



Appendix A

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

Product Name: Portable FM Radio with Wireless Connection

Trade Mark: i-box

Test Model: WJ-198FM

Environmental Conditions

Temperature:	21.1℃
Relative Humidity:	52.2%
ATM Pressure:	100.0 kPa
Test Engineer:	Jay Li
Supervised by:	Li Huan



A.1 20dB Emission Bandwidth

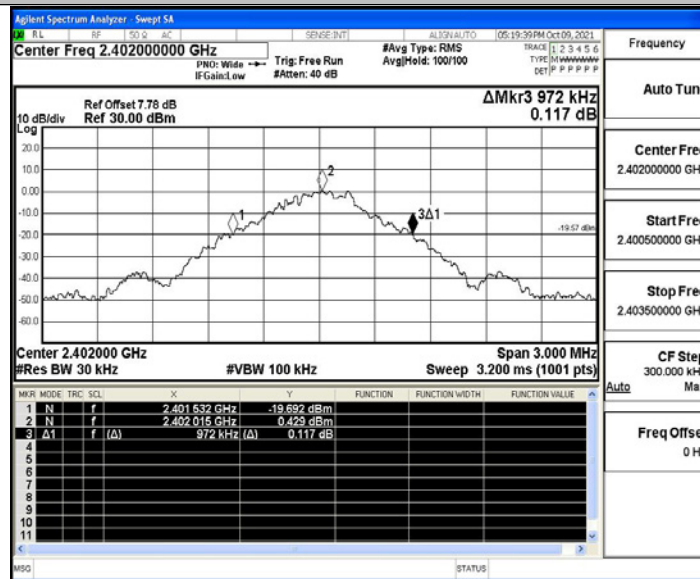
Test Result

TestMode	Antenna	Channel	20db EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.972	2401.532	2402.504	---	PASS
		2441	1.026	2440.469	2441.495	---	PASS
		2480	1.026	2479.466	2480.492	---	PASS
2DH5	Ant1	2402	1.317	2401.340	2402.657	---	PASS
		2441	1.338	2440.328	2441.666	---	PASS
		2480	1.359	2479.322	2480.681	---	PASS

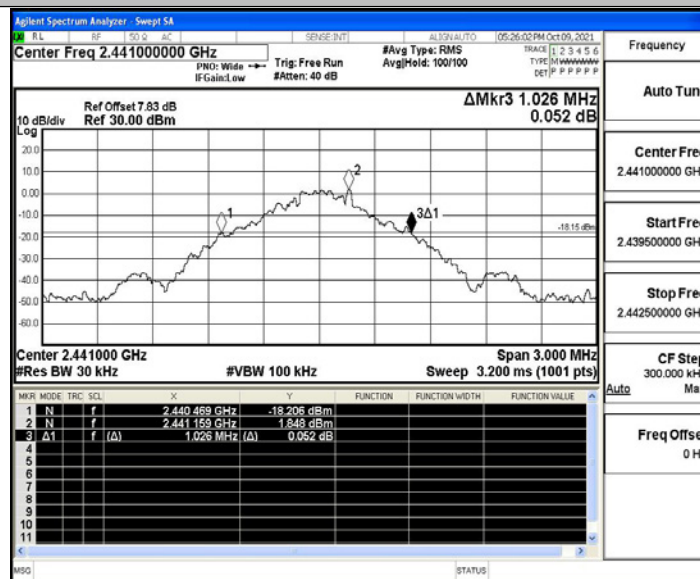


Test Graphs

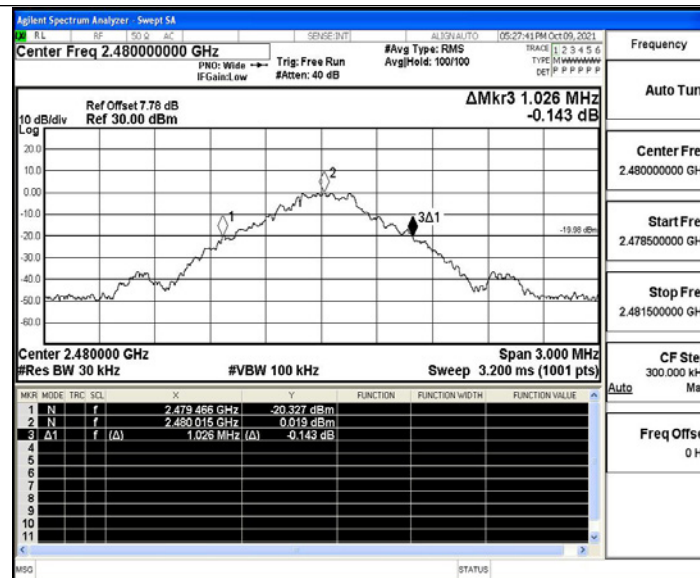
DH5_Ant1_2402



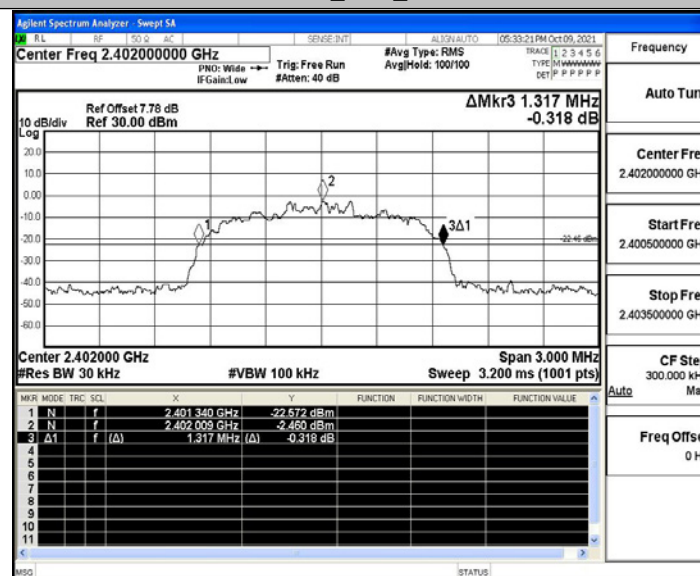
DH5_Ant1_2441



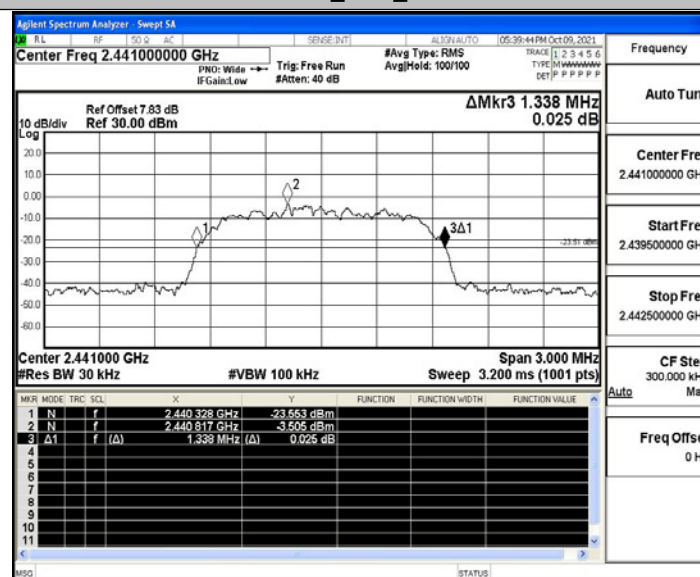
DH5_Ant1_2480



2DH5_Ant1_2402

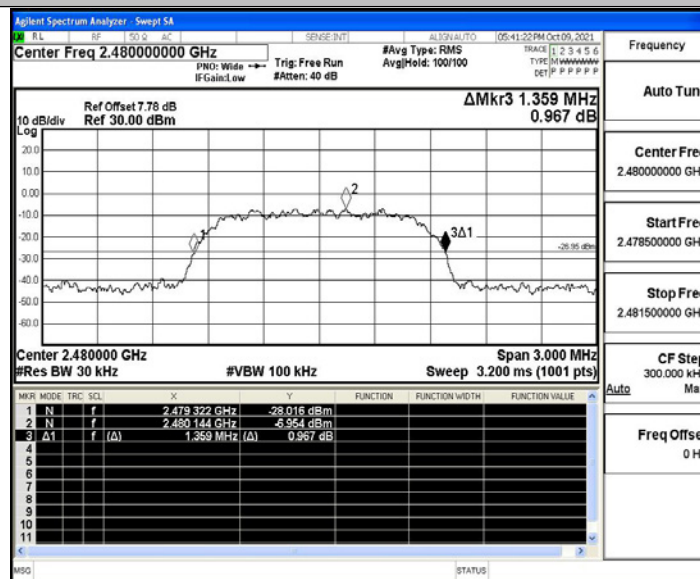


2DH5_Ant1_2441





2DH5_Ant1_2480





A.2 Maximum peak conducted output power

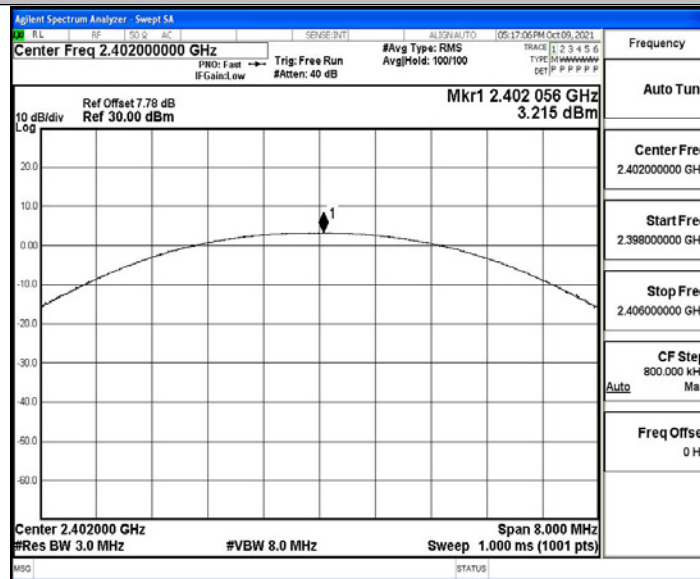
Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
DH5	Ant1	2402	3.22	≤ 30	PASS
		2441	4.32	≤ 30	PASS
		2480	2.84	≤ 30	PASS
2DH5	Ant1	2402	2.31	≤ 30	PASS
		2441	3.48	≤ 30	PASS
		2480	2.02	≤ 30	PASS

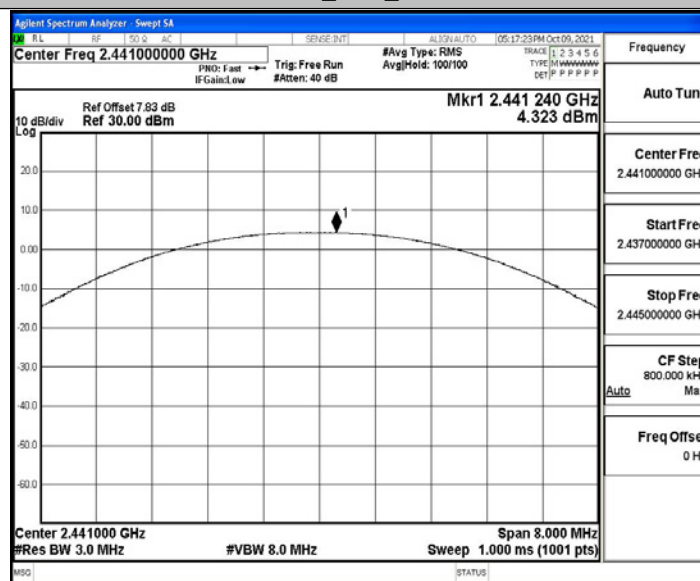


Test Graphs

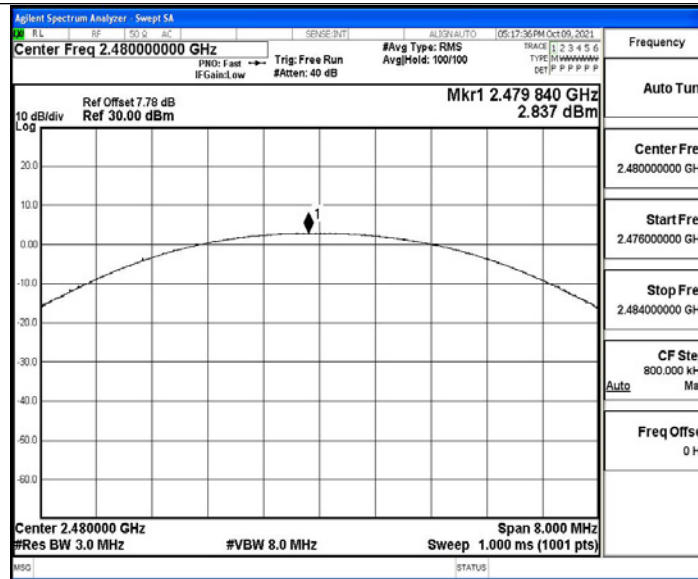
DH5_Ant1_2402



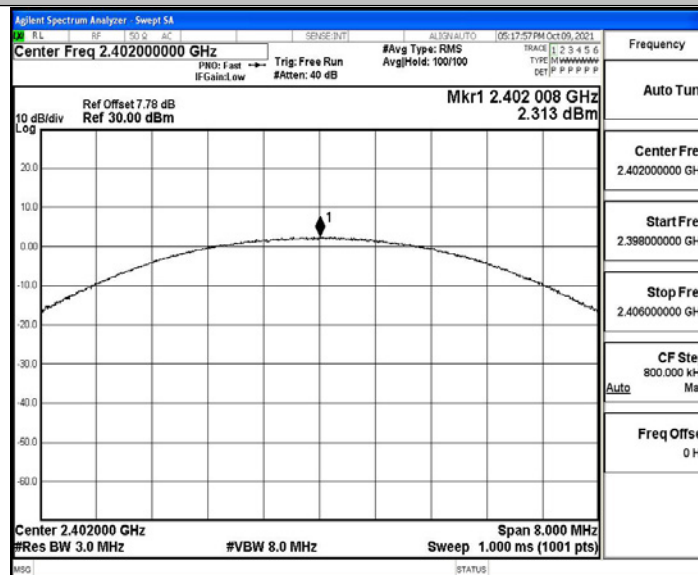
DH5_Ant1_2441



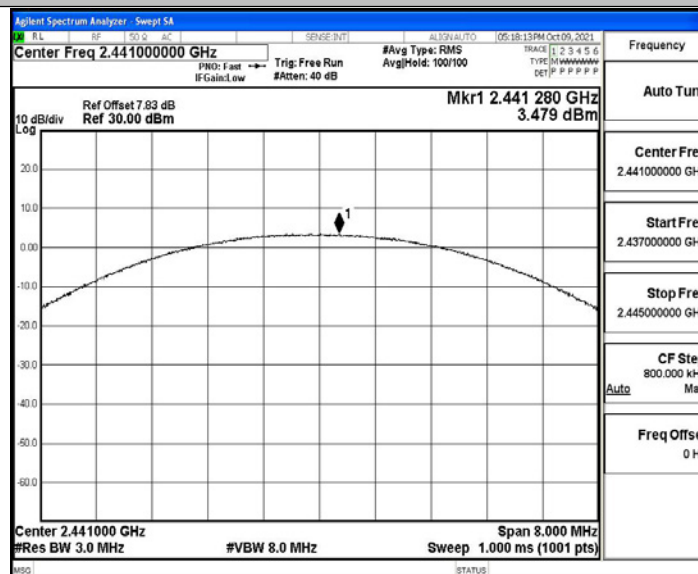
DH5_Ant1_2480



2DH5_Ant1_2402

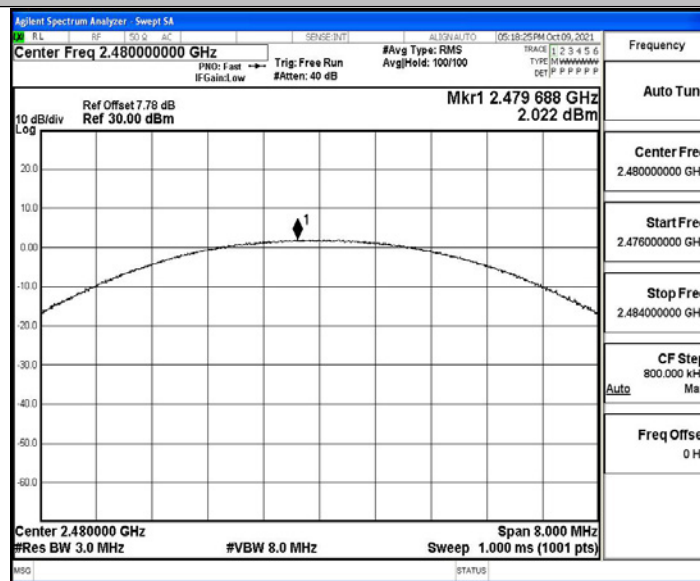


2DH5_Ant1_2441





2DH5_Ant1_2480

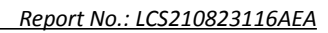




A.3 Carrier frequency separation

Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
DH5	Ant1	Hop	1.172	≥ 1.026	PASS
2DH5	Ant1	Hop	1.038	≥ 0.906	PASS





A.4 Time of occupancy

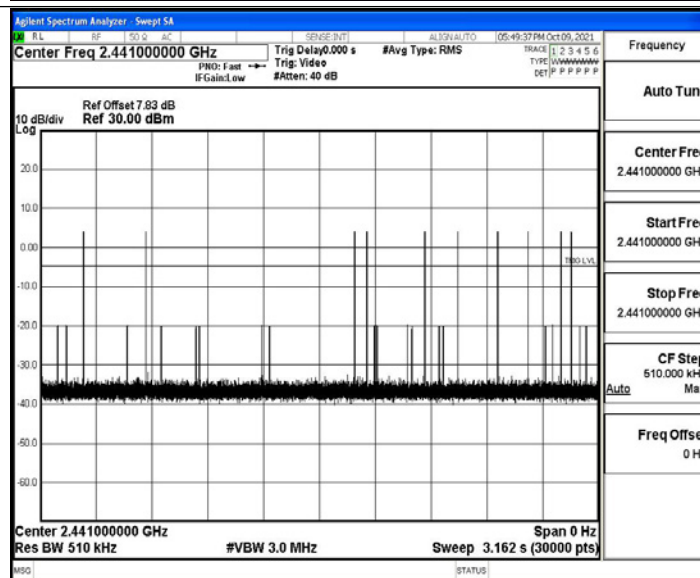
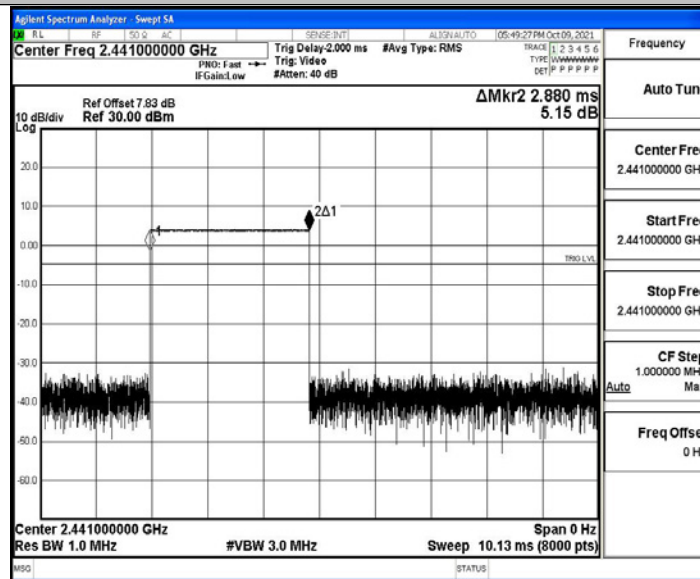
Test Result

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	100	0.288	≤0.4	PASS

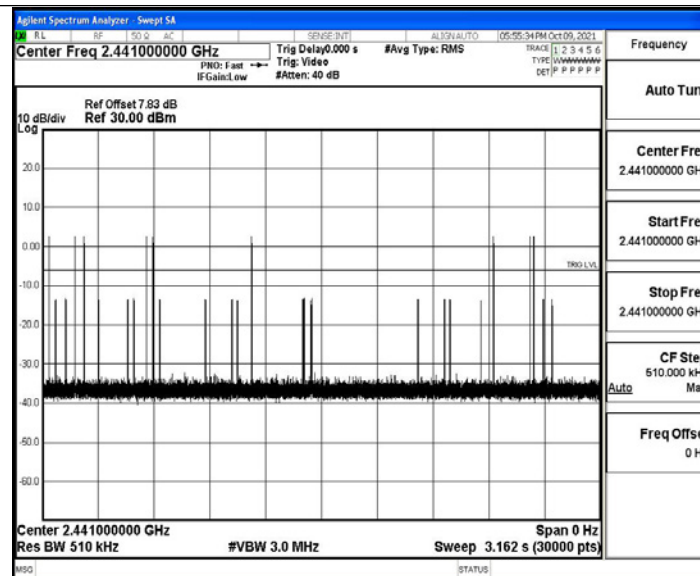
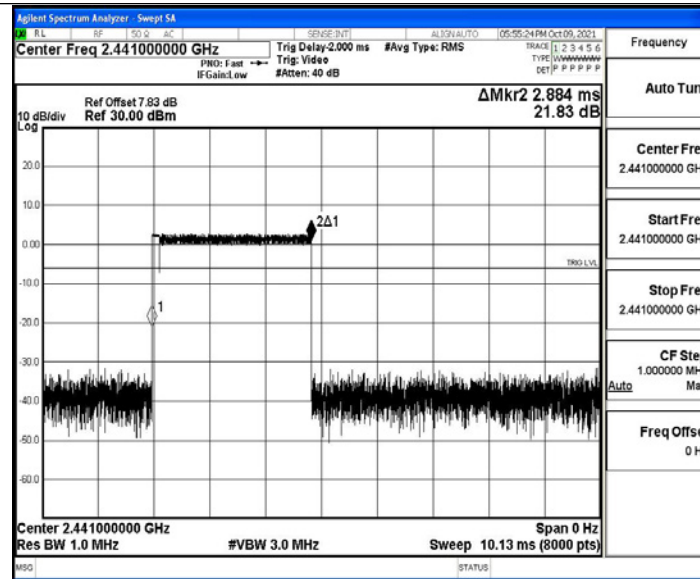


Test Graphs

DH5_Ant1_Hop



2DH5_Ant1_Hop





A.5 Number of hopping channels

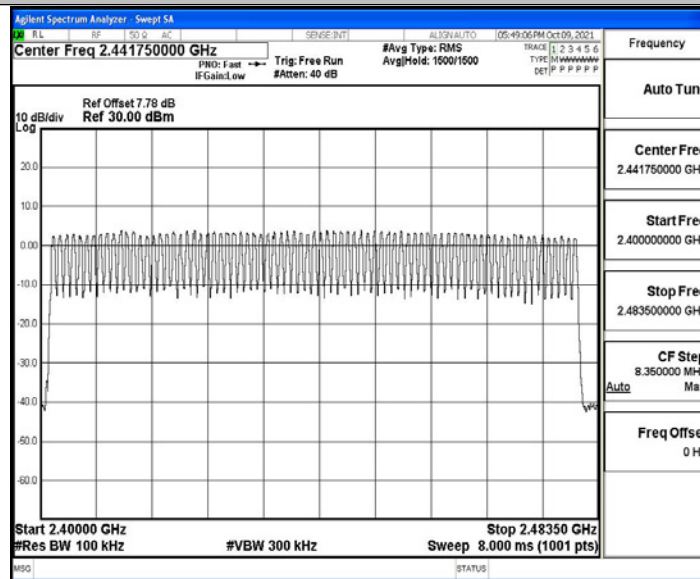
Test Result

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

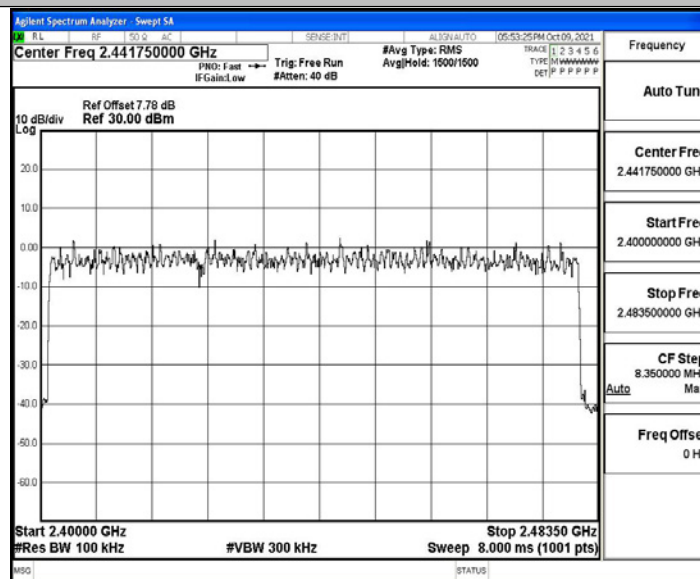


Test Graphs

DH5_Ant1_Hop



2DH5_Ant1_Hop





A.6 Band edge measurements

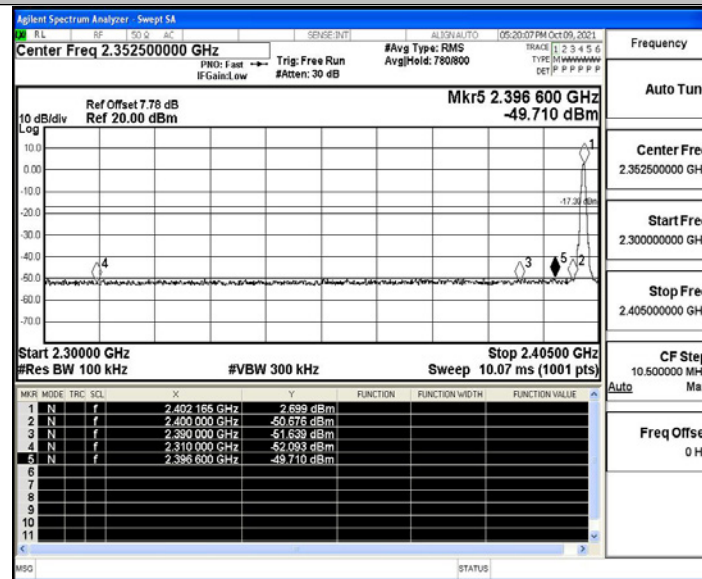
Test Result

TestMode	Antenna	ChName	Channel	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	2.70	-49.71	≤ -17.3	PASS
		High	2480	2.20	-47.85	≤ -17.8	PASS
		Low	Hop_2402	2.53	-50.17	≤ -17.47	PASS
		High	Hop_2480	2.69	-47.36	≤ -17.32	PASS
2DH5	Ant1	Low	2402	0.93	-49.64	≤ -19.07	PASS
		High	2480	1.08	-49	≤ -18.92	PASS
		Low	Hop_2402	-0.84	-49.09	≤ -20.84	PASS
		High	Hop_2480	1.58	-48.6	≤ -18.42	PASS

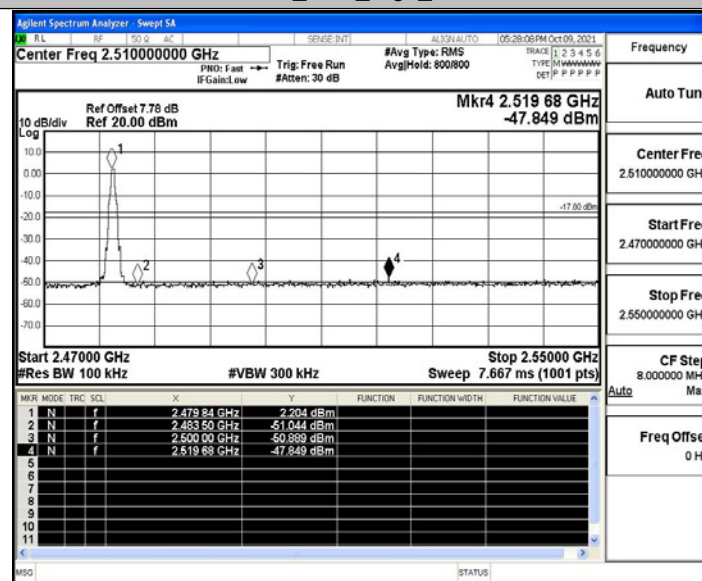


Test Graphs

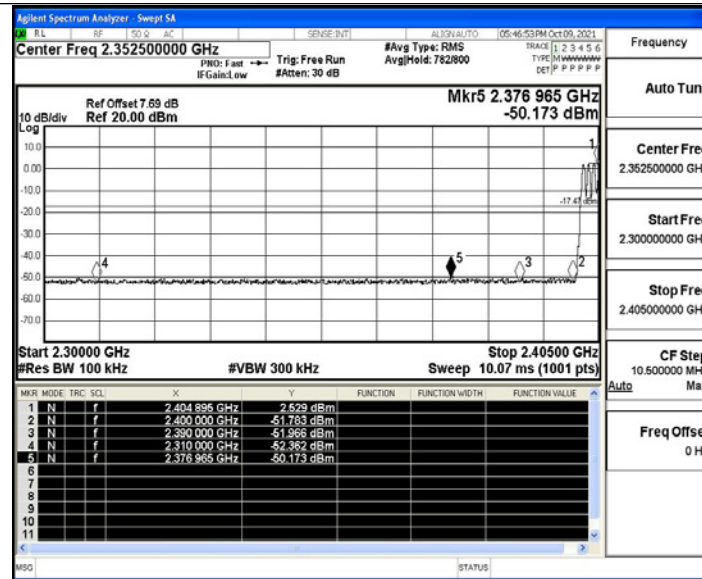
DH5_Ant1_Low_2402



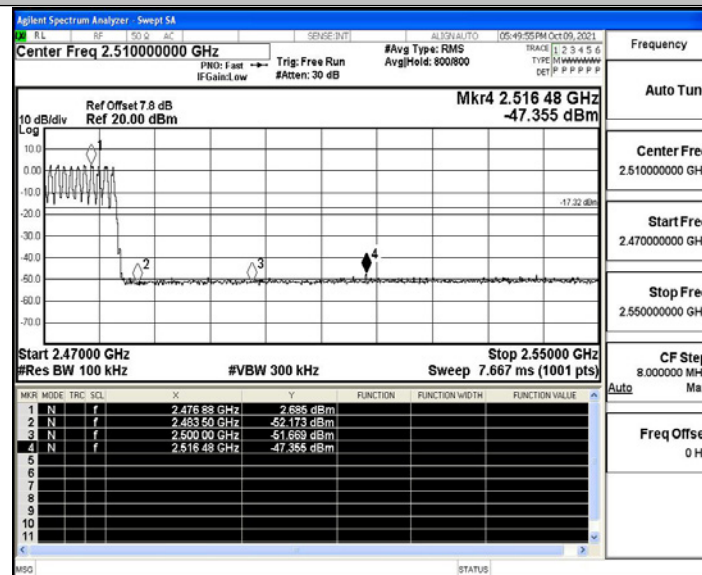
DH5_Ant1_High_2480



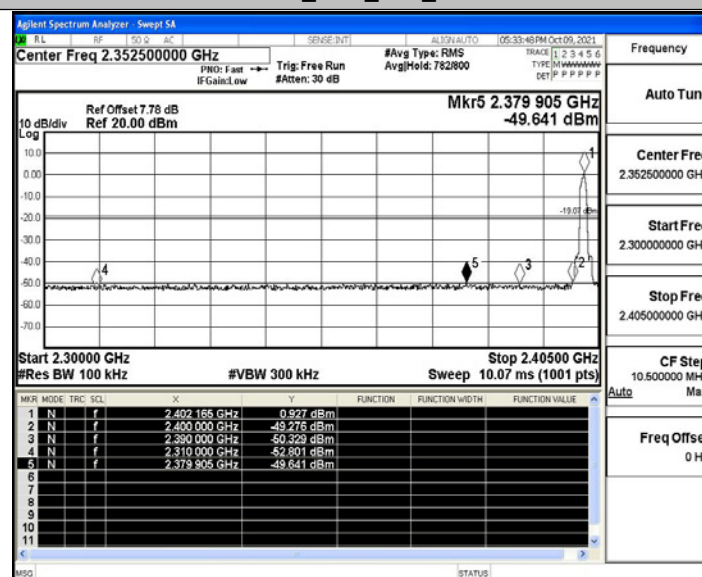
DH5_Ant1_Low_Hop_2402



DH5_Ant1_High_Hop_2480

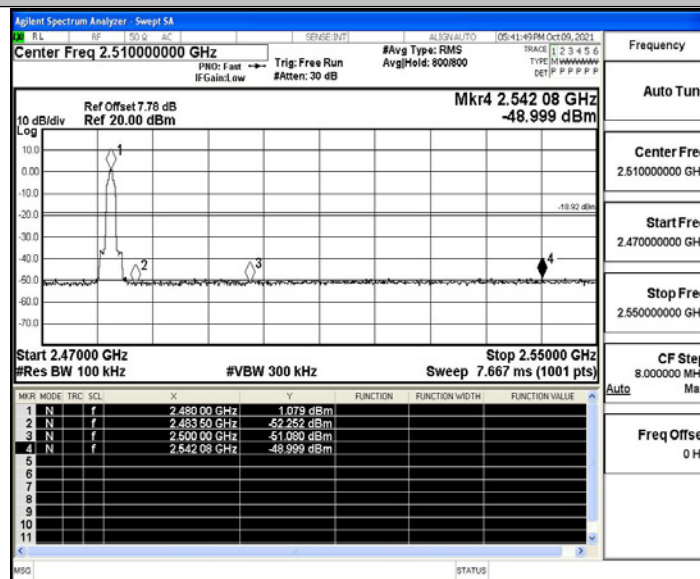


2DH5_Ant1_Low_2402

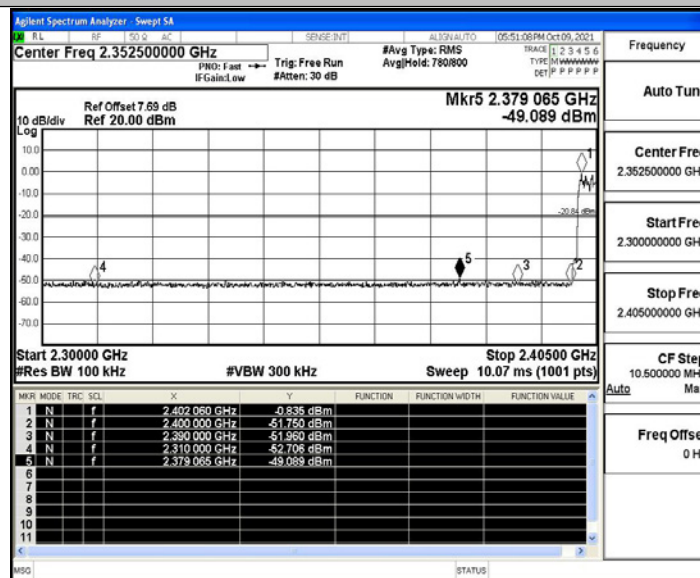




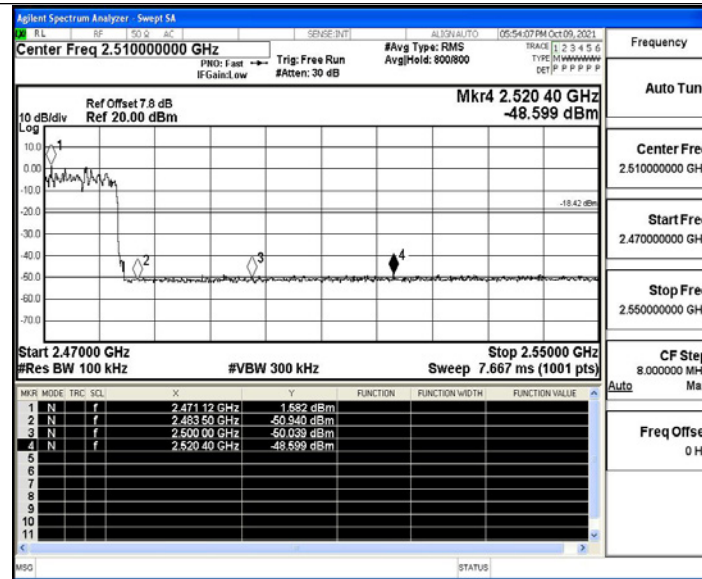
2DH5_Ant1_High_2480



2DH5_Ant1_Low_Hop_2402



2DH5_Ant1_High_Hop_2480





A.7 Conducted Spurious Emission

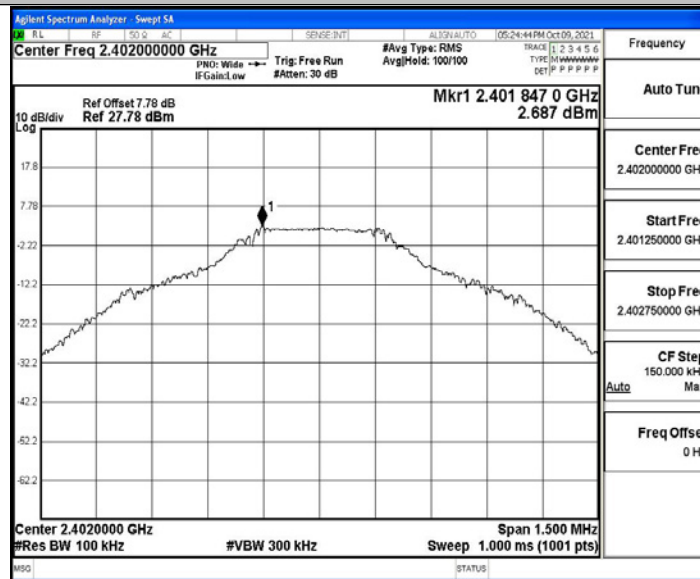
Test Result

TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	Reference	2.69	2.69	---	PASS
			30~1000	2.69	-58.42	≤ -17.31	PASS
			1000~26500	2.69	-47.33	≤ -17.31	PASS
		2441	Reference	3.31	3.31	---	PASS
			30~1000	3.31	-59.6	≤ -16.7	PASS
			1000~26500	3.31	-47.39	≤ -16.7	PASS
		2480	Reference	2.24	2.24	---	PASS
			30~1000	2.24	-60.9	≤ -17.76	PASS
			1000~26500	2.24	-46.94	≤ -17.76	PASS
2DH5	Ant1	2402	Reference	1.17	1.17	---	PASS
			30~1000	1.17	-59.97	≤ -18.83	PASS
			1000~26500	1.17	-47.68	≤ -18.83	PASS
		2441	Reference	1.23	1.23	---	PASS
			30~1000	1.23	-59.64	≤ -18.77	PASS
			1000~26500	1.23	-47.57	≤ -18.77	PASS
		2480	Reference	0.24	0.24	---	PASS
			30~1000	0.24	-60.85	≤ -19.77	PASS
			1000~26500	0.24	-47.75	≤ -19.77	PASS

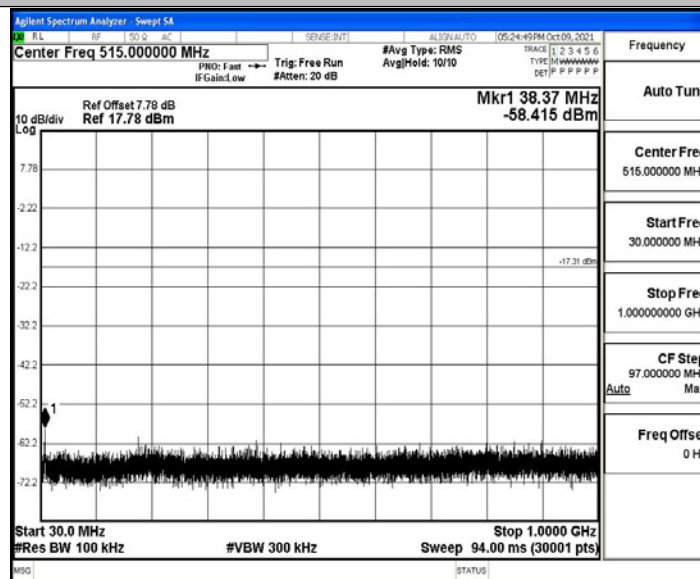


Test Graphs

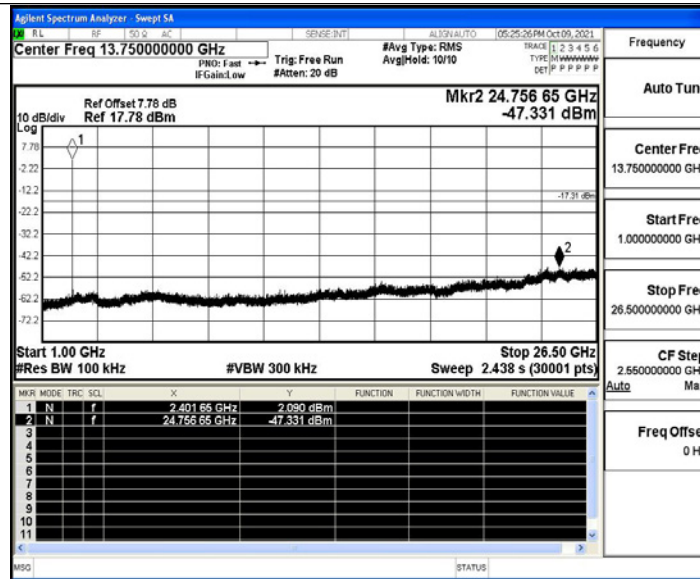
DH5_Ant1_2402_0~Reference



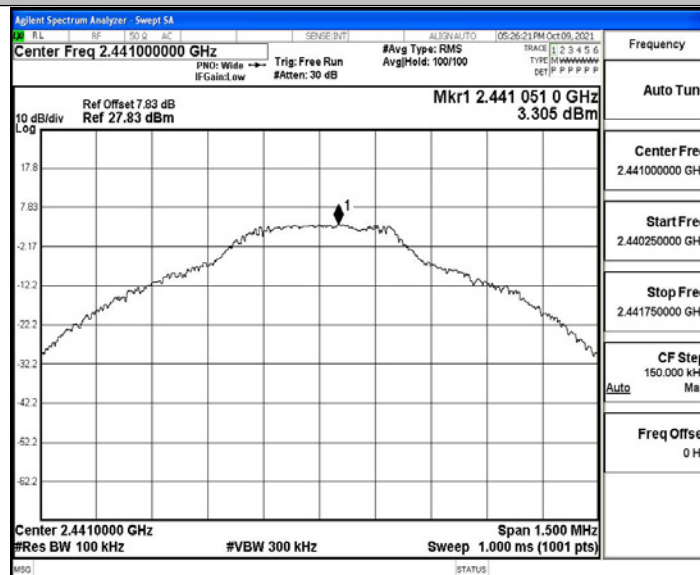
DH5_Ant1_2402_30~1000



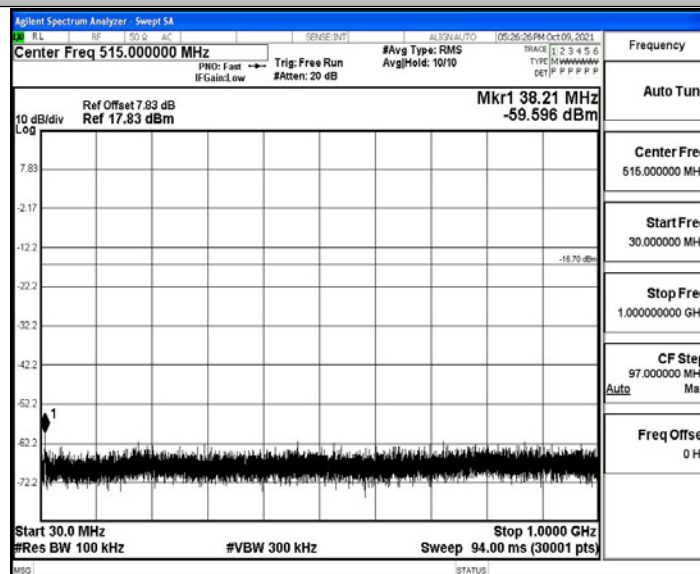
DH5_Ant1_2402_1000~26500



DH5_Ant1_2441_0~Reference

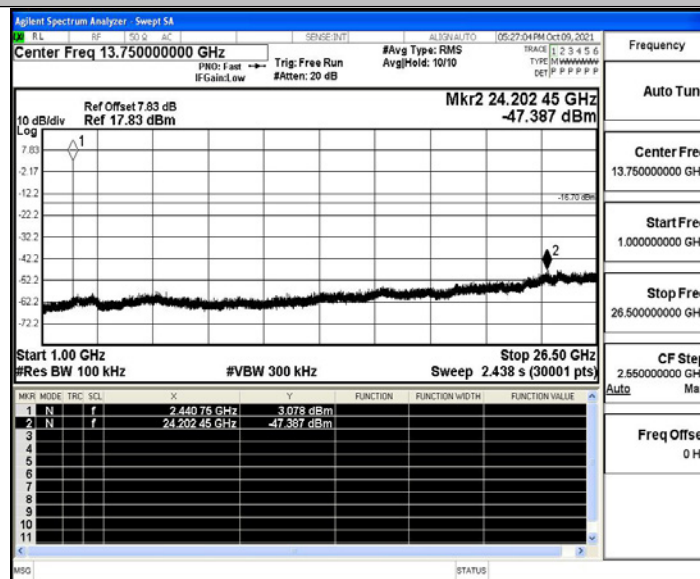


DH5_Ant1_2441_30~1000

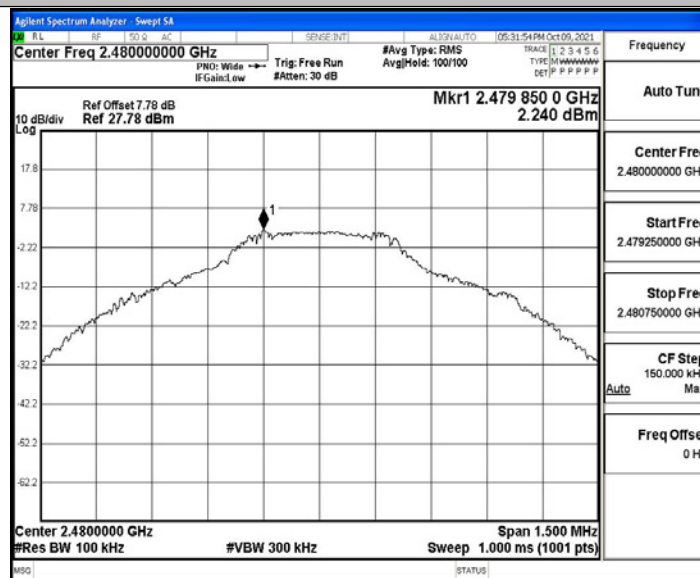




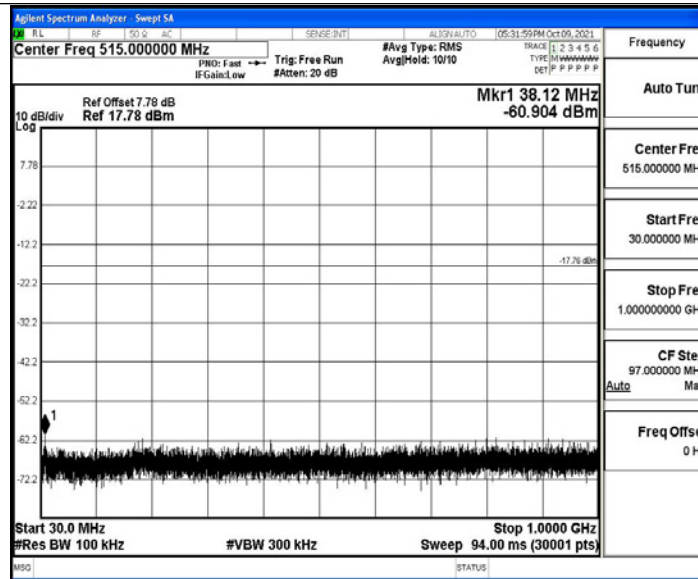
DH5_Ant1_2441_1000~26500



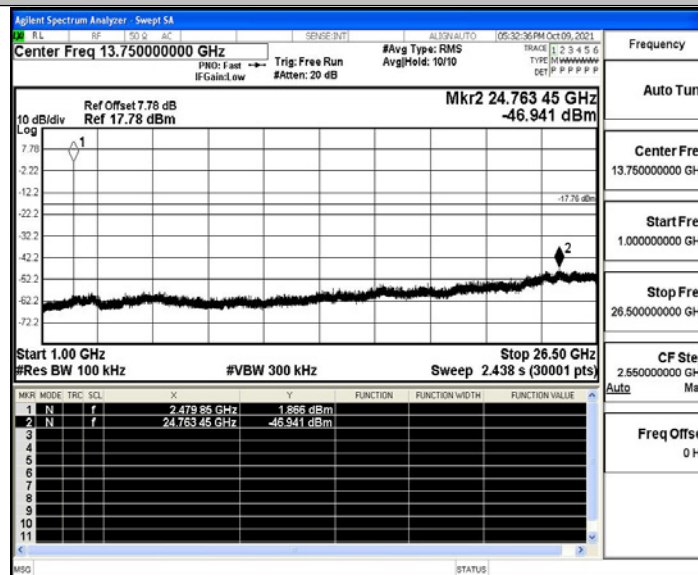
DH5_Ant1_2480_0~Reference



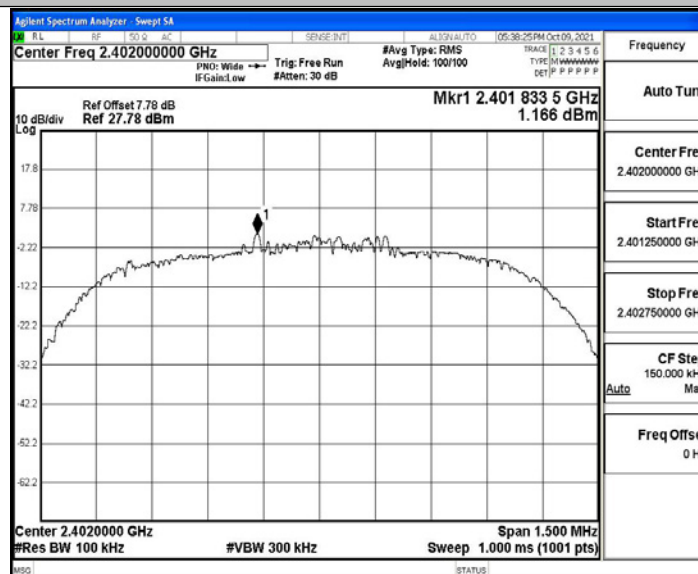
DH5_Ant1_2480_30~1000



DH5_Ant1_2480_1000~26500

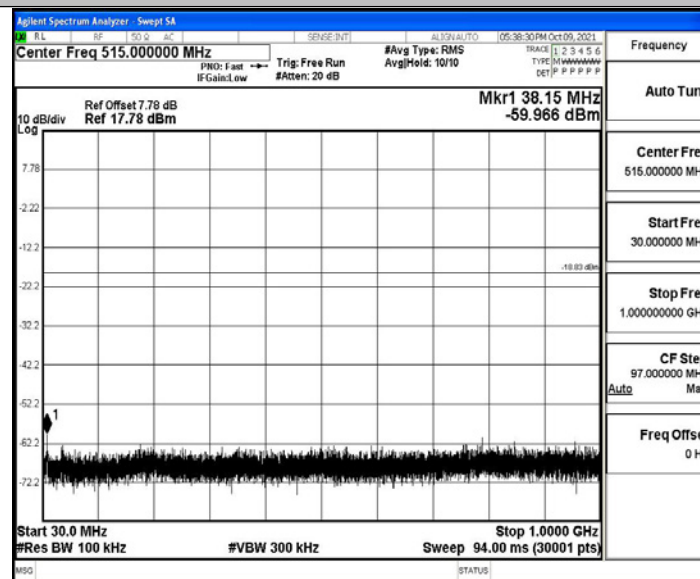


2DH5_Ant1_2402_0~Reference

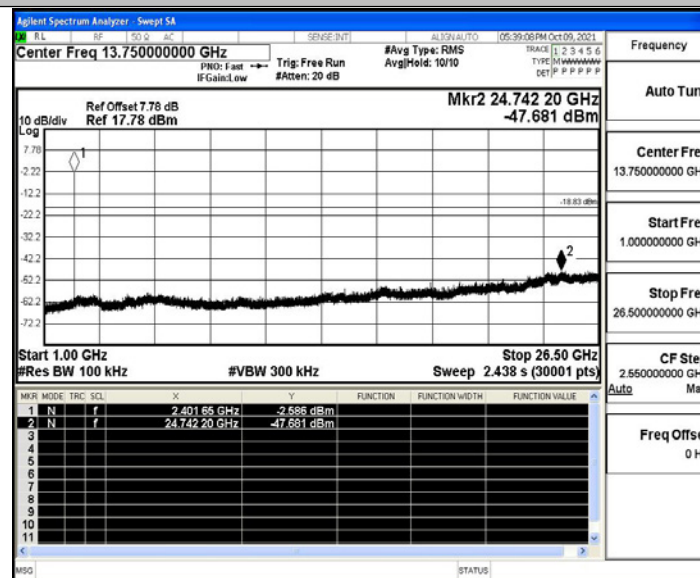




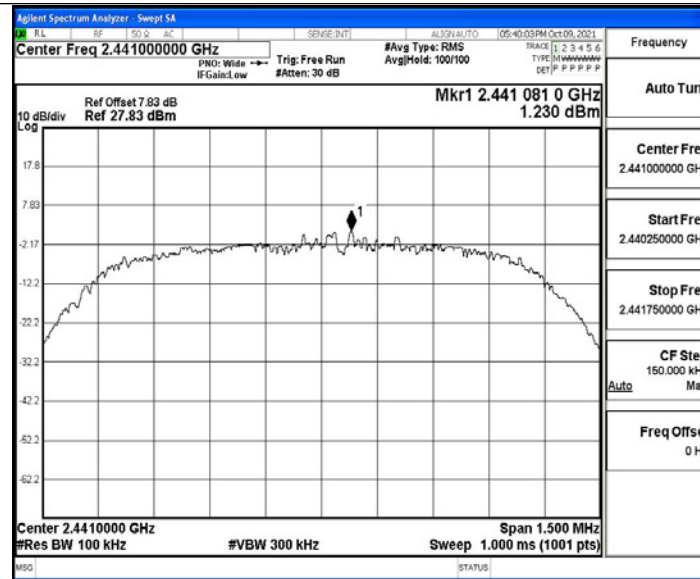
2DH5_Ant1_2402_30~1000



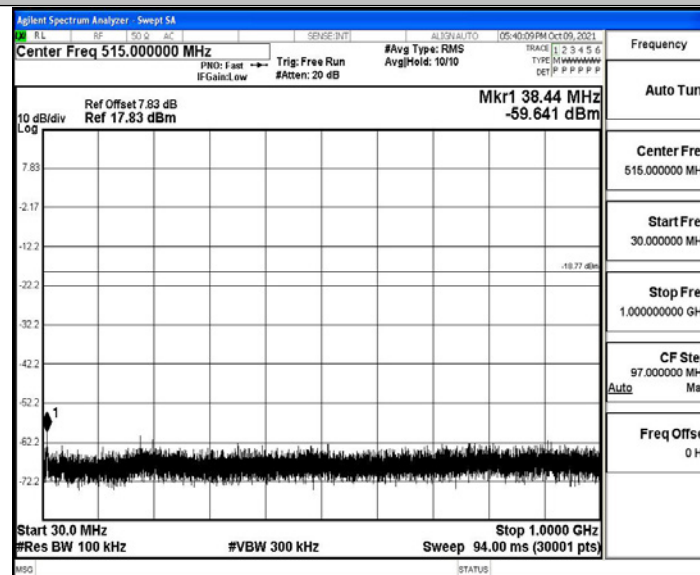
2DH5_Ant1_2402_1000~26500



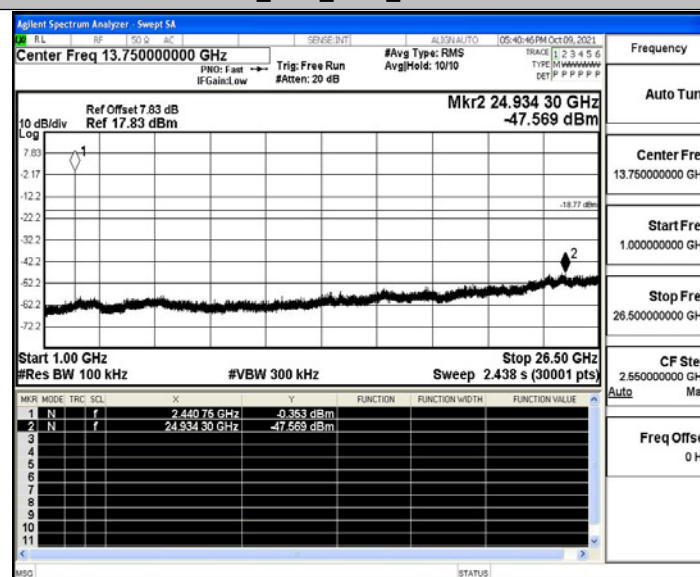
2DH5_Ant1_2441_0~Reference



2DH5_Ant1_2441_30~1000

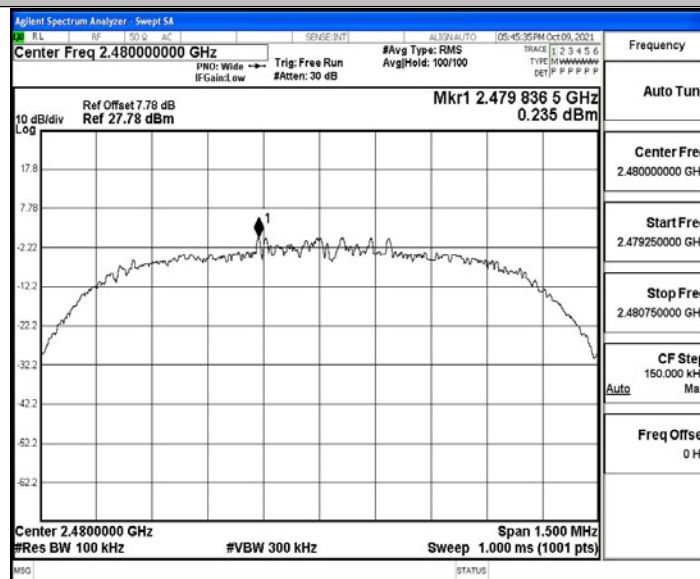


2DH5_Ant1_2441_1000~26500

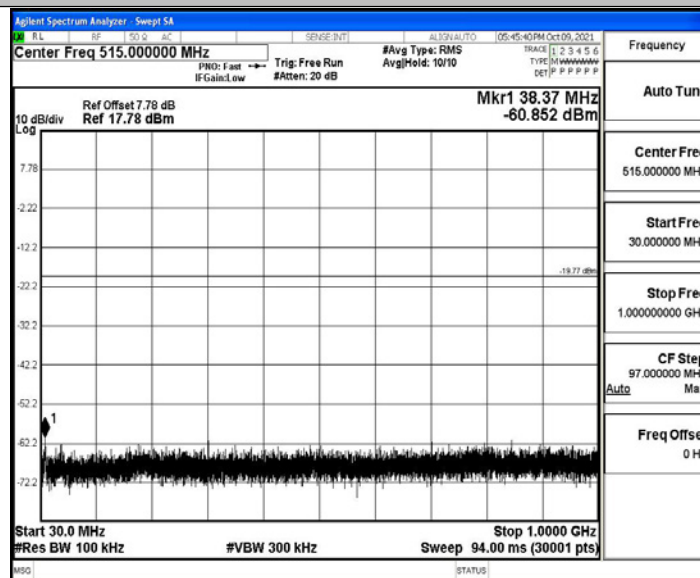




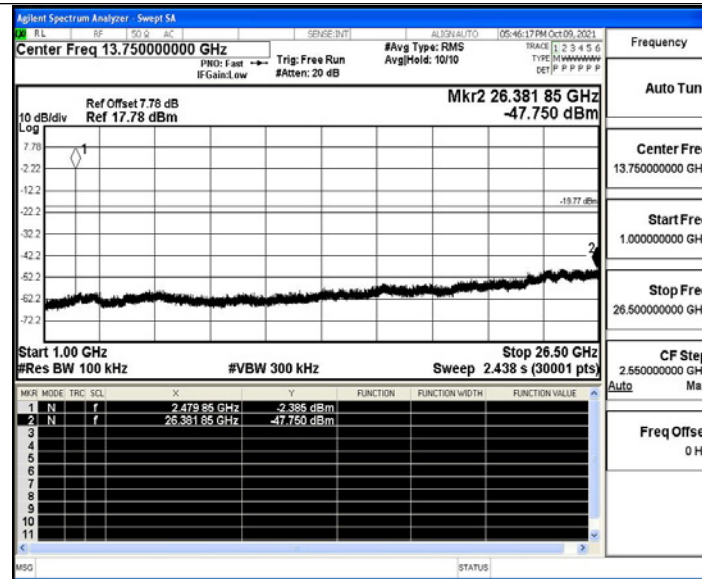
2DH5_Ant1_2480_0~Reference



2DH5_Ant1_2480_30~1000



2DH5_Ant1_2480_1000~26500





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	-48.93	≤-41.20	46.27	≤54	PASS
				AV	2387.465	-48.37	≤-41.20	46.83	≤54	PASS
				AV	2390.000	-48.47	≤-41.20	46.73	≤54	PASS
				Peak	2310.000	-40.39	≤-21.20	54.81	≤74	PASS
				Peak	2320.370	-37.83	≤-21.20	57.37	≤74	PASS
				Peak	2390.000	-40.46	≤-21.20	54.74	≤74	PASS
		High	2480	AV	2483.500	-47.59	≤-41.20	47.61	≤54	PASS
				AV	2483.520	-47.59	≤-41.20	47.61	≤54	PASS
				AV	2500.000	-47.91	≤-41.20	47.29	≤54	PASS
				Peak	2483.500	-39.57	≤-21.20	55.63	≤74	PASS
				Peak	2498.240	-37.84	≤-21.20	57.36	≤74	PASS
				Peak	2500.000	-39.67	≤-21.20	55.53	≤74	PASS
2DH5	Ant1	Low	2402	AV	2310.000	-48.83	≤-41.20	46.37	≤54	PASS
				AV	2388.095	-48.44	≤-41.20	46.76	≤54	PASS
				AV	2390.000	-48.51	≤-41.20	46.69	≤54	PASS
				Peak	2310.000	-40.37	≤-21.20	54.83	≤74	PASS
				Peak	2371.820	-38.03	≤-21.20	57.17	≤74	PASS
				Peak	2390.000	-38.93	≤-21.20	56.27	≤74	PASS
		High	2480	AV	2483.500	-47.72	≤-41.20	47.48	≤54	PASS
				AV	2483.520	-47.72	≤-41.20	47.48	≤54	PASS
				AV	2500.000	-47.91	≤-41.20	47.29	≤54	PASS
				Peak	2483.500	-38.94	≤-21.20	56.26	≤74	PASS
				Peak	2497.760	-37.64	≤-21.20	57.56	≤74	PASS
				Peak	2500.000	-40.75	≤-21.20	54.45	≤74	PASS

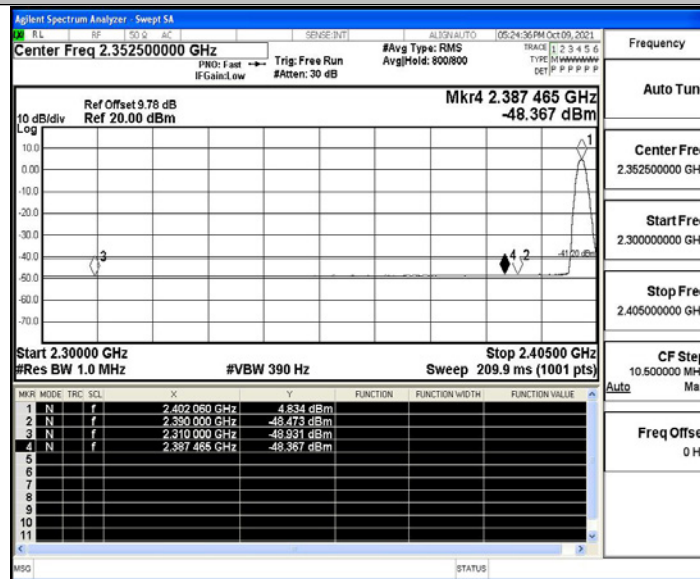
Note:

1. The Antenna Gain is compensated in the graph.
2. The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.

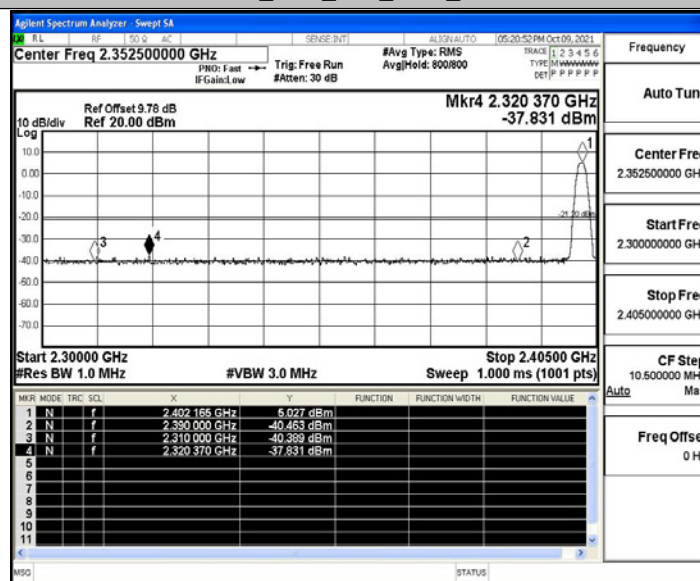


Test Graphs

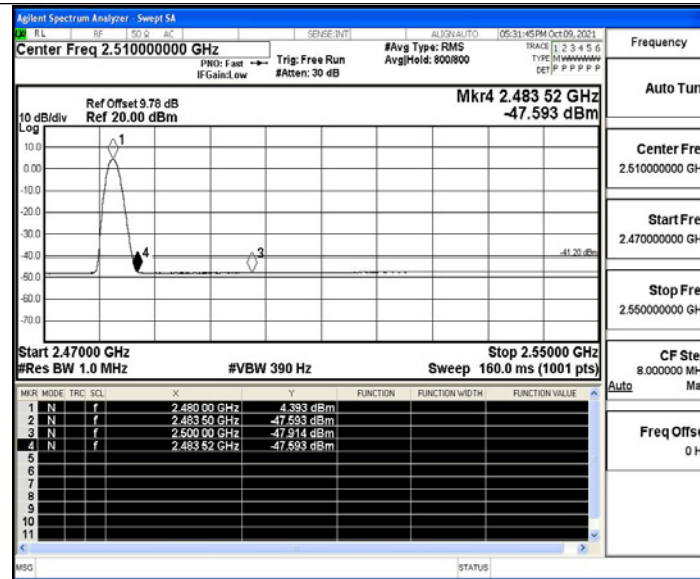
DH5_Ant1_Low_2402_AV



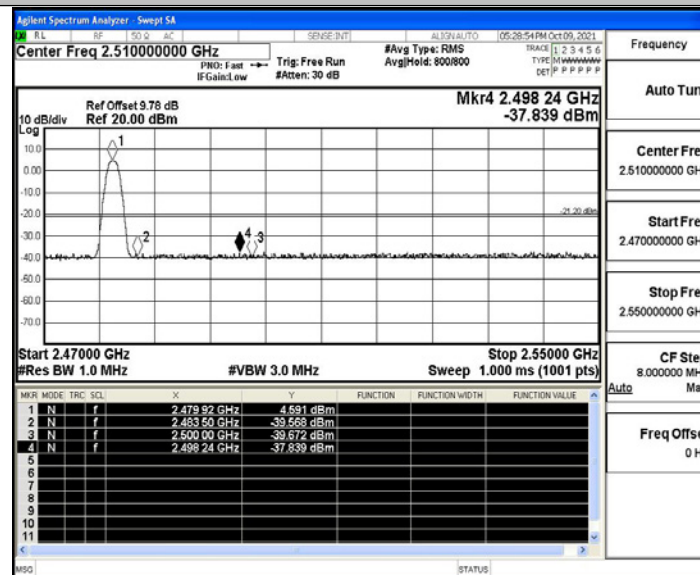
DH5_Ant1_Low_2402_Peak



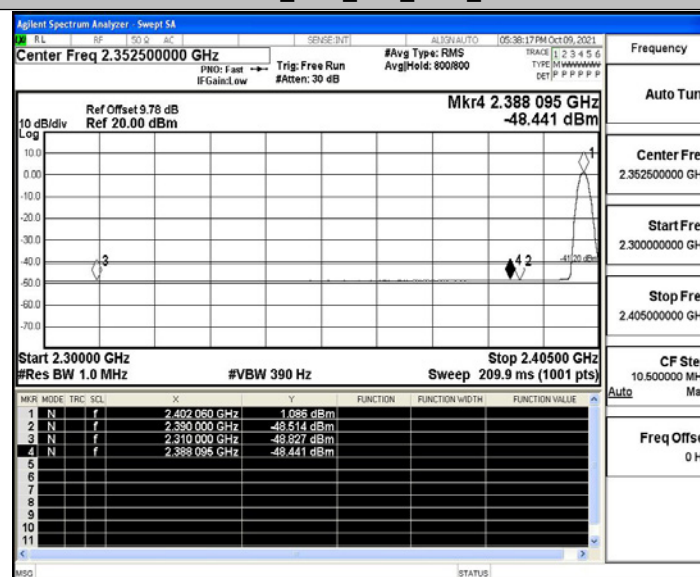
DH5_Ant1_High_2480_AV



DH5_Ant1_High_2480_Peak

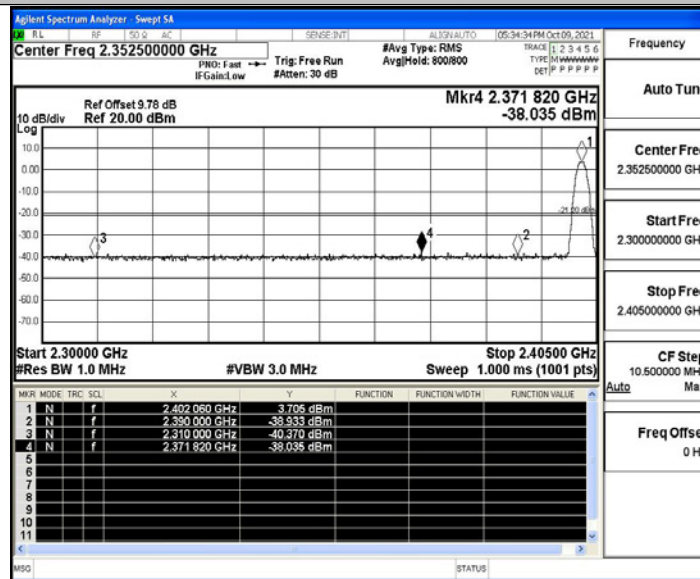


2DH5_Ant1_Low_2402_AV

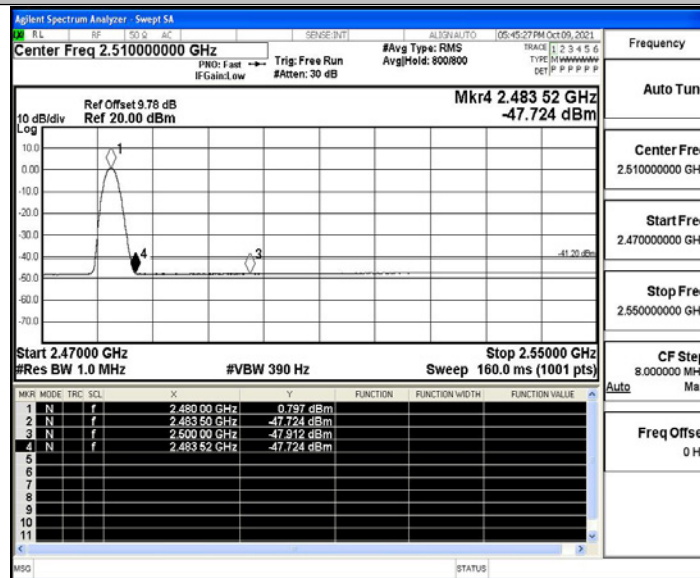




2DH5_Ant1_Low_2402_Peak



2DH5_Ant1_High_2480_AV



2DH5_Ant1_High_2480_Peak

