

Appendix B

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

Product Name: Portable Data Collector

Trade Mark: Newland

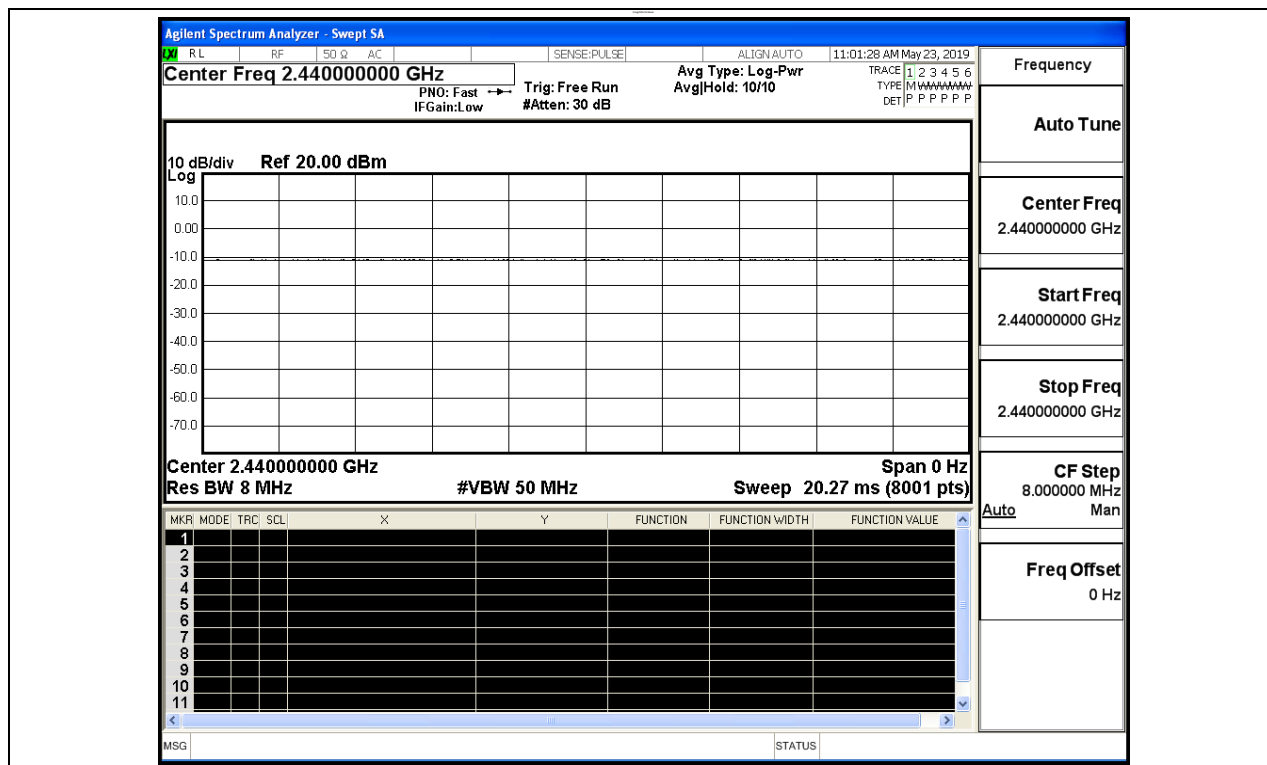
Test Model: NLS-NFT10

Environmental Conditions

Temperature:	22.6 ° C
Relative Humidity:	54.1%
ATM Pressure:	100.0 kPa
Test Engineer:	WANGCHUANG
Supervised by:	Tom.Liu

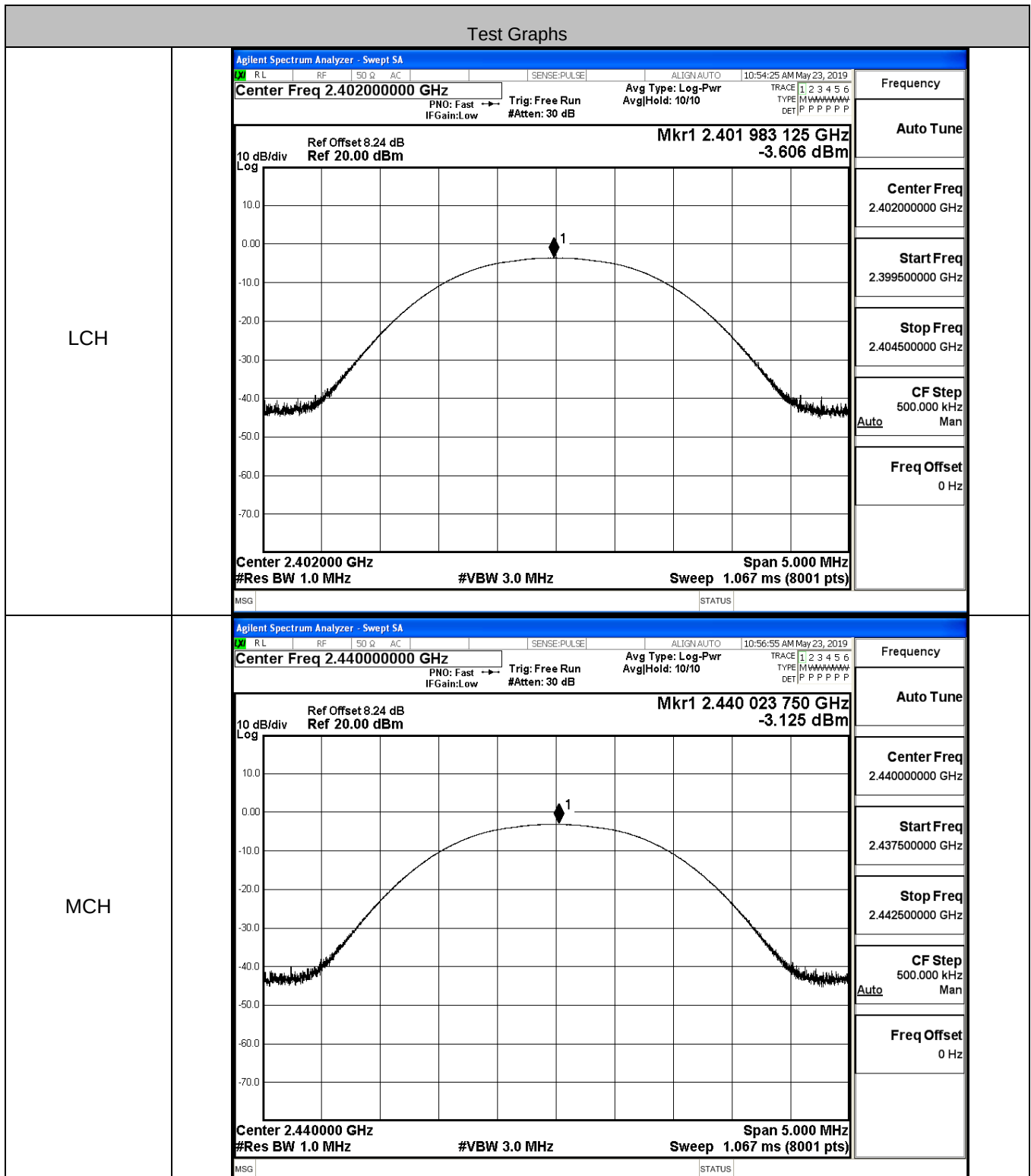
B.1 Duty Cycle

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

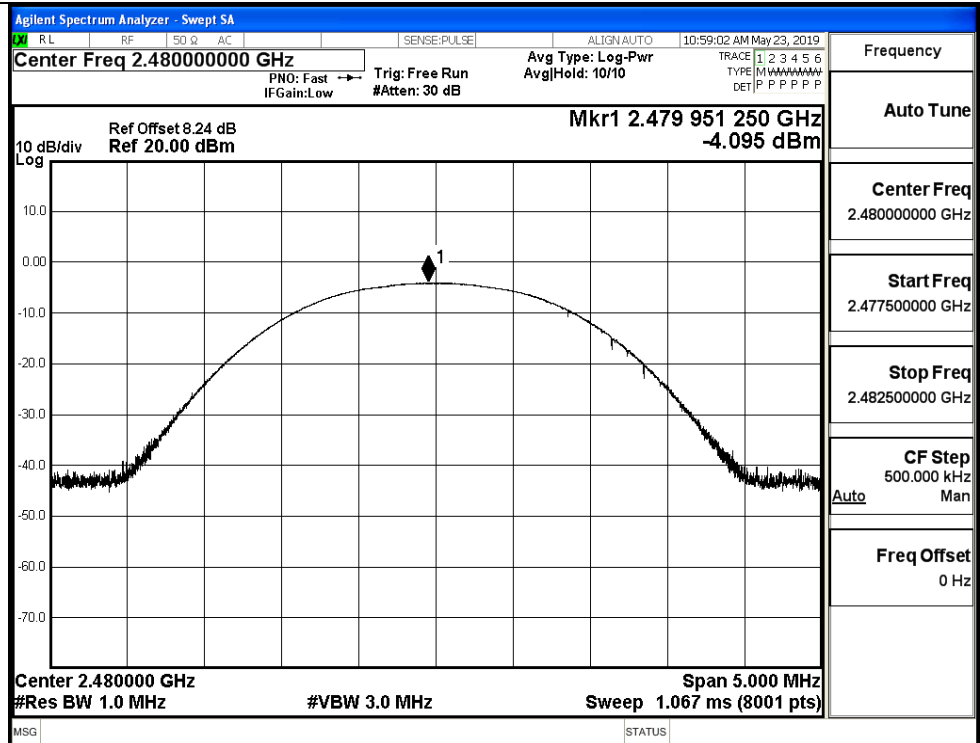


B.2 Maximum Conducted Peak Output Power

Mode	Channel	Conduct Peak Power[dBm]	Limit [dBm]	Verdict
BT LE	LCH	-3.606	30	PASS
BT LE	MCH	-3.125	30	PASS
BT LE	HCH	-4.095	30	PASS



HCH

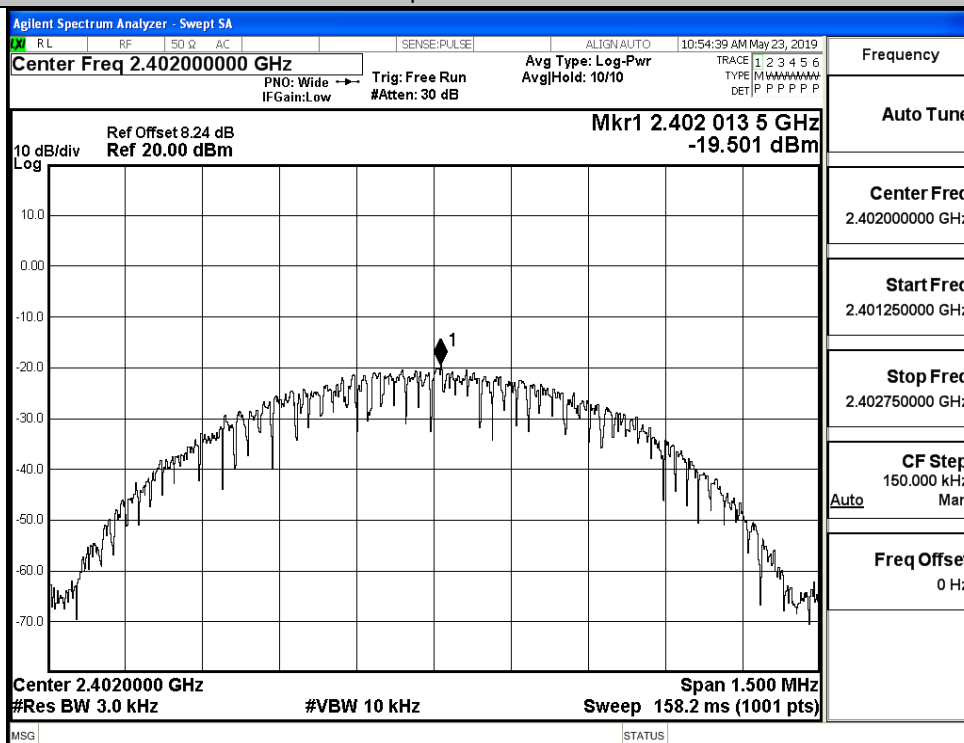


B.3 Maximum Power Spectral Density

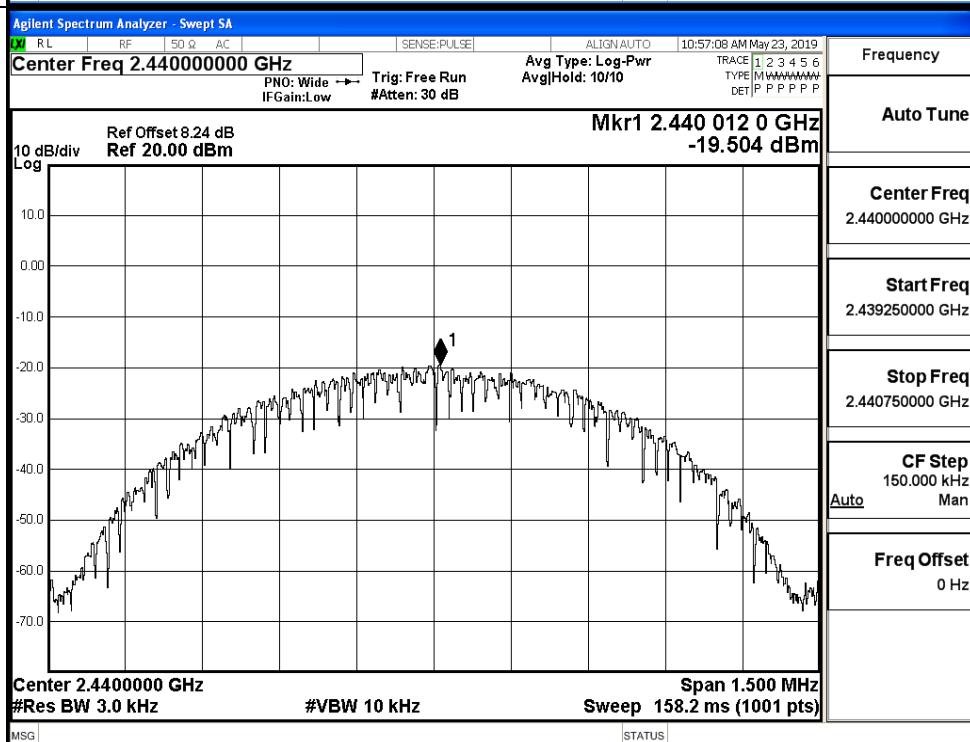
Mode	Channel	PSD [dBm/3KHz]	Limit [dBm/3KHz]	Verdict
BT LE	LCH	-19.501	8	PASS
BT LE	MCH	-19.504	8	PASS
BT LE	HCH	-22.604	8	PASS

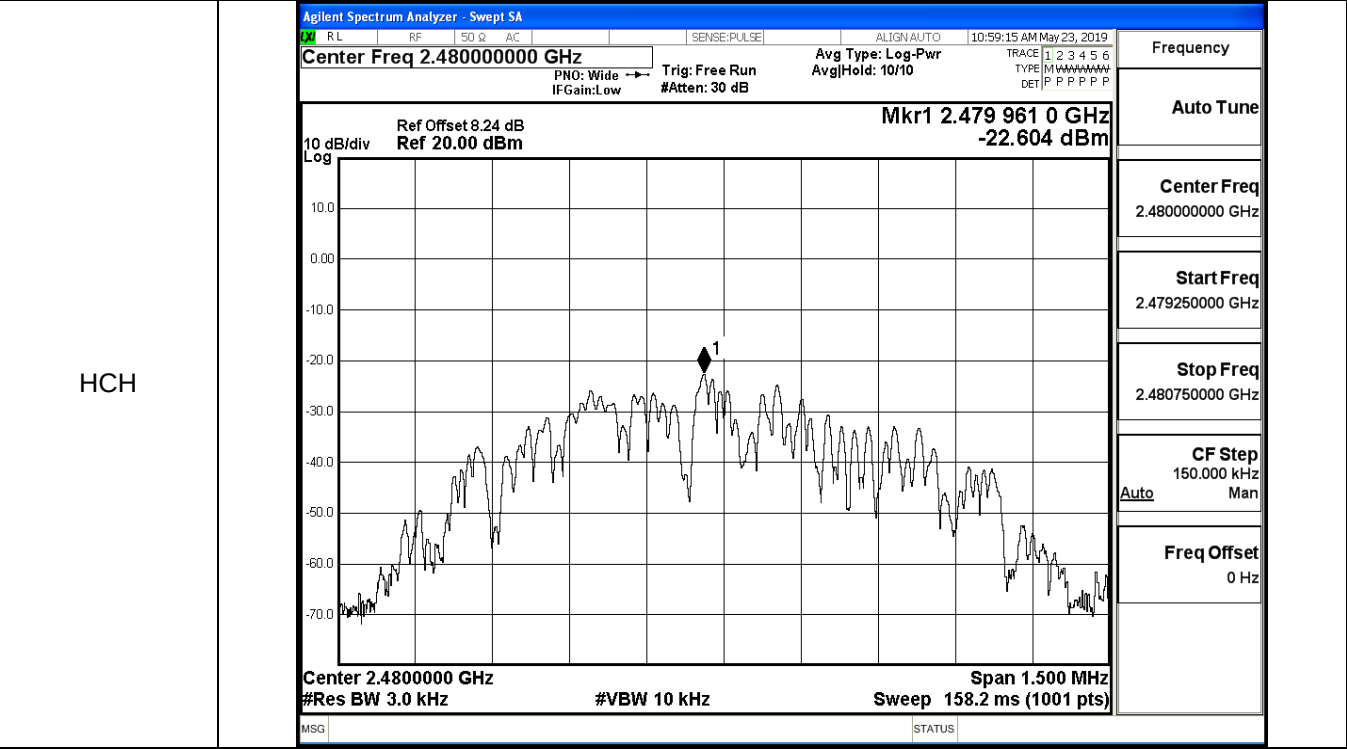
Test Graphs

LCH



MCH



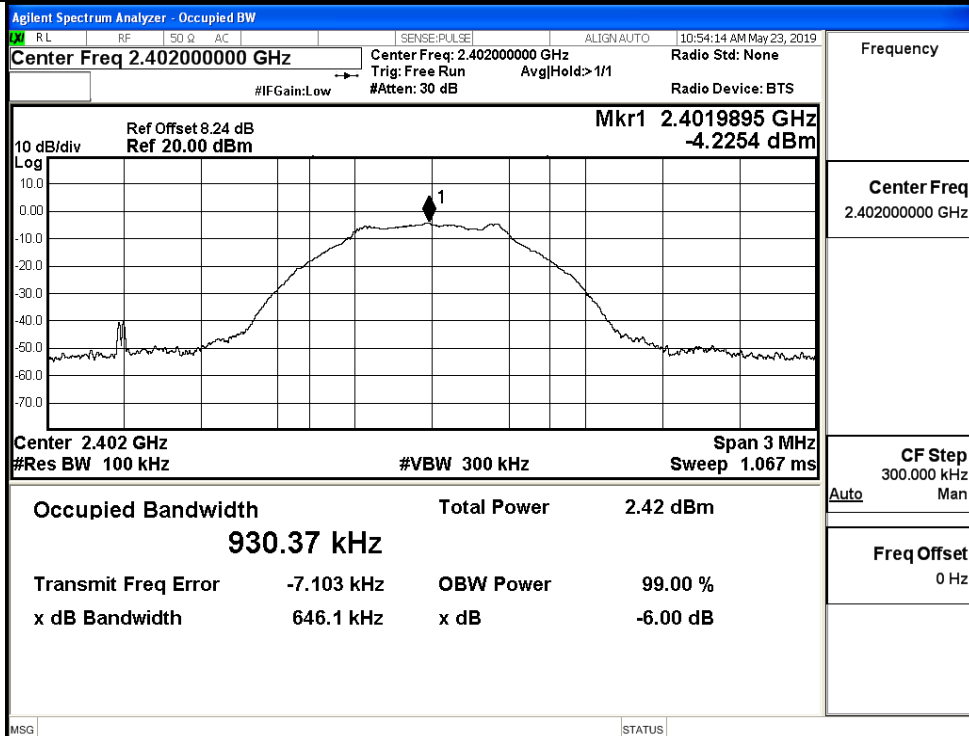


B.4 6dB Bandwidth

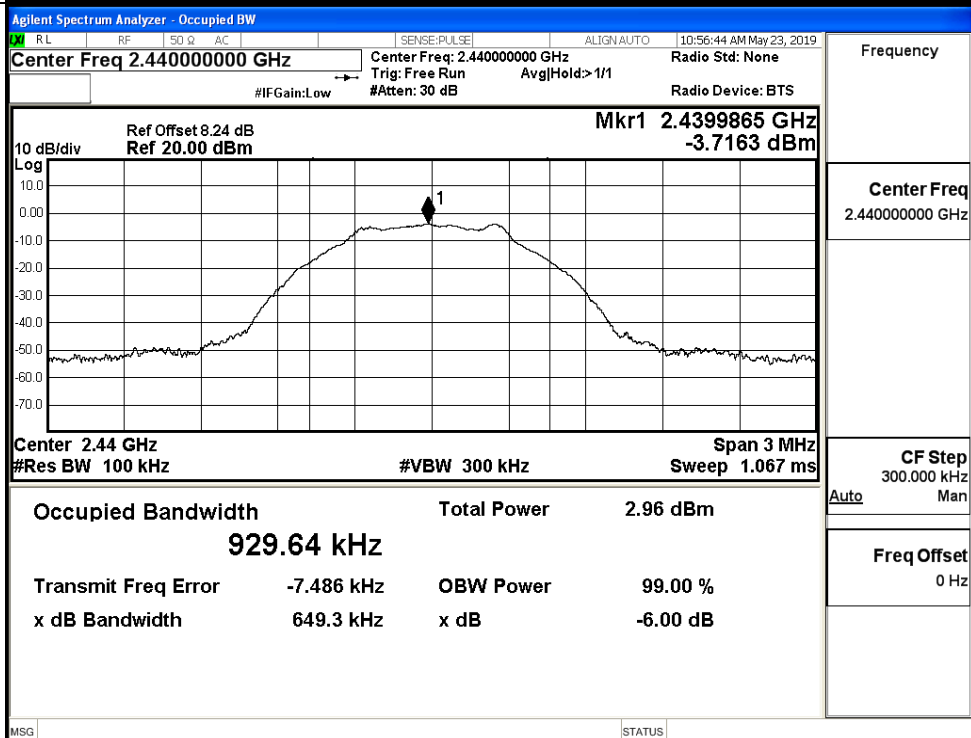
Mode	Channel	6dB Bandwidth [MHz]	Limit [MHz]	Verdict
BT LE	LCH	0.6461	≥ 0.5	PASS
BT LE	MCH	0.6493	≥ 0.5	PASS
BT LE	HCH	0.6433	≥ 0.5	PASS

Test Graphs

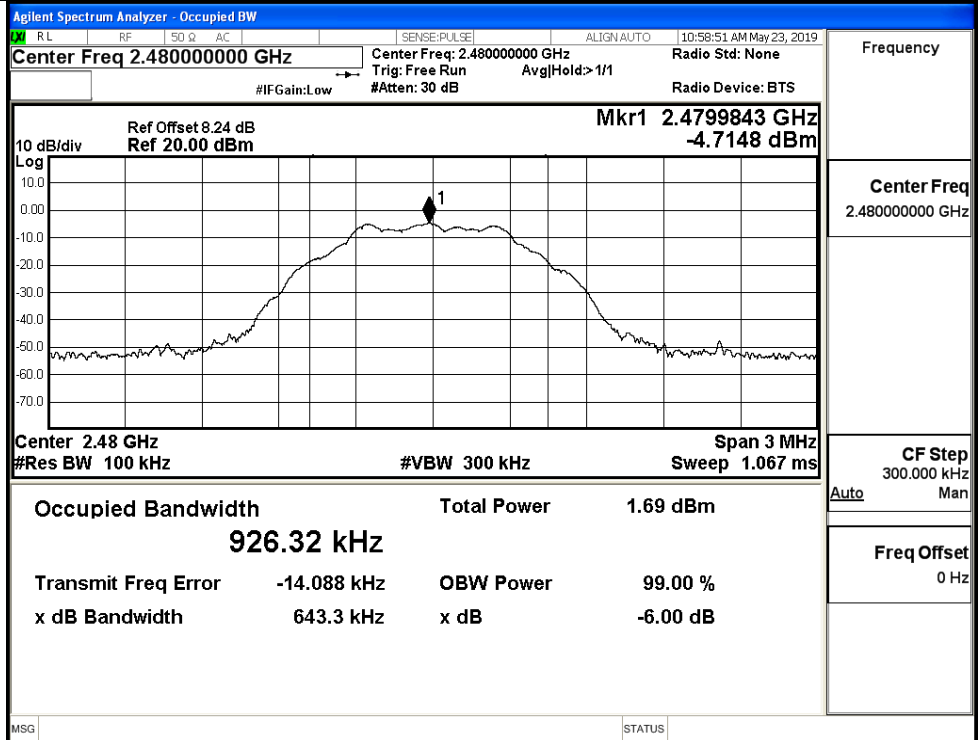
LCH



MCH



HCH

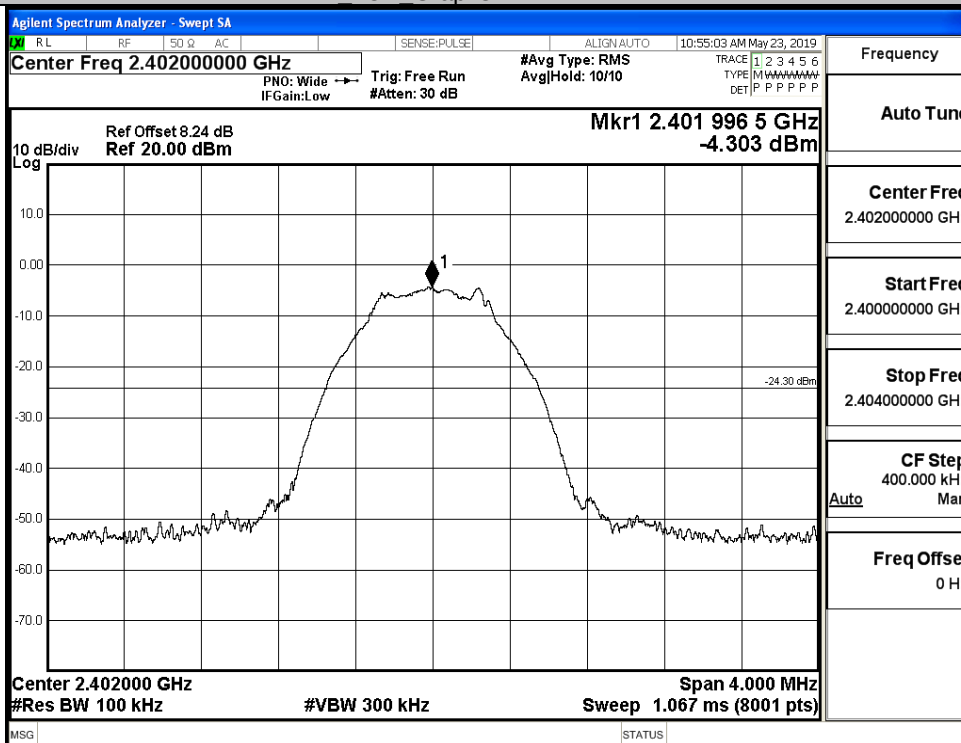


B.5 RF Conducted Spurious Emissions

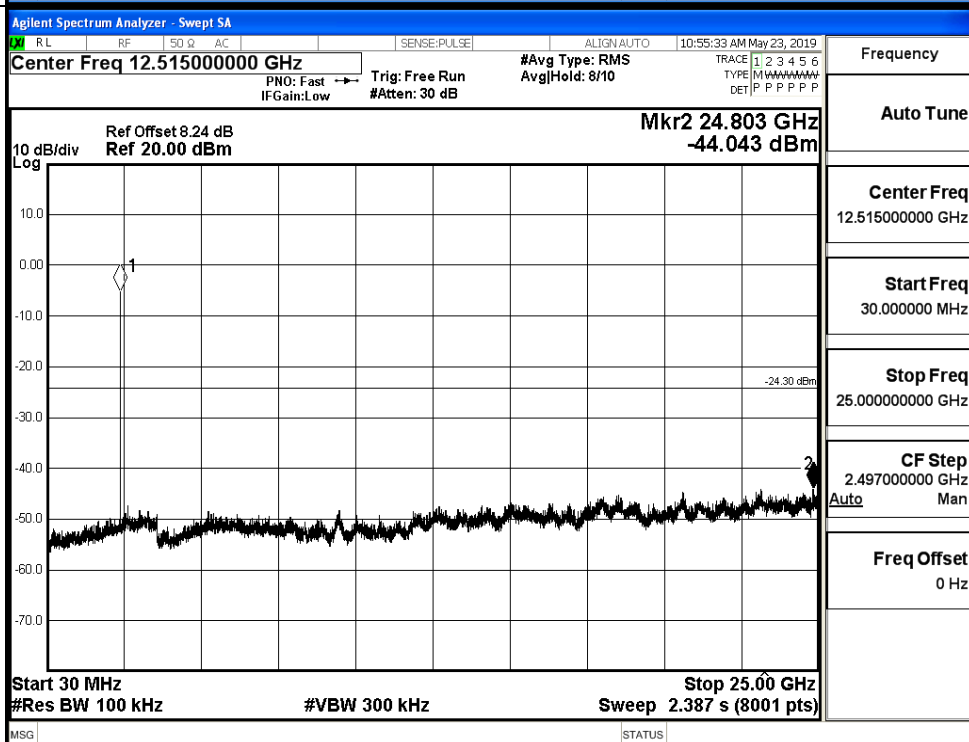
Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
BT LE	LCH	-4.303	-44.043	-24.303	PASS
BT LE	MCH	-3.783	-42.737	-23.783	PASS
BT LE	HCH	-4.806	-44.029	-24.806	PASS

BT LE LCH Graphs

Pref/BT LE/LCH



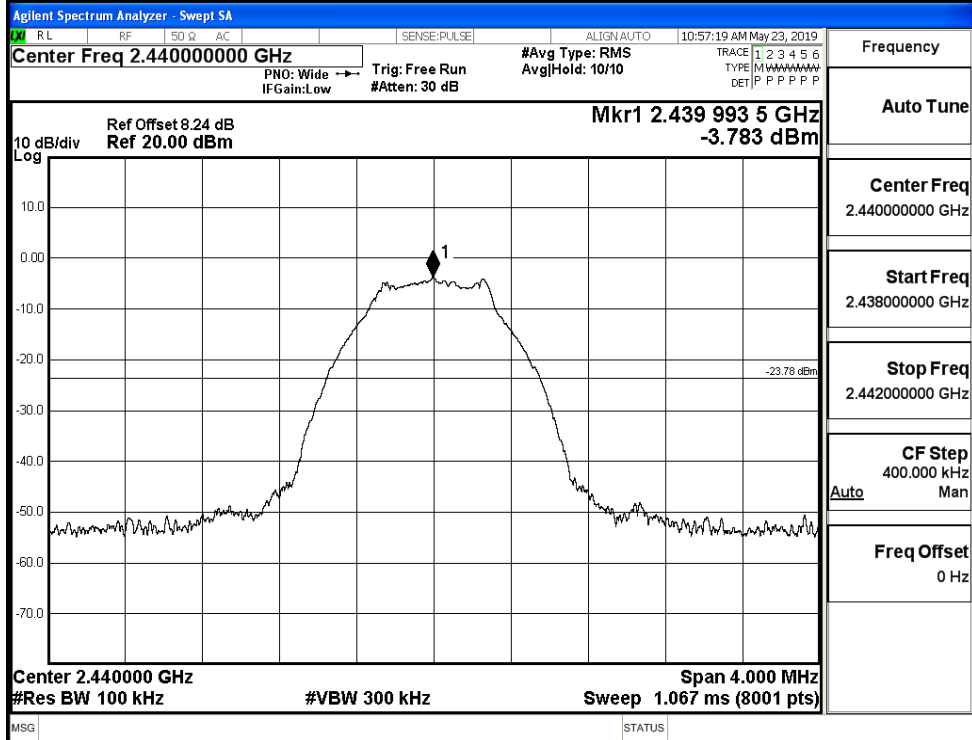
Puw/BT LE/LCH



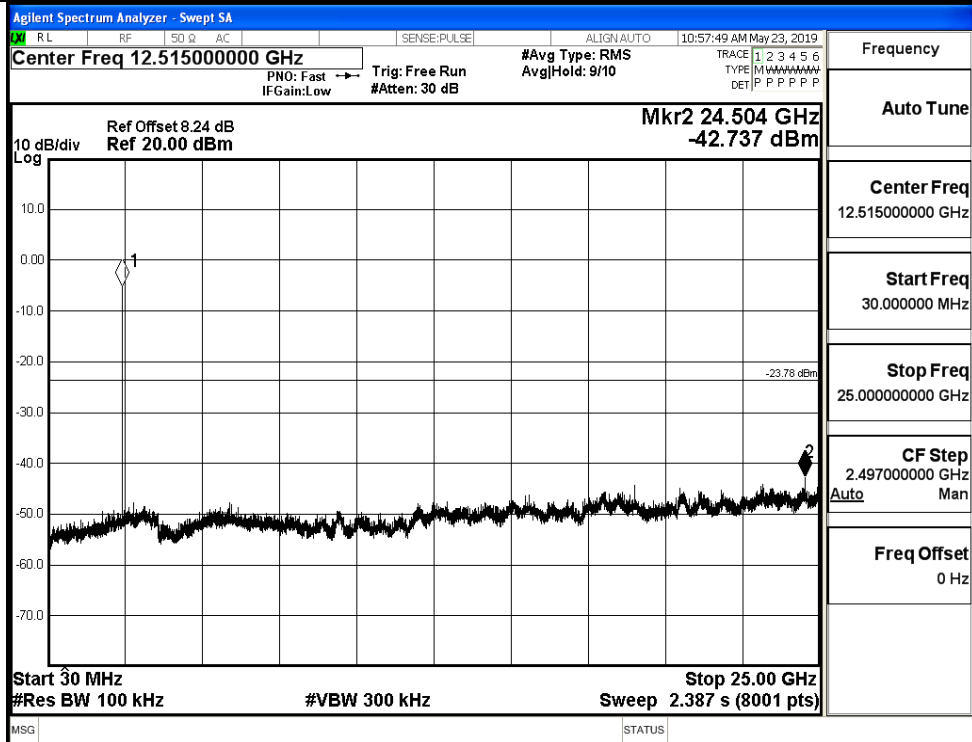
--	--

BT LE MCH Graphs

Pref/BT LE/MCH

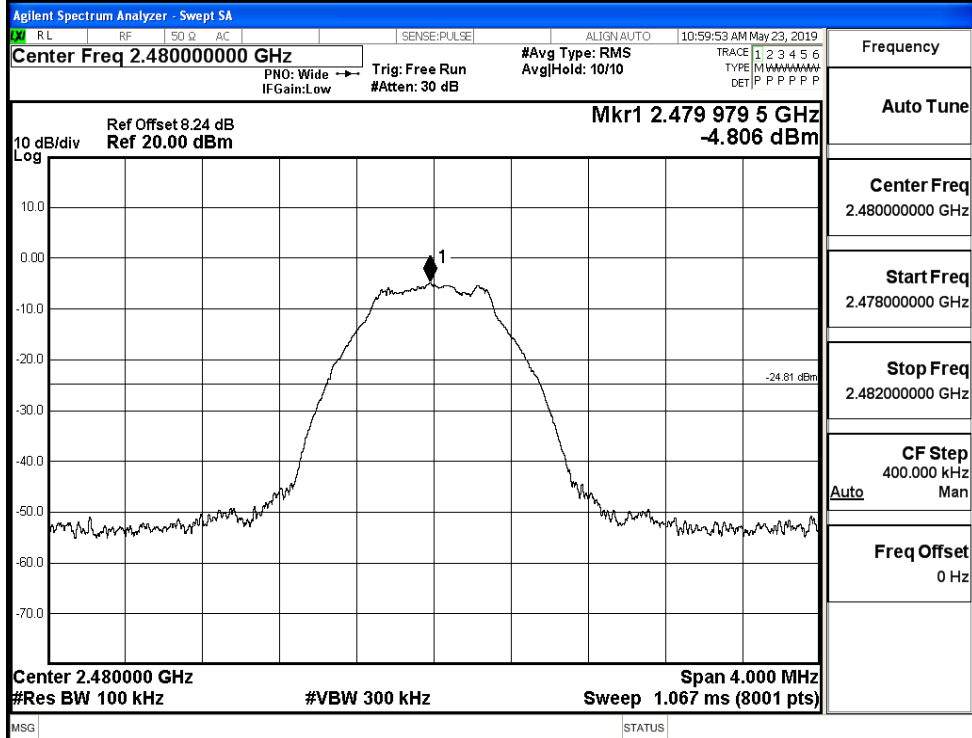


Puw/BT LE/MCH

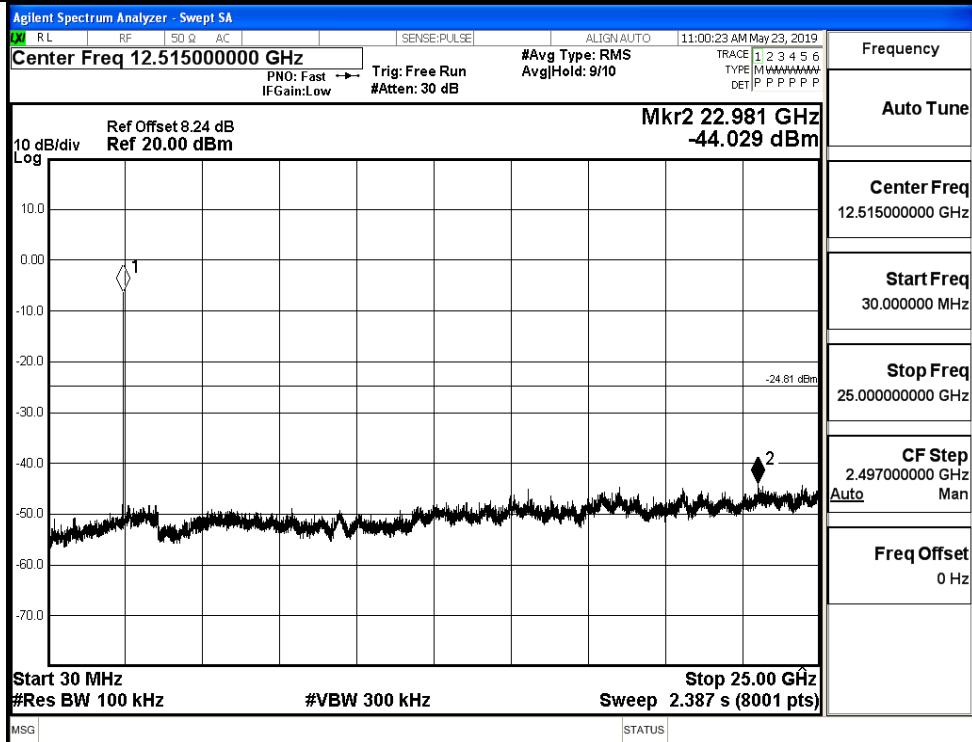


BT LE HCH Graphs

Pref/BT LE/HCH



Puw/BT LE/HCH

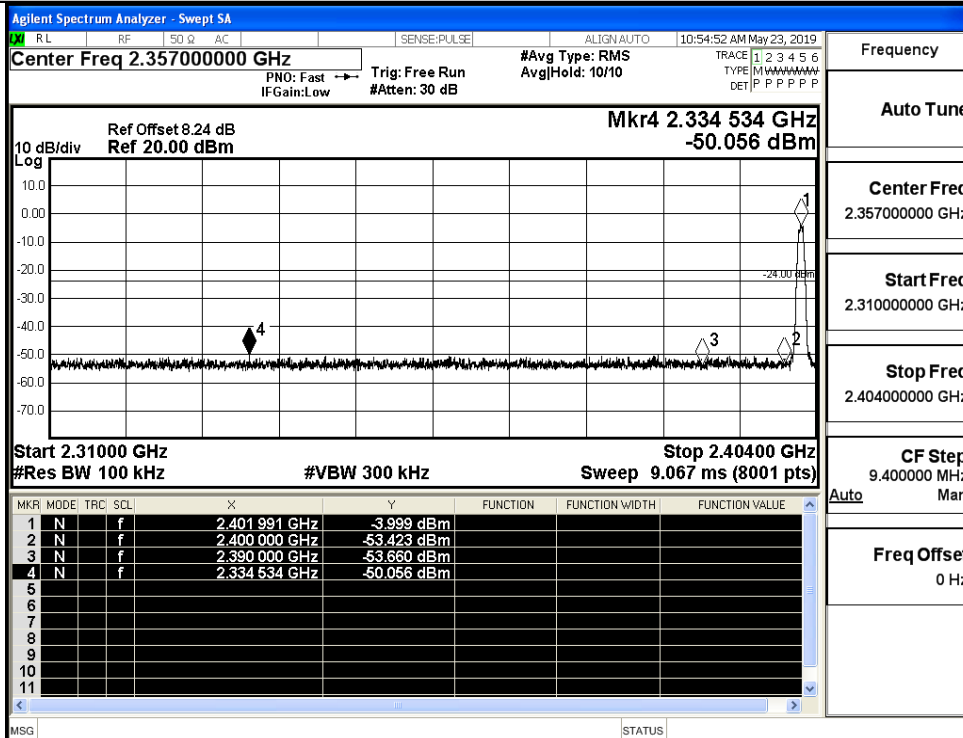


B.6 Band-edge for RF Conducted Emissions

Mode	Channel	Carrier Power[dBm]	Max.Spurious Level [dBm]	Limit [dBm]	Verdict
BT LE	LCH	-3.999	-50.056	-24	PASS
BT LE	HCH	-4.773	-49.042	-24.77	PASS

Test Graphs

LCH



Frequency

Auto Tune

Center Freq

2.357000000 GHz

Start Freq

2.310000000 GHz

Stop Freq

2.404000000 GHz

CF Step

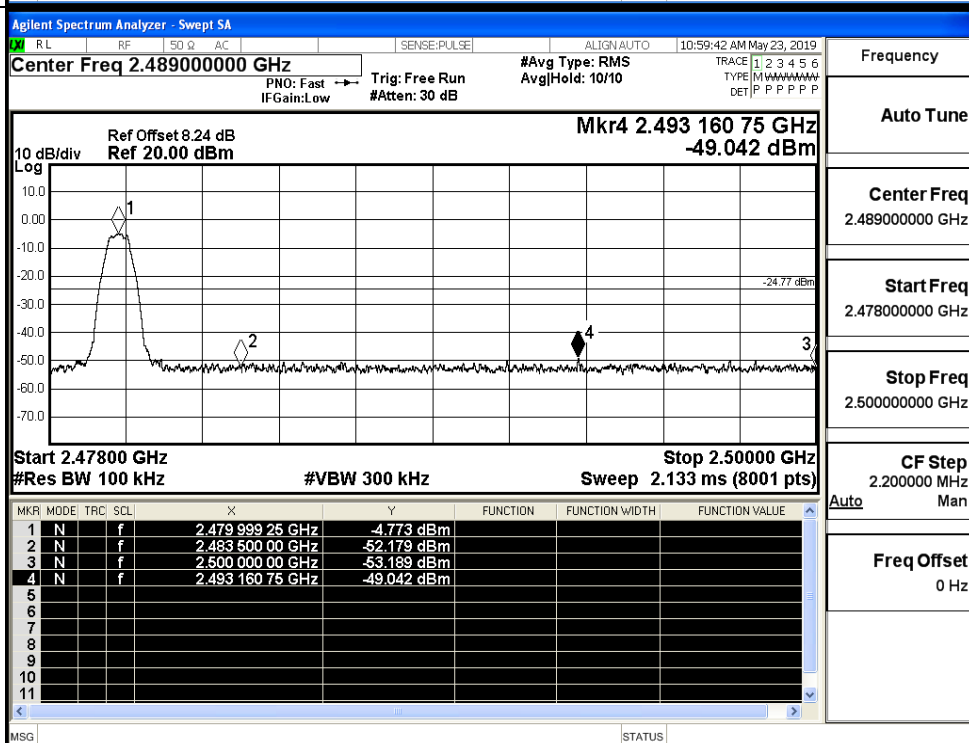
9.400000 MHz

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

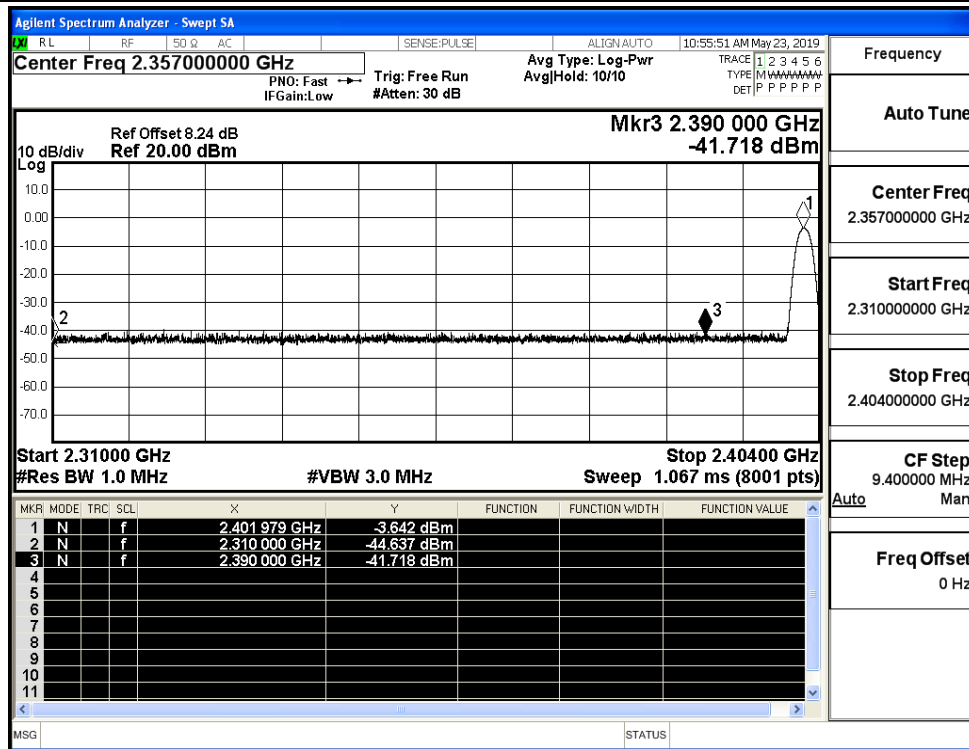
Freq Offset

0 Hz

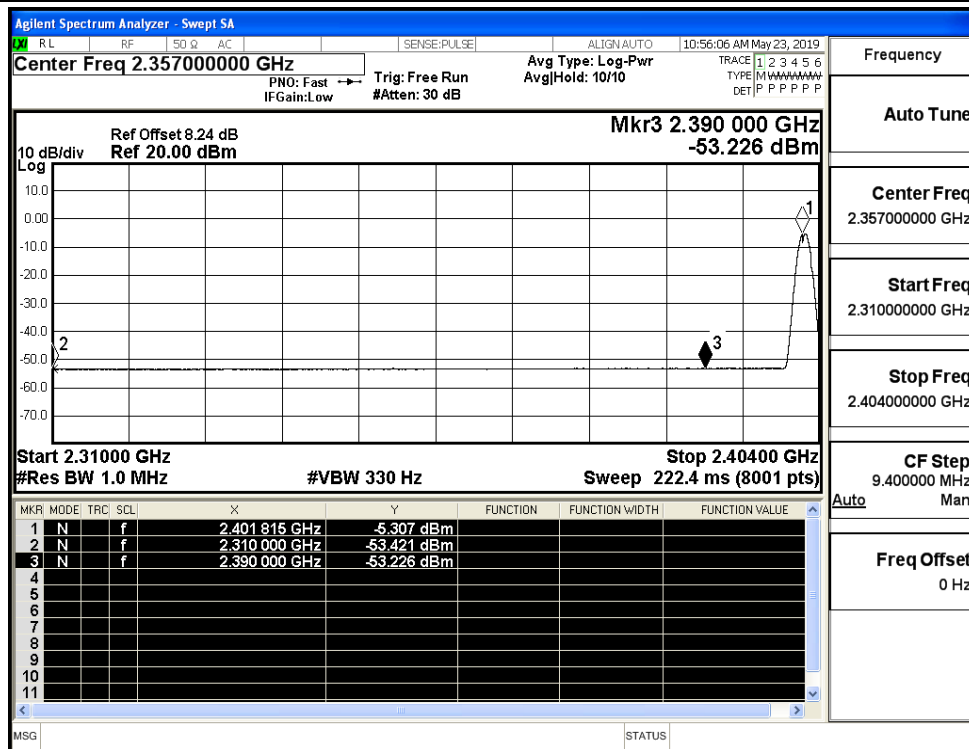
B.7 Restrict-band band-edge measurements

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	-44.64	2.0	0	52.62	PEAK	74	PASS
		Ant1	2310.0	-53.42	2.0	0	43.84	AV	54	PASS
		Ant1	2390.0	-41.72	2.0	0	55.54	PEAK	74	PASS
		Ant1	2390.0	-53.23	2.0	0	44.03	AV	54	PASS
	2480	Ant1	2483.5	-42.13	2.0	0	55.13	PEAK	74	PASS
		Ant1	2483.5	-52.85	2.0	0	44.41	AV	54	PASS
		Ant1	2500.0	-42.33	2.0	0	54.93	PEAK	74	PASS
		Ant1	2500.0	-52.72	2.0	0	44.54	AV	54	PASS

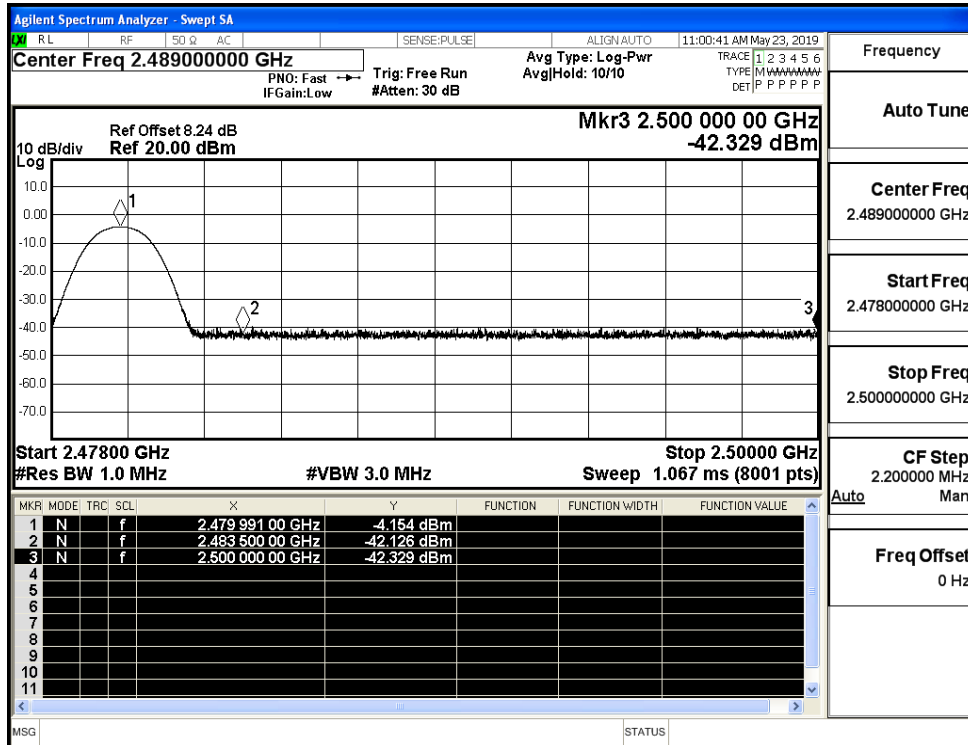
Restrict-band band-edge measurements_BT LE_2402_Ant1_PEAK



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

