

Appendix A

RF Test Data for BT V5.1(BLE) (Conducted Measurement)

Product Name: BLE Module

Trade Mark: Easywphy

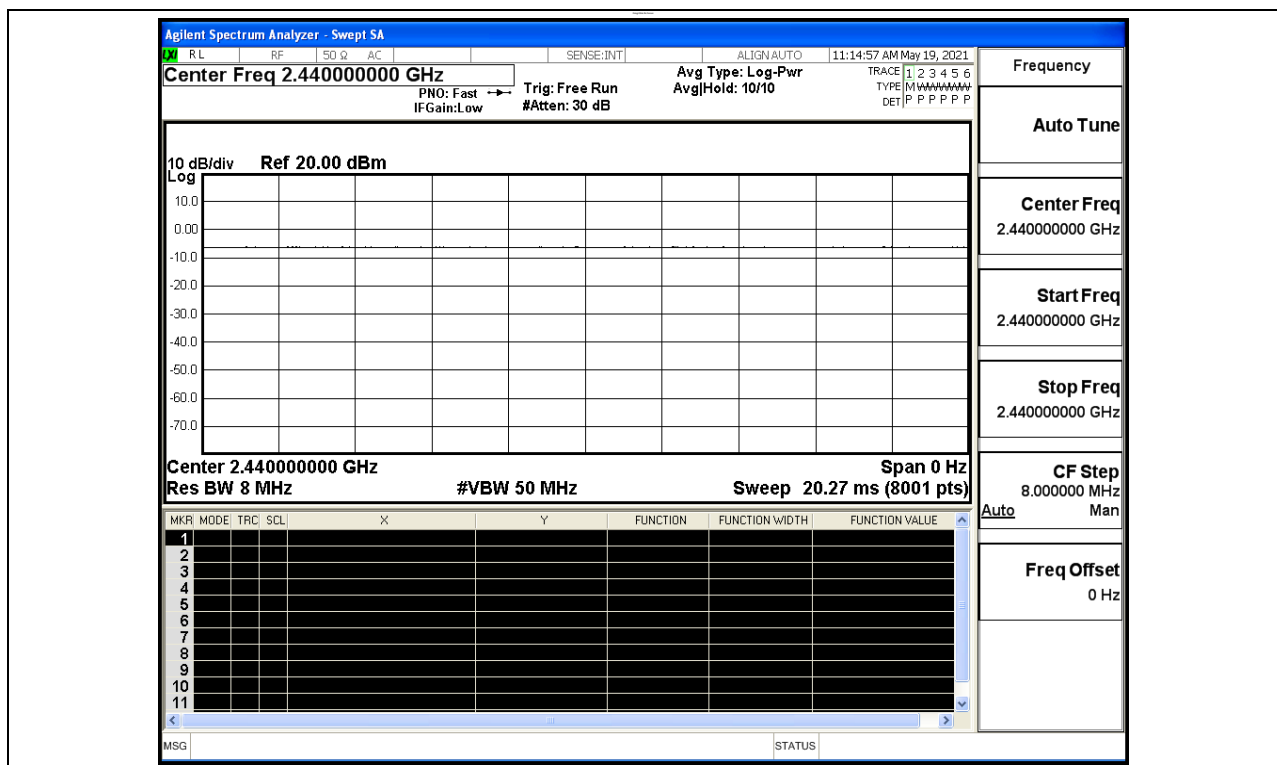
Test Model: EW-MOD02

Environmental Conditions

Temperature:	24.2 ° C
Relative Humidity:	54.1%
ATM Pressure:	100.0 kPa
Test Engineer:	Jay Li
Supervised by:	Li Huan

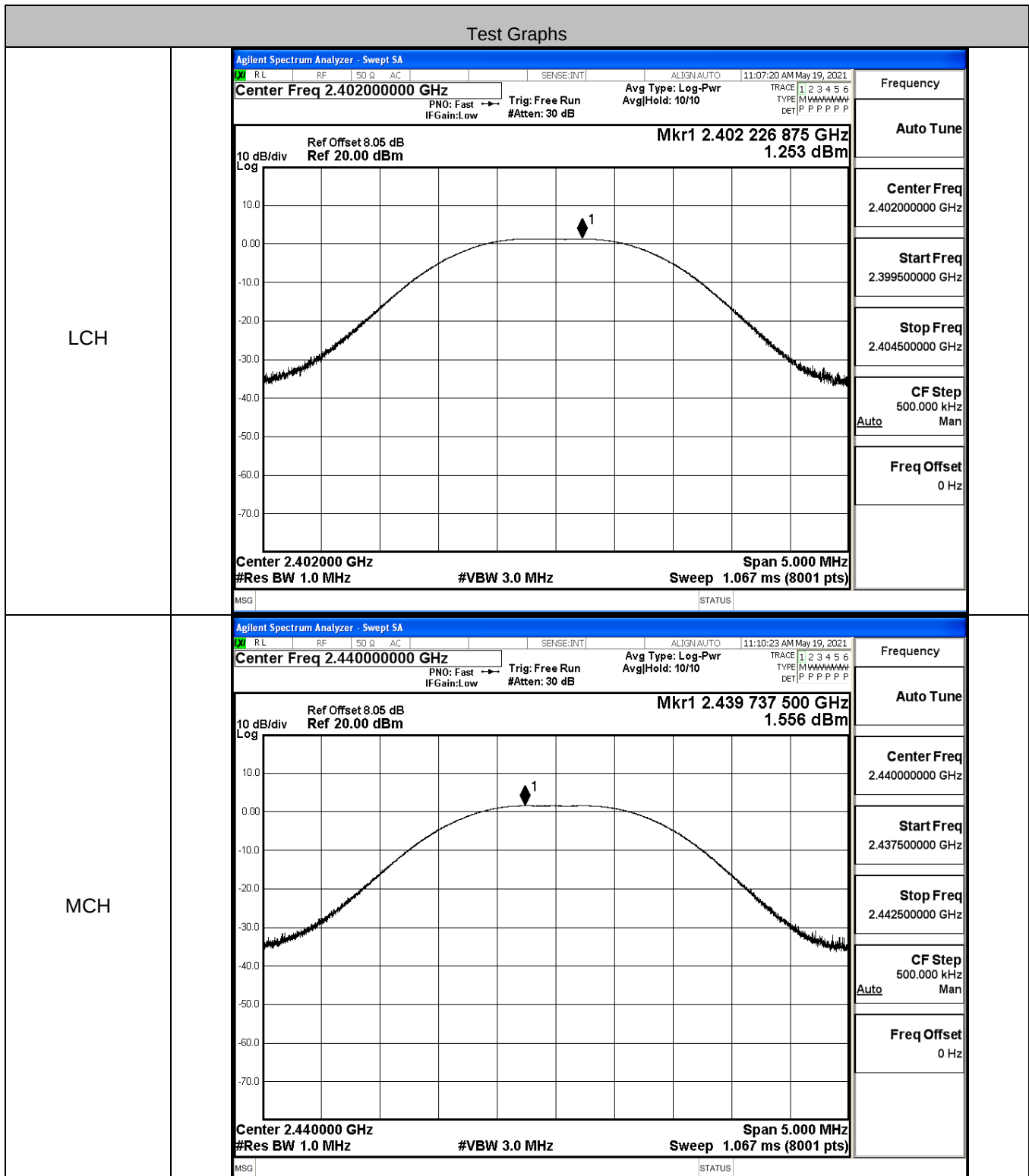
A.1 Duty Cycle

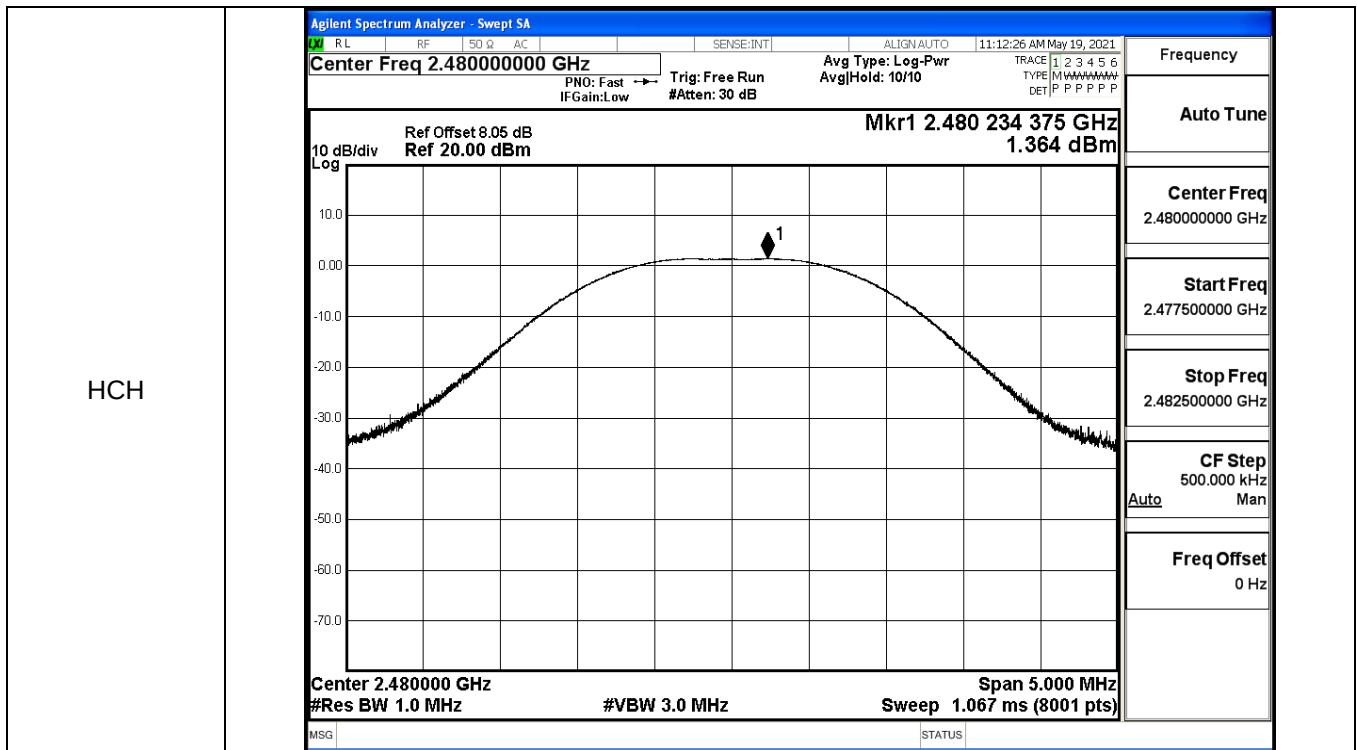
Test Mode	Test Channel	Ant	Duty Cycle[%]	Verdict
BT LE	2440	Ant1	100	PASS



A.2 Maximum Conducted Peak Output Power

Mode	Channel	Conduct Peak Power[dBm]	Limit [dBm]	Verdict
BT LE	LCH	1.253	30	PASS
BT LE	MCH	1.556	30	PASS
BT LE	HCH	1.364	30	PASS



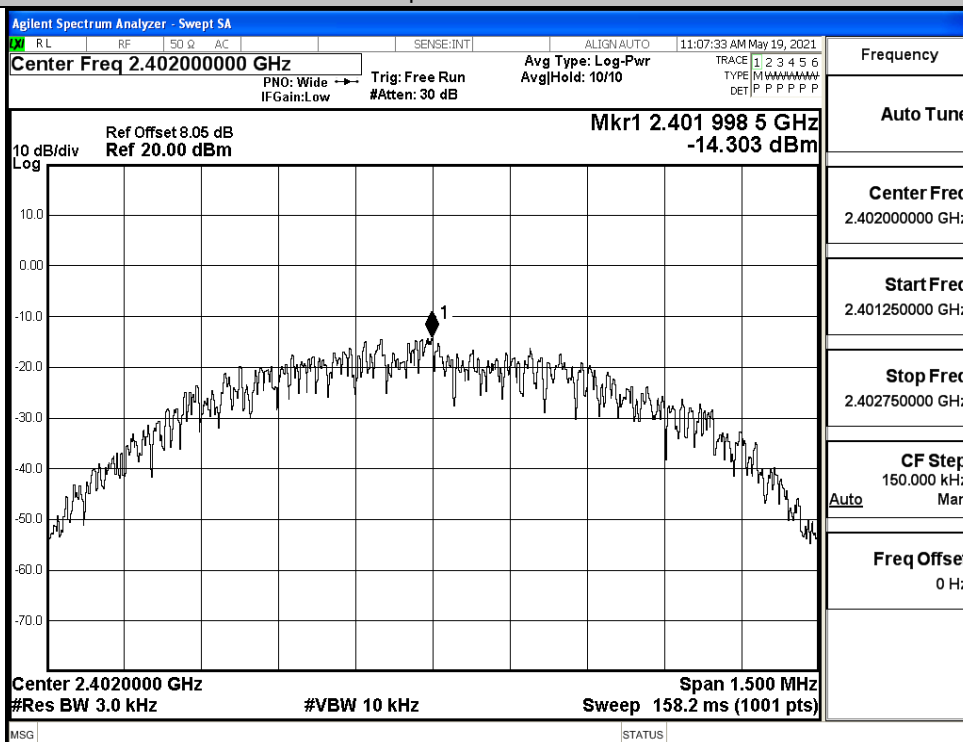


A.3 Maximum Power Spectral Density

Mode	Channel	PSD [dBm/3KHz]	Limit [dBm/3KHz]	Verdict
BT LE	LCH	-14.303	8	PASS
BT LE	MCH	-13.595	8	PASS
BT LE	HCH	-13.766	8	PASS

Test Graphs

LCH

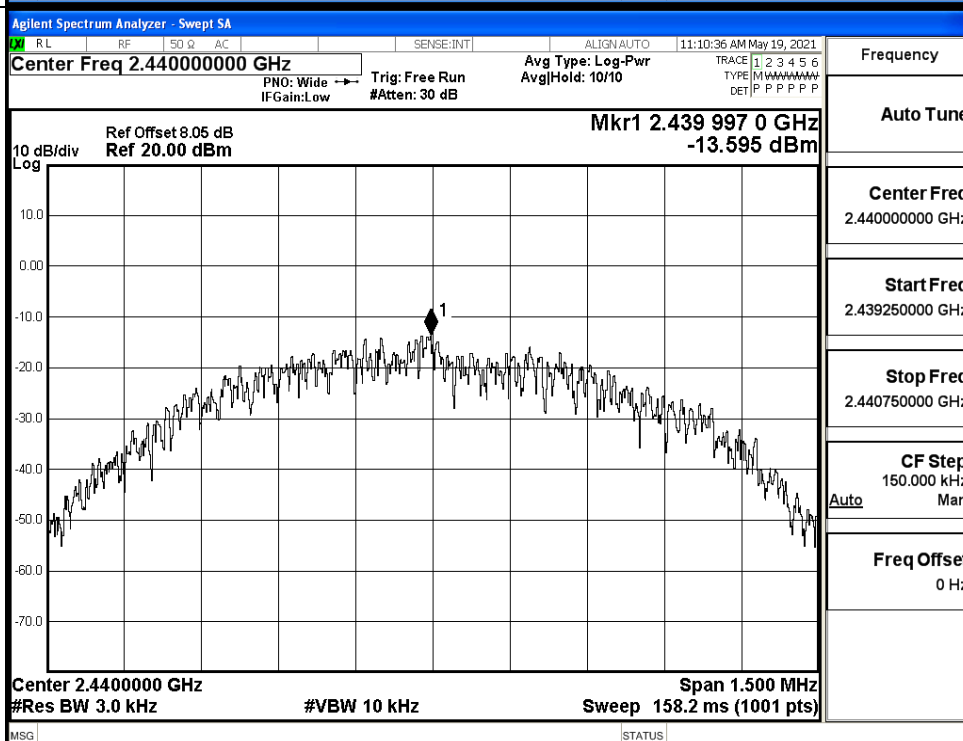


Frequency

Auto Tune

Center Freq
2.402000000 GHzStart Freq
2.401250000 GHzStop Freq
2.402750000 GHzCF Step
150.000 kHz
Auto ManFreq Offset
0 Hz

MCH

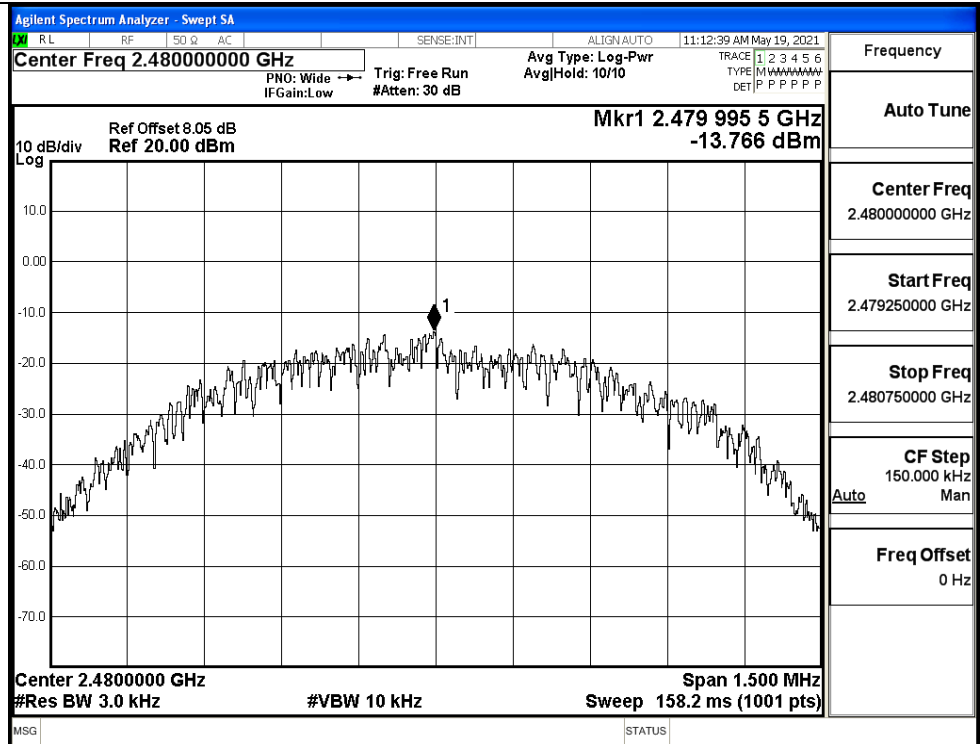


Frequency

Auto Tune

Center Freq
2.440000000 GHzStart Freq
2.439250000 GHzStop Freq
2.440750000 GHzCF Step
150.000 kHz
Auto ManFreq Offset
0 Hz

HCH

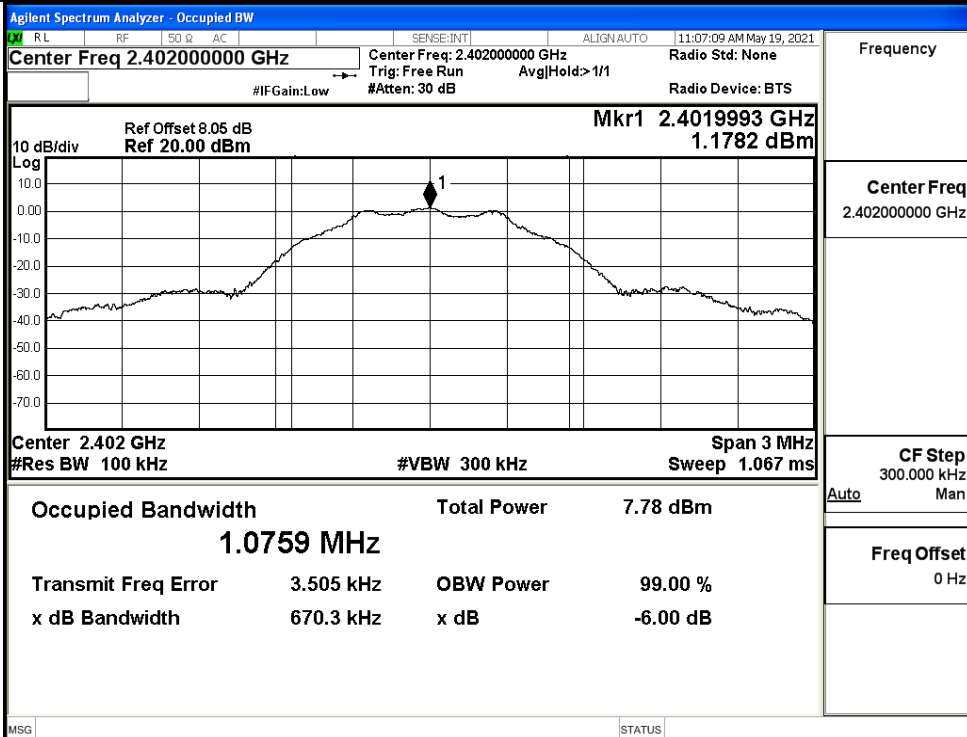


A.4 6dB Bandwidth

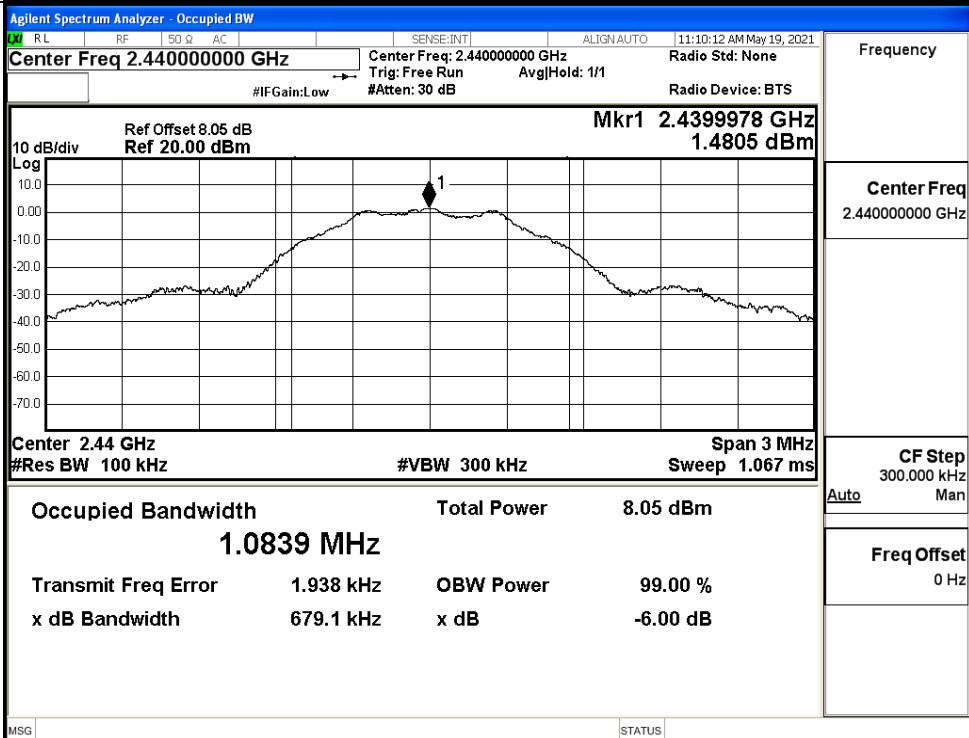
Mode	Channel	6dB Bandwidth [MHz]	Limit [MHz]	Verdict
BT LE	LCH	0.6703	≥ 0.5	PASS
BT LE	MCH	0.6791	≥ 0.5	PASS
BT LE	HCH	0.6799	≥ 0.5	PASS

Test Graphs

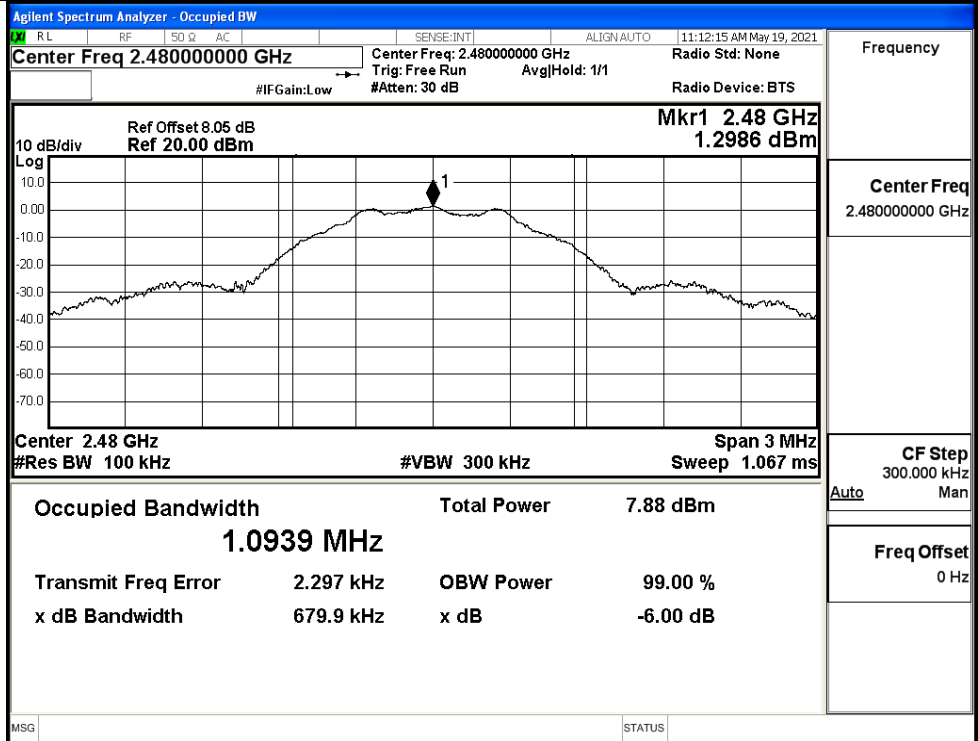
LCH



MCH

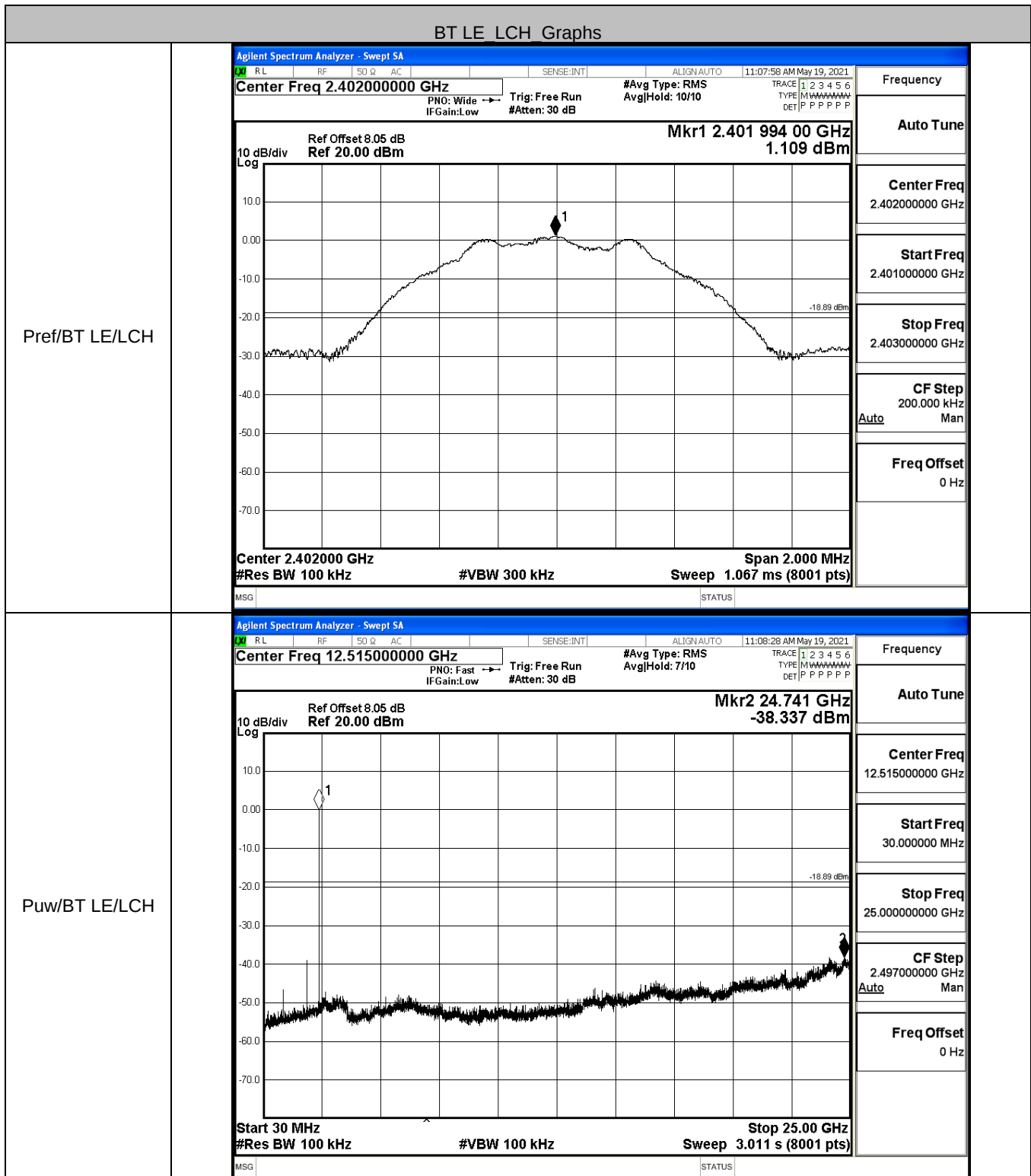


HCH



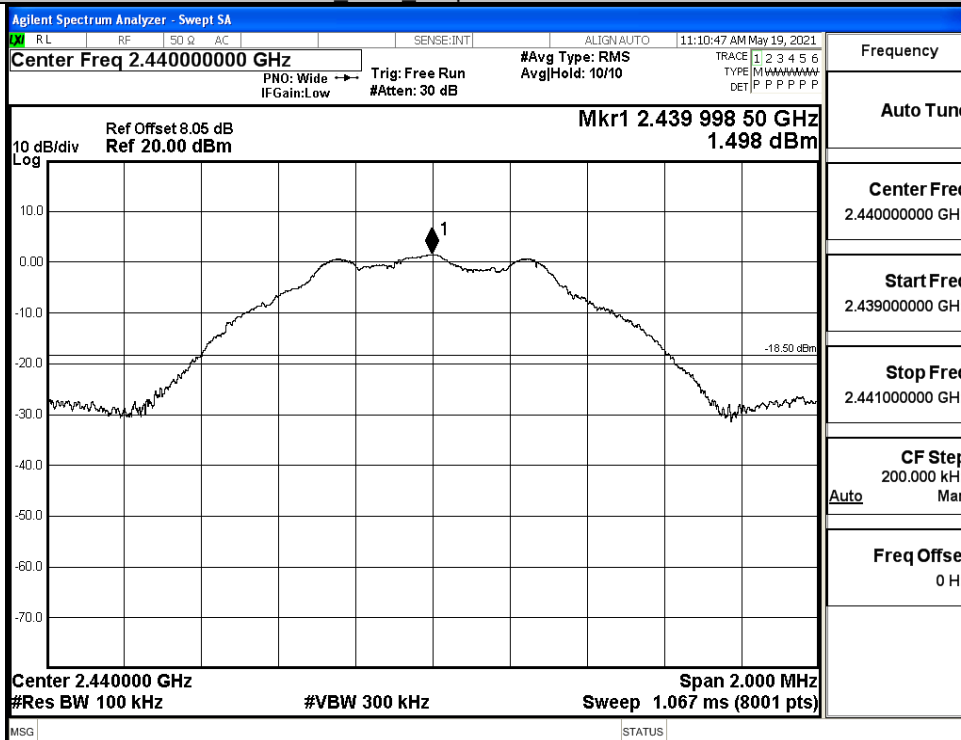
A.6 RF Conducted Spurious Emissions

Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
BT LE	LCH	1.109	-38.337	-18.891	PASS
BT LE	MCH	1.498	-38.032	-18.502	PASS
BT LE	HCH	1.292	-38.169	-18.708	PASS

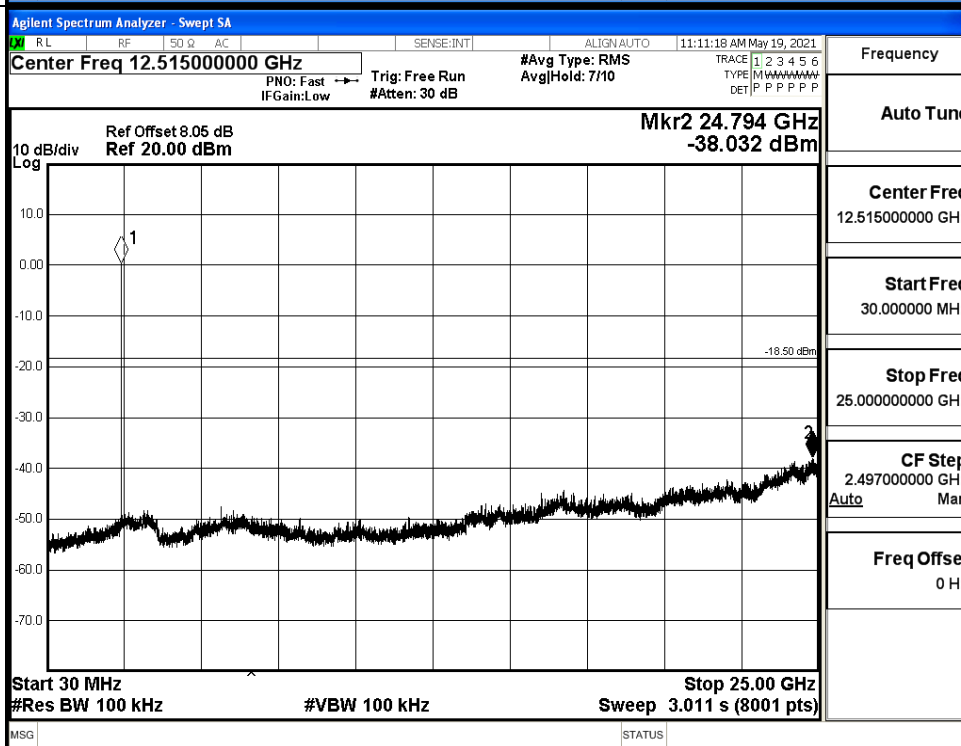


BT LE MCH Graphs

Pref/BT LE/MCH

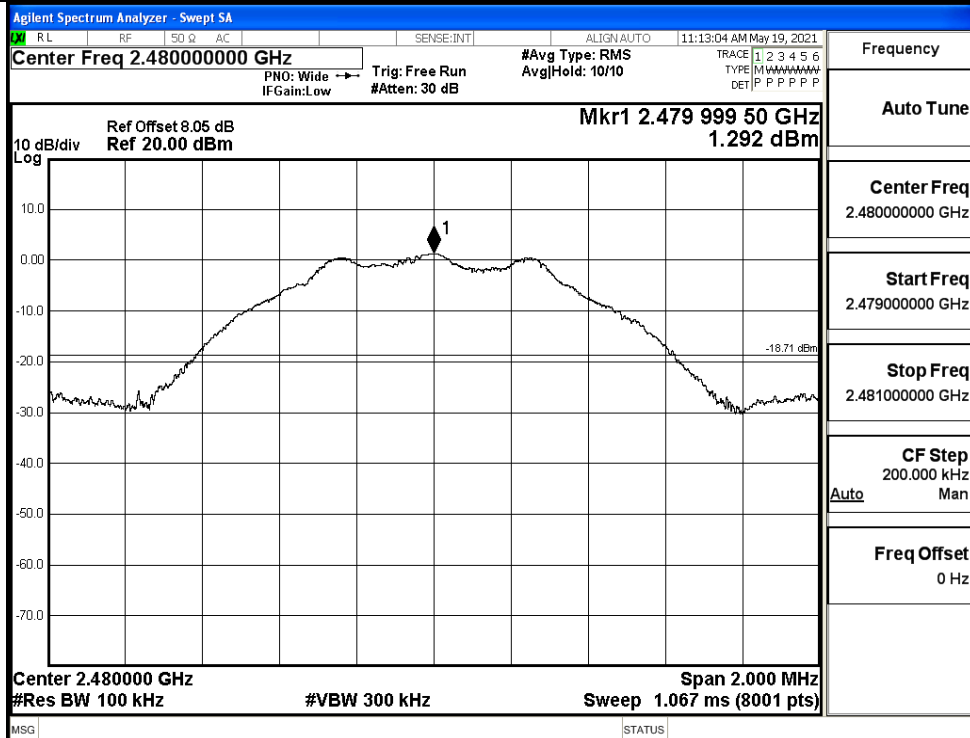


Puw/BT LE/MCH



BT LE HCH Graphs

Pref/BT LE/HCH



Puw/BT LE/HCH

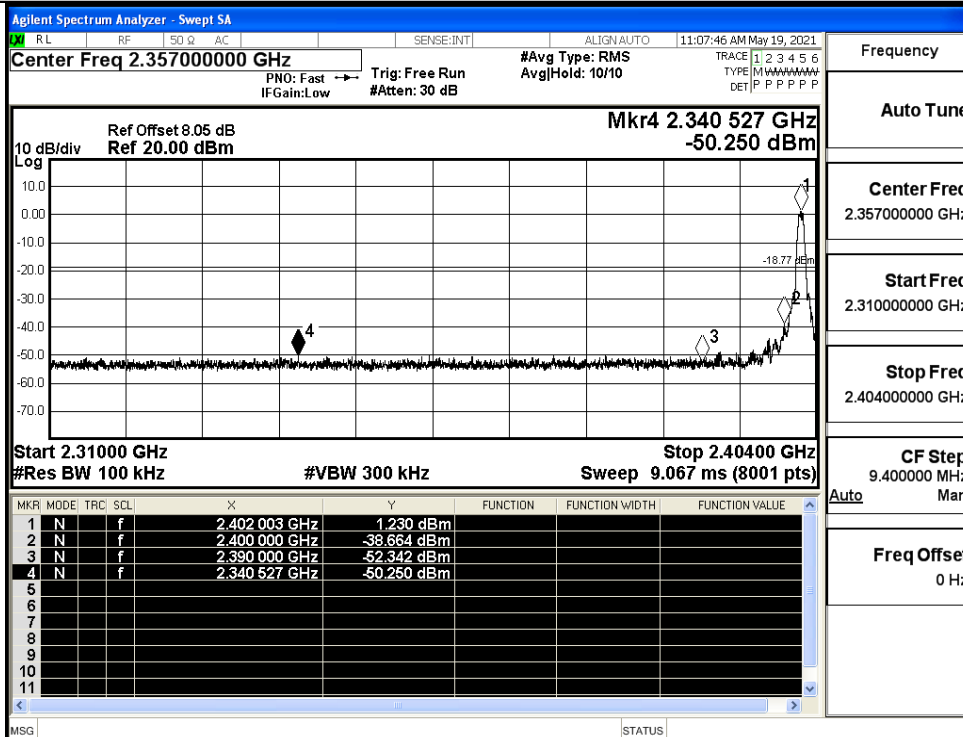


A.7 Band-edge for RF Conducted Emissions

Mode	Channel	Carrier Power[dBm]	Max.Spurious Level [dBm]	Limit [dBm]	Verdict
BT LE	LCH	1.230	-50.250	-18.77	PASS
BT LE	HCH	1.364	-45.382	-18.64	PASS

Test Graphs

LCH

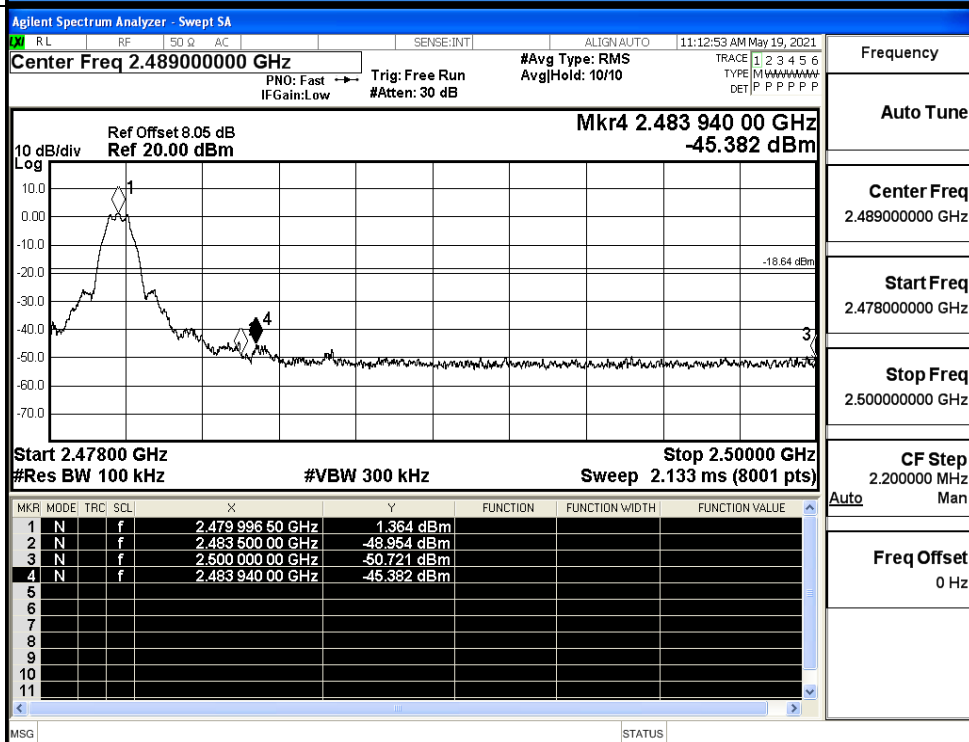


Frequency

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

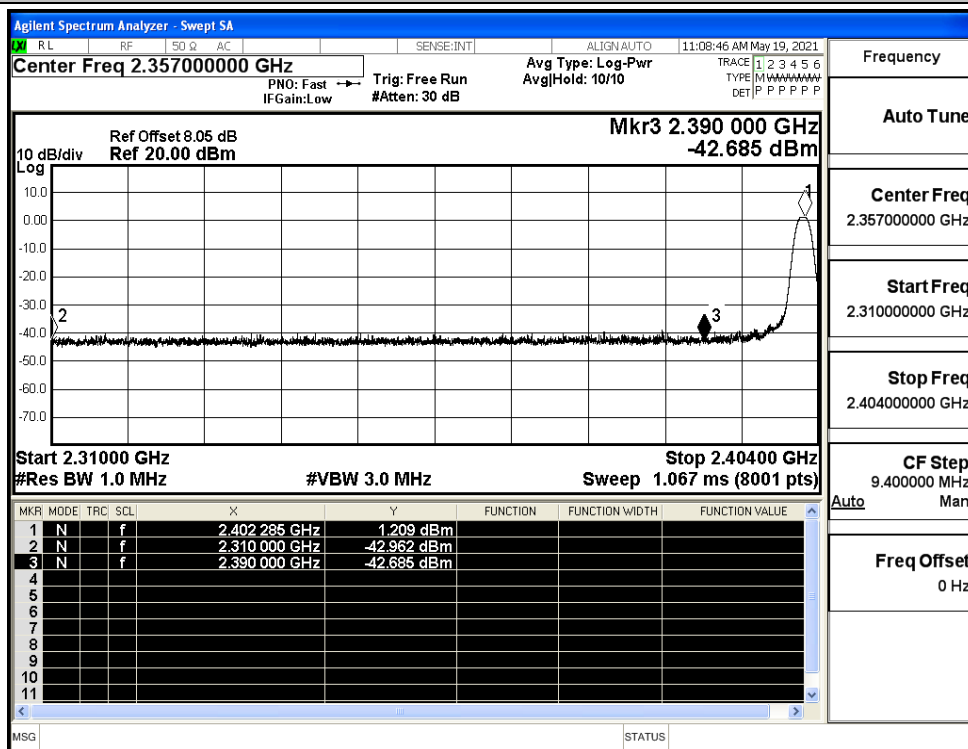
Auto Tune

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

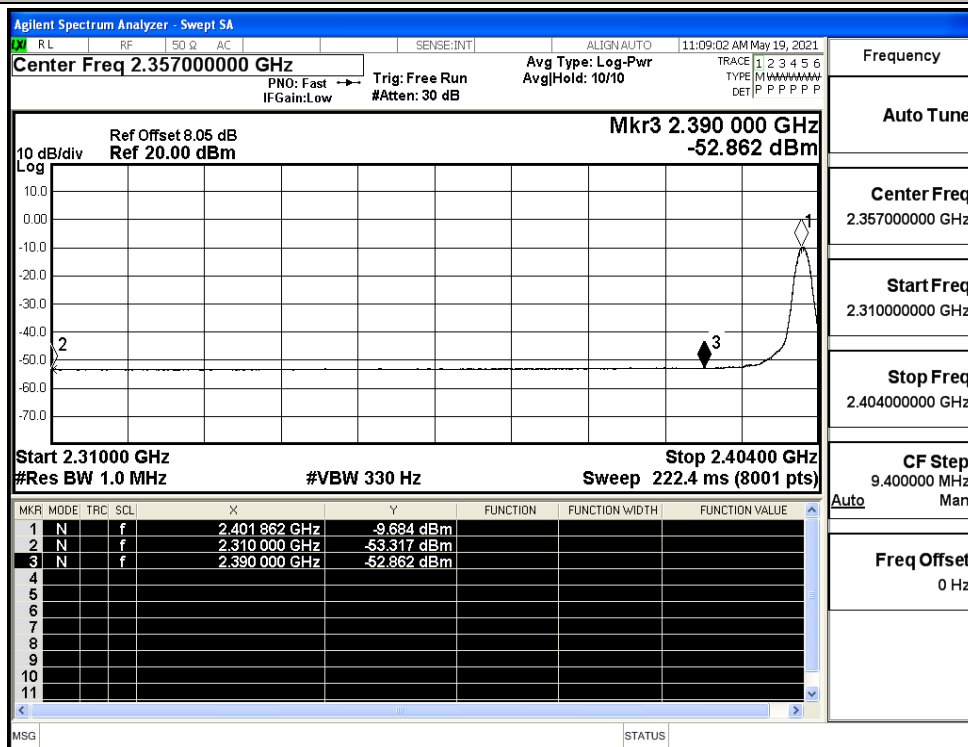
A.8 Restrict-band band-edge measurements

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	-42.96	2.0	0	54.30	PEAK	74	PASS
		Ant1	2310.0	-53.32	2.0	0	43.94	AV	54	PASS
		Ant1	2390.0	-42.69	2.0	0	54.57	PEAK	74	PASS
		Ant1	2390.0	-52.86	2.0	0	44.40	AV	54	PASS
	2480	Ant1	2483.5	-38.93	2.0	0	58.32	PEAK	74	PASS
		Ant1	2483.5	-48.52	2.0	0	48.74	AV	54	PASS
		Ant1	2500.0	-40.85	2.0	0	56.40	PEAK	74	PASS
		Ant1	2500.0	-52.33	2.0	0	44.93	AV	54	PASS

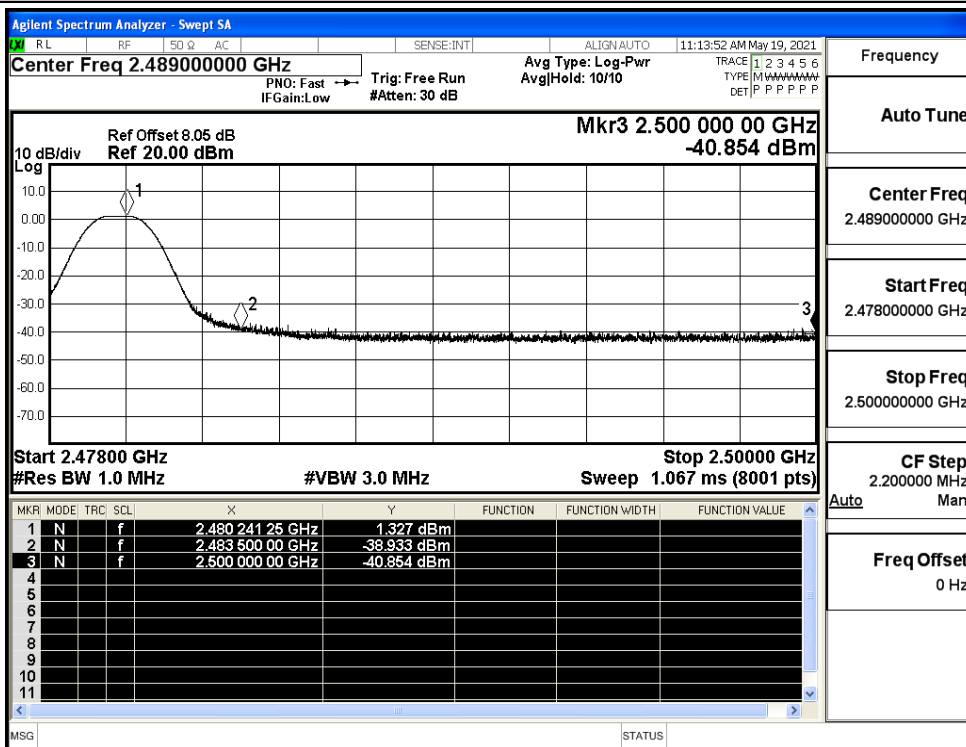
Restrict-band band-edge measurements_BT LE_2402_Ant1_PEAK



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

