

Appendix A

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

Product Name: Bluetooth tracker

Trade Mark: SpotyPal

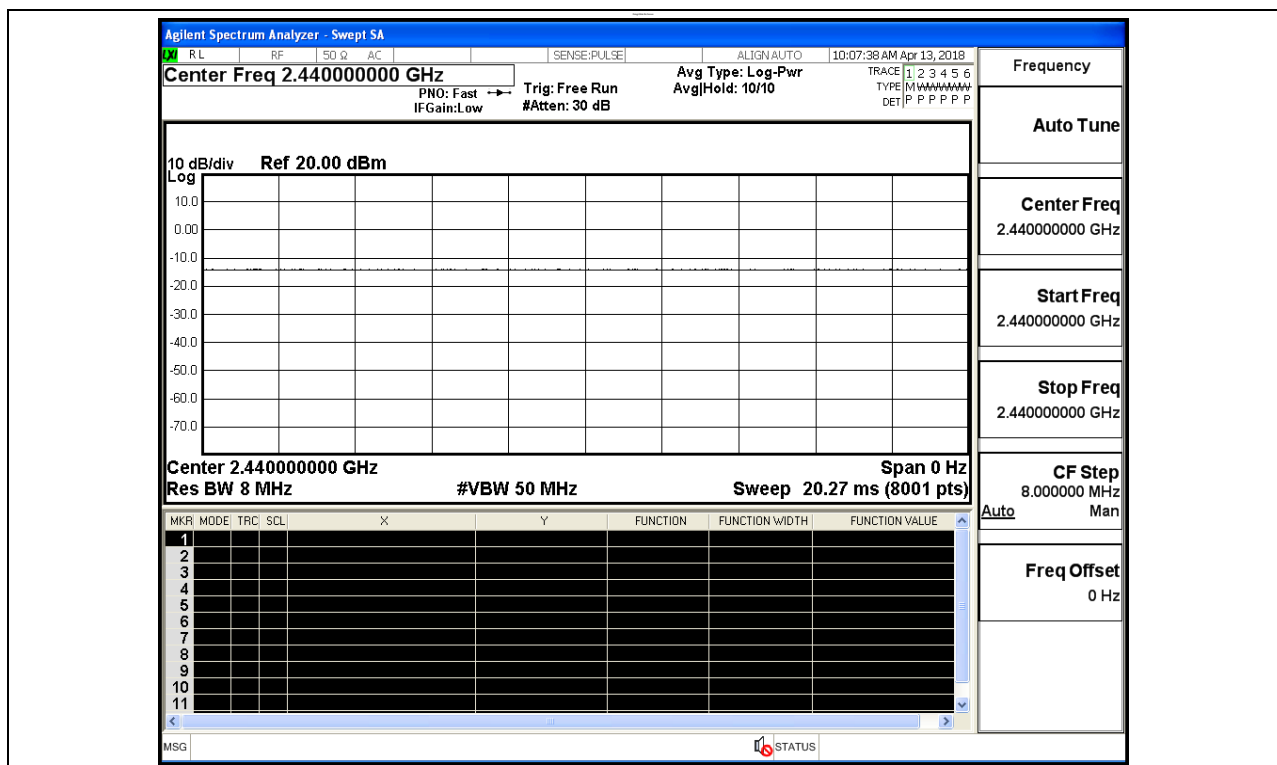
Test Model: SPL301

Environmental Conditions

Temperature:	21.6 ° C
Relative Humidity:	52.6%
ATM Pressure:	100.0 kPa
Test Engineer:	Tom.Liu
Supervised by:	Jayden Zhuo

A.1 Duty Cycle

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

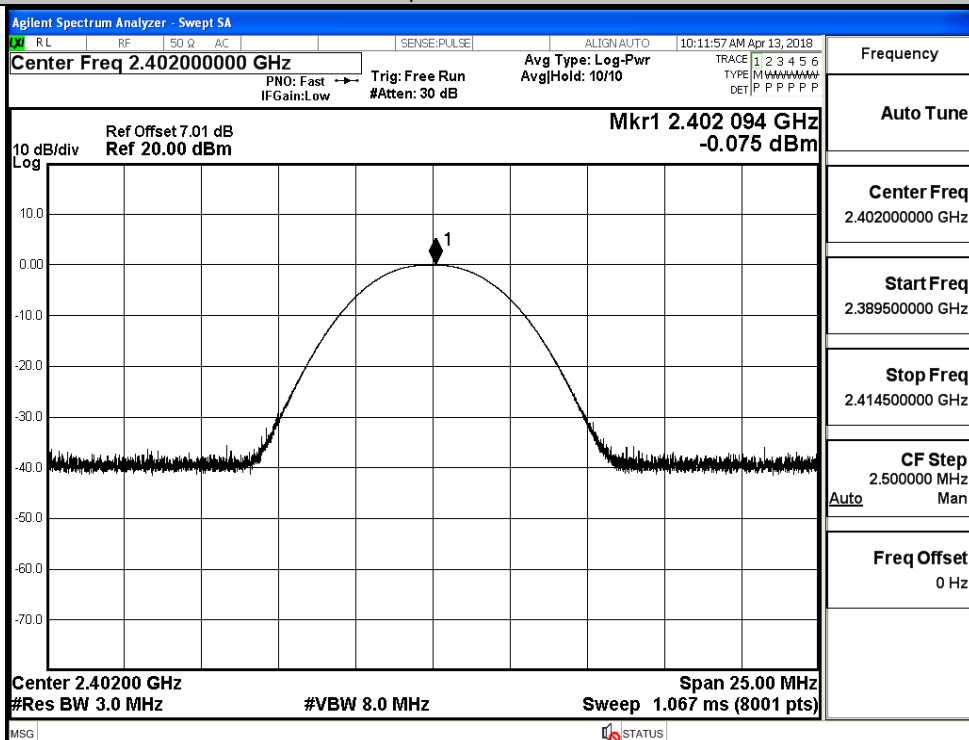


A.2 Maximum Conducted Peak Output Power

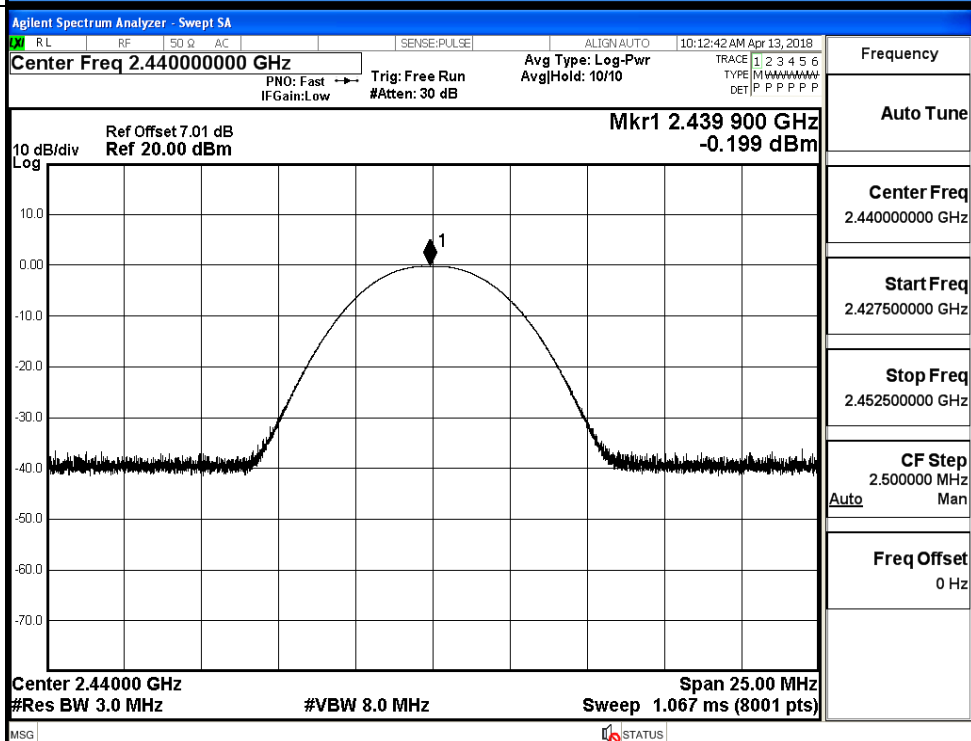
Mode	Channel	Conduct Peak Power[dBm]	Limit [dBm]	Verdict
BT LE	LCH	-0.075	30	PASS
BT LE	MCH	-0.199	30	PASS
BT LE	HCH	-0.248	30	PASS

Test Graphs

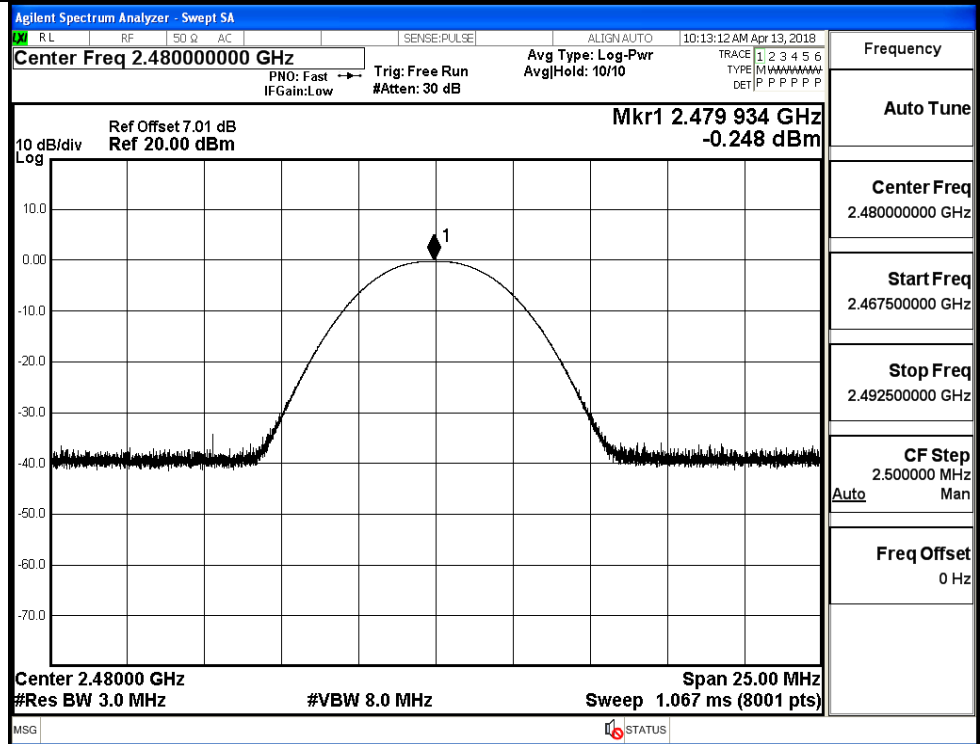
LCH



MCH



HCH

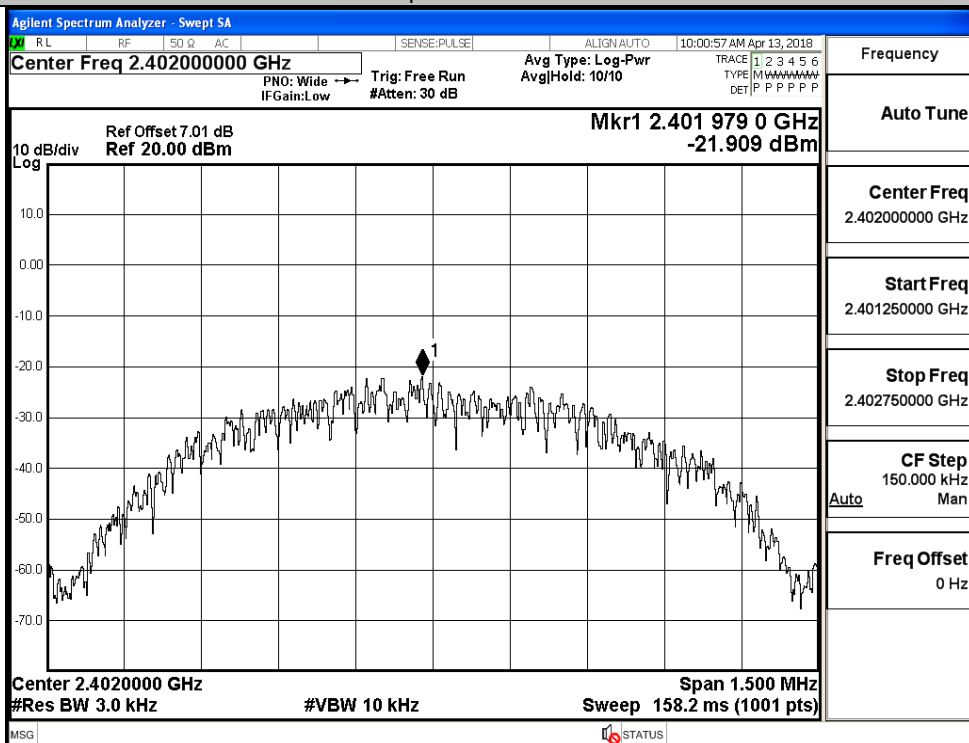


A.3 Maximum Power Spectral Density

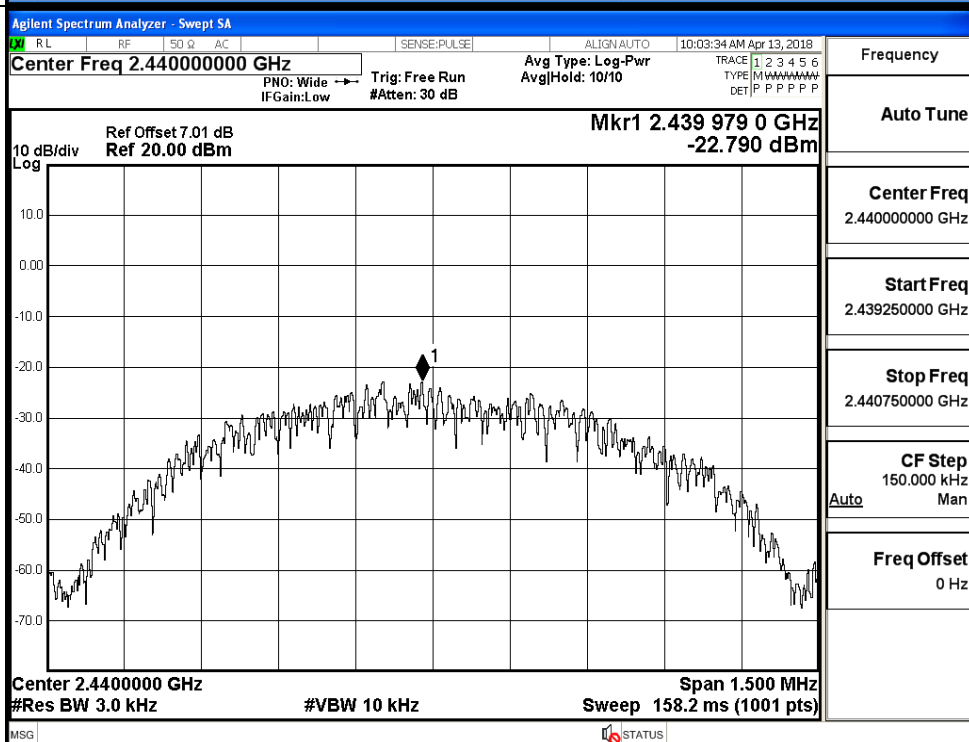
Mode	Channel	PSD [dBm/3KHz]	Limit [dBm/3KHz]	Verdict
BT LE	LCH	-21.909	8	PASS
BT LE	MCH	-22.790	8	PASS
BT LE	HCH	-23.476	8	PASS

Test Graphs

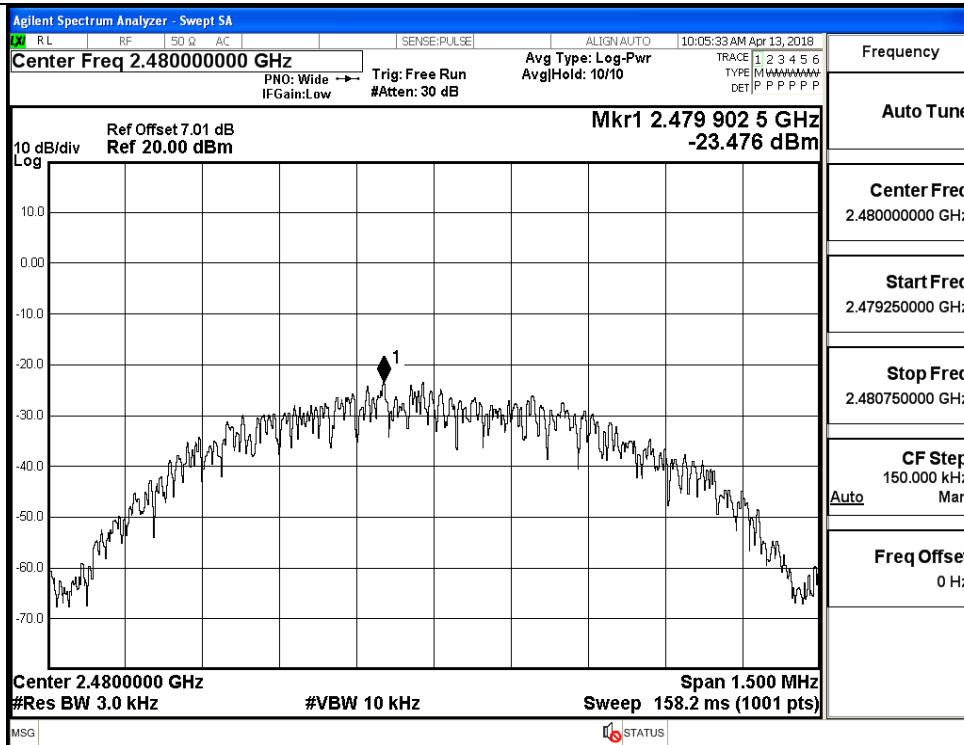
LCH



MCH



HCH

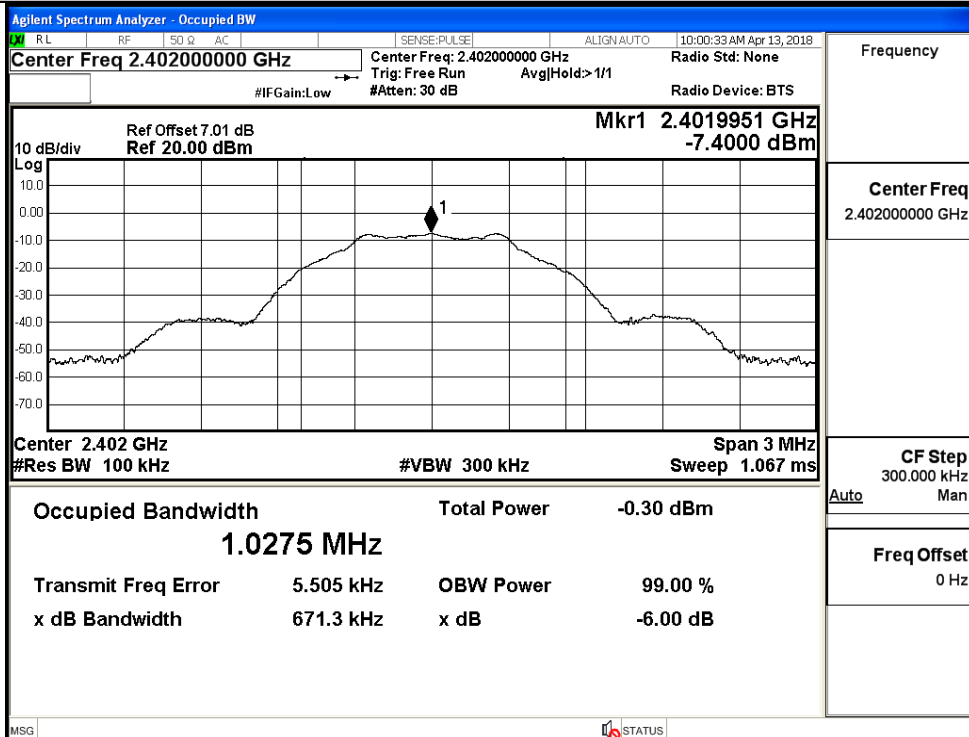


A.4 6dB Bandwidth

Mode	Channel	6dB Bandwidth [MHz]	Limit [MHz]	Verdict
BT LE	LCH	0.6713	≥ 0.5	PASS
BT LE	MCH	0.6870	≥ 0.5	PASS
BT LE	HCH	0.6845	≥ 0.5	PASS

Test Graphs

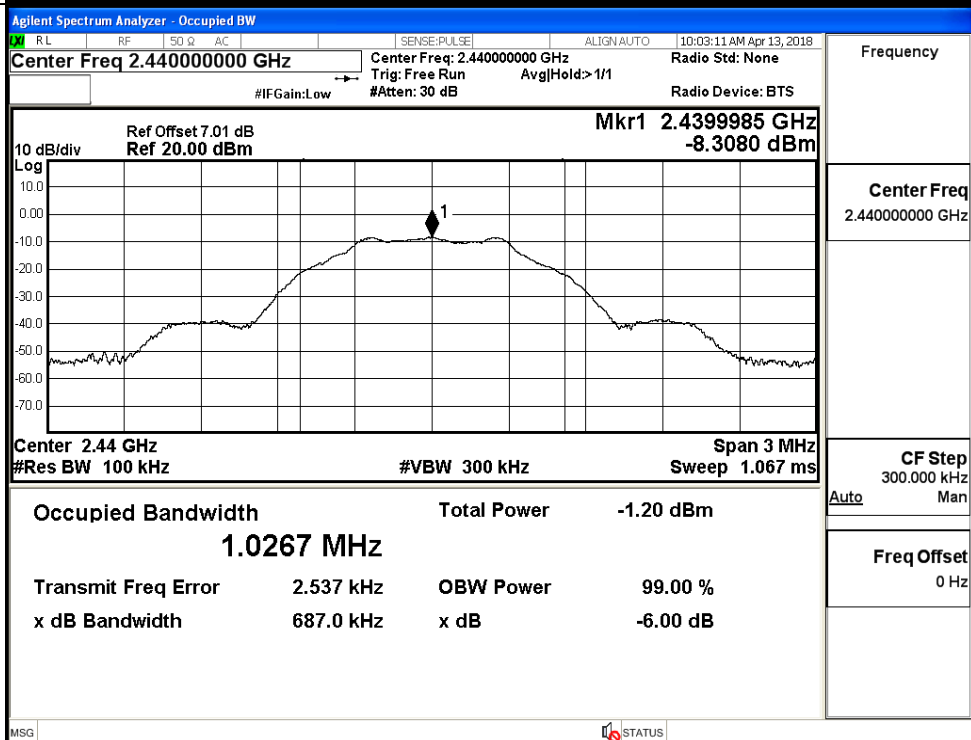
LCH



Frequency

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

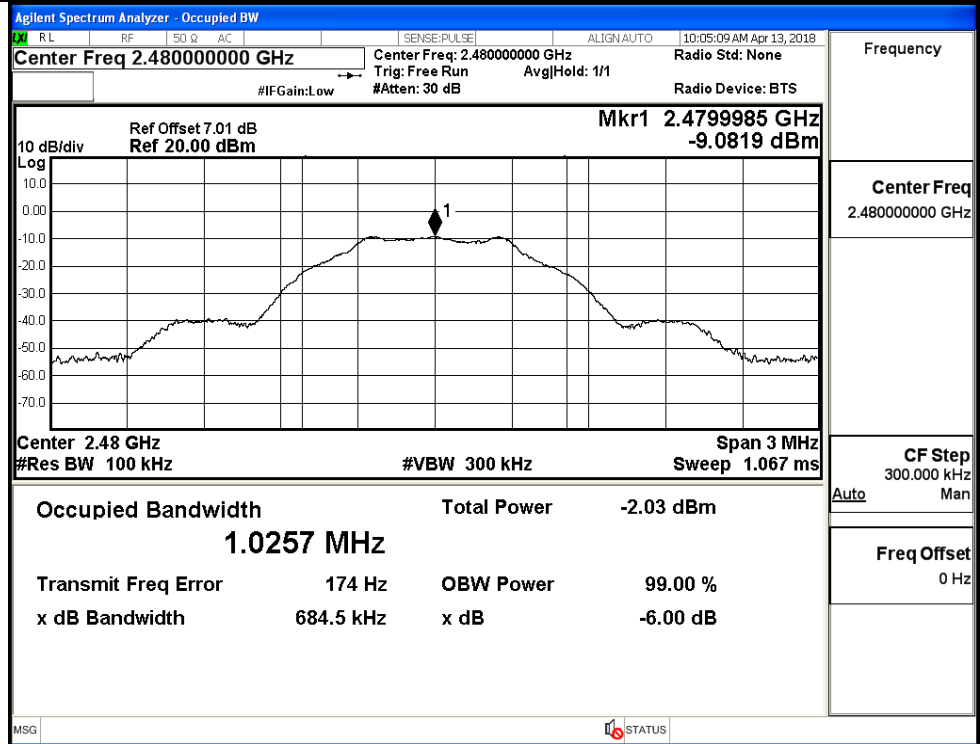
MCH



Frequency

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

HCH

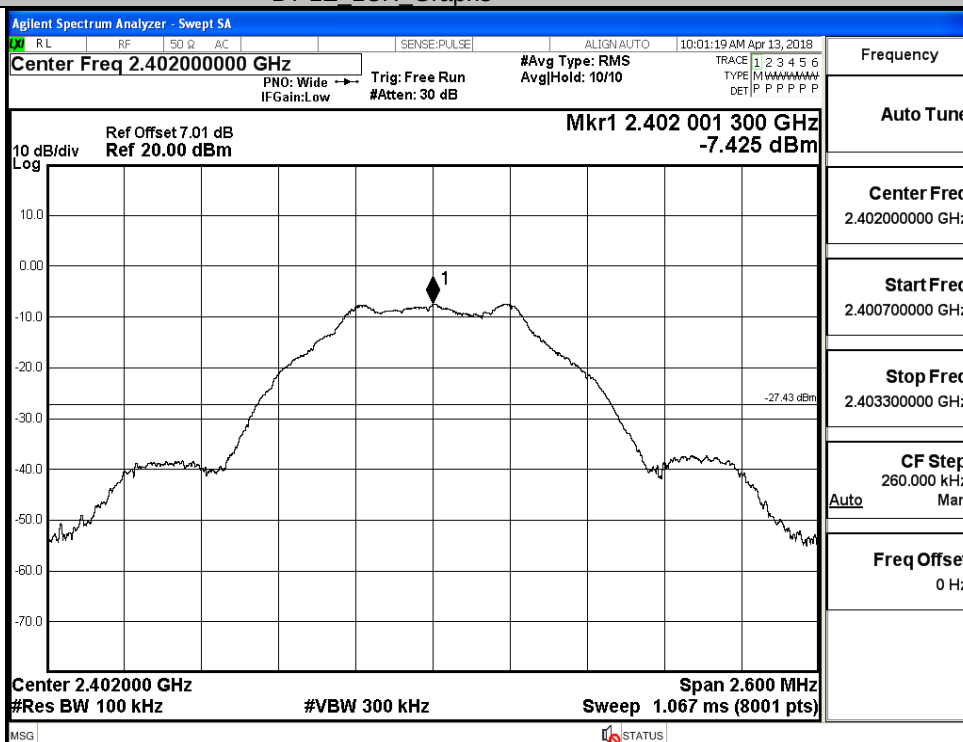


A.5 RF Conducted Spurious Emissions

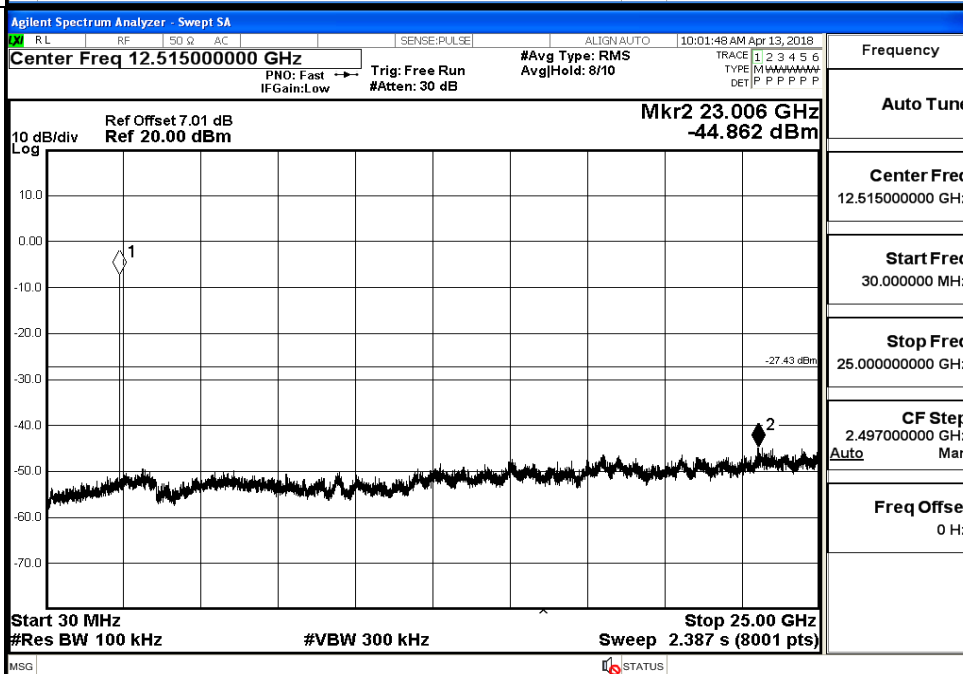
Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
BT LE	LCH	-7.425	-44.862	-27.425	PASS
BT LE	MCH	-8.31	-44.914	-28.310	PASS
BT LE	HCH	-9.185	-44.733	-29.185	PASS

BT LE LCH Graphs

Pref/BT LE/LCH

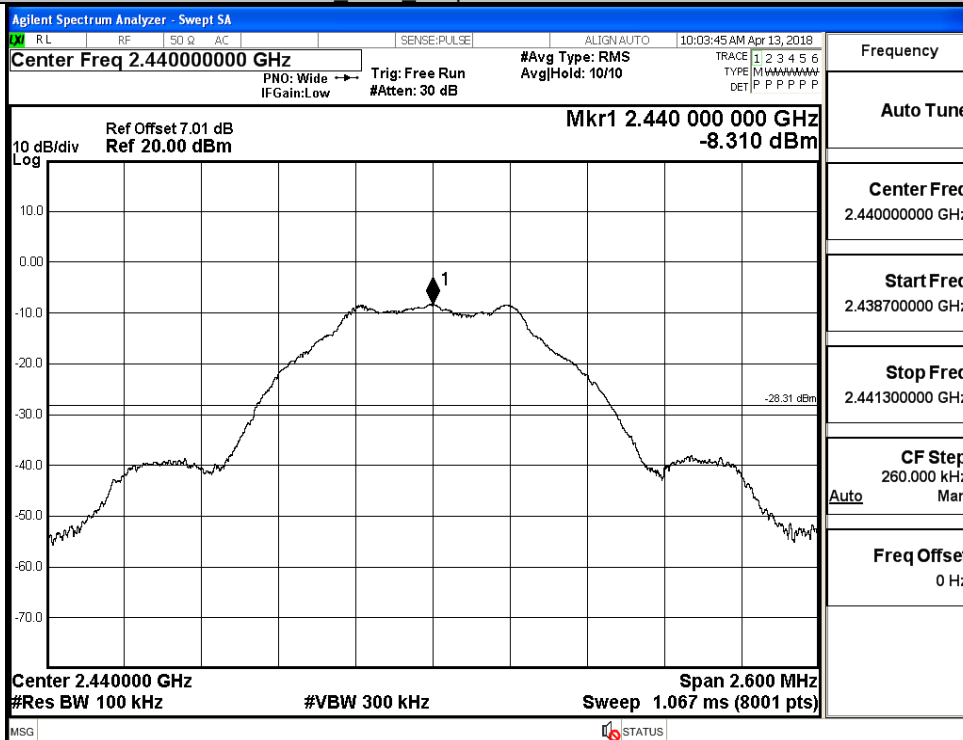


Puw/BT LE/LCH

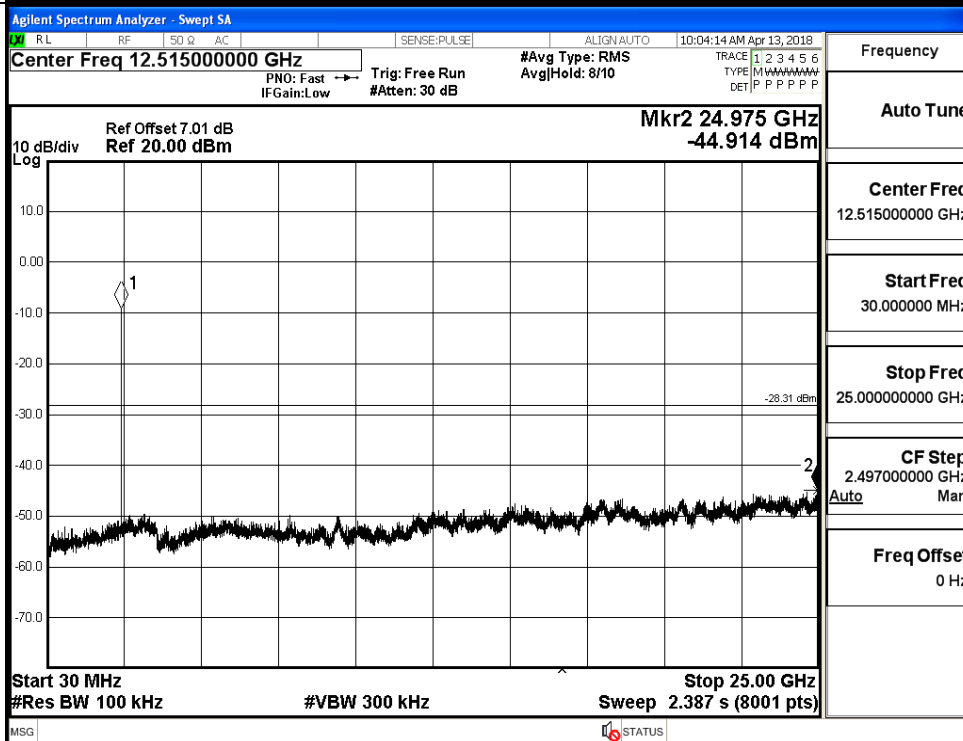


BT LE MCH Graphs

Pref/BT LE/MCH

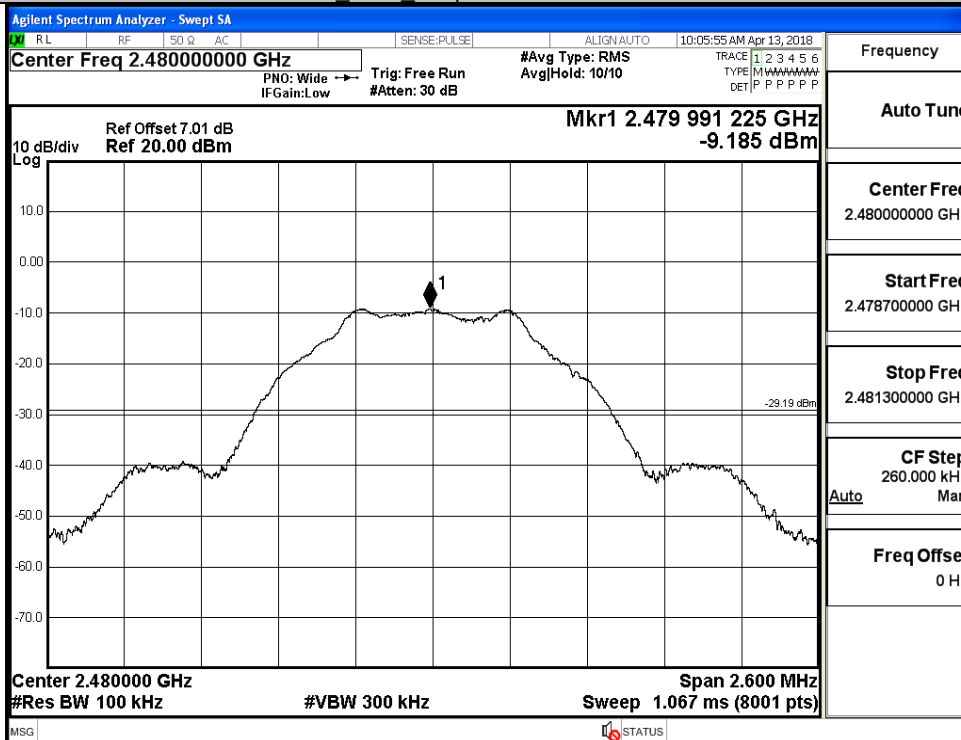


Puw/BT LE/MCH

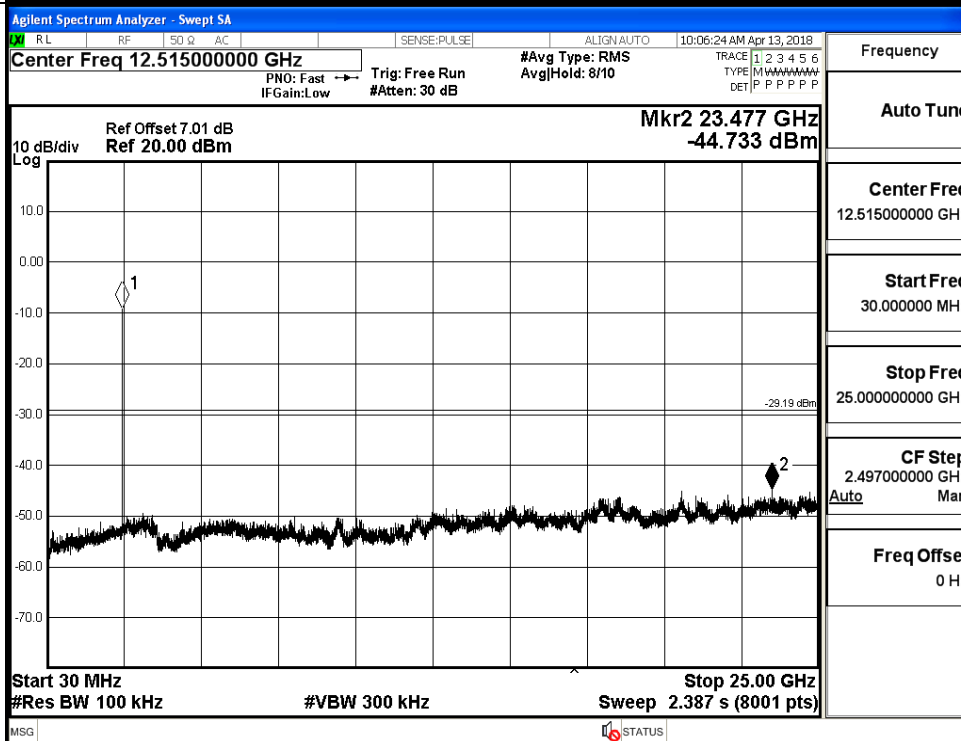


BT LE HCH Graphs

Pref/BT LE/HCH



Puw/BT LE/HCH

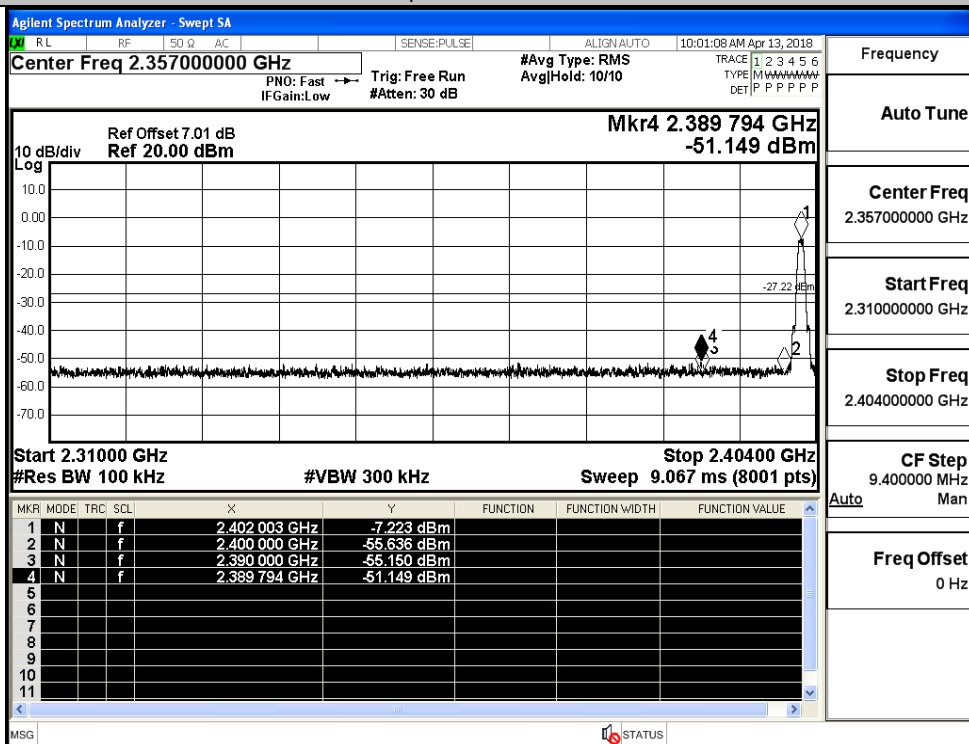


A.6 Band-edge for RF Conducted Emissions

Mode	Channel	Carrier Power[dBm]	Max.Spurious Level [dBm]	Limit [dBm]	Verdict
BT LE	LCH	-7.223	-51.149	-27.22	PASS
BT LE	HCH	-8.854	-51.469	-28.85	PASS

Test Graphs

LCH

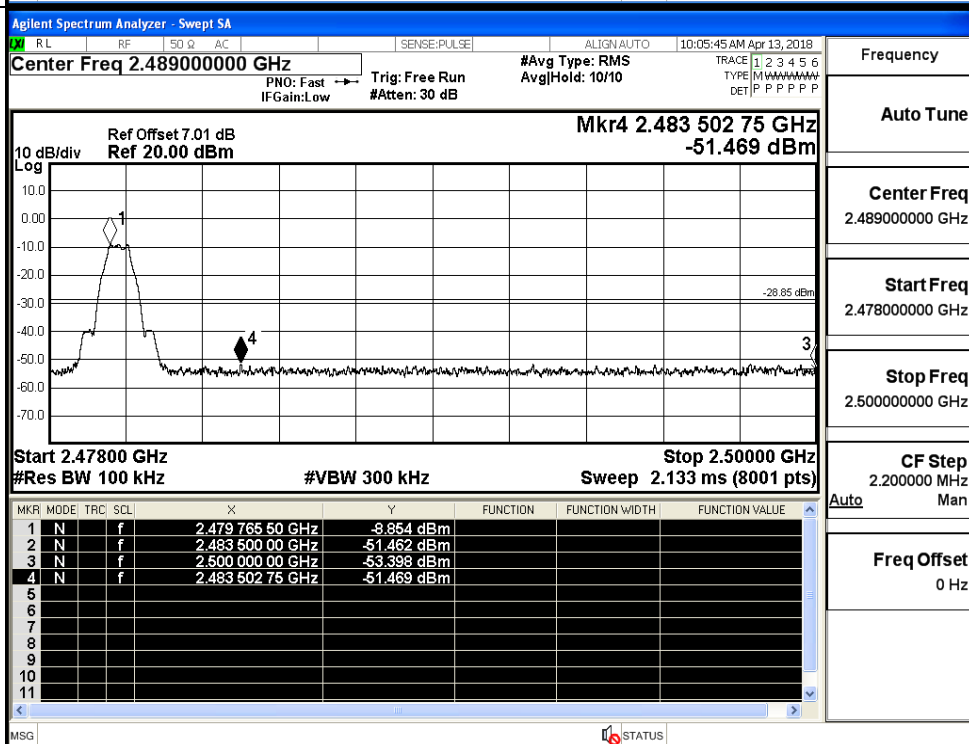


Frequency

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

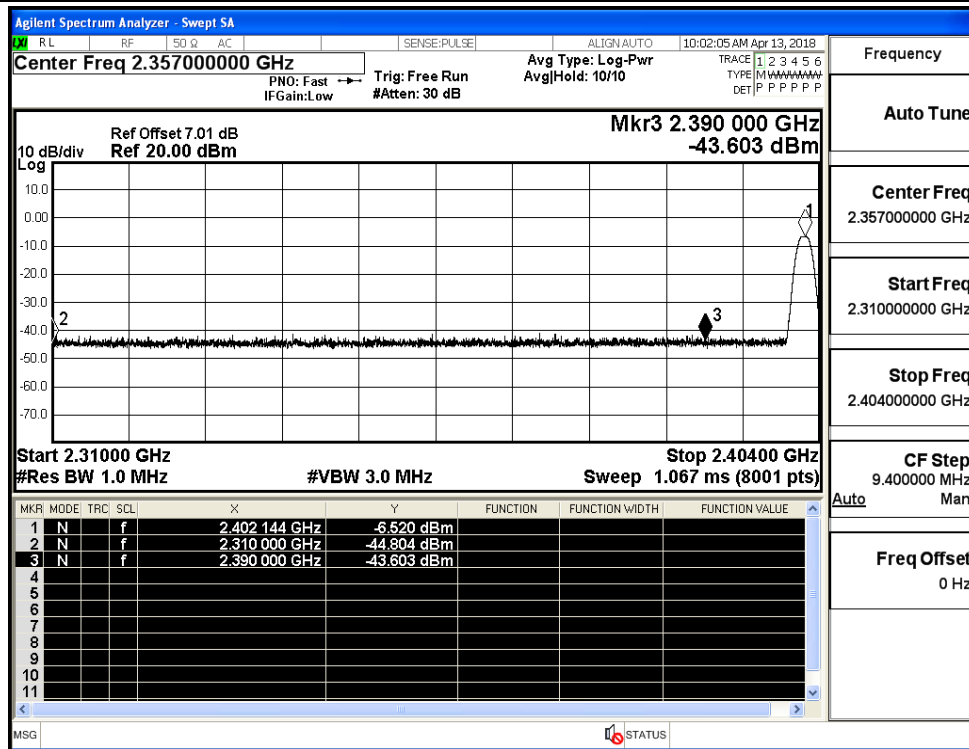
Auto Tune

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

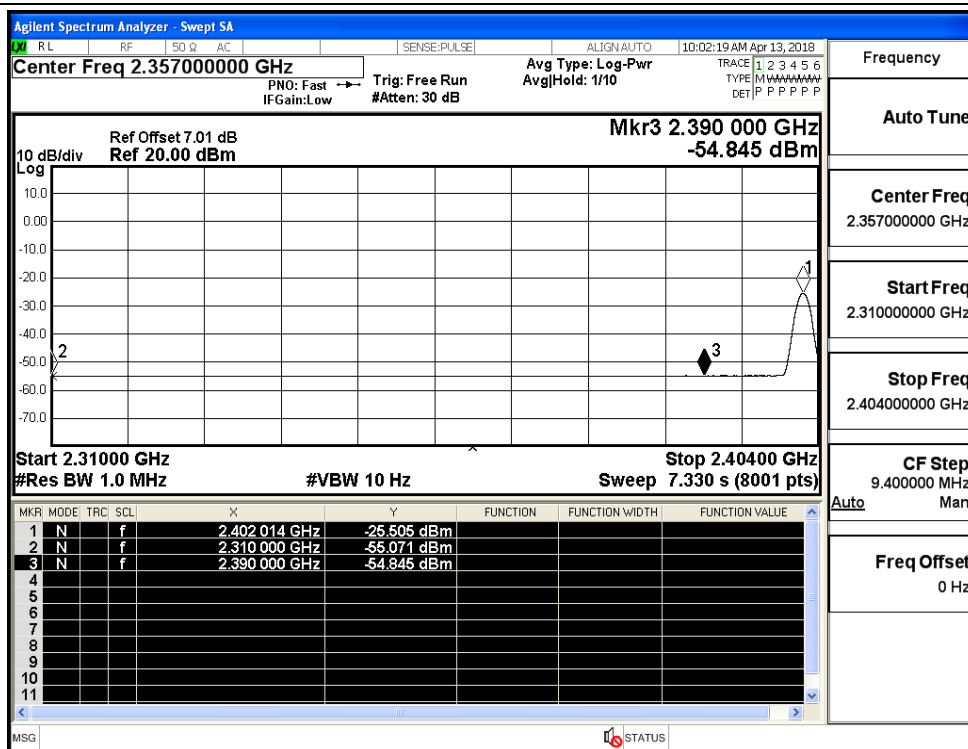
A.7 Restrict-band band-edge measurements

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	-44.80	2.0	0	50.45	PEAK	74	PASS
		Ant1	2310.0	-55.07	2.0	0	40.19	AV	54	PASS
		Ant1	2390.0	-43.60	2.0	0	51.65	PEAK	74	PASS
		Ant1	2390.0	-54.85	2.0	0	40.41	AV	54	PASS
	2480	Ant1	2483.5	-43.99	2.0	0	51.26	PEAK	74	PASS
		Ant1	2483.5	-54.65	2.0	0	40.61	AV	54	PASS
		Ant1	2500.0	-44.61	2.0	0	50.65	PEAK	74	PASS
		Ant1	2500.0	-54.51	2.0	0	40.75	AV	54	PASS

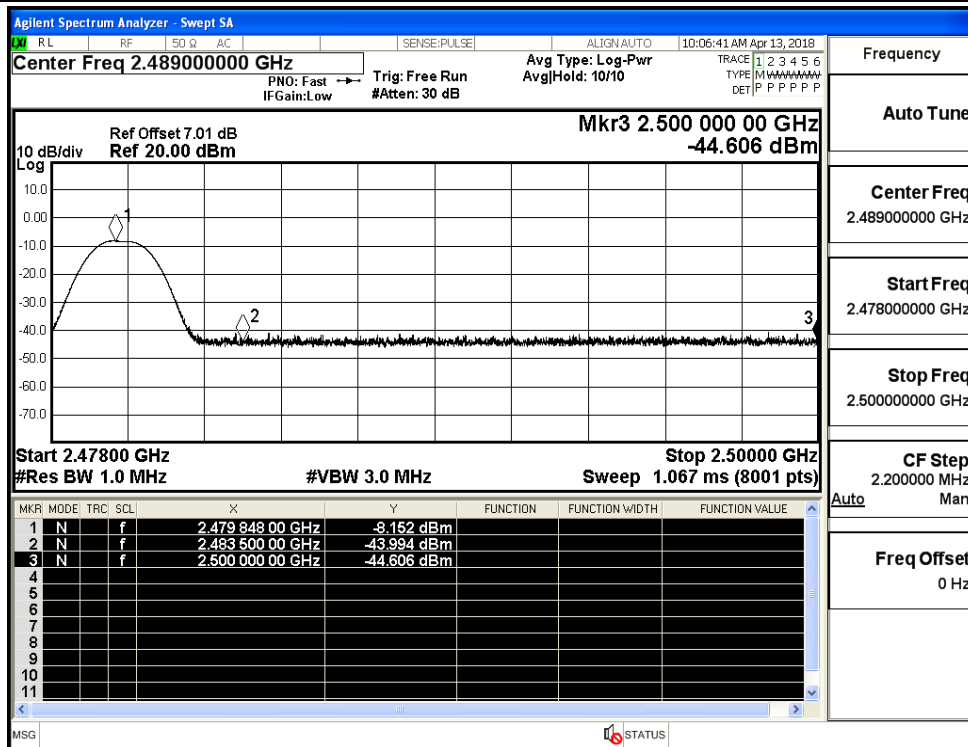
Restrict-band band-edge measurements_BT LE_2402_Ant1_PEAK



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

