



Appendix A

RF Test Data for BT (Conducted Measurement)

Product Name: 8 Inch True Wireless Speaker

Trade Mark: N/A

Test Model: 24278

Environmental Conditions

Temperature:	23.7° C
Relative Humidity:	52.3%
ATM Pressure:	100.0 kPa
Test Engineer:	Wunder Wu
Supervised by:	Li Huan

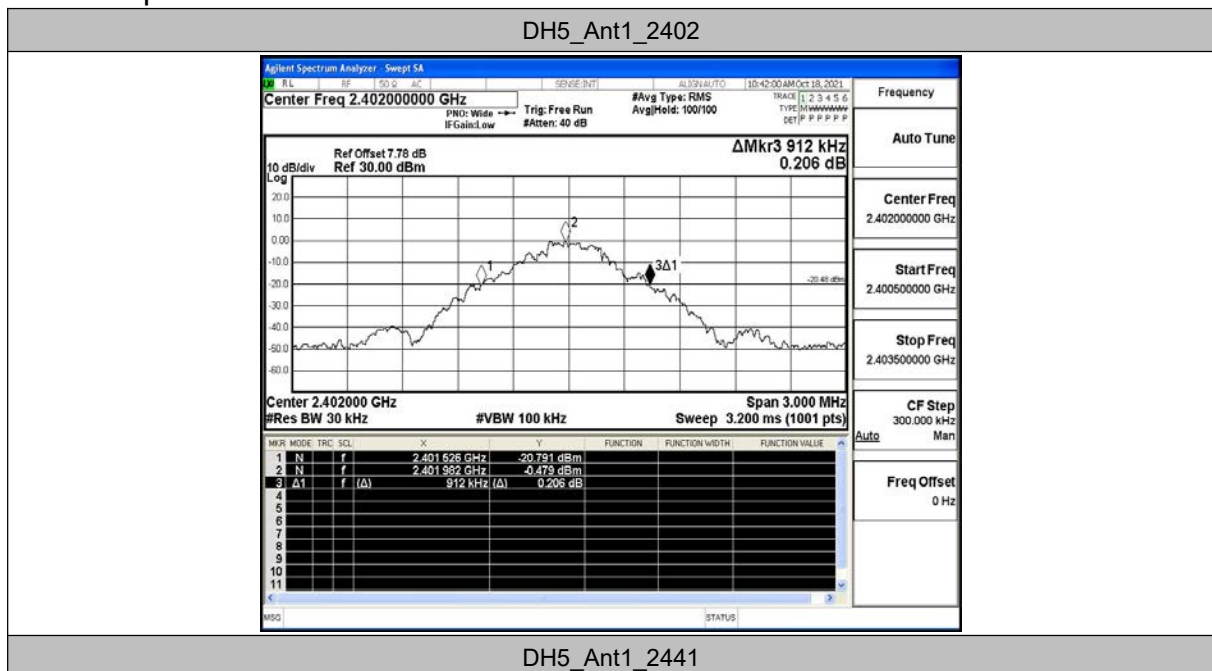


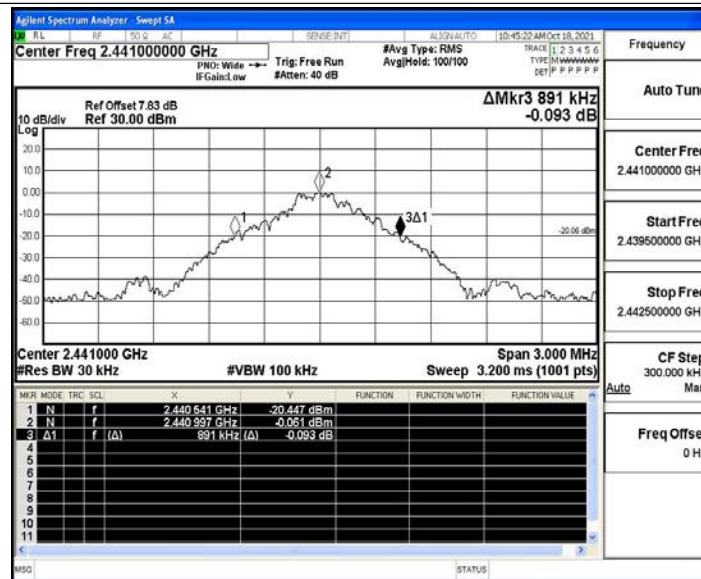
A.1 20dB Emission Bandwidth

Test Result

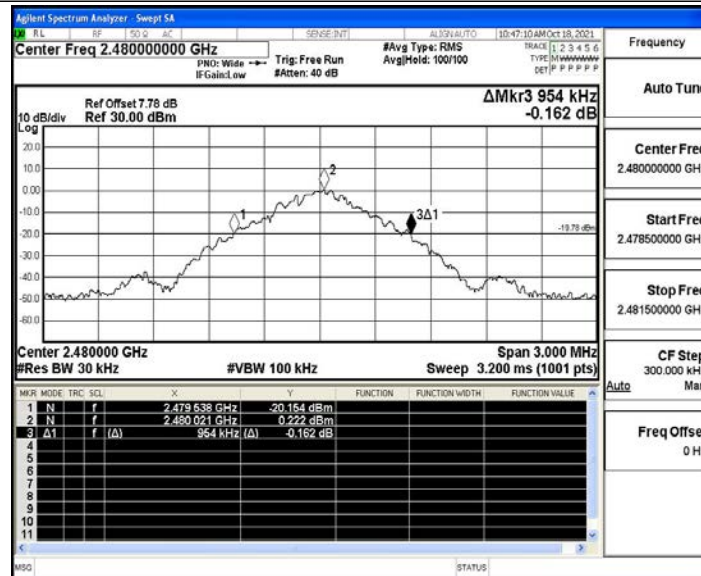
TestMode	Antenna	Channel	20db EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.912	2401.526	2402.438	---	PASS
		2441	0.891	2440.541	2441.432	---	PASS
		2480	0.954	2479.538	2480.492	---	PASS
2DH5	Ant1	2402	1.383	2401.313	2402.696	---	PASS
		2441	1.386	2440.310	2441.696	---	PASS
		2480	1.287	2479.391	2480.678	---	PASS
3DH5	Ant1	2402	1.359	2401.304	2402.663	---	PASS
		2441	1.362	2440.319	2441.681	---	PASS
		2480	1.260	2479.394	2480.654	---	PASS

Test Graphs

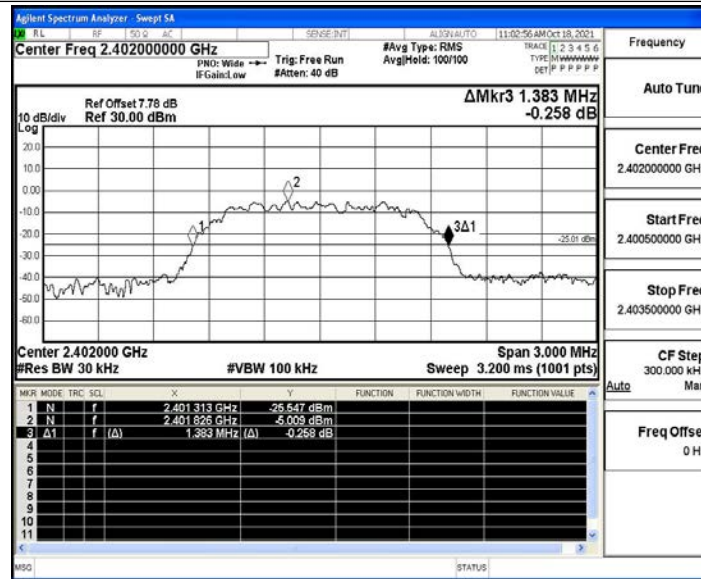




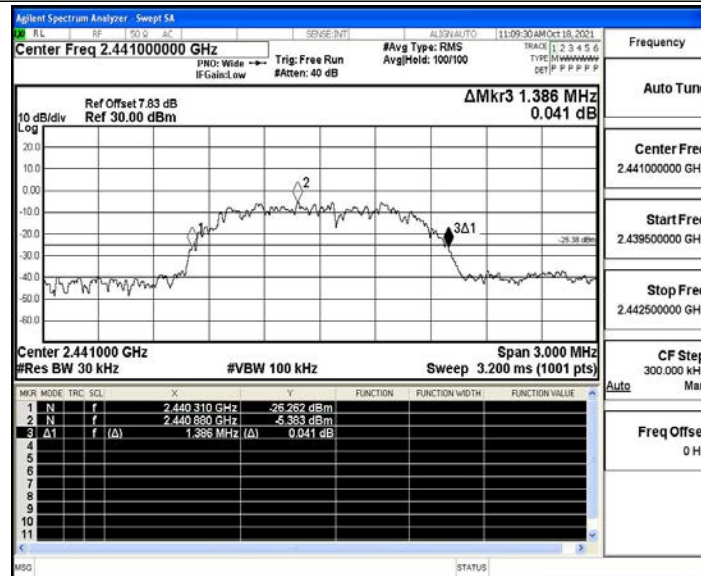
DH5_Ant1_2480



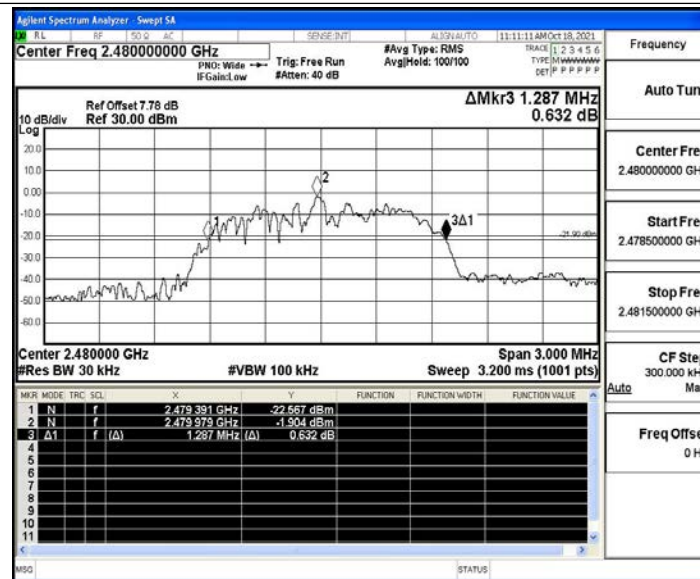
2DH5_Ant1_2402



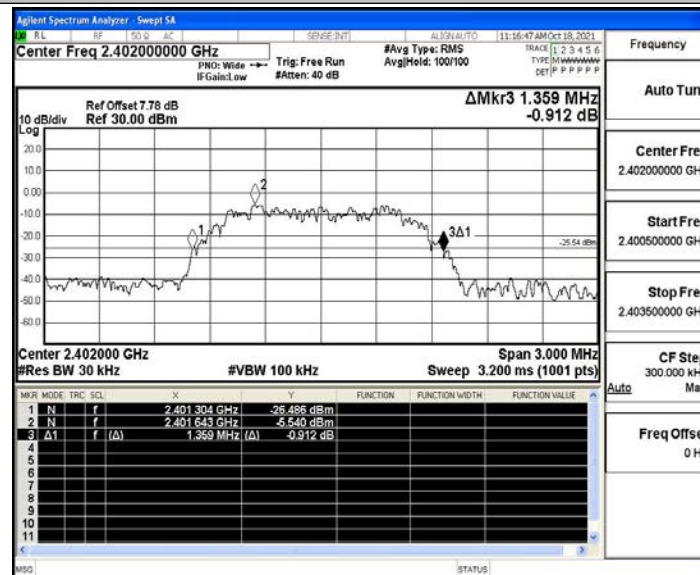
2DH5_Ant1_2441



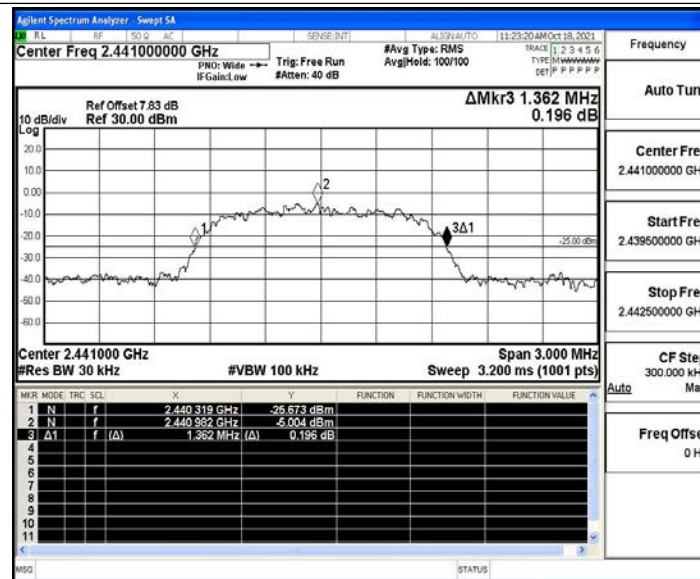
2DH5_Ant1_2480



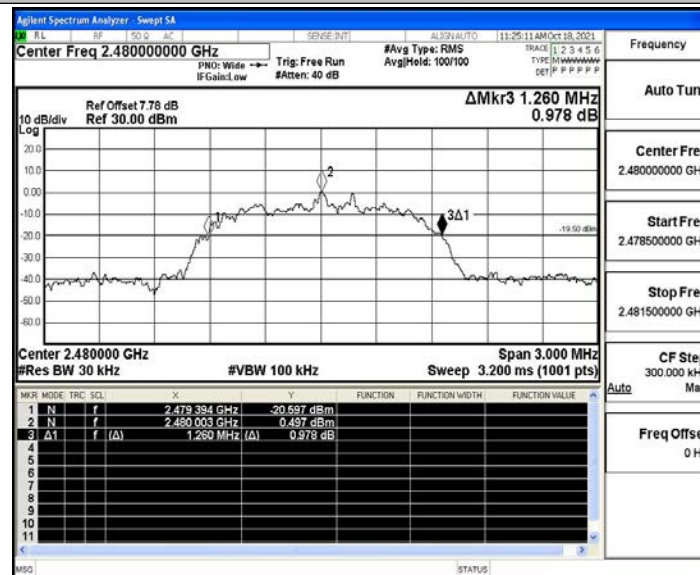
3DH5_Ant1_2402



3DH5_Ant1_2441



3DH5_Ant1_2480



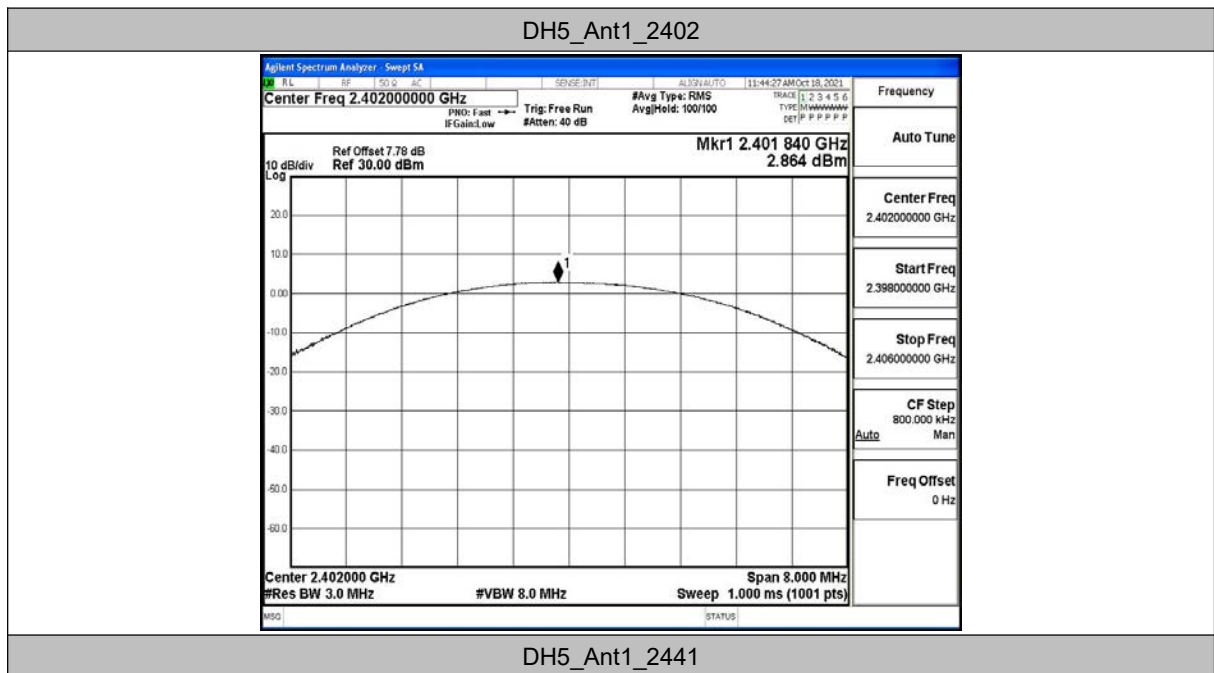


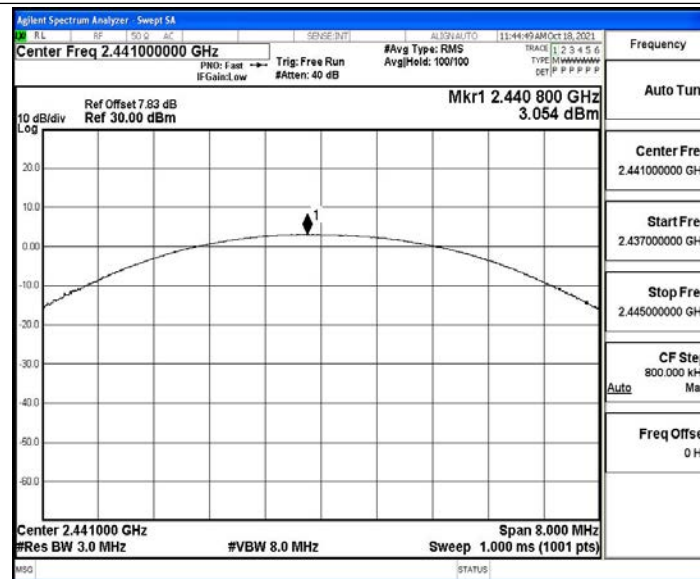
A.2 Maximum conducted output power

Test Result

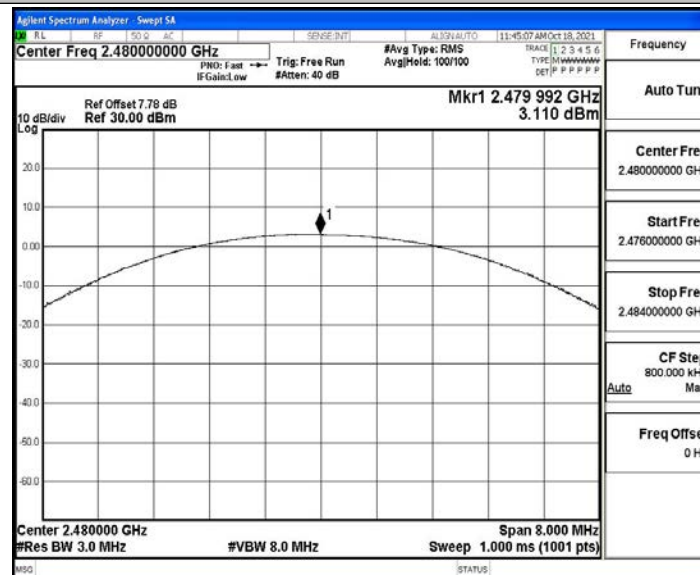
TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
DH5	Ant1	2402	2.864	≤30	PASS
		2441	3.054	≤30	PASS
		2480	3.110	≤30	PASS
2DH5	Ant1	2402	3.486	≤30	PASS
		2441	3.697	≤30	PASS
		2480	3.702	≤30	PASS
3DH5	Ant1	2402	3.529	≤30	PASS
		2441	3.661	≤30	PASS
		2480	3.653	≤30	PASS

Test Graphs

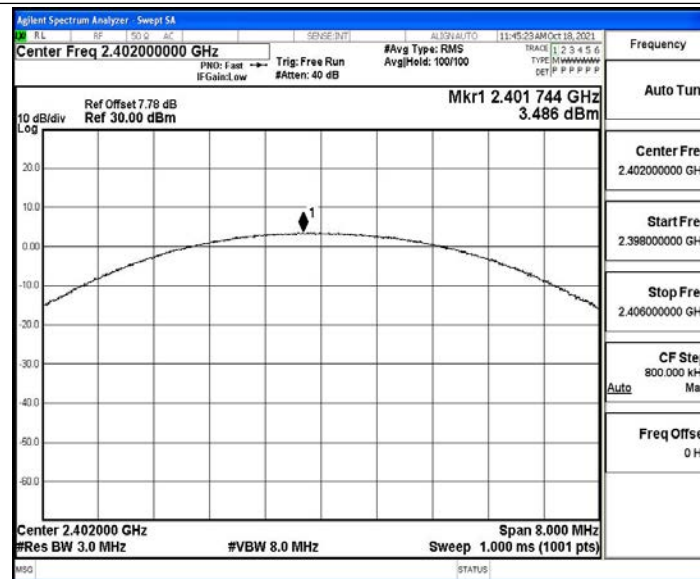




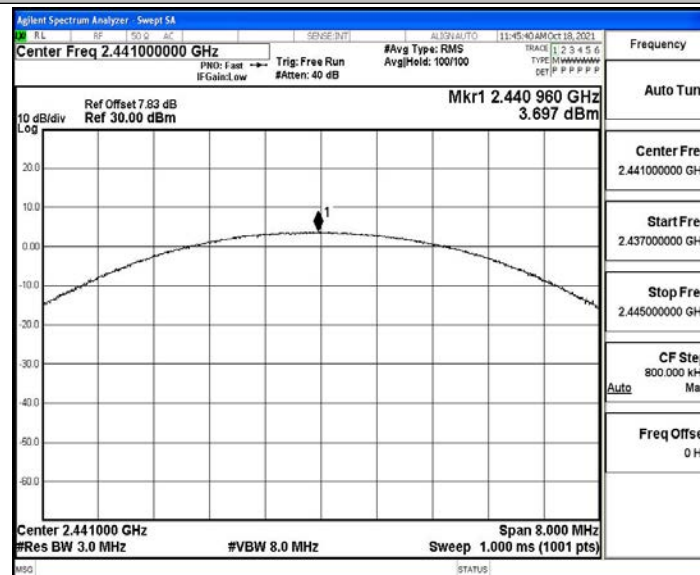
DH5_Ant1_2480



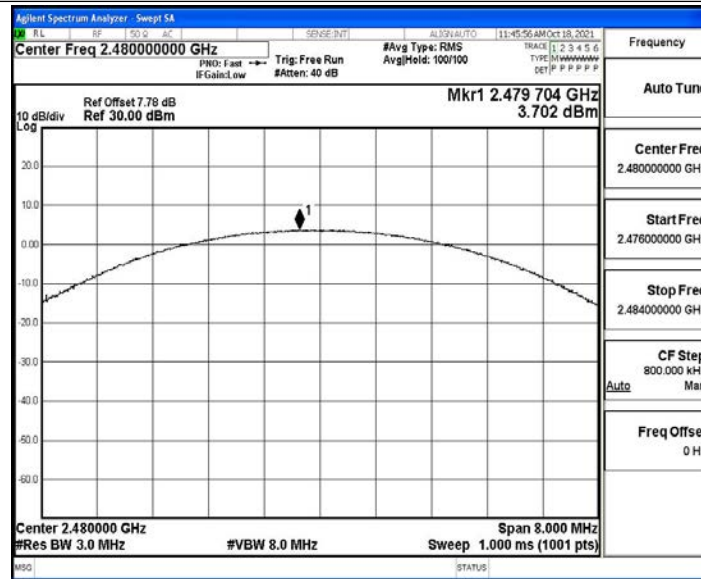
2DH5_Ant1_2402



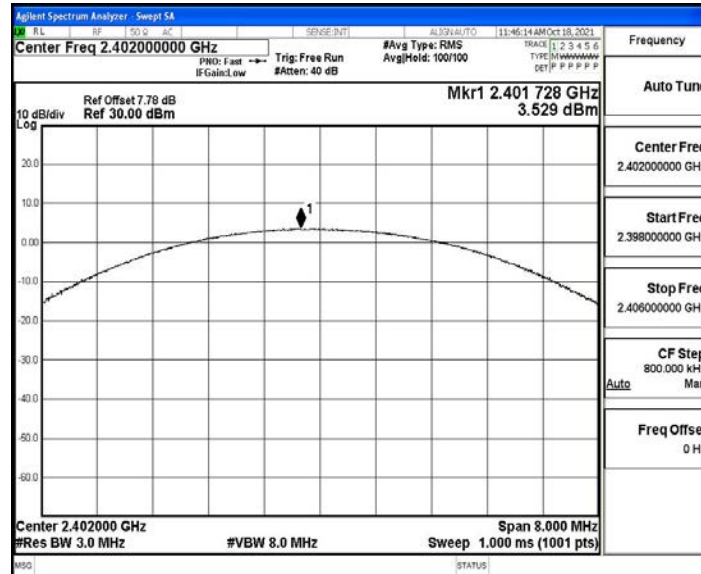
2DH5_Ant1_2441



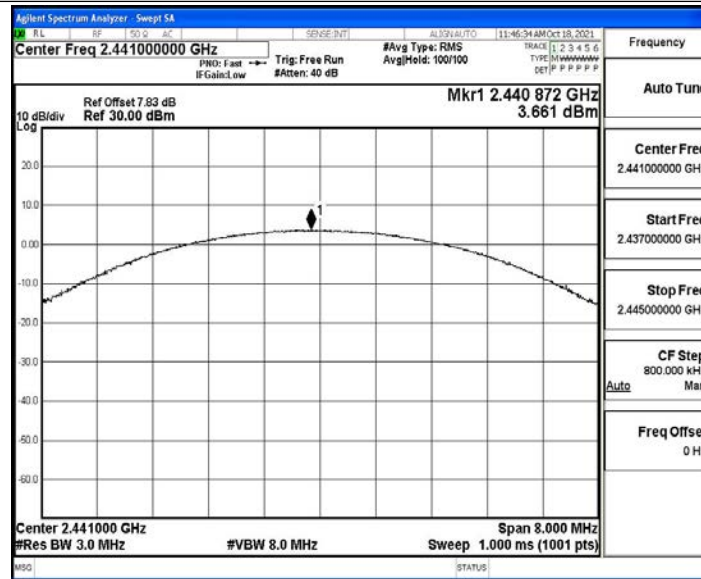
2DH5_Ant1_2480



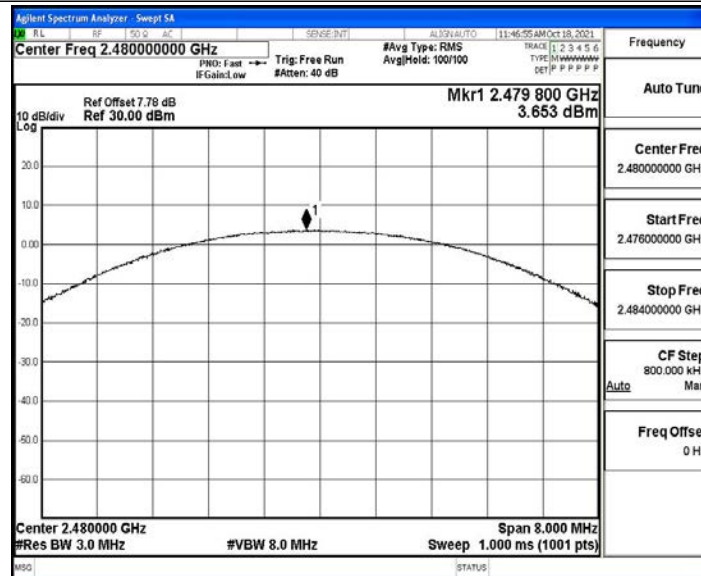
3DH5_Ant1_2402



3DH5_Ant1_2441



3DH5_Ant1_2480



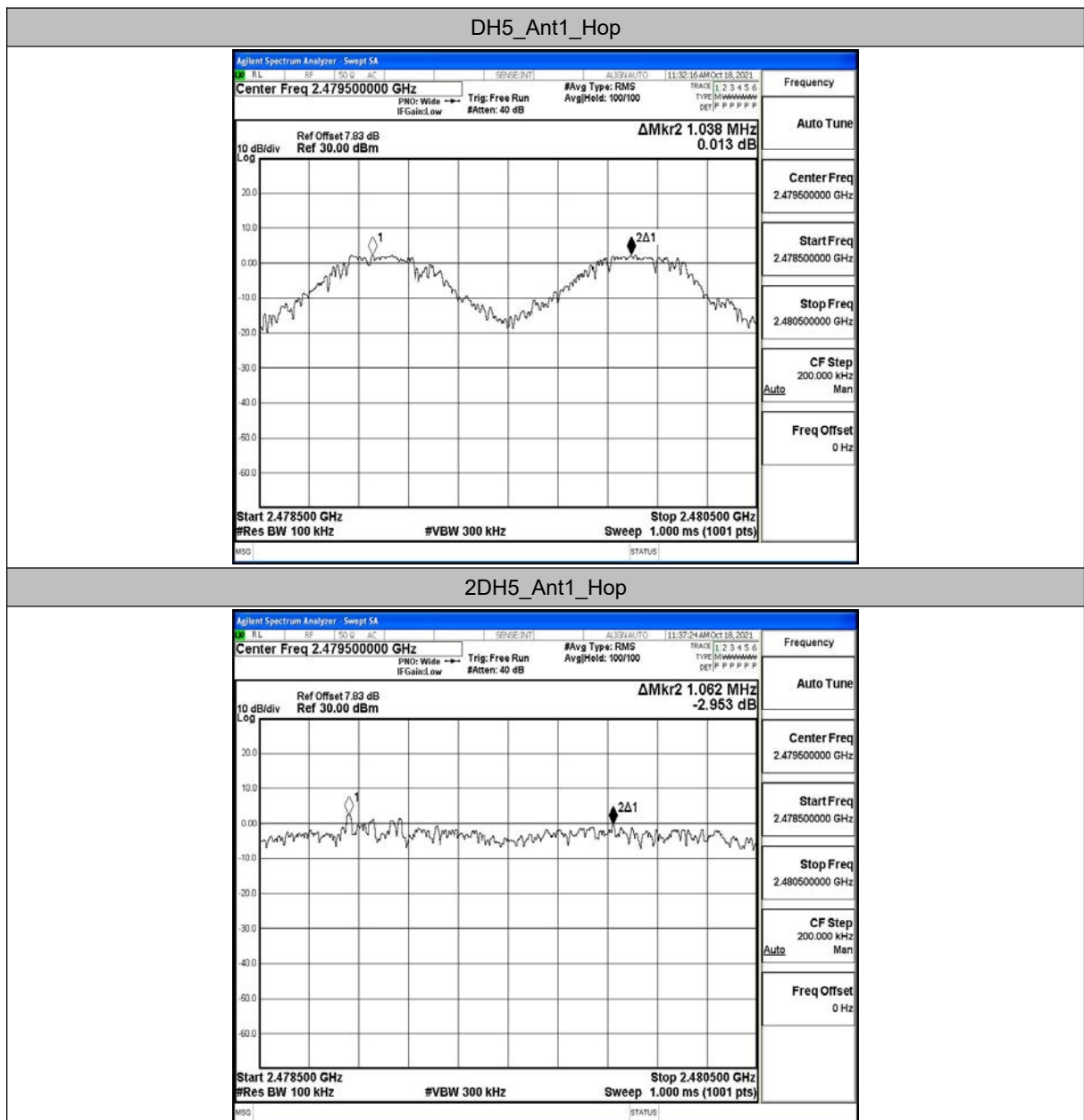


A.3 Carrier frequency separation

Test Result

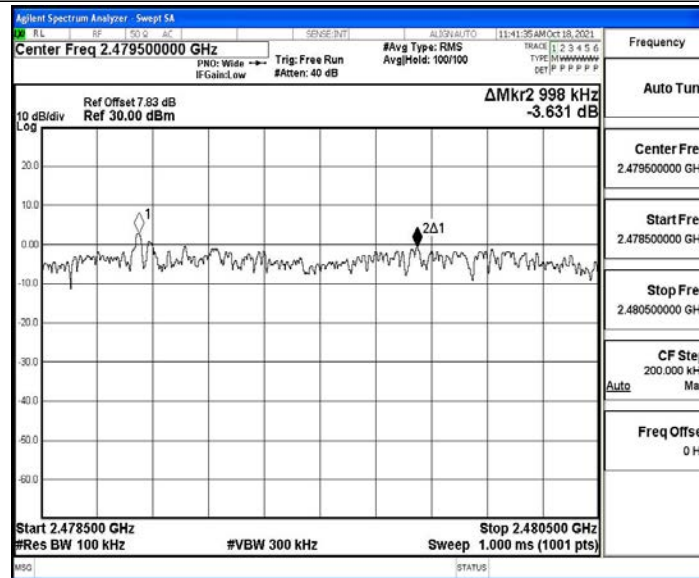
TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
DH5	Ant1	Hop	1.038	≥ 0.954	PASS
2DH5	Ant1	Hop	1.062	≥ 0.924	PASS
3DH5	Ant1	Hop	0.998	≥ 0.908	PASS

Test Graphs





3DH5_Ant1_Hop



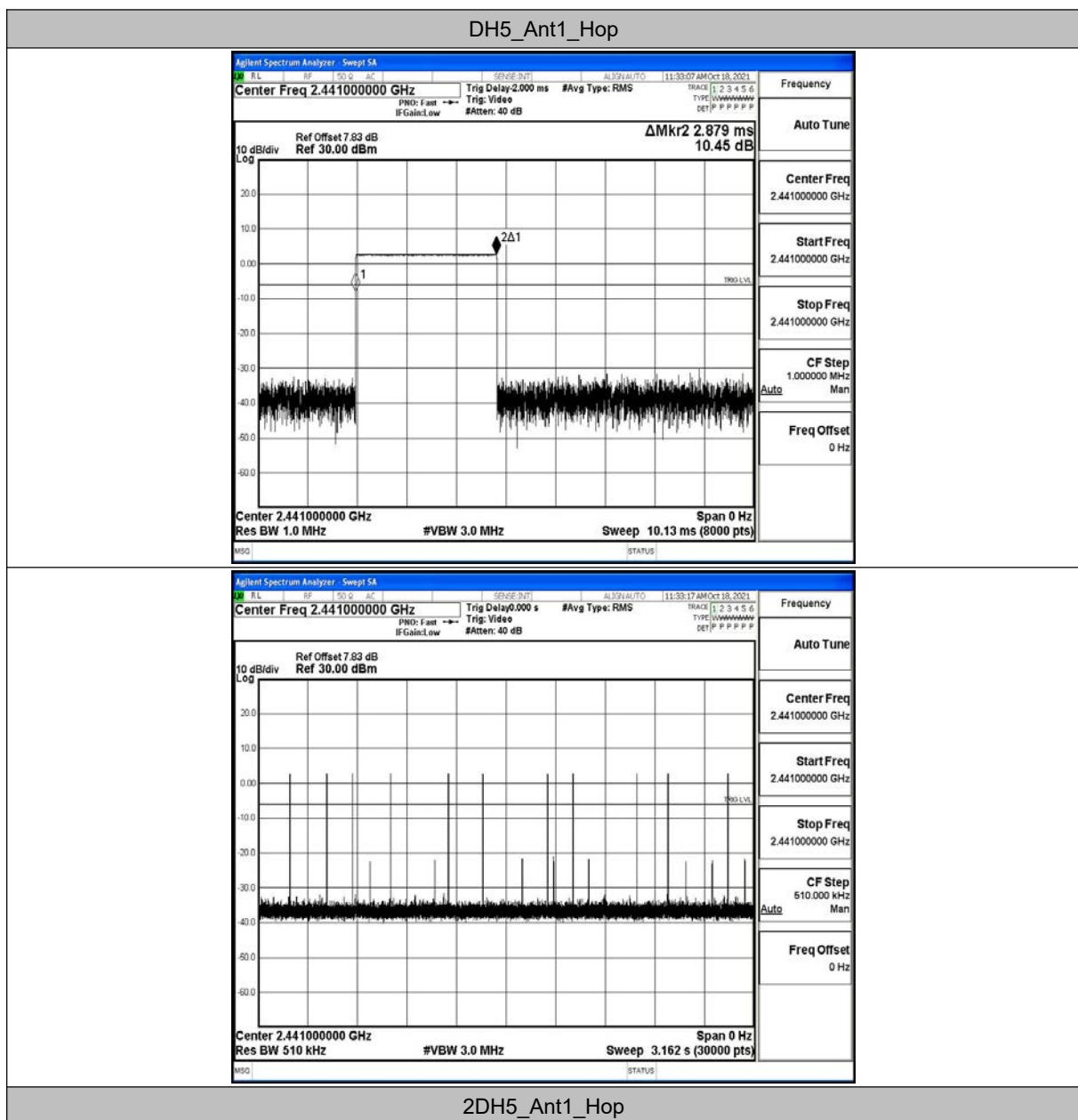


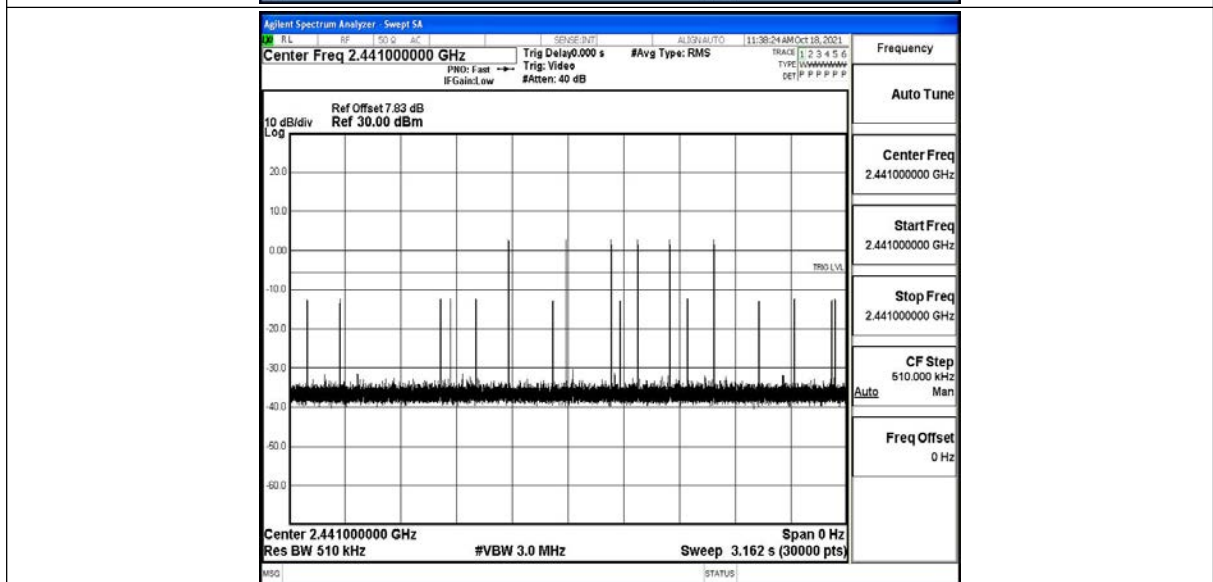
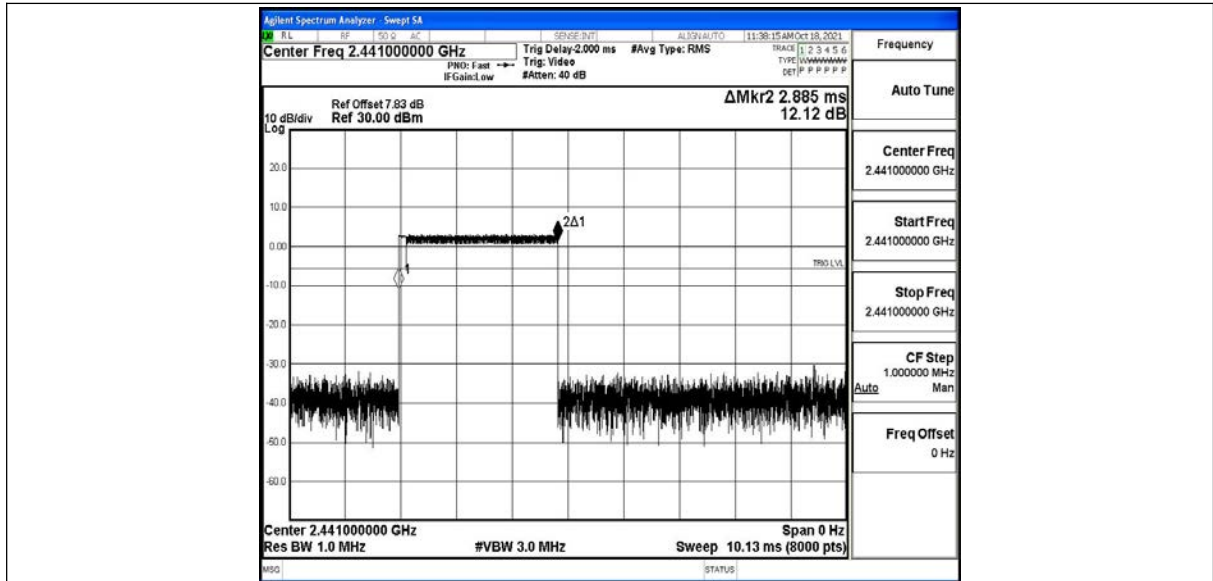
A.4 Time of occupancy

Test Result

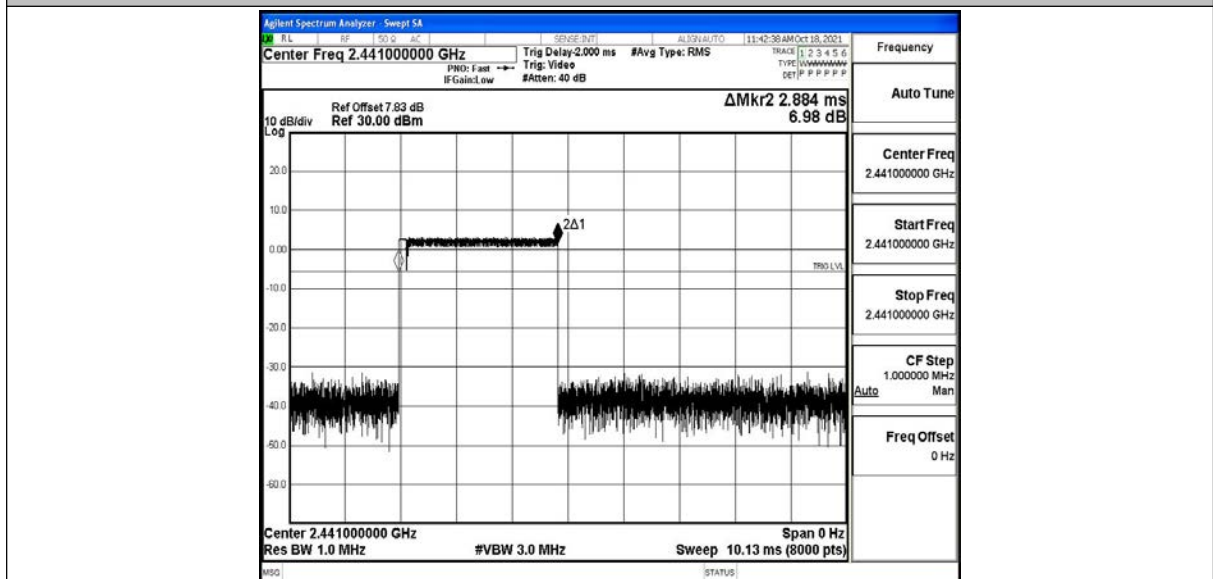
TestMode	Antenna	Channel	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH5	Ant1	Hop	2.88	120	0.345	≤0.4	PASS
2DH5	Ant1	Hop	2.89	70	0.202	≤0.4	PASS
3DH5	Ant1	Hop	2.88	110	0.317	≤0.4	PASS

Test Graphs





3DH5_Ant1_Hop







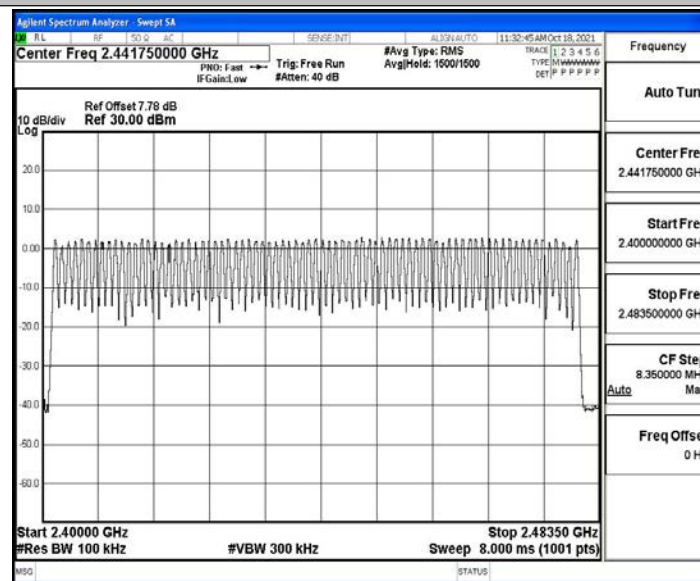
A.5 Number of hopping channels

Test Result

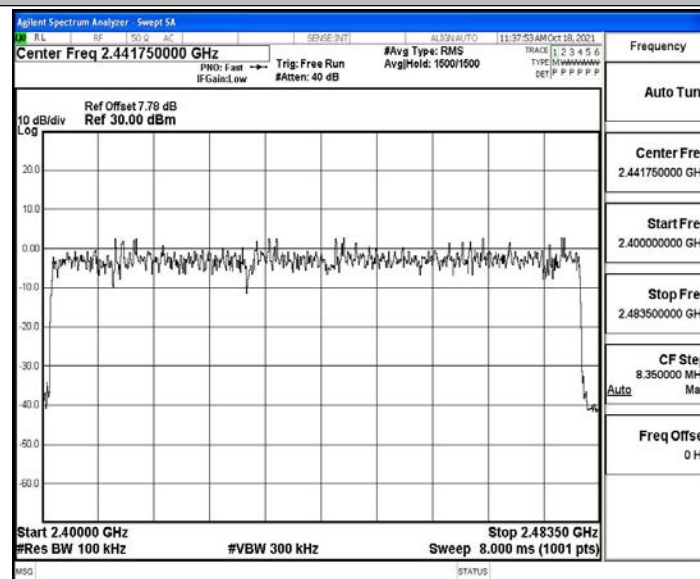
TestMode	Antenna	Channel	Result[Num]	Limit[Num]	Verdict
DH5	Ant1	Hop	79	≥15	PASS
2DH5	Ant1	Hop	79	≥15	PASS
3DH5	Ant1	Hop	79	≥15	PASS

Test Graphs

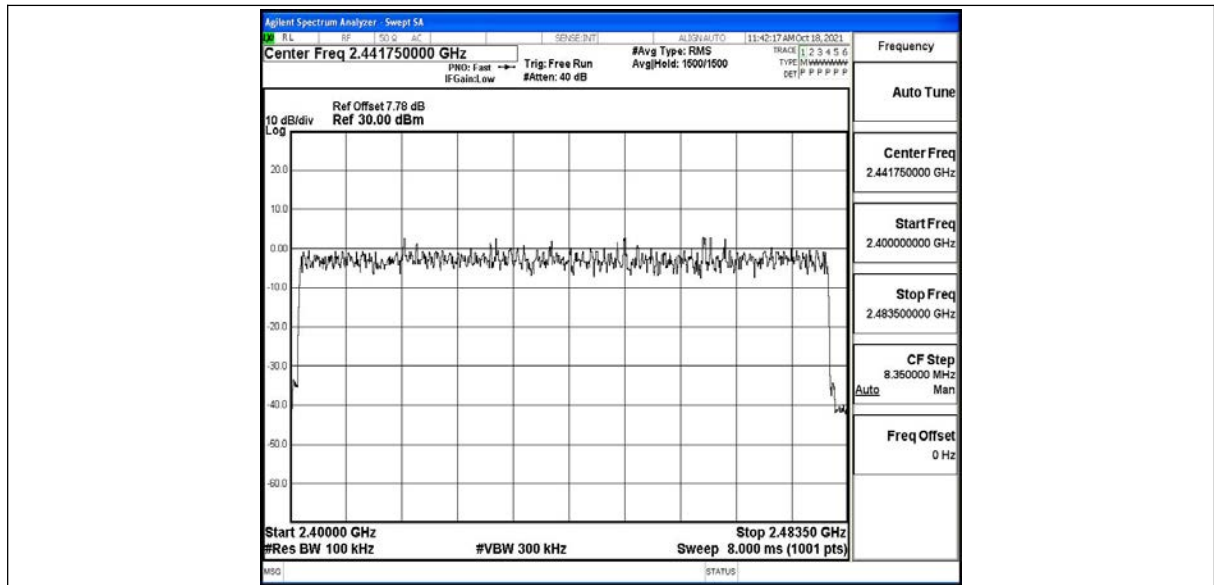
DH5_Ant1_Hop



2DH5_Ant1_Hop



3DH5_Ant1_Hop





A.6 Band edge measurements

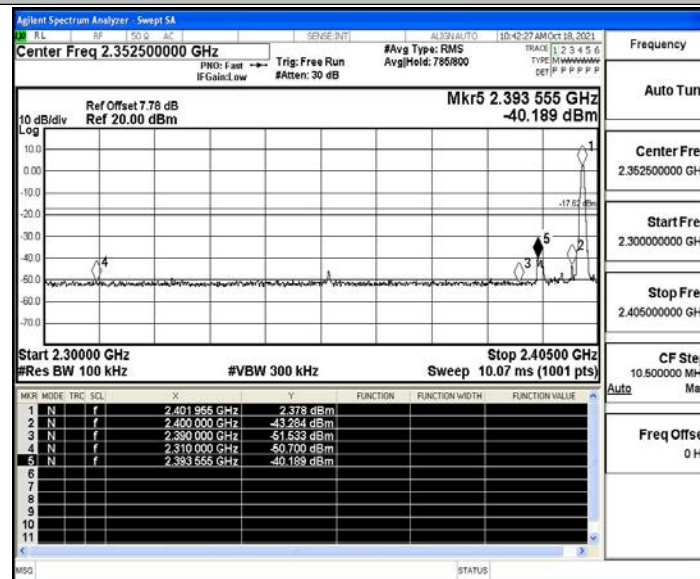
Test Result

TestMode	Antenna	ChName	Channel	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	2.38	-40.19	≤ -17.62	PASS
		High	2480	2.61	-42.08	≤ -17.39	PASS
		Low	Hop_2402	2.00	-46.42	≤ -18	PASS
		High	Hop_2480	2.46	-42.82	≤ -17.55	PASS
2DH5	Ant1	Low	2402	-0.15	-40.44	≤ -20.15	PASS
		High	2480	1.98	-43.43	≤ -18.02	PASS
		Low	Hop_2402	-1.24	-47.13	≤ -21.24	PASS
		High	Hop_2480	1.73	-44.3	≤ -18.27	PASS
3DH5	Ant1	Low	2402	2.68	-39.98	≤ -17.32	PASS
		High	2480	2.85	-42.44	≤ -17.15	PASS
		Low	Hop_2402	0.16	-48.49	≤ -19.85	PASS
		High	Hop_2480	0.52	-44.96	≤ -19.48	PASS

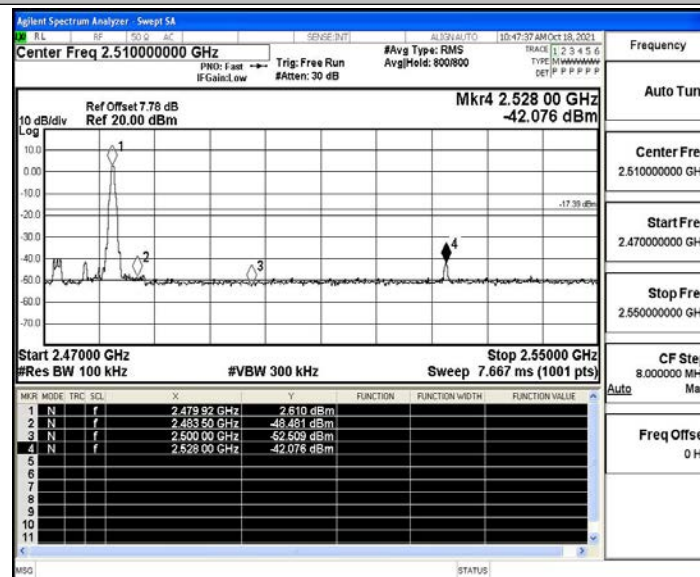


Test Graphs

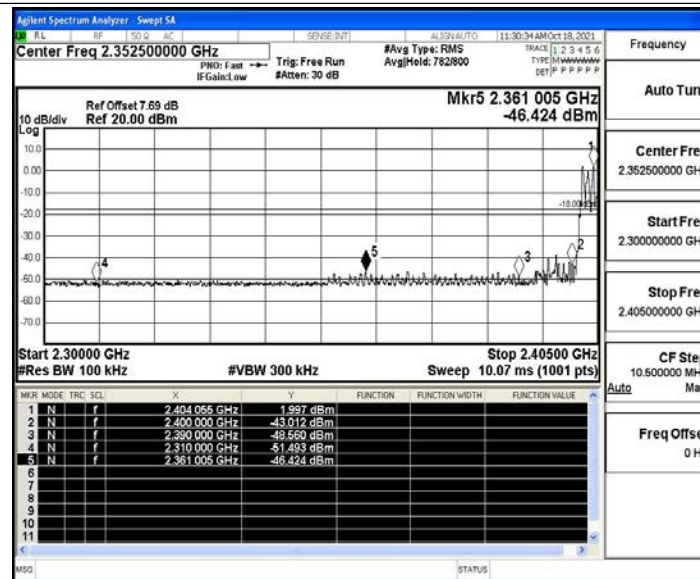
DH5_Ant1_Low_2402



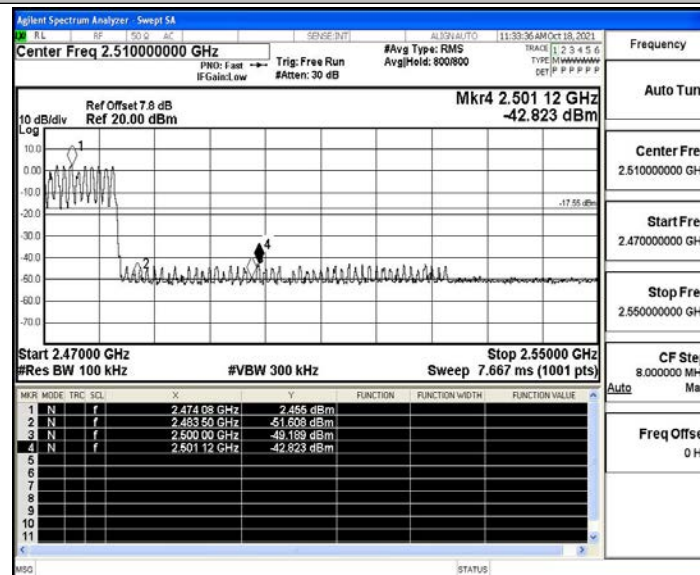
DH5_Ant1_High_2480



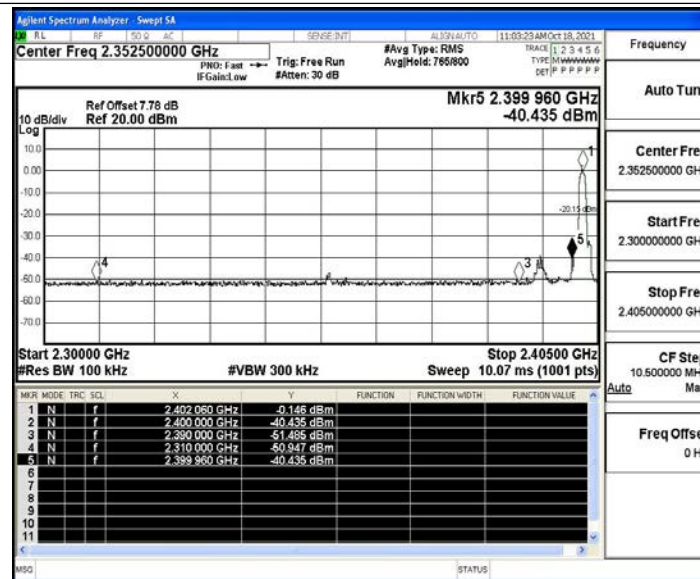
DH5_Ant1_Low_Hop_2402



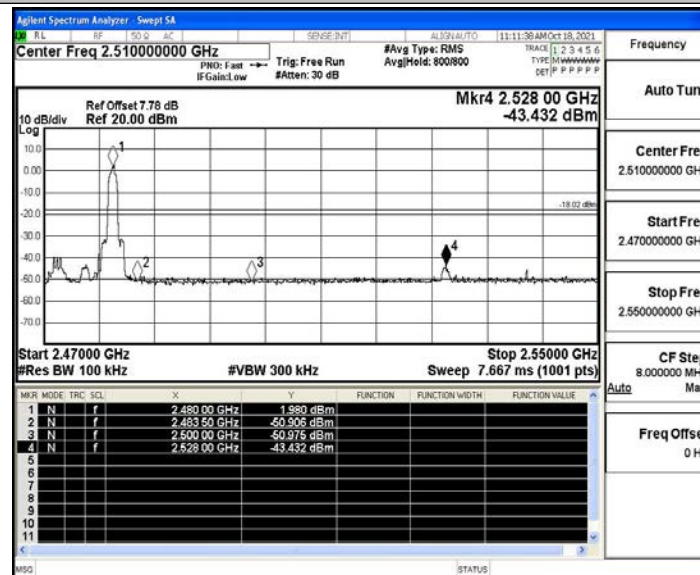
DH5_Ant1_High_Hop_2480



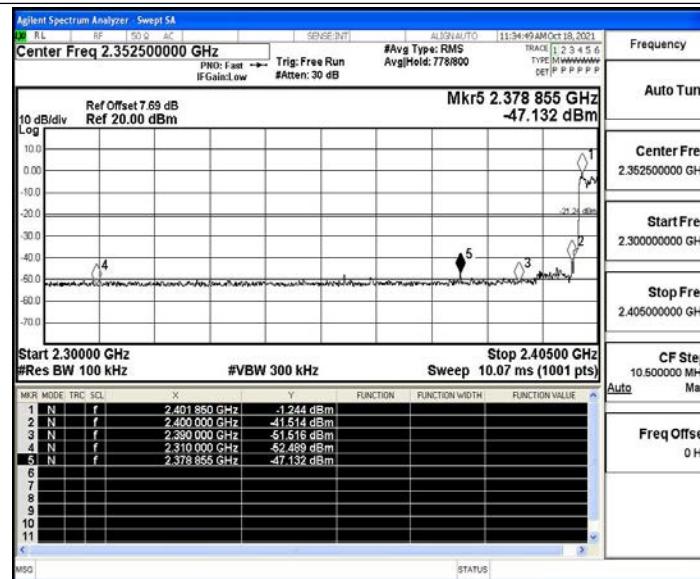
2DH5_Ant1_Low_2402



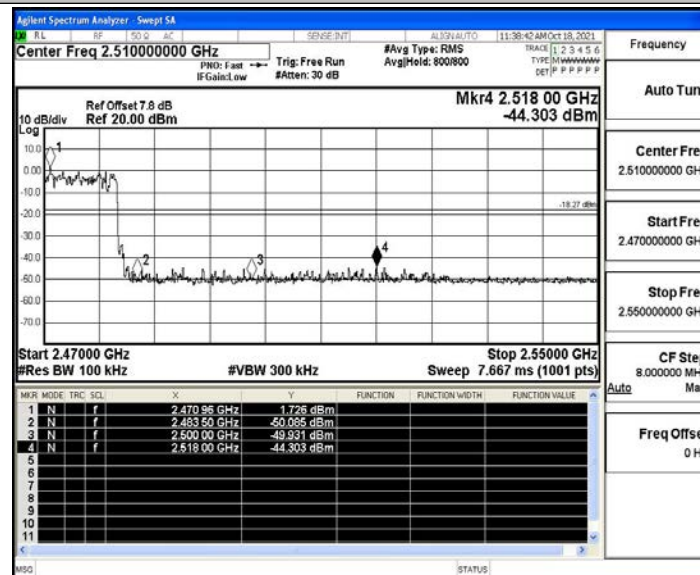
2DH5_Ant1_High_2480



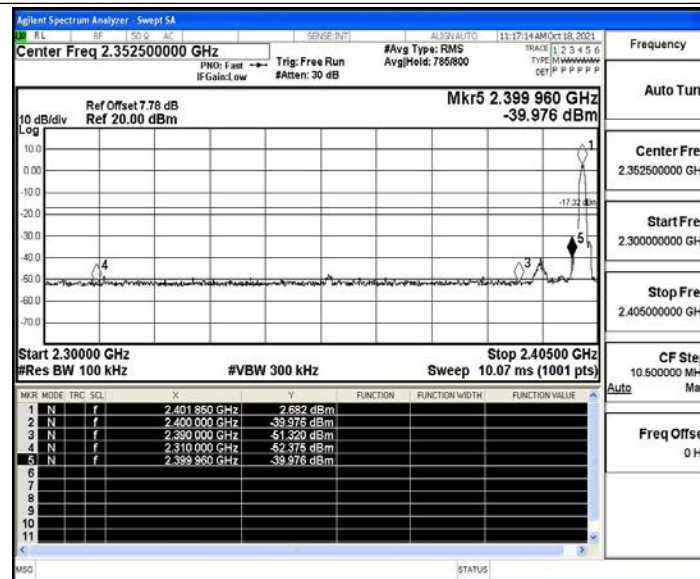
2DH5_Ant1_Low_Hop_2402



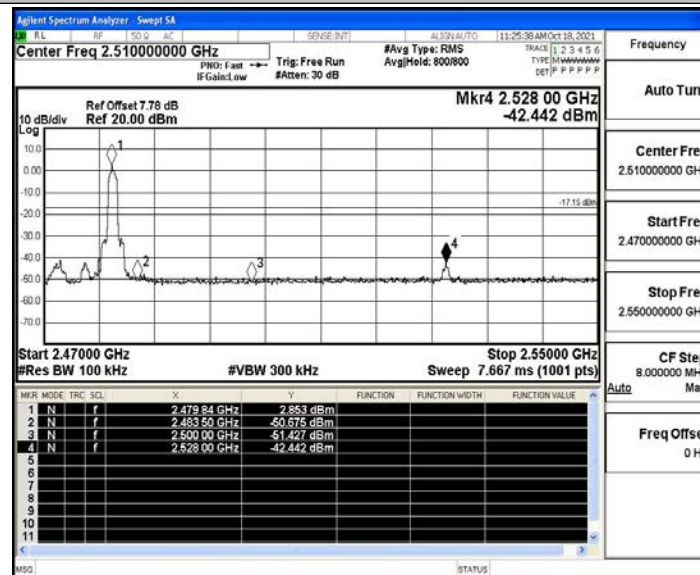
2DH5_Ant1_High_Hop_2480



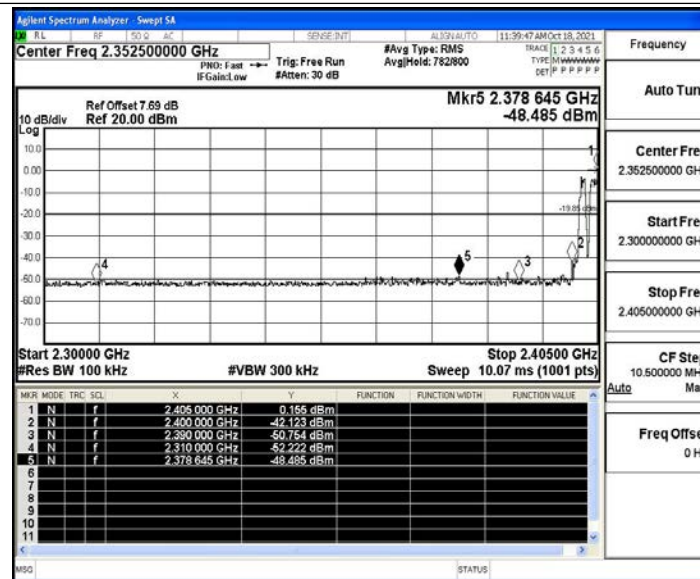
3DH5_Ant1_Low_2402



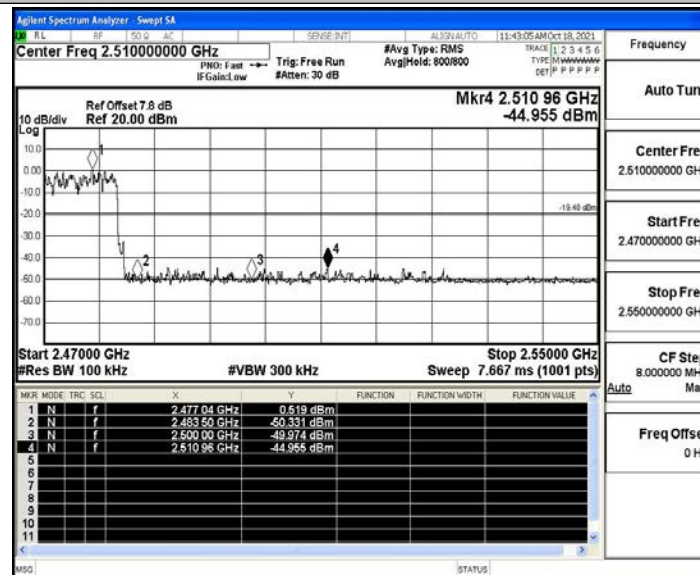
3DH5_Ant1_High_2480



3DH5_Ant1_Low_Hop_2402



3DH5_Ant1_High_Hop_2480





A.7 Conducted Spurious Emission

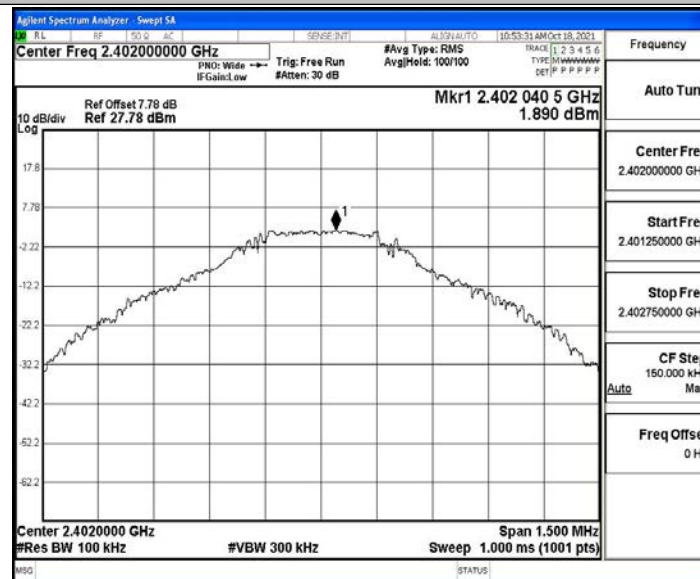
Test Result

TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	Reference	1.89	1.89	---	PASS
			30~1000	1.89	-56.65	≤ -18.11	PASS
			1000~26500	1.89	-39.33	≤ -18.11	PASS
		2441	Reference	2.06	2.06	---	PASS
			30~1000	2.06	-56	≤ -17.95	PASS
			1000~26500	2.06	-39.36	≤ -17.95	PASS
		2480	Reference	2.83	2.83	---	PASS
			30~1000	2.83	-52.17	≤ -17.17	PASS
			1000~26500	2.83	-40.29	≤ -17.17	PASS
2DH5	Ant1	2402	Reference	-0.42	-0.42	---	PASS
			30~1000	-0.42	-54.3	≤ -20.42	PASS
			1000~26500	-0.42	-42.95	≤ -20.42	PASS
		2441	Reference	2.68	2.68	---	PASS
			30~1000	2.68	-55.71	≤ -17.32	PASS
			1000~26500	2.68	-44.02	≤ -17.32	PASS
		2480	Reference	2.82	2.82	---	PASS
			30~1000	2.82	-54.13	≤ -17.18	PASS
			1000~26500	2.82	-43.26	≤ -17.18	PASS
3DH5	Ant1	2402	Reference	-0.62	-0.62	---	PASS
			30~1000	-0.62	-55.71	≤ -20.62	PASS
			1000~26500	-0.62	-40.1	≤ -20.62	PASS
		2441	Reference	2.70	2.70	---	PASS
			30~1000	2.70	-55.65	≤ -17.3	PASS
			1000~26500	2.70	-36.49	≤ -17.3	PASS
		2480	Reference	2.54	2.54	---	PASS
			30~1000	2.54	-55.88	≤ -17.46	PASS
			1000~26500	2.54	-43.77	≤ -17.46	PASS

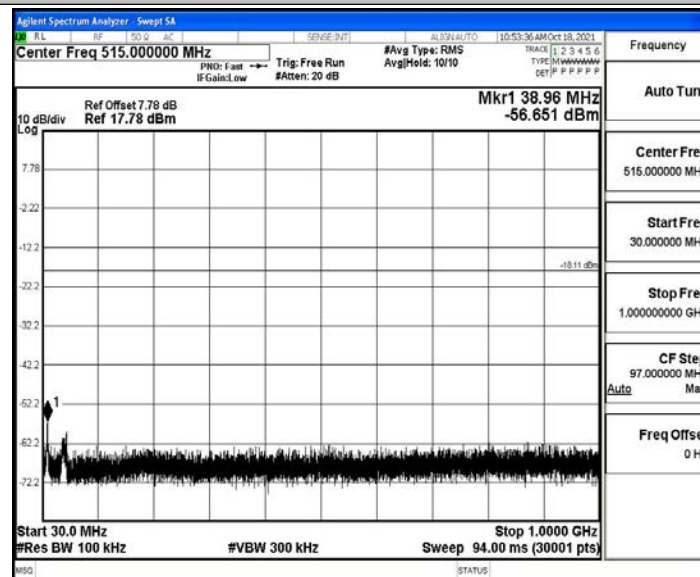


Test Graphs

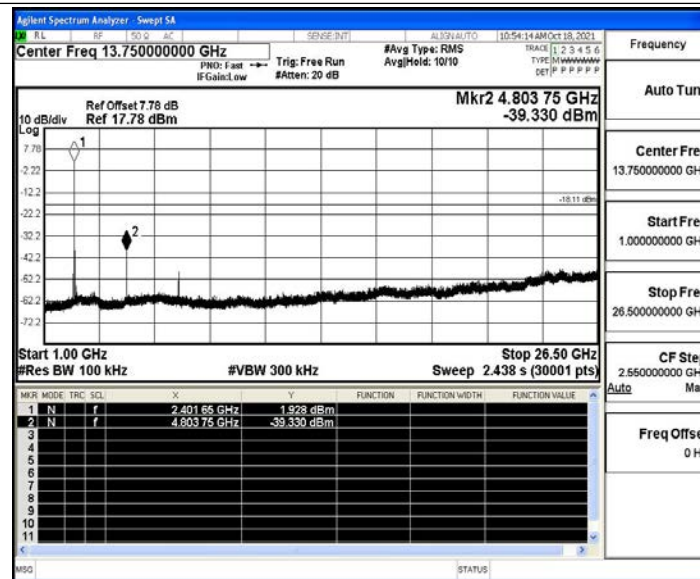
DH5_Ant1_2402_0~Reference



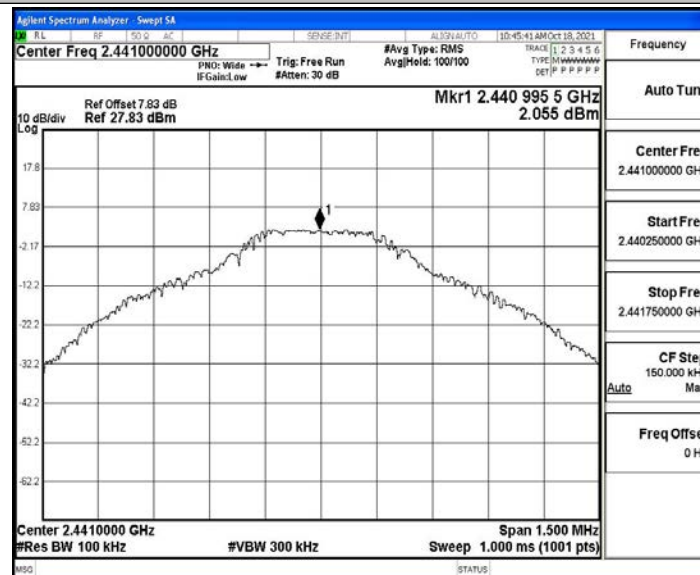
DH5_Ant1_2402_30~1000



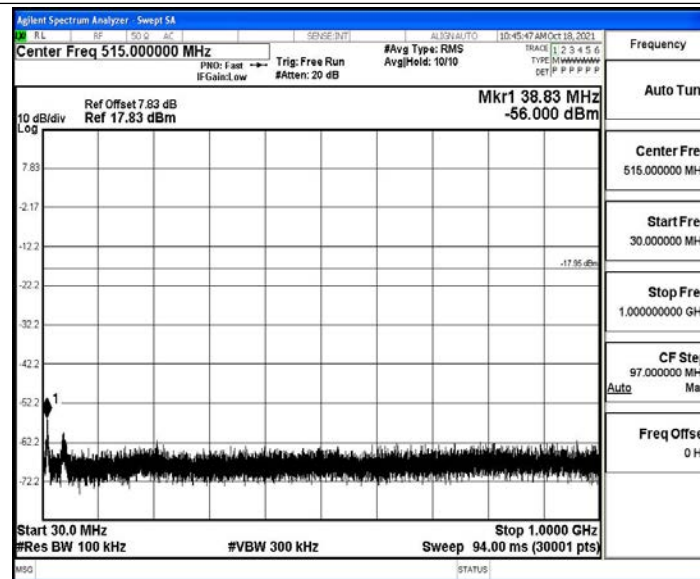
DH5_Ant1_2402_1000~26500



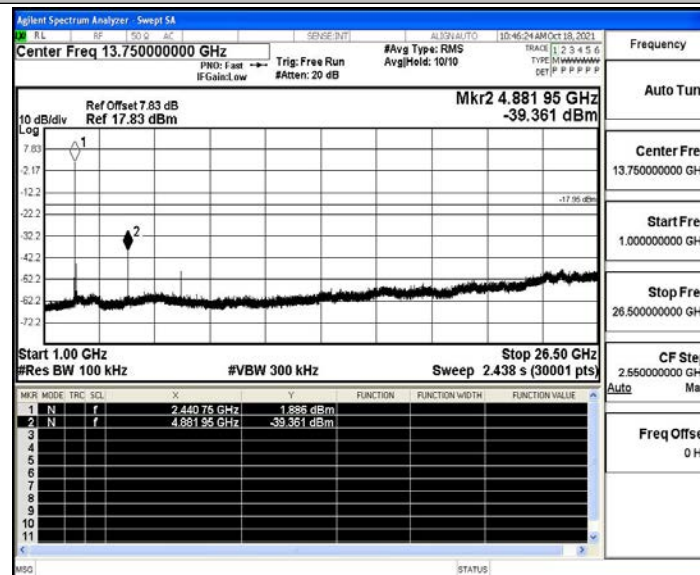
DH5_Ant1_2441_0~Reference



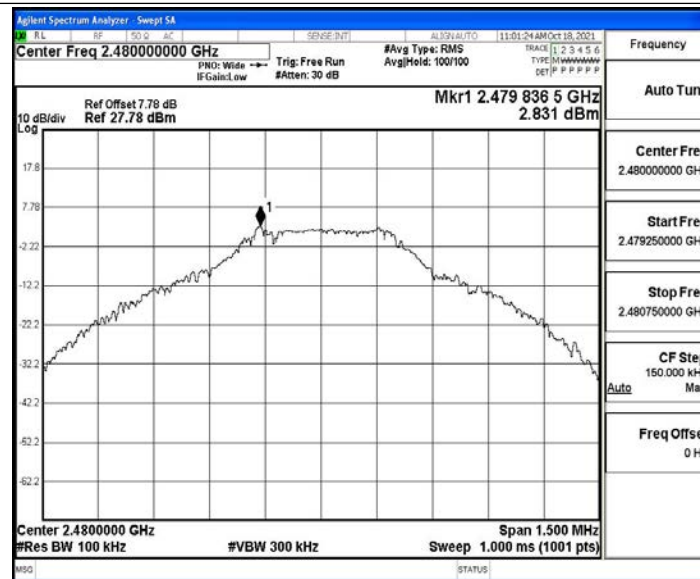
DH5_Ant1_2441_30~1000



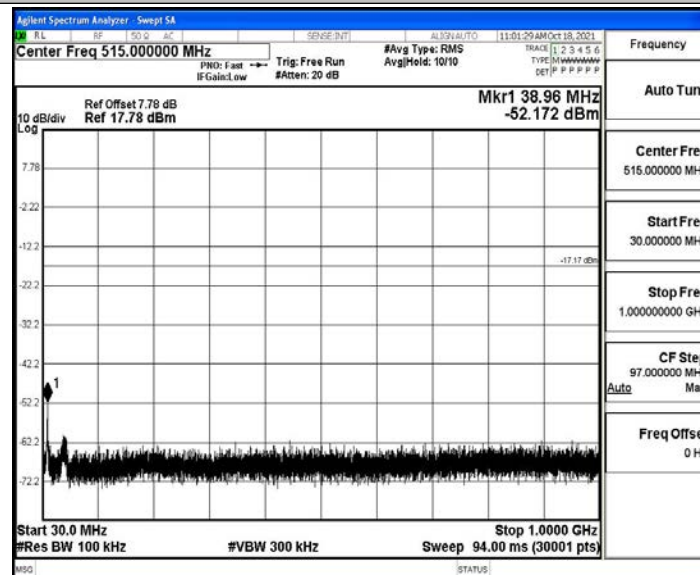
DH5_Ant1_2441_1000~26500



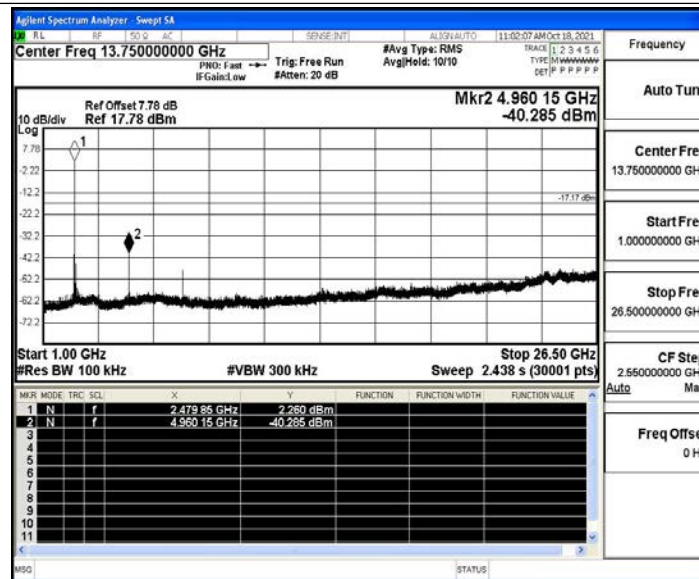
DH5_Ant1_2480_0~Reference



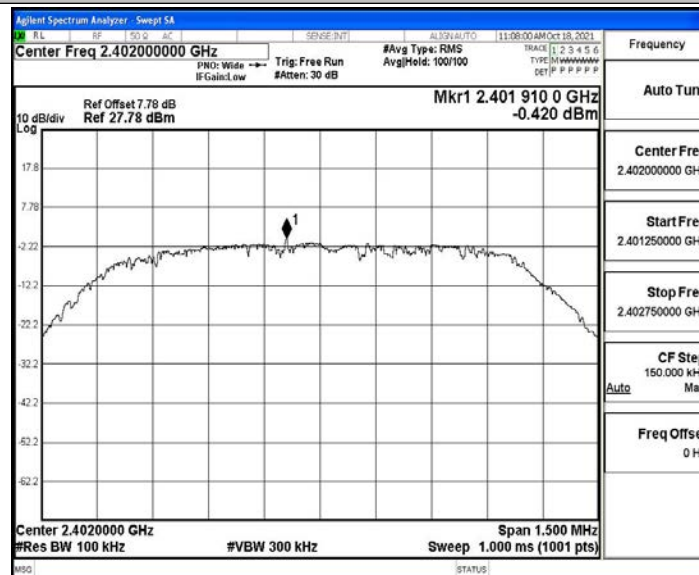
DH5_Ant1_2480_30~1000



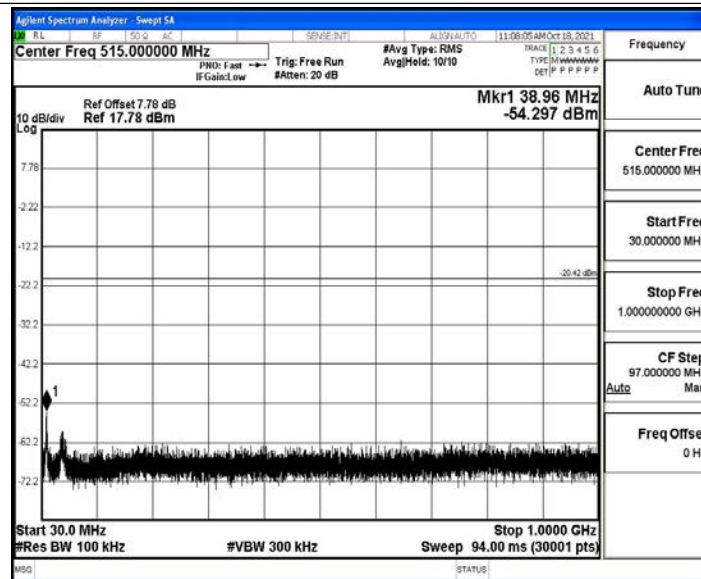
DH5_Ant1_2480_1000~26500



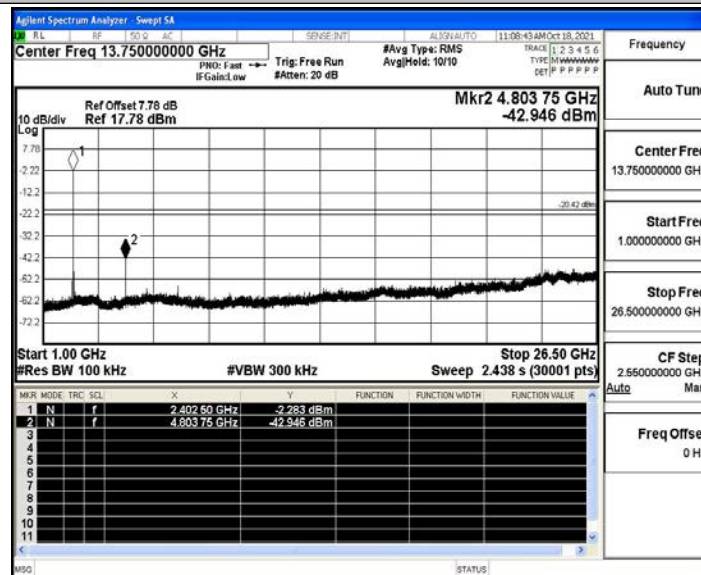
2DH5_Ant1_2402_0~Reference



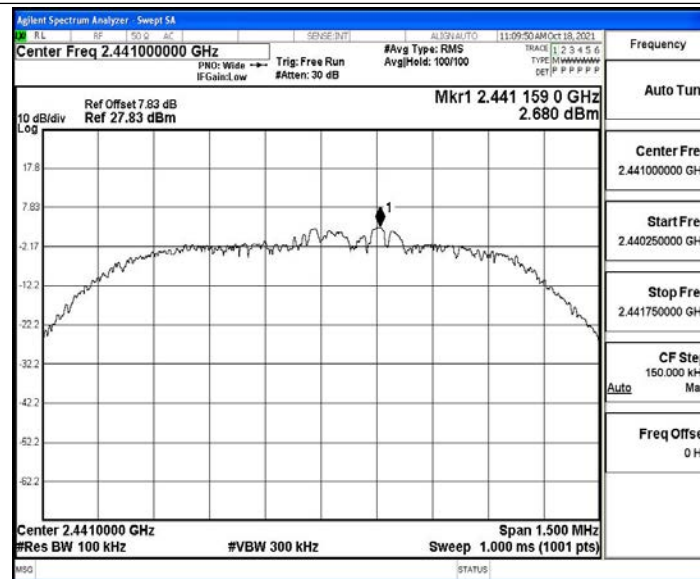
2DH5_Ant1_2402_30~1000



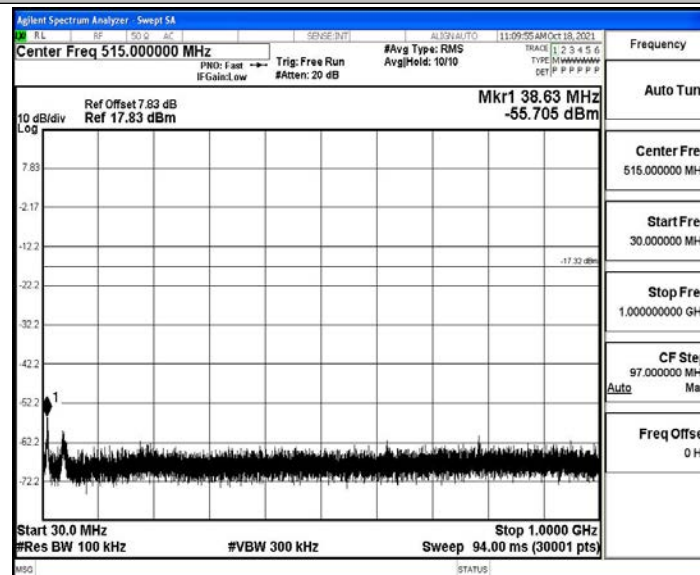
2DH5_Ant1_2402_1000~26500



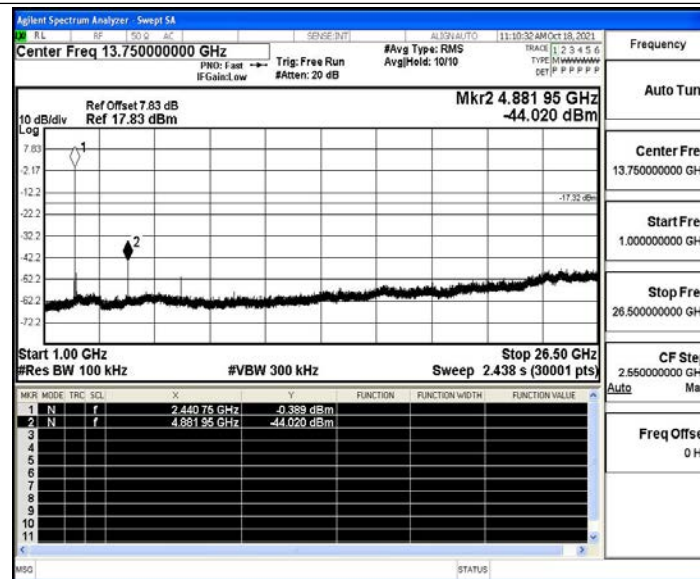
2DH5_Ant1_2441_0~Reference



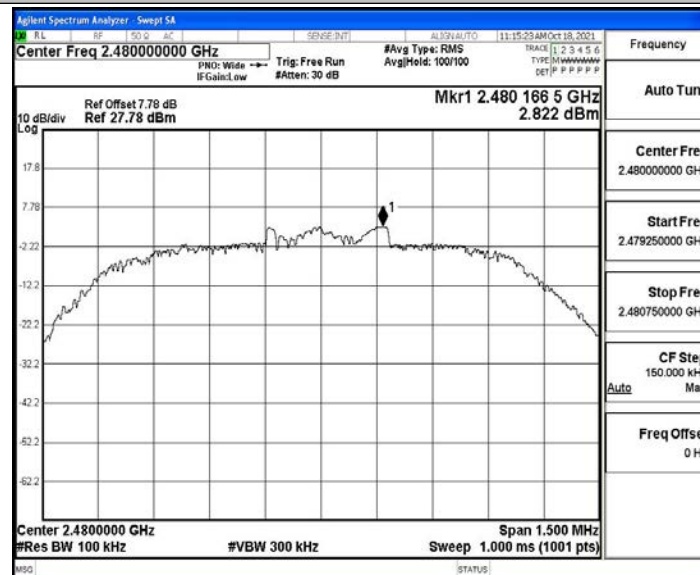
2DH5_Ant1_2441_30~1000



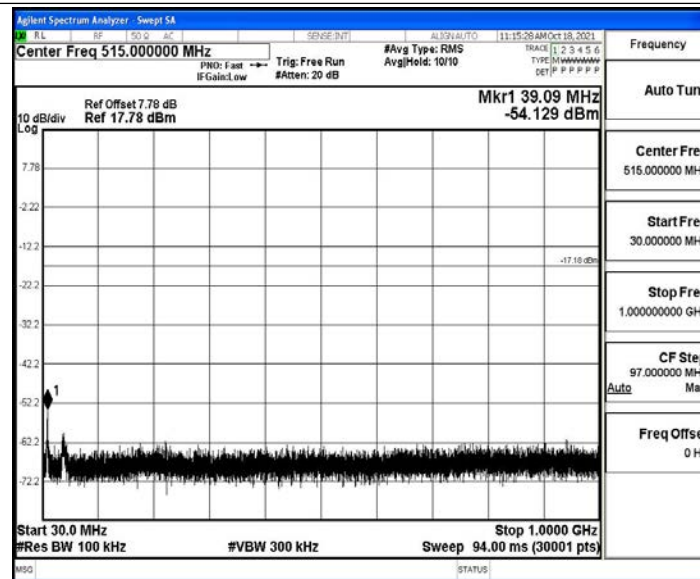
2DH5_Ant1_2441_1000~26500



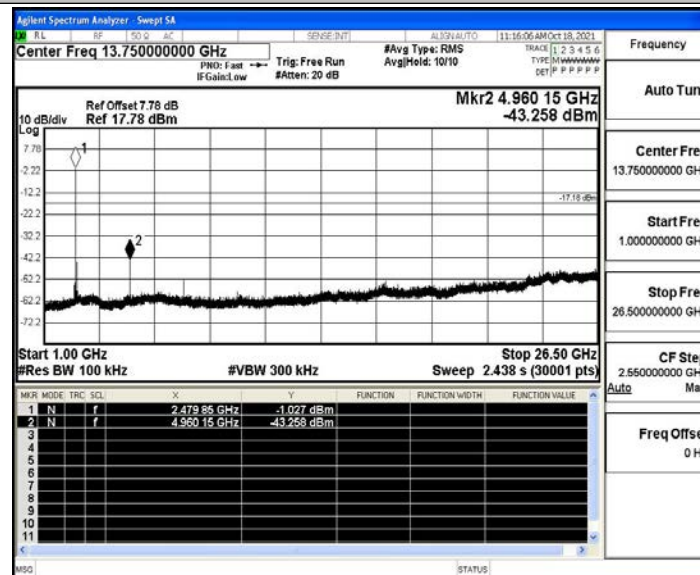
2DH5_Ant1_2480_0~Reference



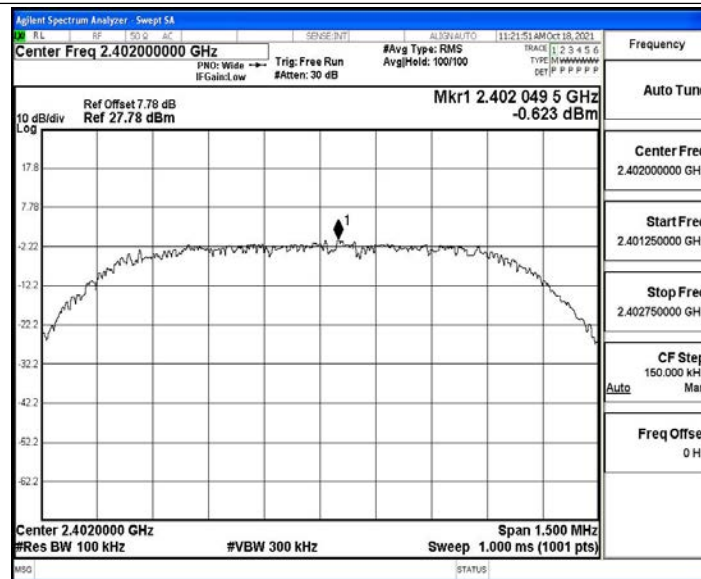
2DH5_Ant1_2480_30~1000



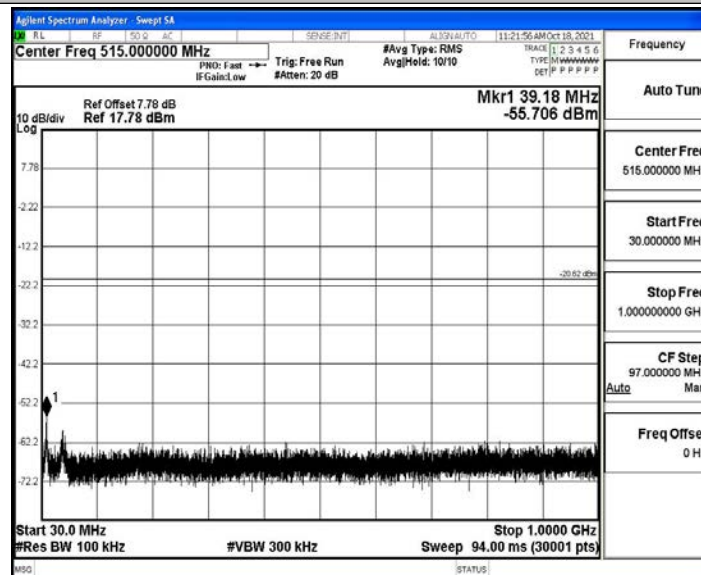
2DH5_Ant1_2480_1000~26500



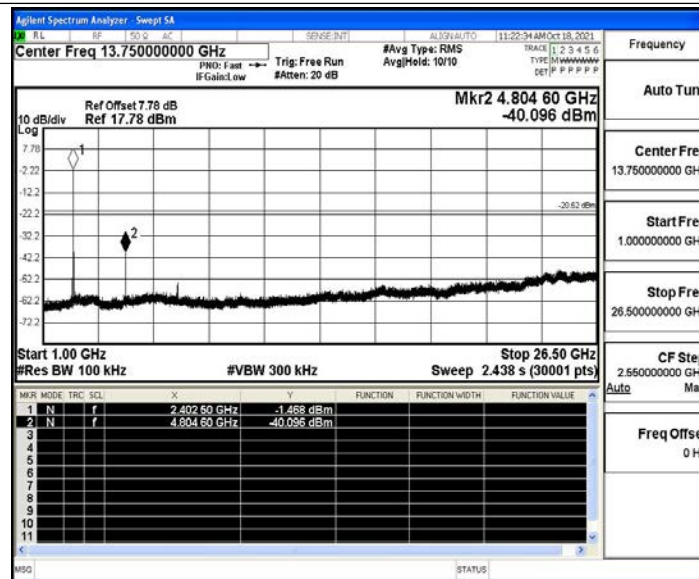
3DH5_Ant1_2402_0~Reference



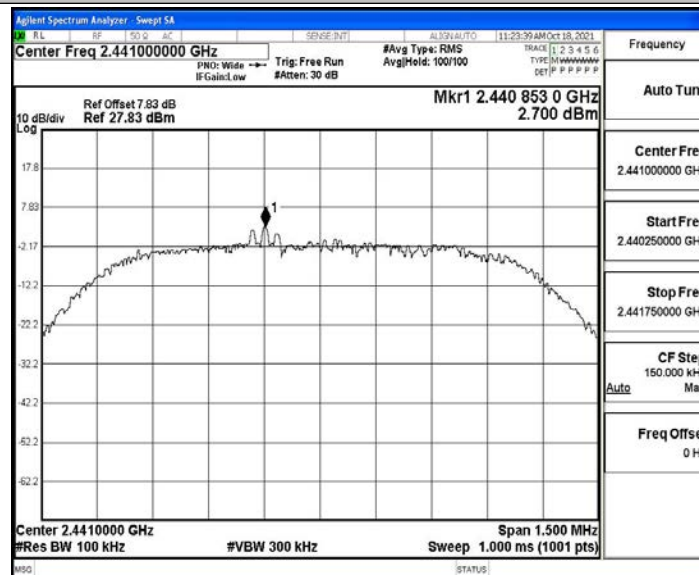
3DH5_Ant1_2402_30~1000



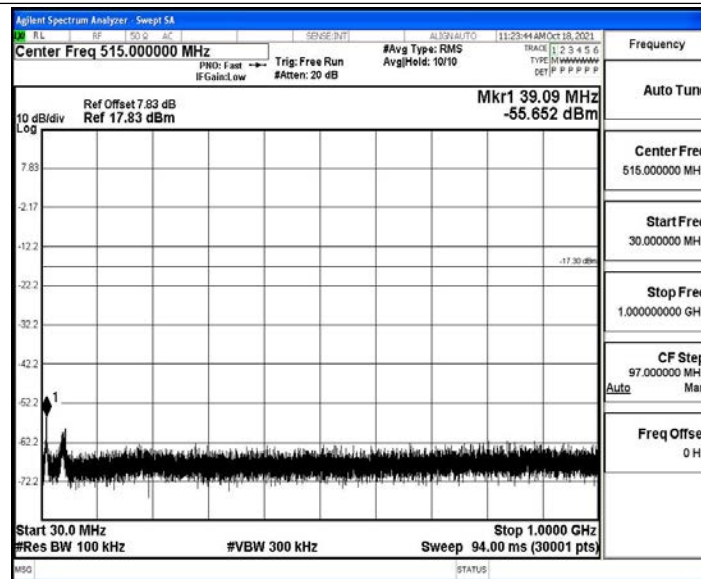
3DH5_Ant1_2402_1000~26500



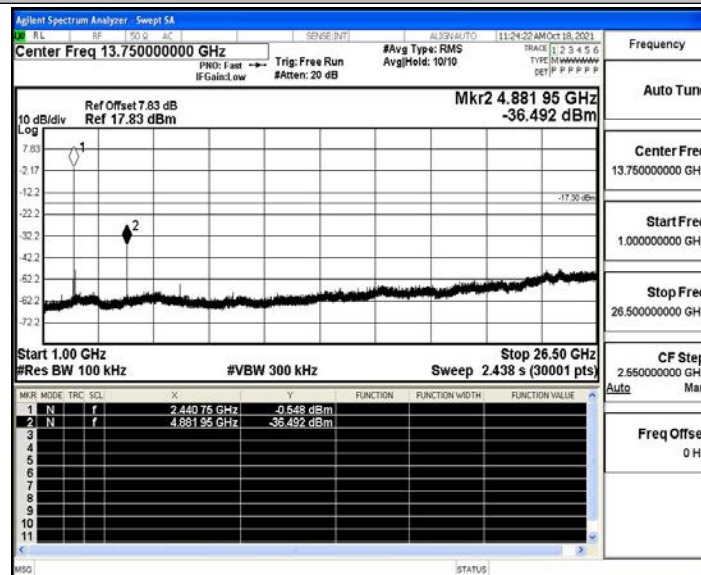
3DH5_Ant1_2441_0~Reference



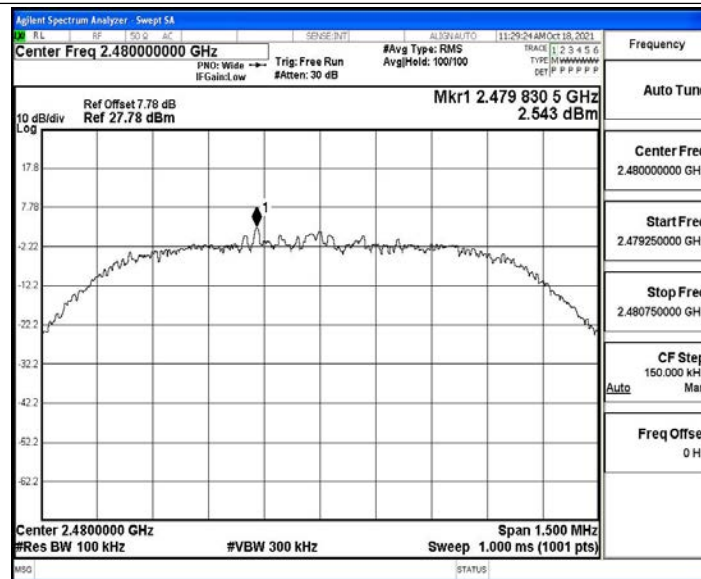
3DH5_Ant1_2441_30~1000



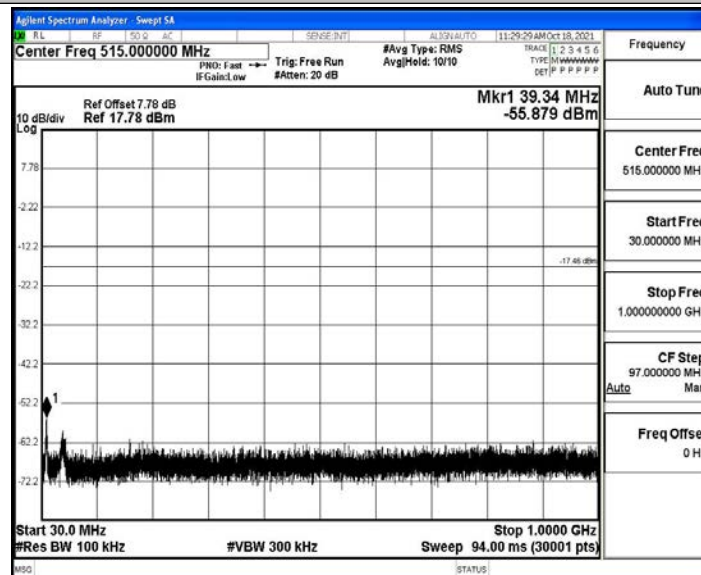
3DH5_Ant1_2441_1000~26500



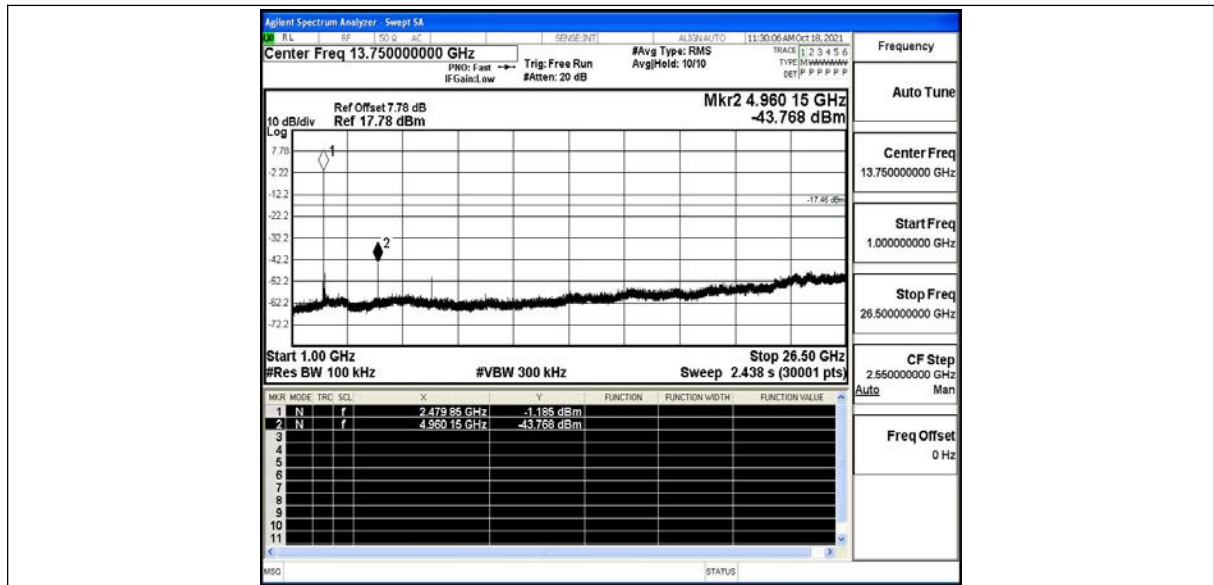
3DH5_Ant1_2480_0~Reference



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	-48.66	≤-41.20	46.54	≤54	PASS
				AV	2354.075	-44.52	≤-41.20	50.68	≤54	PASS
				AV	2390.000	-48.36	≤-41.20	46.84	≤54	PASS
				Peak	2310.000	-40.74	≤-21.20	54.46	≤74	PASS
				Peak	2314.595	-37.07	≤-21.20	58.13	≤74	PASS
				Peak	2390.000	-40.58	≤-21.20	54.62	≤74	PASS
		High	2480	AV	2483.500	-45.25	≤-41.20	49.95	≤54	PASS
				AV	2483.520	-45.25	≤-41.20	49.95	≤54	PASS
				AV	2500.000	-47.77	≤-41.20	47.43	≤54	PASS
				Peak	2483.500	-37.94	≤-21.20	57.26	≤74	PASS
				Peak	2484.160	-36.15	≤-21.20	59.05	≤74	PASS
				Peak	2500.000	-39.91	≤-21.20	55.29	≤74	PASS
		Low	Hop_2402	Peak	2310.000	-40.2	≤-21.20	55.00	≤74	PASS
				Peak	2372.555	-37.89	≤-21.20	57.31	≤74	PASS
				Peak	2390.000	-39.25	≤-21.20	55.95	≤74	PASS
		High	Hop_2480	Peak	2483.500	-38.96	≤-21.20	56.24	≤74	PASS
				Peak	2489.280	-36.06	≤-21.20	59.14	≤74	PASS
				Peak	2500.000	-39.31	≤-21.20	55.89	≤74	PASS
2DH5	Ant1	Low	2402	AV	2310.000	-48.84	≤-41.20	46.36	≤54	PASS
				AV	2353.970	-45.51	≤-41.20	49.69	≤54	PASS
				AV	2390.000	-48.34	≤-41.20	46.86	≤54	PASS
				Peak	2310.000	-40.91	≤-21.20	54.29	≤74	PASS
				Peak	2353.865	-37.88	≤-21.20	57.32	≤74	PASS
				Peak	2390.000	-39.89	≤-21.20	55.31	≤74	PASS
		High	2480	AV	2483.500	-45.91	≤-41.20	49.29	≤54	PASS
				AV	2483.520	-45.91	≤-41.20	49.29	≤54	PASS
				AV	2500.000	-47.81	≤-41.20	47.39	≤54	PASS
				Peak	2483.500	-38.27	≤-21.20	56.93	≤74	PASS
				Peak	2483.600	-36.76	≤-21.20	58.44	≤74	PASS
				Peak	2500.000	-39.42	≤-21.20	55.78	≤74	PASS
		Low	Hop_2402	Peak	2310.000	-39.57	≤-21.20	55.63	≤74	PASS
				Peak	2362.475	-38.37	≤-21.20	56.83	≤74	PASS
				Peak	2390.000	-40.65	≤-21.20	54.55	≤74	PASS
		High	Hop_2480	Peak	2483.500	-38.22	≤-21.20	56.98	≤74	PASS
				Peak	2493.040	-35.63	≤-21.20	59.57	≤74	PASS
				Peak	2500.000	-38.95	≤-21.20	56.25	≤74	PASS



3DH5	Ant1	Low	2402	AV	2310.000	-48.72	≤-41.20	46.48	≤54	PASS
				AV	2353.865	-45.51	≤-41.20	49.69	≤54	PASS
				AV	2390.000	-48.32	≤-41.20	46.88	≤54	PASS
				Peak	2310.000	-41.08	≤-21.20	54.12	≤74	PASS
				Peak	2386.415	-36	≤-21.20	59.20	≤74	PASS
				Peak	2390.000	-39.11	≤-21.20	56.09	≤74	PASS
		High	2480	AV	2483.500	-45.83	≤-41.20	49.37	≤54	PASS
				AV	2483.520	-45.83	≤-41.20	49.37	≤54	PASS
				AV	2500.000	-47.79	≤-41.20	47.41	≤54	PASS
				Peak	2483.500	-38.38	≤-21.20	56.82	≤74	PASS
				Peak	2487.360	-36.79	≤-21.20	58.41	≤74	PASS
				Peak	2500.000	-39.84	≤-21.20	55.36	≤74	PASS
		Low	Hop_2402	Peak	2310.000	-40.7	≤-21.20	54.50	≤74	PASS
				Peak	2354.810	-38.34	≤-21.20	56.86	≤74	PASS
				Peak	2390.000	-40.33	≤-21.20	54.87	≤74	PASS
		High	Hop_2480	Peak	2483.500	-37.93	≤-21.20	57.27	≤74	PASS
				Peak	2486.720	-36.69	≤-21.20	58.51	≤74	PASS
				Peak	2500.000	-38.75	≤-21.20	56.45	≤74	PASS

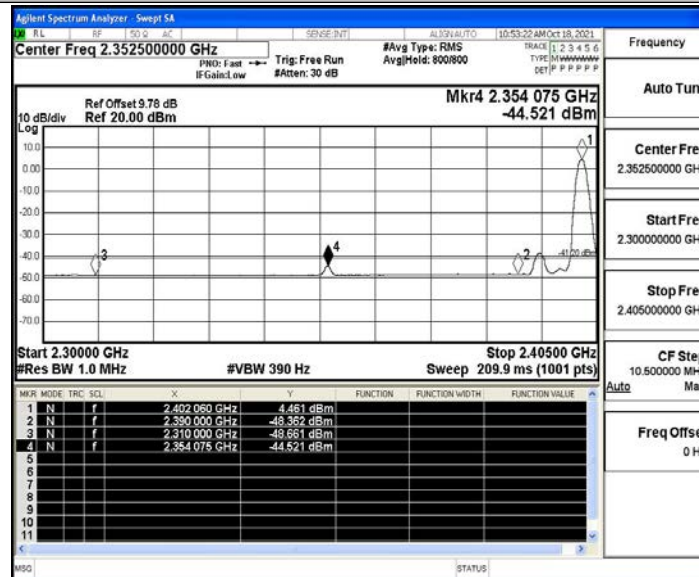
Note:

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.

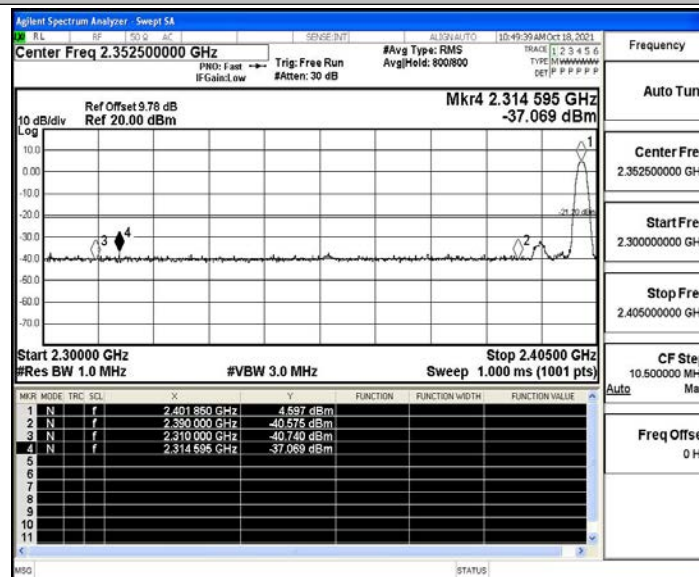


Test Graphs

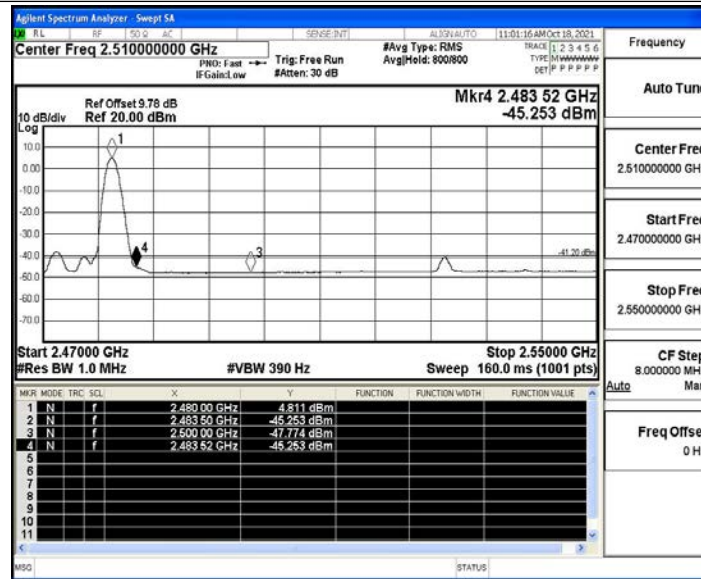
DH5_Ant1_Low_2402_AV



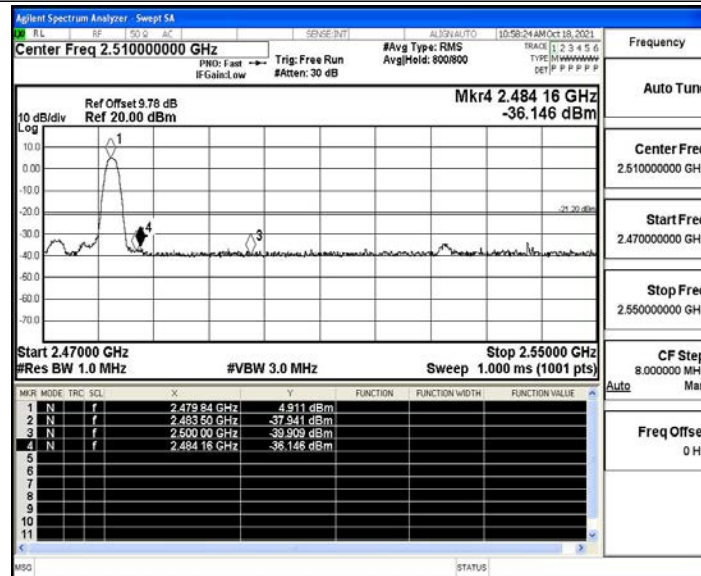
DH5_Ant1_Low_2402_Peak



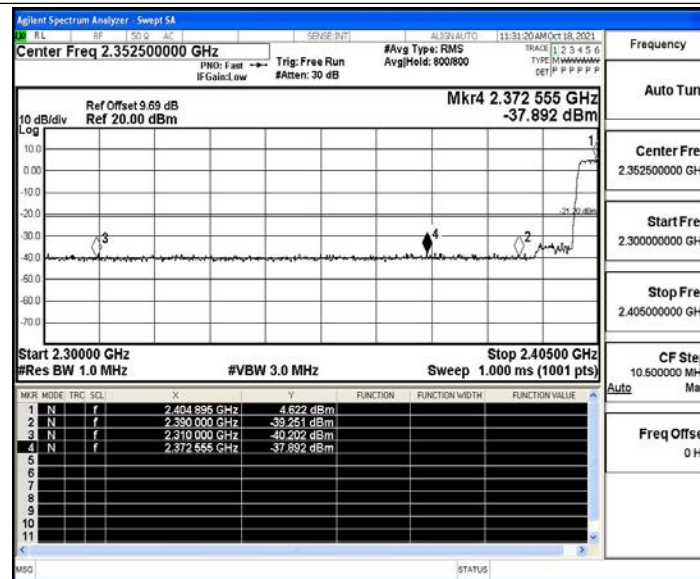
DH5_Ant1_High_2480_AV



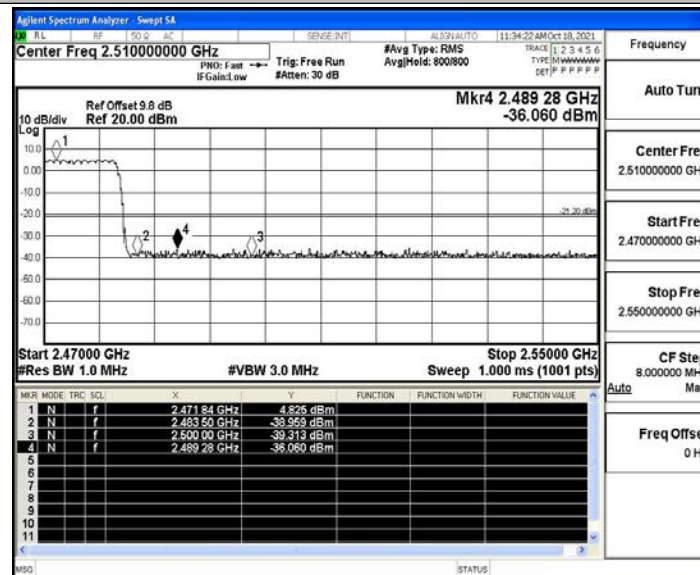
DH5_Ant1_High_2480_Peak



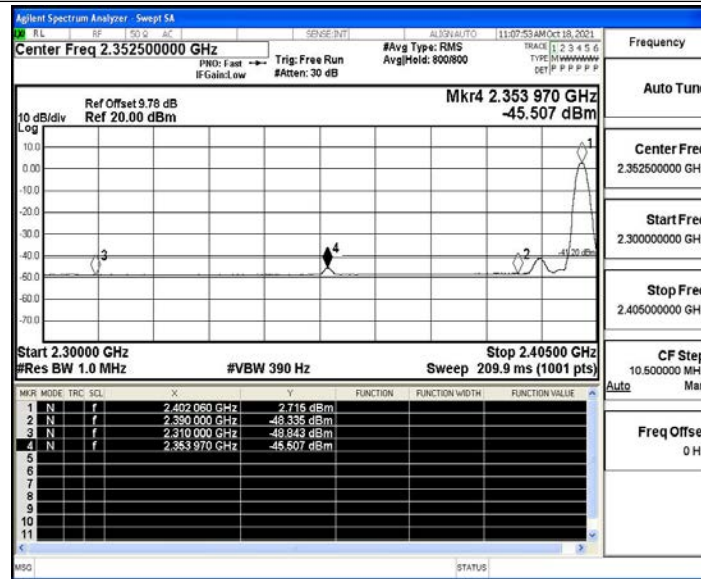
DH5_Ant1_Low_Hop_2402_Peak



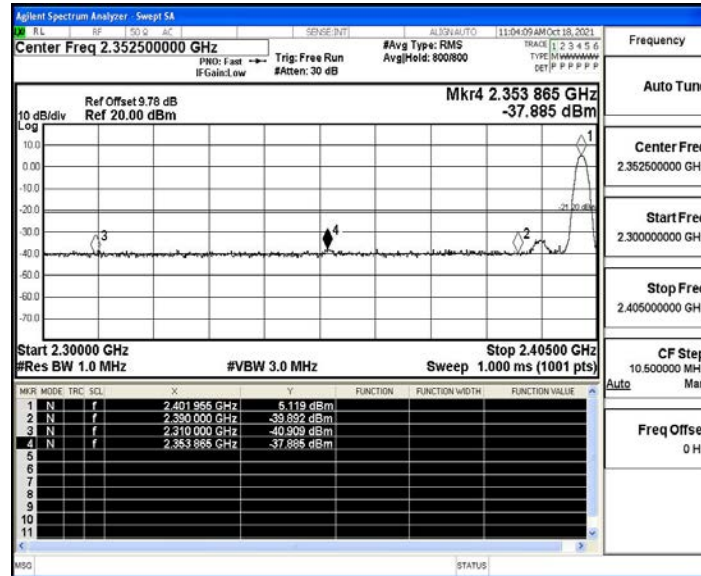
DH5_Ant1_High_Hop_2480_Peak



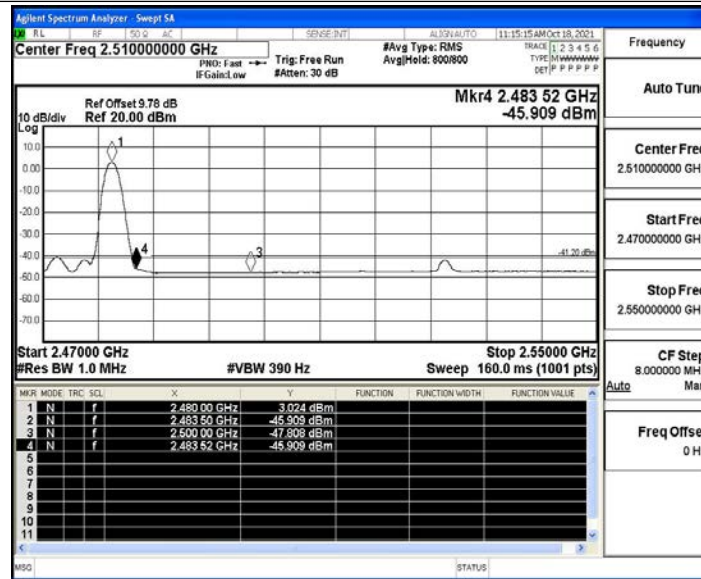
2DH5_Ant1_Low_2402_AV



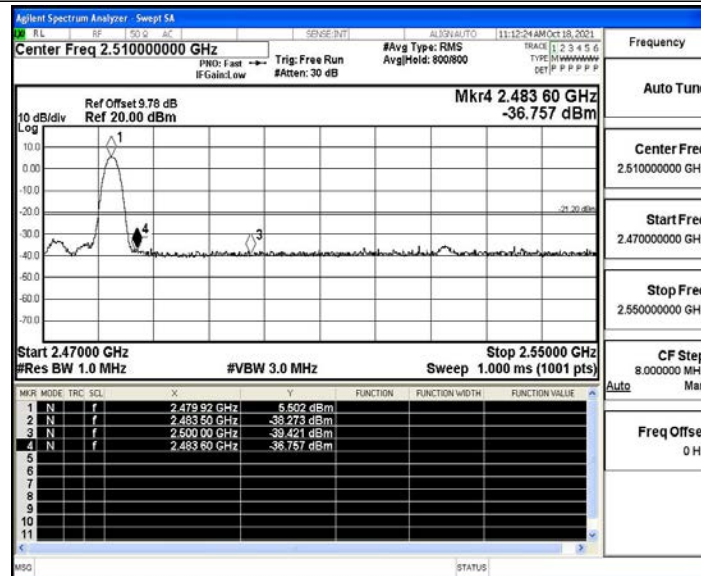
2DH5_Ant1_Low_2402_Peak



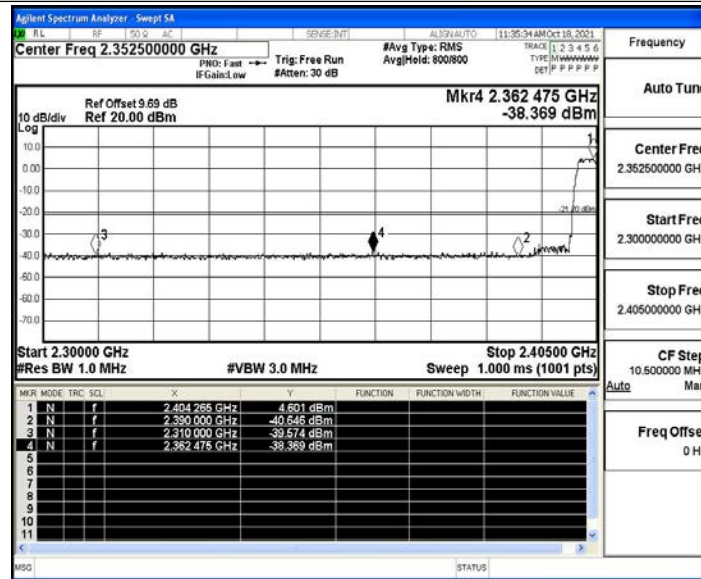
2DH5_Ant1_High_2480_AV



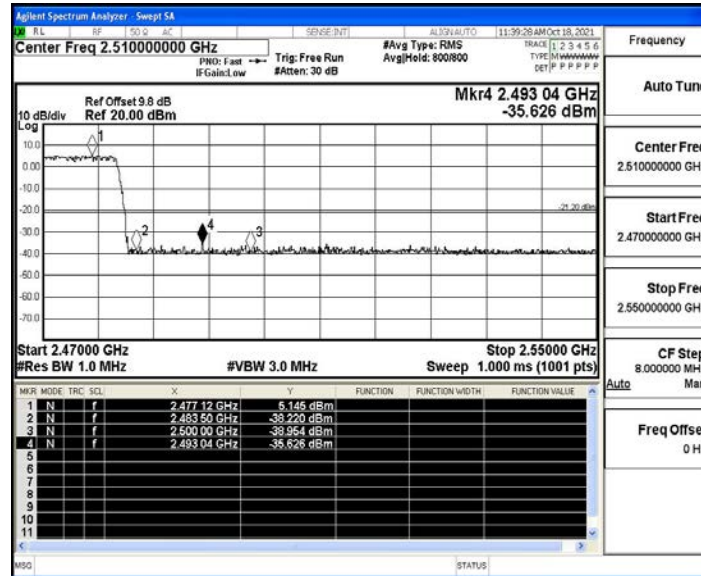
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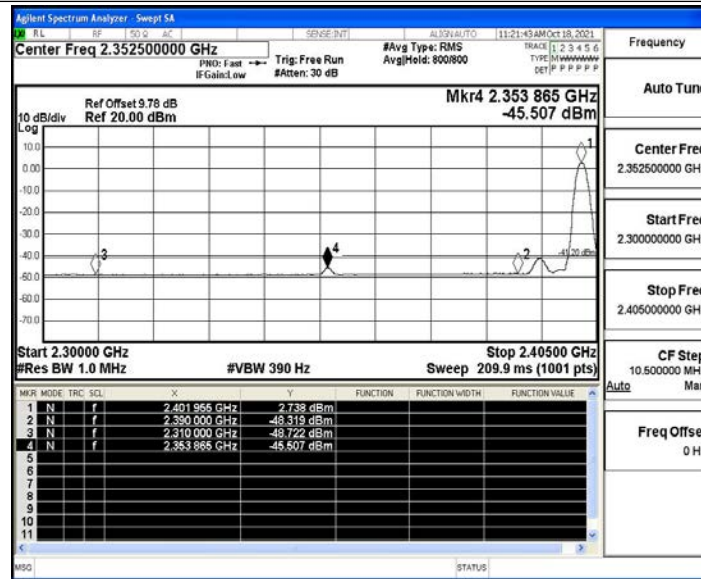
2DH5_Ant1_Low_Hop_2402_Peak



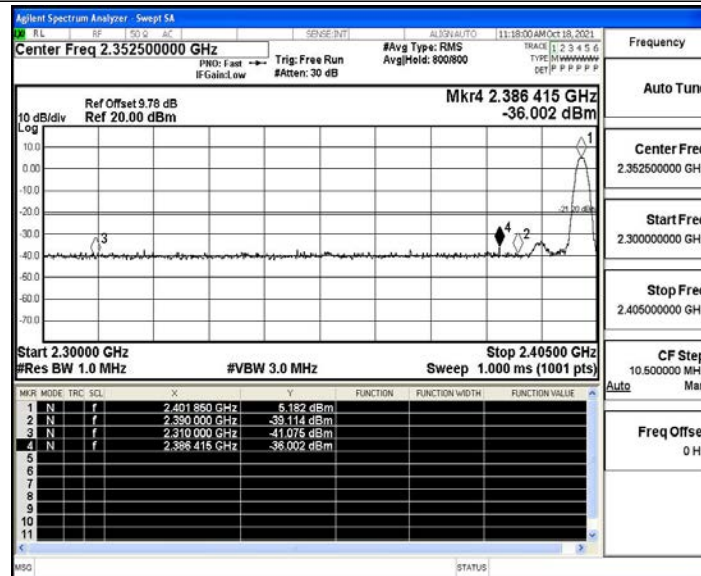
2DH5_Ant1_High_Hop_2480_Peak



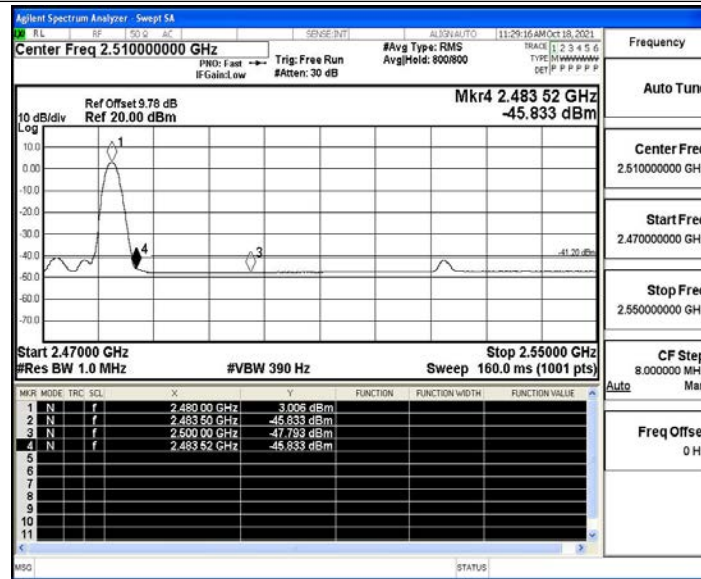
3DH5_Ant1_Low_2402_AV



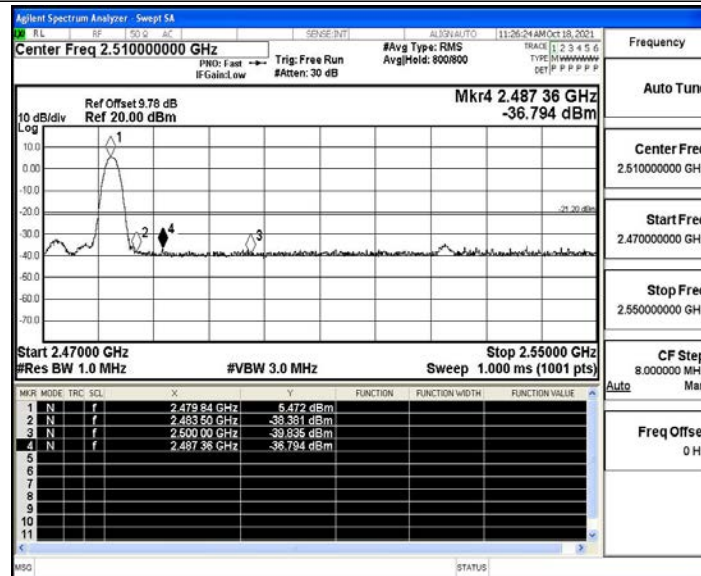
3DH5_Ant1_Low_2402_Peak



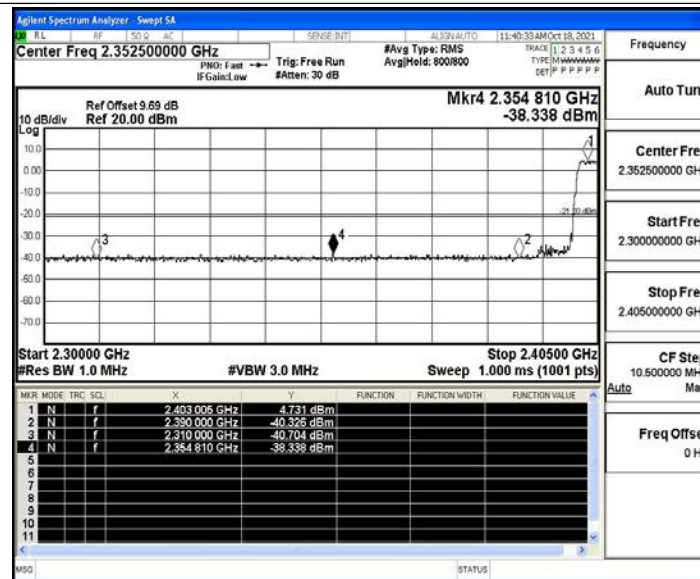
3DH5_Ant1_High_2480_AV



3DH5_Ant1_High_2480_Peak



3DH5_Ant1_Low_Hop_2402_Peak



3DH5_Ant1_High_Hop_2480_Peak

