



Appendix B

RF Test Data for BLE (Conducted Measurement)

Product Name: Notebook

Test Model: HT14CBI381SG

Environmental Conditions

Temperature:	23.7° C
Relative Humidity:	52.3%
ATM Pressure:	100.0 kPa
Test Engineer:	Bill Zhu
Supervised by:	Li Huan

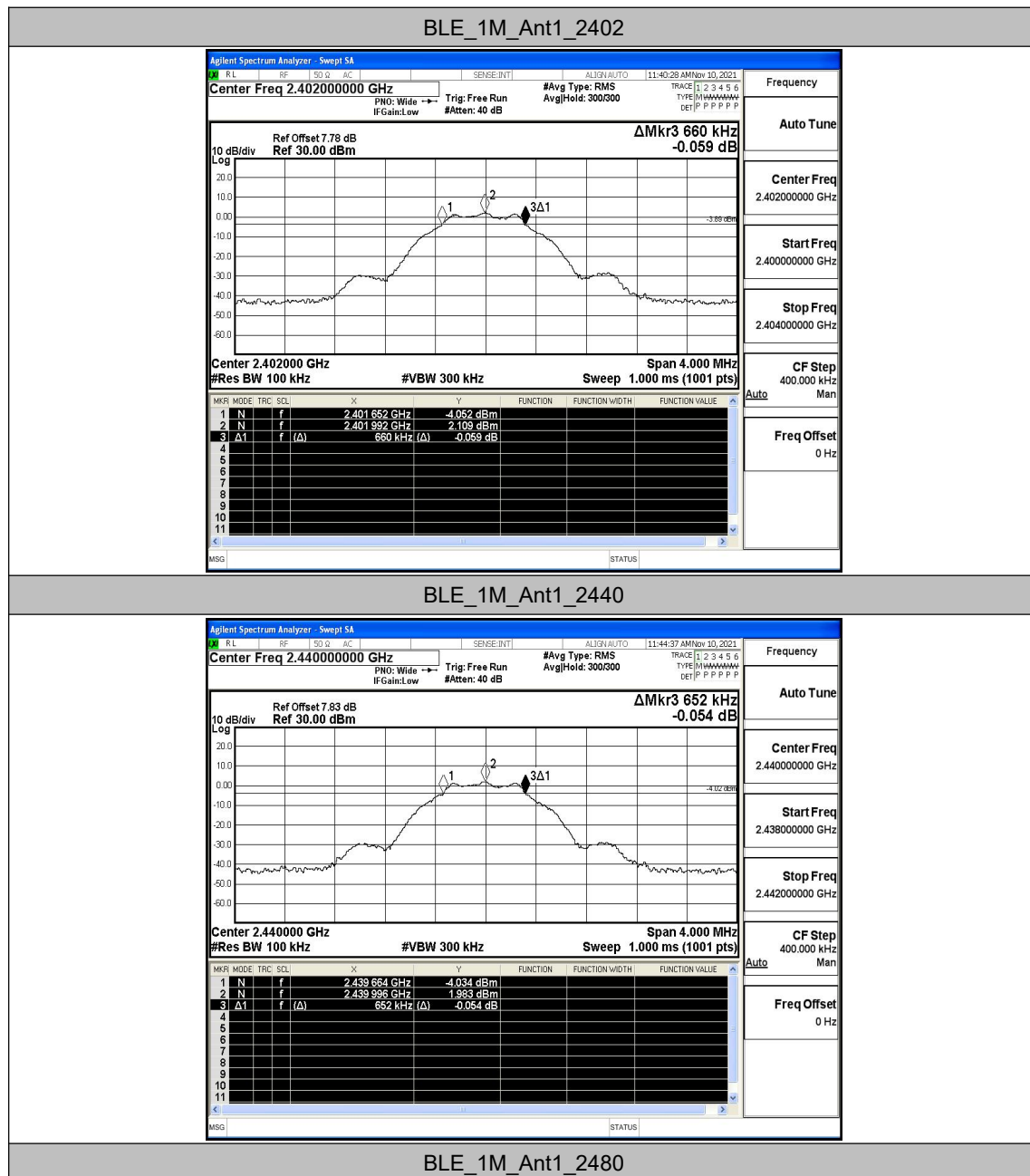


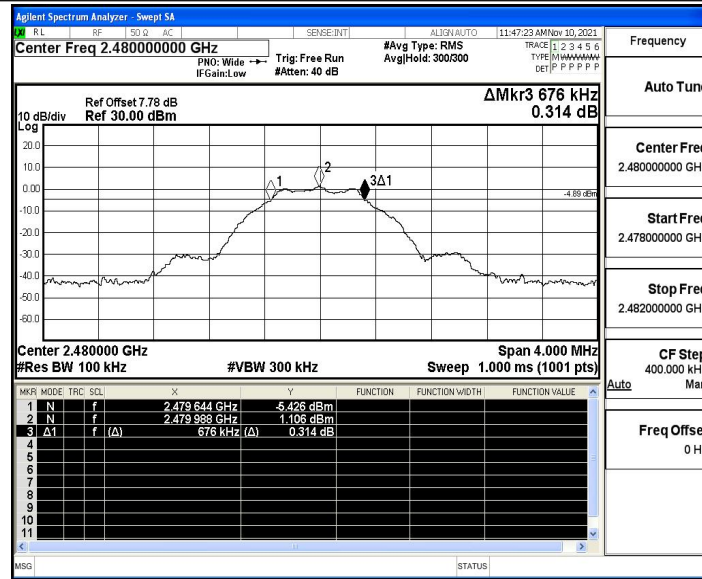
B.1 6dB Bandwidth

Test Result

TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.660	2401.652	2402.312	≥0.5	PASS
		2440	0.652	2439.664	2440.316	≥0.5	PASS
		2480	0.676	2479.644	2480.320	≥0.5	PASS

Test Graphs





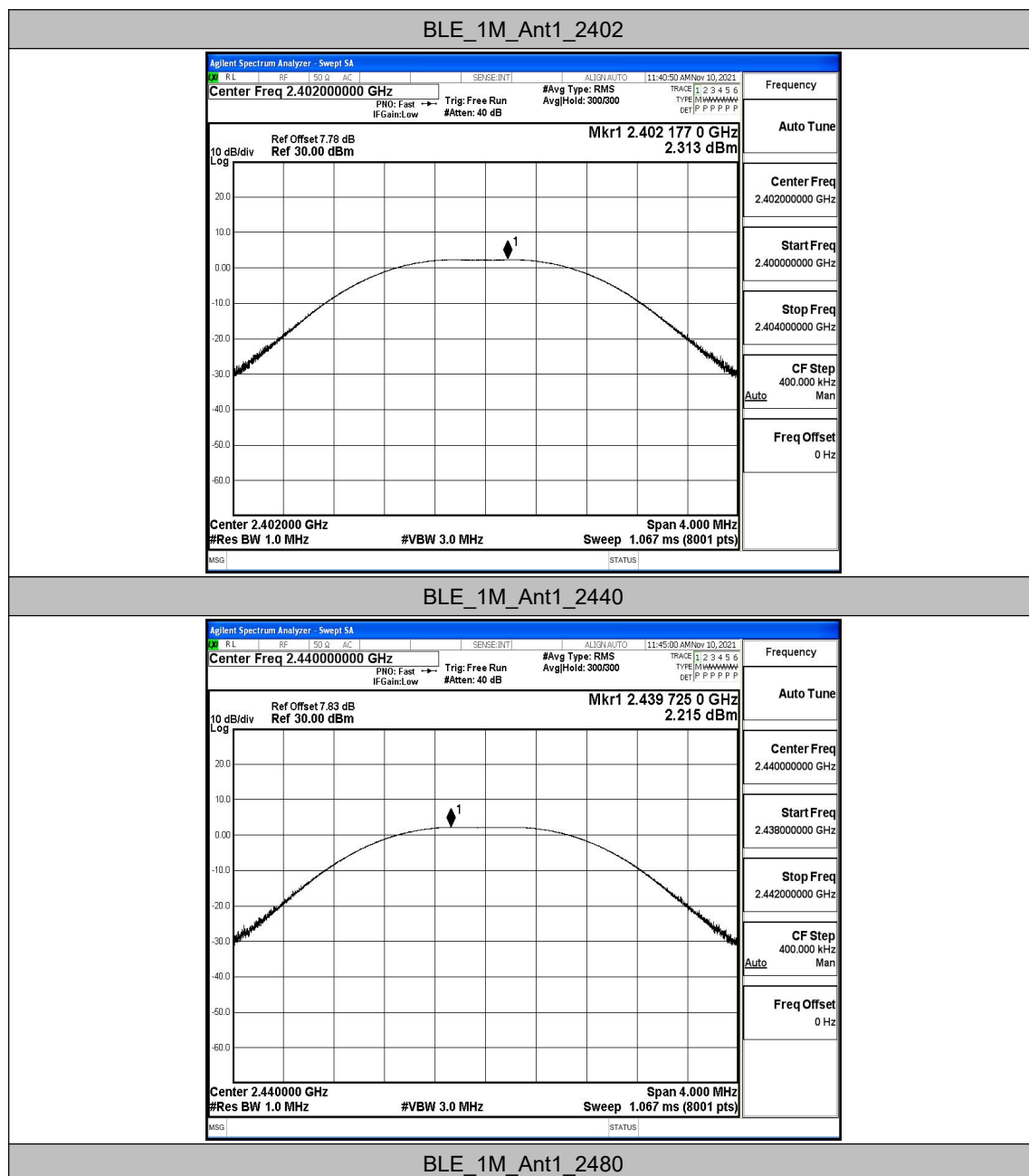


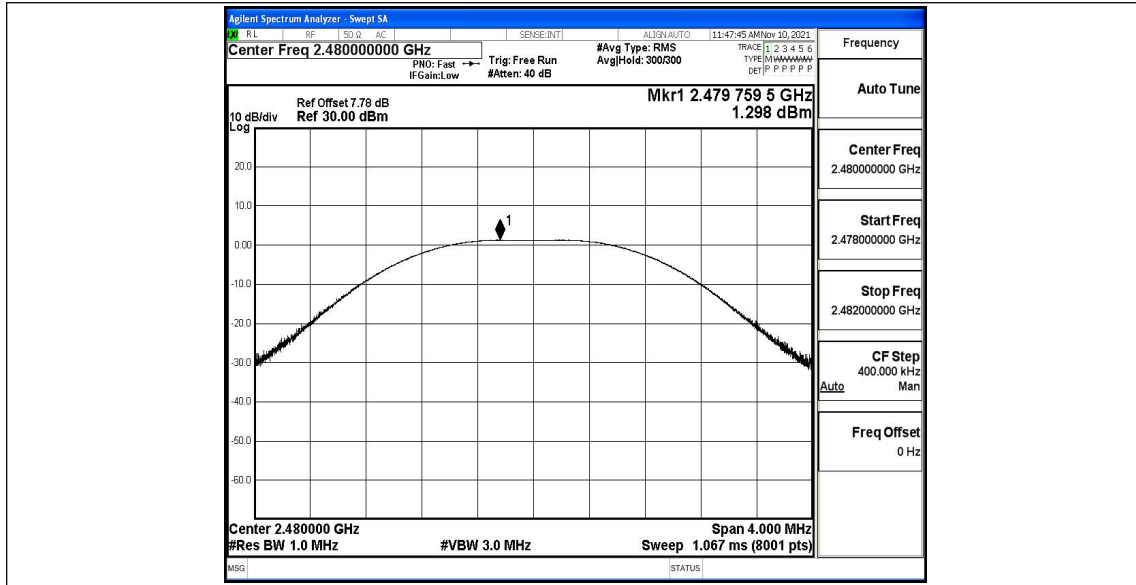
B.2 Maximum conducted output power

Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	2.31	≤30	PASS
		2440	2.22	≤30	PASS
		2480	1.3	≤30	PASS

Test Graphs





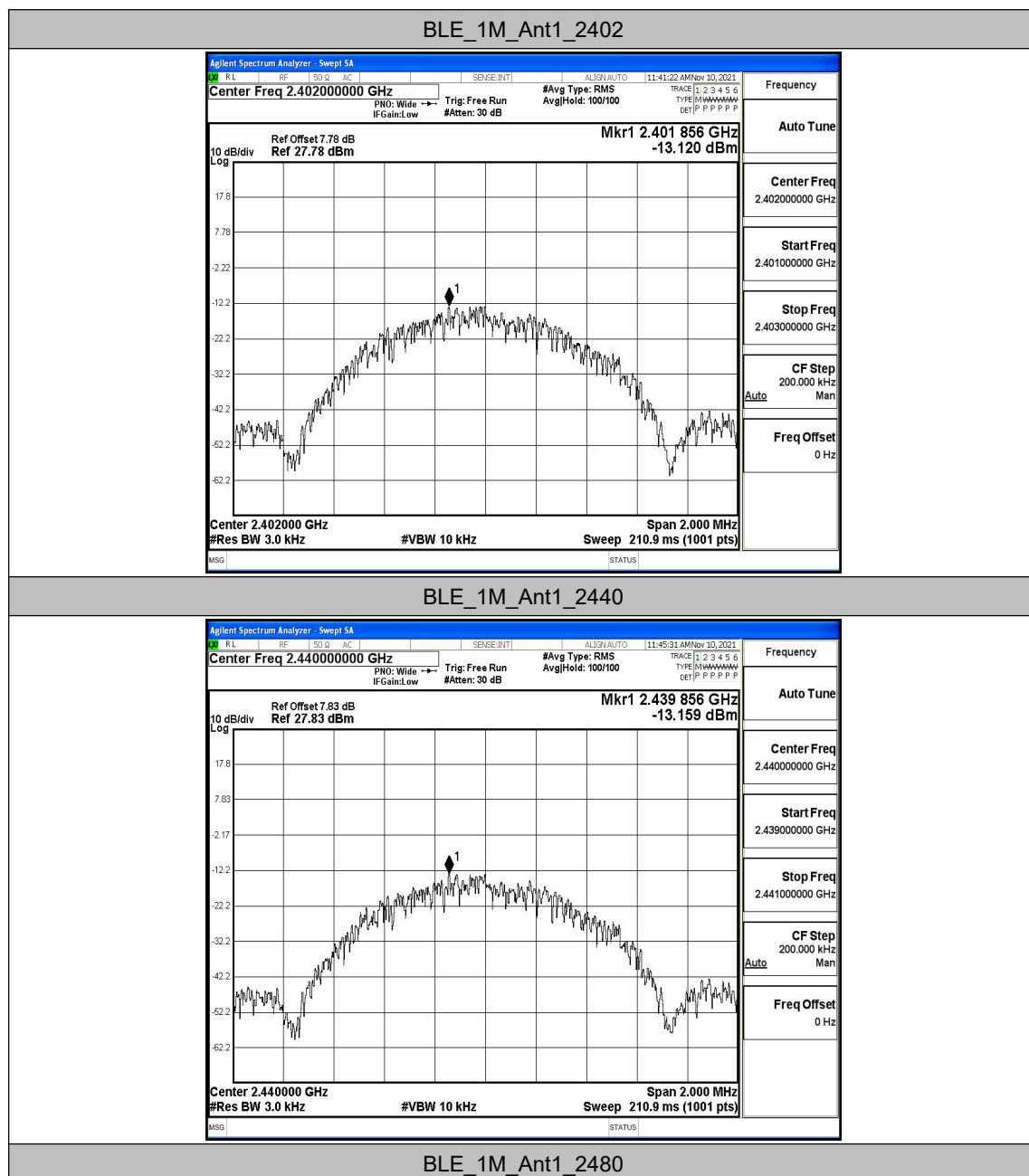


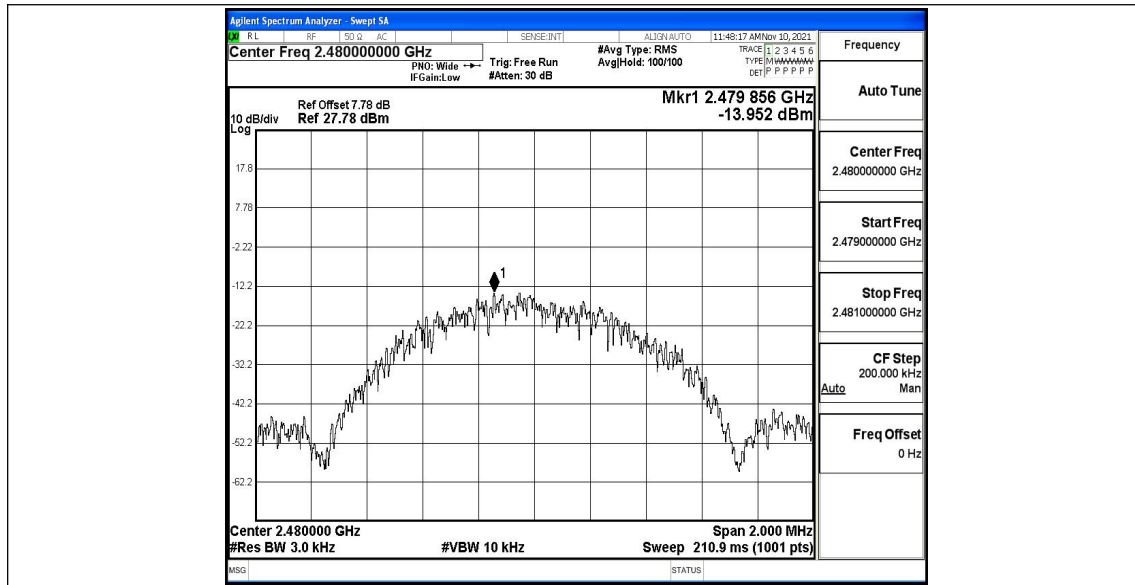
B.3 Maximum power spectral density

Test Result

TestMode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-13.12	≤8	PASS
		2440	-13.16	≤8	PASS
		2480	-13.95	≤8	PASS

Test Graphs





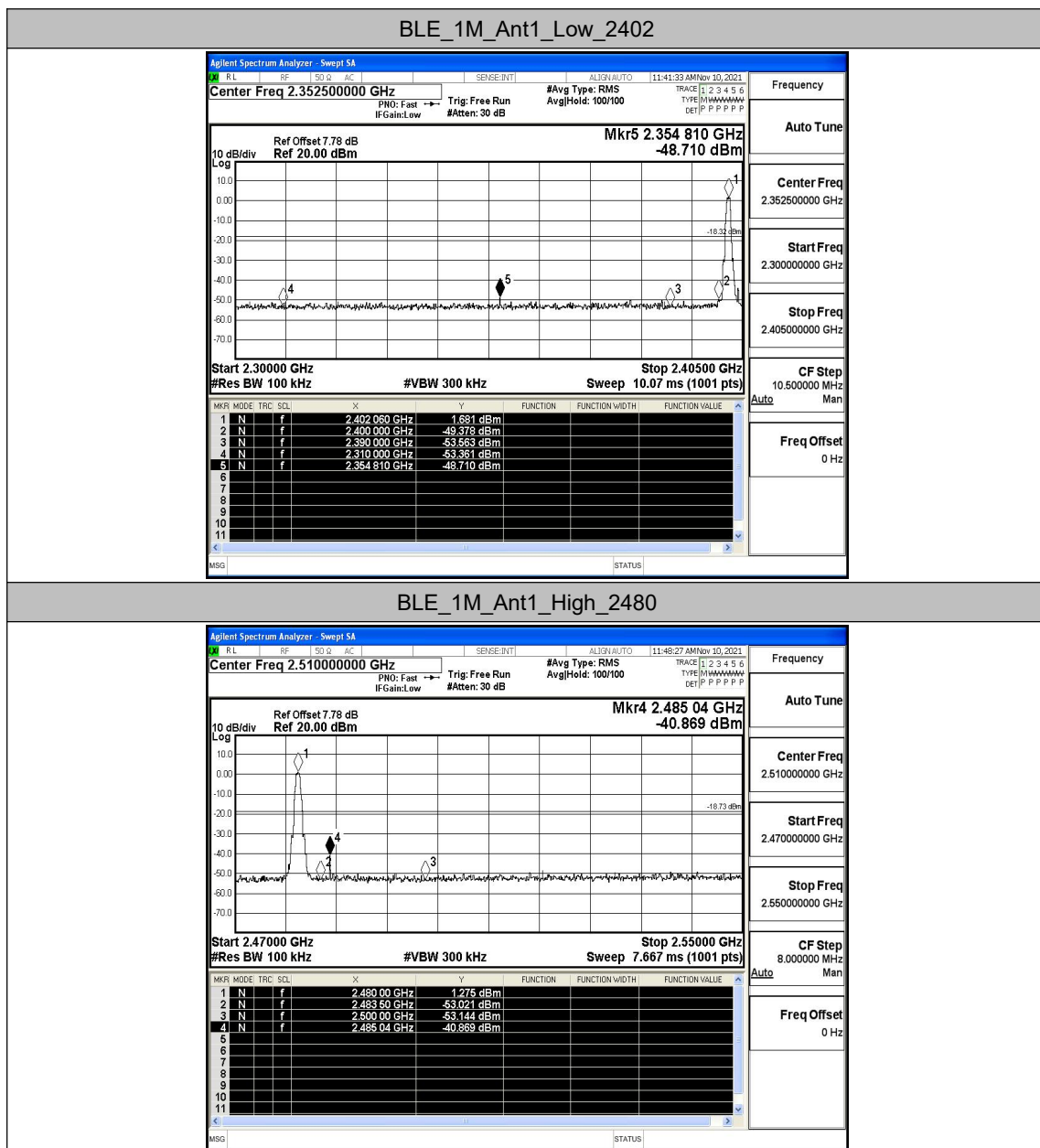


B.4 Band edge measurements

Test Result

TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	1.68	-48.71	≤-18.32	PASS
		High	2480	1.28	-40.87	≤-18.73	PASS

Test Graphs



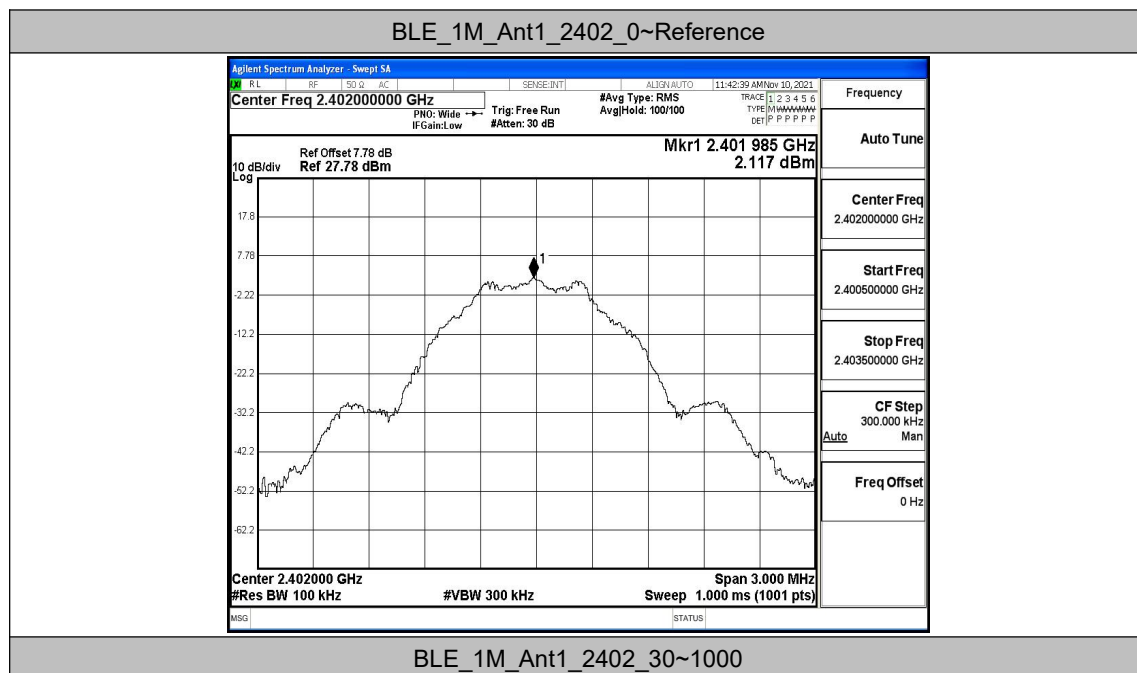


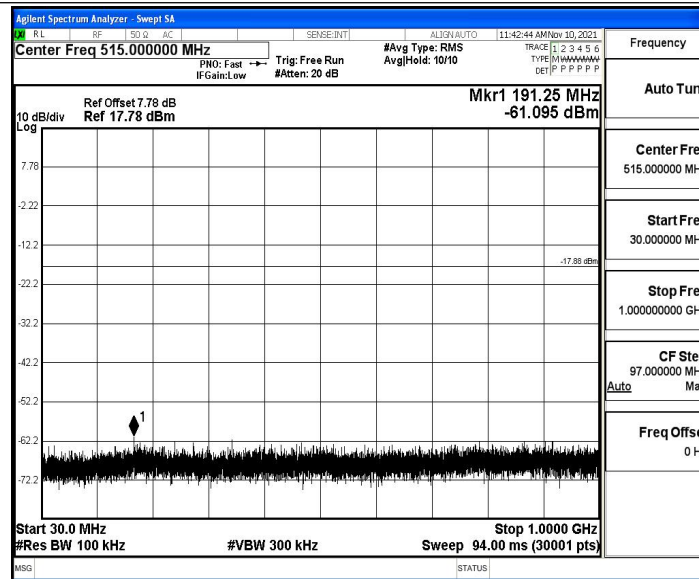
B.5 Conducted Spurious Emission

Test Result

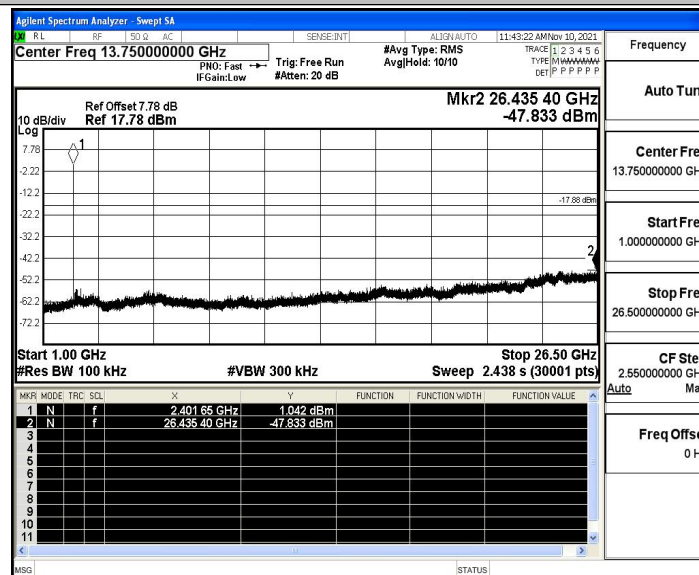
TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	2.12	2.12	---	PASS
			30~1000	2.12	-61.1	≤-17.88	PASS
			1000~26500	2.12	-47.83	≤-17.88	PASS
		2440	Reference	1.13	1.13	---	PASS
			30~1000	1.13	-61.88	≤-18.88	PASS
			1000~26500	1.13	-47.09	≤-18.88	PASS
		2480	Reference	0.82	0.82	---	PASS
			30~1000	0.82	-62.08	≤-19.19	PASS
			1000~26500	0.82	-46.69	≤-19.19	PASS

Test Graphs

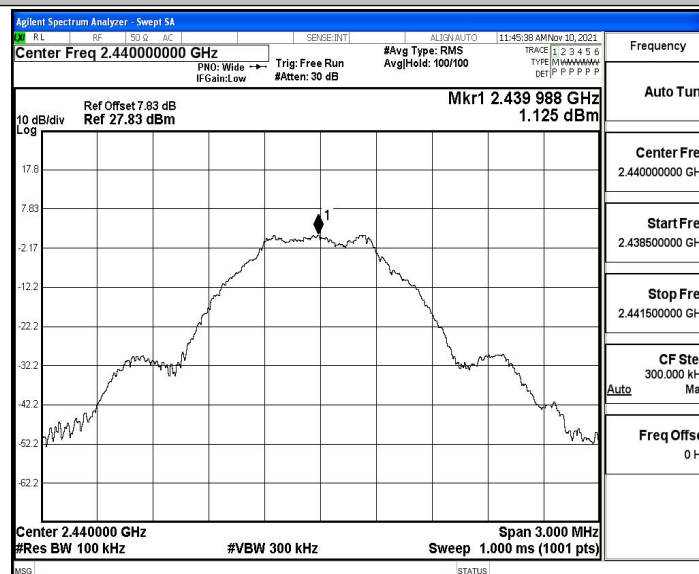




BLE_1M_Ant1_2402_1000~26500

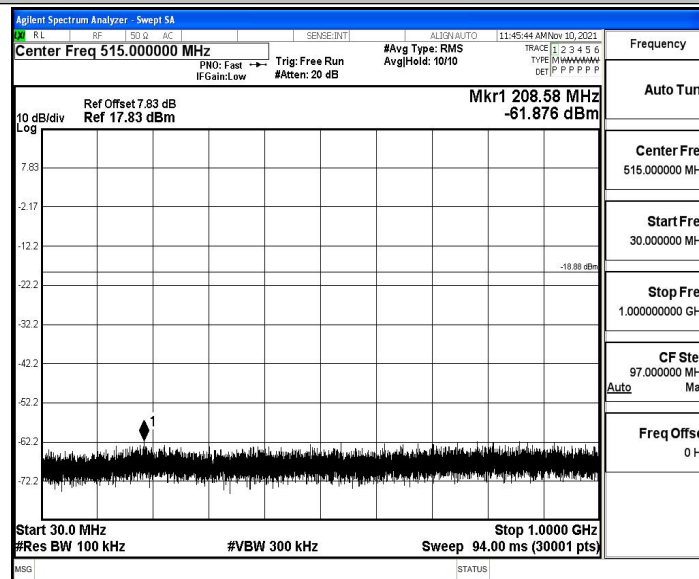


BLE_1M_Ant1_2440_0~Reference

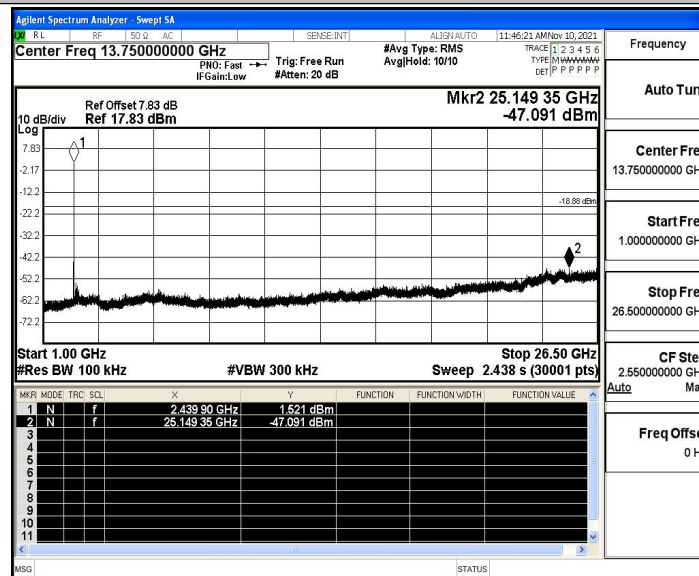




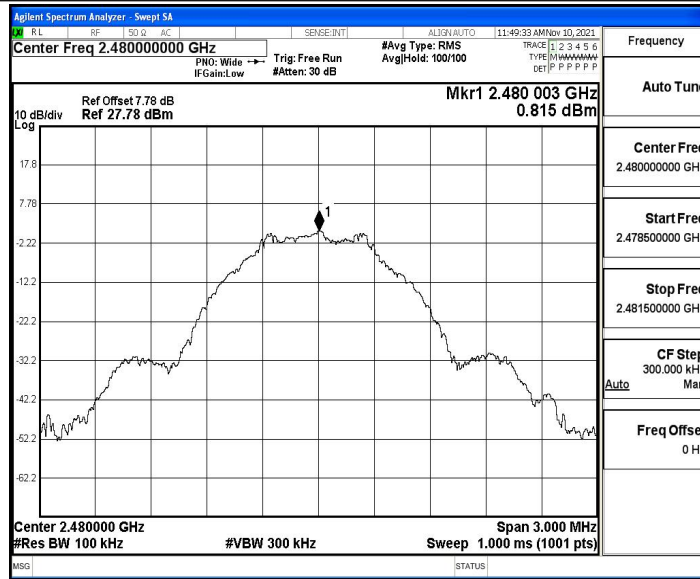
BLE_1M_Ant1_2440_30~1000



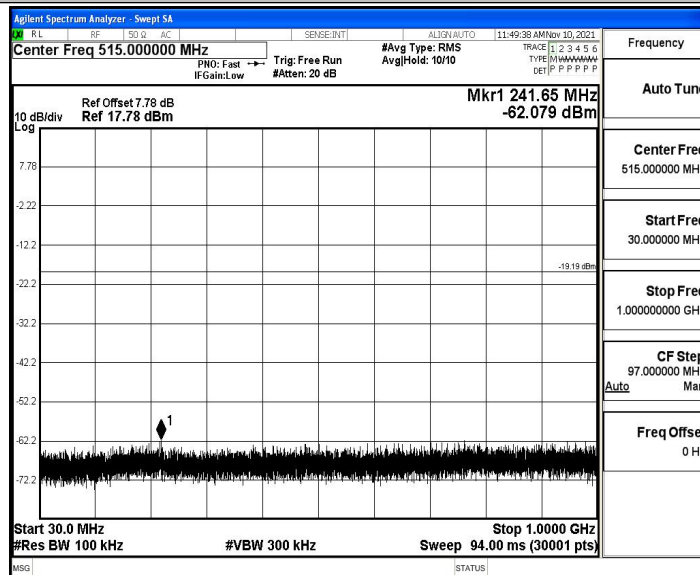
BLE_1M_Ant1_2440_1000~26500



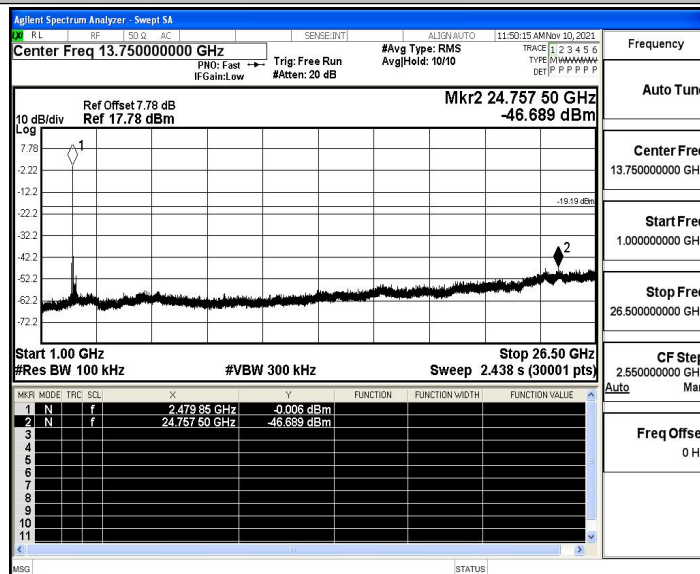
BLE_1M_Ant1_2480_0~Reference



BLE_1M_Ant1_2480_30~1000



BLE_1M_Ant1_2480_1000~26500



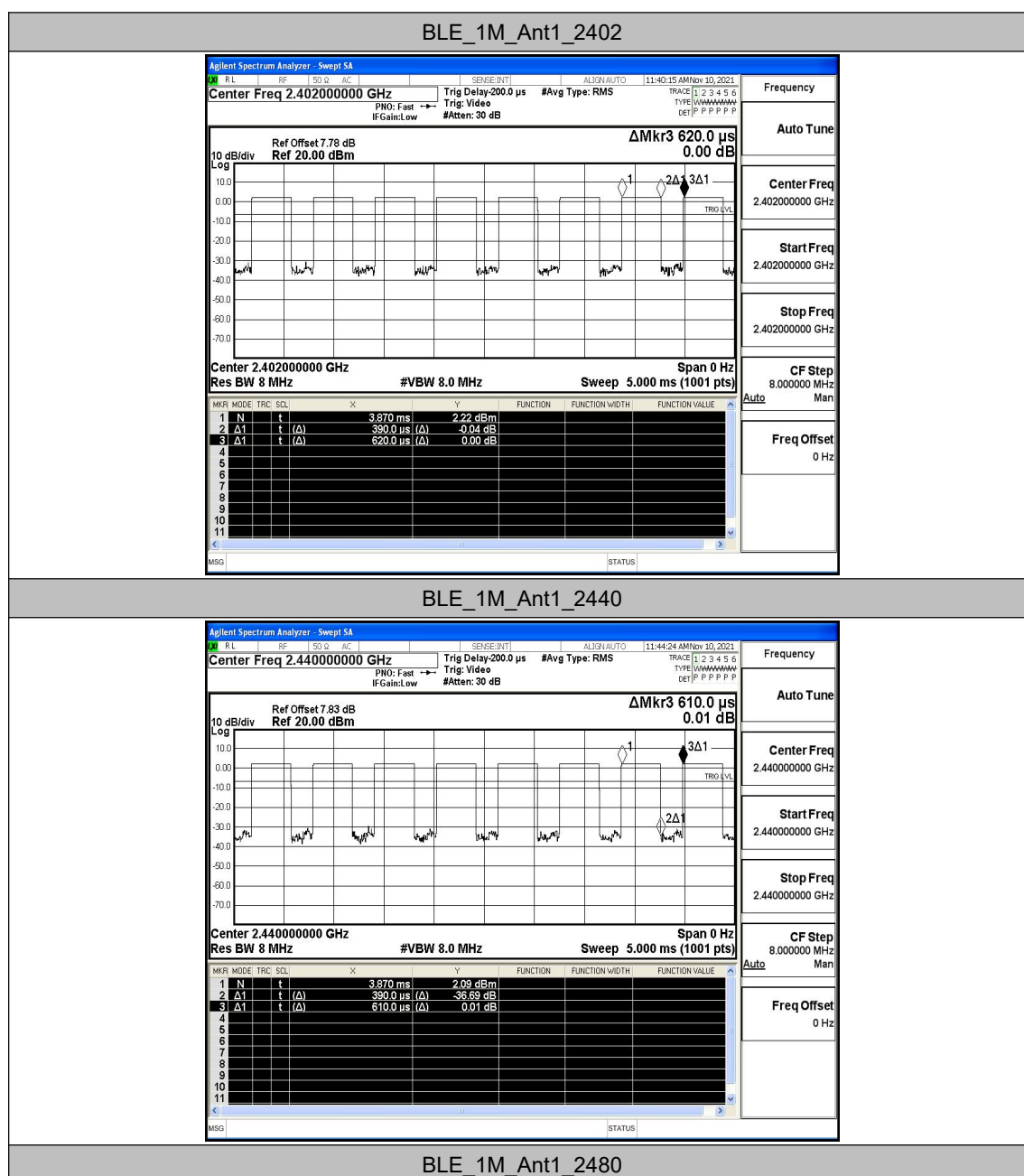


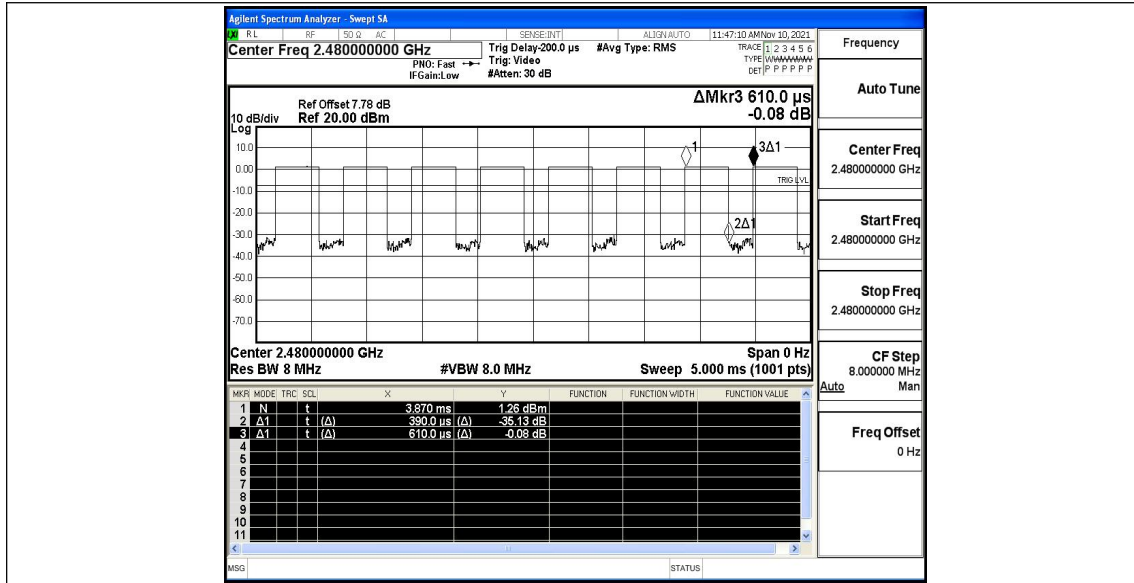
B.6 Duty Cycle

Test Result

TestMode	Antenna	Channel	ON Time [ms]	Period [ms]	X	DC [%]	xFactor	Limit	Verdict
BLE_1M	Ant1	2402	0.39	0.62	0.6290	62.90	2.01	---	PASS
		2440	0.39	0.61	0.6393	63.93	1.94	---	PASS
		2480	0.39	0.61	0.6393	63.93	1.94	---	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	-48.33	≤-41.20	46.87	≤54	PASS
				AV	2385.260	-47.64	≤-41.20	47.56	≤54	PASS
				AV	2390.000	-48.08	≤-41.20	47.12	≤54	PASS
				Peak	2310.000	-41.98	≤-21.20	53.22	≤74	PASS
				Peak	2326.145	-38.29	≤-21.20	56.91	≤74	PASS
				Peak	2390.000	-40.79	≤-21.20	54.41	≤74	PASS
		High	2480	AV	2483.500	-46.94	≤-41.20	48.26	≤54	PASS
				AV	2484.720	-42.47	≤-41.20	52.73	≤54	PASS
				AV	2500.000	-47.53	≤-41.20	47.67	≤54	PASS
				Peak	2483.500	-39.26	≤-21.20	55.94	≤74	PASS
				Peak	2484.960	-35.15	≤-21.20	60.05	≤74	PASS
				Peak	2500.000	-41.78	≤-21.20	53.42	≤74	PASS

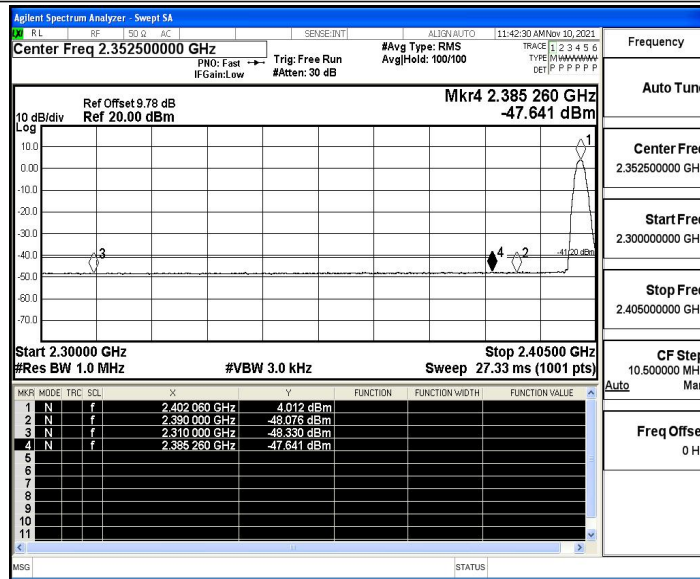
Note:

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.

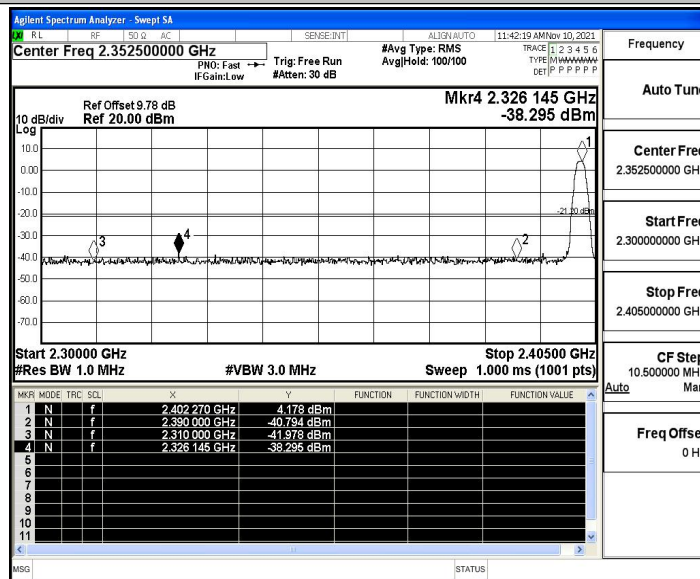


Test Graphs

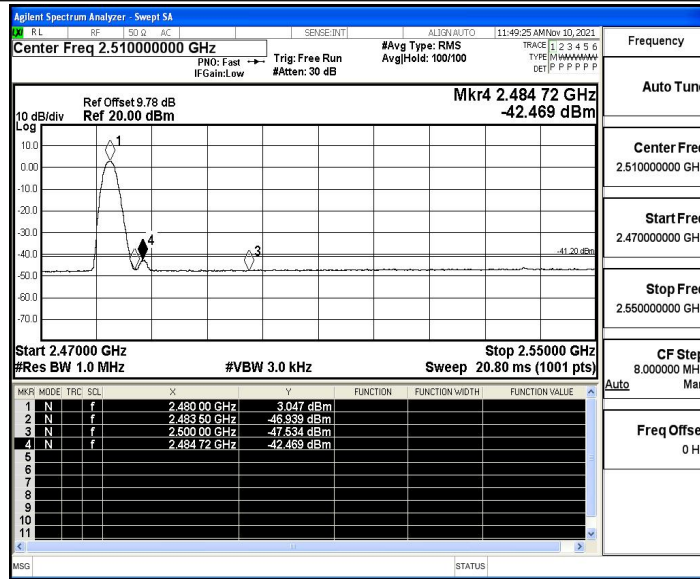
BLE_1M_Ant1_Low_2402_AV



BLE_1M_Ant1_Low_2402_Peak



BLE_1M_Ant1_High_2480_AV



BLE_1M_Ant1_High_2480_Peak

