

Appendix A

RF Test Data for BT V5.0(BLE) (Conducted Measurement)

Product Name: BUTTON TAG

Trade Mark: tracesafe

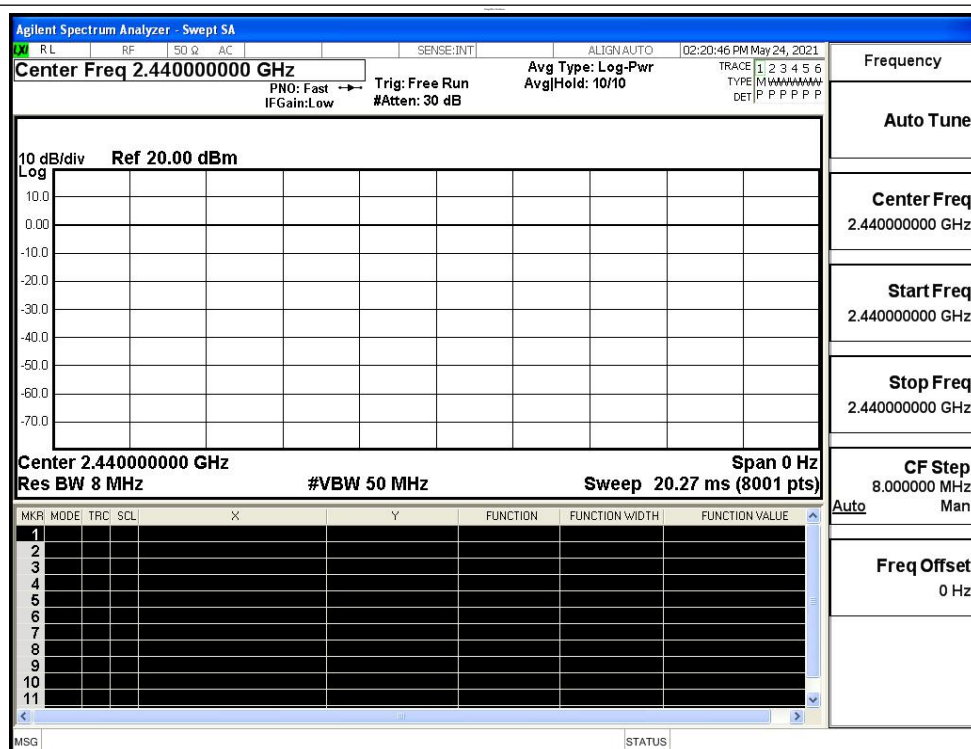
Test Model: TTAT

Environmental Conditions

Temperature:	24.6 ° C
Relative Humidity:	54.1%
ATM Pressure:	100.0 kPa
Test Engineer:	Jay Li
Supervised by:	Li Huan

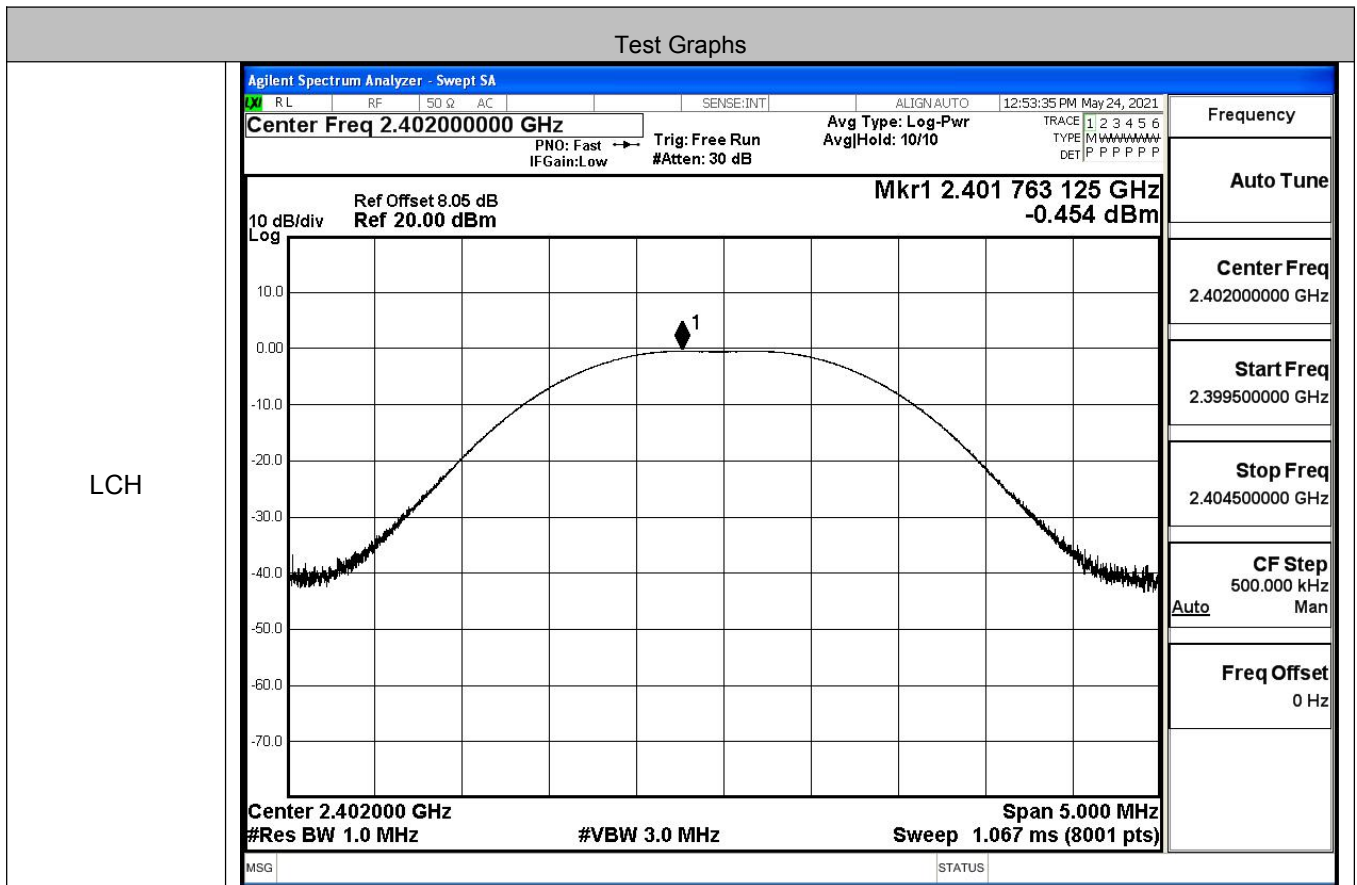
A.1 Duty Cycle

Test Mode	Test Channel	Ant	Duty Cycle[%]	Verdict
BT LE	2440	Ant1	100	PASS

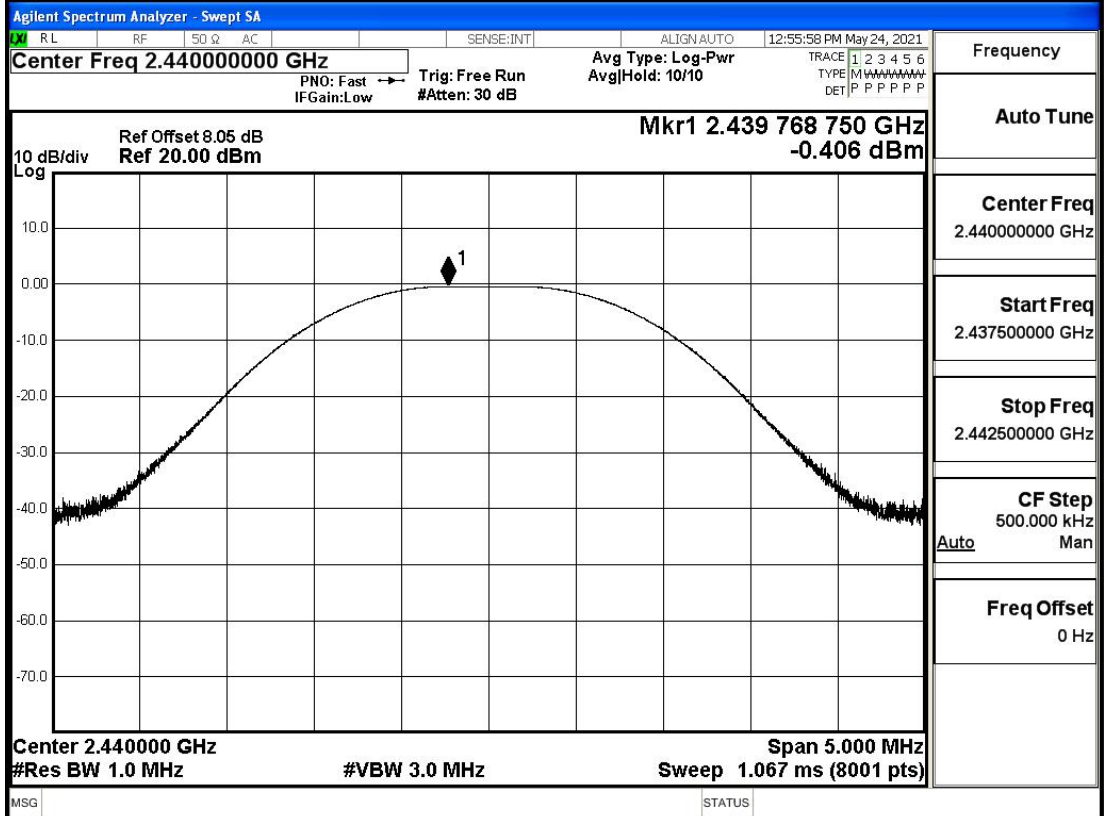


A.2 Maximum Conducted Peak Output Power

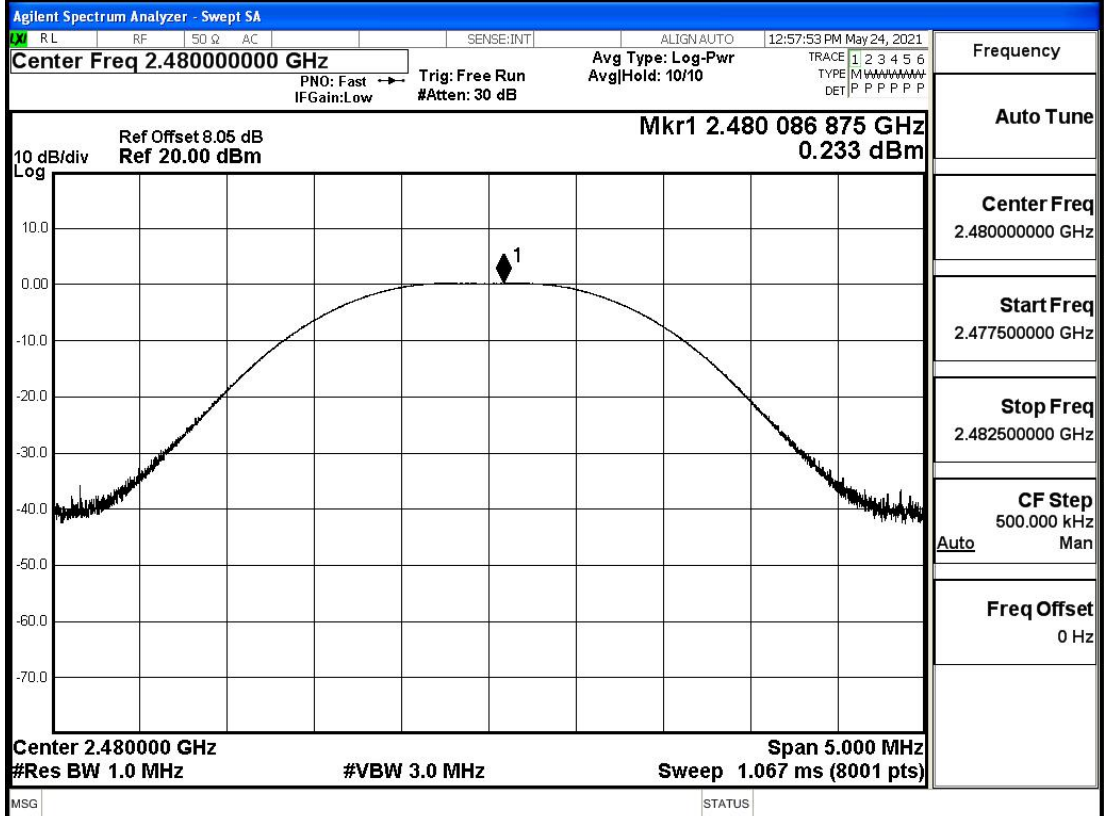
Mode	Channel	Conduct Peak Power[dBm]	Limit [dBm]	Verdict
BT LE	LCH	-0.454	30	PASS
BT LE	MCH	-0.406	30	PASS
BT LE	HCH	0.233	30	PASS



MCH



HCH

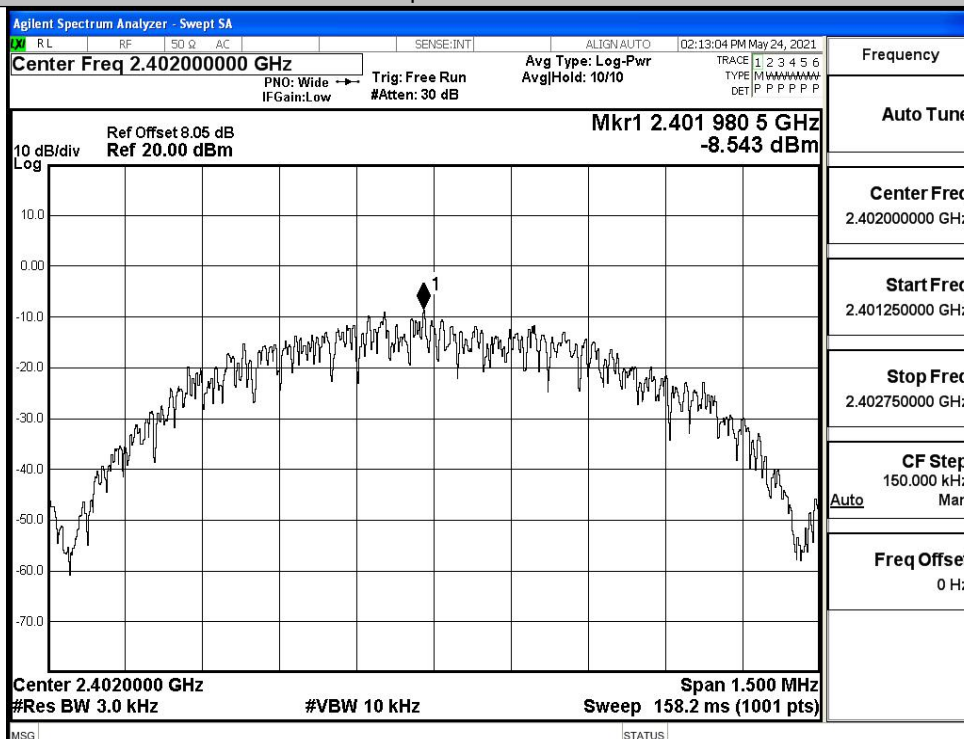


A.3 Maximum Power Spectral Density

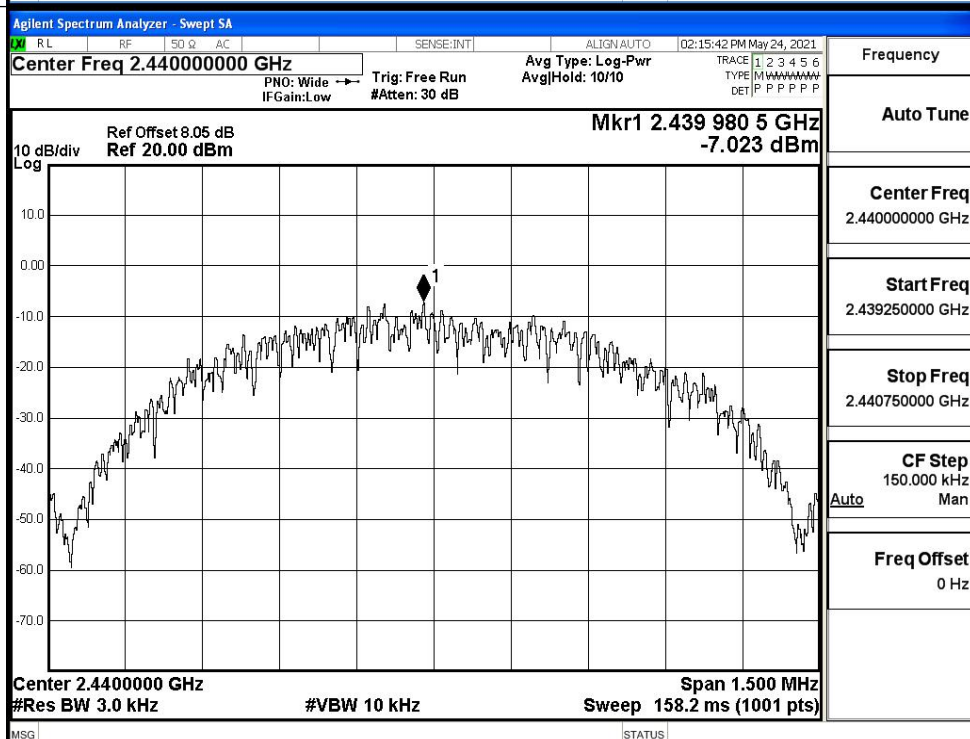
Mode	Channel	PSD [dBm/3KHz]	Limit [dBm/3KHz]	Verdict
BT LE	LCH	-8.543	8	PASS
BT LE	MCH	-7.023	8	PASS
BT LE	HCH	-8.421	8	PASS

Test Graphs

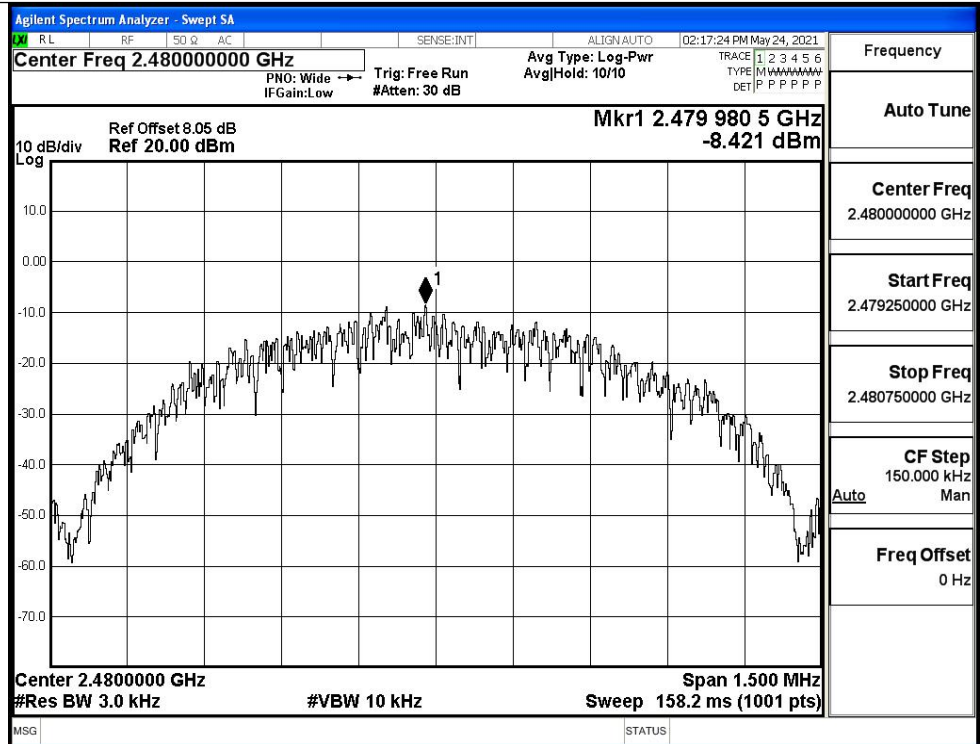
LCH



MCH



HCH

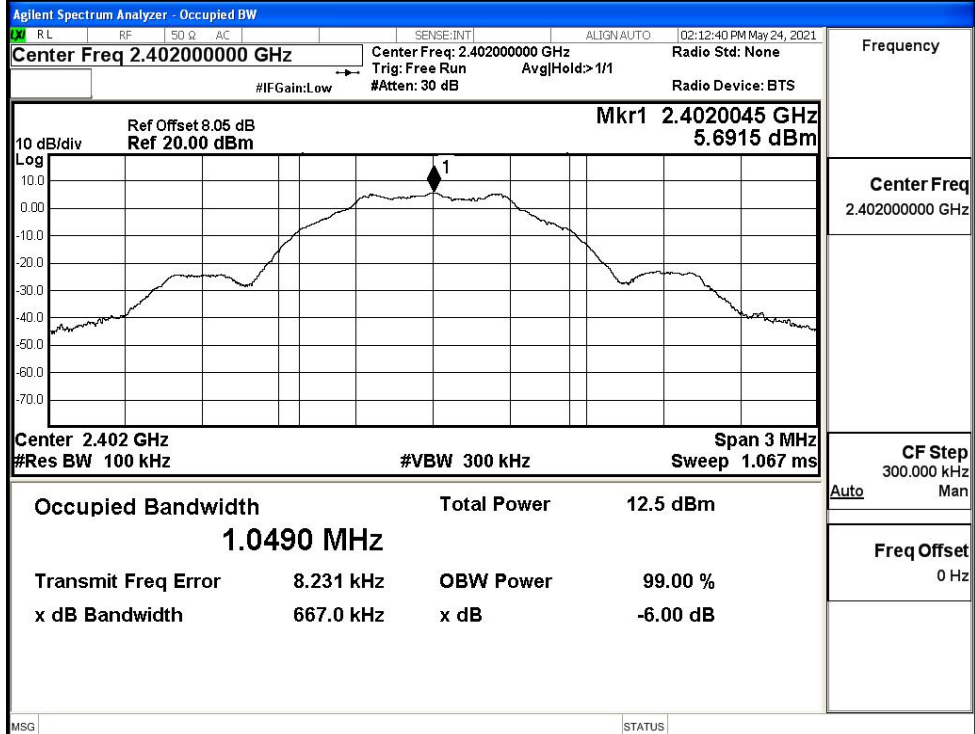


A.4 6dB Bandwidth

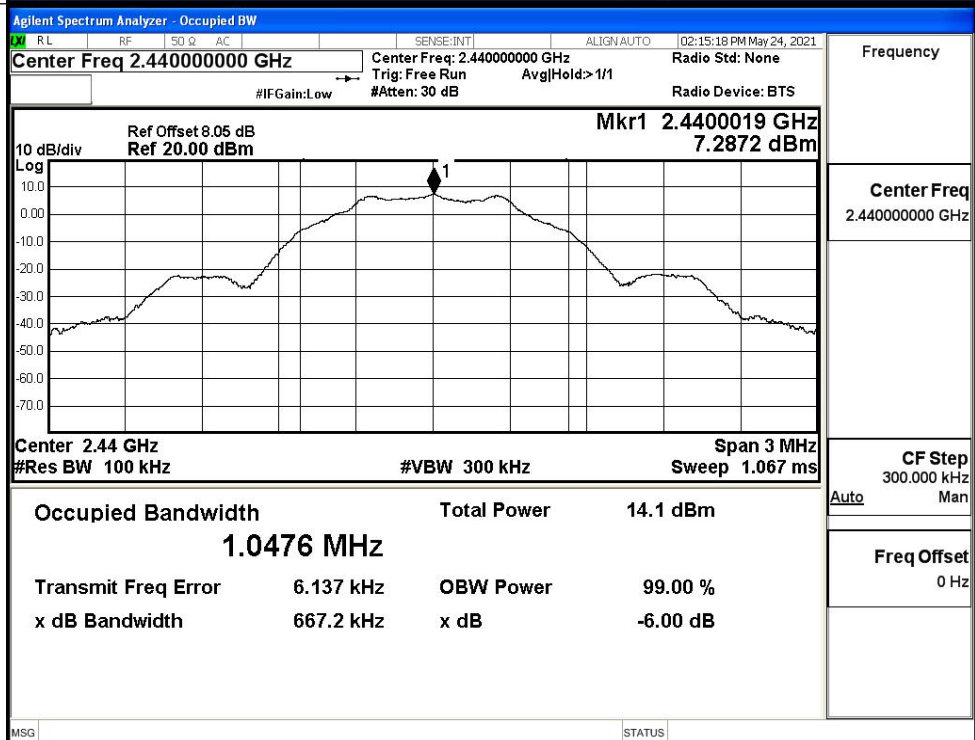
Mode	Channel	6dB Bandwidth [MHz]	Limit [MHz]	Verdict
BT LE	LCH	0.6670	≥ 0.5	PASS
BT LE	MCH	0.6672	≥ 0.5	PASS
BT LE	HCH	0.6692	≥ 0.5	PASS

Test Graphs

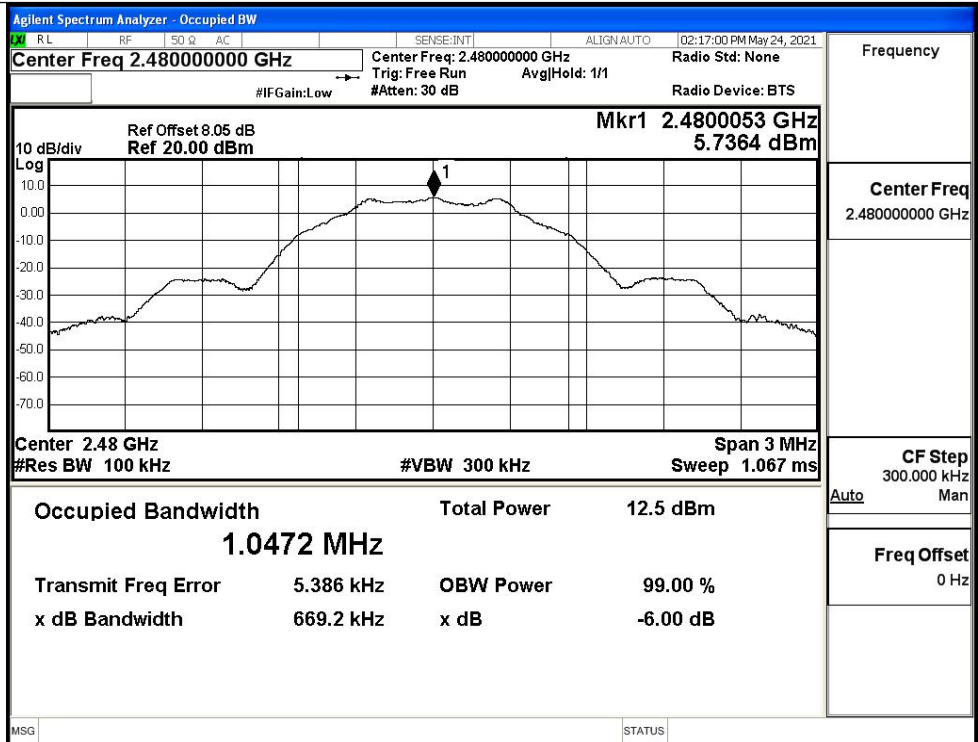
LCH



MCH



HCH

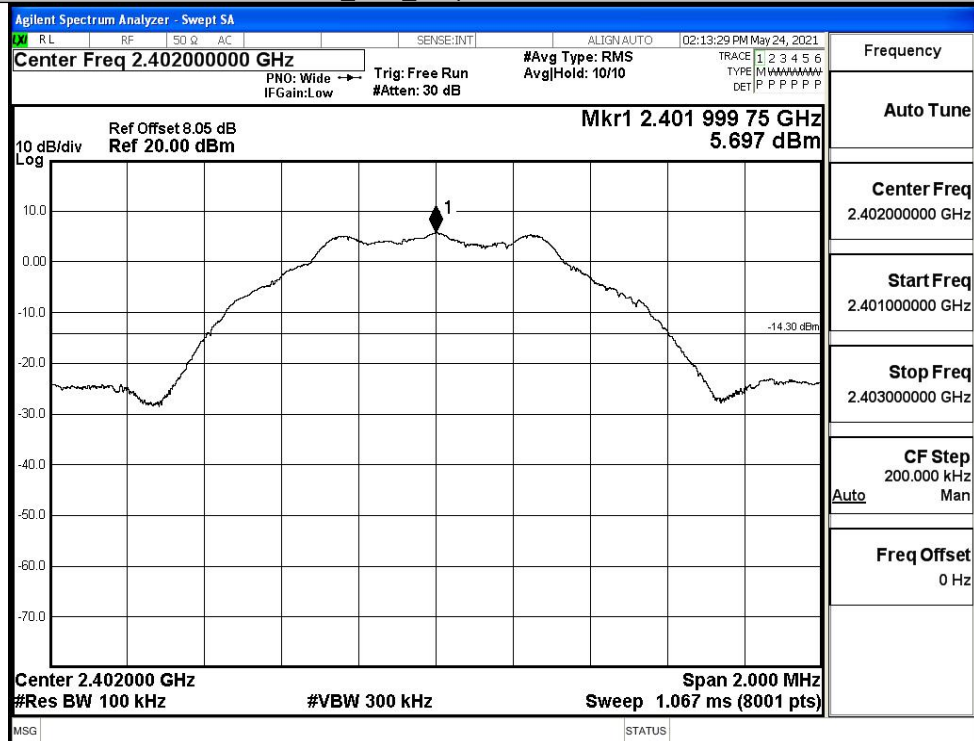


A.5 RF Conducted Spurious Emissions

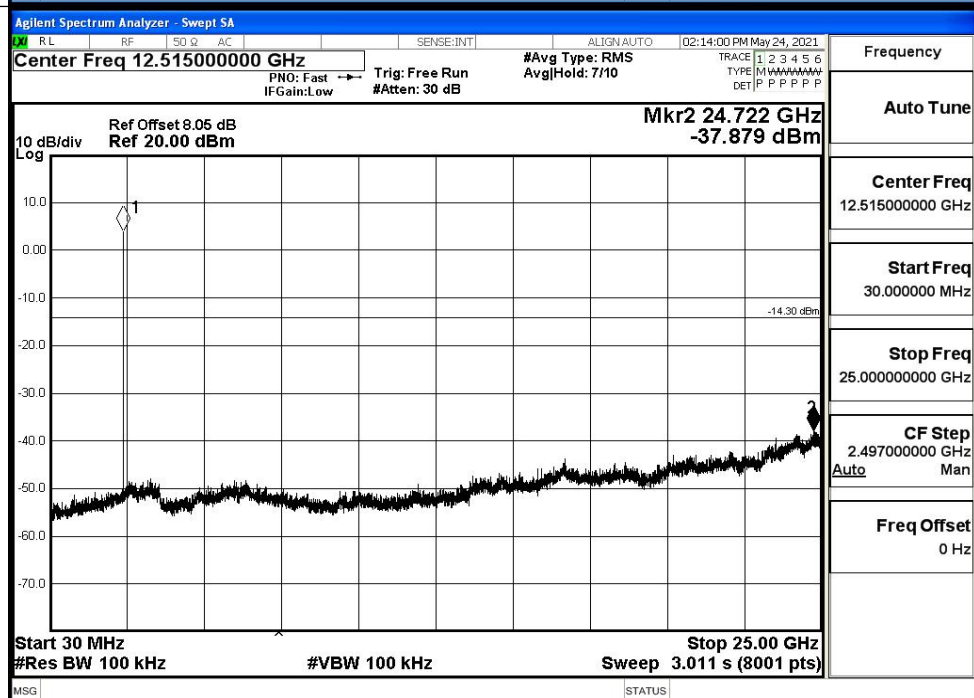
Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
BT LE	LCH	5.697	-37.879	-14.303	PASS
BT LE	MCH	7.277	-37.066	-12.723	PASS
BT LE	HCH	5.757	-36.960	-14.243	PASS

BT LE_LCH_Graphs

Pref/BT LE/LCH

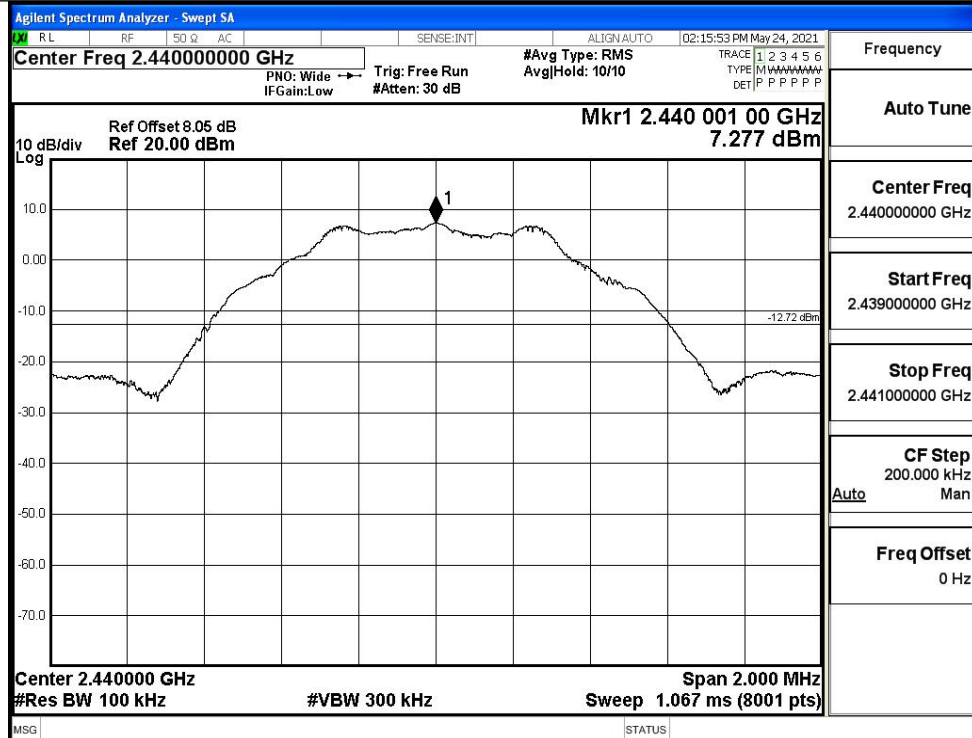


Puw/BT LE/LCH

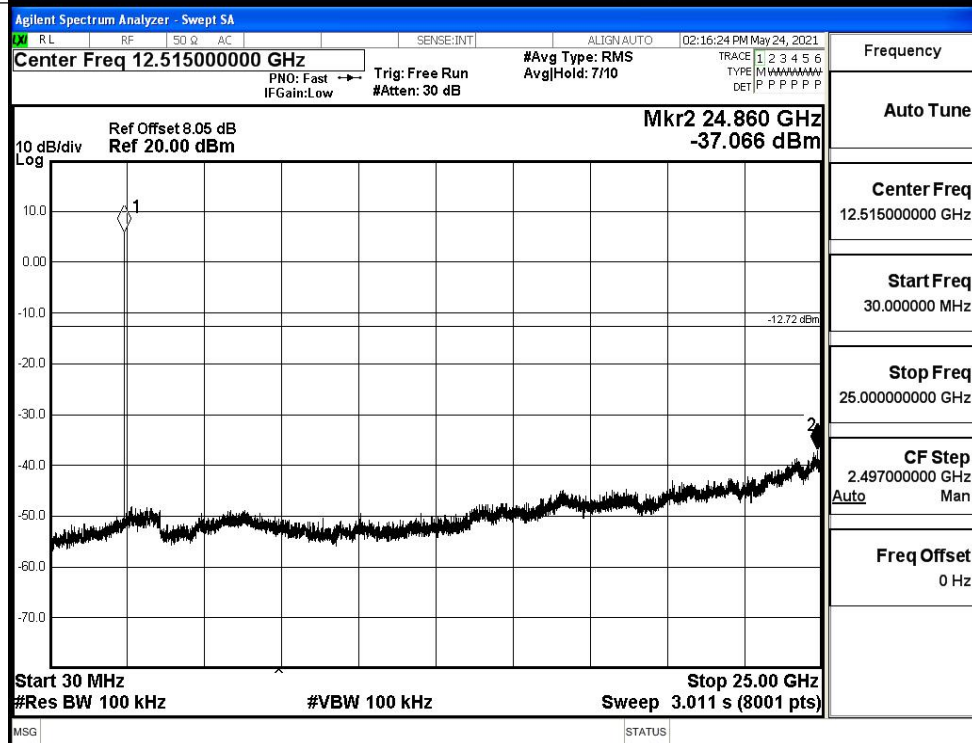


BT LE MCH Graphs

Pref/BT LE/MCH

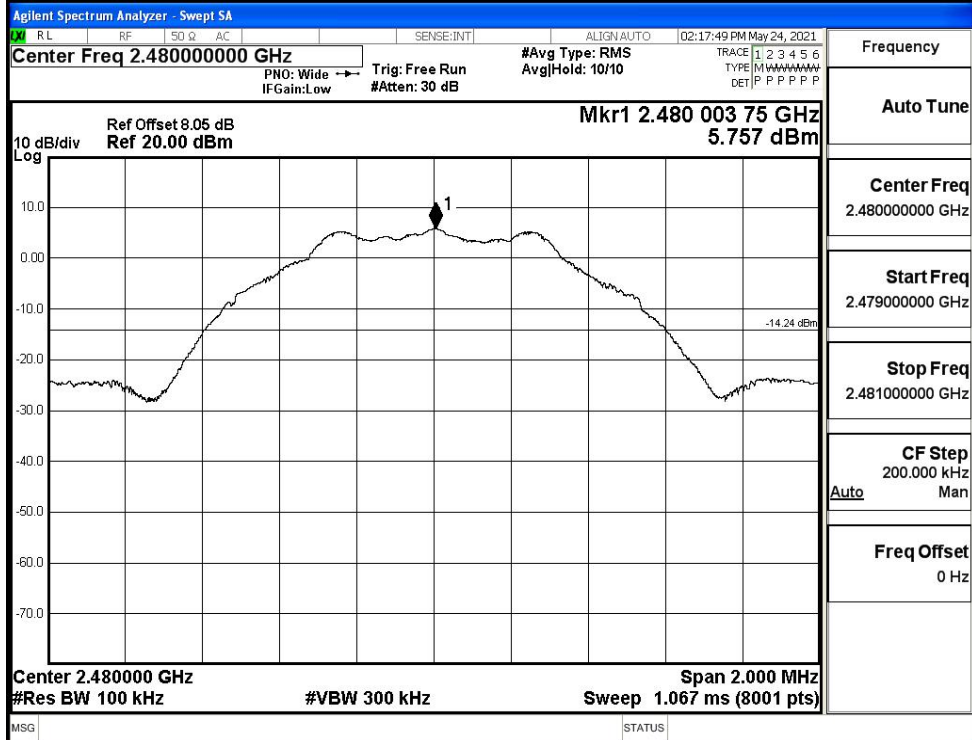


Puw/BT LE/MCH

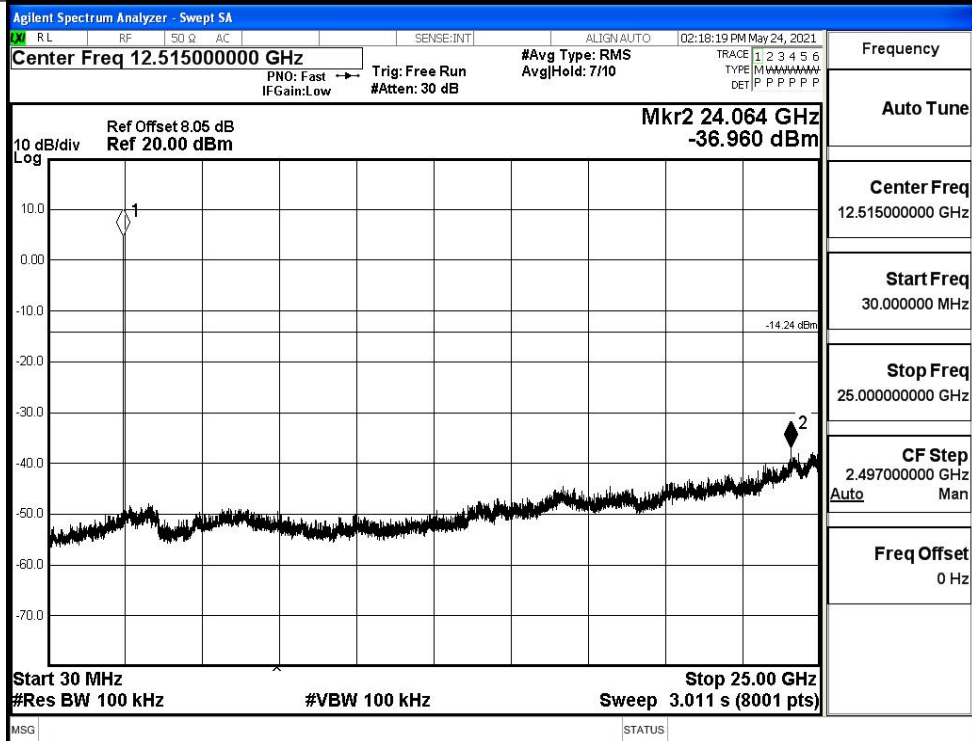


BT LE HCH Graphs

Pref/BT LE/HCH



Puw/BT LE/HCH

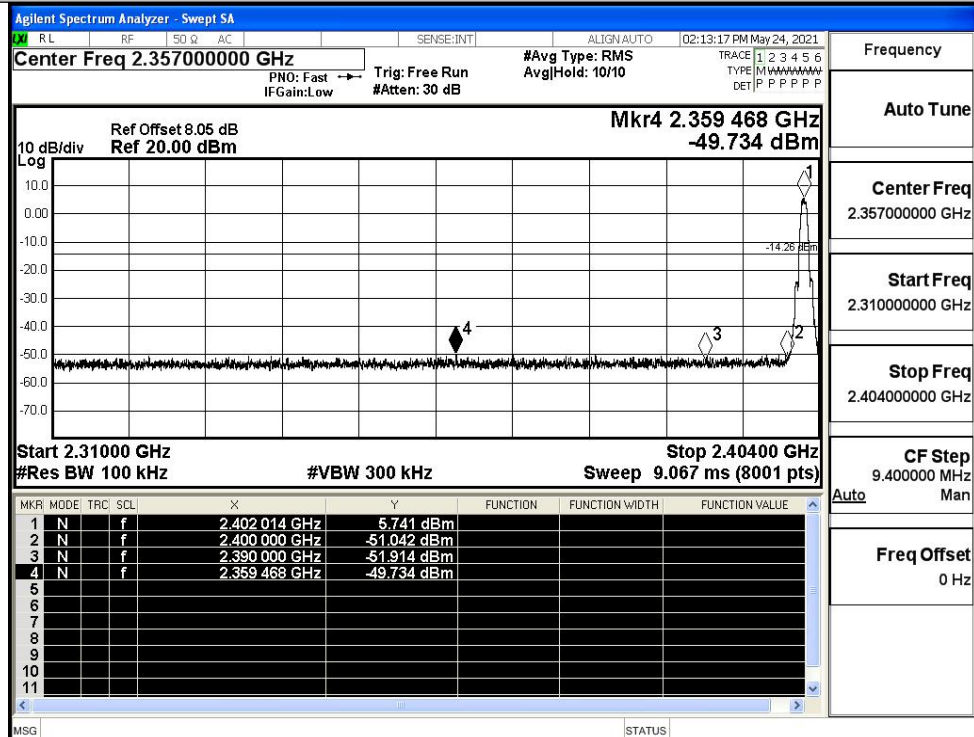


A.6 Band-edge for RF Conducted Emissions

Mode	Channel	Carrier Power[dBm]	Max.Spurious Level [dBm]	Limit [dBm]	Verdict
BT LE	LCH	5.741	-49.734	-14.26	PASS
BT LE	HCH	5.901	-48.723	-14.1	PASS

Test Graphs

LCH



Frequency

Auto Tune

Center Freq

2.357000000 GHz

Start Freq

2.310000000 GHz

Stop Freq

2.404000000 GHz

CF Step

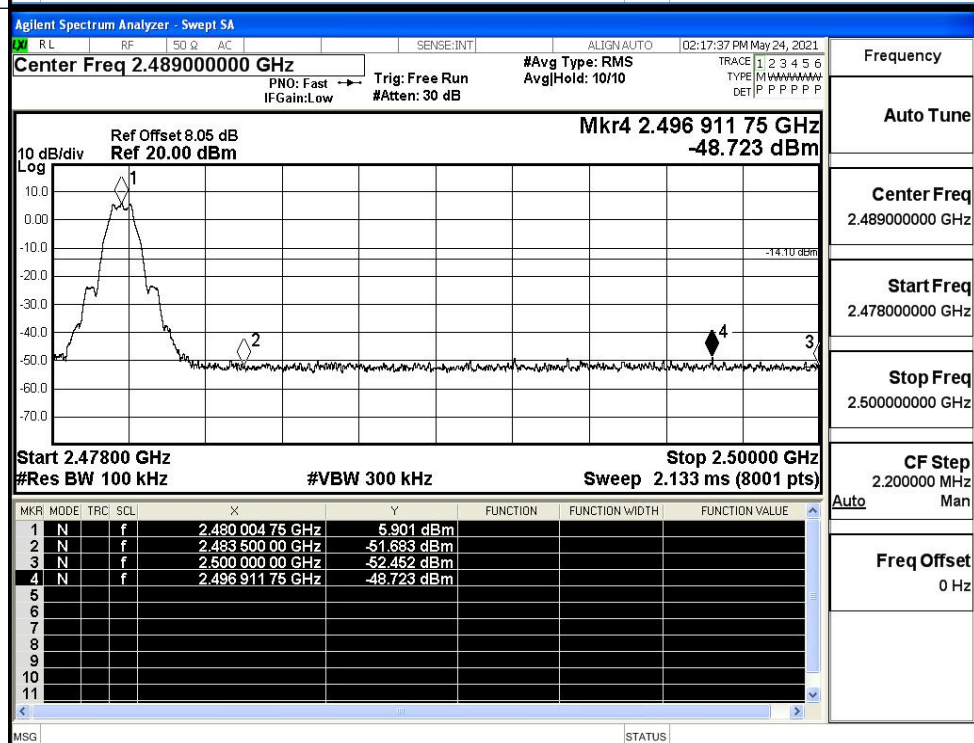
9.400000 MHz

Auto Man

Freq Offset

0 Hz

HCH



Frequency

Auto Tune

Center Freq

2.489000000 GHz

Start Freq

2.478000000 GHz

Stop Freq

2.500000000 GHz

CF Step

2.200000 MHz

Auto Man

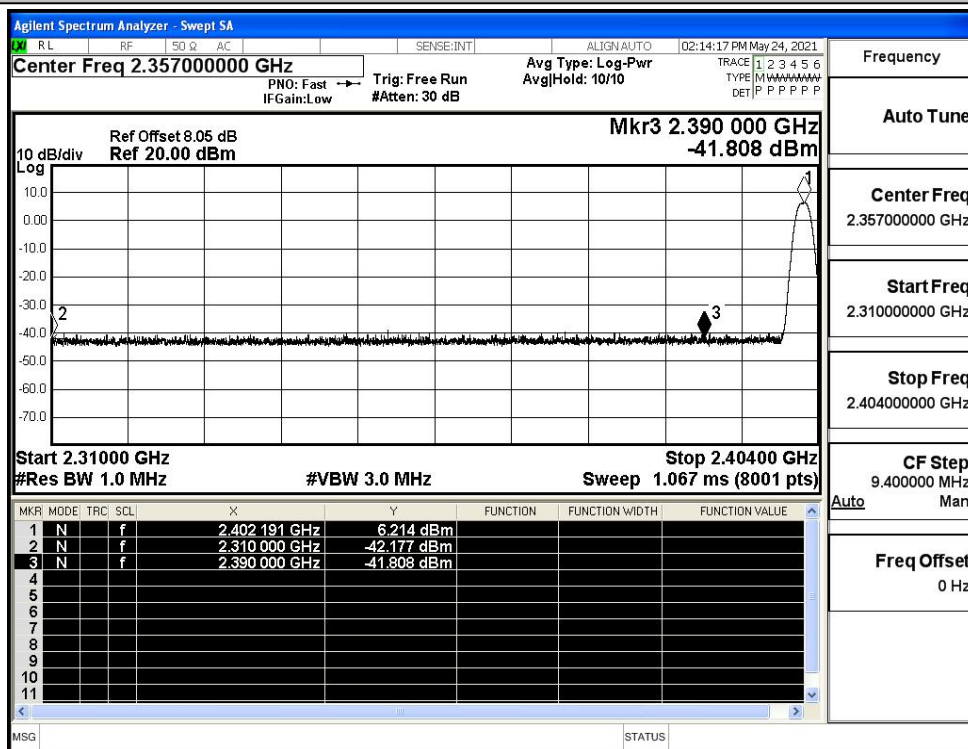
Freq Offset

0 Hz

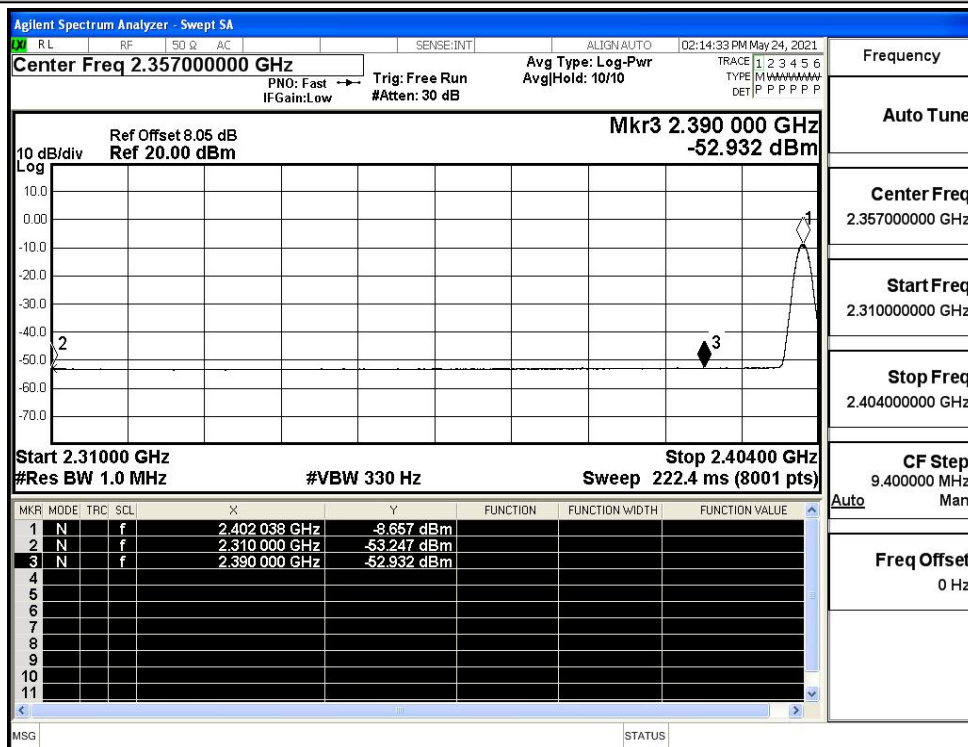
A.7 Restrict-band band-edge measurements

Test Mode	Test Channel	Ant	Freq.	Power [dBm]	Gain	Ground Factor	E [dBuV/m]	Detector	Limit [dBuV/m]	Verdi
BT LE	2402	Ant1	2310.0	-42.18	2.0	0	55.05	PEAK	74	PASS
		Ant1	2310.0	-53.25	2.0	0	43.98	AV	54	PASS
		Ant1	2390.0	-41.81	2.0	0	55.42	PEAK	74	PASS
		Ant1	2390.0	-52.93	2.0	0	44.30	AV	54	PASS
	2480	Ant1	2483.5	-41.76	2.0	0	55.47	PEAK	74	PASS
		Ant1	2483.5	-52.17	2.0	0	45.06	AV	54	PASS
		Ant1	2500.0	-42.52	2.0	0	54.71	PEAK	74	PASS
		Ant1	2500.0	-52.24	2.0	0	44.99	AV	54	PASS

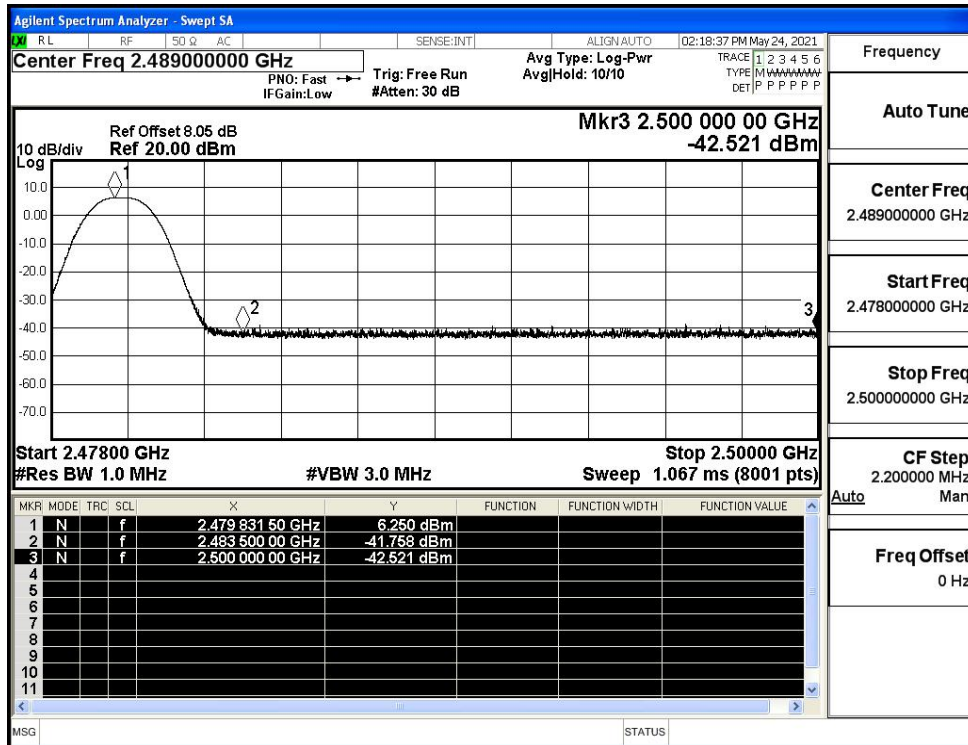
Restrict-band band-edge measurements_BT LE_2402_Ant1_PEAK



Restrict-band band-edge measurements_BT LE_2402_Ant1_AV



Restrict-band band-edge measurements_BT LE_2480_Ant1_PEAK



Restrict-band band-edge measurements_BT LE_2480_Ant1_AV

