



Appendix A

RF Test Data for BT (Conducted Measurement)

Product Name: Translator Earbuds

Test Model: M6

Environmental Conditions

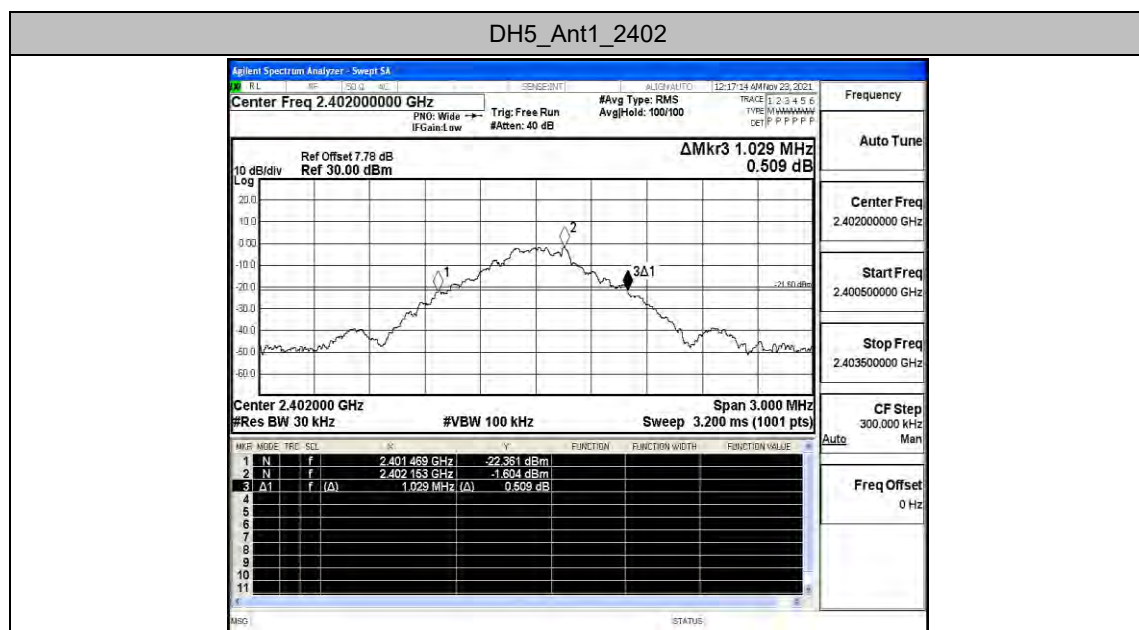
Temperature:	23.7° C
Relative Humidity:	52.3%
ATM Pressure:	100.0 kPa
Test Engineer:	monkey.Li
Supervised by:	Libu

A.1 20dB Emission Bandwidth

Test Result

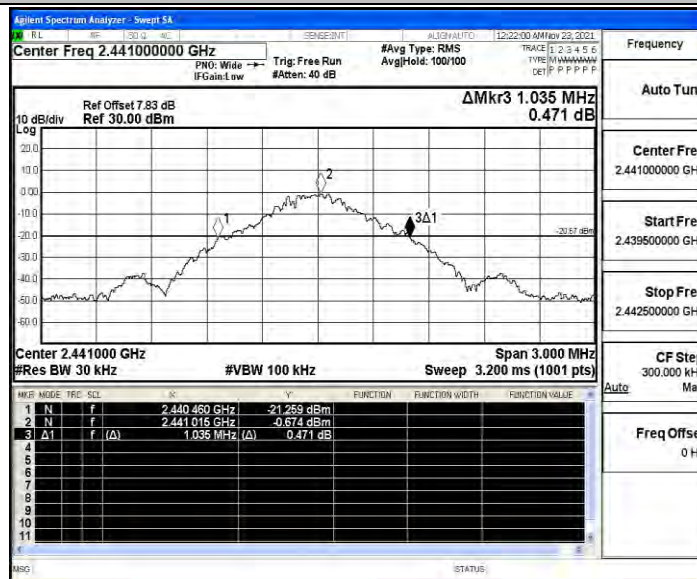
TestMode	Antenna	Channel	20db EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	1.029	2401.469	2402.498	---	PASS
		2441	1.035	2440.460	2441.495	---	PASS
		2480	1.029	2479.469	2480.498	---	PASS
2DH5	Ant1	2402	1.323	2401.334	2402.657	---	PASS
		2441	1.320	2440.331	2441.651	---	PASS
		2480	1.329	2479.328	2480.657	---	PASS
3DH5	Ant1	2402	1.290	2401.349	2402.639	---	PASS
		2441	1.287	2440.349	2441.636	---	PASS
		2480	1.287	2479.358	2480.645	---	PASS

Test Graphs

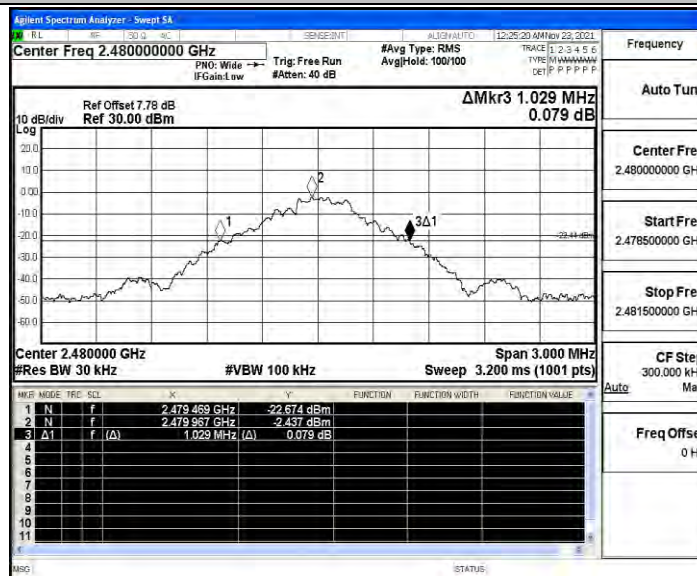




DH5_Ant1_2441

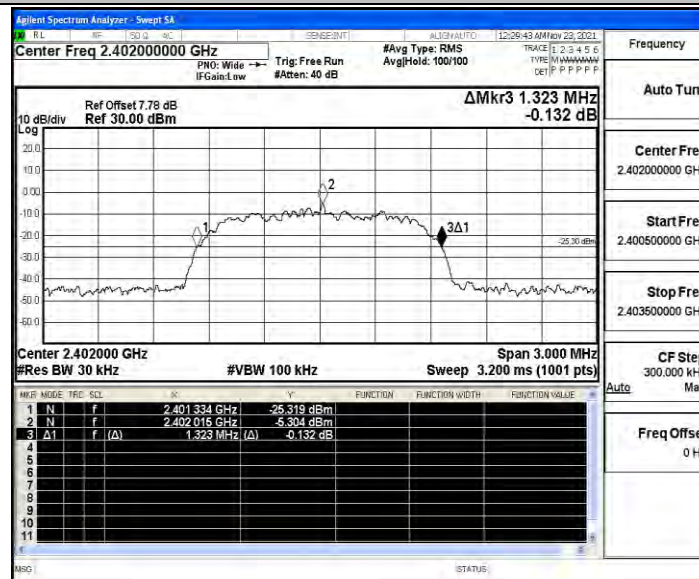


DH5_Ant1_2480

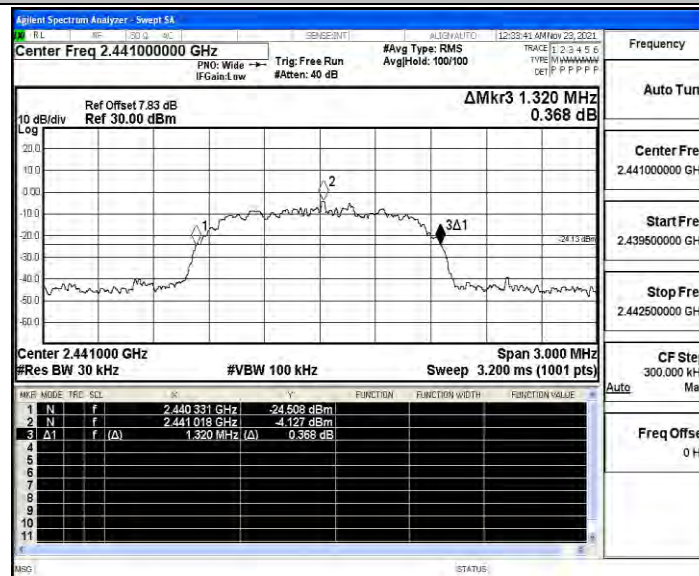




2DH5_Ant1_2402

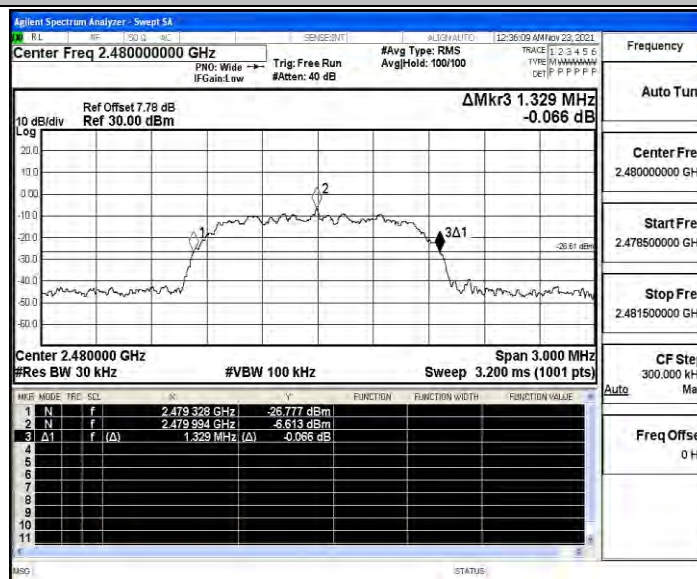


2DH5_Ant1_2441

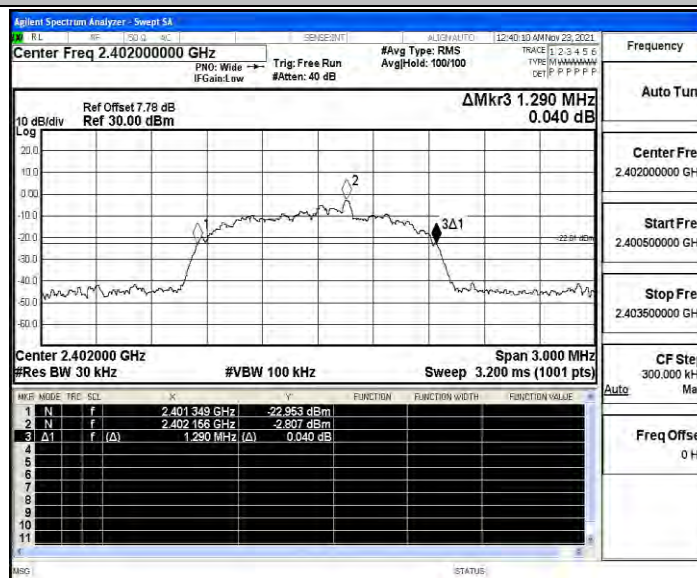




2DH5_Ant1_2480

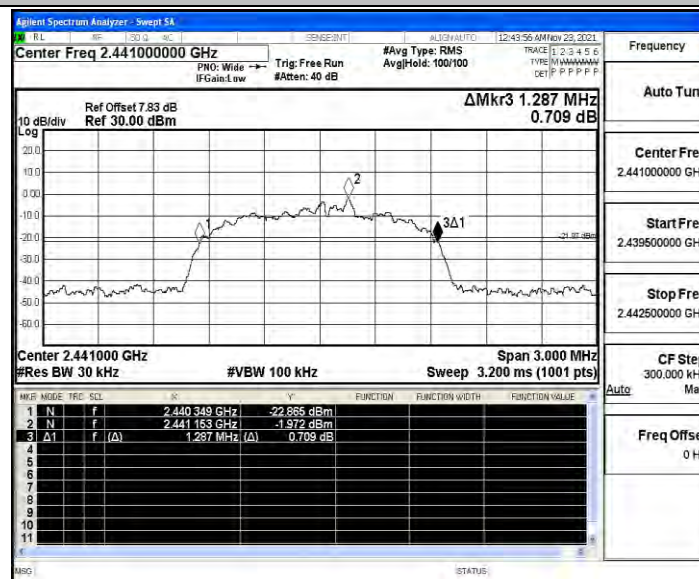


3DH5_Ant1_2402

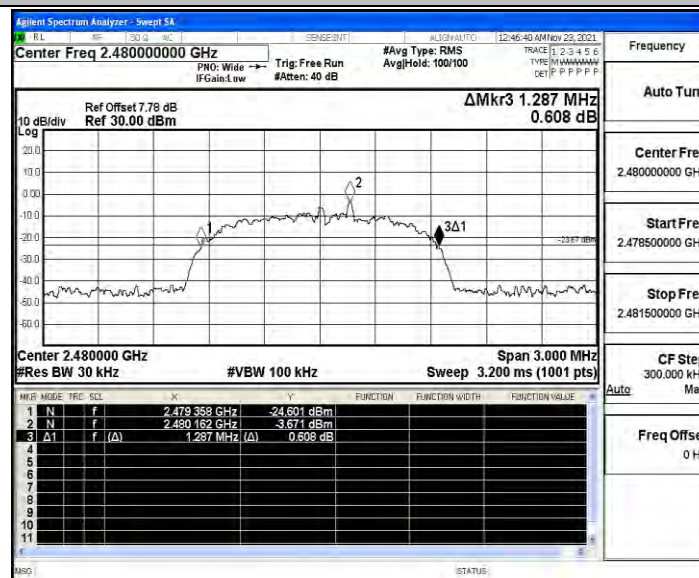




3DH5_Ant1_2441



3DH5_Ant1_2480





A.2 Maximum conducted output power

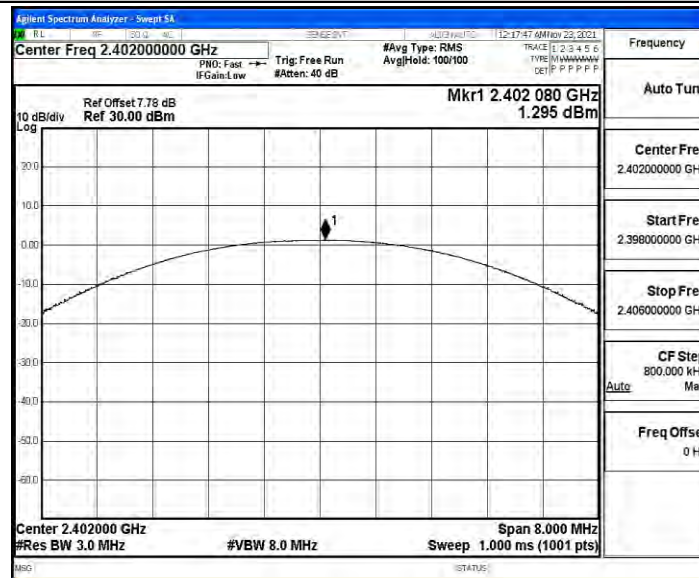
Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
DH5	Ant1	2402	1.3	≤20.97	PASS
		2441	2.28	≤20.97	PASS
		2480	0.73	≤20.97	PASS
2DH5	Ant1	2402	0.27	≤20.97	PASS
		2441	1.38	≤20.97	PASS
		2480	-0.25	≤20.97	PASS
3DH5	Ant1	2402	0.51	≤20.97	PASS
		2441	1.48	≤20.97	PASS
		2480	-0.06	≤20.97	PASS

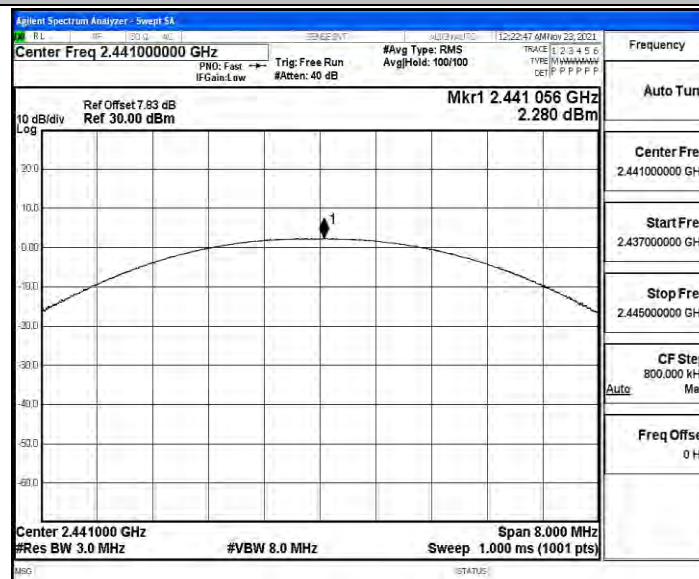


Test Graphs

DH5_Ant1_2402

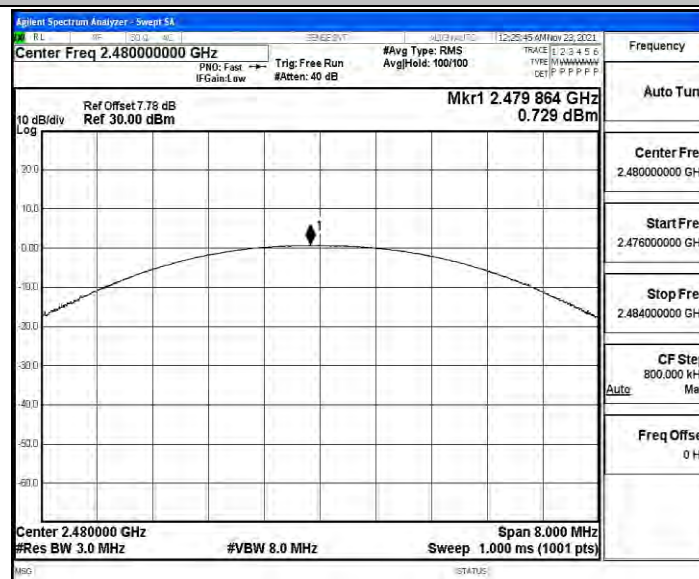


DH5_Ant1_2441

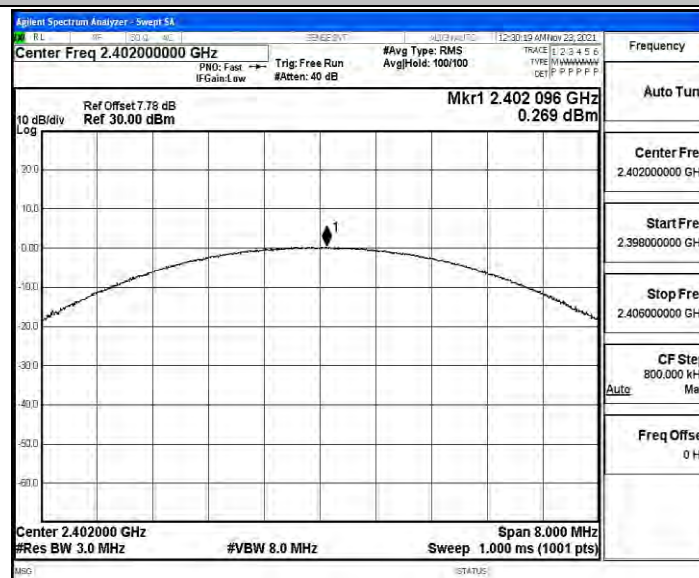




DH5_Ant1_2480

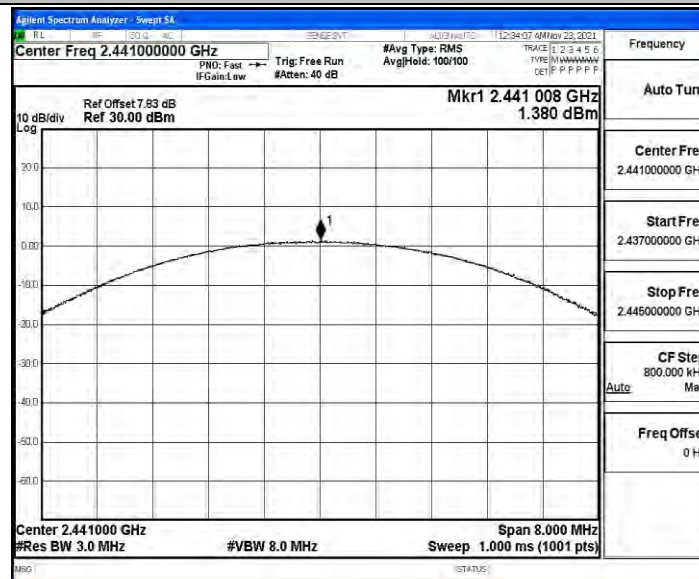


2DH5_Ant1_2402

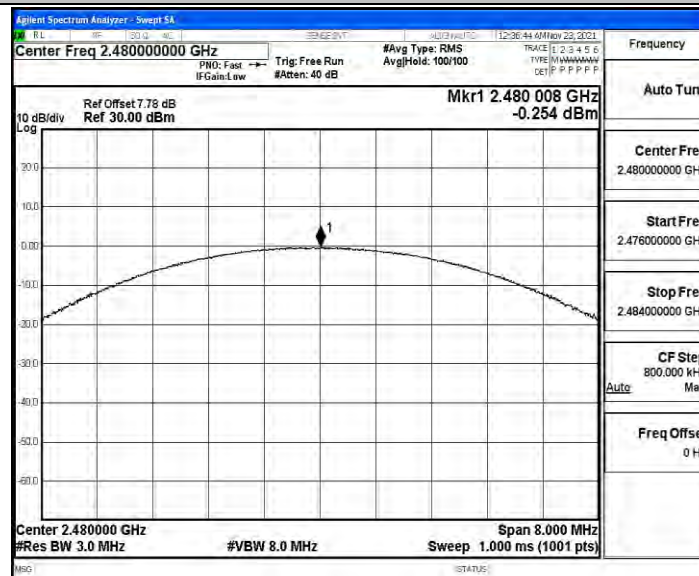




2DH5_Ant1_2441

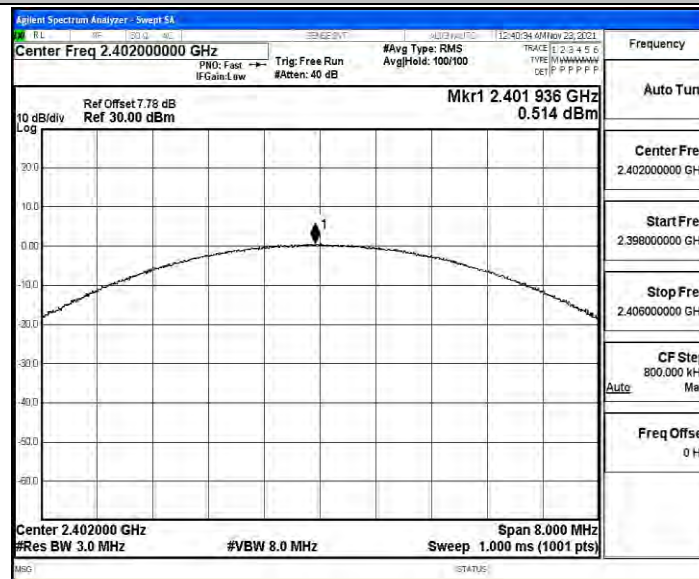


2DH5_Ant1_2480

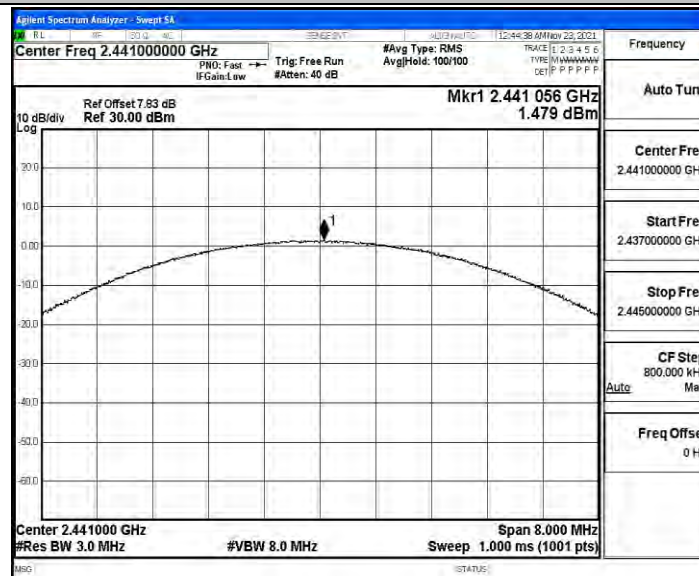




3DH5_Ant1_2402

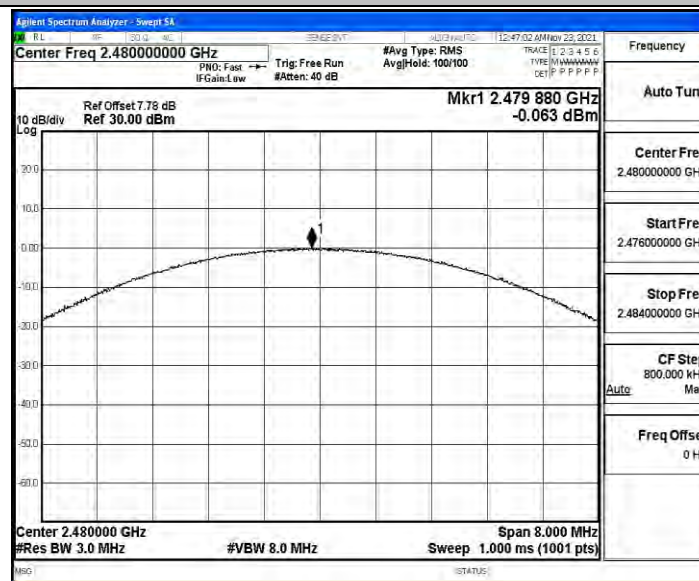


3DH5_Ant1_2441





3DH5_Ant1_2480



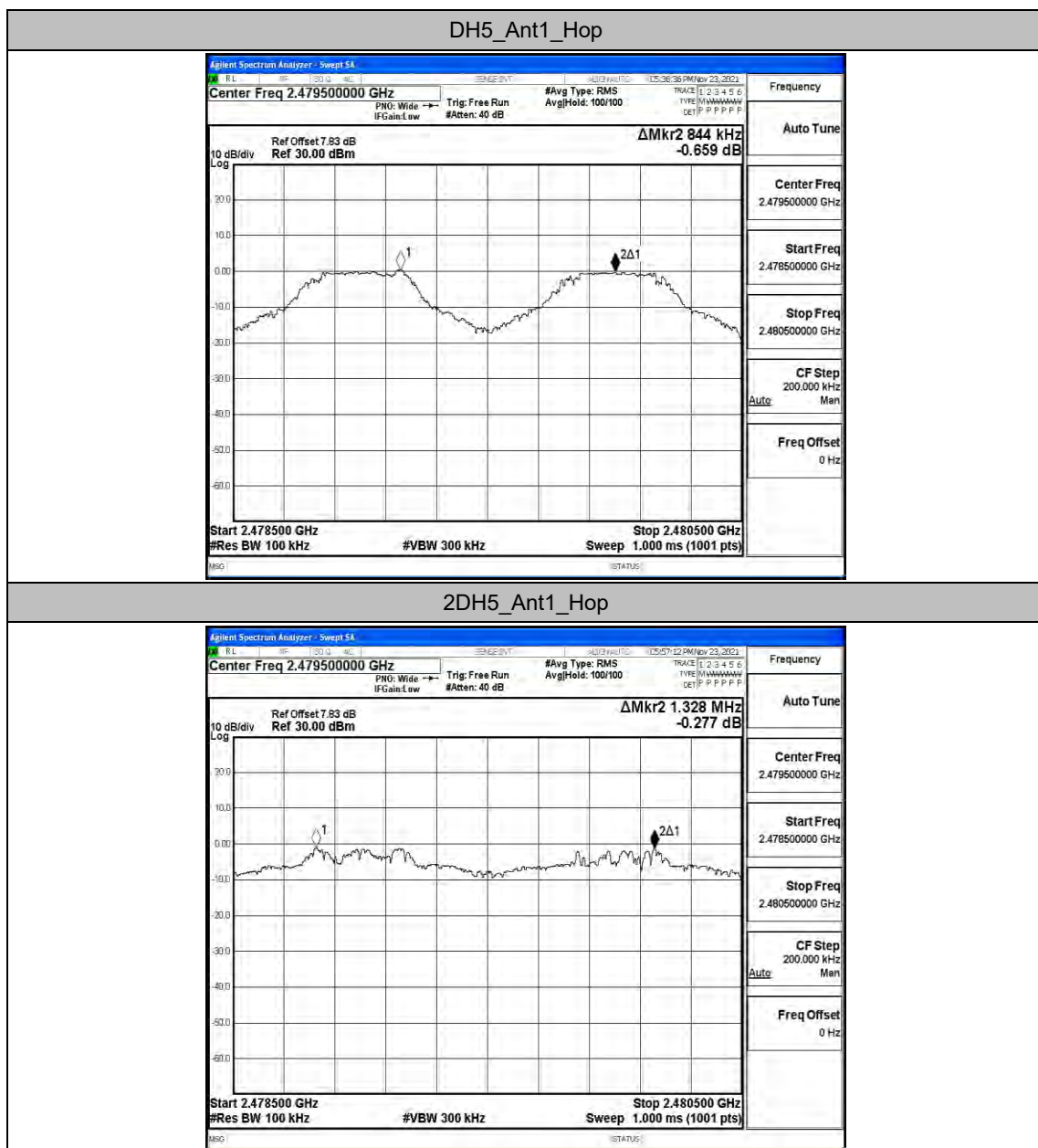


A.3 Carrier frequency separation

Test Result

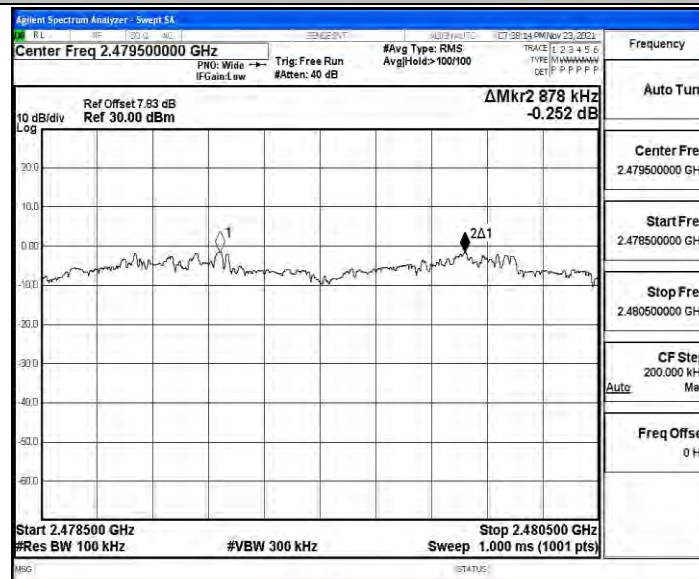
TestMode	Antenna	Channel	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	0.844	≥0.690	PASS
2DH5	Ant1	Hop	1.328	≥0.886	PASS
3DH5	Ant1	Hop	0.878	≥0.860	PASS

Test Graphs





3DH5_Ant1_Hop



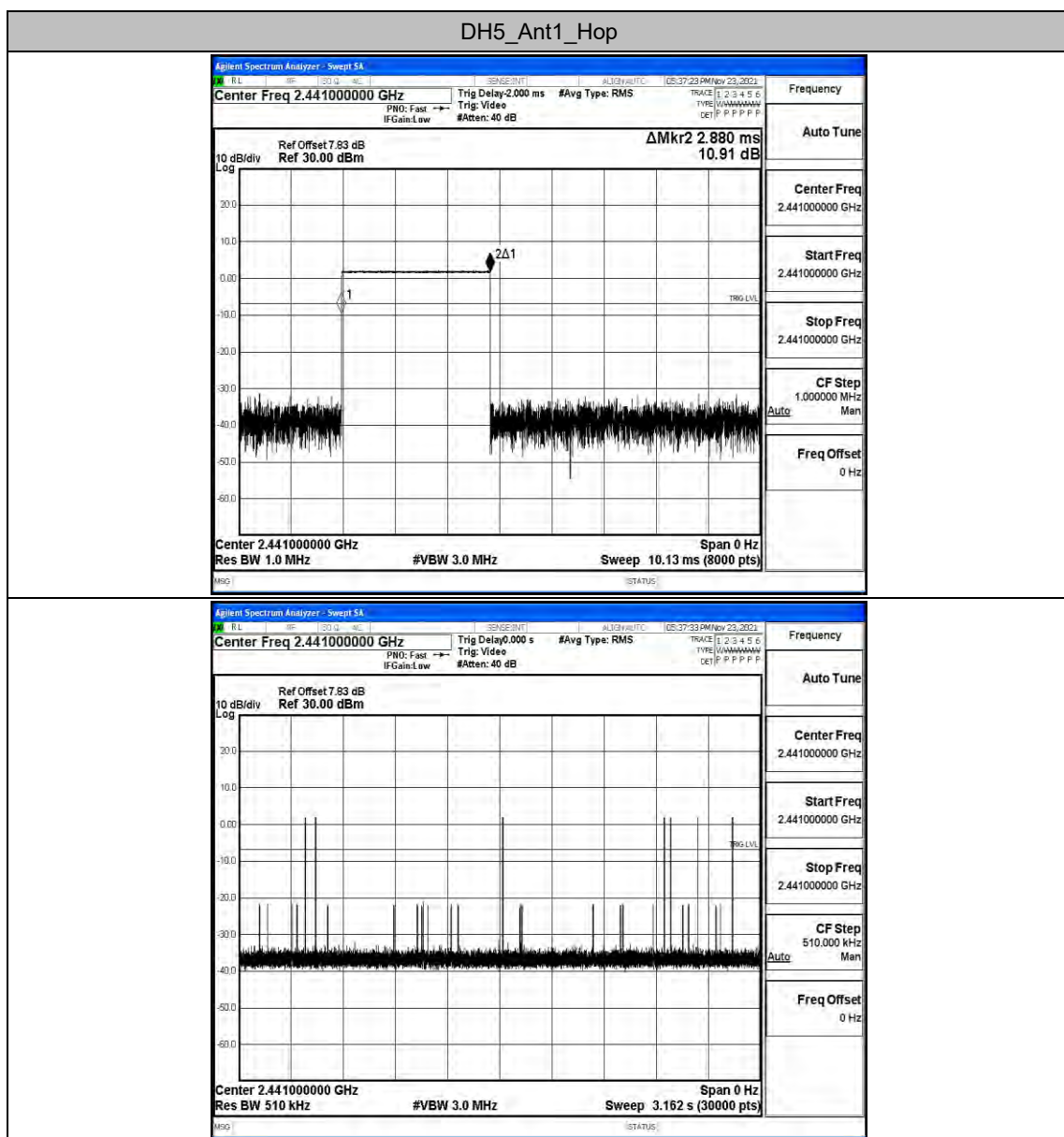


A.4 Time of occupancy

Test Result

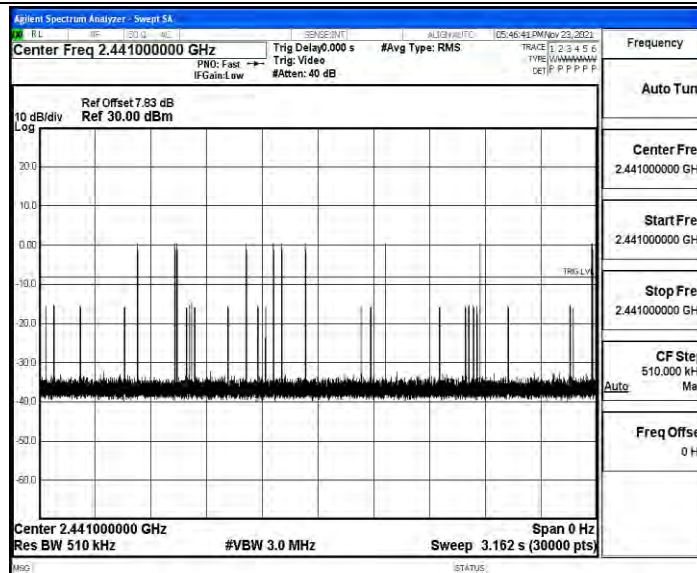
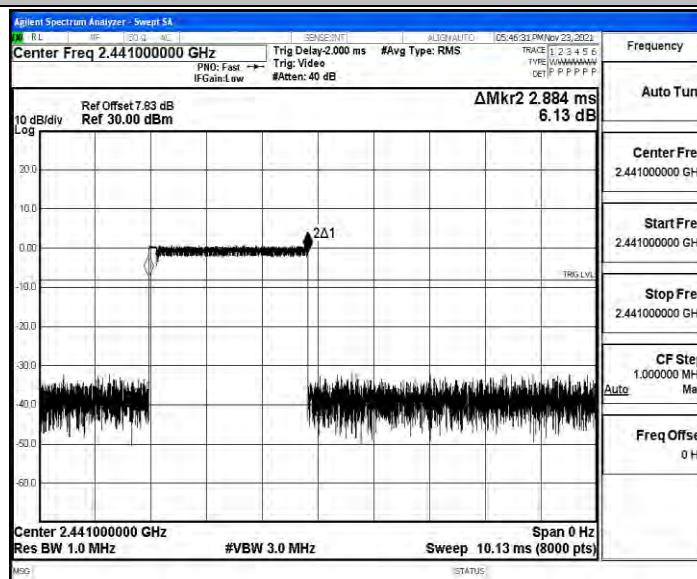
TestMode	Antenna	Channel	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH5	Ant1	Hop	2.88	80	0.23	≤0.4	PASS
2DH5	Ant1	Hop	2.88	120	0.346	≤0.4	PASS
3DH5	Ant1	Hop	2.89	120	0.346	≤0.4	PASS

Test Graphs

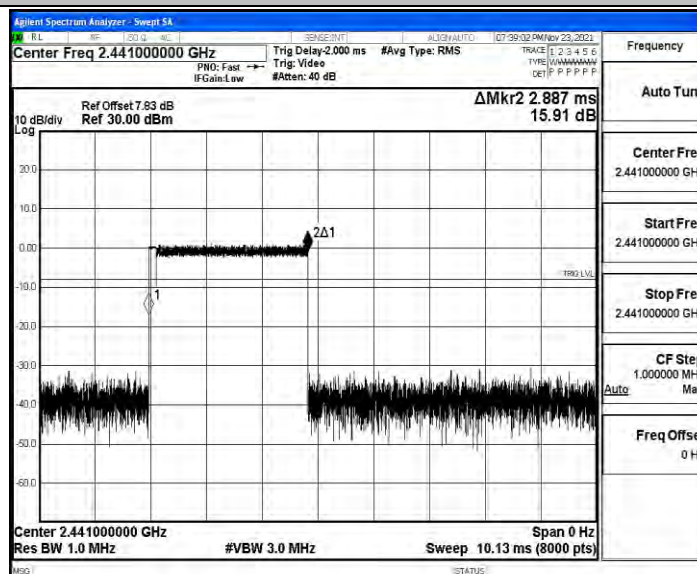


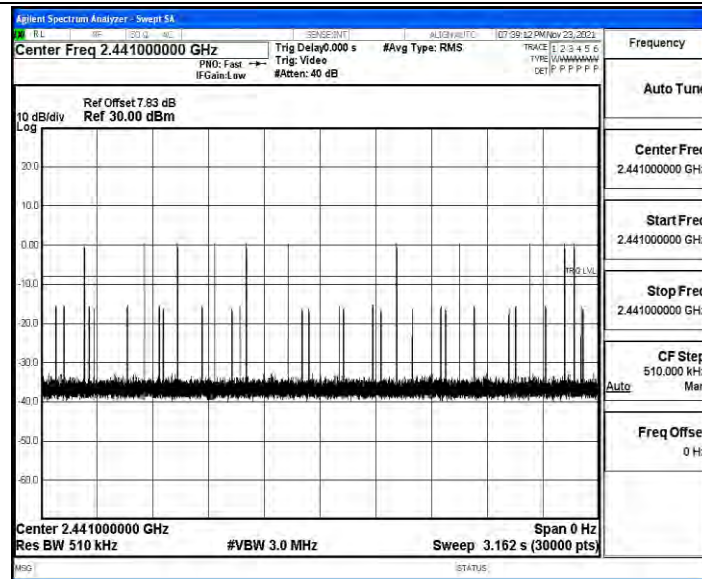
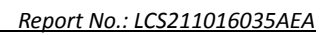


2DH5_Ant1_Hop



3DH5_Ant1_Hop





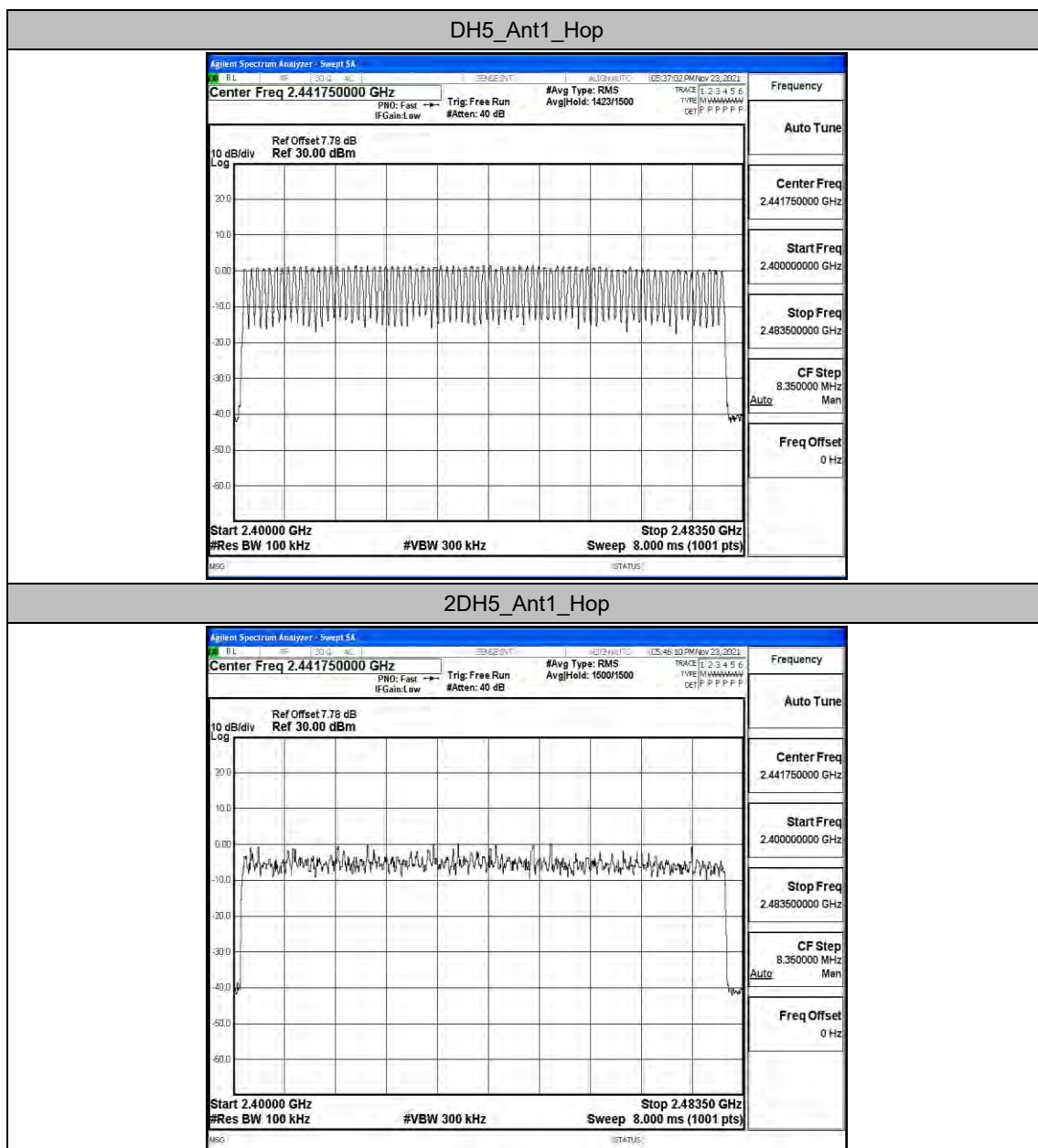


A.5 Number of hopping channels

Test Result

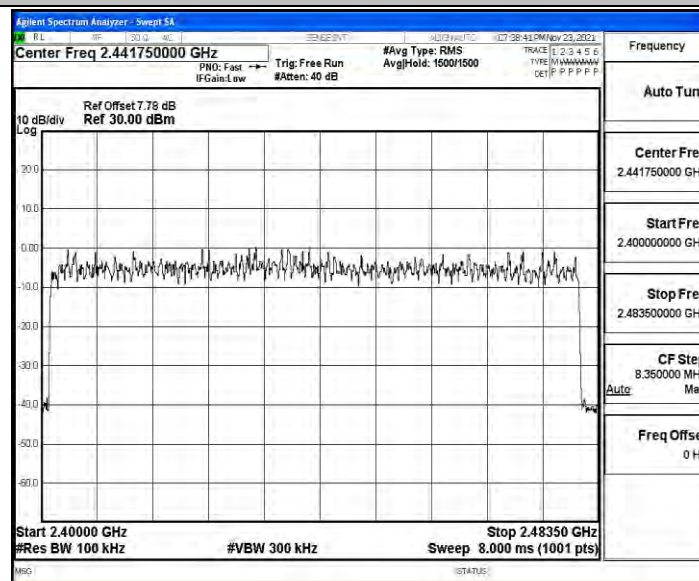
TestMode	Antenna	Channel	Result[Num]	Limit[Num]	Verdict
DH5	Ant1	Hop	79	≥15	PASS
2DH5	Ant1	Hop	79	≥15	PASS
3DH5	Ant1	Hop	79	≥15	PASS

Test Graphs





3DH5_Ant1_Hop





A.6 Band edge measurements

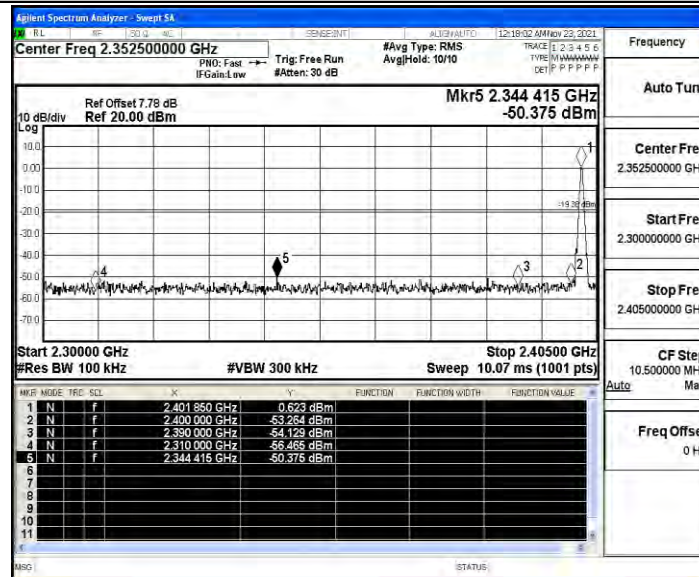
Test Result

TestMode	Antenna	ChName	Channel	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	0.62	-50.38	≤ -19.38	PASS
		High	2480	-1.15	-50.09	≤ -21.15	PASS
		Low	Hop_2402	-0.37	-51.26	≤ -20.37	PASS
		High	Hop_2480	0.76	-48.39	≤ -19.25	PASS
2DH5	Ant1	Low	2402	-2.75	-50.59	≤ -22.75	PASS
		High	2480	-5.12	-49.96	≤ -25.12	PASS
		Low	Hop_2402	-3.87	-49.09	≤ -23.87	PASS
		High	Hop_2480	-1.54	-48.23	≤ -21.54	PASS
3DH5	Ant1	Low	2402	-4.08	-50.38	≤ -24.08	PASS
		High	2480	-4.05	-50.04	≤ -24.05	PASS
		Low	Hop_2402	-0.31	-49.85	≤ -20.31	PASS
		High	Hop_2480	-1.23	-48.48	≤ -21.23	PASS

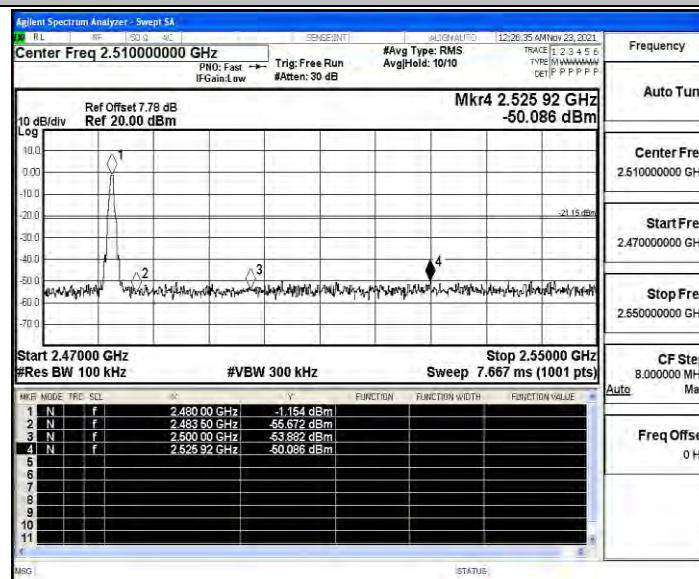


Test Graphs

DH5_Ant1_Low_2402

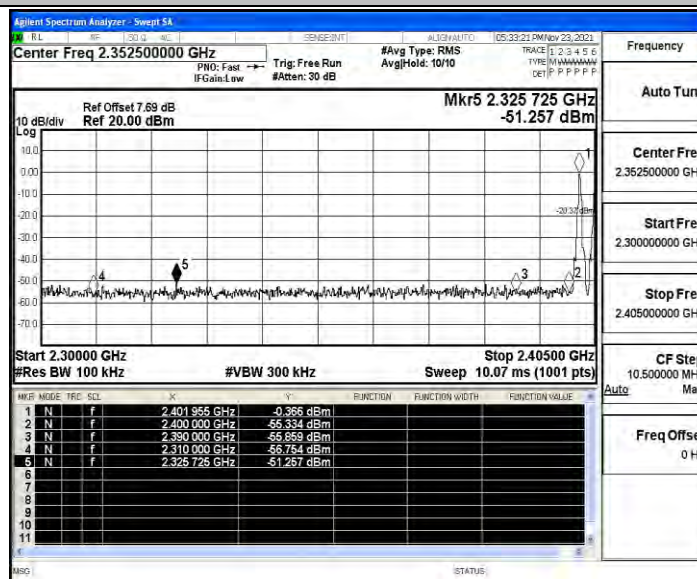


DH5_Ant1_High_2480

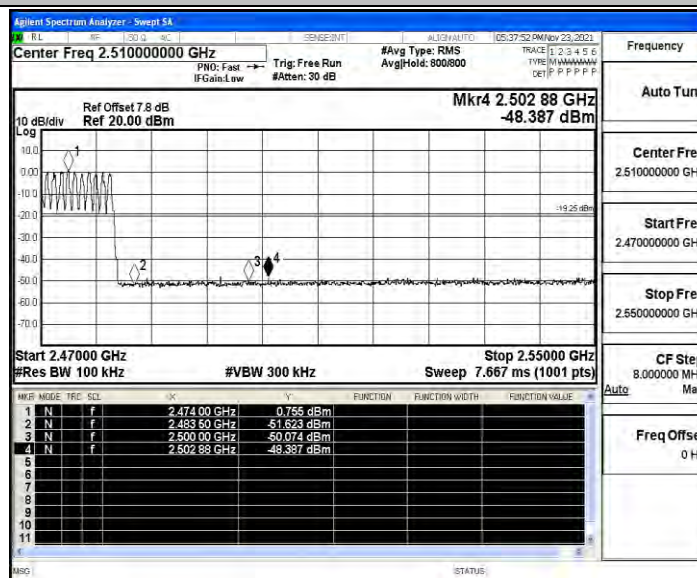




DH5_Ant1_Low_Hop_2402

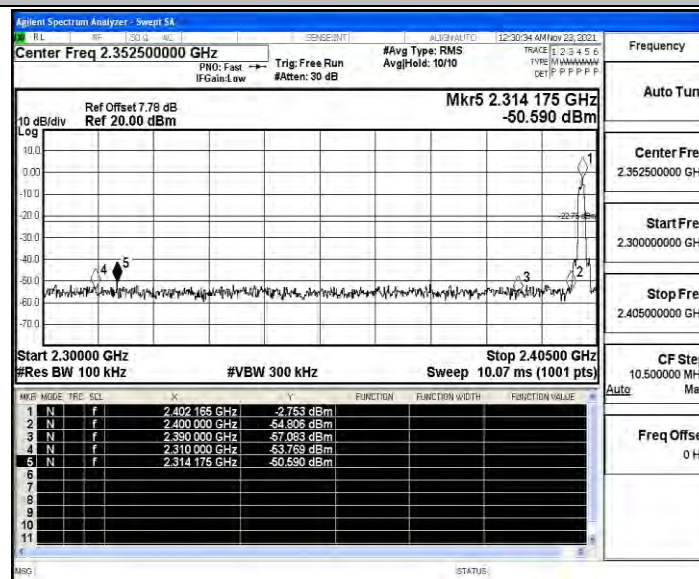


DH5_Ant1_High_Hop_2480

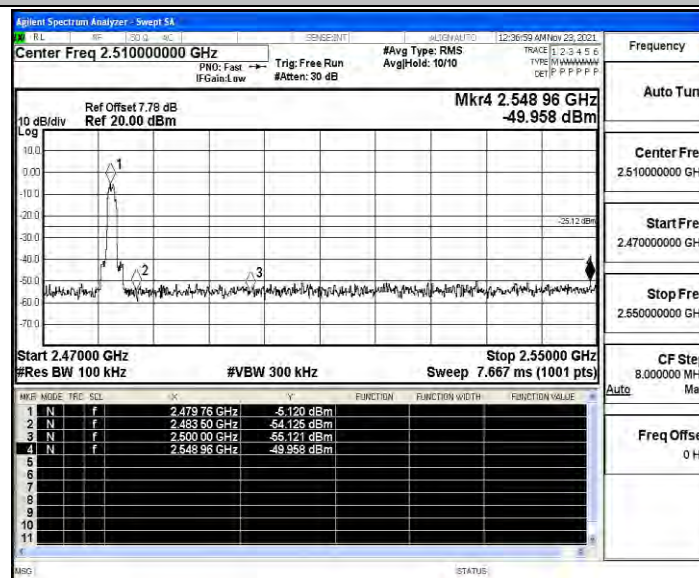




2DH5_Ant1_Low_2402

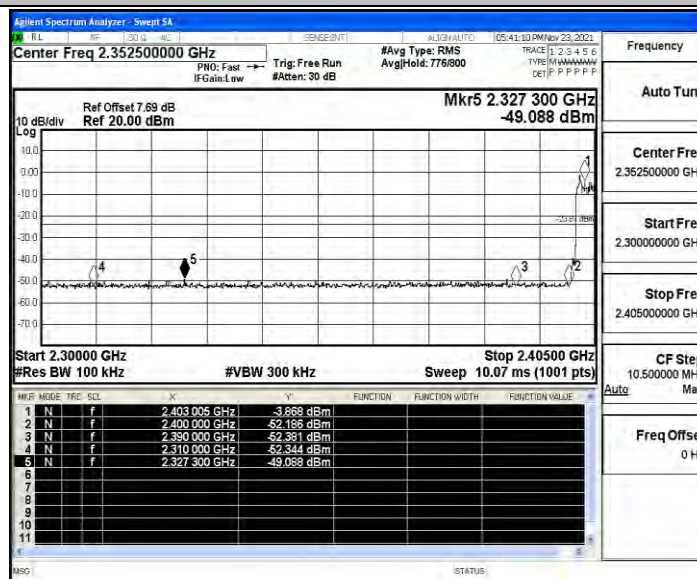


2DH5_Ant1_High_2480

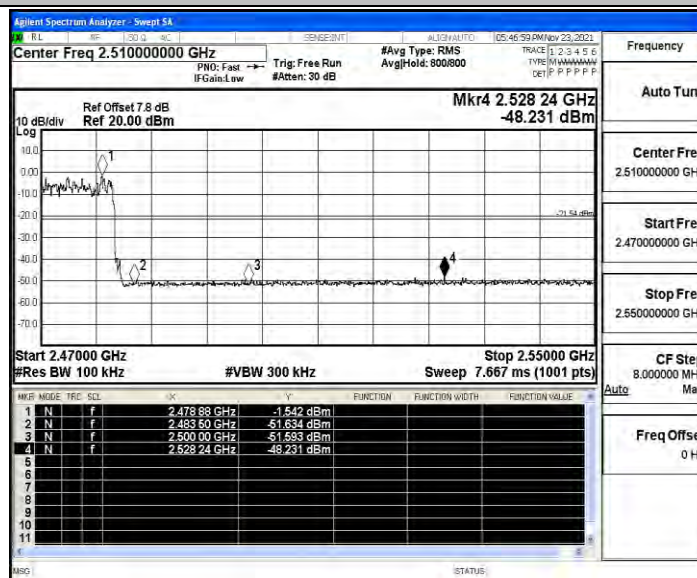




2DH5_Ant1_Low_Hop_2402

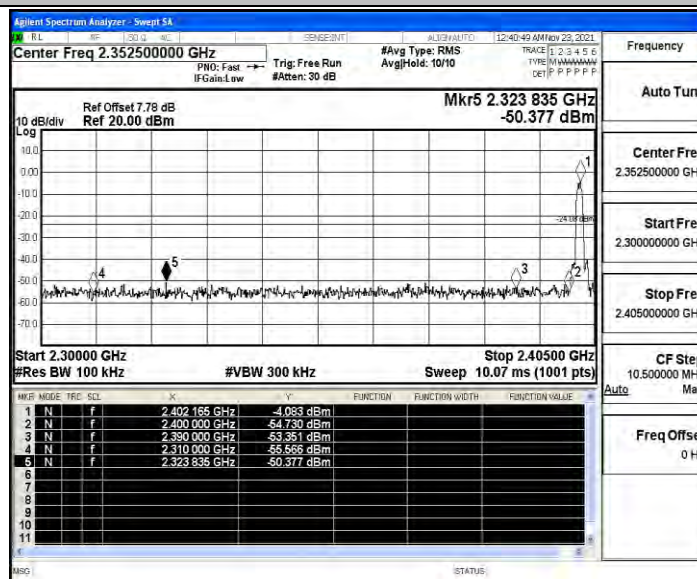


2DH5_Ant1_High_Hop_2480

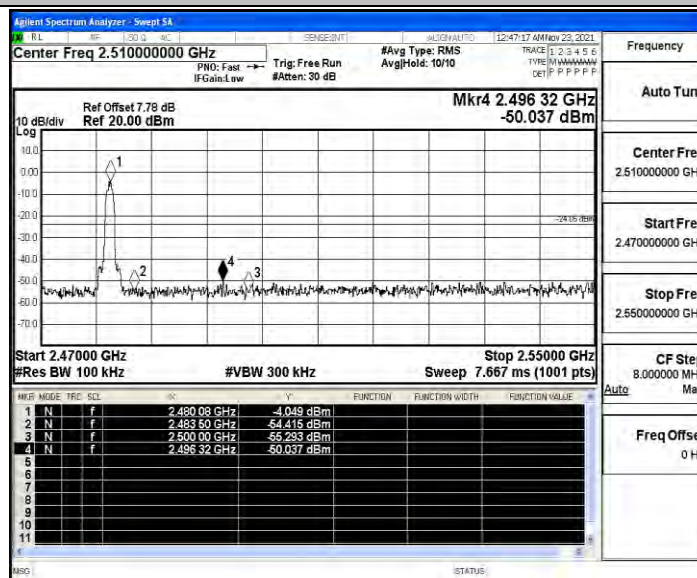




3DH5_Ant1_Low_2402

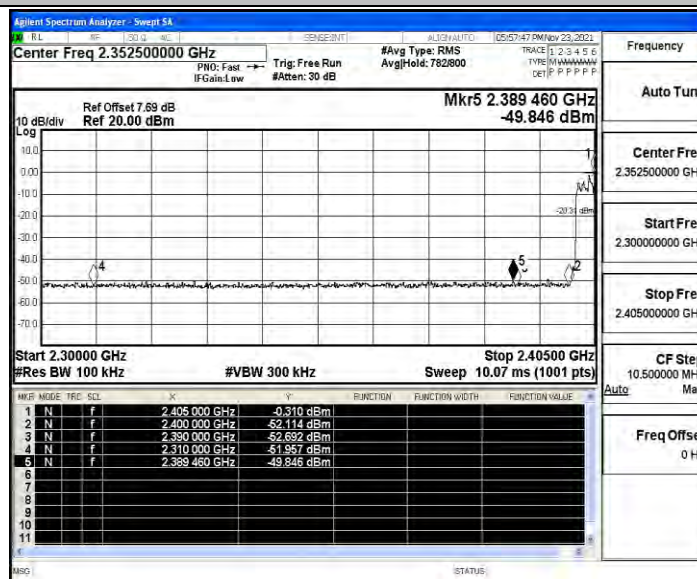


3DH5_Ant1_High_2480

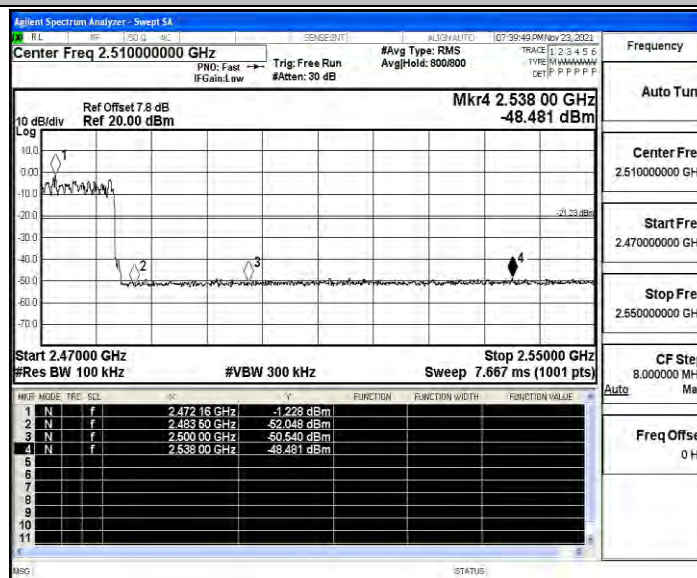




3DH5_Ant1_Low_Hop_2402



3DH5_Ant1_High_Hop_2480





A.7 Conducted Spurious Emission

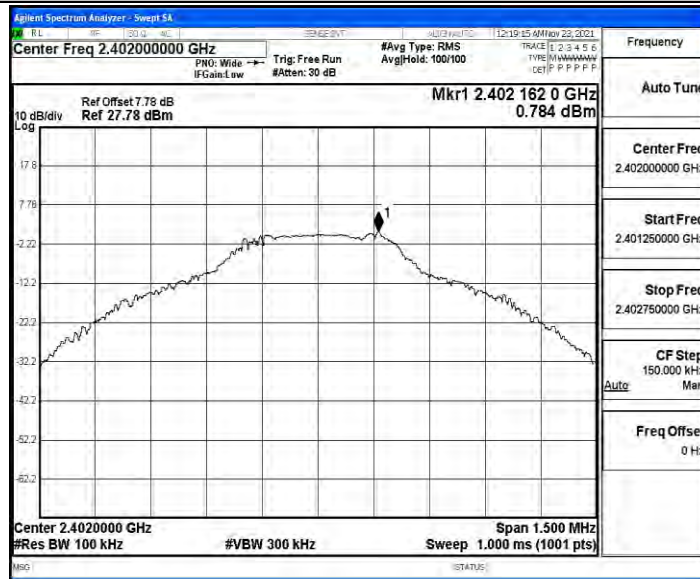
Test Result

TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	Reference	0.78	0.78	---	PASS
			30~1000	0.78	-61.59	≤-19.22	PASS
			1000~26500	0.78	-47.46	≤-19.22	PASS
		2441	Reference	1.73	1.73	---	PASS
			30~1000	1.73	-61.01	≤-18.27	PASS
			1000~26500	1.73	-47.01	≤-18.27	PASS
		2480	Reference	-0.38	-0.38	---	PASS
			30~1000	-0.38	-61.48	≤-20.38	PASS
			1000~26500	-0.38	-47.29	≤-20.38	PASS
2DH5	Ant1	2402	Reference	-1.68	-1.68	---	PASS
			30~1000	-1.68	-60.85	≤-21.68	PASS
			1000~26500	-1.68	-46.83	≤-21.68	PASS
		2441	Reference	-0.07	-0.07	---	PASS
			30~1000	-0.07	-61.31	≤-20.07	PASS
			1000~26500	-0.07	-47.32	≤-20.07	PASS
		2480	Reference	-1.59	-1.59	---	PASS
			30~1000	-1.59	-61.89	≤-21.59	PASS
			1000~26500	-1.59	-46.68	≤-21.59	PASS
3DH5	Ant1	2402	Reference	-0.73	-0.73	---	PASS
			30~1000	-0.73	-61.36	≤-20.73	PASS
			1000~26500	-0.73	-47.31	≤-20.73	PASS
		2441	Reference	-0.16	-0.16	---	PASS
			30~1000	-0.16	-61.44	≤-20.16	PASS
			1000~26500	-0.16	-46.3	≤-20.16	PASS
		2480	Reference	-1.23	-1.23	---	PASS
			30~1000	-1.23	-60.97	≤-21.23	PASS
			1000~26500	-1.23	-47.03	≤-21.23	PASS

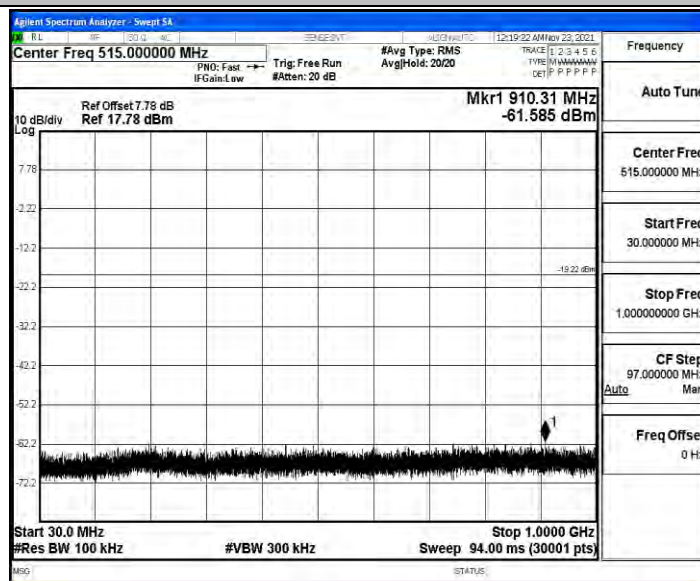


Test Graphs

DH5_Ant1_2402_0~Reference

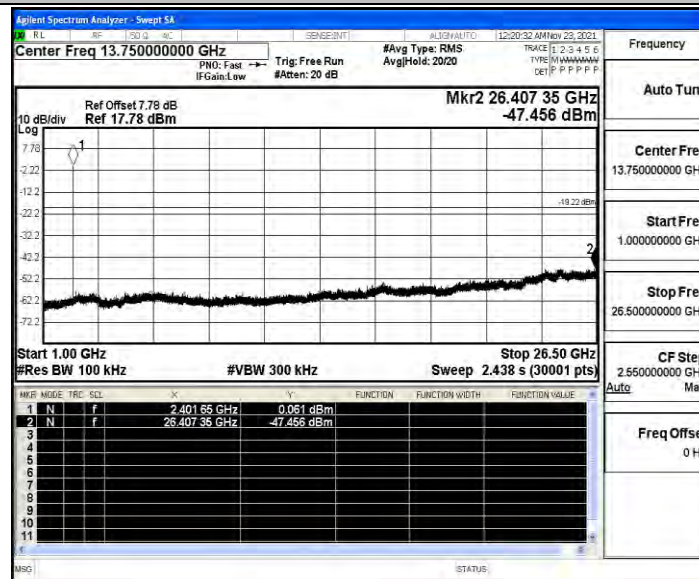


DH5_Ant1_2402_30~1000

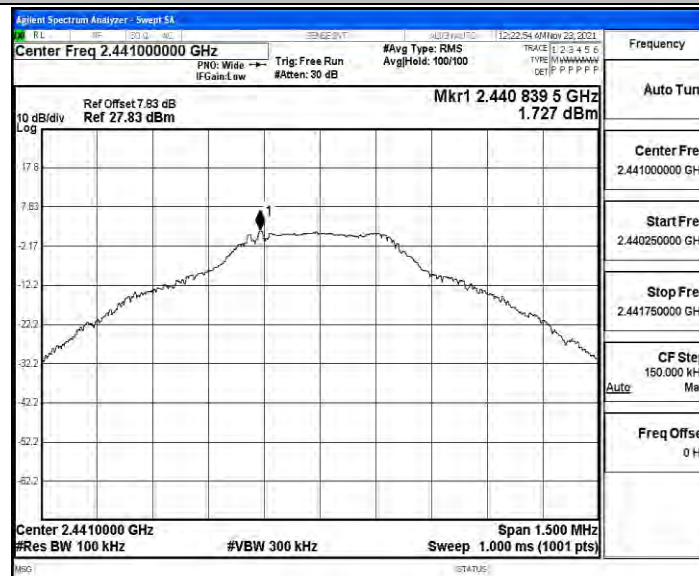




DH5_Ant1_2402_1000~26500

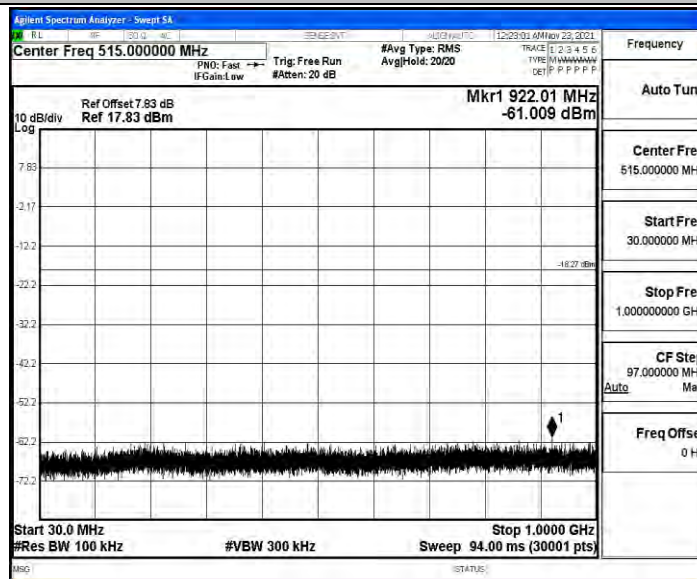


DH5_Ant1_2441_0~Reference

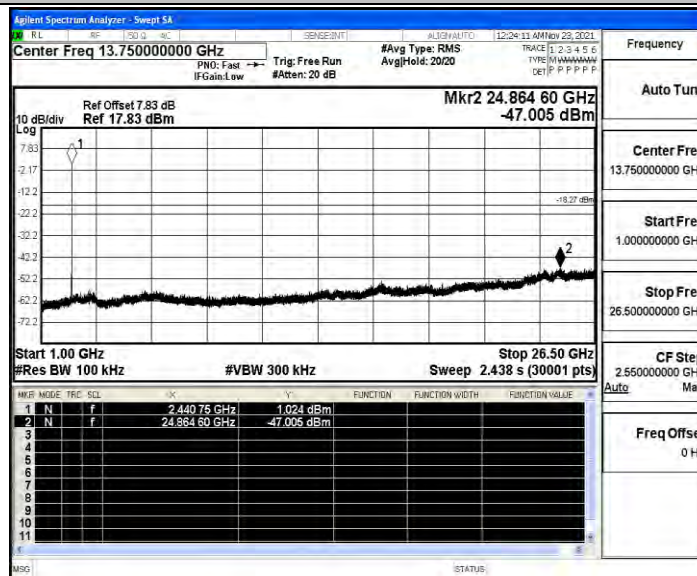




DH5_Ant1_2441_30~1000

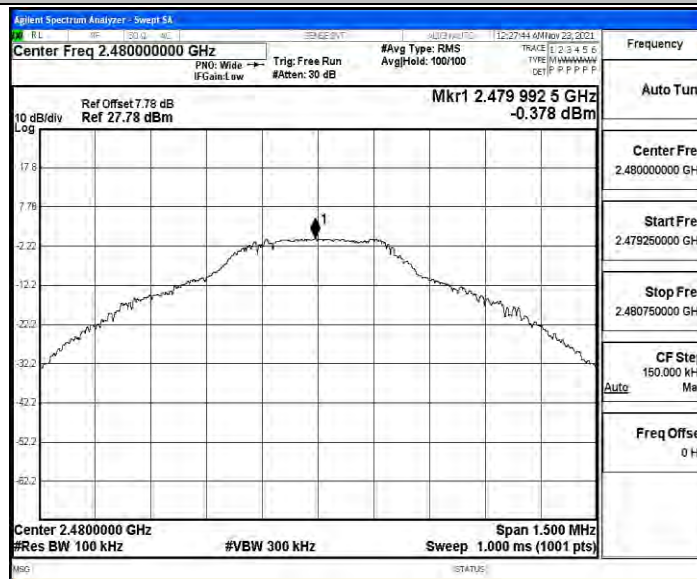


DH5_Ant1_2441_1000~26500

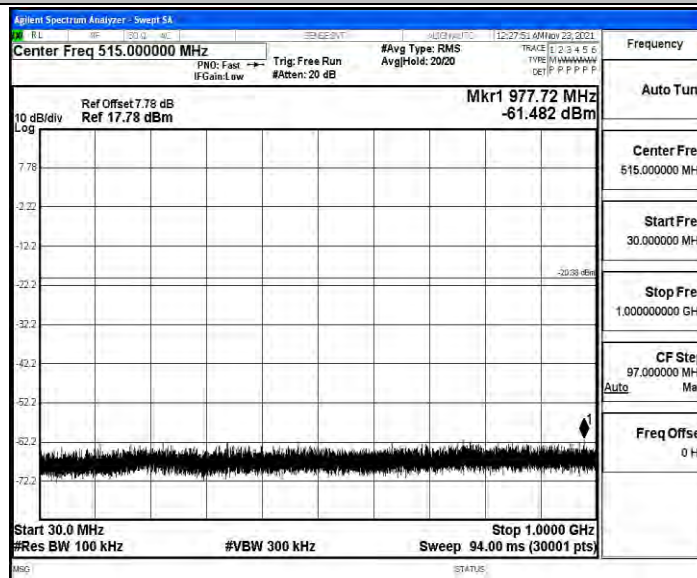




DH5_Ant1_2480_0~Reference

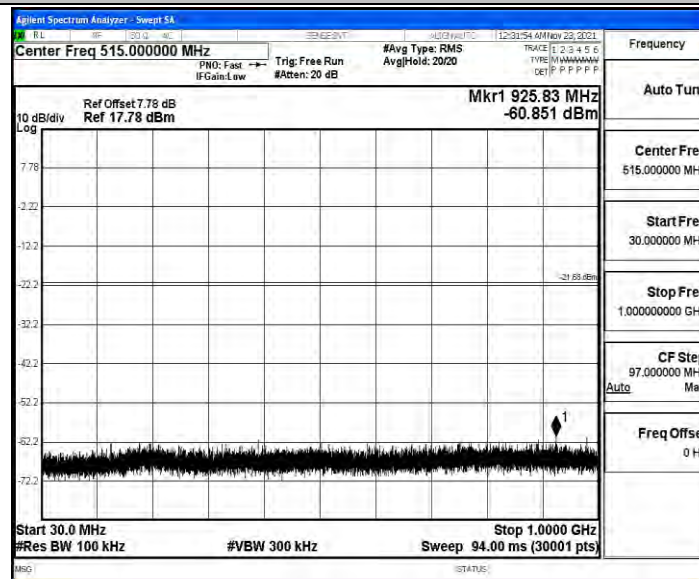


DH5_Ant1_2480_30~1000

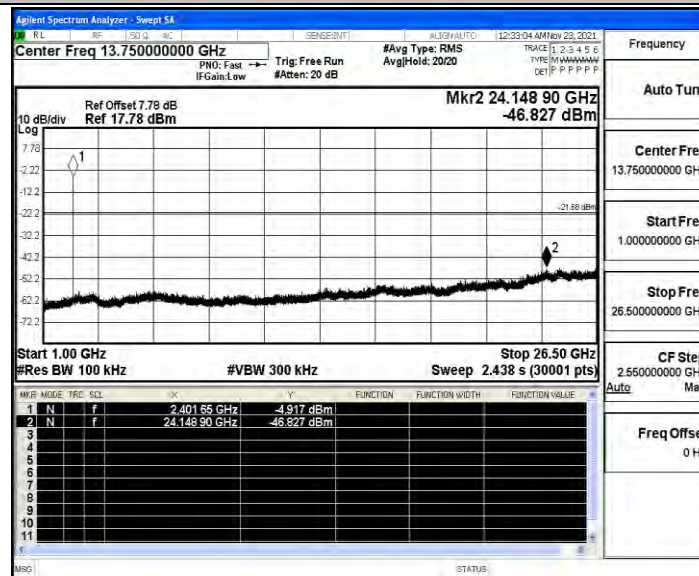




2DH5_Ant1_2402_30~1000

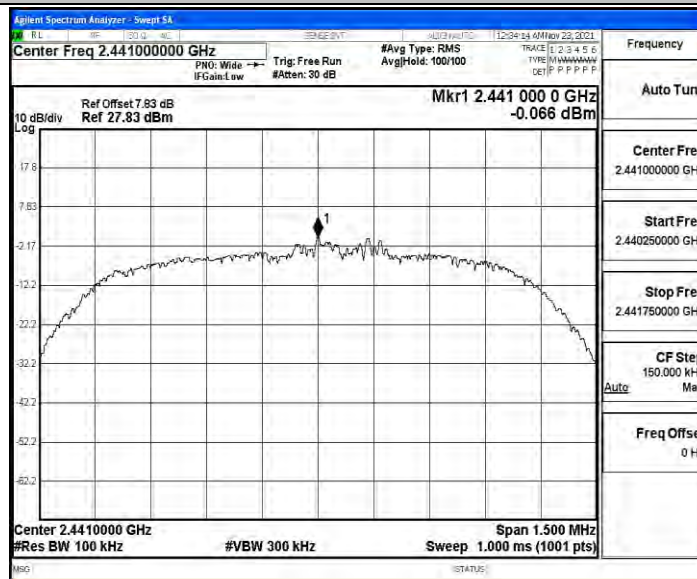


2DH5_Ant1_2402_1000~26500

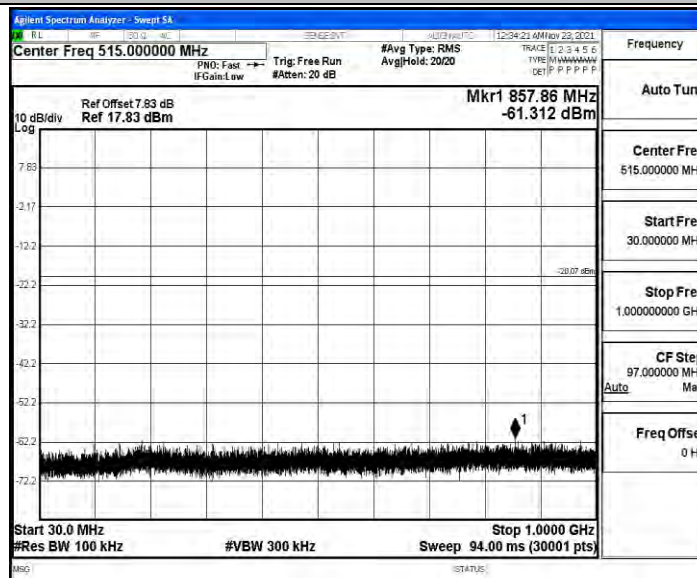




2DH5_Ant1_2441_0~Reference

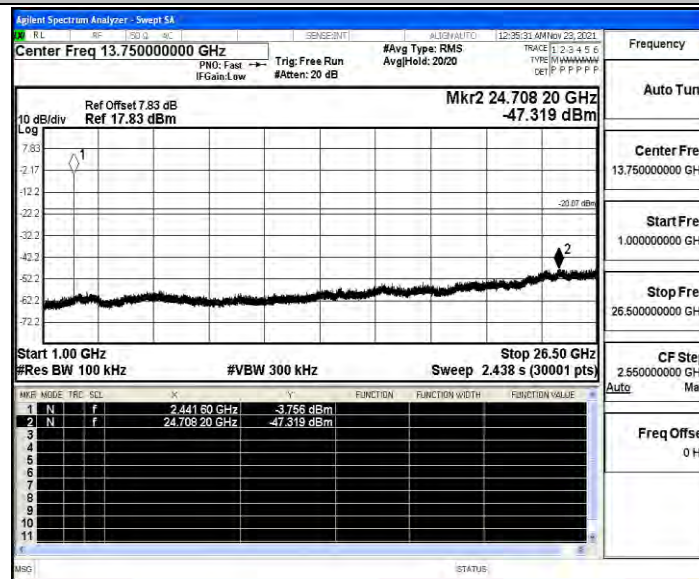


2DH5_Ant1_2441_30~1000

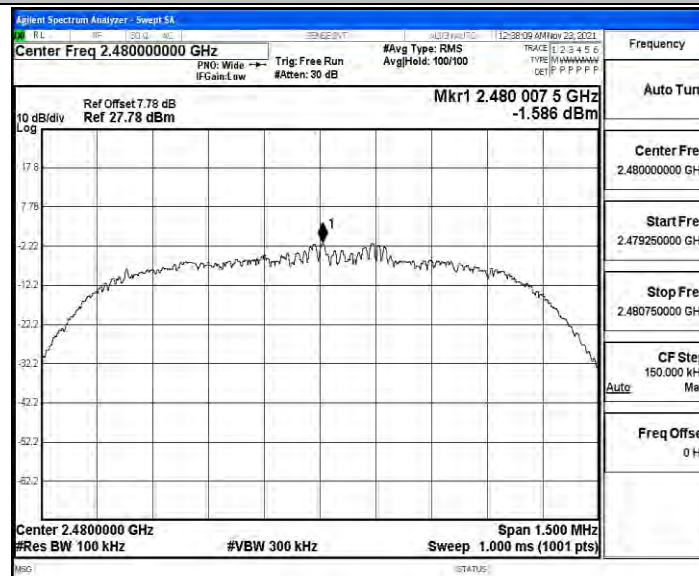


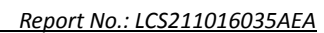


2DH5_Ant1_2441_1000~26500



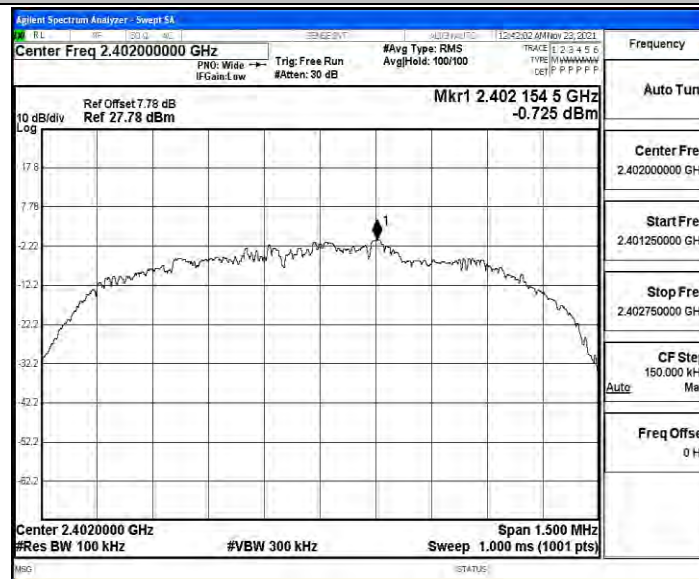
2DH5_Ant1_2480_0~Reference



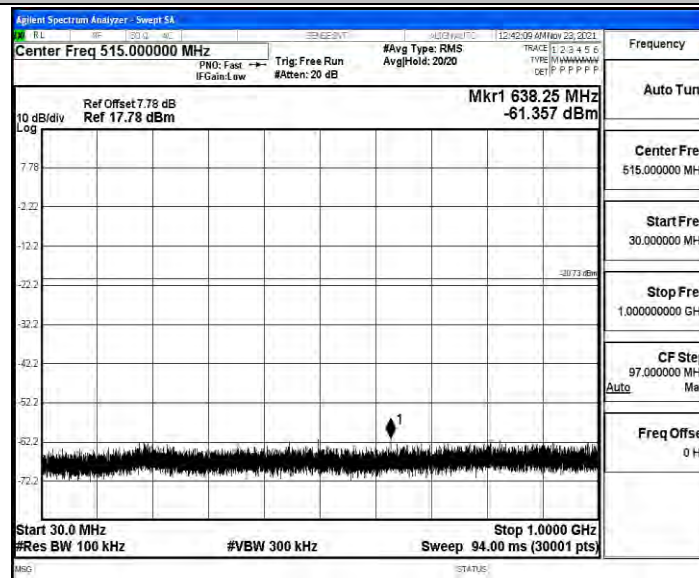




3DH5_Ant1_2402_0~Reference

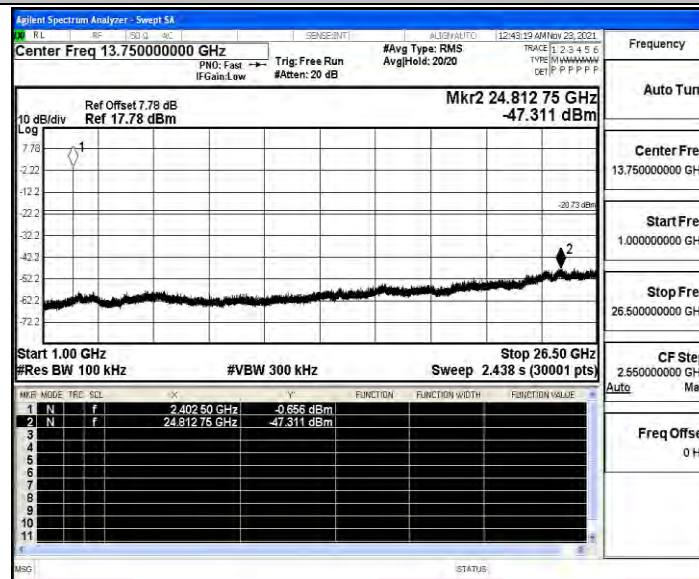


3DH5_Ant1_2402_30~1000

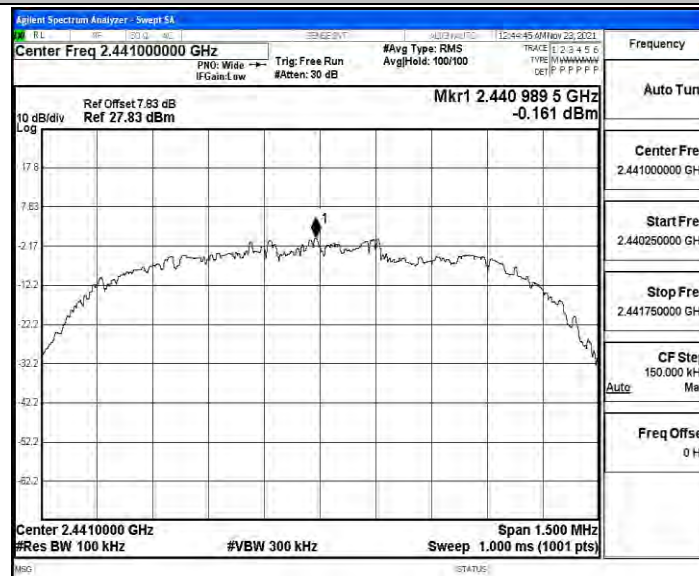




3DH5_Ant1_2402_1000~26500

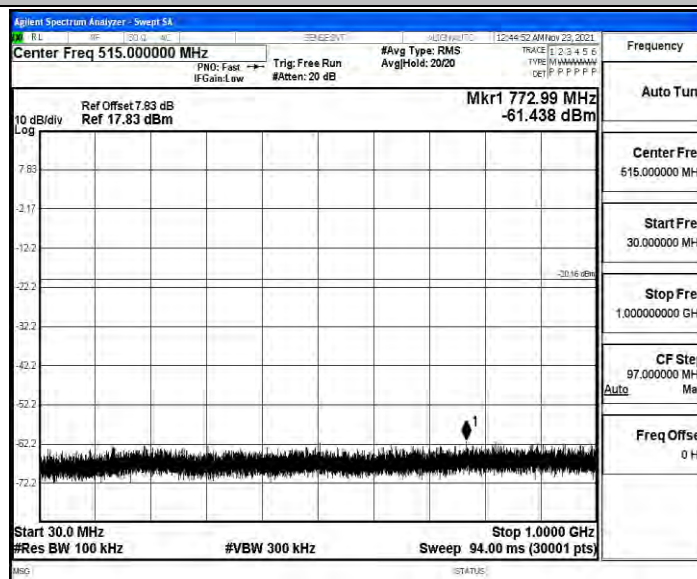


3DH5_Ant1_2441_0~Reference

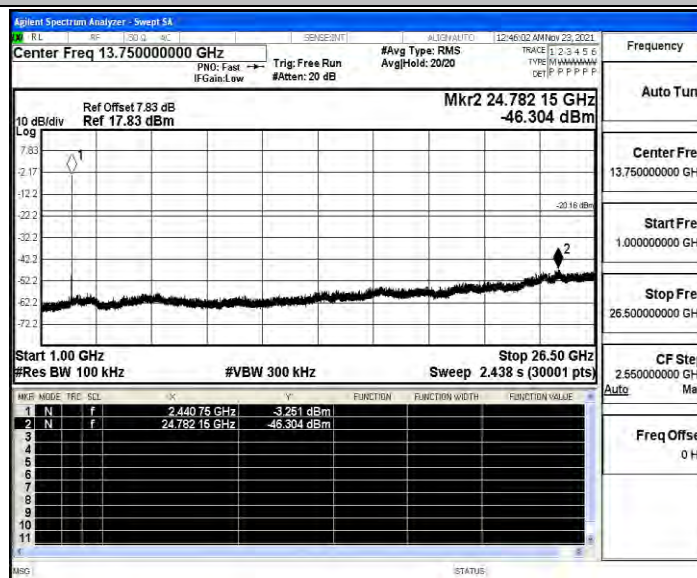




3DH5_Ant1_2441_30~1000

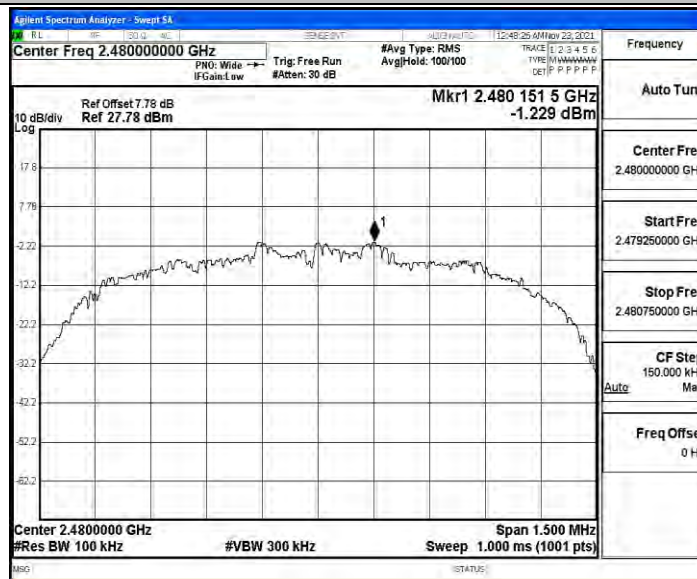


3DH5_Ant1_2441_1000~26500

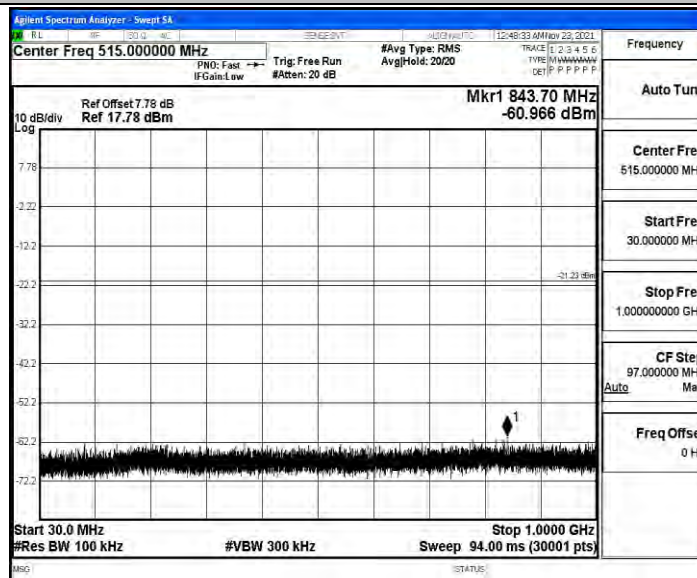




3DH5_Ant1_2480_0~Reference

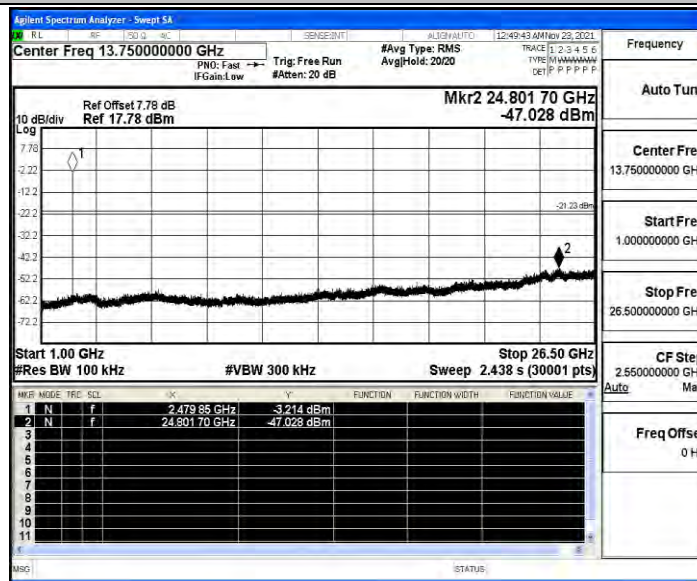


3DH5_Ant1_2480_30~1000





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	-48.91	≤-41.20	46.29	≤54	PASS
				AV	2387.885	-48.48	≤-41.20	46.72	≤54	PASS
				AV	2390.000	-48.7	≤-41.20	46.50	≤54	PASS
				Peak	2310.000	-42.72	≤-21.20	52.48	≤74	PASS
				Peak	2384.105	-38.67	≤-21.20	56.53	≤74	PASS
				Peak	2390.000	-41.71	≤-21.20	53.49	≤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	-47.94	≤-41.20	47.26	≤54	PASS
				Peak	2483.500	-41.71	≤-21.20	53.49	≤74	PASS
				Peak	2487.840	-38.74	≤-21.20	56.46	≤74	PASS
				Peak	2500.000	-41.94	≤-21.20	53.26	≤74	PASS
		Low	Hop_24 02	Peak	2310.000	-43.16	≤-21.20	52.04	≤74	PASS
				Peak	2379.170	-39.31	≤-21.20	55.89	≤74	PASS
				Peak	2390.000	-42.42	≤-21.20	52.78	≤74	PASS
		High	Hop_24 80	Peak	2483.500	-39.51	≤-21.20	55.69	≤74	PASS
				Peak	2486.720	-37.75	≤-21.20	57.45	≤74	PASS
				Peak	2500.000	-39.39	≤-21.20	55.81	≤74	PASS
2DH5	Ant1	Low	2402	AV	2310.000	-49.03	≤-41.20	46.17	≤54	PASS
				AV	2387.570	-48.52	≤-41.20	46.68	≤54	PASS
				AV	2390.000	-48.66	≤-41.20	46.54	≤54	PASS
				Peak	2310.000	-42.61	≤-21.20	52.59	≤74	PASS
				Peak	2352.290	-38.81	≤-21.20	56.39	≤74	PASS
				Peak	2390.000	-41.45	≤-21.20	53.75	≤74	PASS
		High	2480	AV	2483.500	-47.99	≤-41.20	47.21	≤54	PASS
				AV	2490.320	-47.9	≤-41.20	47.30	≤54	PASS
				AV	2500.000	-48.07	≤-41.20	47.13	≤54	PASS
				Peak	2483.500	-41.4	≤-21.20	53.80	≤74	PASS
				Peak	2494.400	-38.53	≤-21.20	56.67	≤74	PASS
				Peak	2500.000	-43.19	≤-21.20	52.01	≤74	PASS
		Low	Hop_24 02	Peak	2310.000	-40.88	≤-21.20	54.32	≤74	PASS
				Peak	2363.315	-37.89	≤-21.20	57.31	≤74	PASS
				Peak	2390.000	-39.22	≤-21.20	55.98	≤74	PASS
		High	Hop_24 80	Peak	2483.500	-39.67	≤-21.20	55.53	≤74	PASS
				Peak	2492.160	-38.14	≤-21.20	57.06	≤74	PASS
				Peak	2500.000	-39.48	≤-21.20	55.72	≤74	PASS
3DH5	Ant1	Low	2402	AV	2310.000	-49	≤-41.20	46.20	≤54	PASS



				AV	2387.150	-48.51	≤ -41.20	46.69	≤ 54	PASS
				AV	2390.000	-48.65	≤ -41.20	46.55	≤ 54	PASS
				Peak	2310.000	-40.92	≤ -21.20	54.28	≤ 74	PASS
				Peak	2369.300	-38.95	≤ -21.20	56.25	≤ 74	PASS
				Peak	2390.000	-41.46	≤ -21.20	53.74	≤ 74	PASS
		High	2480	AV	2483.500	-47.88	≤ -41.20	47.32	≤ 54	PASS
				AV	2483.520	-47.88	≤ -41.20	47.32	≤ 54	PASS
				AV	2500.000	-48.16	≤ -41.20	47.04	≤ 54	PASS
				Peak	2483.500	-40.9	≤ -21.20	54.30	≤ 74	PASS
				Peak	2494.480	-38.53	≤ -21.20	56.67	≤ 74	PASS
				Peak	2500.000	-42.2	≤ -21.20	53.00	≤ 74	PASS
		Low	Hop_24 02	Peak	2310.000	-41.21	≤ -21.20	53.99	≤ 74	PASS
				Peak	2339.060	-37.7	≤ -21.20	57.50	≤ 74	PASS
				Peak	2390.000	-39.68	≤ -21.20	55.52	≤ 74	PASS
		High	Hop_24 80	Peak	2483.500	-40.1	≤ -21.20	55.10	≤ 74	PASS
				Peak	2497.920	-37.76	≤ -21.20	57.44	≤ 74	PASS
				Peak	2500.000	-38.71	≤ -21.20	56.49	≤ 74	PASS

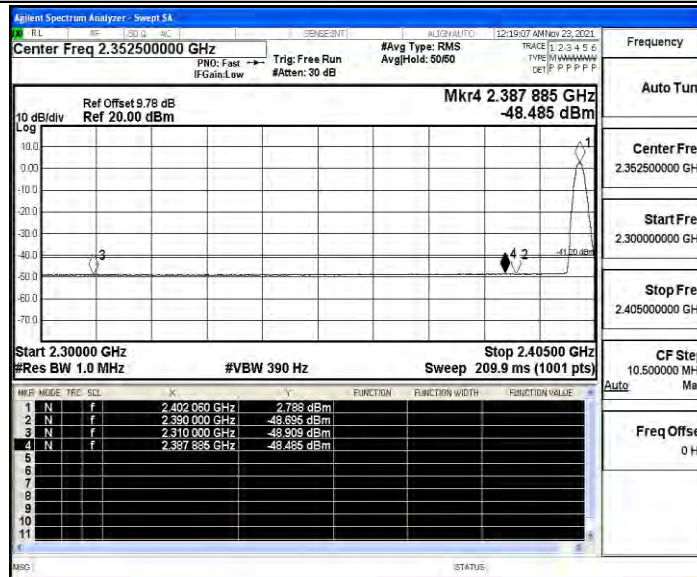
Note:

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.

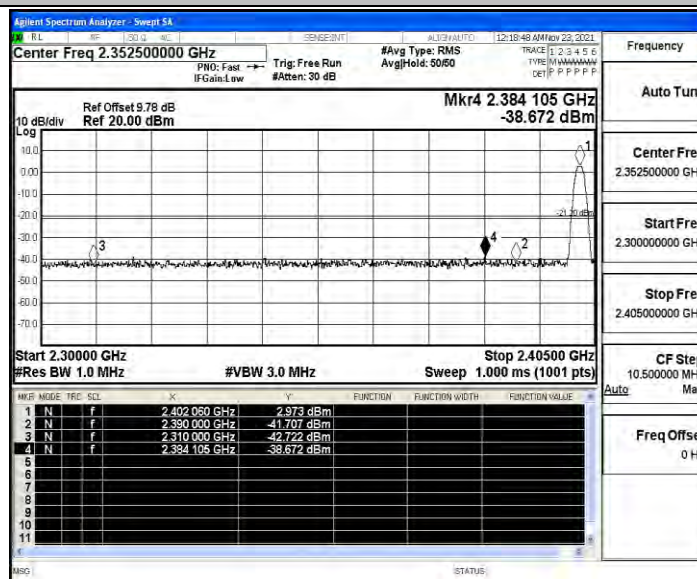


Test Graphs

DH5_Ant1_Low_2402_AV

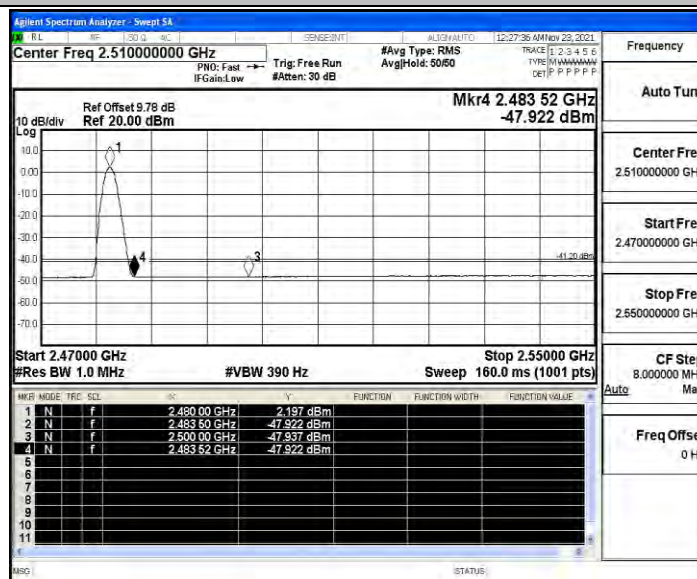


DH5_Ant1_Low_2402_Peak

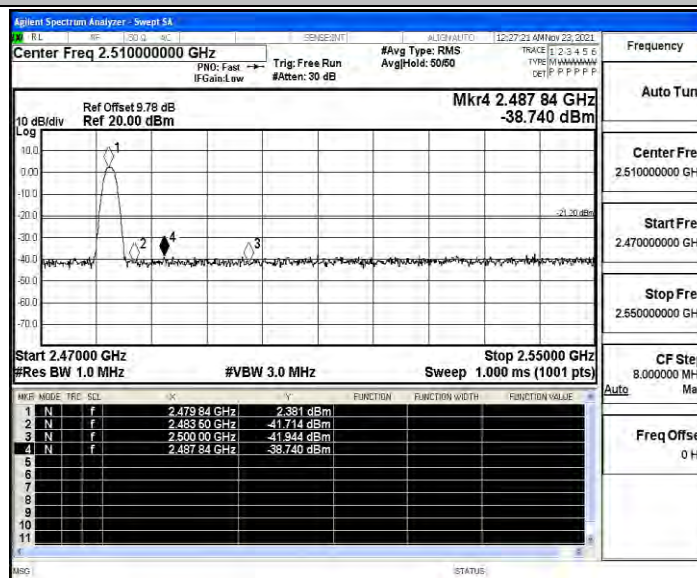




DH5_Ant1_High_2480_AV

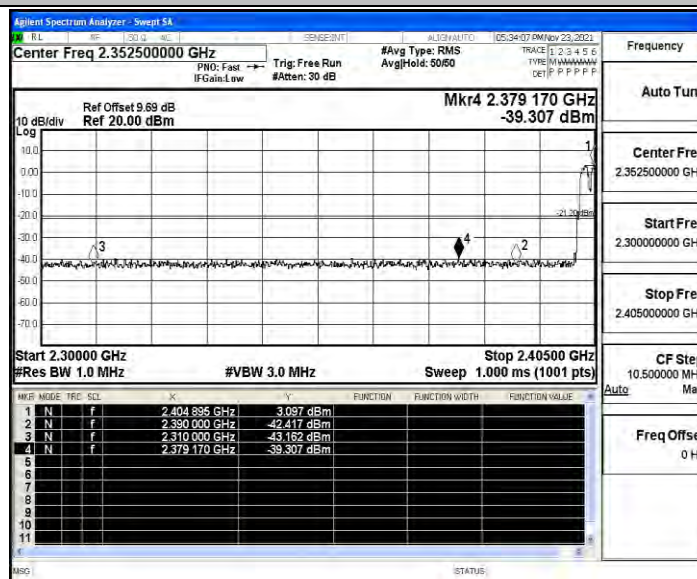


DH5_Ant1_High_2480_Peak

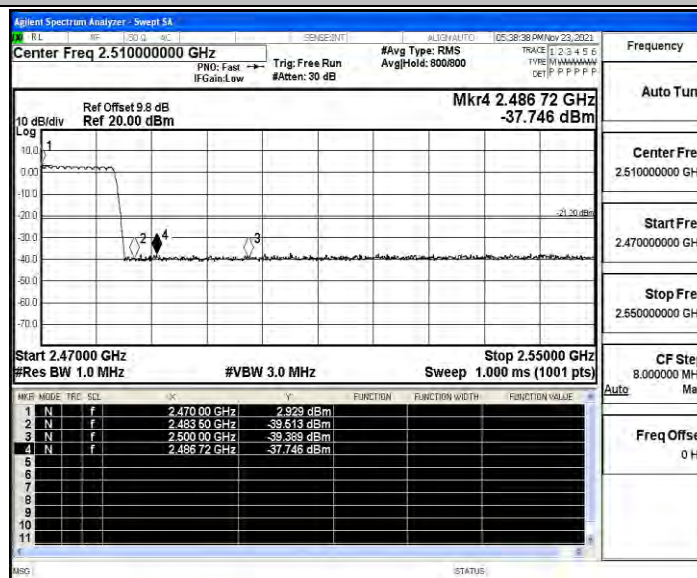


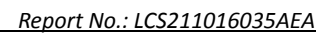


DH5_Ant1_Low_Hop_2402_Peak



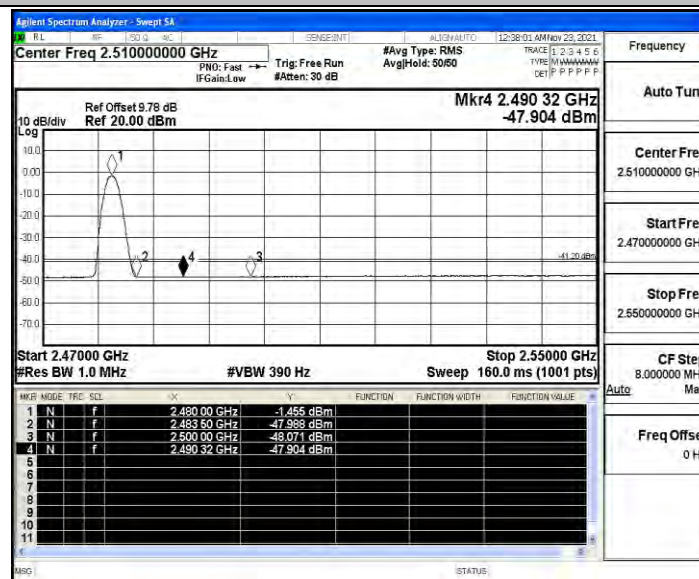
DH5_Ant1_High_Hop_2480_Peak



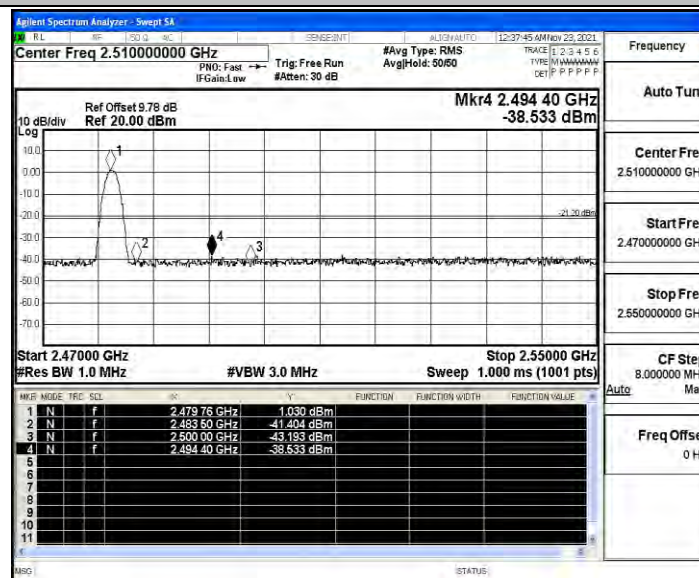




2DH5_Ant1_High_2480_AV

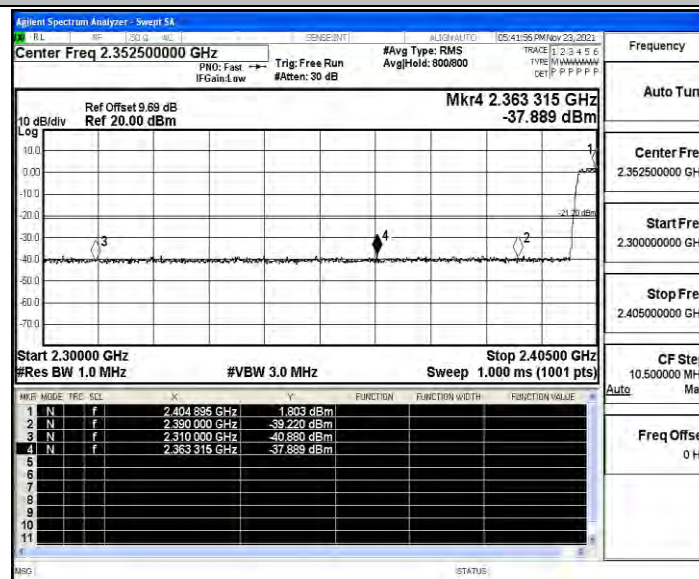


2DH5_Ant1_High_2480_Peak

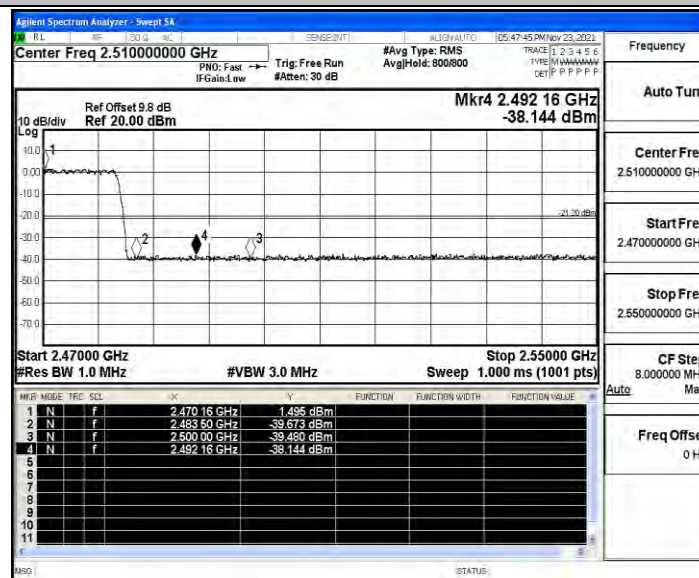




2DH5_Ant1_Low_Hop_2402_Peak

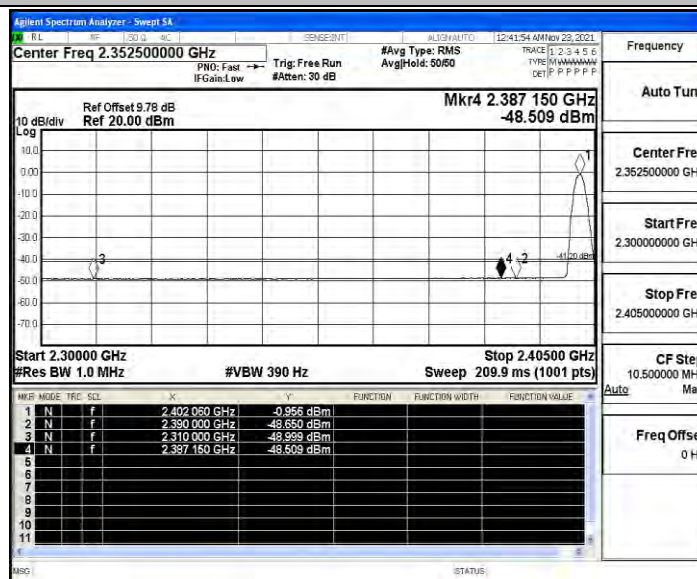


2DH5_Ant1_High_Hop_2480_Peak

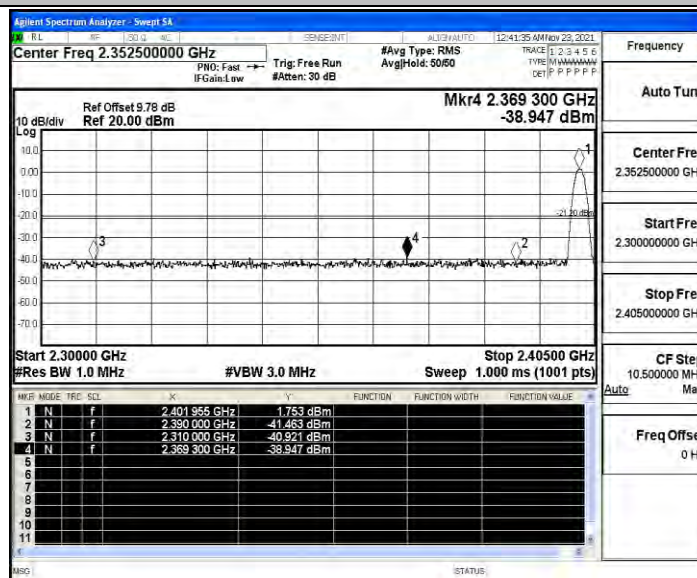




3DH5_Ant1_Low_2402_AV

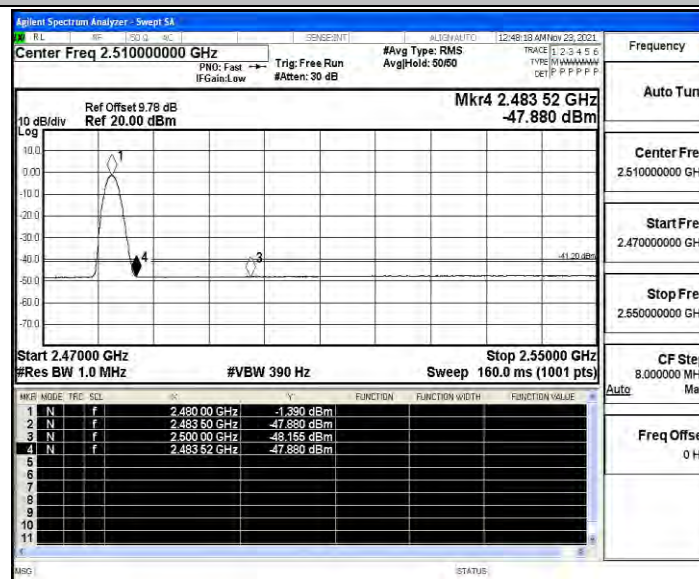


3DH5_Ant1_Low_2402_Peak

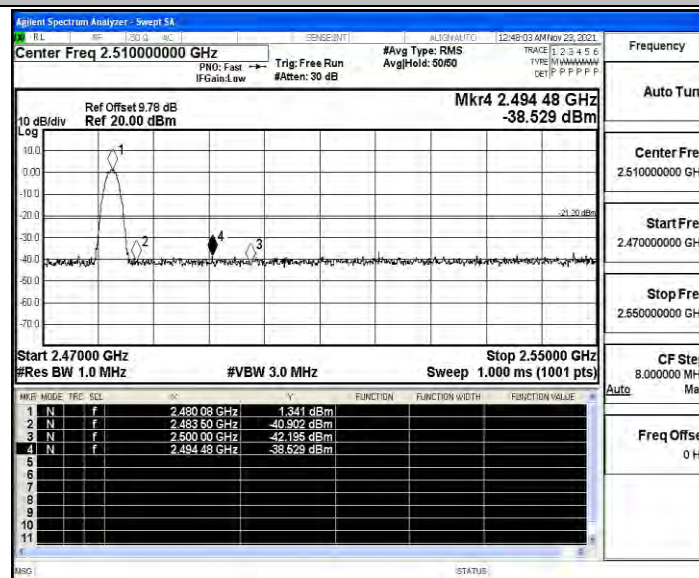




3DH5_Ant1_High_2480_AV

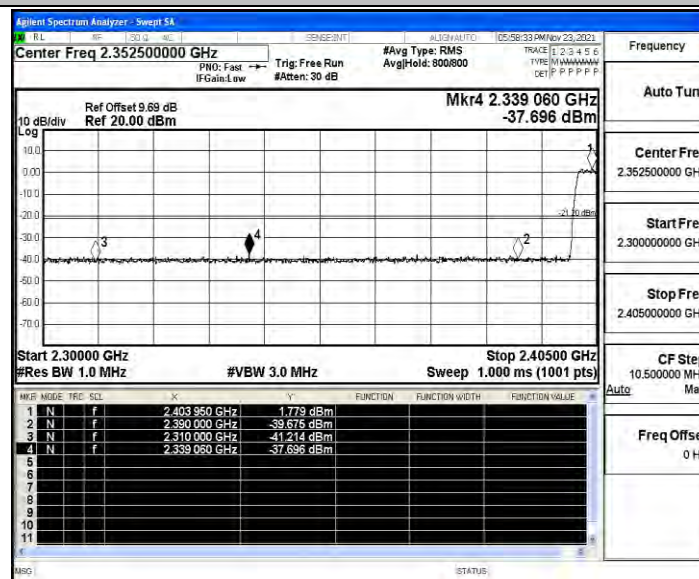


3DH5_Ant1_High_2480_Peak





3DH5_Ant1_Low_Hop_2402_Peak



3DH5_Ant1_High_Hop_2480_Peak

