



Appendix A

RF Test Data for BT V5.0 (DSS) (Conducted Measurement)

Product Name: Wireless Earbuds

Test Model: EB1

Environmental Conditions

Temperature:	23.5℃
Relative Humidity:	52.2%
ATM Pressure:	100.0 kPa
Test Engineer:	 Monkey Li
Supervised by:	 Li Huan



A.1 20dB Emission Bandwidth

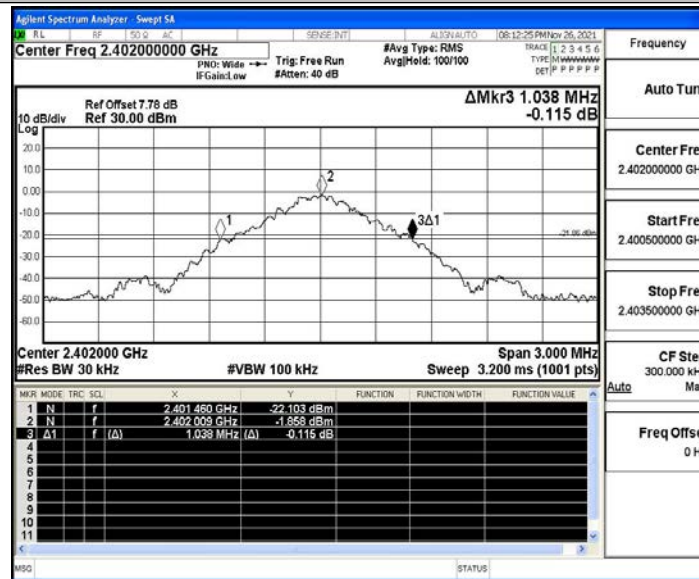
Test Result

TestMode	Antenna	Channel	20db EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	1.038	2401.460	2402.498	---	PASS
		2441	1.032	2440.463	2441.495	---	PASS
		2480	0.948	2479.532	2480.480	---	PASS
2DH5	Ant1	2402	1.311	2401.343	2402.654	---	PASS
		2441	1.329	2440.328	2441.657	---	PASS
		2480	1.284	2479.364	2480.648	---	PASS
3DH5	Ant1	2402	1.305	2401.346	2402.651	---	PASS
		2441	1.323	2440.337	2441.660	---	PASS
		2480	1.305	2479.346	2480.651	---	PASS

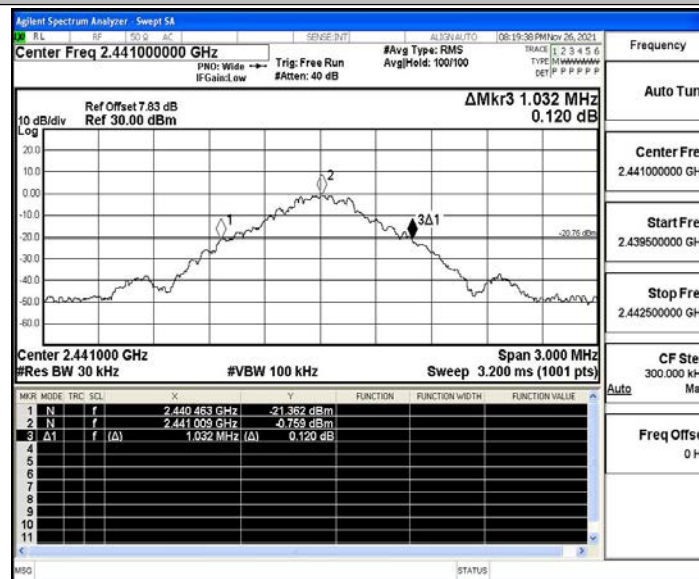


Test Graphs

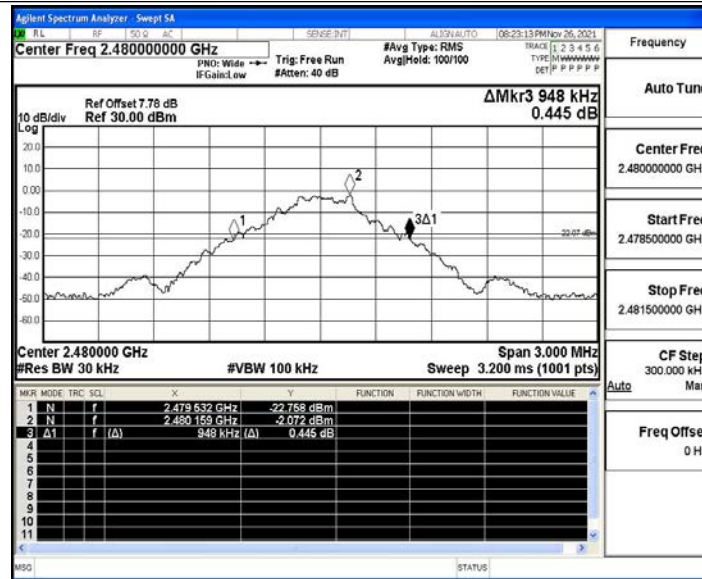
DH5_Ant1_2402



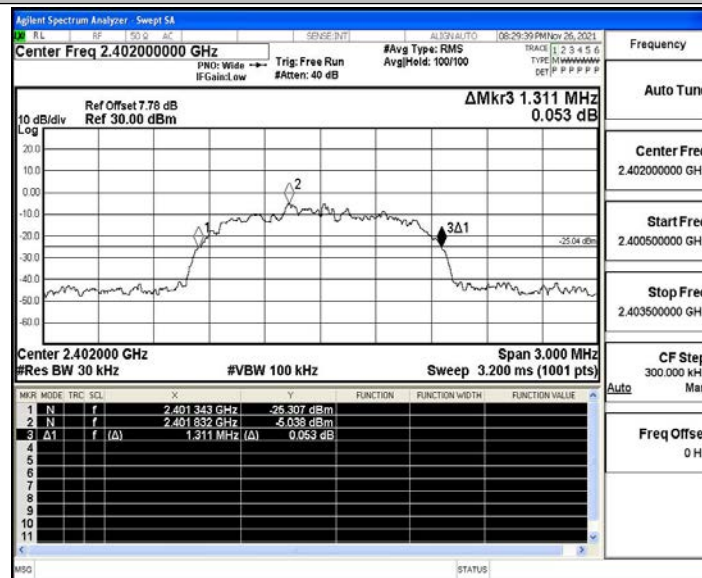
DH5_Ant1_2441



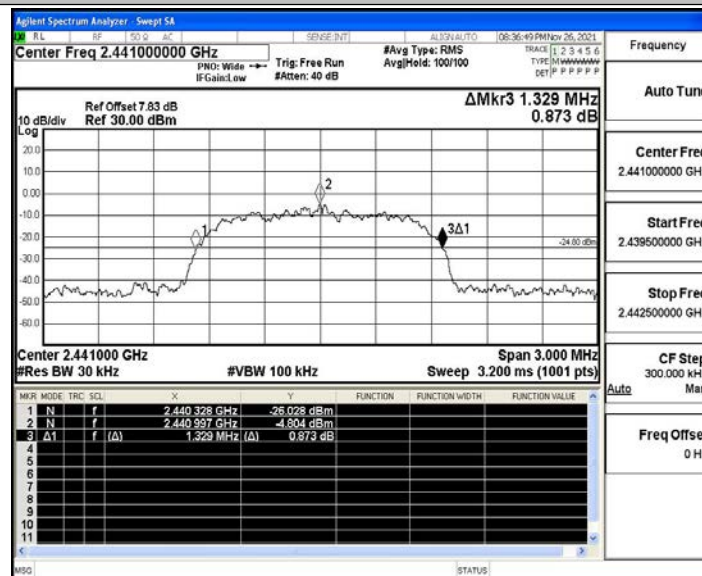
DH5_Ant1_2480



2DH5_Ant1_2402

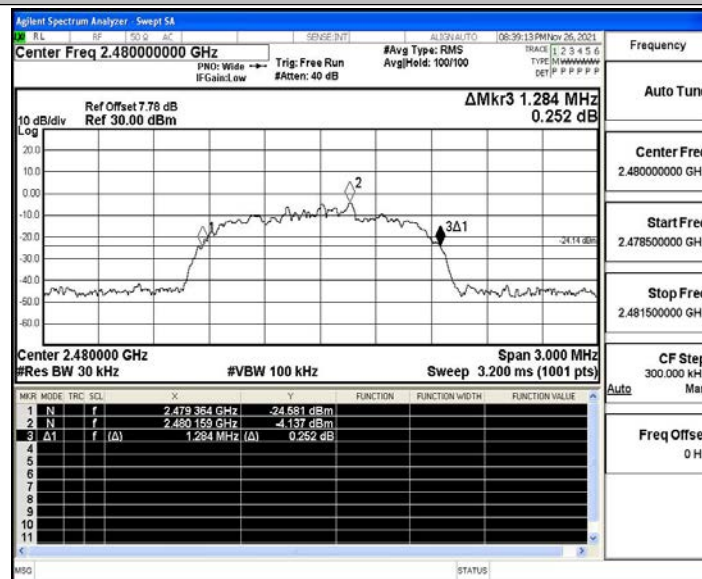


2DH5_Ant1_2441

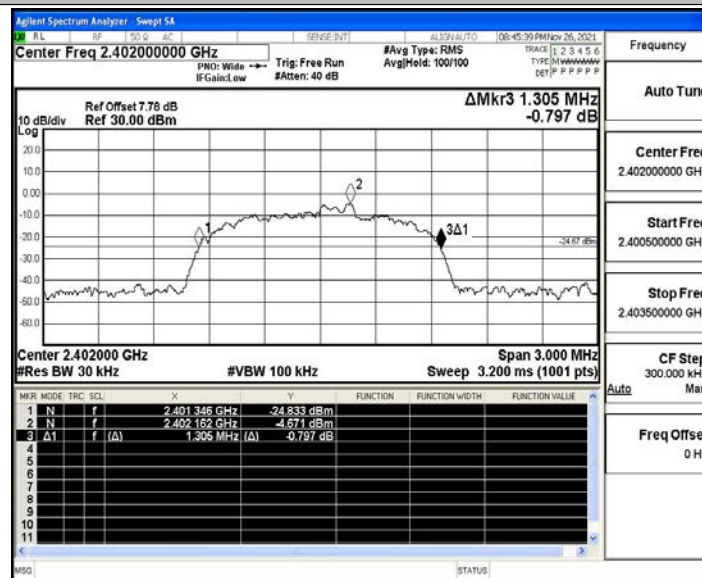




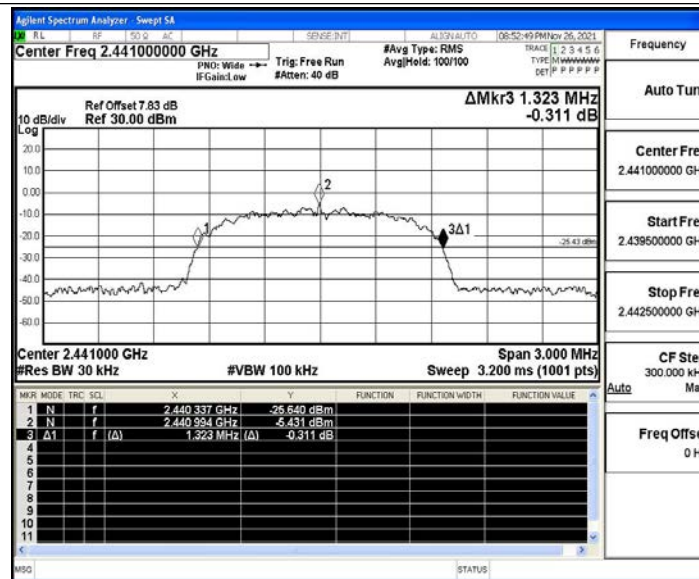
2DH5_Ant1_2480



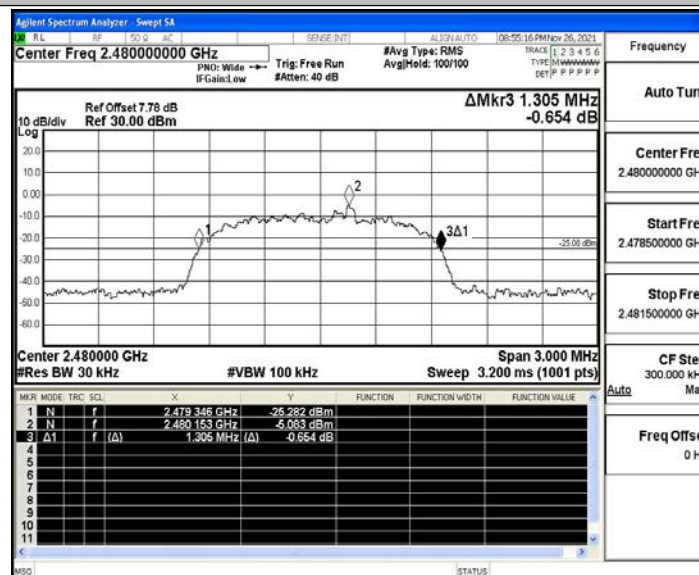
3DH5_Ant1_2402



3DH5_Ant1_2441



3DH5_Ant1_2480





A.2 Maximum peak conducted output power

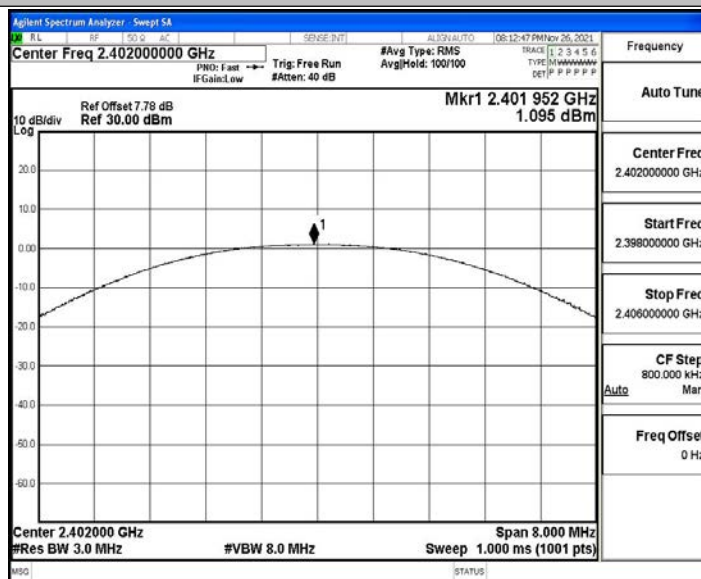
Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
DH5	Ant1	2402	1.1	≤20.97	PASS
		2441	2.19	≤20.97	PASS
		2480	0.66	≤20.97	PASS
2DH5	Ant1	2402	0.17	≤20.97	PASS
		2441	1.25	≤20.97	PASS
		2480	-0.27	≤20.97	PASS
3DH5	Ant1	2402	0.37	≤20.97	PASS
		2441	1.42	≤20.97	PASS
		2480	-0.06	≤20.97	PASS

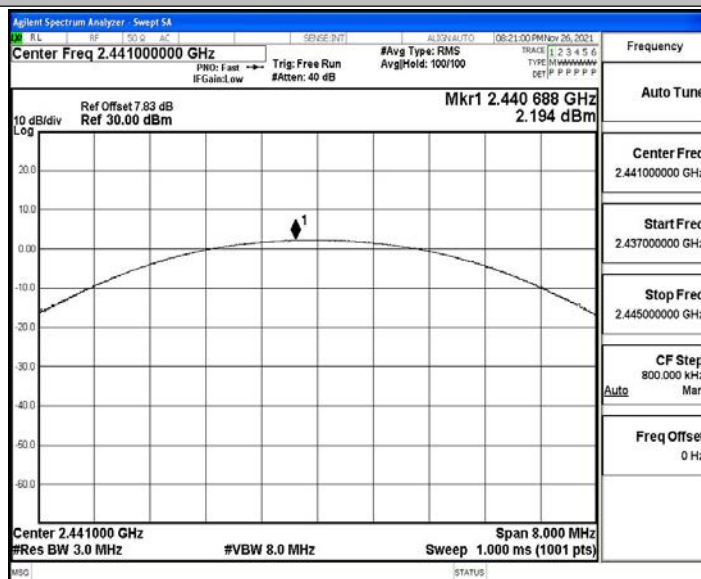


Test Graphs

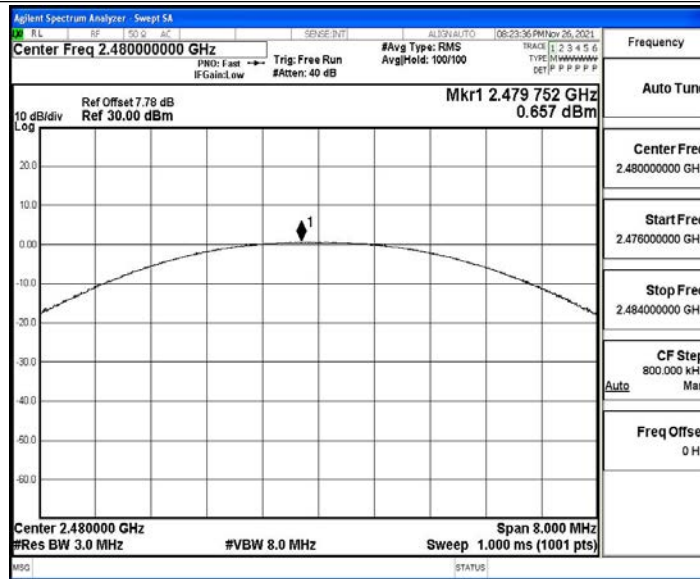
DH5_Ant1_2402



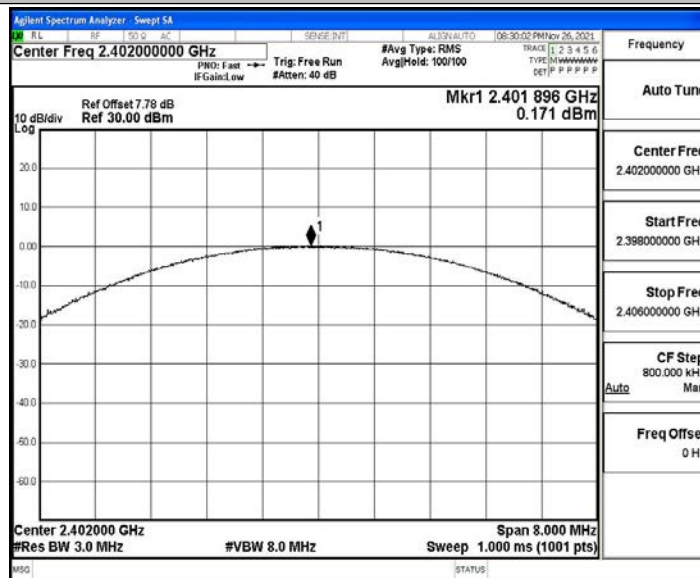
DH5_Ant1_2441



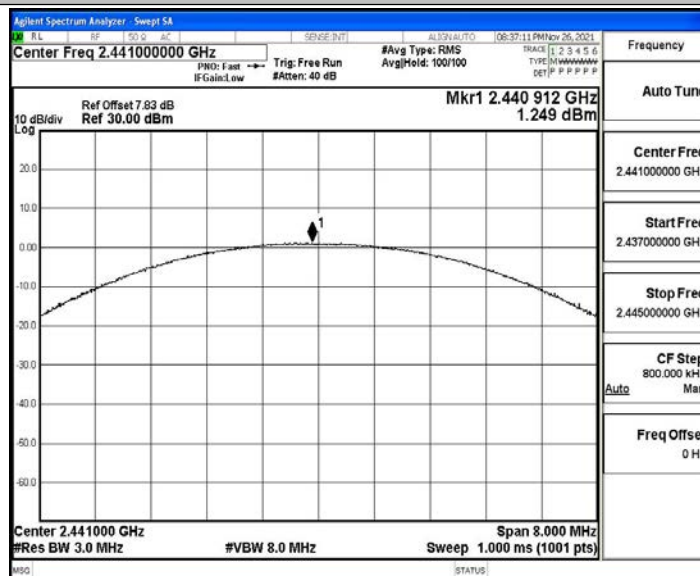
DH5_Ant1_2480



2DH5_Ant1_2402

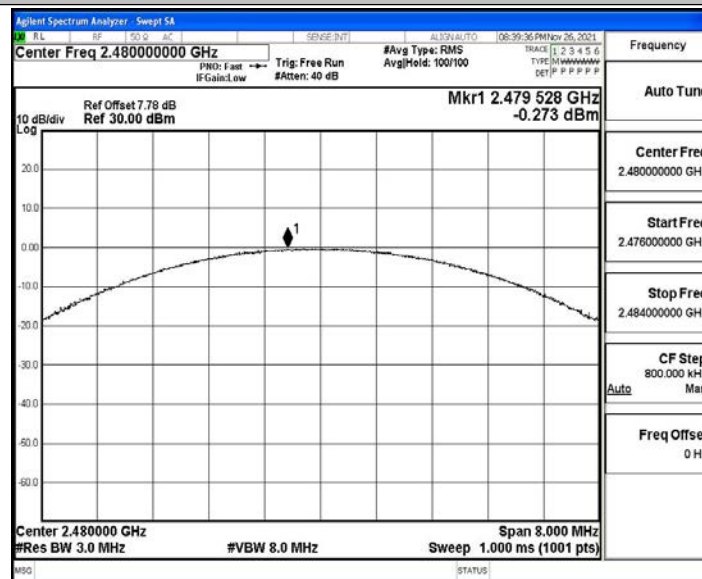


2DH5_Ant1_2441

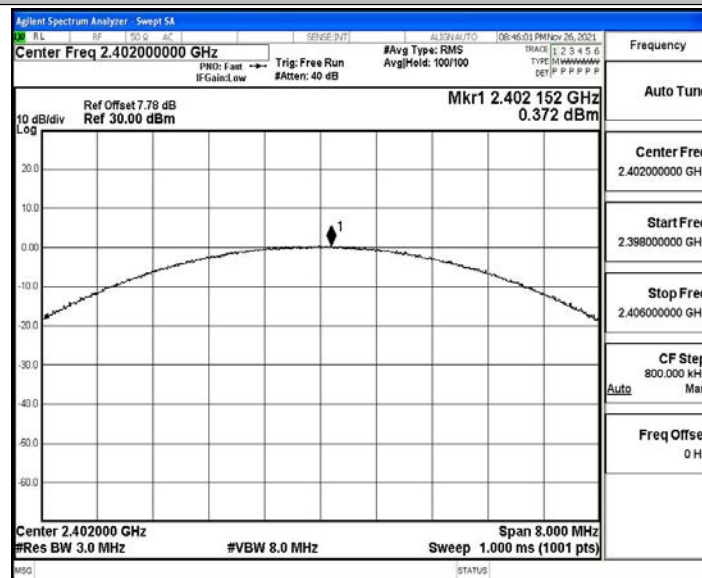




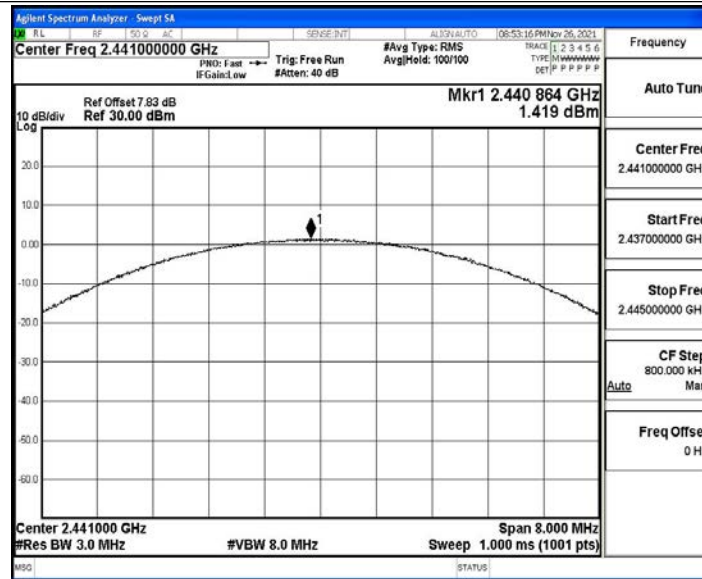
2DH5_Ant1_2480



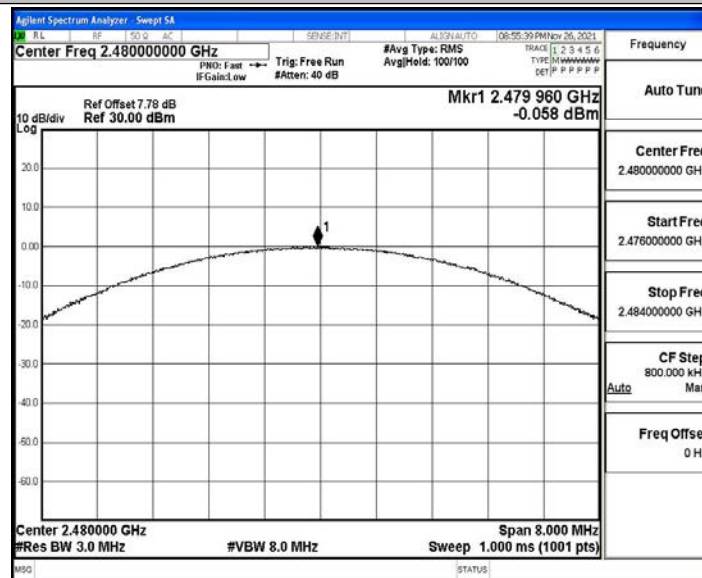
3DH5_Ant1_2402



3DH5_Ant1_2441



3DH5_Ant1_2480





A.3 Carrier frequency separation

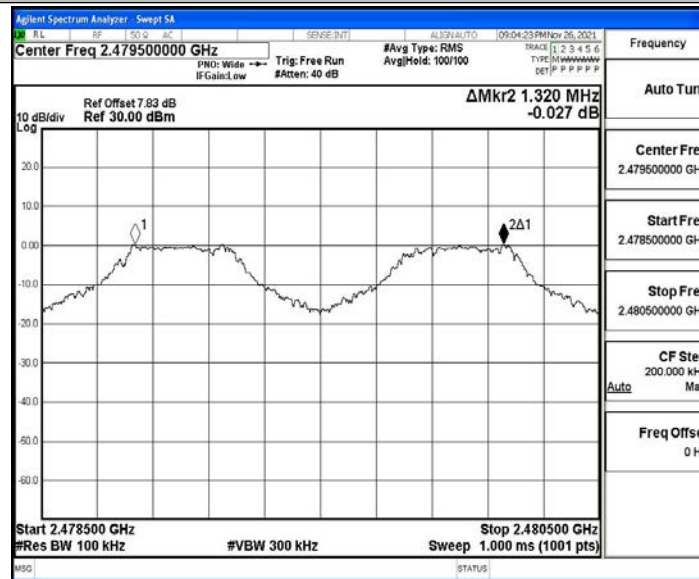
Test Result

TestMode	Antenna	Channel	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	1.32	≥ 1.038	PASS
2DH5	Ant1	Hop	1.148	≥ 0.886	PASS
3DH5	Ant1	Hop	1.162	≥ 0.882	PASS

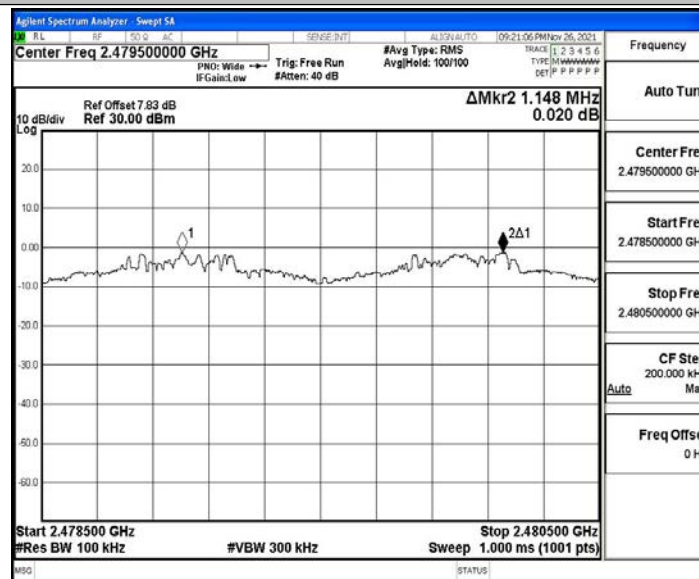


Test Graphs

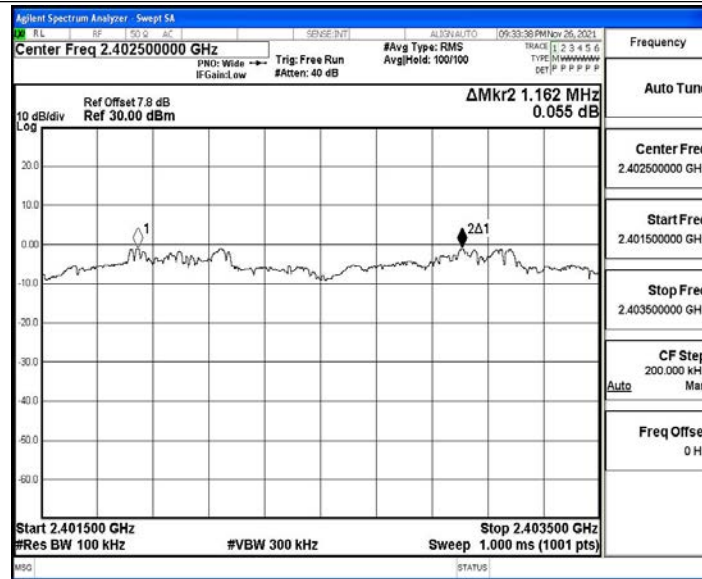
DH5_Ant1_Hop



2DH5_Ant1_Hop



3DH5_Ant1_Hop





A.4 Time of occupancy

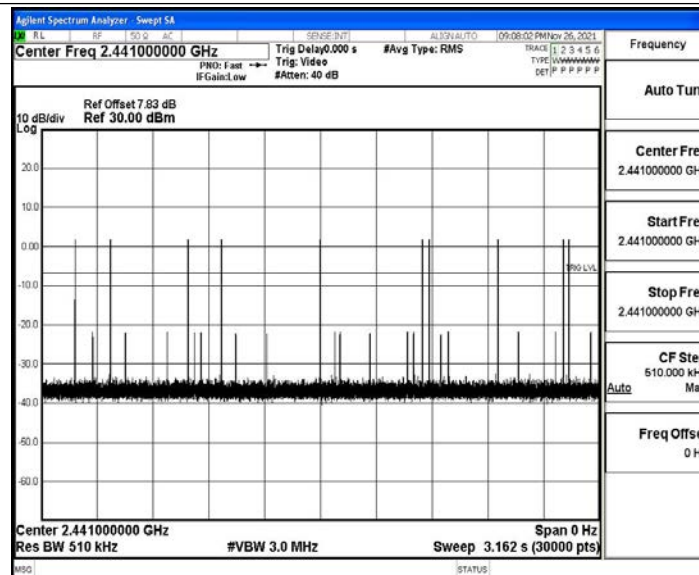
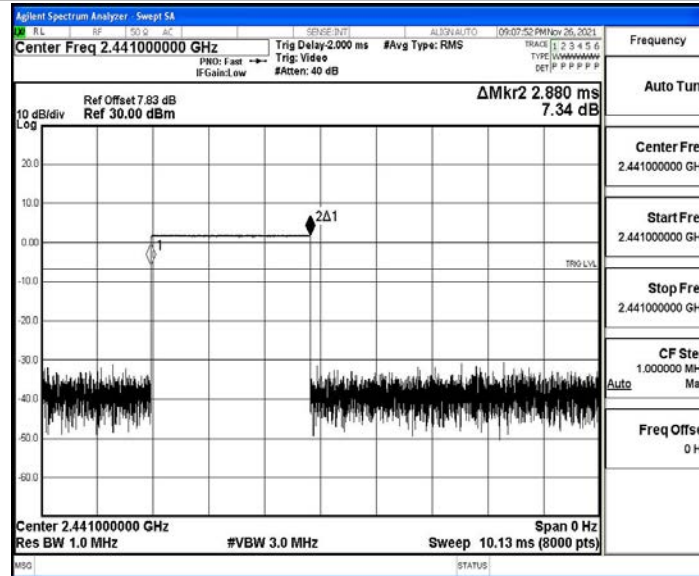
Test Result

TestMode	Antenna	Channel	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH5	Ant1	Hop	2.88	110	0.317	≤0.4	PASS
2DH5	Ant1	Hop	2.88	80	0.231	≤0.4	PASS
3DH5	Ant1	Hop	2.89	110	0.318	≤0.4	PASS

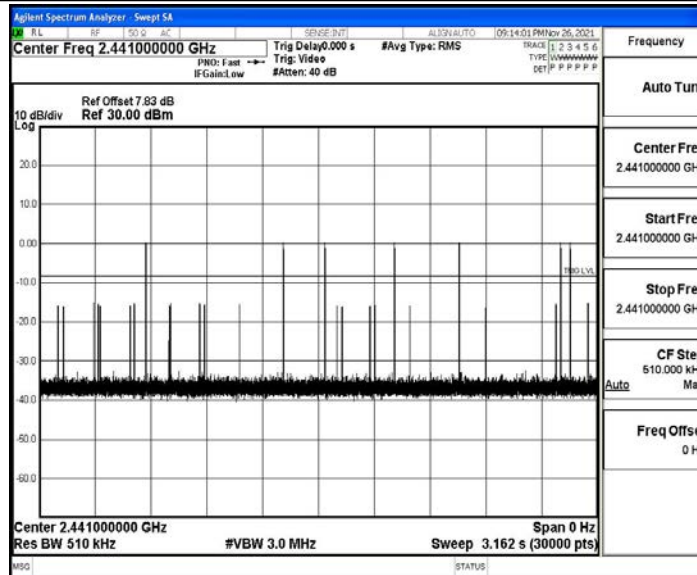
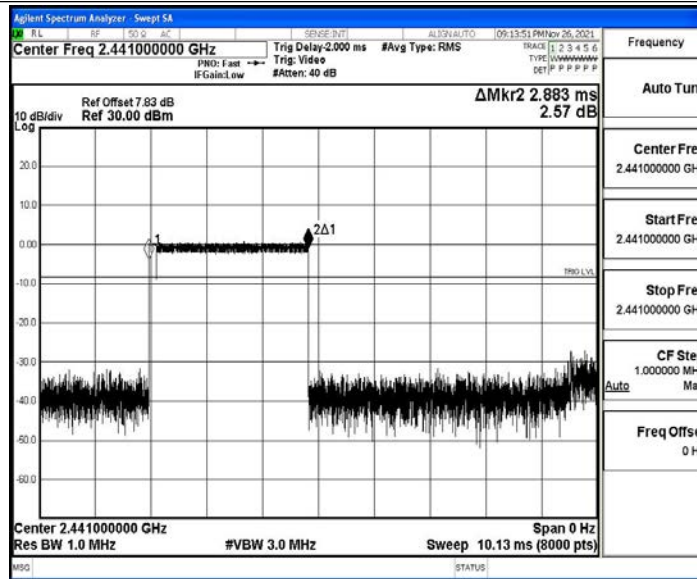


Test Graphs

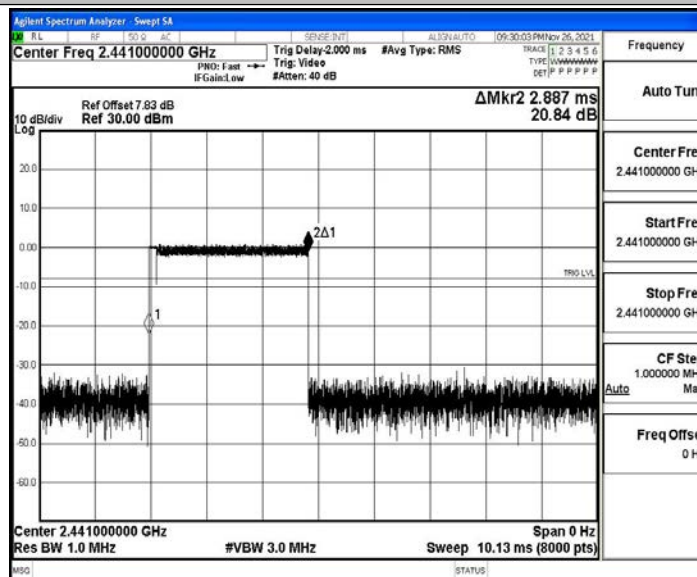
DH5_Ant1_Hop

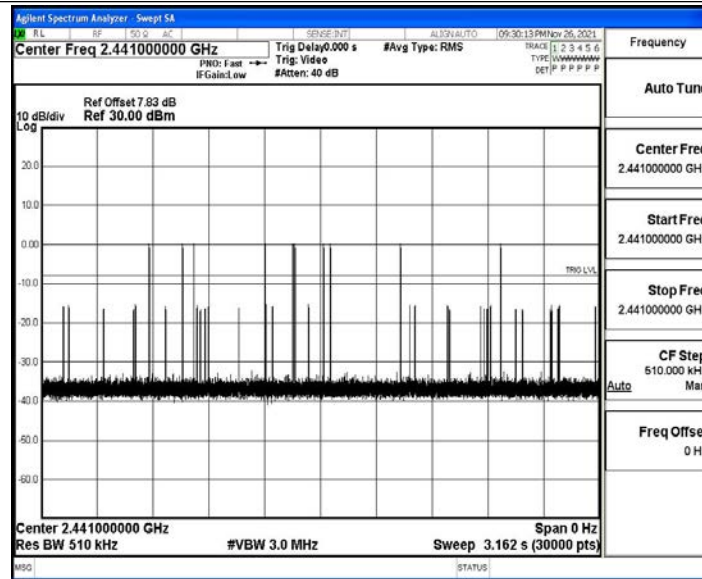


2DH5_Ant1_Hop



3DH5_Ant1_Hop







A.5 Number of hopping channels

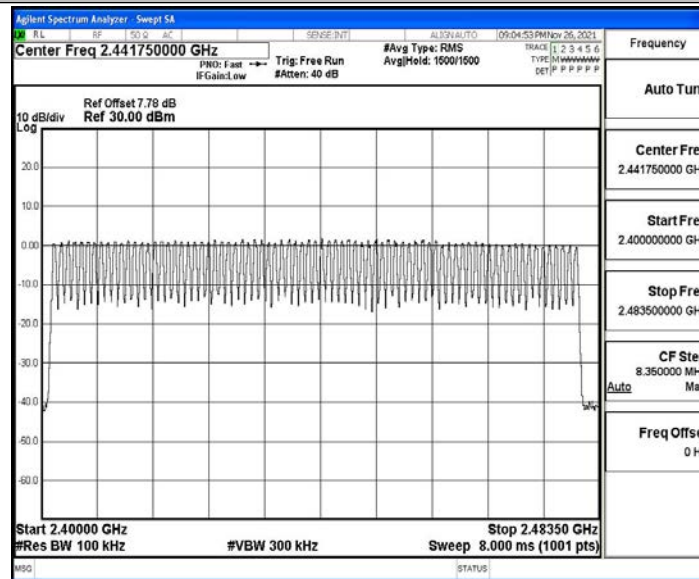
Test Result

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

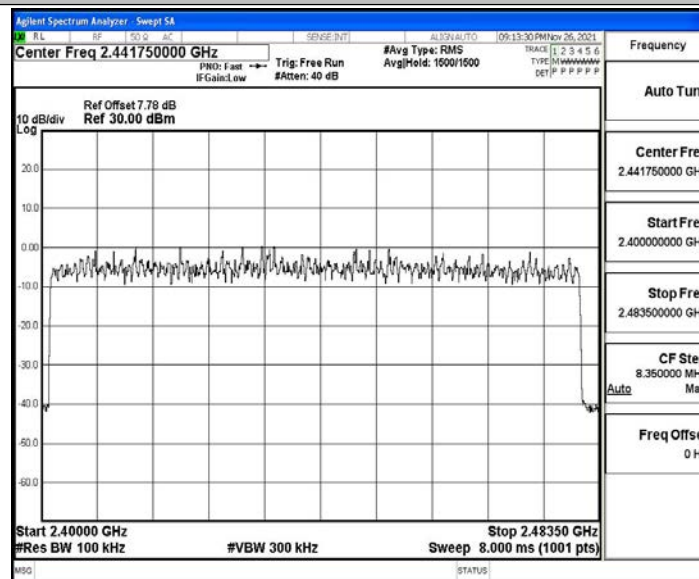


Test Graphs

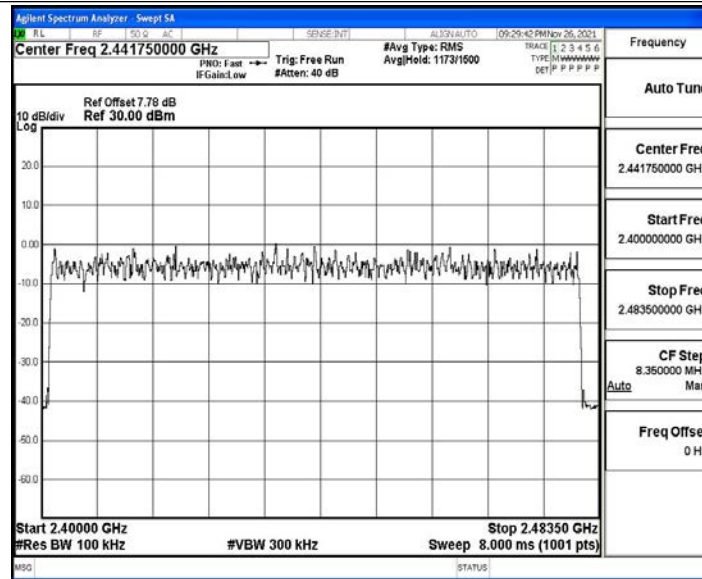
DH5_Ant1_Hop



2DH5_Ant1_Hop



3DH5_Ant1_Hop





A.6 Band edge measurements

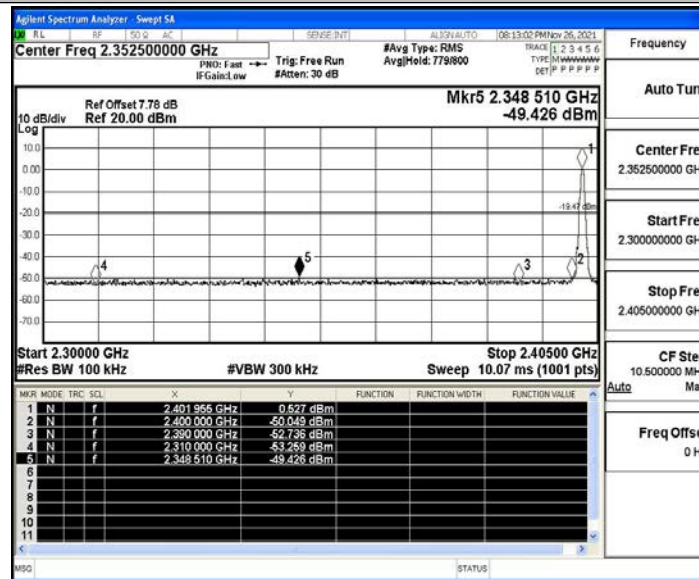
Test Result

TestMode	Antenna	ChName	Channel	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	0.53	-49.43	≤ -19.47	PASS
		High	2480	0.05	-48.25	≤ -19.95	PASS
		Low	Hop_2402	0.47	-49.73	≤ -19.53	PASS
		High	Hop_2480	0.33	-48.78	≤ -19.67	PASS
2DH5	Ant1	Low	2402	-1.09	-49.04	≤ -21.09	PASS
		High	2480	-1.15	-48.93	≤ -21.15	PASS
		Low	Hop_2402	-0.91	-49.4	≤ -20.91	PASS
		High	Hop_2480	-0.96	-48.88	≤ -20.96	PASS
3DH5	Ant1	Low	2402	-2.90	-49.3	≤ -22.9	PASS
		High	2480	-1.65	-48.82	≤ -21.65	PASS
		Low	Hop_2402	-4.34	-50.06	≤ -24.34	PASS
		High	Hop_2480	-3.50	-48.75	≤ -23.5	PASS

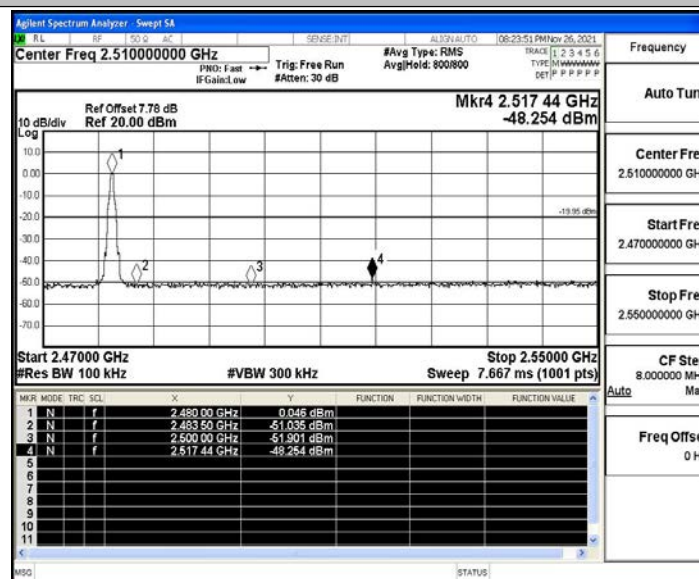


Test Graphs

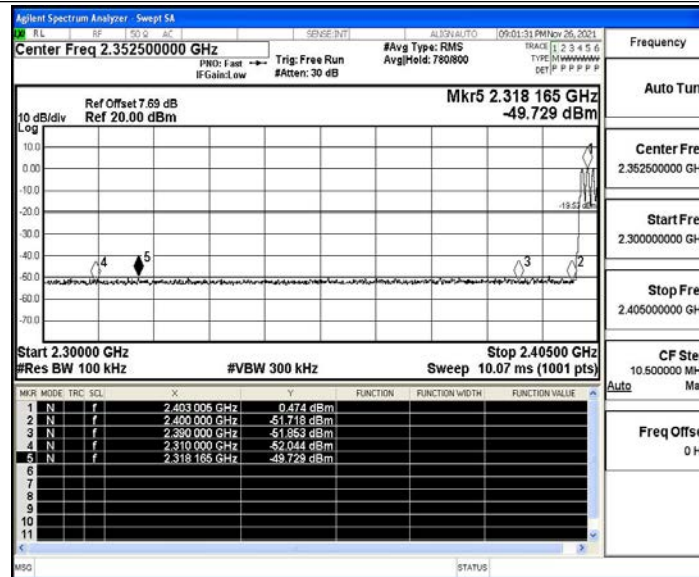
DH5_Ant1_Low_2402



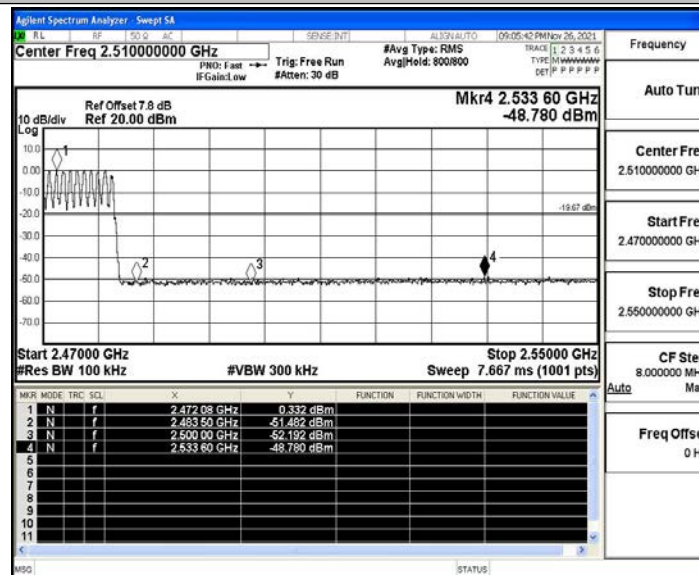
DH5_Ant1_High_2480



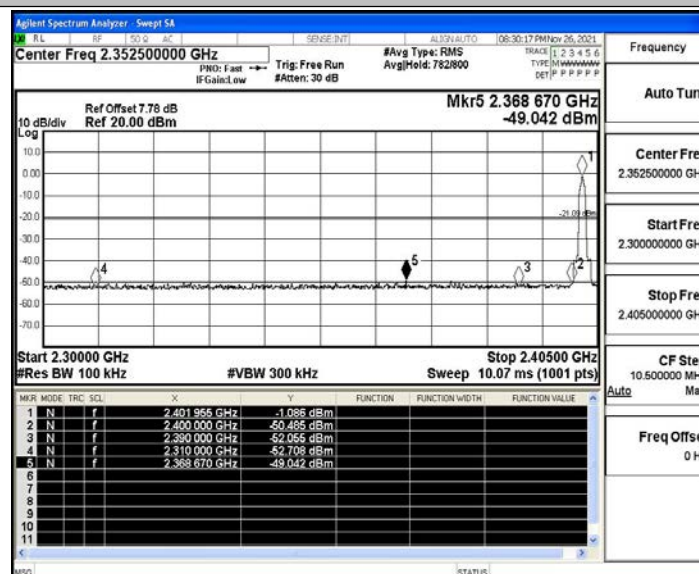
DH5_Ant1_Low_Hop_2402



DH5_Ant1_High_Hop_2480

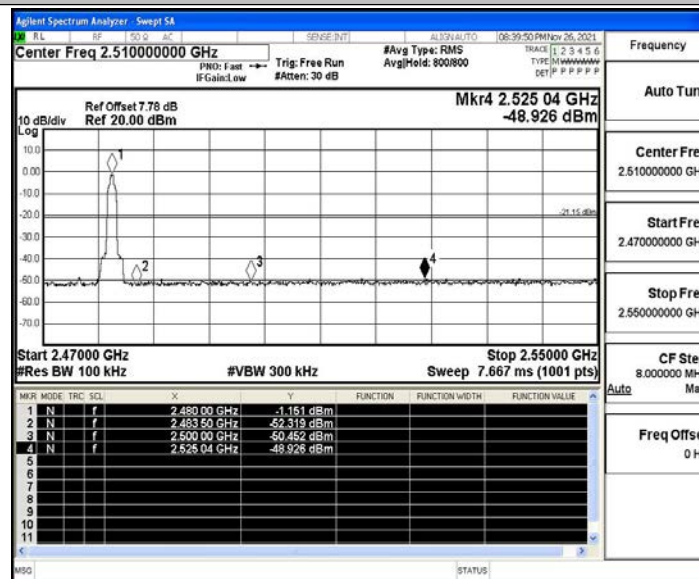


2DH5_Ant1_Low_2402

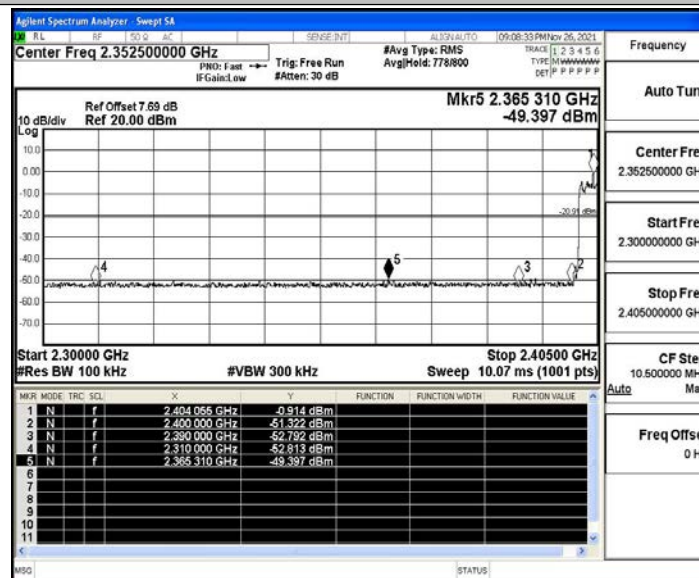




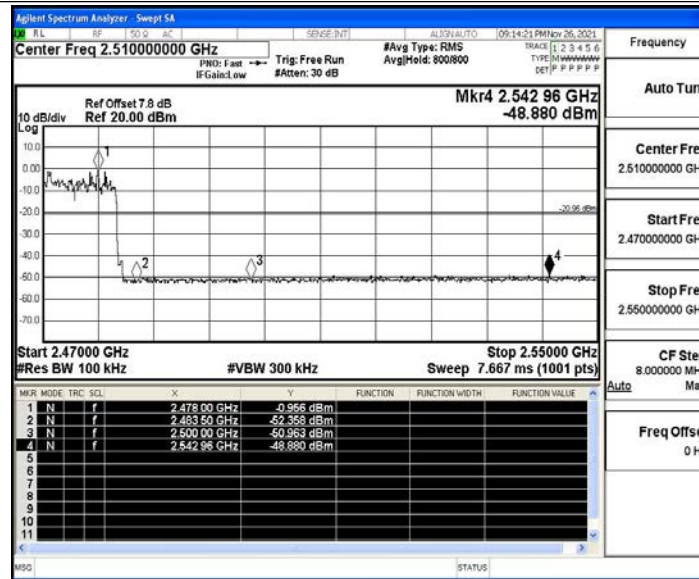
2DH5_Ant1_High_2480



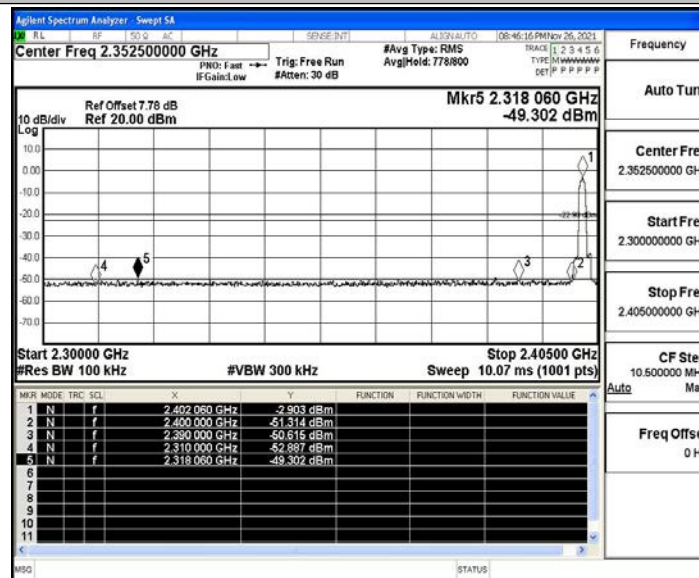
2DH5_Ant1_Low_Hop_2402



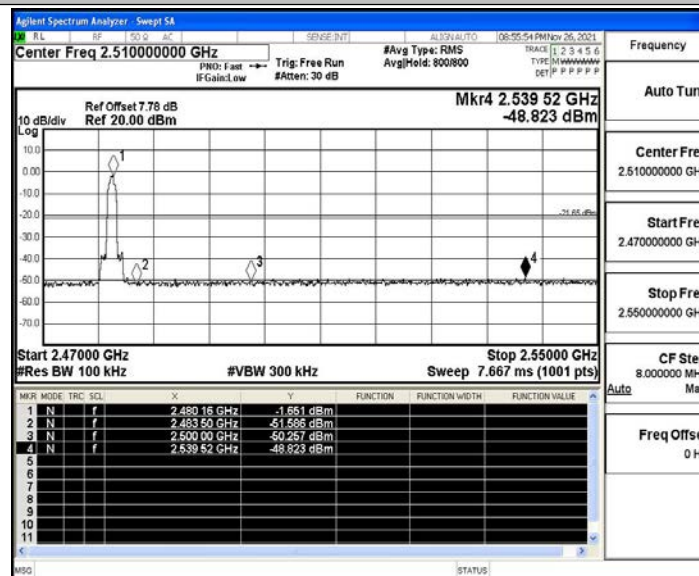
2DH5_Ant1_High_Hop_2480



3DH5_Ant1_Low_2402

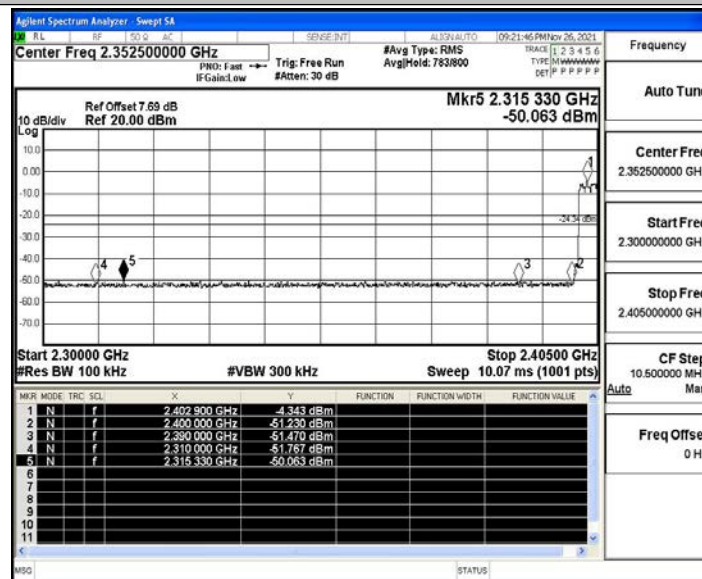


3DH5_Ant1_High_2480

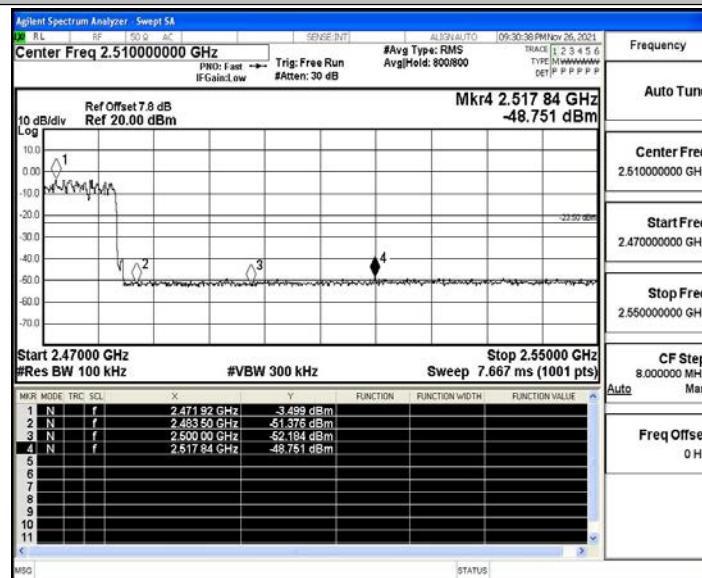




3DH5_Ant1_Low_Hop_2402



3DH5_Ant1_High_Hop_2480





A.7 Conducted Spurious Emission

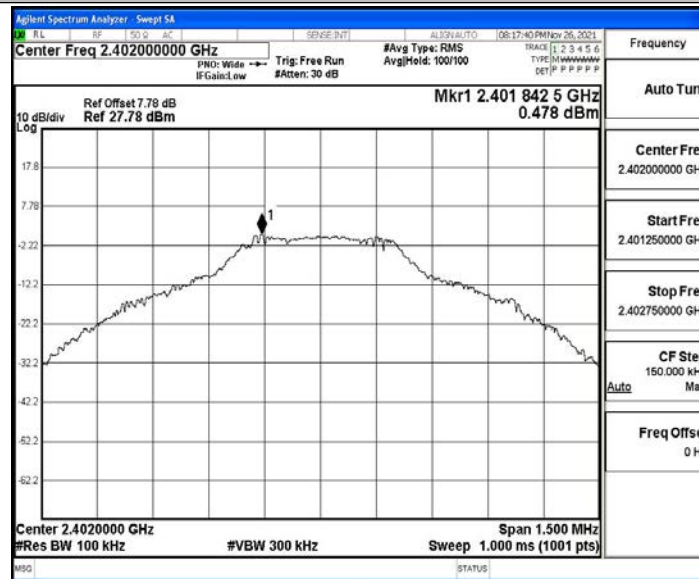
Test Result

TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	Reference	0.48	0.48	---	PASS
			30~1000	0.48	-61.34	≤ -19.52	PASS
			1000~26500	0.48	-46.59	≤ -19.52	PASS
		2441	Reference	1.63	1.63	---	PASS
			30~1000	1.63	-61.41	≤ -18.38	PASS
			1000~26500	1.63	-47.1	≤ -18.38	PASS
		2480	Reference	-0.28	-0.28	---	PASS
			30~1000	-0.28	-61.89	≤ -20.28	PASS
			1000~26500	-0.28	-47.11	≤ -20.28	PASS
2DH5	Ant1	2402	Reference	-1.74	-1.74	---	PASS
			30~1000	-1.74	-61.44	≤ -21.74	PASS
			1000~26500	-1.74	-46.49	≤ -21.74	PASS
		2441	Reference	-0.41	-0.41	---	PASS
			30~1000	-0.41	-61.68	≤ -20.41	PASS
			1000~26500	-0.41	-47.03	≤ -20.41	PASS
		2480	Reference	-1.46	-1.46	---	PASS
			30~1000	-1.46	-61.21	≤ -21.46	PASS
			1000~26500	-1.46	-47.75	≤ -21.46	PASS
3DH5	Ant1	2402	Reference	-2.12	-2.12	---	PASS
			30~1000	-2.12	-61.51	≤ -22.12	PASS
			1000~26500	-2.12	-46.94	≤ -22.12	PASS
		2441	Reference	0.13	0.13	---	PASS
			30~1000	0.13	-49.63	≤ -19.87	PASS
			1000~26500	0.13	-46.6	≤ -19.87	PASS
		2480	Reference	-1.55	-1.55	---	PASS
			30~1000	-1.55	-61.55	≤ -21.55	PASS
			1000~26500	-1.55	-46.47	≤ -21.55	PASS

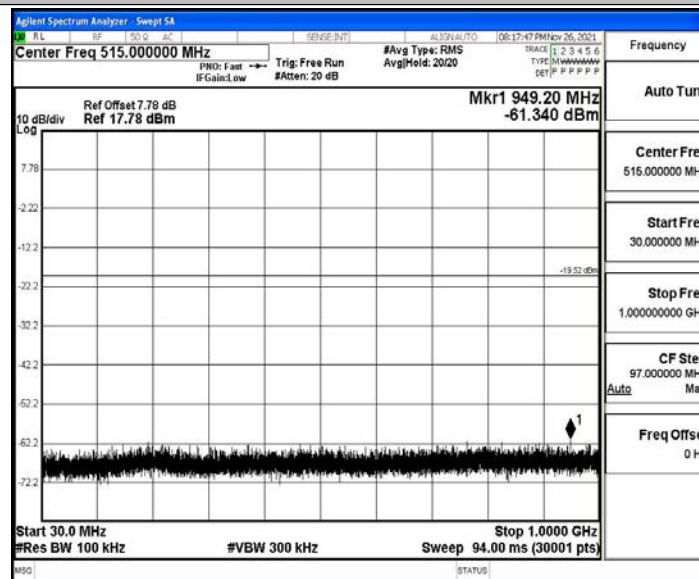


Test Graphs

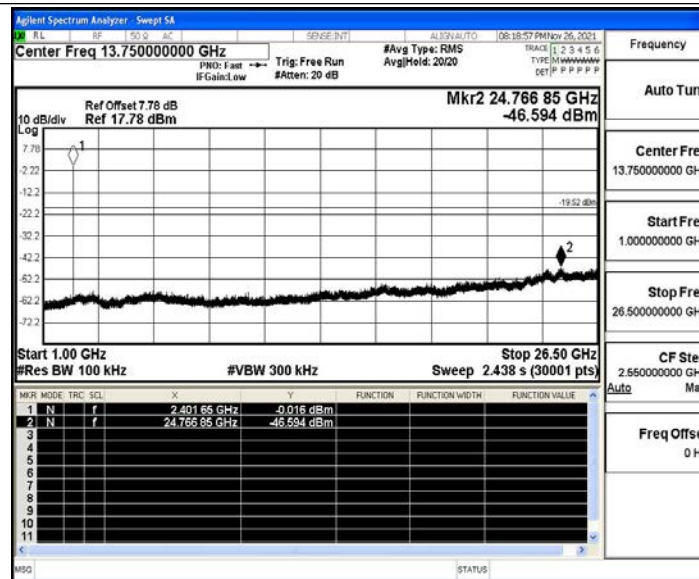
DH5_Ant1_2402_0~Reference



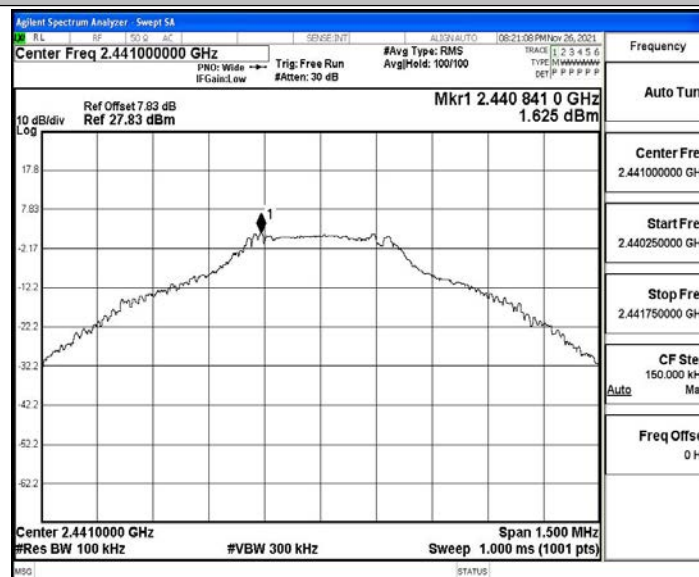
DH5_Ant1_2402_30~1000



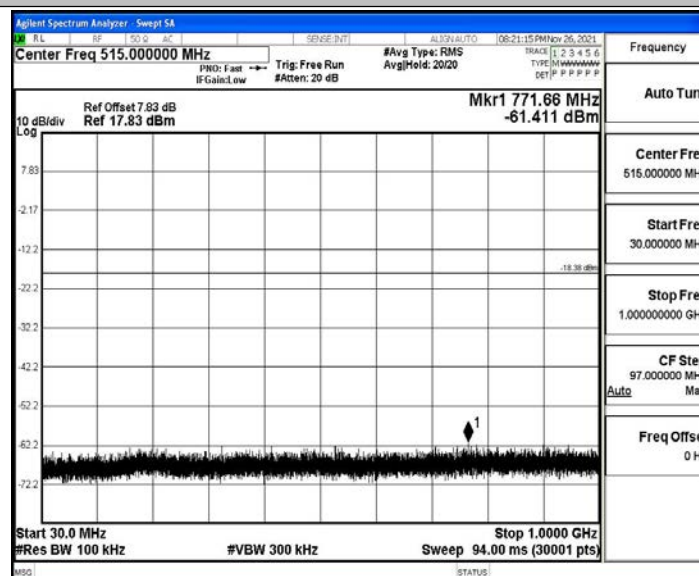
DH5_Ant1_2402_1000~26500



DH5_Ant1_2441_0~Reference

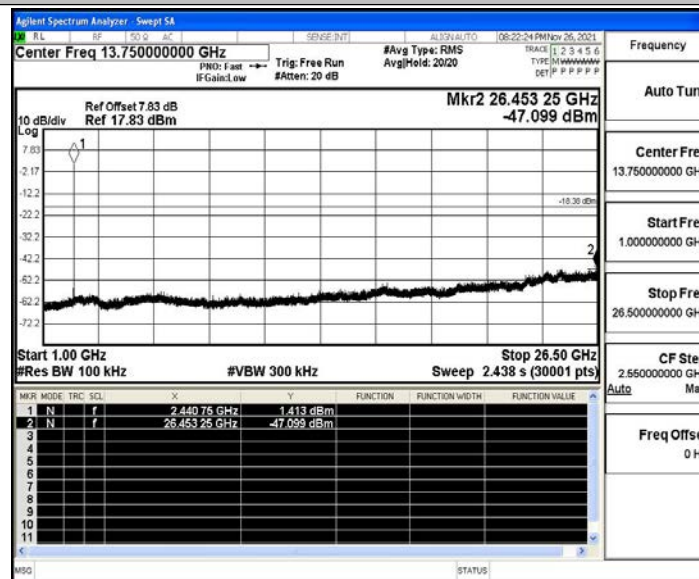


DH5_Ant1_2441_30~1000

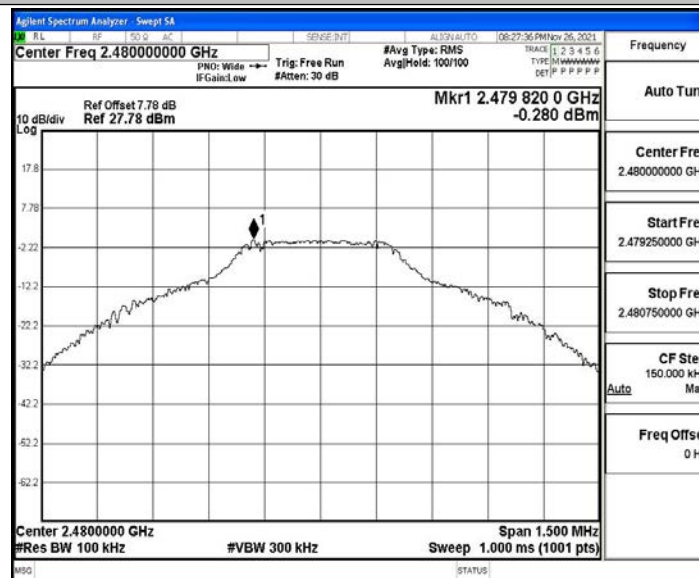




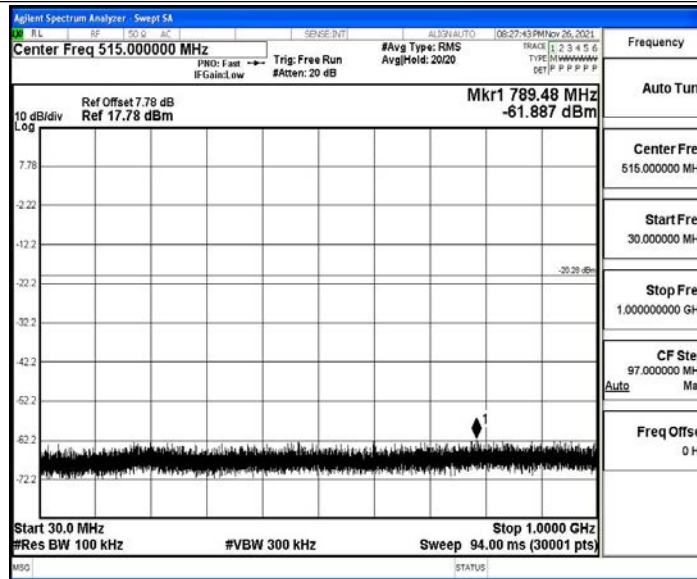
DH5_Ant1_2441_1000~26500



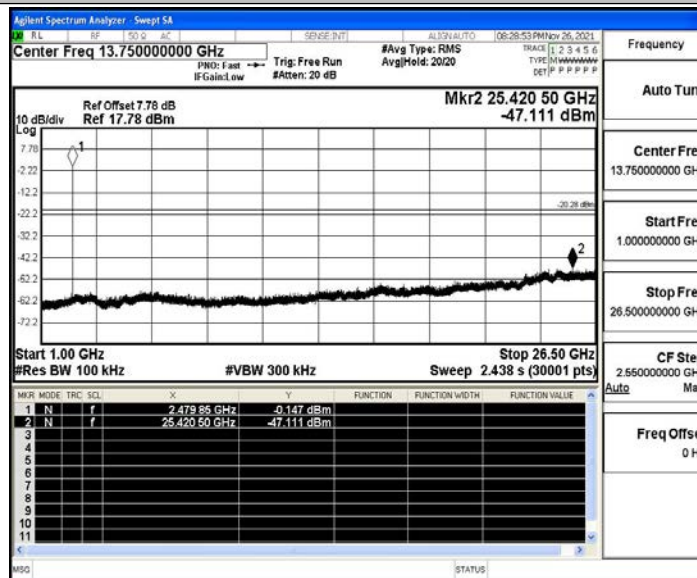
DH5_Ant1_2480_0~Reference



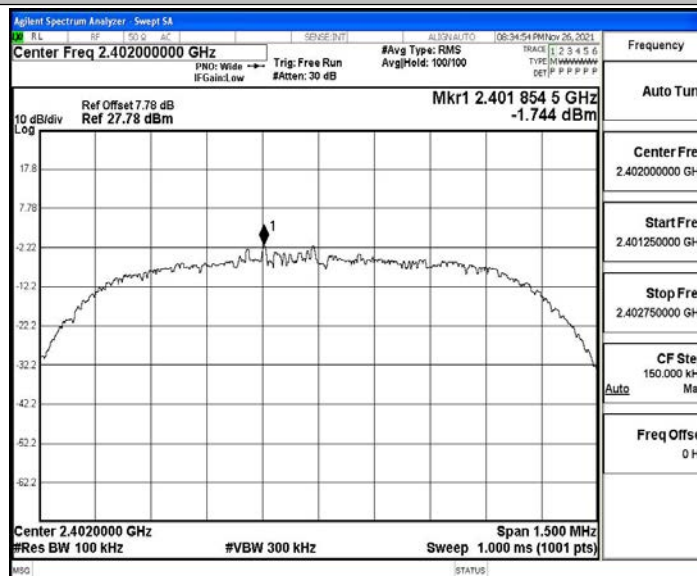
DH5_Ant1_2480_30~1000



DH5_Ant1_2480_1000~26500

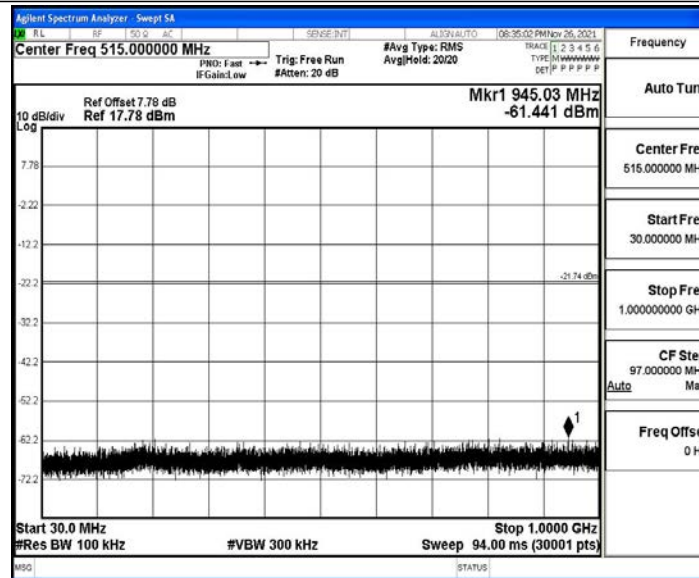


2DH5_Ant1_2402_0~Reference

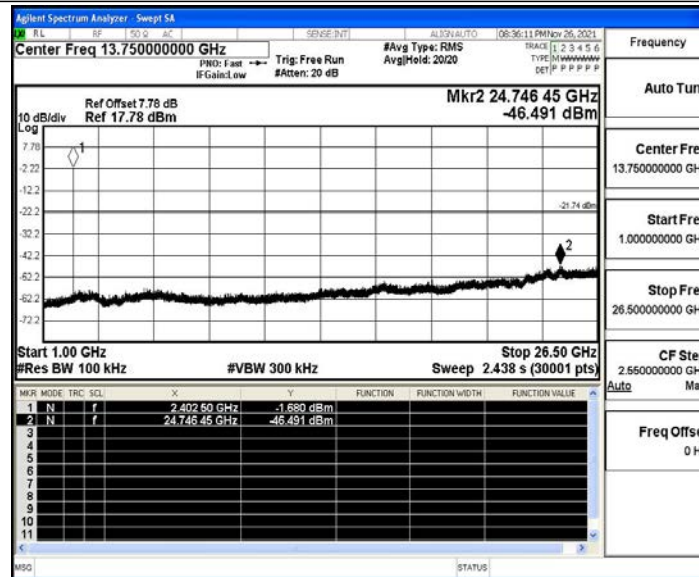




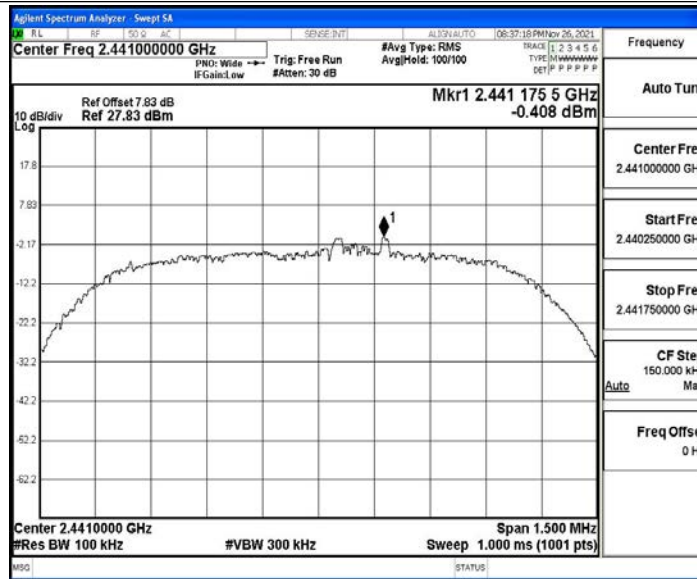
2DH5_Ant1_2402_30~1000



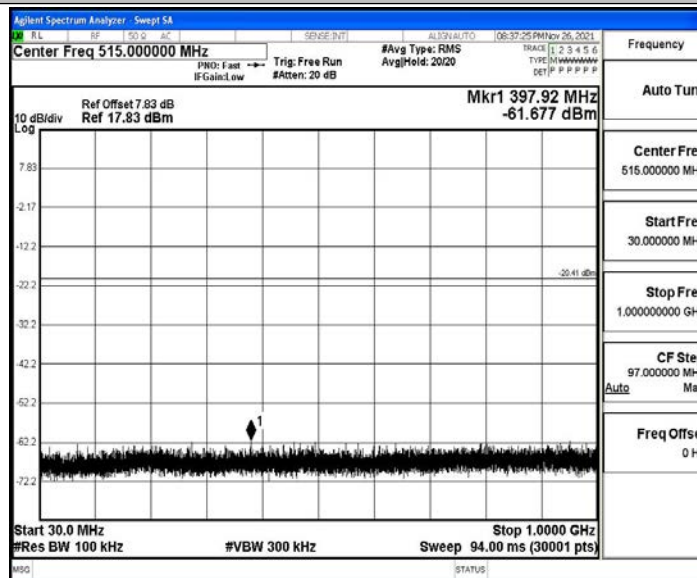
2DH5_Ant1_2402_1000~26500



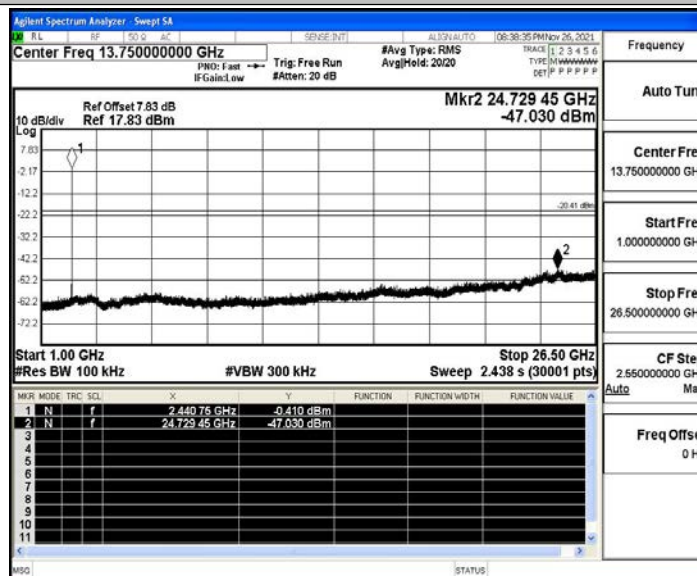
2DH5_Ant1_2441_0~Reference



2DH5_Ant1_2441_30~1000

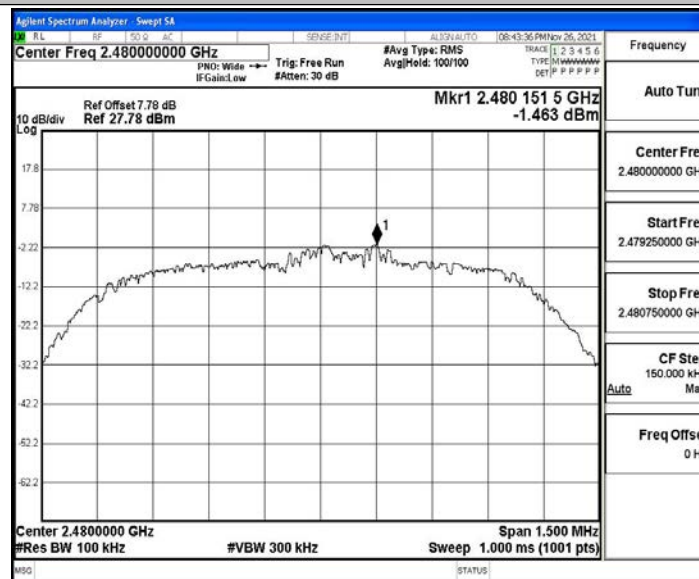


2DH5_Ant1_2441_1000~26500

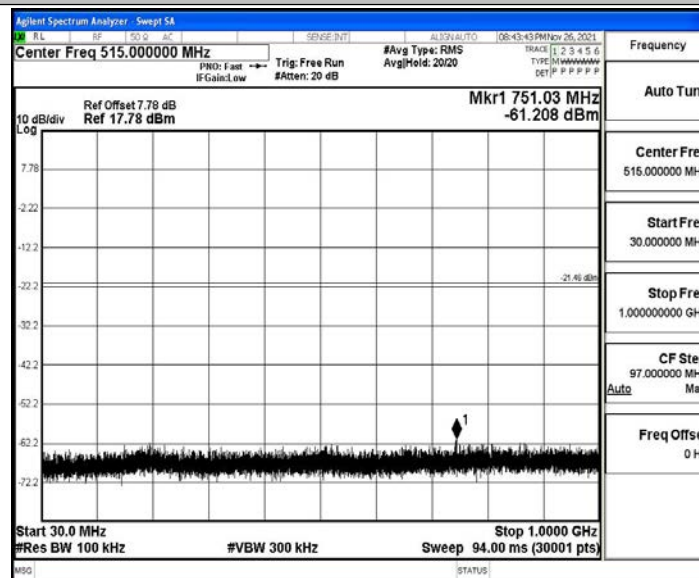




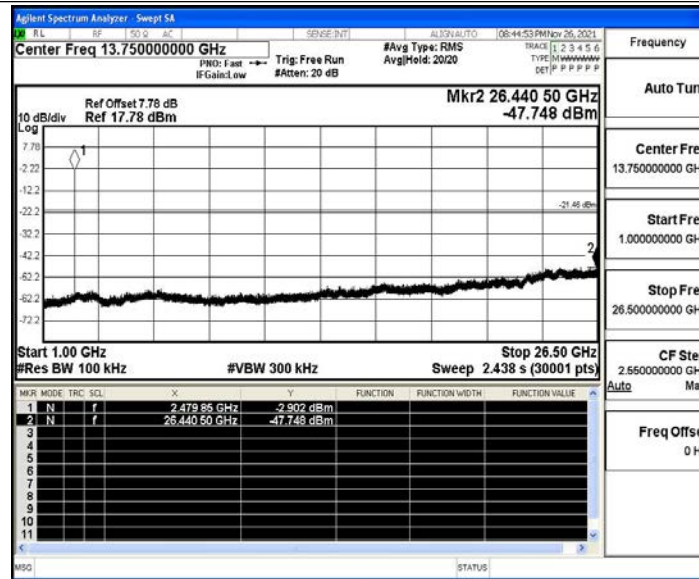
2DH5_Ant1_2480_0~Reference



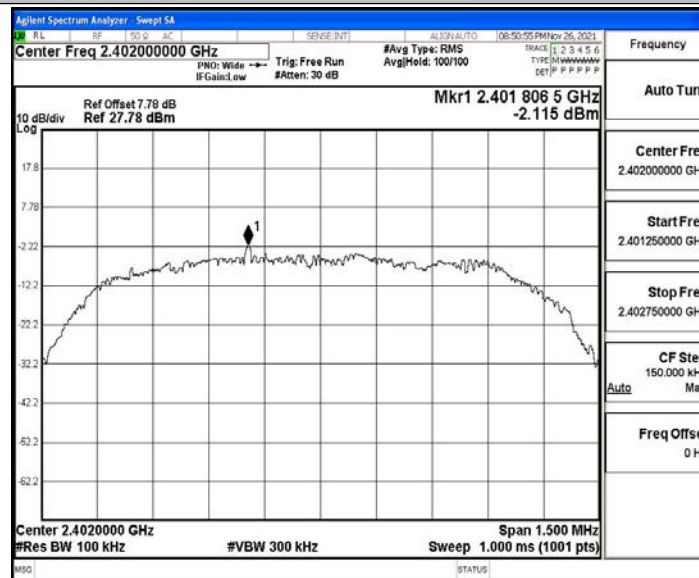
2DH5_Ant1_2480_30~1000



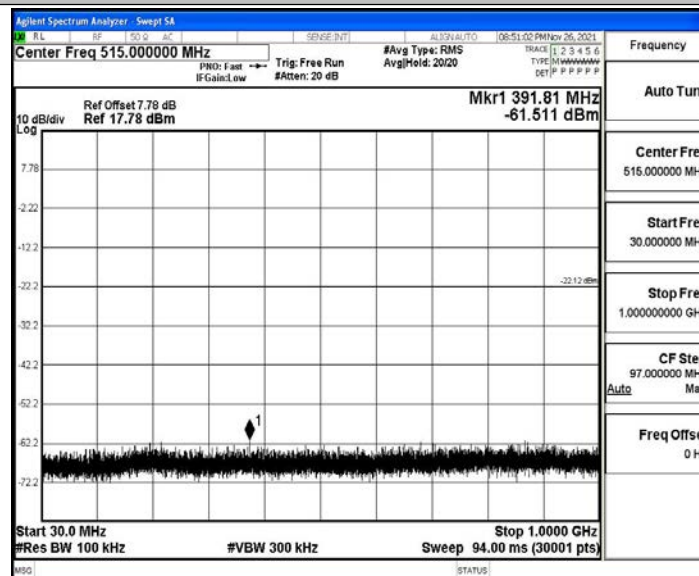
2DH5_Ant1_2480_1000~26500



3DH5_Ant1_2402_0~Reference

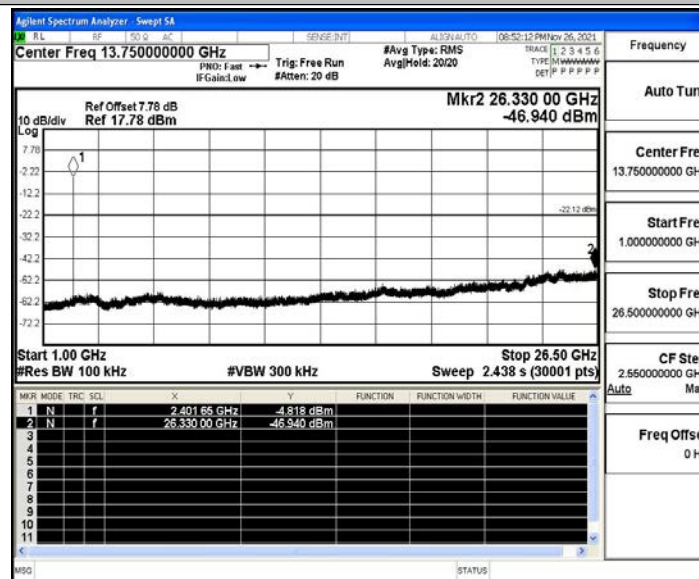


3DH5_Ant1_2402_30~1000

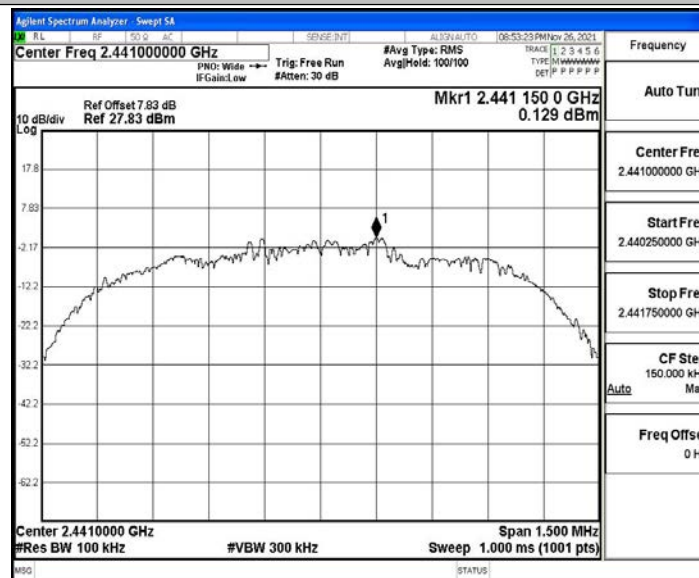




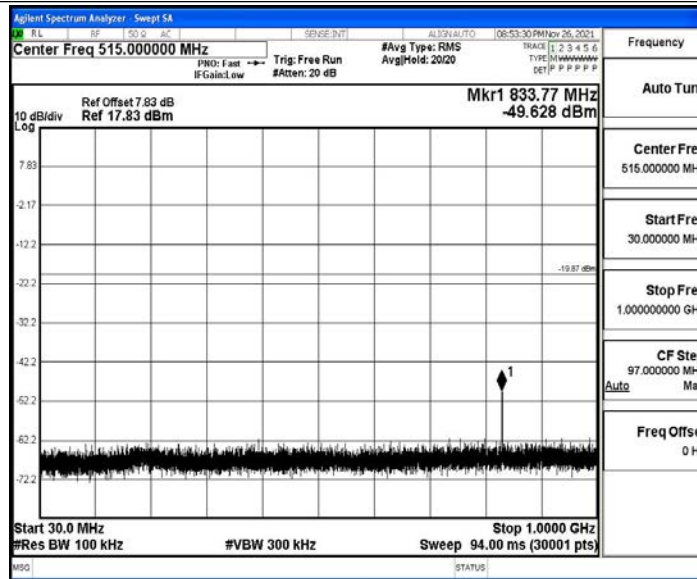
3DH5_Ant1_2402_1000~26500



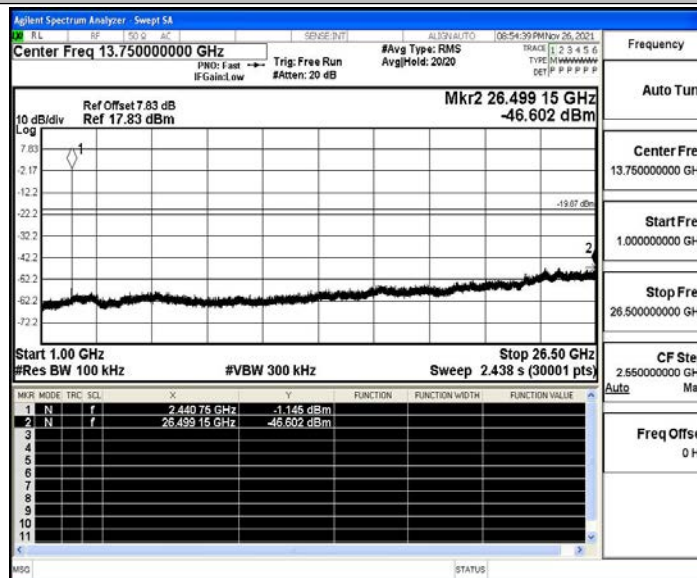
3DH5_Ant1_2441_0~Reference



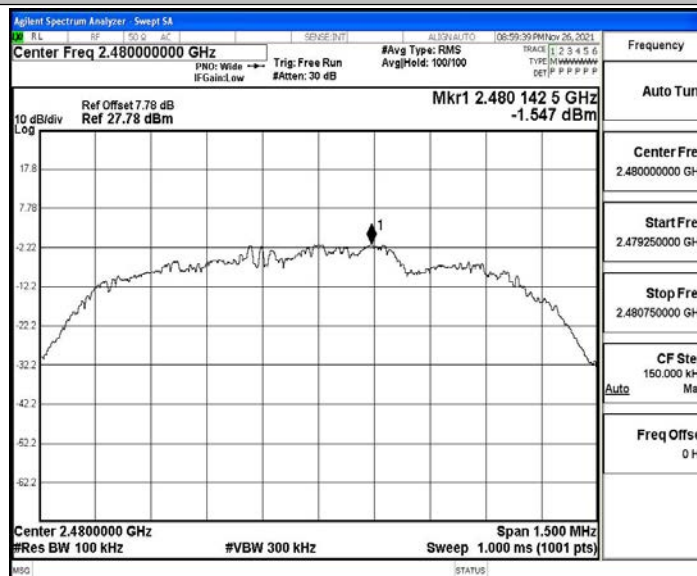
3DH5_Ant1_2441_30~1000



3DH5_Ant1_2441_1000~26500

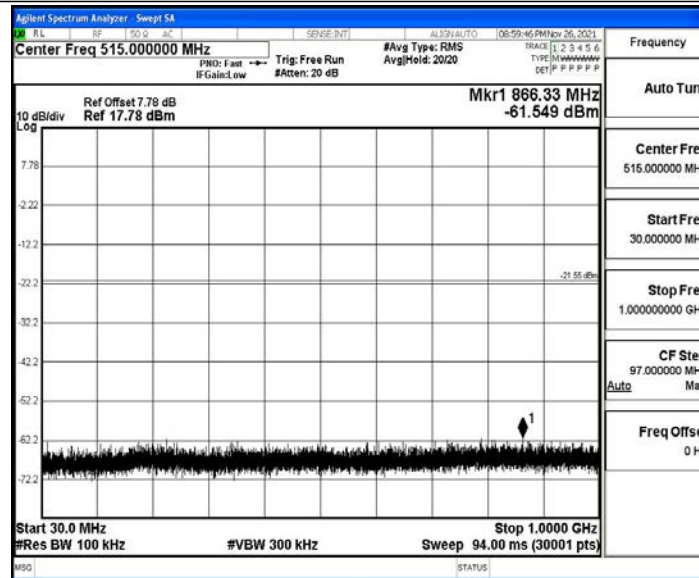


3DH5_Ant1_2480_0~Reference

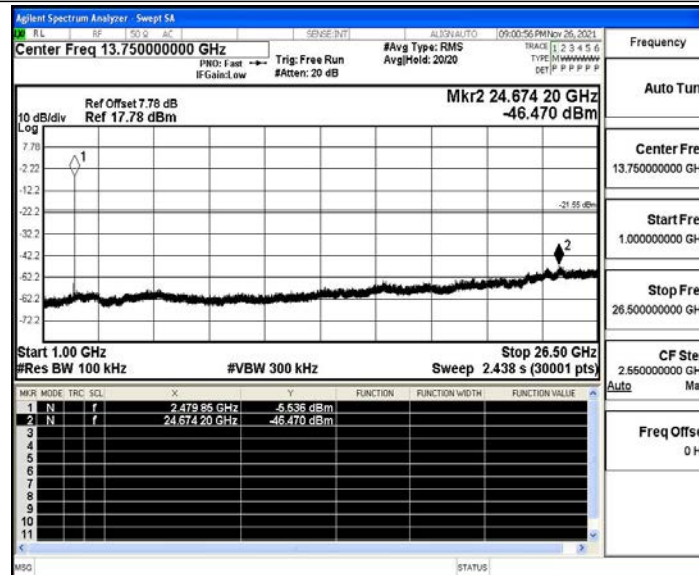




3DH5_Ant1_2480_30~1000



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	-48.94	≤-41.20	46.26	≤54	PASS
				AV	2389.670	-48.55	≤-41.20	46.65	≤54	PASS
				AV	2390.000	-48.67	≤-41.20	46.53	≤54	PASS
				Peak	2310.000	-39.74	≤-21.20	55.46	≤74	PASS
				Peak	2379.695	-38.22	≤-21.20	56.98	≤74	PASS
				Peak	2390.000	-39.54	≤-21.20	55.66	≤74	PASS
		High	2480	AV	2483.500	-47.96	≤-41.20	47.24	≤54	PASS
				AV	2494.720	-47.95	≤-41.20	47.25	≤54	PASS
				AV	2500.000	-48.06	≤-41.20	47.14	≤54	PASS
				Peak	2483.500	-40.95	≤-21.20	54.25	≤74	PASS
				Peak	2484.080	-37.28	≤-21.20	57.92	≤74	PASS
				Peak	2500.000	-38.1	≤-21.20	57.10	≤74	PASS
		Low	Hop_2402	Peak	2310.000	-39.52	≤-21.20	55.68	≤74	PASS
				Peak	2355.440	-37.9	≤-21.20	57.30	≤74	PASS
				Peak	2390.000	-40.24	≤-21.20	54.96	≤74	PASS
		High	Hop_2480	Peak	2483.500	-38.56	≤-21.20	56.64	≤74	PASS
				Peak	2495.520	-37.87	≤-21.20	57.33	≤74	PASS
				Peak	2500.000	-39.12	≤-21.20	56.08	≤74	PASS
2DH5	Ant1	Low	2402	AV	2310.000	-48.97	≤-41.20	46.23	≤54	PASS
				AV	2387.255	-48.51	≤-41.20	46.69	≤54	PASS
				AV	2390.000	-48.63	≤-41.20	46.57	≤54	PASS
				Peak	2310.000	-40.49	≤-21.20	54.71	≤74	PASS
				Peak	2332.655	-38.13	≤-21.20	57.07	≤74	PASS
				Peak	2390.000	-41.18	≤-21.20	54.02	≤74	PASS
		High	2480	AV	2483.500	-47.98	≤-41.20	47.22	≤54	PASS
				AV	2499.200	-47.93	≤-41.20	47.27	≤54	PASS
				AV	2500.000	-48.08	≤-41.20	47.12	≤54	PASS
				Peak	2483.500	-40.02	≤-21.20	55.18	≤74	PASS
				Peak	2496.720	-37.6	≤-21.20	57.60	≤74	PASS
				Peak	2500.000	-39.91	≤-21.20	55.29	≤74	PASS
		Low	Hop_2402	Peak	2310.000	-41.66	≤-21.20	53.54	≤74	PASS
				Peak	2373.290	-38.45	≤-21.20	56.75	≤74	PASS
				Peak	2390.000	-40.47	≤-21.20	54.73	≤74	PASS
		High	Hop_2480	Peak	2483.500	-40.37	≤-21.20	54.83	≤74	PASS
				Peak	2493.280	-38.16	≤-21.20	57.04	≤74	PASS
				Peak	2500.000	-38.82	≤-21.20	56.38	≤74	PASS
3DH5	Ant1	Low	2402	AV	2310.000	-48.99	≤-41.20	46.21	≤54	PASS



				AV	2388.410	-48.52	≤-41.20	46.68	≤54	PASS
				AV	2390.000	-48.72	≤-41.20	46.48	≤54	PASS
				Peak	2310.000	-40.26	≤-21.20	54.94	≤74	PASS
				Peak	2388.410	-38	≤-21.20	57.20	≤74	PASS
				Peak	2390.000	-39.91	≤-21.20	55.29	≤74	PASS
		High	2480	AV	2483.500	-47.99	≤-41.20	47.21	≤54	PASS
				AV	2499.440	-47.91	≤-41.20	47.29	≤54	PASS
				AV	2500.000	-48.08	≤-41.20	47.12	≤54	PASS
				Peak	2483.500	-39.61	≤-21.20	55.59	≤74	PASS
				Peak	2485.360	-37.33	≤-21.20	57.87	≤74	PASS
				Peak	2500.000	-40.12	≤-21.20	55.08	≤74	PASS
		Low	Hop_24 02	Peak	2310.000	-41.69	≤-21.20	53.51	≤74	PASS
				Peak	2380.220	-37.6	≤-21.20	57.60	≤74	PASS
				Peak	2390.000	-41.2	≤-21.20	54.00	≤74	PASS
		High	Hop_24 80	Peak	2483.500	-40.86	≤-21.20	54.34	≤74	PASS
				Peak	2491.200	-38.27	≤-21.20	56.93	≤74	PASS
				Peak	2500.000	-39.38	≤-21.20	55.82	≤74	PASS

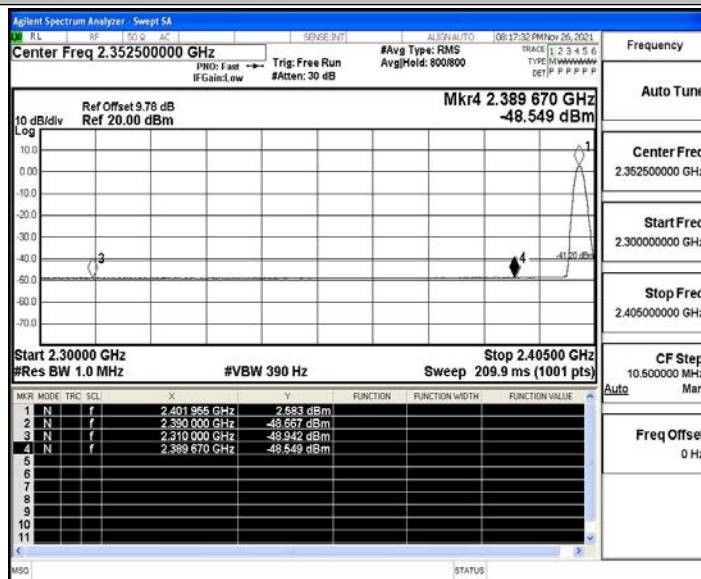
Note:

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.

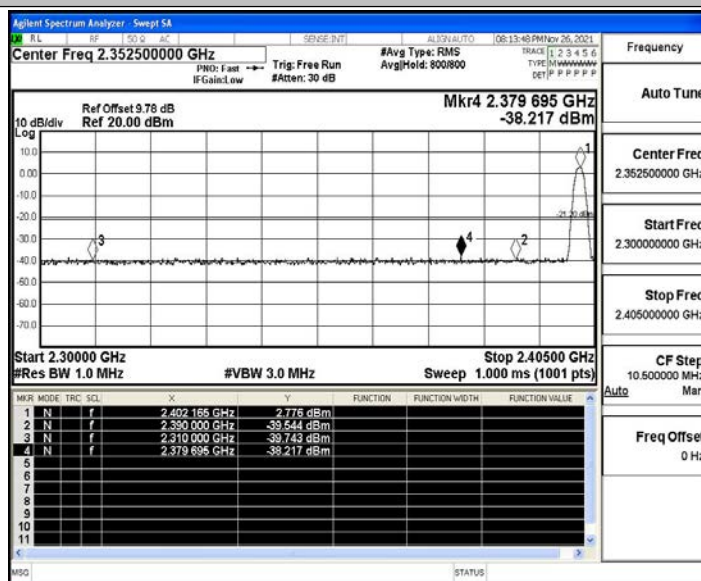


Test Graphs

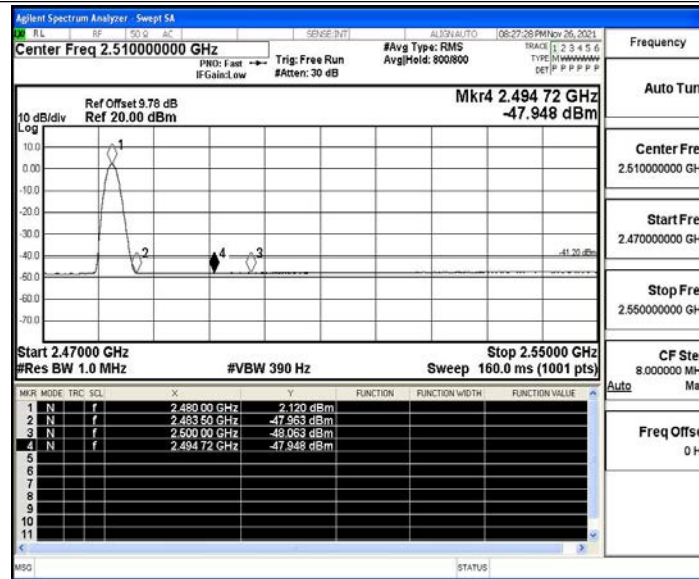
DH5_Ant1_Low_2402_AV



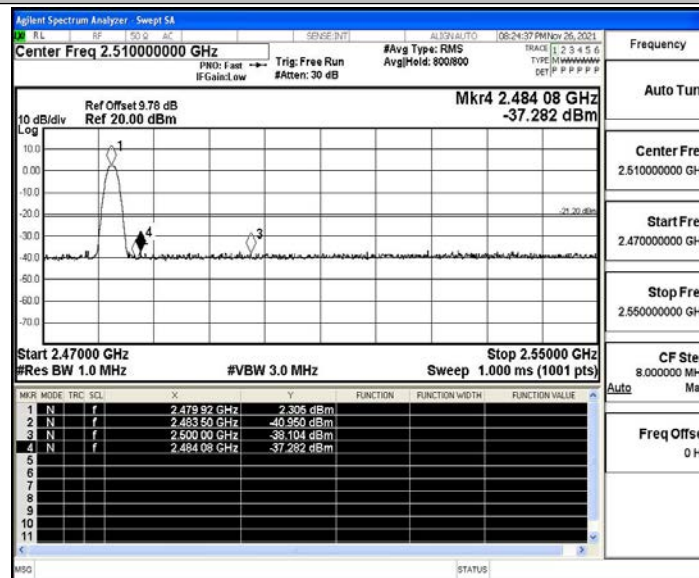
DH5_Ant1_Low_2402_Peak



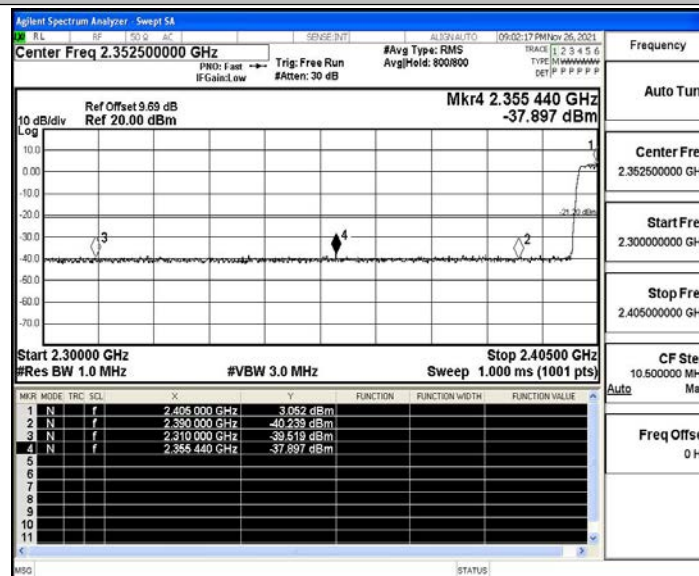
DH5_Ant1_High_2480_AV



DH5_Ant1_High_2480_Peak

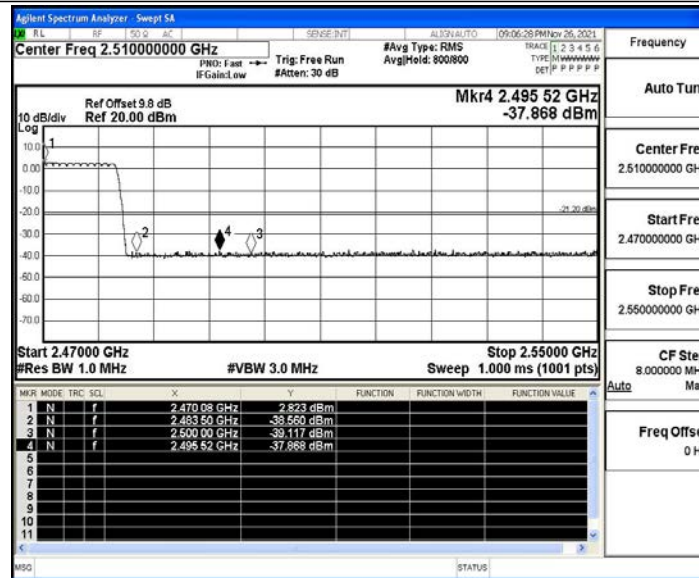


DH5_Ant1_Low_Hop_2402_Peak

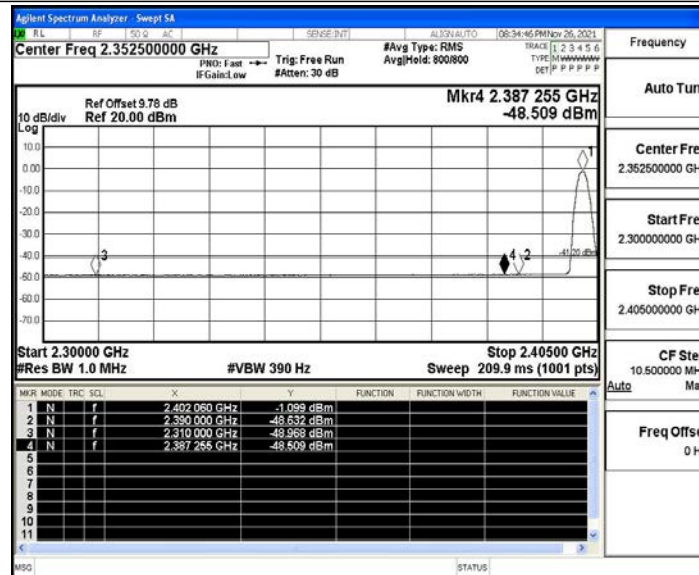




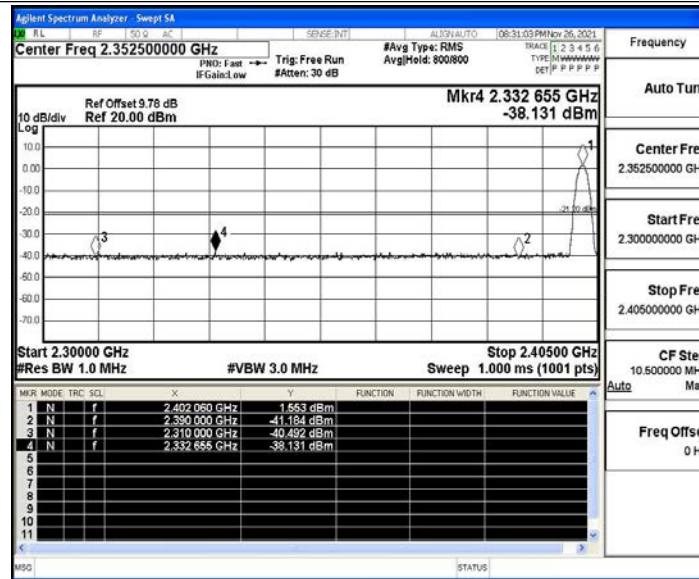
DH5_Ant1_High_Hop_2480_Peak



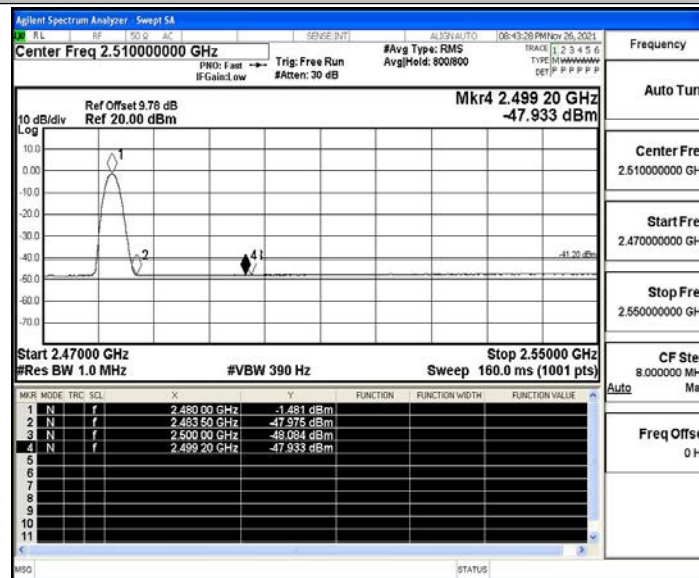
2DH5_Ant1_Low_2402_AV



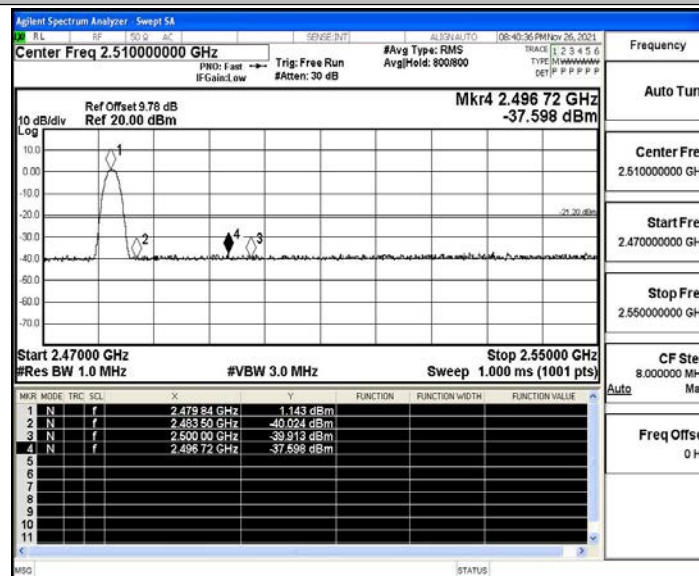
2DH5_Ant1_Low_2402_Peak



2DH5_Ant1_High_2480_AV

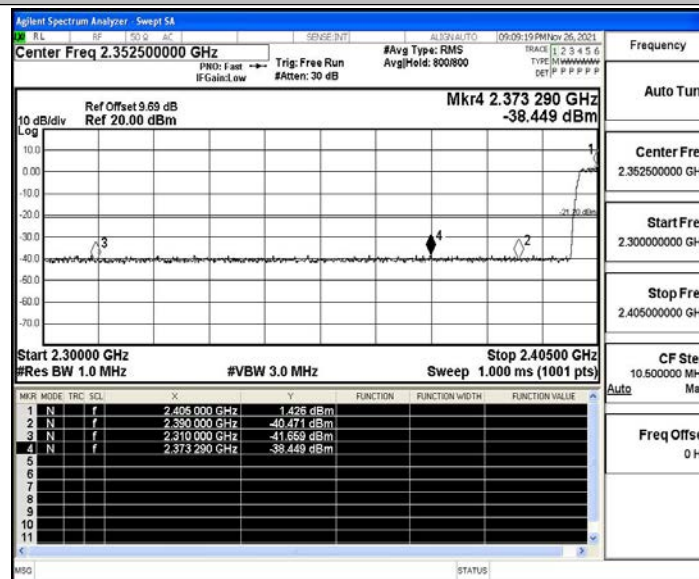


2DH5_Ant1_High_2480_Peak

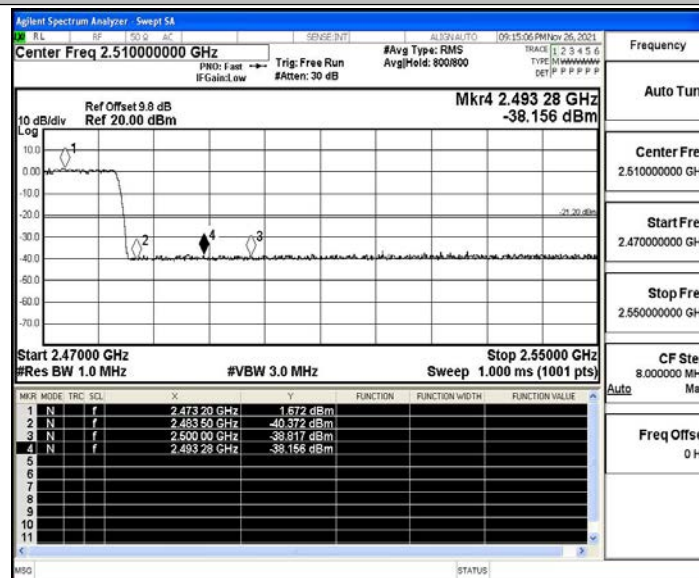




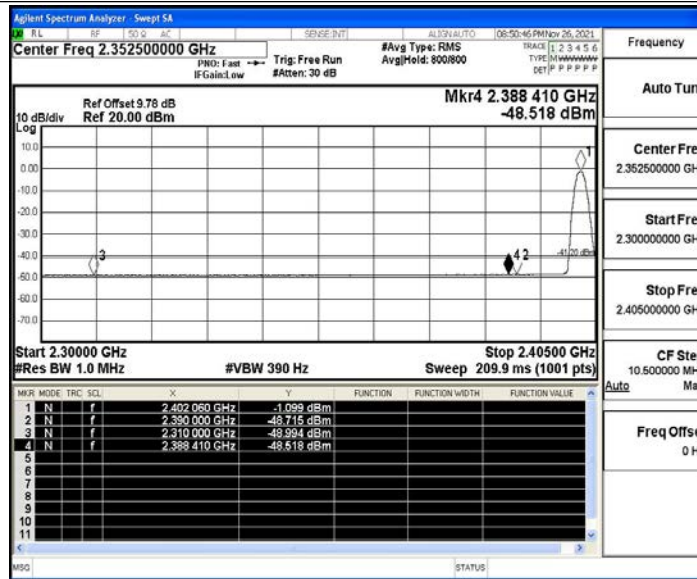
2DH5_Ant1_Low_Hop_2402_Peak



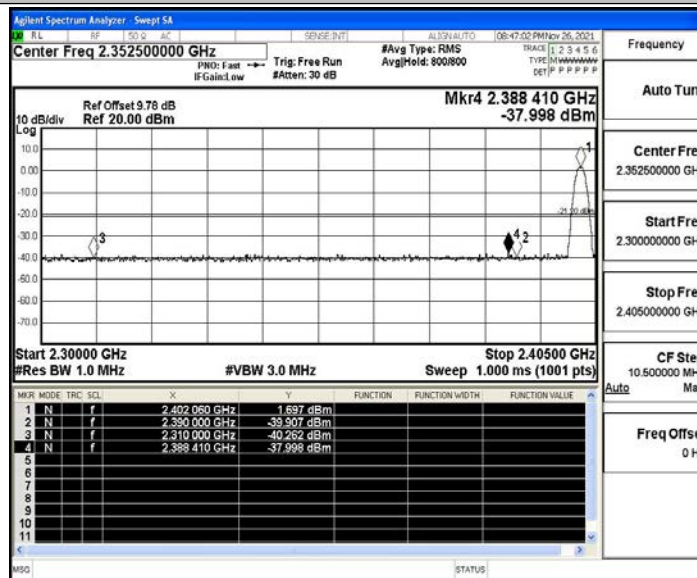
2DH5_Ant1_High_Hop_2480_Peak



3DH5_Ant1_Low_2402_AV



3DH5_Ant1_Low_2402_Peak

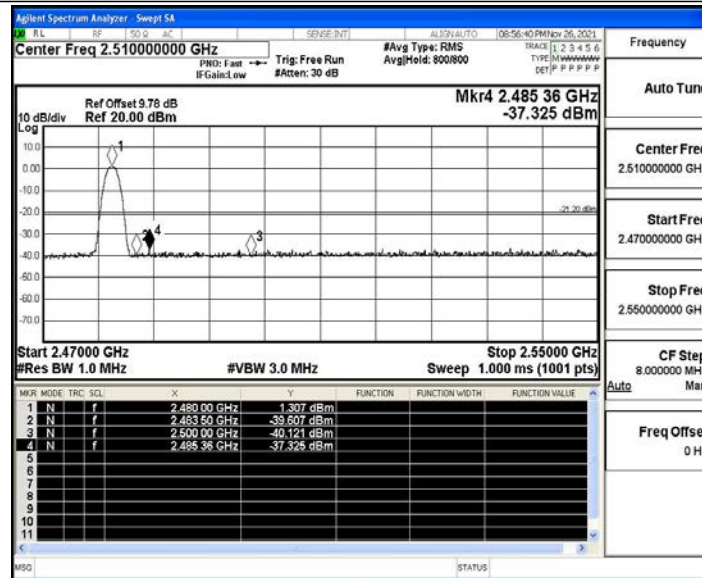


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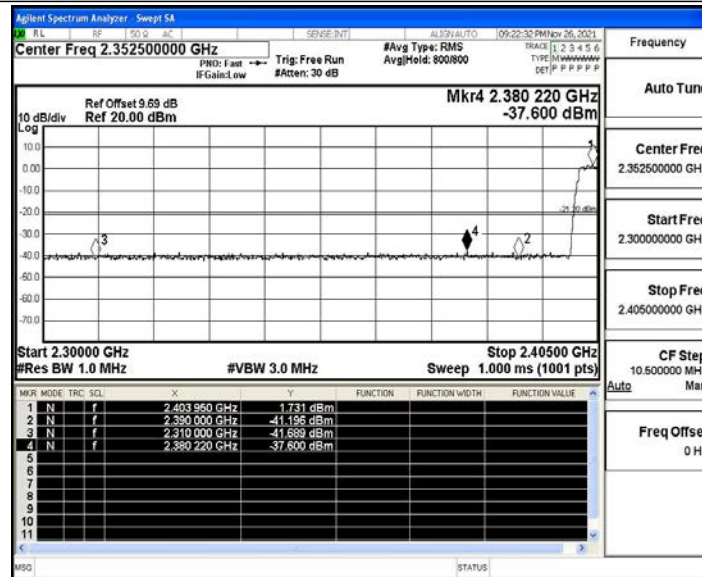




3DH5_Ant1_High_2480_Peak



3DH5_Ant1_Low_Hop_2402_Peak



3DH5_Ant1_High_Hop_2480_Peak

