

Appendix A

RF Test Data for BT(BDR/EDR) (Conducted Measurement)

Product Name: Smart Bark Collar

Trade Mark: Dr.Trainer

Test Model: B1s Pro

FCC ID: 2AXDU-B1SPRO

Environmental Conditions

Temperature:	22.8° C
Relative Humidity:	56%
ATM Pressure:	100.0 kPa
Test Engineer:	Nancy Li
Supervised by:	Hugo Chen

A.1. 6dB Bandwidth

Test Mode	Test Channel	Ant	EBW[MHz]	Limit	Verdict
BLE(1Mbps)	2402	Ant1	0.676	0.5	PASS
BLE(1Mbps)	2440	Ant1	0.660	0.5	PASS
BLE(1Mbps)	2480	Ant1	0.704	0.5	PASS



BLE_BT4.0_Ant1_2402



BLE_BT4.0_Ant1_2440



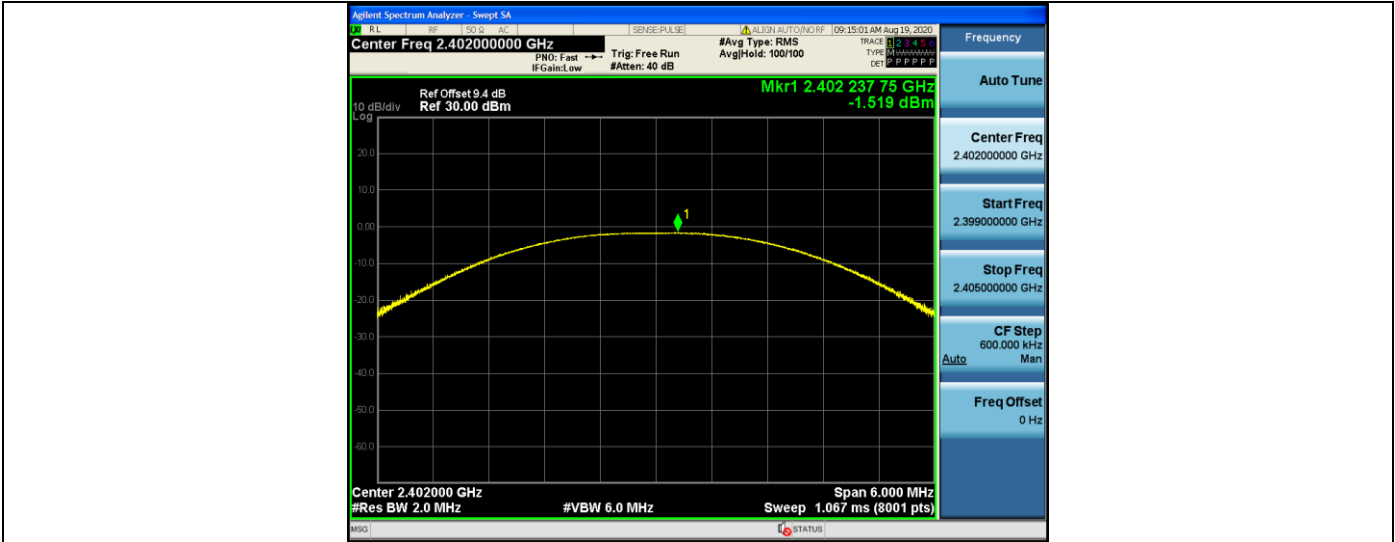
BLE_BT4.0_Ant1_2480

A.2. Occupied Bandwidth

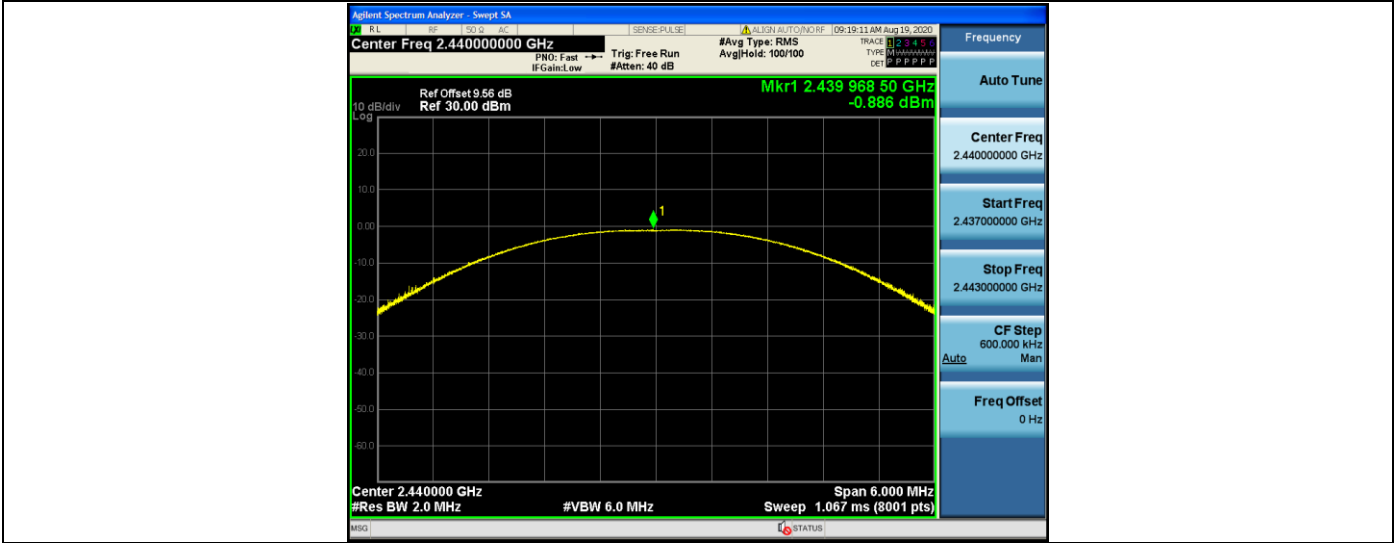
Test Mode	Test Channel	Ant	OBW[MHz]	Limit[MHz]	Verdict
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A.3. Maximum peak conducted output power

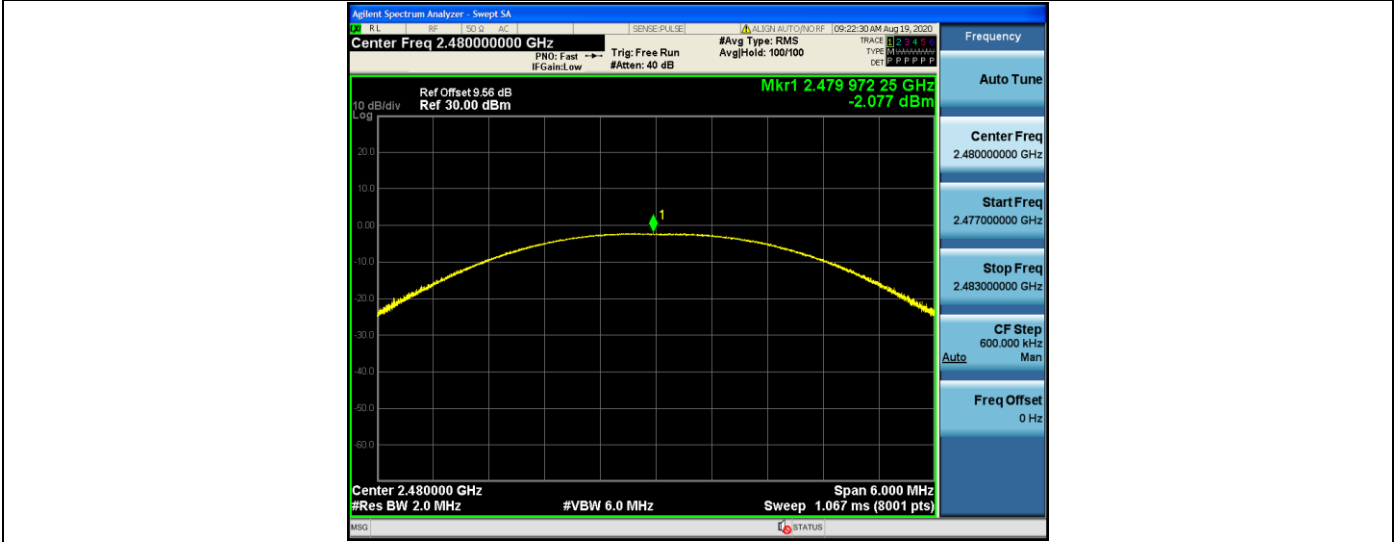
Test Mode	Test	Ant	Power[dBm]	Limit[dBm]	Verdict
BLE(1Mbps)	2402	Ant1	-1.52	30	PASS
BLE(1Mbps)	2440	Ant1	-0.89	30	PASS
BLE(1Mbps)	2480	Ant1	-2.08	30	PASS



BLE_BT4.0_Ant1_2402



BLE_BT4.0_Ant1_2440



BLE_BT4.0_Ant1_2480

A.4. Maximum Peak power spectral density

Test Mode	Test	Ant	PSD[dBm/10KHz]	Converter Factor [dB]	PSD[dBm/3KHz]	Limit[dBm/3KHz]	Verdict
BLE(1Mbps)	2402	Ant1	-11.02	5.23	-16.25	8.00	PASS
BLE(1Mbps)	2440	Ant1	-10.42	5.23	-15.65	8.00	PASS
BLE(1Mbps)	2480	Ant1	-11.55	5.23	-16.78	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_BT4.0_Ant1_2402



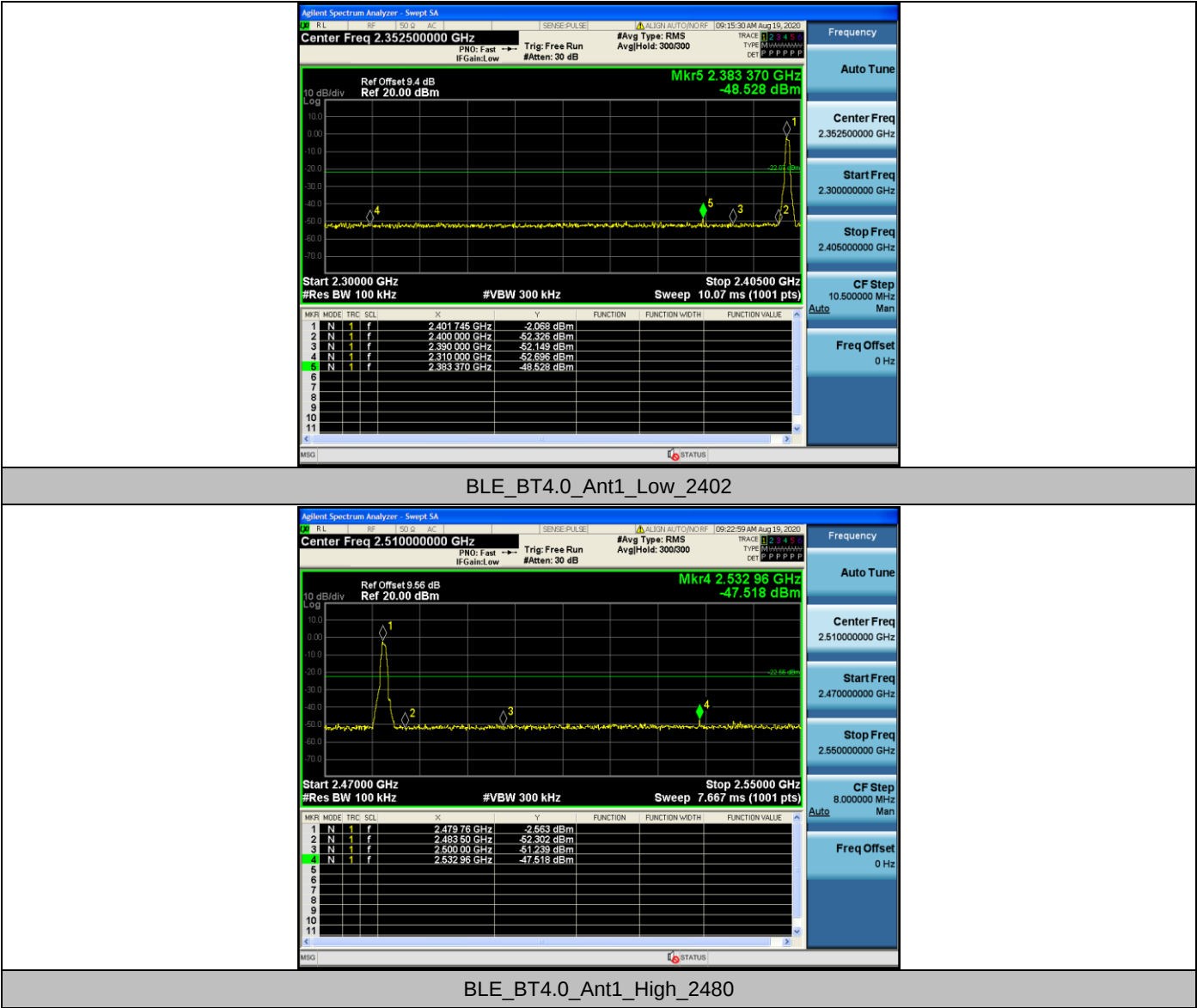
BLE_BT4.0_Ant1_2440



BLE_BT4.0_Ant1_2480

A.5. Band-edge for RF Conducted Emissions

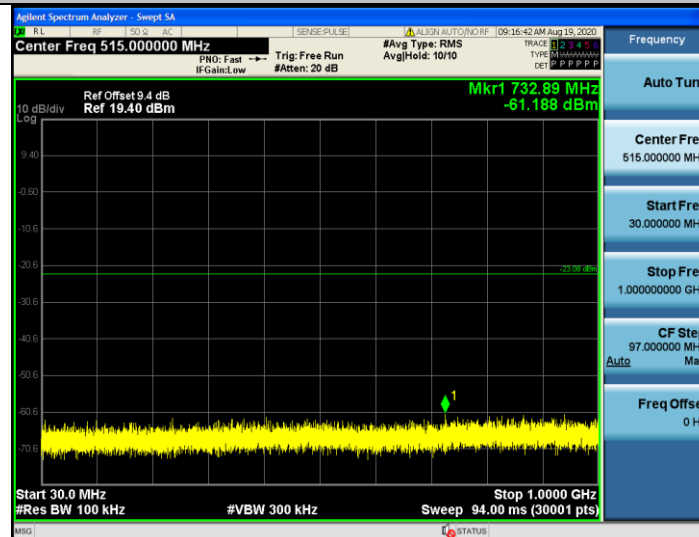
TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_BT4.0	Ant1	Low	2402	-2.07	-48.53	<=-22.07	PASS
		High	2480	-2.56	-47.52	<=-22.56	PASS



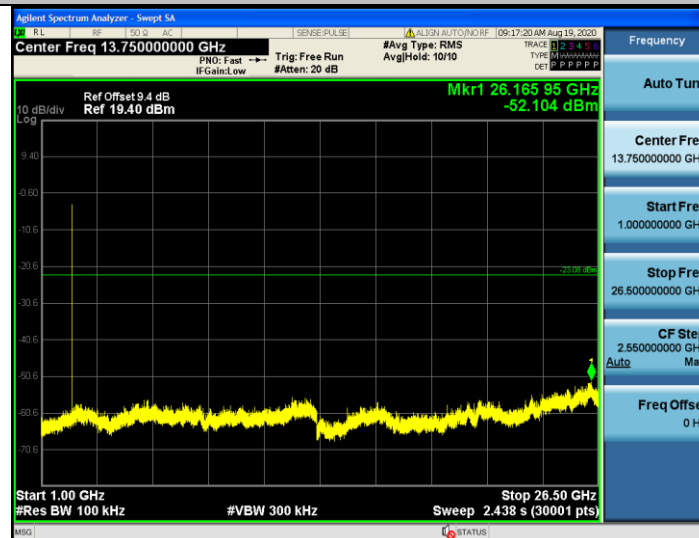
A.6. RF Conducted Spurious Emissions



BLE_BT4.0_Ant1_2402_0-Reference



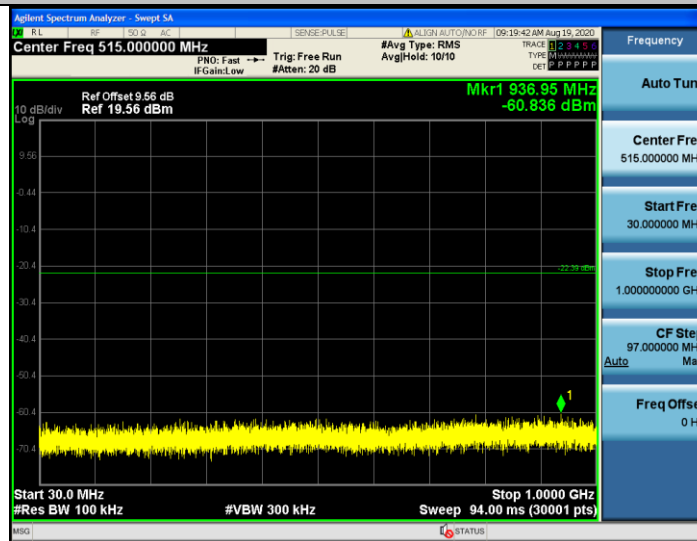
BLE_BT4.0_Ant1_2402_30~1000



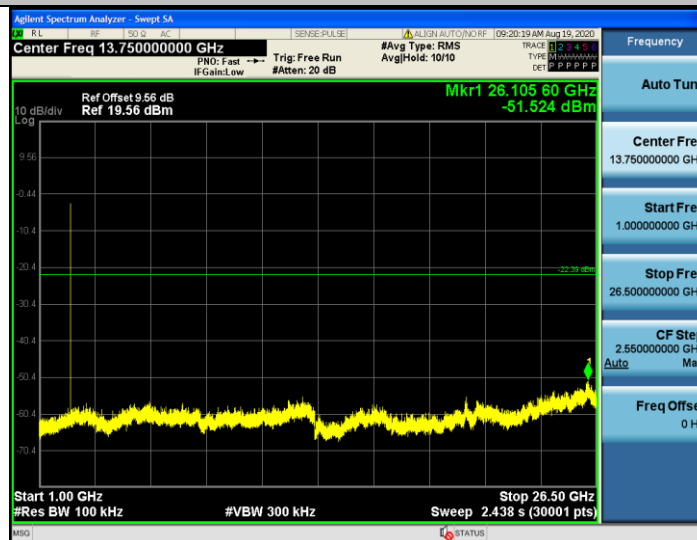
BLE_BT4.0_Ant1_2402_1000~26500



BLE_BT4.0_Ant1_2440_0-Reference



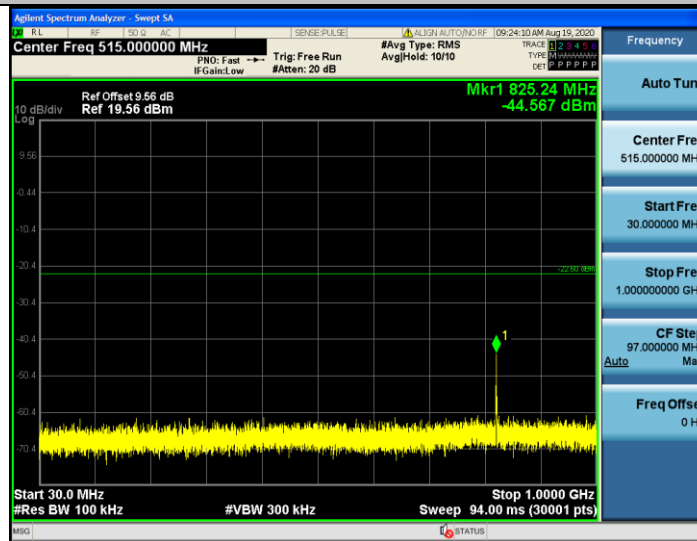
BLE_BT4.0_Ant1_2440_30~1000



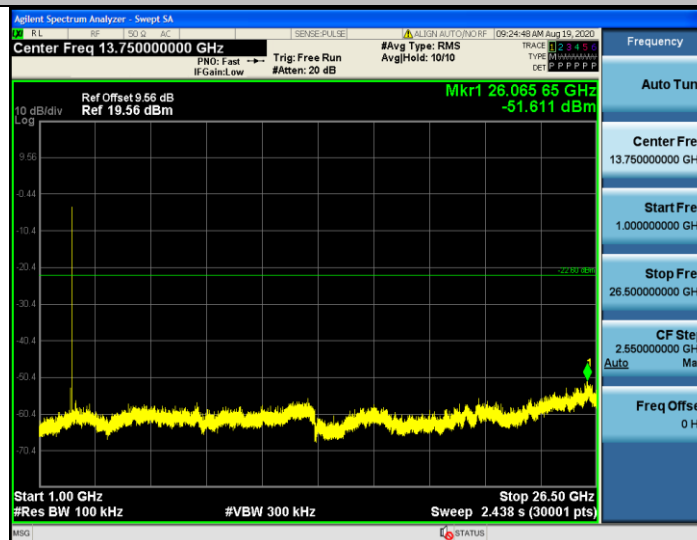
BLE_BT4.0_Ant1_2440_1000~26500



BLE_BT4.0_Ant1_2480_0-Reference



BLE_BT4.0_Ant1_2480_30~1000

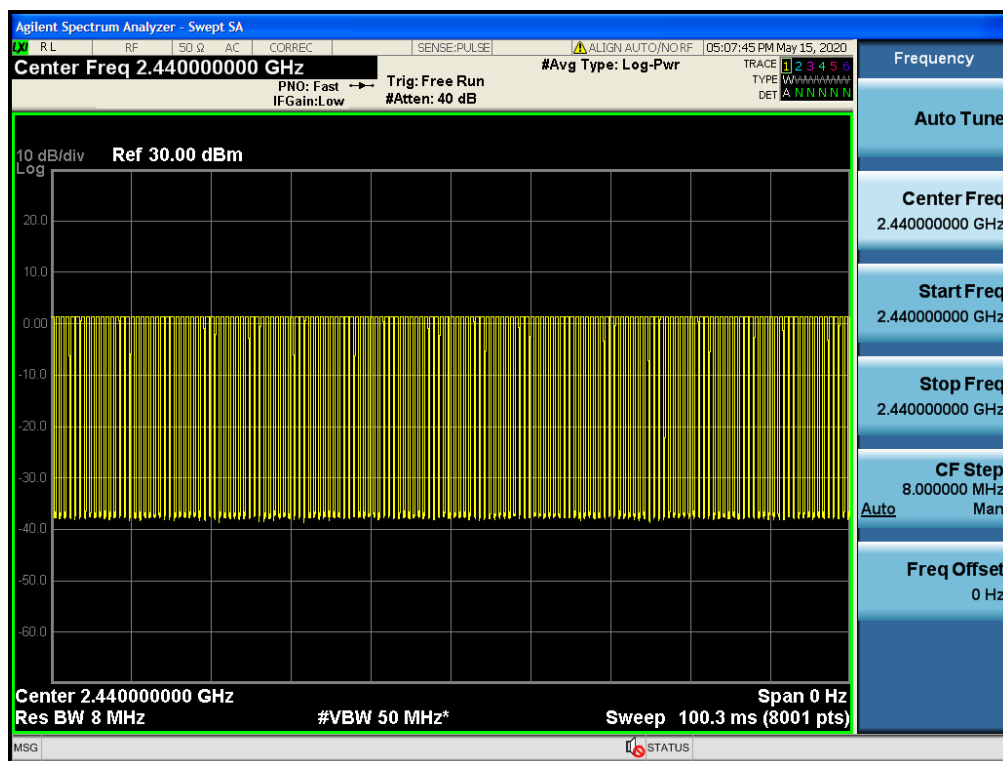


BLE_BT4.0_Ant1_2480_1000~26500

A.7. Duty Cycle

Test Mode	Test Channel	Ant	Duty Cycle[%]	Verdict
BLE(1Mbps)	2440	Ant1	62.35	PASS

Duty Cycle_BLE(1Mbps)_2440_Ant1

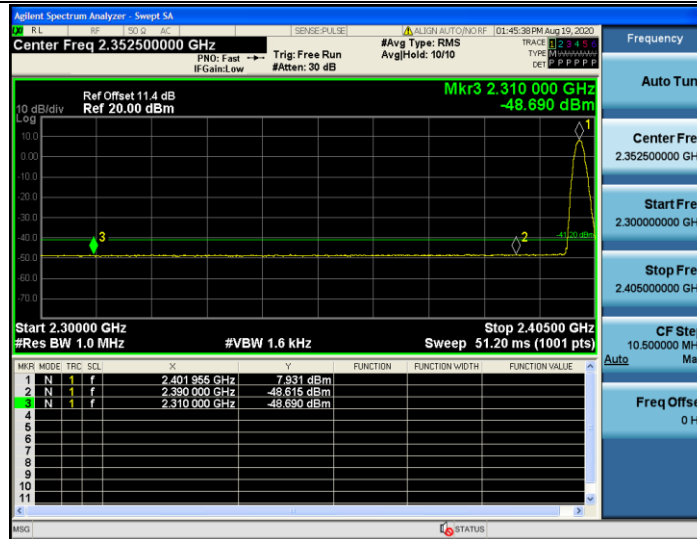


A.8. Restrict-band band-edge measurements

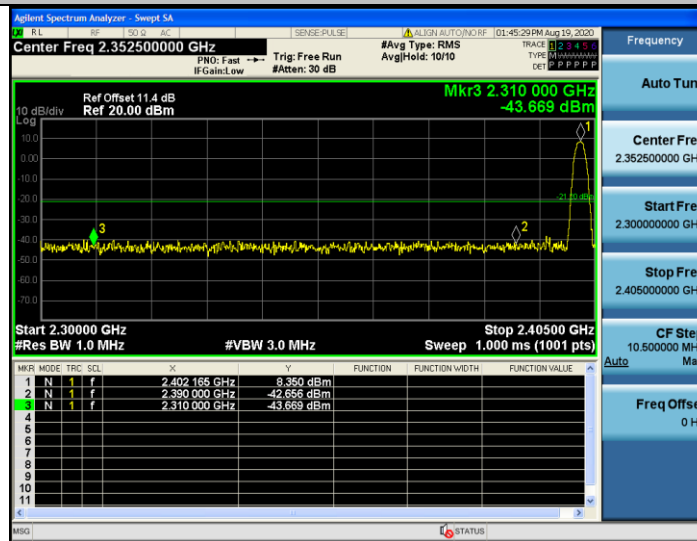
TestMode	Antenna	ChName	Channel	Detector	Freq. [MHz]	Result [dBm]	Limit [dBm]	Verdict
BLE_BT4.0	Ant1	Low	2402	AV	2310.000	-48.69	<=-41.20	PASS
				AV	2390.000	-48.62	<=-41.20	PASS
				Peak	2310.000	-43.67	<=-21.20	PASS
				Peak	2390.000	-42.66	<=-21.20	PASS
		High	2480	AV	2483.500	-46.86	<=-41.20	PASS
				AV	2500.000	-48.16	<=-41.20	PASS
				Peak	2483.500	-43.55	<=-21.20	PASS
				Peak	2500.000	-40.24	<=-21.20	PASS

Note:

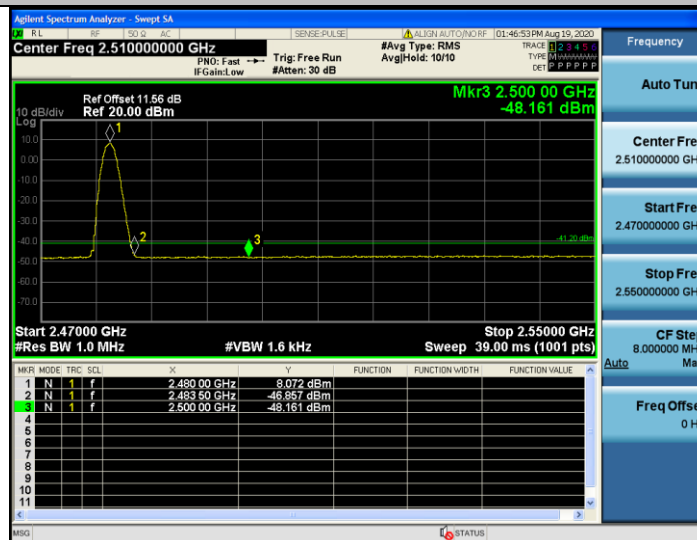
1. The Antenna Gain is compensated in the graph with 2dBi and Antenna Gain which is Higher.
2. The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.



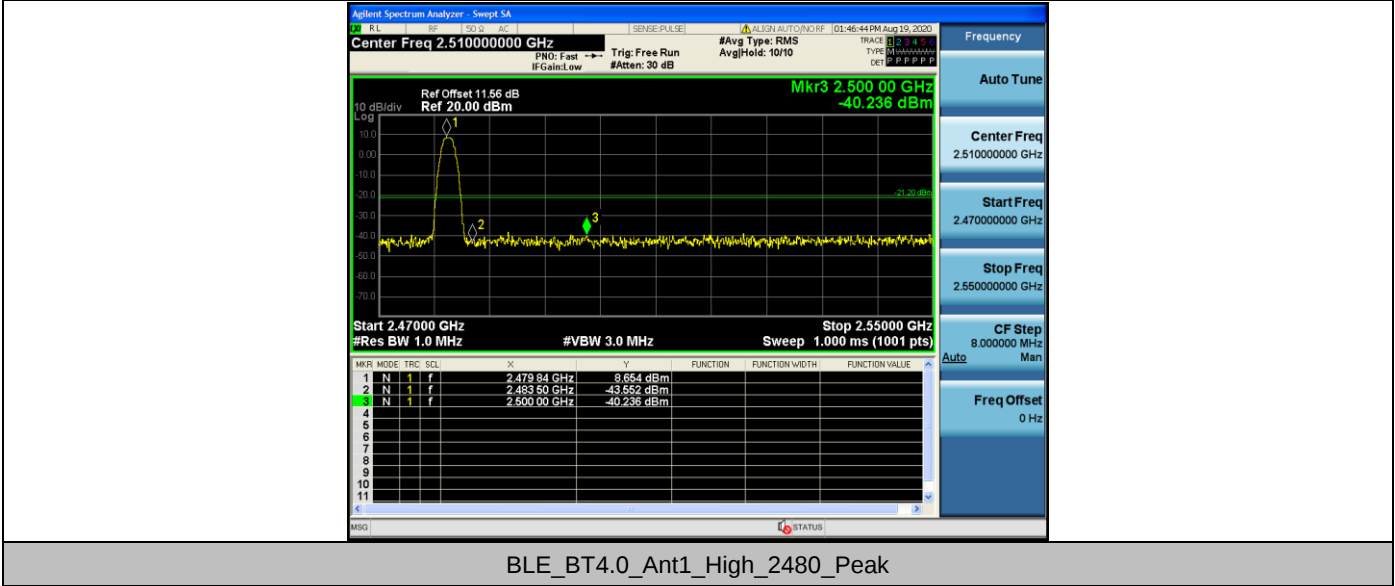
BLE_BT4.0_Ant1_Low_2402_AV



BLE_BT4.0_Ant1_Low_2402_Peak



BLE_BT4.0_Ant1_High_2480_AV



BLE_BT4.0_Ant1_High_2480_Peak