

Appendix A

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

Product Name: EM PAD

Trade Mark: iScribe

Test Model: iScribe wifi

FCC ID: 2AX4O-T9W

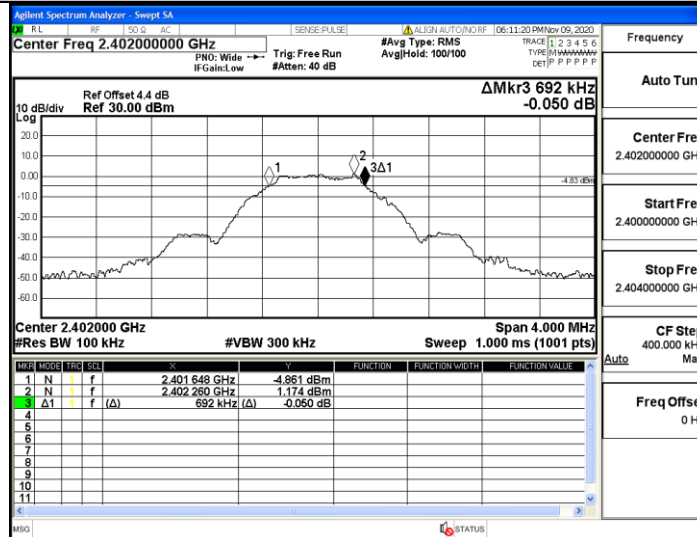
Environmental Conditions

Temperature:	23.8℃
Relative Humidity:	58%
ATM Pressure:	100.0 kPa
Test Engineer:	Anna Hu
Supervised by:	Hugo Chen
NOTE	N/A

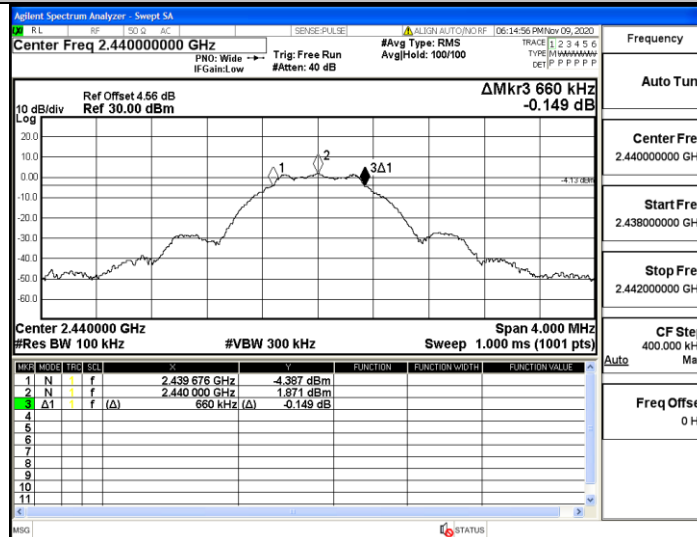
A.1. 6dB Bandwidth

TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.692	2401.648	2402.340	0.5	PASS
		2440	0.660	2439.676	2440.336	0.5	PASS
		2480	0.668	2479.664	2480.332	0.5	PASS

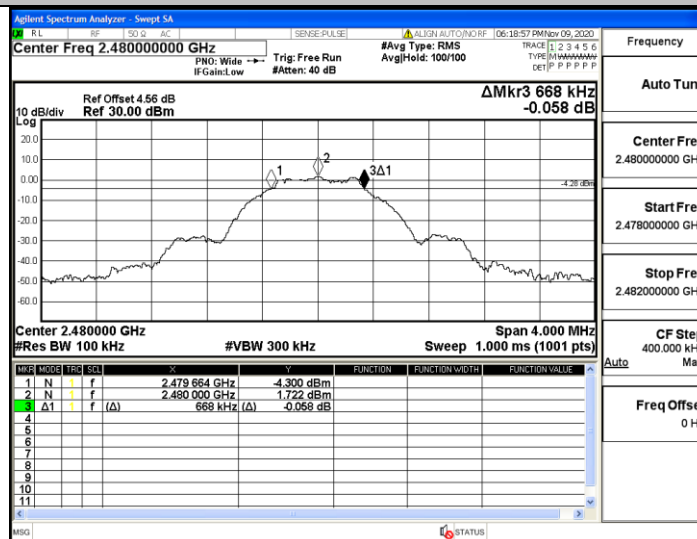
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480



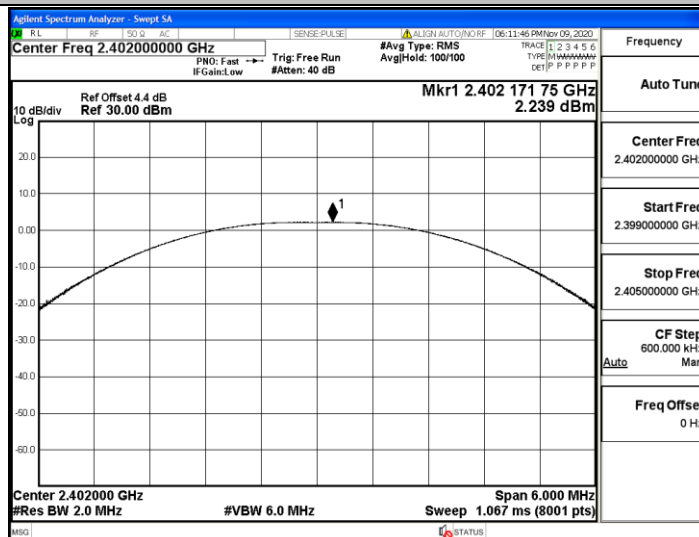
A.2. Occupied Bandwidth

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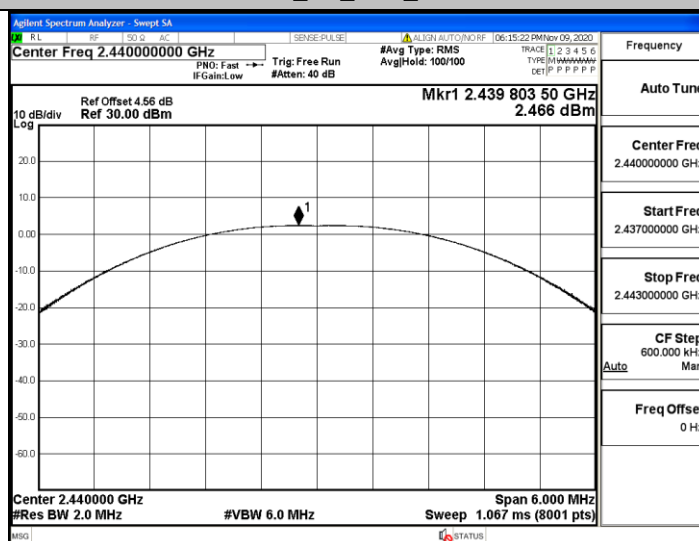
A.3. Maximum peak conducted output power

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	2.24	<=30	PASS
		2440	2.47	<=30	PASS
		2480	2.32	<=30	PASS

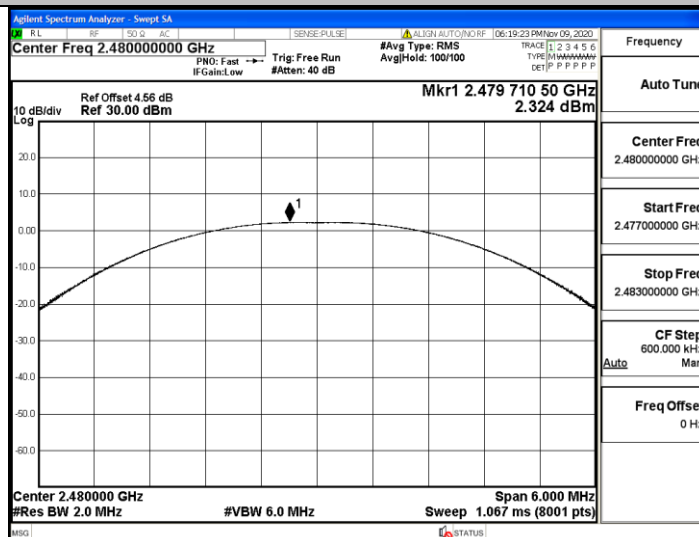
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480



A.4. Maximum Peak power spectral density

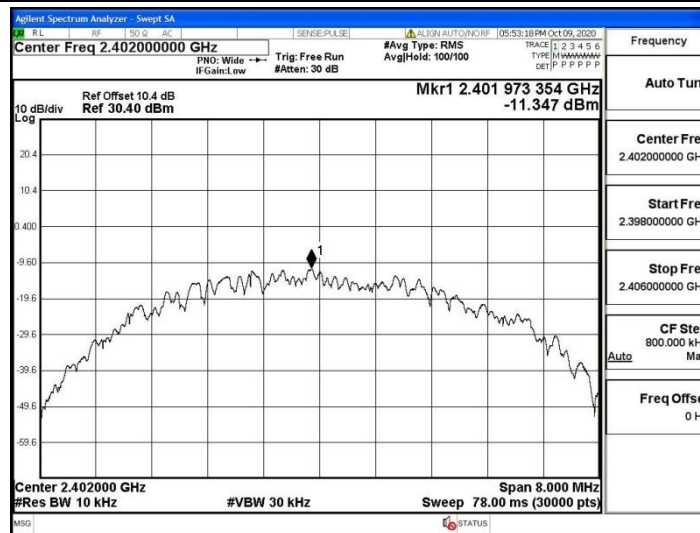
Test Mode	Ant	Test	PSD[dBm/10KHz]	Converter Factor [dB]	PSD[dBm/3KHz]	Limit[dBm/3KHz]	Verdict
BLE(1Mbps)	Ant1	2402	-7.97	5.23	-13.2	8.00	PASS
		2440	-7.53	5.23	-12.76	8.00	PASS
		2480	-7.63	5.23	-12.86	8.00	PASS

Note:

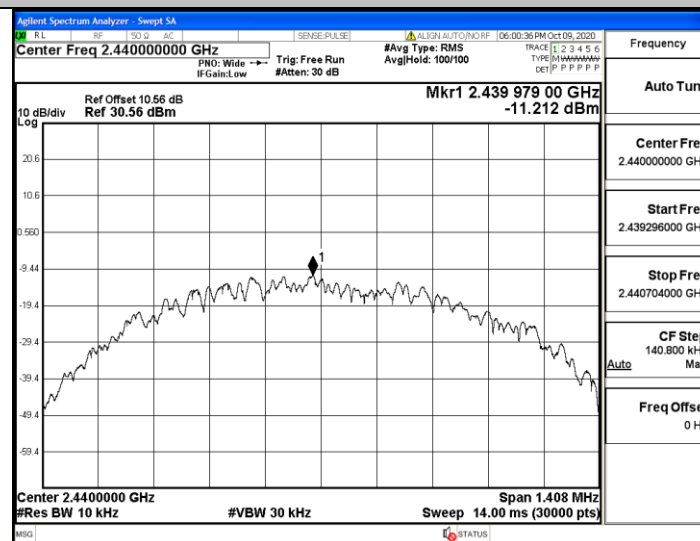
1, Converter factor = $10 * \lg(\text{RBW}/3 \text{ kHz}) = 5.23 \text{ (dB)}$

2, $\text{PSD[dBm/3KHz]} = \text{PSD[dBm/10KHz]} - \text{Converter Factor}$

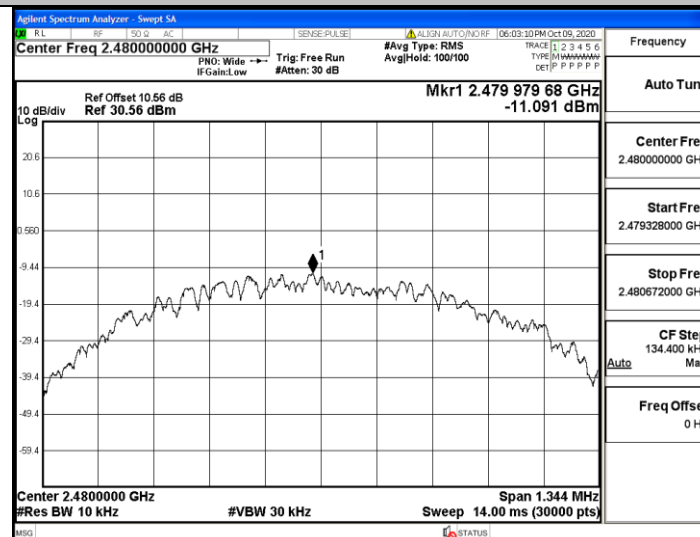
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



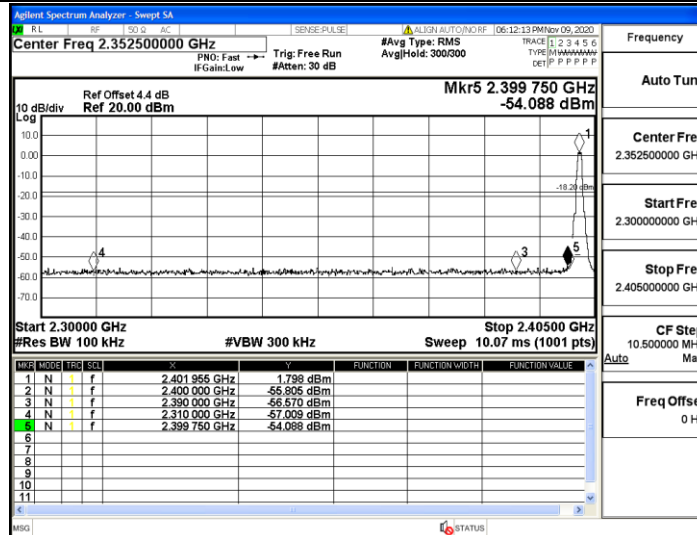
BLE_1M_Ant1_2480



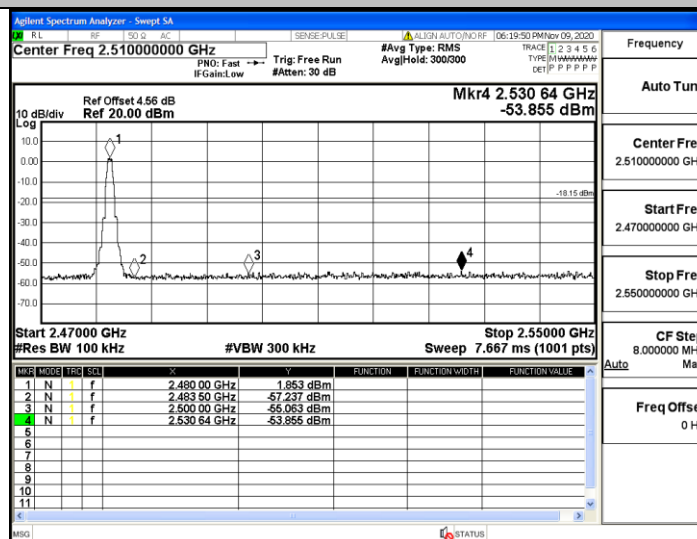
A.5. Band-edge for RF Conducted Emissions

TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	1.80	-54.09	<=-18.2	PASS
		High	2480	1.85	-53.86	<=-18.15	PASS

BLE_1M_Ant1_Low_2402



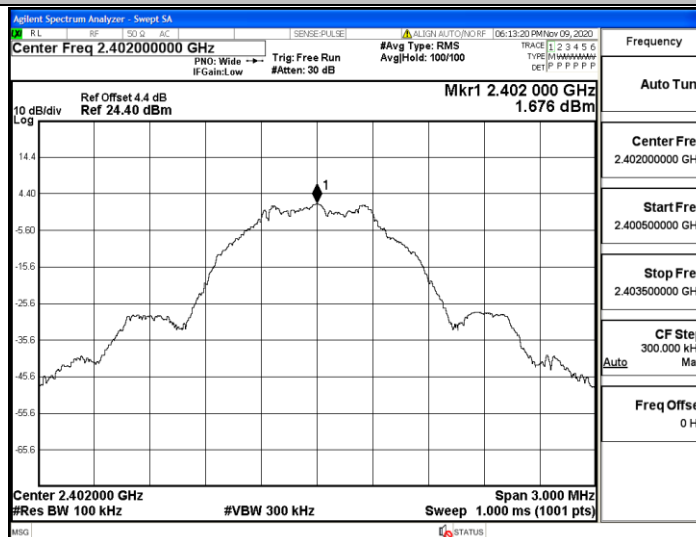
BLE_1M_Ant1_High_2480



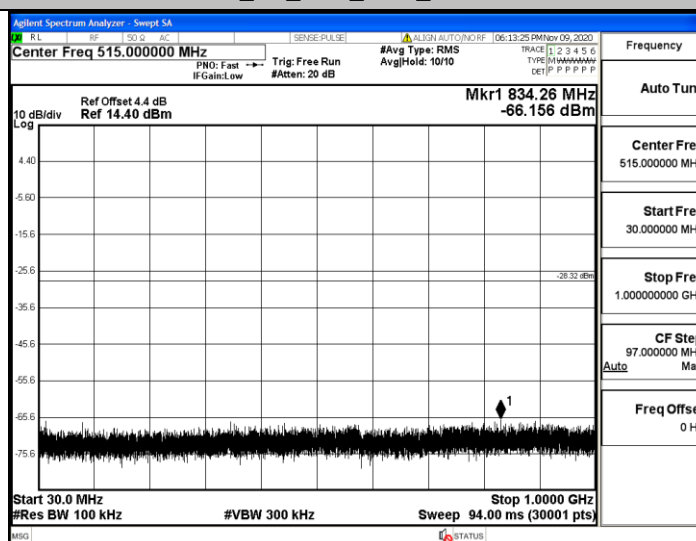
A.6. RF Conducted Spurious Emissions

TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	1.68	1.68	---	PASS
			30~1000	30~1000	-66.156	<=-28.324	PASS
			1000~26500	1000~26500	-56.805	<=-28.324	PASS
		2440	Reference	1.71	1.71	---	PASS
			30~1000	30~1000	-65.347	<=-28.292	PASS
			1000~26500	1000~26500	-56.538	<=-28.292	PASS
		2480	Reference	1.76	1.76	---	PASS
			30~1000	30~1000	-65.833	<=-28.241	PASS
			1000~26500	1000~26500	-56.619	<=-28.241	PASS

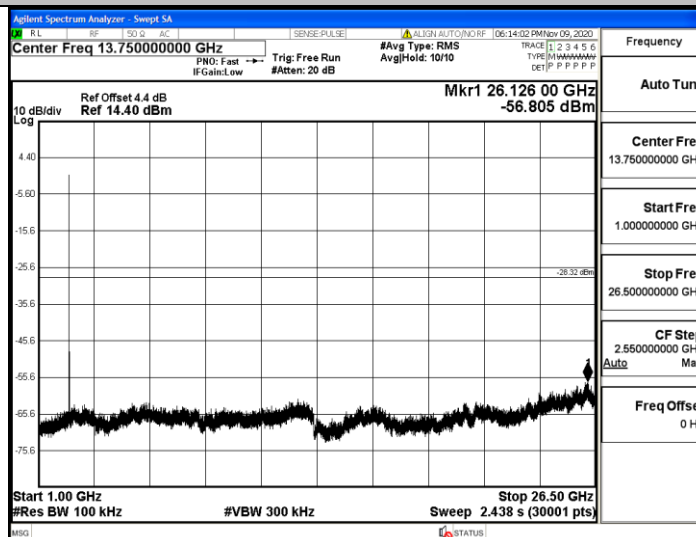
BLE_1M_Ant1_2402_0~Reference



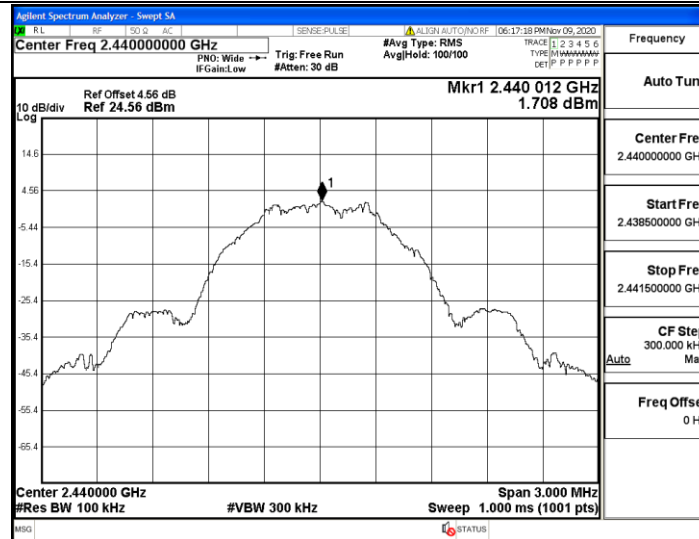
BLE_1M_Ant1_2402_30~1000



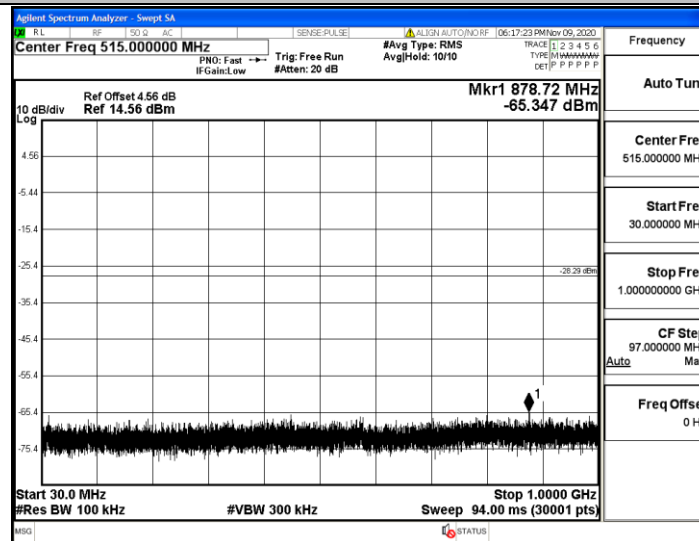
BLE_1M_Ant1_2402_1000~26500



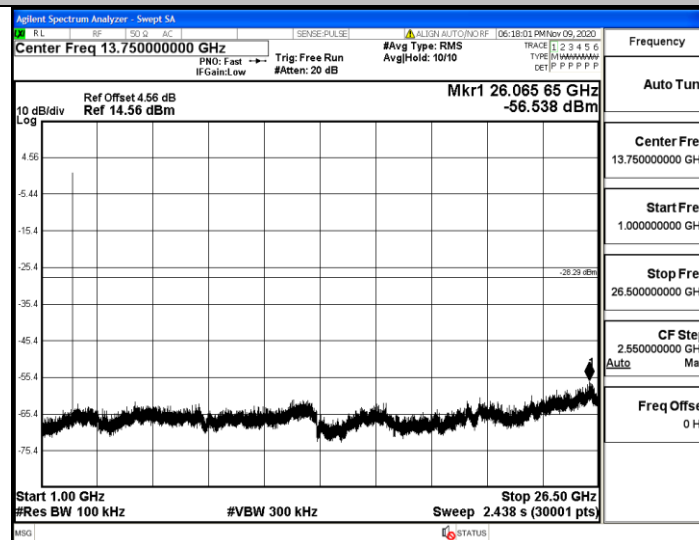
BLE_1M_Ant1_2440_0~Reference



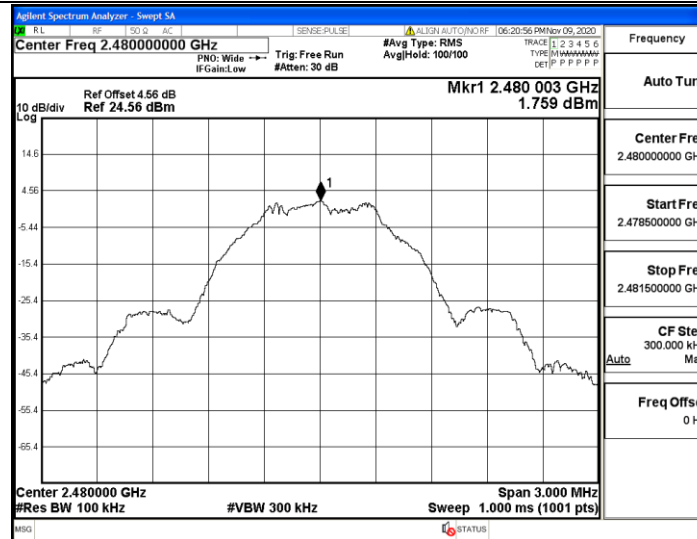
BLE_1M_Ant1_2440_30~1000



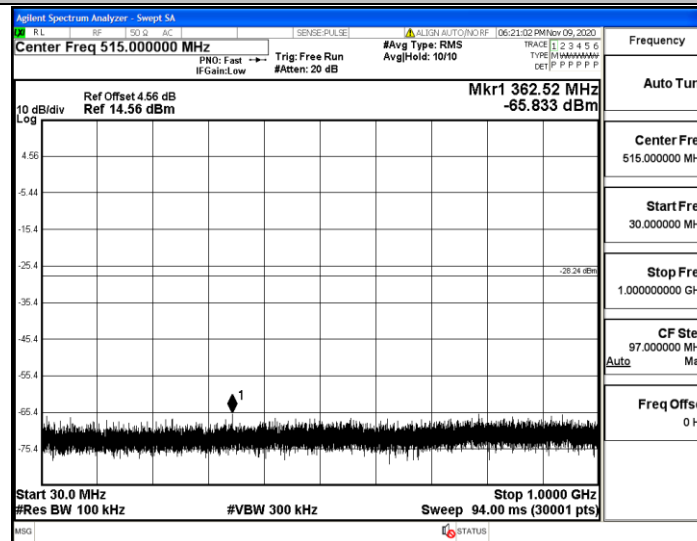
BLE_1M_Ant1_2440_1000~26500



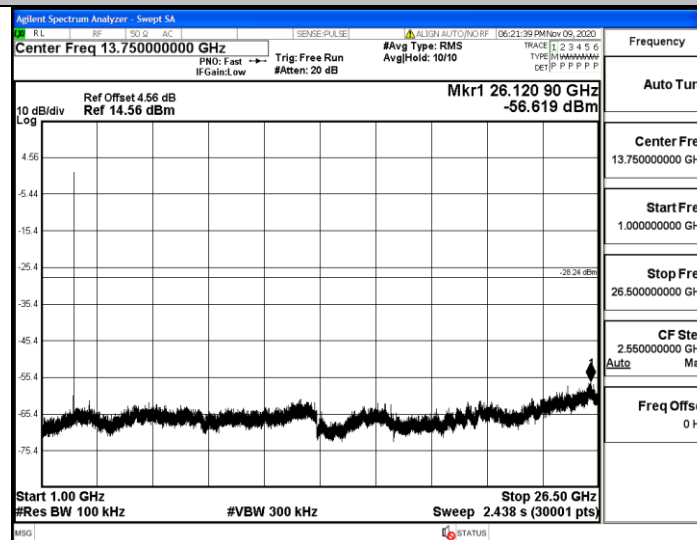
BLE_1M_Ant1_2480_0~Reference



BLE_1M_Ant1_2480_30~1000



BLE_1M_Ant1_2480_1000~26500



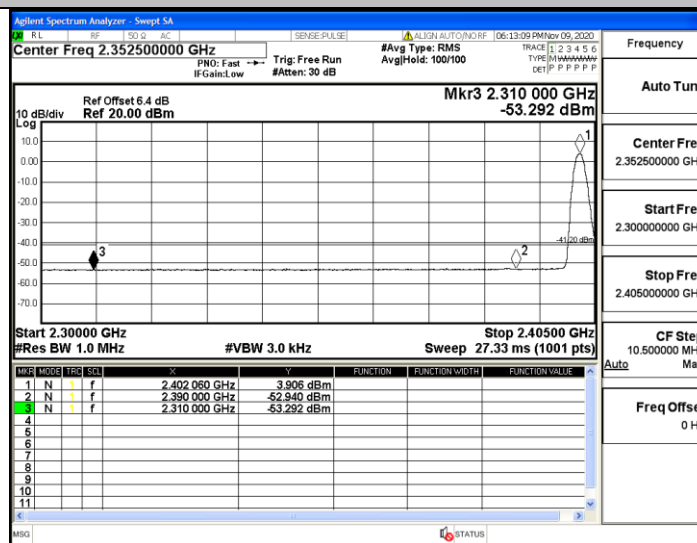
A.7. Restrict-band band-edge measurements

TestMode	Antenna	ChName	Channel	Detector	Freq. [MHz]	Result [dBm]	Limit [dBm]	Verdict
BLE_1M	Ant1	Low	2402	AV	2310.000	-53.29	<=-41.20	PASS
				AV	2390.000	-52.94	<=-41.20	PASS
				Peak	2310.000	-47.54	<=-21.20	PASS
				Peak	2390.000	-45.49	<=-21.20	PASS
		High	2480	AV	2483.500	-50.11	<=-41.20	PASS
				AV	2500.000	-52.31	<=-41.20	PASS
				Peak	2483.500	-44.32	<=-21.20	PASS
				Peak	2500.000	-44.9	<=-21.20	PASS

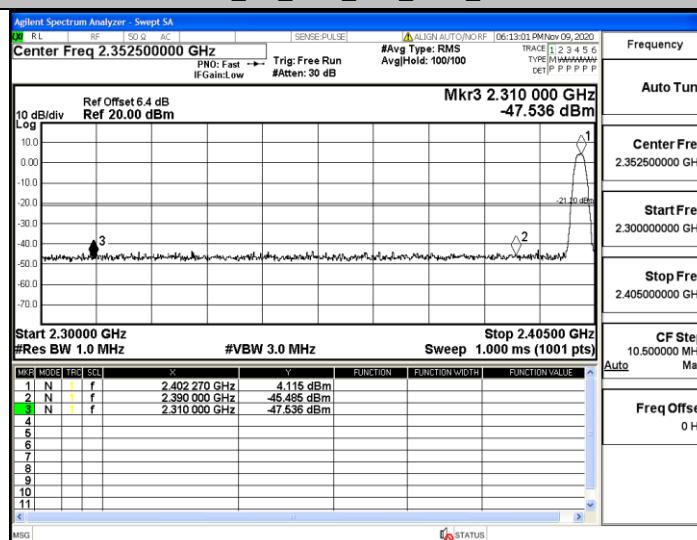
Note:

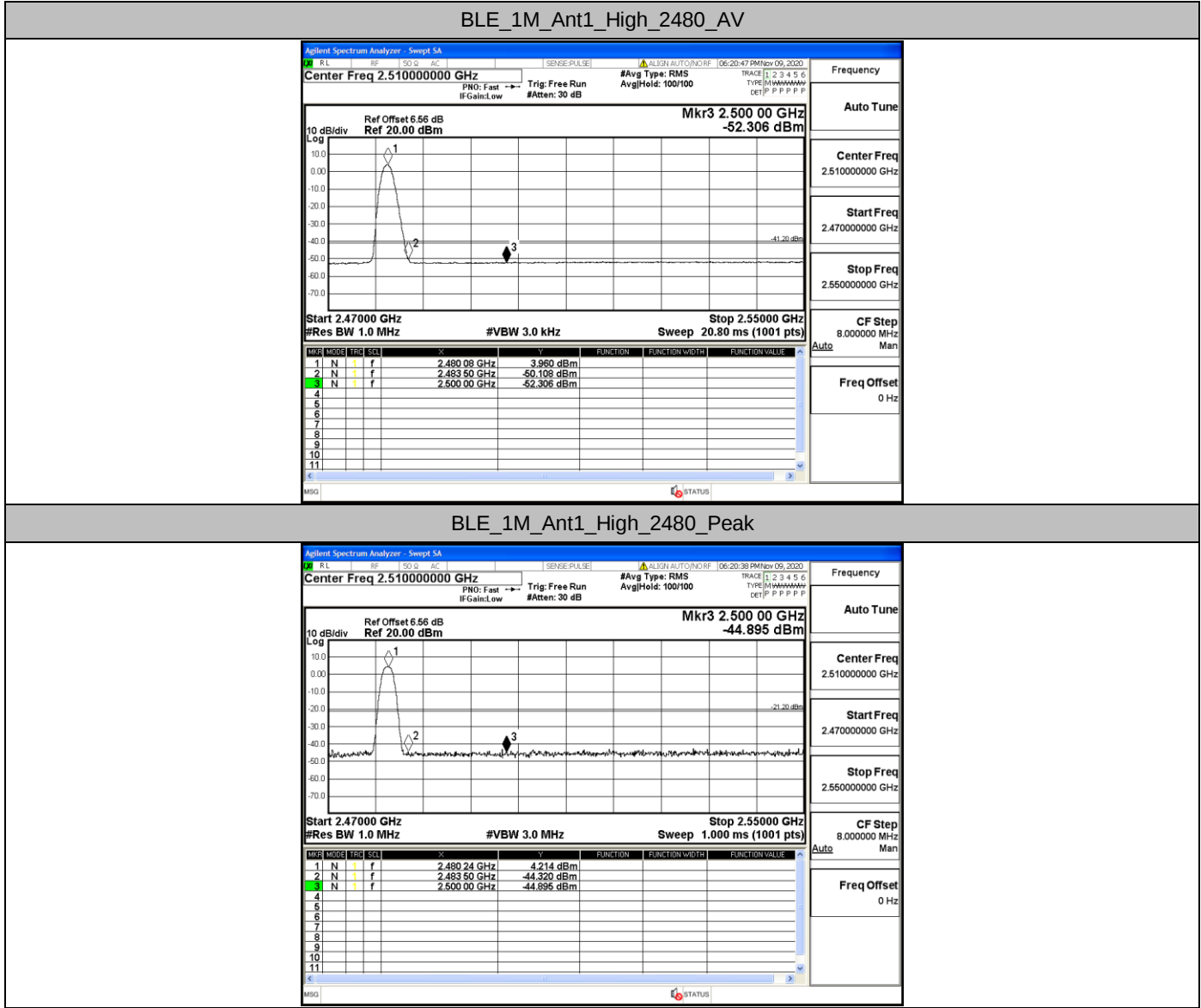
1. The Antenna Gain is compensated in the graph.
2. The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.

BLE_1M_Ant1_Low_2402_AV



BLE_1M_Ant1_Low_2402_Peak





A.8. Duty Cycle

TestMode	Antenna	Channel	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]
BLE_1M	Ant1	2440	0.38	0.63	60.93

