

Appendix A

RF Test Data for BT 4.0(BLE) (Conducted Measurement)

Product Name: BLUETOOTH FITNESS TRACKER

Trade Mark: N/A

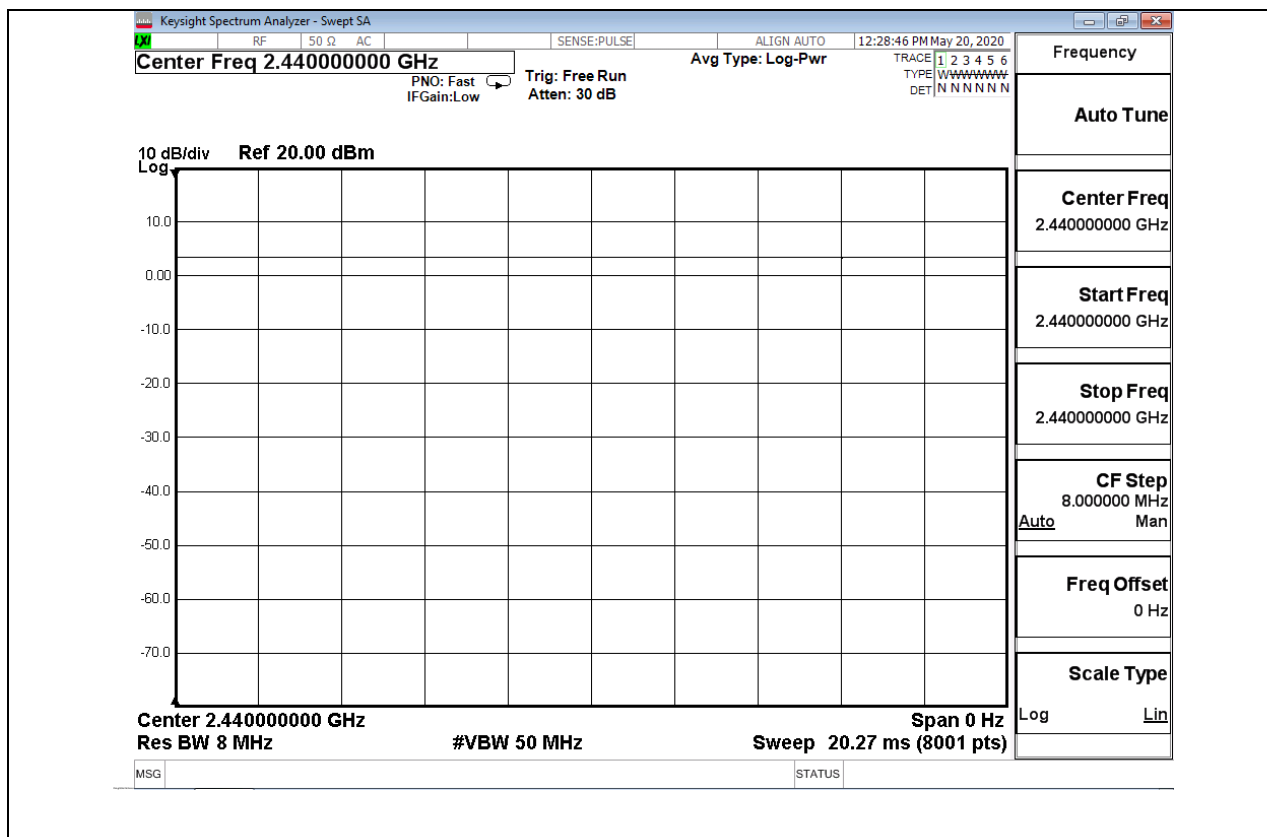
Test Model: XO-9939

Environmental Conditions

Temperature:	23.4 ° C
Relative Humidity:	54%
ATM Pressure:	100.0 kPa
Test Engineer:	Jerry Zeng
Supervised by:	Tom Liu

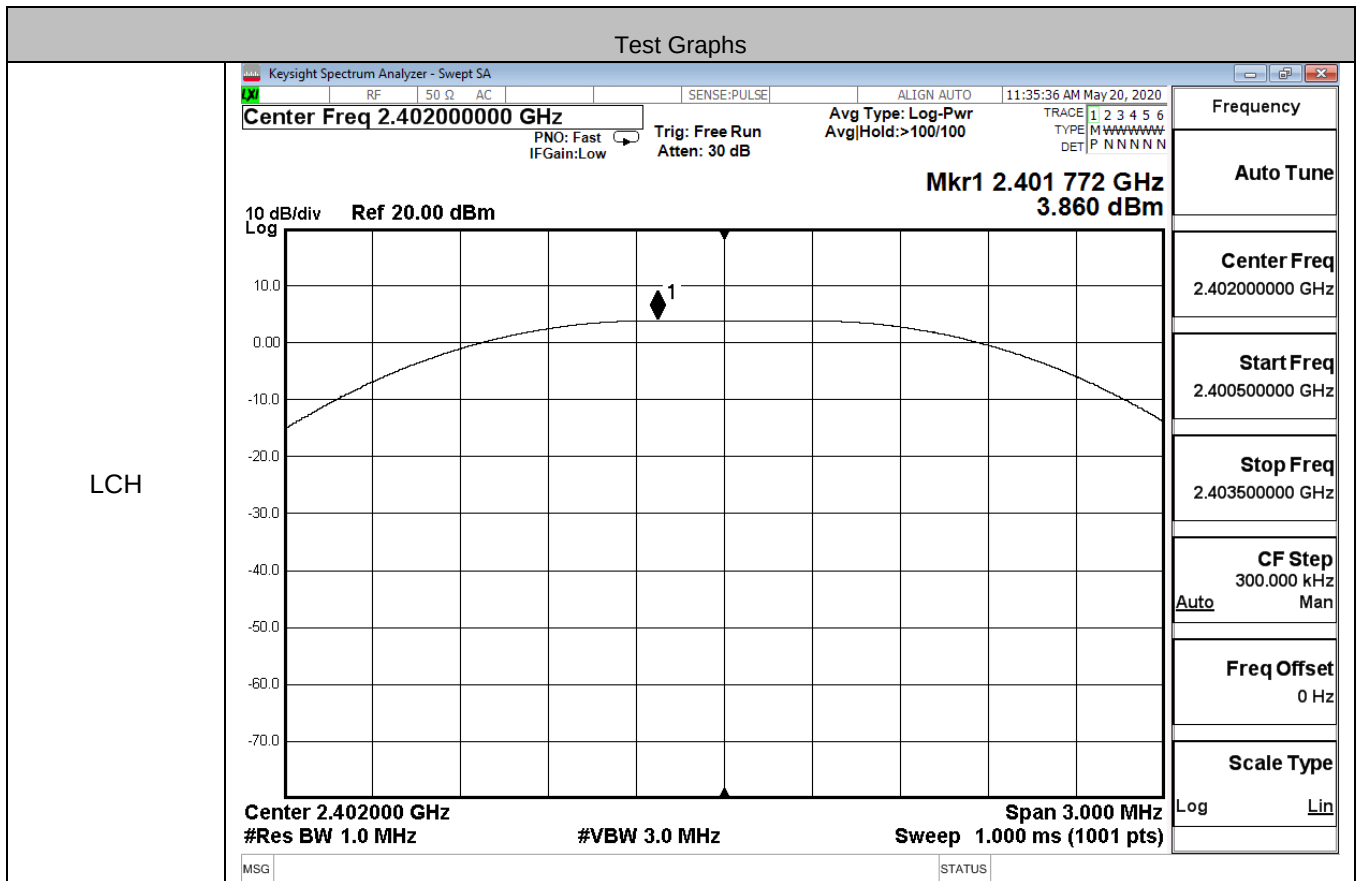
A.1 Duty Cycle

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

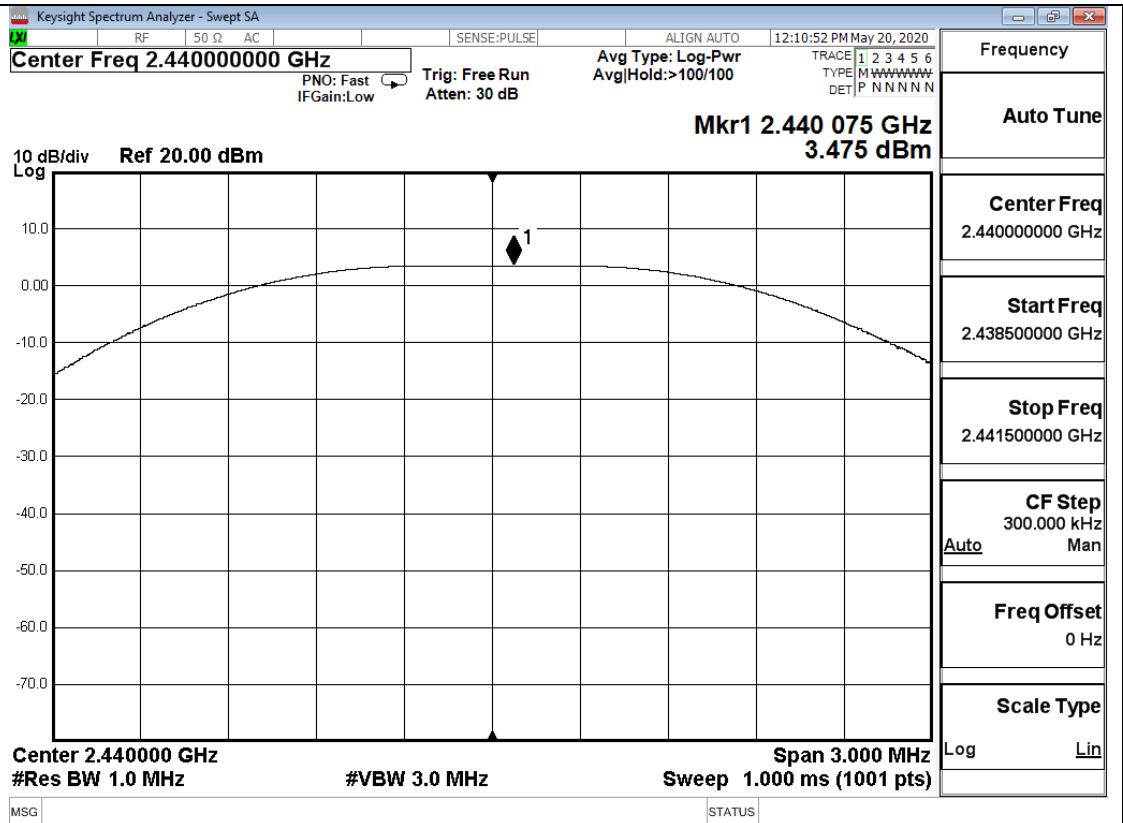


A.2 Maximum Conducted Peak Output Power

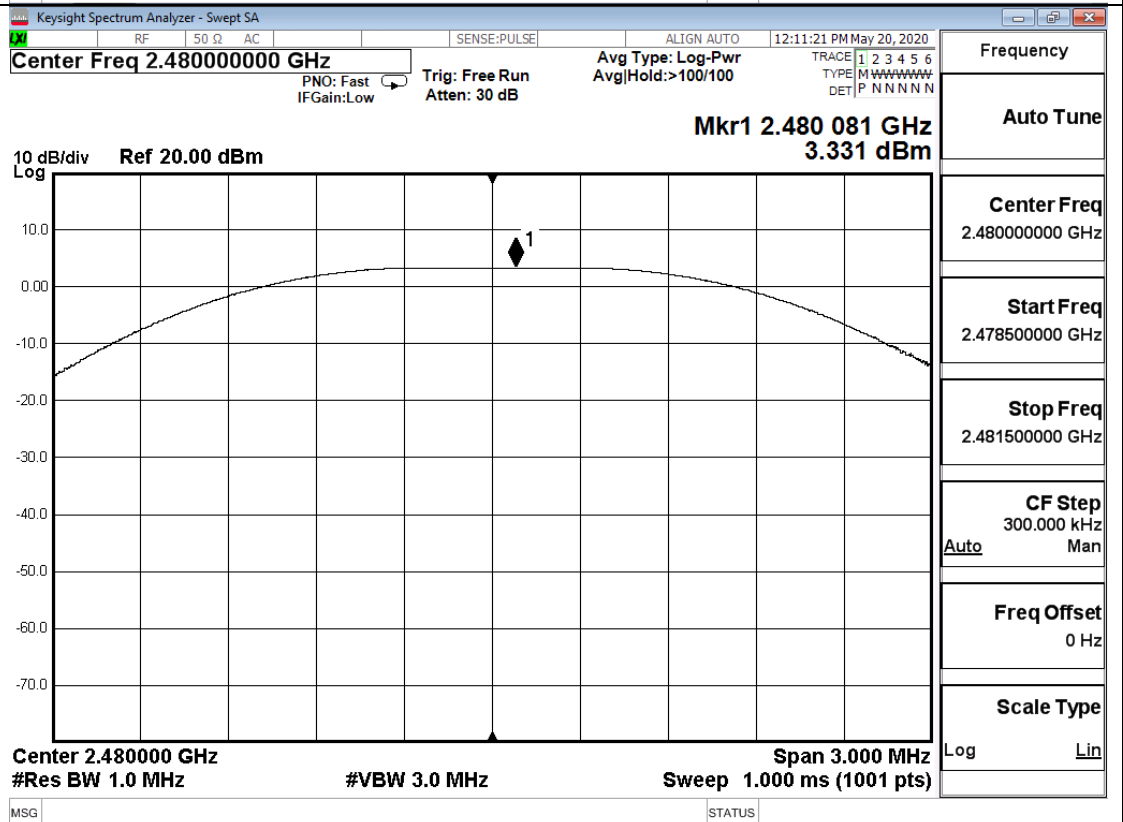
Mode	Channel	Conduct Peak Power[dBm]	Limit [dBm]	Verdict
BT LE	LCH	3.860	30	PASS
BT LE	MCH	3.475	30	PASS
BT LE	HCH	3.331	30	PASS



MCH



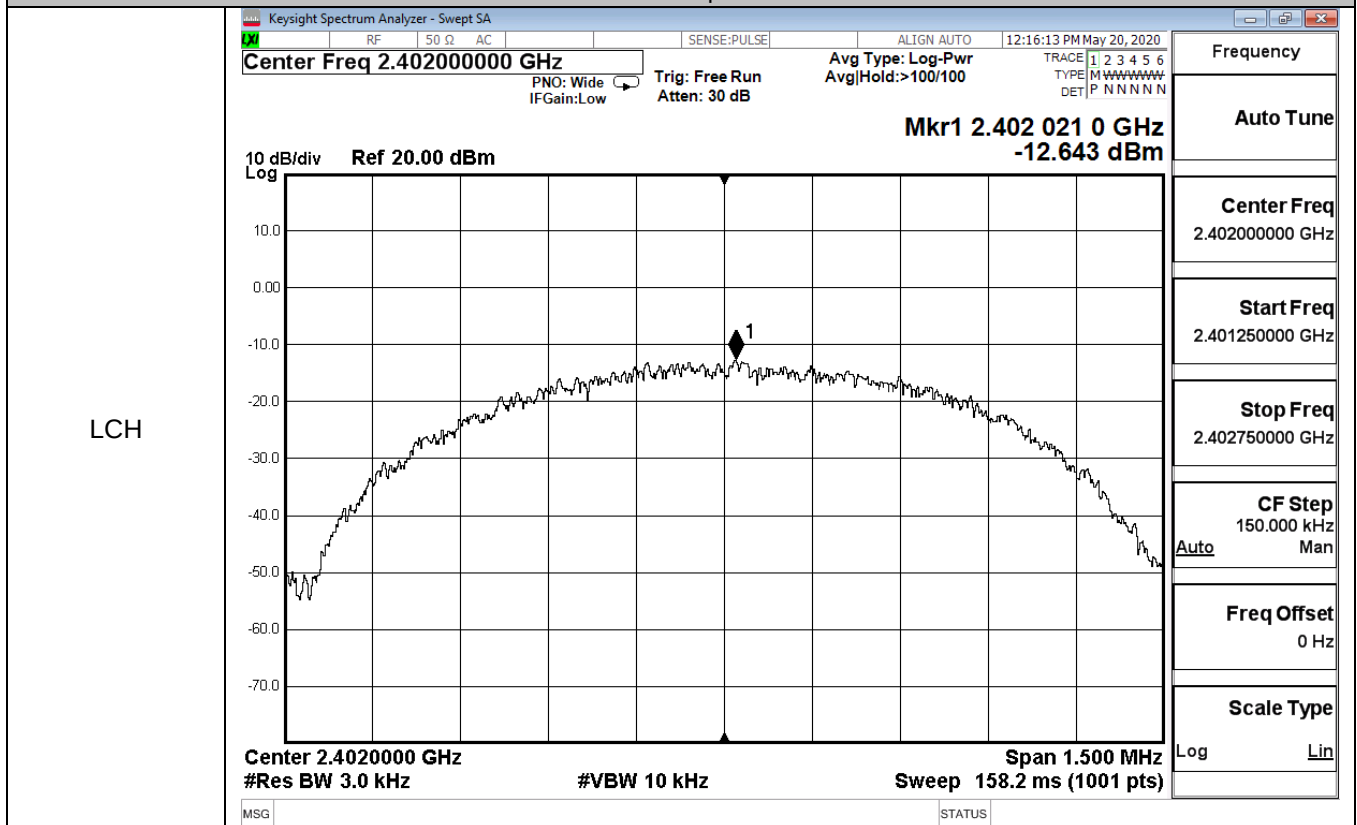
HCH



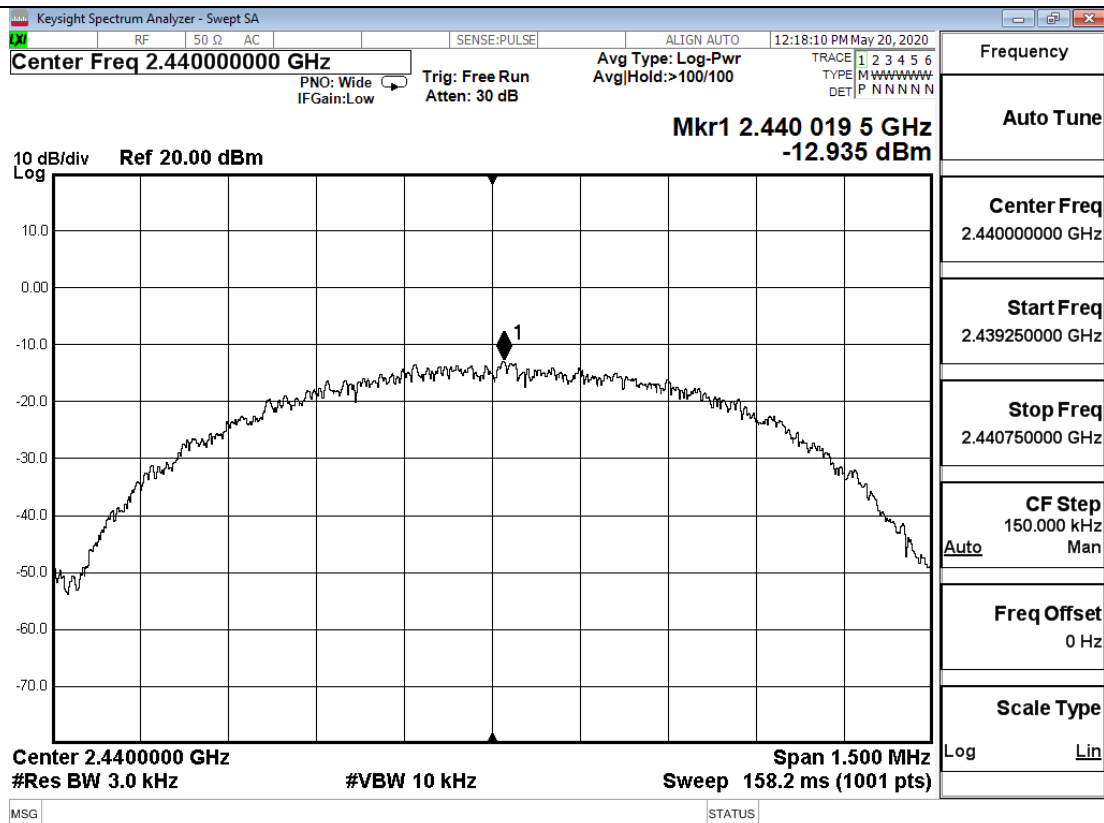
A.3 Maximum Power Spectral Density

Mode	Channel	PSD [dBm/3KHz]	Limit [dBm/3KHz]	Verdict
BT LE	LCH	-12.643	8	PASS
BT LE	MCH	-12.935	8	PASS
BT LE	HCH	-11.992	8	PASS

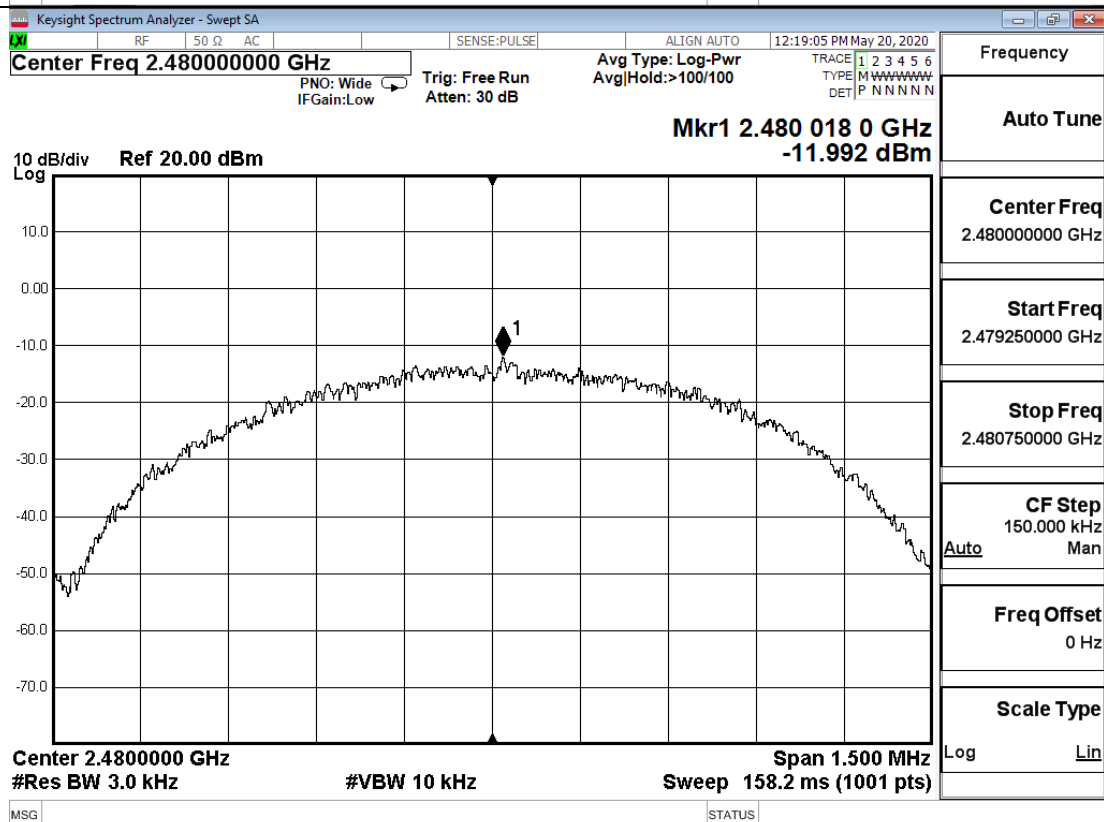
Test Graphs



MCH

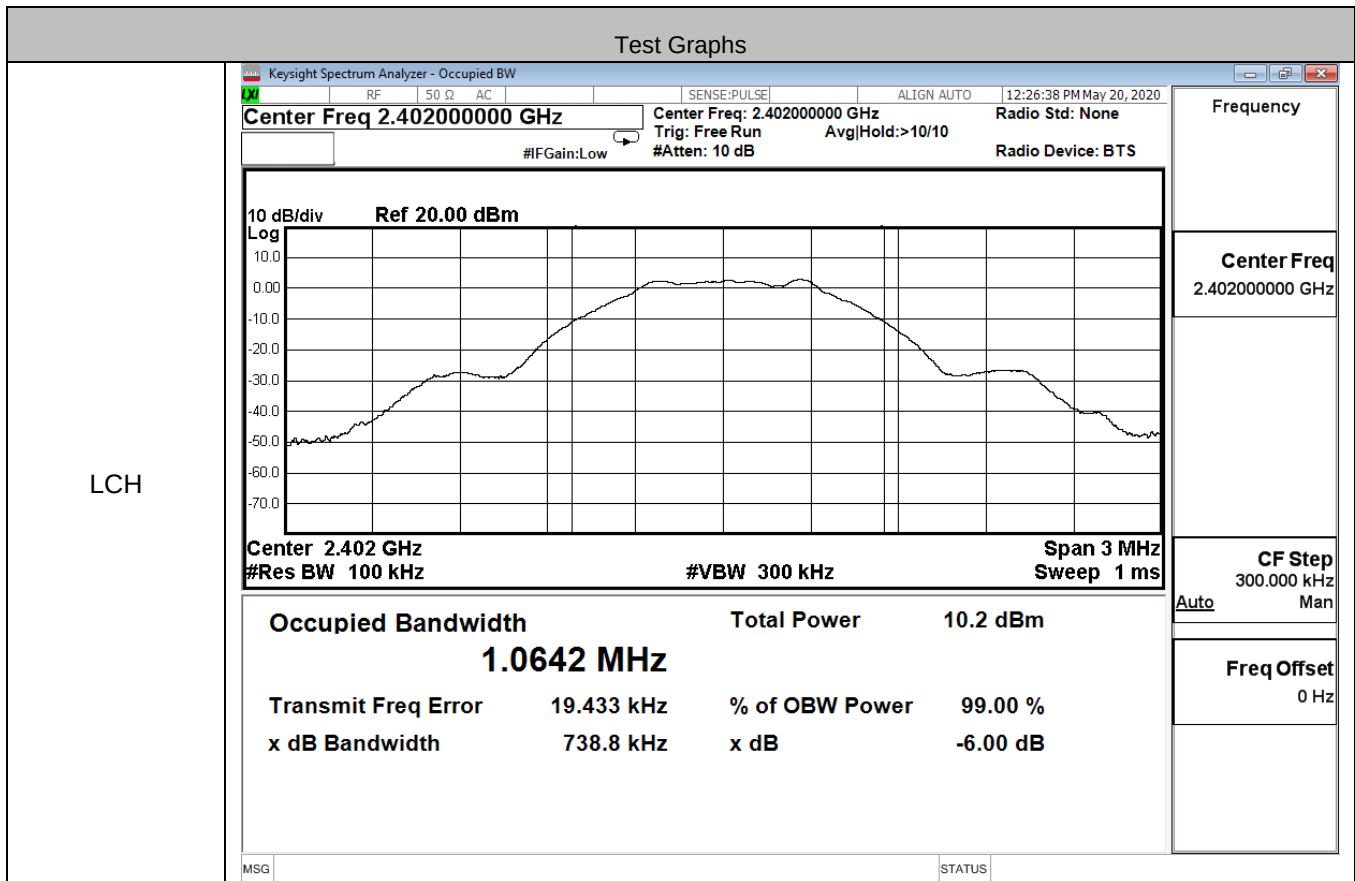


HCH

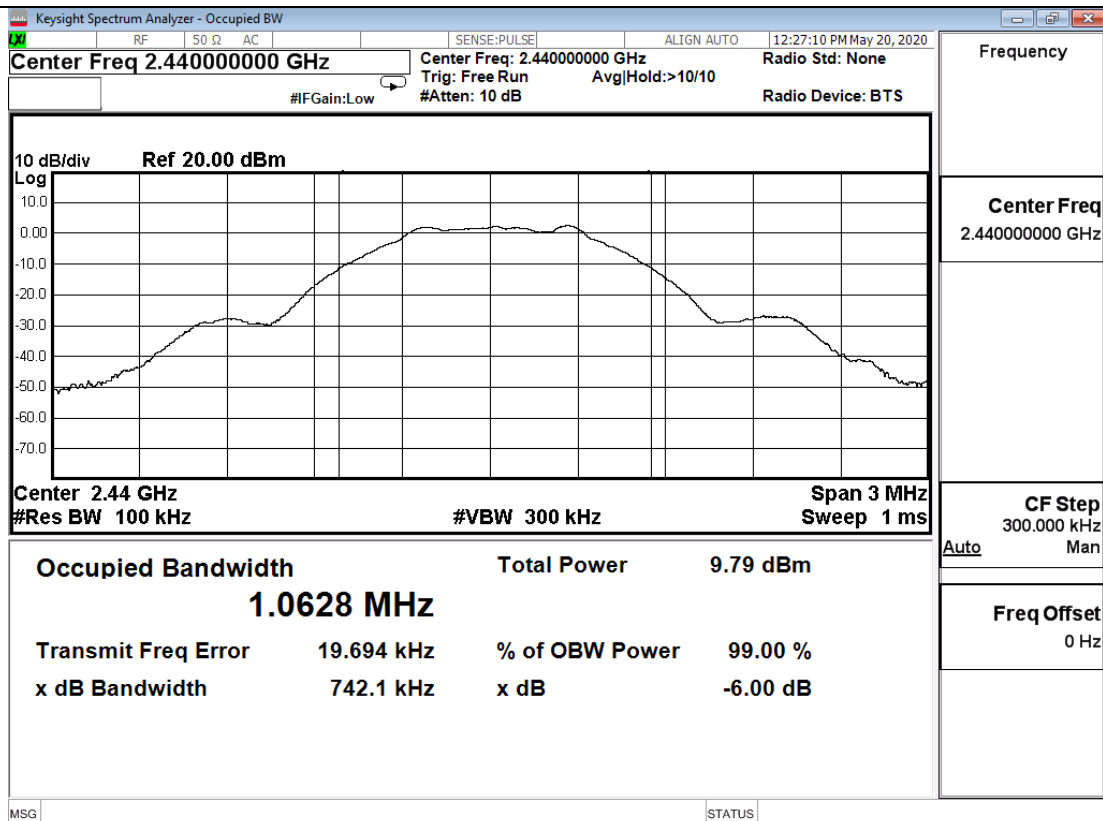


A.4 6dB Bandwidth and Occupied Bandwidth

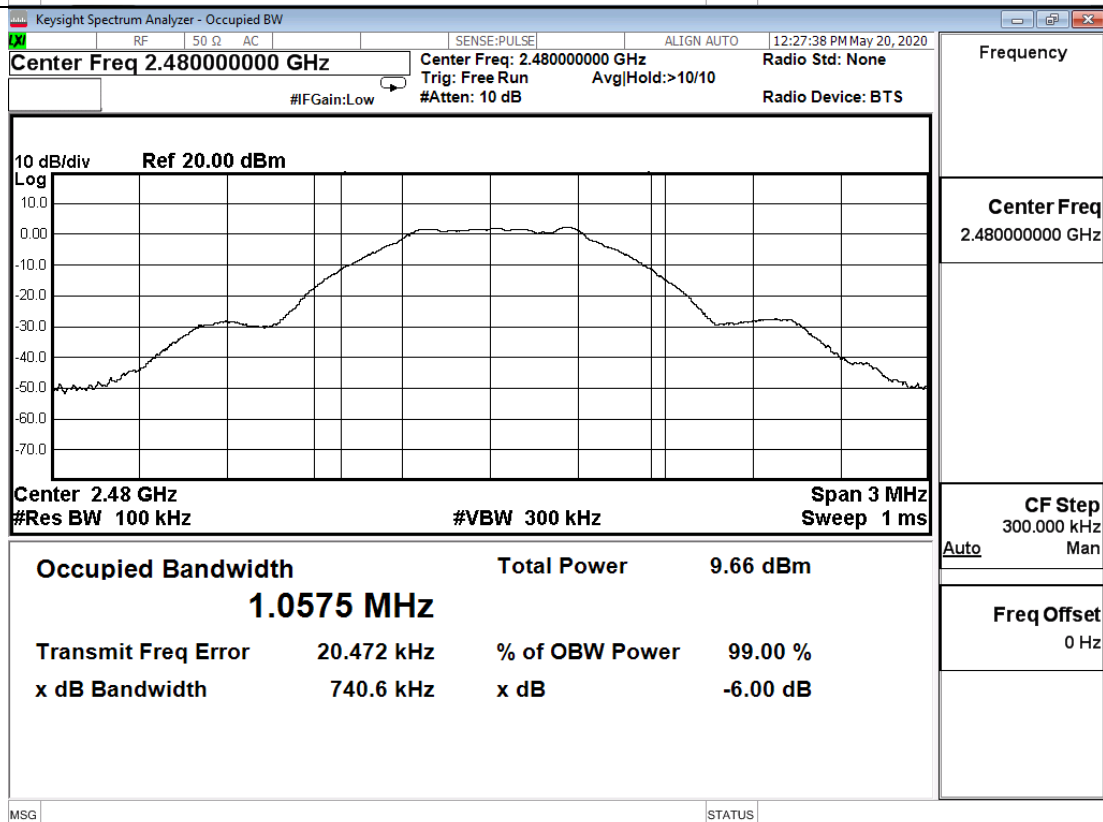
Mode	Channel	Occupied Bandwidth [MHz]	6dB Bandwidth [MHz]	Limit [MHz]	Verdict
BT LE	LCH	1.0642	0.7388	≥ 0.5	PASS
BT LE	MCH	1.0628	0.7421	≥ 0.5	PASS
BT LE	HCH	1.0575	0.7406	≥ 0.5	PASS



MCH



HCH



A.6 RF Conducted Spurious Emissions

Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
BT LE	LCH	2.862	-31.127	-17.14	PASS
BT LE	MCH	2.538	-31.053	-17.46	PASS
BT LE	HCH	2.347	-34.127	-17.65	PASS

BT LE LCH Graphs

Center Freq 2.402000000 GHz

10 dB/div Ref 20.00 dBm

Log

Center 2.402000 GHz **Span 3.000 MHz**
#Res BW 100 kHz **#VBW 300 kHz** **Sweep 1.067 ms (8001 pts)**

Frequency

Auto Tune

Center Freq
2.402000000 GHz

Start Freq
2.400500000 GHz

Stop Freq
2.403500000 GHz

CF Step
300.000 kHz
Auto Man

Freq Offset
0 Hz

Scale Type
Log Lin

Start Freq 30.000000 MHz

10 dB/div Ref 20.00 dBm

Log

Start 0.03 GHz **Stop 25.00 GHz**
#Res BW 100 kHz **#VBW 300 kHz** **Sweep 2.387 s (8001 pts)**

Frequency

Auto Tune

Center Freq
12.515000000 GHz

Start Freq
30.000000 MHz

Stop Freq
25.000000000 GHz

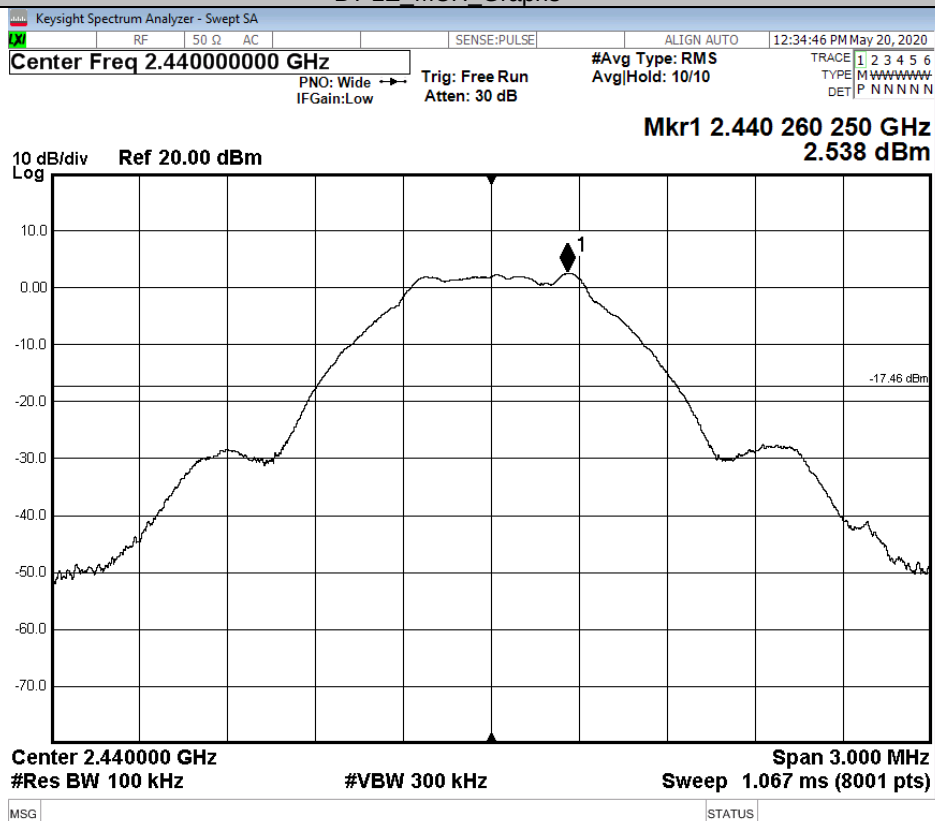
CF Step
2.497000000 GHz
Auto Man

Freq Offset
0 Hz

Scale Type
Log Lin

BT LE MCH Graphs

Pref/BT LE/MCH

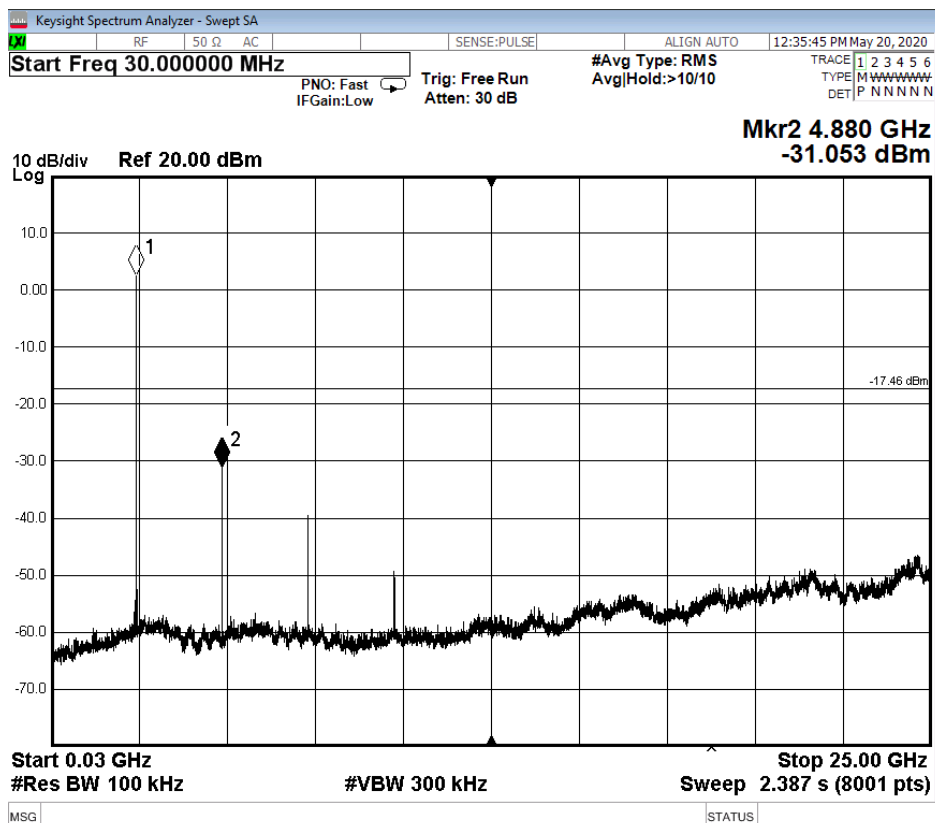


Frequency

Auto Tune

Center Freq
2.440000000 GHzStart Freq
2.438500000 GHzStop Freq
2.441500000 GHzCF Step
300.000 kHz
Auto ManFreq Offset
0 HzScale Type
Log Lin

Puw/BT LE/MCH



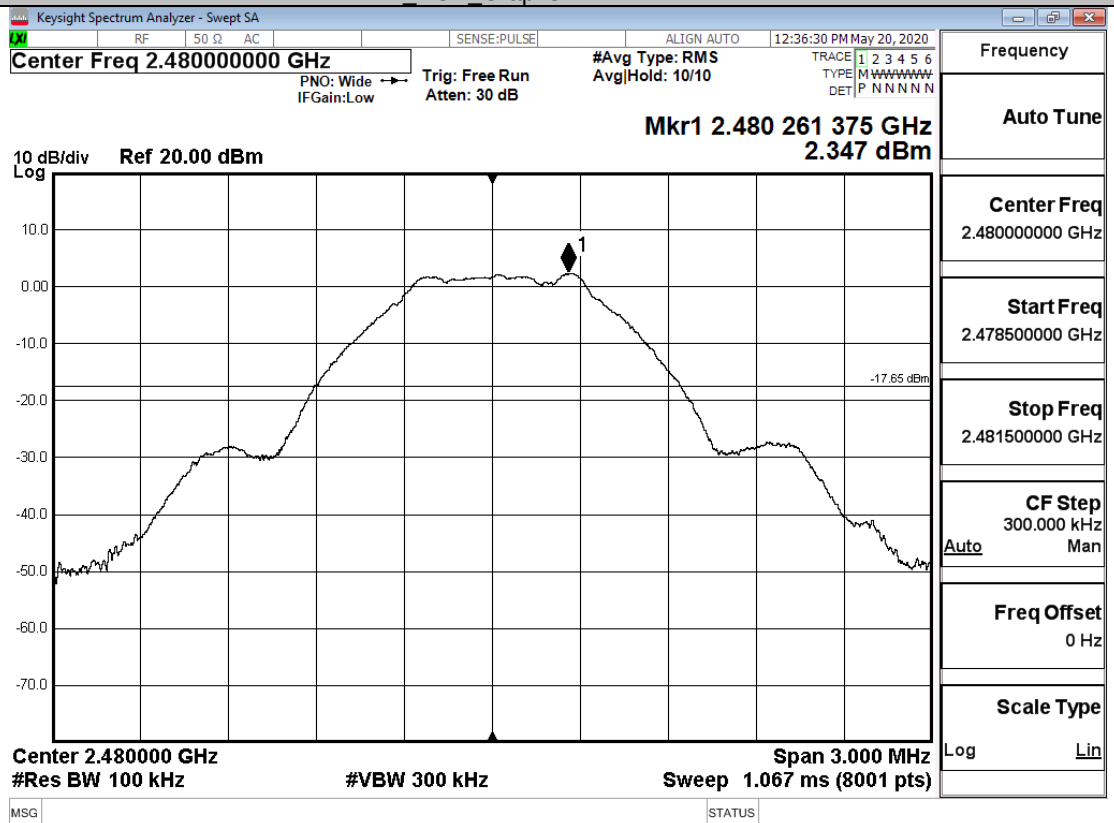
Frequency

Auto Tune

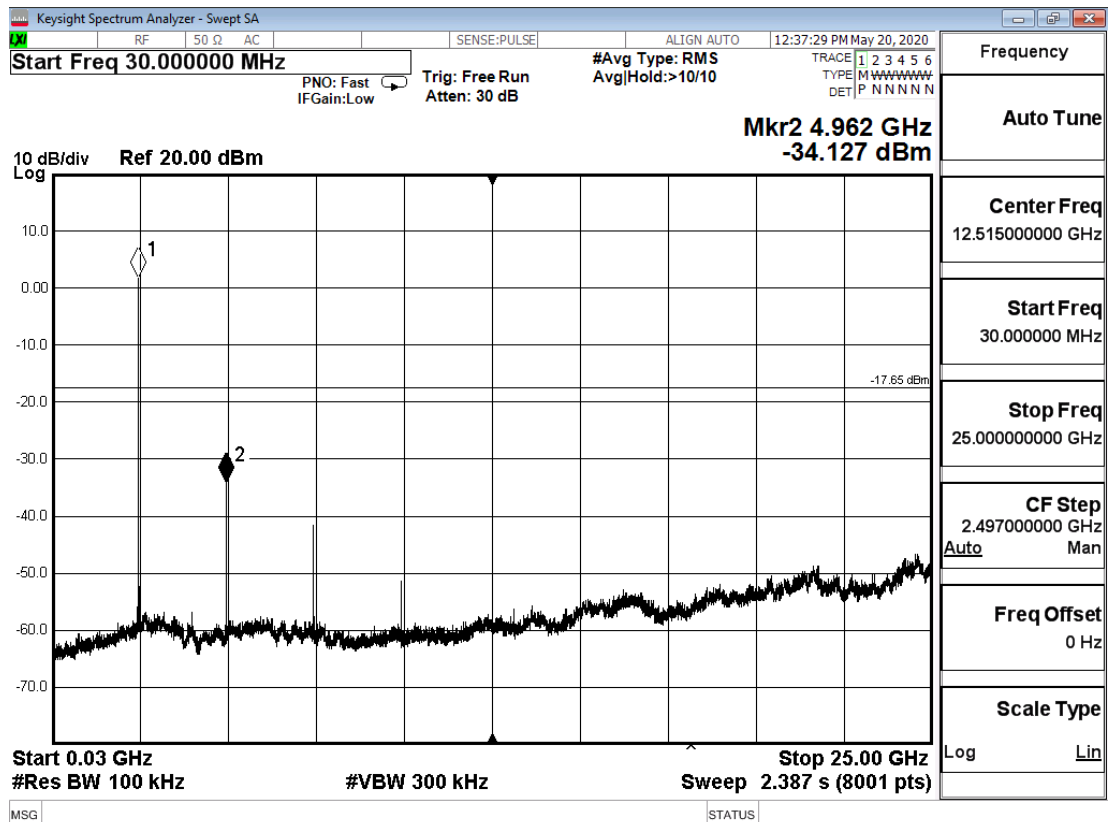
Center Freq
12.515000000 GHzStart Freq
30.000000 MHzStop Freq
25.000000000 GHzCF Step
2.497000000 GHz
Auto ManFreq Offset
0 HzScale Type
Log Lin

BT LE HCH Graphs

Pref/BT LE/HCH

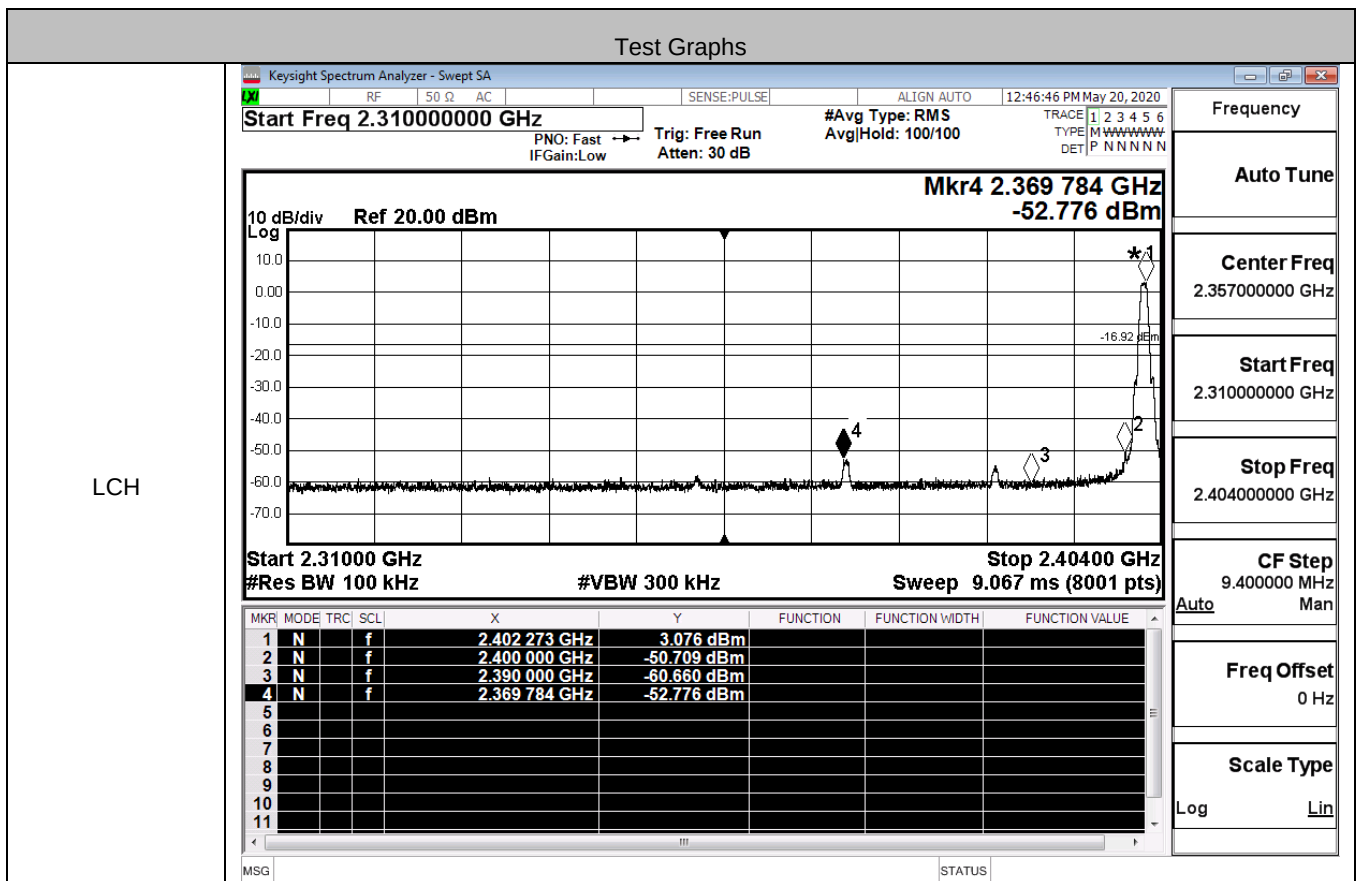


Puw/BT LE/HCH

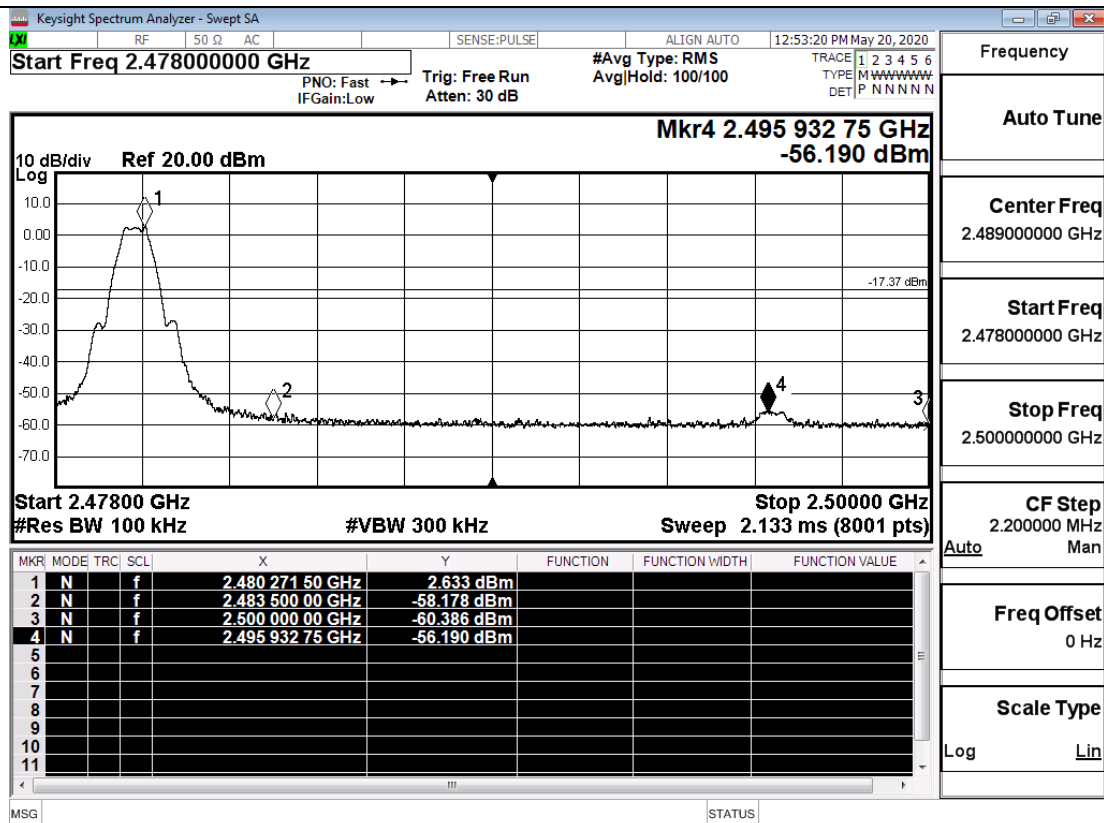


A.7 Band-edge for RF Conducted Emissions

Mode	Channel	Carrier Power[dBm]	Max.Spurious Level [dBm]	Limit [dBm]	Verdict
BT LE	LCH	3.076	-50.709	-16.92	PASS
BT LE	HCH	2.633	-56.190	-17.37	PASS



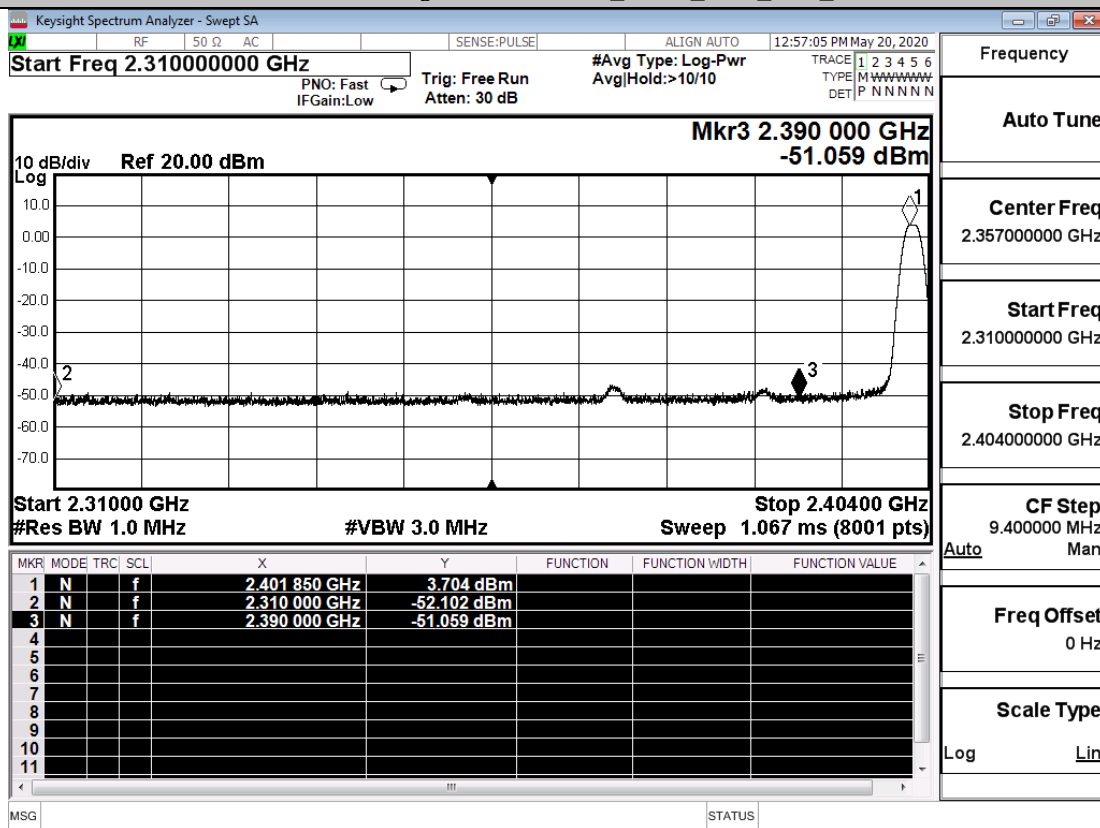
HCH



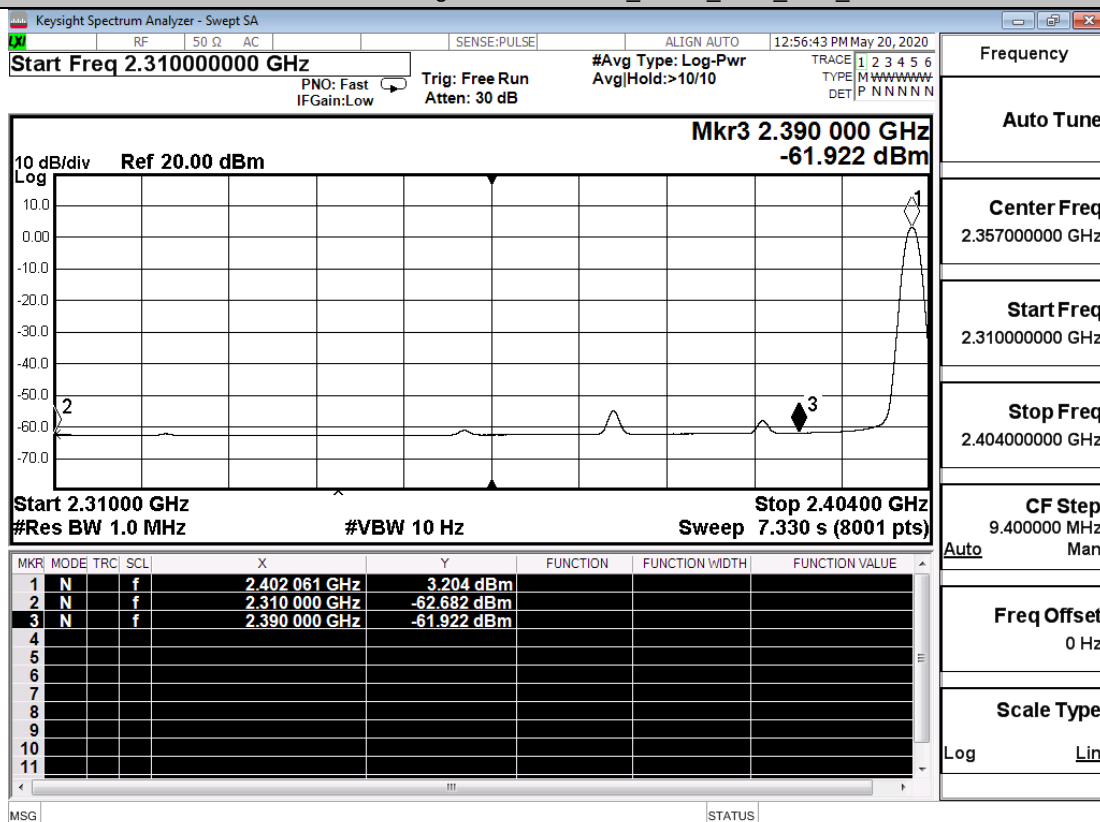
A.8 Restrict-band band-edge measurements

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	-52.102	2.0	0	45.13	PEAK	74	PASS
		Ant1	2310.0	-62.682	2.0	0	34.55	AV	54	PASS
		Ant1	2390.0	-51.059	2.0	0	46.17	PEAK	74	PASS
		Ant1	2390.0	-61.922	2.0	0	35.31	AV	54	PASS
	2480	Ant1	2483.5	-48.665	2.0	0	48.57	PEAK	74	PASS
		Ant1	2483.5	-59.529	2.0	0	37.70	AV	54	PASS
		Ant1	2500.0	-50.537	2.0	0	46.69	PEAK	74	PASS
		Ant1	2500.0	-61.716	2.0	0	35.51	AV	54	PASS

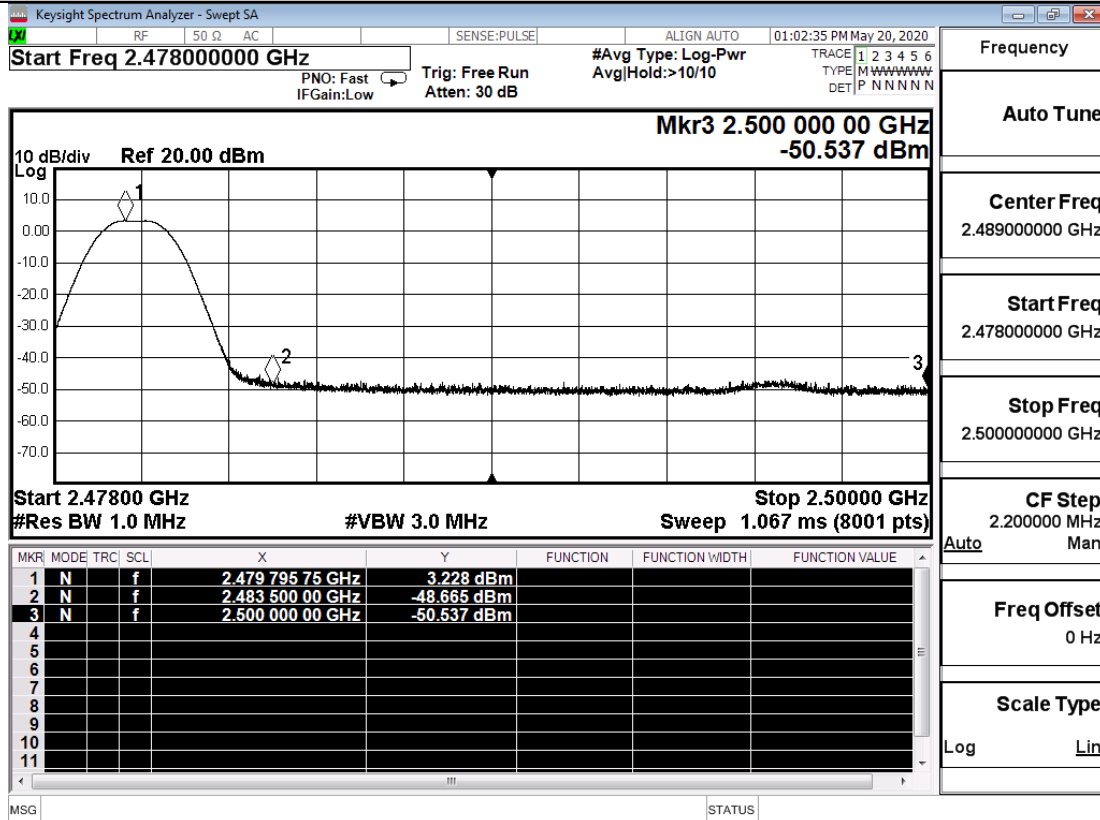
Restrict-band band-edge measurements_BT LE_2402_Ant1_PEAK



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

