

Appendix A

RF Test Data for BT(BLE) (Conducted Measurement)

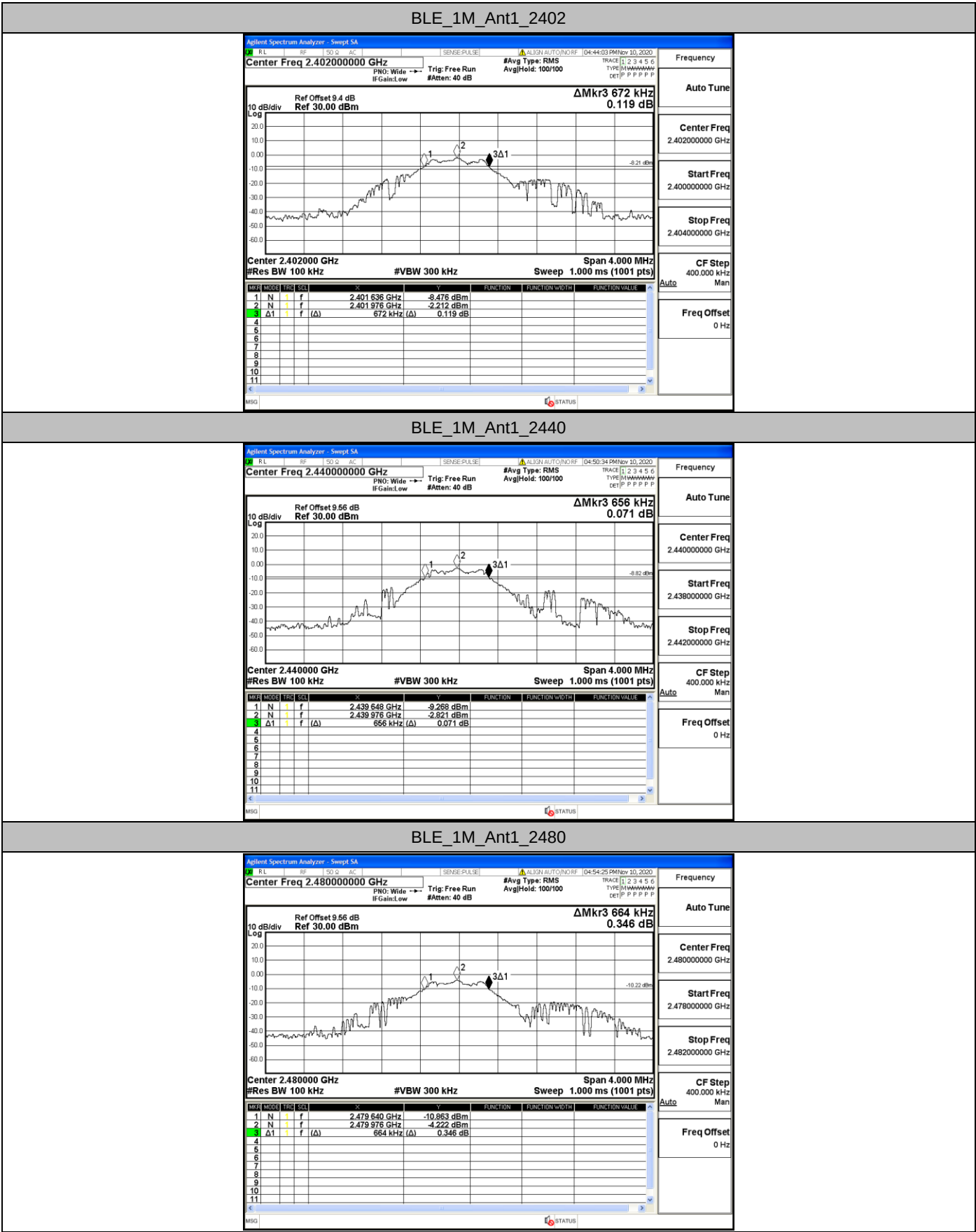
Product Name: Smart Key
Trade Mark: Brilliant Guard
Test Model: BGMK6338
FCC ID: 2AYAP-BGMK6338

Environmental Conditions

Temperature:	22.8° C
Relative Humidity:	60%
ATM Pressure:	100.0 kPa
Test Engineer:	Nancy Li
Supervised by:	Hugo Chen
NOTE	N/A

A.1. 6dB Bandwidth

TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.672	2401.636	2402.308	0.5	PASS
		2440	0.656	2439.648	2440.304	0.5	PASS
		2480	0.664	2479.640	2480.304	0.5	PASS

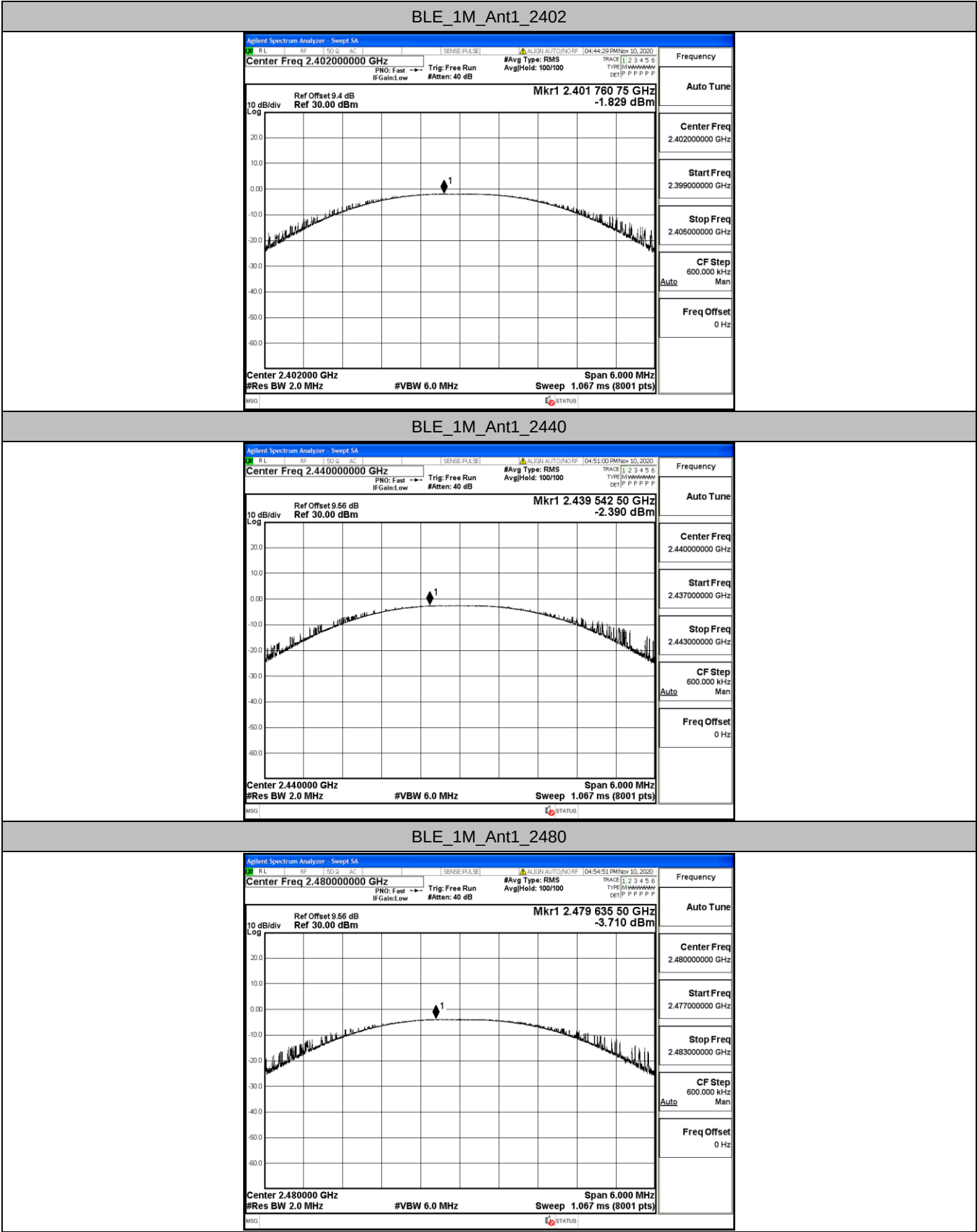


A.2. Occupied Bandwidth

Test Mode	Test Channel	Ant	OBW[MHz]	Limit[MHz]	Verdict
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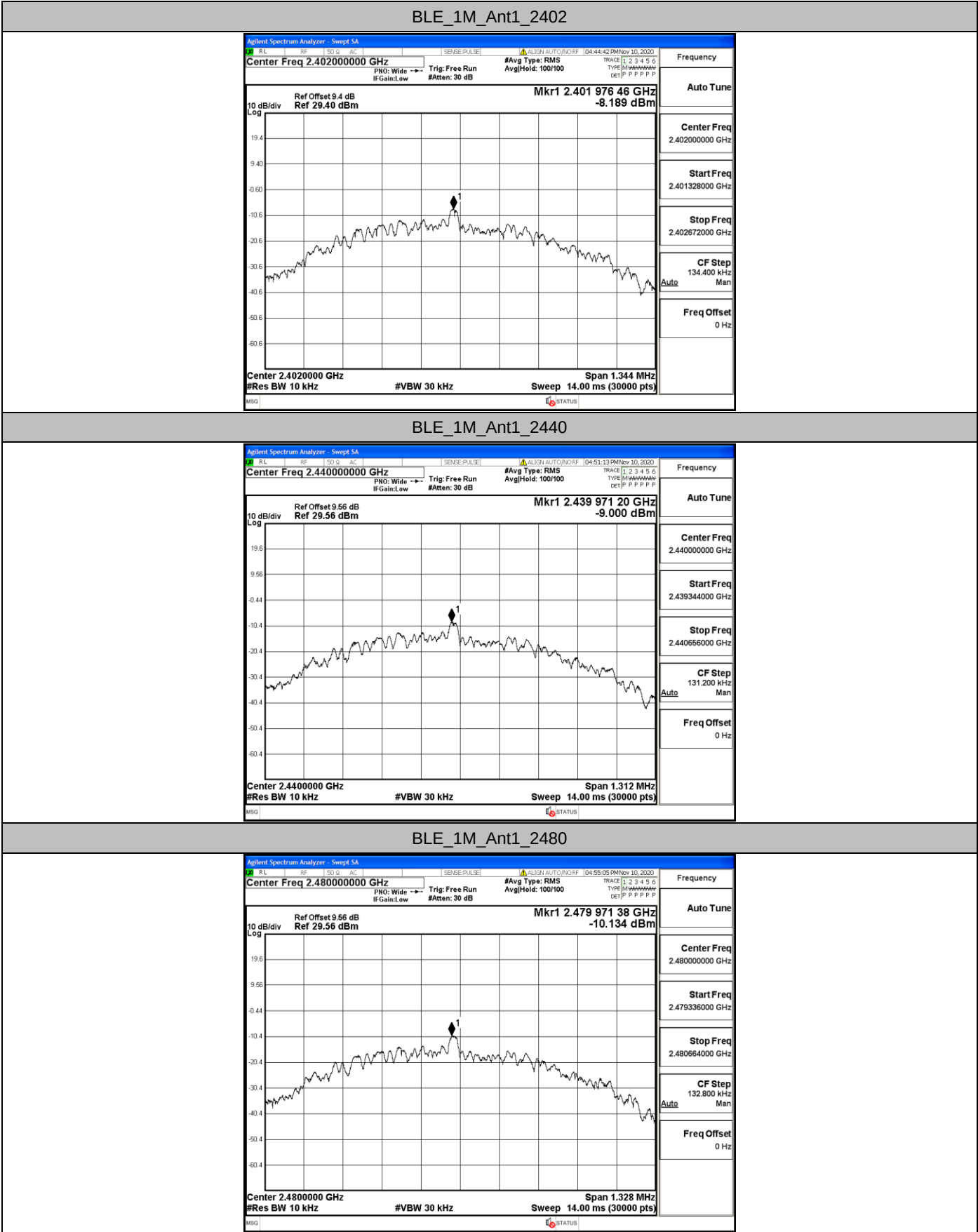
A.3. Maximum peak conducted output power

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	-1.83	<=30	PASS
		2440	-2.39	<=30	PASS
		2480	-3.71	<=30	PASS



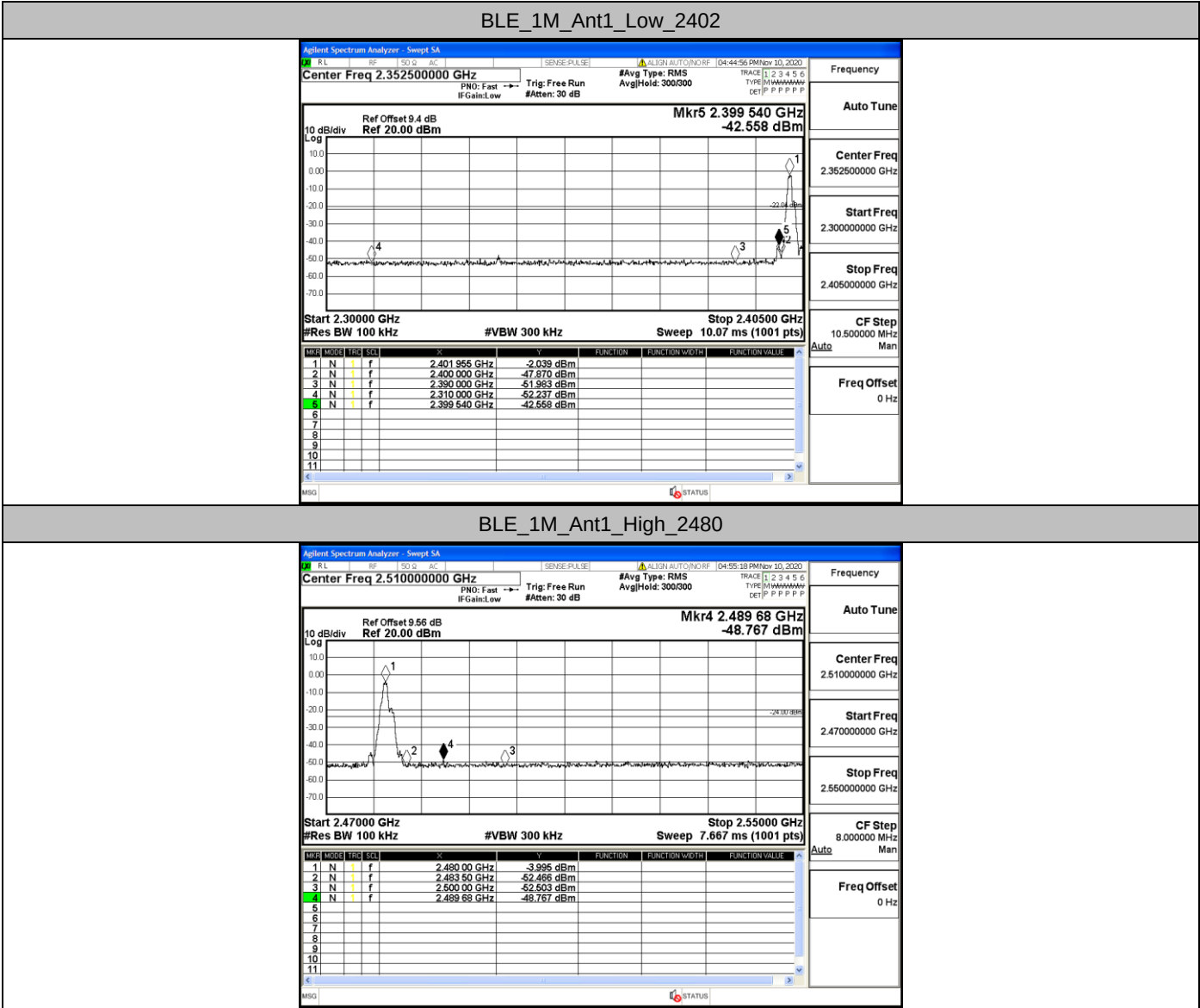
A.4. Maximum Peak power spectral density

TestMode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-8.19	<=8	PASS
		2440	-9.00	<=8	PASS
		2480	-10.13	<=8	PASS



A.5. Band-edge for RF Conducted Emissions

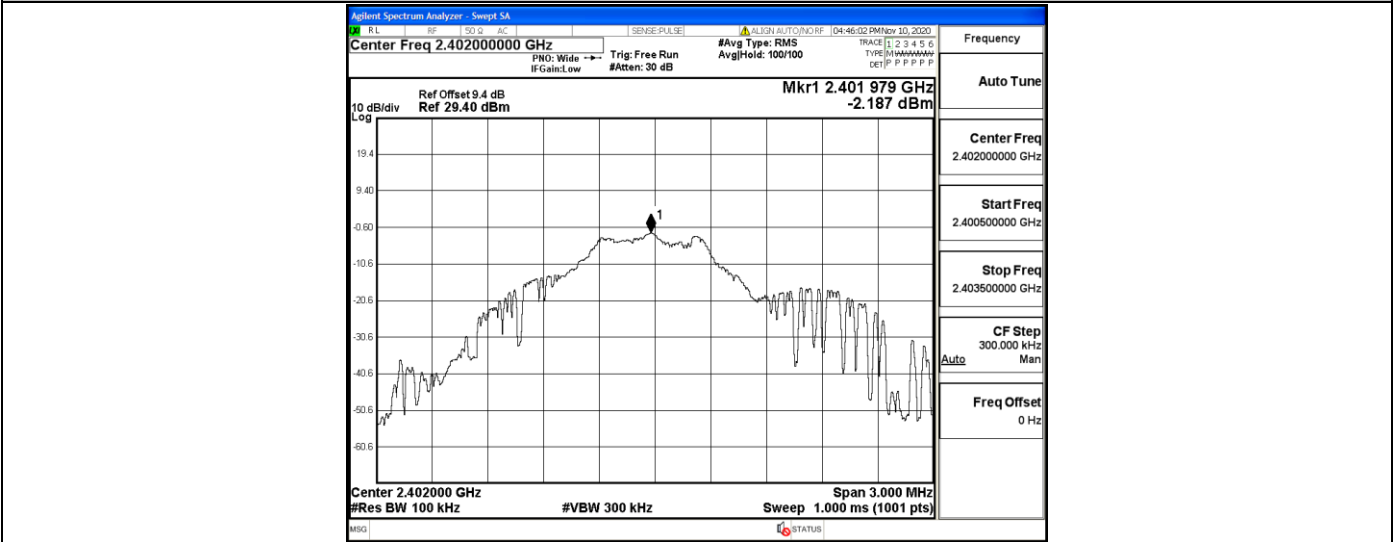
TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	-2.04	-42.56	<=-22.04	PASS
		High	2480	-4.00	-48.77	<=-24	PASS



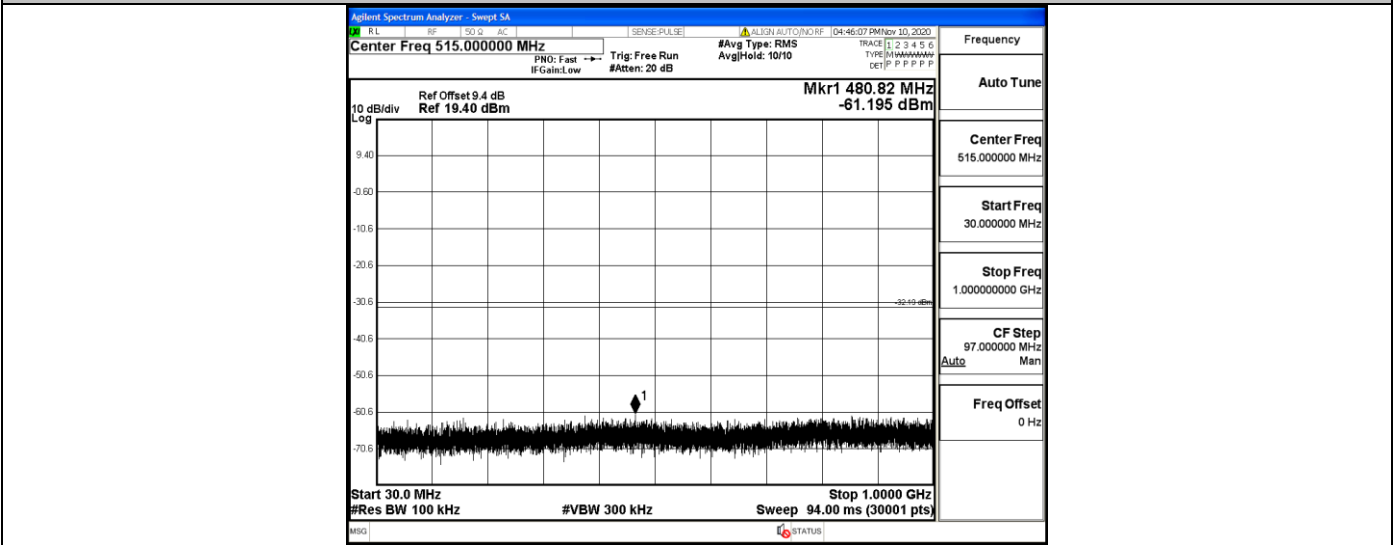
A.6. RF Conducted Spurious Emissions

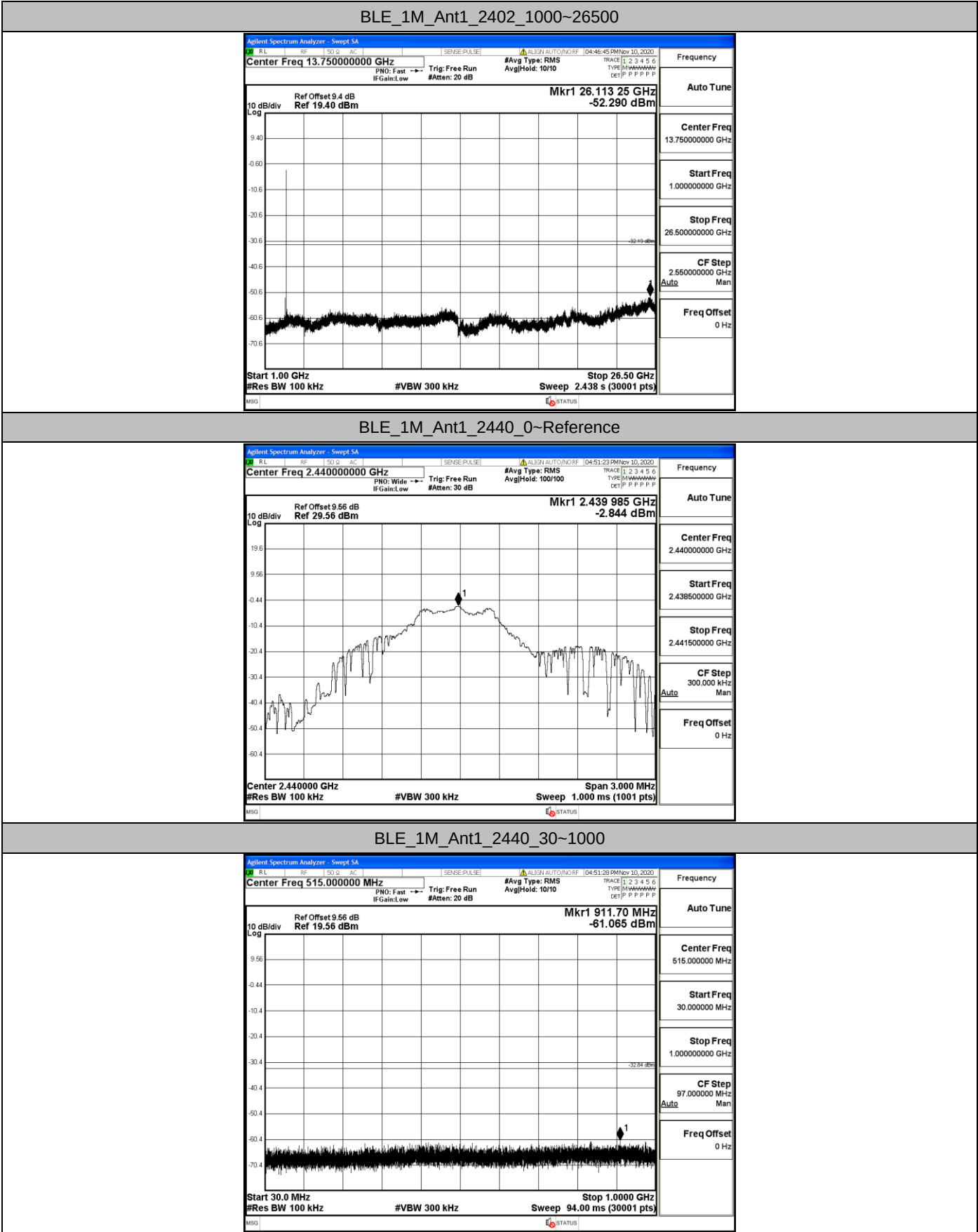
TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	-2.19	-2.19	---	PASS
			30~1000	30~1000	-61.195	<=-20	PASS
			1000~26500	1000~26500	-52.29	<=-20	PASS
		2440	Reference	-2.84	-2.84	---	PASS
			30~1000	30~1000	-61.065	<=-20	PASS
			1000~26500	1000~26500	-51.294	<=-20	PASS
		2480	Reference	-4.64	-4.64	---	PASS
			30~1000	30~1000	-60.242	<=-20	PASS
			1000~26500	1000~26500	-51.311	<=-20	PASS

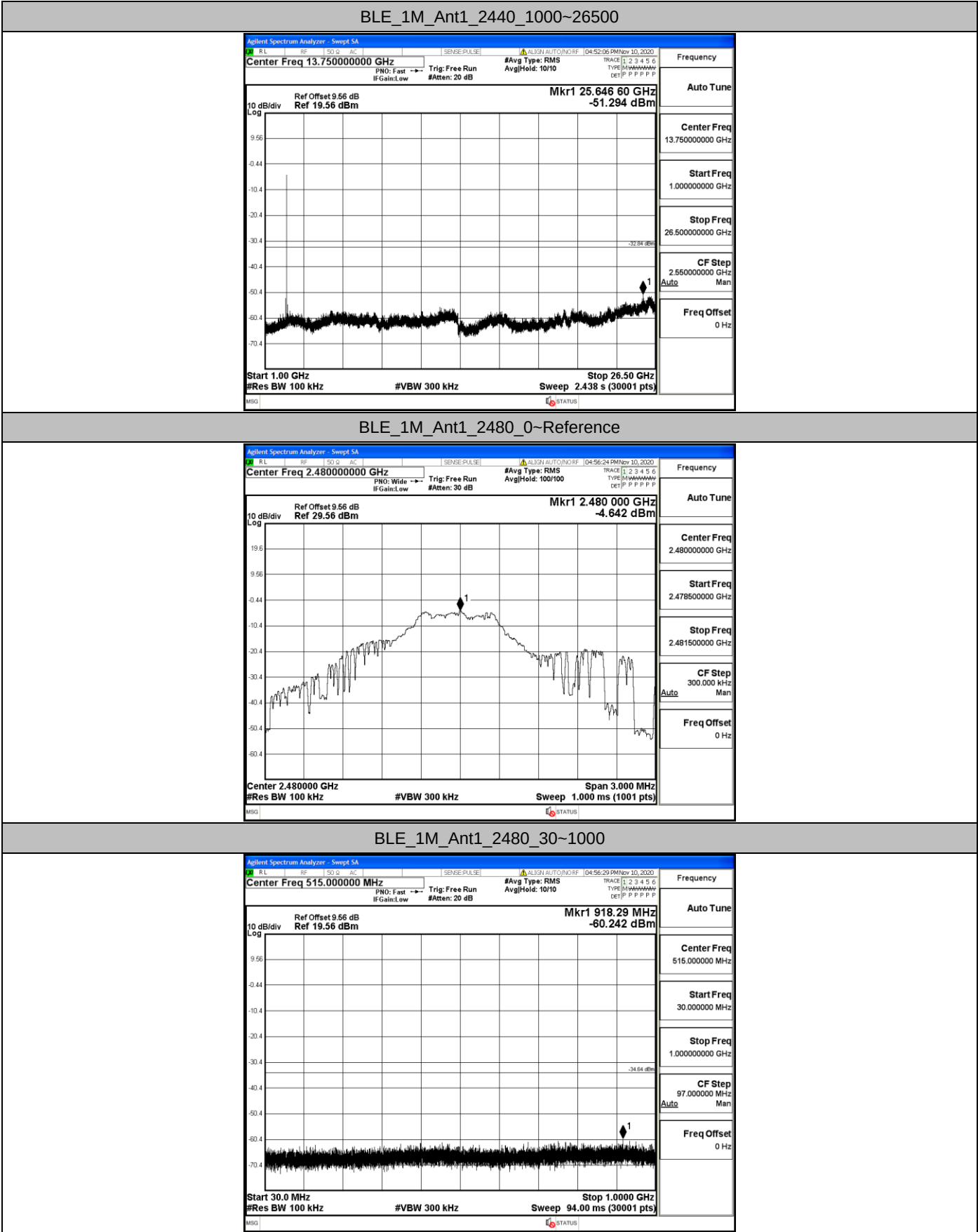
BLE_1M_Ant1_2402_0~Reference

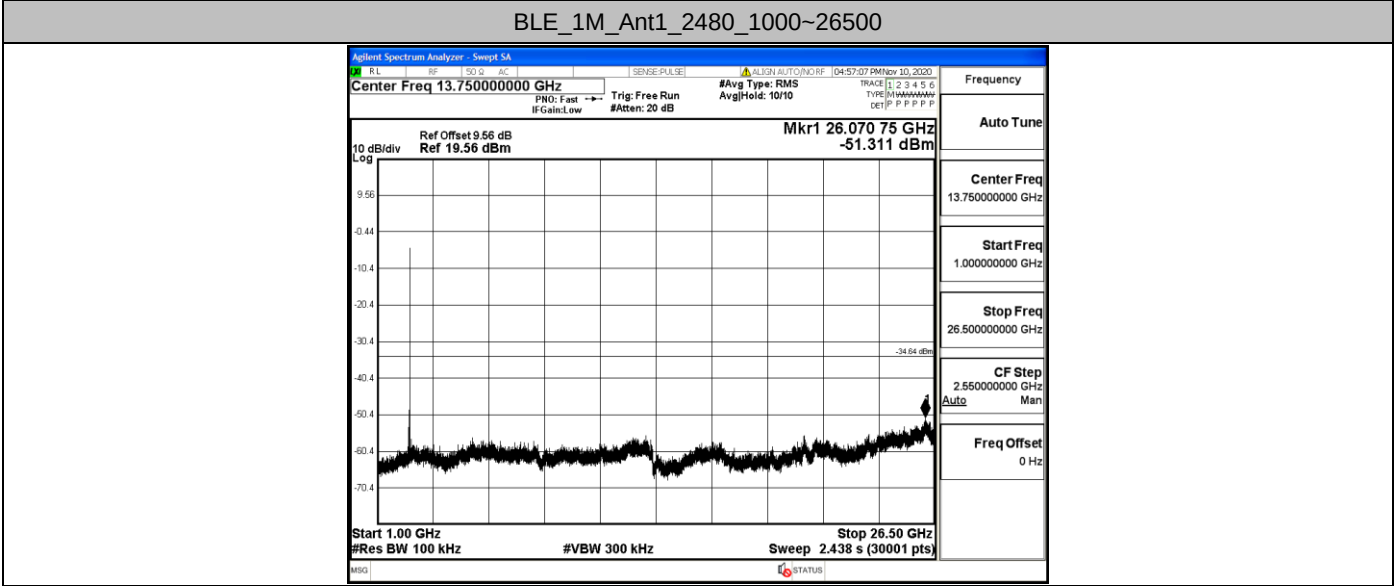


BLE_1M_Ant1_2402_30~1000



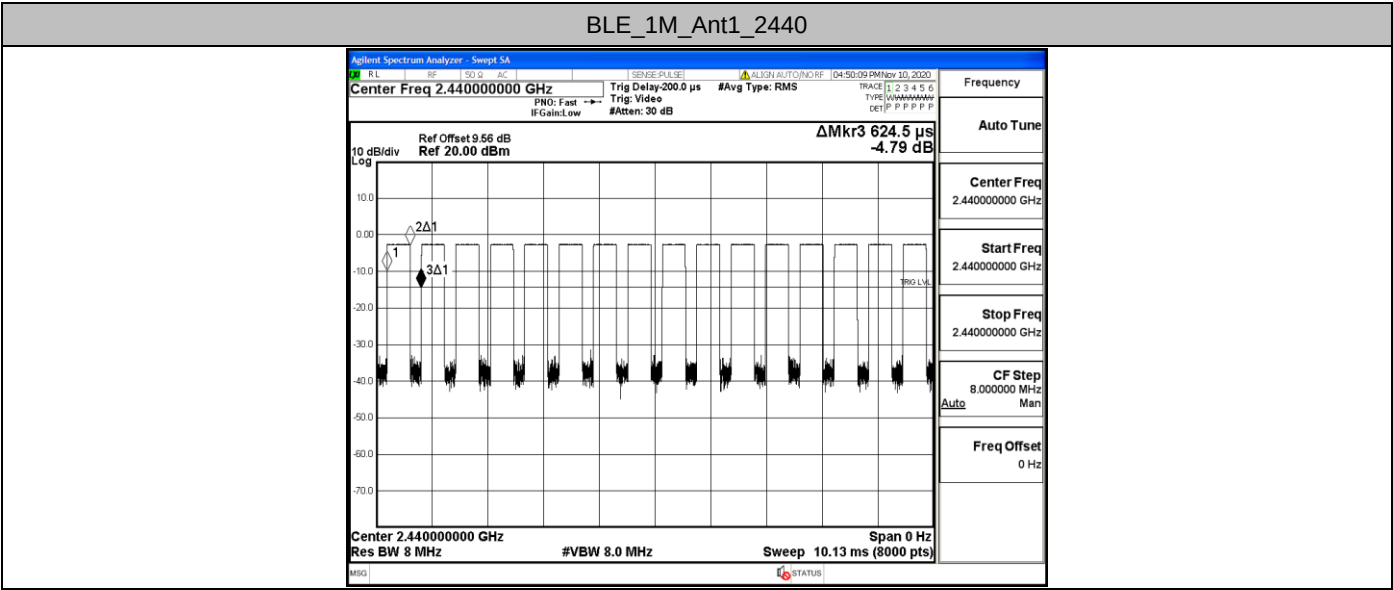






A.7. Duty Cycle

TestMode	Antenna	Channel	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]
BLE_1M	Ant1	2440	0.42	0.62	66.94



A.8. Restrict-band band-edge measurements

TestMode	Antenna	ChName	Channel	Detector	Freq. [MHz]	Result [dBm]	Limit [dBm]	Verdict
BLE_1M	Ant1	Low	2402	AV	2310.000	-48.56	<=-41.20	PASS
				AV	2390.000	-47.88	<=-41.20	PASS
				Peak	2310.000	-40.67	<=-21.20	PASS
				Peak	2390.000	-41.65	<=-21.20	PASS
		High	2480	AV	2483.500	-46.47	<=-41.20	PASS
				AV	2500.000	-47.55	<=-41.20	PASS
				Peak	2483.500	-39.30	<=-21.20	PASS
				Peak	2500.000	-40.32	<=-21.20	PASS

1. The Antenna Gain is compensated in the graph with 2dBi and Antenna Gain which is Higher.
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.

