

## Appendix A

### RF Test Data for BT 4.2 (BLE) (Conducted Measurement)

Product Name: TS Smart Interconnect Lock

Trade Mark: N/A

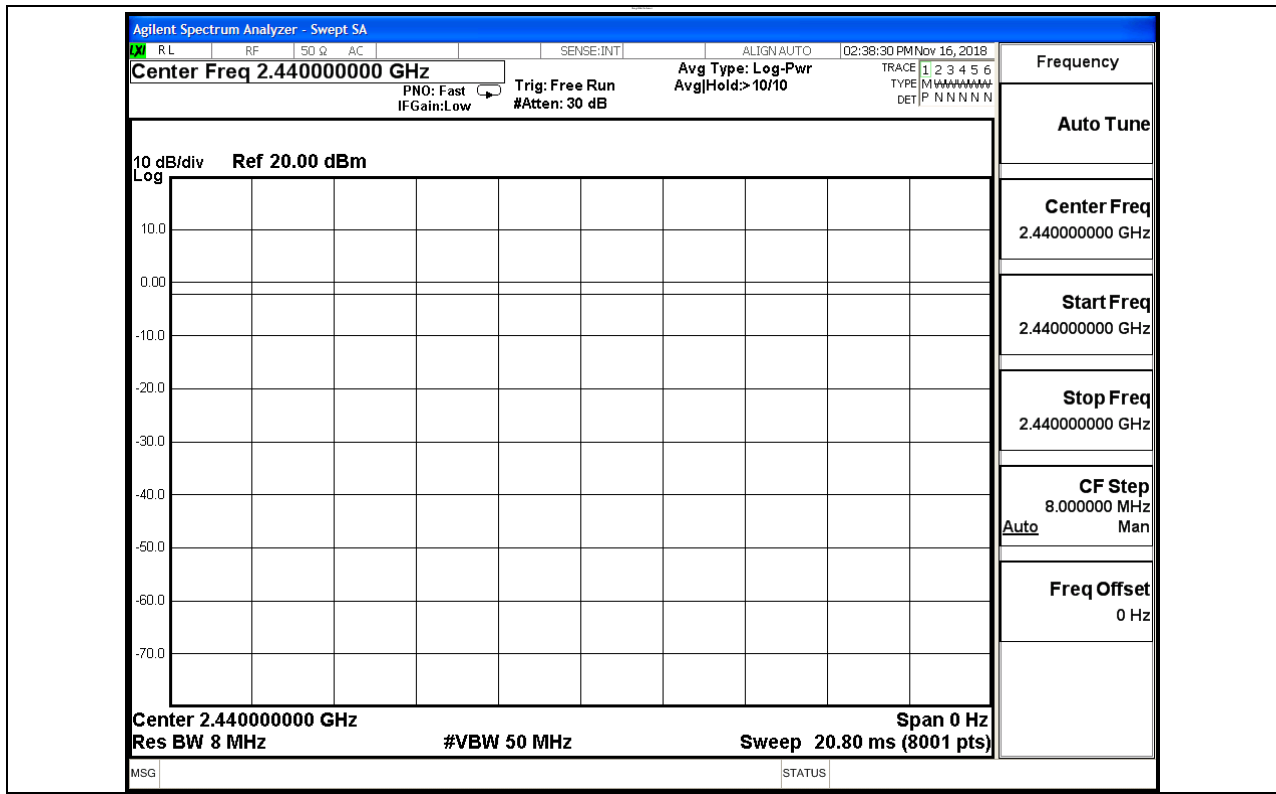
Test Model: e-Genius 5000-BLE-40

#### Environmental Conditions

Temperature:	24.1 ° C
Relative Humidity:	53.6%
ATM Pressure:	100.0 kPa
Test Engineer:	AKING JIN
Supervised by:	Jayden.Zhuo

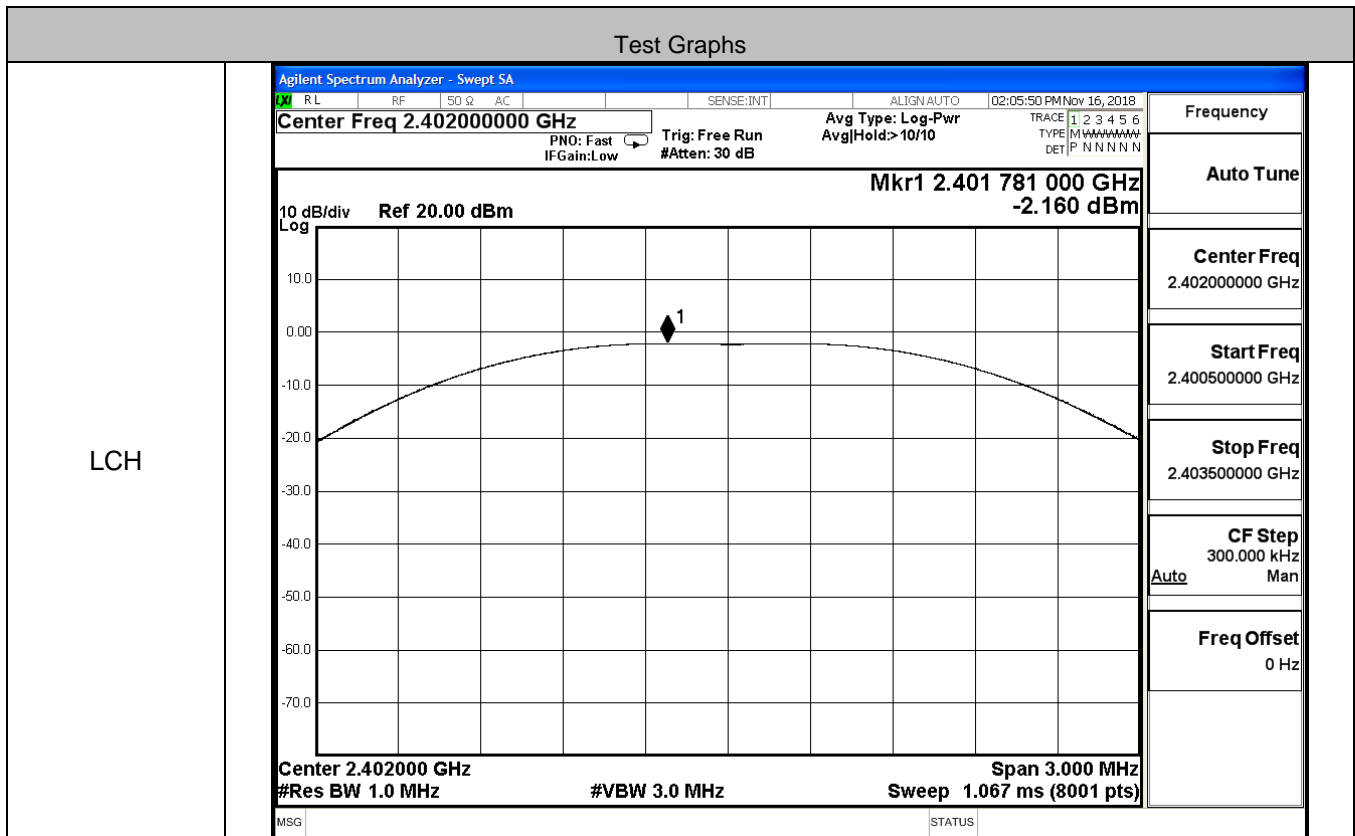
#### A.1 Duty Cycle

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

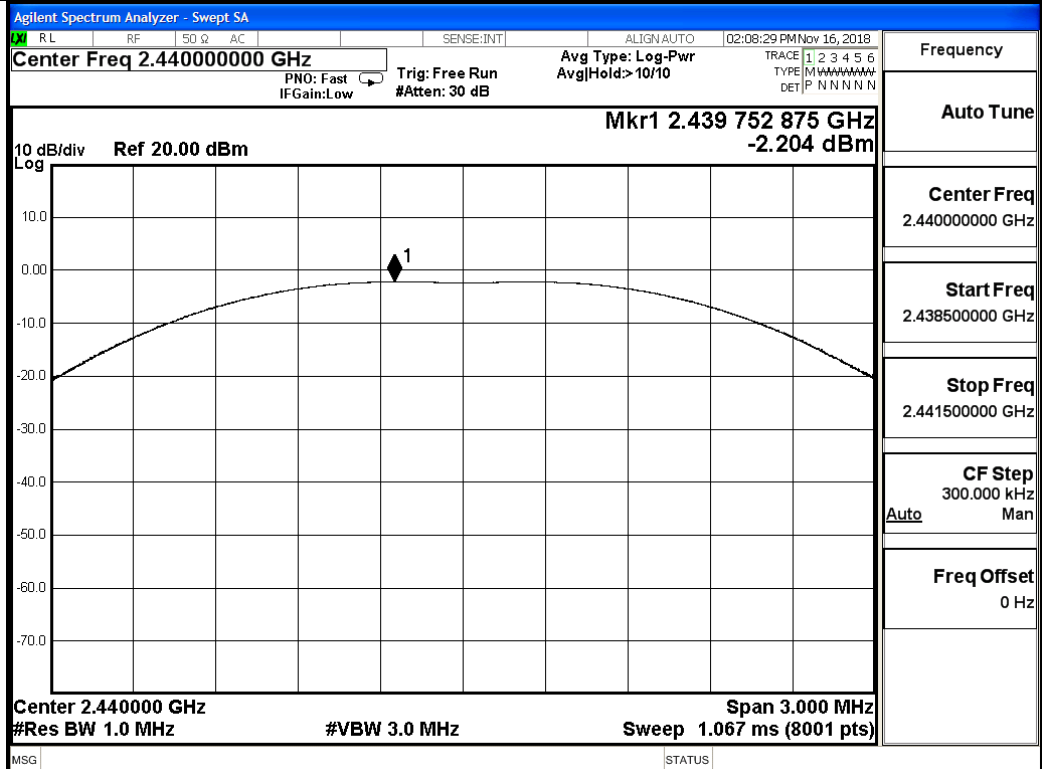


## A.2 Maximum Conducted Peak Output Power

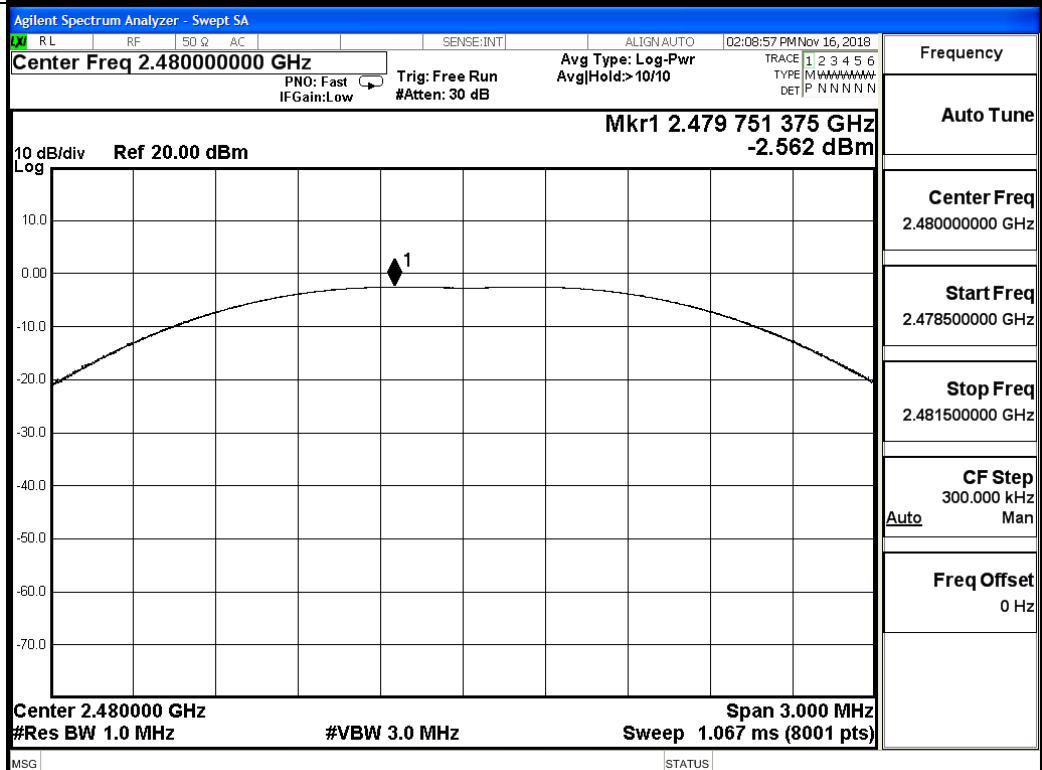
Mode	Channel	Conduct Peak Power[dBm]	Limit [dBm]	Verdict
BT LE	LCH	-2.160	30	PASS
BT LE	MCH	-2.204	30	PASS
BT LE	HCH	-2.562	30	PASS



MCH

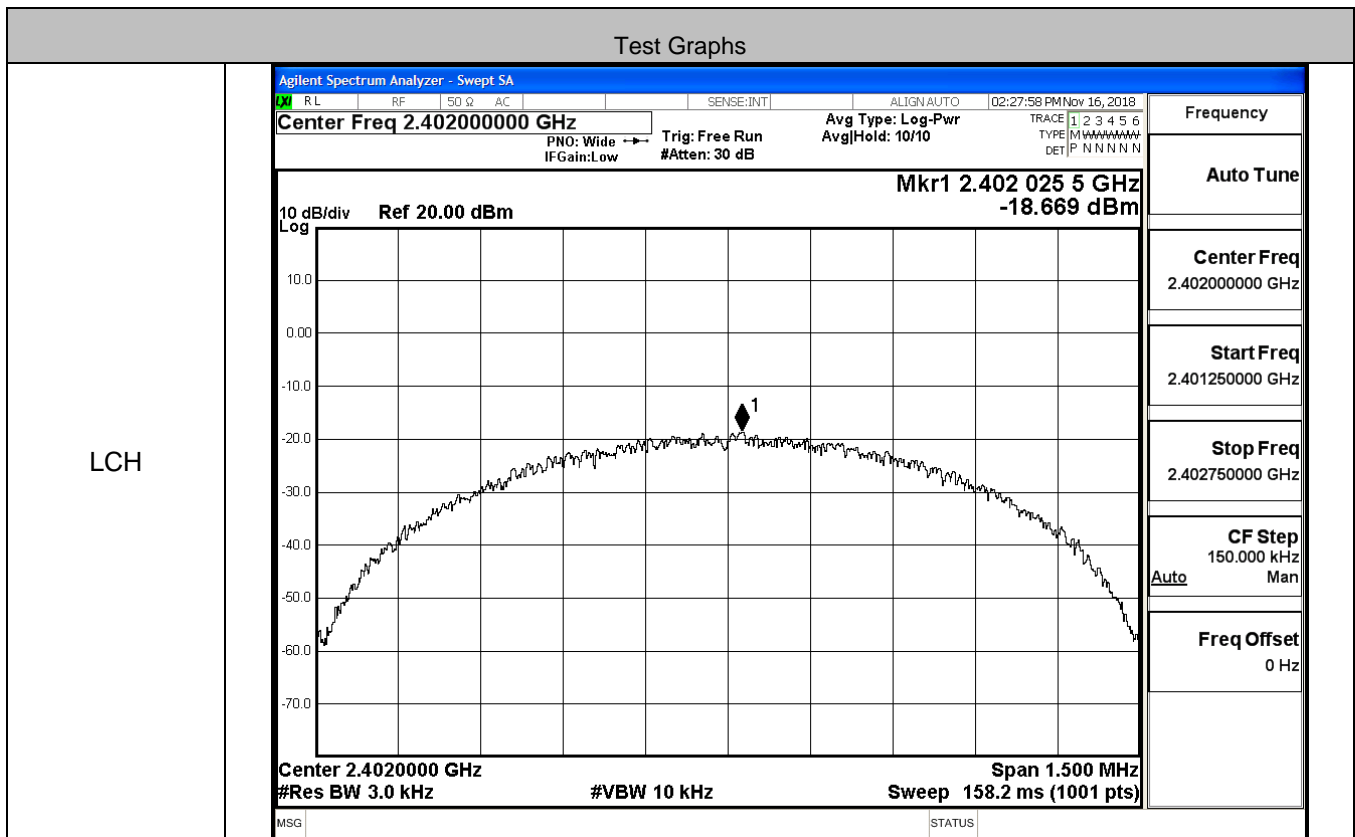


HCH

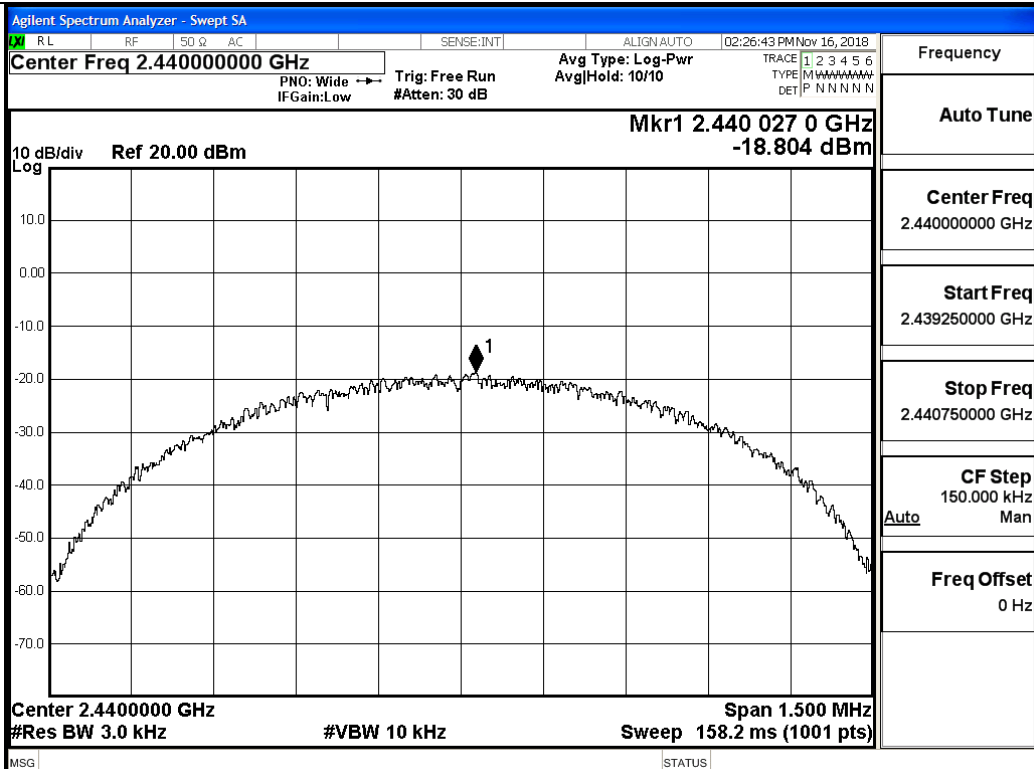


### A.3 Maximum Power Spectral Density

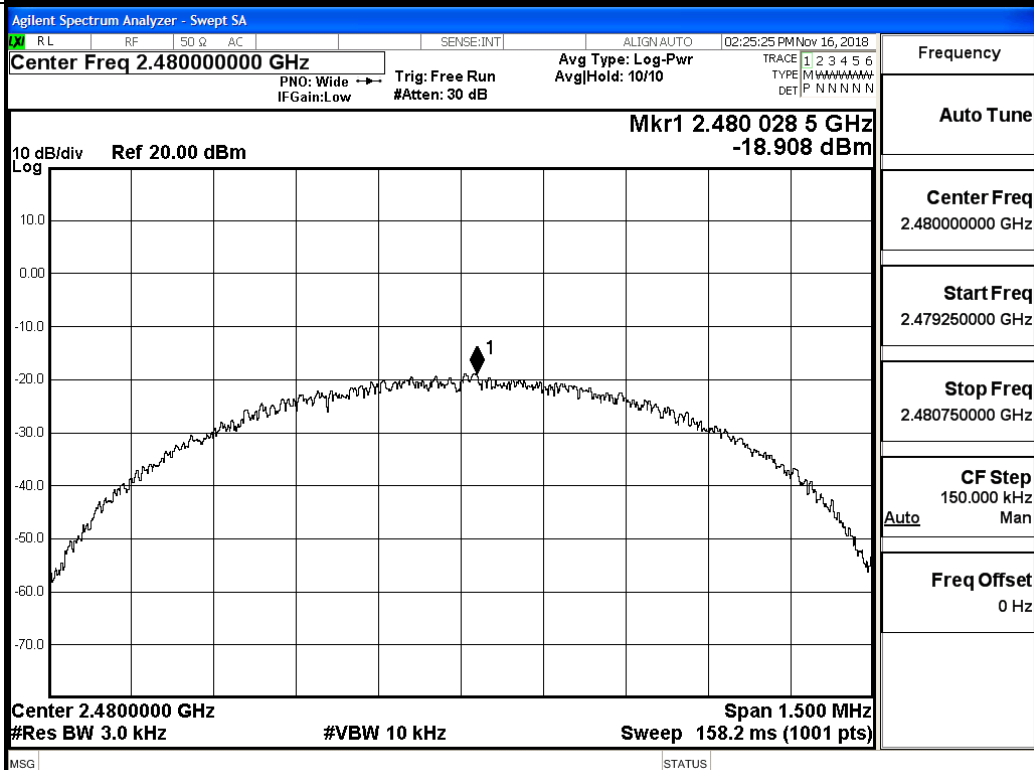
Mode	Channel	PSD [dBm/3KHz]	Limit [dBm/3KHz]	Verdict
BT LE	LCH	-18.669	8	PASS
BT LE	MCH	-18.804	8	PASS
BT LE	HCH	-18.908	8	PASS



MCH



HCH

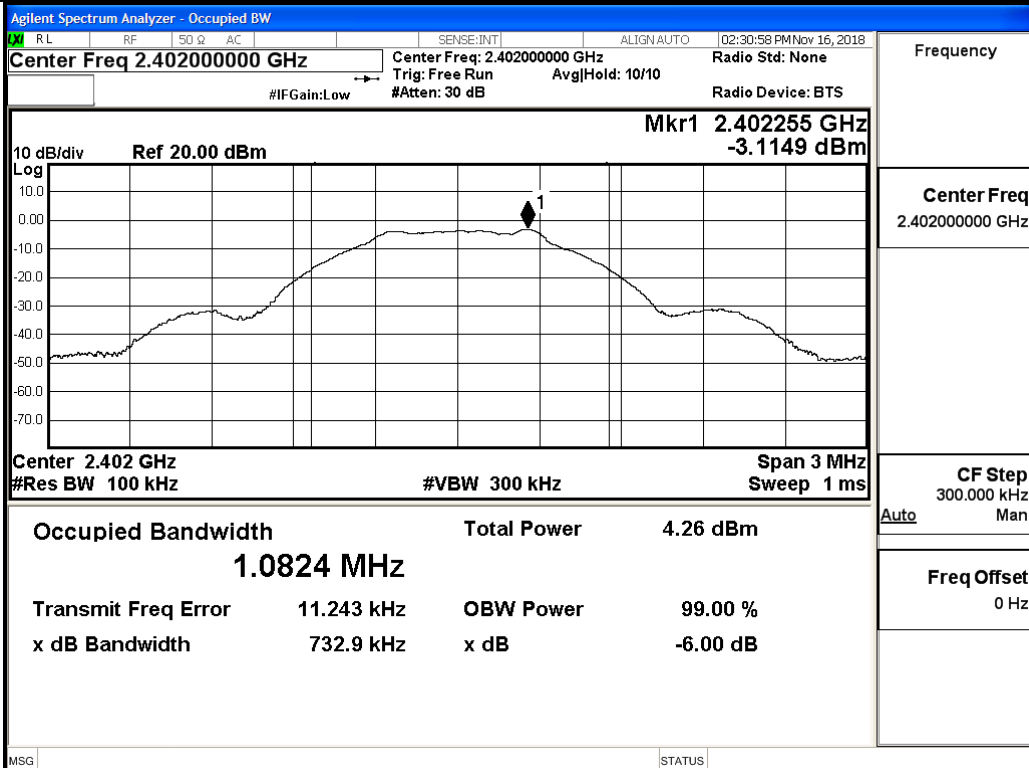


## A.4 6dB Bandwidth

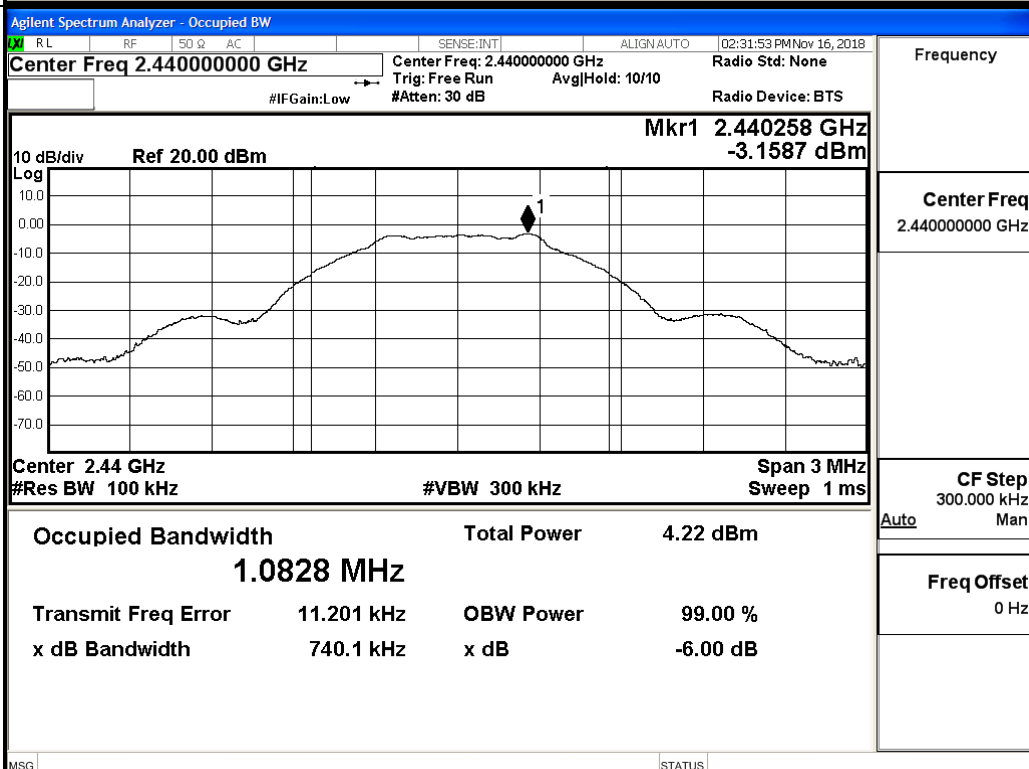
Mode	Channel	6dB Bandwidth [MHz]	Limit [MHz]	Verdict
BT LE	LCH	0.7329	$\geq 0.5$	PASS
BT LE	MCH	0.7401	$\geq 0.5$	PASS
BT LE	HCH	0.7337	$\geq 0.5$	PASS

## Test Graphs

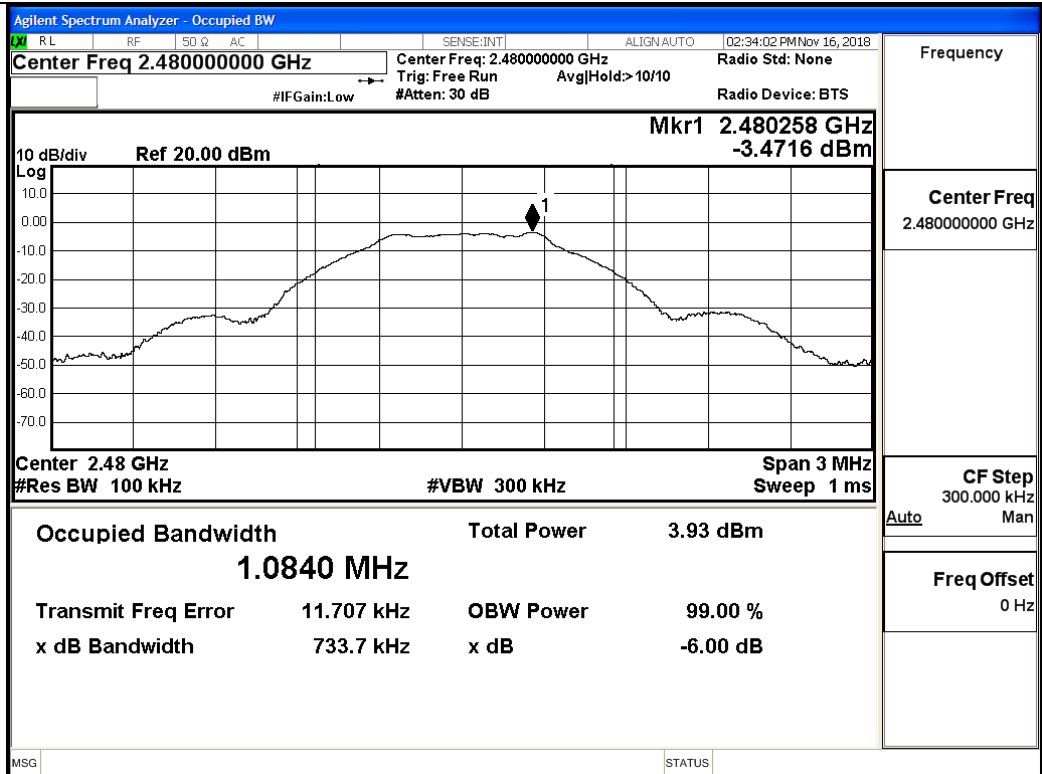
LCH



MCH



HCH



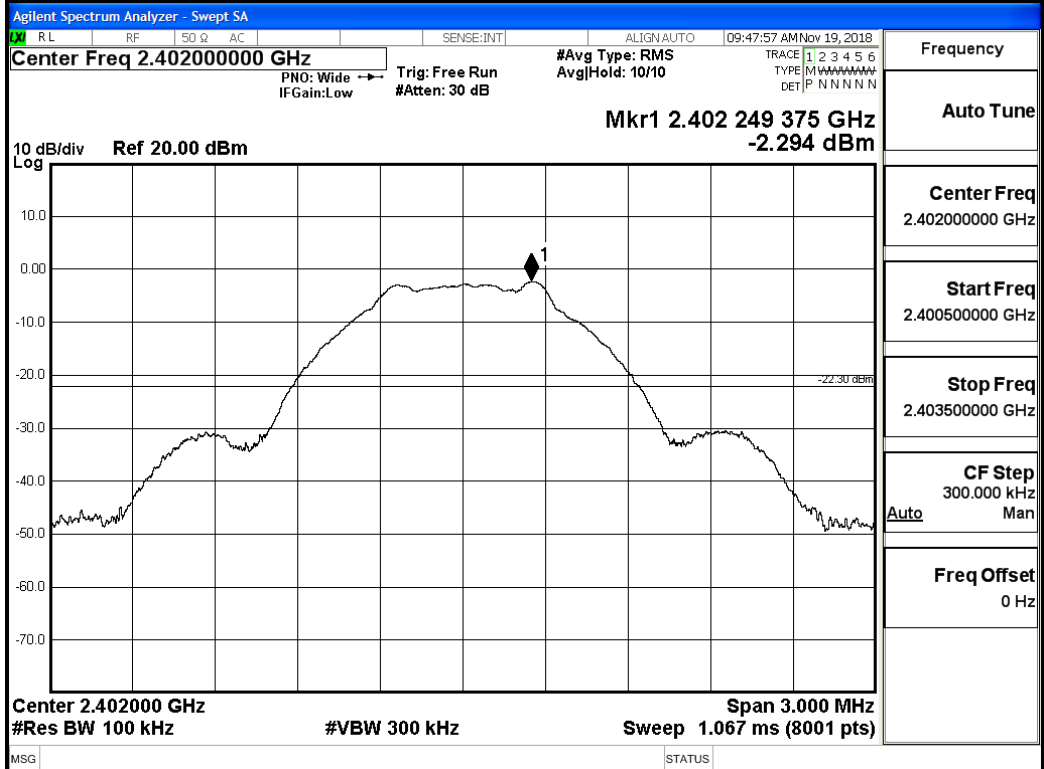
## **A.5 RF Conducted Spurious Emissions**

<b>Mode</b>	<b>Channel</b>	<b>Pref [dBm]</b>	<b>Max. Level [dBm]</b>	<b>Limit [dBm]</b>	<b>Verdict</b>
BT LE	LCH	-2.294	-50.631	-22.294	PASS
BT LE	MCH	-2.399	-49.525	-22.399	PASS
BT LE	HCH	-2.611	-49.412	-22.611	PASS

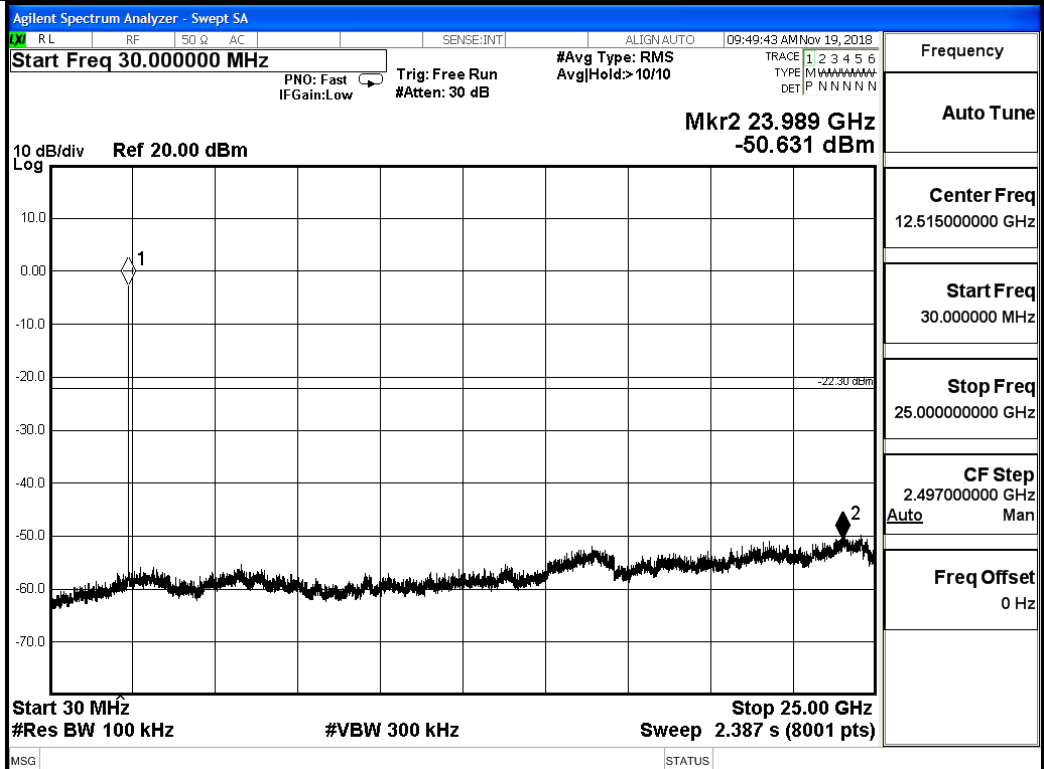


BT LE\_LCH\_Graphs

Pref/BT LE/LCH

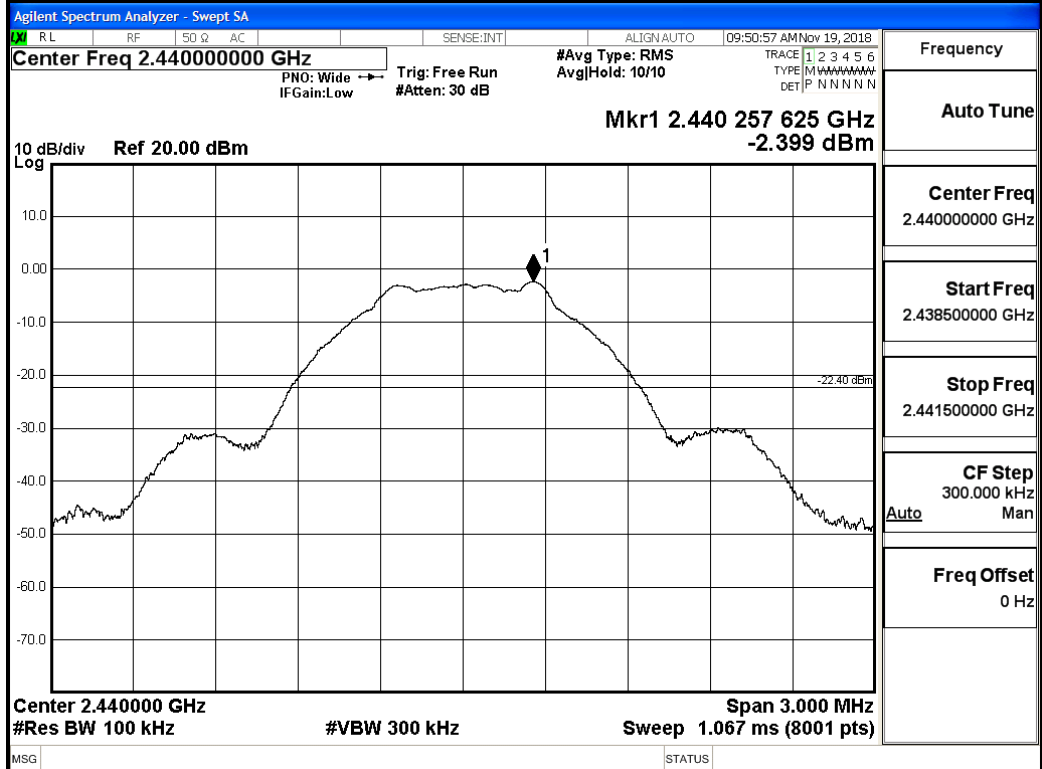


Puw/BT LE/LCH

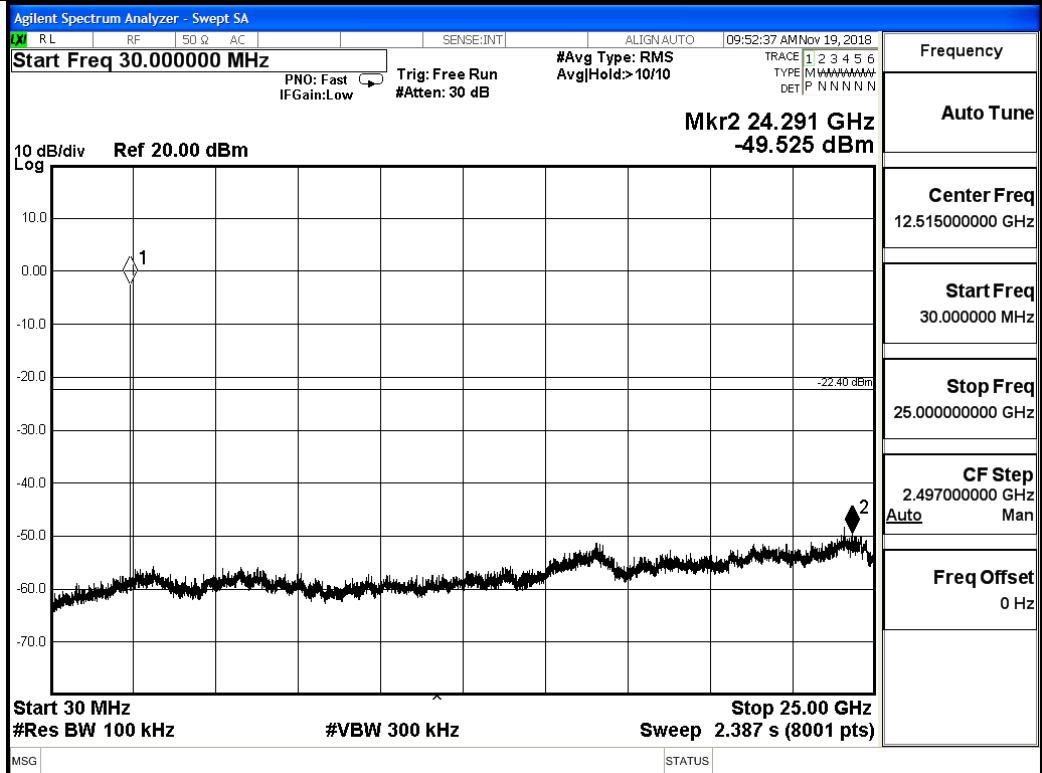


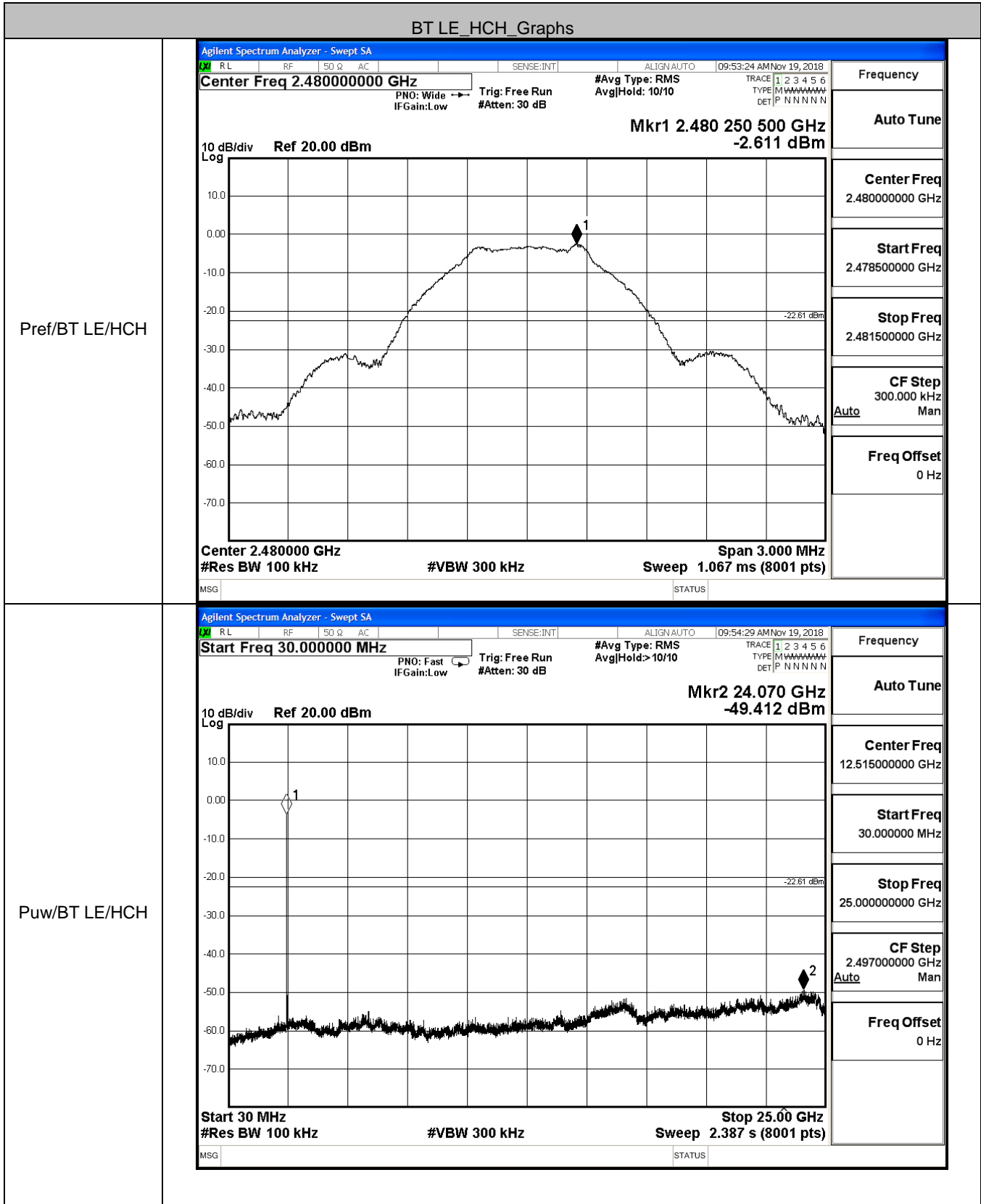
## BT LE\_MCH\_Graphs

Pref/BT LE/MCH



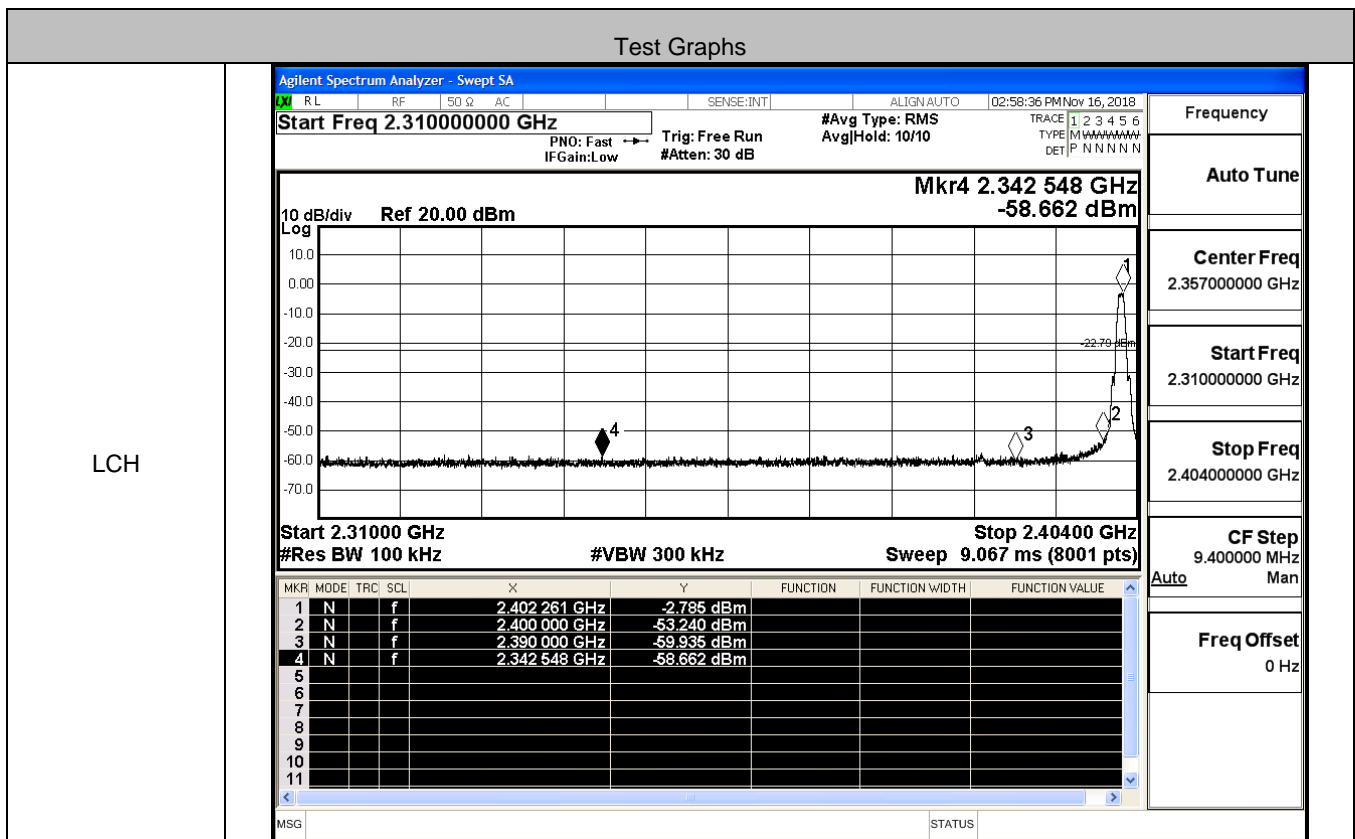
Puw/BT LE/MCH



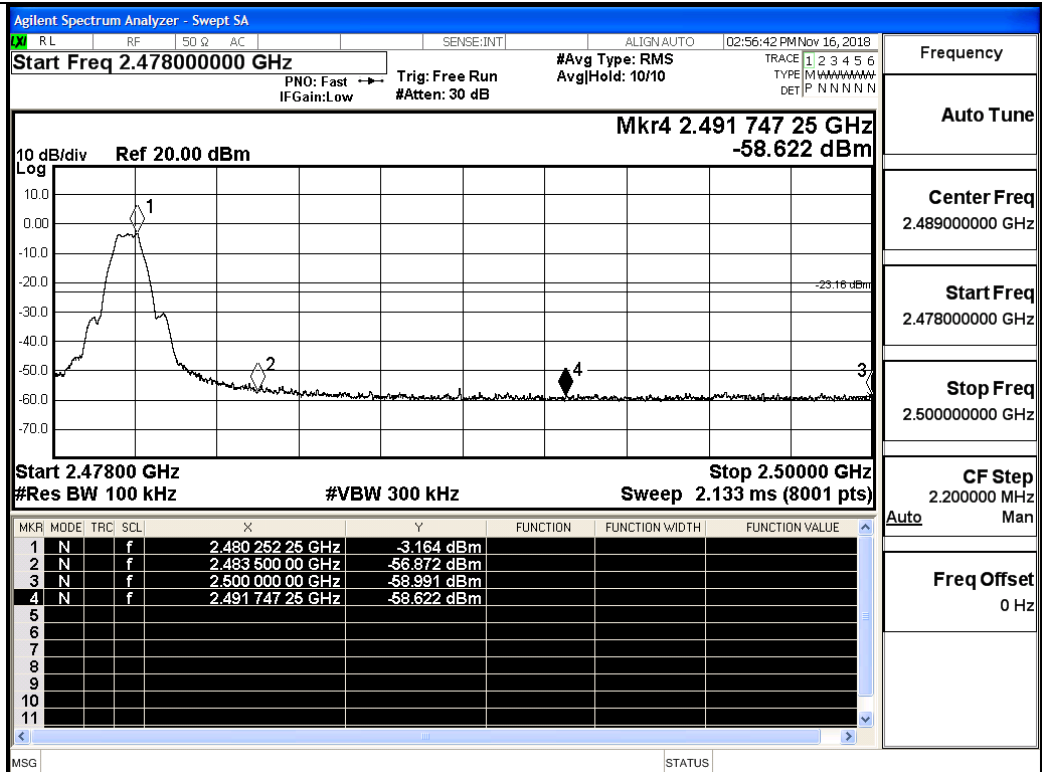


## A.6 Band-edge for RF Conducted Emissions

Mode	Channel	Carrier Power[dBm]	Max.Spurious Level [dBm]	Limit [dBm]	Verdict
BT LE	LCH	-2.785	-58.662	-22.785	PASS
BT LE	HCH	-3.164	-56.872	-23.164	PASS



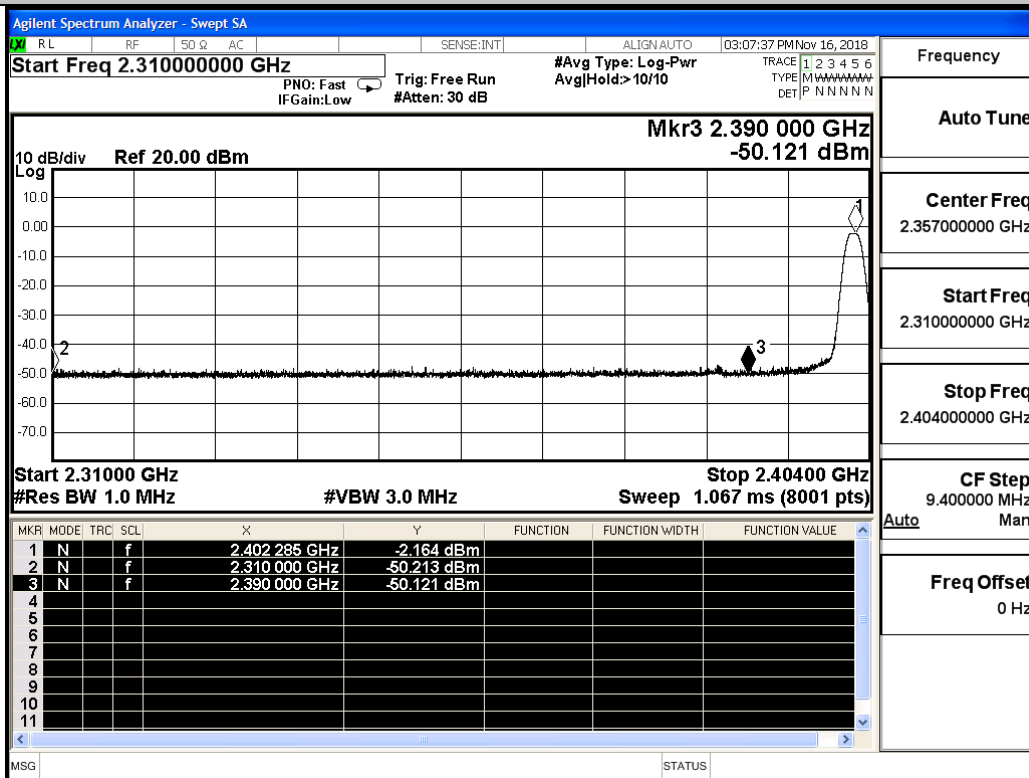
HCH



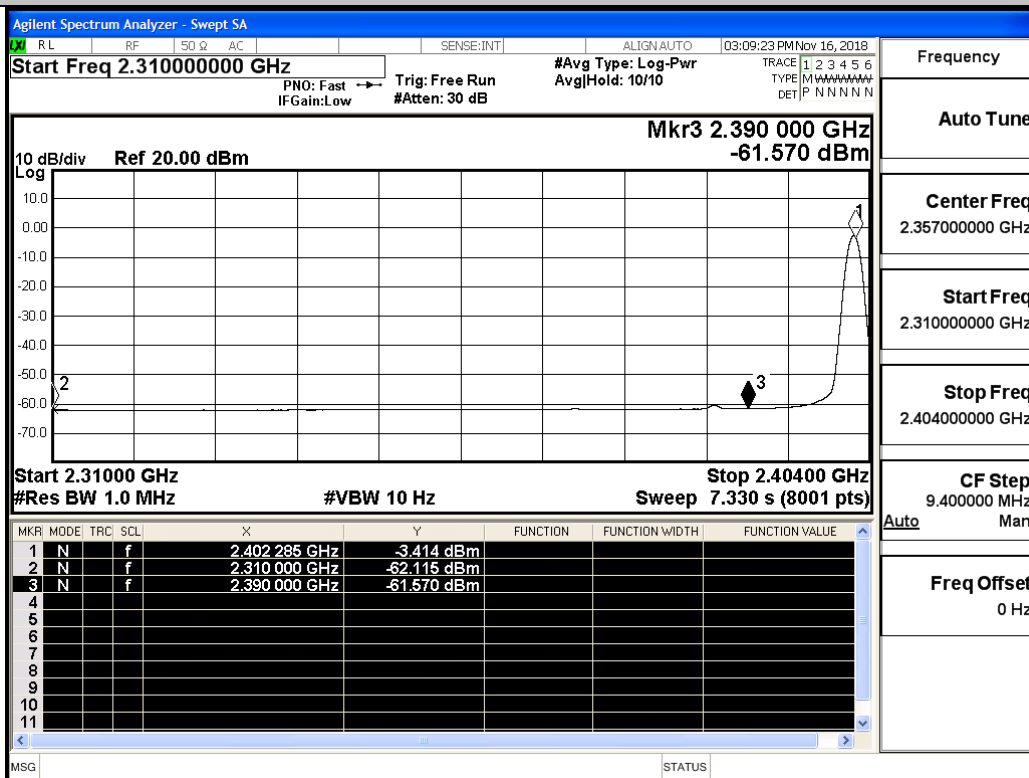
## A.7 Restrict-band band-edge measurements

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	-50.21	2.23	0	47.28	PEAK	74	PASS
		Ant1	2310.0	-62.12	2.23	0	35.38	AV	54	PASS
		Ant1	2390.0	-50.12	2.23	0	47.37	PEAK	74	PASS
		Ant1	2390.0	-61.57	2.23	0	35.92	AV	54	PASS
	2480	Ant1	2483.5	-47.99	2.23	0	49.50	PEAK	74	PASS
		Ant1	2483.5	-58.60	2.23	0	38.89	AV	54	PASS
		Ant1	2500.0	-51.30	2.23	0	46.19	PEAK	74	PASS
		Ant1	2500.0	-61.58	2.23	0	35.91	AV	54	PASS

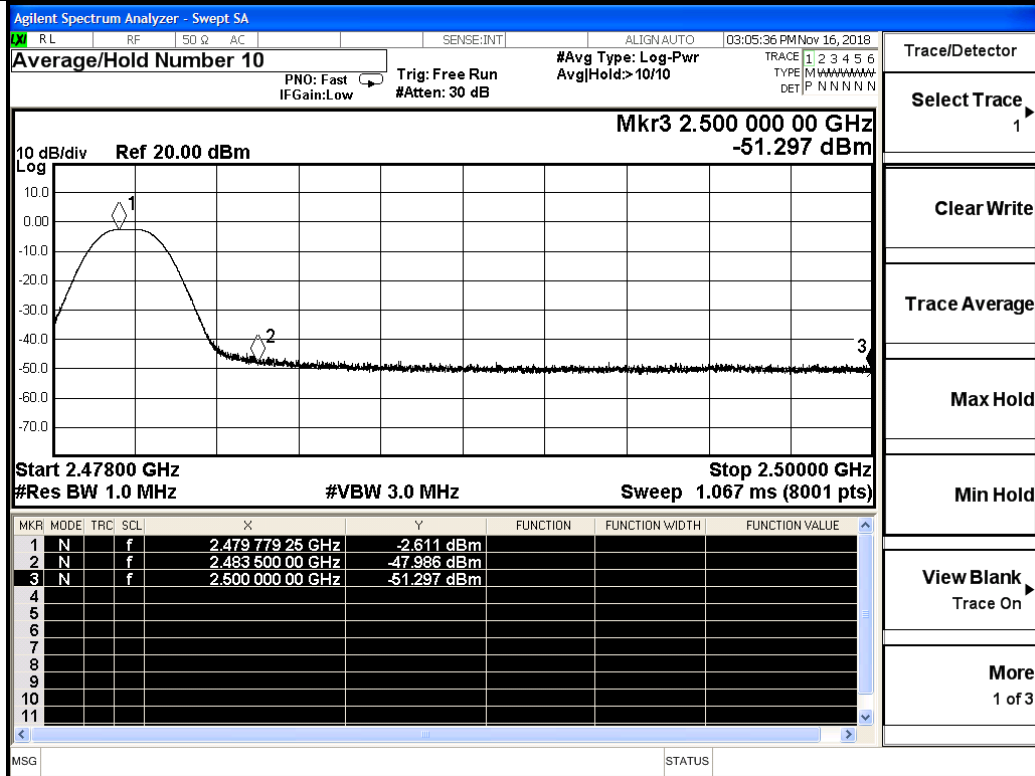
## Restrict-band band-edge measurements\_BT LE\_2402\_Ant1\_PEAK



## 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

