Appendix A

RF Test Data for BT (Conducted Measurement)

Product Name: WEBOS SMART TV

Test Model: PTVWEB75UHD

Environmental Conditions

Temperature:	23.5° C
Relative Humidity:	52.2%
ATM Pressure:	100.0 kPa
Test Engineer:	Mark Chen
Supervised by:	Lihn

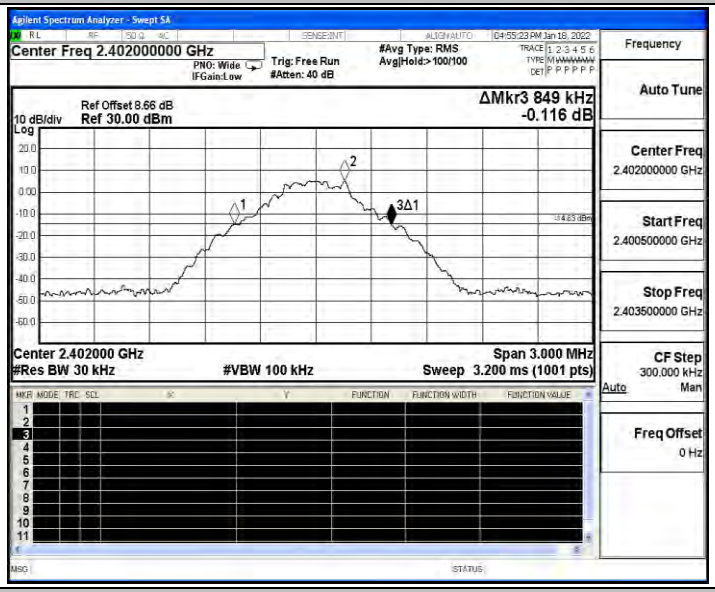
A.1 20dB Emission Bandwidth

Test Result

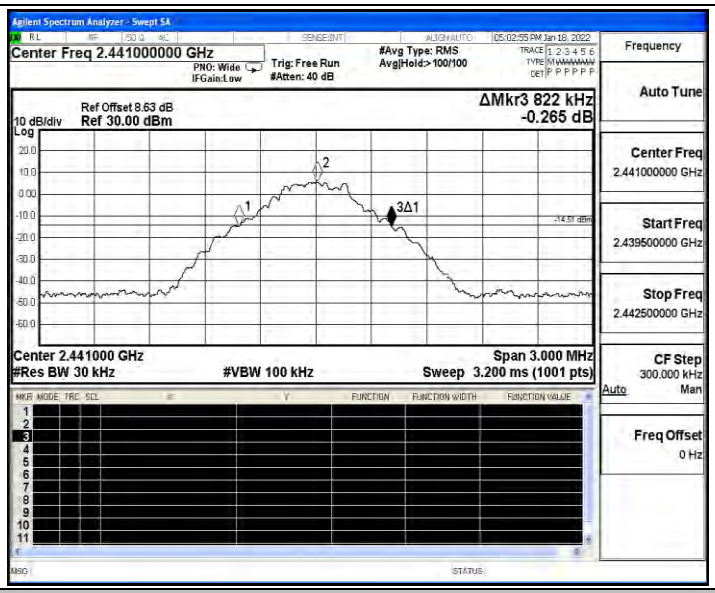
TestMode	Antenna	Channel	20db EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.849	2401.559	2402.408	---	---
		2441	0.822	2440.586	2441.408	---	---
		2480	0.852	2479.556	2480.408	---	---
2DH5	Ant1	2402	1.320	2401.331	2402.651	---	---
		2441	1.332	2440.325	2441.657	---	---
		2480	1.332	2479.325	2480.657	---	---
3DH5	Ant1	2402	1.308	2401.340	2402.648	---	---
		2441	1.326	2440.334	2441.660	---	---
		2480	1.308	2479.340	2480.648	---	---

Test Graphs

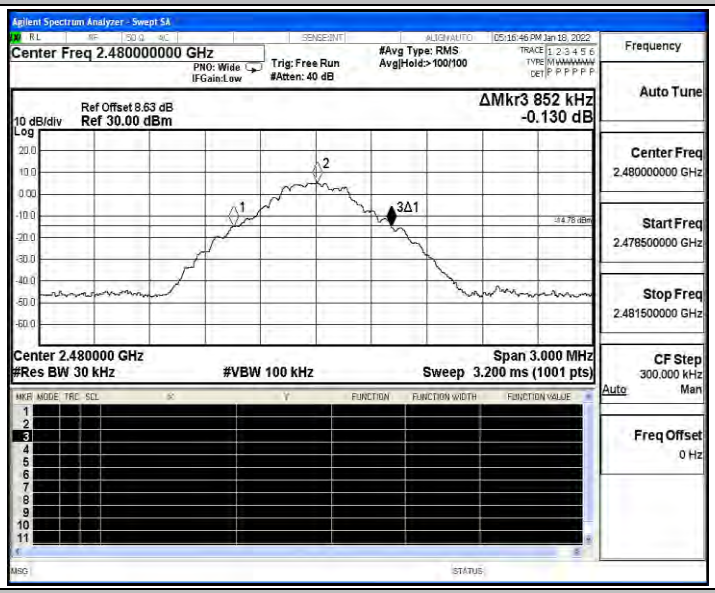
DH5_Ant1_2402



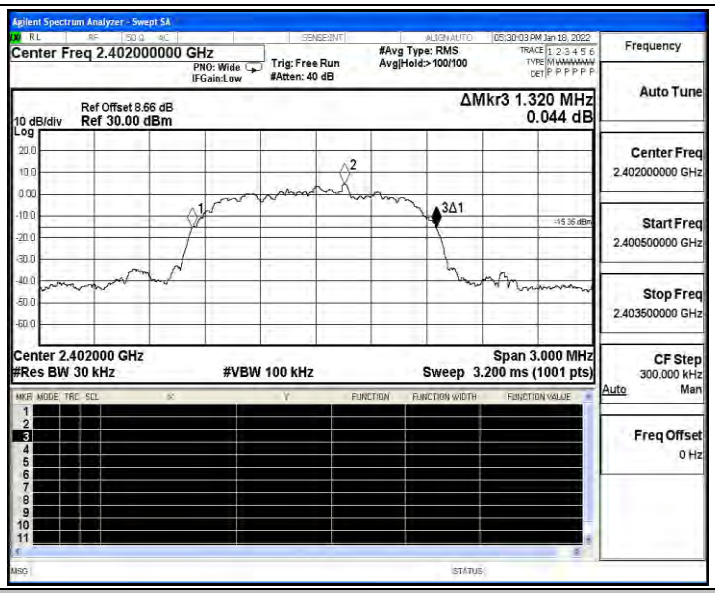
DH5_Ant1_2441



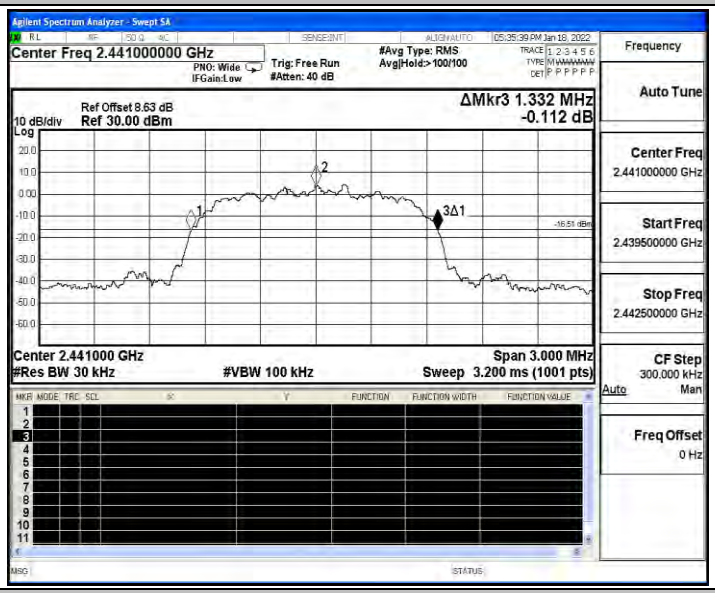
DH5_Ant1_2480



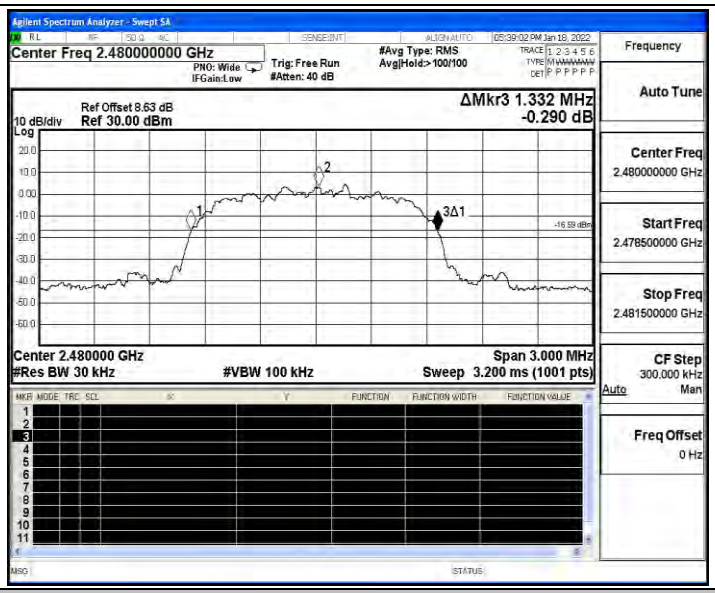
2DH5_Ant1_2402



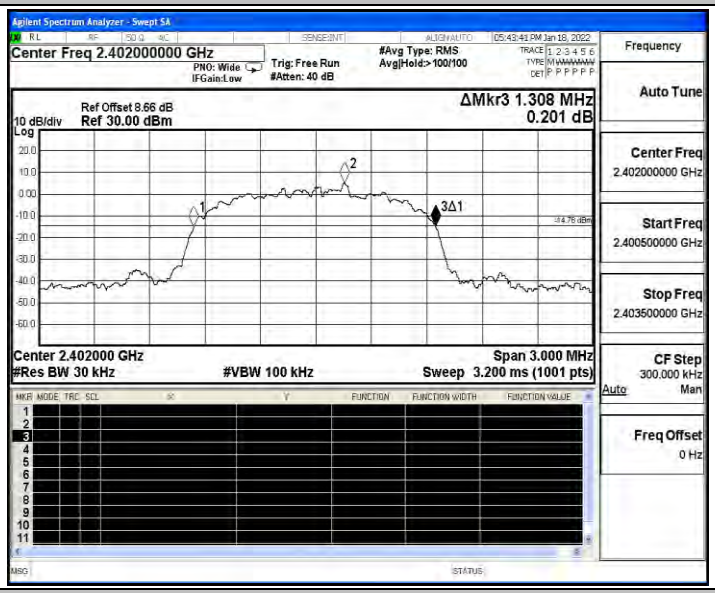
2DH5_Ant1_2441



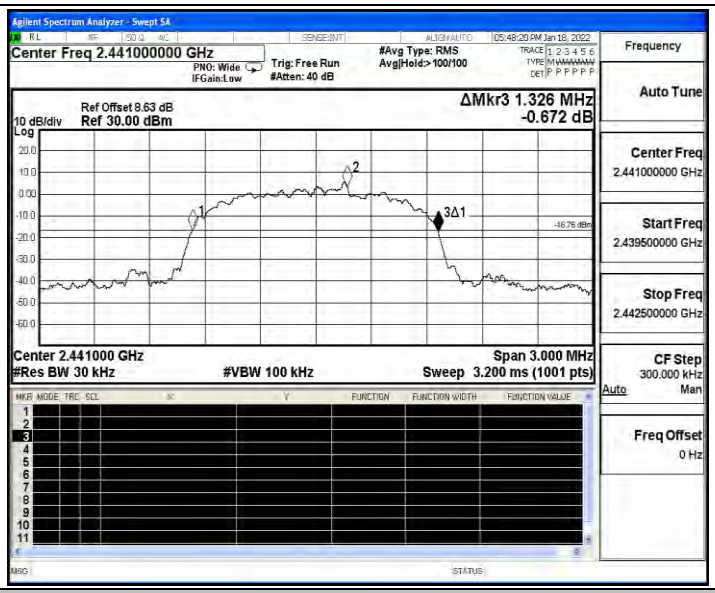
2DH5_Ant1_2480



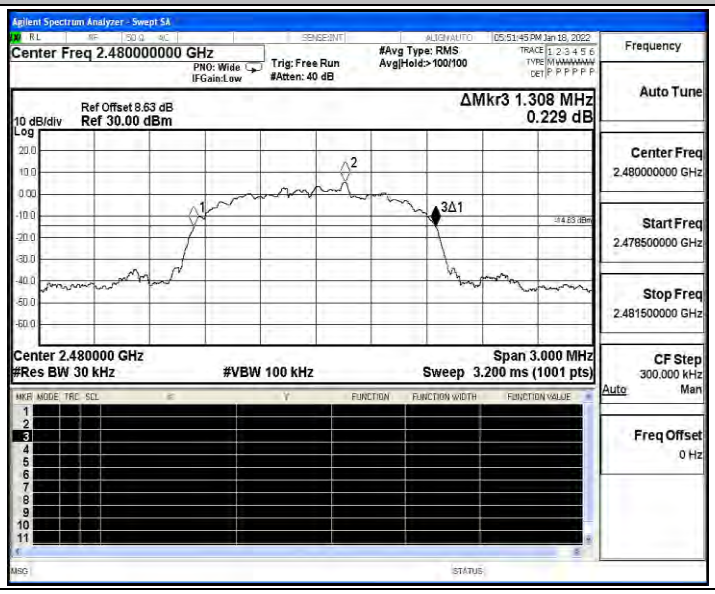
3DH5_Ant1_2402



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	8.01	≤20.97	PASS
		2441	8.15	≤20.97	PASS
		2480	8.01	≤20.97	PASS
2DH5	Ant1	2402	10.32	≤20.97	PASS
		2441	10.48	≤20.97	PASS
		2480	10.34	≤20.97	PASS
3DH5	Ant1	2402	10.77	≤20.97	PASS
		2441	10.92	≤20.97	PASS
		2480	10.57	≤20.97	PASS

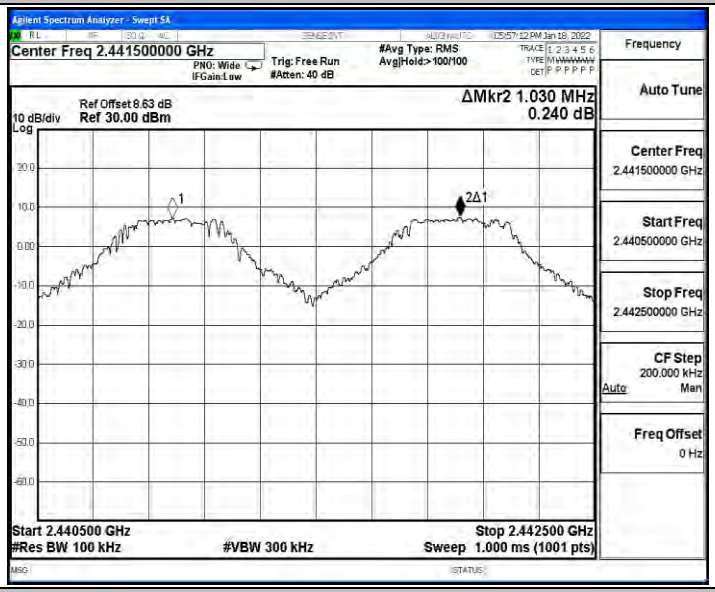
A.3 Carrier frequency separation

Test Result

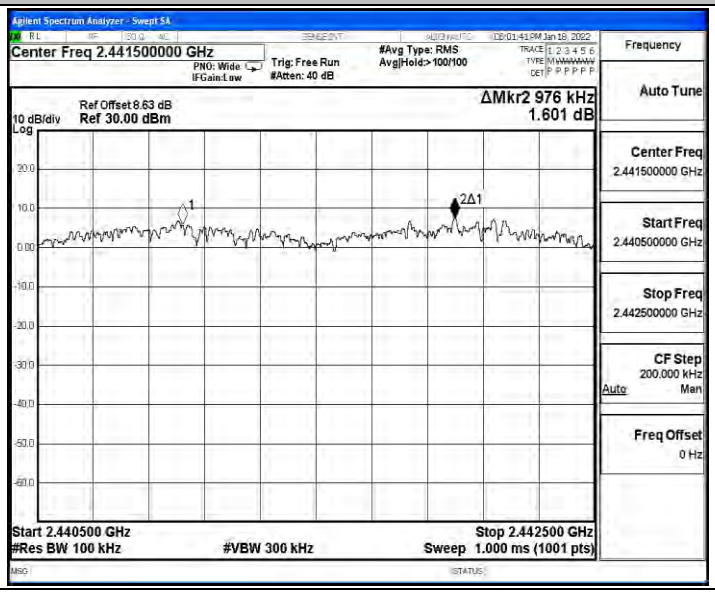
TestMode	Antenna	Channel	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	1.03	≥0.852	PASS
2DH5	Ant1	Hop	0.976	≥0.888	PASS
3DH5	Ant1	Hop	0.982	≥0.884	PASS

Test Graphs

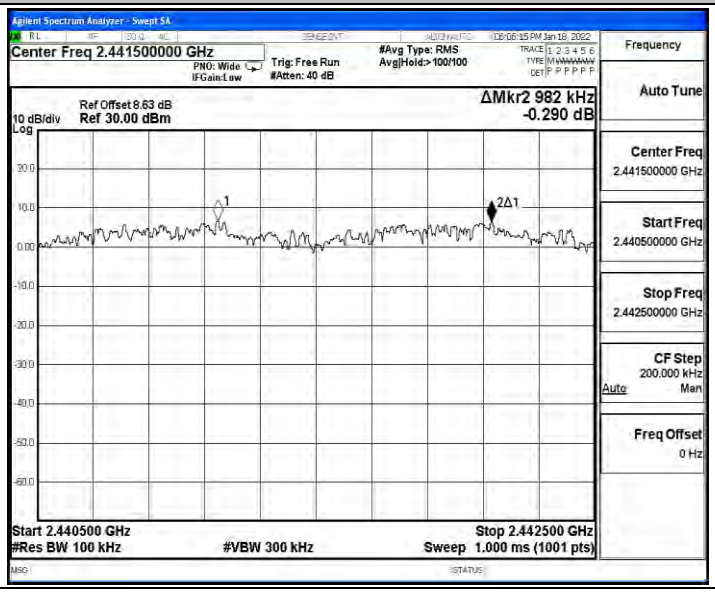
DH5_Ant1_Hop



2DH5_Ant1_Hop



3DH5_Ant1_Hop



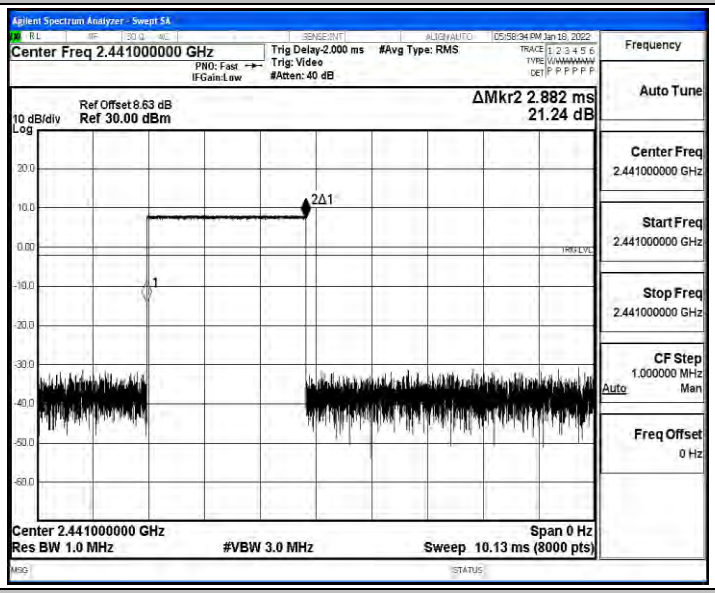
A.4 Time of occupancy

Test Result

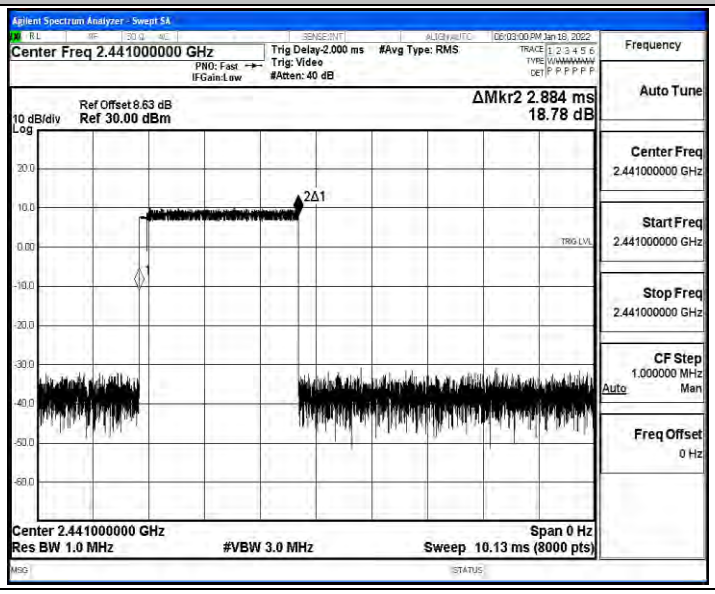
TestMode	Antenna	Channel	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH5	Ant1	Hop	2.88	106.67	0.307	≤0.4	PASS
2DH5	Ant1	Hop	2.88	106.67	0.308	≤0.4	PASS
3DH5	Ant1	Hop	2.89	106.67	0.308	≤0.4	PASS

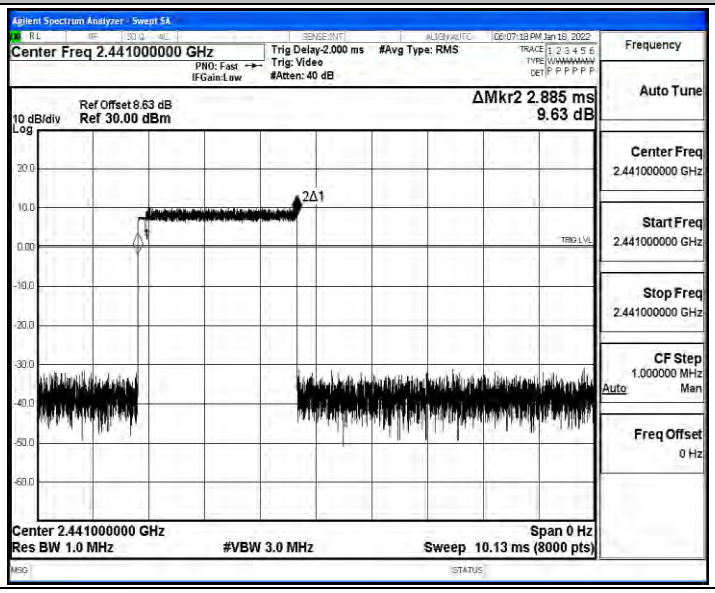
Test Graphs

DH5_Ant1_Hop



2DH5_Ant1_Hop



3DH5_Ant1_Hop


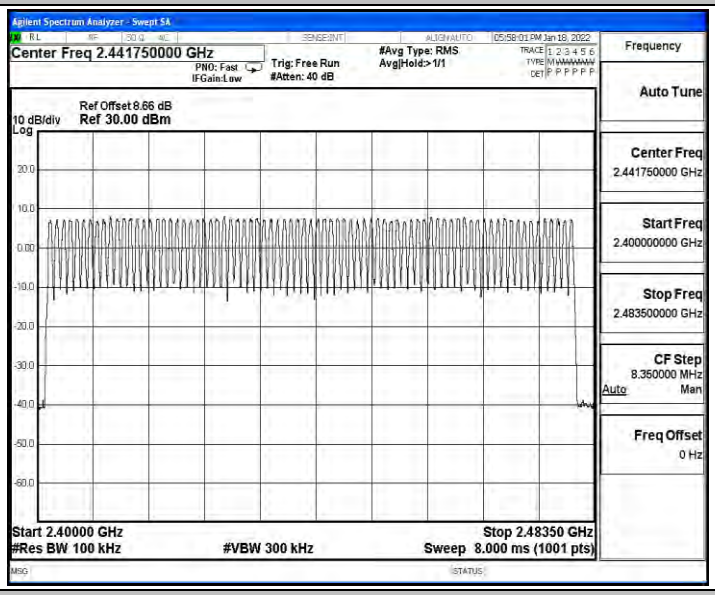
A.5 Number of hopping channels

Test Result

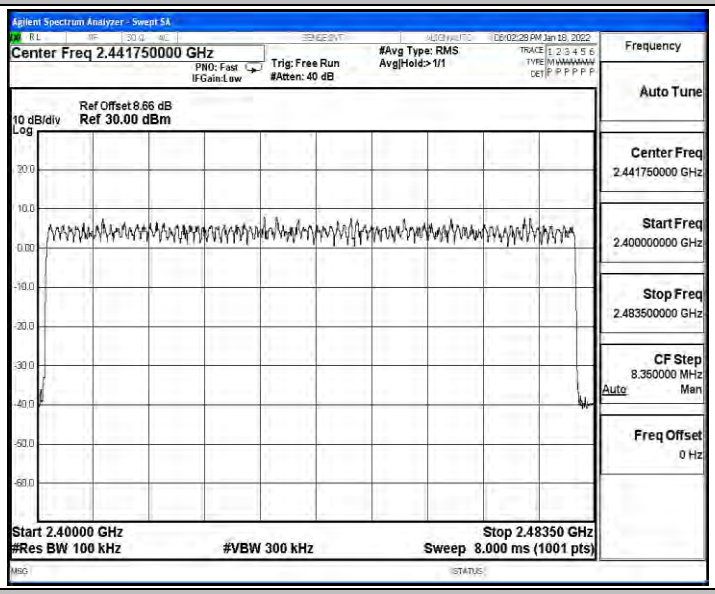
TestMode	Antenna	Channel	Result[Num]	Limit[Num]	Verdict
DH5	Ant1	Hop	79	≥15	PASS
2DH5	Ant1	Hop	79	≥15	PASS
3DH5	Ant1	Hop	79	≥15	PASS

Test Graphs

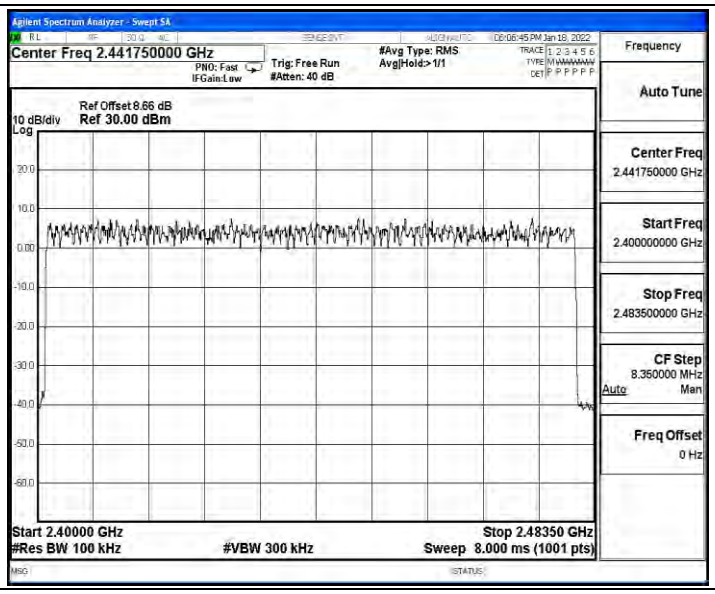
DH5_Ant1_Hop



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:>1/1
08:06:45 PM Jan 18, 2022
Frequency
Auto Tune
Ref Offset 8.66 dB
10 dB/div
Ref 30.00 dBm
Log
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
Start 2.40000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 2.48350 GHz
Sweep 8.000 ms (1001 pts)

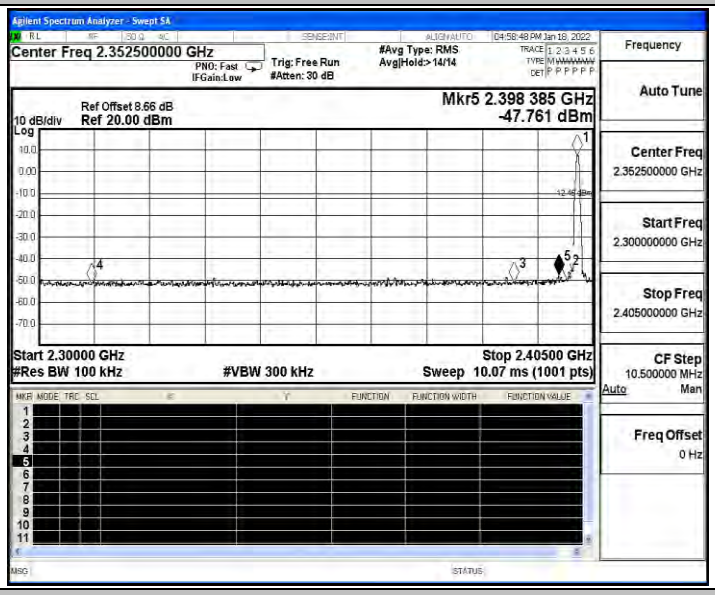
A.6 Band edge measurements

Test Result

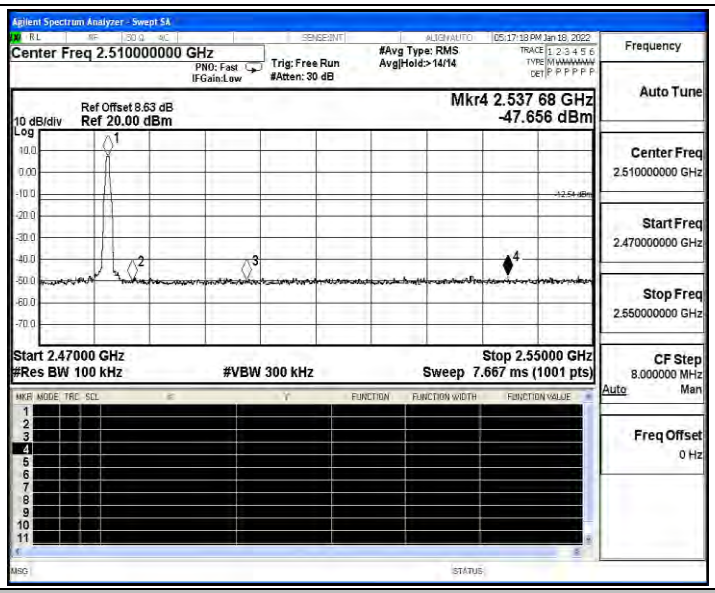
TestMode	Antenna	ChName	Channel	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	7.54	-47.76	≤-12.46	PASS
		High	2480	7.46	-47.66	≤-12.54	PASS
		Low	Hop_2402	7.11	-48.76	≤-12.89	PASS
		High	Hop_2480	7.53	-47.62	≤-12.47	PASS
2DH5	Ant1	Low	2402	7.37	-47.65	≤-12.63	PASS
		High	2480	7.36	-47.68	≤-12.64	PASS
		Low	Hop_2402	4.82	-48.6	≤-15.18	PASS
		High	Hop_2480	6.30	-47.79	≤-13.7	PASS
3DH5	Ant1	Low	2402	7.06	-47.74	≤-12.94	PASS
		High	2480	7.42	-48.38	≤-12.58	PASS
		Low	Hop_2402	5.89	-49.55	≤-14.11	PASS
		High	Hop_2480	5.58	-48.16	≤-14.42	PASS

Test Graphs

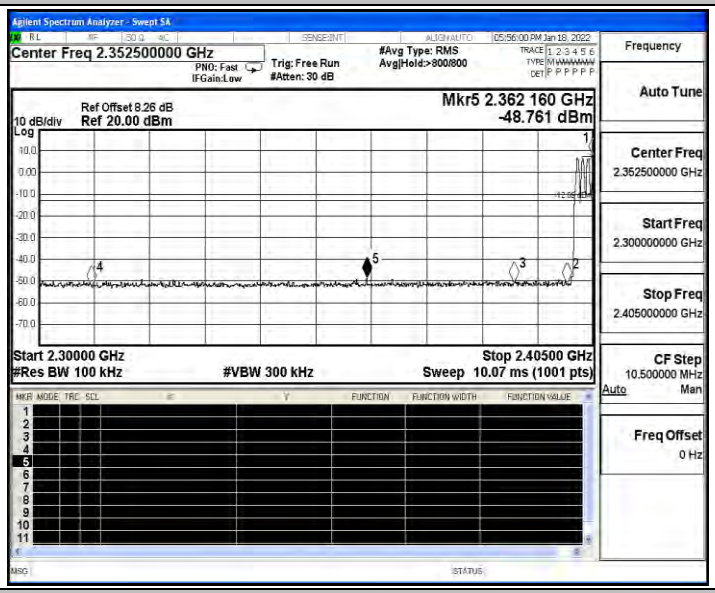
DH5_Ant1_Low_2402



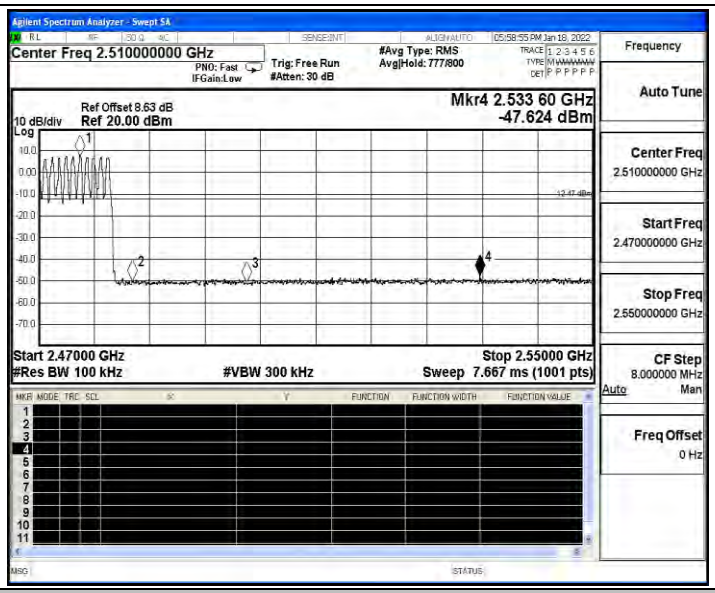
DH5_Ant1_High_2480



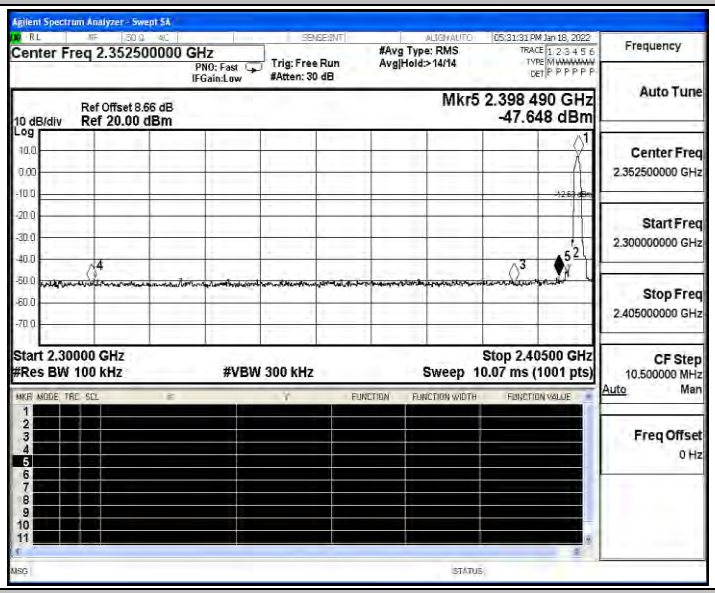
DH5_Ant1_Low_Hop_2402



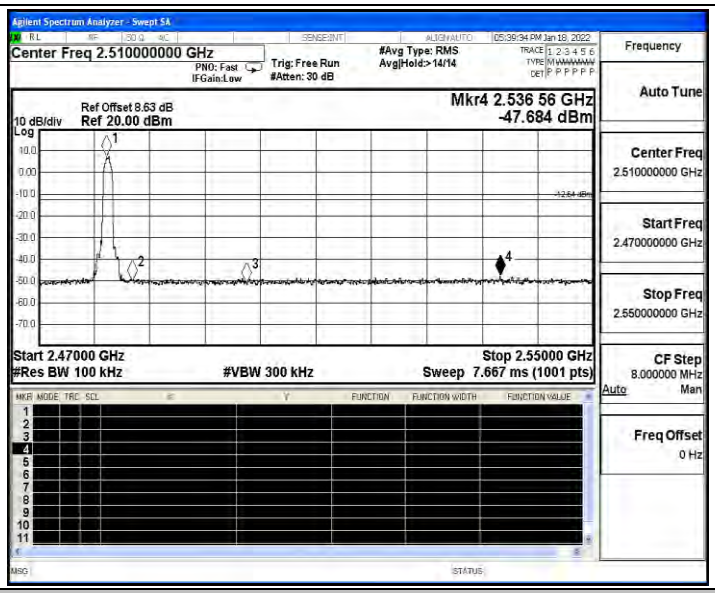
DH5_Ant1_High_Hop_2480



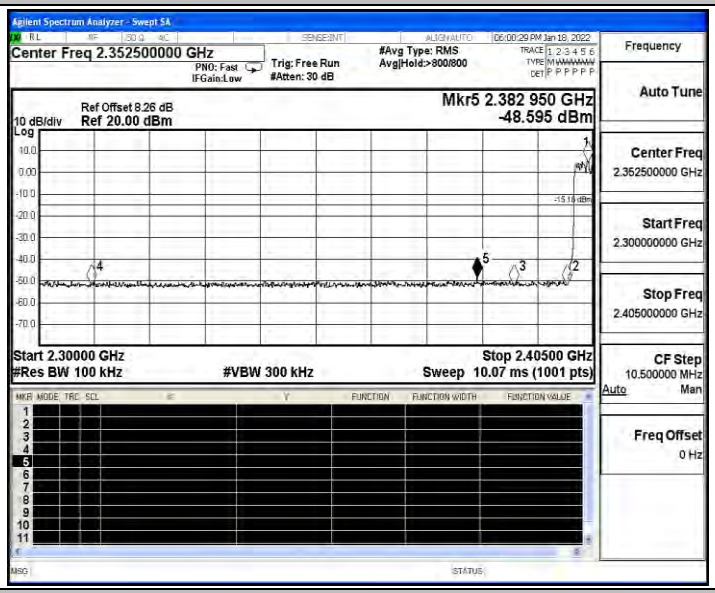
2DH5_Ant1_Low_2402



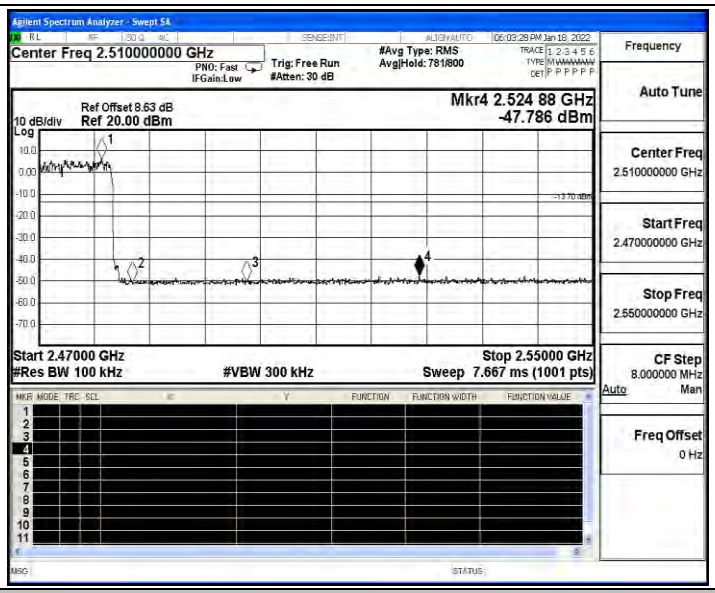
2DH5_Ant1_High_2480



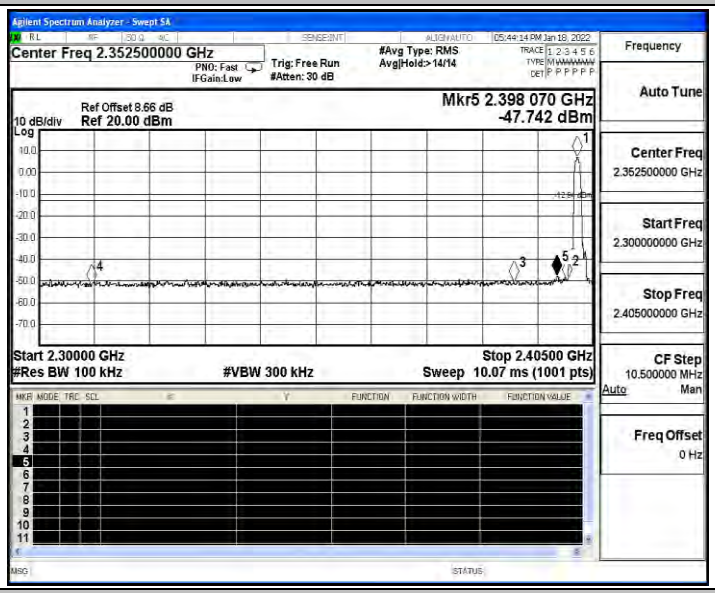
2DH5_Ant1_Low_Hop_2402



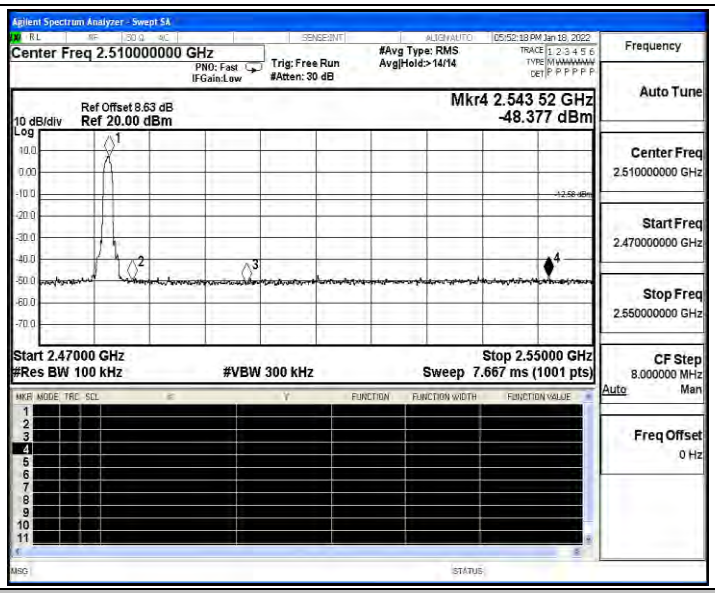
2DH5_Ant1_High_Hop_2480



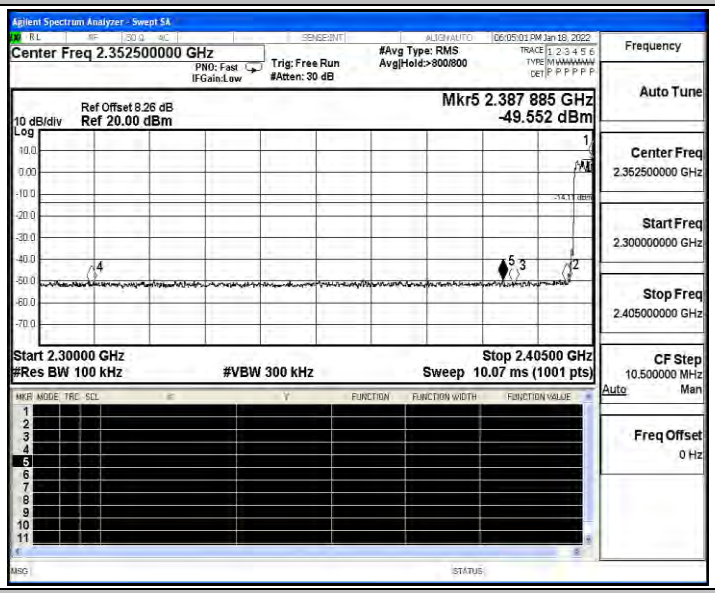
3DH5_Ant1_Low_2402



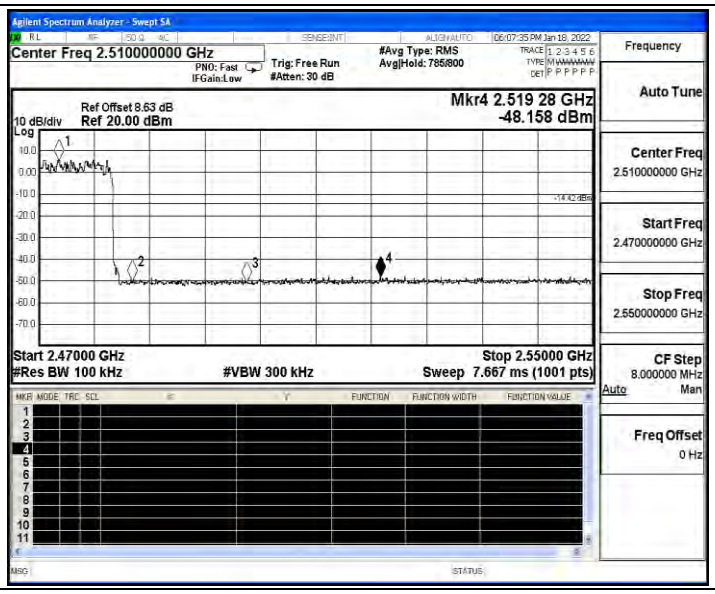
3DH5_Ant1_High_2480



3DH5_Ant1_Low_Hop_2402



3DH5_Ant1_High_Hop_2480


Agilent Spectrum Analyzer - Swept SA
Center Freq 2.510000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
#Avg Type: RMS
Avg|Hold: 785/800
06:07:35 PM Jan 18, 2022
Ref Offset 8.63 dB
10 dB/div
Ref 20.00 dBm
Mkr4 2.519 28 GHz
-48.158 dBm
Start 2.47000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 2.55000 GHz
Sweep 7.667 ms (1001 pts)
Frequency
Auto Tune
Center Freq
2.510000000 GHz
Start Freq
2.470000000 GHz
Stop Freq
2.550000000 GHz
CF Step
8.000000 MHz
Auto
Man
Freq Offset
0 Hz

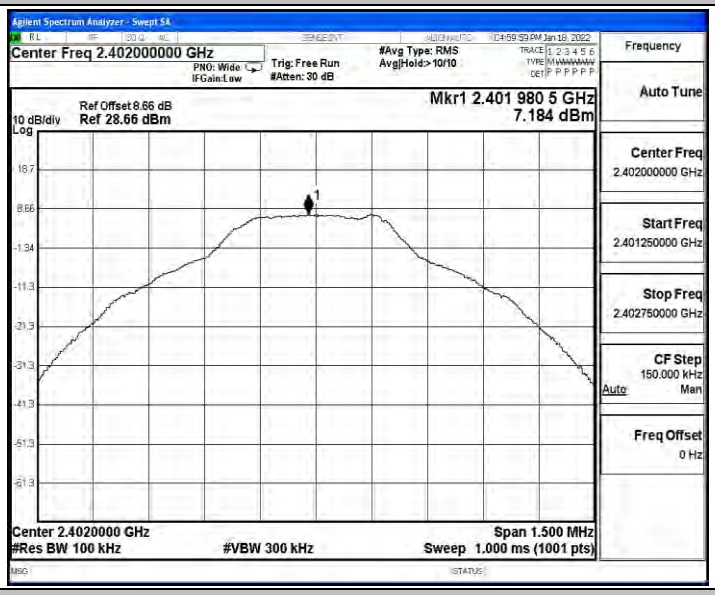
A.7 Conducted Spurious Emission

Test Result

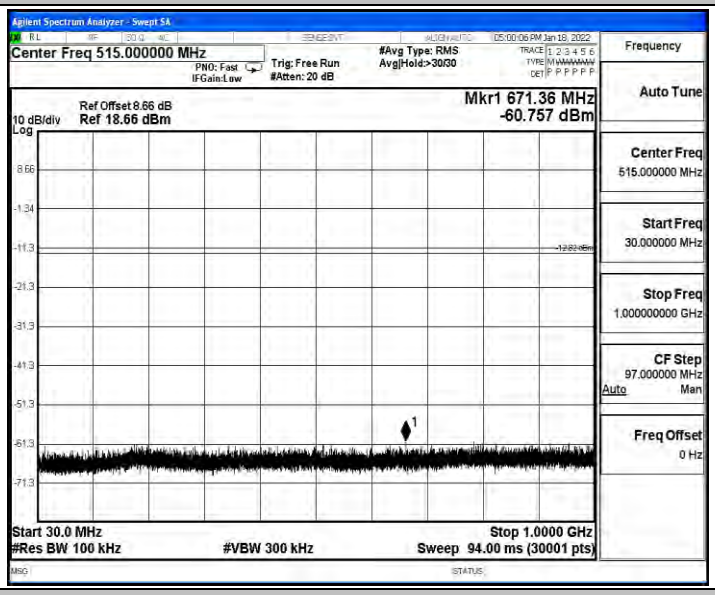
TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	Reference	7.18	7.18	---	PASS
			30~1000	7.18	-60.76	≤-12.82	PASS
			1000~26500	7.18	-45.54	≤-12.82	PASS
		2441	Reference	7.45	7.45	---	PASS
			30~1000	7.45	-60.72	≤-12.55	PASS
			1000~26500	7.45	-45.99	≤-12.55	PASS
		2480	Reference	7.13	7.13	---	PASS
			30~1000	7.13	-60.69	≤-12.87	PASS
			1000~26500	7.13	-46.16	≤-12.87	PASS
2DH5	Ant1	2402	Reference	7.02	7.02	---	PASS
			30~1000	7.02	-60.05	≤-12.98	PASS
			1000~26500	7.02	-46.16	≤-12.98	PASS
		2441	Reference	7.65	7.65	---	PASS
			30~1000	7.65	-60.48	≤-12.35	PASS
			1000~26500	7.65	-45.98	≤-12.35	PASS
		2480	Reference	7.29	7.29	---	PASS
			30~1000	7.29	-60.54	≤-12.71	PASS
			1000~26500	7.29	-46.2	≤-12.71	PASS
3DH5	Ant1	2402	Reference	7.28	7.28	---	PASS
			30~1000	7.28	-60.96	≤-12.72	PASS
			1000~26500	7.28	-45.5	≤-12.72	PASS
		2441	Reference	7.64	7.64	---	PASS
			30~1000	7.64	-60.79	≤-12.36	PASS
			1000~26500	7.64	-43.17	≤-12.36	PASS
		2480	Reference	7.18	7.18	---	PASS
			30~1000	7.18	-60.84	≤-12.82	PASS
			1000~26500	7.18	-45.82	≤-12.82	PASS

Test Graphs

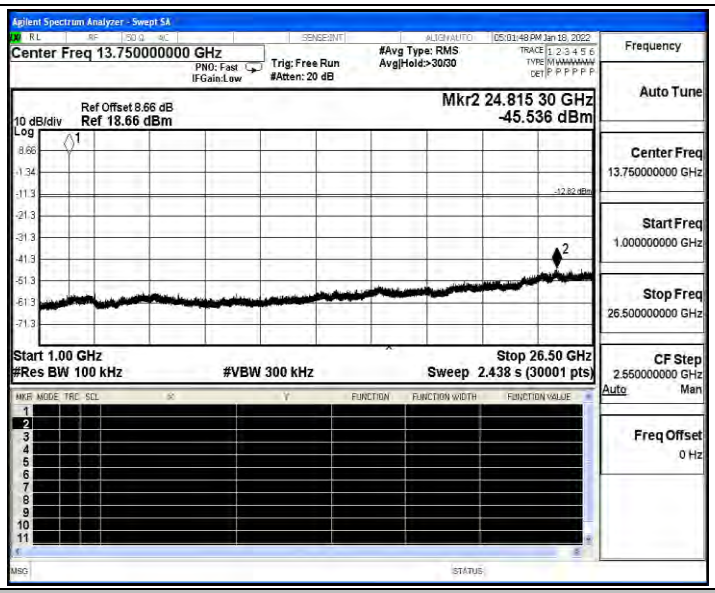
DH5_Ant1_2402_0~Reference



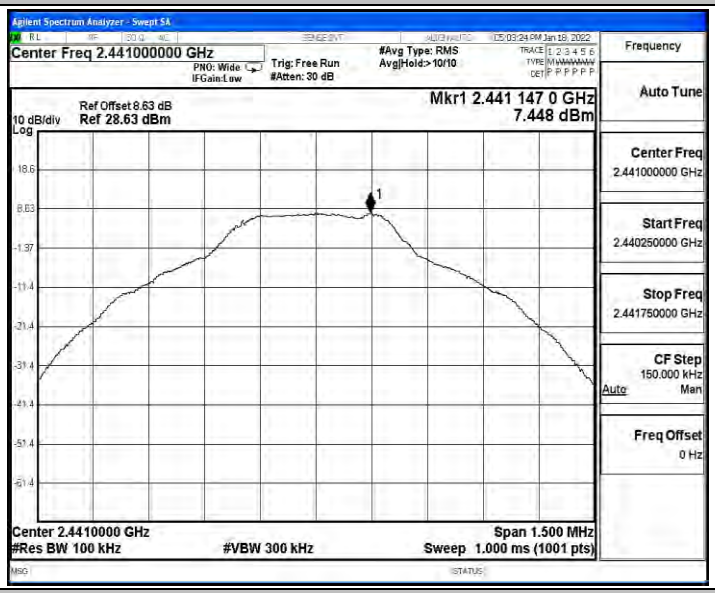
DH5_Ant1_2402_30~1000



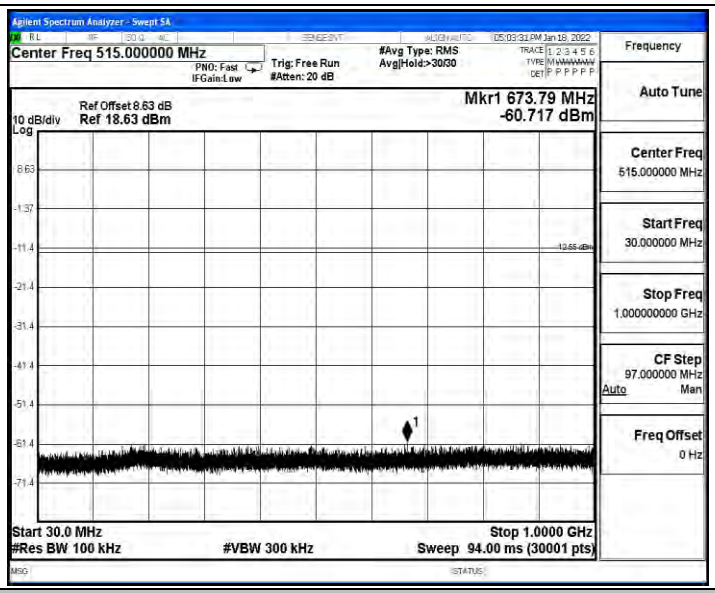
DH5_Ant1_2402_1000~26500



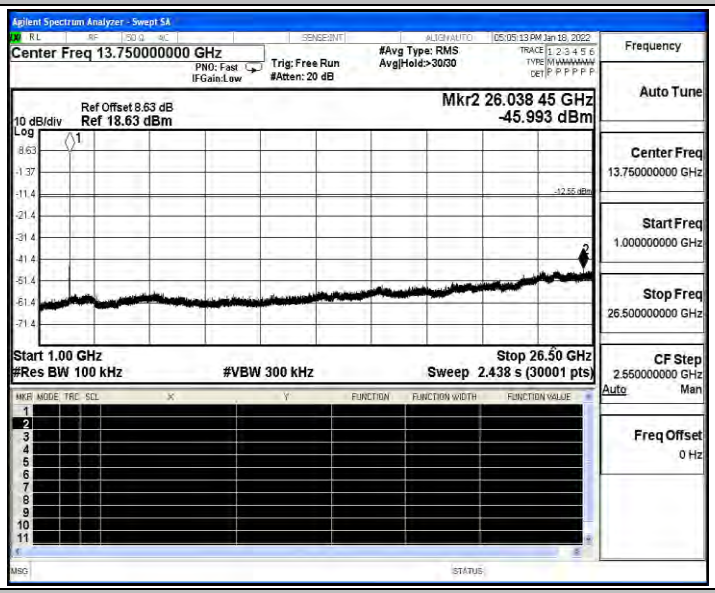
DH5_Ant1_2441_0~Reference



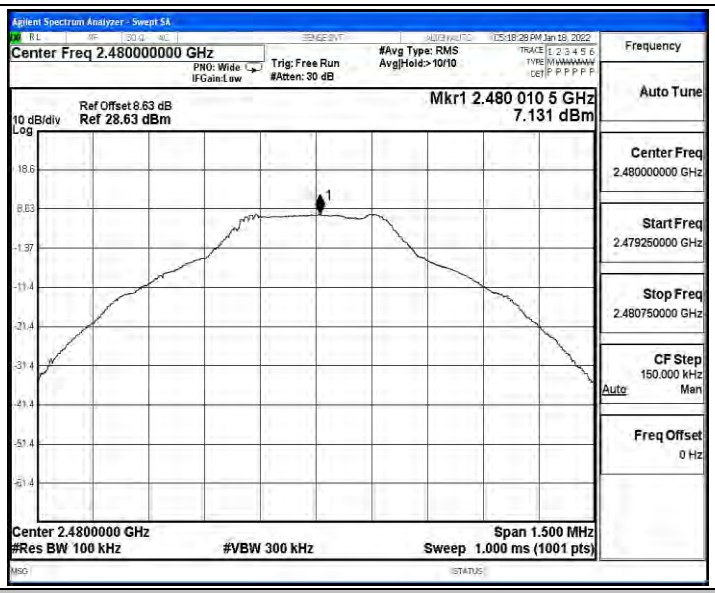
DH5_Ant1_2441_30~1000



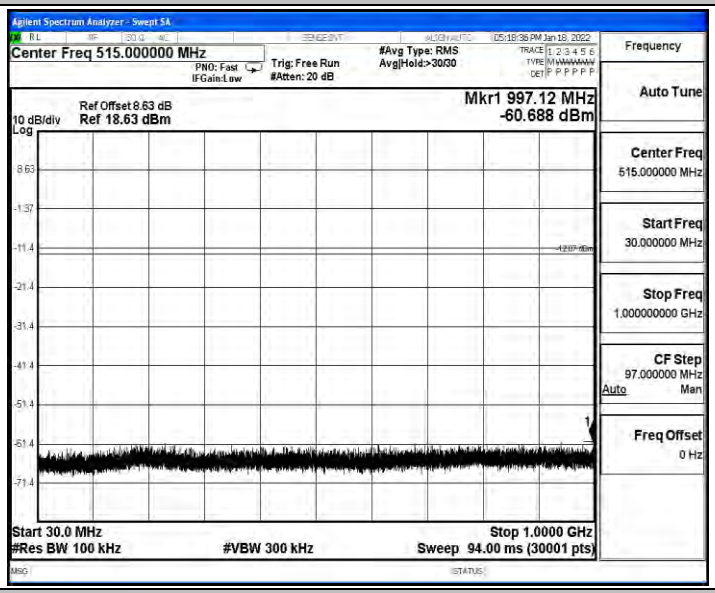
DH5_Ant1_2441_1000~26500



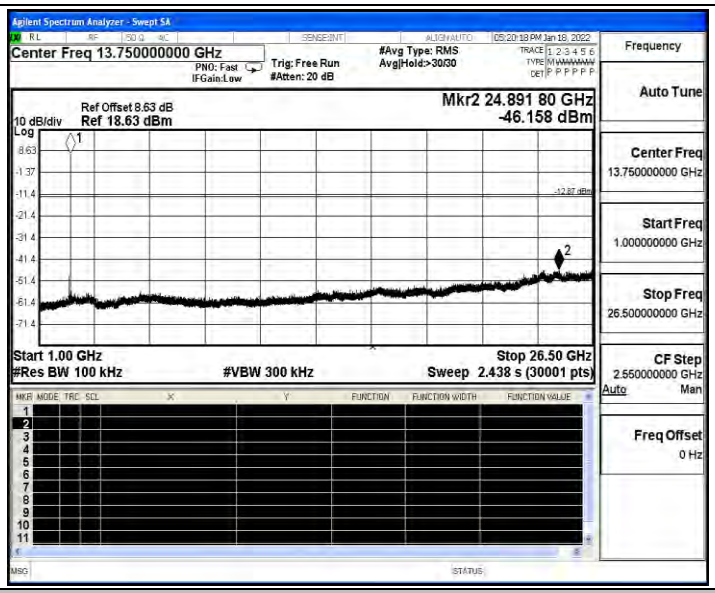
DH5_Ant1_2480_0~Reference



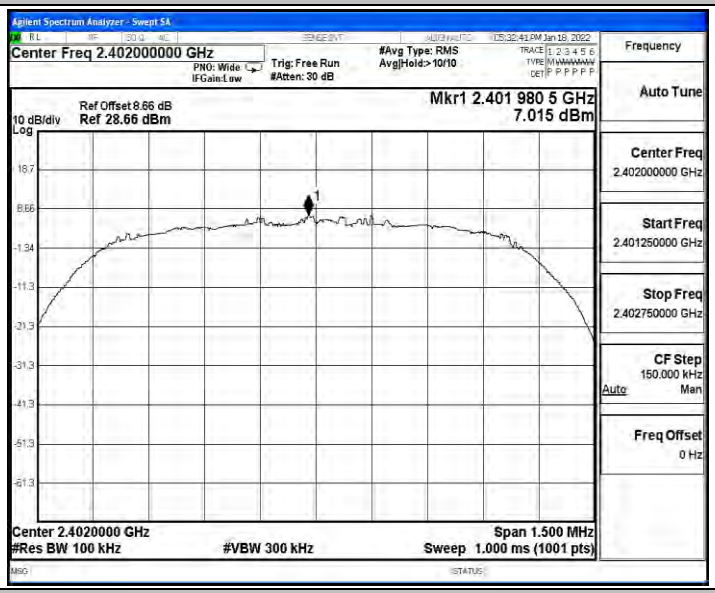
DH5_Ant1_2480_30~1000



DH5_Ant1_2480_1000~26500



2DH5_Ant1_2402_0~Reference



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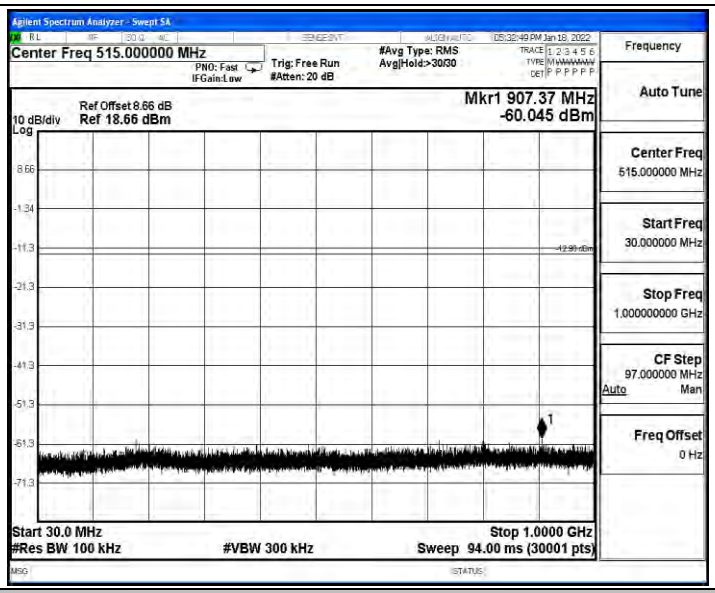

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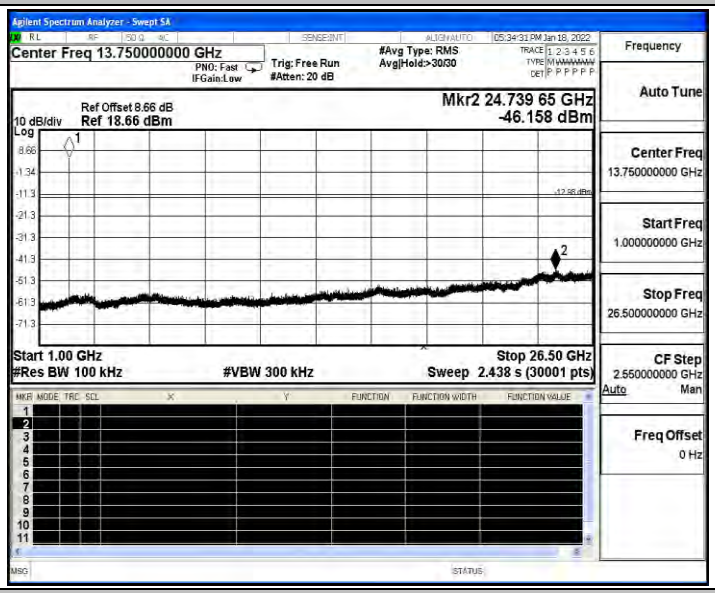

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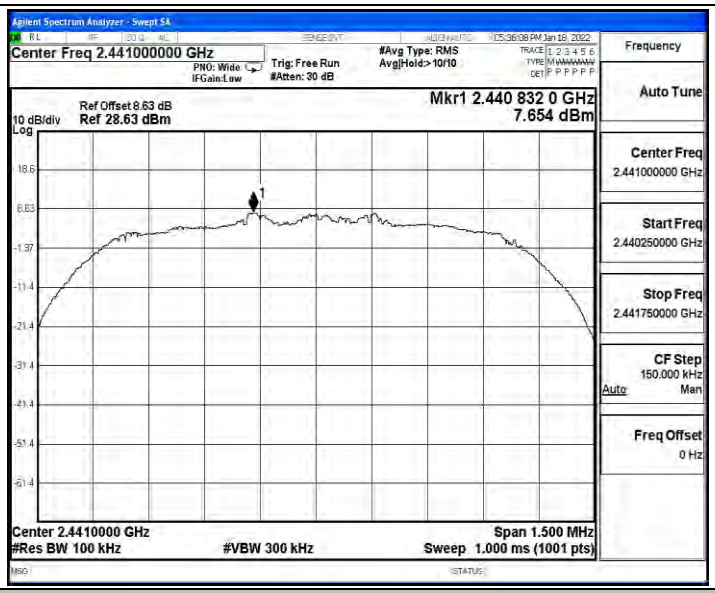

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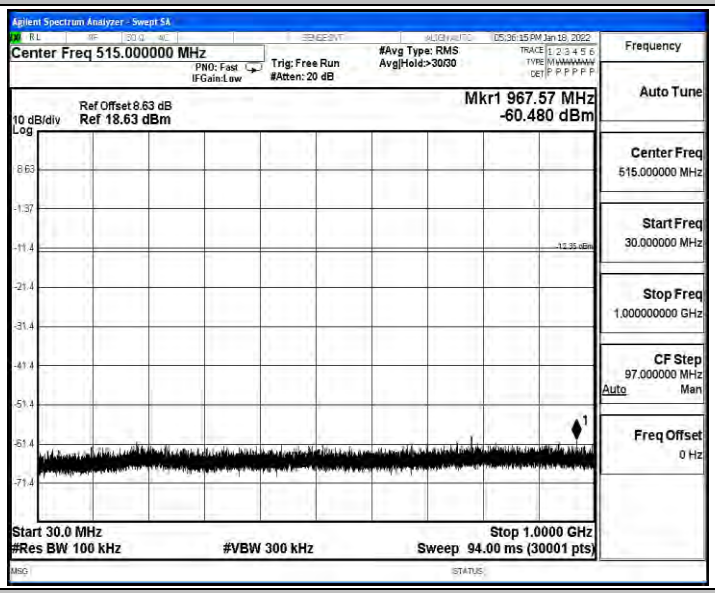

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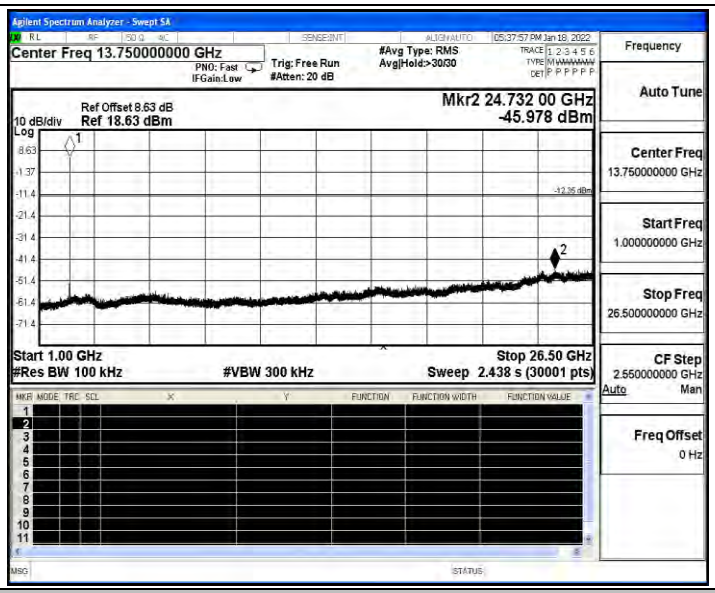

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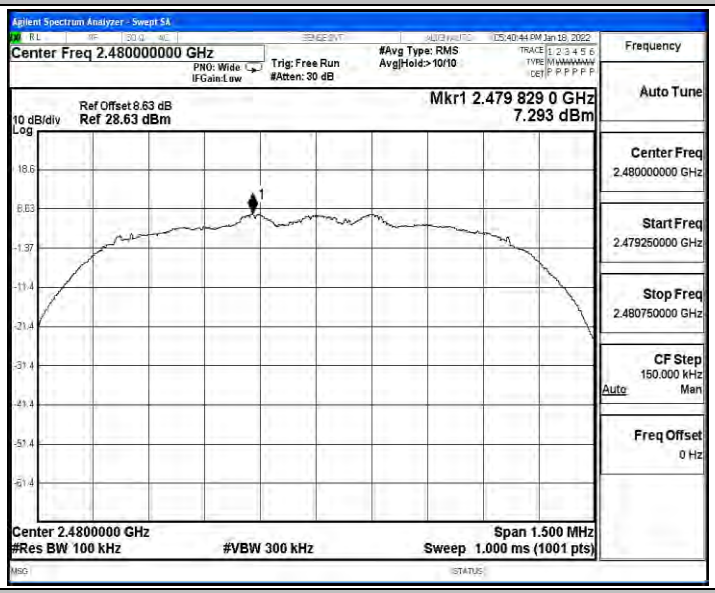

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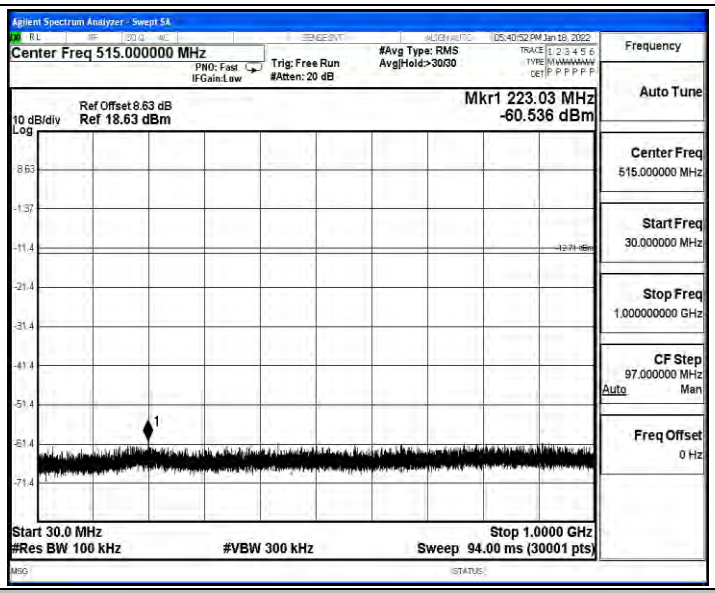

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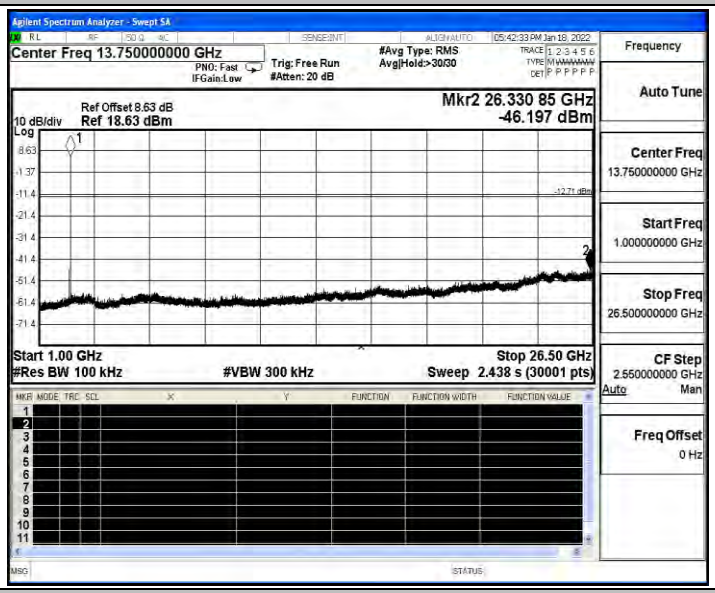
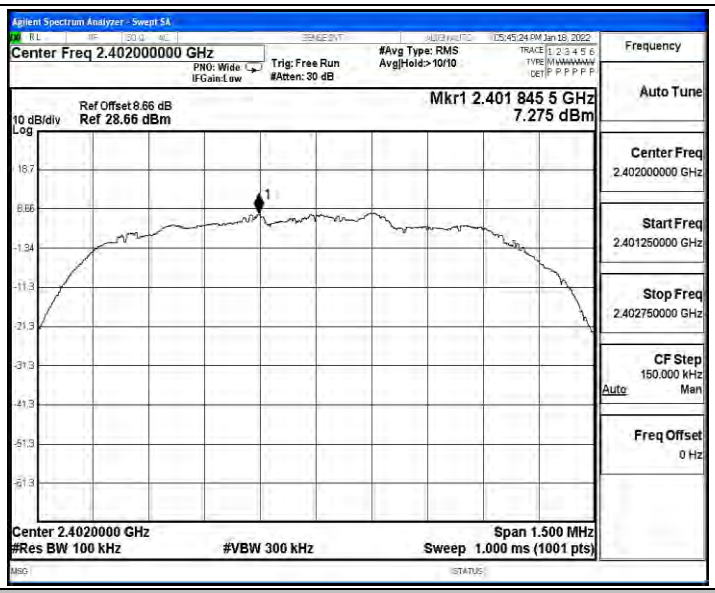
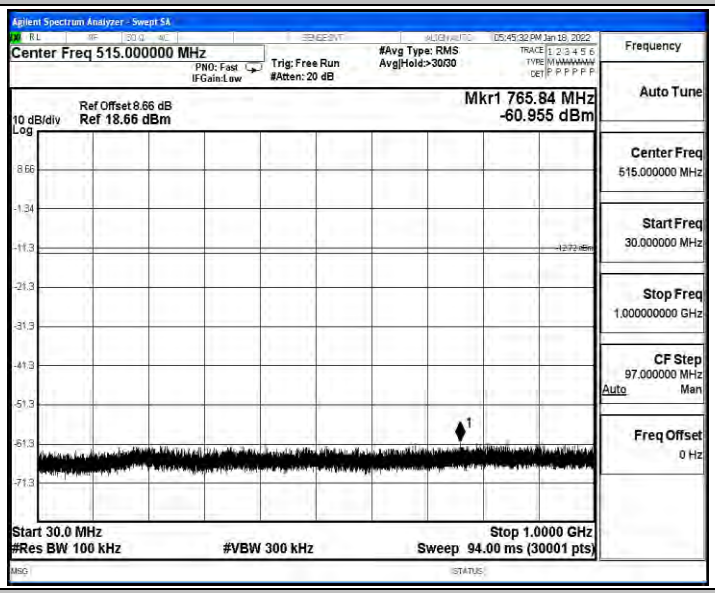


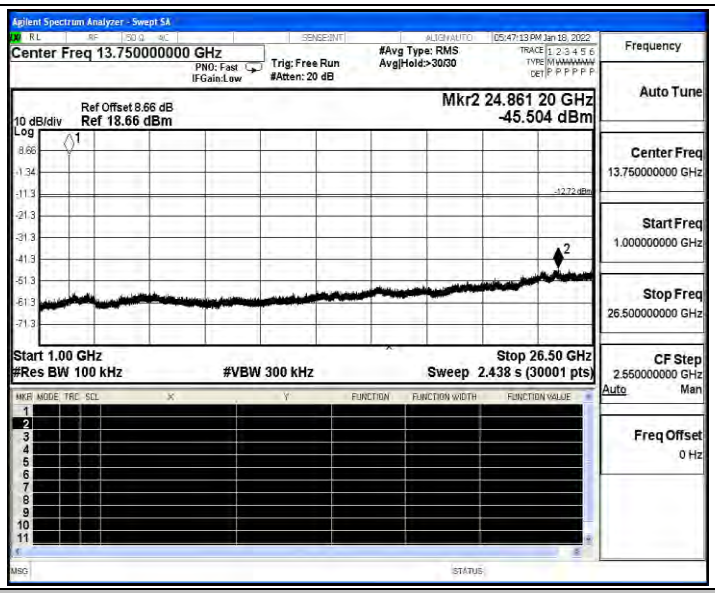
3DH5_Ant1_2402_0~Reference



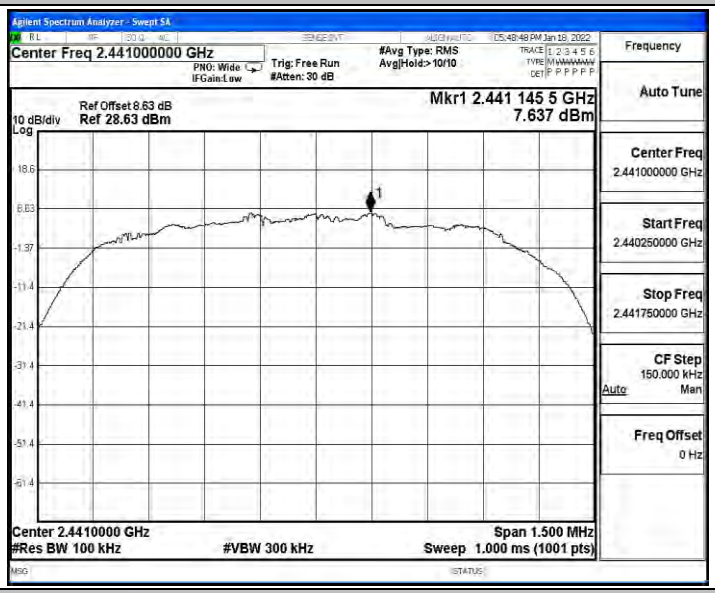
3DH5_Ant1_2402_30~1000



3DH5_Ant1_2402_1000~26500



3DH5_Ant1_2441_0~Reference



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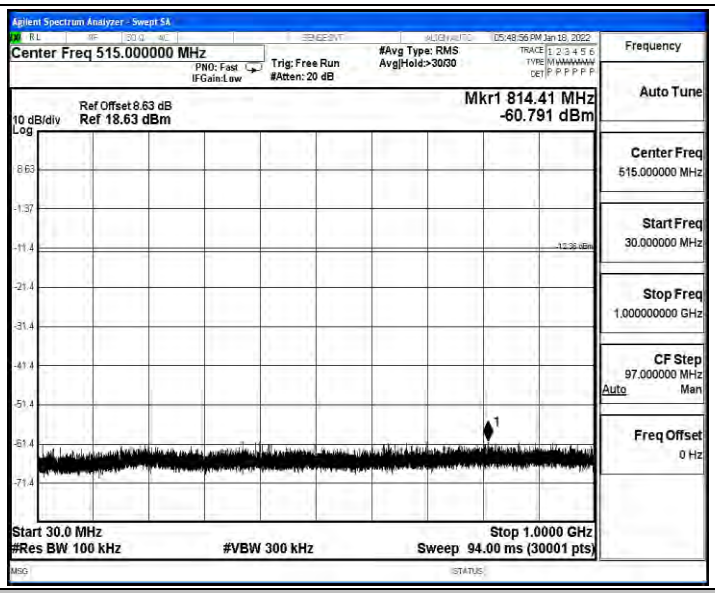

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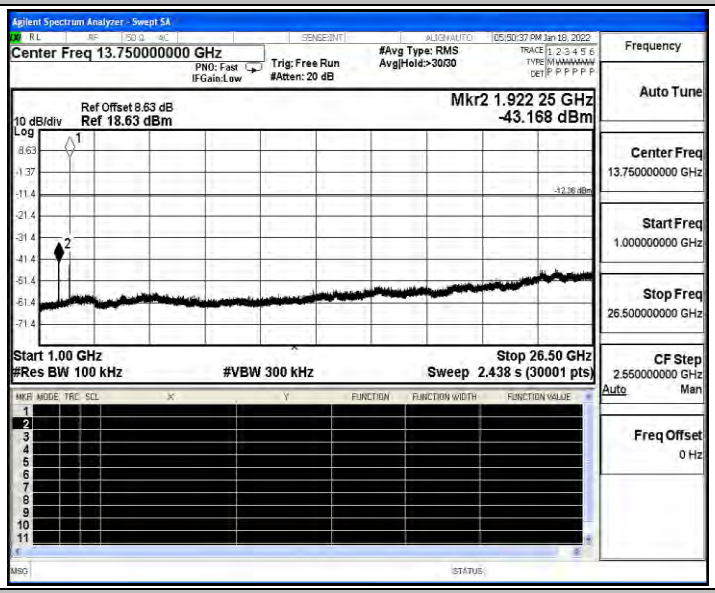

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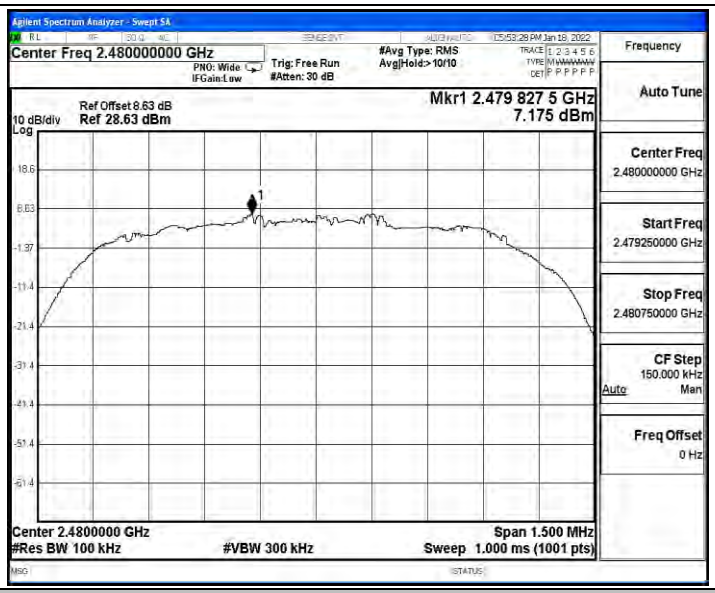
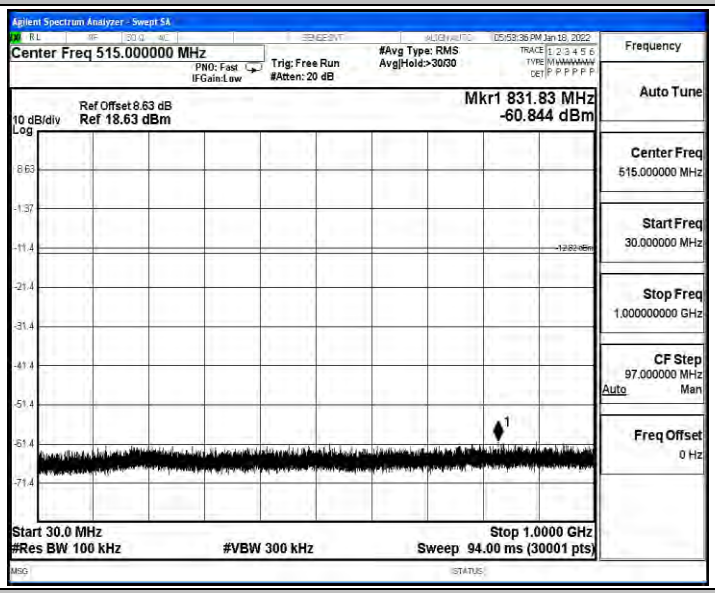
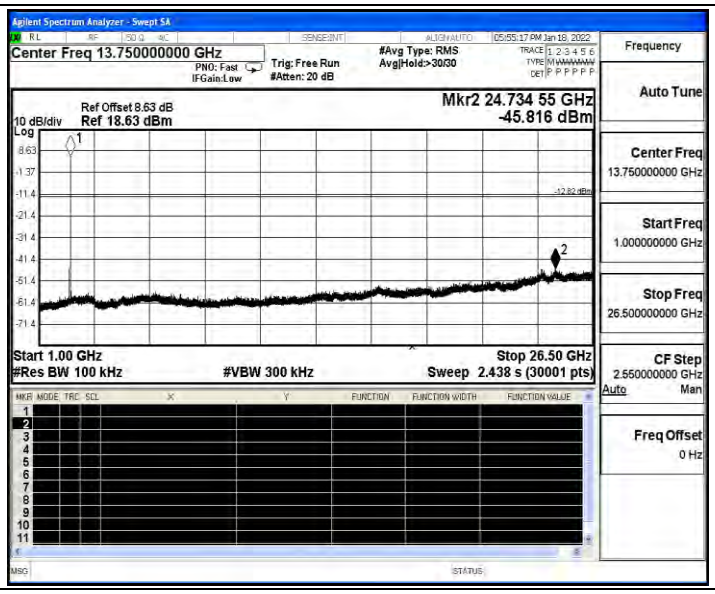


3DH5_Ant1_2480_30~1000



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:>30/30
05:55:17 PM Jan 18, 2022
Frequency
Auto Tune
Ref Offset 8.63 dB
10 dB/div Ref 18.63 dBm
Log
Mkr2 24.734 55 GHz
-45.816 dBm
Center Freq
13.750000000 GHz
Start Freq
1.000000000 GHz
Stop Freq
26.500000000 GHz
Start 1.00 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 26.50 GHz
Sweep 2.438 s (30001 pts)
CF Step
2.550000000 GHz
Auto
Man
Freq Offset
0 Hz
MKR MODE TRC SCL X Y FUNCTION FUNCTION WIDTH FUNCTION VALUE
MSG
STATUS

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	-48.38	≤-41.20	46.82	≤54	PASS
				AV	2385.155	-47.74	≤-41.20	47.46	≤54	PASS
				AV	2390.000	-47.85	≤-41.20	47.35	≤54	PASS
				Peak	2310.000	-38.74	≤-21.20	56.46	≤74	PASS
				Peak	2383.475	-36.8	≤-21.20	58.40	≤74	PASS
				Peak	2390.000	-38.08	≤-21.20	57.12	≤74	PASS
		High	2480	AV	2483.500	-45.82	≤-41.20	49.38	≤54	PASS
				AV	2483.520	-45.82	≤-41.20	49.38	≤54	PASS
				AV	2500.000	-47.38	≤-41.20	47.82	≤54	PASS
				Peak	2483.500	-36.75	≤-21.20	58.45	≤74	PASS
				Peak	2485.280	-35.69	≤-21.20	59.51	≤74	PASS
				Peak	2500.000	-37.84	≤-21.20	57.36	≤74	PASS
		Low	Hop_2402	Peak	2310.000	-38.97	≤-21.20	56.23	≤74	PASS
				Peak	2372.240	-37.34	≤-21.20	57.86	≤74	PASS
				Peak	2390.000	-38.6	≤-21.20	56.60	≤74	PASS
		High	Hop_2480	Peak	2483.500	-37.95	≤-21.20	57.25	≤74	PASS
				Peak	2486.240	-36.77	≤-21.20	58.43	≤74	PASS
				Peak	2500.000	-37.99	≤-21.20	57.21	≤74	PASS
2DH5	Ant1	Low	2402	AV	2310.000	-48.38	≤-41.20	46.82	≤54	PASS
				AV	2385.785	-47.75	≤-41.20	47.45	≤54	PASS
				AV	2390.000	-47.78	≤-41.20	47.42	≤54	PASS
				Peak	2310.000	-39.22	≤-21.20	55.98	≤74	PASS
				Peak	2350.715	-36.26	≤-21.20	58.94	≤74	PASS
				Peak	2390.000	-38.34	≤-21.20	56.86	≤74	PASS
		High	2480	AV	2483.500	-45.17	≤-41.20	50.03	≤54	PASS
				AV	2483.520	-45.16	≤-41.20	50.04	≤54	PASS
				AV	2500.000	-47.37	≤-41.20	47.83	≤54	PASS
				Peak	2483.500	-37.3	≤-21.20	57.90	≤74	PASS
				Peak	2484.880	-35.91	≤-21.20	59.29	≤74	PASS
				Peak	2500.000	-37.71	≤-21.20	57.49	≤74	PASS
		Low	Hop_2402	Peak	2310.000	-39.64	≤-21.20	55.56	≤74	PASS
				Peak	2373.605	-37.04	≤-21.20	58.16	≤74	PASS
				Peak	2390.000	-39.25	≤-21.20	55.95	≤74	PASS
		High	Hop_24	Peak	2483.500	-38.01	≤-21.20	57.19	≤74	PASS

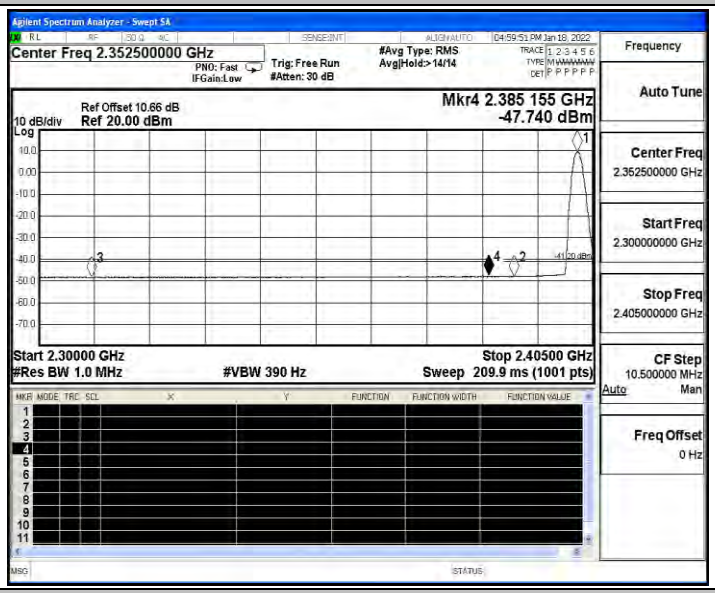
			80	Peak	2500.000	-36.61	≤-21.20	58.59	≤74	PASS
3DH5	Ant1	Low	2402	AV	2310.000	-48.42	≤-41.20	46.78	≤54	PASS
				AV	2379.695	-47.71	≤-41.20	47.49	≤54	PASS
				AV	2390.000	-47.91	≤-41.20	47.29	≤54	PASS
				Peak	2310.000	-38.77	≤-21.20	56.43	≤74	PASS
				Peak	2368.460	-36.48	≤-21.20	58.72	≤74	PASS
				Peak	2390.000	-38.33	≤-21.20	56.87	≤74	PASS
		High	2480	AV	2483.500	-45.1	≤-41.20	50.10	≤54	PASS
				AV	2483.520	-45.1	≤-41.20	50.10	≤54	PASS
				AV	2500.000	-47.39	≤-41.20	47.81	≤54	PASS
				Peak	2483.500	-37.07	≤-21.20	58.13	≤74	PASS
				Peak	2484.880	-34.87	≤-21.20	60.33	≤74	PASS
				Peak	2500.000	-38.26	≤-21.20	56.94	≤74	PASS
		Low	Hop_2402	Peak	2310.000	-39.4	≤-21.20	55.80	≤74	PASS
				Peak	2380.535	-36.72	≤-21.20	58.48	≤74	PASS
				Peak	2390.000	-38.58	≤-21.20	56.62	≤74	PASS
		High	Hop_2480	Peak	2483.500	-37.96	≤-21.20	57.24	≤74	PASS
				Peak	2486.240	-36.46	≤-21.20	58.74	≤74	PASS
				Peak	2500.000	-37.81	≤-21.20	57.39	≤74	PASS

Note：

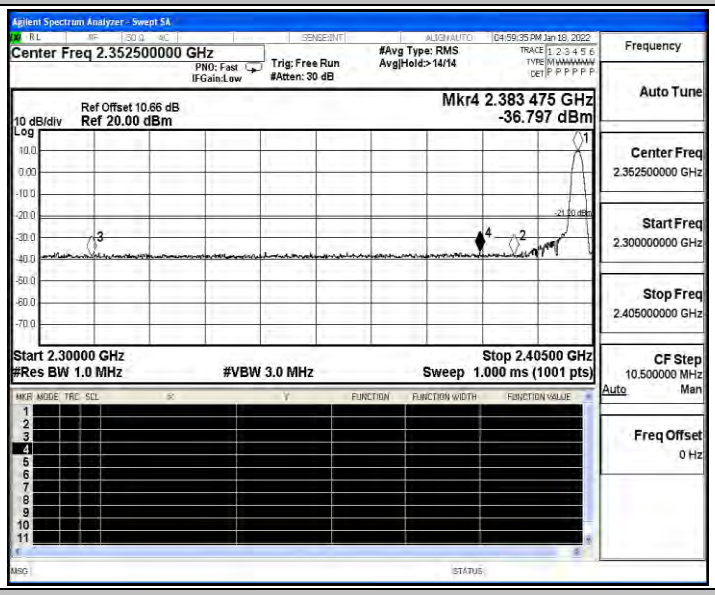
1. The Antenna Gain is compensated in the graph.
2. The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.

Test Graphs

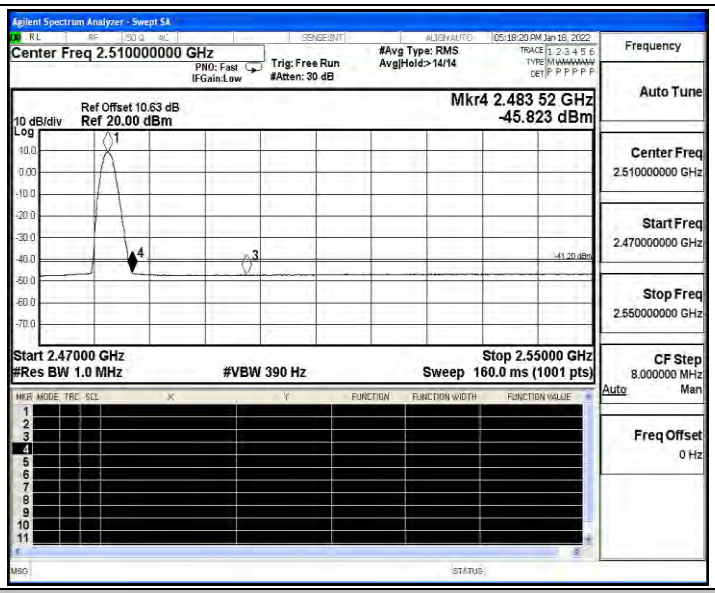
DH5_Ant1_Low_2402_AV



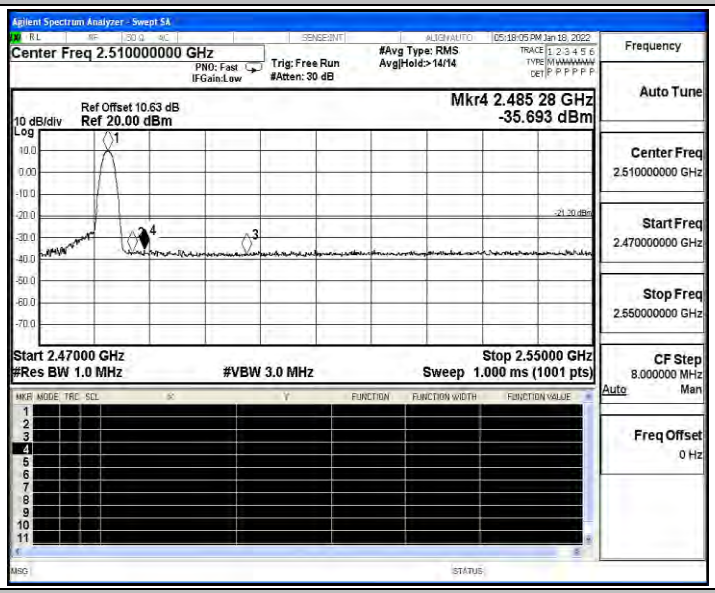
DH5_Ant1_Low_2402_Peak



DH5_Ant1_High_2480_AV



DH5_Ant1_High_2480_Peak



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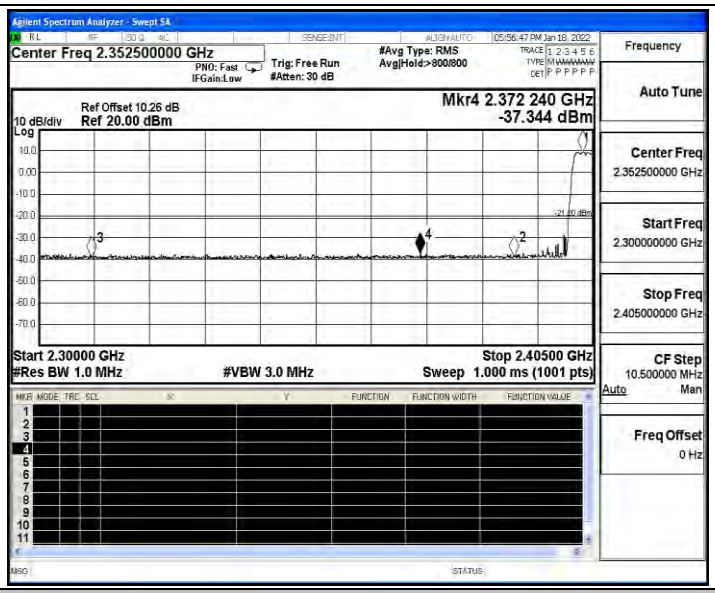

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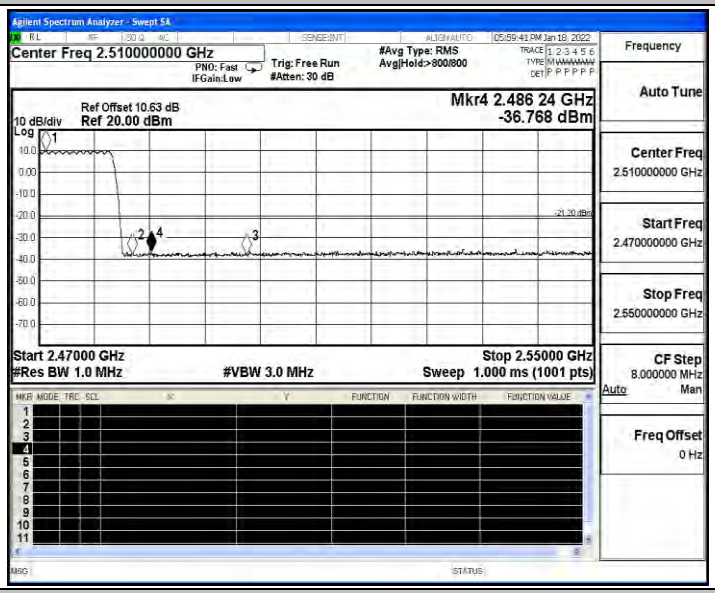

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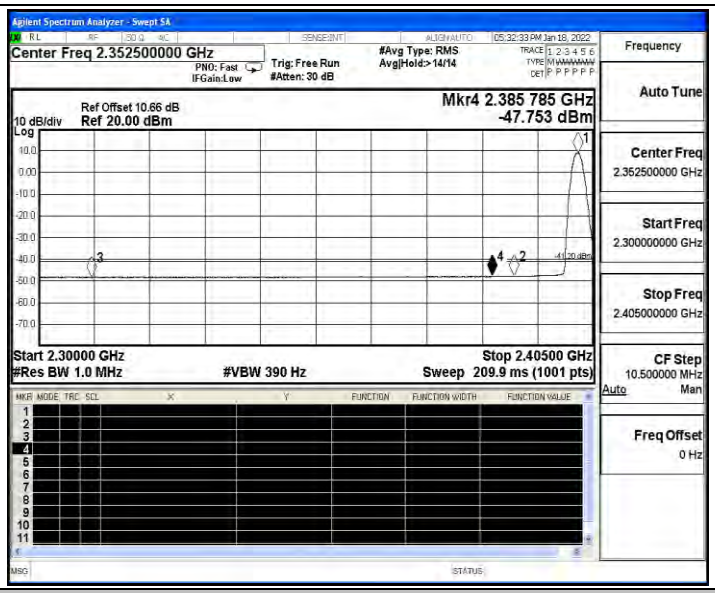

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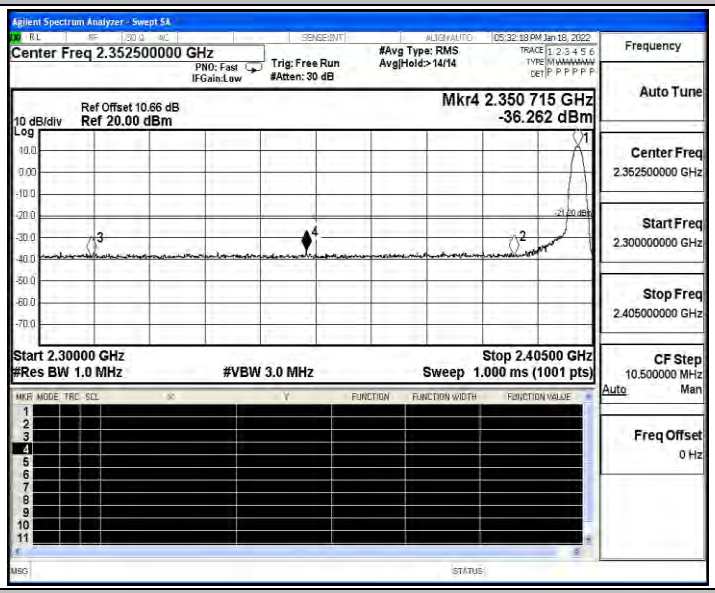

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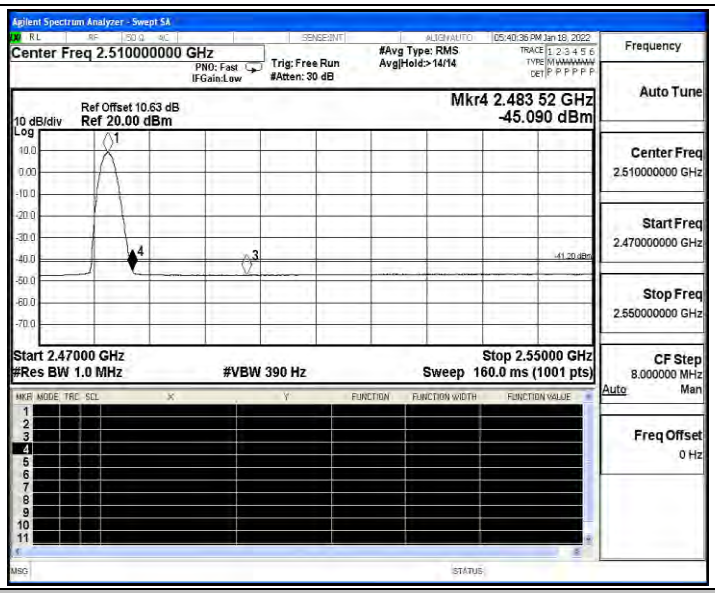

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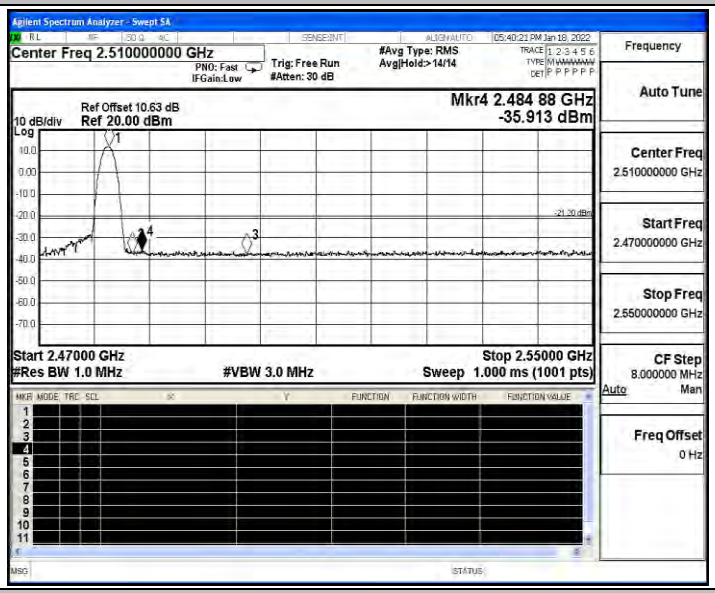

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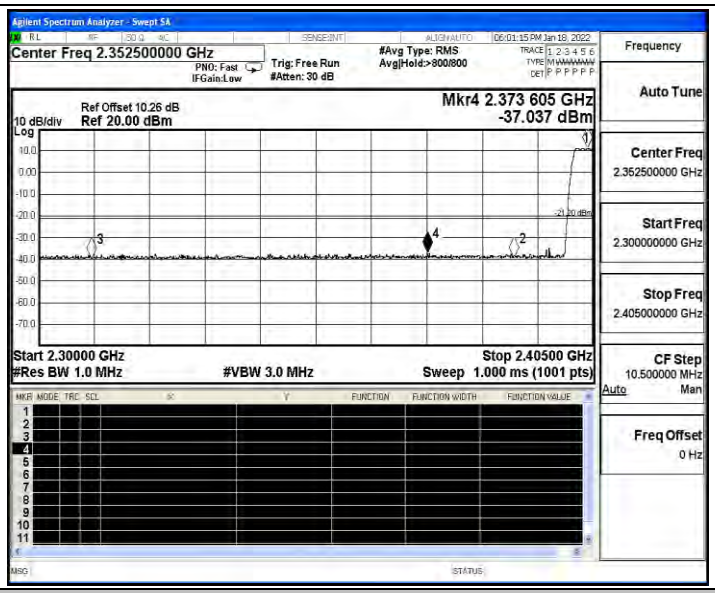

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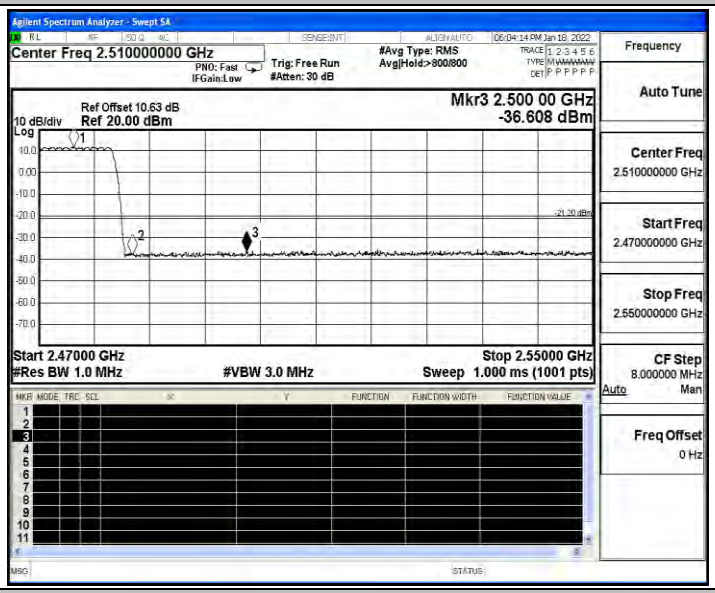
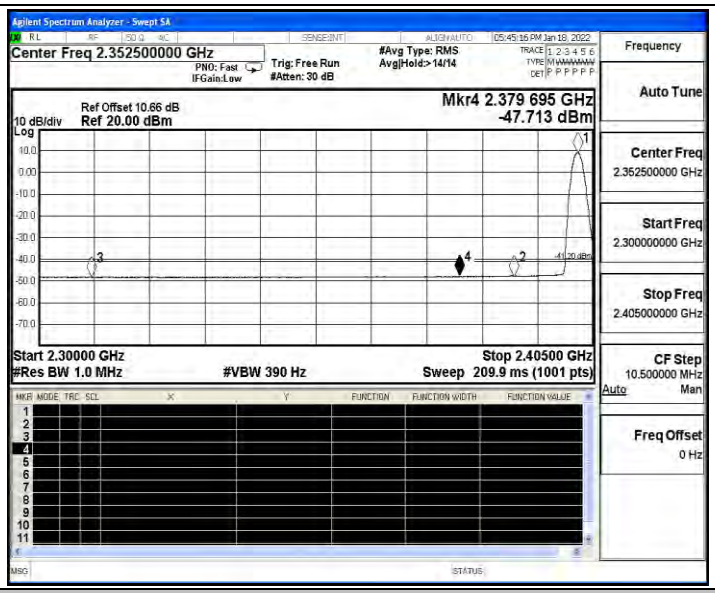


3DH5_Ant1_Low_2402_AV



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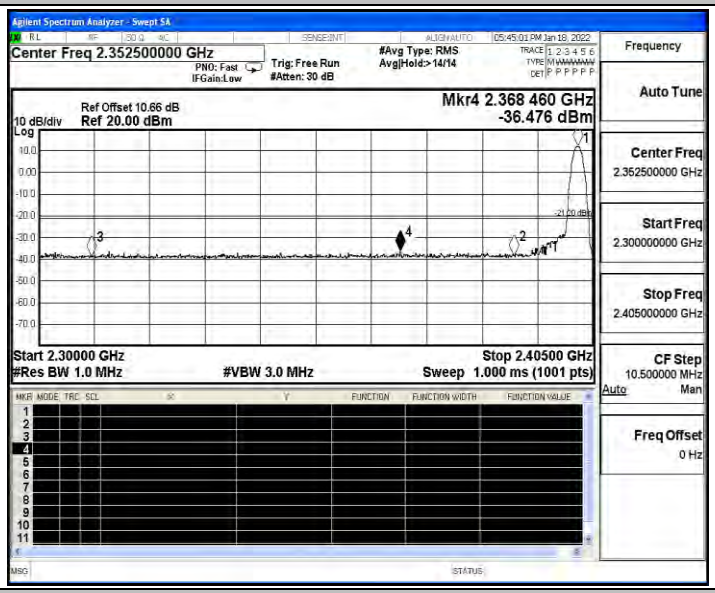

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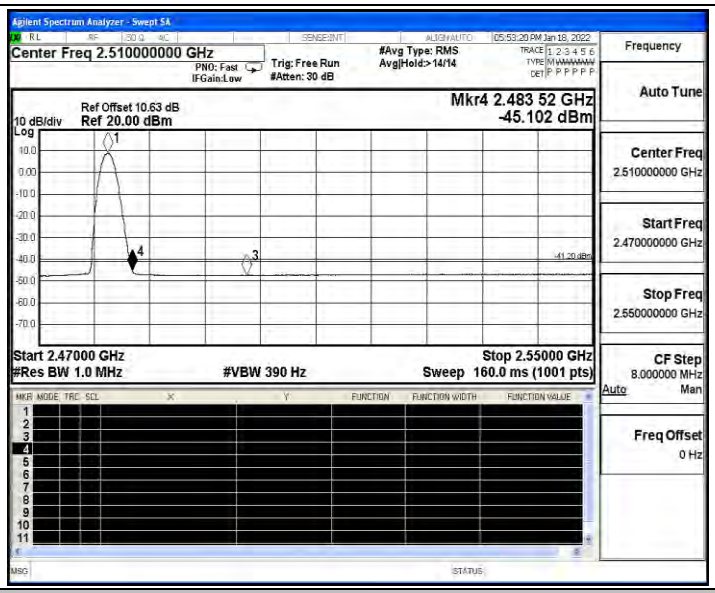

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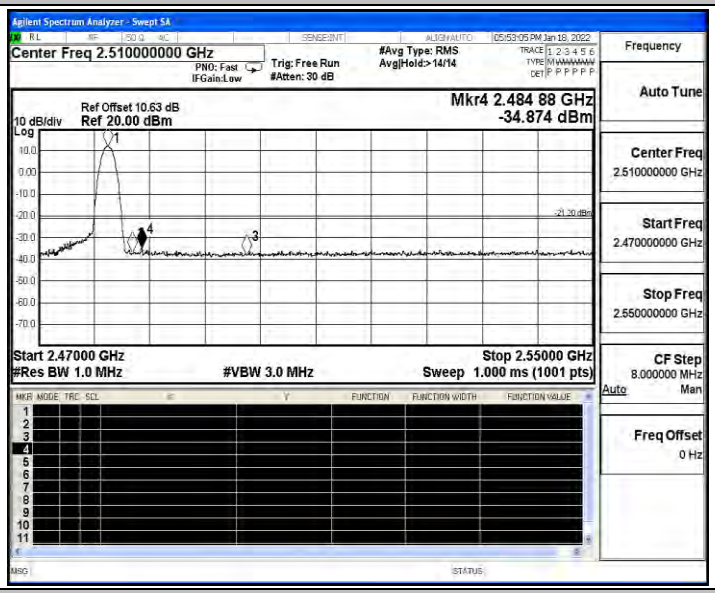

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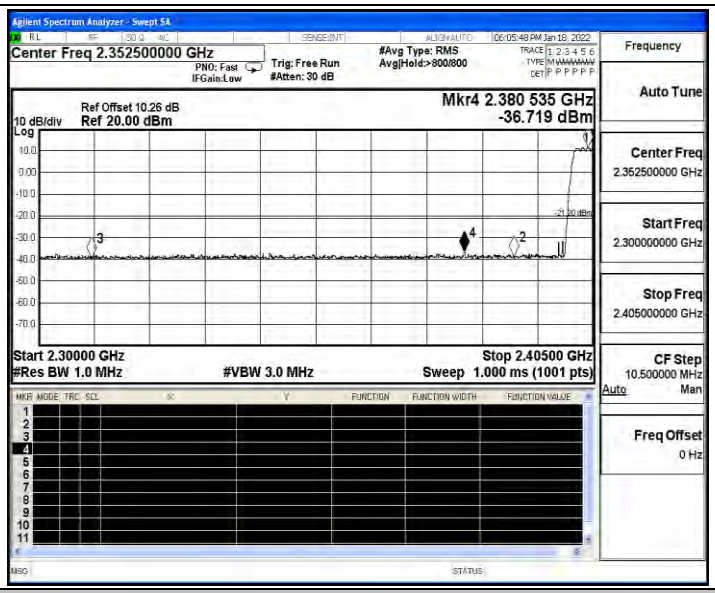
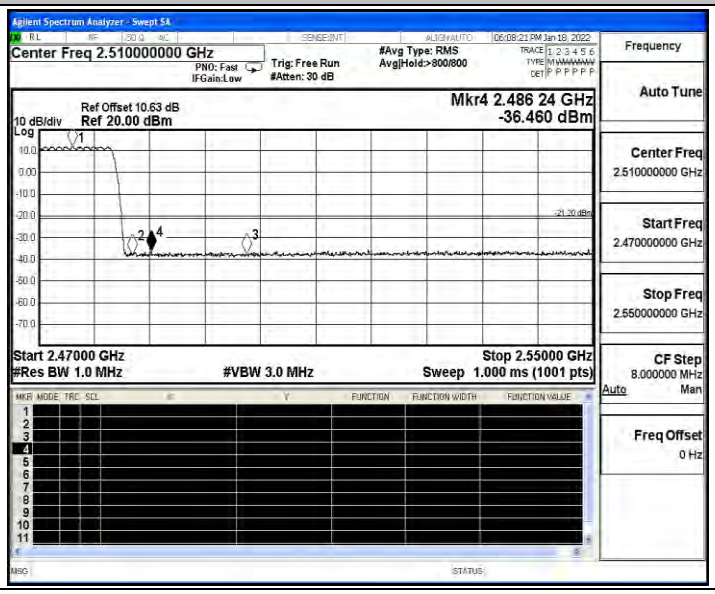
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