



Appendix A

RF Test Data for BT (Conducted Measurement)

Product Name: Massage chair

Test Model: N-0003H

Environmental Conditions

Temperature:	23.5° C
Relative Humidity:	52.2%
ATM Pressure:	100.0 kPa
Test Engineer:	Wunder Wu
Supervised by:	Li Huan



A.1 20dB Emission Bandwidth

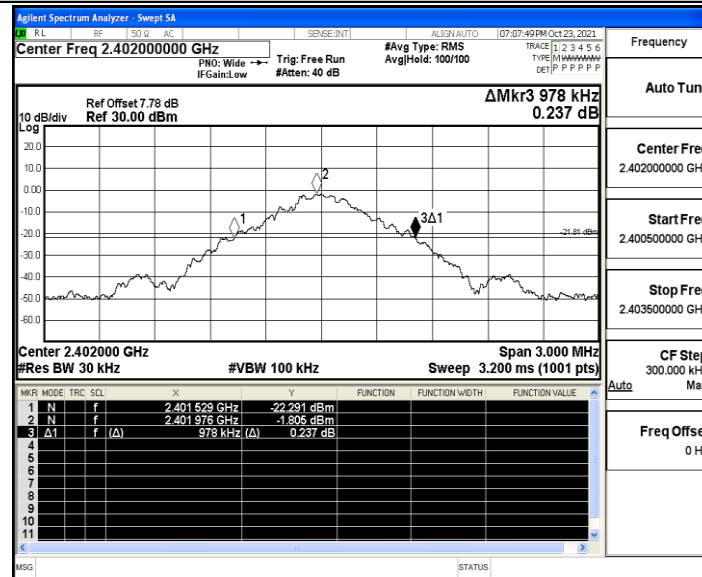
Test Result

TestMode	Antenna	Channel	20db EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.978	2401.529	2402.507	---	PASS
		2441	1.011	2440.481	2441.492	---	PASS
		2480	1.029	2479.463	2480.492	---	PASS
2DH5	Ant1	2402	1.323	2401.337	2402.660	---	PASS
		2441	1.314	2440.343	2441.657	---	PASS
		2480	1.323	2479.334	2480.657	---	PASS
3DH5	Ant1	2402	1.317	2401.343	2402.660	---	PASS
		2441	1.320	2440.346	2441.666	---	PASS
		2480	1.296	2479.352	2480.648	---	PASS

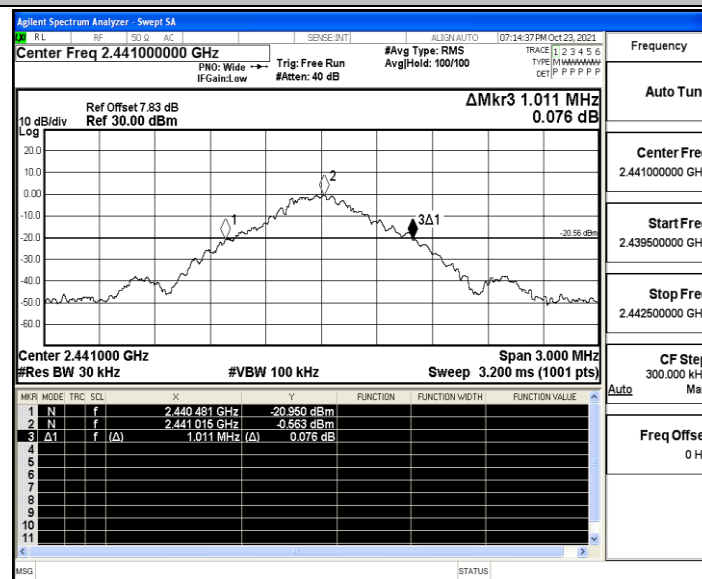


Test Graphs

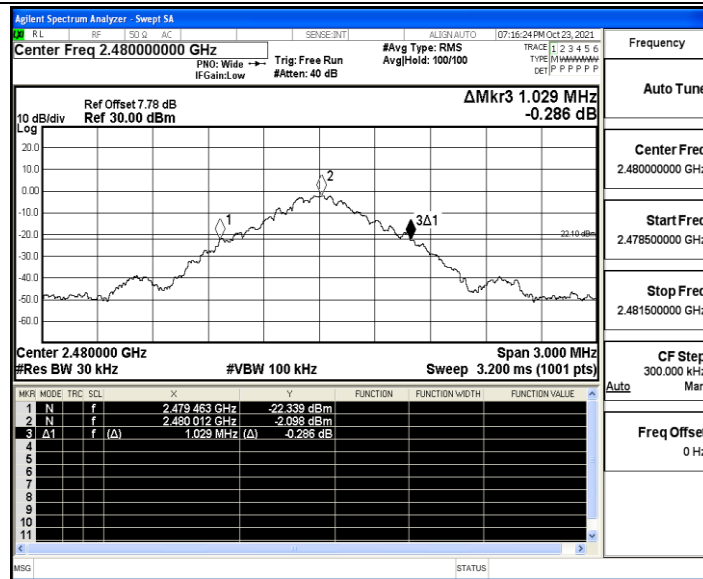
DH5_Ant1_2402



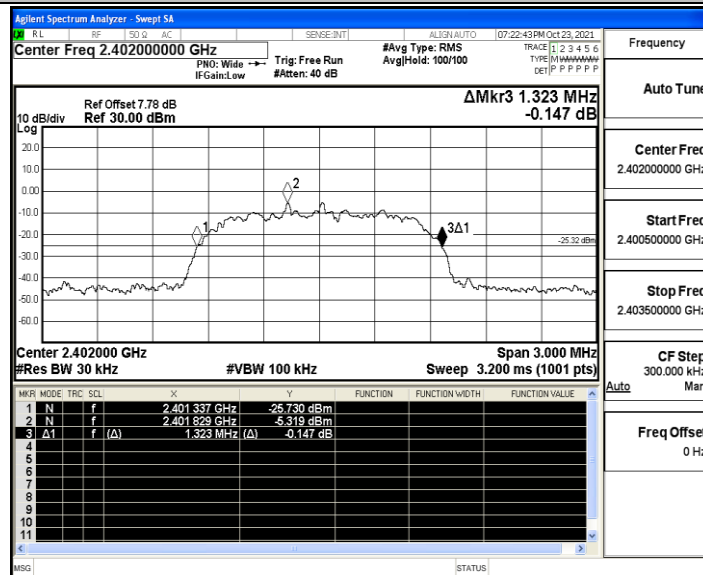
DH5_Ant1_2441



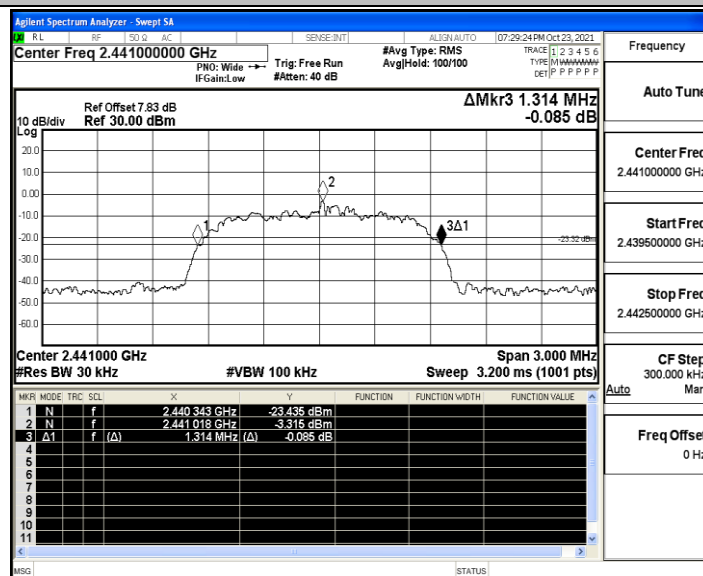
DH5_Ant1_2480



2DH5_Ant1_2402

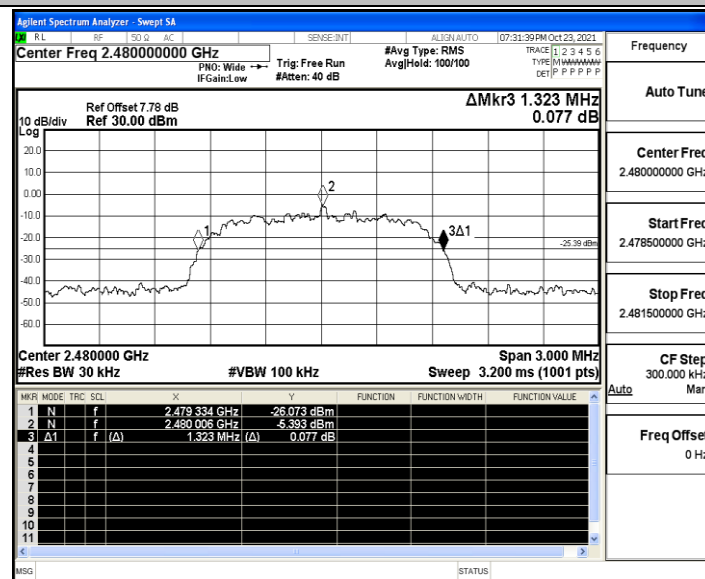


2DH5_Ant1_2441

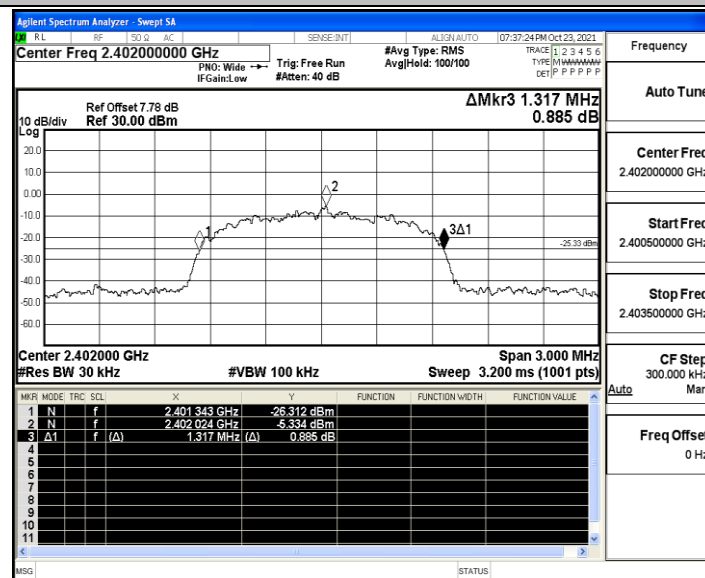




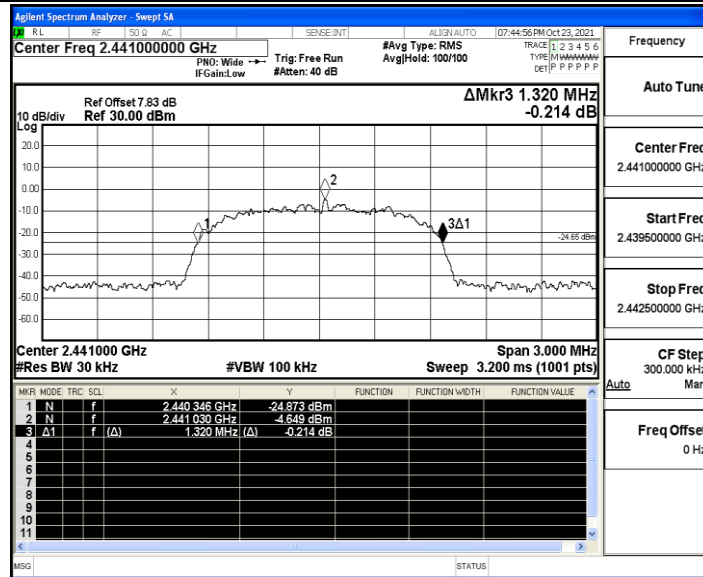
2DH5_Ant1_2480



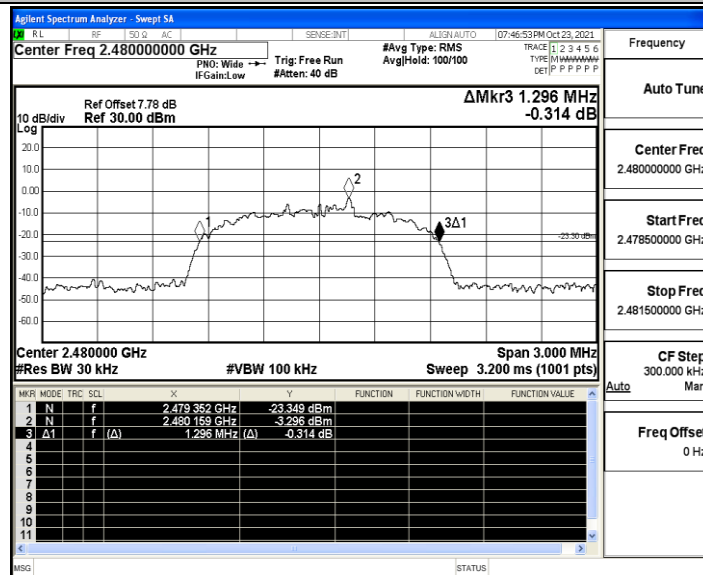
3DH5_Ant1_2402



3DH5_Ant1_2441



3DH5_Ant1_2480





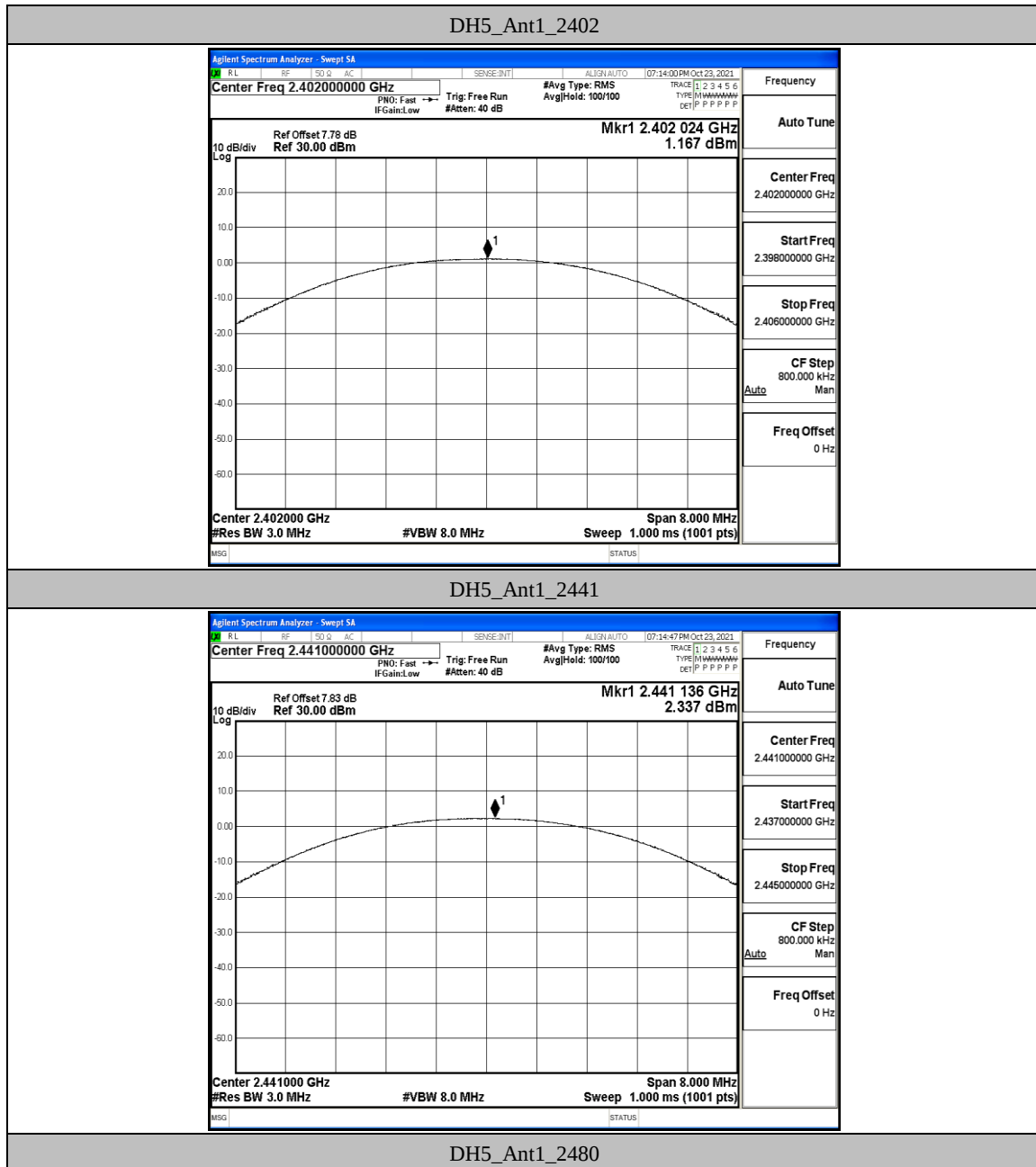
A.2 Maximum conducted output power

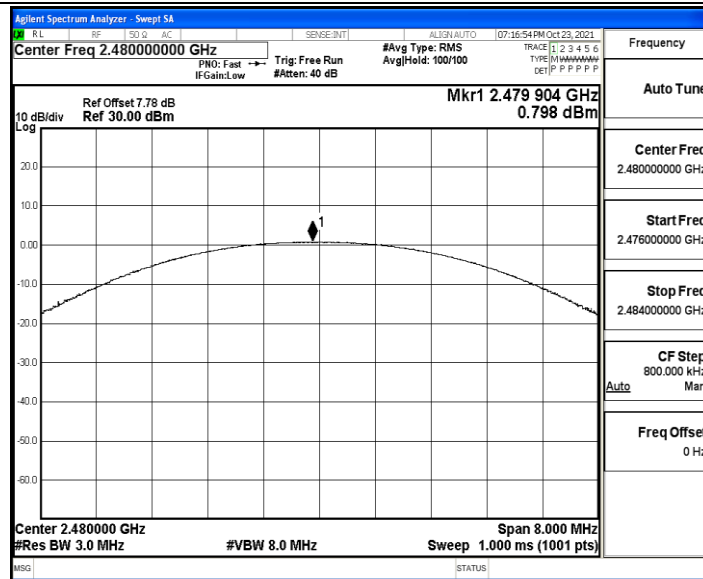
Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
DH5	Ant1	2402	1.17	≤ 20.97	PASS
		2441	2.34	≤ 20.97	PASS
		2480	0.80	≤ 20.97	PASS
2DH5	Ant1	2402	0.25	≤ 20.97	PASS
		2441	1.42	≤ 20.97	PASS
		2480	-0.09	≤ 20.97	PASS
3DH5	Ant1	2402	0.46	≤ 20.97	PASS
		2441	1.61	≤ 20.97	PASS
		2480	0.13	≤ 20.97	PASS

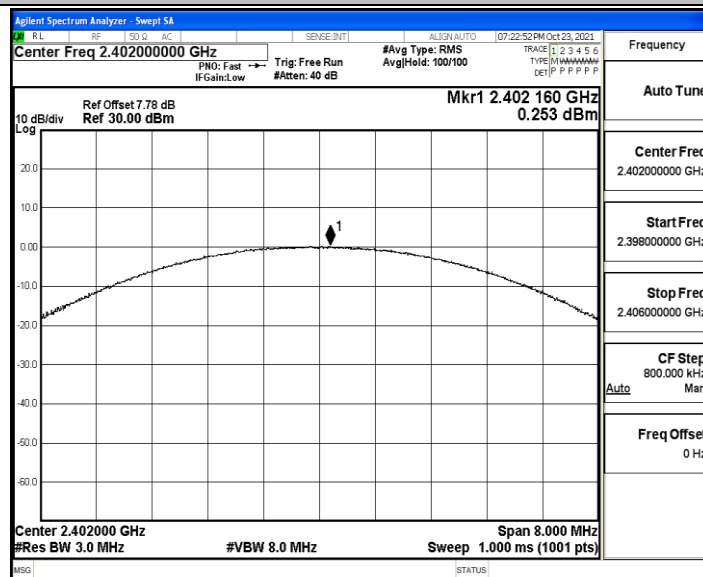


Test Graphs

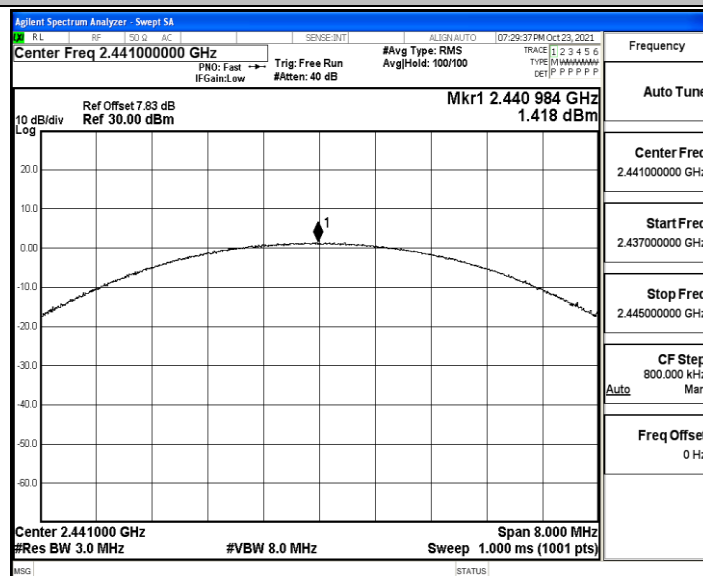




2DH5_Ant1_2402

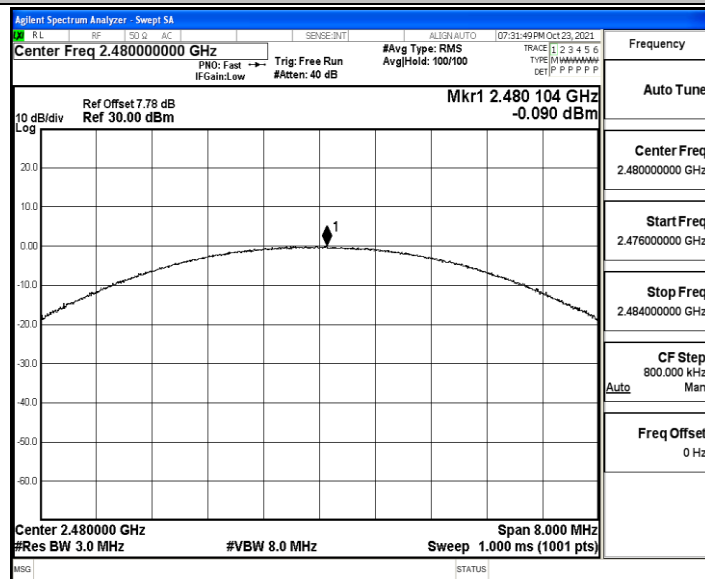


2DH5_Ant1_2441

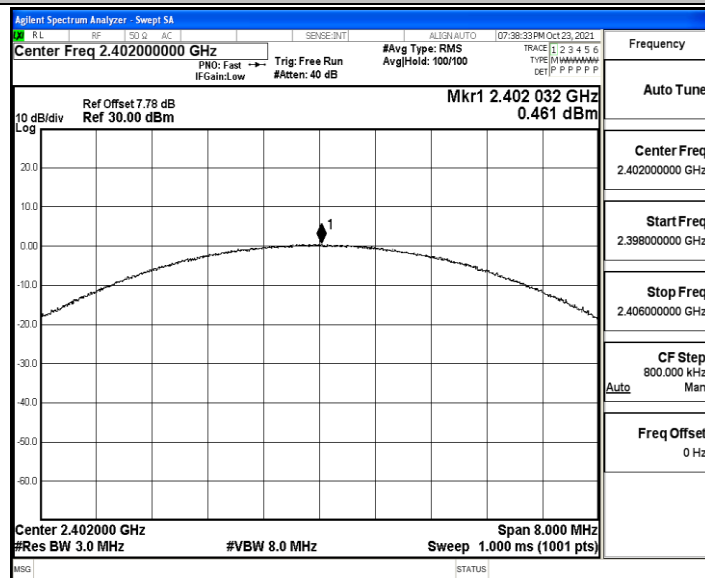




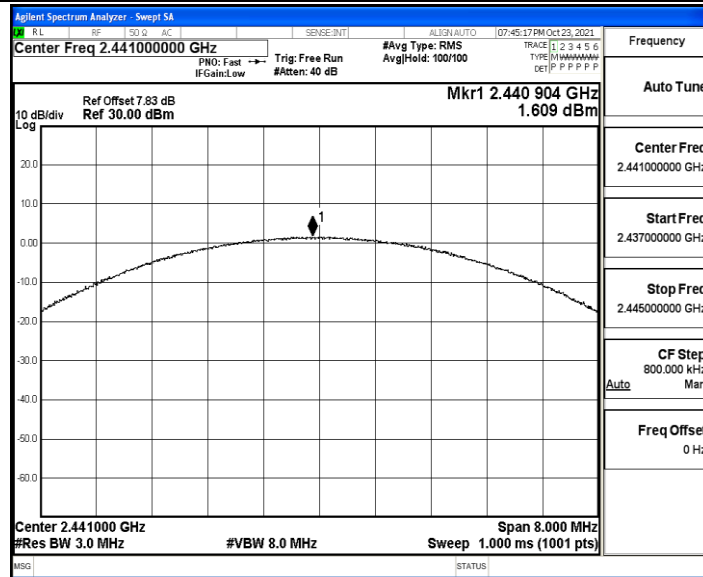
2DH5_Ant1_2480



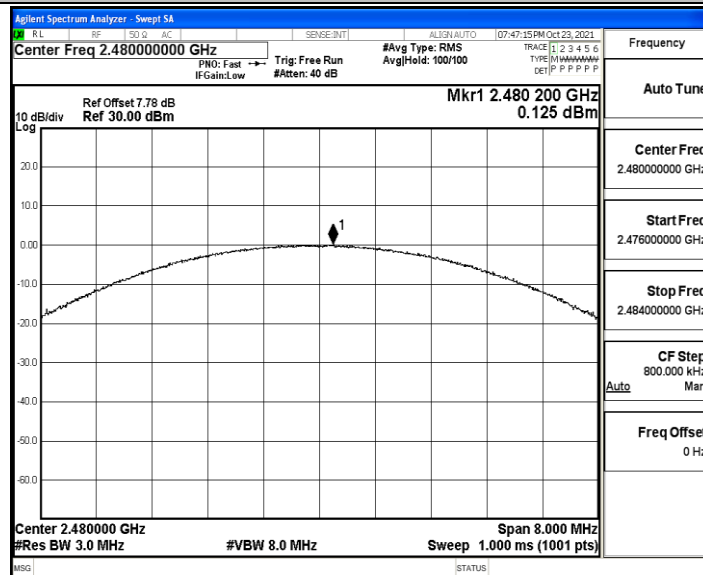
3DH5_Ant1_2402



3DH5_Ant1_2441



3DH5_Ant1_2480

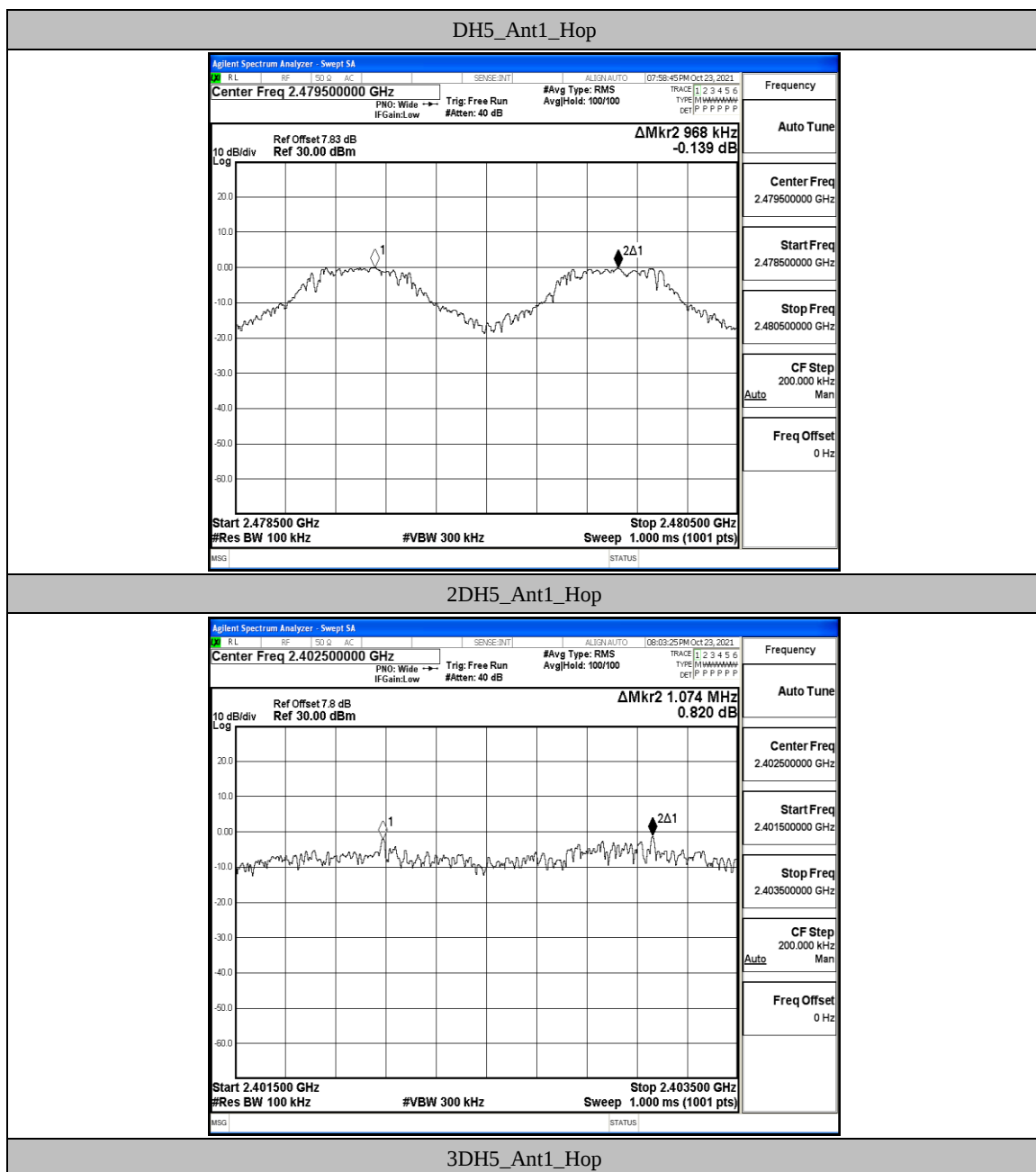


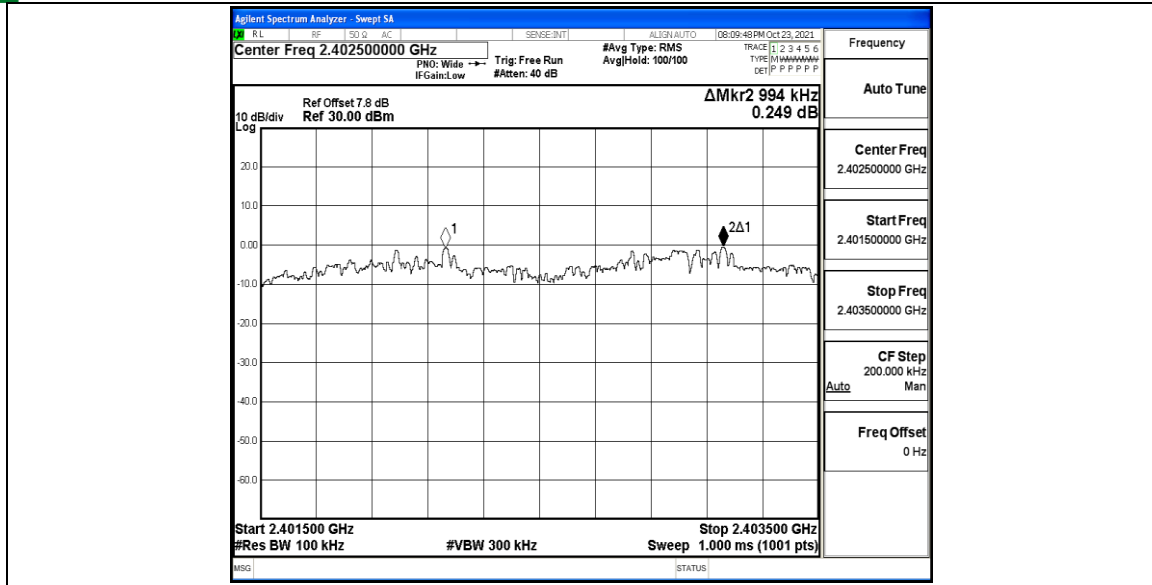
A.3 Carrier frequency separation

Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
DH5	Ant1	Hop	0.968	≥ 0.652	PASS
2DH5	Ant1	Hop	1.074	≥ 0.716	PASS
3DH5	Ant1	Hop	0.994	≥ 0.663	PASS

Test Graphs





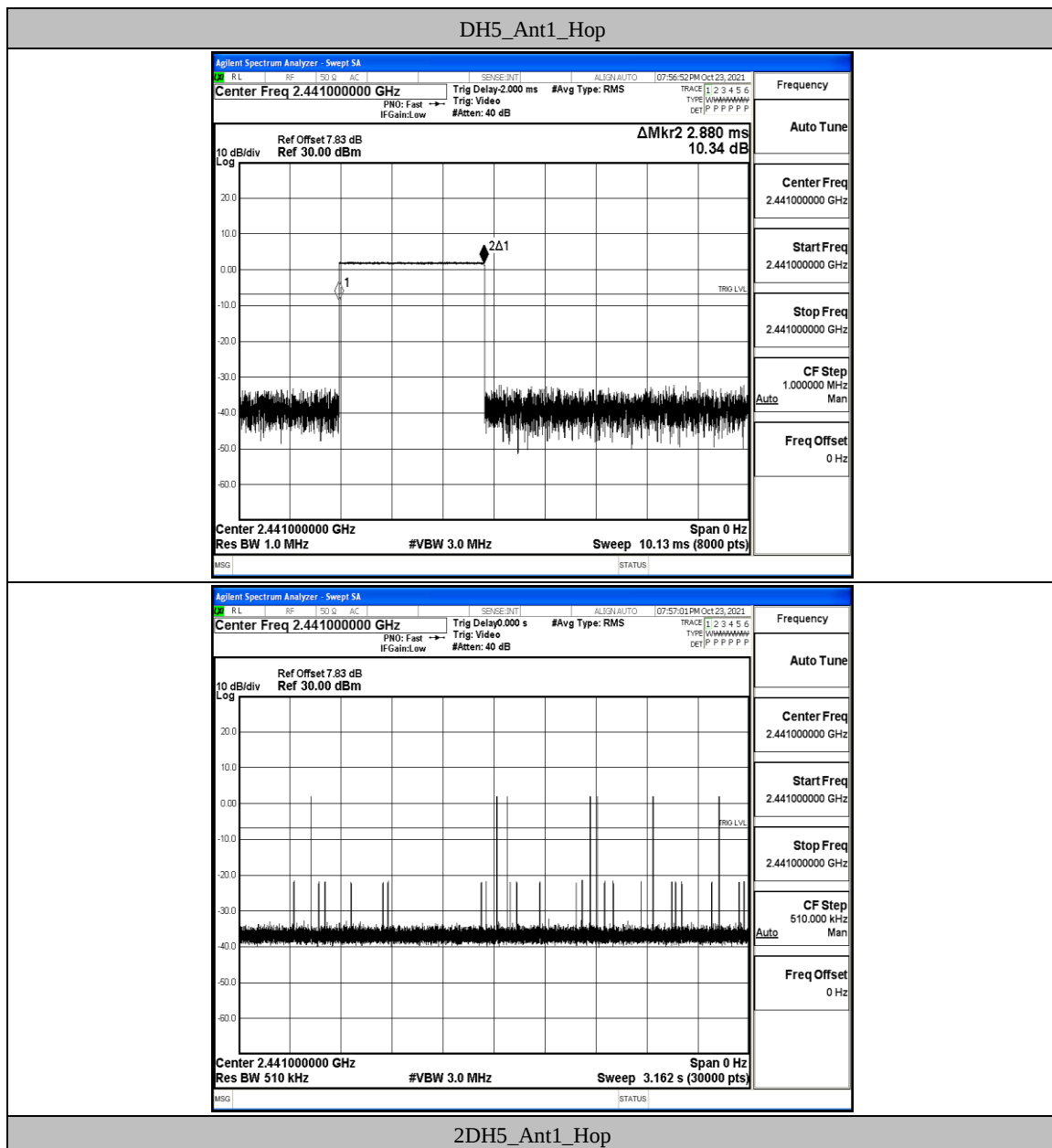


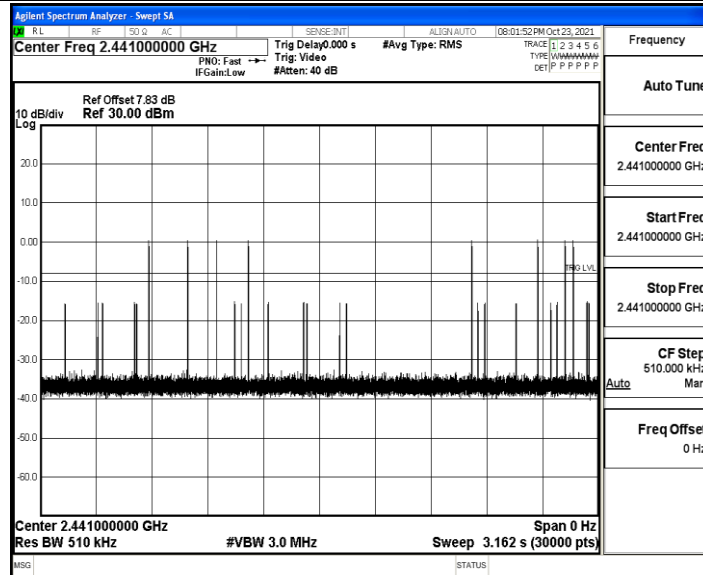
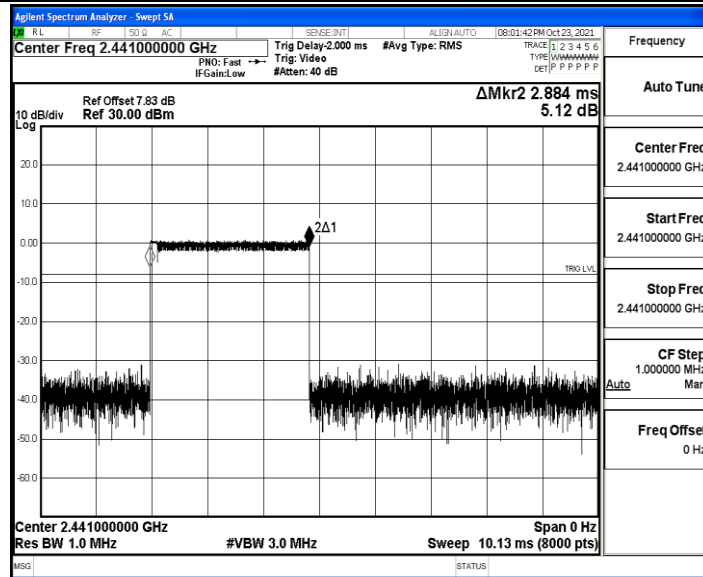
A.4 Time of occupancy

Test Result

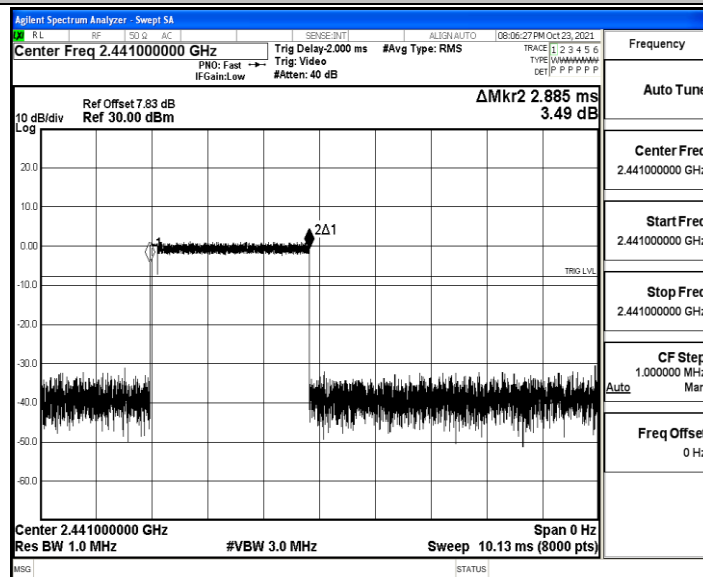
TestMode	Antenna	Channel	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH5	Ant1	Hop	2.88	80	0.23	≤0.4	PASS
2DH5	Ant1	Hop	2.88	90	0.26	≤0.4	PASS
3DH5	Ant1	Hop	2.89	70	0.202	≤0.4	PASS

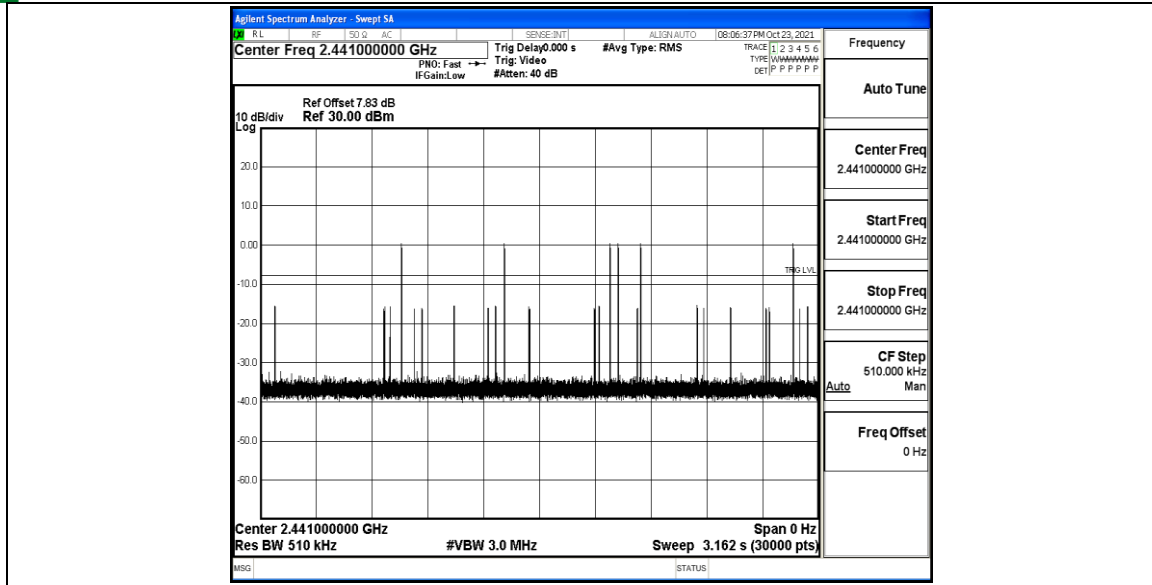
Test Graphs





3DH5_Ant1_Hop





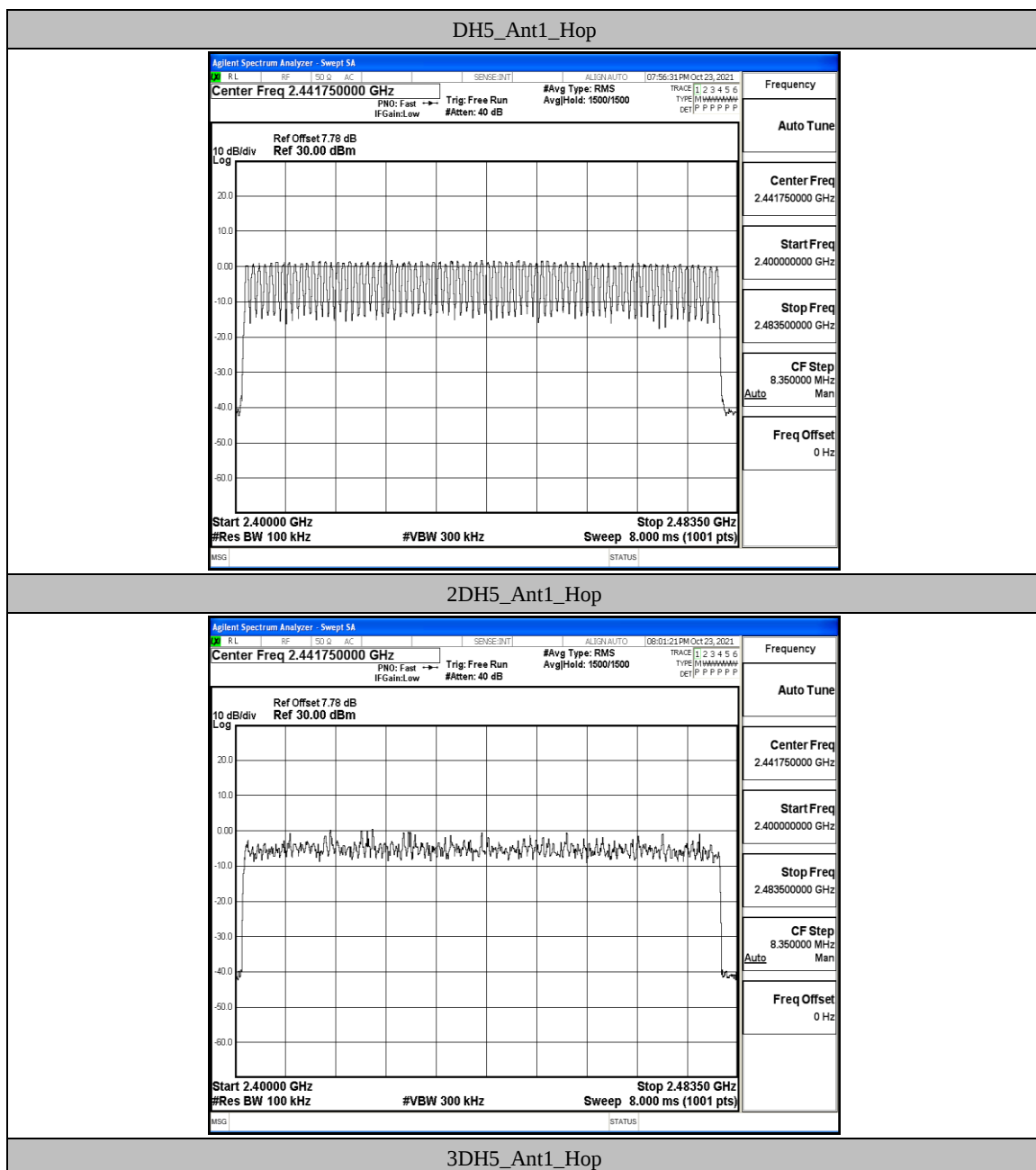


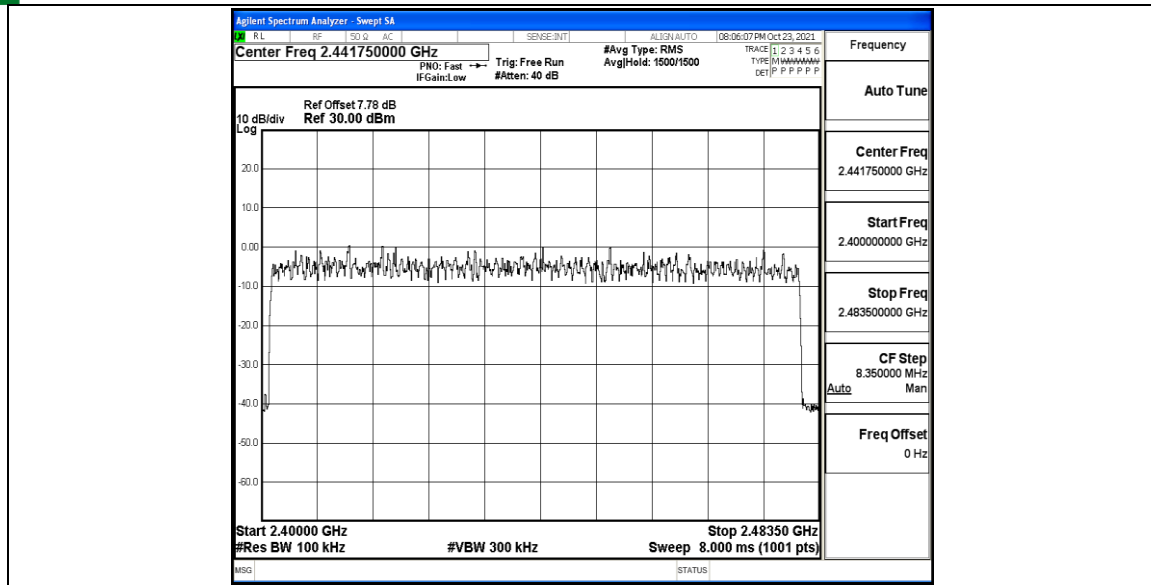
A.5 Number of hopping channels

Test Result

TestMode	Antenna	Channel	Result[Num]	Limit[Num]	Verdict
DH5	Ant1	Hop	79	≥ 15	PASS
2DH5	Ant1	Hop	79	≥ 15	PASS
3DH5	Ant1	Hop	79	≥ 15	PASS

Test Graphs





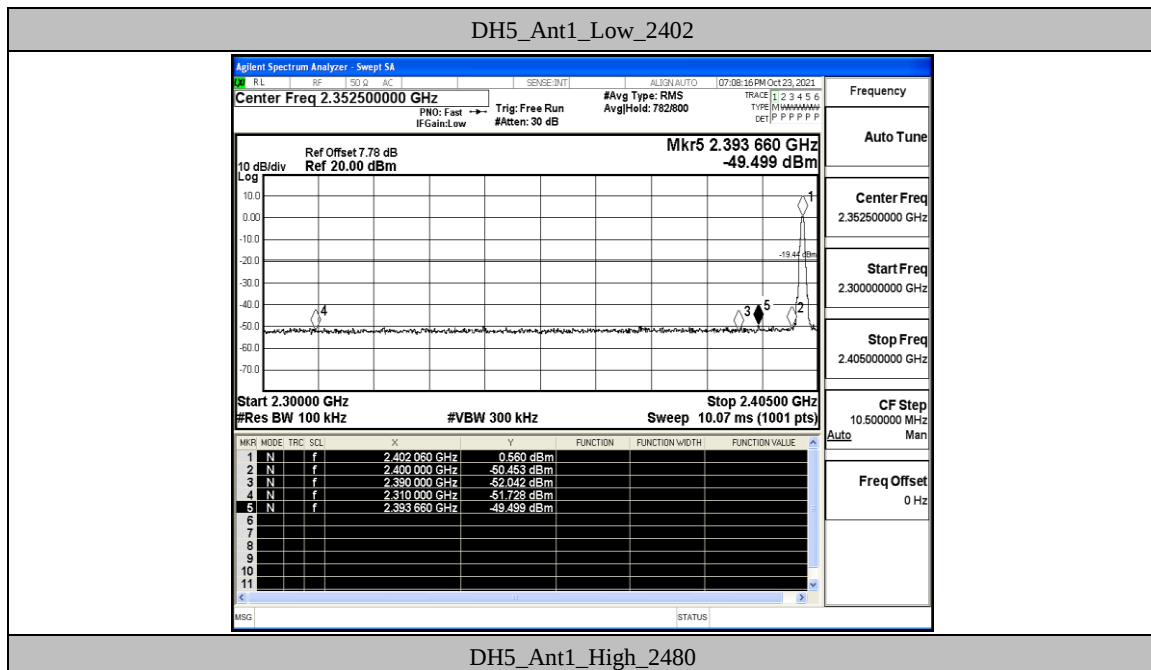


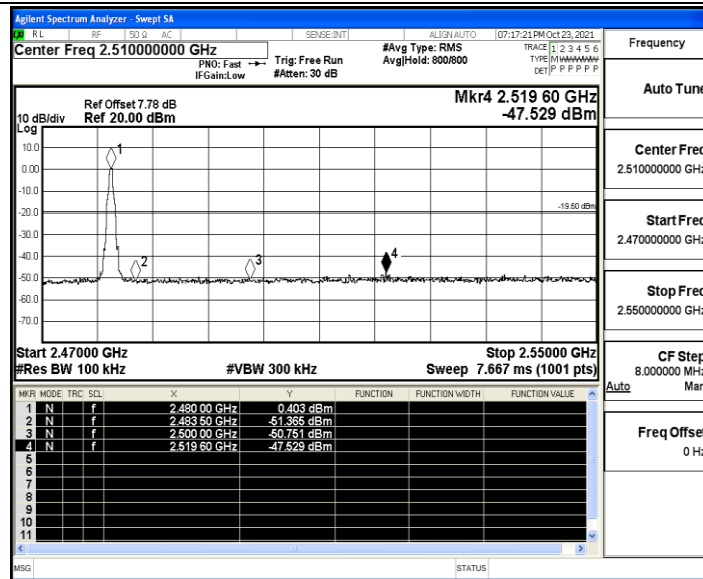
A.6 Band edge measurements

Test Result

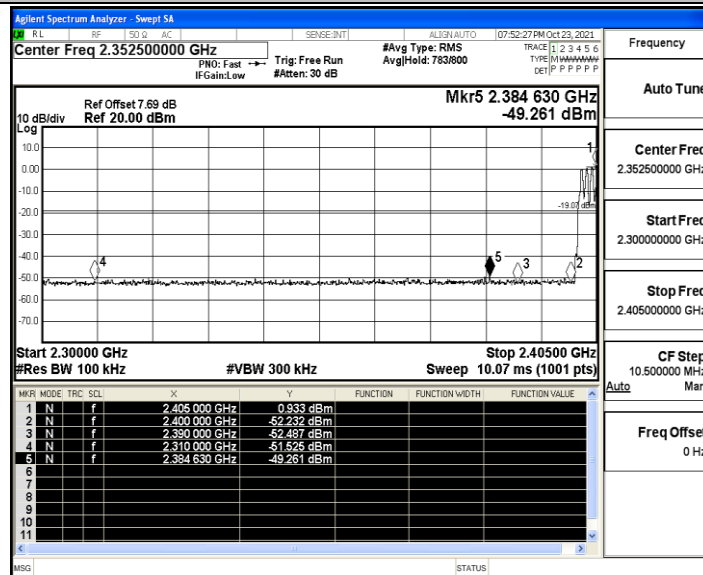
TestMode	Antenna	ChName	Channel	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	0.56	-49.5	≤ -19.44	PASS
		High	2480	0.40	-47.53	≤ -19.6	PASS
		Low	Hop_2402	0.93	-49.26	≤ -19.07	PASS
		High	Hop_2480	0.56	-44.26	≤ -19.44	PASS
2DH5	Ant1	Low	2402	-0.63	-49.08	≤ -20.63	PASS
		High	2480	-1.00	-48.16	≤ -21	PASS
		Low	Hop_2402	-3.84	-49.73	≤ -23.84	PASS
		High	Hop_2480	-1.13	-48.44	≤ -21.13	PASS
3DH5	Ant1	Low	2402	-0.69	-49.88	≤ -20.69	PASS
		High	2480	-1.28	-48.45	≤ -21.28	PASS
		Low	Hop_2402	-3.83	-49.7	≤ -23.83	PASS
		High	Hop_2480	-2.64	-48.95	≤ -22.64	PASS

Test Graphs

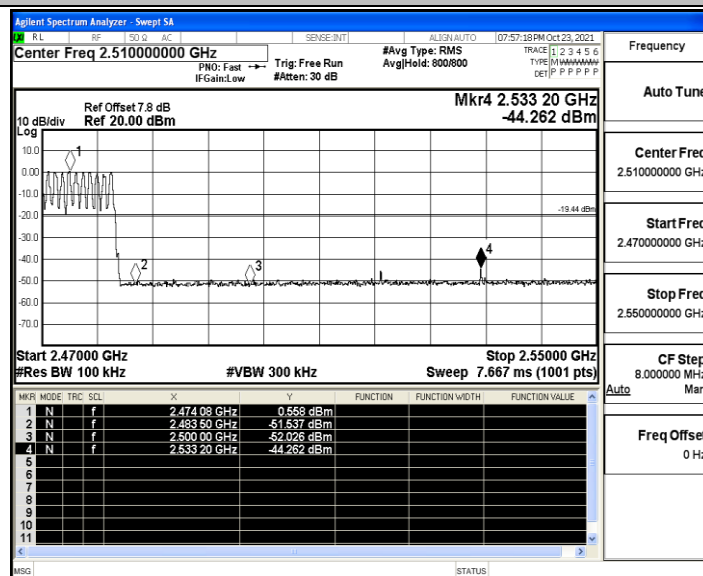




DH5_Ant1_Low_Hop_2402

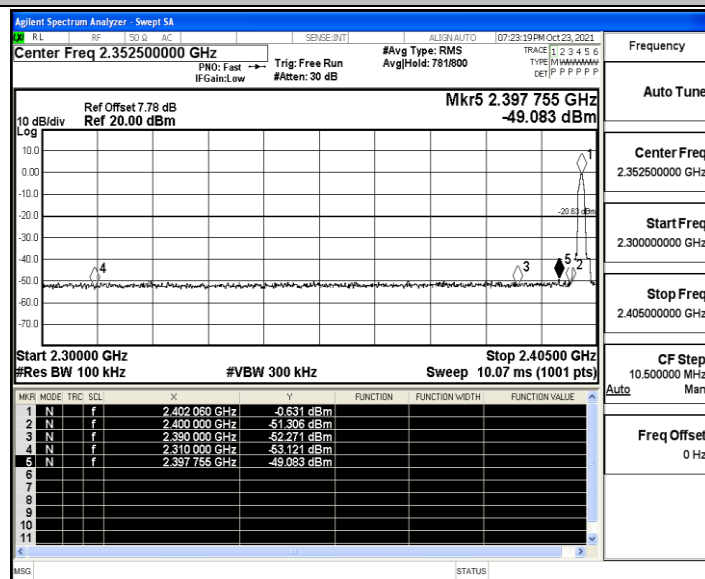


DH5_Ant1_High_Hop_2480

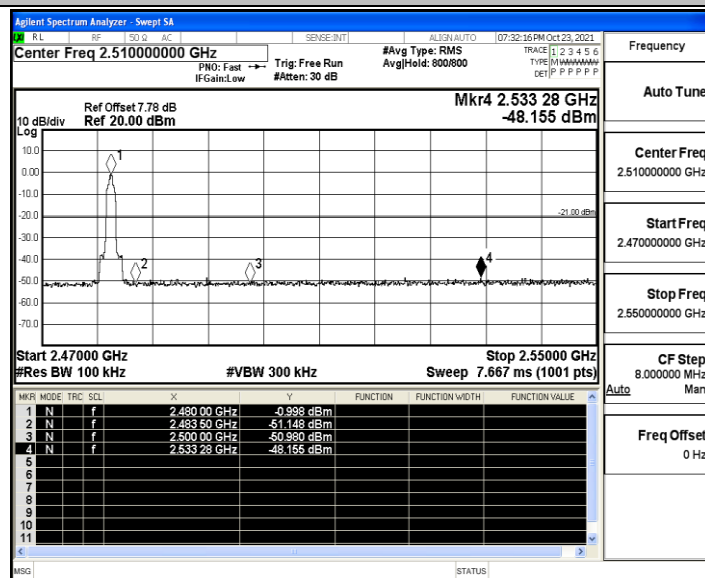




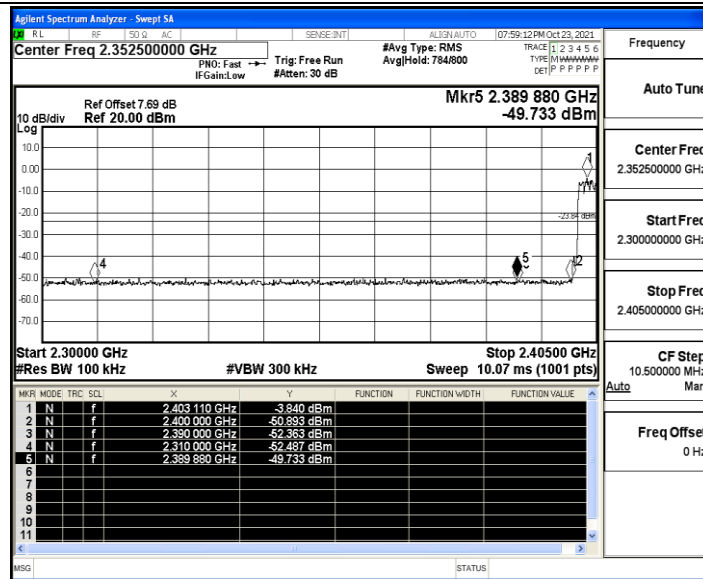
2DH5_Ant1_Low_2402



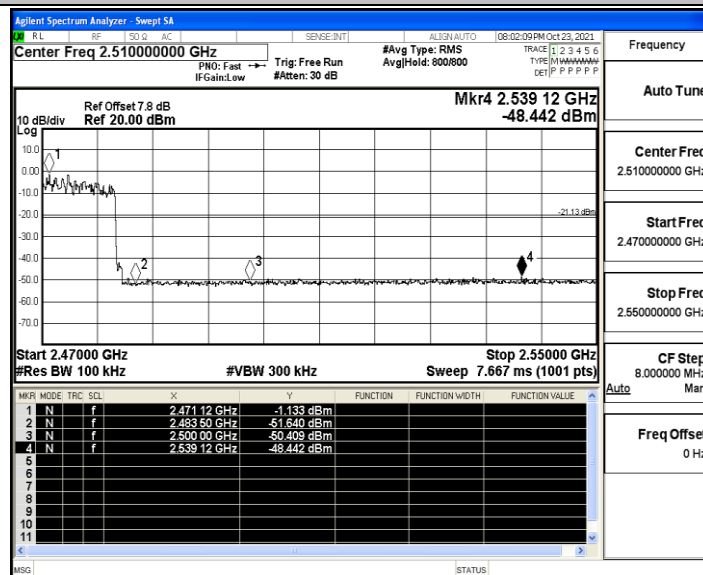
2DH5_Ant1_High_2480



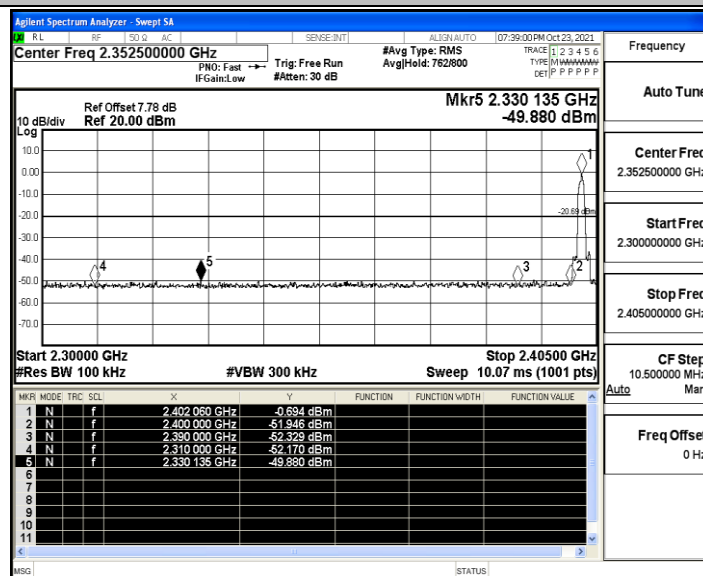
2DH5_Ant1_Low_Hop_2402



2DH5_Ant1_High_Hop_2480

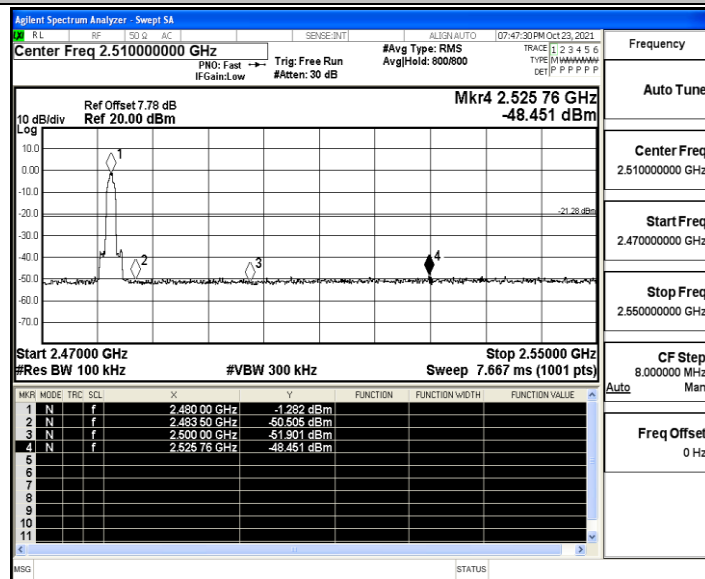


3DH5_Ant1_Low_2402

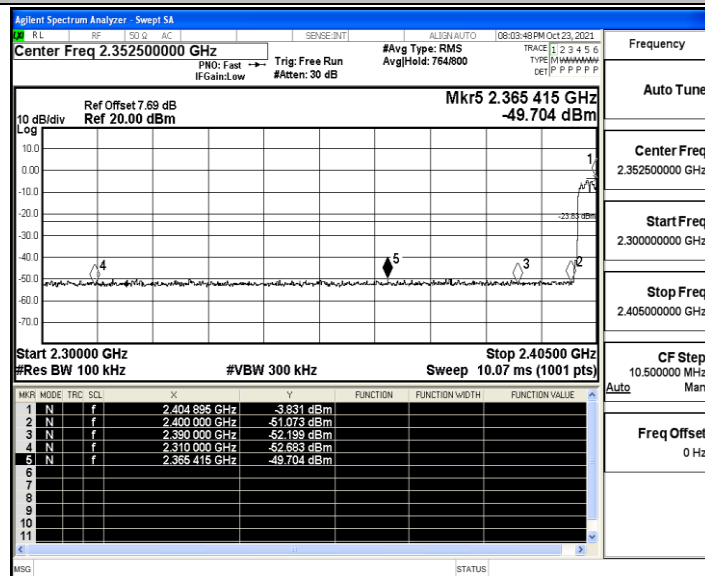




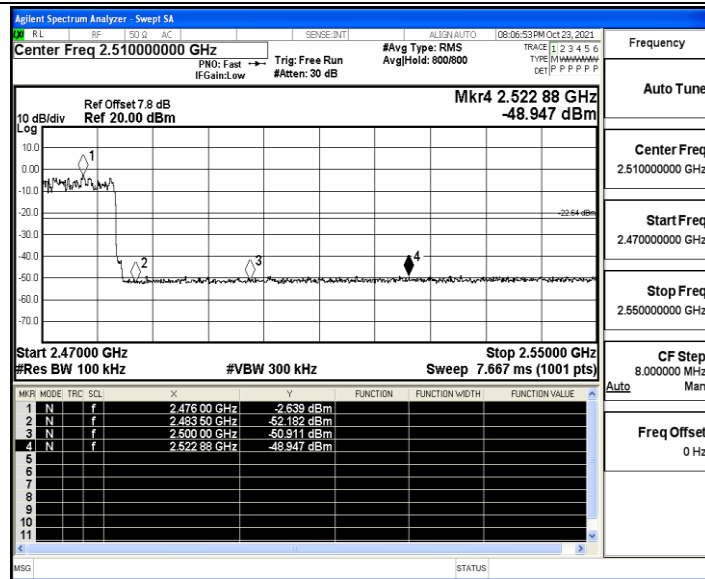
3DH5_Ant1_High_2480



3DH5_Ant1_Low_Hop_2402



3DH5_Ant1_High_Hop_2480





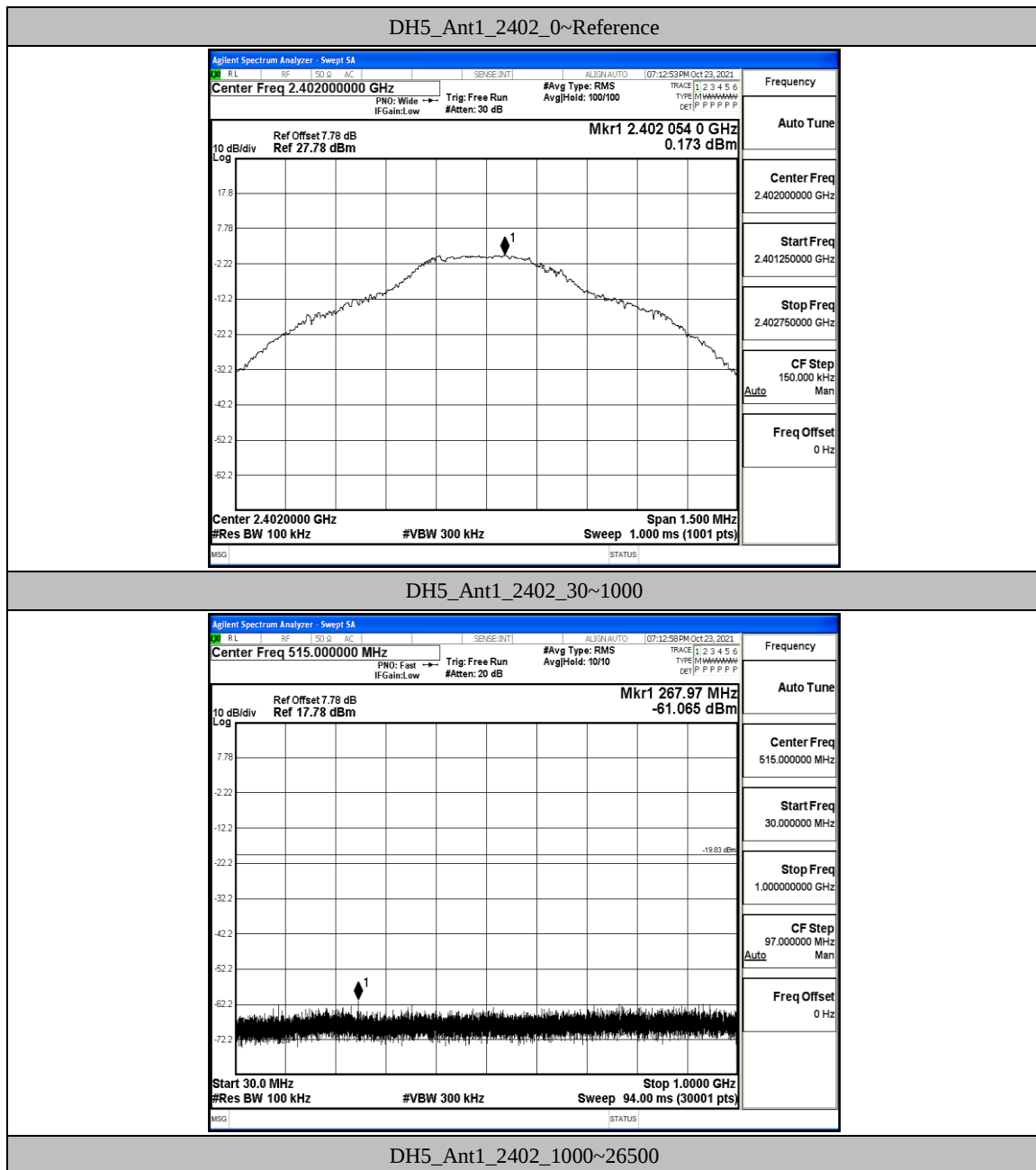
A.7 Conducted Spurious Emission

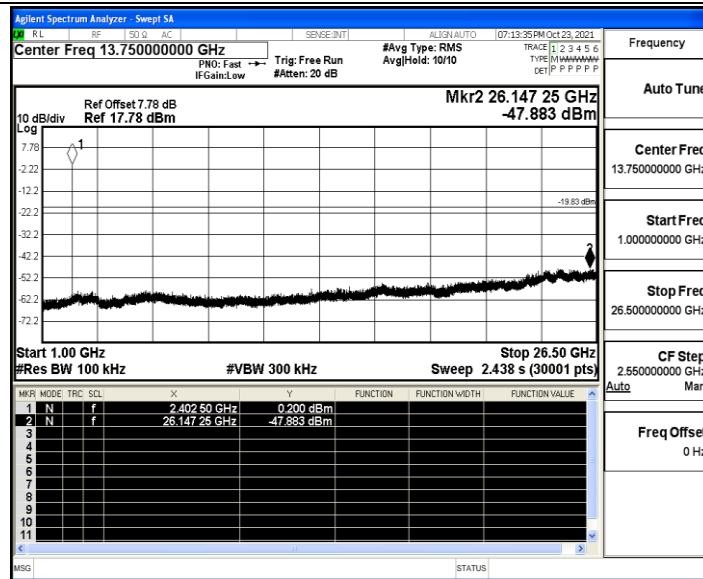
Test Result

TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	Reference	0.17	0.17	---	PASS
			30~1000	0.17	-61.07	≤ -19.83	PASS
			1000~26500	0.17	-47.88	≤ -19.83	PASS
		2441	Reference	1.62	1.62	---	PASS
			30~1000	1.62	-61.78	≤ -18.38	PASS
			1000~26500	1.62	-47.29	≤ -18.38	PASS
		2480	Reference	0.29	0.29	---	PASS
			30~1000	0.29	-61.85	≤ -19.71	PASS
			1000~26500	0.29	-47.39	≤ -19.71	PASS
2DH5	Ant1	2402	Reference	-1.15	-1.15	---	PASS
			30~1000	-1.15	-61.55	≤ -21.15	PASS
			1000~26500	-1.15	-46.96	≤ -21.15	PASS
		2441	Reference	-0.84	-0.84	---	PASS
			30~1000	-0.84	-61.3	≤ -20.84	PASS
			1000~26500	-0.84	-46.96	≤ -20.84	PASS
		2480	Reference	-1.30	-1.30	---	PASS
			30~1000	-1.30	-61.38	≤ -21.3	PASS
			1000~26500	-1.30	-47.24	≤ -21.3	PASS
3DH5	Ant1	2402	Reference	-1.88	-1.88	---	PASS
			30~1000	-1.88	-60.93	≤ -21.88	PASS
			1000~26500	-1.88	-47.26	≤ -21.88	PASS
		2441	Reference	0.29	0.29	---	PASS
			30~1000	0.29	-62.11	≤ -19.72	PASS
			1000~26500	0.29	-47.16	≤ -19.72	PASS
		2480	Reference	-1.06	-1.06	---	PASS
			30~1000	-1.06	-61.56	≤ -21.06	PASS
			1000~26500	-1.06	-46.13	≤ -21.06	PASS

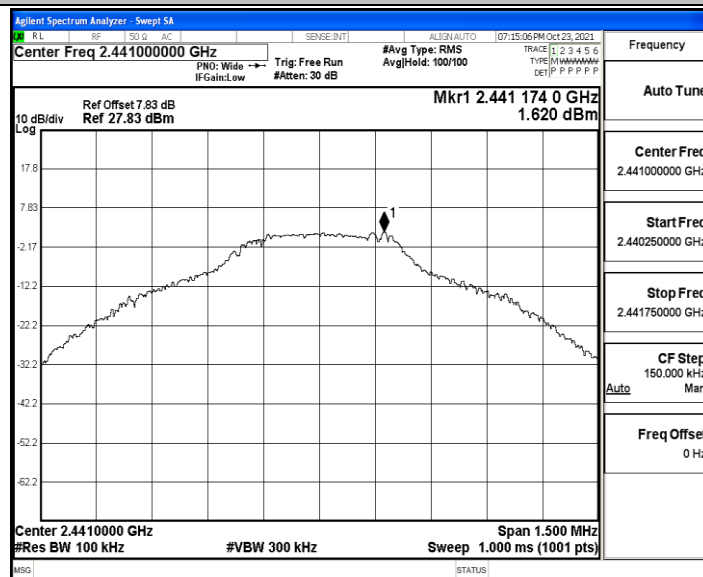


Test Graphs

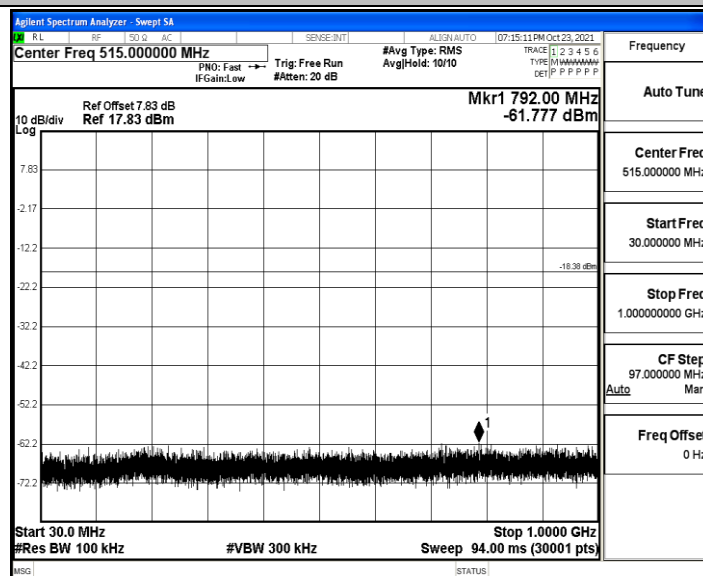




DH5_Ant1_2441_0~Reference

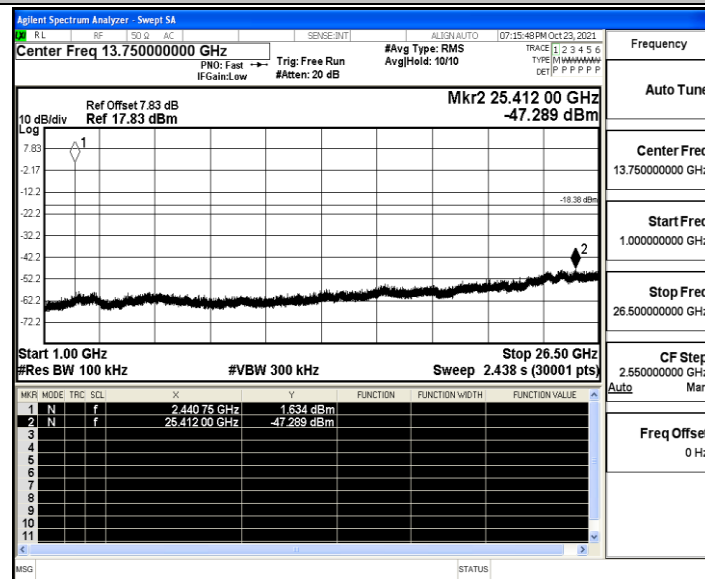


DH5_Ant1_2441_30~1000

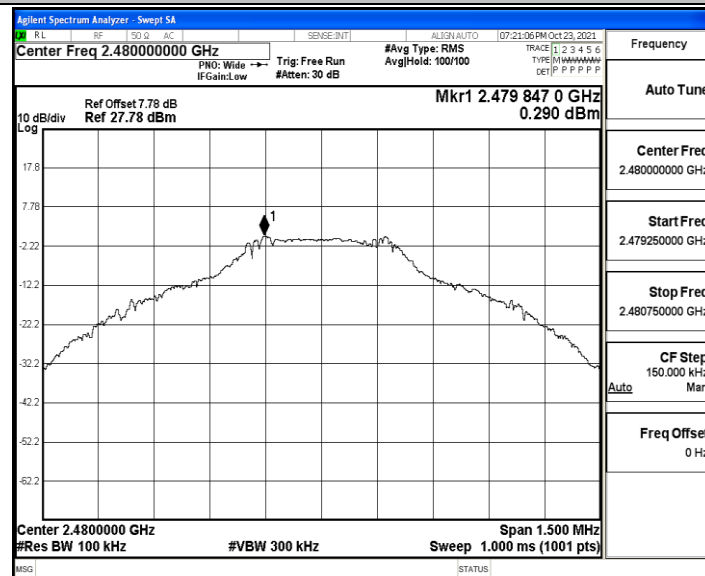




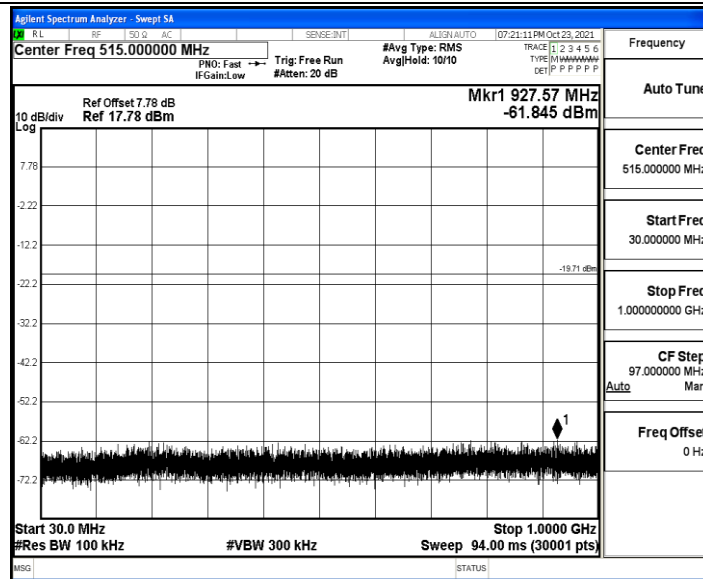
DH5_Ant1_2441_1000~26500



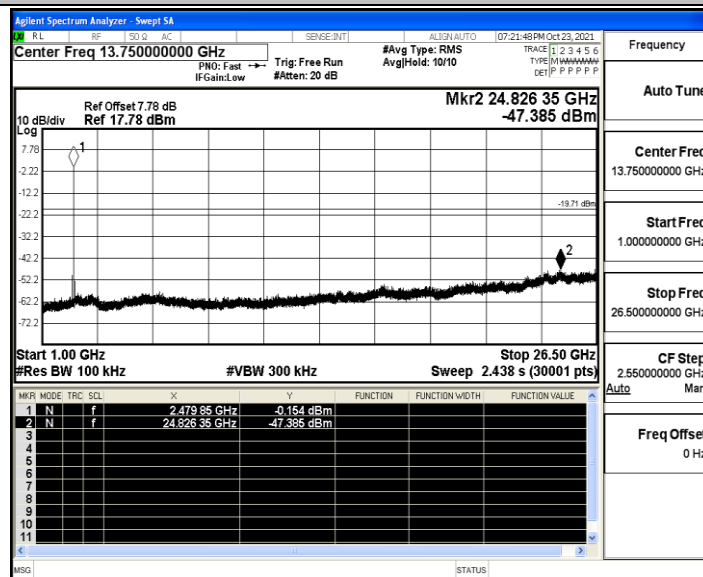
DH5_Ant1_2480_0~Reference



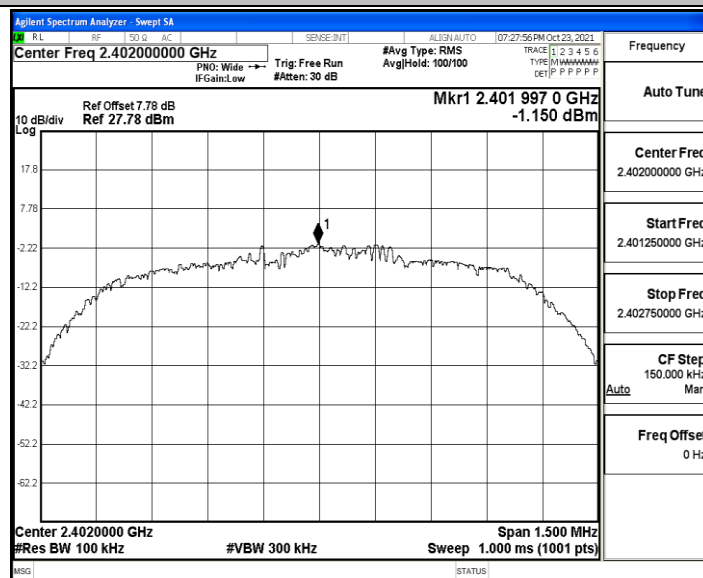
DH5_Ant1_2480_30~1000



DH5_Ant1_2480_1000~26500

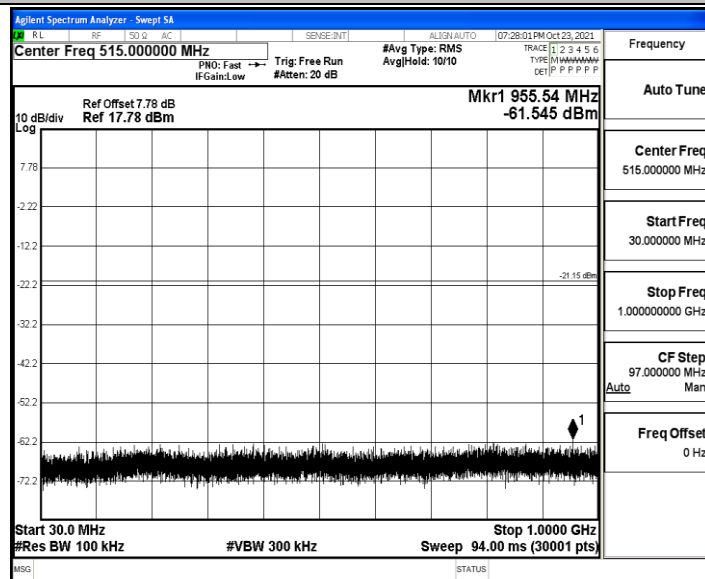


2DH5_Ant1_2402_0~Reference

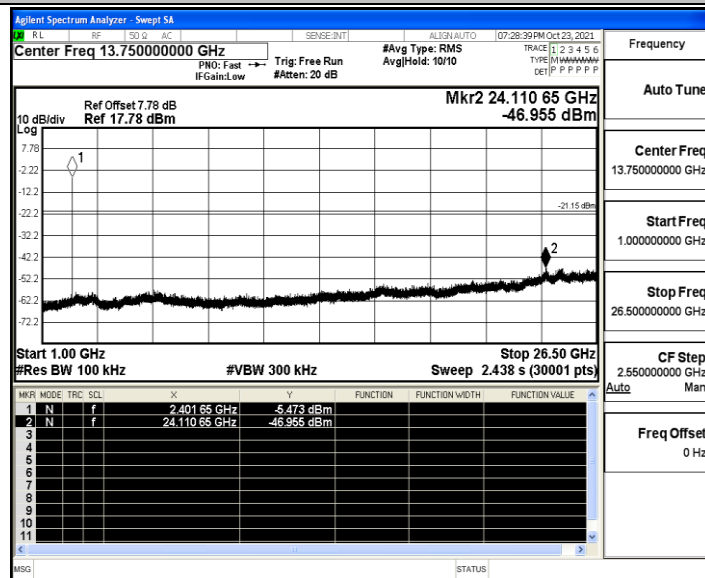




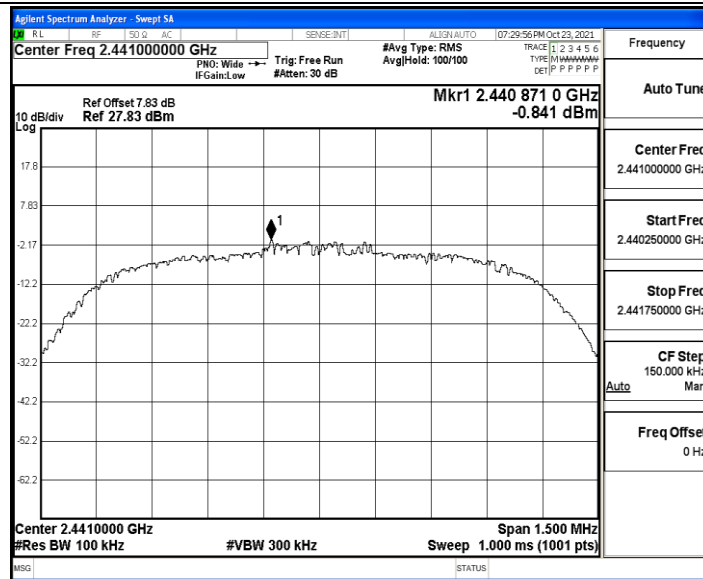
2DH5_Ant1_2402_30~1000



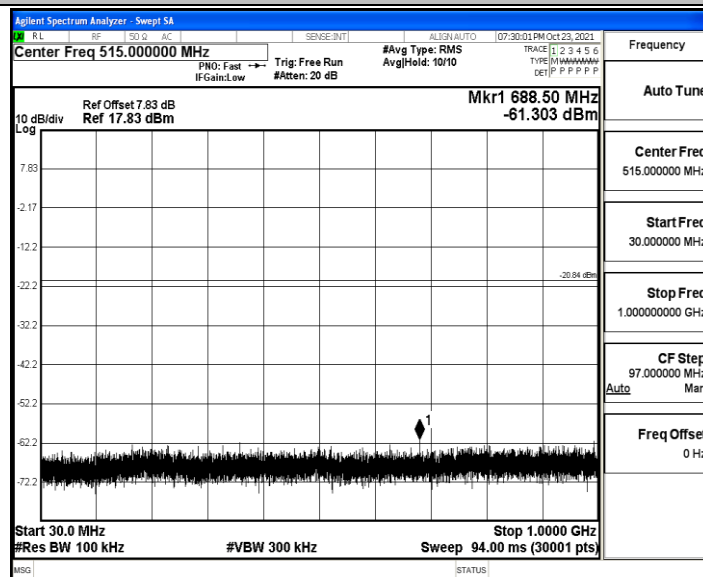
2DH5_Ant1_2402_1000~26500



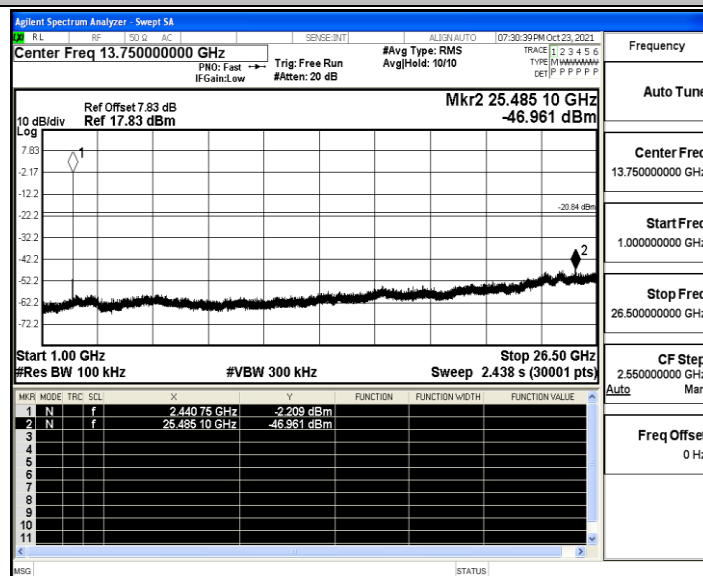
2DH5_Ant1_2441_0~Reference



2DH5_Ant1_2441_30~1000

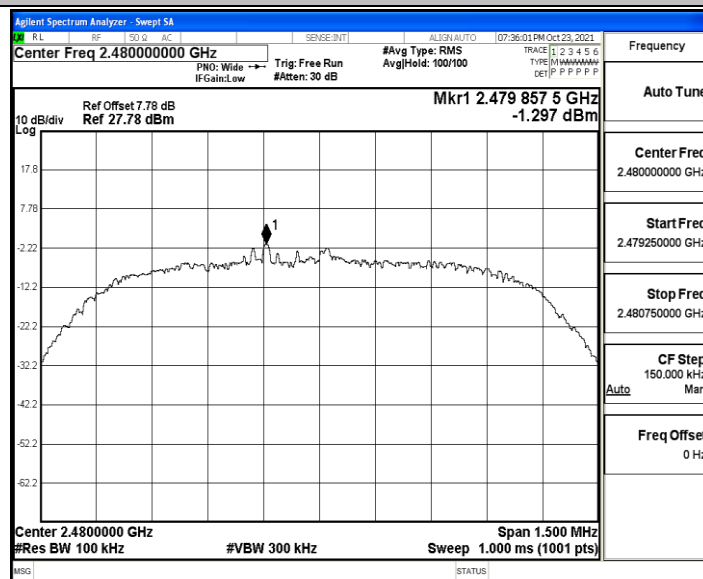


2DH5_Ant1_2441_1000~26500

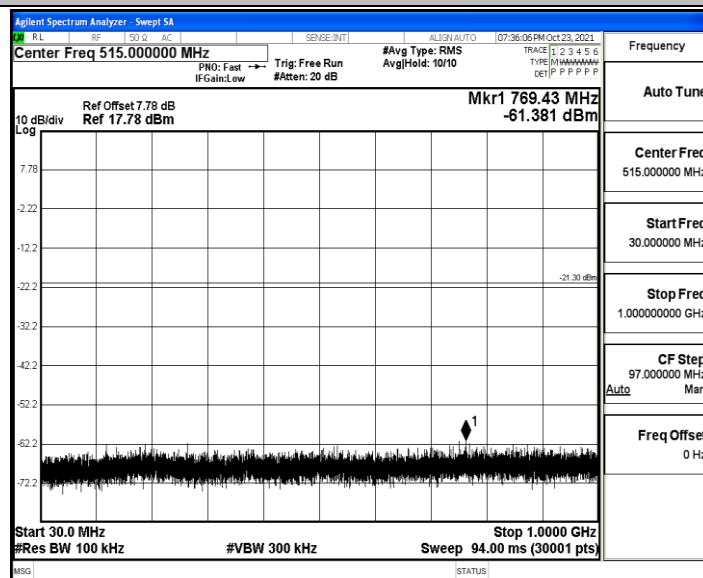




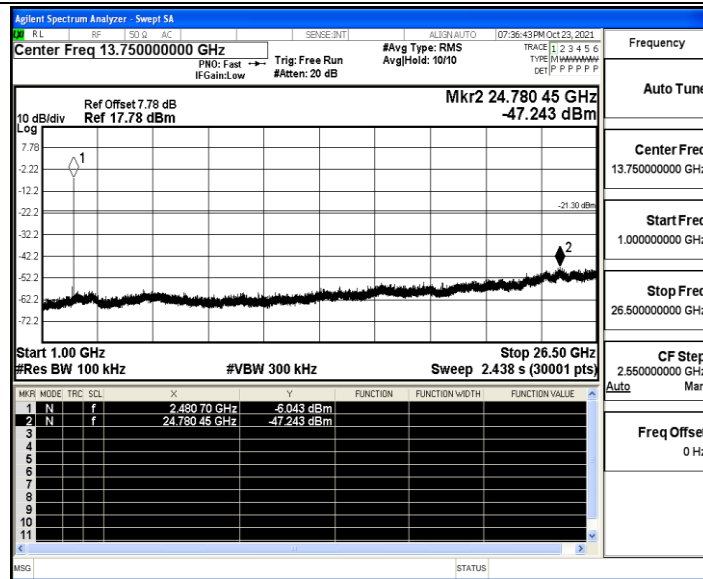
2DH5_Ant1_2480_0~Reference



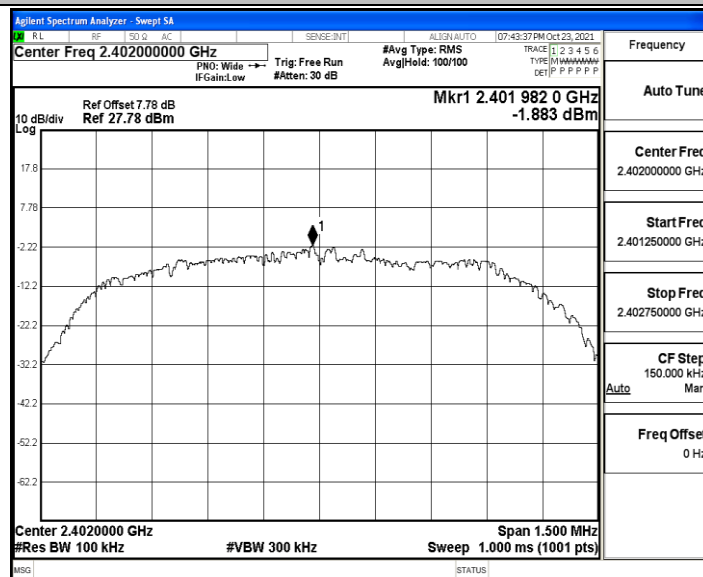
2DH5_Ant1_2480_30~1000



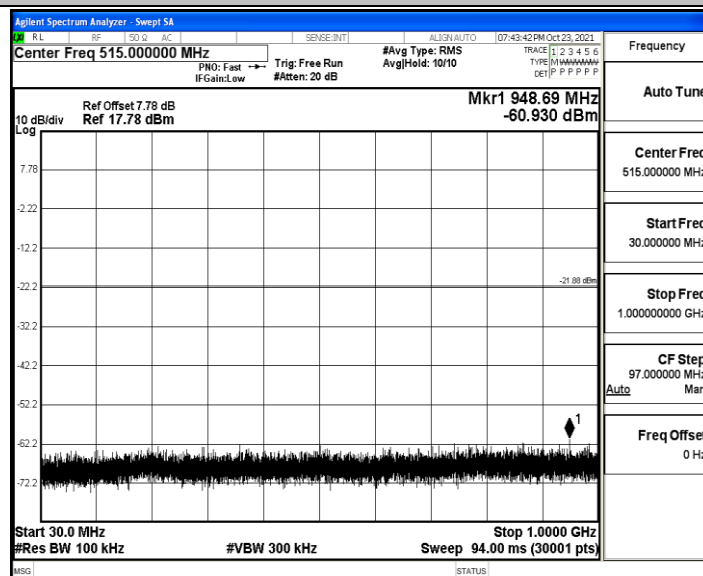
2DH5_Ant1_2480_1000~26500



3DH5_Ant1_2402_0~Reference

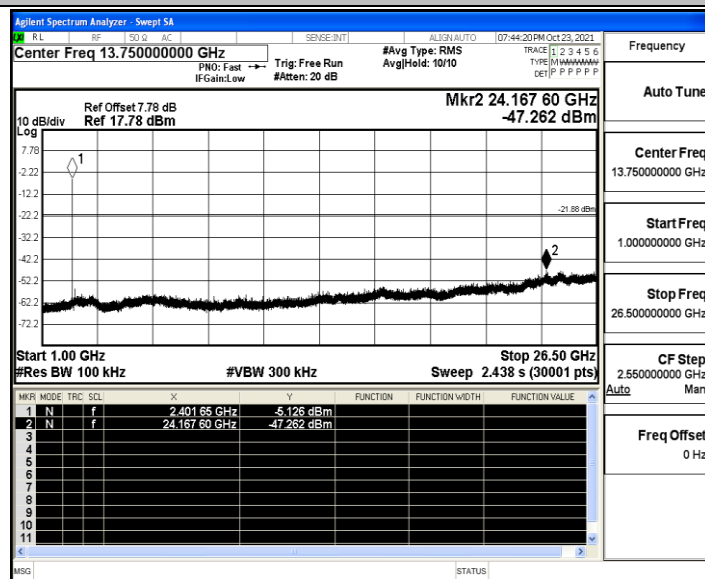


3DH5_Ant1_2402_30~1000

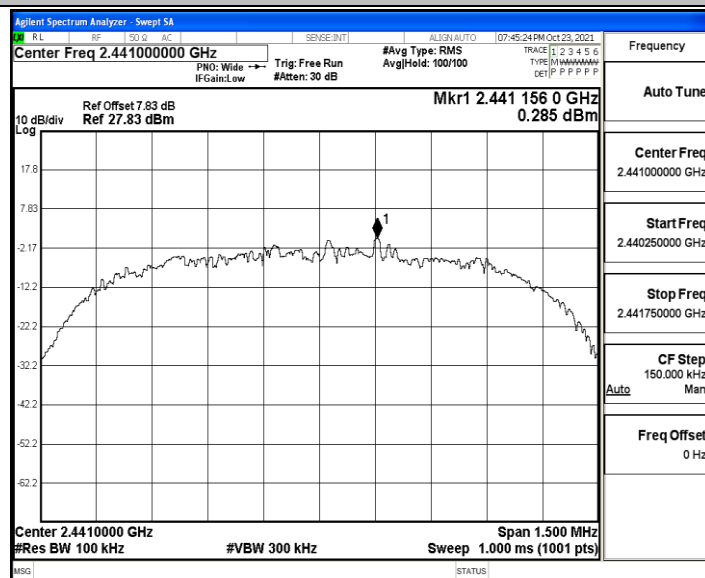




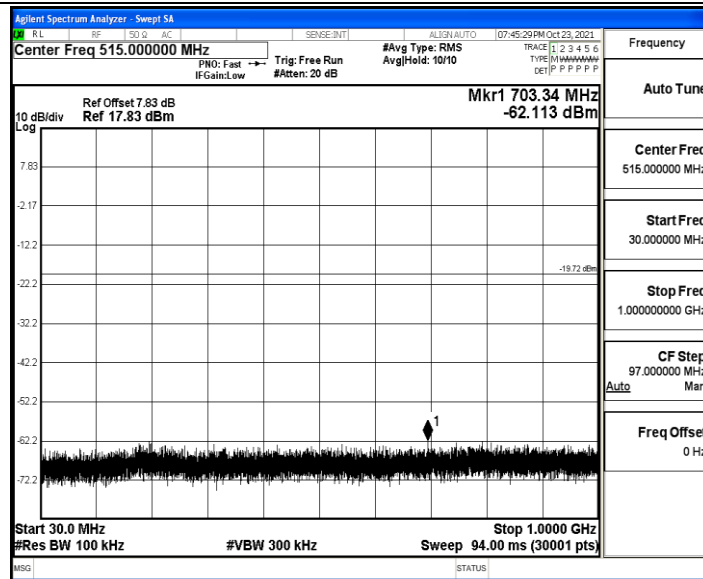
3DH5_Ant1_2402_1000~26500



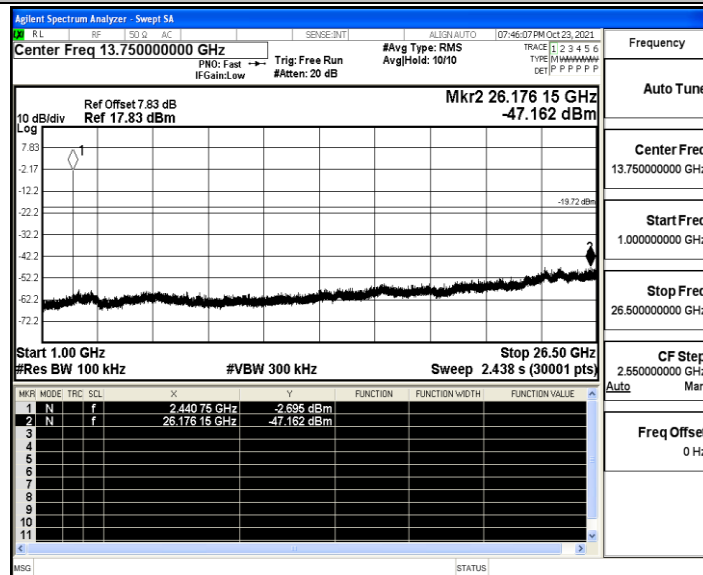
3DH5_Ant1_2441_0~Reference



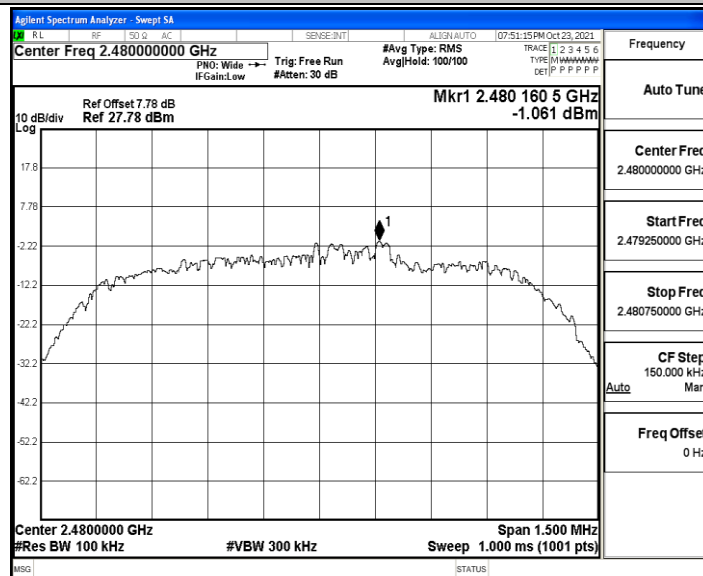
3DH5_Ant1_2441_30~1000



3DH5_Ant1_2441_1000~26500

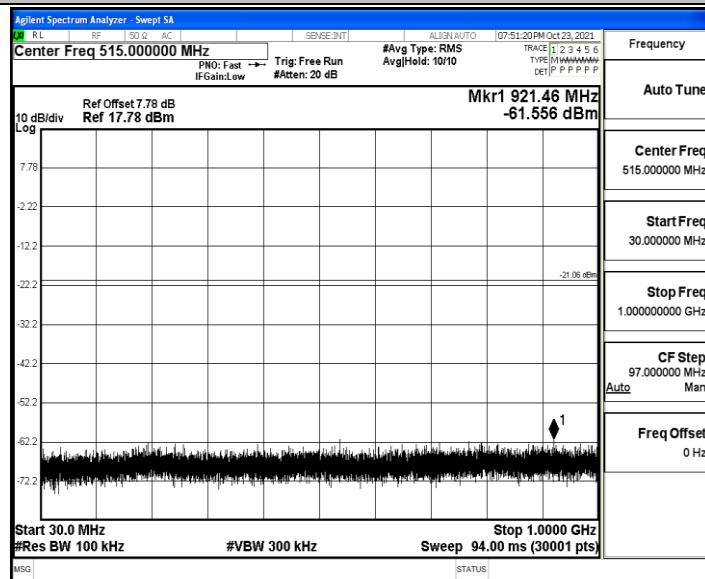


3DH5_Ant1_2480_0~Reference

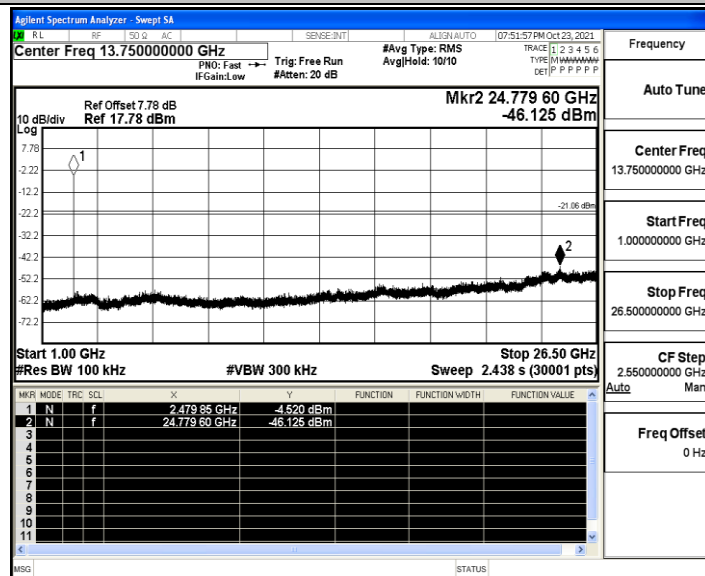




3DH5_Ant1_2480_30~1000



3DH5_Ant1_2480_1000~26500





A.8 Emissions in Restricted Bands

Test Result

TestMode	Antenna	ChName	Channel	Detector	Freq. [MHz]	Result [dBm]	Limit [dBm]	Result [dBuV/m]	Limit [dBuV/m]	Verdict
DH5	Ant1	Low	2402	AV	2310.000	-49	≤-41.20	46.20	≤54	PASS
				AV	2386.835	-48.54	≤-41.20	46.66	≤54	PASS
				AV	2390.000	-48.54	≤-41.20	46.66	≤54	PASS
				Peak	2310.000	-40.35	≤-21.20	54.85	≤74	PASS
				Peak	2357.960	-37.49	≤-21.20	57.71	≤74	PASS
				Peak	2390.000	-40.19	≤-21.20	55.01	≤74	PASS
		High	2480	AV	2483.500	-47.95	≤-41.20	47.25	≤54	PASS
				AV	2483.520	-47.95	≤-41.20	47.25	≤54	PASS
				AV	2500.000	-48.06	≤-41.20	47.14	≤54	PASS
				Peak	2483.500	-40.63	≤-21.20	54.57	≤74	PASS
				Peak	2498.960	-37.81	≤-21.20	57.39	≤74	PASS
				Peak	2500.000	-39.5	≤-21.20	55.70	≤74	PASS
2DH5	Ant1	Low	2402	AV	2310.000	-49.07	≤-41.20	46.13	≤54	PASS
				AV	2383.895	-48.54	≤-41.20	46.66	≤54	PASS
				AV	2390.000	-48.69	≤-41.20	46.51	≤54	PASS
				Peak	2310.000	-40.41	≤-21.20	54.79	≤74	PASS
				Peak	2330.870	-38.91	≤-21.20	56.29	≤74	PASS
				Peak	2390.000	-40.87	≤-21.20	54.33	≤74	PASS
		High	2480	AV	2483.500	-47.92	≤-41.20	47.28	≤54	PASS
				AV	2483.520	-47.92	≤-41.20	47.28	≤54	PASS
				AV	2500.000	-48.01	≤-41.20	47.19	≤54	PASS
				Peak	2483.500	-38.85	≤-21.20	56.35	≤74	PASS
				Peak	2499.280	-37.16	≤-21.20	58.04	≤74	PASS
				Peak	2500.000	-39.73	≤-21.20	55.47	≤74	PASS
3DH5	Ant1	Low	2402	AV	2310.000	-49.04	≤-41.20	46.16	≤54	PASS
				AV	2389.460	-48.5	≤-41.20	46.70	≤54	PASS
				AV	2390.000	-48.58	≤-41.20	46.62	≤54	PASS
				Peak	2310.000	-40.5	≤-21.20	54.70	≤74	PASS
				Peak	2374.340	-38.18	≤-21.20	57.02	≤74	PASS
				Peak	2390.000	-40.23	≤-21.20	54.97	≤74	PASS
		High	2480	AV	2483.500	-47.79	≤-41.20	47.41	≤54	PASS
				AV	2483.520	-47.79	≤-41.20	47.41	≤54	PASS
				AV	2500.000	-48	≤-41.20	47.20	≤54	PASS
				Peak	2483.500	-39.23	≤-21.20	55.97	≤74	PASS
				Peak	2486.560	-37.92	≤-21.20	57.28	≤74	PASS
				Peak	2500.000	-38.43	≤-21.20	56.77	≤74	PASS



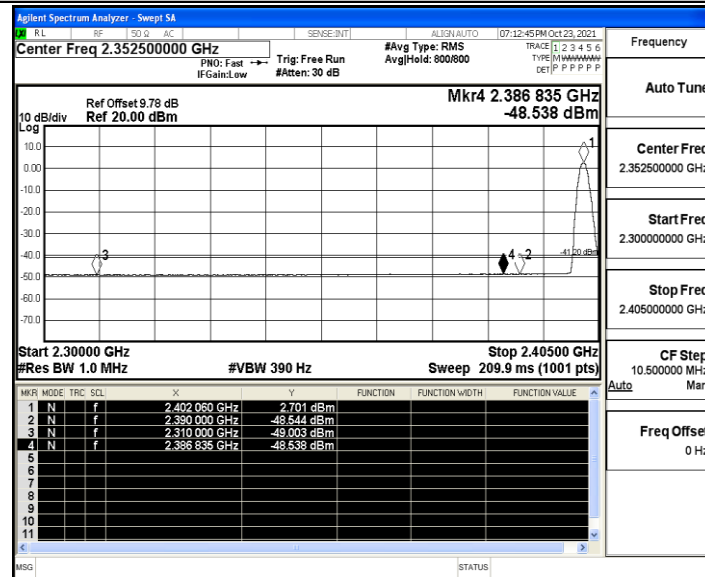
Note:

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.

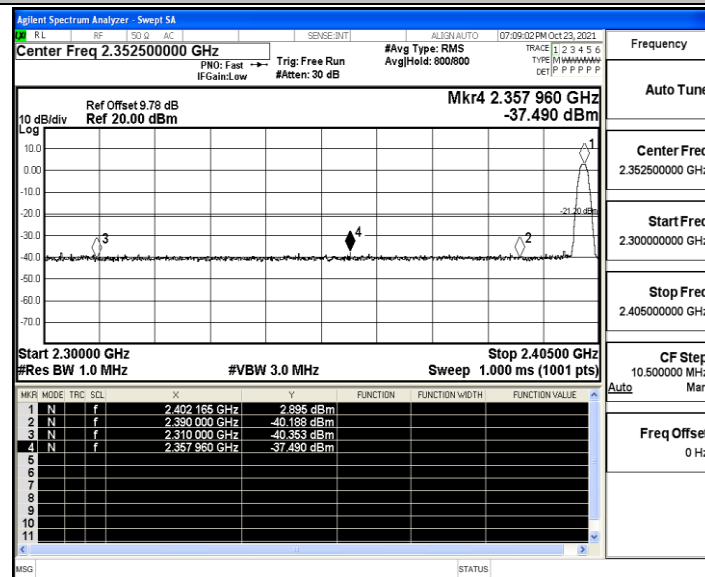


Test Graphs

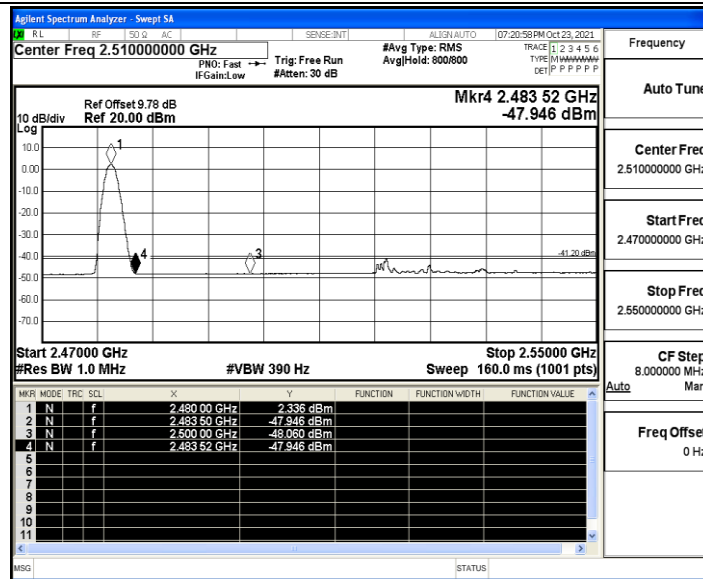
DH5_Ant1_Low_2402_AV



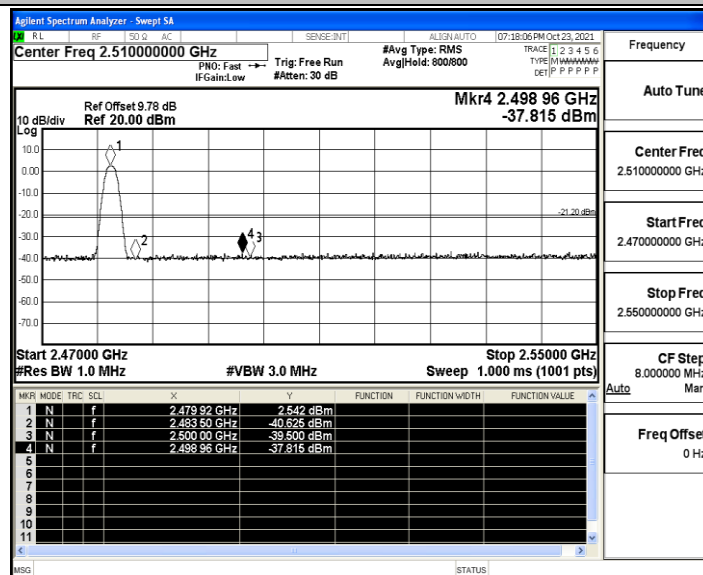
DH5_Ant1_Low_2402_Peak



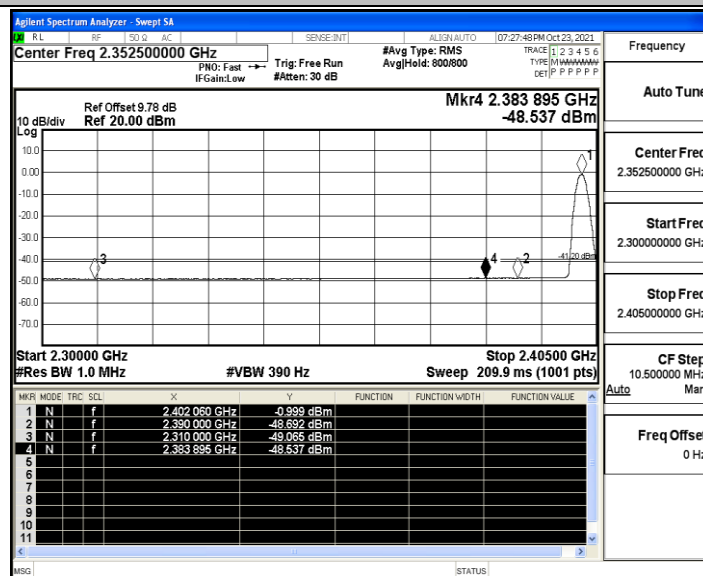
DH5_Ant1_High_2480_AV



DH5_Ant1_High_2480_Peak

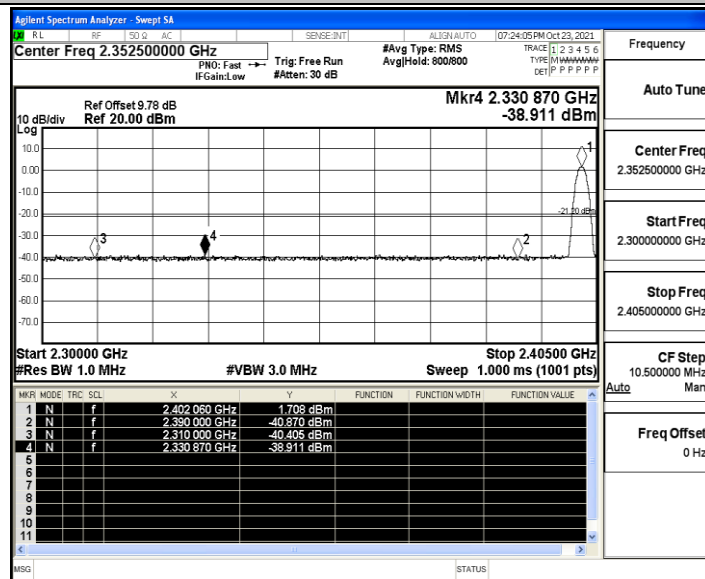


2DH5_Ant1_Low_2402_AV

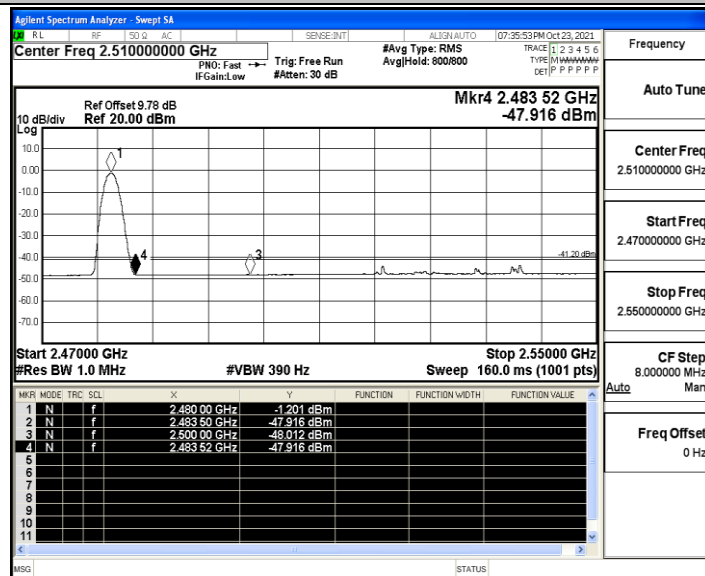




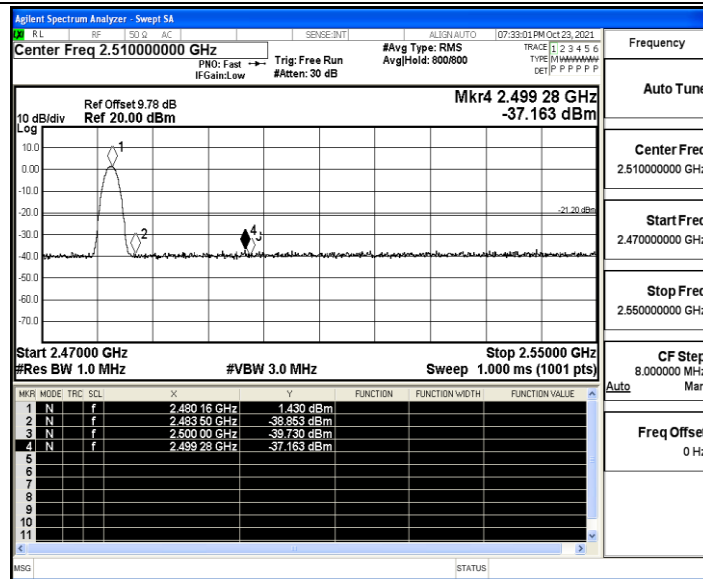
2DH5_Ant1_Low_2402_Peak



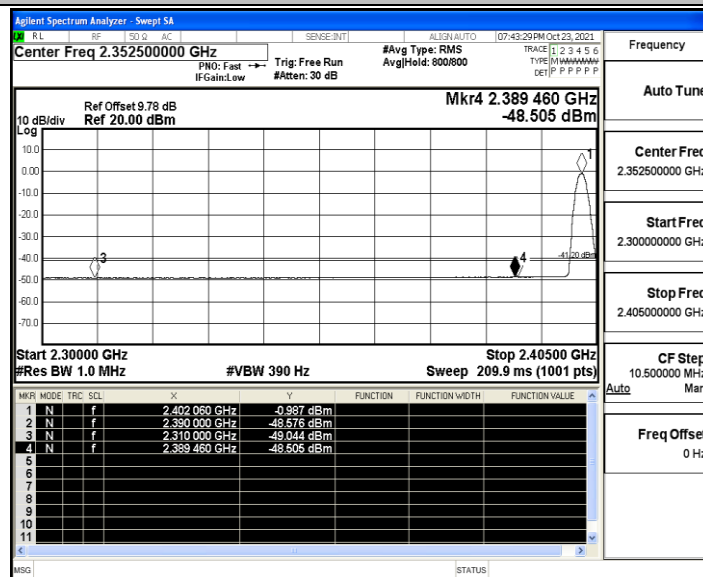
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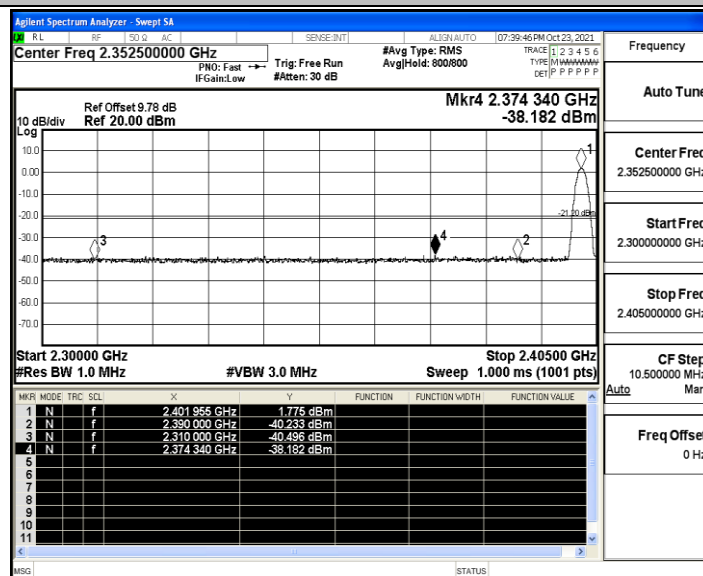
2DH5_Ant1_High_2480_Peak



3DH5_Ant1_Low_2402_AV

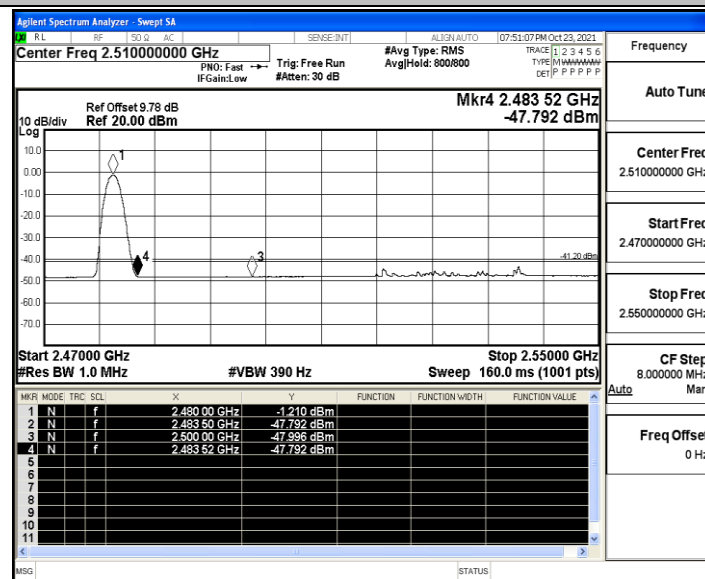


3DH5_Ant1_Low_2402_Peak





3DH5_Ant1_High_2480_AV



3DH5_Ant1_High_2480_Peak

