

Appendix Test Data for Zigbee (Conducted Measurement)

Product Name: Smart Linux Gateway

Trade Mark: Dusun

Test Model: DSGW-091

FCC ID: 2AUXBDSGW-091

Environmental Conditions

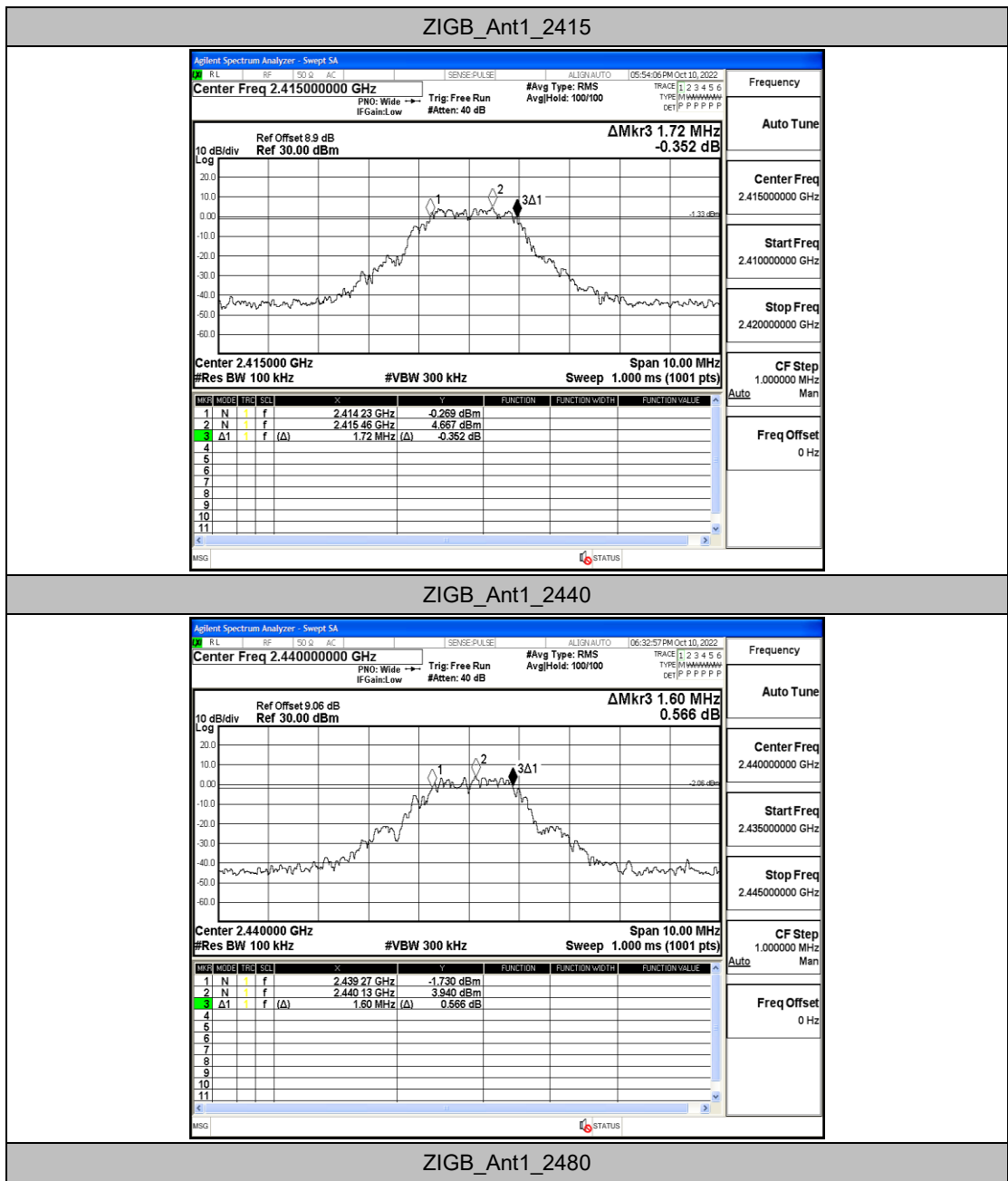
Temperature:	22.7°C
Relative Humidity:	56%
ATM Pressure:	100.0 kPa
Test Engineer:	Anna Hu
Supervised by:	Hugo Chen
NOTE	N/A

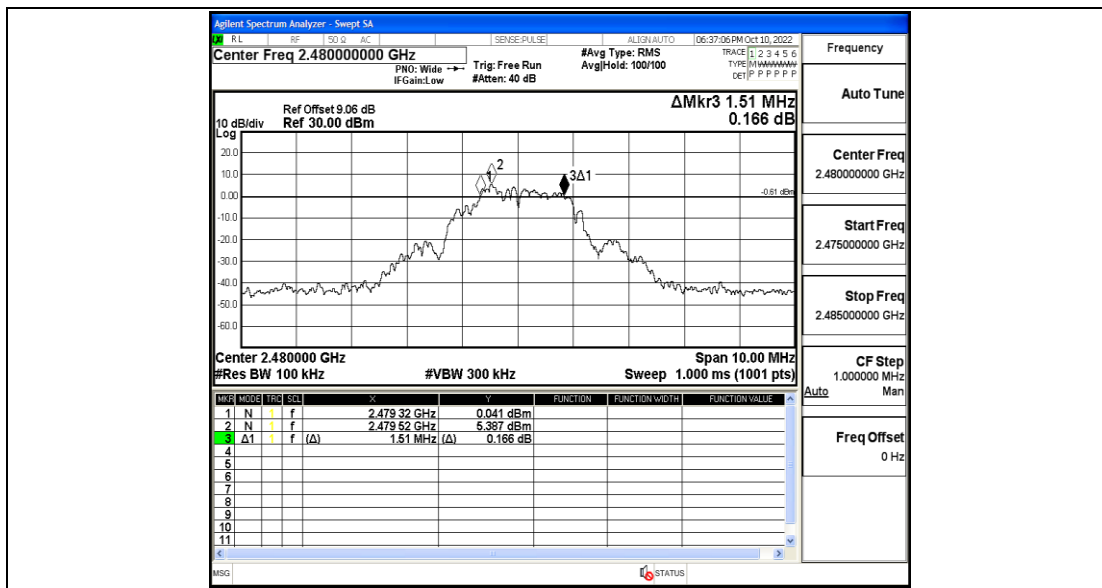
Appendix A: DTS Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
ZIGB	Ant1	2415	1.720	2414.230	2415.950	0.5	PASS
		2440	1.600	2439.270	2440.870	0.5	PASS
		2480	1.510	2479.320	2480.830	0.5	PASS

Test Graphs



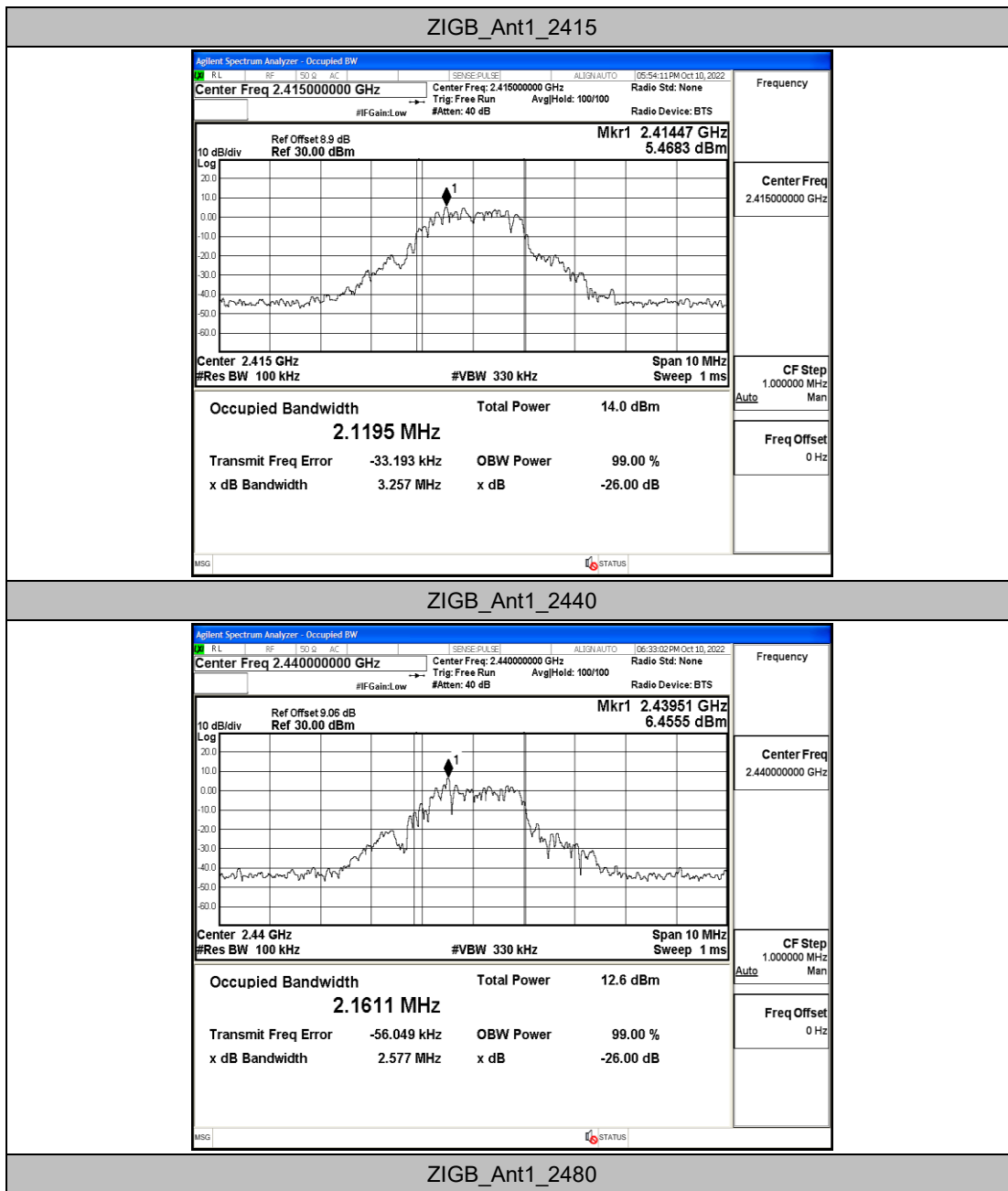


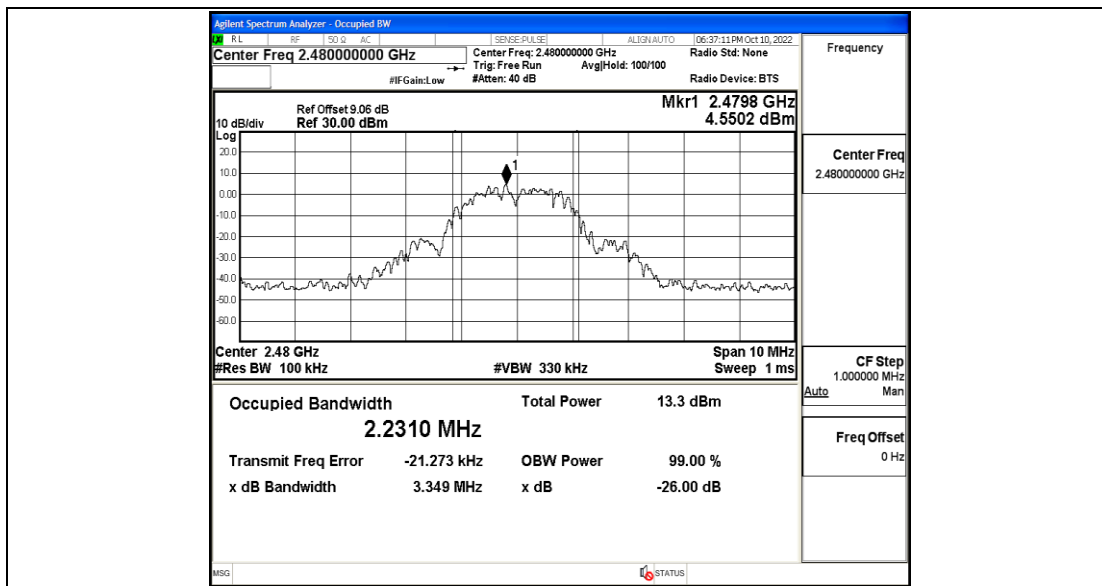
Appendix B: Occupied Channel Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
ZIGB	Ant1	2415	2.1195	2413.9071	2416.0266	---	---
		2440	2.1611	2438.8634	2441.0245	---	---
		2480	2.2310	2478.8632	2481.0942	---	---

Test Graphs



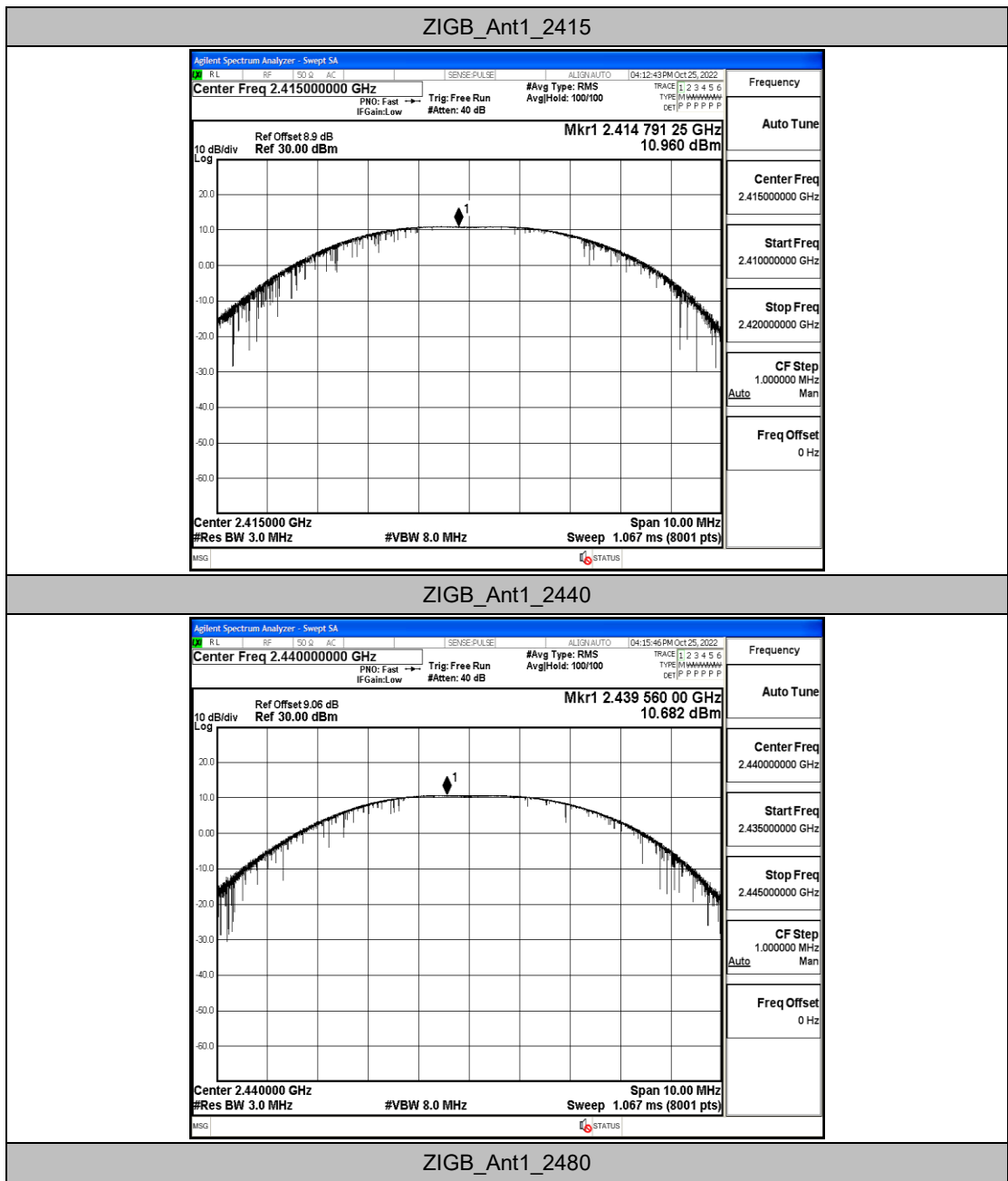


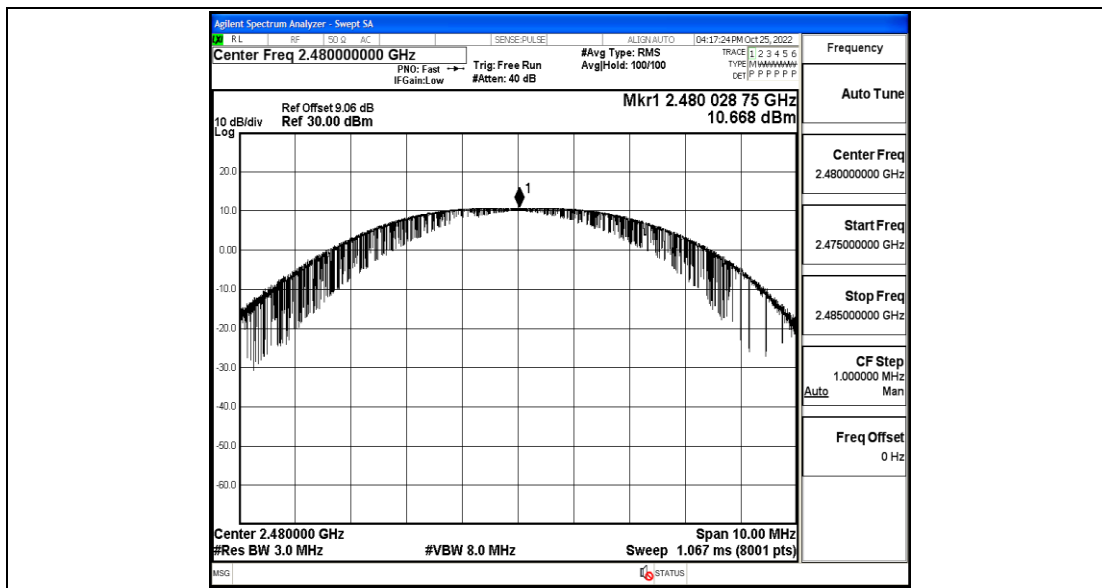
Appendix C: Maximum conducted output power

Test Result

TestMode	Antenna	Freq(MHz)	Result[dBm]	Limit[dBm]	Verdict
ZIGB	Ant1	2415	10.96	≤30	PASS
		2440	10.68	≤30	PASS
		2480	10.67	≤30	PASS

Test Graphs



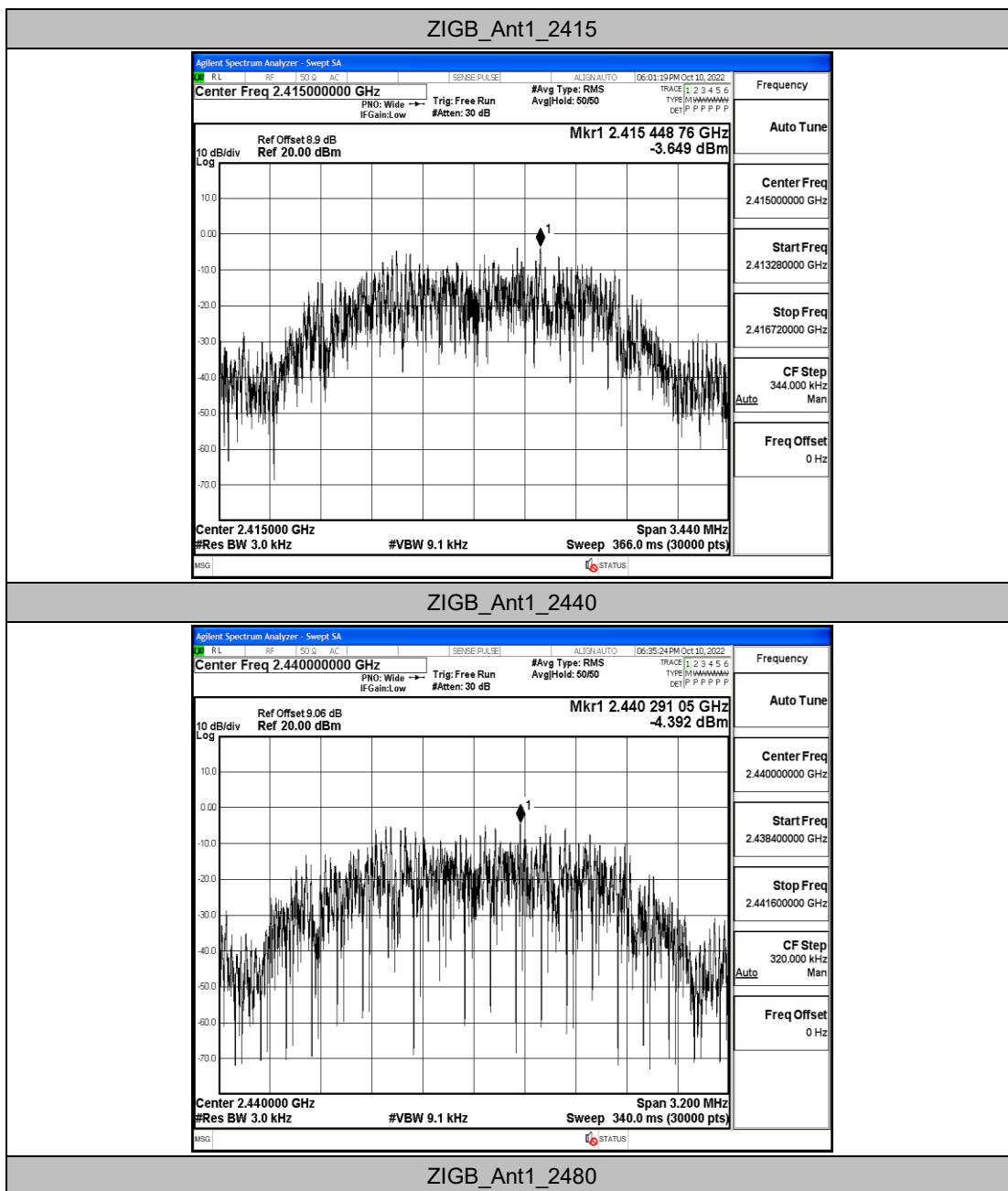


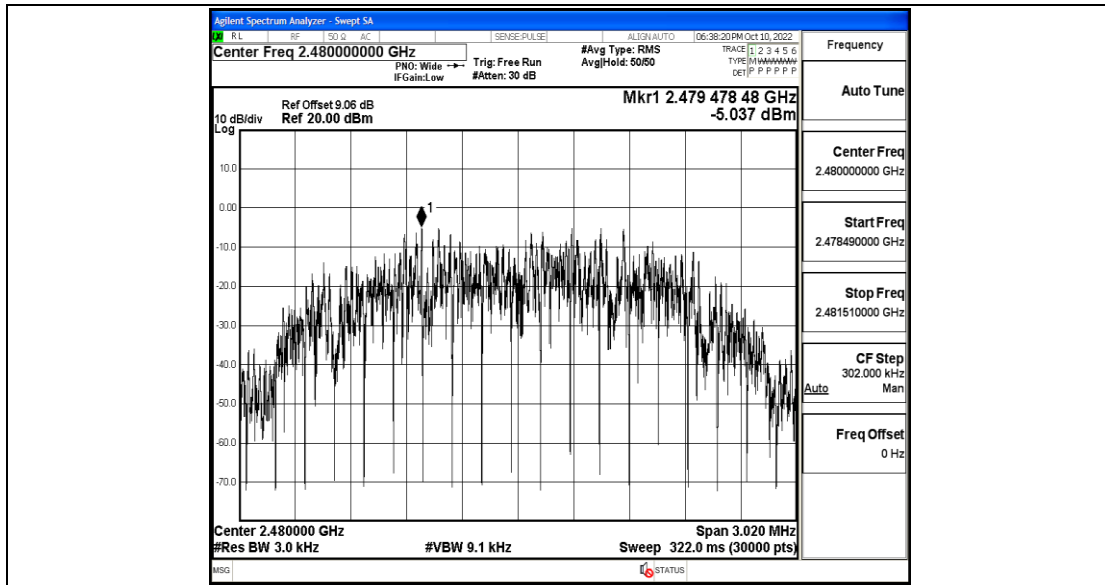
Appendix D: Maximum power spectral density

Test Result

TestMode	Antenna	Freq(MHz)	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
ZIGB	Ant1	2415	-3.65	≤8.00	PASS
		2440	-4.39	≤8.00	PASS
		2480	-5.04	≤8.00	PASS

Test Graphs



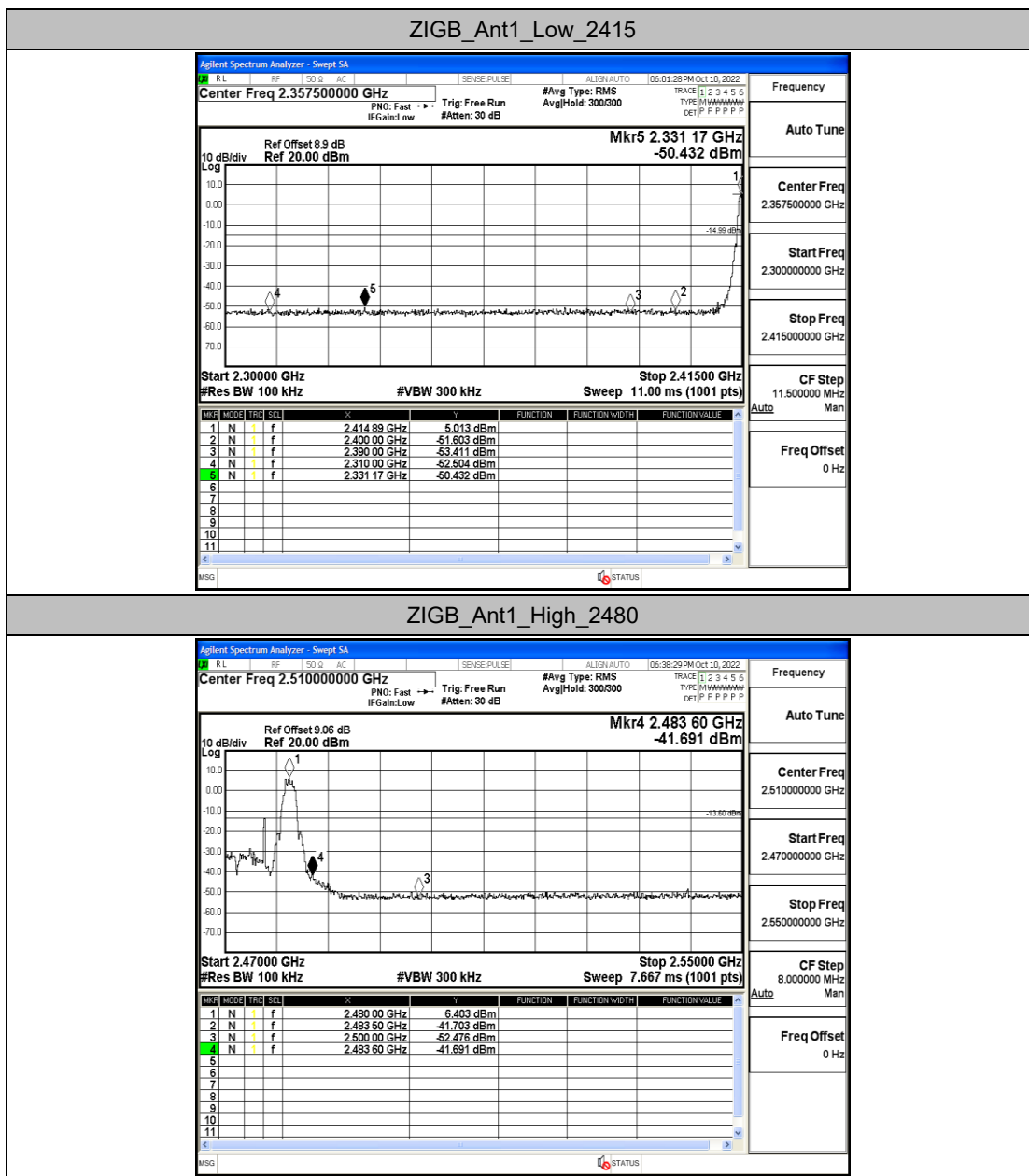


Appendix E: Band edge measurements

Test Result

TestMode	Antenna	Channel	Freq(MHz)	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
ZIGB	Ant1	Low	2415	5.01	-50.43	≤-14.99	PASS
		High	2480	6.40	-41.69	≤-13.6	PASS

Test Graphs

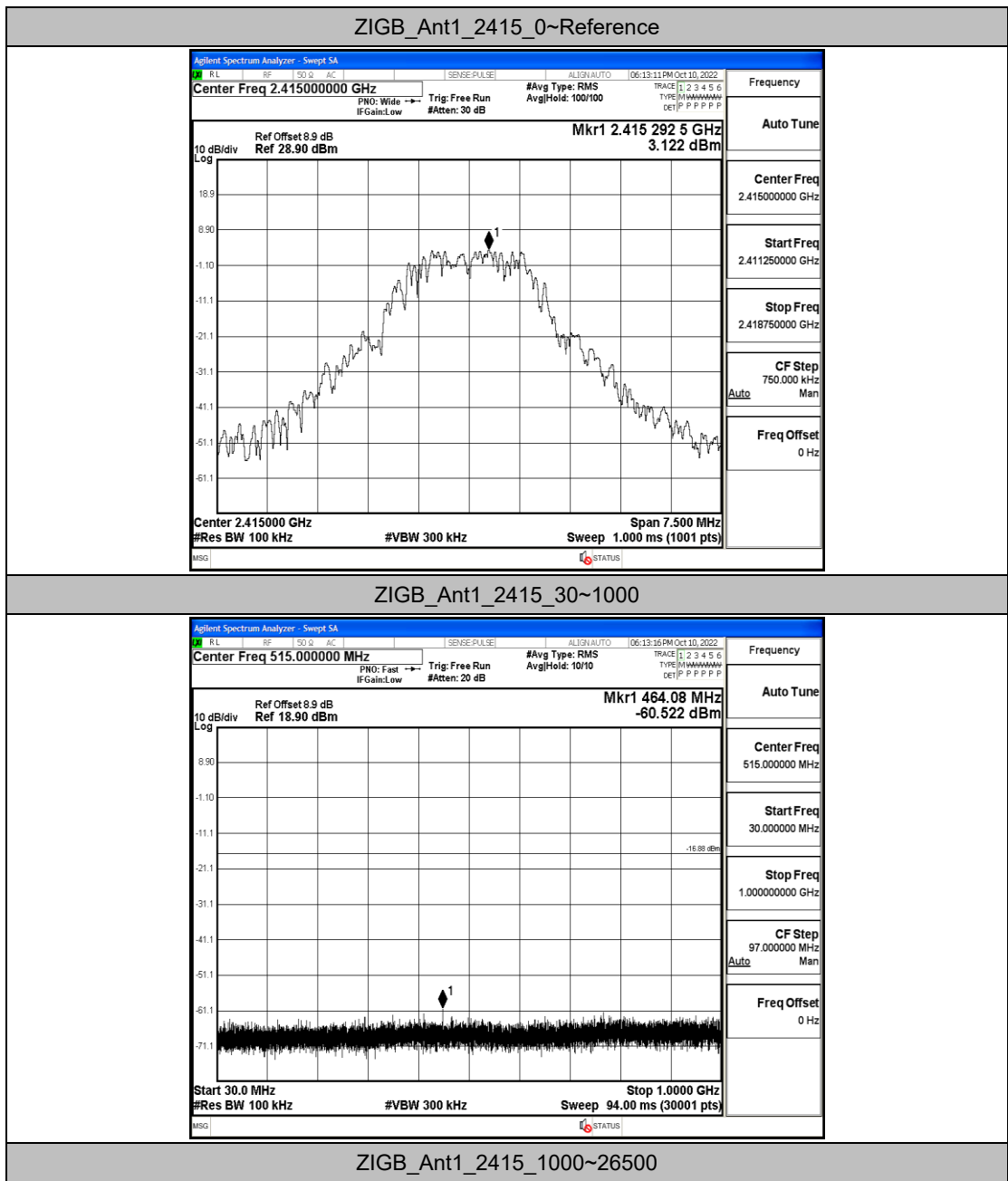


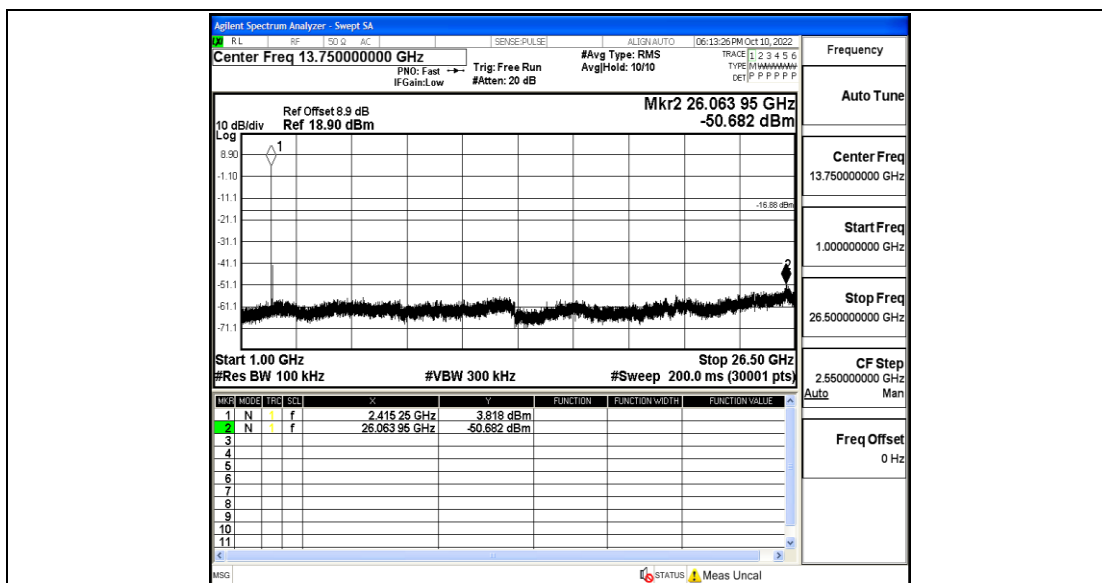
Appendix F: Conducted Spurious Emission

Test Result

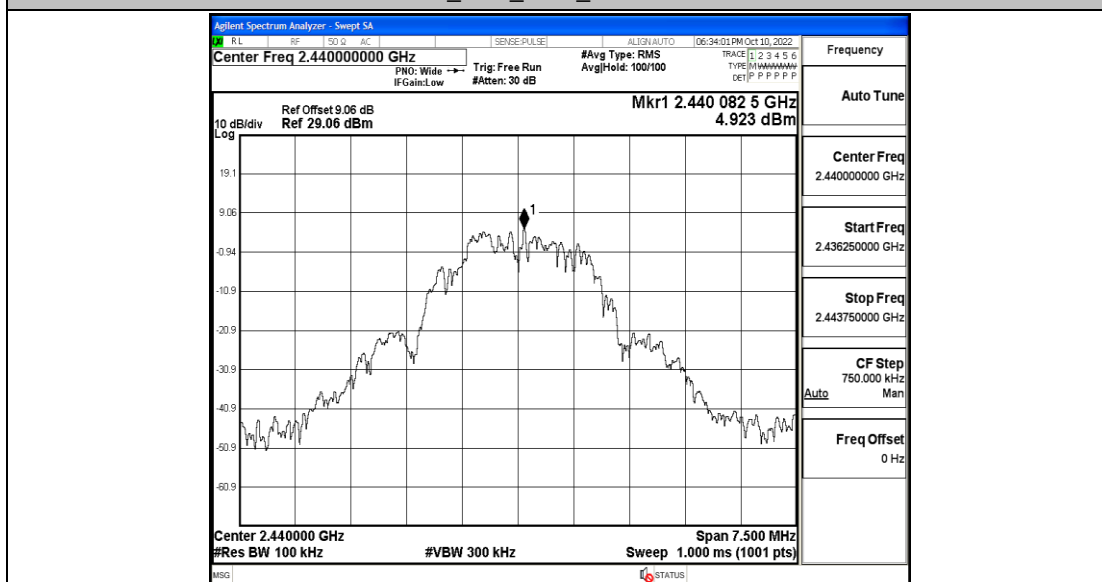
TestMode	Antenna	Freq(MHz)	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
ZIGB	Ant1	2415	Reference	3.12	3.12	---	PASS
			30~1000	3.12	-60.52	≤-16.88	PASS
			1000~26500	3.12	-50.68	≤-16.88	PASS
		2440	Reference	4.92	4.92	---	PASS
			30~1000	4.92	-60.83	≤-15.08	PASS
			1000~26500	4.92	-50.8	≤-15.08	PASS
		2480	Reference	3.14	3.14	---	PASS
			30~1000	3.14	-60.91	≤-16.86	PASS
			1000~26500	3.14	-48.18	≤-16.86	PASS

Test Graphs

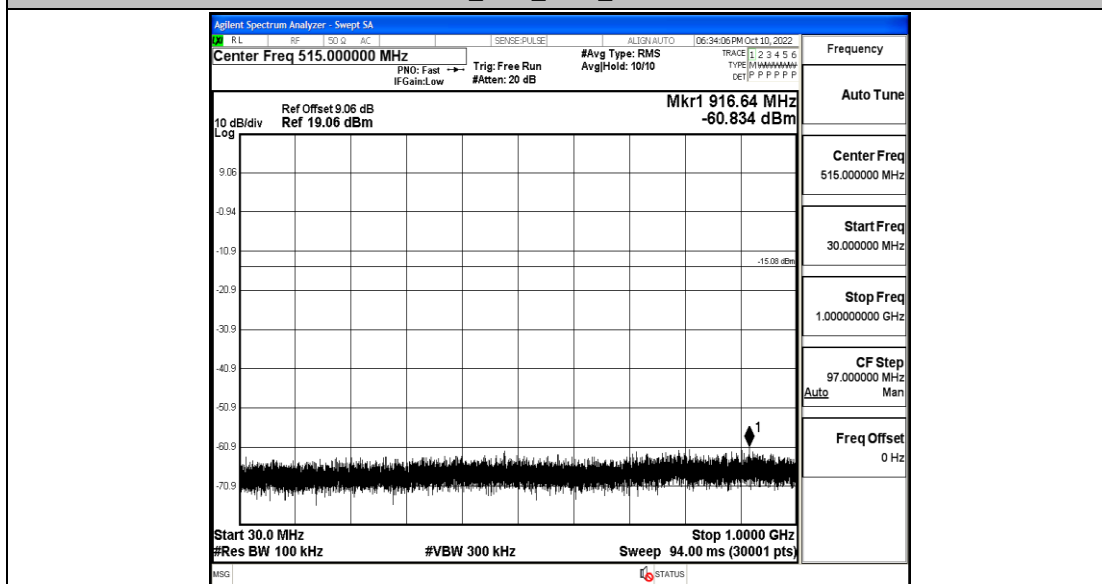




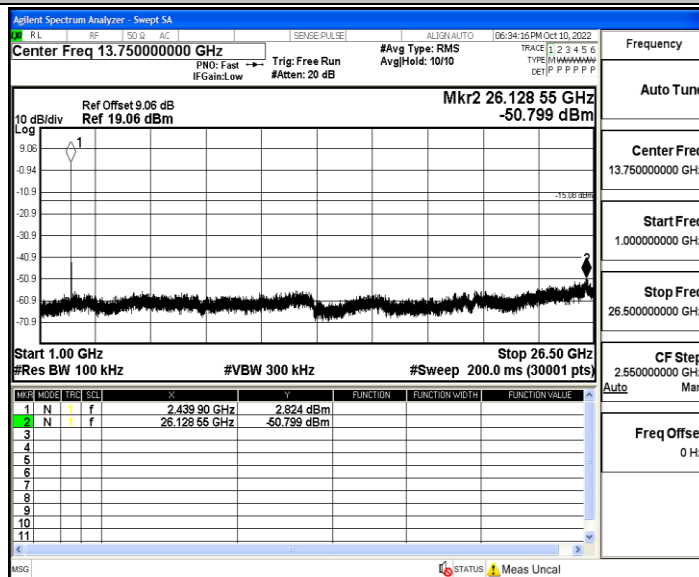
ZIGB_Ant1_2440_0~Reference



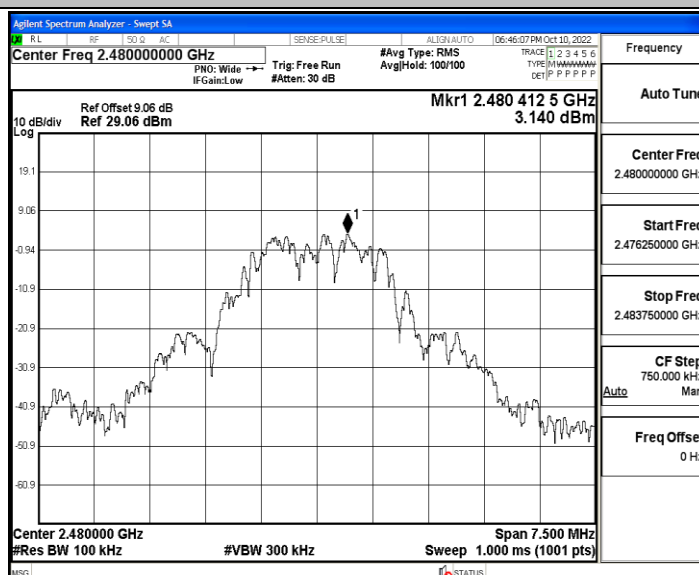
ZIGB_Ant1_2440_30~1000



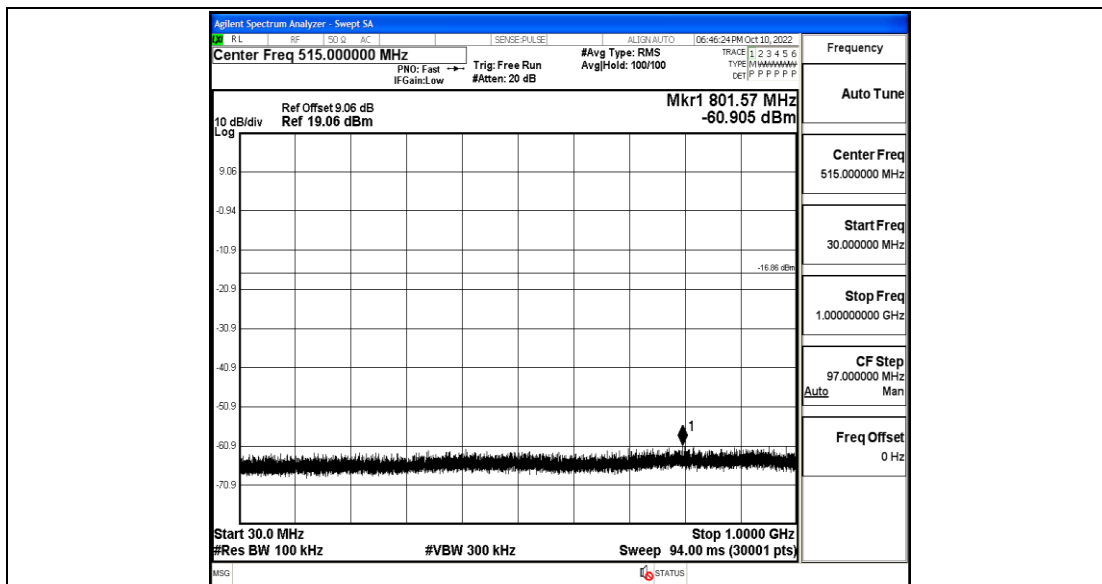
ZIGB_Ant1_2440_1000~26500



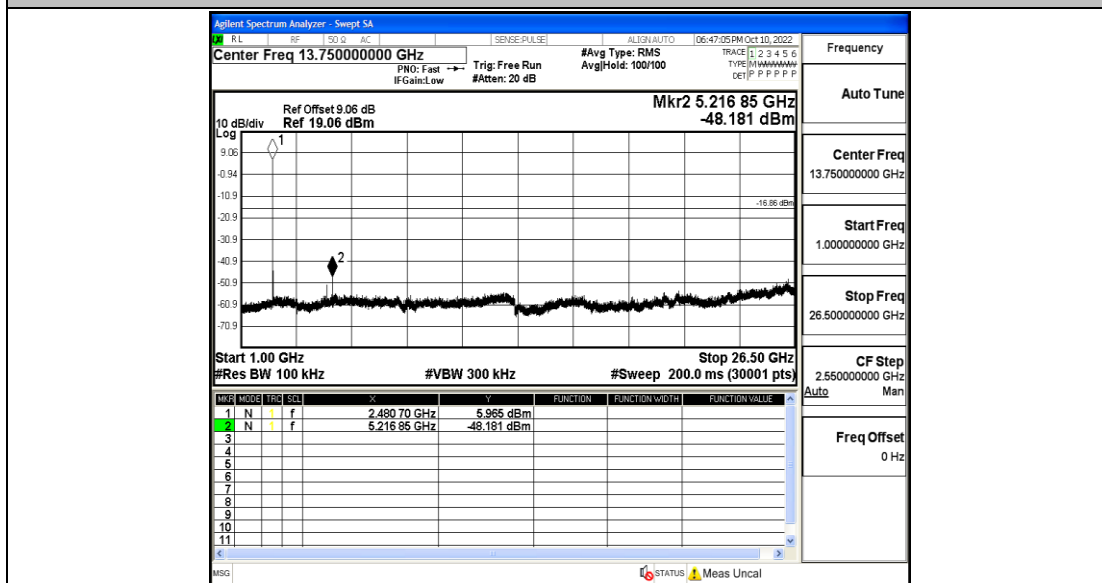
ZIGB_Ant1_2480_0~Reference



ZIGB_Ant1_2480_30~1000



ZIGB_Ant1_2480_1000~26500

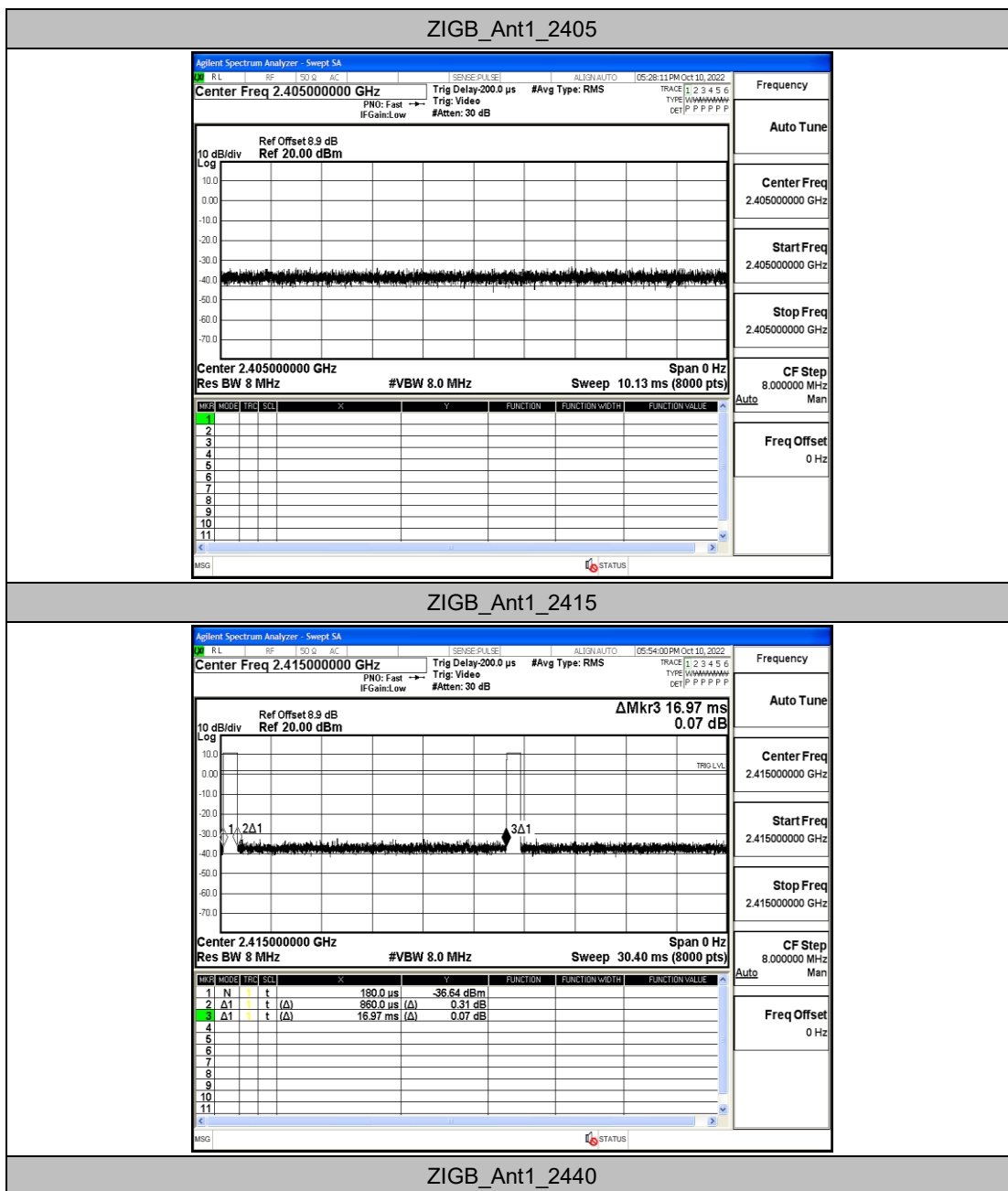


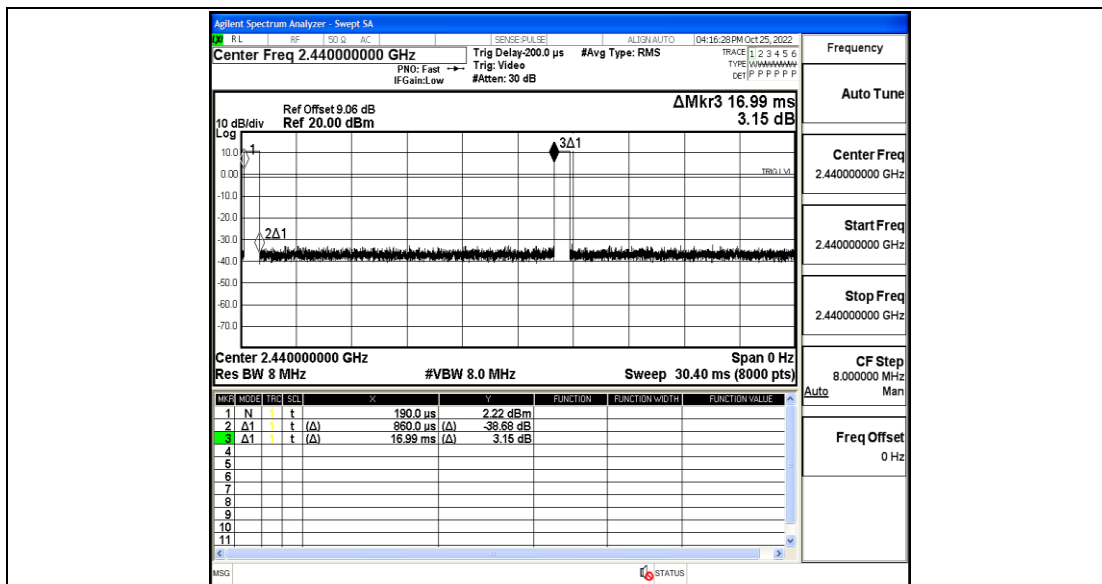
Appendix G: Duty Cycle

Test Result

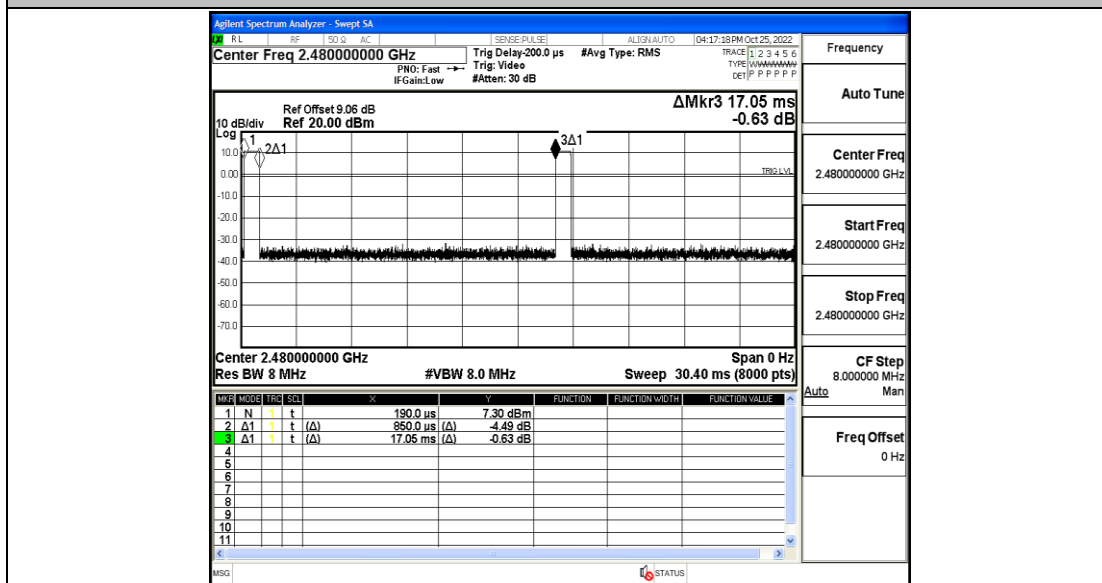
TestMode	Antenna	Freq(MHz)	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	Limit	Verdict
ZIGB	Ant1	2405	10.00	10.00	100.00	---	---
		2415	0.86	16.97	5.07	---	---
		2440	0.86	16.99	5.06	---	---
		2480	0.85	17.05	4.99	---	---

Test Graphs





ZIGB_Ant1_2480



Appendix H: Emissions in Restricted Bands

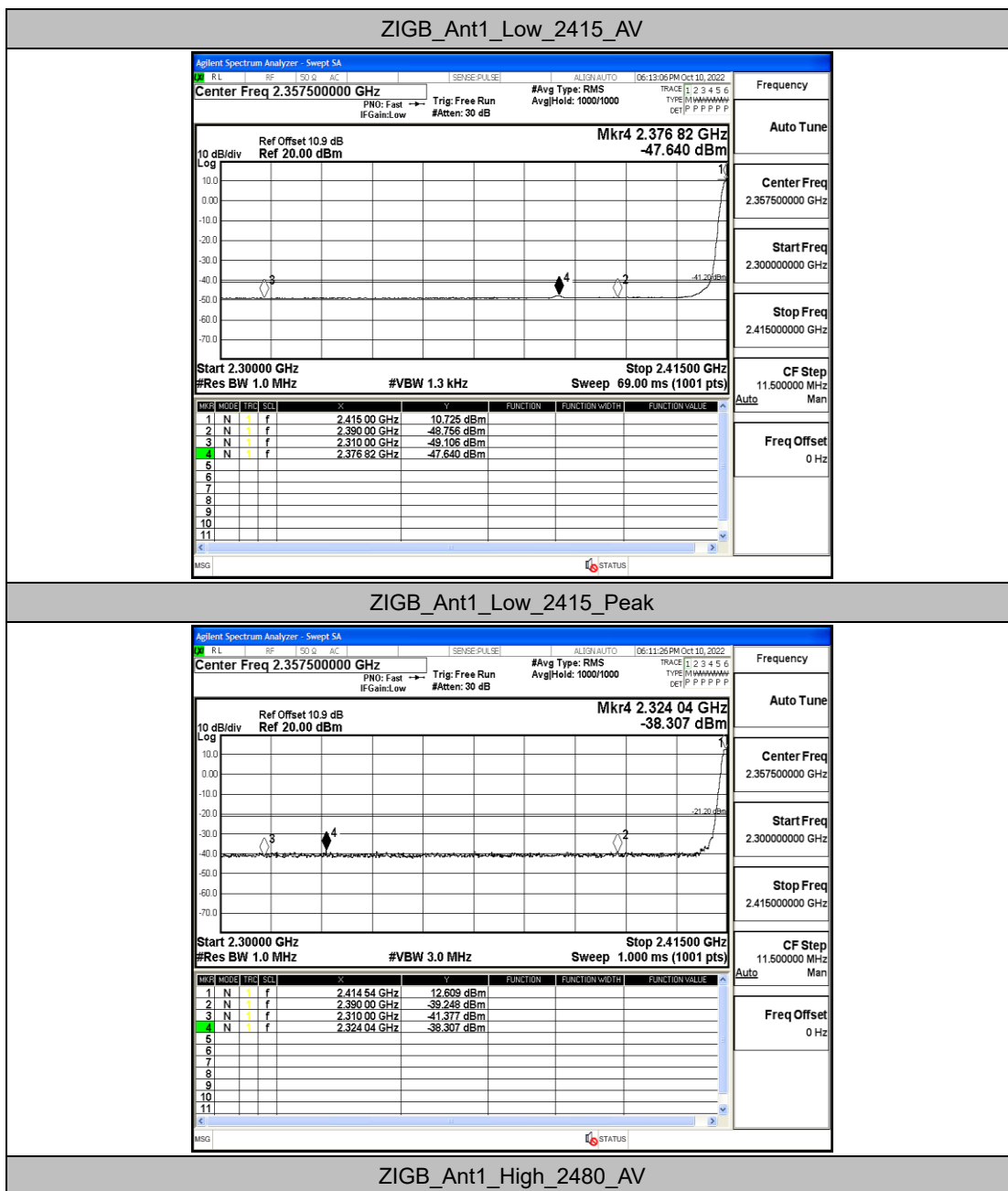
Test Result

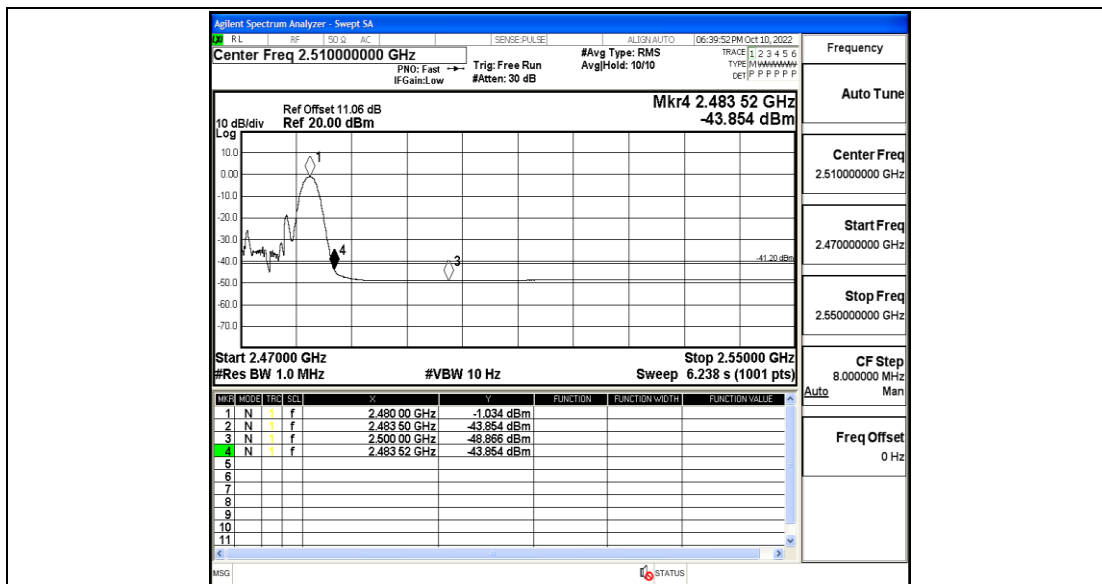
TestMode	Antenna	ChName	Freq(MHz)	Detector	Freq. [MHz]	Result [dBm]	Limit [dBm]	Verdict
ZIGB	Ant1	Low	2415	AV	2310.000	-49.11	≤-41.20	PASS
				AV	2376.820	-47.64	≤-41.20	PASS
				AV	2390.000	-48.76	≤-41.20	PASS
				Peak	2310.000	-41.38	≤-21.20	PASS
				Peak	2324.035	-38.31	≤-21.20	PASS
				Peak	2390.000	-39.25	≤-21.20	PASS
		High	2480	AV	2483.500	-43.85	≤-41.20	PASS
				AV	2483.520	-43.85	≤-41.20	PASS
				AV	2500.000	-48.87	≤-41.20	PASS
				Peak	2483.500	-35.83	≤-21.20	PASS
				Peak	2483.680	-32.9	≤-21.20	PASS
				Peak	2500.000	-43.63	≤-21.20	PASS

Note:

1. The Antenna Gain is compensated in the graph.
2. The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.

Test Graphs





ZIGB_Ant1_High_2480_Peak

