

Appendix A

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

Product Name: Aquarium Luminaire

Trade Mark: **FLUVAL** 

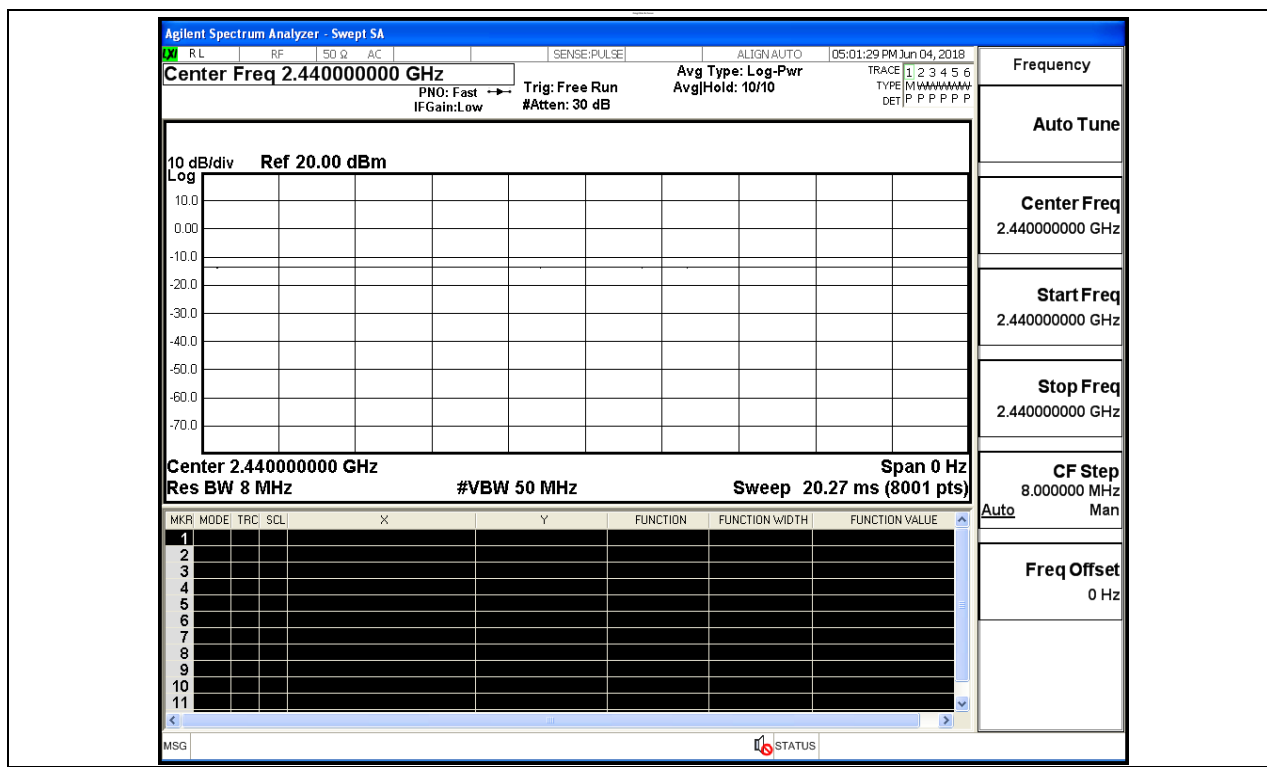
Test Model: 14531

Environmental Conditions

Temperature:	22.3 ° C
Relative Humidity:	53.3%
ATM Pressure:	100.0 kPa
Test Engineer:	Wilson hong
Supervised by:	Jayden.Zhuo

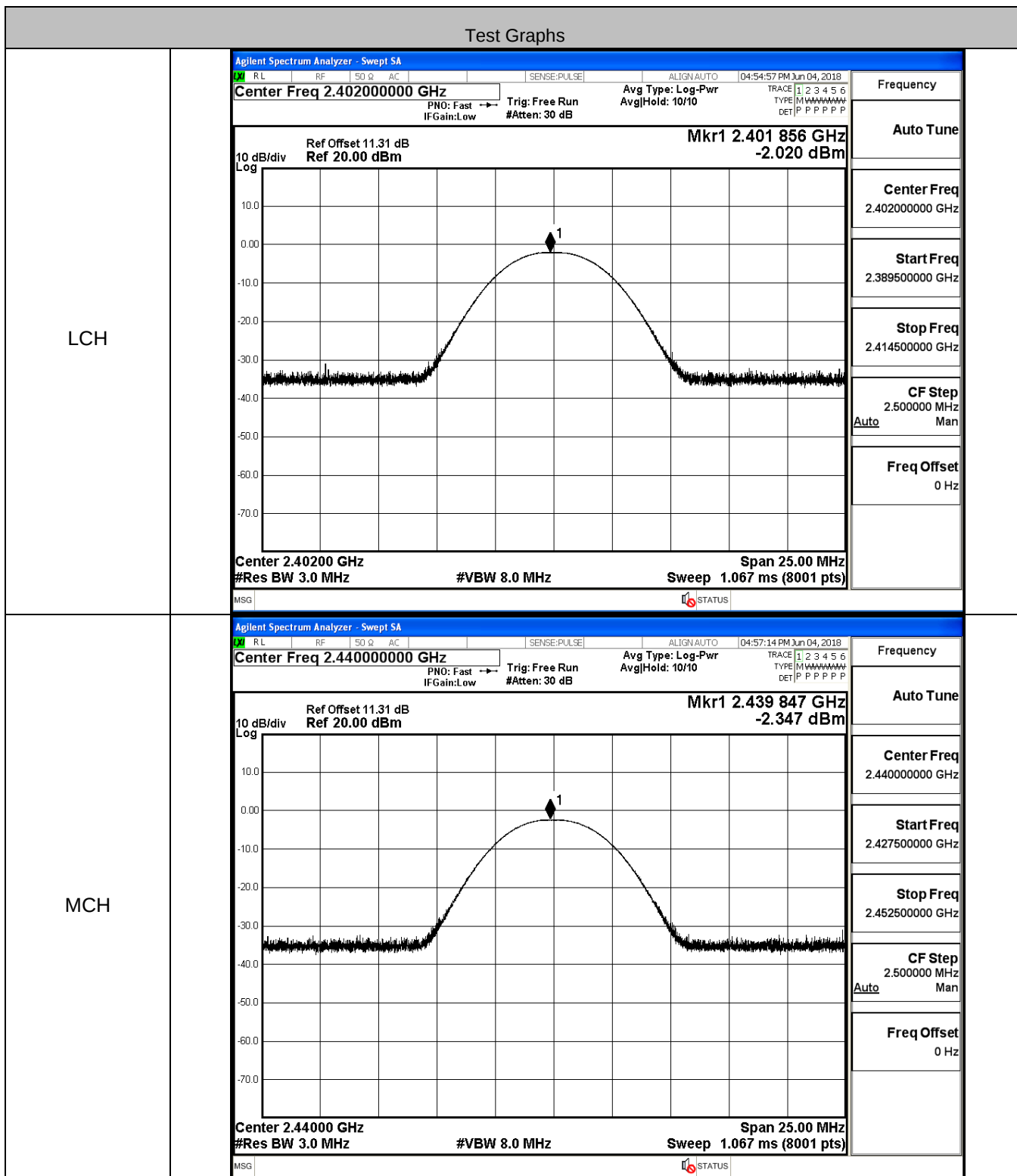
A.1 Duty Cycle

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

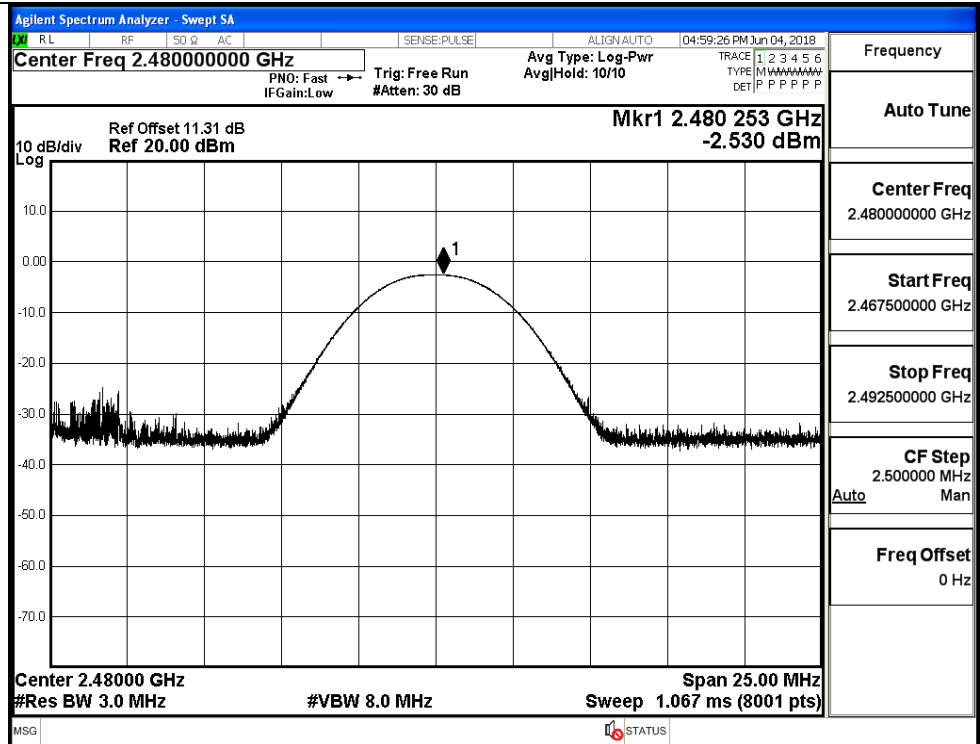


A.2 Maximum Conducted Peak Output Power

Mode	Channel	Conduct Peak Power[dBm]	Limit [dBm]	Verdict
BT LE	LCH	-2.020	30	PASS
BT LE	MCH	-2.347	30	PASS
BT LE	HCH	-2.530	30	PASS



HCH

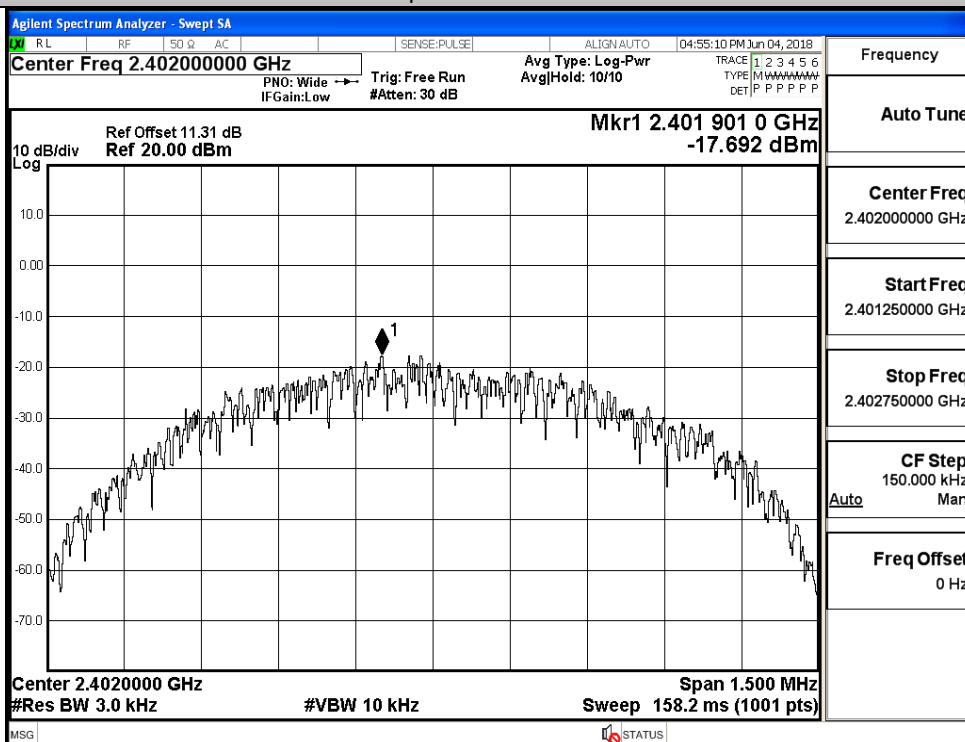


A.3 Maximum Power Spectral Density

Mode	Channel	PSD [dBm/3KHz]	Limit [dBm/3KHz]	Verdict
BT LE	LCH	-17.692	8	PASS
BT LE	MCH	-18.578	8	PASS
BT LE	HCH	-18.306	8	PASS

Test Graphs

LCH

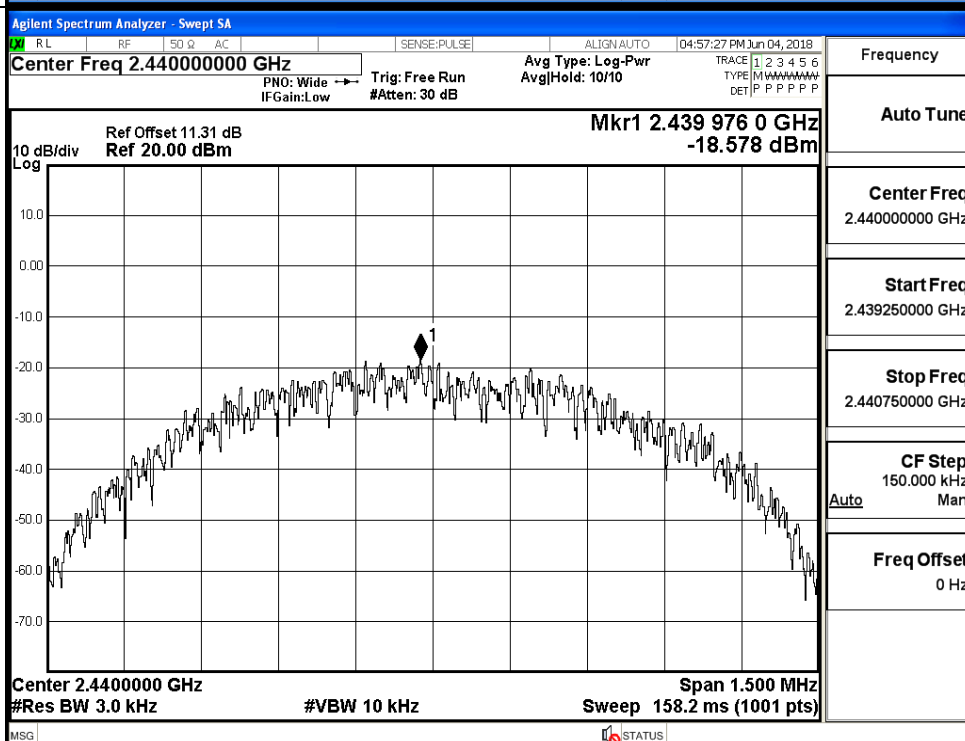


Frequency

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

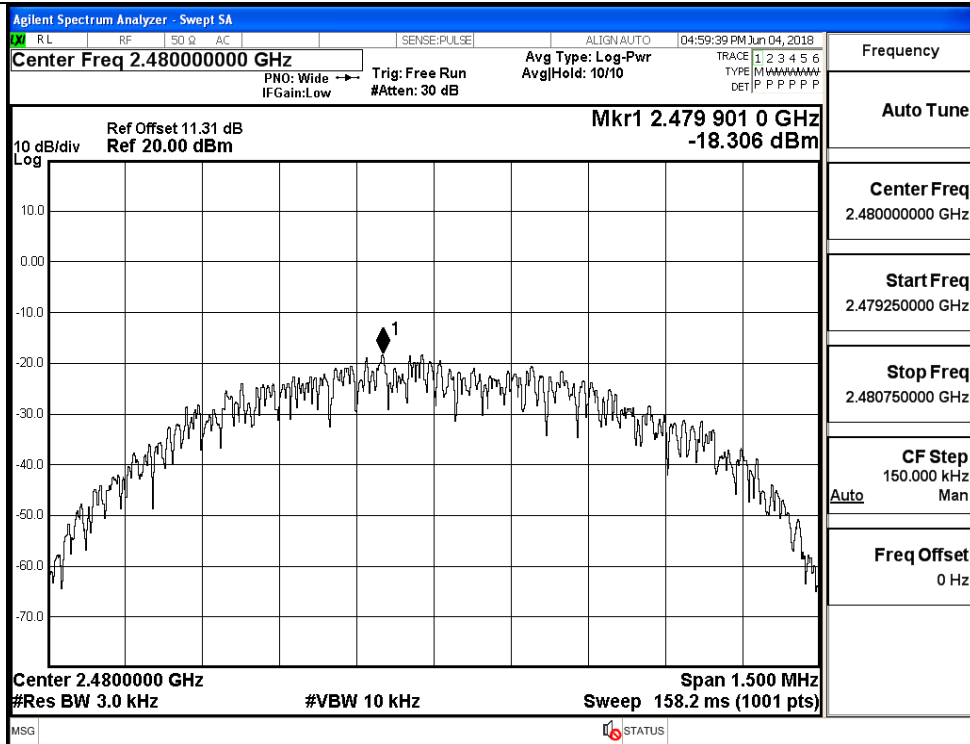


Frequency

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

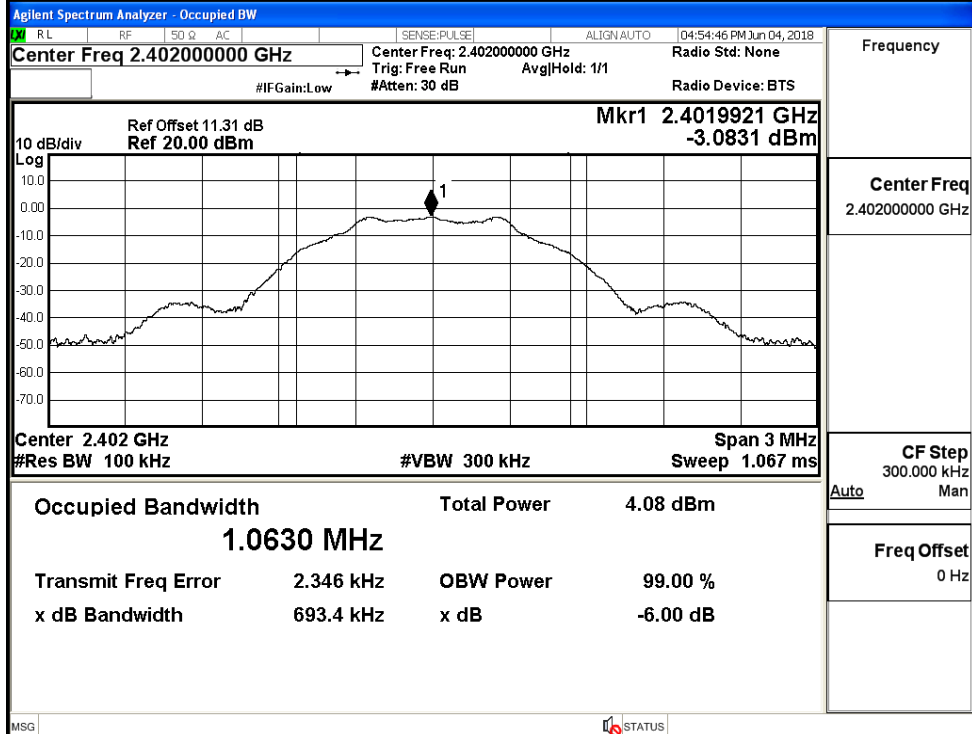


A.4 6dB Bandwidth

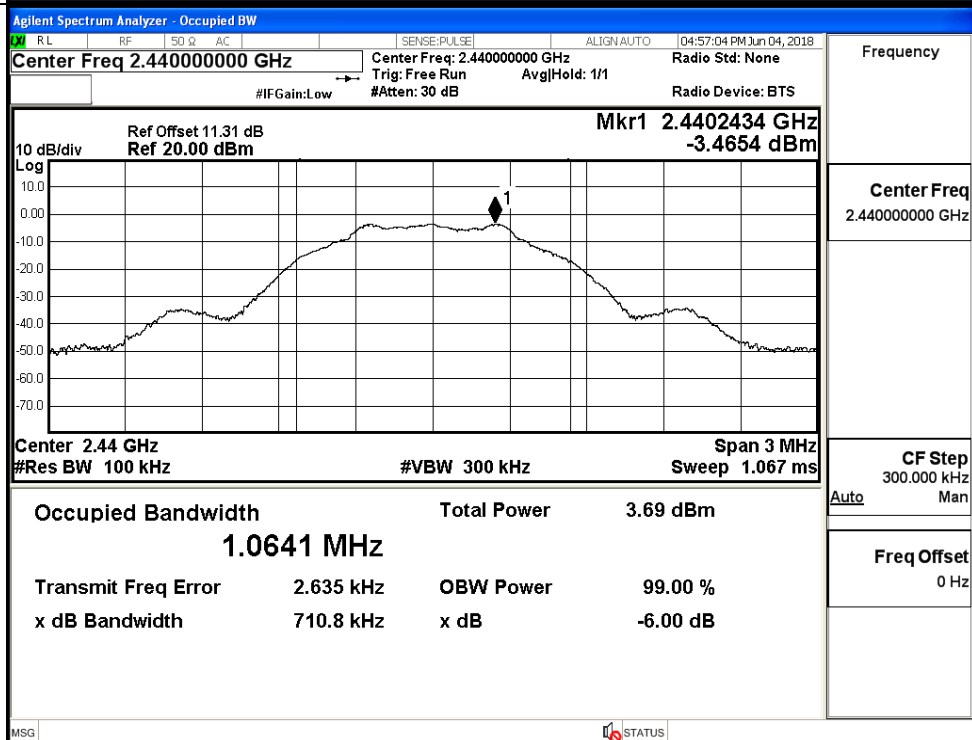
Mode	Channel	6dB Bandwidth [MHz]	Limit [MHz]	Verdict
BT LE	LCH	0.6934	≥ 0.5	PASS
BT LE	MCH	0.7108	≥ 0.5	PASS
BT LE	HCH	0.7109	≥ 0.5	PASS

Test Graphs

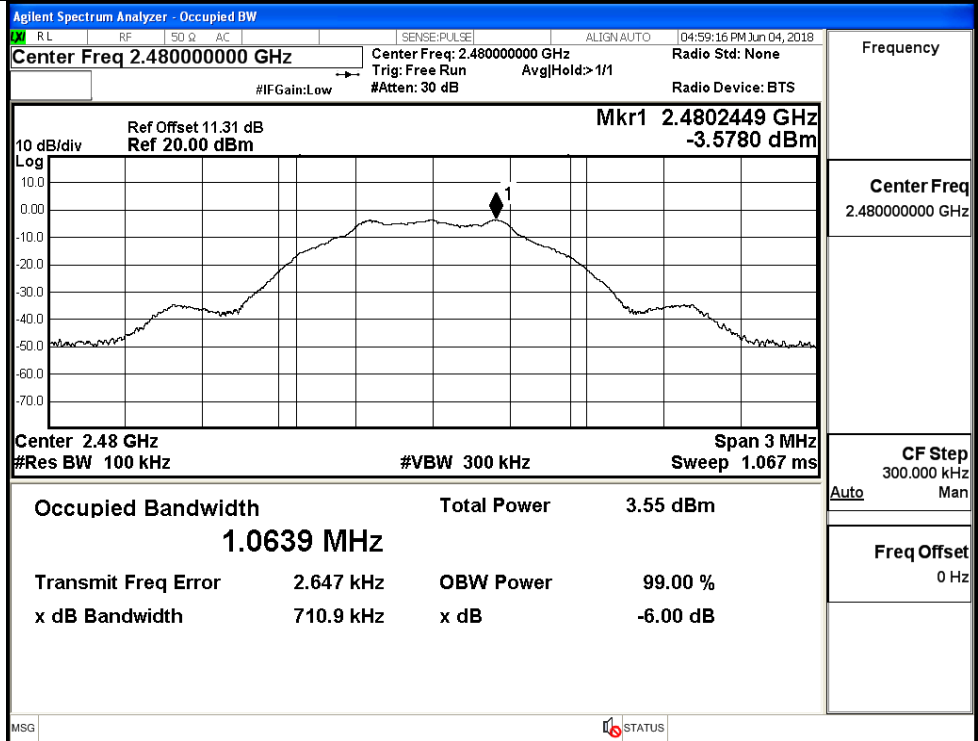
LCH



MCH



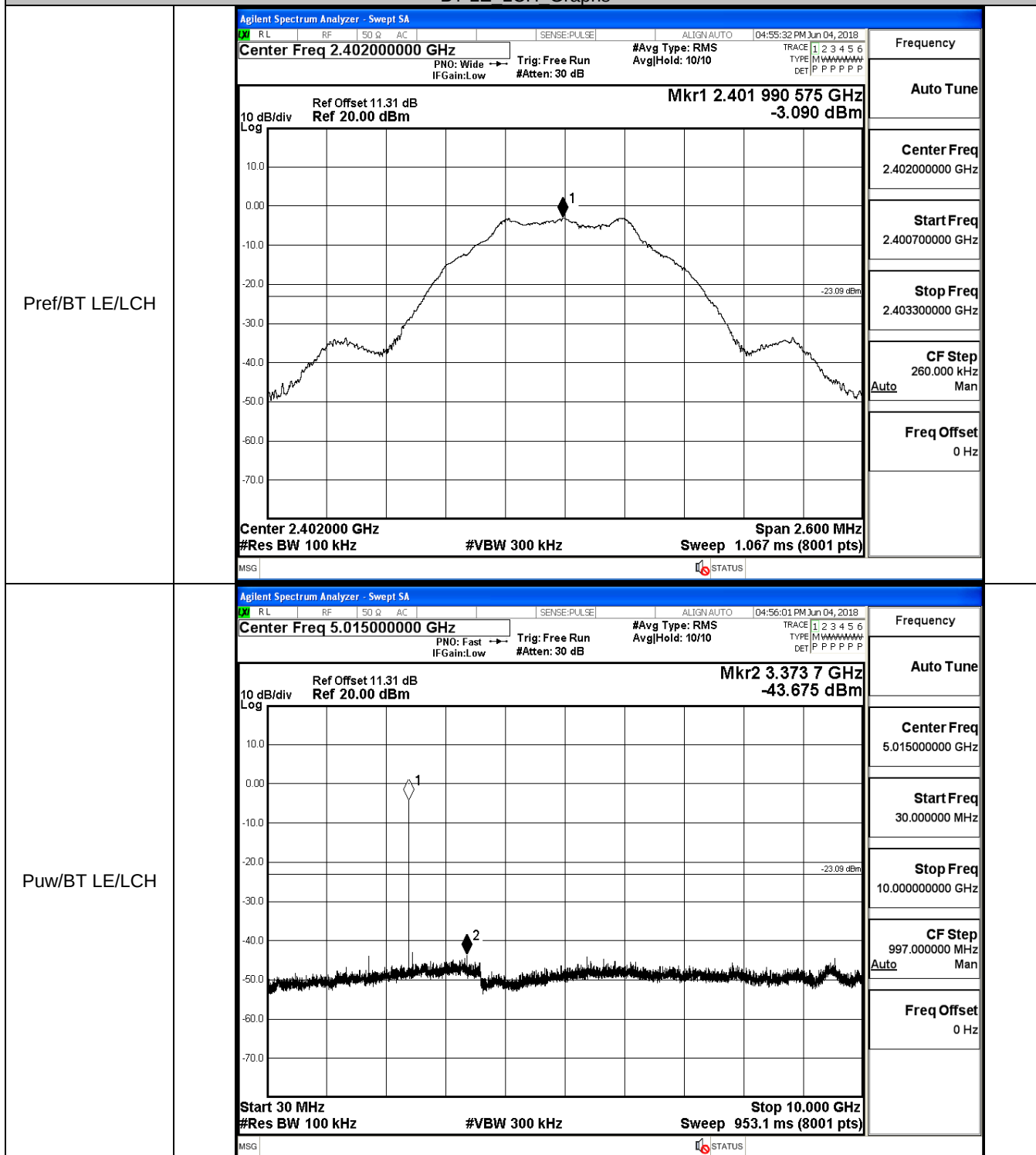
HCH



A.5 RF Conducted Spurious Emissions

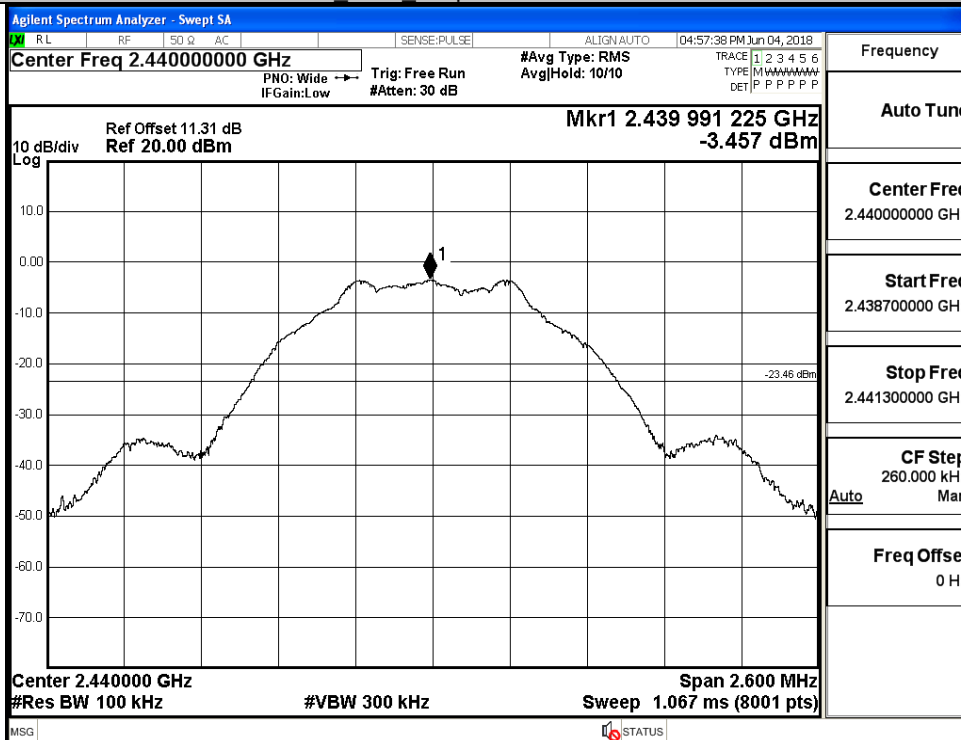
Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
BT LE	LCH	-3.09	-43.675	-23.090	PASS
BT LE	MCH	-3.457	-43.971	-23.457	PASS
BT LE	HCH	-3.6	-25.717	-23.600	PASS

BT LE LCH Graphs

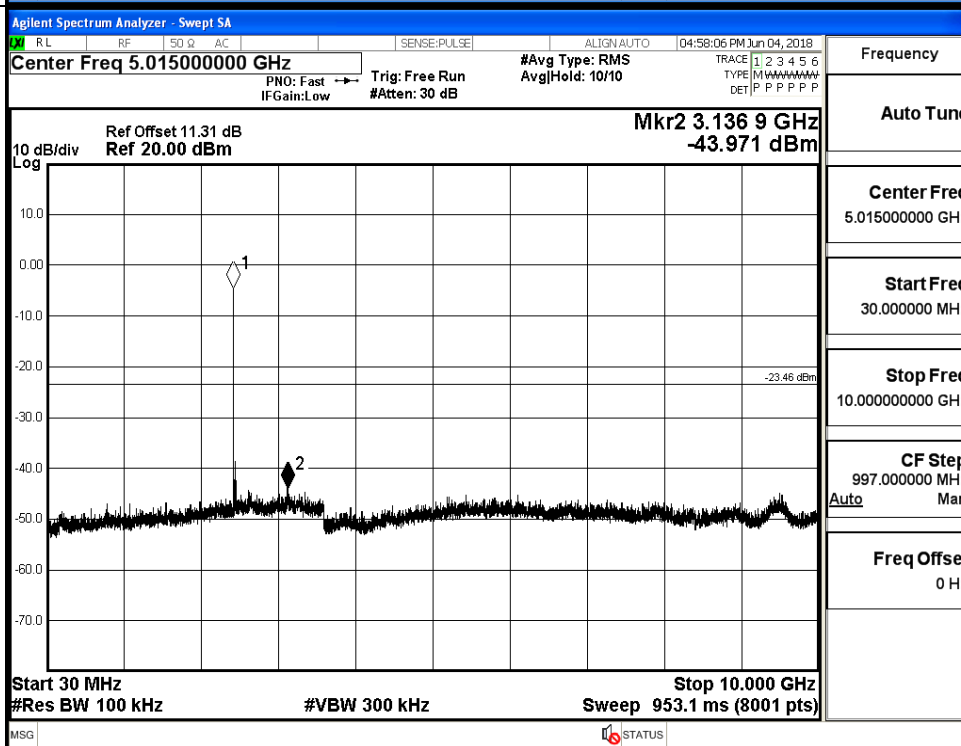


BT LE MCH Graphs

Pref/BT LE/MCH

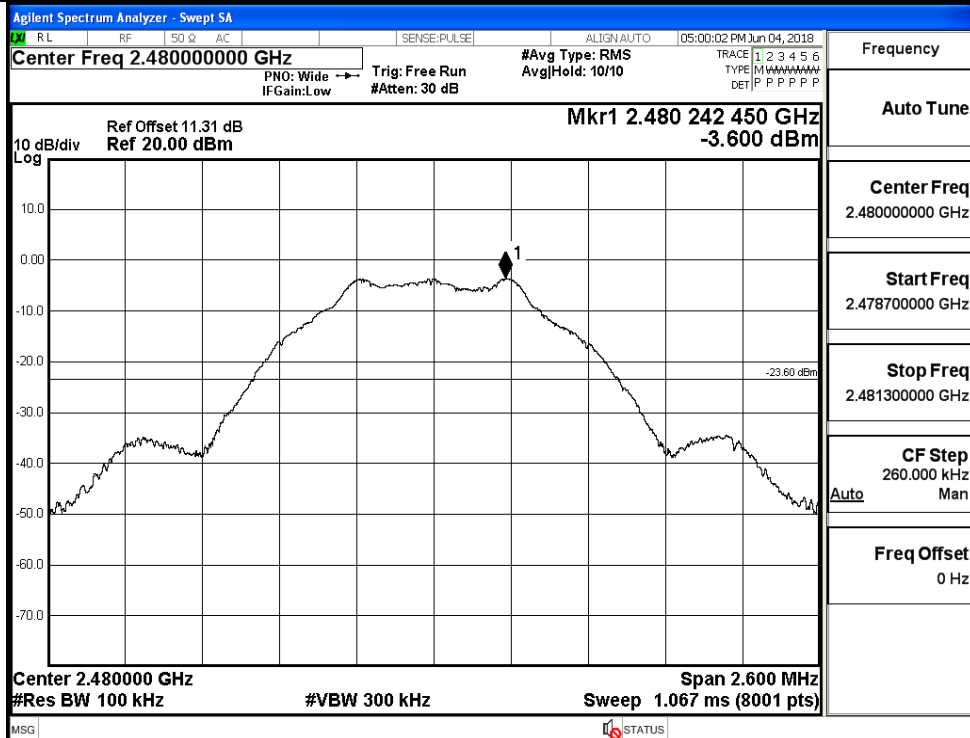


Puw/BT LE/MCH

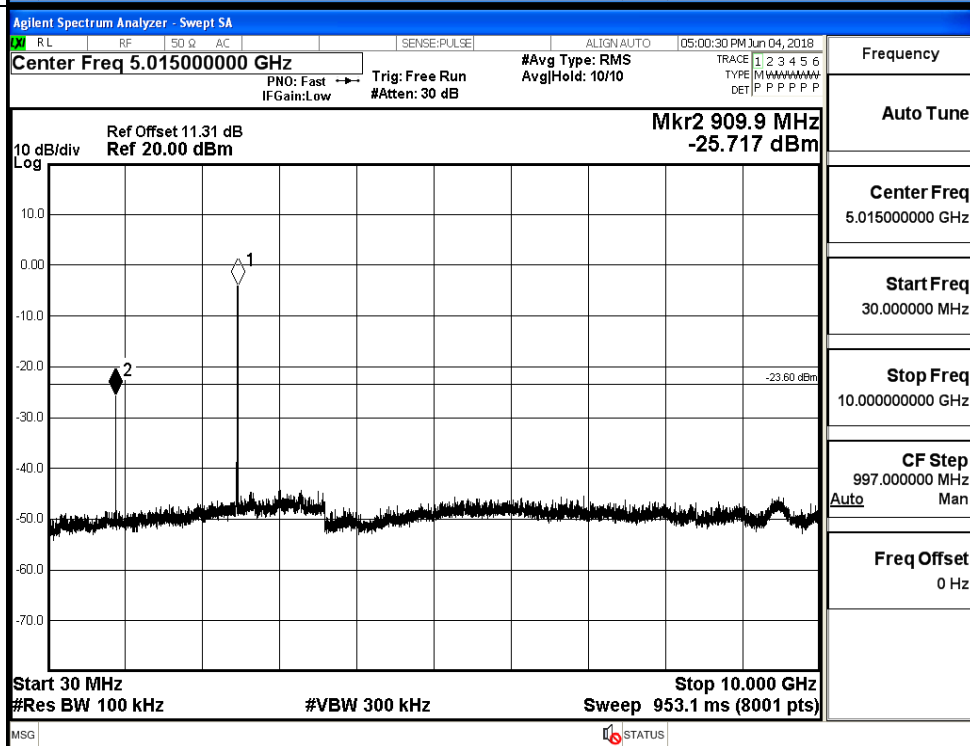


BT LE HCH Graphs

Pref/BT LE/HCH



Puw/BT LE/HCH

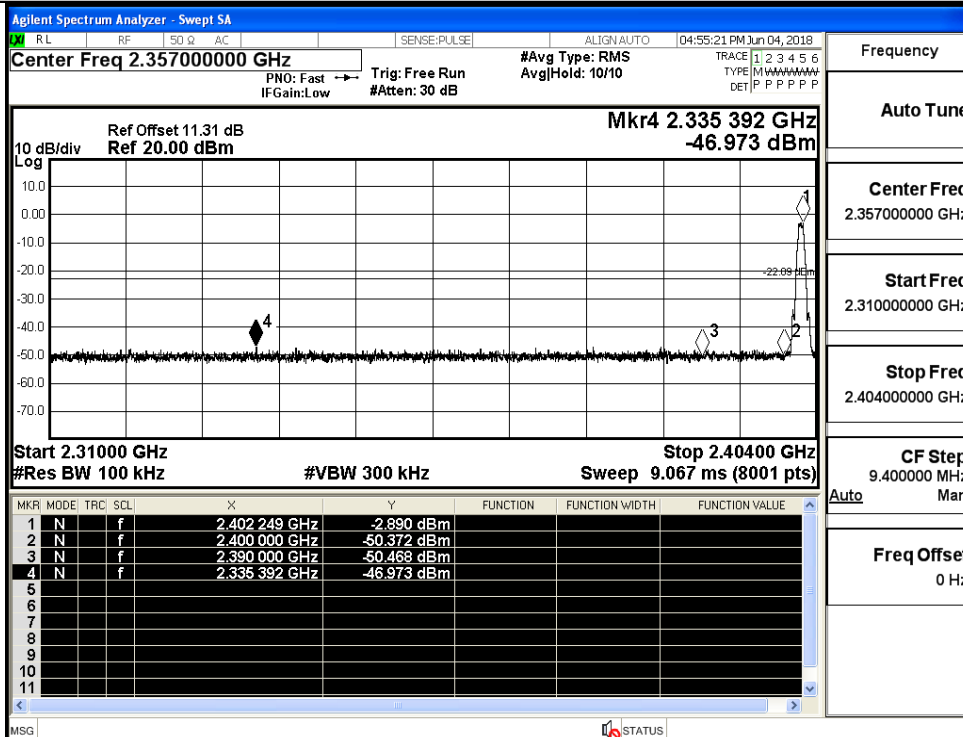


A.6 Band-edge for RF Conducted Emissions

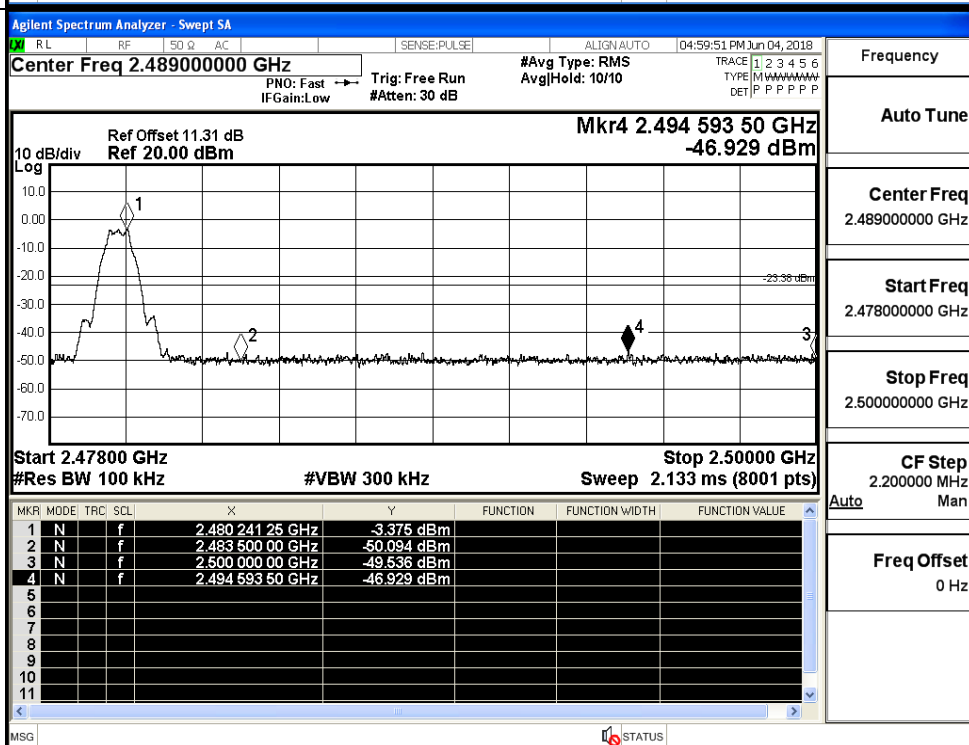
Mode	Channel	Carrier Power[dBm]	Max.Spurious Level [dBm]	Limit [dBm]	Verdict
BT LE	LCH	-2.890	-46.973	-22.89	PASS
BT LE	HCH	-3.375	-46.929	-23.38	PASS

Test Graphs

LCH



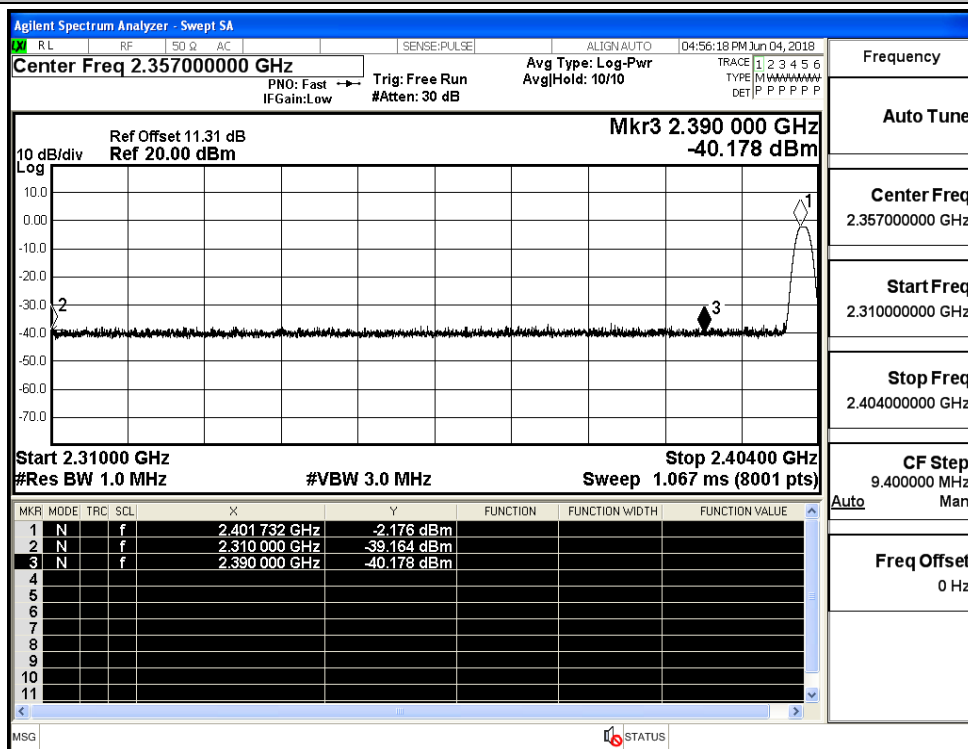
HCH



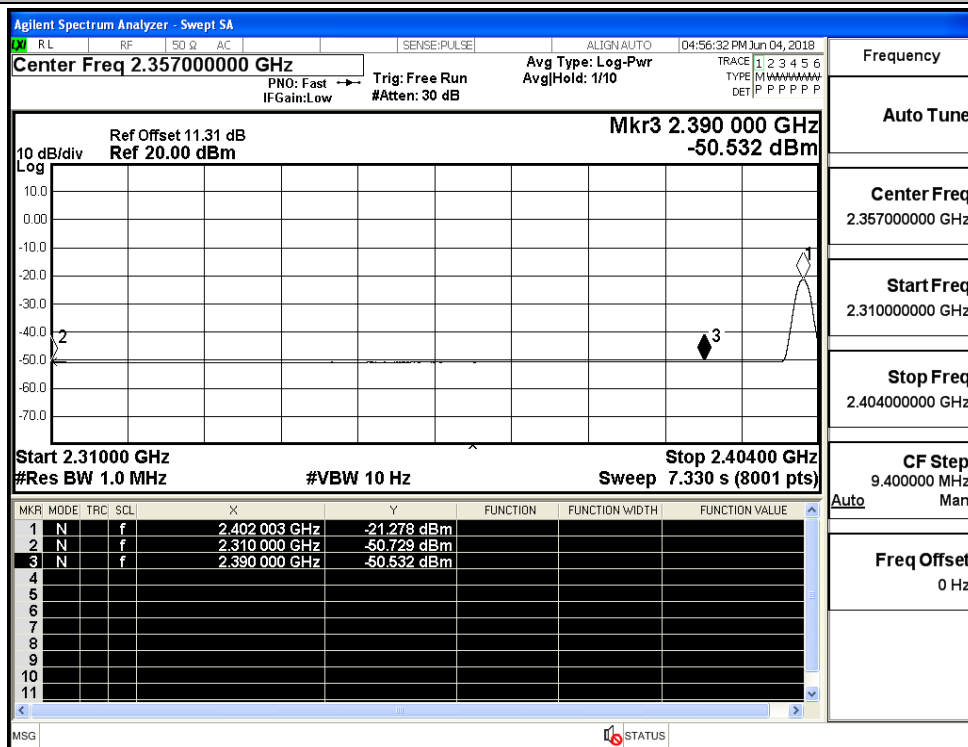
A.7 Restrict-band band-edge measurements

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	-39.16	2.0	0	58.09	PEAK	74	PASS
		Ant1	2310.0	-50.73	2.0	0	46.53	AV	54	PASS
		Ant1	2390.0	-40.18	2.0	0	57.08	PEAK	74	PASS
		Ant1	2390.0	-50.53	2.0	0	46.73	AV	54	PASS
	2480	Ant1	2483.5	-40.05	2.0	0	57.21	PEAK	74	PASS
		Ant1	2483.5	-50.35	2.0	0	46.91	AV	54	PASS
		Ant1	2500.0	-39.68	2.0	0	57.58	PEAK	74	PASS
		Ant1	2500.0	-50.16	2.0	0	47.10	AV	54	PASS

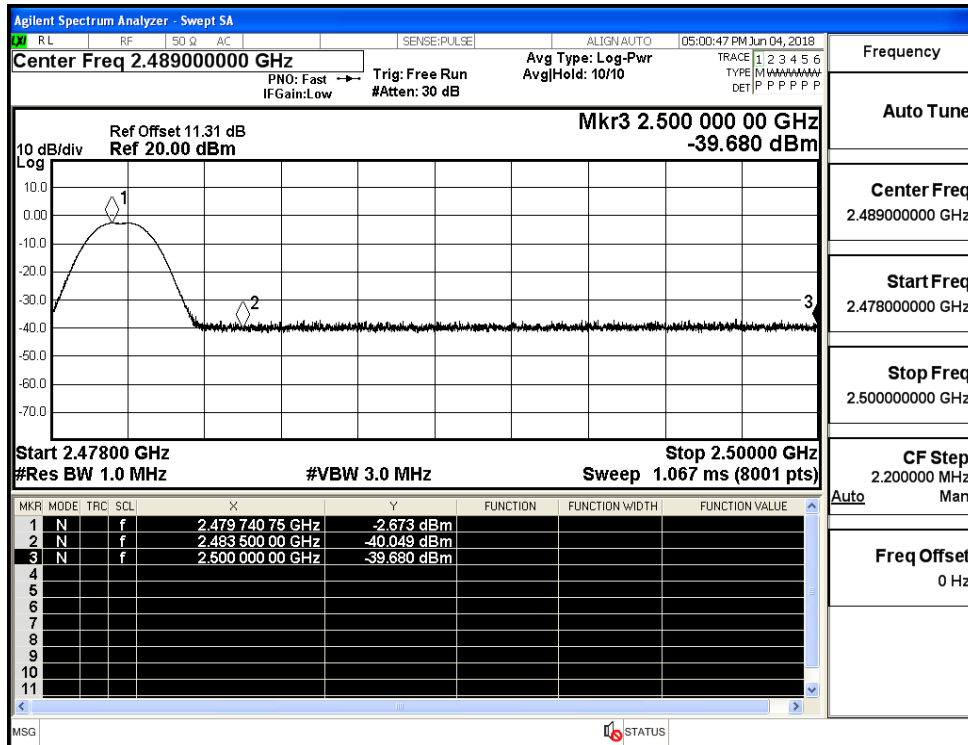
Restrict-band band-edge measurements_BT LE_2402_Ant1_PEAK



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

