

Appendix A

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

Product Name: bone conduction headphone

Trade Mark: iDeaPLAY

Test Model: BCH20

FCC ID: 2AIZY21H-01

Environmental Conditions

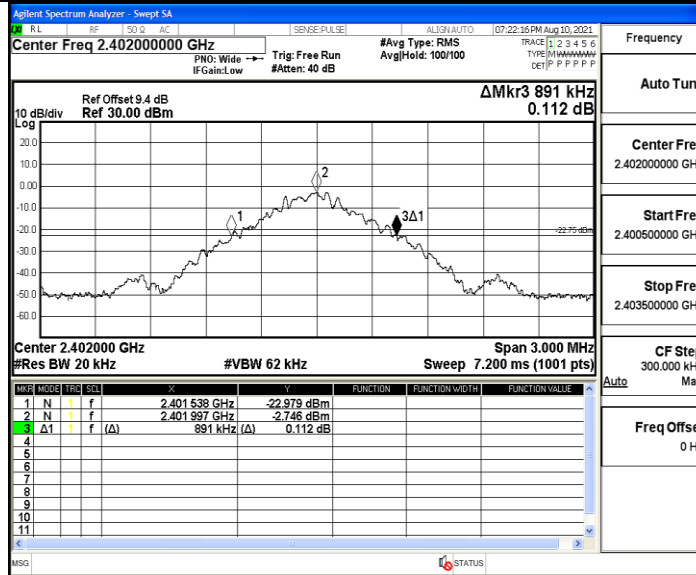
Temperature:	22.8° C
Relative Humidity:	56%
ATM Pressure:	100.0 kPa
Test Engineer:	Anna Hu
Supervised by:	Hugo Chen

A.1 20 dB Bandwidth

TestMode	Antenna	Channel	20db EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.891	2401.538	2402.429	---	PASS
		2441	0.891	2440.538	2441.429	---	PASS
		2480	0.933	2479.535	2480.468	---	PASS
2DH5	Ant1	2402	1.263	2401.364	2402.627	---	PASS
		2441	1.260	2440.364	2441.624	---	PASS
		2480	1.311	2479.337	2480.648	---	PASS

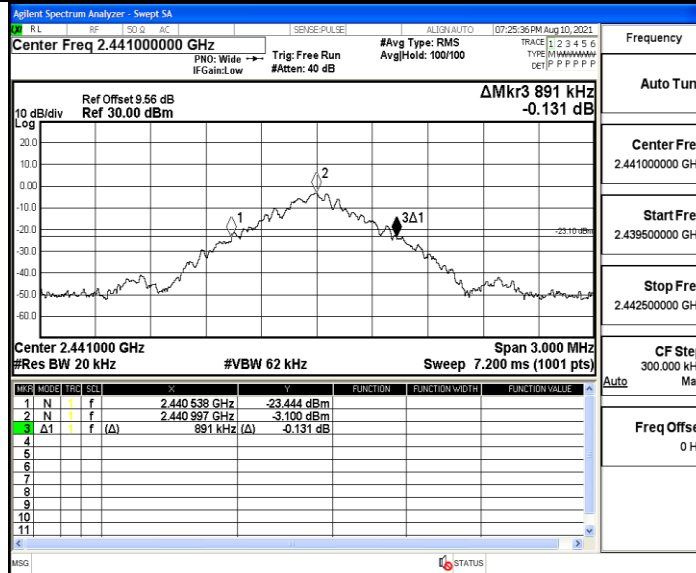
Test Graph

DH5_Ant1_2402



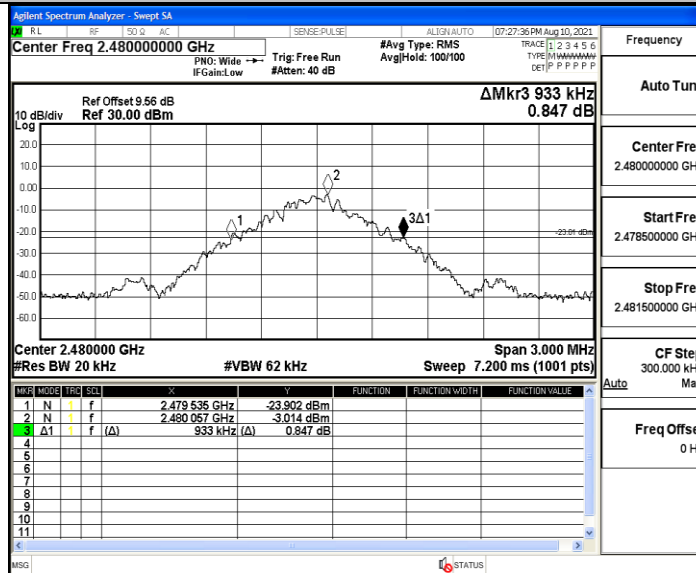
Frequency	Auto Tune
Center Freq	2.402000000 GHz
Start Freq	2.400500000 GHz
Stop Freq	2.403500000 GHz
CF Step	300.000 kHz
Freq Offset	0 Hz

DH5_Ant1_2441



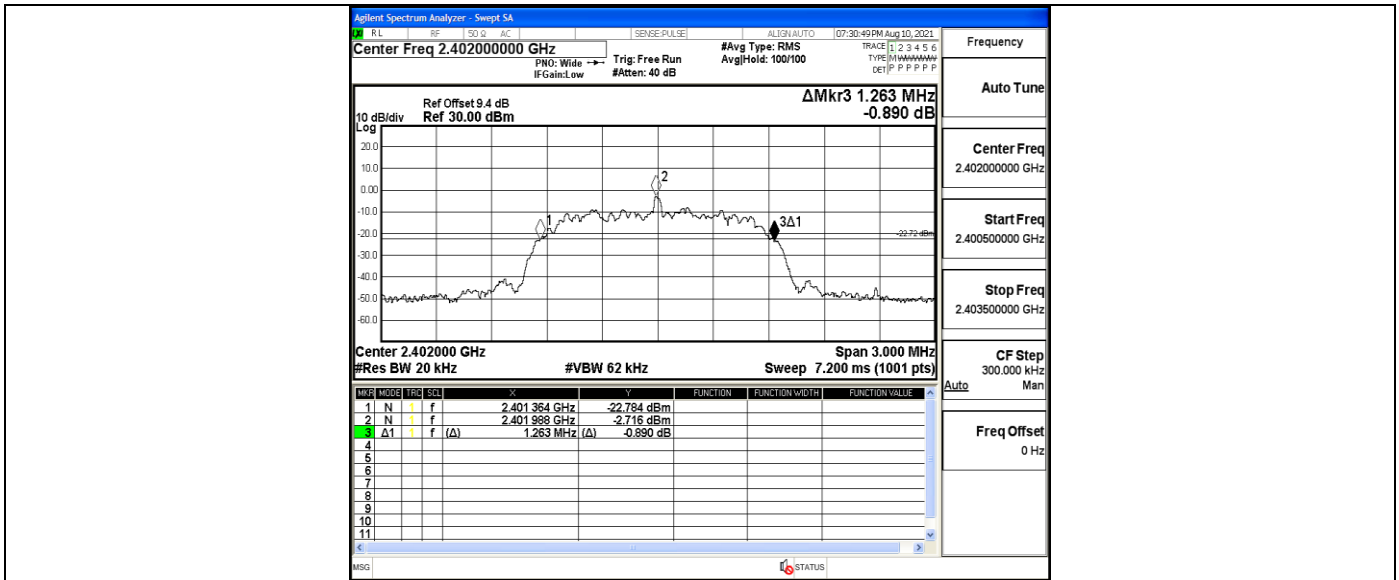
Frequency	Auto Tune
Center Freq	2.441000000 GHz
Start Freq	2.439500000 GHz
Stop Freq	2.442500000 GHz
CF Step	300.000 kHz
Freq Offset	0 Hz

DH5_Ant1_2480

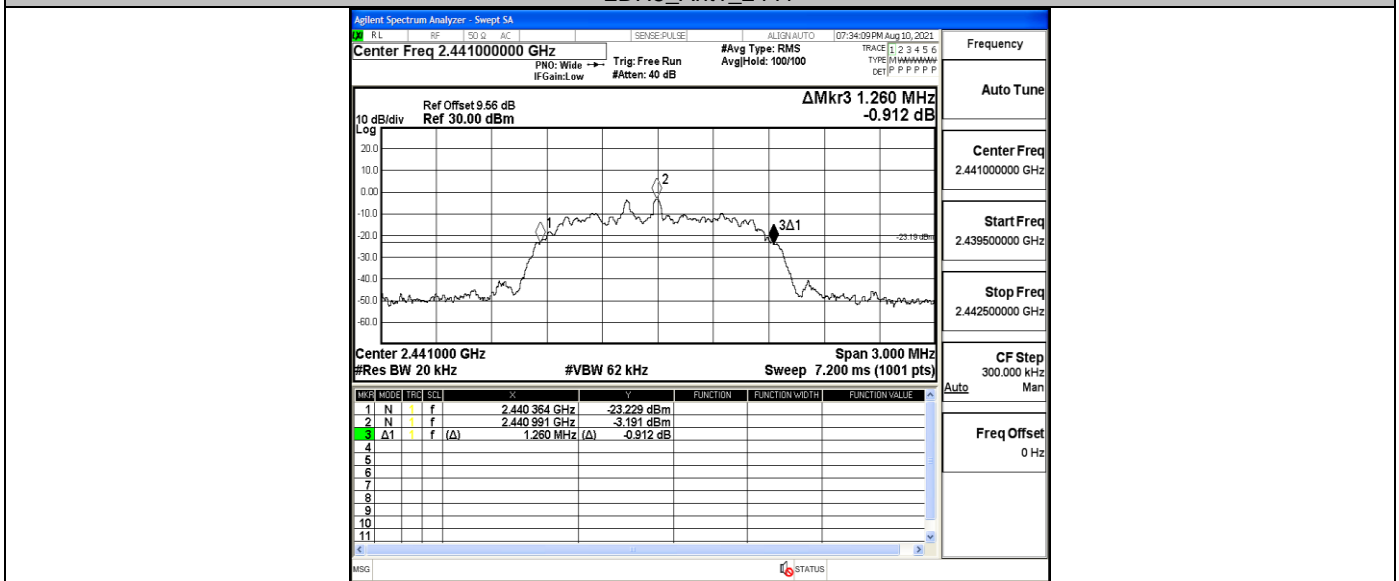


Frequency	Auto Tune
Center Freq	2.480000000 GHz
Start Freq	2.478500000 GHz
Stop Freq	2.481500000 GHz
CF Step	300.000 kHz
Freq Offset	0 Hz

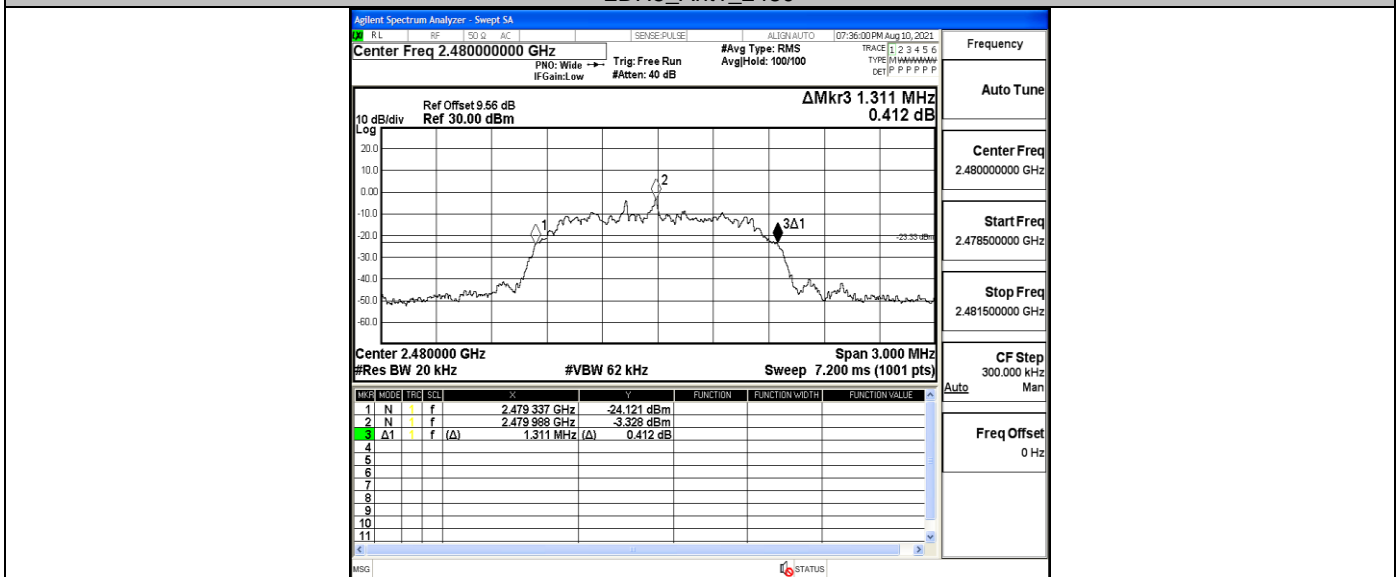
2DH5_Ant1_2402



2DH5_Ant1_2441



2DH5_Ant1_2480

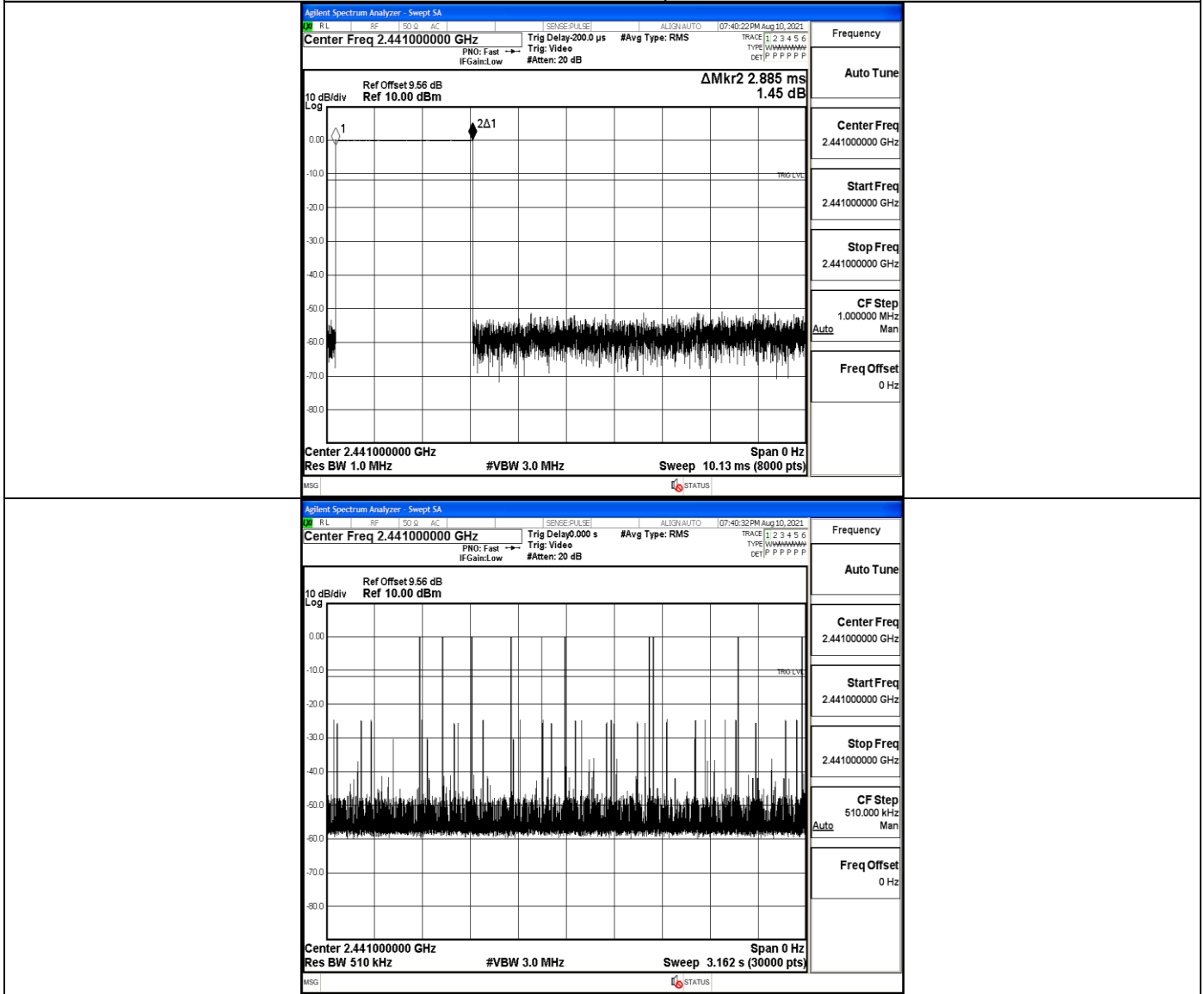


A.2 Dwell Time

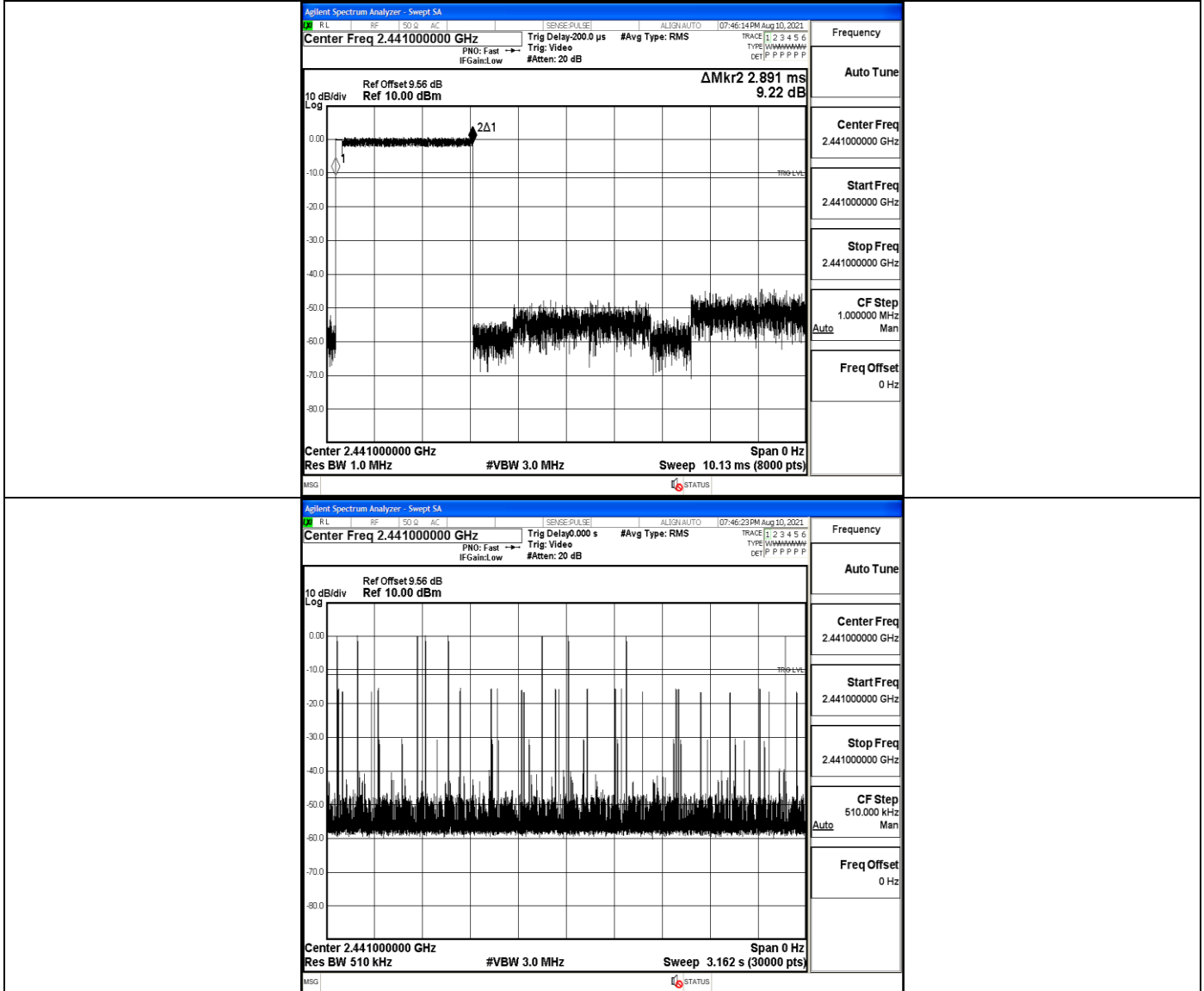
TestMode	Antenna	Channel	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH5	Ant1	Hop	2.89	110	0.317	≤0.4	PASS
2DH5	Ant1	Hop	2.89	100	0.289	≤0.4	PASS

Test Graph

DH5_Ant1_Hop



2DH5_Ant1_Hop

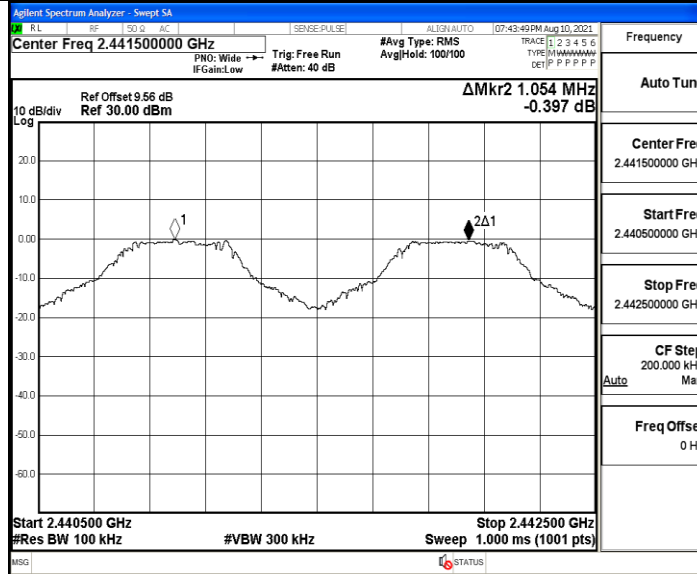


A.3 Carrier Frequency Separation

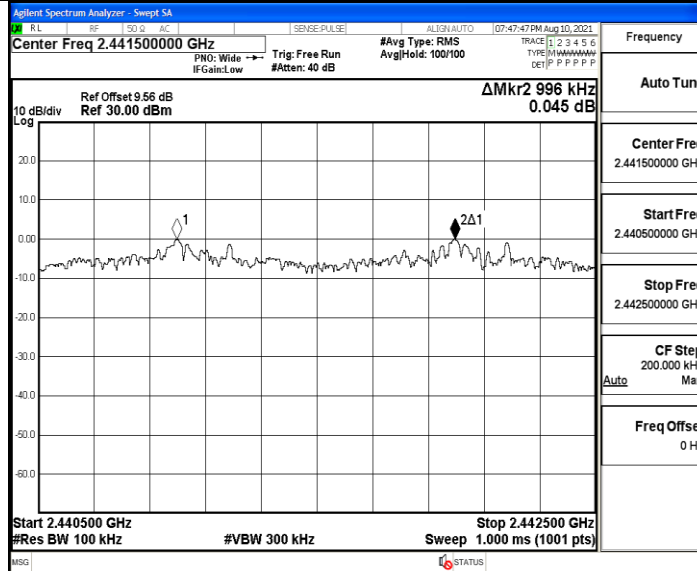
TestMode	Antenna	Channel	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	1.054	≥ 0.933	PASS
2DH5	Ant1	Hop	0.996	≥ 0.874	PASS

Test Graph

DH5_Ant1_Hop



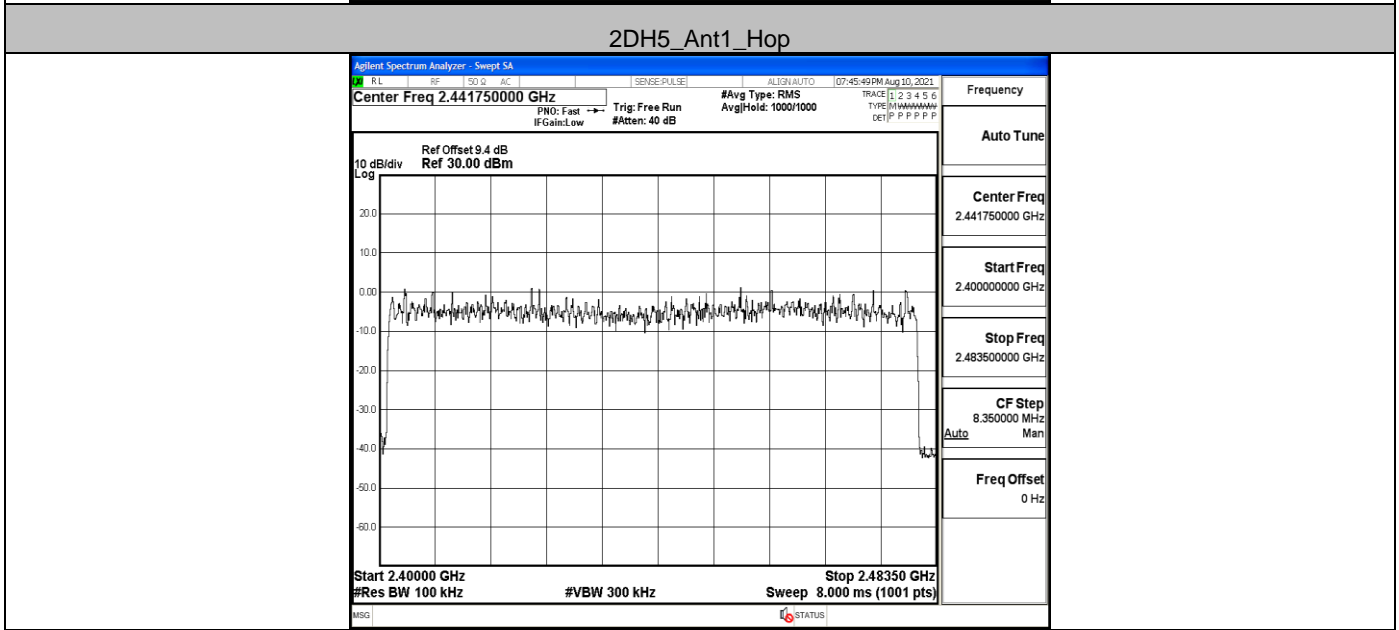
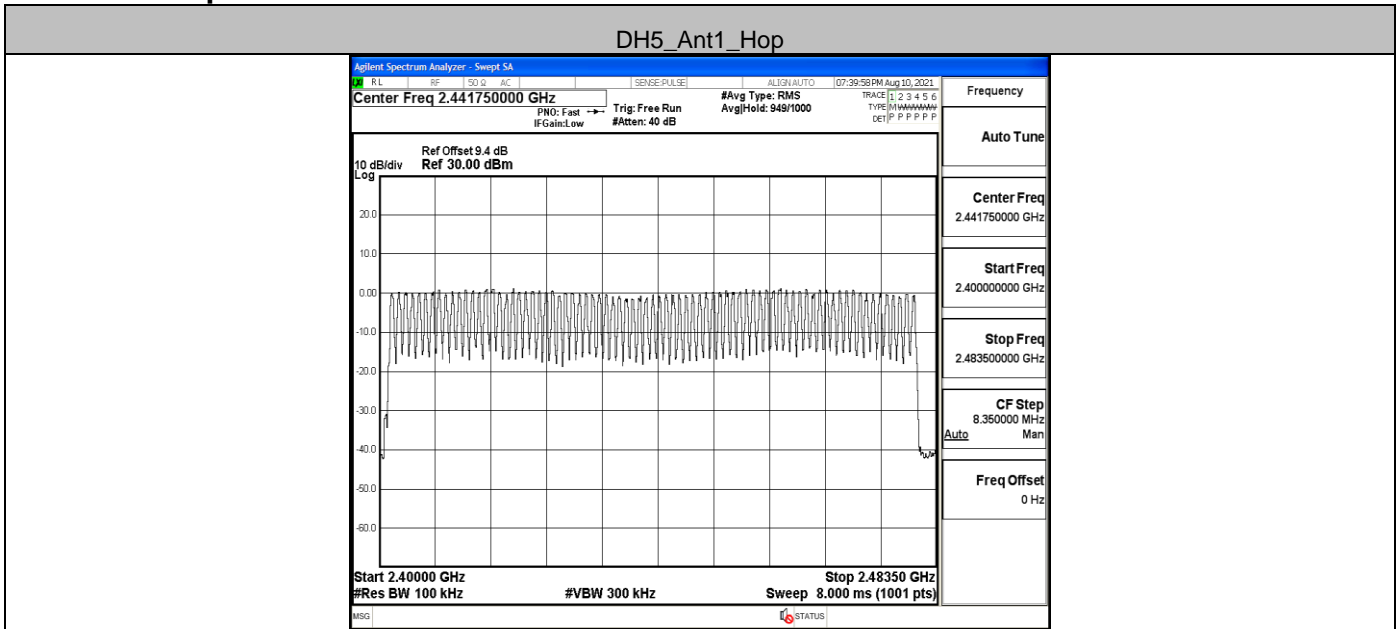
2DH5_Ant1_Hop



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

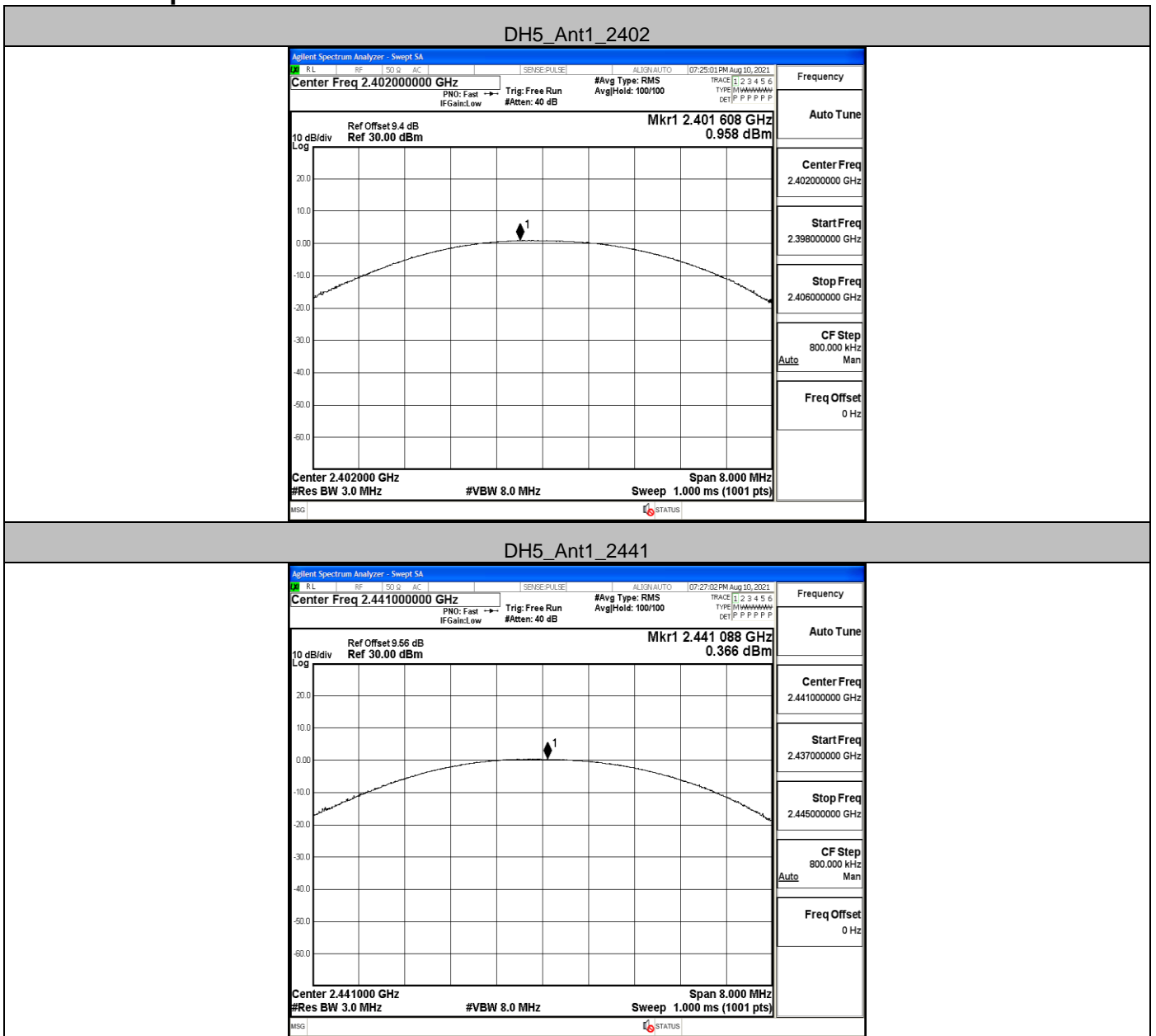
Test Graph



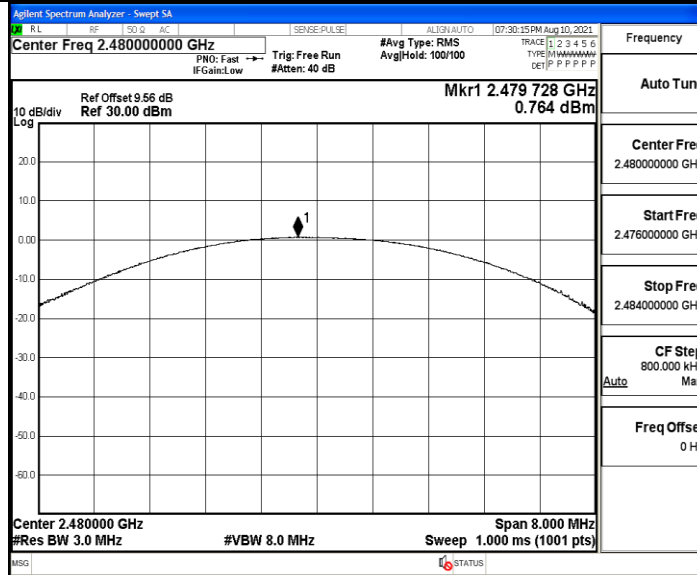
A.5 Conducted Peak Output Power

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
DH5	Ant1	2402	0.96	≤20.97	PASS
		2441	0.37	≤20.97	PASS
		2480	0.76	≤20.97	PASS
2DH5	Ant1	2402	1.69	≤20.97	PASS
		2441	1.19	≤20.97	PASS
		2480	1.55	≤20.97	PASS

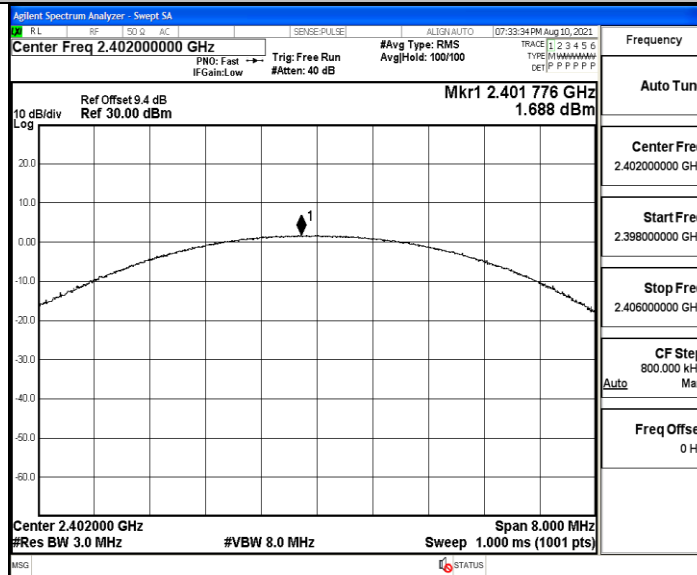
Test Graph



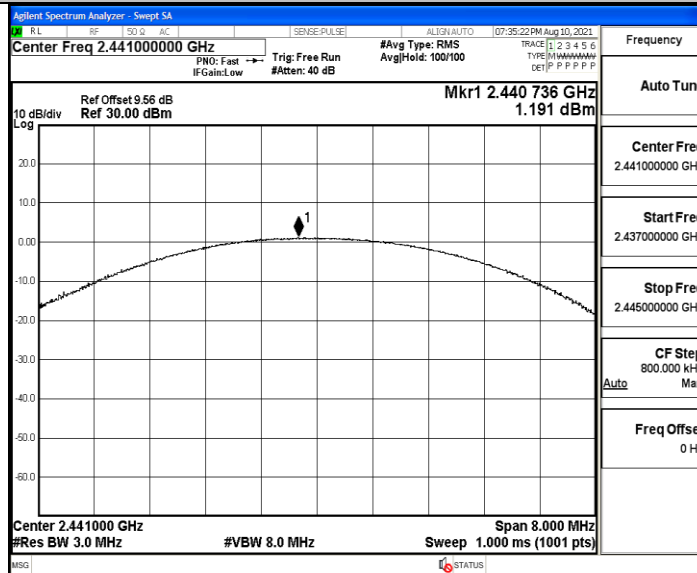
DH5_Ant1_2480



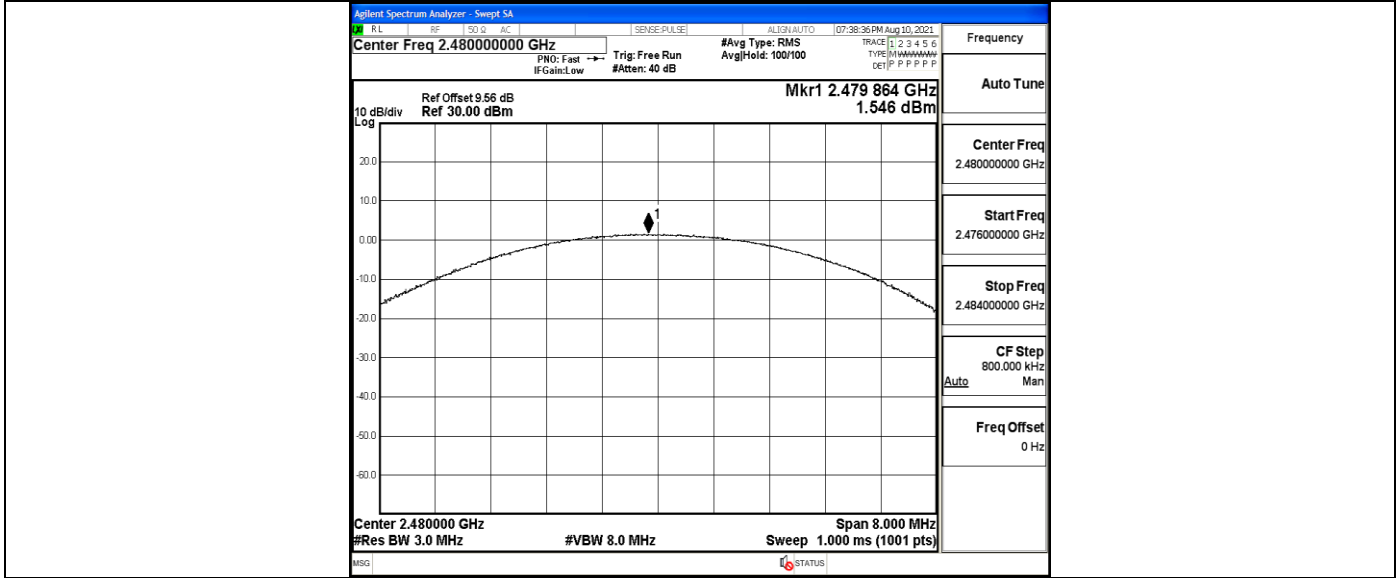
2DH5_Ant1_2402



2DH5_Ant1_2441



2DH5_Ant1_2480

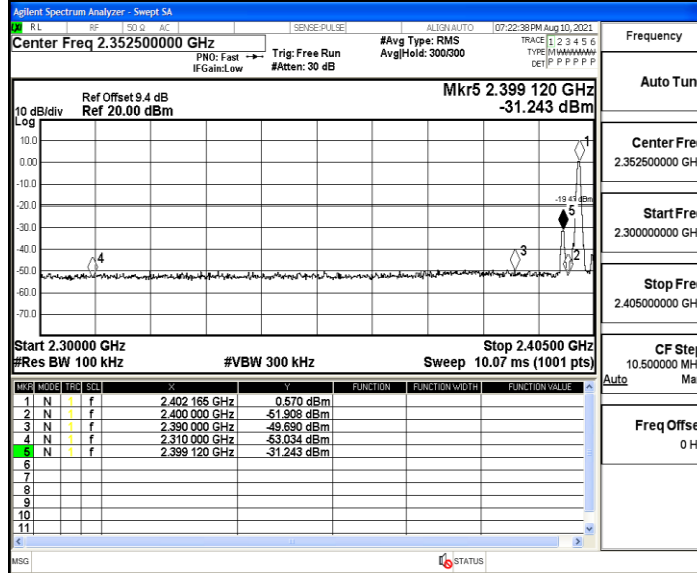


A.6 Band-edge for RF Conducted Emissions

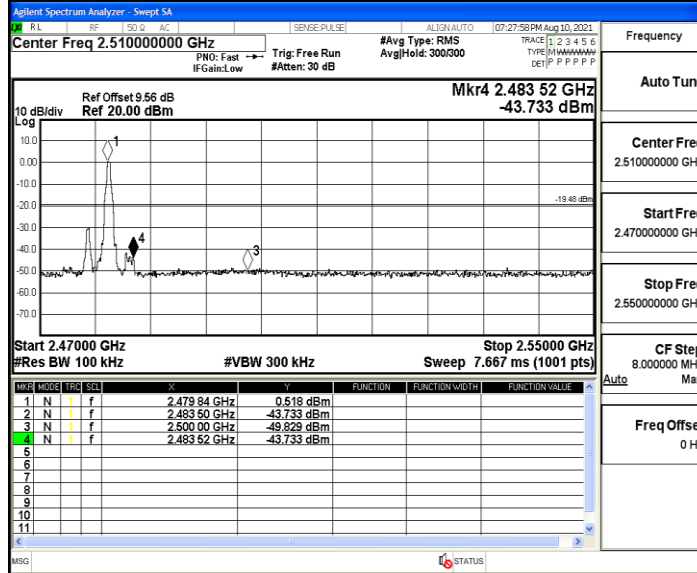
TestMode	Antenna	ChName	Channel	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	0.57	-31.24	≤-19.43	PASS
		High	2480	0.52	-43.73	≤-19.48	PASS
		Low	Hop_2402	0.15	-49.79	≤-19.85	PASS
		High	Hop_2480	0.50	-49.07	≤-19.5	PASS
2DH5	Ant1	Low	2402	0.07	-30.91	≤-19.93	PASS
		High	2480	0.27	-45.79	≤-19.73	PASS
		Low	Hop_2402	-3.35	-49.94	≤-23.35	PASS
		High	Hop_2480	0.62	-48.59	≤-19.38	PASS

Test Graph

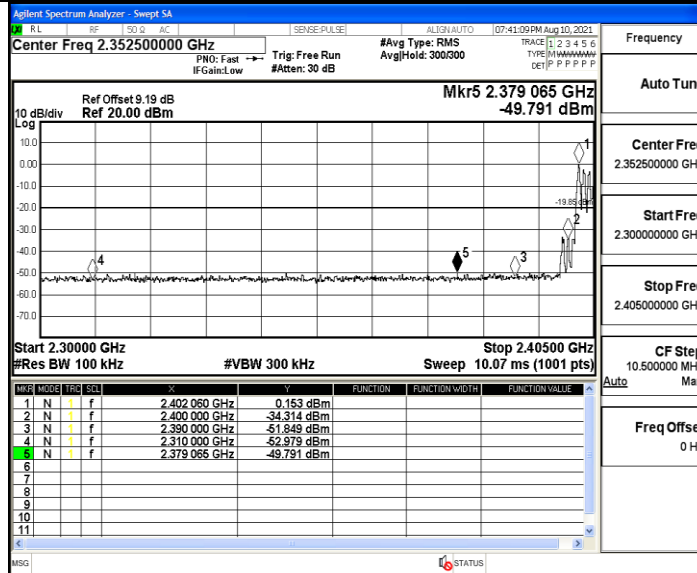
DH5_Ant1_Low_2402



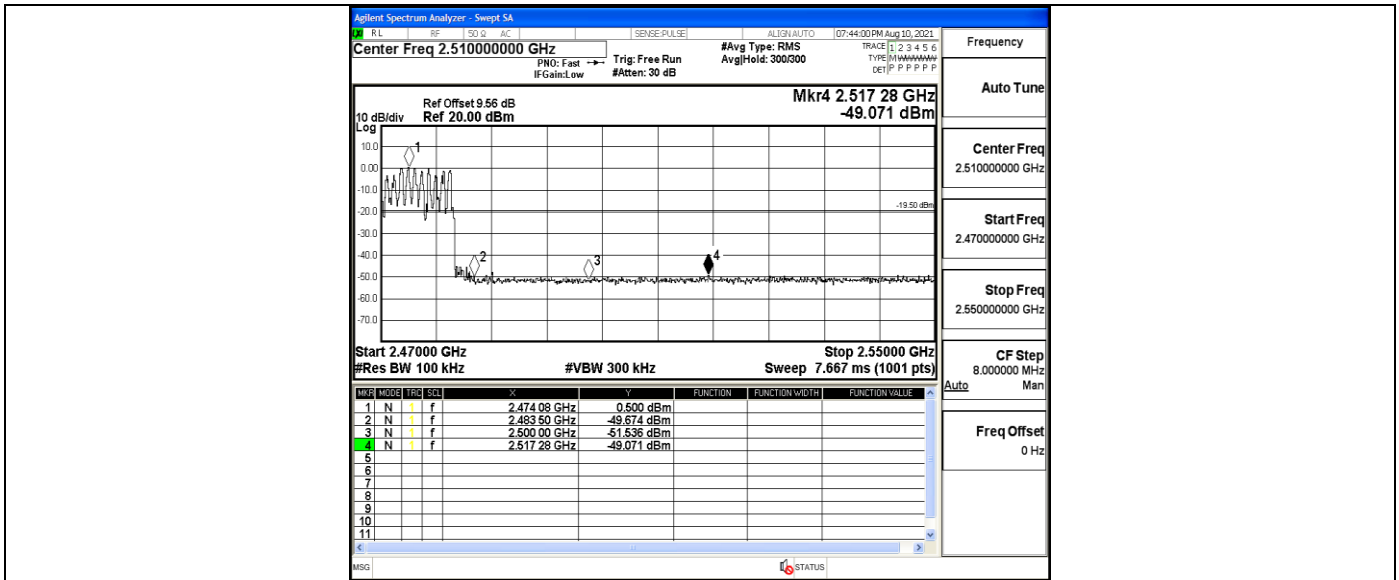
DH5_Ant1_High_2480



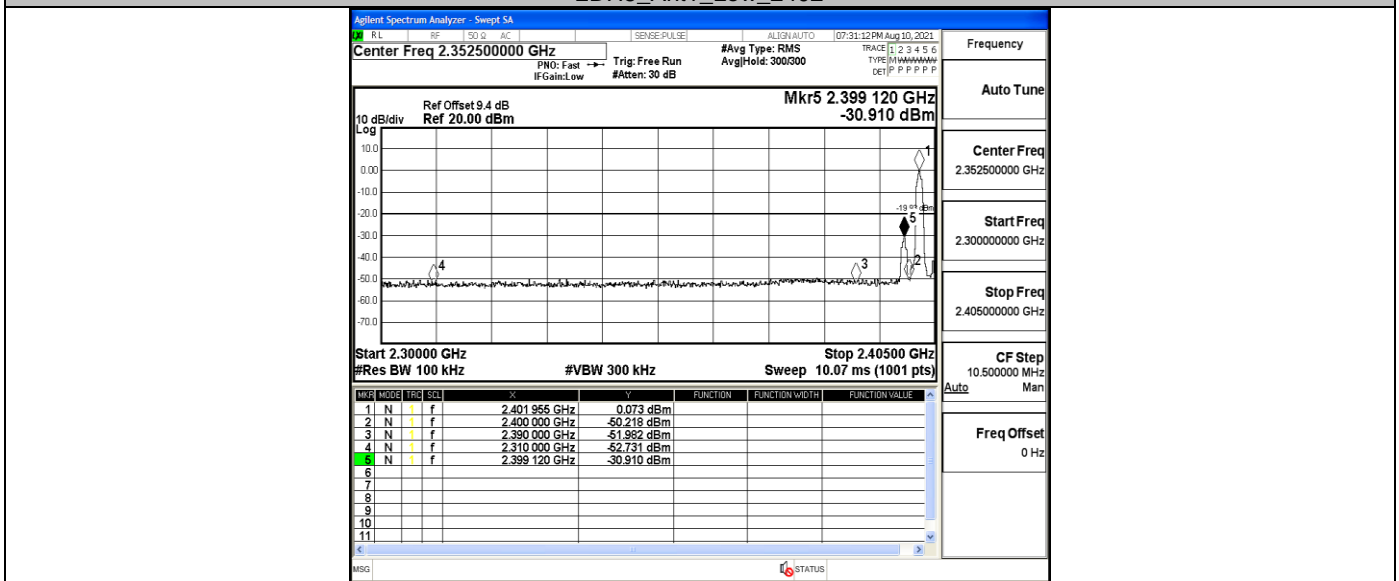
DH5_Ant1_Low_Hop_2402



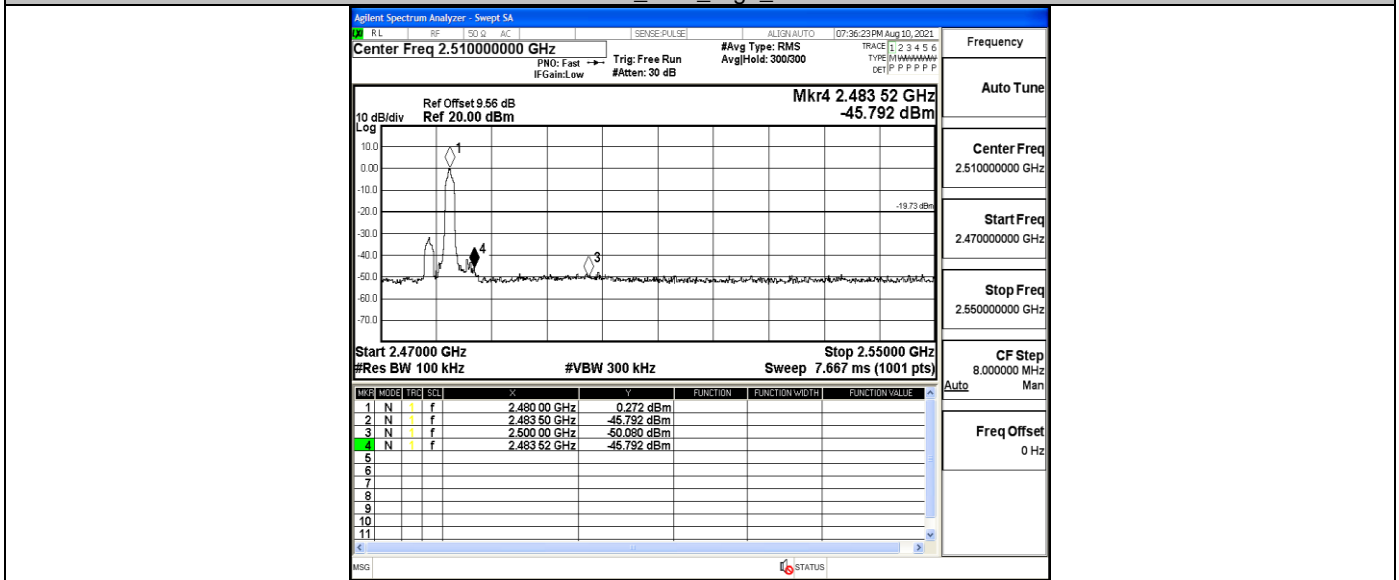
DH5_Ant1_High_Hop_2480



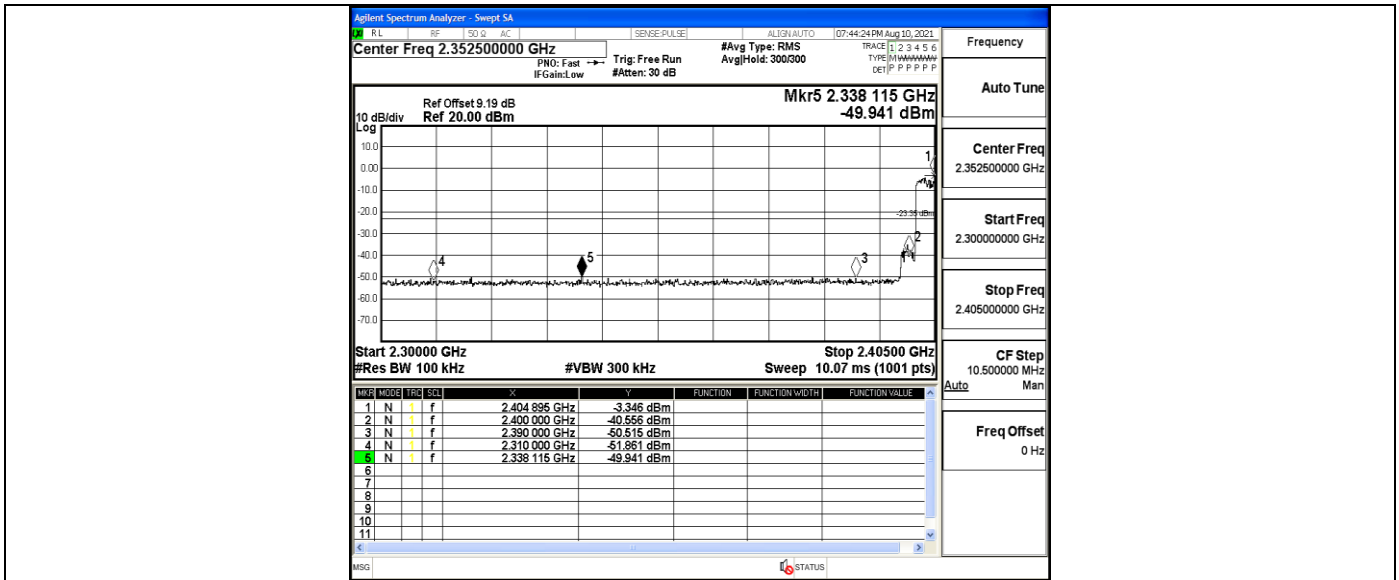
2DH5_Ant1_Low_2402



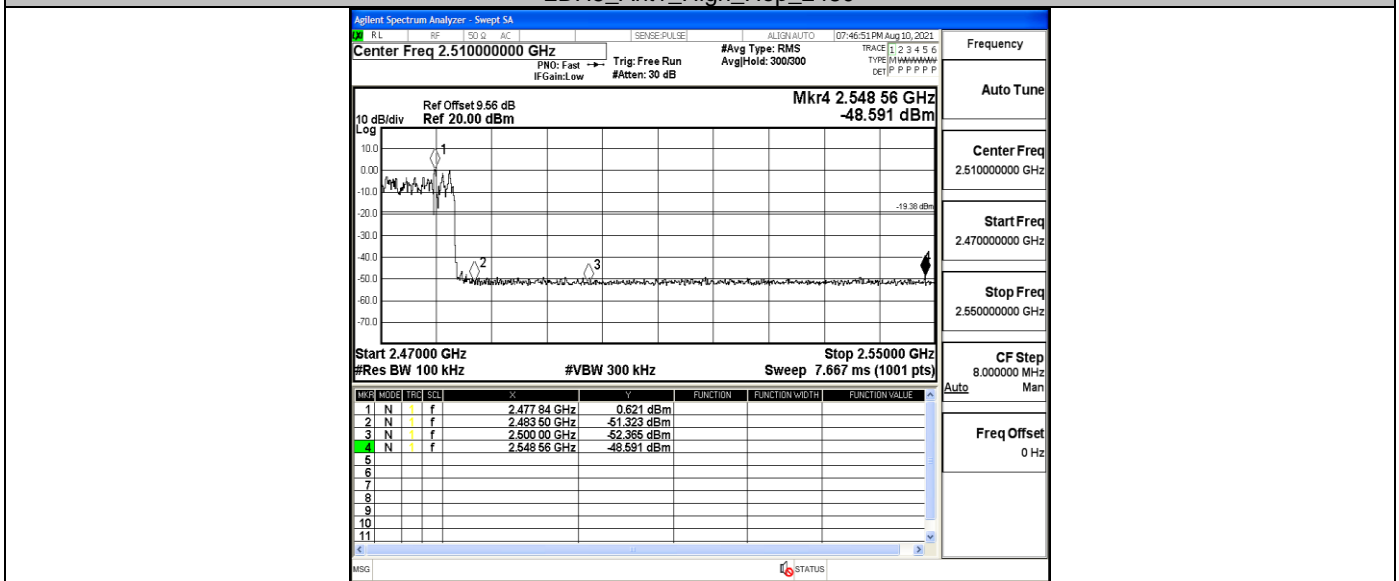
2DH5_Ant1_High_2480



2DH5_Ant1_Low_Hop_2402

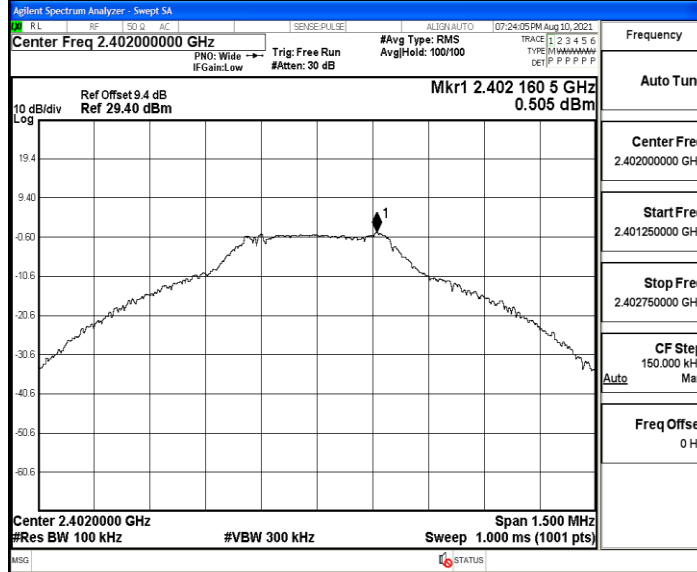


2DH5_Ant1_High_Hop_2480

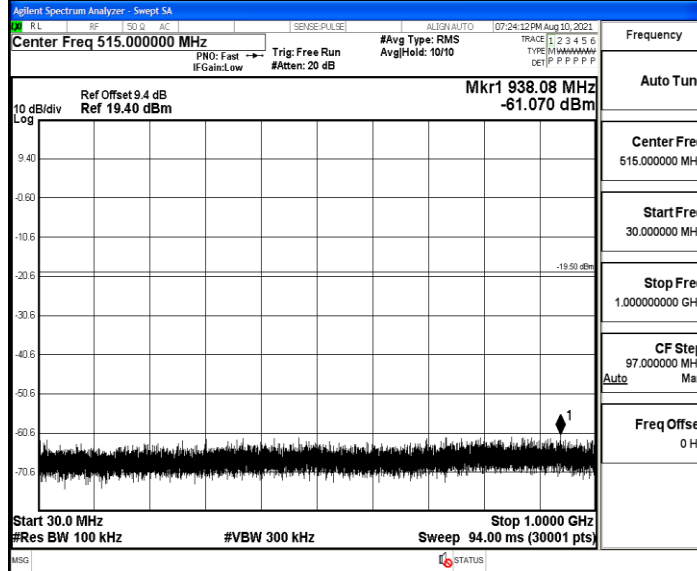


A.7 RF Conducted Spurious Emissions Test Graph

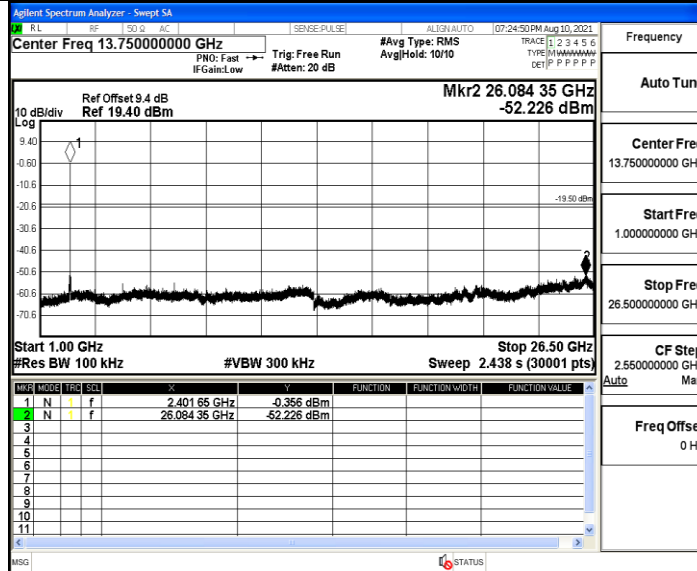
DH5_Ant1_2402_0~Reference



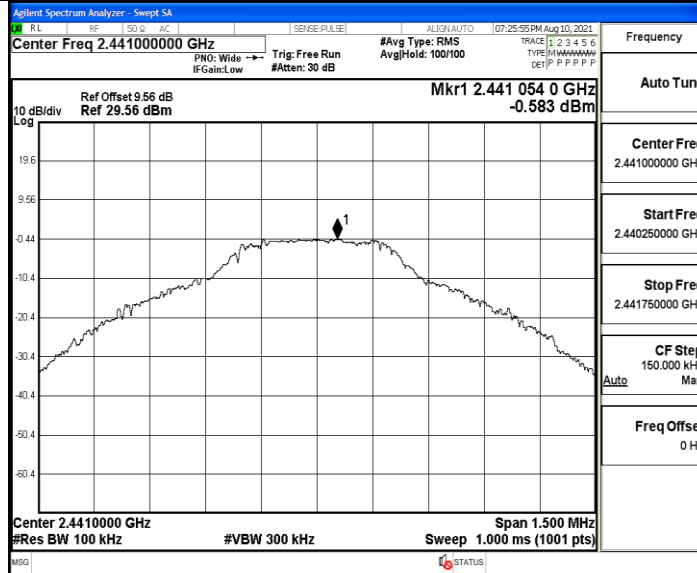
DH5_Ant1_2402_30~1000



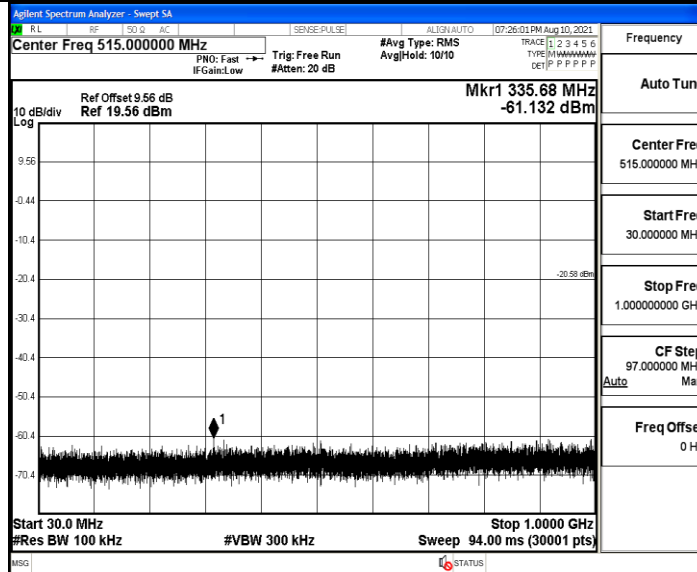
DH5_Ant1_2402_1000~26500



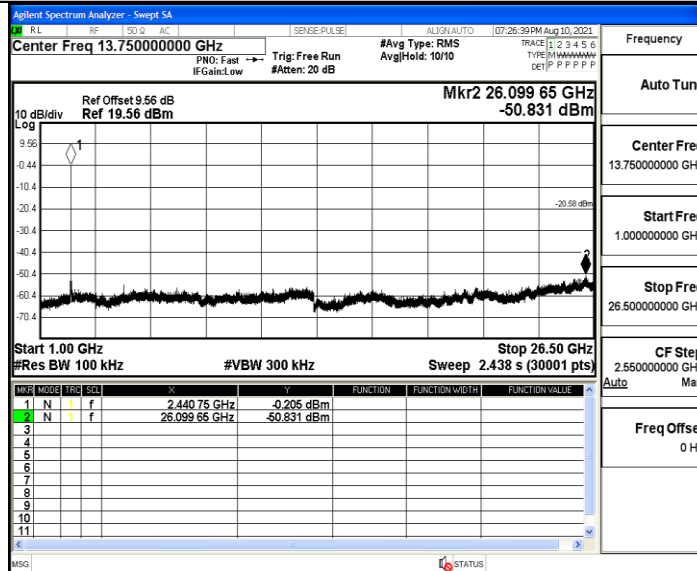
DH5_Ant1_2441_0~Reference



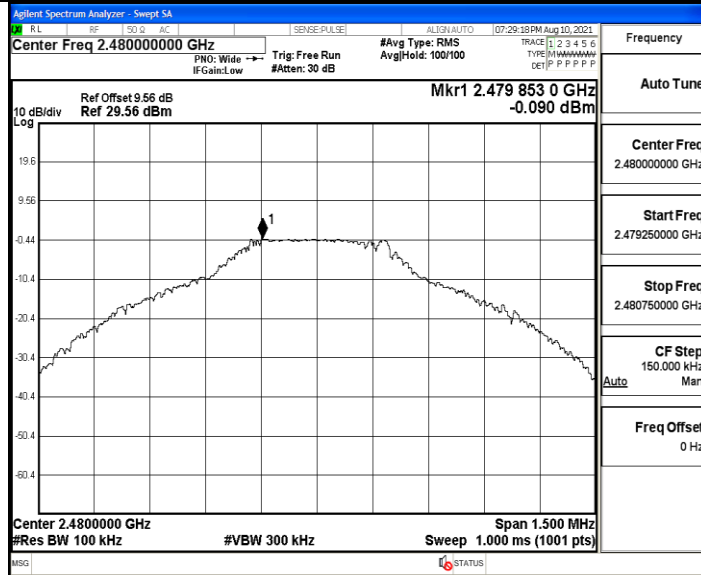
DH5_Ant1_2441_30~1000



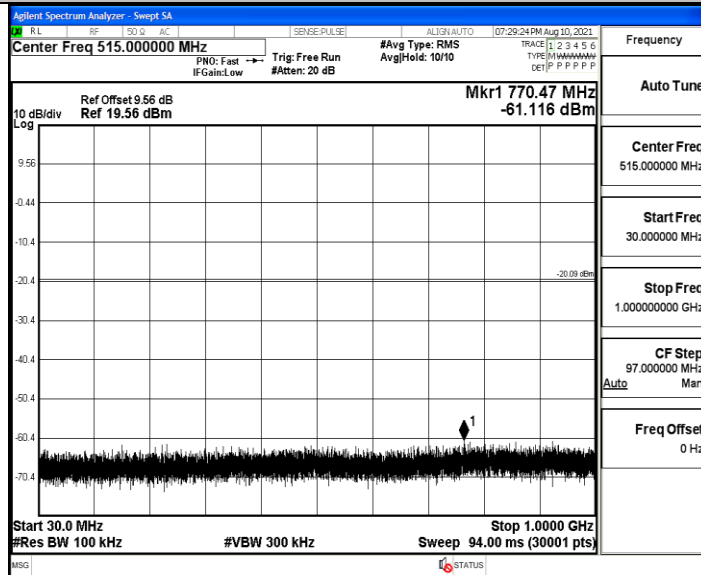
DH5_Ant1_2441_1000~26500



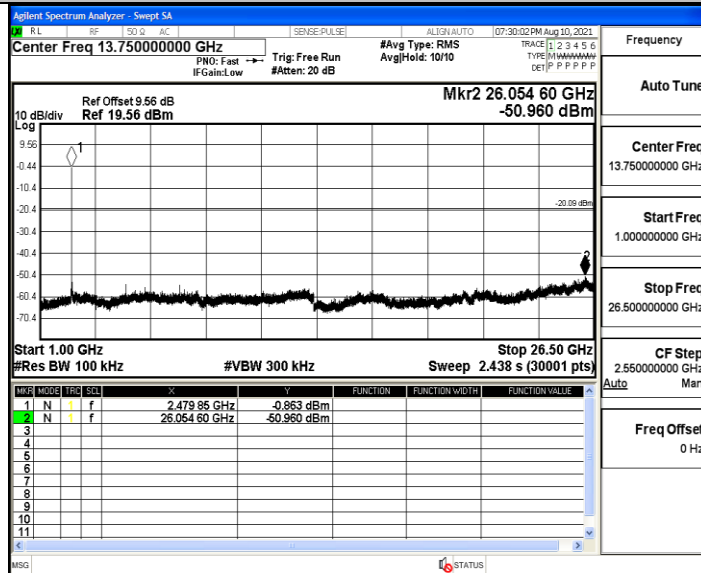
DH5_Ant1_2480_0-Reference



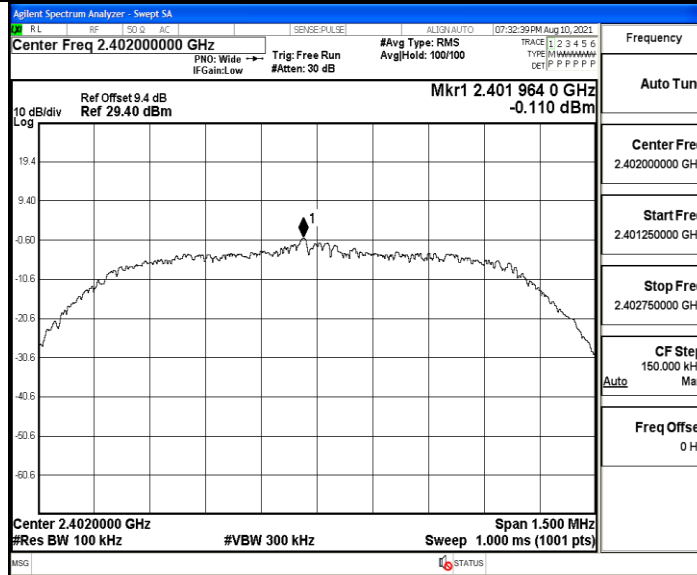
DH5_Ant1_2480_30-1000



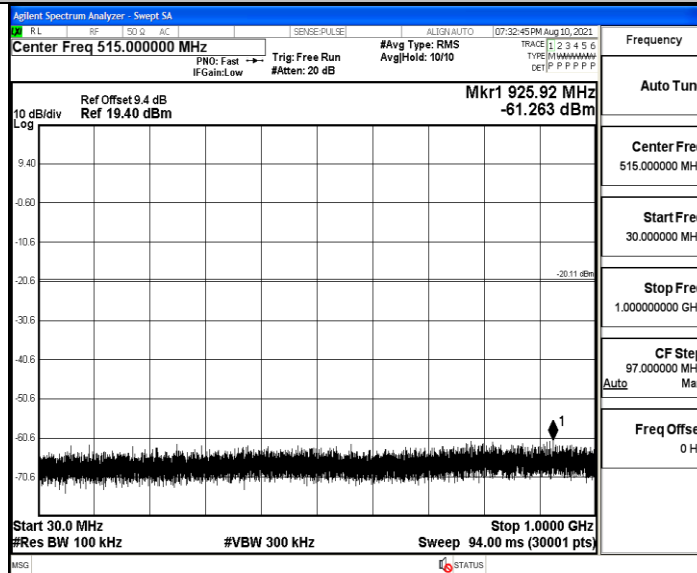
DH5_Ant1_2480_1000-26500



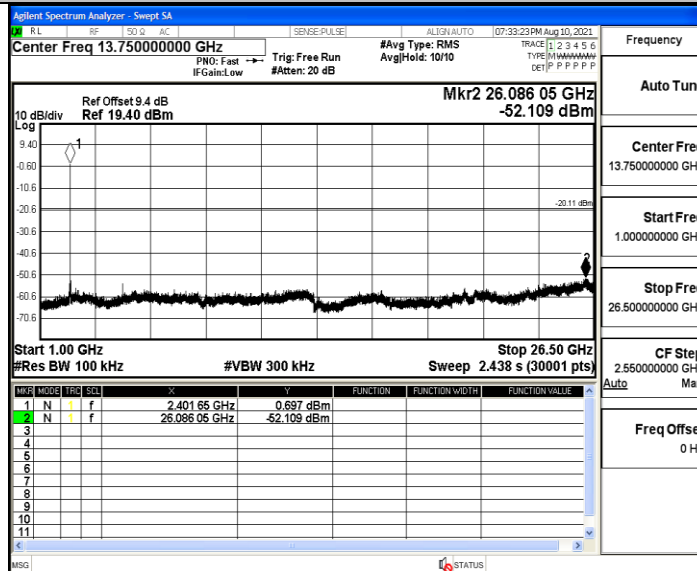
2DH5_Ant1_2402_0~Reference



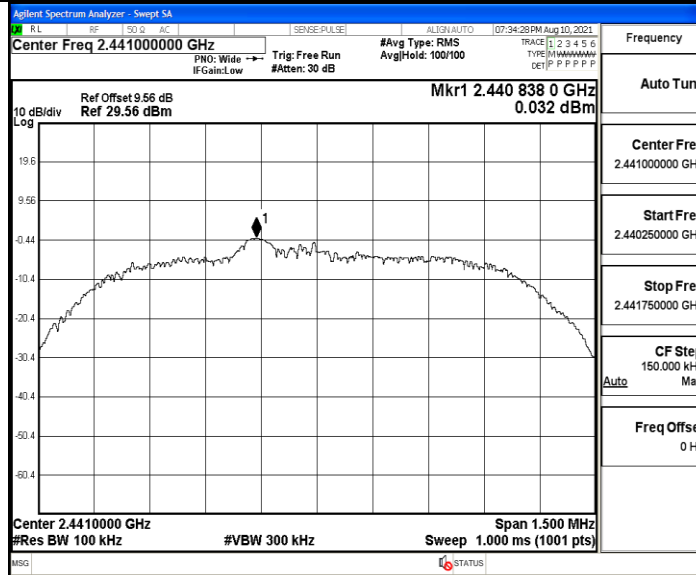
2DH5_Ant1_2402_30~1000



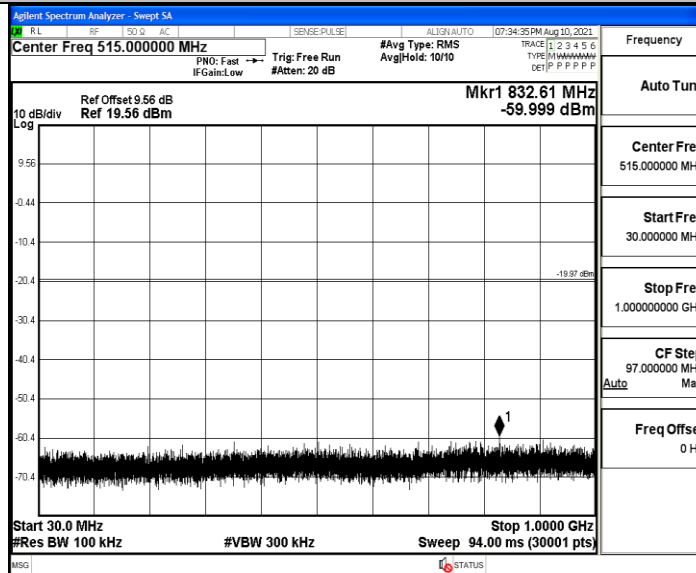
2DH5_Ant1_2402_1000~26500



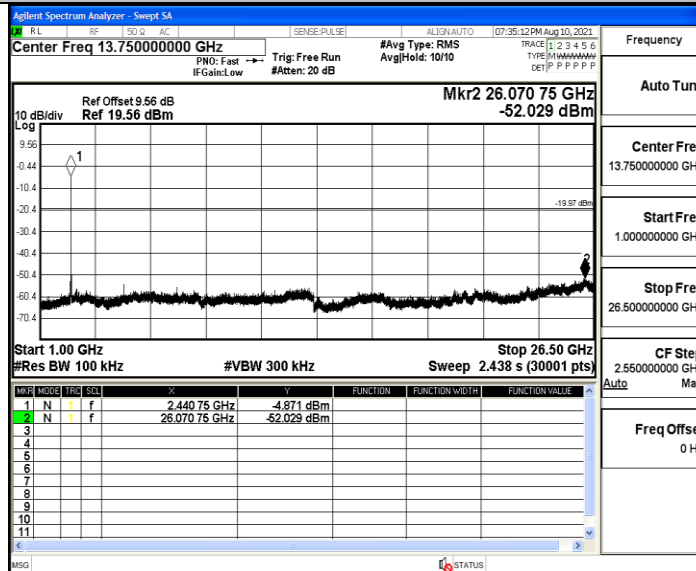
2DH5_Ant1_2441_0~Reference



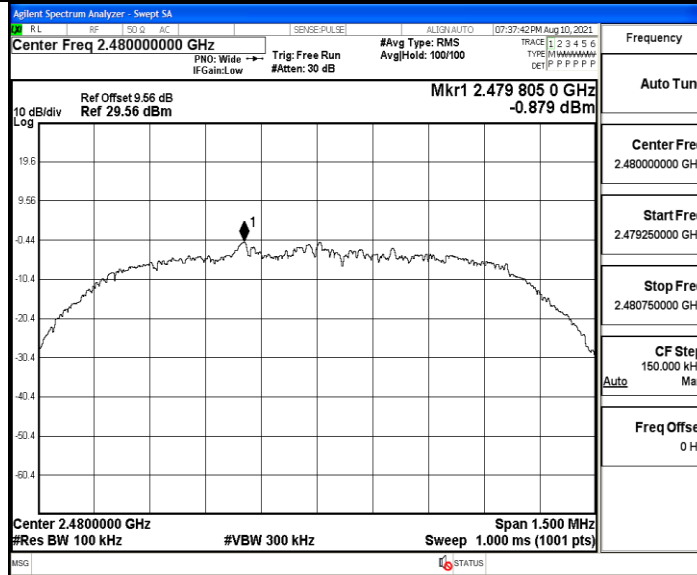
2DH5_Ant1_2441_30~1000



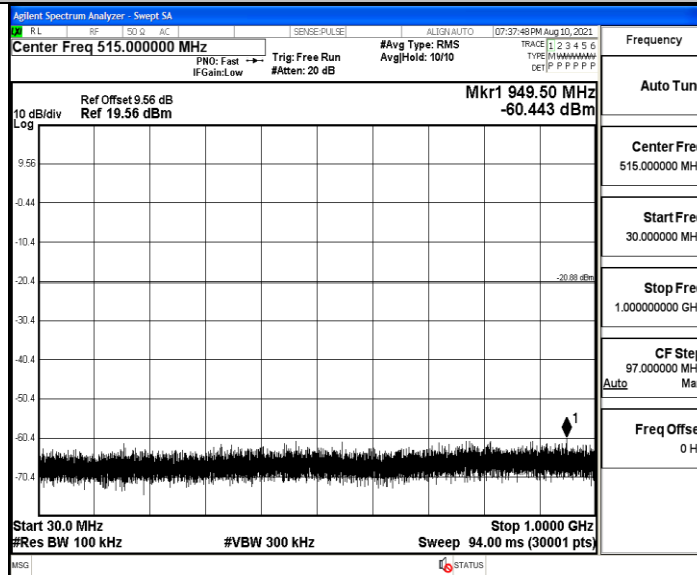
2DH5_Ant1_2441_1000~26500



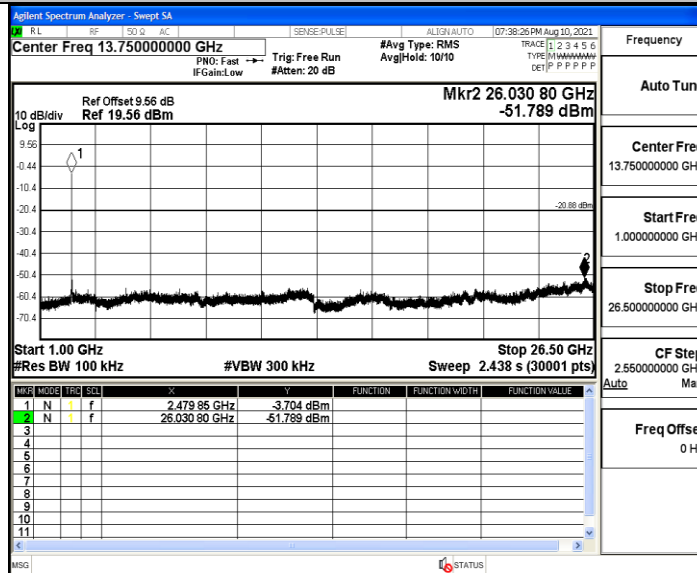
2DH5_Ant1_2480_0~Reference



2DH5_Ant1_2480_30~1000



2DH5_Ant1_2480_1000~26500



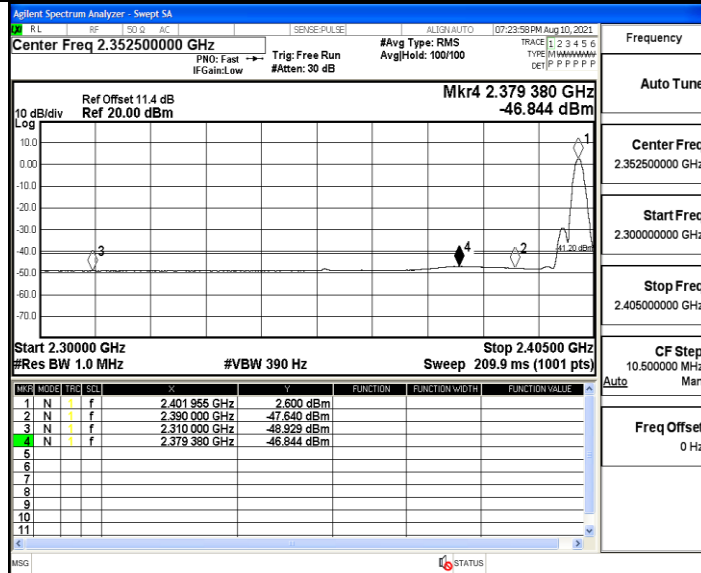
A.8 Restrict-band band-edge measurements

TestMode	Antenna	ChName	Channel	Detector	Freq(MHz)	Result(dBm)	Limit(dBm)	Verdict
DH5	Ant1	Low	2402	AV	2310.000	-48.93	≤-41.20	PASS
				AV	2379.380	-46.84	≤-41.20	PASS
				AV	2390.000	-47.64	≤-41.20	PASS
				Peak	2310.000	-40.08	≤-21.20	PASS
				Peak	2377.385	-37.83	≤-21.20	PASS
				Peak	2390.000	-40.54	≤-21.20	PASS
		High	2480	AV	2483.500	-41.57	≤-41.20	PASS
				AV	2483.520	-41.57	≤-41.20	PASS
				AV	2500.000	-46.25	≤-41.20	PASS
				Peak	2483.500	-36.37	≤-21.20	PASS
				Peak	2483.680	-35.99	≤-21.20	PASS
				Peak	2500.000	-39.62	≤-21.20	PASS
2DH5	Ant1	Low	2402	AV	2310.000	-48.94	≤-41.20	PASS
				AV	2378.330	-46.86	≤-41.20	PASS
				AV	2390.000	-47.69	≤-41.20	PASS
				Peak	2310.000	-40.89	≤-21.20	PASS
				Peak	2383.370	-38.07	≤-21.20	PASS
				Peak	2390.000	-41.28	≤-21.20	PASS
		High	2480	AV	2483.500	-43.58	≤-41.20	PASS
				AV	2483.520	-43.58	≤-41.20	PASS
				AV	2500.000	-46.23	≤-41.20	PASS
				Peak	2483.500	-36.3	≤-21.20	PASS
				Peak	2483.520	-36.3	≤-21.20	PASS
				Peak	2500.000	-37.69	≤-21.20	PASS

Note:

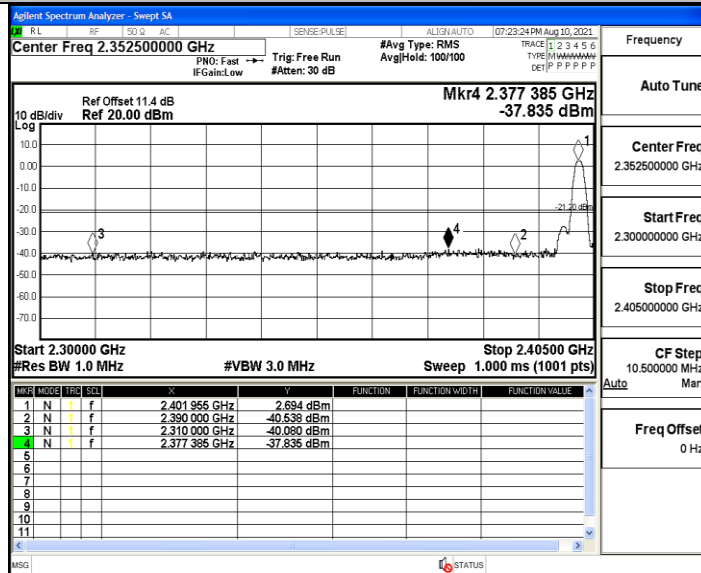
1. The Antenna Gain is compensated in the graph with 2dBi and Antenna Gain which is Higher.
2. The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.

DH5_Ant1_Low_2402_AV



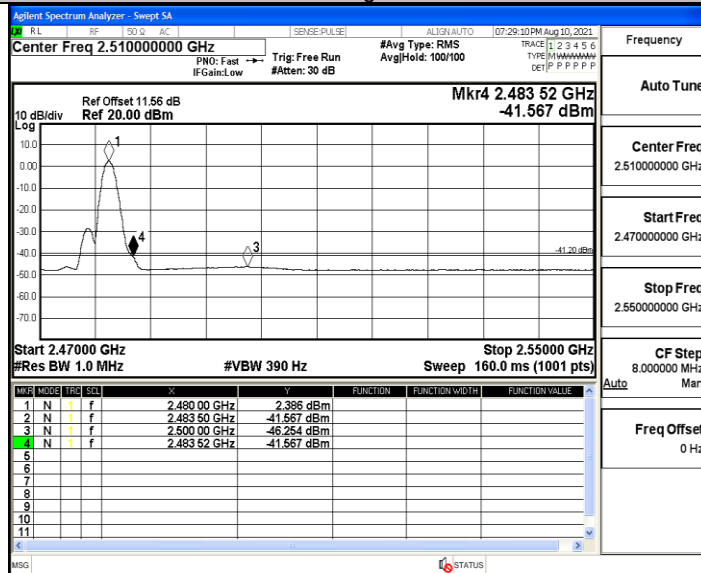
Frequency	Auto Tune
Center Freq	2.352500000 GHz
Start Freq	2.300000000 GHz
Stop Freq	2.405000000 GHz
CF Step	10.500000 MHz
Auto	Man
Freq Offset	0 Hz

DH5_Ant1_Low_2402_Peak



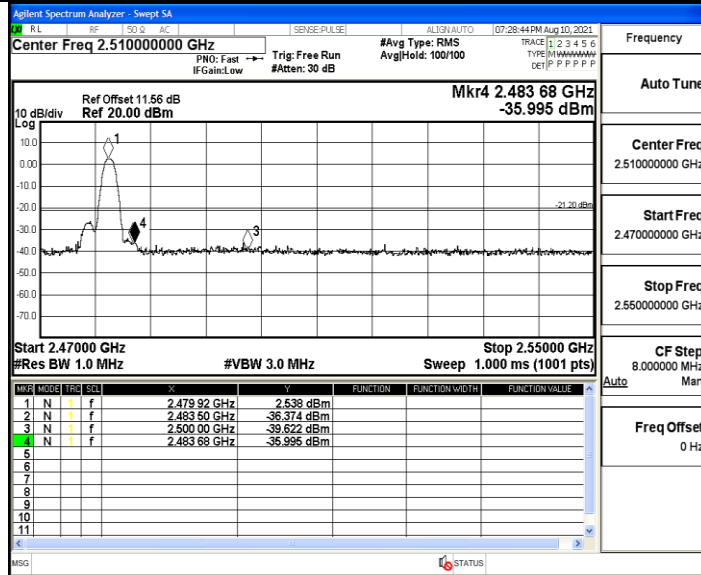
Frequency	Auto Tune
Center Freq	2.352500000 GHz
Start Freq	2.300000000 GHz
Stop Freq	2.405000000 GHz
CF Step	10.500000 MHz
Auto	Man
Freq Offset	0 Hz

DH5_Ant1_High_2480_AV



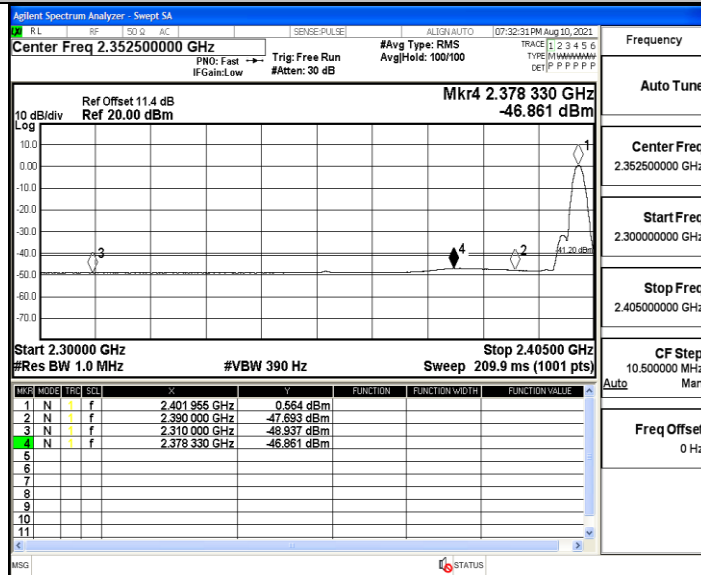
Frequency	Auto Tune
Center Freq	2.510000000 GHz
Start Freq	2.470000000 GHz
Stop Freq	2.550000000 GHz
CF Step	8.000000 MHz
Auto	Man
Freq Offset	0 Hz

DH5_Ant1_High_2480_Peak



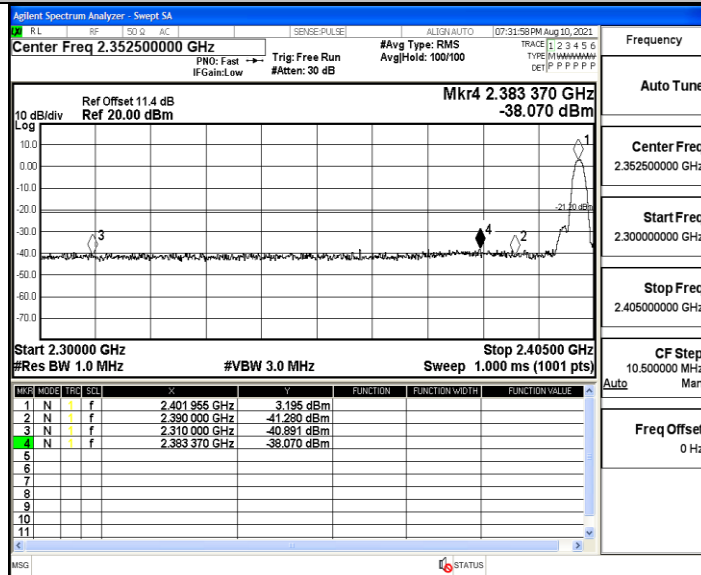
Frequency	Auto Tune
Center Freq	2.510000000 GHz
Start Freq	2.470000000 GHz
Stop Freq	2.550000000 GHz
CF Step	8.000000 MHz
Freq Offset	0 Hz

2DH5_Ant1_Low_2402_AV



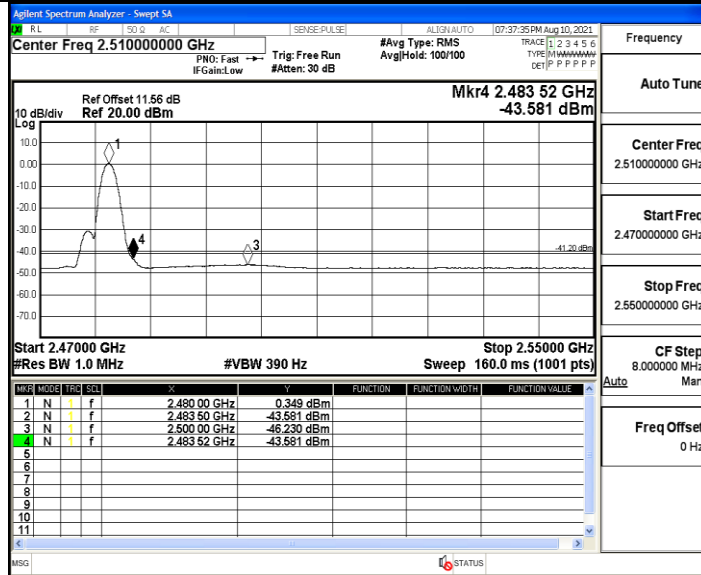
Frequency	Auto Tune
Center Freq	2.352500000 GHz
Start Freq	2.300000000 GHz
Stop Freq	2.405000000 GHz
CF Step	10.500000 MHz
Freq Offset	0 Hz

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

