Appendix A

RF Test Data for BT V5.1 (DSS) (Conducted Measurement)

Product Name: Chorus Pro

Test Model: AUD-A02-01

Environmental Conditions

Temperature:	23.7℃
Relative Humidity:	52.3%
ATM Pressure:	100.0 kPa
Test Engineer:	Bill Zhu
Supervised by:	Li Huan

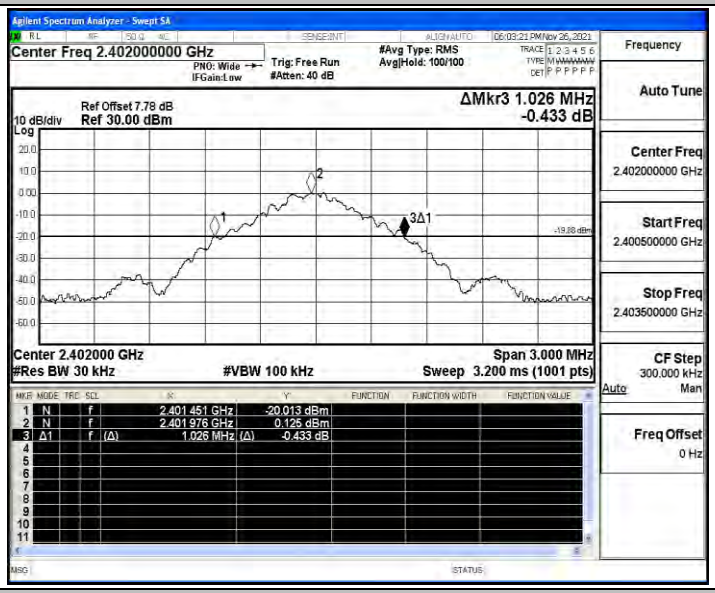
A.1 20dB Emission Bandwidth

Test Result

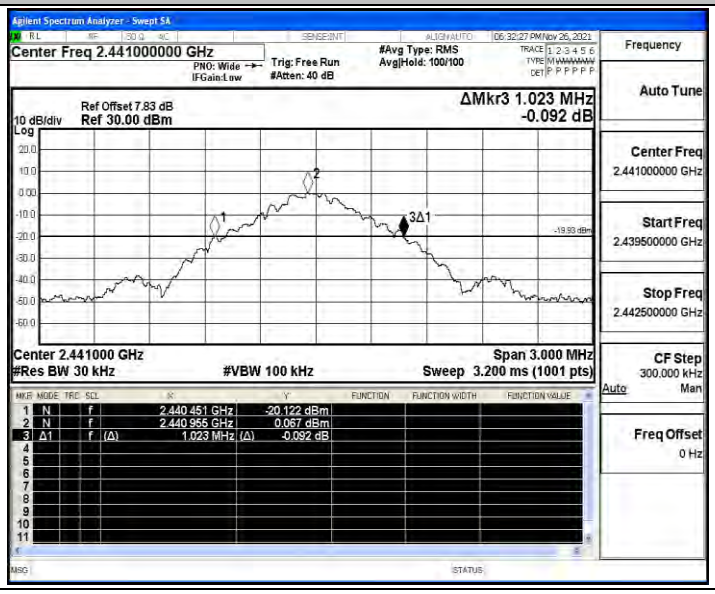
TestMode	Antenna	Channel	20db EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	1.026	2401.451	2402.477	---	PASS
		2441	1.023	2440.451	2441.474	---	PASS
		2480	0.969	2479.511	2480.480	---	PASS
2DH5	Ant1	2402	1.377	2401.295	2402.672	---	PASS
		2441	1.380	2440.295	2441.675	---	PASS
		2480	1.377	2479.295	2480.672	---	PASS
3DH5	Ant1	2402	1.359	2401.301	2402.660	---	PASS
		2441	1.359	2440.301	2441.660	---	PASS
		2480	1.359	2479.301	2480.660	---	PASS

Test Graphs

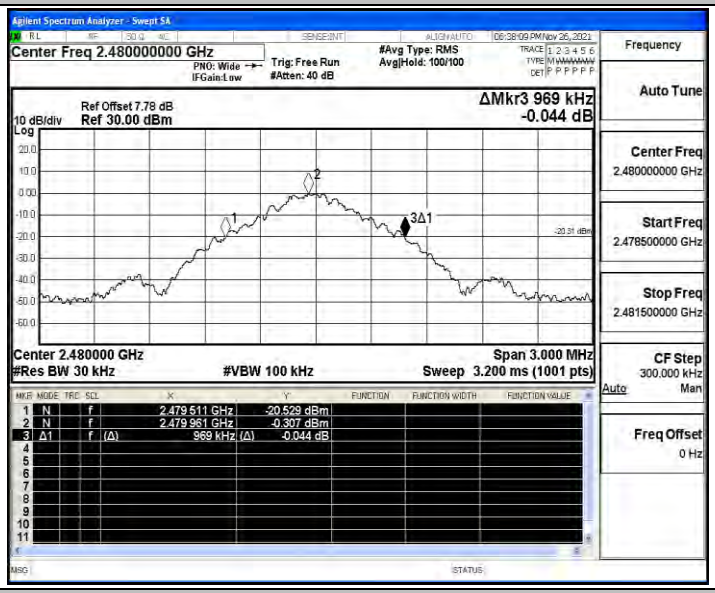
DH5_Ant1_2402



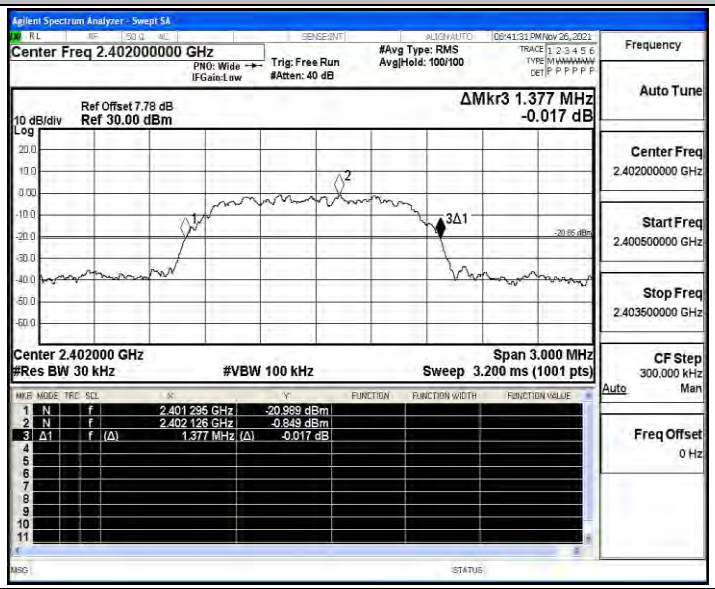
DH5_Ant1_2441



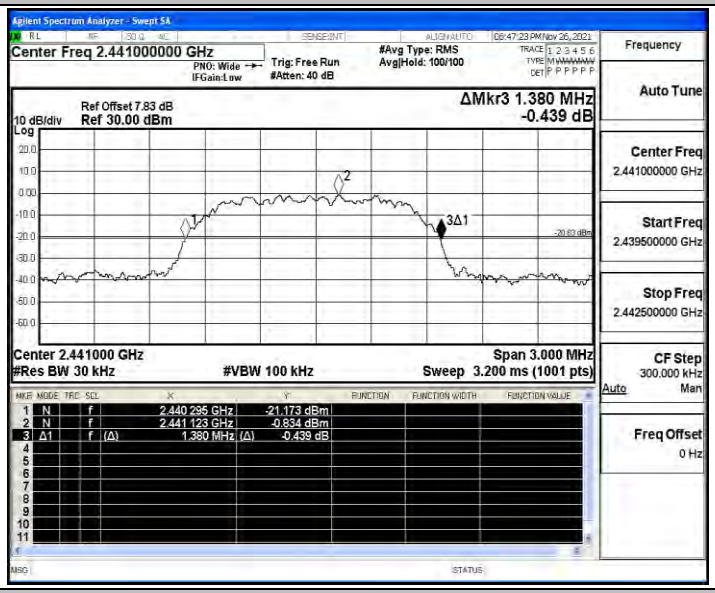
DH5_Ant1_2480



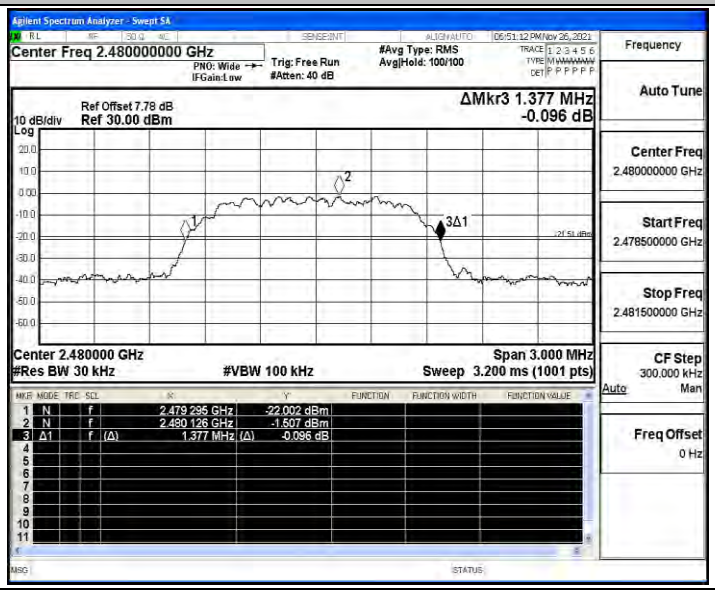
2DH5_Ant1_2402



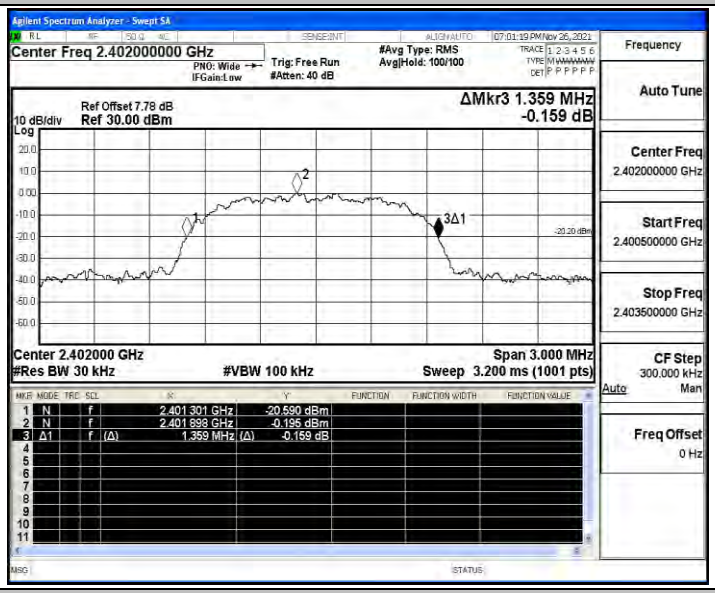
2DH5_Ant1_2441



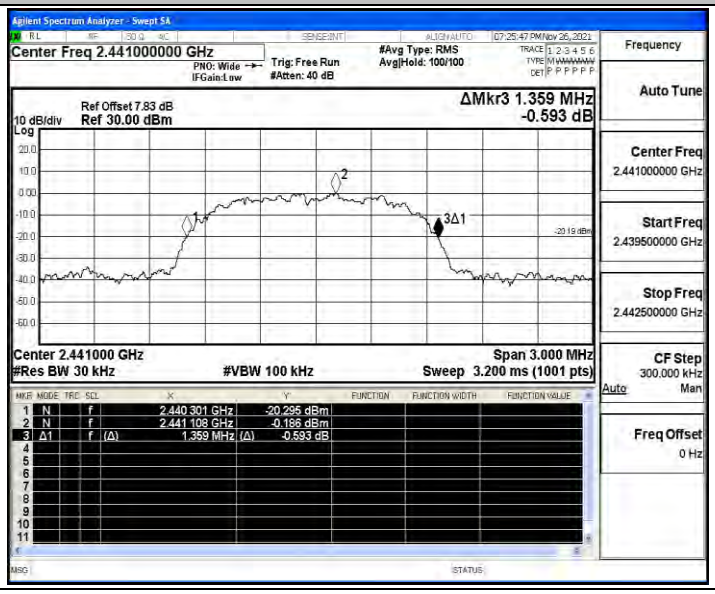
2DH5_Ant1_2480



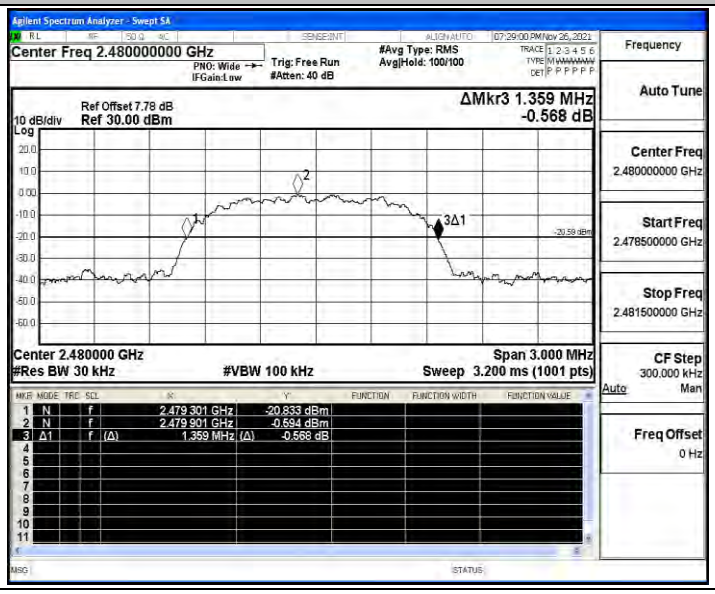
3DH5_Ant1_2402



3DH5_Ant1_2441



3DH5_Ant1_2480



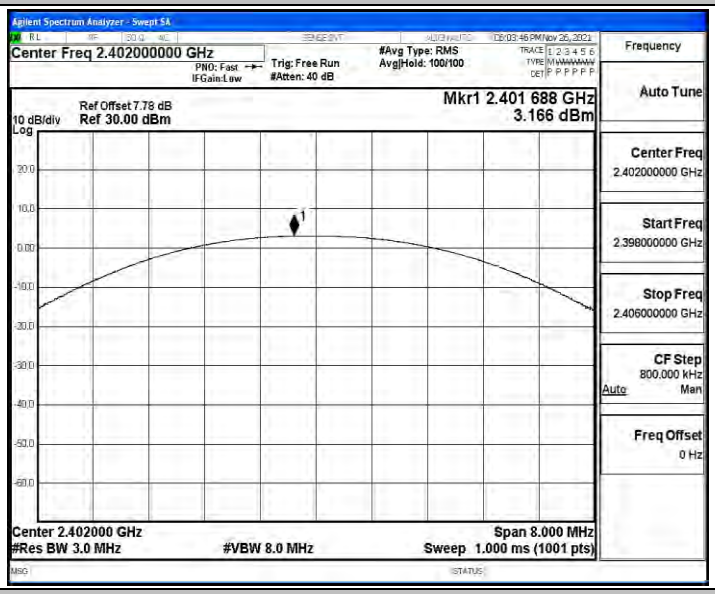
A.2 Maximum peak conducted output power

Test Result

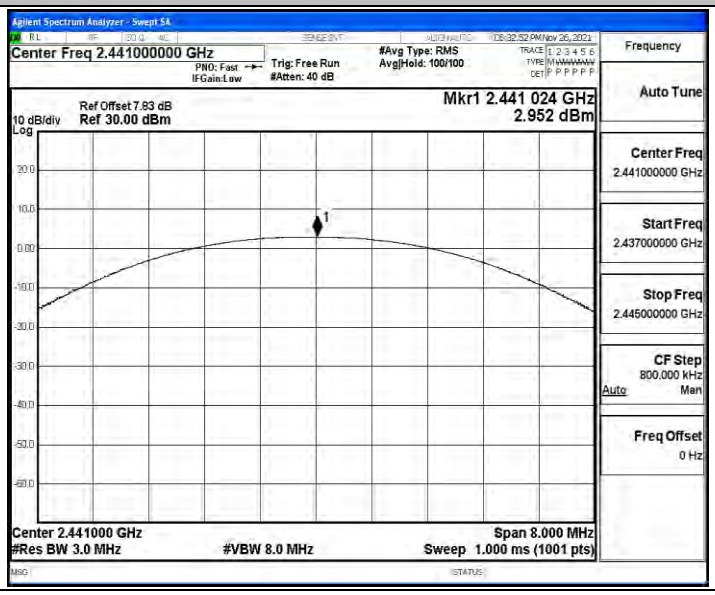
TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
DH5	Ant1	2402	3.17	≤20.97	PASS
		2441	2.95	≤20.97	PASS
		2480	2.69	≤20.97	PASS
2DH5	Ant1	2402	7.87	≤20.97	PASS
		2441	7.75	≤20.97	PASS
		2480	7.22	≤20.97	PASS
3DH5	Ant1	2402	8.42	≤20.97	PASS
		2441	8.4	≤20.97	PASS
		2480	8.07	≤20.97	PASS

Test Graphs

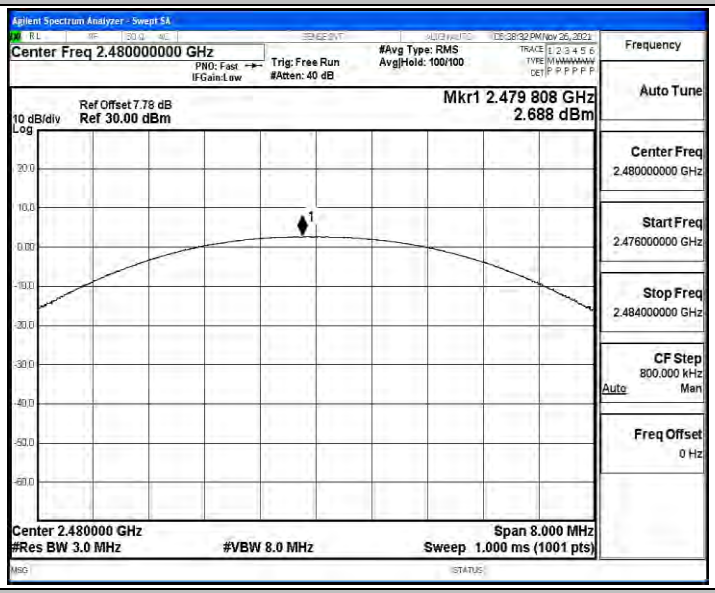
DH5_Ant1_2402



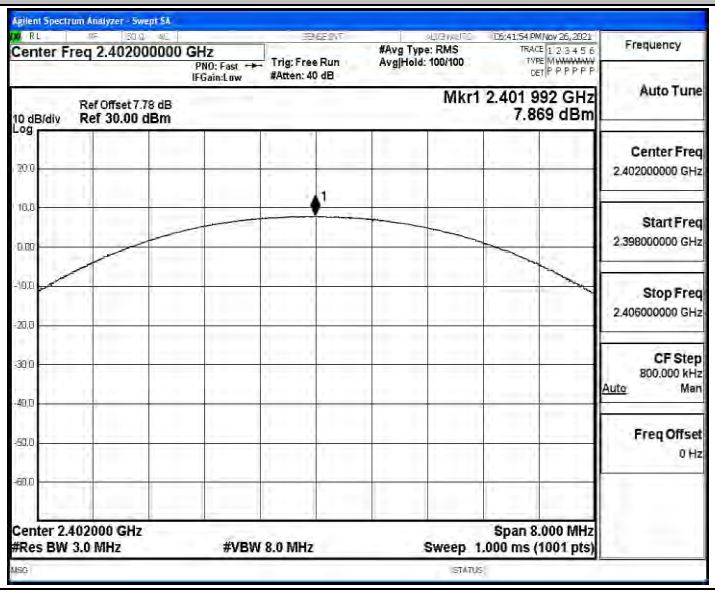
DH5_Ant1_2441



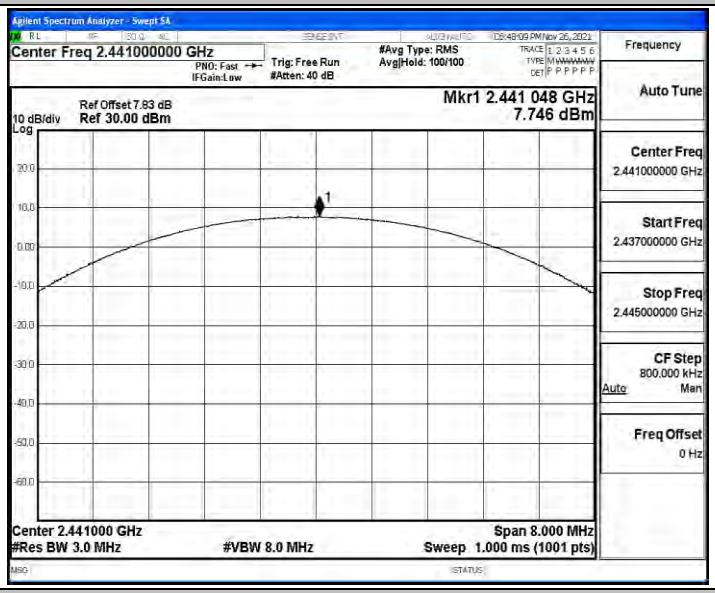
DH5_Ant1_2480



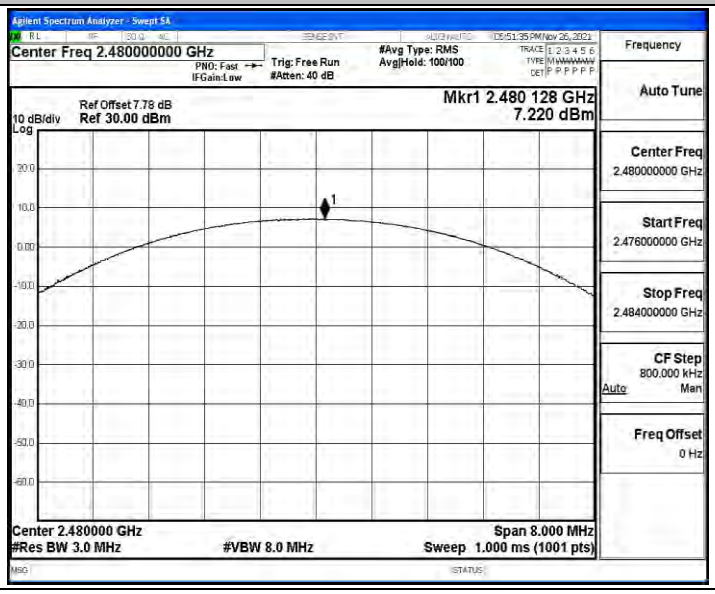
2DH5_Ant1_2402



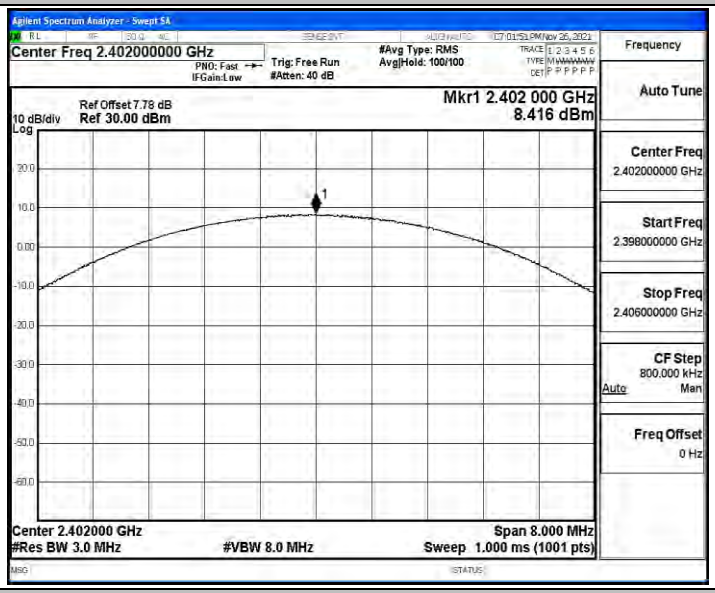
2DH5_Ant1_2441



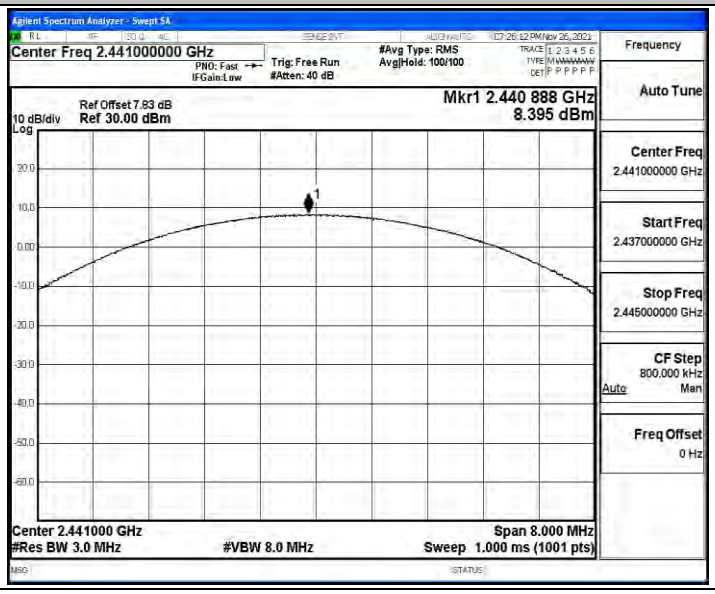
2DH5_Ant1_2480



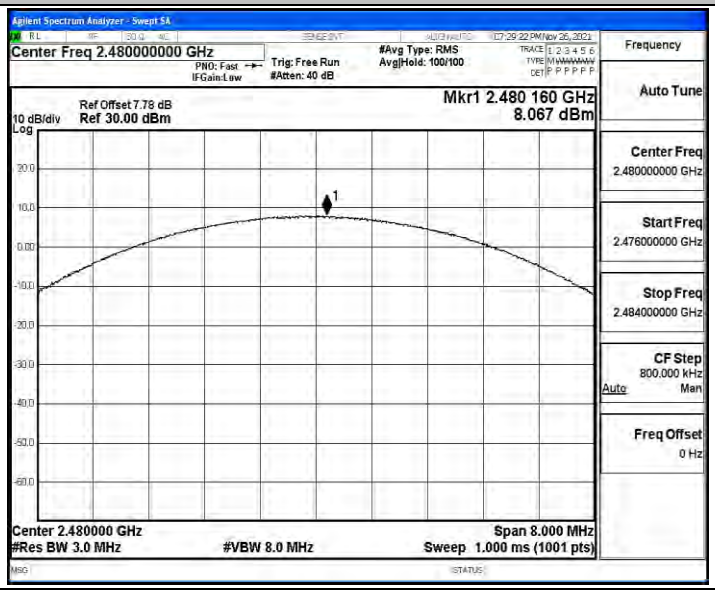
3DH5_Ant1_2402



3DH5_Ant1_2441



3DH5_Ant1_2480

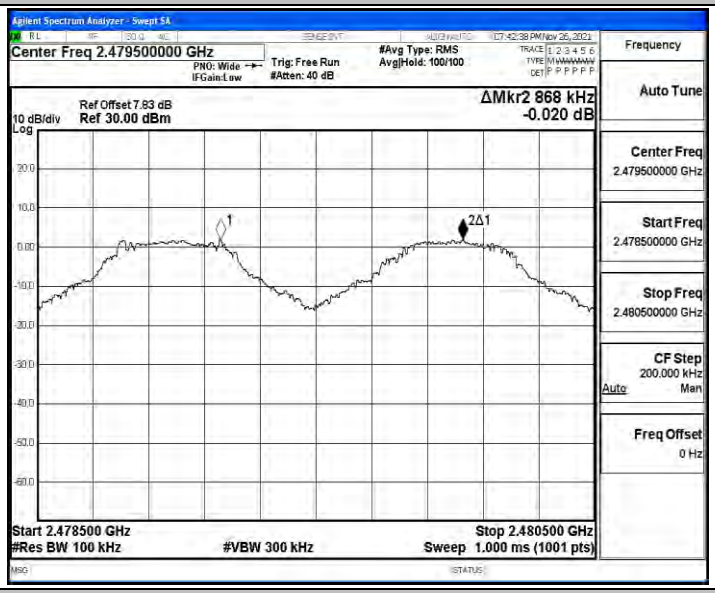


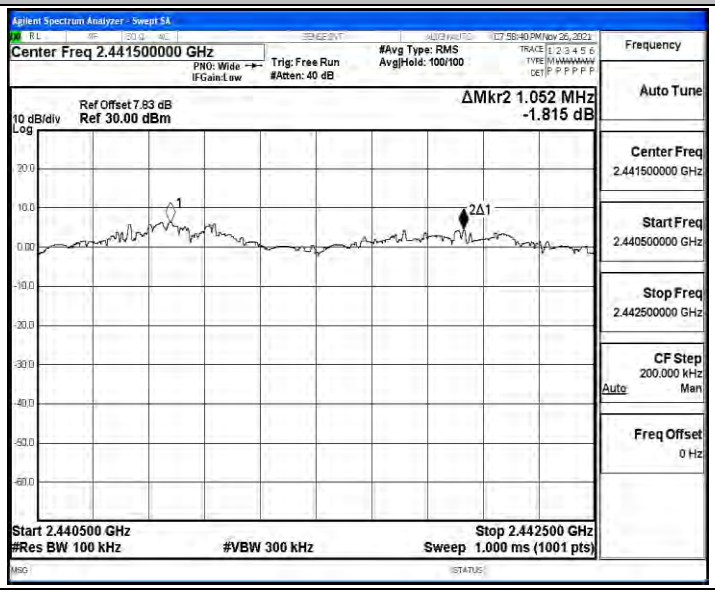
A.3 Carrier frequency separation

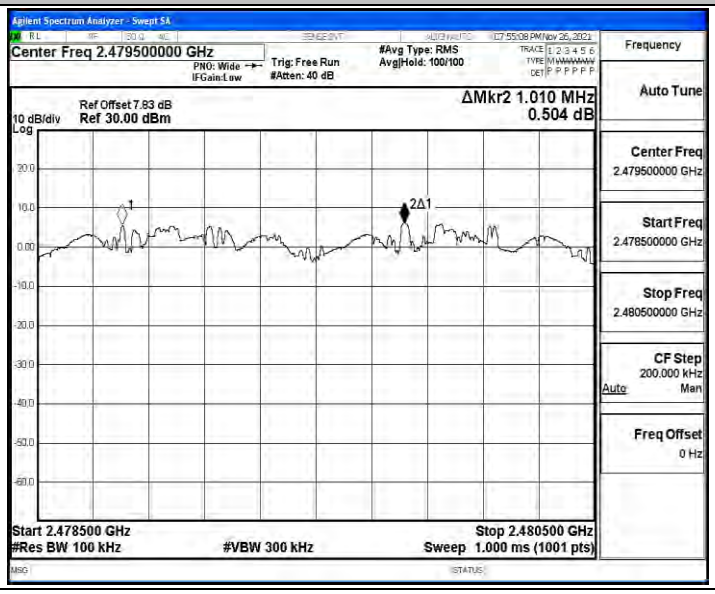
Test Result

TestMode	Antenna	Channel	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	0.868	≥0.684	PASS
2DH5	Ant1	Hop	1.052	≥0.920	PASS
3DH5	Ant1	Hop	1.01	≥0.906	PASS

Test Graphs

DH5_Ant1_Hop


2DH5_Ant1_Hop


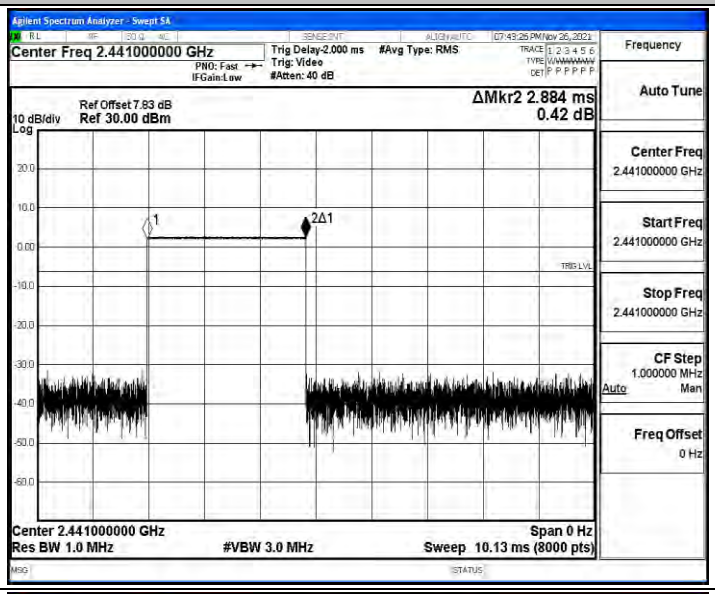
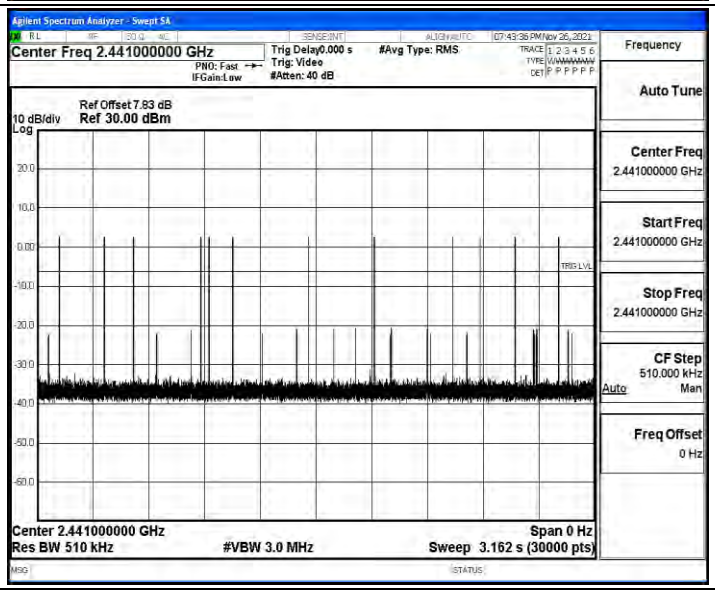
3DH5_Ant1_Hop


A.4 Time of occupancy

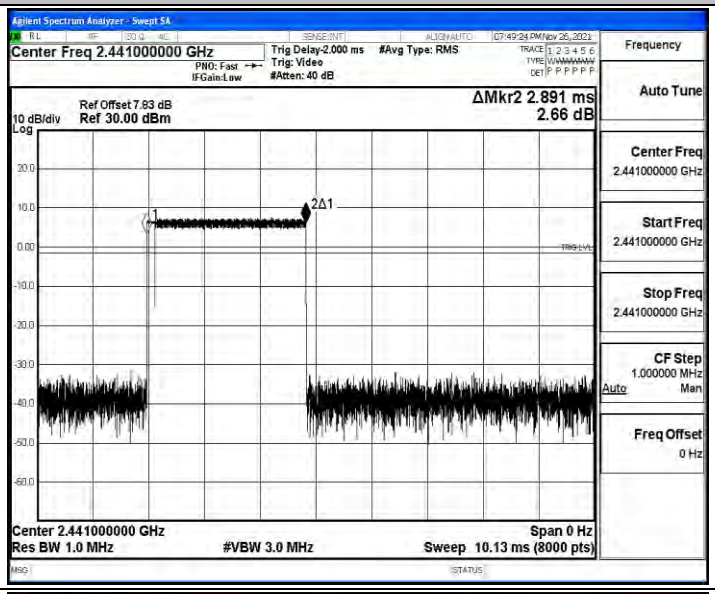
Test Result

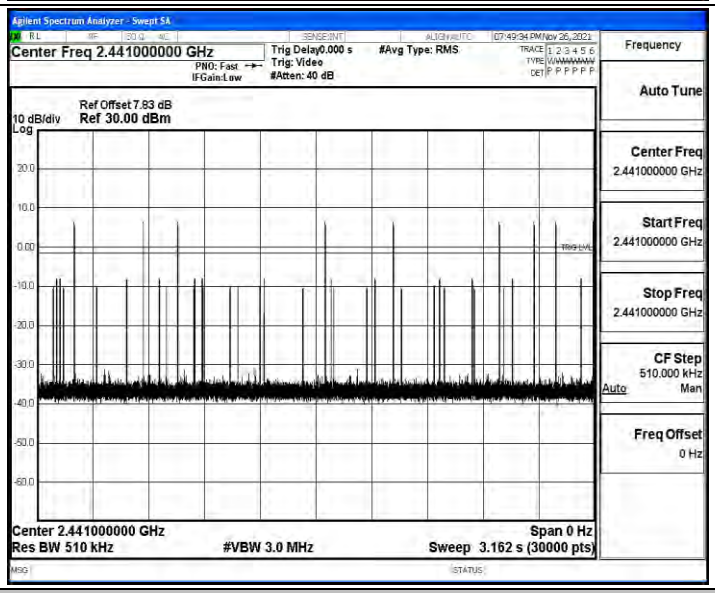
TestMode	Antenna	Channel	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH5	Ant1	Hop	2.88	130	0.375	≤0.4	PASS
2DH5	Ant1	Hop	2.89	100	0.289	≤0.4	PASS
3DH5	Ant1	Hop	2.89	120	0.347	≤0.4	PASS

Test Graphs

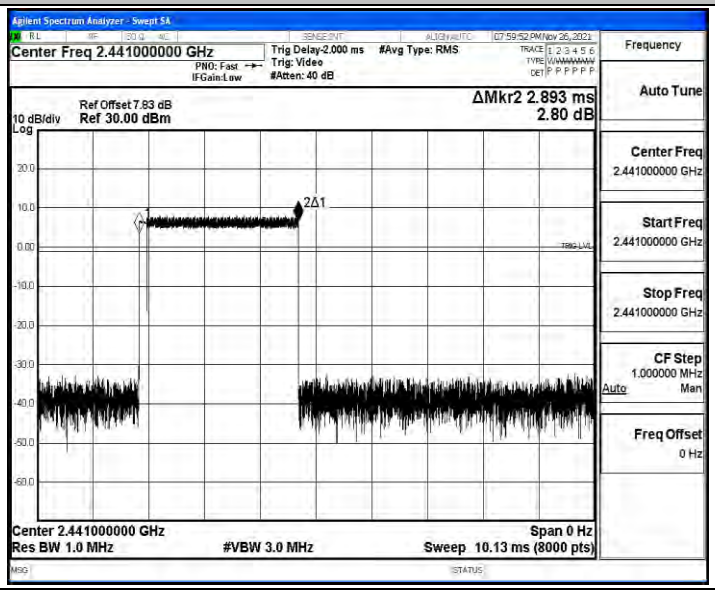
DH5_Ant1_Hop



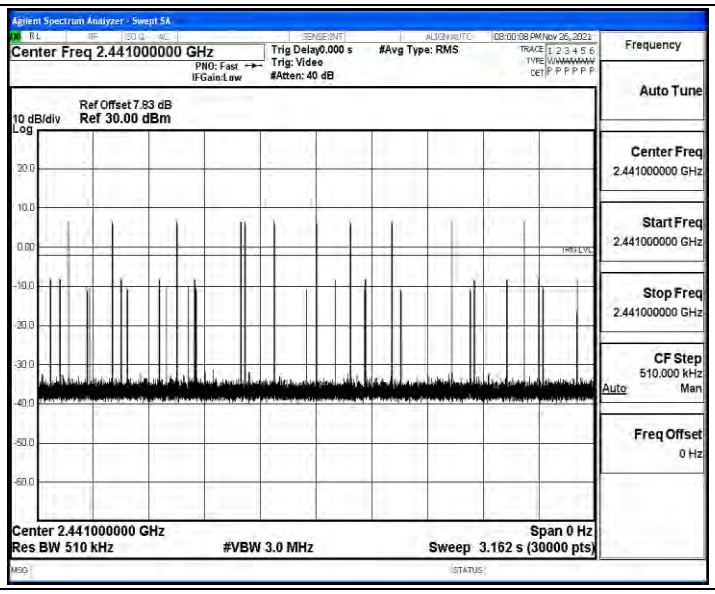
2DH5_Ant1_Hop





3DH5_Ant1_Hop



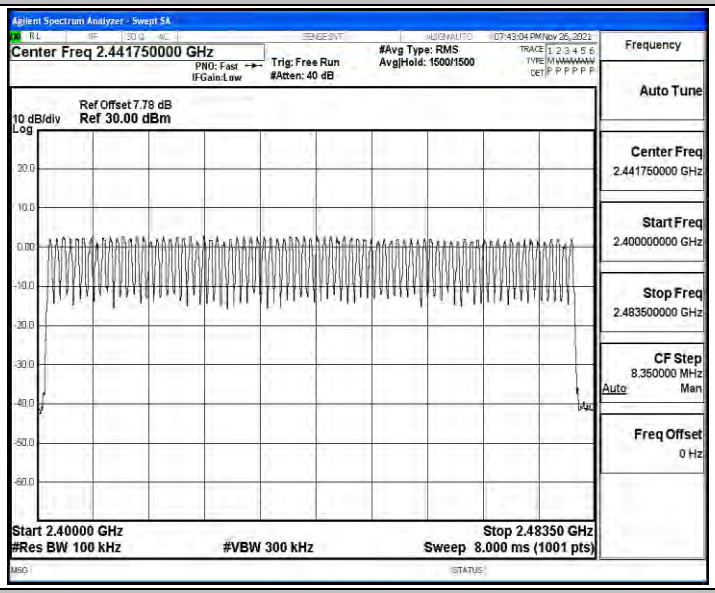

Agilent Spectrum Analyzer - Swept SA
Center Freq 2.441000000 GHz
Trig Delay0.000 s
Trig: Video
#Atten: 40 dB
#Avg Type: RMS
08:00:08 PM Nov 26, 2021
Frequency
Auto Tune
Center Freq
2.441000000 GHz
Start Freq
2.441000000 GHz
Stop Freq
2.441000000 GHz
CF Step
510.000 kHz
Auto
Man
Freq Offset
0 Hz
Ref Offset 7.83 dB
10 dB/div
Ref 30.00 dBm
Log
20.0
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
Center 2.441000000 GHz
Res BW 510 kHz
#VBW 3.0 MHz
Span 0 Hz
Sweep 3.162 s (30000 pts)

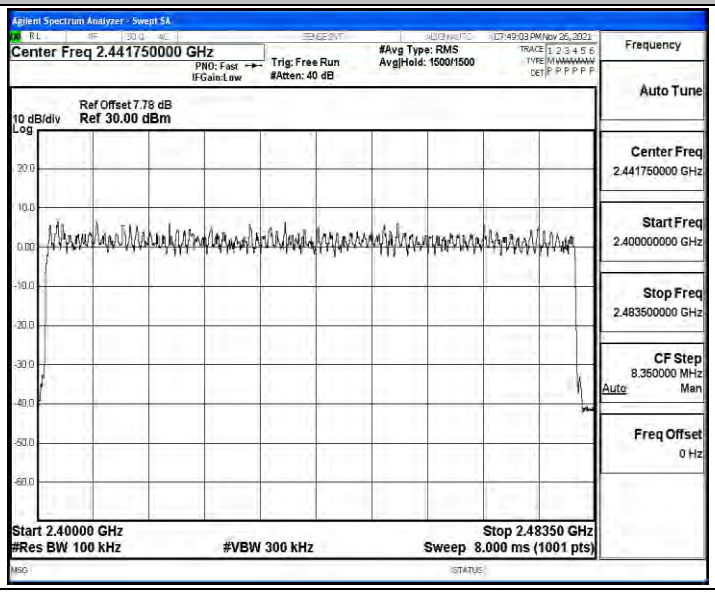
A.5 Number of hopping channels

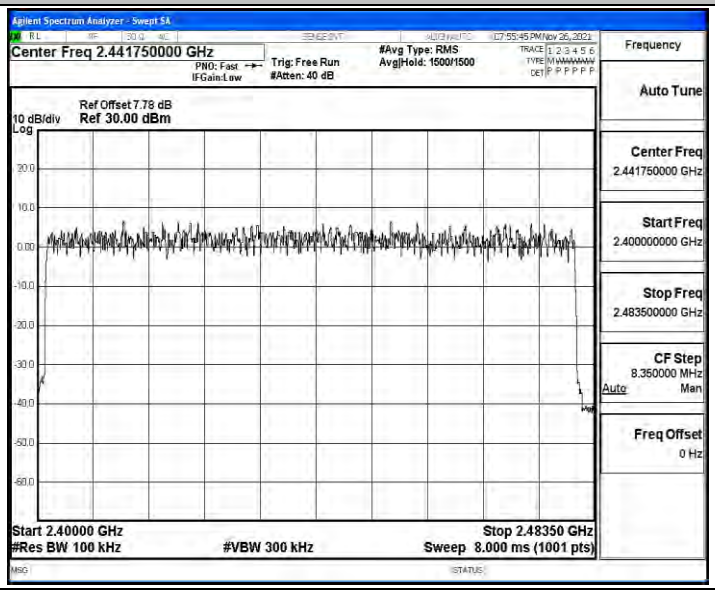
Test Result

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


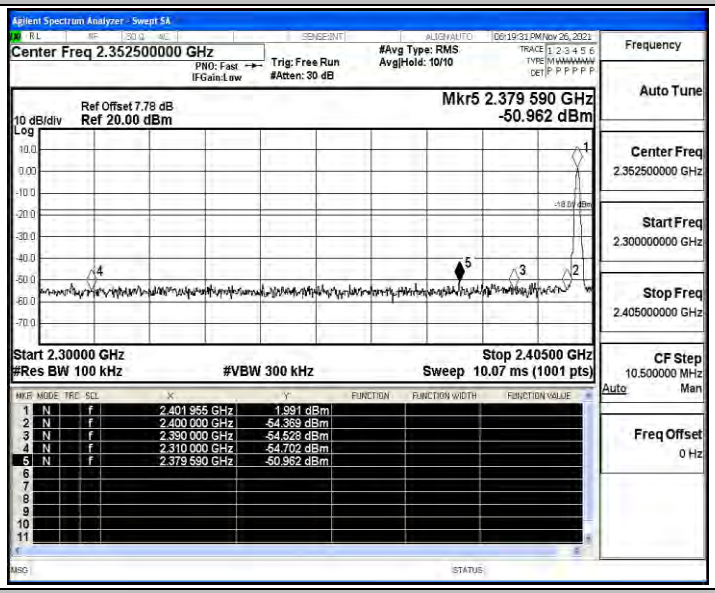
A.6 Band edge measurements

Test Result

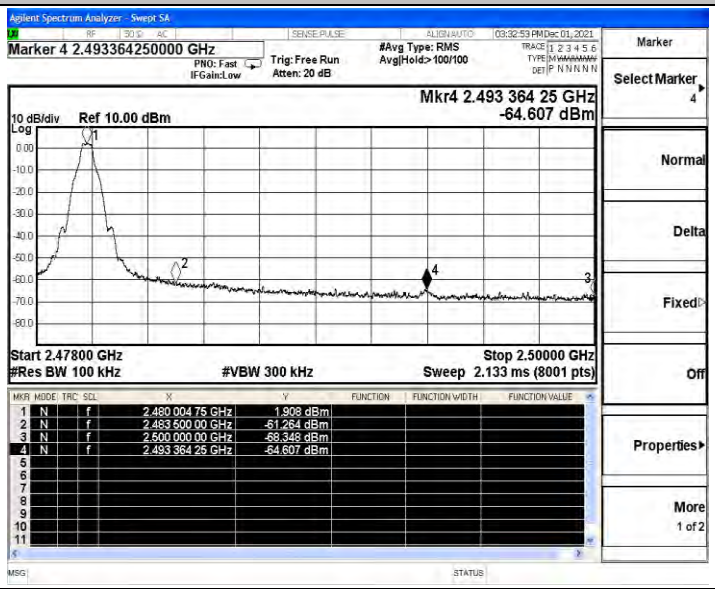
TestMode	Antenna	ChName	Channel	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	1.99	-50.96	≤-18.01	PASS
		High	2480	1.91	-61.26	≤-18.09	PASS
		Low	Hop_2402	2.77	-50.11	≤-17.23	PASS
		High	Hop_2480	2.25	-48.88	≤-17.75	PASS
2DH5	Ant1	Low	2402	1.84	-50.63	≤-18.16	PASS
		High	2480	3.03	-50.34	≤-16.98	PASS
		Low	Hop_2402	3.12	-48.69	≤-16.88	PASS
		High	Hop_2480	4.38	-48.51	≤-15.62	PASS
3DH5	Ant1	Low	2402	3.57	-49.89	≤-16.44	PASS
		High	2480	0.38	-51.02	≤-19.63	PASS
		Low	Hop_2402	2.42	-49.62	≤-17.58	PASS
		High	Hop_2480	4.55	-48.47	≤-15.45	PASS

Test Graphs

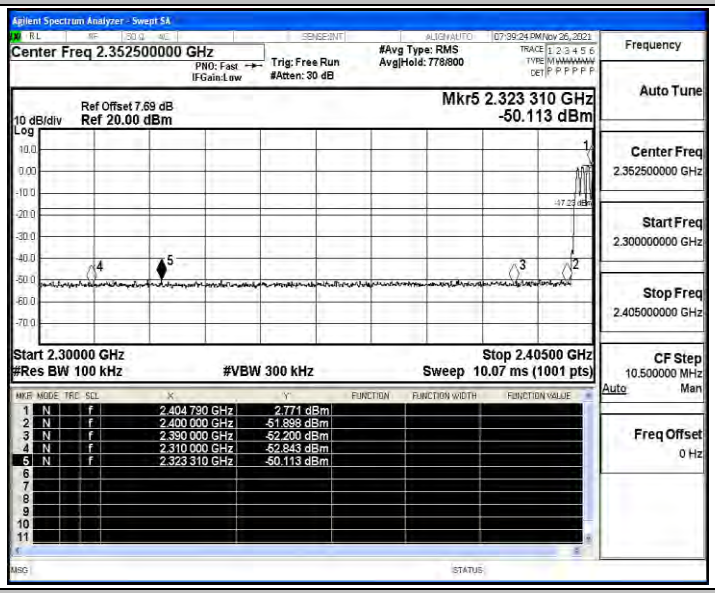
DH5_Ant1_Low_2402



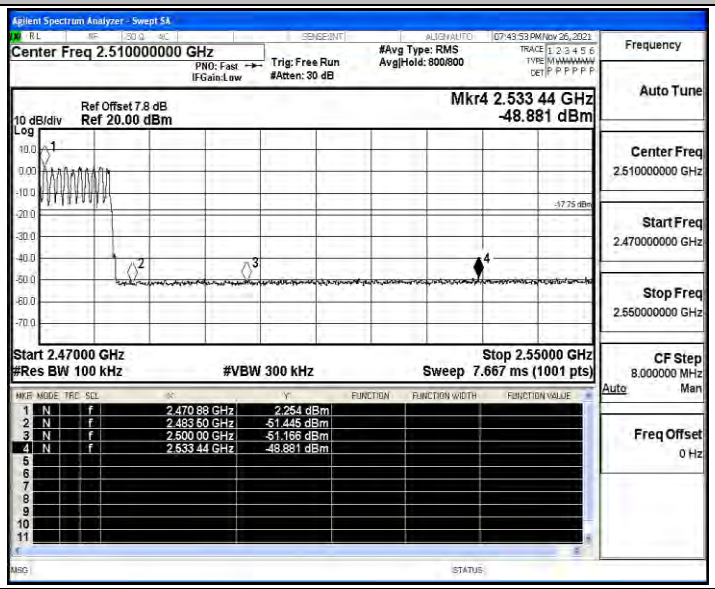
DH5_Ant1_ High_2480



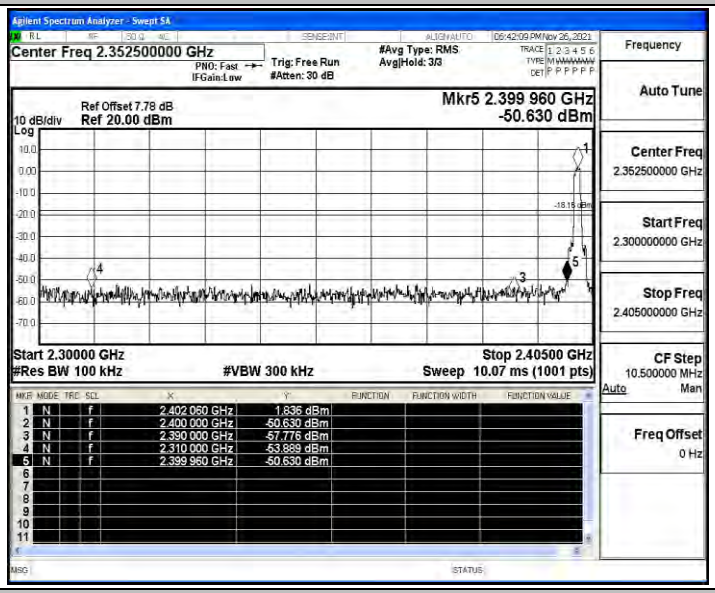
DH5_Ant1_Low_Hop_2402



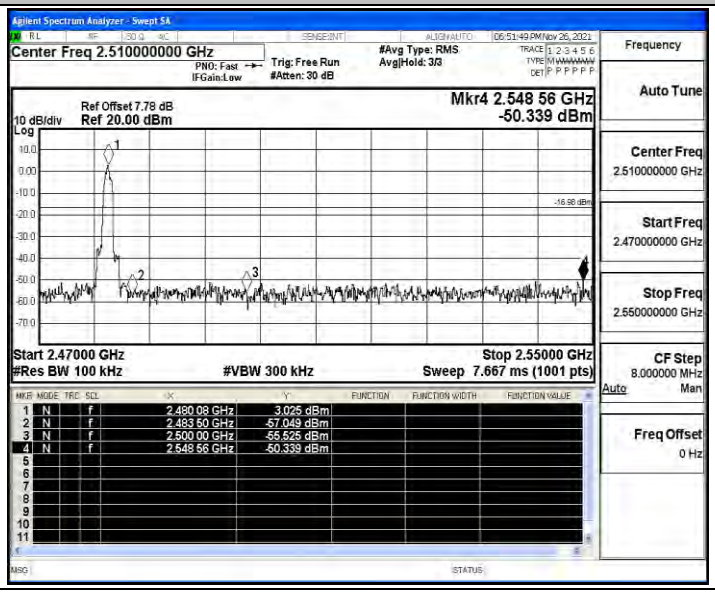
DH5_Ant1_High_Hop_2480



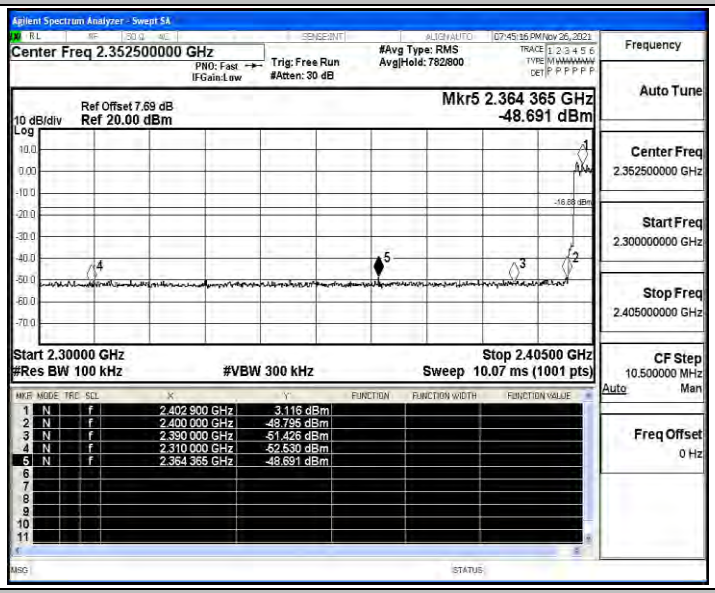
2DH5_Ant1_Low_2402



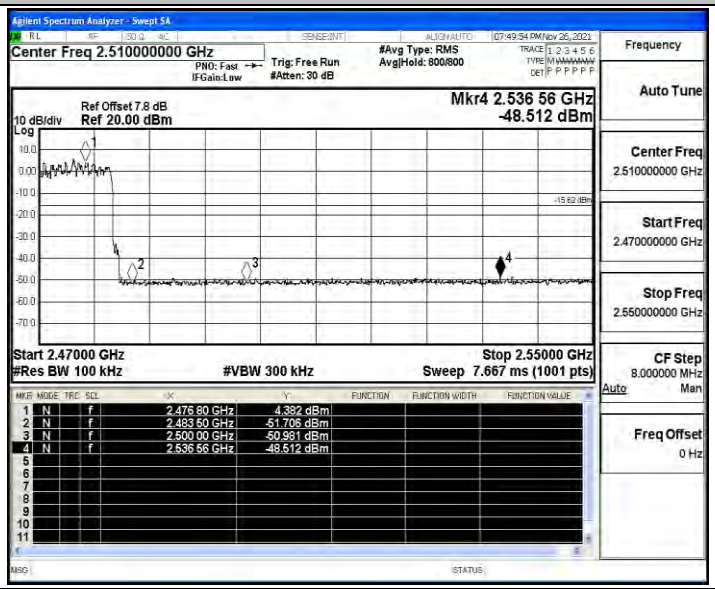
2DH5_Ant1_High_2480



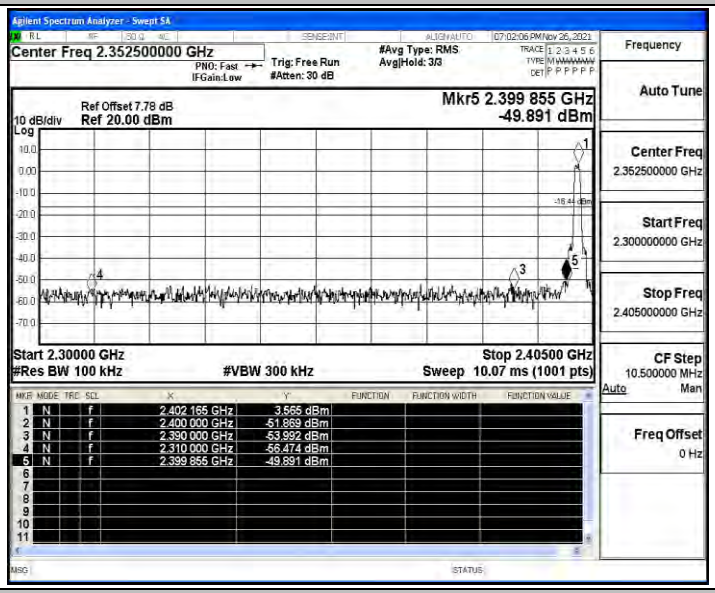
2DH5_Ant1_Low_Hop_2402



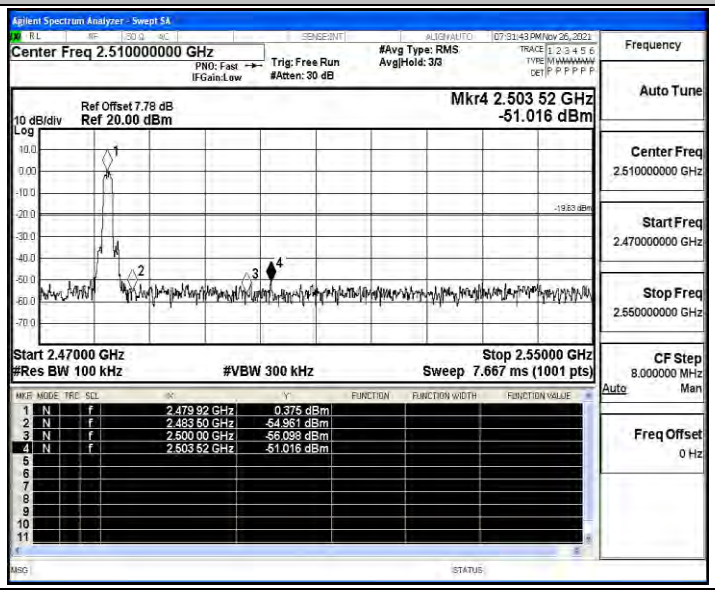
2DH5_Ant1_High_Hop_2480



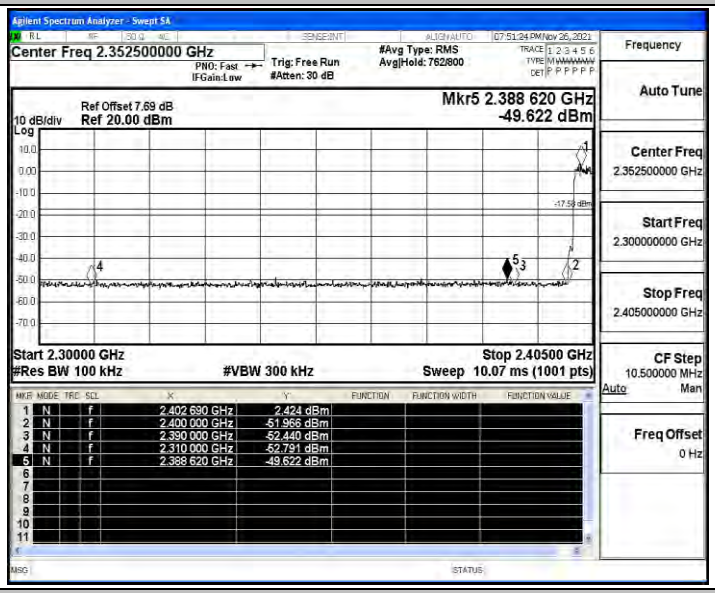
3DH5_Ant1_Low_2402



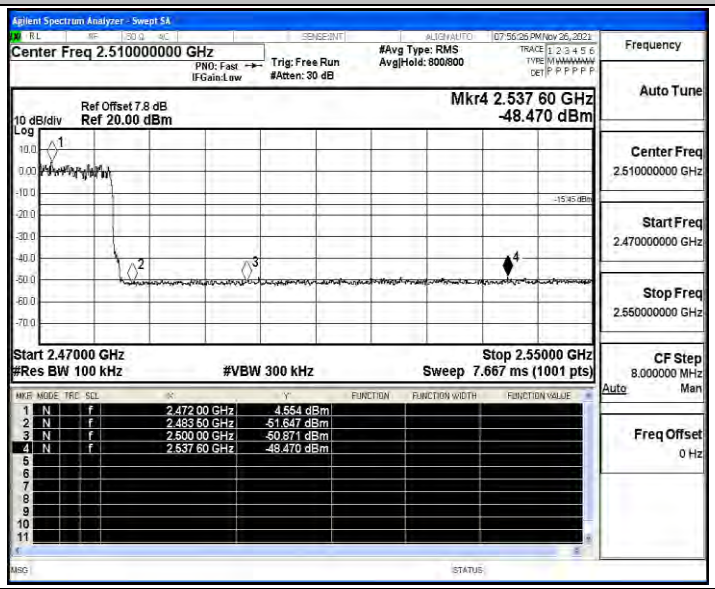
3DH5_Ant1_High_2480



3DH5_Ant1_Low_Hop_2402



3DH5_Ant1_High_Hop_2480



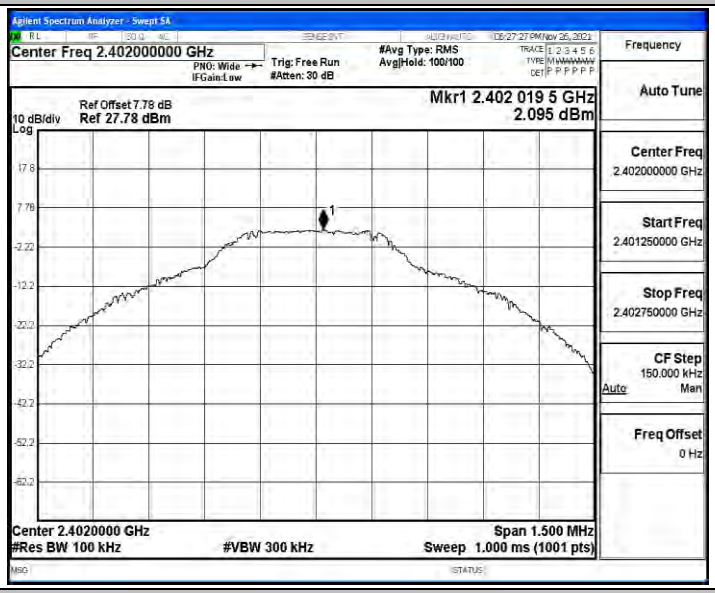
A.7 Conducted Spurious Emission

Test Result

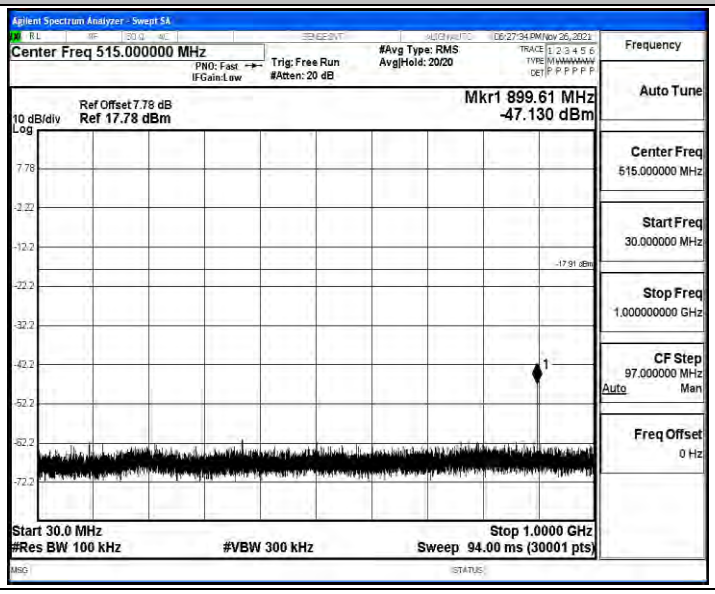
TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	Reference	2.10	2.10	---	PASS
			30~1000	2.10	-47.13	≤-17.91	PASS
			1000~26500	2.10	-46.77	≤-17.91	PASS
		2441	Reference	1.98	1.98	---	PASS
			30~1000	1.98	-40.43	≤-18.02	PASS
			1000~26500	1.98	-41.21	≤-18.02	PASS
		2480	Reference	1.75	1.75	---	PASS
			30~1000	1.75	-60.8	≤-18.26	PASS
			1000~26500	1.75	-46.48	≤-18.26	PASS
2DH5	Ant1	2402	Reference	3.81	3.81	---	PASS
			30~1000	3.81	-60.93	≤-16.19	PASS
			1000~26500	3.81	-27.14	≤-16.19	PASS
		2441	Reference	3.67	3.67	---	PASS
			30~1000	3.67	-61.69	≤-16.33	PASS
			1000~26500	3.67	-44.39	≤-16.33	PASS
		2480	Reference	3.04	3.04	---	PASS
			30~1000	3.04	-61.46	≤-16.96	PASS
			1000~26500	3.04	-44.27	≤-16.96	PASS
3DH5	Ant1	2402	Reference	3.71	3.71	---	PASS
			30~1000	3.71	-62.12	≤-16.29	PASS
			1000~26500	3.71	-44.72	≤-16.29	PASS
		2441	Reference	3.77	3.77	---	PASS
			30~1000	3.77	-35.82	≤-16.23	PASS
			1000~26500	3.77	-44.14	≤-16.23	PASS
		2480	Reference	3.40	3.40	---	PASS
			30~1000	3.40	-61.55	≤-16.6	PASS
			1000~26500	3.40	-44.58	≤-16.6	PASS

Test Graphs

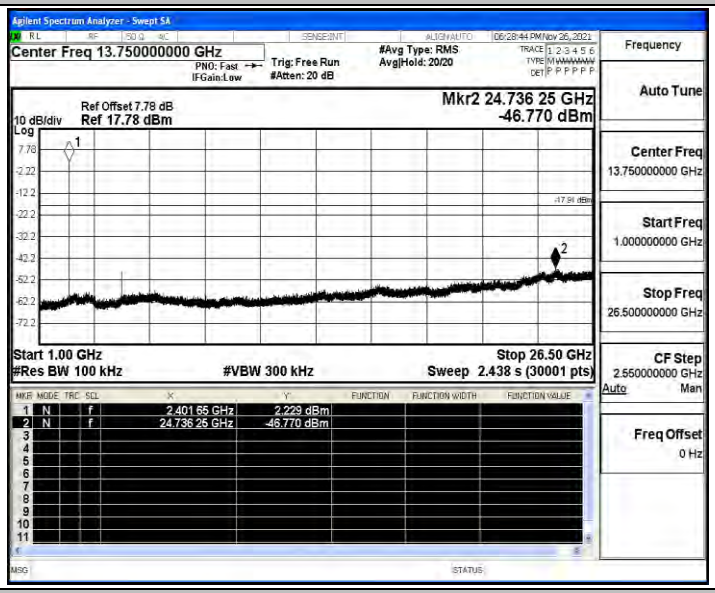
DH5_Ant1_2402_0~Reference



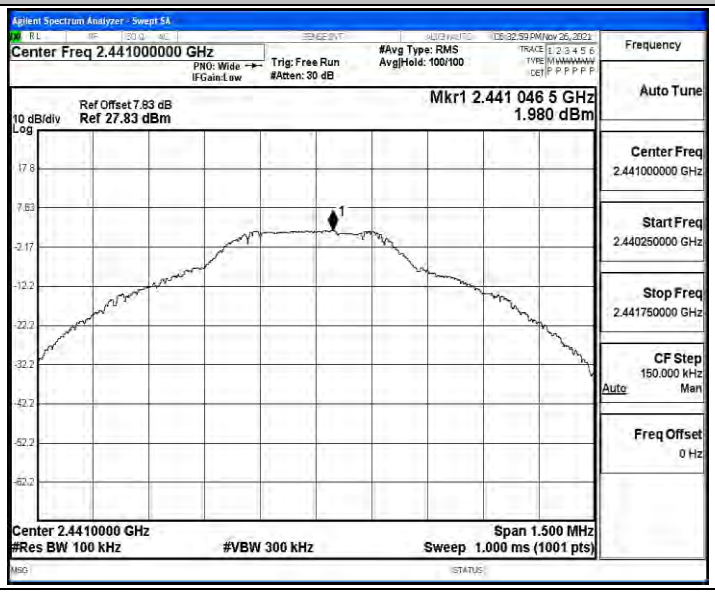
DH5_Ant1_2402_30~1000



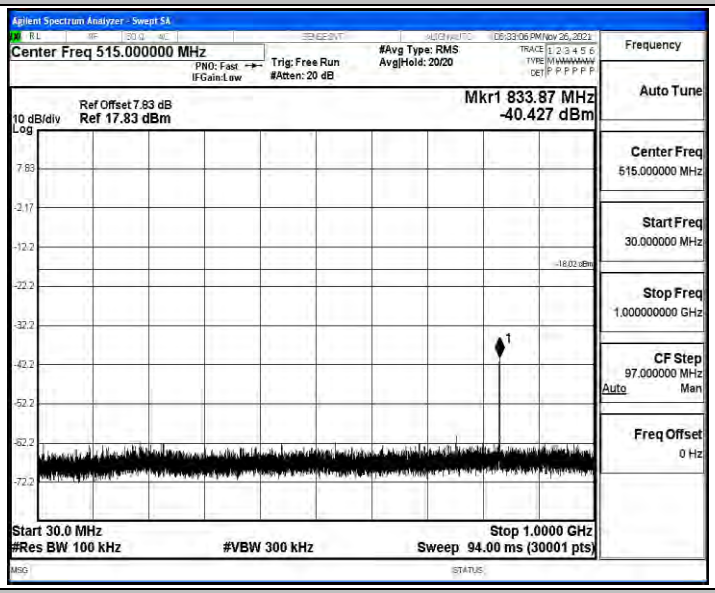
DH5_Ant1_2402_1000~26500



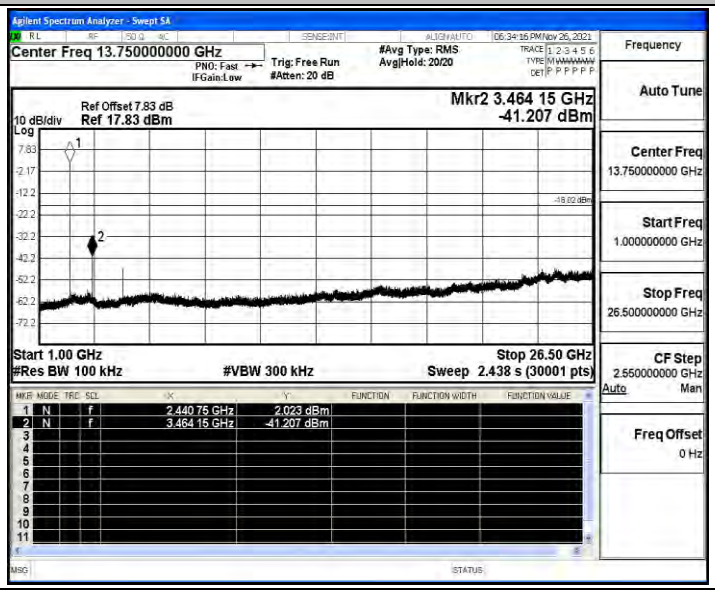
DH5_Ant1_2441_0~Reference



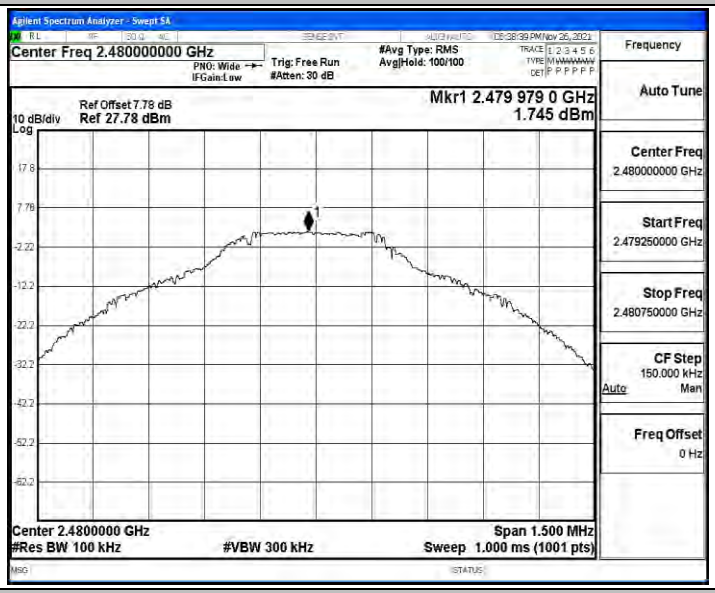
DH5_Ant1_2441_30~1000



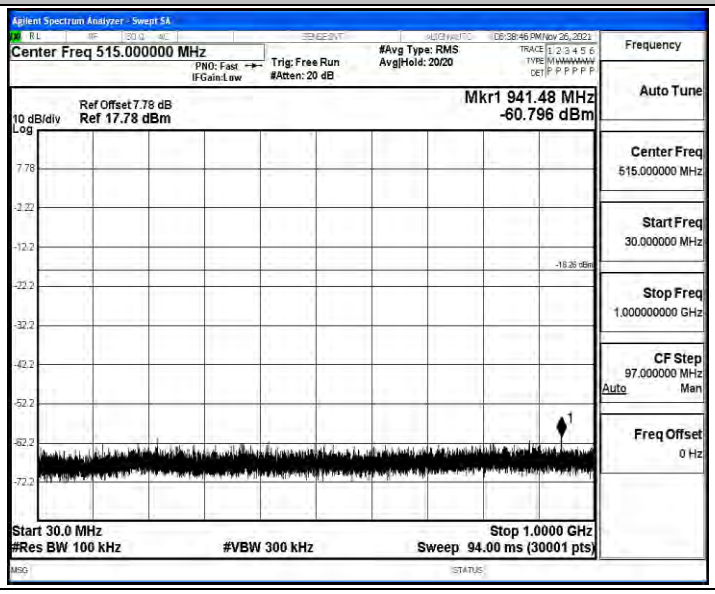
DH5_Ant1_2441_1000~26500



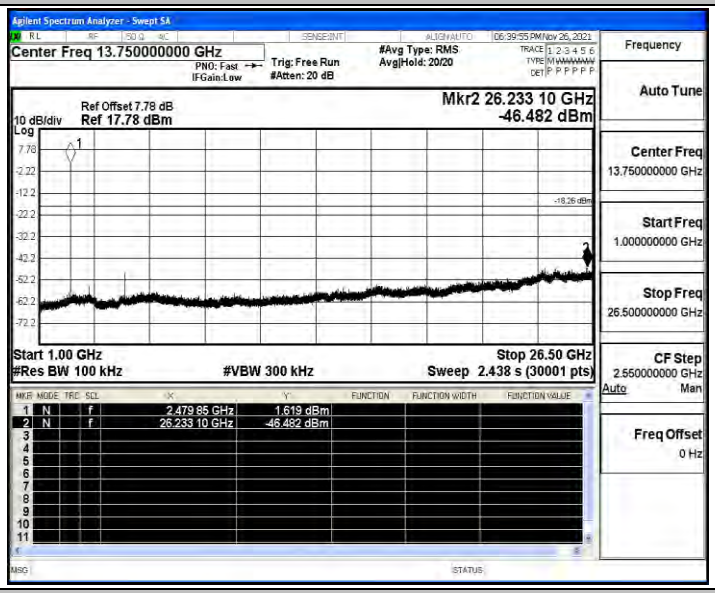
DH5_Ant1_2480_0~Reference



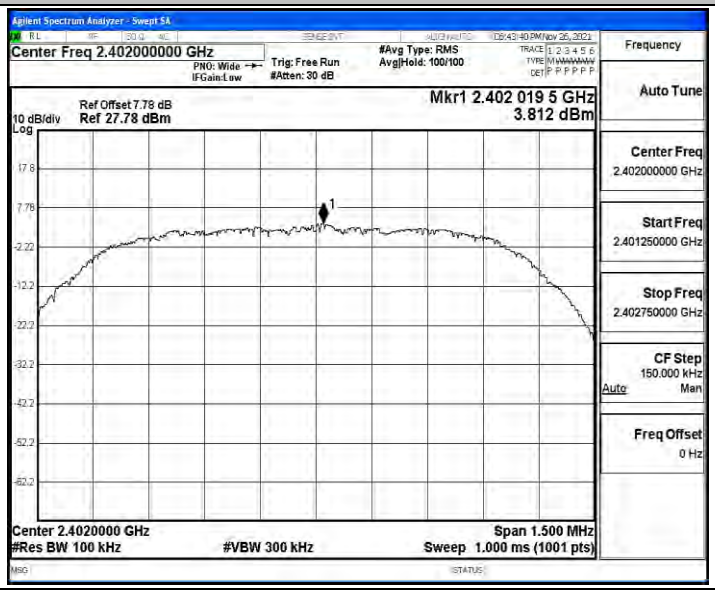
DH5_Ant1_2480_30~1000



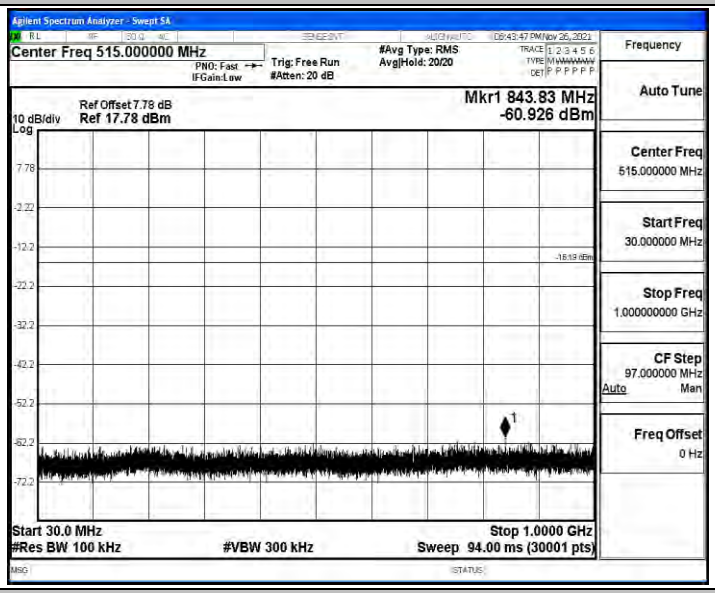
DH5_Ant1_2480_1000~26500



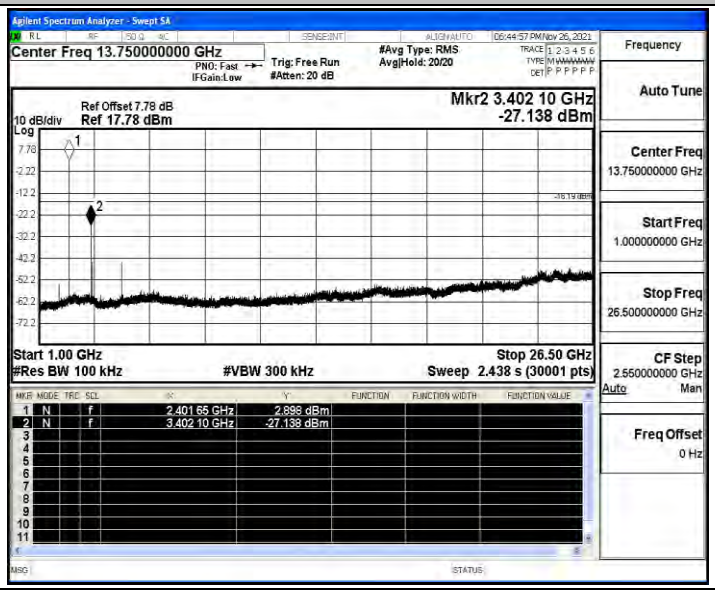
2DH5_Ant1_2402_0~Reference



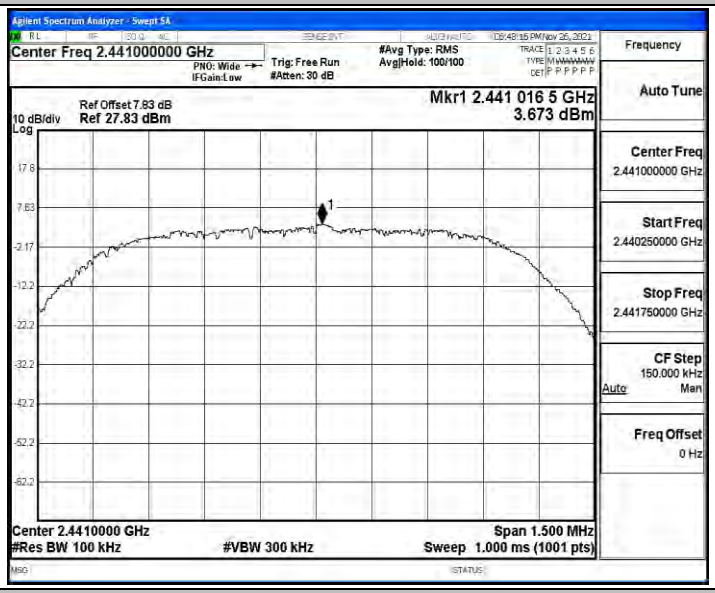
2DH5_Ant1_2402_30~1000



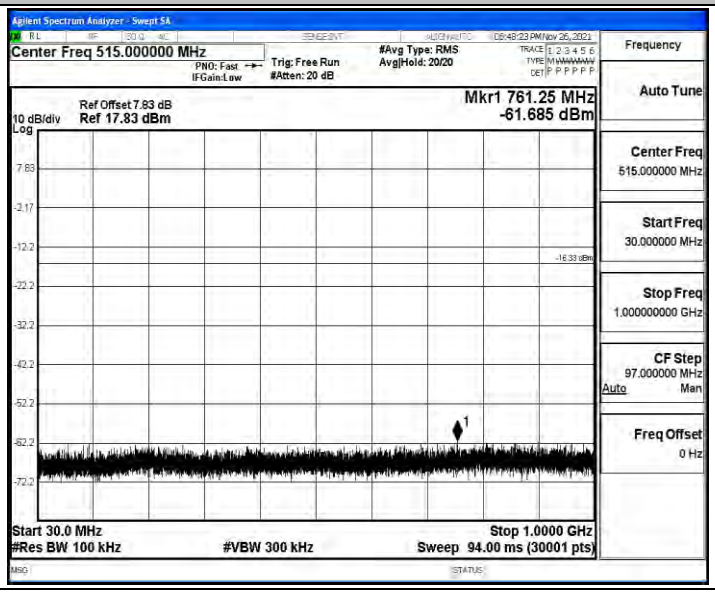
2DH5_Ant1_2402_1000~26500



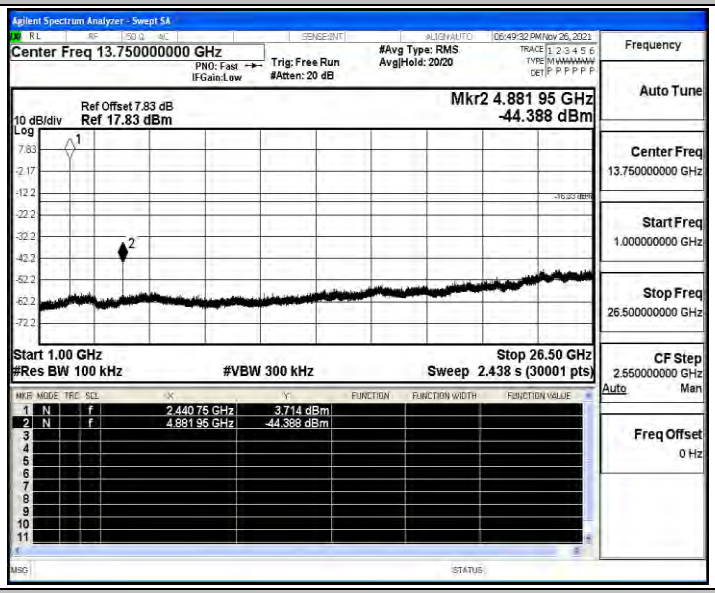
2DH5_Ant1_2441_0~Reference



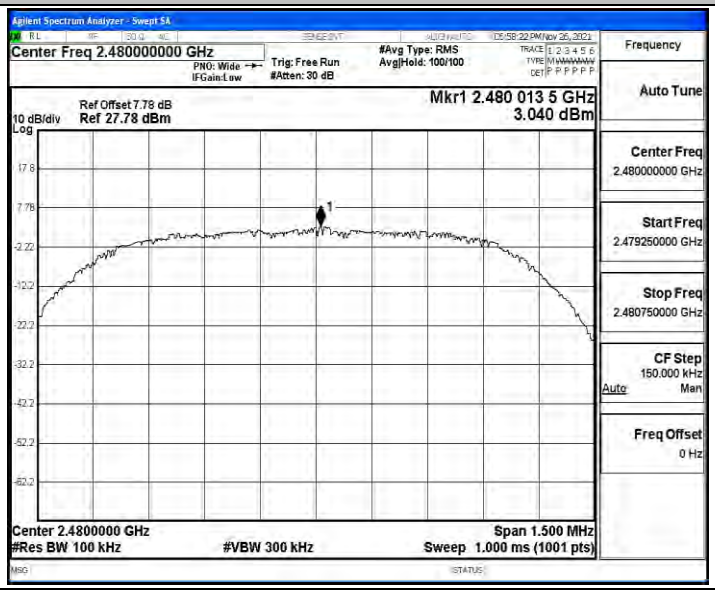
2DH5_Ant1_2441_30~1000



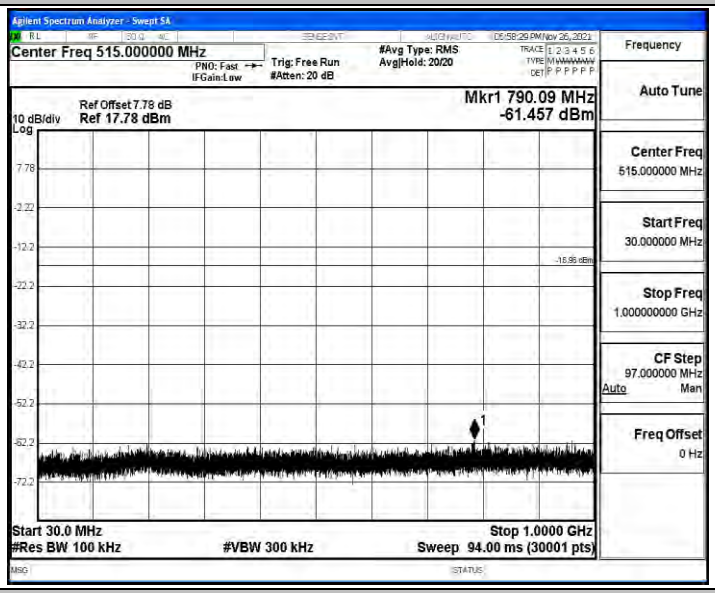
2DH5_Ant1_2441_1000~26500



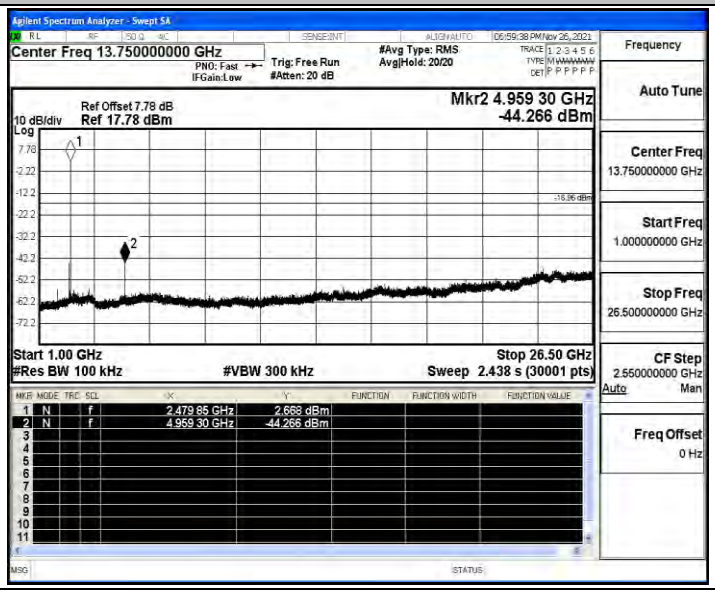
2DH5_Ant1_2480_0~Reference



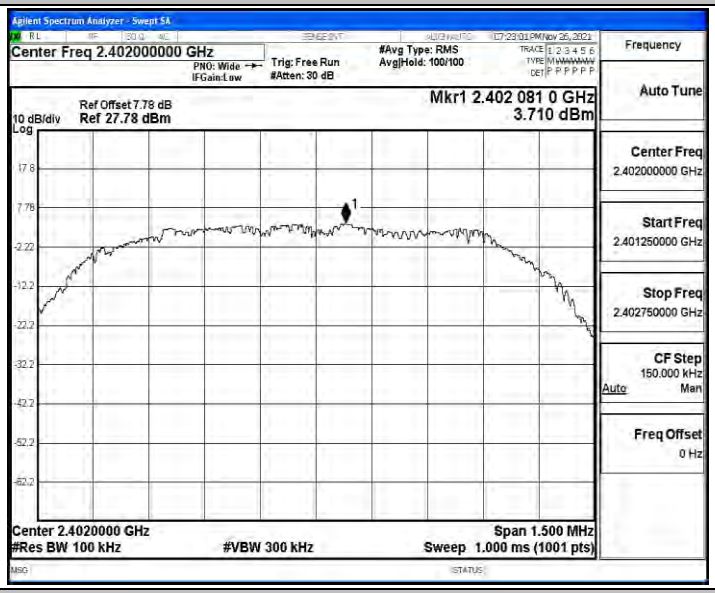
2DH5_Ant1_2480_30~1000



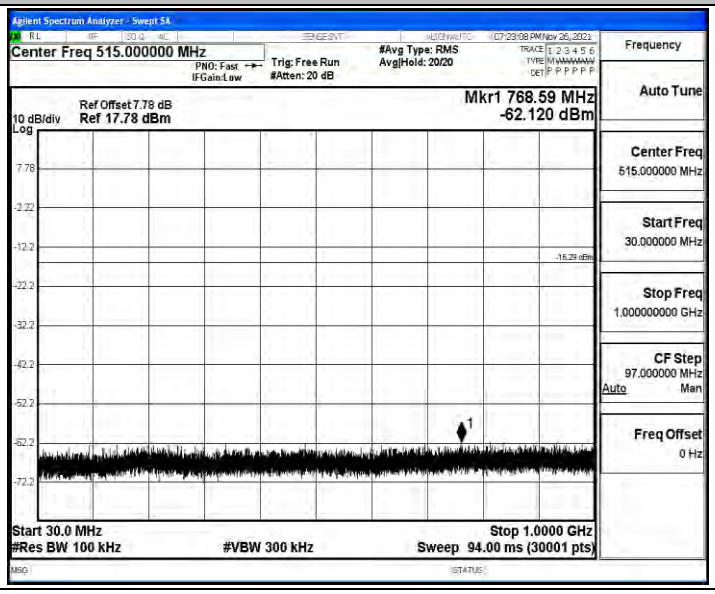
2DH5_Ant1_2480_1000~26500



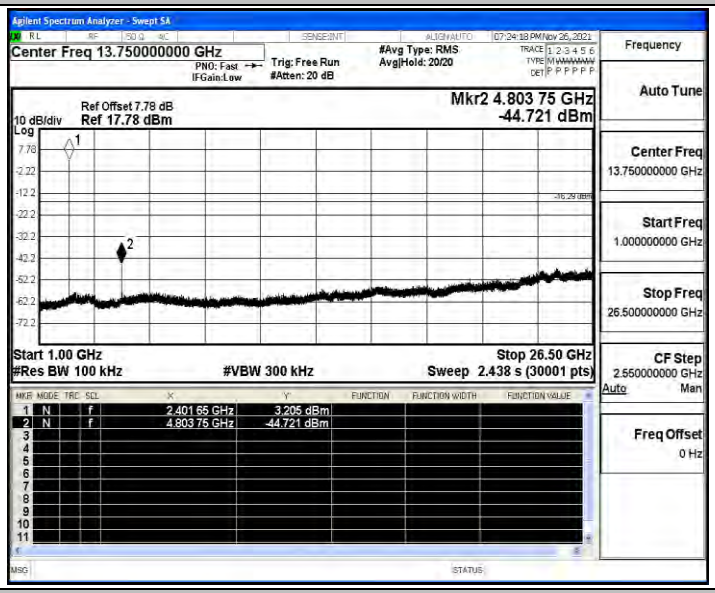
3DH5_Ant1_2402_0~Reference



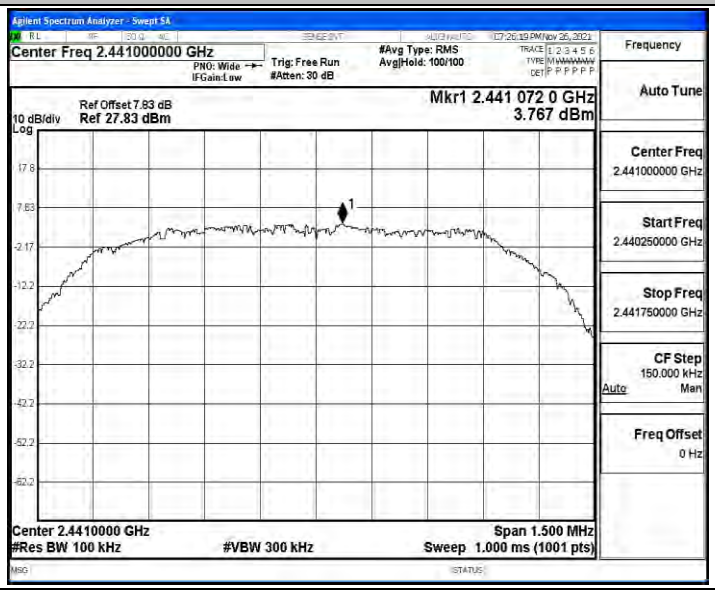
3DH5_Ant1_2402_30~1000



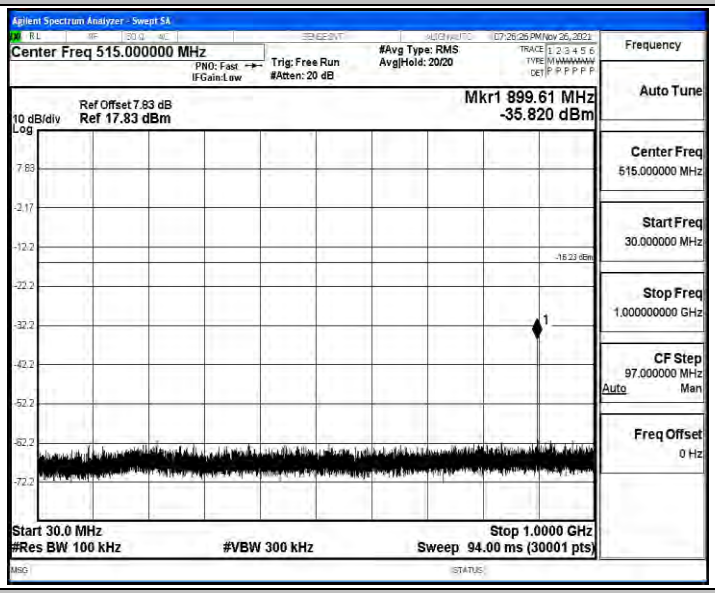
3DH5_Ant1_2402_1000~26500



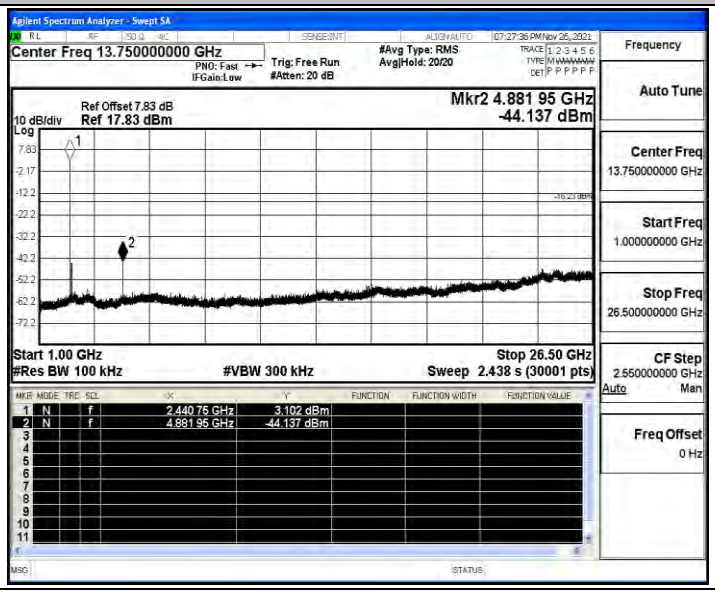
3DH5_Ant1_2441_0~Reference



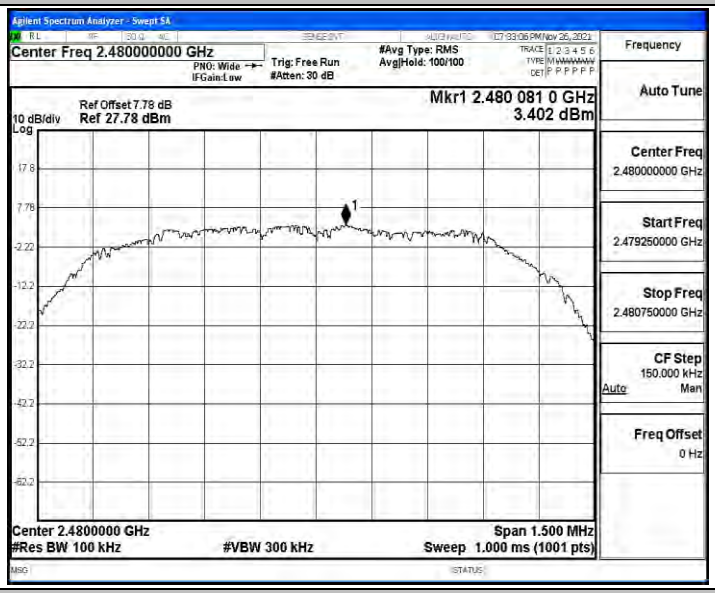
3DH5_Ant1_2441_30~1000



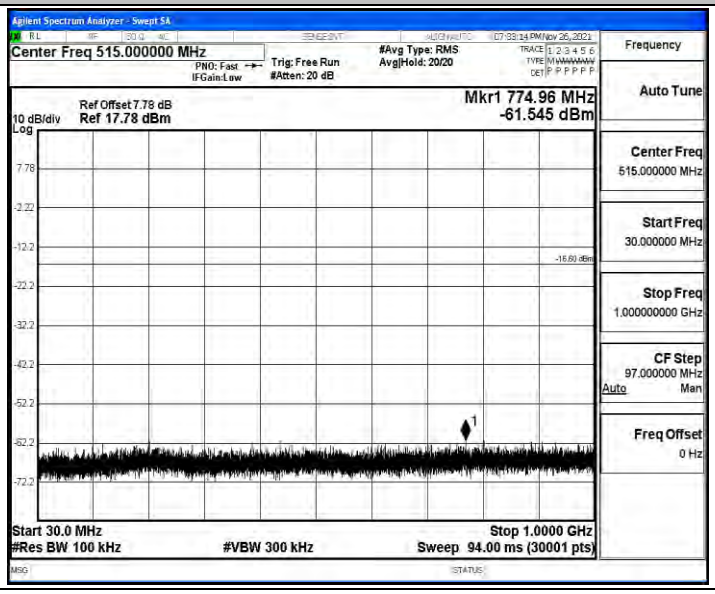
3DH5_Ant1_2441_1000~26500



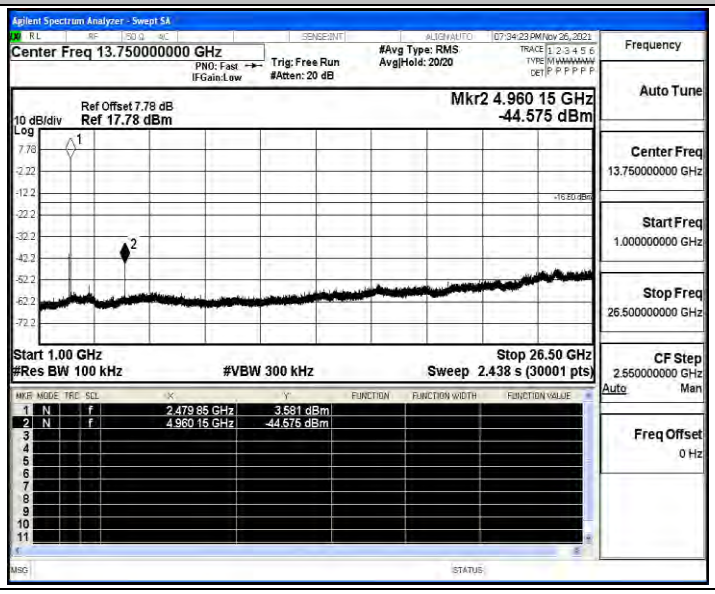
3DH5_Ant1_2480_0~Reference



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	-49.5	≤-41.20	45.70	≤54	PASS
				AV	2389.040	-49.01	≤-41.20	46.19	≤54	PASS
				AV	2390.000	-49.01	≤-41.20	46.19	≤54	PASS
				Peak	2310.000	-43.42	≤-21.20	51.78	≤74	PASS
				Peak	2371.400	-40.38	≤-21.20	54.82	≤74	PASS
				Peak	2390.000	-44.37	≤-21.20	50.83	≤74	PASS
		High	2480	AV	2483.500	-48.29	≤-41.20	46.91	≤54	PASS
				AV	2483.520	-48.29	≤-41.20	46.91	≤54	PASS
				AV	2500.000	-48.4	≤-41.20	46.80	≤54	PASS
				Peak	2483.500	-45.46	≤-21.20	49.74	≤74	PASS
				Peak	2497.360	-40.21	≤-21.20	54.99	≤74	PASS
				Peak	2500.000	-45.36	≤-21.20	49.84	≤74	PASS
		Low	Hop_2402	Peak	2310.000	-40.68	≤-21.20	54.52	≤74	PASS
				Peak	2368.565	-38.49	≤-21.20	56.71	≤74	PASS
				Peak	2390.000	-40.97	≤-21.20	54.23	≤74	PASS
		High	Hop_2480	Peak	2483.500	-40.6	≤-21.20	54.60	≤74	PASS
				Peak	2491.920	-37.72	≤-21.20	57.48	≤74	PASS
				Peak	2500.000	-40.1	≤-21.20	55.10	≤74	PASS
2DH5	Ant1	Low	2402	AV	2310.000	-49.46	≤-41.20	45.74	≤54	PASS
				AV	2389.985	-48.88	≤-41.20	46.32	≤54	PASS
				AV	2390.000	-48.88	≤-41.20	46.32	≤54	PASS
				Peak	2310.000	-44.56	≤-21.20	50.64	≤74	PASS
				Peak	2311.130	-39.62	≤-21.20	55.58	≤74	PASS
				Peak	2390.000	-43.8	≤-21.20	51.40	≤74	PASS
		High	2480	AV	2483.500	-46.42	≤-41.20	48.78	≤54	PASS
				AV	2483.520	-46.42	≤-41.20	48.78	≤54	PASS
				AV	2500.000	-48.47	≤-41.20	46.73	≤54	PASS
				Peak	2483.500	-43.47	≤-21.20	51.73	≤74	PASS
				Peak	2499.760	-39.14	≤-21.20	56.06	≤74	PASS
				Peak	2500.000	-43.5	≤-21.20	51.70	≤74	PASS
		Low	Hop_2402	Peak	2310.000	-40.57	≤-21.20	54.63	≤74	PASS
				Peak	2384.315	-37.59	≤-21.20	57.61	≤74	PASS
				Peak	2390.000	-39.25	≤-21.20	55.95	≤74	PASS
		High	Hop_2480	Peak	2483.500	-39.2	≤-21.20	56.00	≤74	PASS
				Peak	2487.200	-37.19	≤-21.20	58.01	≤74	PASS
				Peak	2500.000	-40.06	≤-21.20	55.14	≤74	PASS
3DH5	Ant1	Low	2402	AV	2310.000	-49.38	≤-41.20	45.82	≤54	PASS

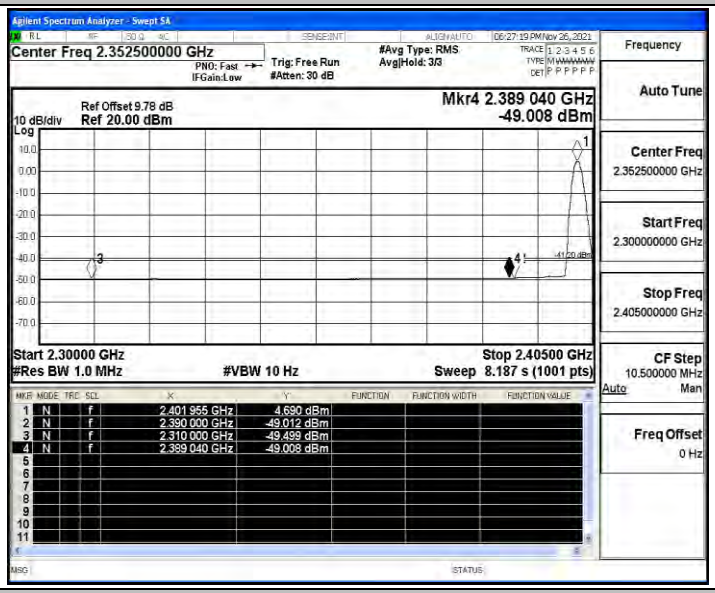
				AV	2389.355	-48.8	≤-41.20	46.40	≤54	PASS
				AV	2390.000	-48.81	≤-41.20	46.39	≤54	PASS
				Peak	2310.000	-47.24	≤-21.20	47.96	≤74	PASS
				Peak	2351.870	-39.95	≤-21.20	55.25	≤74	PASS
				Peak	2390.000	-44.51	≤-21.20	50.69	≤74	PASS
		High	2480	AV	2483.500	-46.14	≤-41.20	49.06	≤54	PASS
				AV	2483.520	-46.14	≤-41.20	49.06	≤54	PASS
				AV	2500.000	-48.33	≤-41.20	46.87	≤54	PASS
				Peak	2483.500	-41.29	≤-21.20	53.91	≤74	PASS
				Peak	2493.760	-40.51	≤-21.20	54.69	≤74	PASS
				Peak	2500.000	-43.99	≤-21.20	51.21	≤74	PASS
		Low	Hop_2402	Peak	2310.000	-40.61	≤-21.20	54.59	≤74	PASS
				Peak	2328.560	-37.92	≤-21.20	57.28	≤74	PASS
				Peak	2390.000	-40.56	≤-21.20	54.64	≤74	PASS
		High	Hop_2480	Peak	2483.500	-39.37	≤-21.20	55.83	≤74	PASS
				Peak	2499.520	-37.99	≤-21.20	57.21	≤74	PASS
				Peak	2500.000	-40.7	≤-21.20	54.50	≤74	PASS

Note：

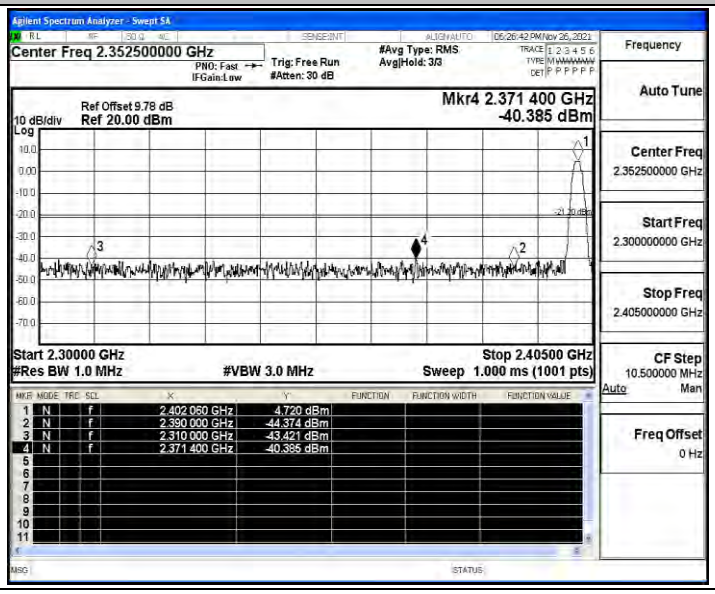
1. The Antenna Gain is compensated in the graph.
2. The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.

Test Graphs

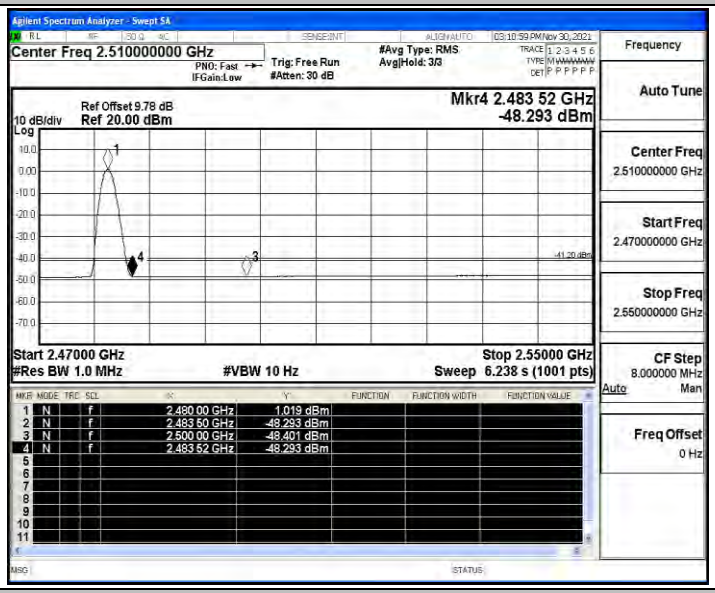
DH5_Ant1_Low_2402_AV



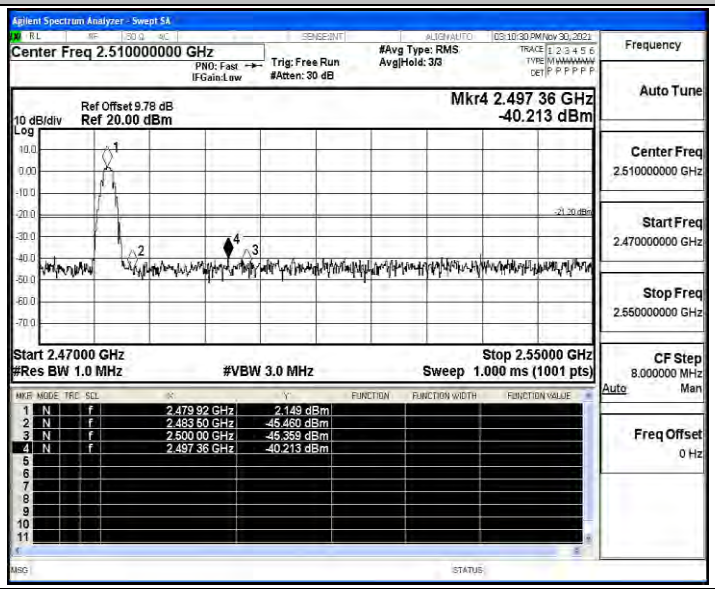
DH5_Ant1_Low_2402_Peak



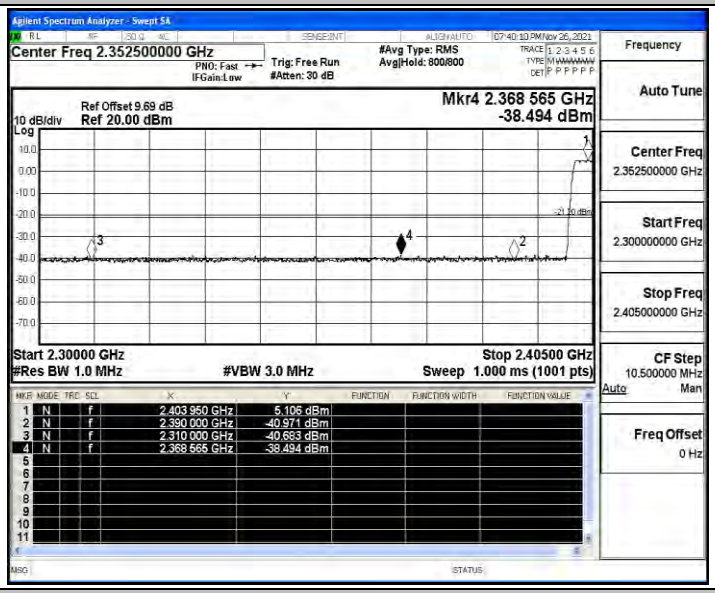
DH5_Ant1_High_2480_AV



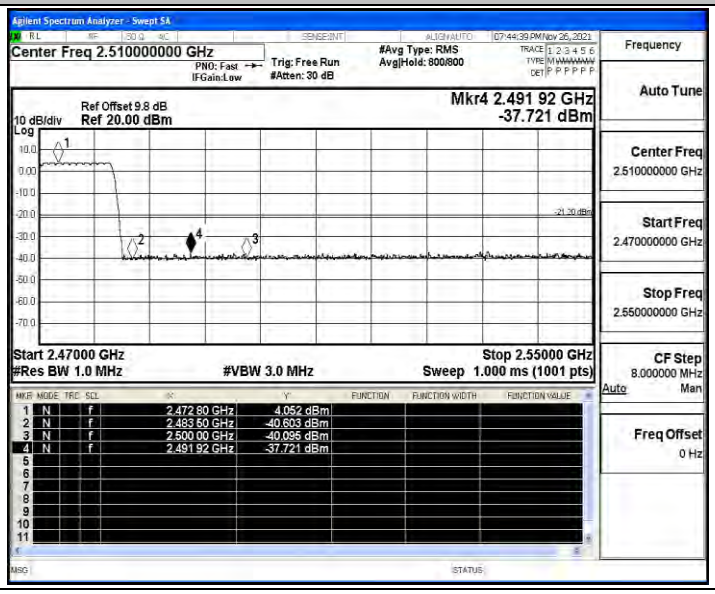
DH5_Ant1_High_2480_Peak



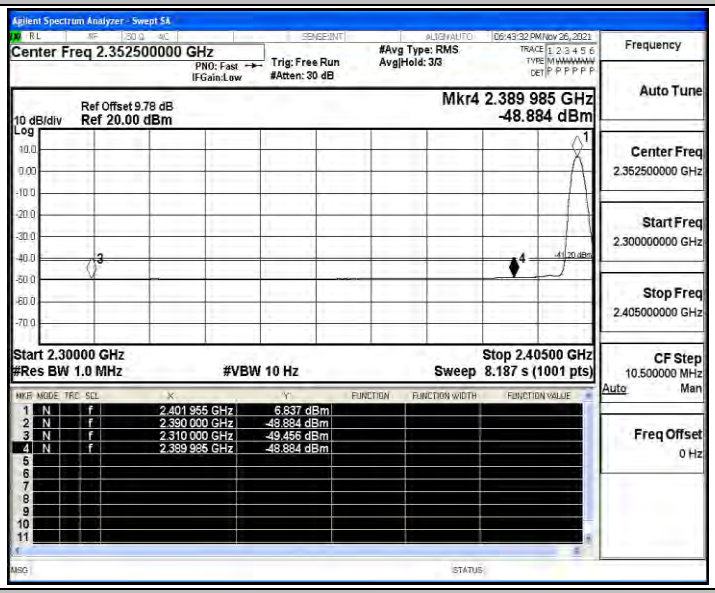
DH5_Ant1_Low_Hop_2402_Peak



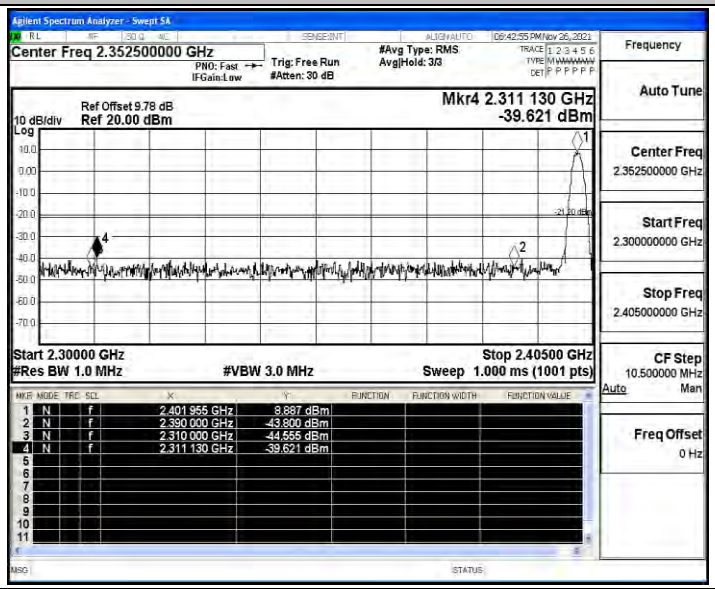
DH5_Ant1_High_Hop_2480_Peak



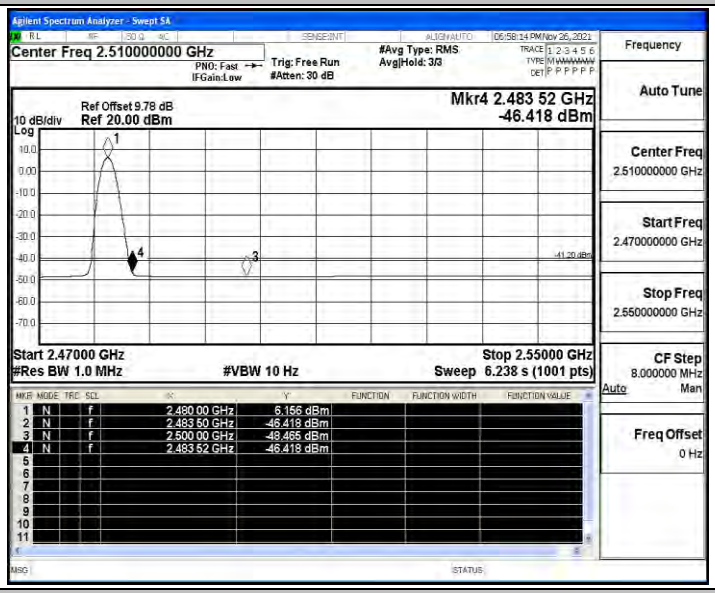
2DH5_Ant1_Low_2402_AV



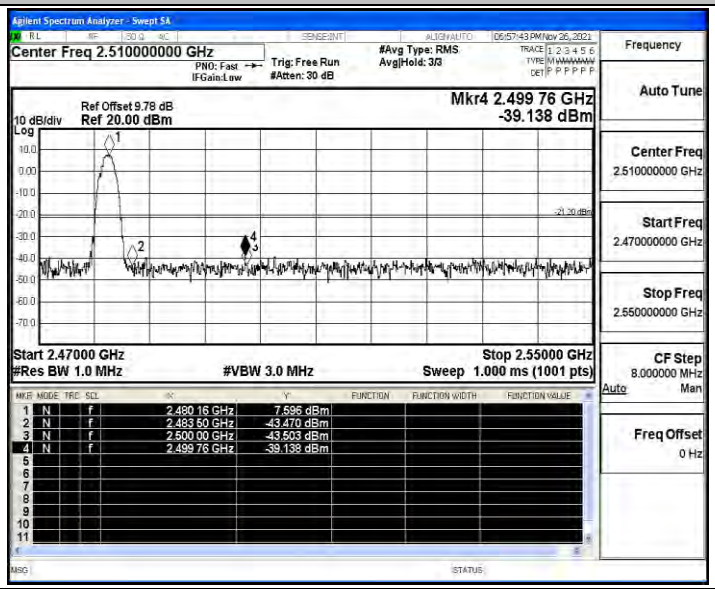
2DH5_Ant1_Low_2402_Peak



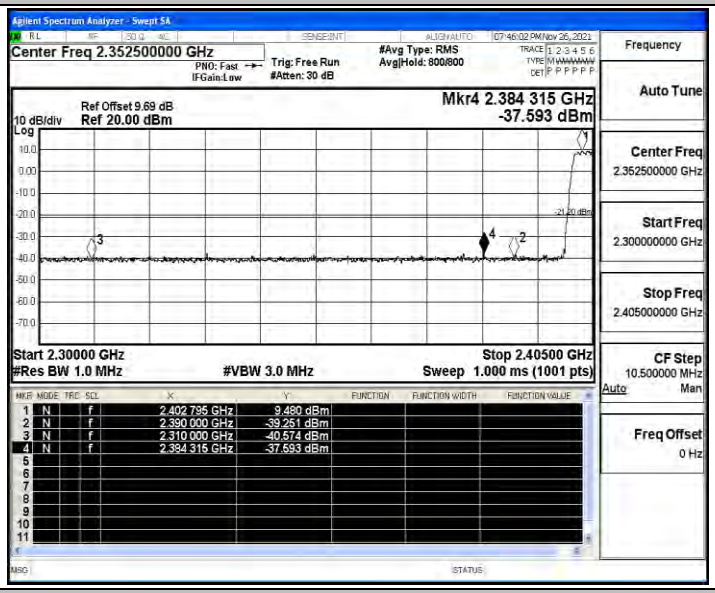
2DH5_Ant1_High_2480_AV



2DH5_Ant1_High_2480_Peak



2DH5_Ant1_Low_Hop_2402_Peak



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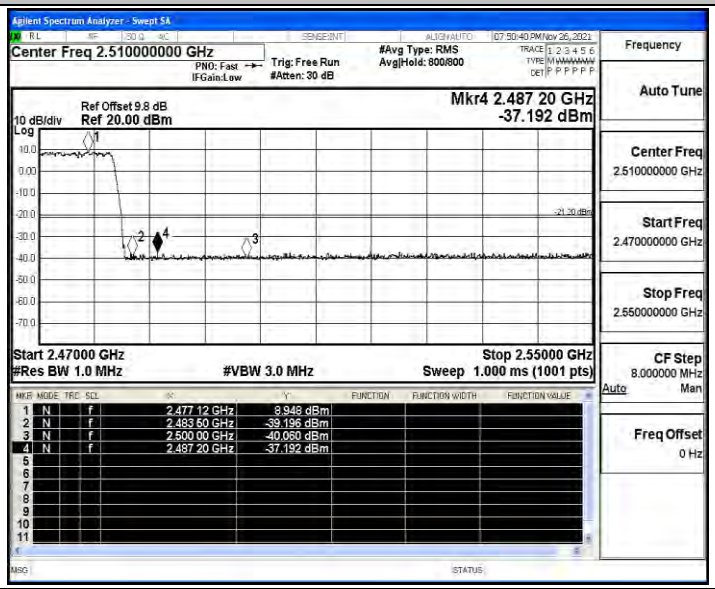
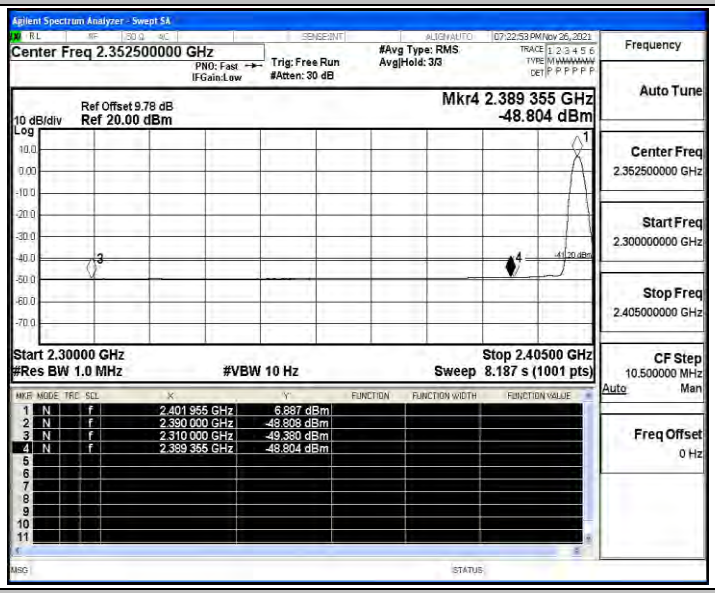


3DH5_Ant1_Low_2402_AV



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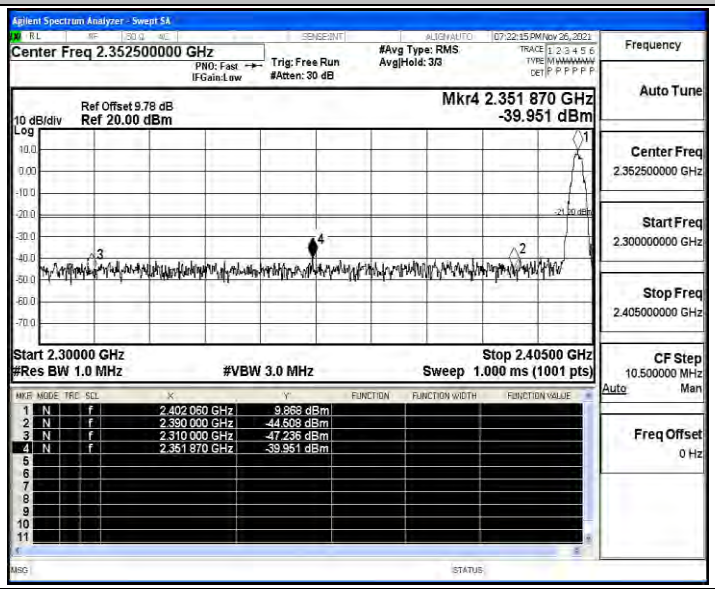

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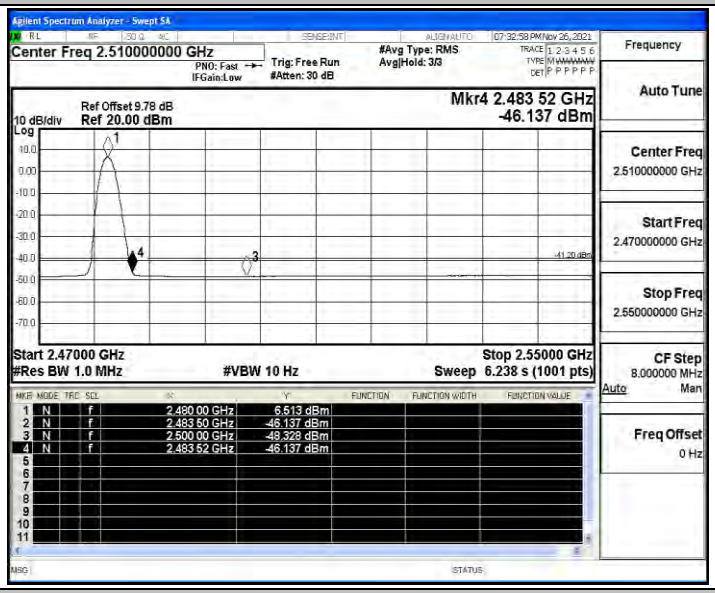
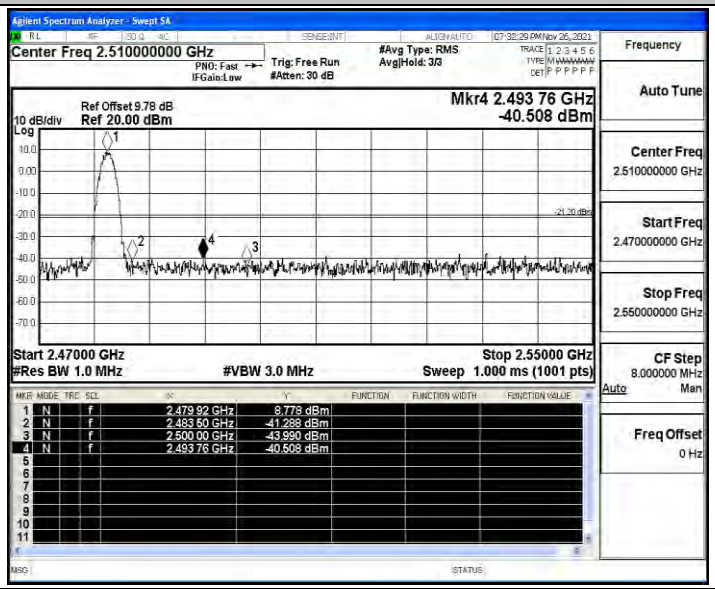
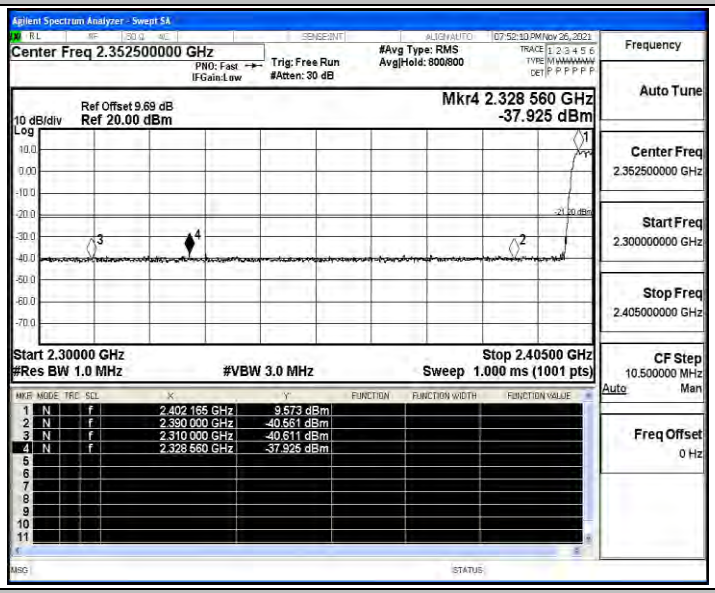
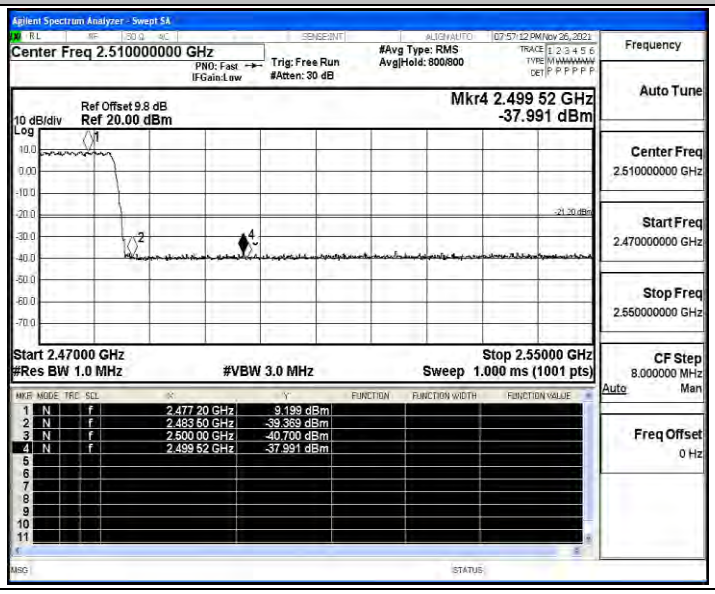


3DH5_Ant1_High_2480_Peak



3DH5_Ant1_Low_Hop_2402_Peak



3DH5_Ant1_High_Hop_2480_Peak