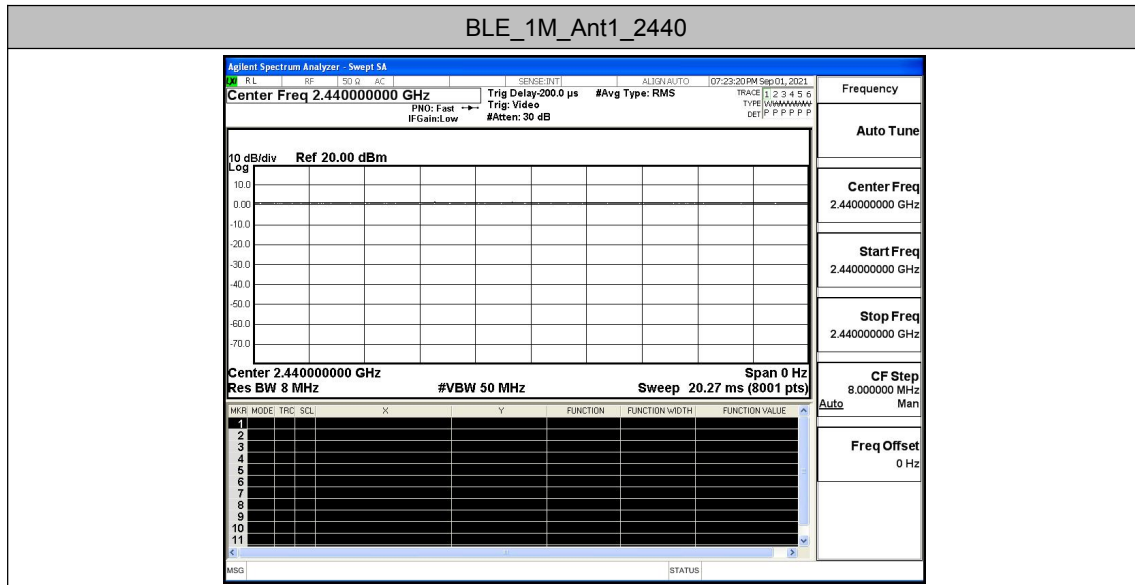


B.6 Duty Cycle

Test Result

Test Mode	Test Channel	Ant	Duty Cycle[%]	Verdict
BT LE(1Mbps)	2440	Ant1	100	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	-48.4	≤-41.20	46.80	≤54	PASS
				AV	2382.215	-47.68	≤-41.20	47.52	≤54	PASS
				AV	2390.000	-48.36	≤-41.20	46.84	≤54	PASS
				Peak	2310.000	-41.25	≤-21.20	53.95	≤74	PASS
				Peak	2389.460	-38.62	≤-21.20	56.58	≤74	PASS
				Peak	2390.000	-42.51	≤-21.20	52.69	≤74	PASS
		High	2480	AV	2483.500	-46.9	≤-41.20	48.30	≤54	PASS
				AV	2483.520	-46.89	≤-41.20	48.31	≤54	PASS
				AV	2500.000	-47.7	≤-41.20	47.50	≤54	PASS
				Peak	2483.500	-41.77	≤-21.20	53.43	≤74	PASS
				Peak	2495.040	-38.43	≤-21.20	56.77	≤74	PASS
				Peak	2500.000	-40.94	≤-21.20	54.26	≤74	PASS

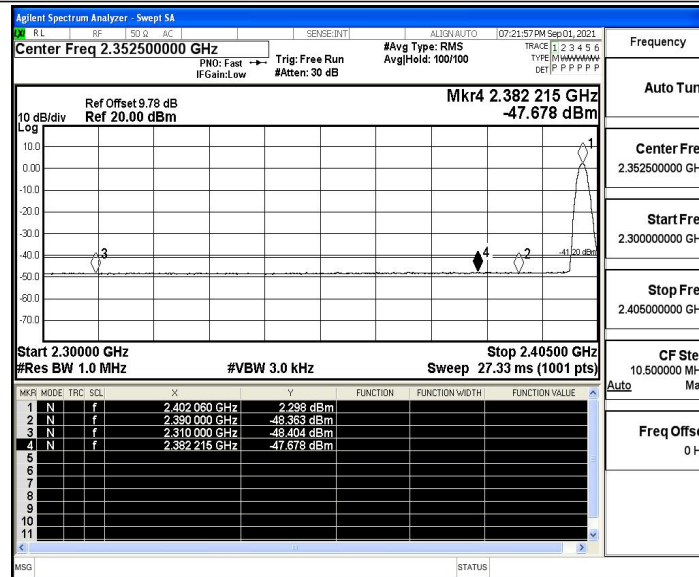
Note:

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.

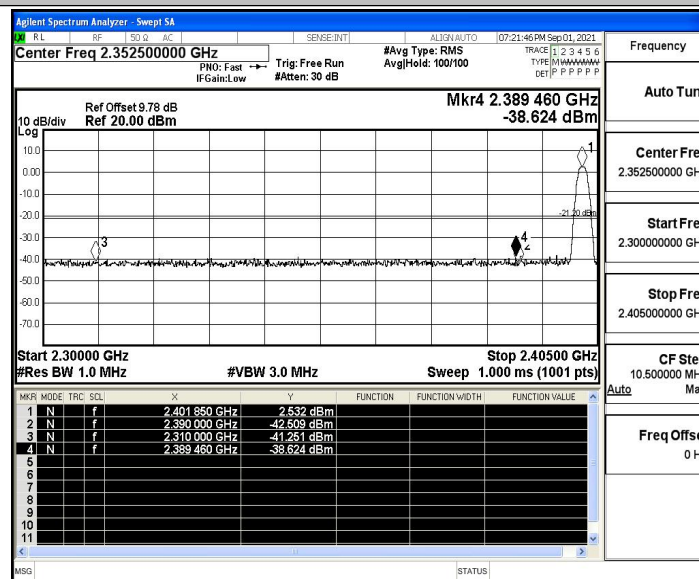


Test Graphs

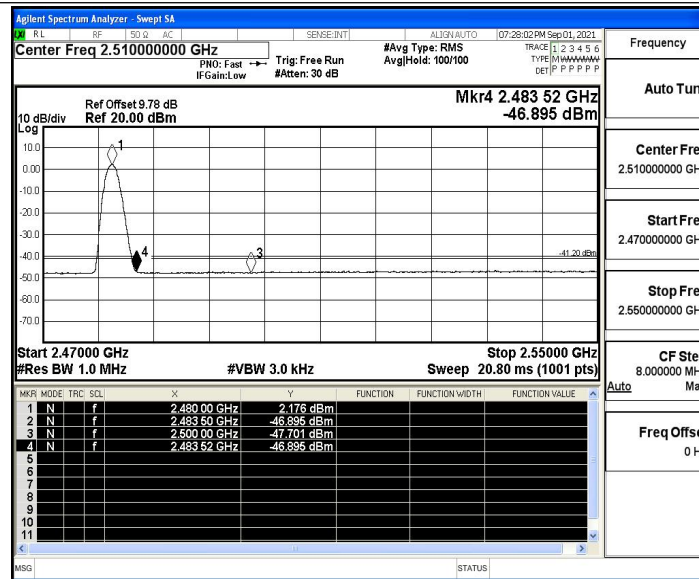
BLE_1M_Ant1_Low_2402_AV



BLE_1M_Ant1_Low_2402_Peak



BLE_1M_Ant1_High_2480_AV



BLE_1M_Ant1_High_2480_Peak

