



Appendix A

RF Test Data for BT (Conducted Measurement)

Product Name: bluetooth headset

Test Model: A6pro

Environmental Conditions

Temperature:	23.8 ° C
Relative Humidity:	52.1%
ATM Pressure:	100.0 kPa
Test Engineer:	Joker Hu
Supervised by:	Jack Cheng





A.1 20dB Emission Bandwidth

Test Result

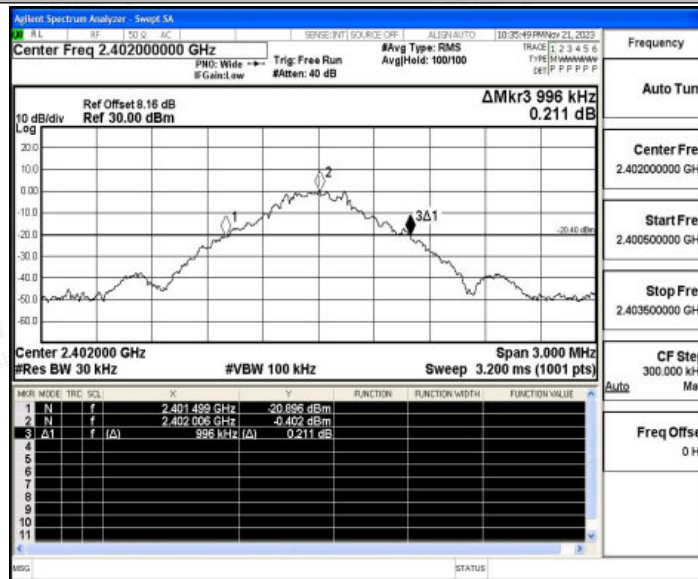
TestMode	Antenna	Channel	20db EBW[MHz]	FL[MHz]	FH[MHz]	Verdict
DH5	Ant1	2402	0.996	2401.499	2402.495	---
		2441	1.044	2440.448	2441.492	---
		2480	1.023	2479.457	2480.480	---
2DH5	Ant1	2402	1.293	2401.349	2402.642	---
		2441	1.284	2440.352	2441.636	---
		2480	1.290	2479.349	2480.639	---
3DH5	Ant1	2402	1.314	2401.331	2402.645	---
		2441	1.290	2440.340	2441.630	---
		2480	1.287	2479.334	2480.621	---



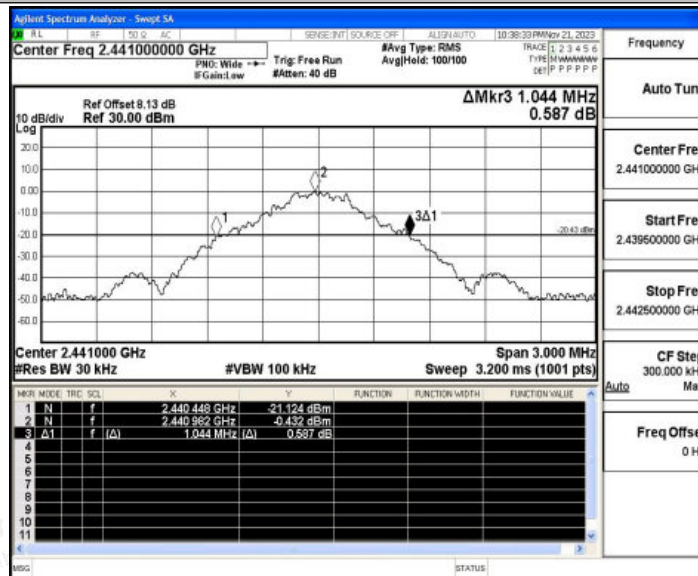


Test Graphs

DH5_Ant1_2402

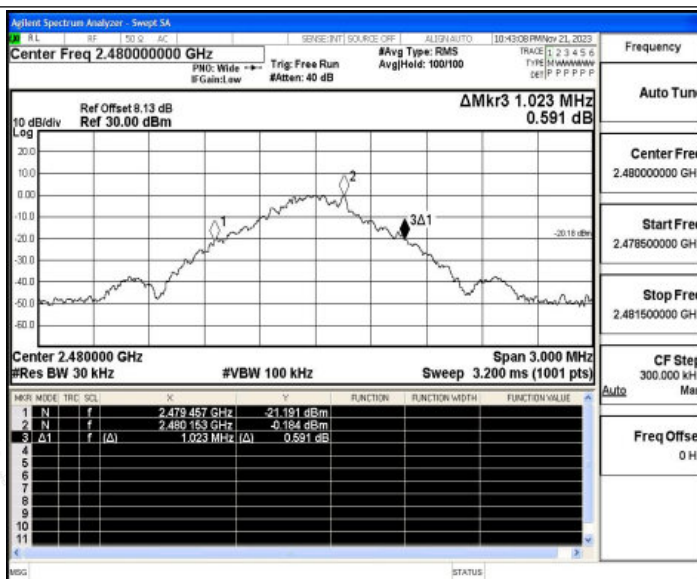


DH5_Ant1_2441

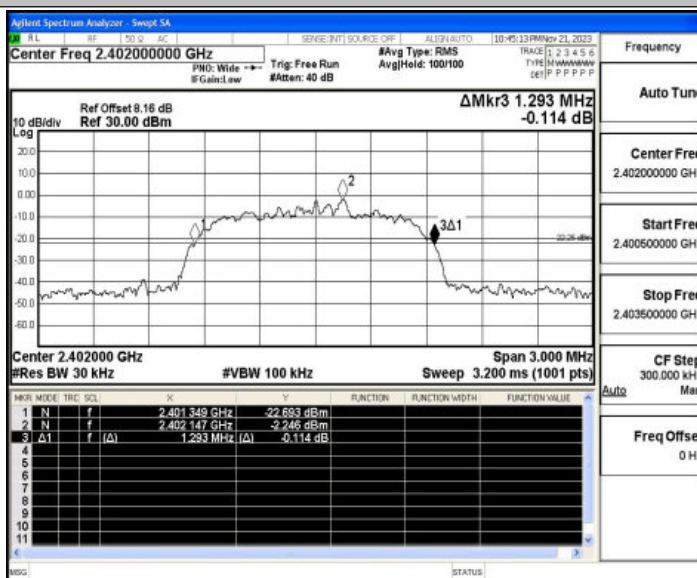


DH5_Ant1_2480



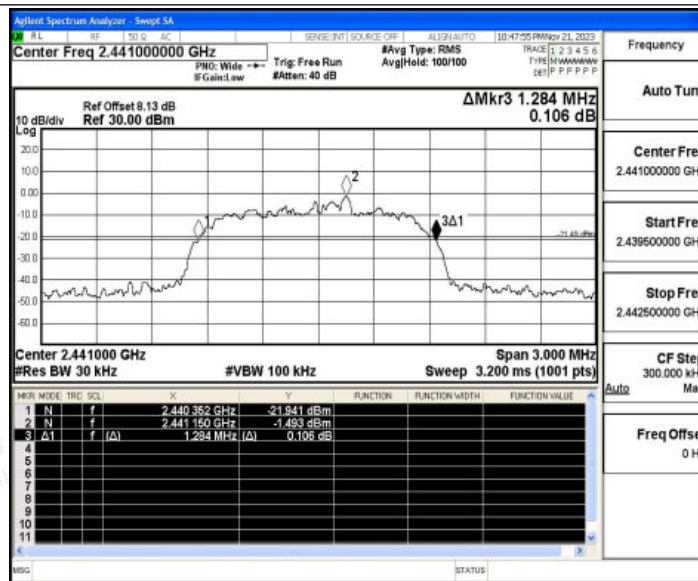


2DH5_Ant1_2402

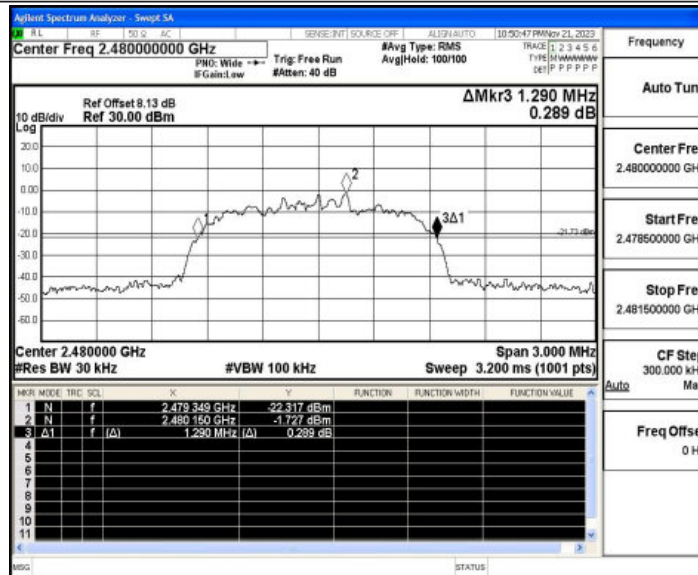


2DH5_Ant1_2441





2DH5_Ant1_2480



3DH5_Ant1_2402

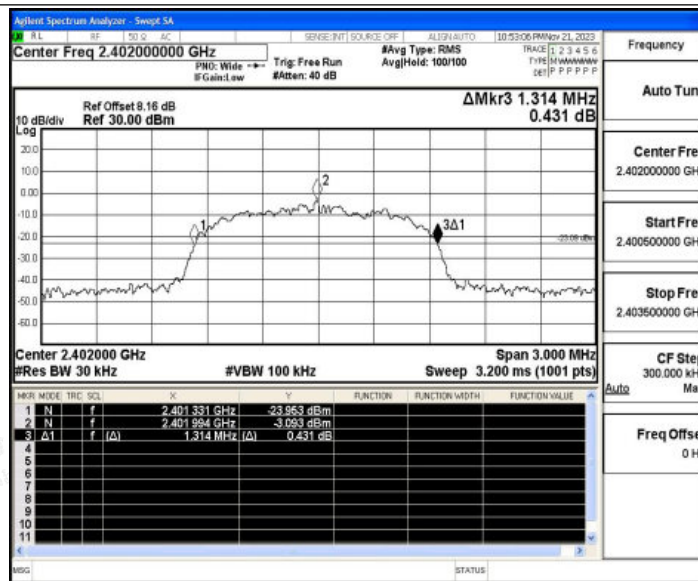


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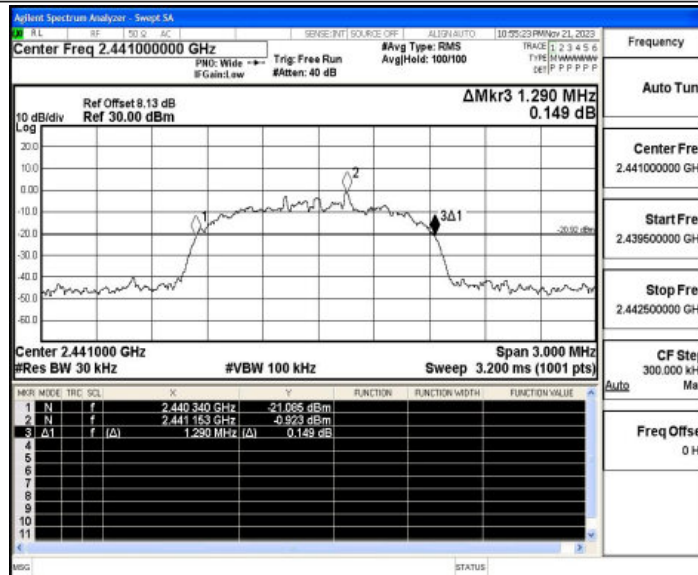
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3DH5_Ant1_2441



3DH5_Ant1_2480

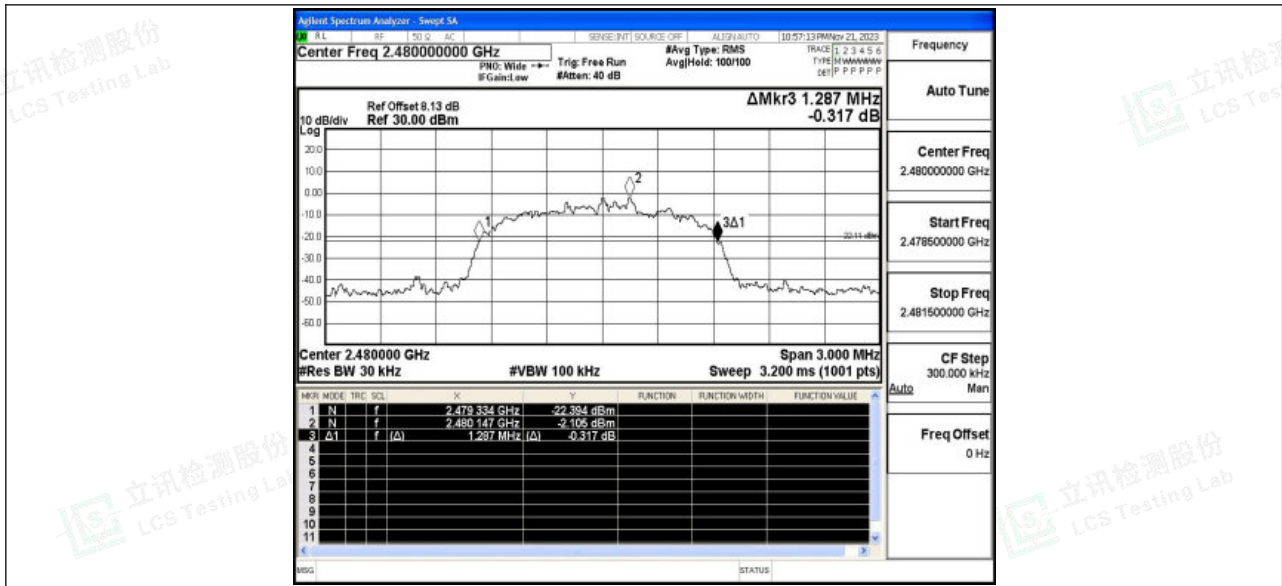


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A.2 Maximum peak conducted output power

Test Result

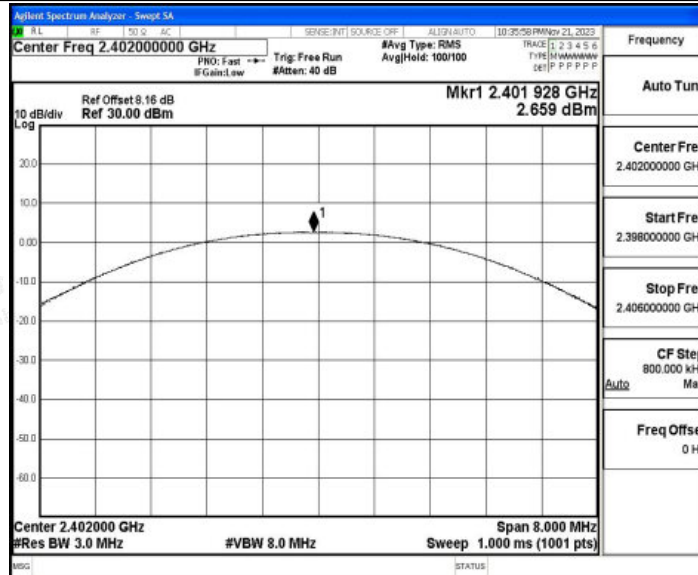
TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
DH5	Ant1	2402	2.66	≤20.97	PASS
		2441	2.84	≤20.97	PASS
		2480	2.81	≤20.97	PASS
2DH5	Ant1	2402	2.45	≤20.97	PASS
		2441	2.52	≤20.97	PASS
		2480	2.53	≤20.97	PASS
3DH5	Ant1	2402	2.5	≤20.97	PASS
		2441	2.68	≤20.97	PASS
		2480	2.68	≤20.97	PASS



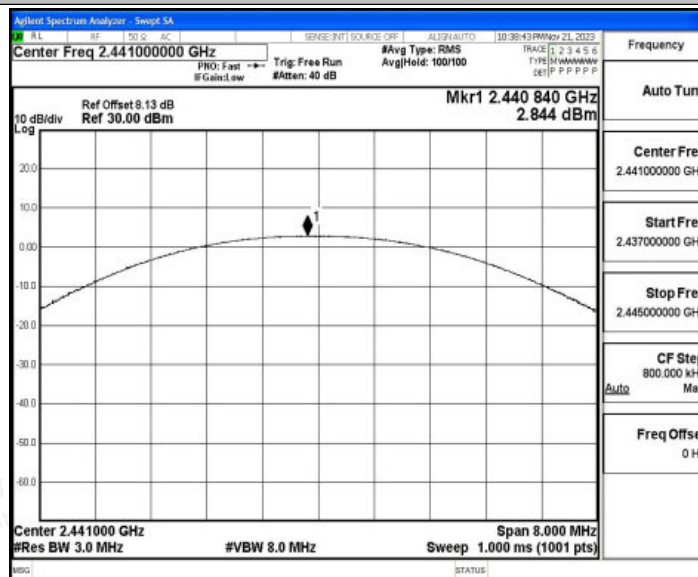


Test Graphs

DH5_Ant1_2402

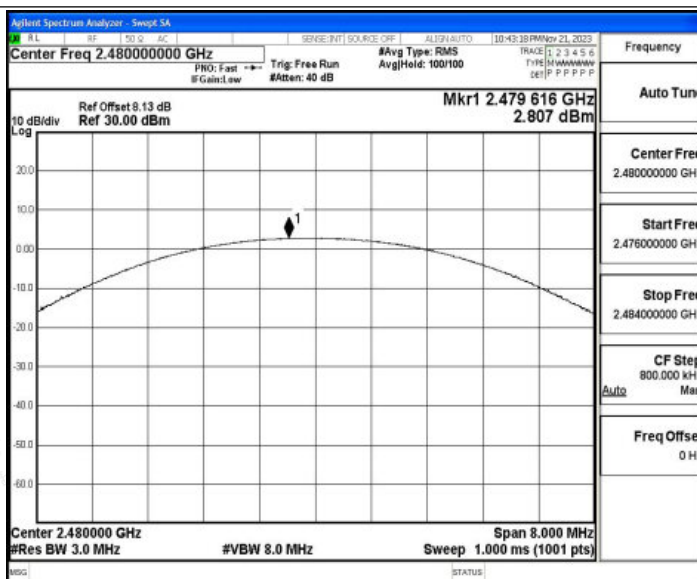


DH5_Ant1_2441

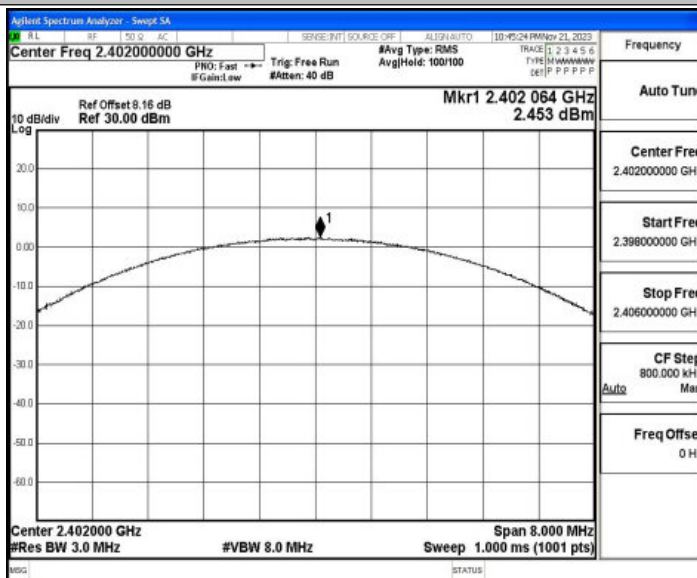


DH5_Ant1_2480



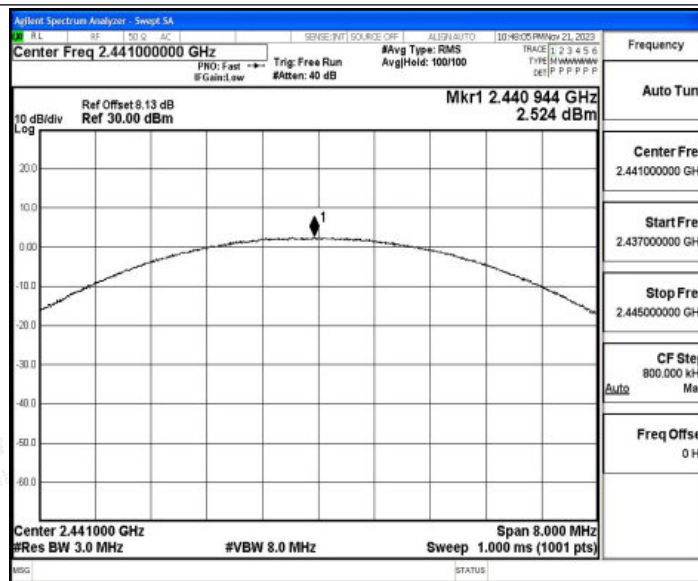


2DH5_Ant1_2402

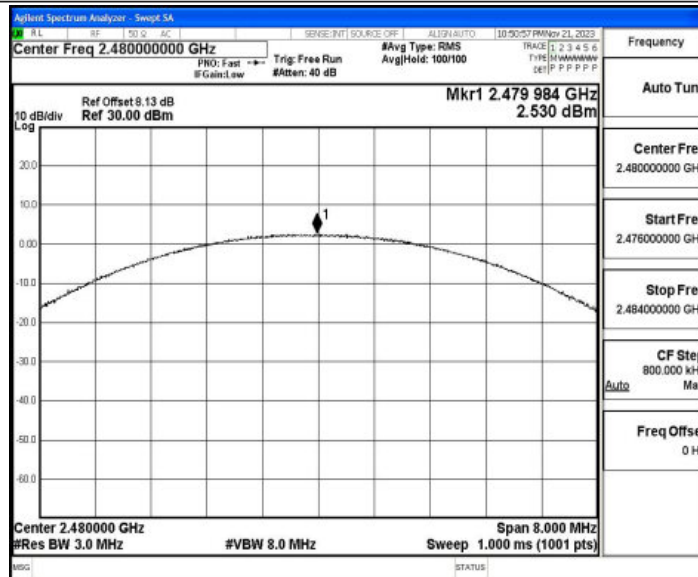


2DH5_Ant1_2441



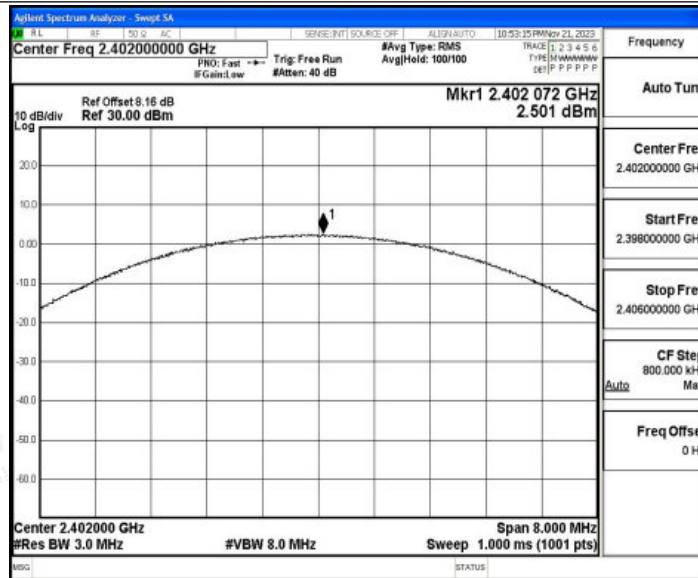


2DH5_Ant1_2480

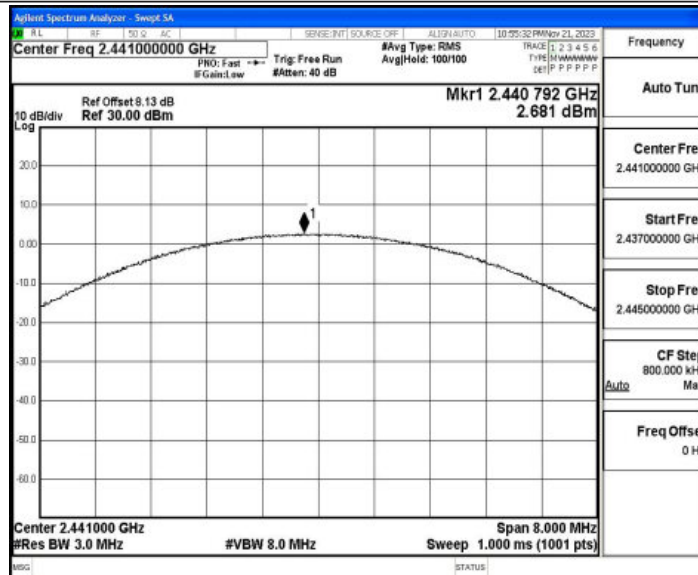


3DH5_Ant1_2402



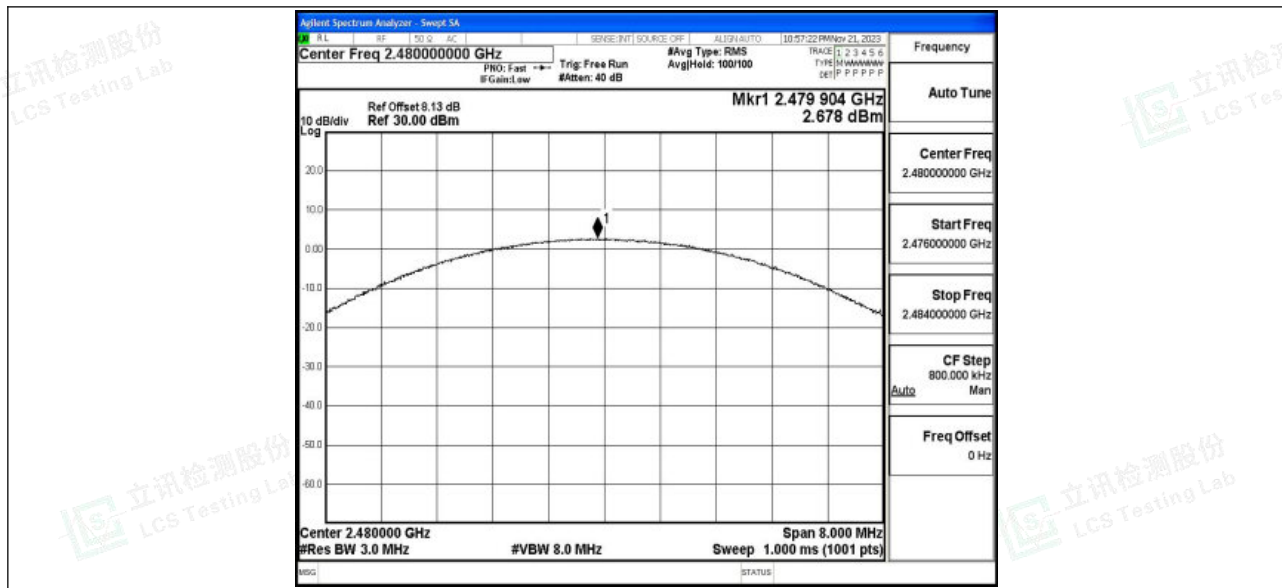


3DH5_Ant1_2441



3DH5_Ant1_2480







A.3 Carrier frequency separation

Test Result

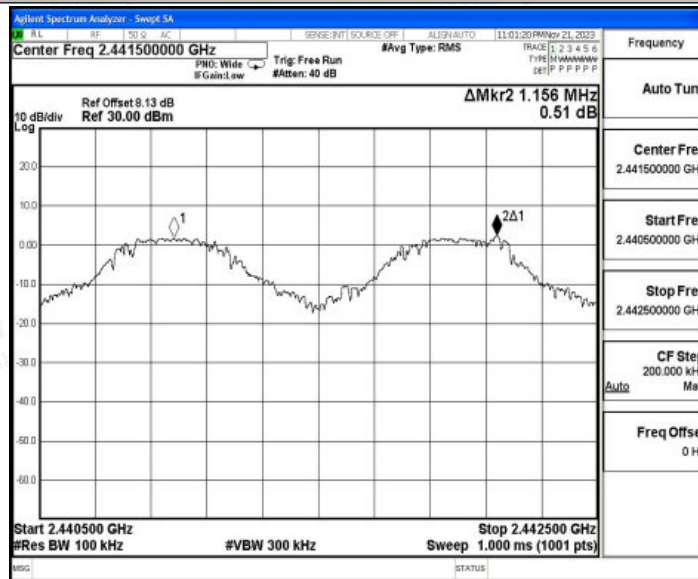
TestMode	Antenna	Channel	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	1.156	≥ 0.696	PASS
2DH5	Ant1	Hop	1.148	≥ 0.862	PASS
3DH5	Ant1	Hop	1.352	≥ 0.876	PASS



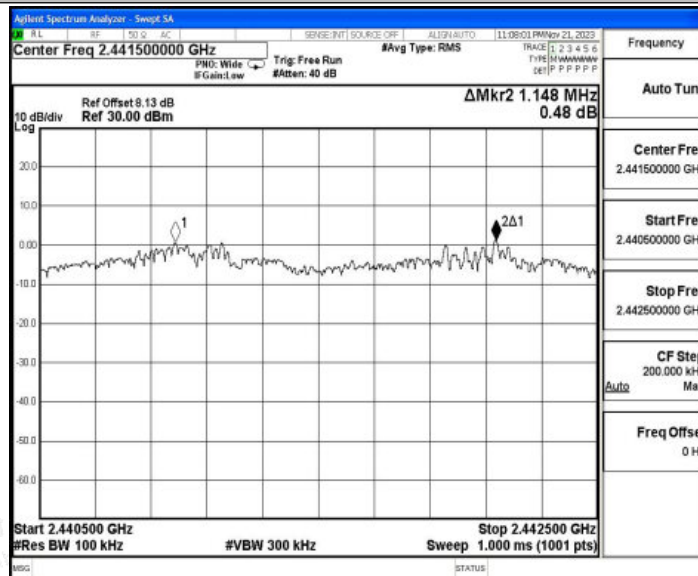


Test Graphs

DH5_Ant1_Hop

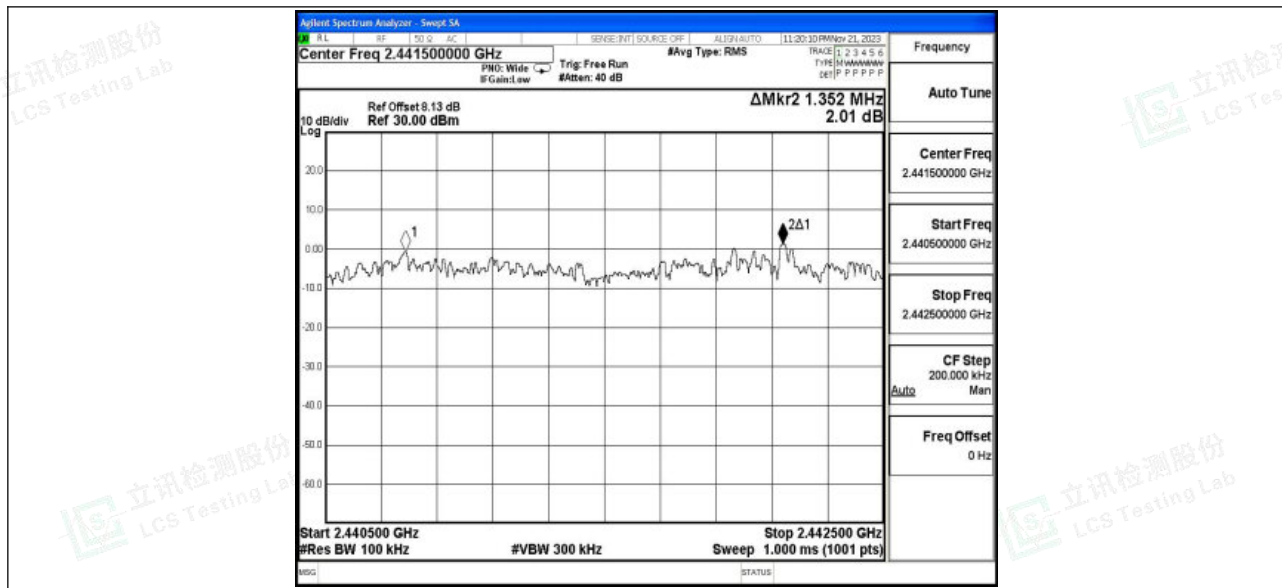


2DH5_Ant1_Hop



3DH5_Ant1_Hop







A.4 Time of occupancy

Test Result

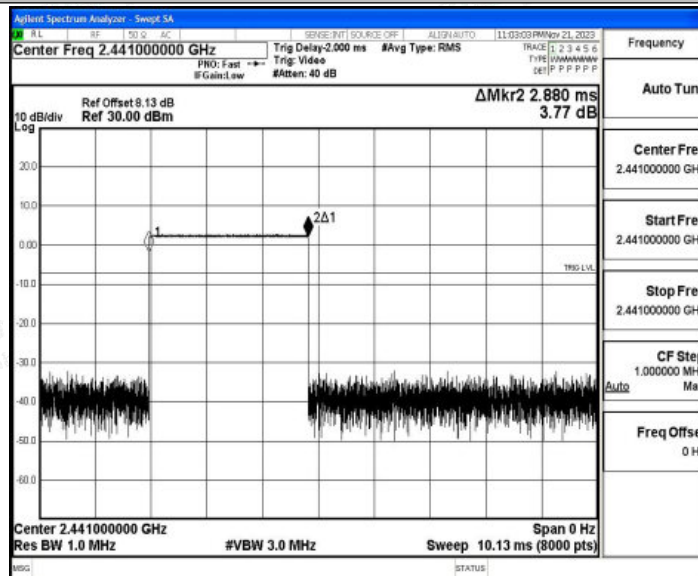
TestMode	Antenna	Channel	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH5	Ant1	Hop	2.880	106.67	0.307	≤0.4	PASS
2DH5	Ant1	Hop	2.884	106.67	0.308	≤0.4	PASS
3DH5	Ant1	Hop	2.887	106.67	0.308	≤0.4	PASS



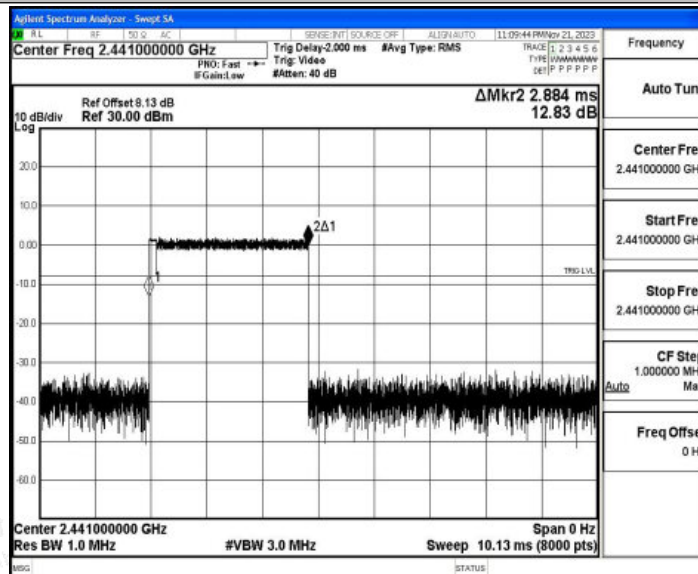


Test Graphs

DH5_Ant1_Hop

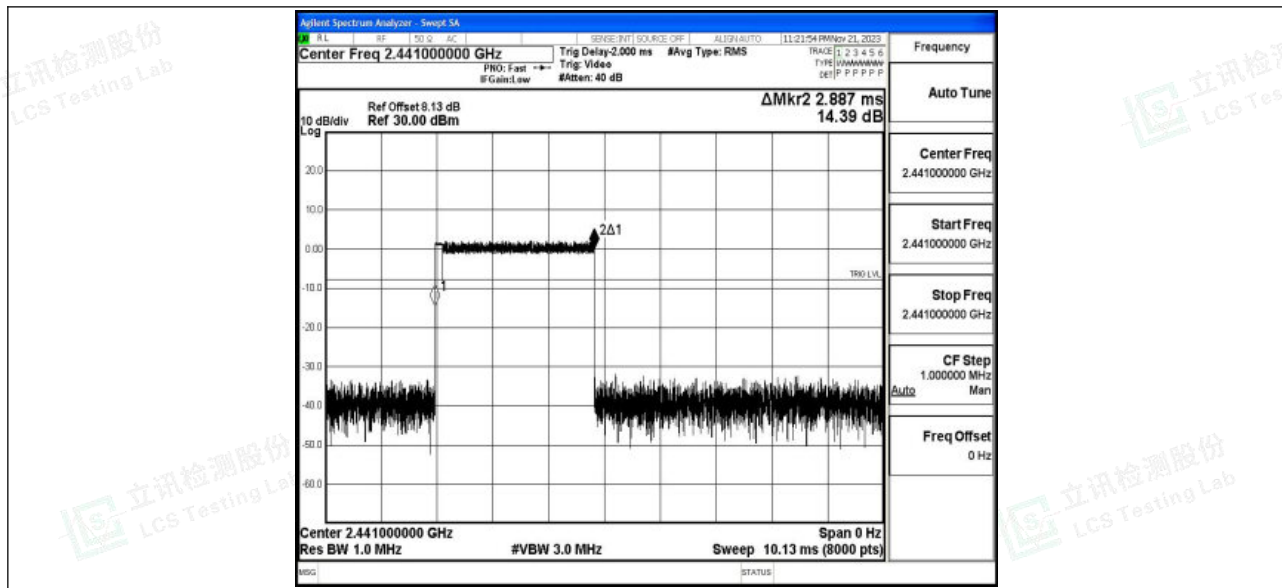


2DH5_Ant1_Hop



3DH5_Ant1_Hop







A.5 Number of hopping channels

Test Result

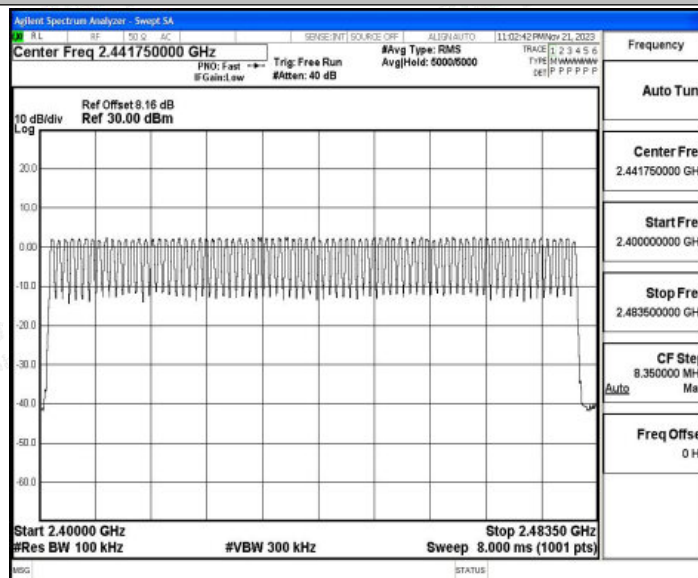
TestMode	Antenna	Channel	Result[Num]	Limit[Num]	Verdict
DH5	Ant1	Hop	79	≥15	PASS
2DH5	Ant1	Hop	79	≥15	PASS
3DH5	Ant1	Hop	79	≥15	PASS



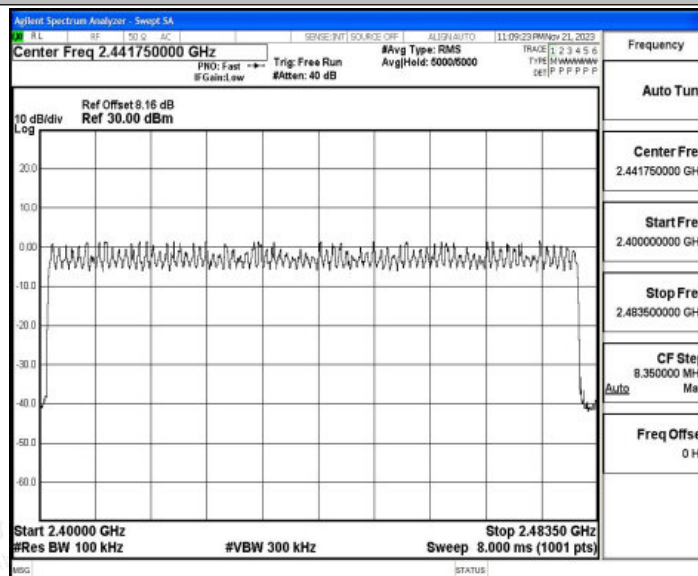


Test Graphs

DH5_Ant1_Hop

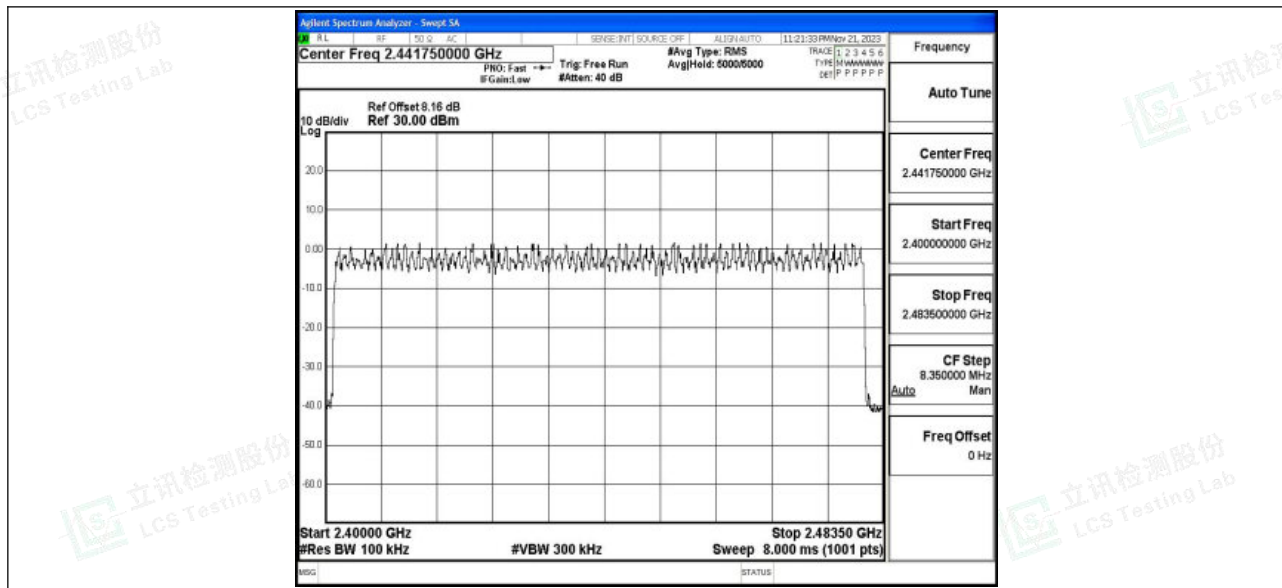


2DH5_Ant1_Hop



3DH5_Ant1_Hop







A.6 Band edge measurements

Test Result

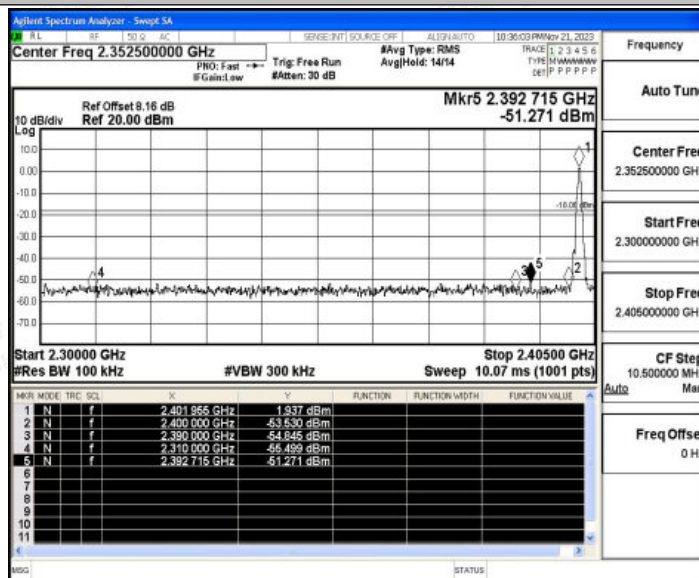
TestMode	Antenna	ChName	Channel	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	1.94	-51.27	≤ -18.06	PASS
		High	2480	1.85	-50.1	≤ -18.16	PASS
		Low	Hop_2402	1.51	-50.02	≤ -18.49	PASS
		High	Hop_2480	2.25	-48.85	≤ -17.75	PASS
2DH5	Ant1	Low	2402	0.09	-50.75	≤ -19.91	PASS
		High	2480	-2.53	-49.98	≤ -22.53	PASS
		Low	Hop_2402	-2.59	-50.49	≤ -22.59	PASS
		High	Hop_2480	0.07	-49.53	≤ -19.93	PASS
3DH5	Ant1	Low	2402	-1.81	-51.2	≤ -21.81	PASS
		High	2480	-4.14	-50.77	≤ -24.14	PASS
		Low	Hop_2402	-0.62	-50.45	≤ -20.62	PASS
		High	Hop_2480	0.31	-49.82	≤ -19.69	PASS



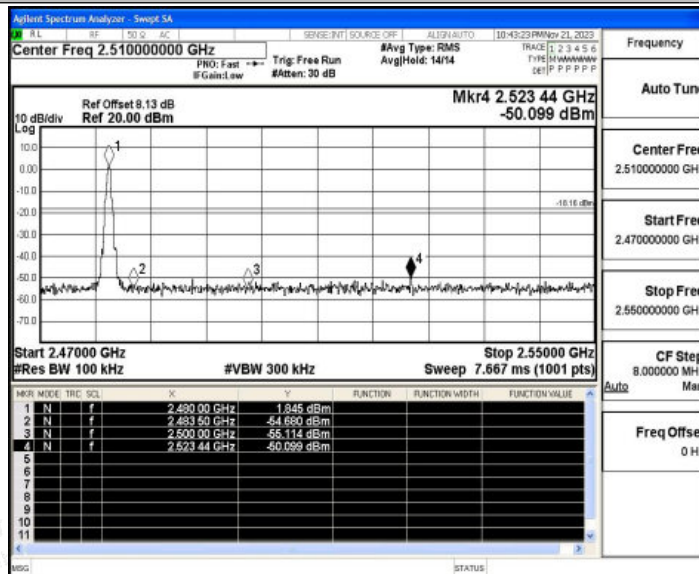


Test Graphs

DH5_Ant1_Low_2402

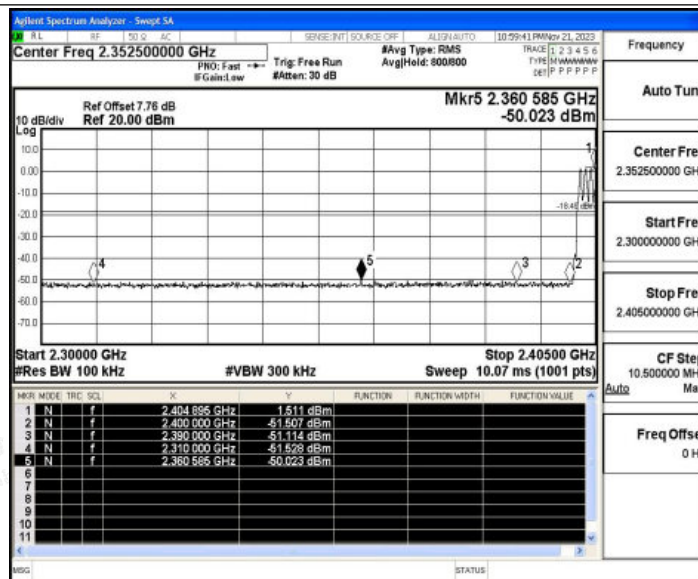


DH5_Ant1_High_2480

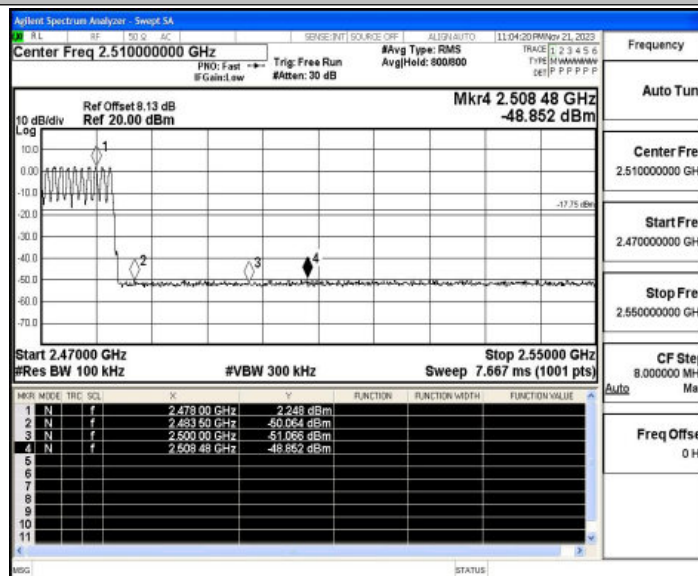


DH5_Ant1_Low_Hop_2402





DH5_Ant1_High_Hop_2480



2DH5_Ant1_Low_2402

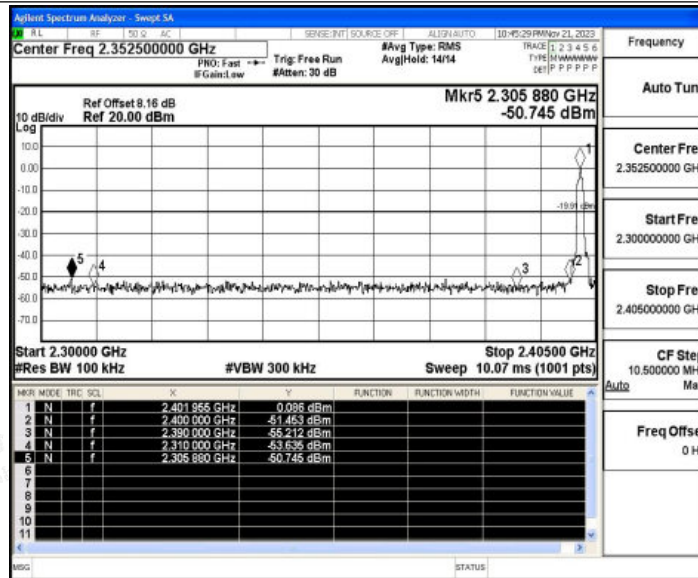


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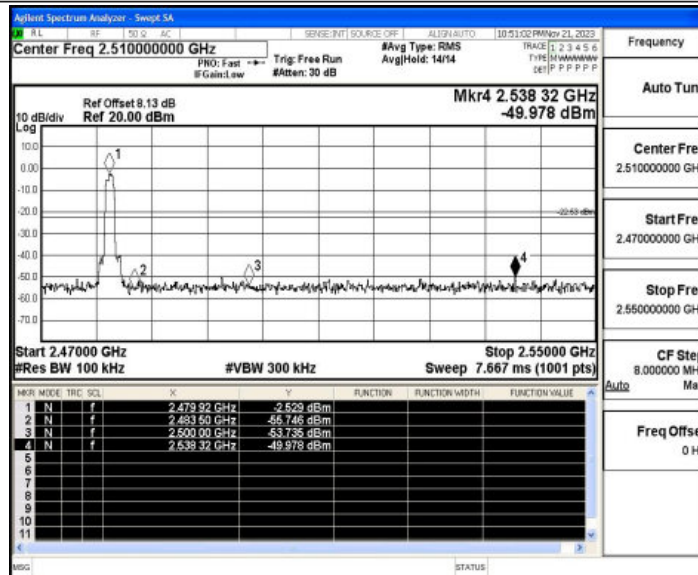
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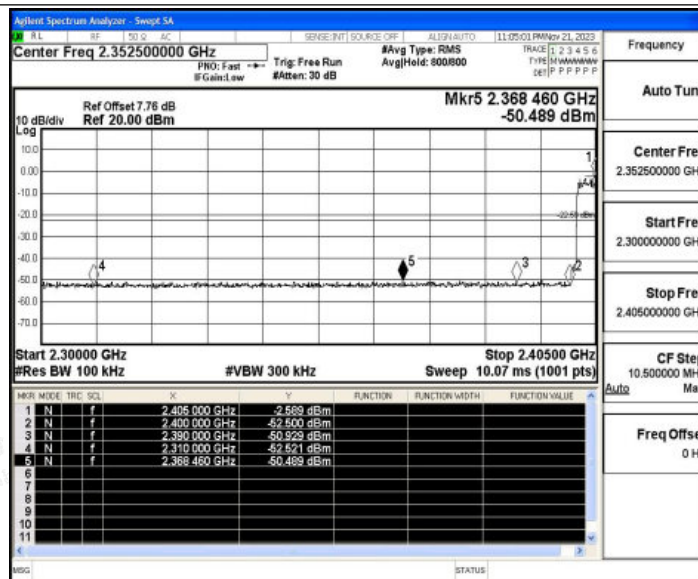


2DH5_Ant1_High_2480

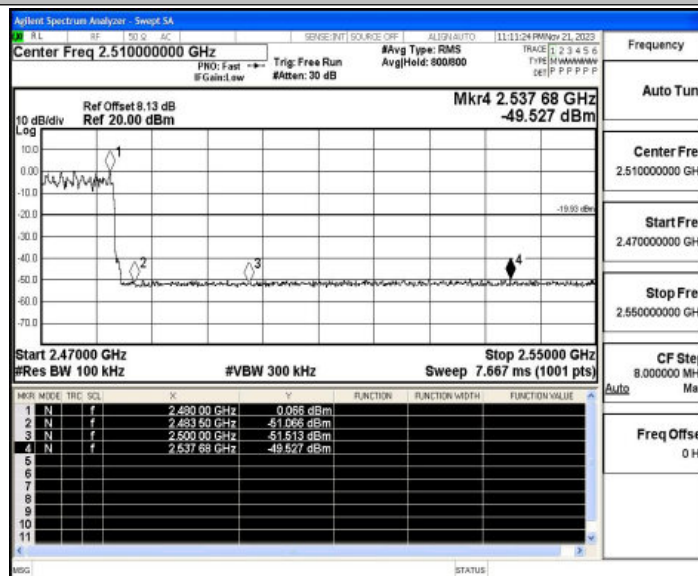


2DH5_Ant1_Low_Hop_2402





2DH5_Ant1_High_Hop_2480



3DH5_Ant1_Low_2402

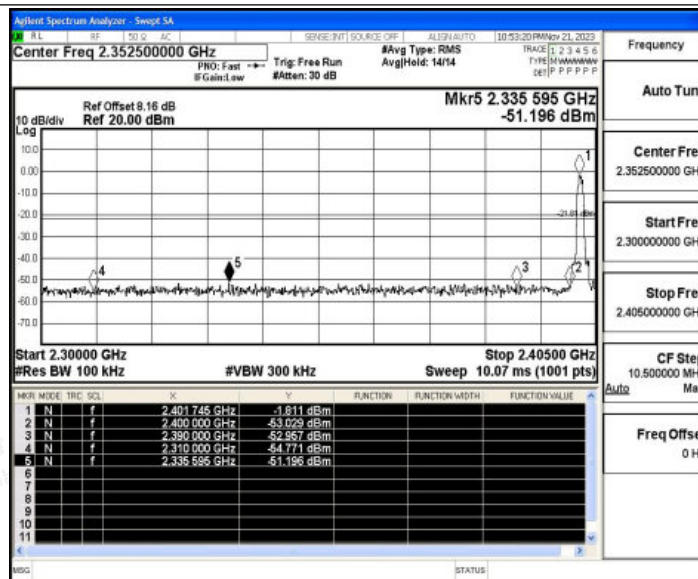


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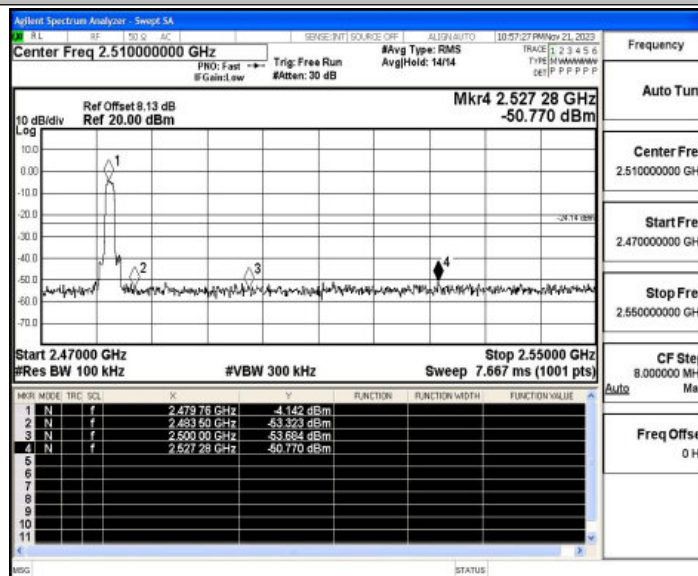
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Scan code to check authenticity

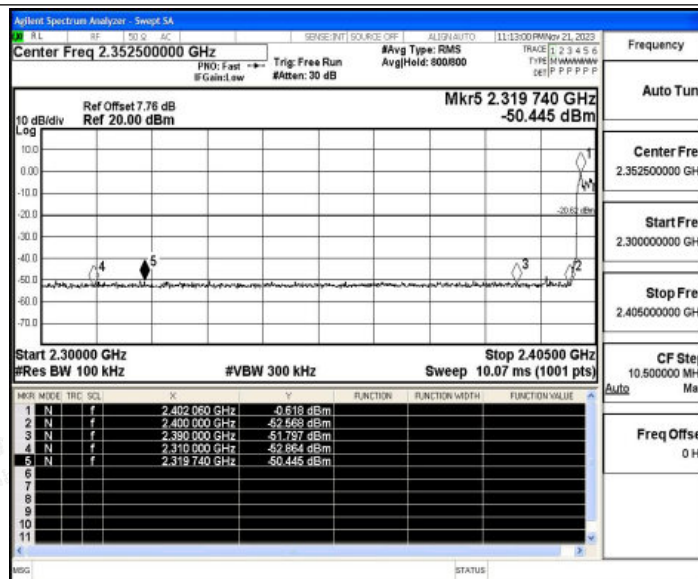


3DH5_Ant1_High_2480

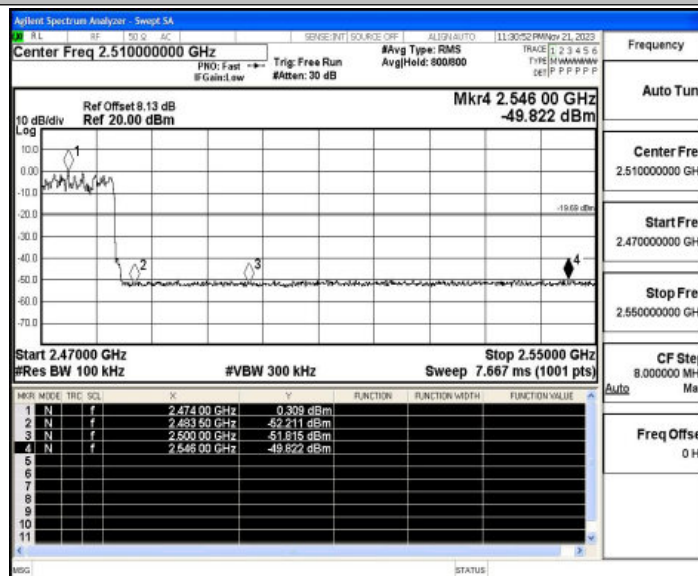


3DH5_Ant1_Low_Hop_2402





3DH5_Ant1_High_Hop_2480





A.7 Conducted Spurious Emission

Test Result

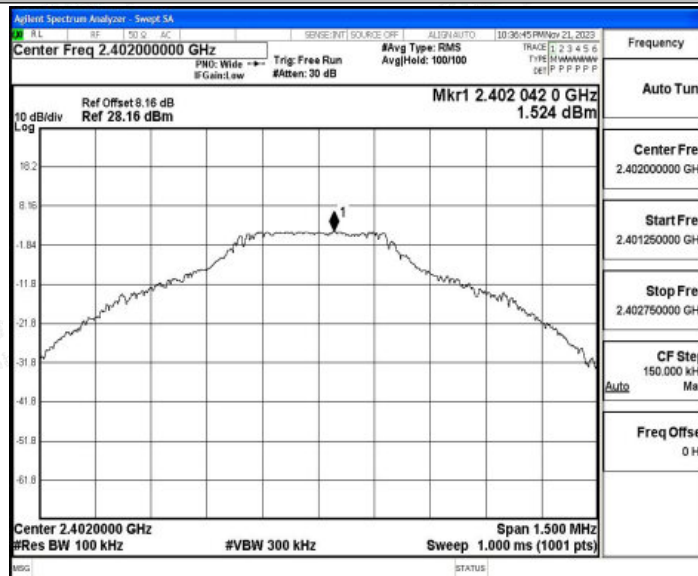
TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	Reference	1.52	1.52	---	PASS
			30~1000	1.52	-61.51	≤-18.48	PASS
			1000~26500	1.52	-48.82	≤-18.48	PASS
		2441	Reference	2.21	2.21	---	PASS
			30~1000	2.21	-61.9	≤-17.79	PASS
			1000~26500	2.21	-48.7	≤-17.79	PASS
		2480	Reference	1.89	1.89	---	PASS
			30~1000	1.89	-61.31	≤-18.11	PASS
			1000~26500	1.89	-49.18	≤-18.11	PASS
2DH5	Ant1	2402	Reference	1.01	1.01	---	PASS
			30~1000	1.01	-61.8	≤-18.99	PASS
			1000~26500	1.01	-49.43	≤-18.99	PASS
		2441	Reference	1.33	1.33	---	PASS
			30~1000	1.33	-62.02	≤-18.67	PASS
			1000~26500	1.33	-48.95	≤-18.67	PASS
		2480	Reference	1.34	1.34	---	PASS
			30~1000	1.34	-60.41	≤-18.66	PASS
			1000~26500	1.34	-49.41	≤-18.66	PASS
3DH5	Ant1	2402	Reference	1.11	1.11	---	PASS
			30~1000	1.11	-61.25	≤-18.89	PASS
			1000~26500	1.11	-48.73	≤-18.89	PASS
		2441	Reference	1.26	1.26	---	PASS
			30~1000	1.26	-62.13	≤-18.74	PASS
			1000~26500	1.26	-48.58	≤-18.74	PASS
		2480	Reference	0.51	0.51	---	PASS
			30~1000	0.51	-61.27	≤-19.49	PASS
			1000~26500	0.51	-49.01	≤-19.49	PASS



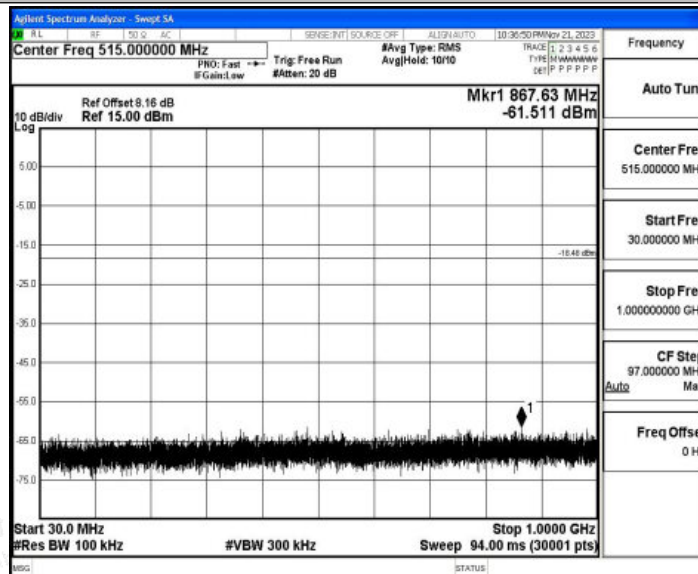


Test Graphs

DH5_Ant1_2402_0~Reference

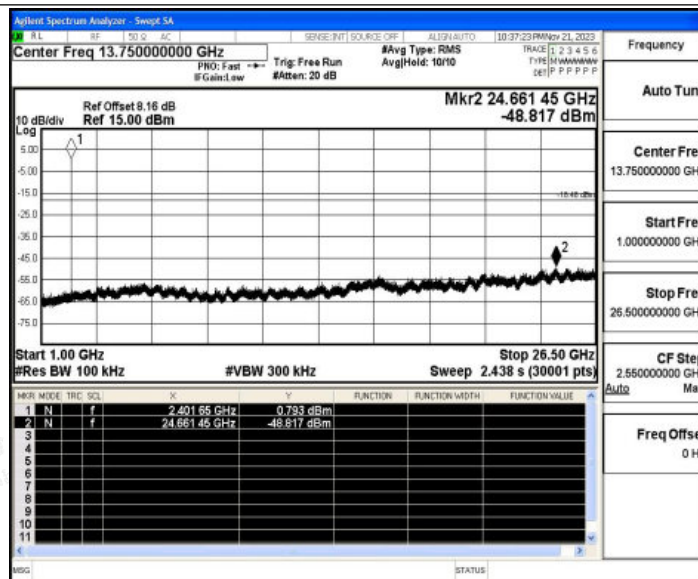


DH5_Ant1_2402_30~1000

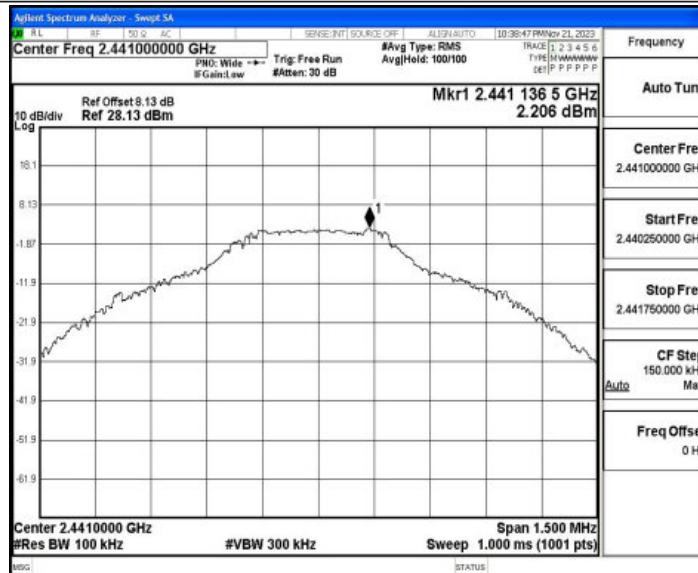


DH5_Ant1_2402_1000~26500



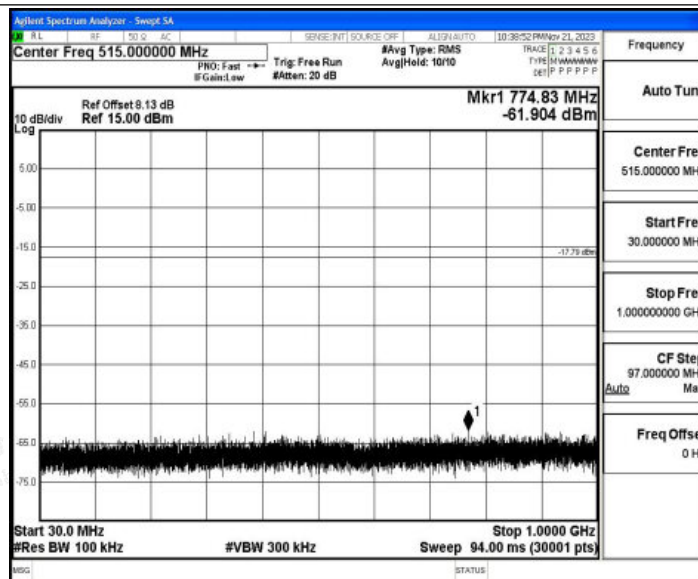


DH5_Ant1_2441_0~Reference

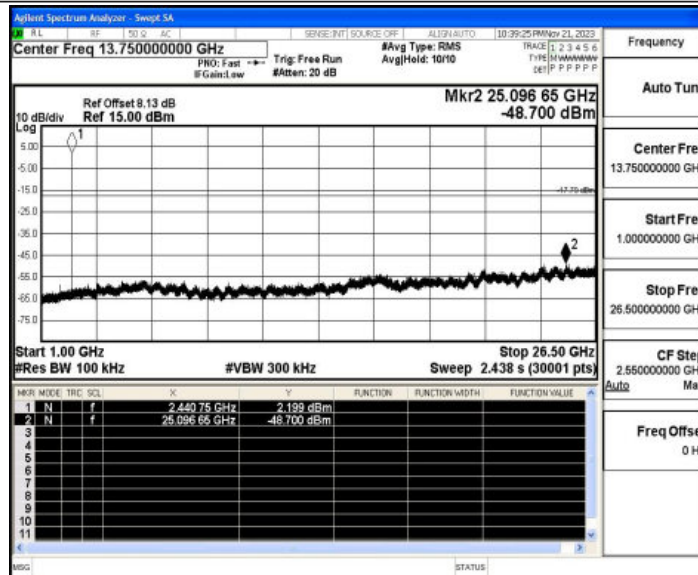


DH5_Ant1_2441_30~1000





DH5_Ant1_2441_1000~26500



DH5_Ant1_2480_0~Reference

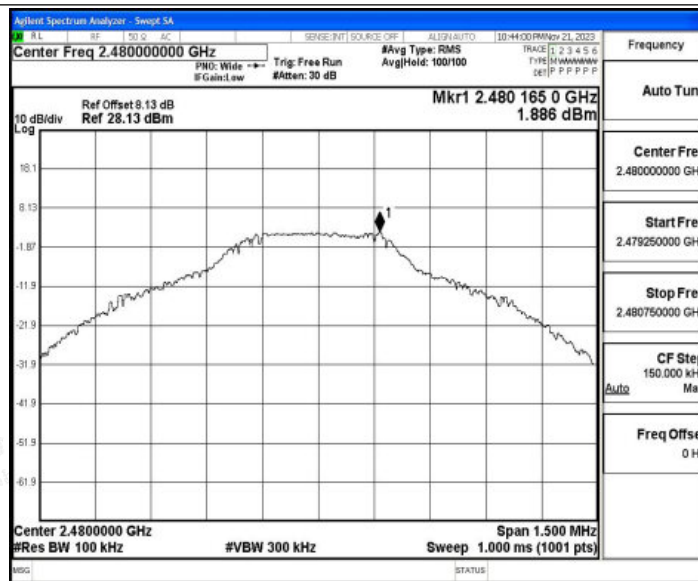


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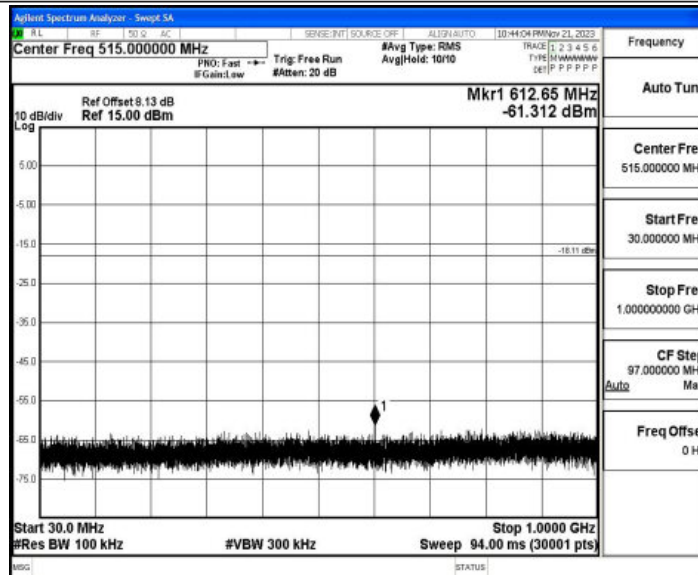
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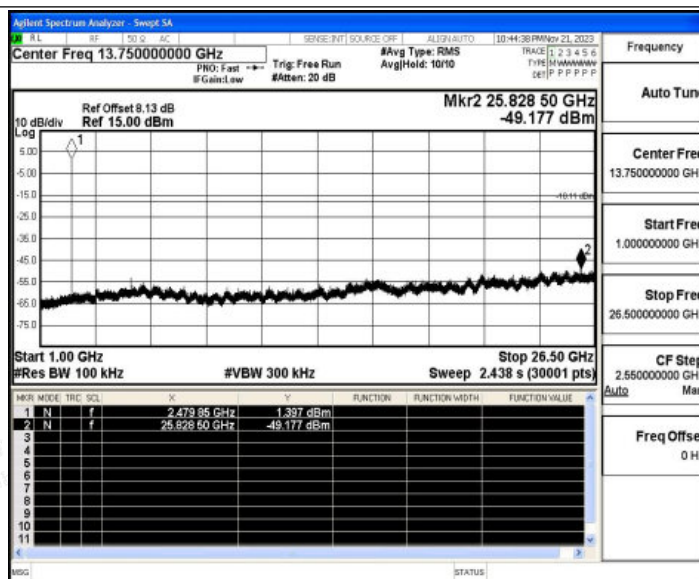


DH5_Ant1_2480_30~1000

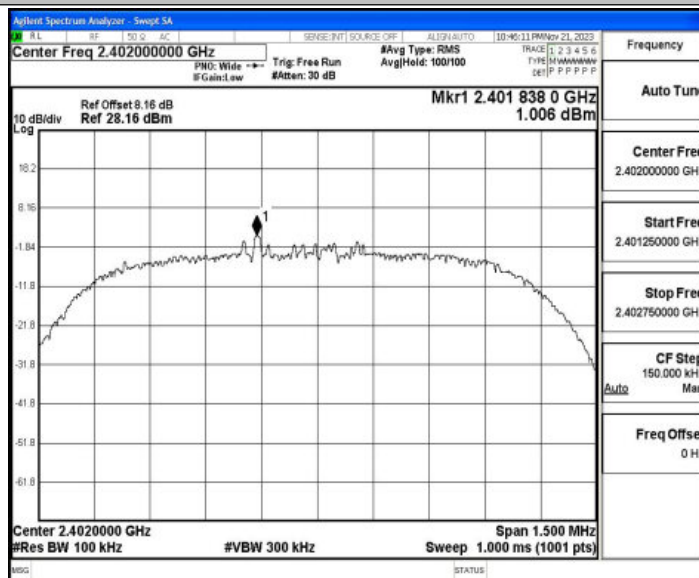


DH5_Ant1_2480_1000~26500



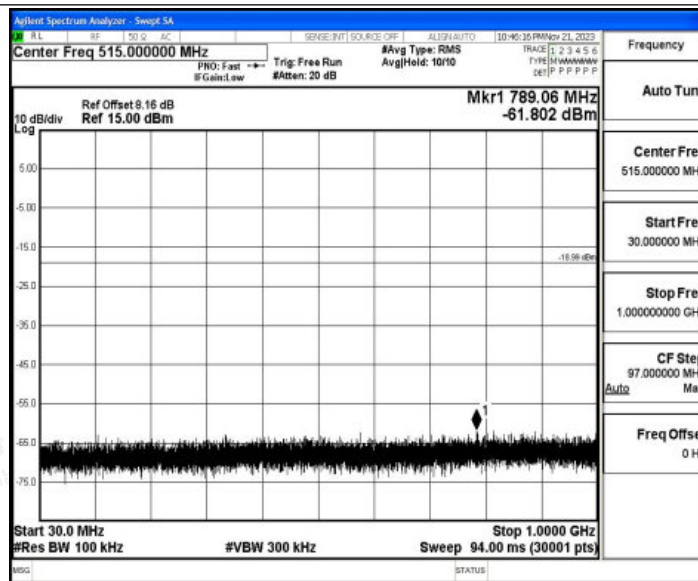


2DH5_Ant1_2402_0~Reference

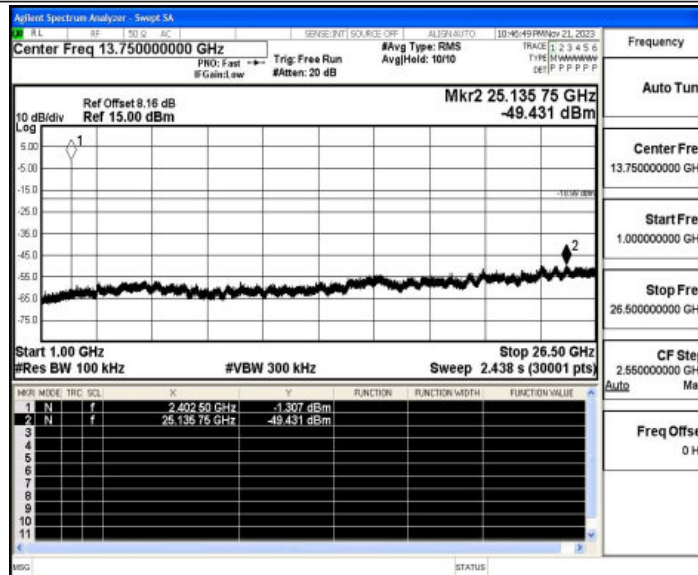


2DH5_Ant1_2402_30~1000





2DH5_Ant1_2402_1000~26500



2DH5_Ant1_2441_0~Reference

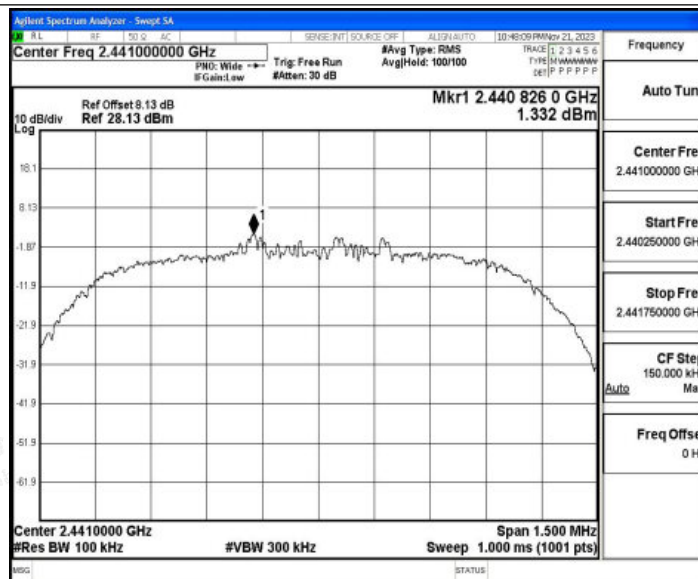


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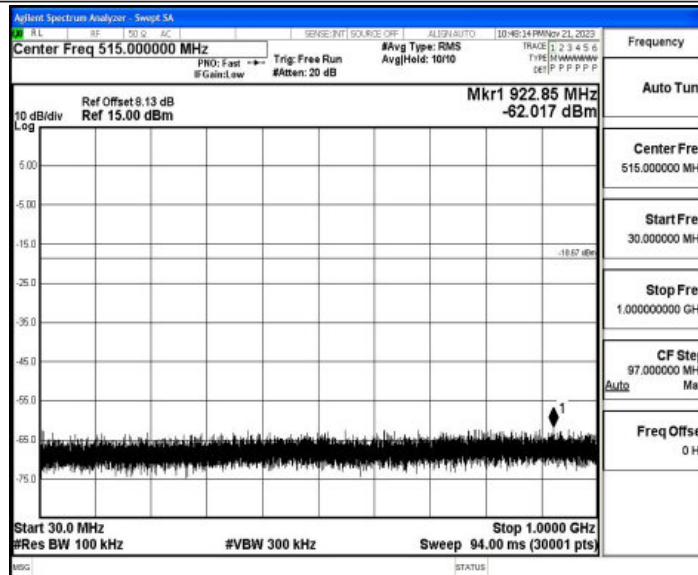
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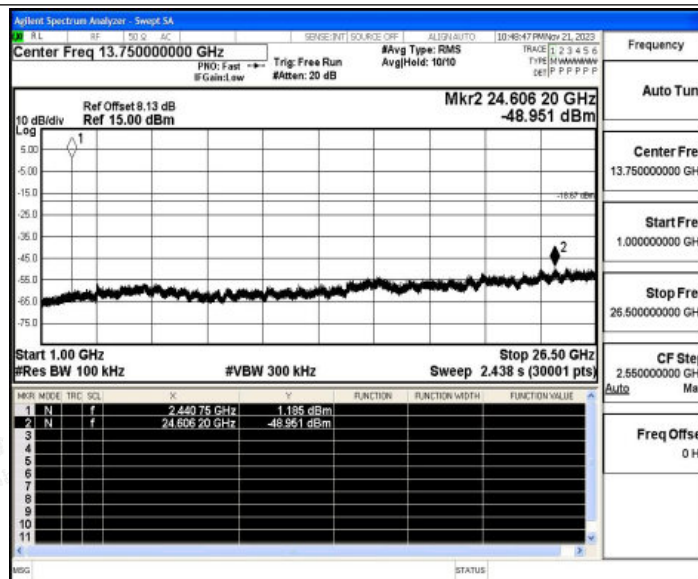


2DH5_Ant1_2441_30~1000

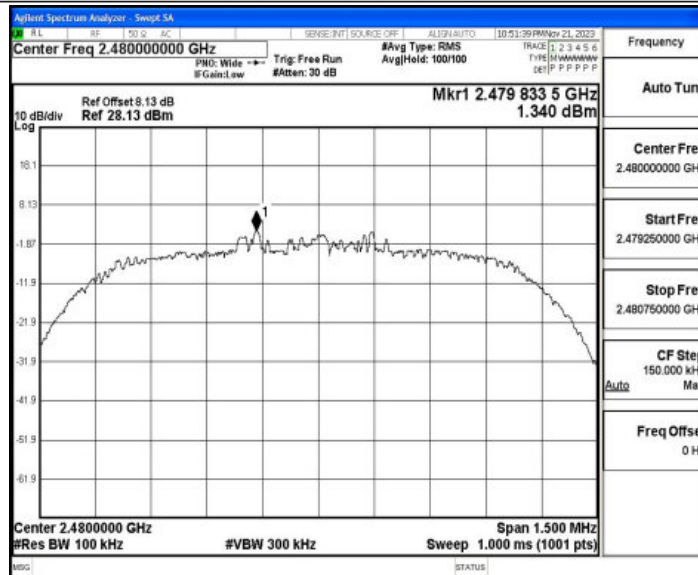


2DH5_Ant1_2441_1000~26500



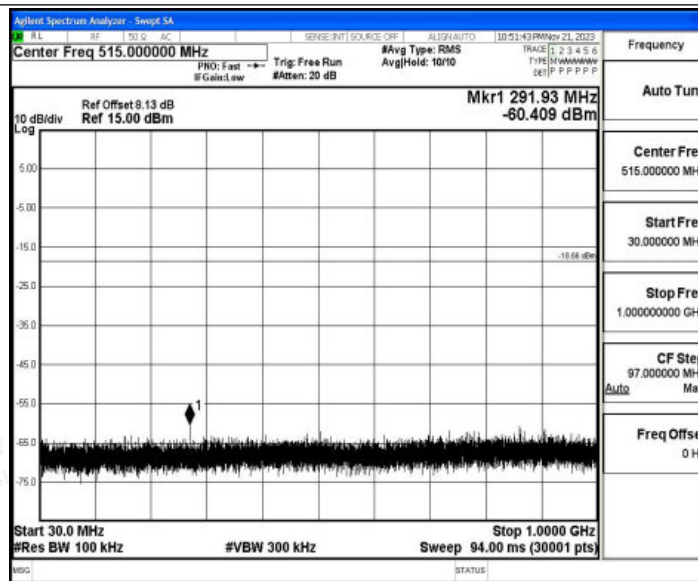


2DH5_Ant1_2480_0~Reference

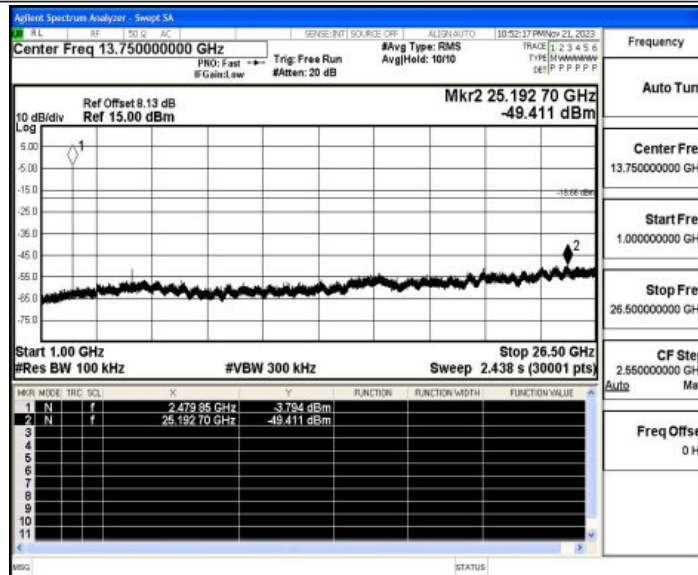


2DH5_Ant1_2480_30~1000





2DH5_Ant1_2480_1000~26500



3DH5_Ant1_2402_0~Reference

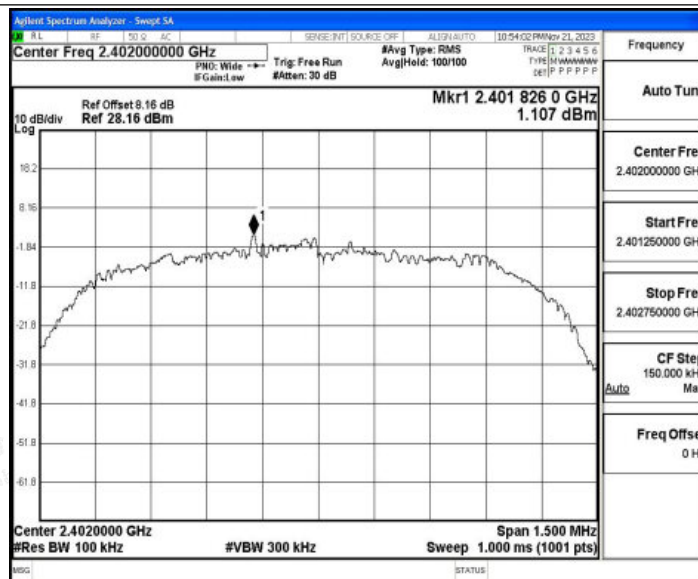


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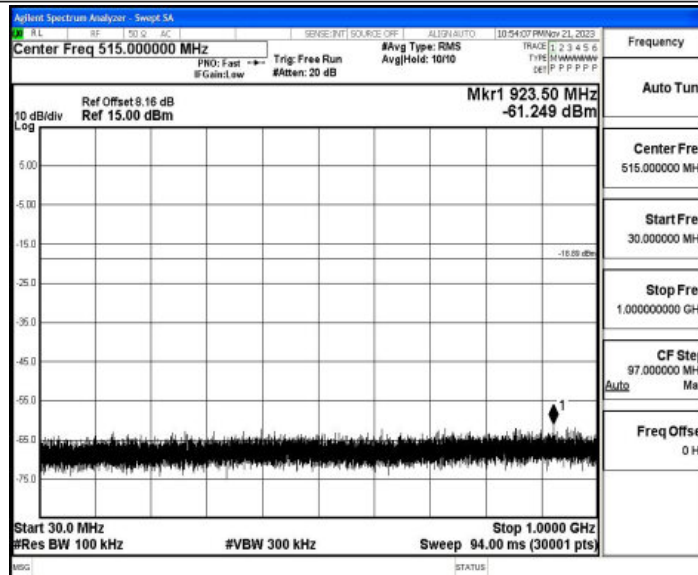
Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

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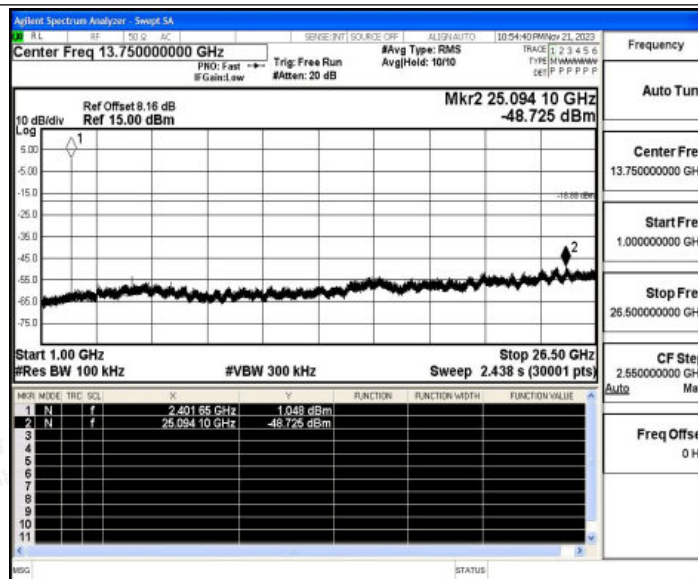


3DH5_Ant1_2402_30~1000

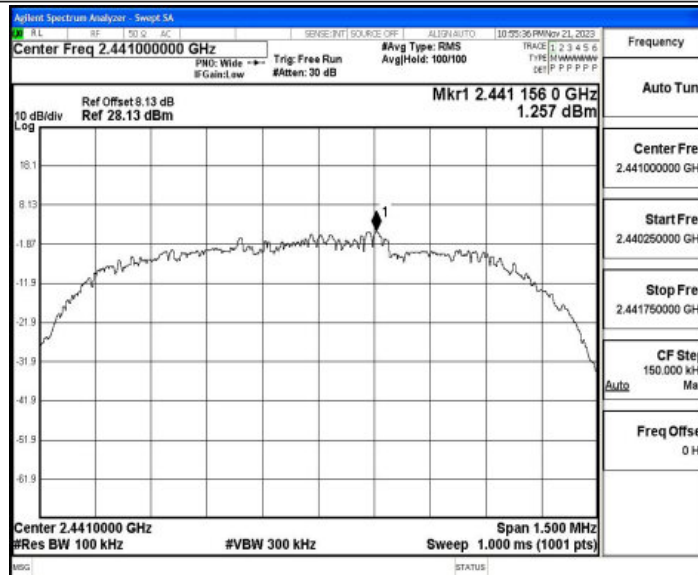


3DH5_Ant1_2402_1000~26500



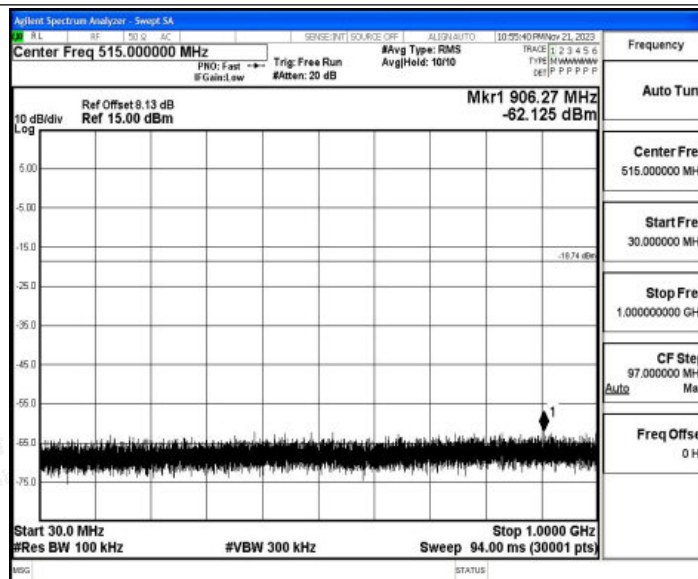


3DH5_Ant1_2441_0~Reference

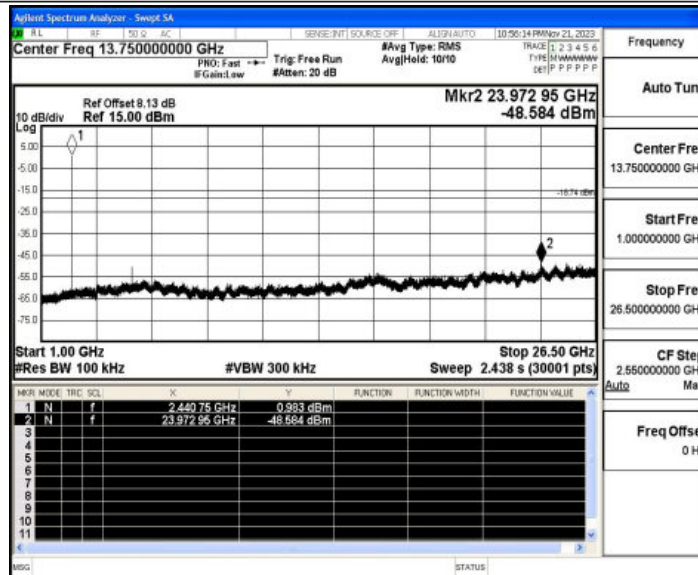


3DH5_Ant1_2441_30~1000





3DH5_Ant1_2441_1000~26500



3DH5_Ant1_2480_0~Reference

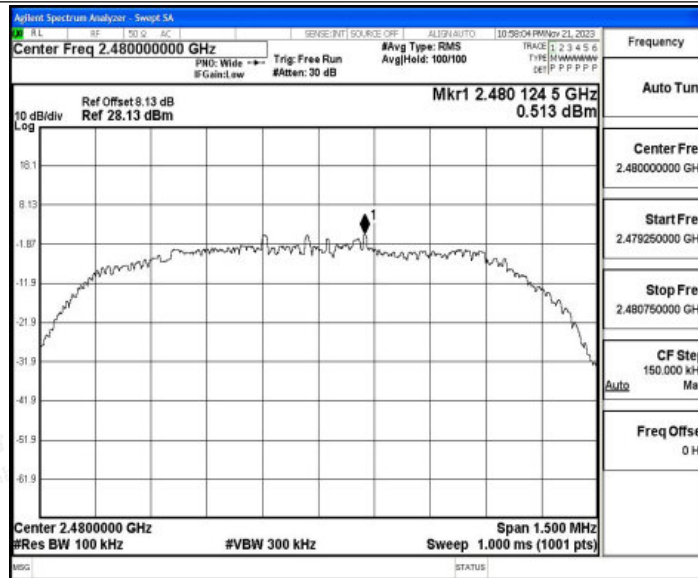


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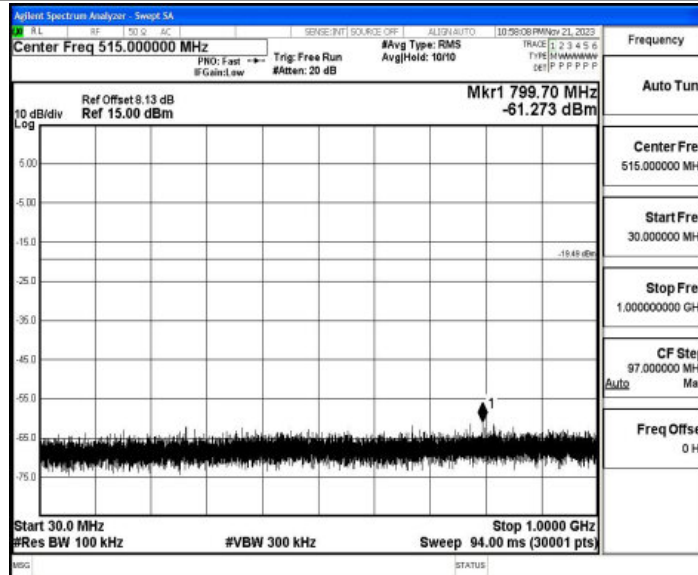
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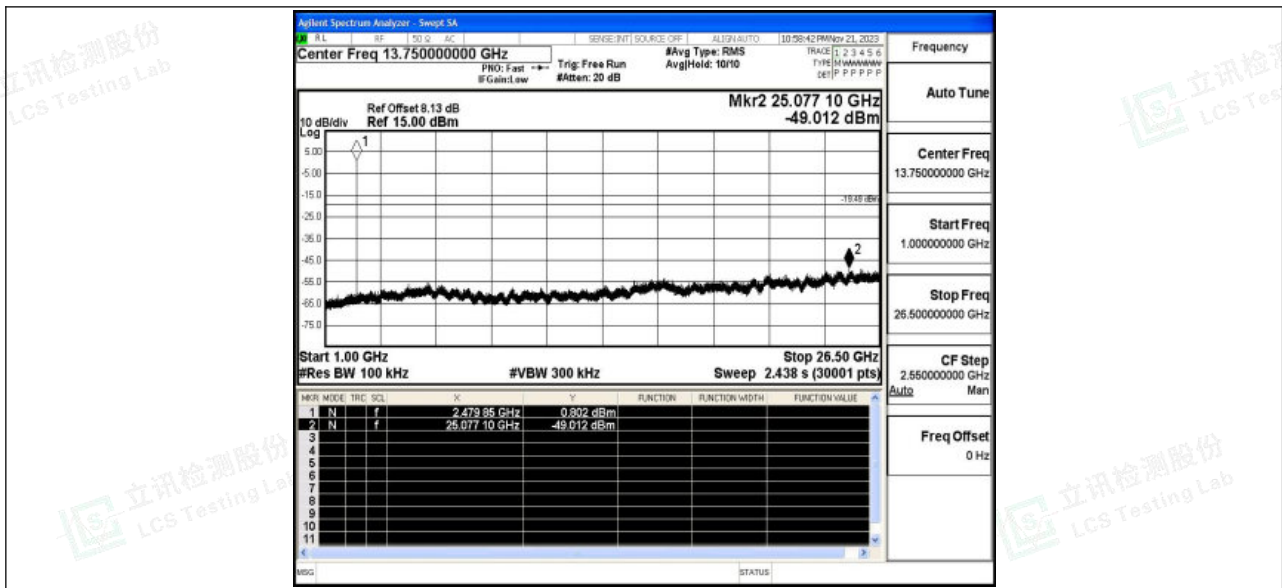


3DH5_Ant1_2480_30~1000



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	-48.95	≤-41.20	46.25	≤54	PASS
				AV	2385.890	-48.54	≤-41.20	46.66	≤54	PASS
				AV	2390.000	-48.75	≤-41.20	46.45	≤54	PASS
				Peak	2310.000	-44.45	≤-21.20	50.75	≤74	PASS
				Peak	2313.755	-38.97	≤-21.20	56.23	≤74	PASS
				Peak	2390.000	-42.89	≤-21.20	52.31	≤74	PASS
		High	2480	AV	2483.500	-48.28	≤-41.20	46.92	≤54	PASS
				AV	2483.520	-48.28	≤-41.20	46.92	≤54	PASS
				AV	2500.000	-48.65	≤-41.20	46.55	≤54	PASS
				Peak	2483.500	-43.4	≤-21.20	51.80	≤74	PASS
				Peak	2490.560	-38.67	≤-21.20	56.53	≤74	PASS
				Peak	2500.000	-42.8	≤-21.20	52.40	≤74	PASS
		Low	Hop_2402	Peak	2310.000	-40.79	≤-21.20	54.41	≤74	PASS
				Peak	2360.060	-38.52	≤-21.20	56.68	≤74	PASS
				Peak	2390.000	-40.65	≤-21.20	54.55	≤74	PASS
		High	Hop_2480	Peak	2483.500	-40.56	≤-21.20	54.64	≤74	PASS
				Peak	2486.240	-38.88	≤-21.20	56.32	≤74	PASS
				Peak	2500.000	-40.9	≤-21.20	54.30	≤74	PASS
2DH5	Ant1	Low	2402	AV	2310.000	-49.16	≤-41.20	46.04	≤54	PASS
				AV	2375.495	-48.6	≤-41.20	46.60	≤54	PASS
				AV	2390.000	-48.78	≤-41.20	46.42	≤54	PASS
				Peak	2310.000	-44.24	≤-21.20	50.96	≤74	PASS
				Peak	2356.595	-39.87	≤-21.20	55.33	≤74	PASS
				Peak	2390.000	-45.15	≤-21.20	50.05	≤74	PASS
		High	2480	AV	2483.500	-48.18	≤-41.20	47.02	≤54	PASS
				AV	2483.520	-48.18	≤-41.20	47.02	≤54	PASS
				AV	2500.000	-48.64	≤-41.20	46.56	≤54	PASS
				Peak	2483.500	-42.49	≤-21.20	52.71	≤74	PASS
				Peak	2495.840	-39.89	≤-21.20	55.31	≤74	PASS
				Peak	2500.000	-43.73	≤-21.20	51.47	≤74	PASS
		Low	Hop_2402	Peak	2310.000	-41.55	≤-21.20	53.65	≤74	PASS
				Peak	2380.010	-38.11	≤-21.20	57.09	≤74	PASS
				Peak	2390.000	-40.85	≤-21.20	54.35	≤74	PASS
		High	Hop_2480	Peak	2483.500	-40.81	≤-21.20	54.39	≤74	PASS
				Peak	2494.000	-38.02	≤-21.20	57.18	≤74	PASS





				Peak	2500.000	-40.6	≤ -21.20	54.60	≤ 74	PASS
3DH5	Ant1	Low	2402	AV	2310.000	-49.14	≤ -41.20	46.06	≤ 54	PASS
				AV	2379.695	-48.58	≤ -41.20	46.62	≤ 54	PASS
				AV	2390.000	-48.66	≤ -41.20	46.54	≤ 54	PASS
				Peak	2310.000	-45.29	≤ -21.20	49.91	≤ 74	PASS
				Peak	2346.515	-39.83	≤ -21.20	55.37	≤ 74	PASS
				Peak	2390.000	-41.56	≤ -21.20	53.64	≤ 74	PASS
		High	2480	AV	2483.500	-48.06	≤ -41.20	47.14	≤ 54	PASS
				AV	2483.520	-48.06	≤ -41.20	47.14	≤ 54	PASS
				AV	2500.000	-48.68	≤ -41.20	46.52	≤ 54	PASS
				Peak	2483.500	-43.82	≤ -21.20	51.38	≤ 74	PASS
				Peak	2485.040	-38.56	≤ -21.20	56.64	≤ 74	PASS
				Peak	2500.000	-42.27	≤ -21.20	52.93	≤ 74	PASS
		Low	Hop_2402	Peak	2310.000	-41.1	≤ -21.20	54.10	≤ 74	PASS
				Peak	2318.270	-37.93	≤ -21.20	57.27	≤ 74	PASS
				Peak	2390.000	-41.02	≤ -21.20	54.18	≤ 74	PASS
		High	Hop_2480	Peak	2483.500	-40.16	≤ -21.20	55.04	≤ 74	PASS
				Peak	2488.320	-38.48	≤ -21.20	56.72	≤ 74	PASS
				Peak	2500.000	-40.62	≤ -21.20	54.58	≤ 74	PASS

Note:

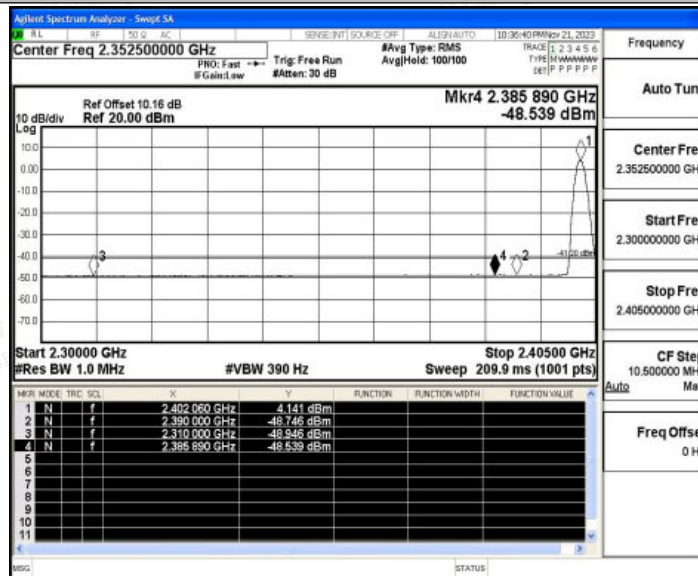
1. The Antenna Gain is compensated in the graph.
2. The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.



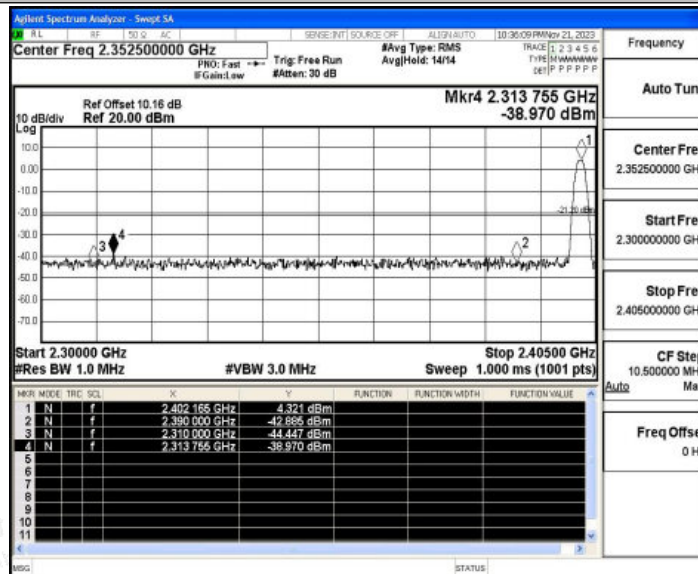


Test Graphs

DH5_Ant1_Low_2402_AV



DH5_Ant1_Low_2402_Peak

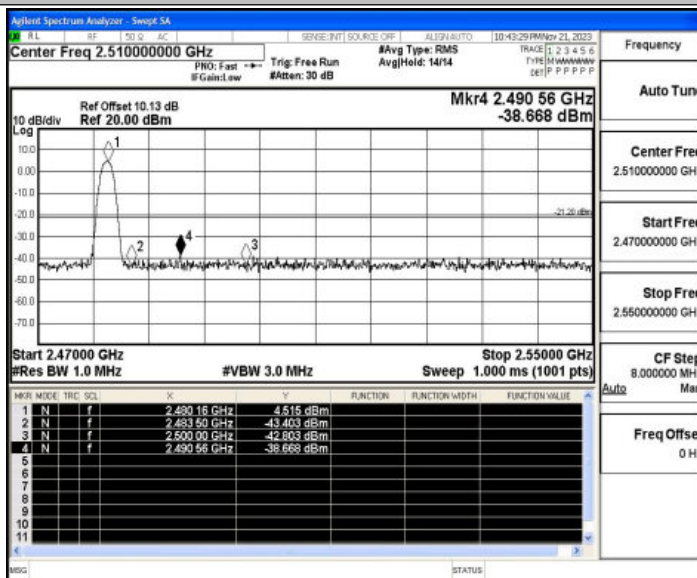


DH5_Ant1_High_2480_AV



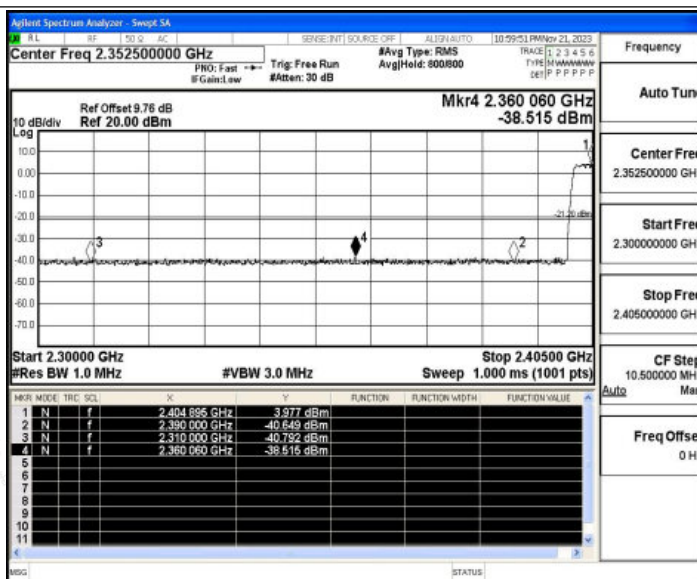


DH5_Ant1_High_2480_Peak

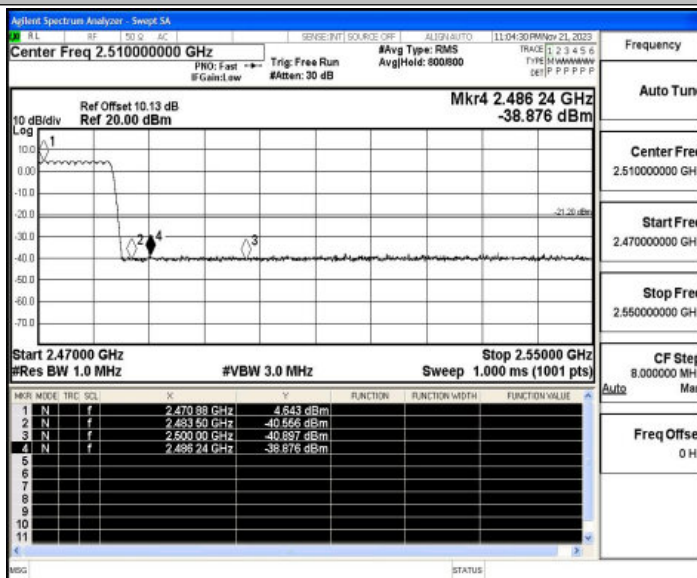


DH5_Ant1_Low_Hop_2402_Peak



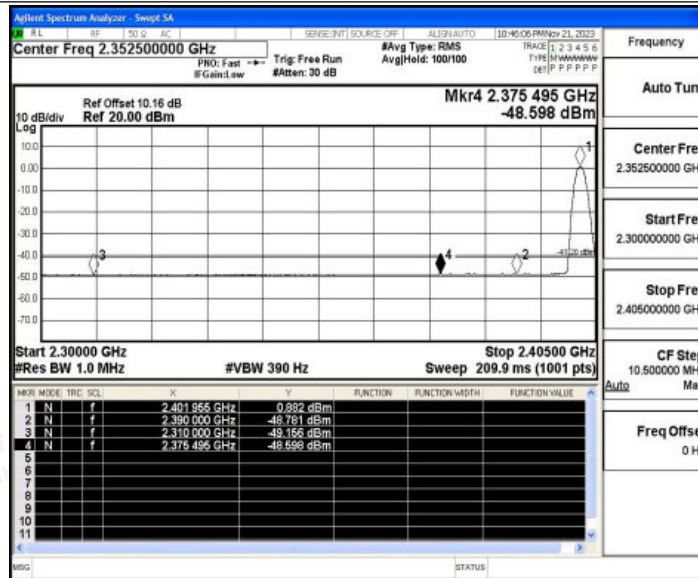


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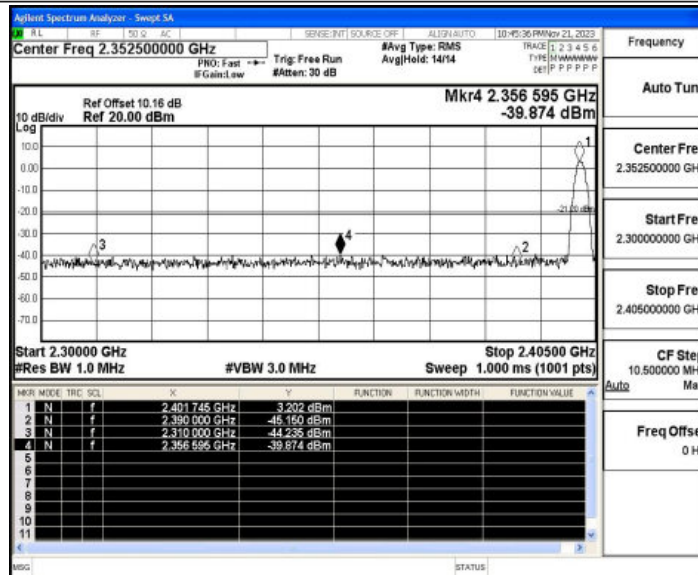


2DH5_Ant1_Low_2402_AV



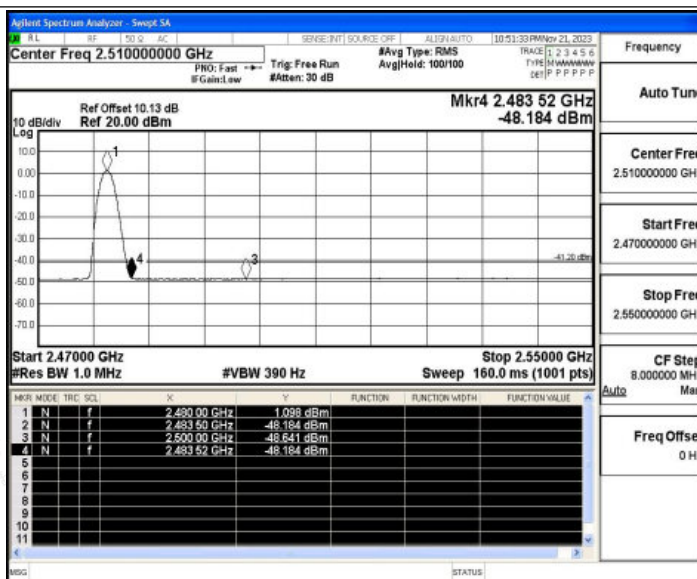


2DH5_Ant1_Low_2402_Peak

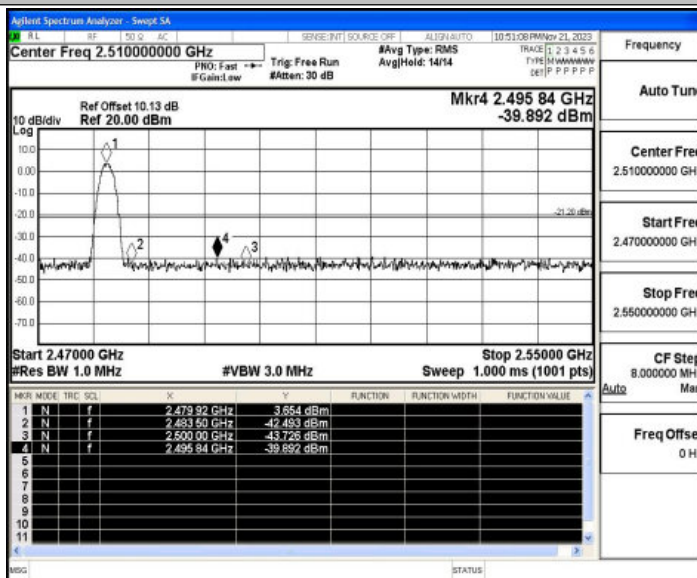


2DH5_Ant1_High_2480_AV





2DH5_Ant1_High_2480_Peak

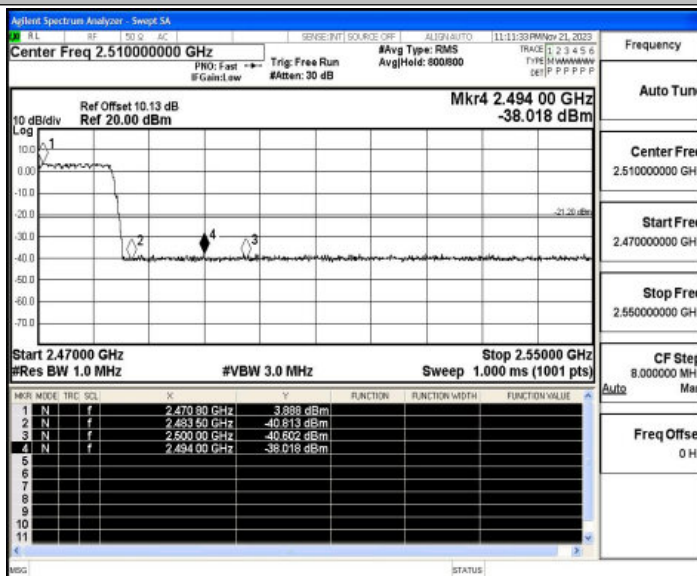


2DH5_Ant1_Low_Hop_2402_Peak



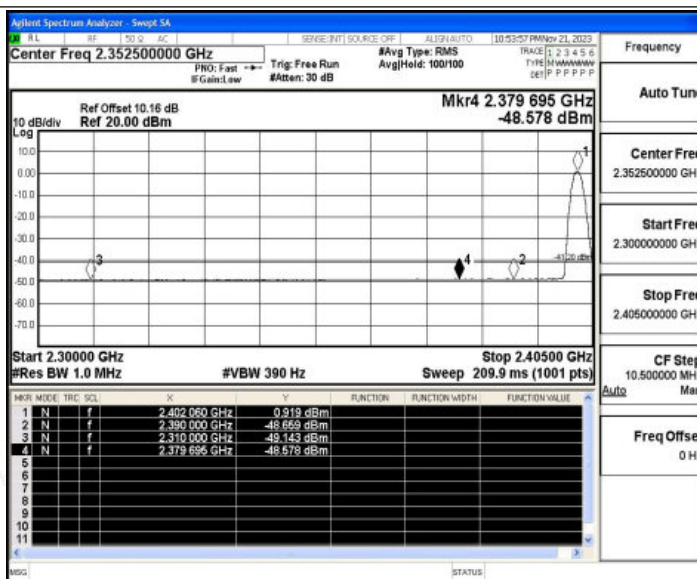


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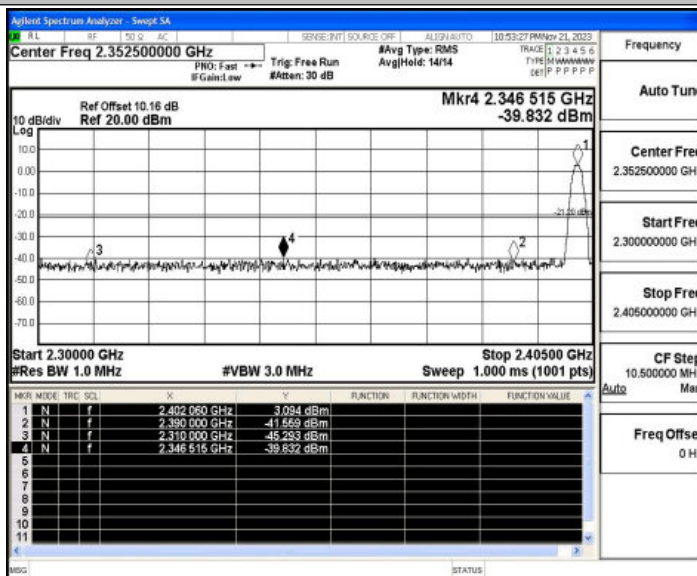


3DH5_Ant1_Low_2402_AV





3DH5_Ant1_Low_2402_Peak



3DH5_Ant1_High_2480_AV

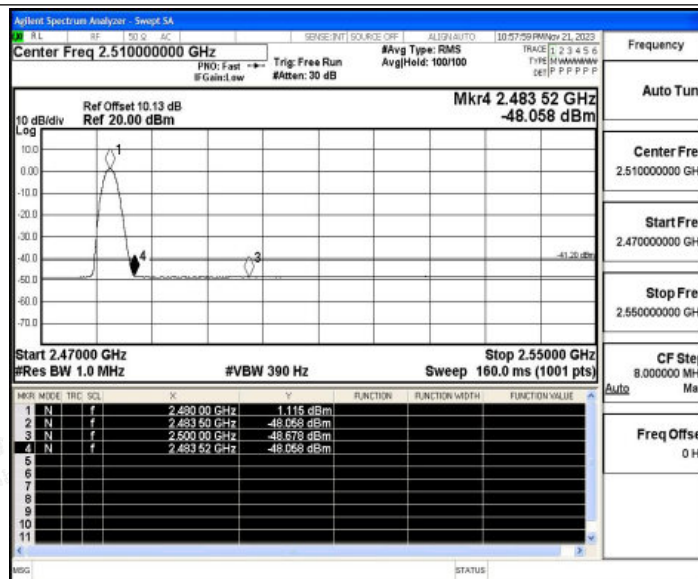


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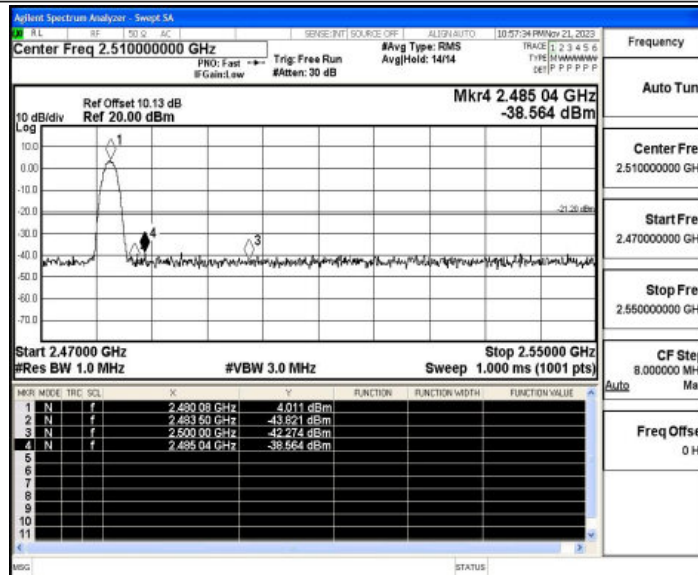
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3DH5_Ant1_High_2480_Peak



3DH5_Ant1_Low_Hop_2402_Peak



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