

Appendix A

RF Test Data for BT(BDR/EDR) (Conducted Measurement)

Product Name: SKYBOXE 4G

Trade Mark: SKYBOXE

Test Model: SB4GTVLM940

FCC ID: 2AWJS-SB4GTVLM940

Environmental Conditions

Temperature:	25.5°C
Relative Humidity:	55.2%
ATM Pressure:	100.0 kPa
Test Engineer:	Anna Hu
Supervised by:	Hugo Chen
NOTE	N/A

Appendix A: 20dB Emission Bandwidth

Test Result

TestMode	Antenna	Channel	20db EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant2	2402	0.882	2401.547	2402.429	Not Specified	PASS
		2441	0.927	2440.526	2441.453	Not Specified	PASS
		2480	0.885	2479.550	2480.435	Not Specified	PASS
2DH5	Ant2	2402	1.344	2401.331	2402.675	Not Specified	PASS
		2441	1.350	2440.334	2441.684	Not Specified	PASS
		2480	1.356	2479.337	2480.693	Not Specified	PASS
3DH5	Ant2	2402	1.314	2401.343	2402.657	Not Specified	PASS
		2441	1.338	2440.331	2441.669	Not Specified	PASS
		2480	1.359	2479.331	2480.690	Not Specified	PASS

Test Graphs



DH5_Ant1_2402



DH5_Ant1_2441



DH5_Ant1_2480



2DH5_Ant1_2402



2DH5_Ant1_2441



2DH5_Ant1_2480



3DH5_Ant1_2402



3DH5_Ant1_2441



3DH5_Ant1_2480

Appendix B: Maximum conducted output power

Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
DH5	Ant2	2402	-1.87	<=20.97	PASS
		2441	2.24	<=20.97	PASS
		2480	4.43	<=20.97	PASS
2DH5	Ant2	2402	-0.42	<=20.97	PASS
		2441	3.28	<=20.97	PASS
		2480	5.09	<=20.97	PASS
3DH5	Ant2	2402	0.07	<=20.97	PASS
		2441	3.72	<=20.97	PASS
		2480	5.22	<=20.97	PASS

Test Graphs

DH5_Ant2_2402



DH5_Ant2_2441



DH5_Ant2_2480



2DH5_Ant2_2402



2DH5_Ant2_2441



2DH5_Ant2_2480



3DH5_Ant2_2402



3DH5_Ant2_2441



3DH5_Ant2_2480



Appendix C: Carrier frequency separation

Test Result

TestMode	Antenna	Channel	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant2	Hop	1.014	≥ 0.618	PASS
2DH5	Ant2	Hop	1.01	≥ 0.904	PASS
3DH5	Ant2	Hop	0.994	≥ 0.906	PASS

Test Graphs

DH5_Ant2_Hop



2DH5_Ant2_Hop



3DH5_Ant2_Hop



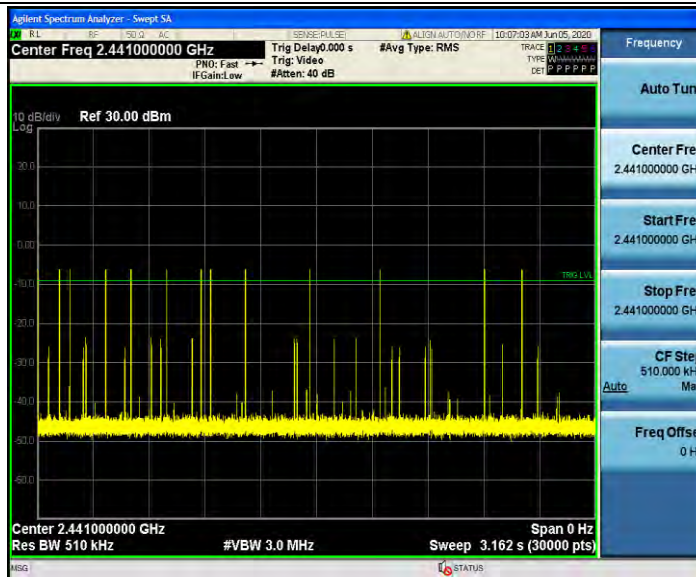
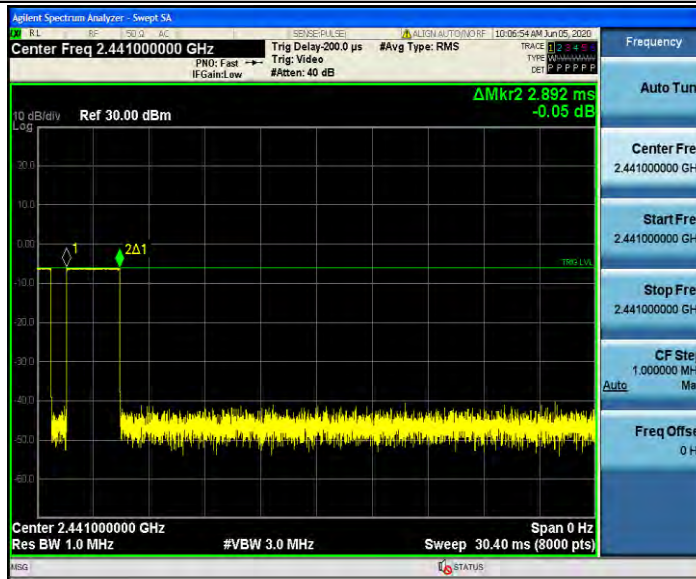
Appendix D: Time of occupancy

Test Result

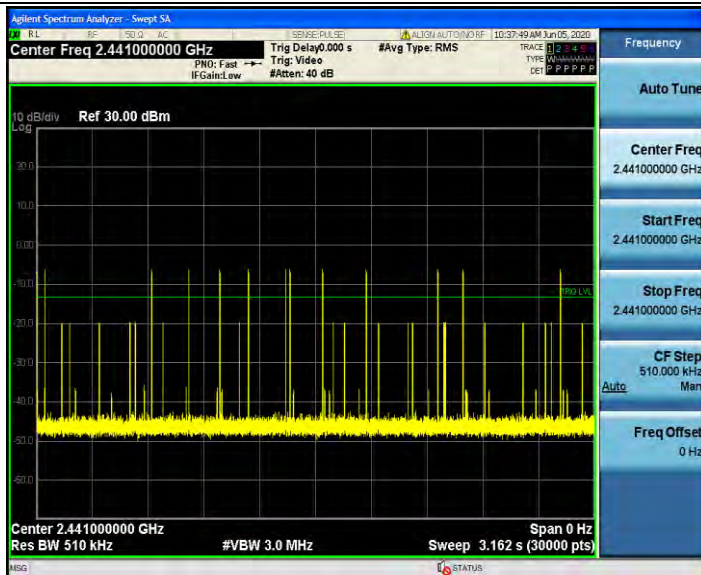
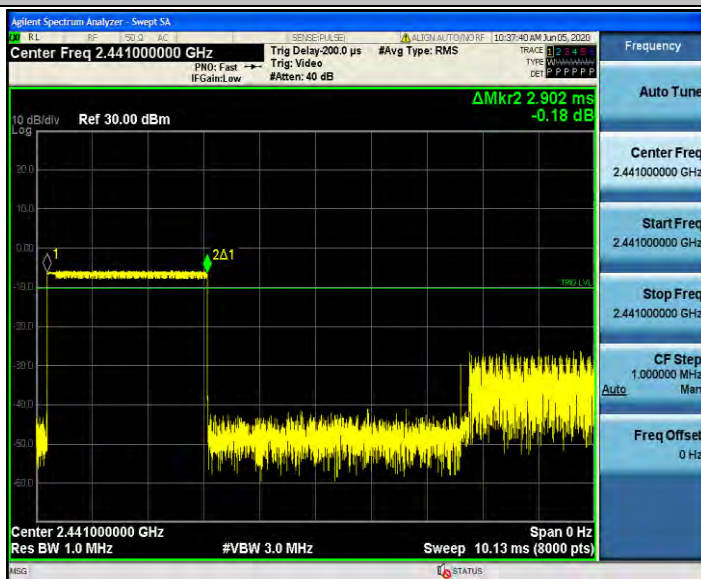
TestMode	Antenna	Channel	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH5	Ant2	Hop	2.89	130	0.376	<=0.4	PASS
2DH5	Ant2	Hop	2.90	130	0.377	<=0.4	PASS
3DH5	Ant1	Hop	2.90	90	0.261	<=0.4	PASS

Test Graphs

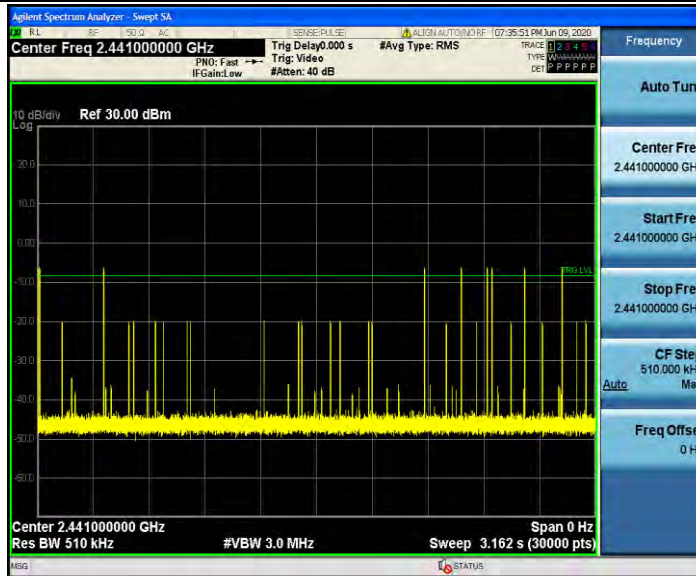
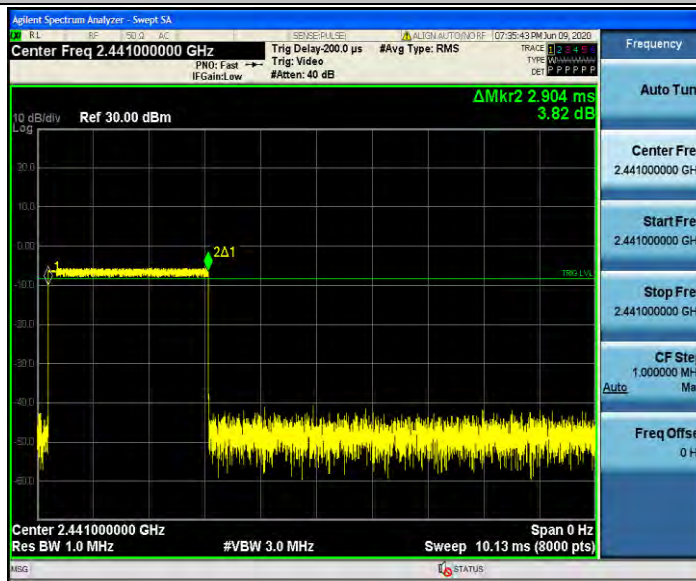
DH5_Ant2_Hop



2DH5_Ant2_Hop



3DH5_Ant2_Hop



Appendix E: Number of hopping channels

Test Result

TestMode	Antenna	Channel	Result[Num]	Limit[Num]	Verdict
DH5	Ant2	Hop	79	>=15	PASS
2DH5	Ant2	Hop	79	>=15	PASS
3DH5	Ant2	Hop	79	>=15	PASS

Test Graphs

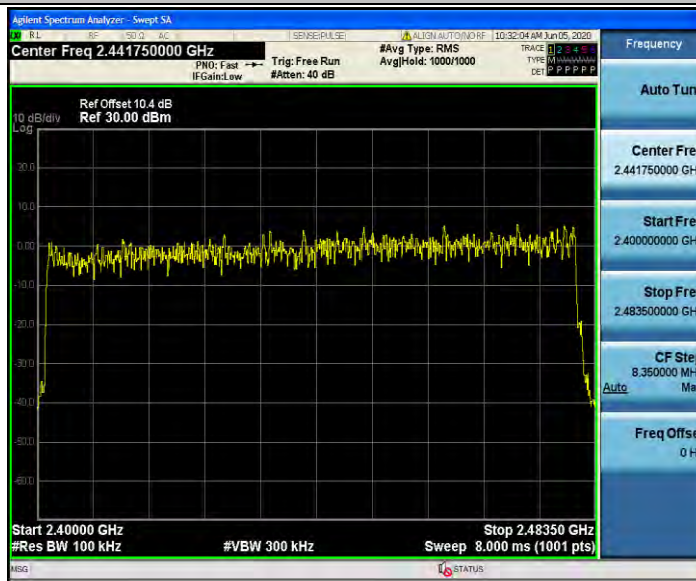
DH5_Ant2_Hop



2DH5_Ant2_Hop



3DH5_Ant2_Hop



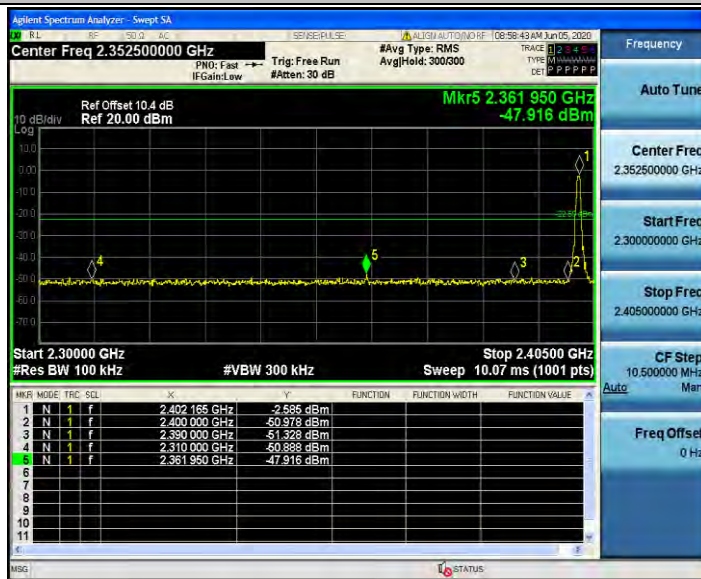
Appendix F: Band edge measurements

Test Result

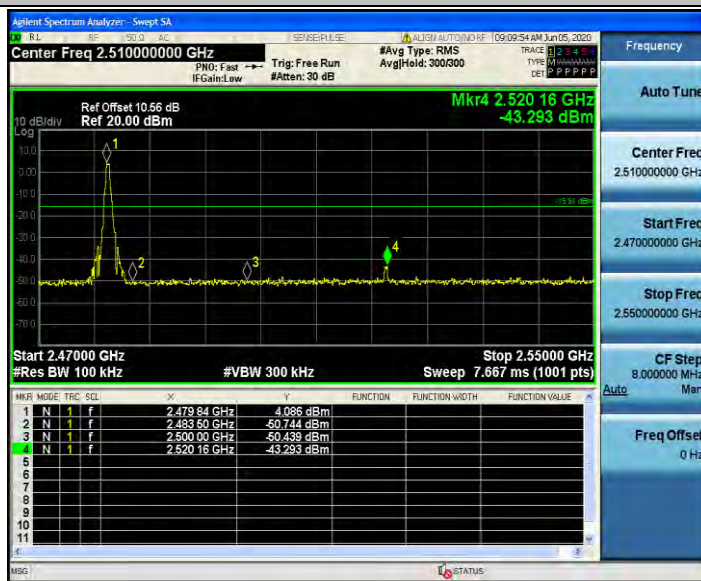
TestMode	Antenna	ChName	Channel	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant2	Low	2402	-2.59	-47.92	<=-22.59	PASS
		High	2480	4.09	-43.29	<=-15.91	PASS
		Low	Hop_2402	0.39	-46.72	-19.61	PASS
		High	Hop_2480	5.58	-43.3	-14.43	PASS
2DH5	Ant2	Low	2402	-2.77	-48.47	<=-22.77	PASS
		High	2480	4.02	-44.38	<=-15.98	PASS
		Low	Hop_2402	-3.14	-48.08	-23.14	PASS
		High	Hop_2480	3.21	-44.52	-16.79	PASS
3DH5	Ant2	Low	2402	-3.34	-48.51	<=-23.34	PASS
		High	2480	4.00	-43.79	<=-16	PASS
		Low	Hop_2402	-1.70	-48.83	-21.7	PASS
		High	Hop_2480	4.14	-45.8	-15.86	PASS

Test Graphs

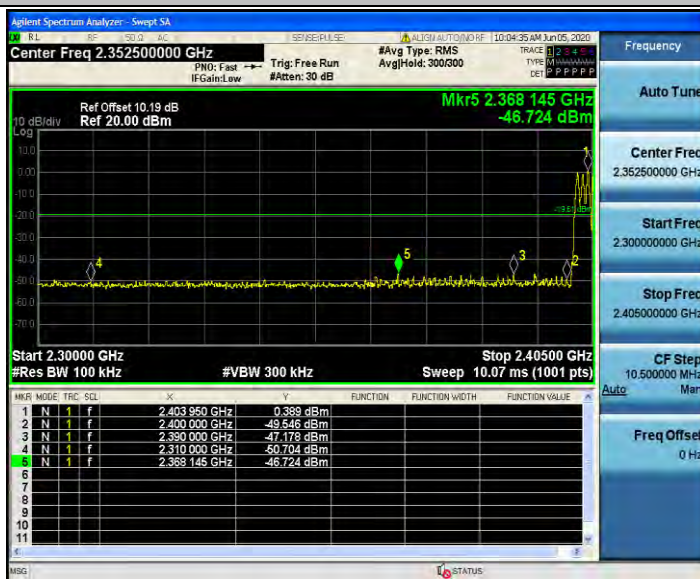
DH5_Ant2_Low_2402



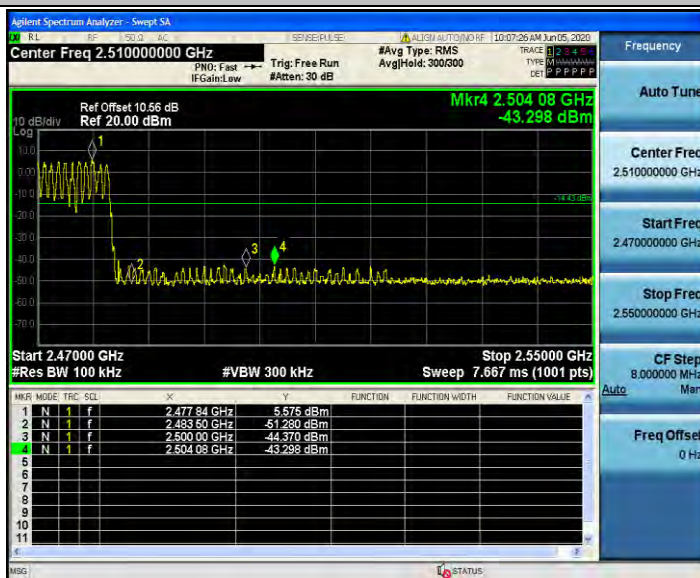
DH5_Ant2_High_2480



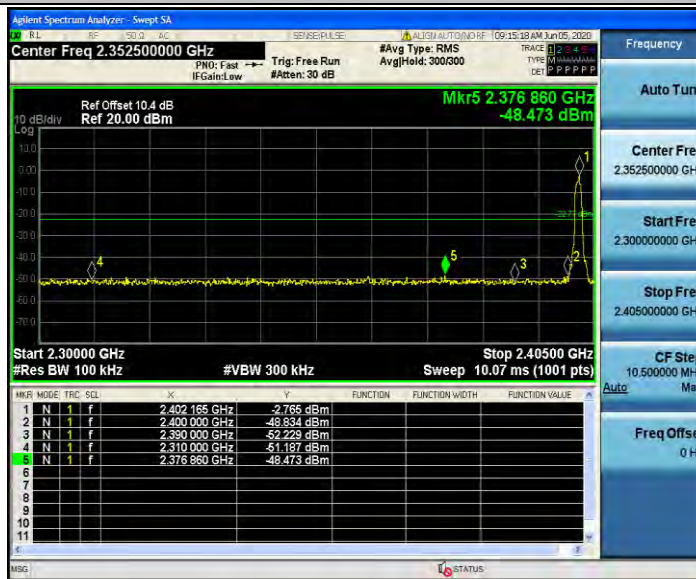
DH5_Ant2_Low_Hop_2402



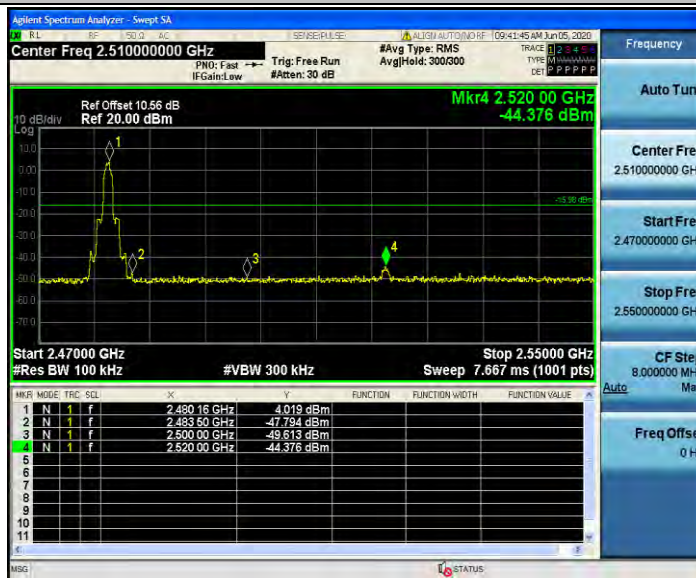
DH5_Ant2_High_Hop_2480



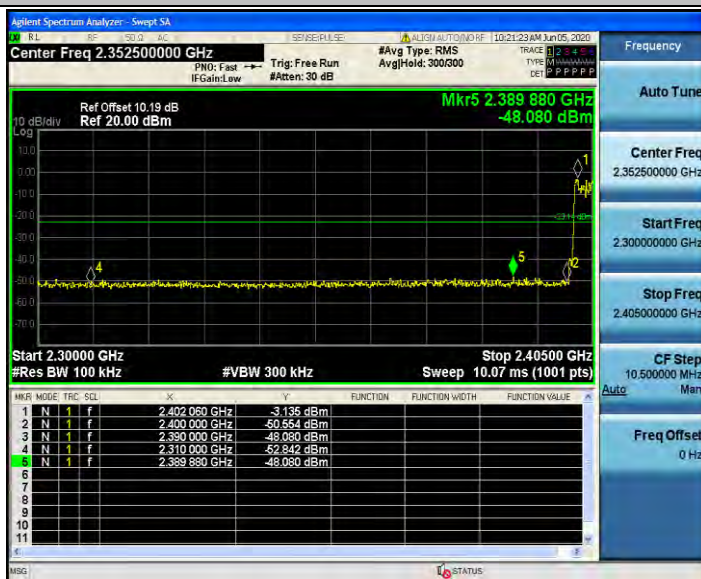
2DH5_Ant2_Low_2402



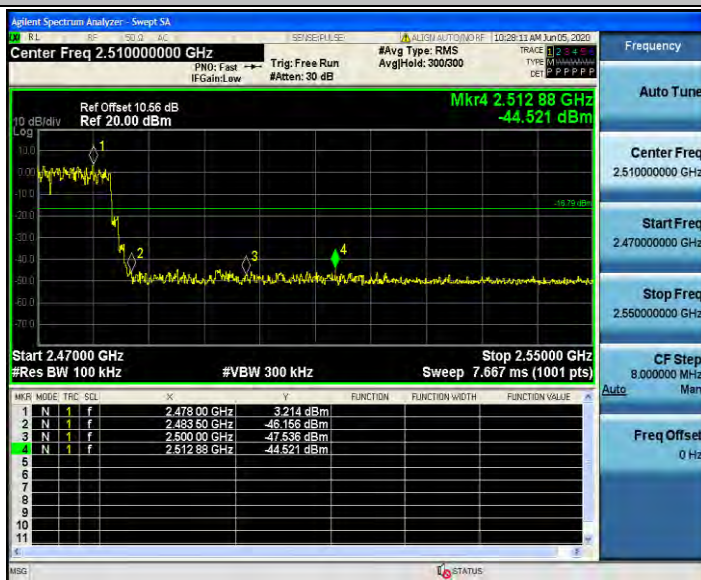
2DH5_Ant2_High_2480



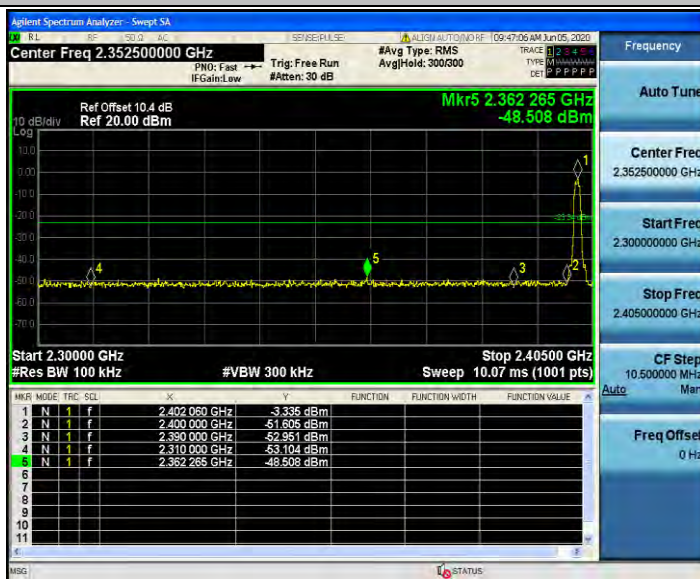
2DH5_Ant2_Low_Hop_2402



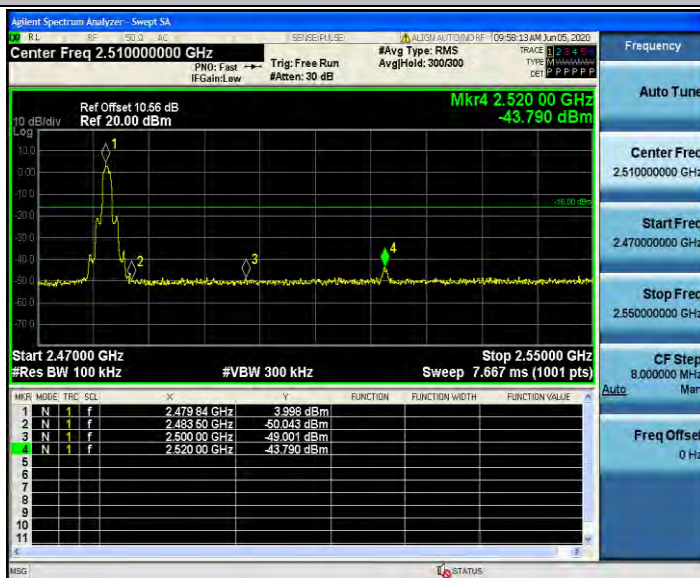
2DH5_Ant2_High_Hop_2480



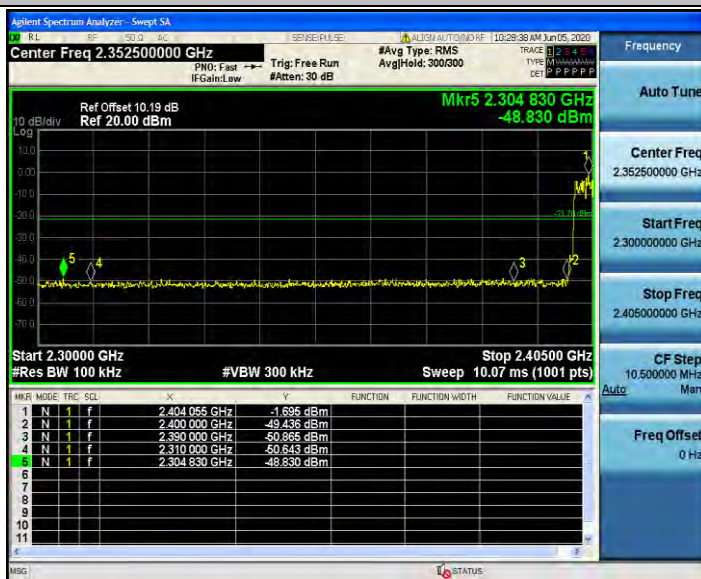
3DH5_Ant2_Low_2402



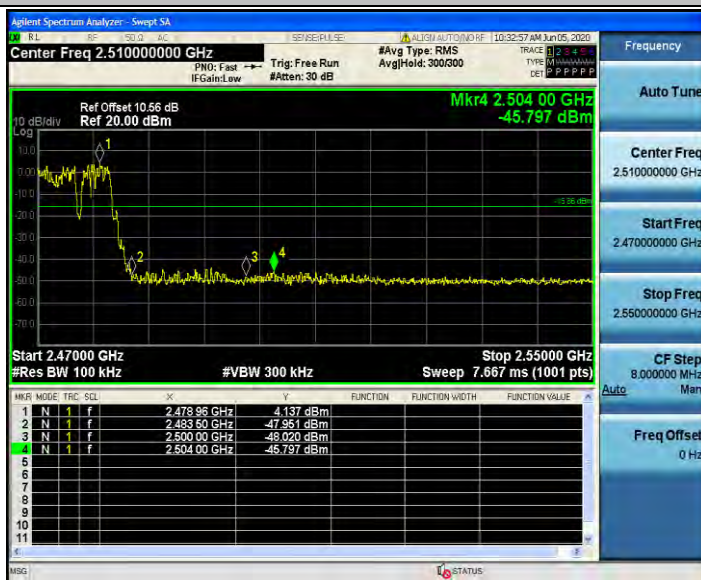
3DH5_Ant2_High_2480



3DH5_Ant2_Low_Hop_2402



3DH5_Ant2_High_Hop_2480



Appendix G: Conducted Spurious Emission

Test Result

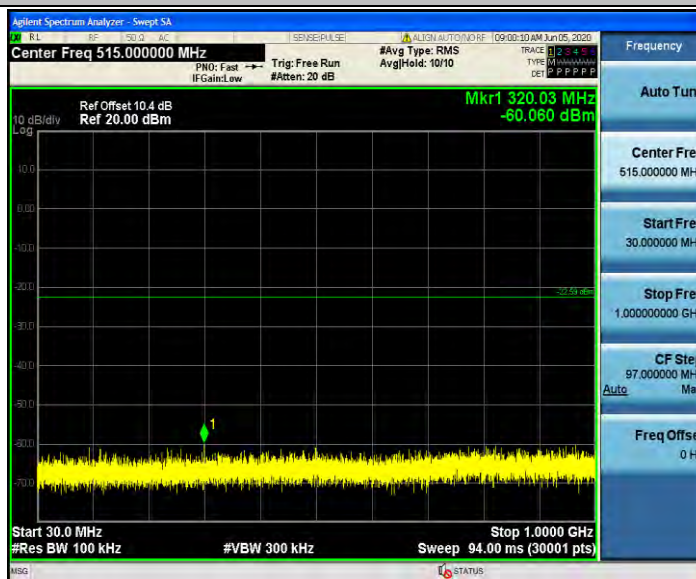
TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant2	2402	Reference	-2.59	-2.59	---	PASS
			30~1000	30~1000	-60.06	<=-22.591	PASS
			1000~26500	1000~26500	-51.207	<=-22.591	PASS
		2441	Reference	1.20	1.20	---	PASS
			30~1000	30~1000	-59.728	<=-18.802	PASS
			1000~26500	1000~26500	-44.972	<=-18.802	PASS
		2480	Reference	4.05	4.05	---	PASS
			30~1000	30~1000	-59.773	<=-15.954	PASS
			1000~26500	1000~26500	-40.886	<=-15.954	PASS
2DH5	Ant2	2402	Reference	-2.58	-2.58	---	PASS
			30~1000	30~1000	-59.932	<=-22.579	PASS
			1000~26500	1000~26500	-27.33	<=-14.217	PASS
		2441	Reference	1.53	1.53	---	PASS
			30~1000	30~1000	-59.848	<=-18.466	PASS
			1000~26500	1000~26500	-48.655	<=-18.466	PASS
		2480	Reference	4.04	4.04	---	PASS
			30~1000	30~1000	-60.037	<=-15.96	PASS
			1000~26500	1000~26500	-45.152	<=-15.96	PASS
3DH5	Ant2	2402	Reference	-2.59	-2.59	---	PASS
			30~1000	30~1000	-59.247	<=-22.591	PASS
			1000~26500	1000~26500	-51.279	<=-22.591	PASS
		2441	Reference	1.49	1.49	---	PASS
			30~1000	30~1000	-59.663	<=-18.507	PASS
			1000~26500	1000~26500	-47.914	<=-18.507	PASS
		2480	Reference	4.03	4.03	---	PASS
			30~1000	30~1000	-59.15	<=-15.967	PASS
			1000~26500	1000~26500	-40.329	<=-15.967	PASS

Test Graphs

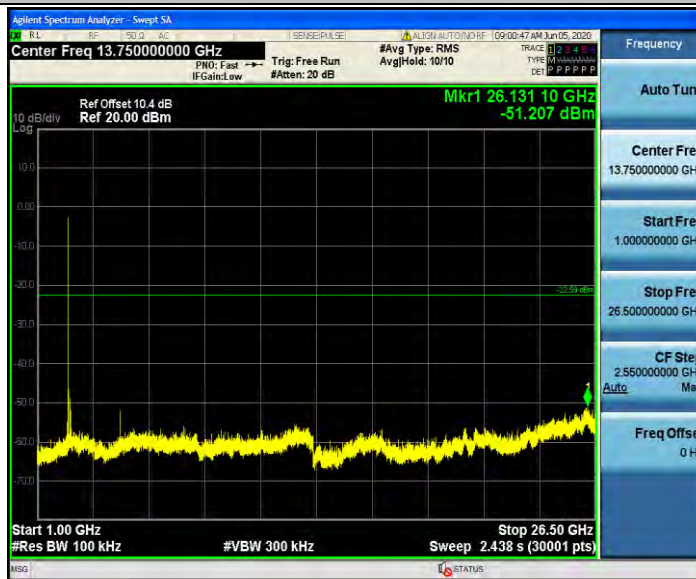
DH5_Ant2_2402_0~Reference



DH5_Ant2_2402_30~1000



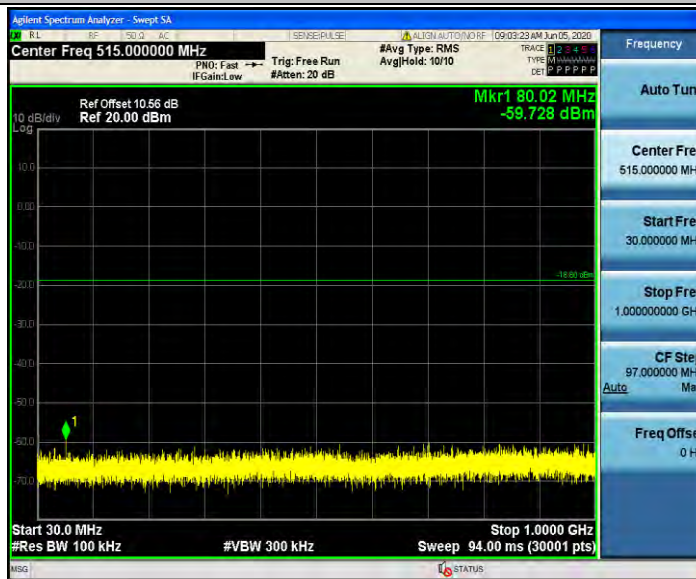
DH5_Ant2_2402_1000~26500



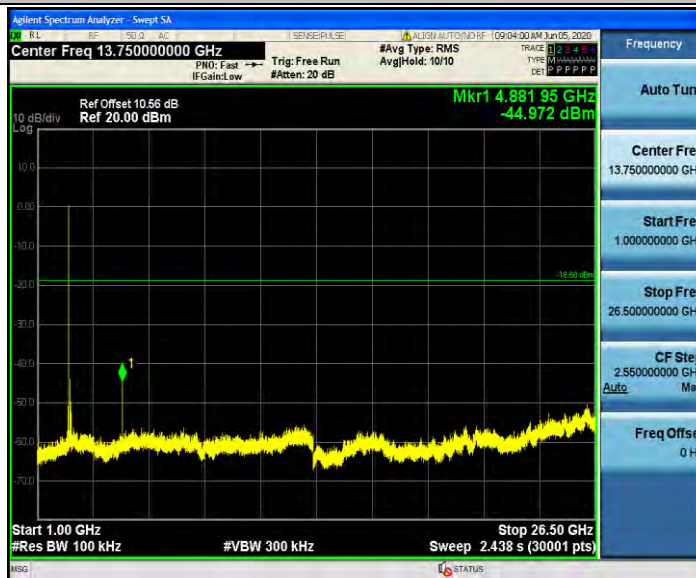
DH5_Ant2_2441_0~Reference



DH5_Ant2_2441_30~1000



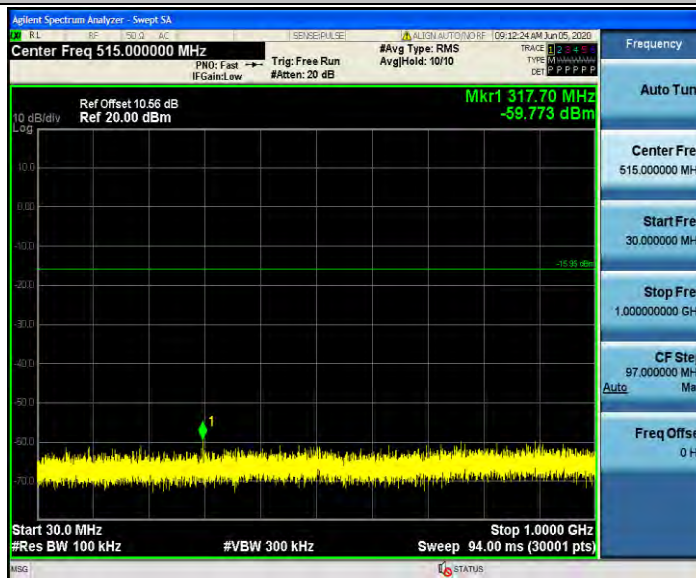
DH5_Ant2_2441_1000~26500



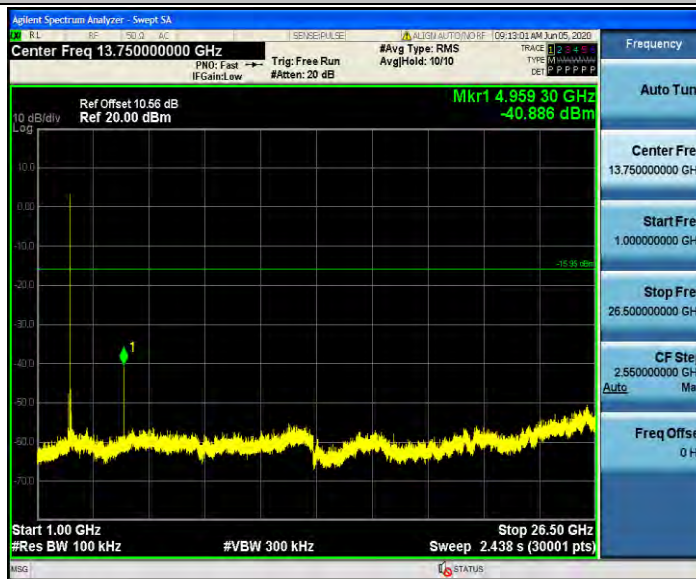
DH5_Ant2_2480_0-Reference



DH5_Ant2_2480_30-1000



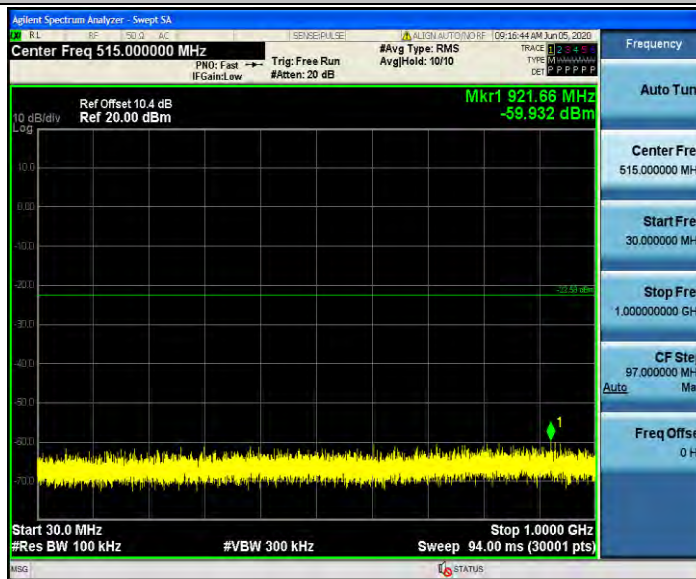
DH5_Ant2_2480_1000~26500



2DH5_Ant2_2402_0~Reference



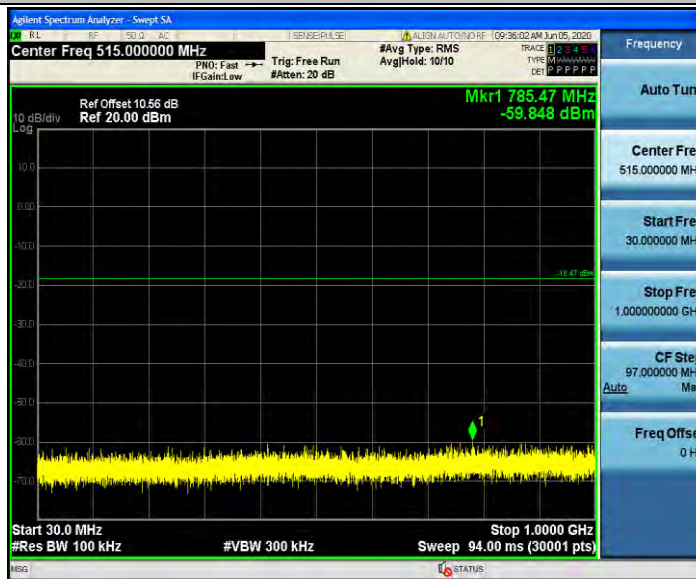
2DH5_Ant2_2402_30~1000



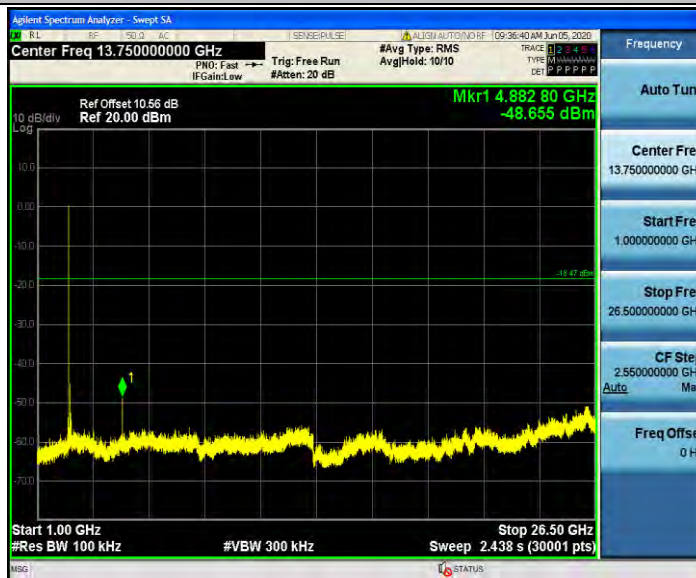
2DH5_Ant2_2441_0~Reference



2DH5_Ant2_2441_30~1000



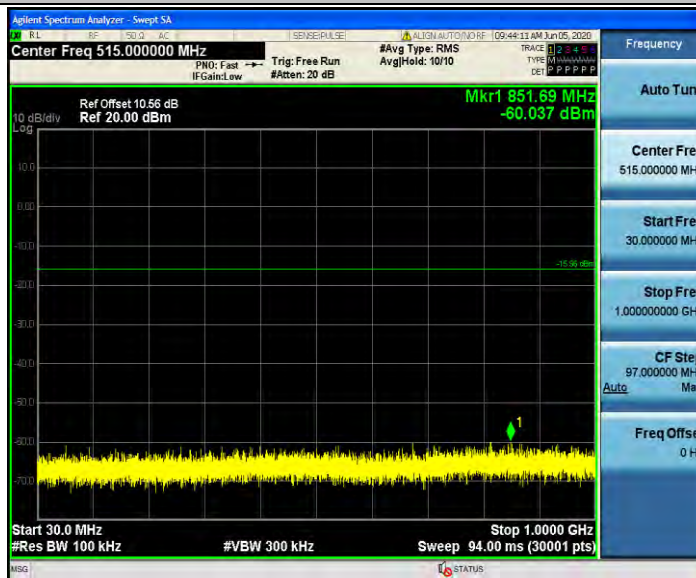
2DH5_Ant2_2441_1000~26500



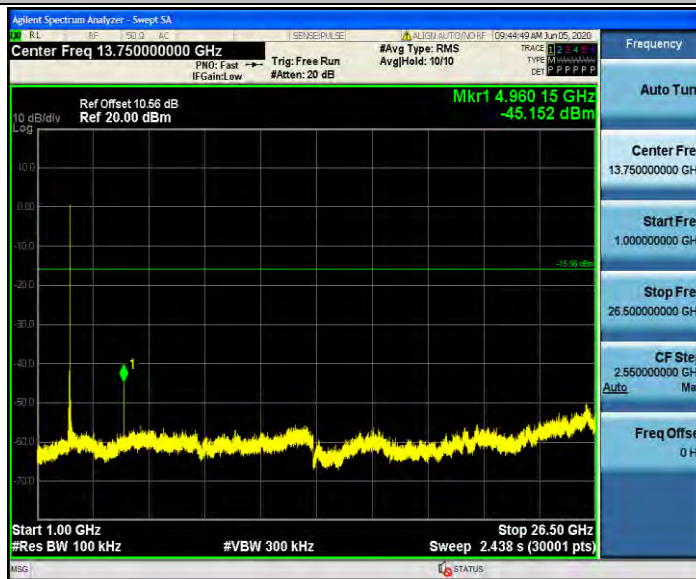
2DH5_Ant2_2480_0~Reference



2DH5_Ant2_2480_30~1000



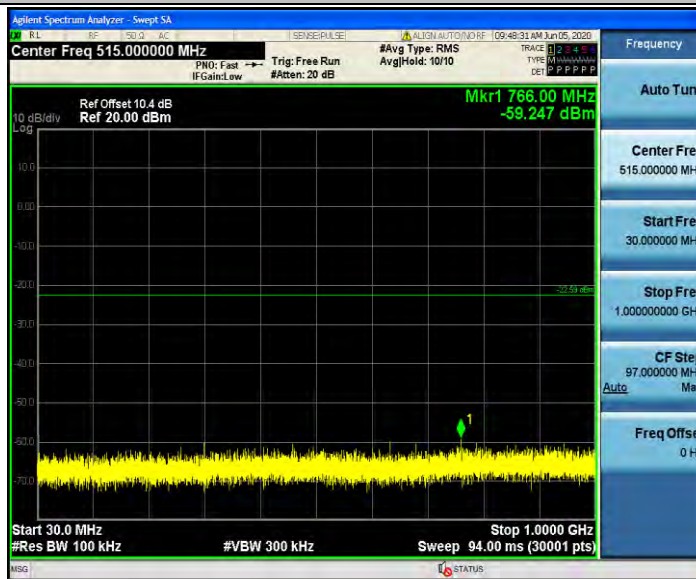
2DH5_Ant2_2480_1000~26500



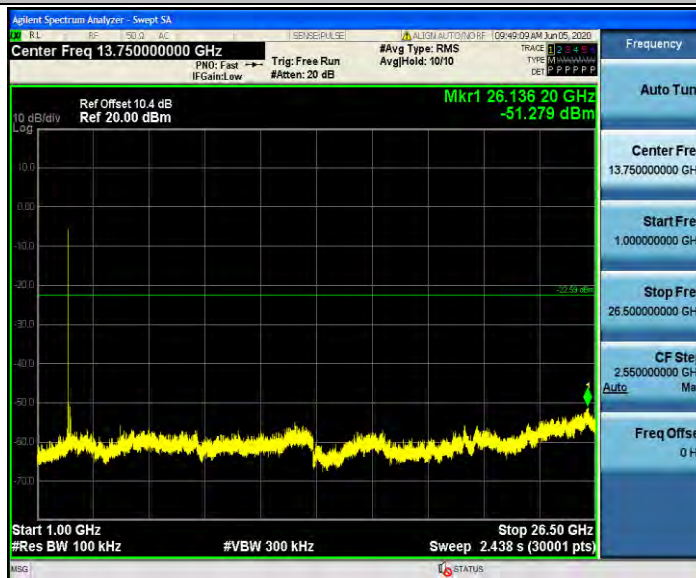
3DH5_Ant2_2402_0~Reference



3DH5_Ant2_2402_30~1000



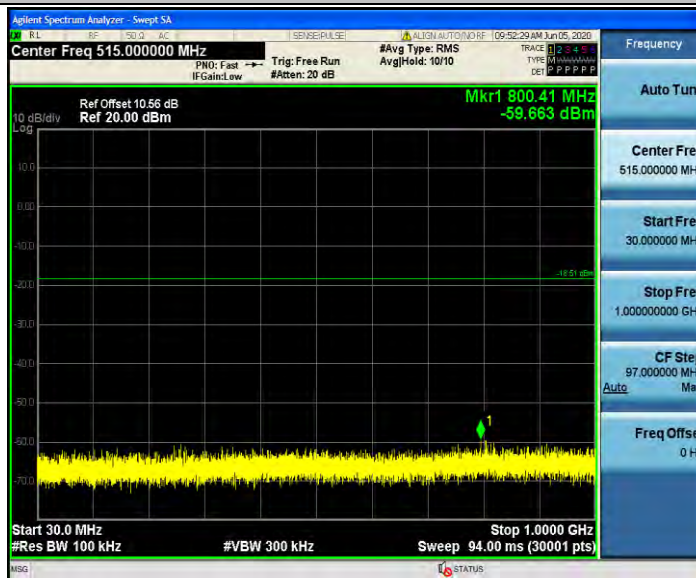
3DH5_Ant2_2402_1000~26500



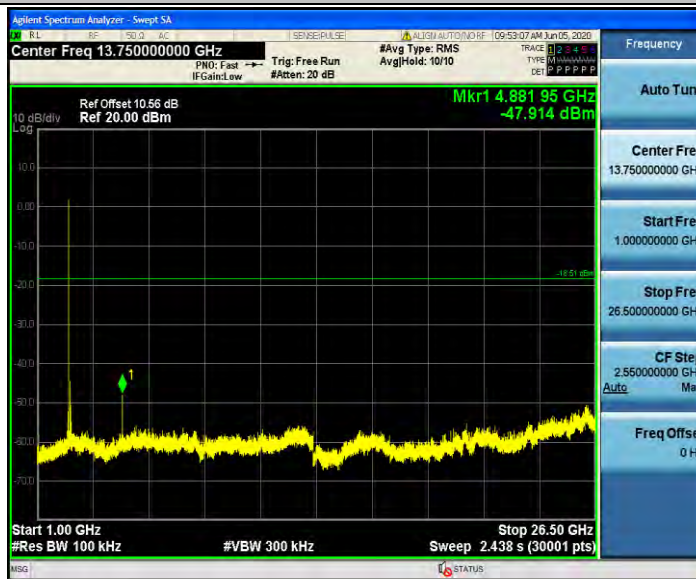
3DH5_Ant2_2441_0~Reference



3DH5_Ant2_2441_30~1000



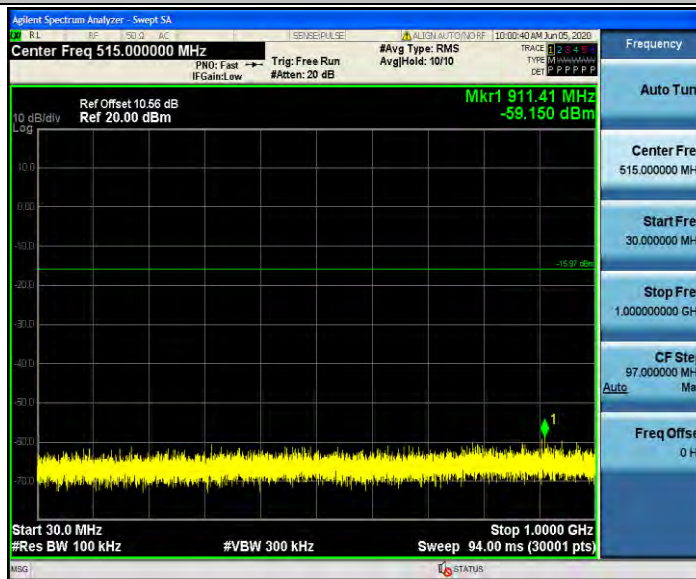
3DH5_Ant2_2441_1000~26500



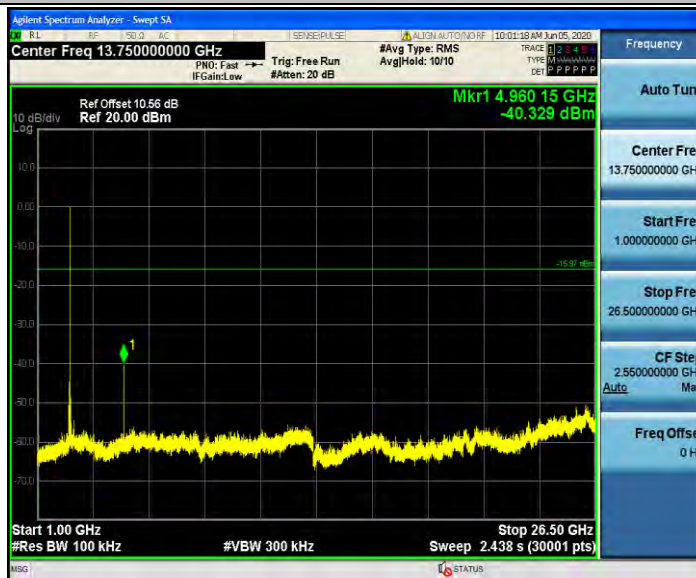
3DH5_Ant2_2480_0~Reference



3DH5_Ant2_2480_30~1000



3DH5_Ant2_2480_1000~26500



Appendix H: Emissions in Restricted Bands

Test Result

TestMode	Antenna	ChName	Channel	Detector	Freq	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant2	Low	2402	AV	2310.000	-48.92	<=-41.20	PASS
				AV	2390.000	-48.69	<=-41.20	PASS
				Peak	2310.000	-43.06	<=-21.20	PASS
				Peak	2390.000	-45.02	<=-21.20	PASS
		High	2480	AV	2483.500	-46.16	<=-41.20	PASS
				AV	2500.000	-47.98	<=-41.20	PASS
				Peak	2483.500	-43.65	<=-21.20	PASS
				Peak	2500.000	-43.98	<=-21.20	PASS
2DH5	Ant2	Low	2402	AV	2310.000	-47.66	<=-41.20	PASS
				AV	2390.000	-47.38	<=-41.20	PASS
				Peak	2310.000	-40.64	<=-21.20	PASS
				Peak	2390.000	-40.37	<=-21.20	PASS
		High	2480	AV	2483.500	-46.19	<=-41.20	PASS
				AV	2500.000	-47.85	<=-41.20	PASS
				Peak	2483.500	-41.94	<=-21.20	PASS
				Peak	2500.000	-43.02	<=-21.20	PASS
3DH5	Ant2	Low	2402	AV	2310.000	-47.71	<=-41.20	PASS
				AV	2390.000	-47.37	<=-41.20	PASS
				Peak	2310.000	-41.65	<=-21.20	PASS
				Peak	2390.000	-40.02	<=-21.20	PASS
		High	2480	AV	2483.500	-46.11	<=-41.20	PASS
				AV	2500.000	-48.04	<=-41.20	PASS
				Peak	2483.500	-36.68	<=-21.20	PASS
				Peak	2500.000	-39.37	<=-21.20	PASS

Note:

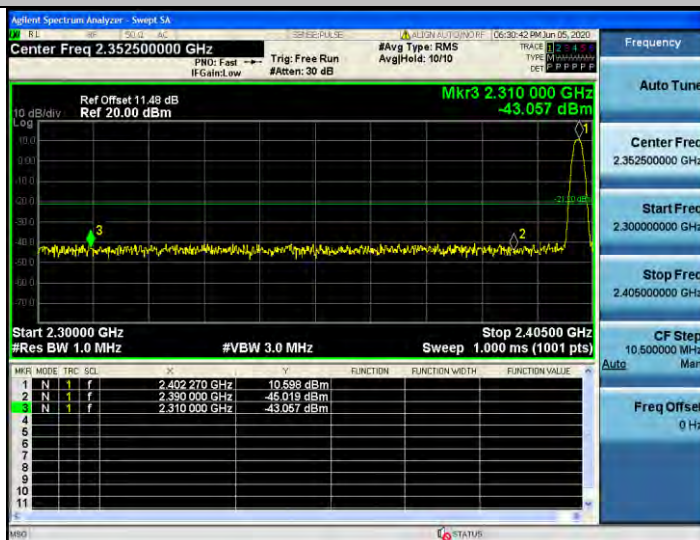
1. The Antenna Gain is compensated in the graph with 2dBi and Antenna Gain which is Higher.
2. The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.

Test Graphs

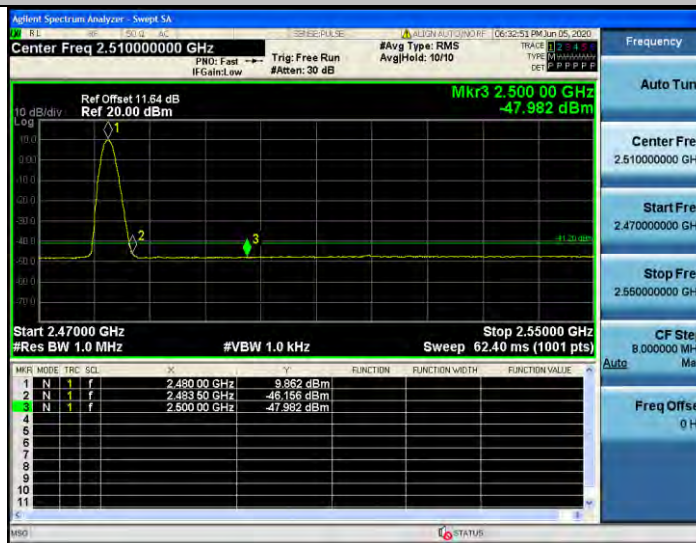
DH5_Ant2_Low_2402_AV



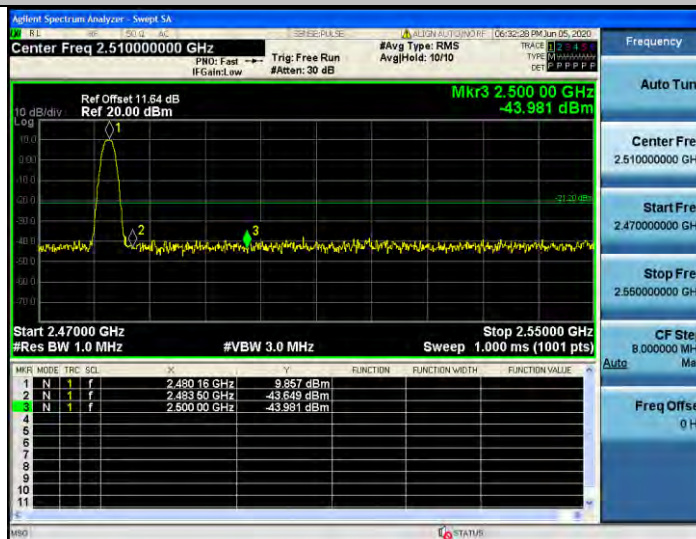
DH5_Ant2_Low_2402_Peak



DH5_Ant2_High_2480_AV



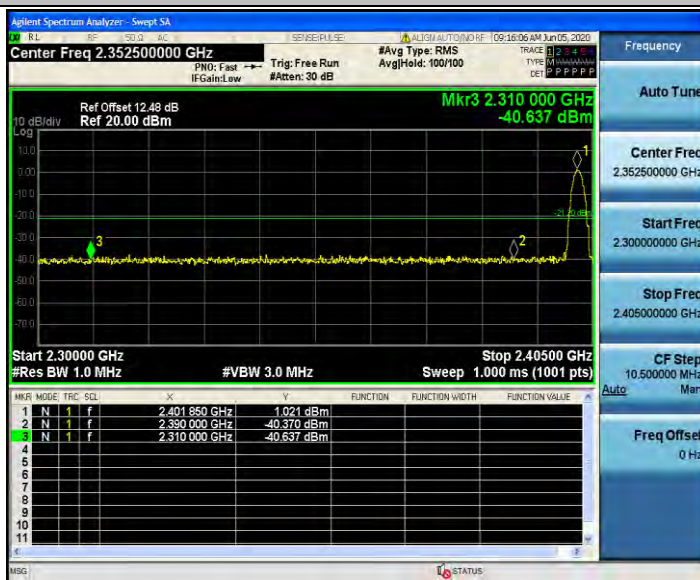
DH5_Ant2_High_2480_Peak



2DH5_Ant2_Low_2402_AV



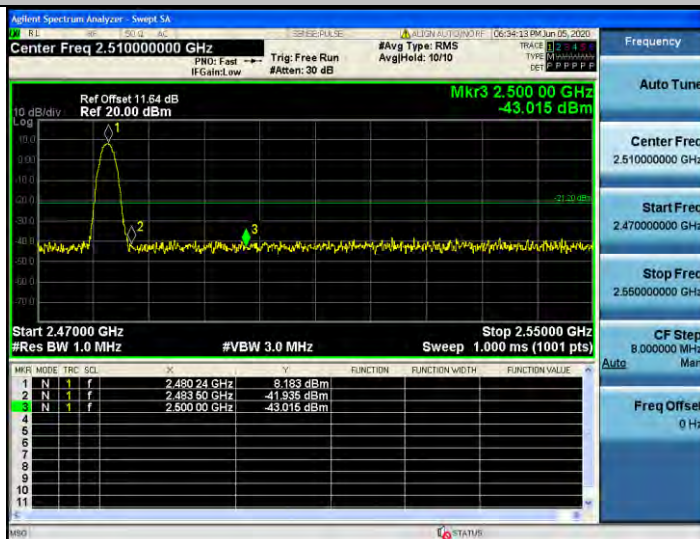
2DH5_Ant2_Low_2402_Peak



2DH5_Ant2_High_2480_AV



2DH5_Ant2_High_2480_Peak



3DH5_Ant2_Low_2402_AV



3DH5_Ant2_Low_2402_Peak



3DH5_Ant2_High_2480_AV



3DH5_Ant2_High_2480_Peak

