



Appendix A

RF Test Data for BT (Conducted Measurement)

Product Name: Wireless Transmitter

Test Model: BTS-72

Environmental Conditions

Temperature:	21.1° C
Relative Humidity:	52.2%
ATM Pressure:	100.0 kPa
Test Engineer:	Carl Fu
Supervised by:	Li Huan



A.1 20dB Emission Bandwidth

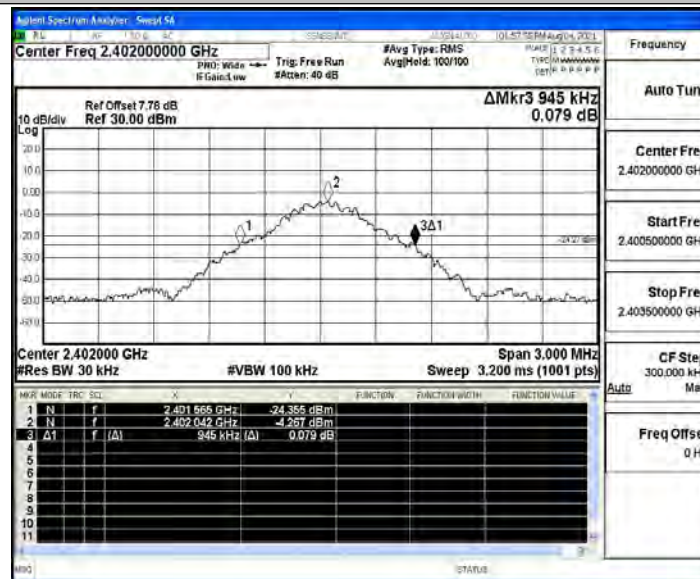
Test Result

TestMode	Antenna	Channel	20db EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.945	2401.565	2402.510	---	PASS
		2441	0.945	2440.565	2441.510	---	PASS
		2480	0.951	2479.559	2480.510	---	PASS
2DH5	Ant1	2402	1.293	2401.391	2402.684	---	PASS
		2441	1.293	2440.391	2441.684	---	PASS
		2480	1.323	2479.364	2480.687	---	PASS
3DH5	Ant1	2402	1.338	2401.358	2402.696	---	PASS
		2441	1.320	2440.370	2441.690	---	PASS
		2480	1.299	2479.379	2480.678	---	PASS

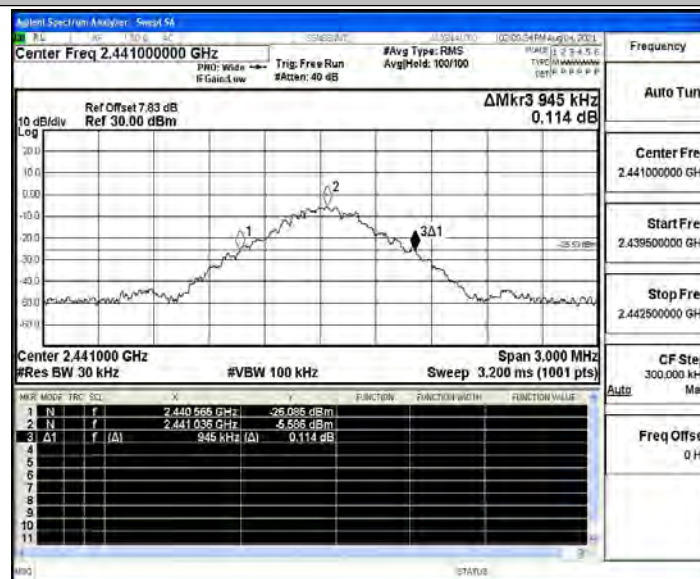


Test Graphs

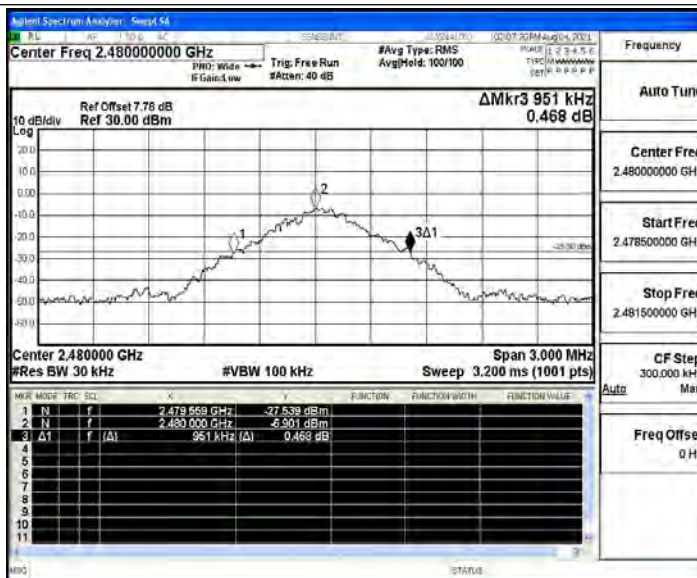
DH5_Ant1_2402



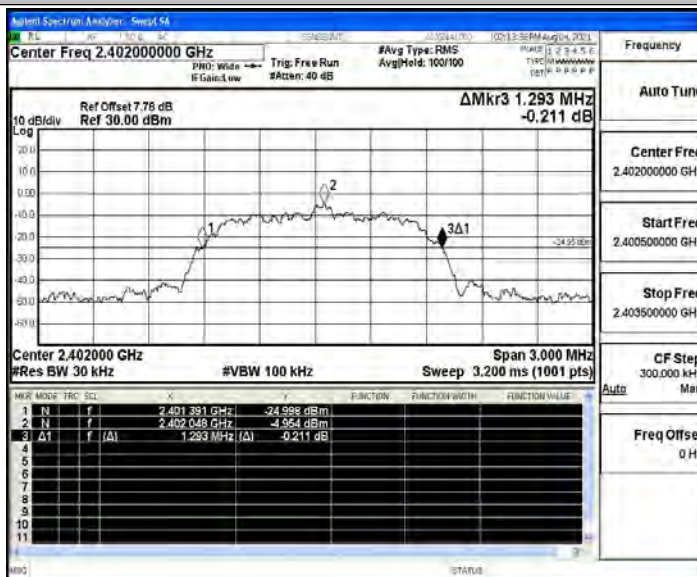
DH5_Ant1_2441



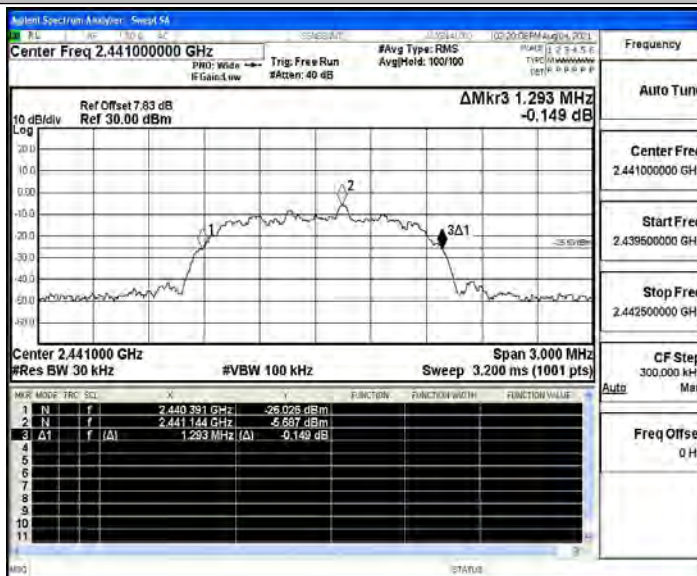
DH5_Ant1_2480



2DH5_Ant1_2402

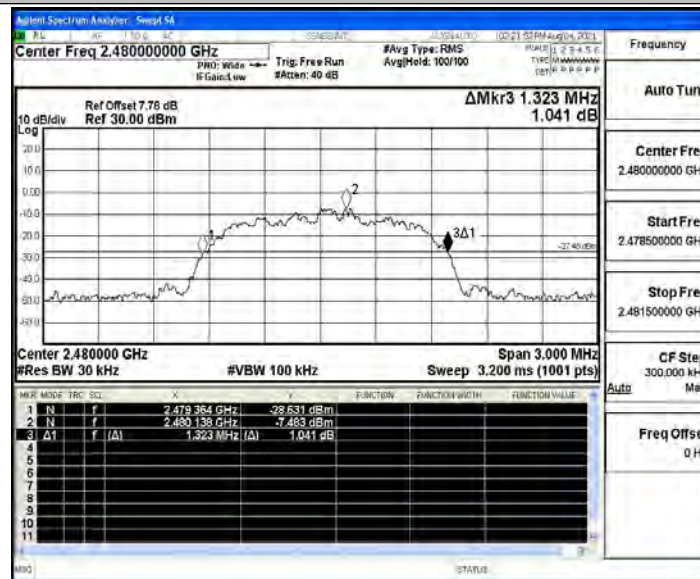


2DH5_Ant1_2441

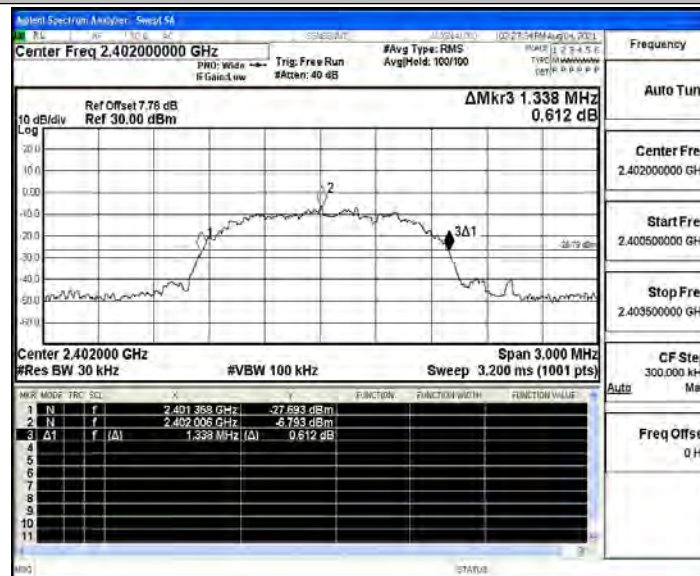




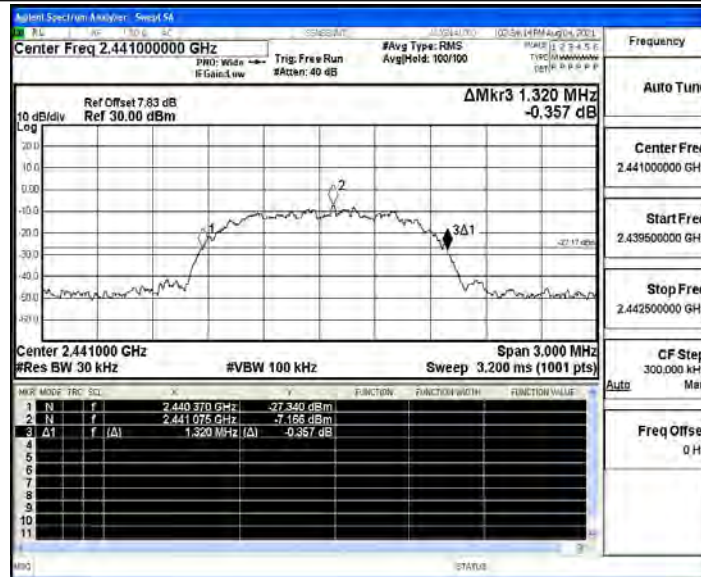
2DH5_Ant1_2480



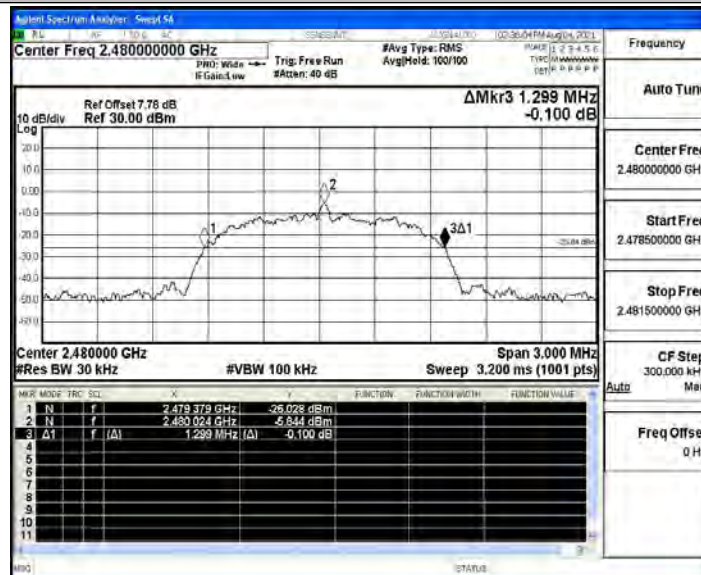
3DH5_Ant1_2402



3DH5_Ant1_2441



3DH5_Ant1_2480



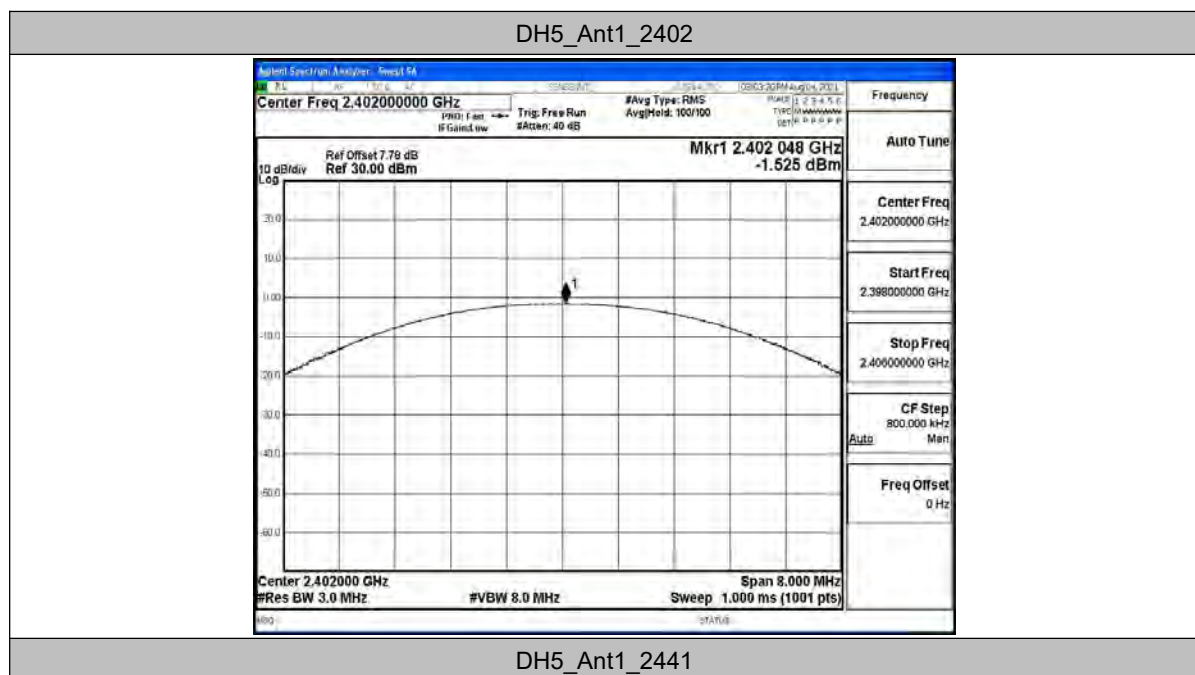


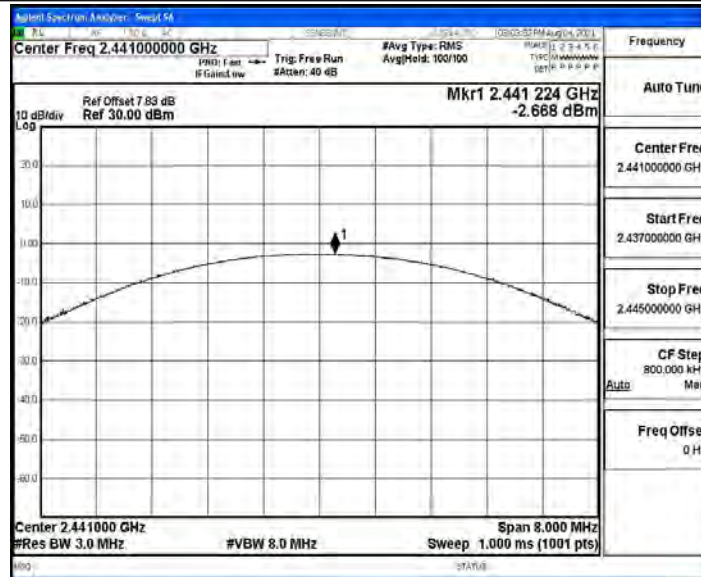
A.2 Maximum conducted output power

Test Result

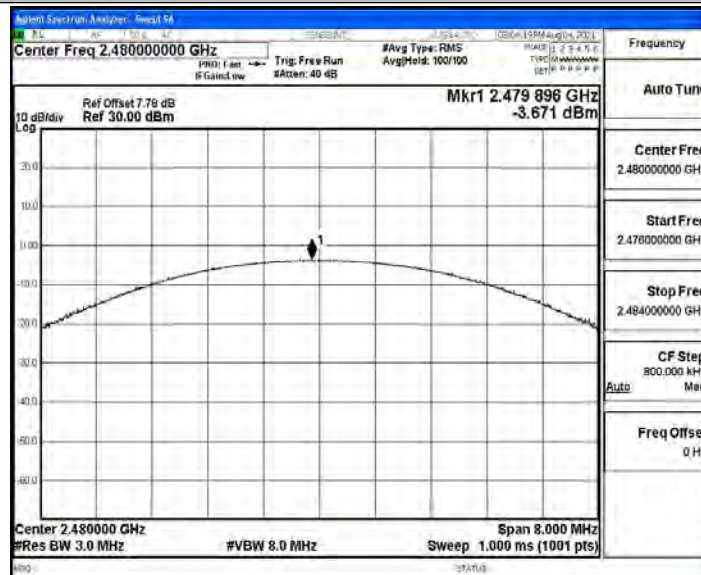
TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
DH5	Ant1	2402	-1.53	≤20.97	PASS
		2441	-2.67	≤20.97	PASS
		2480	-3.67	≤20.97	PASS
2DH5	Ant1	2402	0.56	≤20.97	PASS
		2441	-0.68	≤20.97	PASS
		2480	-1.81	≤20.97	PASS
3DH5	Ant1	2402	1.1	≤20.97	PASS
		2441	-0.1	≤20.97	PASS
		2480	-1.2	≤20.97	PASS

Test Graphs

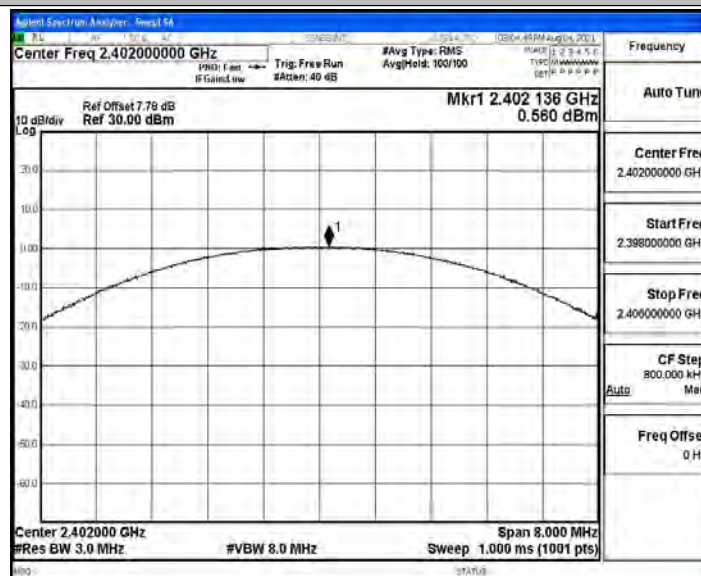




DH5_Ant1_2480

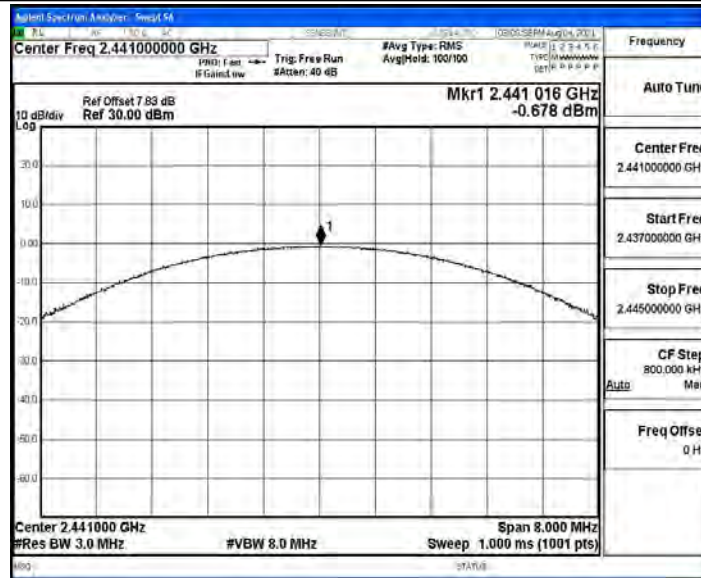


2DH5_Ant1_2402

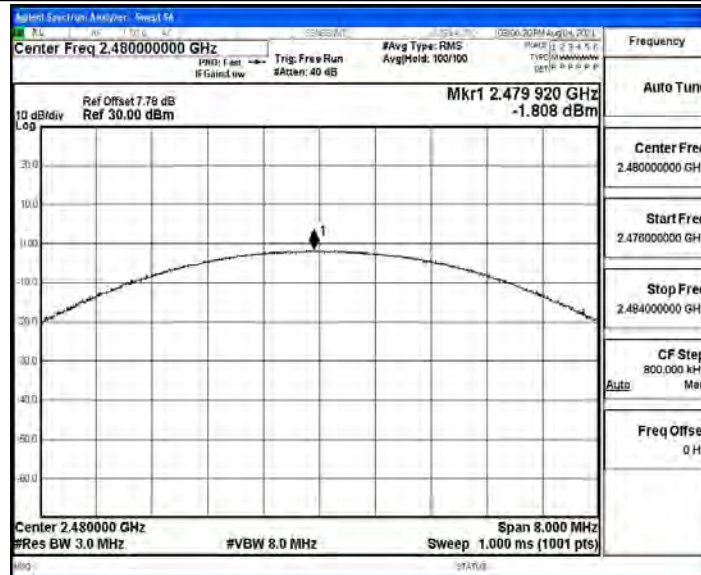




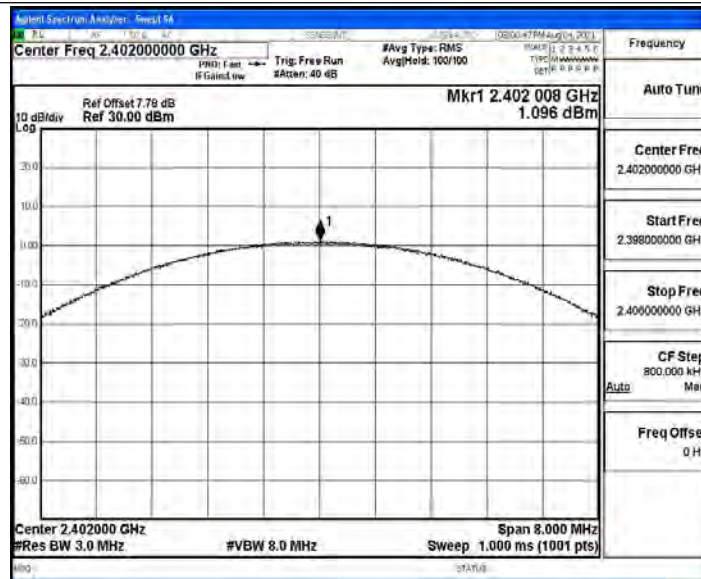
2DH5_Ant1_2441



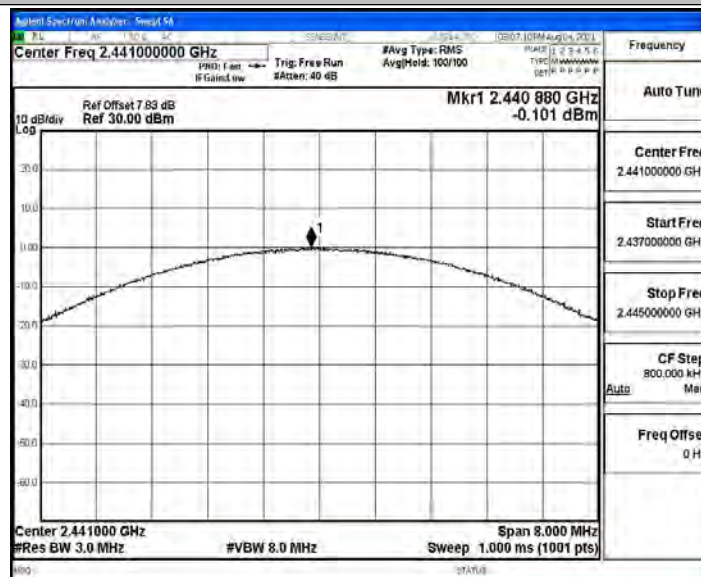
2DH5_Ant1_2480



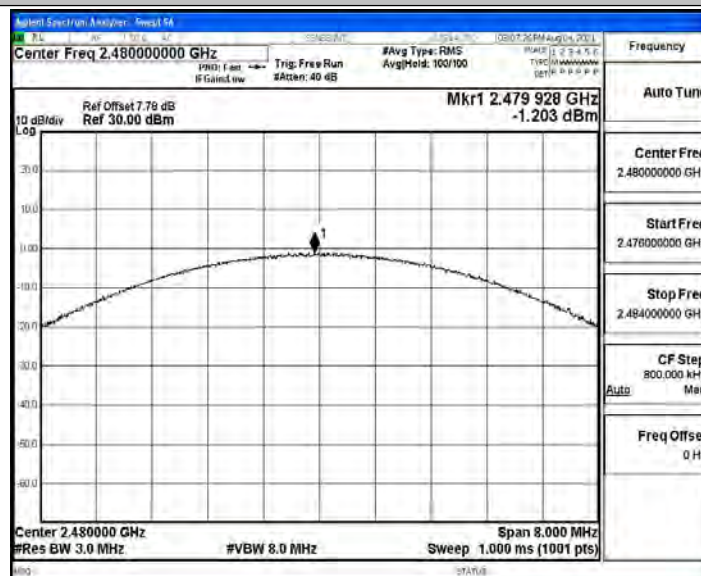
3DH5_Ant1_2402



3DH5_Ant1_2441



3DH5_Ant1_2480





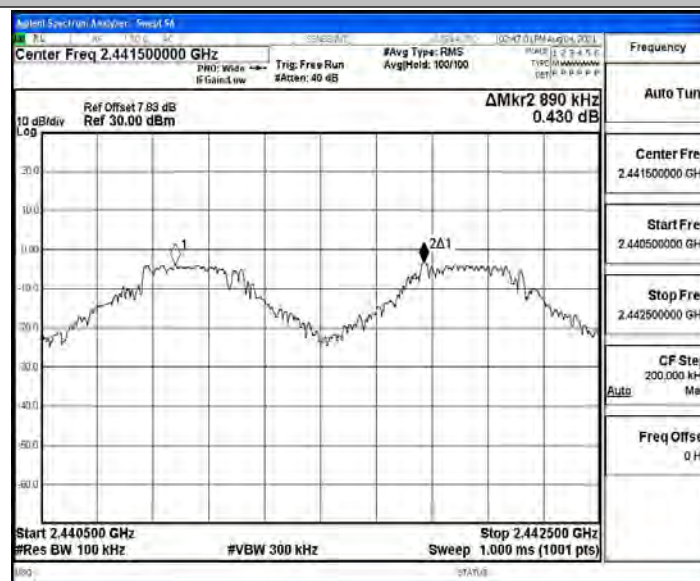
A.3 Carrier frequency separation

Test Result

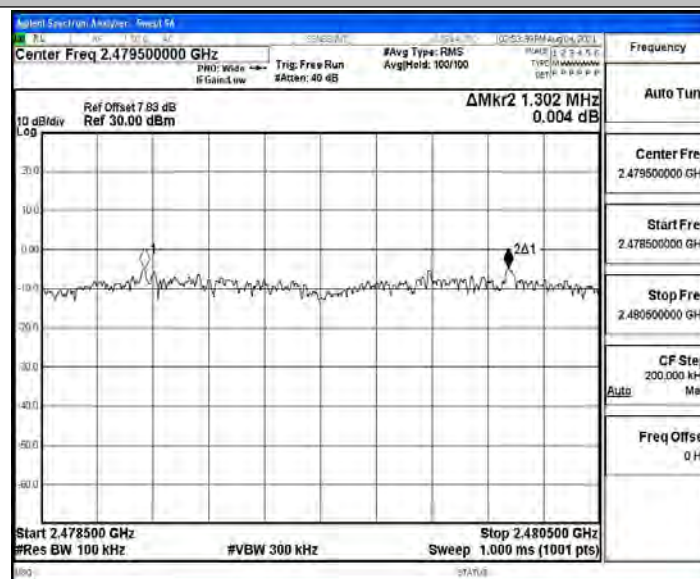
TestMode	Antenna	Channel	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	0.89	≥ 0.634	PASS
2DH5	Ant1	Hop	1.302	≥ 0.882	PASS
3DH5	Ant1	Hop	1.01	≥ 0.892	PASS

Test Graphs

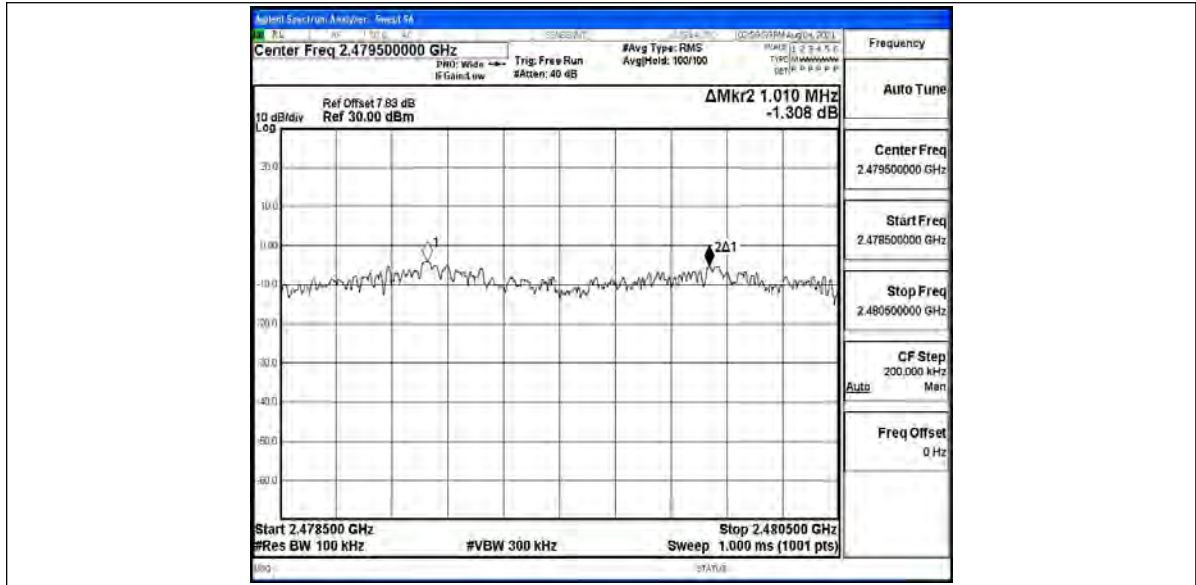
DH5_Ant1_Hop



2DH5_Ant1_Hop



3DH5_Ant1_Hop



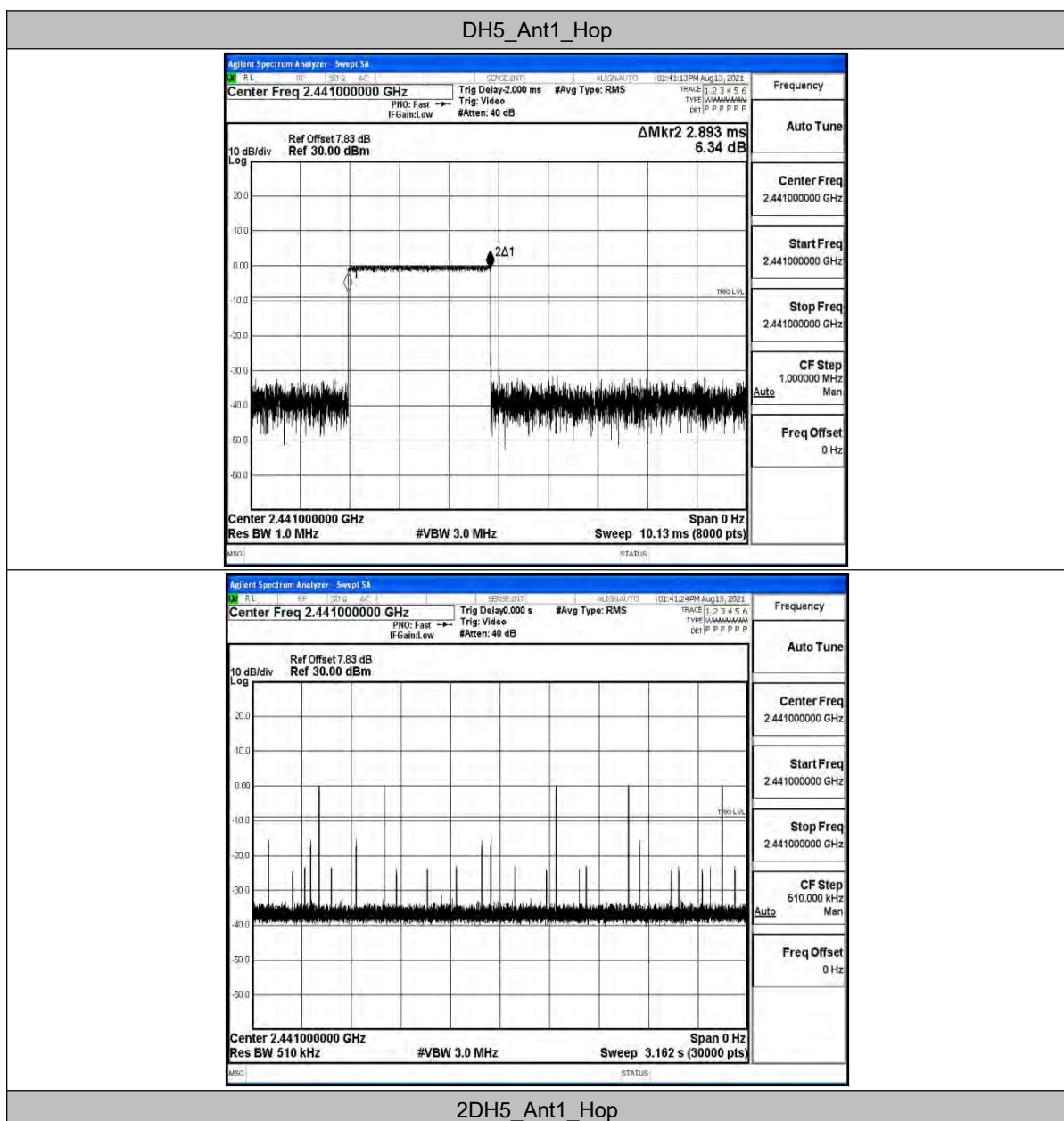


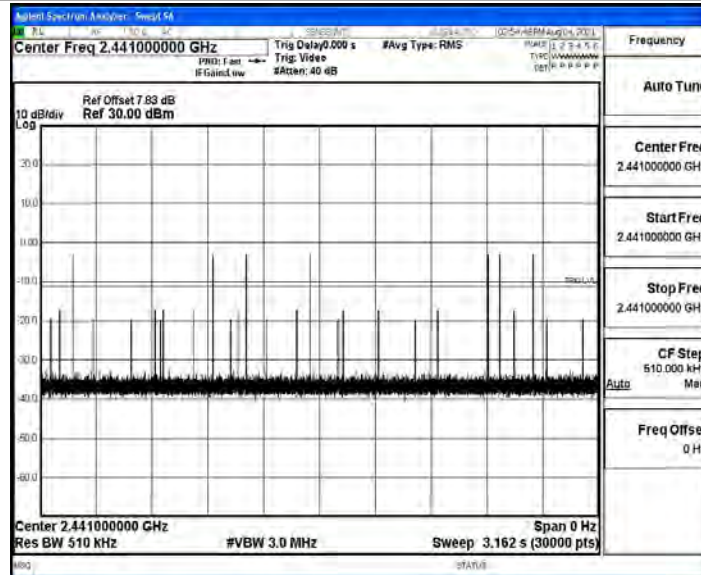
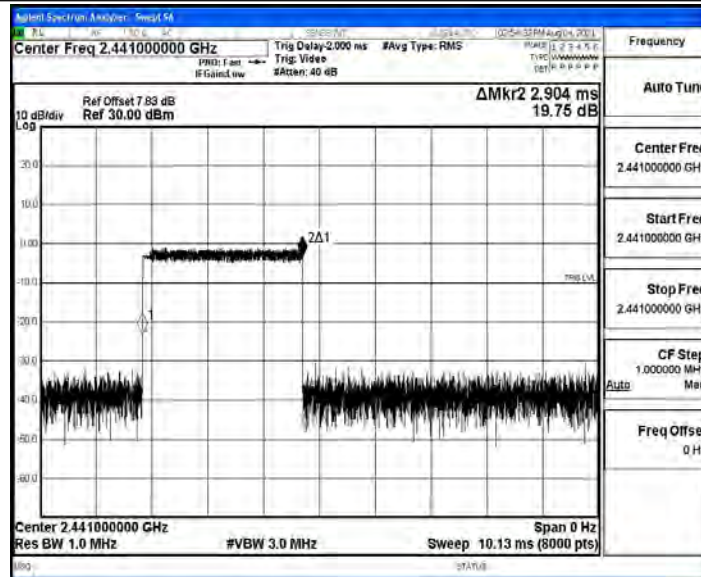
A.4 Time of occupancy

Test Result

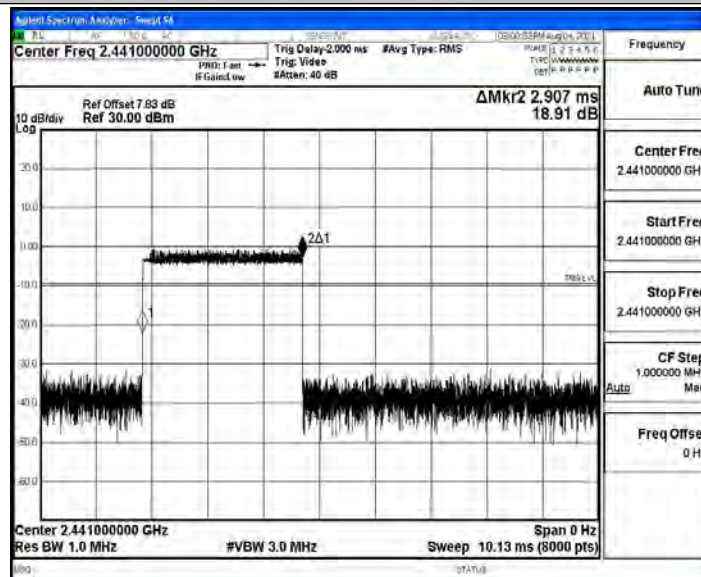
TestMode	Antenna	Channel	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH5	Ant1	Hop	2.89	60	0.174	≤0.4	PASS
2DH5	Ant1	Hop	2.90	80	0.232	≤0.4	PASS
3DH5	Ant1	Hop	2.91	120	0.349	≤0.4	PASS

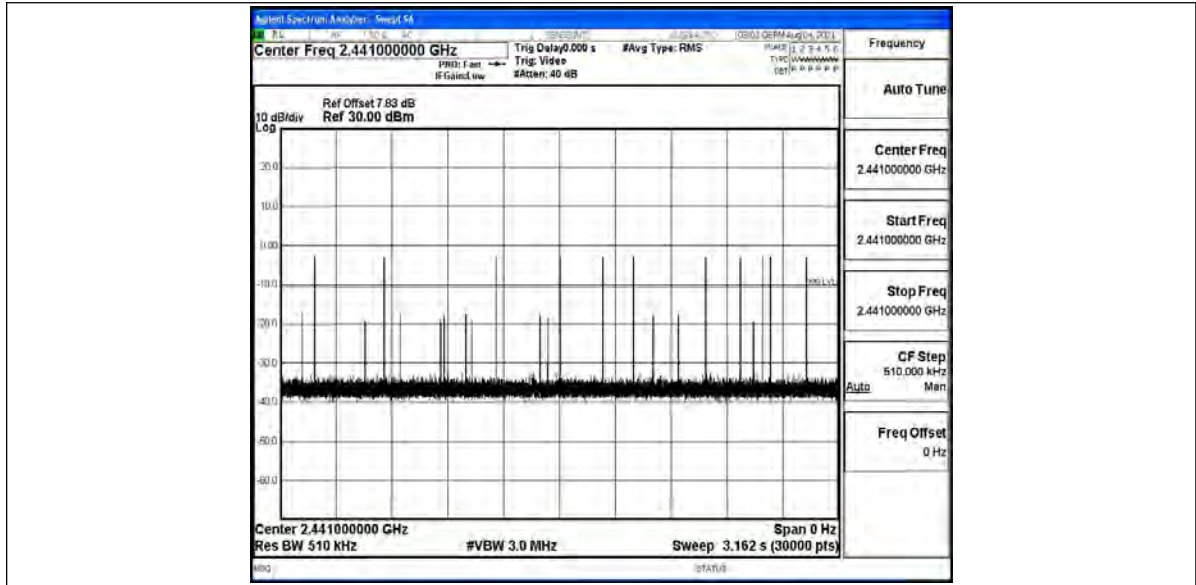
Test Graphs





3DH5_Ant1_Hop







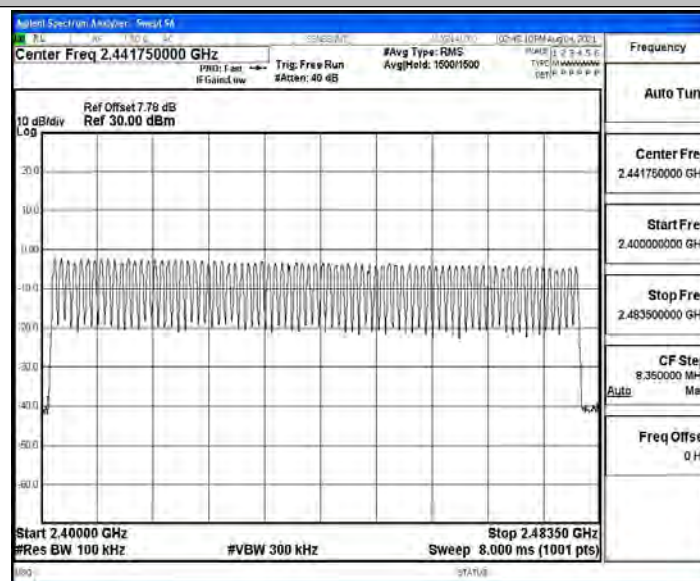
A.5 Number of hopping channels

Test Result

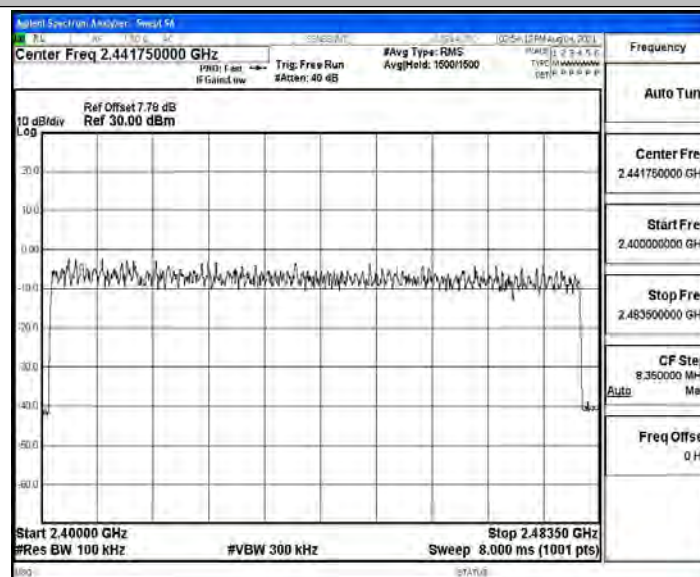
TestMode	Antenna	Channel	Result[Num]	Limit[Num]	Verdict
DH5	Ant1	Hop	79	≥15	PASS
2DH5	Ant1	Hop	79	≥15	PASS
3DH5	Ant1	Hop	79	≥15	PASS

Test Graphs

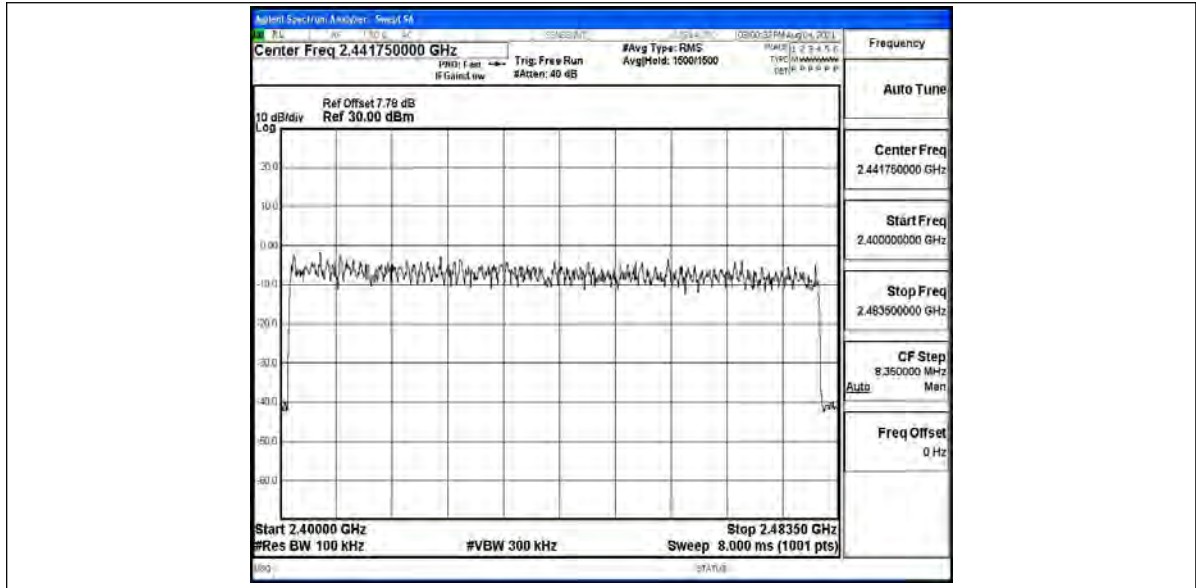
DH5_Ant1_Hop



2DH5_Ant1_Hop



3DH5_Ant1_Hop





A.6 Band edge measurements

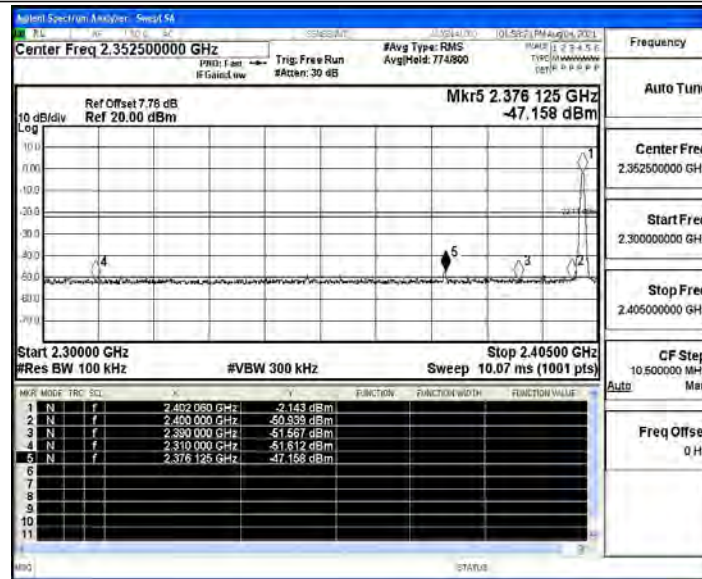
Test Result

TestMode	Antenna	ChName	Channel	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	-2.14	-47.16	≤ -22.14	PASS
		High	2480	-4.47	-47.85	≤ -24.47	PASS
		Low	Hop_2402	-2.52	-48.93	≤ -22.52	PASS
		High	Hop_2480	-4.27	-48.24	≤ -24.27	PASS
2DH5	Ant1	Low	2402	-2.27	-48.64	≤ -22.27	PASS
		High	2480	-4.49	-48.5	≤ -24.49	PASS
		Low	Hop_2402	-2.68	-49.6	≤ -22.68	PASS
		High	Hop_2480	-4.36	-48.2	≤ -24.36	PASS
3DH5	Ant1	Low	2402	-1.86	-48.05	≤ -21.86	PASS
		High	2480	-4.25	-48.09	≤ -24.25	PASS
		Low	Hop_2402	-4.15	-49.13	≤ -24.15	PASS
		High	Hop_2480	-4.25	-48.6	≤ -24.25	PASS

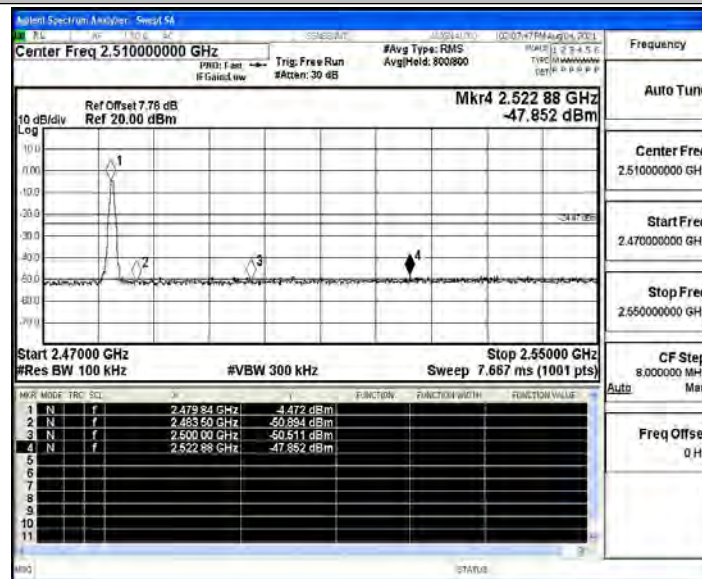


Test Graphs

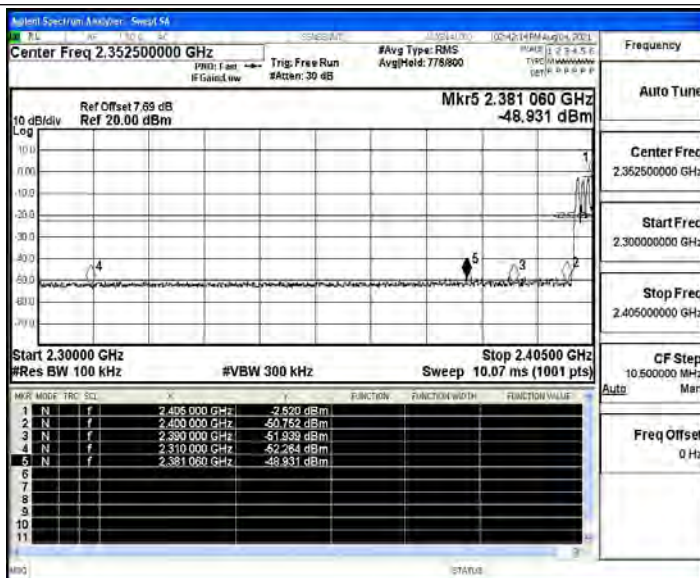
DH5_Ant1_Low_2402



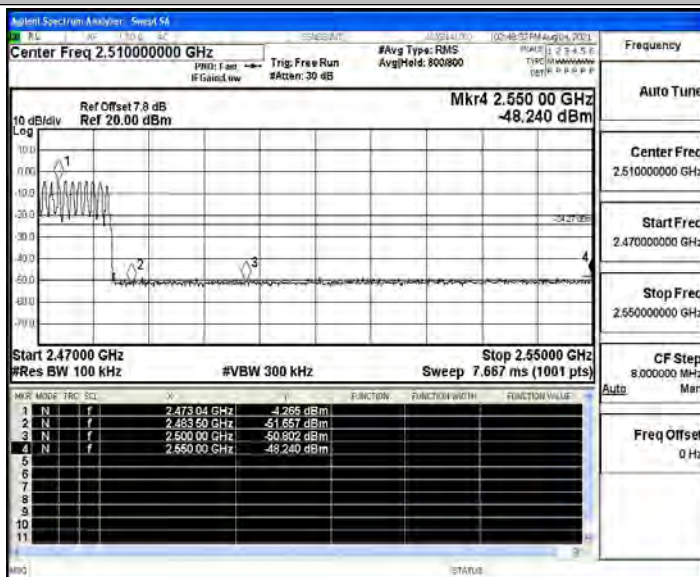
DH5_Ant1_High_2480



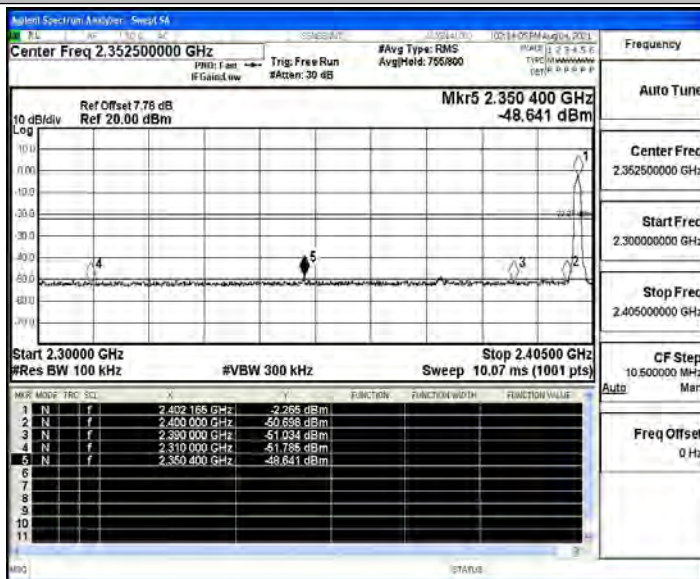
DH5_Ant1_Low_Hop_2402



DH5_Ant1_High_Hop_2480

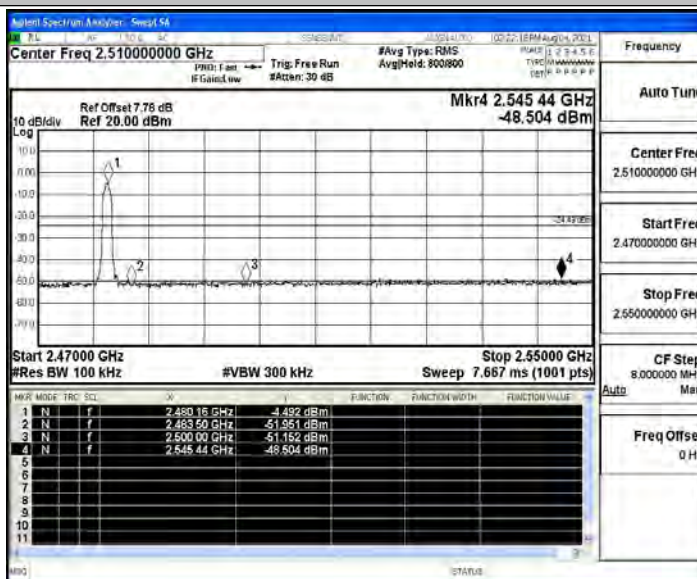


2DH5_Ant1_Low_2402

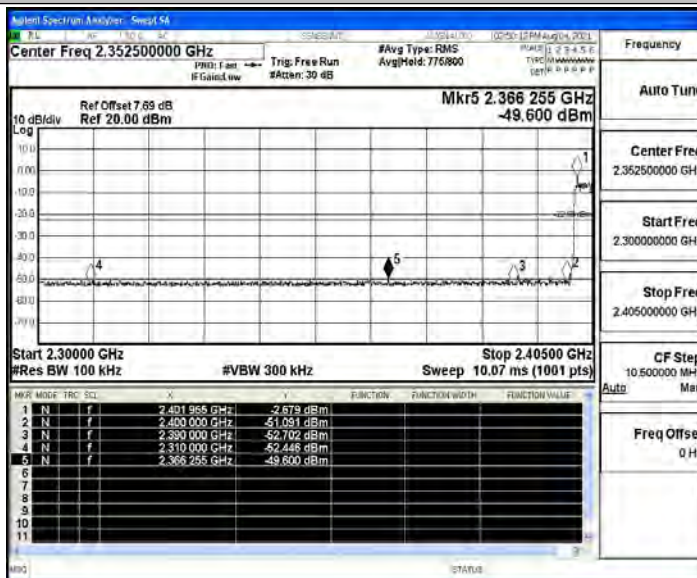




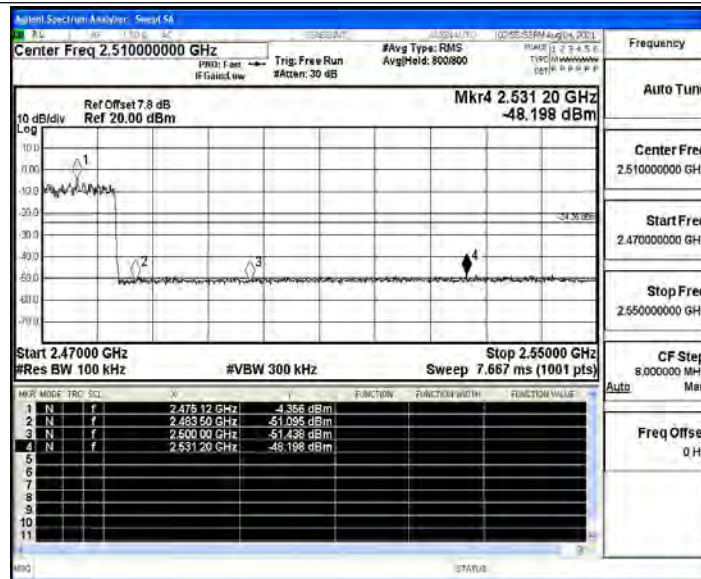
2DH5_Ant1_High_2480



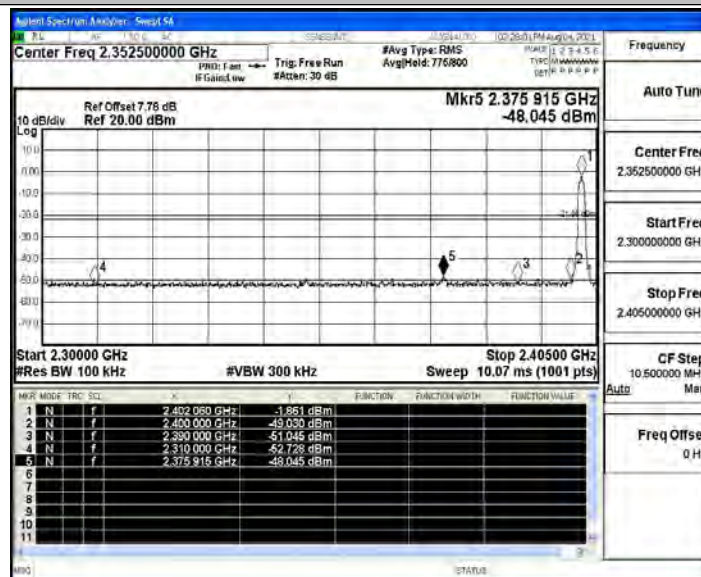
2DH5_Ant1_Low_Hop_2402



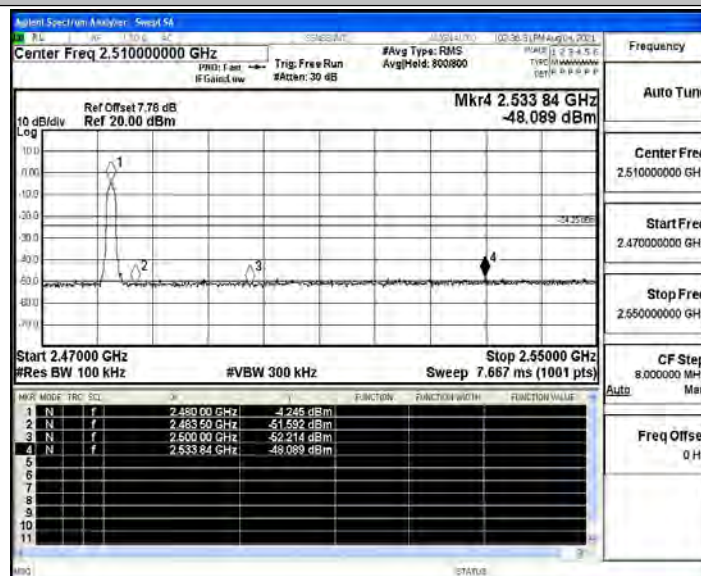
2DH5_Ant1_High_Hop_2480



3DH5_Ant1_Low_2402

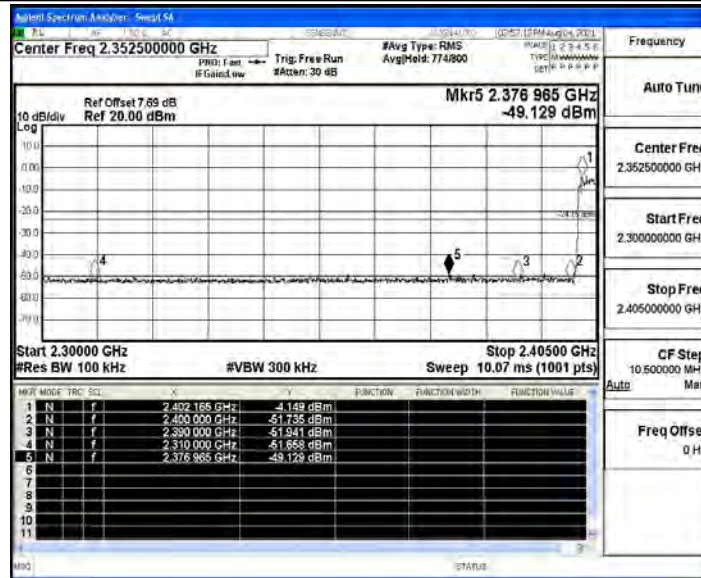


3DH5_Ant1_High_2480

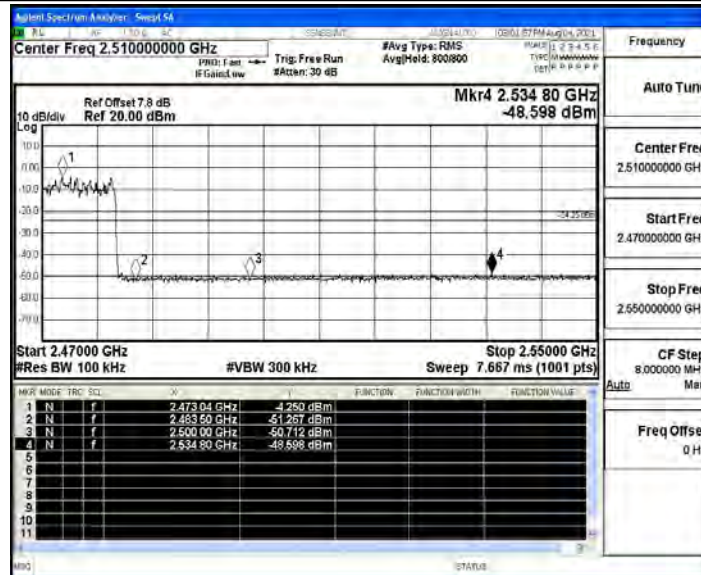




3DH5_Ant1_Low_Hop_2402



3DH5_Ant1_High_Hop_2480





A.7 Conducted Spurious Emission

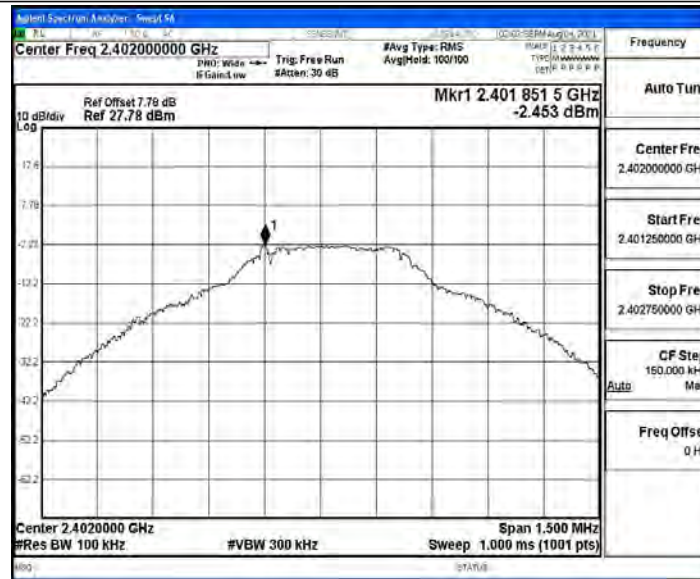
Test Result

TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	Reference	-2.45	-2.45	---	PASS
			30~1000	-2.45	-61.26	≤ -22.45	PASS
			1000~26500	-2.45	-48.01	≤ -22.45	PASS
		2441	Reference	-3.76	-3.76	---	PASS
			30~1000	-3.76	-60.82	≤ -23.76	PASS
			1000~26500	-3.76	-47.3	≤ -23.76	PASS
		2480	Reference	-4.45	-4.45	---	PASS
			30~1000	-4.45	-60.3	≤ -24.45	PASS
			1000~26500	-4.45	-47.17	≤ -24.45	PASS
2DH5	Ant1	2402	Reference	-2.87	-2.87	---	PASS
			30~1000	-2.87	-61.14	≤ -22.87	PASS
			1000~26500	-2.87	-46.7	≤ -22.87	PASS
		2441	Reference	-4.11	-4.11	---	PASS
			30~1000	-4.11	-61.55	≤ -24.11	PASS
			1000~26500	-4.11	-47.74	≤ -24.11	PASS
		2480	Reference	-6.61	-6.61	---	PASS
			30~1000	-6.61	-61.64	≤ -26.61	PASS
			1000~26500	-6.61	-47.17	≤ -26.61	PASS
3DH5	Ant1	2402	Reference	-2.88	-2.88	---	PASS
			30~1000	-2.88	-61.01	≤ -22.88	PASS
			1000~26500	-2.88	-47.25	≤ -22.88	PASS
		2441	Reference	-3.63	-3.63	---	PASS
			30~1000	-3.63	-60.66	≤ -23.63	PASS
			1000~26500	-3.63	-47.78	≤ -23.63	PASS
		2480	Reference	-4.68	-4.68	---	PASS
			30~1000	-4.68	-61.56	≤ -24.68	PASS
			1000~26500	-4.68	-47.74	≤ -24.68	PASS

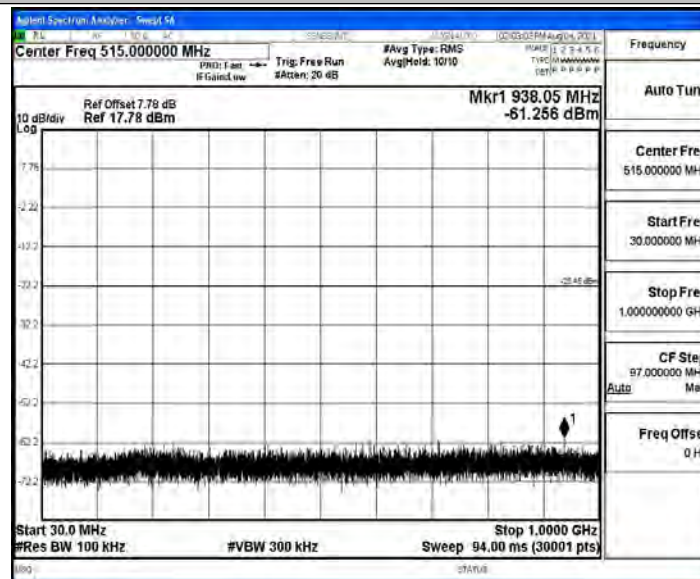


Test Graphs

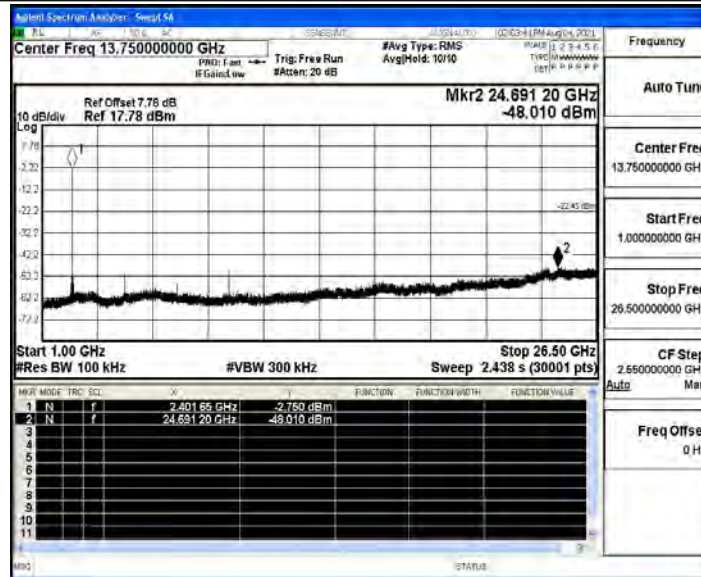
DH5_Ant1_2402_0~Reference



DH5_Ant1_2402_30~1000



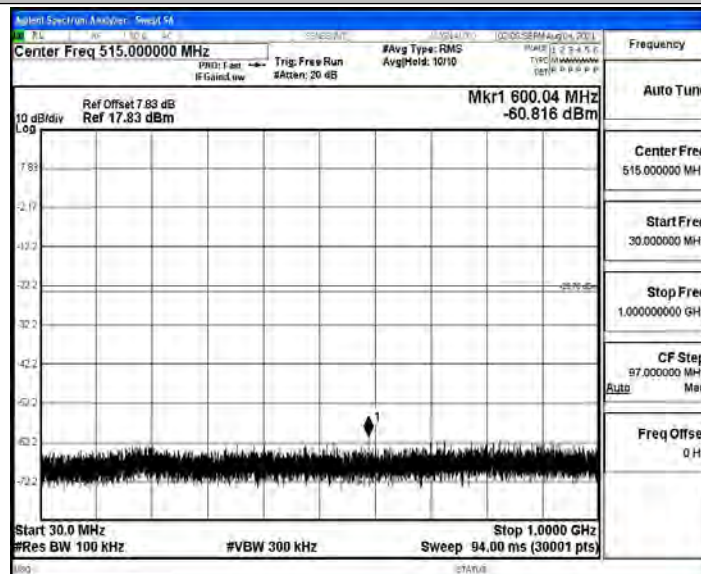
DH5_Ant1_2402_1000~26500



DH5_Ant1_2441_0~Reference

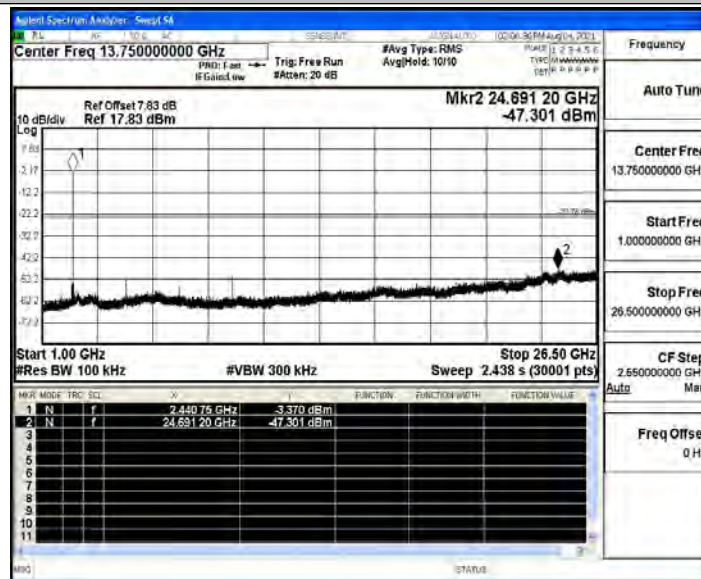


DH5_Ant1_2441_30~1000





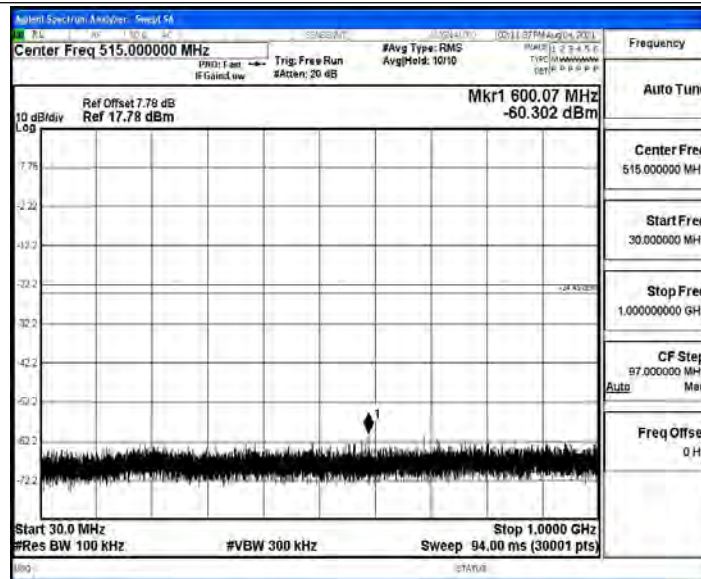
DH5_Ant1_2441_1000~26500



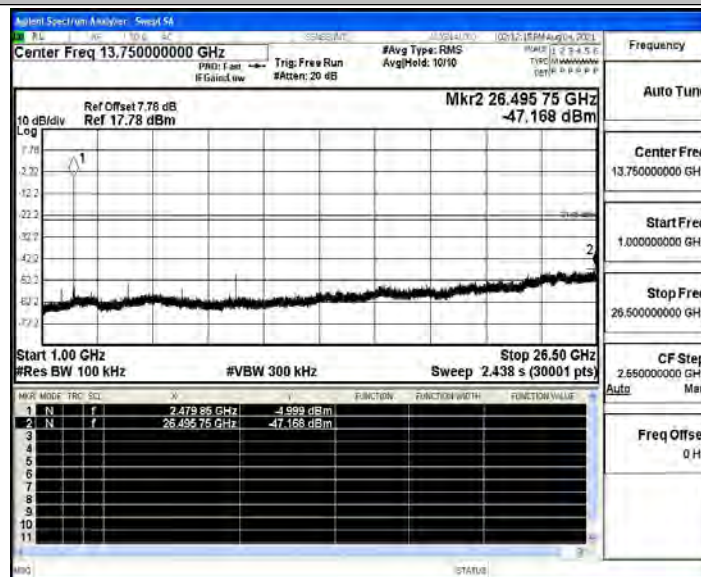
DH5_Ant1_2480_0~Reference



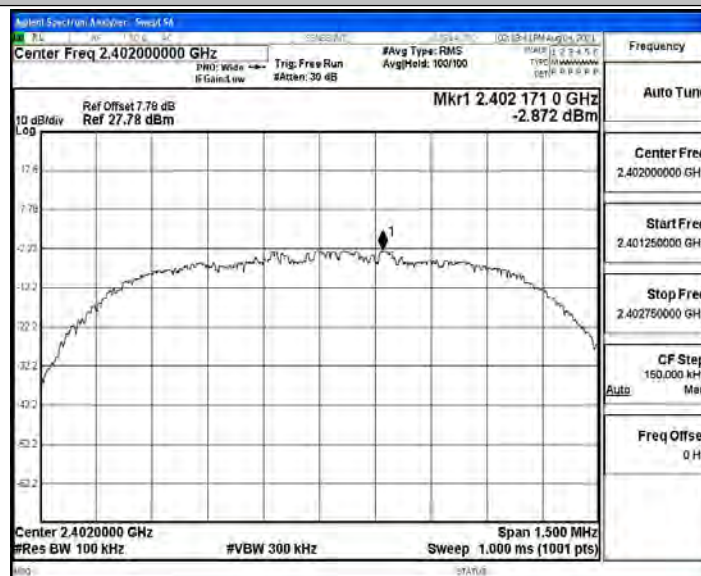
DH5_Ant1_2480_30~1000



DH5_Ant1_2480_1000~26500

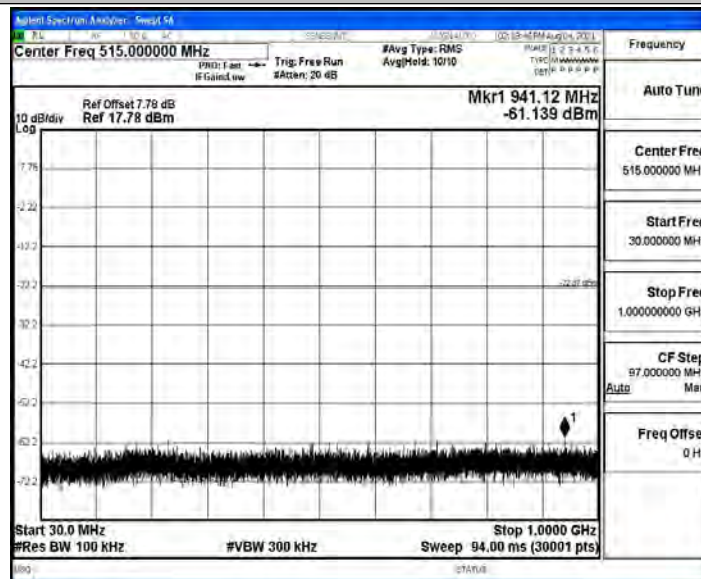


2DH5_Ant1_2402_0~Reference

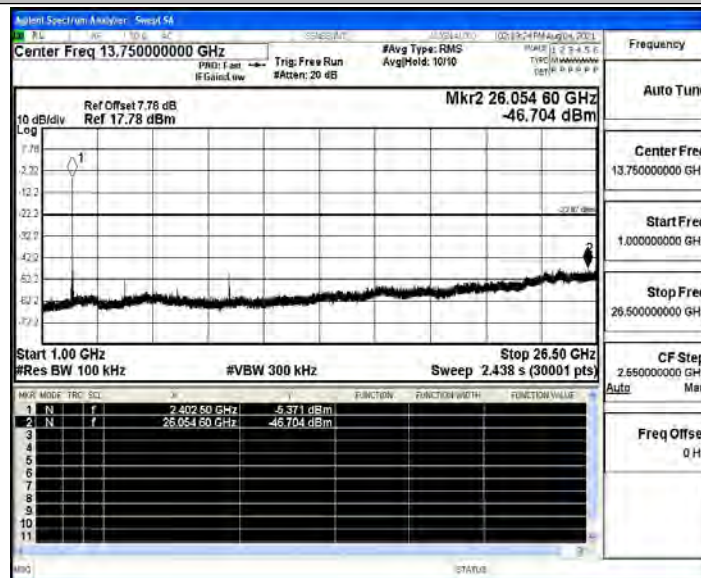




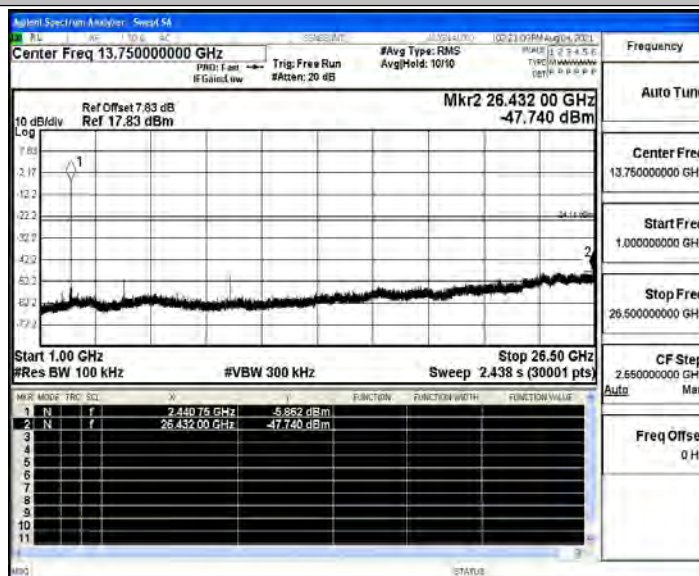
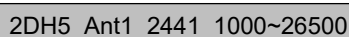
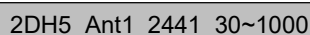
2DH5_Ant1_2402_30~1000



2DH5_Ant1_2402_1000~26500

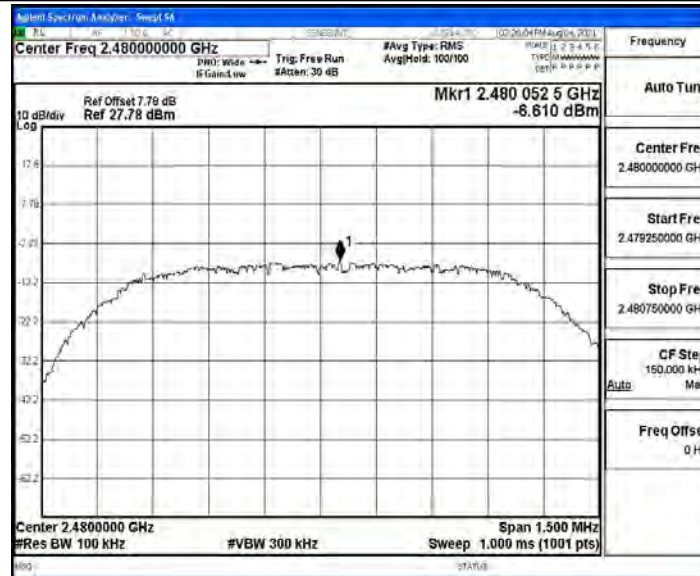


2DH5_Ant1_2441_0~Reference

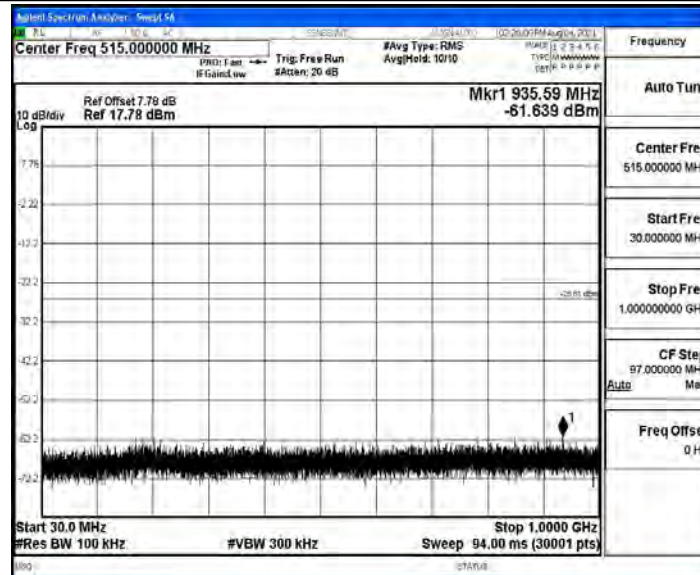




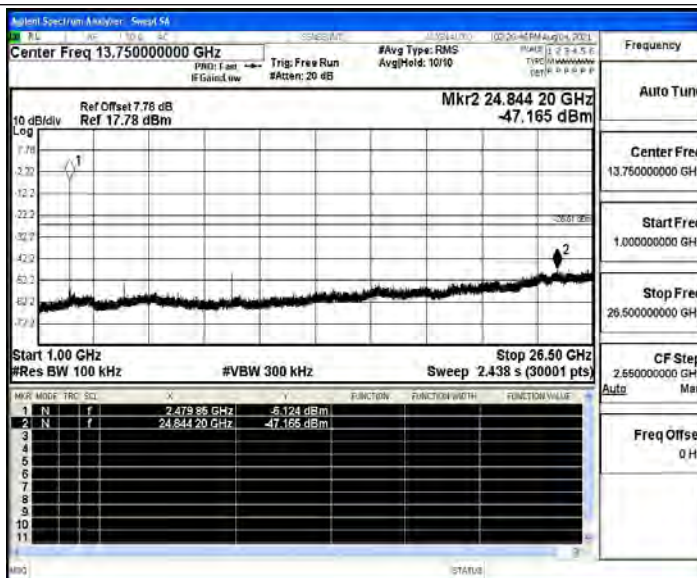
2DH5_Ant1_2480_0~Reference



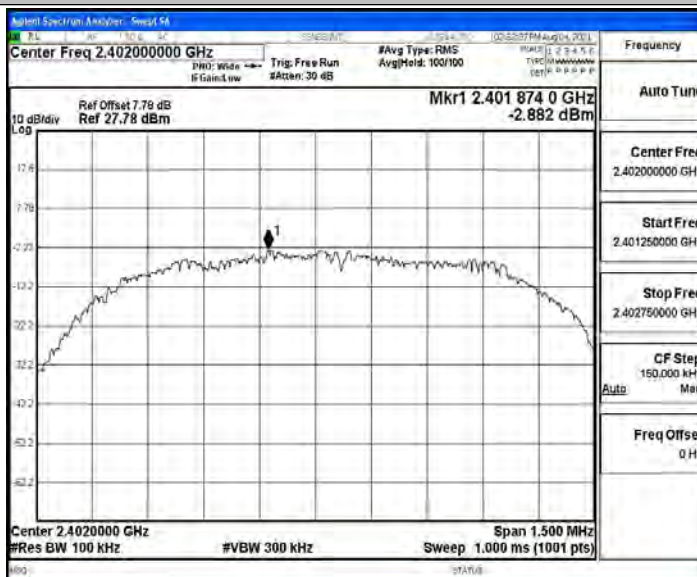
2DH5_Ant1_2480_30~1000



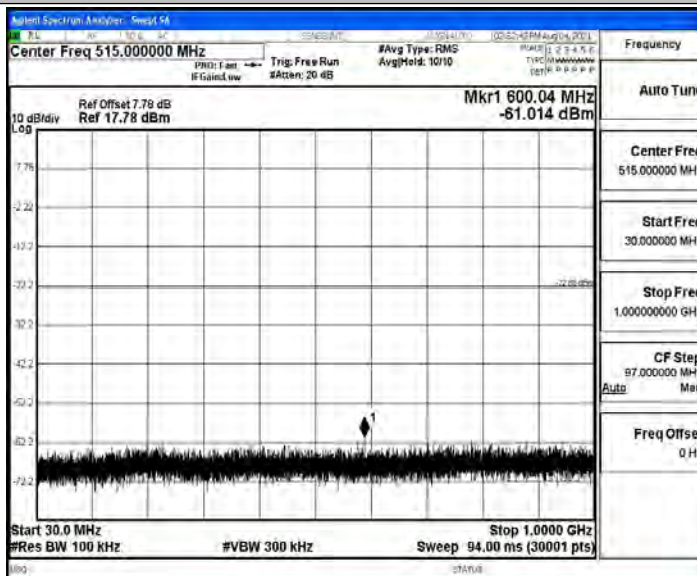
2DH5_Ant1_2480_1000~26500



3DH5_Ant1_2402_0~Reference

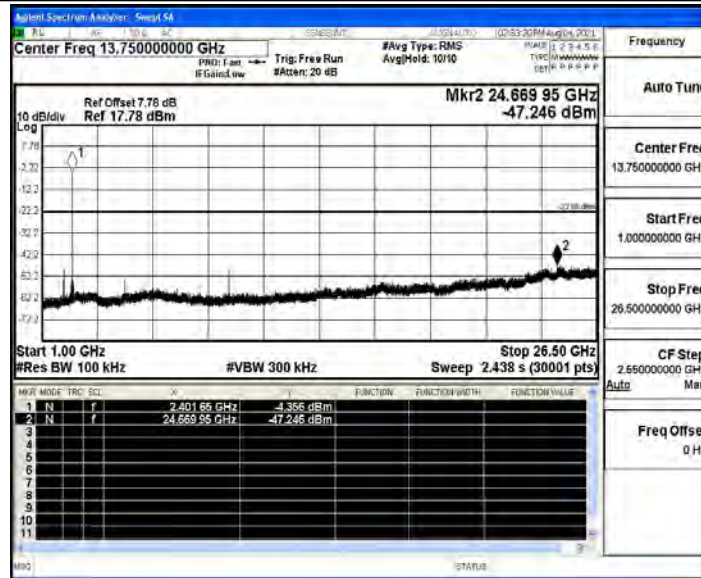


3DH5_Ant1_2402_30~1000

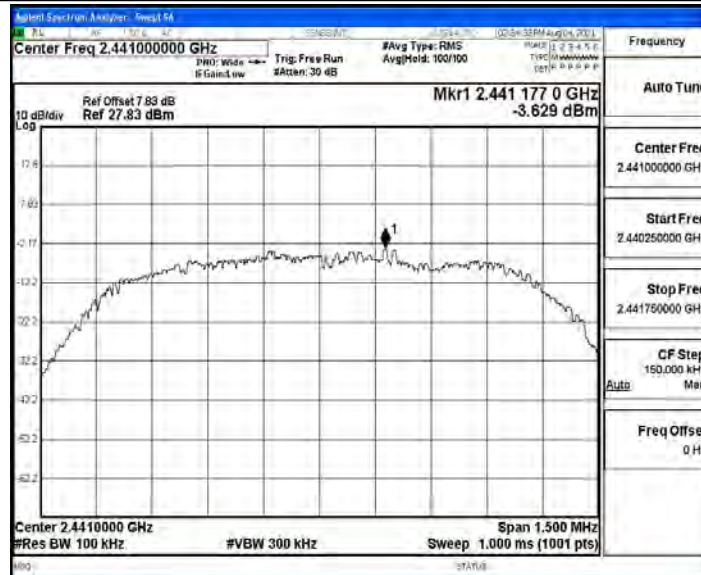




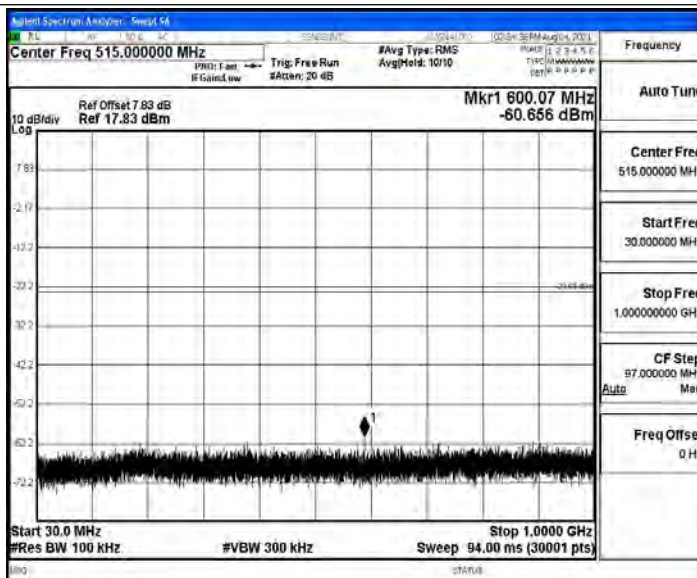
3DH5_Ant1_2402_1000~26500



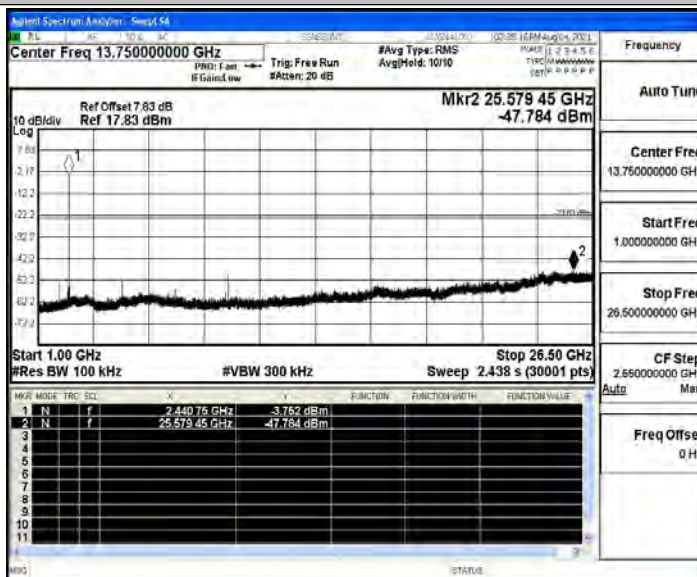
3DH5_Ant1_2441_0~Reference



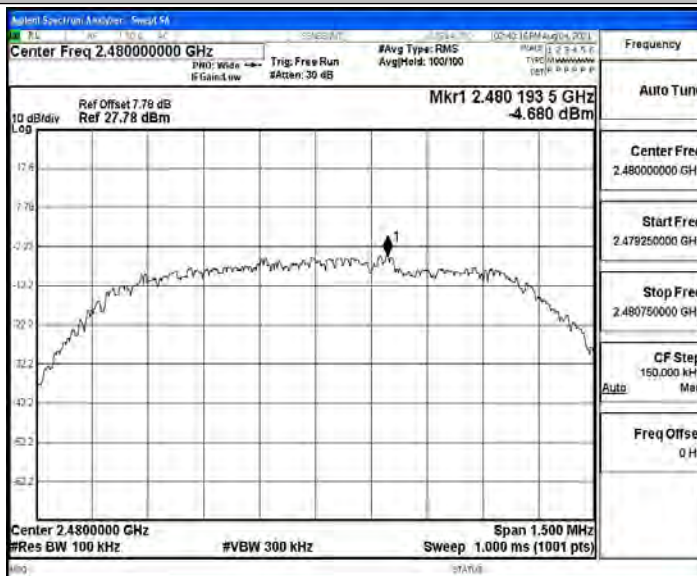
3DH5_Ant1_2441_30~1000



3DH5_Ant1_2441_1000~26500

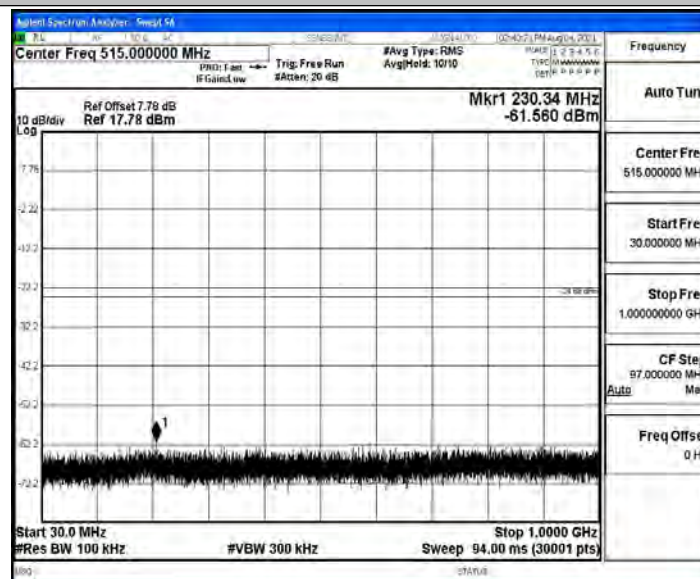


3DH5_Ant1_2480_0~Reference

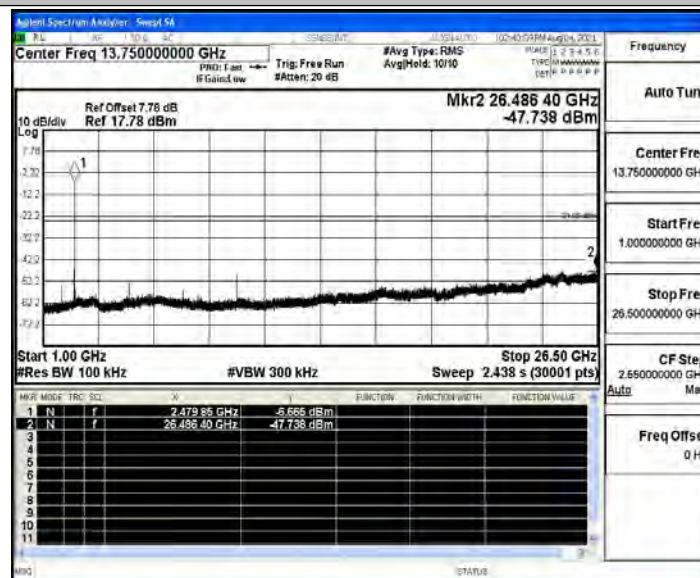




3DH5_Ant1_2480_30~1000



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	-48.92	≤-41.20	46.28	≤54	PASS
				AV	2376.125	-46.12	≤-41.20	49.08	≤54	PASS
				AV	2390.000	-48.58	≤-41.20	46.62	≤54	PASS
				Peak	2310.000	-40.56	≤-21.20	54.64	≤74	PASS
				Peak	2376.230	-38.25	≤-21.20	56.95	≤74	PASS
				Peak	2390.000	-40.35	≤-21.20	54.85	≤74	PASS
		High	2480	AV	2483.500	-48	≤-41.20	47.20	≤54	PASS
				AV	2496.720	-47.84	≤-41.20	47.36	≤54	PASS
				AV	2500.000	-47.94	≤-41.20	47.26	≤54	PASS
				Peak	2483.500	-40.02	≤-21.20	55.18	≤74	PASS
				Peak	2487.280	-37.36	≤-21.20	57.84	≤74	PASS
				Peak	2500.000	-39.18	≤-21.20	56.02	≤74	PASS
		Low	Hop_240 2	Peak	2310.000	-40.5	≤-21.20	54.70	≤74	PASS
				Peak	2385.575	-37.16	≤-21.20	58.04	≤74	PASS
				Peak	2390.000	-40.07	≤-21.20	55.13	≤74	PASS
		High	Hop_248 0	Peak	2483.500	-39.11	≤-21.20	56.09	≤74	PASS
				Peak	2488.080	-37.34	≤-21.20	57.86	≤74	PASS
				Peak	2500.000	-39.11	≤-21.20	56.09	≤74	PASS
2DH5	Ant1	Low	2402	AV	2310.000	-48.93	≤-41.20	46.27	≤54	PASS
				AV	2376.125	-46.57	≤-41.20	48.63	≤54	PASS
				AV	2390.000	-48.49	≤-41.20	46.71	≤54	PASS
				Peak	2310.000	-40.82	≤-21.20	54.38	≤74	PASS
				Peak	2373.815	-38.17	≤-21.20	57.03	≤74	PASS
				Peak	2390.000	-39.75	≤-21.20	55.45	≤74	PASS
		High	2480	AV	2483.500	-47.87	≤-41.20	47.33	≤54	PASS
				AV	2499.360	-47.84	≤-41.20	47.36	≤54	PASS
				AV	2500.000	-47.93	≤-41.20	47.27	≤54	PASS
				Peak	2483.500	-40.09	≤-21.20	55.11	≤74	PASS
				Peak	2498.480	-37.16	≤-21.20	58.04	≤74	PASS
				Peak	2500.000	-40.2	≤-21.20	55.00	≤74	PASS
		Low	Hop_240 2	Peak	2310.000	-39.72	≤-21.20	55.48	≤74	PASS
				Peak	2354.705	-38.06	≤-21.20	57.14	≤74	PASS
				Peak	2390.000	-40.38	≤-21.20	54.82	≤74	PASS
		High	Hop_248 0	Peak	2483.500	-39.21	≤-21.20	55.99	≤74	PASS
				Peak	2489.360	-37.18	≤-21.20	58.02	≤74	PASS
				Peak	2500.000	-39.21	≤-21.20	55.99	≤74	PASS
3DH5	Ant1	Low	2402	AV	2310.000	-48.82	≤-41.20	46.38	≤54	PASS



				AV	2376.125	-46.59	≤ -41.20	48.61	≤ 54	PASS
				AV	2390.000	-48.51	≤ -41.20	46.69	≤ 54	PASS
				Peak	2310.000	-39.34	≤ -21.20	55.86	≤ 74	PASS
				Peak	2310.185	-37.15	≤ -21.20	58.05	≤ 74	PASS
				Peak	2390.000	-40.71	≤ -21.20	54.49	≤ 74	PASS
		High	2480	AV	2483.500	-47.92	≤ -41.20	47.28	≤ 54	PASS
				AV	2499.840	-47.84	≤ -41.20	47.36	≤ 54	PASS
				AV	2500.000	-47.93	≤ -41.20	47.27	≤ 54	PASS
				Peak	2483.500	-39.86	≤ -21.20	55.34	≤ 74	PASS
				Peak	2490.400	-37.94	≤ -21.20	57.26	≤ 74	PASS
				Peak	2500.000	-39.34	≤ -21.20	55.86	≤ 74	PASS
		Low	Hop_240 2	Peak	2310.000	-39.18	≤ -21.20	56.02	≤ 74	PASS
				Peak	2328.245	-38.2	≤ -21.20	57.00	≤ 74	PASS
				Peak	2390.000	-39.42	≤ -21.20	55.78	≤ 74	PASS
		High	Hop_248 0	Peak	2483.500	-39.41	≤ -21.20	55.79	≤ 74	PASS
				Peak	2488.400	-37.65	≤ -21.20	57.55	≤ 74	PASS
				Peak	2500.000	-39.66	≤ -21.20	55.54	≤ 74	PASS

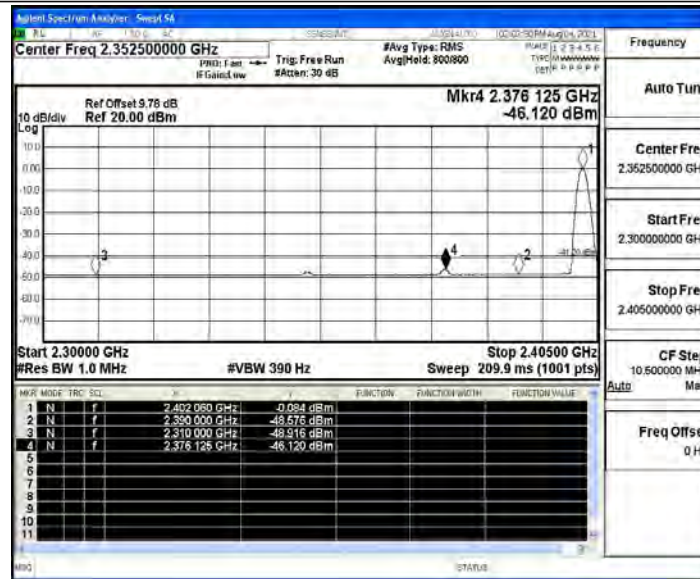
Note:

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.

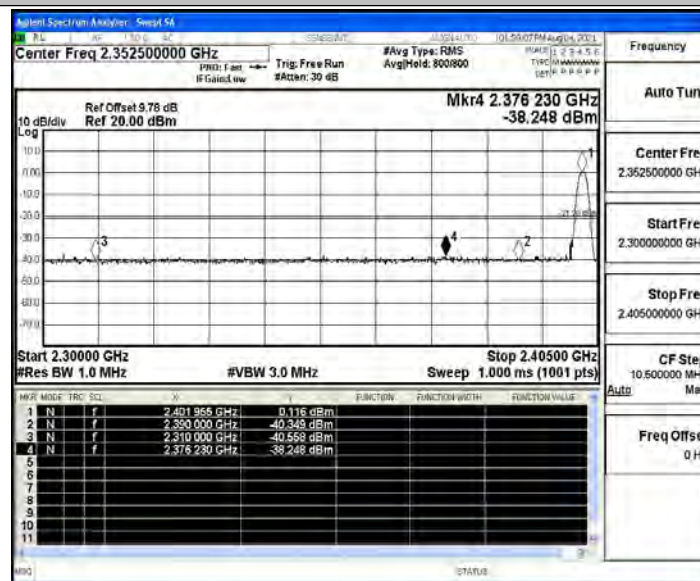


Test Graphs

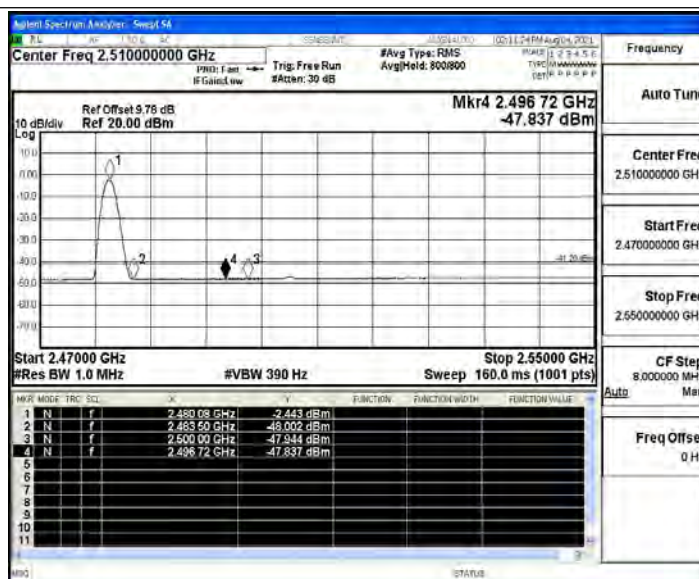
DH5_Ant1_Low_2402_AV



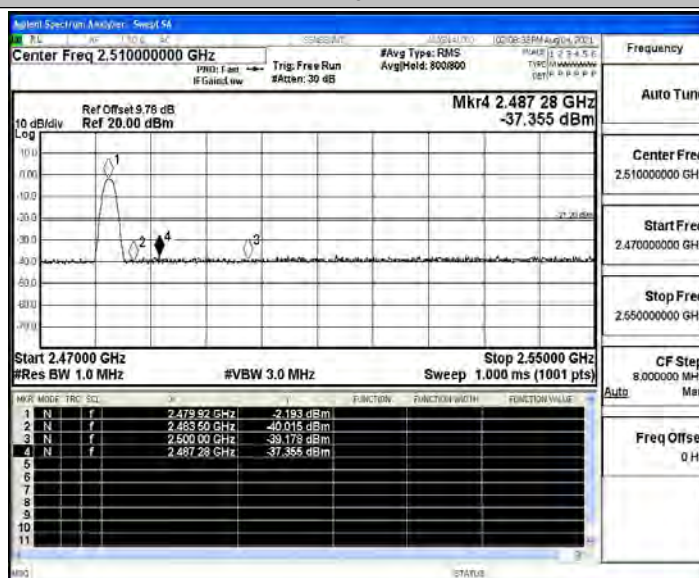
DH5_Ant1_Low_2402_Peak



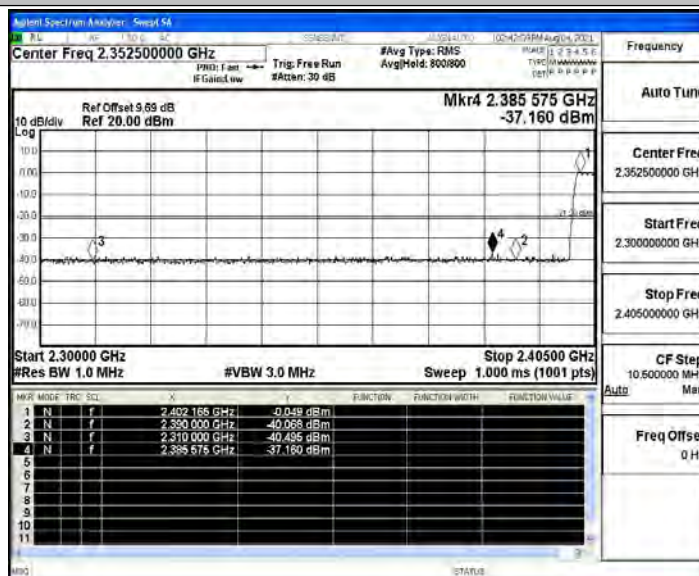
DH5_Ant1_High_2480_AV



DH5 Ant1 High 2480 Peak

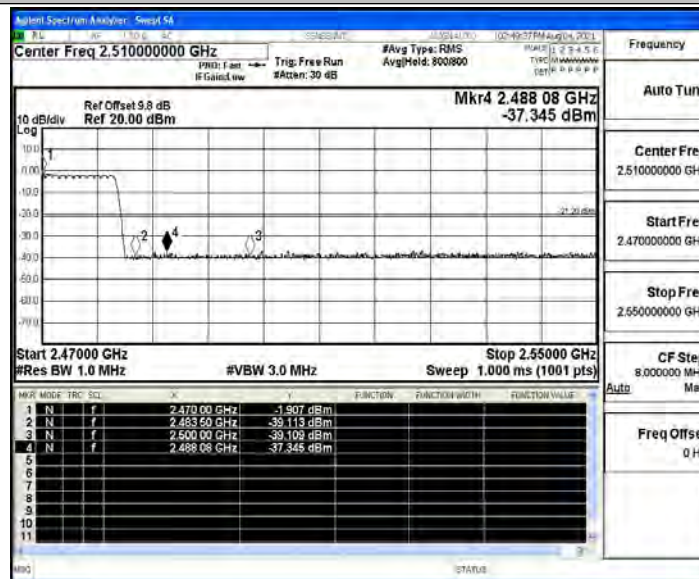


DH5 Ant1 Low Hop 2402 Peak

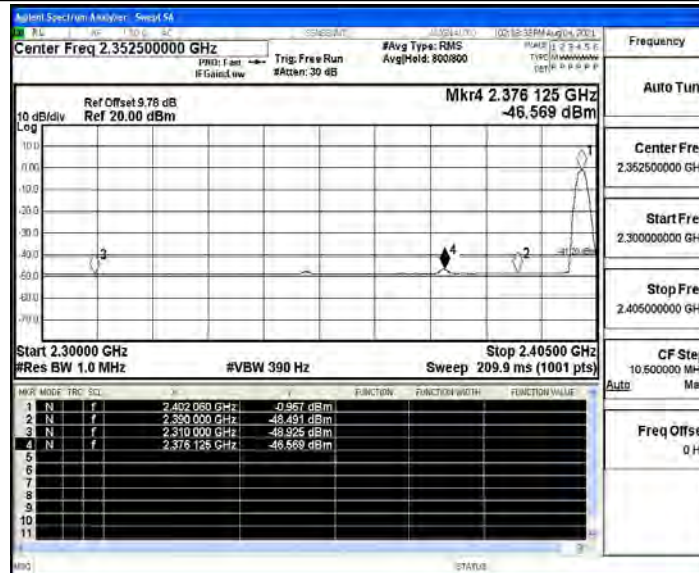




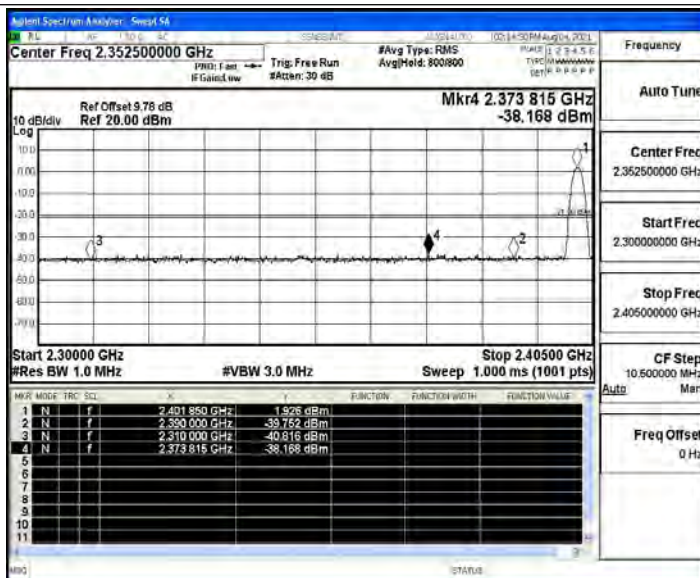
DH5_Ant1_High_Hop_2480_Peak



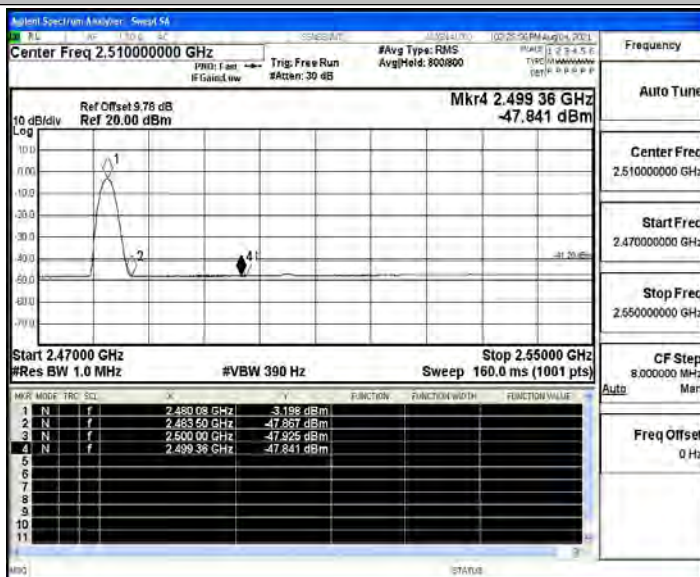
2DH5_Ant1_Low_2402_AV



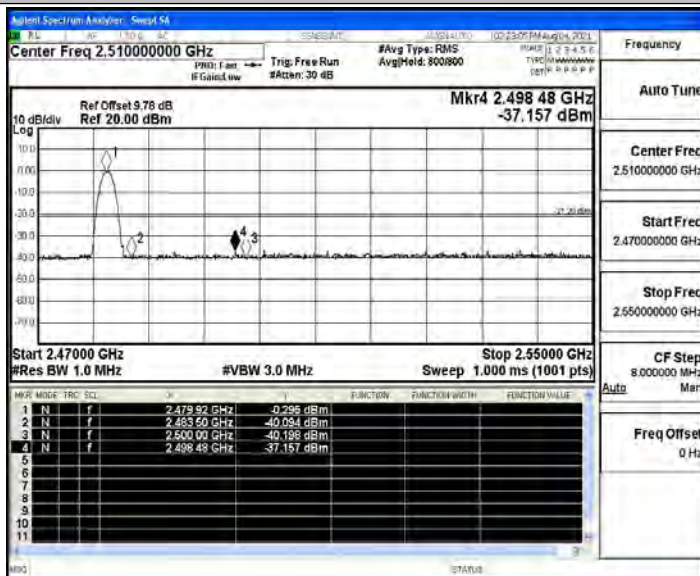
2DH5_Ant1_Low_2402_Peak



2DH5_Ant1_High_2480_AV

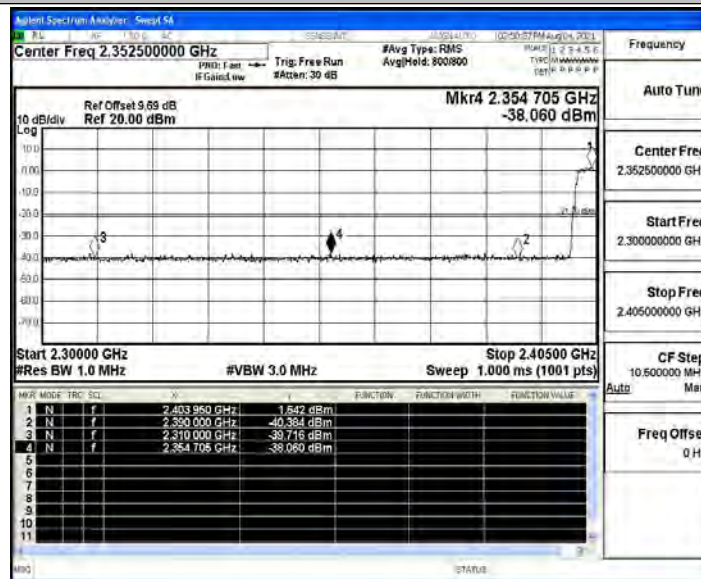


2DH5_Ant1_High_2480_Peak

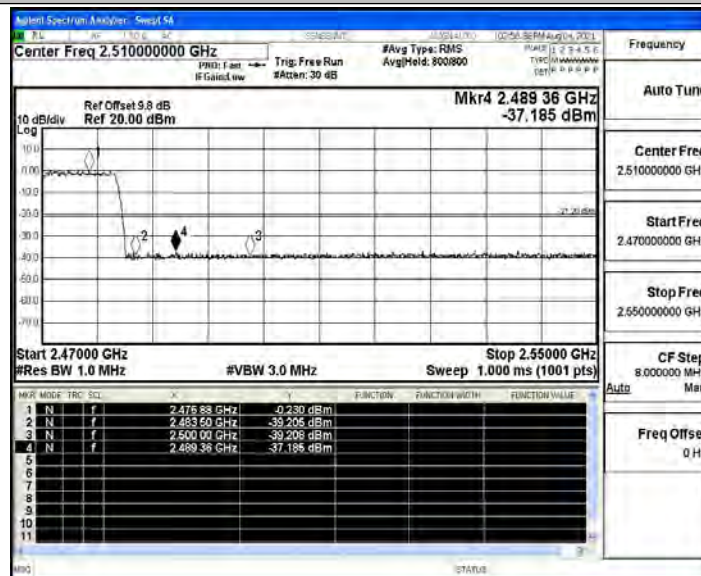




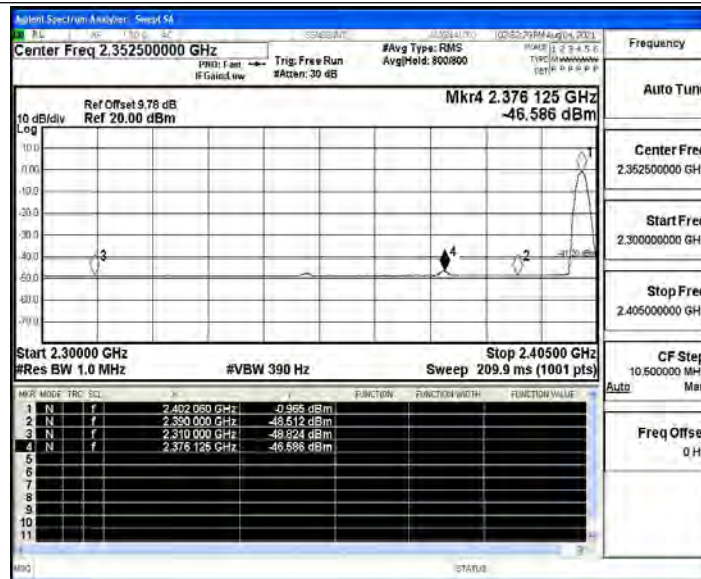
2DH5_Ant1_Low_Hop_2402_Peak



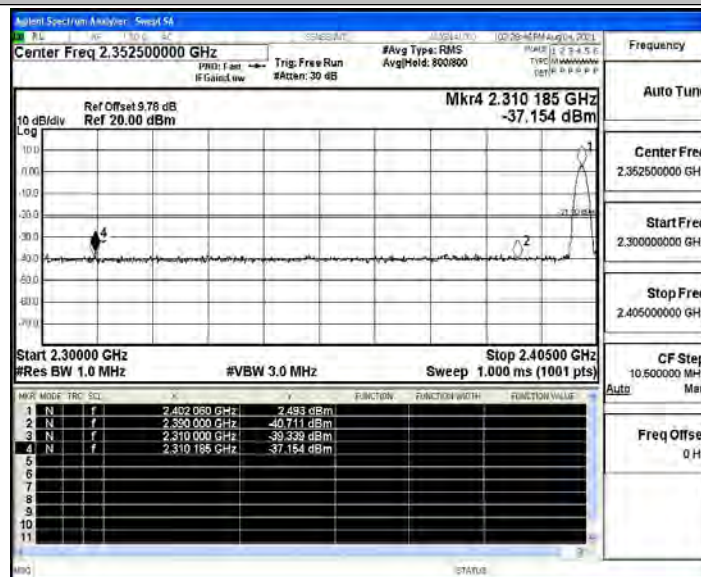
2DH5_Ant1_High_Hop_2480_Peak



3DH5_Ant1_Low_2402_AV



3DH5_Ant1_Low_2402_Peak

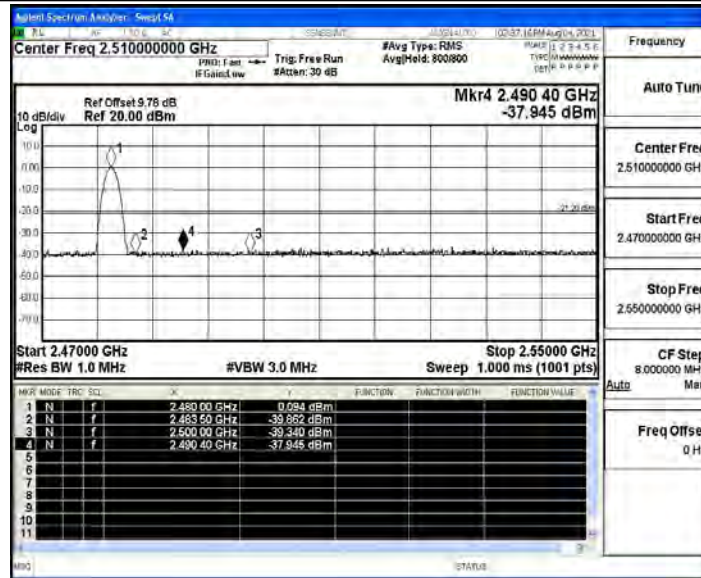


3DH5_Ant1_High_2480_AV

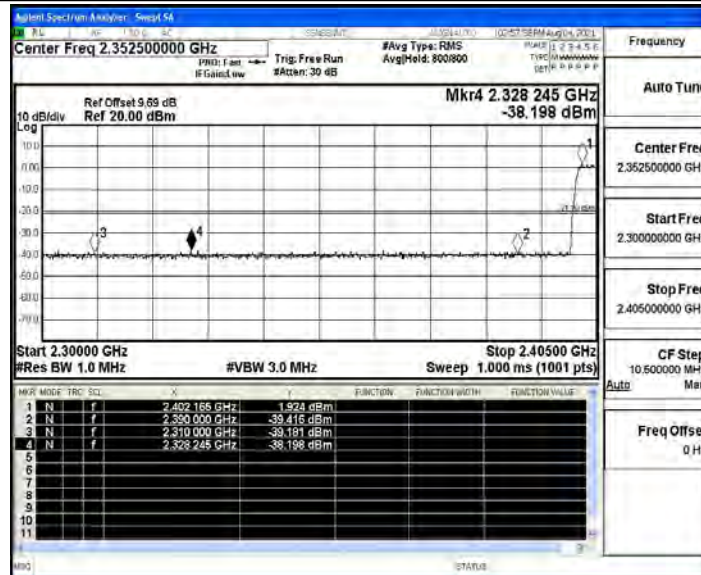




3DH5_Ant1_High_2480_Peak



3DH5_Ant1_Low_Hop_2402_Peak



3DH5_Ant1_High_Hop_2480_Peak

