Appendix A
RF Test Data for BT(BDR/EDR) (Conducted Measurement)
Product Name: Bluetooth Earphones
Trade Mark: MUVEACOUSTICS
Test Model: MA-1020
FCC ID: 2ANVW-MA1020

Environmental Conditions

Temperature:	22.8° C
Relative Humidity:	56%
ATM Pressure:	100.0 kPa
Test Engineer:	Nancy Li
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	0.936	2401.544	2402.480	---	PASS
		2441	0.939	2440.541	2441.480	---	PASS
		2480	0.789	2479.607	2480.396	---	PASS
2DH5	Ant1	2402	1.254	2401.376	2402.630	---	PASS
		2441	1.284	2440.370	2441.654	---	PASS
		2480	1.254	2479.373	2480.627	---	PASS

Test Graph

DH5_Ant1_2402

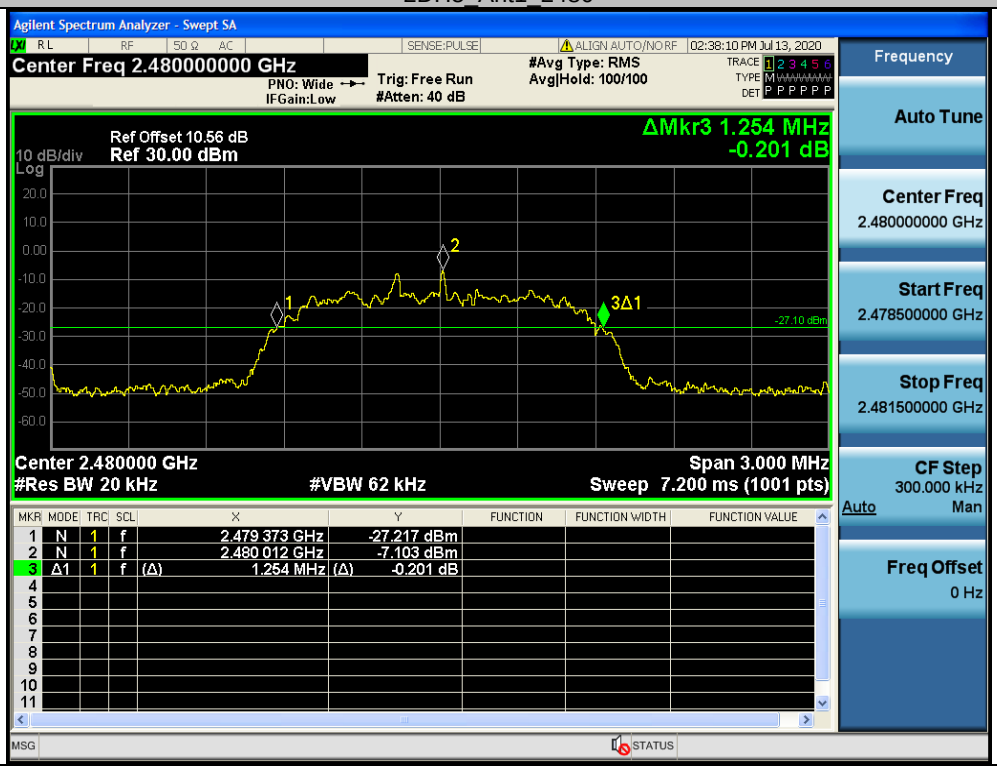
DH5_Ant1_2441

DH5_Ant1_2480

2DH5_Ant1_2402

2DH5_Ant1_2441

2DH5_Ant1_2480

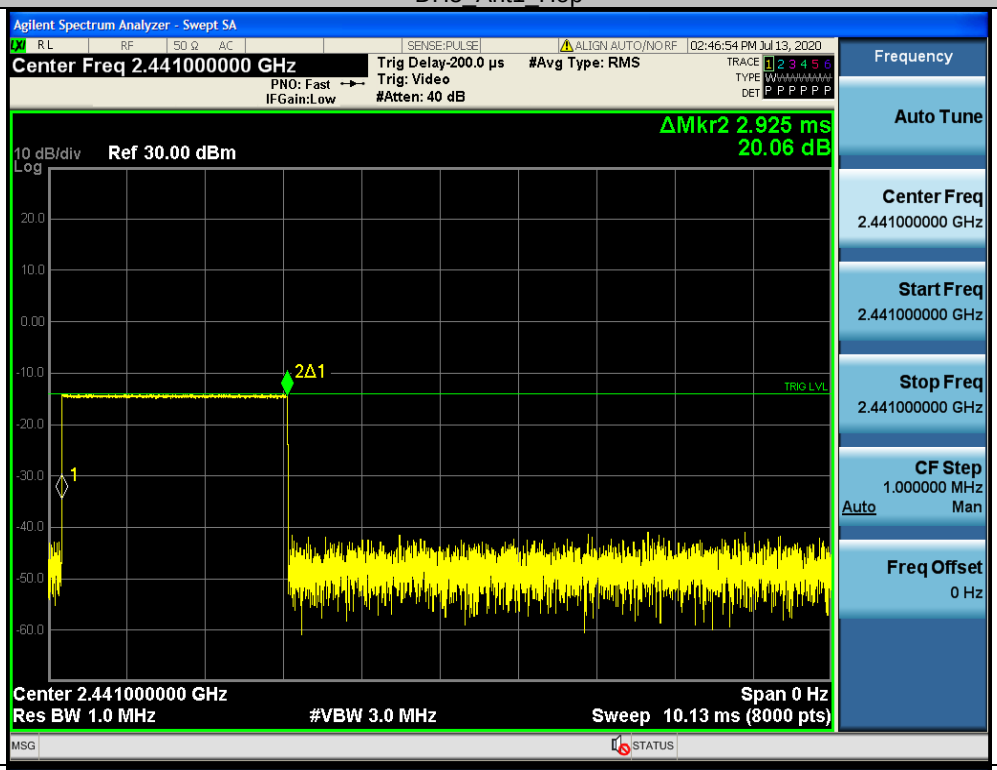


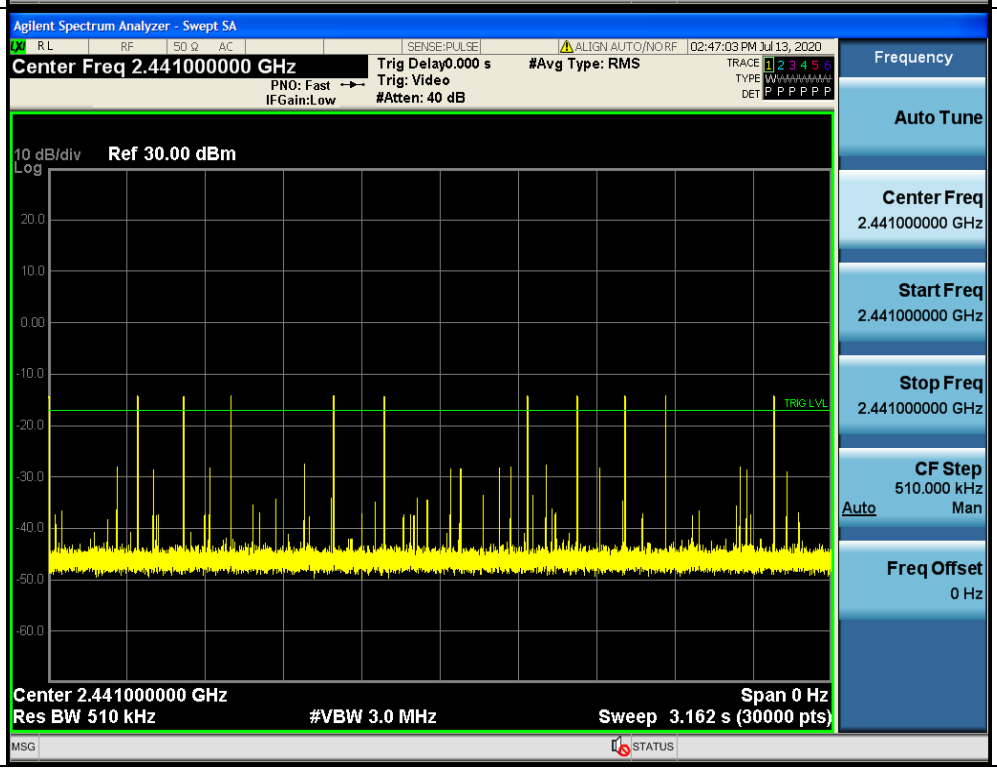
A.2 Dwell Time

TestMode	Antenna	Channel	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH5	Ant1	Hop	2.92	110	0.322	<=0.4	PASS
2DH5	Ant1	Hop	2.92	100	0.292	<=0.4	PASS

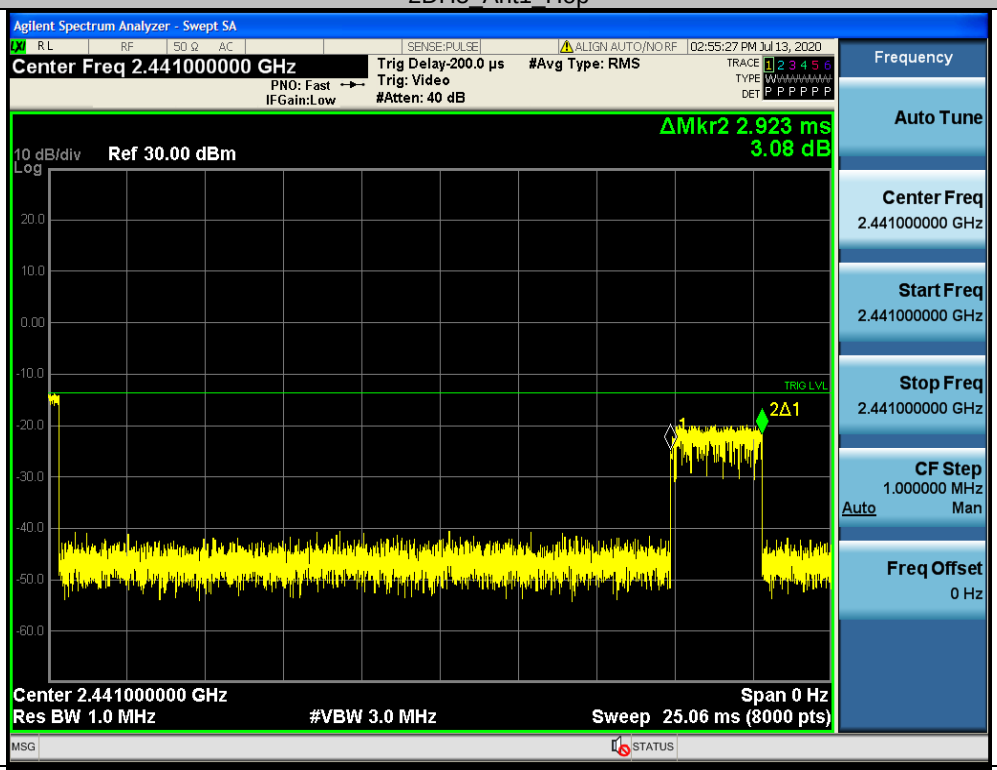
Test Graph

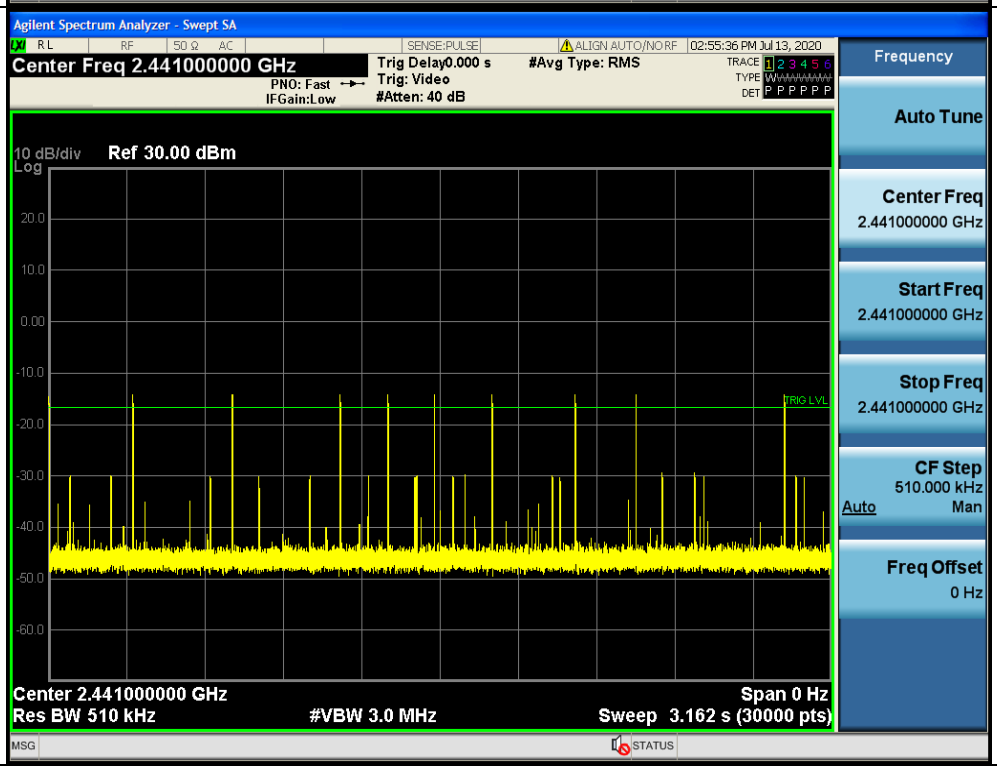
DH5_Ant1_Hop





2DH5_Ant1_Hop





A.3 Carrier Frequency Separation

TestMode	Antenna	Channel	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	1.020	>=0.939	PASS
2DH5	Ant1	Hop	0.998	>=0.856	PASS

Test Graph

DH5_Ant1_Hop

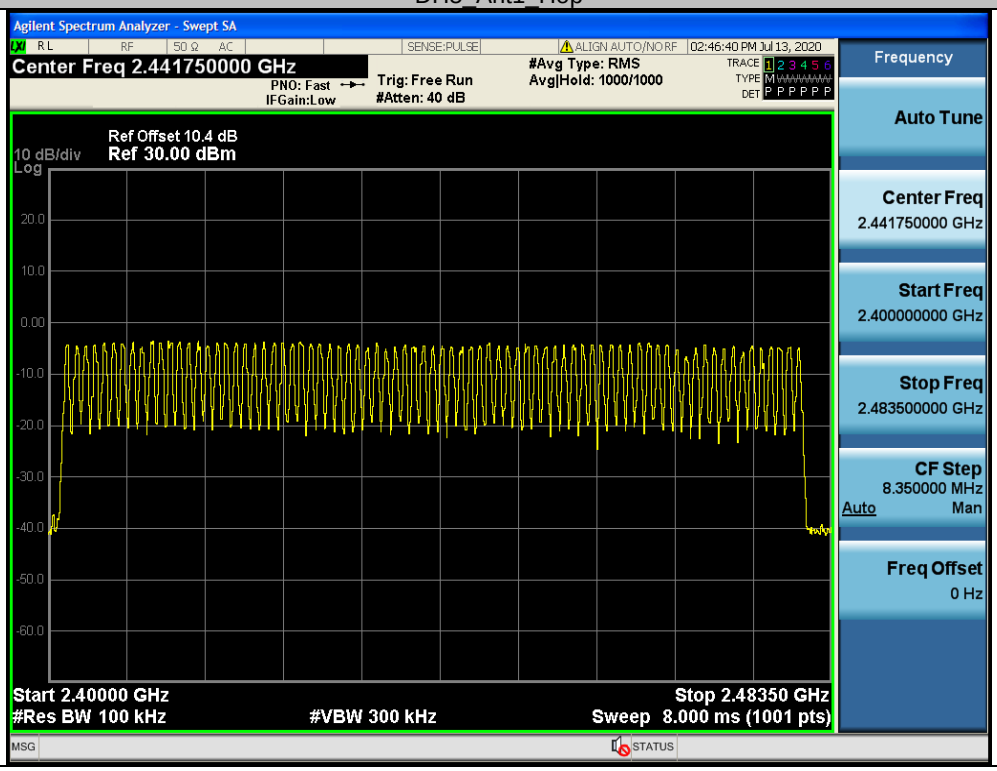
2DH5_Ant1_Hop

A.4 Hopping Channel Number

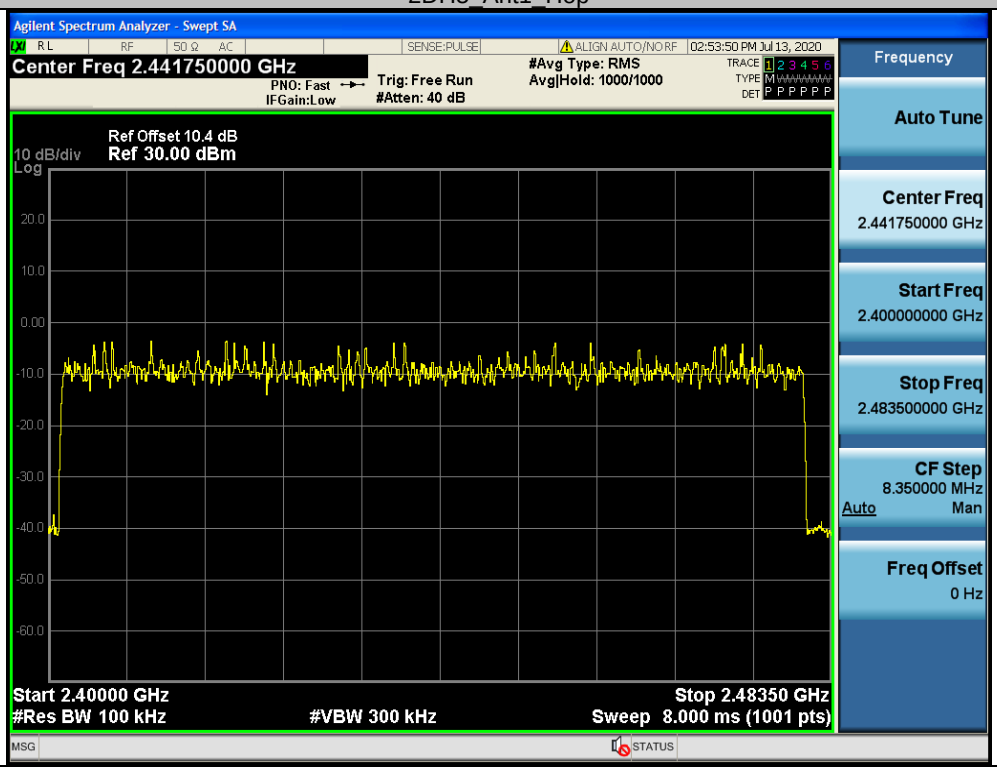
TestMode	Antenna	Channel	Result[Num]	Limit[Num]	Verdict
DH5	Ant1	Hop	79	>=15	PASS
2DH5	Ant1	Hop	79	>=15	PASS
3DH5	Ant1	Hop	79	>=15	PASS

Test Graph

DH5_Ant1_Hop



2DH5_Ant1_Hop

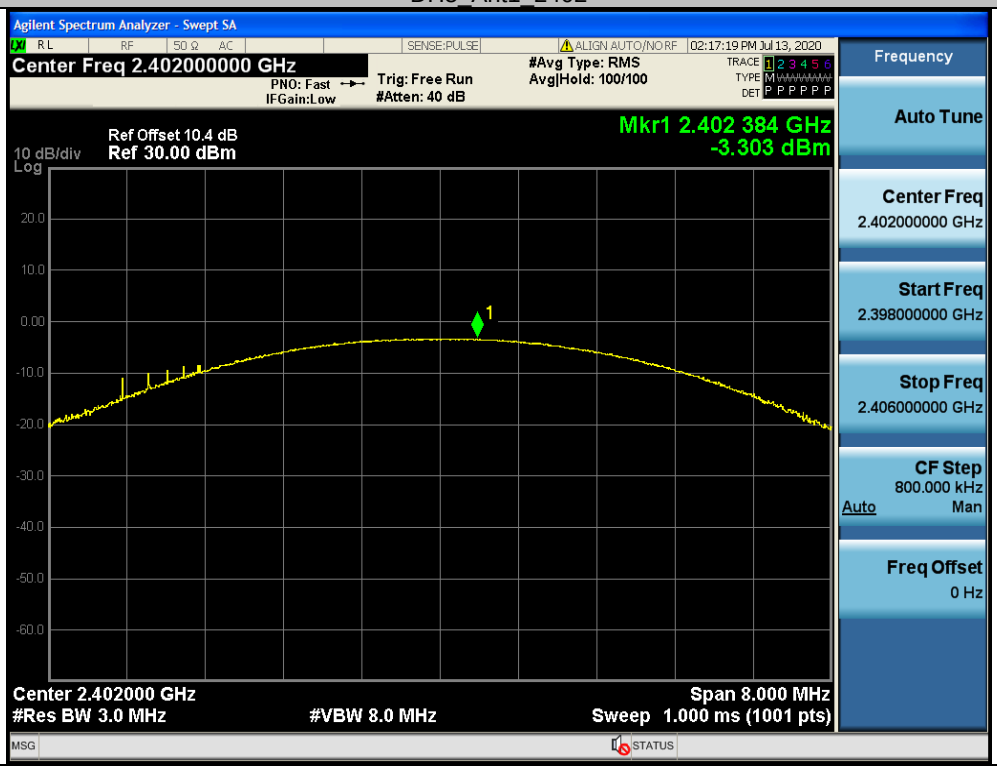


A.5 Conducted Peak Output Power

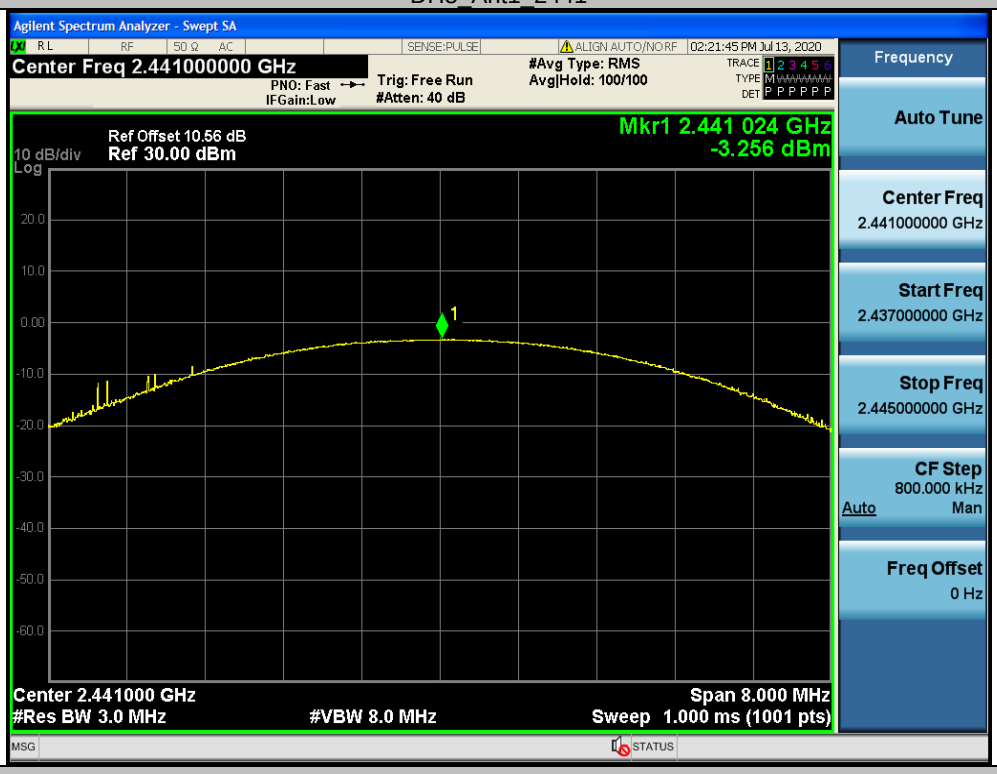
TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict	Antenna Gain(dBi)	EIRP (dBm)
DH5	Ant1	2402	-3.31	<=20.97	PASS	-3.0	-6.31
		2441	-3.25	<=20.97	PASS	-3.0	-6.25
		2480	-3.52	<=20.97	PASS	-3.0	-6.52
2DH5	Ant1	2402	-2.51	<=20.97	PASS	-3.0	-5.51
		2441	-2.35	<=20.97	PASS	-3.0	-5.35
		2480	-2.90	<=20.97	PASS	-3.0	-5.90

Test Graph

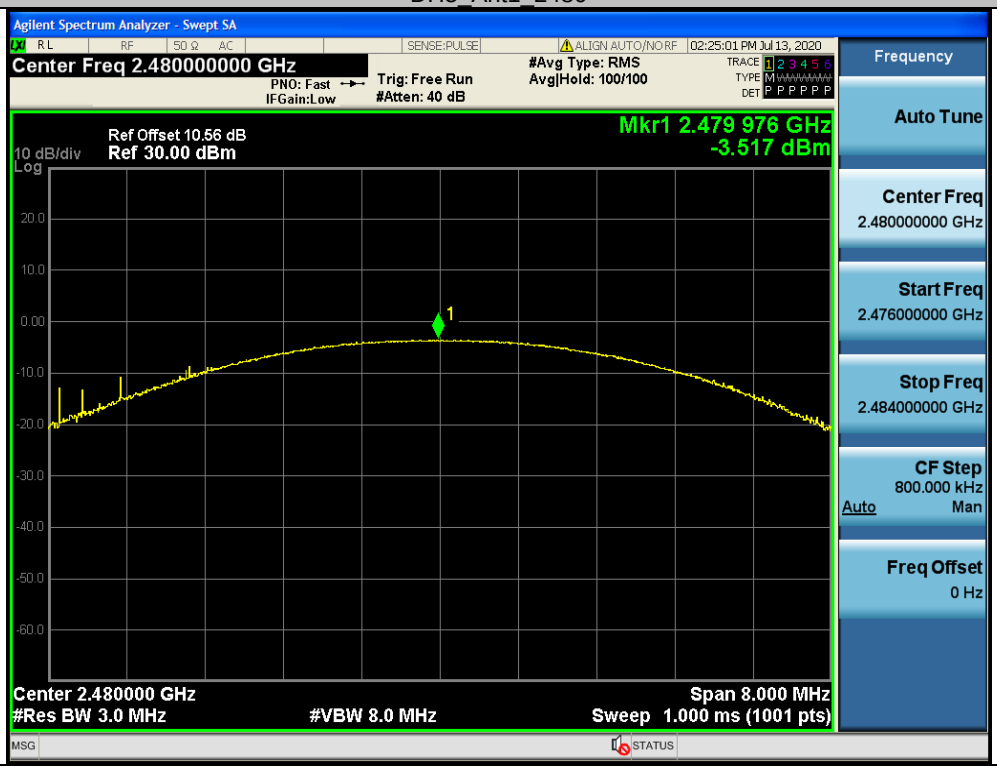
DH5_Ant1_2402



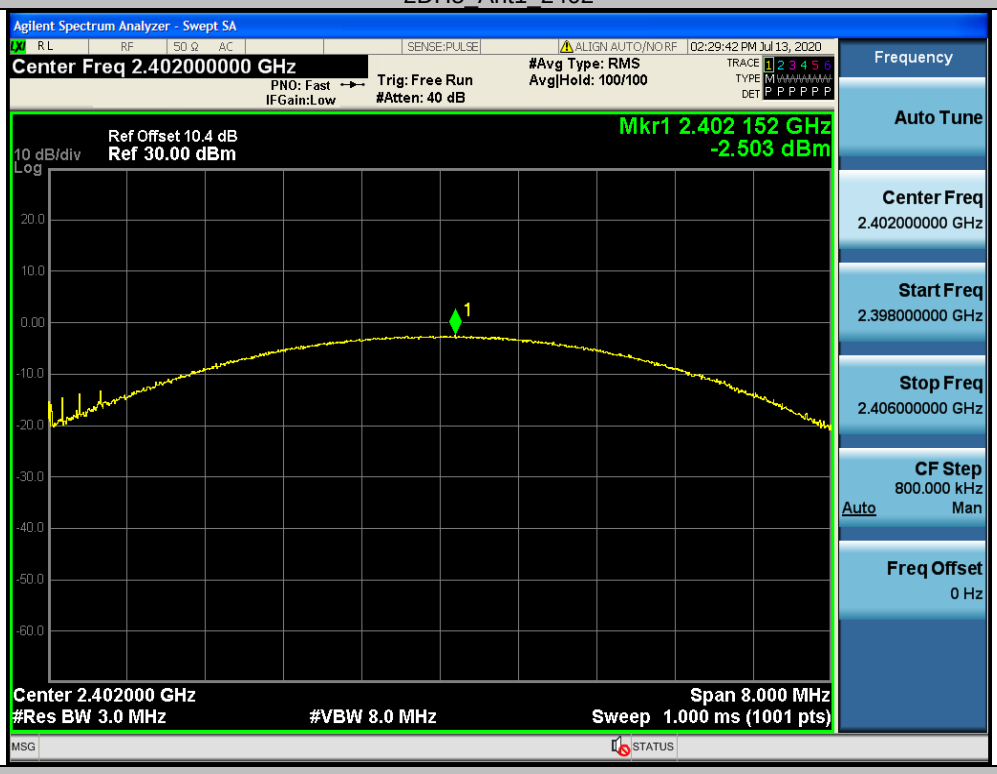
DH5_Ant1_2441



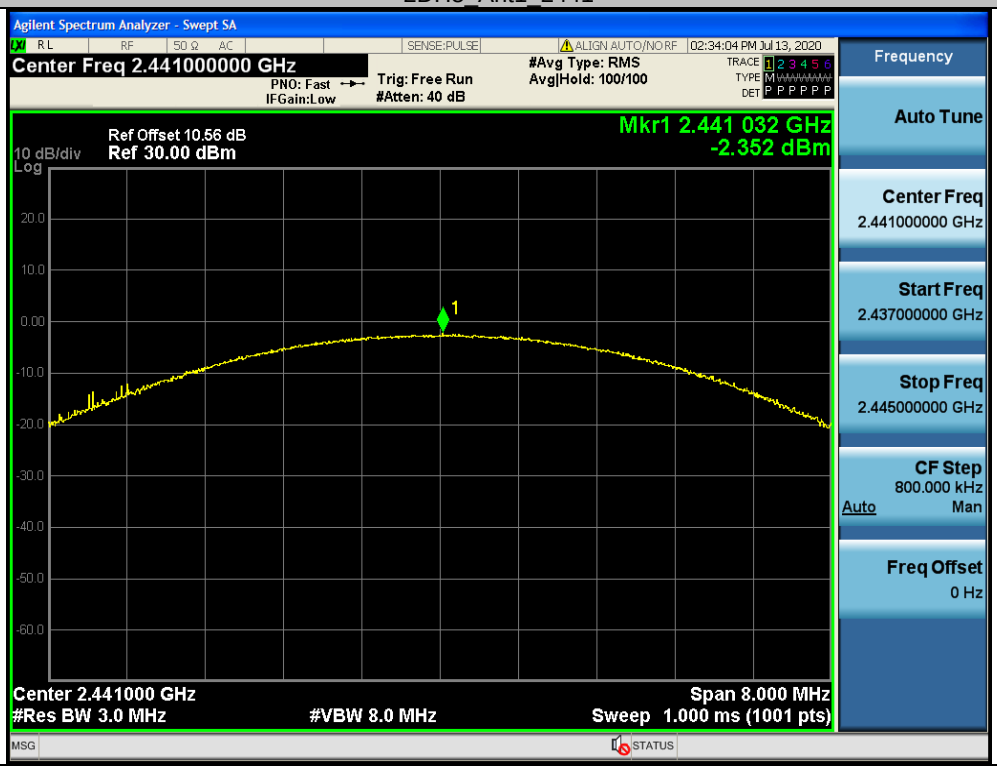
DH5_Ant1_2480



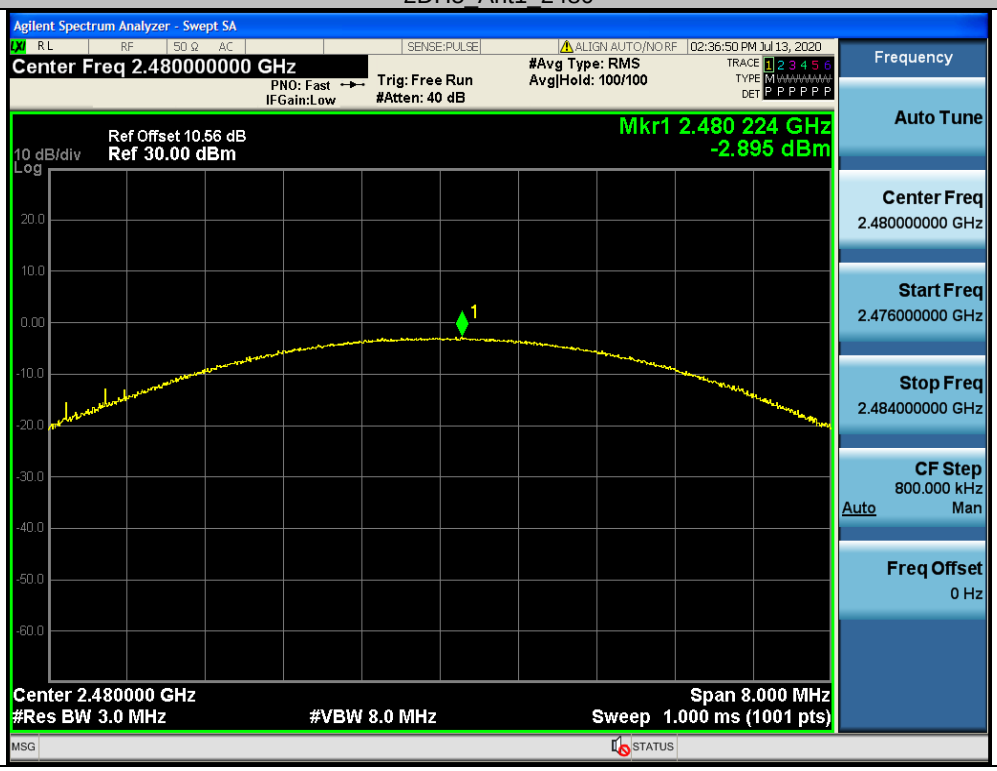
2DH5_Ant1_2402



2DH5_Ant1_2441



2DH5_Ant1_2480

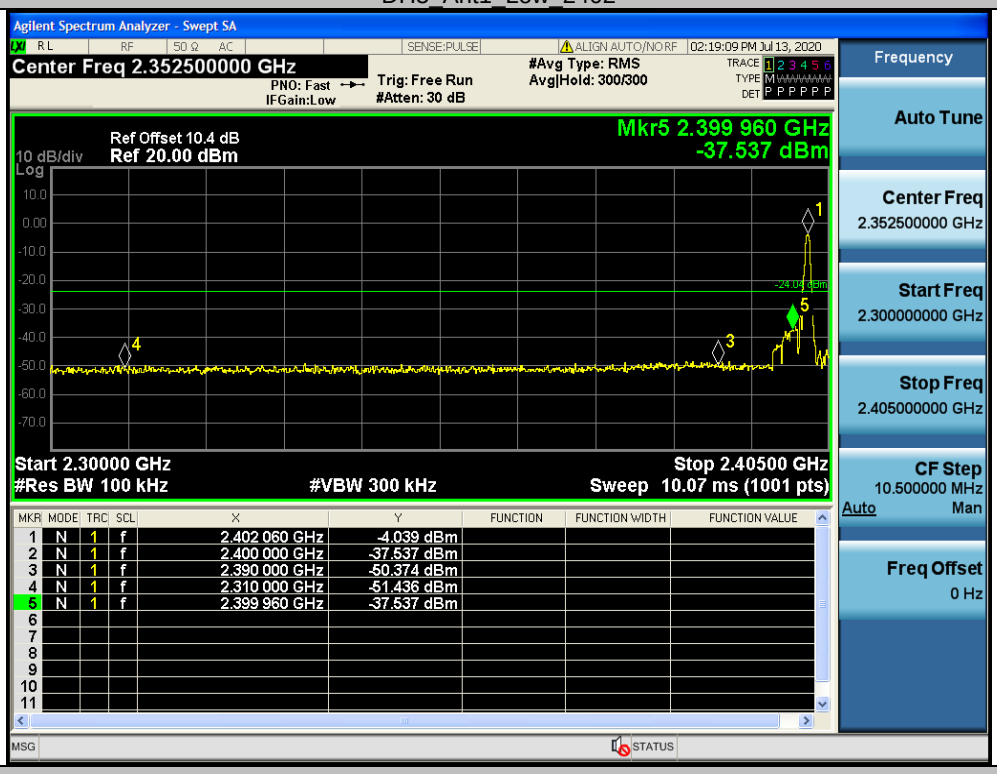


A.6 Band-edge for RF Conducted Emissions

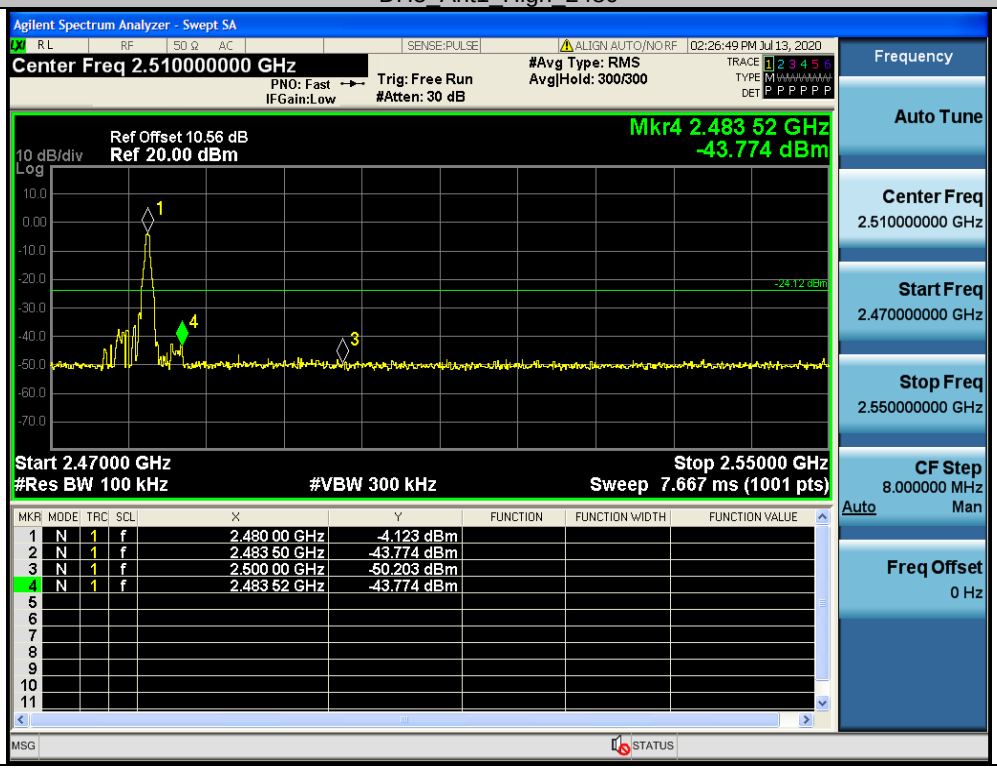
TestMode	Antenna	ChName	Channel	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	-4.04	-37.54	<=-24.04	PASS
		High	2480	-4.13	-43.77	<=-24.12	PASS
		Low	Hop_2402	-4.30	-48.72	-24.3	PASS
		High	Hop_2480	-2.57	-46.05	-22.57	PASS
2DH5	Ant1	Low	2402	-3.81	-39.75	<=-23.81	PASS
		High	2480	-4.11	-44.53	<=-24.11	PASS
		Low	Hop_2402	-4.39	-48	-24.4	PASS
		High	Hop_2480	-4.02	-47.86	-24.02	PASS

Test Graph

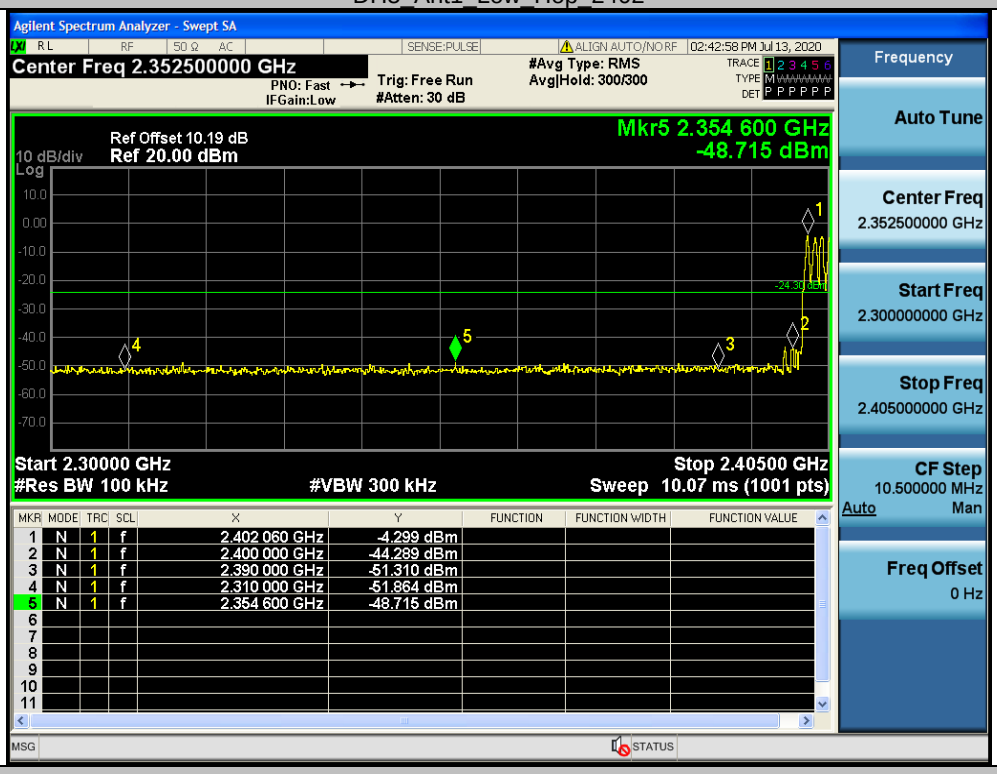
DH5_Ant1_Low_2402



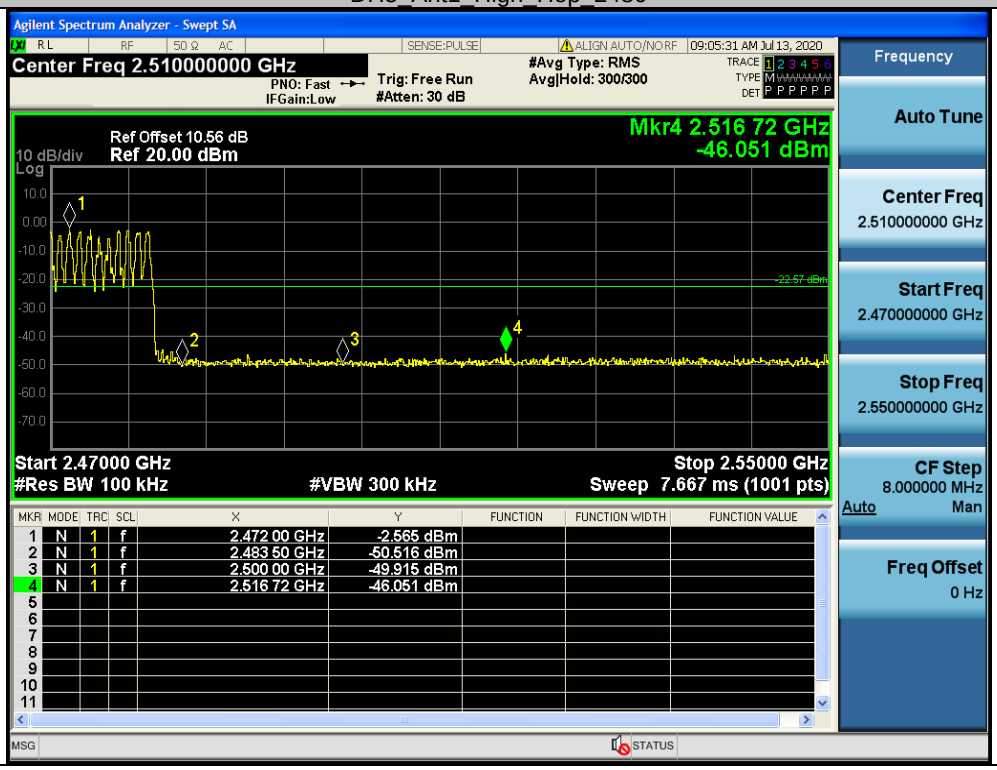
DH5_Ant1_High_2480



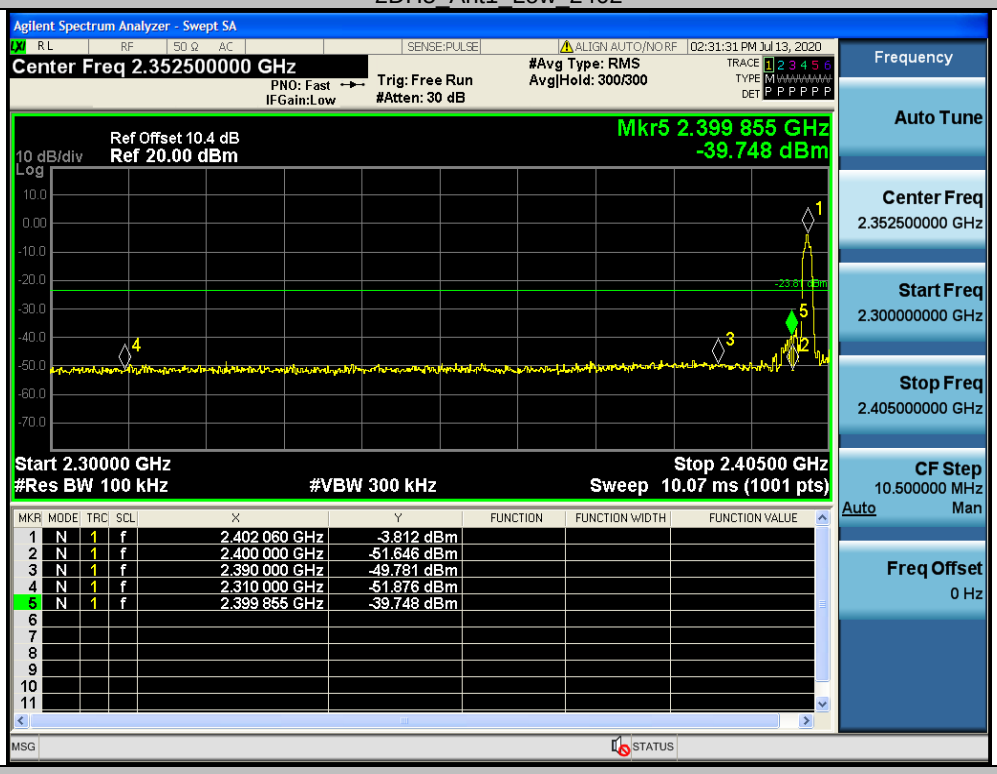
DH5_Ant1_Low_Hop_2402



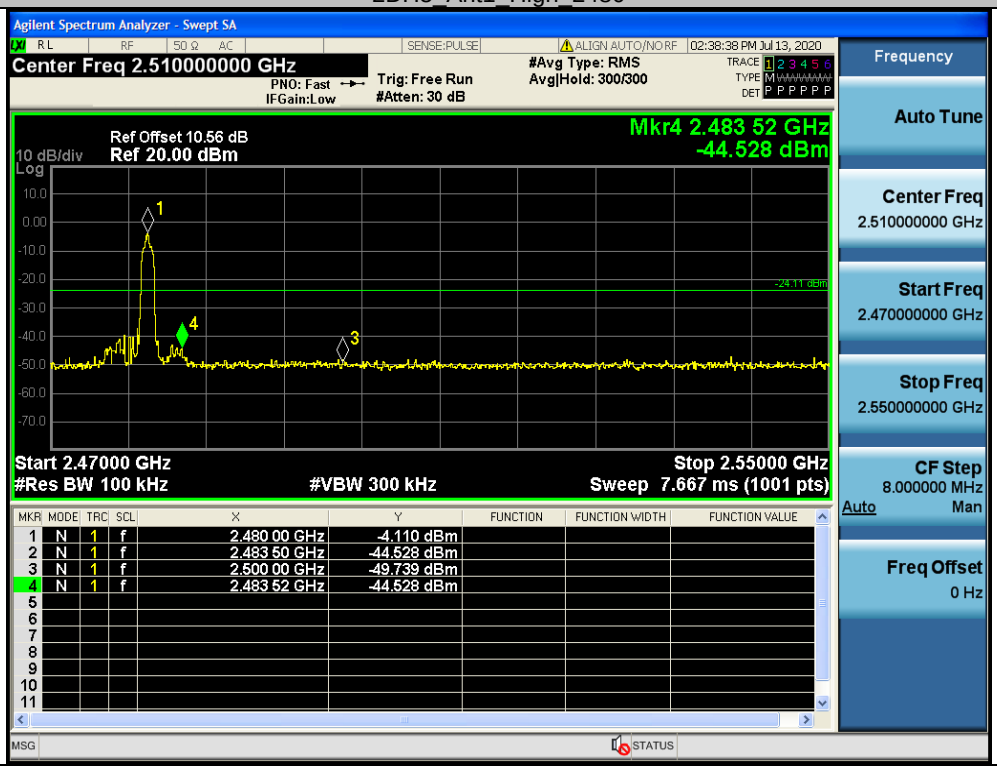
DH5_Ant1_High_Hop_2480



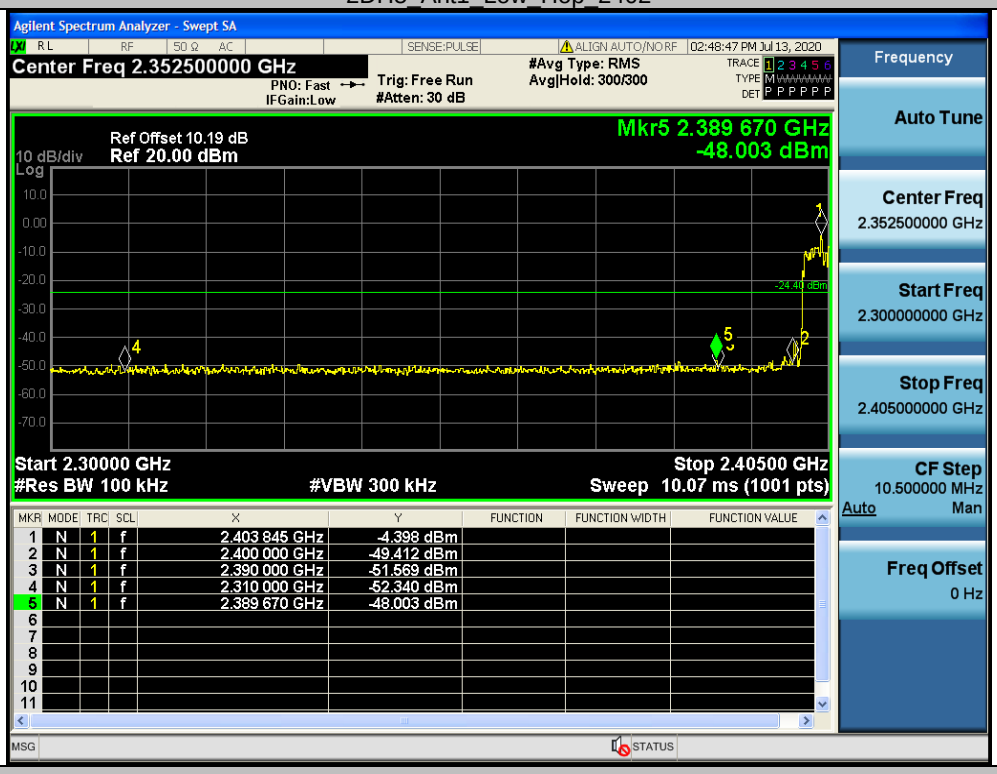
2DH5_Ant1_Low_2402



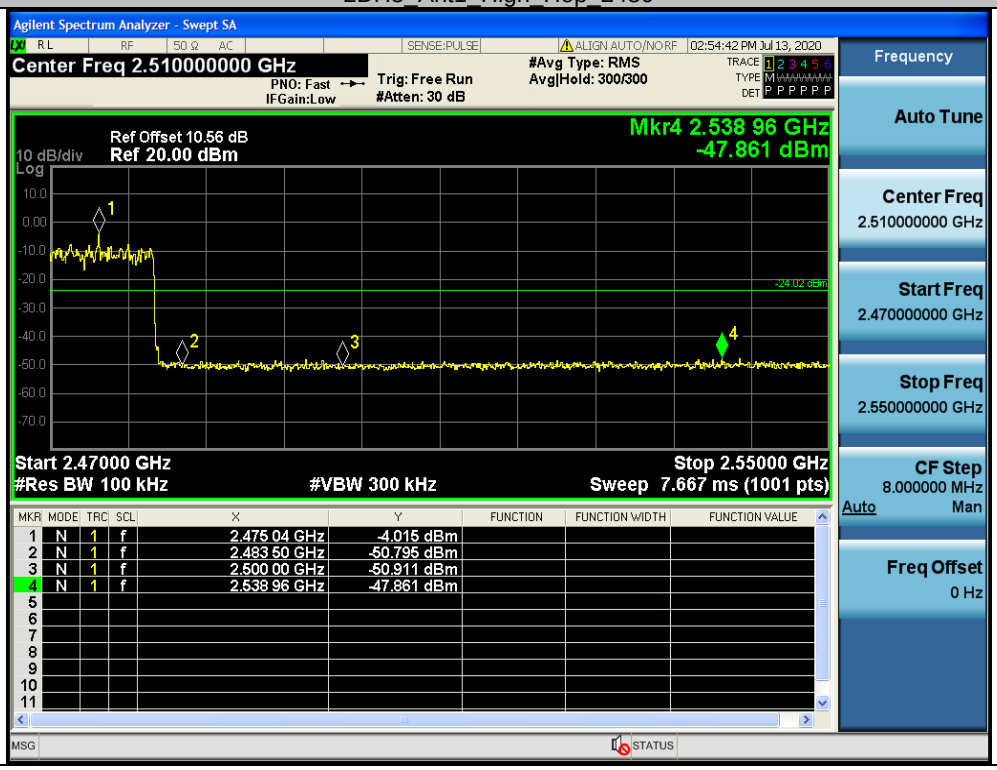
2DH5_Ant1_High_2480



2DH5_Ant1_Low_Hop_2402



2DH5_Ant1_High_Hop_2480

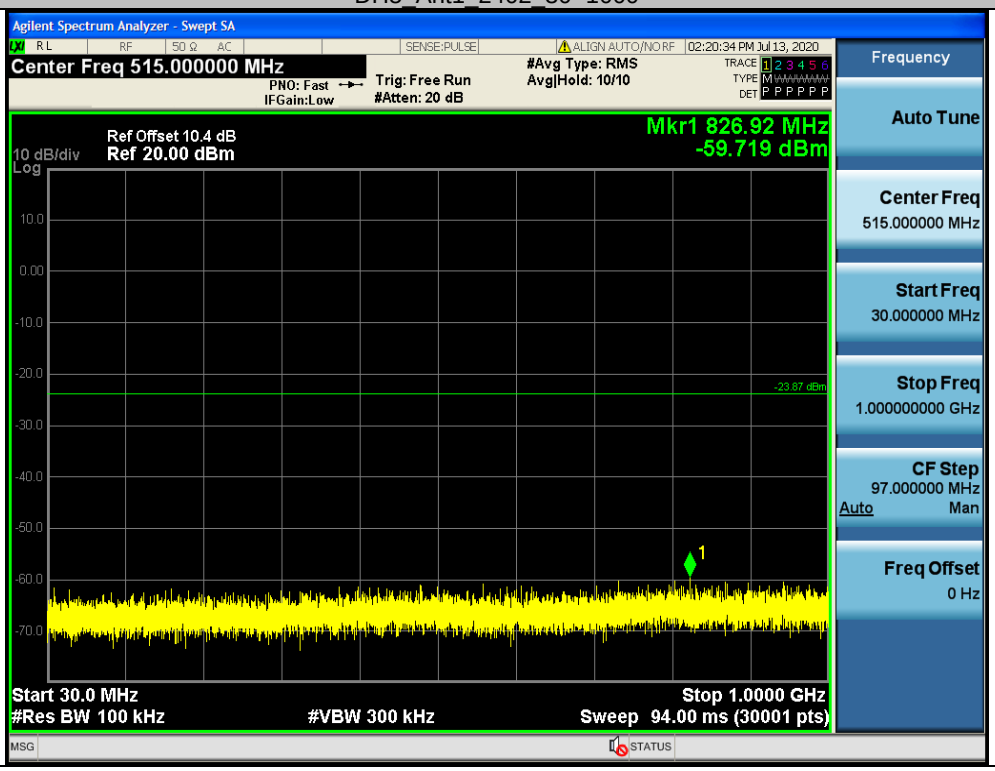


A.7 RF Conducted Spurious Emissions

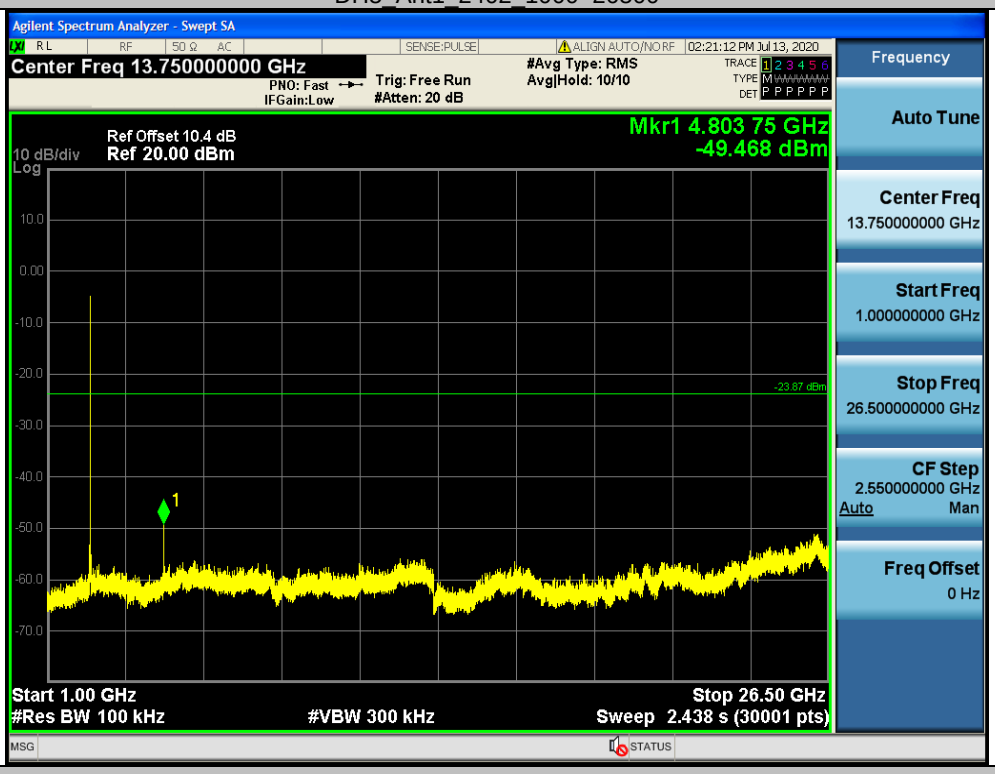
Test Graph

DH5_Ant1_2402_0~Reference

DH5_Ant1_2402_30~1000

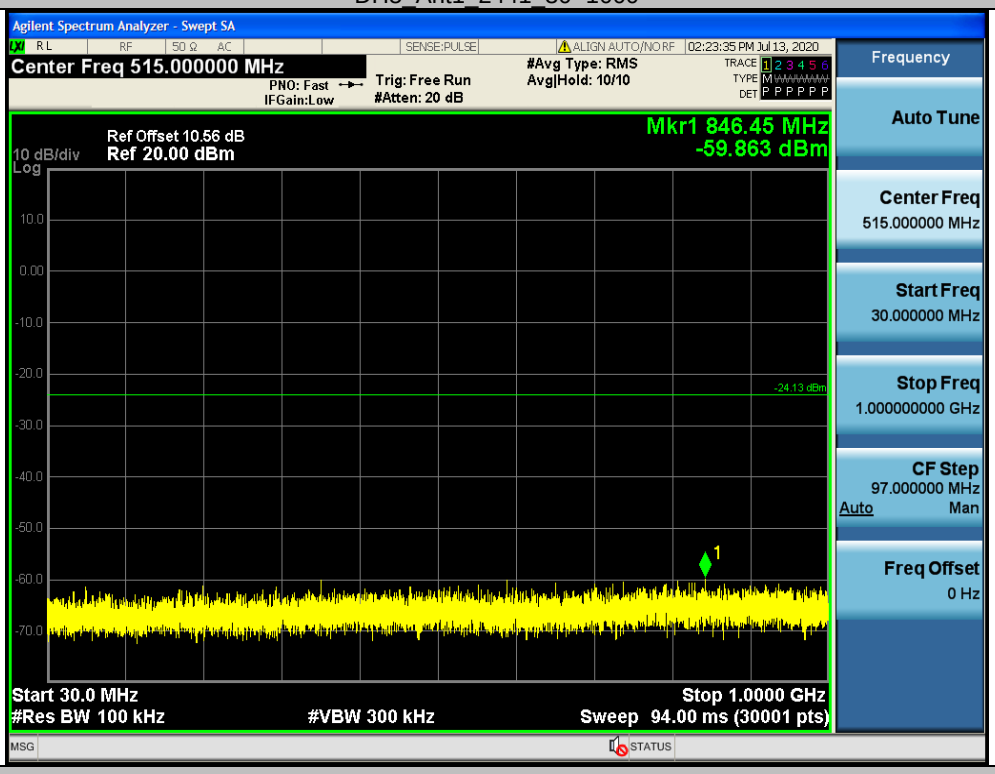


DH5_Ant1_2402_1000~26500

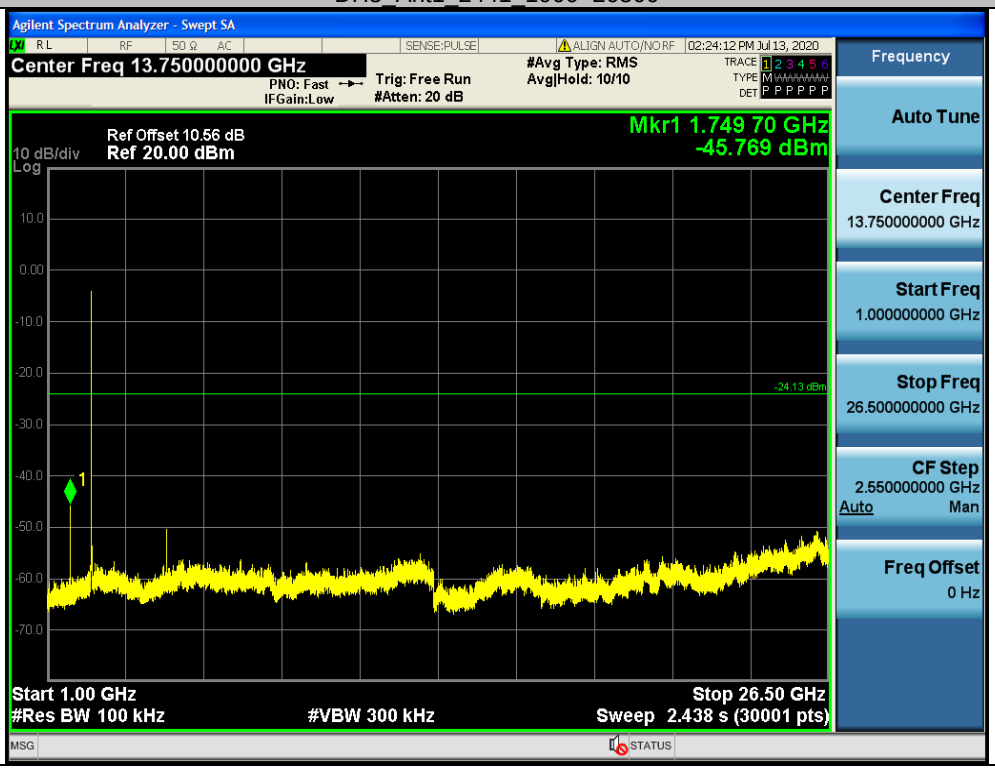


DH5_Ant1_2441_0~Reference

DH5_Ant1_2441_30~1000

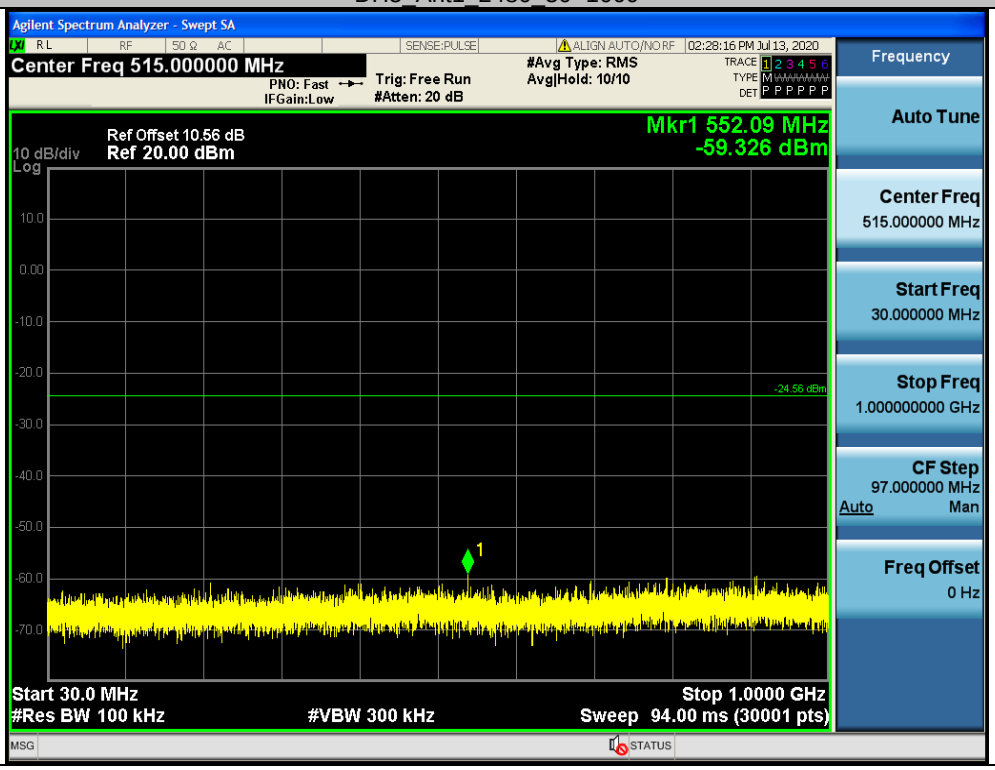


DH5_Ant1_2441_1000~26500

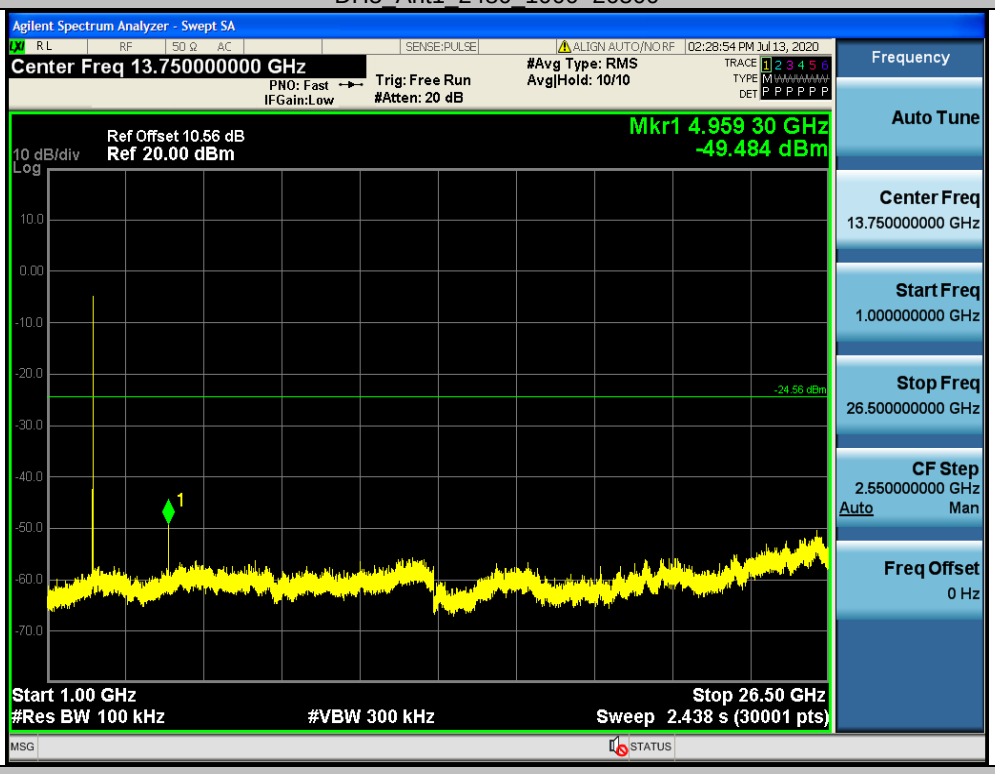


DH5_Ant1_2480_0~Reference

DH5_Ant1_2480_30~1000

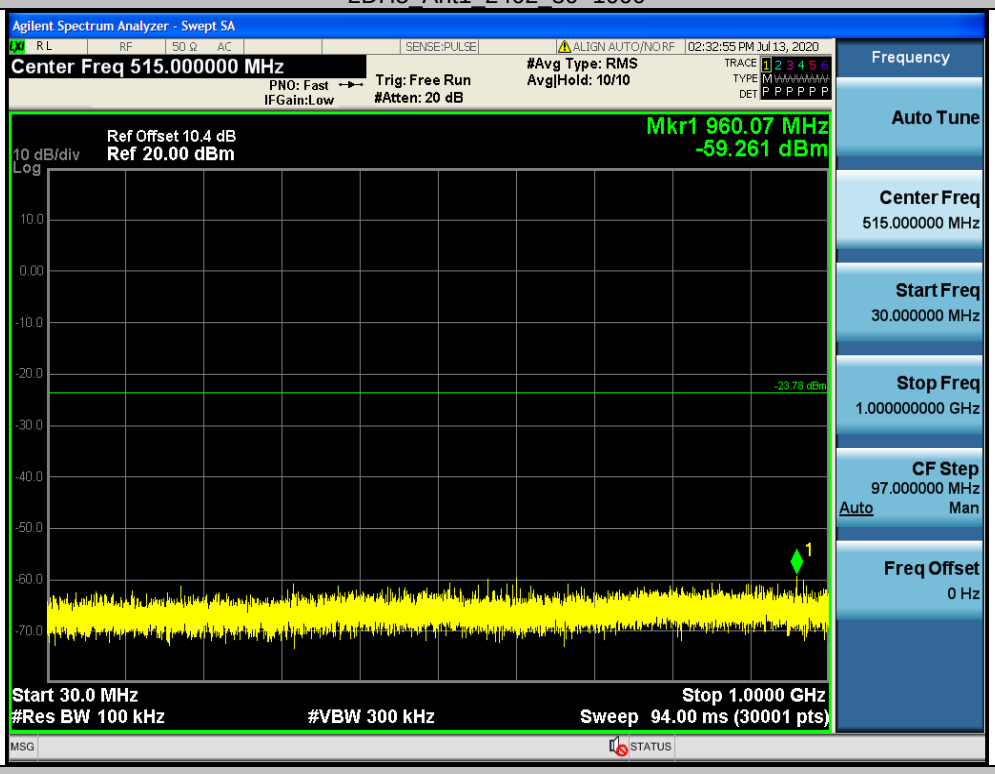


DH5_Ant1_2480_1000~26500

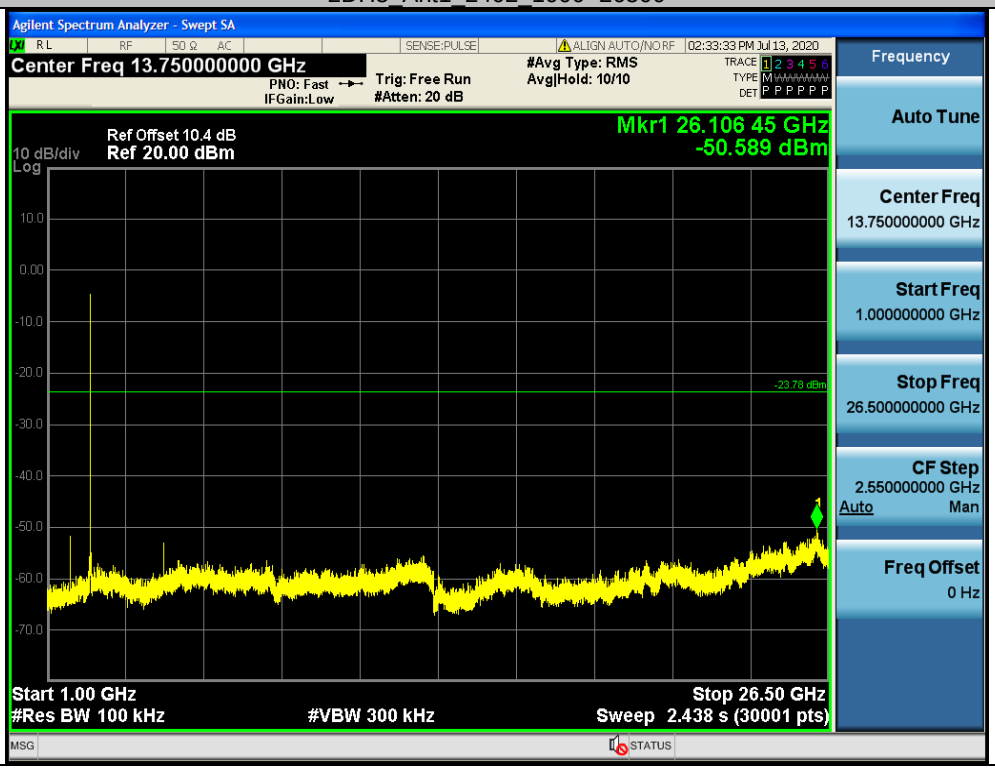


2DH5_Ant1_2402_0~Reference

2DH5_Ant1_2402_30~1000

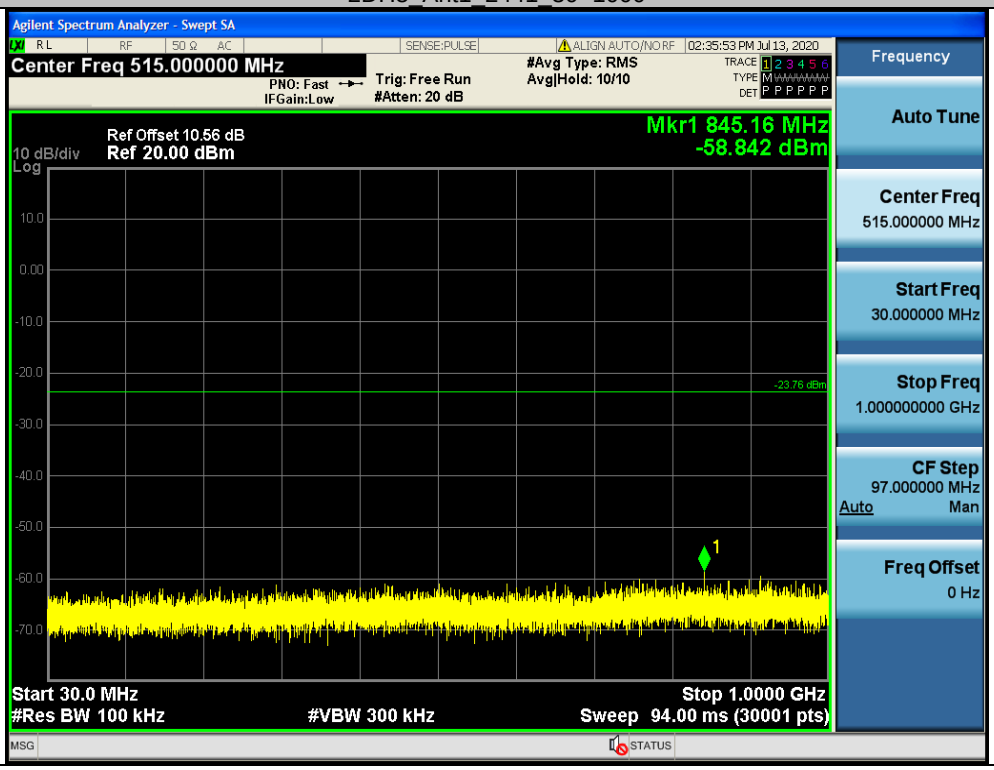


2DH5_Ant1_2402_1000~26500

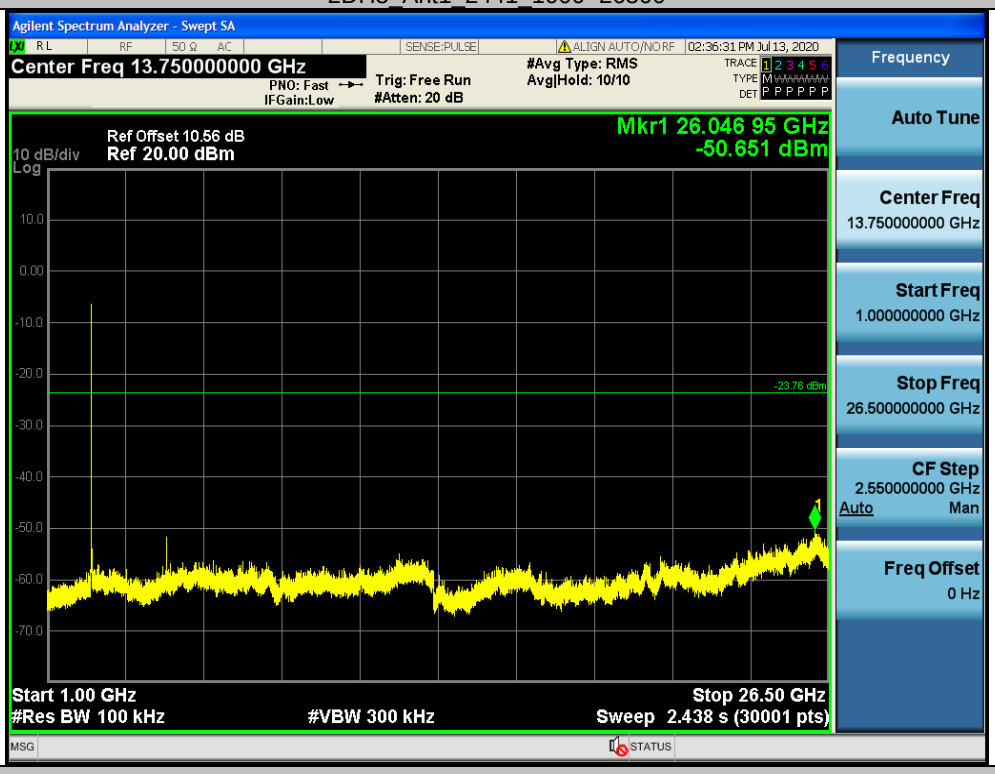


2DH5_Ant1_2441_0~Reference

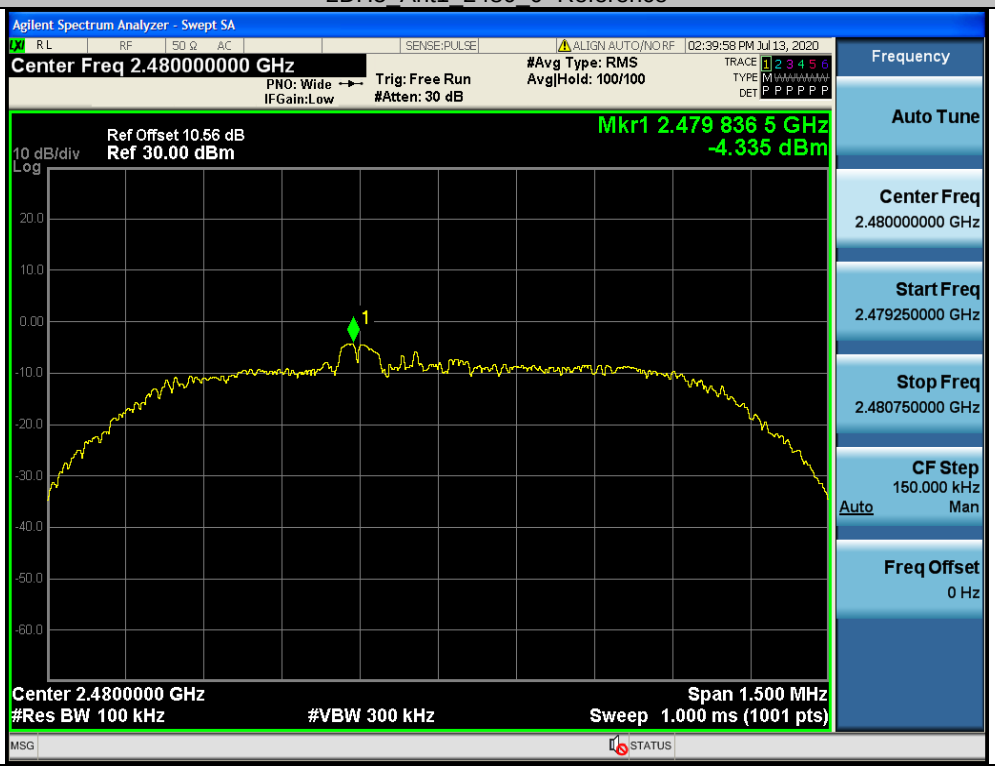
2DH5_Ant1_2441_30~1000



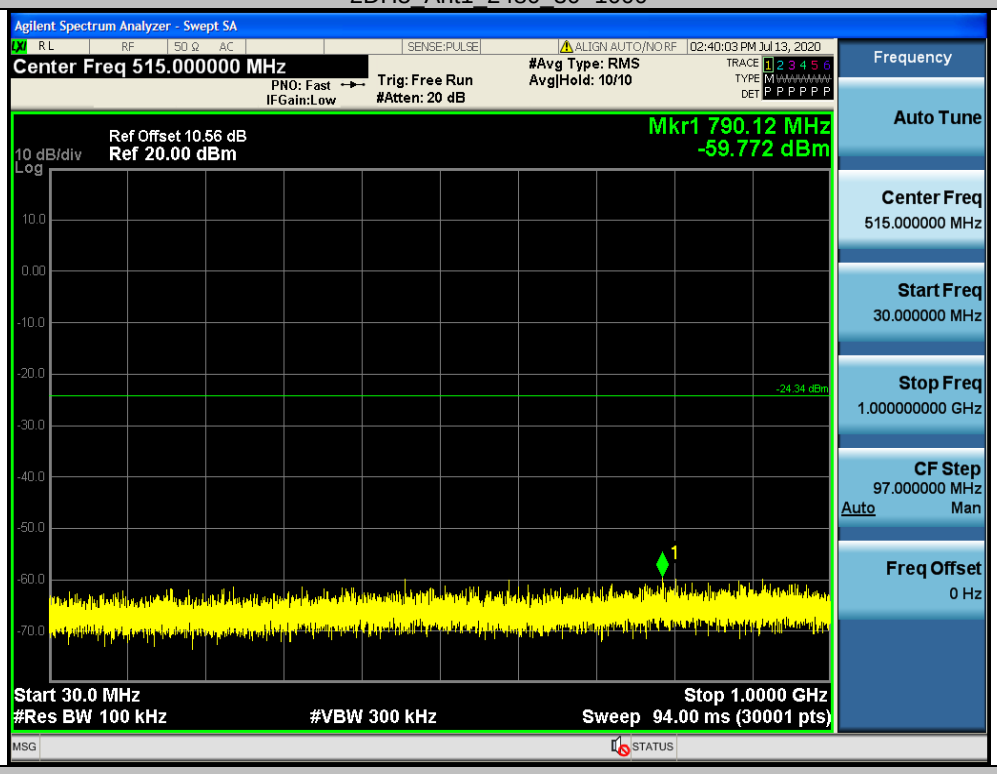
2DH5_Ant1_2441_1000~26500



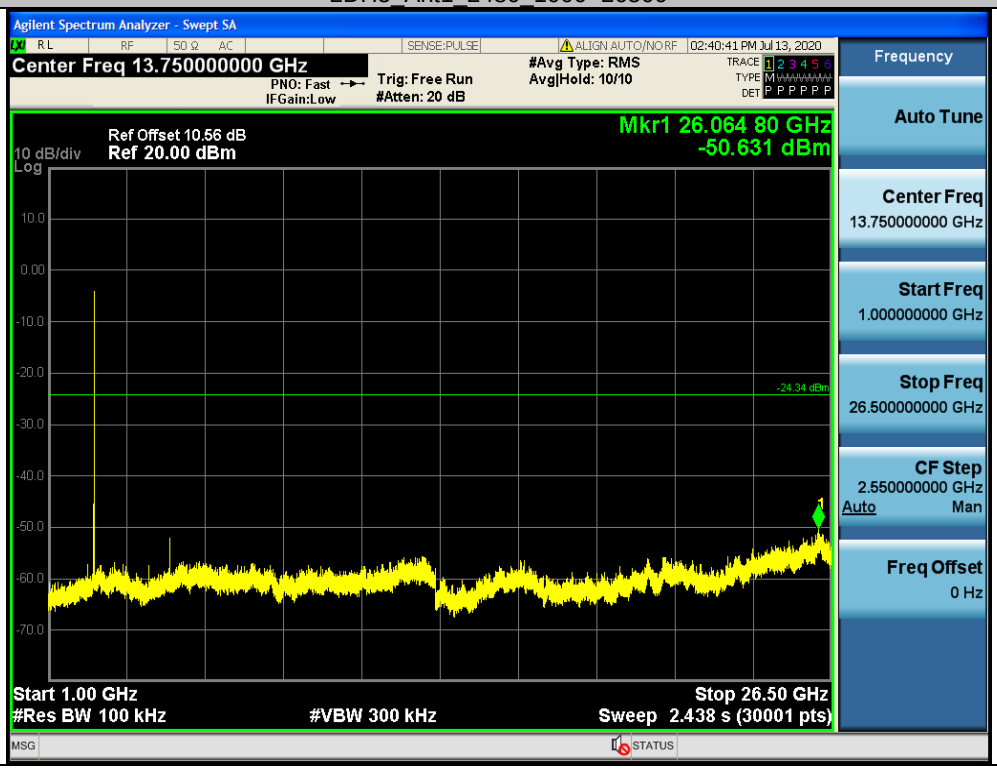
2DH5_Ant1_2480_0~Reference



2DH5_Ant1_2480_30~1000



2DH5_Ant1_2480_1000~26500



A.8 Restrict-band band-edge measurements

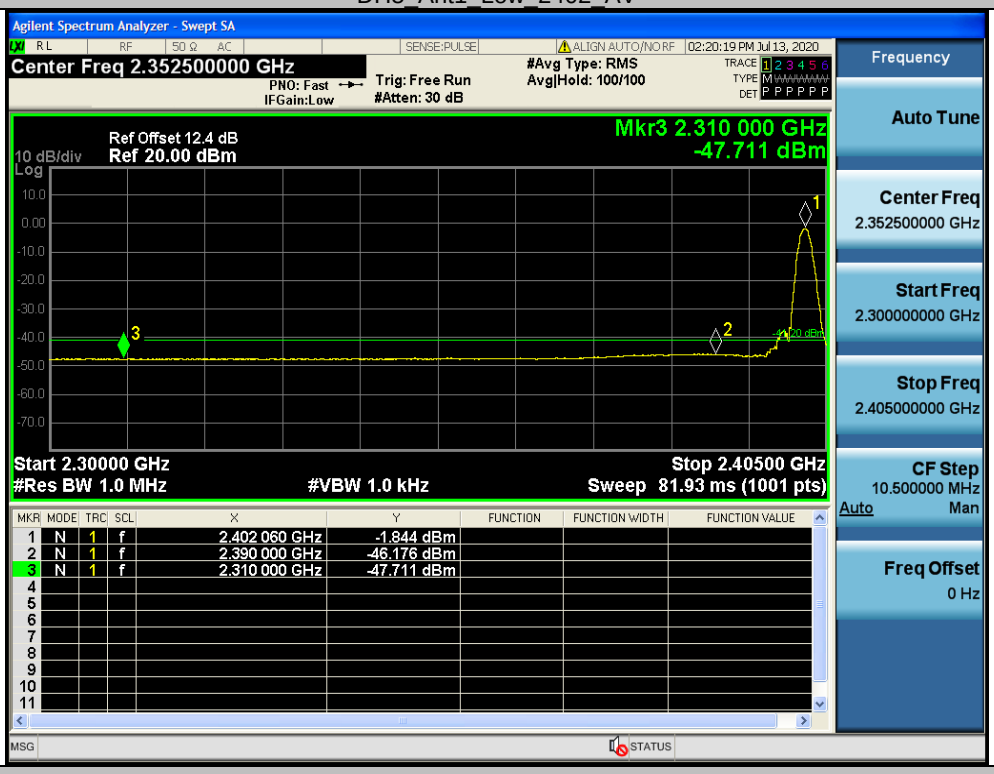
TestMode	Antenna	ChName	Channel	Detector	Freq	Result	Limit	Verdict
DH5	Ant1	Low	2402	AV	2310.000	-47.72	<=-41.20	PASS
				AV	2390.000	-46.17	<=-41.20	PASS
				Peak	2310.000	-40.89	<=-21.20	PASS
				Peak	2390.000	-39.89	<=-21.20	PASS
		High	2480	AV	2483.500	-43.08	<=-41.20	PASS
				AV	2500.000	-46.77	<=-41.20	PASS
				Peak	2483.500	-41.36	<=-21.20	PASS
				Peak	2500.000	-51.15	<=-21.20	PASS
2DH5	Ant1	Low	2402	AV	2310.000	-48.30	<=-41.20	PASS
				AV	2390.000	-46.83	<=-41.20	PASS
				Peak	2310.000	-50.29	<=-21.20	PASS
				Peak	2390.000	-45.29	<=-21.20	PASS
		High	2480	AV	2483.500	-44.44	<=-41.20	PASS
				AV	2500.000	-46.65	<=-41.20	PASS
				Peak	2483.500	-39.05	<=-21.20	PASS
				Peak	2500.000	-52.78	<=-21.20	PASS

Note：

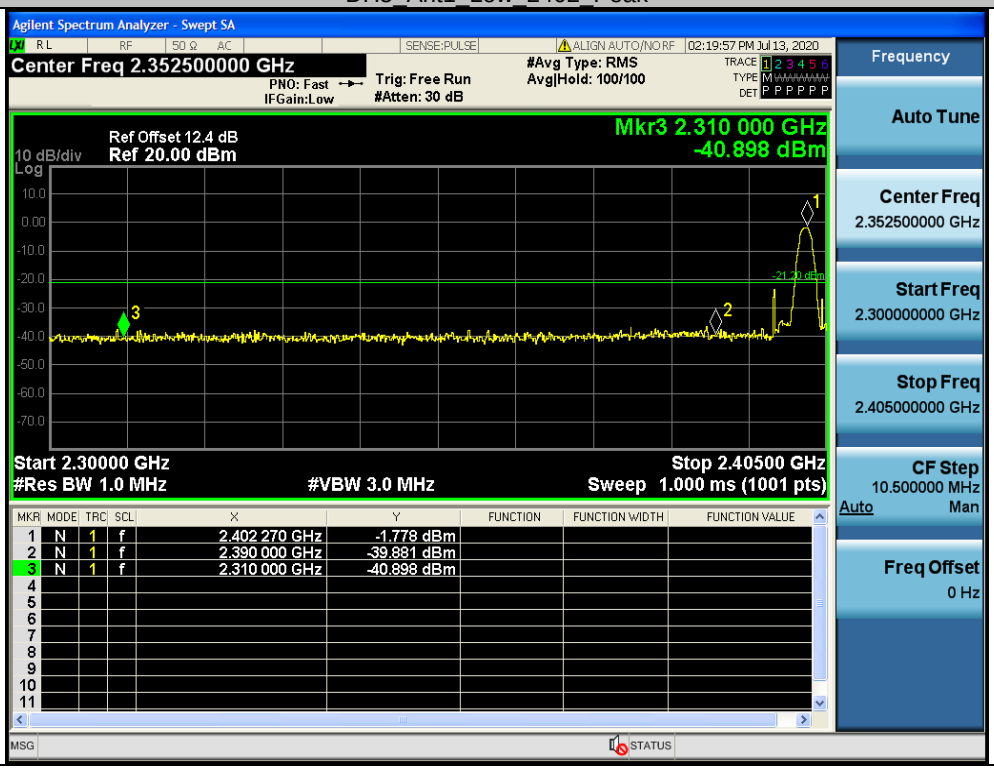
1. The Antenna Gain is compensated in the graph with 2dBi and Antenna Gain which is Higher.
2. The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.

Test Graphs

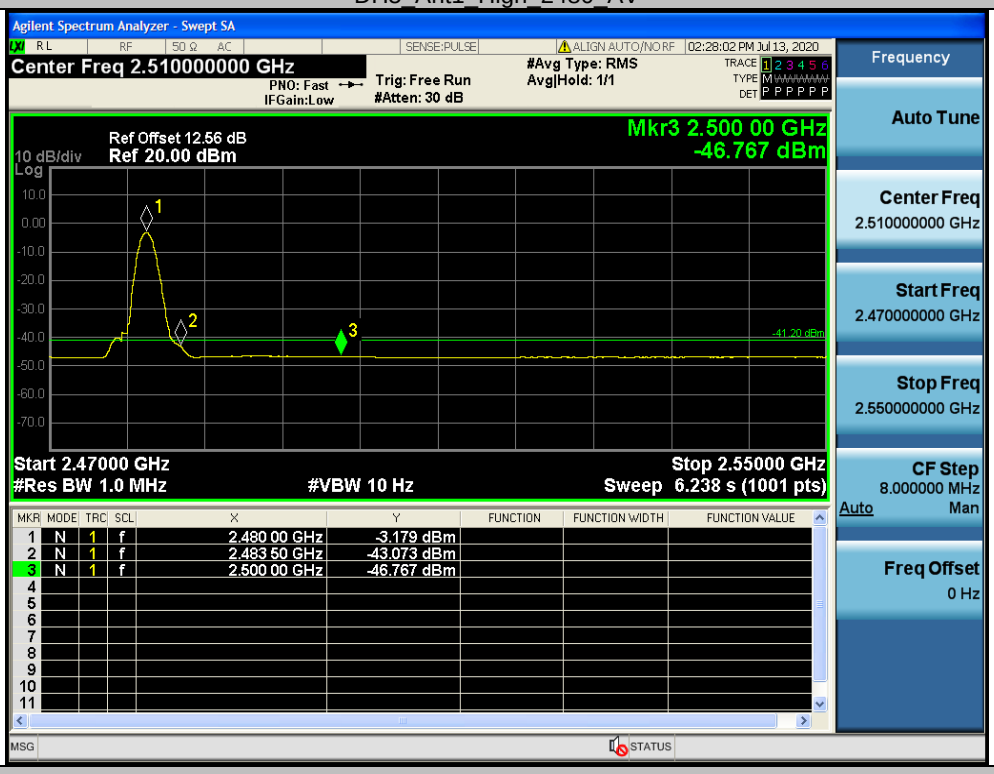
DH5_Ant1_Low_2402_AV



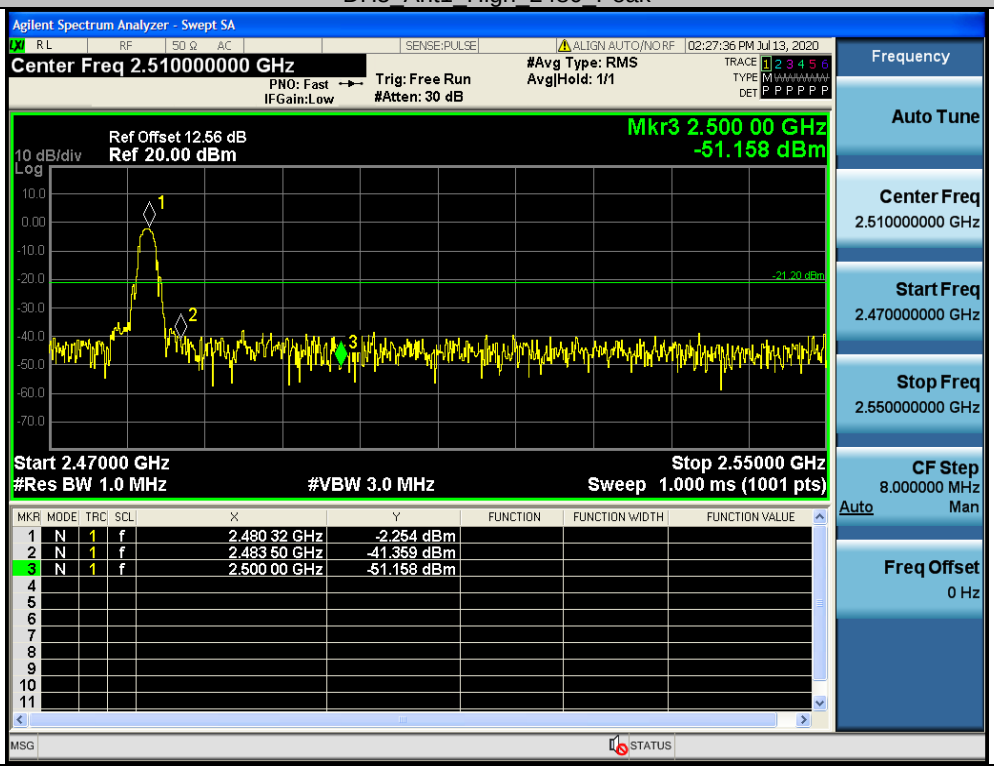
DH5_Ant1_Low_2402_Peak



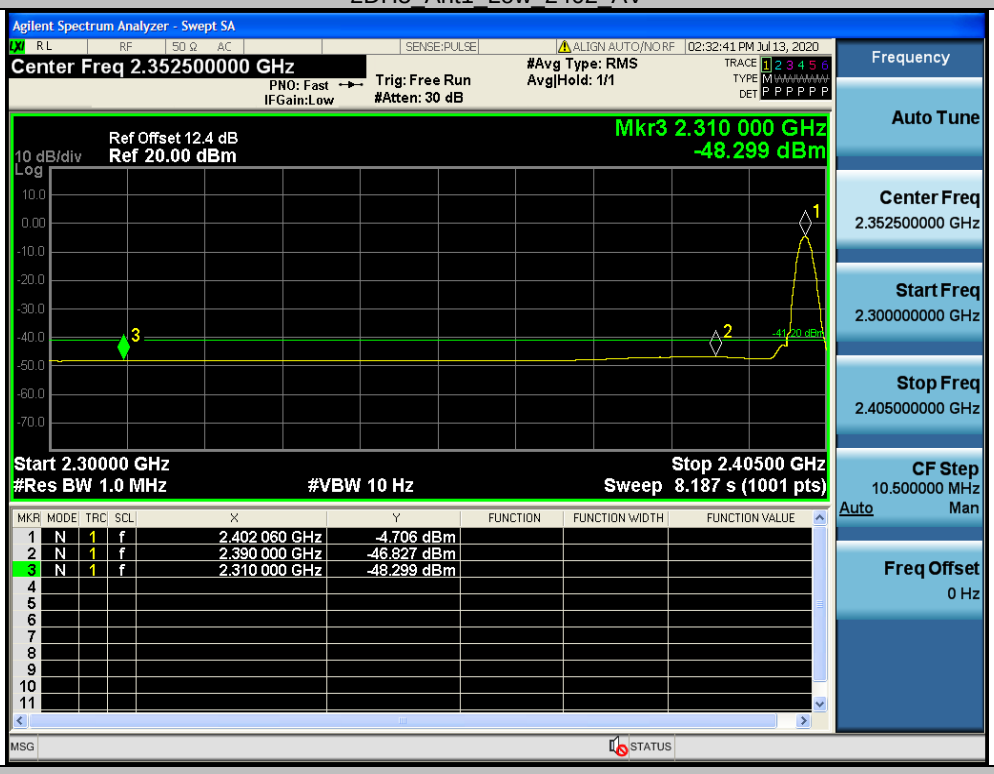
DH5_Ant1_High_2480_AV



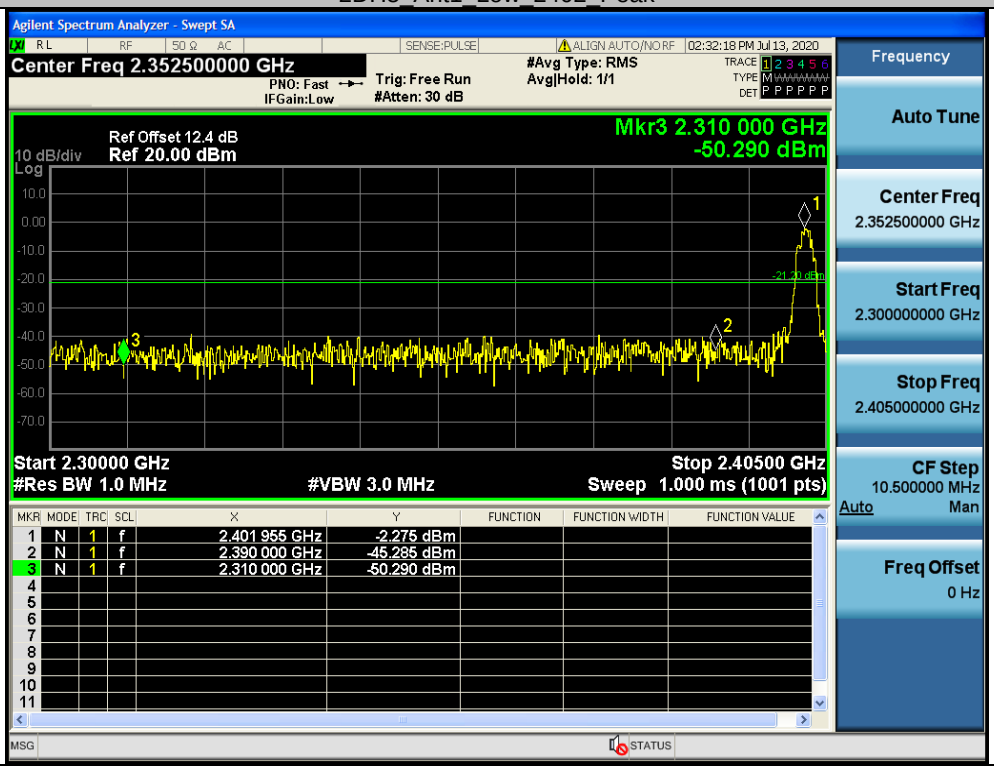
DH5_Ant1_High_2480_Peak



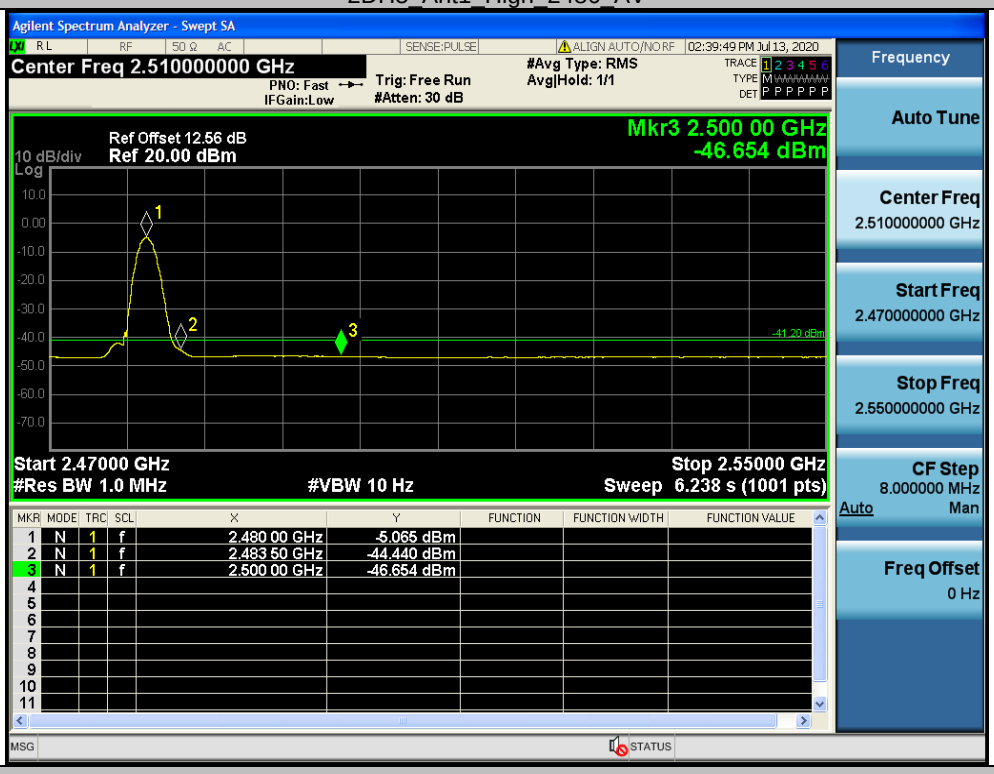
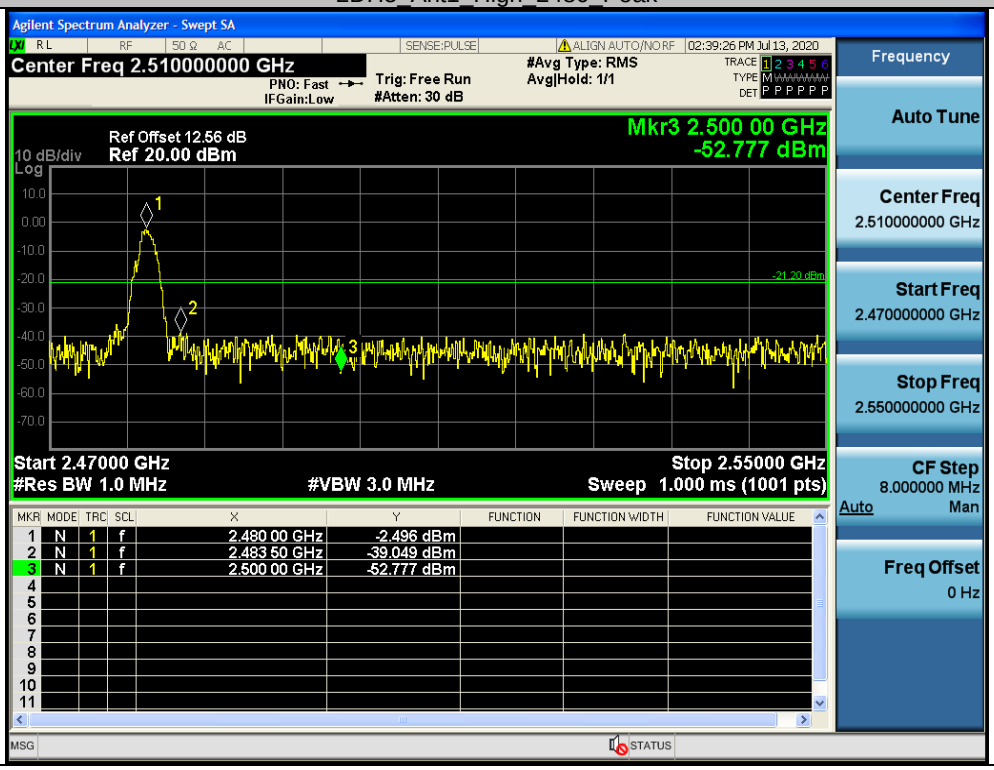
2DH5_Ant1_Low_2402_AV



2DH5_Ant1_Low_2402_Peak



2DH5_Ant1_High_2480_AV



2DH5_Ant1_High_2480_Peak