

Appendix B

RF Test Data for BT LE V4.2(BDR/EDR) (Conducted Measurement)

Product Name: LED bluetooth controller

Trade Mark: N/A

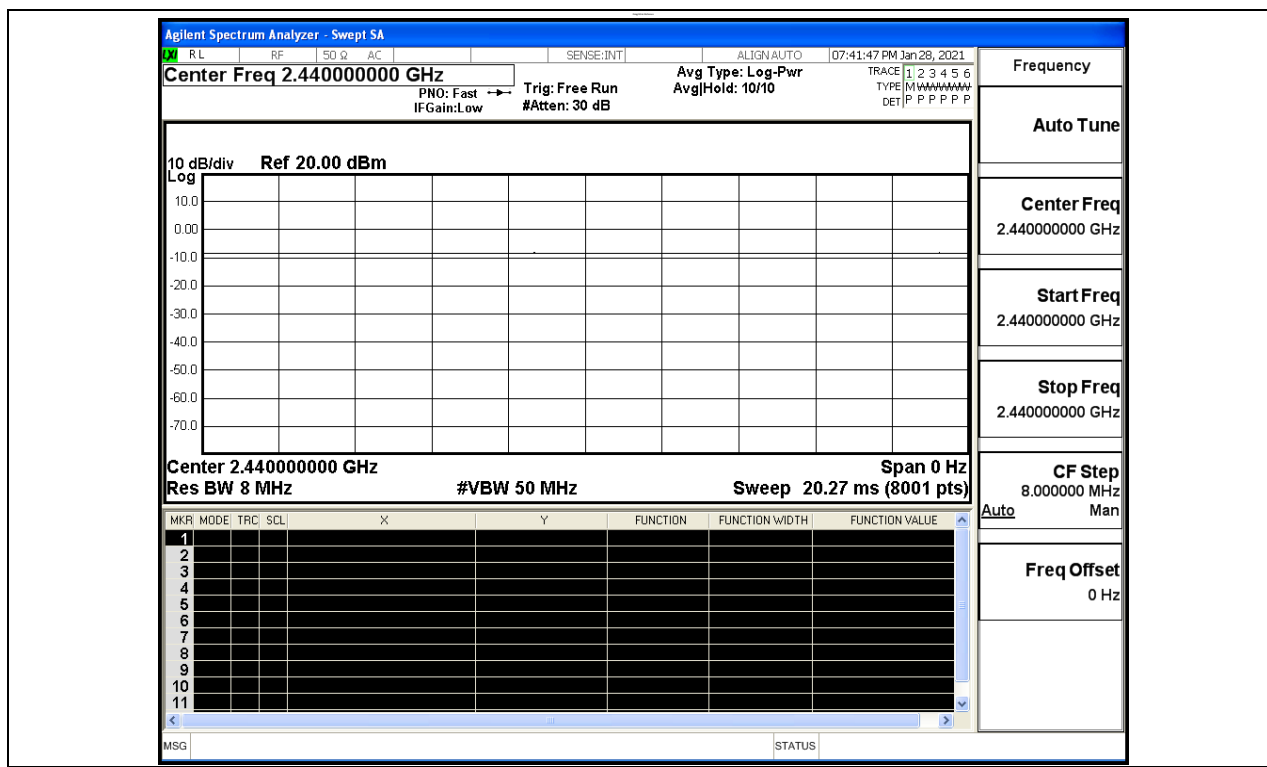
Test Model: 15M24W114B

Environmental Conditions

Temperature:	24.6° C
Relative Humidity:	54.1%
ATM Pressure:	100.0 kPa
Test Engineer:	Ben Jin
Supervised by:	Li Huan

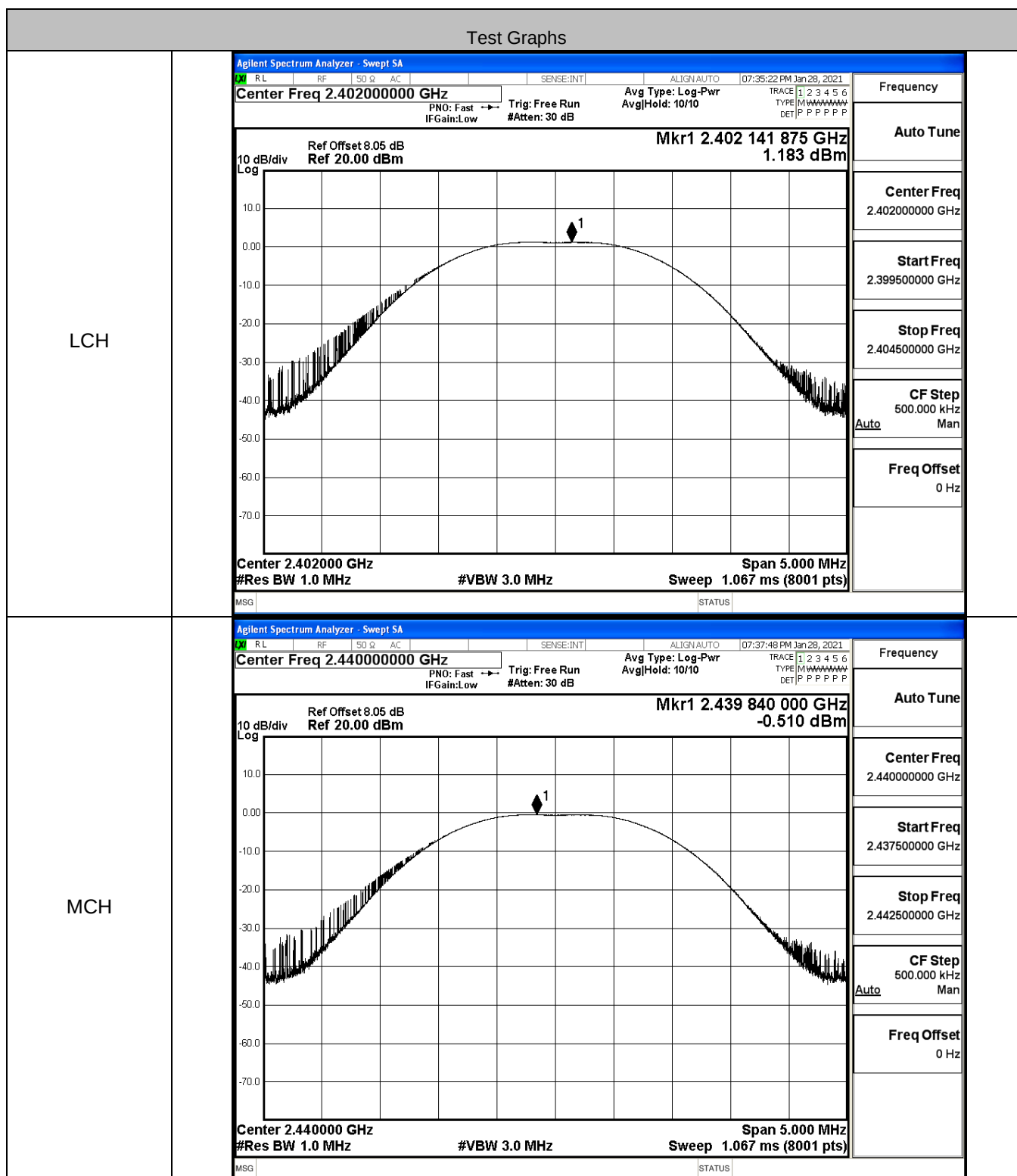
B.1 Duty Cycle

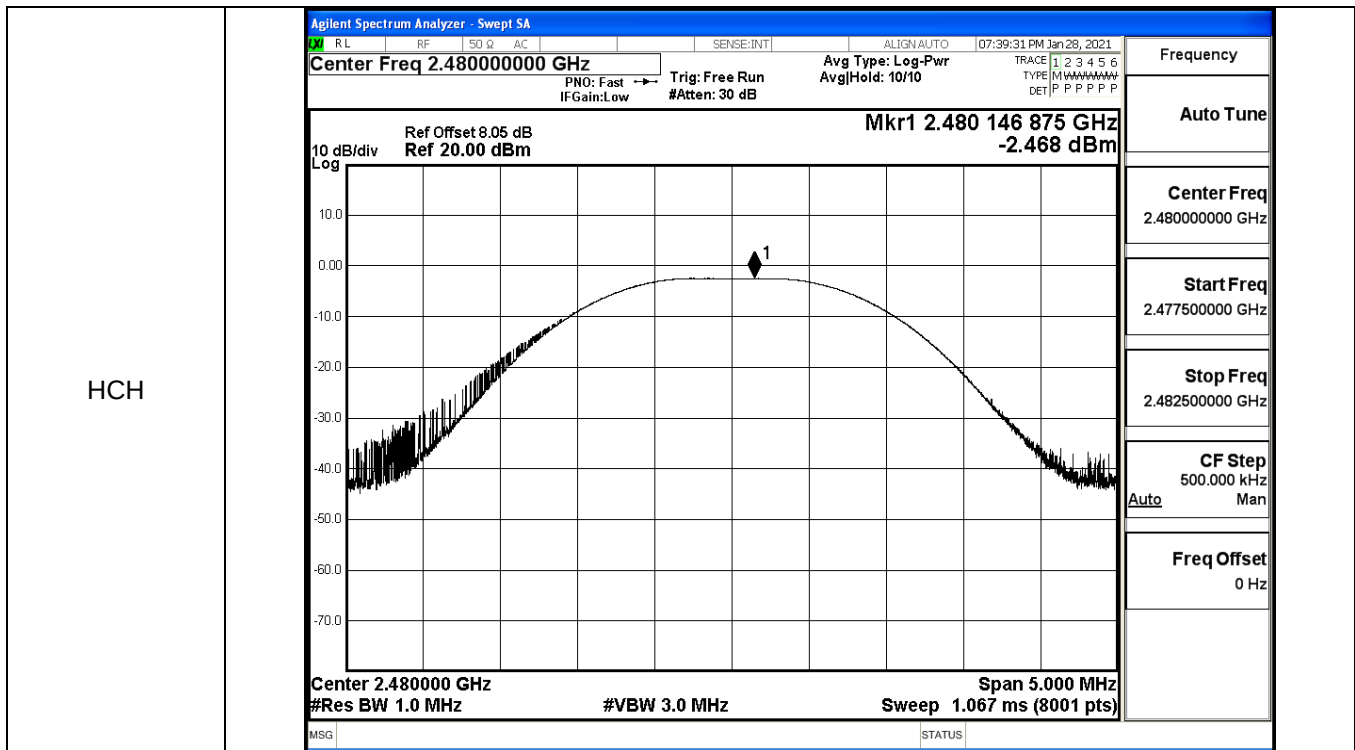
Test Mode	Test Channel	Ant	Duty Cycle[%]	Verdict
BT LE	2440	Ant1	100	PASS



B.2 Maximum Conducted Peak Output Power

Mode	Channel	Conduct Peak Power[dBm]	Limit [dBm]	Verdict
BT LE	LCH	1.183	30	PASS
BT LE	MCH	-0.51	30	PASS
BT LE	HCH	-2.468	30	PASS



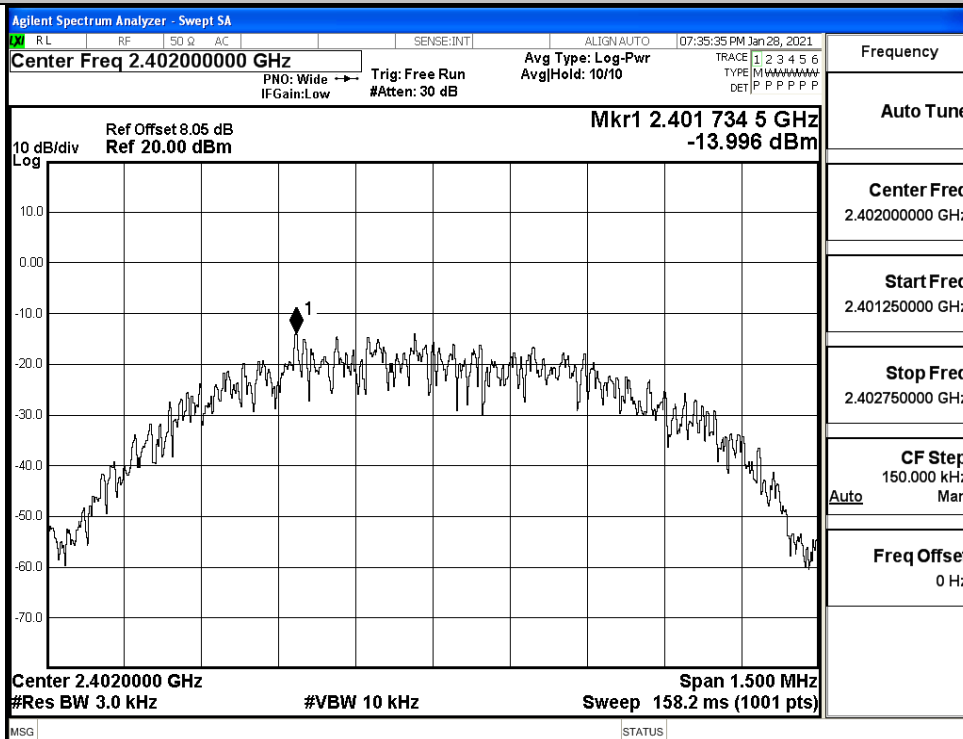


B.3 Maximum Power Spectral Density

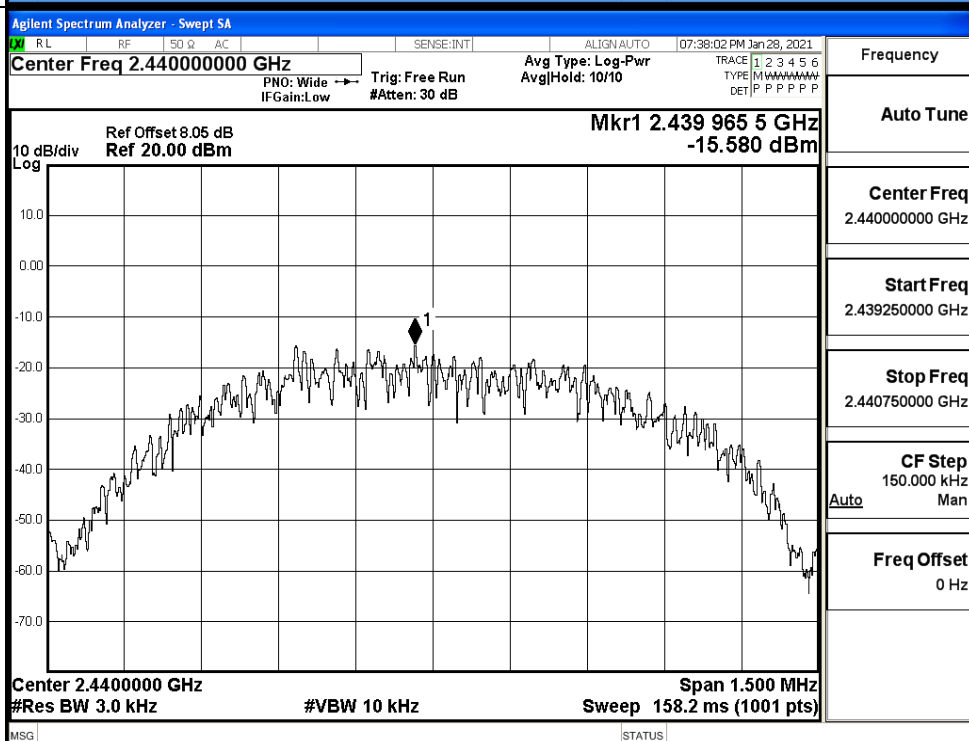
Mode	Channel	PSD [dBm/3KHz]	Limit [dBm/3KHz]	Verdict
BT LE	LCH	-13.996	8	PASS
BT LE	MCH	-15.580	8	PASS
BT LE	HCH	-17.568	8	PASS

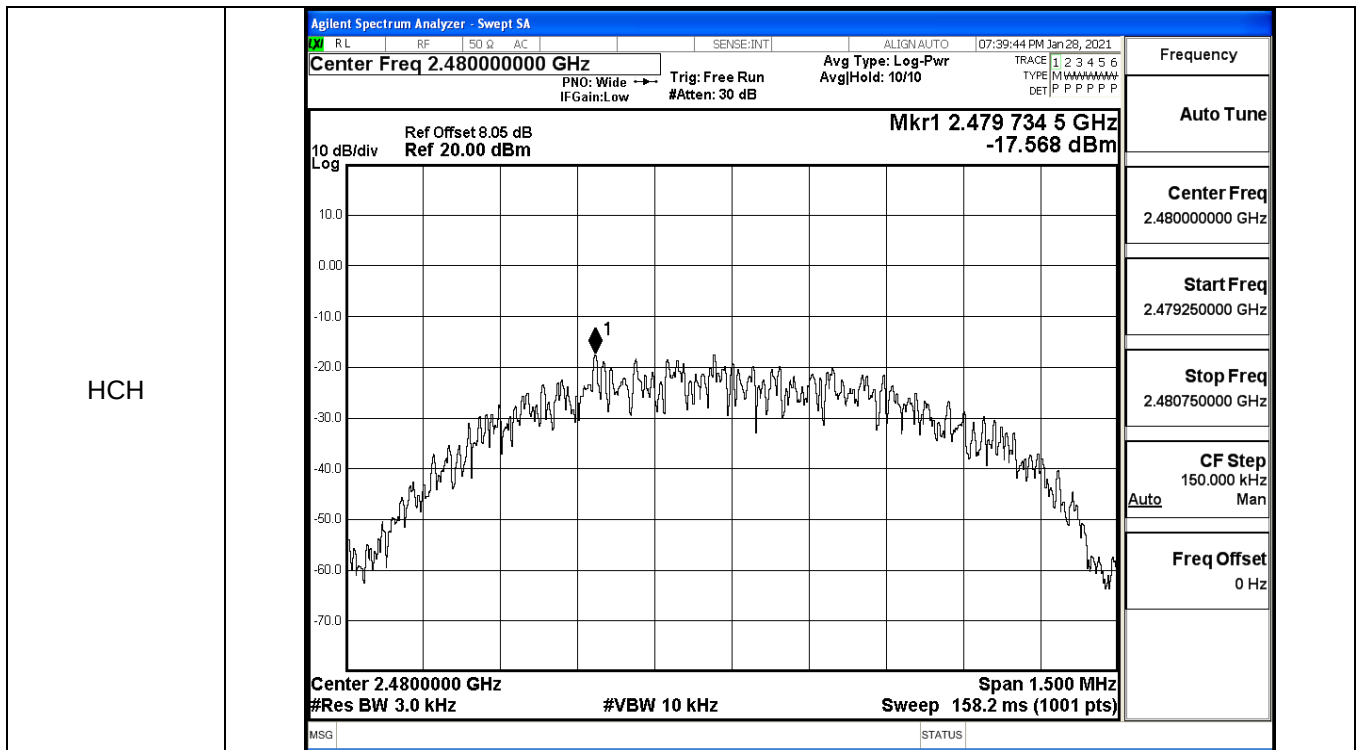
Test Graphs

LCH



MCH



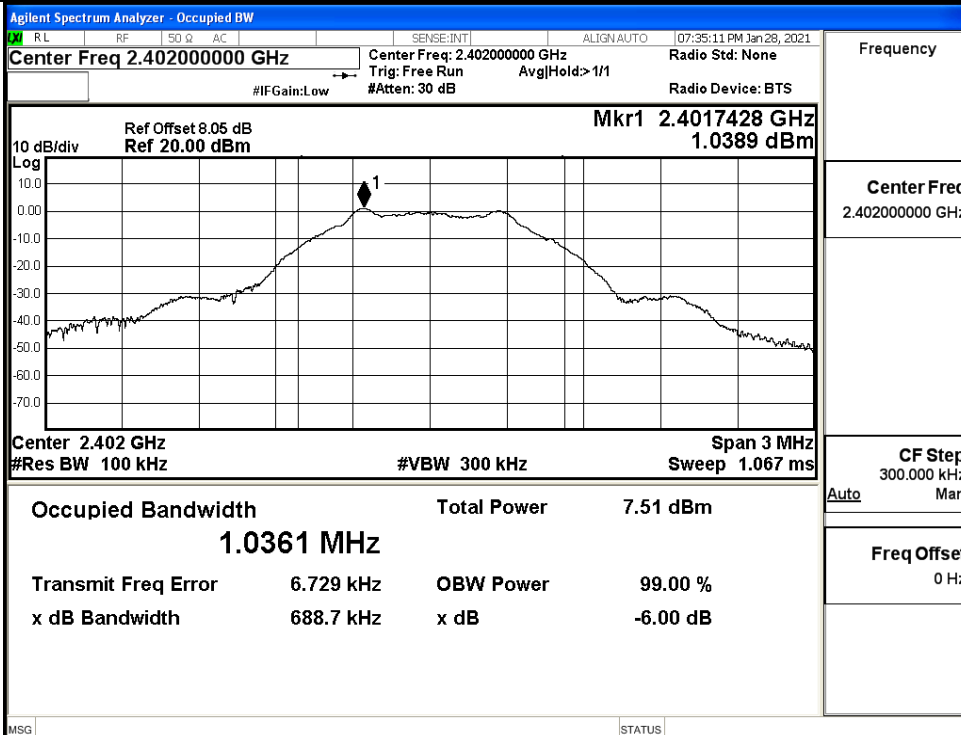


B.4 6dB Bandwidth

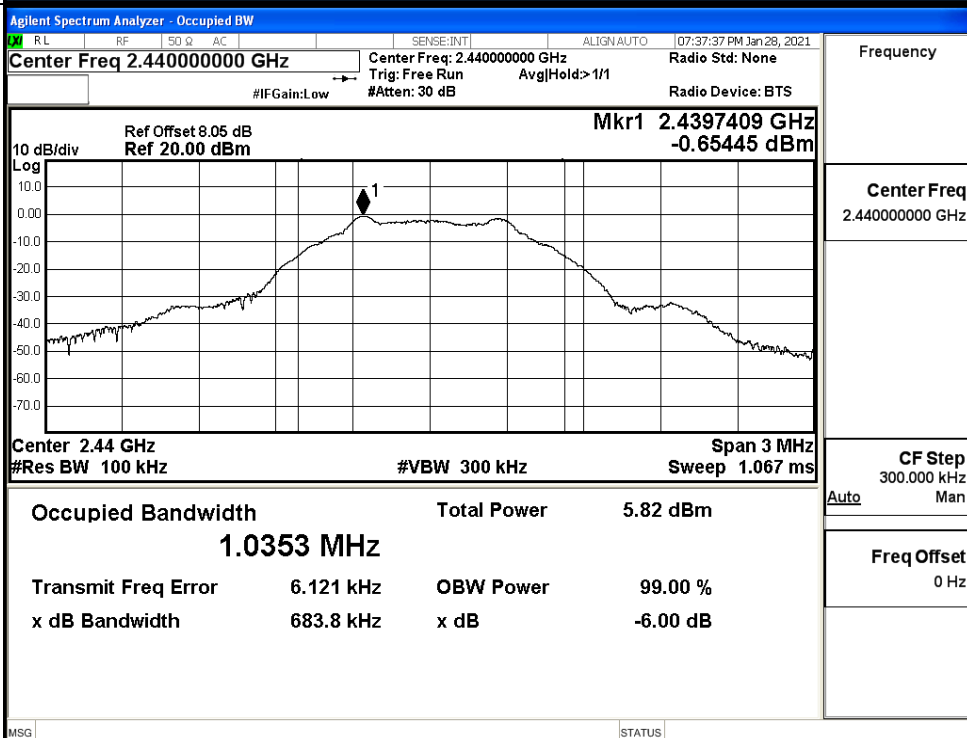
Mode	Channel	6dB Bandwidth [MHz]	Limit [MHz]	Verdict
BT LE	LCH	0.6887	≥ 0.5	PASS
BT LE	MCH	0.6838	≥ 0.5	PASS
BT LE	HCH	0.6990	≥ 0.5	PASS

Test Graphs

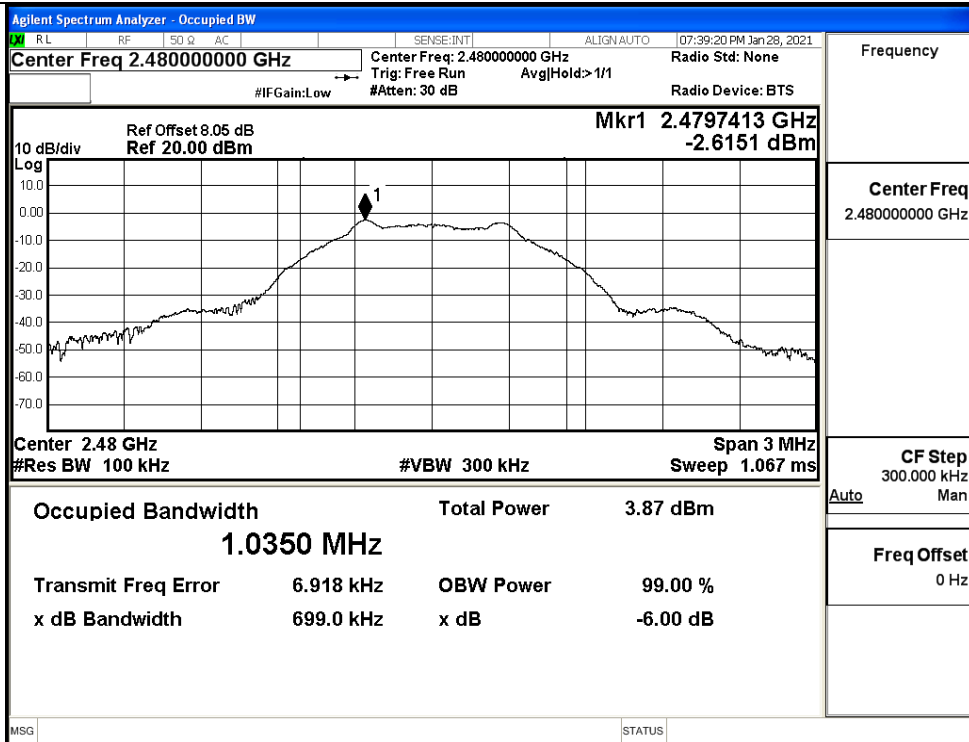
LCH



MCH



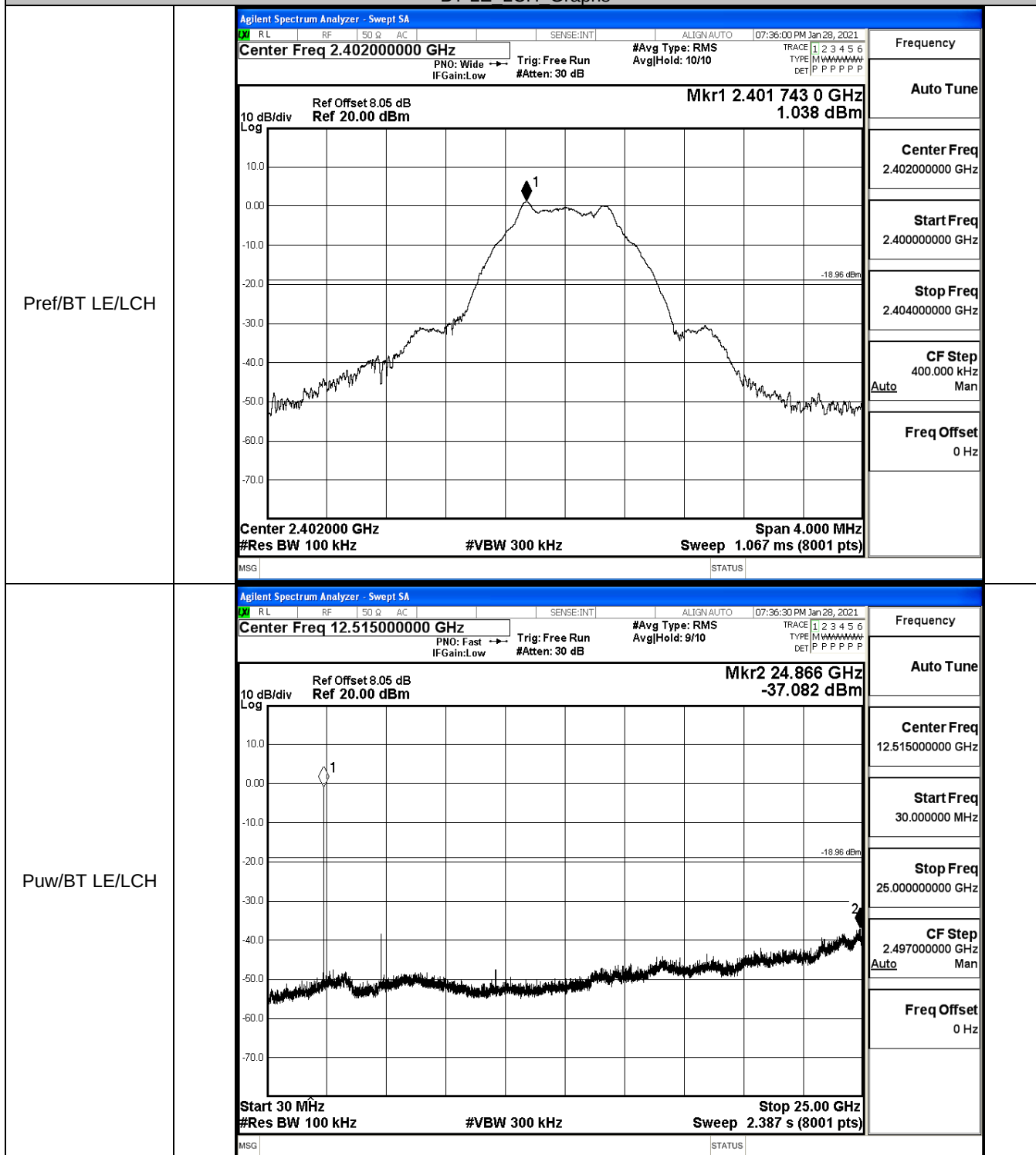
HCH



B.5 RF Conducted Spurious Emissions

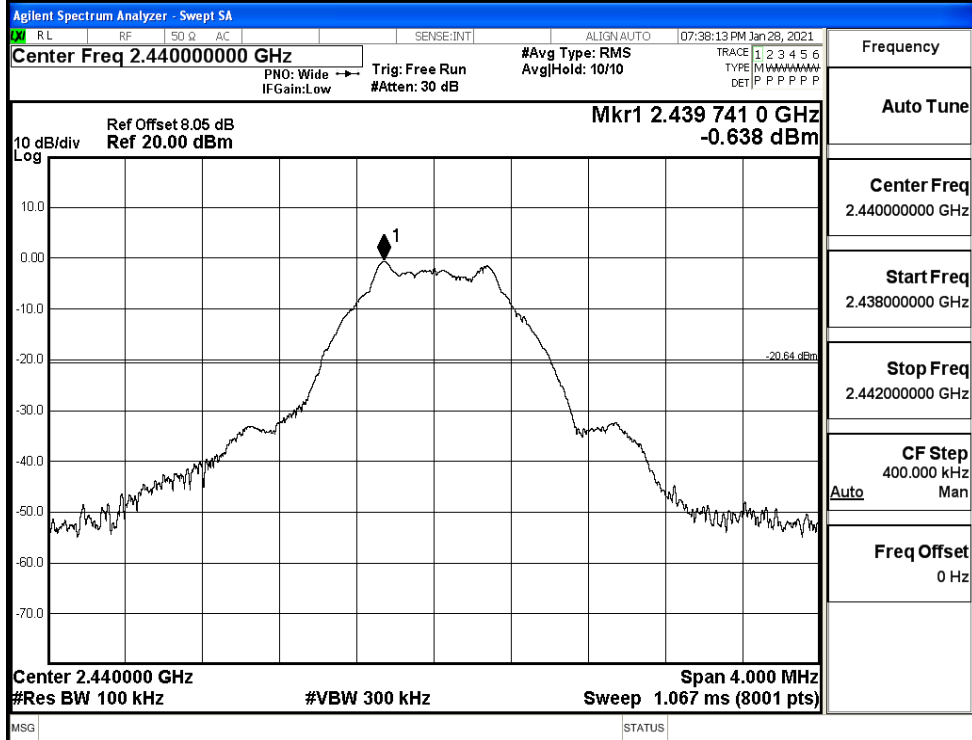
Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
BT LE	LCH	1.038	-37.082	-18.962	PASS
BT LE	MCH	-0.638	-37.552	-20.638	PASS
BT LE	HCH	-2.616	-37.668	-22.616	PASS

BT LE LCH Graphs

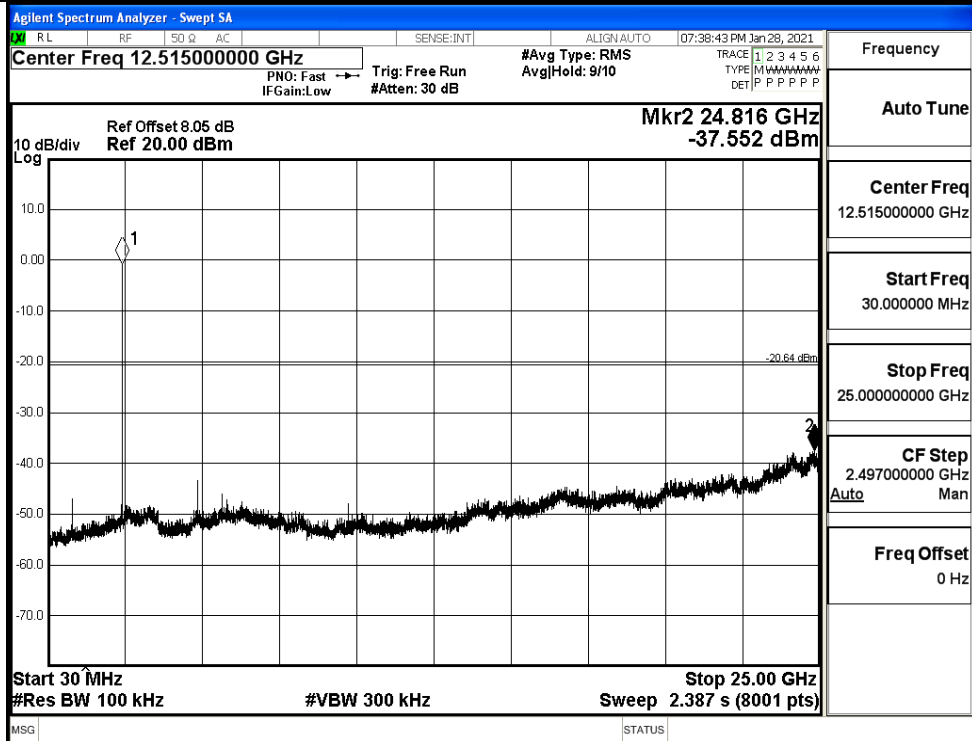


BT LE MCH Graphs

Pref/BT LE/MCH

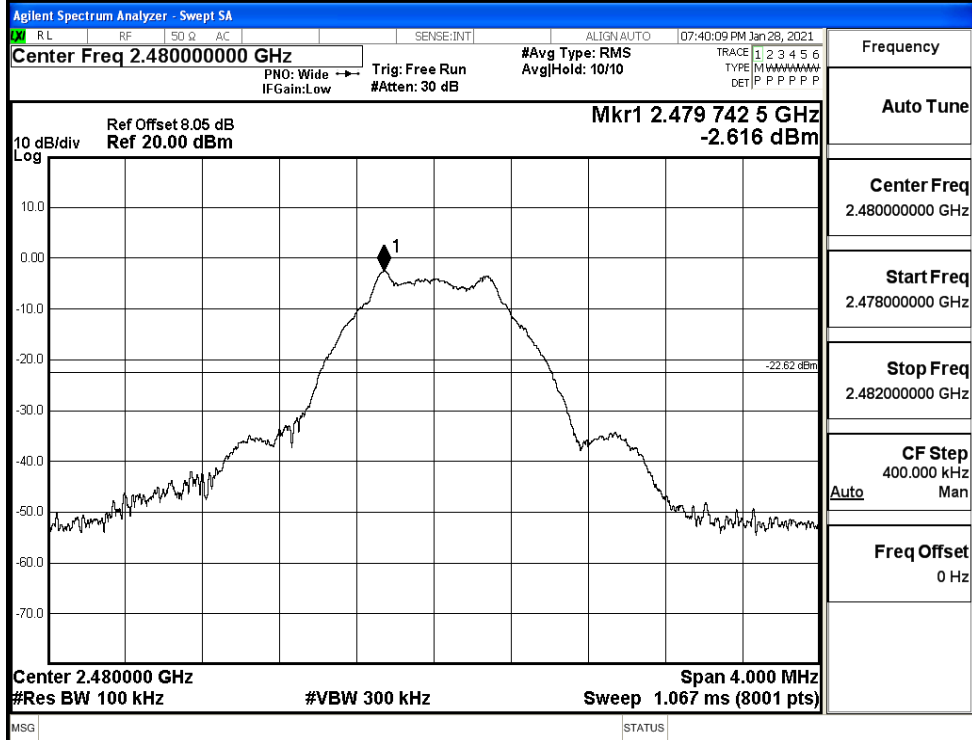


Puw/BT LE/MCH

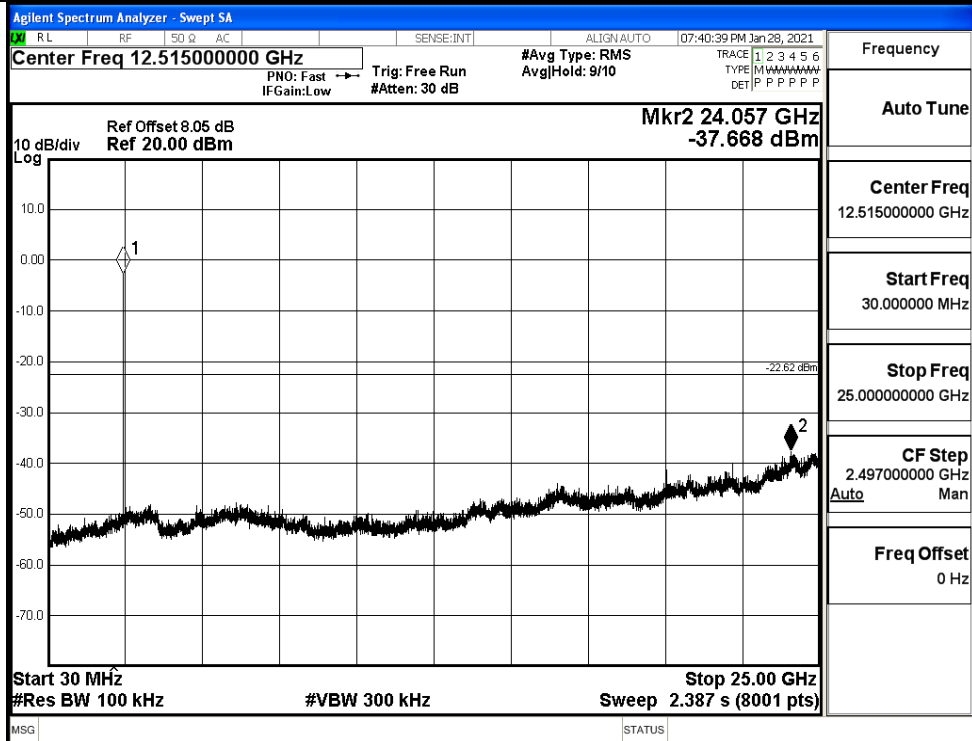


BT LE HCH Graphs

Pref/BT LE/HCH



Puw/BT LE/HCH

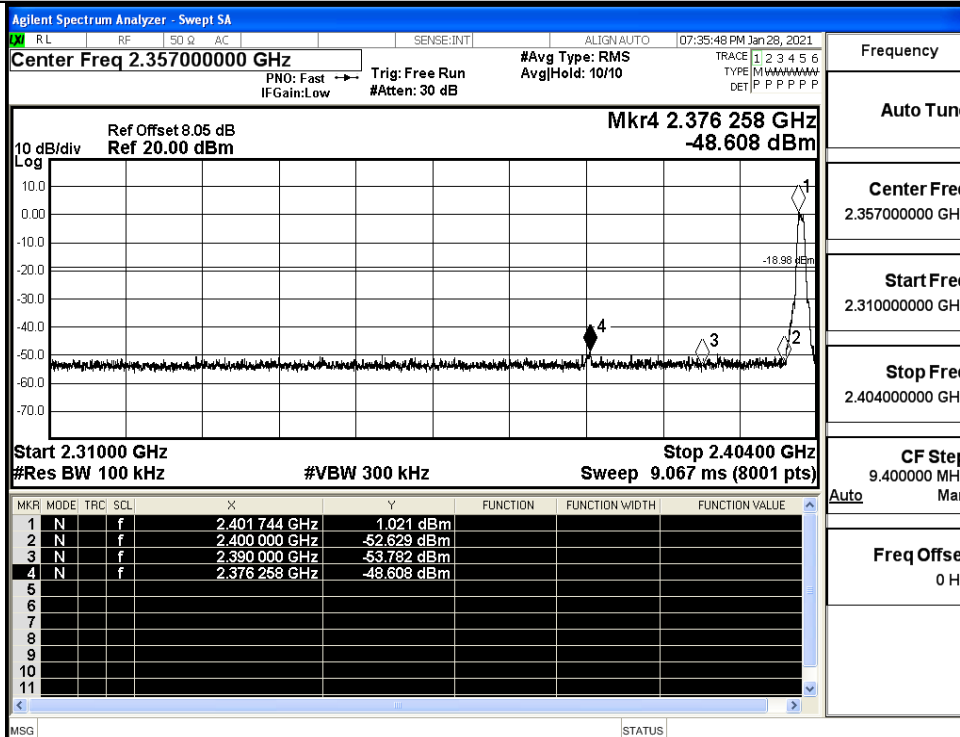


B.6 Band-edge for RF Conducted Emissions

Mode	Channel	Carrier Power[dBm]	Max.Spurious Level [dBm]	Limit [dBm]	Verdict
BT LE	LCH	1.021	-48.608	-18.98	PASS
BT LE	HCH	-2.588	-49.415	-22.59	PASS

Test Graphs

LCH



Frequency

Auto Tune

Center Freq

2.357000000 GHz

Start Freq

2.310000000 GHz

Stop Freq

2.404000000 GHz

CF Step

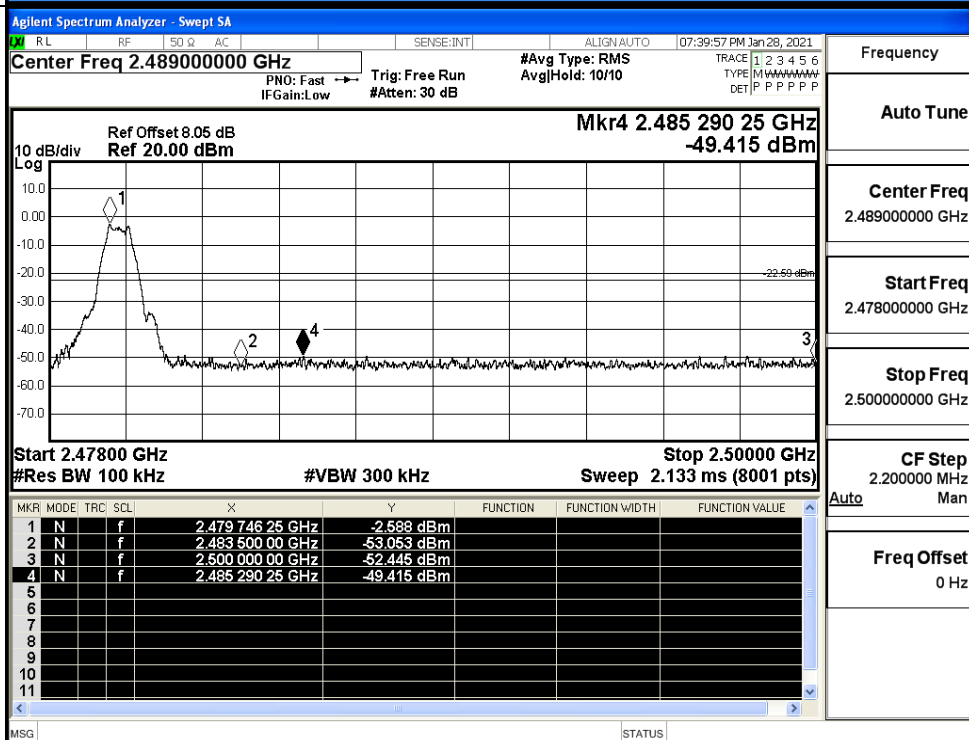
9.400000 MHz

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

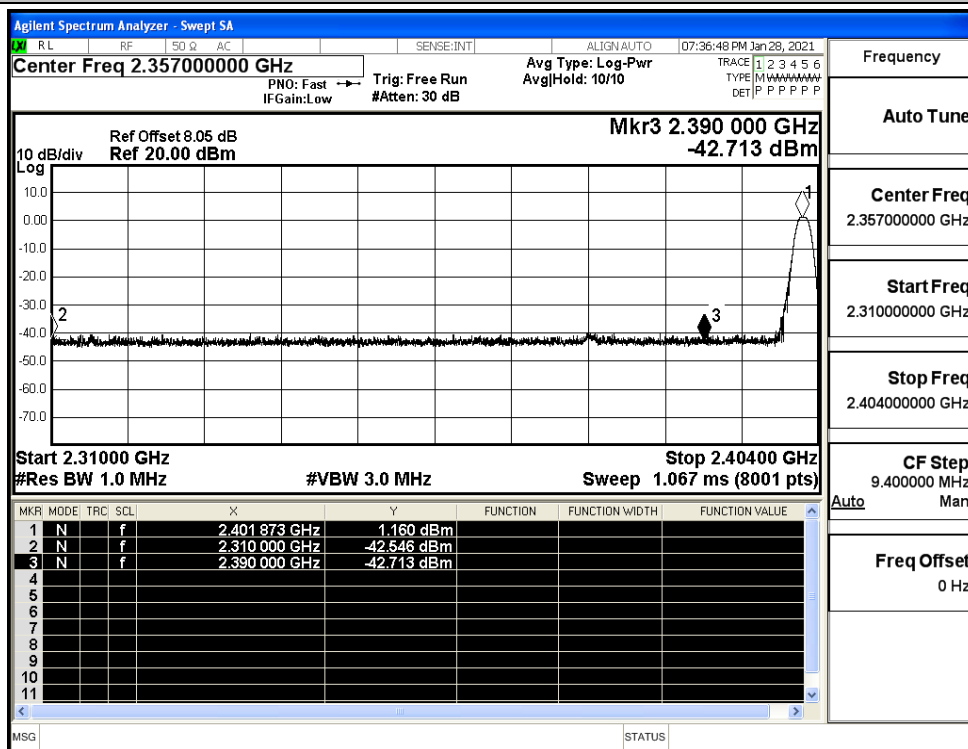
Freq Offset

0 Hz

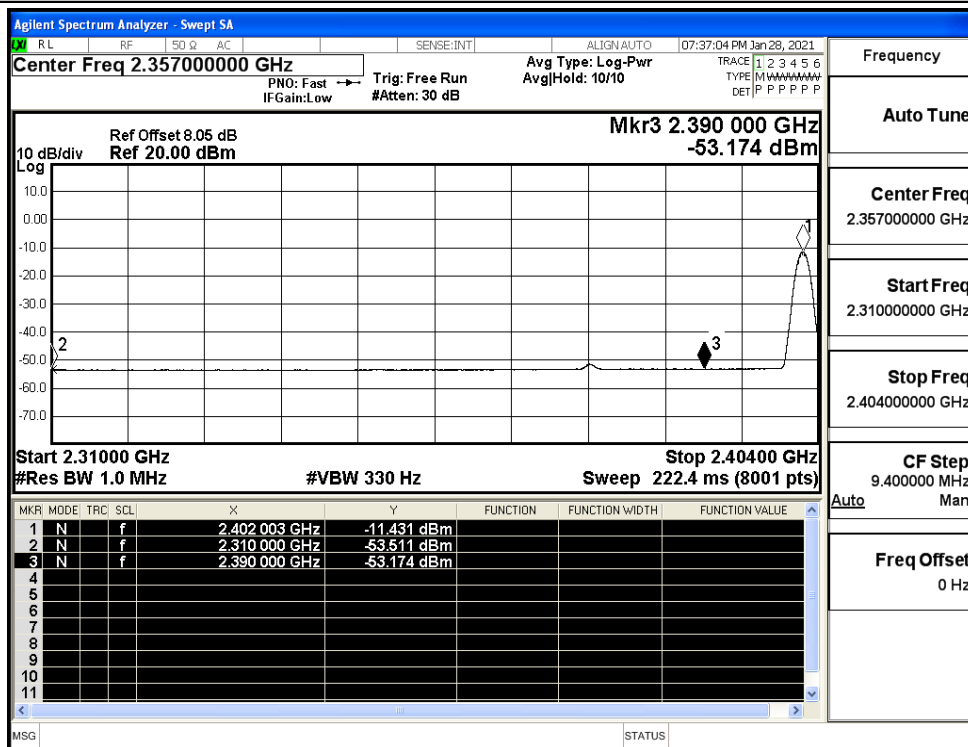
B.7 Restrict-band band-edge measurements

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	-42.55	2.0	0	54.71	PEAK	74	PASS
		Ant1	2310.0	-53.51	2.0	0	43.75	AV	54	PASS
		Ant1	2390.0	-42.71	2.0	0	54.54	PEAK	74	PASS
		Ant1	2390.0	-53.17	2.0	0	44.08	AV	54	PASS
	2480	Ant1	2483.5	-42.65	2.0	0	54.60	PEAK	74	PASS
		Ant1	2483.5	-52.68	2.0	0	44.58	AV	54	PASS
		Ant1	2500.0	-41.06	2.0	0	56.19	PEAK	74	PASS
		Ant1	2500.0	-52.56	2.0	0	44.70	AV	54	PASS

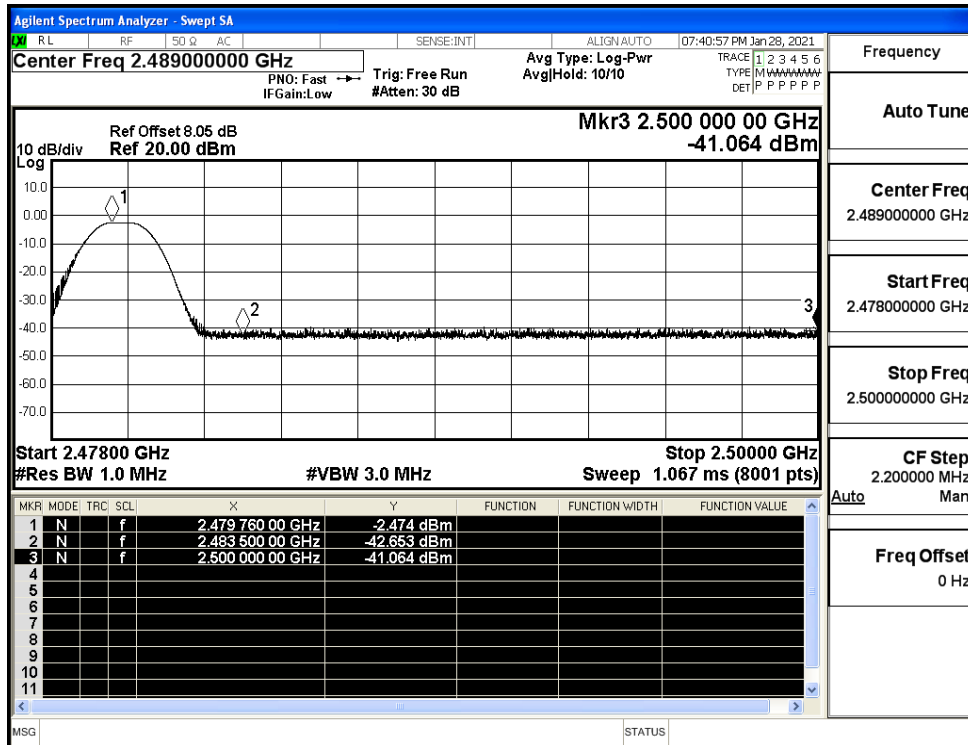
Restrict-band band-edge measurements_BT LE_2402_Ant1_PEAK



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

