

Appendix B

RF Test Data for ZigBee (Conducted Measurement)

Product Name: Smart Gateway

Trade Mark: N/A

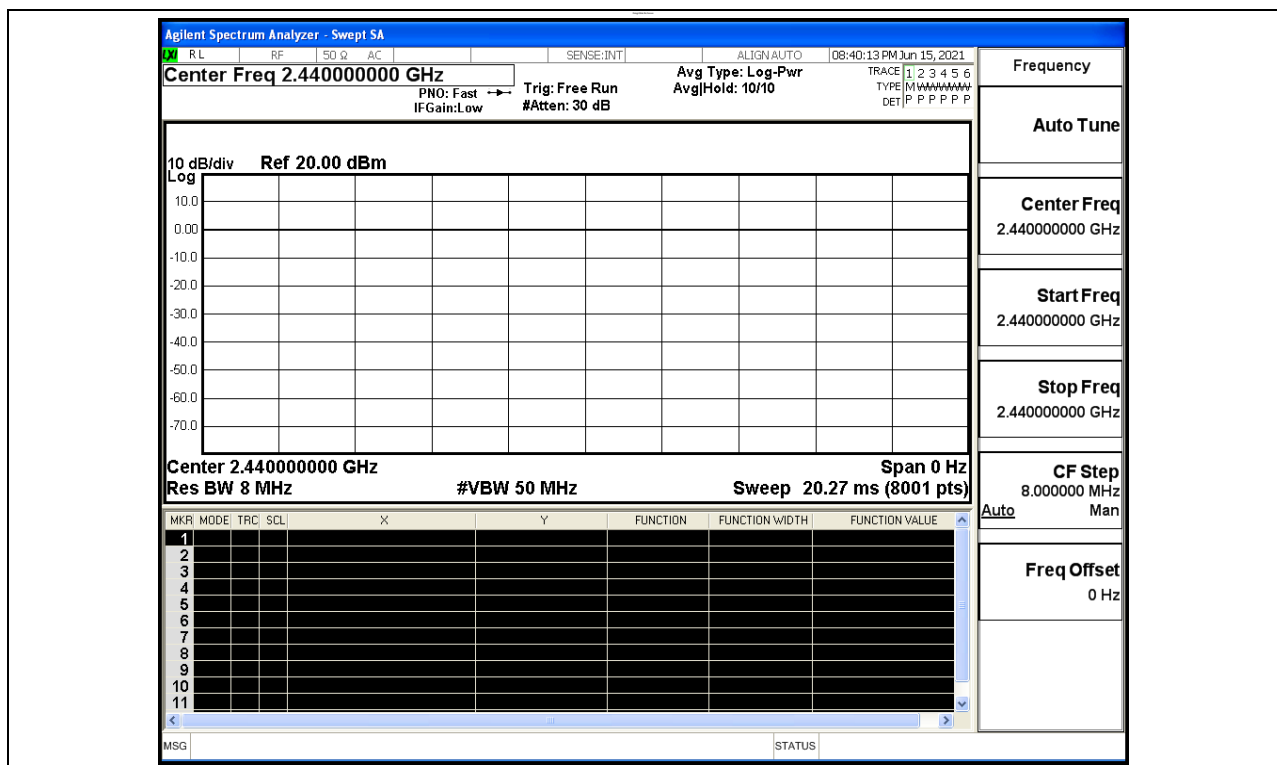
Test Model: TYGWZW-01N

Environmental Conditions

Temperature:	21.6° C
Relative Humidity:	52.7%
ATM Pressure:	100.0 kPa
Test Engineer:	Ken He
Supervised by:	Li Huan

B.1 Duty Cycle

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

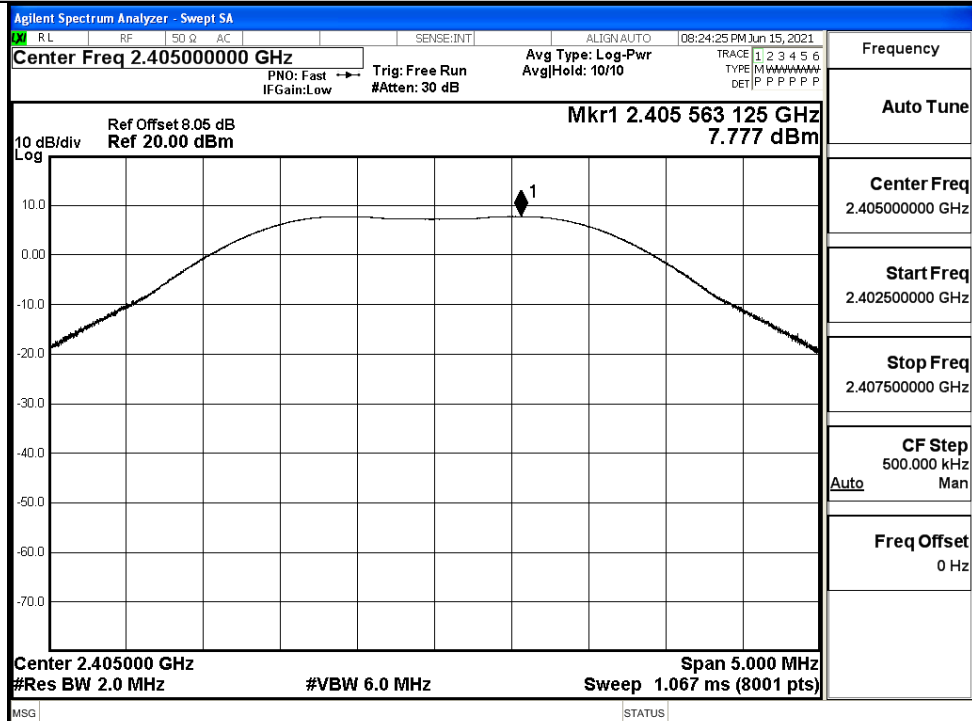


B.2 Maximum Conducted Peak Output Power

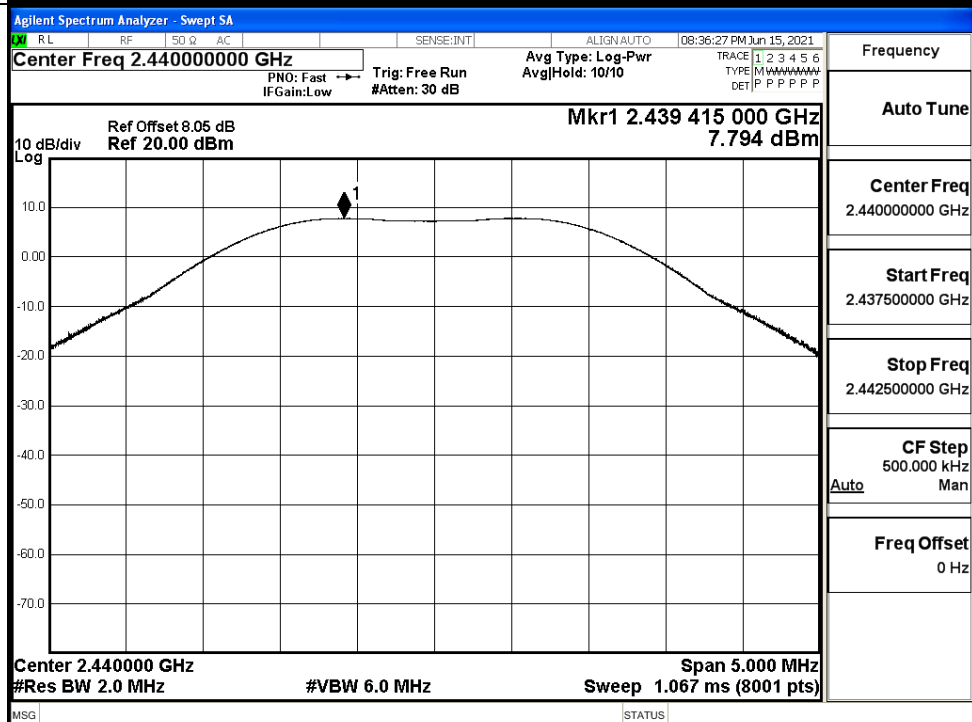
Mode	Channel	Conduct Peak Power[dBm]	Limit [dBm]	Verdict
ZigBee	LCH	7.777	30	PASS
ZigBee	MCH	7.794	30	PASS
ZigBee	HCH	7.593	30	PASS

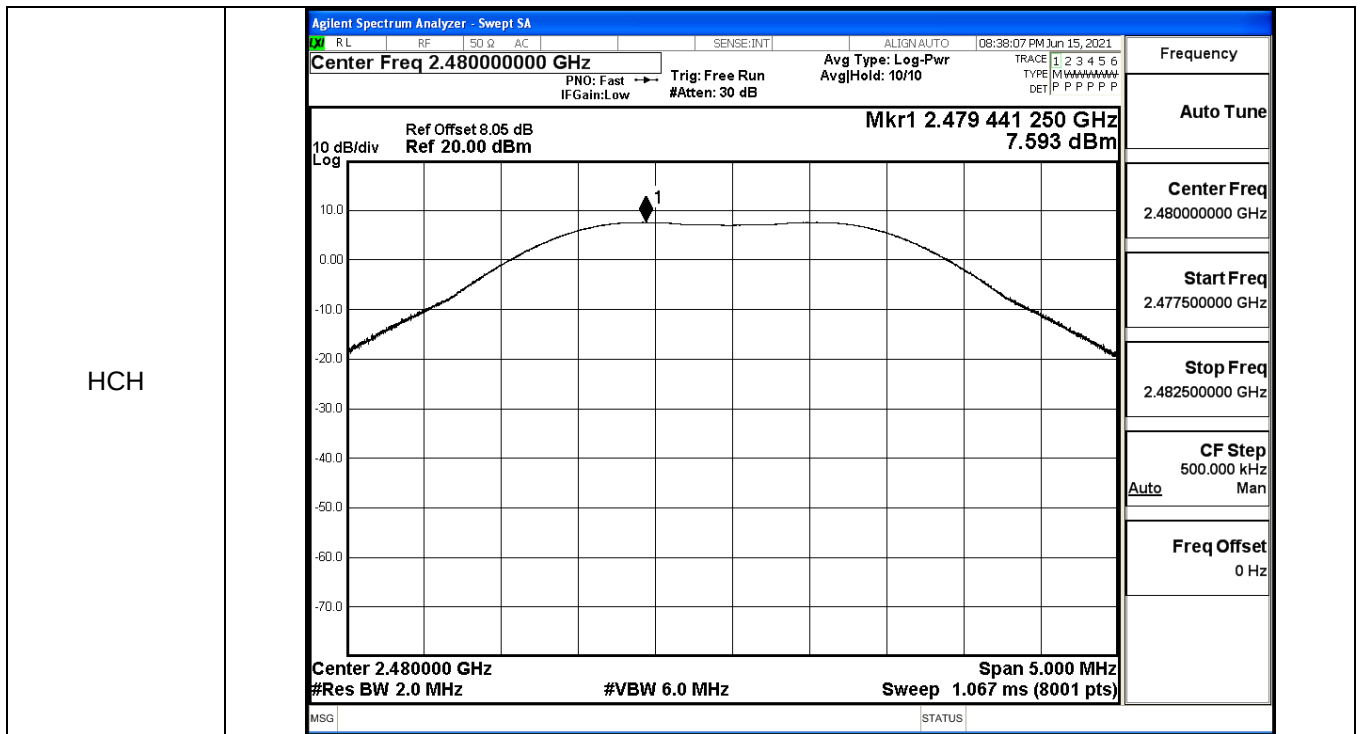
Test Graphs

LCH



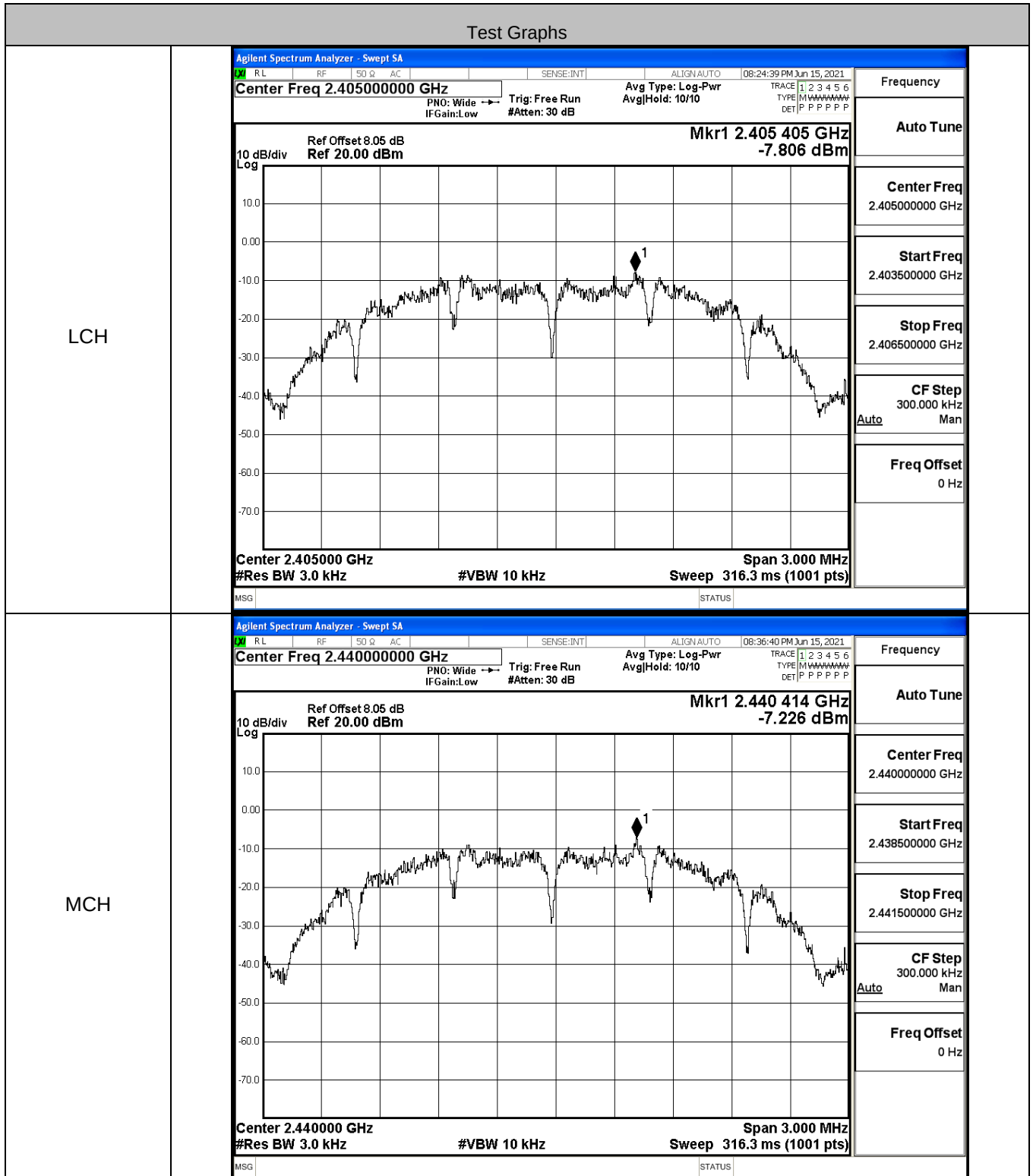
MCH





B.3 Maximum Power Spectral Density

Mode	Channel	PSD [dBm/3KHz]	Limit [dBm/3KHz]	Verdict
ZigBee	LCH	-7.806	8	PASS
ZigBee	MCH	-7.226	8	PASS
ZigBee	HCH	-7.600	8	PASS



HCH

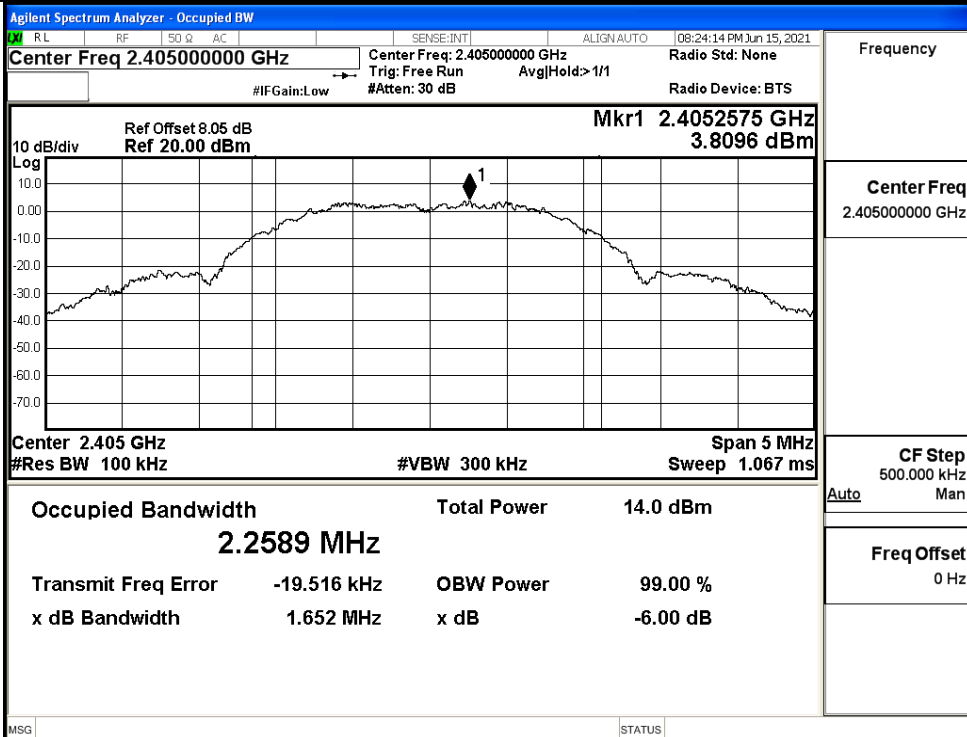


B.4 6dB Bandwidth

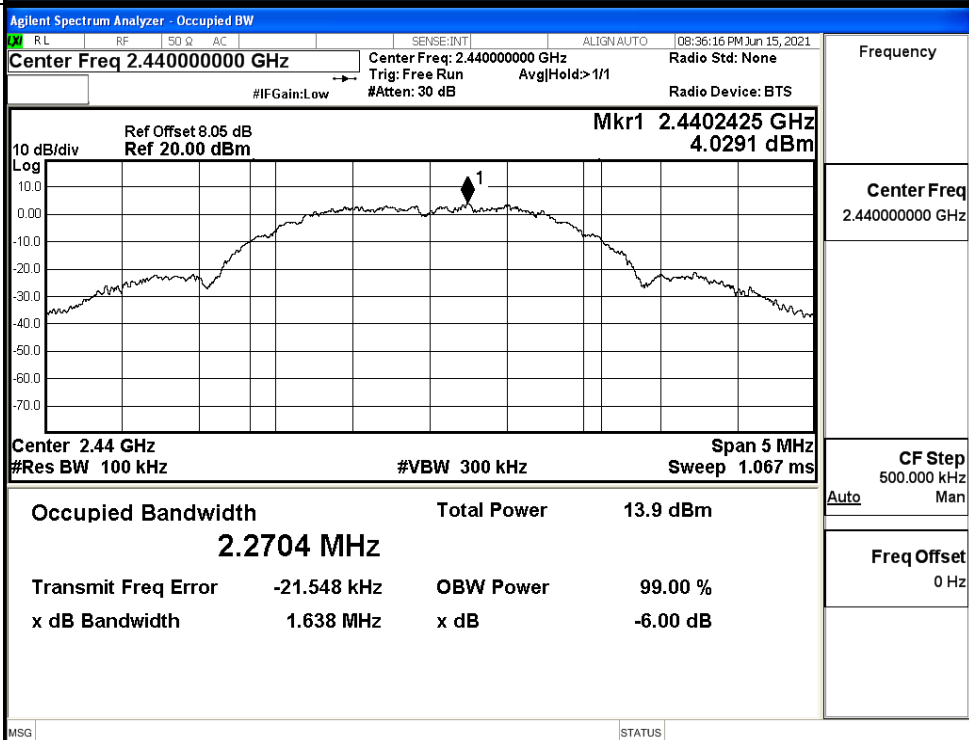
Mode	Channel	6dB Bandwidth [MHz]	Limit [MHz]	Verdict
ZigBee	LCH	1.652	≥ 0.5	PASS
ZigBee	MCH	1.638	≥ 0.5	PASS
ZigBee	HCH	1.637	≥ 0.5	PASS

Test Graphs

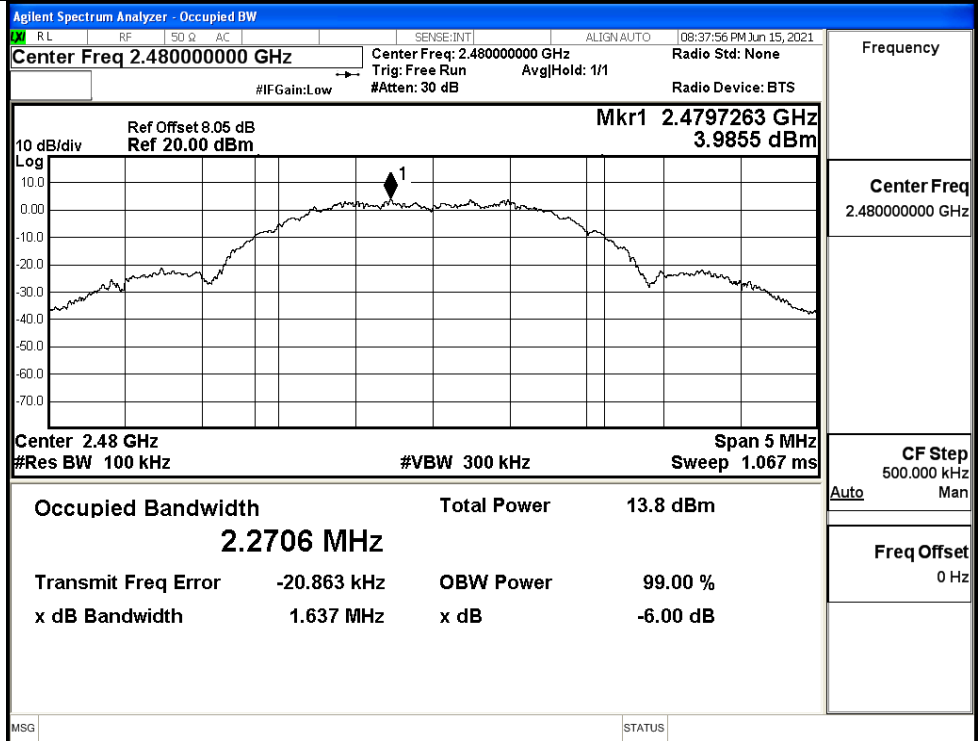
LCH



MCH



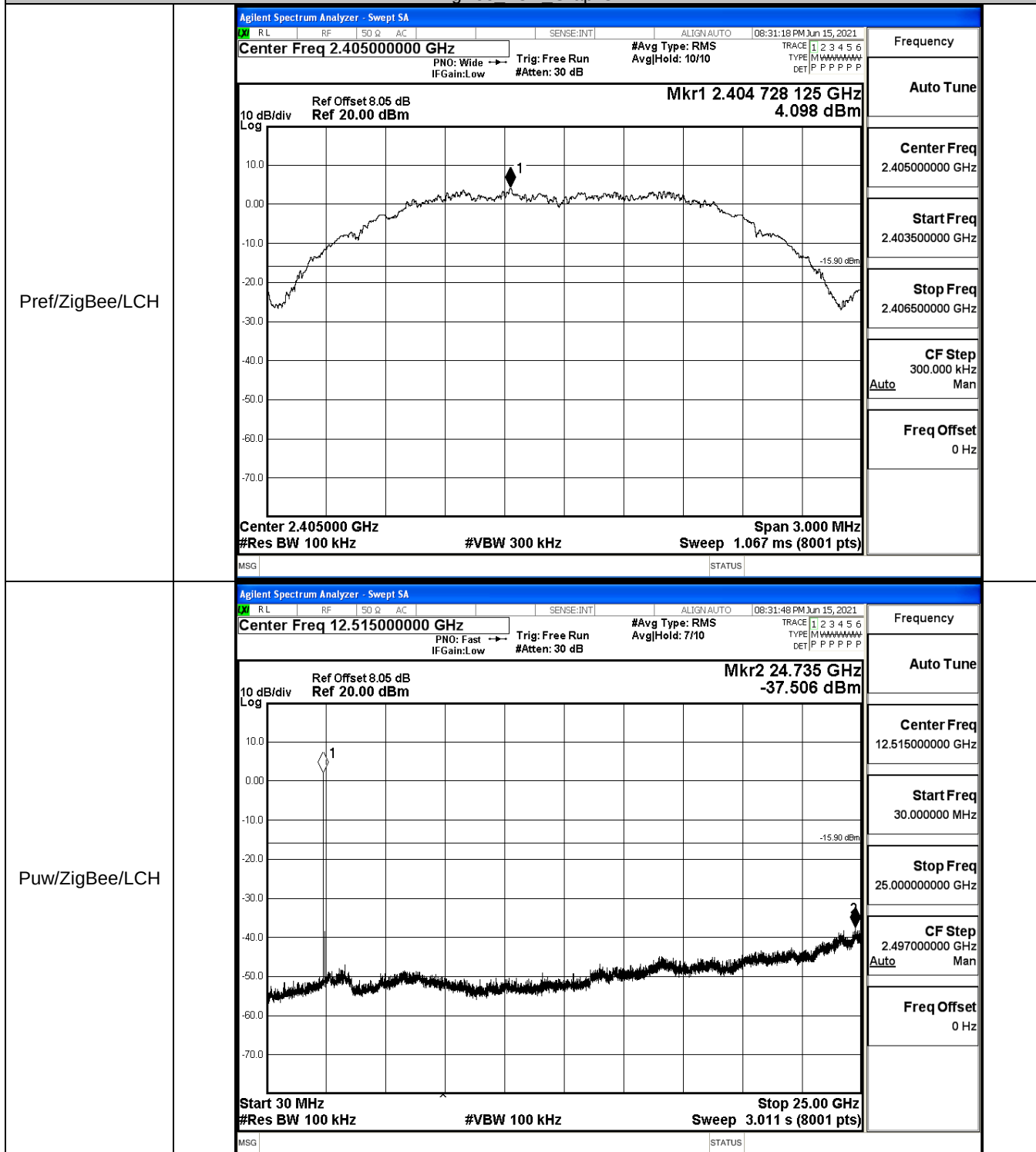
HCH



B.5 RF Conducted Spurious Emissions

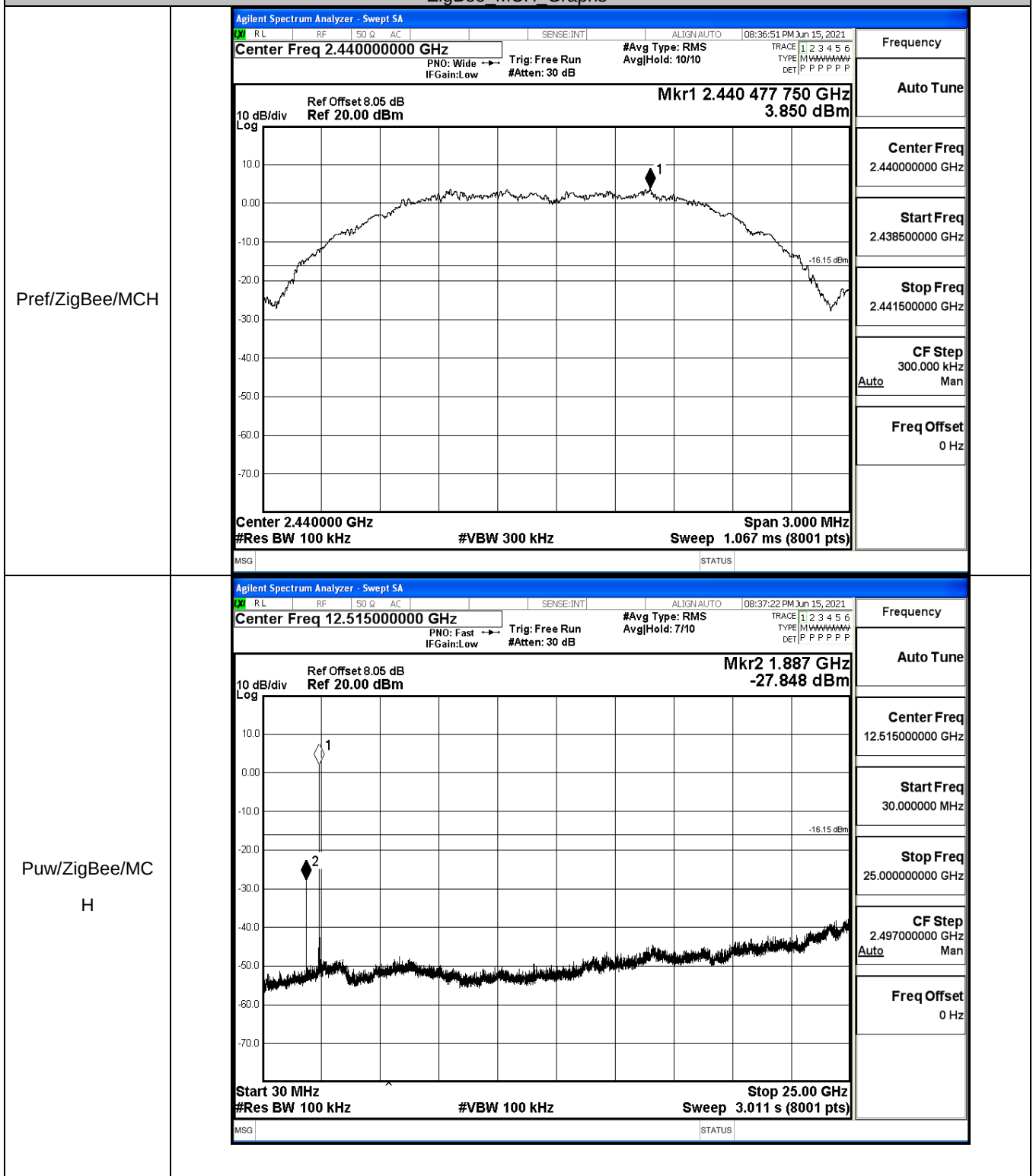
Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
ZigBee	LCH	4.098	-37.506	-15.902	PASS
ZigBee	MCH	3.85	-27.848	-16.150	PASS
ZigBee	HCH	3.802	-38.000	-16.198	PASS

ZigBee LCH Graphs

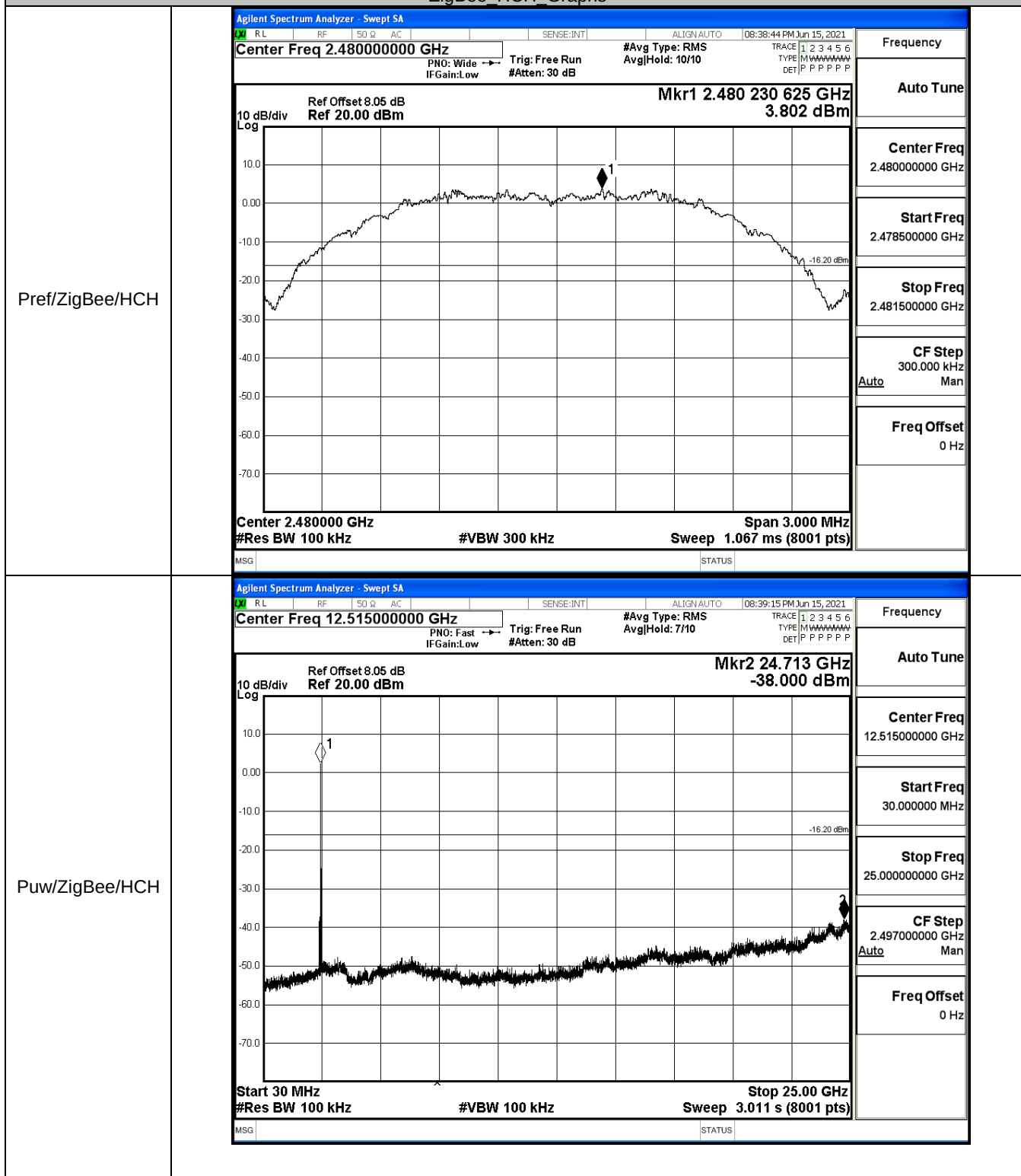


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ZigBee_MCH_Graphs



ZigBee HCH Graphs

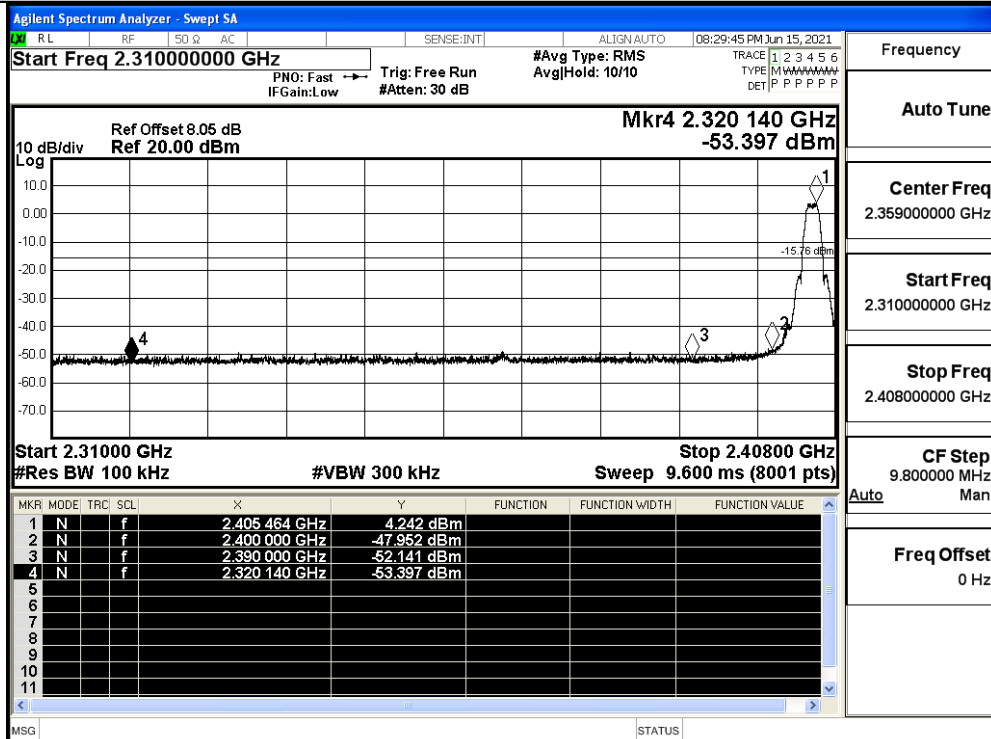


B.6 Band-edge for RF Conducted Emissions

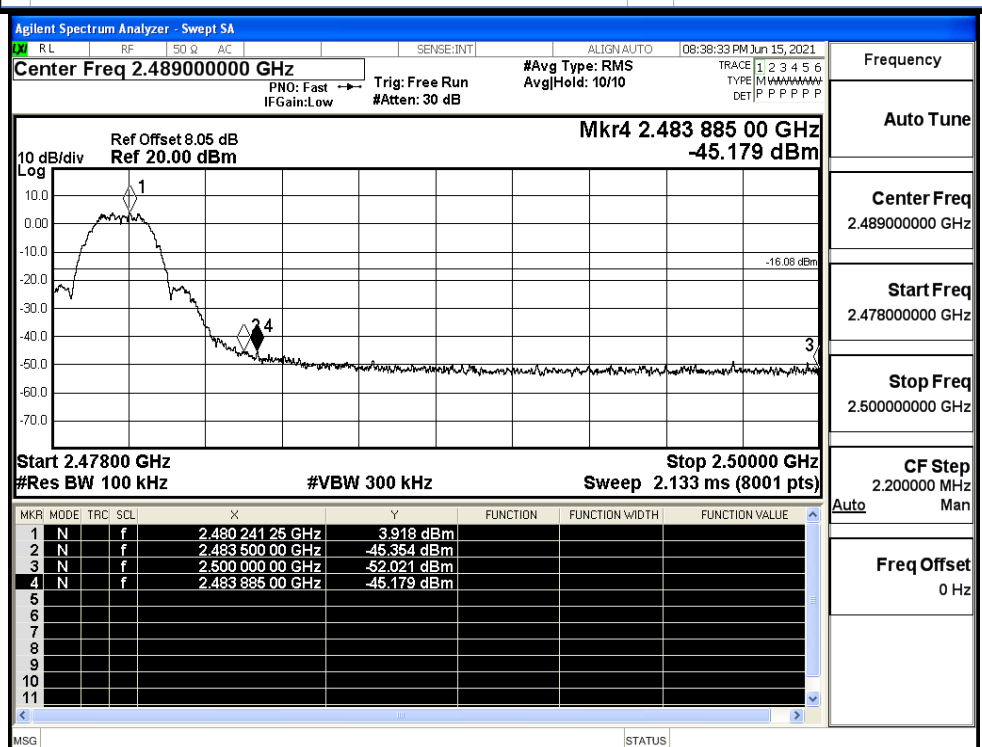
Mode	Channel	Carrier Power[dBm]	Max.Spurious Level [dBm]	Limit [dBm]	Verdict
ZigBee	LCH	-4.721	-48.861	-24.72	PASS
ZigBee	HCH	3.918	-45.179	-16.08	PASS

Test Graphs

LCH



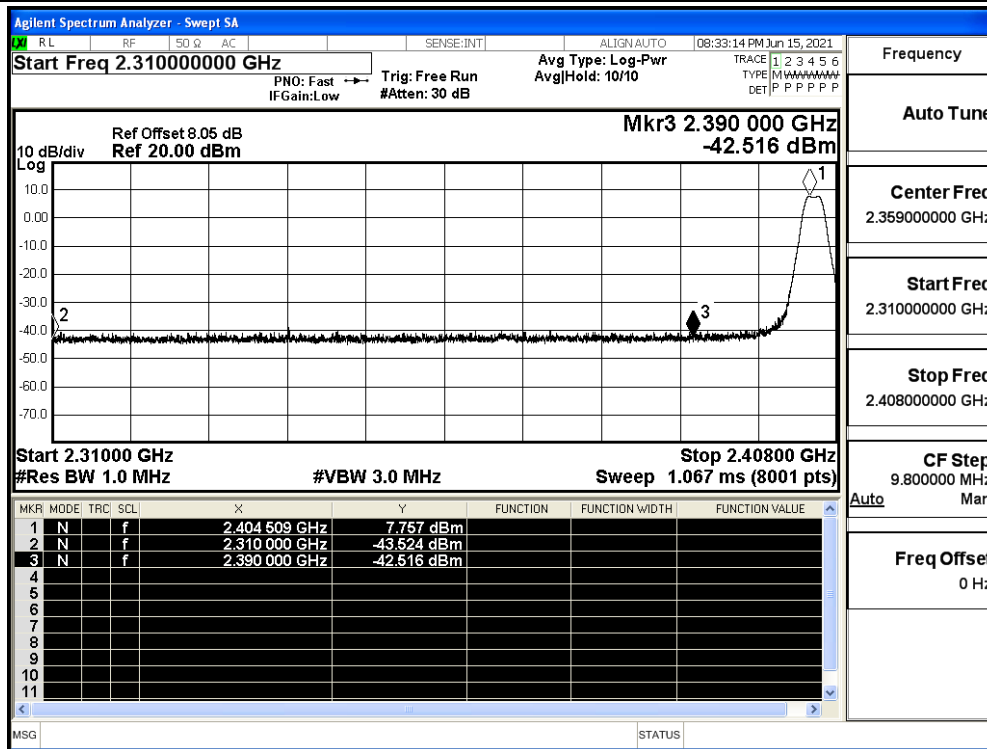
HCH



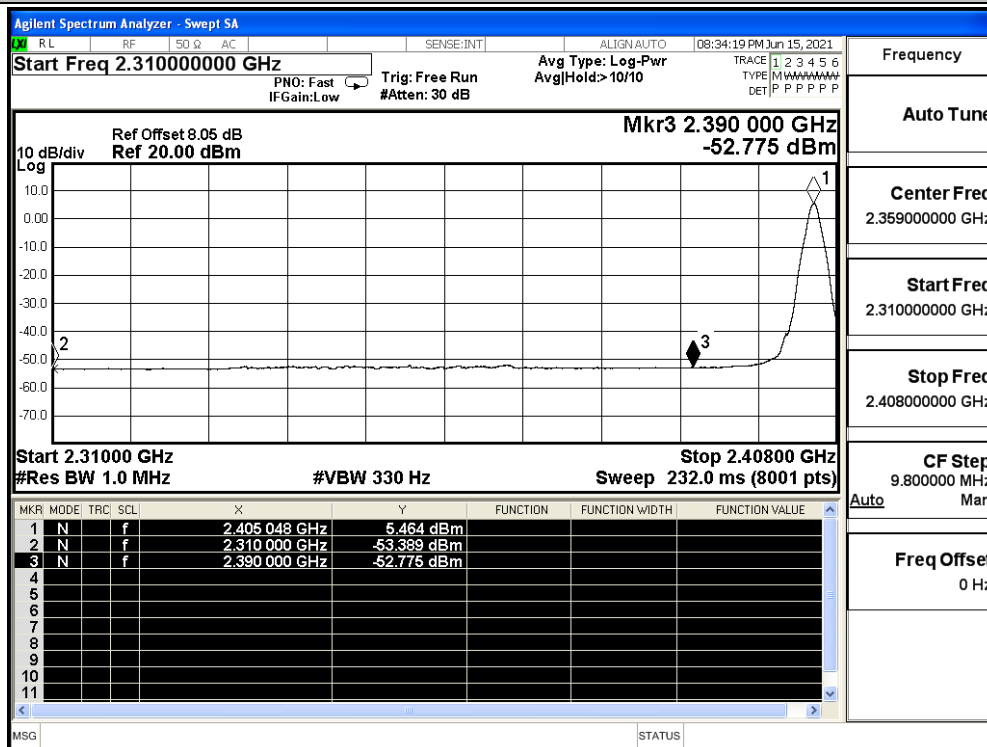
B.7 Restrict-band band-edge measurements

Test Mode	Test Channel	Ant	Freq.	Power [dBm]	Gain	Ground Factor	E [dBuV/m]	Detector	Limit [dBuV/m]	Verdi
ZigBee	2402	Ant1	2310.0	-42.88	3.0	0	55.38	PEAK	74	PASS
		Ant1	2310.0	-53.39	3.0	0	44.87	AV	54	PASS
		Ant1	2390.0	-42.99	3.0	0	55.27	PEAK	74	PASS
		Ant1	2390.0	-52.90	3.0	0	45.36	AV	54	PASS
	2480	Ant1	2483.5	-35.39	3.0	0	62.87	PEAK	74	PASS
		Ant1	2483.5	-44.37	3.0	0	53.89	AV	54	PASS
		Ant1	2500.0	-41.64	3.0	0	56.62	PEAK	74	PASS
		Ant1	2500.0	-52.35	3.0	0	45.91	AV	54	PASS

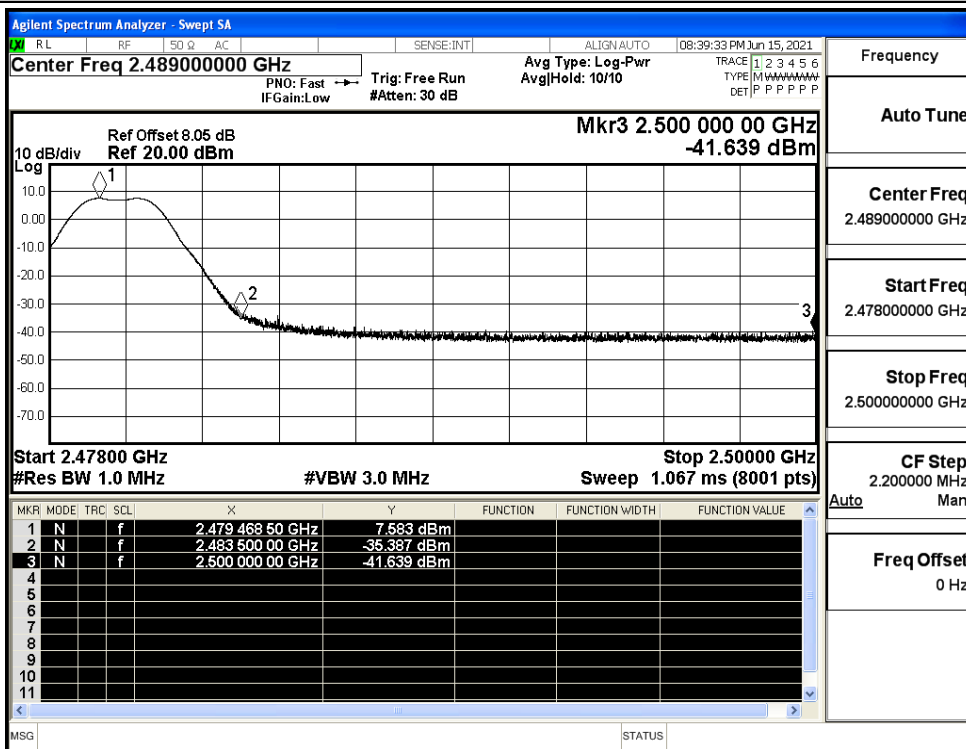
Restrict-band band-edge measurements_ZigBee_2402_Ant1_PEAK



Restrict-band band-edge measurements_ZigBee_2402_Ant1_AV



Restrict-band band-edge measurements_ZigBee_2480_Ant1_PEAK



Restrict-band band-edge measurements_ZigBee_2480_Ant1_AV

