

Appendix A

RF Test Data for Zigbee (Conducted Measurement)

Product Name: Smart Relay

Trade Mark: N/A

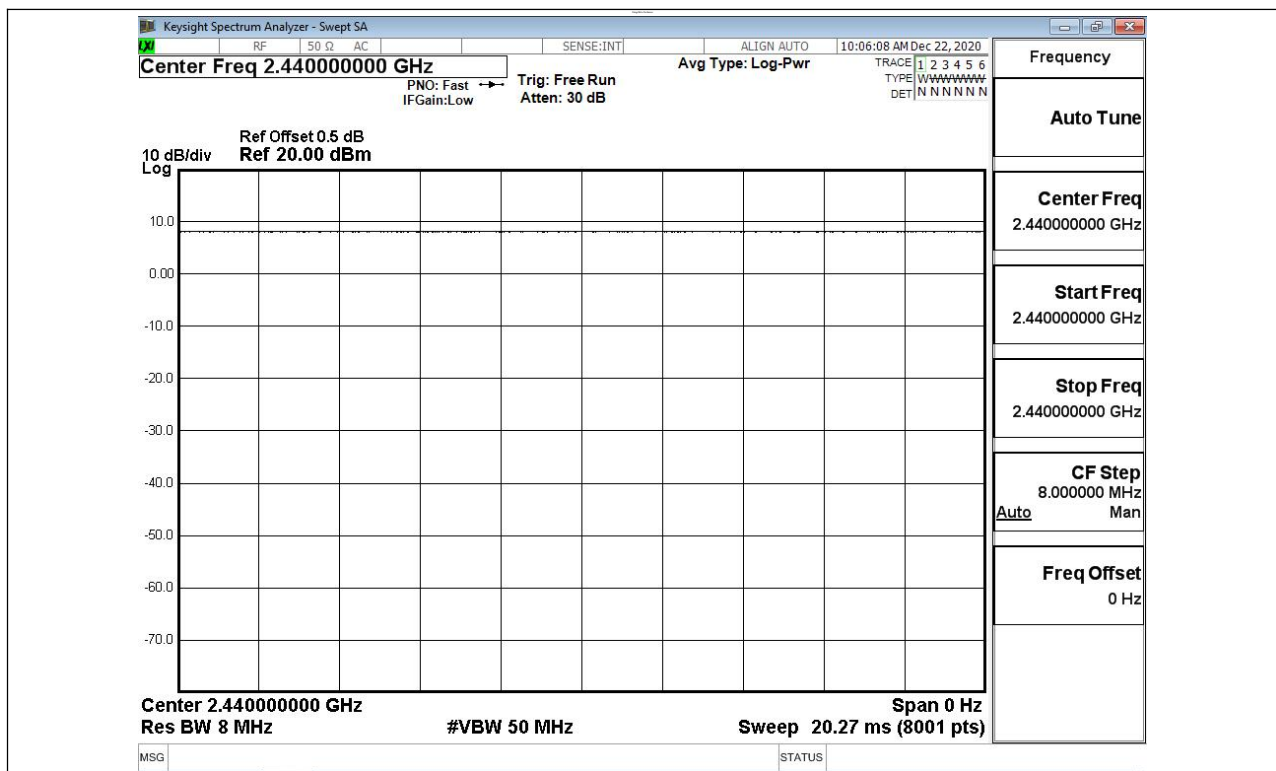
Test Model: SRB01

Environmental Conditions

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

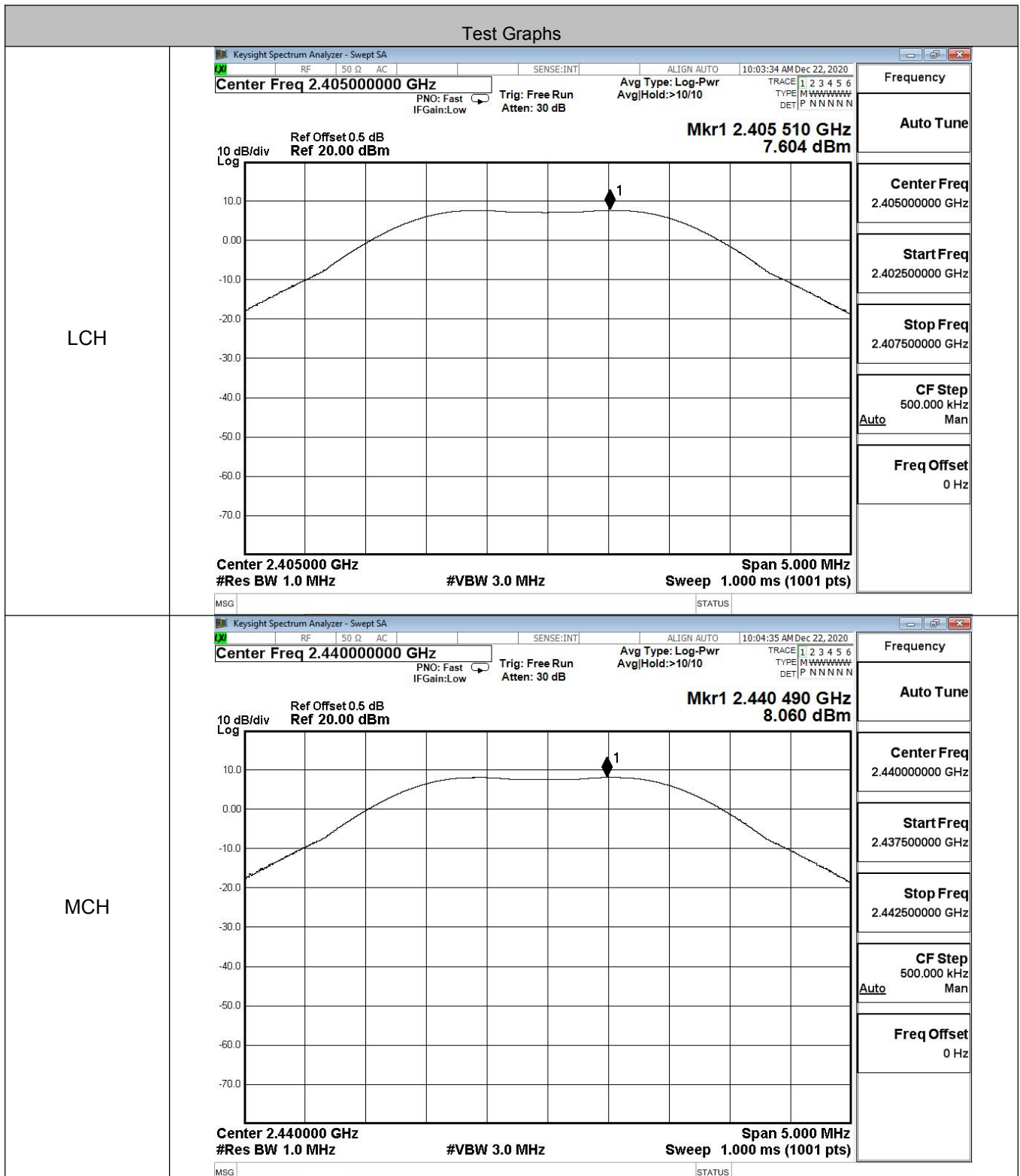
A.1 Duty Cycle

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

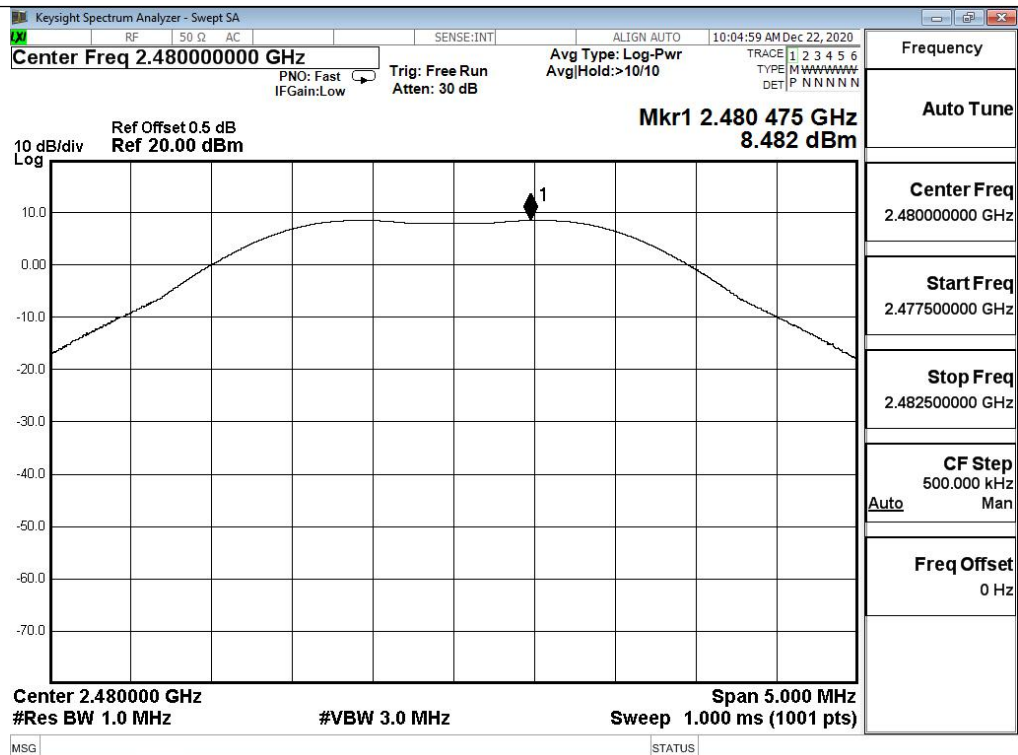


A.2 Maximum Conducted Peak Output Power

Mode	Channel	Conduct Peak Power[dBm]	Limit [dBm]	Verdict
Zigbee	LCH	7.604	30	PASS
Zigbee	MCH	8.060	30	PASS
Zigbee	HCH	8.482	30	PASS



HCH

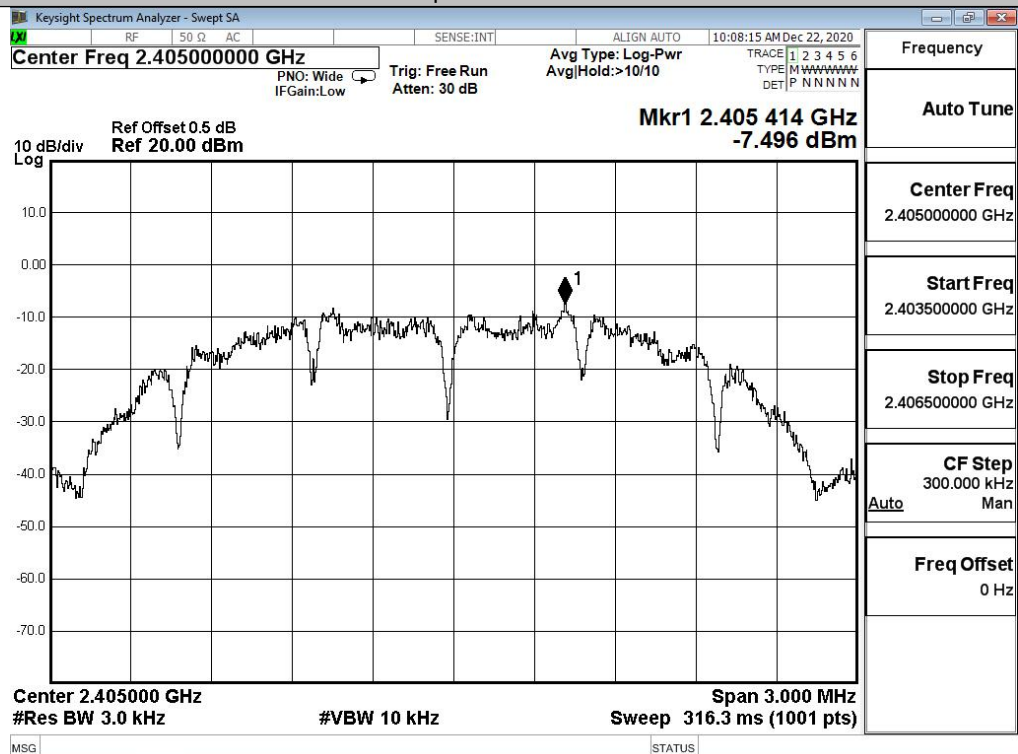


A.3 Maximum Power Spectral Density

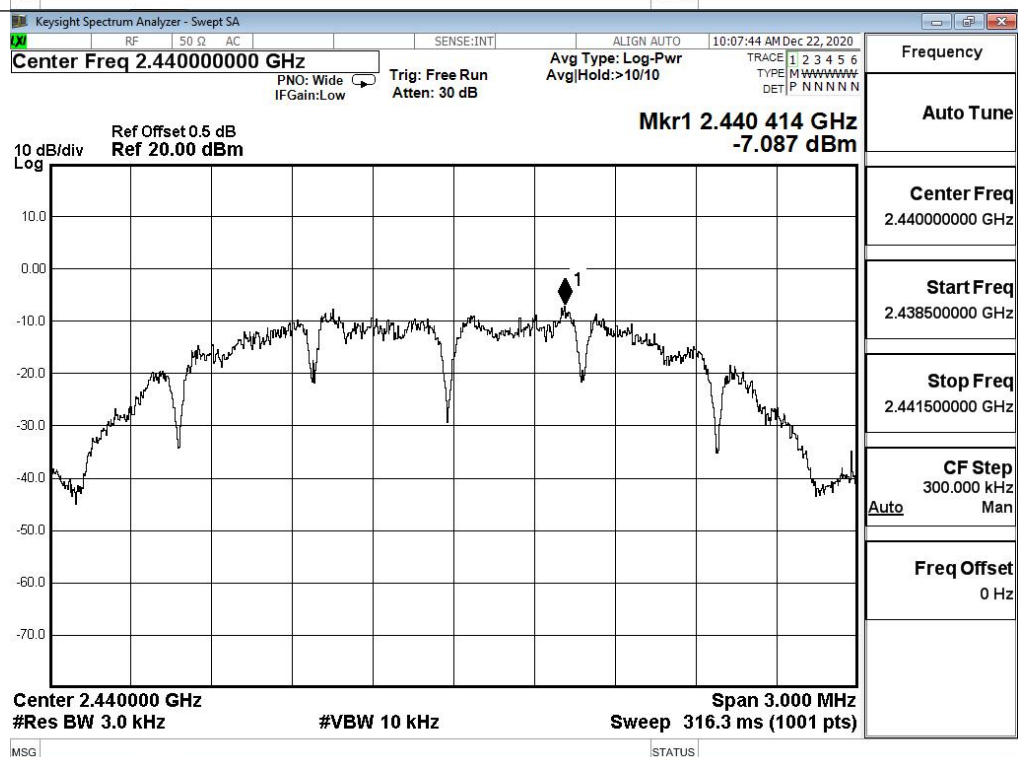
Mode	Channel	PSD [dBm/3KHz]	Limit [dBm/3KHz]	Verdict
Zigbee	LCH	-7.496	8	PASS
Zigbee	MCH	-7.087	8	PASS
Zigbee	HCH	-6.512	8	PASS

Test Graphs

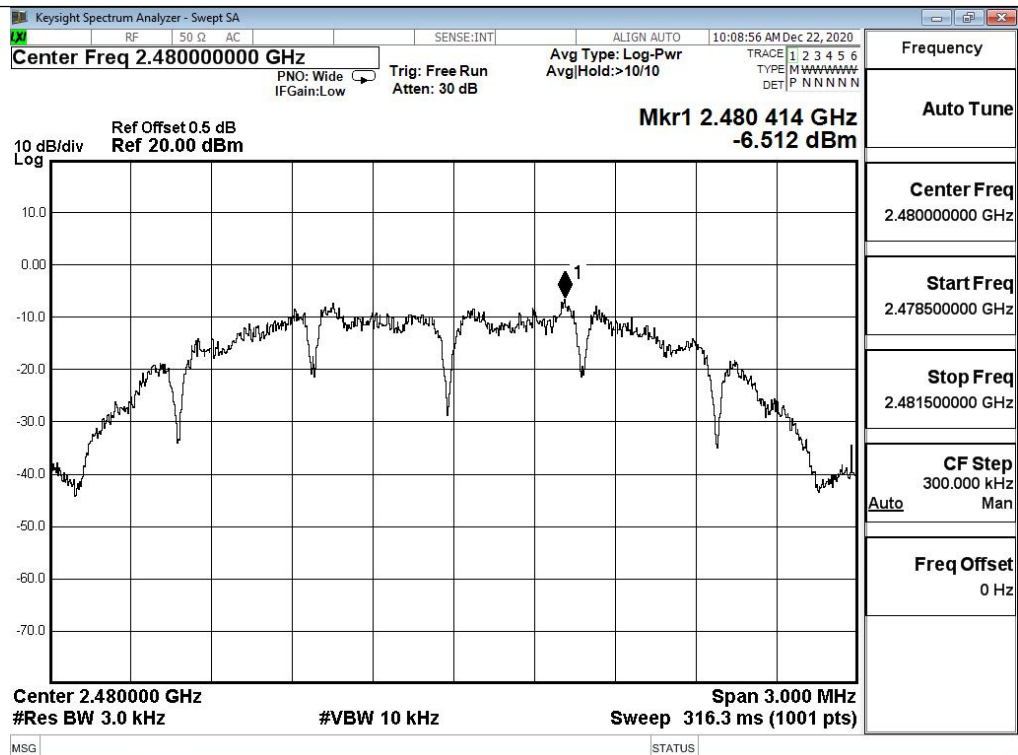
LCH



MCH



HCH

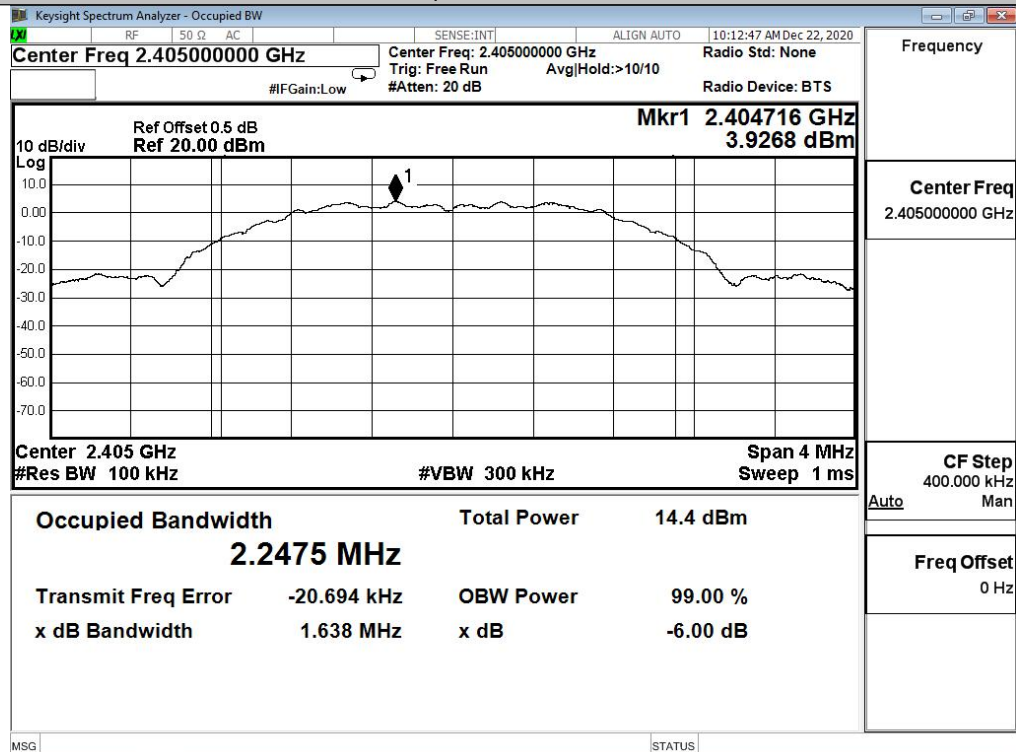


A.4 6dB Bandwidth

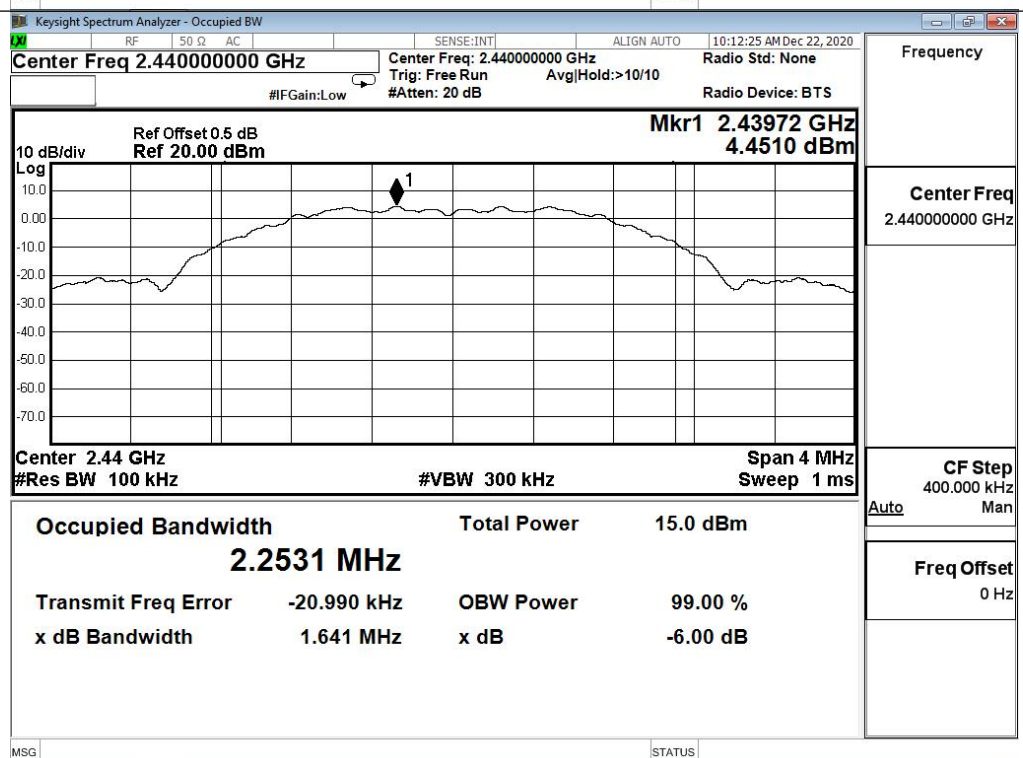
Mode	Channel	6dB Bandwidth [MHz]	Limit [MHz]	Verdict
Zigbee	LCH	1.638	≥ 0.5	PASS
Zigbee	MCH	1.641	≥ 0.5	PASS
Zigbee	HCH	1.642	≥ 0.5	PASS

Test Graphs

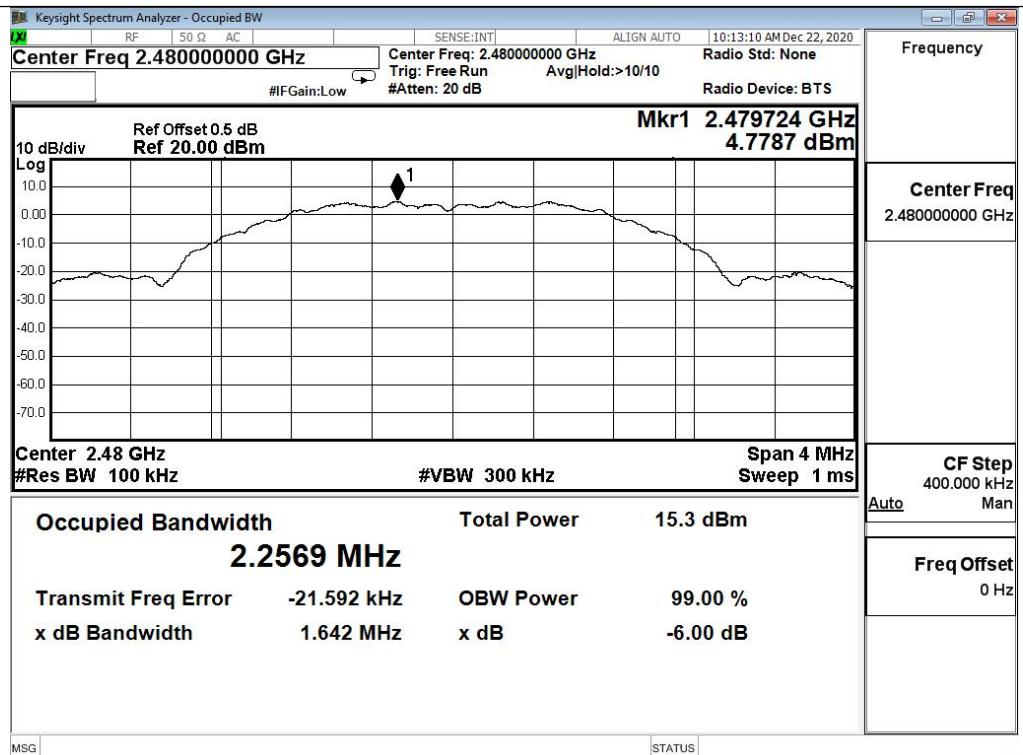
LCH



MCH

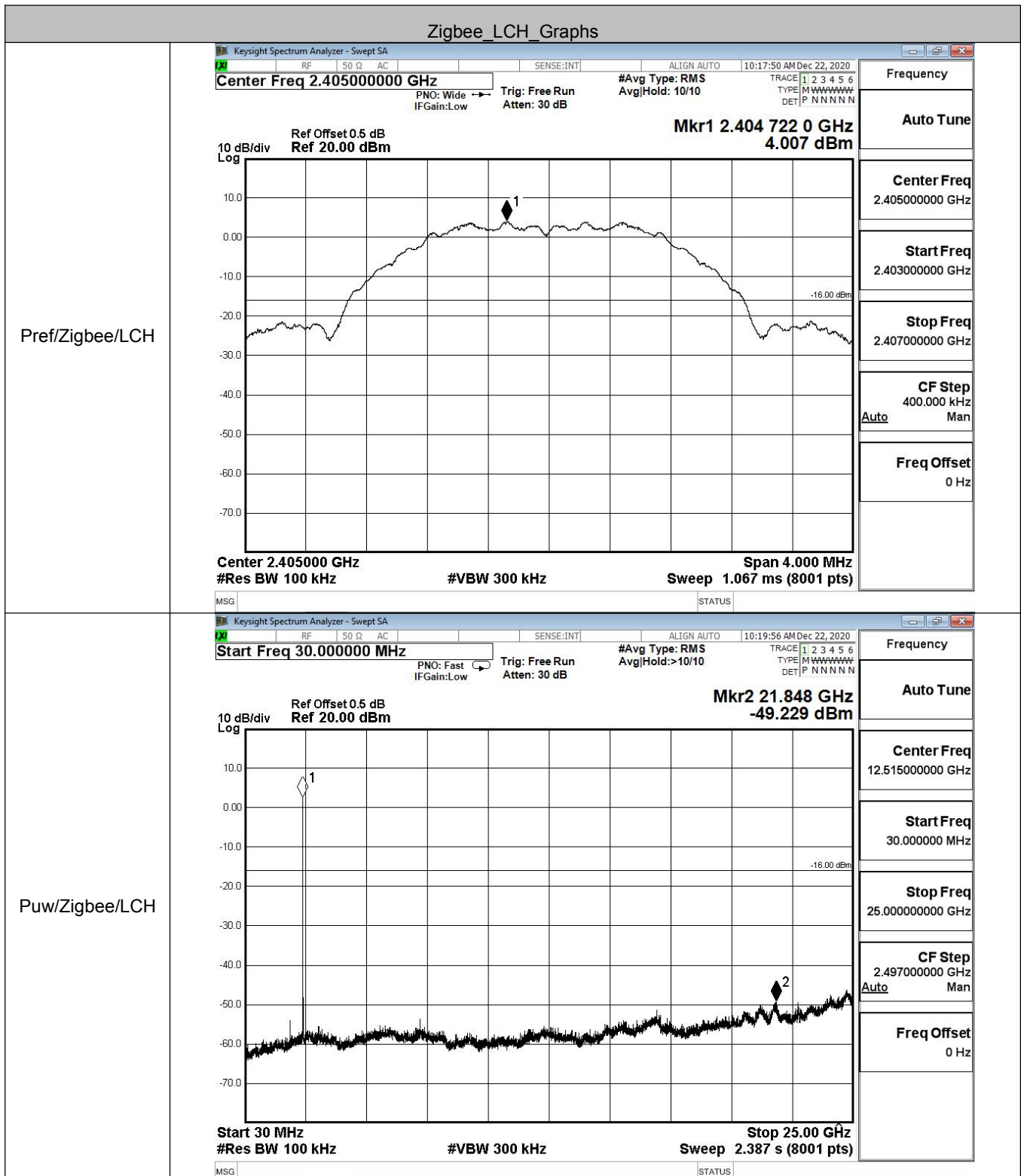


HCH



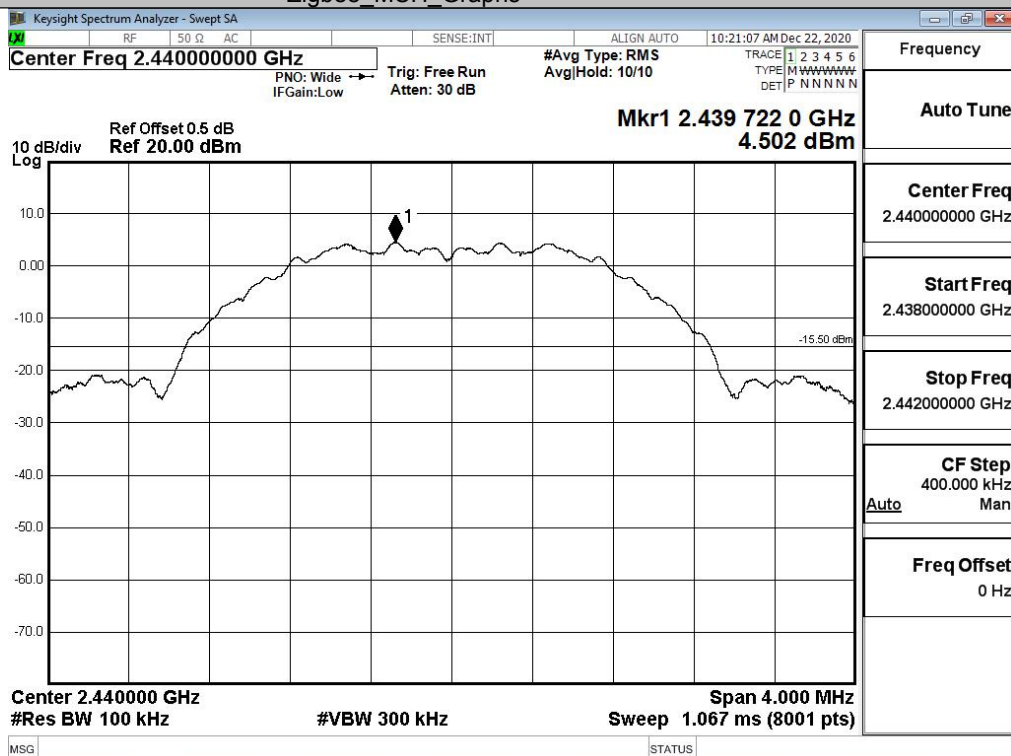
A.5 RF Conducted Spurious Emissions

Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
Zigbee	LCH	4.007	-49.229	-16.00	PASS
Zigbee	MCH	4.502	-52.721	-15.50	PASS
Zigbee	HCH	4.863	-49.452	-15.14	PASS

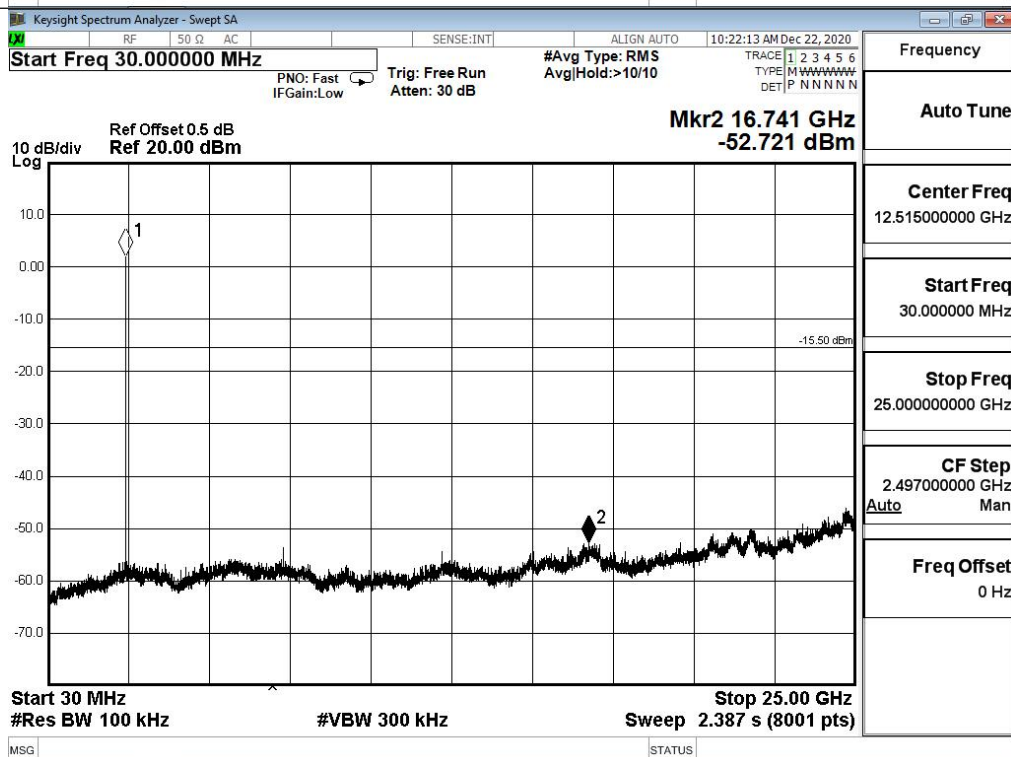


Zigbee_MCH_Graphs

Pref/Zigbee/MCH

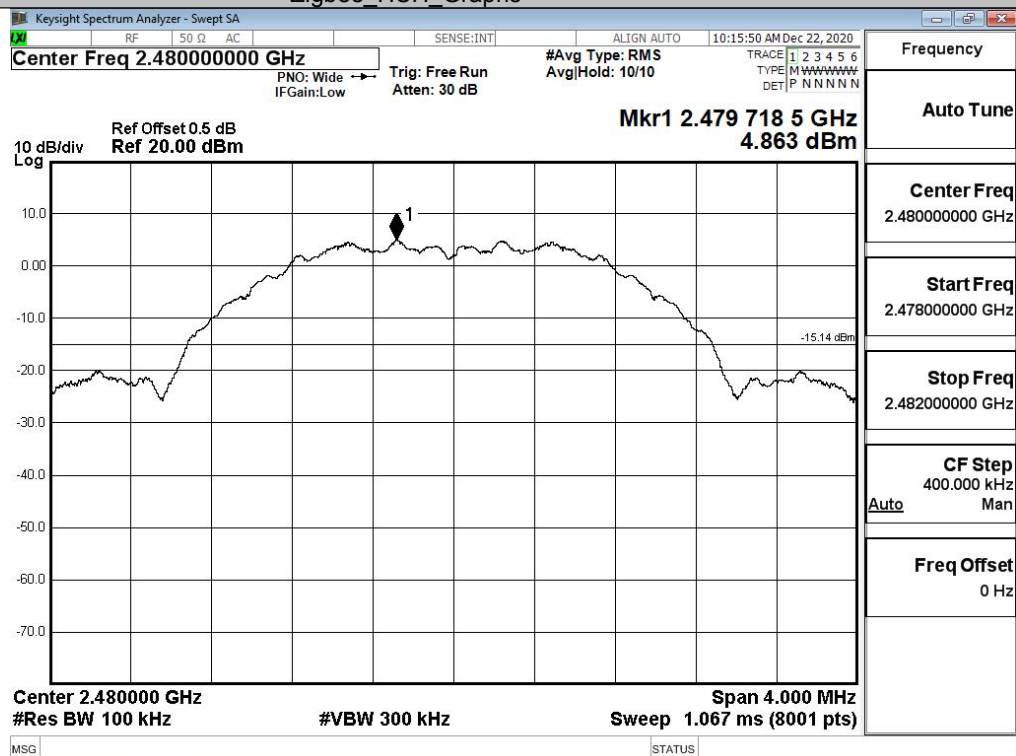


Puw/Zigbee/MCH

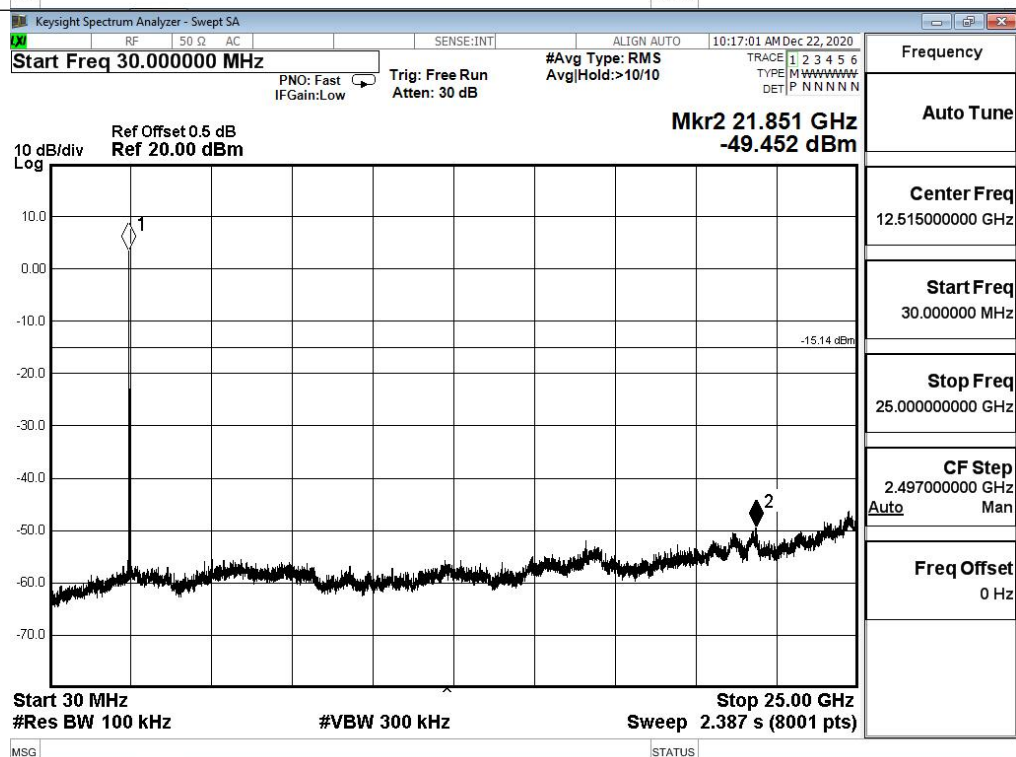


Zigbee_HCH_Graphs

Pref/Zigbee/HCH



Puw/Zigbee/HCH

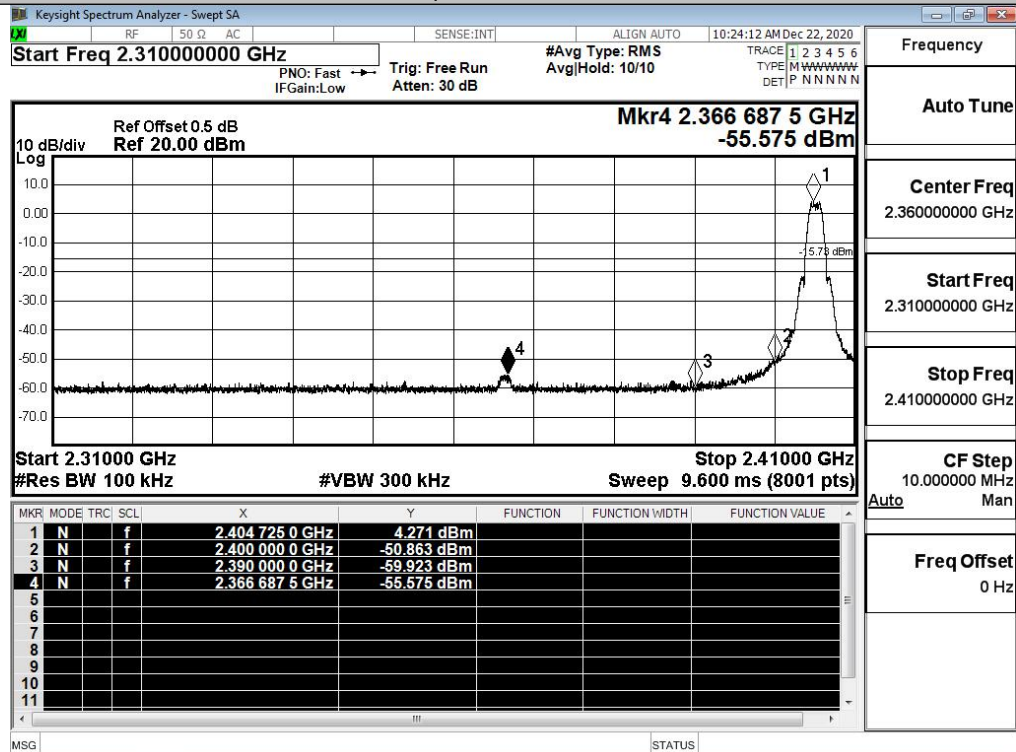


A.6 Band-edge for RF Conducted Emissions

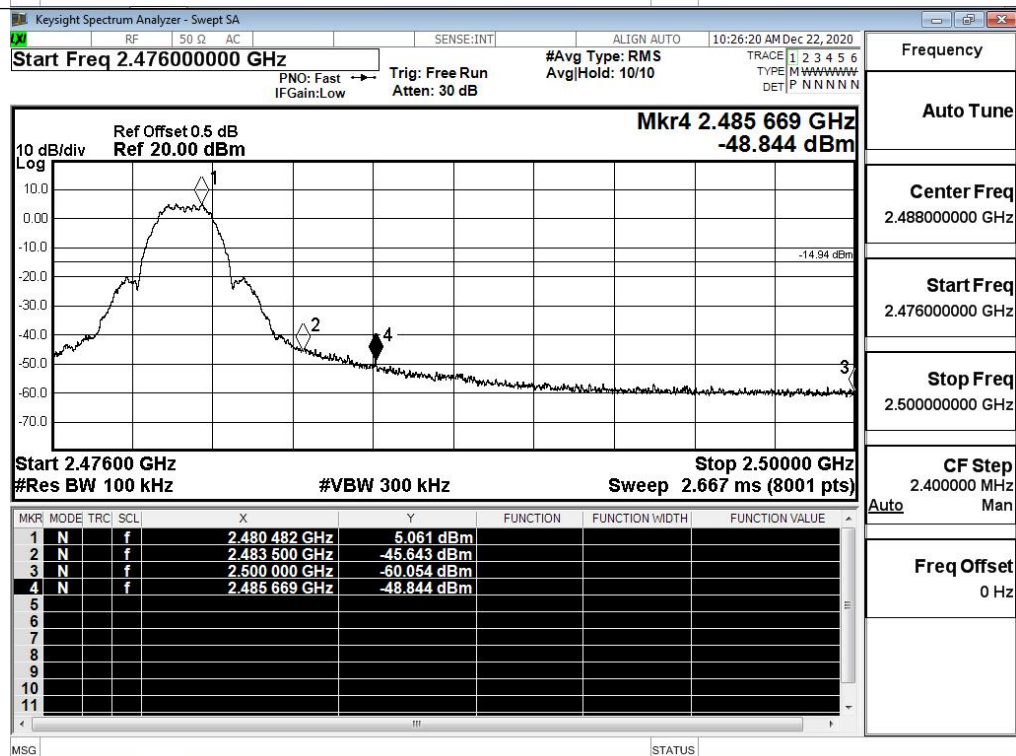
Mode	Channel	Carrier Power[dBm]	Max.Spurious Level [dBm]	Limit [dBm]	Verdict
Zigbee	LCH	4.271	-55.575	-15.73	PASS
Zigbee	HCH	5.061	-48.844	-14.94	PASS

Test Graphs

LCH



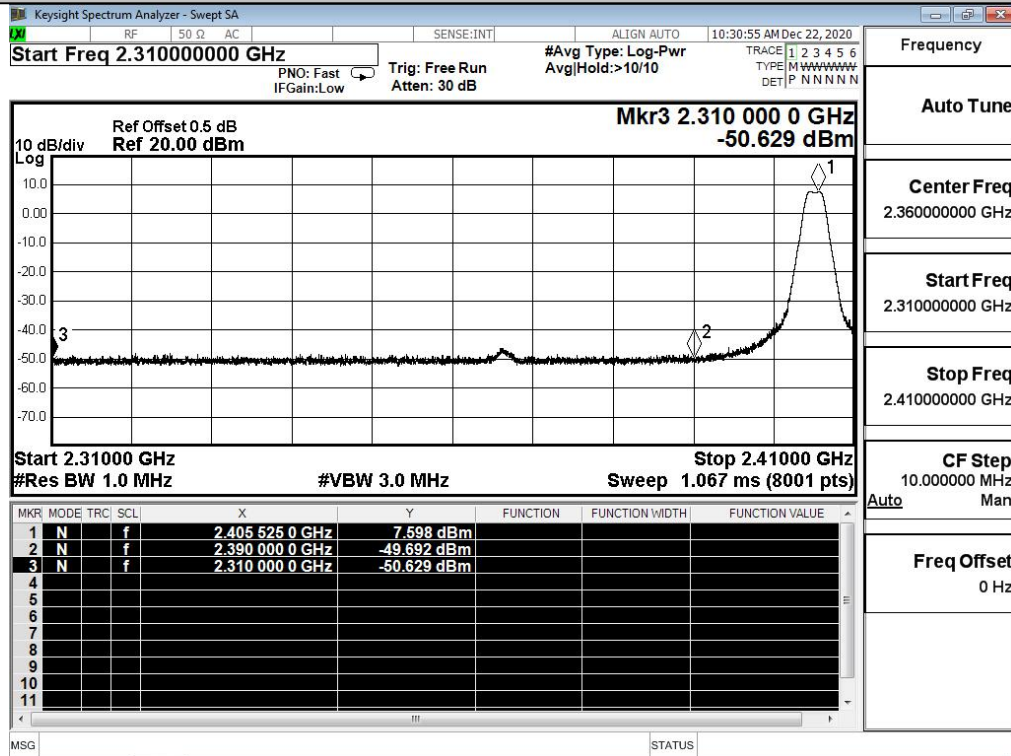
HCH



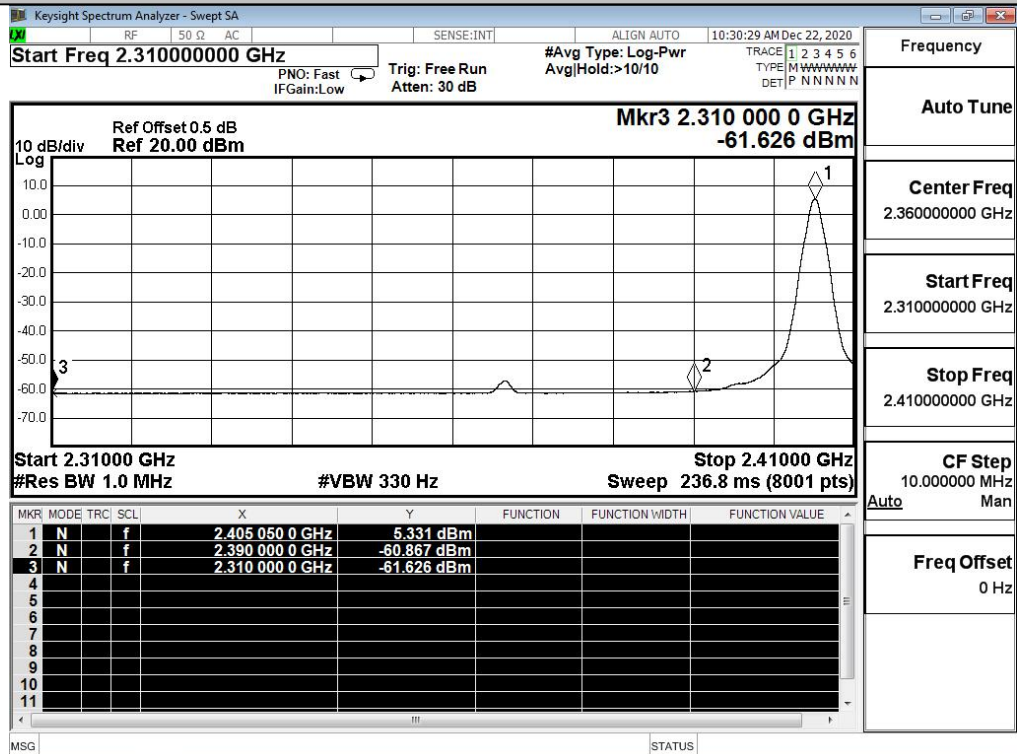
A.7 Restrict-band band-edge measurements

Test Mode	Test Channel	Ant	Freq.	Power [dBm]	Gain	Ground Factor	E [dBuV/m]	Detector	Limit [dBuV/m]	Verdi
Zigbee	2405	Ant1	2310.0	-50.629	2.0	0	46.60	PEAK	74	PASS
		Ant1	2310.0	-61.626	2.0	0	35.60	AV	54	PASS
		Ant1	2390.0	-49.692	2.0	0	47.54	PEAK	74	PASS
		Ant1	2390.0	-60.867	2.0	0	36.36	AV	54	PASS
	2480	Ant1	2483.5	-32.915	2.0	0	64.32	PEAK	74	PASS
		Ant1	2483.5	-44.140	2.0	0	53.09	AV	54	PASS
		Ant1	2500.0	-49.262	2.0	0	47.97	PEAK	74	PASS
		Ant1	2500.0	-61.026	2.0	0	36.20	AV	54	PASS

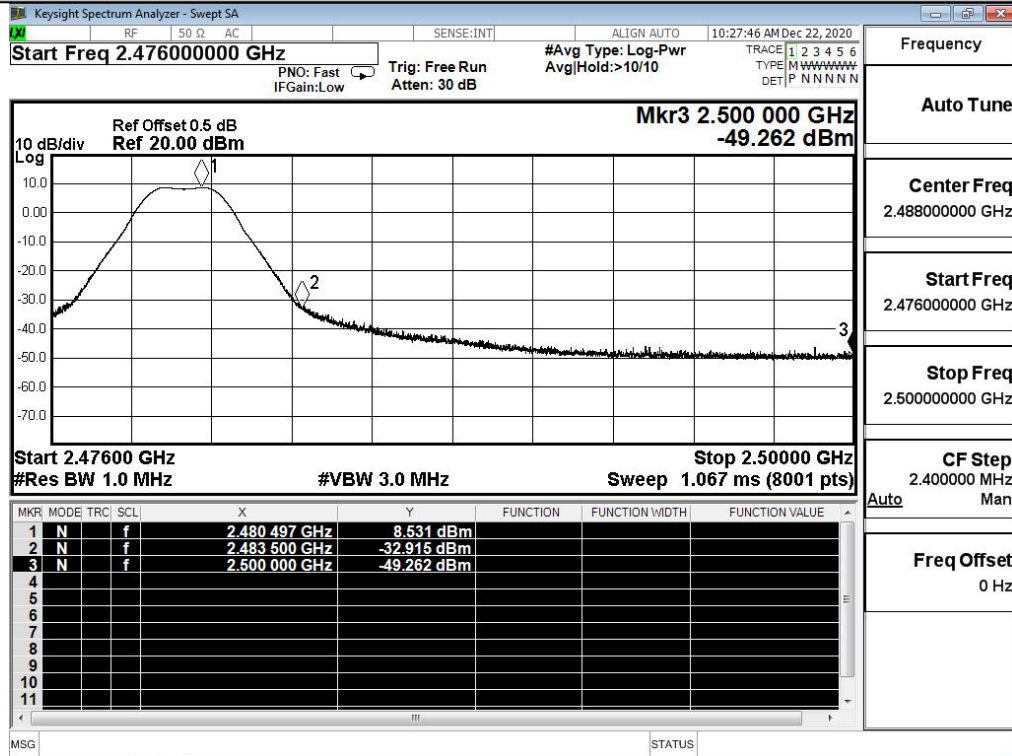
Restrict-band band-edge measurements_Zigbee_2405_Ant1_PEAK



Restrict-band band-edge measurements_Zigbee_2405_Ant1_AV



Restrict-band band-edge measurements_Zigbee_2480_Ant1_PEAK



Restrict-band band-edge measurements_Zigbee_2480_Ant1_AV

