

Appendix A

RF Test Data for BT(BDR/EDR) (Conducted Measurement)

Product Name: Bluetooth Transmitter

Trade Mark: **AUGUST®**

Test Model: MR270B-HD

FCC ID: 2A4RAMR270B-HD

Environmental Conditions

Temperature:	23.8℃
Relative Humidity:	58%
ATM Pressure:	100.0 kPa
Test Engineer:	Nancy Li
Supervised by:	Hugo Chen

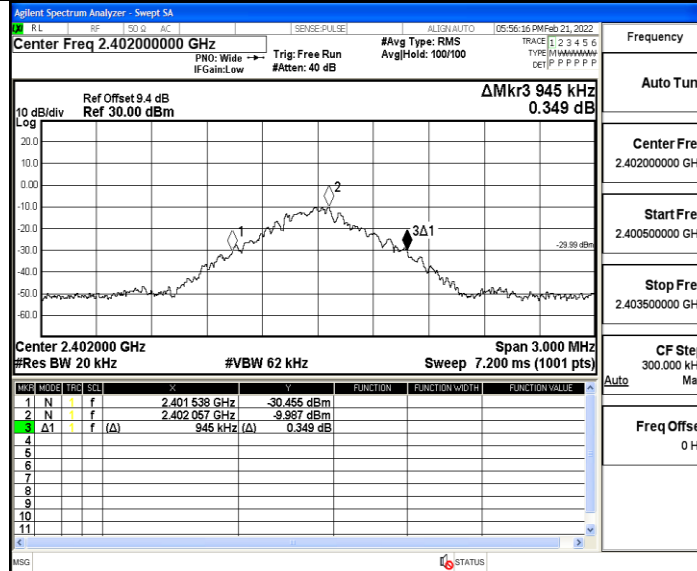
Appendix A: 20dB Emission Bandwidth

Test Result

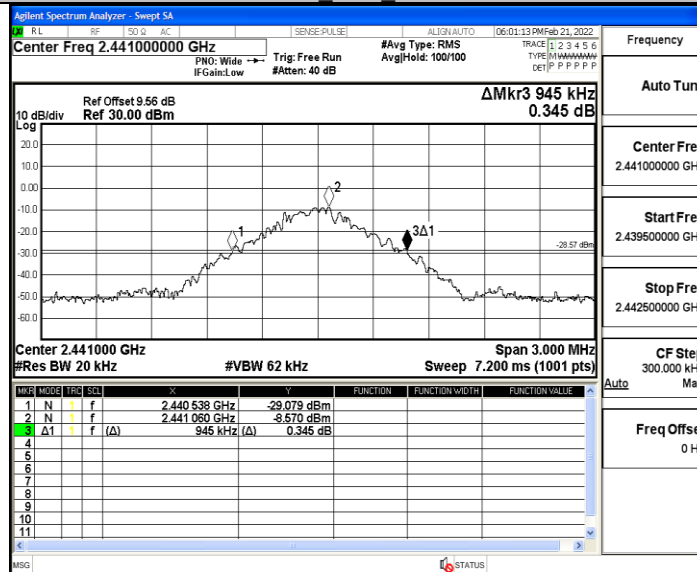
TestMode	Antenna	Channel	20db EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.945	2401.538	2402.483	---	PASS
		2441	0.945	2440.538	2441.483	---	PASS
		2480	0.939	2479.541	2480.480	---	PASS
2DH5	Ant1	2402	1.317	2401.337	2402.654	---	PASS
		2441	1.311	2440.343	2441.654	---	PASS
		2480	1.305	2479.343	2480.648	---	PASS
3DH5	Ant1	2402	1.302	2401.349	2402.651	---	PASS
		2441	1.275	2440.364	2441.639	---	PASS
		2480	1.341	2479.331	2480.672	---	PASS

Test Graphs

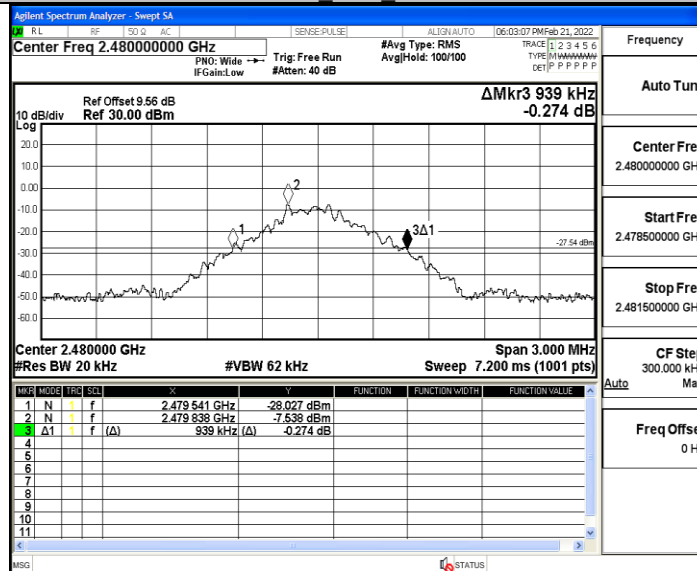
DH5 Ant1 2402



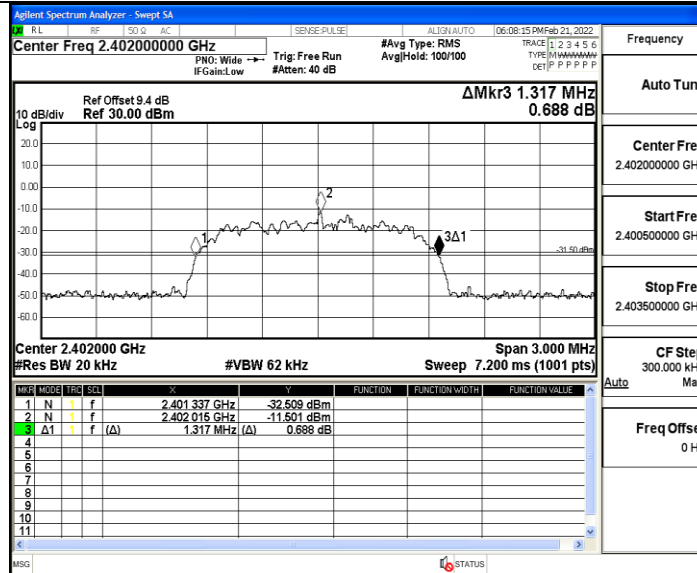
DH5 Ant1 2441



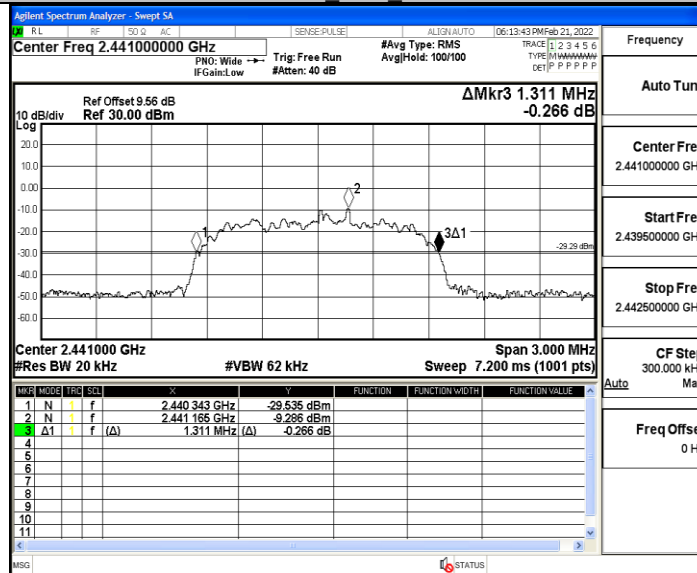
DH5 Ant1 2480



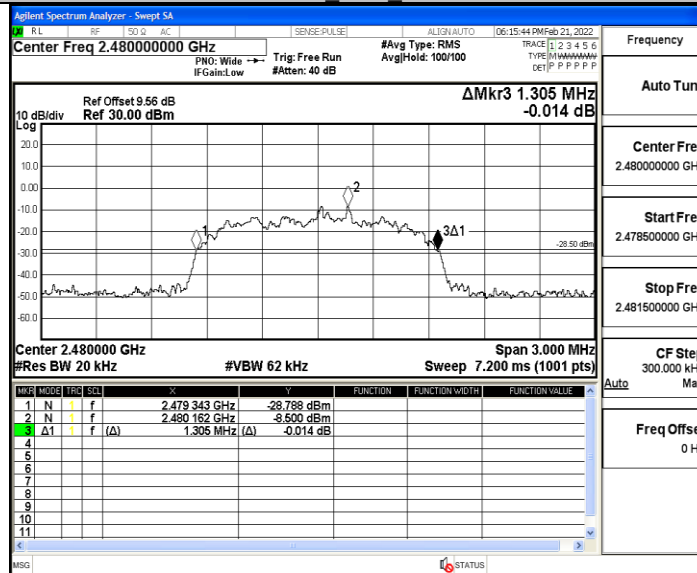
2DH5 Ant1 2402



2DH5 Ant1 2441



2DH5 Ant1 2480



3DH5 Ant1 2402



Appendix B: Occupied Channel Bandwidth

Test Result

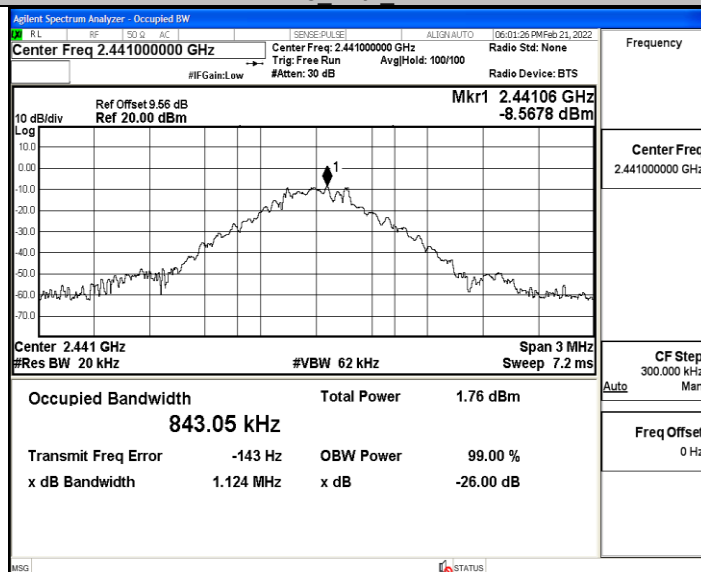
TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.85052	2401.571	2402.422	---	PASS
		2441	0.84305	2440.578	2441.421	---	PASS
		2480	0.84780	2479.573	2480.421	---	PASS
2DH5	Ant1	2402	1.1881	2401.405	2402.593	---	PASS
		2441	1.1916	2440.404	2441.595	---	PASS
		2480	1.1875	2479.405	2480.593	---	PASS
3DH5	Ant1	2402	1.1947	2401.397	2402.591	---	PASS
		2441	1.1968	2440.401	2441.598	---	PASS
		2480	1.2008	2479.398	2480.598	---	PASS

Test Graphs

DH5_Ant1_2402



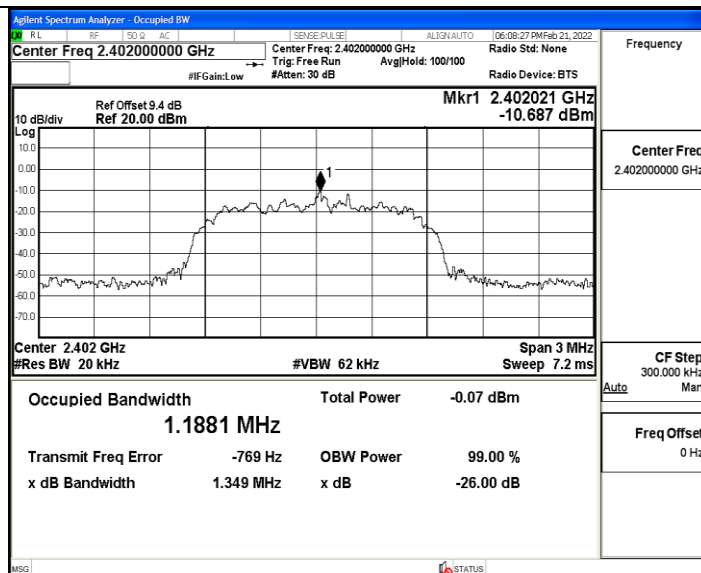
DH5_Ant1_2441



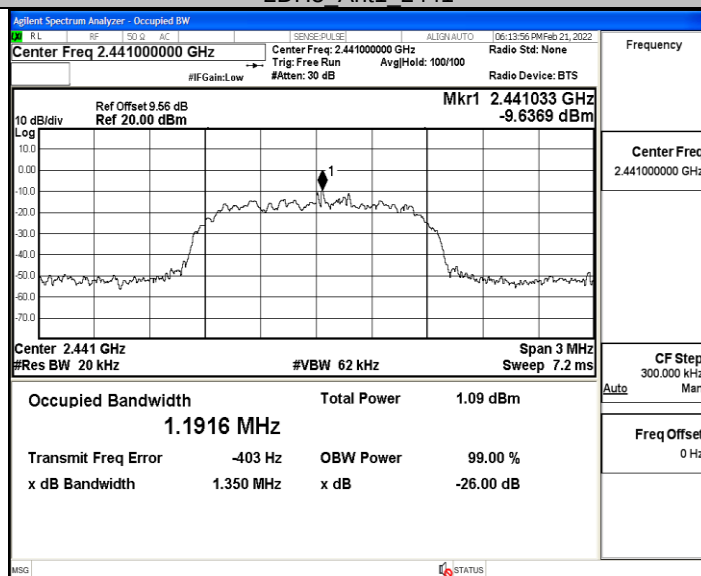
DH5_Ant1_2480



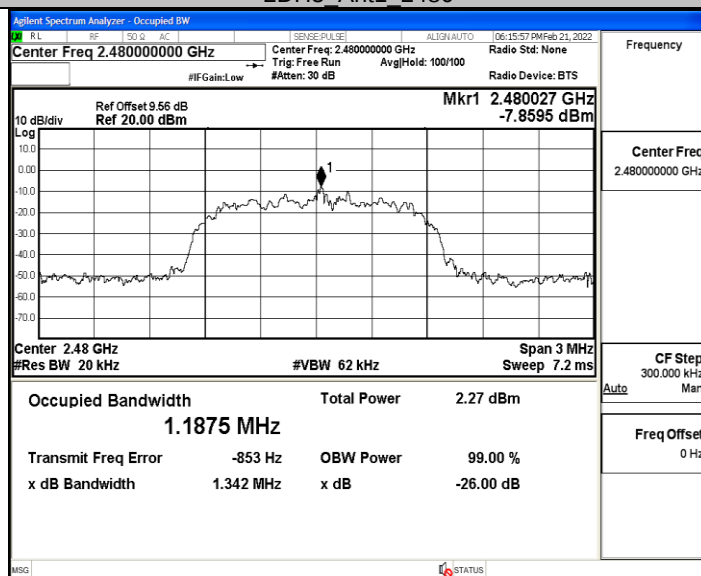
2DH5_Ant1_2402



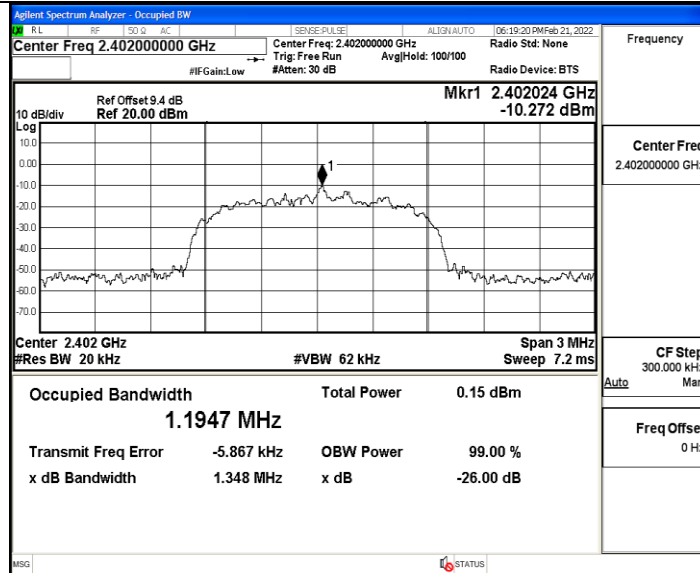
2DH5_Ant1_2441



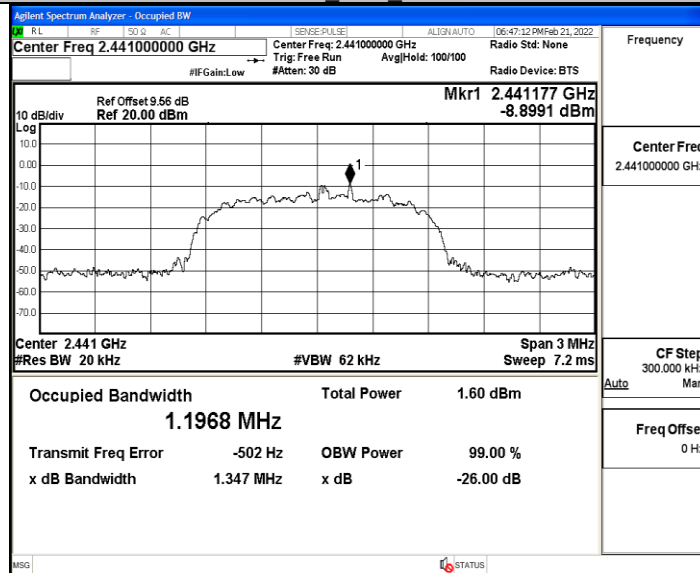
2DH5_Ant1_2480



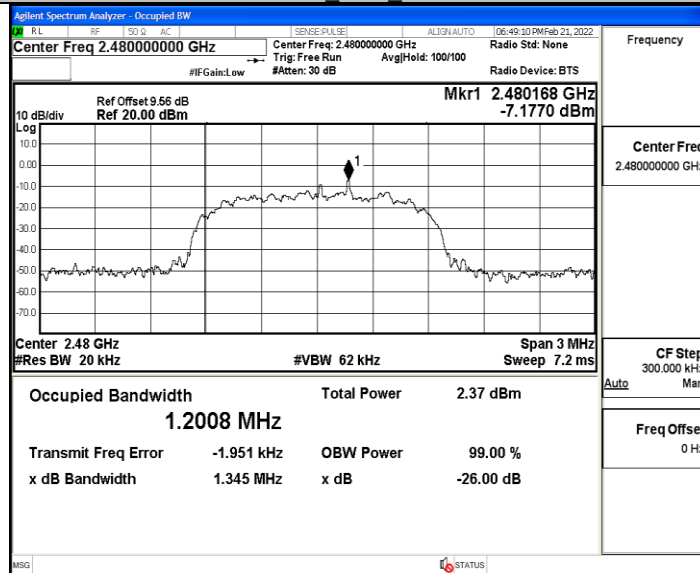
3DH5_Ant1_2402



3DH5_Ant1_2441



3DH5_Ant1_2480



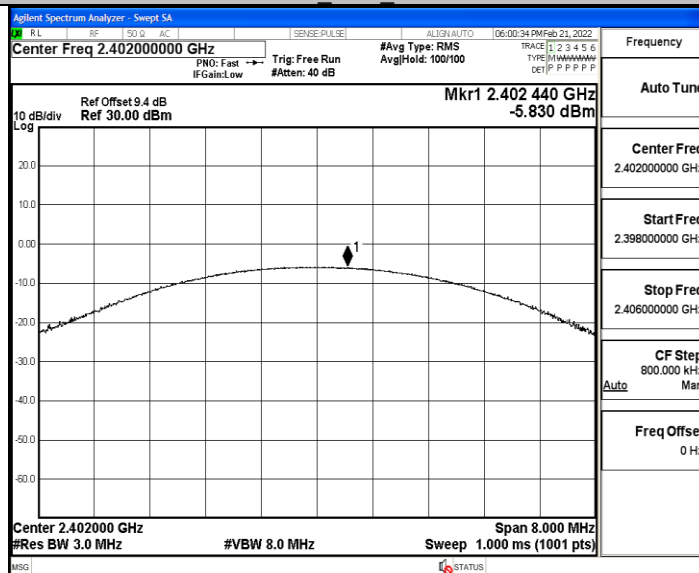
Appendix C: Maximum conducted output power

Test Result

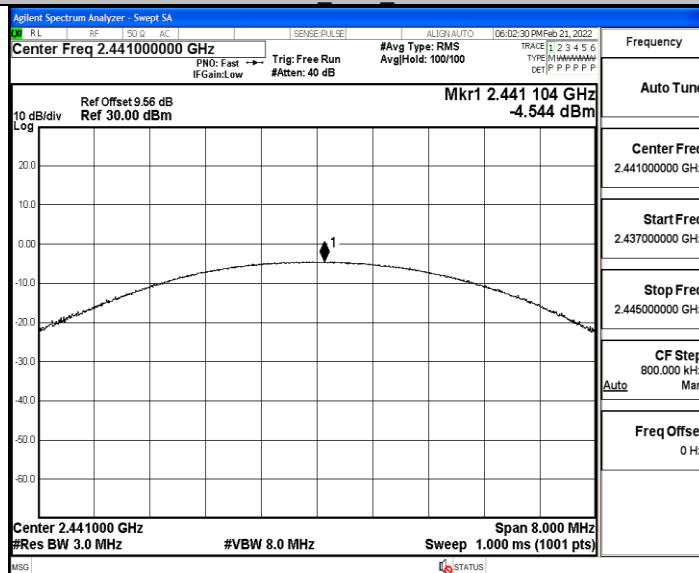
TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
DH5	Ant1	2402	-5.83	<=30.00	PASS
		2441	-4.54	<=30.00	PASS
		2480	-3.61	<=30.00	PASS
2DH5	Ant1	2402	-4.03	<=20.97	PASS
		2441	-2.74	<=20.97	PASS
		2480	-1.72	<=20.97	PASS
3DH5	Ant1	2402	-3.84	<=20.97	PASS
		2441	-2.2	<=20.97	PASS
		2480	-1.08	<=20.97	PASS

Test Graphs

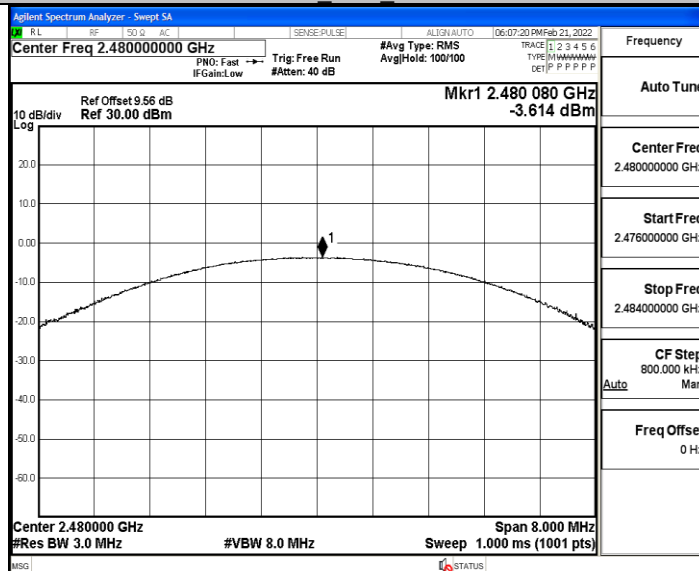
DH5_Ant1_2402



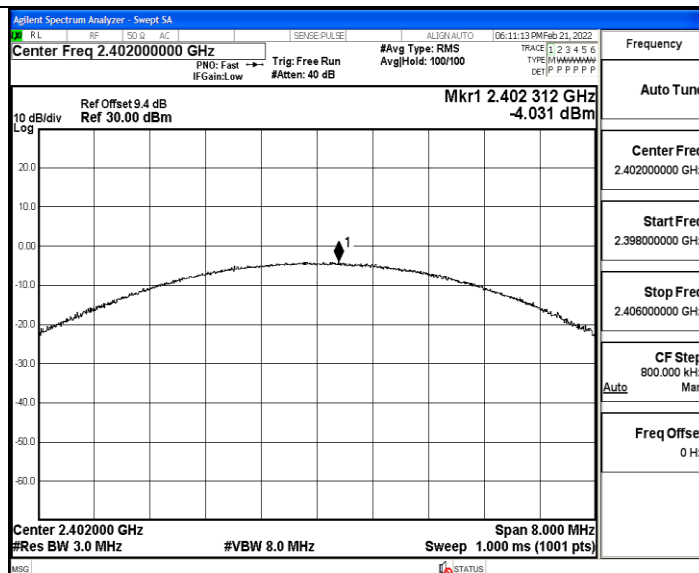
DH5_Ant1_2441



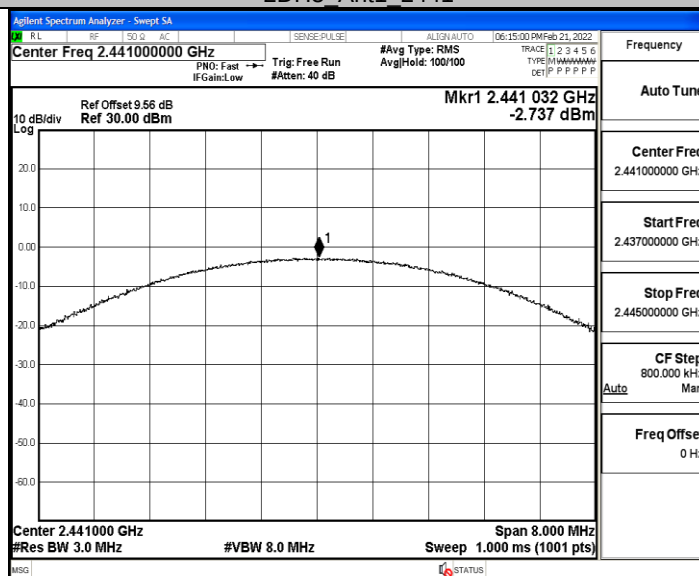
DH5_Ant1_2480



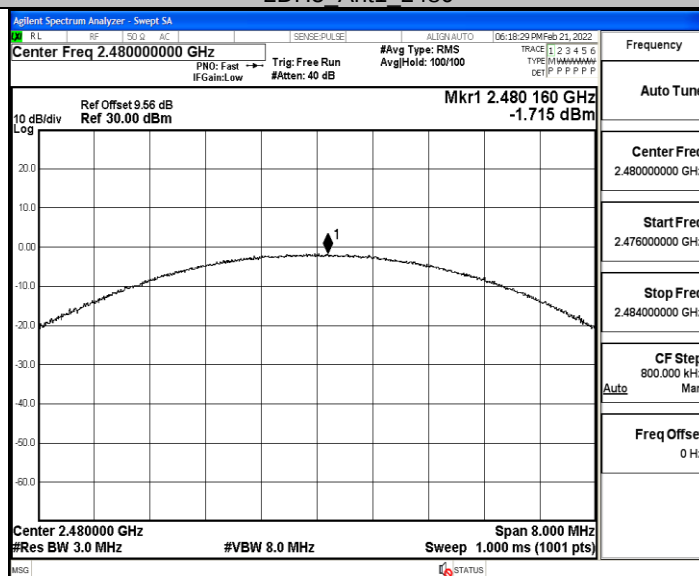
2DH5_Ant1_2402



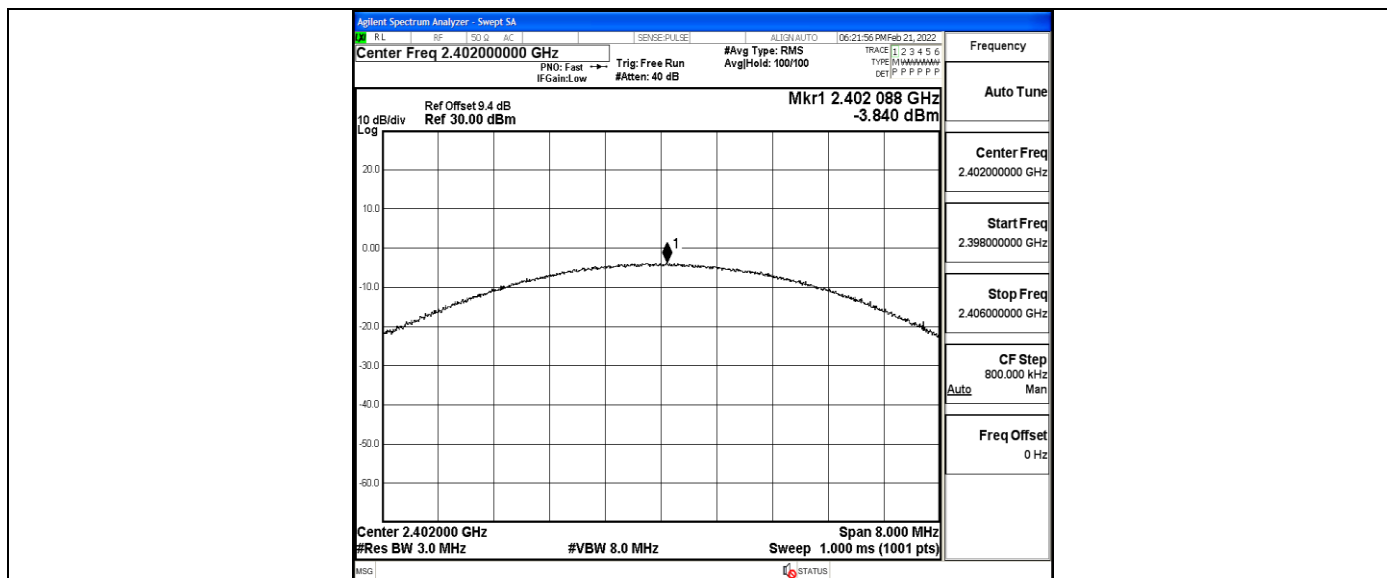
2DH5_Ant1_2441



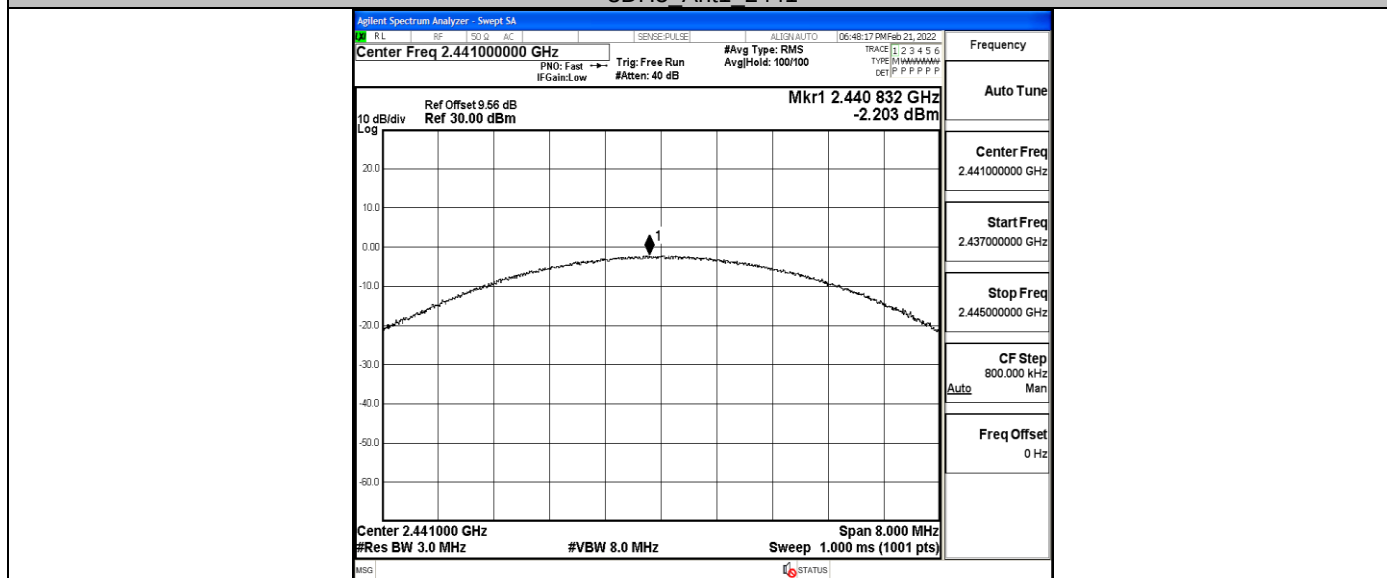
2DH5_Ant1_2480



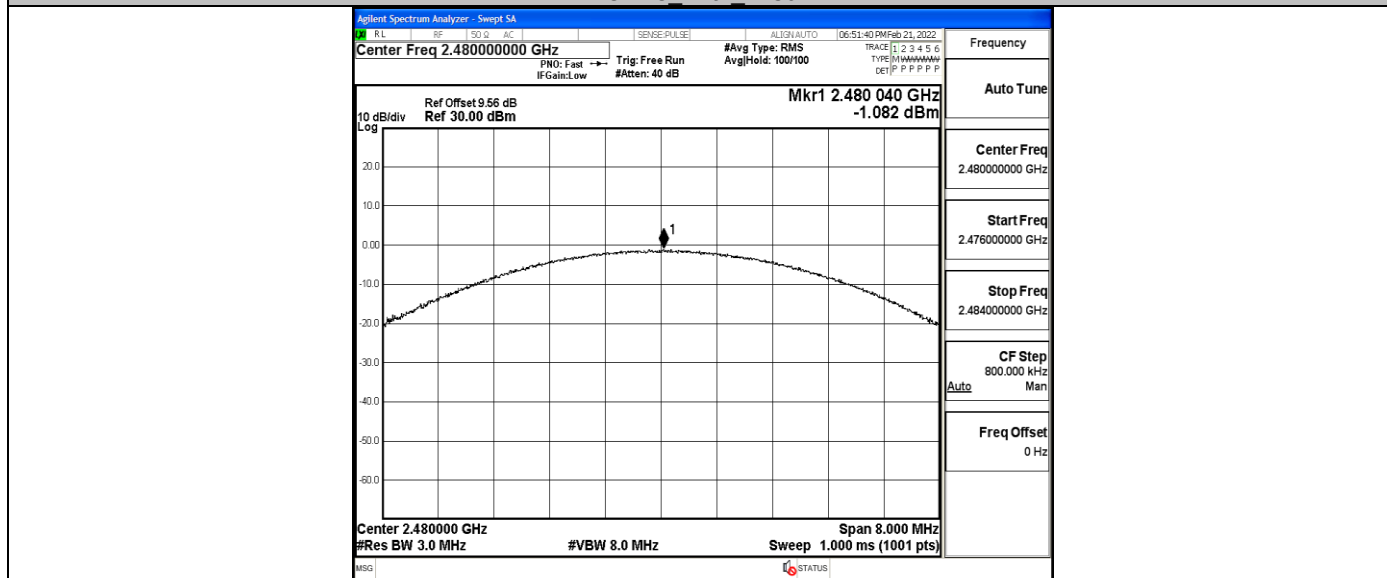
3DH5_Ant1_2402



3DH5_Ant1_2441



3DH5_Ant1_2480



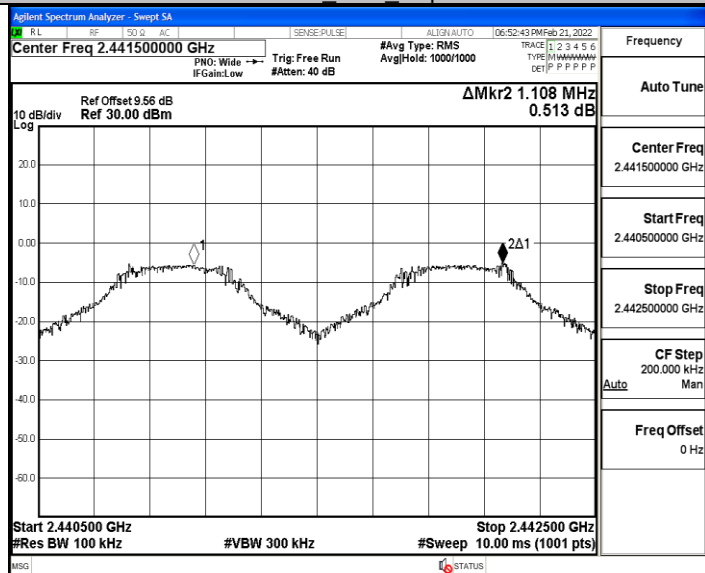
Appendix D: Carrier frequency separation

Test Result

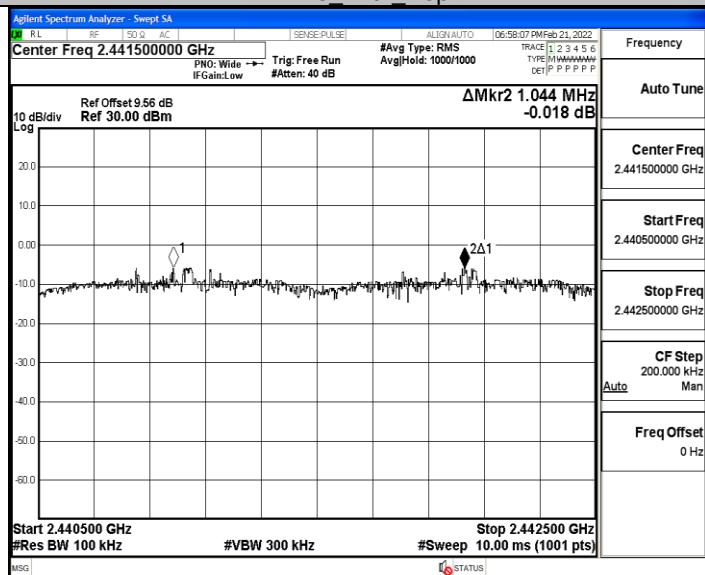
TestMode	Antenna	Channel	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	1.108	≥ 0.942	PASS
2DH5	Ant1	Hop	1.044	≥ 0.878	PASS
3DH5	Ant1	Hop	1.002	≥ 0.876	PASS

Test Graphs

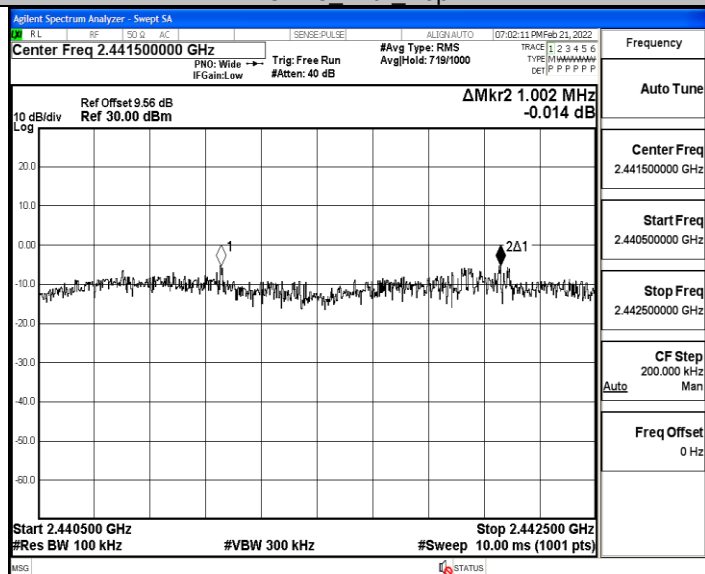
DH5_Ant1_Hop



2DH5_Ant1_Hop



3DH5_Ant1_Hop

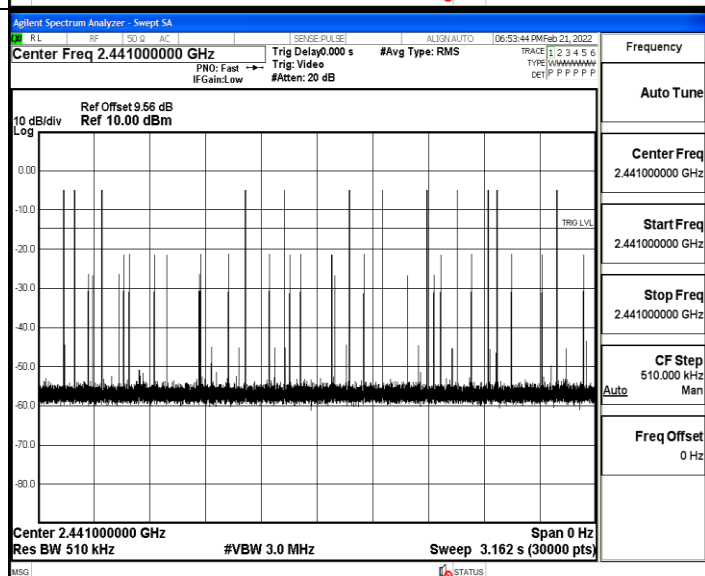


Appendix E: Time of occupancy

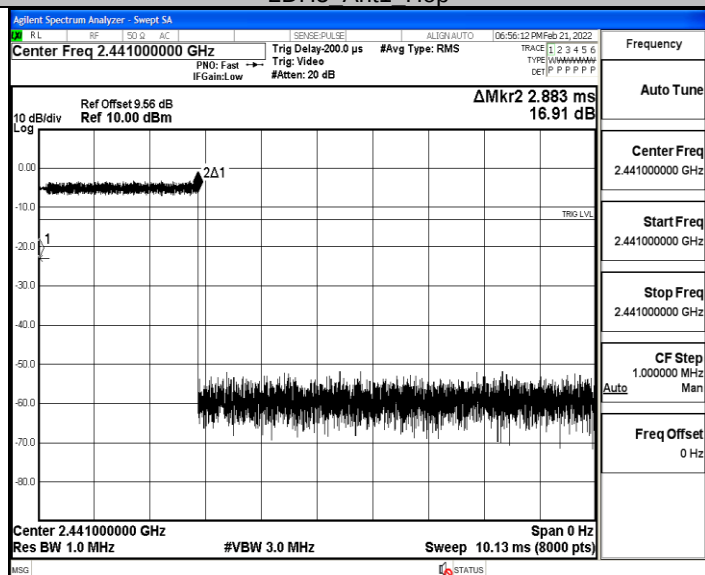
Test Result

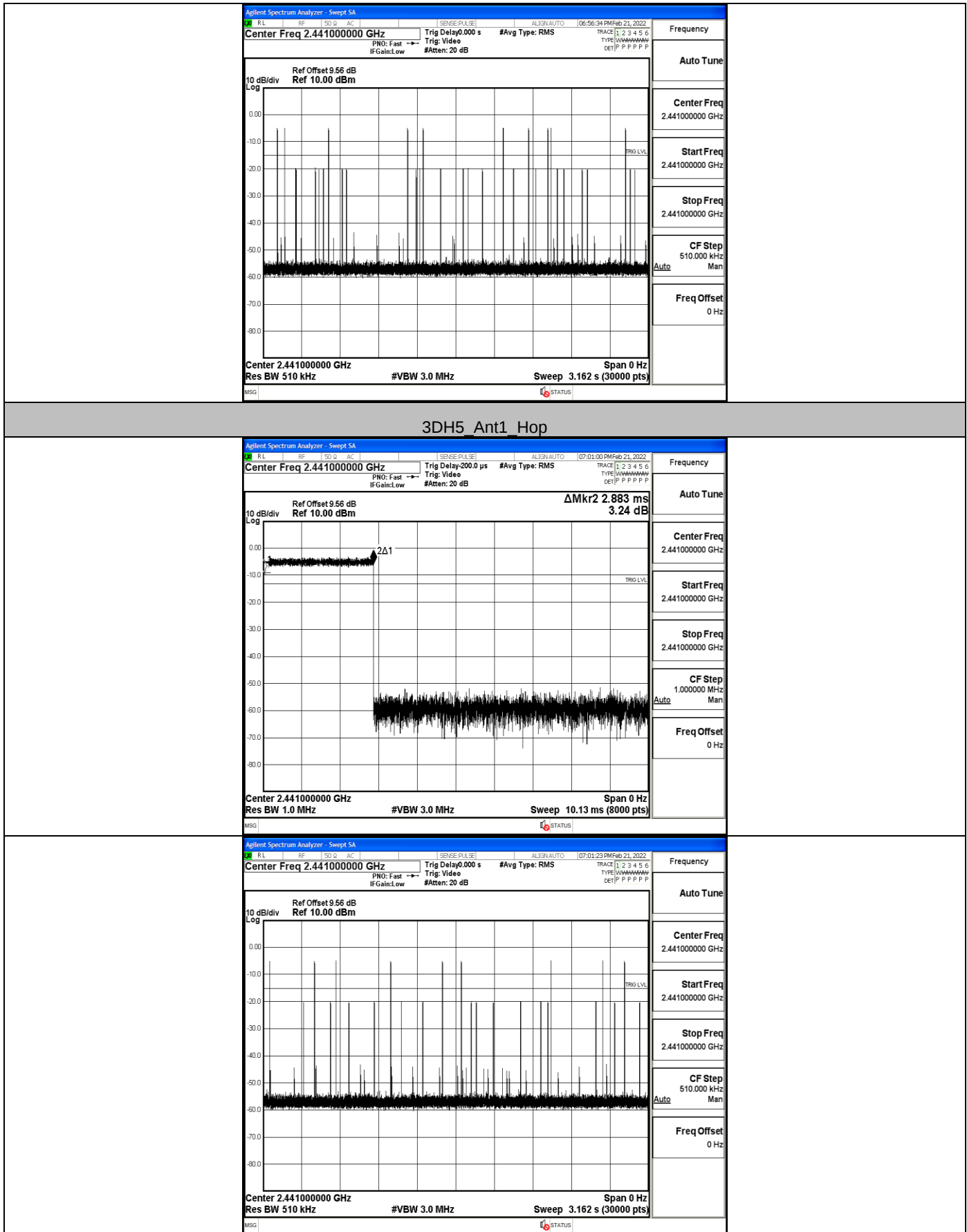
TestMode	Antenna	Channel	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH5	Ant1	Hop	2.89	130	0.376	<=0.4	PASS
2DH5	Ant1	Hop	2.88	110	0.317	<=0.4	PASS
3DH5	Ant1	Hop	2.88	100	0.288	<=0.4	PASS

DH5 Ant1 Hop



2DH5 Ant1 Hop



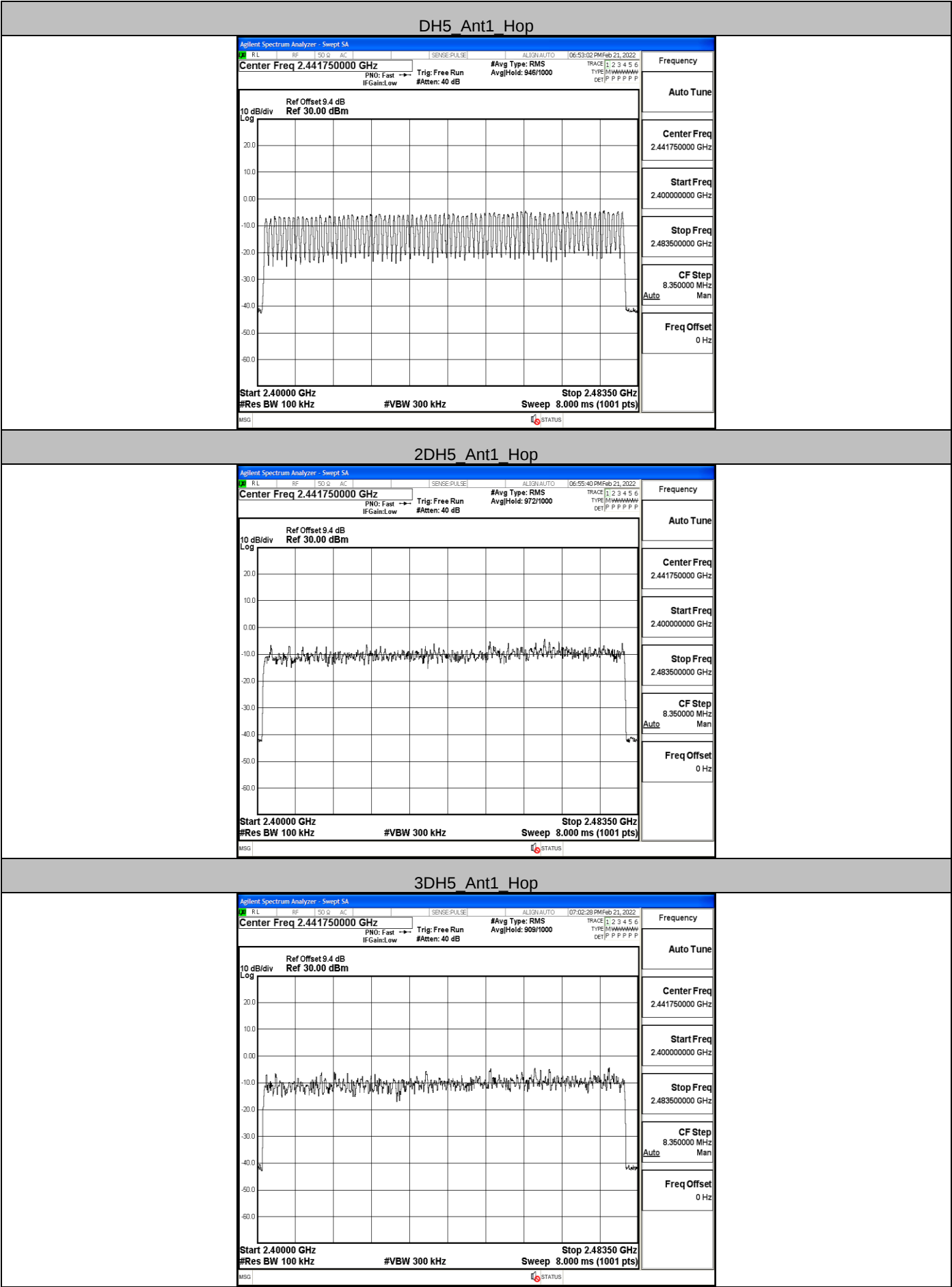


Appendix F: Number of hopping channels

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



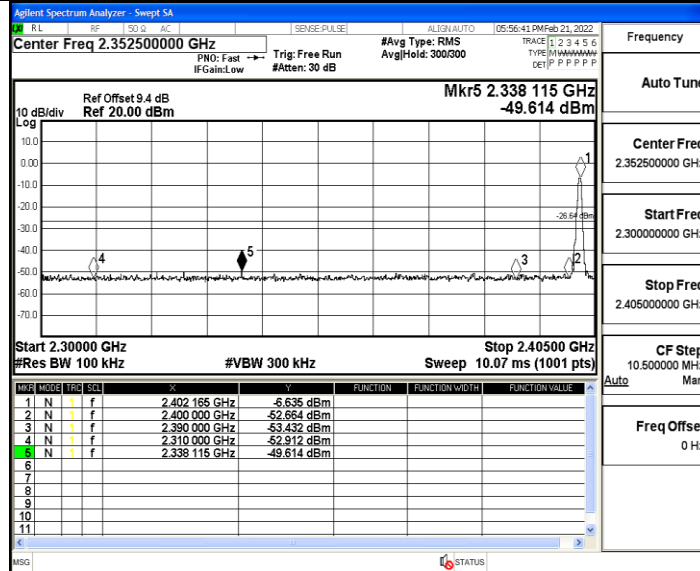
Appendix G: Band edge measurements

Test Result

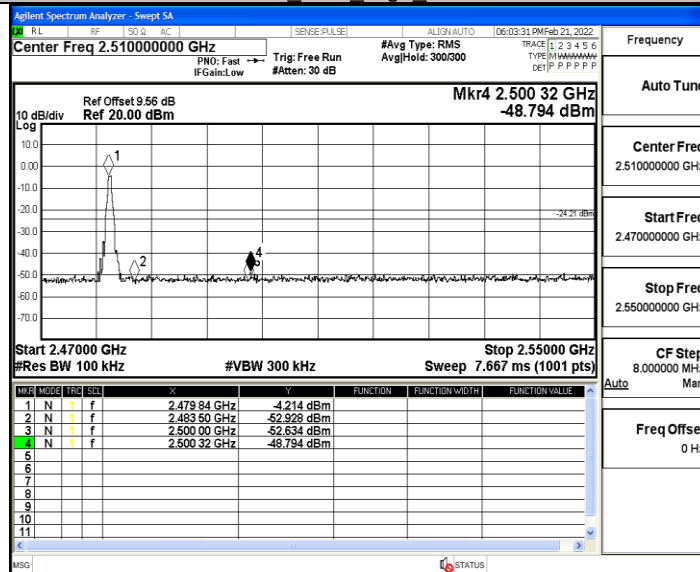
TestMode	Antenna	ChName	Channel	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	-6.64	-49.61	≤ -26.64	PASS
		High	2480	-4.21	-48.79	≤ -24.21	PASS
		Low	Hop_2402	-9.79	-50.78	≤ -29.79	PASS
		High	Hop_2480	-4.26	-48.8	≤ -24.26	PASS
2DH5	Ant1	Low	2402	-6.99	-49.81	≤ -26.99	PASS
		High	2480	-5.33	-49.17	≤ -25.33	PASS
		Low	Hop_2402	-9.68	-50.57	≤ -29.68	PASS
		High	Hop_2480	-7.01	-48.9	≤ -27.01	PASS
3DH5	Ant1	Low	2402	-6.58	-50.37	≤ -26.58	PASS
		High	2480	-4.50	-49.13	≤ -24.5	PASS
		Low	Hop_2402	-8.18	-50.49	≤ -28.18	PASS
		High	Hop_2480	-6.31	-48.83	≤ -26.31	PASS

Test Graphs

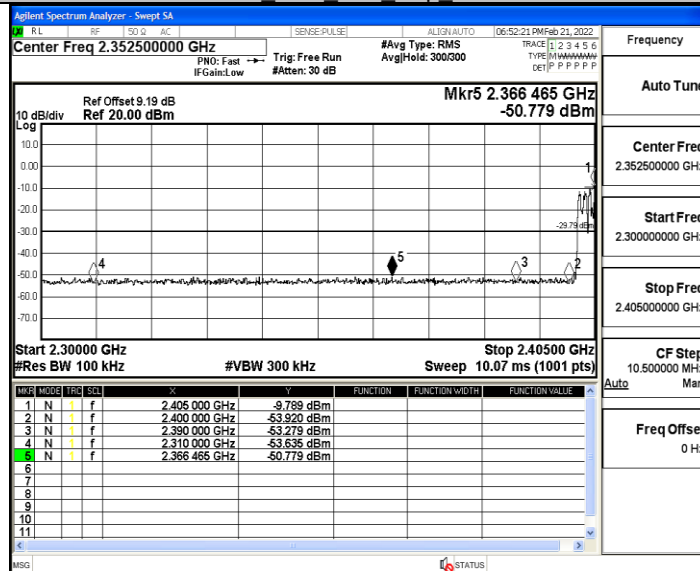
DH5_Ant1_Low_2402



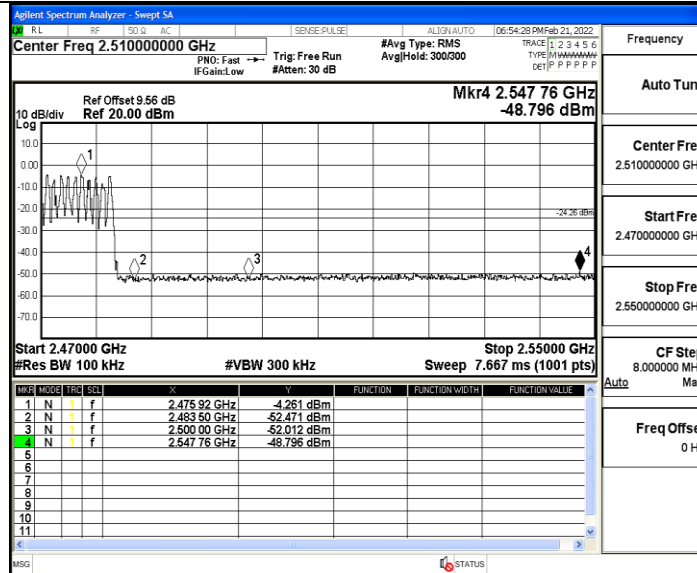
DH5_Ant1_High_2480



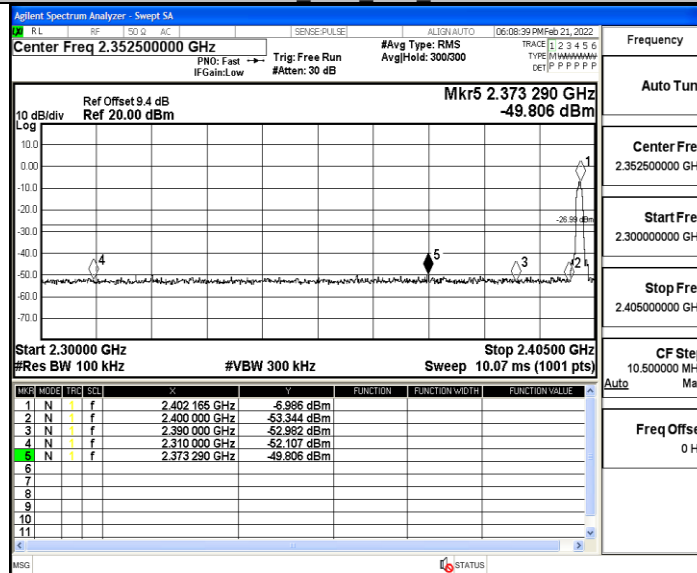
DH5_Ant1_Low_Hop_2402



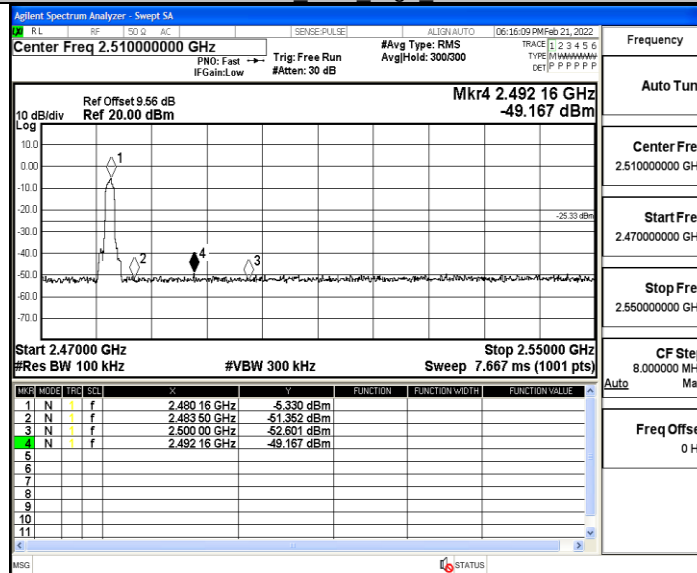
DH5_Ant1_High_Hop_2480



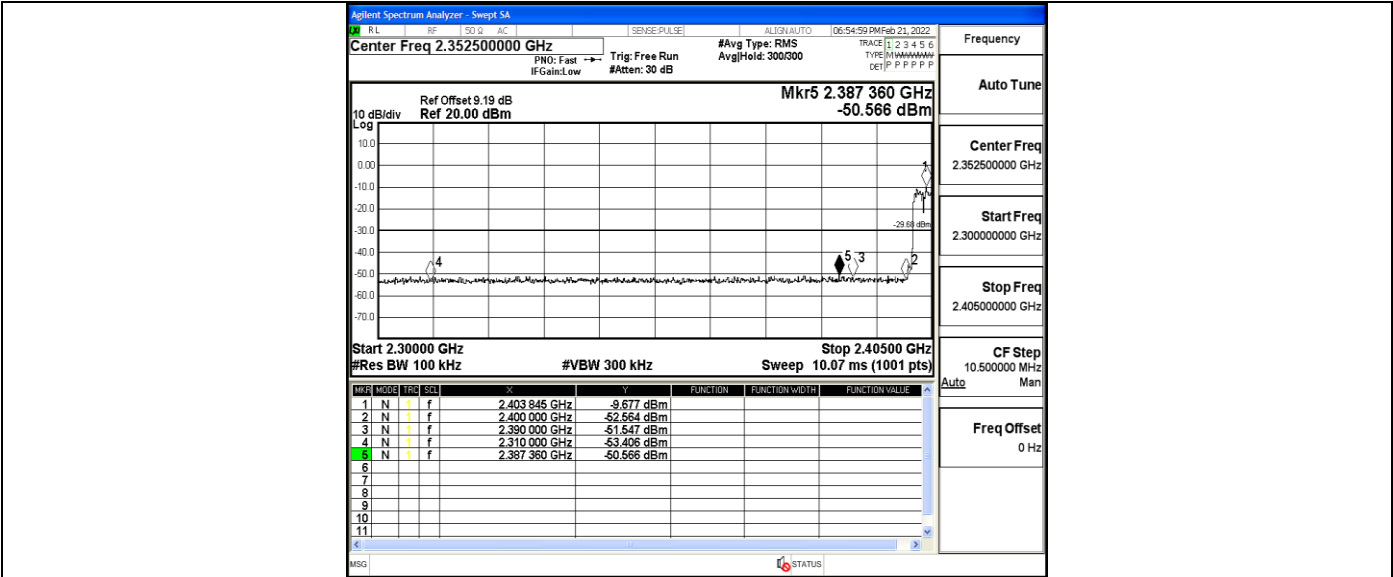
2DH5 Ant1 Low 2402



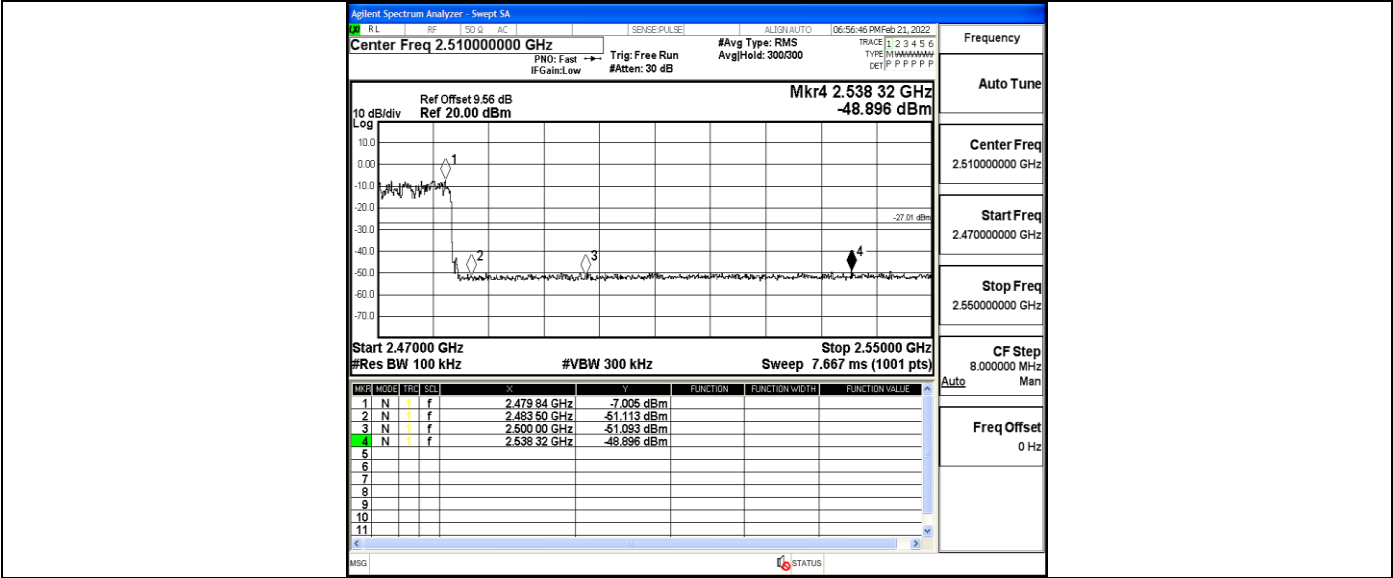
2DH5 Ant1 High 2480



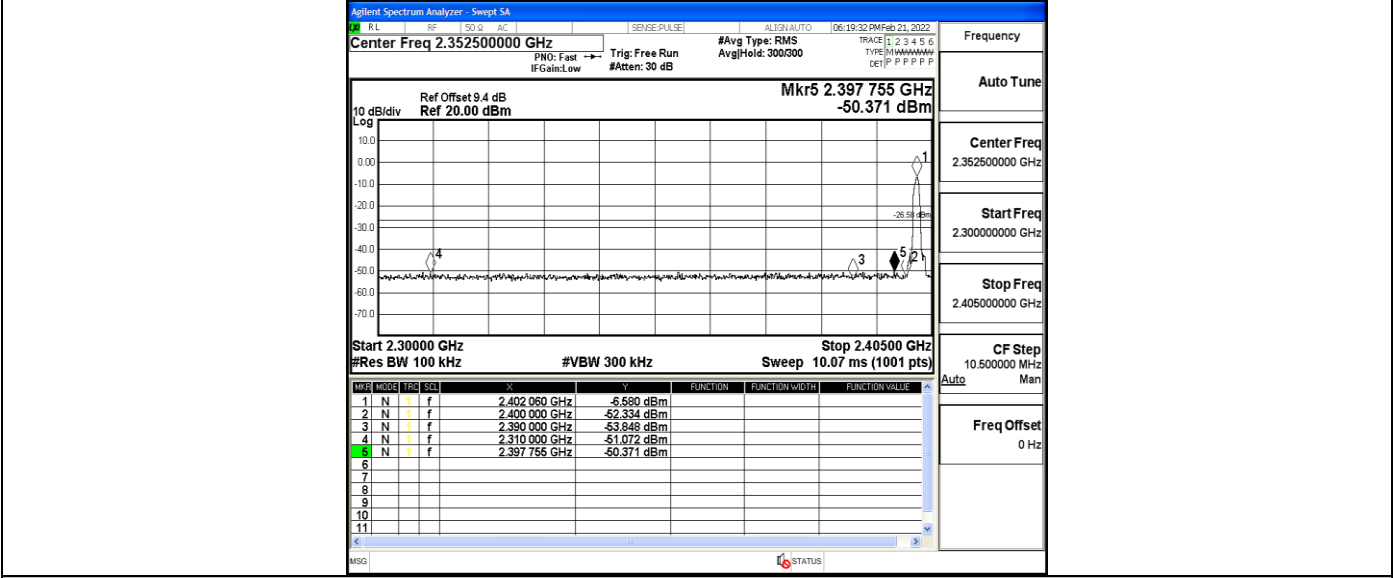
2DH5 Ant1 Low Hop 2402



2DH5 Ant1 High Hop 2480



3DH5 Ant1 Low 2402



3DH5 Ant1 High 2480

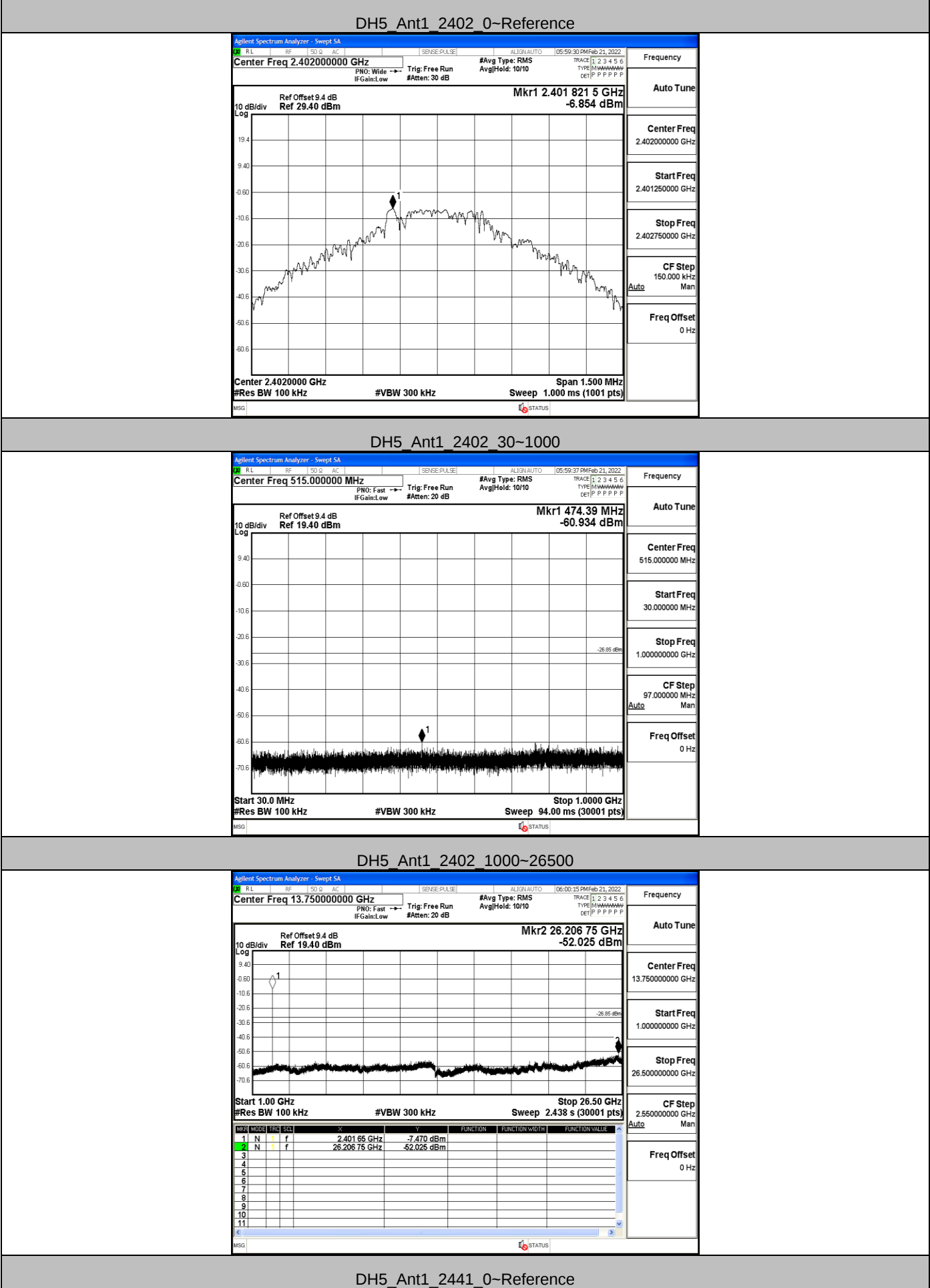


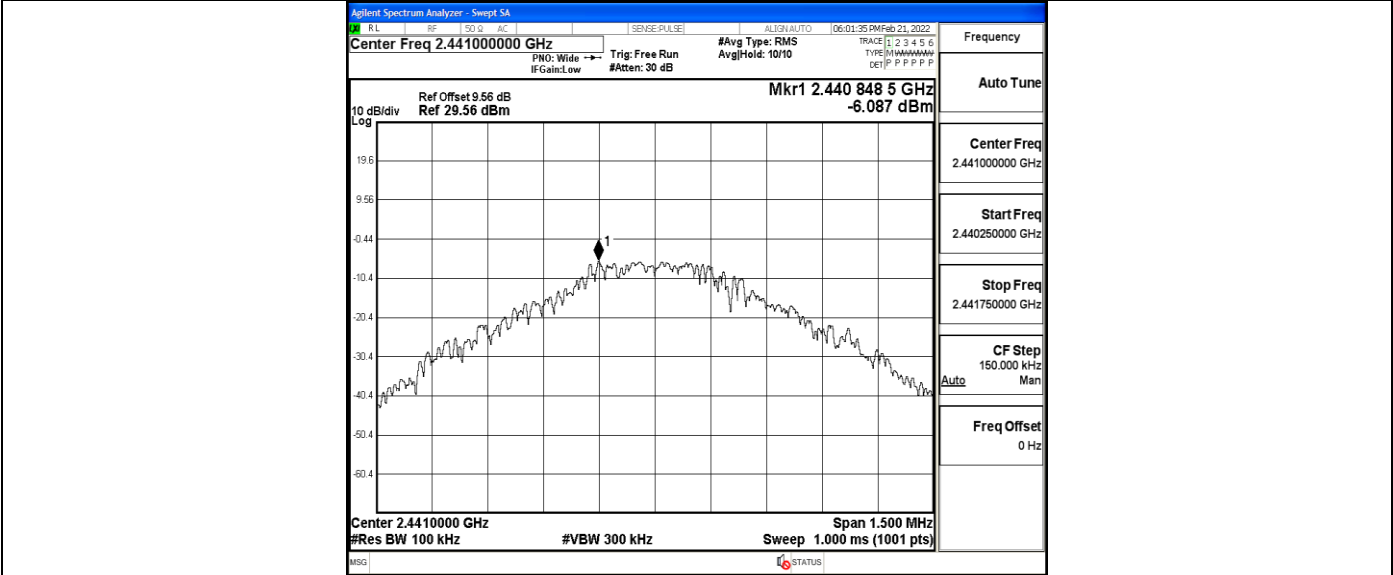
Appendix H: Conducted Spurious Emission

Test Result

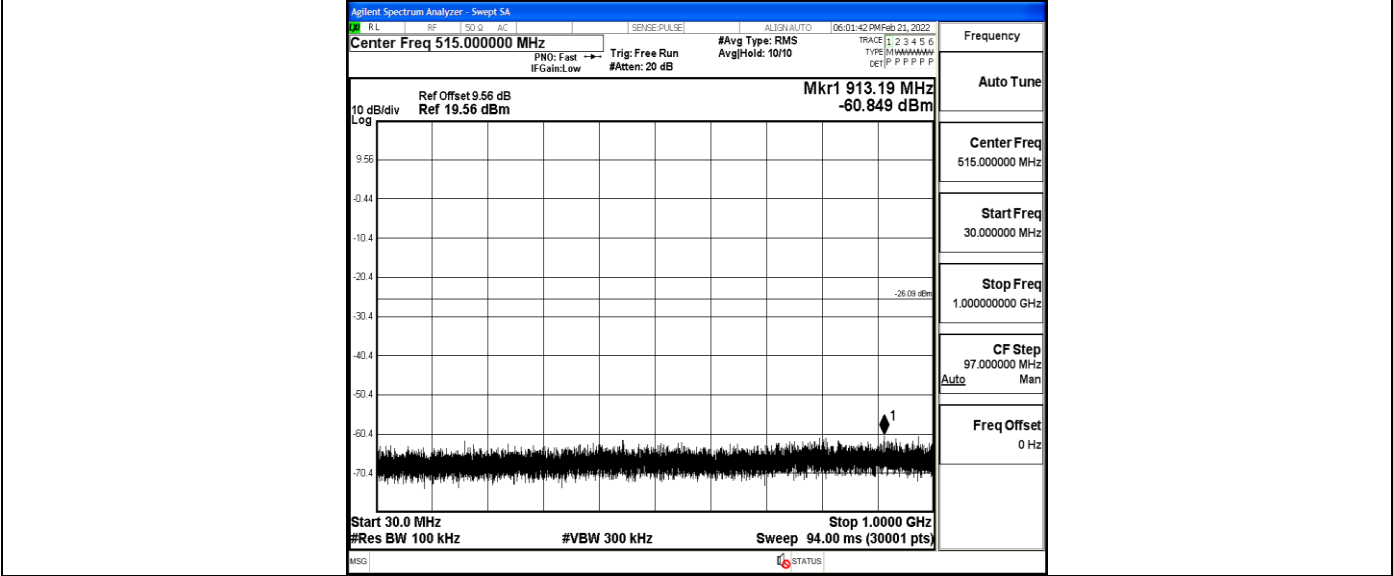
TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	Reference	-6.85	-6.85	---	PASS
			30~1000	-6.85	-60.93	≤-26.85	PASS
			1000~26500	-6.85	-52.03	≤-26.85	PASS
		2441	Reference	-6.09	-6.09	---	PASS
			30~1000	-6.09	-60.85	≤-26.09	PASS
			1000~26500	-6.09	-51.89	≤-26.09	PASS
		2480	Reference	-5.00	-5.00	---	PASS
			30~1000	-5.00	-60.71	≤-25	PASS
			1000~26500	-5.00	-51.57	≤-25	PASS
2DH5	Ant1	2402	Reference	-8.80	-8.80	---	PASS
			30~1000	-8.80	-61.15	≤-28.8	PASS
			1000~26500	-8.80	-52.08	≤-28.8	PASS
		2441	Reference	-8.29	-8.29	---	PASS
			30~1000	-8.29	-53	≤-28.29	PASS
			1000~26500	-8.29	-52.22	≤-28.29	PASS
		2480	Reference	-7.56	-7.56	---	PASS
			30~1000	-7.56	-61.34	≤-27.56	PASS
			1000~26500	-7.56	-51.93	≤-27.56	PASS
3DH5	Ant1	2402	Reference	-9.34	-9.34	---	PASS
			30~1000	-9.34	-61.33	≤-29.34	PASS
			1000~26500	-9.34	-52.46	≤-29.34	PASS
		2441	Reference	-6.03	-6.03	---	PASS
			30~1000	-6.03	-61.19	≤-26.03	PASS
			1000~26500	-6.03	-52.98	≤-26.03	PASS
		2480	Reference	-6.83	-6.83	---	PASS
			30~1000	-6.83	-61.42	≤-26.83	PASS
			1000~26500	-6.83	-50.43	≤-26.83	PASS

Test Graphs

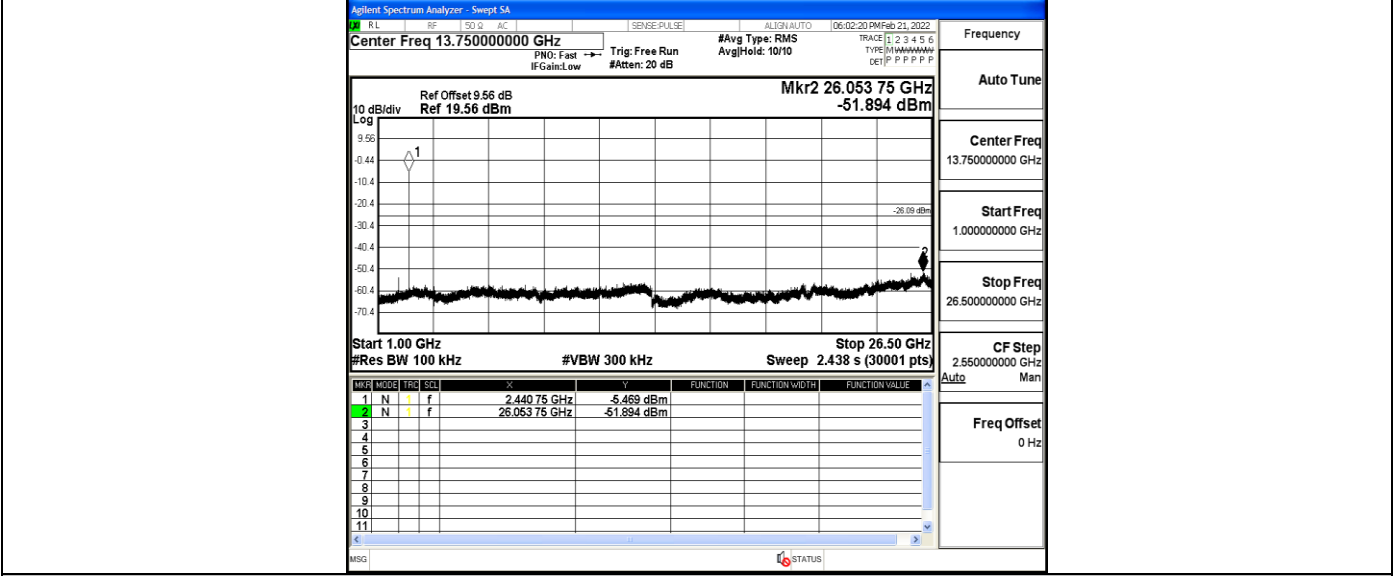




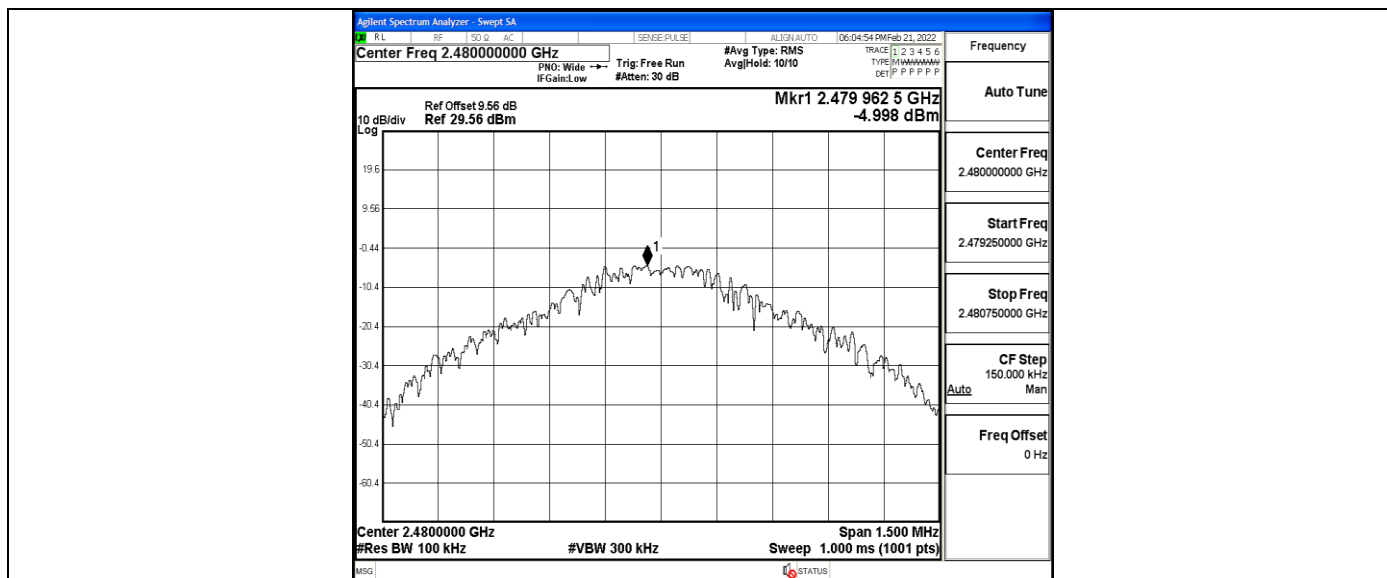
DH5_Ant1_2441_30~1000



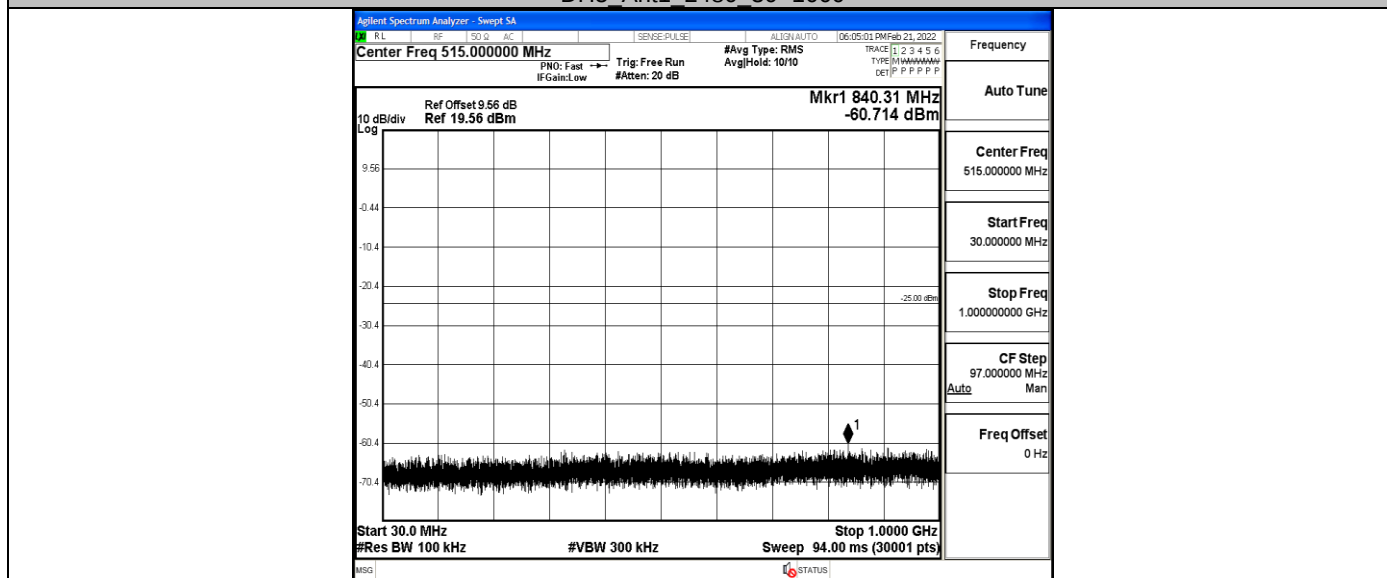
DH5_Ant1_2441_1000~26500



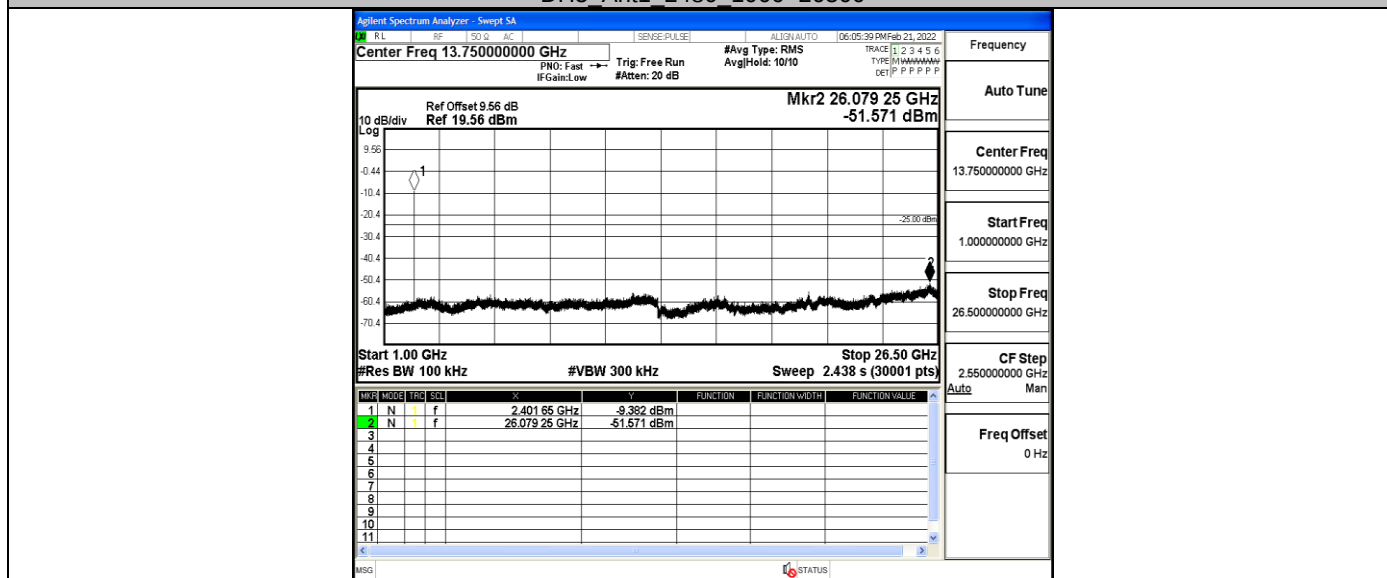
DH5_Ant1_2480_0-Reference



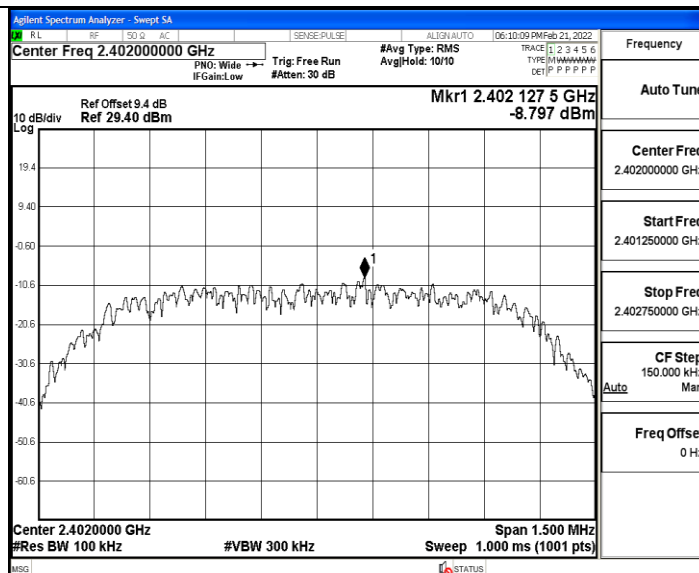
DH5 Ant1 2480 30~1000



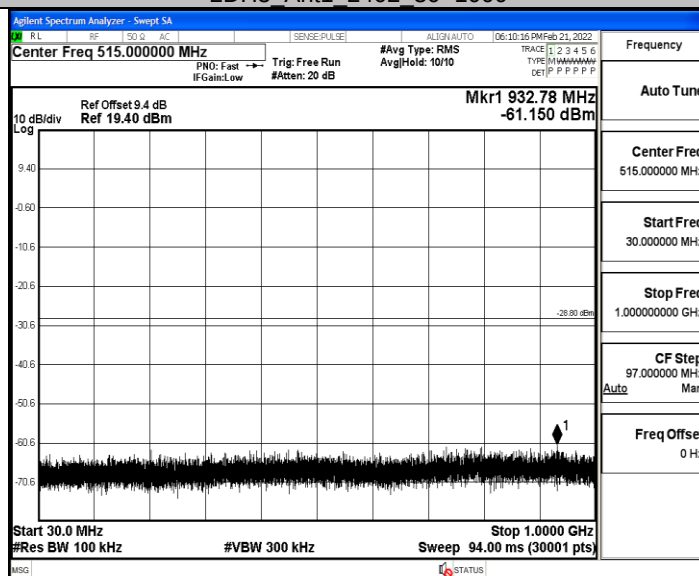
DH5 Ant1 2480 1000~26500



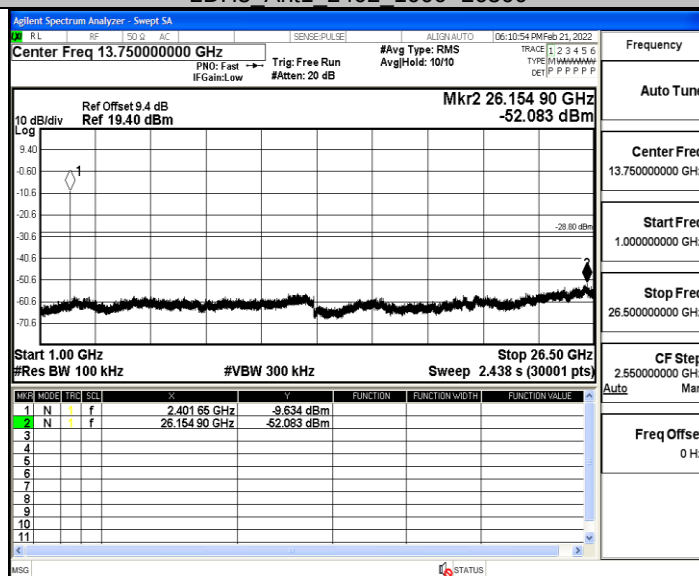
2DH5 Ant1 2402 0~Reference



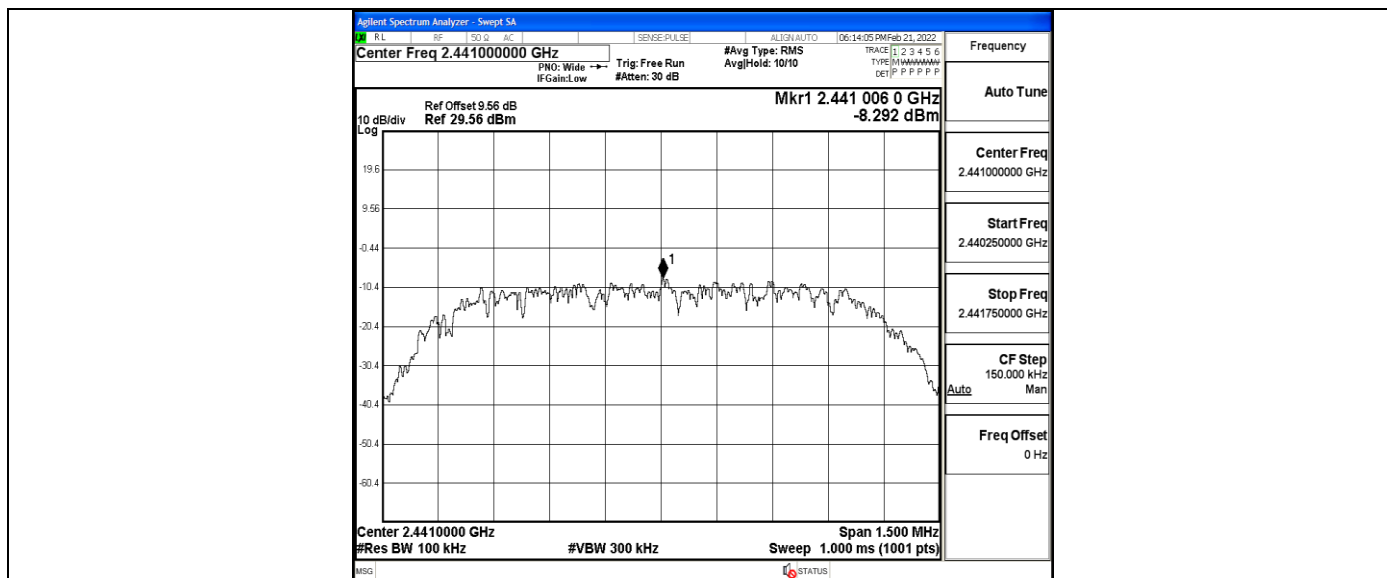
2DH5 Ant1 2402 30~1000



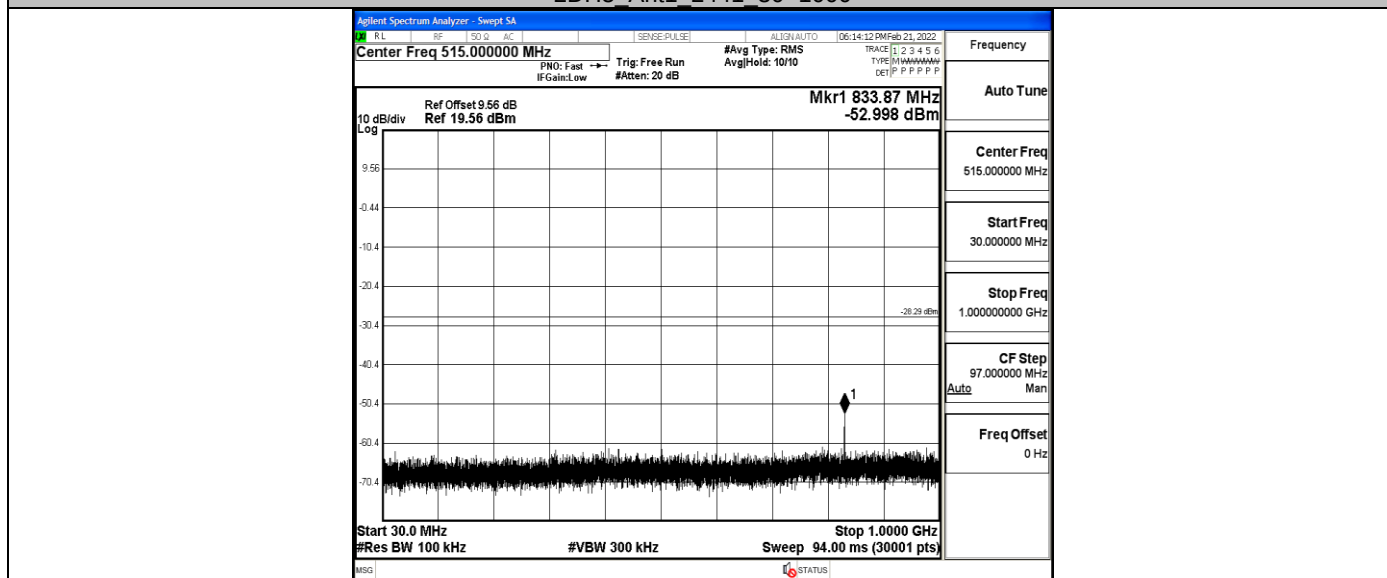
2DH5 Ant1 2402 1000~26500



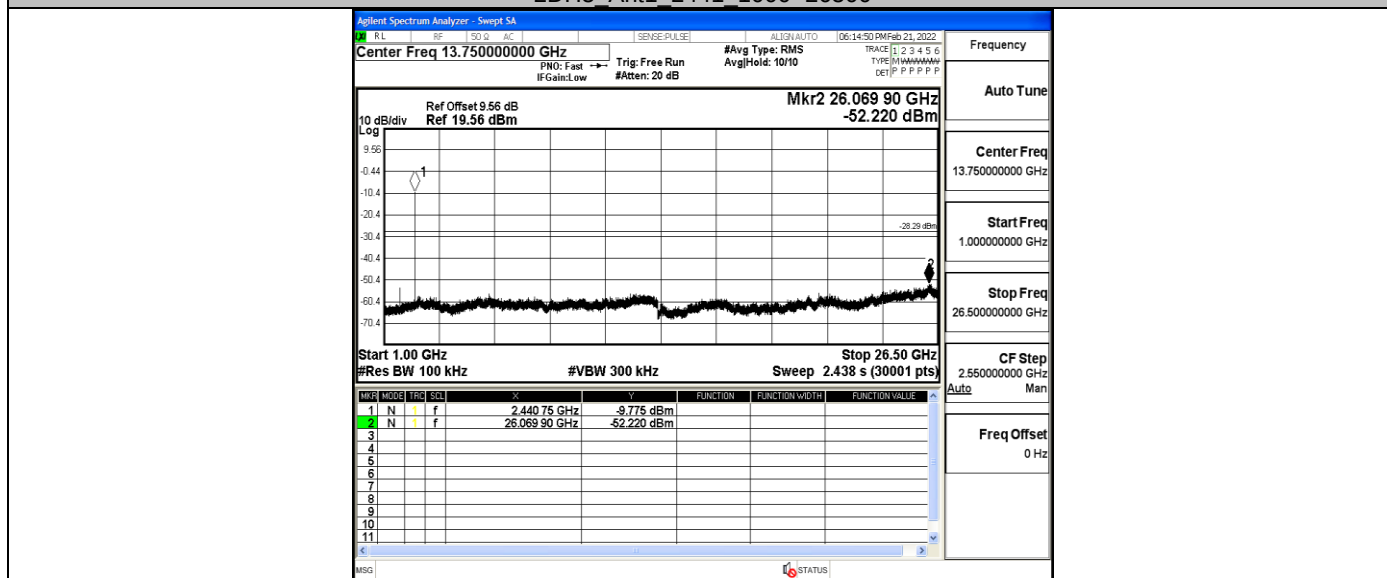
2DH5 Ant1 2441 0~Reference



2DH5 Ant1 2441 30~1000



2DH5 Ant1 2441 1000~26500



2DH5 Ant1 2480 0~Reference