

Appendix A

RF Test Data for BT V4.0(DTS) (Conducted Measurement)

Product Name: Orbitkey Bluetooth Tracker

Trade Mark: Orbitkey

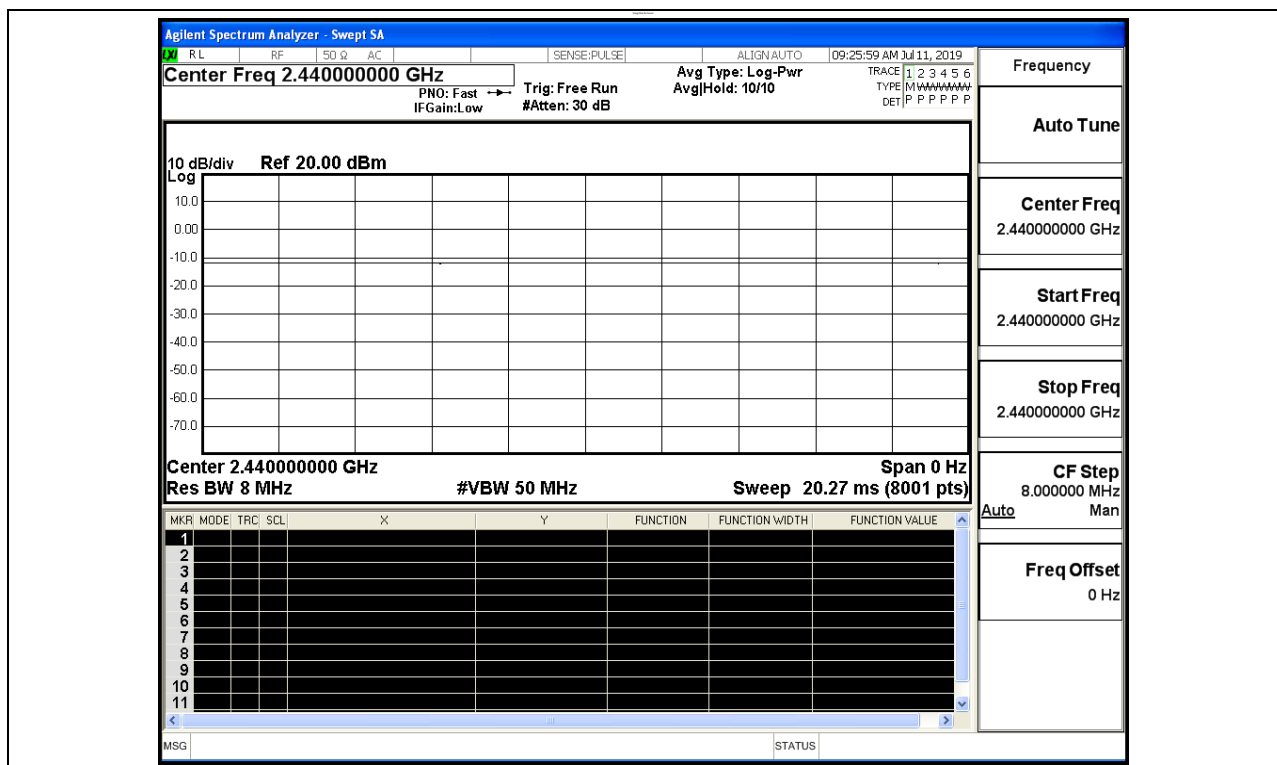
Test Model: OBT001

Environmental Conditions

Temperature:	24.7° C
Relative Humidity:	53.6%
ATM Pressure:	100.0 kPa
Test Engineer:	Li Huan
Supervised by:	Wang Chuang

A.1 Duty Cycle

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

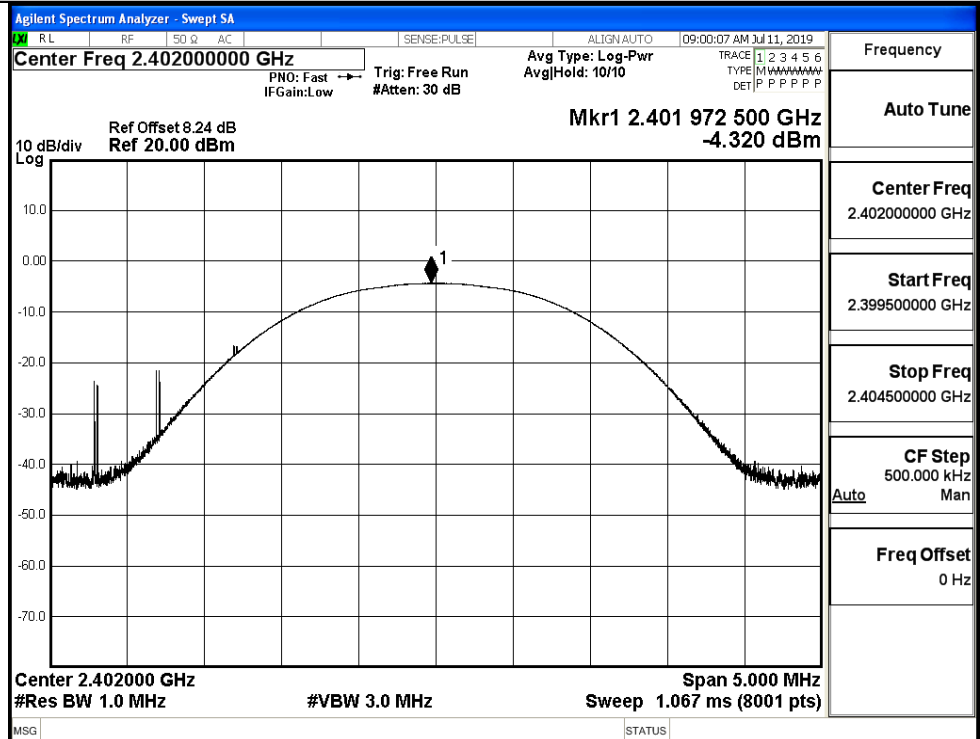


A.2 Maximum Conducted Peak Output Power

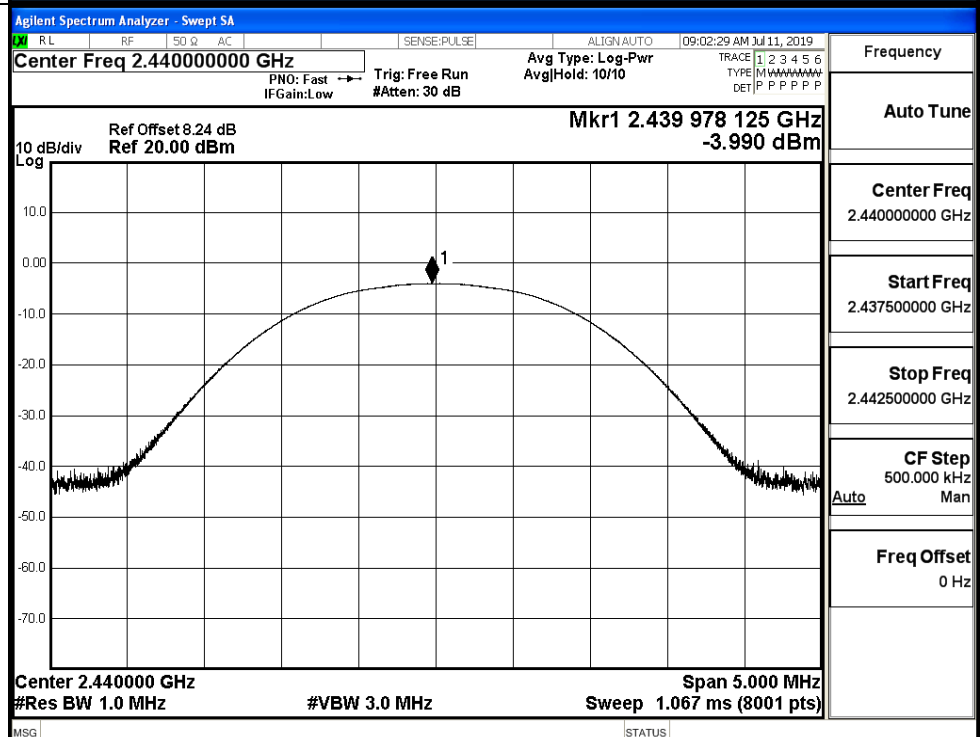
Mode	Channel	Conduct Peak Power[dBm]	Limit [dBm]	Verdict
BT LE	LCH	-4.32	30	PASS
BT LE	MCH	-3.99	30	PASS
BT LE	HCH	-4.968	30	PASS

Test Graphs

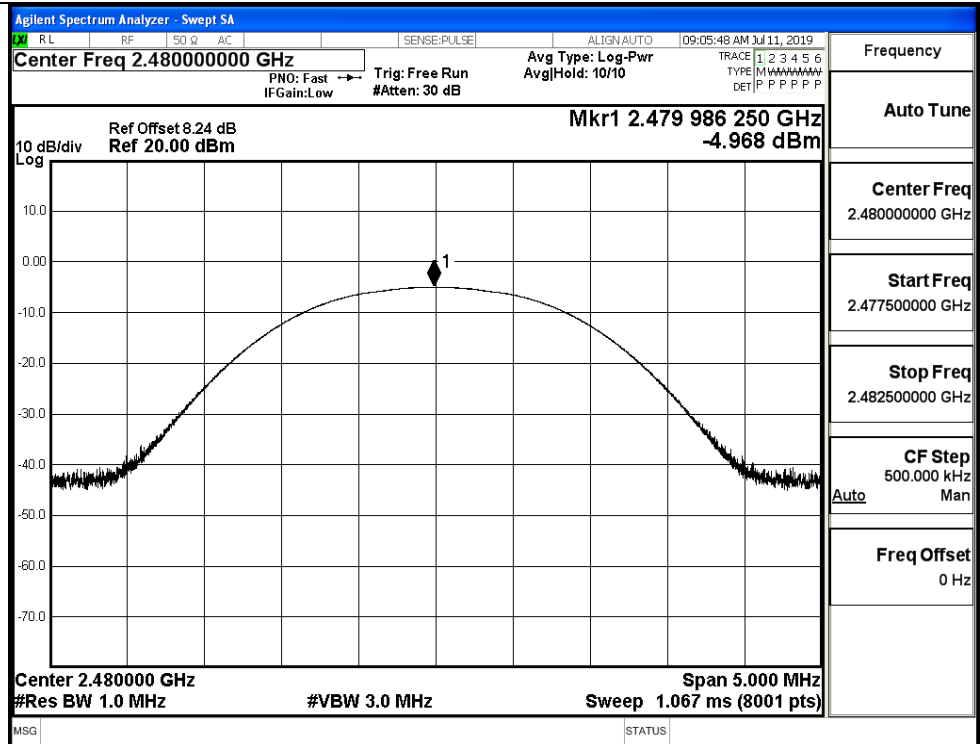
LCH



MCH



HCH

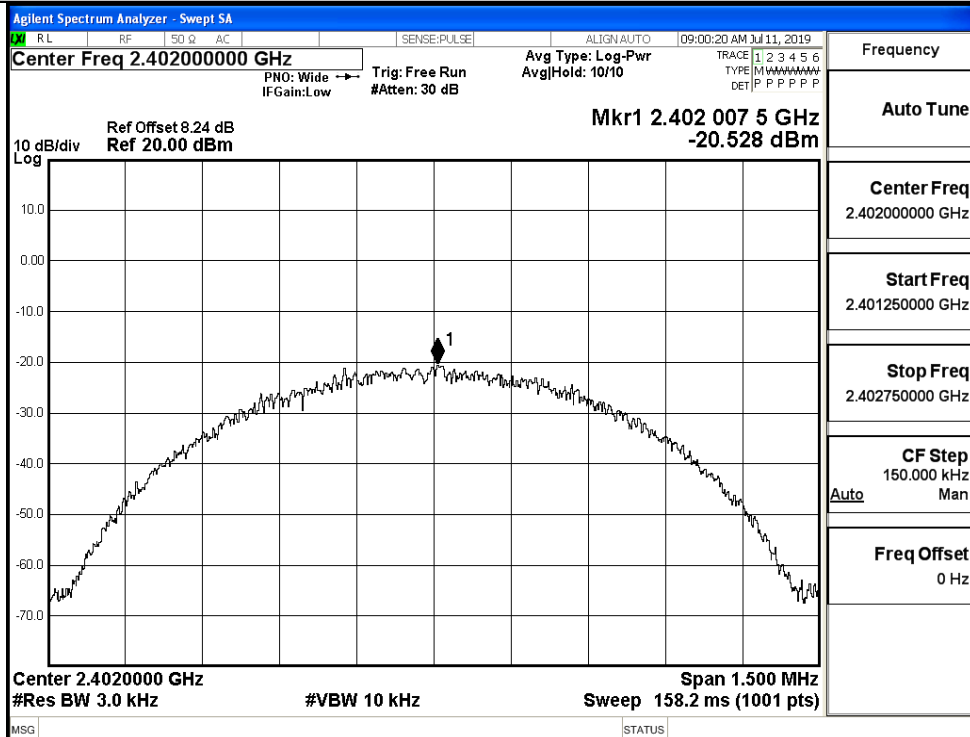


A.3 Maximum Power Spectral Density

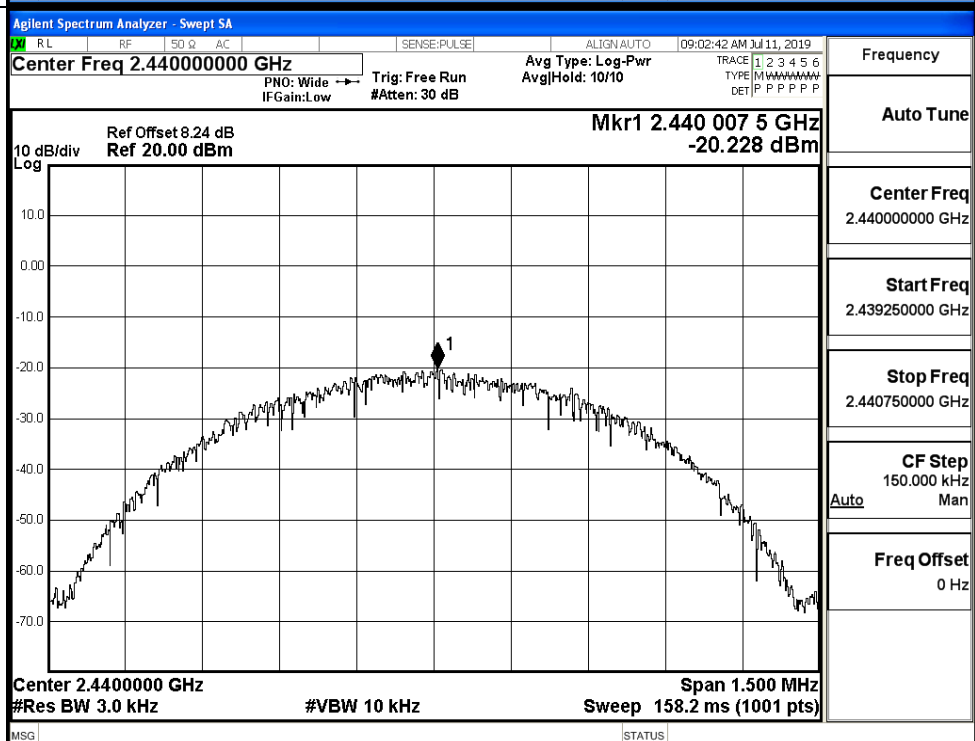
Mode	Channel	PSD [dBm/3KHz]	Limit [dBm/3KHz]	Verdict
BT LE	LCH	-20.528	8	PASS
BT LE	MCH	-20.228	8	PASS
BT LE	HCH	-21.343	8	PASS

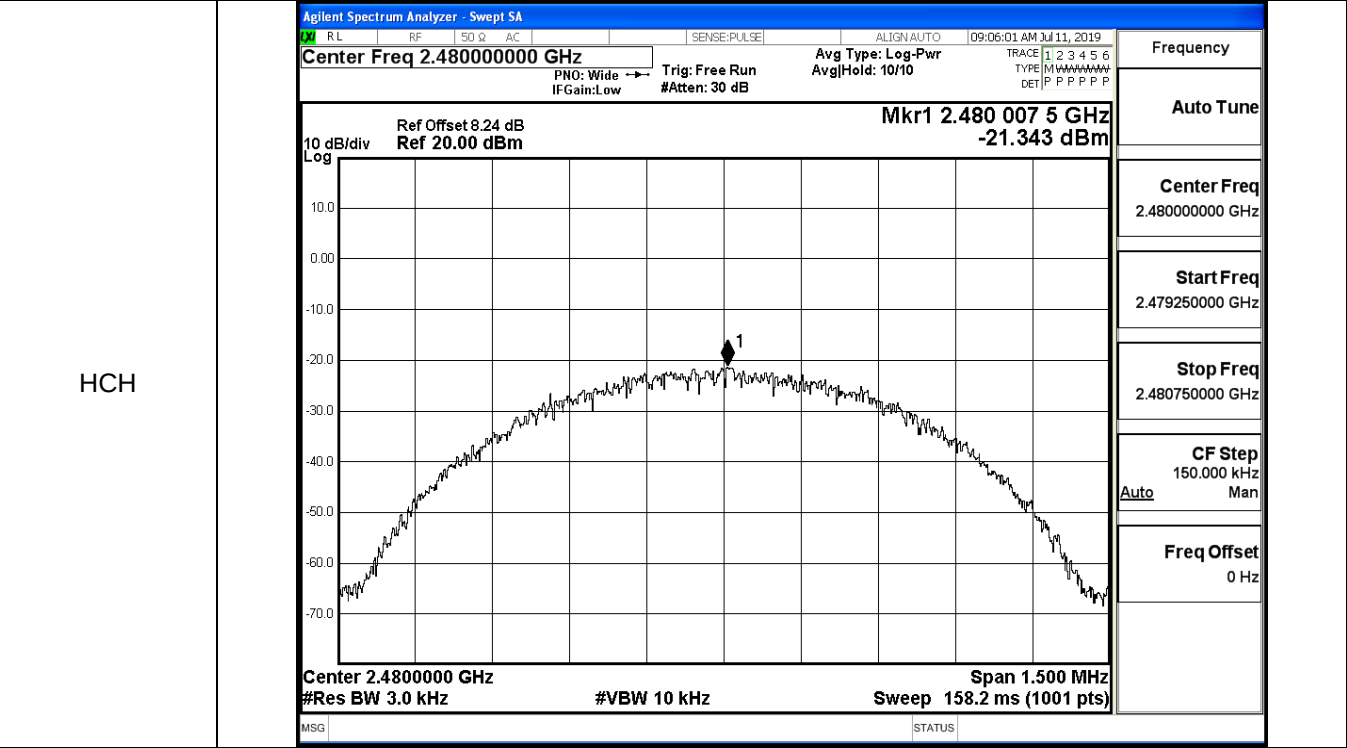
Test Graphs

LCH



MCH



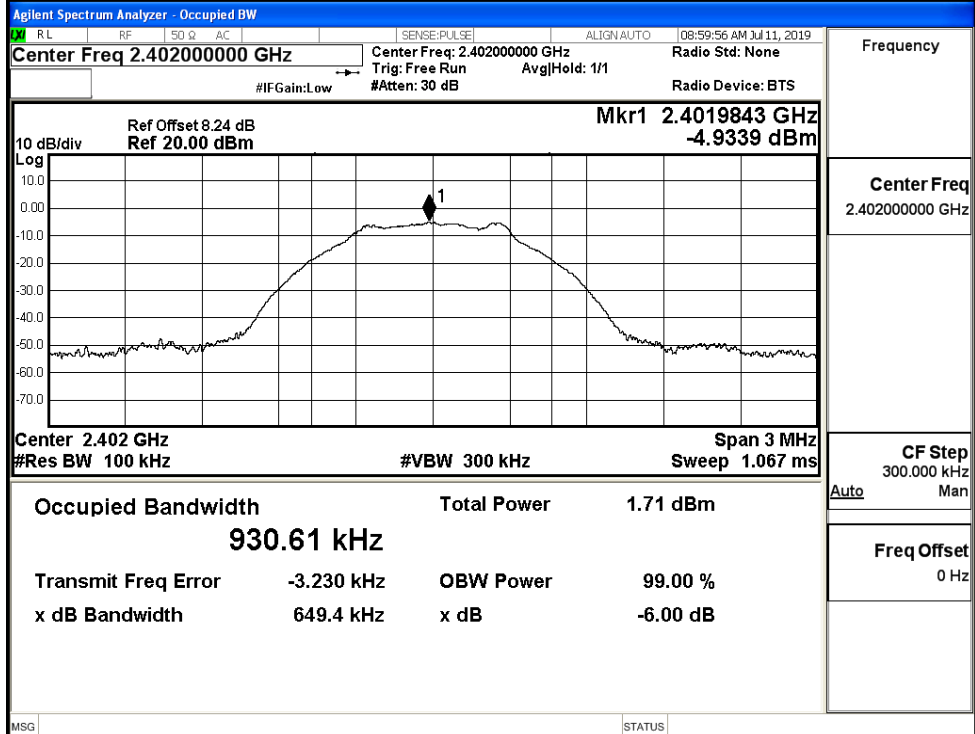


A.4 6dB Bandwidth

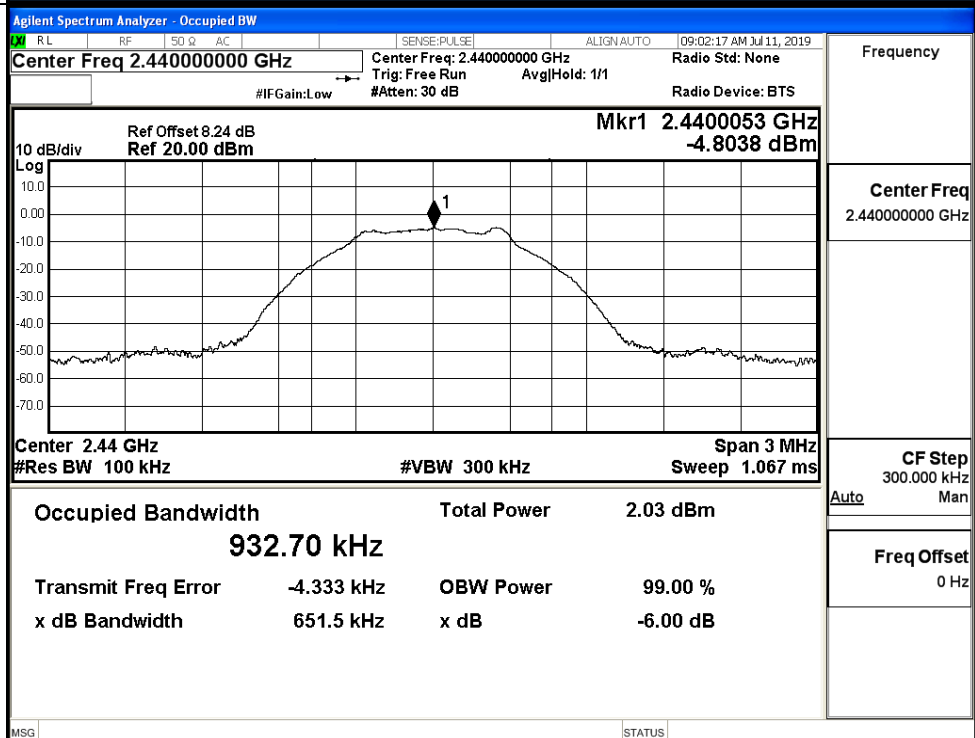
Mode	Channel	6dB Bandwidth [MHz]	Limit [MHz]	Verdict
BT LE	LCH	0.6494	≥ 0.5	PASS
BT LE	MCH	0.6515	≥ 0.5	PASS
BT LE	HCH	0.6470	≥ 0.5	PASS

Test Graphs

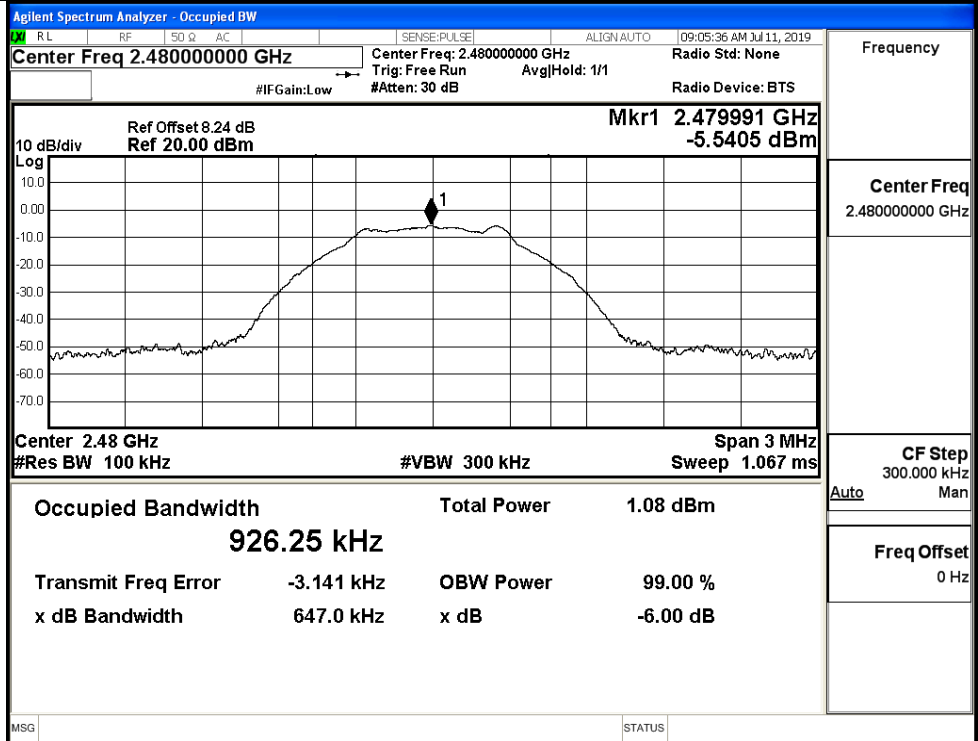
LCH



MCH



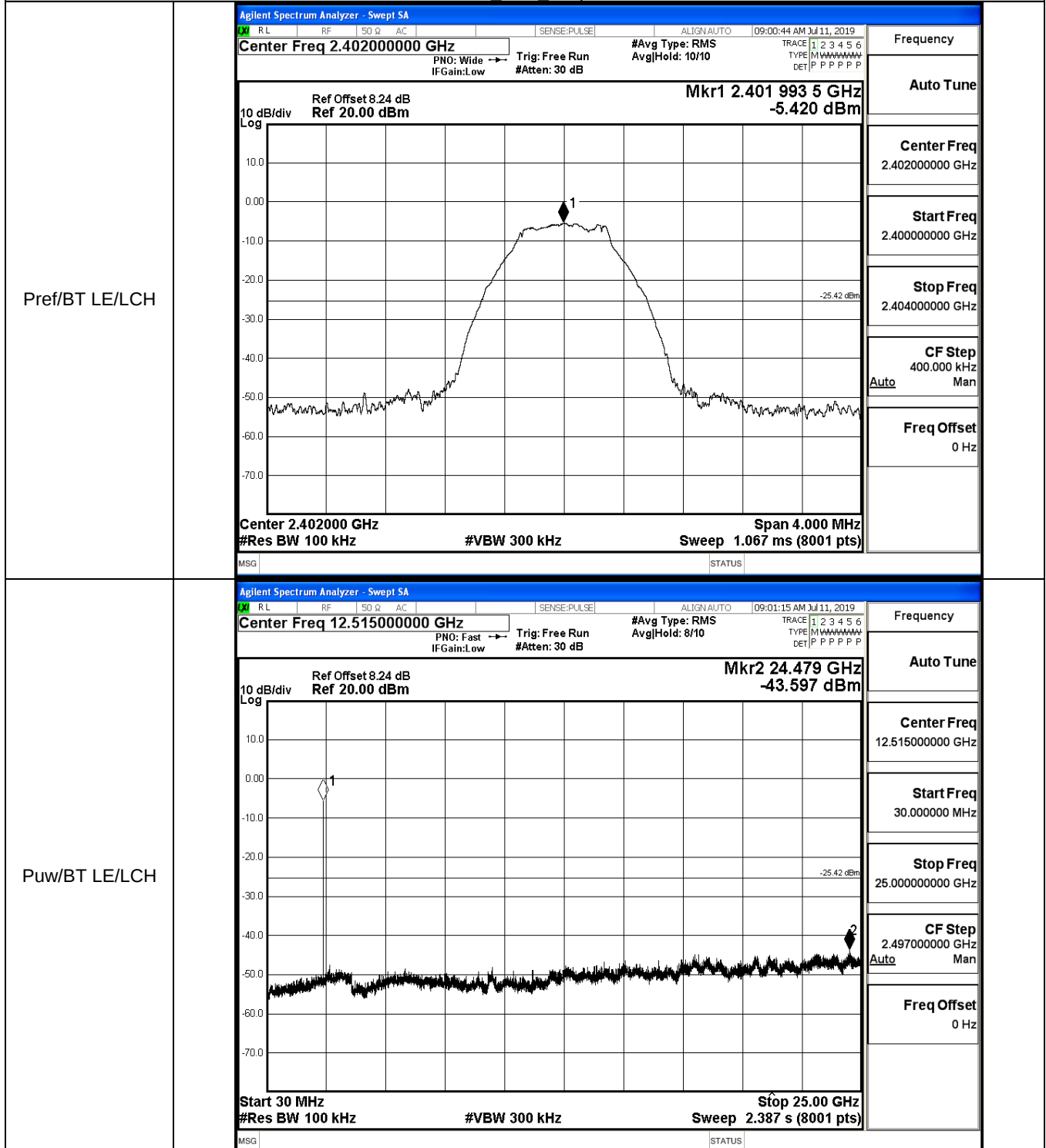
HCH



A.5 RF Conducted Spurious Emissions

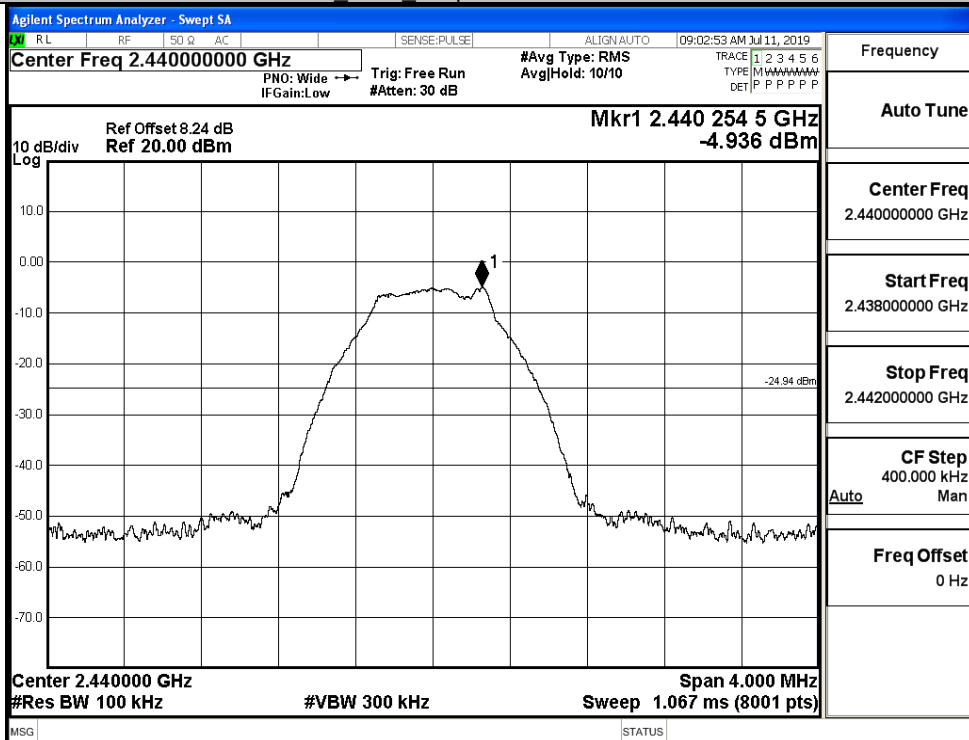
Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
BT LE	LCH	-5.42	-43.597	-25.420	PASS
BT LE	MCH	-4.936	-43.910	-24.936	PASS
BT LE	HCH	-5.864	-44.073	-25.864	PASS

BT LE LCH Graphs

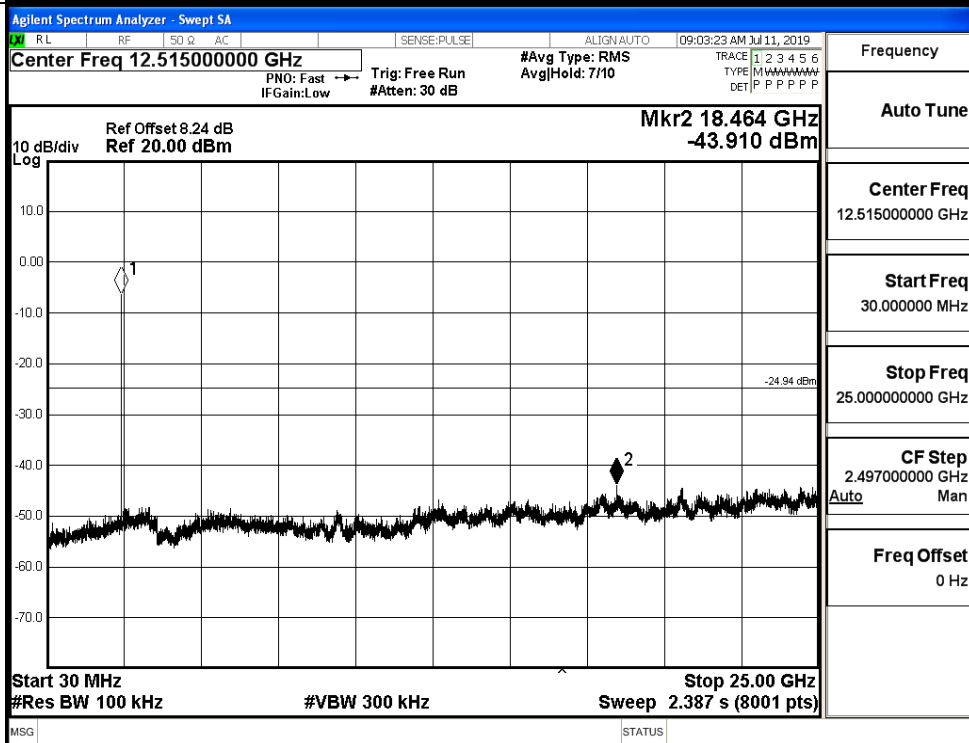


BT LE MCH Graphs

Pref/BT LE/MCH

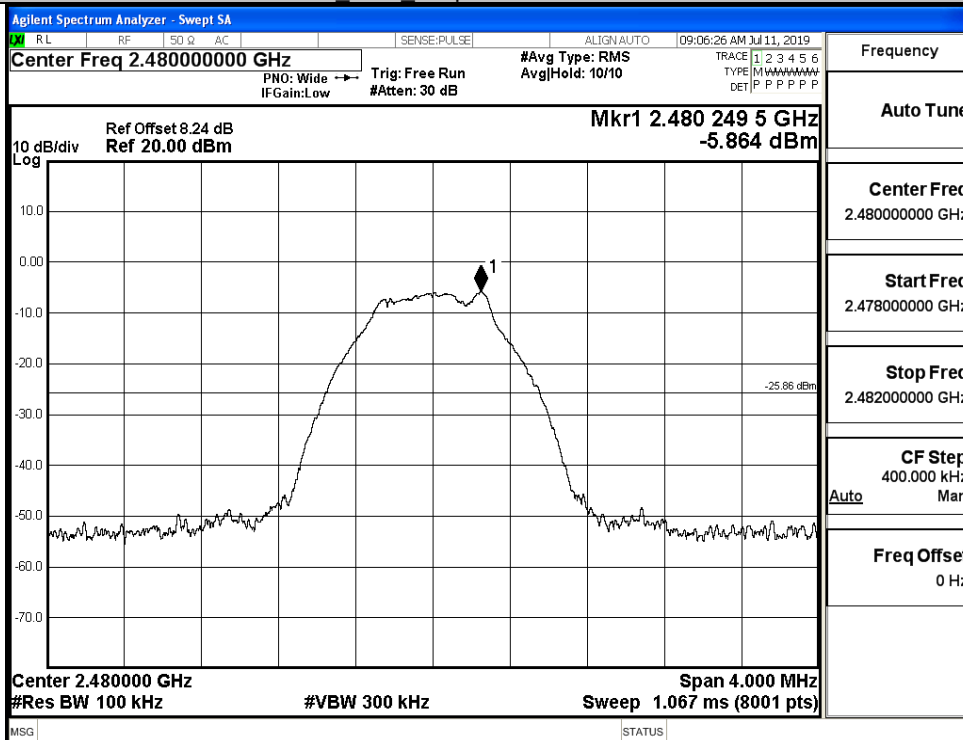


Puw/BT LE/MCH

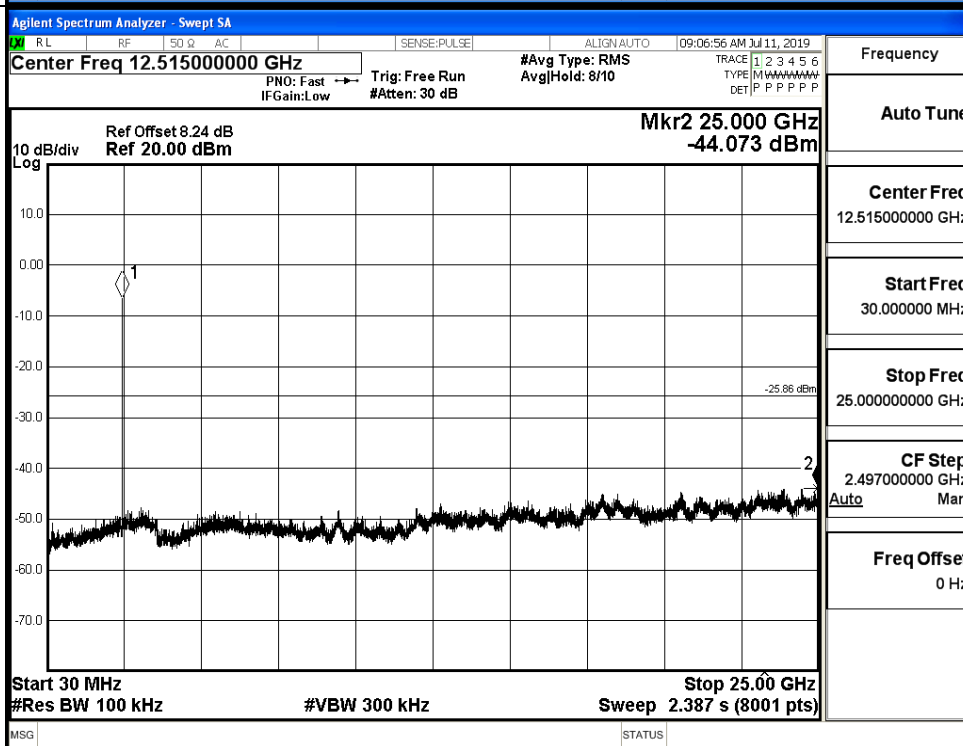


BT LE HCH Graphs

Pref/BT LE/HCH



Puw/BT LE/HCH

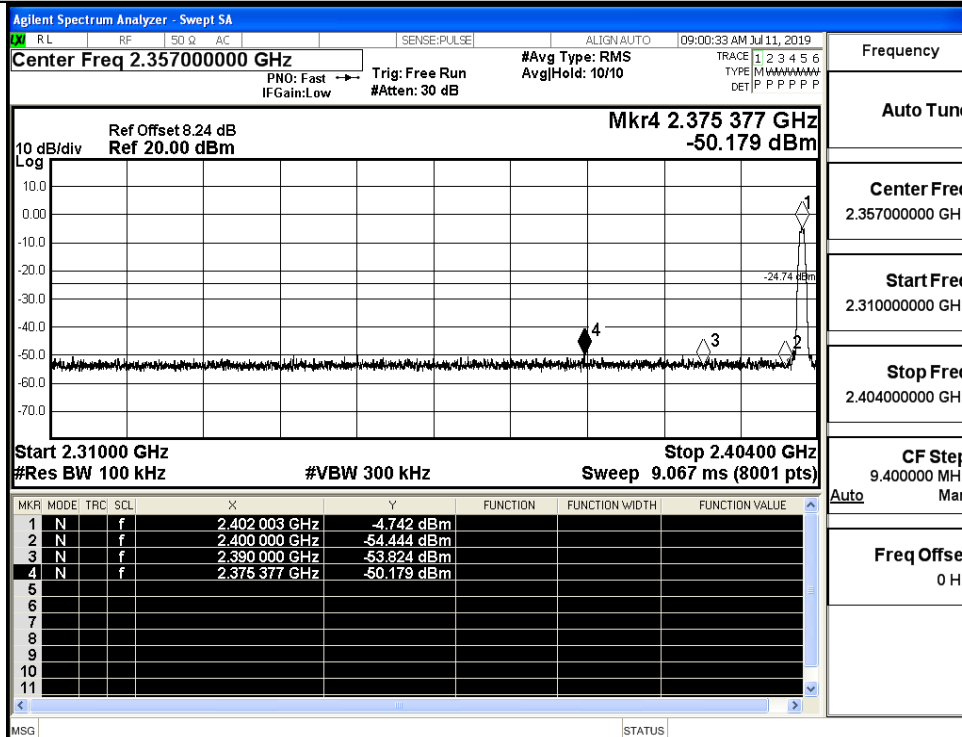


A.6 Band-edge for RF Conducted Emissions

Mode	Channel	Carrier Power[dBm]	Max.Spurious Level [dBm]	Limit [dBm]	Verdict
BT LE	LCH	-4.742	-50.179	-24.74	PASS
BT LE	HCH	-5.788	-49.687	-25.79	PASS

Test Graphs

LCH

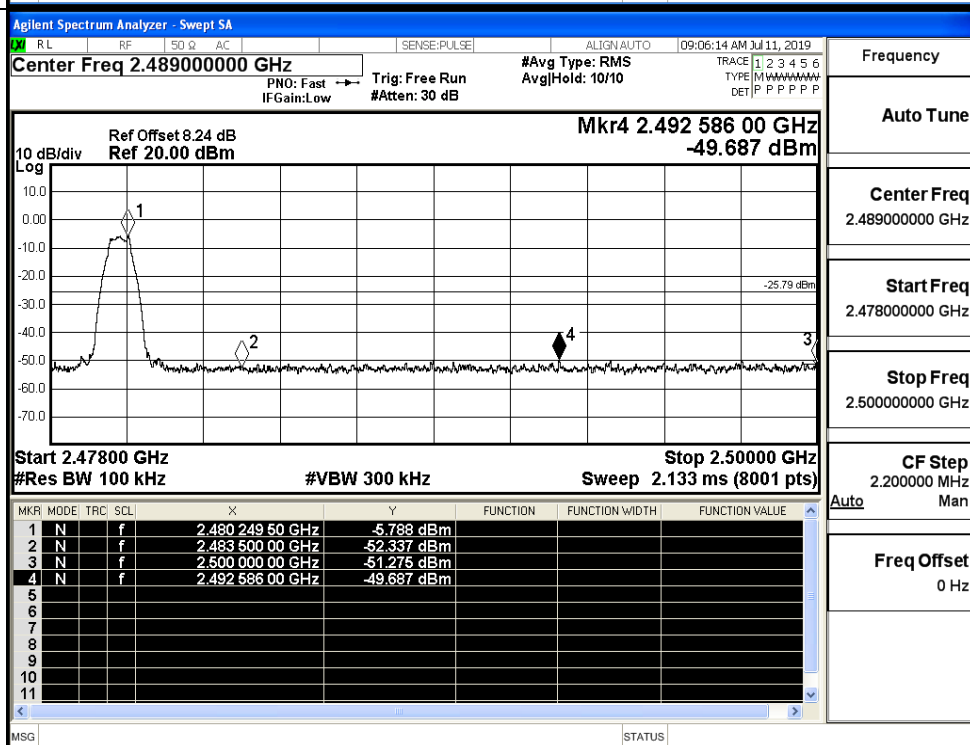


Frequency

Auto Tune

Center Freq
2.357000000 GHzStart Freq
2.310000000 GHzStop Freq
2.404000000 GHzCF Step
9.400000 MHz
Auto ManFreq Offset
0 Hz

HCH



Frequency

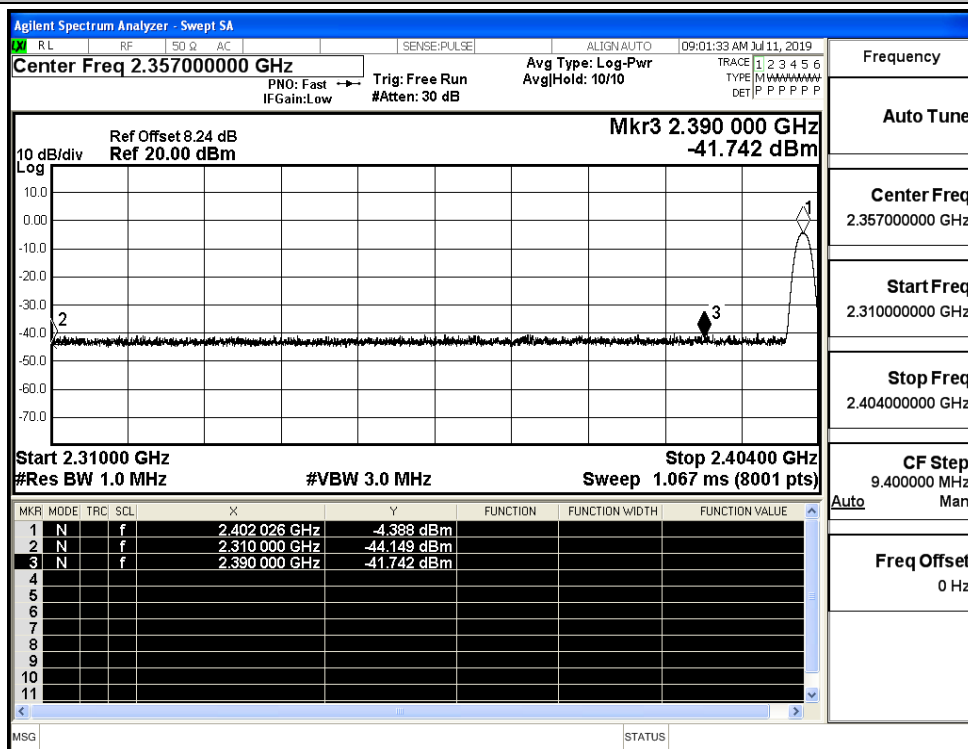
Auto Tune

Center Freq
2.489000000 GHzStart Freq
2.478000000 GHzStop Freq
2.500000000 GHzCF Step
2.200000 MHz
Auto ManFreq Offset
0 Hz

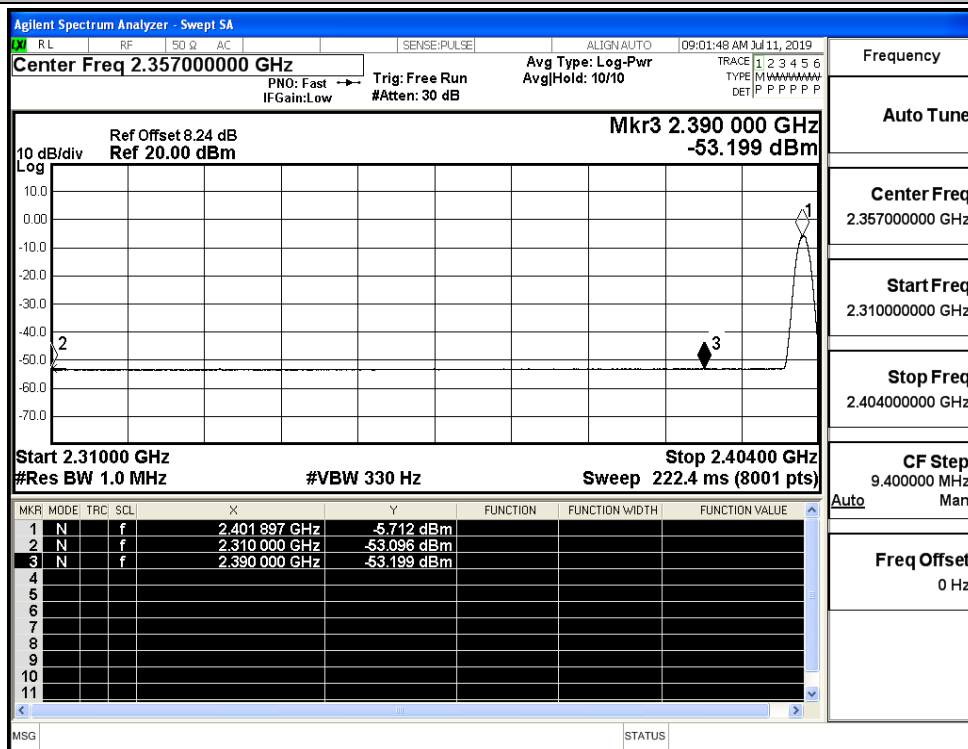
A.7 Restrict-band band-edge measurements

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	-44.15	2.0	0	51.11	PEAK	74	PASS
		Ant1	2310.0	-53.10	2.0	0	42.16	AV	54	PASS
		Ant1	2390.0	-41.74	2.0	0	53.52	PEAK	74	PASS
		Ant1	2390.0	-53.20	2.0	0	42.06	AV	54	PASS
	2480	Ant1	2483.5	-42.70	2.0	0	52.55	PEAK	74	PASS
		Ant1	2483.5	-52.88	2.0	0	42.38	AV	54	PASS
		Ant1	2500.0	-42.17	2.0	0	53.09	PEAK	74	PASS
		Ant1	2500.0	-52.66	2.0	0	42.60	AV	54	PASS

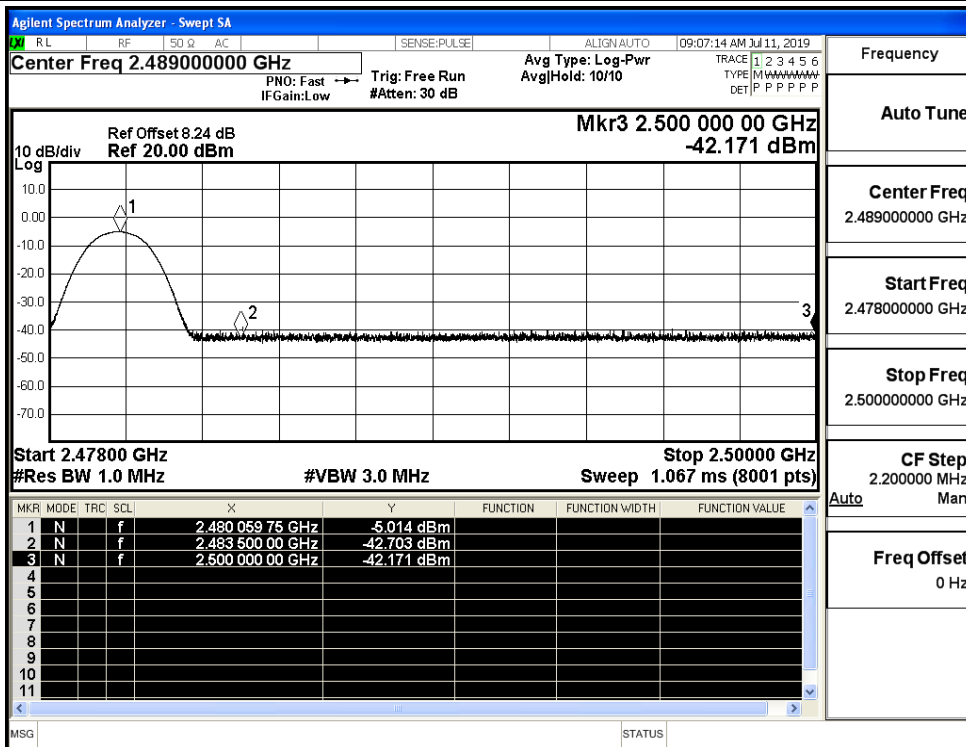
Restrict-band band-edge measurements_BT LE_2402_Ant1_PEAK



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

