



Appendix A

RF Test Data for BT (Conducted Measurement)

Product Name: TV Remote

Test Model: RC20

Environmental Conditions

Temperature:	22.4° C
Relative Humidity:	53.5%
ATM Pressure:	100.0 kPa
Test Engineer:	Kay Hu
Supervised by:	Li Huan

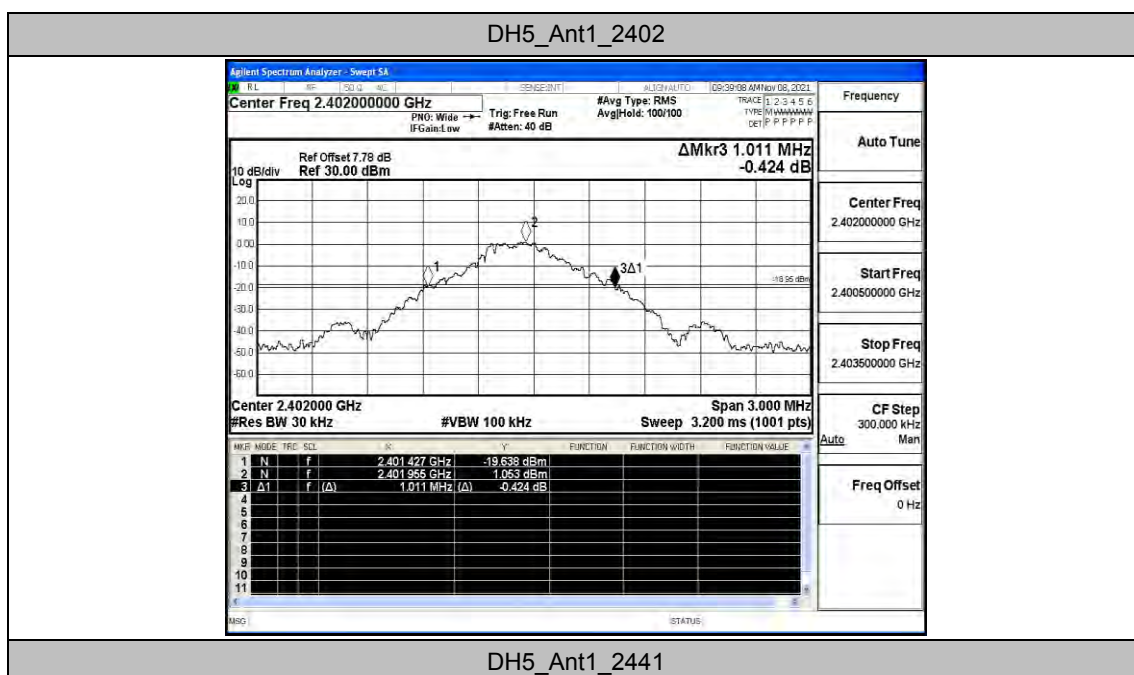


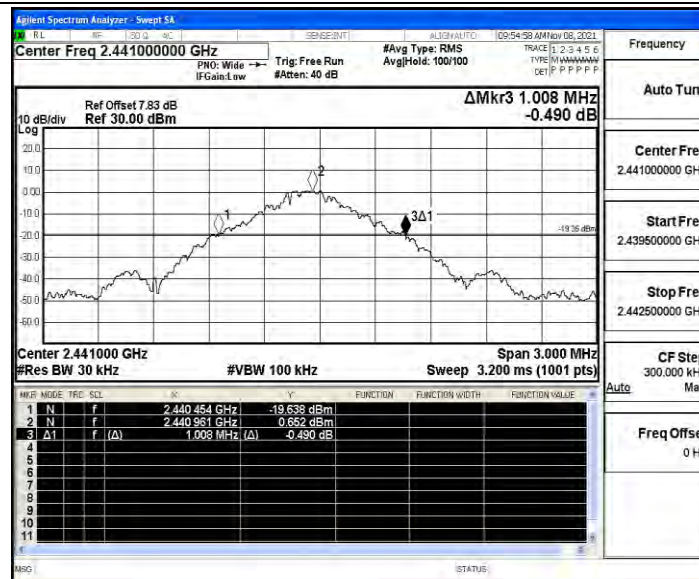
A.1 20dB Emission Bandwidth

Test Result

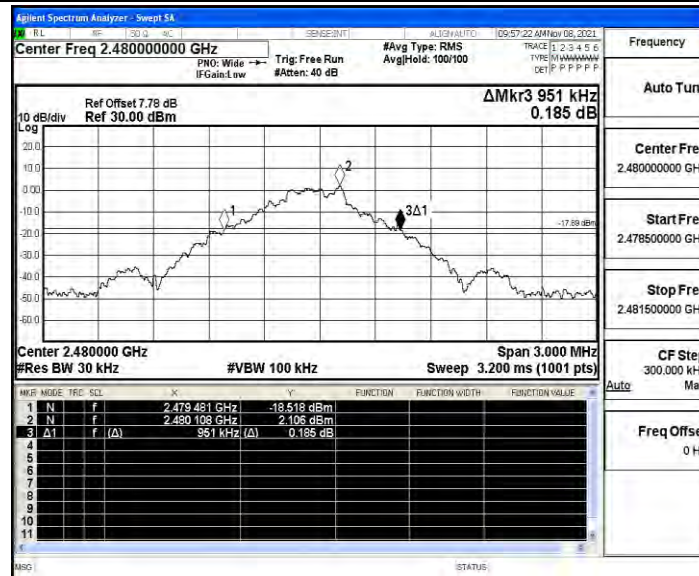
TestMode	Antenna	Channel	20db EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	1.011	2401.427	2402.438	---	PASS
		2441	1.008	2440.454	2441.462	---	PASS
		2480	0.951	2479.481	2480.432	---	PASS
2DH5	Ant1	2402	1.383	2401.250	2402.633	---	PASS
		2441	1.359	2440.268	2441.627	---	PASS
		2480	1.392	2479.253	2480.645	---	PASS
3DH5	Ant1	2402	1.341	2401.271	2402.612	---	PASS
		2441	1.347	2440.271	2441.618	---	PASS
		2480	1.395	2479.250	2480.645	---	PASS

Test Graphs

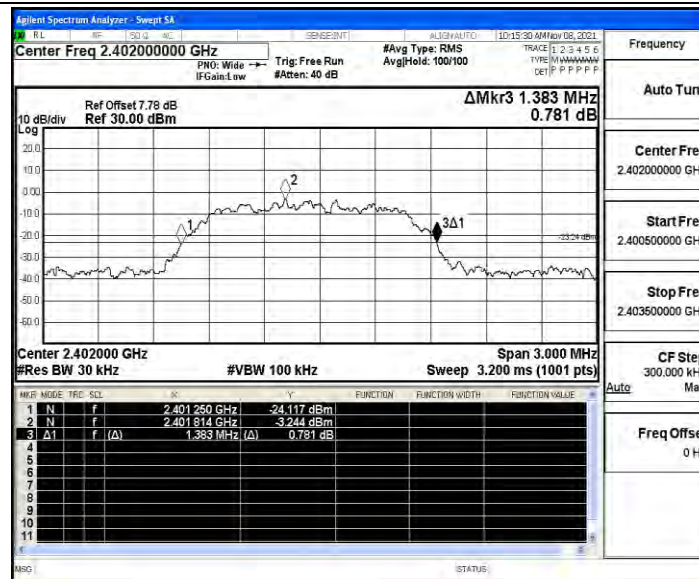




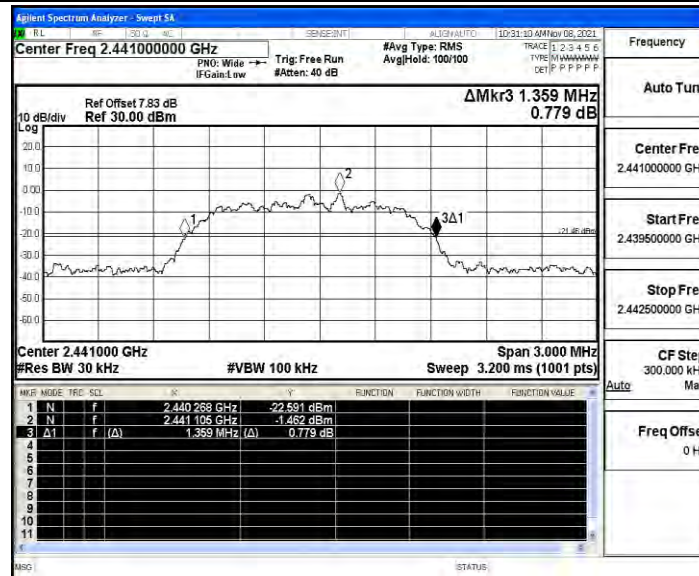
DH5_Ant1_2480



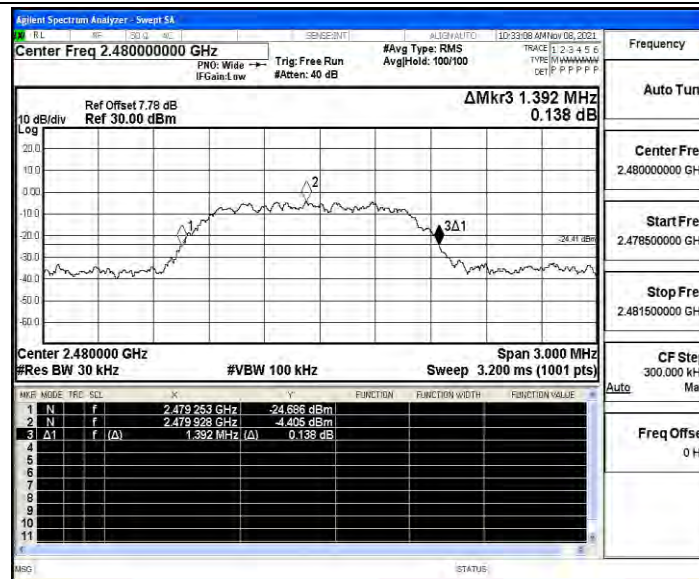
2DH5_Ant1_2402



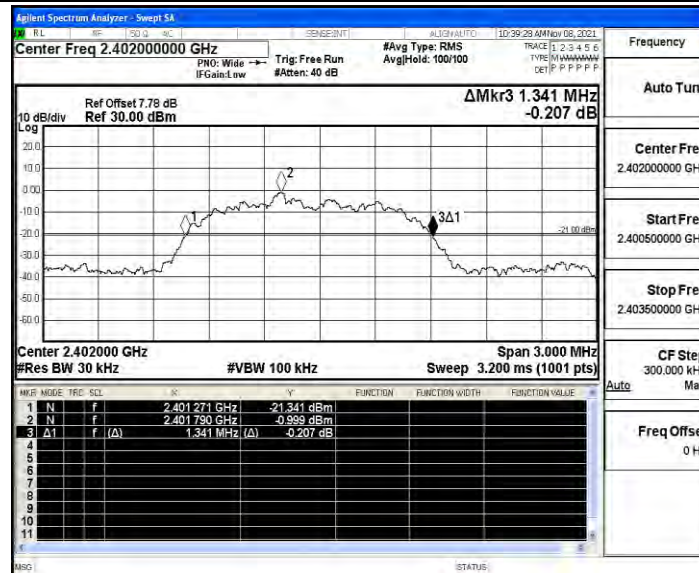
2DH5_Ant1_2441



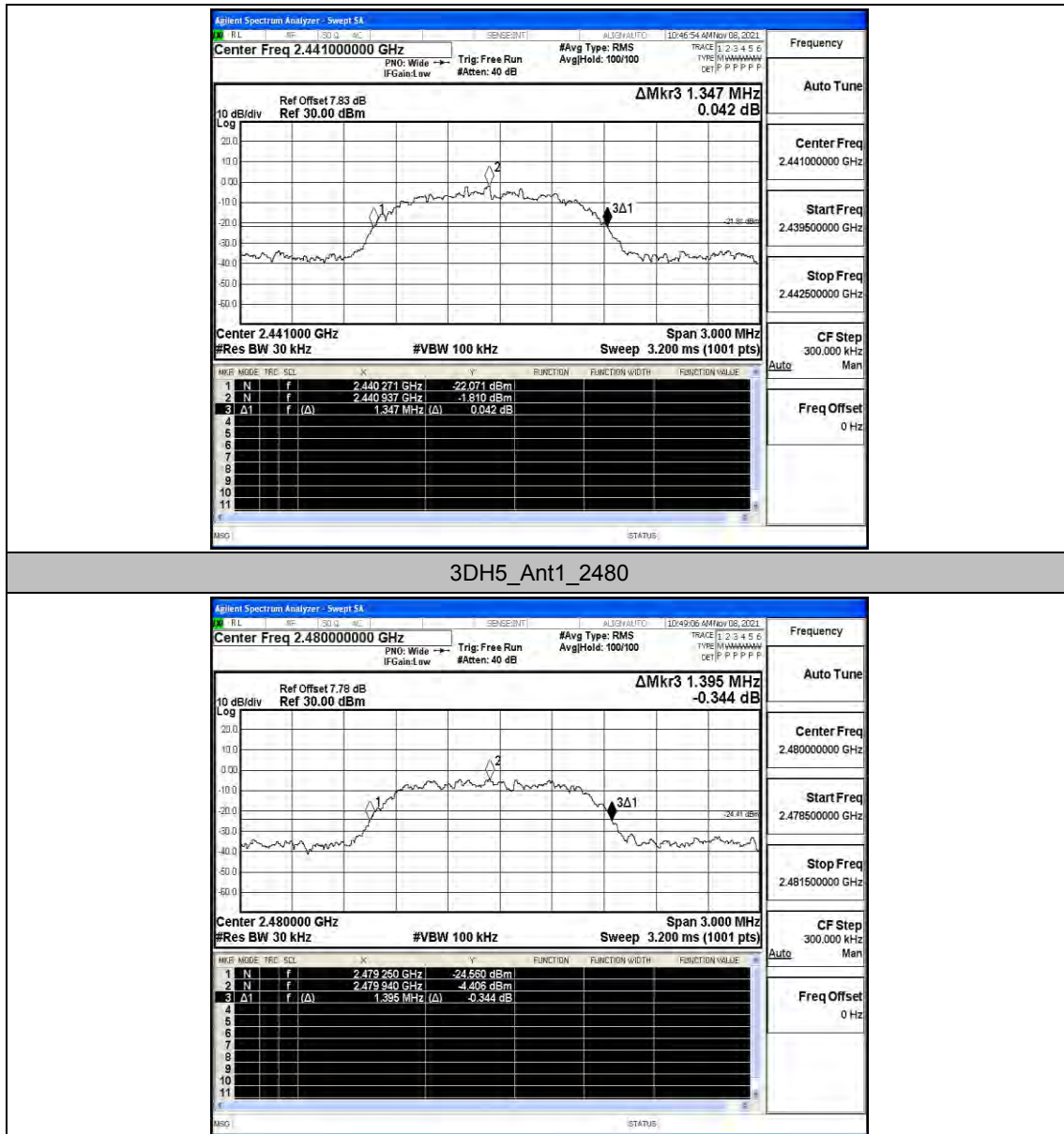
2DH5_Ant1_2480



3DH5_Ant1_2402



3DH5_Ant1_2441



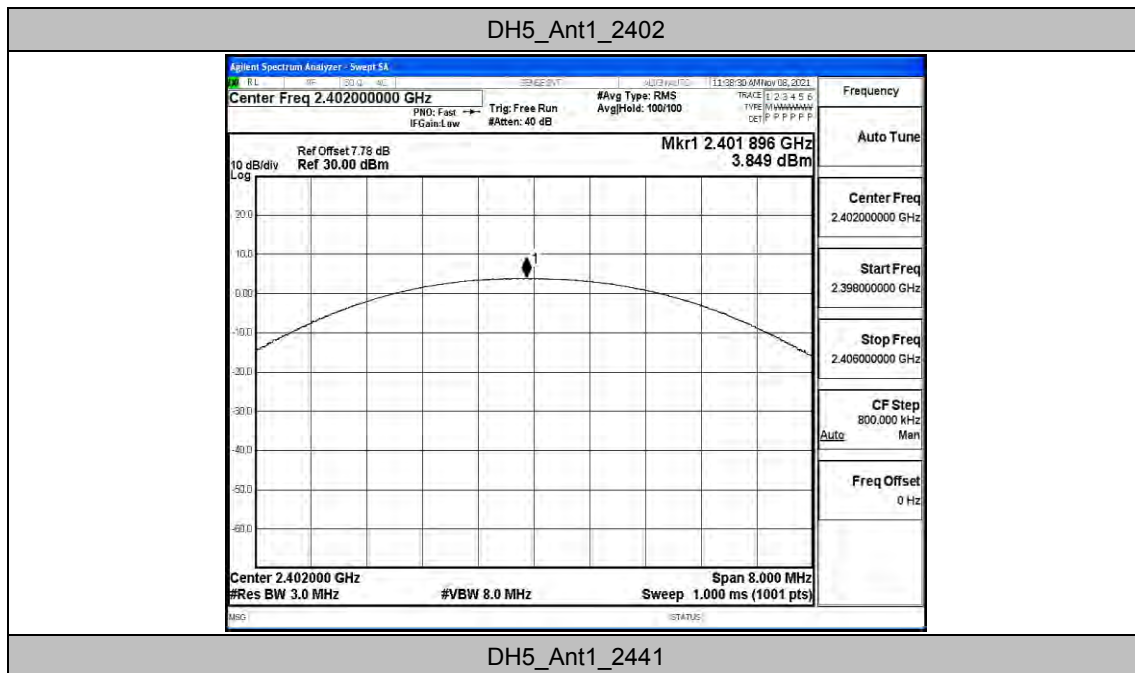


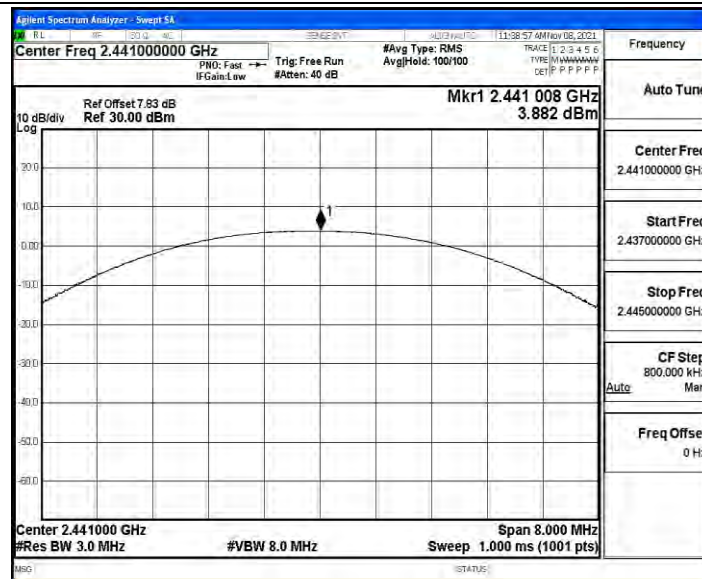
A.2 Maximum conducted output power

Test Result

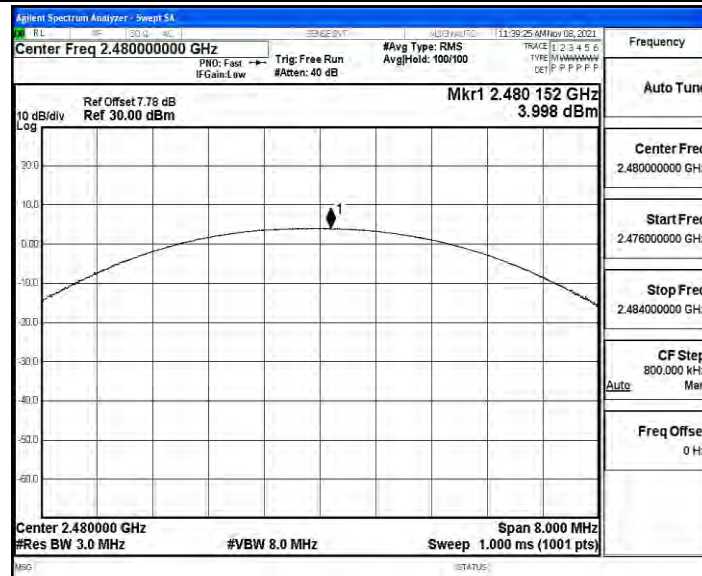
TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
DH5	Ant1	2402	3.85	≤30	PASS
		2441	3.88	≤30	PASS
		2480	4.00	≤30	PASS
2DH5	Ant1	2402	4.61	≤20.97	PASS
		2441	4.22	≤20.97	PASS
		2480	4.75	≤20.97	PASS
3DH5	Ant1	2402	4.84	≤30	PASS
		2441	4.54	≤30	PASS
		2480	5.1	≤30	PASS

Test Graphs

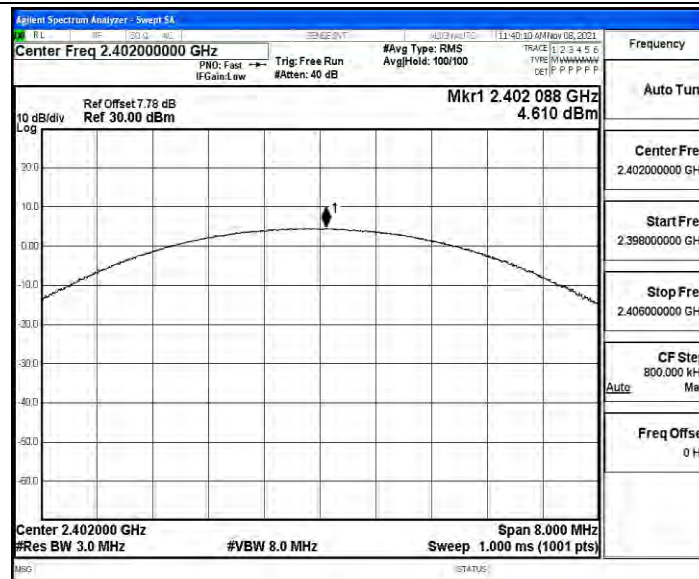




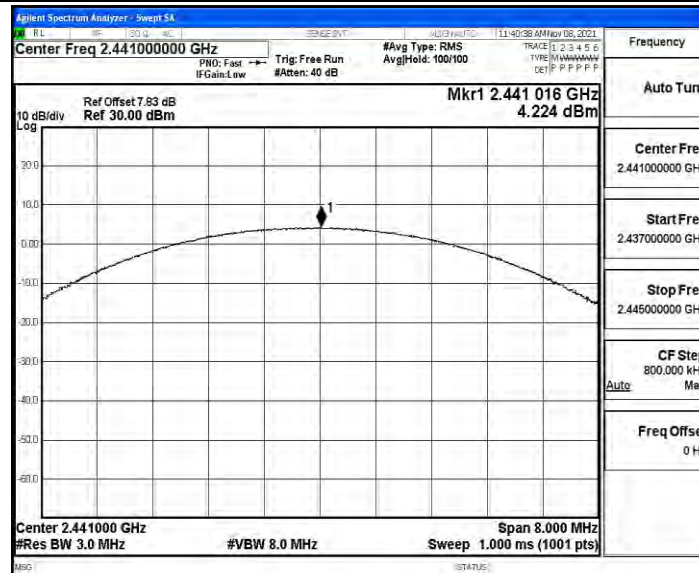
DH5_Ant1_2480



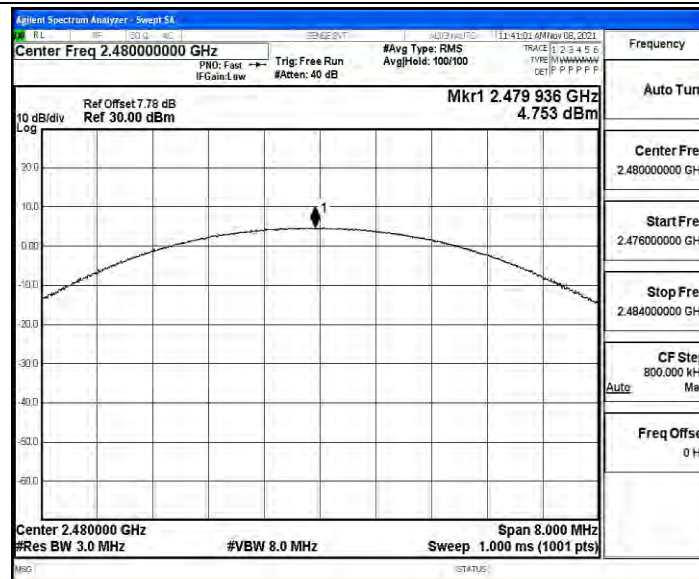
2DH5_Ant1_2402



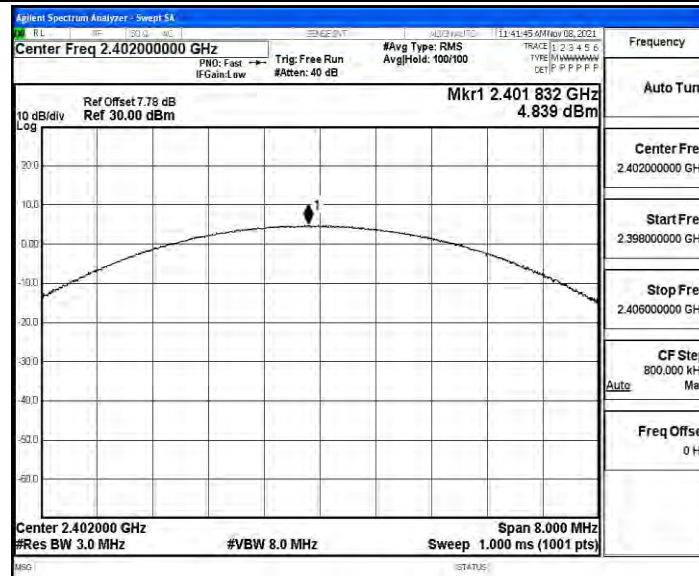
2DH5_Ant1_2441



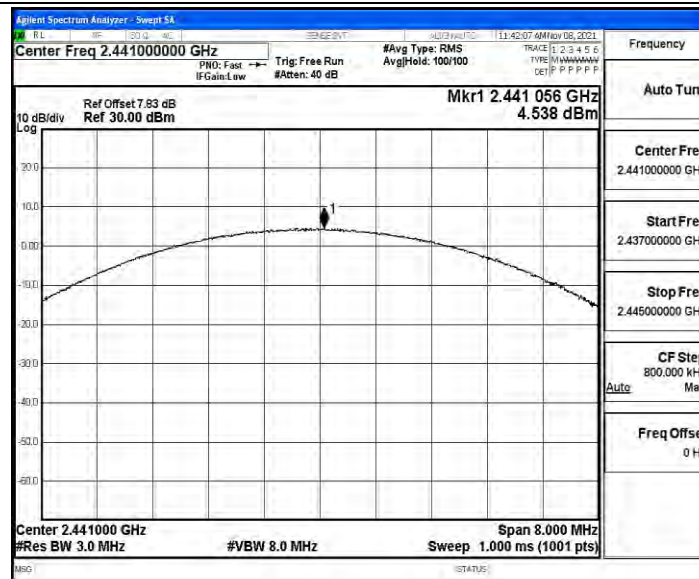
2DH5_Ant1_2480



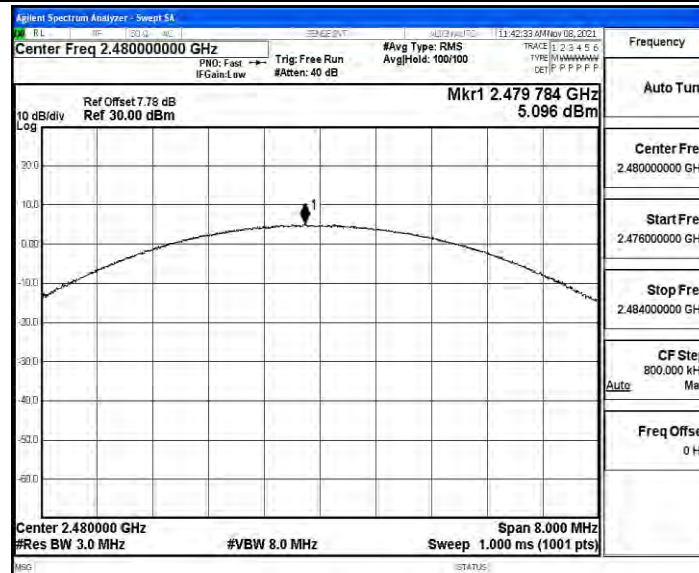
3DH5_Ant1_2402



3DH5_Ant1_2441



3DH5_Ant1_2480



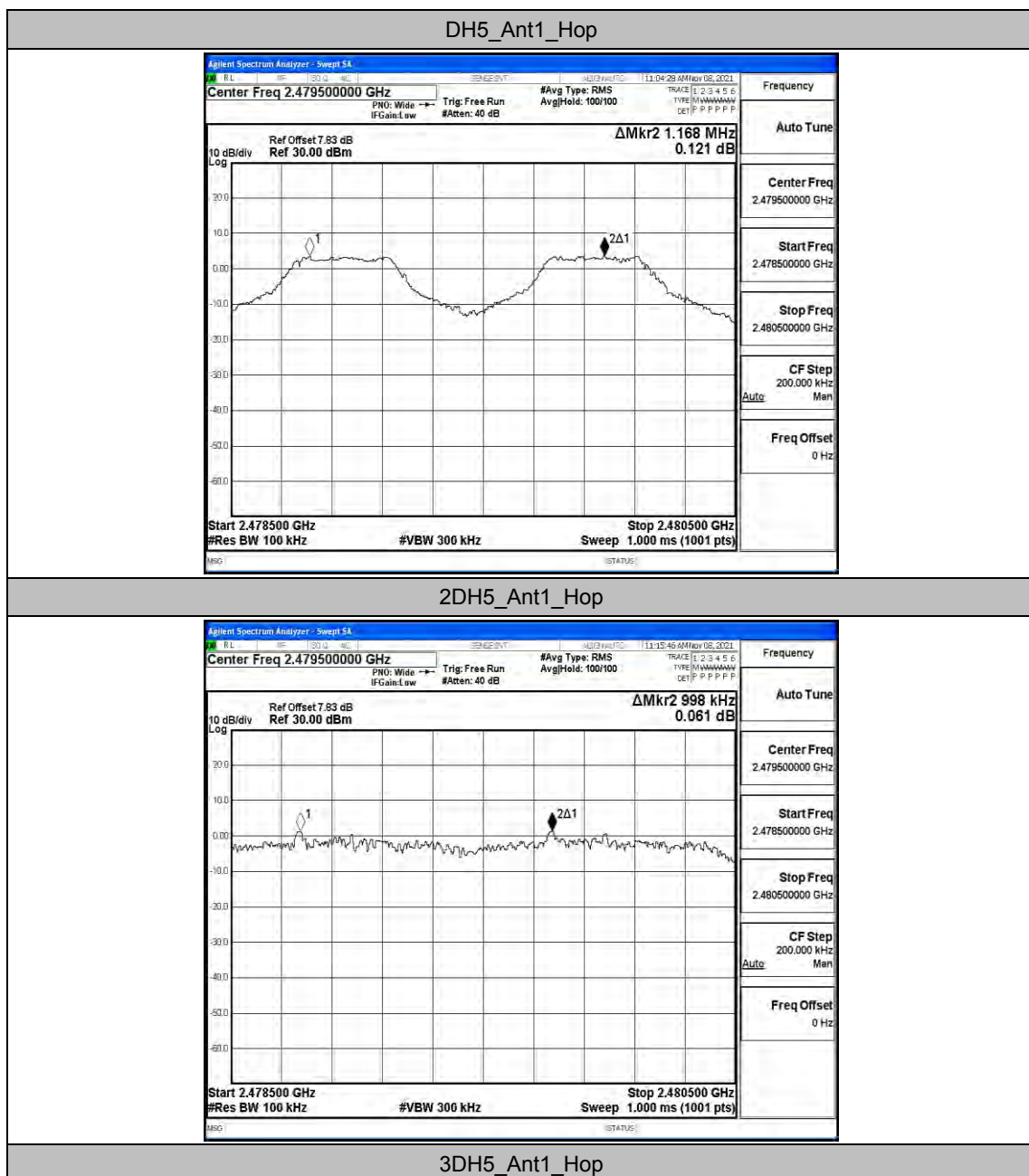


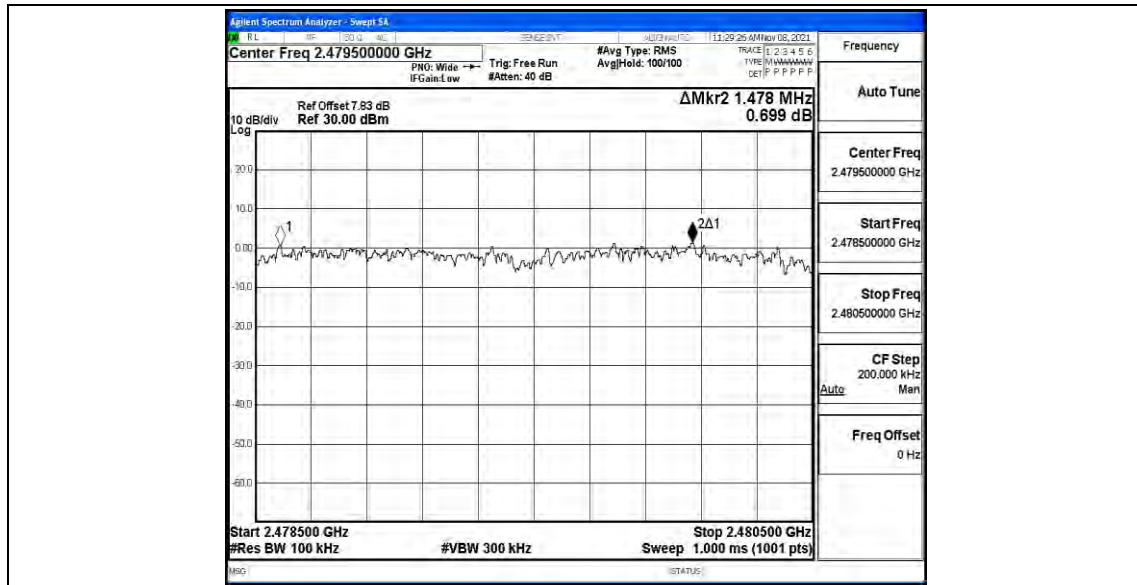
A.3 Carrier frequency separation

Test Result

TestMode	Antenna	Channel	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	1.168	≥ 1.011	PASS
2DH5	Ant1	Hop	0.998	≥ 0.928	PASS
3DH5	Ant1	Hop	1.478	≥ 1.395	PASS

Test Graphs





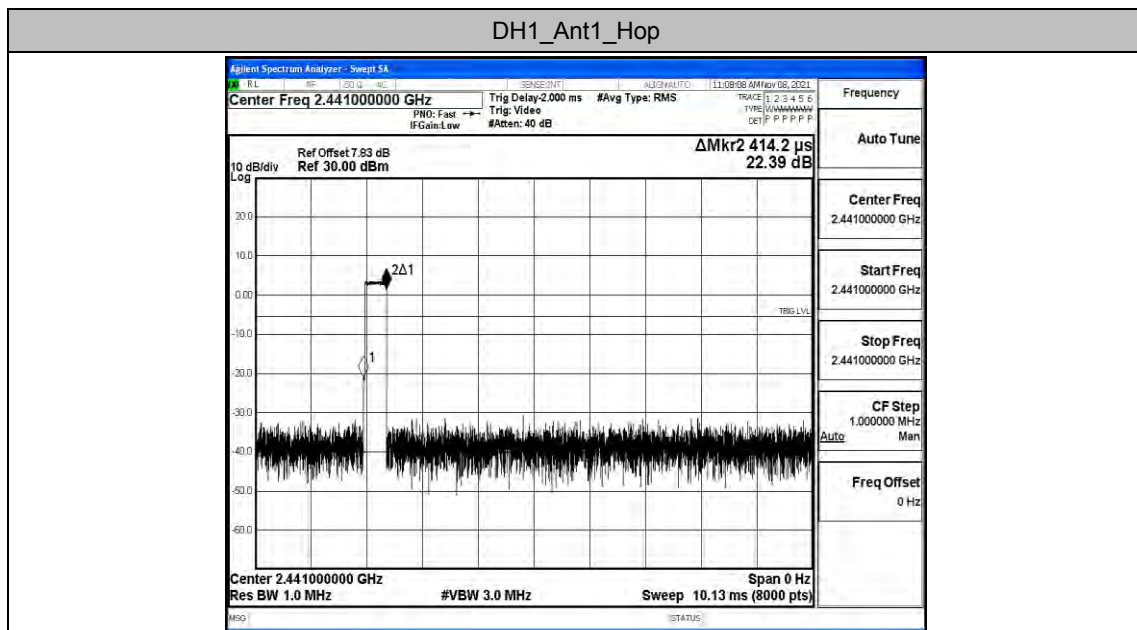


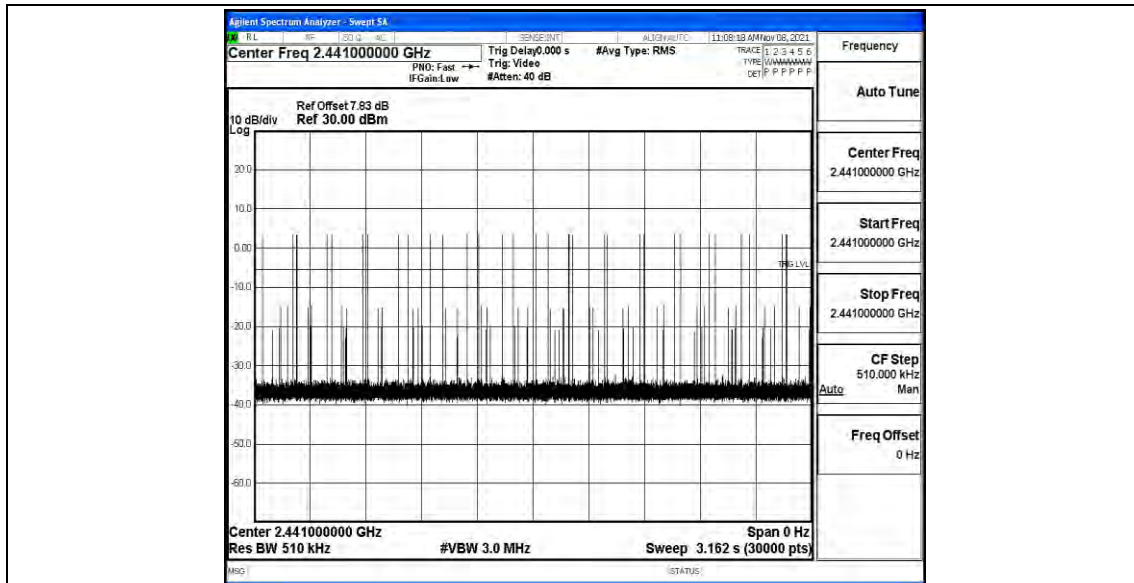
A.4 Time of occupancy

Test Result

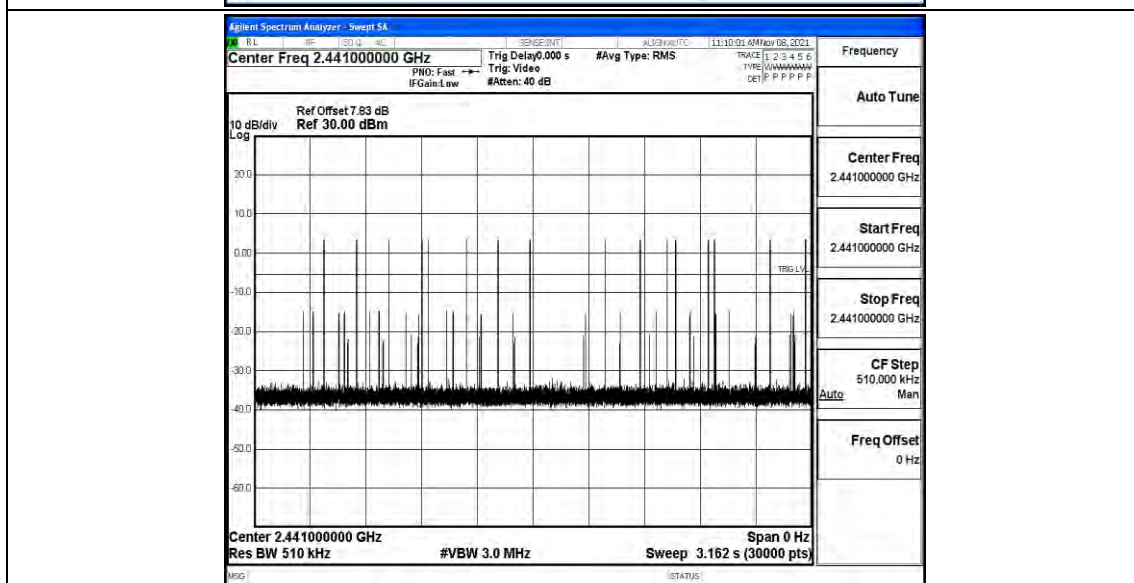
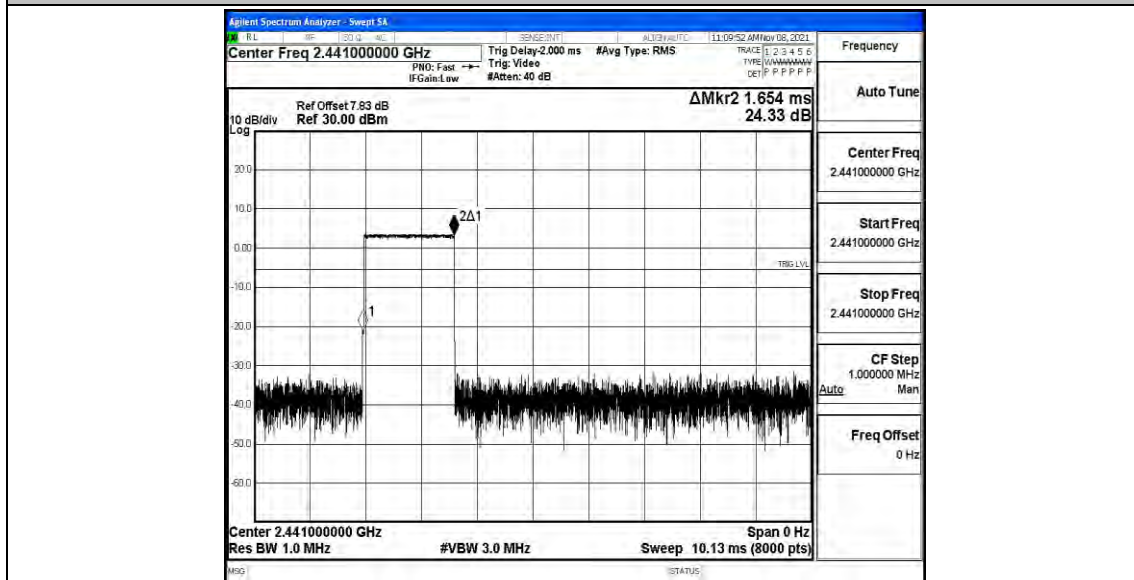
TestMode	Antenna	Channel	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH1	Ant1	Hop	0.41	320	0.133	≤0.4	PASS
DH3	Ant1	Hop	1.65	170	0.281	≤0.4	PASS
DH5	Ant1	Hop	2.92	90	0.263	≤0.4	PASS
2DH1	Ant1	Hop	0.42	320	0.133	≤0.4	PASS
2DH3	Ant1	Hop	1.65	170	0.281	≤0.4	PASS
2DH5	Ant1	Hop	2.90	130	0.377	≤0.4	PASS
3DH1	Ant1	Hop	0.40	320	0.128	≤0.4	PASS
3DH3	Ant1	Hop	1.66	190	0.315	≤0.4	PASS
3DH5	Ant1	Hop	2.90	120	0.348	≤0.4	PASS

Test Graphs



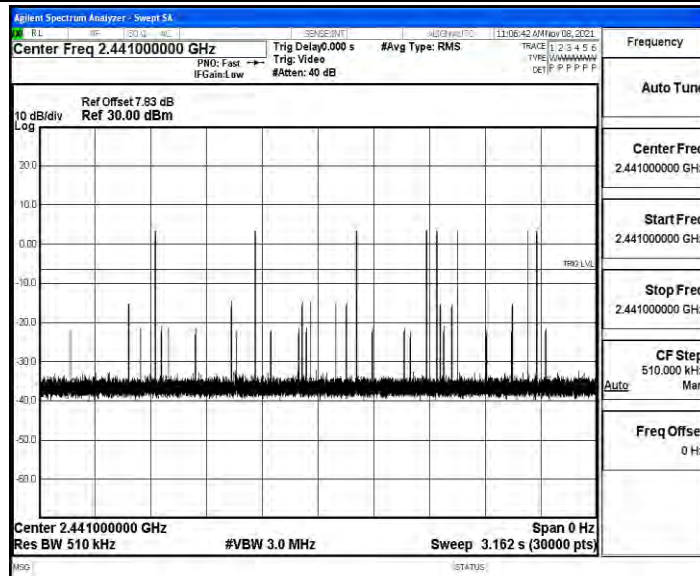
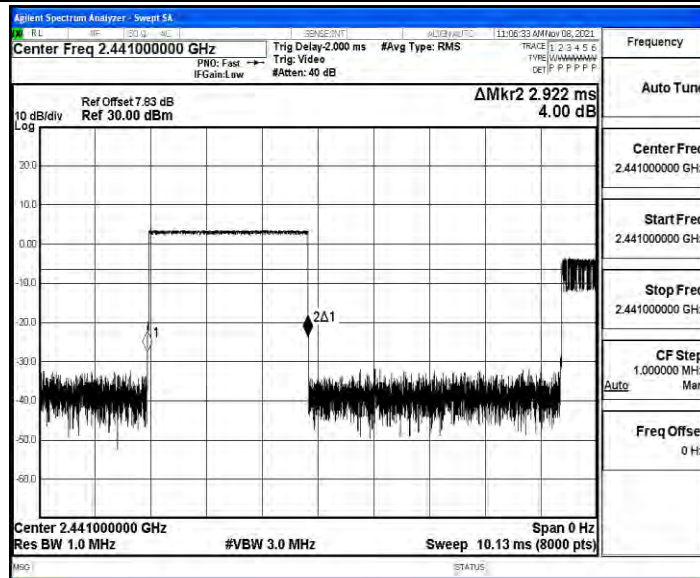


DH3_Ant1_Hop

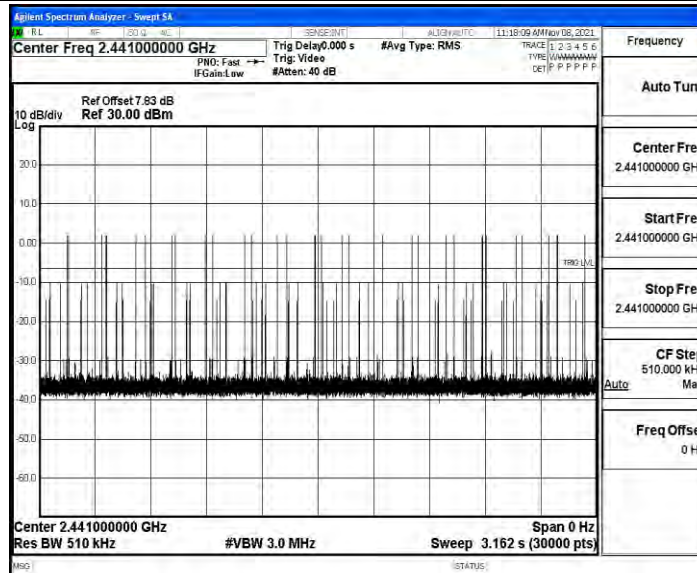
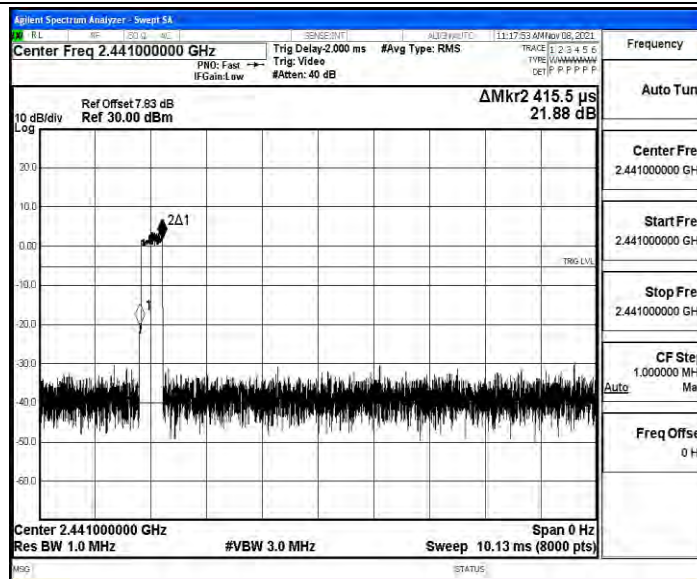




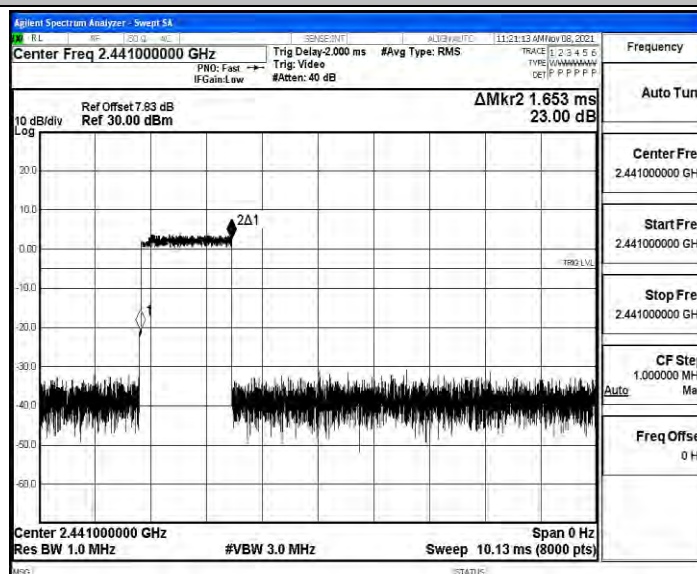
DH5_Ant1_Hop

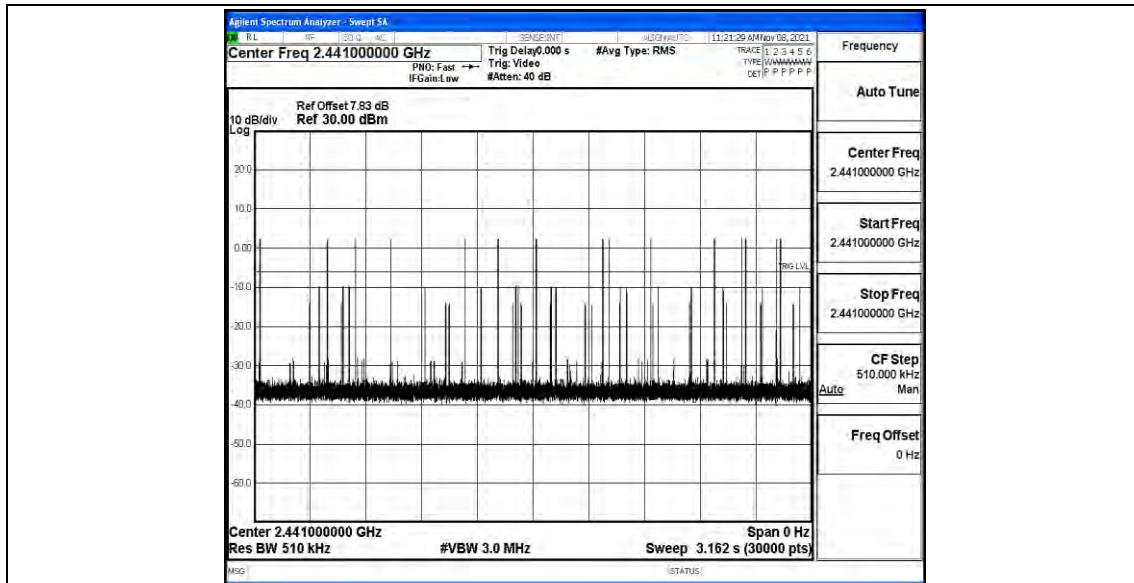


2DH1_Ant1_Hop

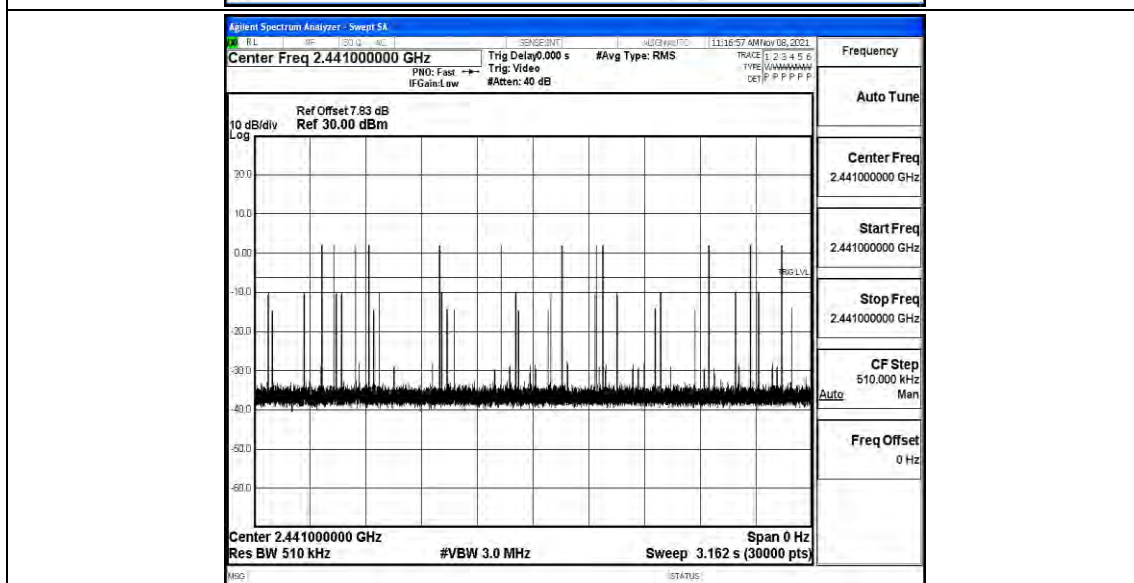
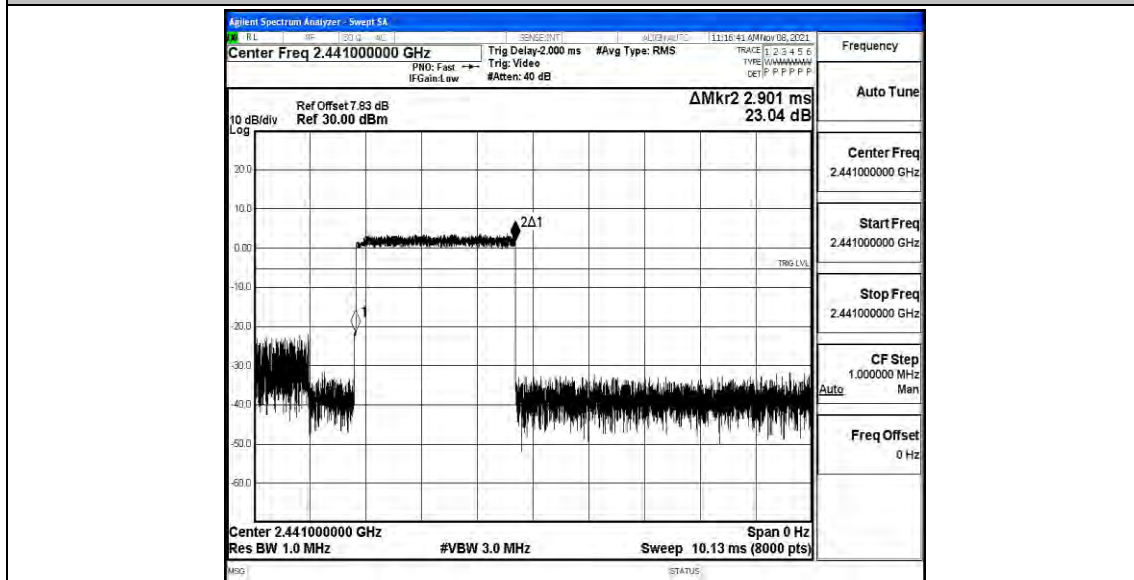


2DH3_Ant1_Hop



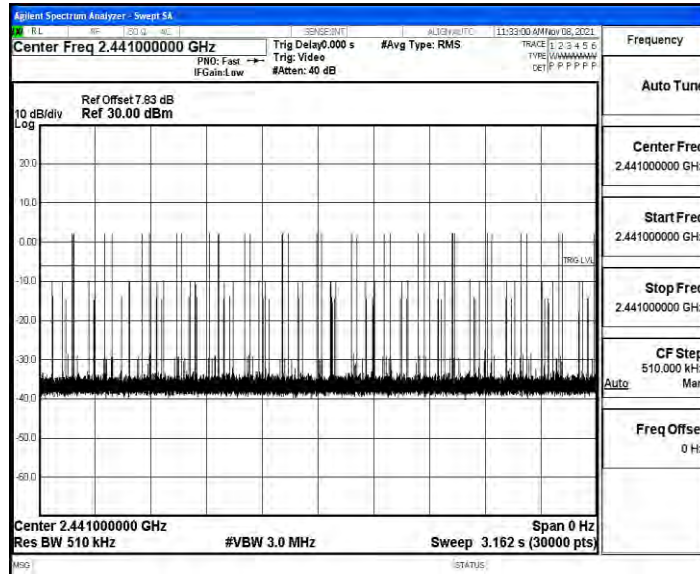
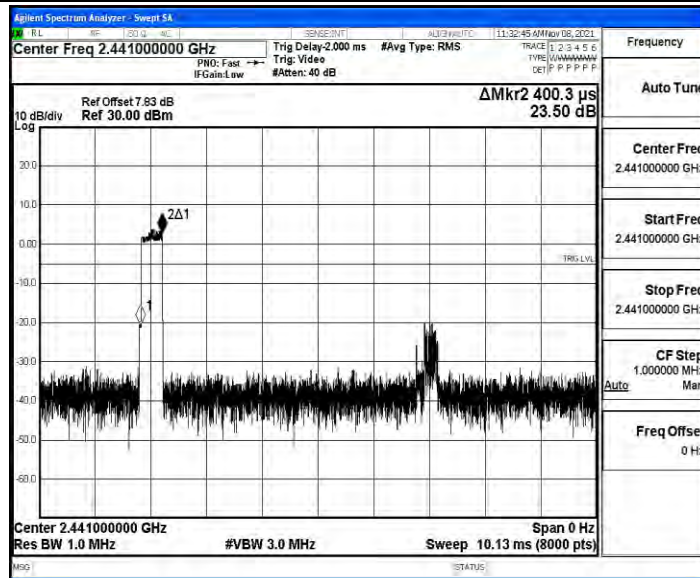


2DH5_Ant1_Hop

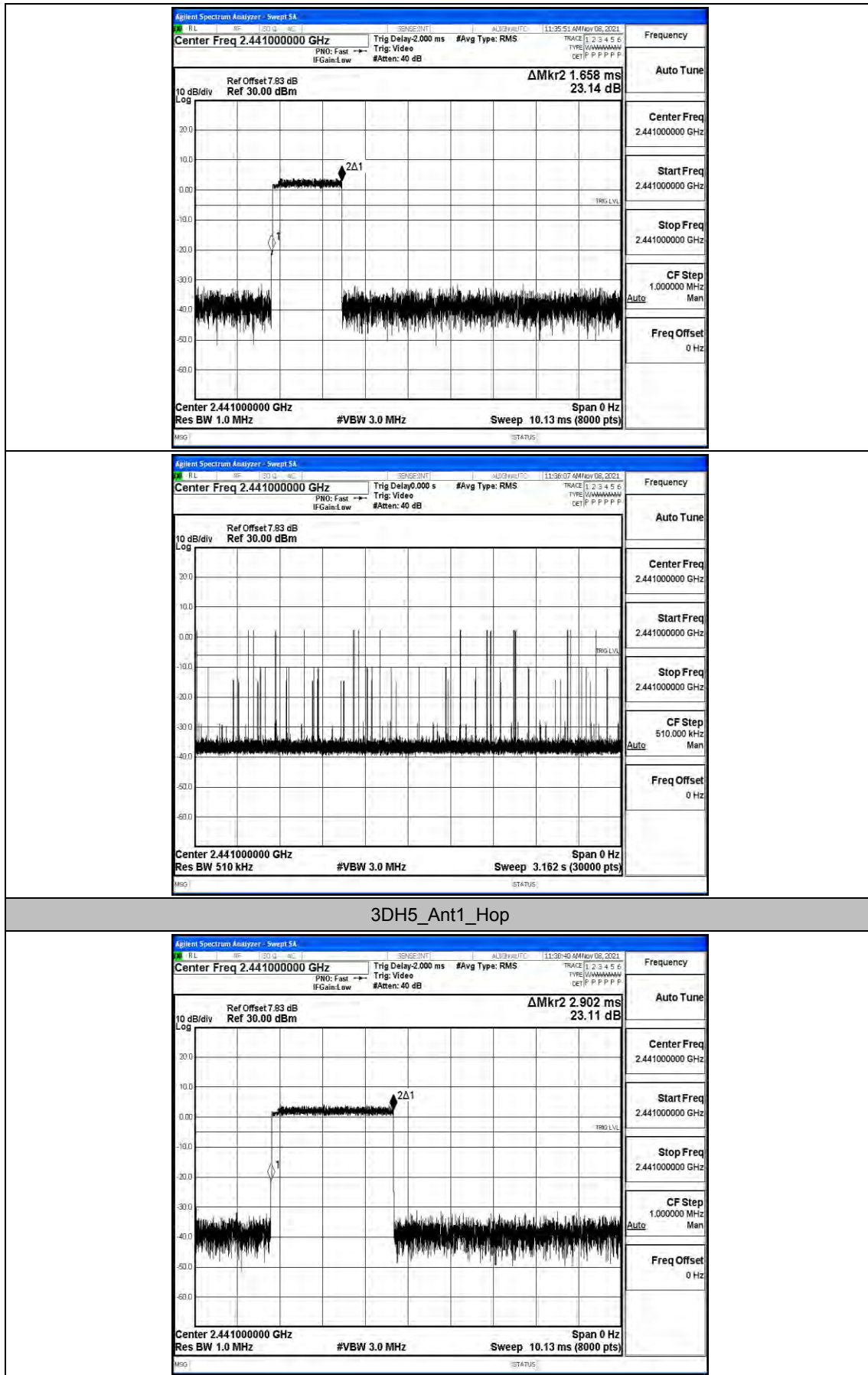


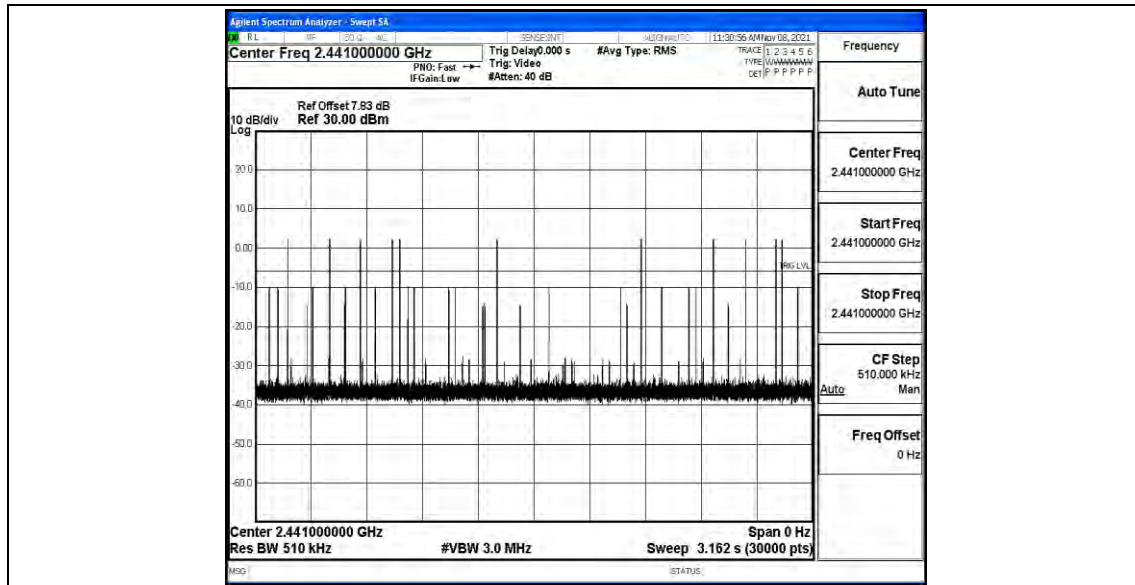


3DH1_Ant1_Hop



3DH3_Ant1_Hop





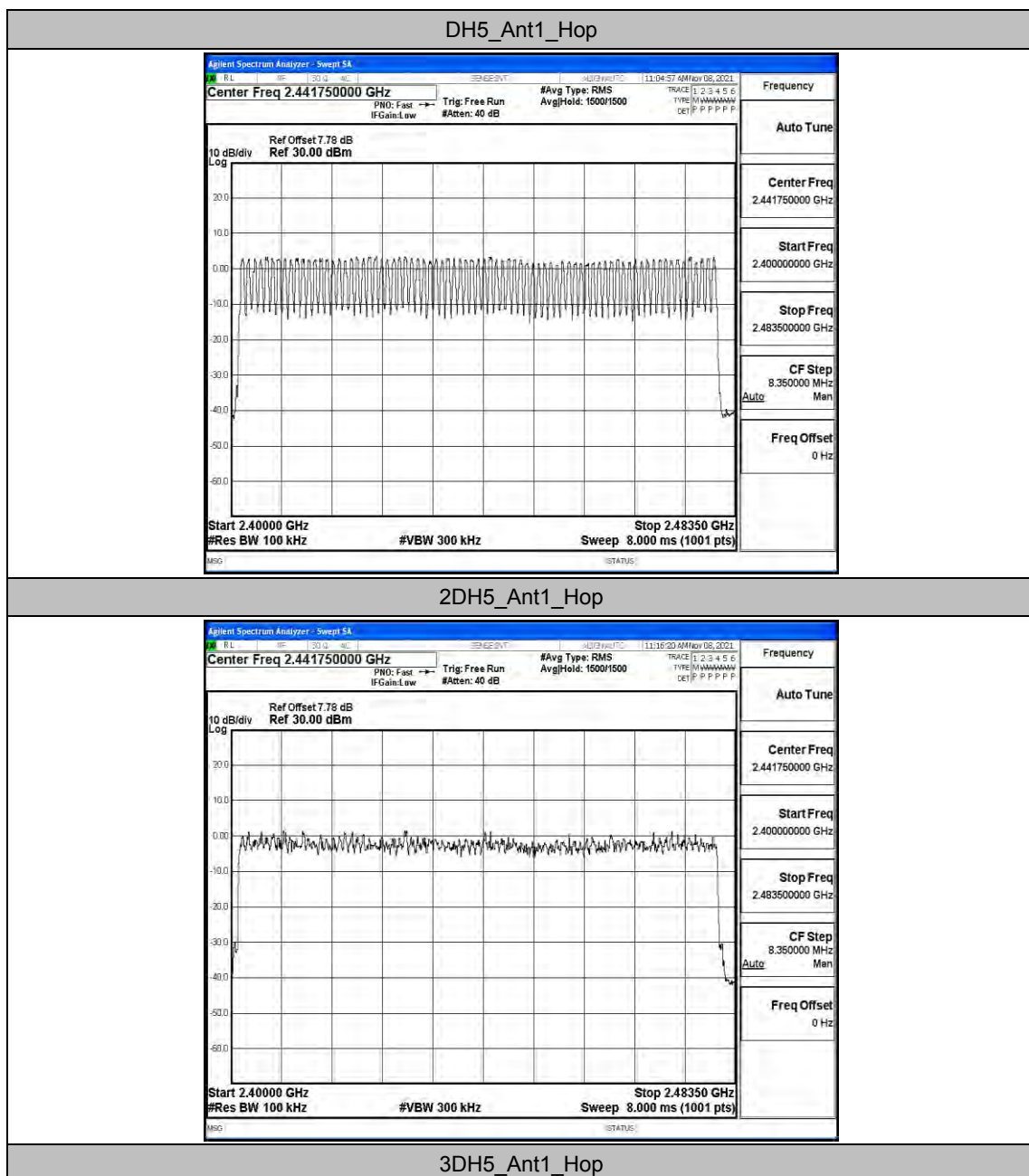


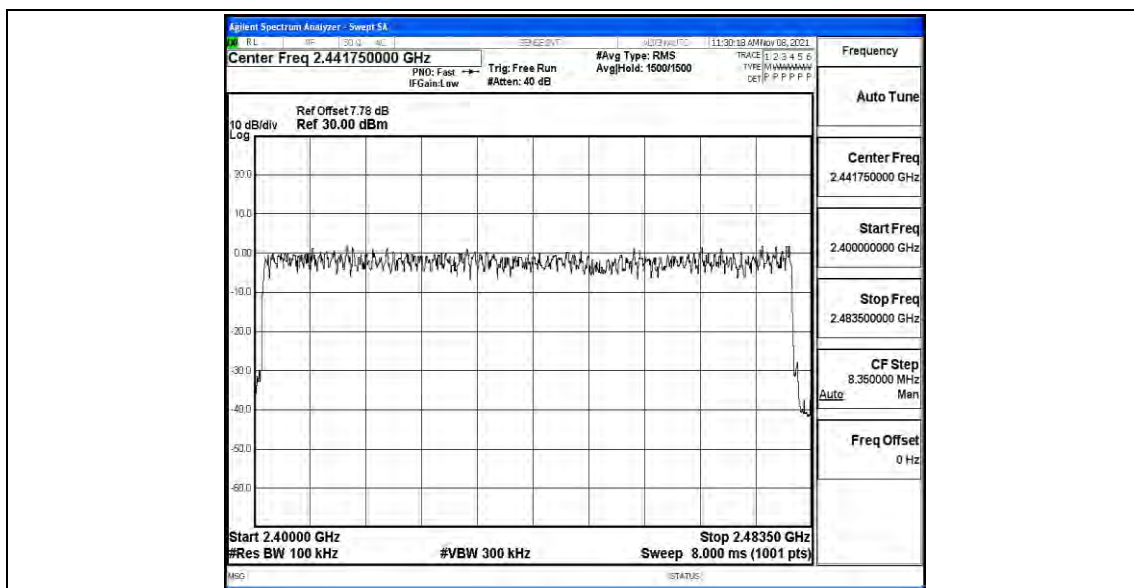
A.5 Number of hopping channels

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





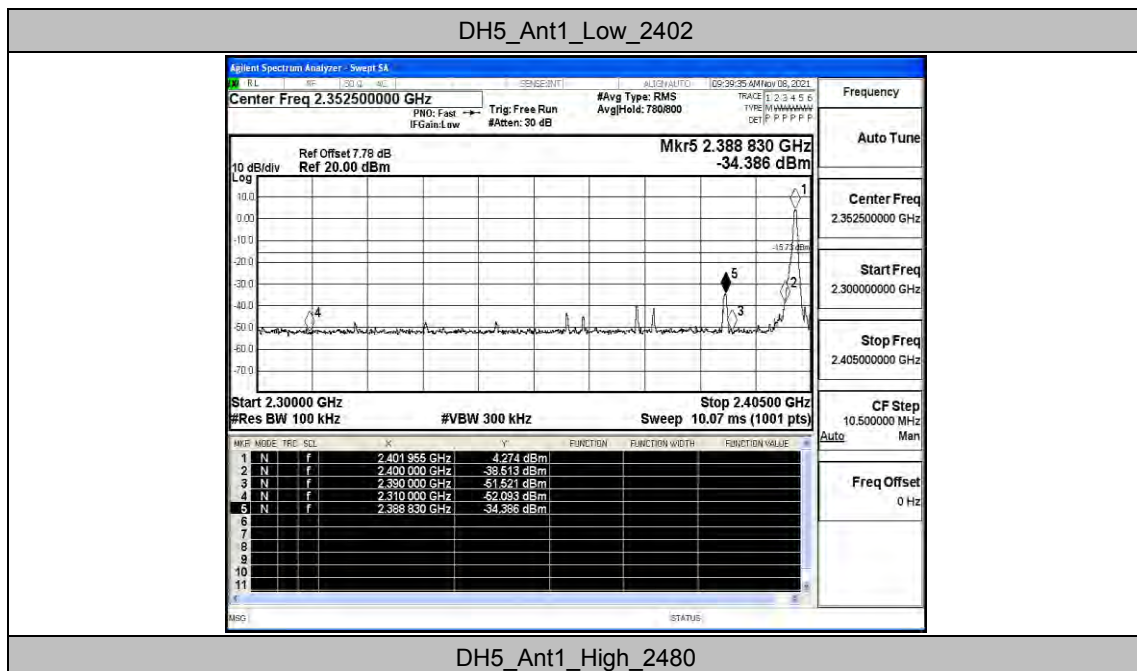


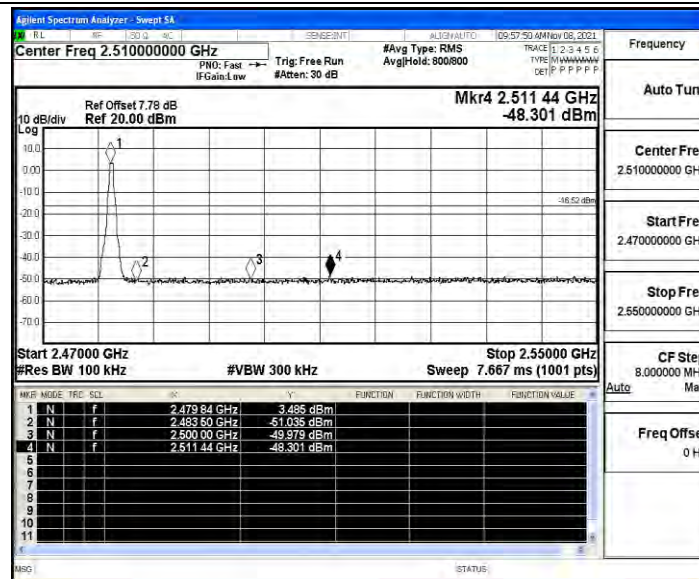
A.6 Band edge measurements

Test Result

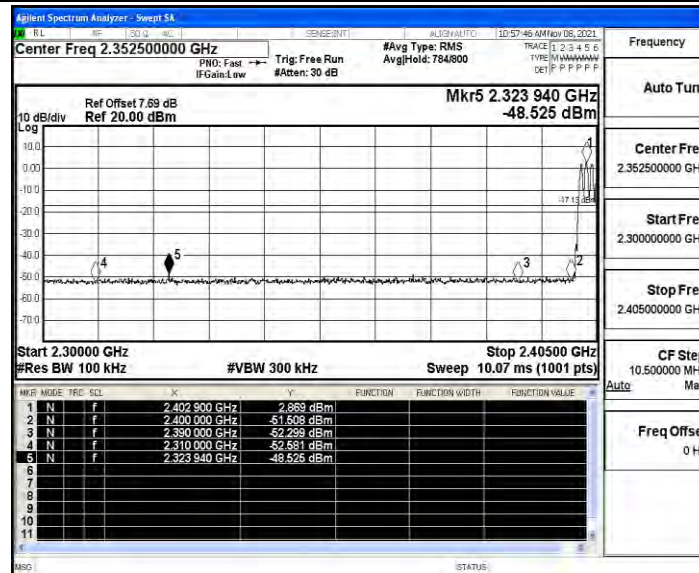
TestMode	Antenna	ChName	Channel	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	4.27	-34.39	≤-15.73	PASS
		High	2480	3.49	-48.3	≤-16.52	PASS
		Low	Hop_2402	2.87	-48.53	≤-17.13	PASS
		High	Hop_2480	2.91	-48.68	≤-17.09	PASS
2DH5	Ant1	Low	2402	1.45	-39.7	≤-18.55	PASS
		High	2480	1.82	-47.21	≤-18.18	PASS
		Low	Hop_2402	-0.28	-48.58	≤-20.28	PASS
		High	Hop_2480	1.02	-48.53	≤-18.98	PASS
3DH5	Ant1	Low	2402	1.59	-37.35	≤-18.41	PASS
		High	2480	1.72	-46.1	≤-18.28	PASS
		Low	Hop_2402	1.69	-49.23	≤-18.31	PASS
		High	Hop_2480	1.95	-48.38	≤-18.05	PASS

Test Graphs

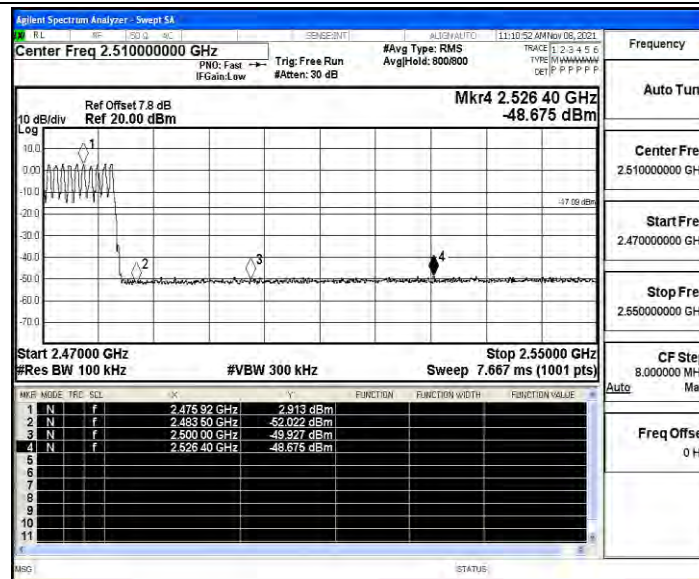




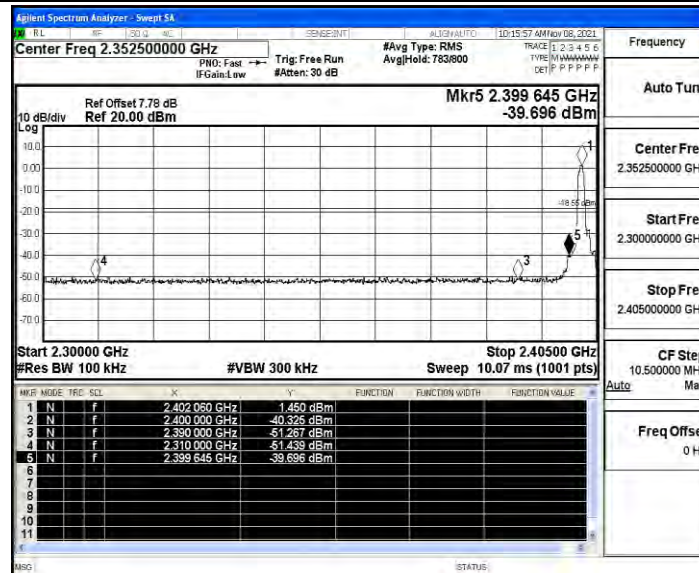
DH5_Ant1_Low_Hop_2402



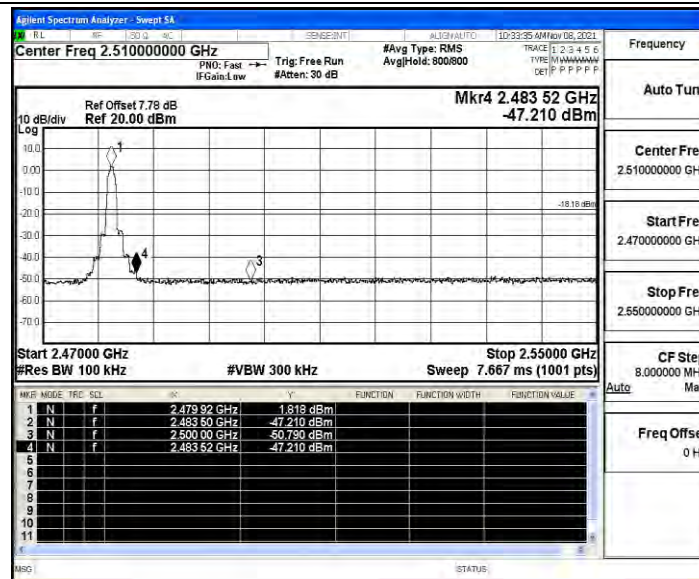
DH5_Ant1_High_Hop_2480



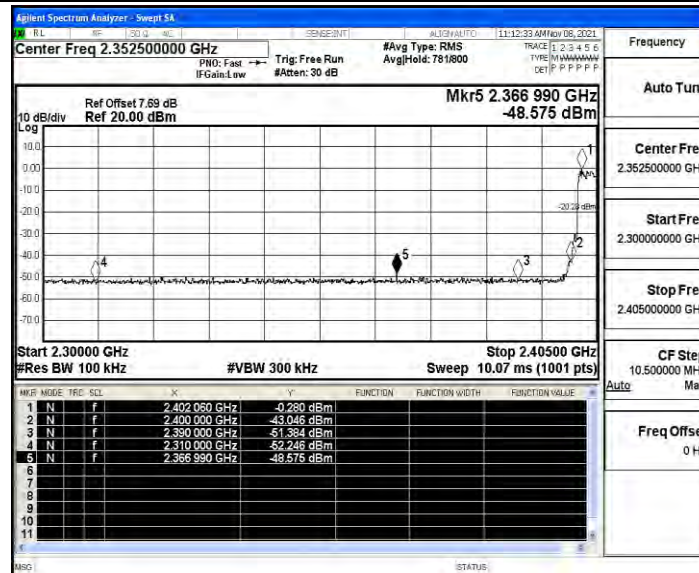
2DH5_Ant1_Low_2402



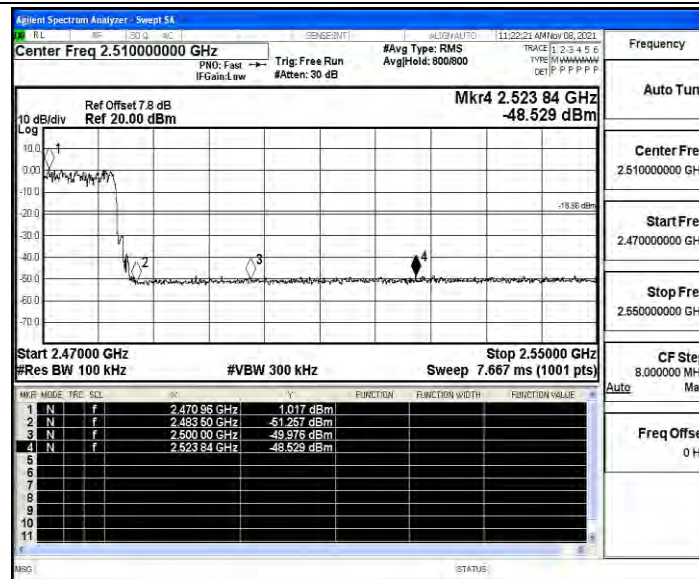
2DH5_Ant1_High_2480



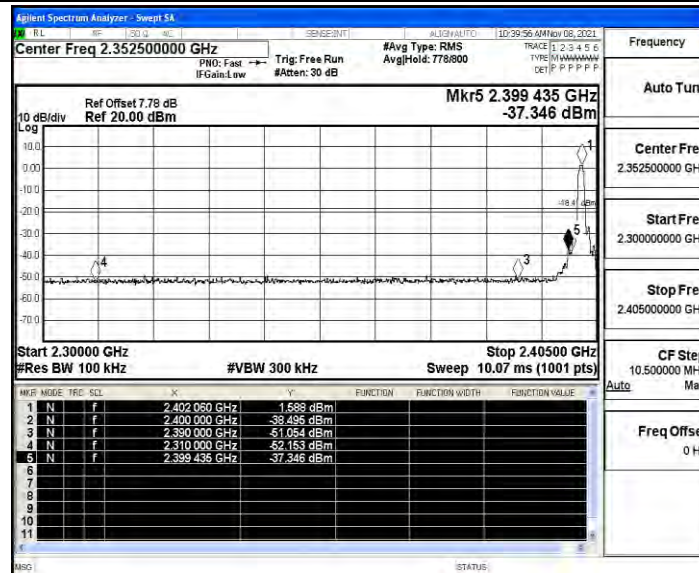
2DH5_Ant1_Low_Hop_2402



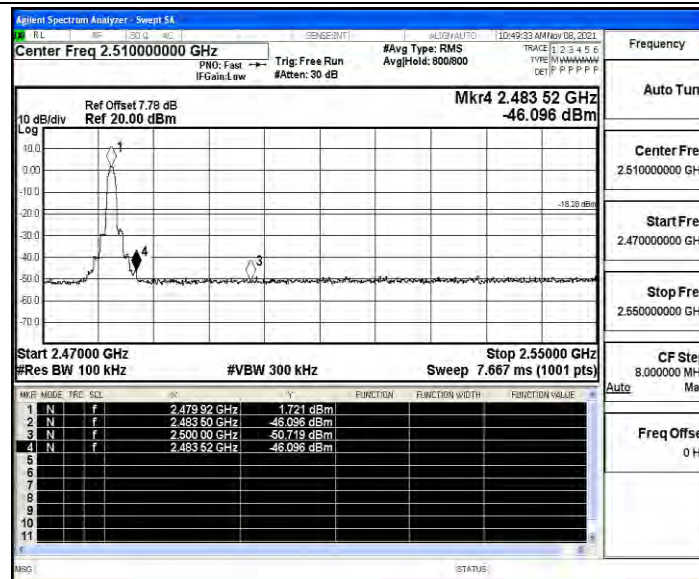
2DH5_Ant1_High_Hop_2480



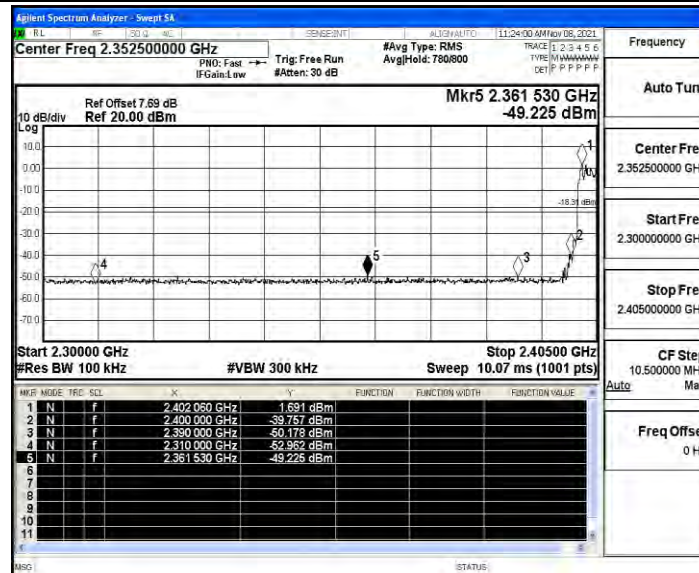
3DH5_Ant1_Low_2402



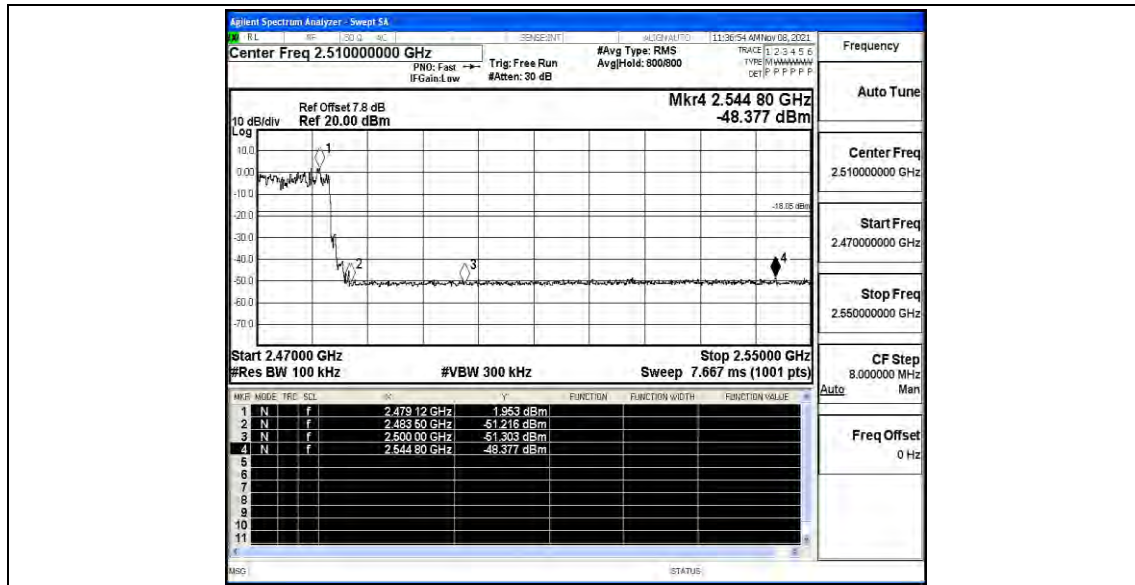
3DH5_Ant1_High_2480



3DH5_Ant1_Low_Hop_2402



3DH5_Ant1_High_Hop_2480





A.7 Conducted Spurious Emission

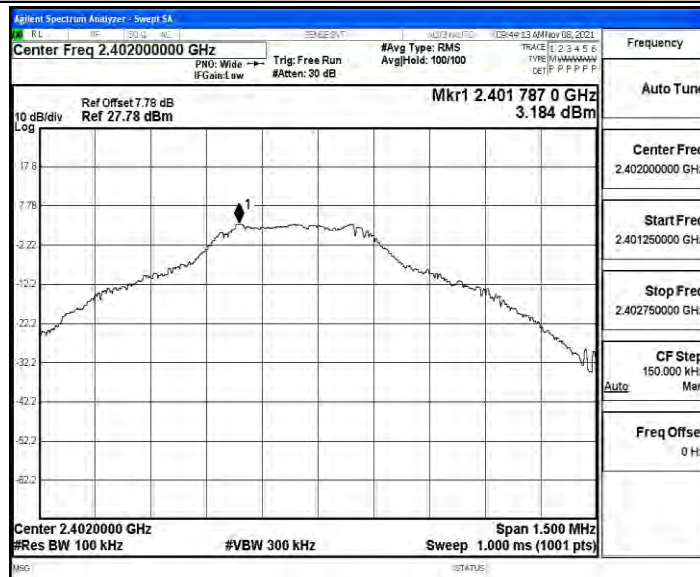
Test Result

TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	Reference	3.18	3.18	---	PASS
			30~1000	3.18	-62.06	≤-16.82	PASS
			1000~26500	3.18	-47.81	≤-16.82	PASS
		2441	Reference	3.08	3.08	---	PASS
			30~1000	3.08	-61.21	≤-16.93	PASS
			1000~26500	3.08	-47.84	≤-16.93	PASS
		2480	Reference	3.33	3.33	---	PASS
			30~1000	3.33	-61.96	≤-16.67	PASS
			1000~26500	3.33	-47.29	≤-16.67	PASS
2DH5	Ant1	2402	Reference	1.57	1.57	---	PASS
			30~1000	1.57	-61.29	≤-18.44	PASS
			1000~26500	1.57	-46.43	≤-18.44	PASS
		2441	Reference	1.11	1.11	---	PASS
			30~1000	1.11	-62.02	≤-18.89	PASS
			1000~26500	1.11	-47.1	≤-18.89	PASS
		2480	Reference	1.76	1.76	---	PASS
			30~1000	1.76	-61.39	≤-18.24	PASS
			1000~26500	1.76	-47.89	≤-18.24	PASS
3DH5	Ant1	2402	Reference	1.50	1.50	---	PASS
			30~1000	1.50	-61.07	≤-18.5	PASS
			1000~26500	1.50	-47.82	≤-18.5	PASS
		2441	Reference	0.88	0.88	---	PASS
			30~1000	0.88	-61.53	≤-19.12	PASS
			1000~26500	0.88	-47.58	≤-19.12	PASS
		2480	Reference	1.72	1.72	---	PASS
			30~1000	1.72	-61	≤-18.28	PASS
			1000~26500	1.72	-47.27	≤-18.28	PASS

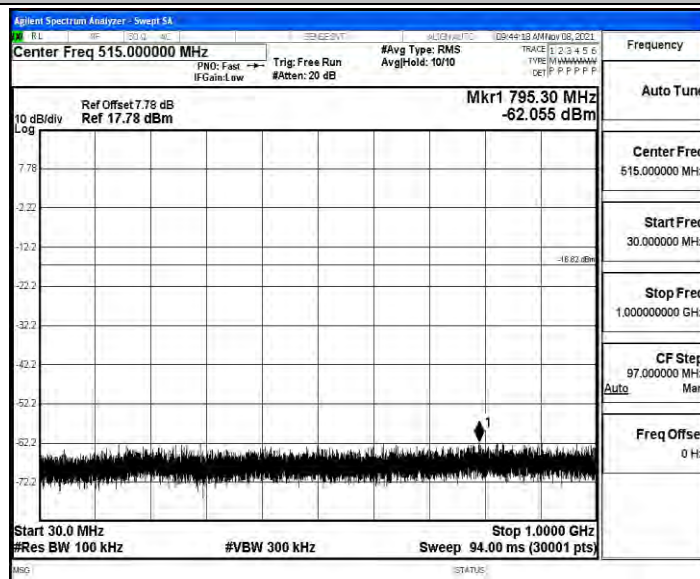


Test Graphs

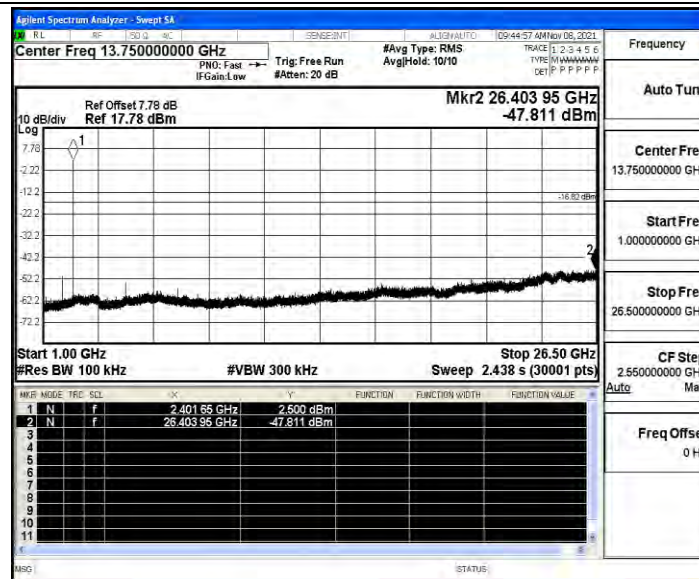
DH5_Ant1_2402_0~Reference



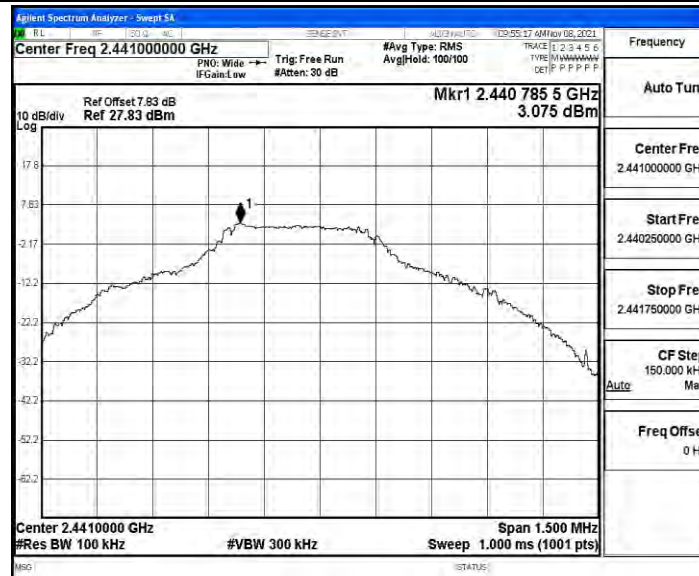
DH5_Ant1_2402_30~1000



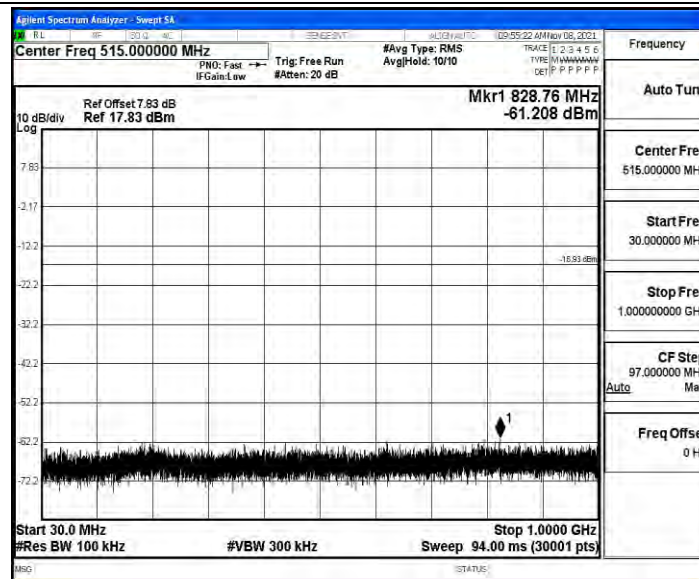
DH5_Ant1_2402_1000~26500



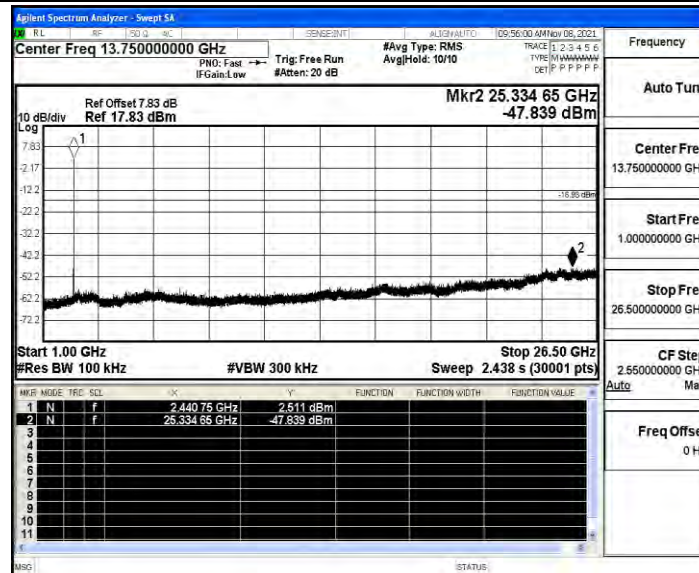
DH5_Ant1_2441_0~Reference



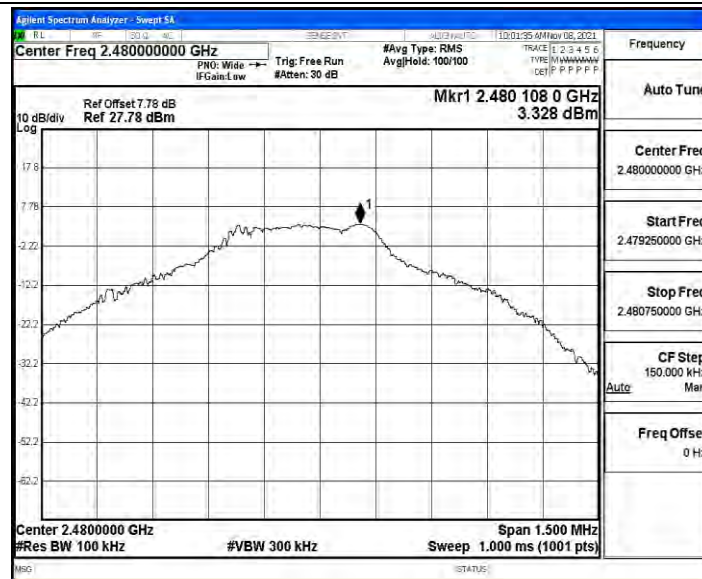
DH5_Ant1_2441_30~1000



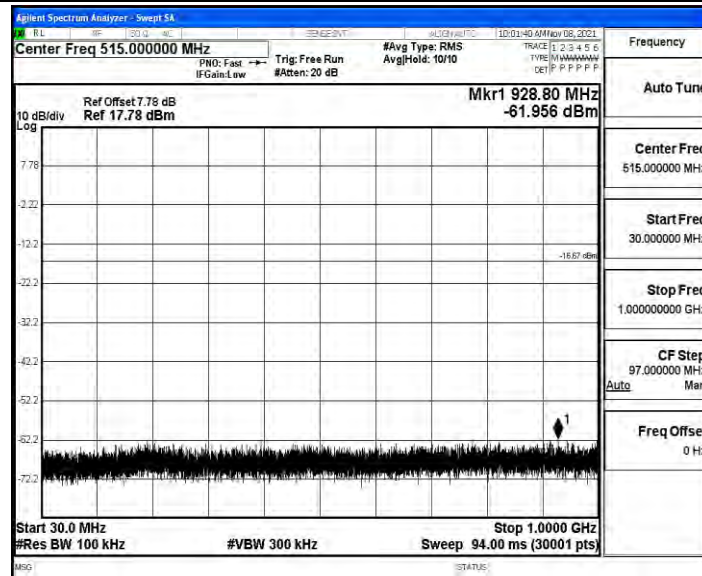
DH5_Ant1_2441_1000~26500



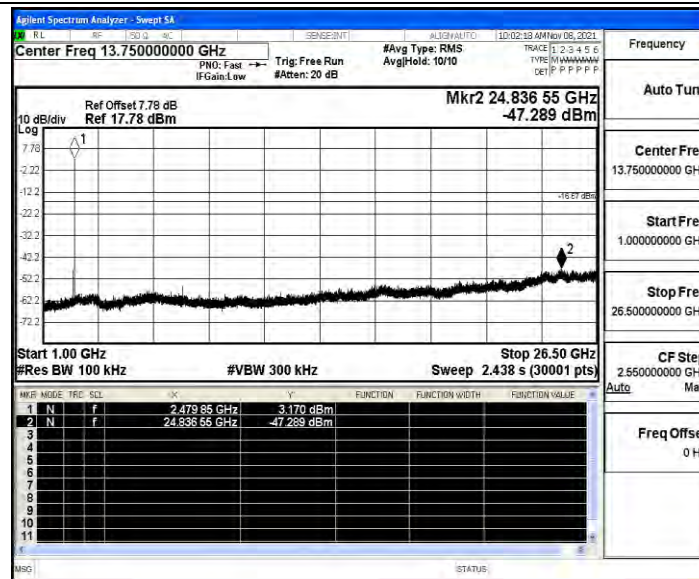
DH5_Ant1_2480_0~Reference



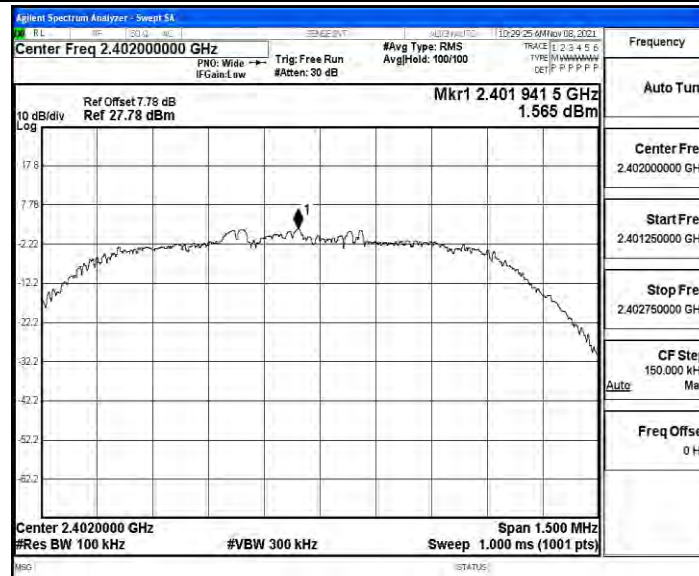
DH5_Ant1_2480_30~1000



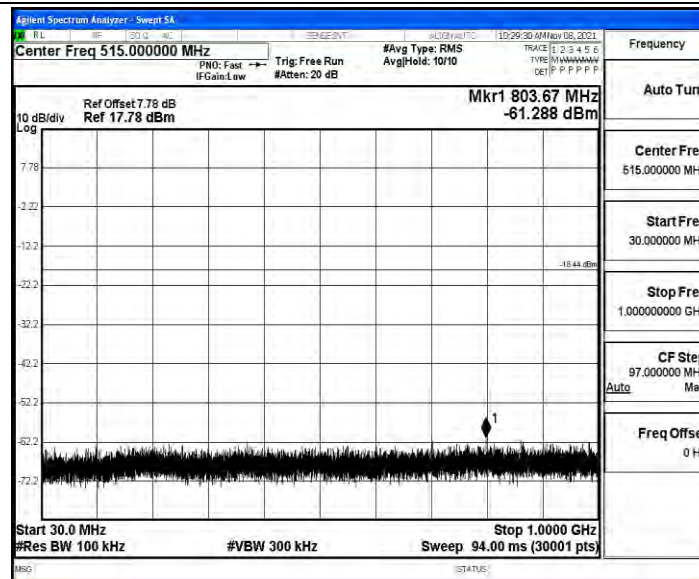
DH5_Ant1_2480_1000~26500



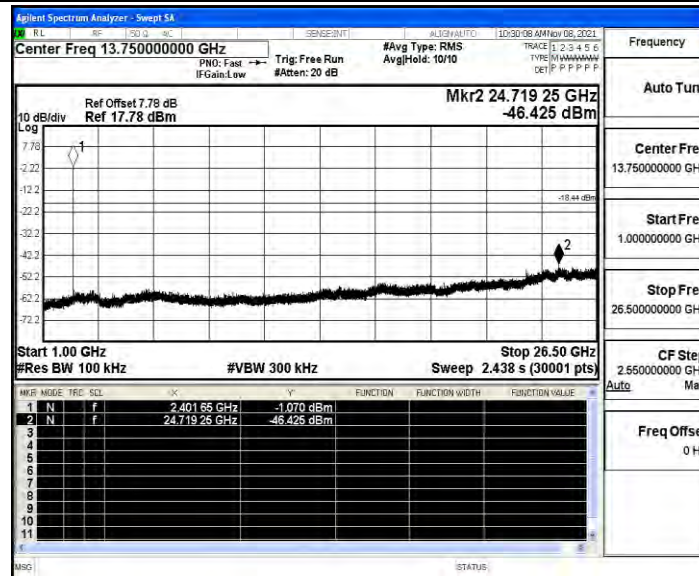
2DH5_Ant1_2402_0~Reference



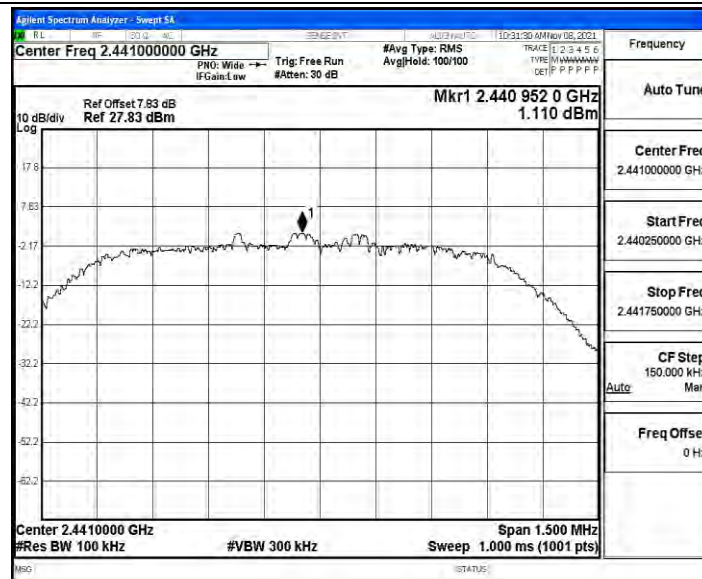
2DH5_Ant1_2402_30~1000



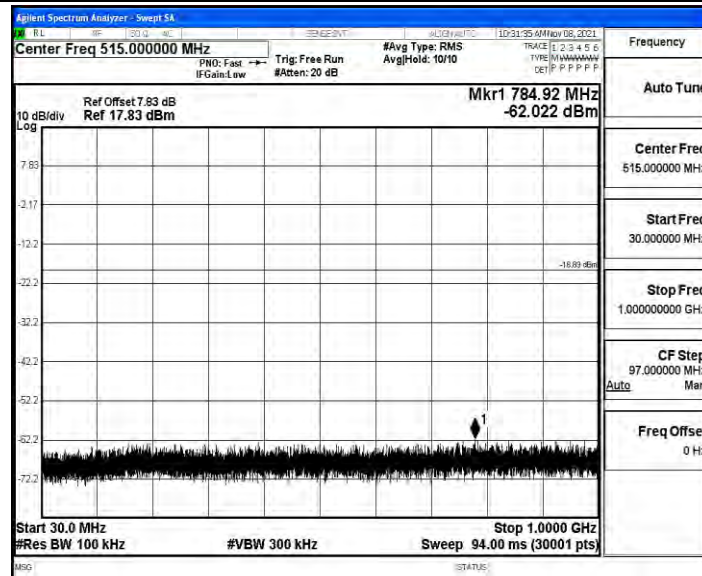
2DH5_Ant1_2402_1000~26500



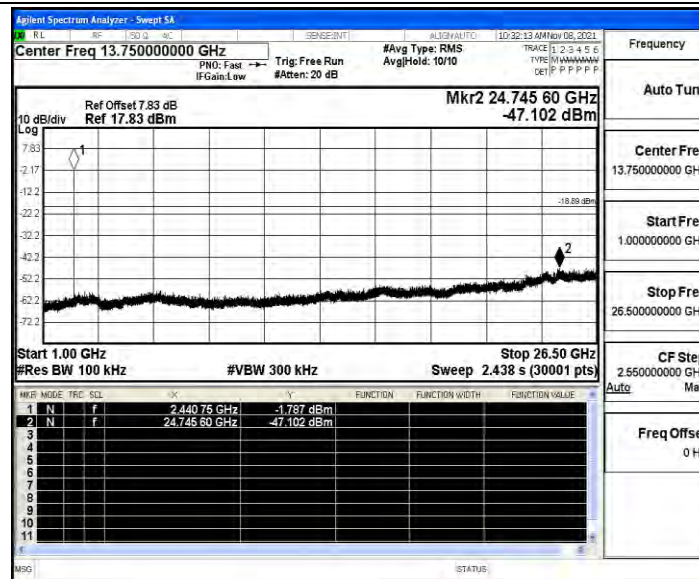
2DH5_Ant1_2441_0~Reference



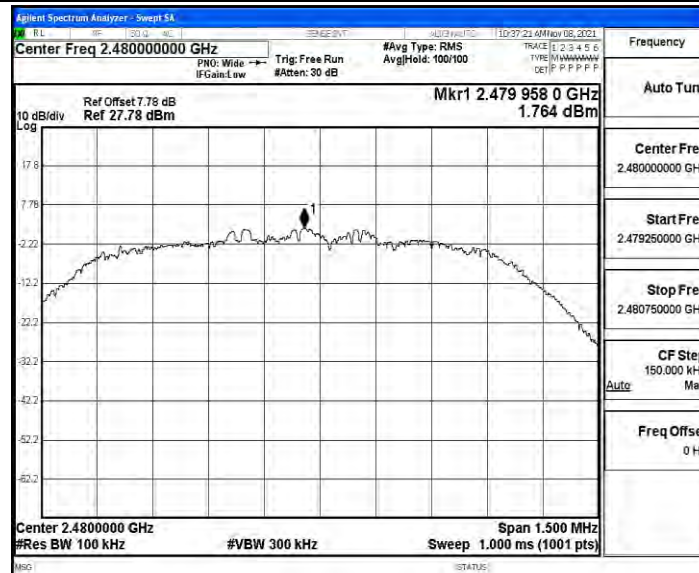
2DH5_Ant1_2441_30~1000



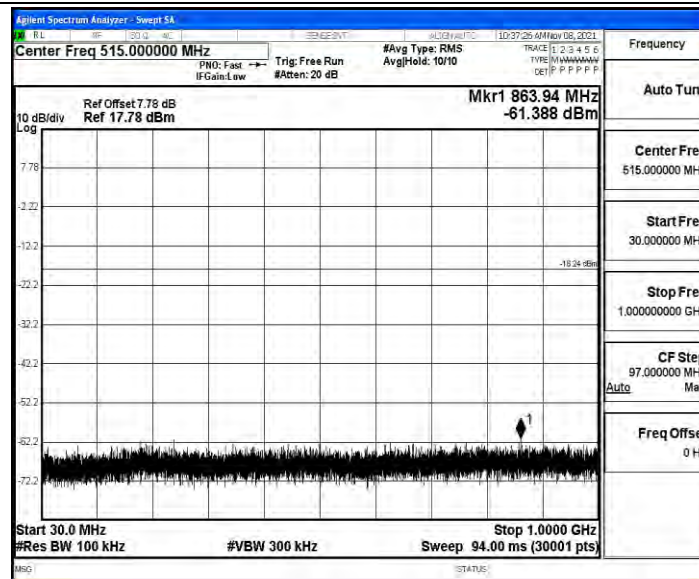
2DH5_Ant1_2441_1000~26500



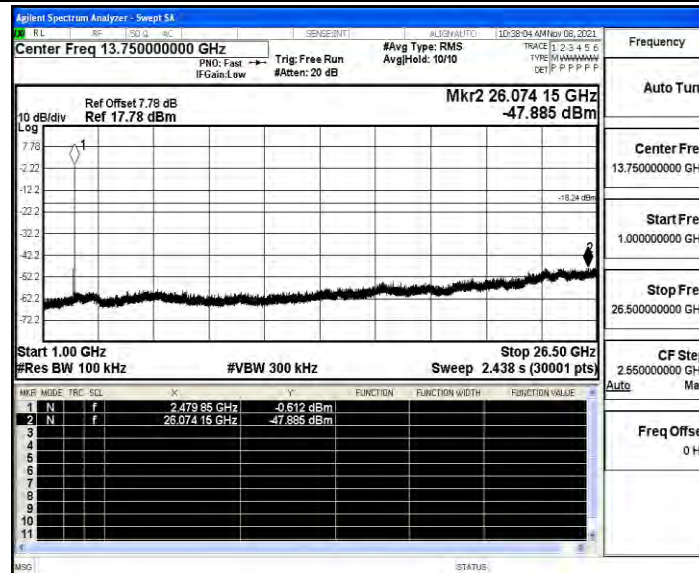
2DH5_Ant1_2480_0~Reference



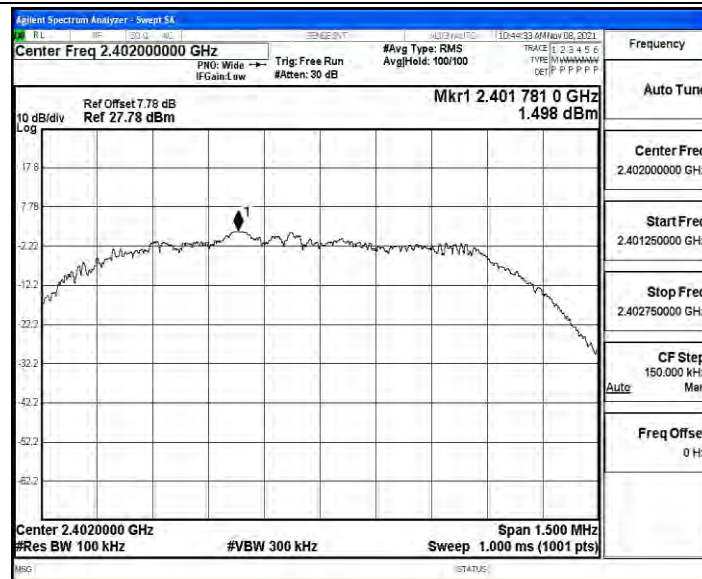
2DH5_Ant1_2480_30~1000



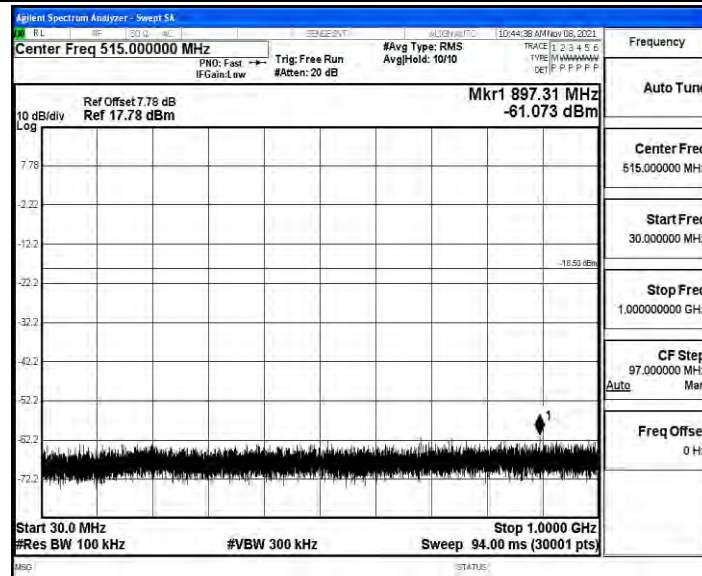
2DH5_Ant1_2480_1000~26500



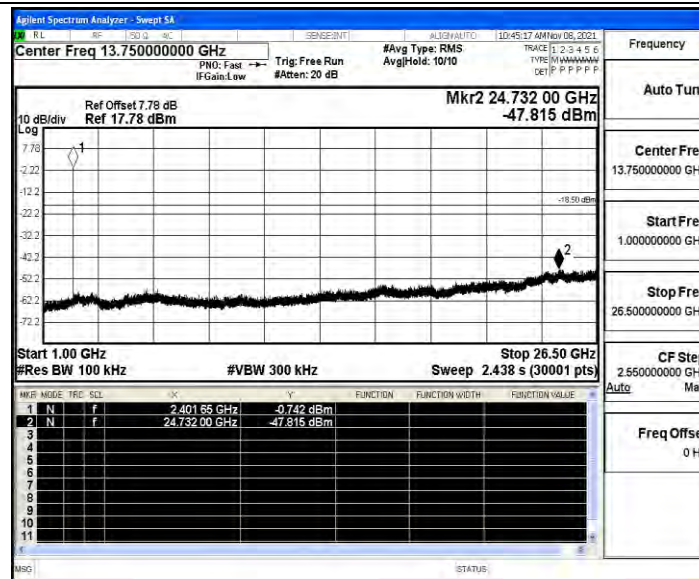
3DH5_Ant1_2402_0~Reference



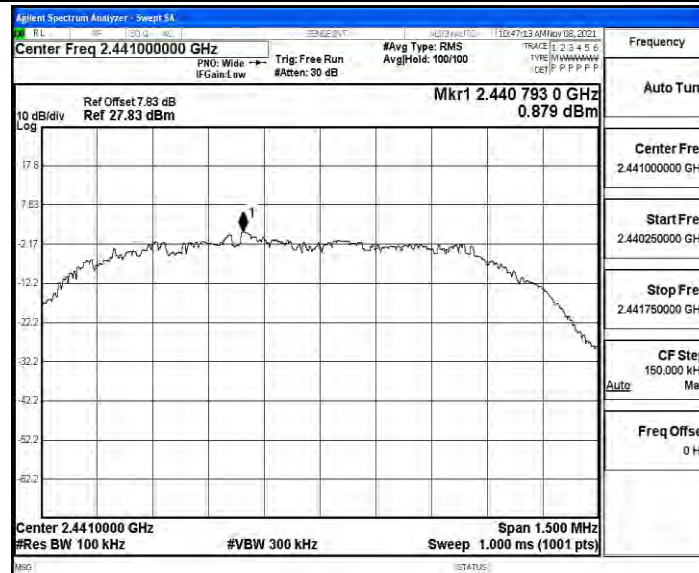
3DH5_Ant1_2402_30~1000



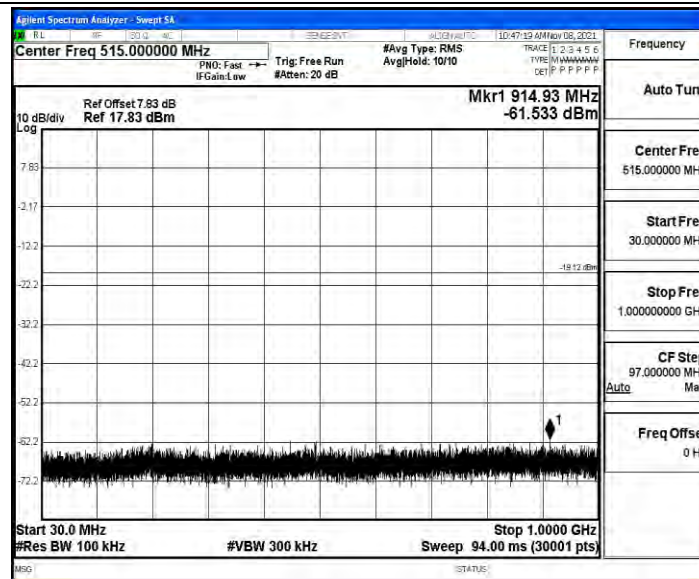
3DH5_Ant1_2402_1000~26500



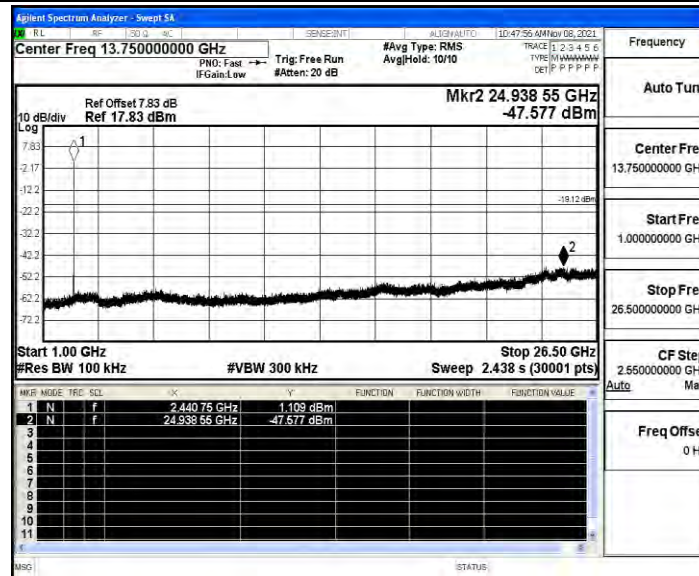
3DH5_Ant1_2441_0~Reference



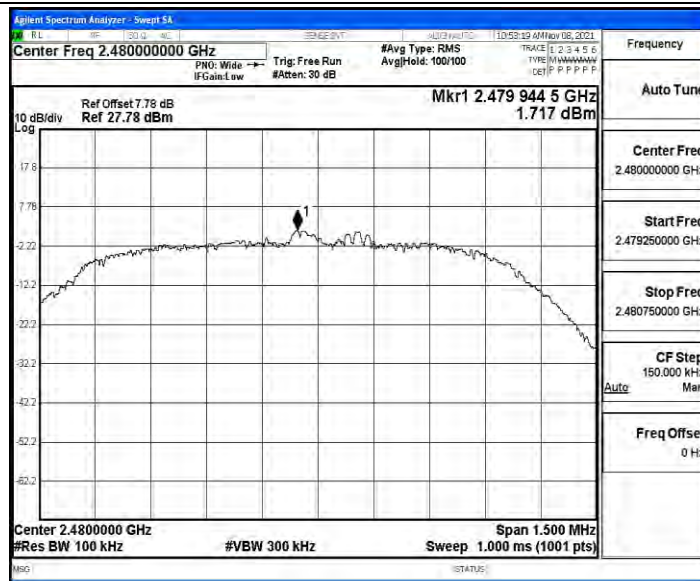
3DH5_Ant1_2441_30~1000



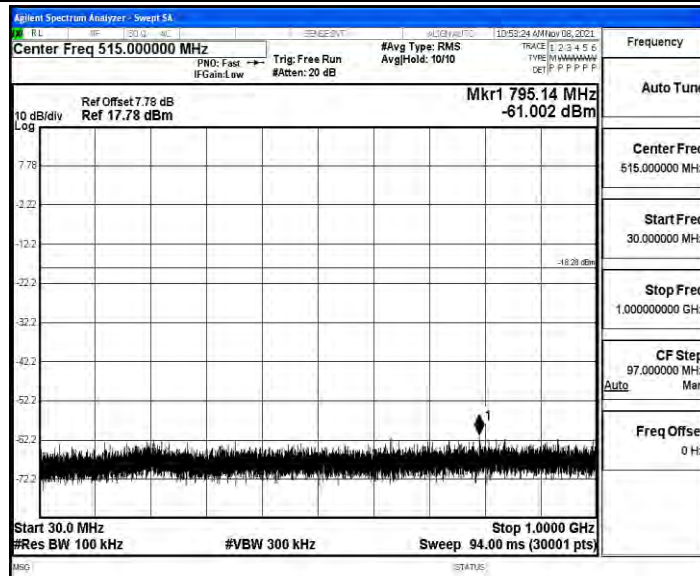
3DH5_Ant1_2441_1000~26500



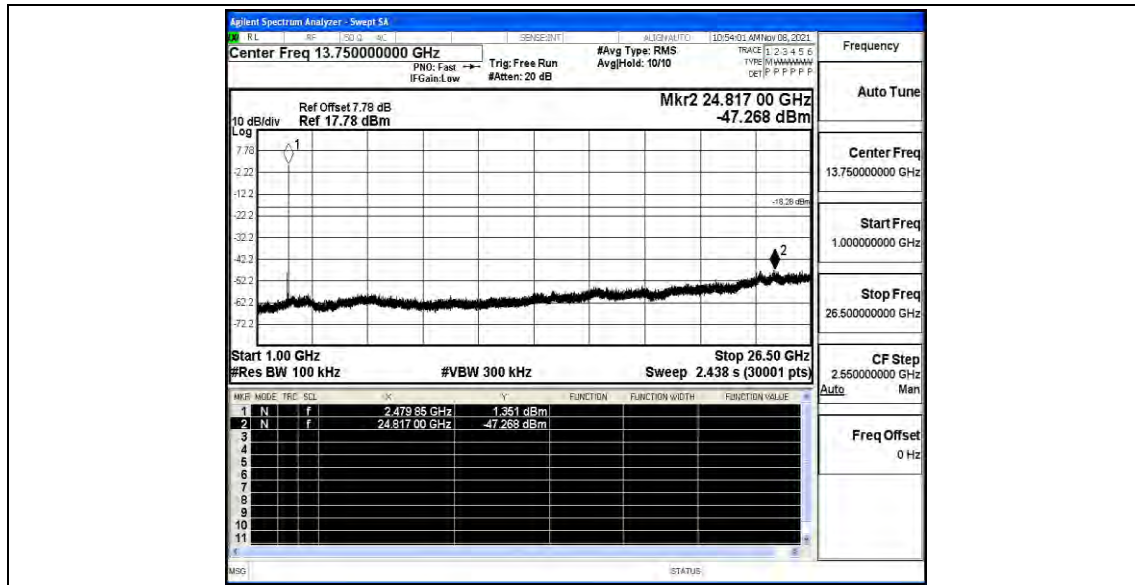
3DH5_Ant1_2480_0~Reference



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	-48.84	≤-41.20	46.36	≤54	PASS
				AV	2389.250	-48.36	≤-41.20	46.84	≤54	PASS
				AV	2390.000	-48.48	≤-41.20	46.72	≤54	PASS
				Peak	2310.000	-40.93	≤-21.20	54.27	≤74	PASS
				Peak	2367.725	-37.89	≤-21.20	57.31	≤74	PASS
				Peak	2390.000	-39.78	≤-21.20	55.42	≤74	PASS
		High	2480	AV	2483.500	-47.23	≤-41.20	47.97	≤54	PASS
				AV	2489.200	-46.73	≤-41.20	48.47	≤54	PASS
				AV	2500.000	-47.83	≤-41.20	47.37	≤54	PASS
				Peak	2483.500	-40.19	≤-21.20	55.01	≤74	PASS
				Peak	2496.560	-37.15	≤-21.20	58.05	≤74	PASS
				Peak	2500.000	-38.62	≤-21.20	56.58	≤74	PASS
		Low	Hop_24 02	Peak	2310.000	-40.66	≤-21.20	54.54	≤74	PASS
				Peak	2349.455	-38.22	≤-21.20	56.98	≤74	PASS
				Peak	2390.000	-40.71	≤-21.20	54.49	≤74	PASS
		High	Hop_24 80	Peak	2483.500	-40.34	≤-21.20	54.86	≤74	PASS
				Peak	2492.880	-37.3	≤-21.20	57.90	≤74	PASS
				Peak	2500.000	-40.72	≤-21.20	54.48	≤74	PASS
2DH5	Ant1	Low	2402	AV	2310.000	-48.88	≤-41.20	46.32	≤54	PASS
				AV	2389.670	-48.34	≤-41.20	46.86	≤54	PASS
				AV	2390.000	-48.46	≤-41.20	46.74	≤54	PASS
				Peak	2310.000	-41.03	≤-21.20	54.17	≤74	PASS
				Peak	2358.695	-37.8	≤-21.20	57.40	≤74	PASS
				Peak	2390.000	-39.46	≤-21.20	55.74	≤74	PASS
		High	2480	AV	2483.500	-44.41	≤-41.20	50.79	≤54	PASS
				AV	2483.520	-44.41	≤-41.20	50.79	≤54	PASS
				AV	2500.000	-47.87	≤-41.20	47.33	≤54	PASS
				Peak	2483.500	-32.16	≤-21.20	63.04	≤74	PASS
				Peak	2483.520	-32.16	≤-21.20	63.04	≤74	PASS
				Peak	2500.000	-39.89	≤-21.20	55.31	≤74	PASS
		Low	Hop_24 02	Peak	2310.000	-39.5	≤-21.20	55.70	≤74	PASS
				Peak	2332.235	-38.24	≤-21.20	56.96	≤74	PASS
				Peak	2390.000	-39.52	≤-21.20	55.68	≤74	PASS
		High	Hop_24 80	Peak	2483.500	-37.2	≤-21.20	58.00	≤74	PASS
				Peak	2483.760	-34.84	≤-21.20	60.36	≤74	PASS
				Peak	2500.000	-39.82	≤-21.20	55.38	≤74	PASS



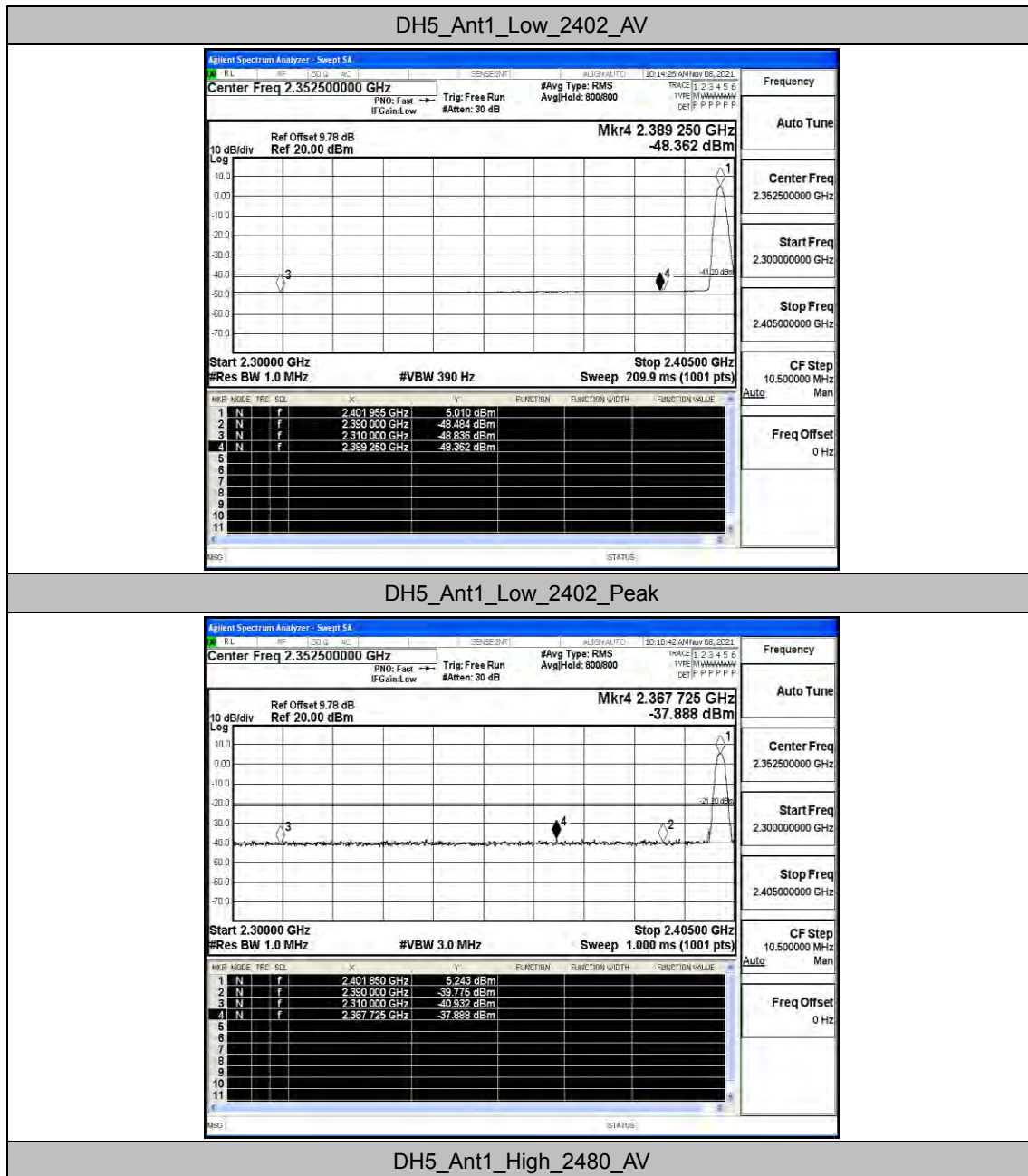
3DH5	Ant1	Low	2402	AV	2310.000	-48.81	≤-41.20	46.39	≤54	PASS
				AV	2384.000	-48.26	≤-41.20	46.94	≤54	PASS
				AV	2390.000	-48.41	≤-41.20	46.79	≤54	PASS
				Peak	2310.000	-40.31	≤-21.20	54.89	≤74	PASS
				Peak	2326.460	-38.08	≤-21.20	57.12	≤74	PASS
				Peak	2390.000	-40.88	≤-21.20	54.32	≤74	PASS
		High	2480	AV	2483.500	-44.52	≤-41.20	50.68	≤54	PASS
				AV	2483.520	-44.52	≤-41.20	50.68	≤54	PASS
				AV	2500.000	-47.78	≤-41.20	47.42	≤54	PASS
				Peak	2483.500	-33.73	≤-21.20	61.47	≤74	PASS
				Peak	2483.520	-33.73	≤-21.20	61.47	≤74	PASS
				Peak	2500.000	-39.44	≤-21.20	55.76	≤74	PASS
		Low	Hop_2402	Peak	2310.000	-40.59	≤-21.20	54.61	≤74	PASS
				Peak	2331.185	-37.28	≤-21.20	57.92	≤74	PASS
				Peak	2390.000	-40.78	≤-21.20	54.42	≤74	PASS
		High	Hop_2480	Peak	2483.500	-37.11	≤-21.20	58.09	≤74	PASS
				Peak	2483.760	-34.17	≤-21.20	61.03	≤74	PASS
				Peak	2500.000	-38.11	≤-21.20	57.09	≤74	PASS

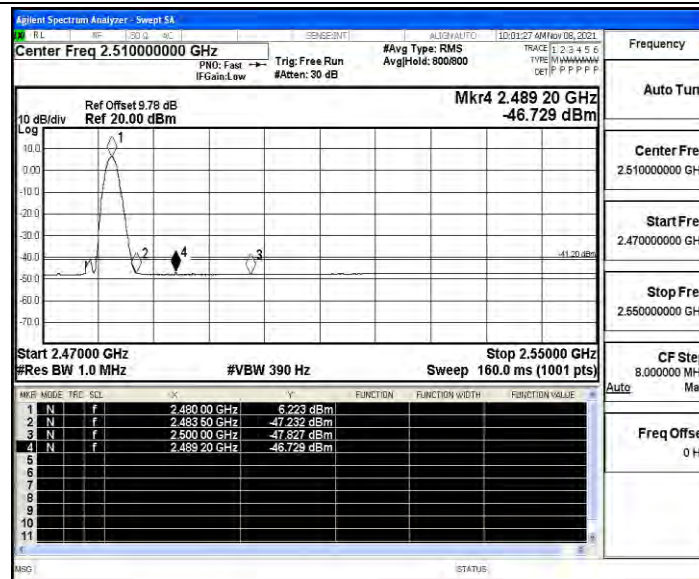
Note:

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.

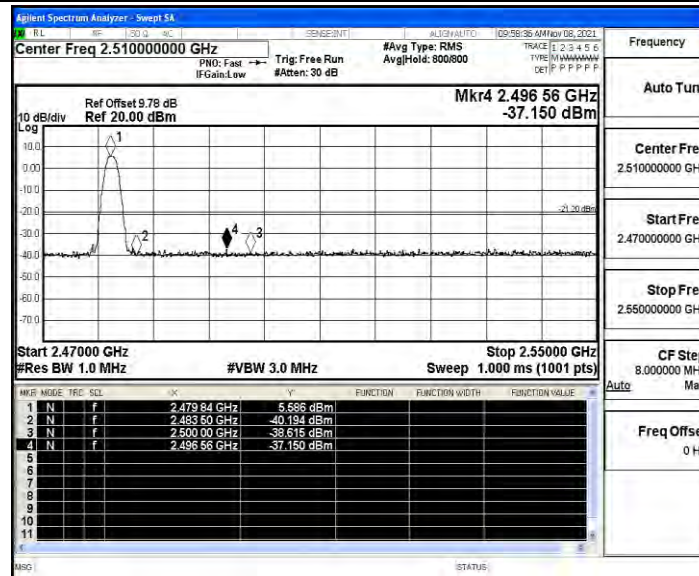


Test Graphs

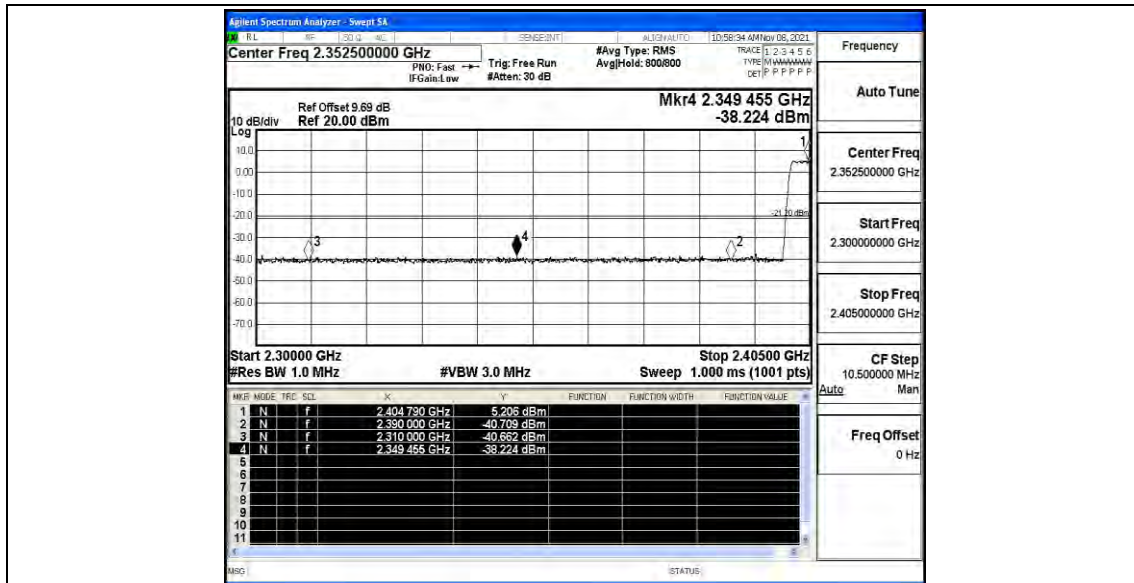




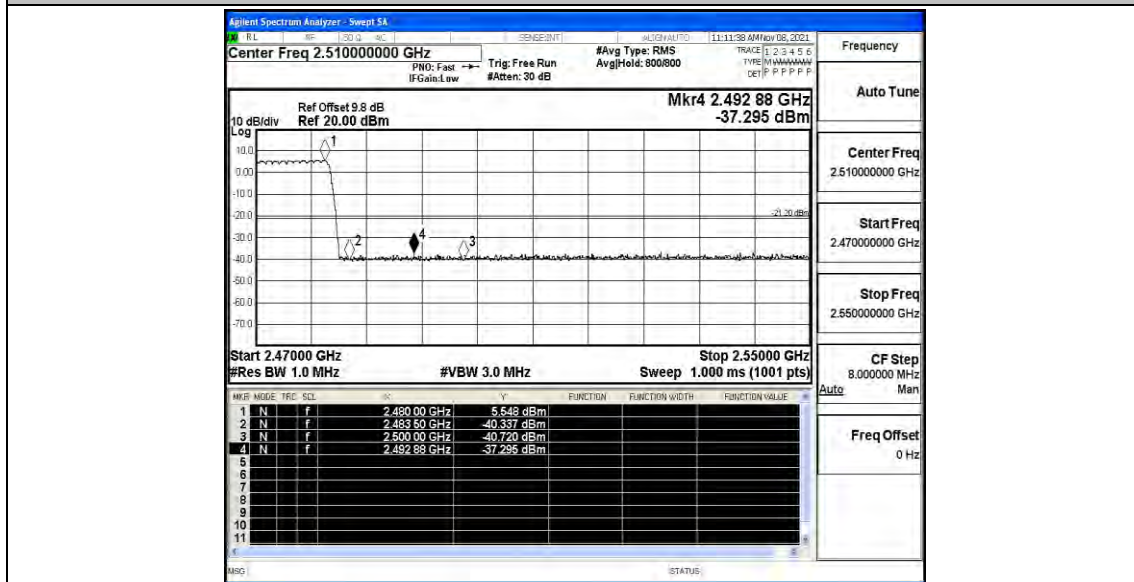
DH5_Ant1_High_2480_Peak



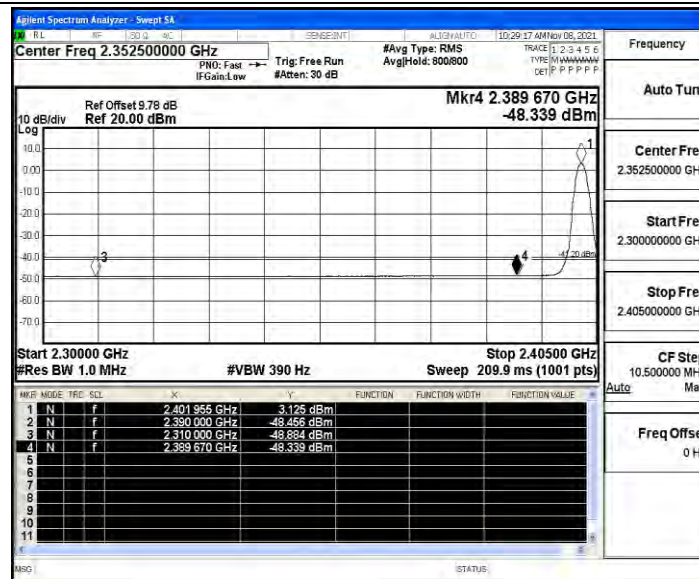
DH5_Ant1_Low_Hop_2402_Peak



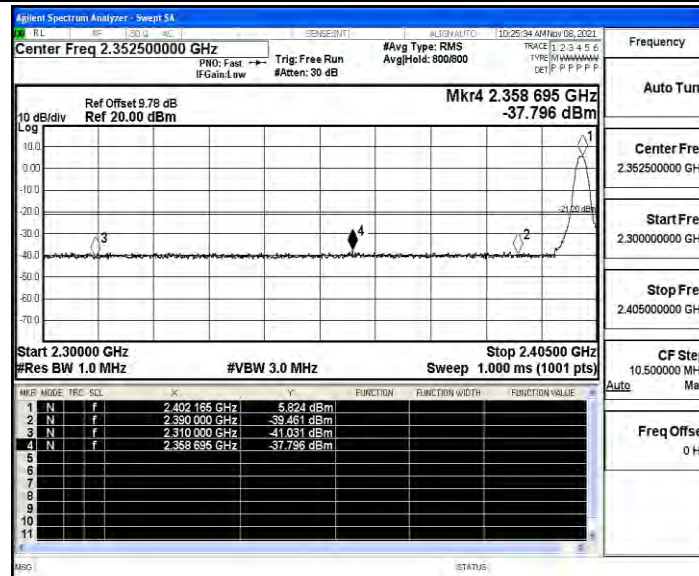
DH5_Ant1_High_Hop_2480_Peak



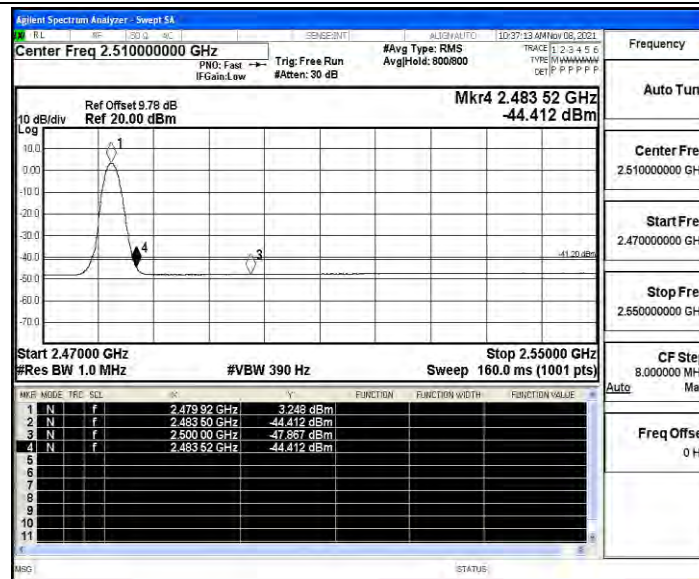
2DH5_Ant1_Low_2402_AV



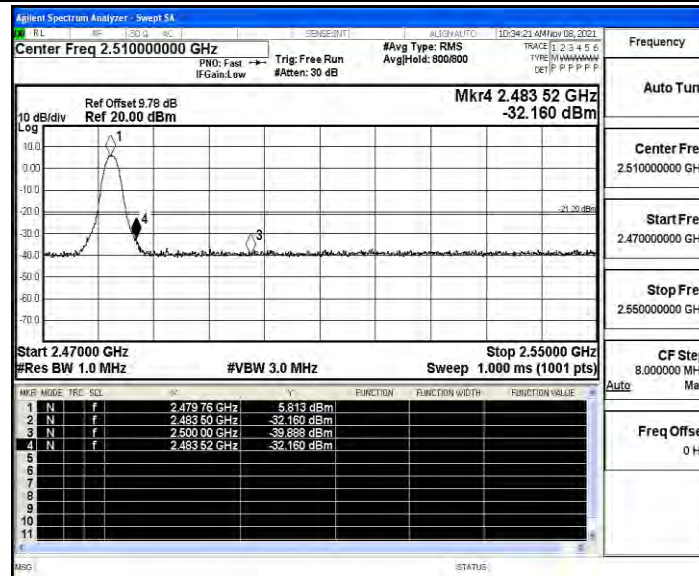
2DH5_Ant1_Low_2402_Peak



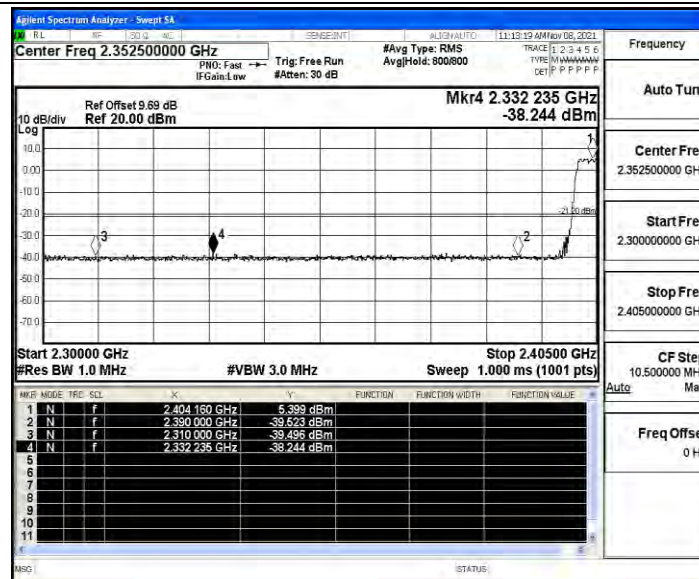
2DH5_Ant1_High_2480_AV



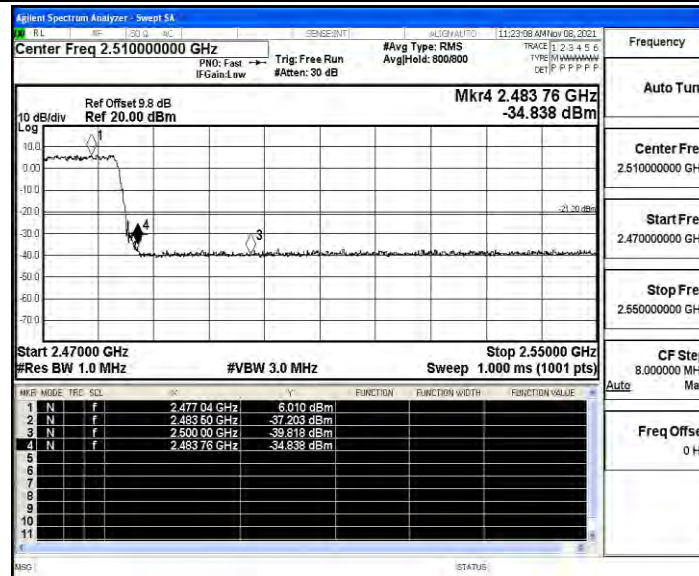
2DH5_Ant1_High_2480_Peak



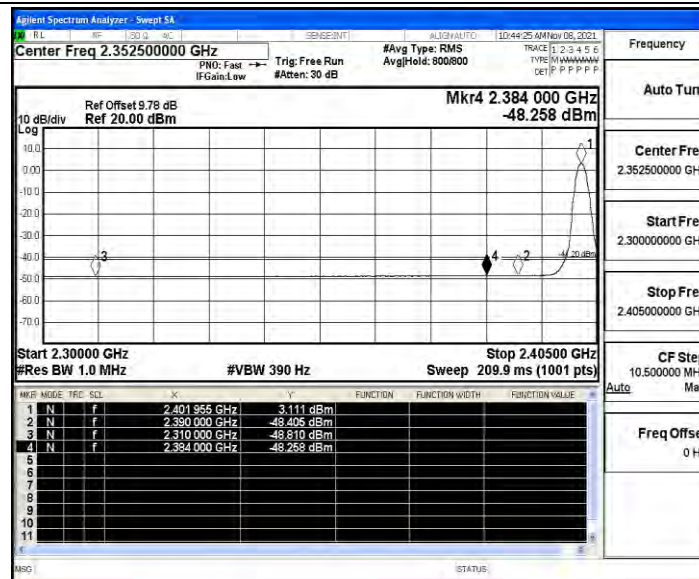
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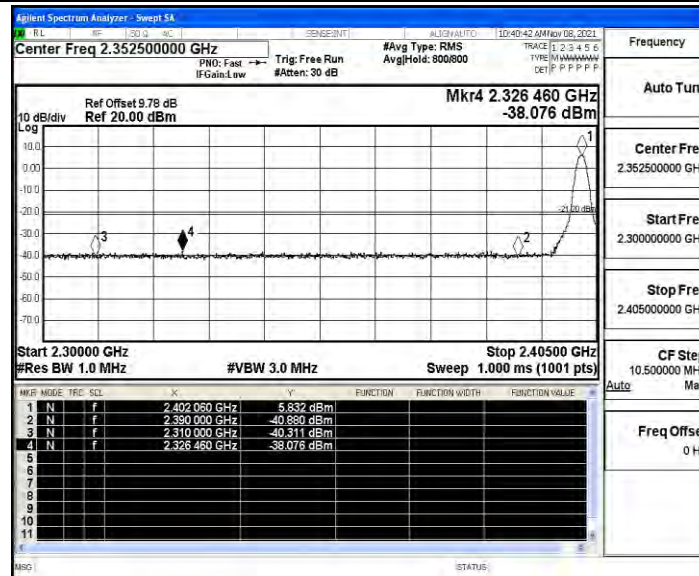
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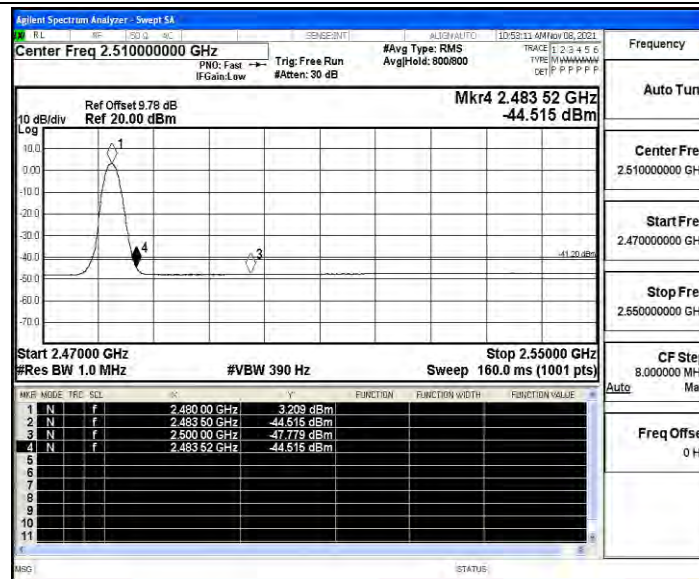
3DH5_Ant1_Low_2402_AV



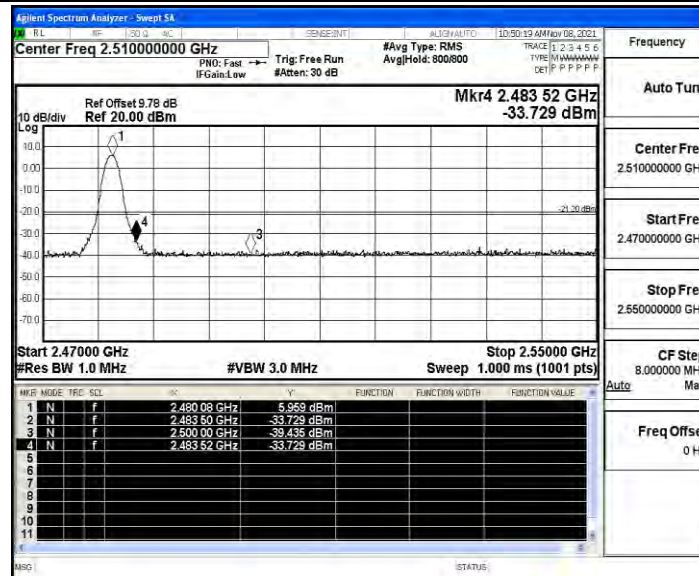
3DH5_Ant1_Low_2402_Peak



3DH5_Ant1_High_2480_AV



3DH5_Ant1_High_2480_Peak



3DH5_Ant1_Low_Hop_2402_Peak

