

Appendix A

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

Product Name: Bluetooth Headphones

Trade Mark: MUZE, Vivita

Test Model: MUZ4011

FCC ID: 2AL9B-MUZ4011

Environmental Conditions

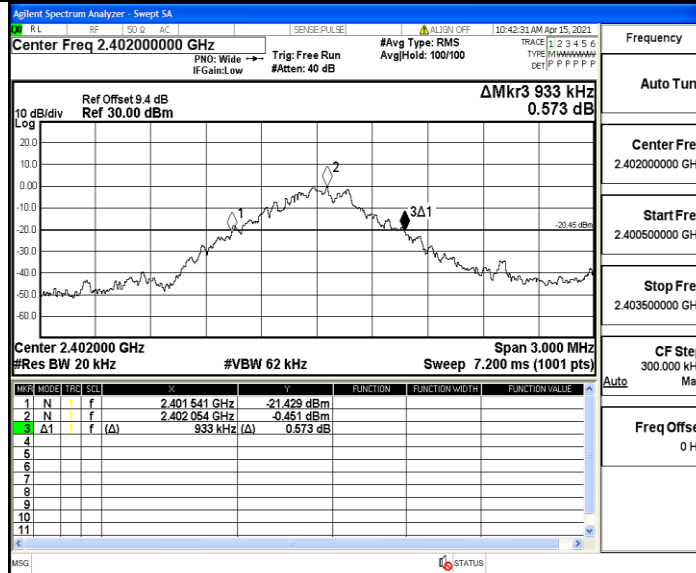
Temperature:	22.8° C
Relative Humidity:	56%
ATM Pressure:	100.0 kPa
Test Engineer:	Anna Hu
Supervised by:	Hugo Chen

A.1 20 dB Bandwidth

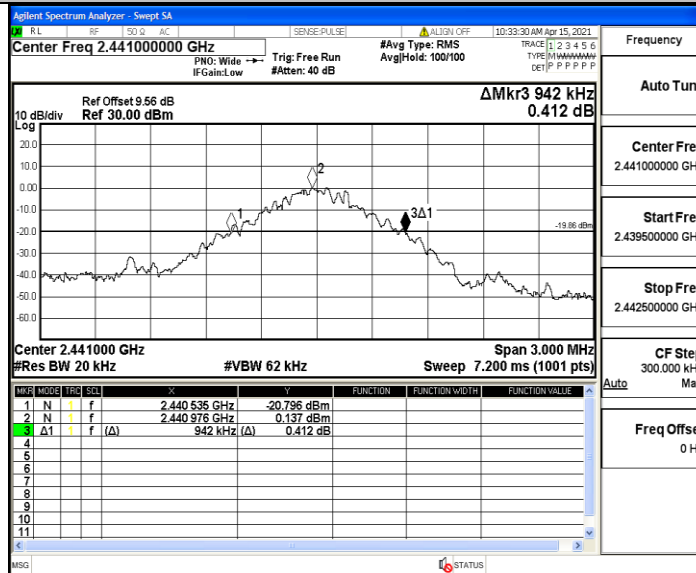
TestMode	Antenna	Channel	20db EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.933	2401.541	2402.474	---	PASS
		2441	0.942	2440.535	2441.477	---	PASS
		2480	0.936	2479.544	2480.480	---	PASS
2DH5	Ant1	2402	1.218	2401.385	2402.603	---	PASS
		2441	1.356	2440.322	2441.678	---	PASS
		2480	1.230	2479.376	2480.606	---	PASS

Test Graph

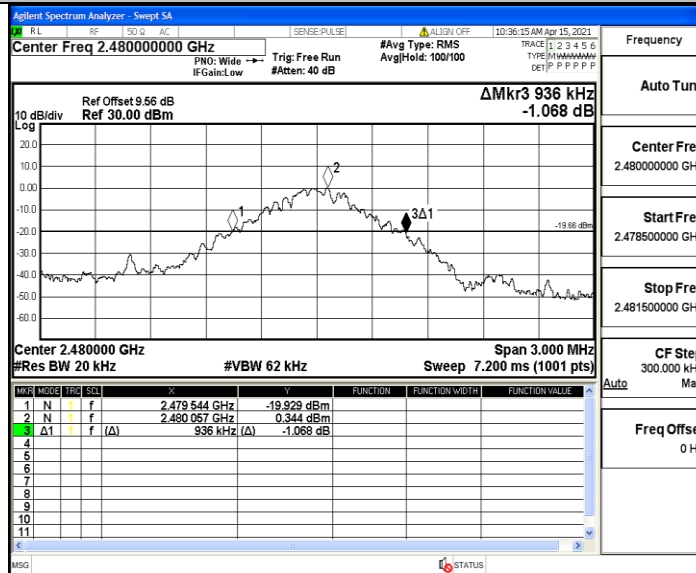
DH5_Ant1_2402



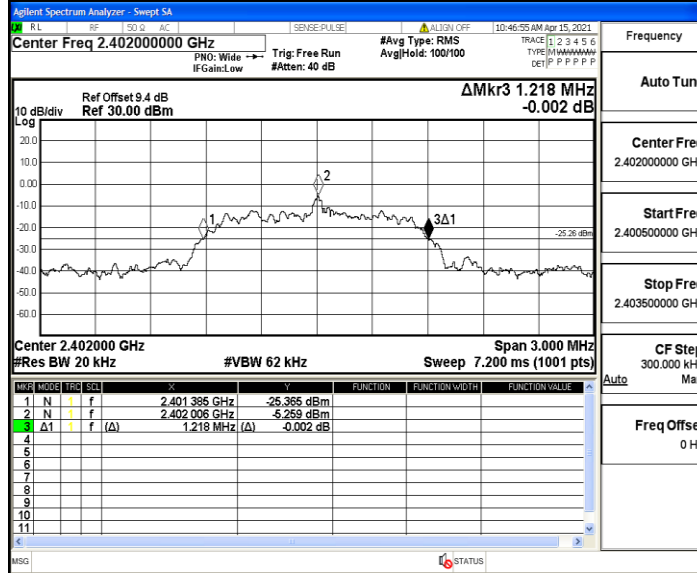
DH5_Ant1_2441



DH5_Ant1_2480

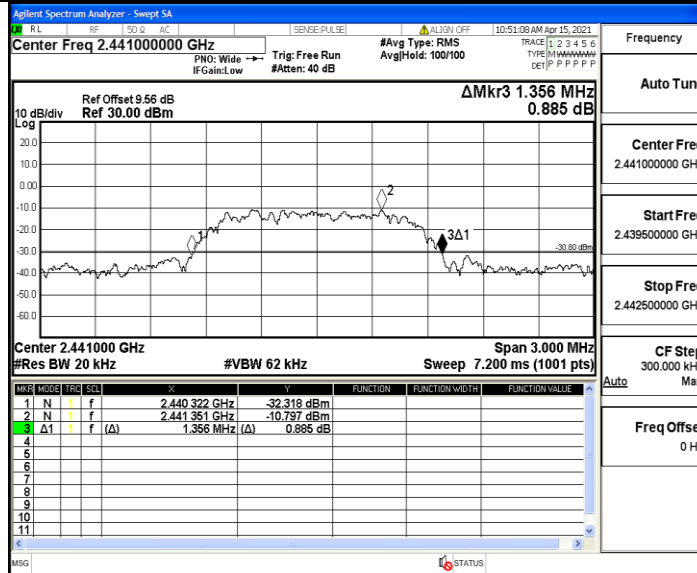


2DH5_Ant1_2402



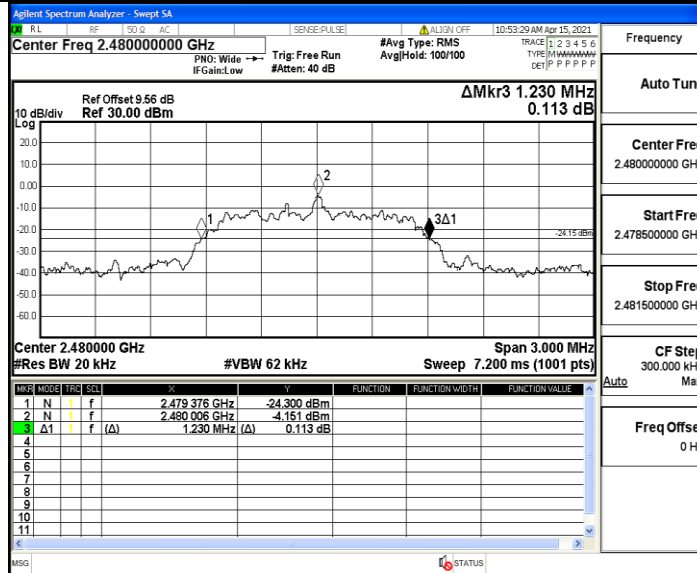
Frequency
Auto Tune
Center Freq 2.402000000 GHz
Start Freq 2.400500000 GHz
Stop Freq 2.403500000 GHz
CF Step 300.000 kHz
Auto
Freq Offset 0 Hz

2DH5_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
Auto
Freq Offset 0 Hz

2DH5_Ant1_2480



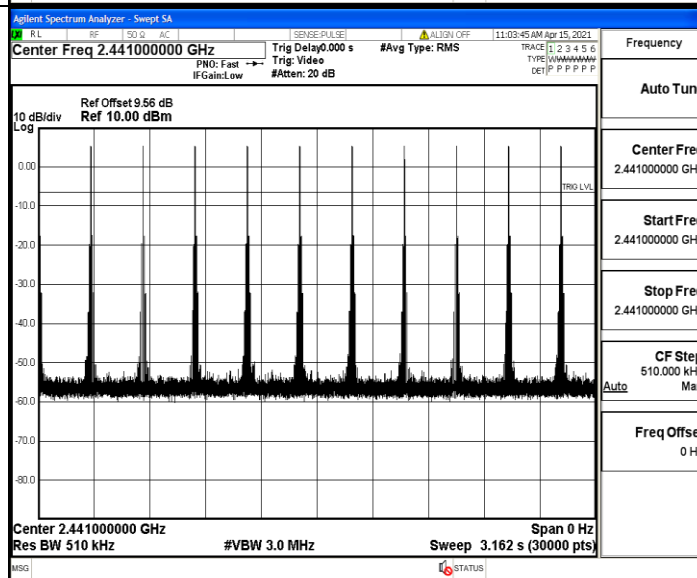
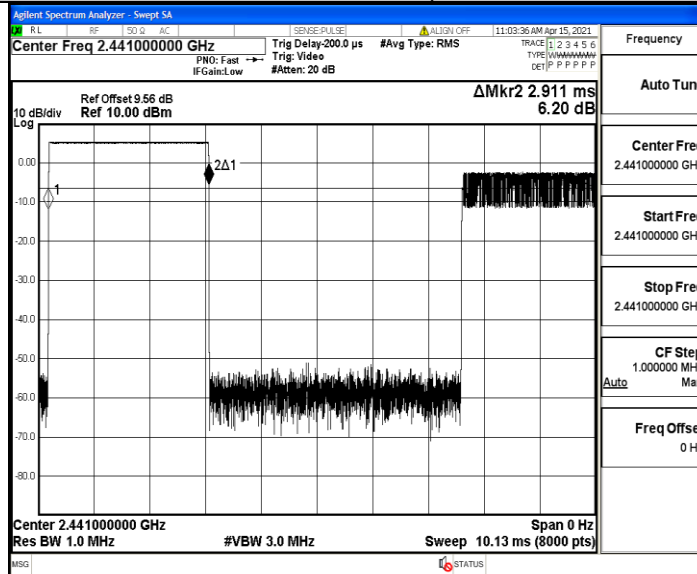
Frequency
Auto Tune
Center Freq 2.480000000 GHz
Start Freq 2.478500000 GHz
Stop Freq 2.481500000 GHz
CF Step 300.000 kHz
Auto
Freq Offset 0 Hz

A.2 Dwell Time

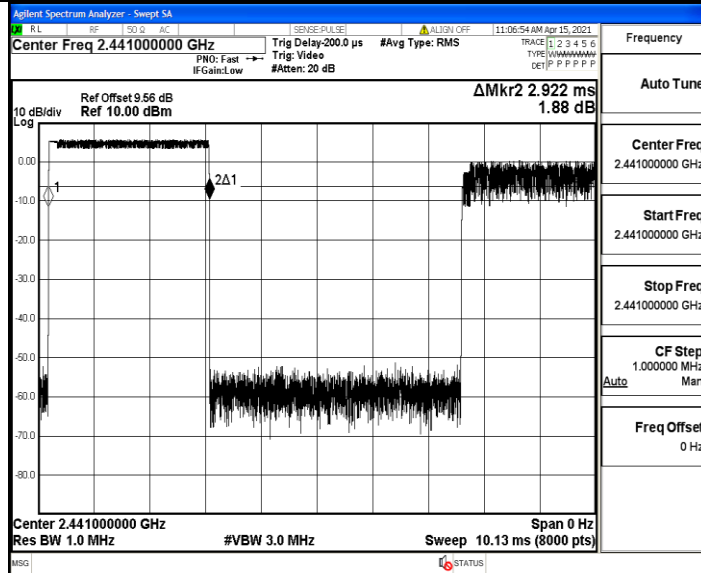
TestMode	Antenna	Channel	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH5	Ant1	Hop	2.91	110	0.32	<=0.4	PASS
2DH5	Ant1	Hop	2.92	110	0.321	<=0.4	PASS

Test Graph

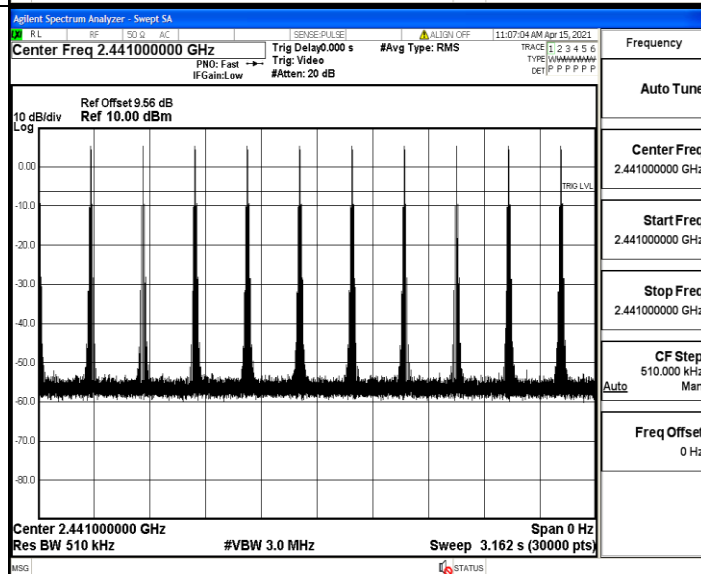
DH5_Ant1_Hop



2DH5_Ant1_Hop



Frequency
Auto Tune
Center Freq 2.441000000 GHz
Start Freq 2.441000000 GHz
Stop Freq 2.441000000 GHz
CF Step 1.000000 MHz Auto Man
Freq Offset 0 Hz



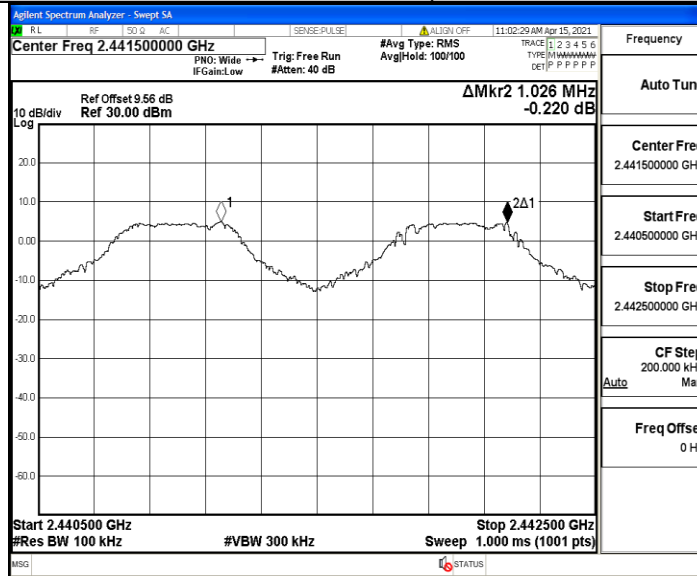
Frequency
Auto Tune
Center Freq 2.441000000 GHz
Start Freq 2.441000000 GHz
Stop Freq 2.441000000 GHz
CF Step 510.000 kHz Auto Man
Freq Offset 0 Hz

A.3 Carrier Frequency Separation

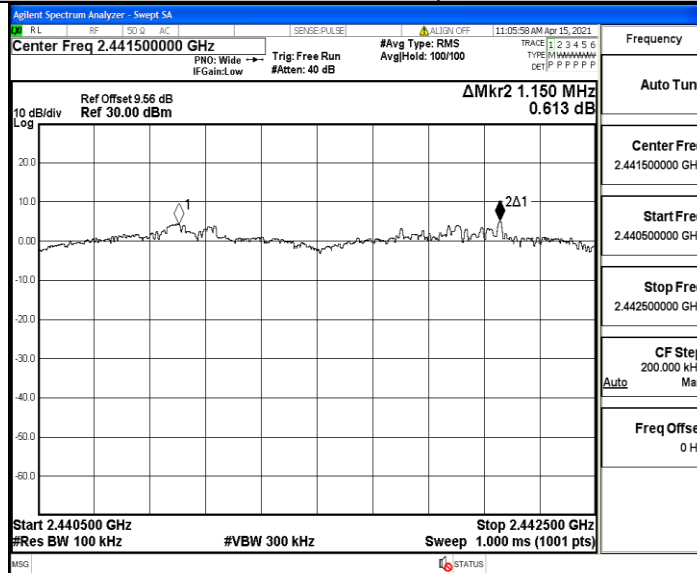
TestMode	Antenna	Channel	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	1.026	≥ 0.942	PASS
2DH5	Ant1	Hop	1.15	≥ 0.904	PASS

Test Graph

DH5_Ant1_Hop



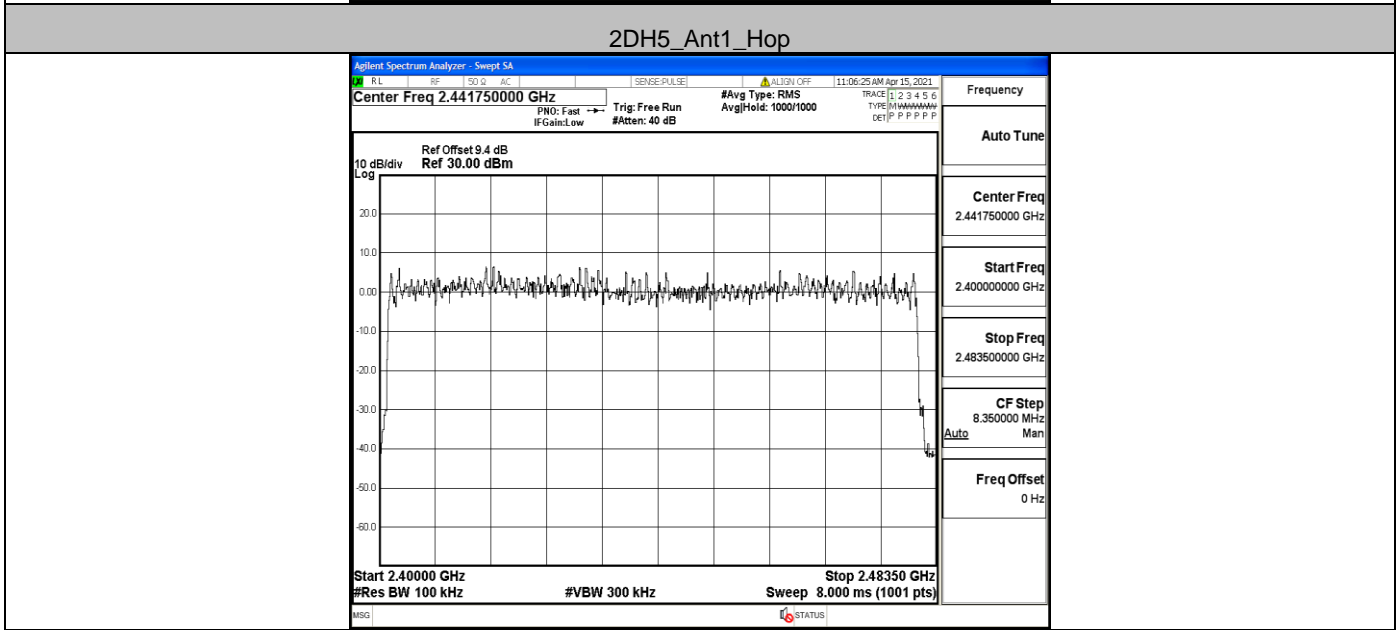
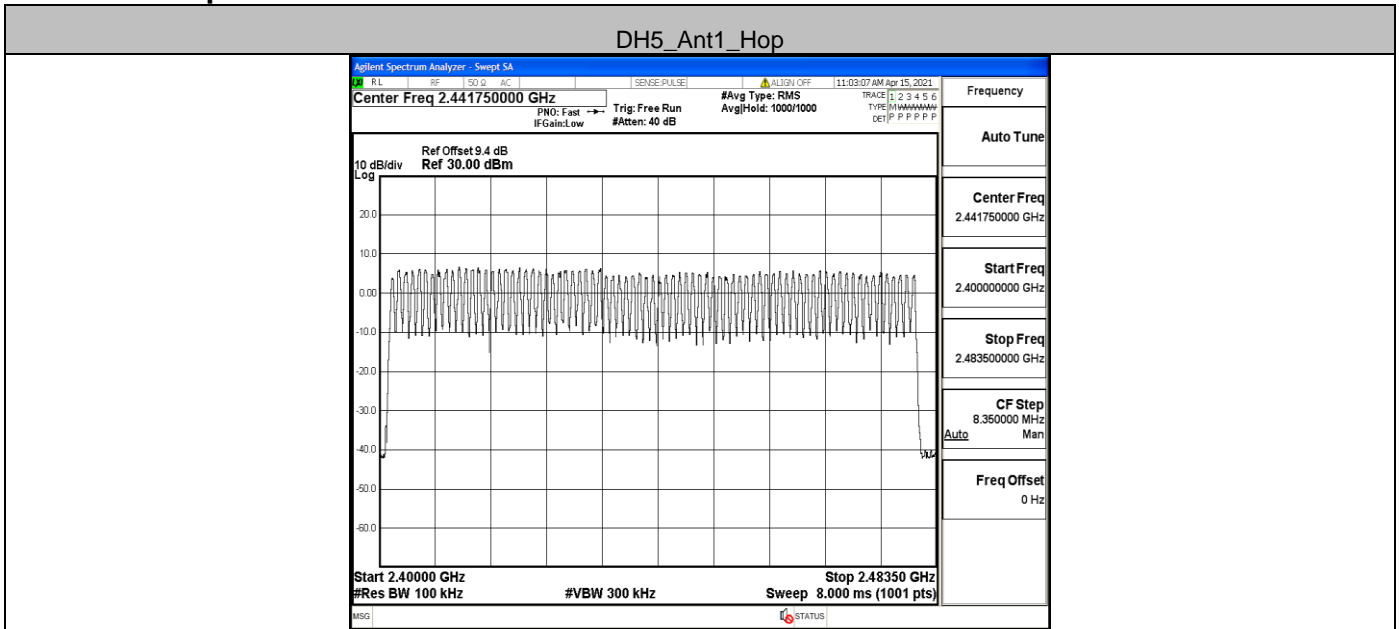
2DH5_Ant1_Hop



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

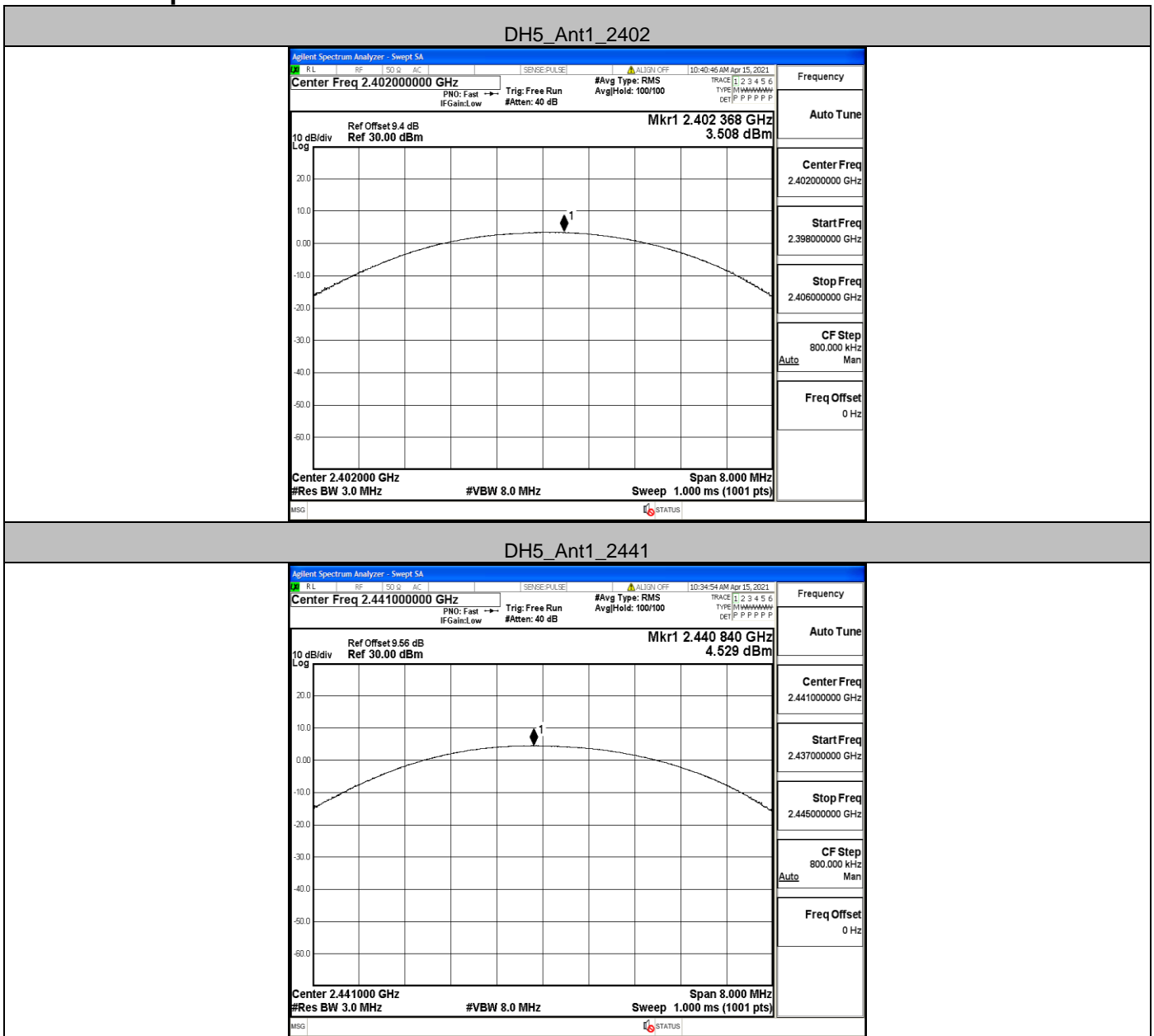
Test Graph



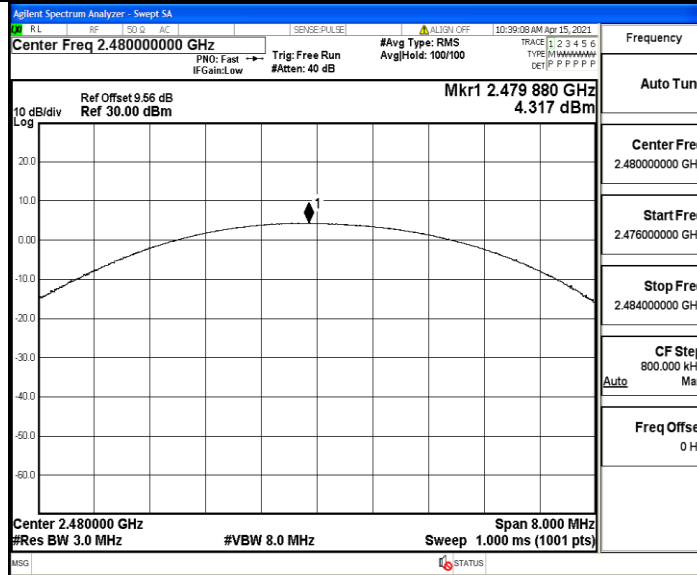
A.5 Conducted Peak Output Power

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
DH5	Ant1	2402	3.51	<=20.97	PASS
		2441	4.53	<=20.97	PASS
		2480	4.32	<=20.97	PASS
2DH5	Ant1	2402	-0.14	<=20.97	PASS
		2441	1.37	<=20.97	PASS
		2480	1.17	<=20.97	PASS

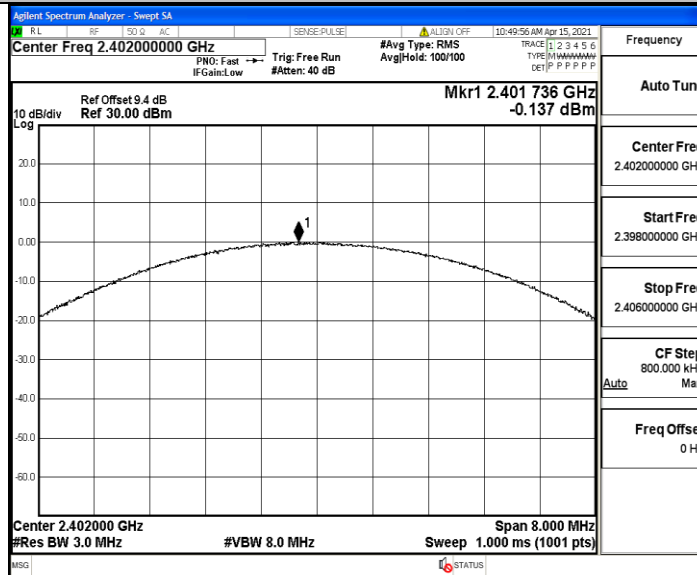
Test Graph



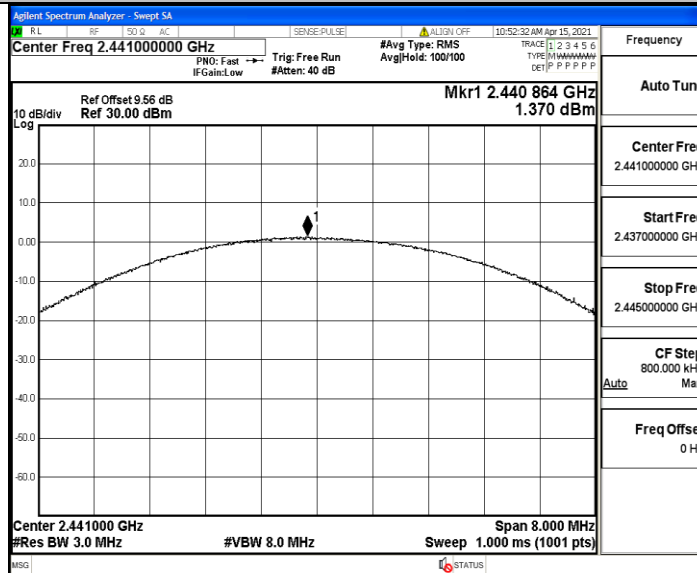
DH5_Ant1_2480



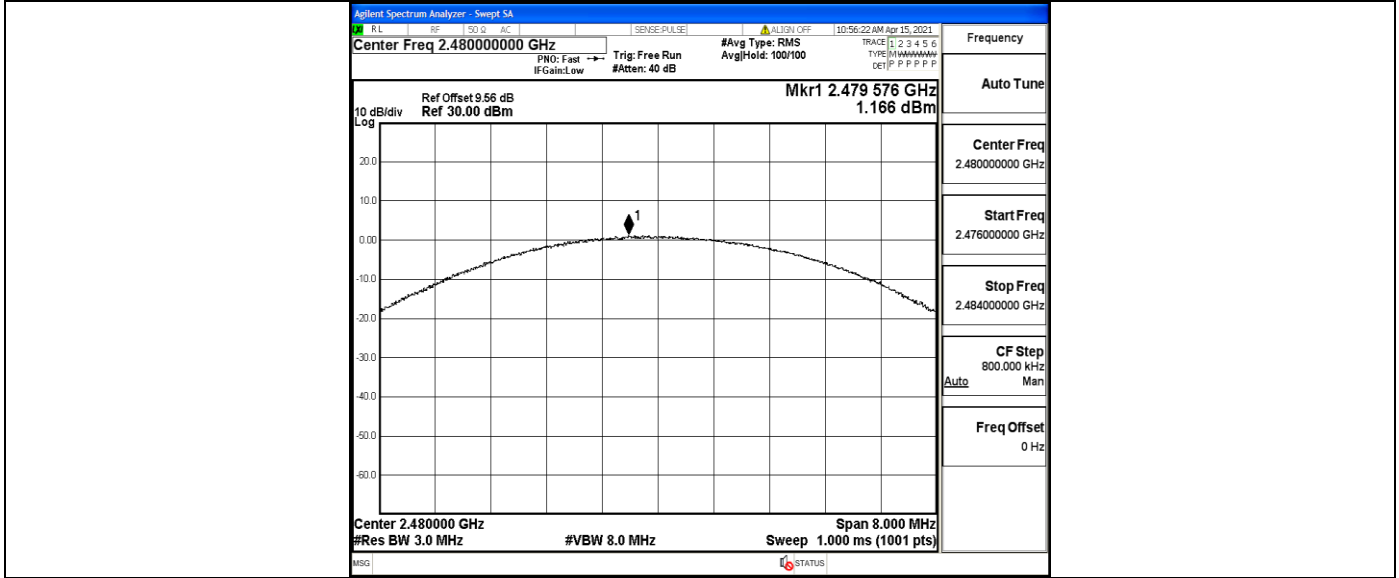
2DH5_Ant1_2402



2DH5_Ant1_2441



2DH5_Ant1_2480

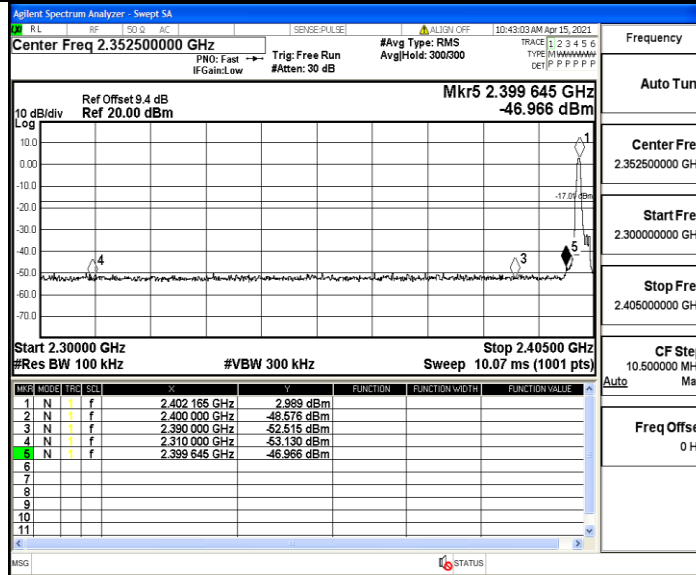


A.6 Band-edge for RF Conducted Emissions

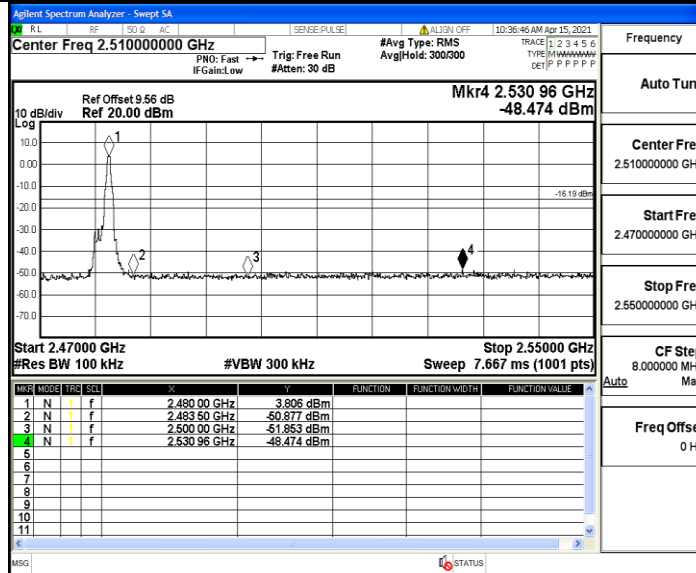
TestMode	Antenna	ChName	Channel	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	2.99	-46.97	<=-17.01	PASS
		High	2480	3.81	-48.47	<=-16.19	PASS
		Low	Hop_2402	5.47	-49.75	<=-14.53	PASS
		High	Hop_2480	5.01	-47.6	<=-15	PASS
2DH5	Ant1	Low	2402	-2.74	-42.41	<=-22.74	PASS
		High	2480	-1.64	-48.95	<=-21.64	PASS
		Low	Hop_2402	5.46	-49.69	<=-14.54	PASS
		High	Hop_2480	2.38	-47.94	<=-17.62	PASS

Test Graph

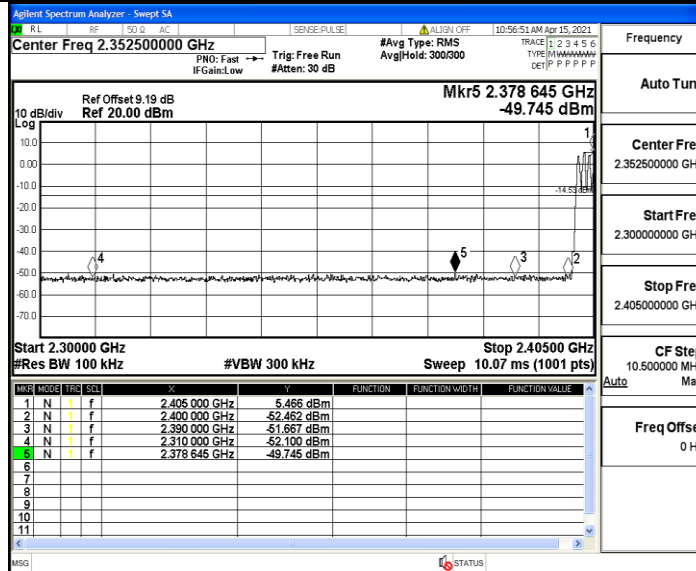
DH5_Ant1_Low_2402



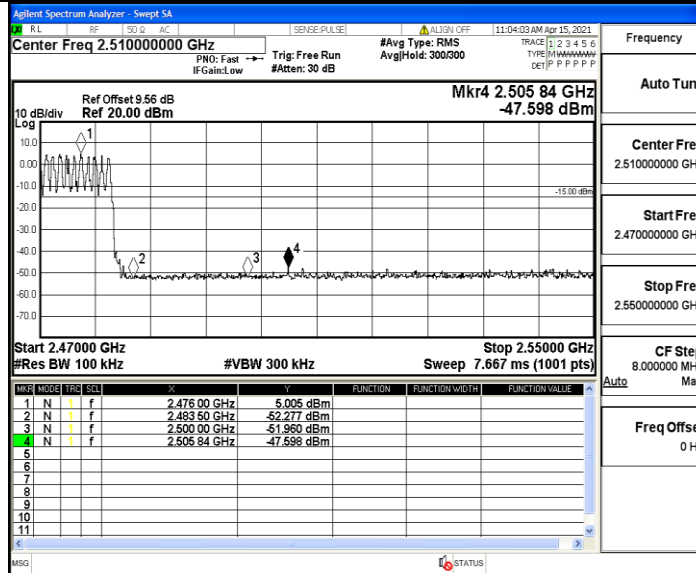
DH5_Ant1_High_2480



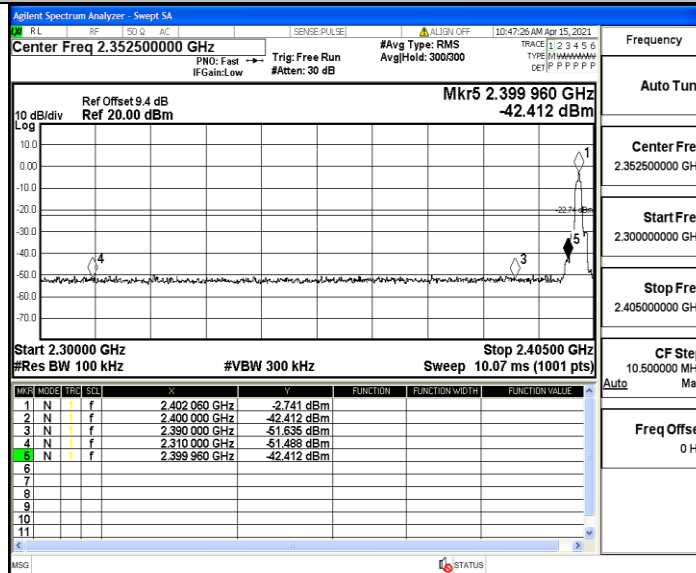
DH5_Ant1_Low_Hop_2402



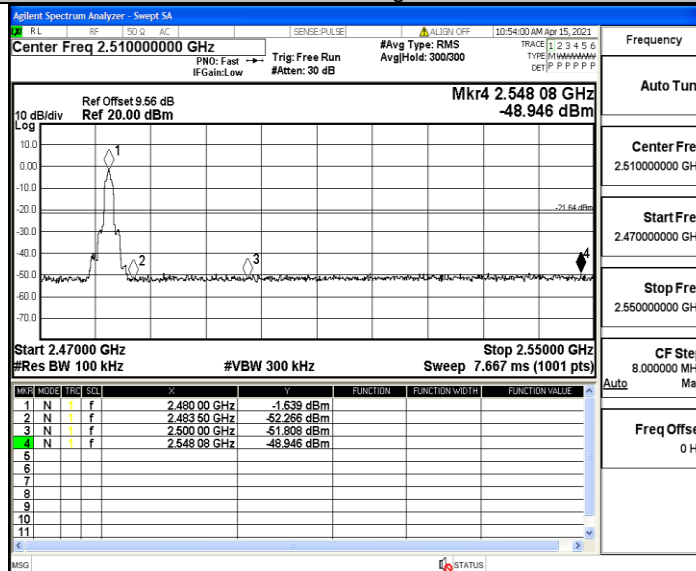
DH5_Ant1_High_Hop_2480



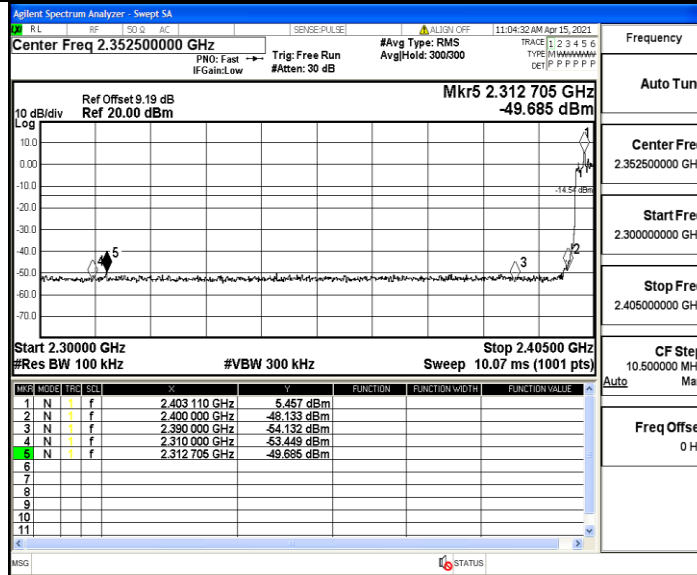
2DH5_Ant1_Low_2402



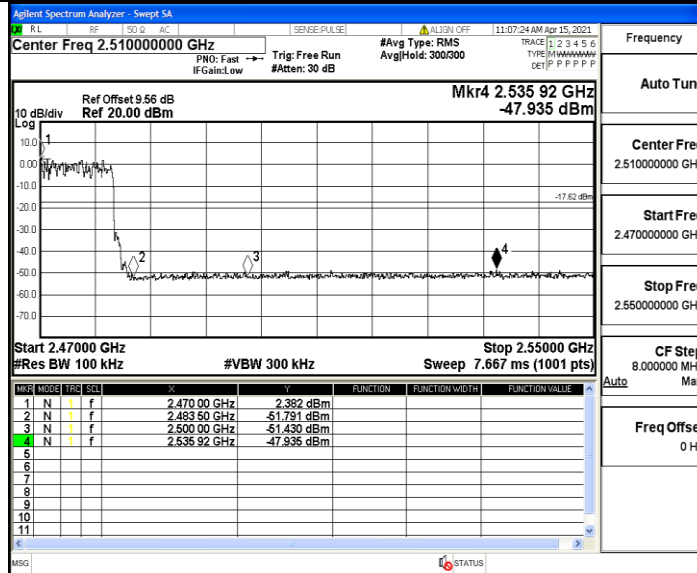
2DH5_Ant1_High_2480



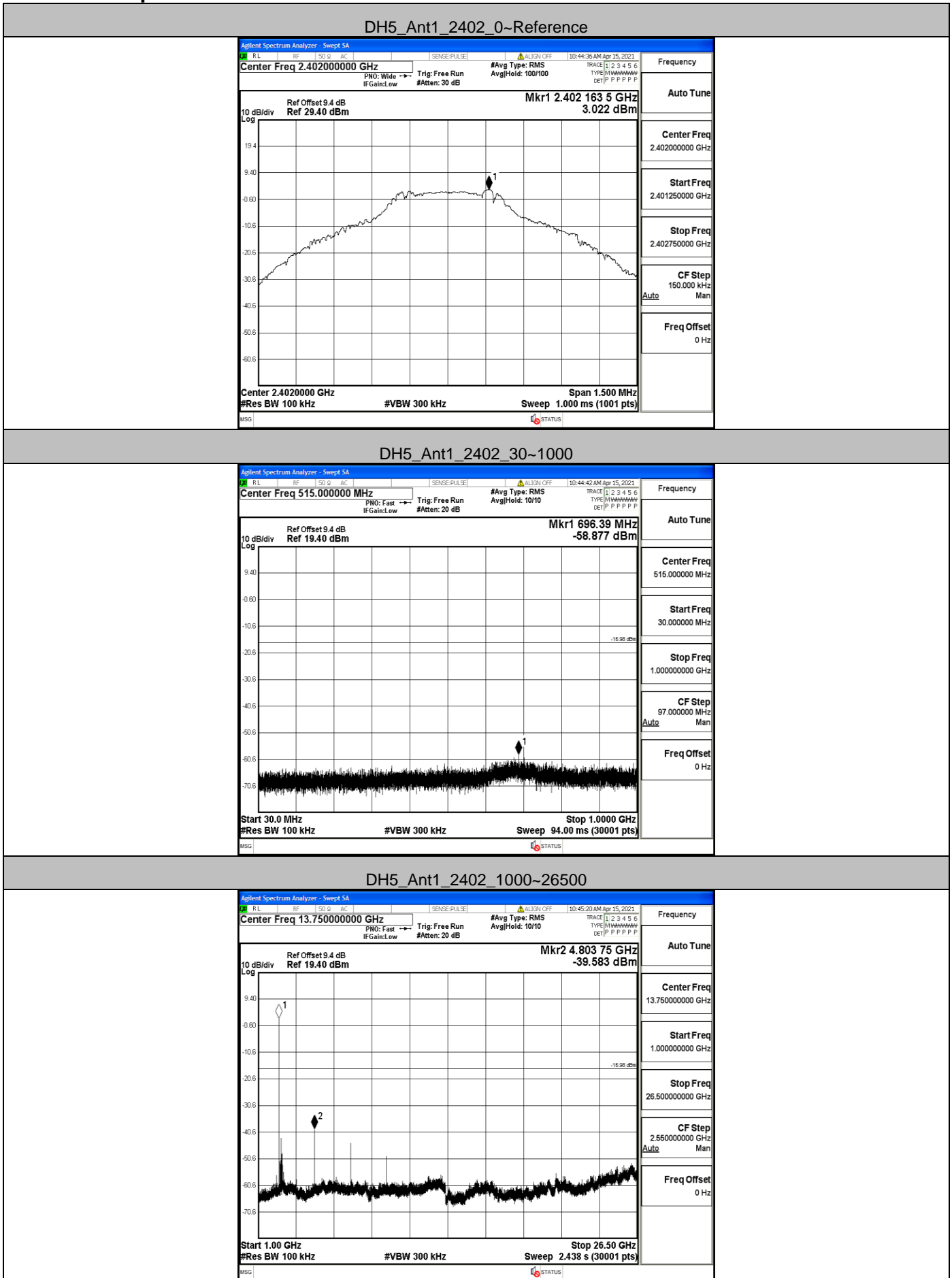
2DH5_Ant1_Low_Hop_2402



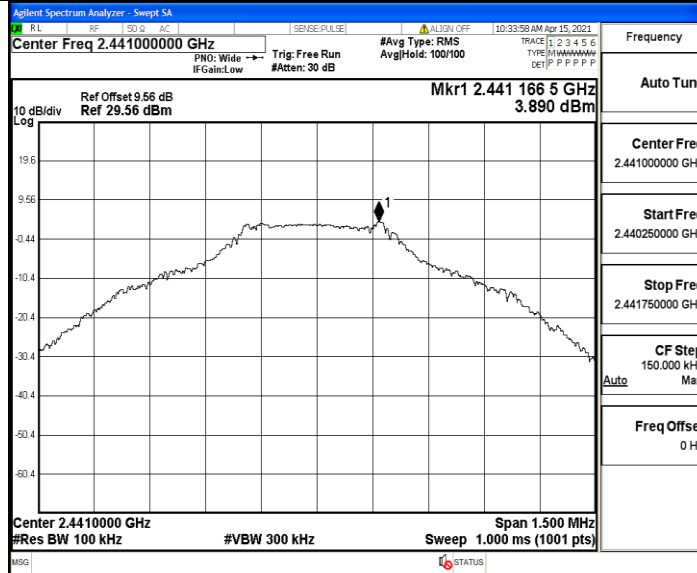
2DH5_Ant1_High_Hop_2480



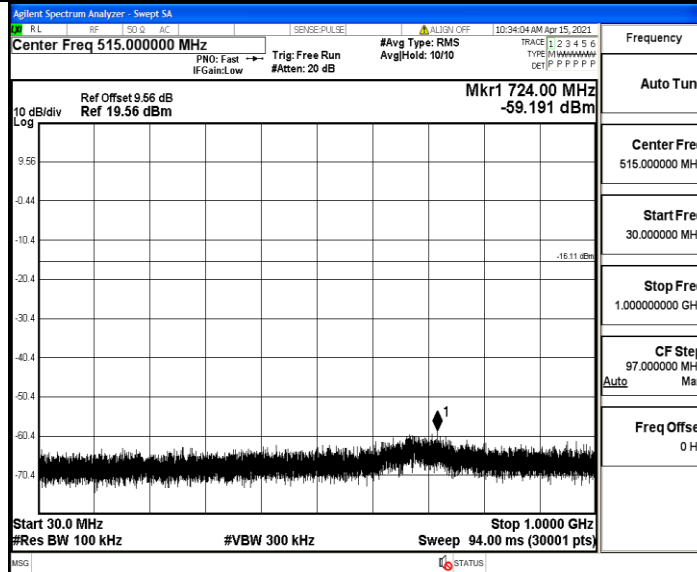
A.7 RF Conducted Spurious Emissions Test Graph



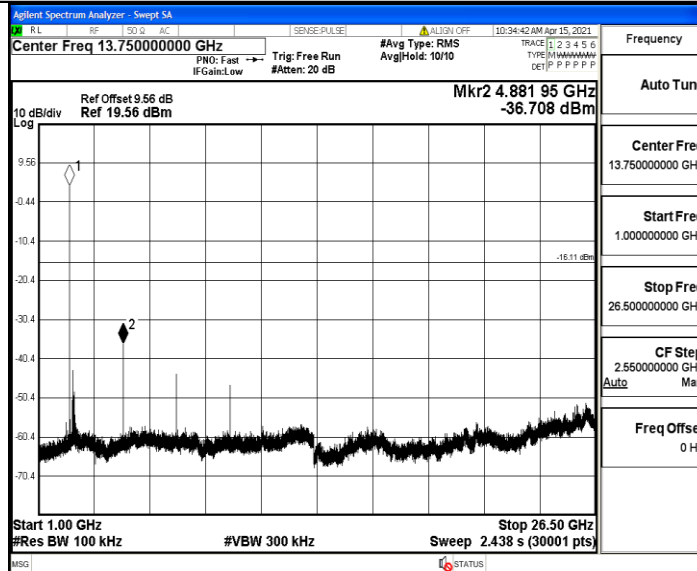
DH5_Ant1_2441_0~Reference



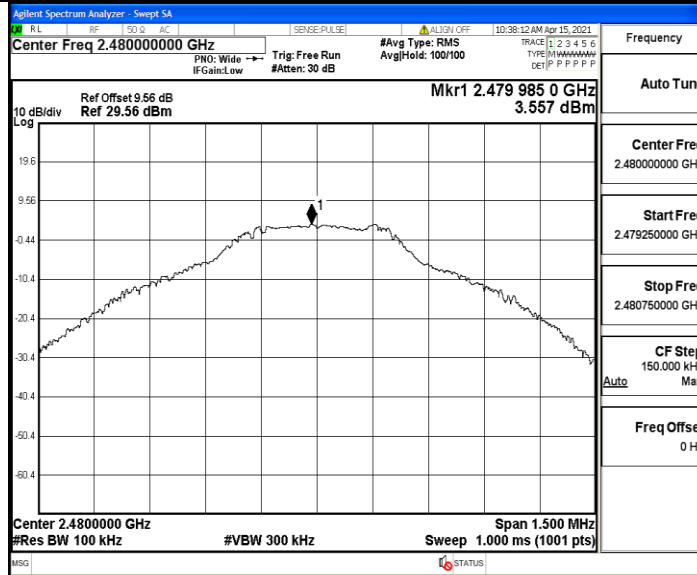
DH5_Ant1_2441_30~1000



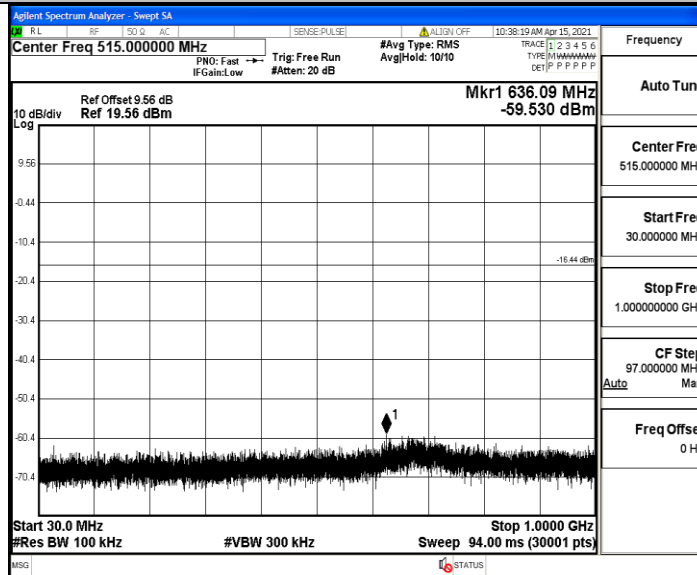
DH5_Ant1_2441_1000~26500



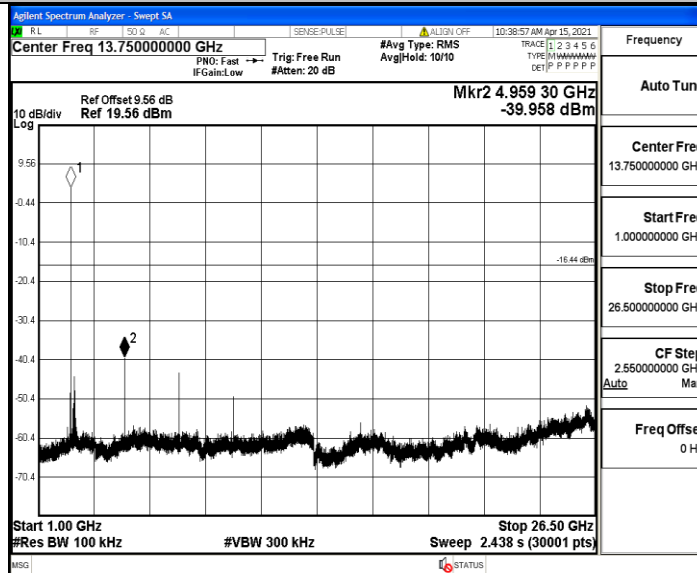
DH5_Ant1_2480_0-Reference



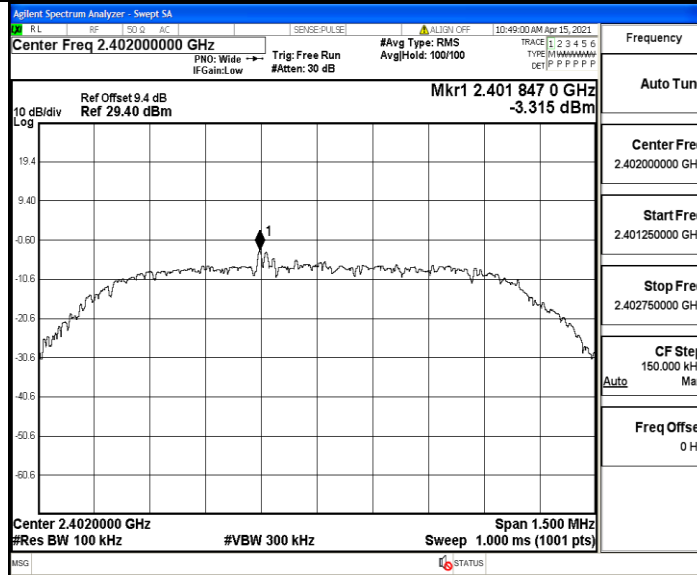
DH5_Ant1_2480_30-1000



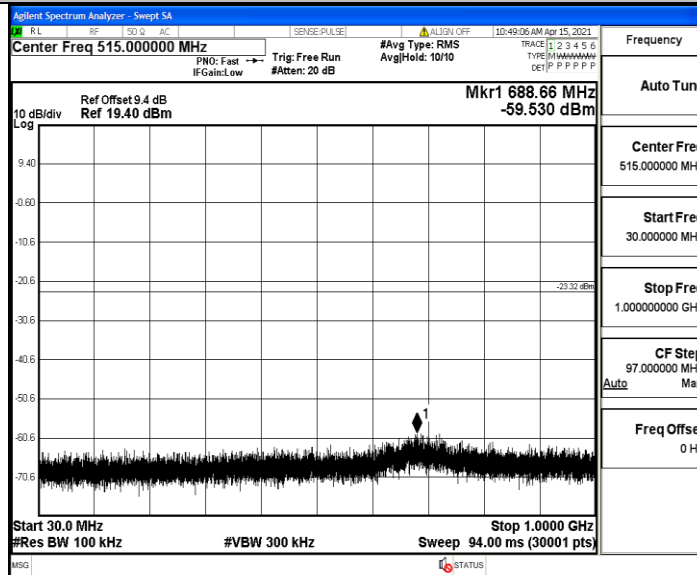
DH5_Ant1_2480_1000-26500



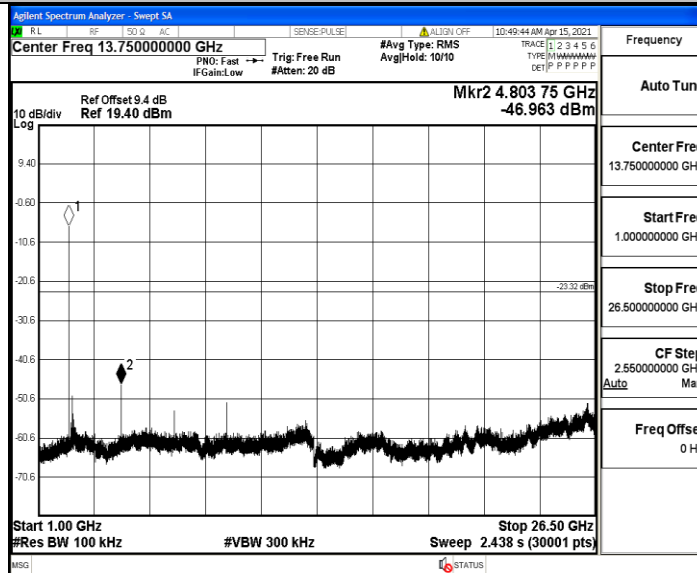
2DH5_Ant1_2402_0~Reference



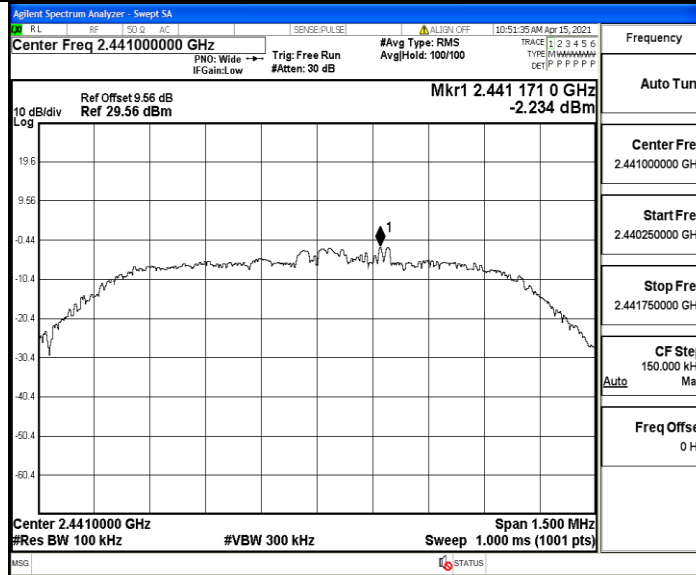
2DH5_Ant1_2402_30~1000



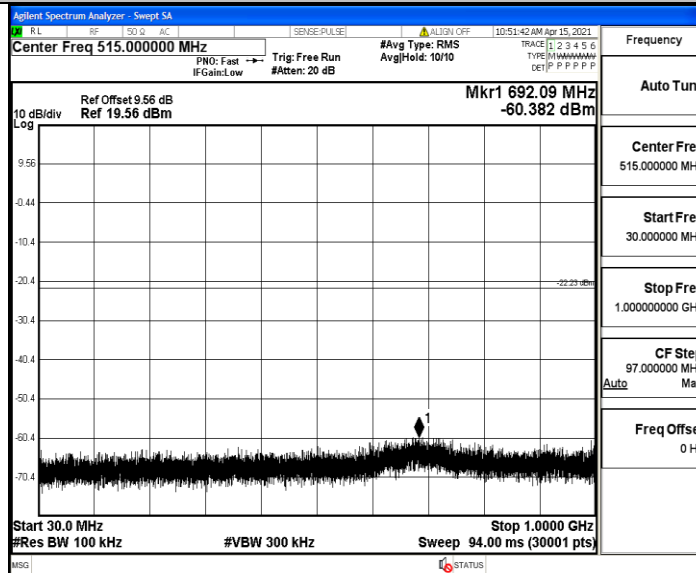
2DH5_Ant1_2402_1000~26500



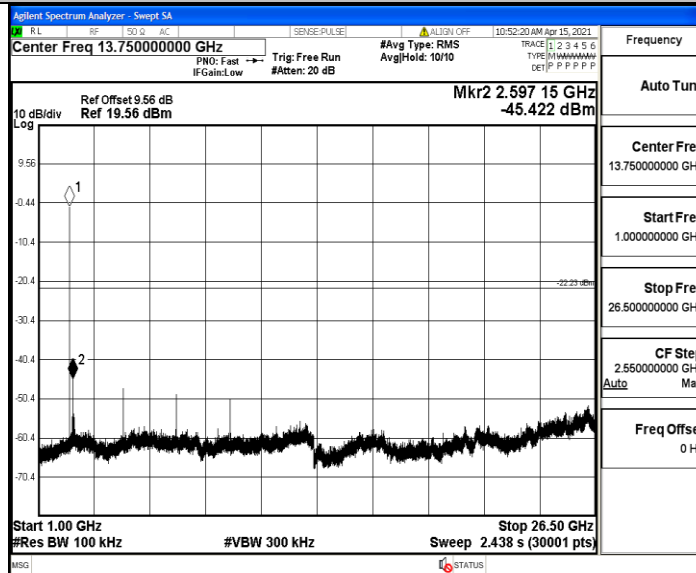
2DH5_Ant1_2441_0~Reference



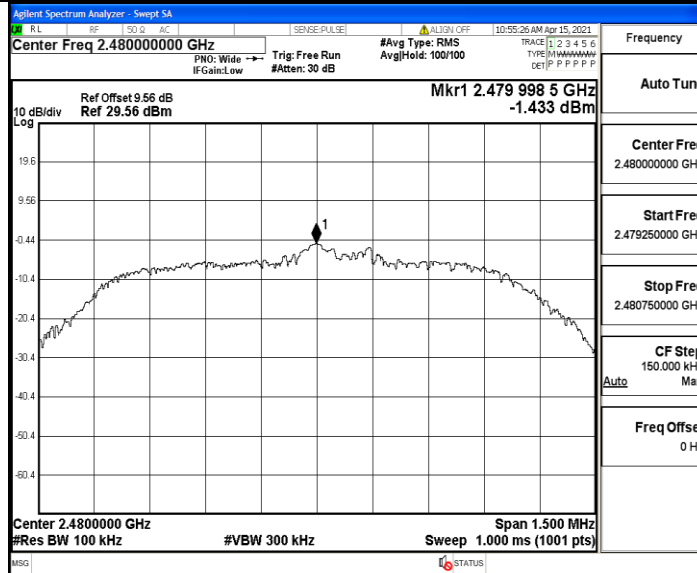
2DH5_Ant1_2441_30~1000



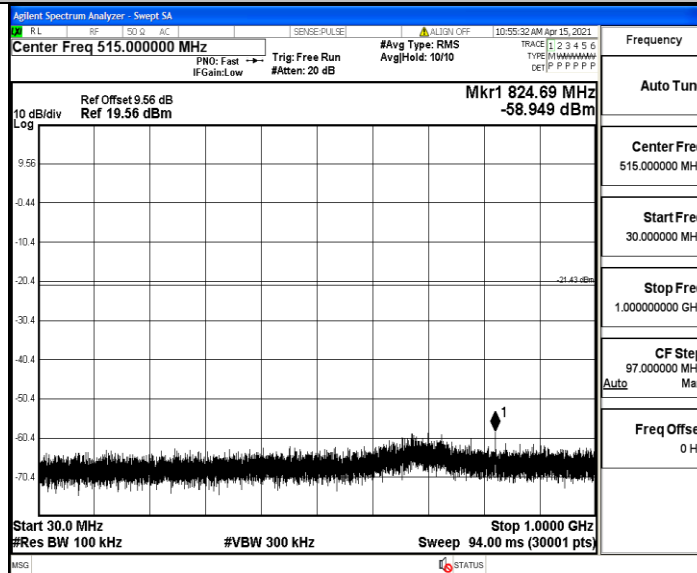
2DH5_Ant1_2441_1000~26500



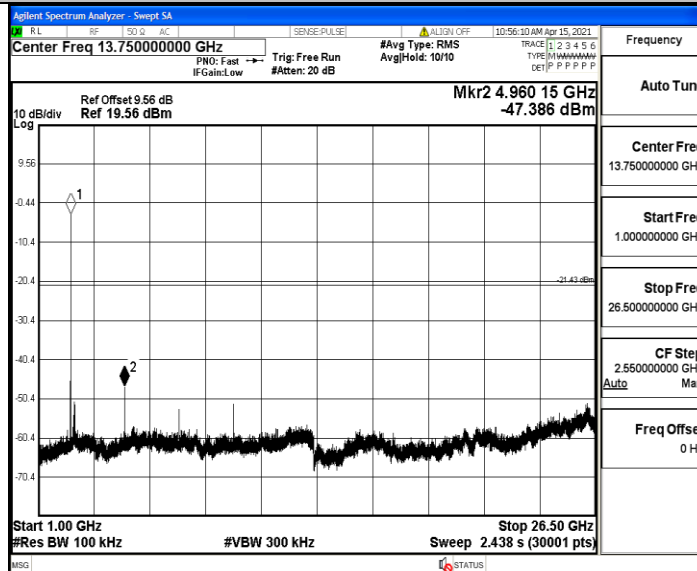
2DH5_Ant1_2480_0~Reference



2DH5_Ant1_2480_30~1000



2DH5_Ant1_2480_1000~26500



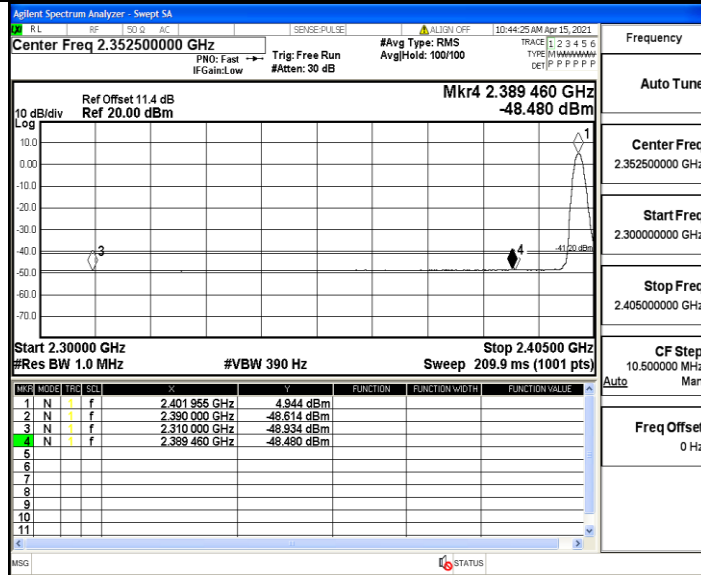
A.8 Restrict-band band-edge measurements

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	2389.460	-48.48	<=-41.20	PASS
				AV	2390.000	-48.61	<=-41.20	PASS
				Peak	2310.000	-39.66	<=-21.20	PASS
				Peak	2336.015	-38.51	<=-21.20	PASS
				Peak	2390.000	-41.67	<=-21.20	PASS
		High	2480	AV	2483.500	-47.18	<=-41.20	PASS
				AV	2500.000	-47.90	<=-41.20	PASS
				Peak	2483.500	-40.78	<=-21.20	PASS
				Peak	2483.600	-32.76	<=-21.20	PASS
2DH5	Ant1	Low	2402	AV	2310.000	-48.95	<=-41.20	PASS
				AV	2383.265	-48.49	<=-41.20	PASS
				AV	2390.000	-48.63	<=-41.20	PASS
				Peak	2310.000	-40.93	<=-21.20	PASS
				Peak	2332.025	-38.13	<=-21.20	PASS
				Peak	2390.000	-40.91	<=-21.20	PASS
		High	2480	AV	2483.500	-47.59	<=-41.20	PASS
				AV	2500.000	-47.97	<=-41.20	PASS
				Peak	2483.500	-40.95	<=-21.20	PASS
				Peak	2493.280	-38.02	<=-21.20	PASS
				Peak	2500.000	-41.04	<=-21.20	PASS

Note:

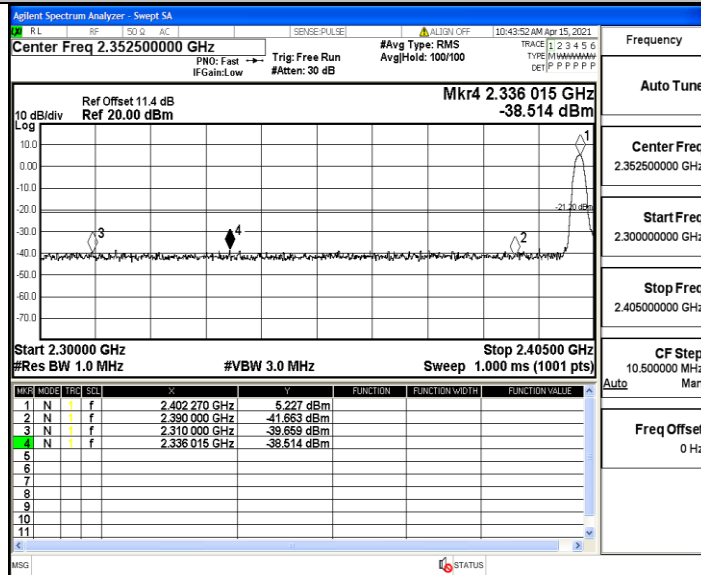
1. The Antenna Gain is compensated in the graph with 2dBi and Antenna Gain which is Higher.
2. The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.

DH5_Ant1_Low_2402_AV



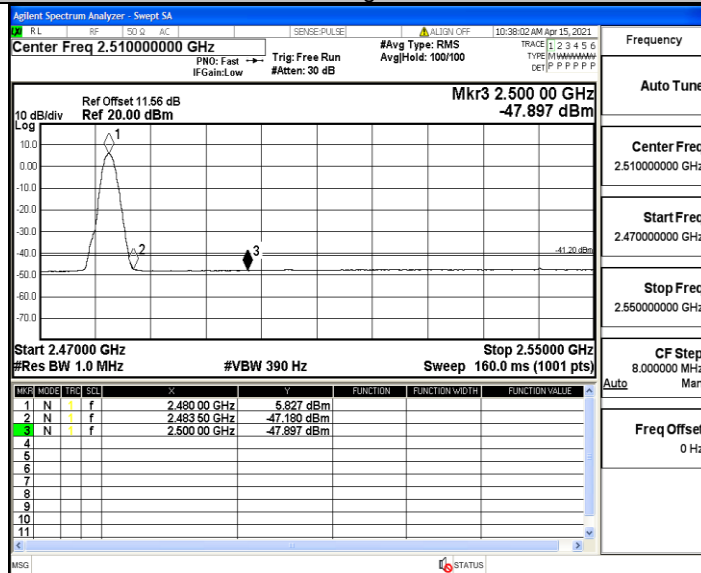
Frequency	Auto Tune
Center Freq	2.352500000 GHz
Start Freq	2.300000000 GHz
Stop Freq	2.405000000 GHz
CF Step	10.500000 MHz
Freq Offset	0 Hz

DH5_Ant1_Low_2402_Peak



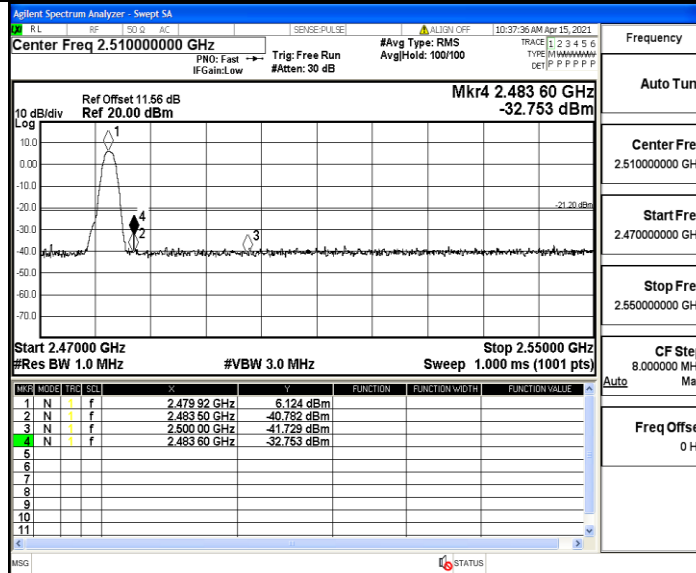
Frequency	Auto Tune
Center Freq	2.352500000 GHz
Start Freq	2.300000000 GHz
Stop Freq	2.405000000 GHz
CF Step	10.500000 MHz
Freq Offset	0 Hz

DH5_Ant1_High_2480_AV

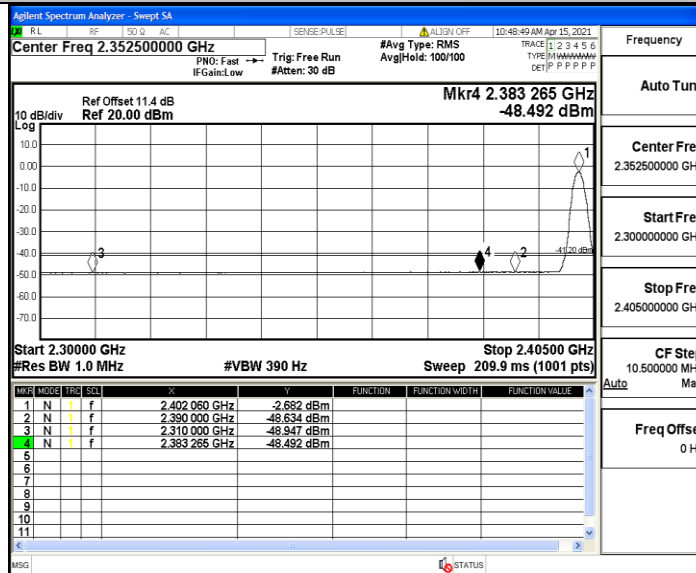


Frequency	Auto Tune
Center Freq	2.510000000 GHz
Start Freq	2.470000000 GHz
Stop Freq	2.550000000 GHz
CF Step	8.000000 MHz
Freq Offset	0 Hz

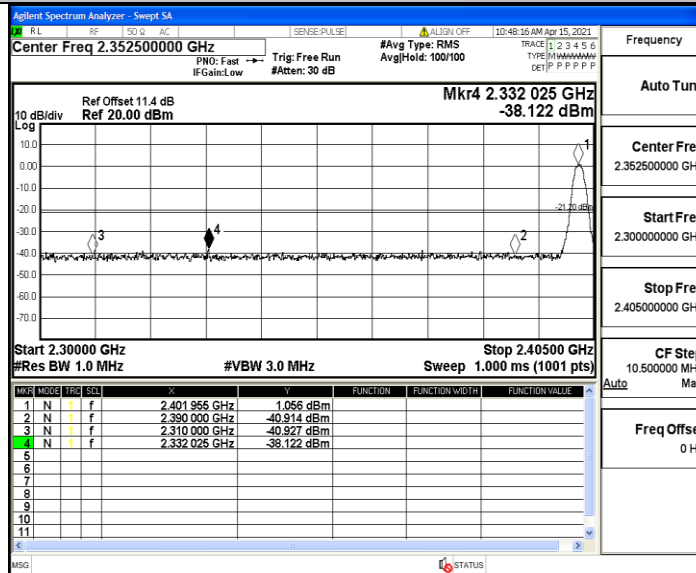
DH5_Ant1_High_2480_Peak



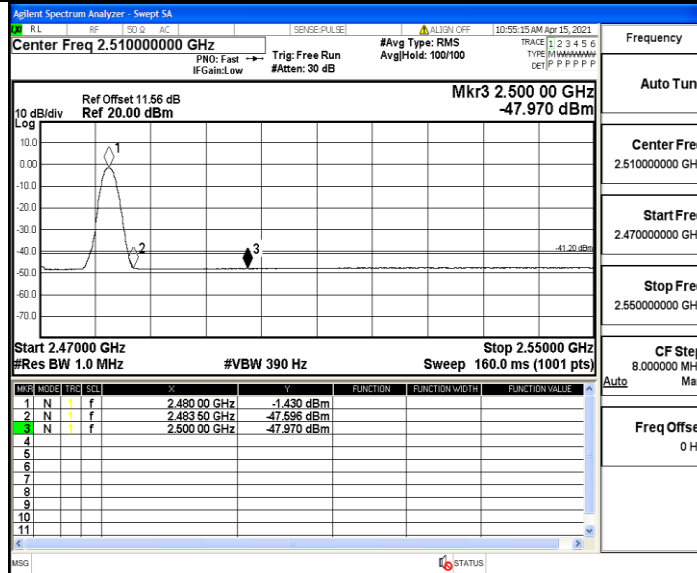
2DH5_Ant1_Low_2402_AV



2DH5_Ant1_Low_2402_Peak



2DH5_Ant1_High_2480_AV



2DH5_Ant1_High_2480_Peak

