

Appendix A

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

Product Name: NucBox2

Trade Mark: GMK

Test Model: KB2

FCC ID: 2AXUD-KB2

Environmental Conditions

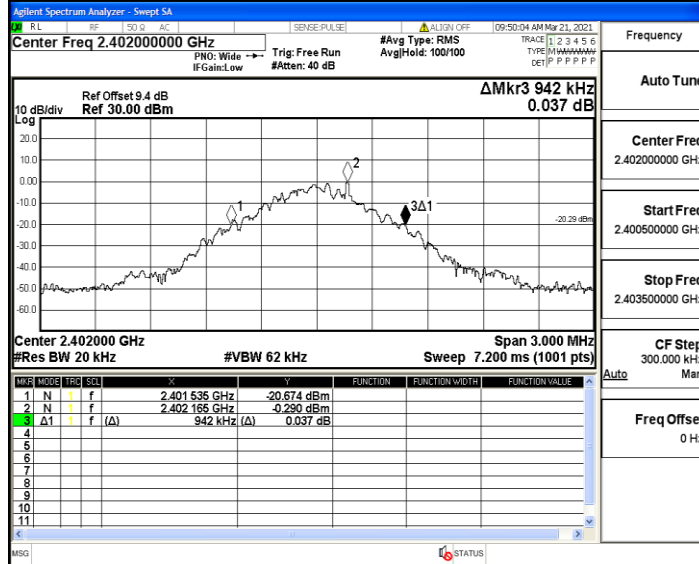
Temperature:	22.8° C
Relative Humidity:	50%
ATM Pressure:	100.0 kPa
Test Engineer:	Anna Hu
Supervised by:	Hugo Chen
NOTE	N/A

A.1 20 dB Bandwidth

TestMode	Antenna	Channel	20db EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.942	2401.535	2402.477	---	PASS
		2441	0.957	2440.532	2441.489	---	PASS
		2480	0.951	2479.532	2480.483	---	PASS
2DH5	Ant1	2402	1.314	2401.340	2402.654	---	PASS
		2441	1.317	2440.337	2441.654	---	PASS
		2480	1.320	2479.334	2480.654	---	PASS
3DH5	Ant1	2402	1.320	2401.328	2402.648	---	PASS
		2441	1.275	2440.346	2441.621	---	PASS
		2480	1.293	2479.334	2480.627	---	PASS

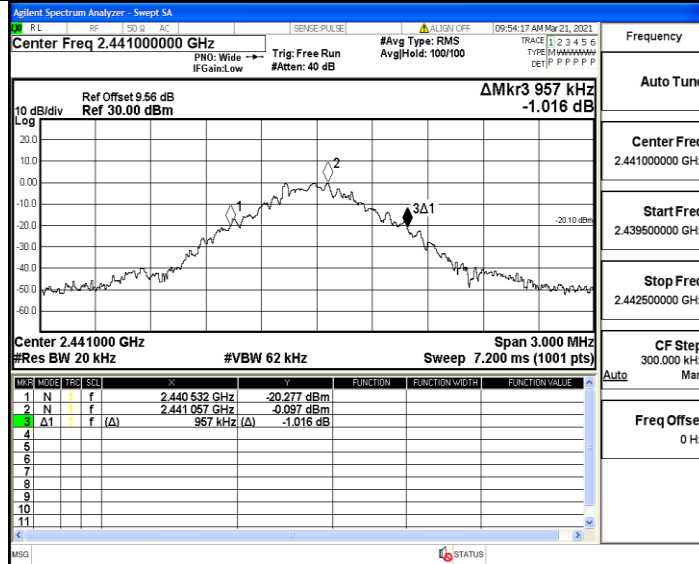
Test Graph

DH5_Ant1_2402



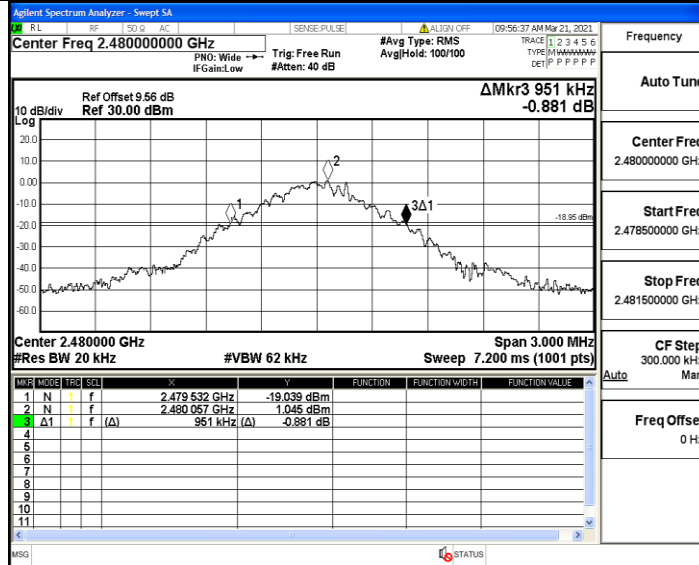
Frequency	Auto Tune
Center Freq	2.402000000 GHz
Start Freq	2.400500000 GHz
Stop Freq	2.403500000 GHz
CF Step	300.000 kHz
Freq Offset	0 Hz

DH5_Ant1_2441



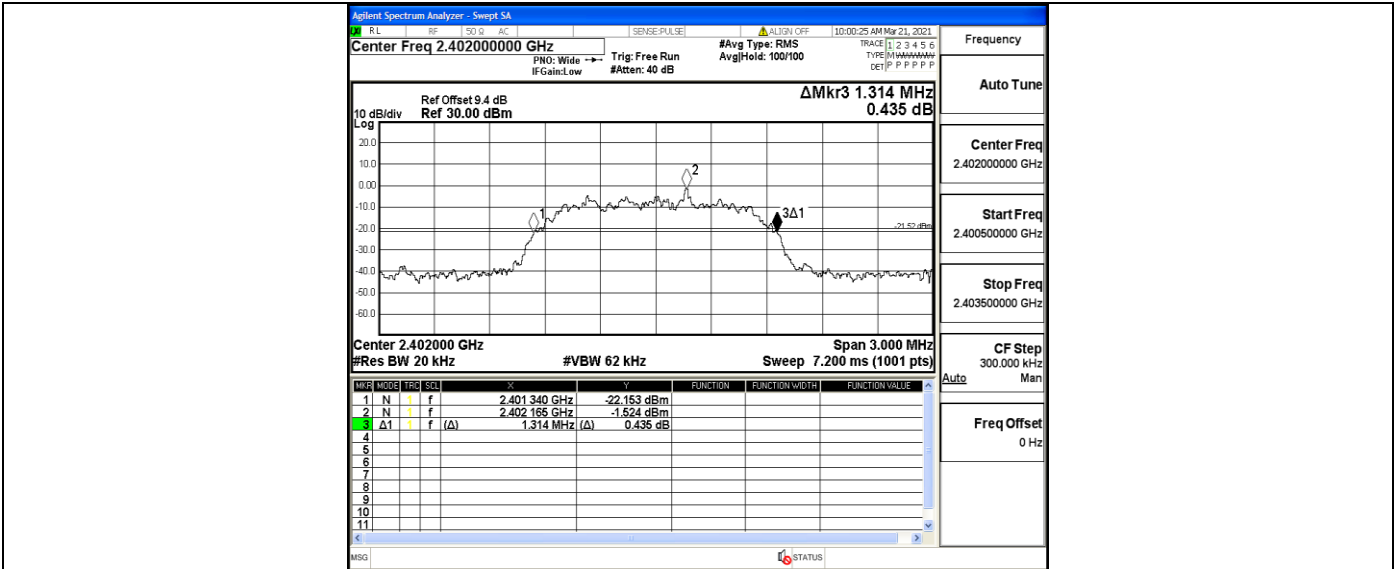
Frequency	Auto Tune
Center Freq	2.441000000 GHz
Start Freq	2.439500000 GHz
Stop Freq	2.442500000 GHz
CF Step	300.000 kHz
Freq Offset	0 Hz

DH5_Ant1_2480

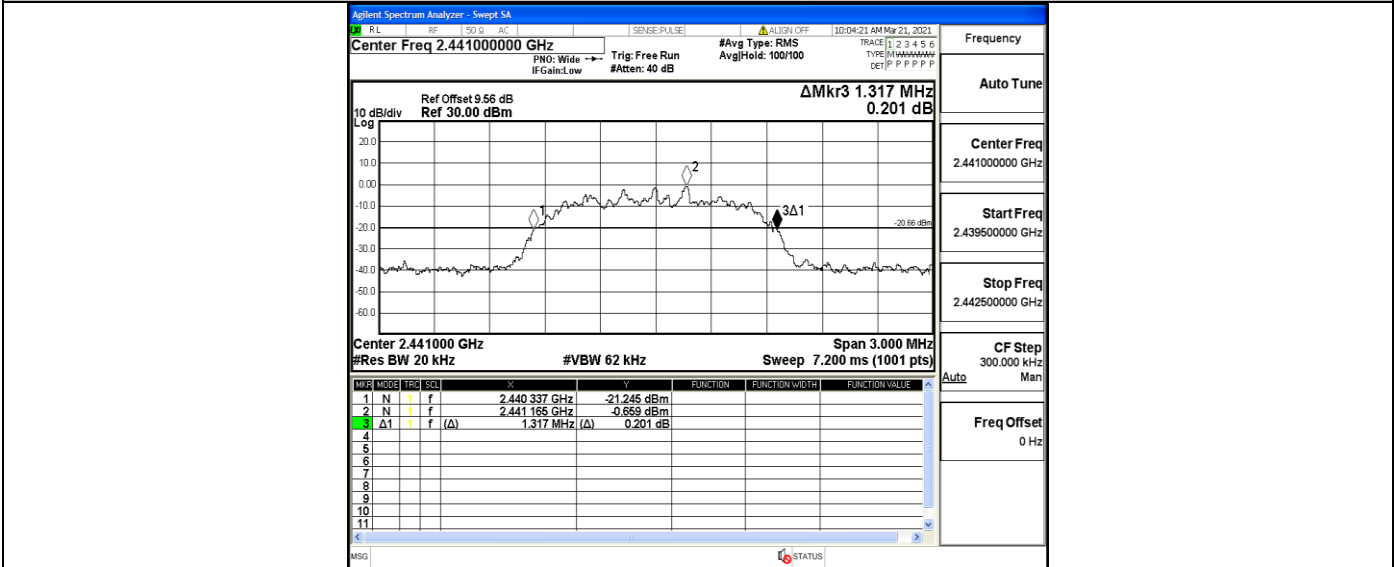


Frequency	Auto Tune
Center Freq	2.480000000 GHz
Start Freq	2.478500000 GHz
Stop Freq	2.481500000 GHz
CF Step	300.000 kHz
Freq Offset	0 Hz

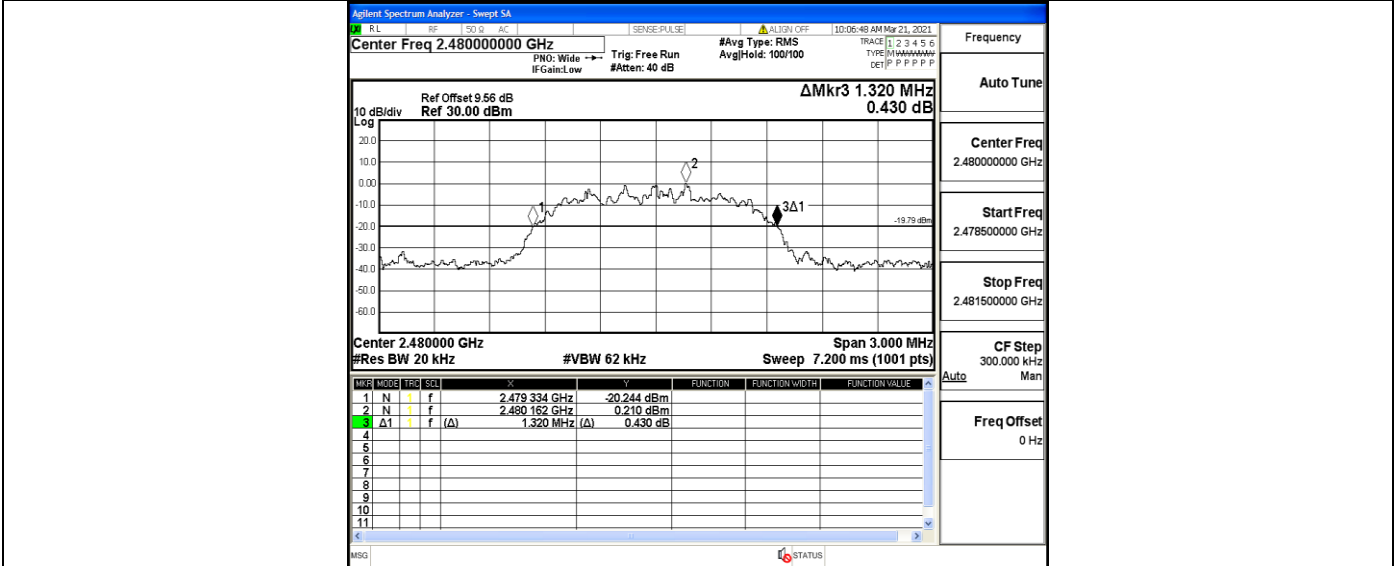
2DH5_Ant1_2402



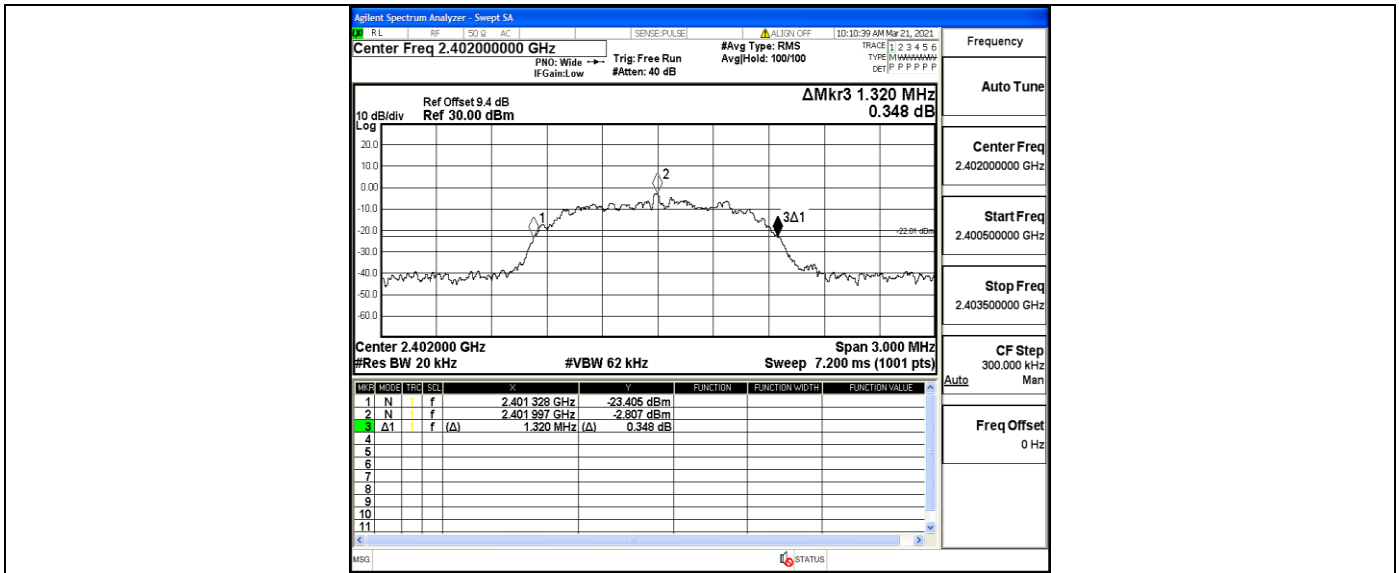
2DH5_Ant1_2441



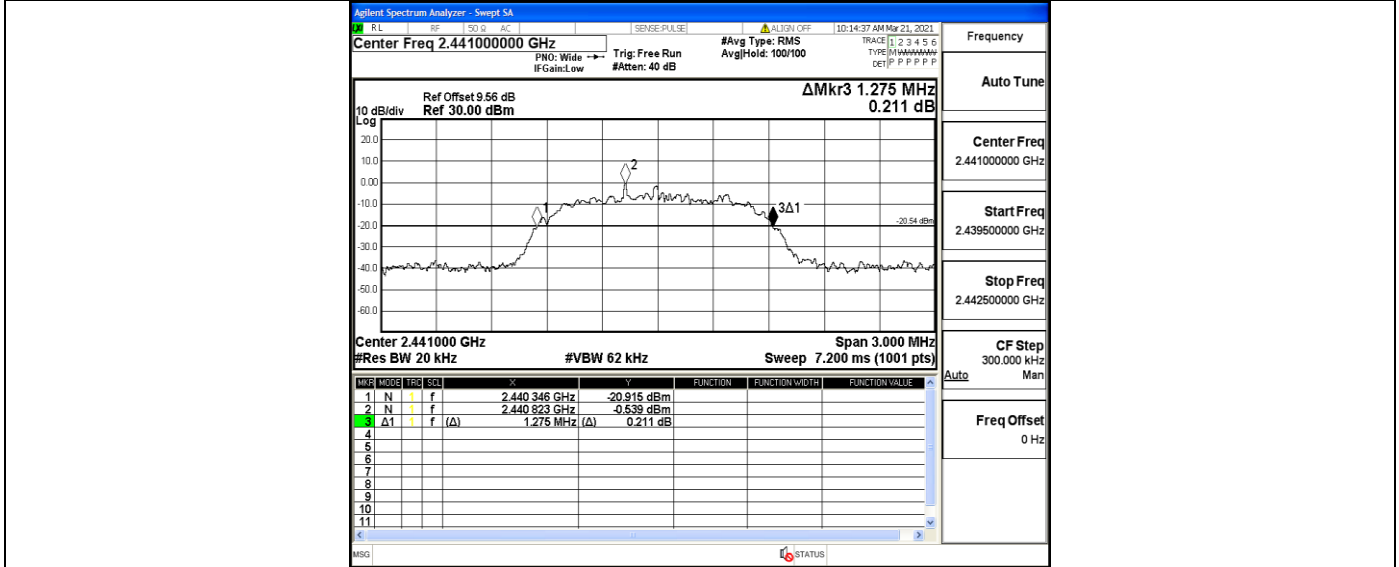
2DH5_Ant1_2480



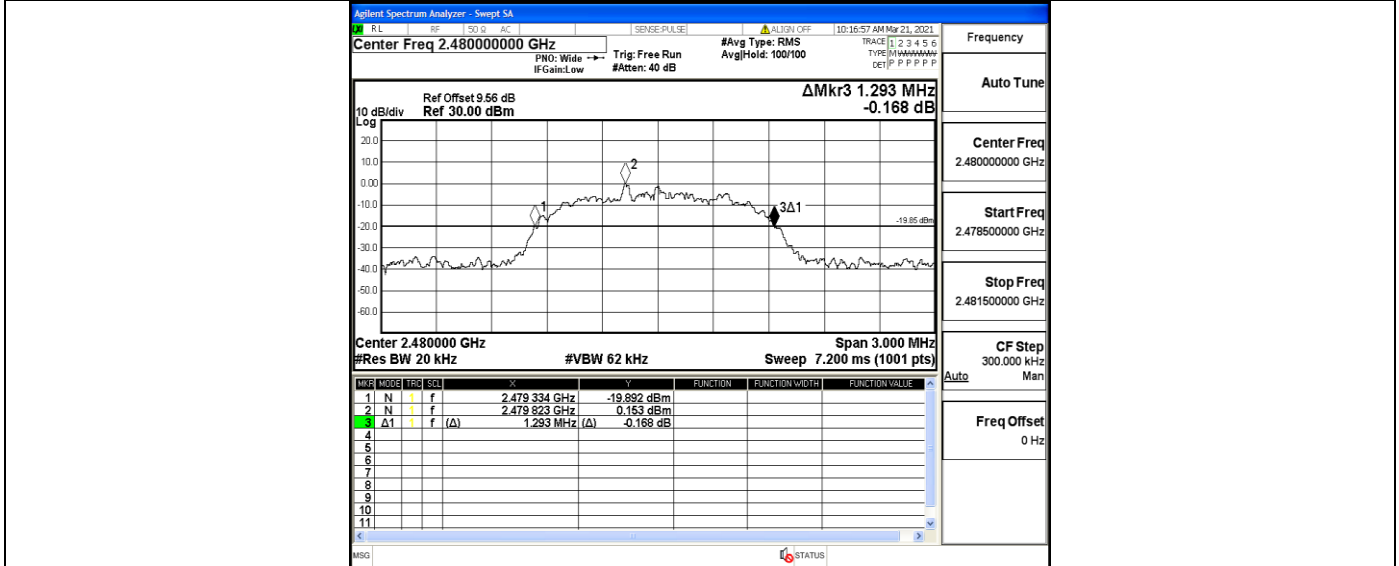
3DH5_Ant1_2402



3DH5_Ant1_2441



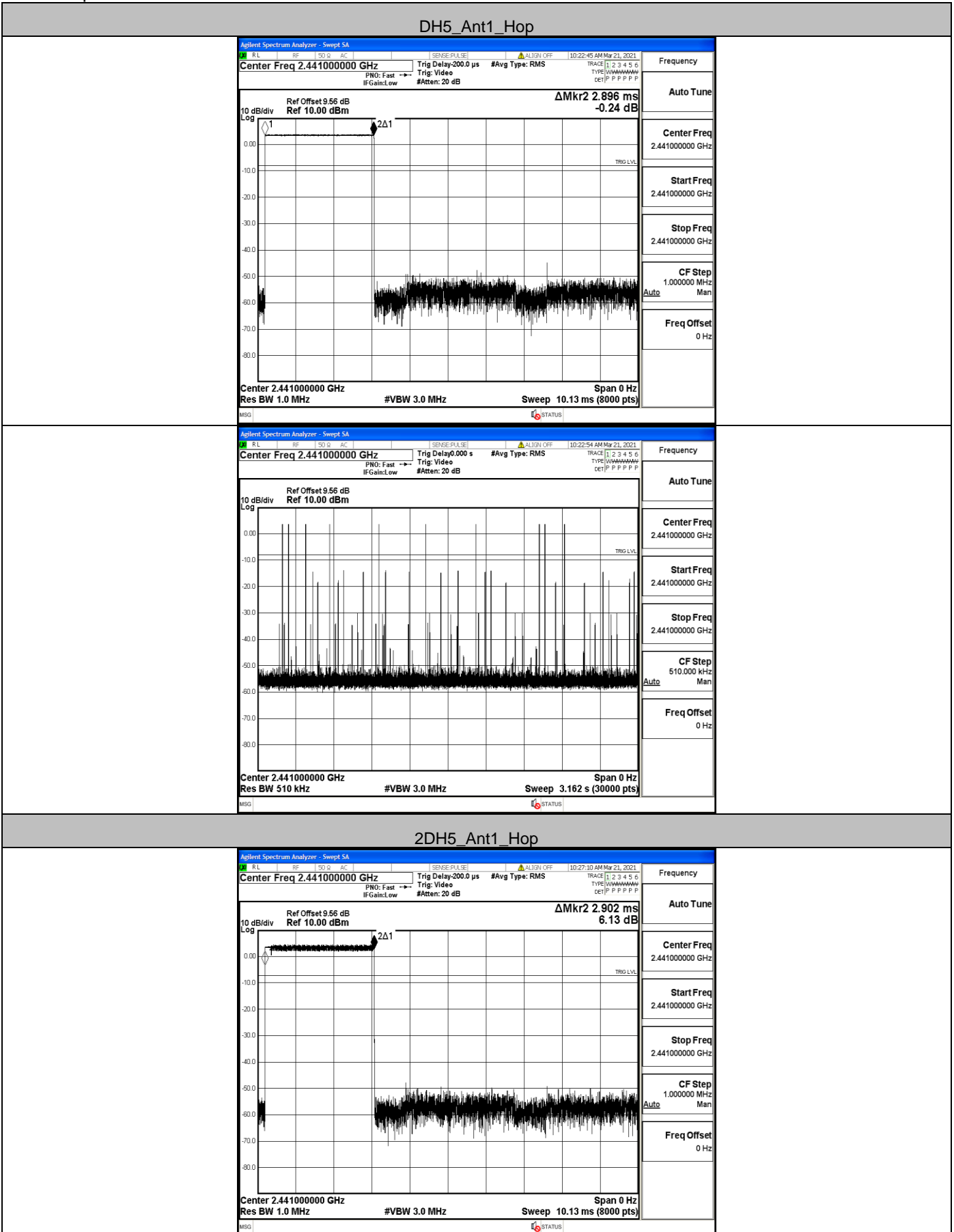
3DH5_Ant1_2480

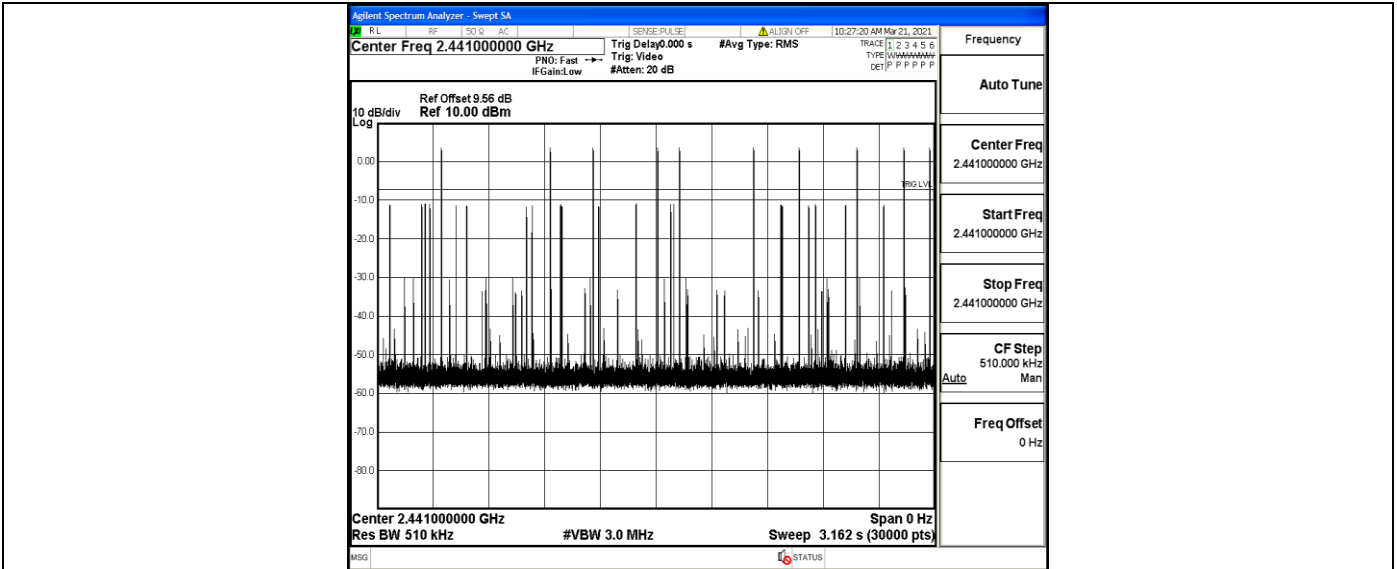


A.2 Dwell Time

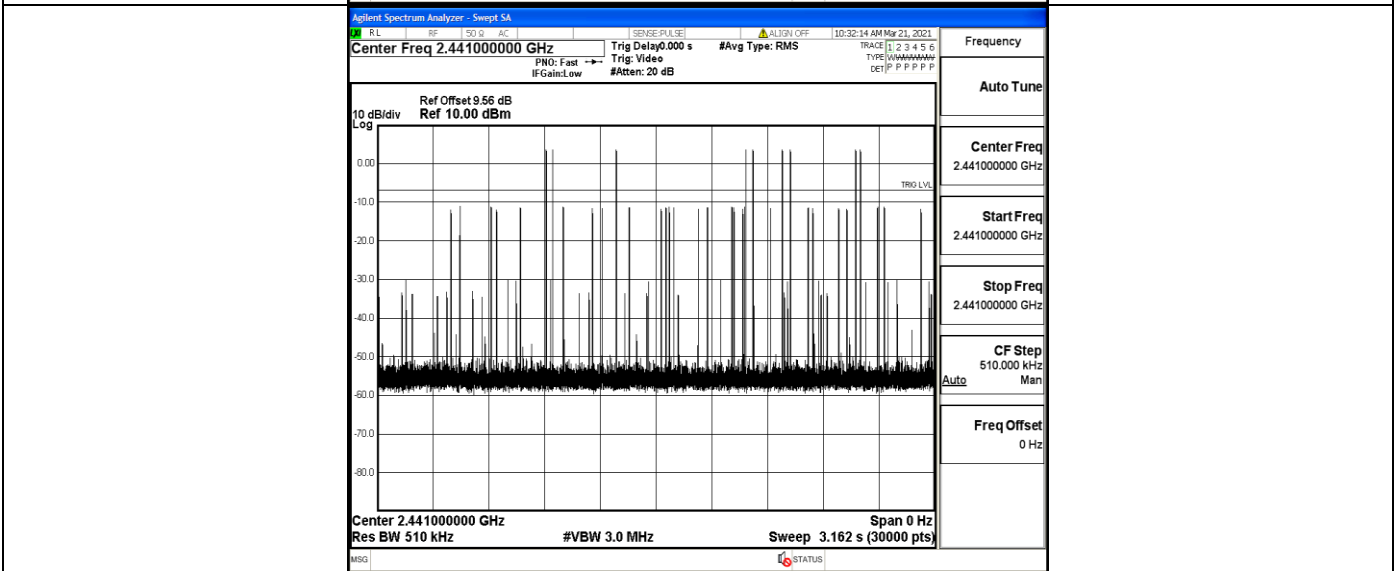
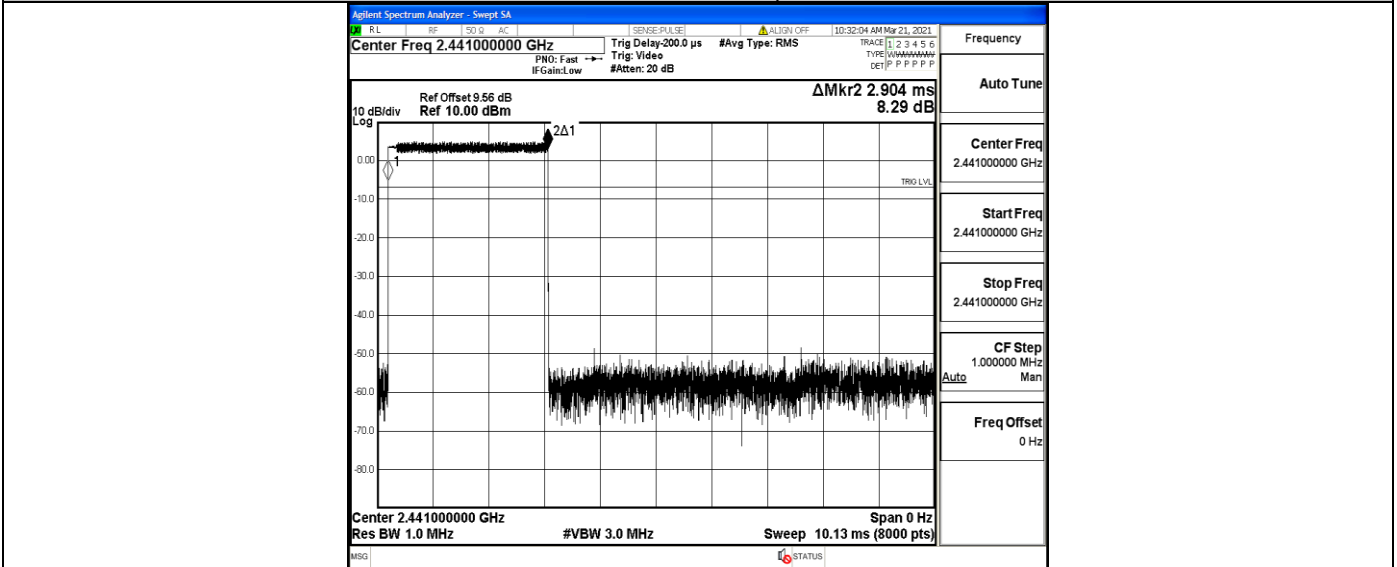
TestMode	Antenna	Channel	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH5	Ant1	Hop	2.90	110	0.319	<=0.4	PASS
2DH5	Ant1	Hop	2.90	110	0.319	<=0.4	PASS
3DH5	Ant1	Hop	2.90	100	0.29	<=0.4	PASS

Test Graph





3DH5_Ant1_Hop

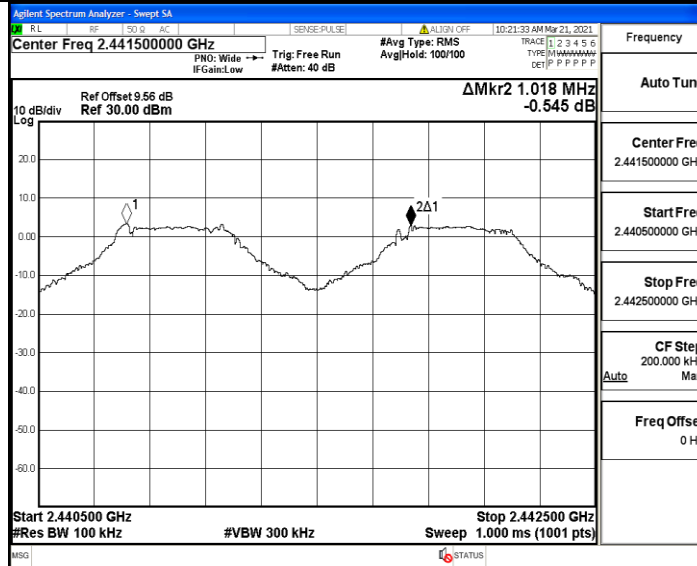


A.3 Carrier Frequency Separation

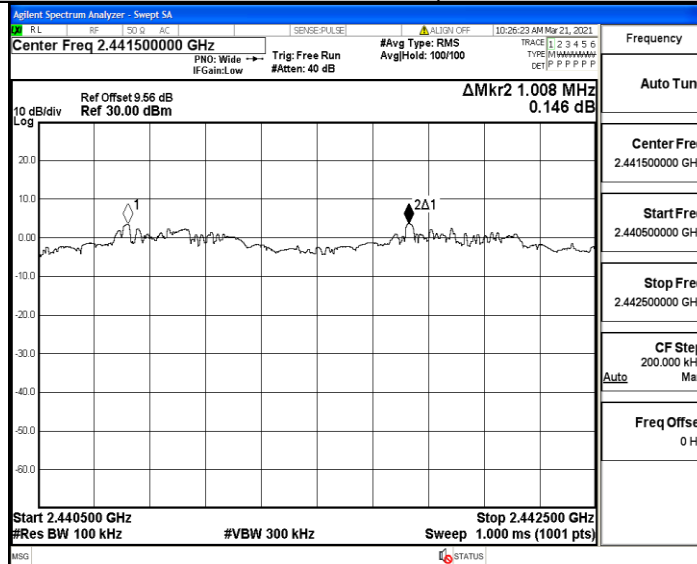
TestMode	Antenna	Channel	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	1.018	≥ 0.807	PASS
2DH5	Ant1	Hop	1.008	≥ 0.868	PASS
3DH5	Ant1	Hop	1.000	≥ 0.864	PASS

Test Graph

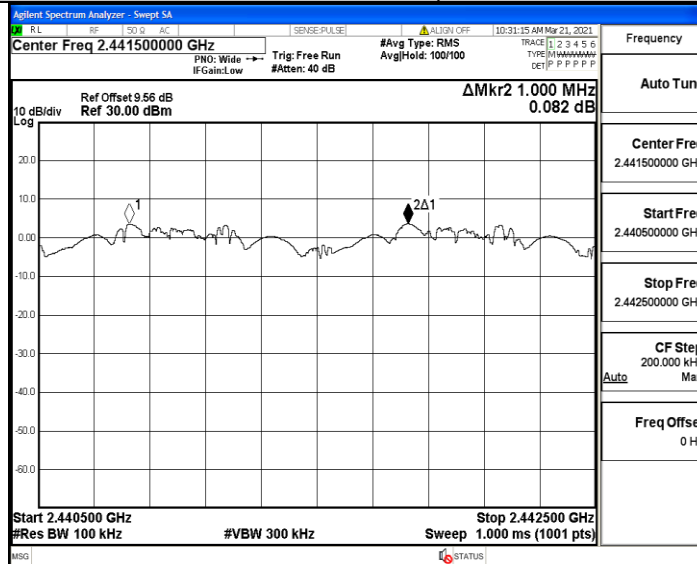
DH5_Ant1_Hop



2DH5_Ant1_Hop



3DH5_Ant1_Hop

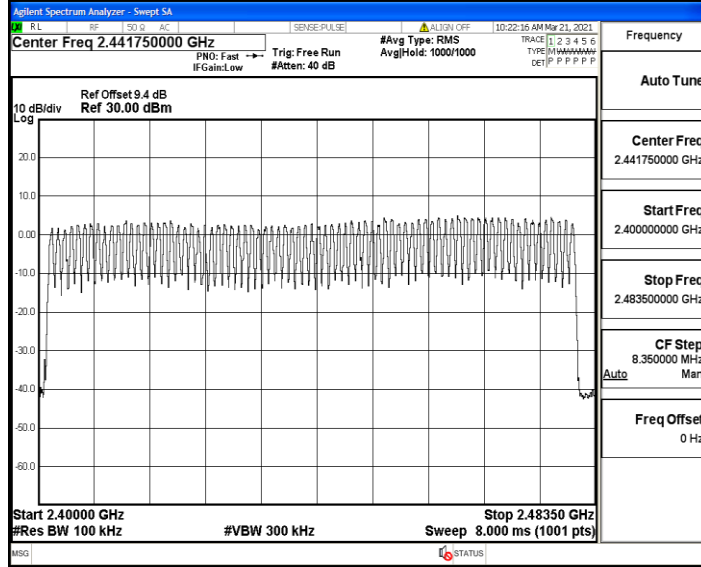


A.4 Hopping Channel Number

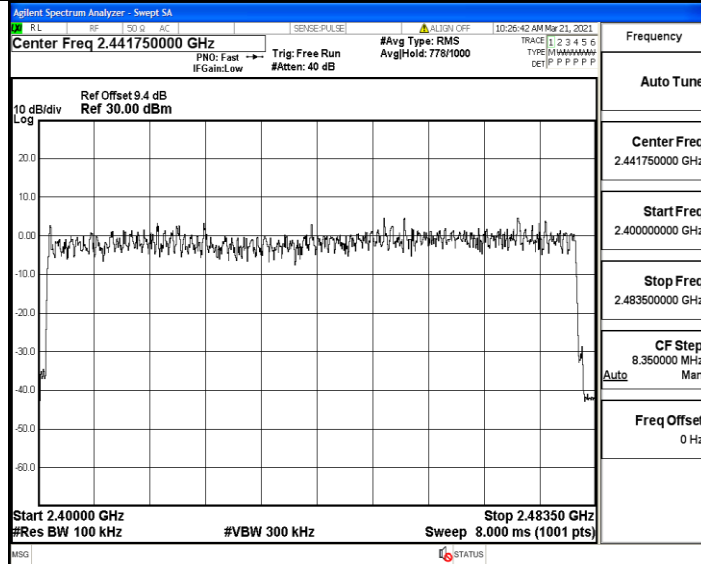
TestMode	Antenna	Channel	Result[Num]	Limit[Num]	Verdict
DH5	Ant1	Hop	79	≥ 15	PASS
2DH5	Ant1	Hop	79	≥ 15	PASS
3DH5	Ant1	Hop	79	≥ 15	PASS

Test Graph

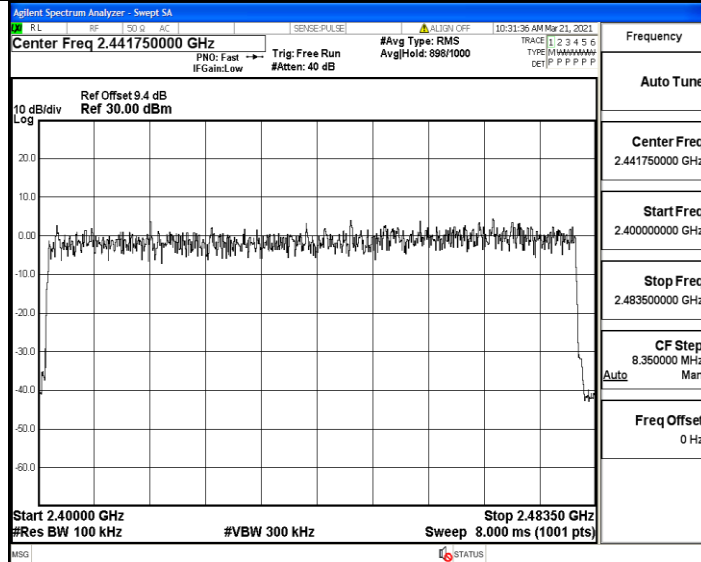
DH5_Ant1_Hop



2DH5_Ant1_Hop



3DH5_Ant1_Hop

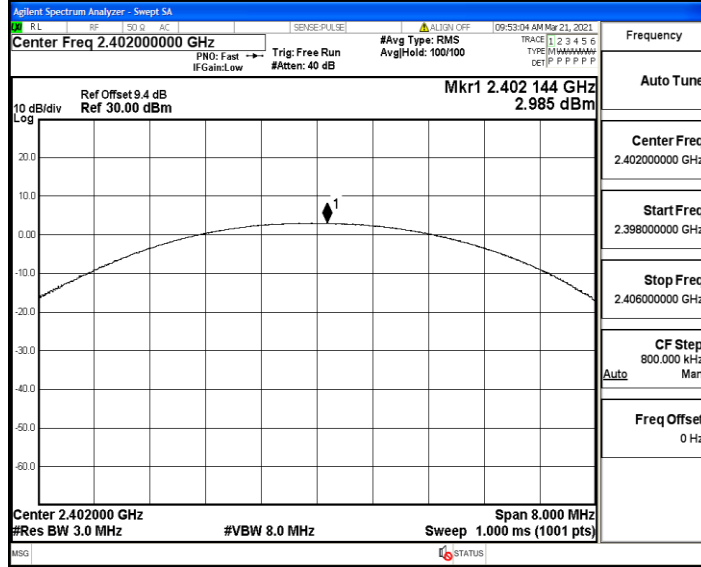


A.5 Conducted Peak Output Power

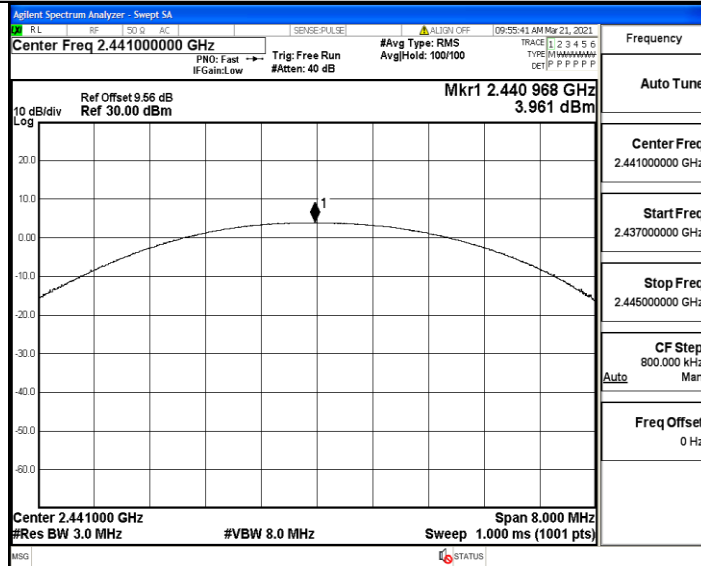
TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
DH5	Ant1	2402	2.99	<=30	PASS
		2441	3.96	<=30	PASS
		2480	5.09	<=30	PASS
2DH5	Ant1	2402	4.39	<=30	PASS
		2441	5.15	<=30	PASS
		2480	6.05	<=30	PASS
3DH5	Ant1	2402	4.75	<=30	PASS
		2441	5.63	<=30	PASS
		2480	6.56	<=30	PASS

Test Graph

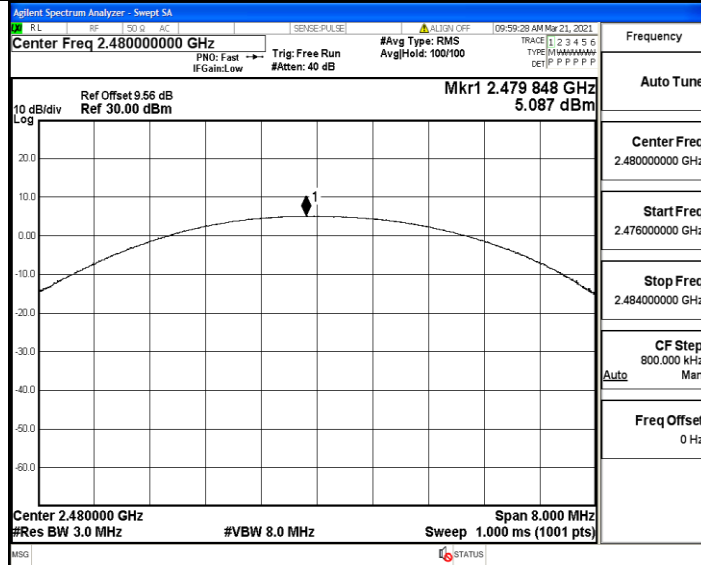
DH5_Ant1_2402



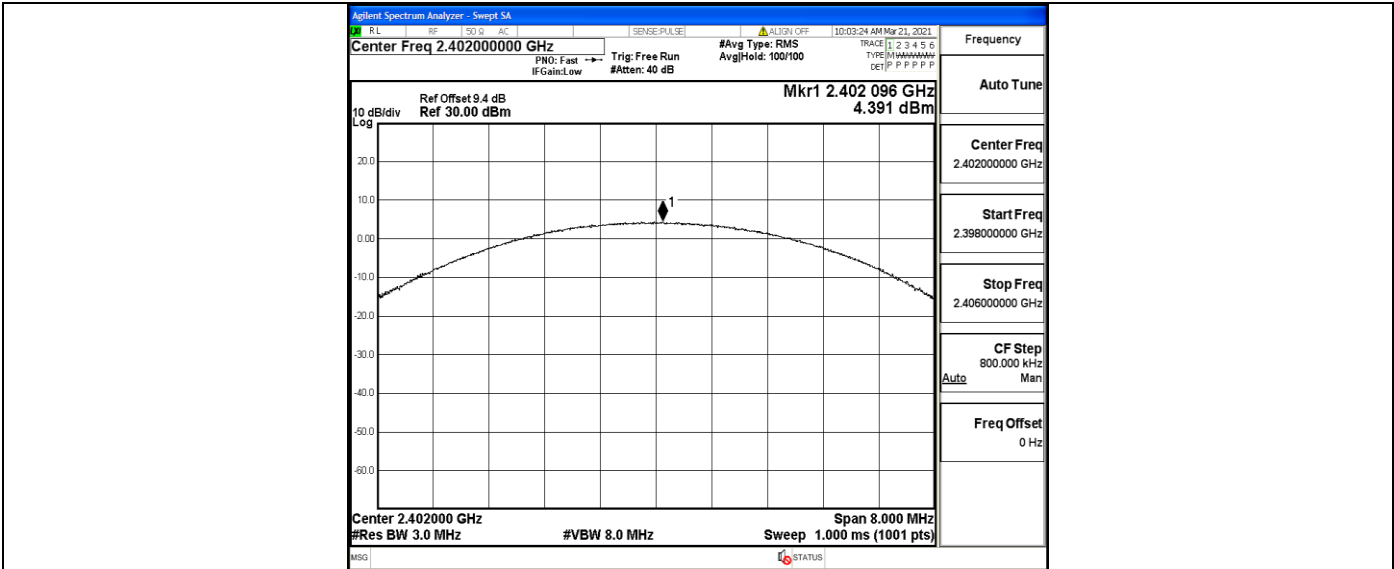
DH5_Ant1_2441



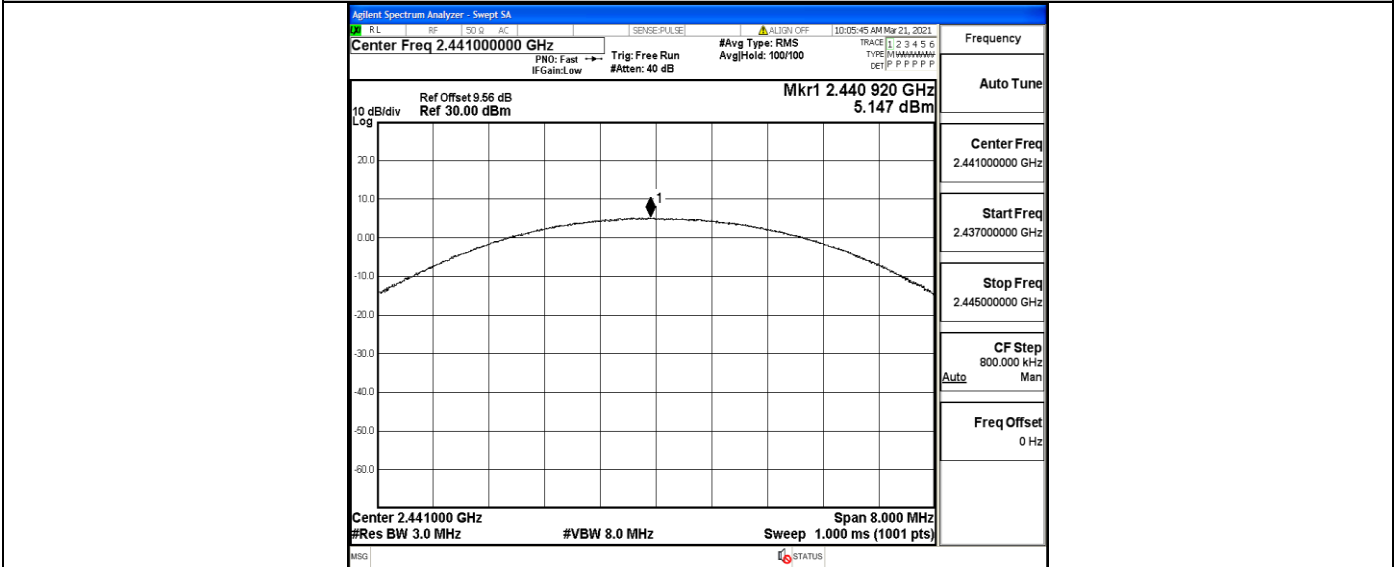
DH5_Ant1_2480



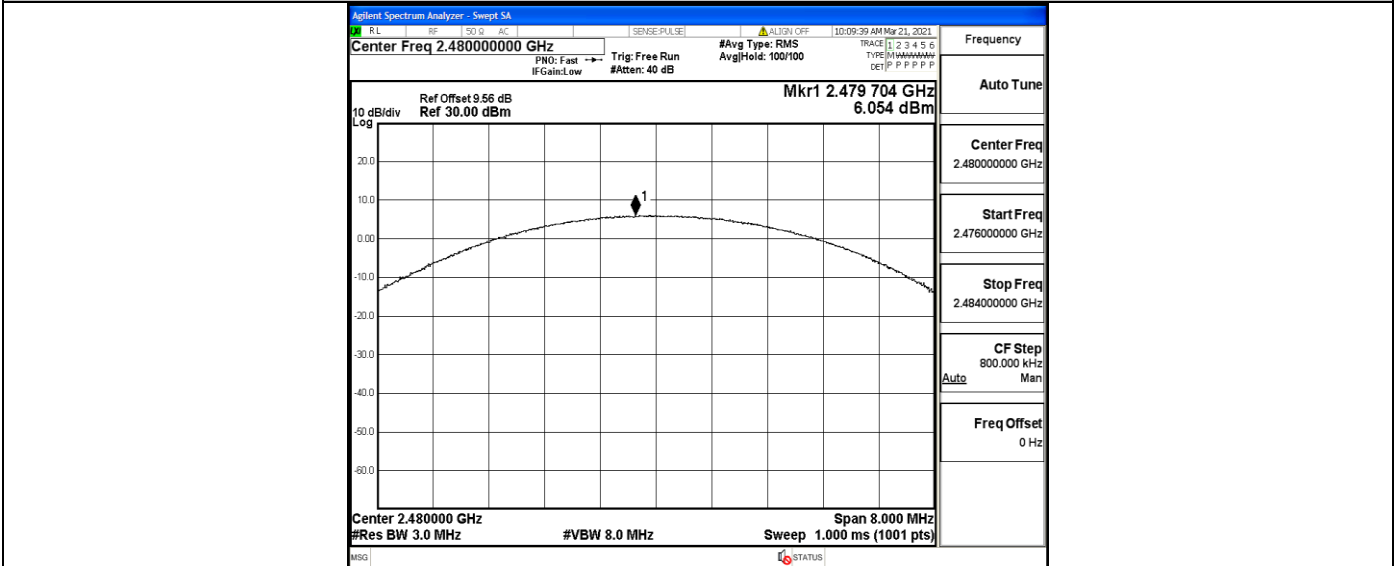
2DH5_Ant1_2402



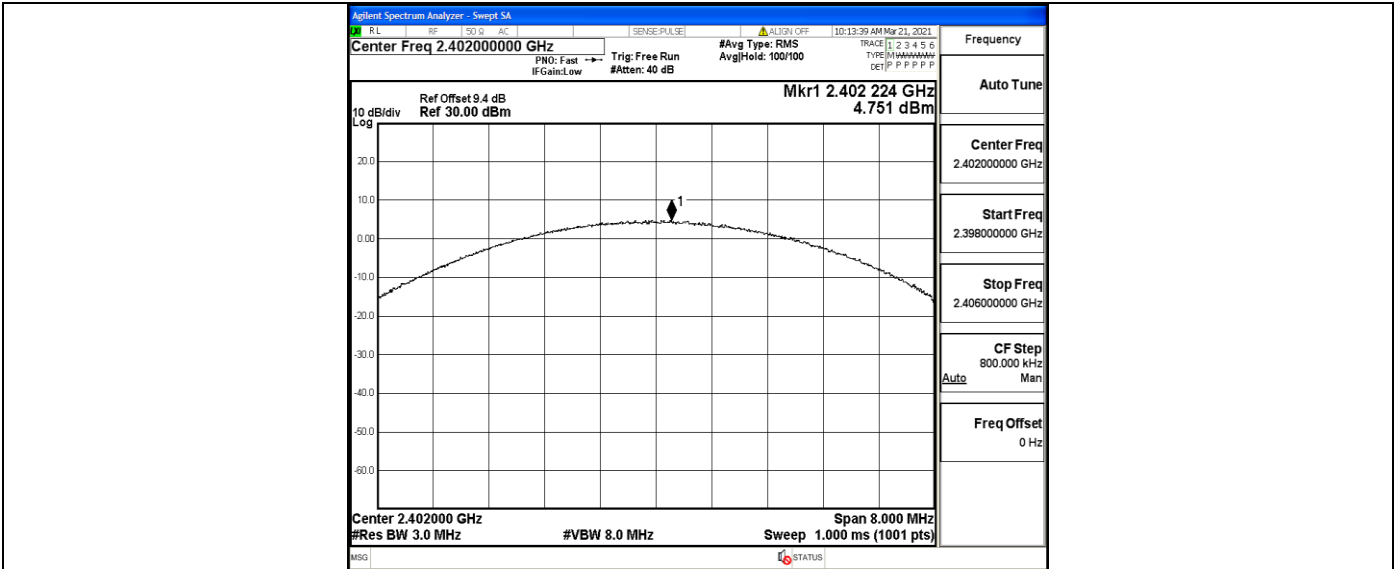
2DH5_Ant1_2441



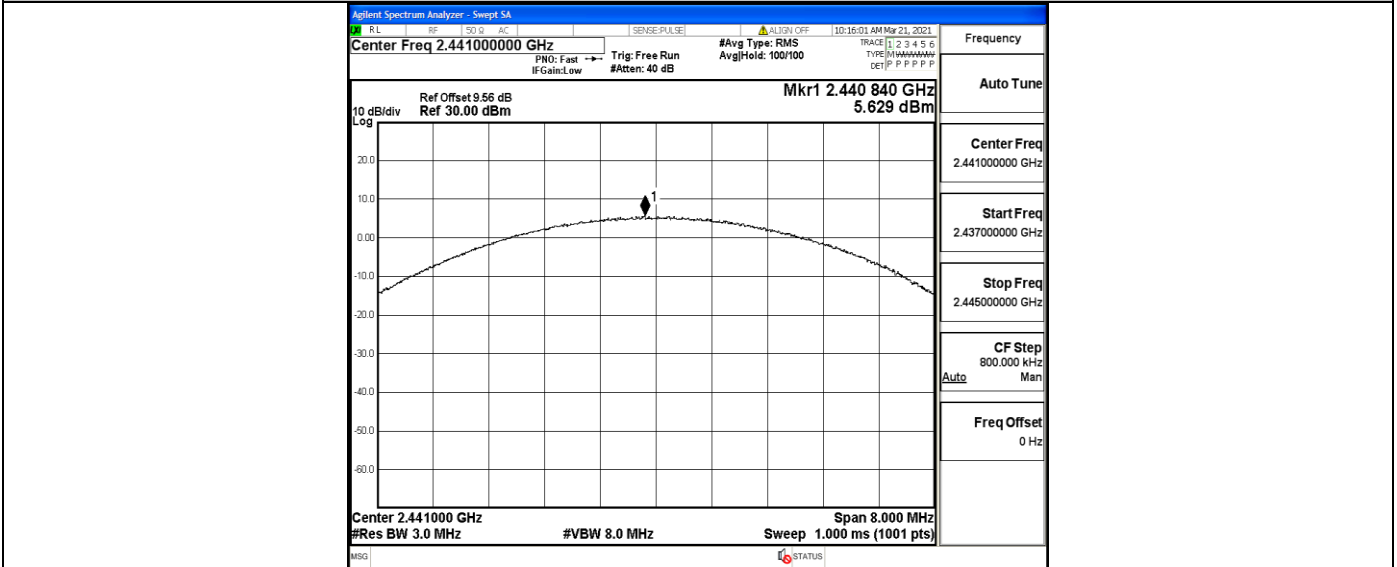
2DH5_Ant1_2480



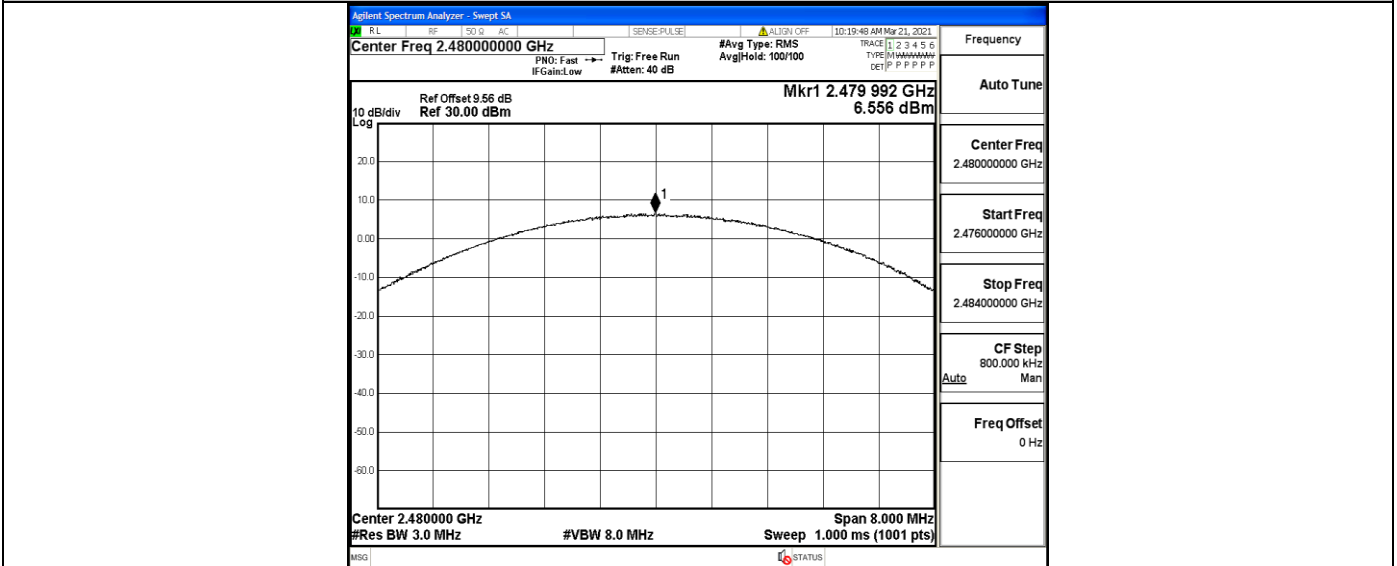
3DH5_Ant1_2402



3DH5_Ant1_2441



3DH5_Ant1_2480

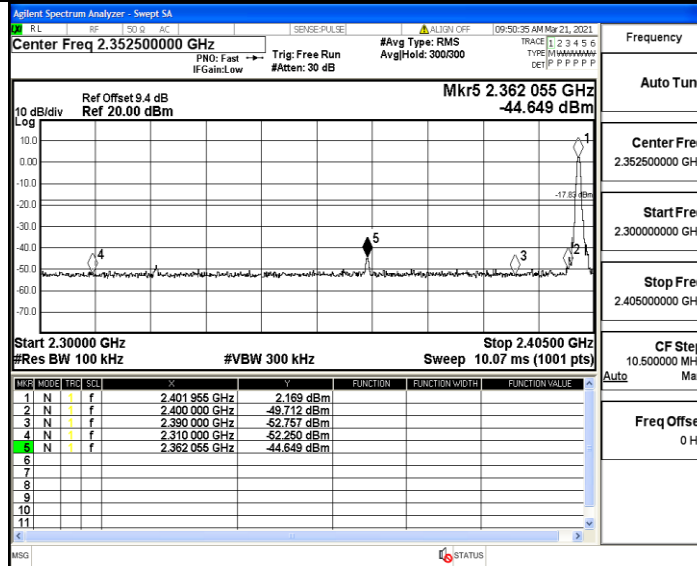


A.6 Band-edge for RF Conducted Emissions

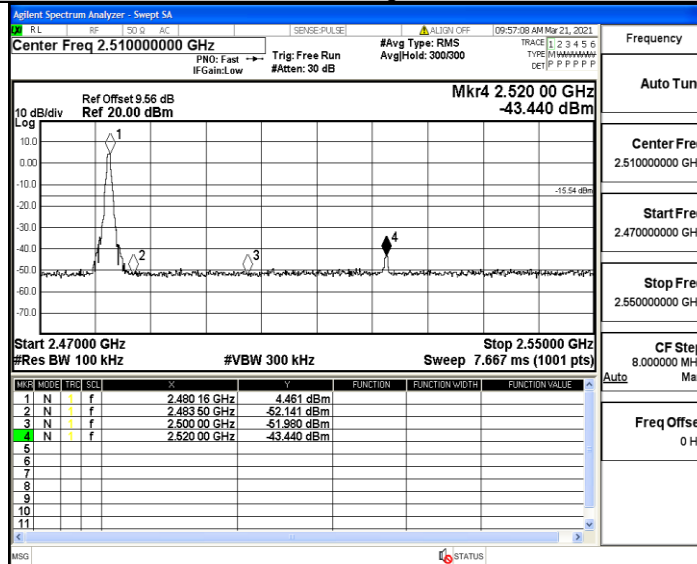
TestMode	Antenna	ChName	Channel	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	2.17	-44.65	<=-17.83	PASS
		High	2480	4.46	-43.44	<=-15.54	PASS
		Low	Hop_2402	2.27	-45.22	<=-17.73	PASS
		High	Hop_2480	4.62	-42.85	<=-15.38	PASS
2DH5	Ant1	Low	2402	2.59	-45.87	<=-17.42	PASS
		High	2480	4.50	-44.58	<=-15.5	PASS
		Low	Hop_2402	1.61	-47.24	<=-18.39	PASS
		High	Hop_2480	4.48	-45.15	<=-15.52	PASS
3DH5	Ant1	Low	2402	2.42	-45.59	<=-17.59	PASS
		High	2480	4.54	-43.44	<=-15.46	PASS
		Low	Hop_2402	1.40	-46.38	<=-18.6	PASS
		High	Hop_2480	4.34	-43.72	<=-15.67	PASS

Test Graph

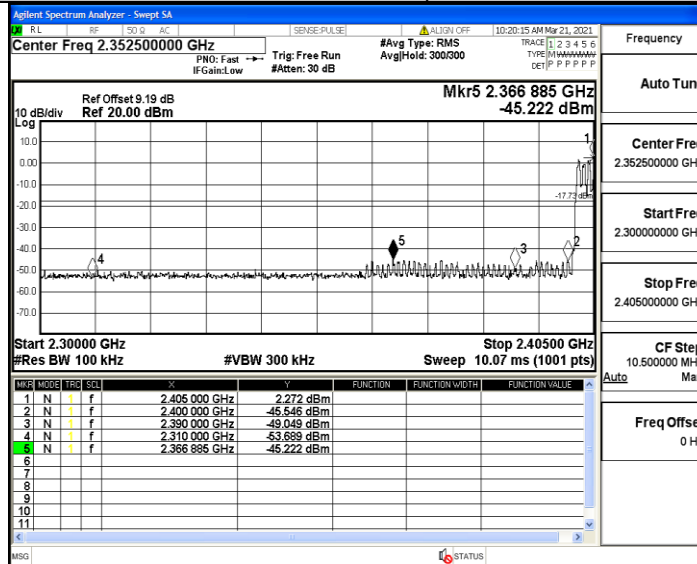
DH5_Ant1_Low_2402



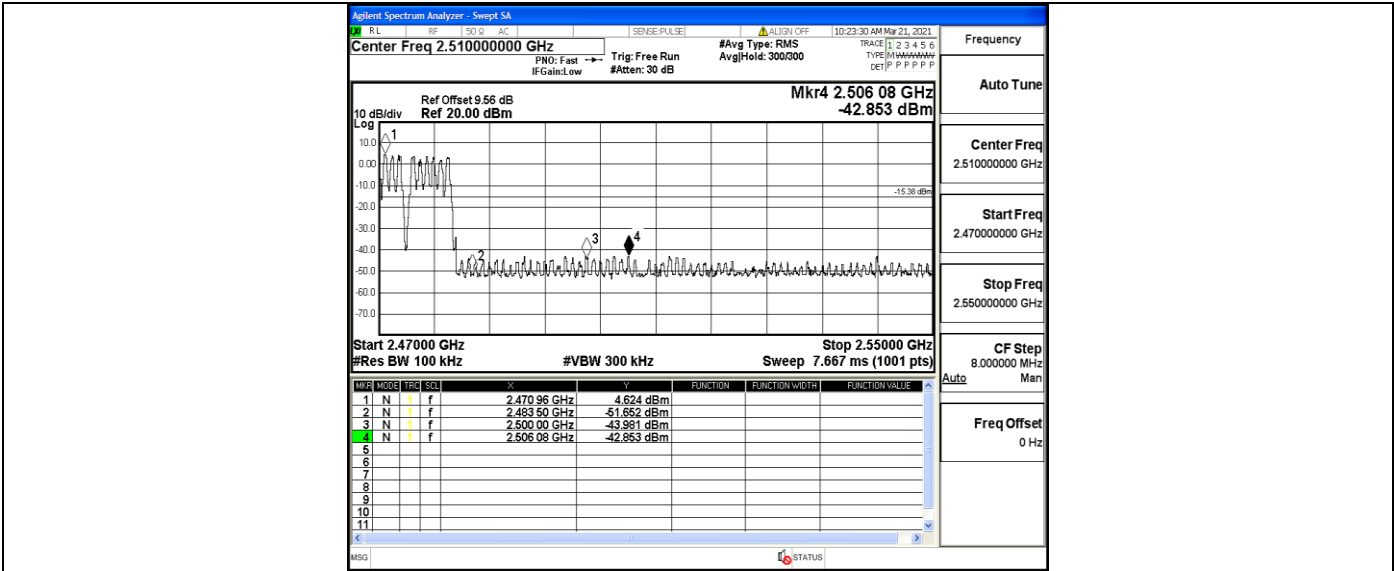
DH5_Ant1_High_2480



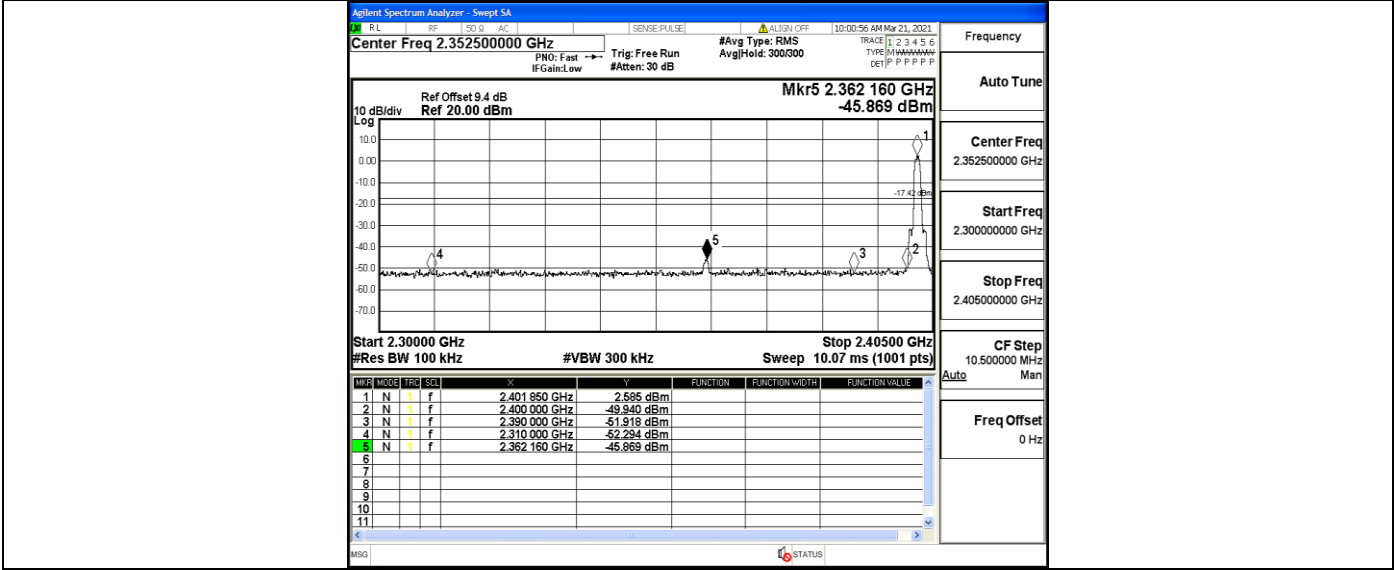
DH5_Ant1_Low_Hop_2402



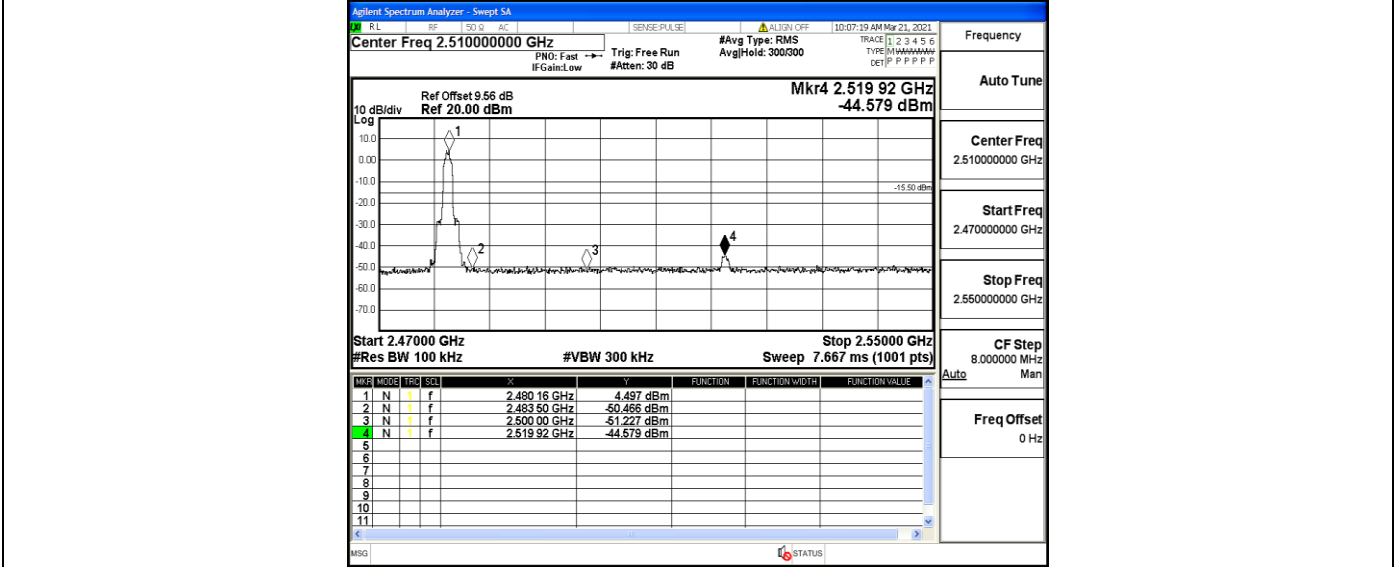
DH5_Ant1_High_Hop_2480



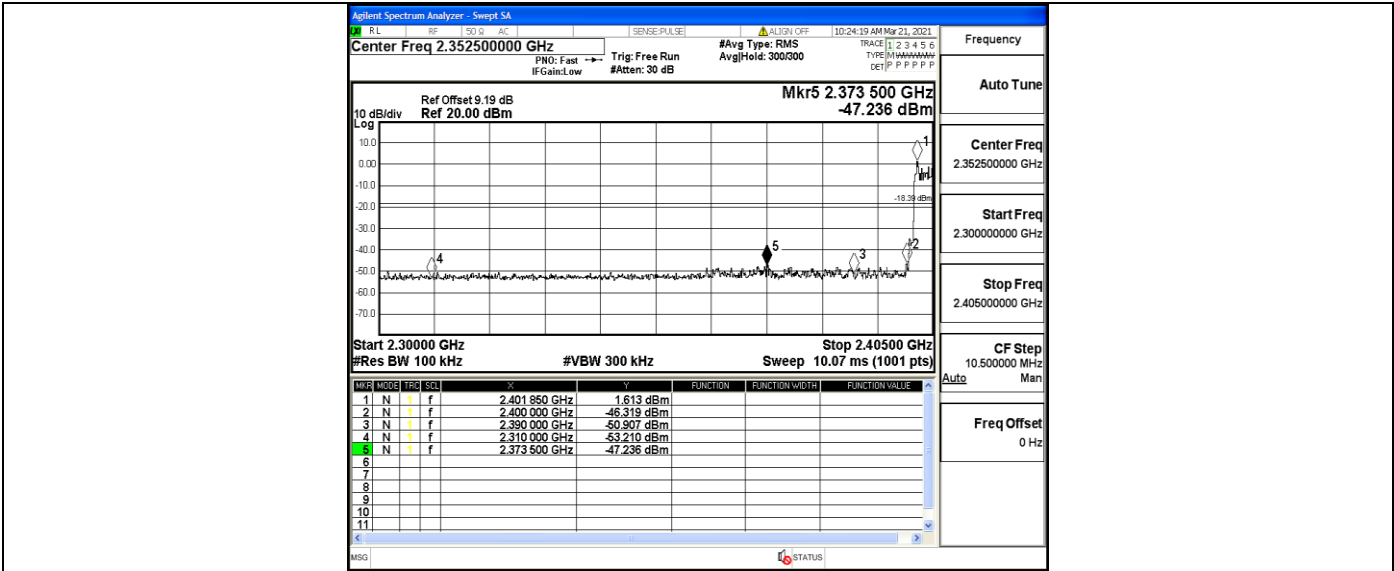
2DH5_Ant1_Low_2402



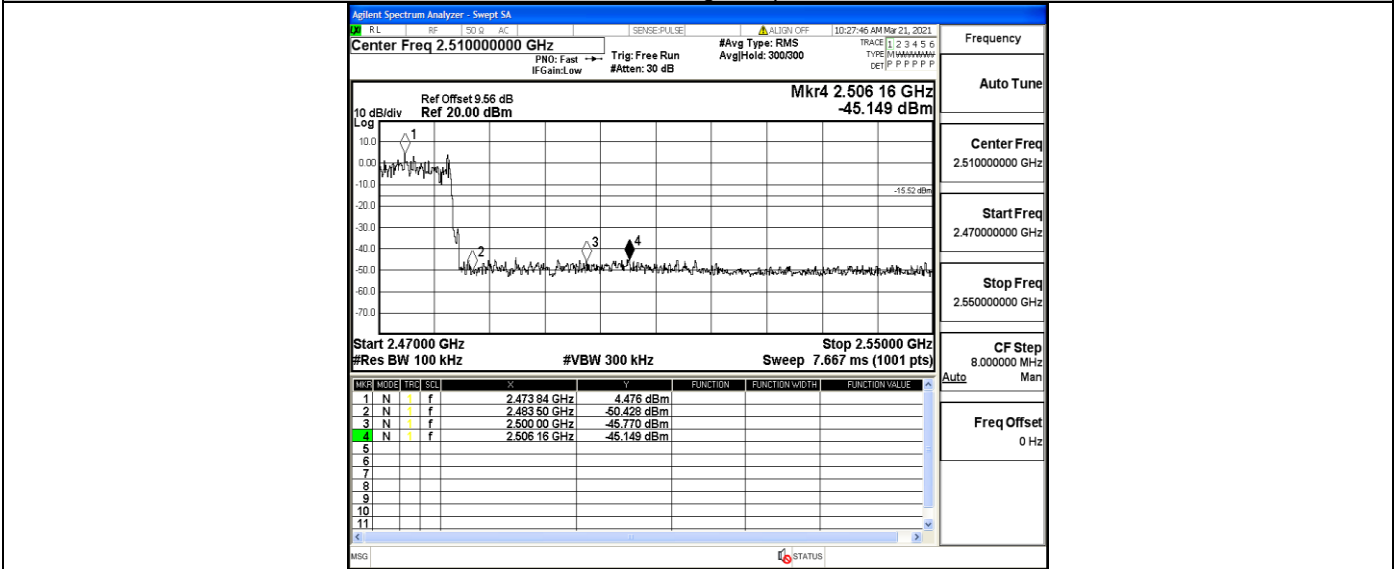
2DH5_Ant1_High_2480



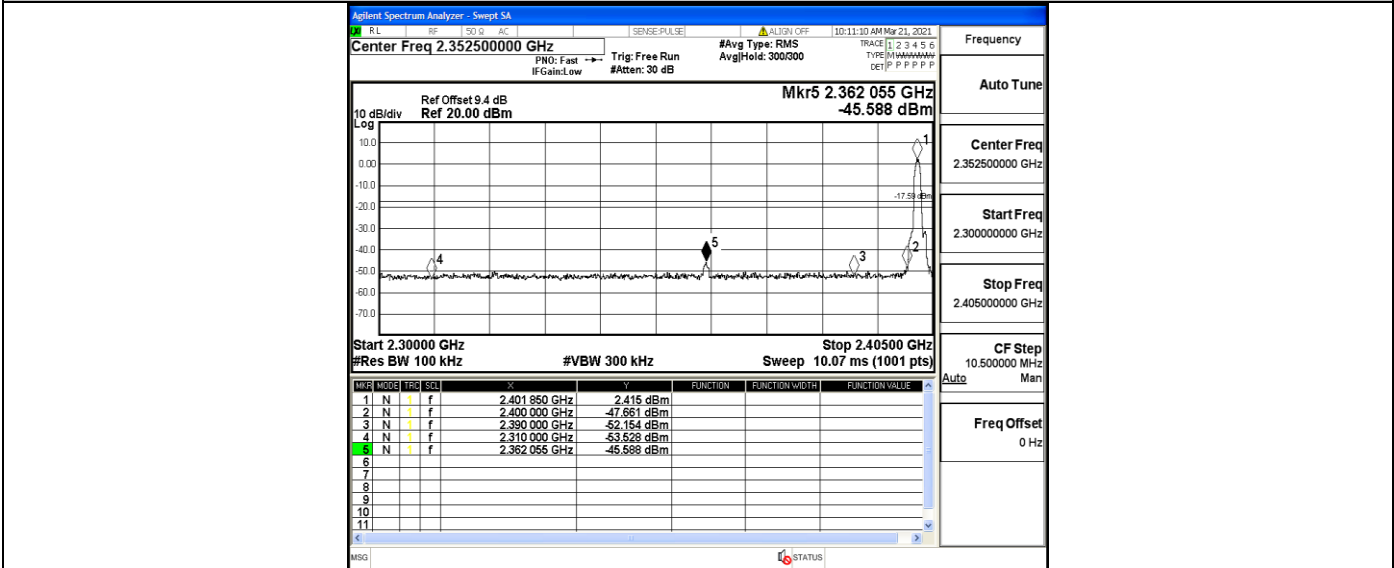
2DH5_Ant1_Low_Hop_2402



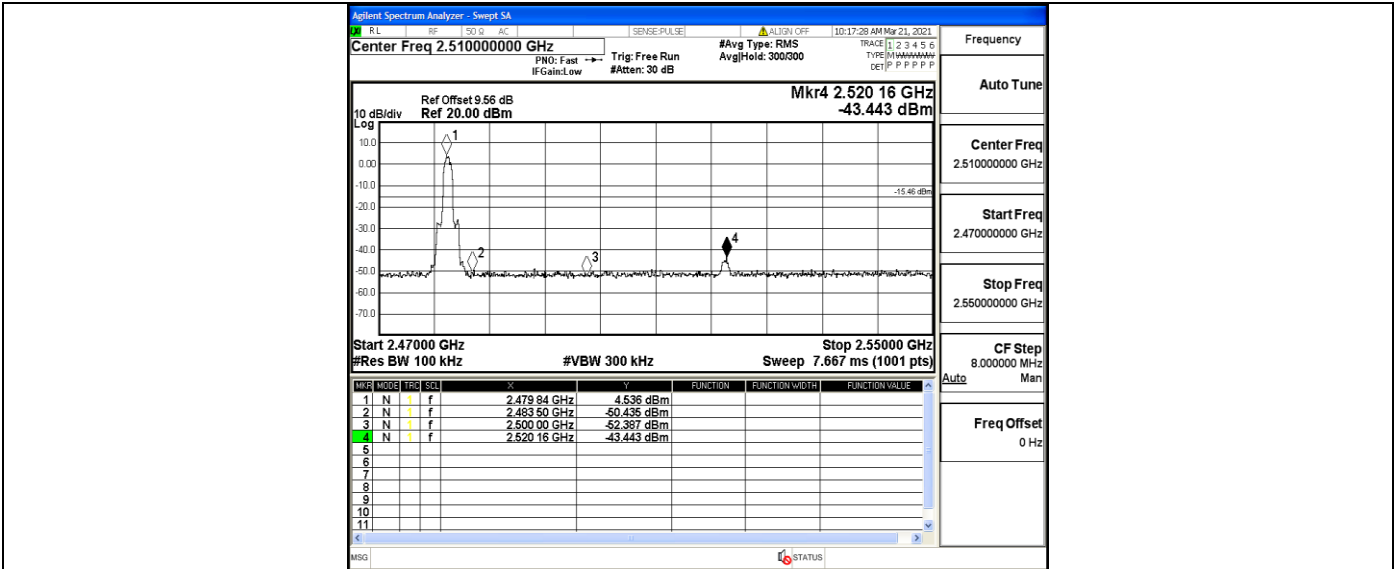
2D5_Ant1_High_Hop_2480



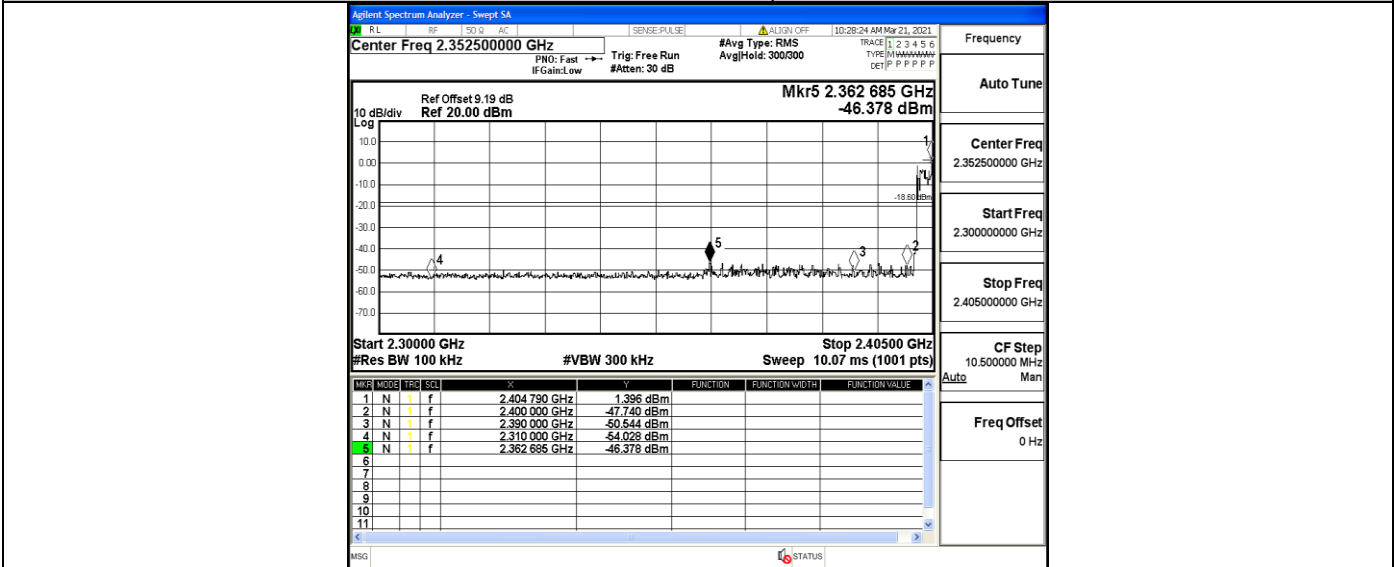
3D5_Ant1_Low_2402



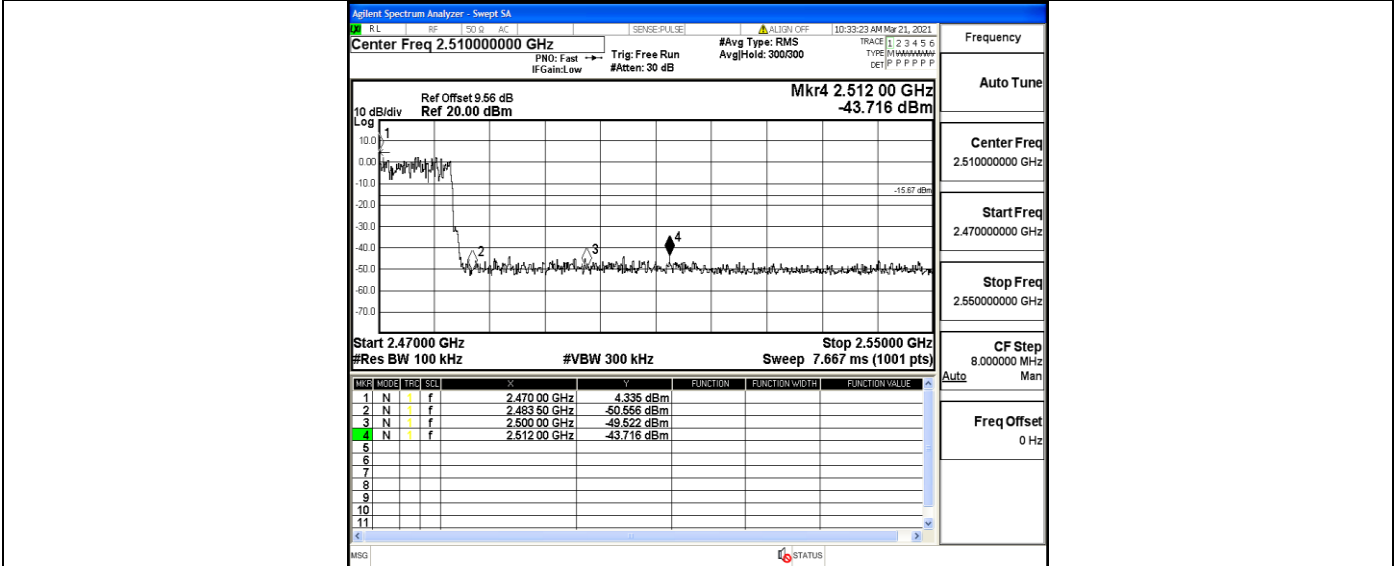
3D5_Ant1_High_2480



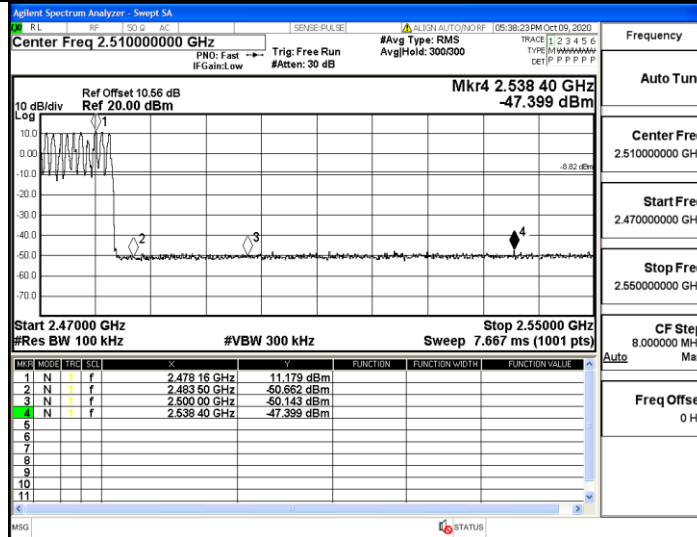
3DH5_Ant1_Low_Hop_2402



3DH5_Ant1_High_Hop_2480

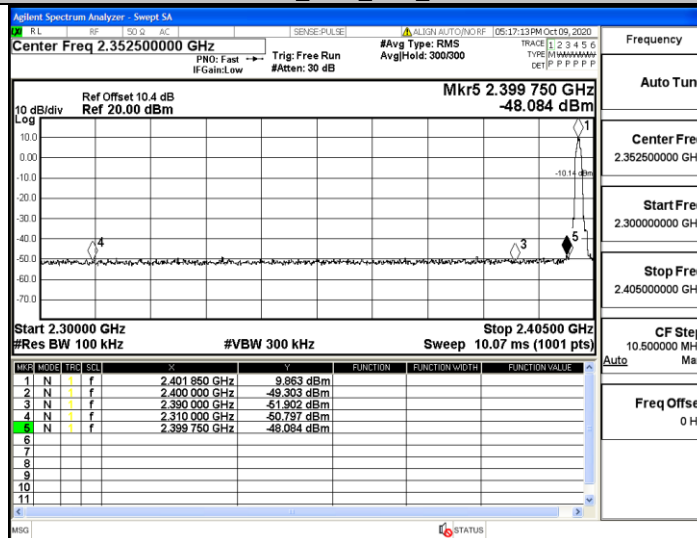


DH5_Ant1_High_Hop_2480



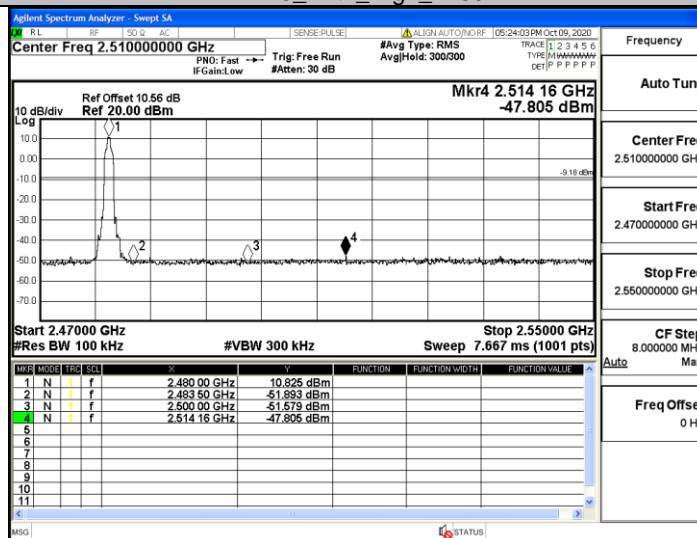
Frequency	Auto Tune
Center Freq	2.510000000 GHz
Start Freq	2.470000000 GHz
Stop Freq	2.550000000 GHz
CF Step	8.0000000 MHz
Freq Offset	0 Hz

2DH5_Ant1_Low_2402



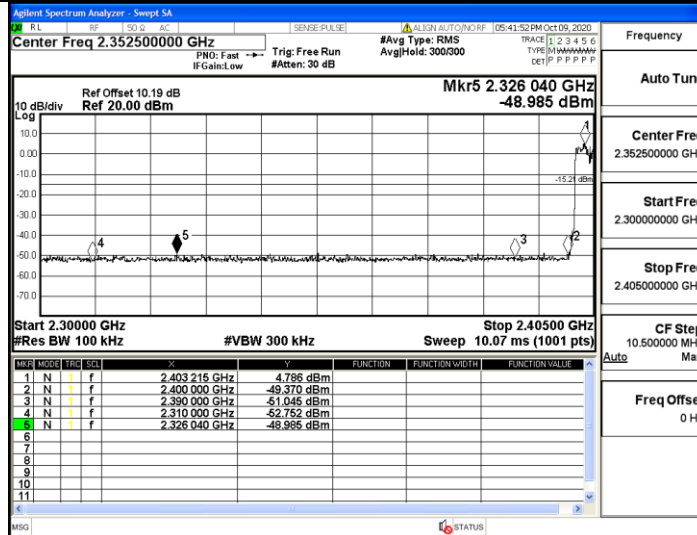
Frequency	Auto Tune
Center Freq	2.352500000 GHz
Start Freq	2.300000000 GHz
Stop Freq	2.405000000 GHz
CF Step	10.5000000 MHz
Freq Offset	0 Hz

2DH5_Ant1_High_2480

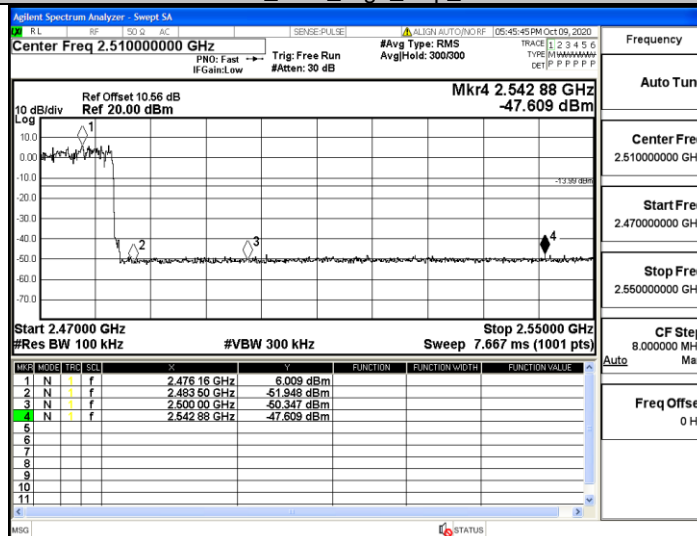


Frequency	Auto Tune
Center Freq	2.510000000 GHz
Start Freq	2.470000000 GHz
Stop Freq	2.550000000 GHz
CF Step	8.0000000 MHz
Freq Offset	0 Hz

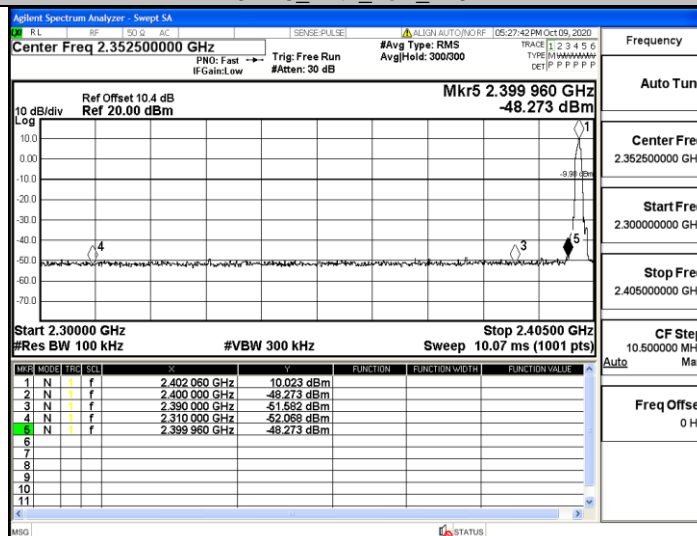
2DH5_Ant1_Low_Hop_2402



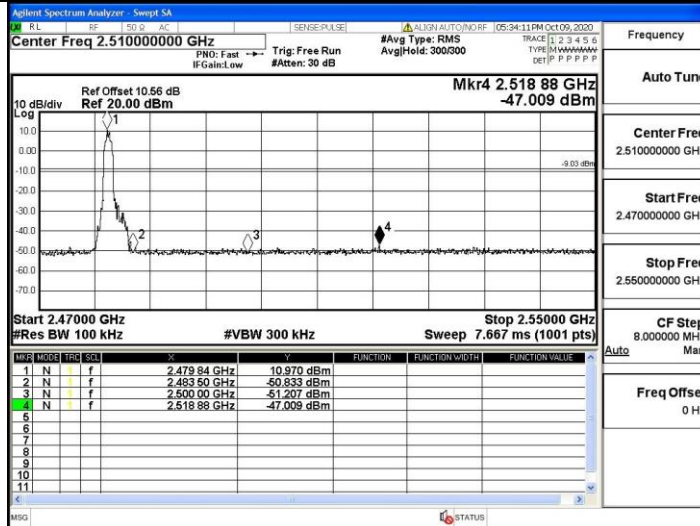
2DH5_Ant1_High_Hop_2480



3DH5_Ant1_Low_2402

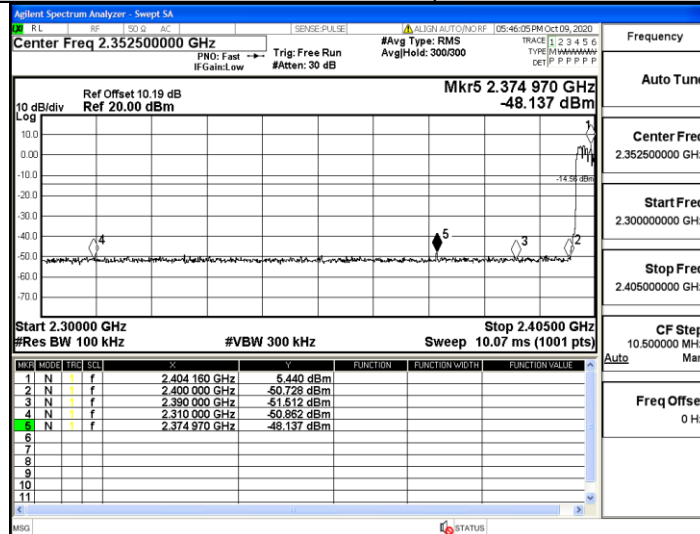


3DH5_Ant1_High_2480



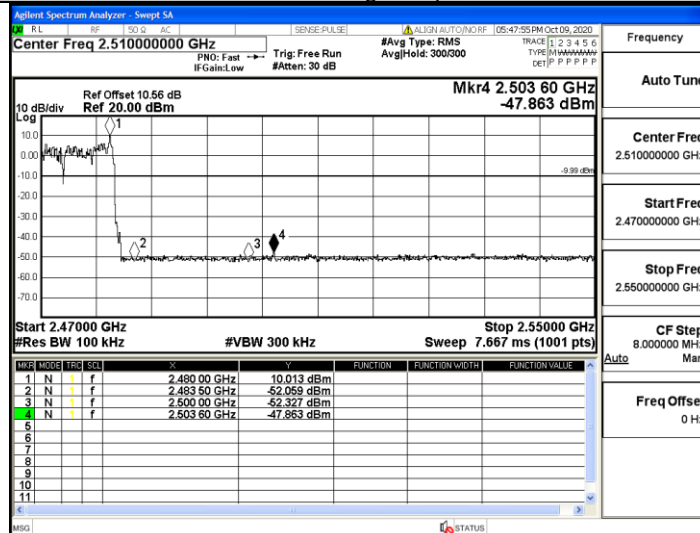
Frequency	Auto Tune
Center Freq	2.510000000 GHz
Start Freq	2.470000000 GHz
Stop Freq	2.550000000 GHz
CF Step	8.000000 MHz
Freq Offset	0 Hz

3DH5_Ant1_Low_Hop_2402



Frequency	Auto Tune
Center Freq	2.352500000 GHz
Start Freq	2.300000000 GHz
Stop Freq	2.405000000 GHz
CF Step	10.500000 MHz
Freq Offset	0 Hz

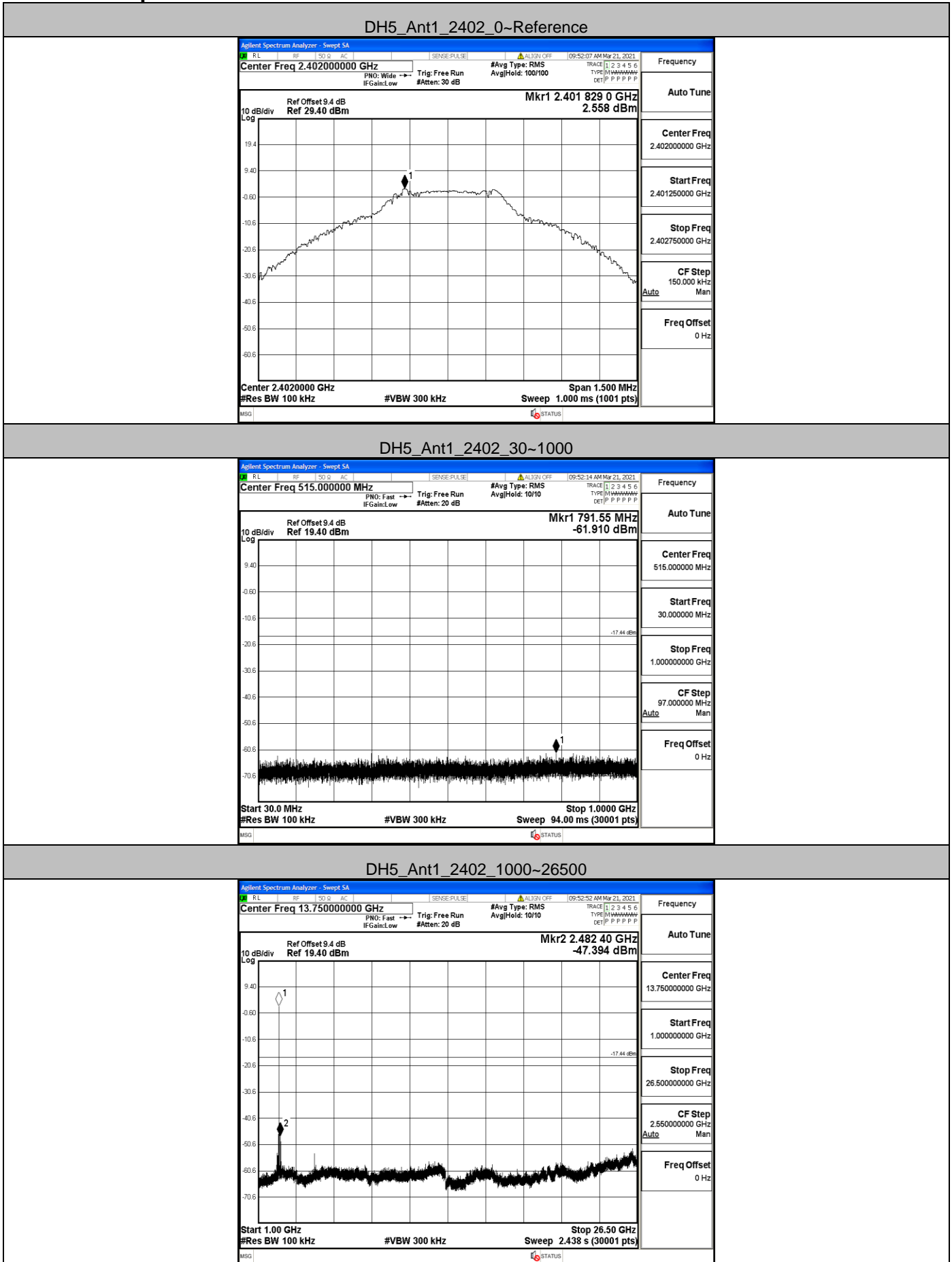
3DH5_Ant1_High_Hop_2480



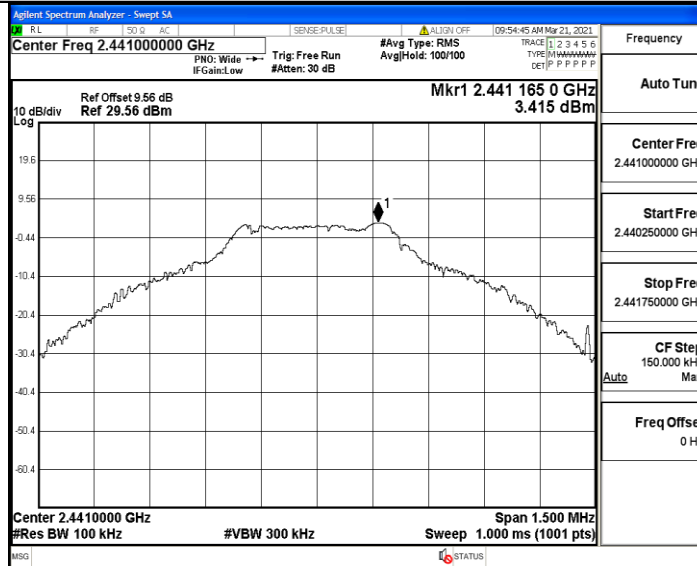
Frequency	Auto Tune
Center Freq	2.510000000 GHz
Start Freq	2.470000000 GHz
Stop Freq	2.550000000 GHz
CF Step	8.000000 MHz
Freq Offset	0 Hz

A.7 RF Conducted Spurious Emissions

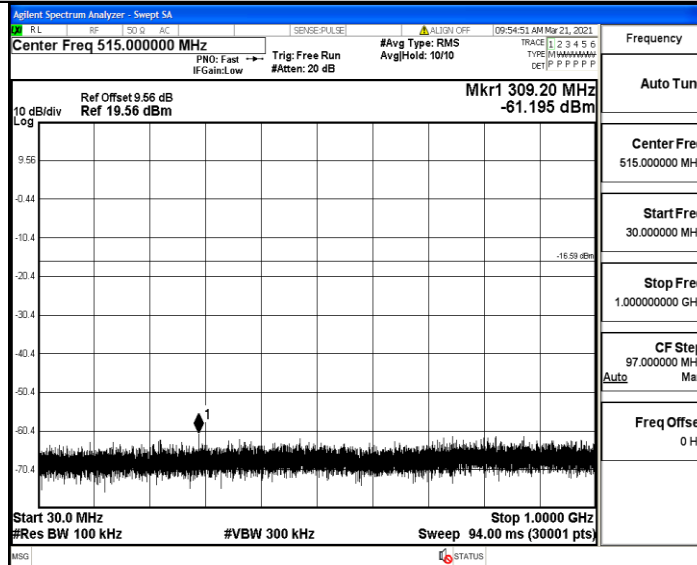
Test Graph



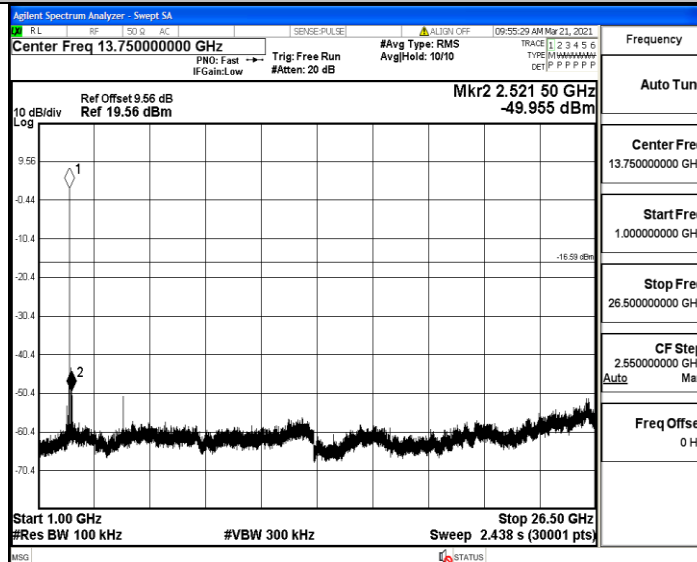
DH5_Ant1_2441_0-Reference



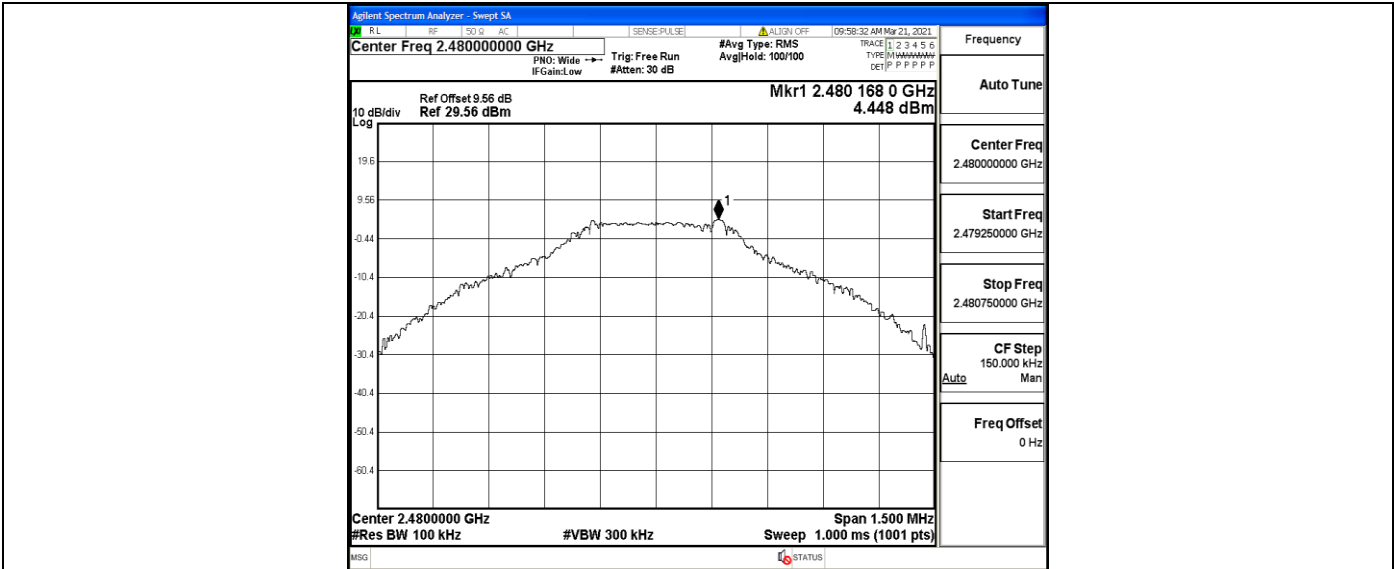
DH5_Ant1_2441_30-1000



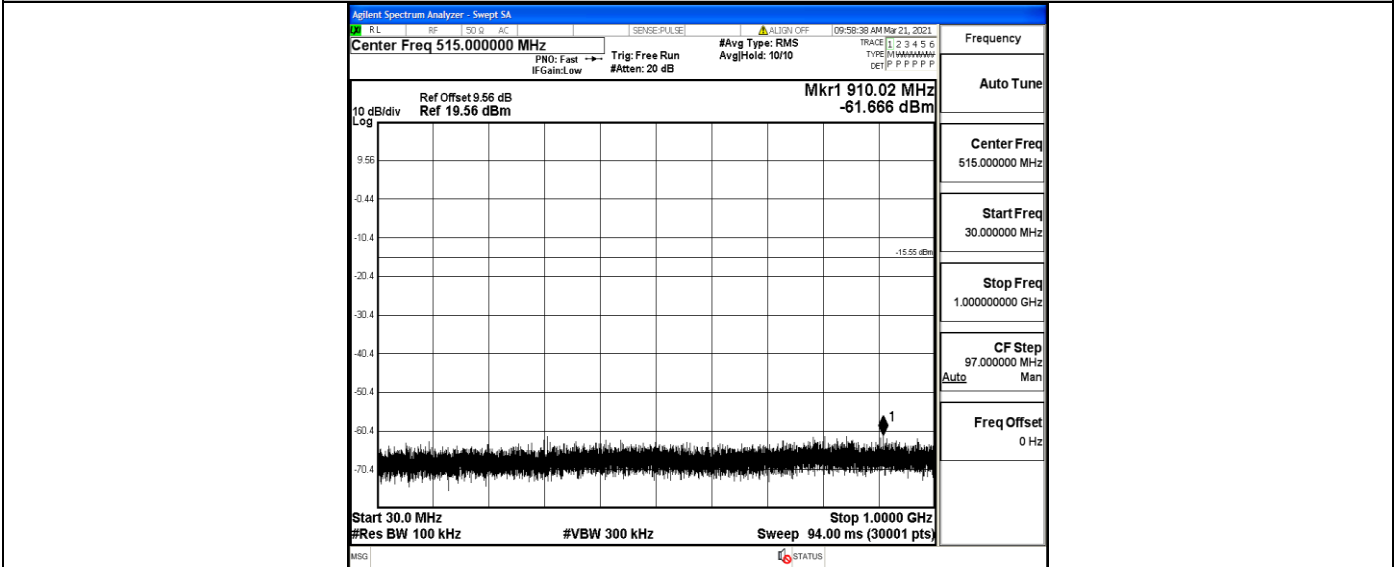
DH5_Ant1_2441_1000-26500



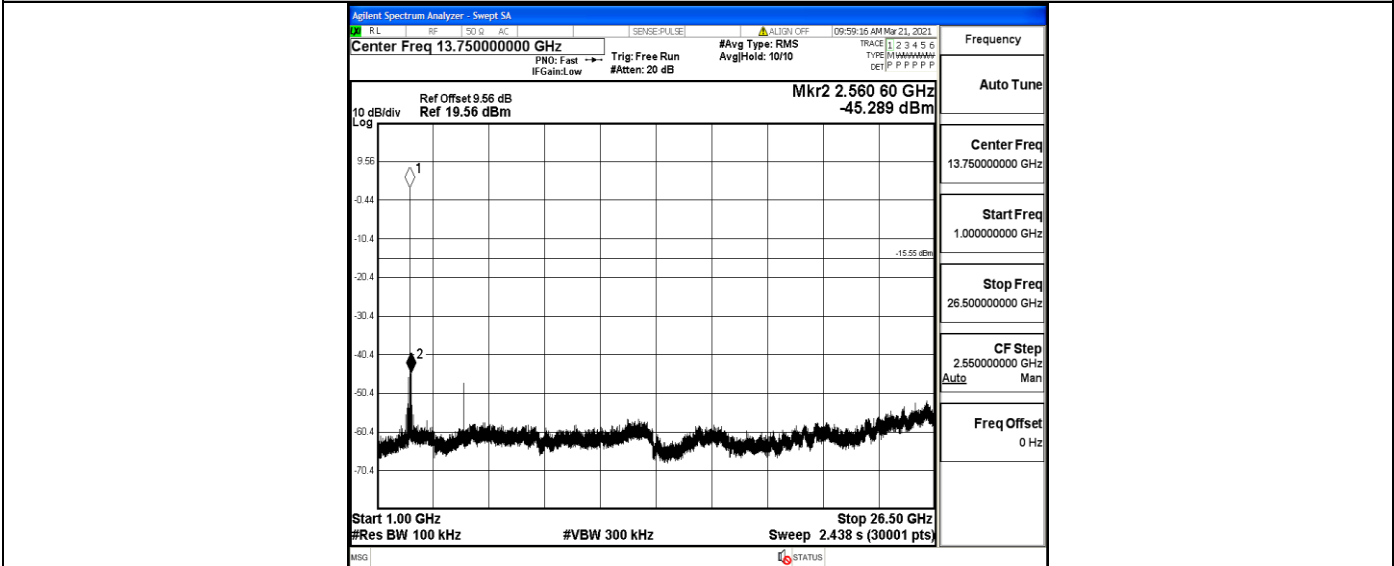
DH5_Ant1_2480_0-Reference



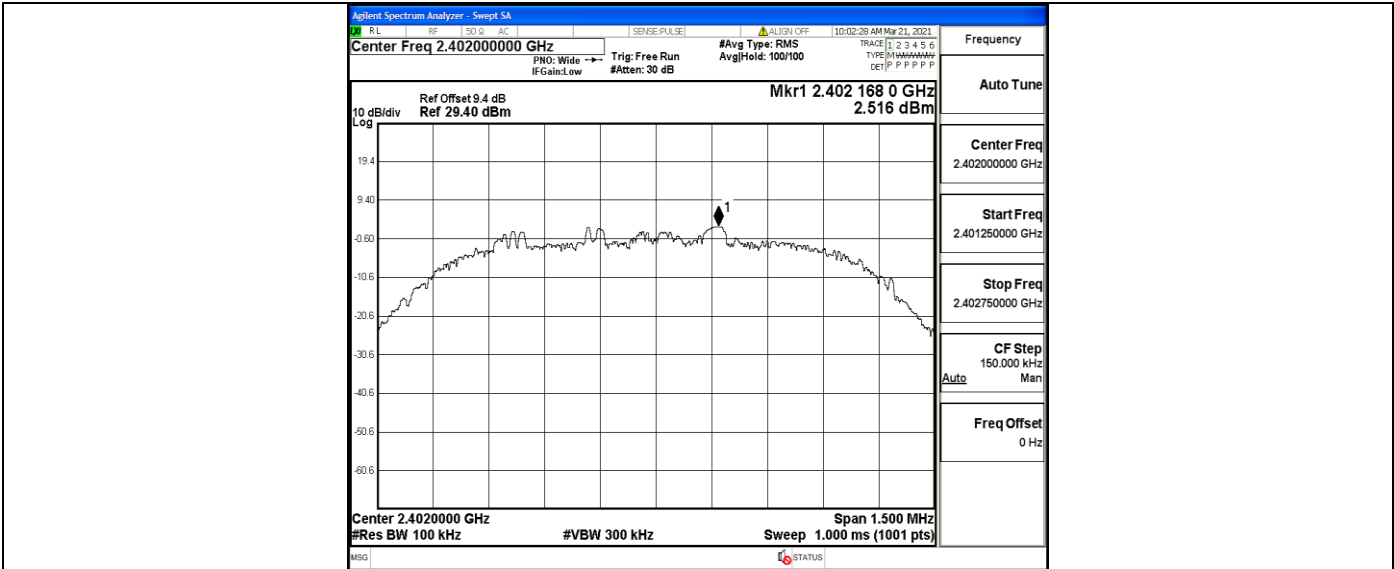
DH5_Ant1_2480_30~1000



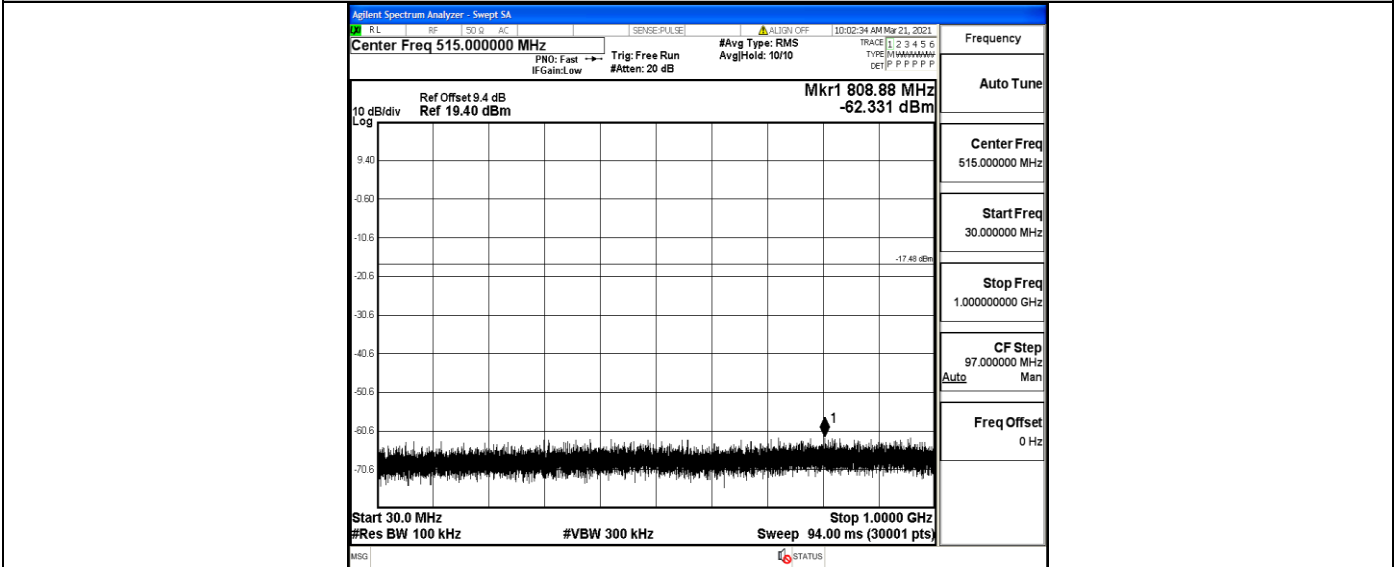
DH5_Ant1_2480_1000~26500



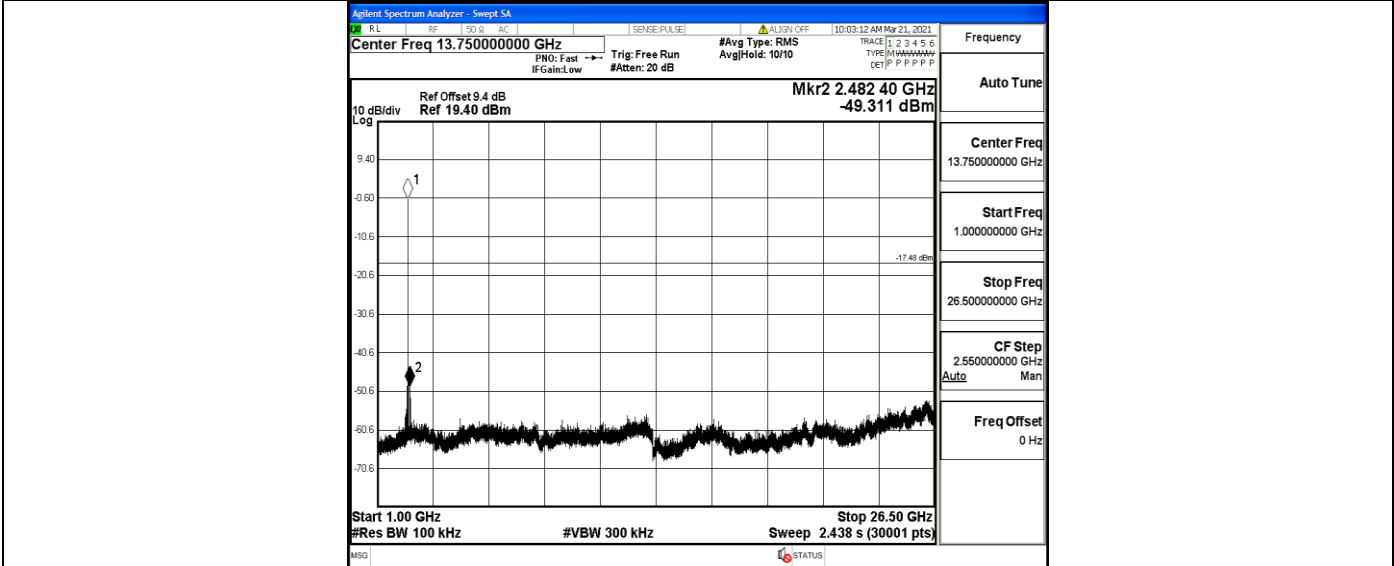
2DH5_Ant1_2402_0~Reference



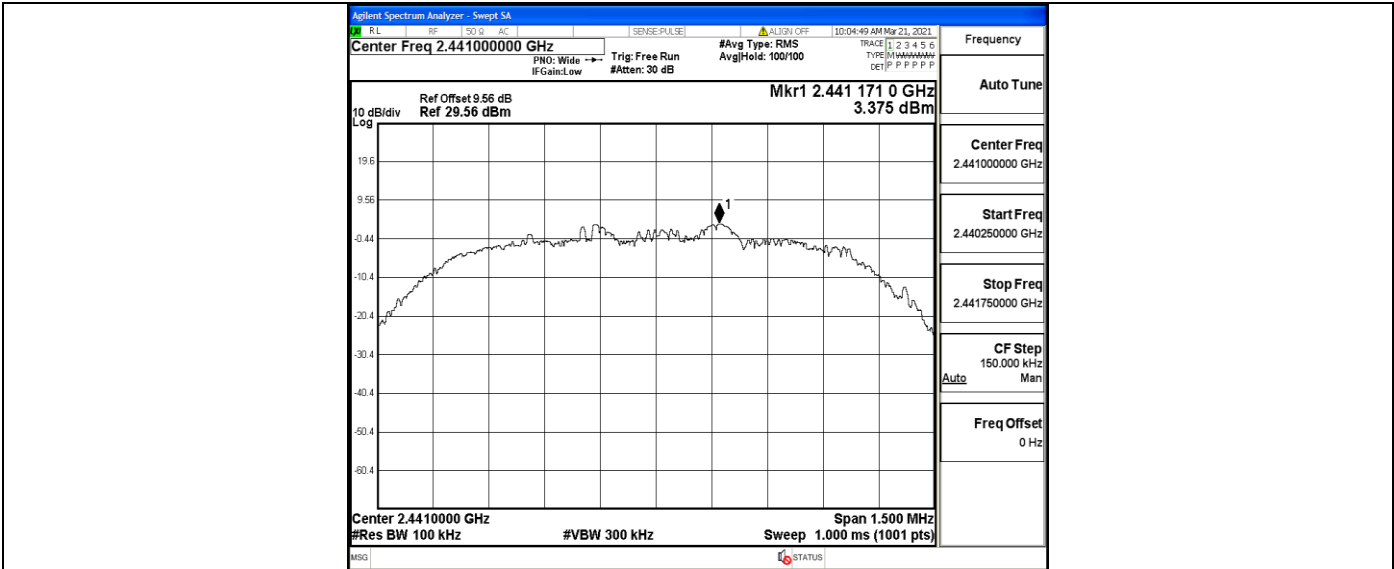
2DH5_Ant1_2402_30~1000



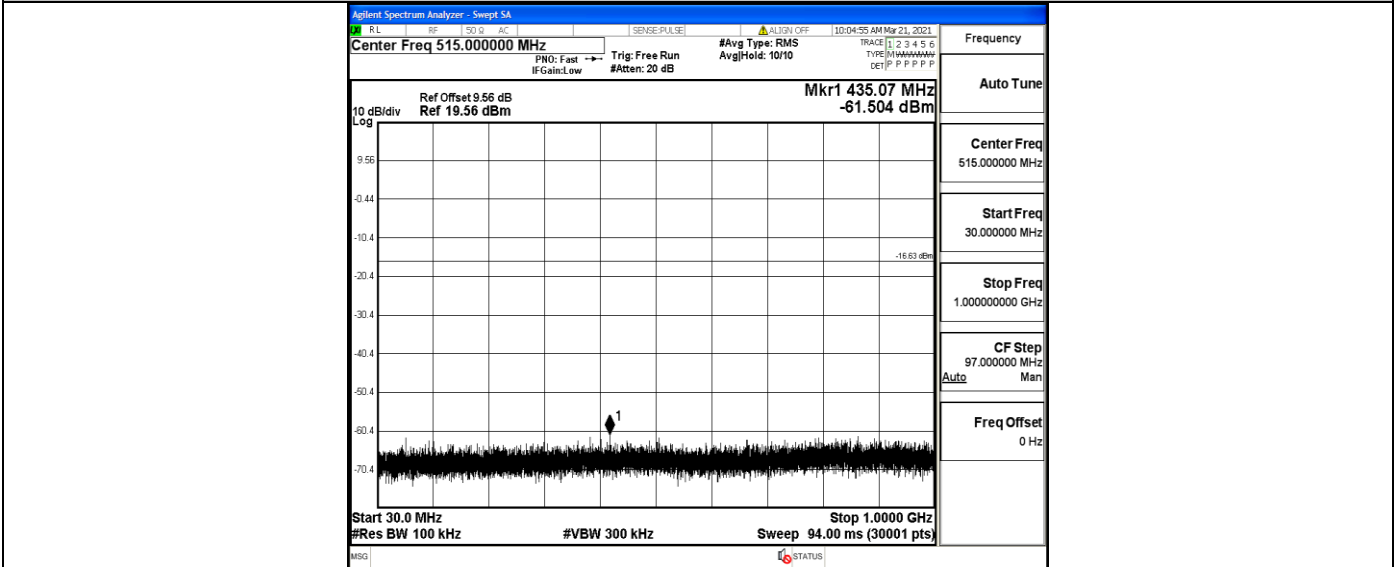
2DH5_Ant1_2402_1000~26500



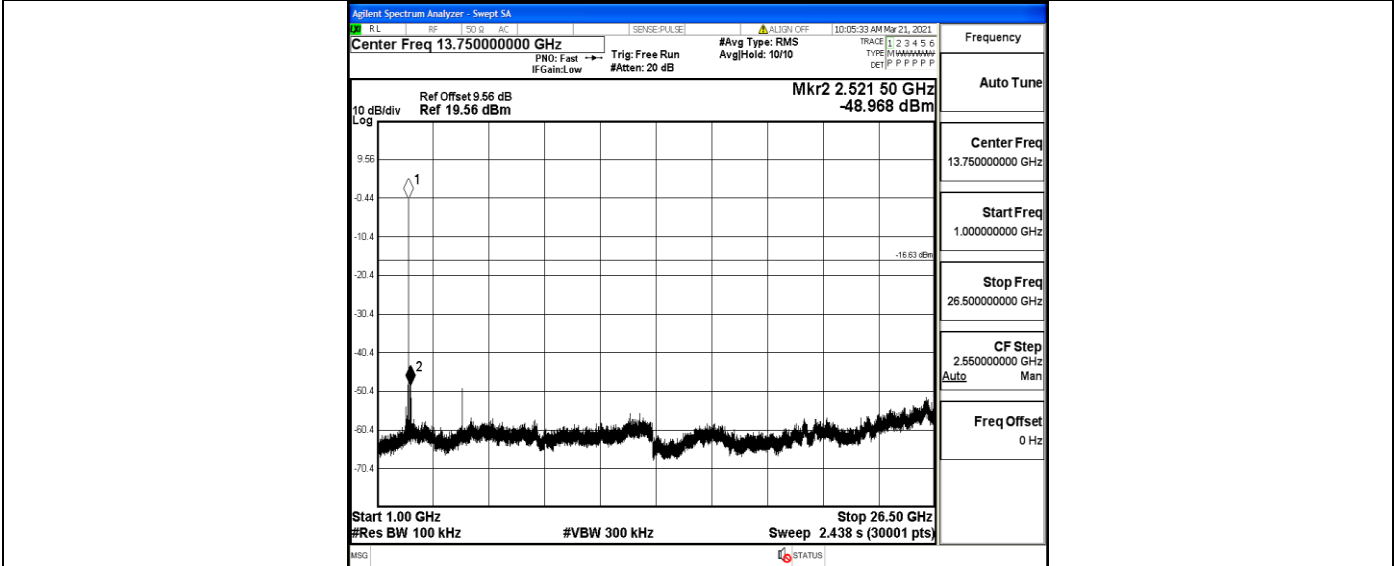
2DH5_Ant1_2441_0~Reference



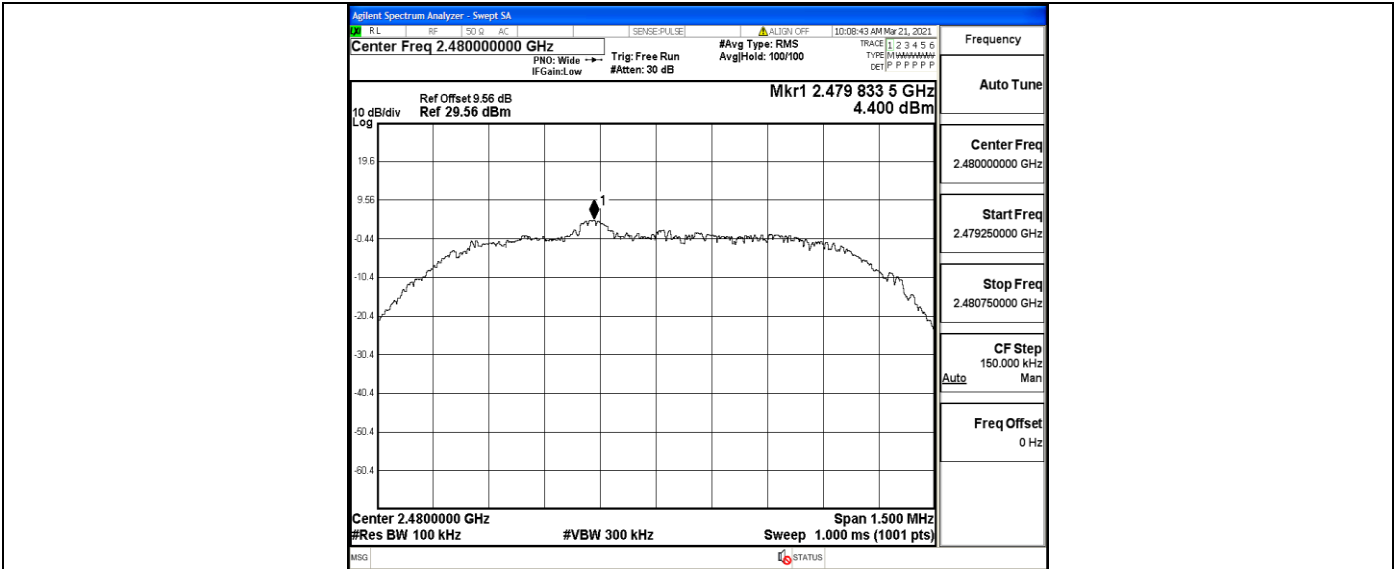
2DH5_Ant1_2441_30~1000



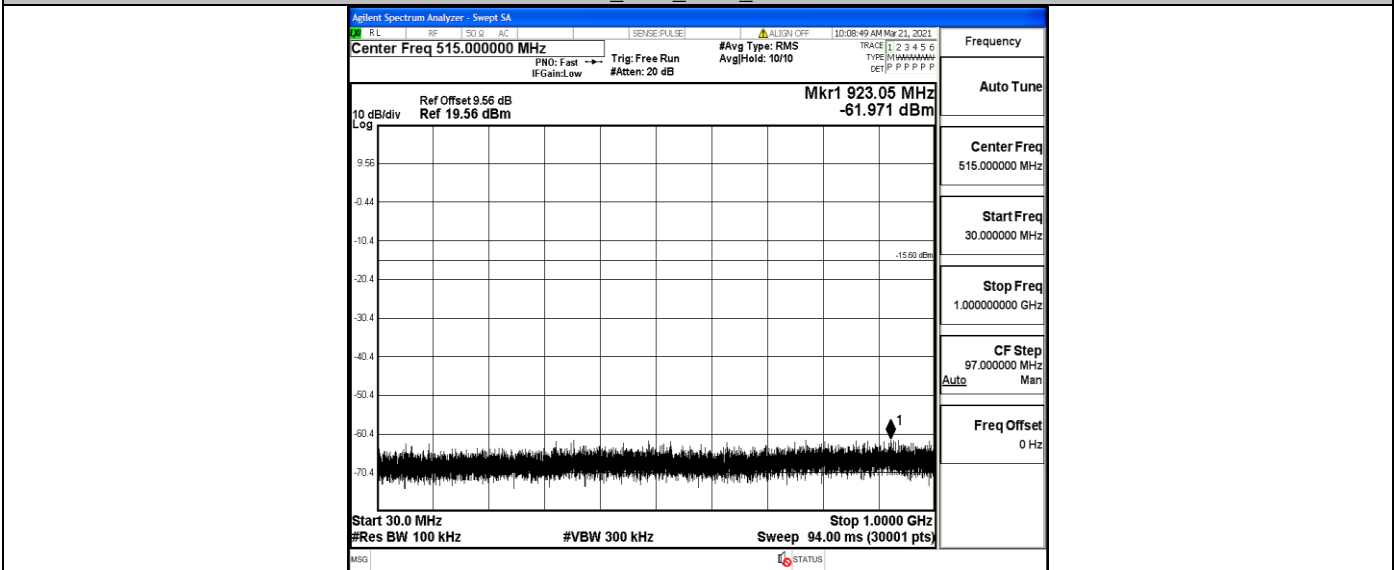
2DH5_Ant1_2441_1000~26500



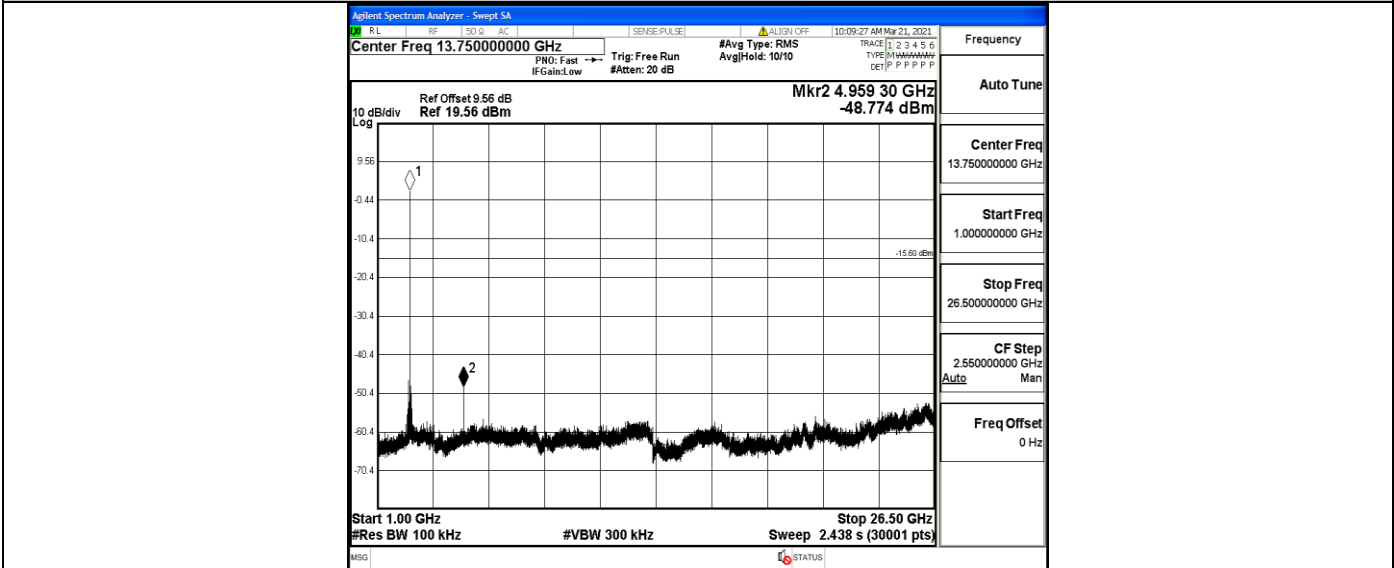
2DH5_Ant1_2480_0~Reference



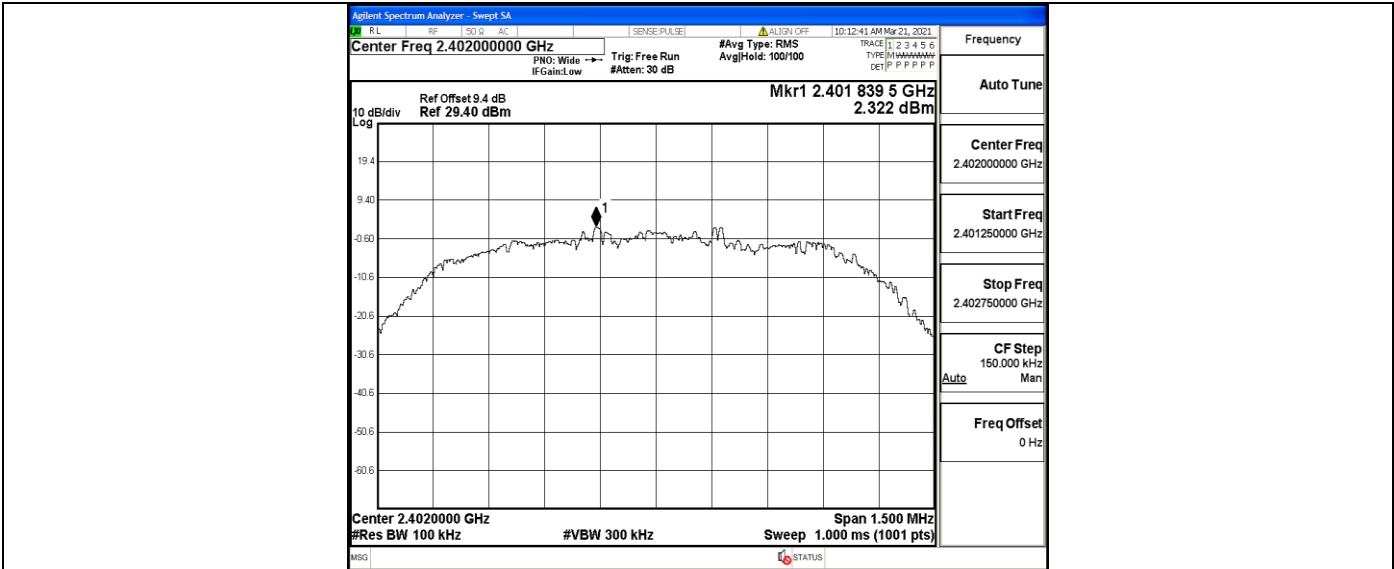
2DH5_Ant1_2480_30~1000



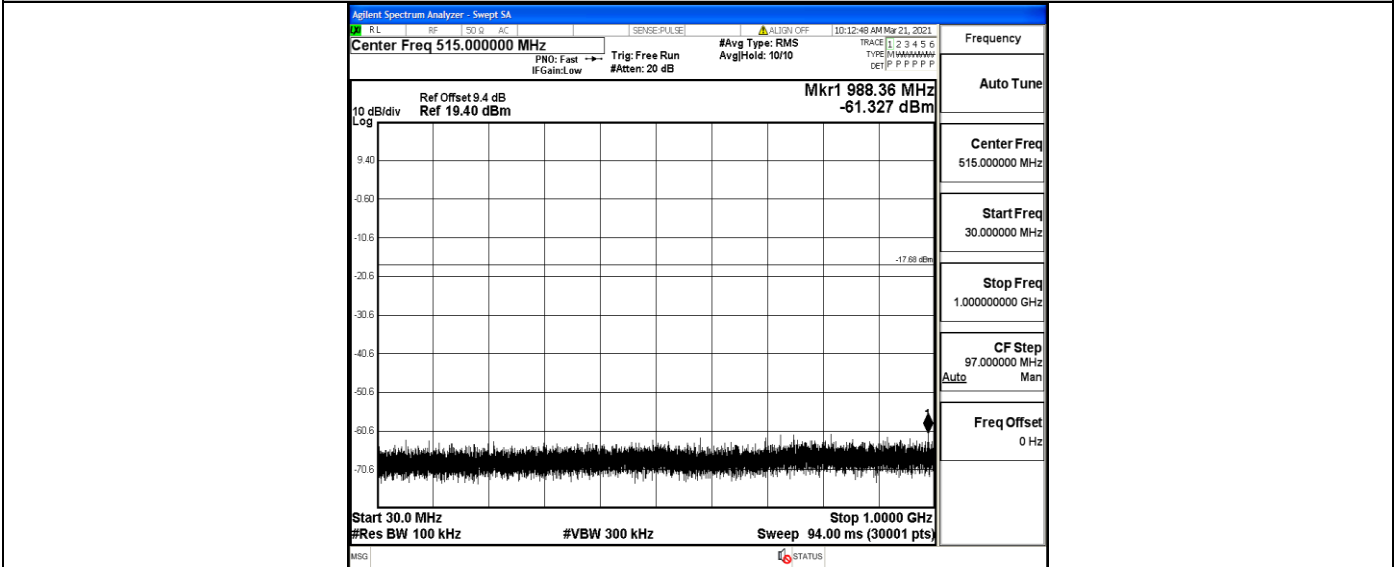
2DH5_Ant1_2480_1000~26500



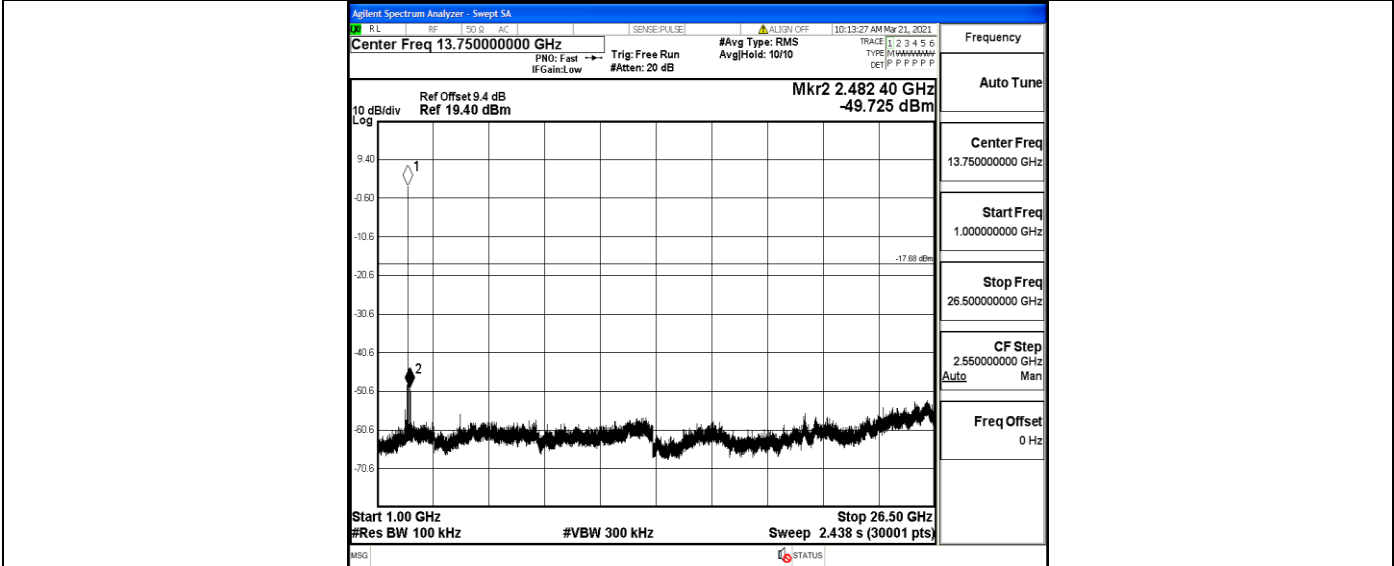
3DH5_Ant1_2402_0~Reference



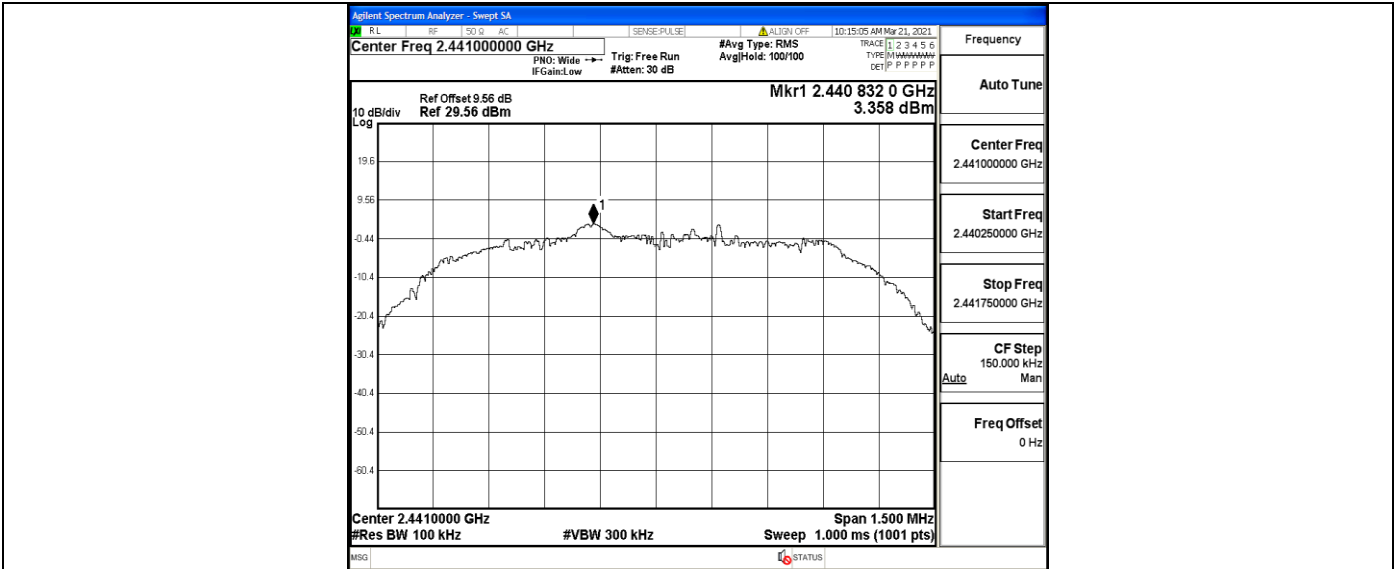
3DH5_Ant1_2402_30~1000



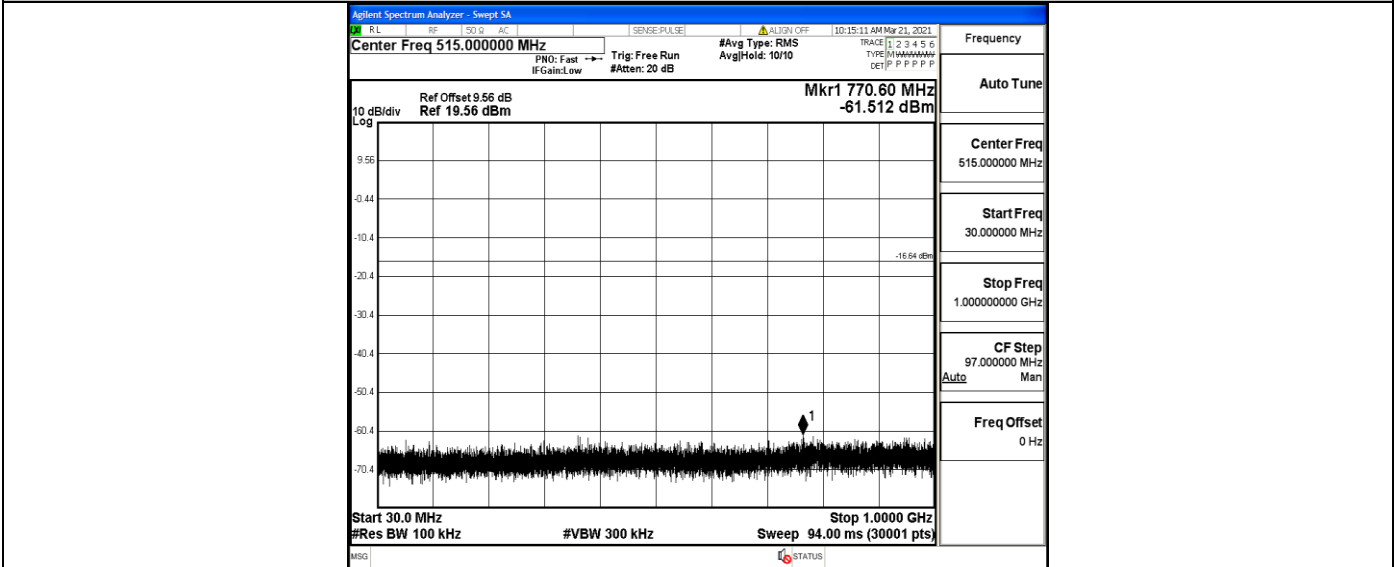
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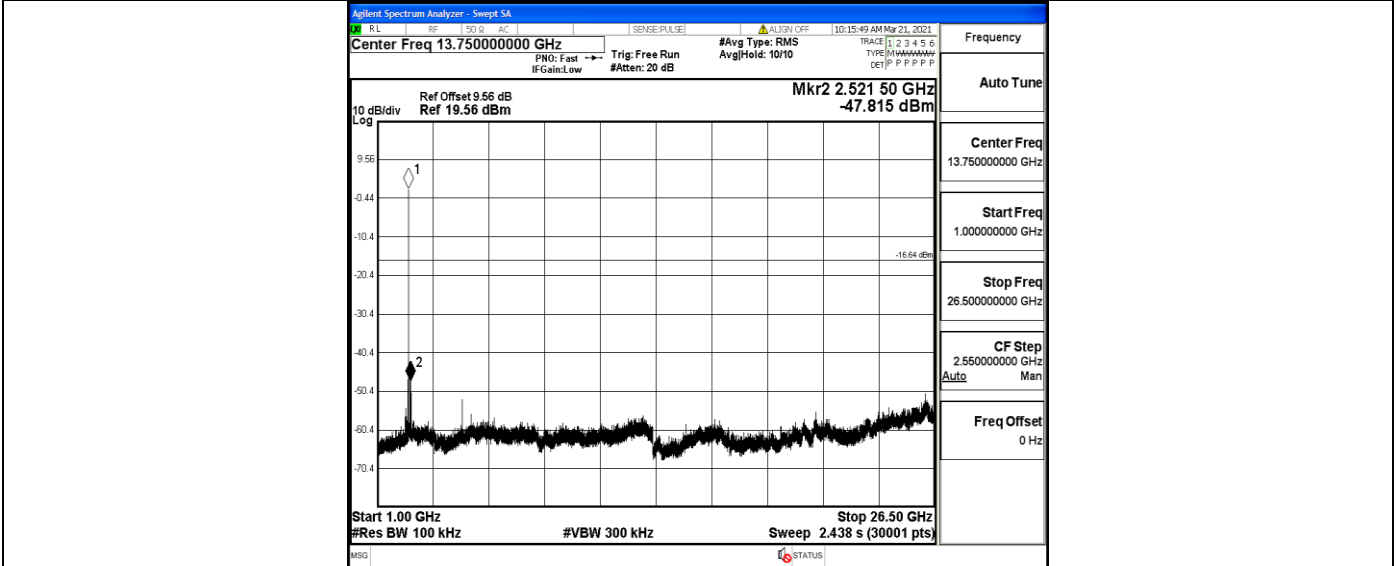
3DH5_Ant1_2441_0~Reference



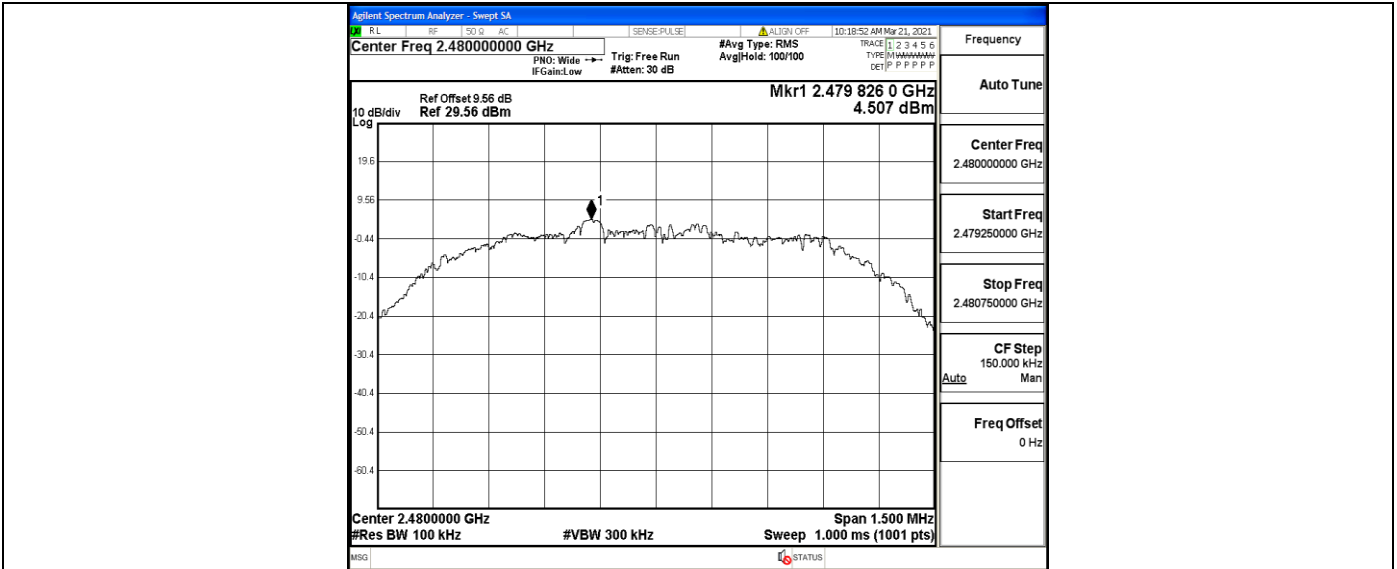
3DH5_Ant1_2441_30~1000



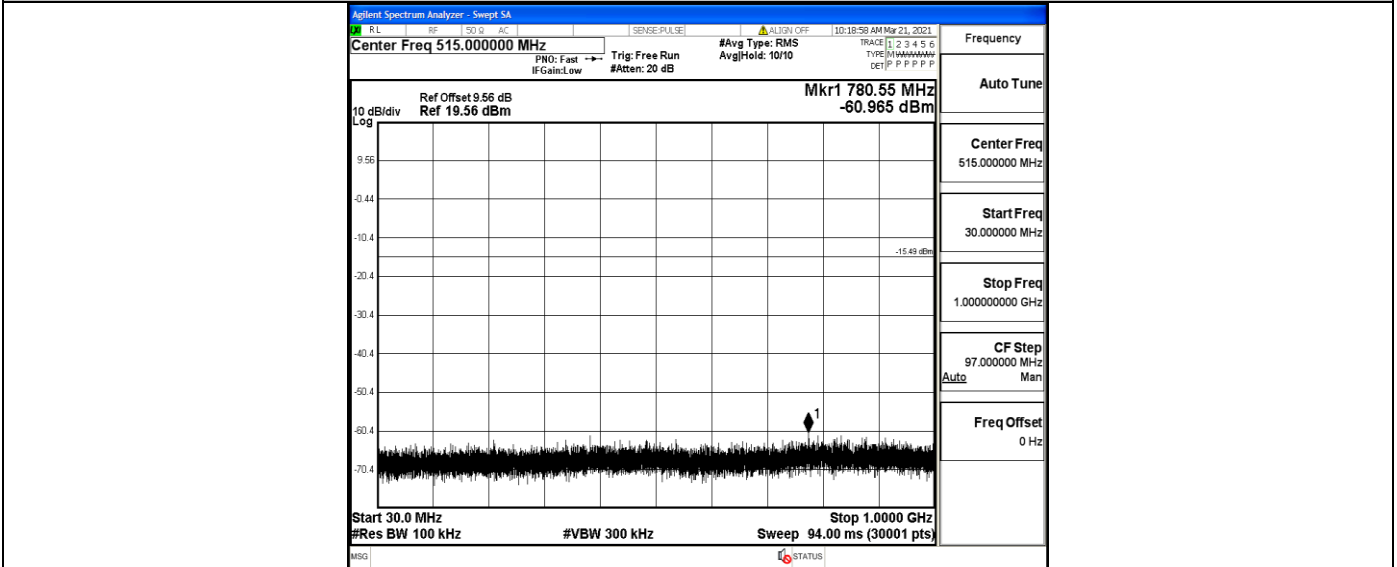
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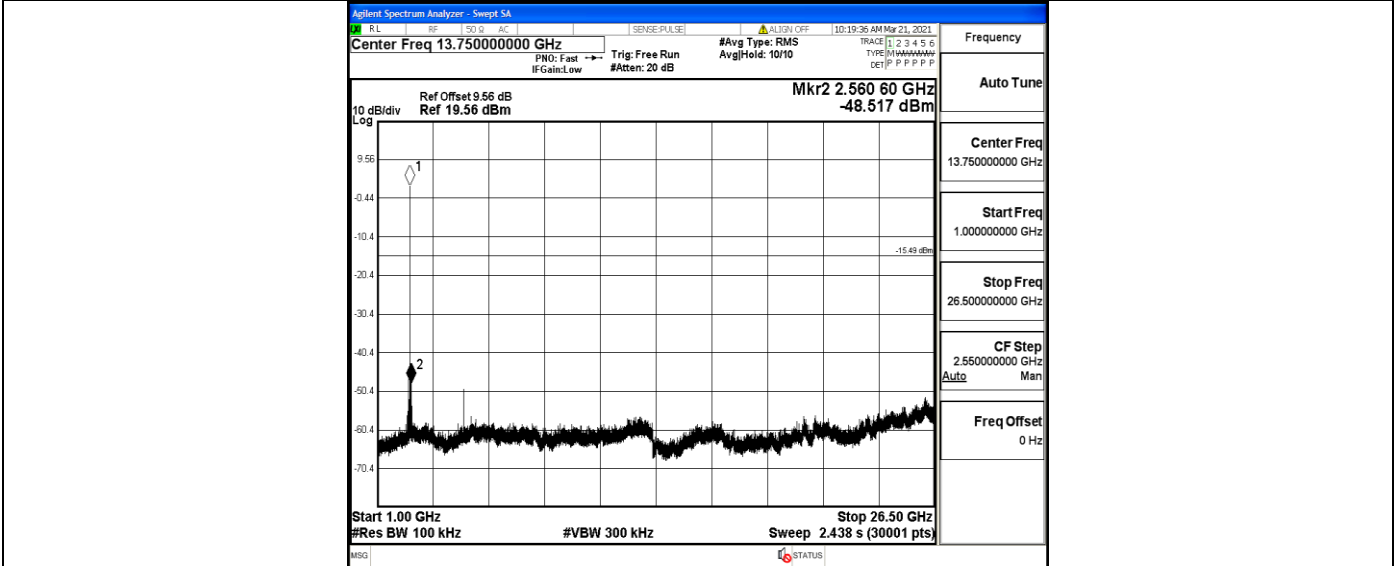
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3DH5_Ant1_2480_30~1000



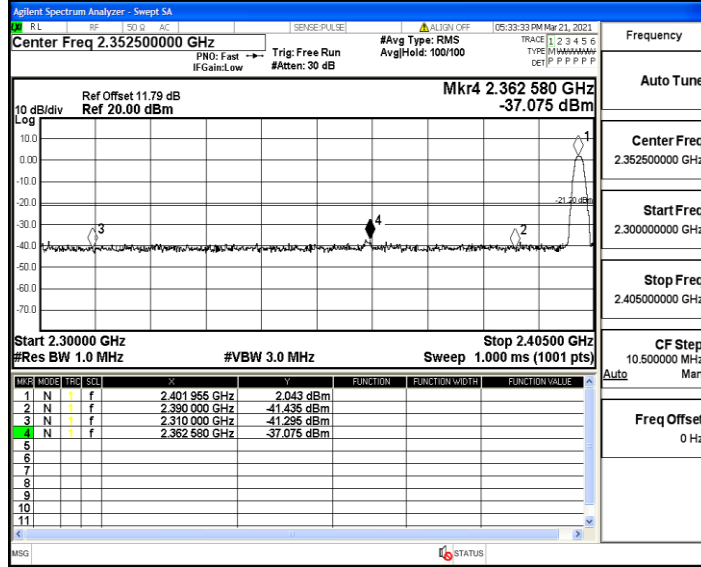
3DH5_Ant1_2480_1000~26500



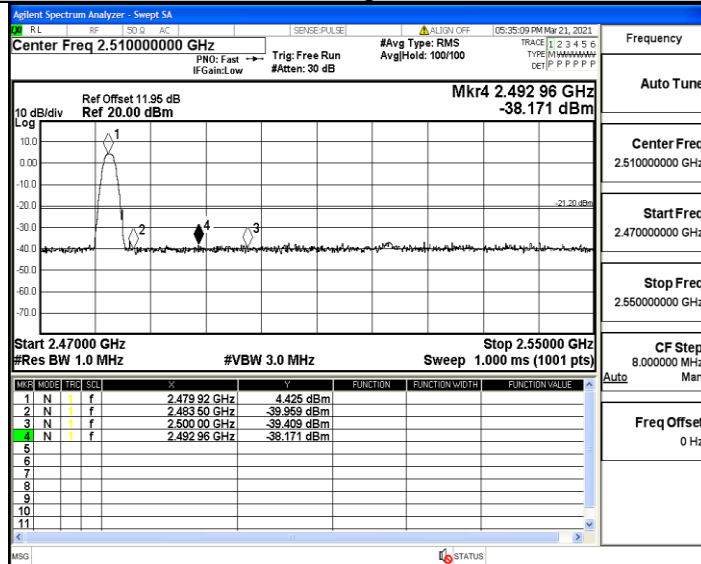
A.8 Restrict-band band-edge measurements

TestMode	Antenna	ChName	Channel	Detector	Freq	Result	Limit	Verdict
DH5	Ant1	Low	2402	AV	2310.000	-48.58	<=-41.20	PASS
				AV	2361.950	-44.44	<=-41.20	PASS
				AV	2390.000	-48.17	<=-41.20	PASS
				Peak	2310.000	-41.3	<=-21.20	PASS
				Peak	2362.580	-37.07	<=-21.20	PASS
				Peak	2390.000	-41.44	<=-21.20	PASS
		High	2480	AV	2483.500	-47.27	<=-41.20	PASS
				AV	2500.000	-47.37	<=-41.20	PASS
				Peak	2483.500	-39.96	<=-21.20	PASS
				Peak	2492.960	-38.17	<=-21.20	PASS
2DH5	Ant1	Low	2402	AV	2310.000	-48.63	<=-41.20	PASS
				AV	2361.845	-45.24	<=-41.20	PASS
				AV	2390.000	-48.3	<=-41.20	PASS
				Peak	2310.000	-41.38	<=-21.20	PASS
				Peak	2362.370	-37.3	<=-21.20	PASS
				Peak	2390.000	-41.15	<=-21.20	PASS
		High	2480	AV	2483.500	-47	<=-41.20	PASS
				AV	2483.520	-46.99	<=-41.20	PASS
				AV	2500.000	-47.49	<=-41.20	PASS
				Peak	2483.500	-40.86	<=-21.20	PASS
3DH5	Ant1	Low	2402	AV	2310.000	-48.6	<=-41.20	PASS
				AV	2361.950	-45.25	<=-41.20	PASS
				AV	2390.000	-48.25	<=-41.20	PASS
				Peak	2310.000	-39.99	<=-21.20	PASS
				Peak	2361.740	-36.8	<=-21.20	PASS
				Peak	2390.000	-41.42	<=-21.20	PASS
		High	2480	AV	2483.500	-46.97	<=-41.20	PASS
				AV	2500.000	-47.42	<=-41.20	PASS
				Peak	2483.500	-41.17	<=-21.20	PASS
				Peak	2490.400	-37.54	<=-21.20	PASS
				Peak	2500.000	-41.21	<=-21.20	PASS

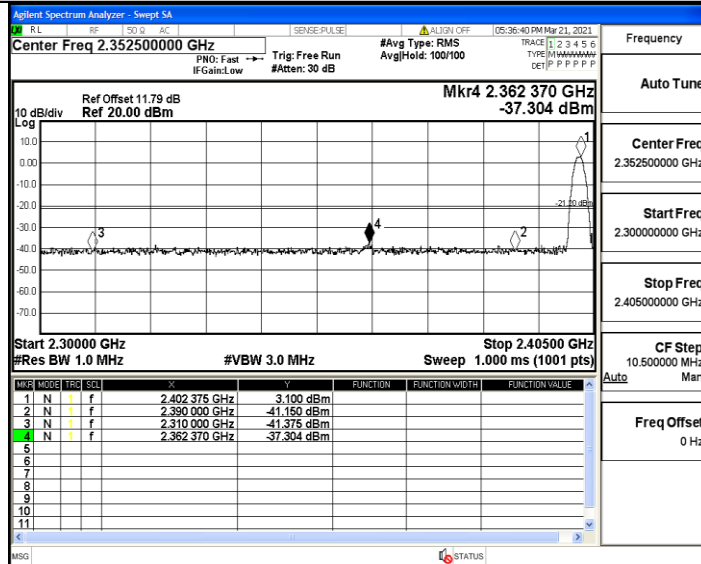
DH5_Ant1_Low_2402_AV



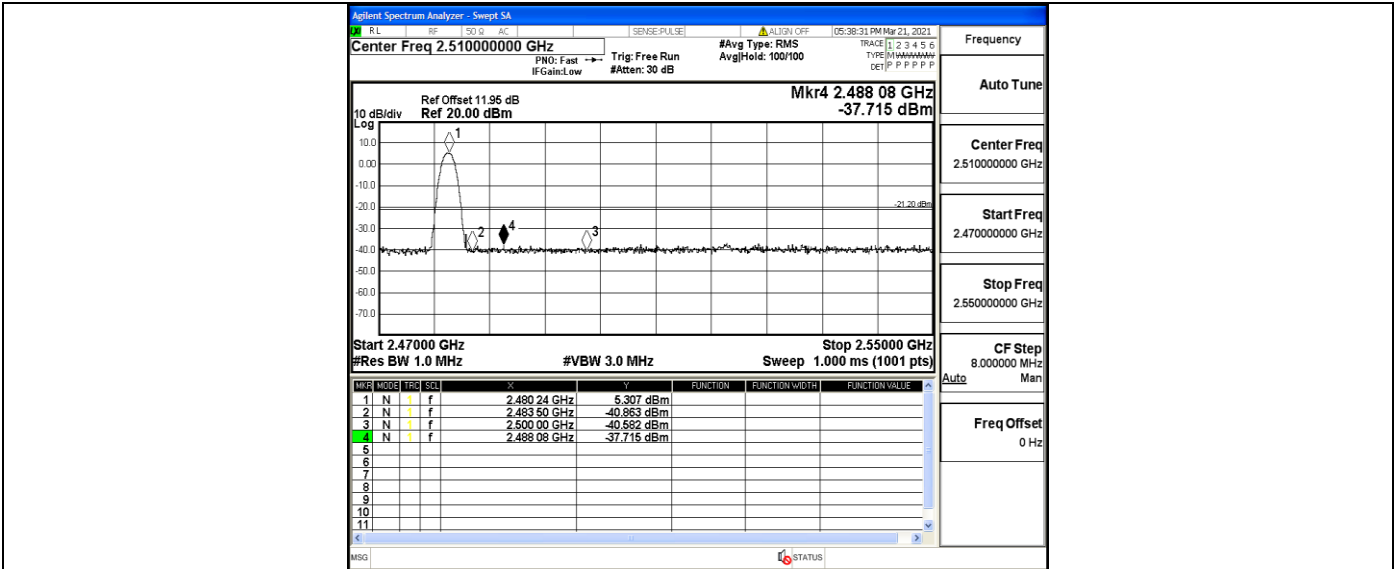
DH5_Ant1_High_2480_AV



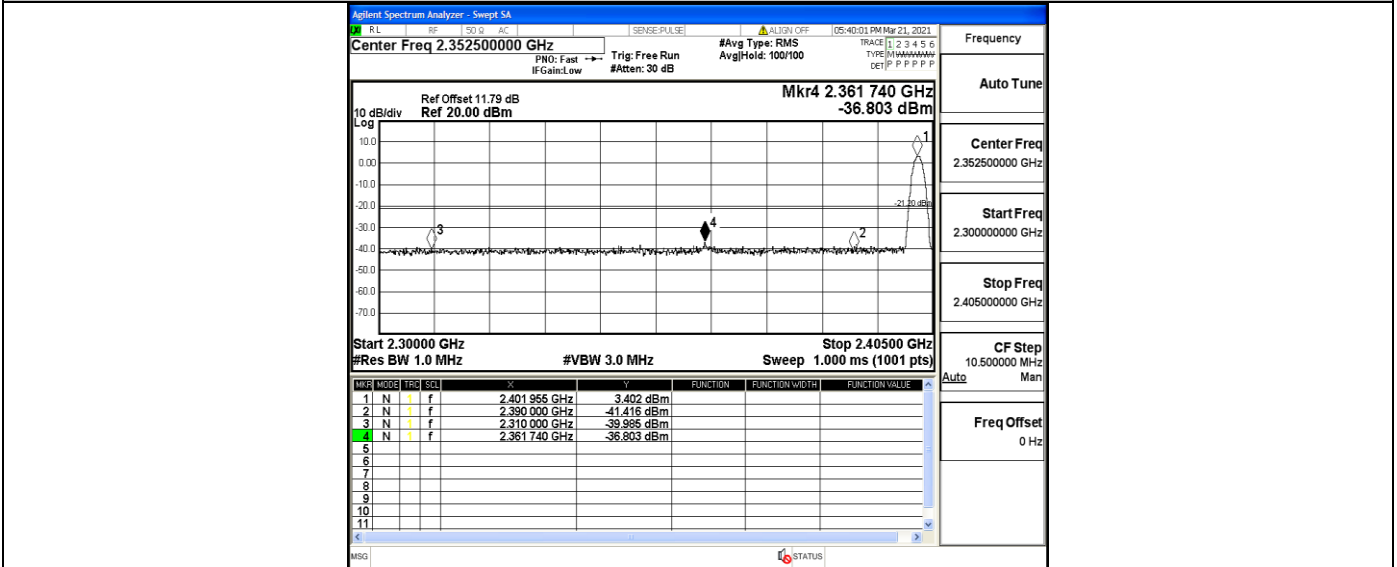
2DH5_Ant1_Low_2402_AV



2DH5_Ant1_High_2480_AV



3DH5_Ant1_Low_2402_AV



3DH5_Ant1_High_2480_AV

