

Appendix B

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

Product Name: Bluetooth earphone

Trade Mark: N/A

Test Model: WA10

Environmental Conditions

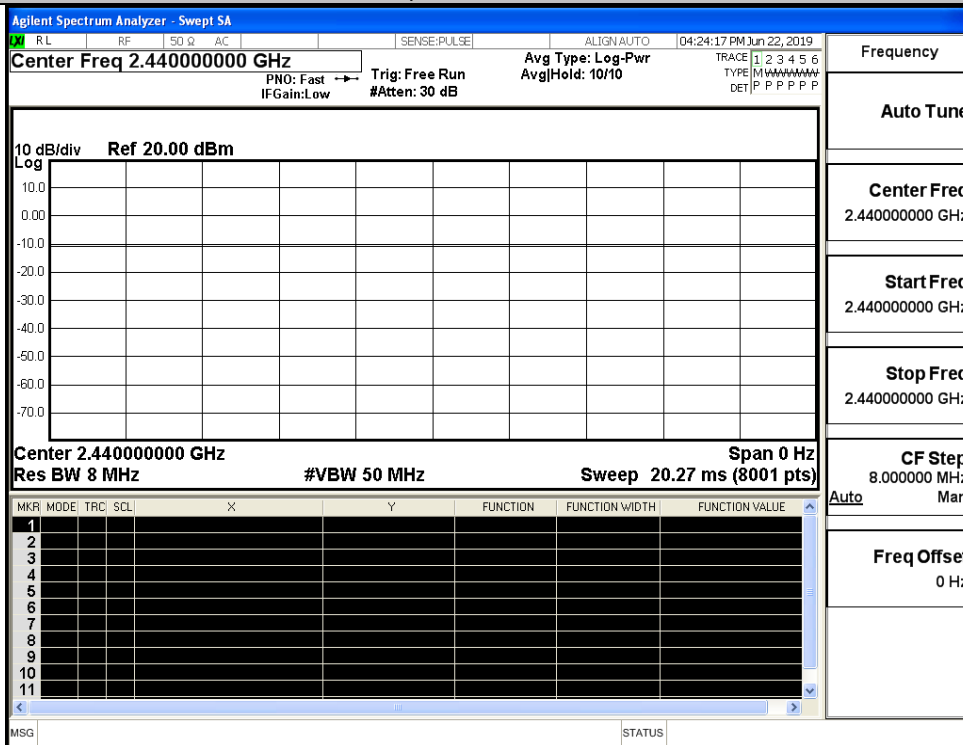
Temperature:	23.8 ° C
Relative Humidity:	52.8%
ATM Pressure:	100.0 kPa
Test Engineer:	JERRY.ZENG
Supervised by:	Wang.Chuang

B.1 Duty Cycle

Test Mode	Test Channel	Ant	Duty Cycle[%]	Verdict
BT LE	2440	Ant1	100	PASS
BT 2LE	2440	Ant1	100	PASS

Test Graphs

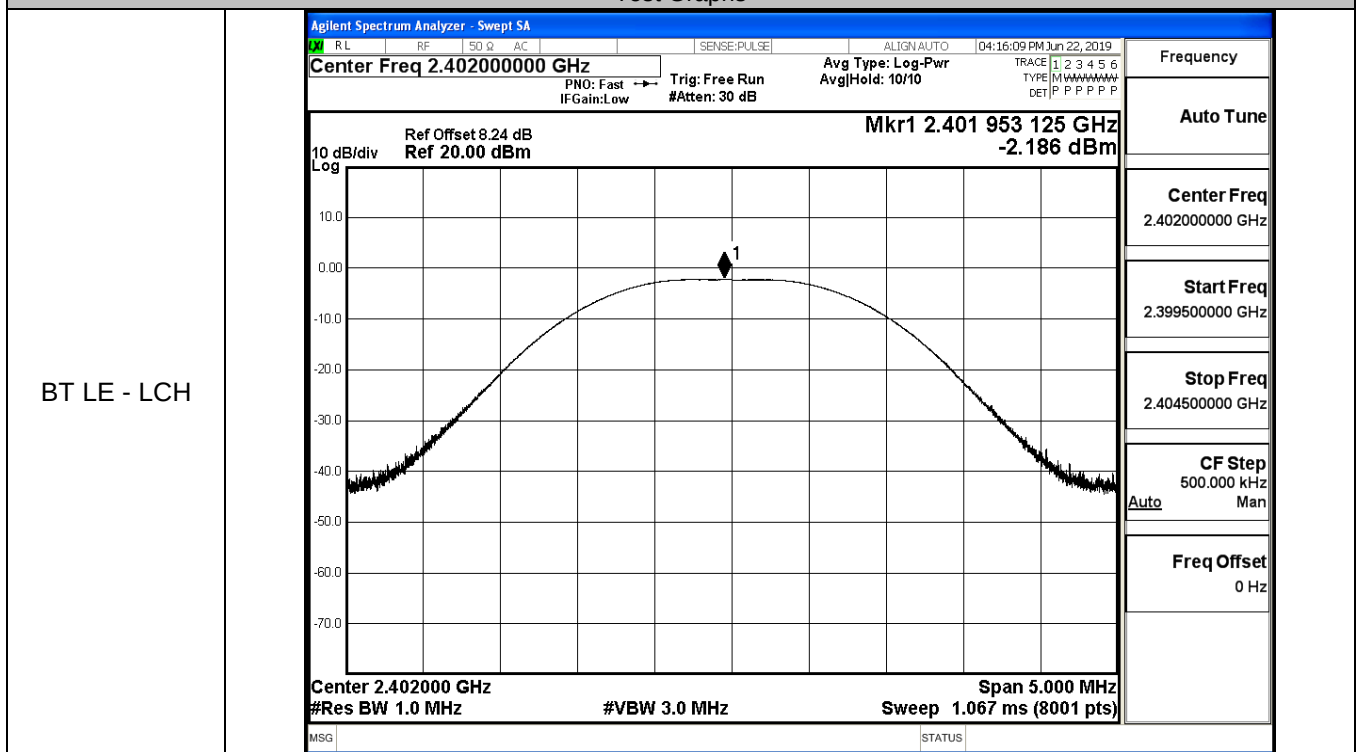
BT LE



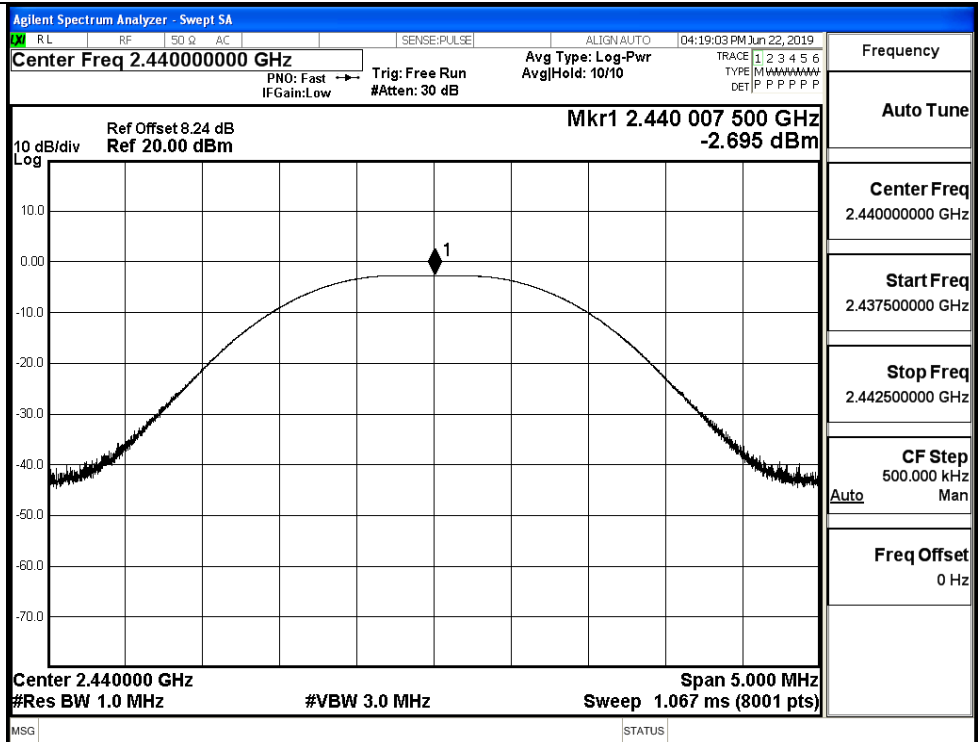
B.2 Maximum Conducted Peak Output Power

Mode	Channel	Conduct Peak Power[dBm]	Limit [dBm]	Verdict
BT LE	LCH	-2.186	30	PASS
BT LE	MCH	-2.695	30	PASS
BT LE	HCH	-4.382	30	PASS
BT 2LE	LCH	-2.230	30	PASS
BT 2LE	MCH	-2.700	30	PASS
BT 2LE	HCH	-4.396	30	PASS

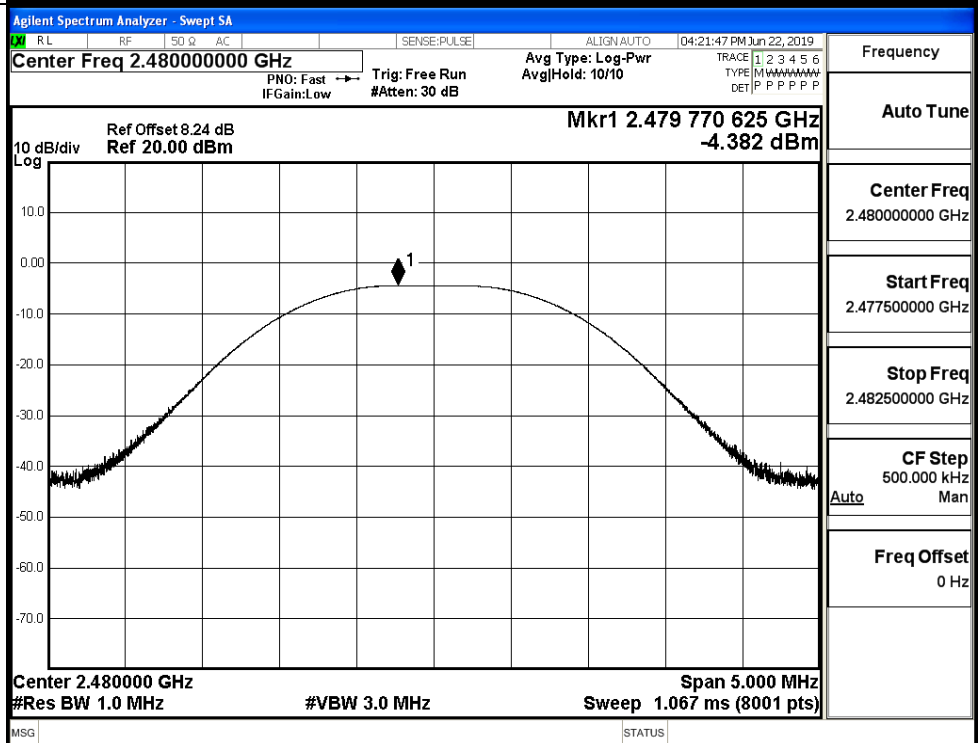
Test Graphs



BT LE -MCH

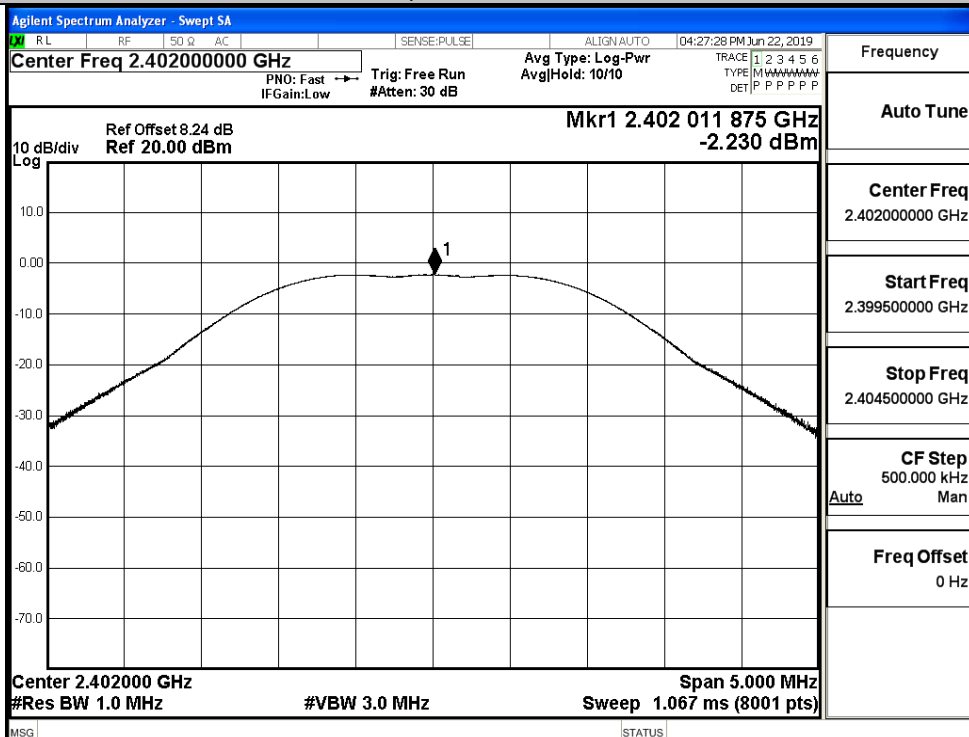


BT LE -HCH

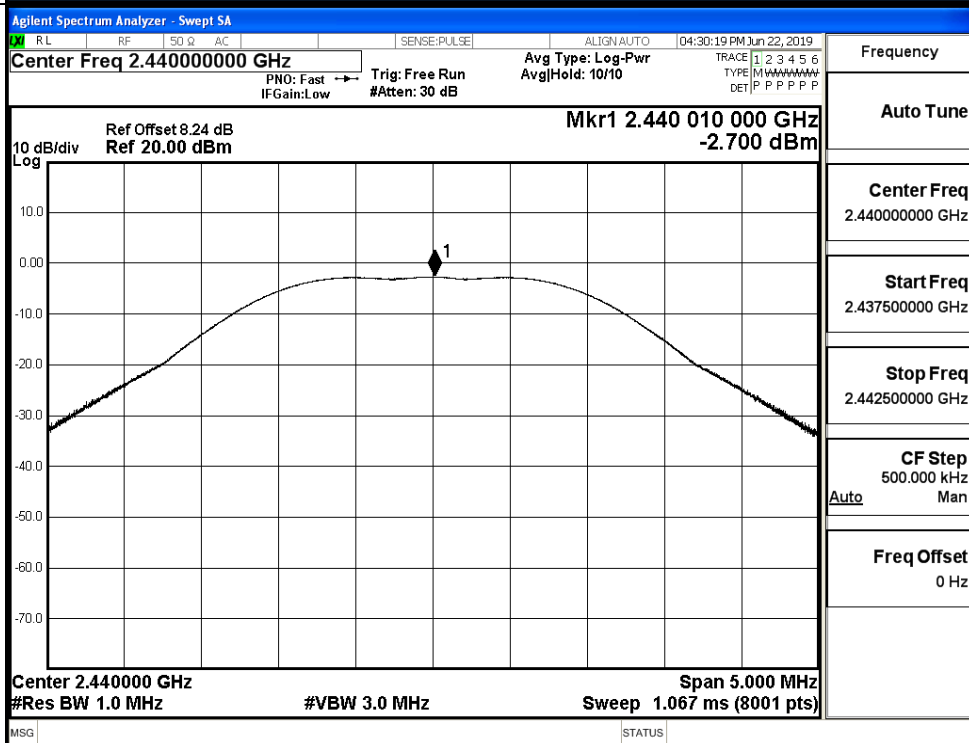


Test Graphs

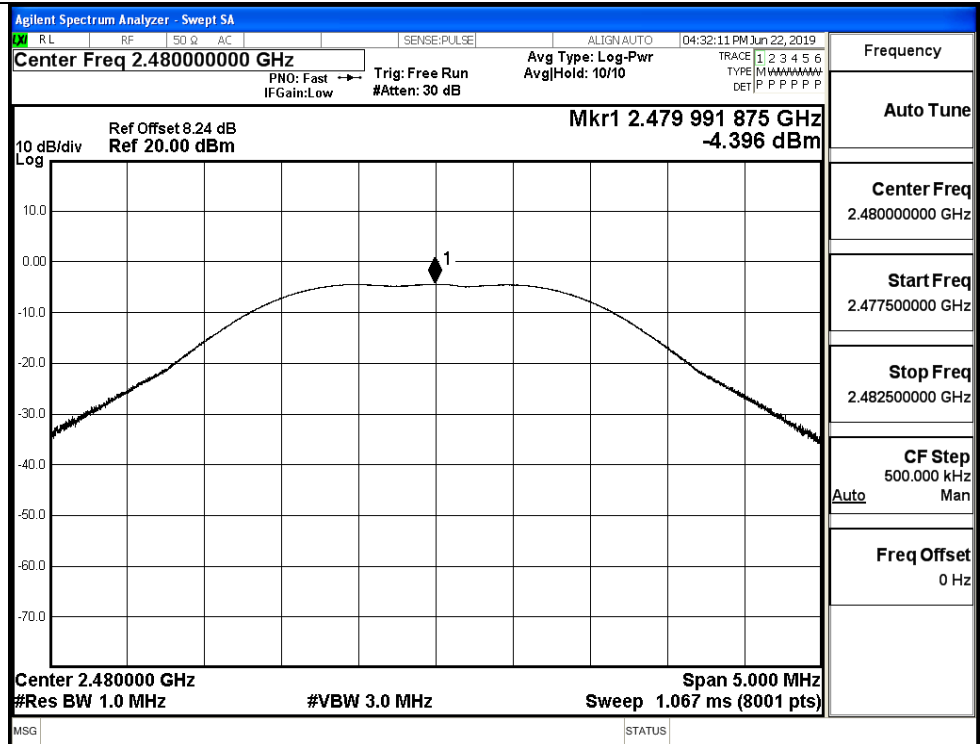
BT 2LE -LCH



BT 2LE -MCH



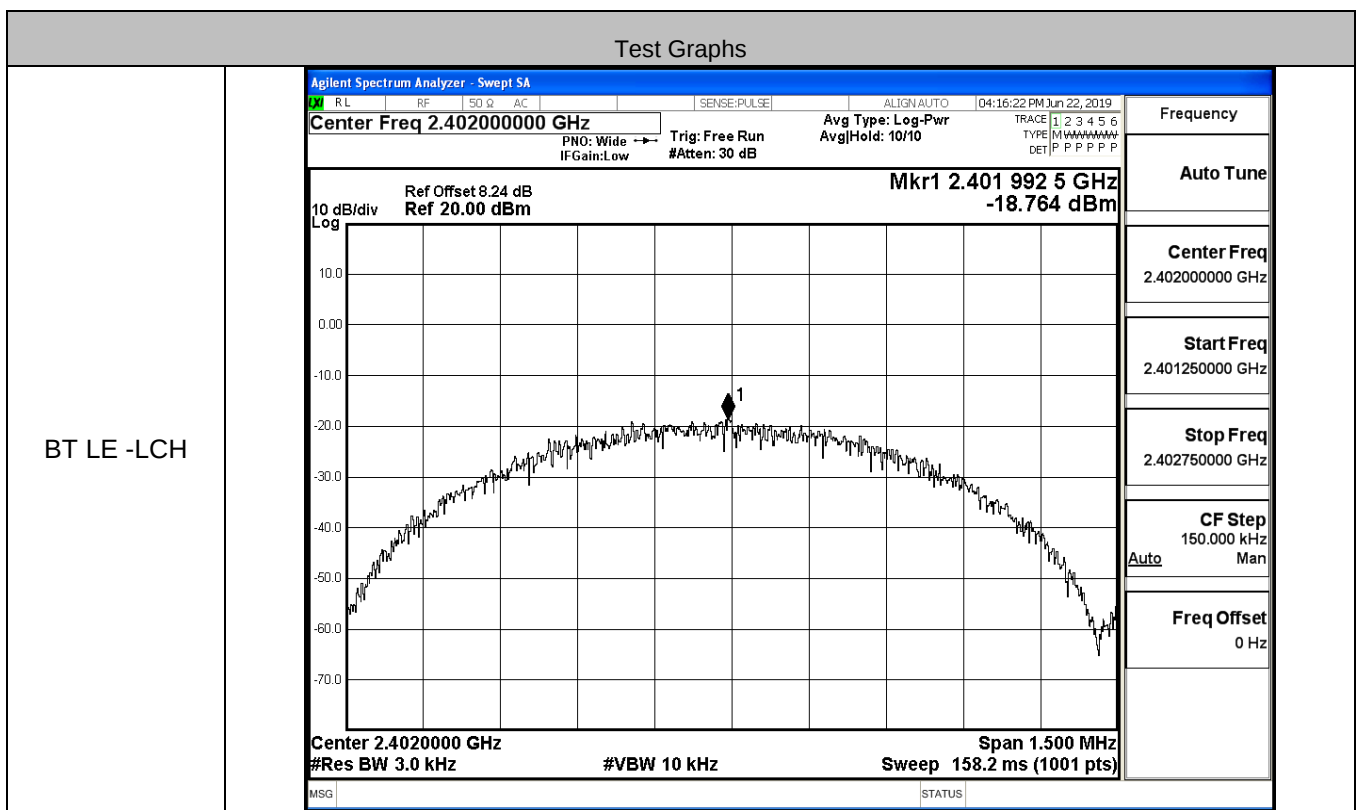
BT 2LE -HCH



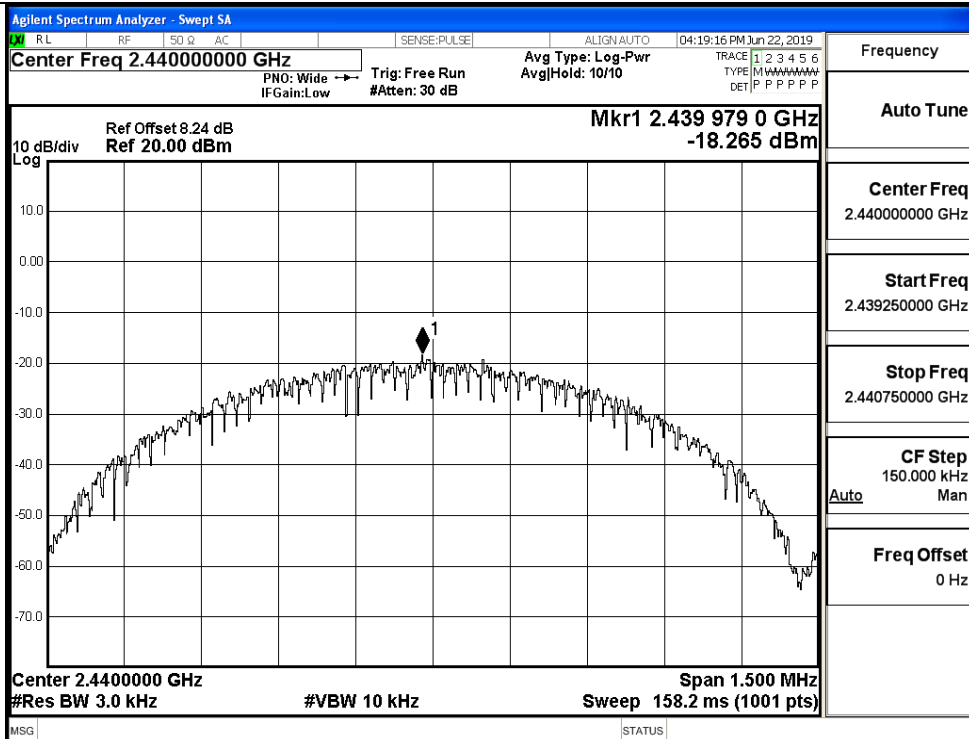
B.3 Maximum Power Spectral Density

Mode	Channel	PSD [dBm/3KHz]	Limit [dBm/3KHz]	Verdict
BT LE	LCH	-18.764	8	PASS
BT LE	MCH	-18.265	8	PASS
BT LE	HCH	-19.763	8	PASS
BT 2LE	LCH	-20.374	8	PASS
BT 2LE	MCH	-21.001	8	PASS
BT 2LE	HCH	-23.268	8	PASS

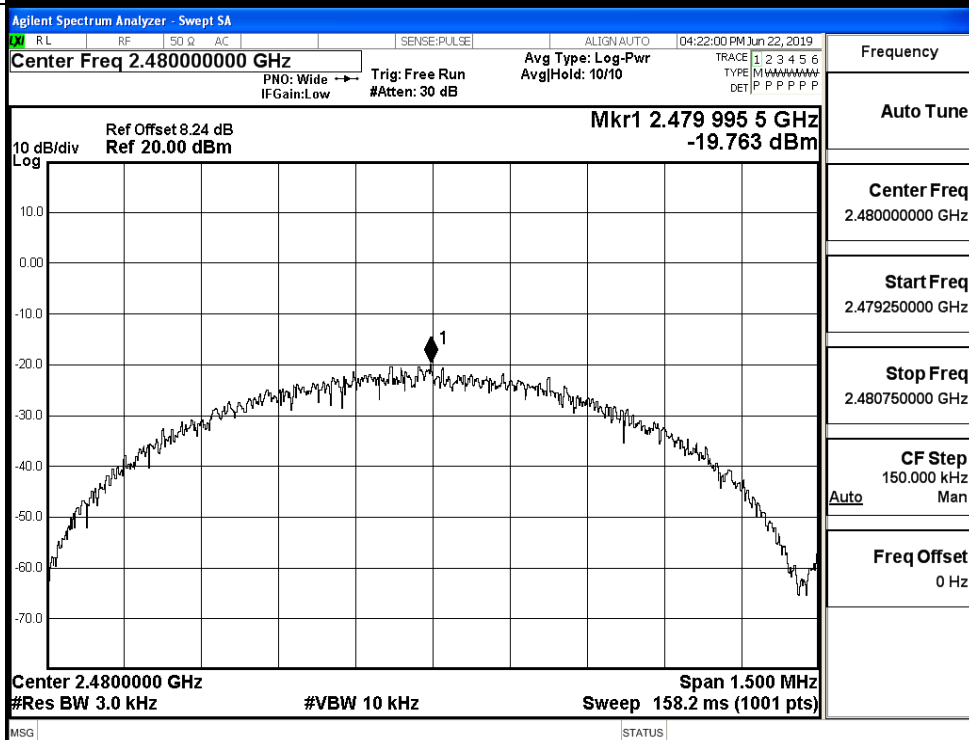
Test Graphs



BT LE -MCH

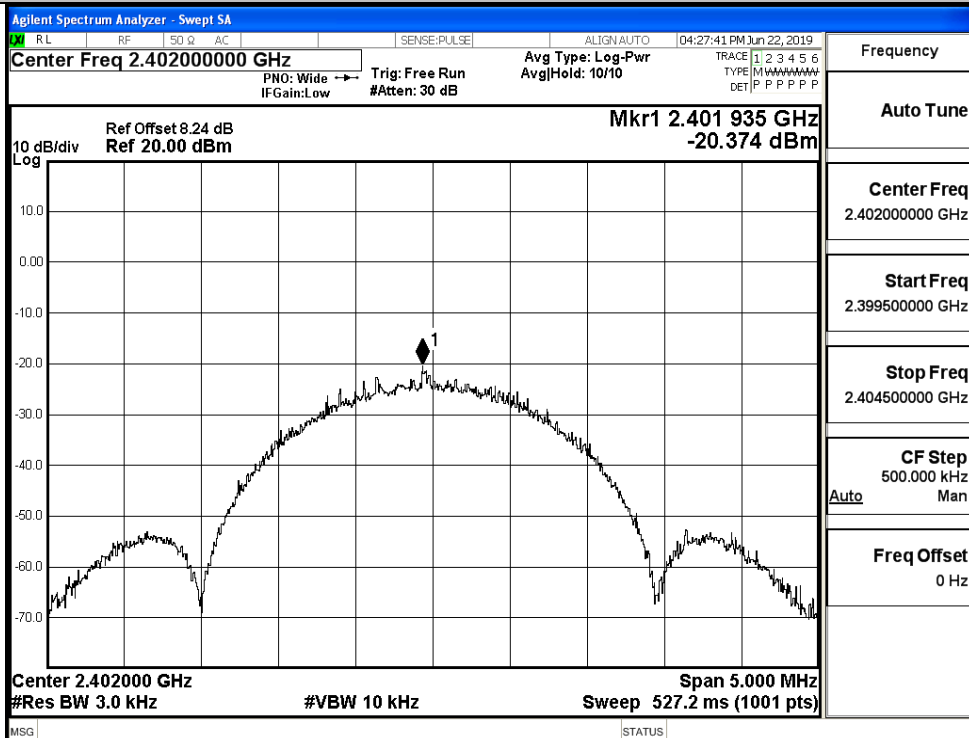


BT LE -HCH

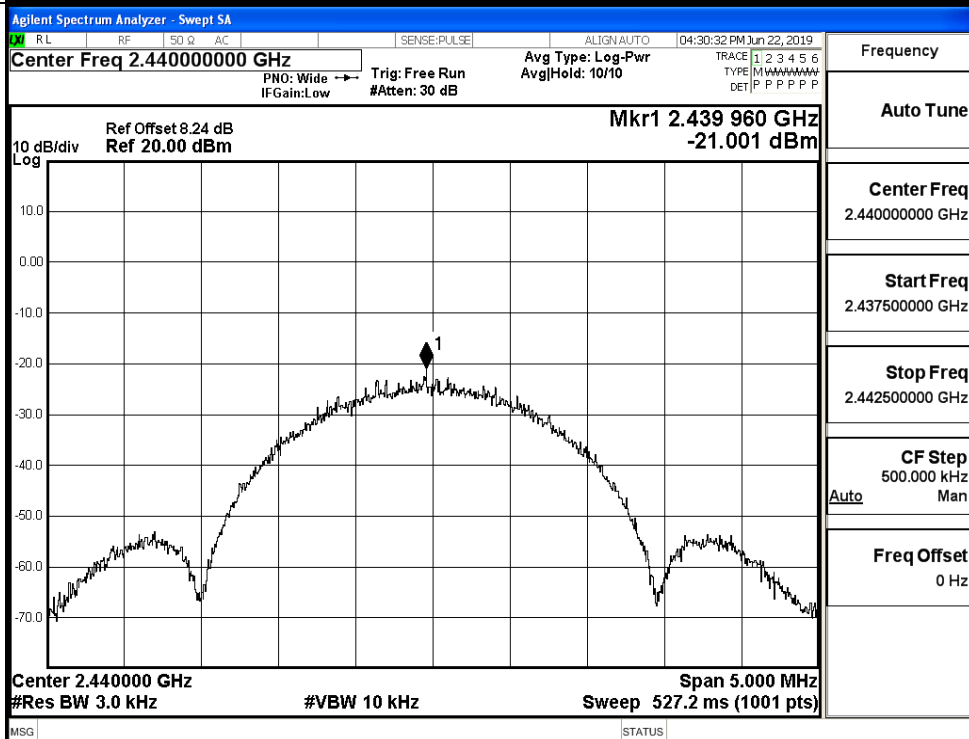


Test Graphs

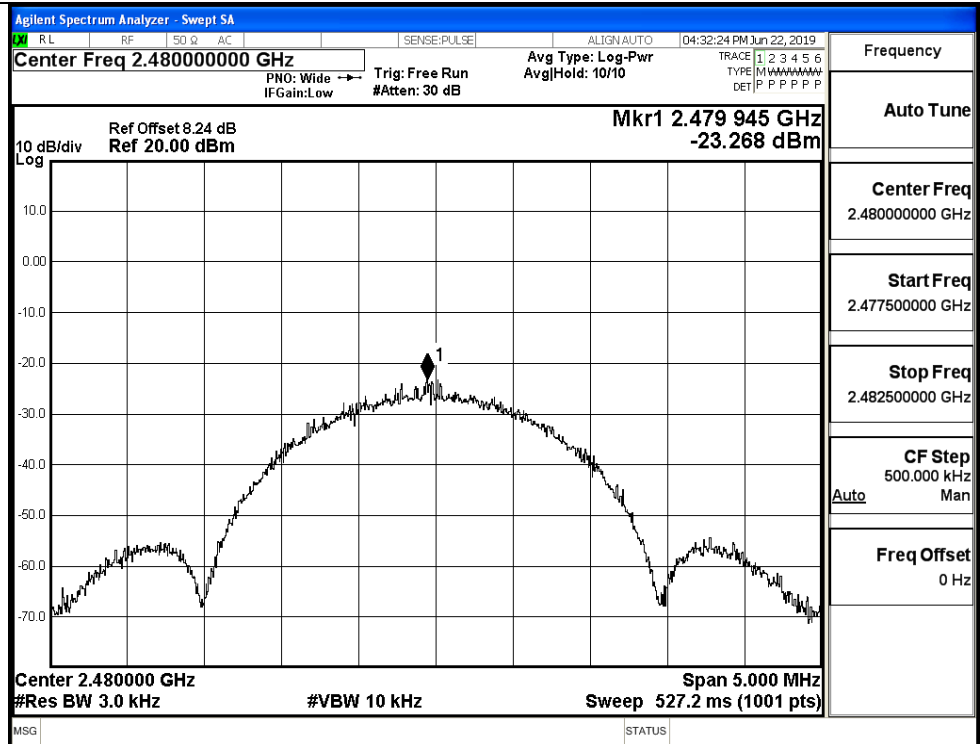
BT 2LE -LCH



BT 2LE -MCH



BT 2LE -HCH

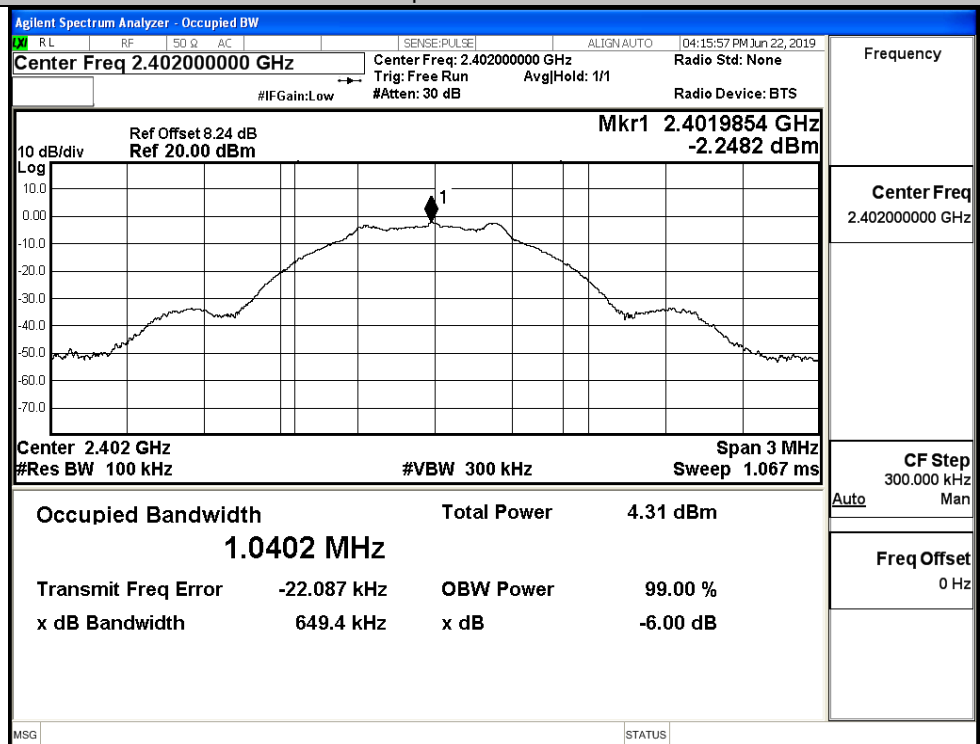


B.4 6dB Bandwidth

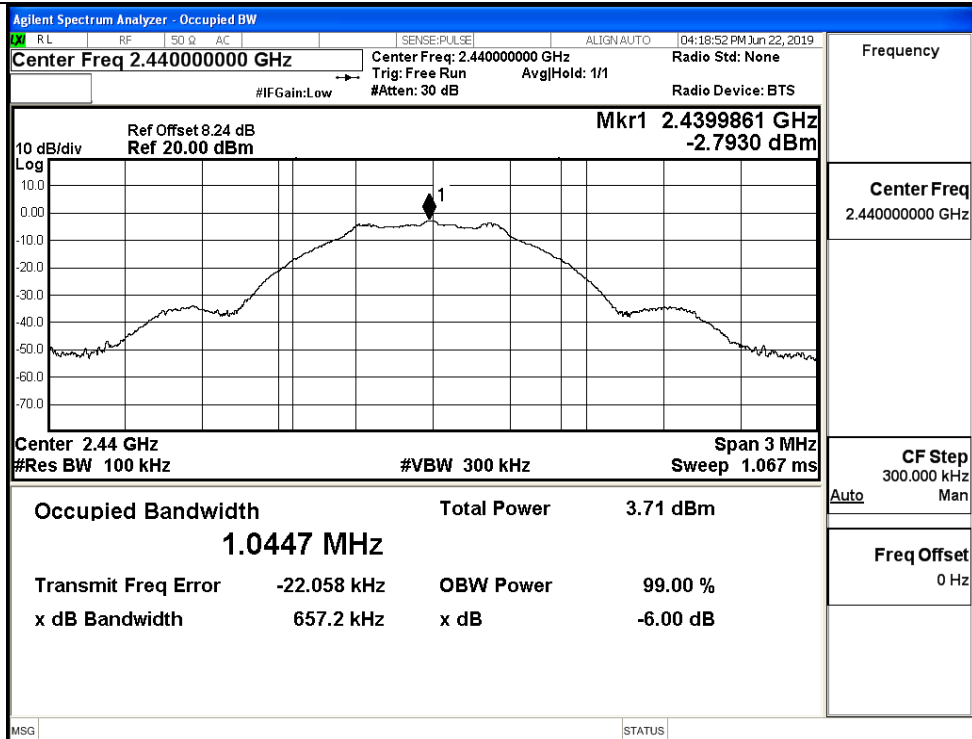
Mode	Channel	6dB Bandwidth [MHz]	Limit [MHz]	Verdict
BT LE	LCH	0.6494	≥ 0.5	PASS
BT LE	MCH	0.6572	≥ 0.5	PASS
BT LE	HCH	0.6530	≥ 0.5	PASS
BT 2LE	LCH	1.133	≥ 0.5	PASS
BT 2LE	MCH	1.119	≥ 0.5	PASS
BT 2LE	HCH	1.131	≥ 0.5	PASS

Test Graphs

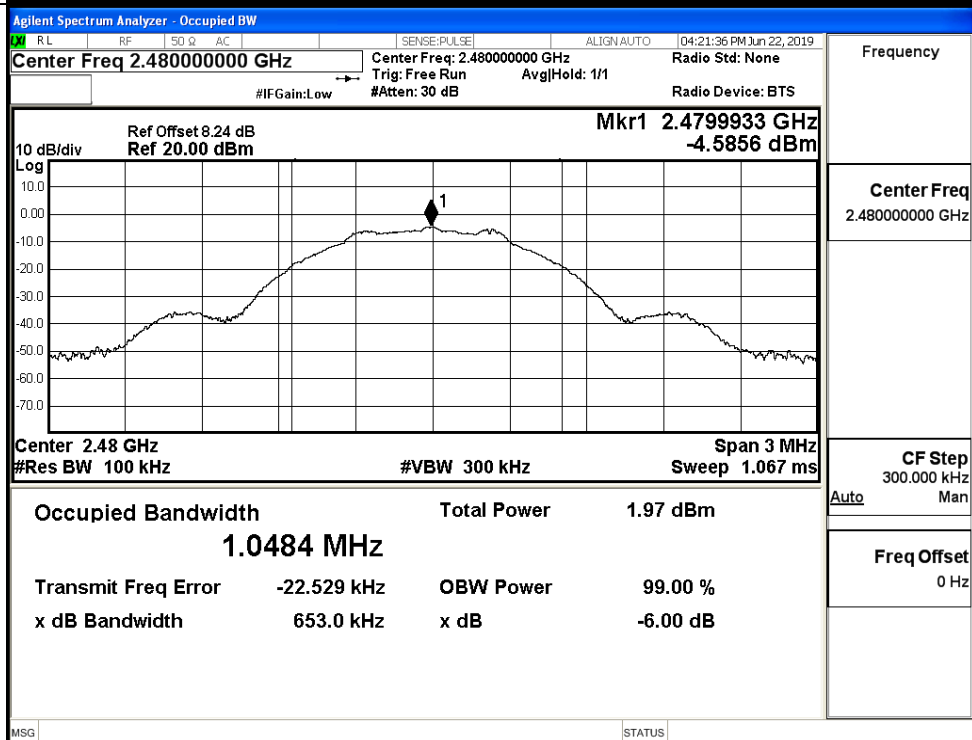
BT LE -LCH



BT LE -MCH

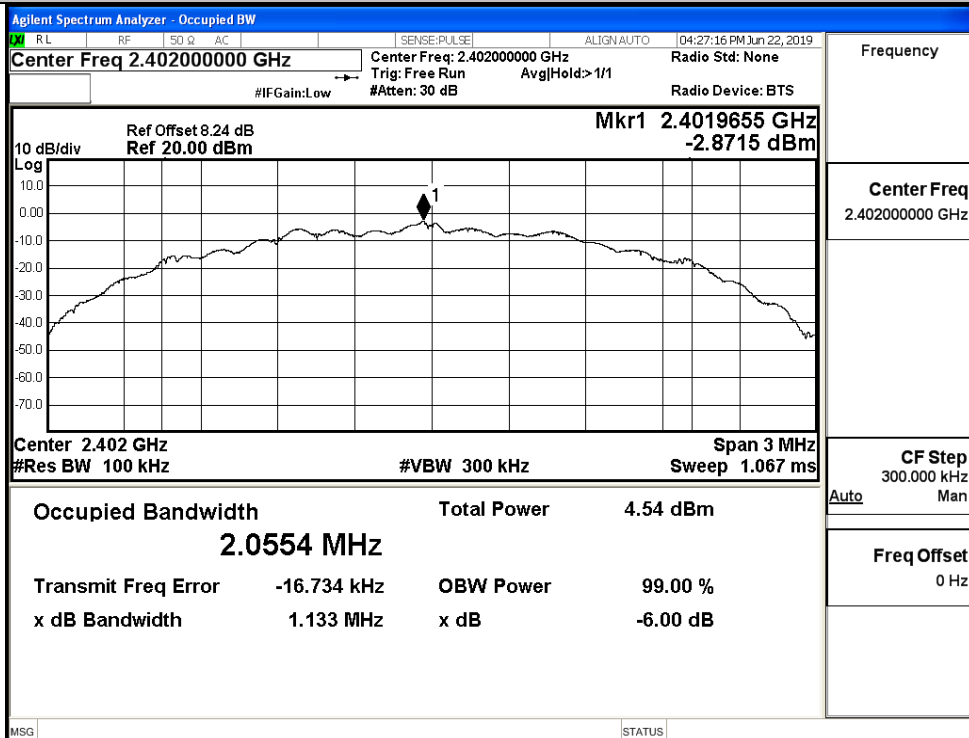


BT LE -HCH

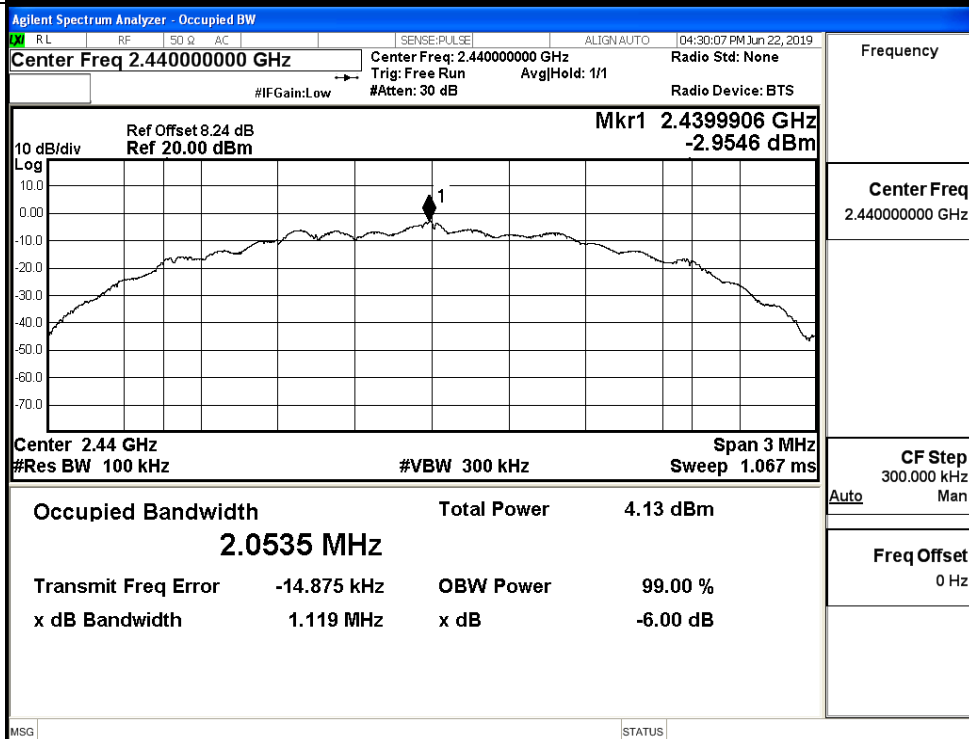


Test Graphs

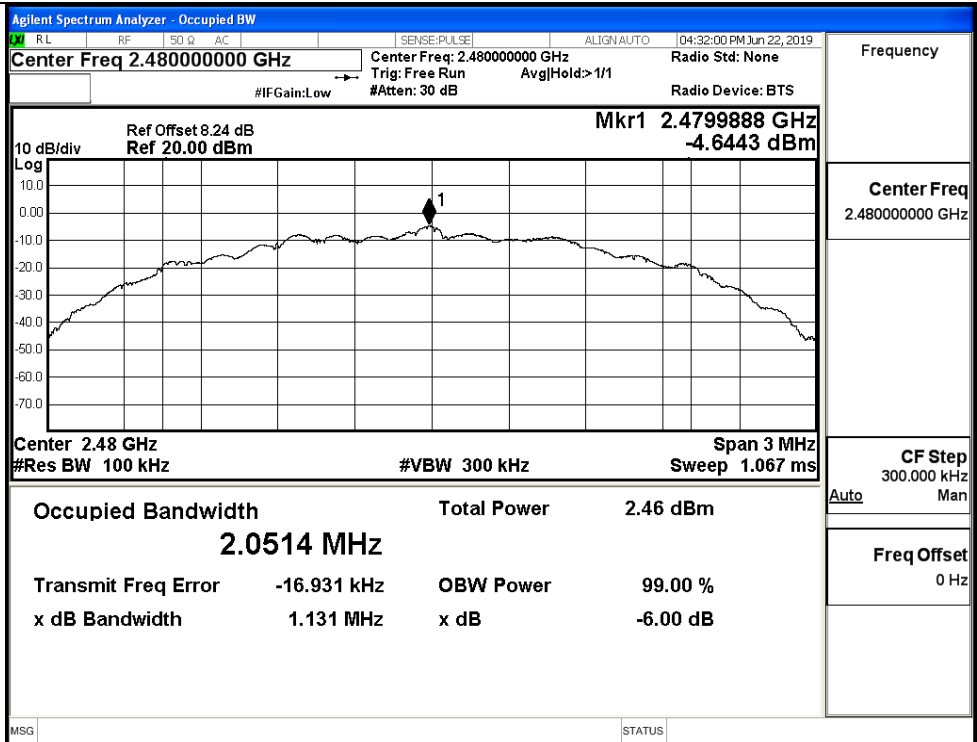
BT 2LE -LCH



BT 2LE -MCH



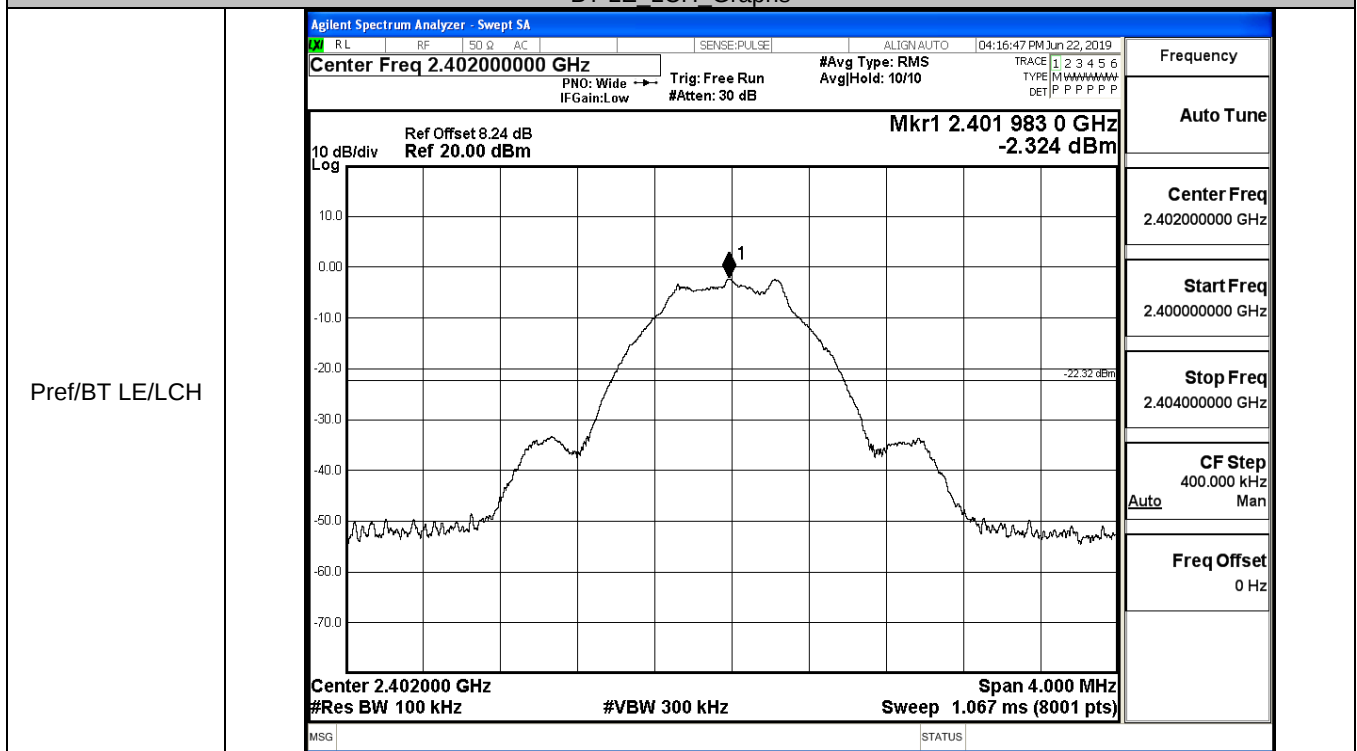
BT 2LE -HCH



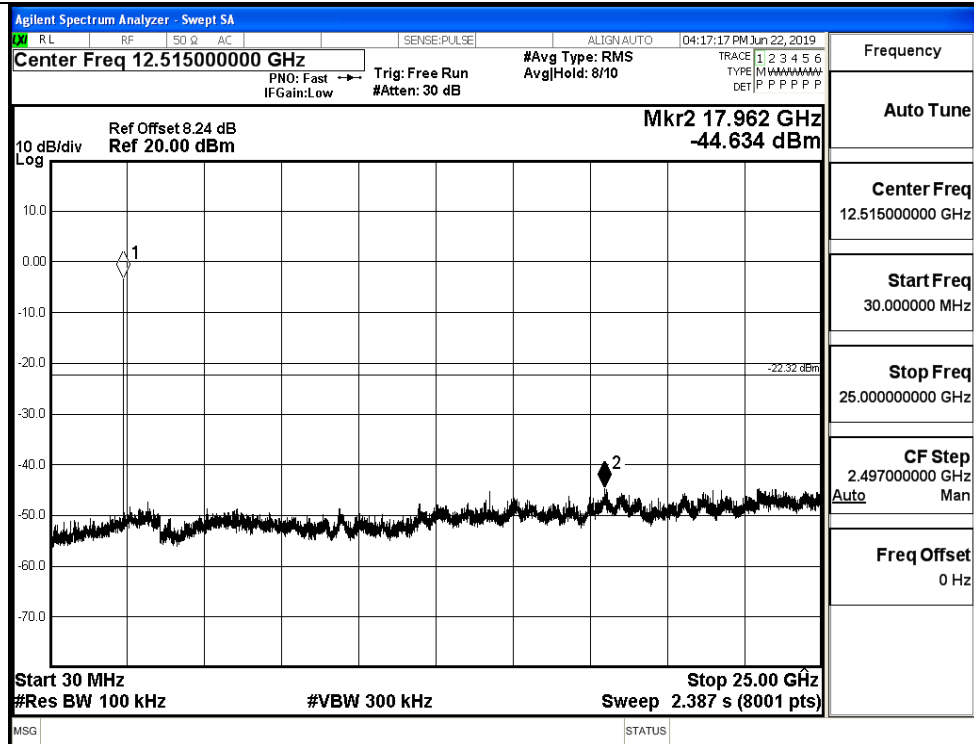
B.5 RF Conducted Spurious Emissions

Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
BT LE	LCH	-2.324	-44.634	-22.324	PASS
BT LE	MCH	-3.514	-44.456	-23.514	PASS
BT LE	HCH	-4.513	-44.140	-24.513	PASS
BT 2LE	LCH	-2.457	-43.044	-22.457	PASS
BT 2LE	MCH	-4.236	-44.395	-24.236	PASS
BT 2LE	HCH	-4.684	-43.445	-24.684	PASS

BT LE LCH Graphs

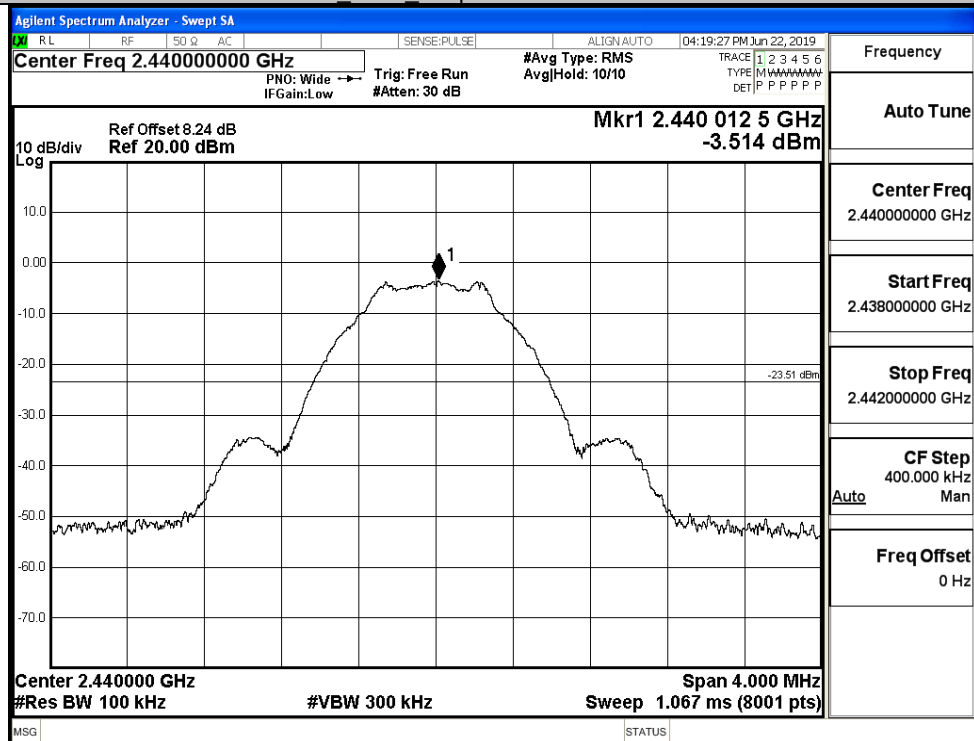


Puw/BT LE/LCH

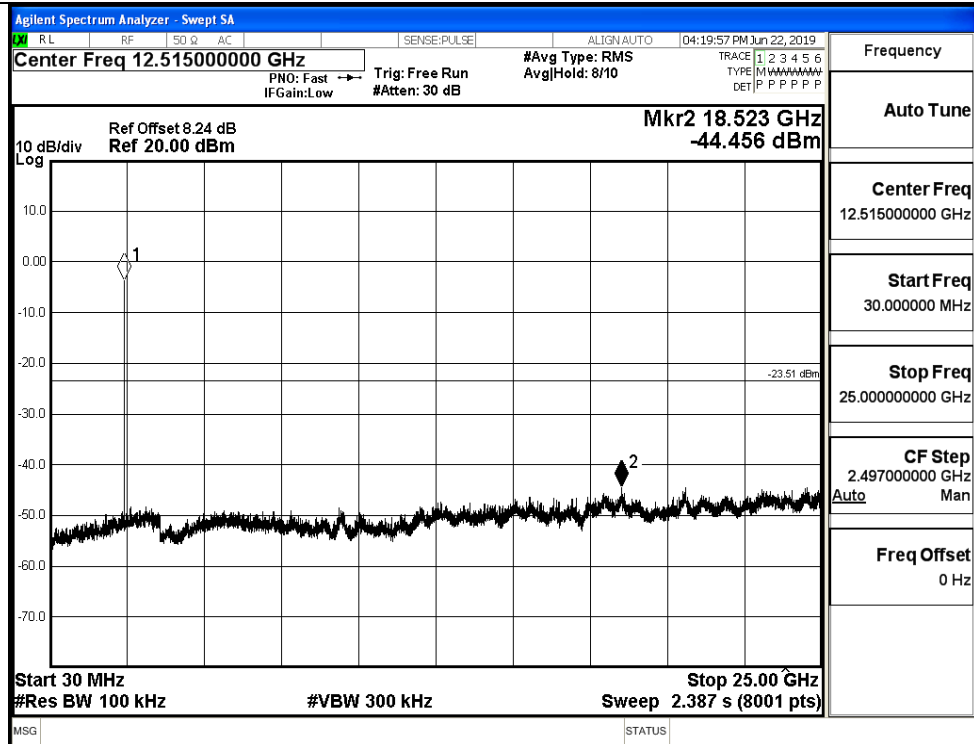


BT LE MCH Graphs

Pref/BT LE/MCH

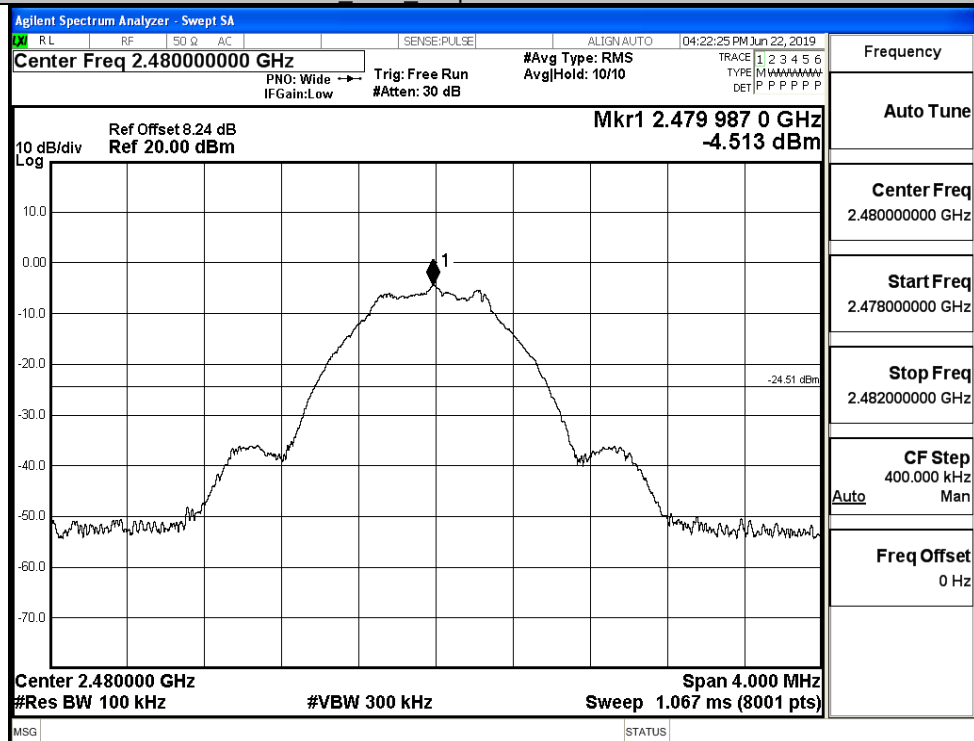


Puw/BT LE/MCH

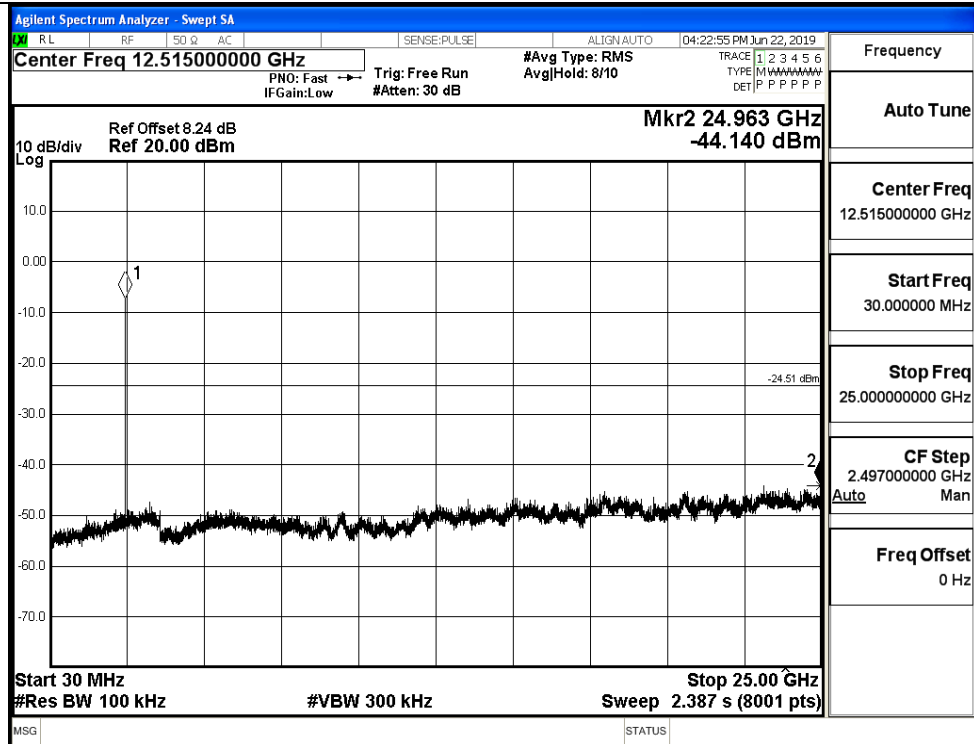


BT LE HCH Graphs

Pref/BT LE/HCH

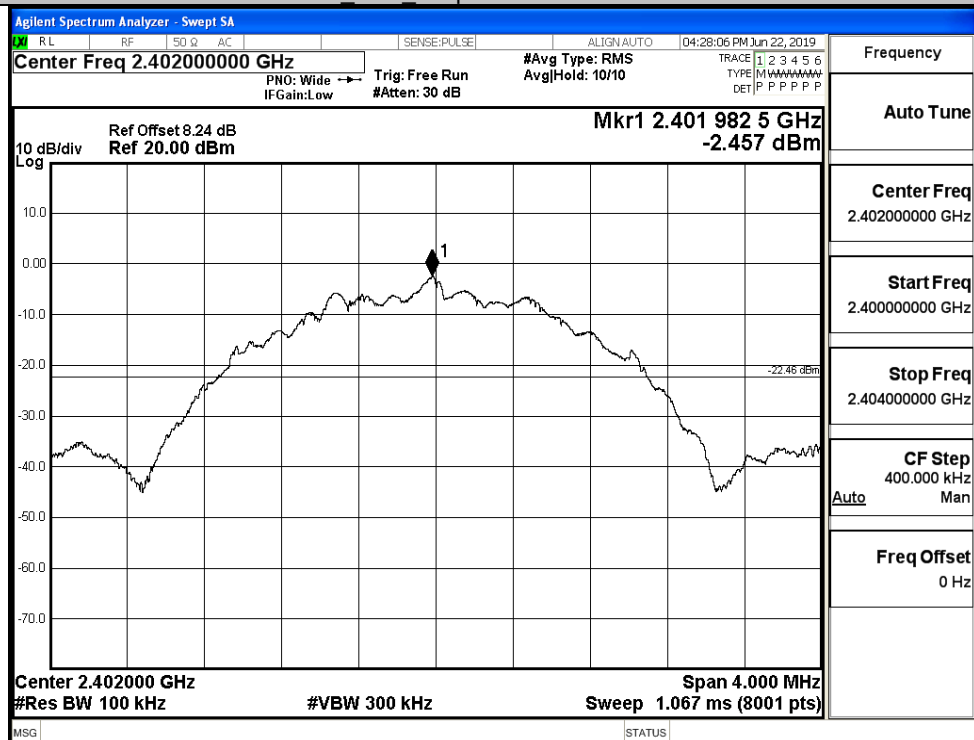


Puw/BT LE/HCH

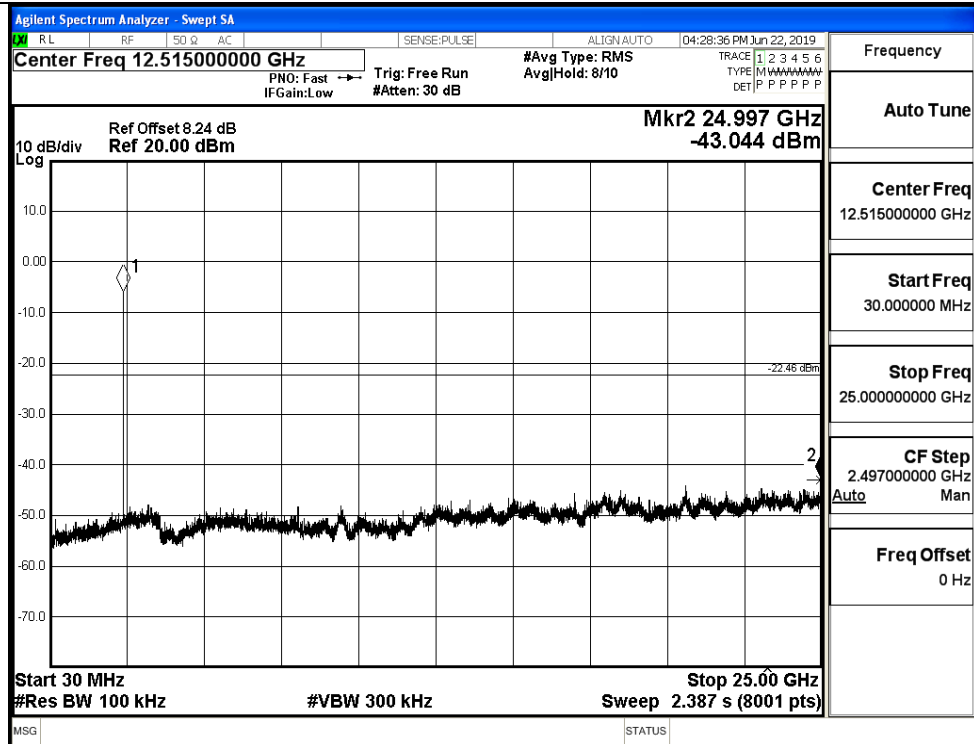


BT LE LCH Graphs

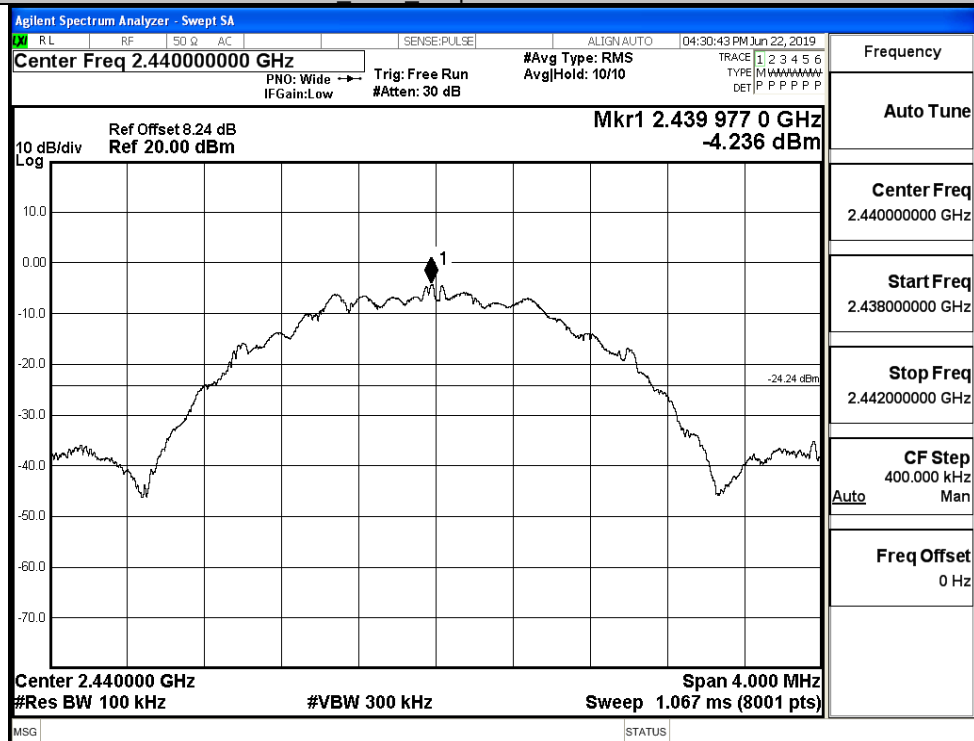
Pref/BT 2LE/LCH

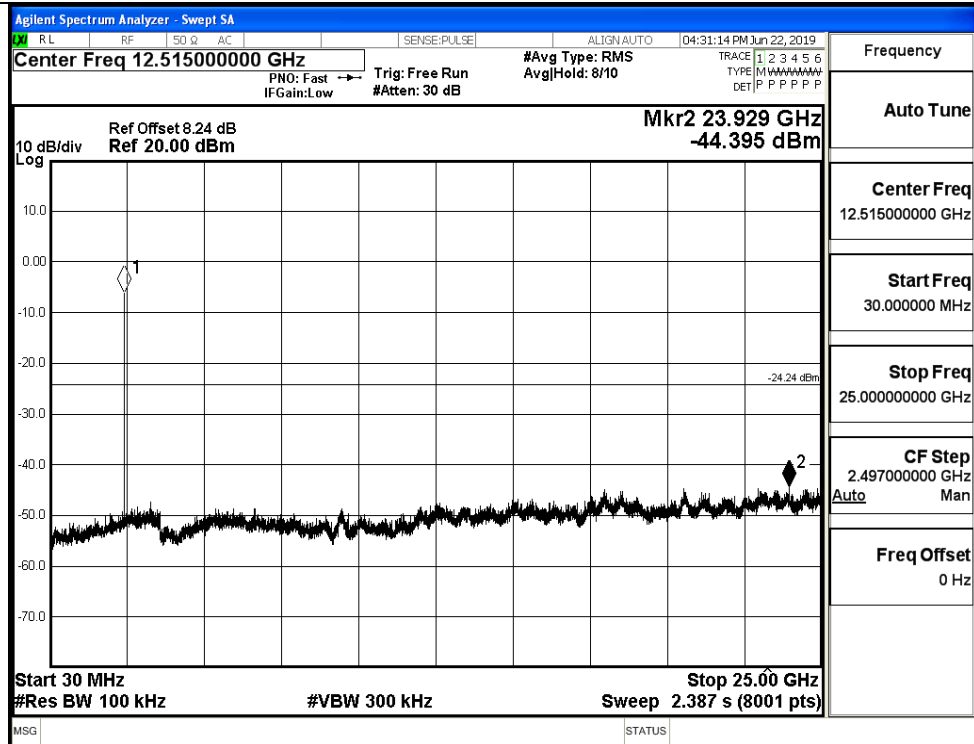


PuW/BT 2LE/LCH



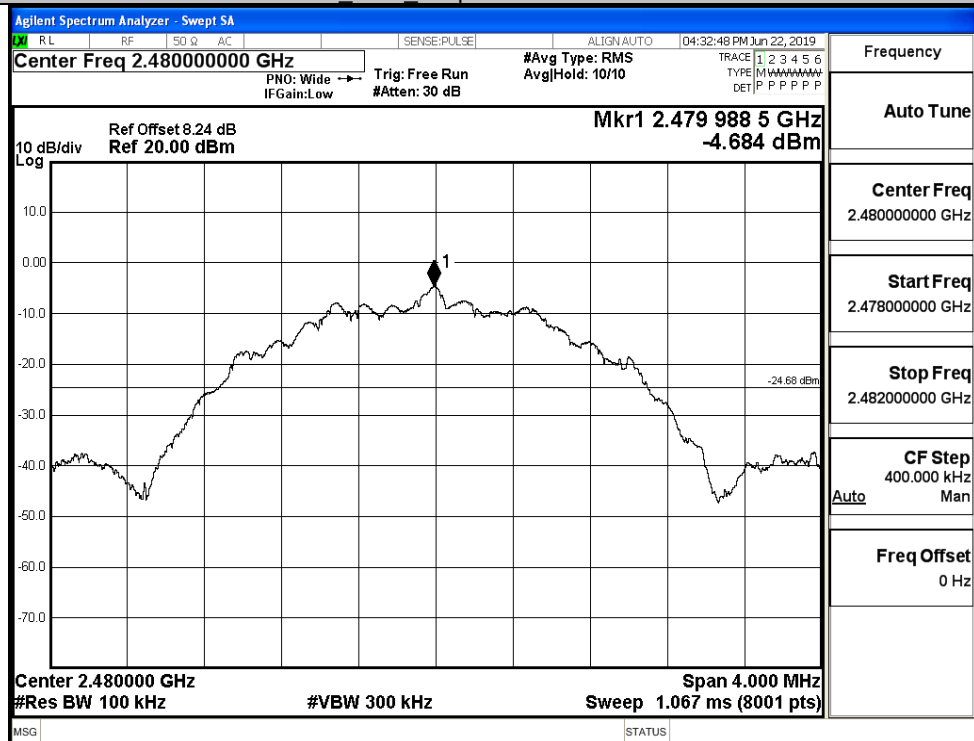
BT LE MCH Graphs

Pref/BT
2LE/MCH

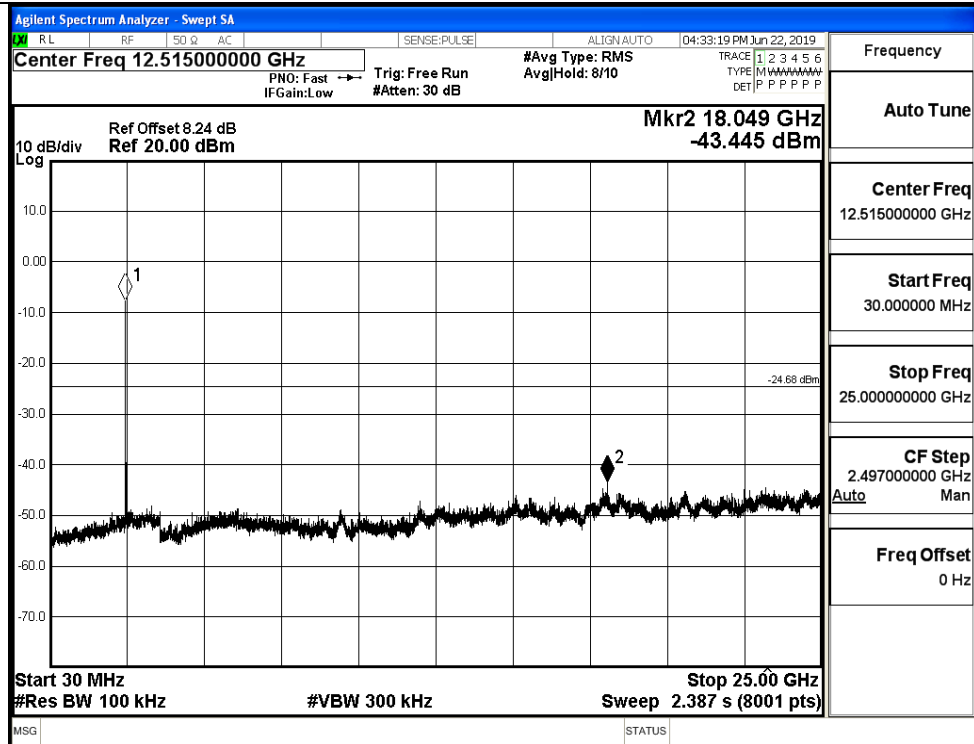
Puw/BT
2LE/MCH

BT LE HCH Graphs

Pref/BT 2LE/HCH



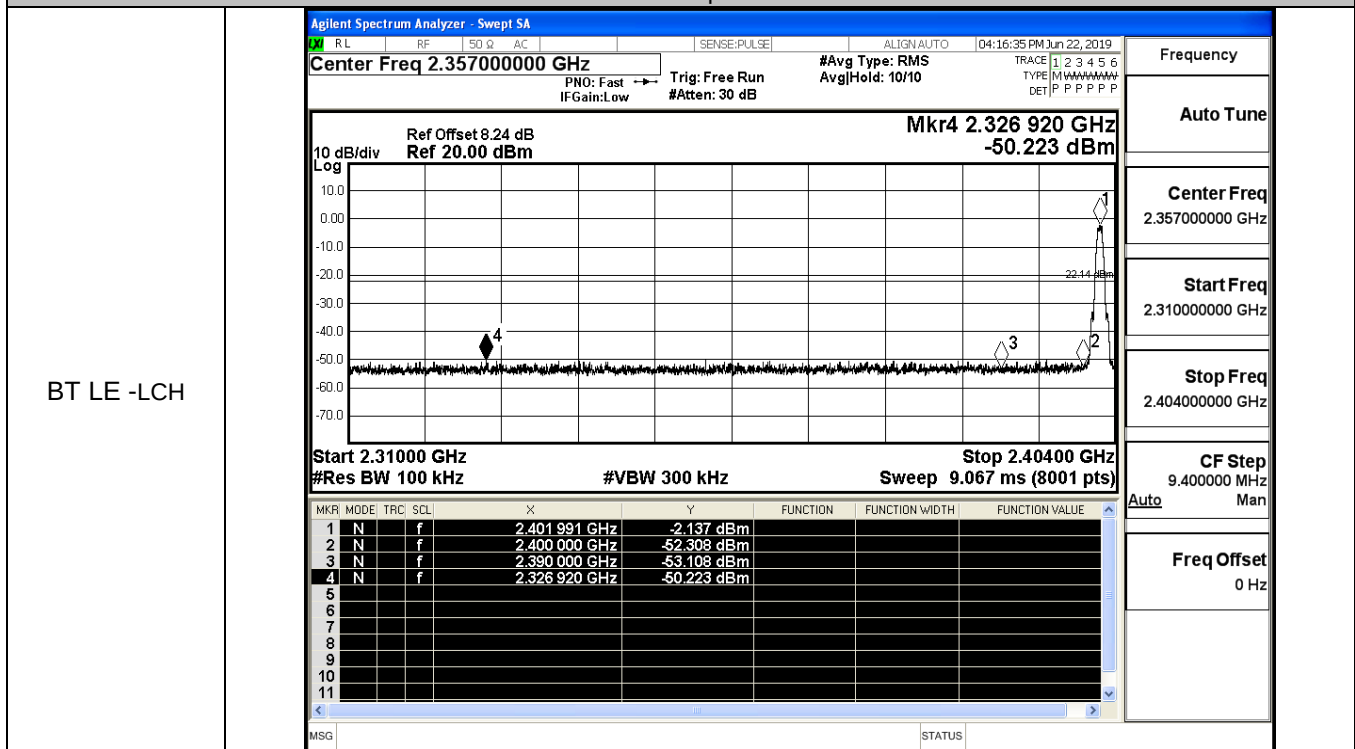
Puw/BT
2LE/HCH



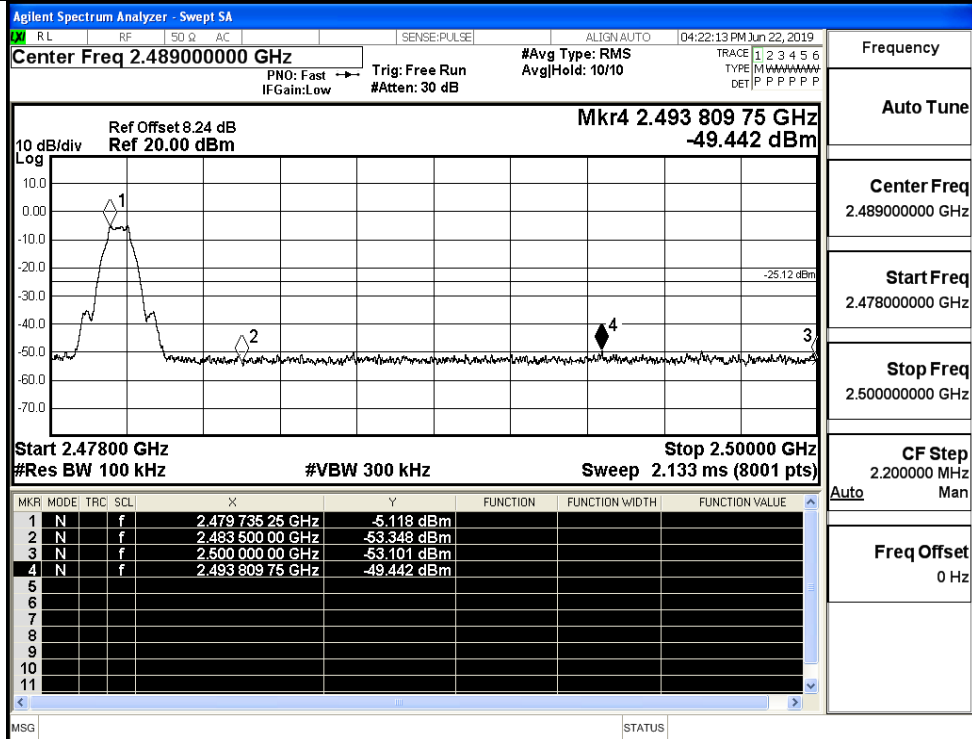
B.6 Band-edge for RF Conducted Emissions

Mode	Channel	Carrier Power[dBm]	Max.Spurious Level [dBm]	Limit [dBm]	Verdict
BT LE	LCH	-2.137	-50.223	-22.14	PASS
BT LE	HCH	-5.118	-49.442	-25.12	PASS
BT 2LE	LCH	-3.612	-49.854	-23.61	PASS
BT 2LE	HCH	-4.746	-49.585	-24.75	PASS

Test Graphs



BT LE -HCH



Frequency

Auto Tune

Center Freq
2.489000000 GHz

Start Freq
2.478000000 GHz

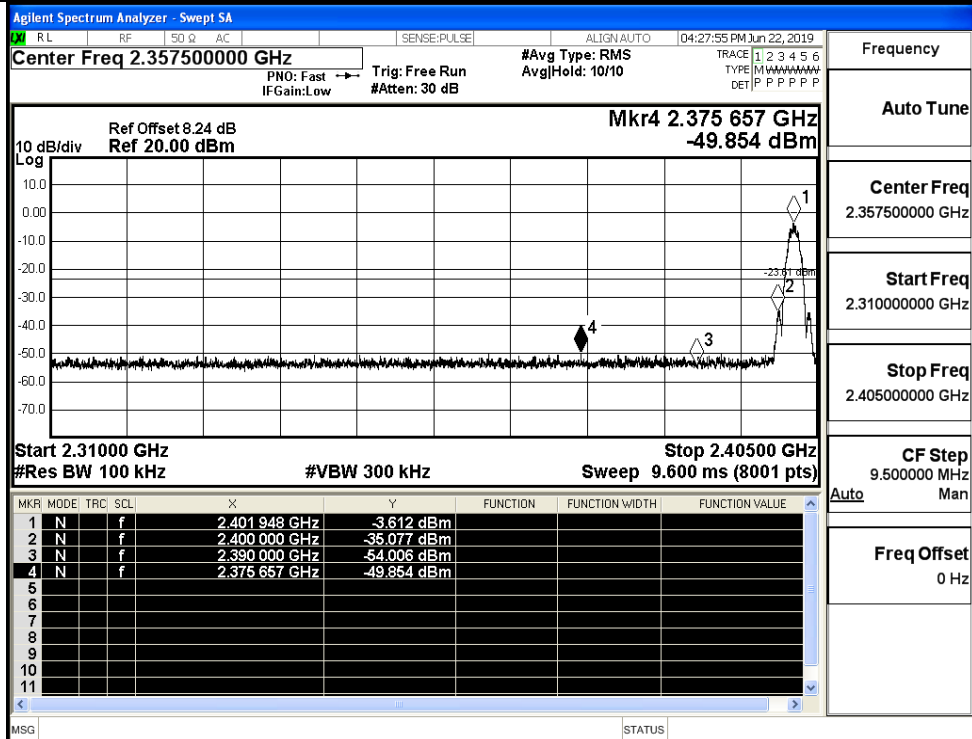
Stop Freq
2.500000000 GHz

CF Step
2.200000 MHz
Auto Man

Freq Offset
0 Hz

Test Graphs

BT 2LE -LCH



Frequency

Auto Tune

Center Freq
2.357500000 GHz

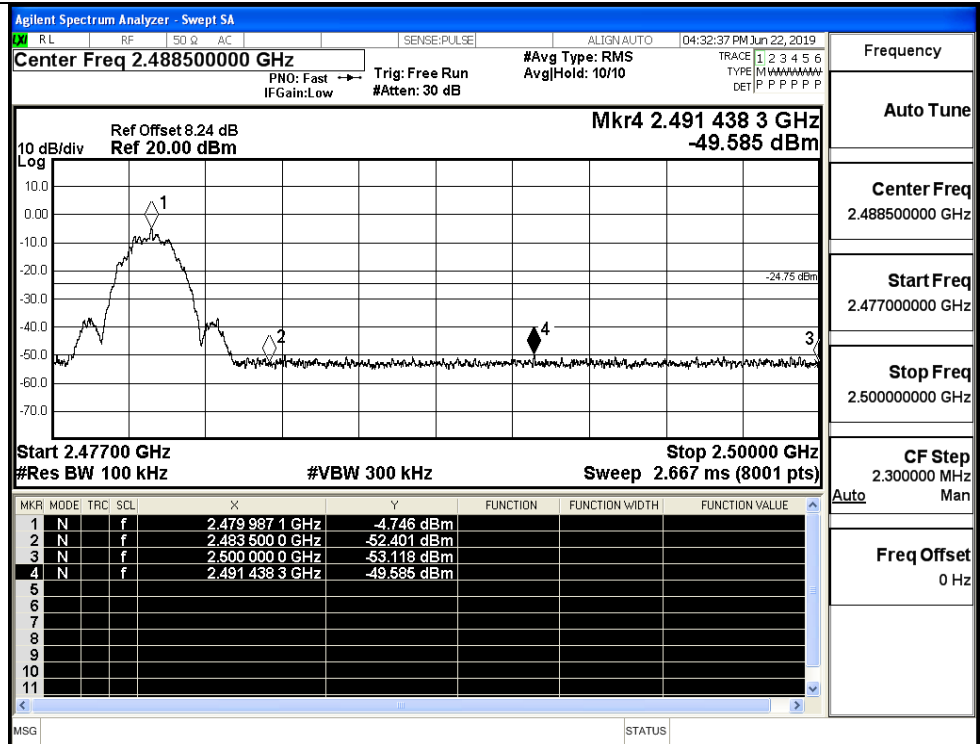
Start Freq
2.310000000 GHz

Stop Freq
2.405000000 GHz

CF Step
9.500000 MHz
Auto Man

Freq Offset
0 Hz

BT 2LE -HCH

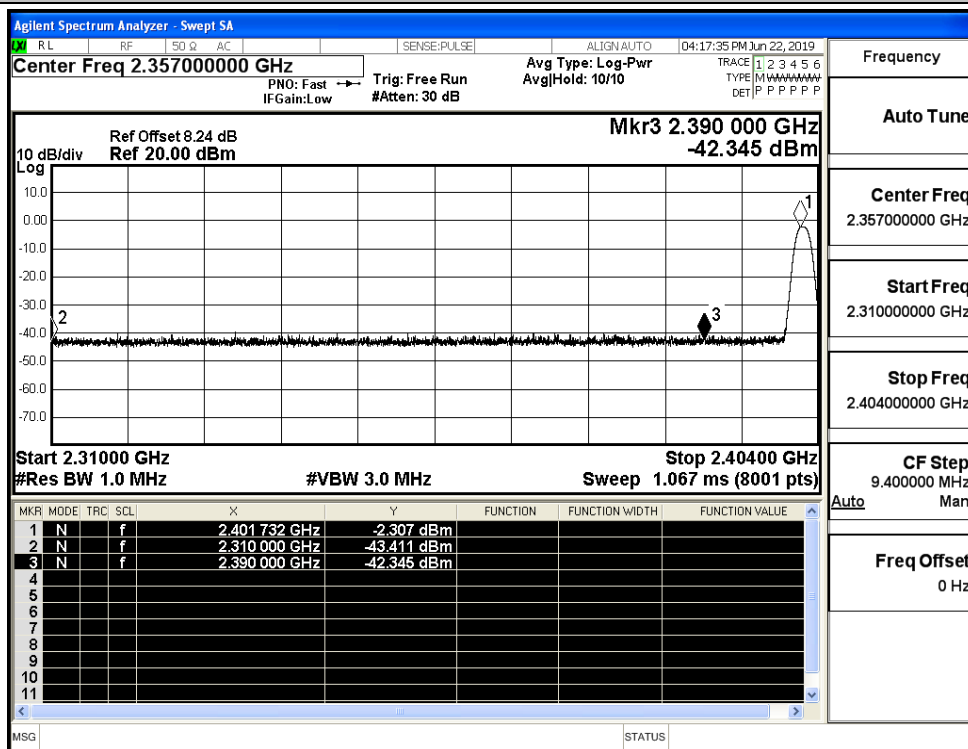


B.7 Restrict-band band-edge measurements

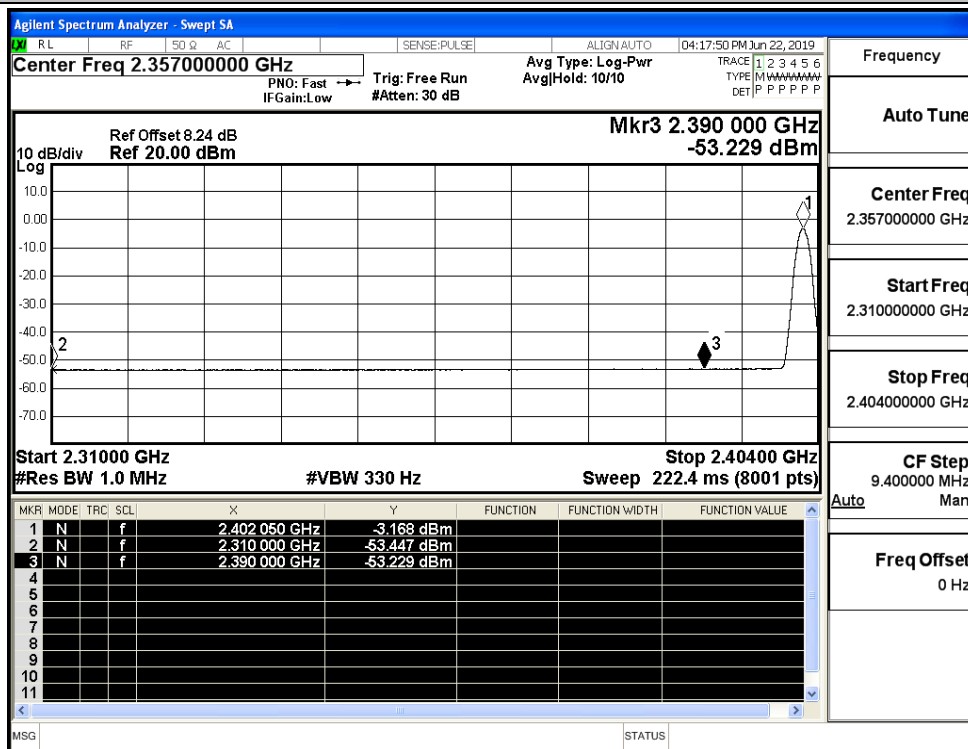
Test Mode	Test Channel	Ant	Freq.	Power [dBm]	Gain	Ground Factor	E [dBuV/m]	Detector	Limit [dBuV/m]	Verdi
BT LE	2402	Ant1	2310.0	-43.41	2.0	0	51.85	PEAK	74	PASS
		Ant1	2310.0	-53.45	2.0	0	41.81	AV	54	PASS
		Ant1	2390.0	-42.35	2.0	0	52.91	PEAK	74	PASS
		Ant1	2390.0	-53.23	2.0	0	42.03	AV	54	PASS
	2480	Ant1	2483.5	-43.50	2.0	0	51.76	PEAK	74	PASS
		Ant1	2483.5	-52.87	2.0	0	42.39	AV	54	PASS
		Ant1	2500.0	-41.42	2.0	0	53.84	PEAK	74	PASS
		Ant1	2500.0	-52.77	2.0	0	42.49	AV	54	PASS

Test Mode	Test Channel	Ant	Freq.	Power [dBm]	Gain	Ground Factor	E [dBuV/m]	Detector	Limit [dBuV/m]	Verdi
BT 2LE	2402	Ant1	2310.0	-42.68	2.0	0	52.58	PEAK	74	PASS
		Ant1	2310.0	-53.50	2.0	0	41.76	AV	54	PASS
		Ant1	2390.0	-43.32	2.0	0	51.93	PEAK	74	PASS
		Ant1	2390.0	-53.18	2.0	0	42.08	AV	54	PASS
	2480	Ant1	2483.5	-42.55	2.0	0	52.71	PEAK	74	PASS
		Ant1	2483.5	-52.73	2.0	0	42.53	AV	54	PASS
		Ant1	2500.0	-41.69	2.0	0	53.57	PEAK	74	PASS
		Ant1	2500.0	-52.77	2.0	0	42.49	AV	54	PASS

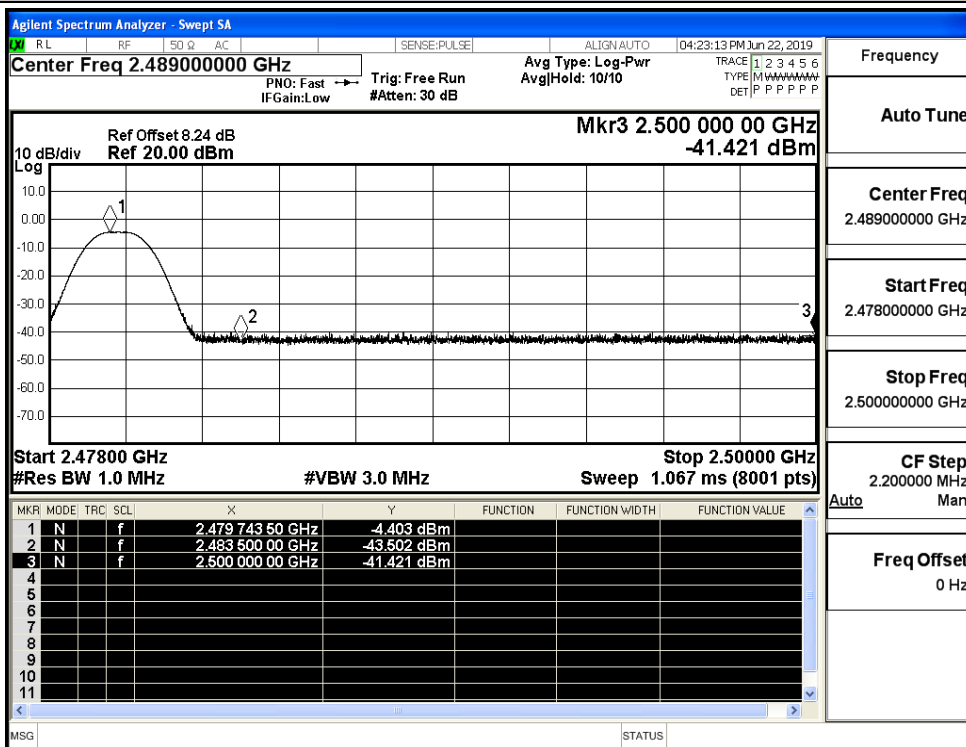
Restrict-band band-edge measurements_BT LE_2402_Ant1_PEAK



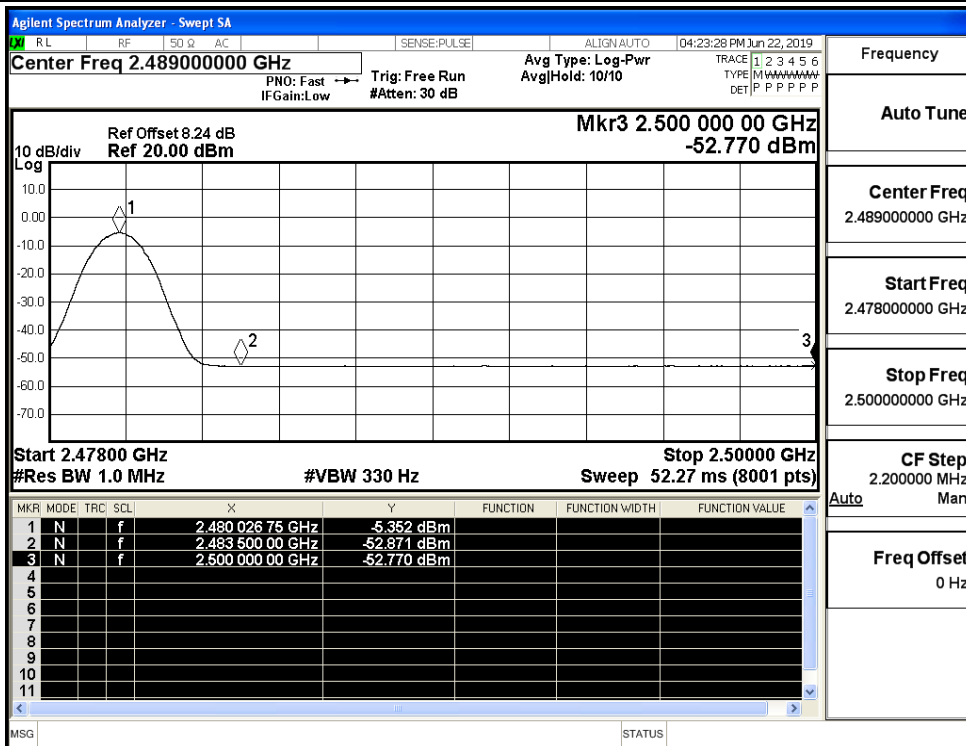
Restrict-band band-edge measurements_BT LE_2402_Ant1_AV



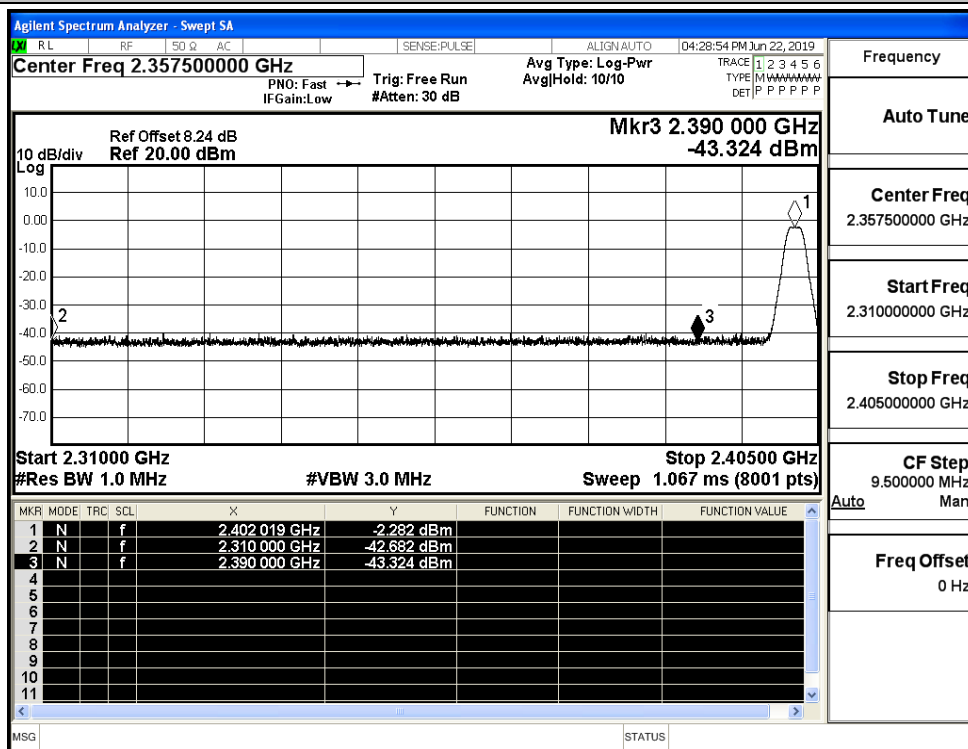
Restrict-band band-edge measurements_BT LE_2480_Ant1_PEAK



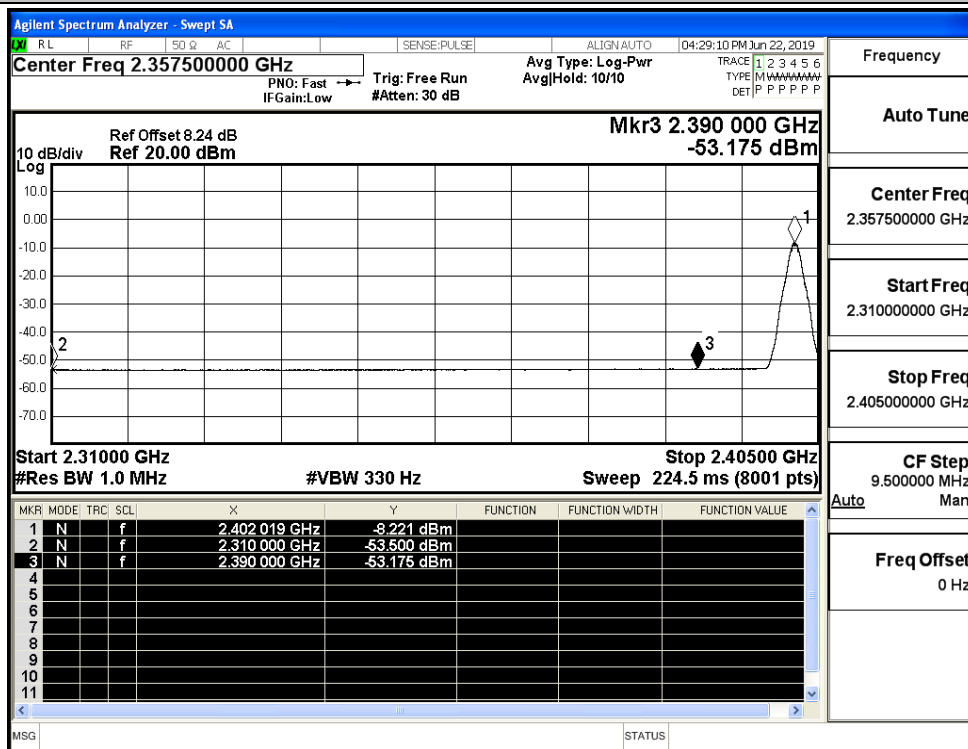
Restrict-band band-edge measurements_BT LE_2480_Ant1_AV



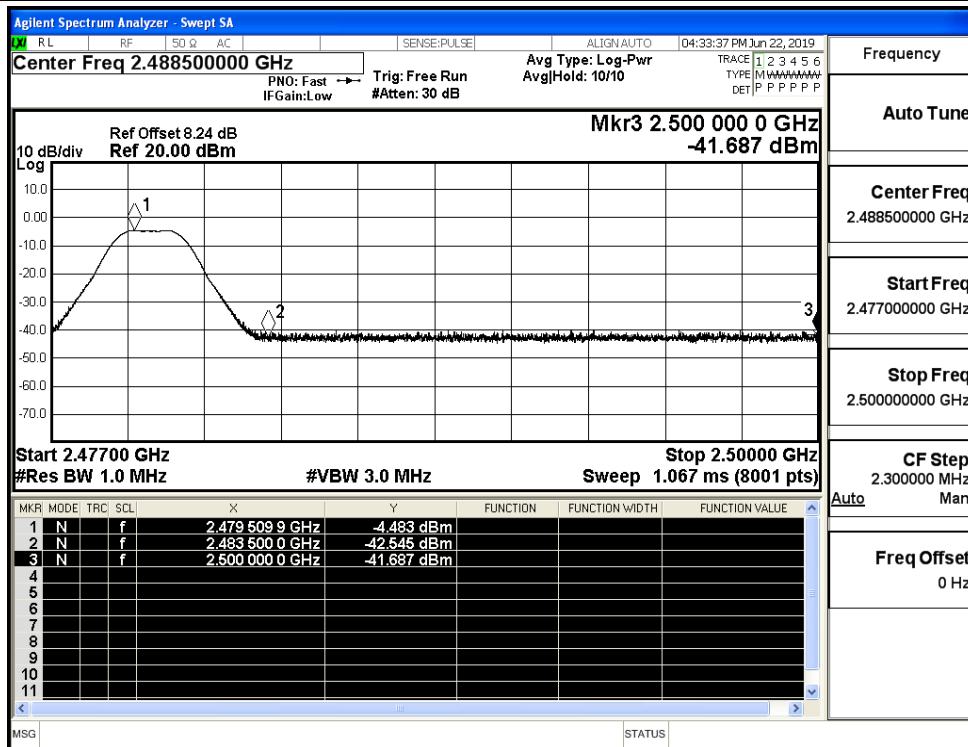
Restrict-band band-edge measurements_BT 2LE_2402_Ant1_PEAK



Restrict-band band-edge measurements_BT 2LE_2402_Ant1_AV



Restrict-band band-edge measurements_BT 2LE_2480_Ant1_PEAK



Restrict-band band-edge measurements_BT 2LE_2480_Ant1_AV

