

Appendix A

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

Product Name: Smart LED Bulb

Trade Mark:  **ECOLOR**

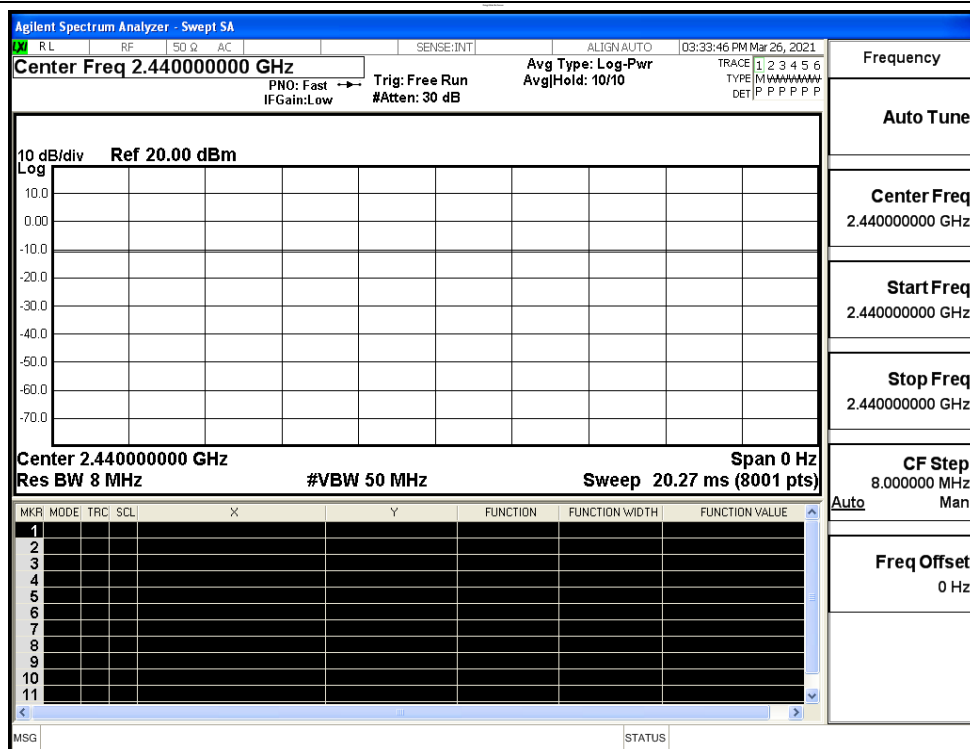
Test Model: E0201

Environmental Conditions

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

A.1 Duty Cycle

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

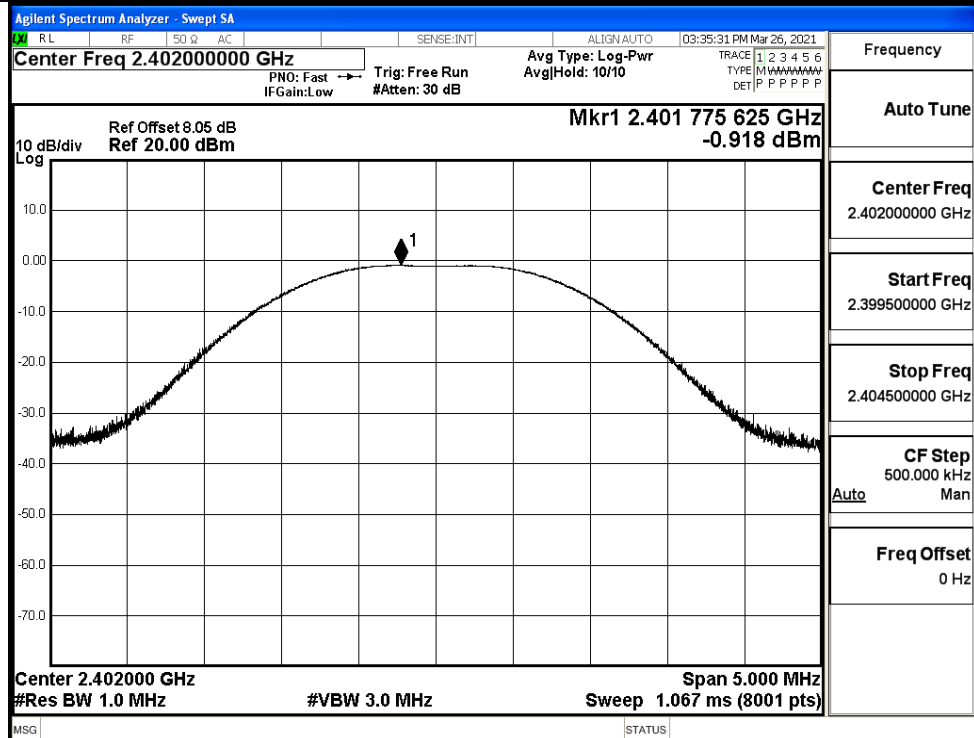


A.2 Maximum Conducted Peak Output Power

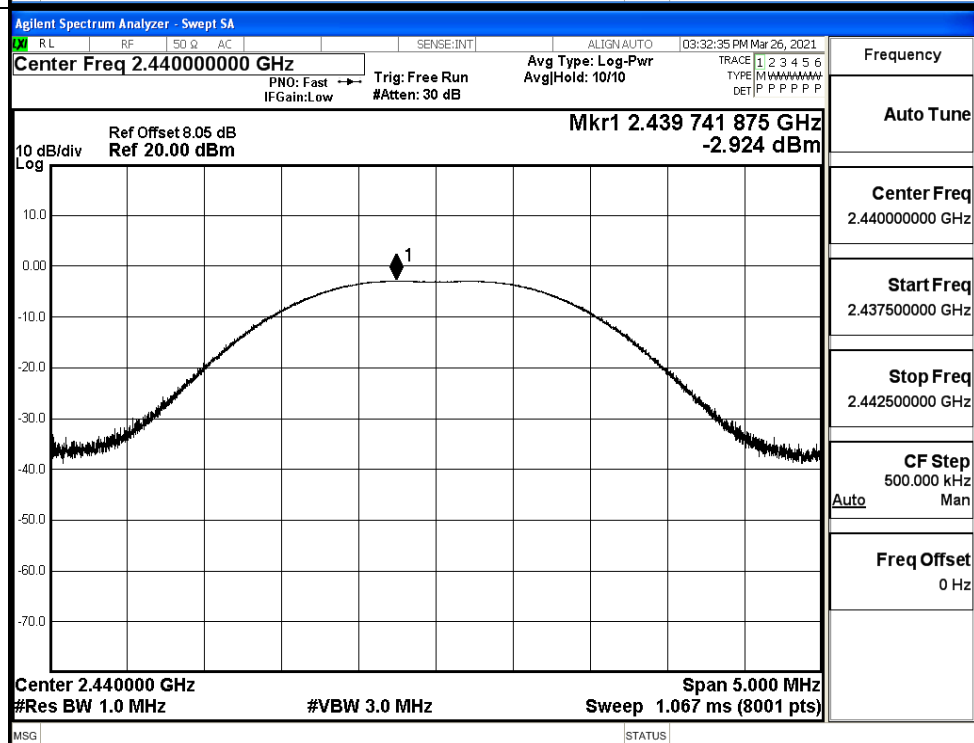
Mode	Channel	Conduct Peak Power[dBm]	Limit [dBm]	Verdict
BT LE	LCH	-0.918	30	PASS
BT LE	MCH	-2.924	30	PASS
BT LE	HCH	-4.694	30	PASS

Test Graphs

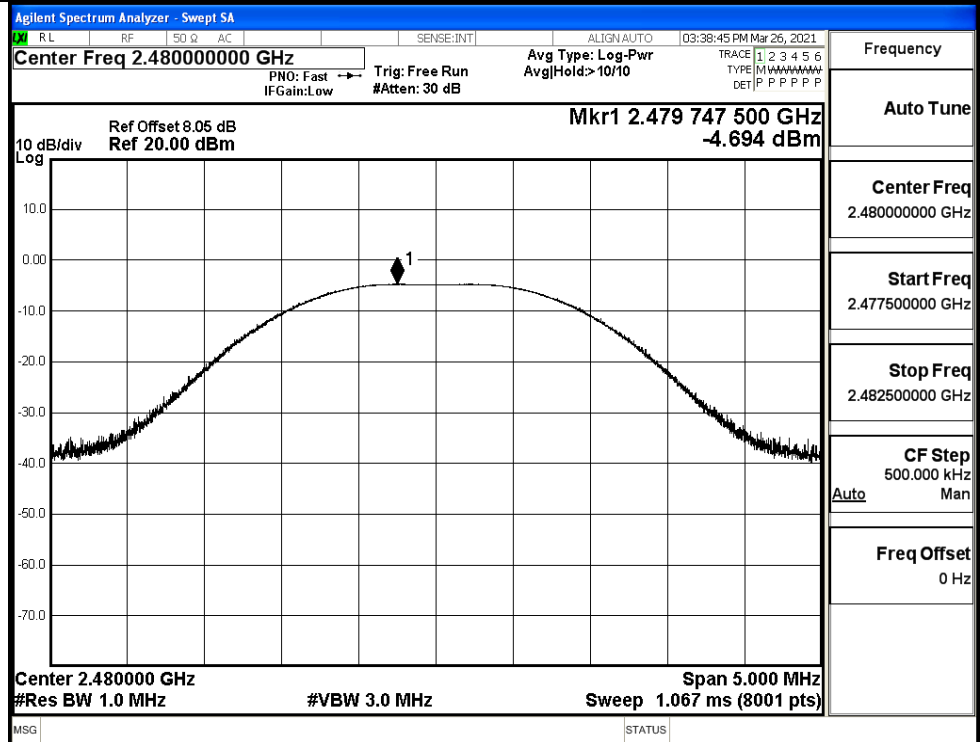
LCH



MCH



HCH

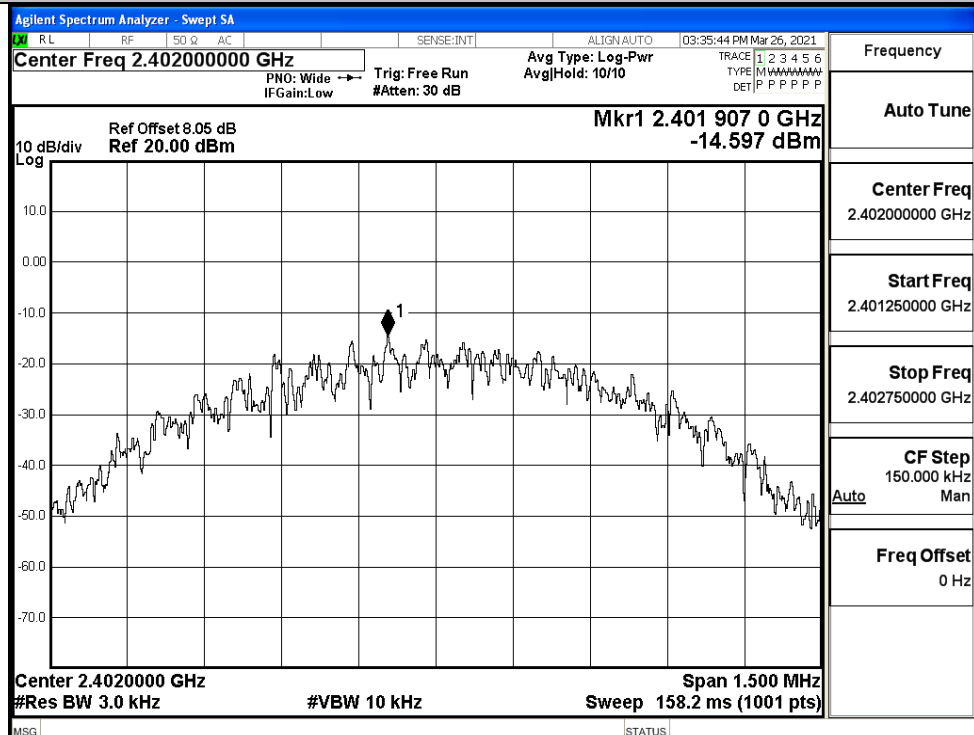


A.3 Maximum Power Spectral Density

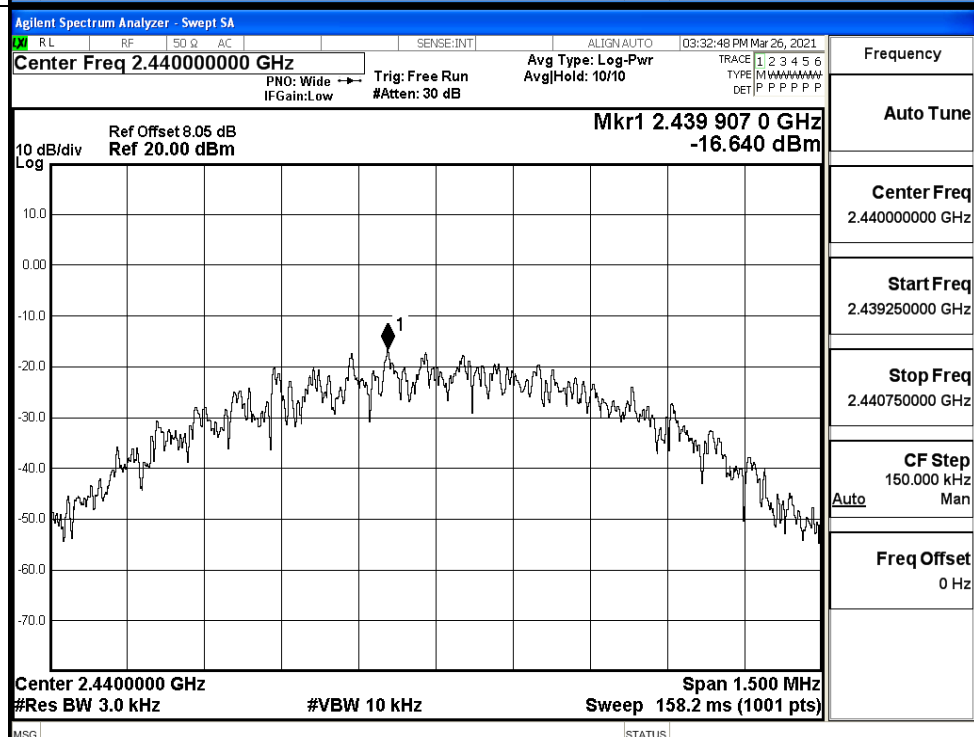
Mode	Channel	PSD [dBm/3KHz]	Limit [dBm/3KHz]	Verdict
BT LE	LCH	-14.597	8	PASS
BT LE	MCH	-16.640	8	PASS
BT LE	HCH	-18.395	8	PASS

Test Graphs

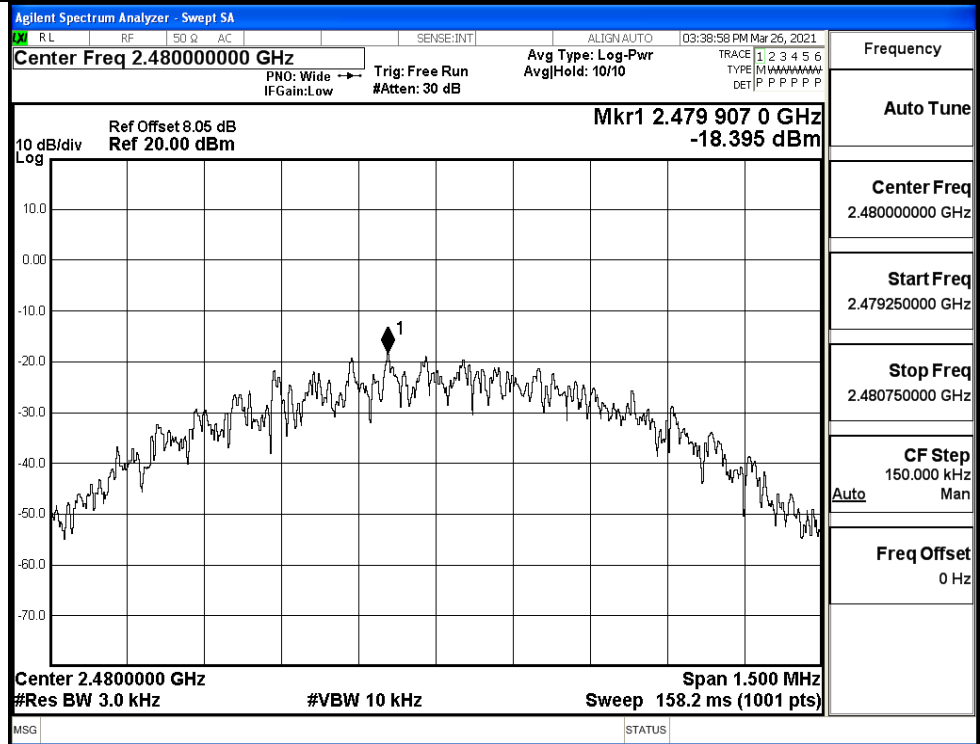
LCH



MCH



HCH

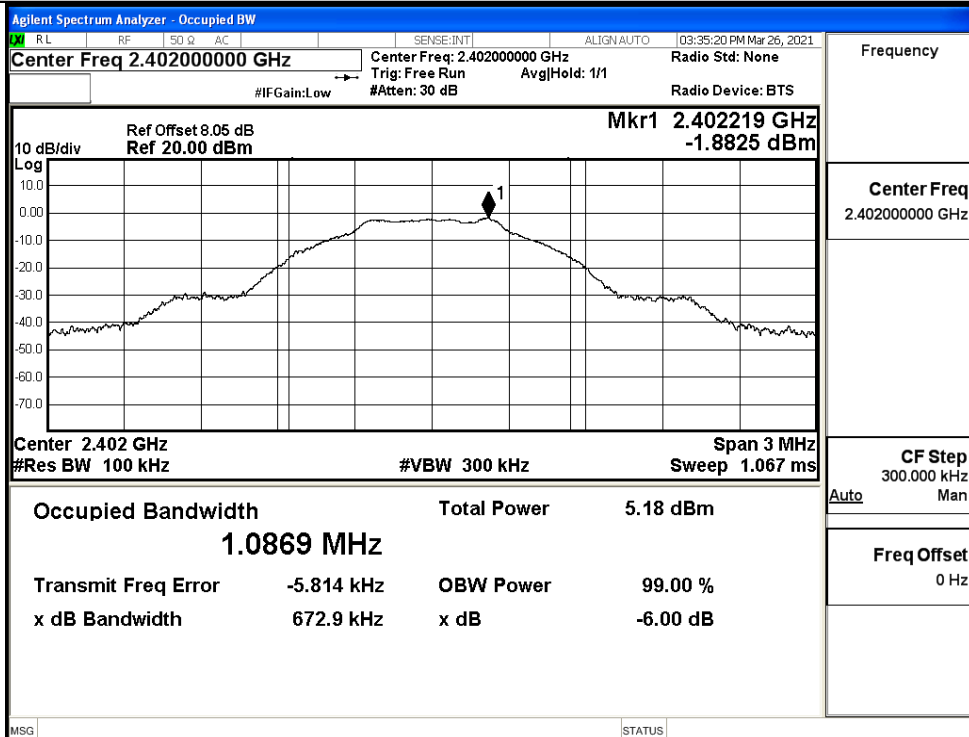


A.4 6dB Bandwidth

Mode	Channel	6dB Bandwidth [MHz]	Limit [MHz]	Verdict
BT LE	LCH	0.6729	≥ 0.5	PASS
BT LE	MCH	0.6681	≥ 0.5	PASS
BT LE	HCH	0.6785	≥ 0.5	PASS

Test Graphs

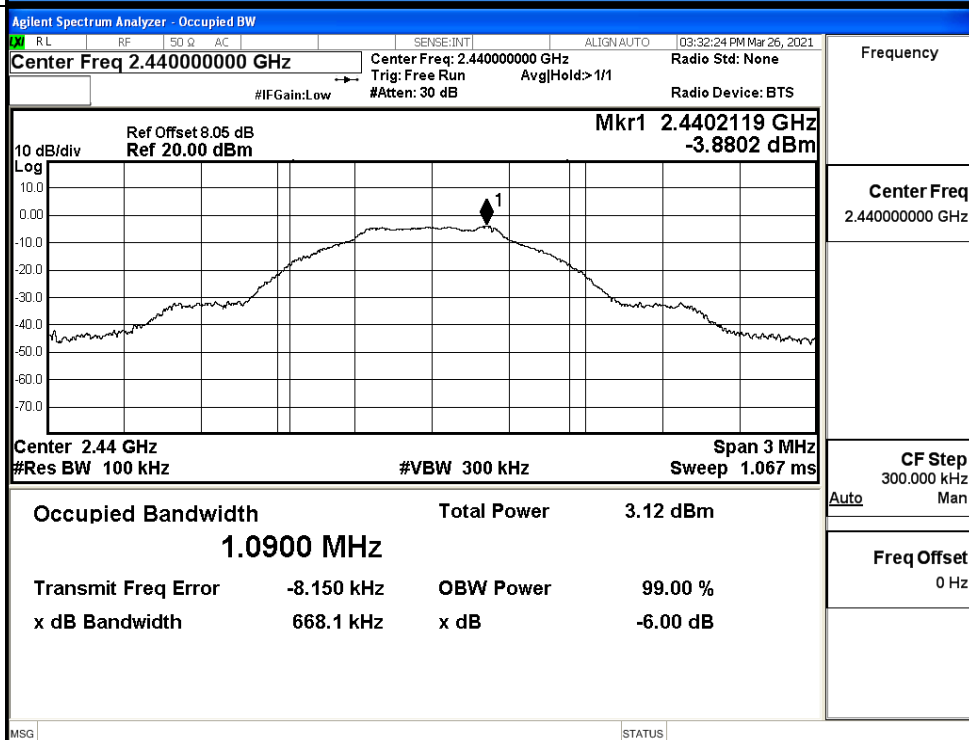
LCH



Frequency

Center Freq
2.402000000 GHzCF Step
300.000 kHz
Auto ManFreq Offset
0 Hz

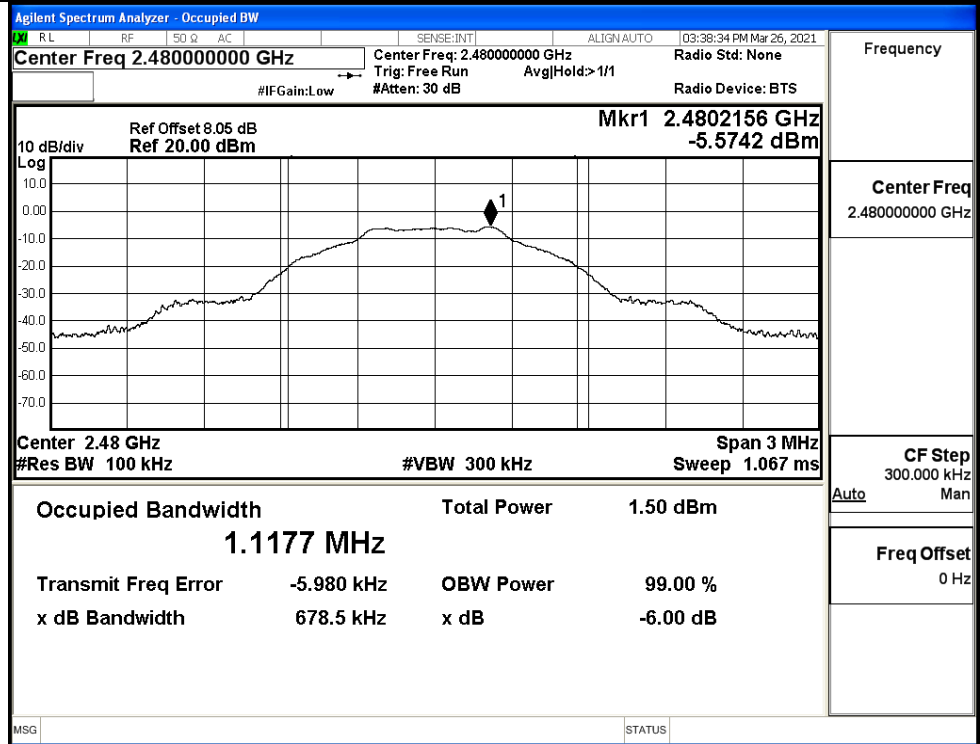
MCH



Frequency

Center Freq
2.440000000 GHzCF Step
300.000 kHz
Auto ManFreq Offset
0 Hz

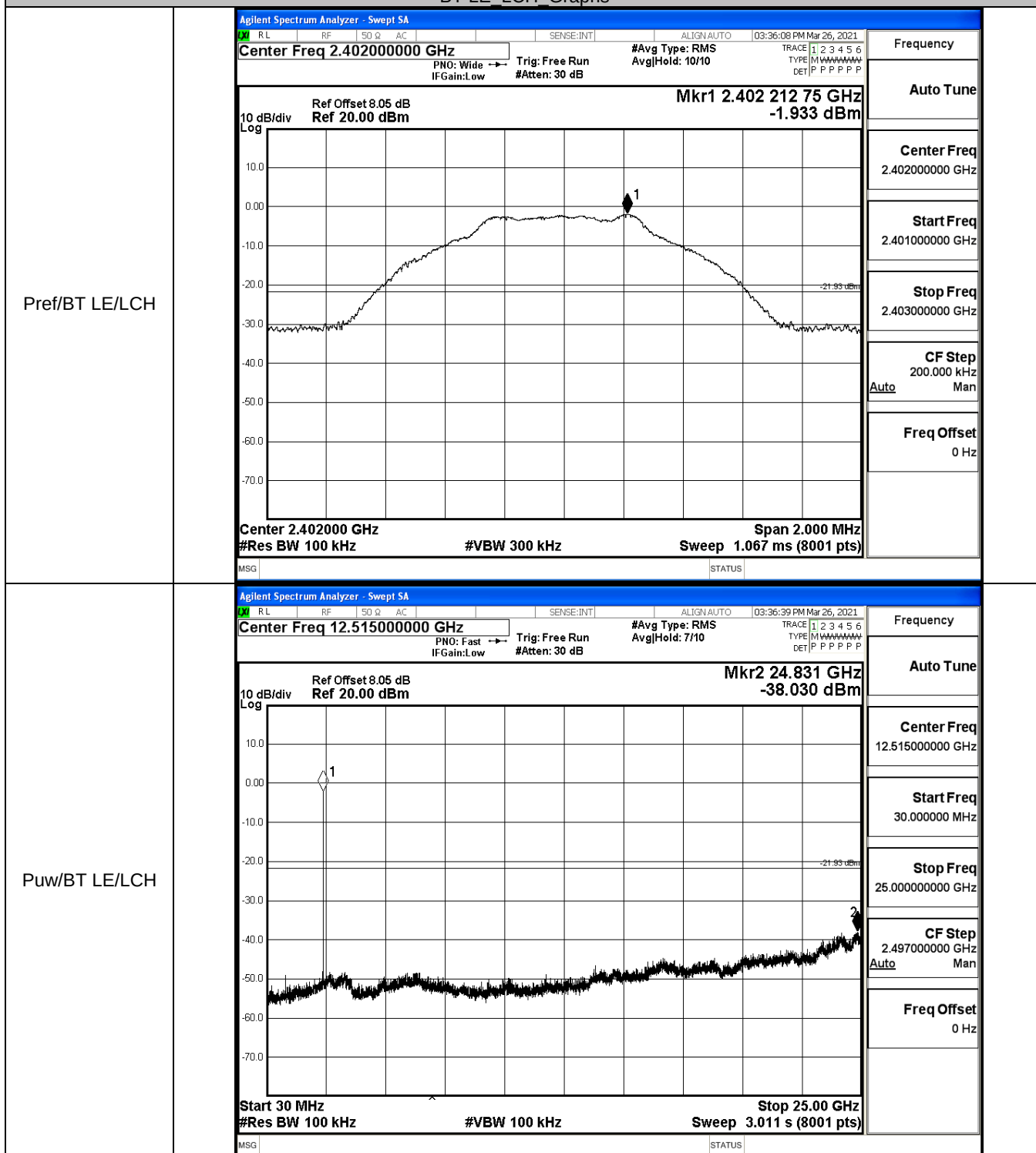
HCH



A.6 RF Conducted Spurious Emissions

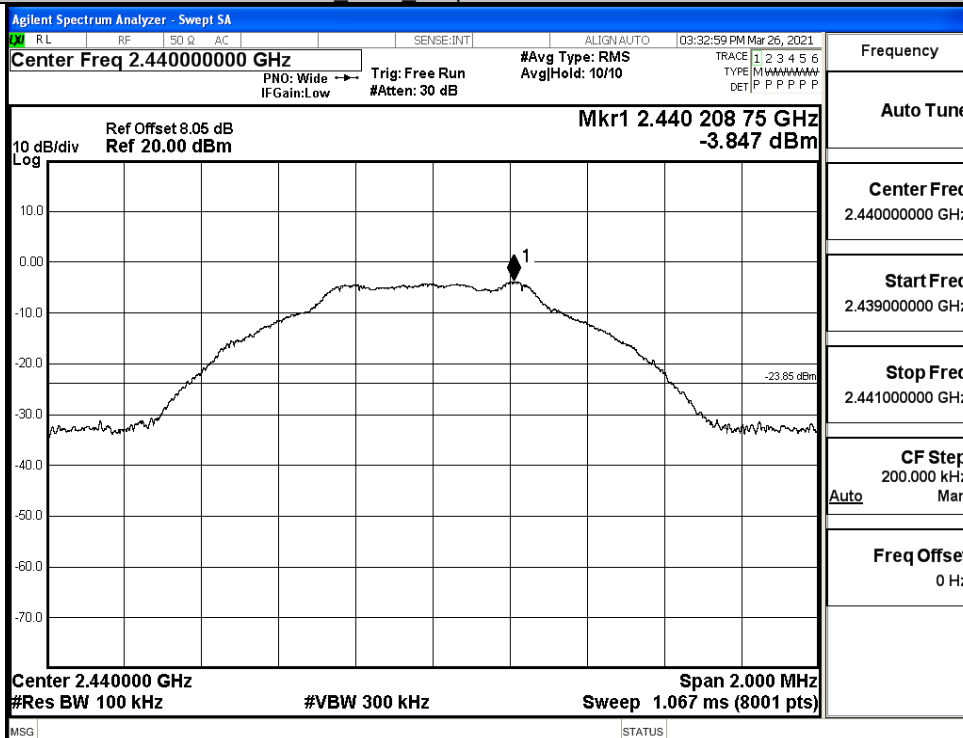
Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
BT LE	LCH	-1.933	-38.030	-21.933	PASS
BT LE	MCH	-3.847	-36.827	-23.847	PASS
BT LE	HCH	-5.675	-37.678	-25.675	PASS

BT LE LCH Graphs

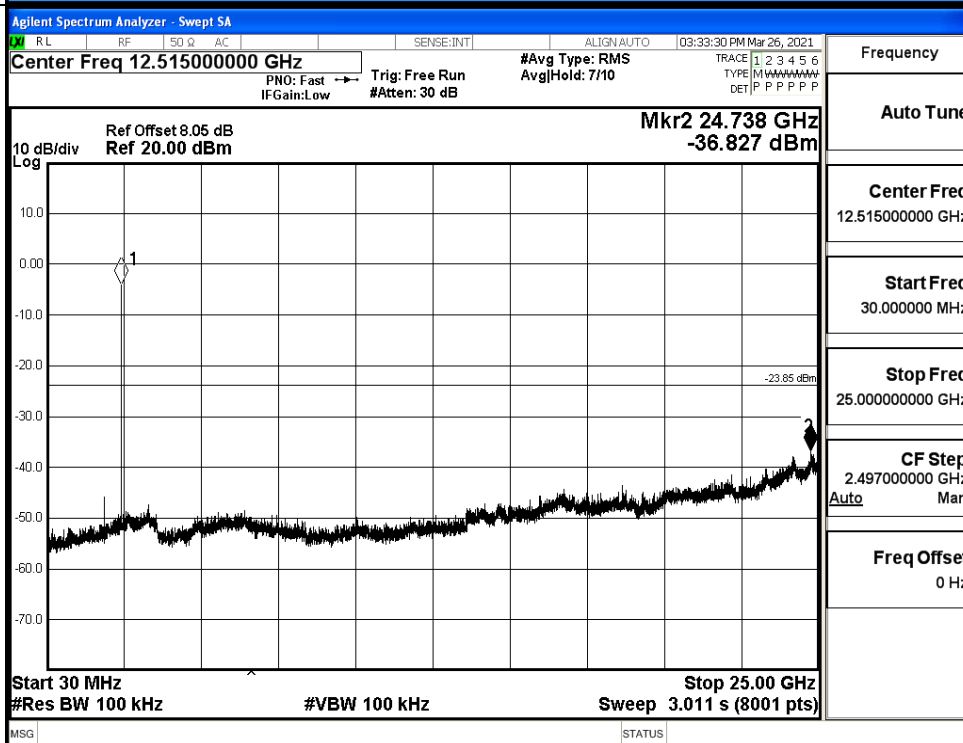


BT LE MCH Graphs

Pref/BT LE/MCH

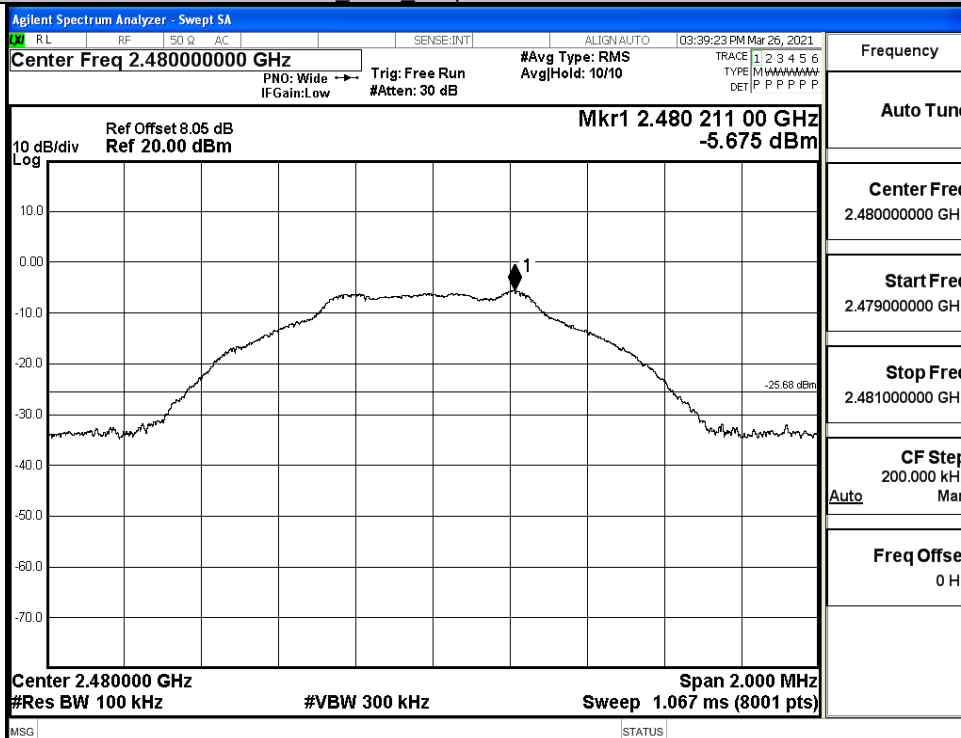


Puw/BT LE/MCH

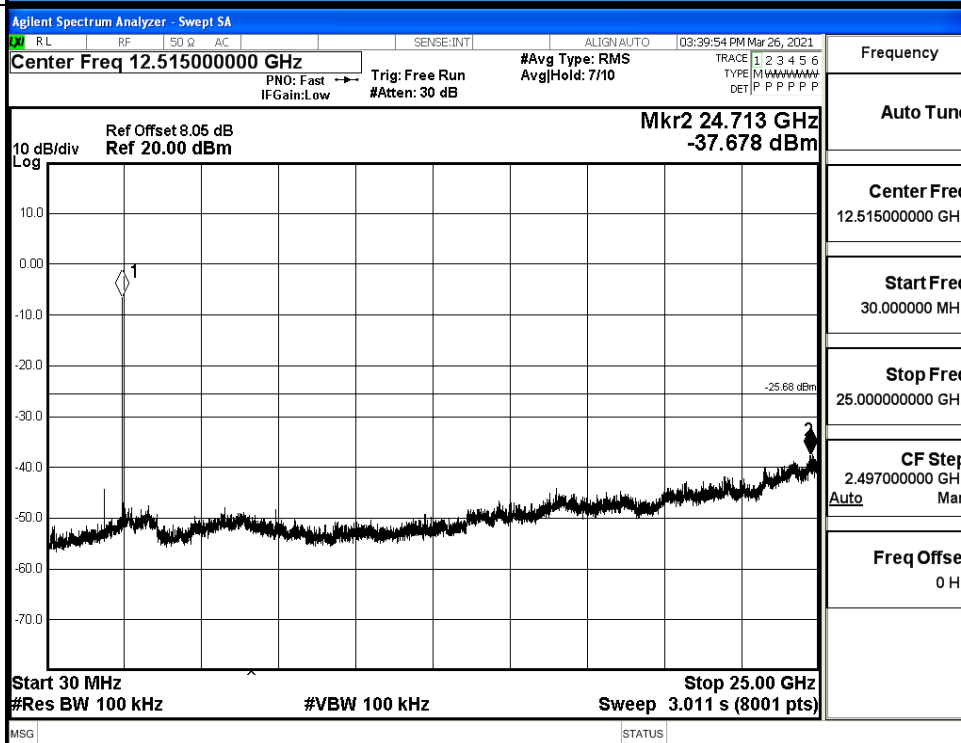


BT LE HCH Graphs

Pref/BT LE/HCH



Puw/BT LE/HCH

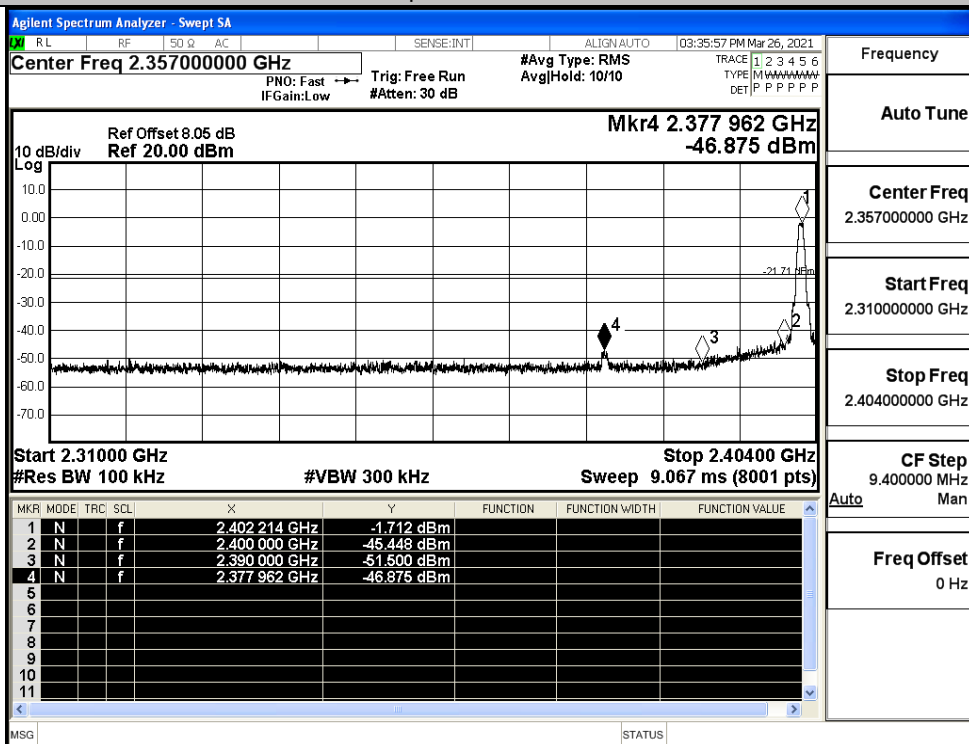


A.7 Band-edge for RF Conducted Emissions

Mode	Channel	Carrier Power[dBm]	Max.Spurious Level [dBm]	Limit [dBm]	Verdict
BT LE	LCH	-1.712	-46.875	-21.71	PASS
BT LE	HCH	-5.632	-46.811	-25.63	PASS

Test Graphs

LCH



Frequency

Auto Tune

Center Freq

2.357000000 GHz

Start Freq

2.310000000 GHz

Stop Freq

2.404000000 GHz

CF Step

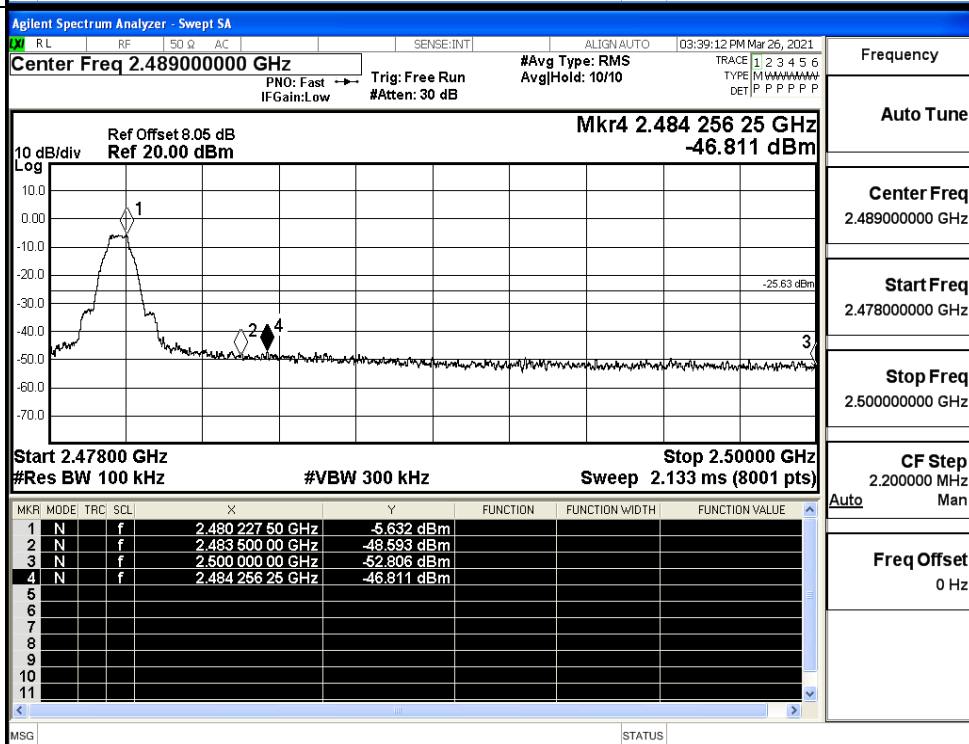
9.400000 MHz

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

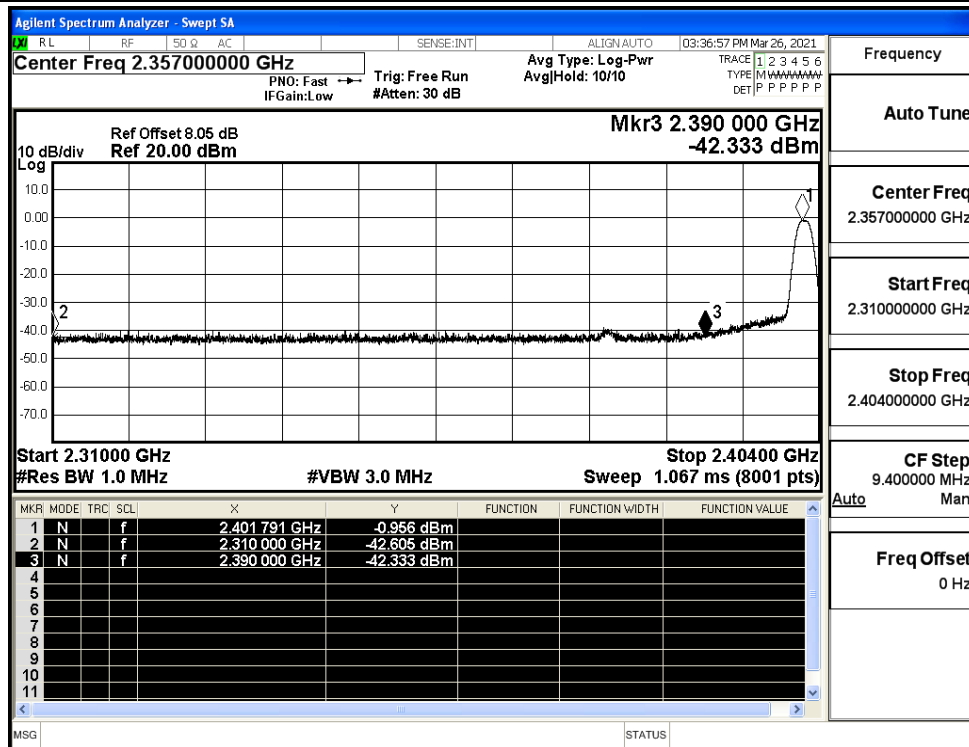
Freq Offset

0 Hz

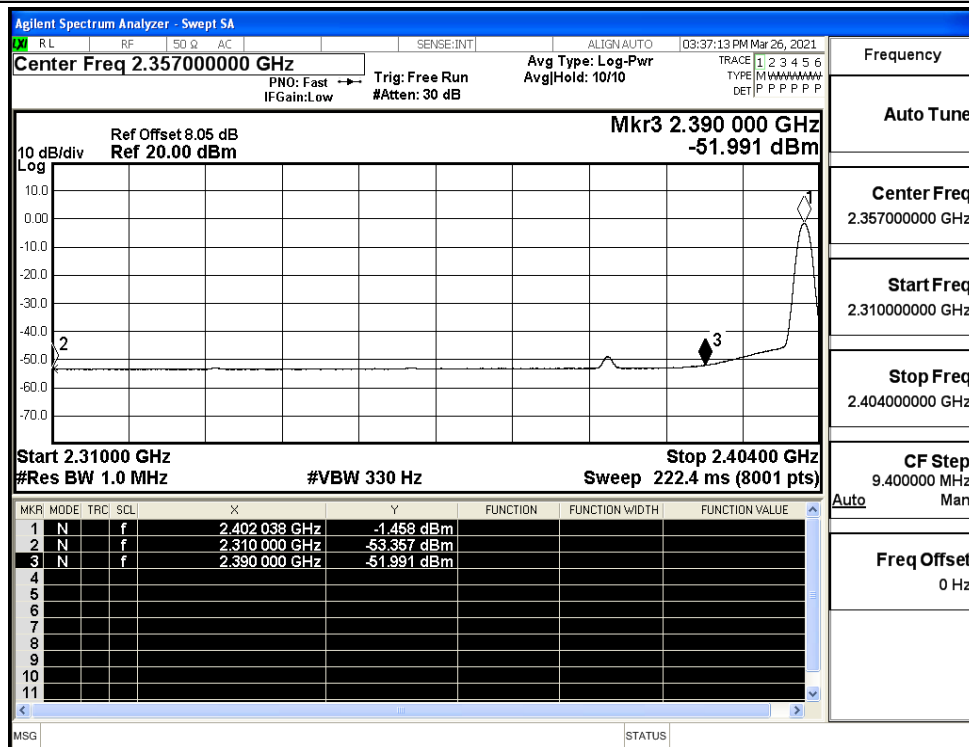
A.8 Restrict-band band-edge measurements

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	-42.61	2.0	0	54.65	PEAK	74	PASS
		Ant1	2310.0	-53.36	2.0	0	43.9	AV	54	PASS
		Ant1	2390.0	-42.33	2.0	0	54.93	PEAK	74	PASS
		Ant1	2390.0	-51.99	2.0	0	45.27	AV	54	PASS
	2480	Ant1	2483.5	-38.98	2.0	0	58.28	PEAK	74	PASS
		Ant1	2483.5	-48.64	2.0	0	48.62	AV	54	PASS
		Ant1	2500.0	-42.70	2.0	0	54.56	PEAK	74	PASS
		Ant1	2500.0	-52.40	2.0	0	44.86	AV	54	PASS

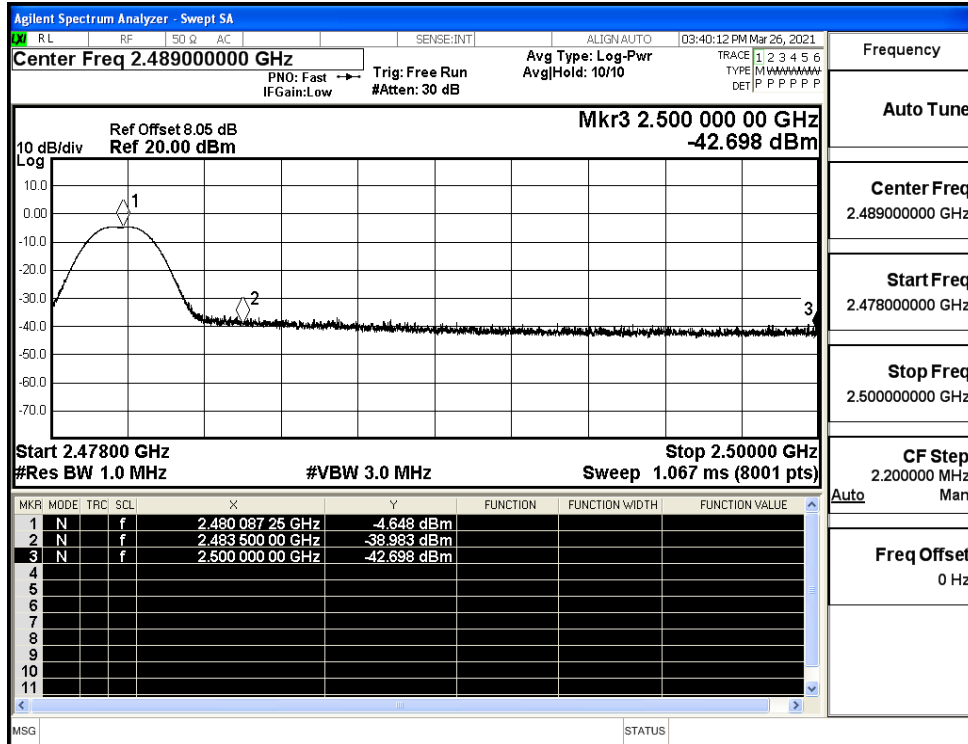
Restrict-band band-edge measurements_BT LE_2402_Ant1_PEAK



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

