

Appendix B

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

Product Name: TS Smart Deadbolt

Trade Mark: N/A

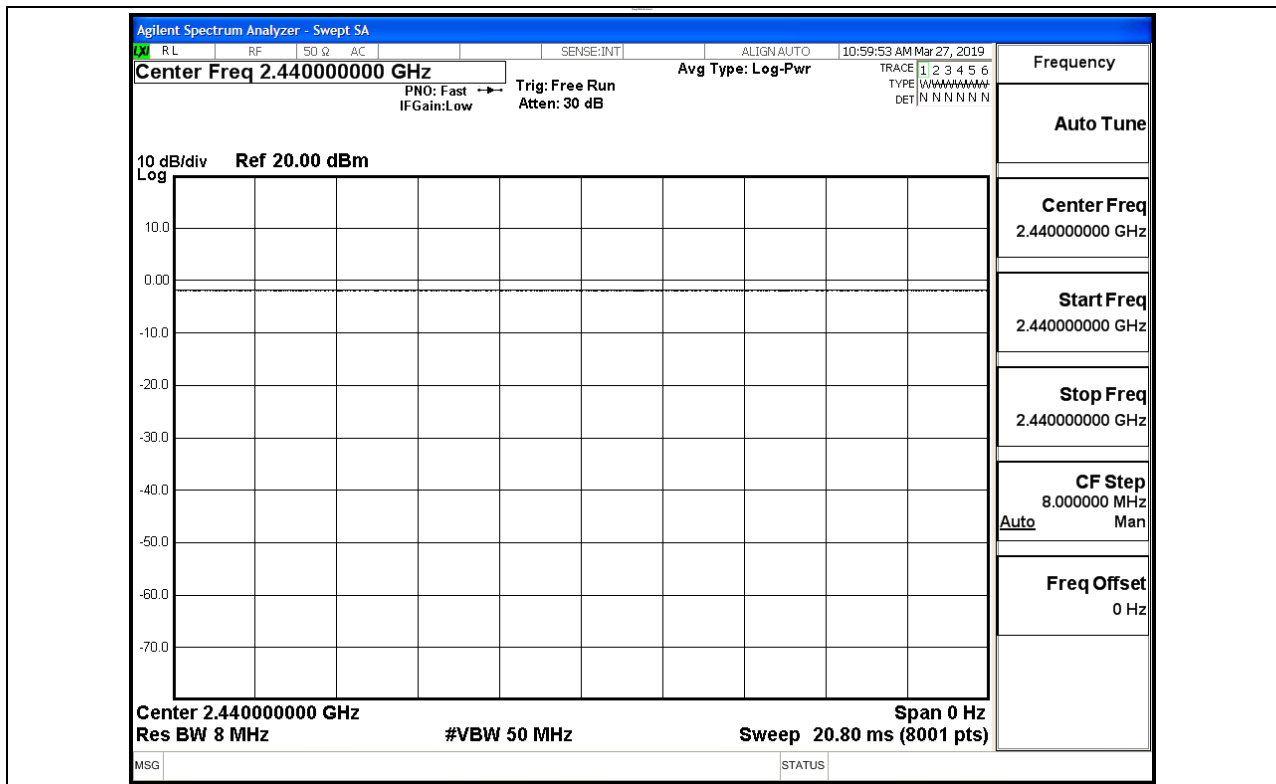
Test Model: e-Smart 5000-BLE

Environmental Conditions

Temperature:	24.2 °C
Relative Humidity:	53.4%
ATM Pressure:	100.0 kPa
Test Engineer:	AKING JIN
Supervised by:	Jayden.Zhuo

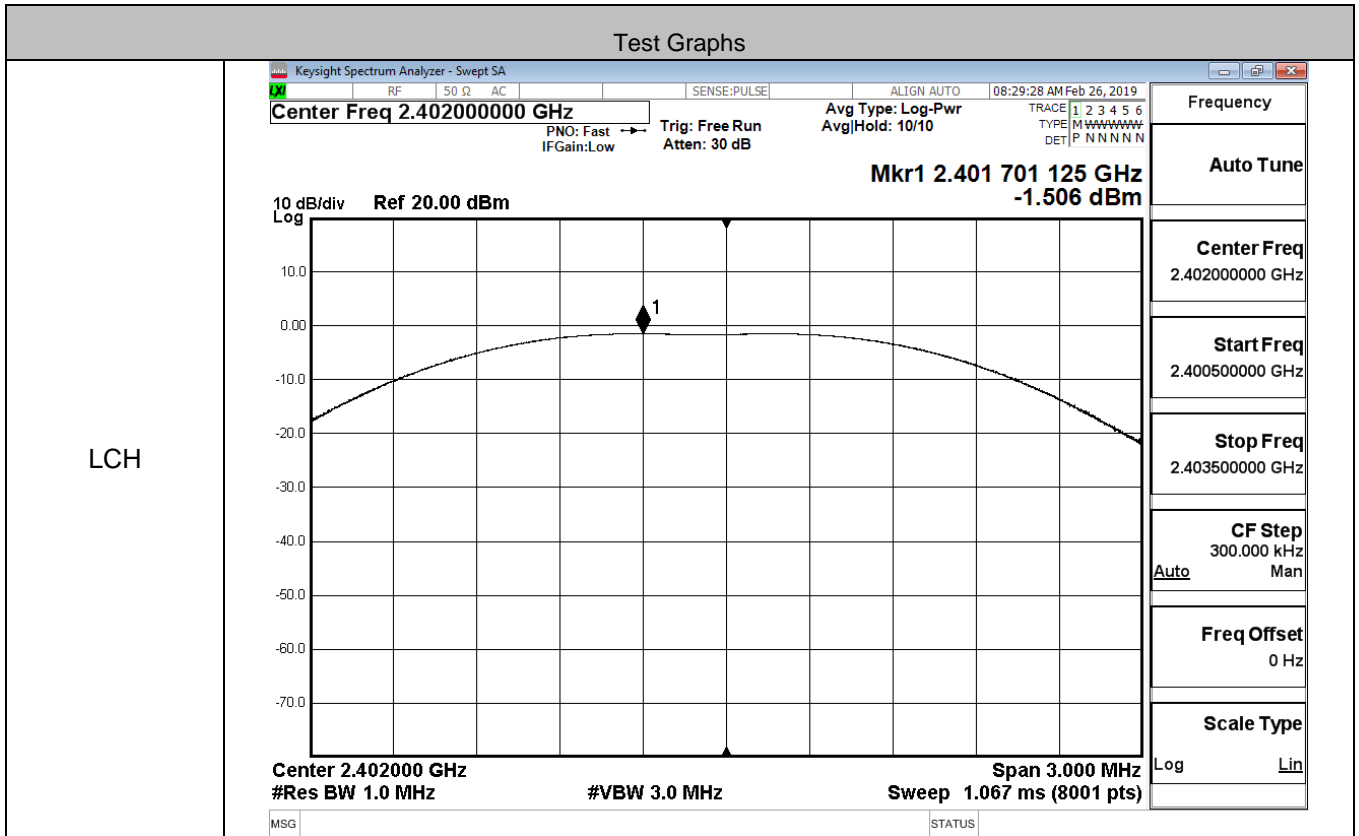
B.1 Duty Cycle

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

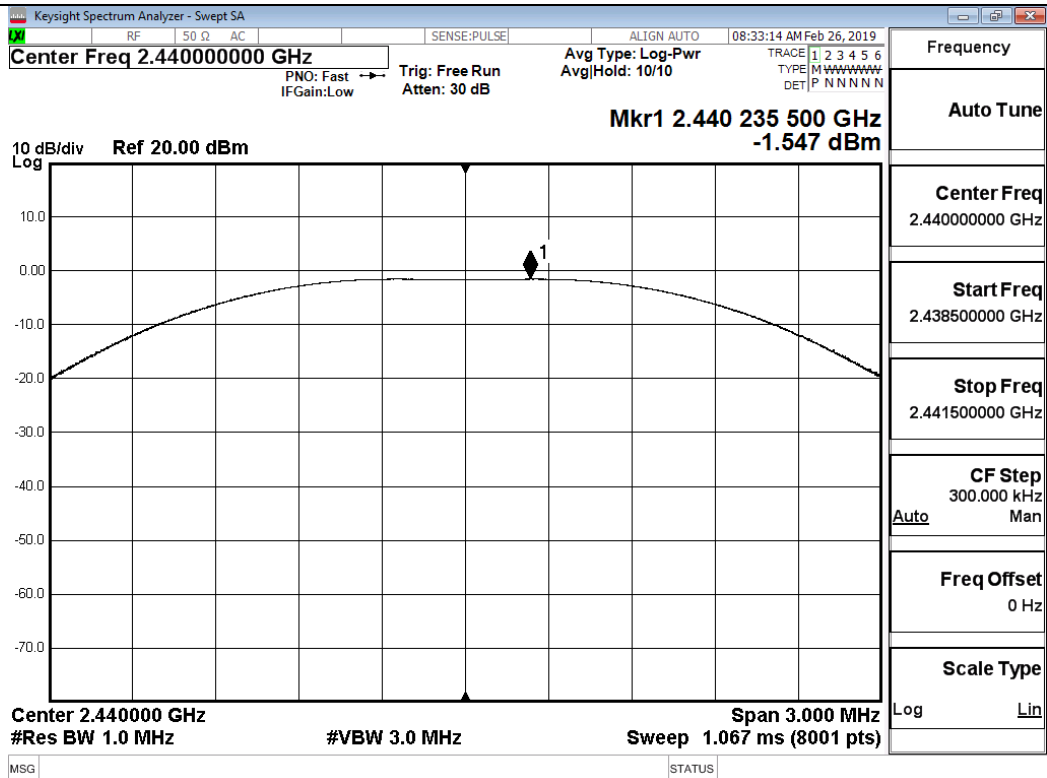


B.2 Maximum Conducted Peak Output Power

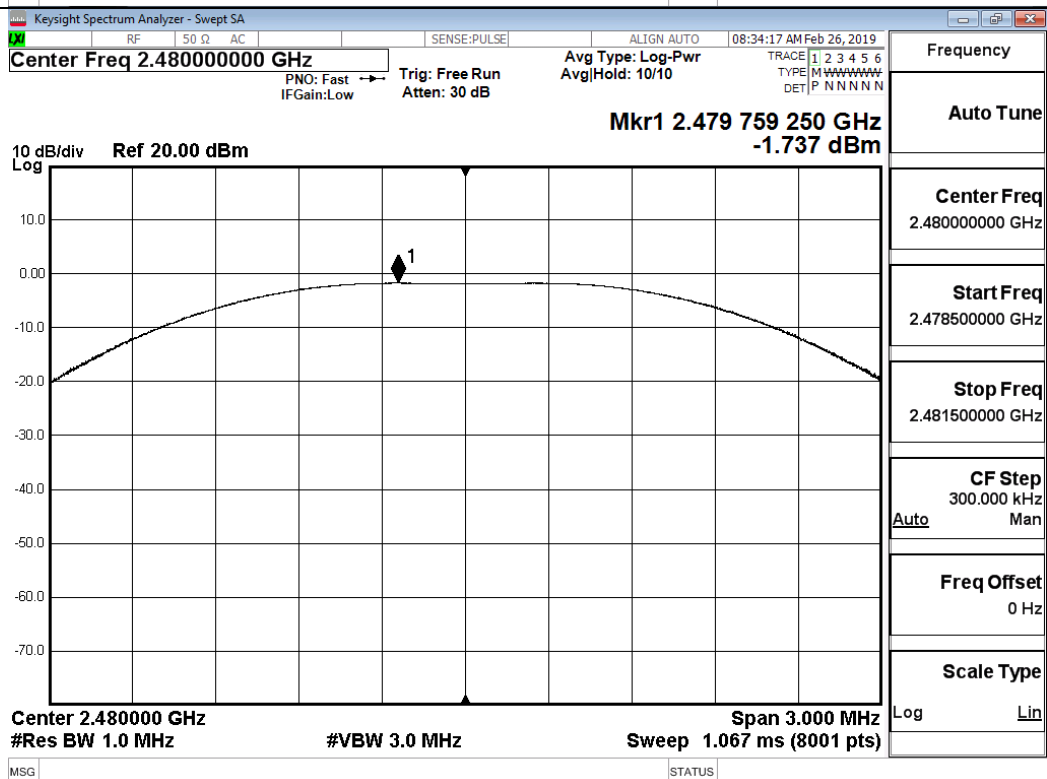
Mode	Channel	Conduct Peak Power[dBm]	Limit [dBm]	Verdict
BT LE	LCH	-1.51	30	PASS
BT LE	MCH	-1.55	30	PASS
BT LE	HCH	-1.74	30	PASS



MCH

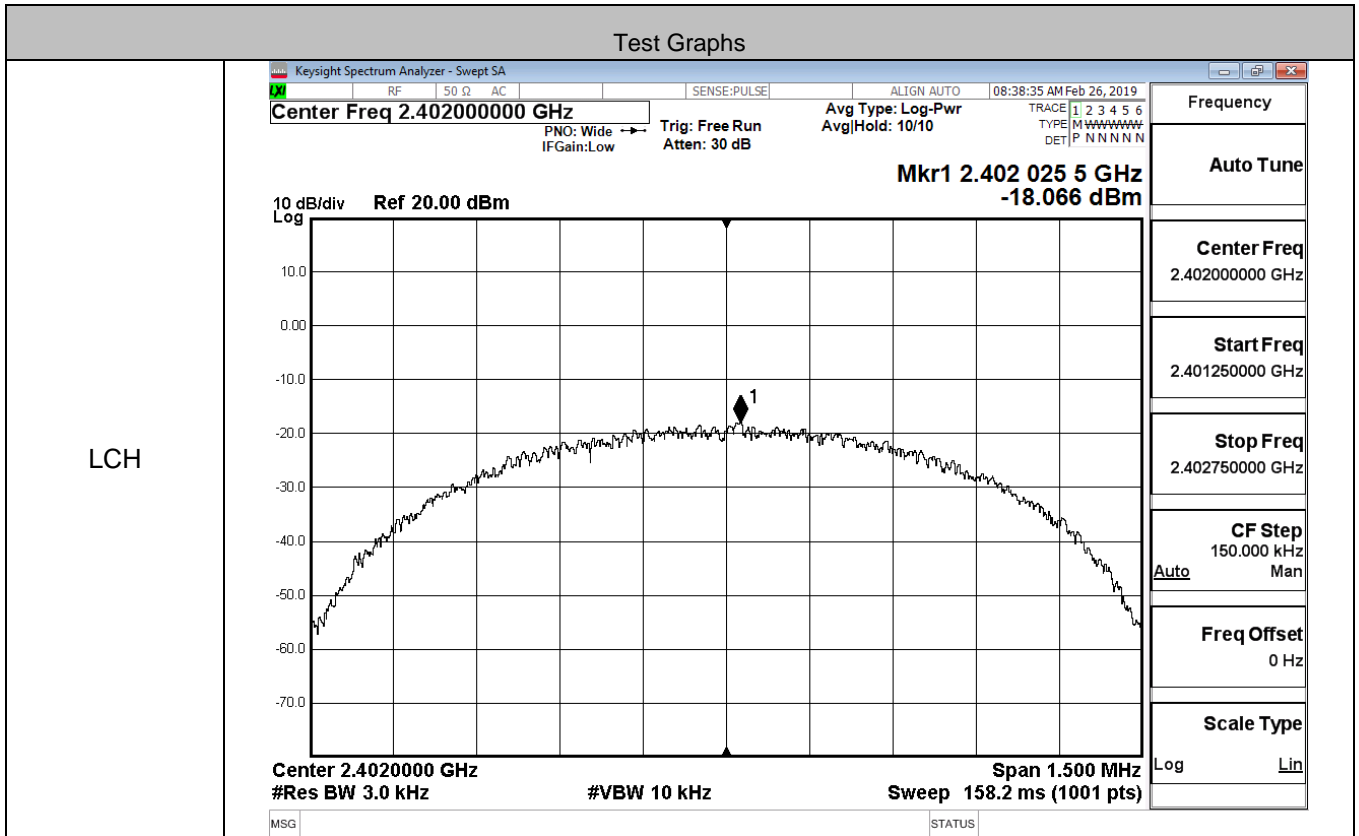


HCH

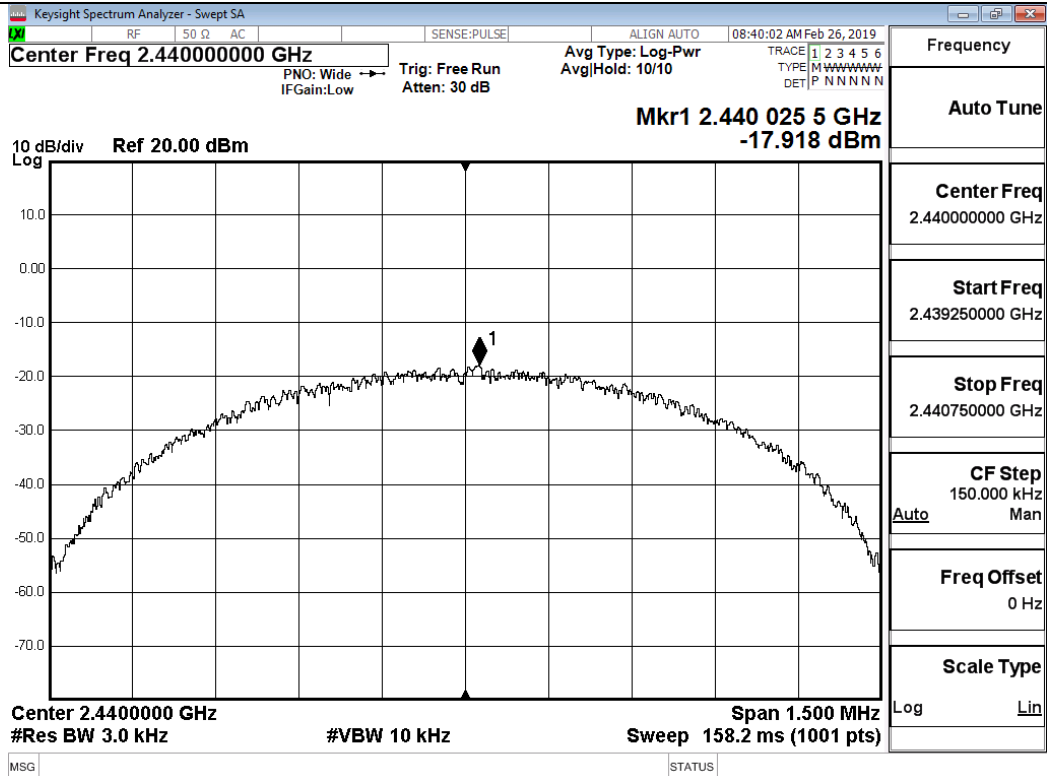


B.3 Maximum Power Spectral Density

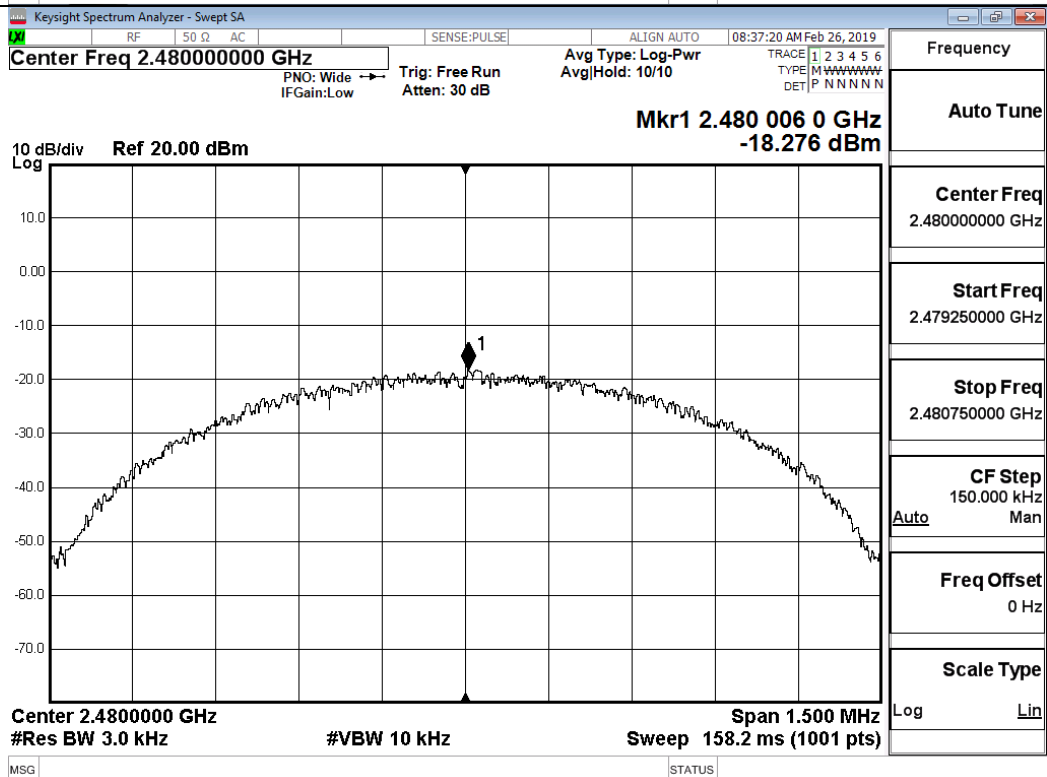
Mode	Channel	PSD [dBm/3KHz]	Limit [dBm/3KHz]	Verdict
BT LE	LCH	-18.066	8	PASS
BT LE	MCH	-17.918	8	PASS
BT LE	HCH	-18.276	8	PASS



MCH



HCH

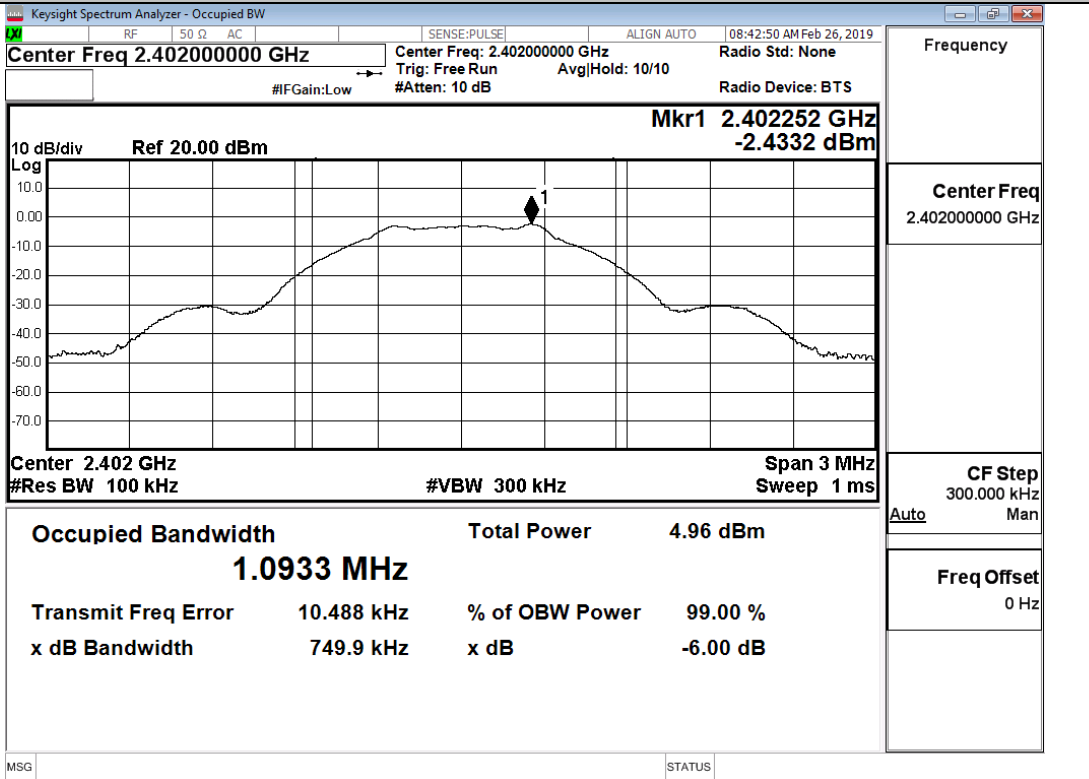


B.4 6dB Bandwidth

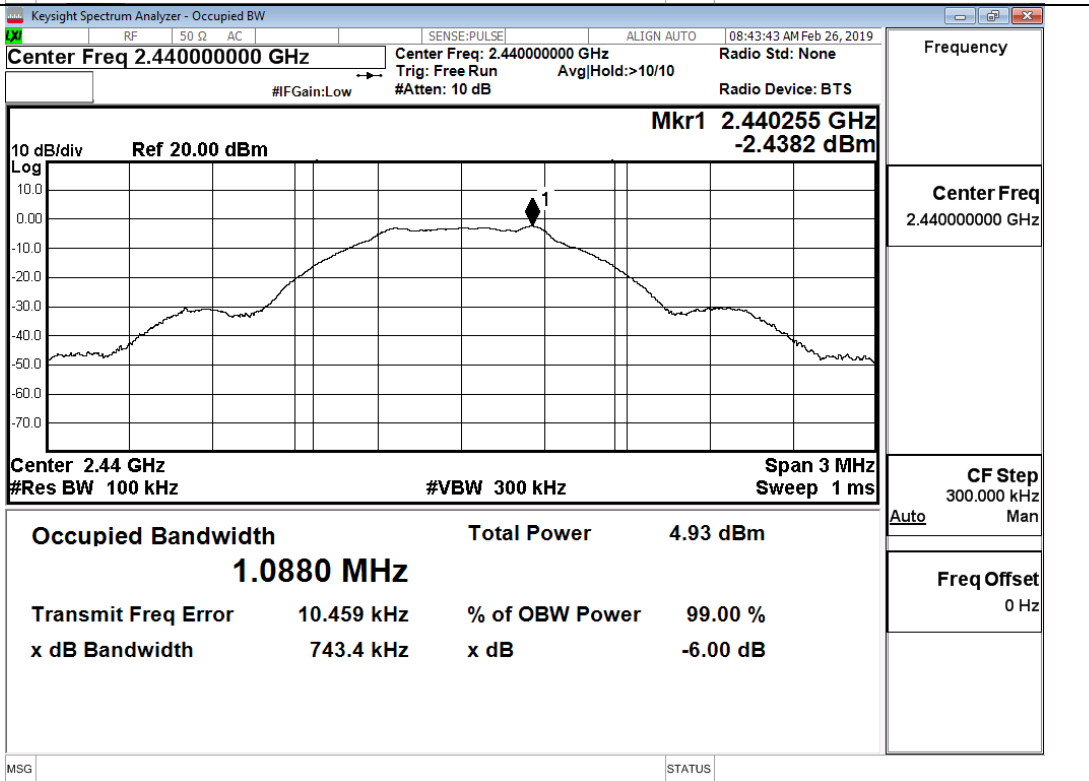
Mode	Channel	6dB Bandwidth [MHz]	Limit [MHz]	Verdict
BT LE	LCH	0.7499	≥0.5	PASS
BT LE	MCH	0.7434	≥0.5	PASS
BT LE	HCH	0.7456	≥0.5	PASS

Test Graphs

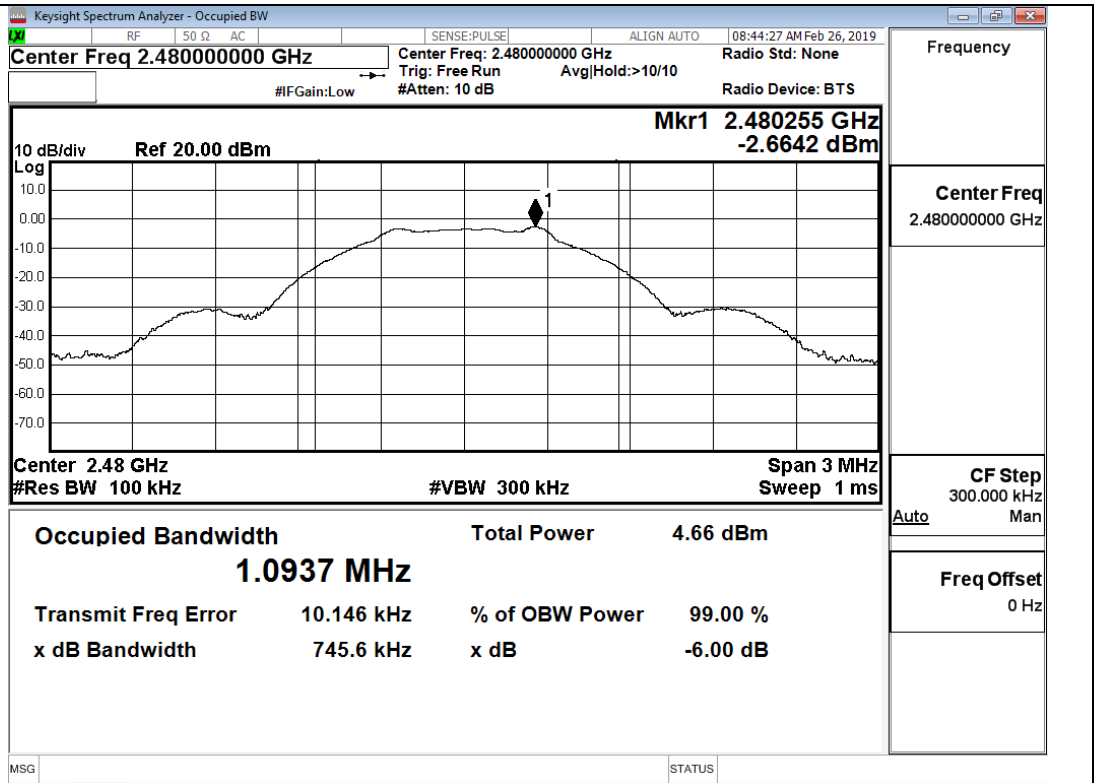
LCH



MCH



HCH

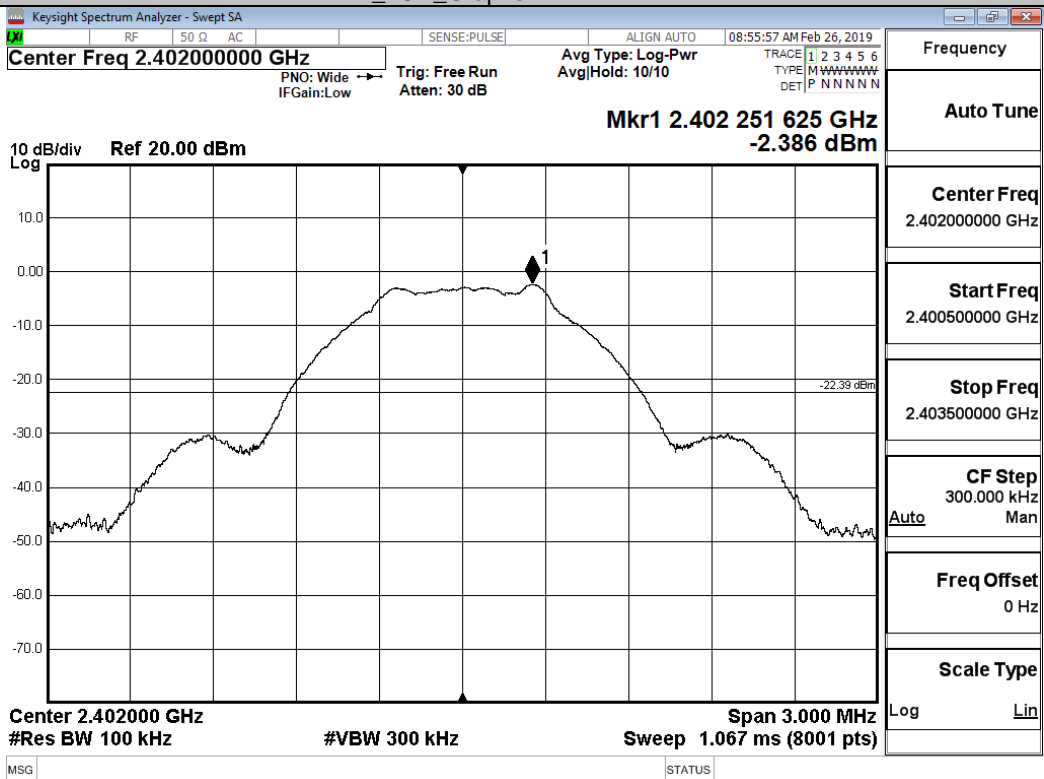


B.5 RF Conducted Spurious Emissions

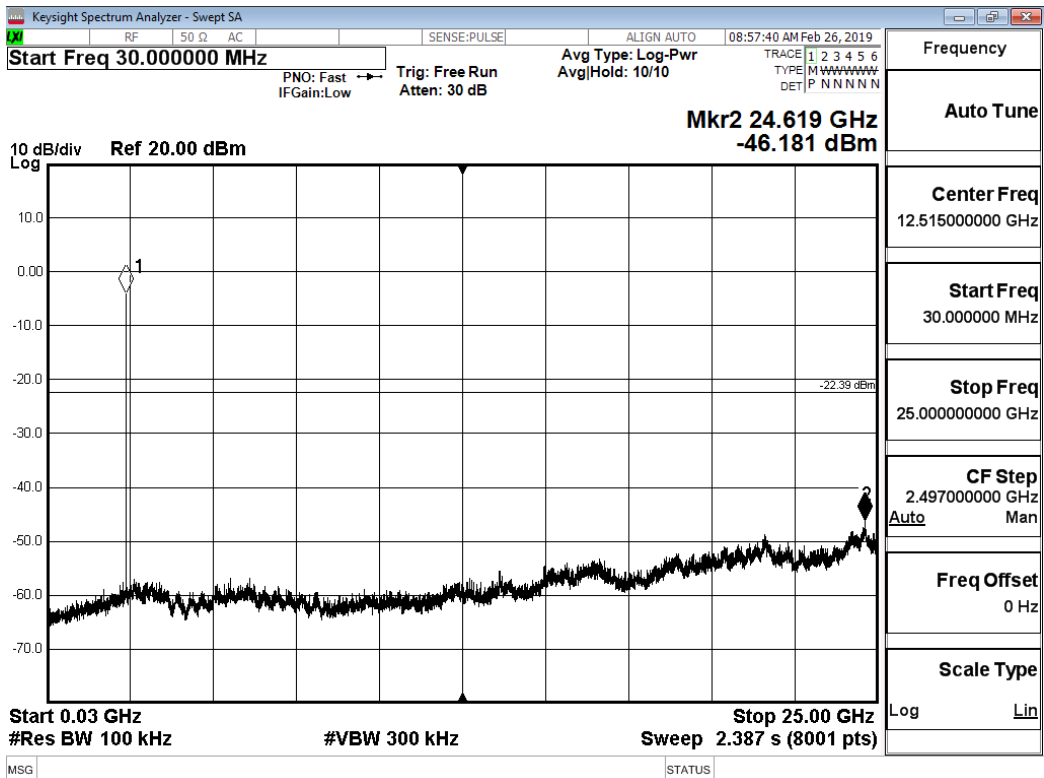
Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
BT LE	LCH	-2.386	-46.181	-22.386	PASS
BT LE	MCH	-2.407	-47.198	-22.407	PASS
BT LE	HCH	-2.614	-47.745	-22.614	PASS

BT LE_LCH_Graphs

Pref/BT LE/LCH

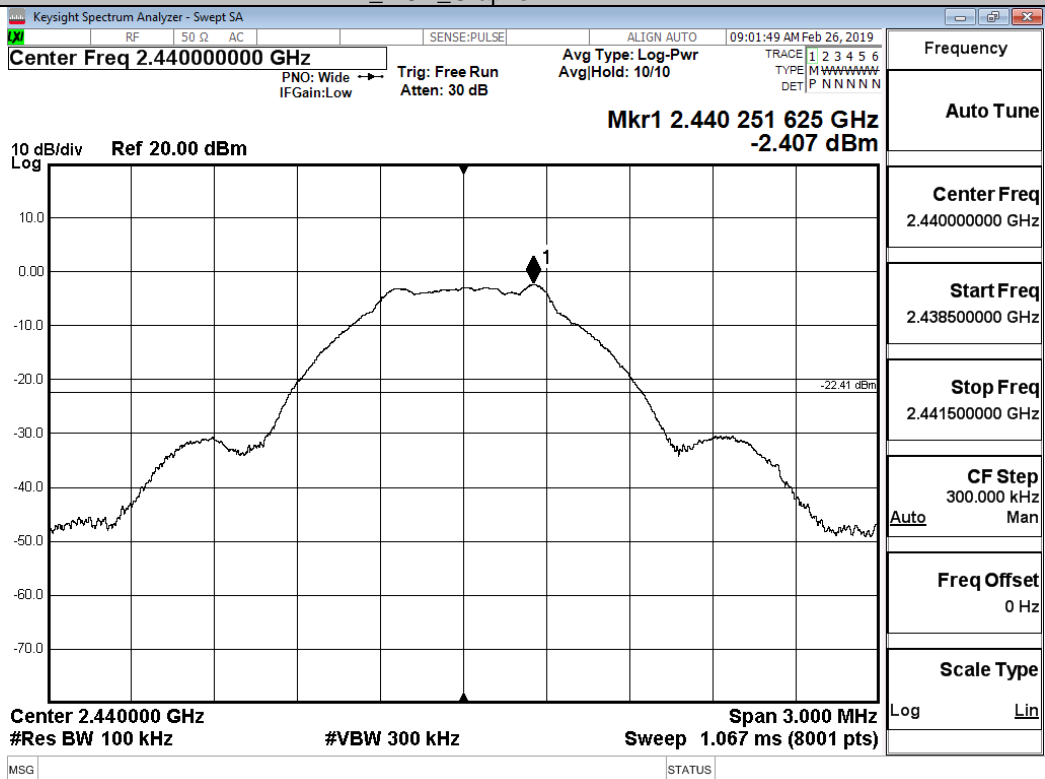


Puw/BT LE/LCH

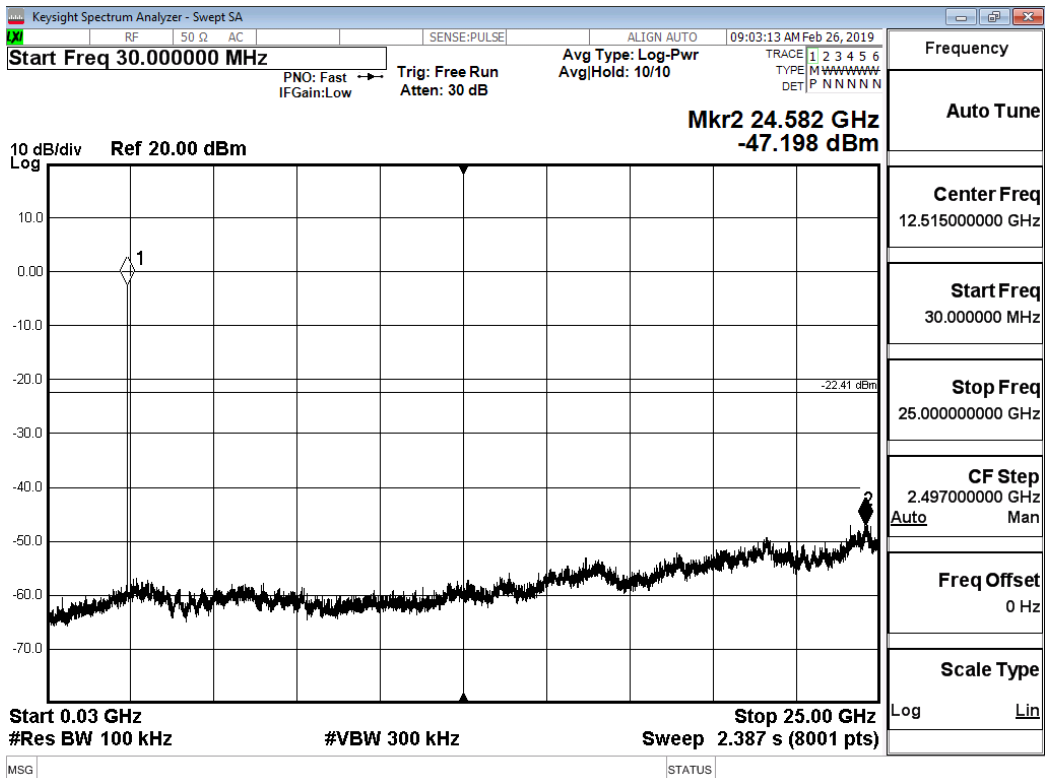


BT LE_MCH_Graphs

Pref/BT LE/MCH

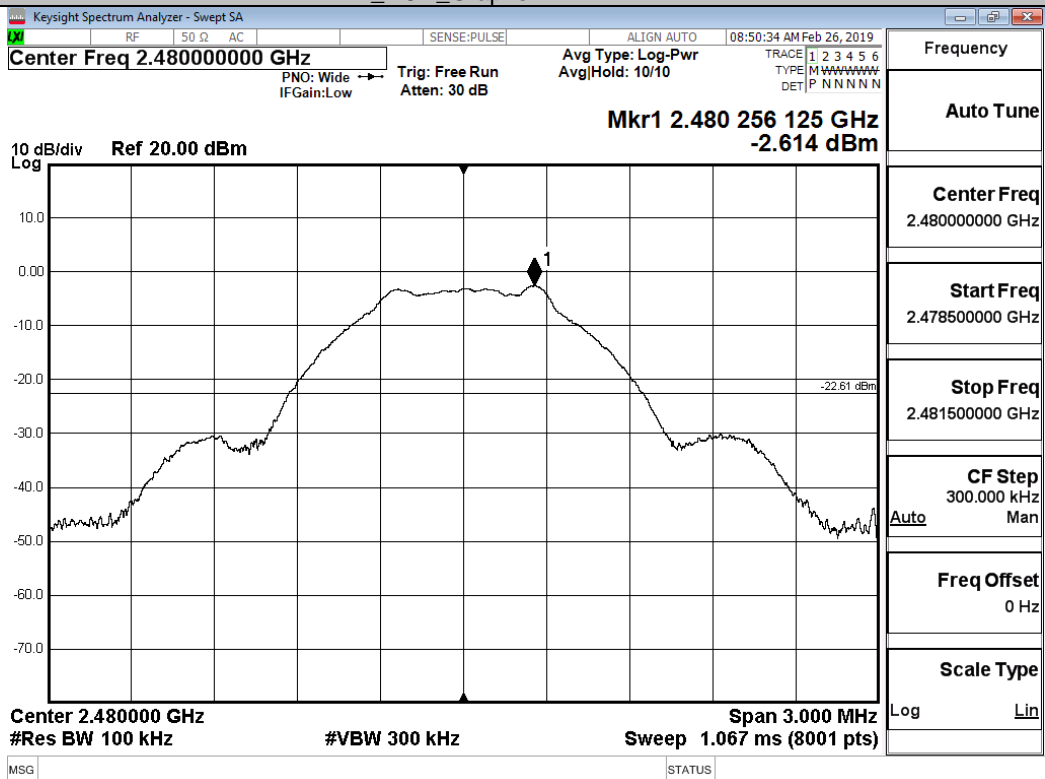


Puw/BT LE/MCH

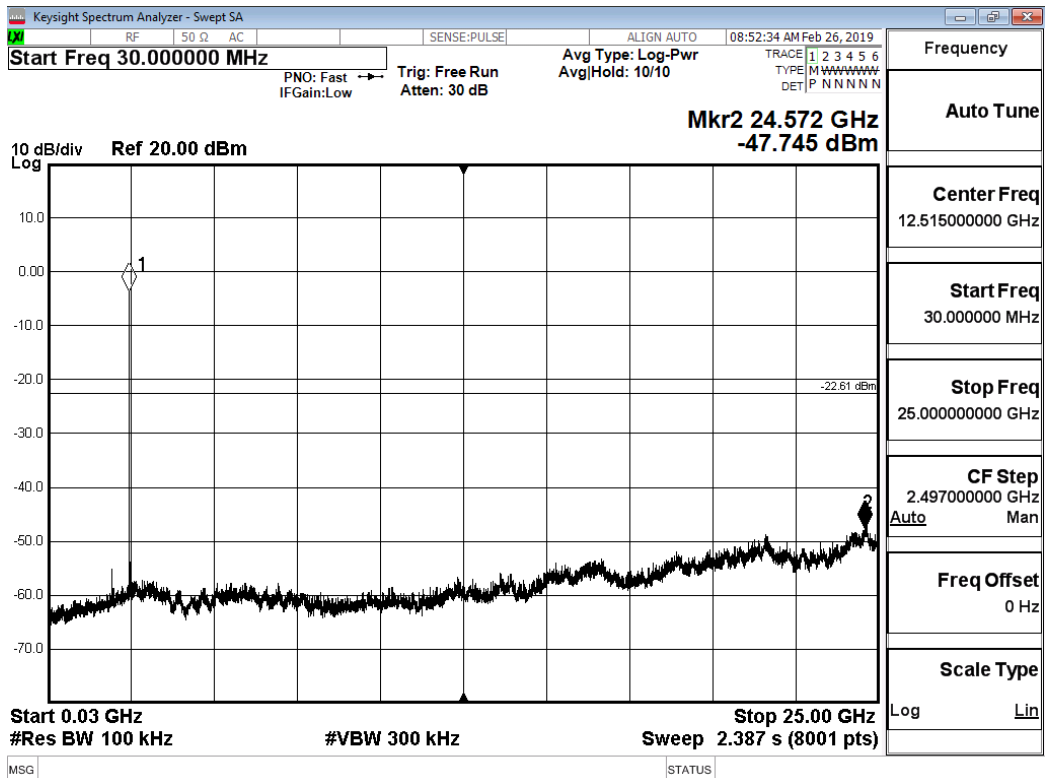


BT LE_HCH_Graphs

Pref/BT LE/HCH



Puw/BT LE/HCH

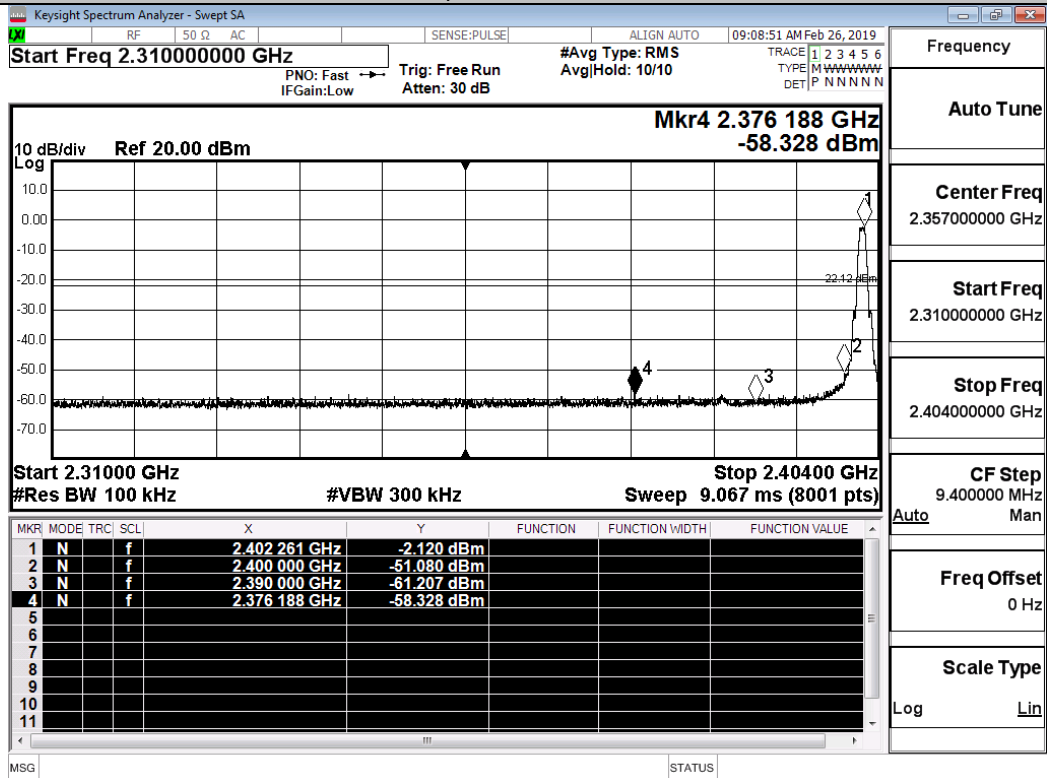


B.6 Band-edge for RF Conducted Emissions

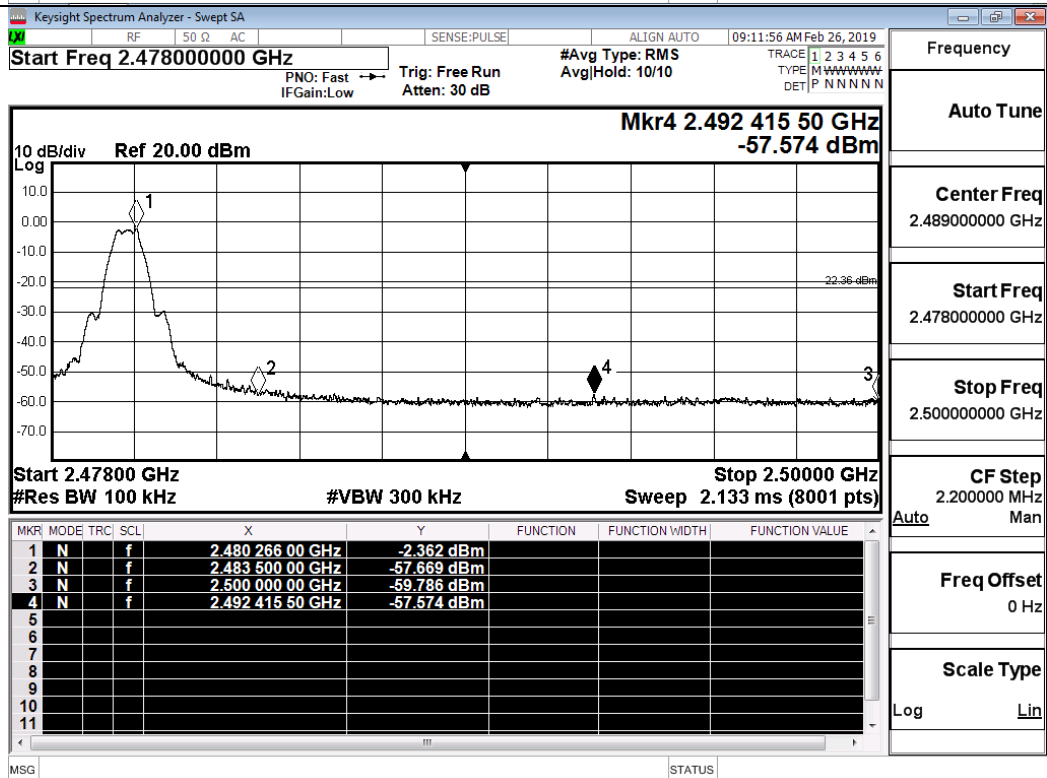
Mode	Channel	Carrier Power[dBm]	Max.Spurious Level [dBm]	Limit [dBm]	Verdict
BT LE	LCH	-2.120	-51.080	-22.120	PASS
BT LE	HCH	-2.360	-57.574	-22.360	PASS

Test Graphs

LCH



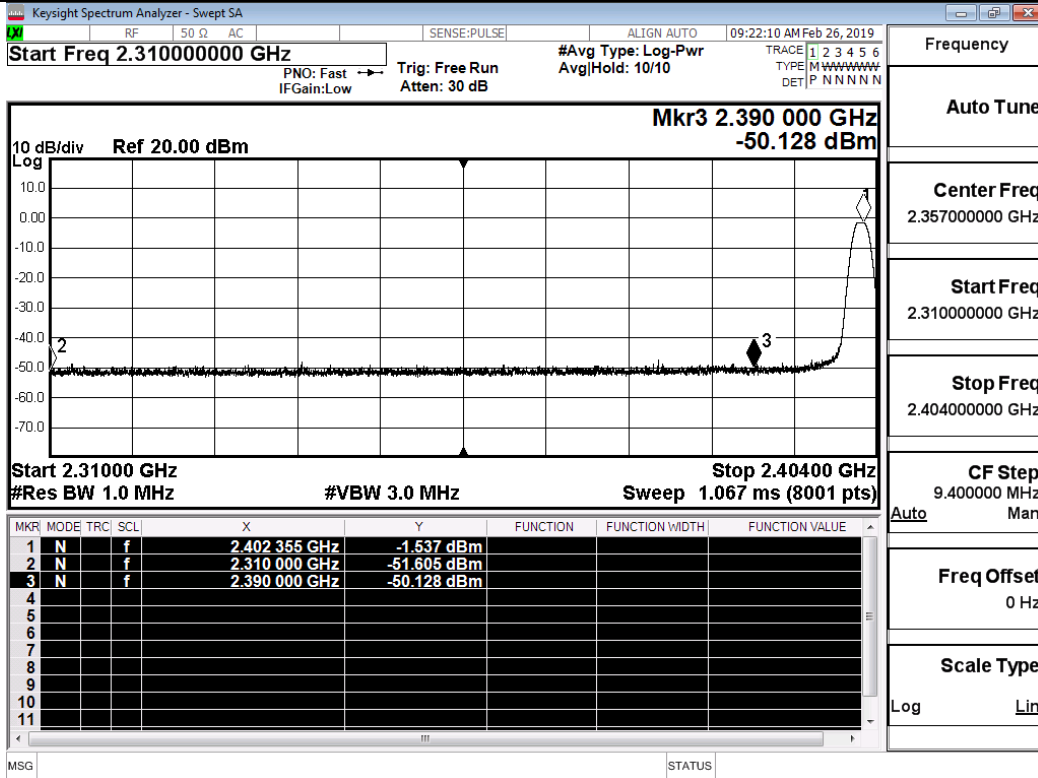
HCH



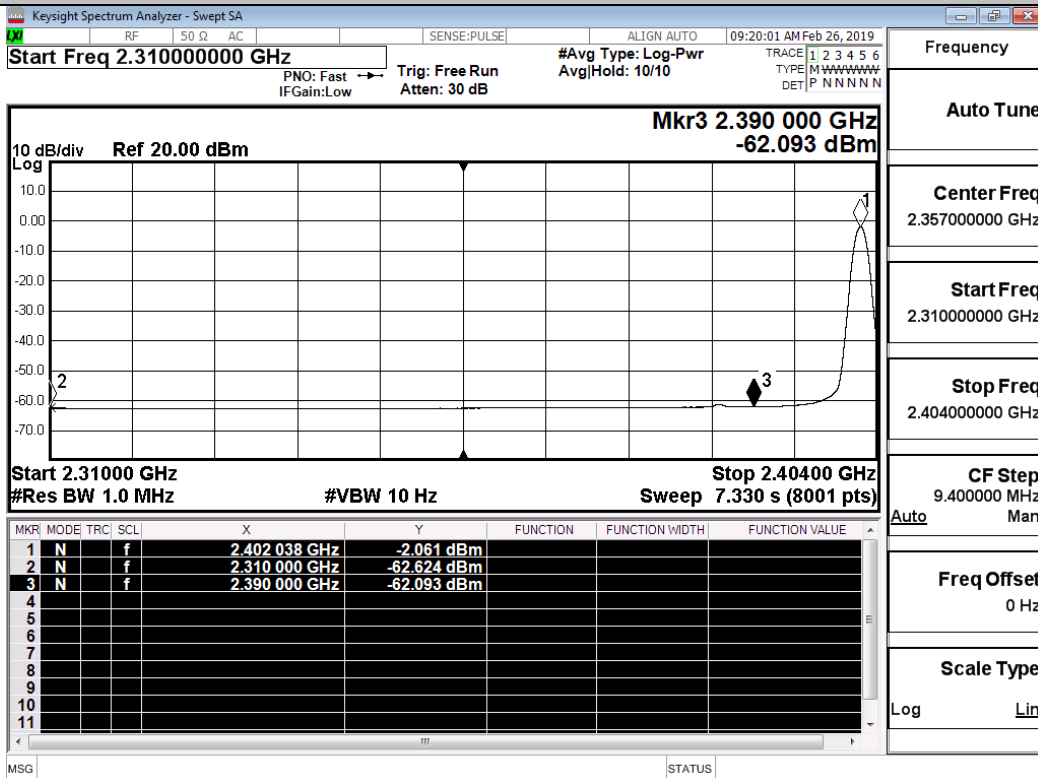
B.7 Restrict-band band-edge measurements

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	-51.61	2.23	0	45.89	PEAK	74	PASS
		Ant1	2310.0	-62.62	2.23	0	34.87	AV	54	PASS
		Ant1	2390.0	-50.13	2.23	0	47.36	PEAK	74	PASS
		Ant1	2390.0	-62.09	2.23	0	35.40	AV	54	PASS
	2480	Ant1	2483.5	-46.86	2.23	0	50.63	PEAK	74	PASS
		Ant1	2483.5	-58.07	2.23	0	39.42	AV	54	PASS
		Ant1	2500.0	-50.29	2.23	0	47.20	PEAK	74	PASS
		Ant1	2500.0	-61.81	2.23	0	35.68	AV	54	PASS

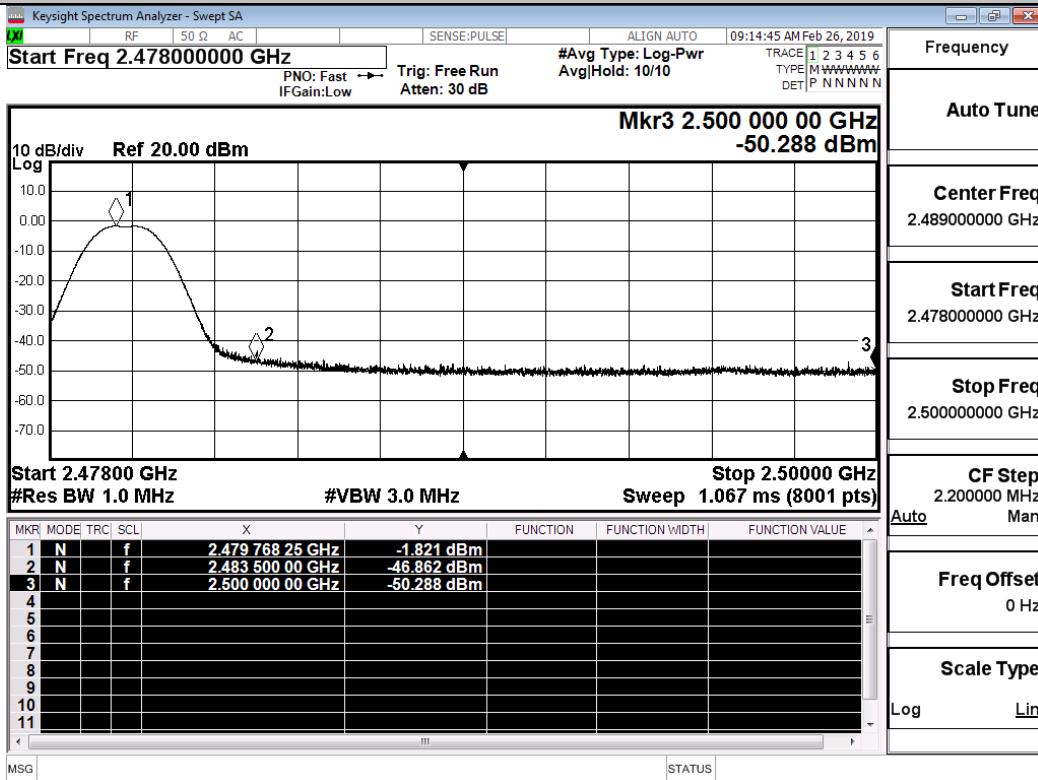
Restrict-band band-edge measurements_BT LE_2402_Ant1_PEAK



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

