



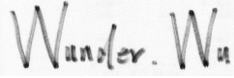

Appendix A

RF Test Data for BT (Conducted Measurement)

Product Name: 2x8.5 inch Bluetooth Speaker - Light Up - FM Radio

Test Model: CSP961

Environmental Conditions

Temperature:	23.5 °C
Relative Humidity:	52.2%
ATM Pressure:	100.0 kPa
Test Engineer:	 Wunder Wu
Supervised by:	 Li Huan





A.1 20dB Emission Bandwidth

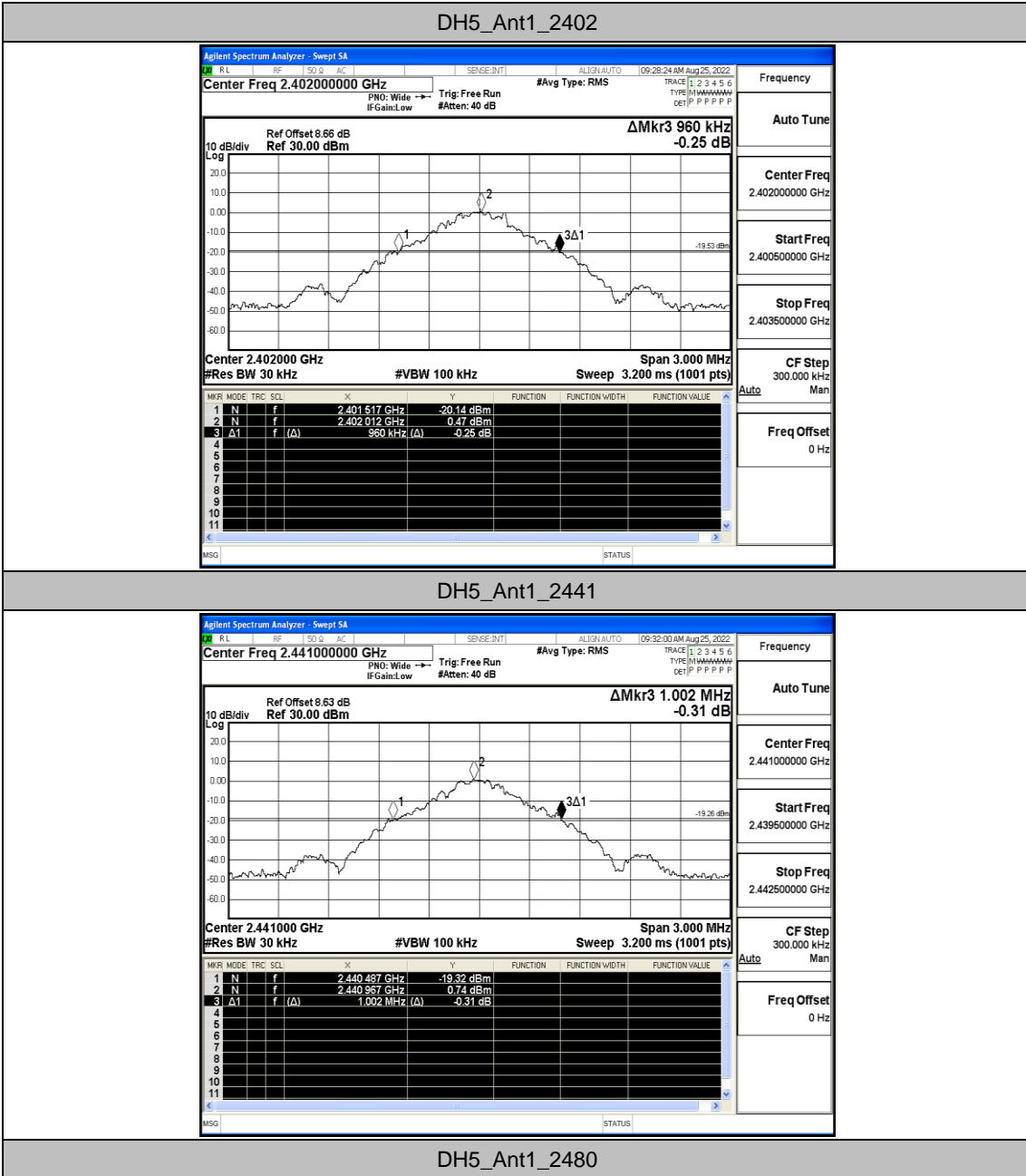
Test Result

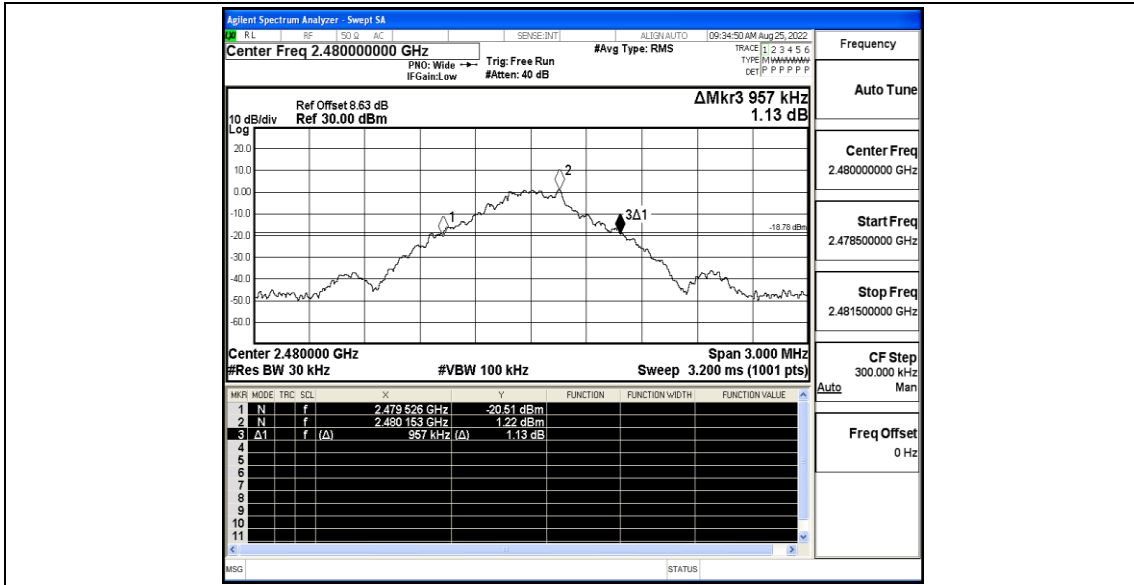
TestMode	Antenna	Channel	20db EBW[MHz]	FL[MHz]	FH[MHz]	Verdict
DH5	Ant1	2402	0.960	2401.517	2402.477	PASS
		2441	1.002	2440.487	2441.489	PASS
		2480	0.957	2479.526	2480.483	PASS
2DH5	Ant1	2402	1.284	2401.355	2402.639	PASS
		2441	1.329	2440.325	2441.654	PASS
		2480	1.311	2479.337	2480.648	PASS



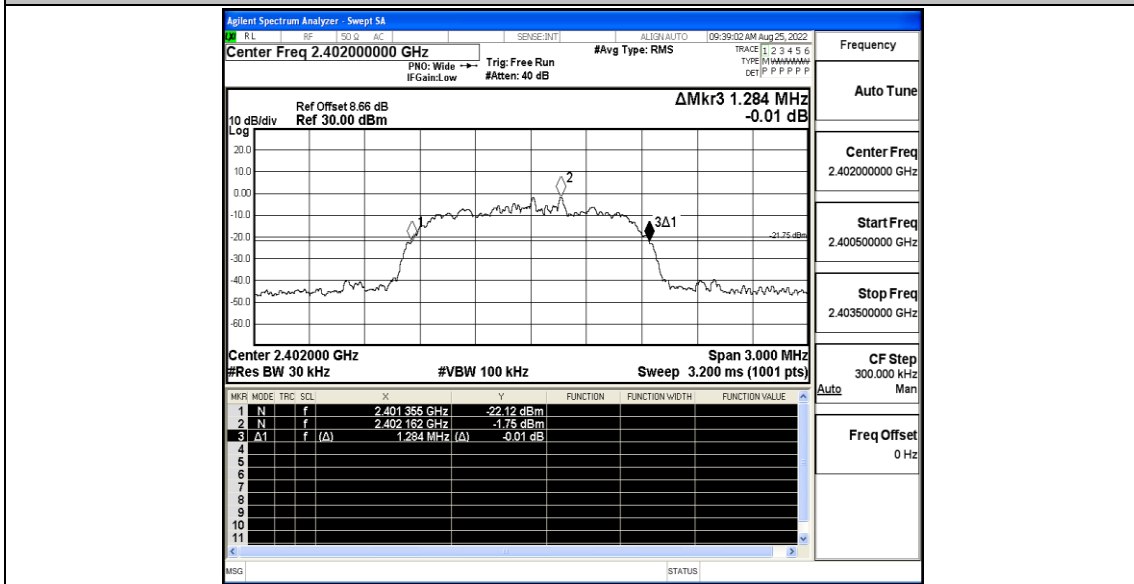


Test Graphs



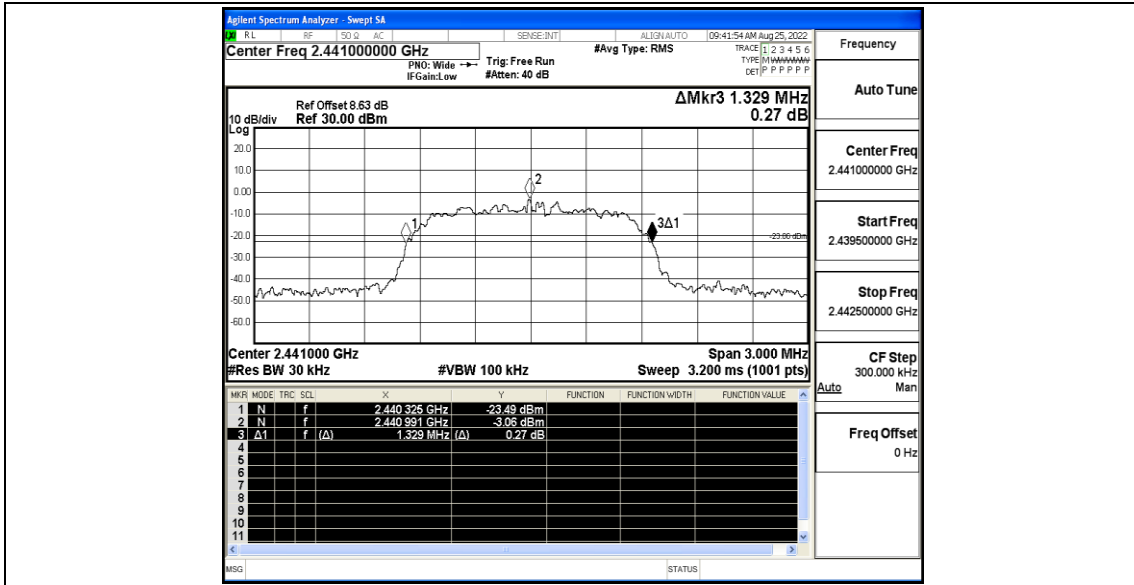


2DH5_Ant1_2402

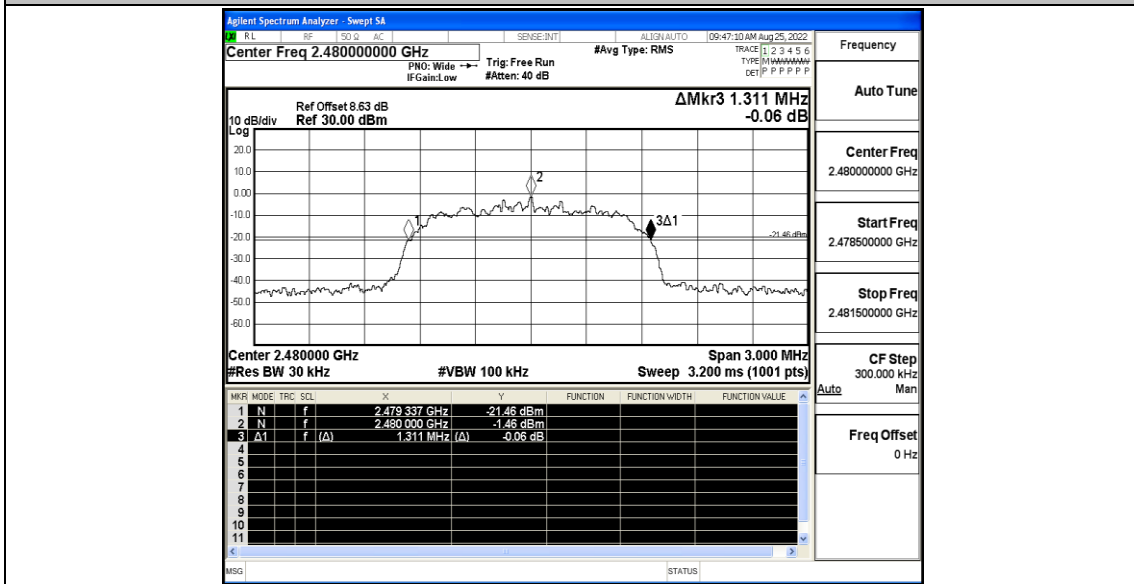


2DH5_Ant1_2441





2DH5_Ant1_2480





A.2 Maximum conducted output power

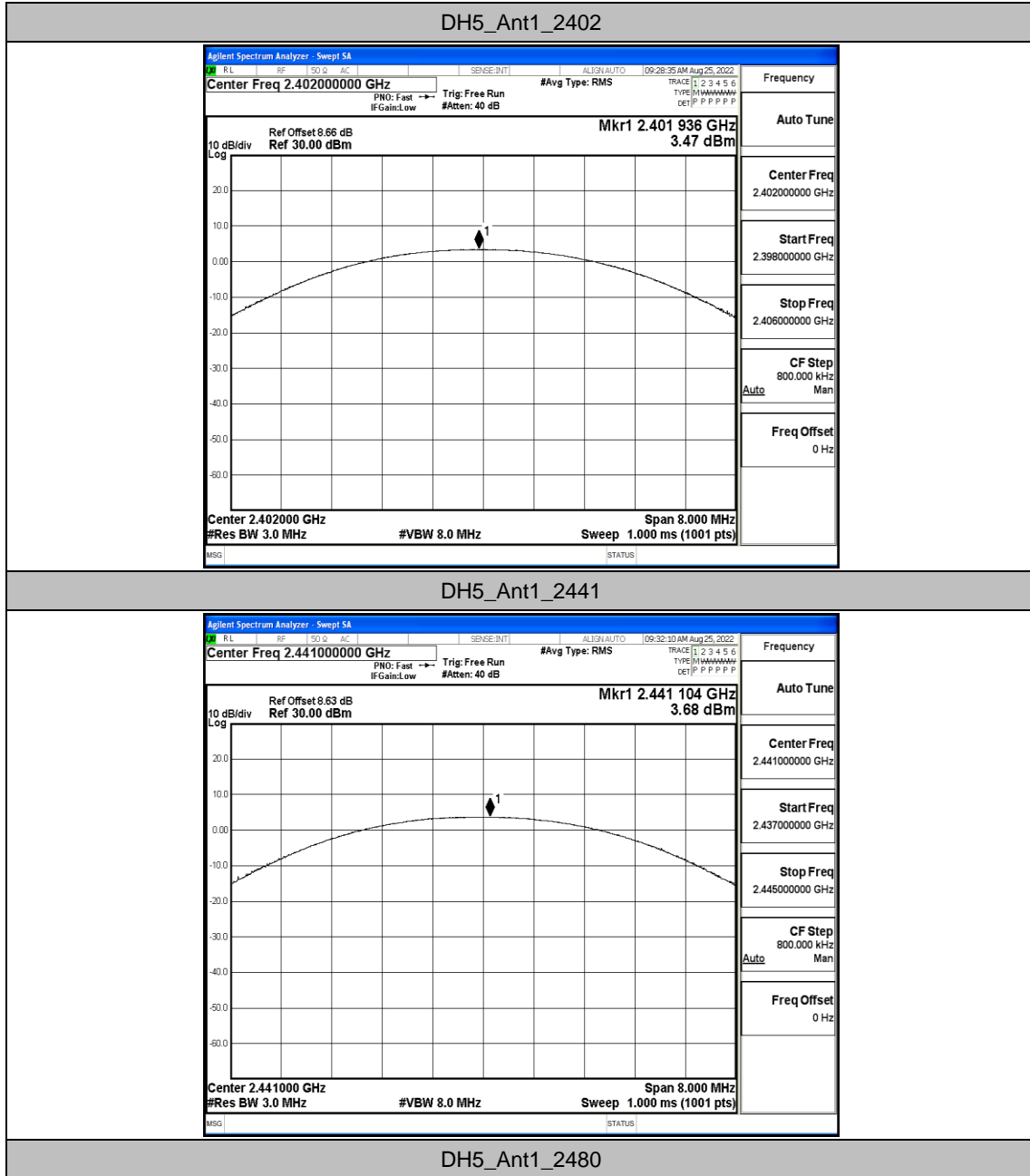
Test Result

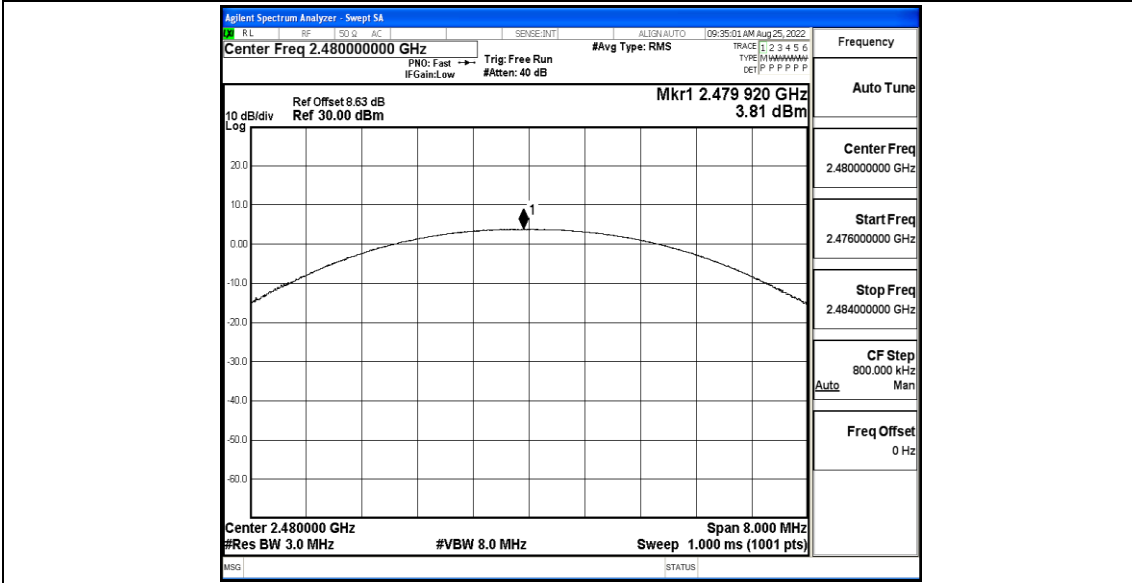
TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
DH5	Ant1	2402	3.47	≤20.97	PASS
		2441	3.68	≤20.97	PASS
		2480	3.81	≤20.97	PASS
2DH5	Ant1	2402	3.14	≤20.97	PASS
		2441	3.49	≤20.97	PASS
		2480	3.65	≤20.97	PASS



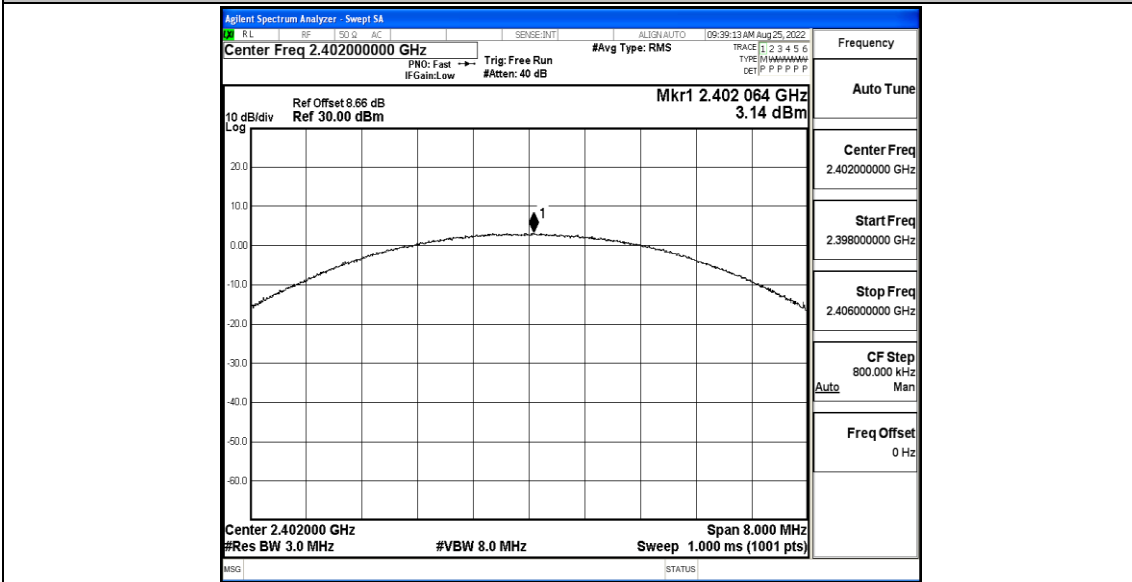


Test Graphs



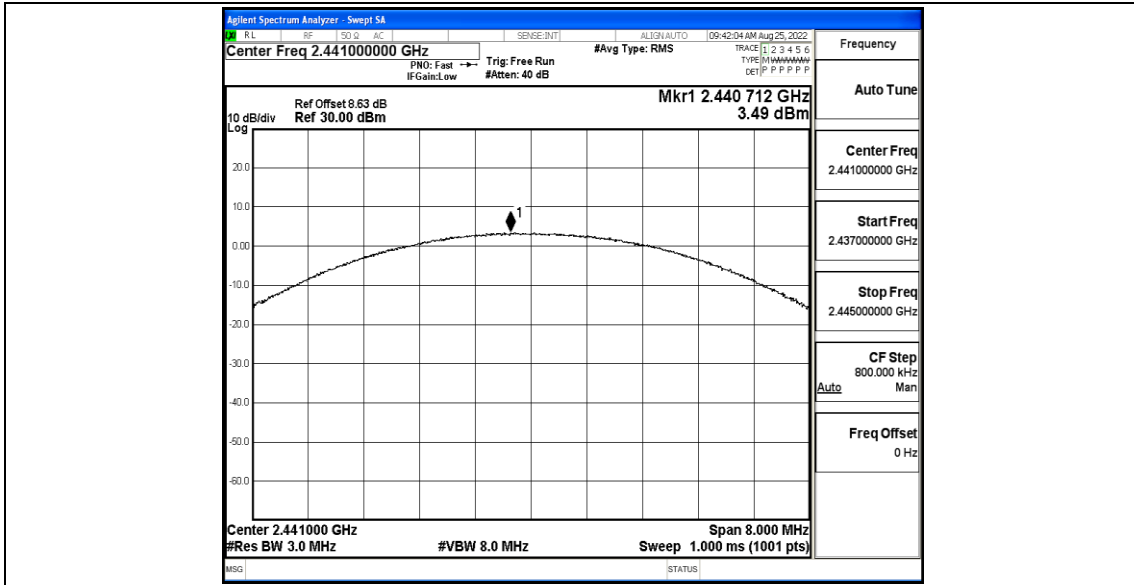


2DH5_Ant1_2402

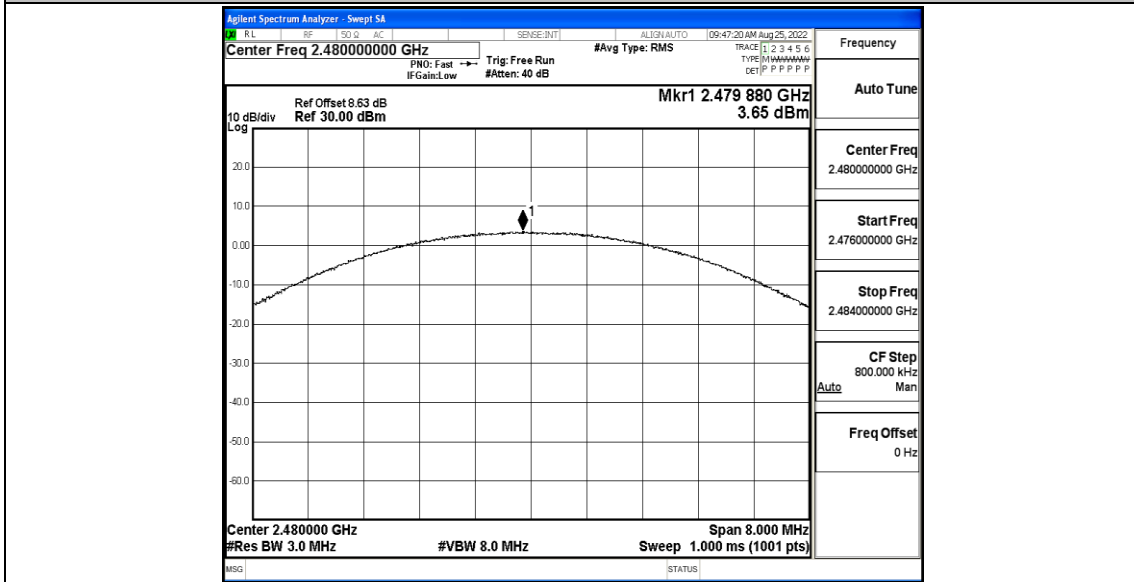


2DH5_Ant1_2441





2DH5_Ant1_2480





A.3 Carrier frequency separation

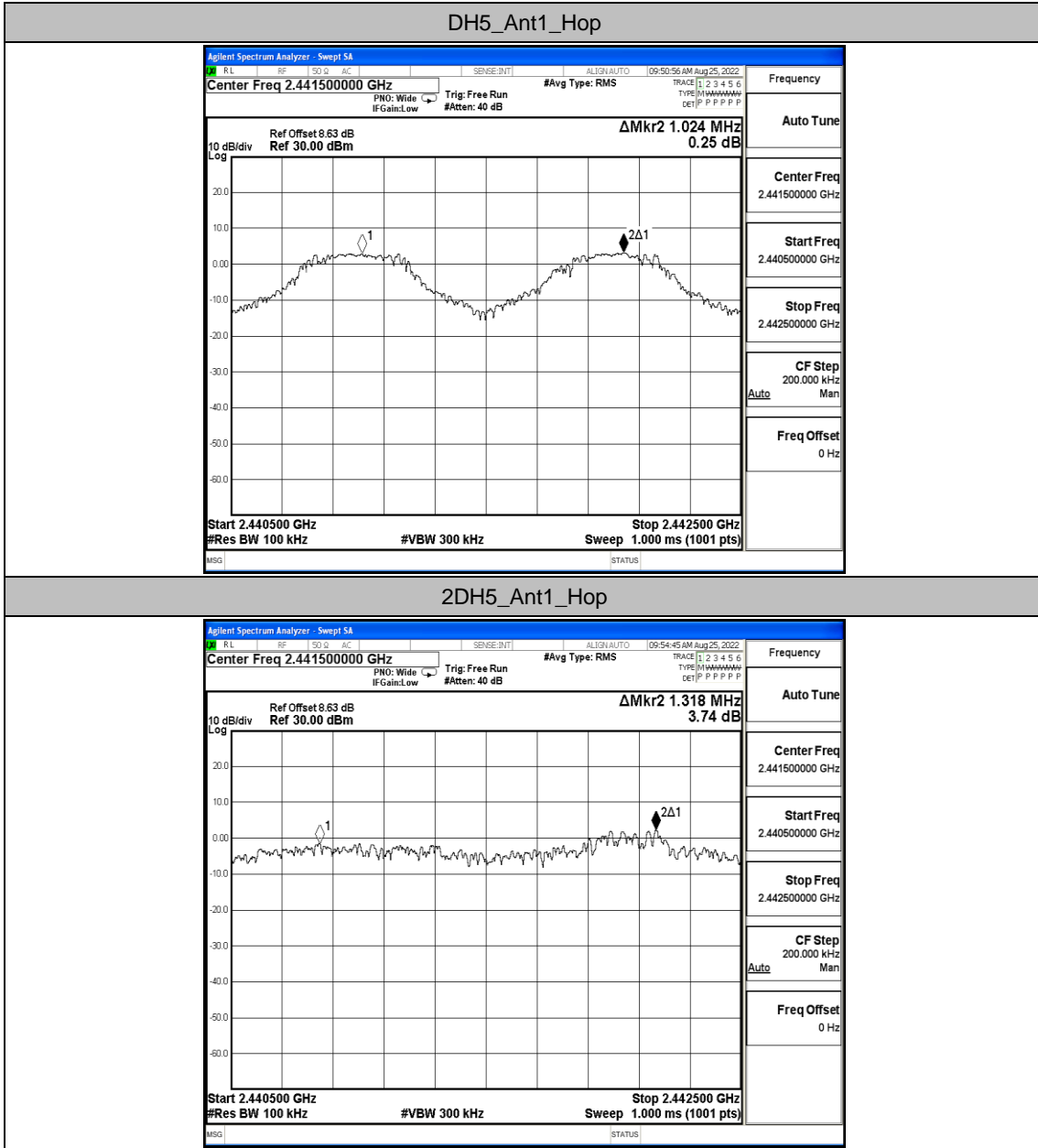
Test Result

TestMode	Antenna	Channel	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	1.024	≥1.002	PASS
2DH5	Ant1	Hop	1.318	≥0.886	PASS





Test Graphs





A.4 Time of occupancy

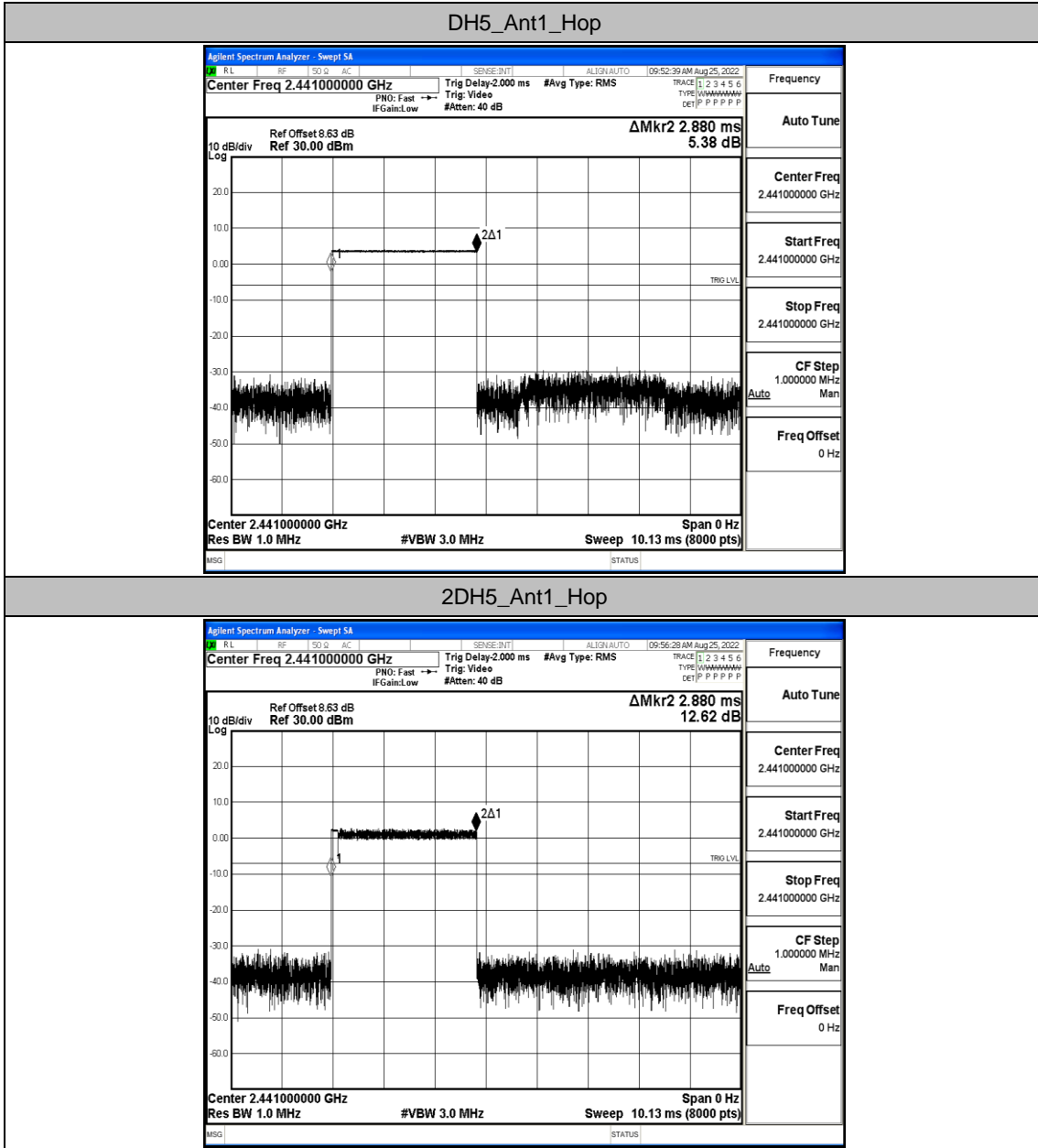
Test Result

TestMode	Antenna	Channel	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH5	Ant1	Hop	2.88	106.67	0.307	≤0.4	PASS
2DH5	Ant1	Hop	2.88	106.67	0.307	≤0.4	PASS





Test Graphs





A.5 Number of hopping channels

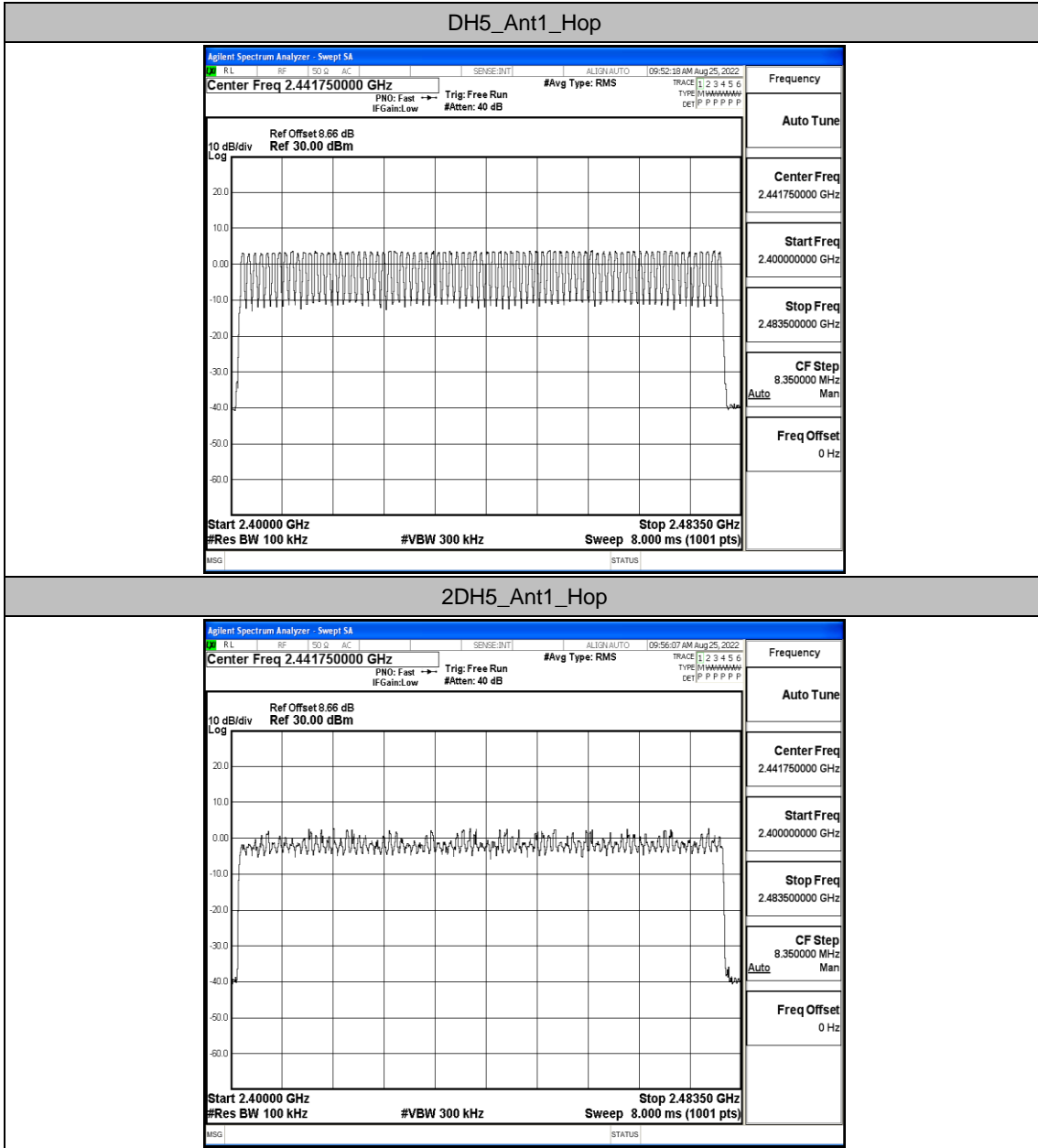
Test Result

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





Test Graphs





A.6 Band edge measurements

Test Result

TestMode	Antenna	ChName	Channel	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	2.13	-56.72	≤-17.87	PASS
		High	2480	2.59	-58.51	≤-17.41	PASS
		Low	Hop_2402	2.77	-58.5	≤-17.23	PASS
		High	Hop_2480	3.59	-57.42	≤-16.41	PASS
2DH5	Ant1	Low	2402	1.55	-56.8	≤-18.45	PASS
		High	2480	-1.73	-58.03	≤-21.73	PASS
		Low	Hop_2402	-0.41	-58.81	≤-20.41	PASS
		High	Hop_2480	2.10	-57.05	≤-17.9	PASS



Shenzhen LCS Compliance Testing Laboratory Ltd.

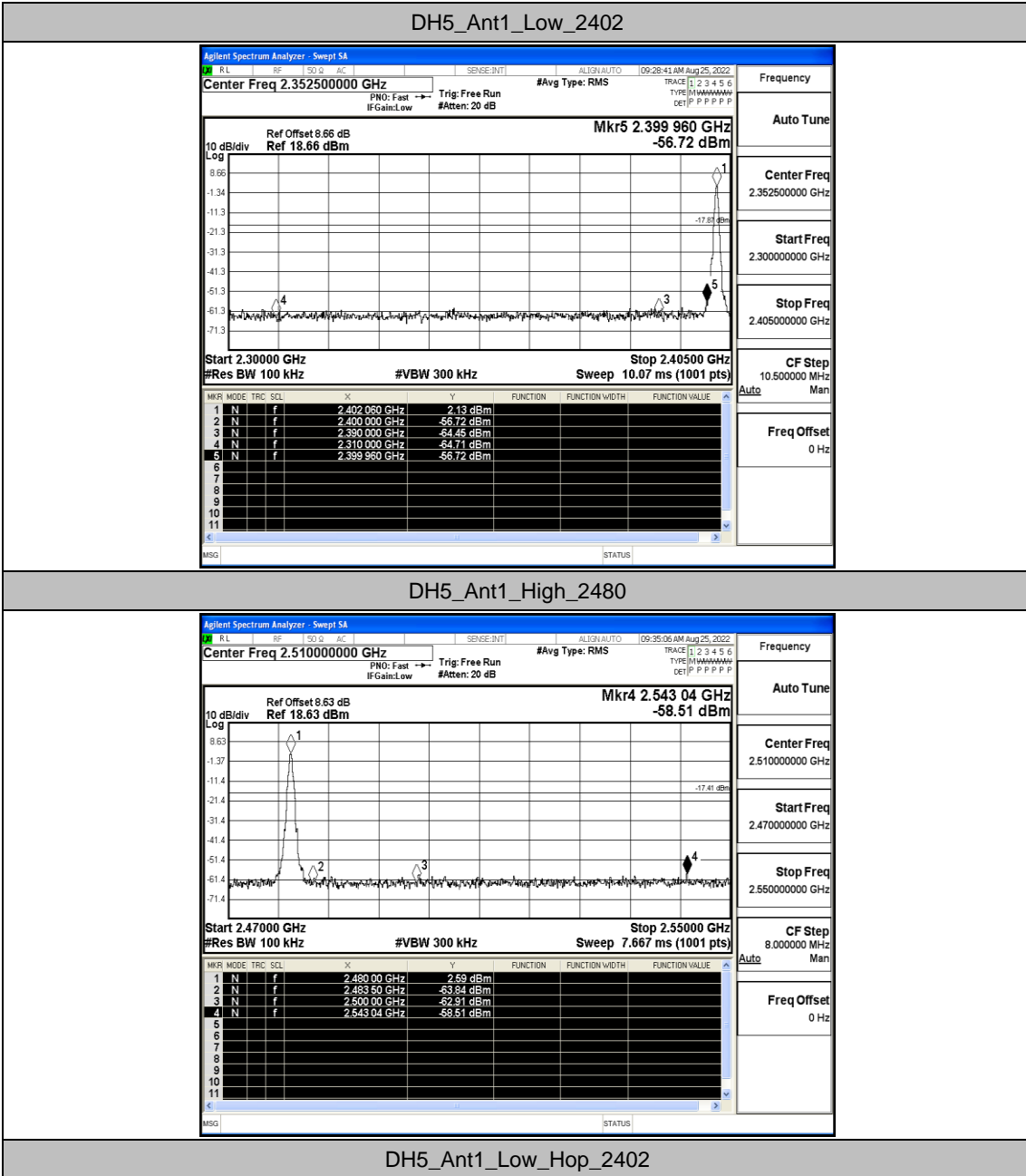
Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

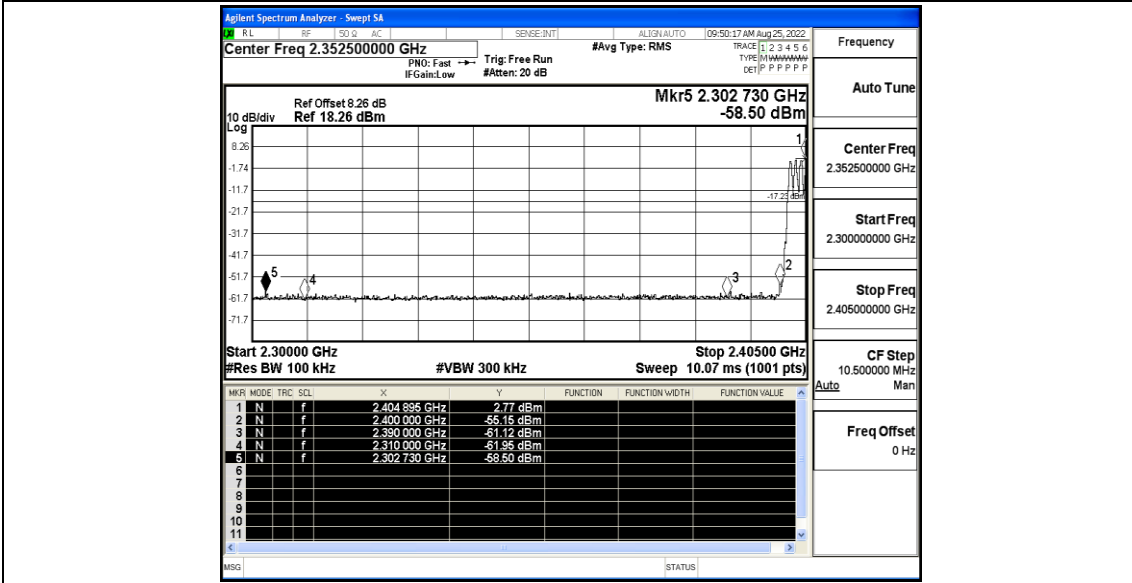
Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com

Scan code to check authenticity

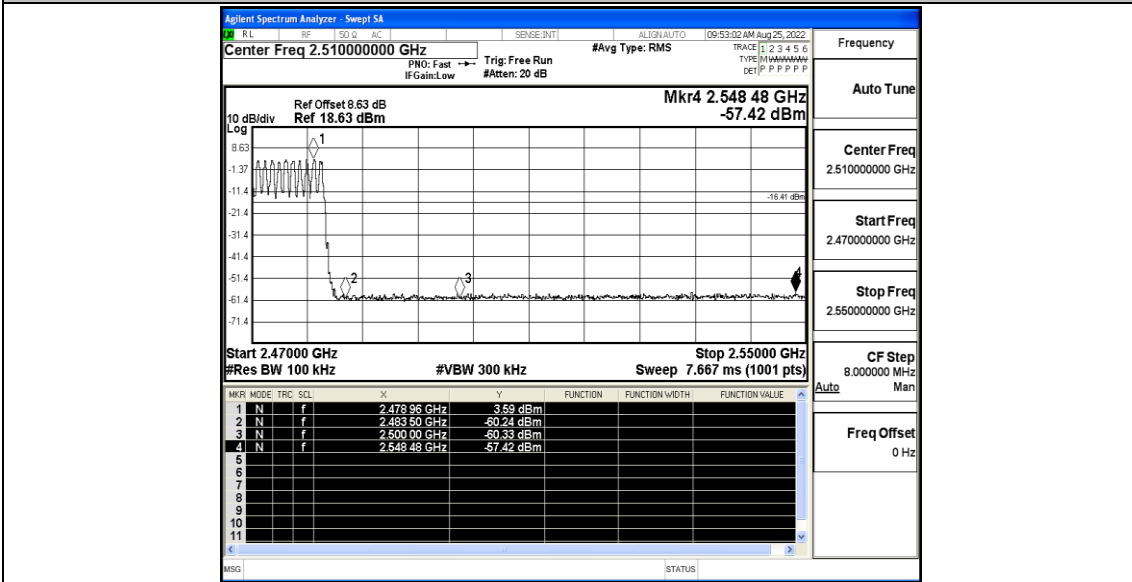


Test Graphs



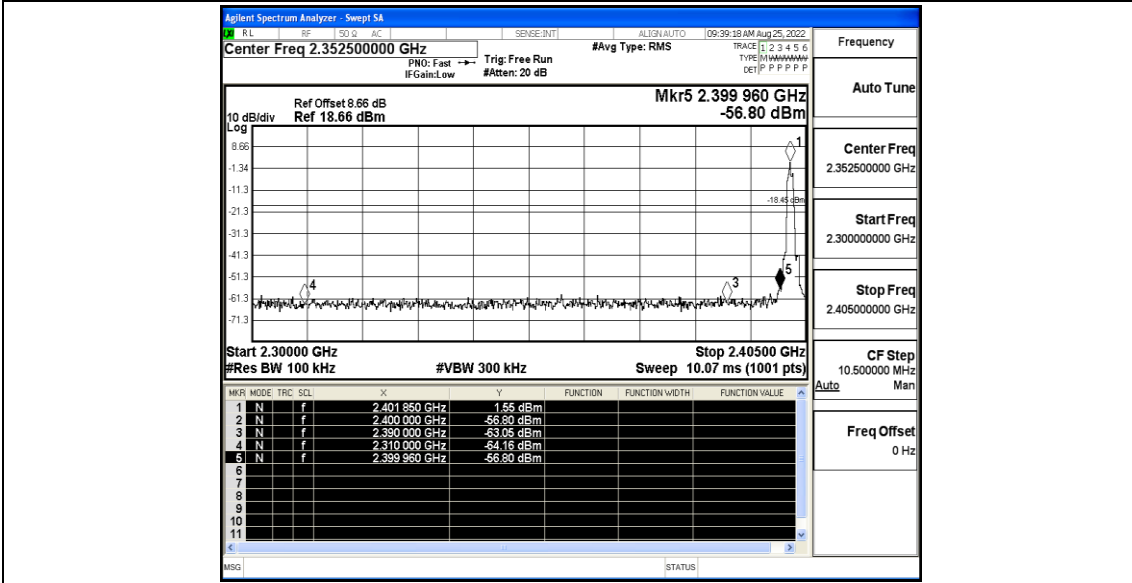


DH5_Ant1_High_Hop_2480

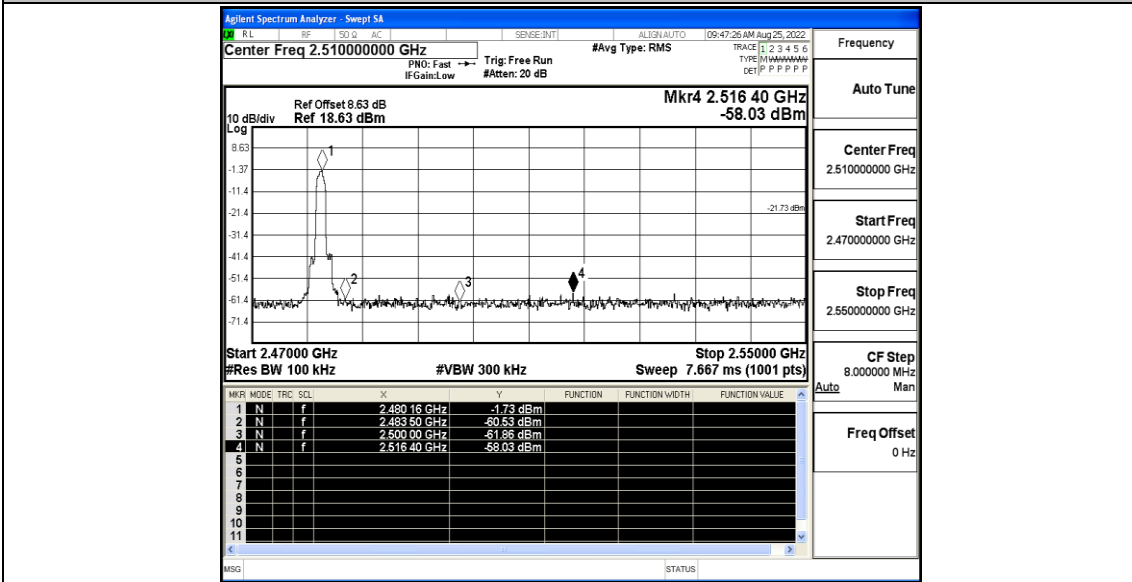


2DH5_Ant1_Low_2402



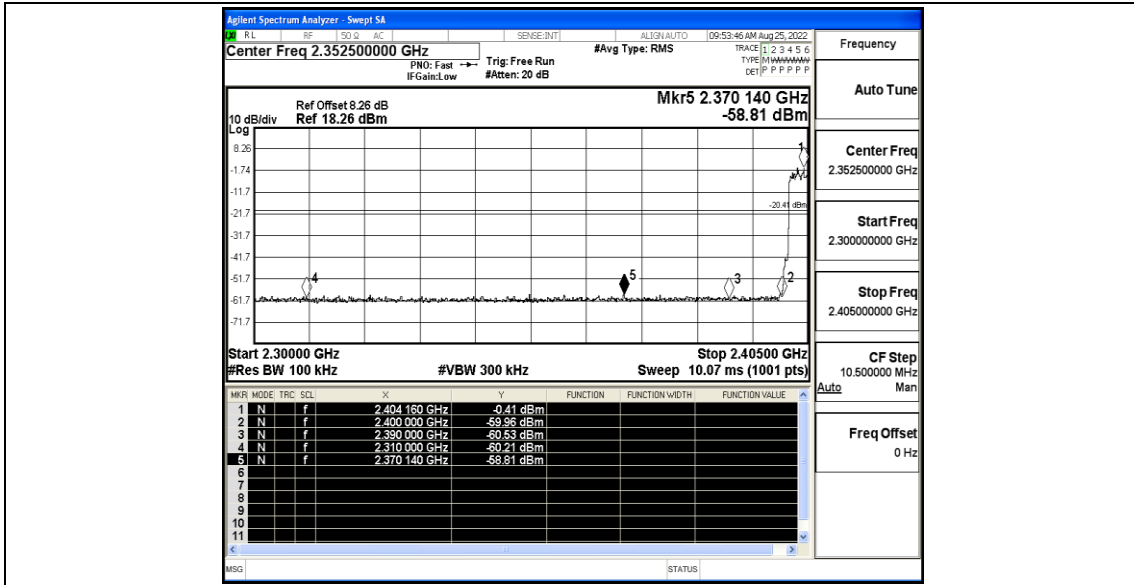


2DH5_Ant1_High_2480

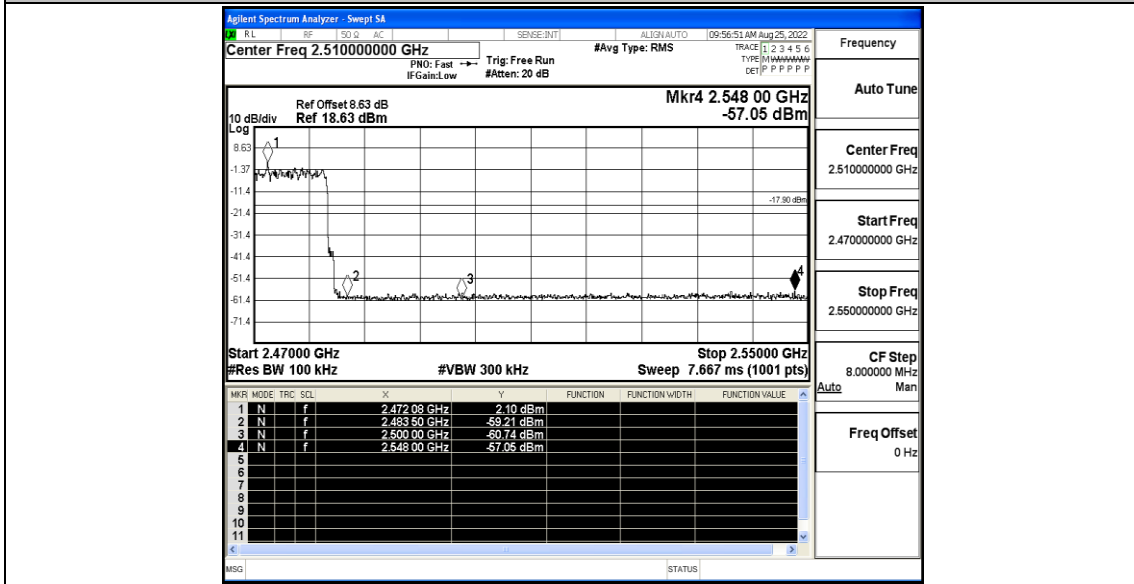


2DH5_Ant1_Low_Hop_2402





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	2.23	2.23	---	PASS
			30~1000	2.23	-60.22	≤-17.77	PASS
			1000~26500	2.23	-45.81	≤-17.77	PASS
		2441	Reference	2.92	2.92	---	PASS
			30~1000	2.92	-56.47	≤-17.08	PASS
			1000~26500	2.92	-46.49	≤-17.08	PASS
		2480	Reference	2.78	2.78	---	PASS
			30~1000	2.78	-58.32	≤-17.22	PASS
			1000~26500	2.78	-45.69	≤-17.22	PASS
2DH5	Ant1	2402	Reference	-2.29	-2.29	---	PASS
			30~1000	-2.29	-59.69	≤-22.29	PASS
			1000~26500	-2.29	-46.12	≤-22.29	PASS
		2441	Reference	1.17	1.17	---	PASS
			30~1000	1.17	-60.81	≤-18.83	PASS
			1000~26500	1.17	-46.52	≤-18.83	PASS
		2480	Reference	-1.89	-1.89	---	PASS
			30~1000	-1.89	-60.57	≤-21.89	PASS
			1000~26500	-1.89	-45.91	≤-21.89	PASS



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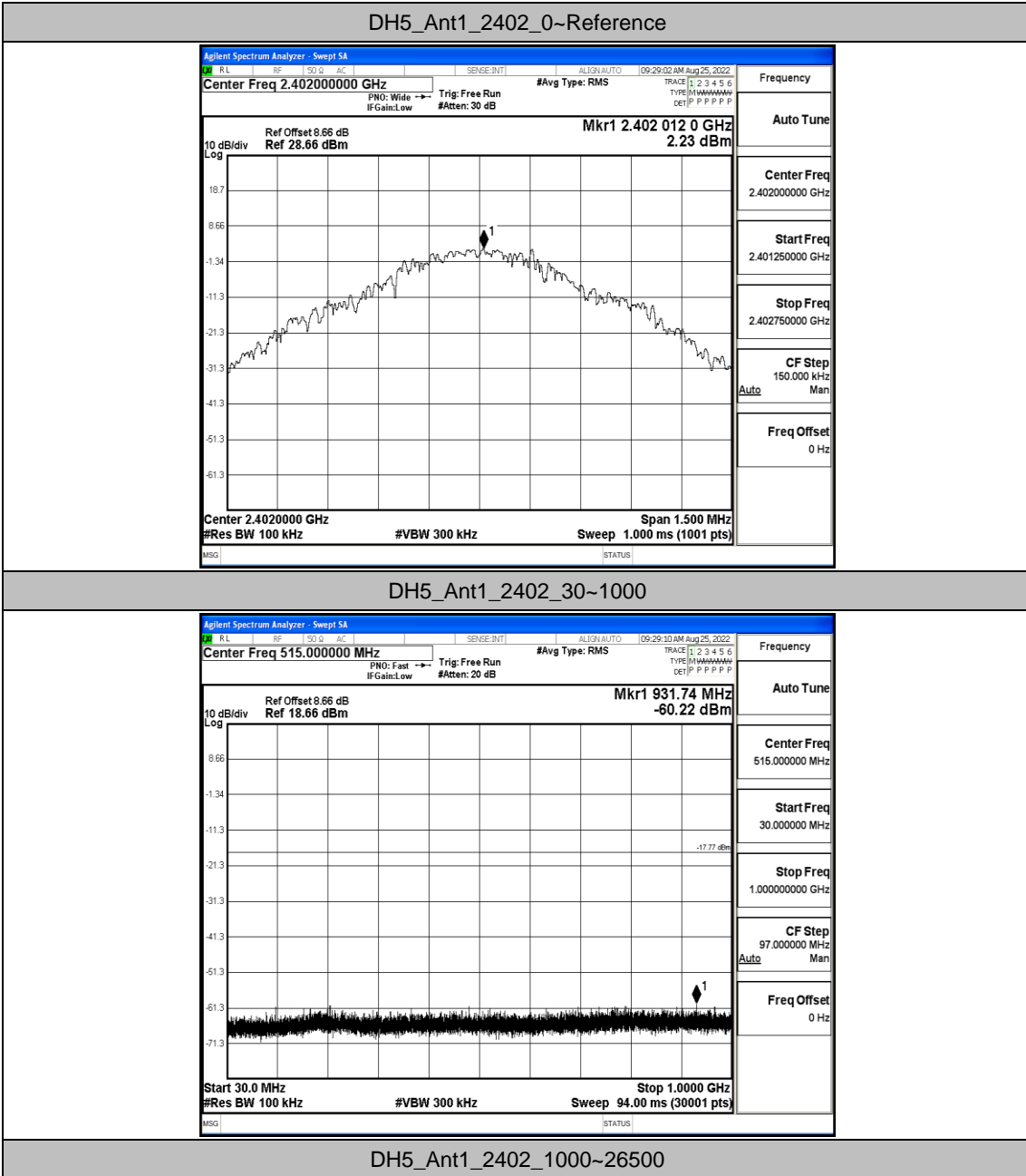
Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

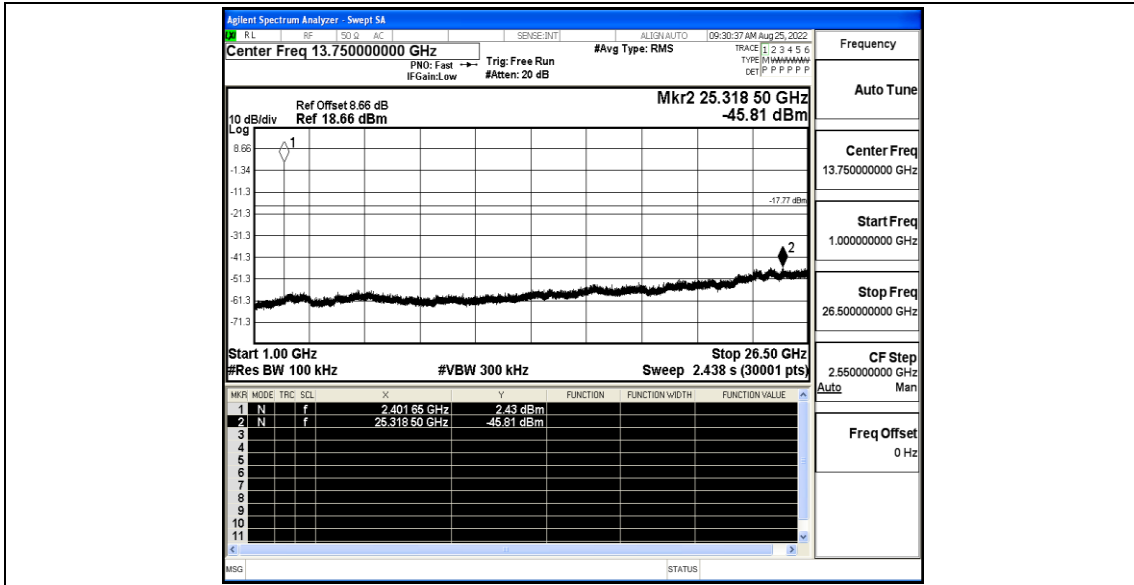
Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com

Scan code to check authenticity

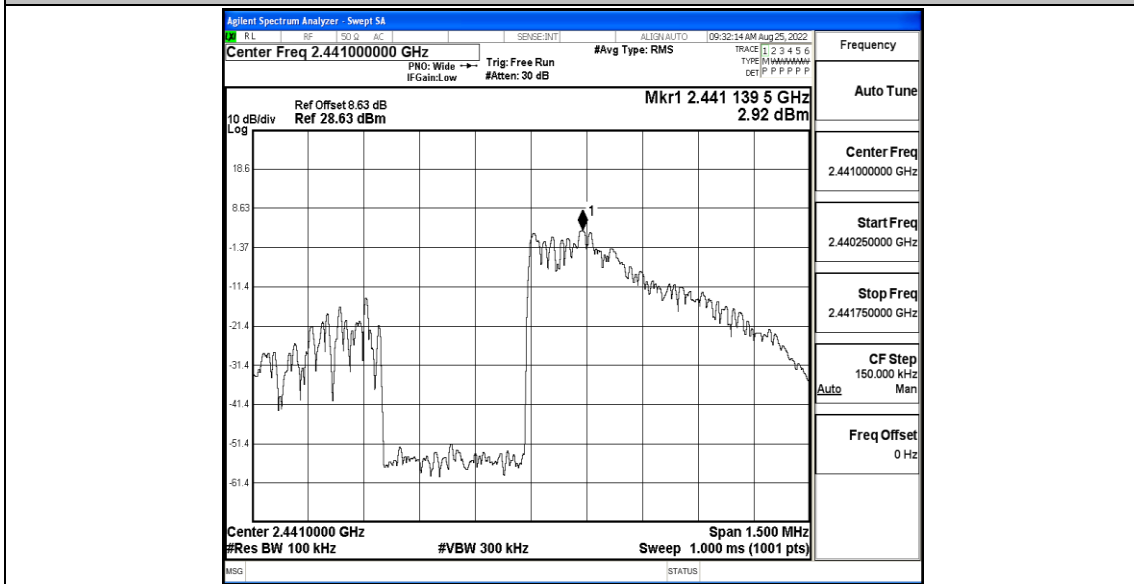


Test Graphs



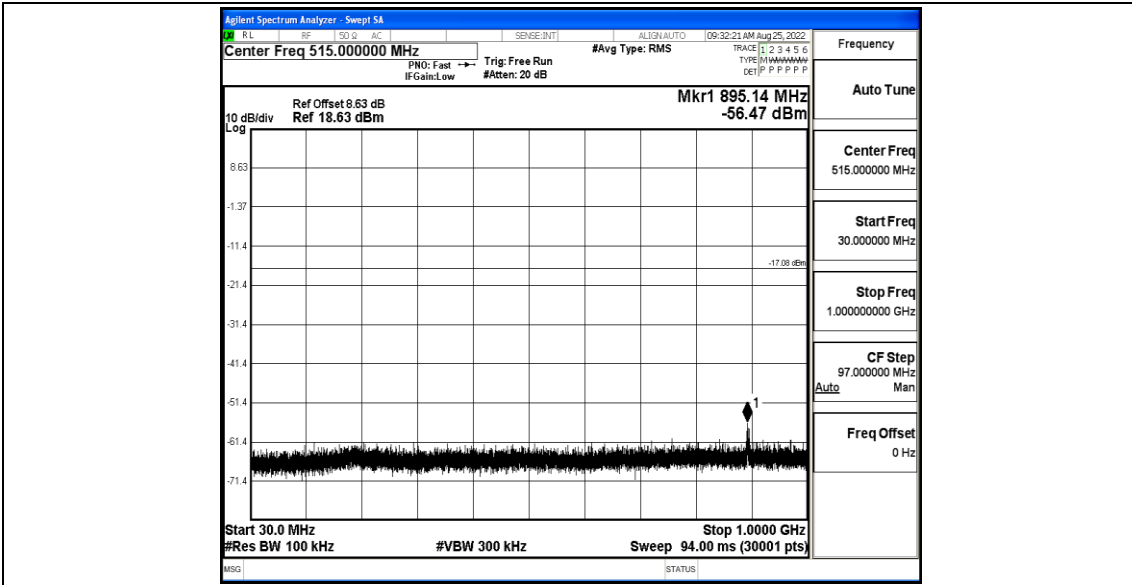


DH5_Ant1_2441_0~Reference

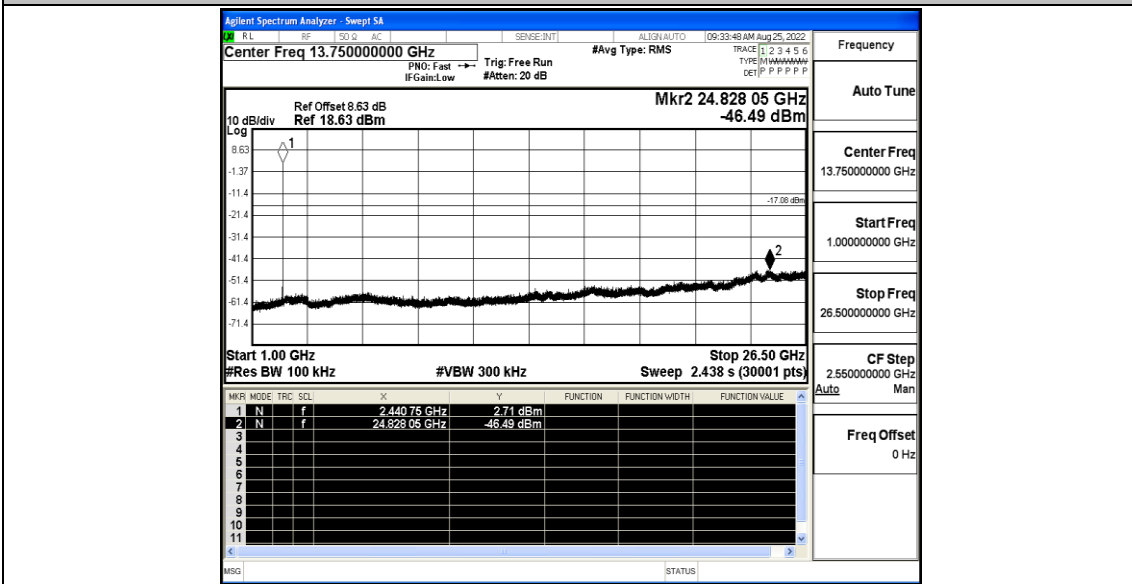


DH5_Ant1_2441_30~1000



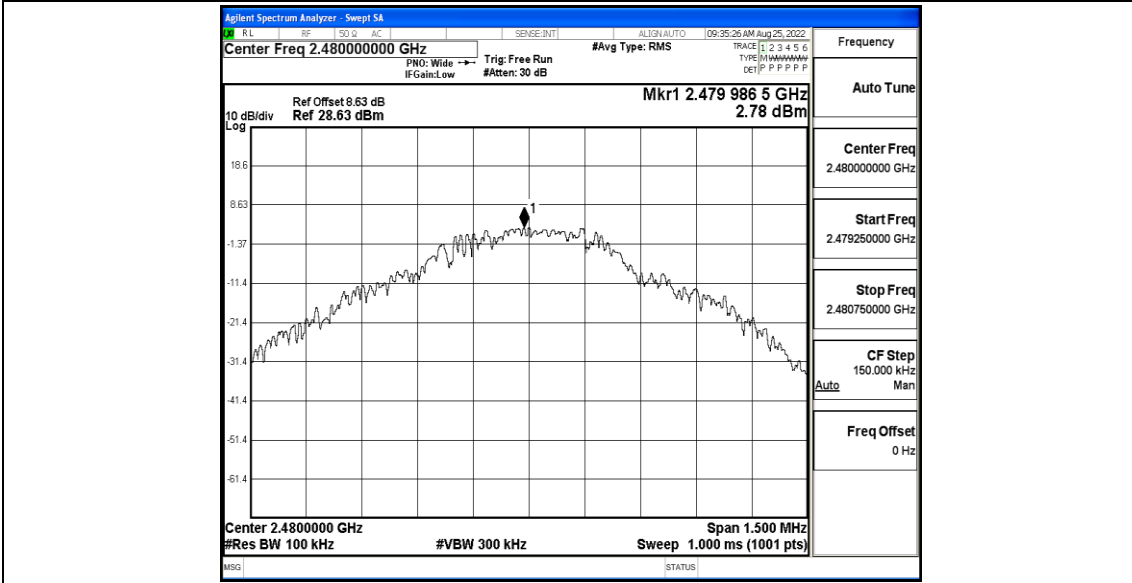


DH5_Ant1_2441_1000~26500

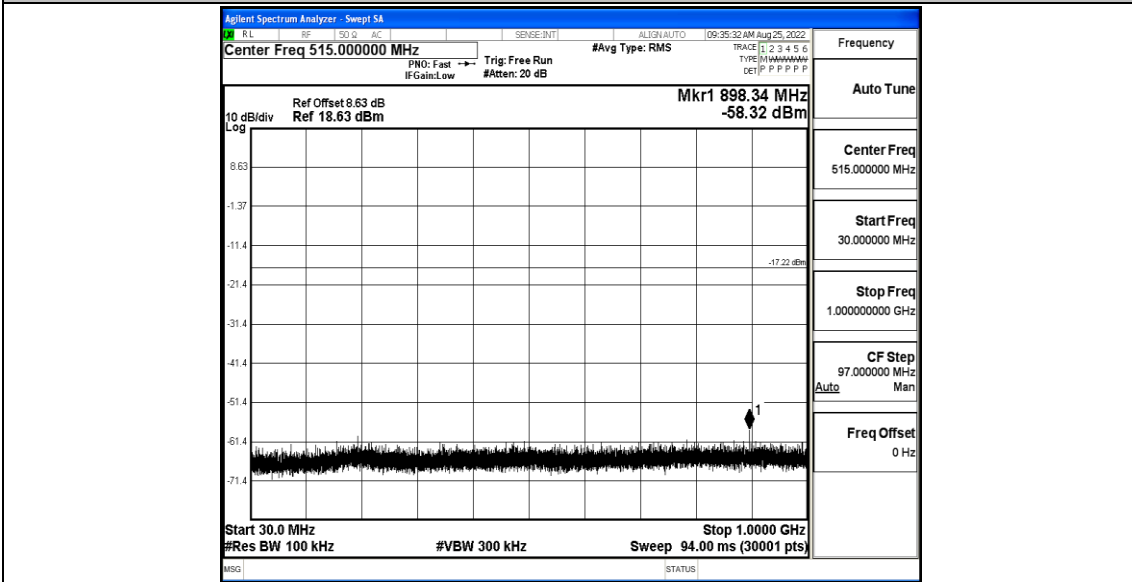


DH5_Ant1_2480_0~Reference



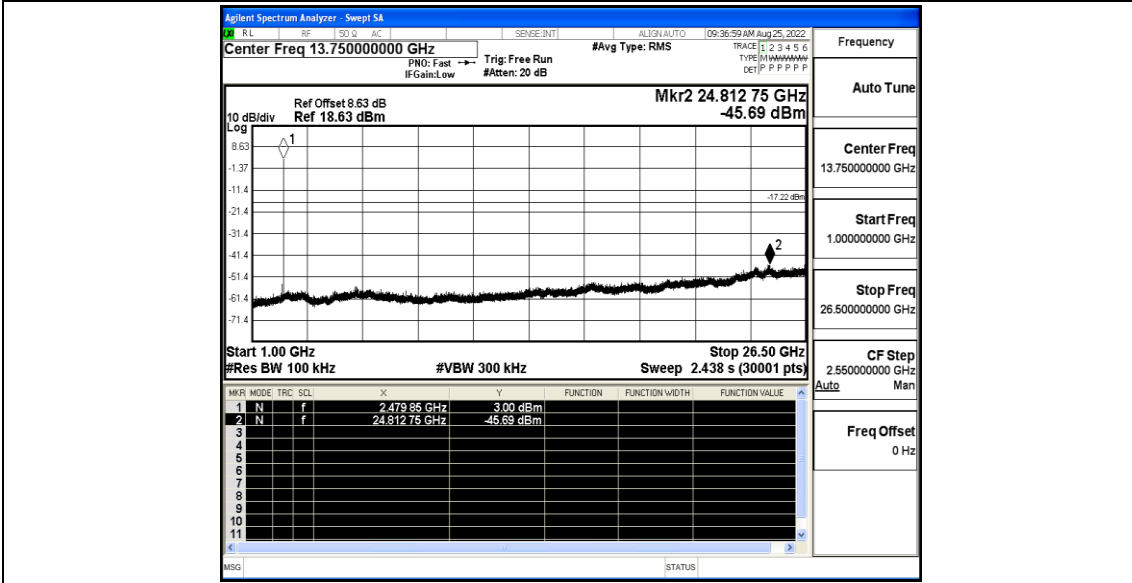


DH5_Ant1_2480_30~1000

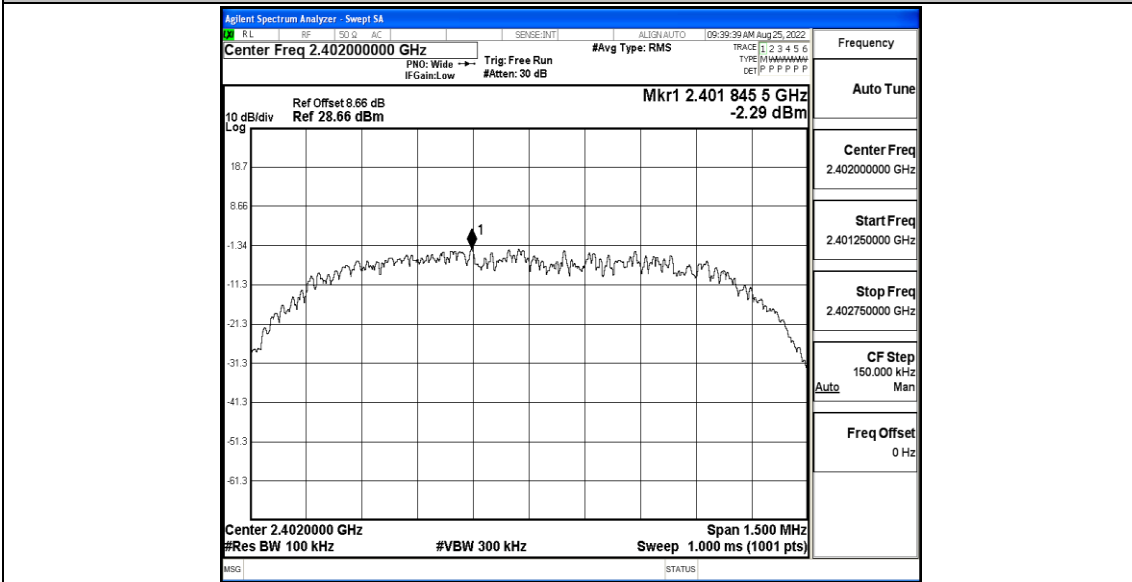


DH5_Ant1_2480_1000~26500



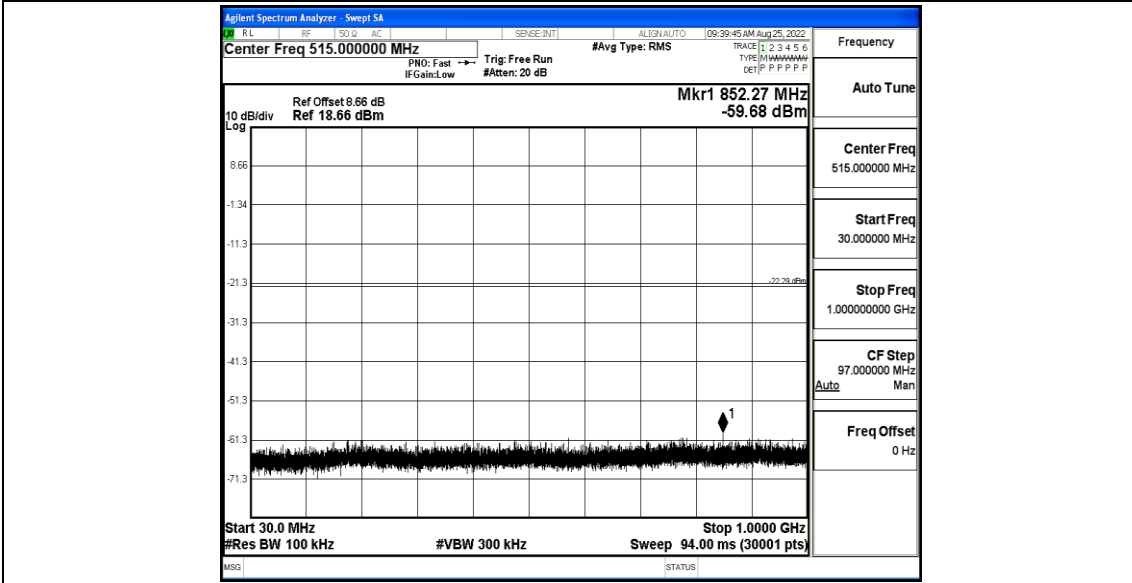


2DH5_Ant1_2402_0~Reference

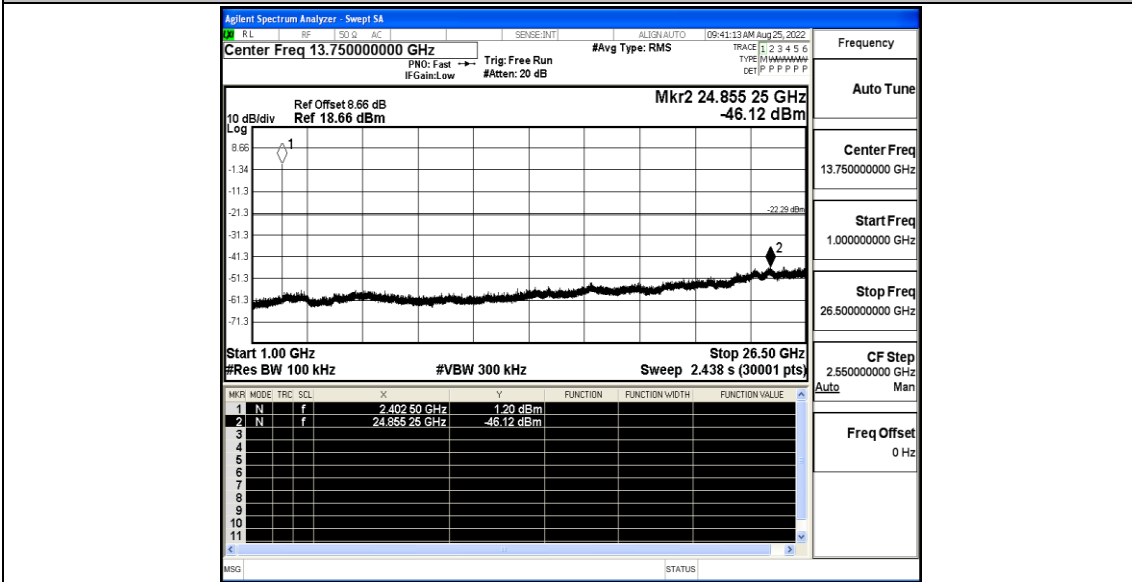


2DH5_Ant1_2402_30~1000



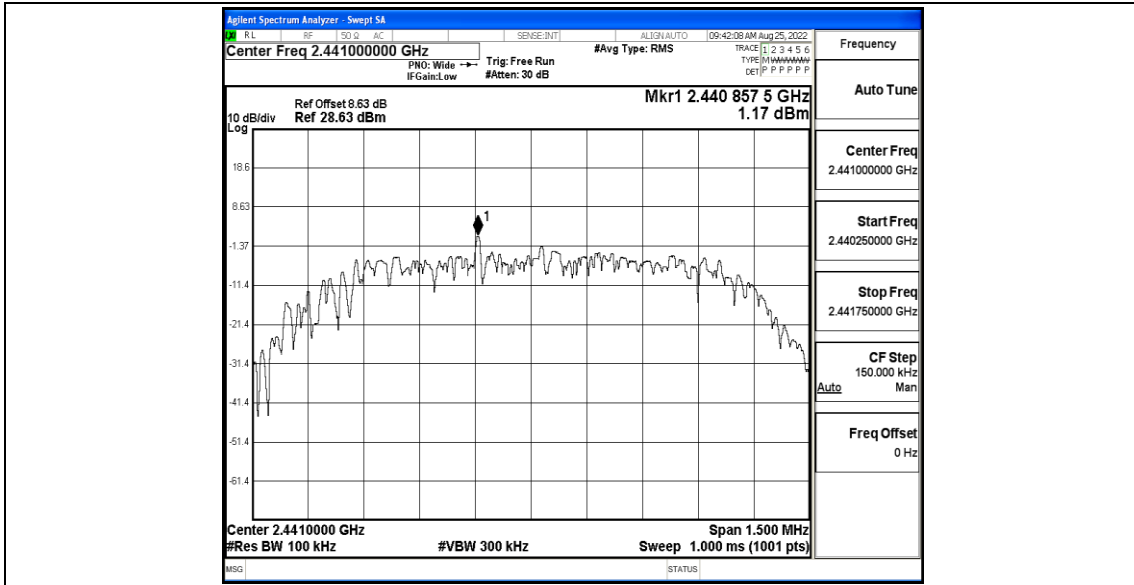


2DH5_Ant1_2402_1000~26500

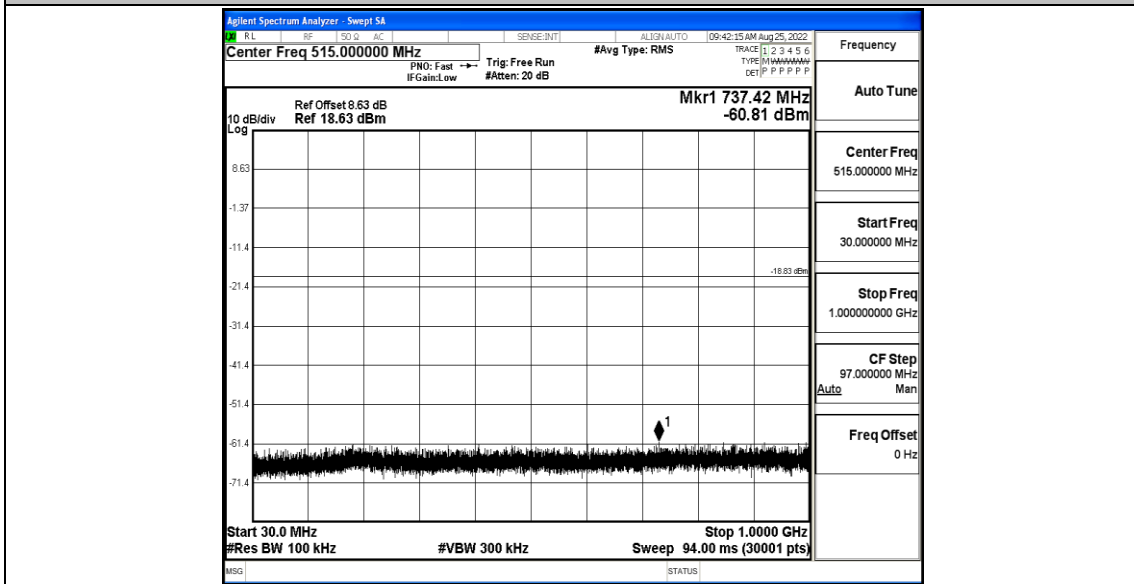


2DH5_Ant1_2441_0~Reference



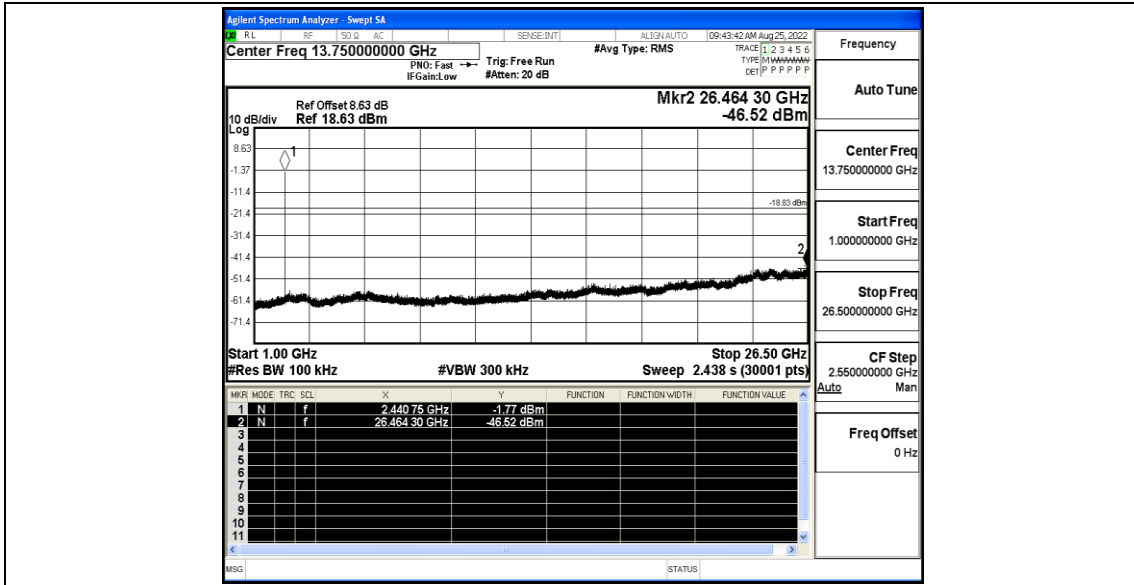


2DH5_Ant1_2441_30~1000

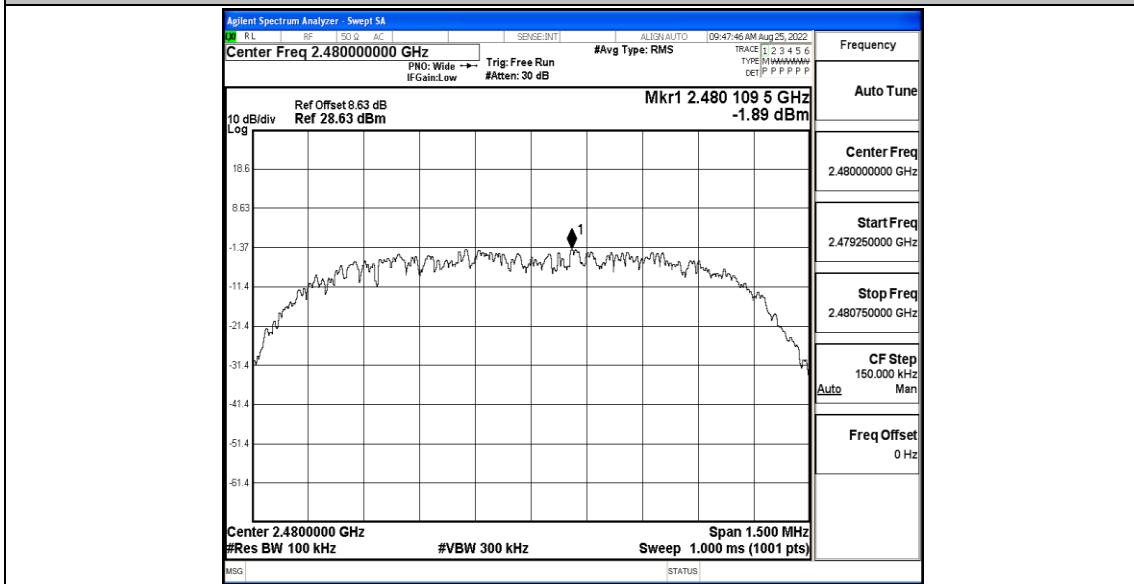


2DH5_Ant1_2441_1000~26500



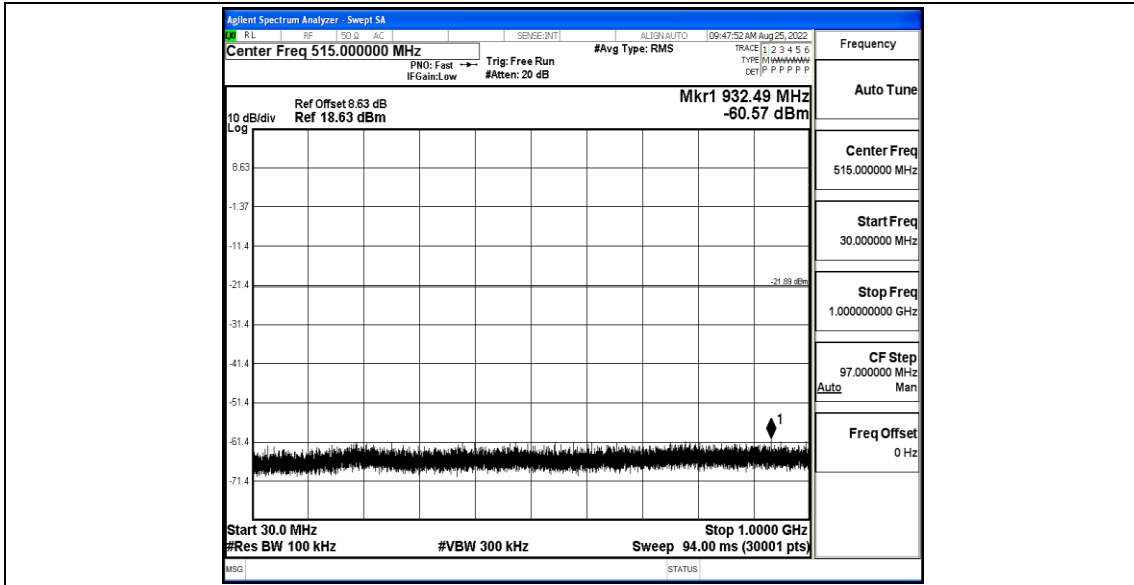


2DH5_Ant1_2480_0~Reference

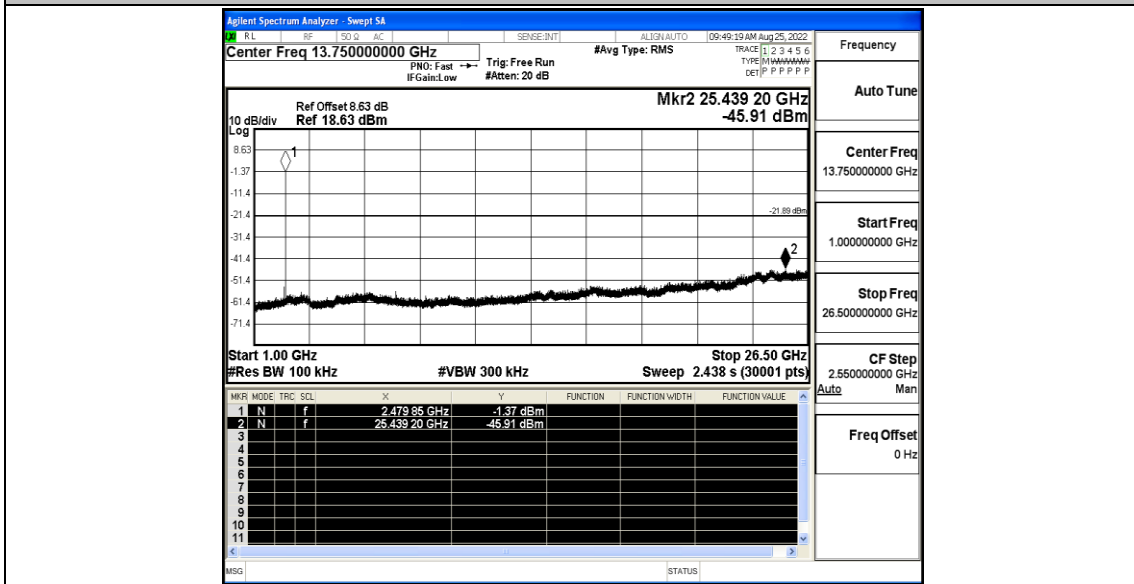


2DH5_Ant1_2480_30~1000





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	-58.05	≤-41.20	37.15	≤54	PASS		
				AV	2389.880	-57.38	≤-41.20	37.82	≤54	PASS		
				AV	2390.000	-57.38	≤-41.20	37.82	≤54	PASS		
				Peak	2310.000	-50.87	≤-21.20	44.33	≤74	PASS		
				Peak	2331.920	-48.6	≤-21.20	46.60	≤74	PASS		
				Peak	2390.000	-50.93	≤-21.20	44.27	≤74	PASS		
		High	2480	AV	2483.500	-53.67	≤-41.20	41.53	≤54	PASS		
				AV	2483.520	-53.67	≤-41.20	41.53	≤54	PASS		
				AV	2500.000	-57.01	≤-41.20	38.19	≤54	PASS		
				Peak	2483.500	-52.7	≤-21.20	42.50	≤74	PASS		
				Peak	2488.240	-48.7	≤-21.20	46.50	≤74	PASS		
				Peak	2500.000	-50.57	≤-21.20	44.63	≤74	PASS		
		Low	Hop_2402	Peak	2310.000	-49.71	≤-21.20	45.49	≤74	PASS		
				Peak	2361.530	-47.23	≤-21.20	47.97	≤74	PASS		
				Peak	2390.000	-49.07	≤-21.20	46.13	≤74	PASS		
		High	Hop_2480	Peak	2483.500	-48.68	≤-21.20	46.52	≤74	PASS		
				Peak	2497.120	-46.92	≤-21.20	48.28	≤74	PASS		
				Peak	2500.000	-48.75	≤-21.20	46.45	≤74	PASS		
		2DH5	Ant1	Low	2402	AV	2310.000	-58.05	≤-41.20	37.15	≤54	PASS
						AV	2389.355	-57.41	≤-41.20	37.79	≤54	PASS
						AV	2390.000	-57.49	≤-41.20	37.71	≤54	PASS
						Peak	2310.000	-53.37	≤-21.20	41.83	≤74	PASS
						Peak	2389.775	-48.95	≤-21.20	46.25	≤74	PASS
						Peak	2390.000	-51.47	≤-21.20	43.73	≤74	PASS
High	2480			AV	2483.500	-53.11	≤-41.20	42.09	≤54	PASS		
				AV	2483.520	-53.11	≤-41.20	42.09	≤54	PASS		
				AV	2500.000	-57.13	≤-41.20	38.07	≤54	PASS		
				Peak	2483.500	-49.28	≤-21.20	45.92	≤74	PASS		
				Peak	2489.760	-48.08	≤-21.20	47.12	≤74	PASS		
				Peak	2500.000	-51.19	≤-21.20	44.01	≤74	PASS		
Low	Hop_2402			Peak	2310.000	-50.16	≤-21.20	45.04	≤74	PASS		
				Peak	2372.345	-47	≤-21.20	48.20	≤74	PASS		
				Peak	2390.000	-49.39	≤-21.20	45.81	≤74	PASS		
High	Hop_24			Peak	2483.500	-48.7	≤-21.20	46.50	≤74	PASS		





			80	Peak	2486.960	-46.4	≤-21.20	48.80	≤74	PASS
				Peak	2500.000	-49.64	≤-21.20	45.56	≤74	PASS

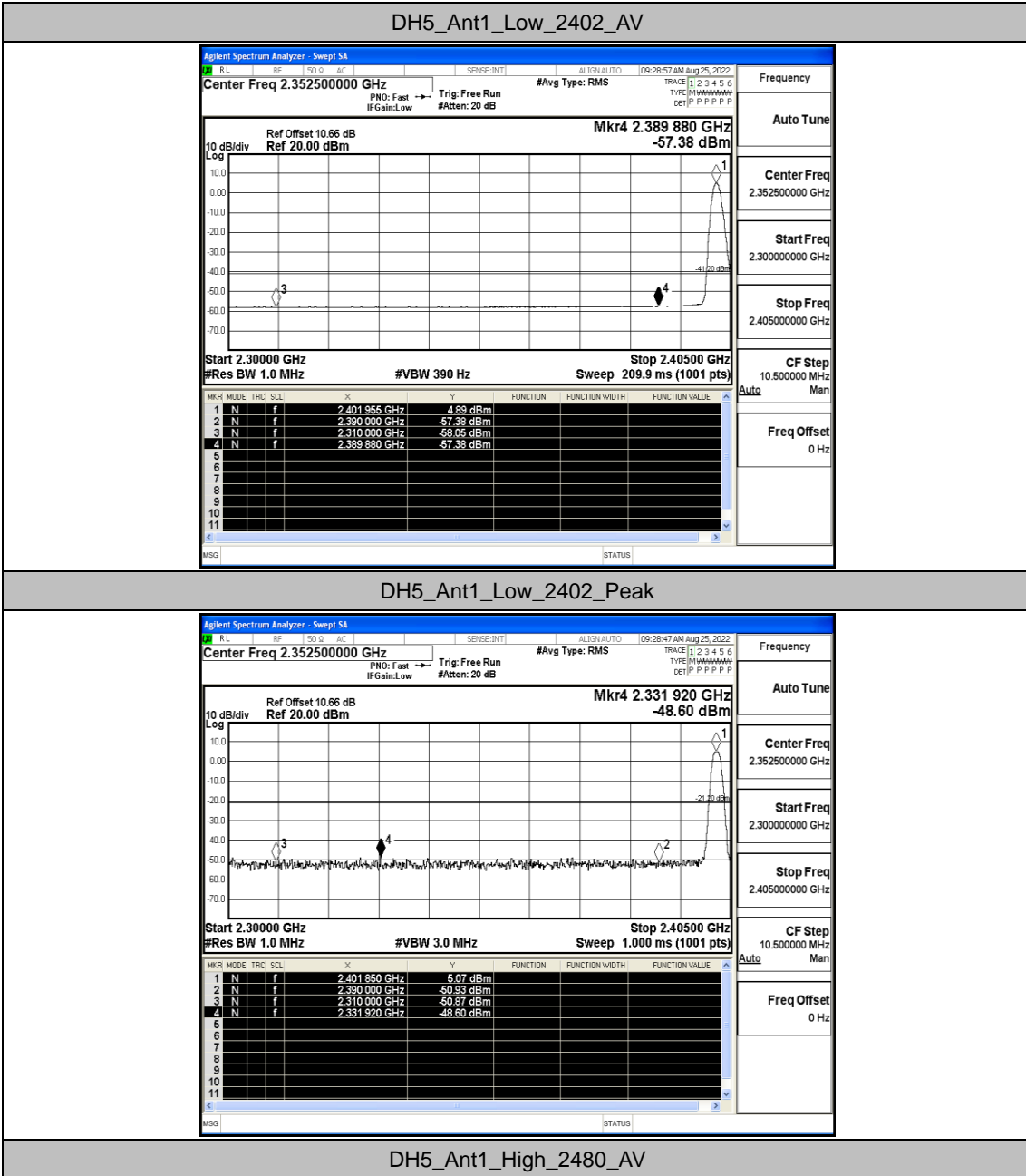
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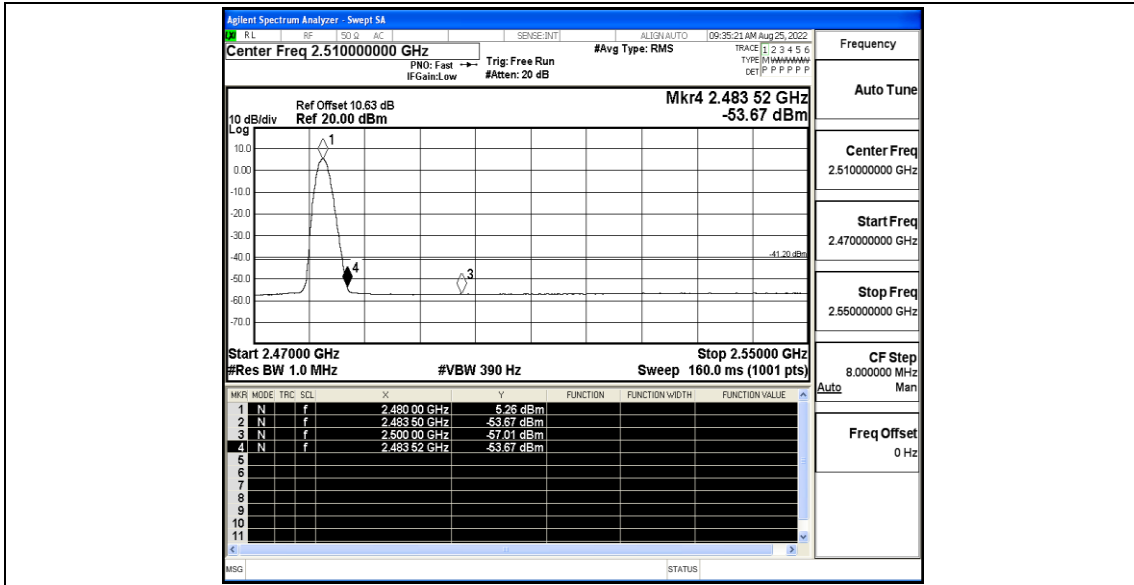
1. The Antenna Gain is compensated in the graph.
2. The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.



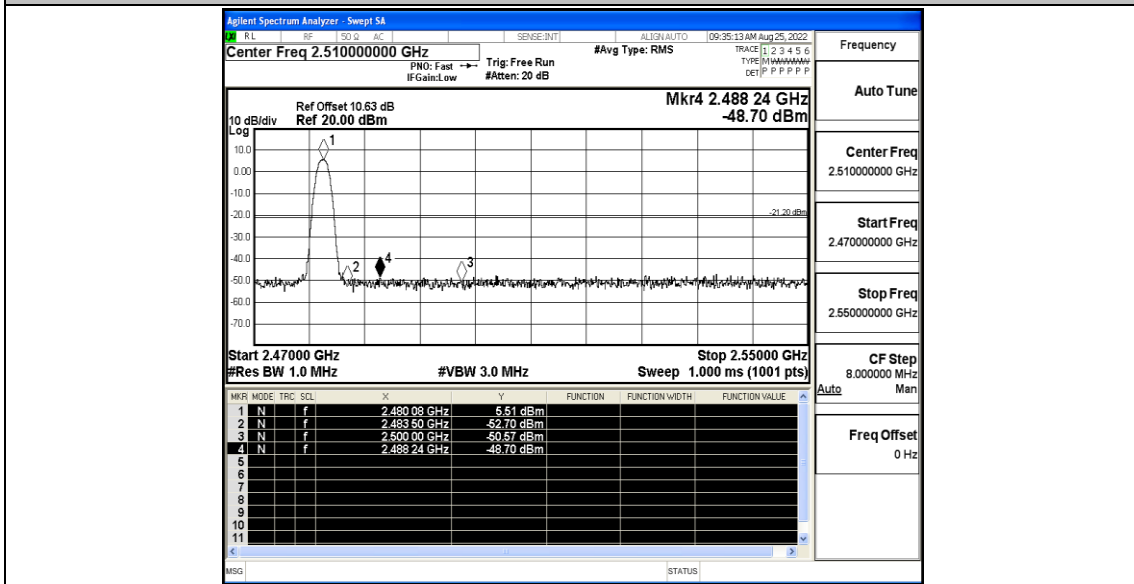


Test Graphs



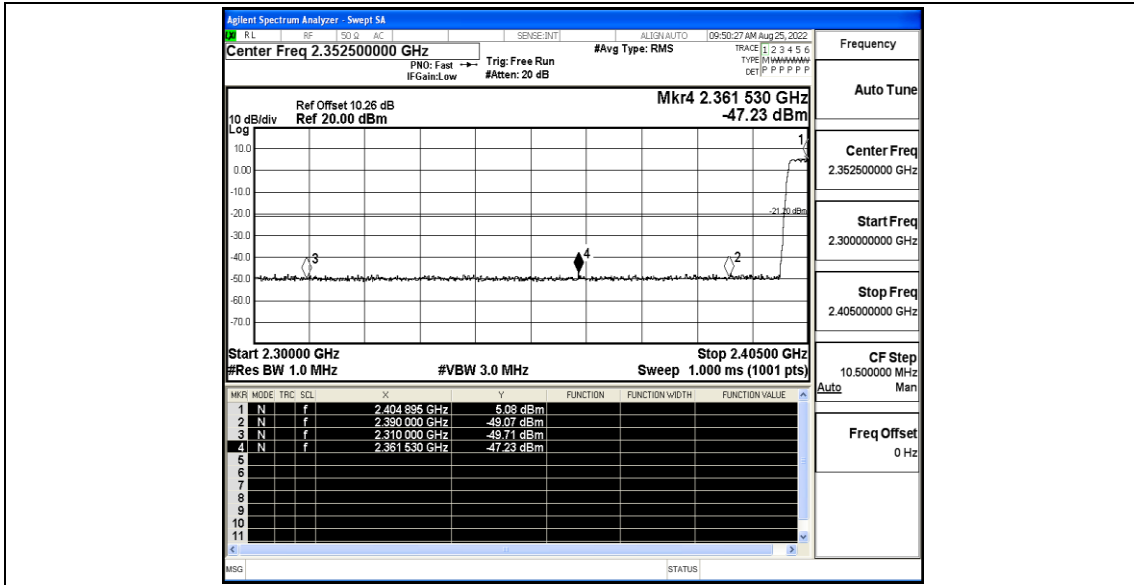


DH5_Ant1_High_2480_Peak

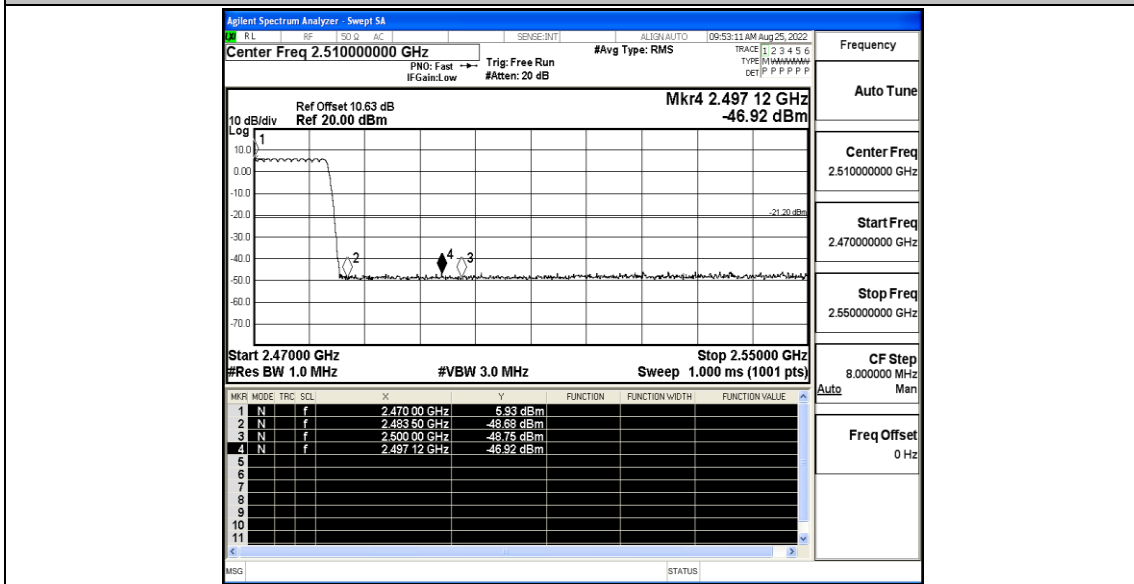


DH5_Ant1_Low_Hop_2402_Peak



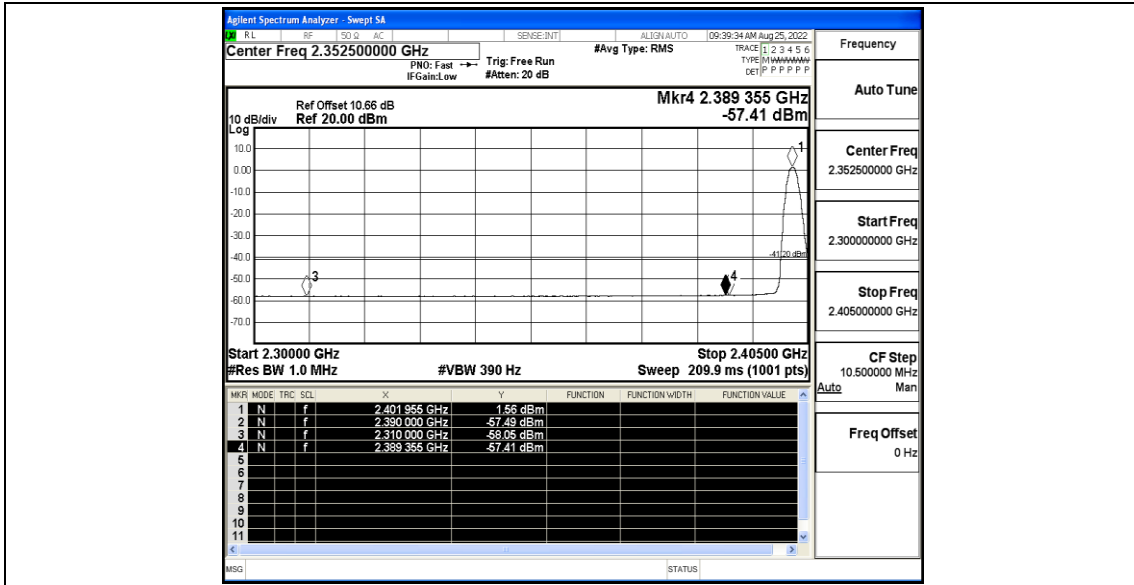


DH5_Ant1_High_Hop_2480_Peak

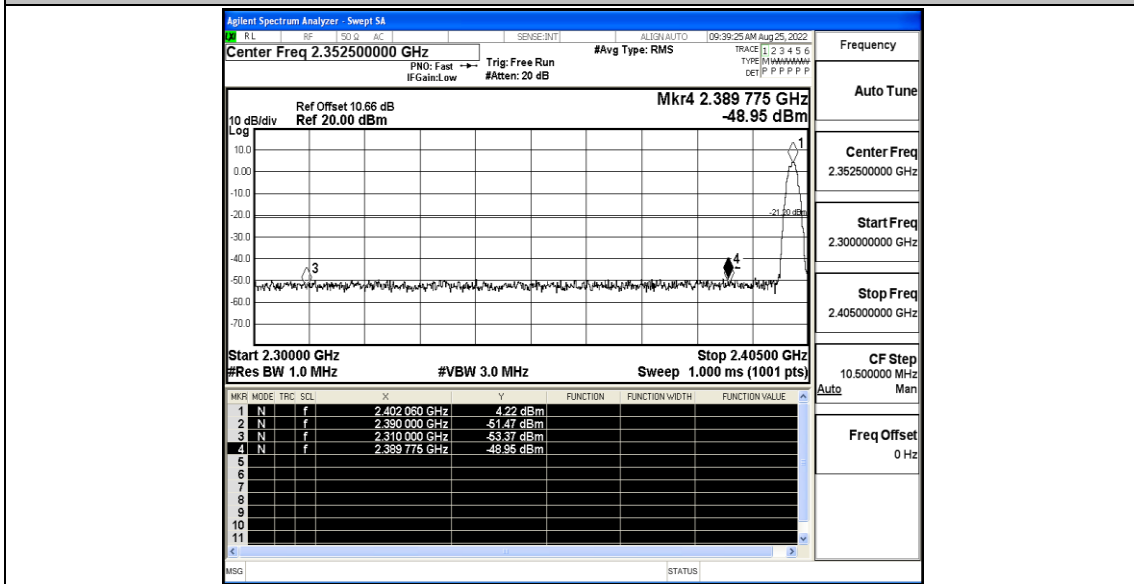


2DH5_Ant1_Low_2402_AV



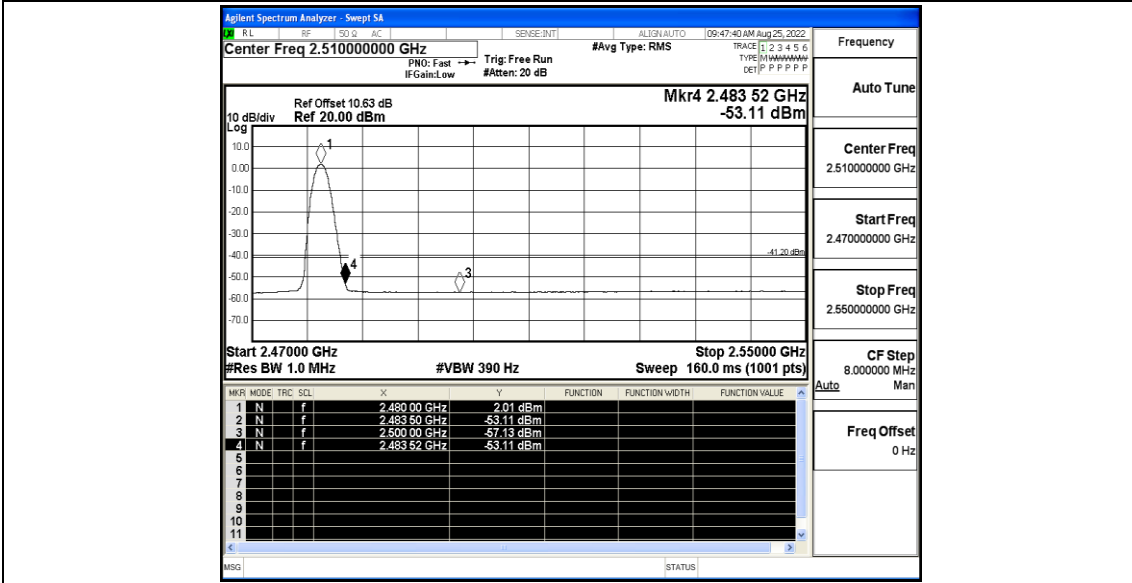


2DH5_Ant1_Low_2402_Peak

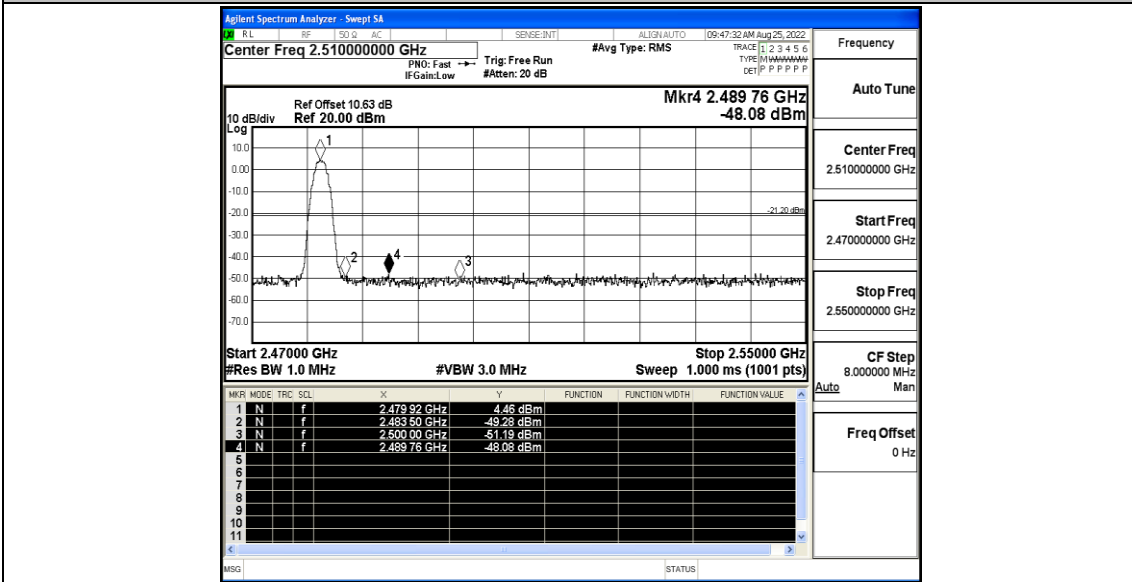


2DH5_Ant1_High_2480_AV



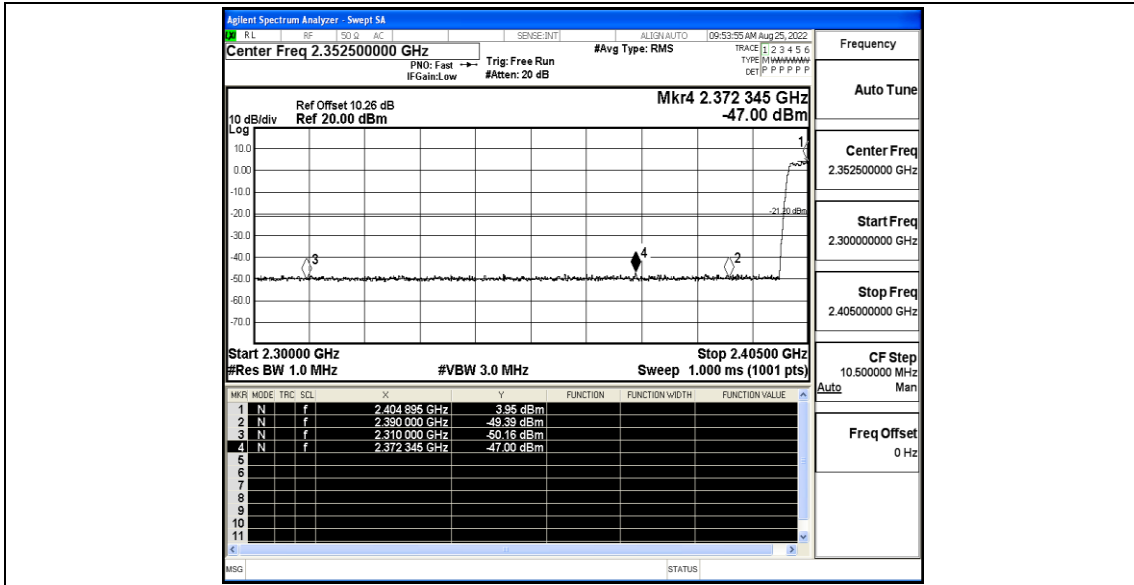


2DH5_Ant1_High_2480_Peak



2DH5_Ant1_Low_Hop_2402_Peak





2DH5_Ant1_High_Hop_2480_Peak

