

Appendix B

RF Test Data for Zigbee (Conducted Measurement)

Product Name: Multisensor(ZB)

Trade Mark: FANTEM

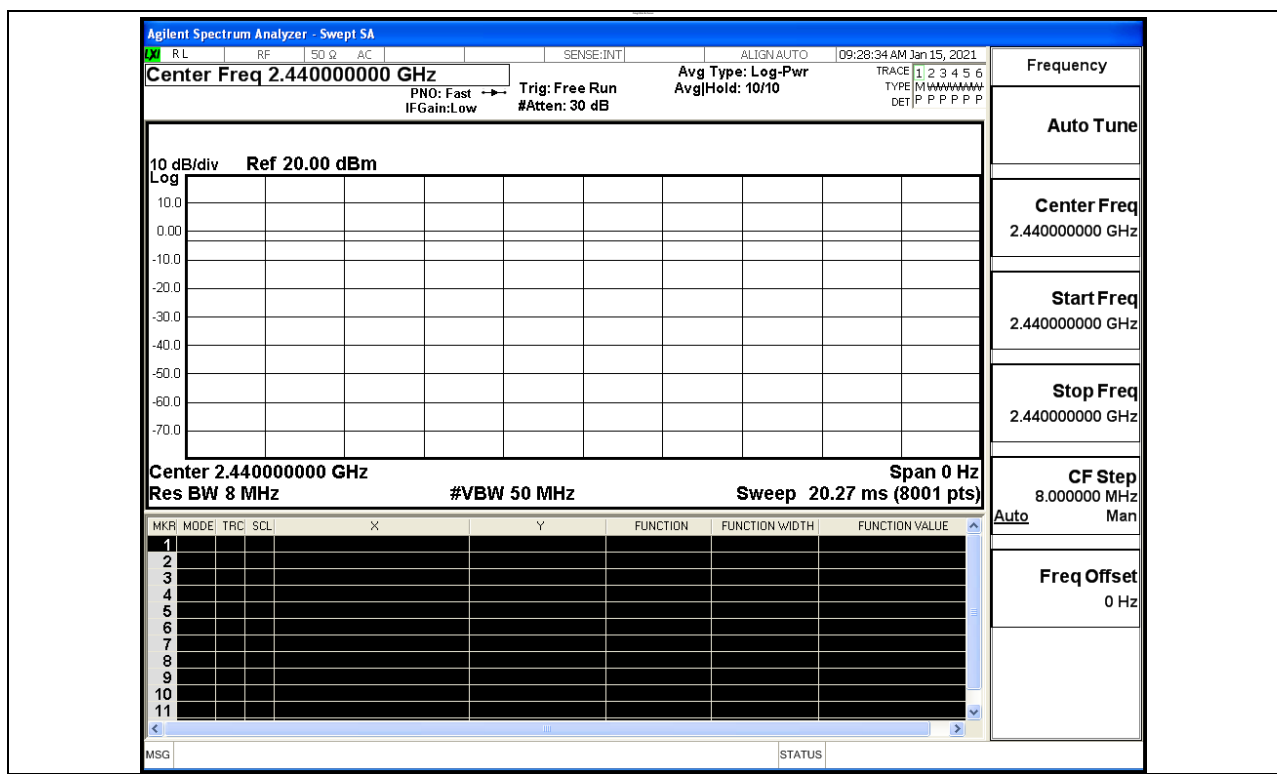
Test Model: ZB003-X

Environmental Conditions

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

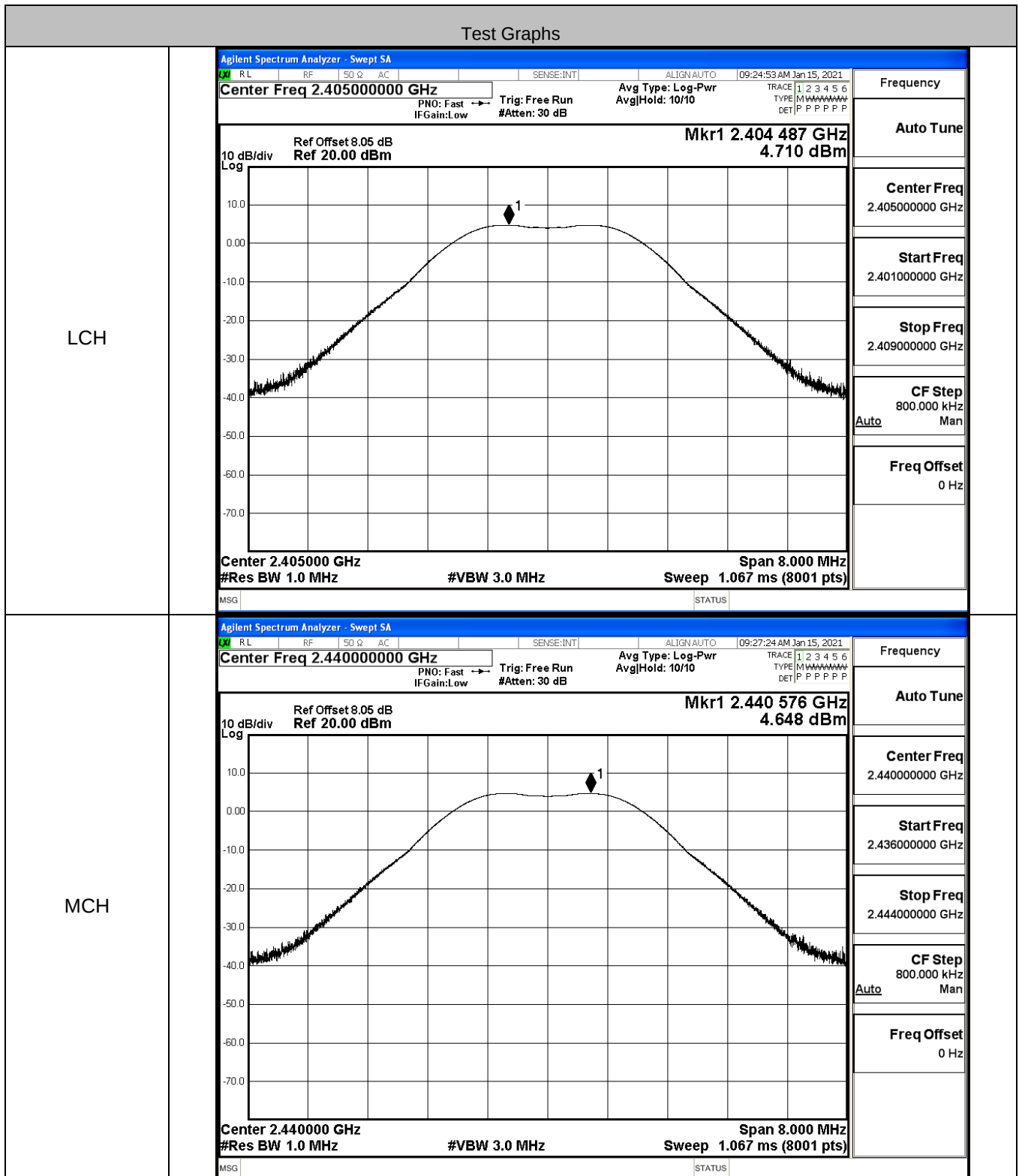
B.1 Duty Cycle

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

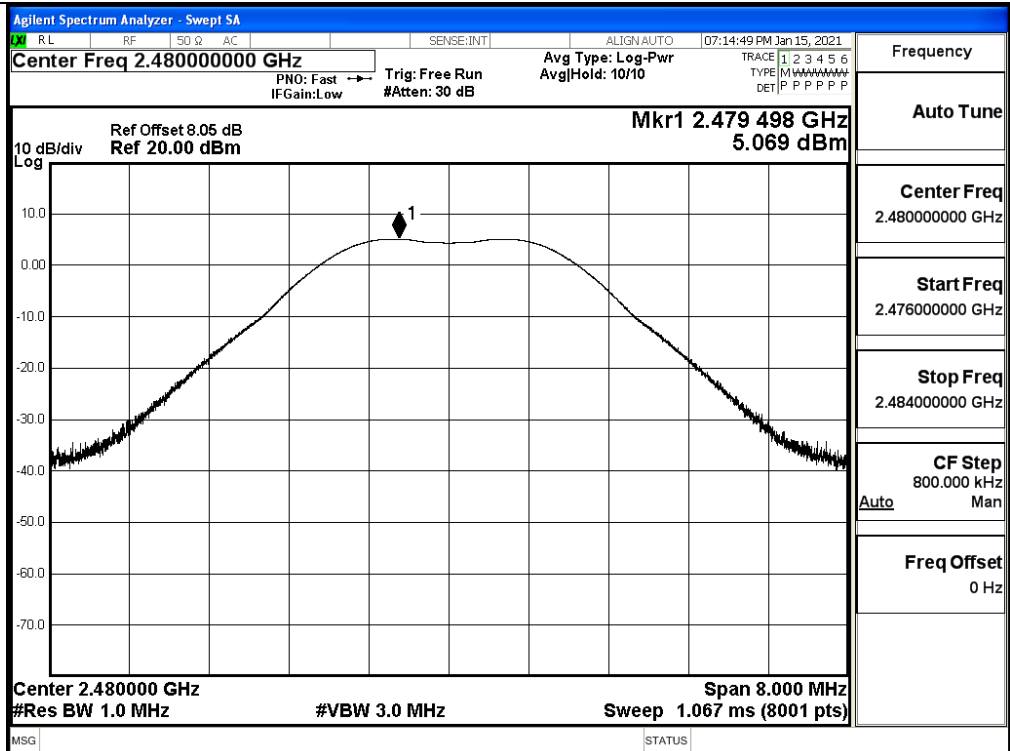


B.2 Maximum Conducted Peak Output Power

Mode	Channel	Conduct Peak Power[dBm]	Limit [dBm]	Verdict
Zigbee	LCH	4.710	30	PASS
Zigbee	MCH	4.648	30	PASS
Zigbee	HCH	5.069	30	PASS



HCH

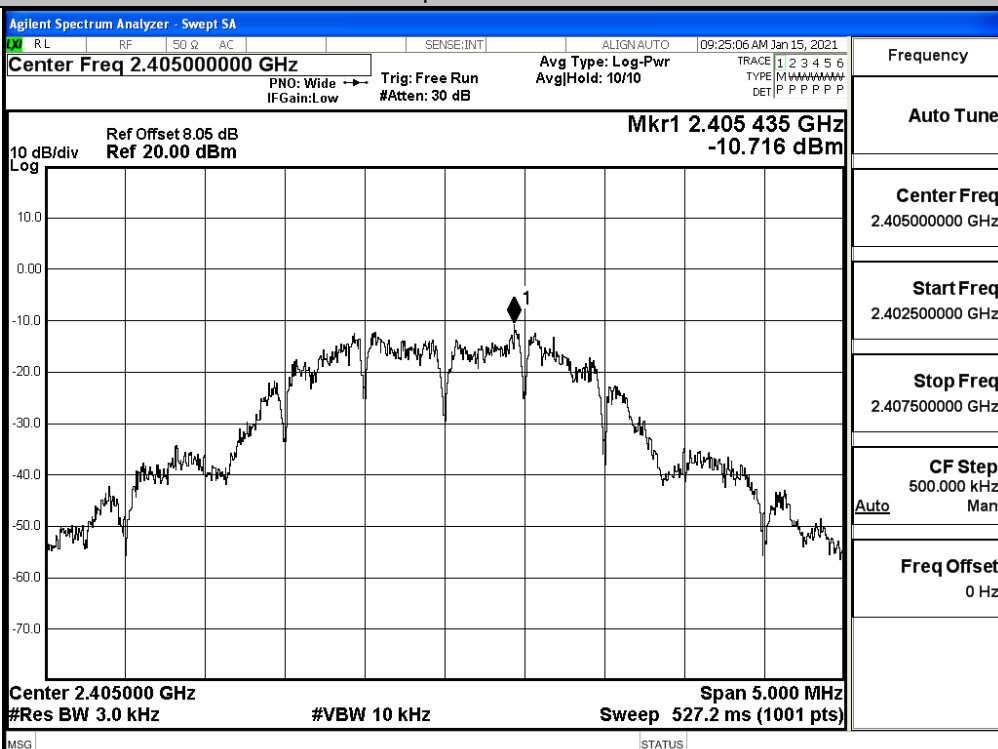


B.3 Maximum Power Spectral Density

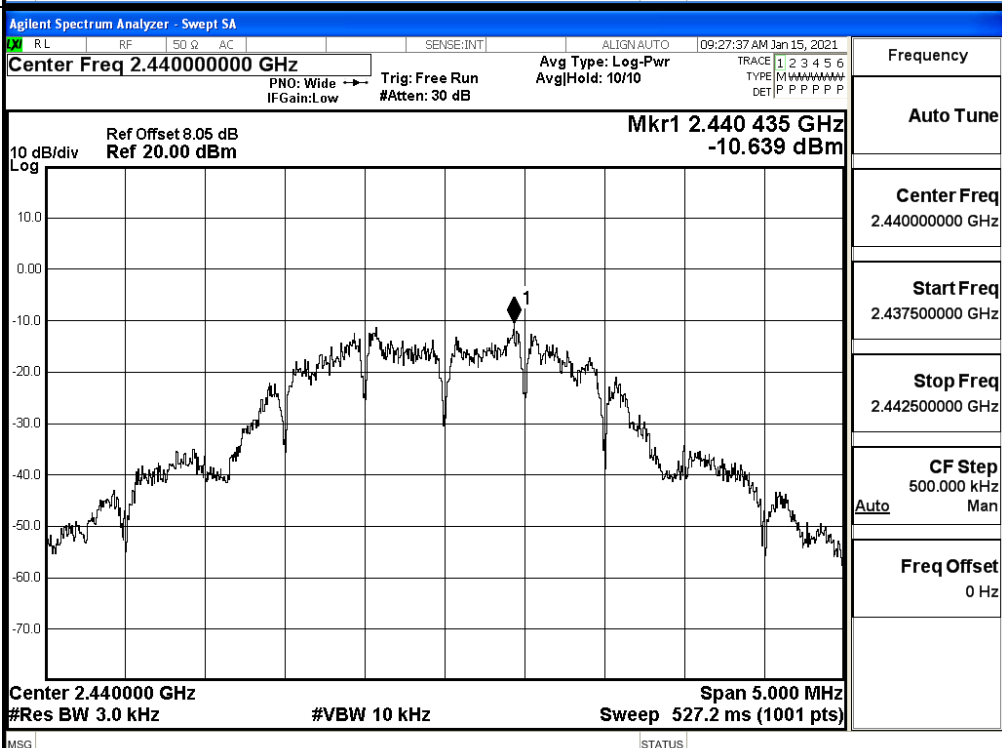
Mode	Channel	PSD [dBm/3KHz]	Limit [dBm/3KHz]	Verdict
Zigbee	LCH	-10.716	8	PASS
Zigbee	MCH	-10.639	8	PASS
Zigbee	HCH	-11.787	8	PASS

Test Graphs

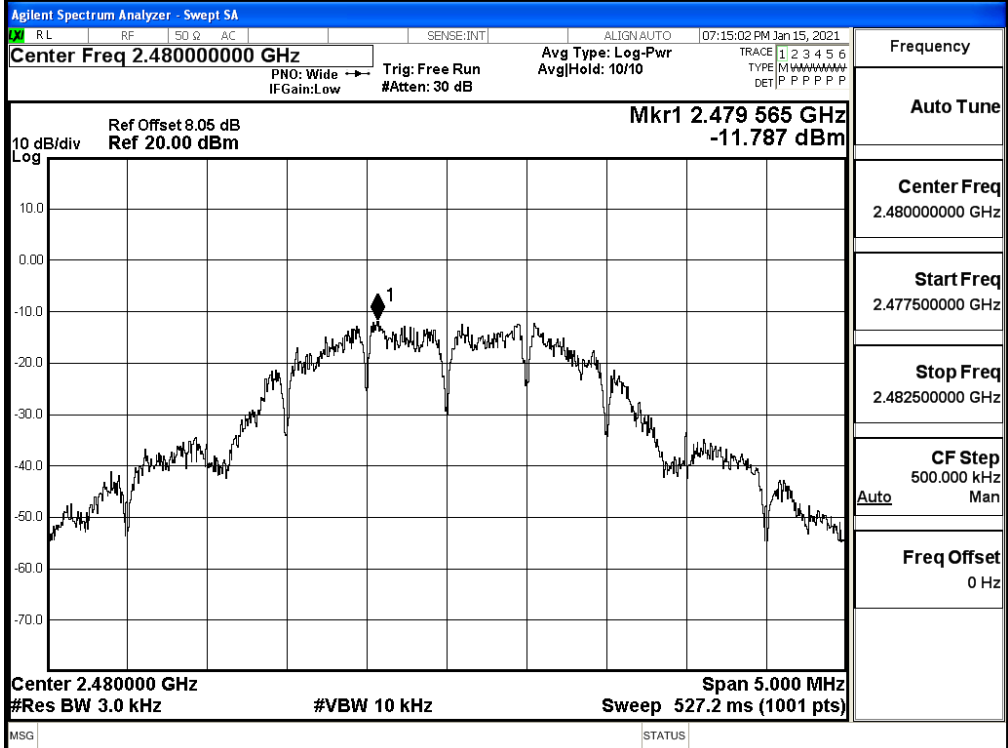
LCH



MCH



HCH

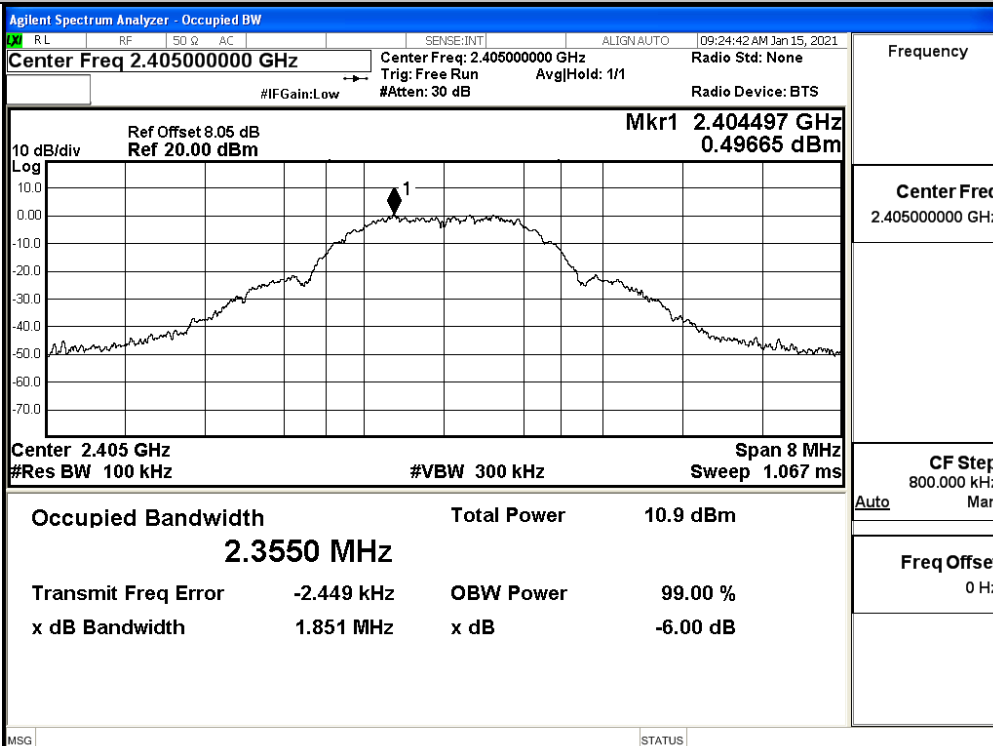


B.4 6dB Bandwidth

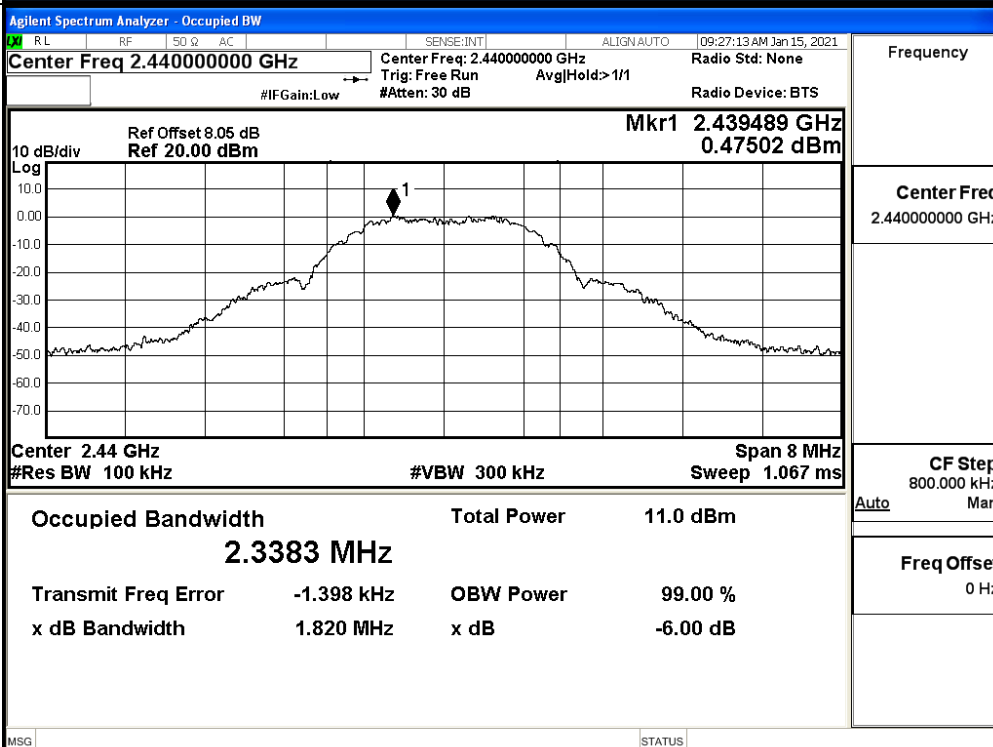
Mode	Channel	6dB Bandwidth [MHz]	Limit [MHz]	Verdict
Zigbee	LCH	1.851	≥ 0.5	PASS
Zigbee	MCH	1.820	≥ 0.5	PASS
Zigbee	HCH	1.809	≥ 0.5	PASS

Test Graphs

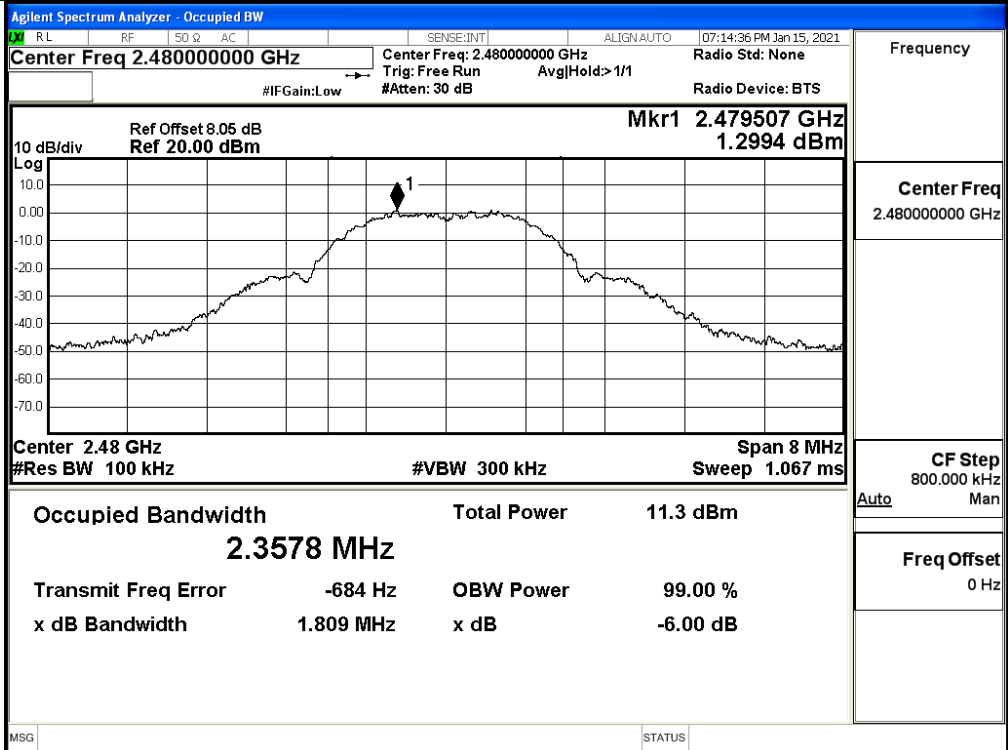
LCH



MCH

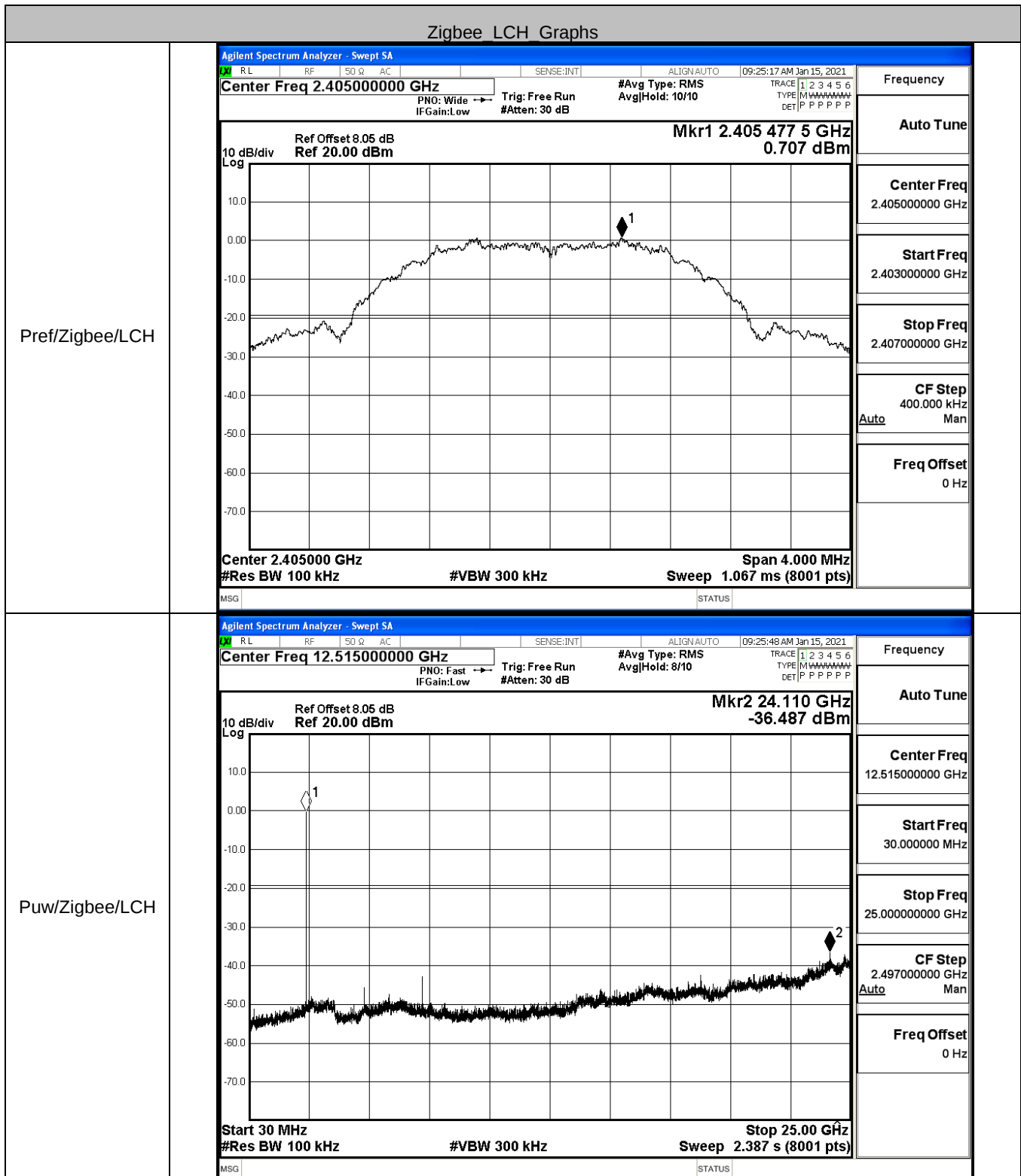


HCH

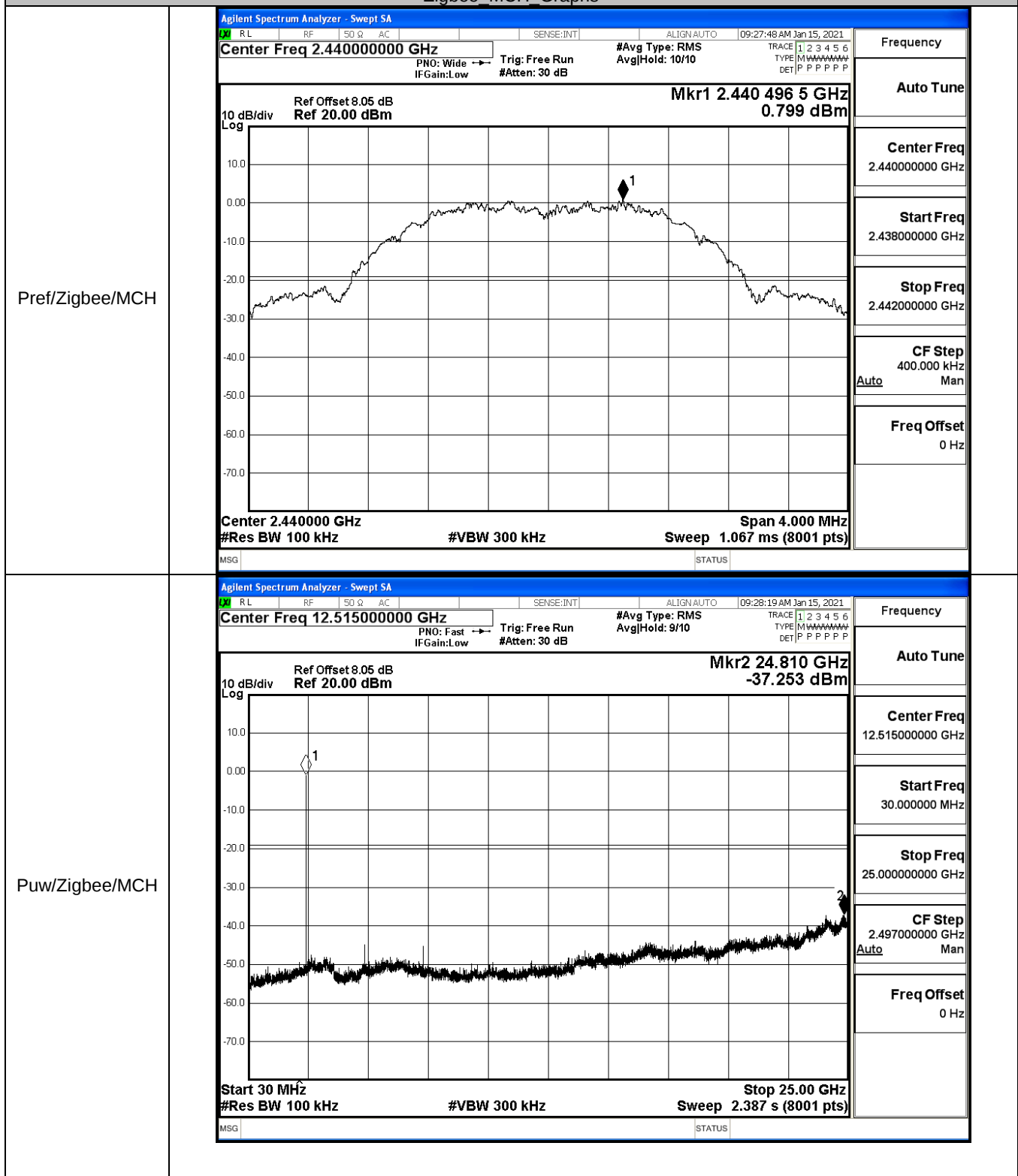


B.5 RF Conducted Spurious Emissions

Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
Zigbee	LCH	0.707	-36.487	-19.29	PASS
Zigbee	MCH	0.799	-37.253	-19.20	PASS
Zigbee	HCH	0.978	-36.819	-19.02	PASS

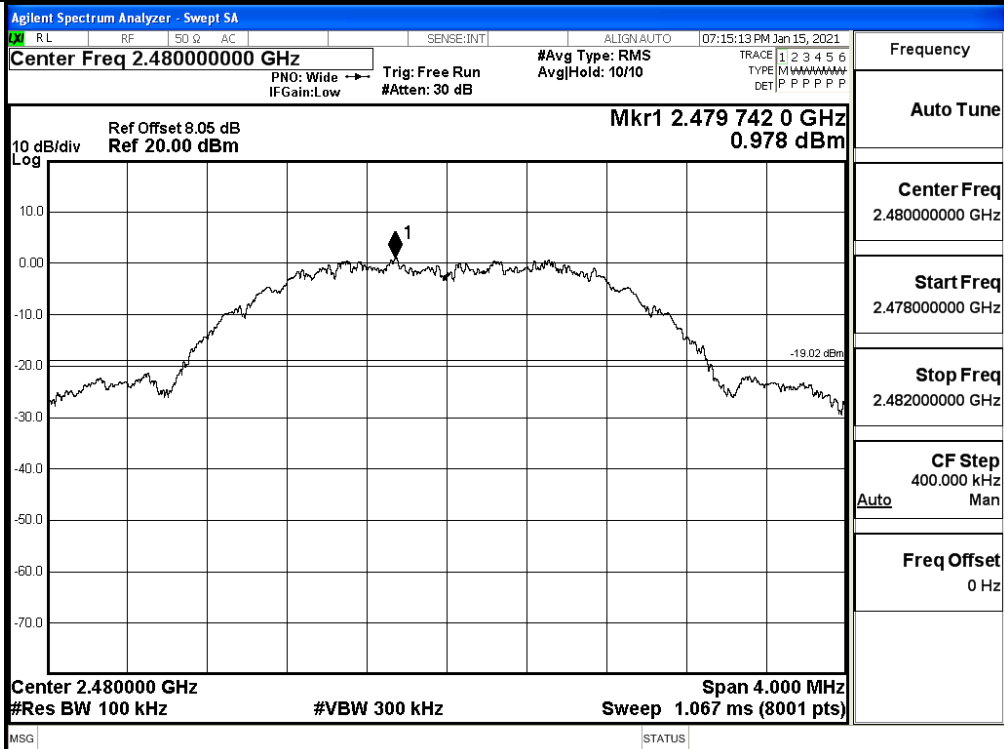


Zigbee MCH Graphs

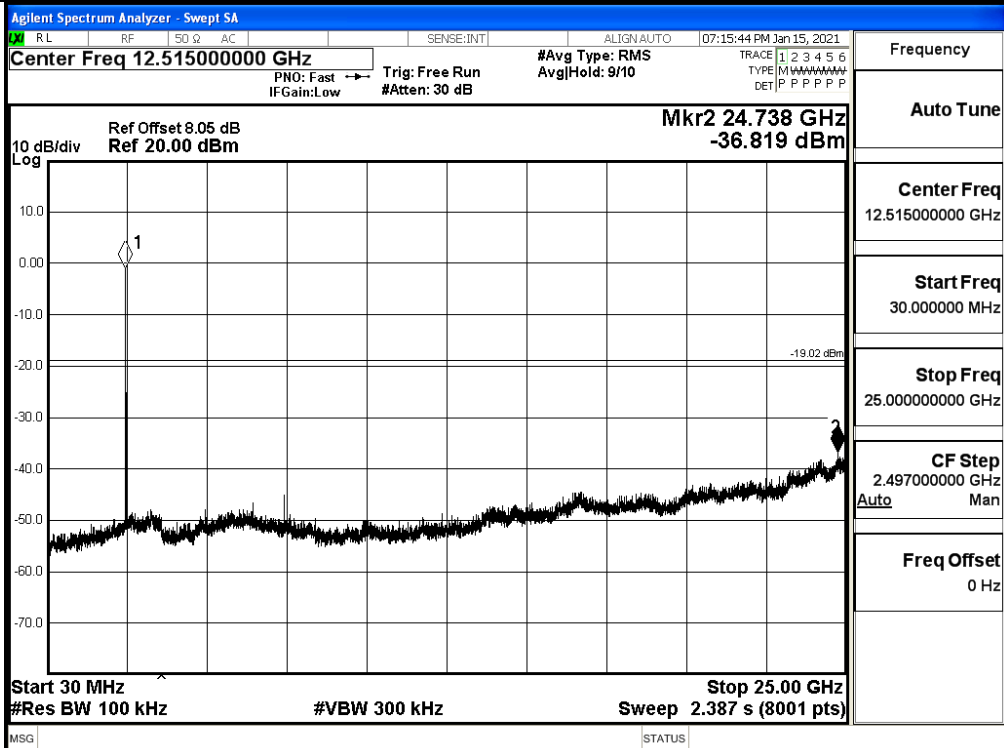


Zigbee HCH Graphs

Pref/Zigbee/HCH



Puw/Zigbee/HCH

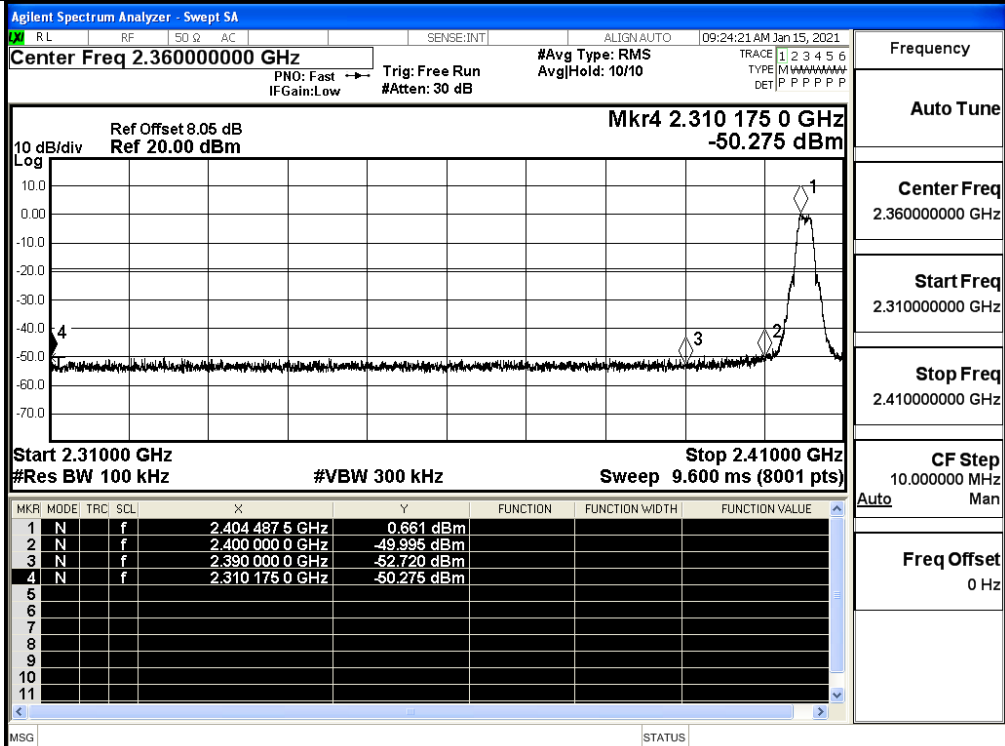


B.6 Band-edge for RF Conducted Emissions

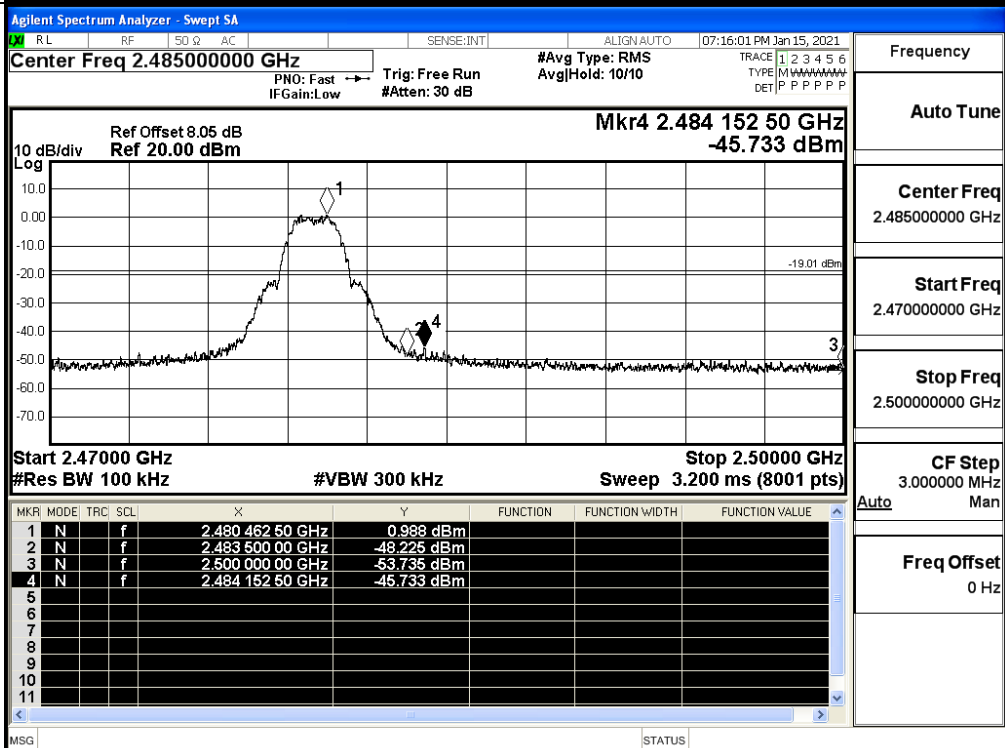
Mode	Channel	Carrier Power[dBm]	Max.Spurious Level [dBm]	Limit [dBm]	Verdict
Zigbee	LCH	0.661	-50.275	-19.23	PASS
Zigbee	HCH	0.988	-45.733	-19.01	PASS

Test Graphs

LCH



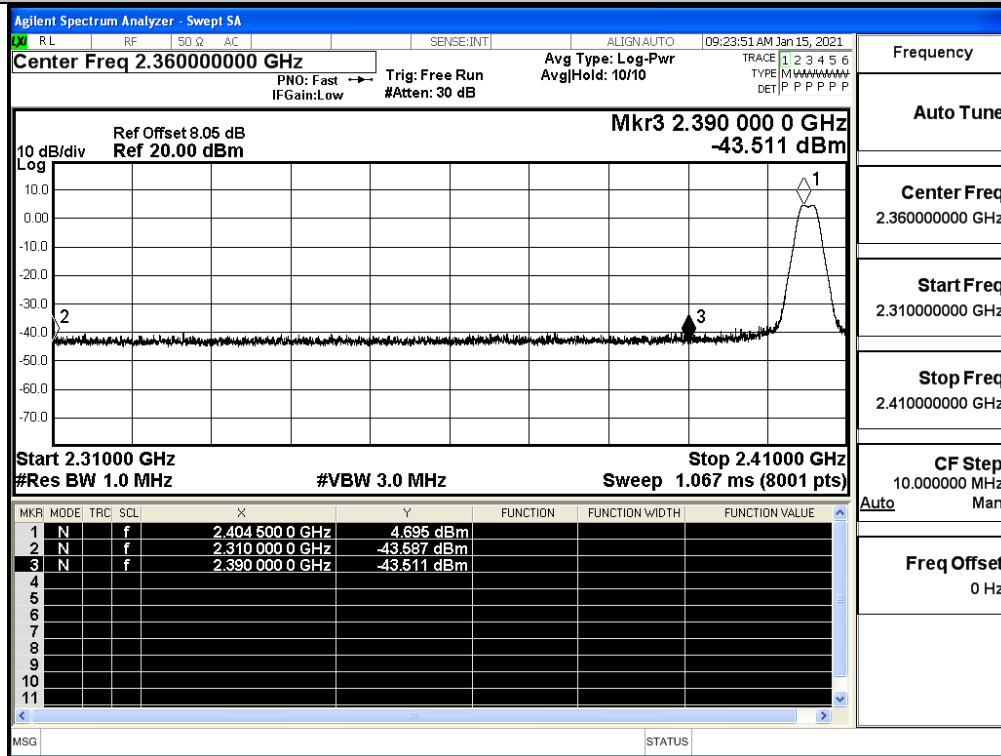
HCH



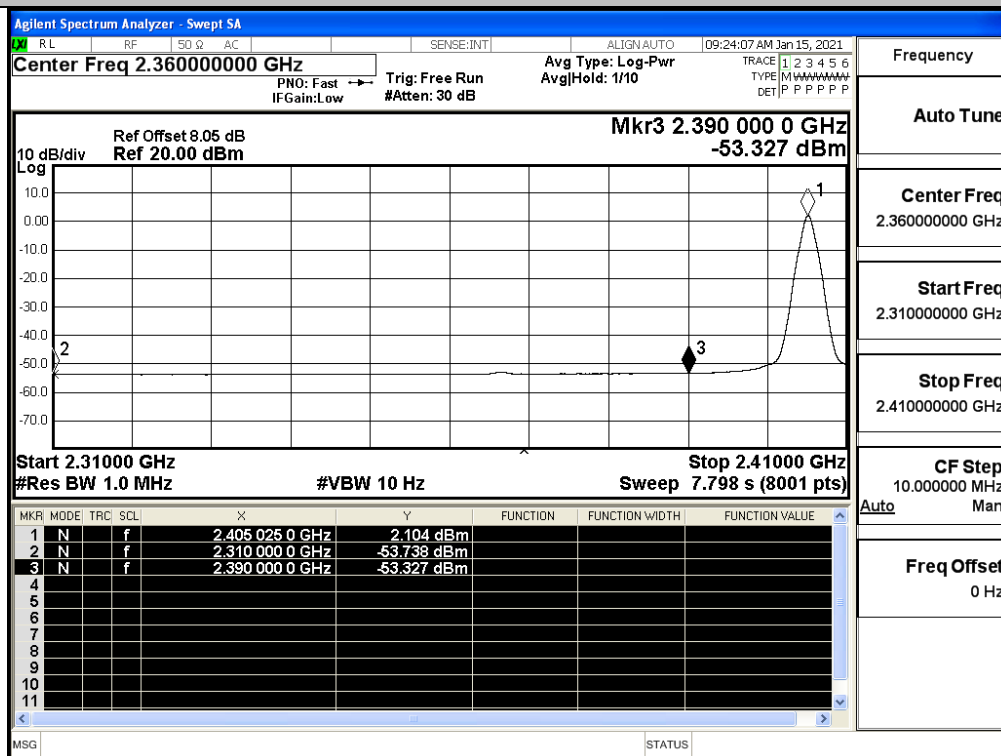
B.7 Restrict-band band-edge measurements

Test Mode	Test Channel	Ant	Freq.	Power [dBm]	Gain	Ground Factor	E [dBuV/m]	Detector	Limit [dBuV/m]	Verdi
Zigbee	2405	Ant1	2310.0	-43.59	2	0	53.67	PEAK	74	PASS
		Ant1	2310.0	-53.74	2	0	43.52	AV	54	PASS
		Ant1	2390.0	-43.51	2	0	53.75	PEAK	74	PASS
		Ant1	2390.0	-53.33	2	0	43.93	AV	54	PASS
	2480	Ant1	2483.5	-36.39	2	0	60.87	PEAK	74	PASS
		Ant1	2483.5	-45.80	2	0	51.46	AV	54	PASS
		Ant1	2500.0	-41.97	2	0	55.29	PEAK	74	PASS
		Ant1	2500.0	-52.67	2	0	44.59	AV	54	PASS

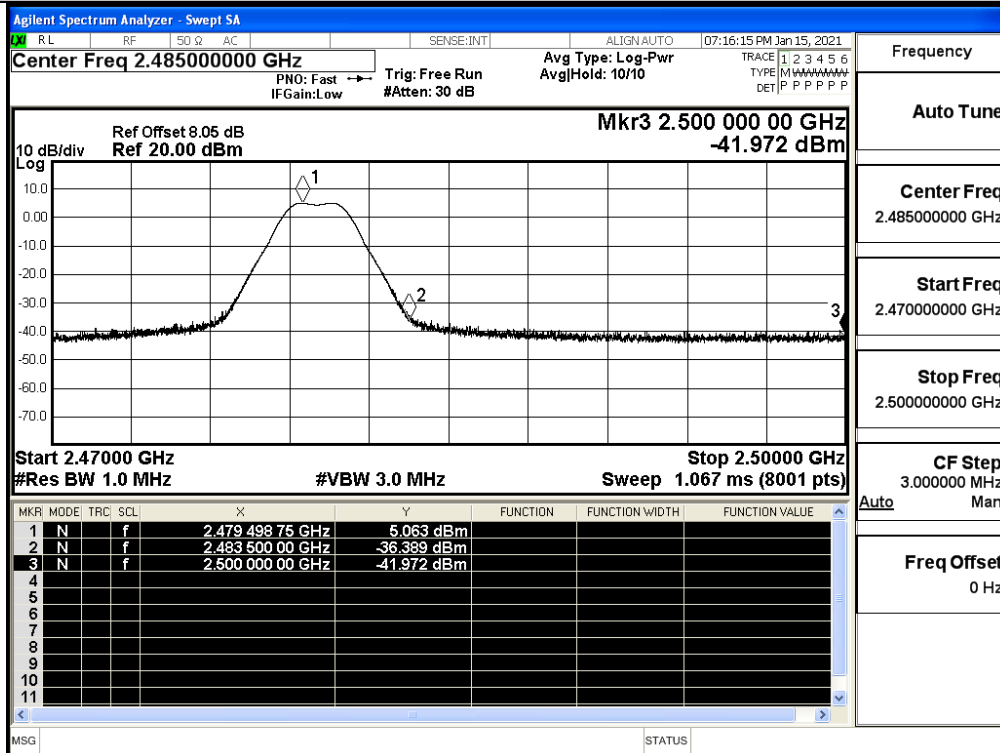
Restrict-band band-edge measurements_Zigbee_2405_Ant1_PEAK



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

