



Appendix B

RF Test Data for BLE (Conducted Measurement)

Product Name: Bluetooth Adapter

Test Model: 06H-8510-4.0

Environmental Conditions

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

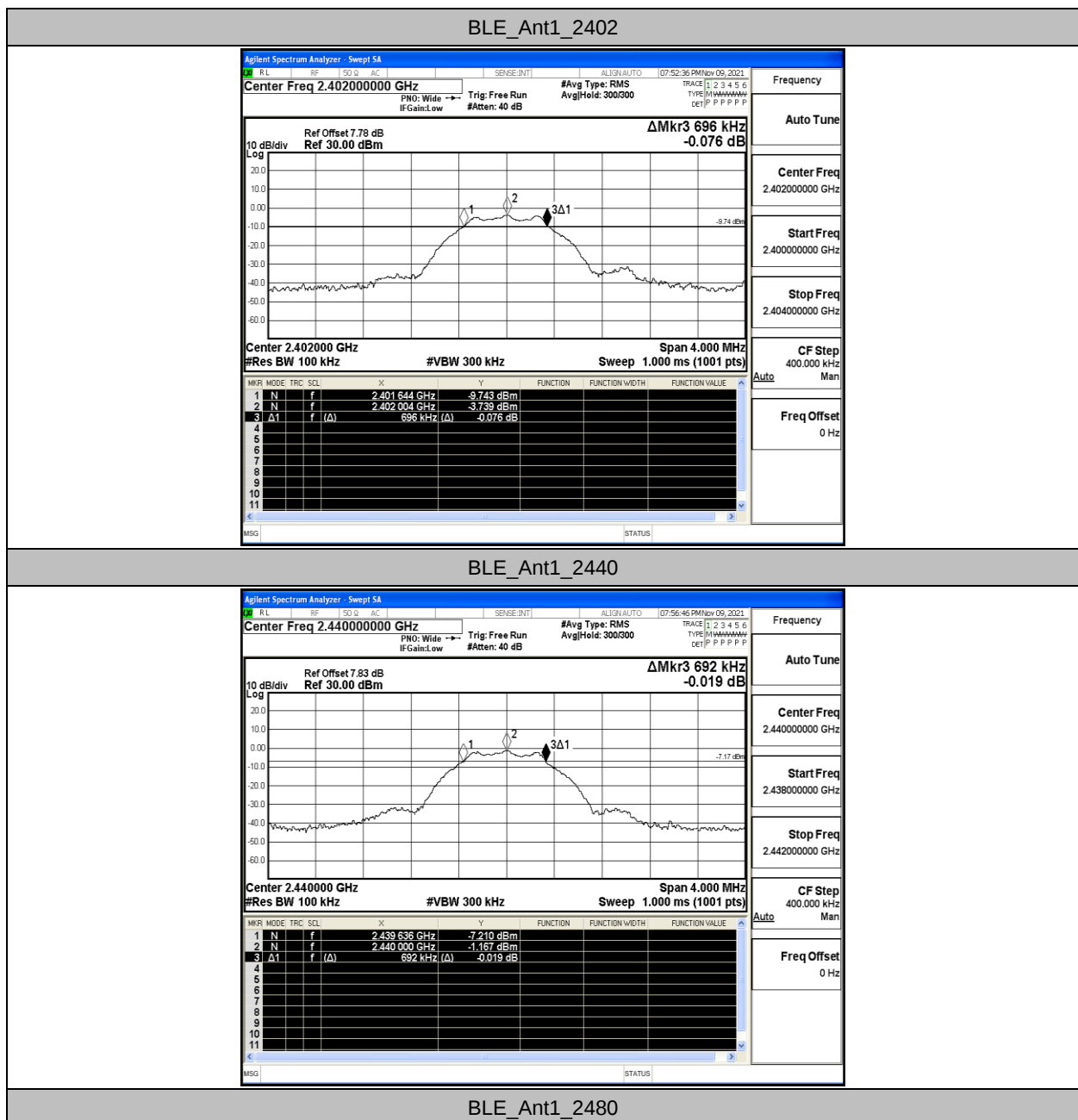


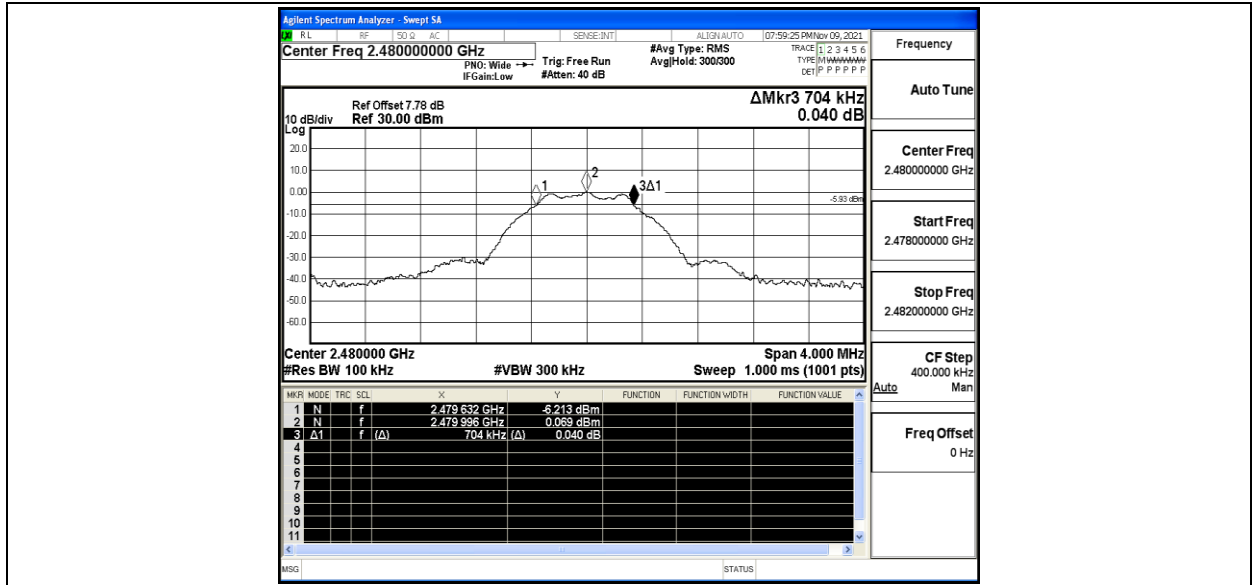
B.1 6dB Bandwidth

Test Result

TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE	Ant1	2402	0.696	2401.644	2402.340	≥0.5	PASS
		2440	0.692	2439.636	2440.328	≥0.5	PASS
		2480	0.704	2479.632	2480.336	≥0.5	PASS

Test Graphs





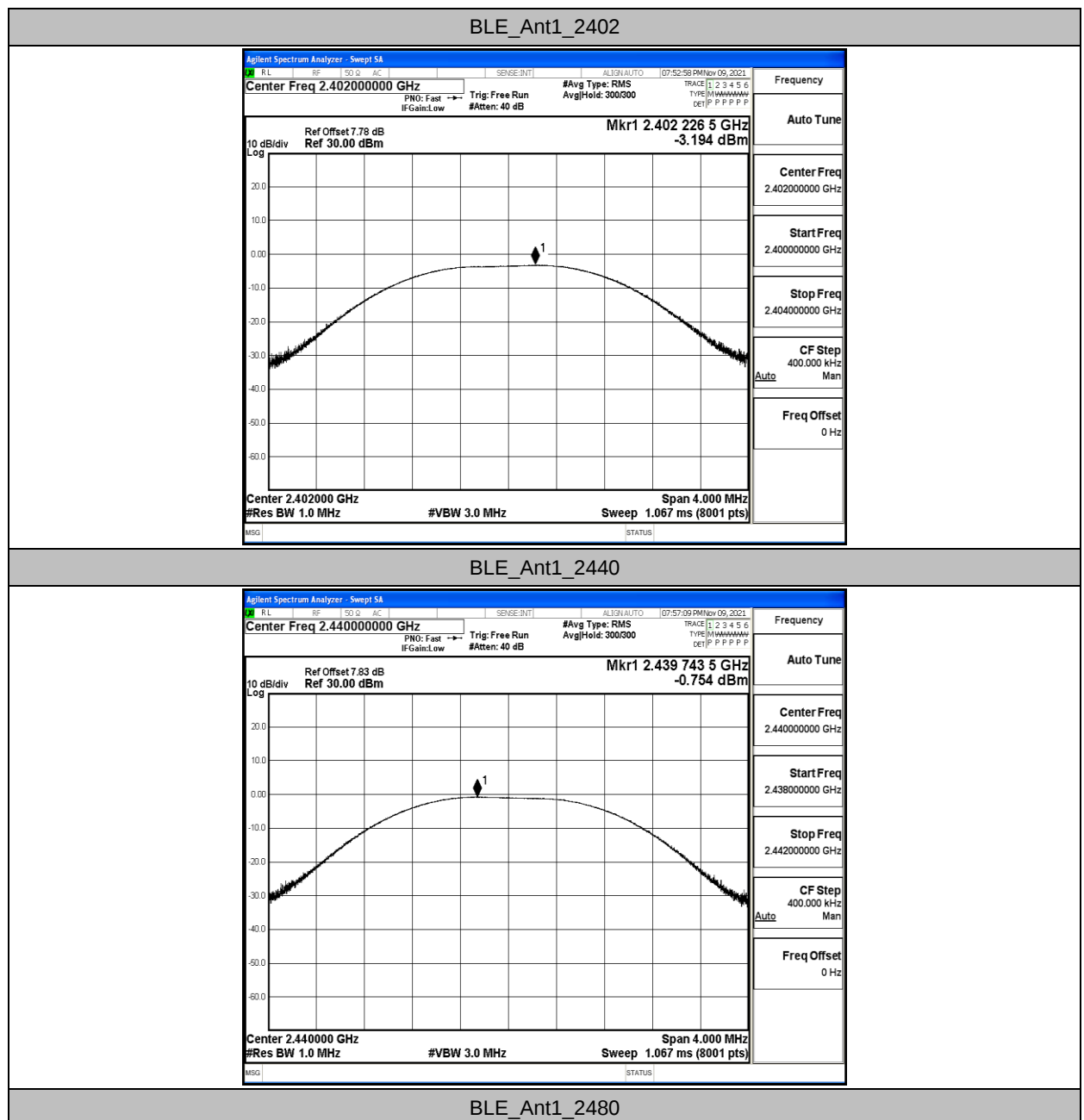


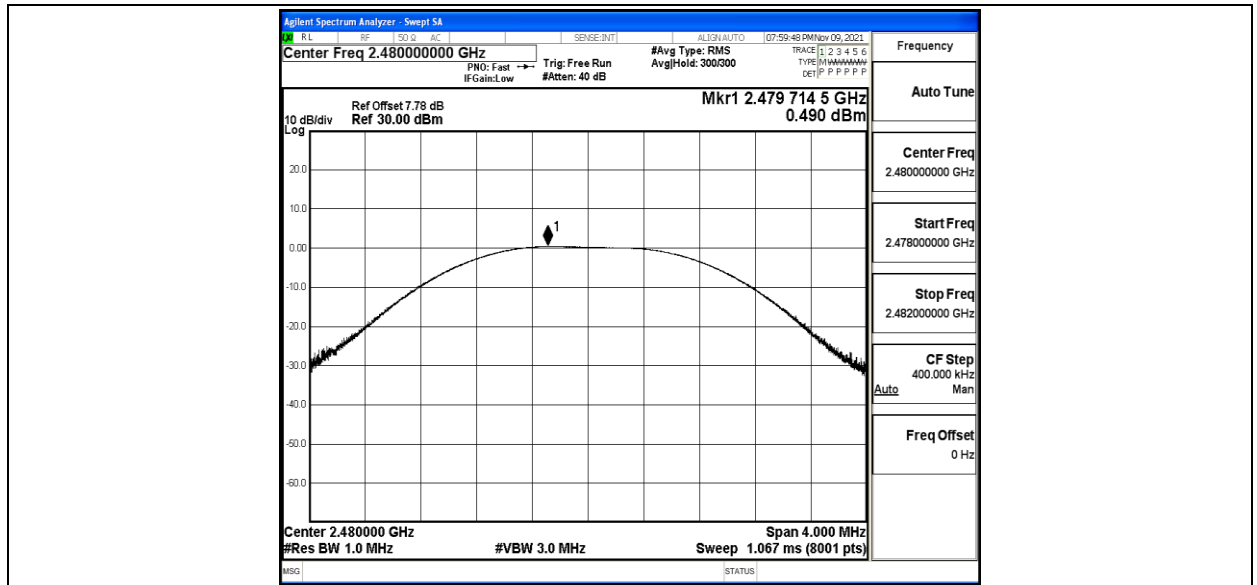
B.2 Maximum conducted output power

Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
BLE	Ant1	2402	-3.19	≤30	PASS
		2440	-0.75	≤30	PASS
		2480	0.49	≤30	PASS

Test Graphs







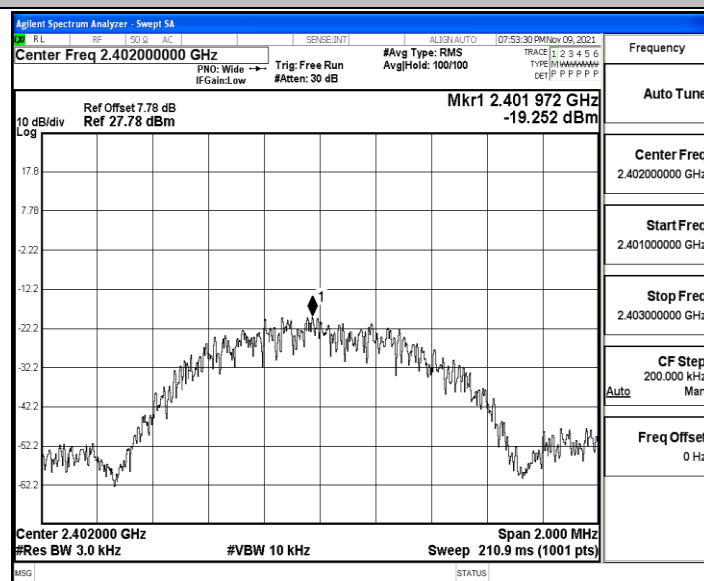
B.3 Maximum power spectral density

Test Result

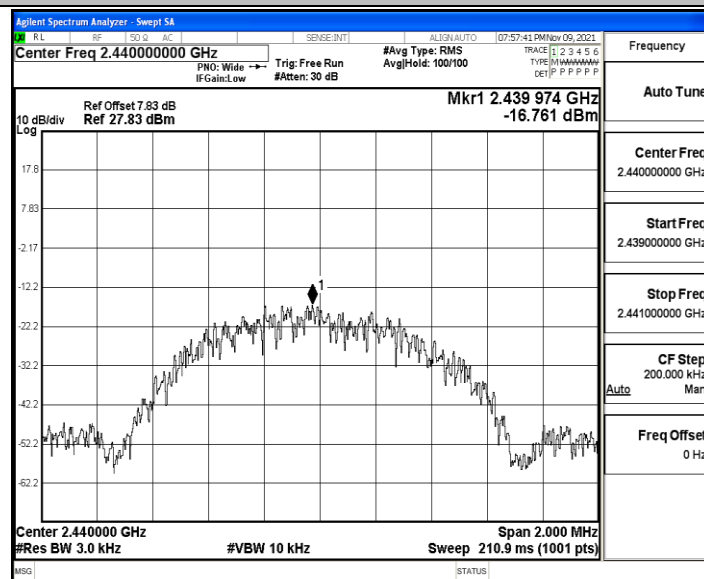
TestMode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
BLE	Ant1	2402	-19.25	≤8	PASS
		2440	-16.76	≤8	PASS
		2480	-15.07	≤8	PASS

Test Graphs

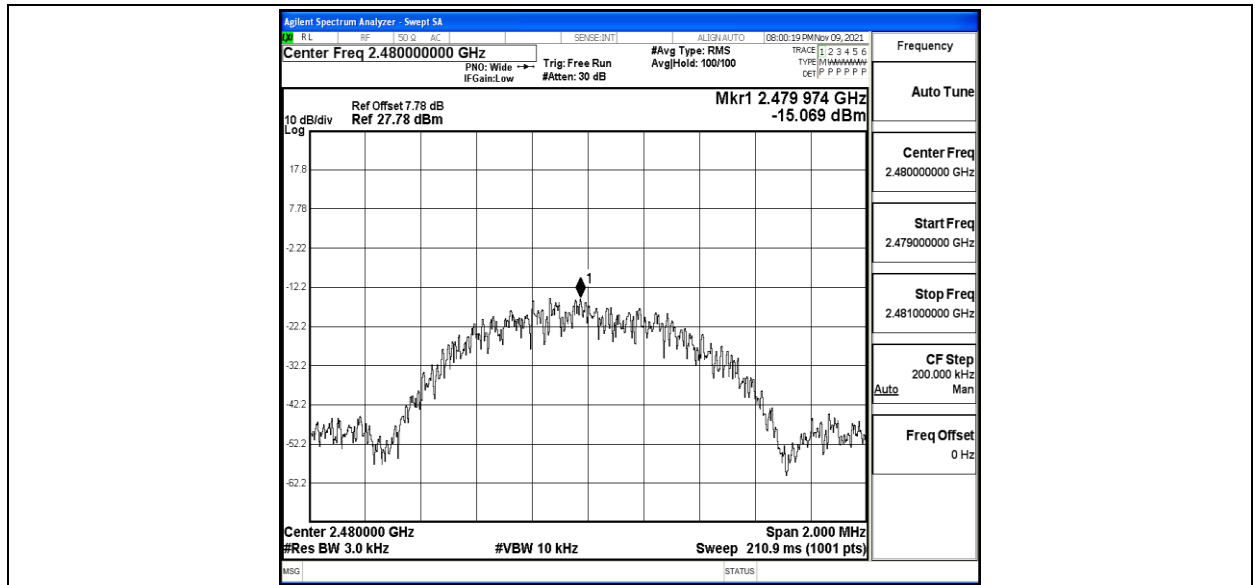
BLE_Ant1_2402



BLE_Ant1_2440



BLE_Ant1_2480



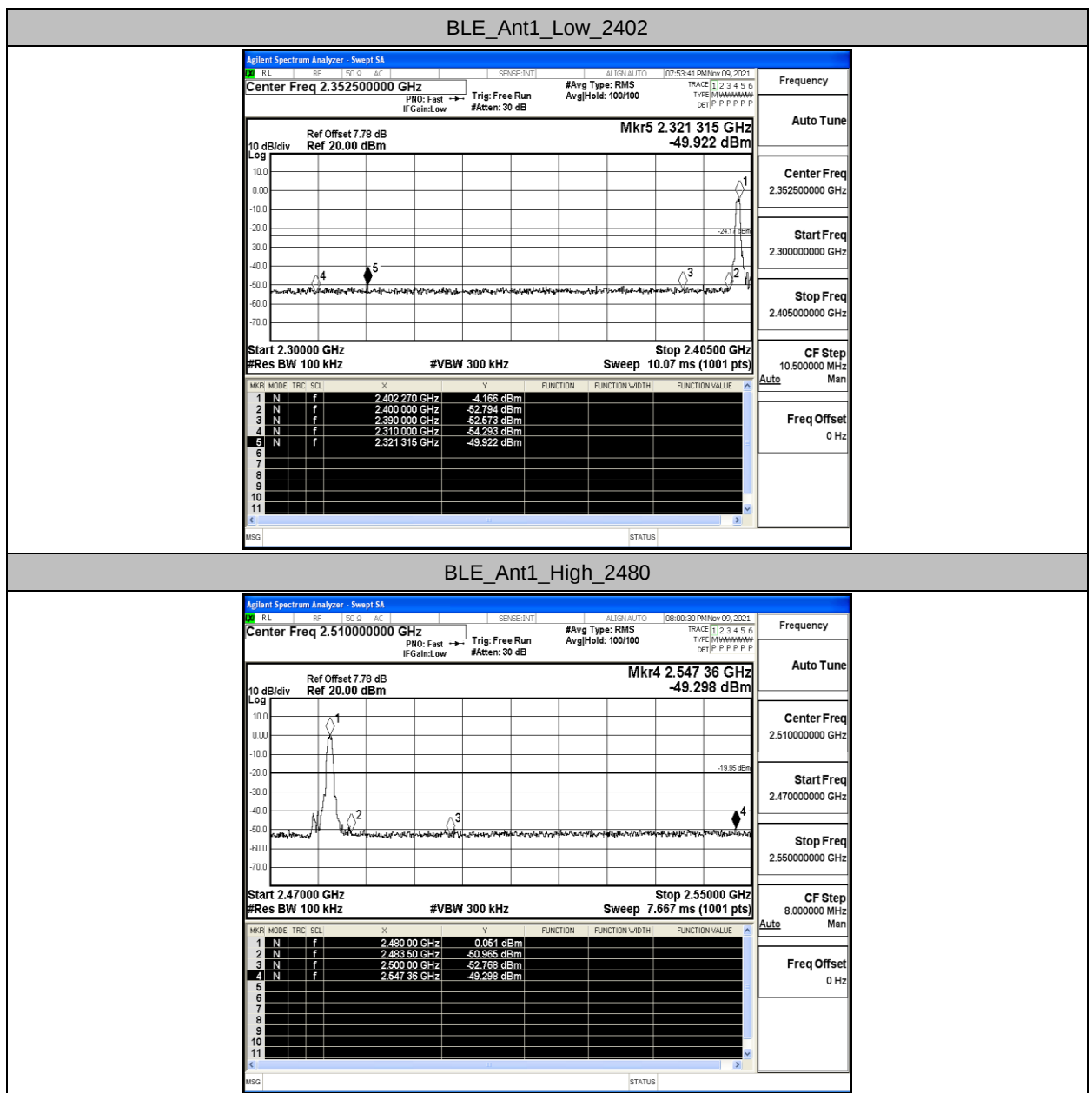


B.4 Band edge measurements

Test Result

TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE	Ant1	Low	2402	-4.17	-49.92	≤-24.17	PASS
		High	2480	0.05	-49.3	≤-19.95	PASS

Test Graphs



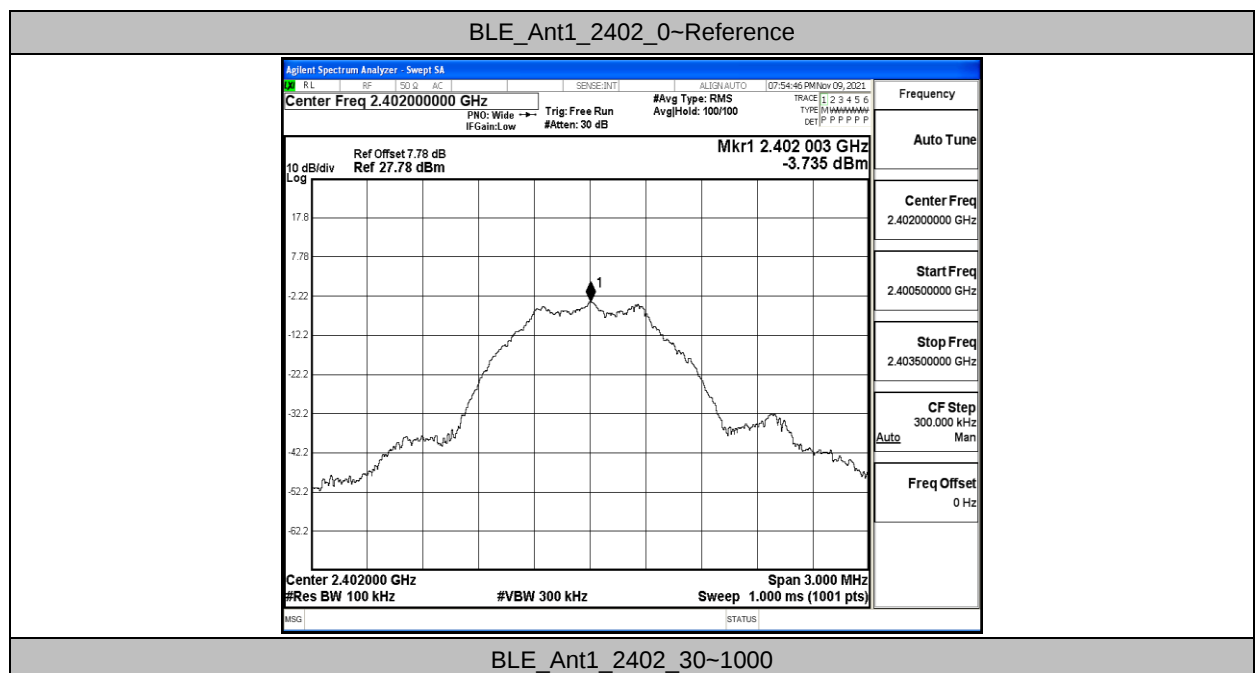


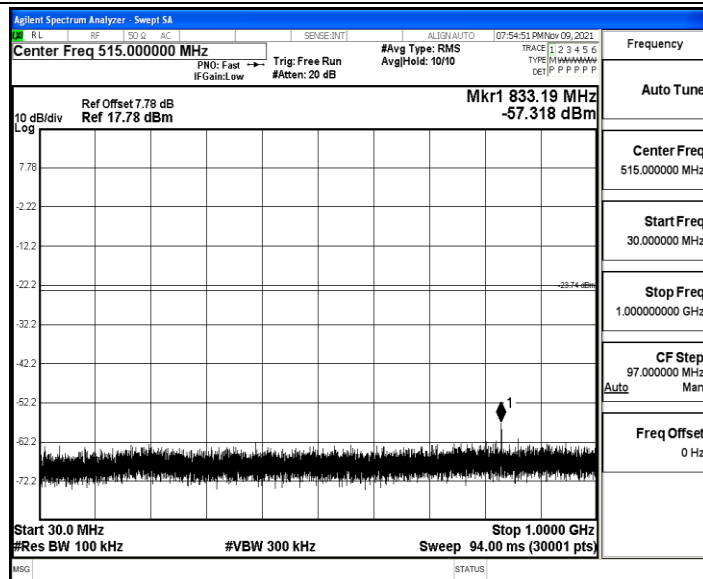
B.5 Conducted Spurious Emission

Test Result

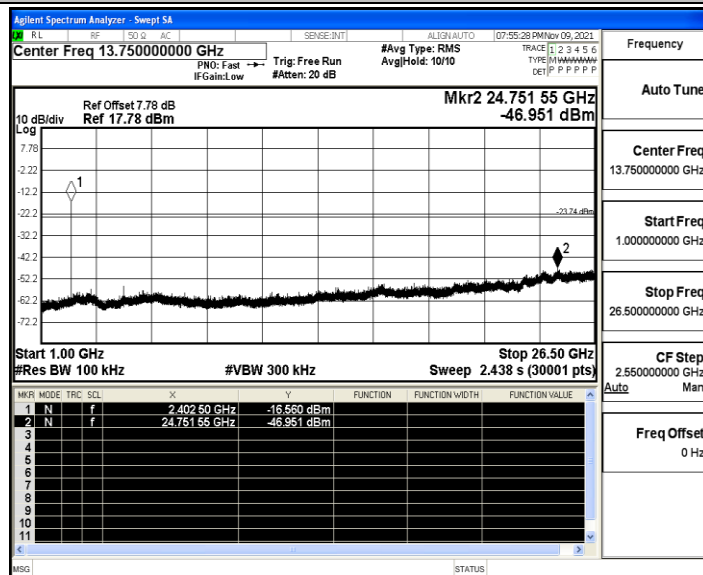
TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE	Ant1	2402	Reference	-3.74	-3.74	---	PASS
			30~1000	-3.74	-57.32	≤-23.74	PASS
			1000~26500	-3.74	-46.95	≤-23.74	PASS
		2440	Reference	-1.70	-1.70	---	PASS
			30~1000	-1.70	-51.66	≤-21.7	PASS
			1000~26500	-1.70	-47.04	≤-21.7	PASS
		2480	Reference	-0.43	-0.43	---	PASS
			30~1000	-0.43	-57.22	≤-20.43	PASS
			1000~26500	-0.43	-47.47	≤-20.43	PASS

Test Graphs

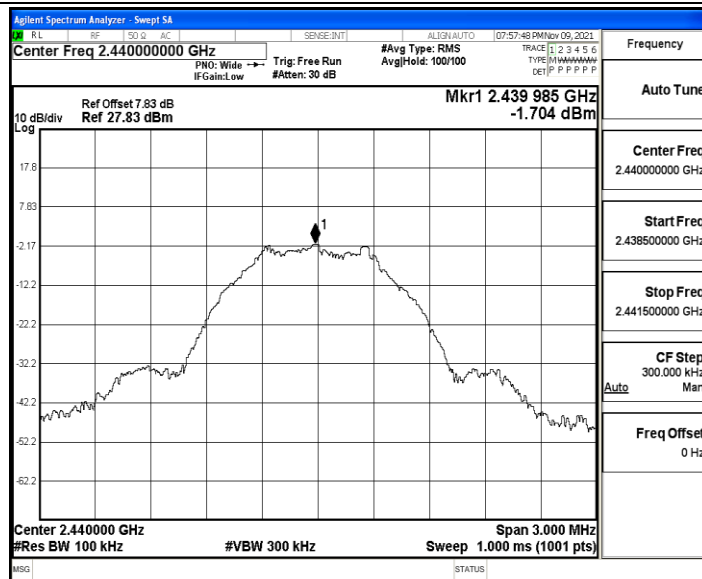




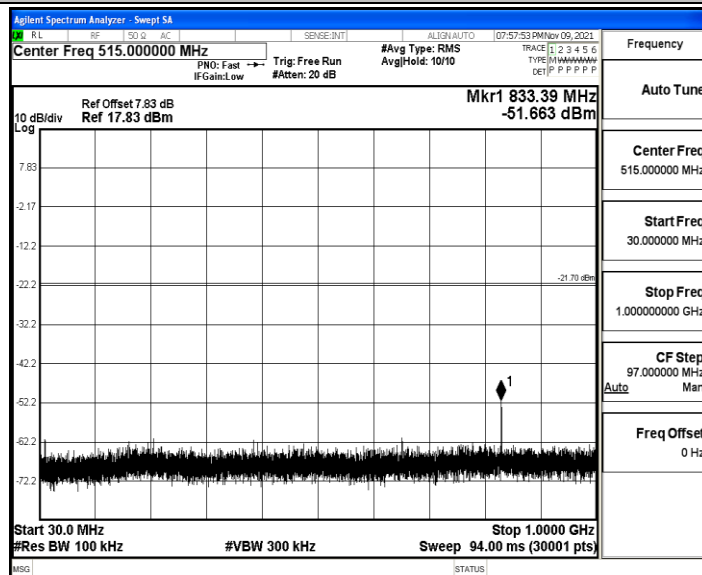
BLE_Ant1_2402_1000-26500



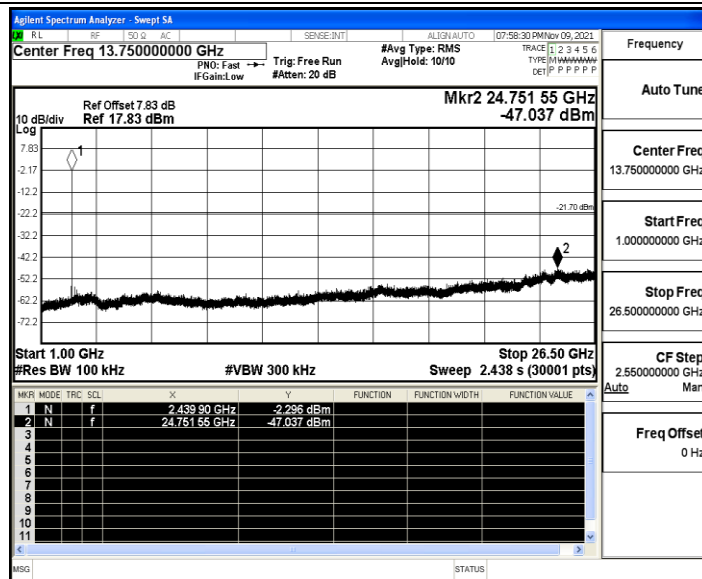
BLE_Ant1_2440_0-Reference



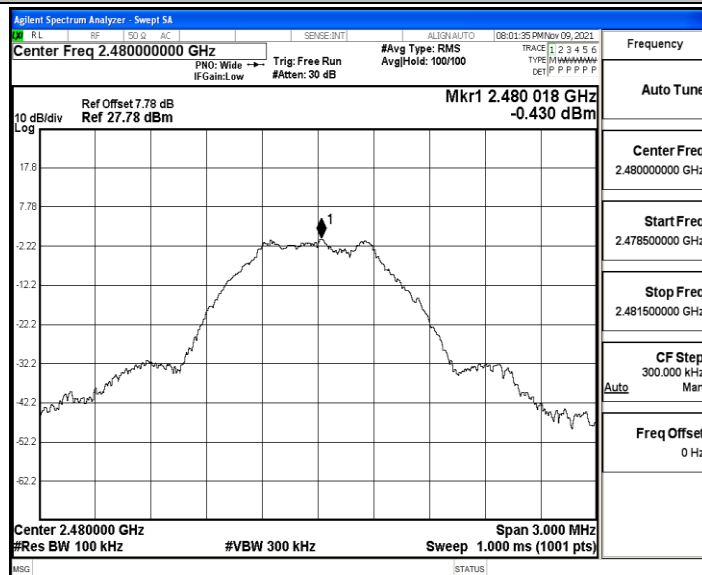
BLE_Ant1_2440_30~1000



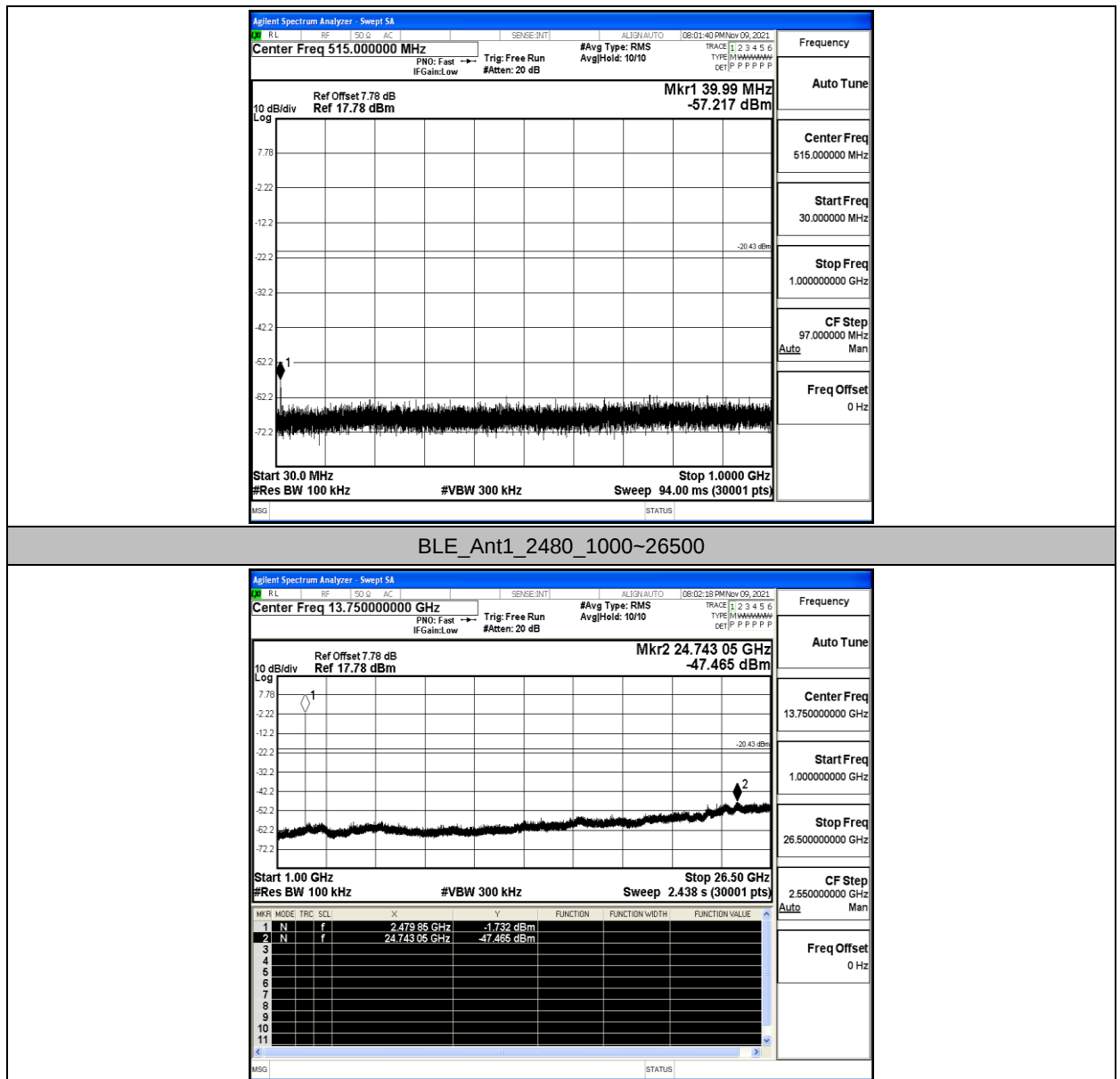
BLE_Ant1_2440_1000~26500



BLE_Ant1_2480_0~Reference



BLE_Ant1_2480_30~1000



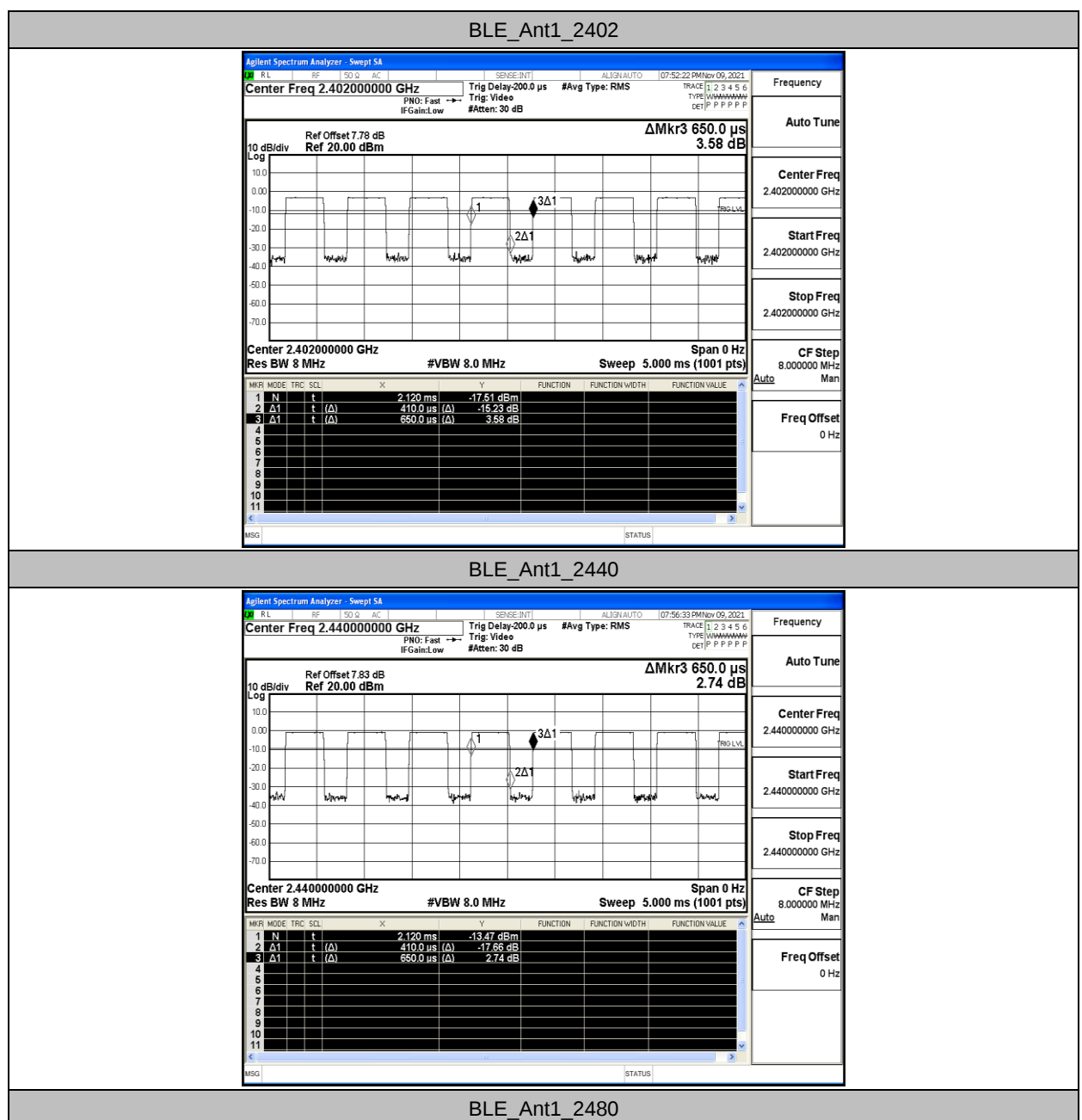


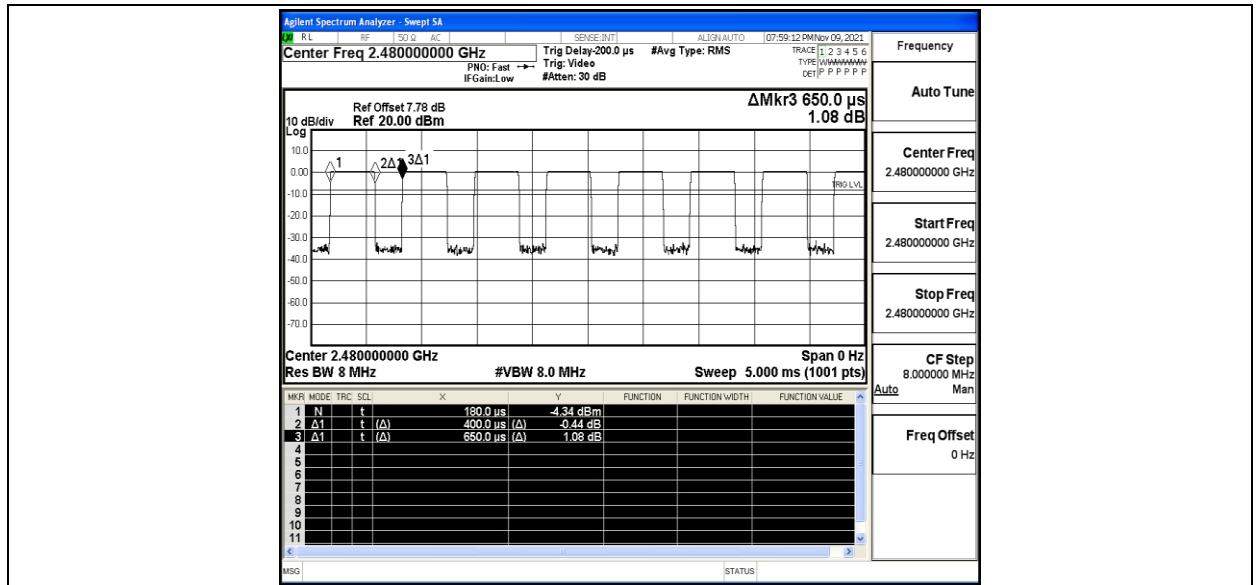
B.6 Duty Cycle

Test Result

TestMode	Antenna	Channel	ON Time [ms]	Period [ms]	X	DC [%]	xFactor	Limit	Verdict
BLE	Ant1	2402	0.41	0.65	0.6308	63.08	2.00	---	PASS
		2440	0.41	0.65	0.6308	63.08	2.00	---	PASS
		2480	0.40	0.65	0.6154	61.54	2.11	---	PASS

Test Graphs







B.7 Emissions in Restricted Bands

Test Result

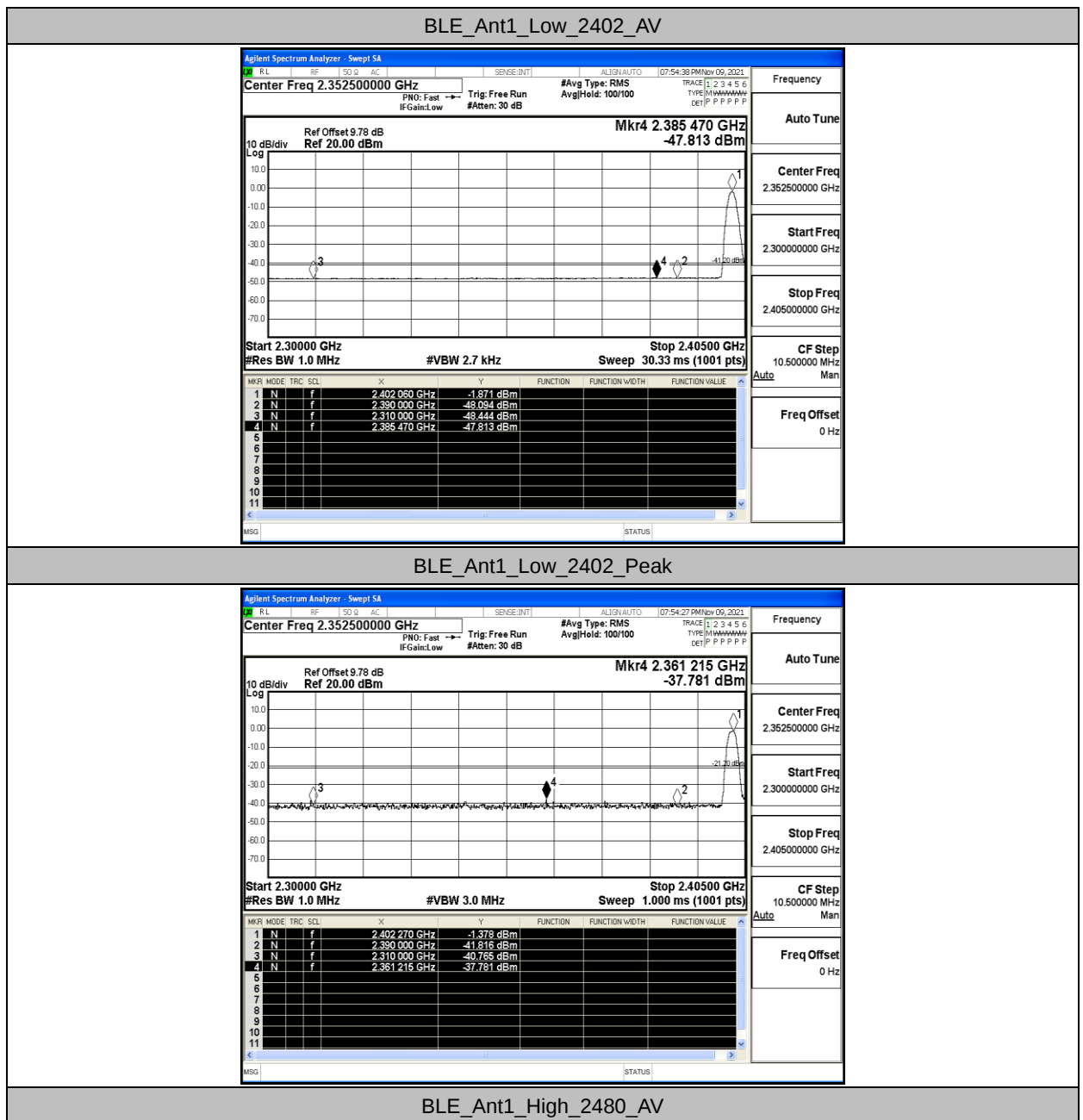
TestMode	Antenna	ChName	Channel	Detector	Freq. [MHz]	Result [dBm]	Limit [dBm]	Result [dBuV/m]	Limit [dBuV/m]	Verdict
BLE	Ant1	Low	2402	AV	2310.000	-48.44	≤-41.20	46.76	≤54	PASS
				AV	2385.470	-47.81	≤-41.20	47.39	≤54	PASS
				AV	2390.000	-48.09	≤-41.20	47.11	≤54	PASS
				Peak	2310.000	-40.77	≤-21.20	54.43	≤74	PASS
				Peak	2361.215	-37.78	≤-21.20	57.42	≤74	PASS
				Peak	2390.000	-41.82	≤-21.20	53.38	≤74	PASS
		High	2480	AV	2483.500	-46.28	≤-41.20	48.92	≤54	PASS
				AV	2483.520	-46.28	≤-41.20	48.92	≤54	PASS
				AV	2500.000	-47.48	≤-41.20	47.72	≤54	PASS
				Peak	2483.500	-40.13	≤-21.20	55.07	≤74	PASS
				Peak	2483.600	-39.01	≤-21.20	56.19	≤74	PASS
				Peak	2500.000	-40.82	≤-21.20	54.38	≤74	PASS

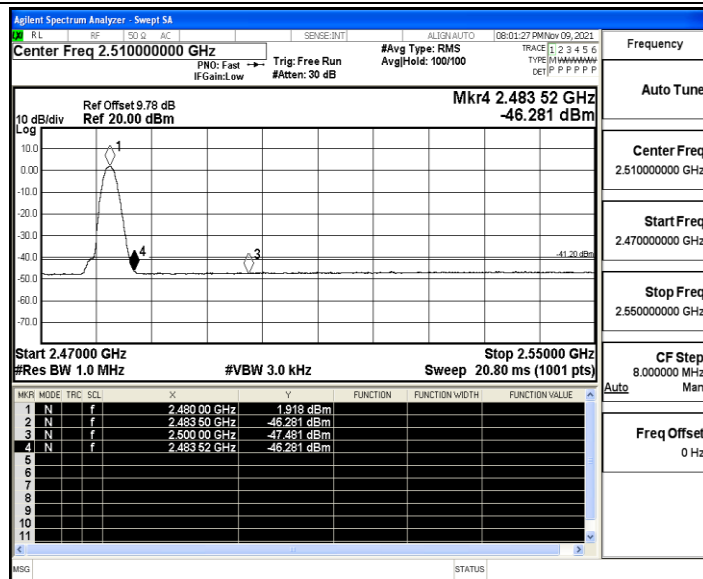
Note:

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_Ant1_High_2480_Peak

