

Appendix A

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

Product Name: Mobile Phone

Trade Mark: YEZZ

Test Model: LIV 3 LTE

FCC ID:2APW4LIV3L

Environmental Conditions

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

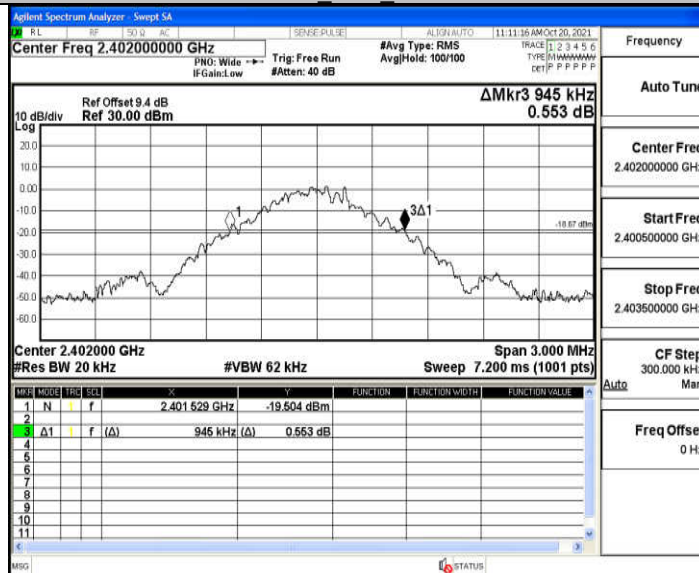
Appendix A: 20dB Emission Bandwidth

Test Result

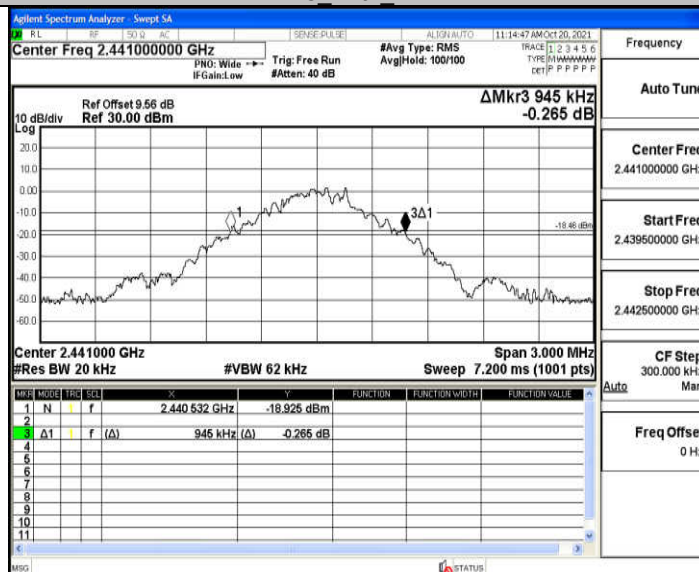
TestMode	Antenna	Channel	20db EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.945	2401.529	2402.474	---	PASS
		2441	0.945	2440.532	2441.477	---	PASS
		2480	0.942	2479.532	2480.474	---	PASS
2DH5	Ant1	2402	1.314	2401.328	2402.642	---	PASS
		2441	1.266	2440.361	2441.627	---	PASS
		2480	1.299	2479.352	2480.651	---	PASS
3DH5	Ant1	2402	1.317	2401.337	2402.654	---	PASS
		2441	1.275	2440.346	2441.621	---	PASS
		2480	1.311	2479.337	2480.648	---	PASS

Test Graphs

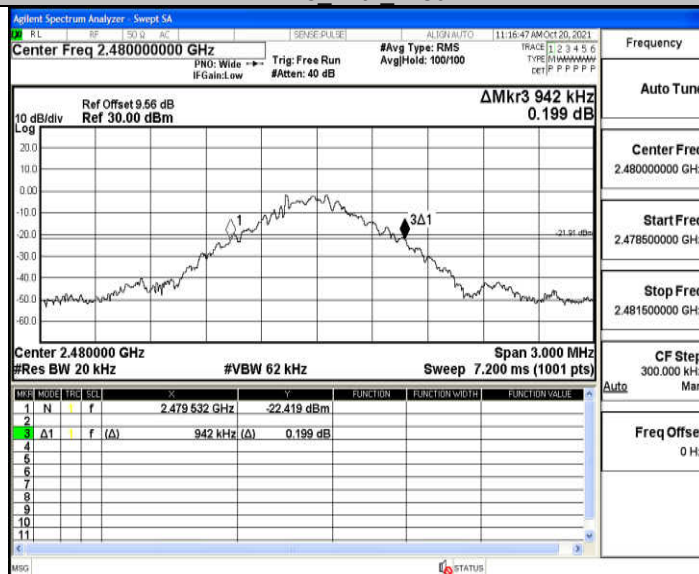
DH5_Ant1_2402



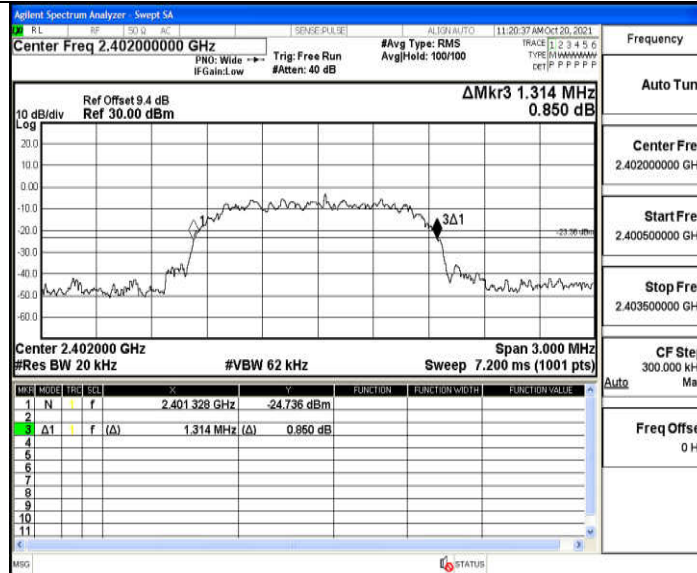
DH5_Ant1_2441



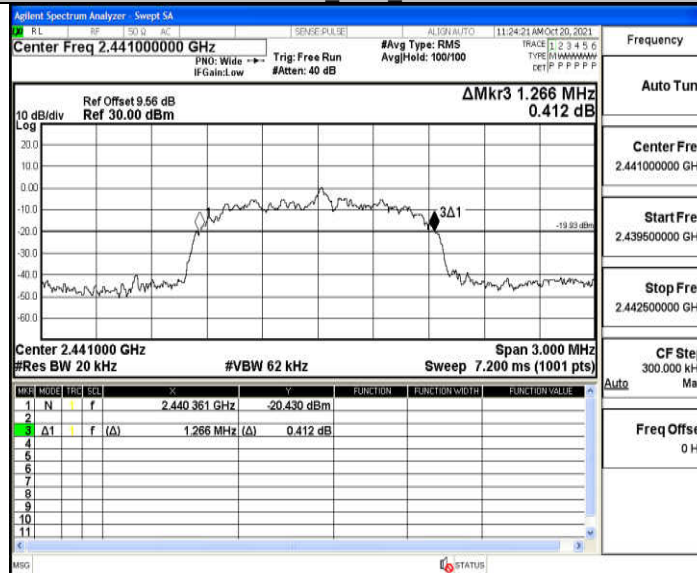
DH5_Ant1_2480



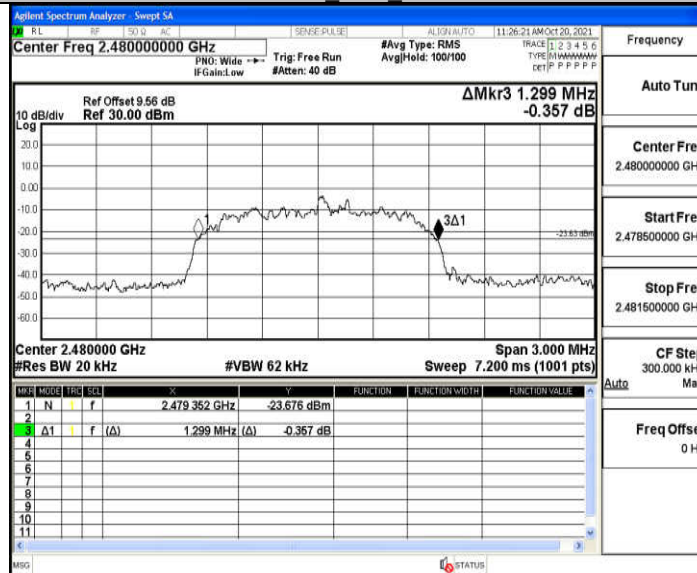
2DH5_Ant1_2402



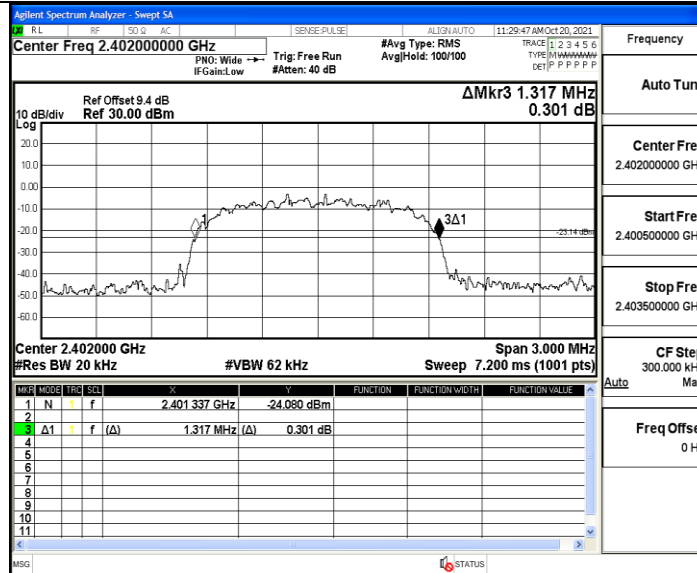
2DH5_Ant1_2441



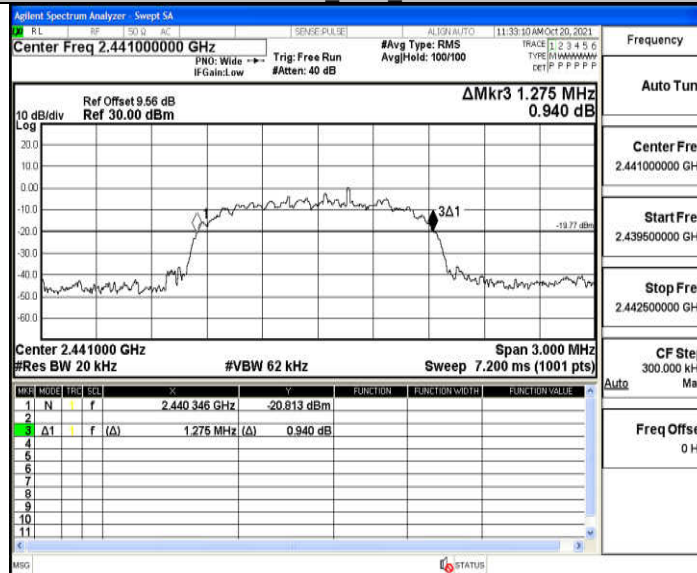
2DH5_Ant1_2480



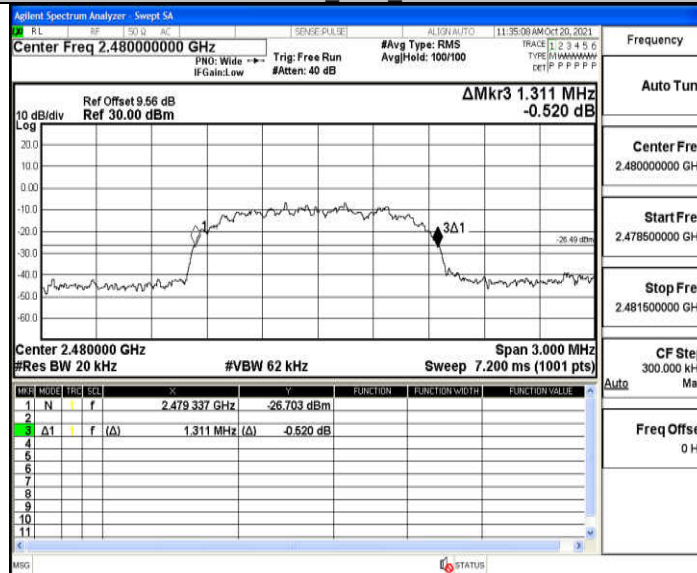
3DH5_Ant1_2402



3DH5_Ant1_2441



3DH5_Ant1_2480



Appendix B: Occupied Channel Bandwidth

Test Result

TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.84763	2401.565	2402.413	---	PASS
		2441	0.84644	2440.565	2441.411	---	PASS
		2480	0.85034	2479.565	2480.416	---	PASS
2DH5	Ant1	2402	1.1848	2401.402	2402.586	---	PASS
		2441	1.1887	2440.402	2441.590	---	PASS
		2480	1.1956	2479.399	2480.595	---	PASS
3DH5	Ant1	2402	1.2035	2401.386	2402.590	---	PASS
		2441	1.1995	2440.390	2441.590	---	PASS
		2480	1.1956	2479.392	2480.588	---	PASS

Test Graphs

DH5_Ant1_2402



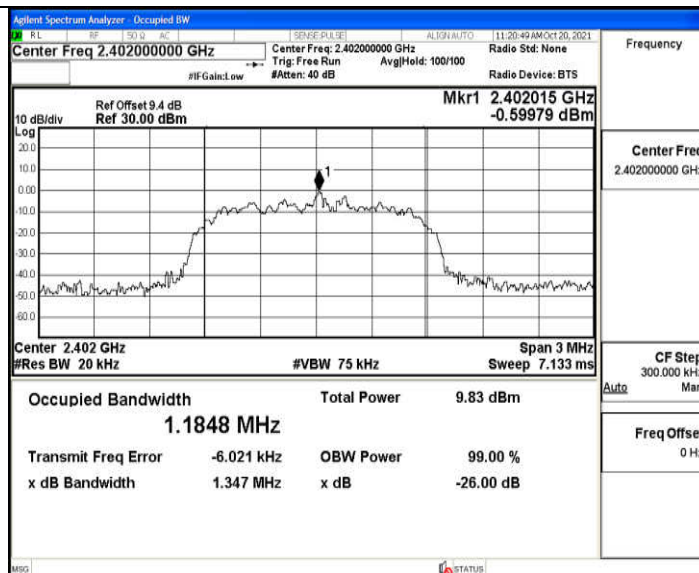
DH5_Ant1_2441



DH5_Ant1_2480



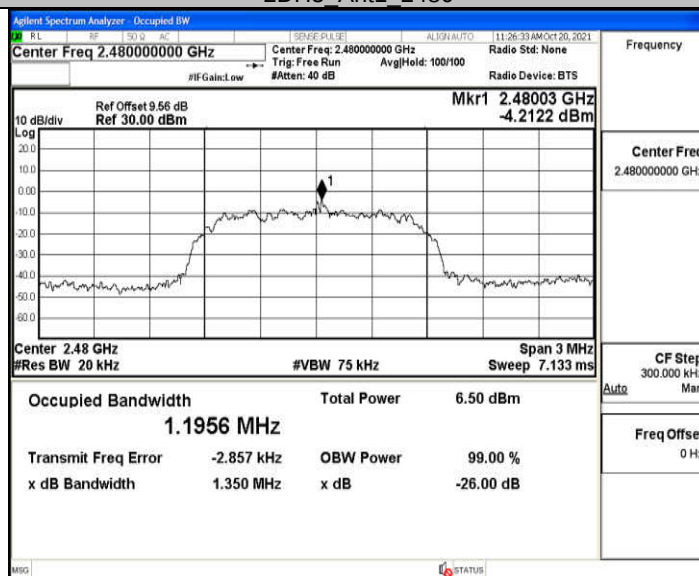
2DH5_Ant1_2402



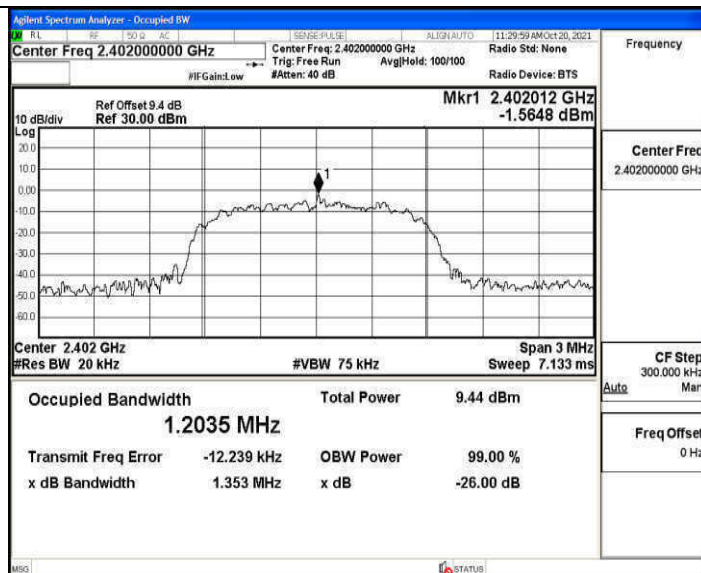
2DH5_Ant1_2441



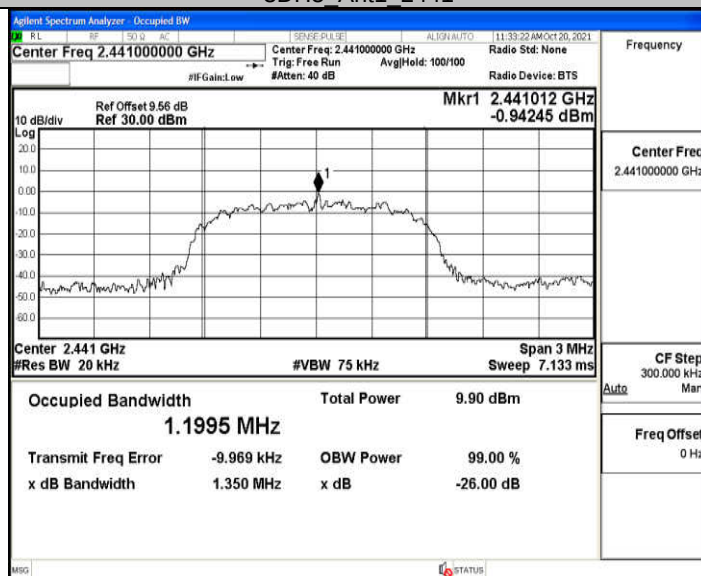
2DH5_Ant1_2480



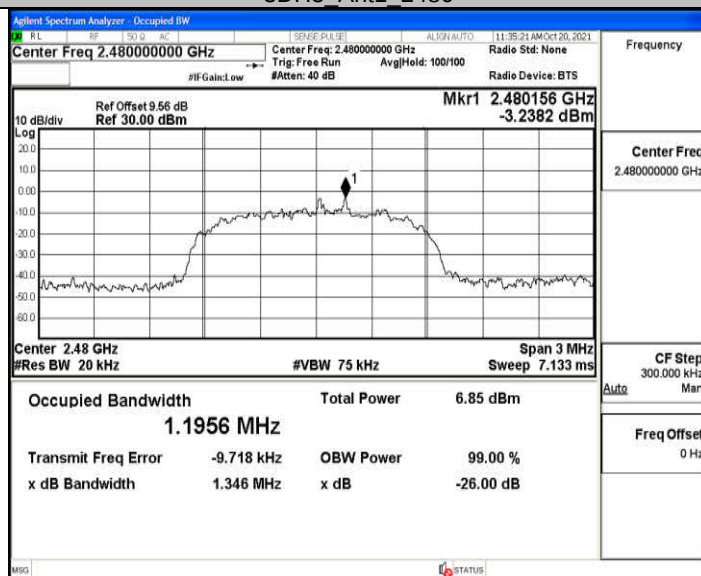
3DH5_Ant1_2402



3DH5_Ant1_2441



3DH5_Ant1_2480



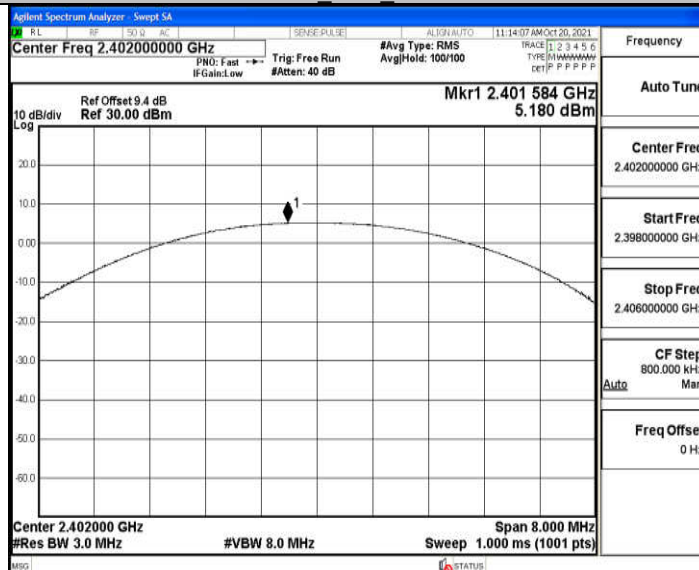
Appendix C: Maximum conducted output power

Test Result

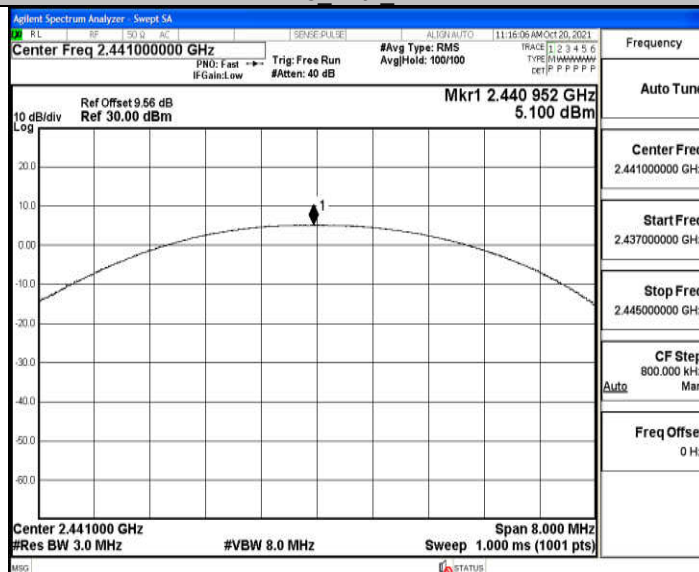
TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
DH5	Ant1	2402	5.18	≤30.00	PASS
		2441	5.1	≤30.00	PASS
		2480	1.96	≤30.00	PASS
2DH5	Ant1	2402	5.51	≤20.97	PASS
		2441	5.87	≤20.97	PASS
		2480	2.39	≤20.97	PASS
3DH5	Ant1	2402	5.91	≤20.97	PASS
		2441	6.34	≤20.97	PASS
		2480	2.83	≤20.97	PASS

Test Graphs

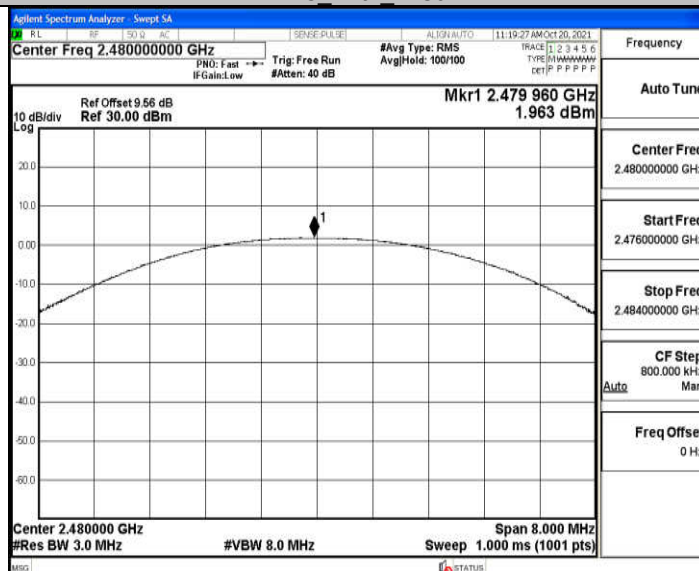
DH5_Ant1_2402



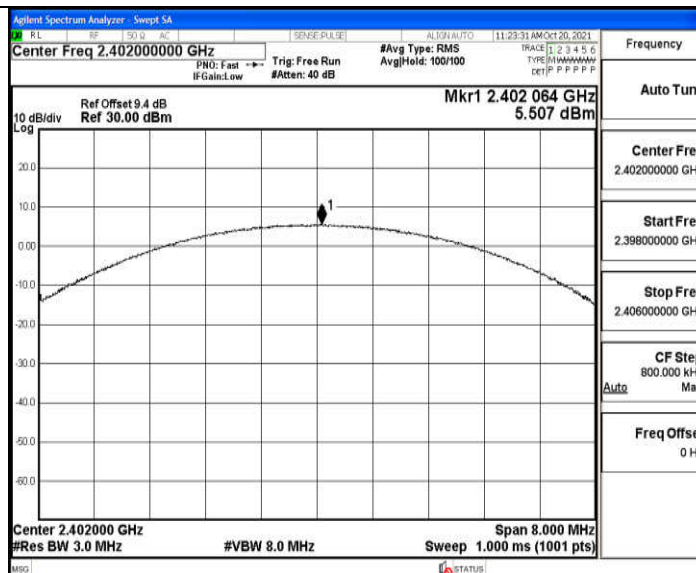
DH5_Ant1_2441



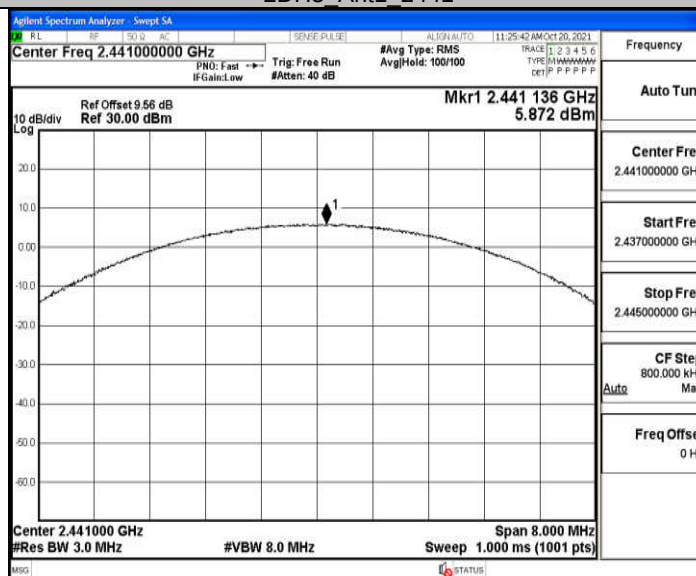
DH5_Ant1_2480



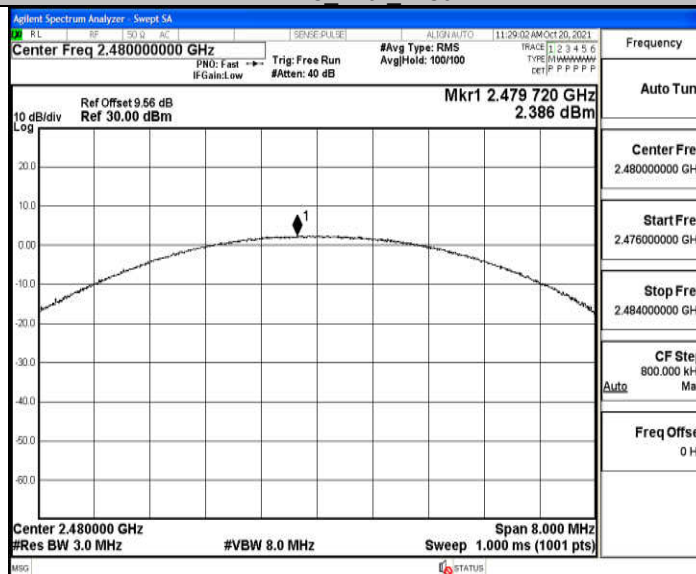
2DH5_Ant1_2402



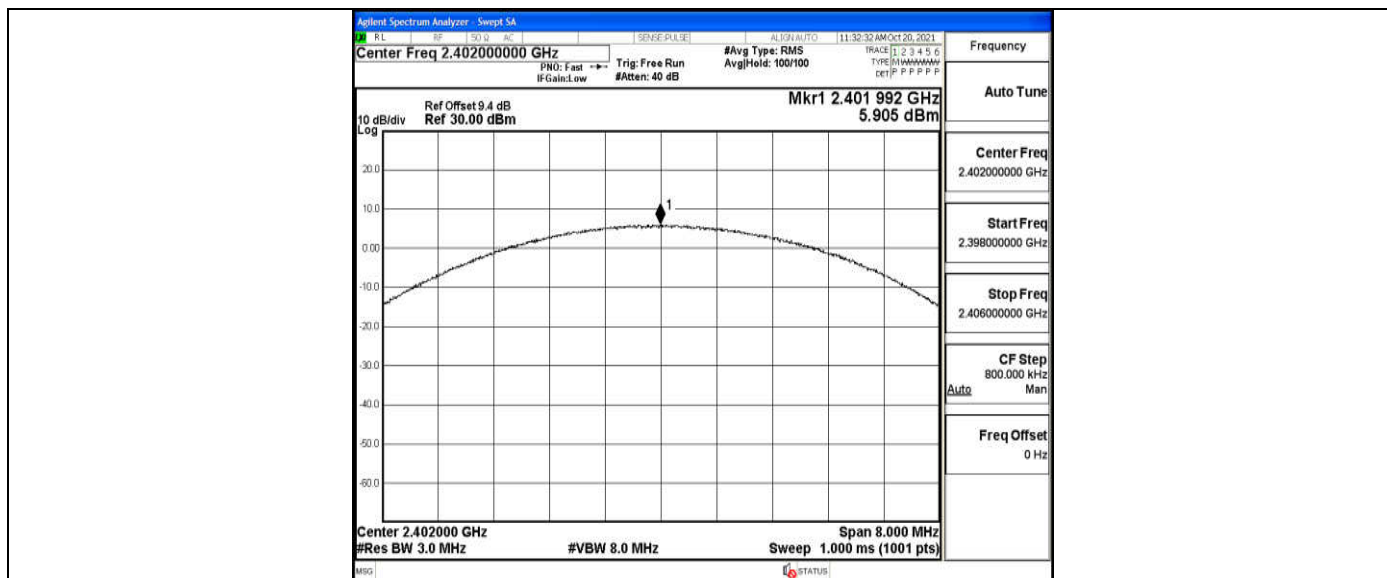
2DH5_Ant1_2441



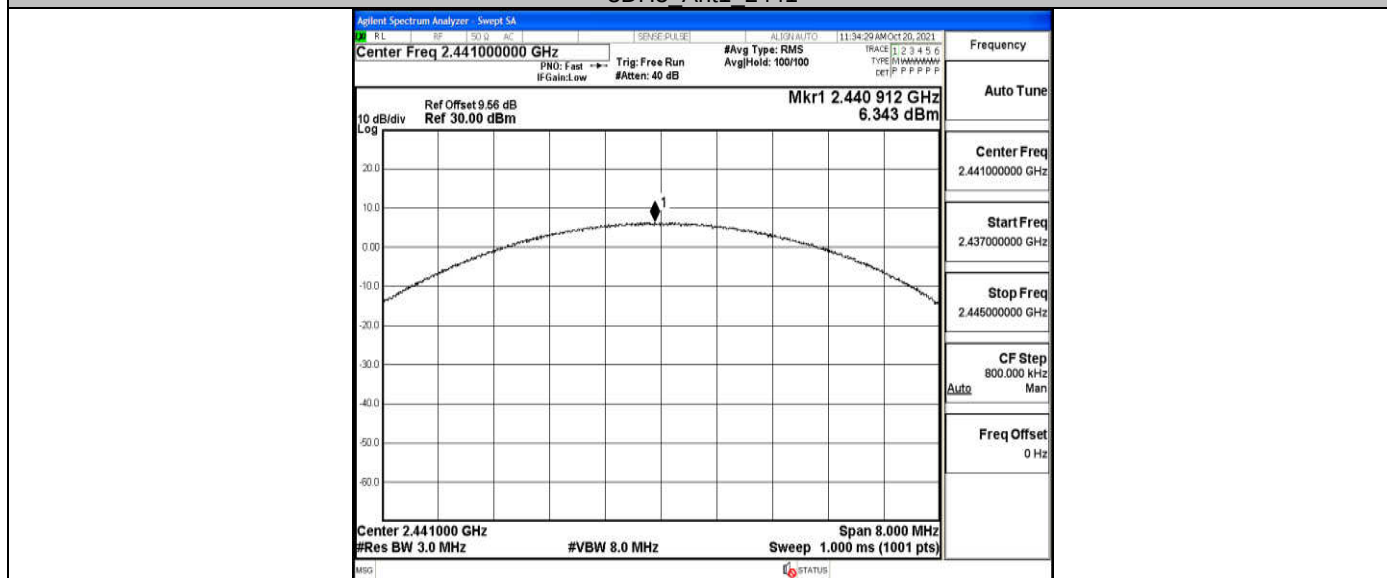
2DH5_Ant1_2480



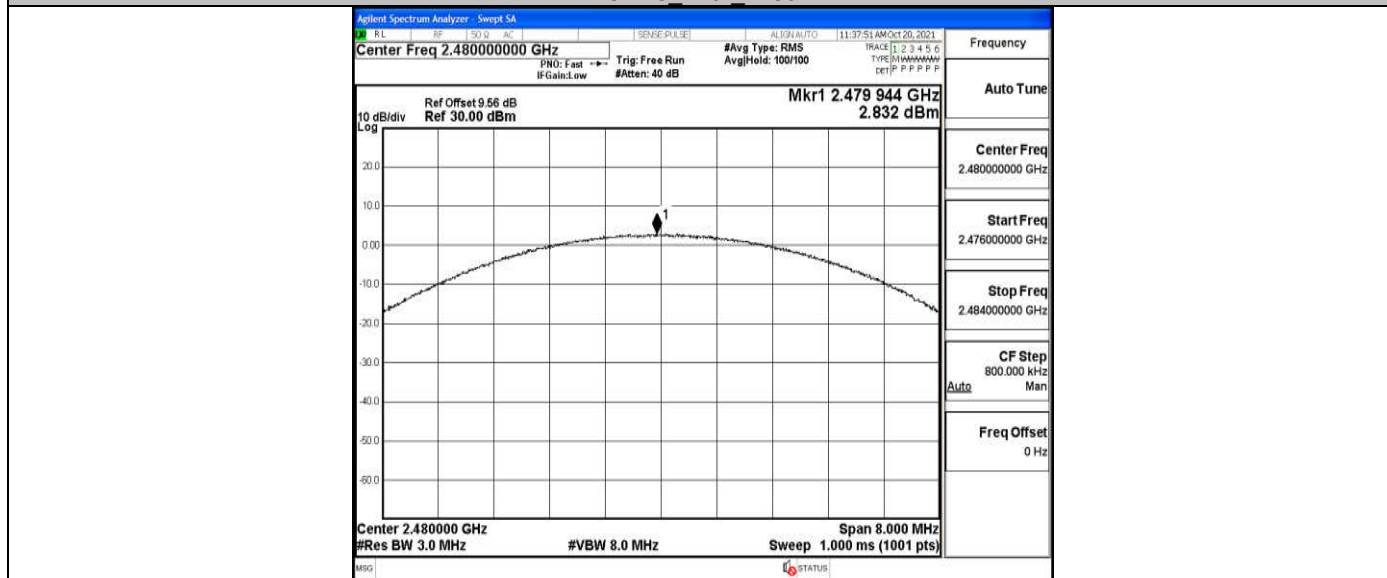
3DH5_Ant1_2402



3DH5_Ant1_2441



3DH5_Ant1_2480

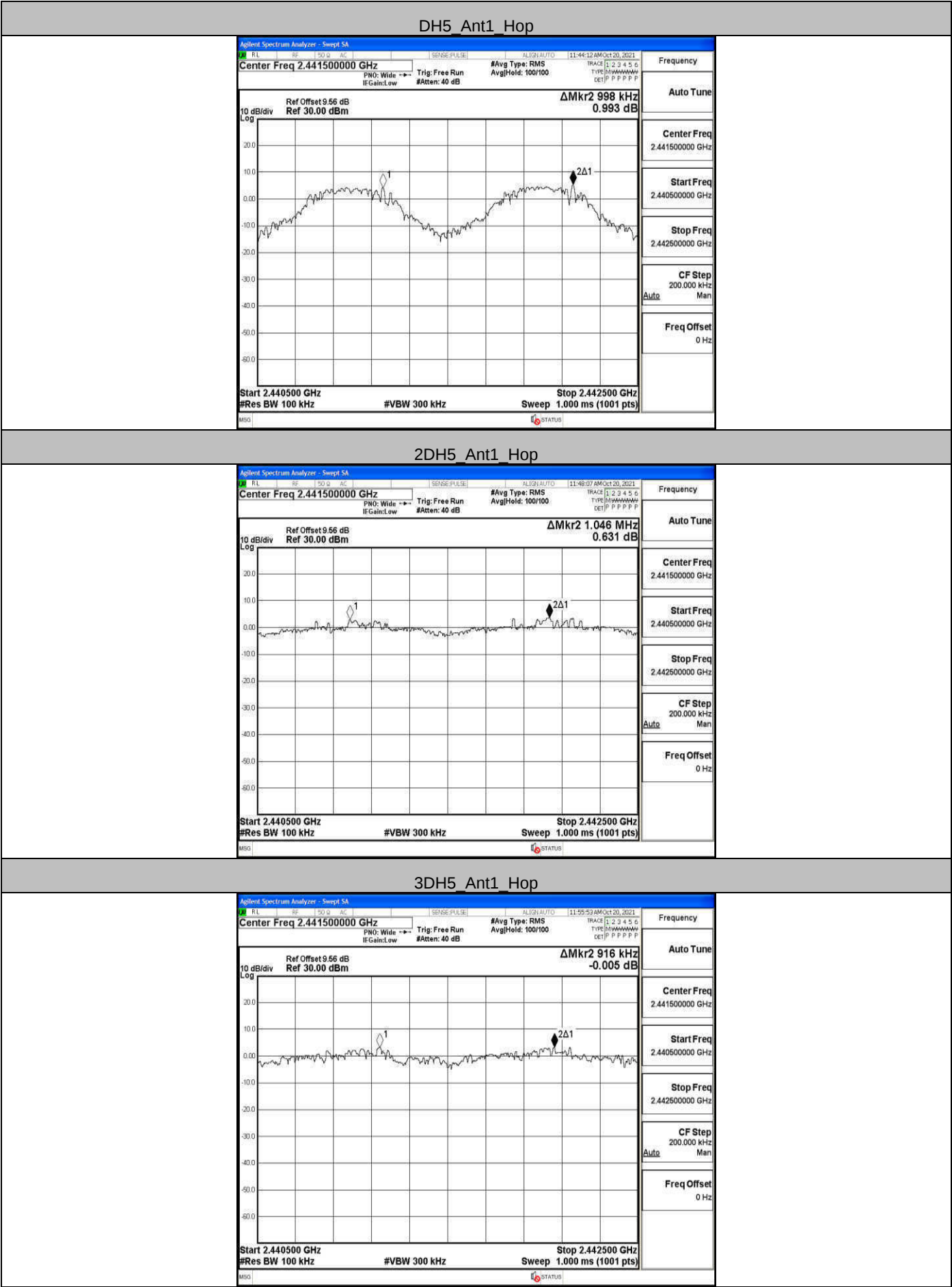


Appendix D: Carrier frequency separation

Test Result

TestMode	Antenna	Channel	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	0.998	≥ 0.945	PASS
2DH5	Ant1	Hop	1.046	≥ 0.876	PASS
3DH5	Ant1	Hop	0.916	≥ 0.878	PASS

Test Graphs



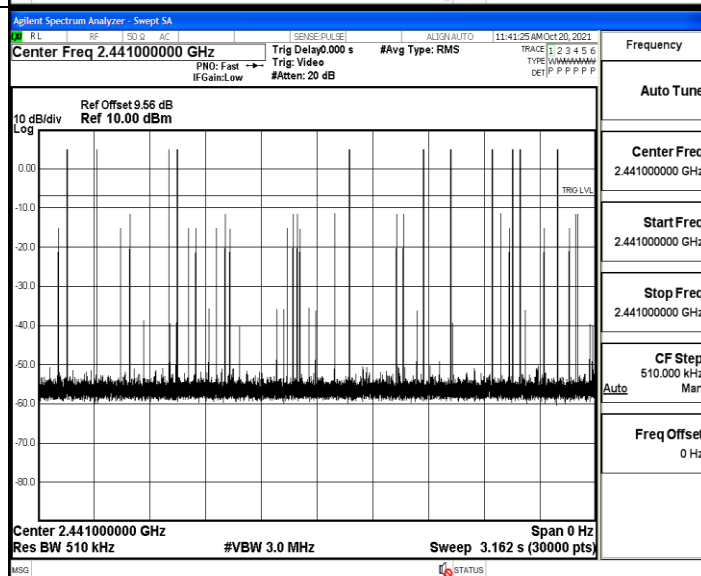
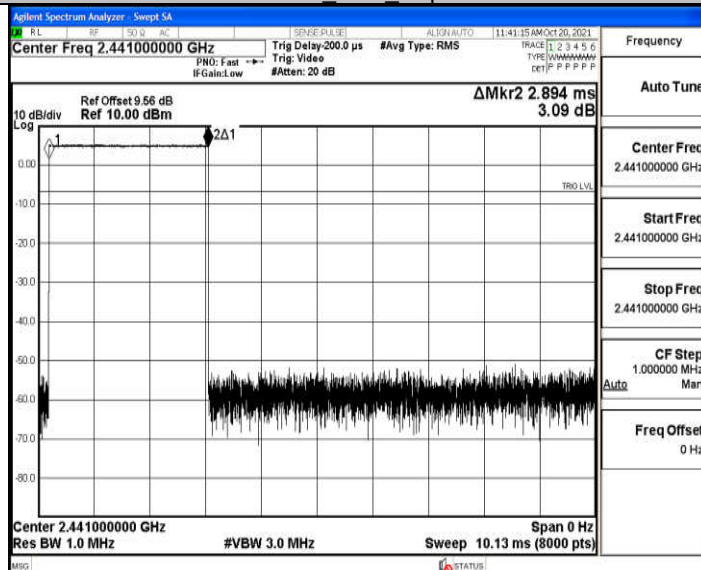
Appendix E: Time of occupancy

Test Result

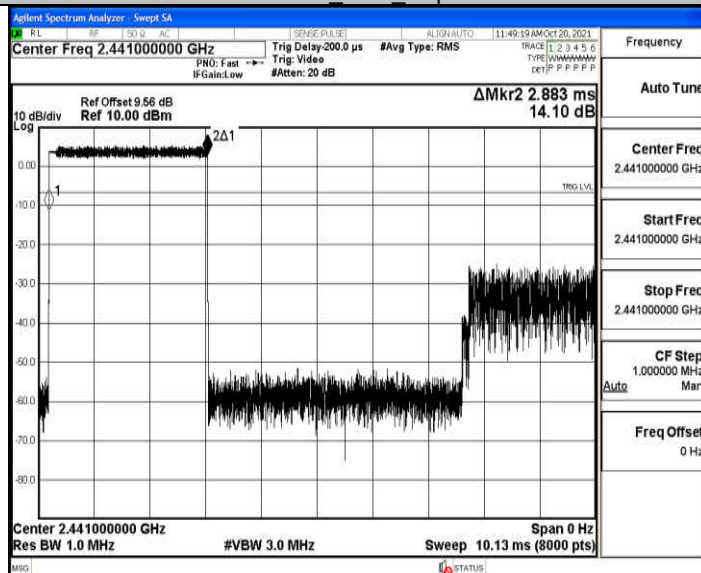
TestMode	Antenna	Channel	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH5	Ant1	Hop	2.89	120	0.347	<=0.4	PASS
2DH5	Ant1	Hop	2.88	80	0.231	<=0.4	PASS
3DH5	Ant1	Hop	2.88	100	0.288	<=0.4	PASS

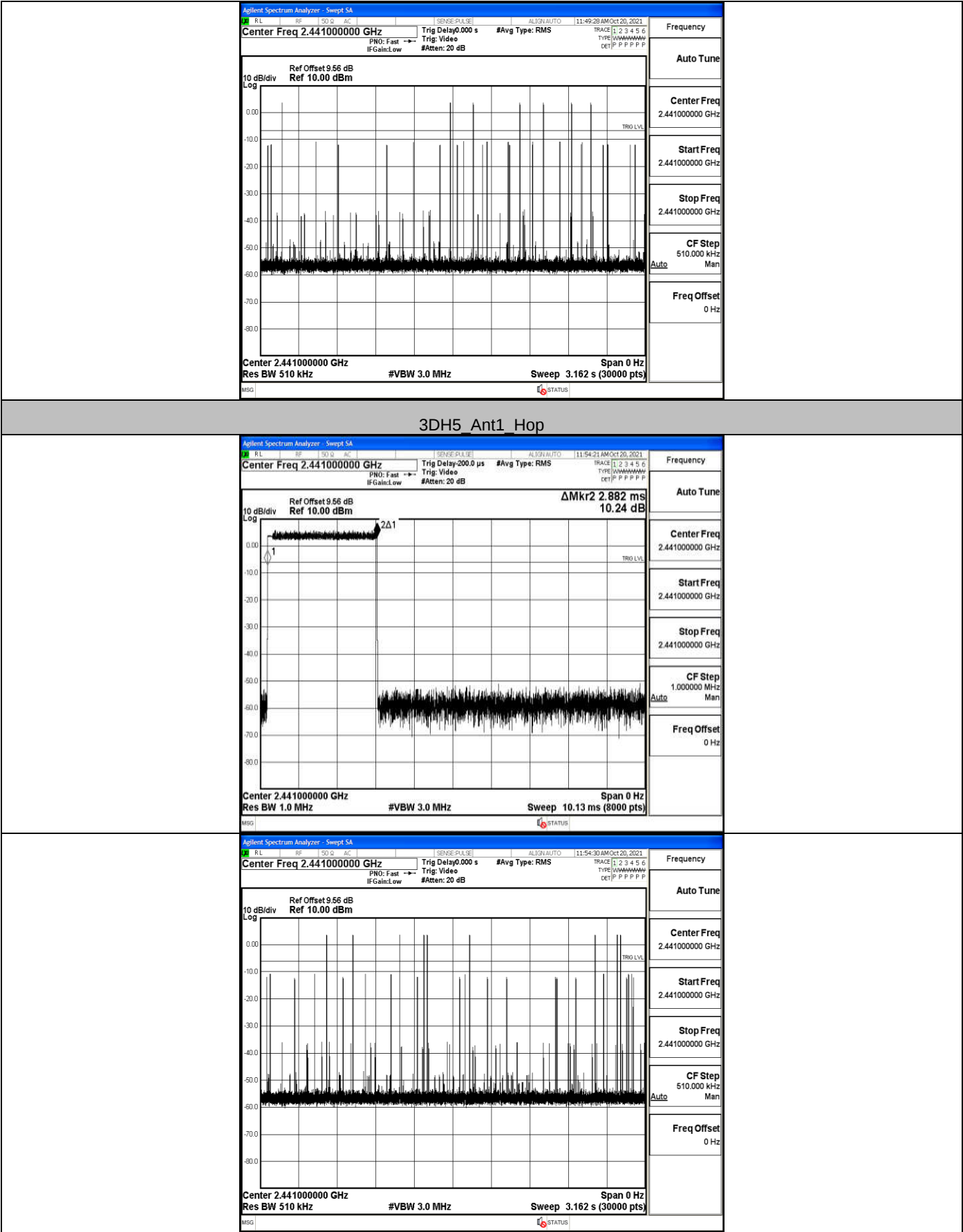
Test Graphs

DH5 Ant1 Hop



2DH5 Ant1 Hop





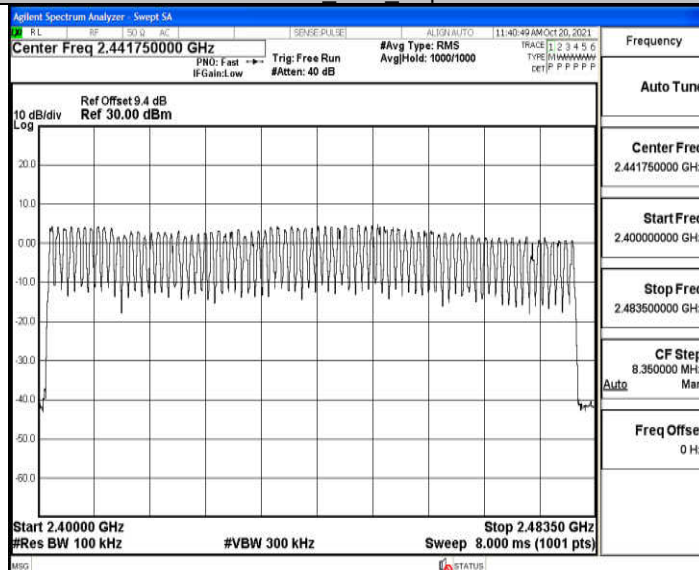
Appendix F: Number of hopping channels

Test Result

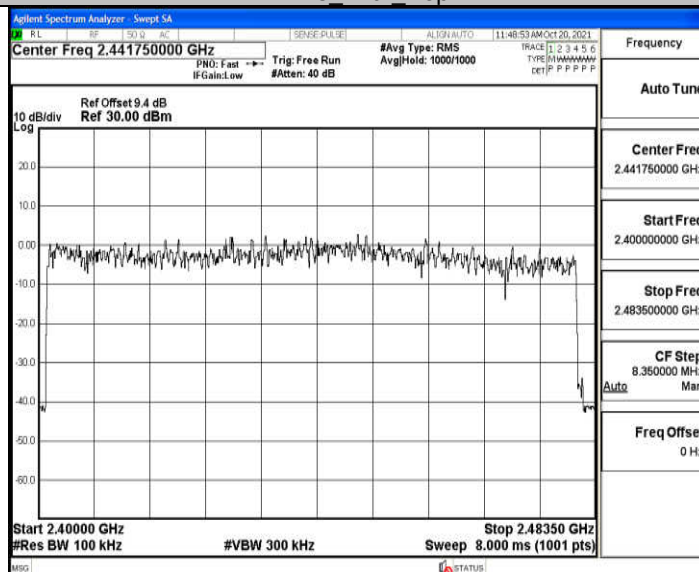
TestMode	Antenna	Channel	Result[Num]	Limit[Num]	Verdict
DH5	Ant1	Hop	79	>=15	PASS
2DH5	Ant1	Hop	79	>=15	PASS
3DH5	Ant1	Hop	79	>=15	PASS

Test Graphs

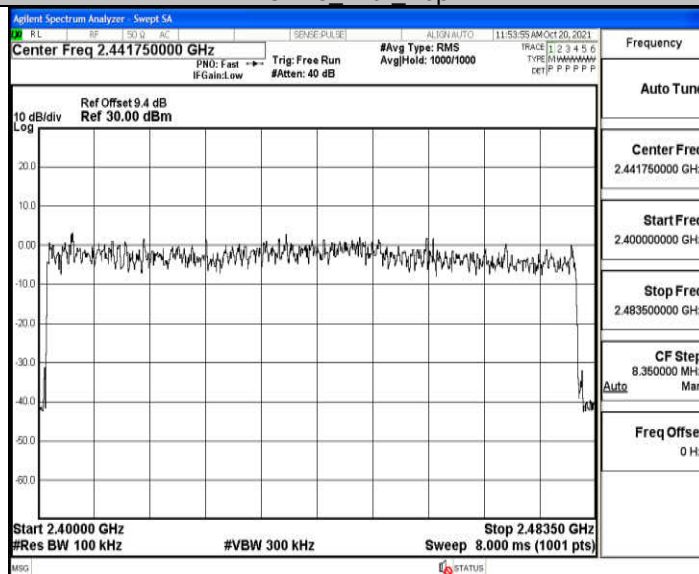
DH5_Ant1_Hop



2DH5_Ant1_Hop



3DH5_Ant1_Hop



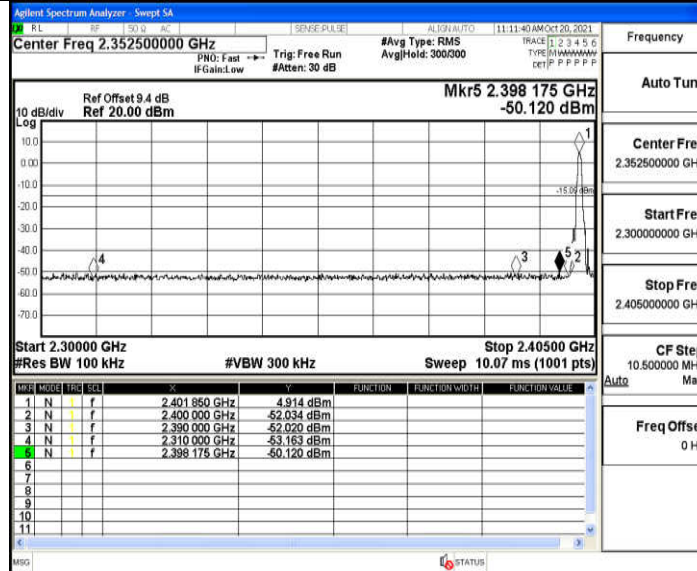
Appendix G: Band edge measurements

Test Result

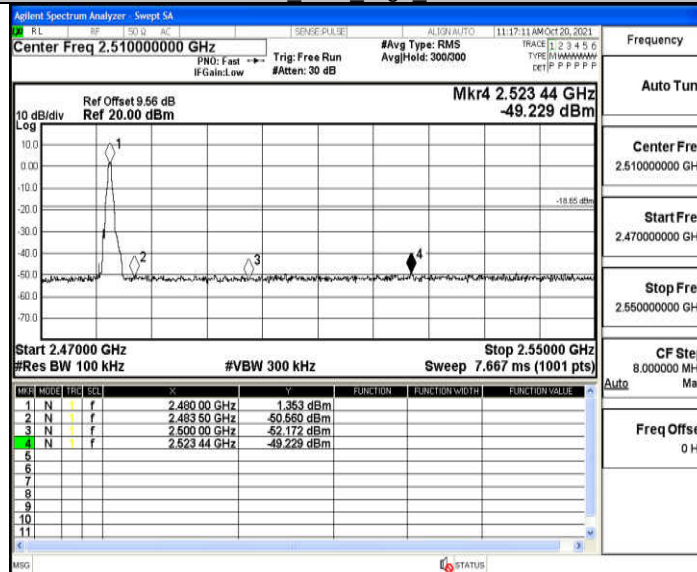
TestMode	Antenna	ChName	Channel	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	4.91	-50.12	≤ -15.09	PASS
		High	2480	1.35	-49.23	≤ -18.65	PASS
		Low	Hop_2402	3.49	-50.34	≤ -16.51	PASS
		High	Hop_2480	1.56	-48.59	≤ -18.44	PASS
2DH5	Ant1	Low	2402	1.71	-49.88	≤ -18.29	PASS
		High	2480	-0.22	-48.96	≤ -20.22	PASS
		Low	Hop_2402	-0.82	-50.59	≤ -20.82	PASS
		High	Hop_2480	-1.24	-48.78	≤ -21.24	PASS
3DH5	Ant1	Low	2402	3.37	-49.16	≤ -16.63	PASS
		High	2480	0.16	-48.56	≤ -19.84	PASS
		Low	Hop_2402	2.92	-50.24	≤ -17.08	PASS
		High	Hop_2480	0.22	-48.64	≤ -19.78	PASS

Test Graphs

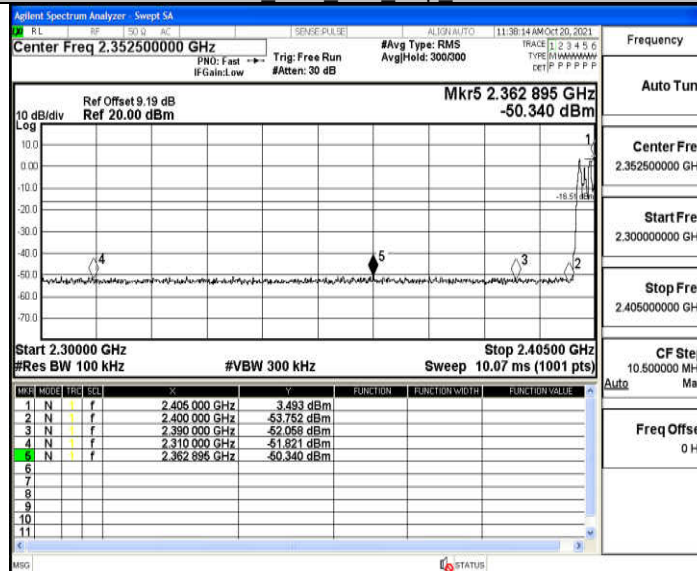
DH5_Ant1_Low_2402



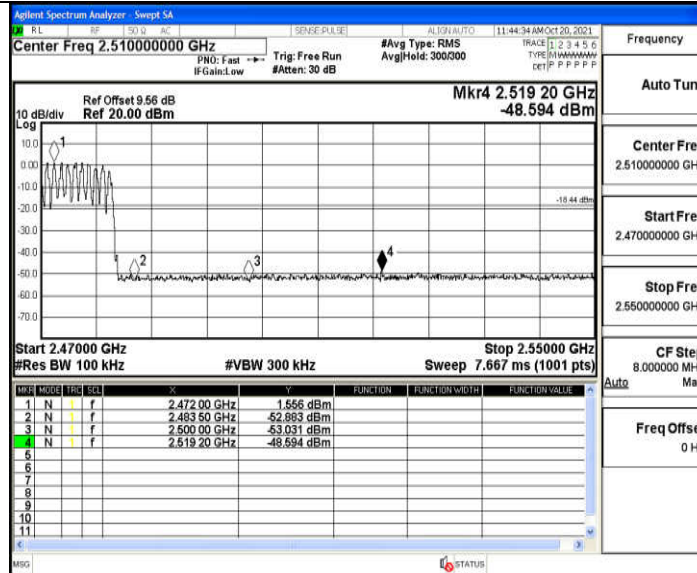
DH5_Ant1_High_2480



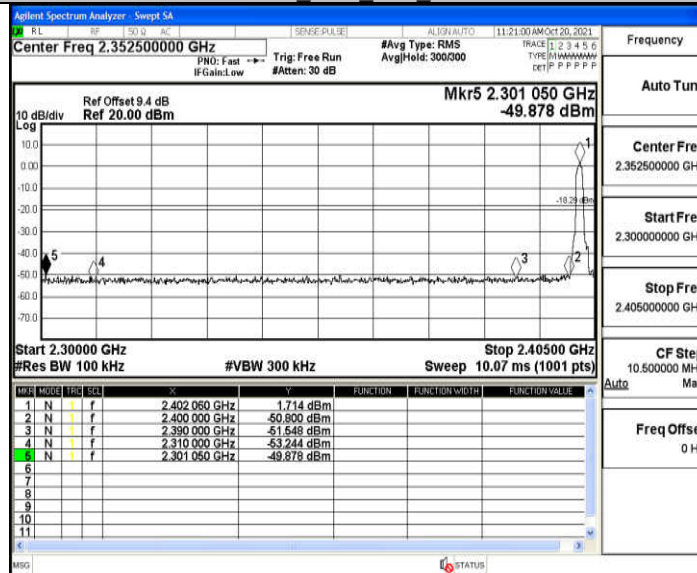
DH5_Ant1_Low_Hop_2402



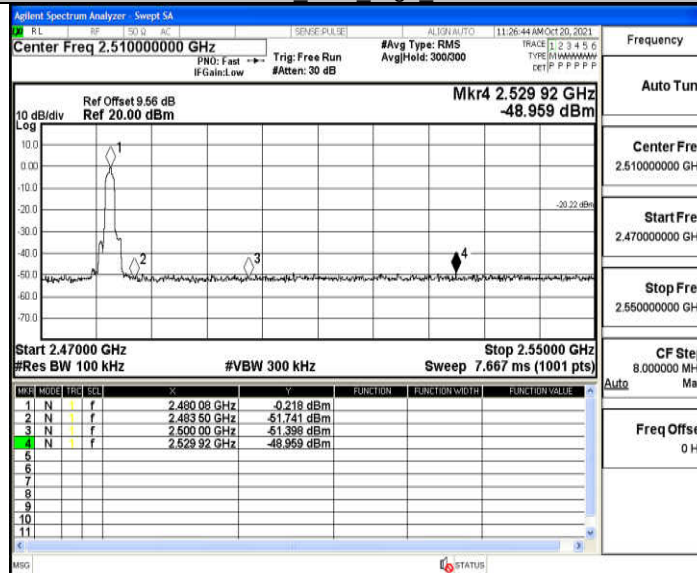
DH5_Ant1_High_Hop_2480



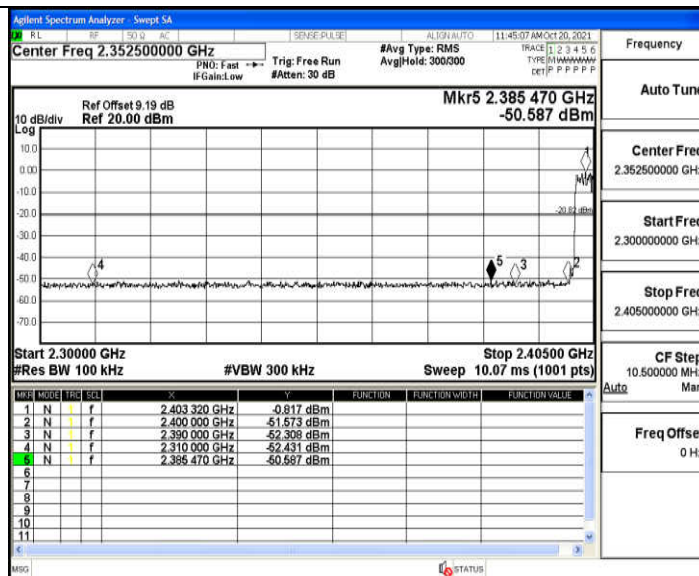
2DH5 Ant1 Low 2402



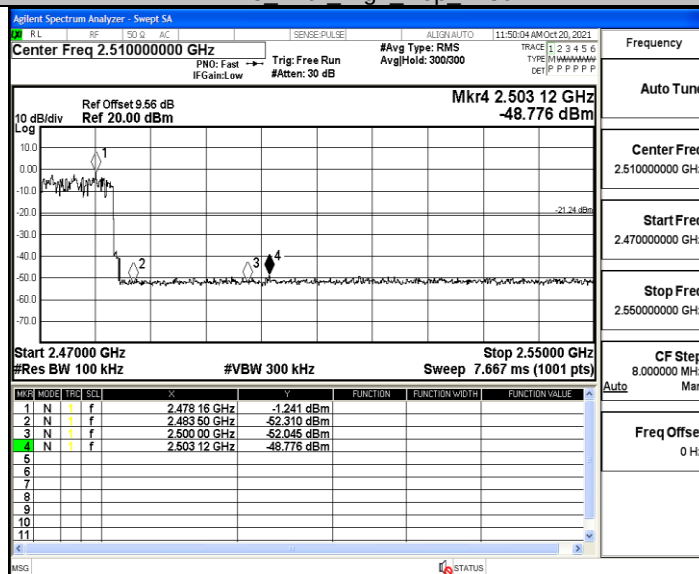
2DH5 Ant1 High 2480



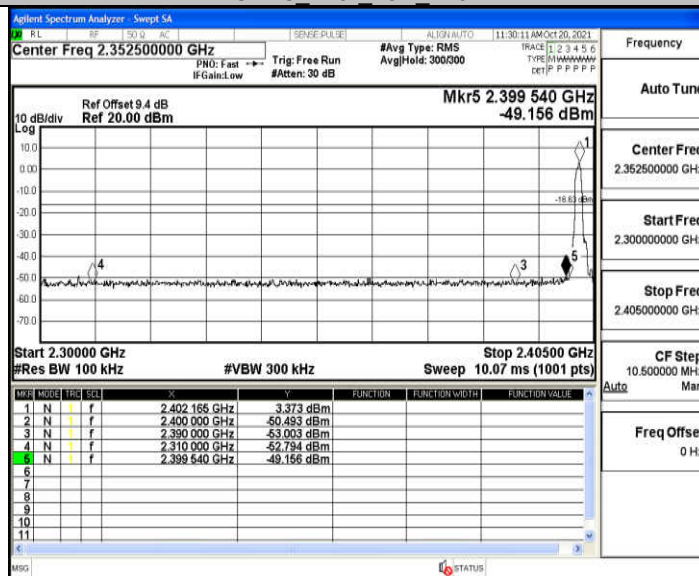
2DH5 Ant1 Low Hop 2402



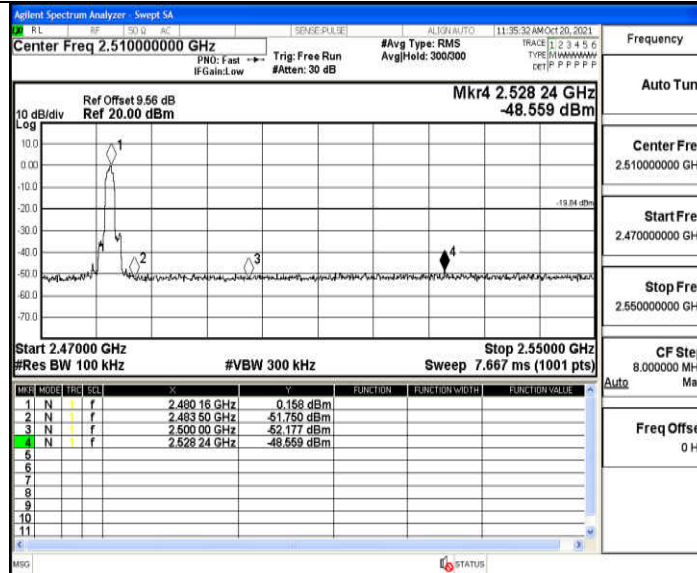
2DH5 Ant1 High Hop 2480



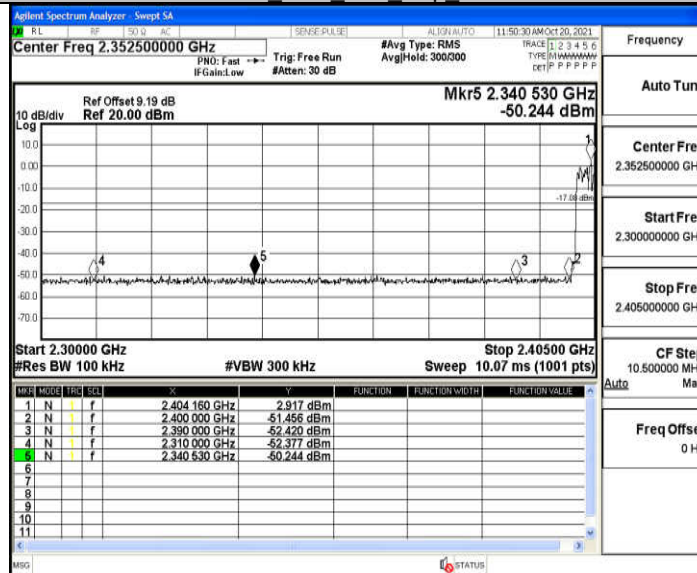
3DH5 Ant1 Low 2402



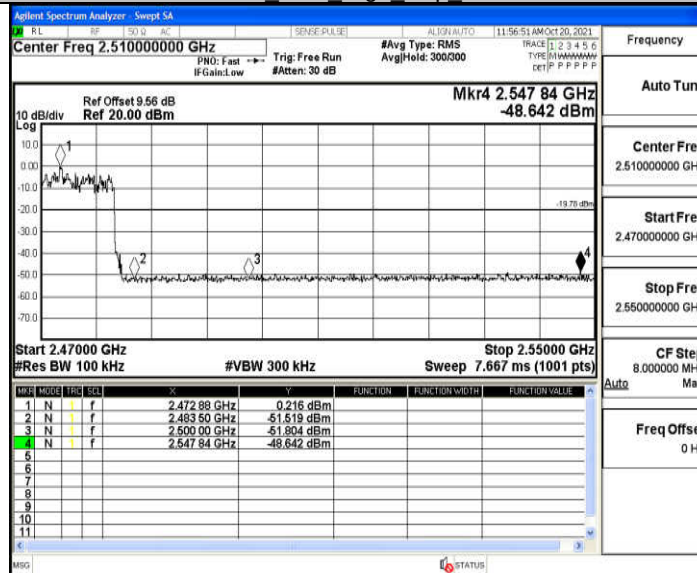
3DH5 Ant1 High 2480



3DH5 Ant1 Low Hop 2402



3DH5 Ant1 High Hop 2480



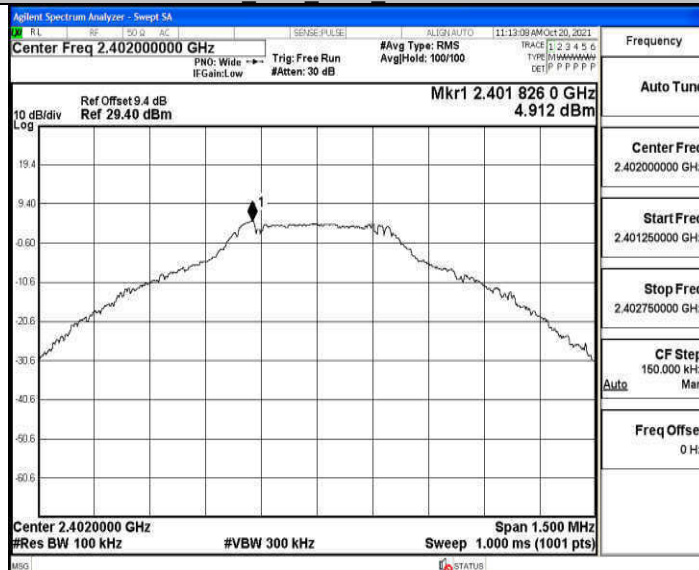
Appendix H: Conducted Spurious Emission

Test Result

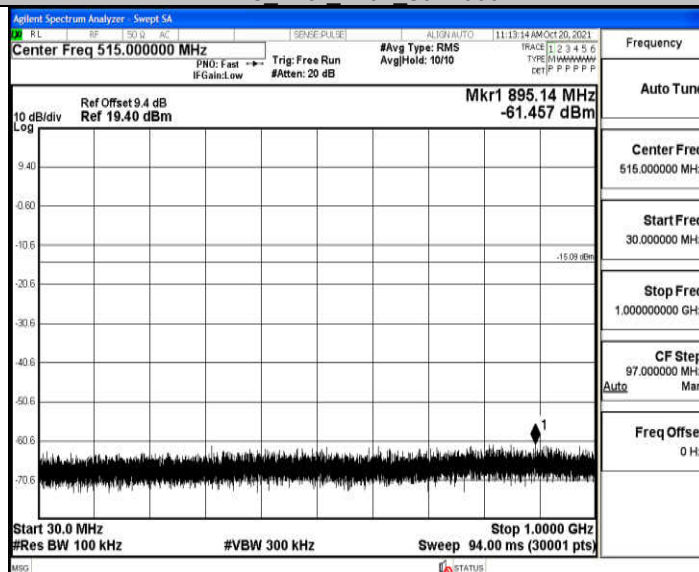
TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	Reference	4.91	4.91	---	PASS
			30~1000	4.91	-61.46	≤-15.09	PASS
			1000~26500	4.91	-51.96	≤-15.09	PASS
		2441	Reference	4.85	4.85	---	PASS
			30~1000	4.85	-59.56	≤-15.15	PASS
			1000~26500	4.85	-52.08	≤-15.15	PASS
		2480	Reference	0.96	0.96	---	PASS
			30~1000	0.96	-60.32	≤-19.04	PASS
			1000~26500	0.96	-51.28	≤-19.04	PASS
2DH5	Ant1	2402	Reference	2.57	2.57	---	PASS
			30~1000	2.57	-61.5	≤-17.43	PASS
			1000~26500	2.57	-52.1	≤-17.43	PASS
		2441	Reference	2.83	2.83	---	PASS
			30~1000	2.83	-61.29	≤-17.17	PASS
			1000~26500	2.83	-50.3	≤-17.17	PASS
		2480	Reference	-0.49	-0.49	---	PASS
			30~1000	-0.49	-60.06	≤-20.49	PASS
			1000~26500	-0.49	-51.88	≤-20.49	PASS
3DH5	Ant1	2402	Reference	3.31	3.31	---	PASS
			30~1000	3.31	-61.8	≤-16.69	PASS
			1000~26500	3.31	-52.43	≤-16.69	PASS
		2441	Reference	1.92	1.92	---	PASS
			30~1000	1.92	-61.05	≤-18.08	PASS
			1000~26500	1.92	-52.4	≤-18.08	PASS
		2480	Reference	-0.08	-0.08	---	PASS
			30~1000	-0.08	-60.76	≤-20.08	PASS
			1000~26500	-0.08	-51.43	≤-20.08	PASS

Test Graphs

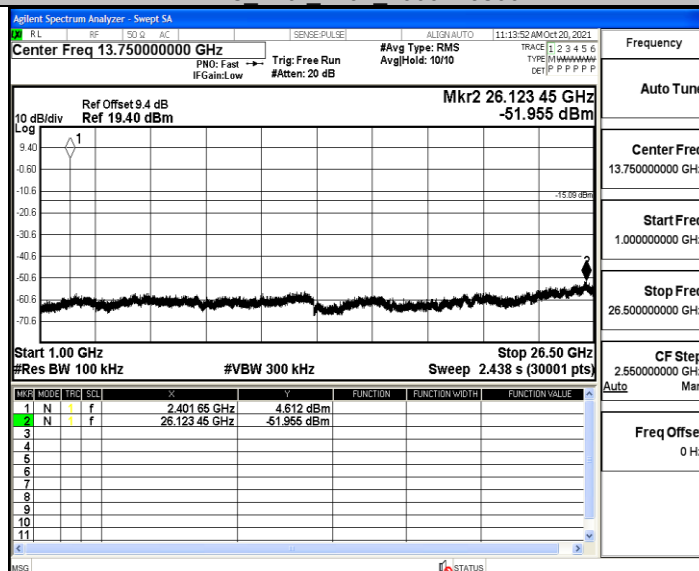
DH5_Ant1_2402_0-Reference



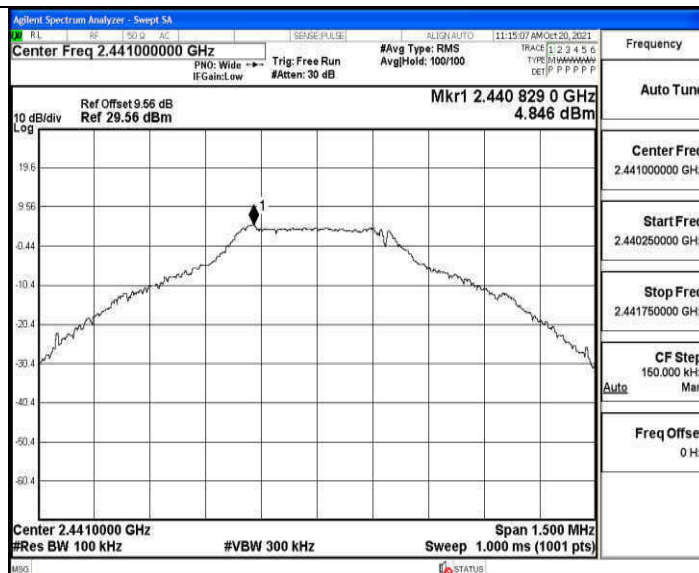
DH5_Ant1_2402_30-1000



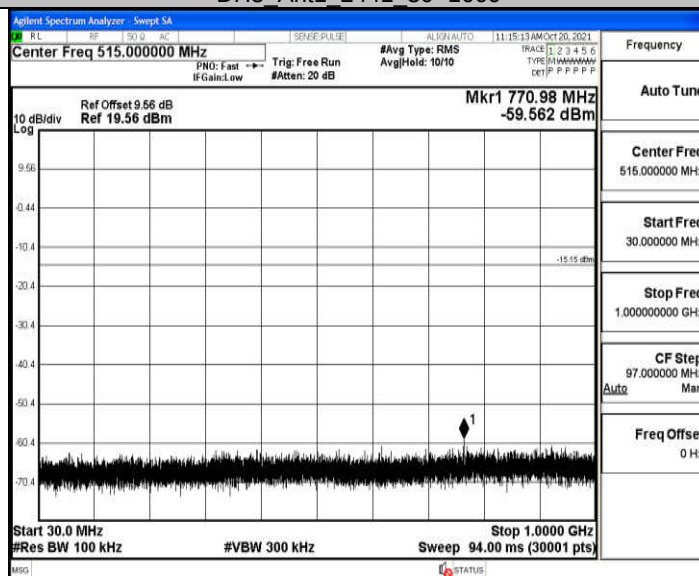
DH5_Ant1_2402_1000-26500



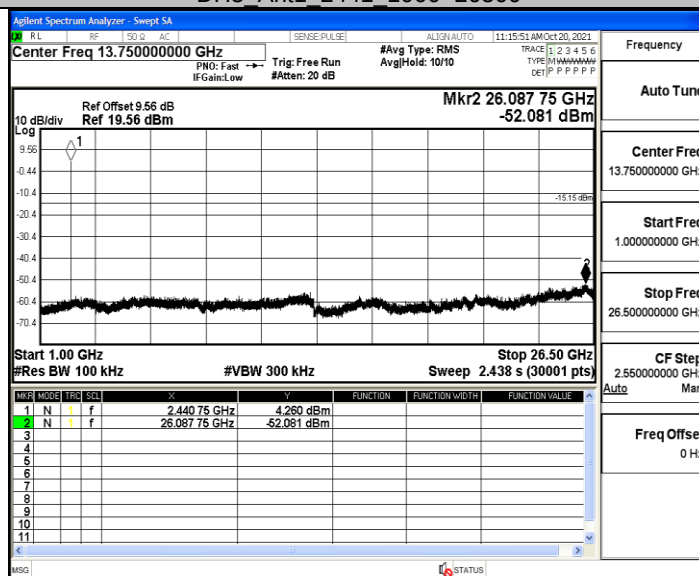
DH5_Ant1_2441_0-Reference



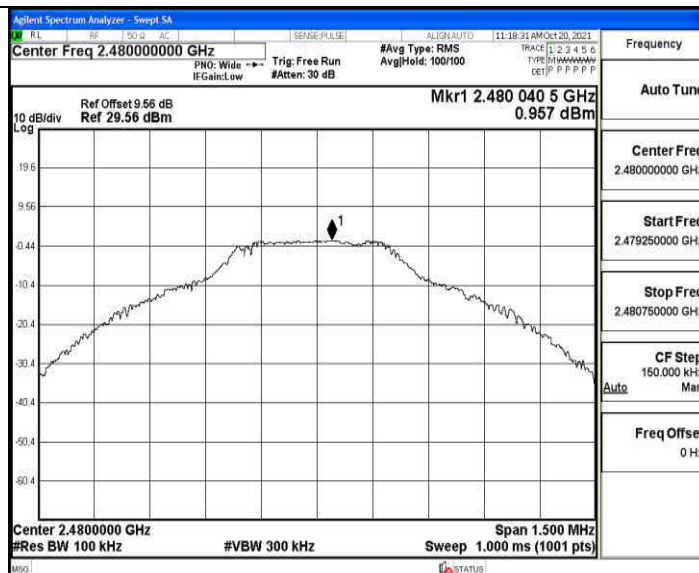
DH5_Ant1_2441_30~1000



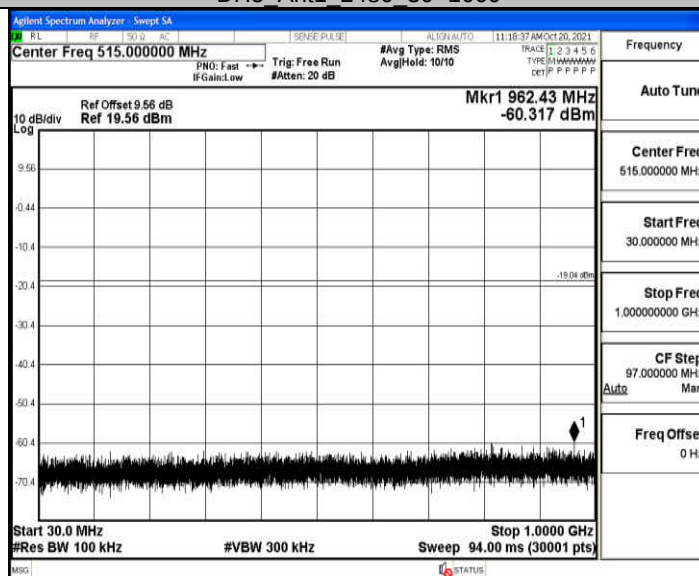
DH5_Ant1_2441_1000~26500



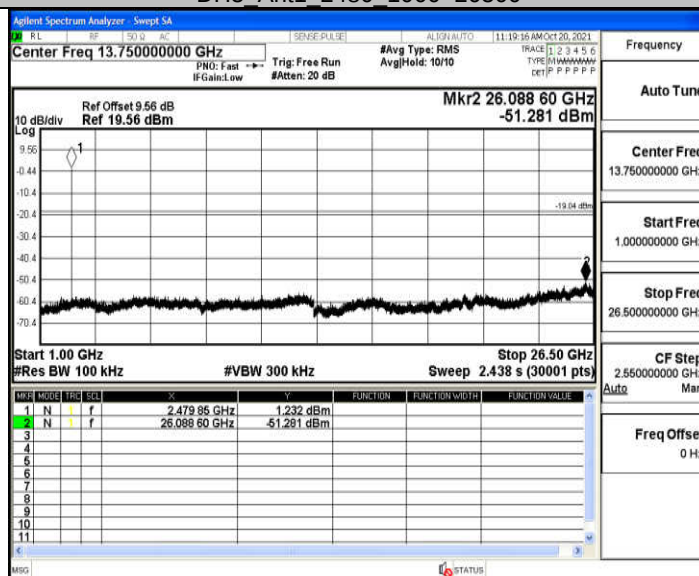
DH5_Ant1_2480_0-Reference



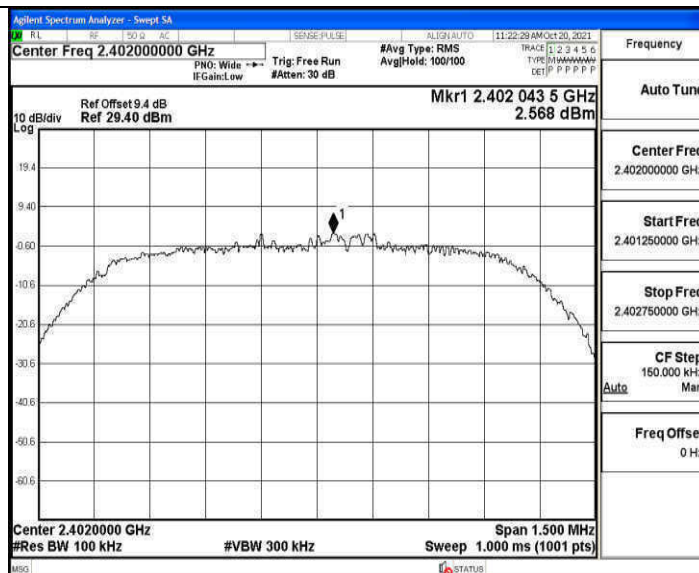
DH5 Ant1 2480 30~1000



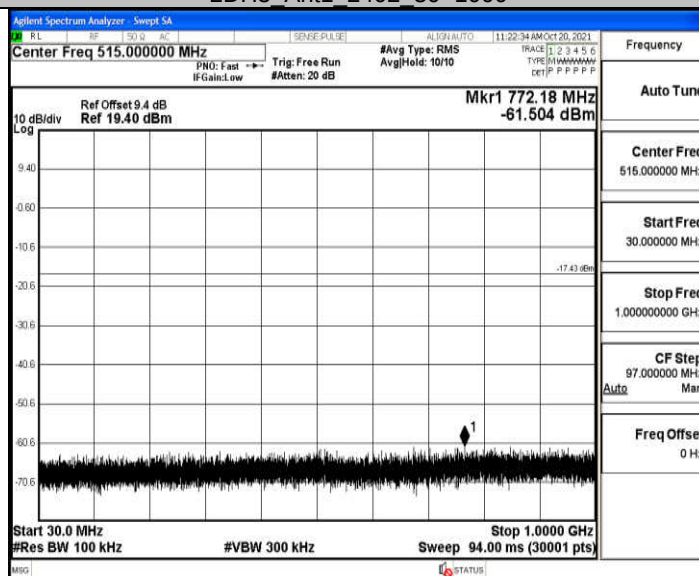
DH5 Ant1 2480 1000~26500



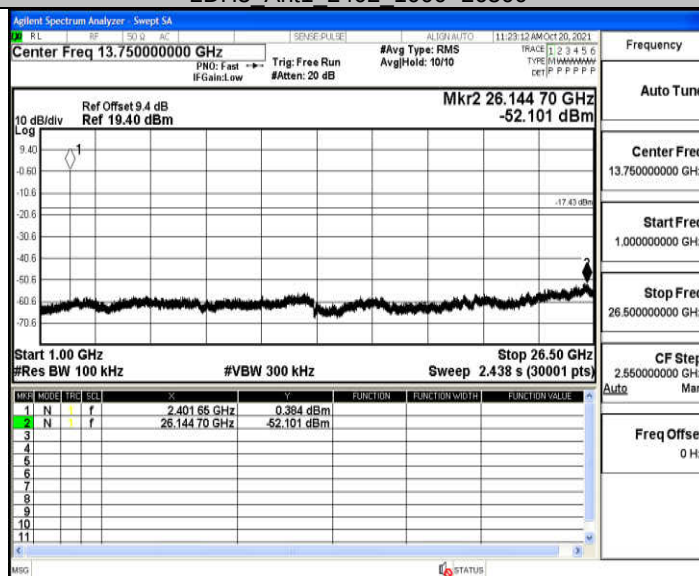
2DH5 Ant1 2402 0~Reference



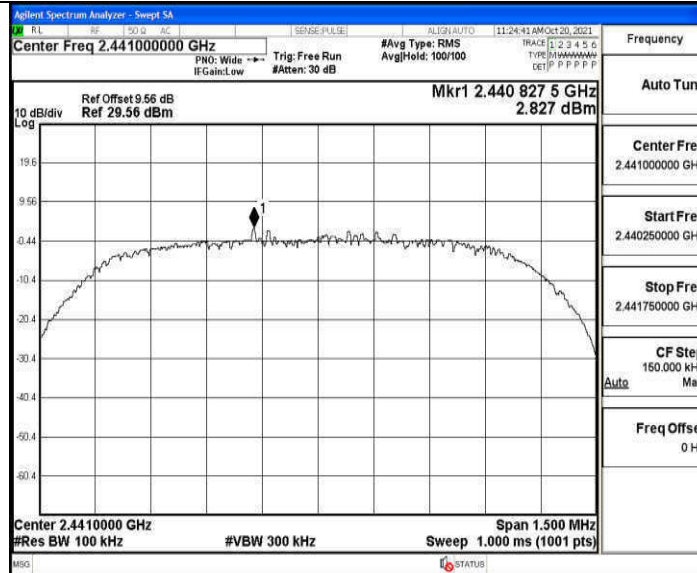
2DH5 Ant1 2402 30~1000



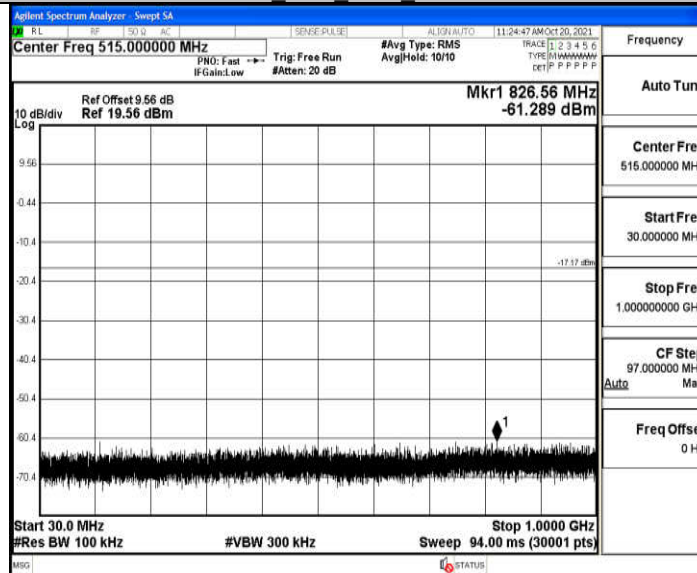
2DH5 Ant1 2402 1000~26500



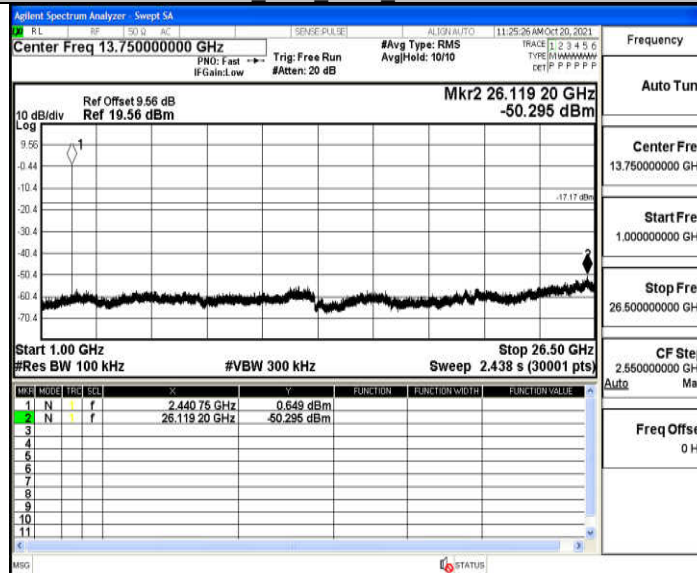
2DH5 Ant1 2441 0~Reference



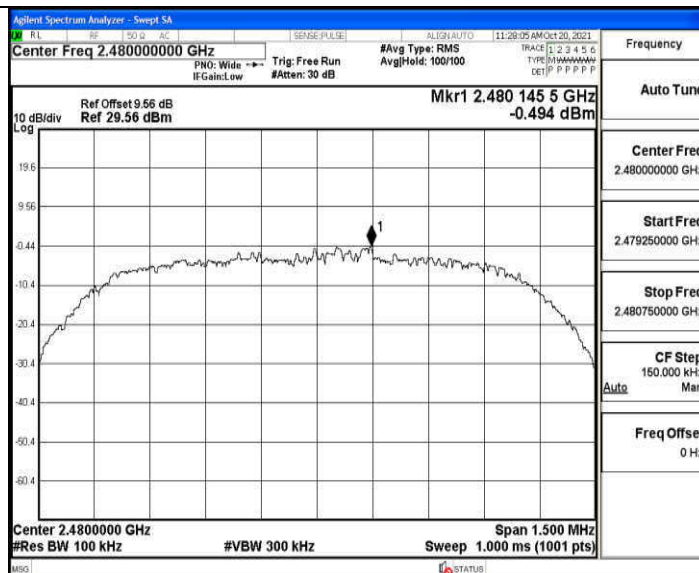
2DH5 Ant1 2441 30~1000



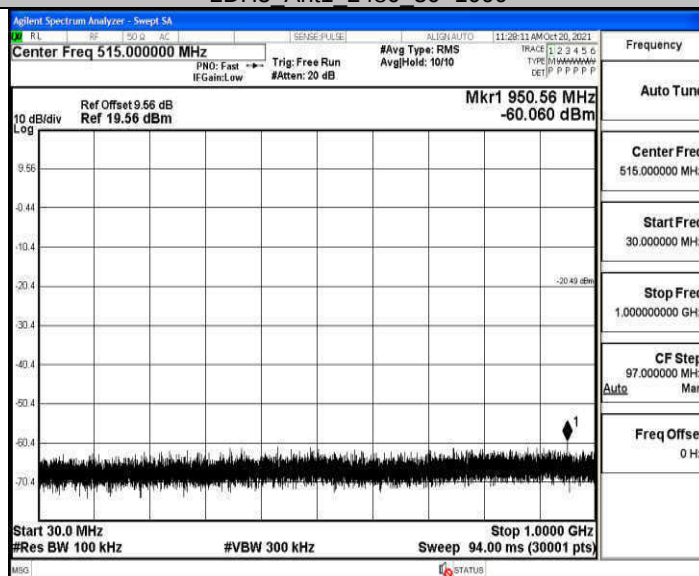
2DH5 Ant1 2441 1000~26500



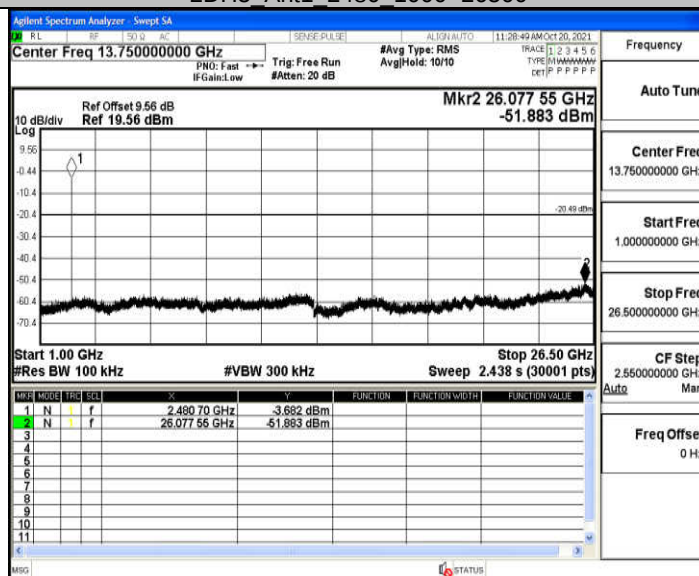
2DH5 Ant1 2480 0~Reference



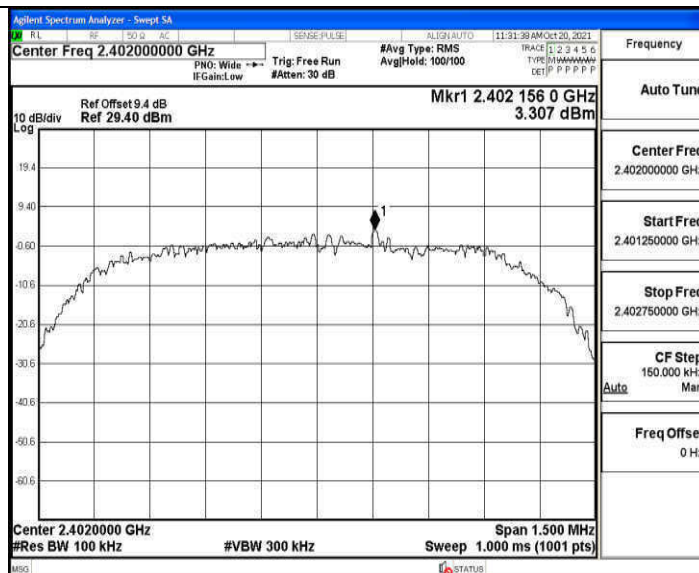
2DH5 Ant1 2480 30~1000



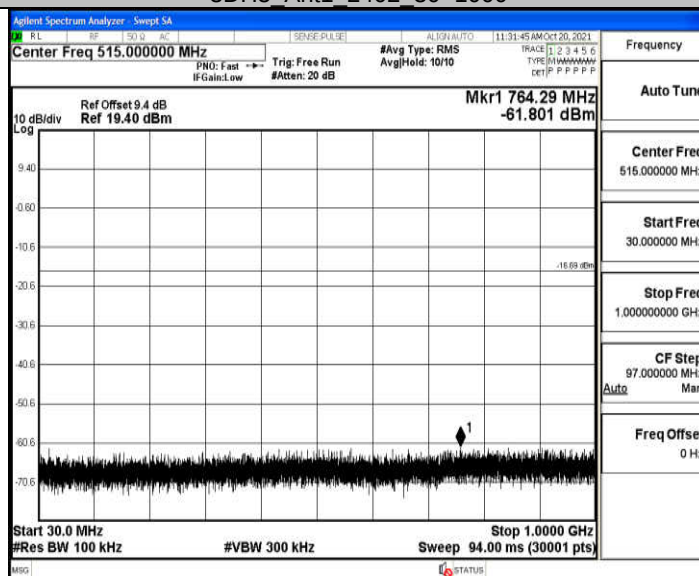
2DH5 Ant1 2480 1000~26500



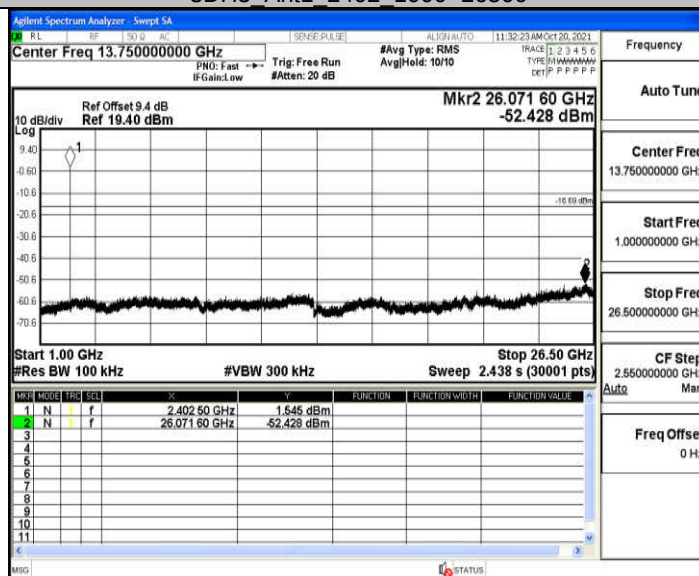
3DH5 Ant1 2402 0~Reference



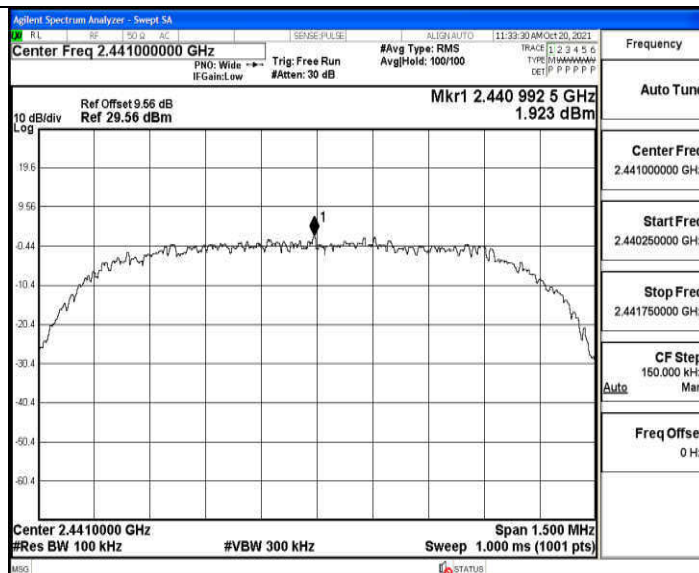
3DH5 Ant1 2402 30~1000



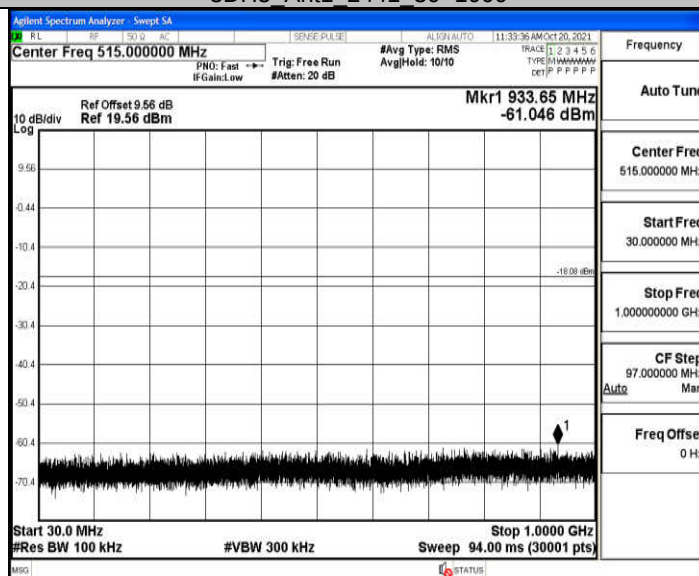
3DH5 Ant1 2402 1000~26500



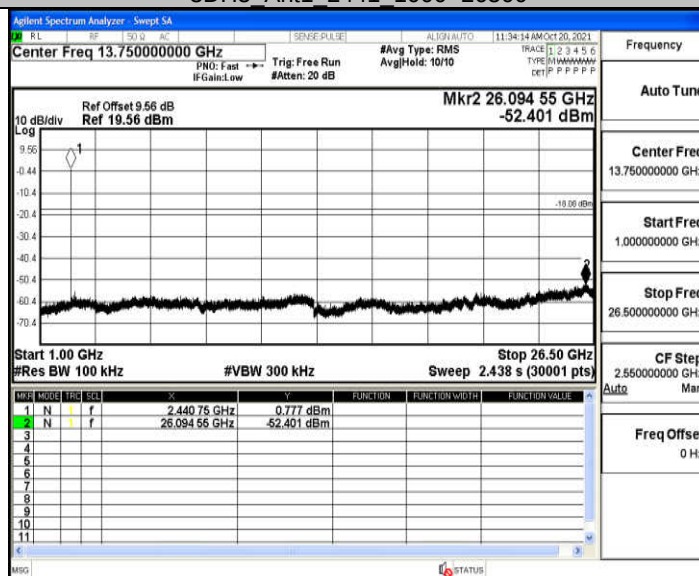
3DH5 Ant1 2441 0~Reference



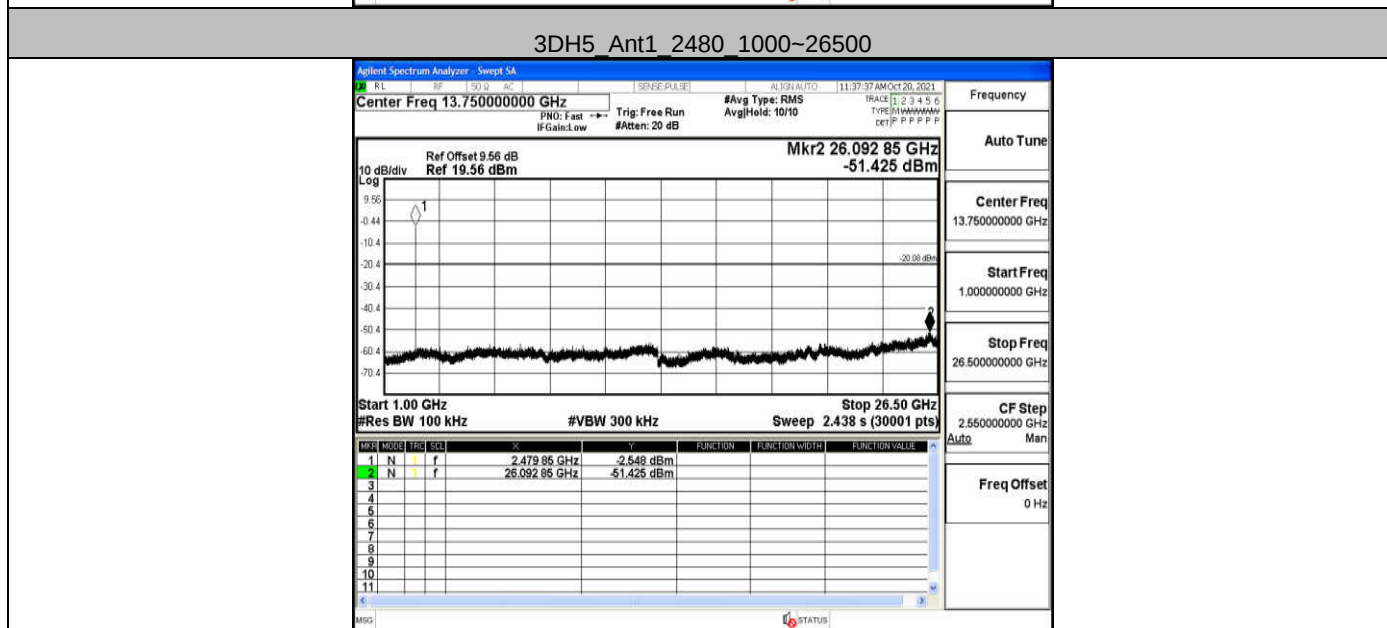
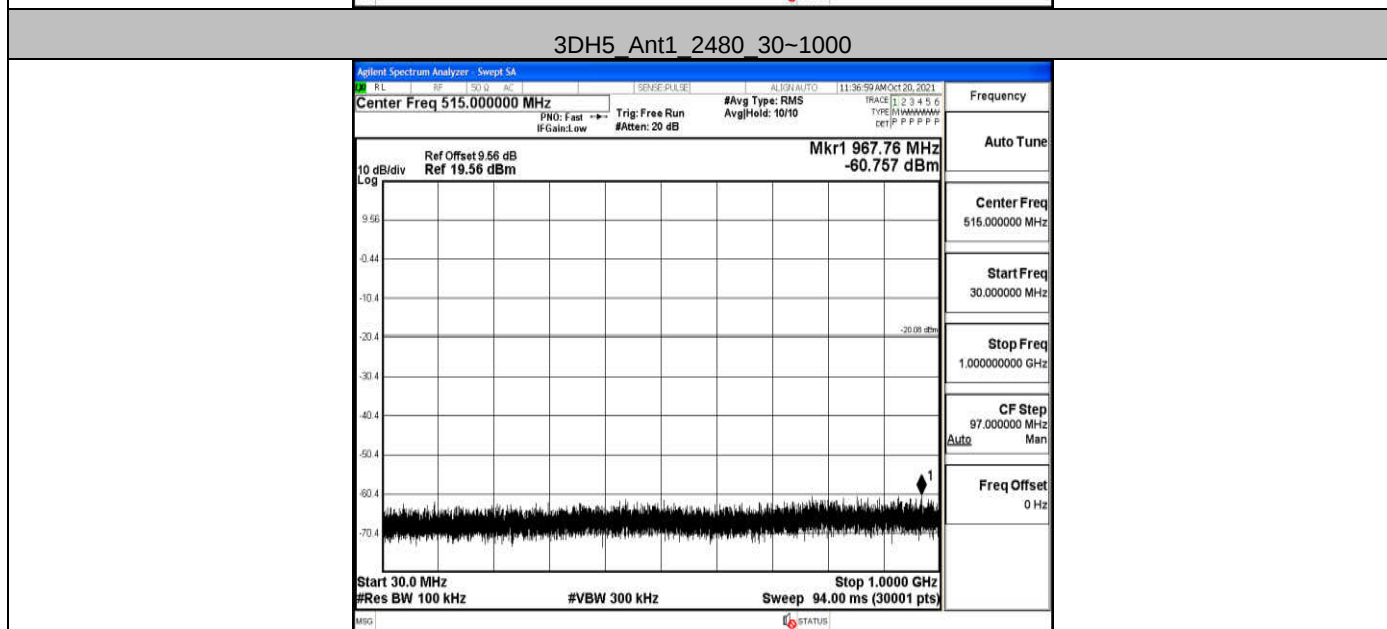
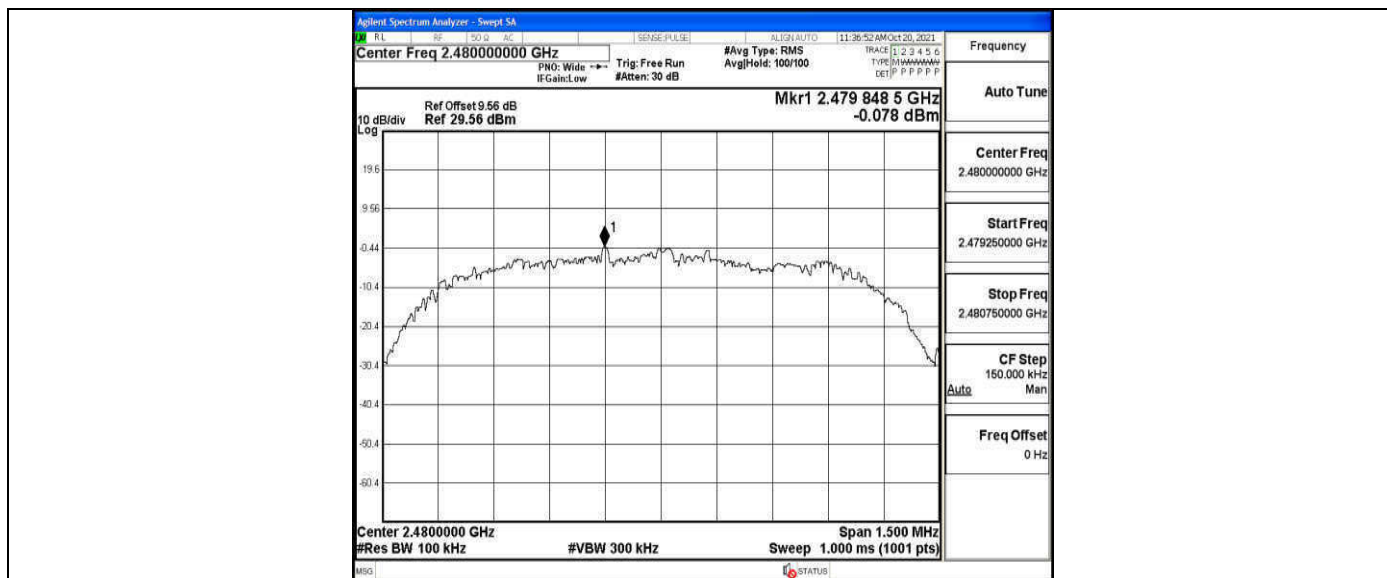
3DH5 Ant1 2441 30~1000



3DH5 Ant1 2441 1000~26500



3DH5 Ant1 2480 0~Reference



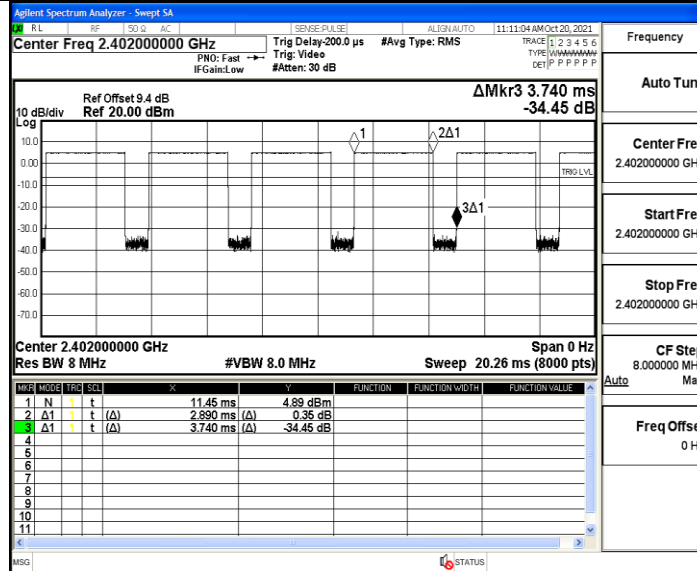
Appendix I: Duty Cycle

Test Result

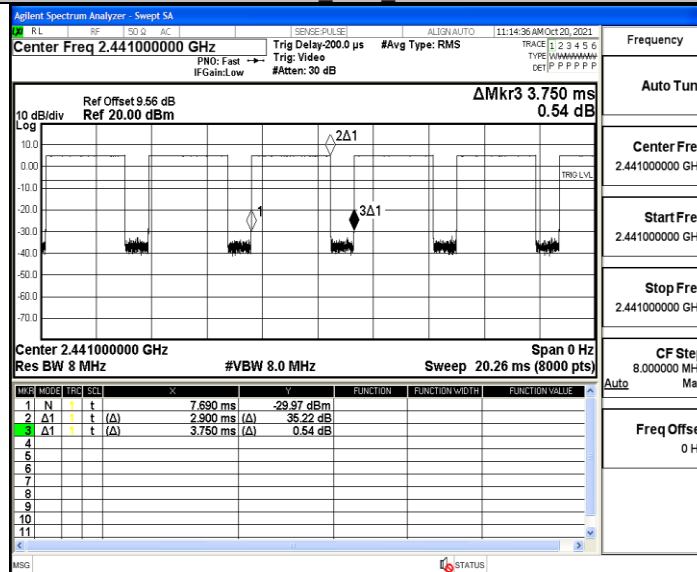
TestMode	Antenna	Channel	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	1/B[kHz]
DH5	Ant1	2402	2.89	3.74	77.27	0.35
		2441	2.90	3.75	77.33	0.34
		2480	2.90	3.75	77.33	0.34
2DH5	Ant1	2402	2.88	3.75	76.80	0.35
		2441	2.88	3.75	76.80	0.35
		2480	2.89	3.75	77.07	0.35
3DH5	Ant1	2402	2.89	3.75	77.07	0.35
		2441	2.88	3.75	76.80	0.35
		2480	2.88	3.75	76.80	0.35

Test Graphs

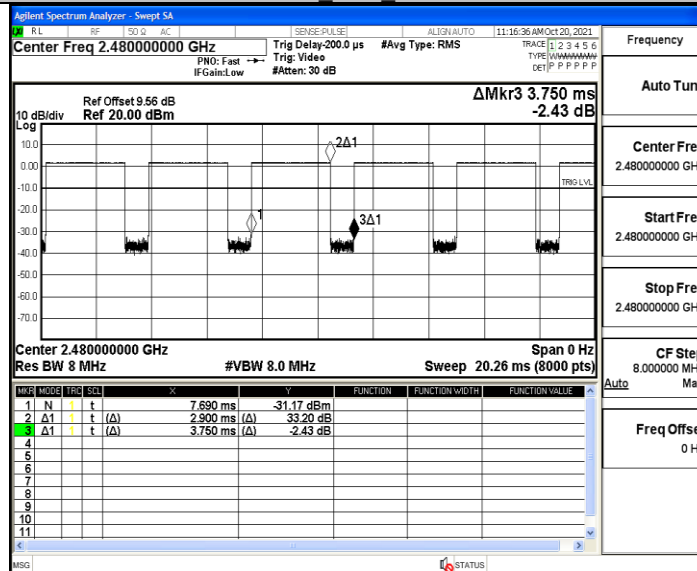
DH5 Ant1 2402



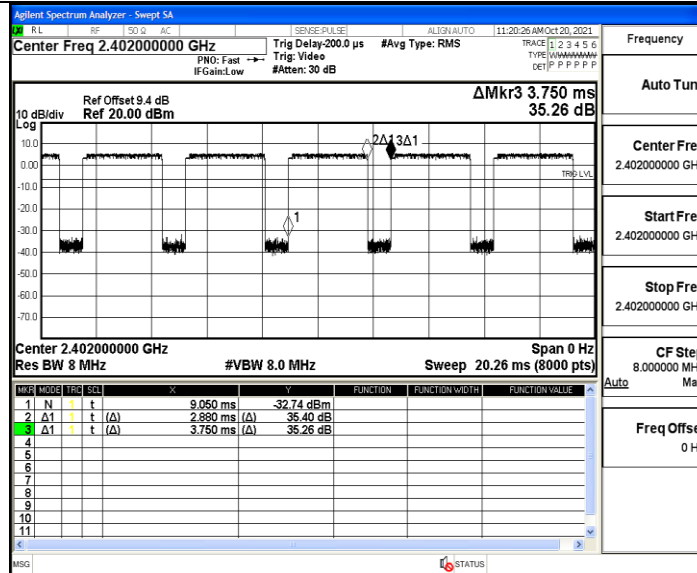
DH5 Ant1 2441



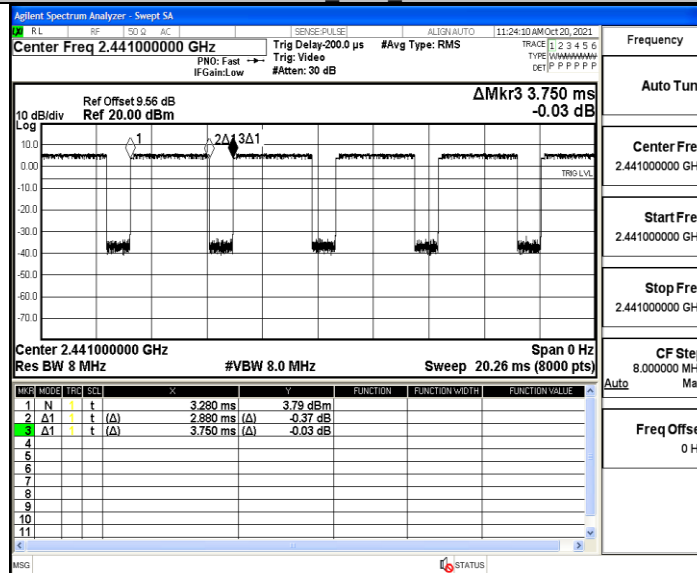
DH5 Ant1 2480



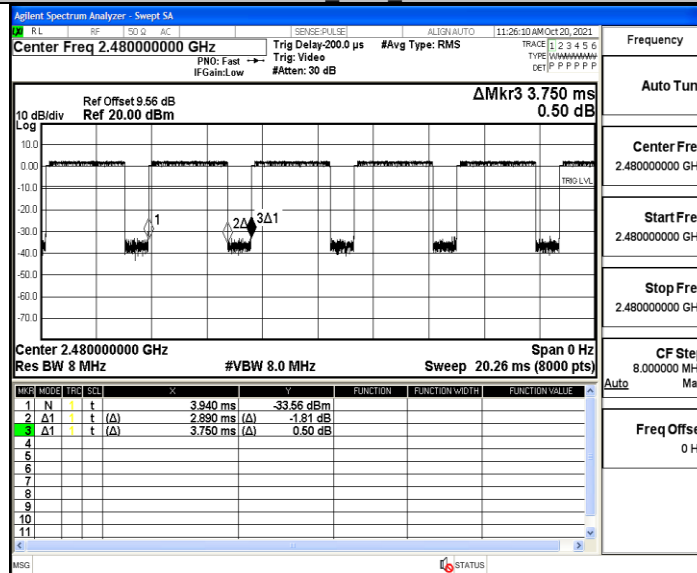
2DH5 Ant1 2402



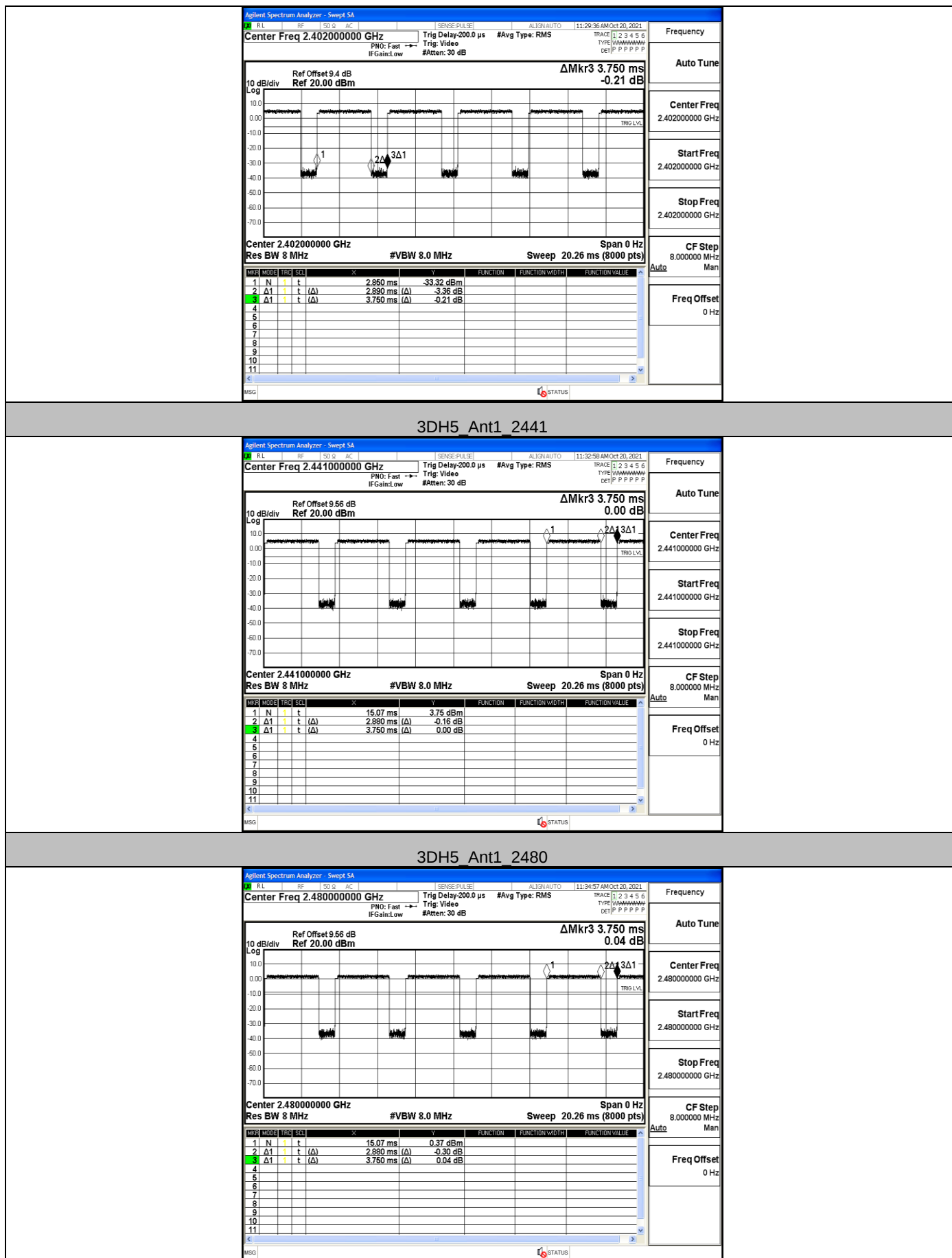
2DH5 Ant1 2441



2DH5 Ant1 2480



3DH5 Ant1 2402



Appendix J: Emissions in Restricted Bands

Test Result

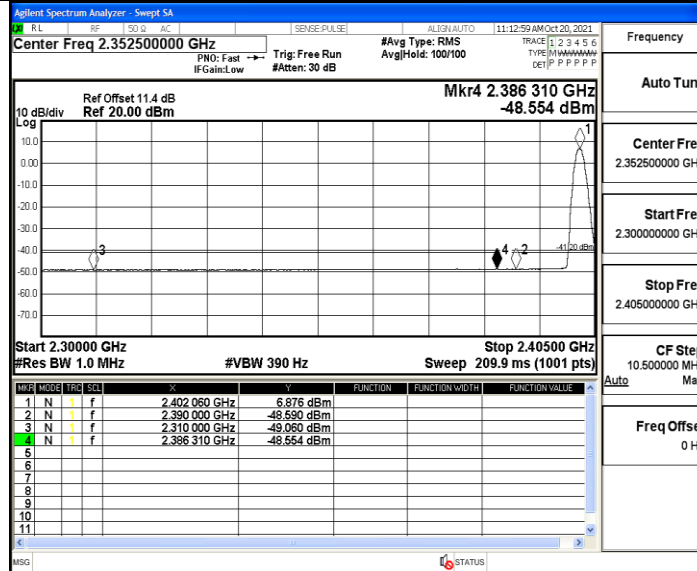
TestMode	Antenna	ChName	Channel	Detector	Freq(MHz)	Result(dBm)	Limit(dBm)	Verdict
DH5	Ant1	Low	2402	AV	2310.000	-49.06	≤-41.20	PASS
				AV	2386.310	-48.55	≤-41.20	PASS
				AV	2390.000	-48.59	≤-41.20	PASS
				Peak	2310.000	-41.66	≤-21.20	PASS
				Peak	2374.655	-38.81	≤-21.20	PASS
				Peak	2390.000	-42.26	≤-21.20	PASS
		High	2480	AV	2483.500	-47.7	≤-41.20	PASS
				AV	2483.520	-47.7	≤-41.20	PASS
				AV	2500.000	-47.94	≤-41.20	PASS
				Peak	2483.500	-40.81	≤-21.20	PASS
				Peak	2484.400	-38.85	≤-21.20	PASS
				Peak	2500.000	-39.91	≤-21.20	PASS
2DH5	Ant1	Low	2402	AV	2310.000	-49.06	≤-41.20	PASS
				AV	2389.250	-48.57	≤-41.20	PASS
				AV	2390.000	-48.68	≤-41.20	PASS
				Peak	2310.000	-41.21	≤-21.20	PASS
				Peak	2330.450	-38.32	≤-21.20	PASS
				Peak	2390.000	-40.34	≤-21.20	PASS
		High	2480	AV	2483.500	-47.23	≤-41.20	PASS
				AV	2483.520	-47.23	≤-41.20	PASS
				AV	2500.000	-48.05	≤-41.20	PASS
				Peak	2483.500	-39.71	≤-21.20	PASS
				Peak	2483.600	-38.39	≤-21.20	PASS
				Peak	2500.000	-40.94	≤-21.20	PASS
3DH5	Ant1	Low	2402	AV	2310.000	-48.83	≤-41.20	PASS
				AV	2389.670	-48.59	≤-41.20	PASS
				AV	2390.000	-48.74	≤-41.20	PASS
				Peak	2310.000	-42.33	≤-21.20	PASS
				Peak	2370.350	-39.12	≤-21.20	PASS
				Peak	2390.000	-42.12	≤-21.20	PASS
		High	2480	AV	2483.500	-47.26	≤-41.20	PASS
				AV	2483.520	-47.26	≤-41.20	PASS
				AV	2500.000	-47.96	≤-41.20	PASS
				Peak	2483.500	-41.42	≤-21.20	PASS
				Peak	2499.040	-38.27	≤-21.20	PASS
				Peak	2500.000	-41.02	≤-21.20	PASS

Note :

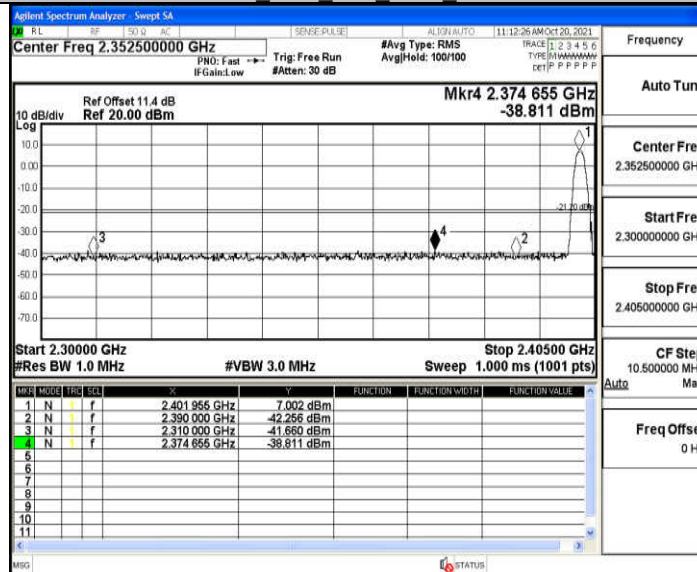
1. The Antenna Gain is compensated in the graph with 2dBi and Antenna Gain which is Higher.
2. The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.

Test Graphs

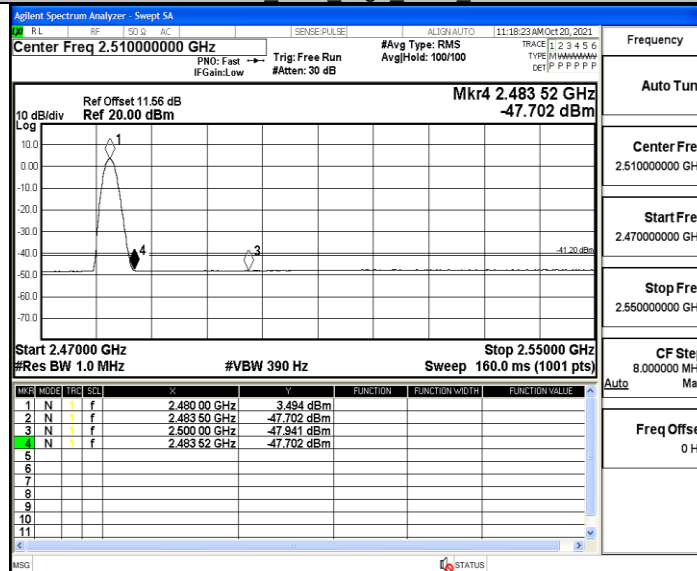
DH5 Ant1 Low 2402 AV



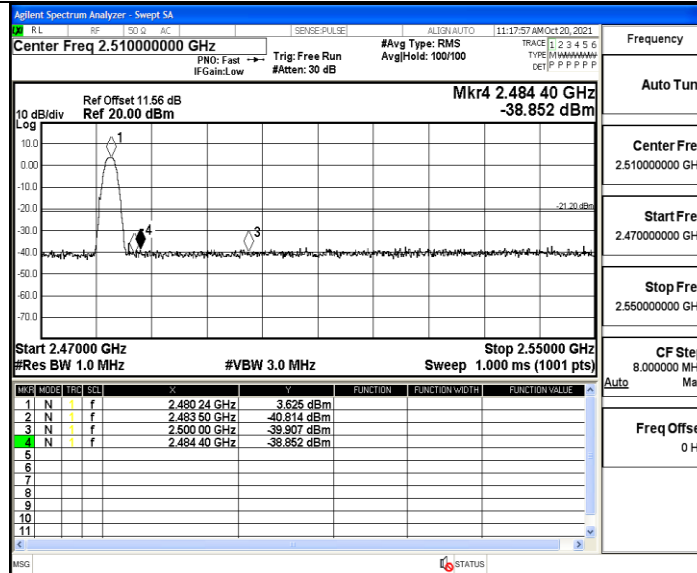
DH5 Ant1 Low 2402 Peak



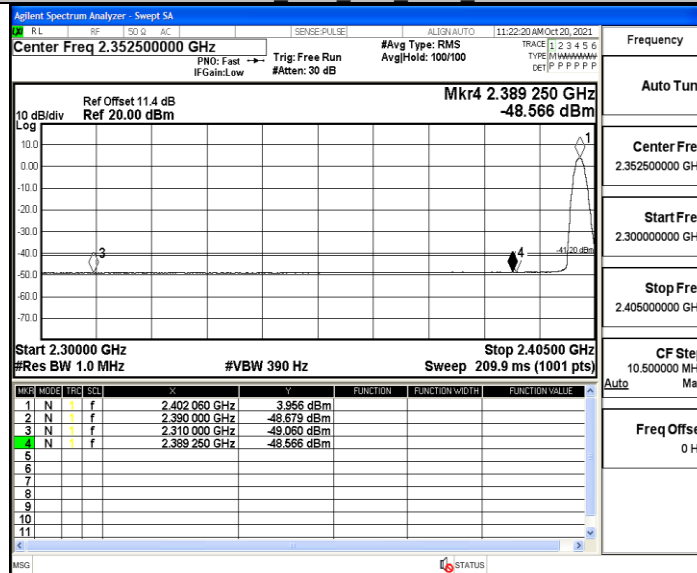
DH5 Ant1 High 2480 AV



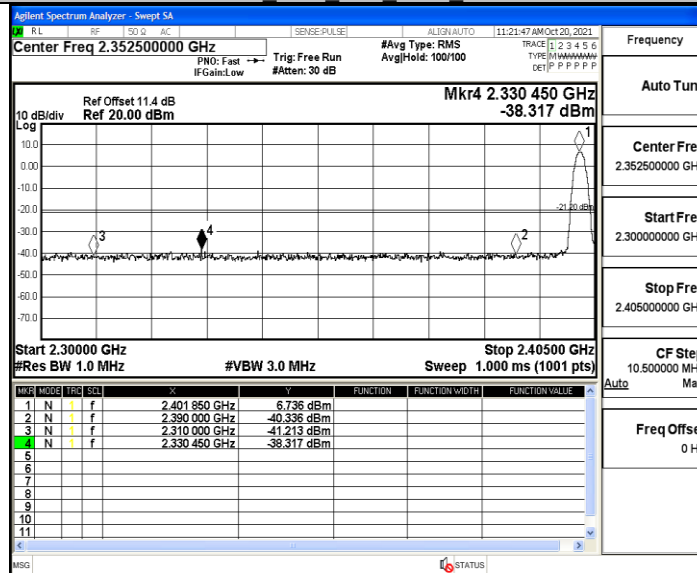
DH5 Ant1 High 2480 Peak



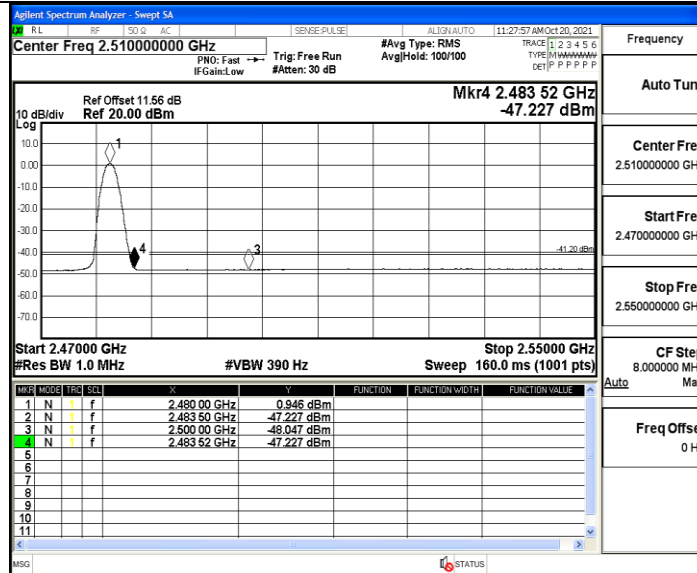
2DH5 Ant1 Low 2402 AV



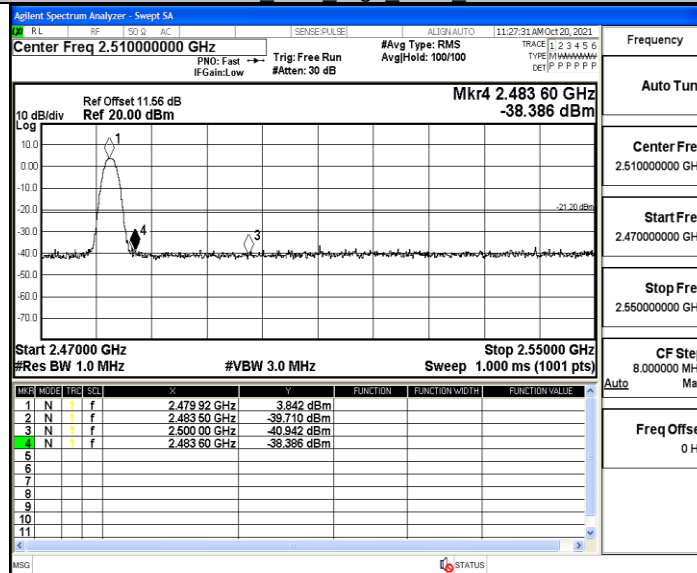
2DH5 Ant1 Low 2402 Peak



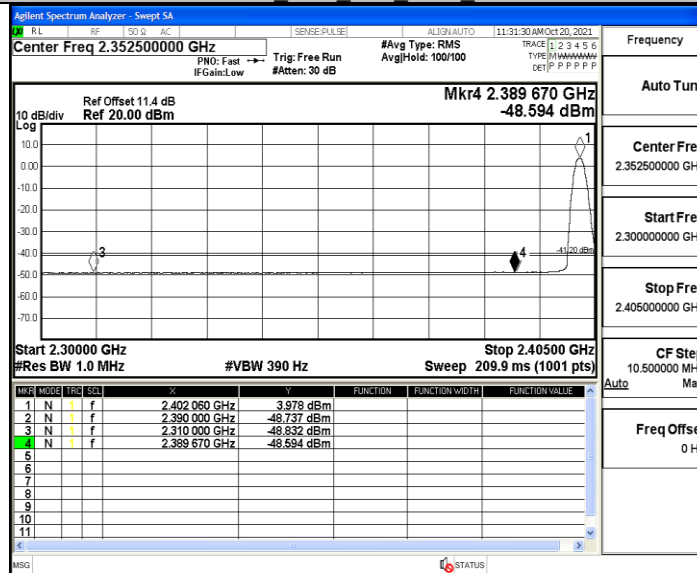
2DH5 Ant1 High 2480 AV



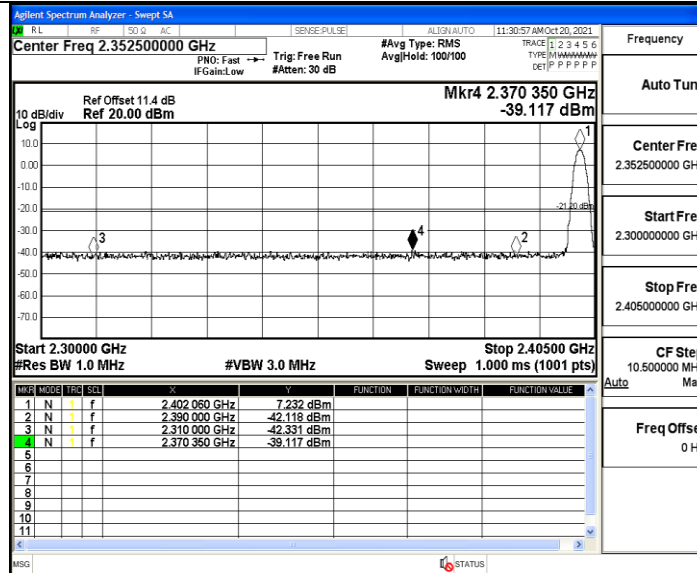
2DH5 Ant1 High 2480 Peak



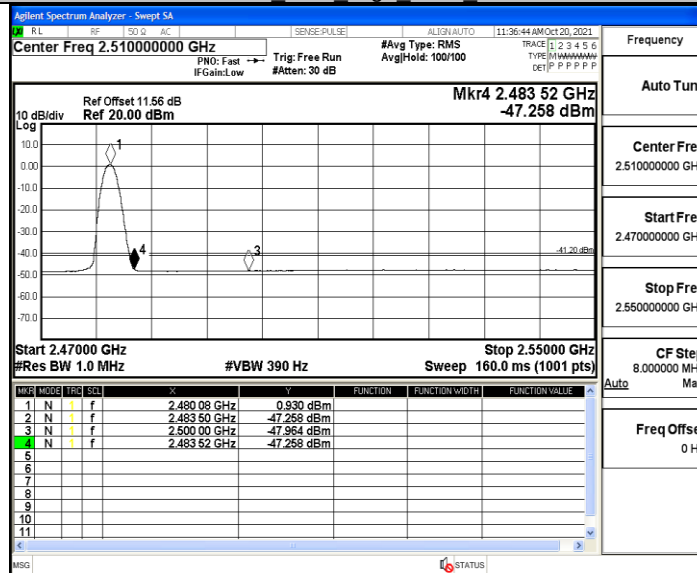
3DH5 Ant1 Low 2402 AV



3DH5 Ant1 Low 2402 Peak



3DH5 Ant1 High 2480 AV



3DH5 Ant1 High 2480 Peak

