

Appendix B

RF Test Data for Zigbee (Conducted Measurement)

Product Name: In Wall Dimmer(ZB)

Trade Mark: FANTEM

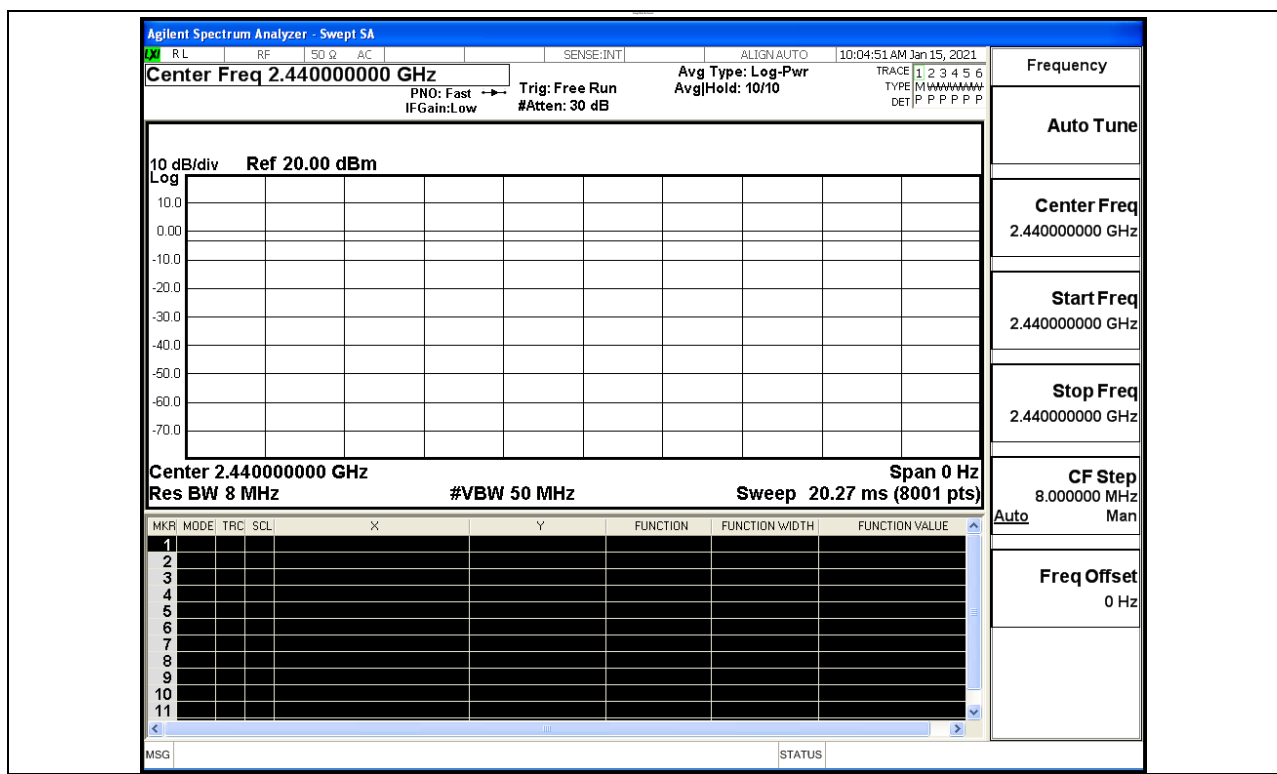
Test Model: ZB006-X

Environmental Conditions

Temperature:	23.4°C
Relative Humidity:	54.5%
ATM Pressure:	100.0 kPa
Test Engineer:	Ben Jin
Supervised by:	Li Huan

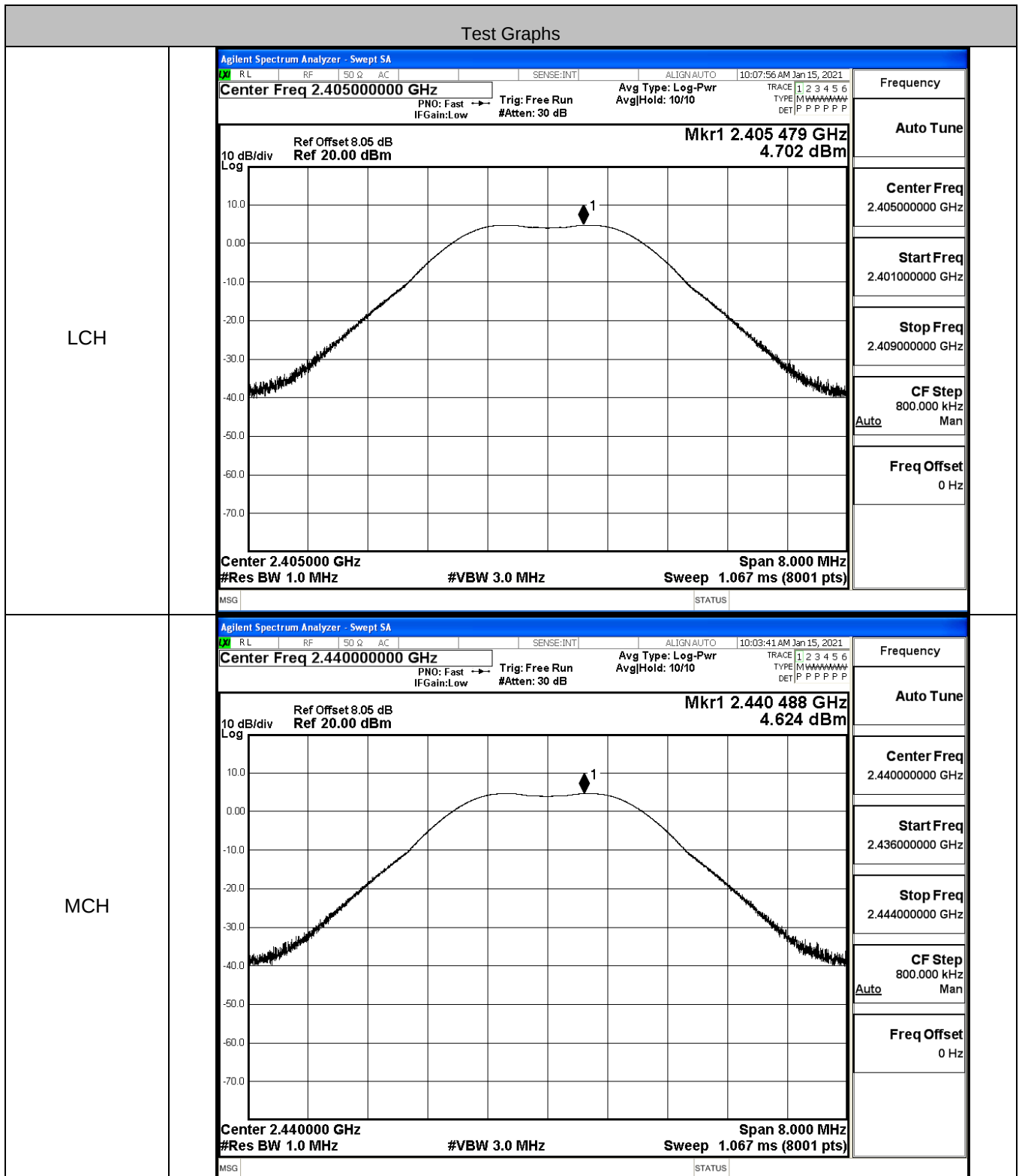
B.1 Duty Cycle

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

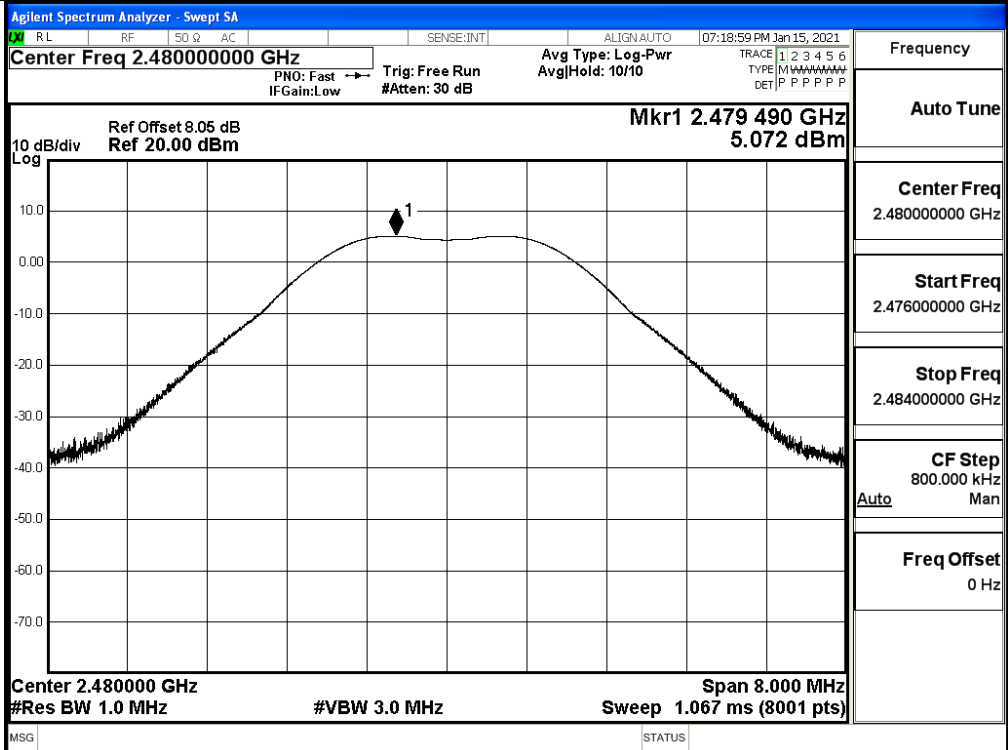


B.2 Maximum Conducted Peak Output Power

Mode	Channel	Conduct Peak Power[dBm]	Limit [dBm]	Verdict
Zigbee	LCH	4.702	30	PASS
Zigbee	MCH	4.624	30	PASS
Zigbee	HCH	5.072	30	PASS



HCH

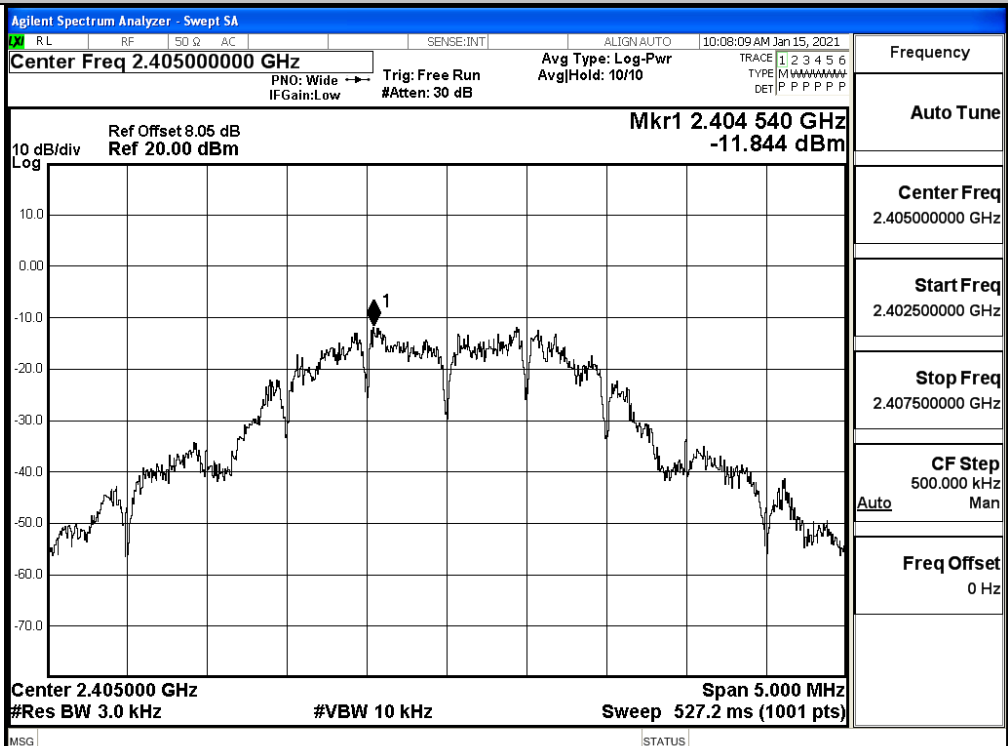


B.3 Maximum Power Spectral Density

Mode	Channel	PSD [dBm/3KHz]	Limit [dBm/3KHz]	Verdict
Zigbee	LCH	-11.844	8	PASS
Zigbee	MCH	-11.557	8	PASS
Zigbee	HCH	-11.010	8	PASS

Test Graphs

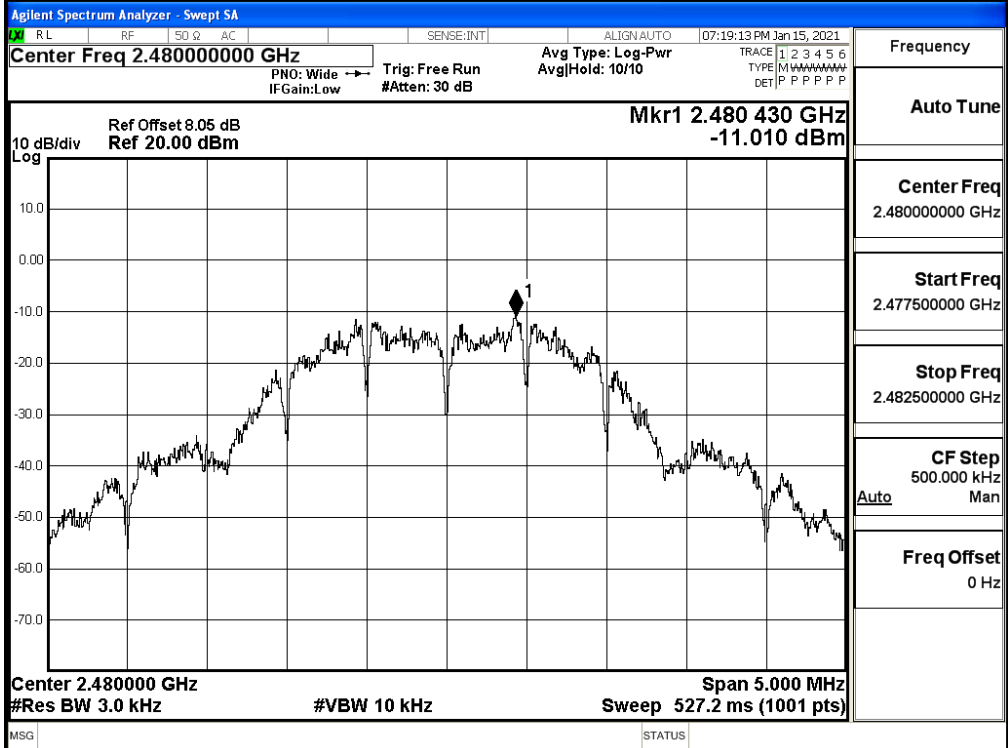
LCH



MCH



HCH

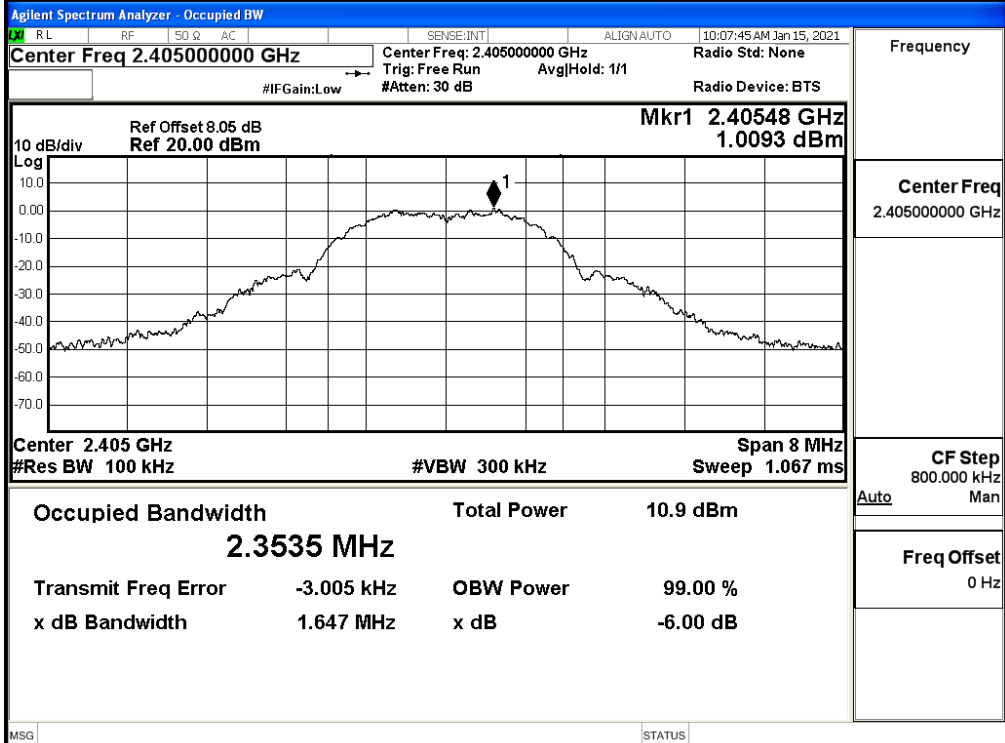


B.4 6dB Bandwidth

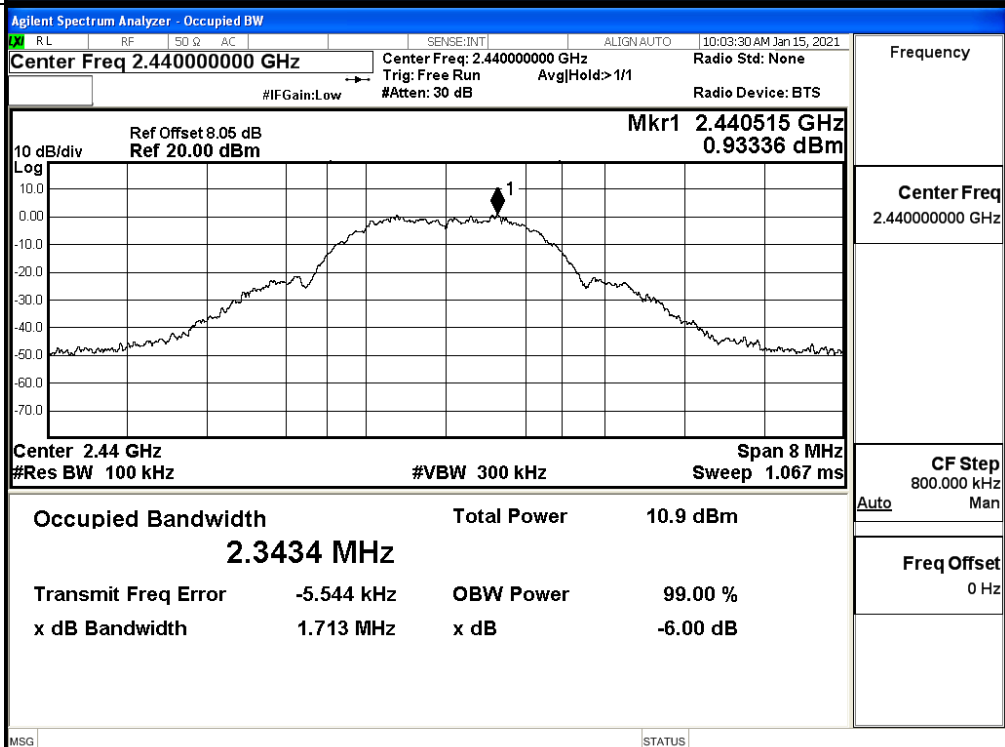
Mode	Channel	6dB Bandwidth [MHz]	Limit [MHz]	Verdict
Zigbee	LCH	1.647	≥ 0.5	PASS
Zigbee	MCH	1.713	≥ 0.5	PASS
Zigbee	HCH	1.776	≥ 0.5	PASS

Test Graphs

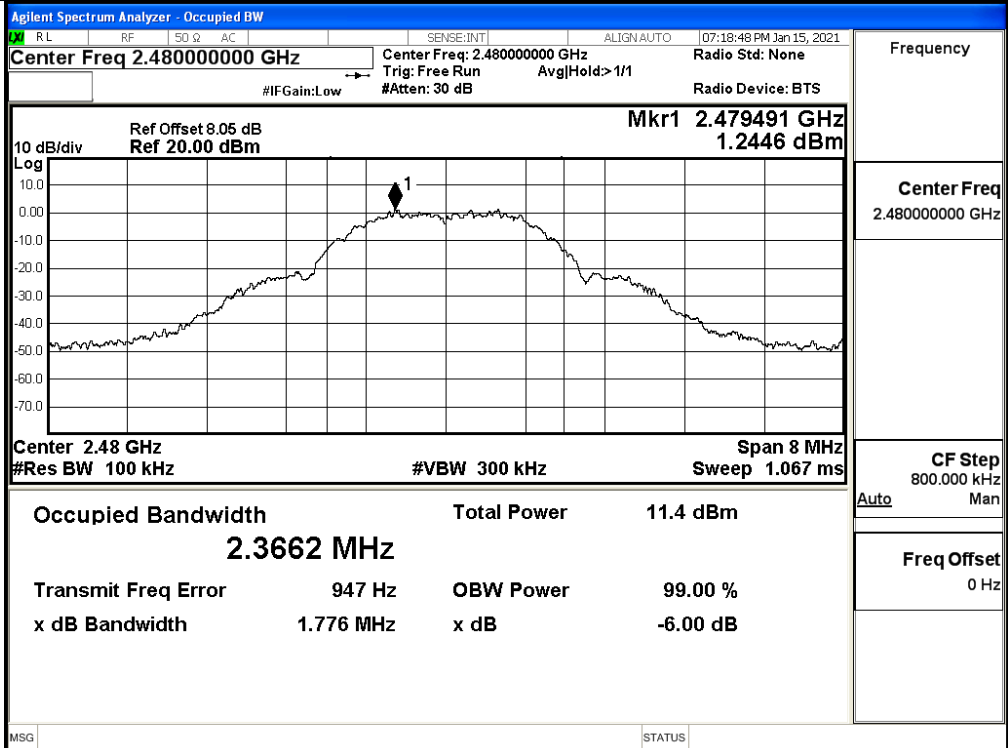
LCH



MCH

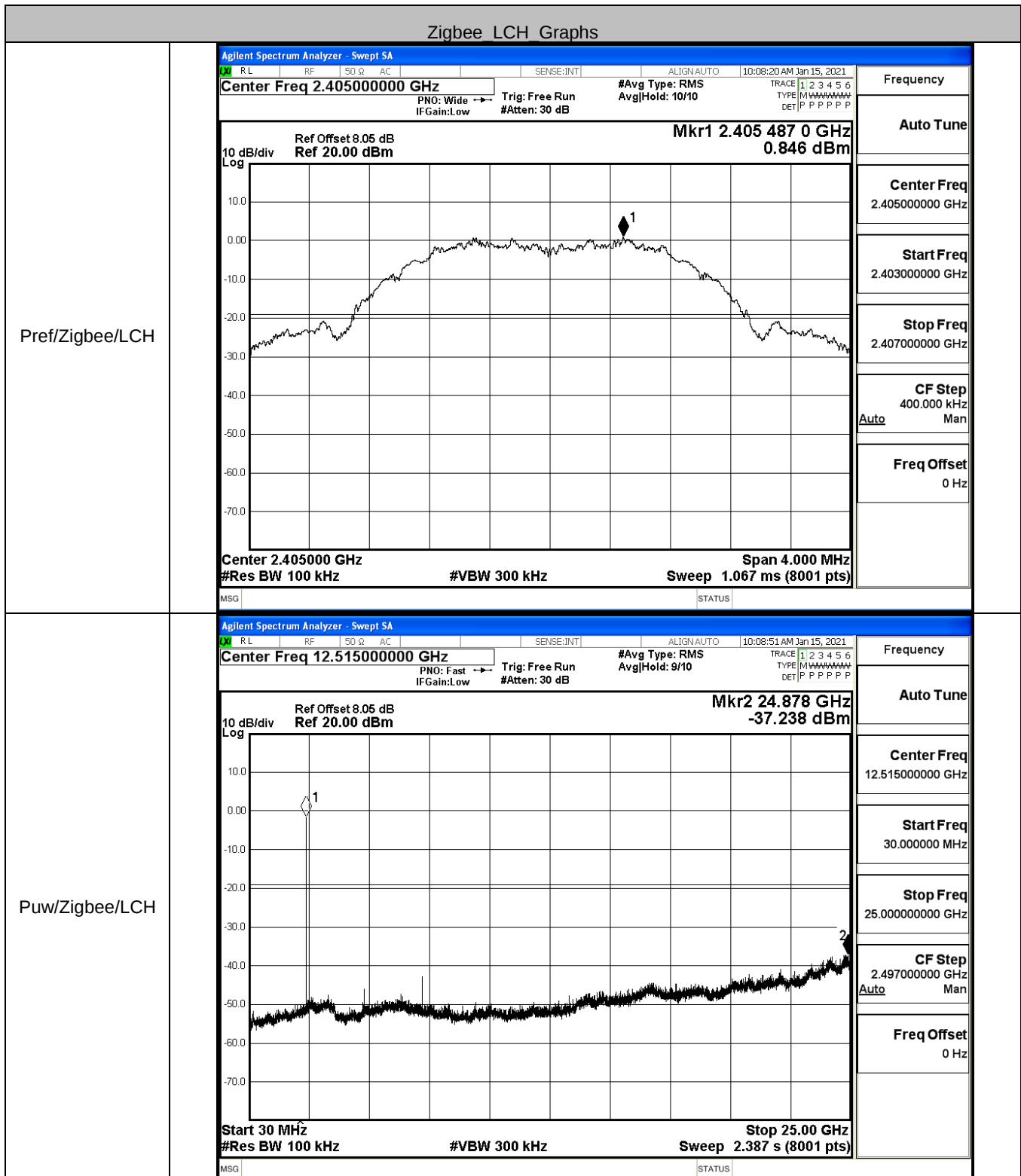


HCH

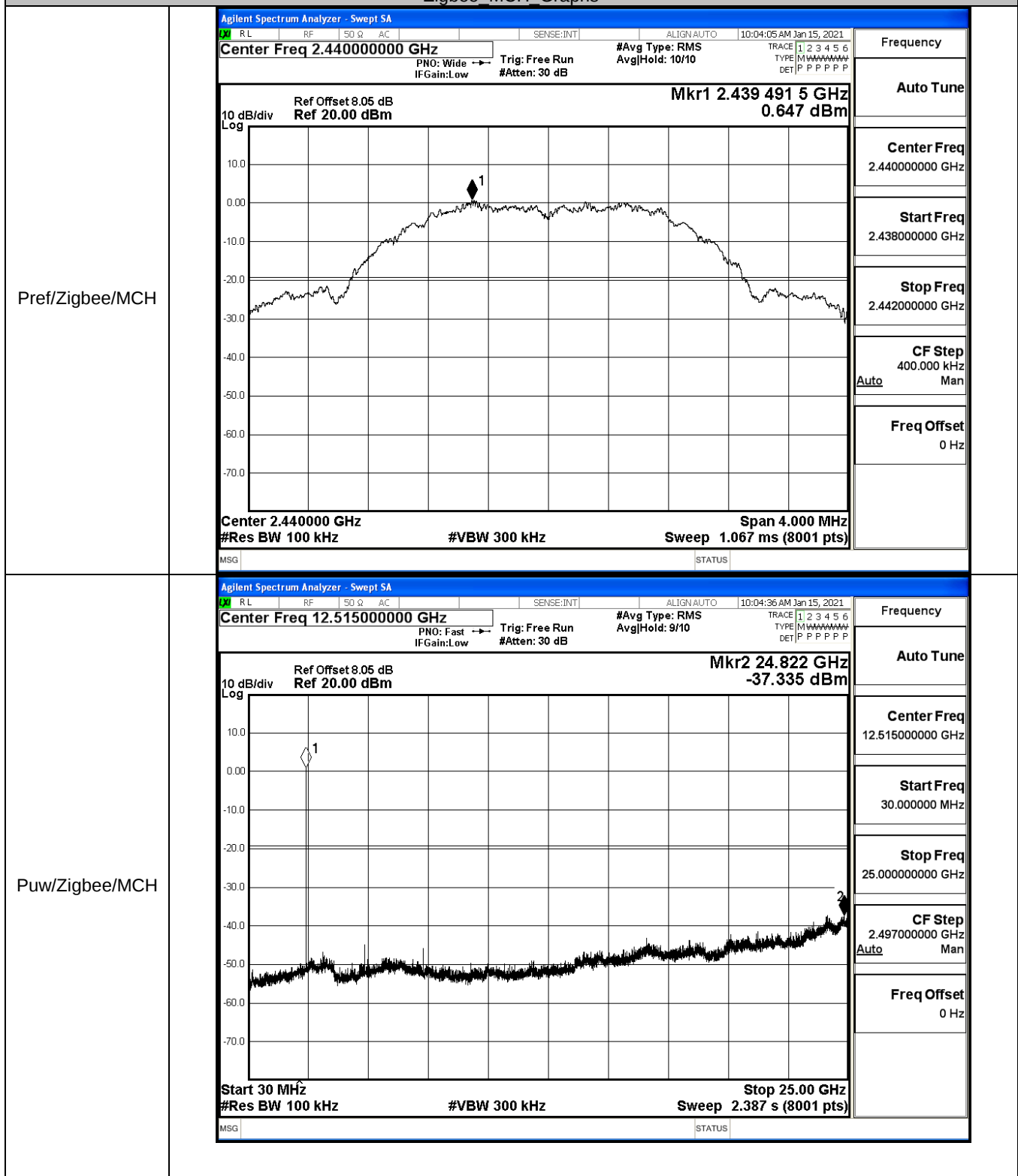


B.5 RF Conducted Spurious Emissions

Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
Zigbee	LCH	0.846	-37.238	-19.15	PASS
Zigbee	MCH	0.647	-37.335	-19.35	PASS
Zigbee	HCH	1.101	-37.368	-18.90	PASS

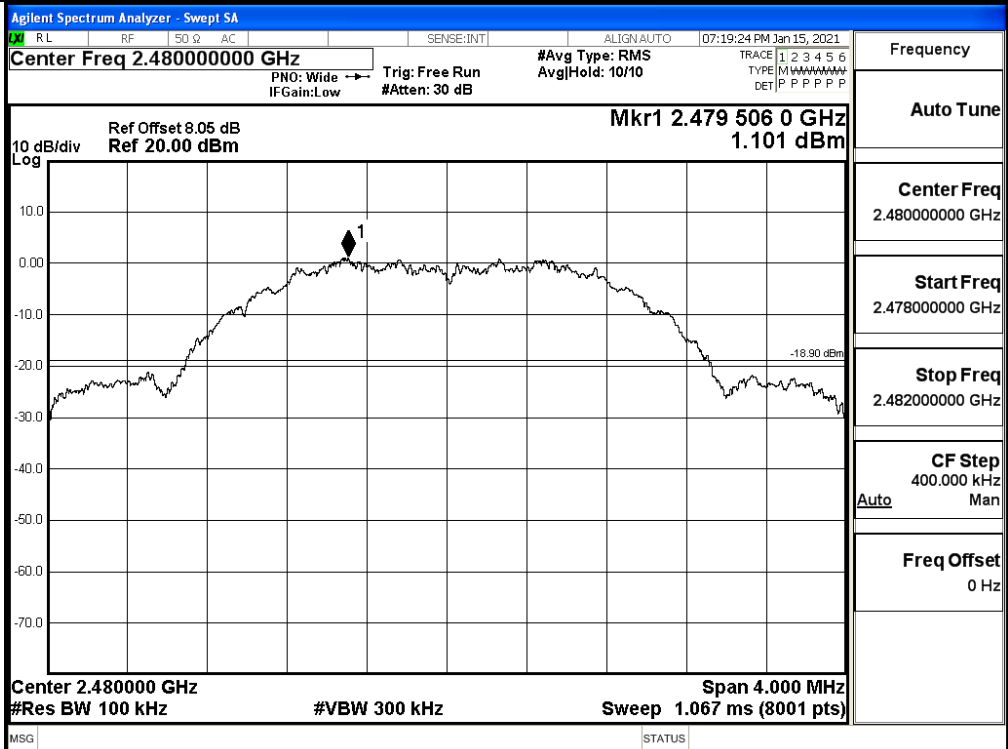


Zigbee MCH Graphs

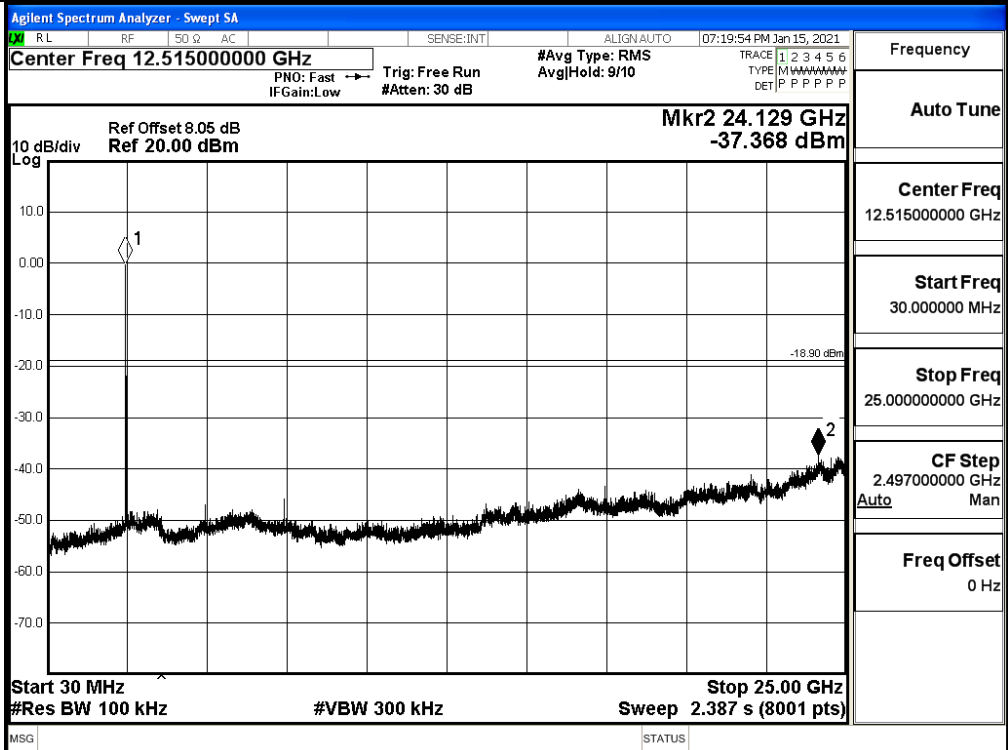


Zigbee HCH Graphs

Pref/Zigbee/HCH



Puw/Zigbee/HCH

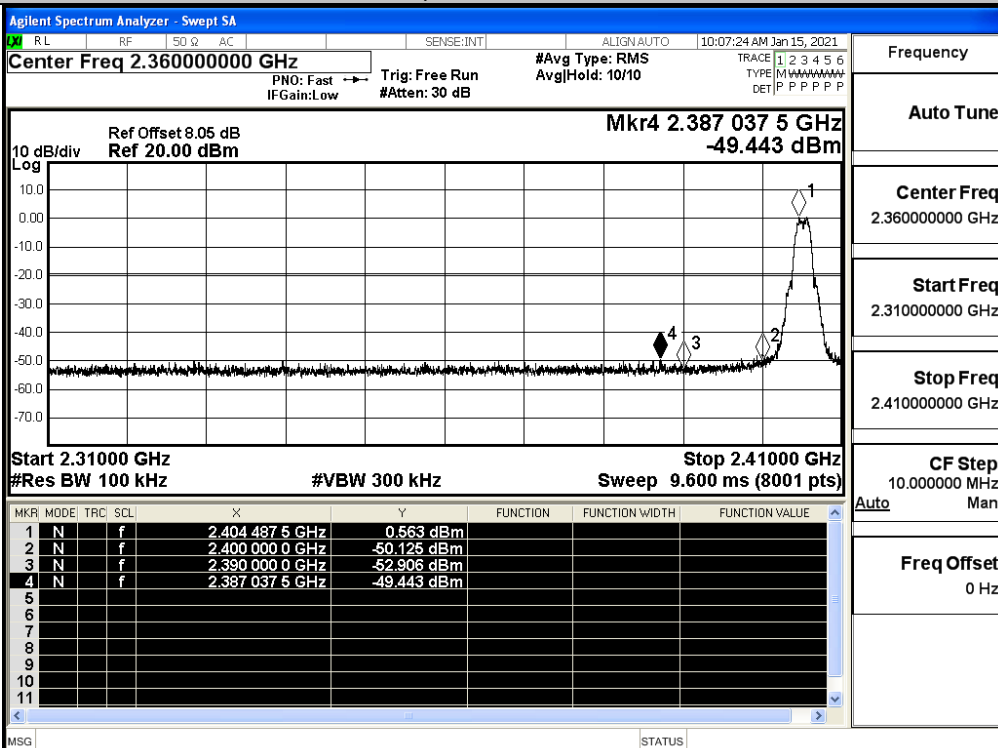


B.6 Band-edge for RF Conducted Emissions

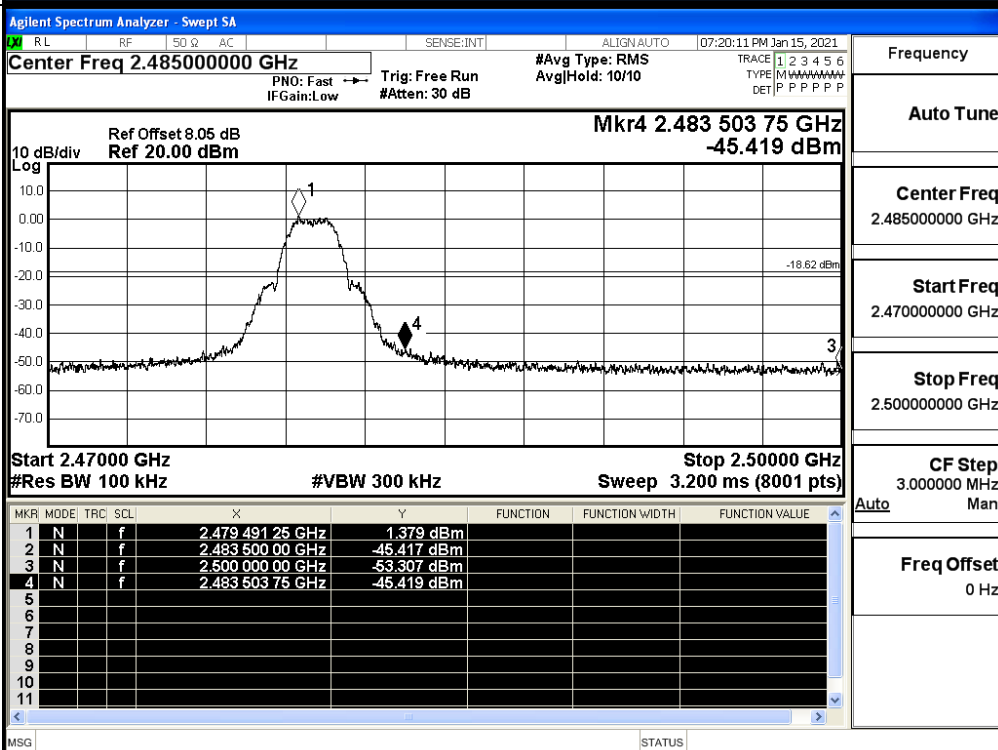
Mode	Channel	Carrier Power[dBm]	Max.Spurious Level [dBm]	Limit [dBm]	Verdict
Zigbee	LCH	0.563	-49.443	-19.27	PASS
Zigbee	HCH	1.379	-45.419	-18.62	PASS

Test Graphs

LCH



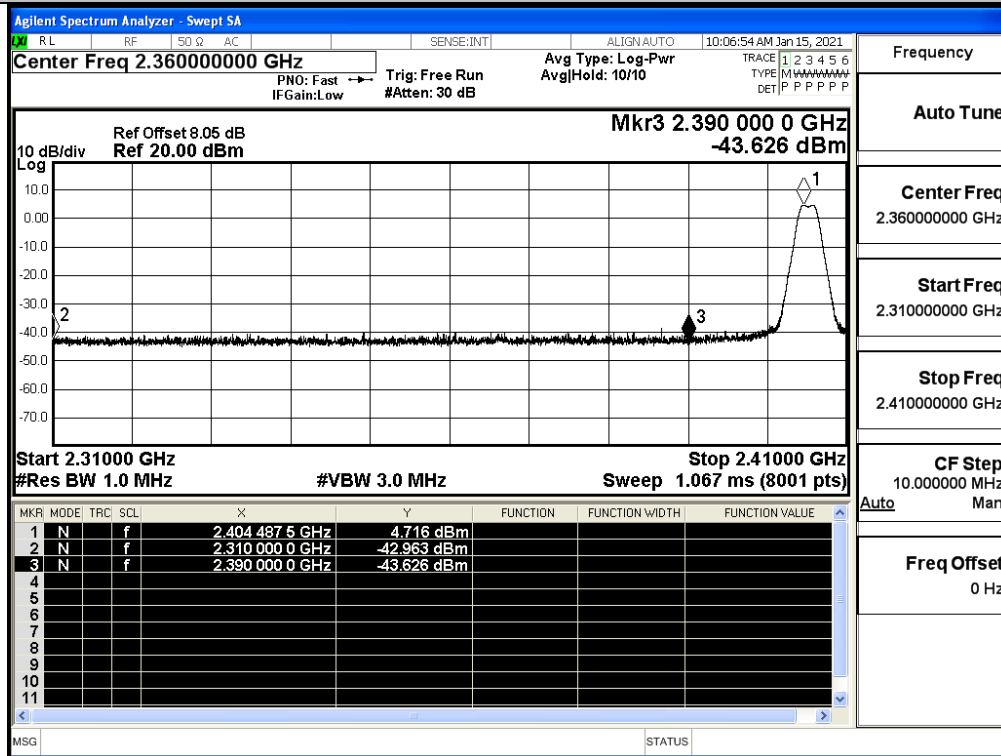
HCH



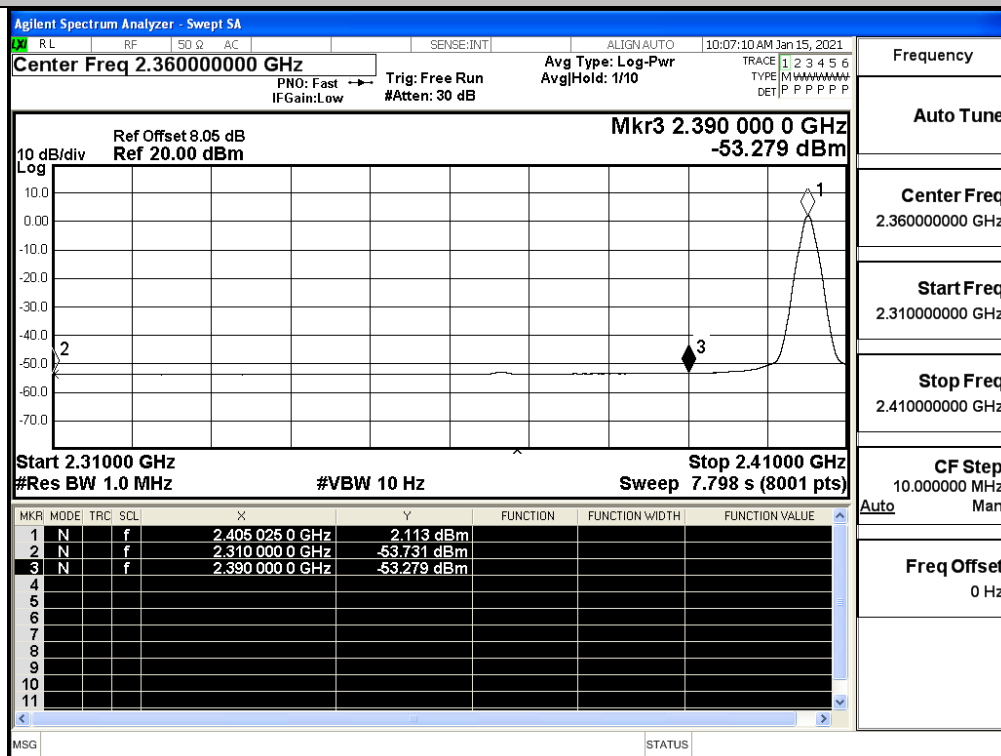
B.7 Restrict-band band-edge measurements

Test Mode	Test Channel	Ant	Freq.	Power [dBm]	Gain	Ground Factor	E [dBuV/m]	Detector	Limit [dBuV/m]	Verdi
Zigbee	2405	Ant1	2310.0	-42.96	2.0	0	54.30	PEAK	74	PASS
		Ant1	2310.0	-53.73	2.0	0	43.53	AV	54	PASS
		Ant1	2390.0	-43.63	2.0	0	53.63	PEAK	74	PASS
		Ant1	2390.0	-53.28	2.0	0	43.98	AV	54	PASS
	2480	Ant1	2483.5	-34.87	2.0	0	62.39	PEAK	74	PASS
		Ant1	2483.5	-45.82	2.0	0	51.44	AV	54	PASS
		Ant1	2500.0	-43.68	2.0	0	53.58	PEAK	74	PASS
		Ant1	2500.0	-52.89	2.0	0	44.37	AV	54	PASS

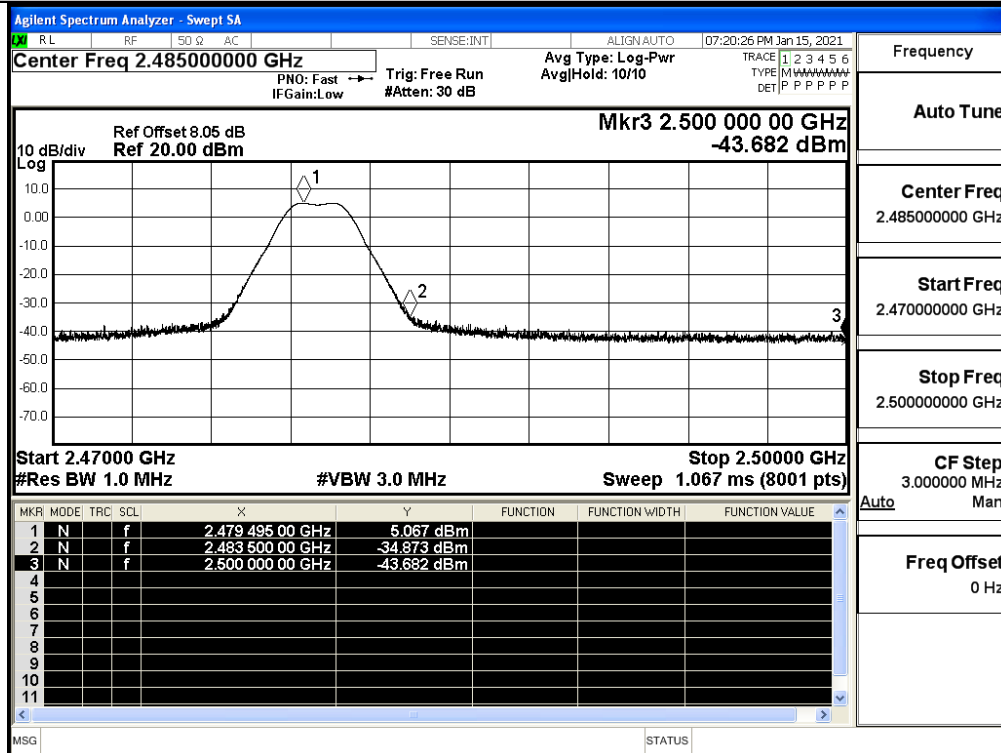
Restrict-band band-edge measurements_Zigbee_2405_Ant1_PEAK



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

