

Appendix A

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

Product Name: Bluetooth Speaker
Trade Mark: Realtree, MUZE, Vivitar

Test Model: RLT5005
FCC ID: 2AL9B-RLT5005

Environmental Conditions

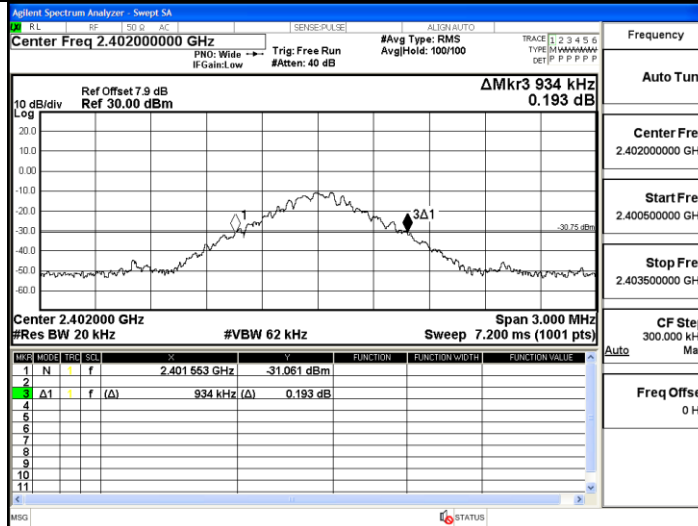
Temperature:	22.8° C
Relative Humidity:	56%
ATM Pressure:	100.0 kPa
Test Engineer:	Anna Hu
Supervised by:	Hugo Chen

A.1 20 dB Bandwidth

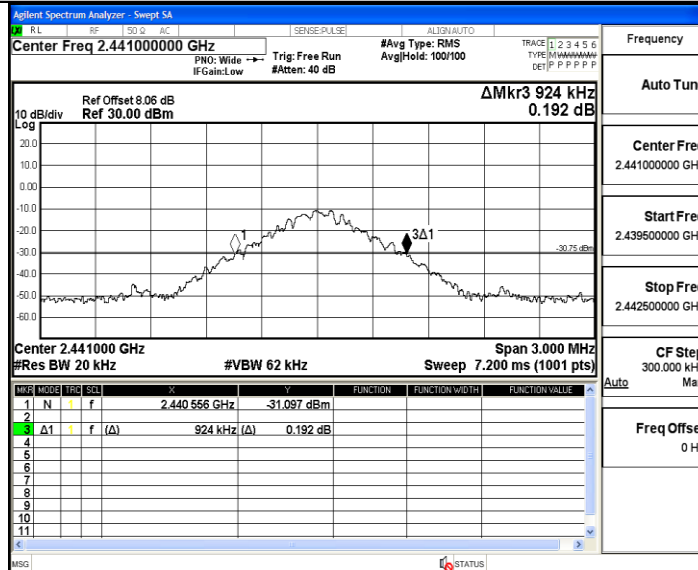
TestMode	Antenna	Channel	20db EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.934	2401.553	2402.489	---	PASS
		2441	0.924	2440.556	2441.480	---	PASS
		2480	0.927	2479.562	2480.489	---	PASS
2DH5	Ant1	2402	1.278	2401.358	2402.636	---	PASS
		2441	1.338	2440.346	2441.684	---	PASS
		2480	1.287	2479.358	2480.645	---	PASS

Test Graph

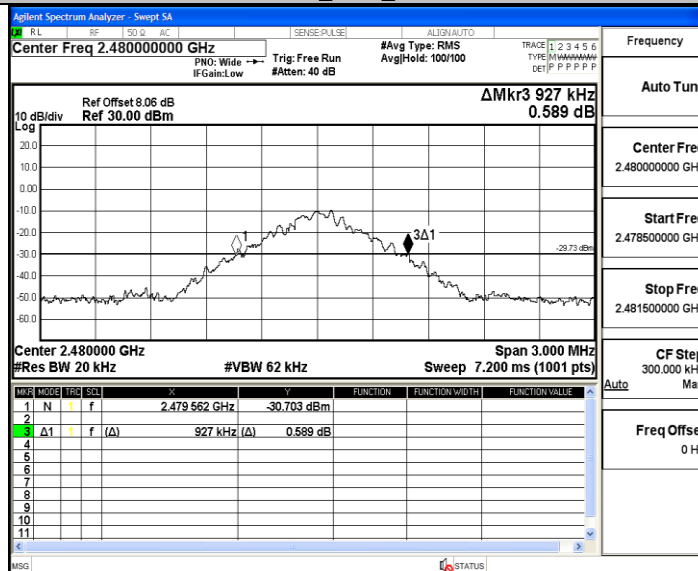
DH5_Ant1_2402



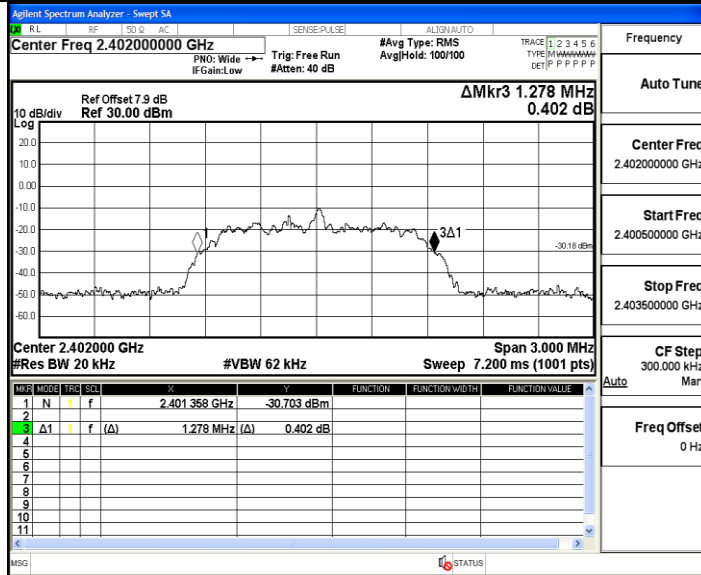
DH5_Ant1_2441



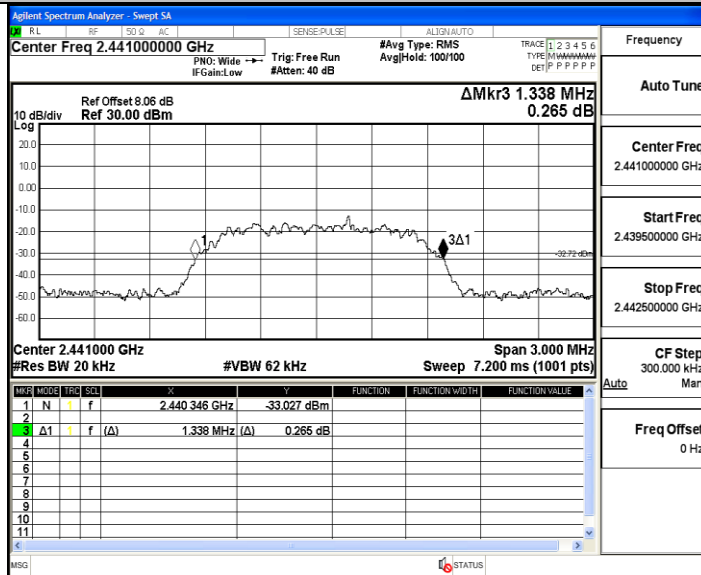
DH5_Ant1_2480



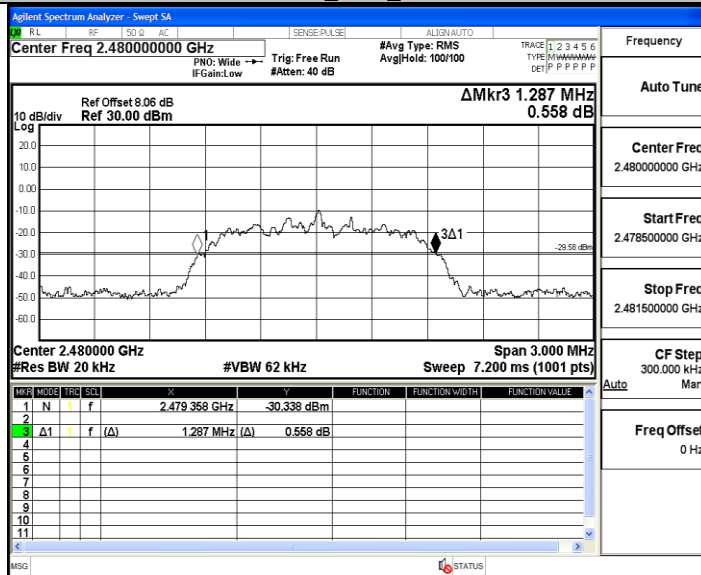
2DH5_Ant1_2402



2DH5_Ant1_2441



2DH5_Ant1_2480

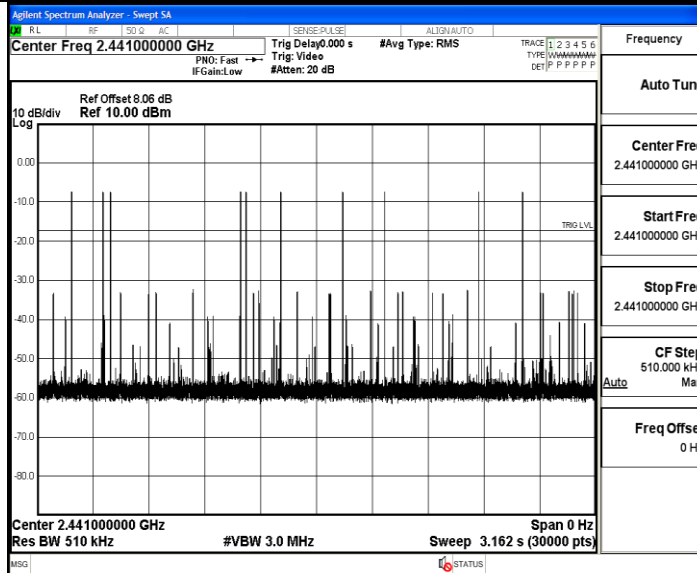
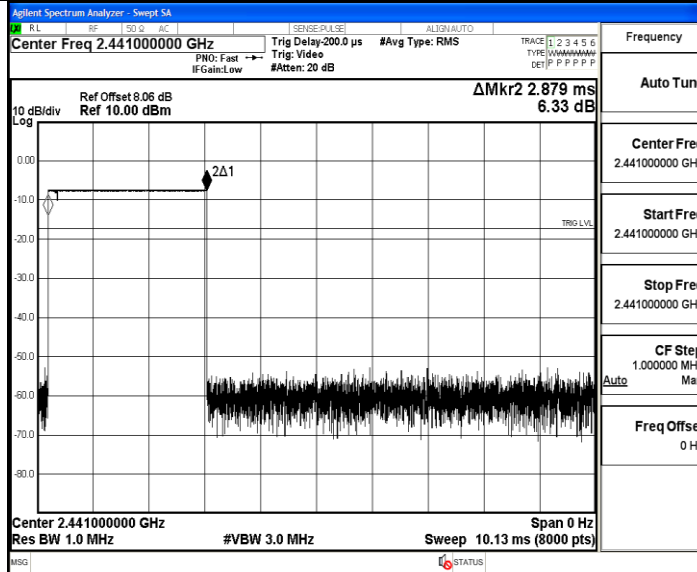


A.2 Dwell Time

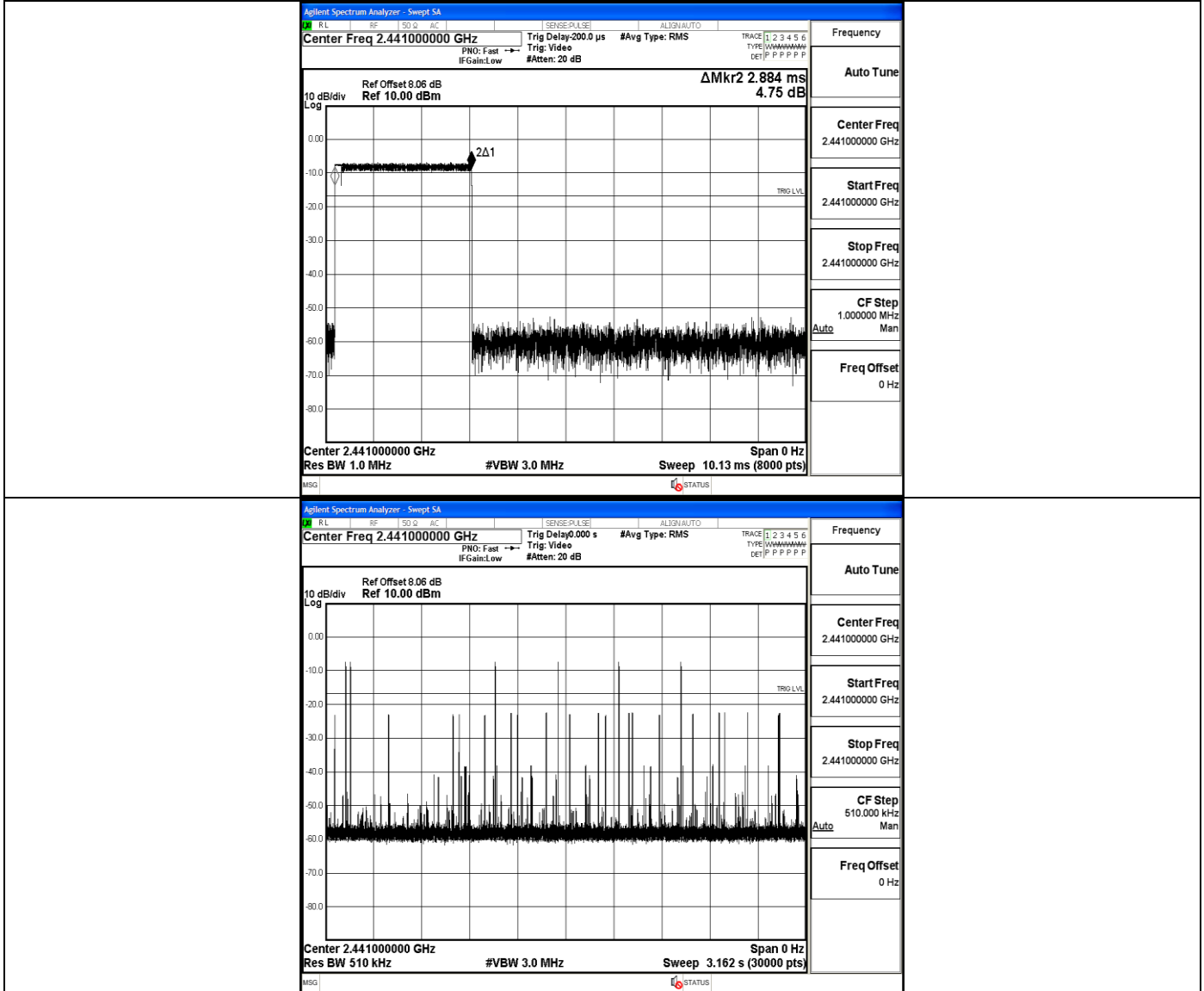
TestMode	Antenna	Channel	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH5	Ant1	Hop	2.88	110	0.317	≤0.4	PASS
2DH5	Ant1	Hop	2.88	70	0.202	≤0.4	PASS

Test Graph

DH5_Ant1_Hop



2DH5_Ant1_Hop

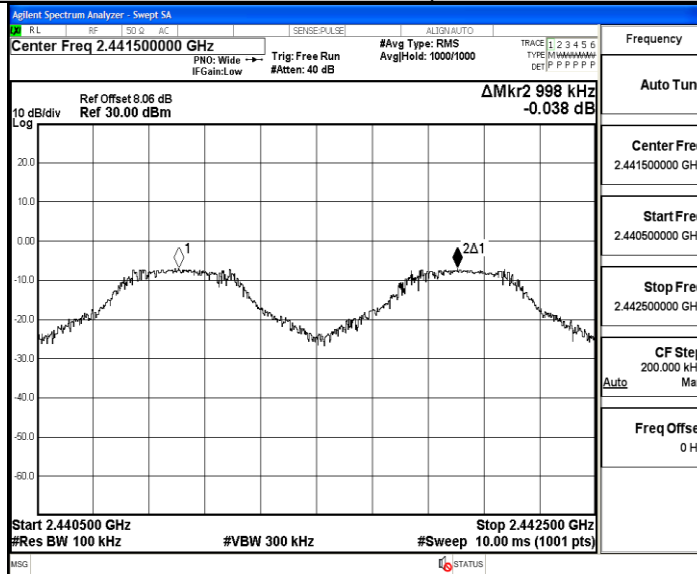


A.3 Carrier Frequency Separation

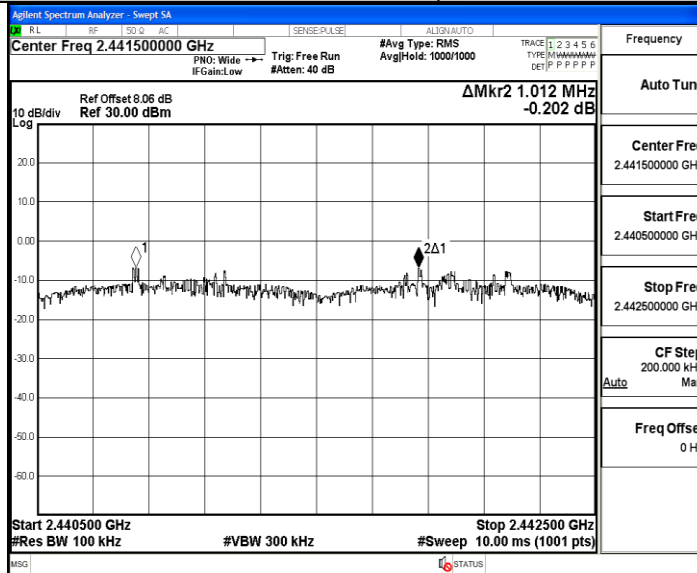
TestMode	Antenna	Channel	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	0.998	≥ 0.936	PASS
2DH5	Ant1	Hop	1.012	≥ 0.892	PASS

Test Graph

DH5_Ant1_Hop



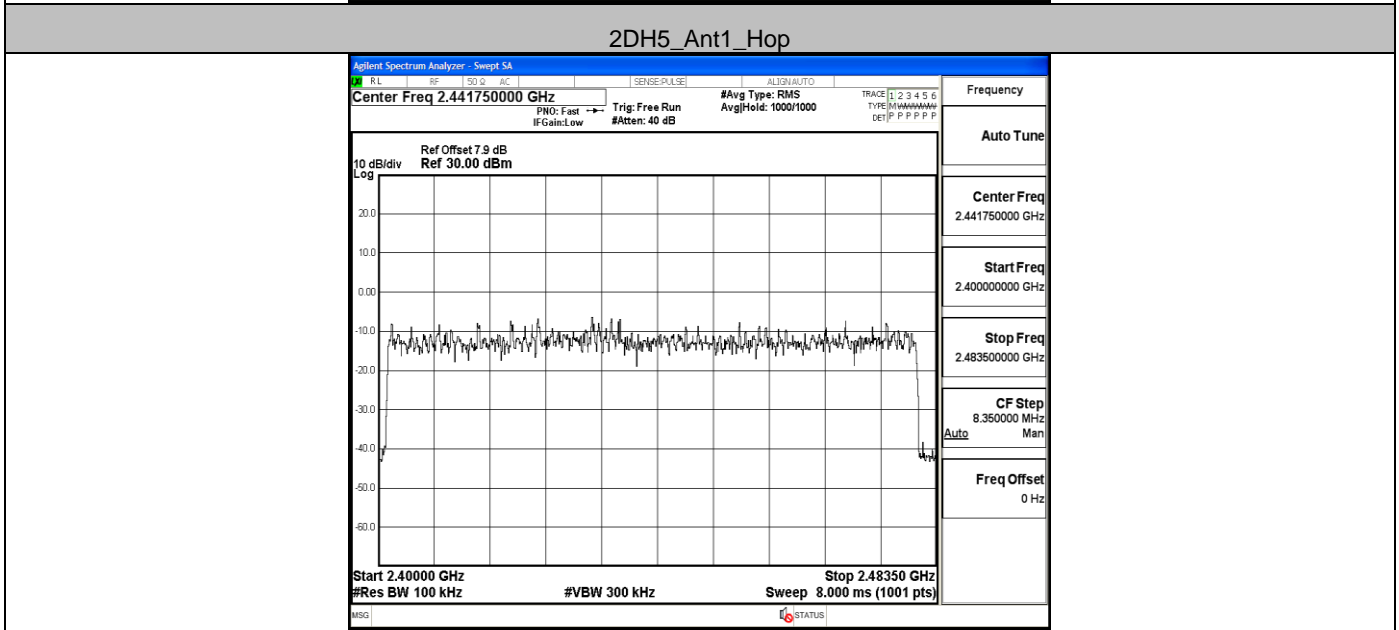
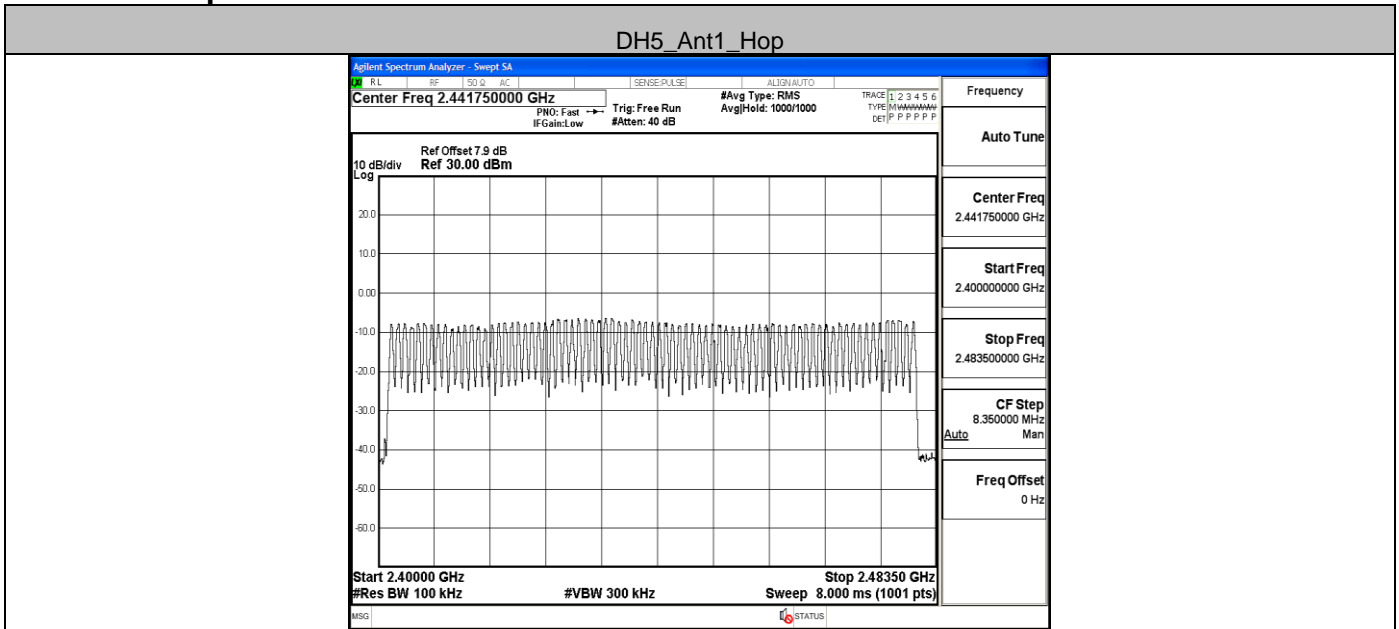
2DH5_Ant1_Hop



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

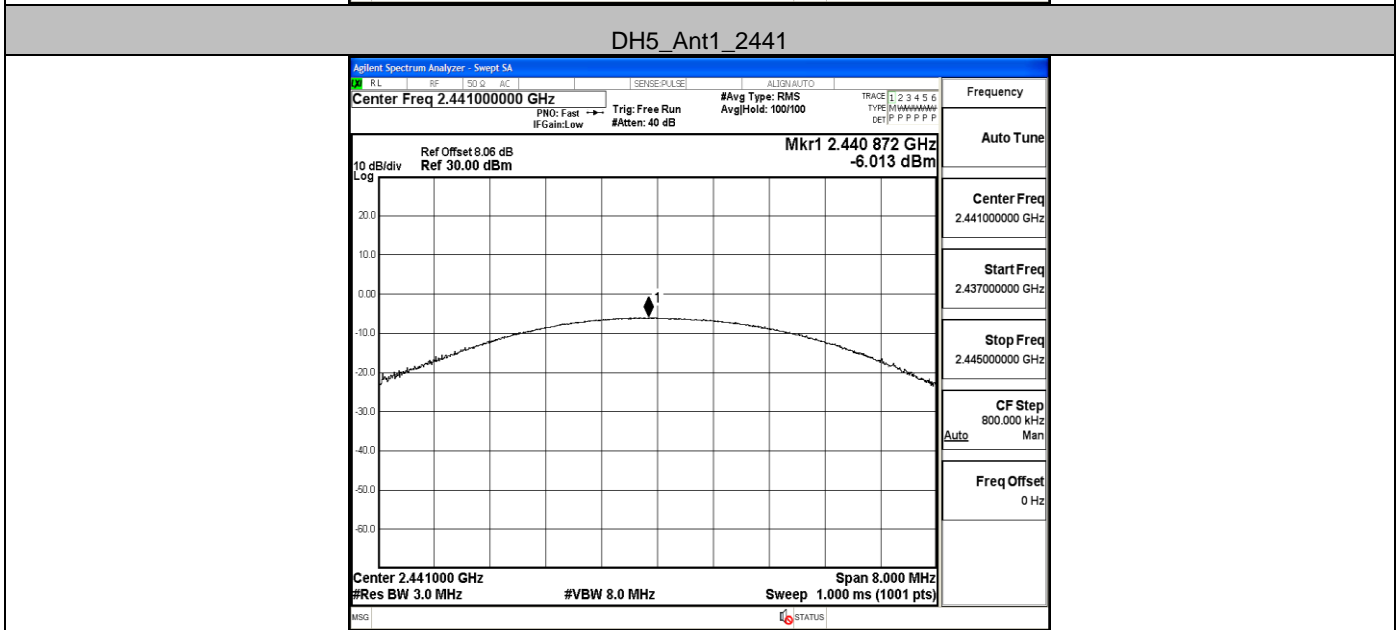
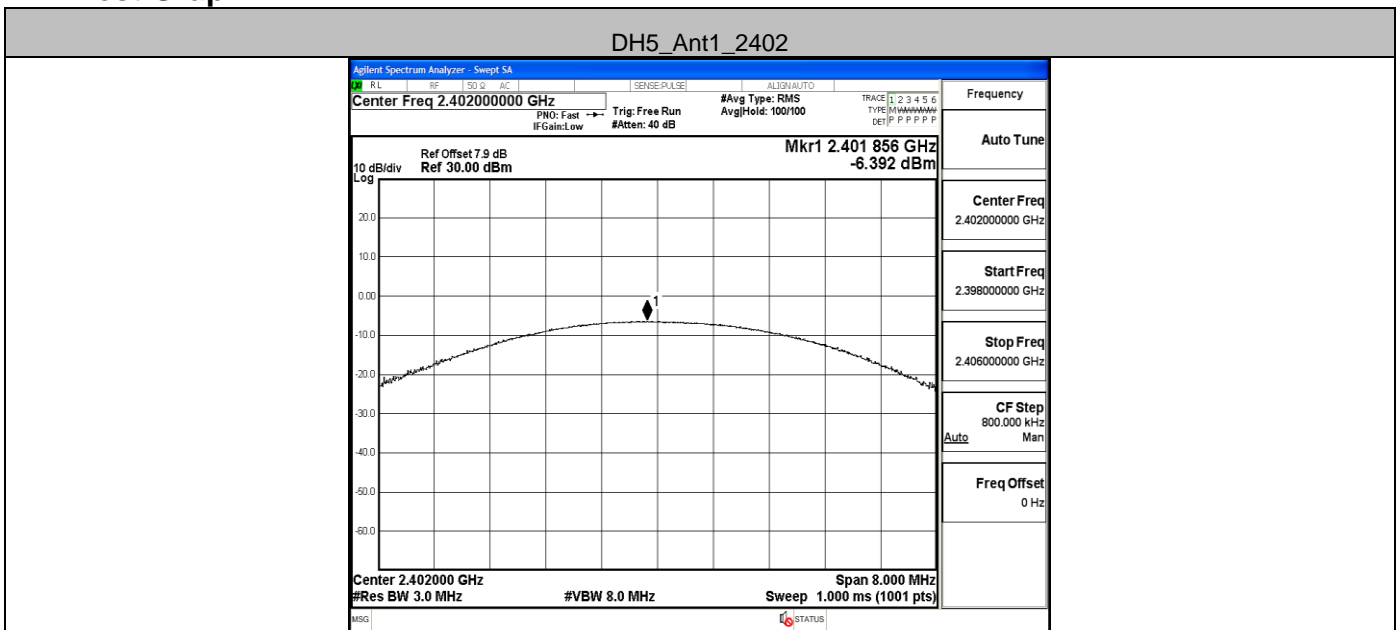
Test Graph



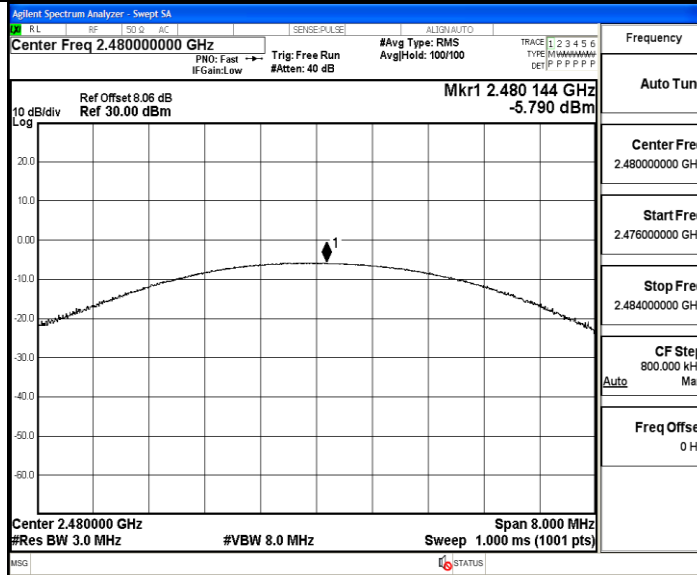
A.5 Conducted Peak Output Power

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
DH5	Ant1	2402	-6.39	≤30	PASS
		2441	-6.01	≤30	PASS
		2480	-5.79	≤30	PASS
2DH5	Ant1	2402	-5.85	≤20.97	PASS
		2441	-5.54	≤20.97	PASS
		2480	-5.12	≤20.97	PASS

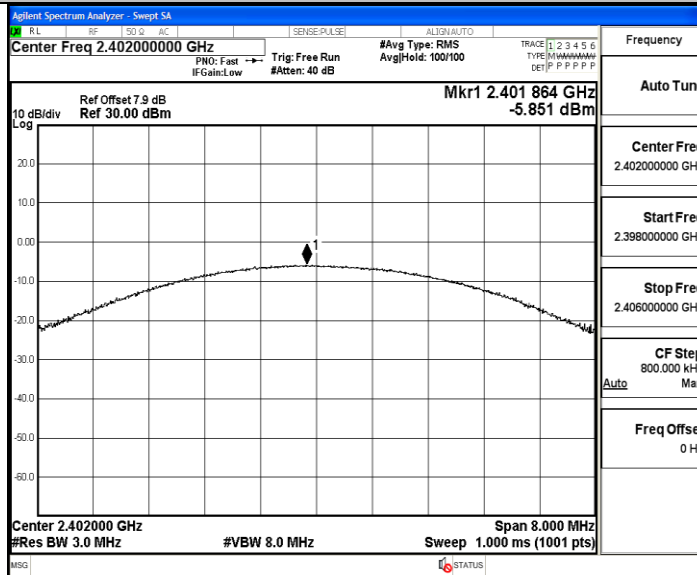
Test Graph



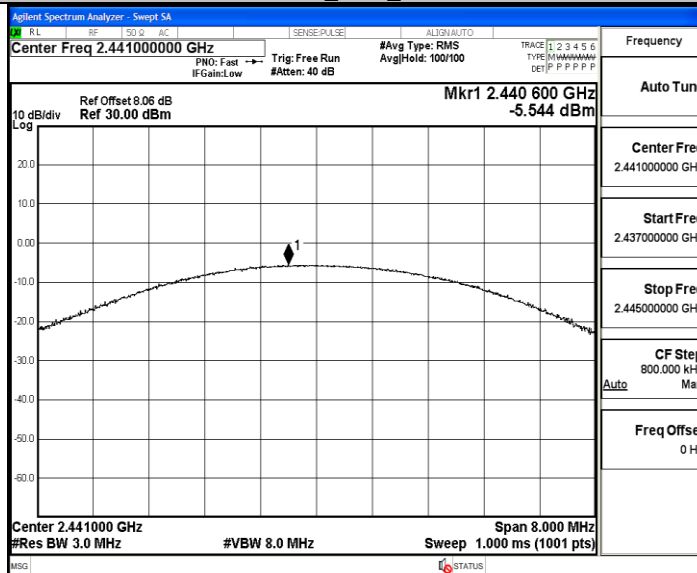
DH5_Ant1_2480



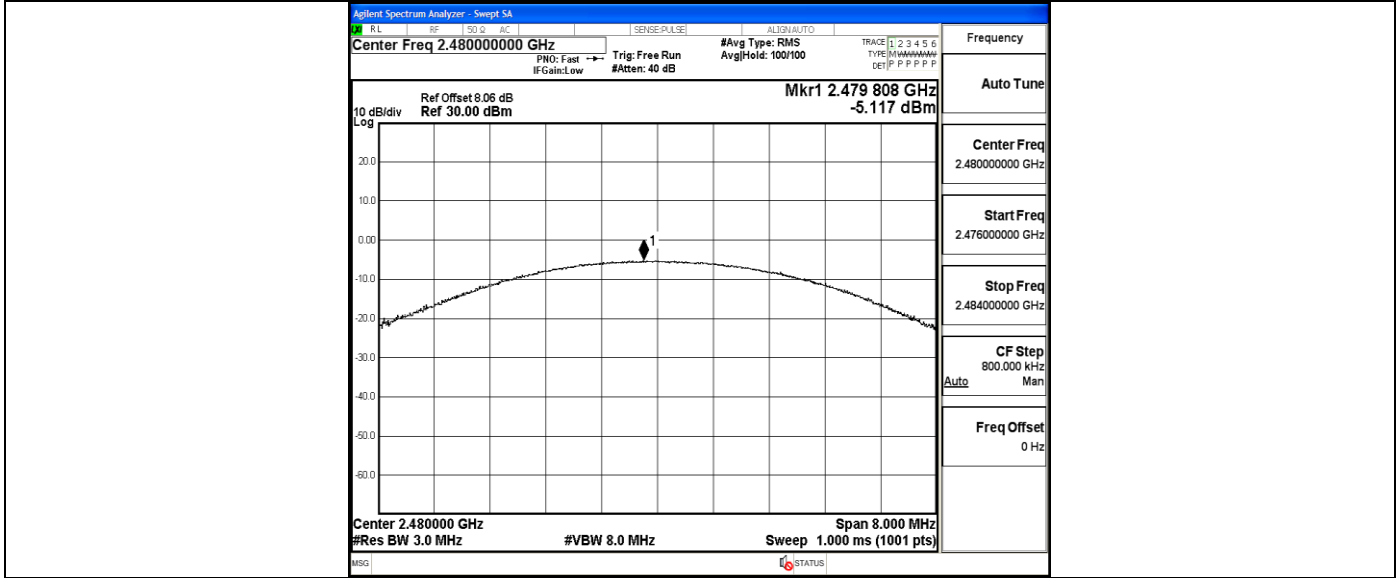
2DH5_Ant1_2402



2DH5_Ant1_2441



2DH5_Ant1_2480

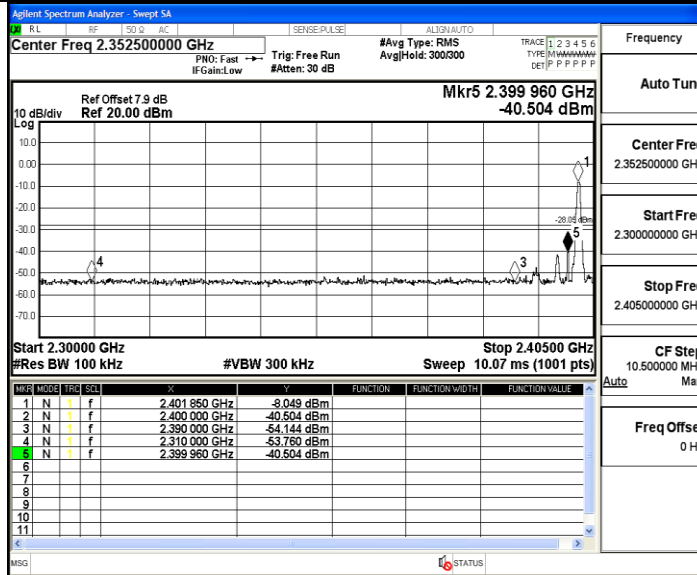


A.6 Band-edge for RF Conducted Emissions

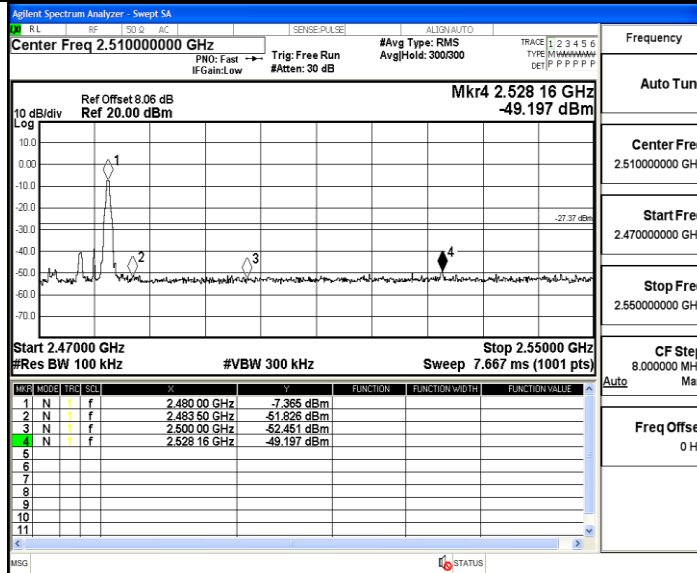
TestMode	Antenna	ChName	Channel	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	-8.05	-40.5	≤-28.05	PASS
		High	2480	-7.37	-49.2	≤-27.37	PASS
		Low	Hop_2402	-9.26	-51.64	≤-29.26	PASS
		High	Hop_2480	-7.83	-49.87	≤-27.83	PASS
2DH5	Ant1	Low	2402	-7.82	-40.21	≤-27.82	PASS
		High	2480	-7.12	-50.25	≤-27.12	PASS
		Low	Hop_2402	-10.92	-51.83	≤-30.92	PASS
		High	Hop_2480	-10.83	-48.55	≤-30.83	PASS

Test Graph

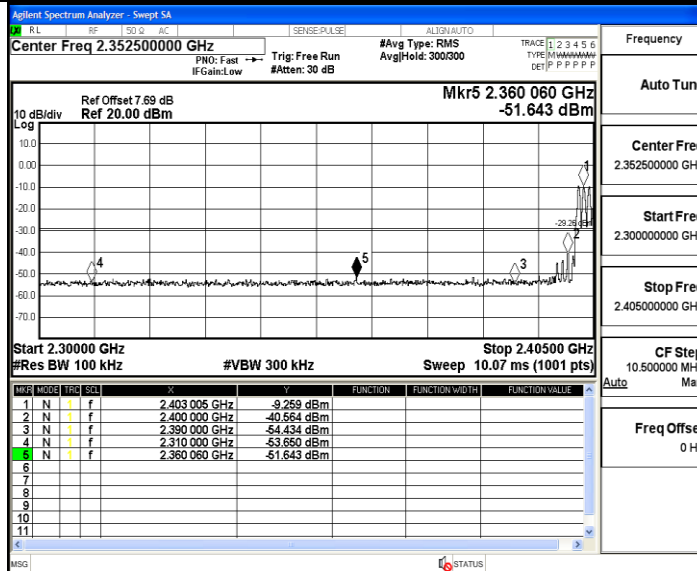
DH5_Ant1_Low_2402



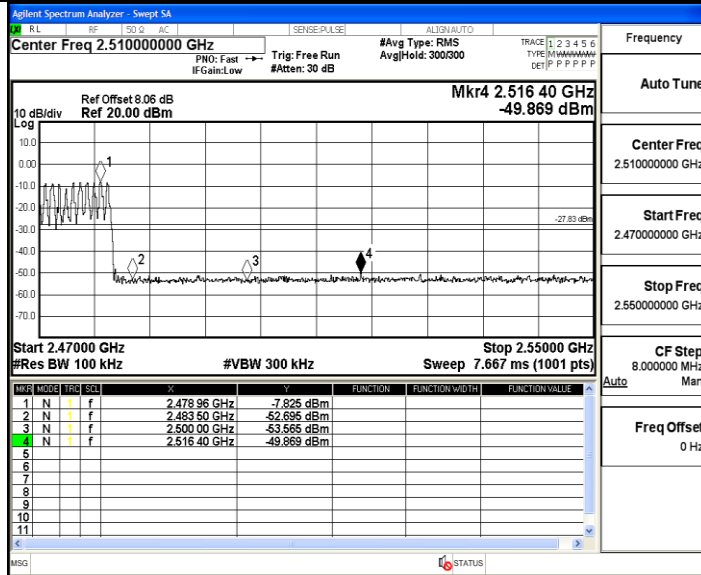
DH5_Ant1_High_2480



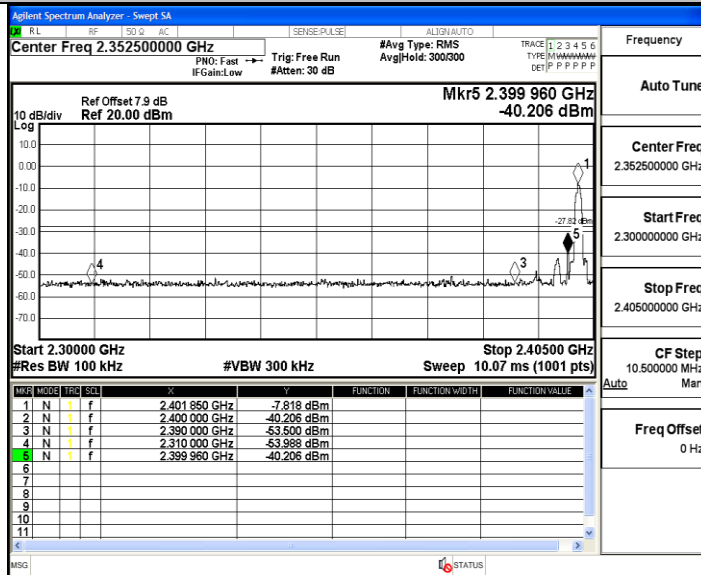
DH5_Ant1_Low_Hop_2402



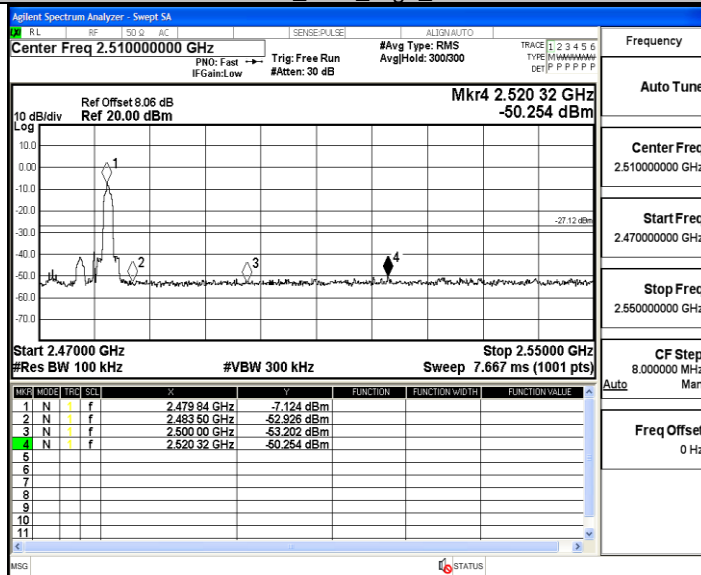
DH5_Ant1_High_Hop_2480



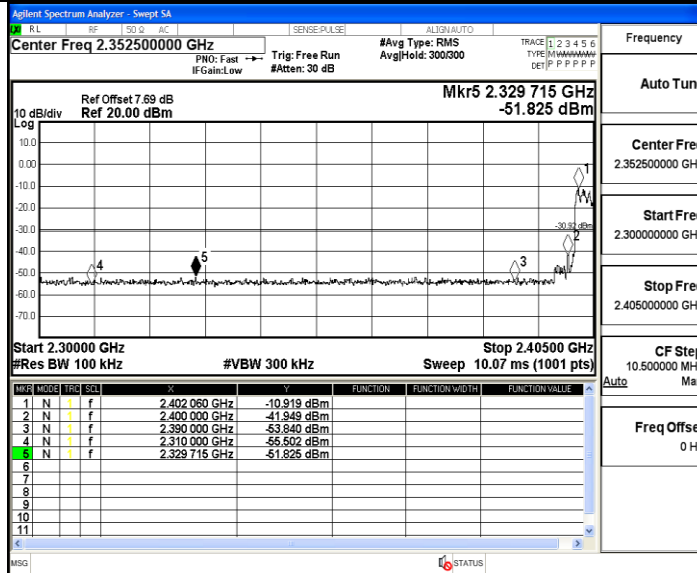
2DH5_Ant1_Low_2402



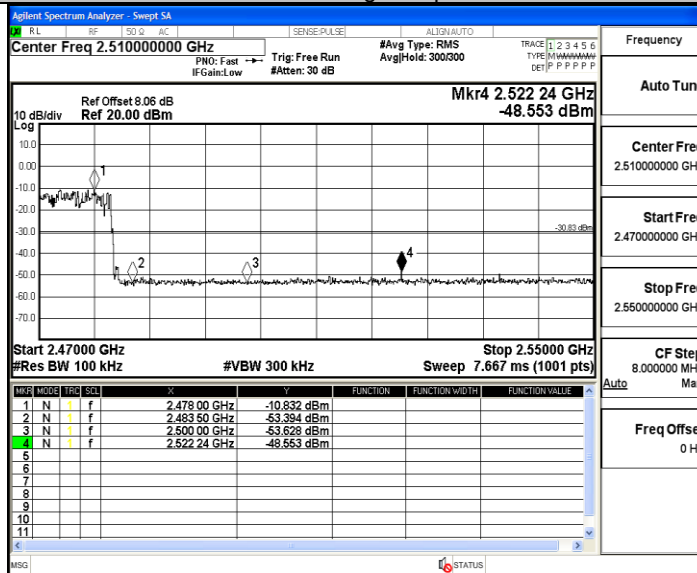
2DH5_Ant1_High_2480



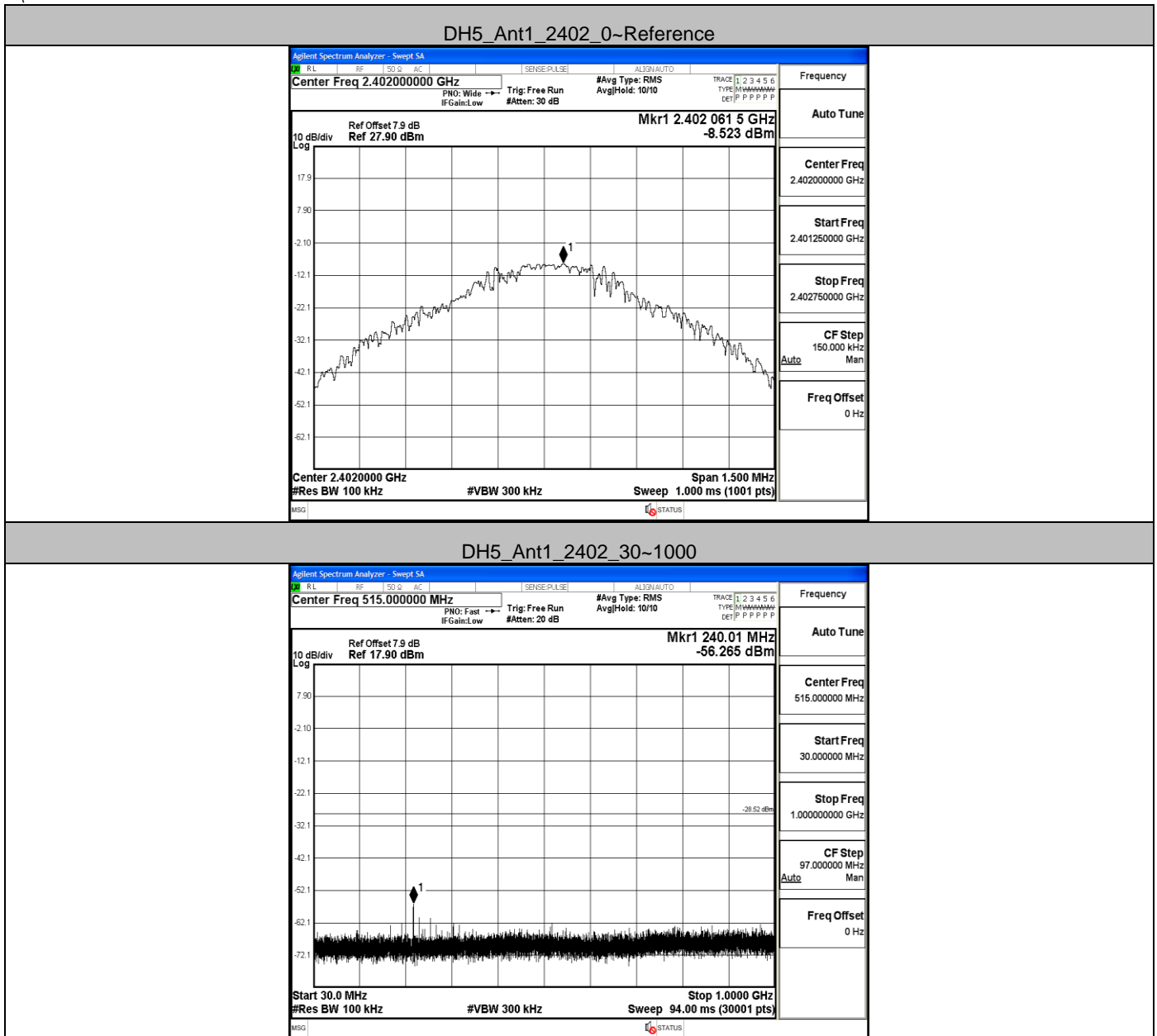
2DH5_Ant1_Low_Hop_2402



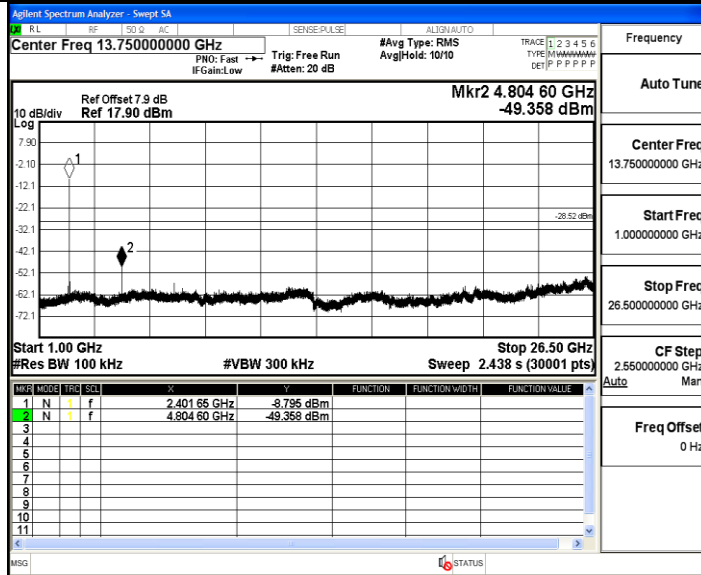
2DH5_Ant1_High_Hop_2480



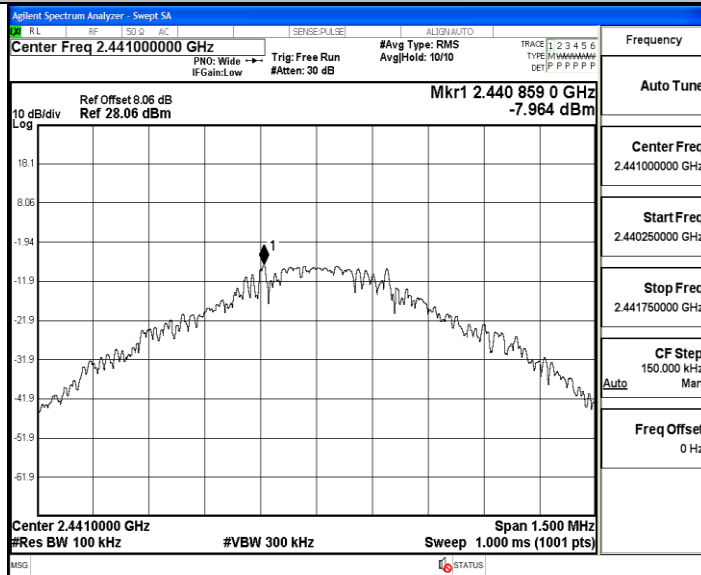
A.7 RF Conducted Spurious Emissions Test Graph



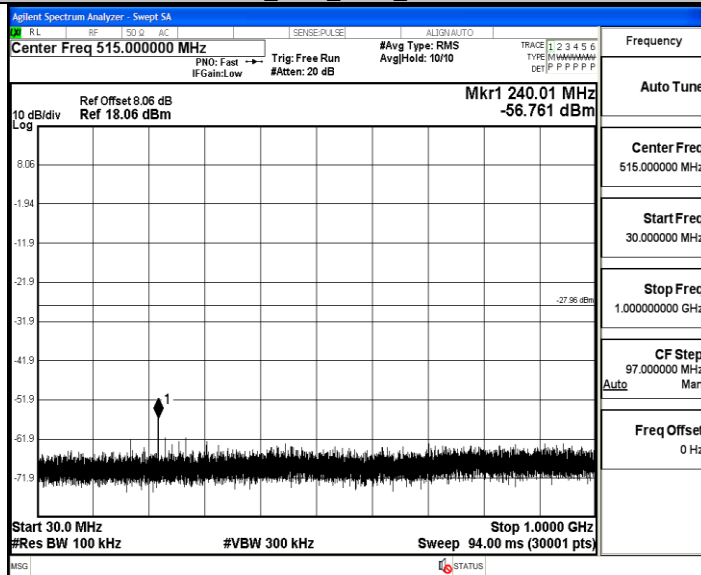
DH5_Ant1_2402_1000~26500



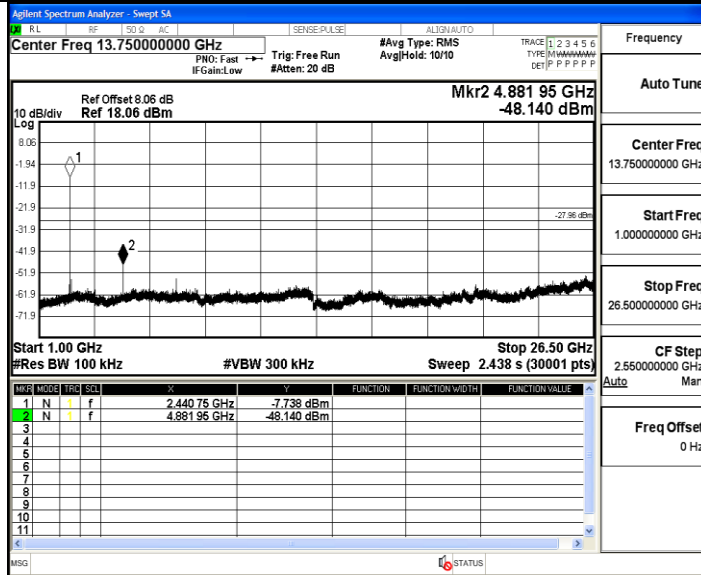
DH5_Ant1_2441_0~Reference



DH5_Ant1_2441_30~1000

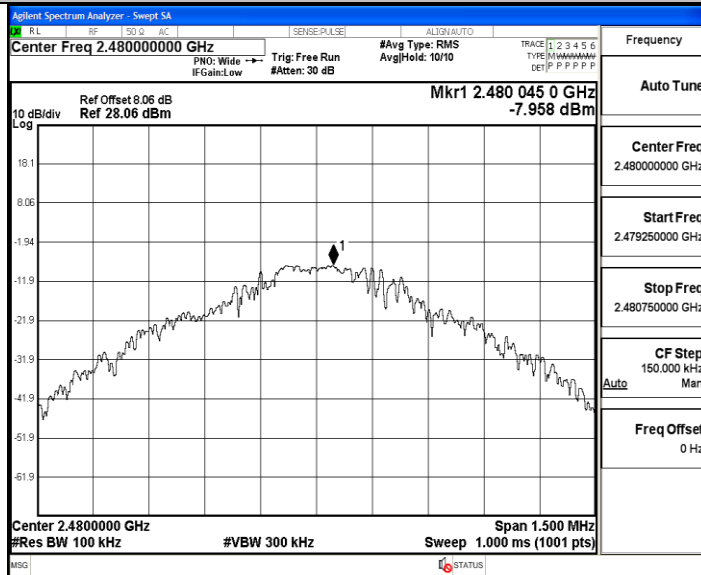


DH5_Ant1_2441_1000~26500



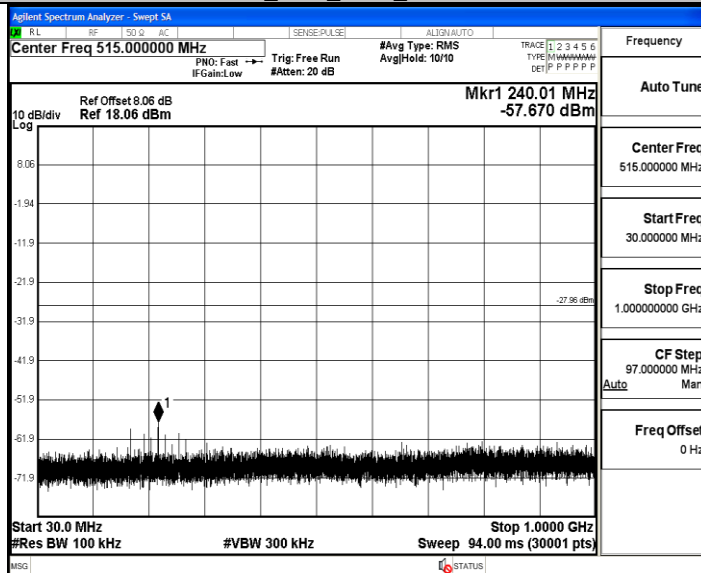
Frequency	Auto Tune
Center Freq	13.75000000 GHz
Start Freq	1.000000000 GHz
Stop Freq	26.500000000 GHz
CF Step	2.550000000 GHz
	Auto Man
Freq Offset	0 Hz

DH5_Ant1_2480_0~Reference



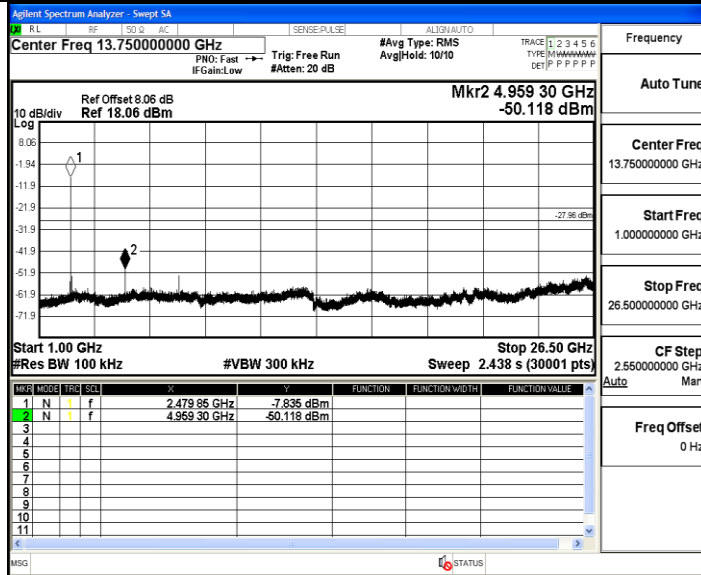
Frequency	Auto Tune
Center Freq	2.48000000 GHz
Start Freq	2.479250000 GHz
Stop Freq	2.480750000 GHz
CF Step	150.000 kHz
	Auto Man
Freq Offset	0 Hz

DH5_Ant1_2480_30~1000

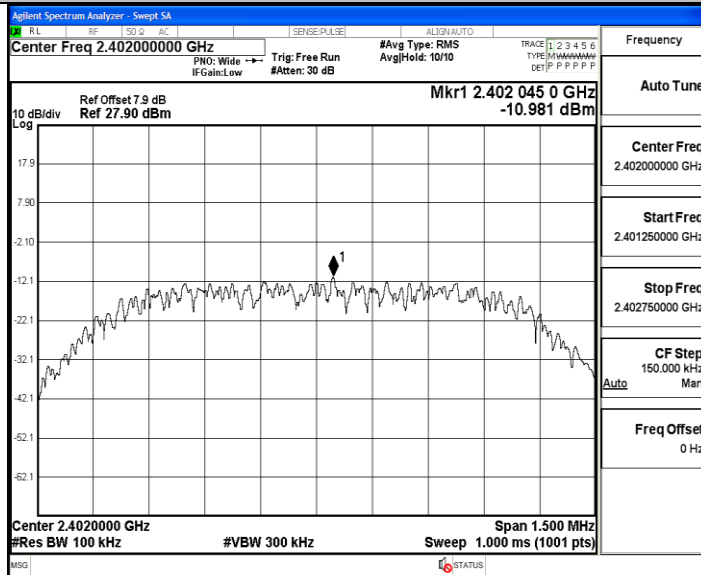


Frequency	Auto Tune
Center Freq	515.000000 MHz
Start Freq	30.000000 MHz
Stop Freq	1.000000000 GHz
CF Step	97.000000 MHz
	Auto Man
Freq Offset	0 Hz

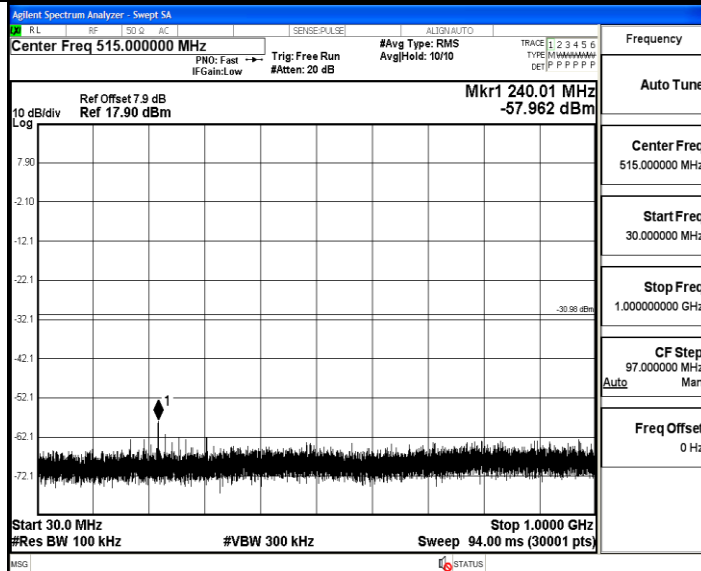
DH5_Ant1_2480_1000~26500



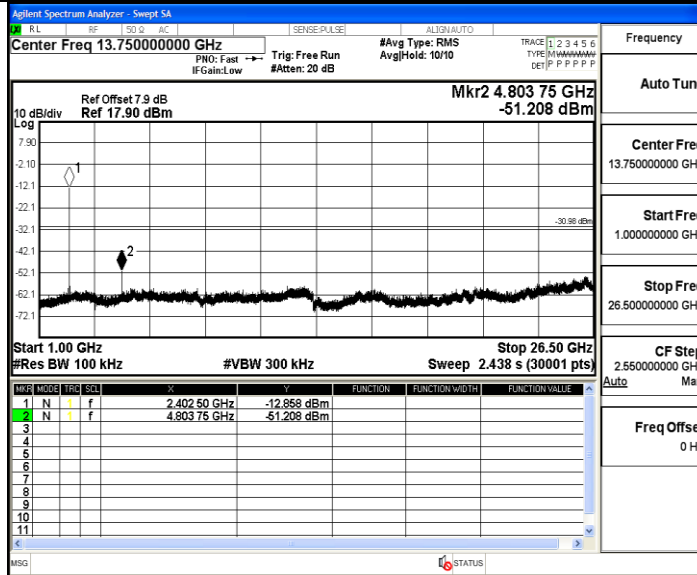
2DH5_Ant1_2402_0~Reference



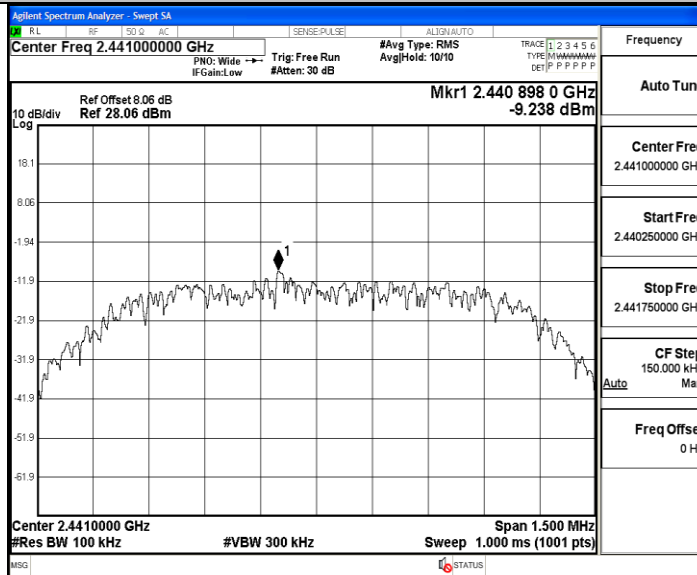
2DH5_Ant1_2402_30~1000



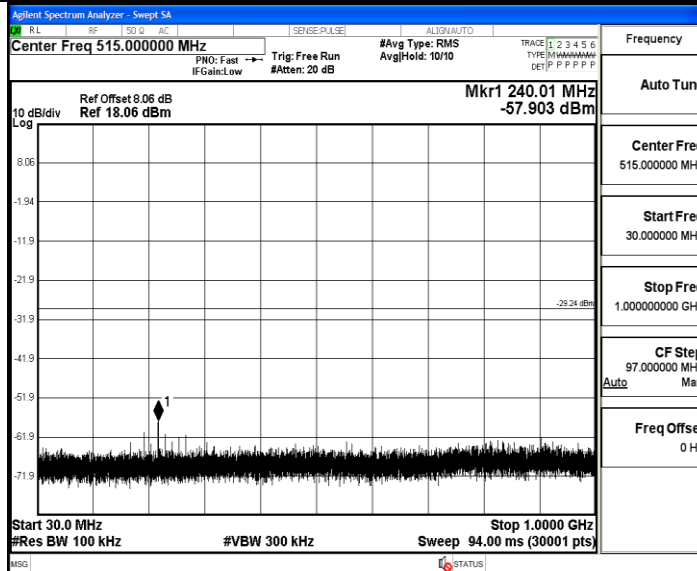
2DH5_Ant1_2402_1000~26500



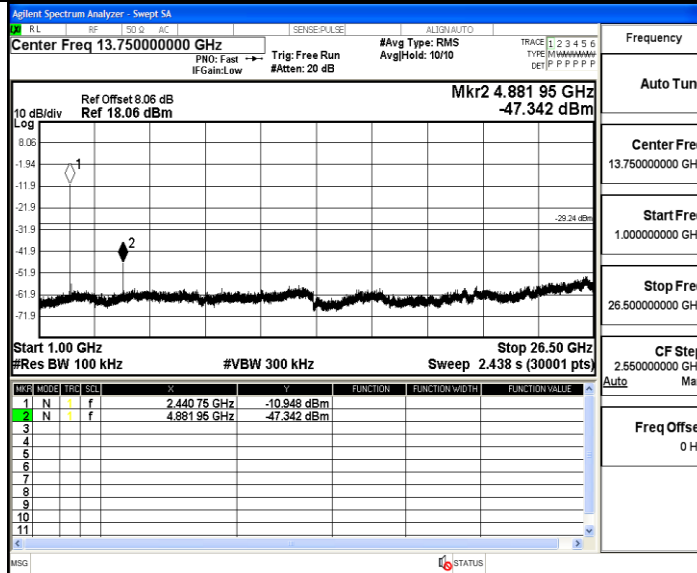
2DH5_Ant1_2441_0~Reference



2DH5_Ant1_2441_30~1000

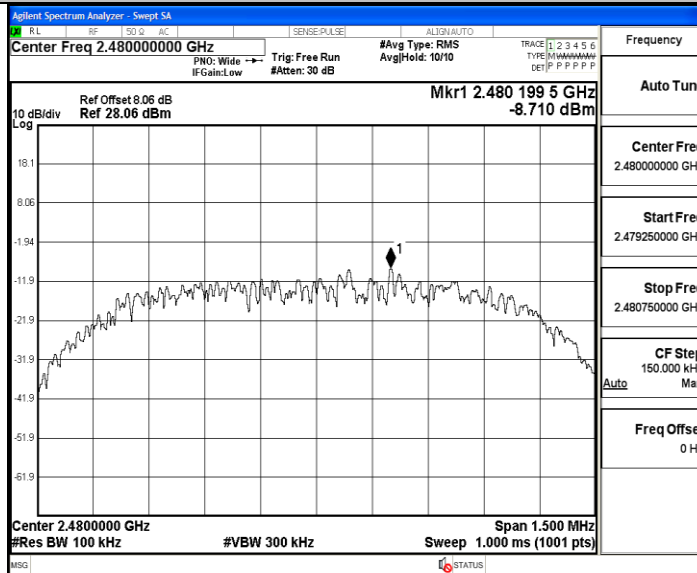


2DH5_Ant1_2441_1000~26500



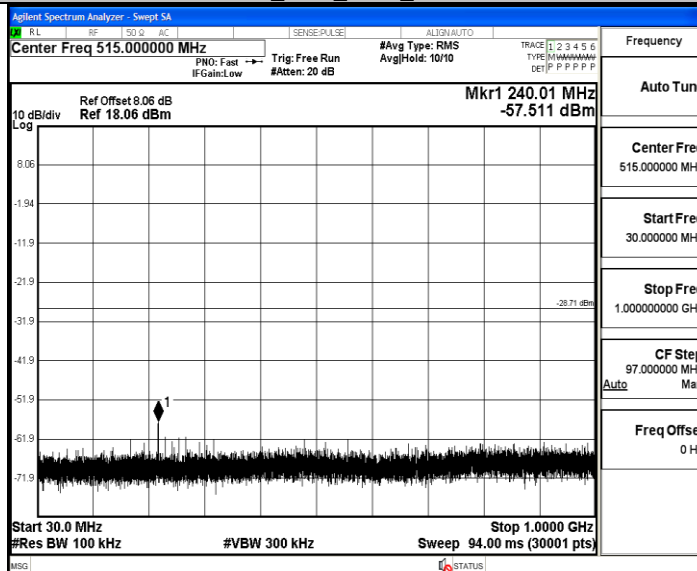
Frequency
Auto Tune
Center Freq 13.75000000 GHz
Start Freq 1.000000000 GHz
Stop Freq 26.500000000 GHz
CF Step 2.550000000 GHz
Auto Man
Freq Offset 0 Hz

2DH5_Ant1_2480_0~Reference



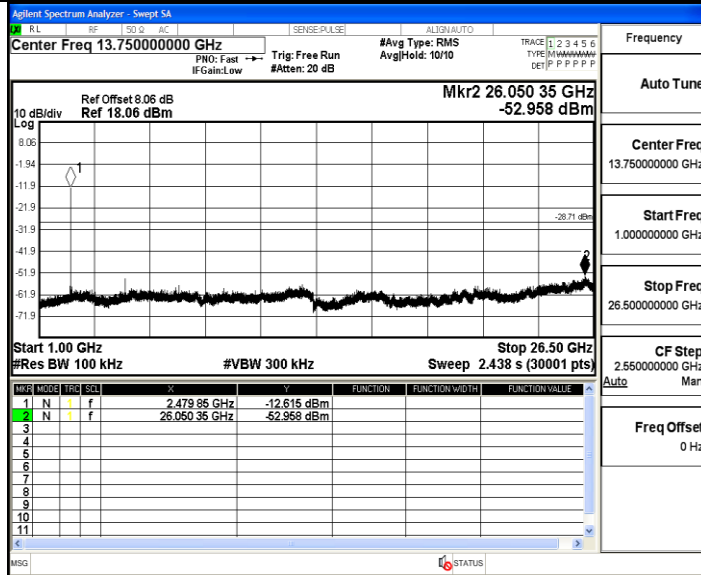
Frequency
Auto Tune
Center Freq 2.48000000 GHz
Start Freq 2.479250000 GHz
Stop Freq 2.480750000 GHz
CF Step 150.000 kHz
Auto Man
Freq Offset 0 Hz

2DH5_Ant1_2480_30~1000



Frequency
Auto Tune
Center Freq 515.000000 MHz
Start Freq 30.000000 MHz
Stop Freq 1.000000000 GHz
CF Step 97.000000 MHz
Auto Man
Freq Offset 0 Hz

2DH5_Ant1_2480_1000~26500



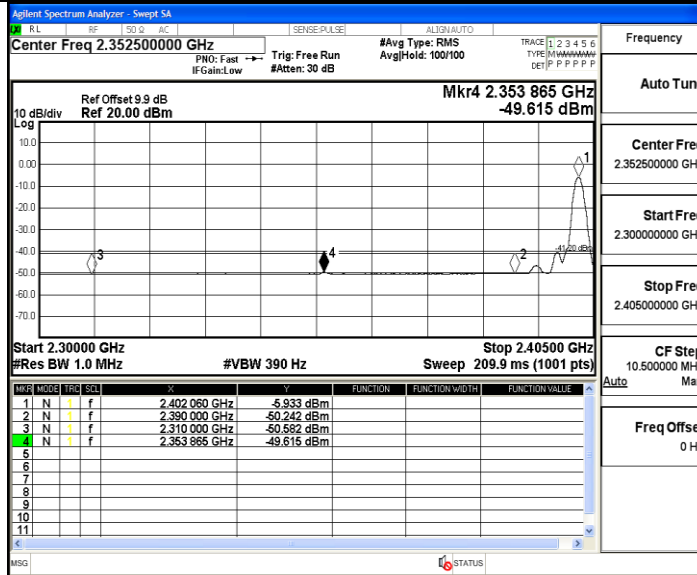
A.8 Restrict-band band-edge measurements

TestMode	Antenna	ChName	Channel	Detector	Freq(MHz)	Result(dBm)	Limit(dBm)	Verdict
DH5	Ant1	Low	2402	AV	2310.000	-50.58	≤-41.20	PASS
				AV	2353.865	-49.61	≤-41.20	PASS
				AV	2390.000	-50.24	≤-41.20	PASS
				Peak	2310.000	-43.15	≤-21.20	PASS
				Peak	2361.635	-40.18	≤-21.20	PASS
				Peak	2390.000	-42.97	≤-21.20	PASS
		High	2480	AV	2483.500	-48.73	≤-41.20	PASS
				AV	2483.920	-48.64	≤-41.20	PASS
				AV	2500.000	-49.55	≤-41.20	PASS
				Peak	2483.500	-41	≤-21.20	PASS
				Peak	2483.680	-40.19	≤-21.20	PASS
				Peak	2500.000	-42.57	≤-21.20	PASS
2DH5	Ant1	Low	2402	AV	2310.000	-50.49	≤-41.20	PASS
				AV	2353.970	-49.85	≤-41.20	PASS
				AV	2390.000	-50.38	≤-41.20	PASS
				Peak	2310.000	-42.39	≤-21.20	PASS
				Peak	2334.230	-39.6	≤-21.20	PASS
				Peak	2390.000	-44.67	≤-21.20	PASS
		High	2480	AV	2483.500	-49.06	≤-41.20	PASS
				AV	2484.000	-49	≤-41.20	PASS
				AV	2500.000	-49.58	≤-41.20	PASS
				Peak	2483.500	-41.56	≤-21.20	PASS
				Peak	2492.960	-40.07	≤-21.20	PASS
				Peak	2500.000	-43.24	≤-21.20	PASS

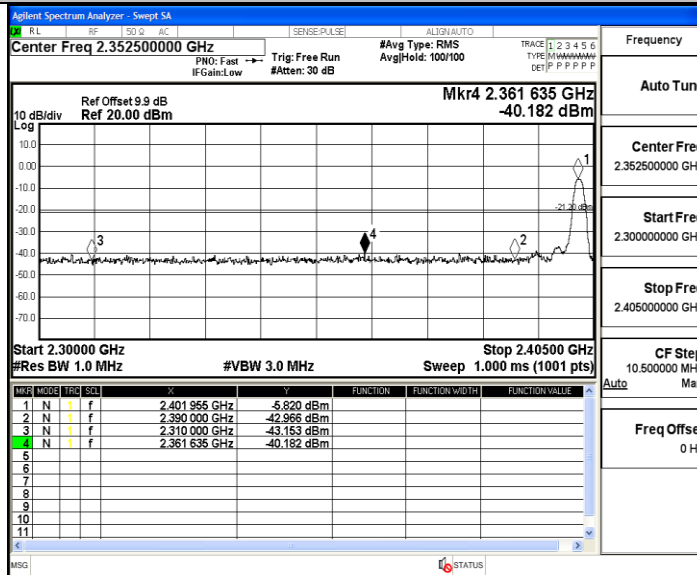
Note:

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

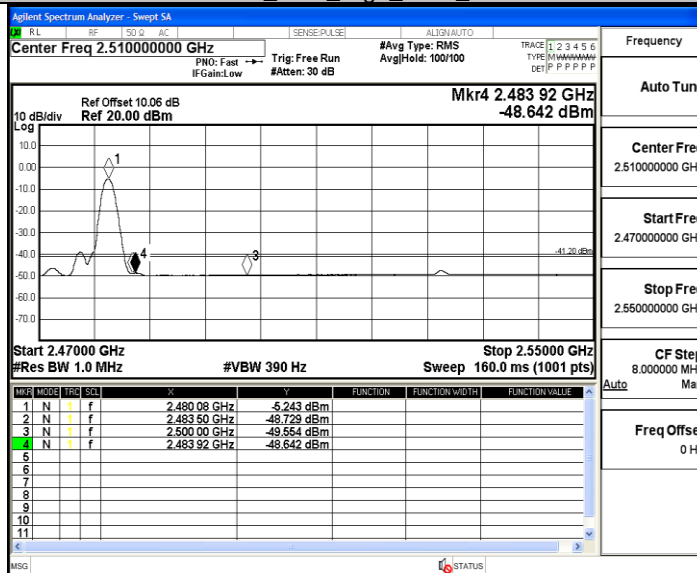
DH5_Ant1_Low_2402_AV



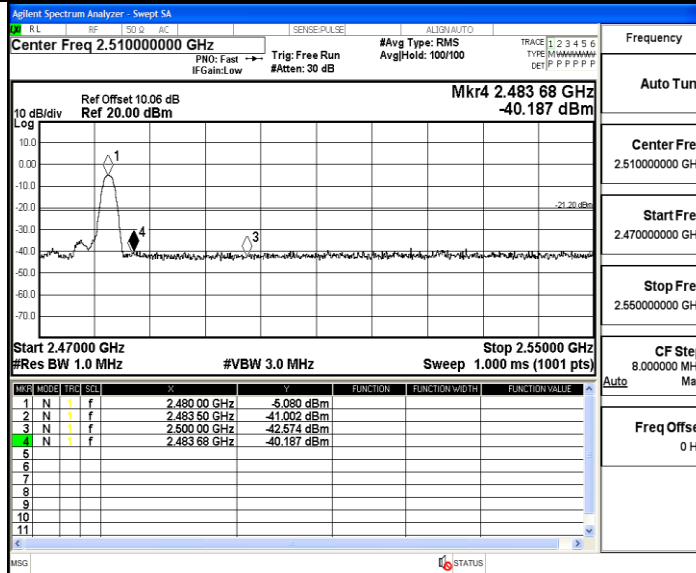
DH5_Ant1_Low_2402_Peak



DH5_Ant1_High_2480_AV

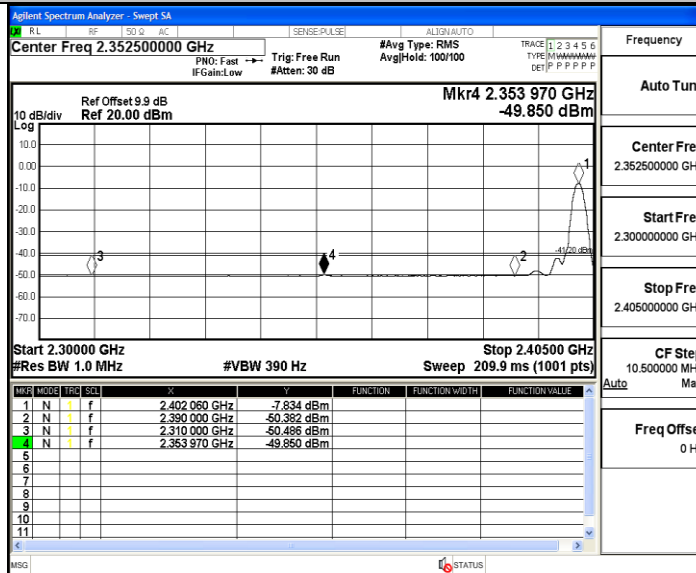


DH5_Ant1_High_2480_Peak



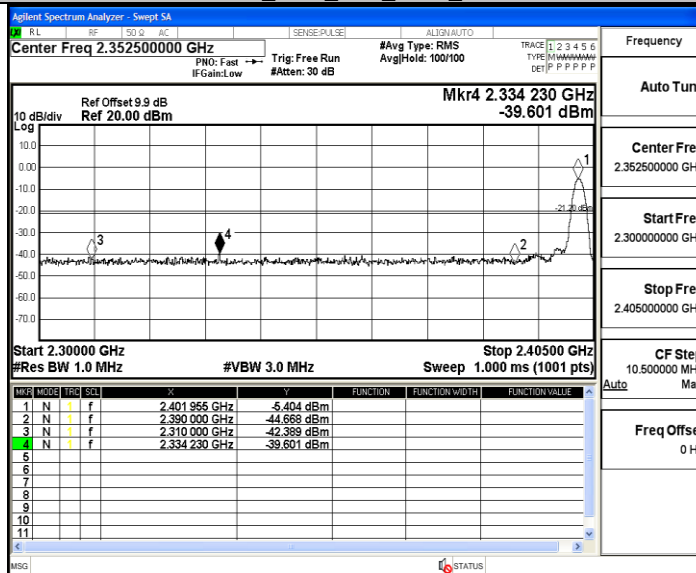
Frequency	Auto Tune
Center Freq	2.510000000 GHz
Start Freq	2.470000000 GHz
Stop Freq	2.550000000 GHz
CF Step	8.000000 MHz
Freq Offset	0 Hz

2DH5_Ant1_Low_2402_AV



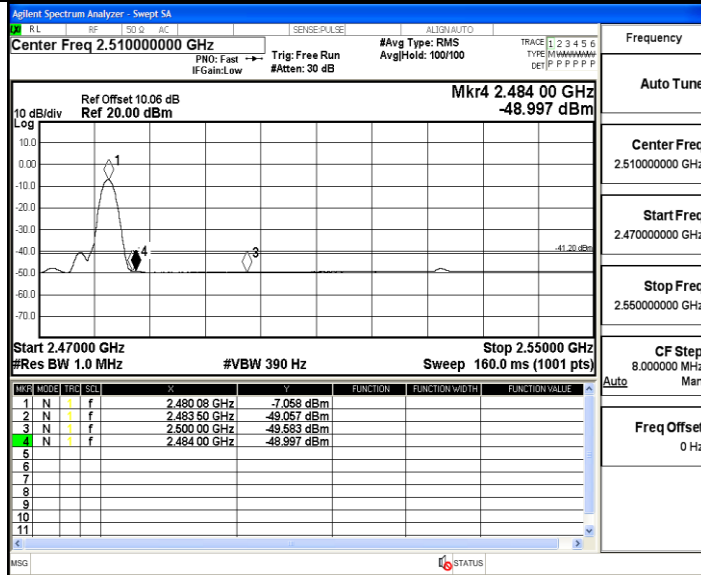
Frequency	Auto Tune
Center Freq	2.352500000 GHz
Start Freq	2.300000000 GHz
Stop Freq	2.405000000 GHz
CF Step	10.500000 MHz
Freq Offset	0 Hz

2DH5_Ant1_Low_2402_Peak



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

2DH5_Ant1_High_2480_AV



2DH5_Ant1_High_2480_Peak

