

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

Product Name: OTT+DVB

Trade Mark: N/A

Test Model: SH5BFAA

FCC ID: 2AOVU-SH5BFAX

Environmental Conditions

Temperature:	25.5°C
Relative Humidity:	55.2%
ATM Pressure:	100.0 kPa
Test Engineer:	Anna Hu
Supervised by:	Hugo Chen
NOTE	N/A

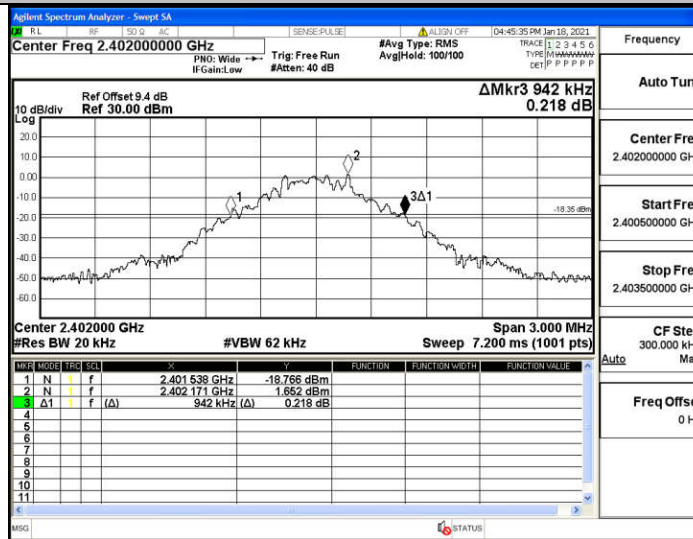
Appendix A: 20dB Emission Bandwidth

Test Result

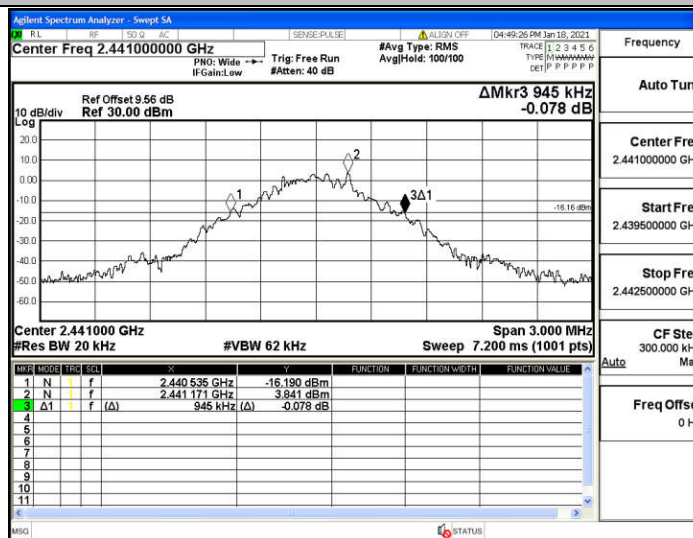
TestMode	Antenna	Channel	20db EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant3	2402	0.942	2401.538	2402.480	Not Specified	PASS
		2441	0.945	2440.535	2441.480	Not Specified	PASS
		2480	0.951	2479.535	2480.486	Not Specified	PASS
2DH5	Ant3	2402	1.323	2401.337	2402.660	Not Specified	PASS
		2441	1.305	2440.346	2441.651	Not Specified	PASS
		2480	1.317	2479.340	2480.657	Not Specified	PASS
3DH5	Ant3	2402	1.341	2401.322	2402.663	Not Specified	PASS
		2441	1.320	2440.331	2441.651	Not Specified	PASS
		2480	1.302	2479.331	2480.633	Not Specified	PASS

Test Graphs

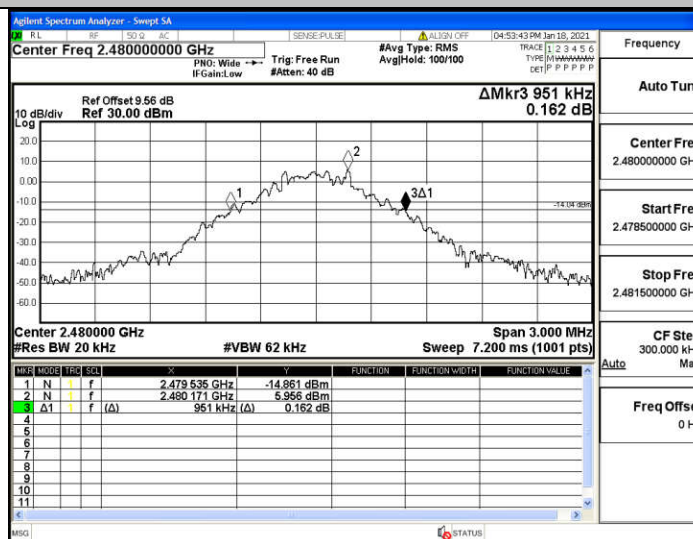
DH5_Ant3_2402



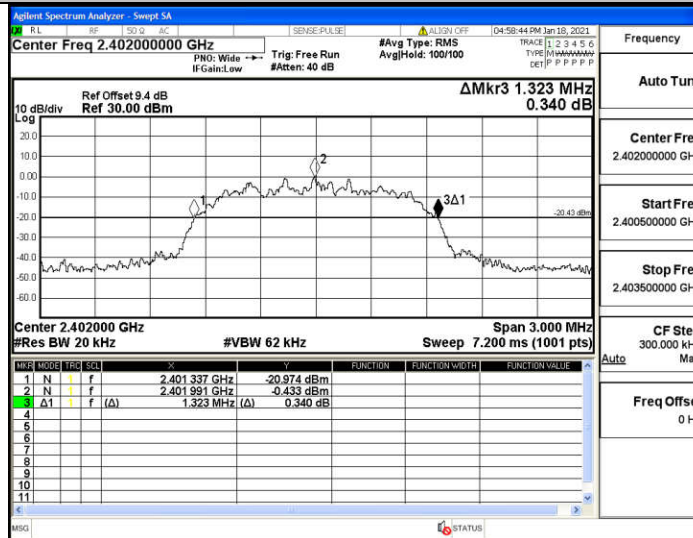
DH5_Ant3_2441



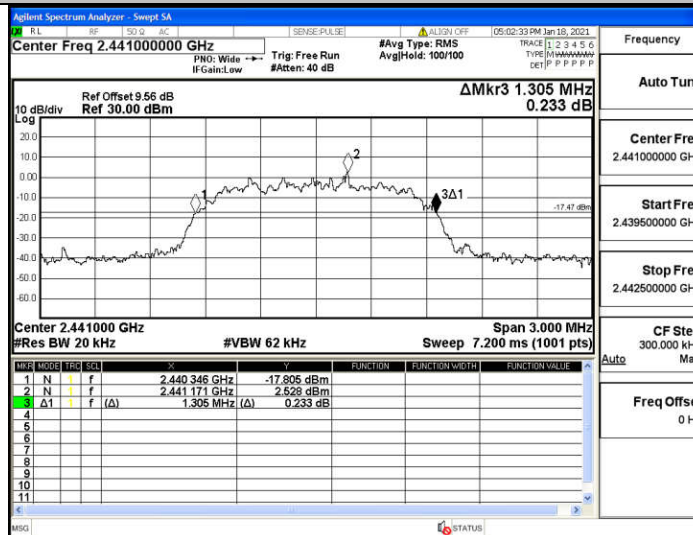
DH5_Ant3_2480



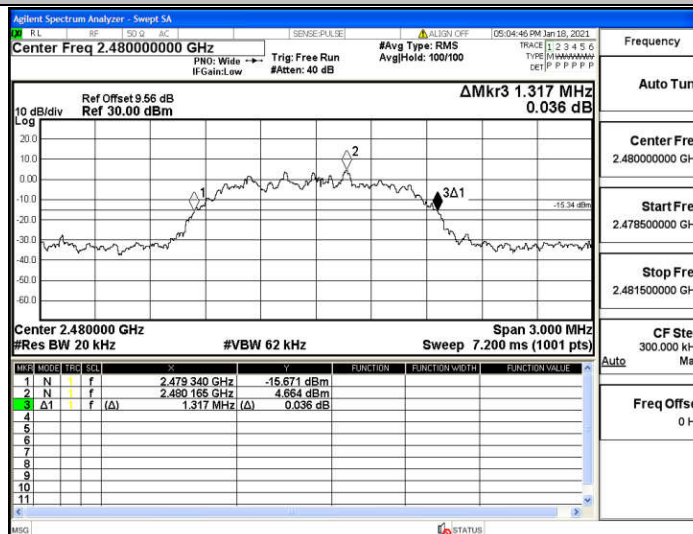
2DH5_Ant3_2402



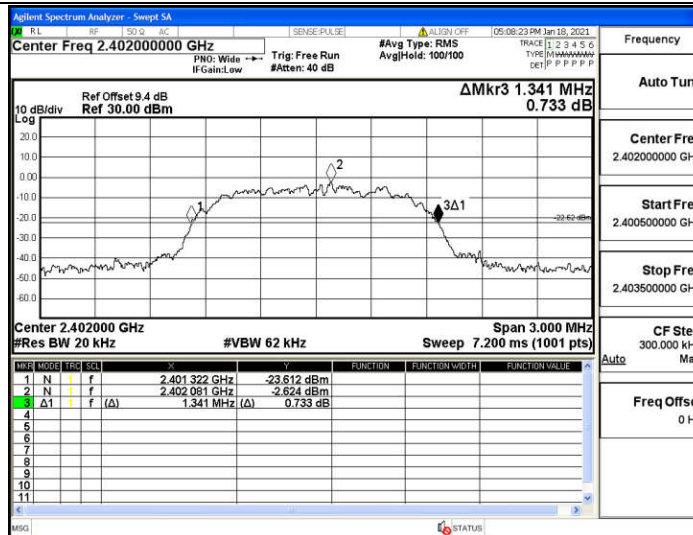
2DH5_Ant3_2441



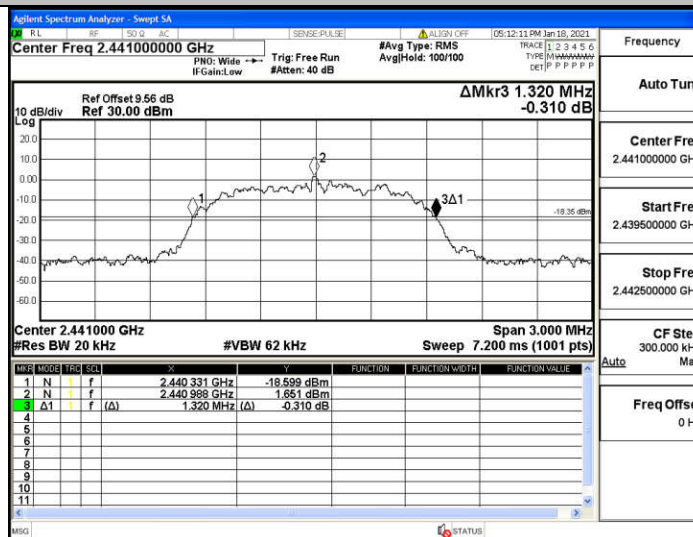
2DH5_Ant3_2480



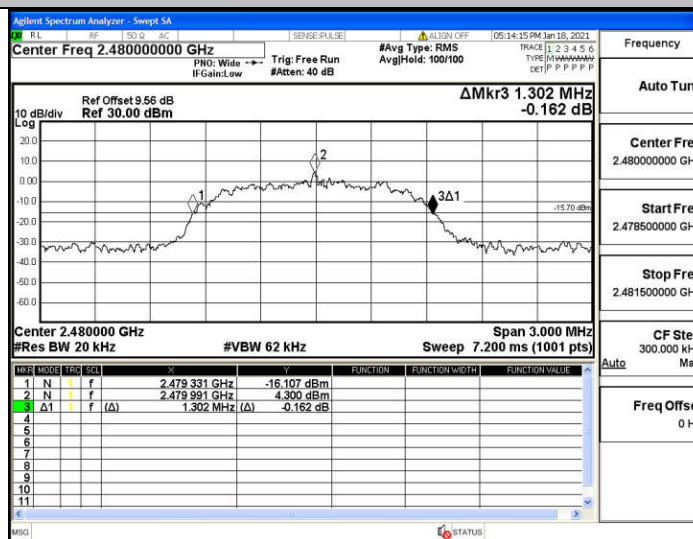
3DH5_Ant3_2402



3DH5_Ant3_2441



3DH5_Ant3_2480



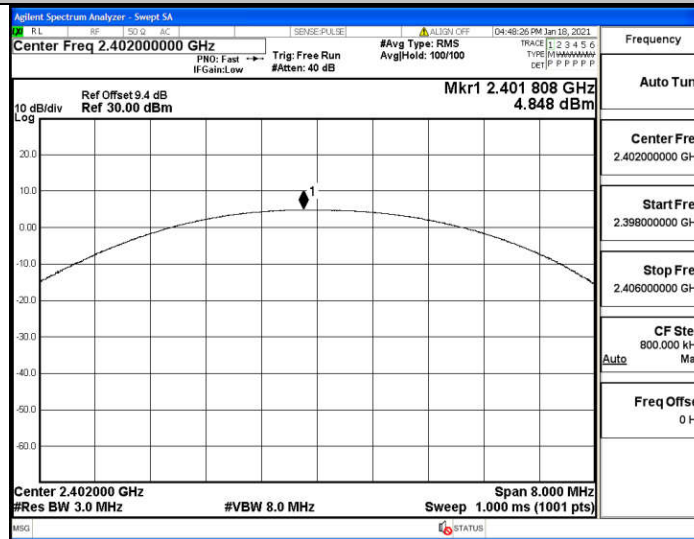
Appendix B: Maximum conducted output power

Test Result

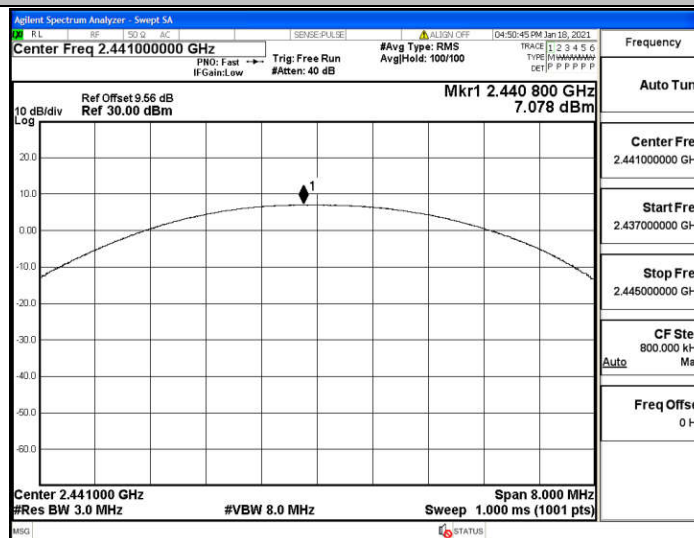
TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
DH5	Ant3	2402	4.85	<=30	PASS
		2441	7.08	<=30	PASS
		2480	9.14	<=30	PASS
2DH5	Ant3	2402	6.3	<=20.97	PASS
		2441	8.37	<=20.97	PASS
		2480	10.18	<=20.97	PASS
3DH5	Ant3	2402	6.87	<=20.97	PASS
		2441	8.91	<=20.97	PASS
		2480	10.57	<=20.97	PASS

Test Graphs

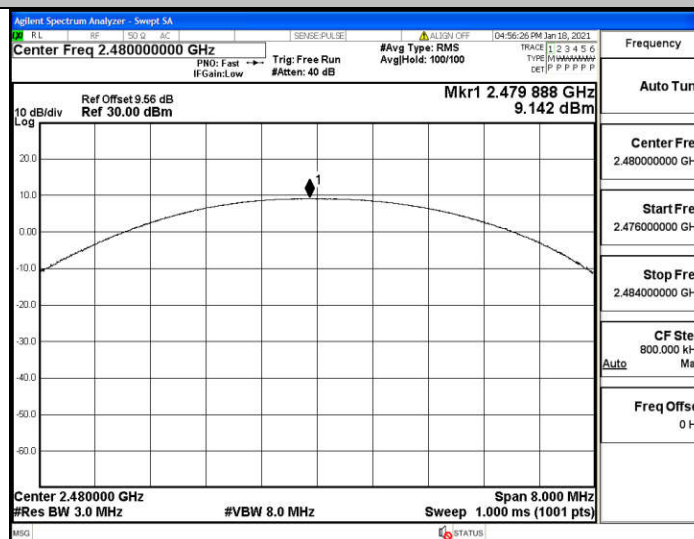
DH5_Ant3_2402



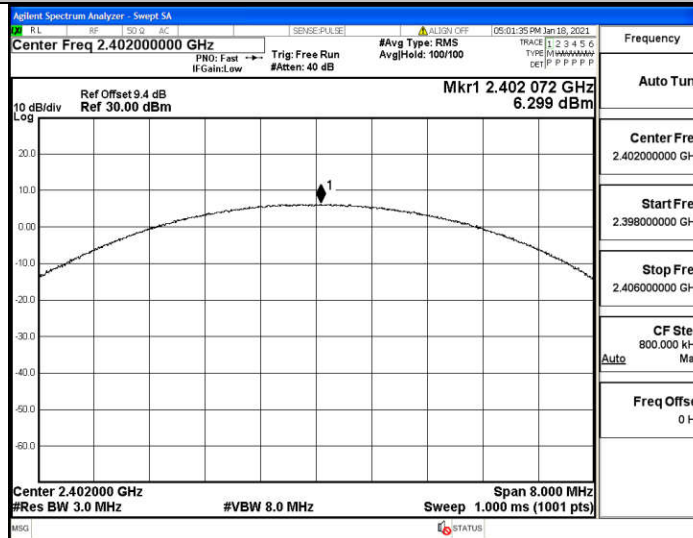
DH5_Ant3_2441



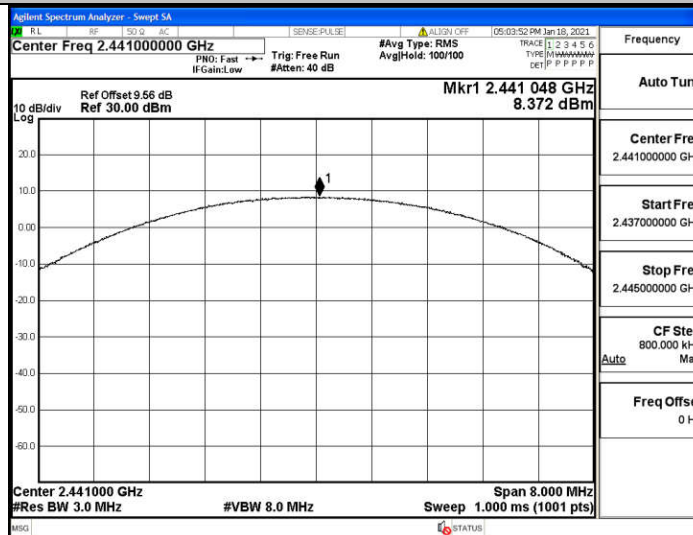
DH5_Ant3_2480



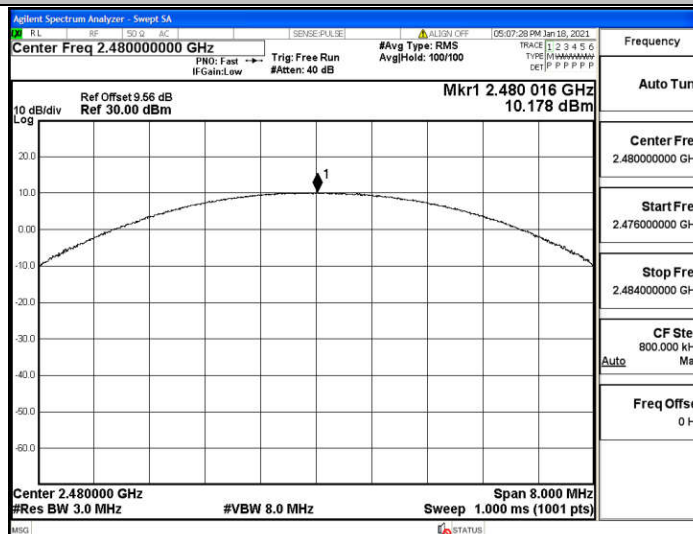
2DH5_Ant3_2402



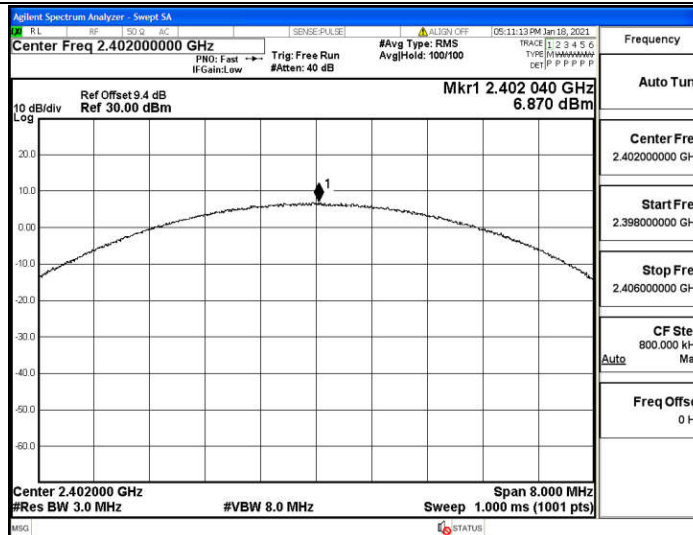
2DH5_Ant3_2441



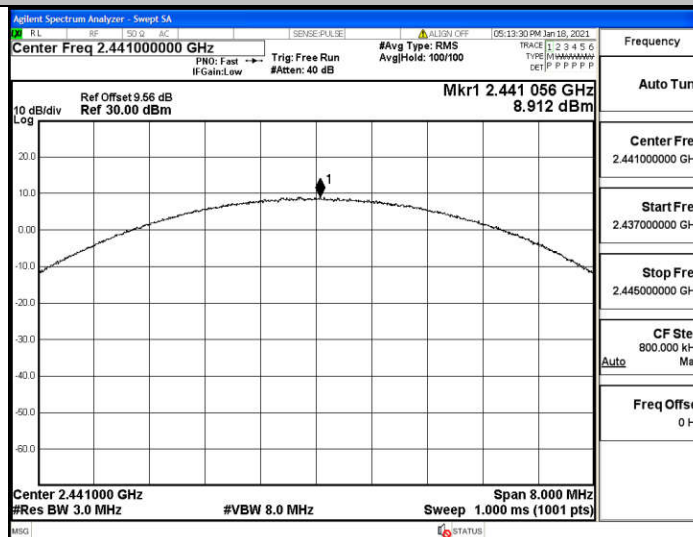
2DH5_Ant3_2480



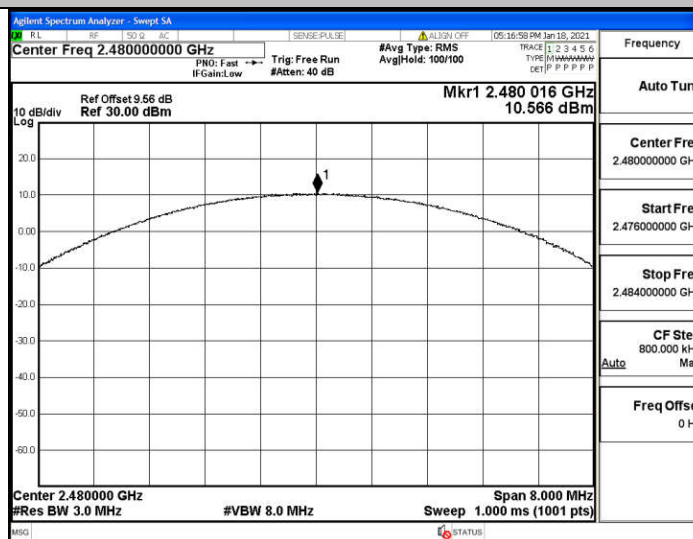
3DH5_Ant3_2402



3DH5_Ant3_2441



3DH5_Ant3_2480



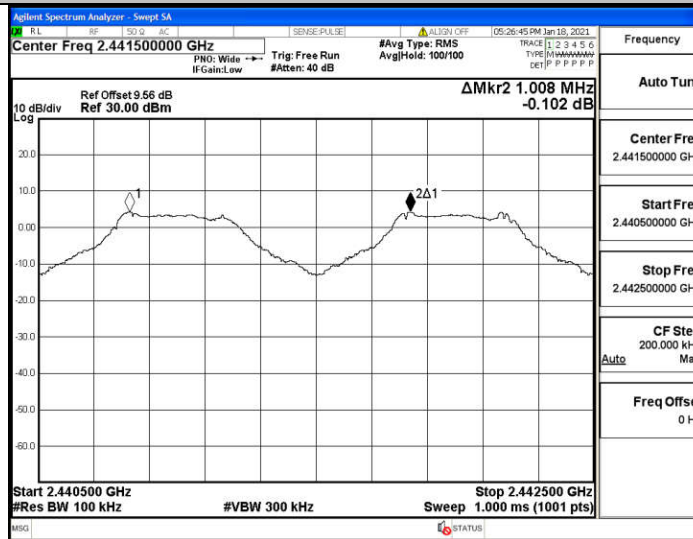
Appendix C: Carrier frequency separation

Test Result

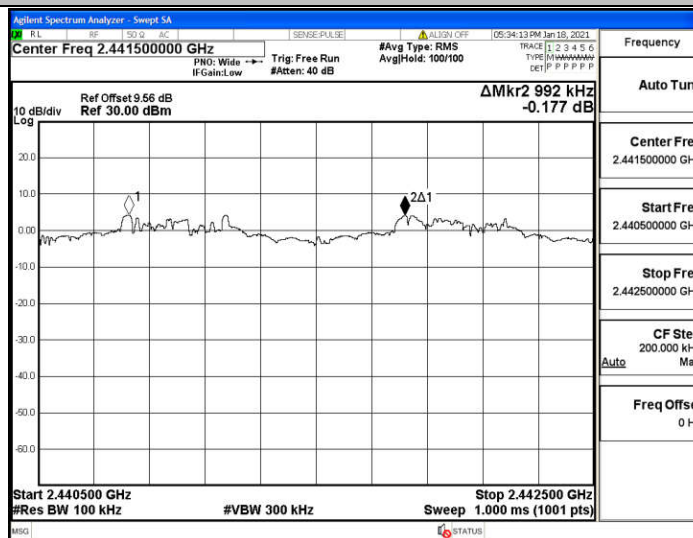
TestMode	Antenna	Channel	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant3	Hop	1.008	≥ 0.951	PASS
2DH5	Ant3	Hop	0.992	≥ 0.882	PASS
3DH5	Ant3	Hop	1.002	≥ 0.894	PASS

Test Graphs

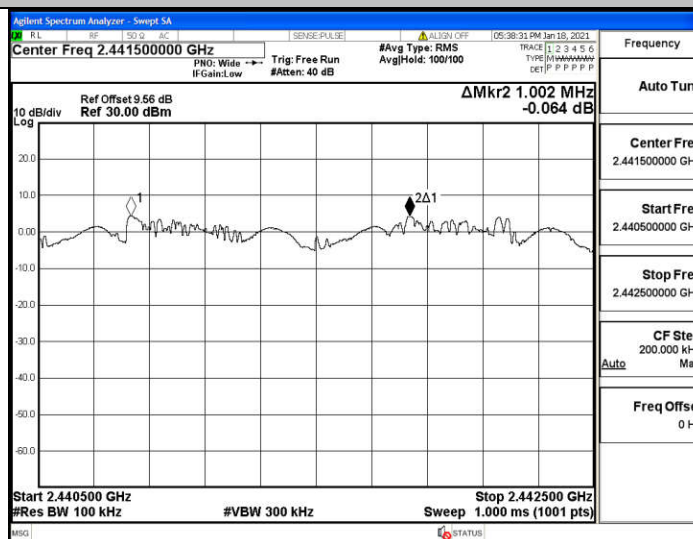
DH5_Ant3_Hop



2DH5_Ant3_Hop



3DH5_Ant3_Hop



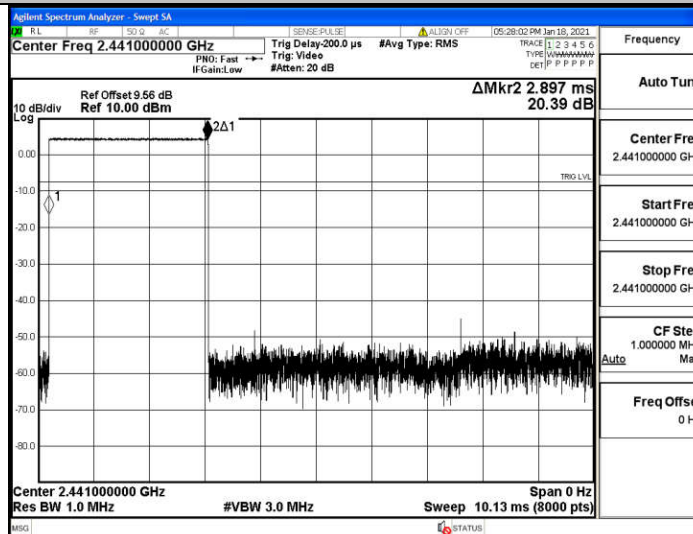
Appendix D: Time of occupancy

Test Result

TestMode	Antenna	Channel	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH5	Ant3	Hop	2.90	110	0.319	<=0.4	PASS
2DH5	Ant3	Hop	2.90	100	0.29	<=0.4	PASS
3DH5	Ant3	Hop	2.90	90	0.261	<=0.4	PASS

Test Graphs

DH5_Ant3_Hop



Frequency

Auto Tune

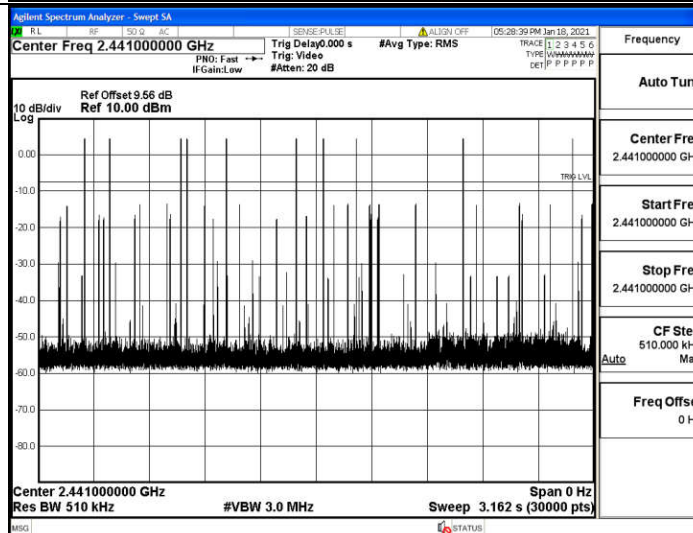
Center Freq
2.441000000 GHz

Start Freq
2.441000000 GHz

Stop Freq
2.441000000 GHz

CF Step
1.000000 MHz
Auto Man

Freq Offset
0 Hz



Frequency

Auto Tune

Center Freq
2.441000000 GHz

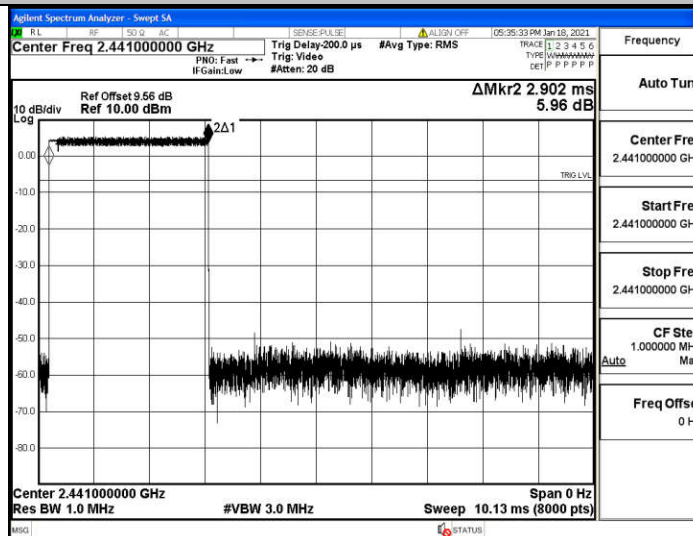
Start Freq
2.441000000 GHz

Stop Freq
2.441000000 GHz

CF Step
510.000 kHz
Auto Man

Freq Offset
0 Hz

2DH5_Ant3_Hop



Frequency

Auto Tune

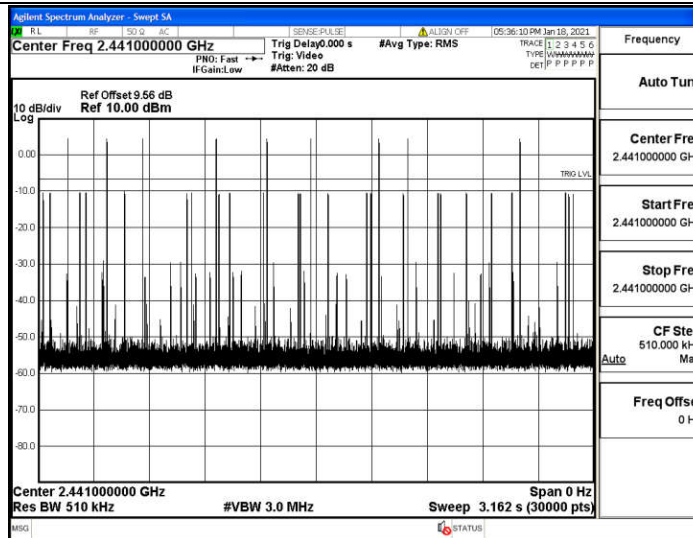
Center Freq
2.441000000 GHz

Start Freq
2.441000000 GHz

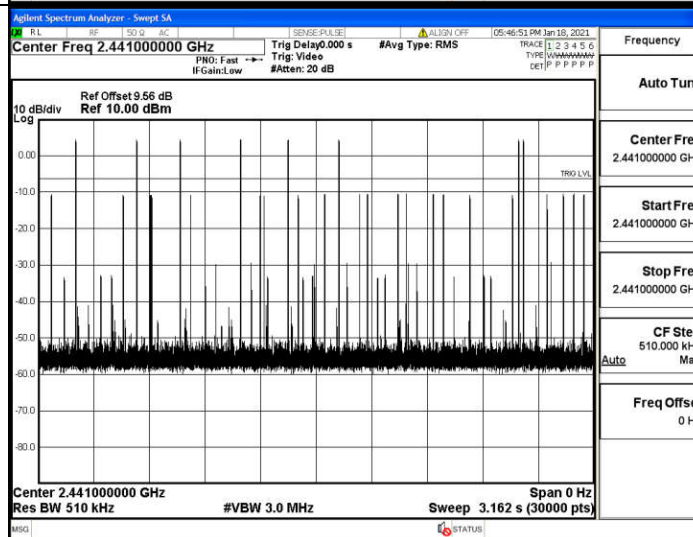
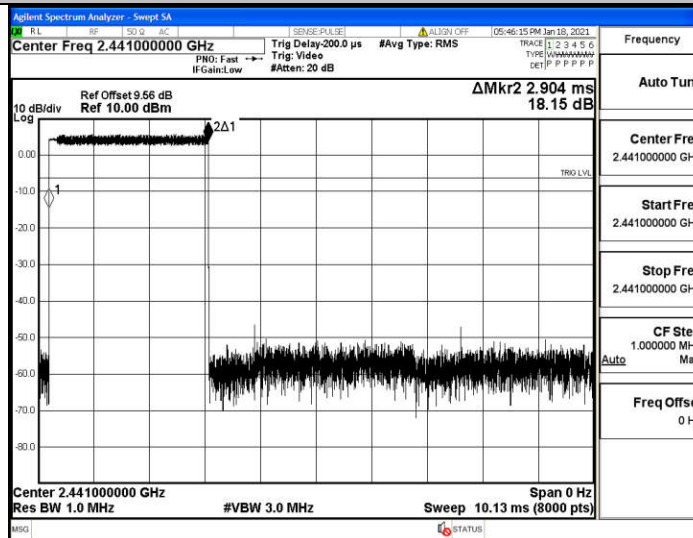
Stop Freq
2.441000000 GHz

CF Step
1.000000 MHz
Auto Man

Freq Offset
0 Hz



3DH5_Ant3_Hop



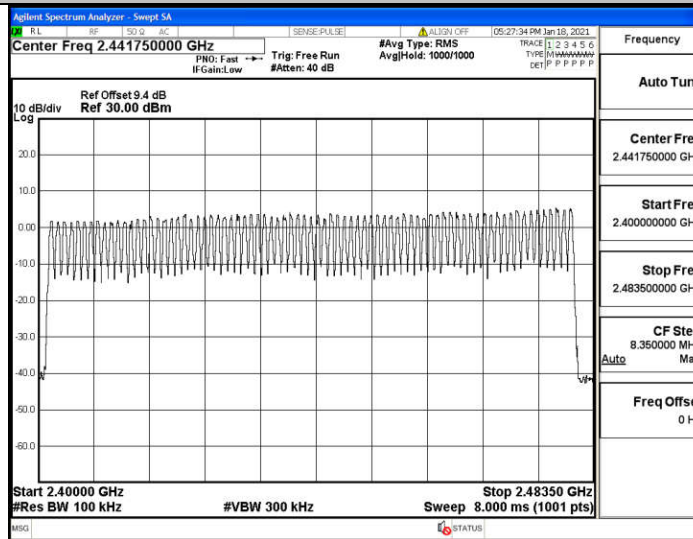
Appendix E: Number of hopping channels

Test Result

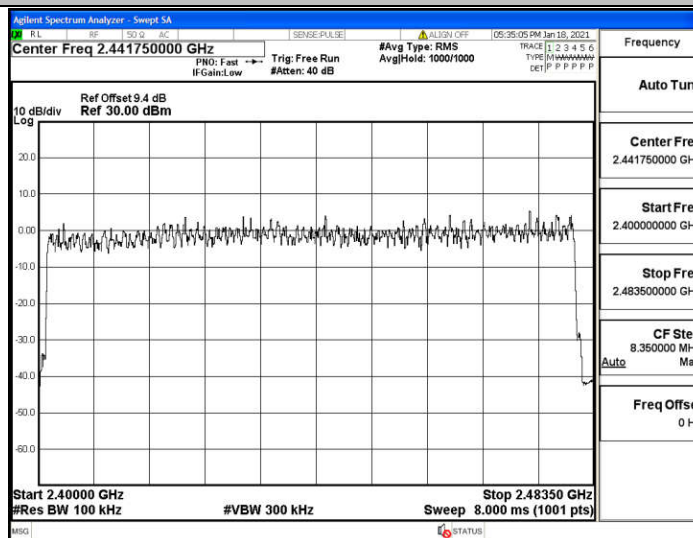
TestMode	Antenna	Channel	Result[Num]	Limit[Num]	Verdict
DH5	Ant3	Hop	79	>=15	PASS
2DH5	Ant3	Hop	79	>=15	PASS
3DH5	Ant3	Hop	79	>=15	PASS

Test Graphs

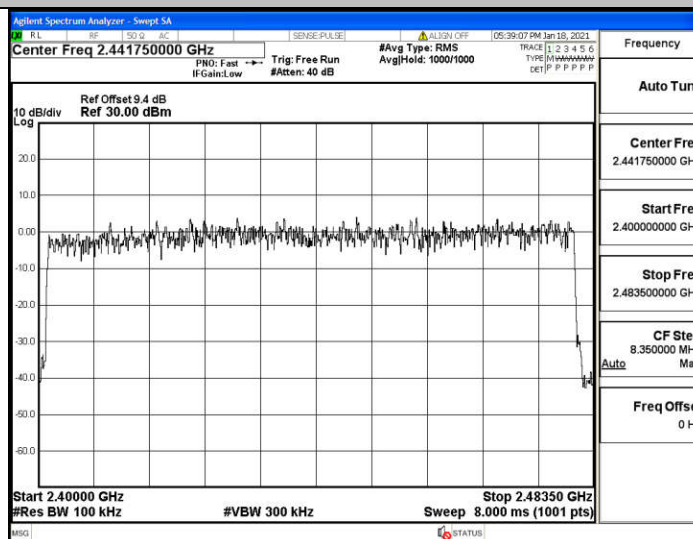
DH5_Ant3_Hop



2DH5_Ant3_Hop



3DH5_Ant3_Hop



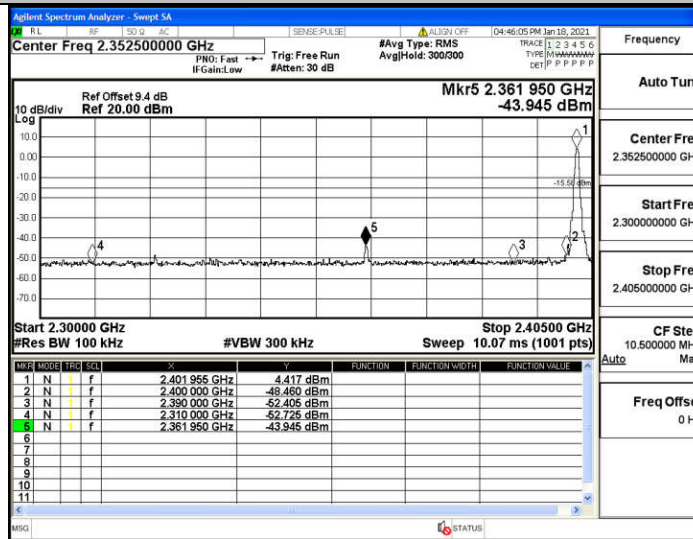
Appendix F: Band edge measurements

Test Result

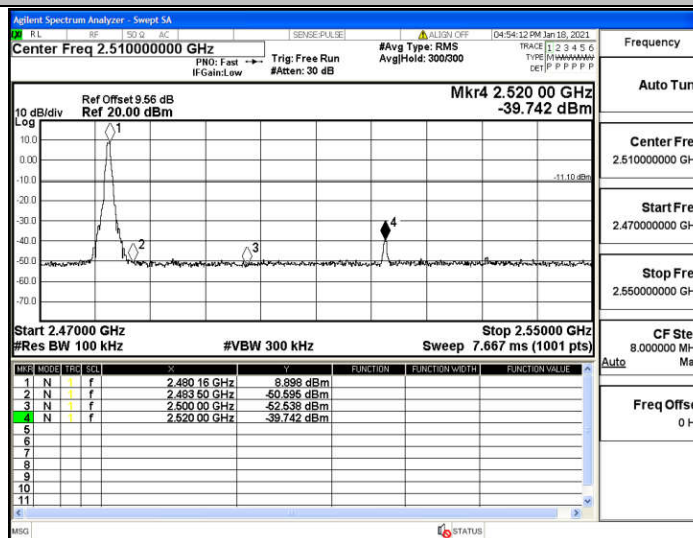
TestMode	Antenna	ChName	Channel	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant3	Low	2402	4.42	-43.95	<=-15.58	PASS
		High	2480	8.90	-39.74	<=-11.1	PASS
		Low	Hop_2402	1.70	-44.45	<=-18.3	PASS
		High	Hop_2480	5.35	-43.41	<=-14.65	PASS
2DH5	Ant3	Low	2402	4.11	-44.16	<=-15.89	PASS
		High	2480	7.86	-40.8	<=-12.14	PASS
		Low	Hop_2402	0.09	-46.15	<=-19.91	PASS
		High	Hop_2480	5.02	-43.96	<=-14.98	PASS
3DH5	Ant3	Low	2402	3.72	-43.97	<=-16.28	PASS
		High	2480	8.47	-40.66	<=-11.53	PASS
		Low	Hop_2402	-0.64	-45.47	<=-20.64	PASS
		High	Hop_2480	2.95	-44.99	<=-17.05	PASS

Test Graphs

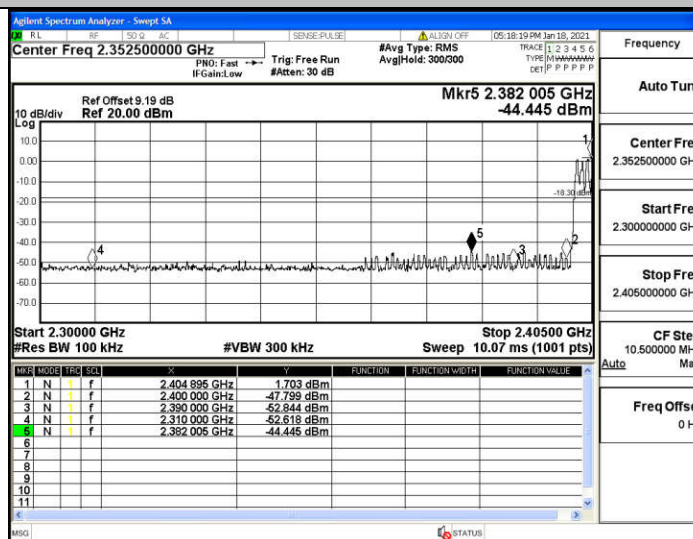
DH5_Ant3_Low_2402



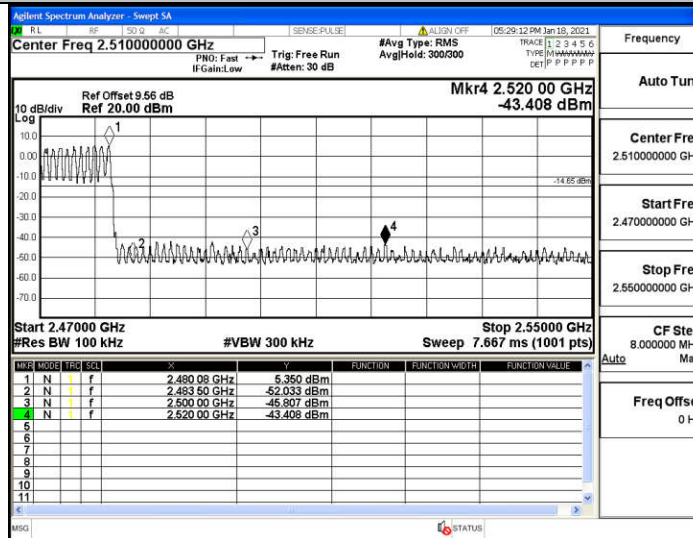
DH5_Ant3_High_2480



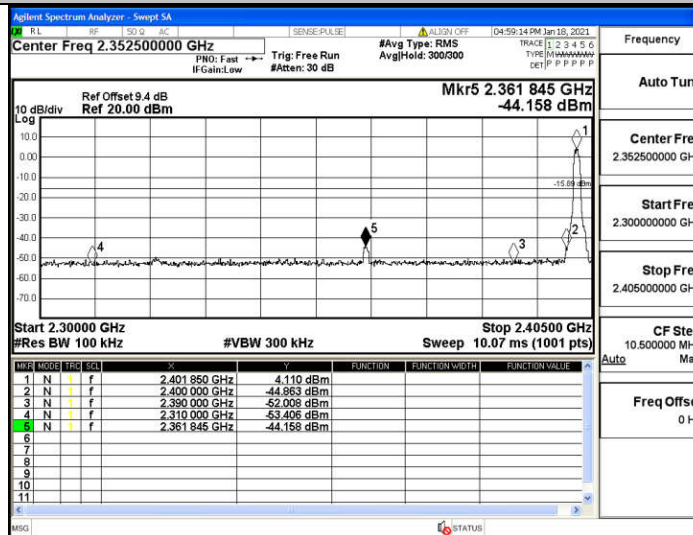
DH5_Ant3_Low_Hop_2402



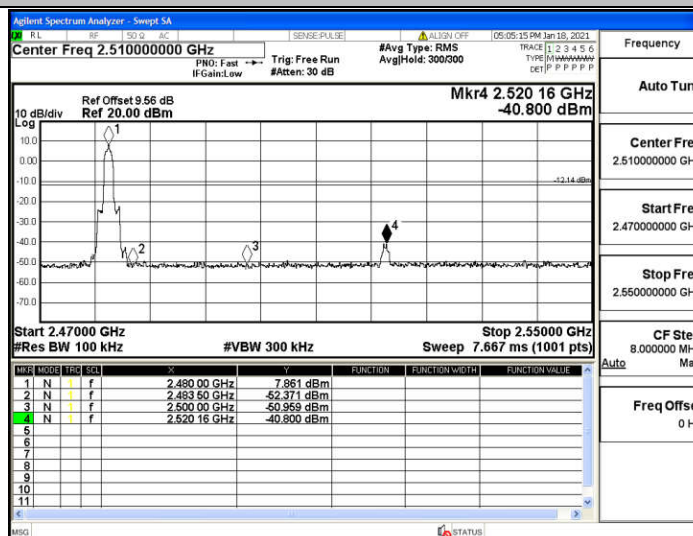
DH5_Ant3_High_Hop_2480



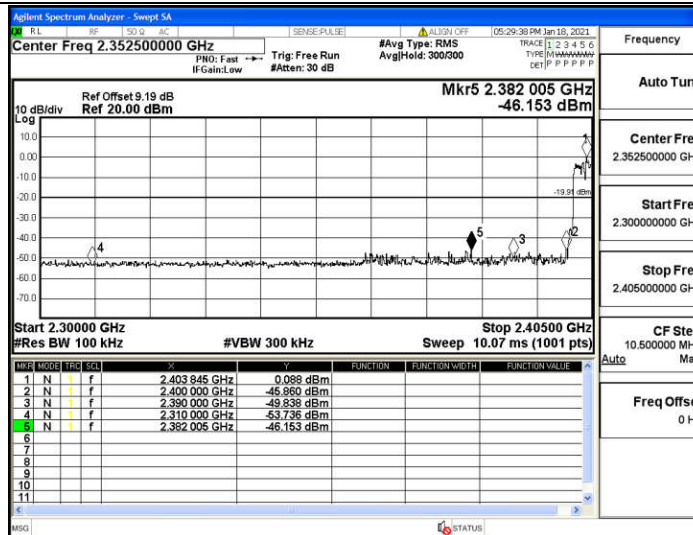
2DH5_Ant3_Low_2402



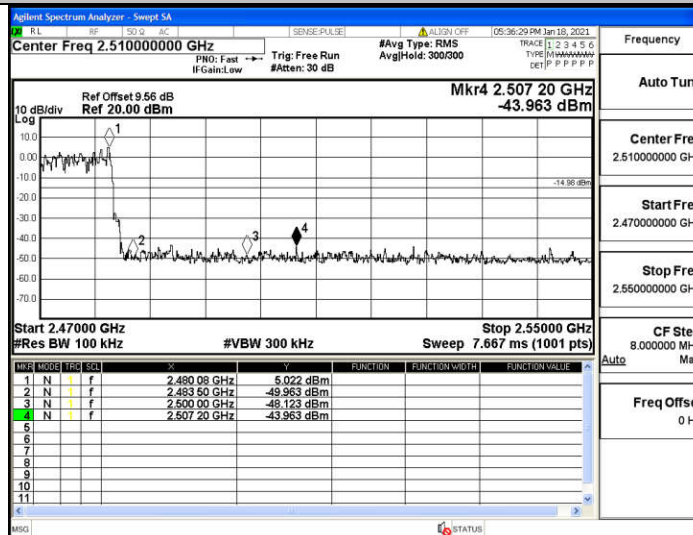
2DH5_Ant3_High_2480



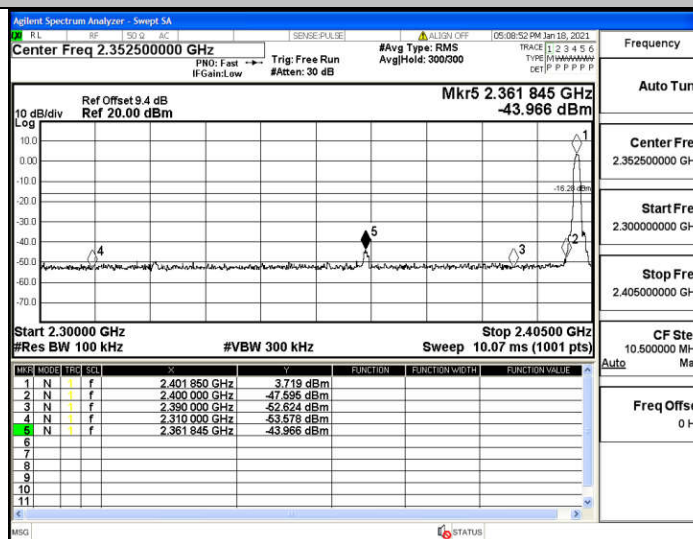
2DH5_Ant3_Low_Hop_2402



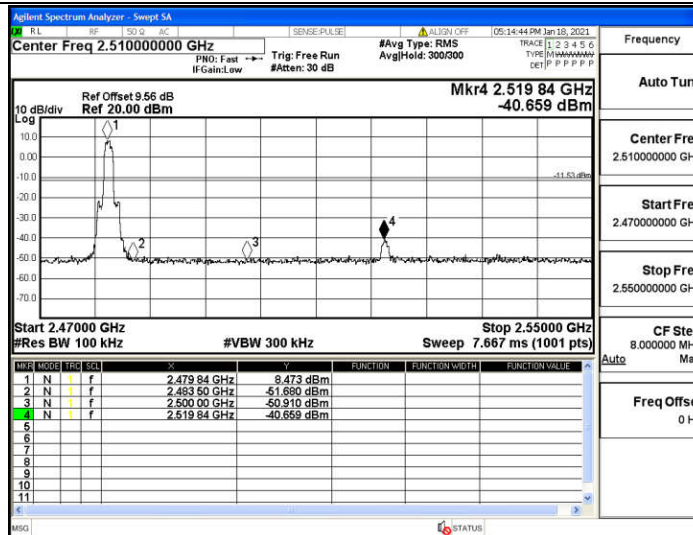
2DH5_Ant3_High_Hop_2480



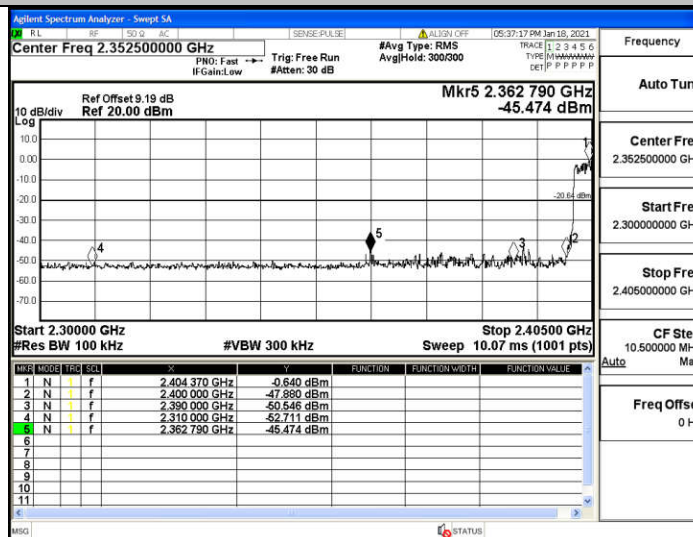
3DH5_Ant3_Low_2402



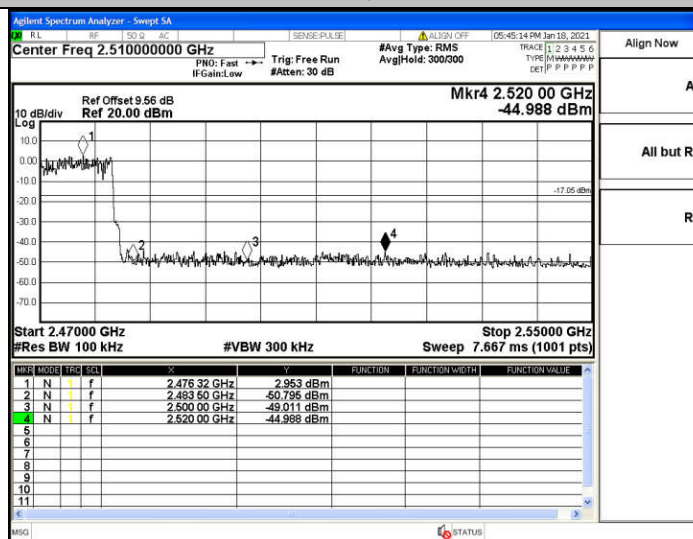
3DH5_Ant3_High_2480



3DH5_Ant3_Low_Hop_2402



3DH5_Ant3_High_Hop_2480



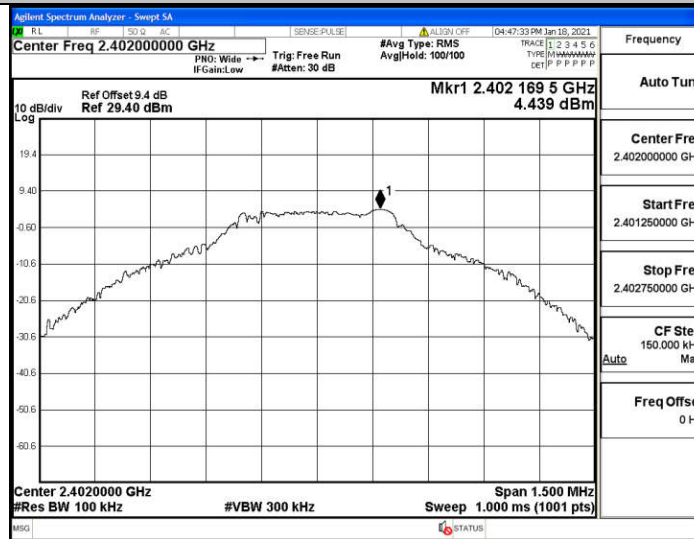
Appendix G: Conducted Spurious Emission

Test Result

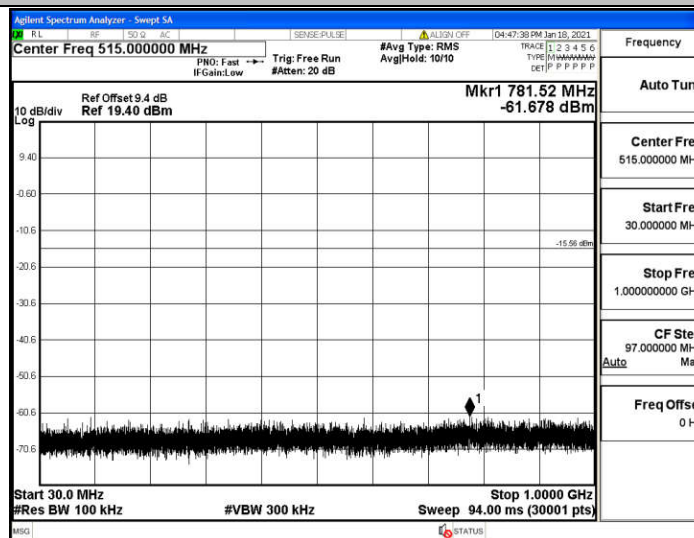
TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant3	2402	Reference	4.44	4.44	---	PASS
			30~1000	4.44	-61.68	<=-15.56	PASS
			1000~26500	4.44	-42.38	<=-15.56	PASS
		2441	Reference	6.67	6.67	---	PASS
			30~1000	6.67	-60.63	<=-13.33	PASS
			1000~26500	6.67	-41.64	<=-13.33	PASS
		2480	Reference	8.81	8.81	---	PASS
			30~1000	8.81	-61.57	<=-11.19	PASS
			1000~26500	8.81	-38.39	<=-11.19	PASS
2DH5	Ant3	2402	Reference	4.25	4.25	---	PASS
			30~1000	4.25	-60.82	<=-15.75	PASS
			1000~26500	4.25	-42.61	<=-15.75	PASS
		2441	Reference	5.59	5.59	---	PASS
			30~1000	5.59	-61.13	<=-14.41	PASS
			1000~26500	5.59	-44.03	<=-14.41	PASS
		2480	Reference	8.66	8.66	---	PASS
			30~1000	8.66	-61.01	<=-11.34	PASS
			1000~26500	8.66	-41.28	<=-11.34	PASS
3DH5	Ant3	2402	Reference	4.10	4.10	---	PASS
			30~1000	4.10	-61.31	<=-15.91	PASS
			1000~26500	4.10	-43.44	<=-15.91	PASS
		2441	Reference	6.45	6.45	---	PASS
			30~1000	6.45	-61.14	<=-13.55	PASS
			1000~26500	6.45	-44.12	<=-13.55	PASS
		2480	Reference	5.98	5.98	---	PASS
			30~1000	5.98	-60.89	<=-14.02	PASS
			1000~26500	5.98	-41.78	<=-14.02	PASS

Test Graphs

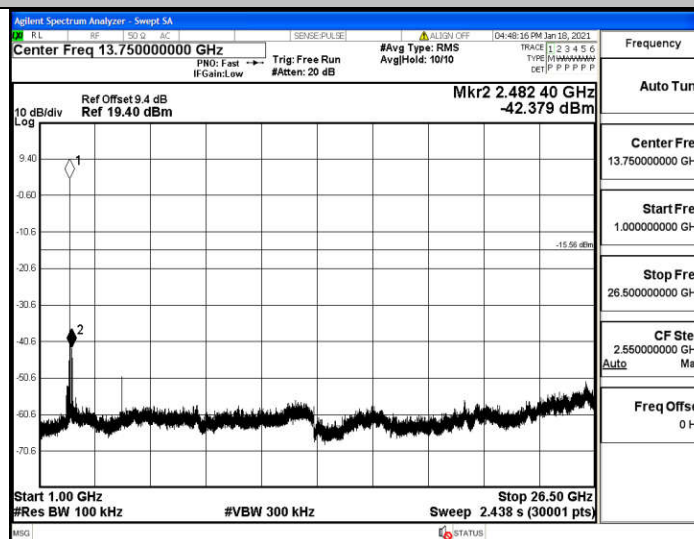
DH5_Ant3_2402_0~Reference



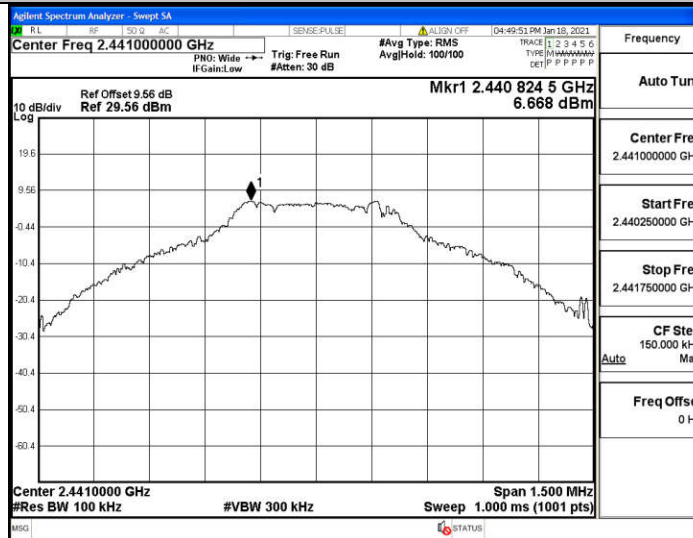
DH5_Ant3_2402_30~1000



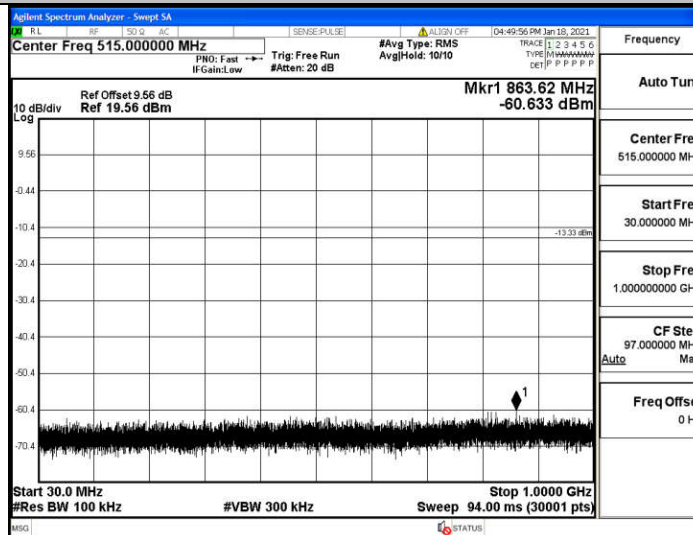
DH5_Ant3_2402_1000~26500



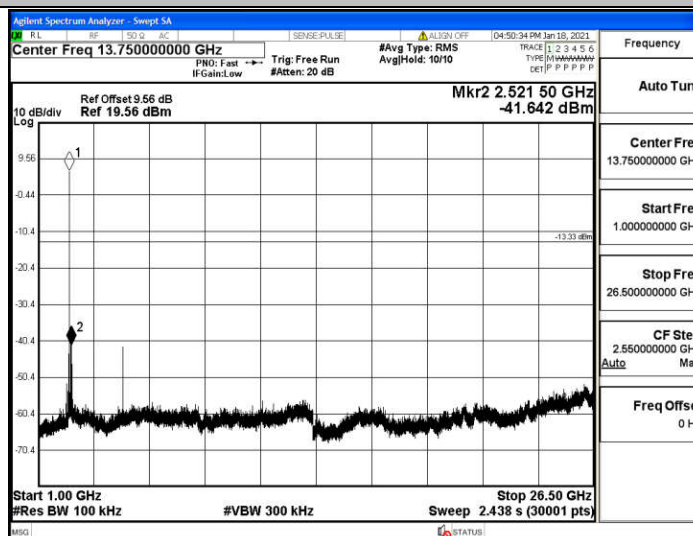
DH5_Ant3_2441_0~Reference



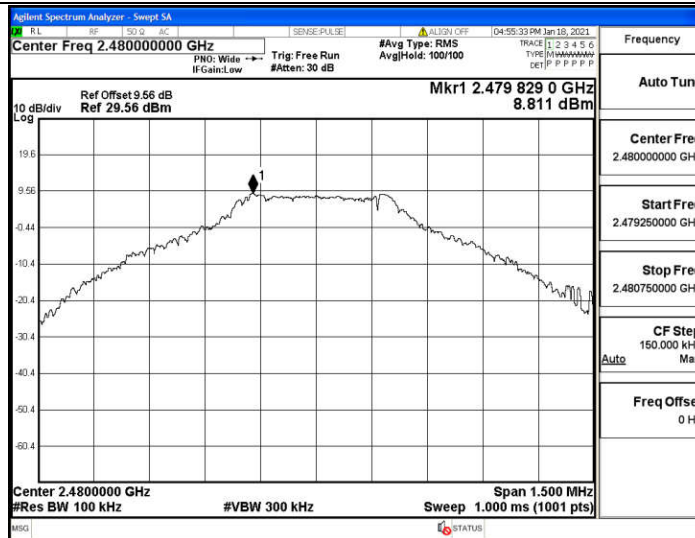
DH5_Ant3_2441_30~1000



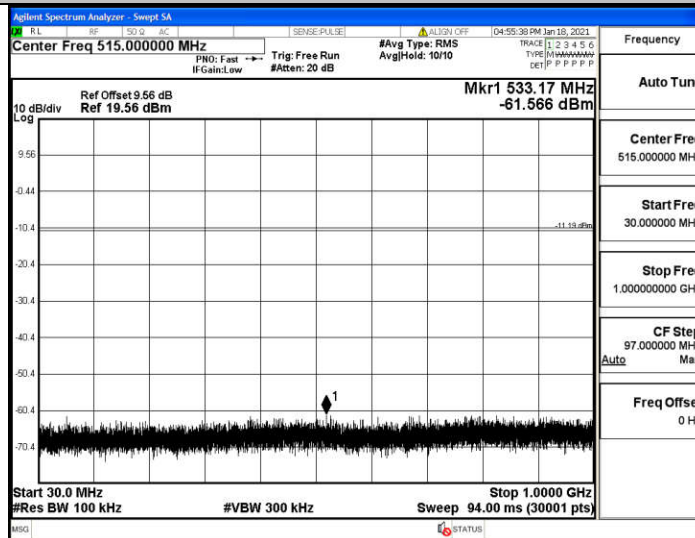
DH5_Ant3_2441_1000~26500



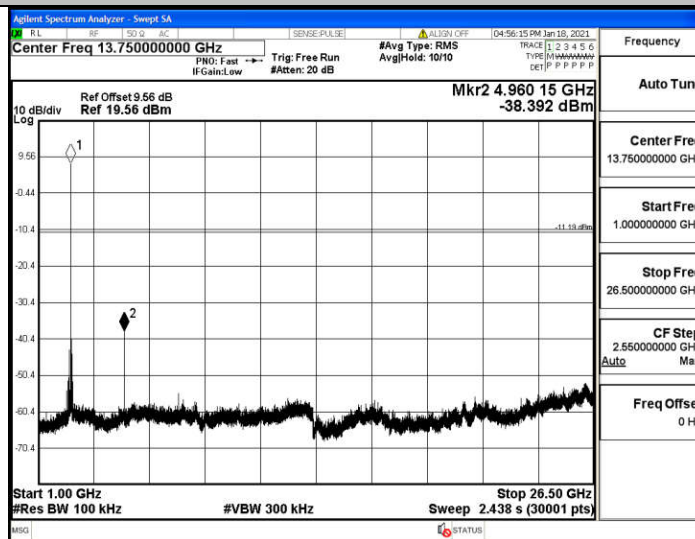
DH5_Ant3_2480_0~Reference



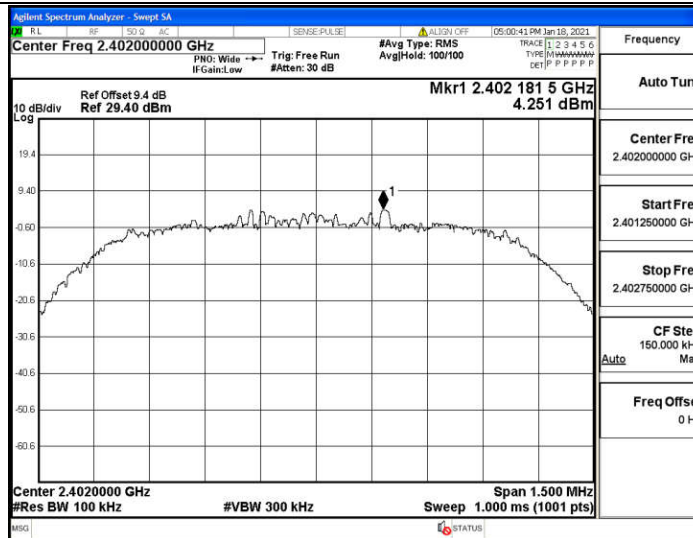
DH5_Ant3_2480_30~1000



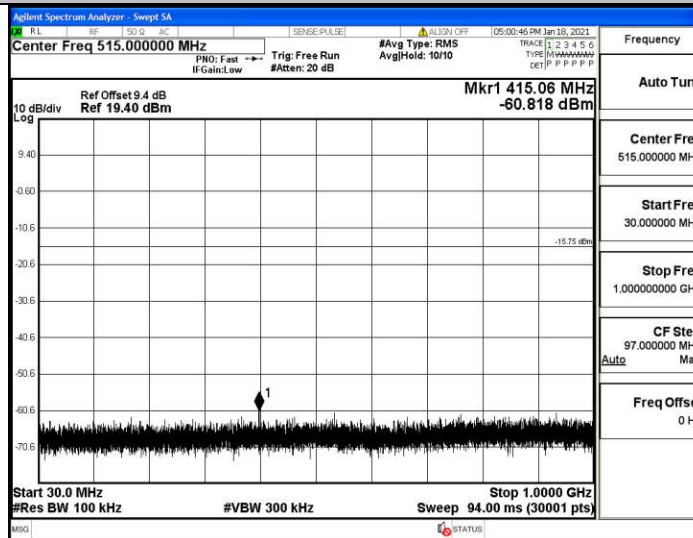
DH5_Ant3_2480_1000~26500



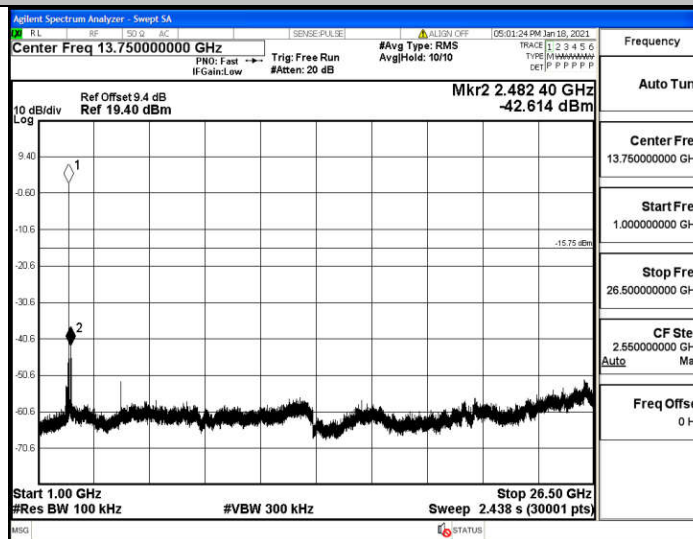
2DH5_Ant3_2402_0~Reference



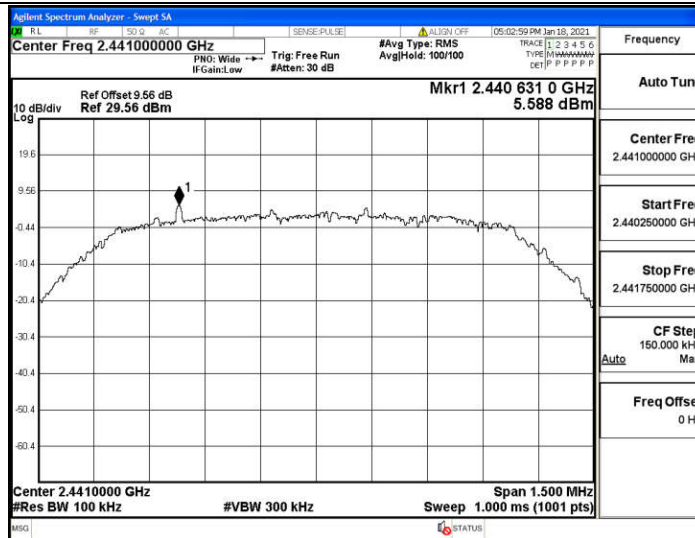
2DH5_Ant3_2402_30~1000



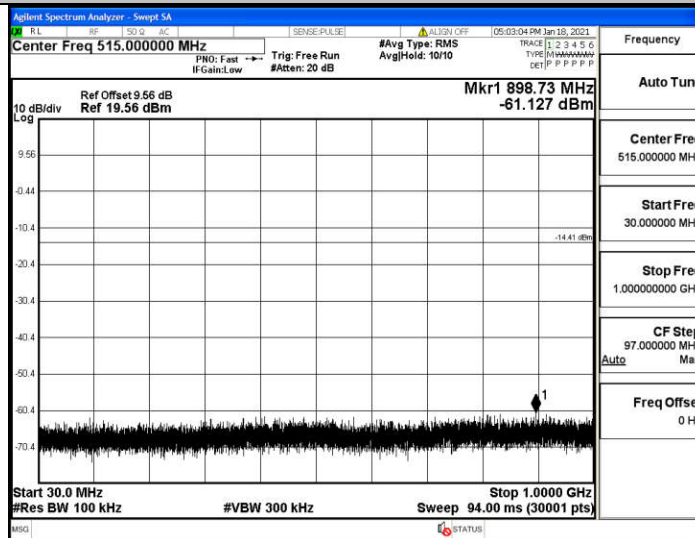
2DH5_Ant3_2402_1000~26500



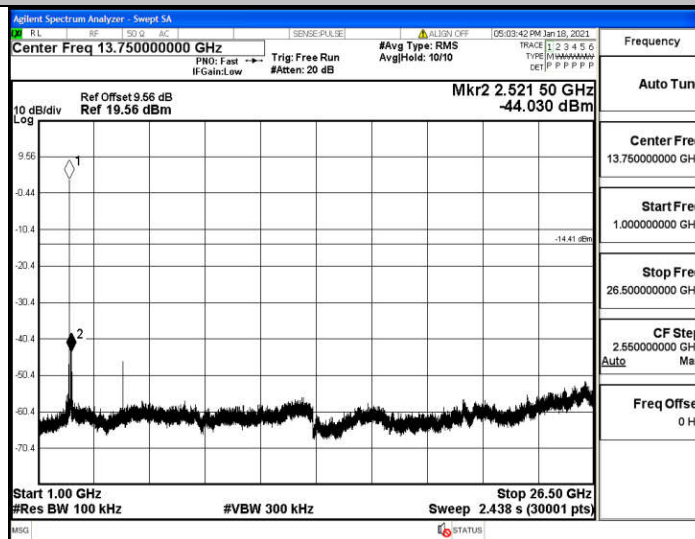
2DH5_Ant3_2441_0~Reference



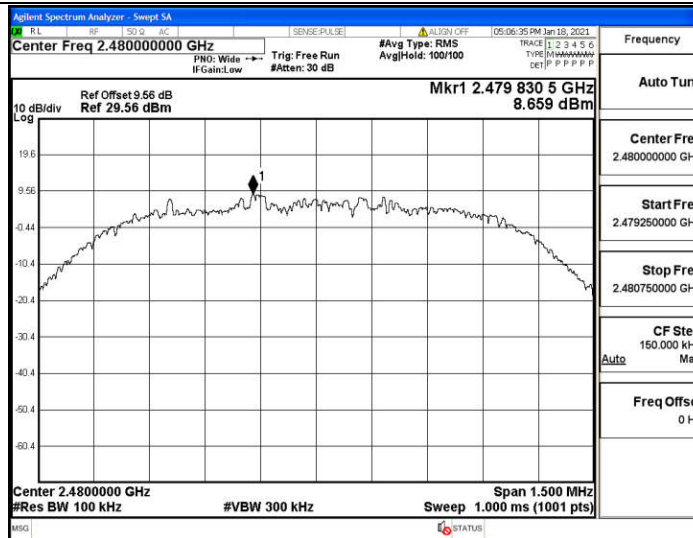
2DH5_Ant3_2441_30~1000



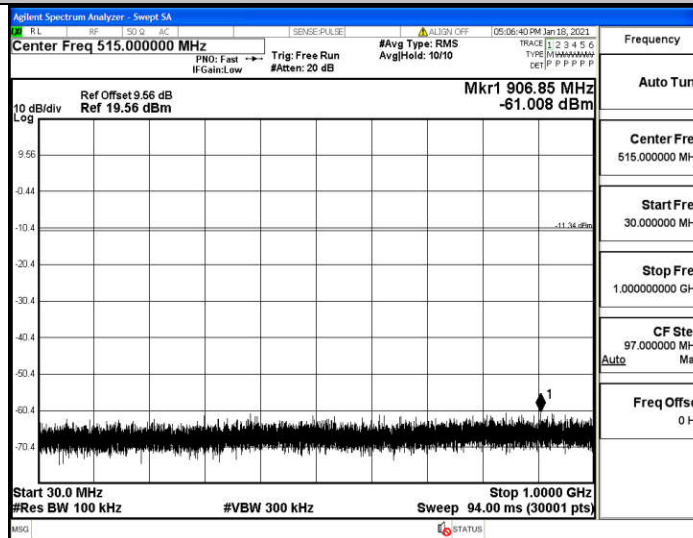
2DH5_Ant3_2441_1000~26500



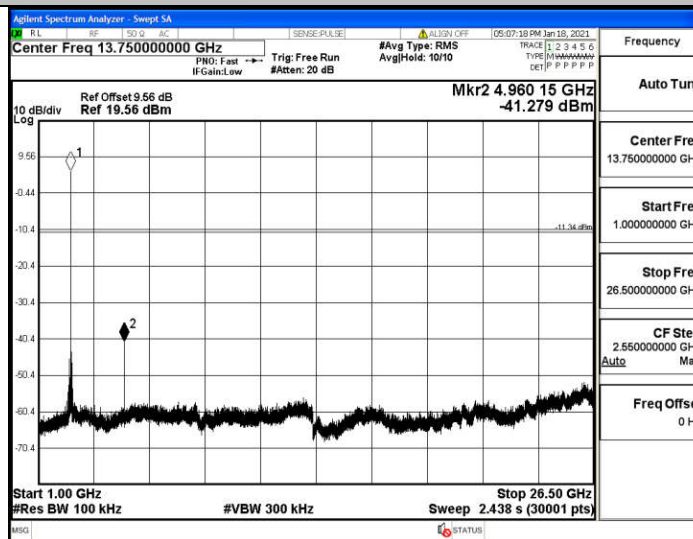
2DH5_Ant3_2480_0~Reference



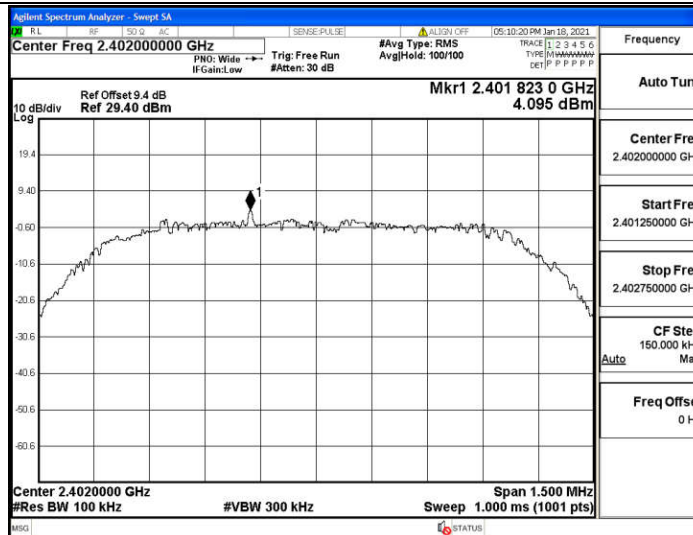
2DH5_Ant3_2480_30~1000



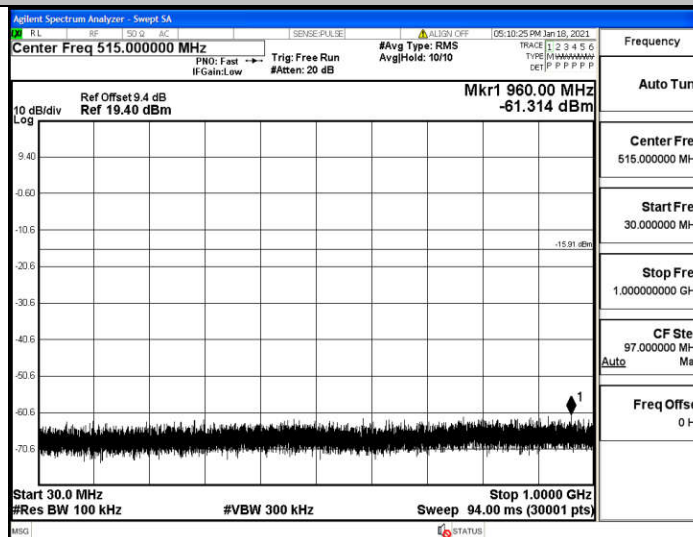
2DH5_Ant3_2480_1000~26500



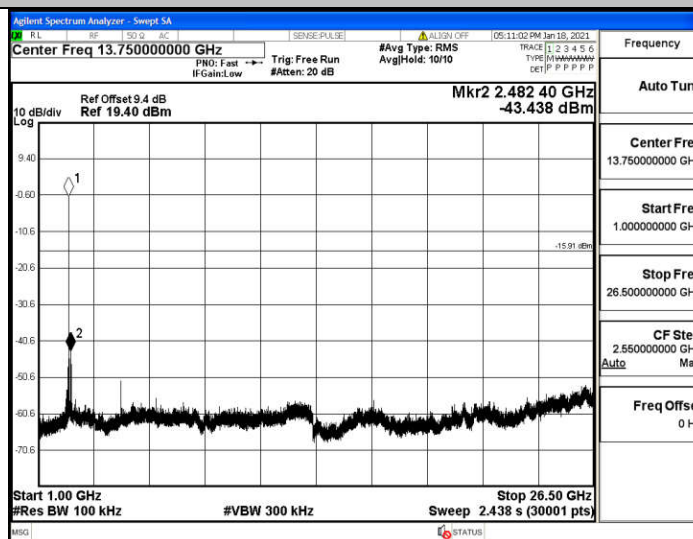
3DH5_Ant3_2402_0~Reference



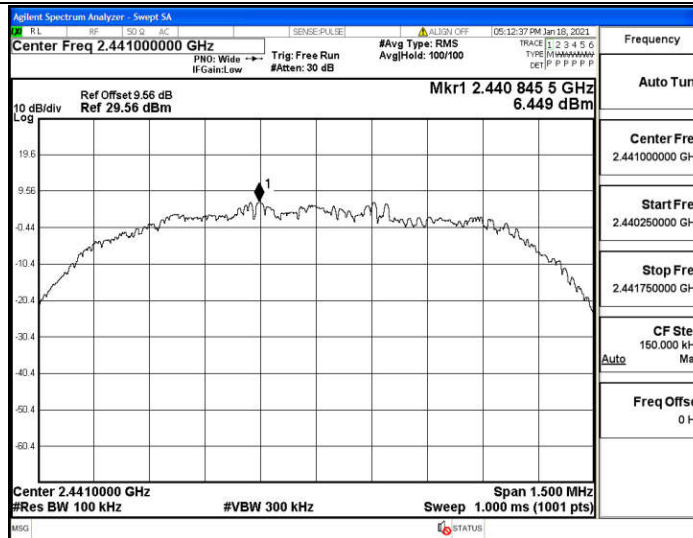
3DH5_Ant3_2402_30~1000



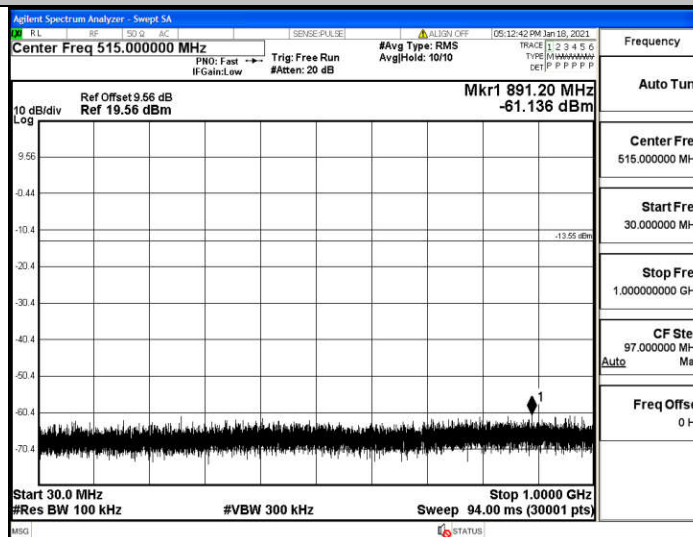
3DH5_Ant3_2402_1000~26500



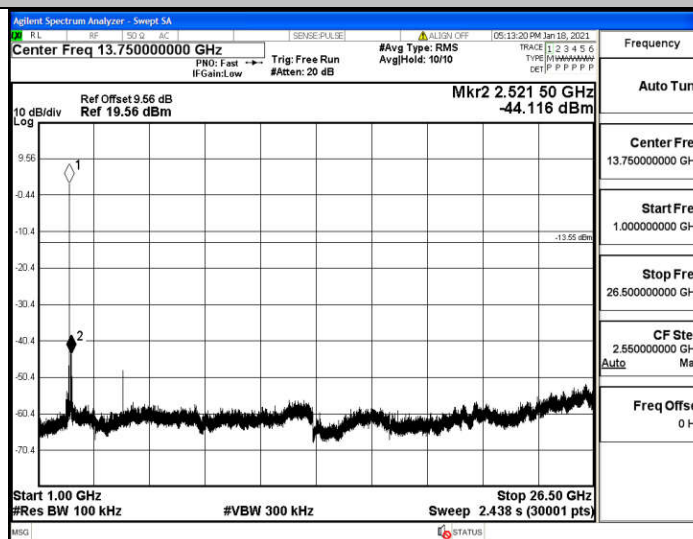
3DH5_Ant3_2441_0~Reference



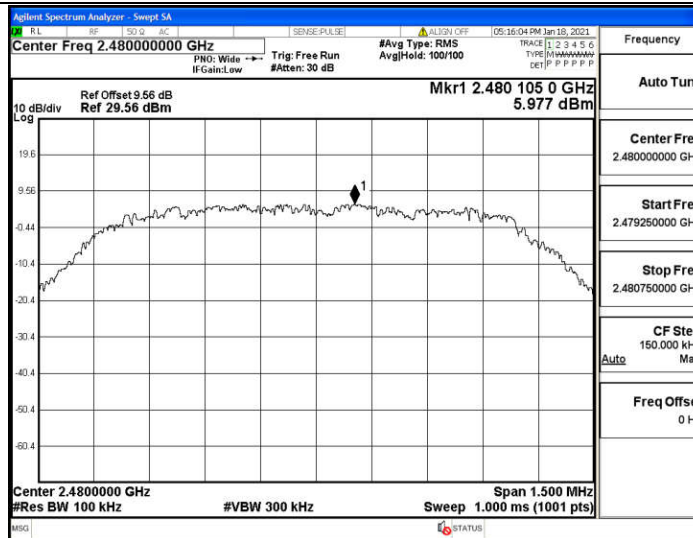
3DH5_Ant3_2441_30~1000



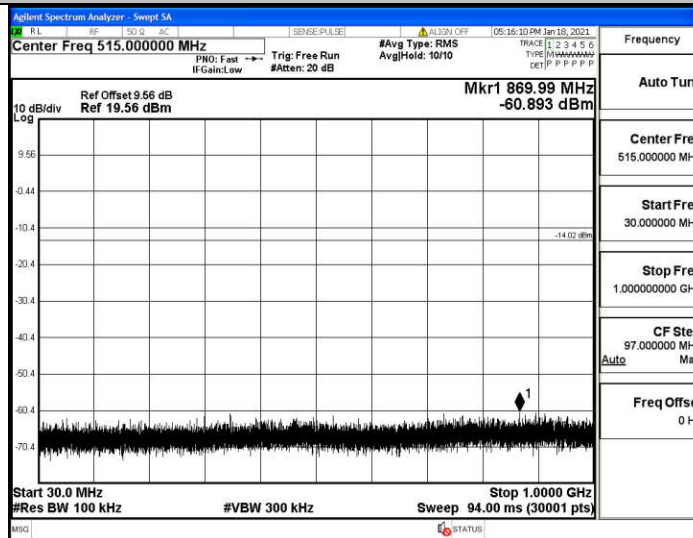
3DH5_Ant3_2441_1000~26500



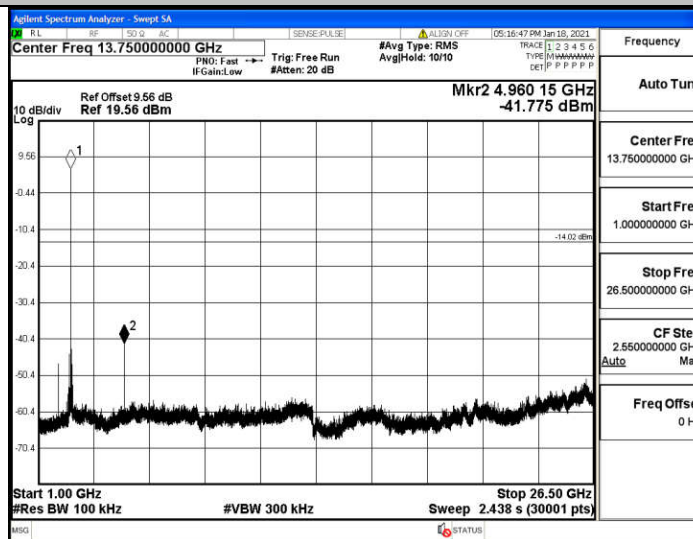
3DH5_Ant3_2480_0~Reference



3DH5_Ant3_2480_30~1000



3DH5_Ant3_2480_1000~26500



Appendix H: Emissions in Restricted Bands

Test Result

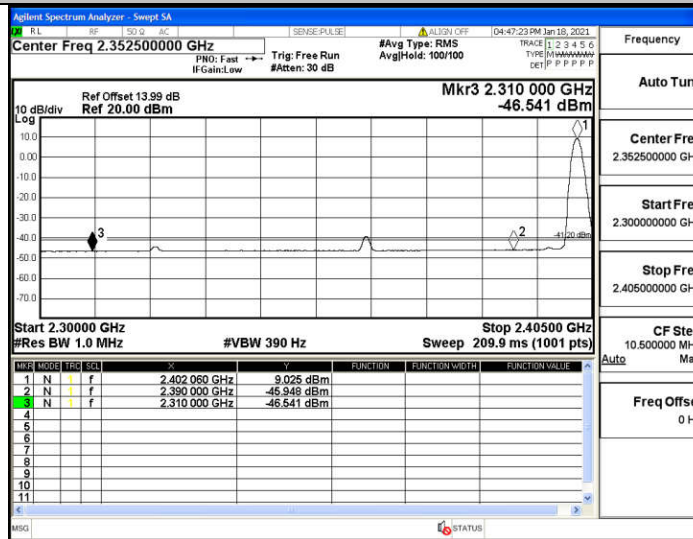
TestMode	Antenna	ChName	Channel	Detector	Freq. [MHz]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant3	Low	2402	AV	2310.000	-46.54	<=-41.20	PASS
				AV	2390.000	-45.95	<=-41.20	PASS
				Peak	2310.000	-38.96	<=-21.20	PASS
				Peak	2390.000	-39.49	<=-21.20	PASS
		High	2480	AV	2483.500	-42.62	<=-41.20	PASS
				AV	2500.000	-45.12	<=-41.20	PASS
				Peak	2483.500	-35.47	<=-21.20	PASS
				Peak	2500.000	-38.19	<=-21.20	PASS
2DH5	Ant3	Low	2402	AV	2310.000	-46.54	<=-41.20	PASS
				AV	2390.000	-45.96	<=-41.20	PASS
				Peak	2310.000	-38.81	<=-21.20	PASS
				Peak	2390.000	-39.12	<=-21.20	PASS
		High	2480	AV	2483.500	-41.72	<=-41.20	PASS
				AV	2500.000	-45.1	<=-41.20	PASS
				Peak	2483.500	-36.53	<=-21.20	PASS
				Peak	2500.000	-37.49	<=-21.20	PASS
3DH5	Ant3	Low	2402	AV	2310.000	-46.47	<=-41.20	PASS
				AV	2390.000	-46.07	<=-41.20	PASS
				Peak	2310.000	-39.65	<=-21.20	PASS
				Peak	2390.000	-38.29	<=-21.20	PASS
		High	2480	AV	2483.500	-41.8	<=-41.20	PASS
				AV	2500.000	-45.22	<=-41.20	PASS
				Peak	2483.500	-36.12	<=-21.20	PASS
				Peak	2500.000	-39.32	<=-21.20	PASS

Note:

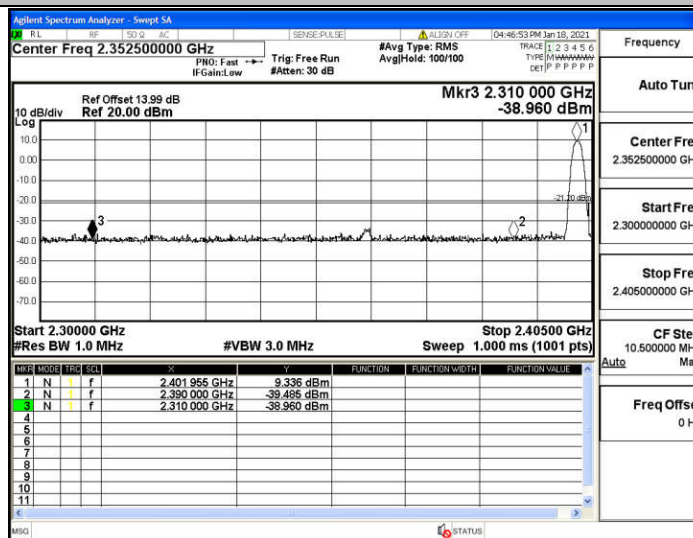
1. The Antenna Gain is compensated in the graph with 2dBi and Antenna Gain which is Higher.
2. The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.

Test Graphs

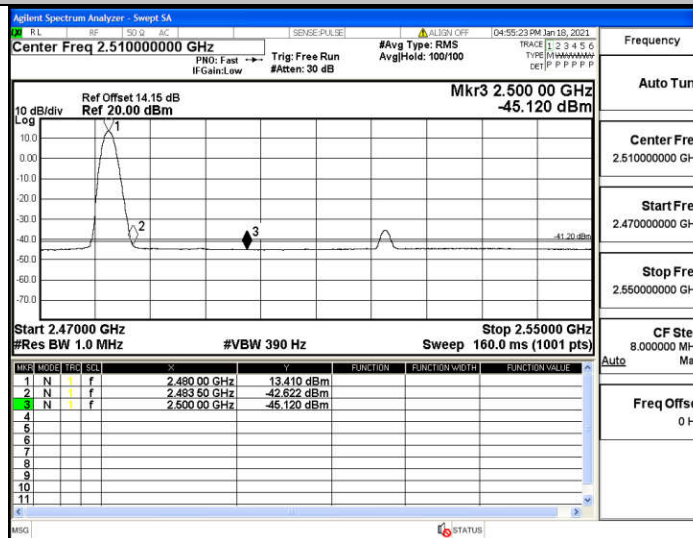
DH5_Ant3_Low_2402_AV



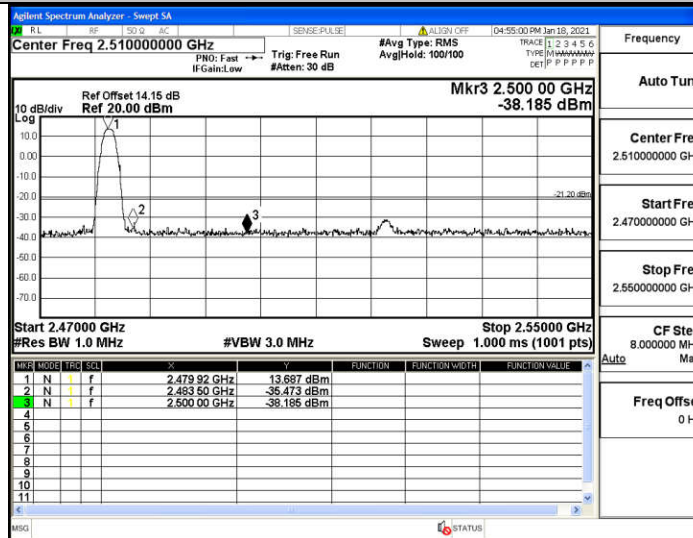
DH5_Ant3_Low_2402_Peak



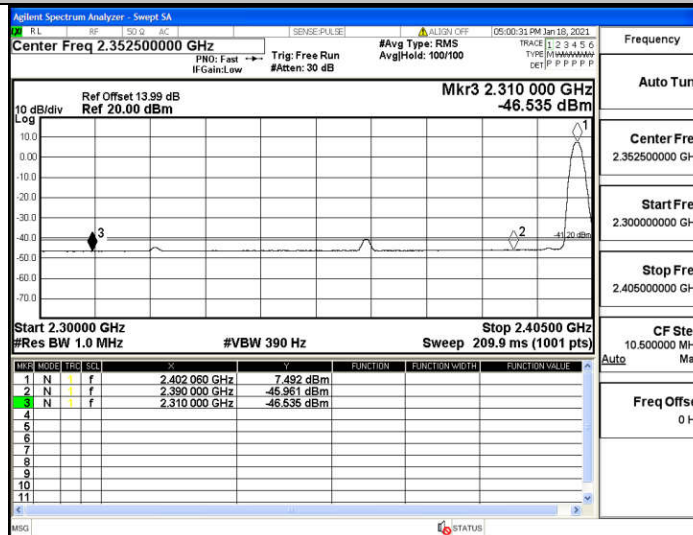
DH5_Ant3_High_2480_AV



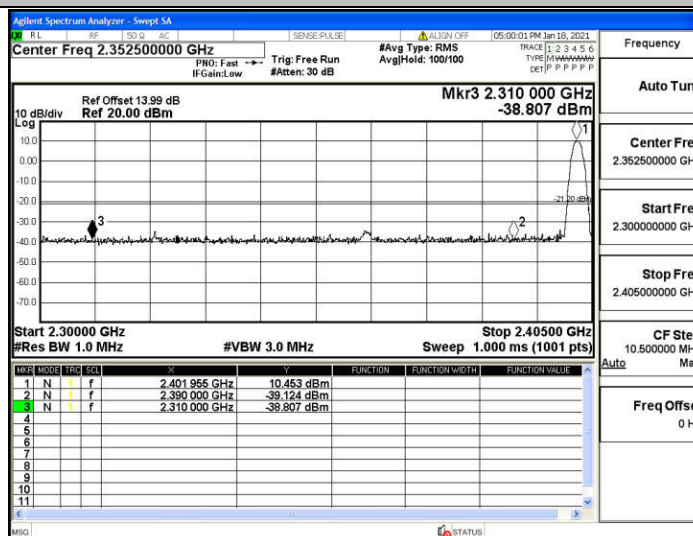
DH5_Ant3_High_2480_Peak



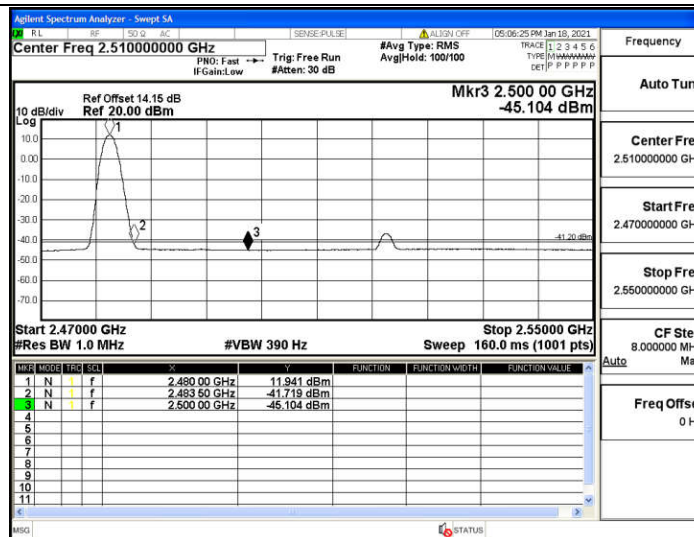
2DH5_Ant3_Low_2402_AV



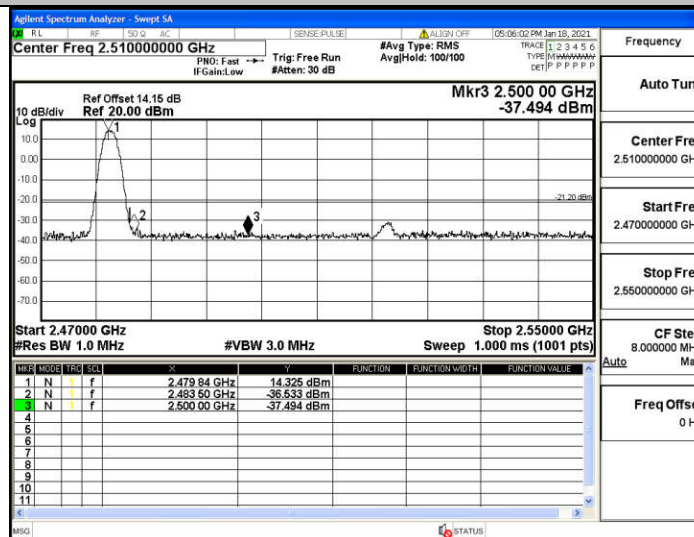
2DH5_Ant3_Low_2402_Peak



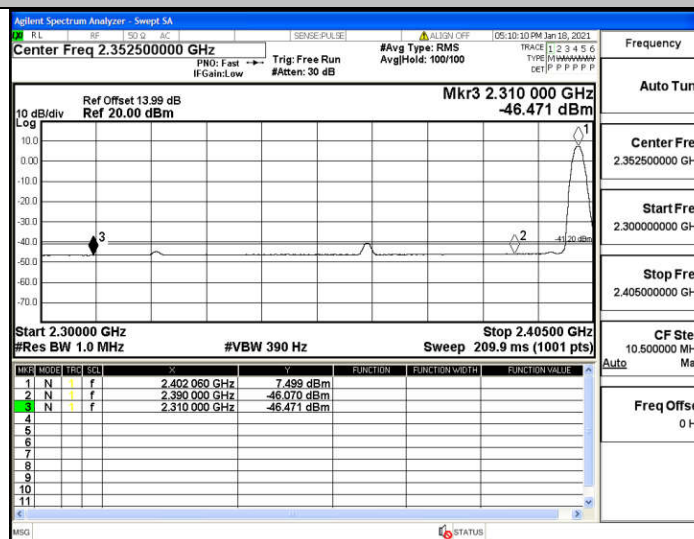
2DH5_Ant3_High_2480_AV



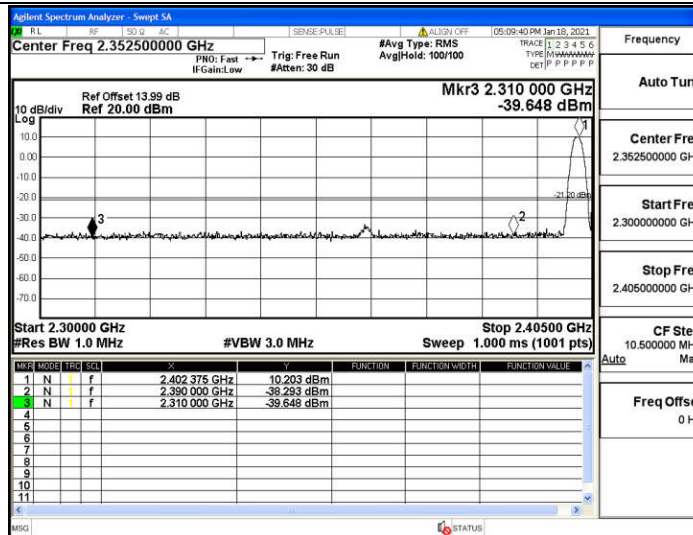
2DH5_Ant3_High_2480_Peak



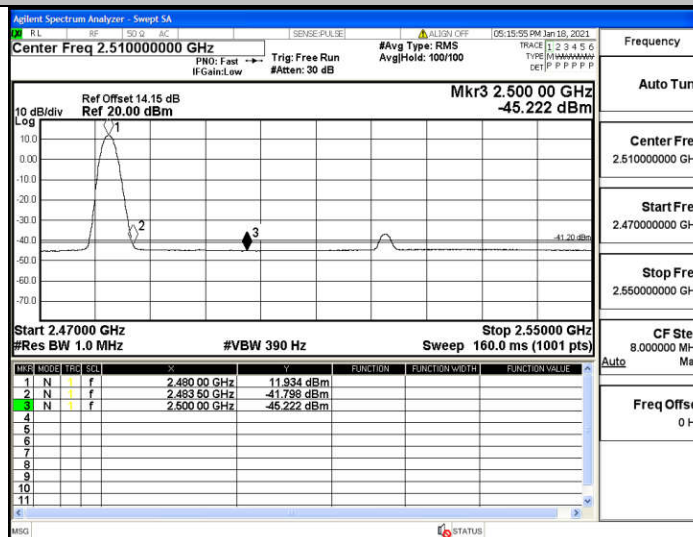
3DH5_Ant3_Low_2402_AV



3DH5_Ant3_Low_2402_Peak



3DH5_Ant3_High_2480_AV



3DH5_Ant3_High_2480_Peak

