Appendix A

RF Test Data for BT (Conducted Measurement)

Product Name: Bluetooth Adapter

Test Model: 06H-8510-4.0

Environmental Conditions

Temperature:	23.7° C
Relative Humidity:	52.3%
ATM Pressure:	100.0 kPa
Test Engineer:	Mark Chen
Supervised by:	Li Huan

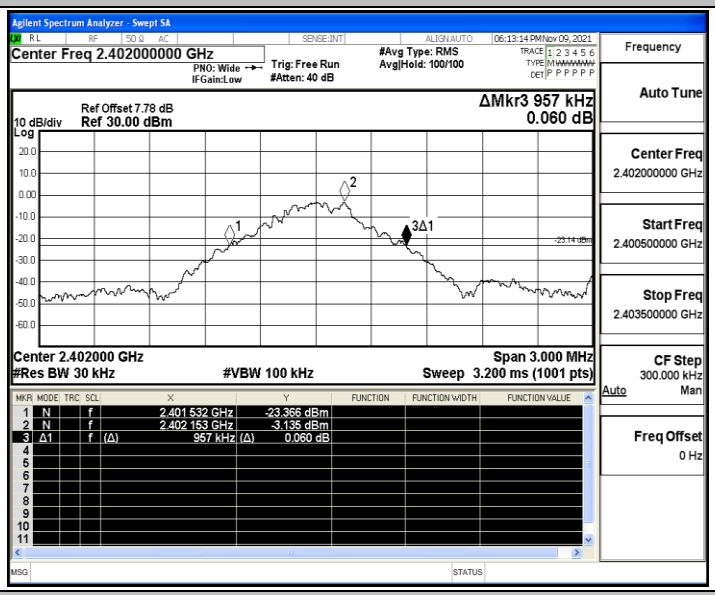
A.1 20dB Emission Bandwidth

Test Result

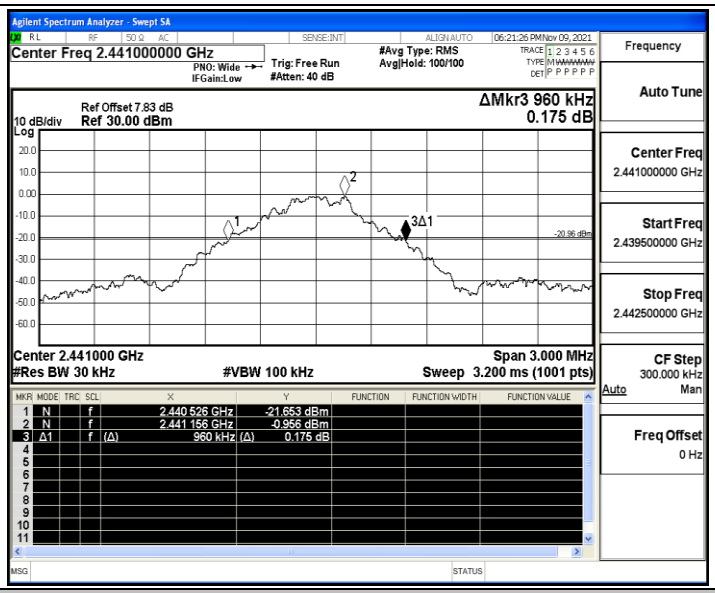
TestMode	Antenna	Channel	20db EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.957	2401.532	2402.489	---	PASS
		2441	0.960	2440.526	2441.486	---	PASS
		2480	1.020	2479.466	2480.486	---	PASS
2DH5	Ant1	2402	1.278	2401.367	2402.645	---	PASS
		2441	1.308	2440.337	2441.645	---	PASS
		2480	1.374	2479.304	2480.678	---	PASS
3DH5	Ant1	2402	1.299	2401.349	2402.648	---	PASS
		2441	1.287	2440.352	2441.639	---	PASS
		2480	1.284	2479.343	2480.627	---	PASS

Test Graphs

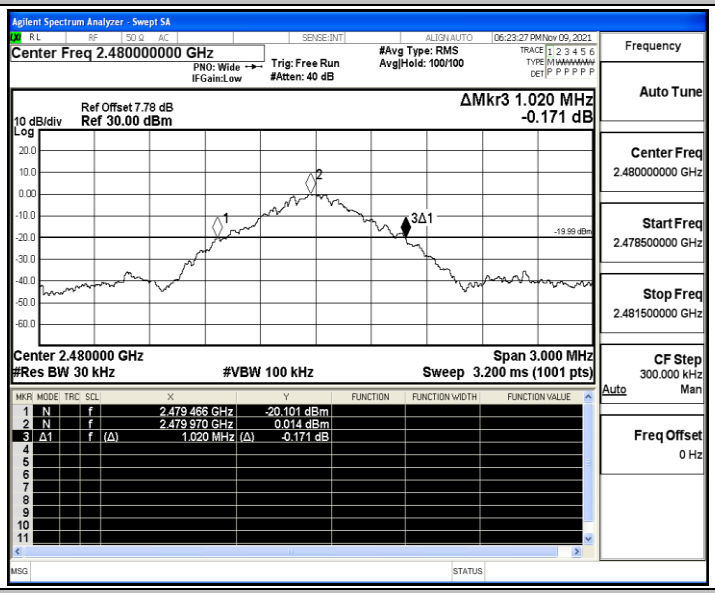
DH5_Ant1_2402



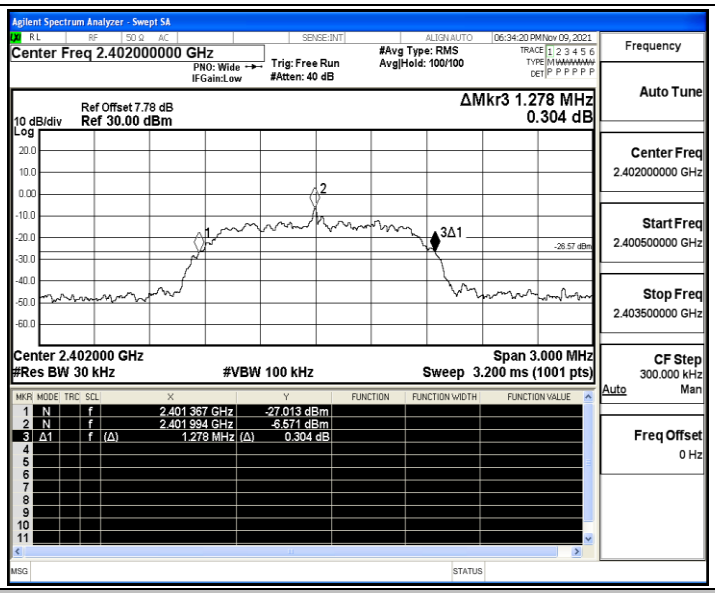
DH5_Ant1_2441



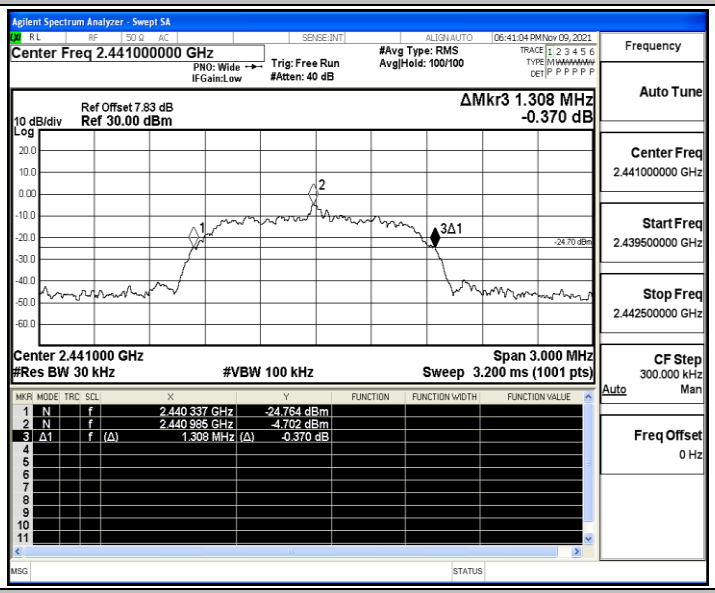
DH5_Ant1_2480



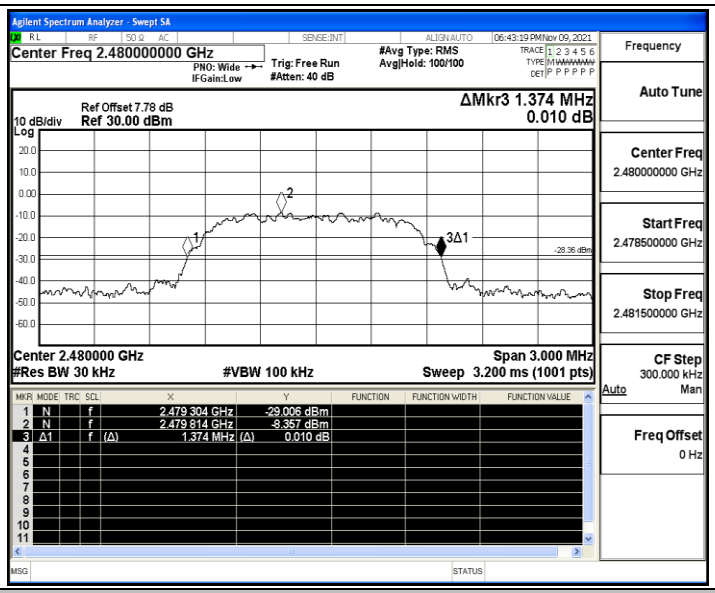
2DH5_Ant1_2402



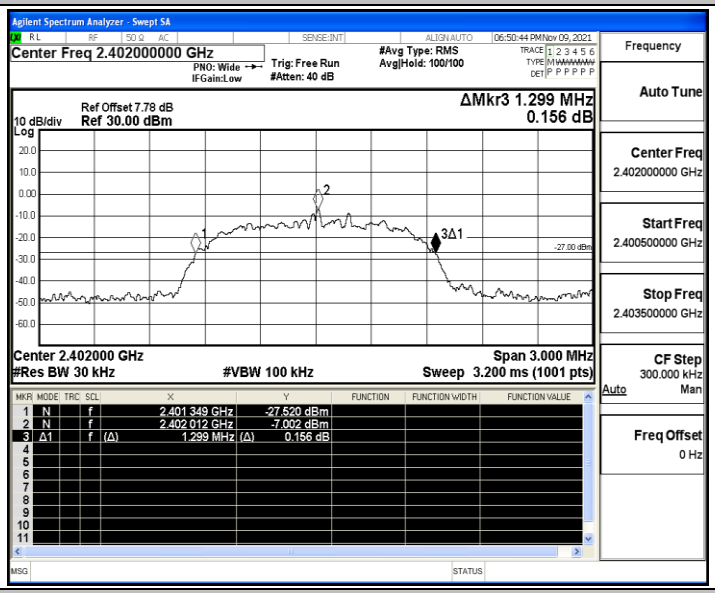
2DH5_Ant1_2441



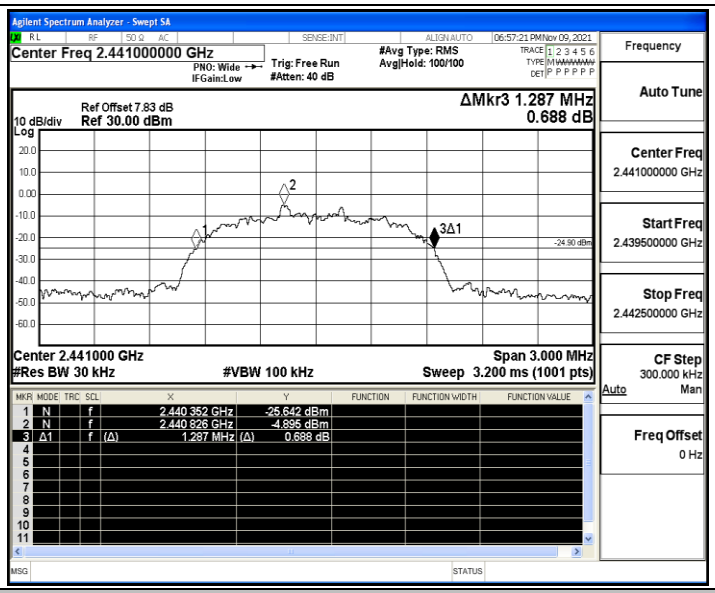
2DH5_Ant1_2480



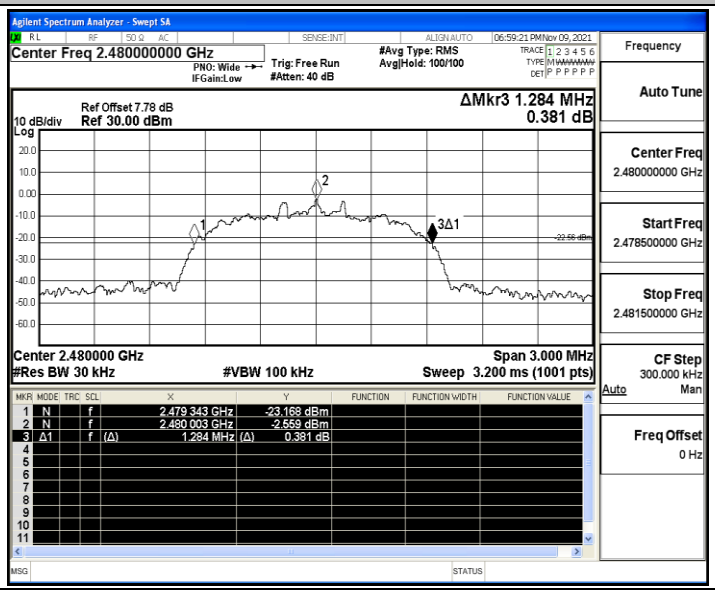
3DH5_Ant1_2402



3DH5_Ant1_2441



3DH5_Ant1_2480



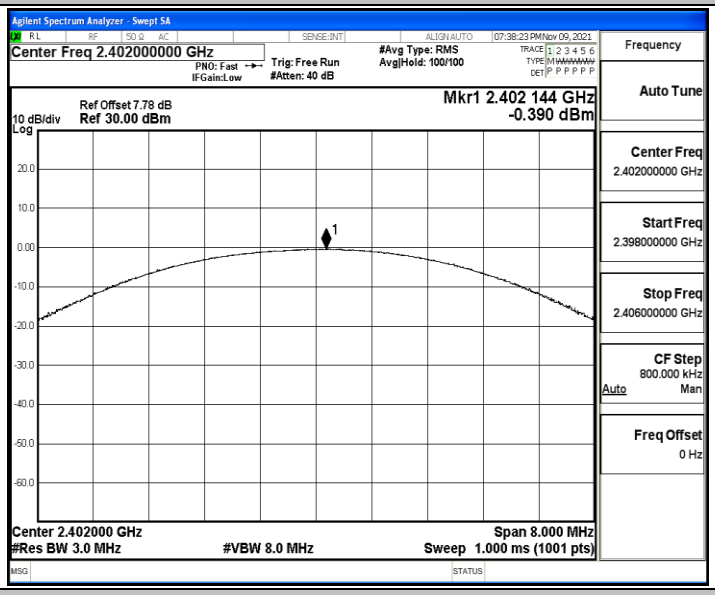
A.2 Maximum conducted output power

Test Result

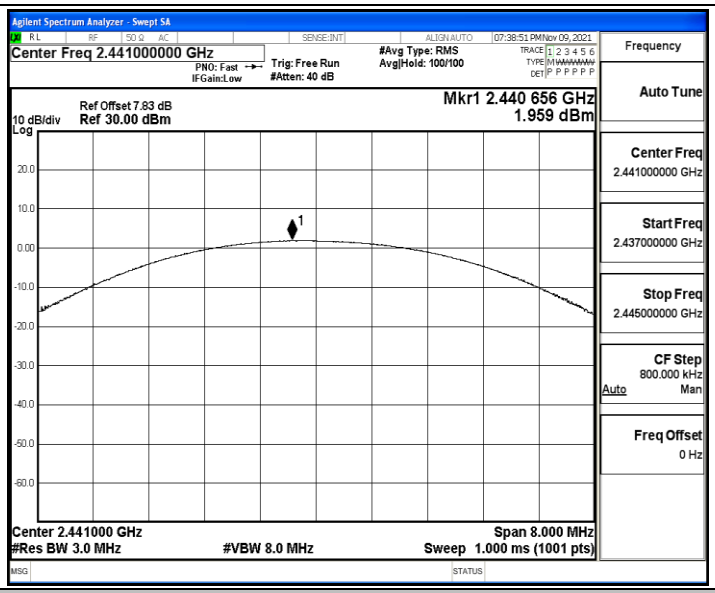
TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
DH5	Ant1	2402	-0.39	≤30	PASS
		2441	1.96	≤30	PASS
		2480	3.00	≤30	PASS
2DH5	Ant1	2402	-2.82	≤20.97	PASS
		2441	-0.27	≤20.97	PASS
		2480	0.80	≤20.97	PASS
3DH5	Ant1	2402	-2.55	≤20.97	PASS
		2441	0.13	≤20.97	PASS
		2480	1.41	≤20.97	PASS

Test Graphs

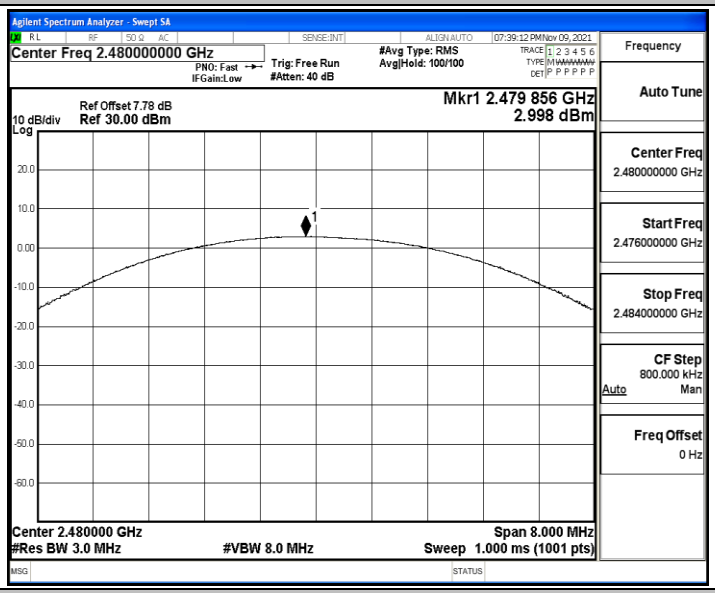
DH5_Ant1_2402



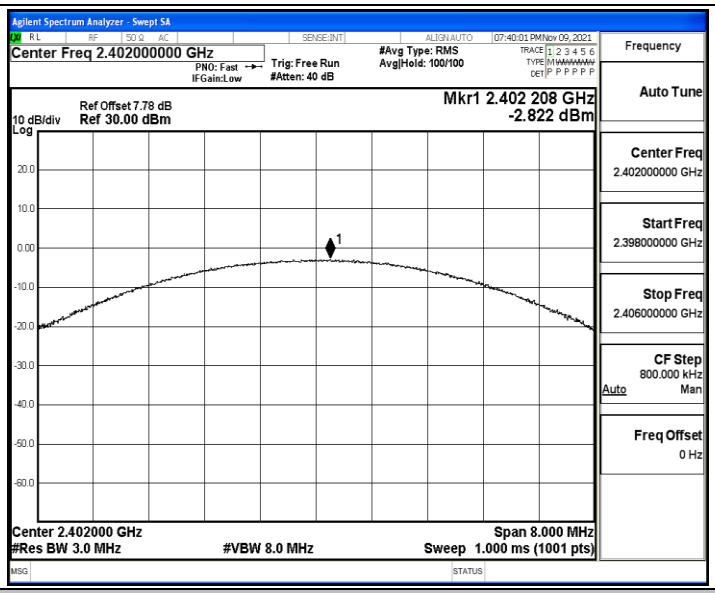
DH5_Ant1_2441



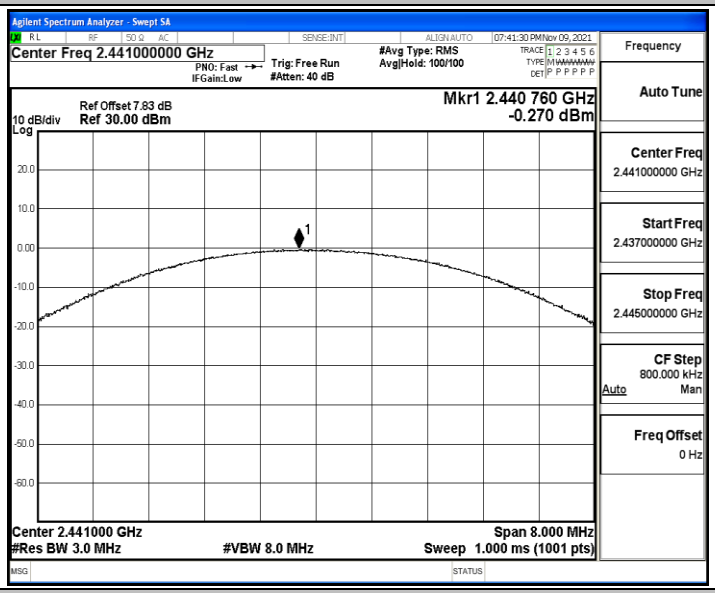
DH5_Ant1_2480



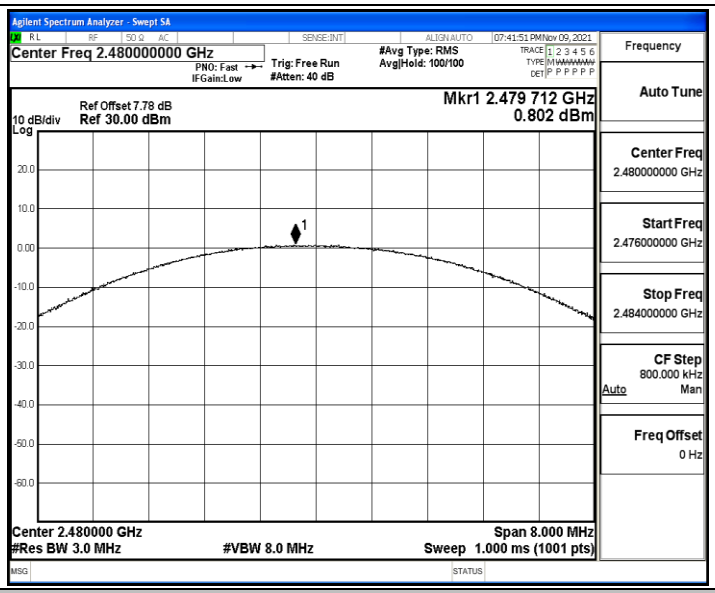
2DH5_Ant1_2402



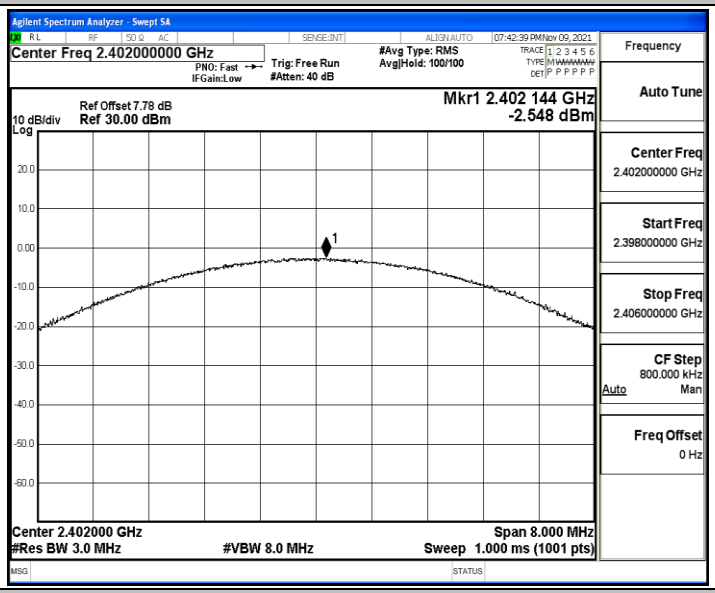
2DH5_Ant1_2441



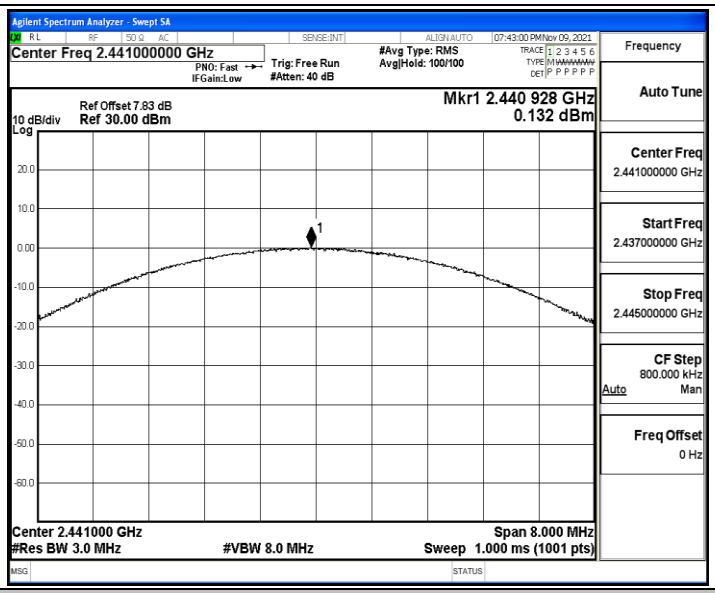
2DH5_Ant1_2480



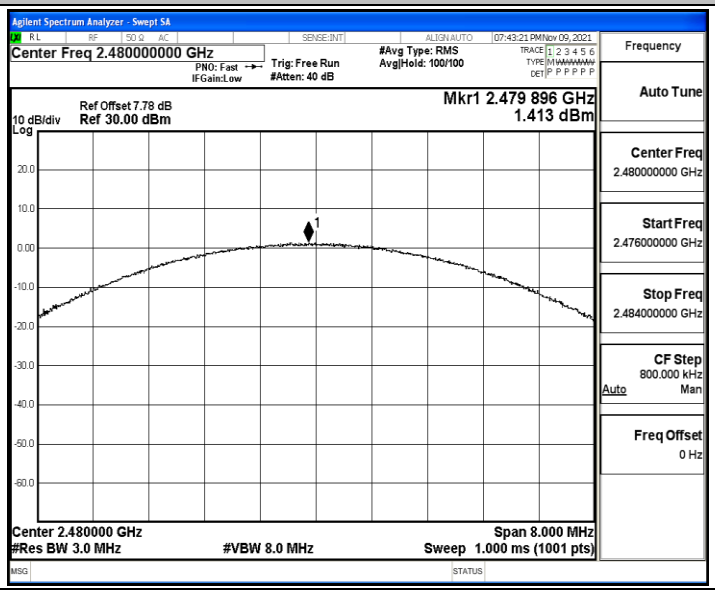
3DH5_Ant1_2402



3DH5_Ant1_2441



3DH5_Ant1_2480



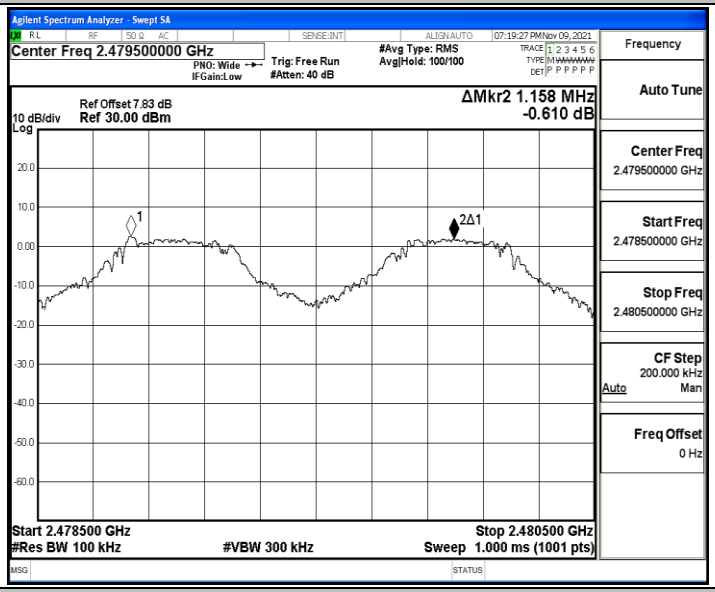
A.3 Carrier frequency separation

Test Result

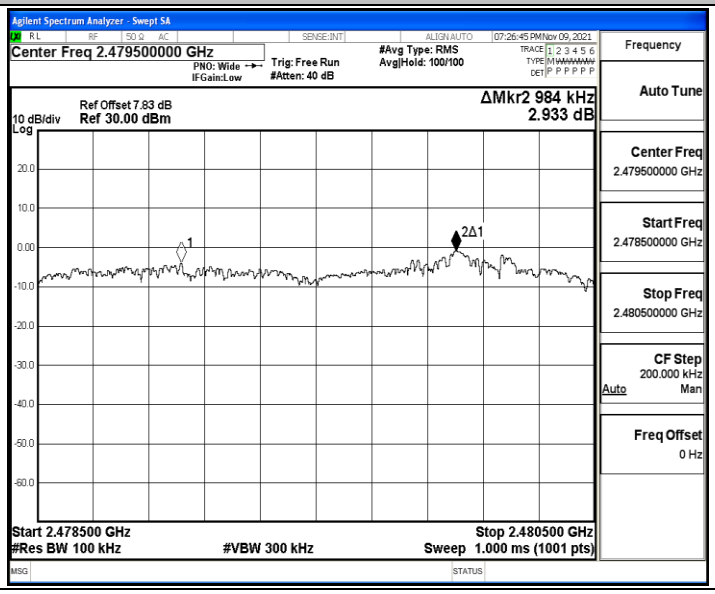
TestMode	Antenna	Channel	Result[M/Hz]	Limit[M/Hz]	Verdict
DH5	Ant1	Hop	1.158	≥0.772	PASS
2DH5	Ant1	Hop	0.984	≥0.656	PASS
3DH5	Ant1	Hop	1.006	≥0.671	PASS

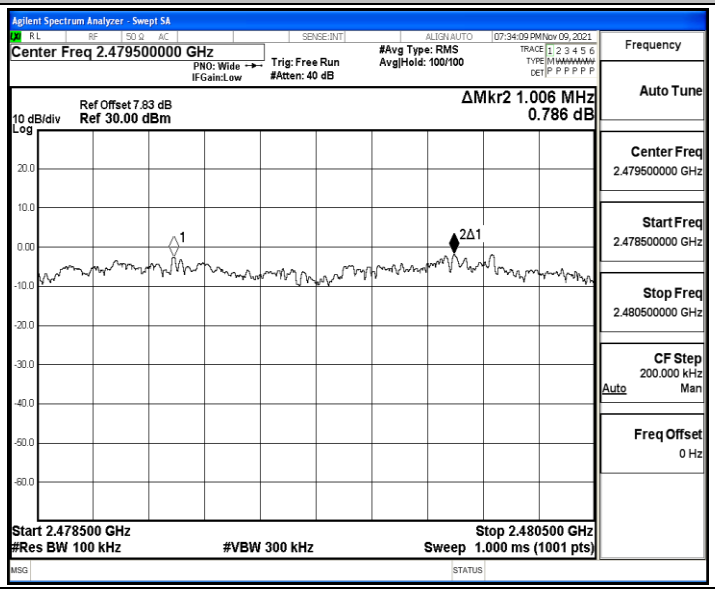
Test Graphs

DH5_Ant1_Hop



2DH5_Ant1_Hop



3DH5_Ant1_Hop


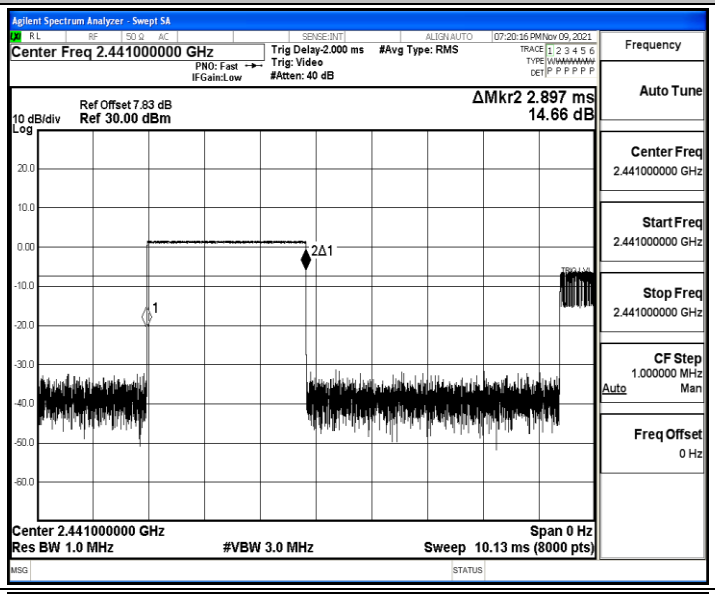
A.4 Time of occupancy

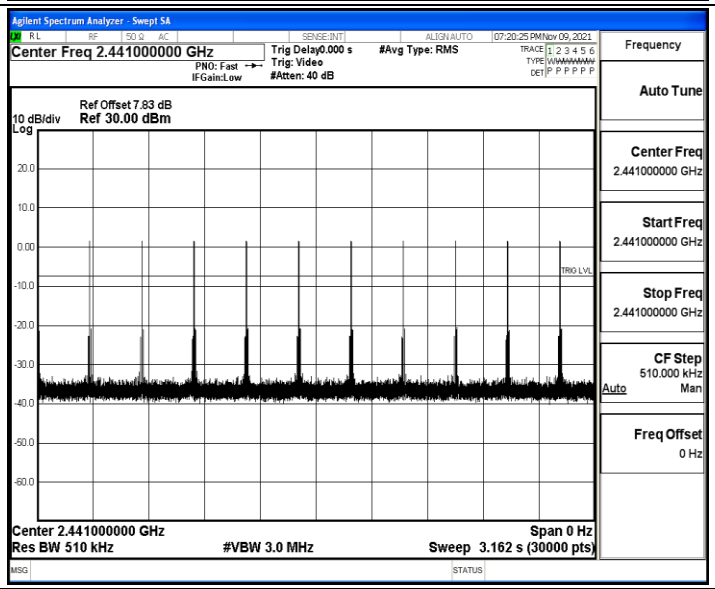
Test Result

TestMode	Antenna	Channel	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH5	Ant1	Hop	2.90	110	0.319	≤0.4	PASS
2DH5	Ant1	Hop	2.90	110	0.319	≤0.4	PASS
3DH5	Ant1	Hop	2.91	110	0.32	≤0.4	PASS

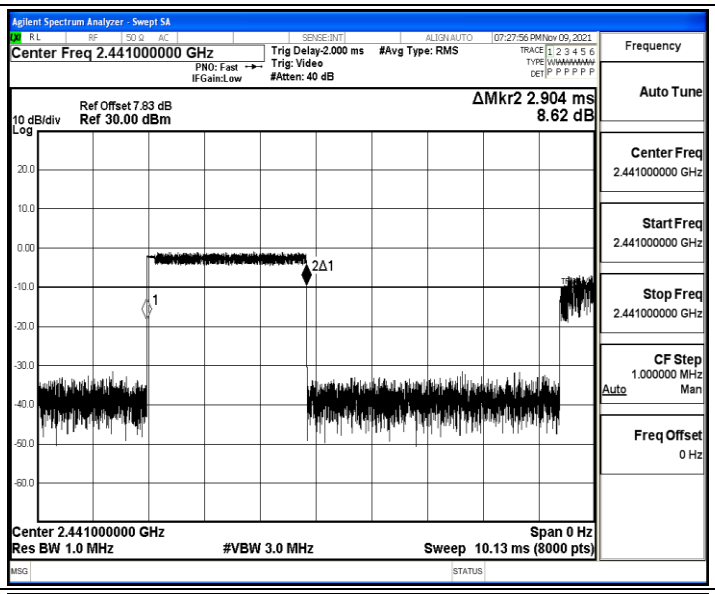
Test Graphs

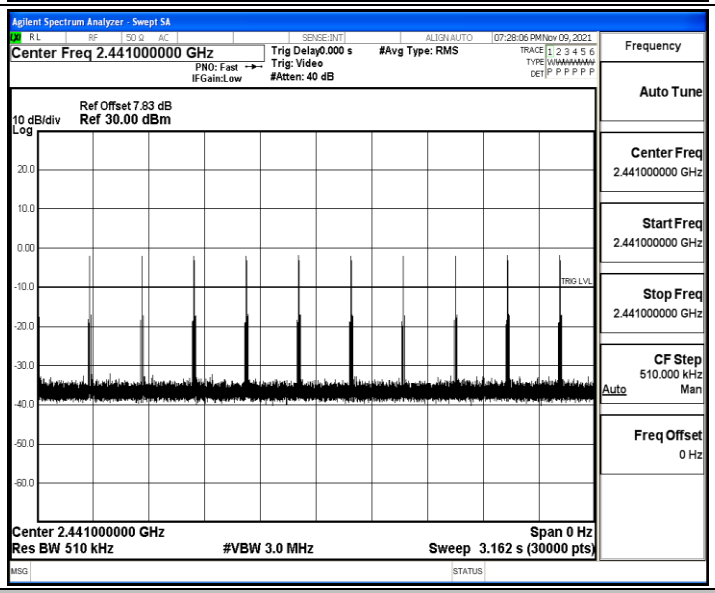
DH5_Ant1_Hop



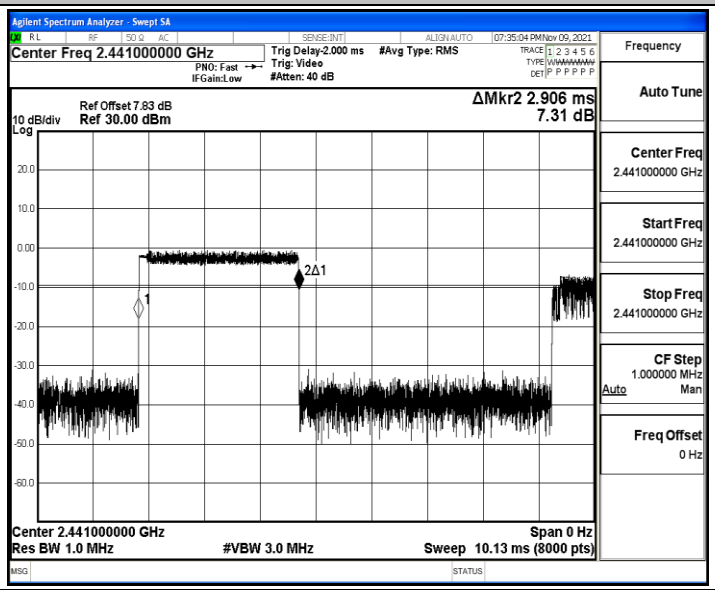


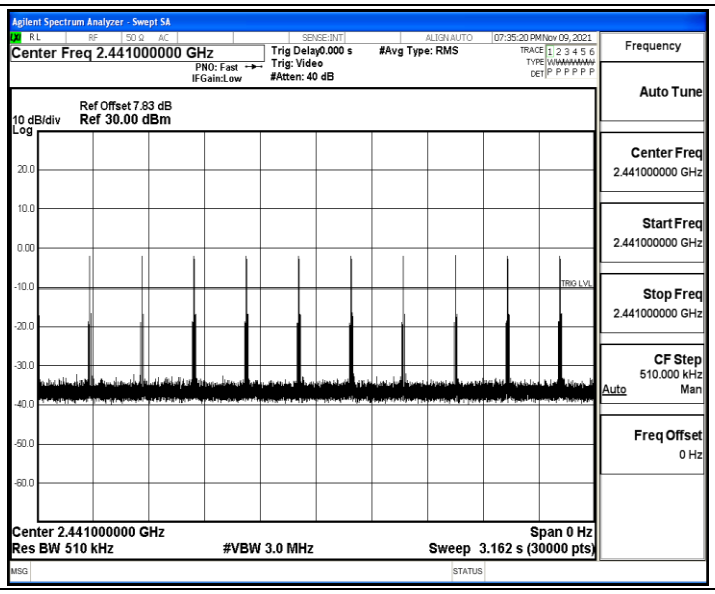
2DH5_Ant1_Hop





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
07:35:20 PMNov 09, 2021
Frequency
Auto Tune
Ref Offset 7.83 dB
10 dB/div
Ref 30.00 dBm
Log
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
Center 2.441000000 GHz
Span 0 Hz
Res BW 510 kHz
#VBW 3.0 MHz
Sweep 3.162 s (30000 pts)

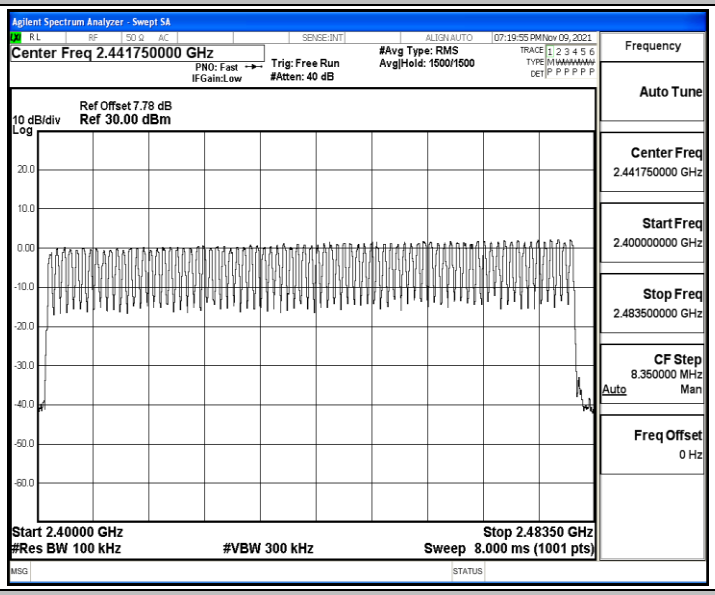
A.5 Number of hopping channels

Test Result

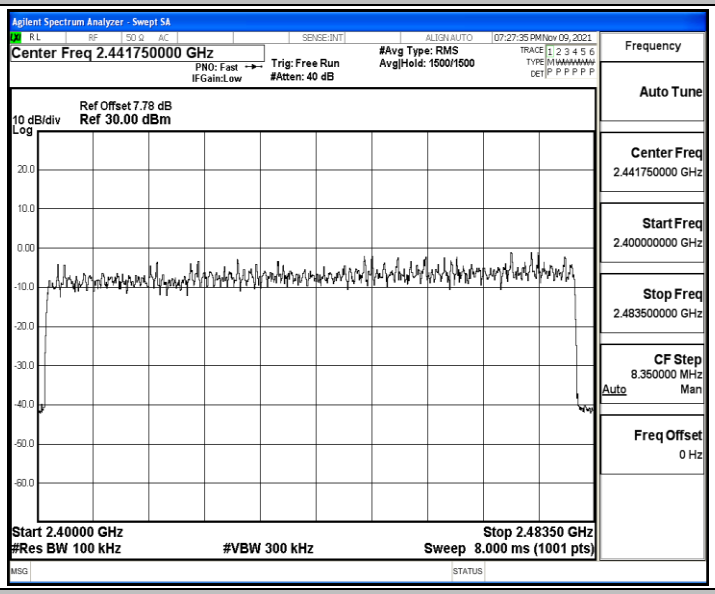
TestMode	Antenna	Channel	Result[Num]	Limit[Num]	Verdict
DH5	Ant1	Hop	79	≥15	PASS
2DH5	Ant1	Hop	79	≥15	PASS
3DH5	Ant1	Hop	79	≥15	PASS

Test Graphs

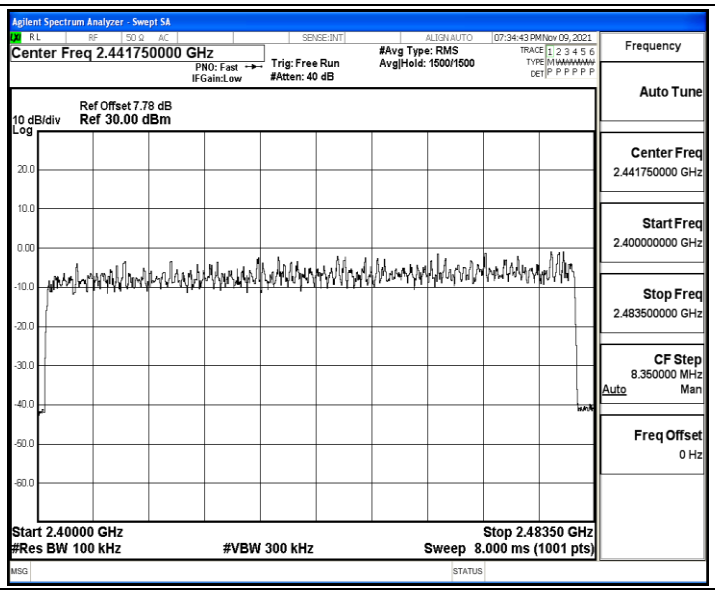
DH5_Ant1_Hop



2DH5_Ant1_Hop



3DH5_Ant1_Hop


Agilent Spectrum Analyzer - Swept SA
Center Freq 2.441750000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 40 dB
#Avg Type: RMS
Avg|Hold: 1500/1500
07:34:43 PM Nov 09, 2021
Ref Offset 7.78 dB
10 dB/div
Ref 30.00 dBm
Log
Start 2.40000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 2.48350 GHz
Sweep 8.000 ms (1001 pts)
Frequency
Auto Tune
Center Freq
2.441750000 GHz
Start Freq
2.400000000 GHz
Stop Freq
2.483500000 GHz
CF Step
8.350000 MHz
Auto
Man
Freq Offset
0 Hz

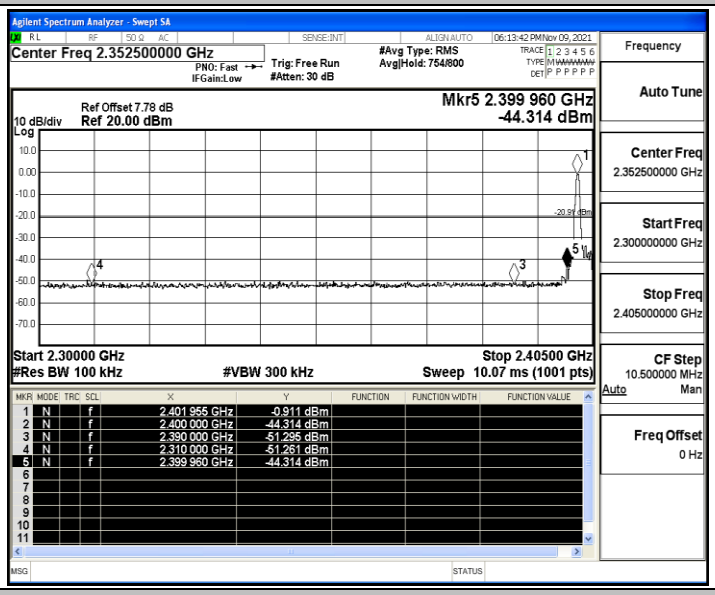
A.6 Band edge measurements

Test Result

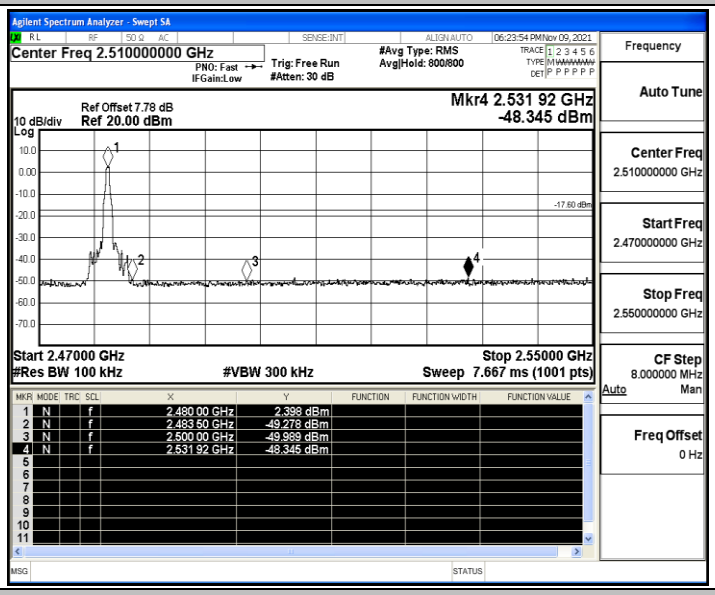
TestMode	Antenna	ChName	Channel	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	-0.91	-44.31	≤-20.91	PASS
		High	2480	2.40	-48.35	≤-17.6	PASS
		Low	Hop_2402	-0.57	-49.44	≤-20.57	PASS
		High	Hop_2480	2.24	-48.48	≤-17.76	PASS
2DH5	Ant1	Low	2402	-4.94	-49.55	≤-24.94	PASS
		High	2480	-1.04	-48.26	≤-21.04	PASS
		Low	Hop_2402	-5.39	-49.52	≤-25.39	PASS
		High	Hop_2480	-1.79	-48.55	≤-21.79	PASS
3DH5	Ant1	Low	2402	-4.73	-49.78	≤-24.73	PASS
		High	2480	-0.65	-48.67	≤-20.65	PASS
		Low	Hop_2402	-7.18	-49.5	≤-27.18	PASS
		High	Hop_2480	-2.19	-48.58	≤-22.19	PASS

Test Graphs

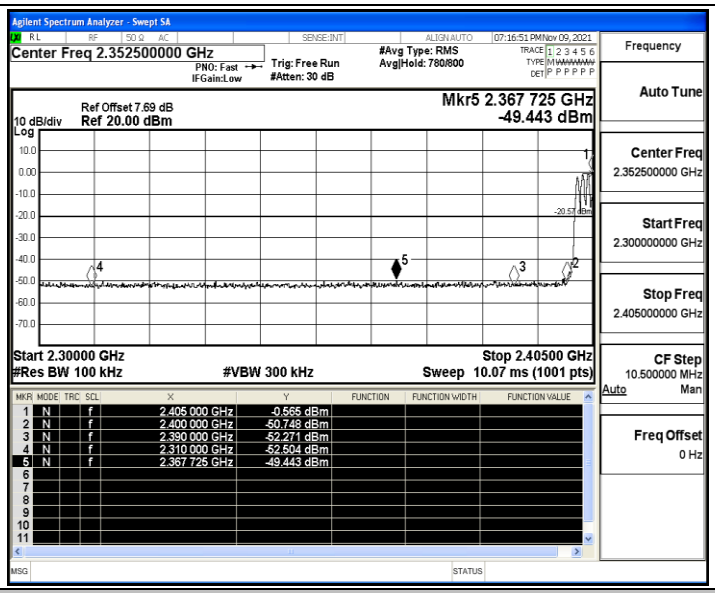
DH5_Ant1_Low_2402



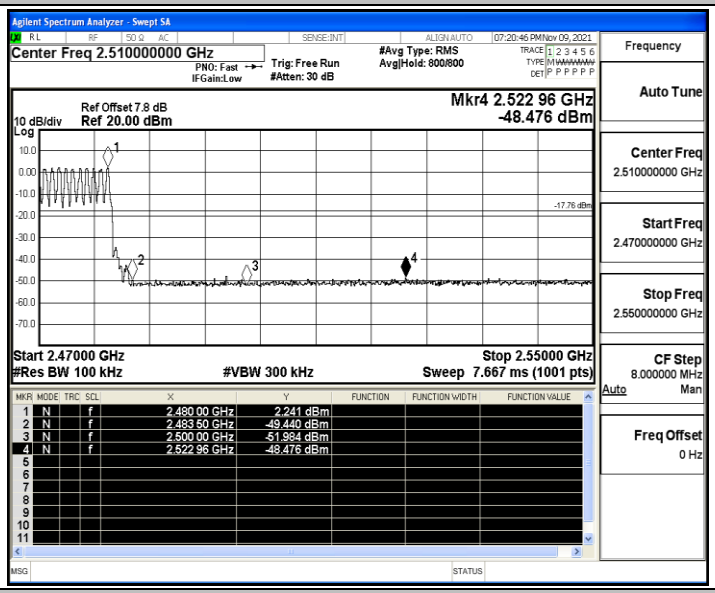
DH5_Ant1_High_2480



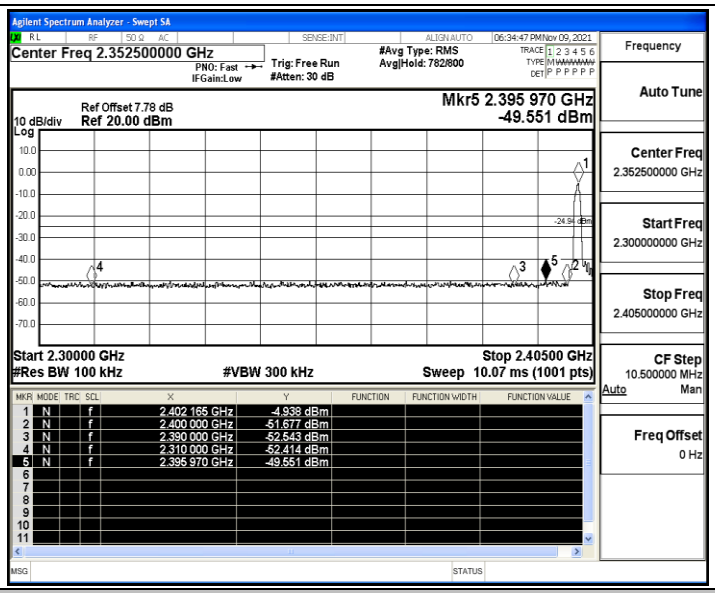
DH5_Ant1_Low_Hop_2402



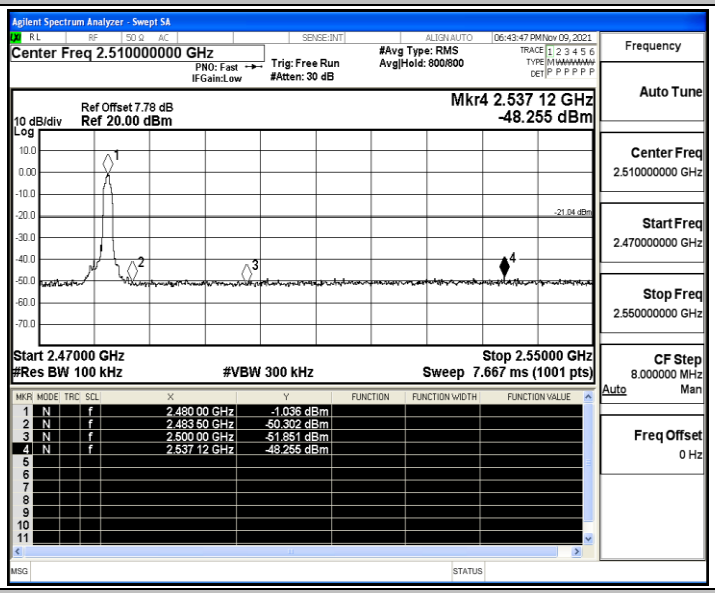
DH5_Ant1_High_Hop_2480



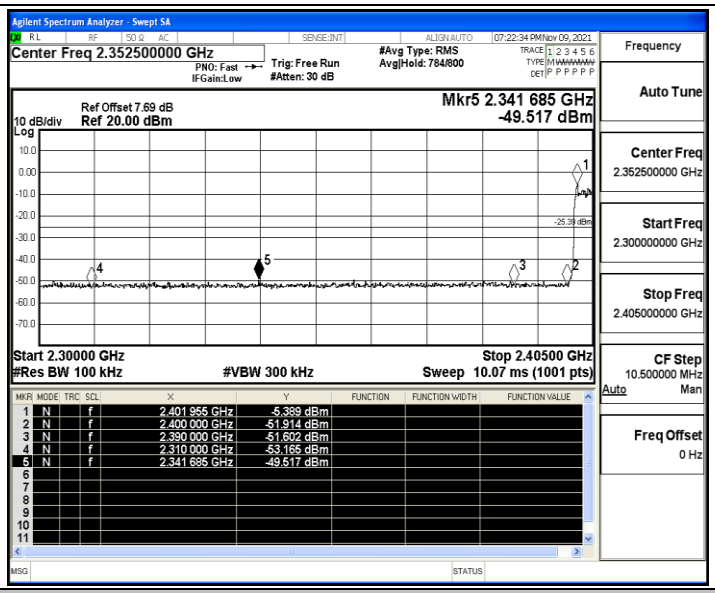
2DH5_Ant1_Low_2402



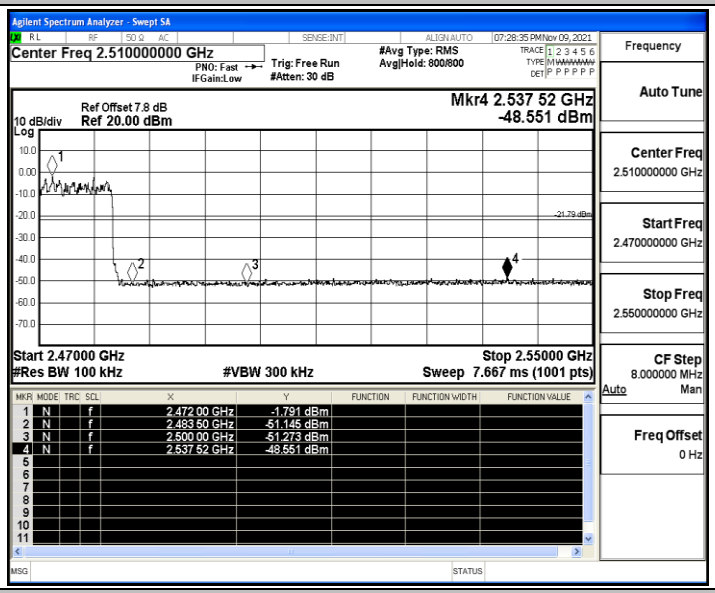
2DH5_Ant1_High_2480



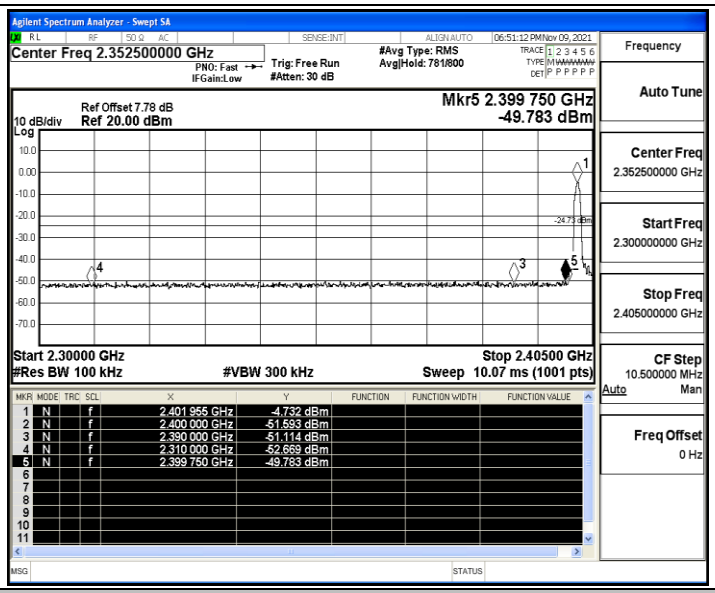
2DH5_Ant1_Low_Hop_2402



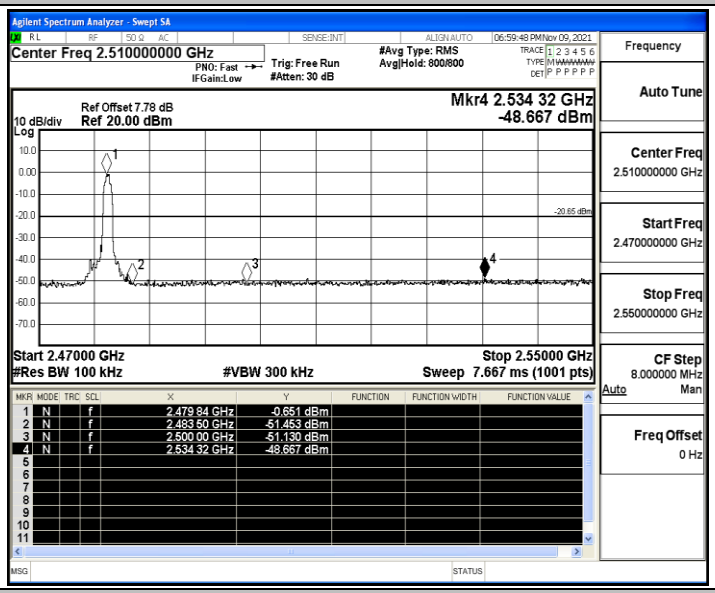
2DH5_Ant1_High_Hop_2480



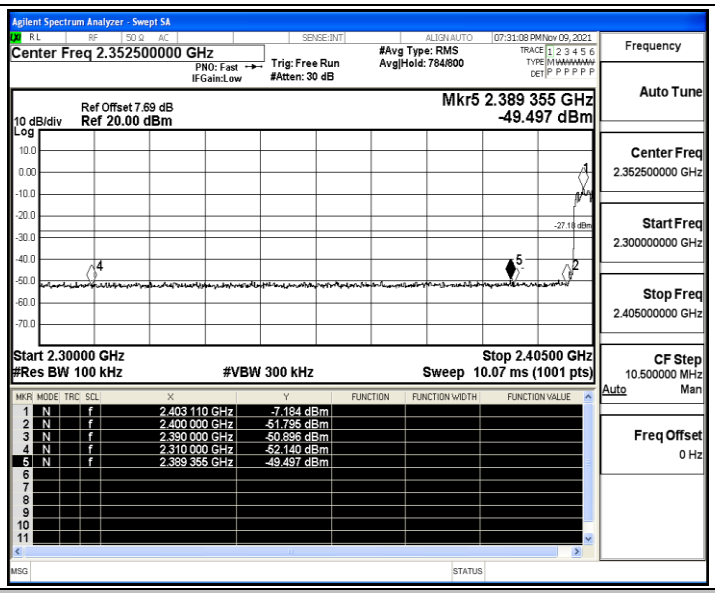
3DH5_Ant1_Low_2402



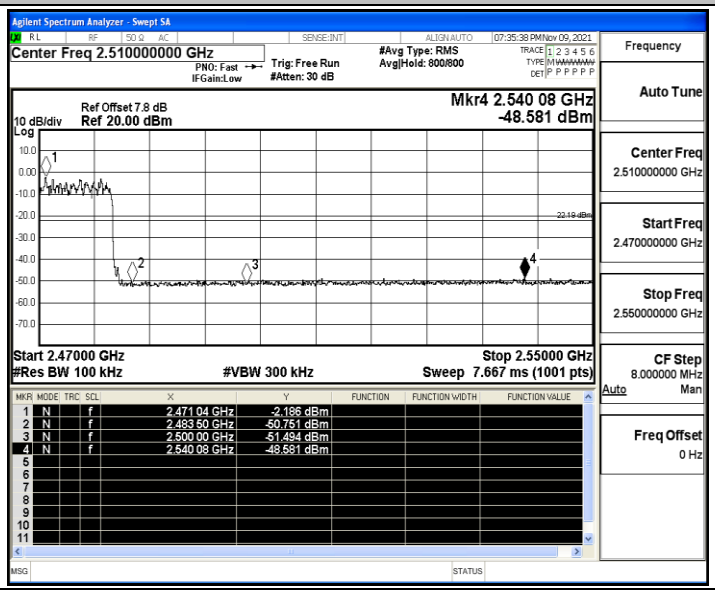
3DH5_Ant1_High_2480



3DH5_Ant1_Low_Hop_2402



3DH5_Ant1_High_Hop_2480



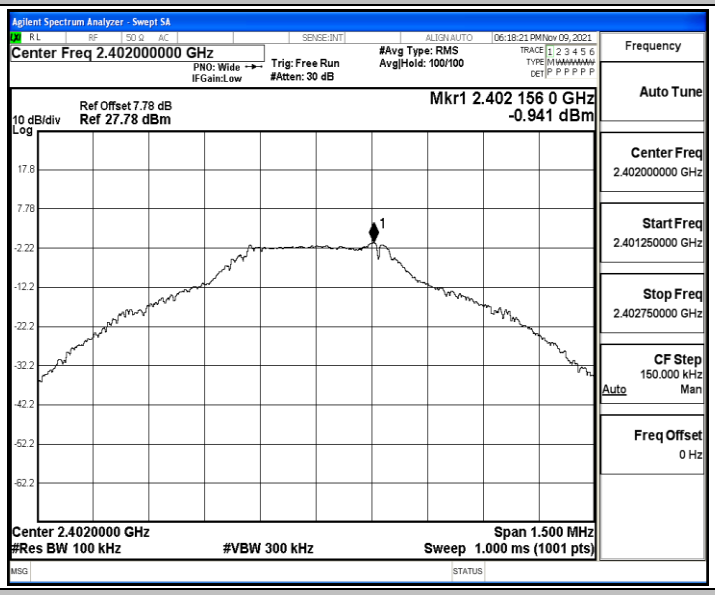
A.7 Conducted Spurious Emission

Test Result

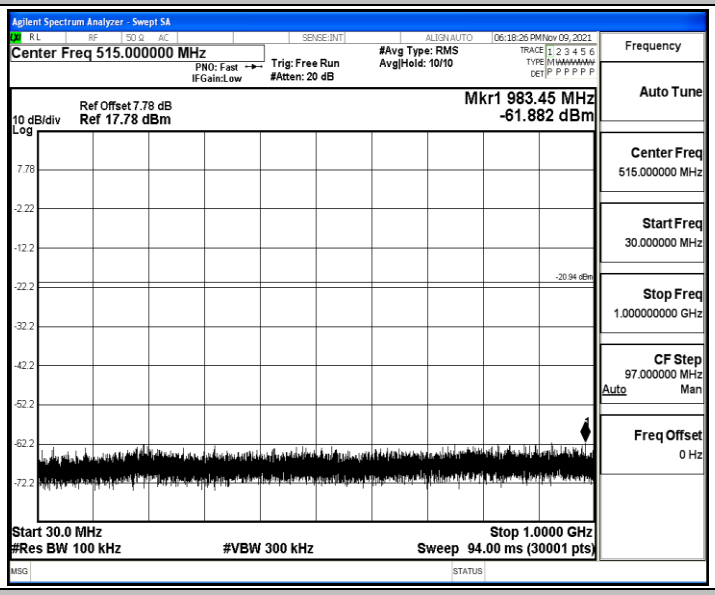
TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	Reference	-0.94	-0.94	---	PASS
			30~1000	-0.94	-61.88	≤-20.94	PASS
			1000~26500	-0.94	-46.82	≤-20.94	PASS
		2441	Reference	1.32	1.32	---	PASS
			30~1000	1.32	-61.29	≤-18.68	PASS
			1000~26500	1.32	-47.9	≤-18.68	PASS
		2480	Reference	1.69	1.69	---	PASS
			30~1000	1.69	-43.39	≤-18.31	PASS
			1000~26500	1.69	-47.18	≤-18.31	PASS
2DH5	Ant1	2402	Reference	-4.79	-4.79	---	PASS
			30~1000	-4.79	-52.19	≤-24.79	PASS
			1000~26500	-4.79	-47.43	≤-24.79	PASS
		2441	Reference	-2.85	-2.85	---	PASS
			30~1000	-2.85	-61.49	≤-22.85	PASS
			1000~26500	-2.85	-47.55	≤-22.85	PASS
		2480	Reference	-0.95	-0.95	---	PASS
			30~1000	-0.95	-61.87	≤-20.95	PASS
			1000~26500	-0.95	-46.98	≤-20.95	PASS
3DH5	Ant1	2402	Reference	-7.09	-7.09	---	PASS
			30~1000	-7.09	-62.22	≤-27.09	PASS
			1000~26500	-7.09	-47.08	≤-27.09	PASS
		2441	Reference	-2.94	-2.94	---	PASS
			30~1000	-2.94	-61.25	≤-22.94	PASS
			1000~26500	-2.94	-46.62	≤-22.94	PASS
		2480	Reference	-0.92	-0.92	---	PASS
			30~1000	-0.92	-61.22	≤-20.92	PASS
			1000~26500	-0.92	-47.23	≤-20.92	PASS

Test Graphs

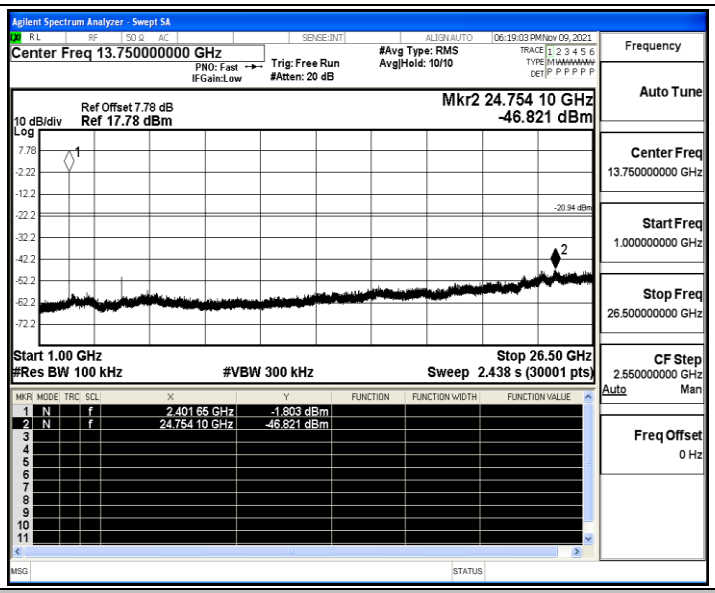
DH5_Ant1_2402_0~Reference



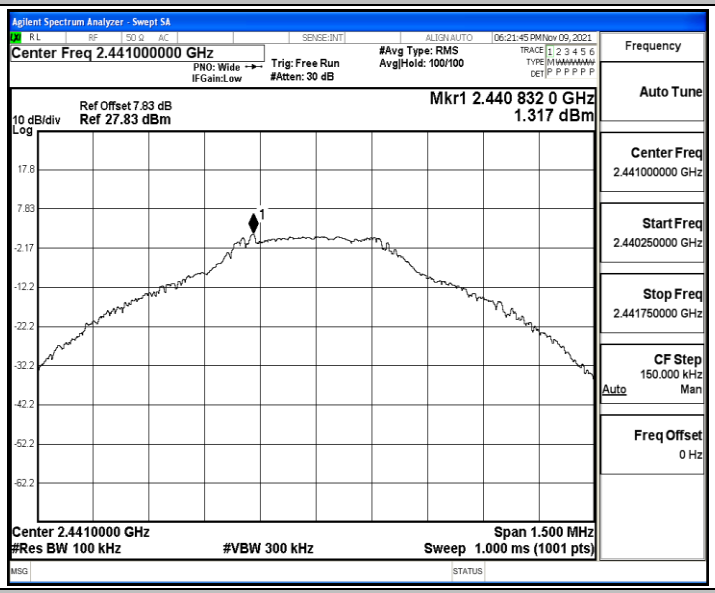
DH5_Ant1_2402_30~1000



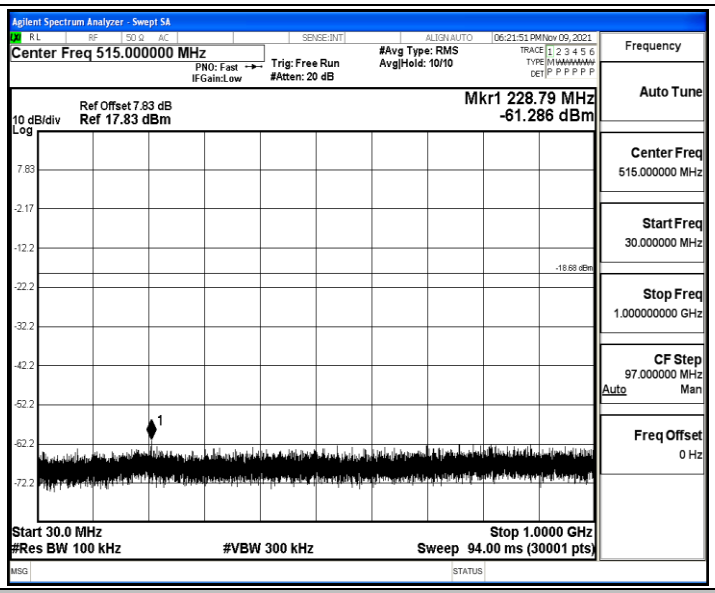
DH5_Ant1_2402_1000~26500



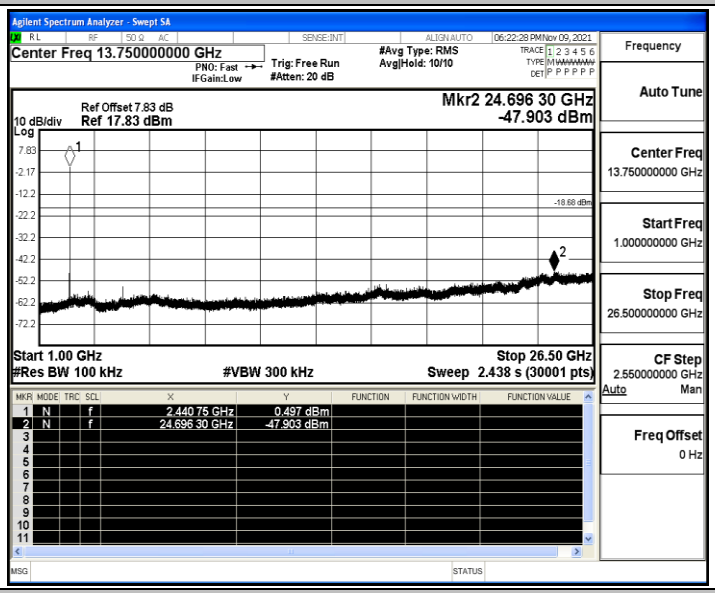
DH5_Ant1_2441_0~Reference



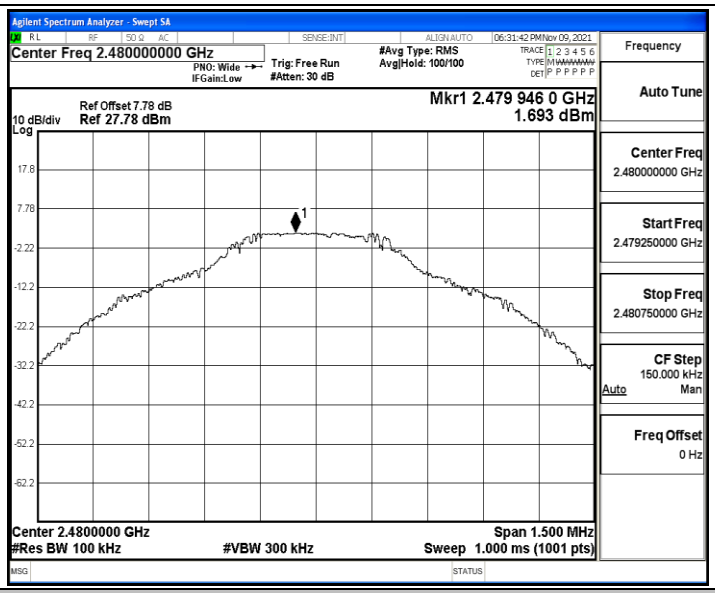
DH5_Ant1_2441_30~1000



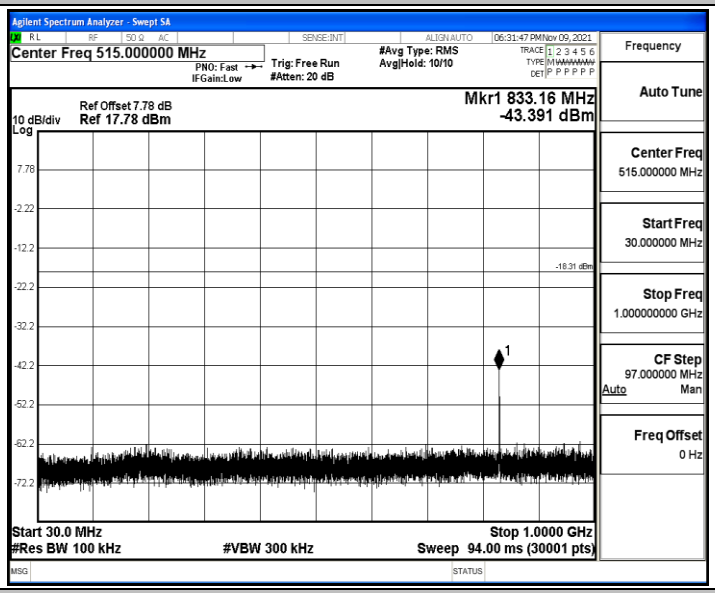
DH5_Ant1_2441_1000~26500



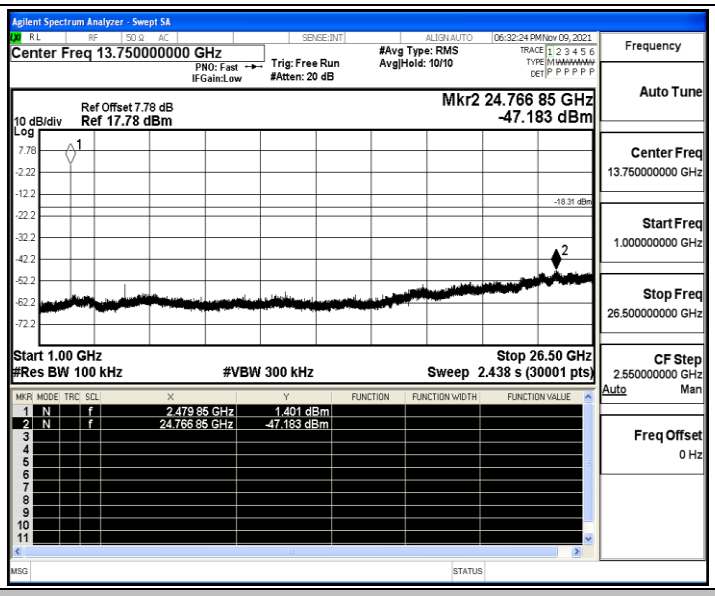
DH5_Ant1_2480_0~Reference



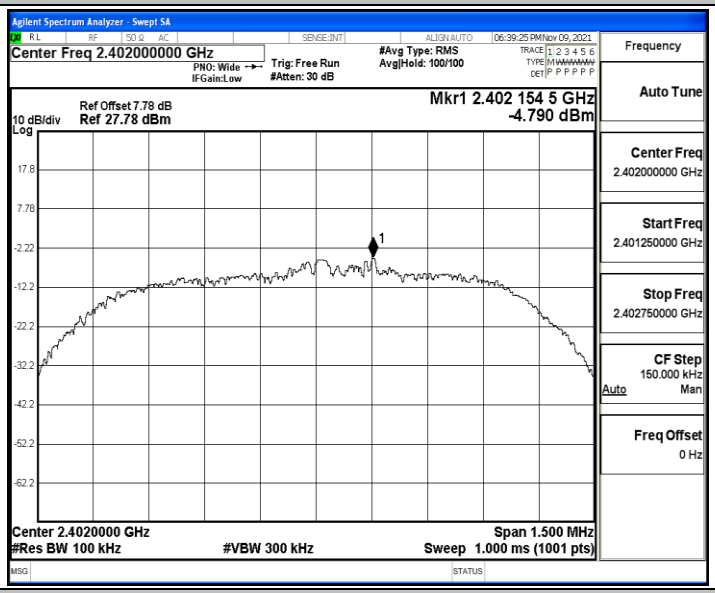
DH5_Ant1_2480_30~1000



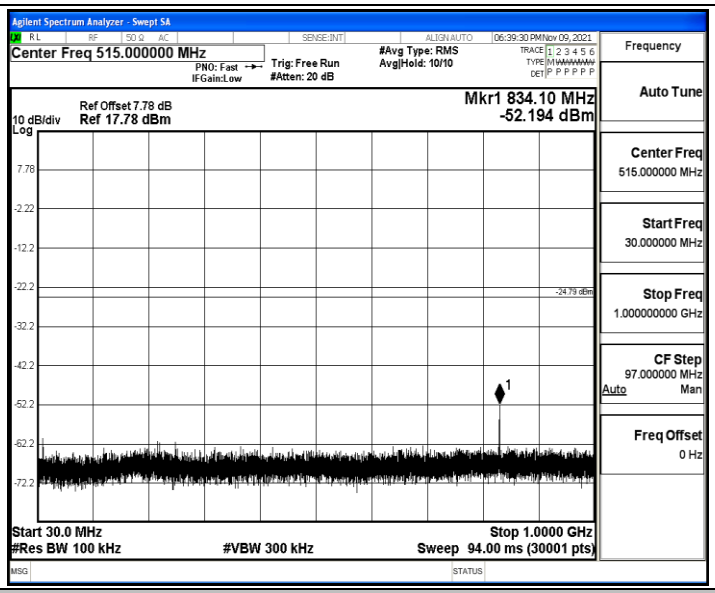
DH5_Ant1_2480_1000~26500



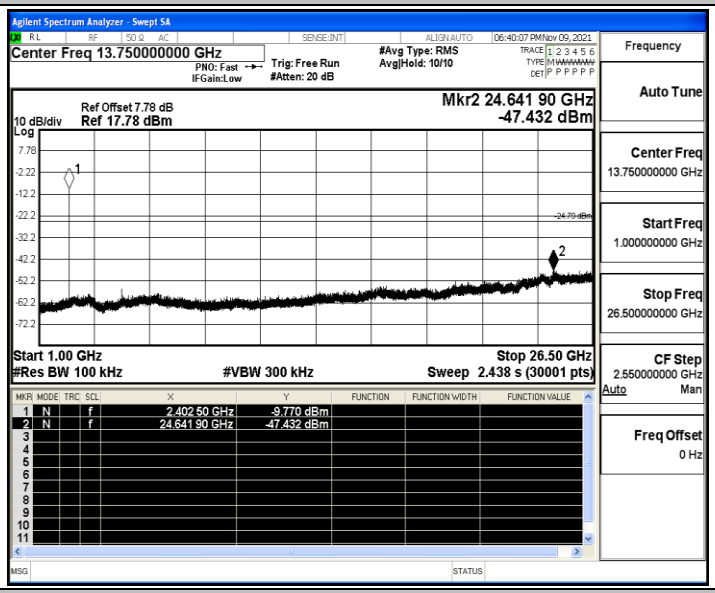
2DH5_Ant1_2402_0~Reference



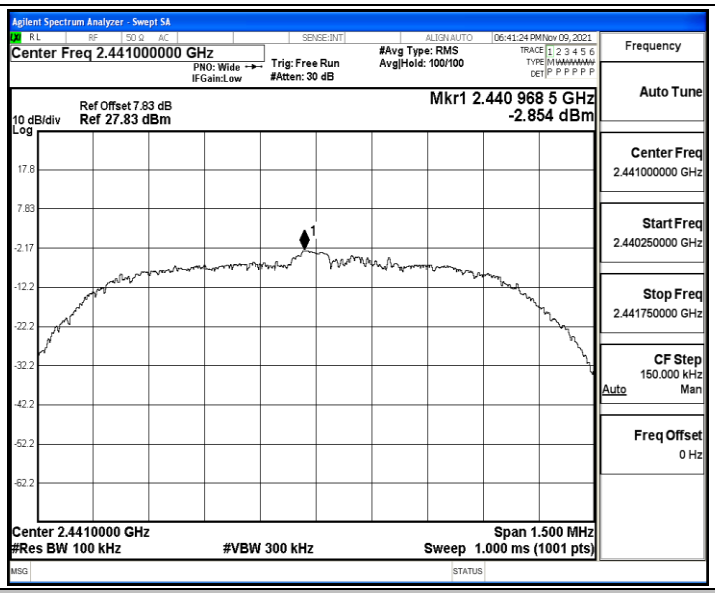
2DH5_Ant1_2402_30~1000



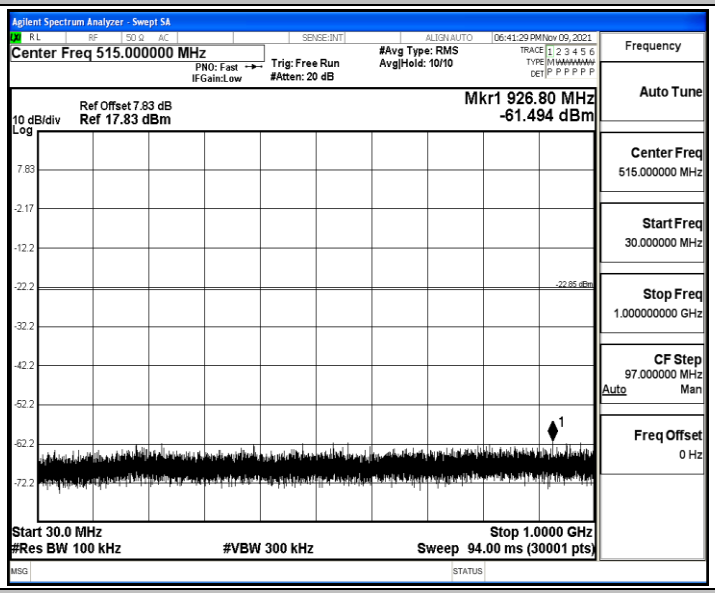
2DH5_Ant1_2402_1000~26500



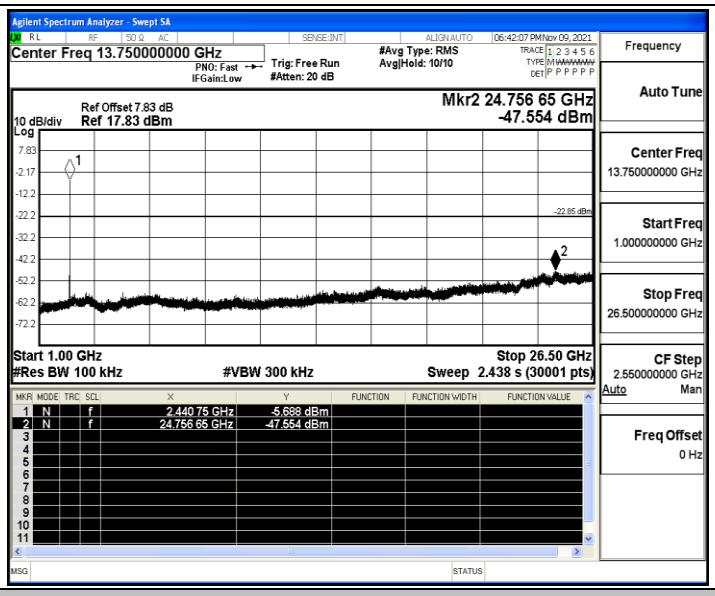
2DH5_Ant1_2441_0~Reference



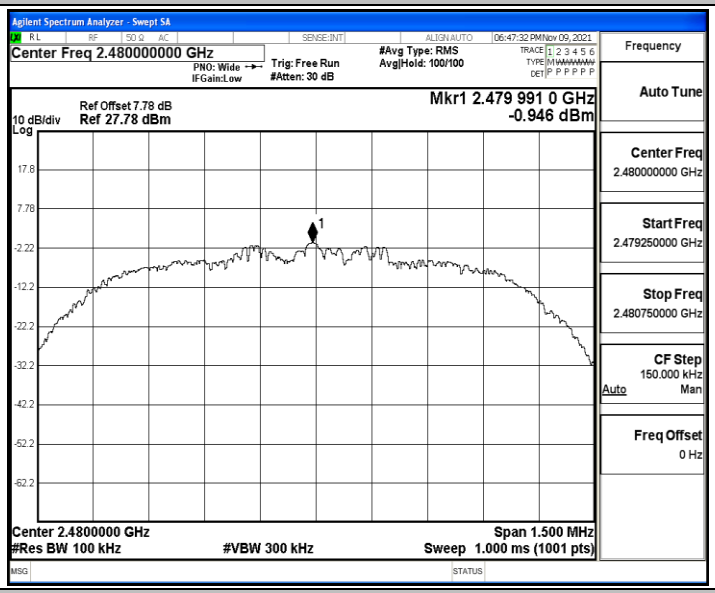
2DH5_Ant1_2441_30~1000



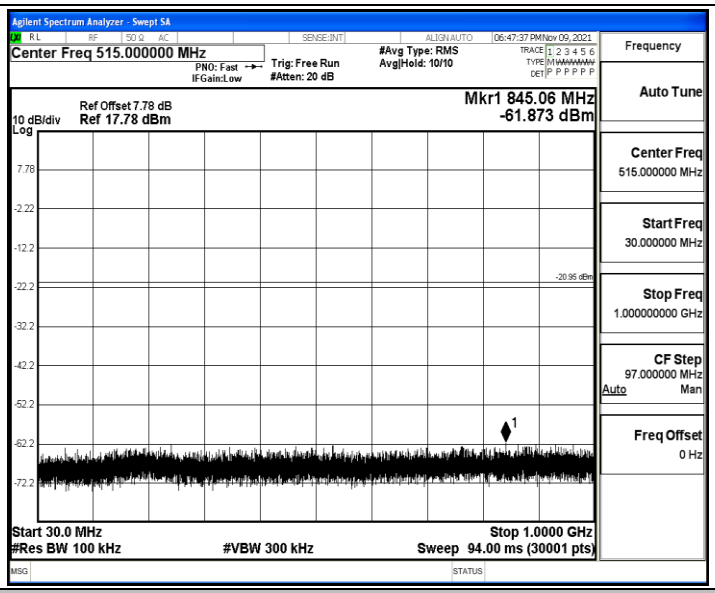
2DH5_Ant1_2441_1000~26500



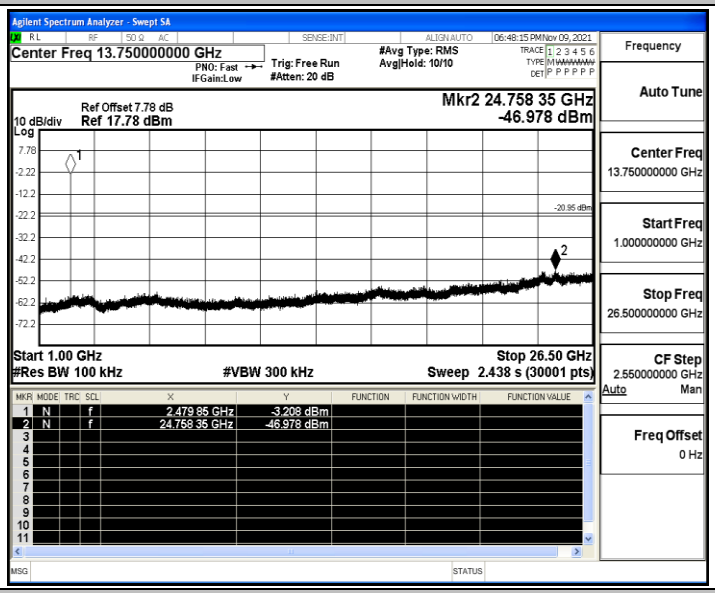
2DH5_Ant1_2480_0~Reference



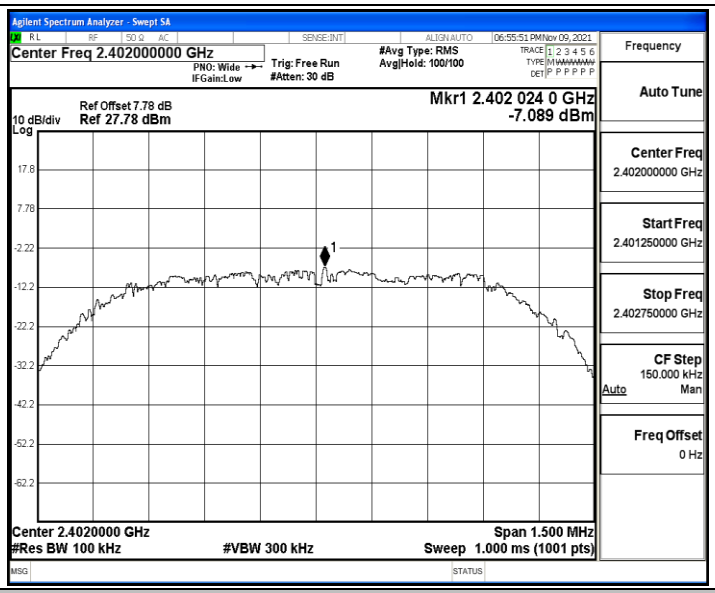
2DH5_Ant1_2480_30~1000



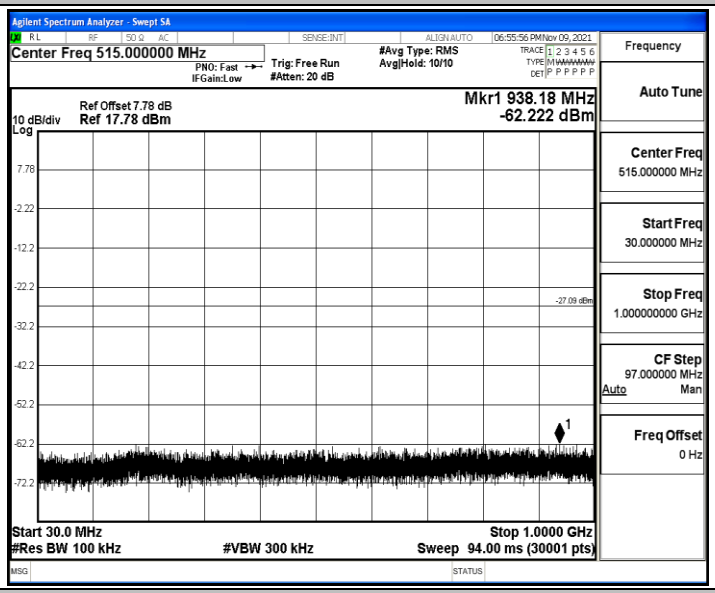
2DH5_Ant1_2480_1000~26500



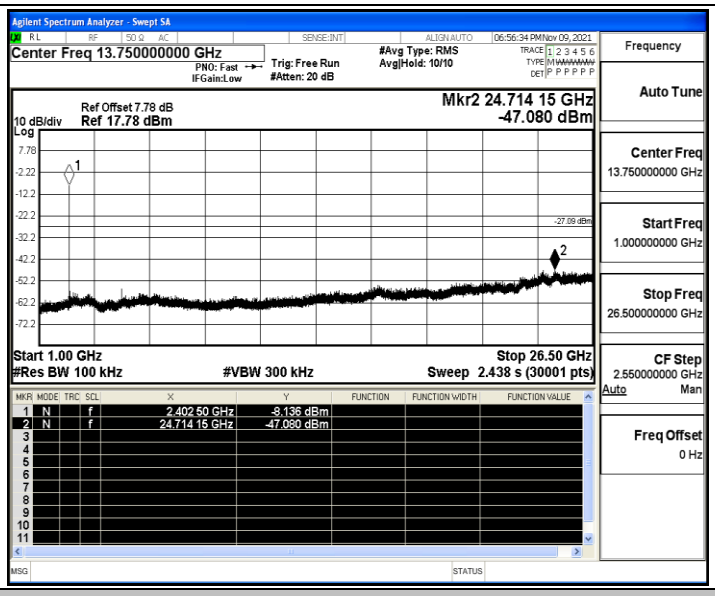
3DH5_Ant1_2402_0~Reference



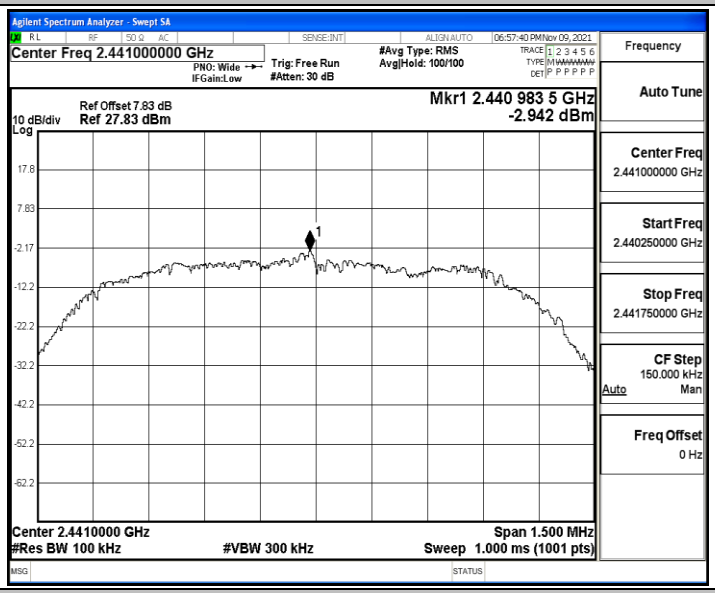
3DH5_Ant1_2402_30~1000



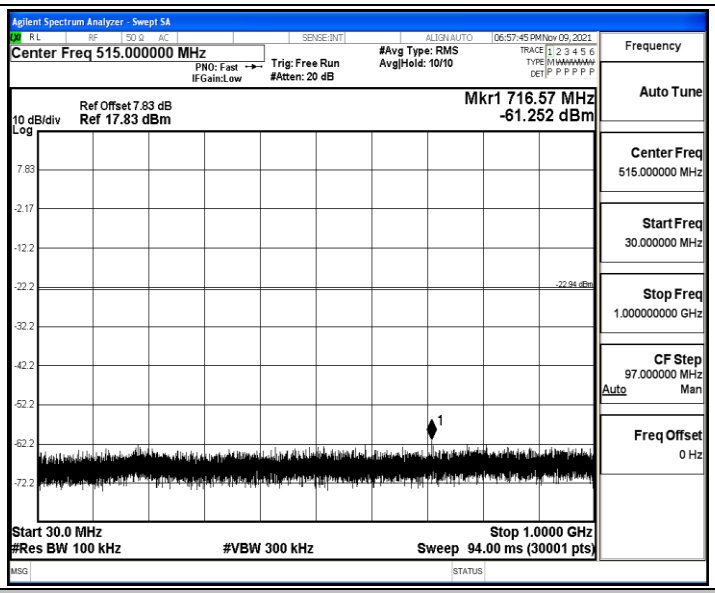
3DH5_Ant1_2402_1000~26500



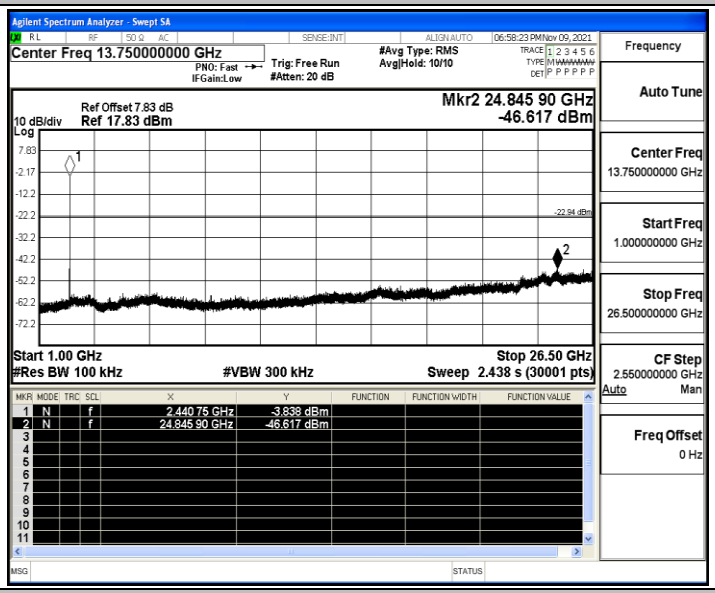
3DH5_Ant1_2441_0~Reference



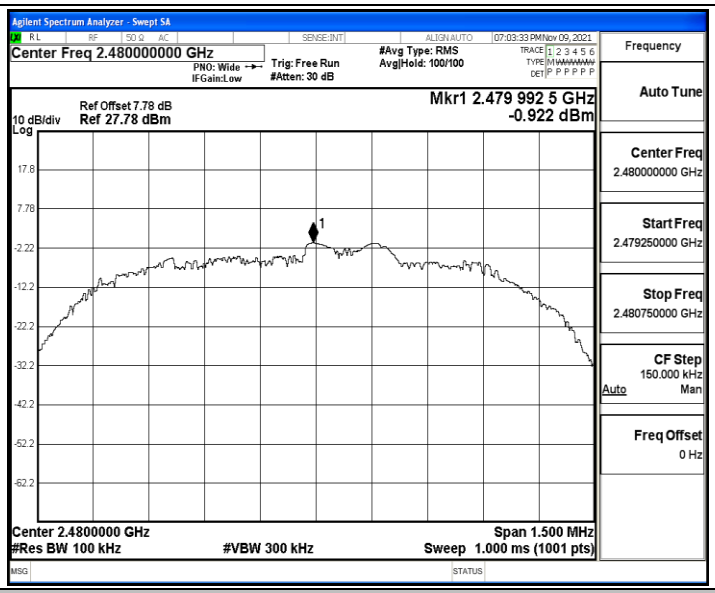
3DH5_Ant1_2441_30~1000



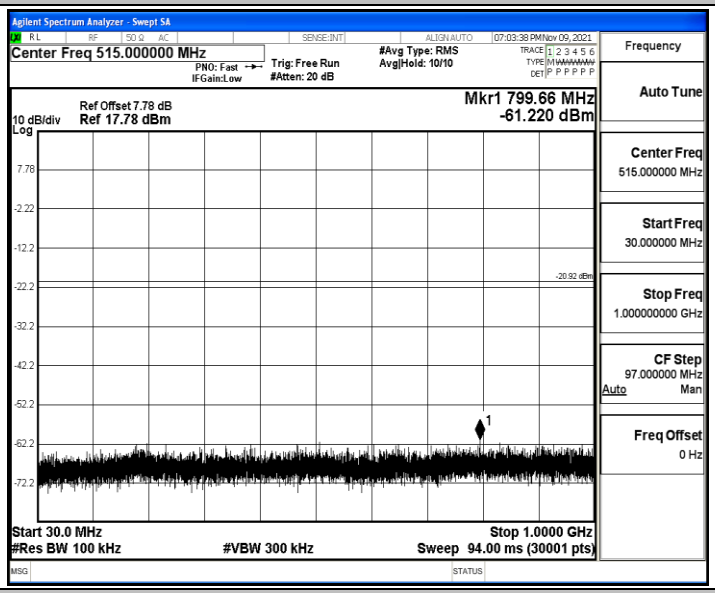
3DH5_Ant1_2441_1000~26500



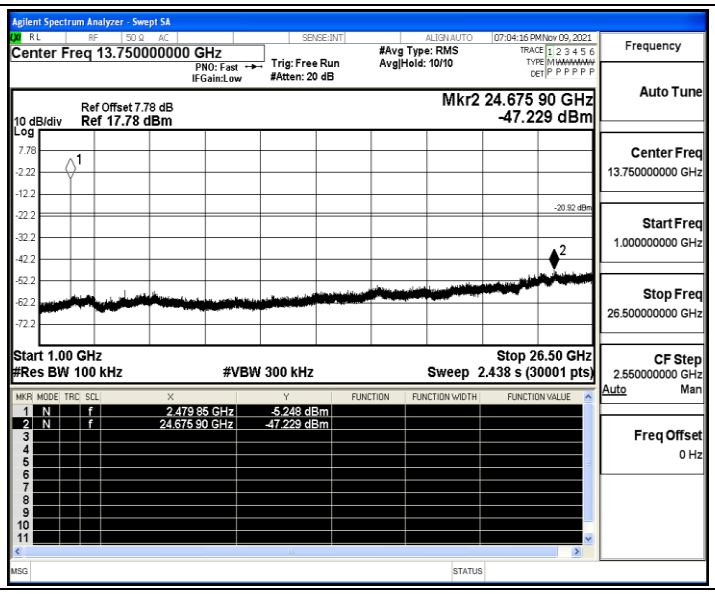
3DH5_Ant1_2480_0~Reference



3DH5_Ant1_2480_30~1000



3DH5_Ant1_2480_1000~26500


Agilent Spectrum Analyzer - Swept SA
Center Freq 13.750000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
#Avg Type: RMS
Avg|Hold: 10/10
07:04:16 PM Nov 09, 2021
Ref Offset 7.78 dB
10 dB/div
Ref 17.78 dBm
Mkr2 24.675 90 GHz
-47.229 dBm
-20.92 dBm
Start 1.00 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 26.50 GHz
Sweep 2.438 s (30001 pts)
1 N f 2.479 85 GHz -5.248 dBm
2 N f 24.675 90 GHz -47.229 dBm
Frequency
Auto Tune
Center Freq
13.750000000 GHz
Start Freq
1.000000000 GHz
Stop Freq
26.500000000 GHz
CF Step
2.550000000 GHz
Auto
Man
Freq Offset
0 Hz

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	-48.87	≤-41.20	46.33	≤54	PASS
				AV	2389.775	-48.37	≤-41.20	46.83	≤54	PASS
				AV	2390.000	-48.54	≤-41.20	46.66	≤54	PASS
				Peak	2310.000	-41.2	≤-21.20	54.00	≤74	PASS
				Peak	2329.085	-38.36	≤-21.20	56.84	≤74	PASS
				Peak	2390.000	-39.6	≤-21.20	55.60	≤74	PASS
		High	2480	AV	2483.500	-43.69	≤-41.20	51.51	≤54	PASS
				AV	2483.520	-43.69	≤-41.20	51.51	≤54	PASS
				AV	2500.000	-47.98	≤-41.20	47.22	≤54	PASS
				Peak	2483.500	-36.44	≤-21.20	58.76	≤74	PASS
				Peak	2483.600	-36.34	≤-21.20	58.86	≤74	PASS
				Peak	2500.000	-39.94	≤-21.20	55.26	≤74	PASS
		Low	Hop_2402	Peak	2310.000	-39.65	≤-21.20	55.55	≤74	PASS
				Peak	2319.950	-38.31	≤-21.20	56.89	≤74	PASS
				Peak	2390.000	-40.97	≤-21.20	54.23	≤74	PASS
		High	Hop_2480	Peak	2483.500	-38.99	≤-21.20	56.21	≤74	PASS
				Peak	2497.600	-37.54	≤-21.20	57.66	≤74	PASS
				Peak	2500.000	-40.6	≤-21.20	54.60	≤74	PASS
2DH5	Ant1	Low	2402	AV	2310.000	-48.9	≤-41.20	46.30	≤54	PASS
				AV	2389.775	-48.41	≤-41.20	46.79	≤54	PASS
				AV	2390.000	-48.59	≤-41.20	46.61	≤54	PASS
				Peak	2310.000	-40.9	≤-21.20	54.30	≤74	PASS
				Peak	2377.805	-38.26	≤-21.20	56.94	≤74	PASS
				Peak	2390.000	-39.76	≤-21.20	55.44	≤74	PASS
		High	2480	AV	2483.500	-47.35	≤-41.20	47.85	≤54	PASS
				AV	2483.520	-47.35	≤-41.20	47.85	≤54	PASS
				AV	2500.000	-47.9	≤-41.20	47.30	≤54	PASS
				Peak	2483.500	-39.76	≤-21.20	55.44	≤74	PASS
				Peak	2486.880	-37.79	≤-21.20	57.41	≤74	PASS
				Peak	2500.000	-39.25	≤-21.20	55.95	≤74	PASS
		Low	Hop_2402	Peak	2310.000	-40.21	≤-21.20	54.99	≤74	PASS
				Peak	2370.560	-37.34	≤-21.20	57.86	≤74	PASS
				Peak	2390.000	-40.85	≤-21.20	54.35	≤74	PASS
		High	Hop_2480	Peak	2483.500	-40.07	≤-21.20	55.13	≤74	PASS
				Peak	2486.960	-38.01	≤-21.20	57.19	≤74	PASS
				Peak	2500.000	-40.47	≤-21.20	54.73	≤74	PASS

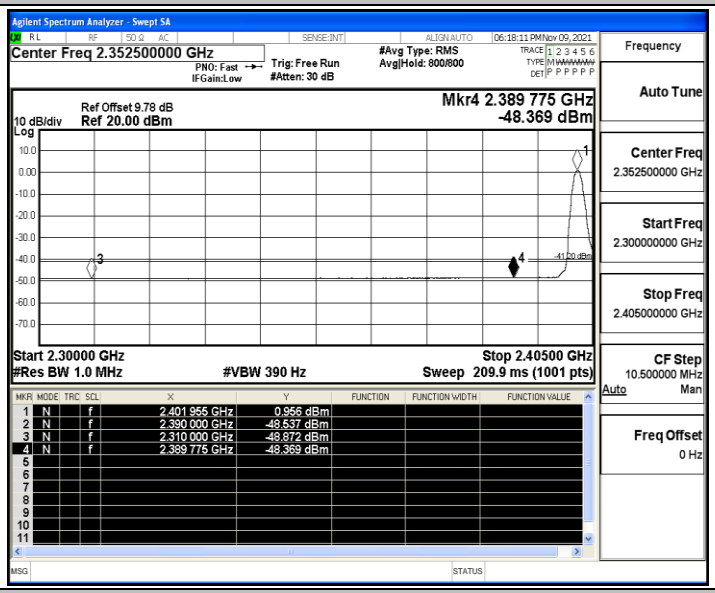
3DH5	Ant1	Low	2402	AV	2310.000	-48.89	≤-41.20	46.31	≤54	PASS
				AV	2387.045	-48.42	≤-41.20	46.78	≤54	PASS
				AV	2390.000	-48.48	≤-41.20	46.72	≤54	PASS
				Peak	2310.000	-38.86	≤-21.20	56.34	≤74	PASS
				Peak	2364.680	-38	≤-21.20	57.20	≤74	PASS
				Peak	2390.000	-40.34	≤-21.20	54.86	≤74	PASS
		High	2480	AV	2483.500	-47.42	≤-41.20	47.78	≤54	PASS
				AV	2483.520	-47.42	≤-41.20	47.78	≤54	PASS
				AV	2500.000	-47.93	≤-41.20	47.27	≤54	PASS
				Peak	2483.500	-40.29	≤-21.20	54.91	≤74	PASS
				Peak	2498.800	-38.08	≤-21.20	57.12	≤74	PASS
				Peak	2500.000	-39.47	≤-21.20	55.73	≤74	PASS
		Low	Hop_2402	Peak	2310.000	-41.11	≤-21.20	54.09	≤74	PASS
				Peak	2388.410	-37.55	≤-21.20	57.65	≤74	PASS
				Peak	2390.000	-40.53	≤-21.20	54.67	≤74	PASS
		High	Hop_2480	Peak	2483.500	-39.8	≤-21.20	55.40	≤74	PASS
				Peak	2496.720	-37.47	≤-21.20	57.73	≤74	PASS
				Peak	2500.000	-40.86	≤-21.20	54.34	≤74	PASS

Note：

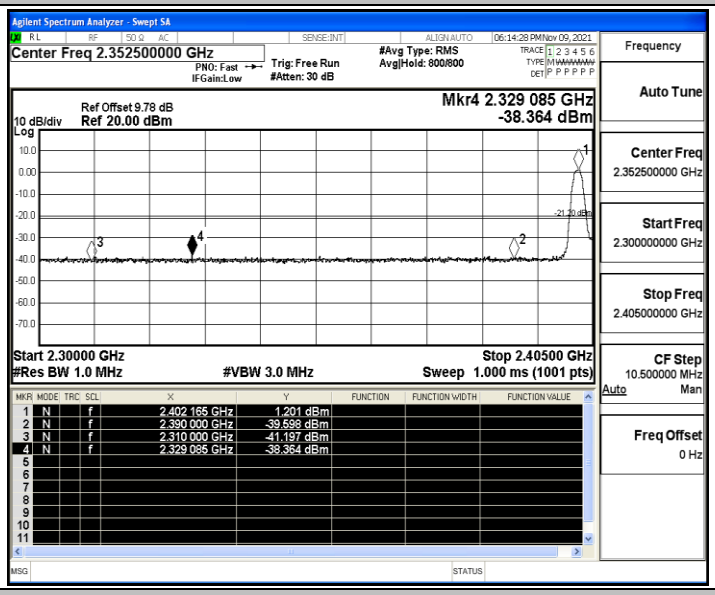
1. The Antenna Gain is compensated in the graph.
2. The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.

Test Graphs

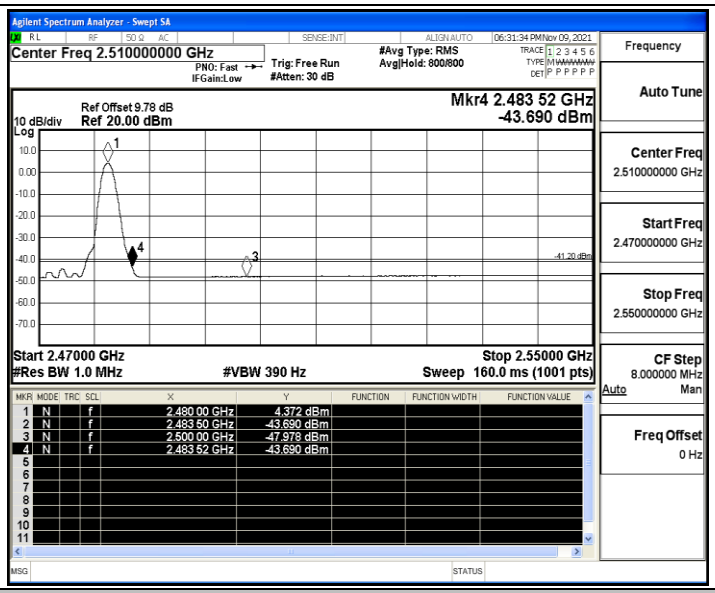
DH5_Ant1_Low_2402_AV



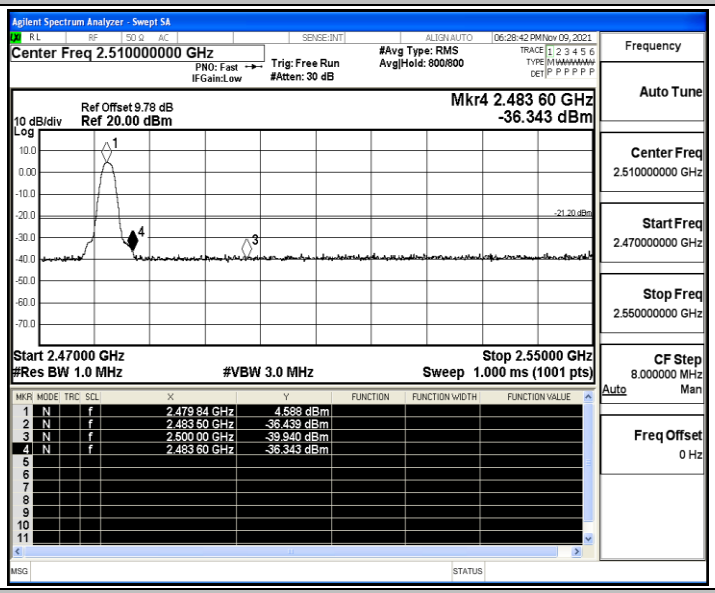
DH5_Ant1_Low_2402_Peak



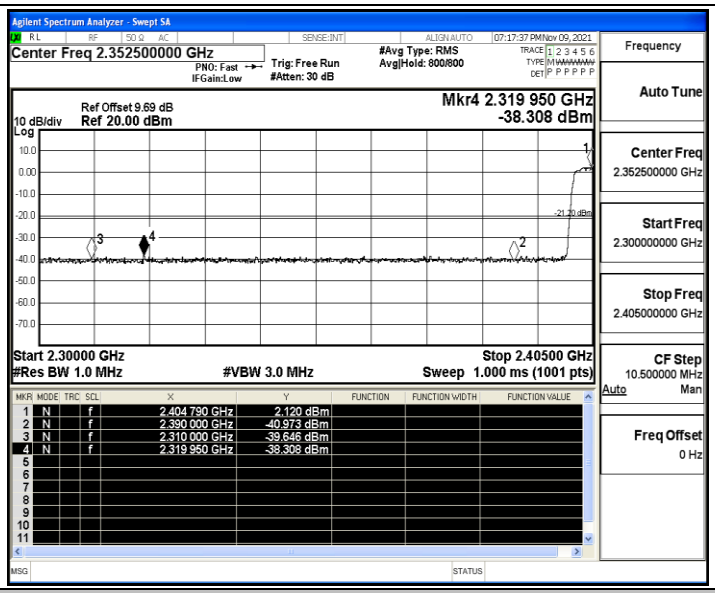
DH5_Ant1_High_2480_AV



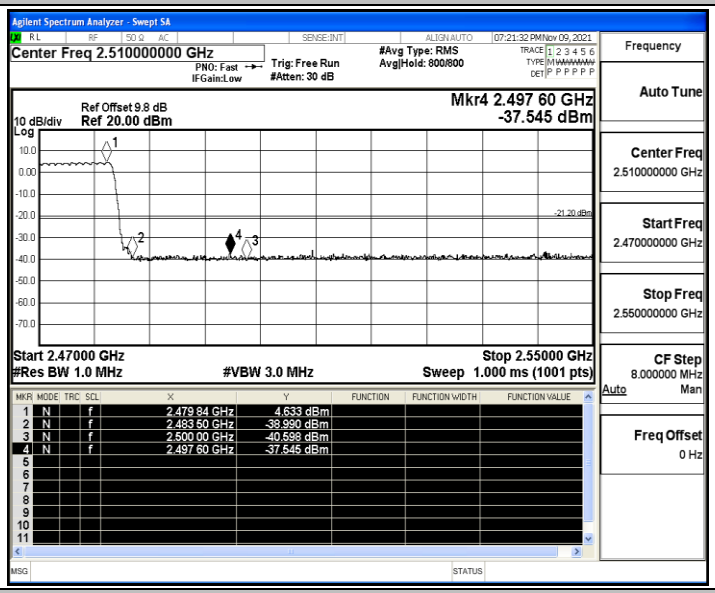
DH5_Ant1_High_2480_Peak



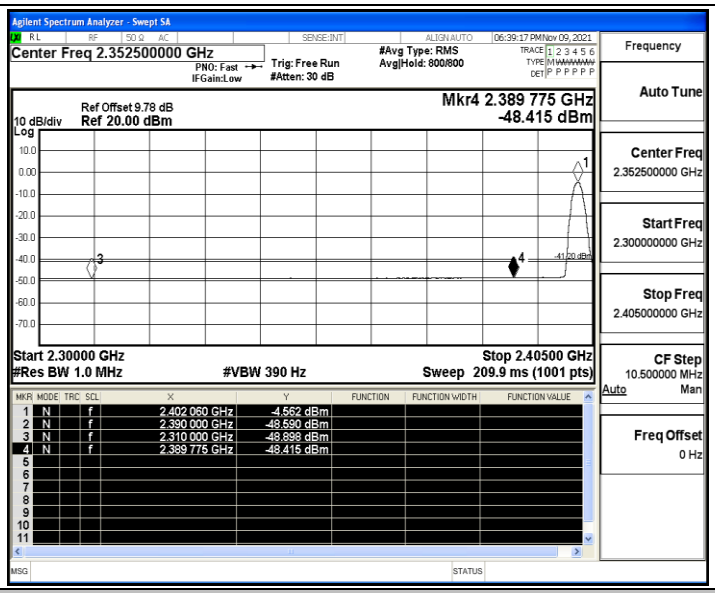
DH5_Ant1_Low_Hop_2402_Peak



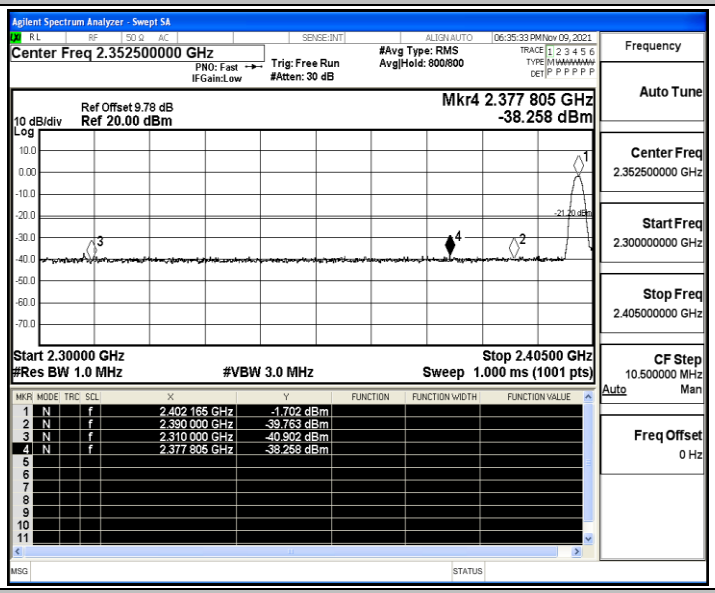
DH5_Ant1_High_Hop_2480_Peak



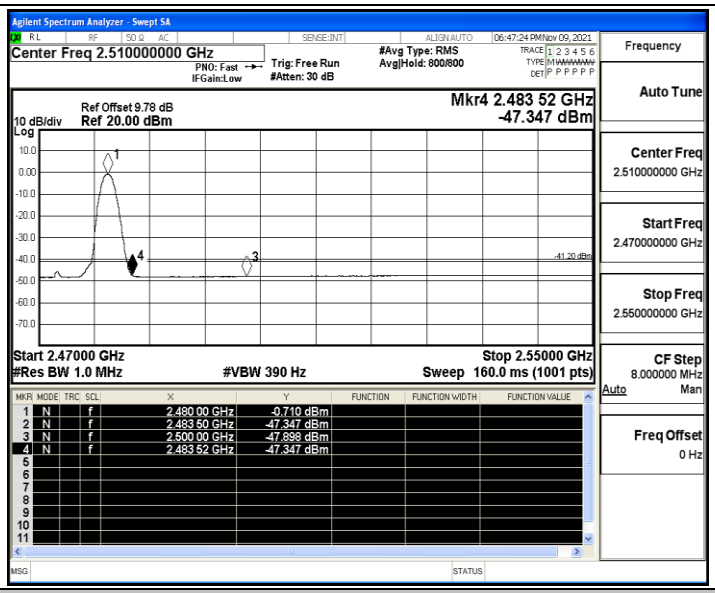
2DH5_Ant1_Low_2402_AV



2DH5_Ant1_Low_2402_Peak



2DH5_Ant1_High_2480_AV



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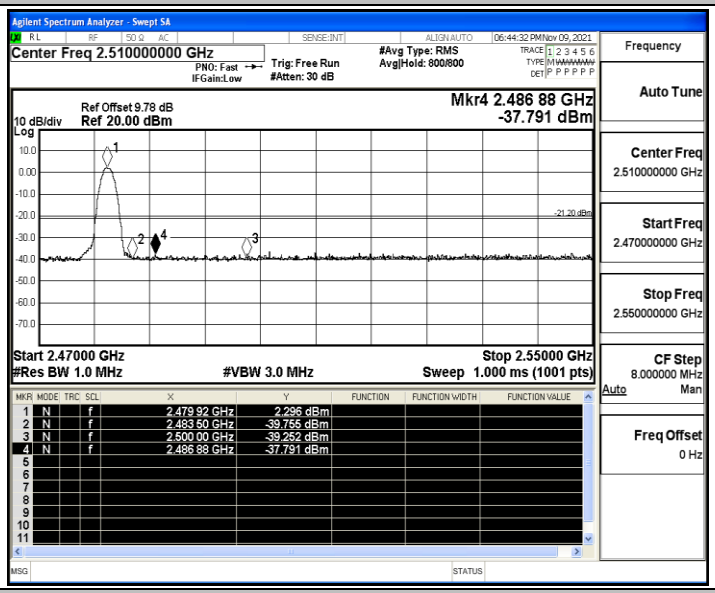

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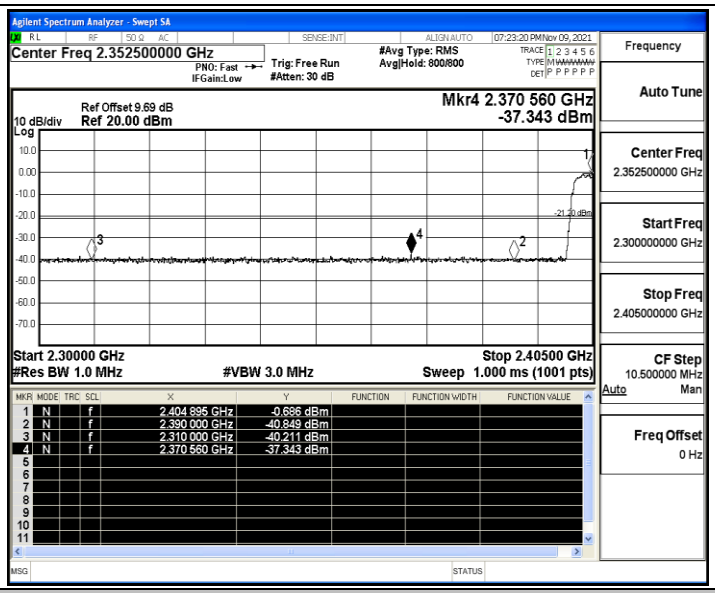

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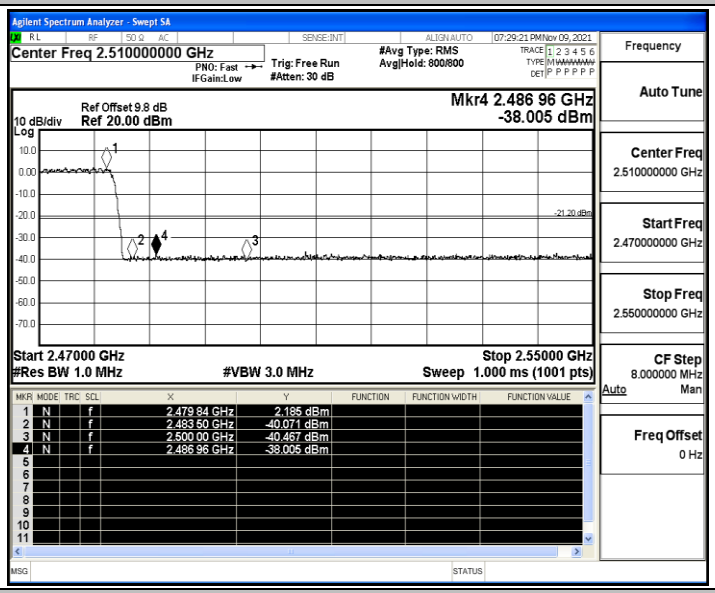

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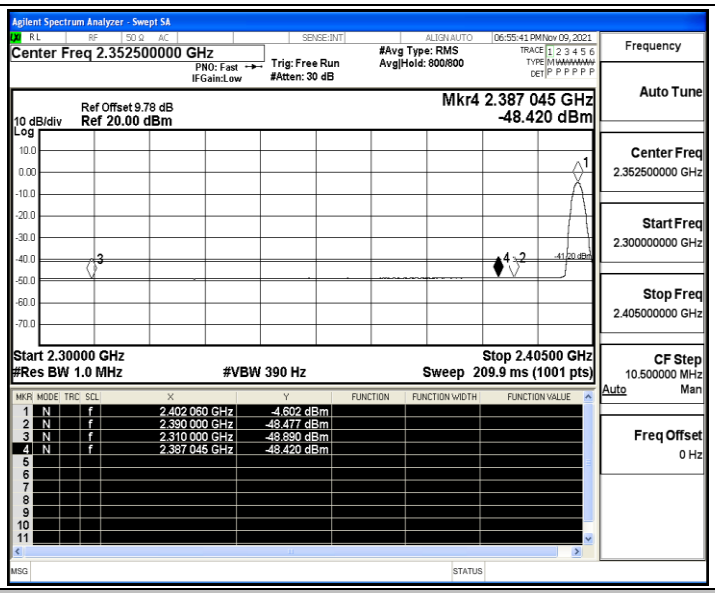

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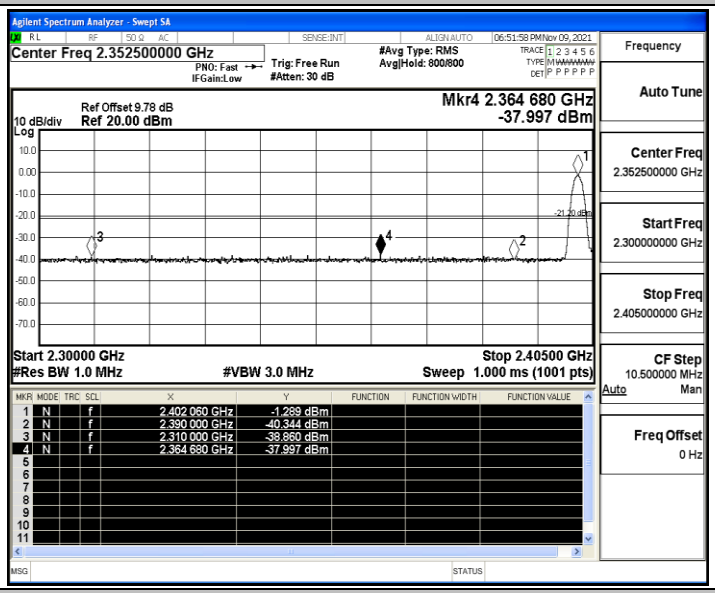

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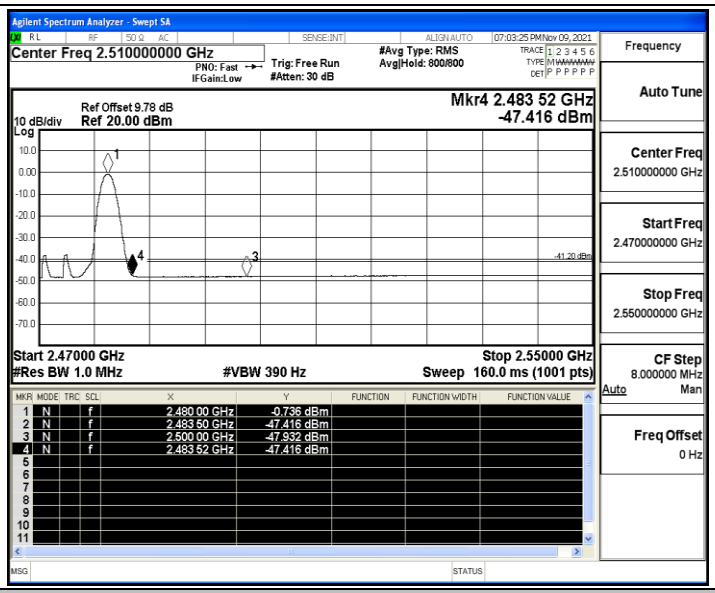

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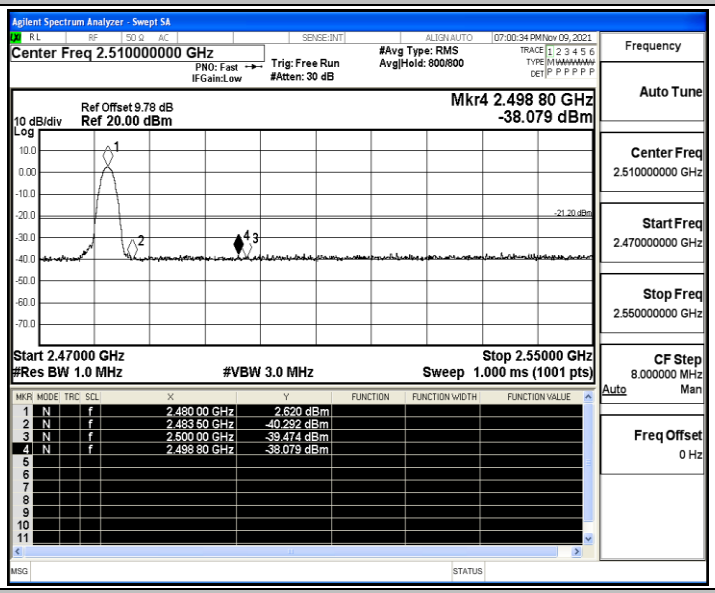

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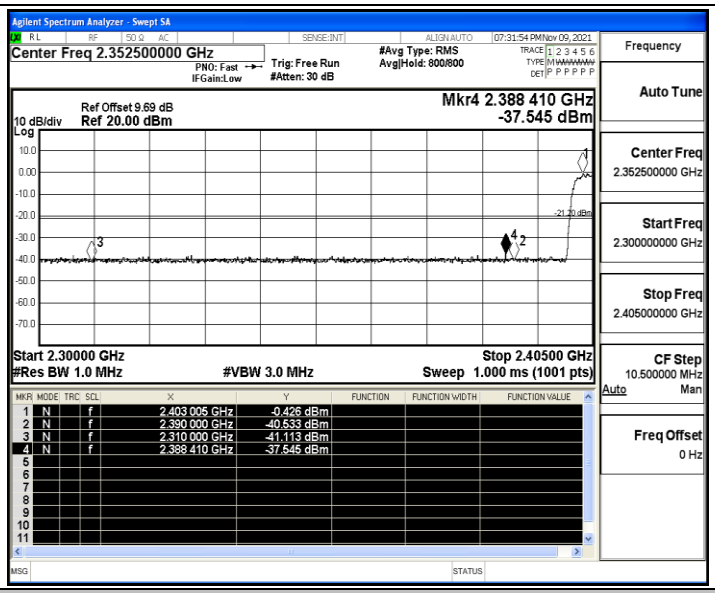
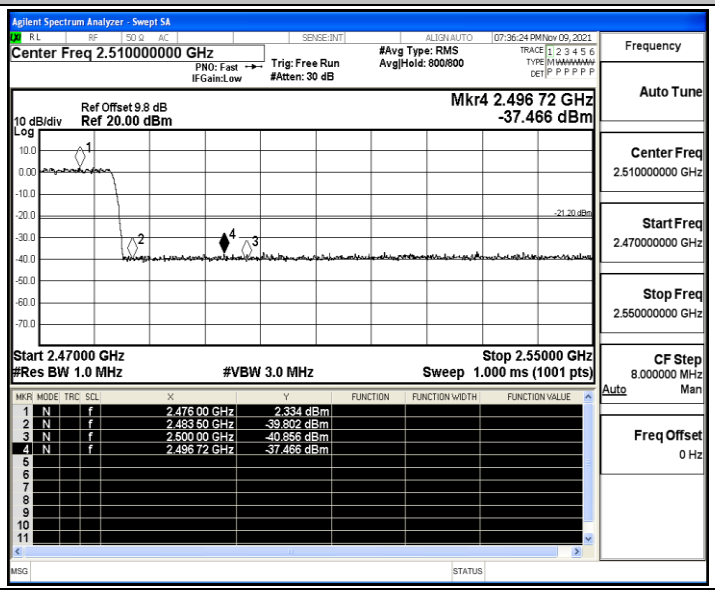
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