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

Product Name: Multimedia car player

Trade Mark: DS18

Test Model: DDX6.9

FCC ID: 2AYOQ-DDX69

Environmental Conditions

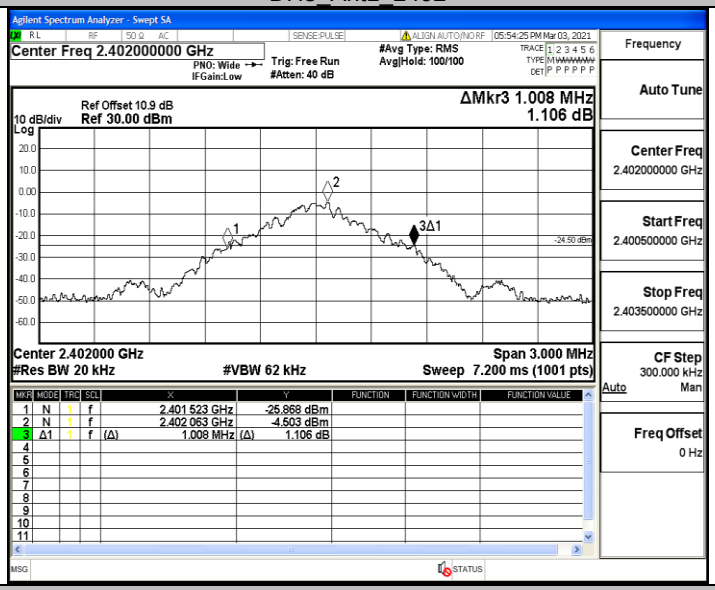
Temperature:	22.8° C
Relative Humidity:	56%
ATM Pressure:	100.0 kPa
Test Engineer:	Nancy Li
Supervised by:	Hugo Chen

A.1 20 dB Bandwidth

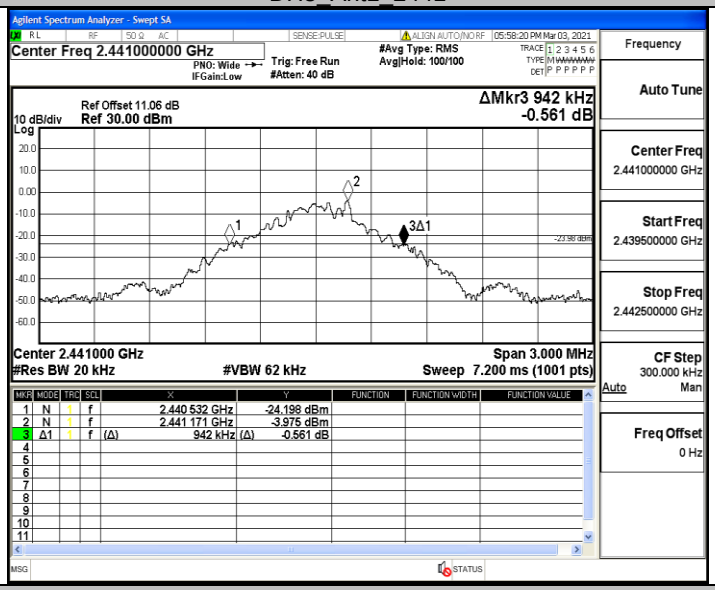
TestMode	Antenna	Channel	20db EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	1.008	2401.523	2402.531	---	PASS
		2441	0.942	2440.532	2441.474	---	PASS
		2480	0.942	2479.553	2480.495	---	PASS
2DH5	Ant1	2402	1.338	2401.337	2402.675	---	PASS
		2441	1.395	2440.310	2441.705	---	PASS
		2480	1.362	2479.340	2480.702	---	PASS
3DH5	Ant1	2402	1.329	2401.337	2402.666	---	PASS
		2441	1.329	2440.343	2441.672	---	PASS
		2480	1.317	2479.361	2480.678	---	PASS

Test Graph

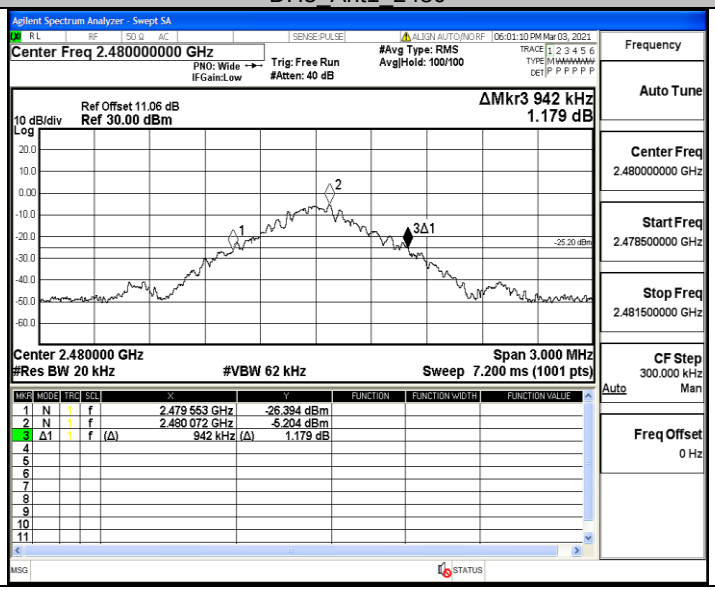
DH5_Ant1_2402



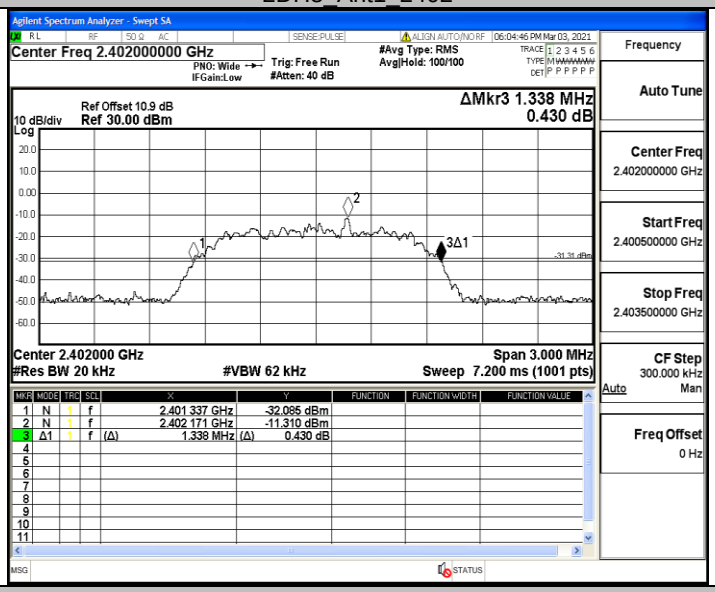
DH5_Ant1_2441



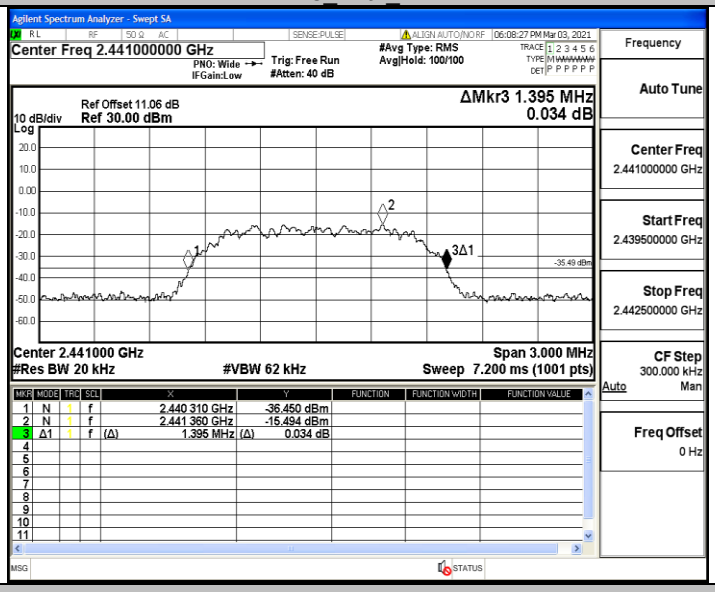
DH5_Ant1_2480



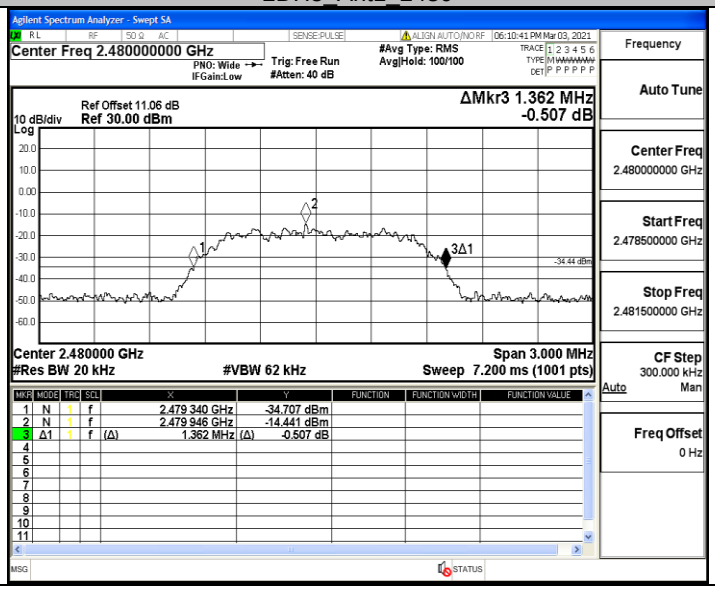
2DH5_Ant1_2402



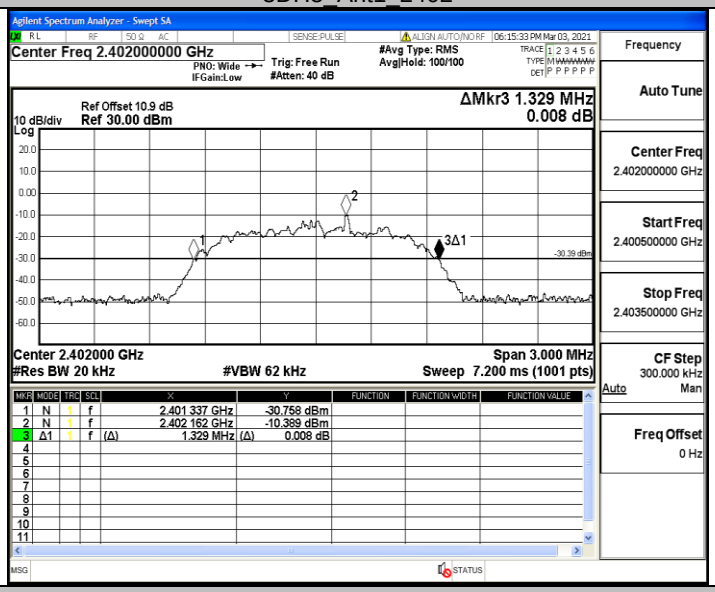
2DH5_Ant1_2441



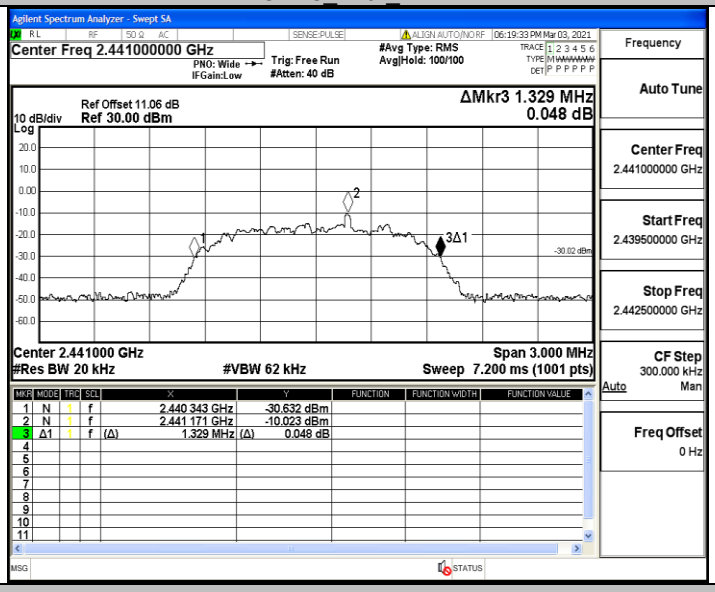
2DH5_Ant1_2480



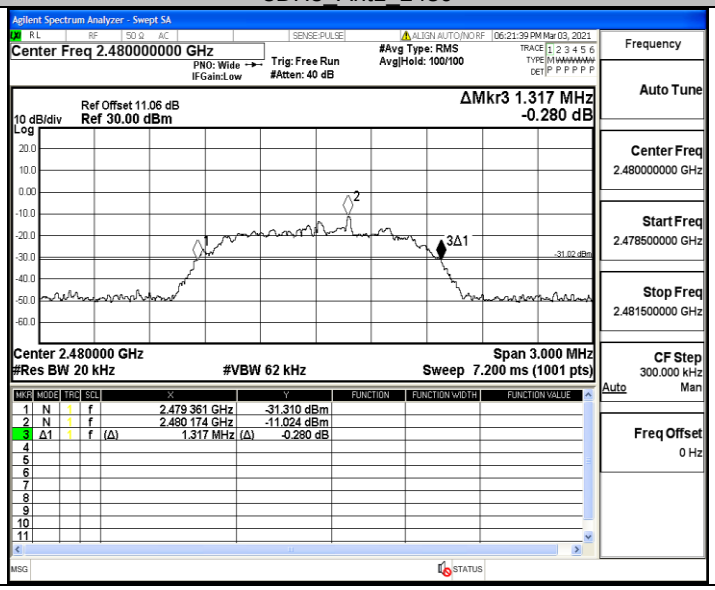
3DH5_Ant1_2402



3DH5_Ant1_2441



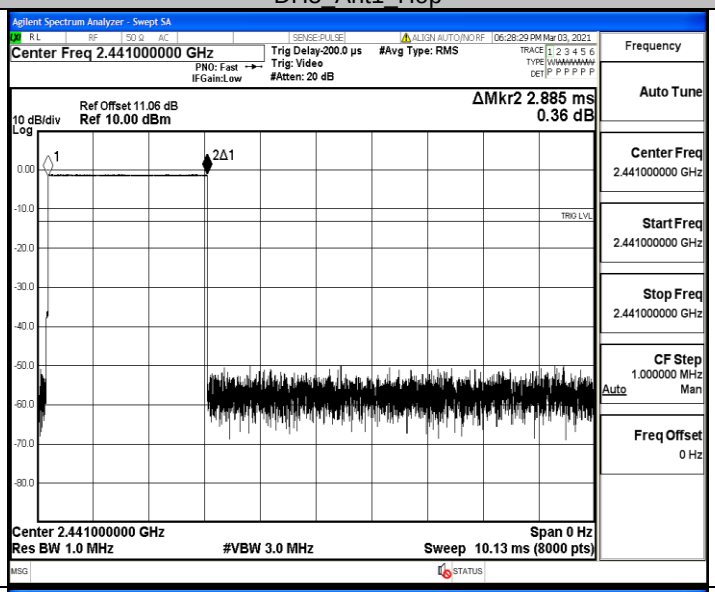
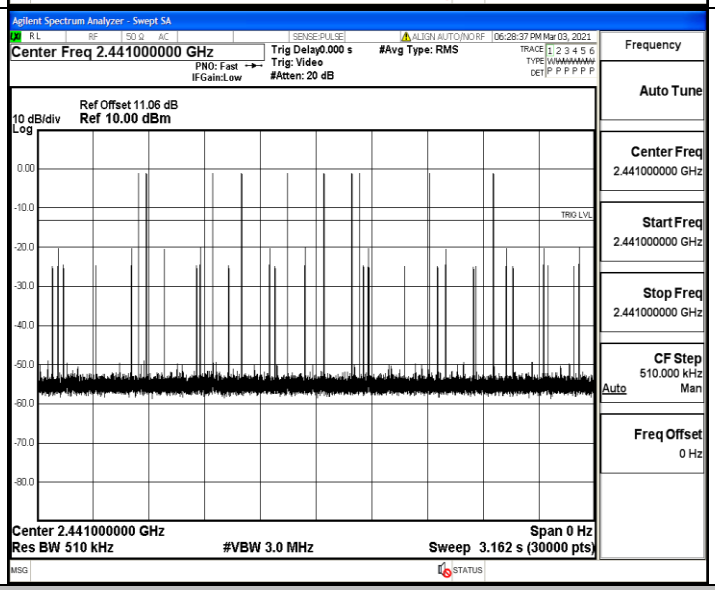
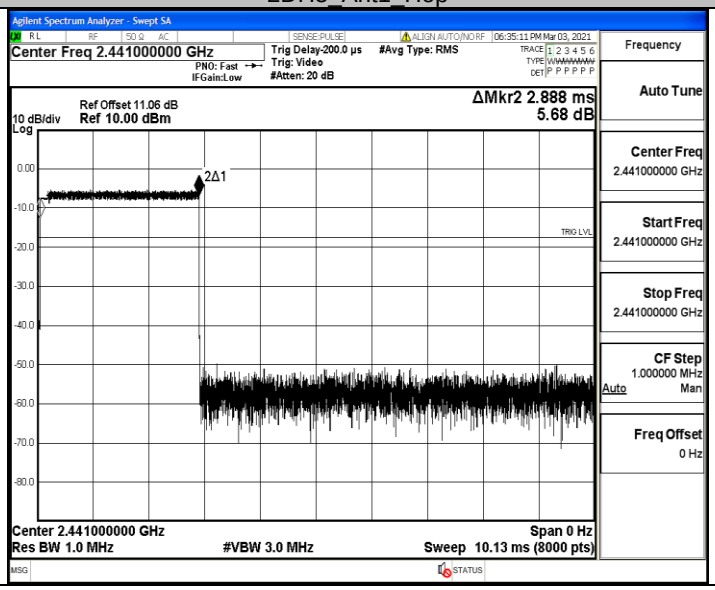
3DH5_Ant1_2480

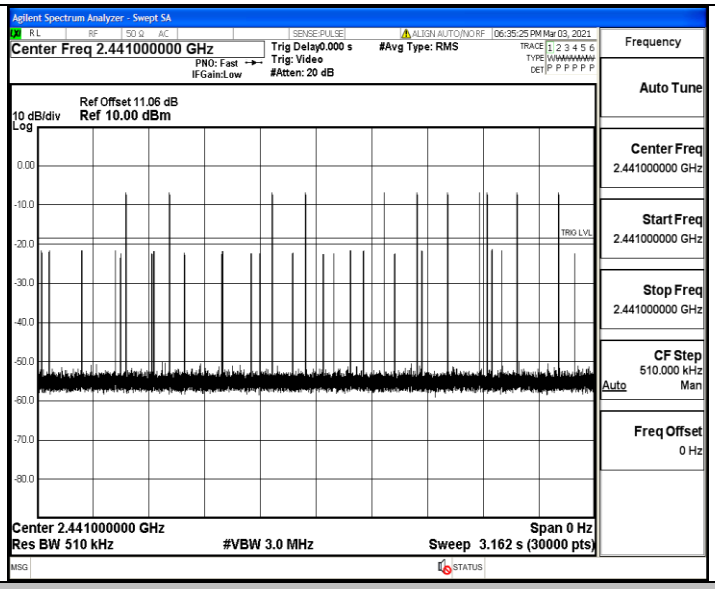


A.2 Dwell Time

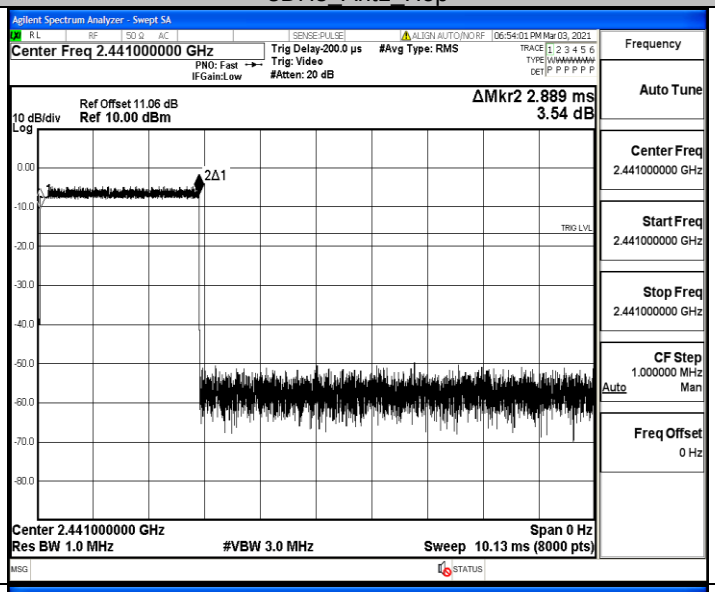
TestMode	Antenna	Channel	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH5	Ant1	Hop	2.89	110	0.317	<=0.4	PASS
2DH5	Ant1	Hop	2.89	120	0.347	<=0.4	PASS
3DH5	Ant1	Hop	2.89	120	0.347	<=0.4	PASS

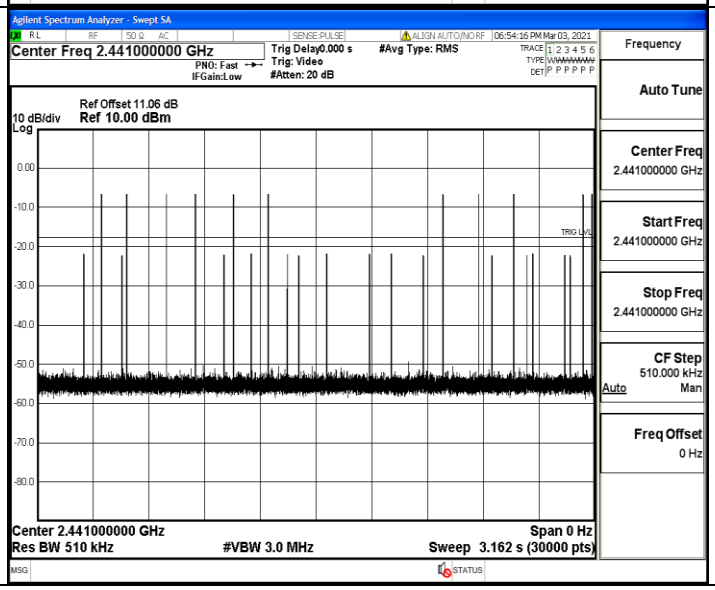
Test Graph

DH5_Ant1_Hop


2DH5_Ant1_Hop




3DH5_Ant1_Hop



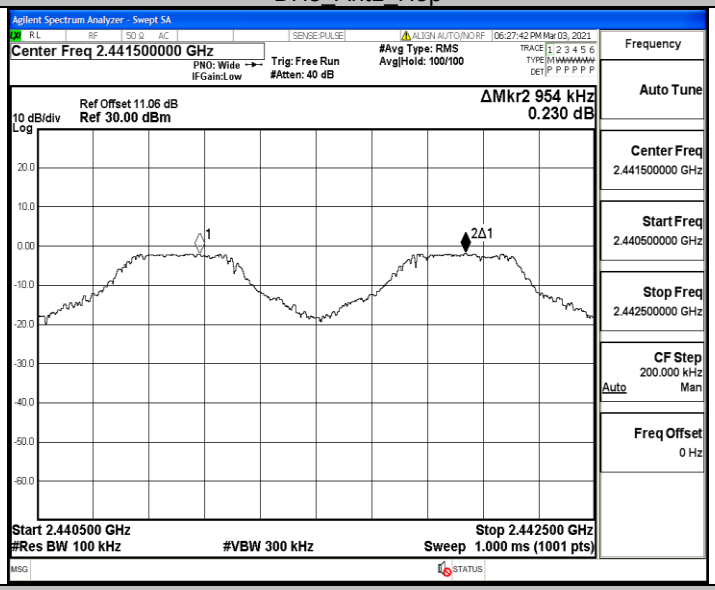


A.3 Carrier Frequency Separation

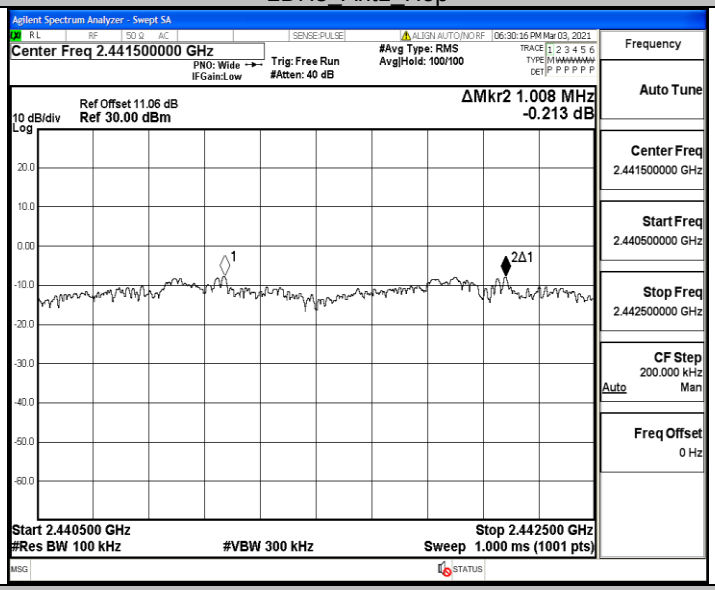
TestMode	Antenna	Channel	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	0.954	>=0.672	PASS
2DH5	Ant1	Hop	1.008	>=0.930	PASS
3DH5	Ant1	Hop	0.988	>=0.886	PASS

Test Graph

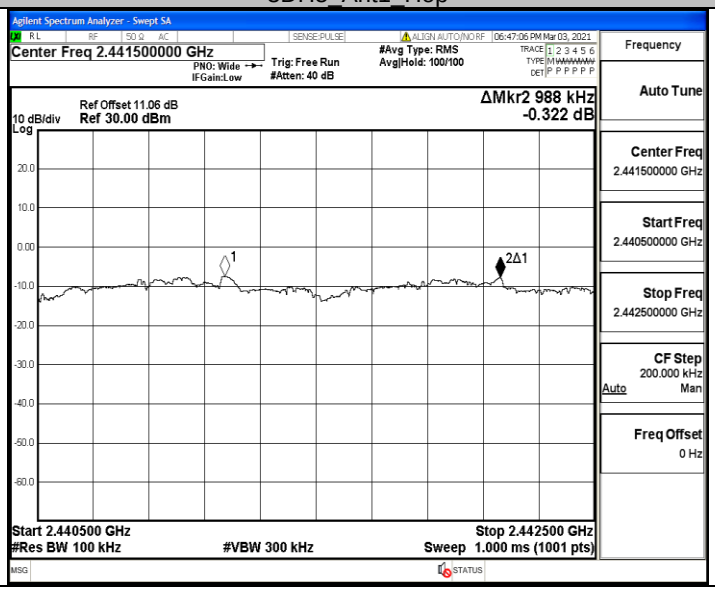
DH5_Ant1_Hop



2DH5_Ant1_Hop



3DH5_Ant1_Hop

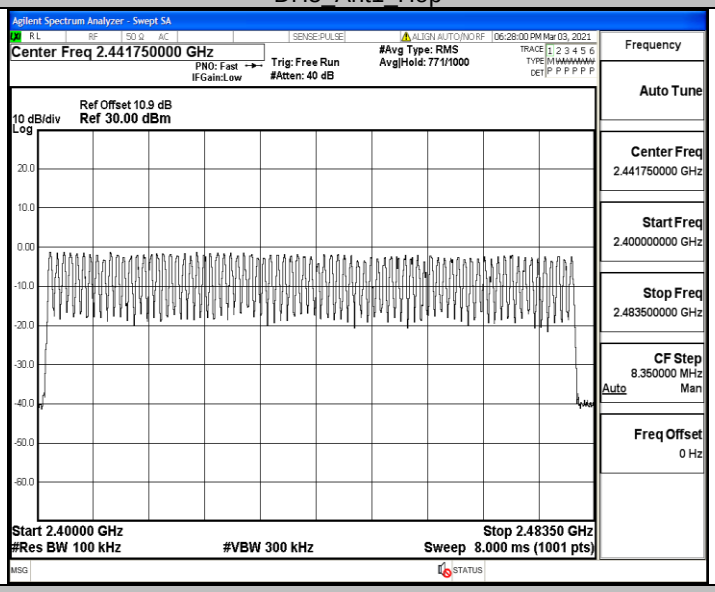


A.4 Hopping Channel Number

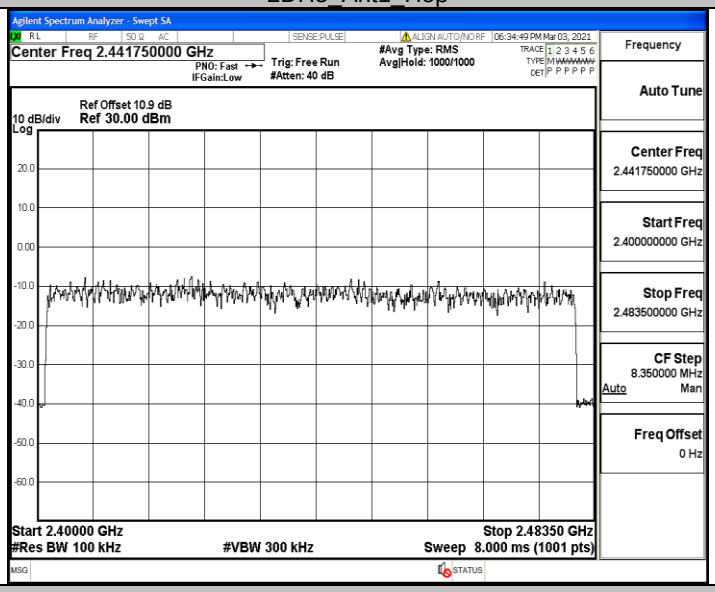
TestMode	Antenna	Channel	Result[Num]	Limit[Num]	Verdict
DH5	Ant1	Hop	79	>=15	PASS
2DH5	Ant1	Hop	79	>=15	PASS
3DH5	Ant1	Hop	79	>=15	PASS

Test Graph

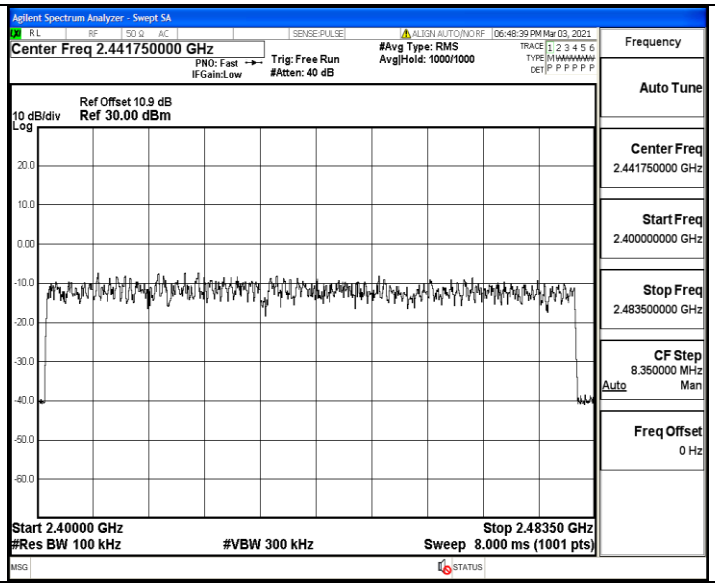
DH5_Ant1_Hop



2DH5_Ant1_Hop



3DH5_Ant1_Hop

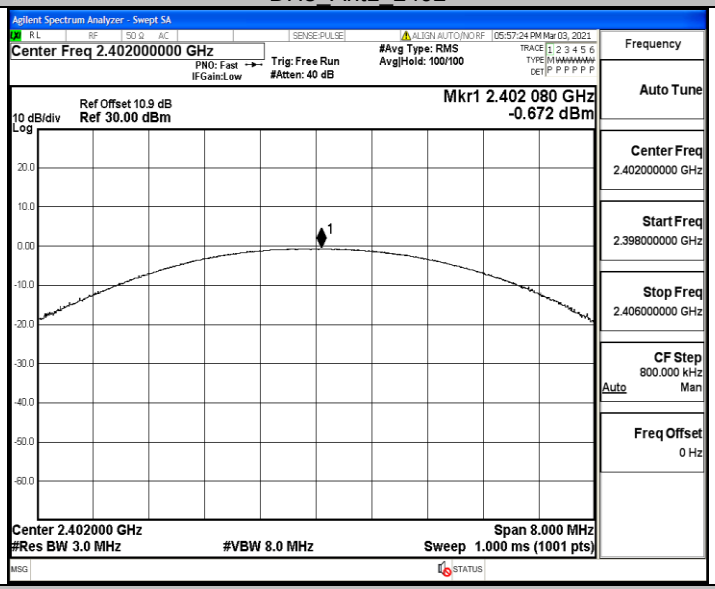

Agilent Spectrum Analyzer - Swept SA
Center Freq 2.441750000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 40 dB
#Avg Type: RMS
Avg|Hold: 1000/1000
06:48:39 PM Mar 03, 2021
Ref Offset 10.9 dB
10 dB/div
Log
Ref 30.00 dBm
20.0
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
Start 2.40000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 2.48350 GHz
Sweep 8.000 ms (1001 pts)
Frequency
Auto Tune
Center Freq
2.441750000 GHz
Start Freq
2.400000000 GHz
Stop Freq
2.483500000 GHz
CF Step
8.350000 MHz
Auto
Man
Freq Offset
0 Hz
MSG
STATUS

A.5 Conducted Peak Output Power

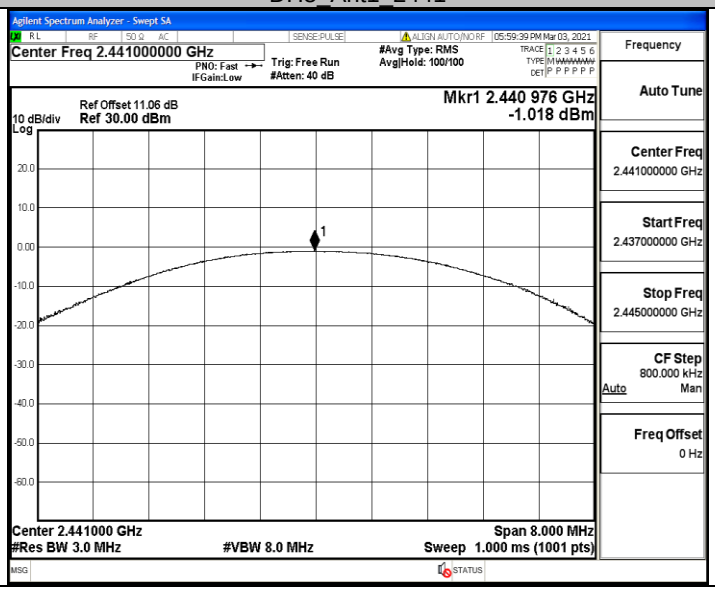
TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
DH5	Ant1	2402	-0.67	<=30	PASS
		2441	-1.02	<=30	PASS
		2480	-1.41	<=30	PASS
2DH5	Ant1	2402	-4.78	<=20.97	PASS
		2441	-4.61	<=20.97	PASS
		2480	-5.5	<=20.97	PASS
3DH5	Ant1	2402	-4.43	<=20.97	PASS
		2441	-4.36	<=20.97	PASS
		2480	-5.13	<=20.97	PASS

Test Graph

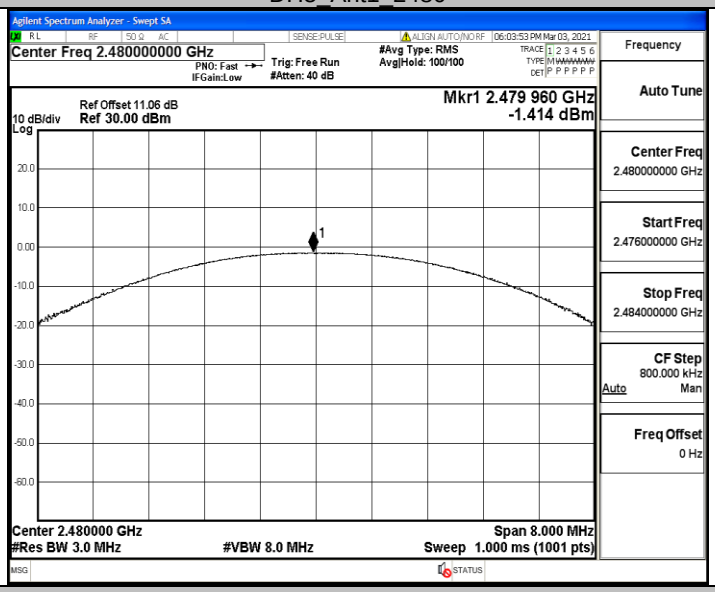
DH5_Ant1_2402



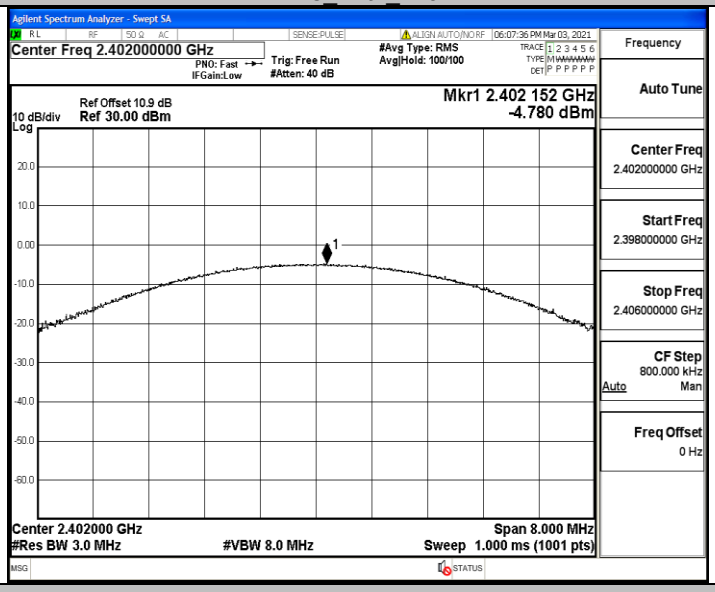
DH5_Ant1_2441



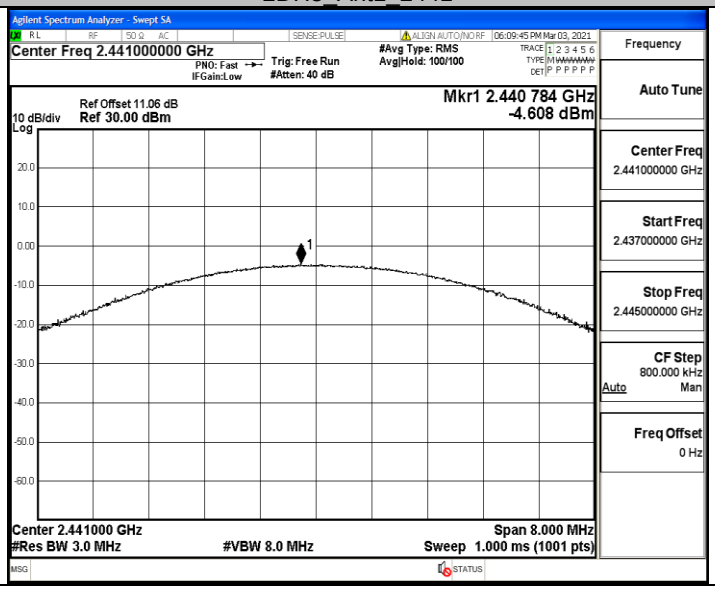
DH5_Ant1_2480



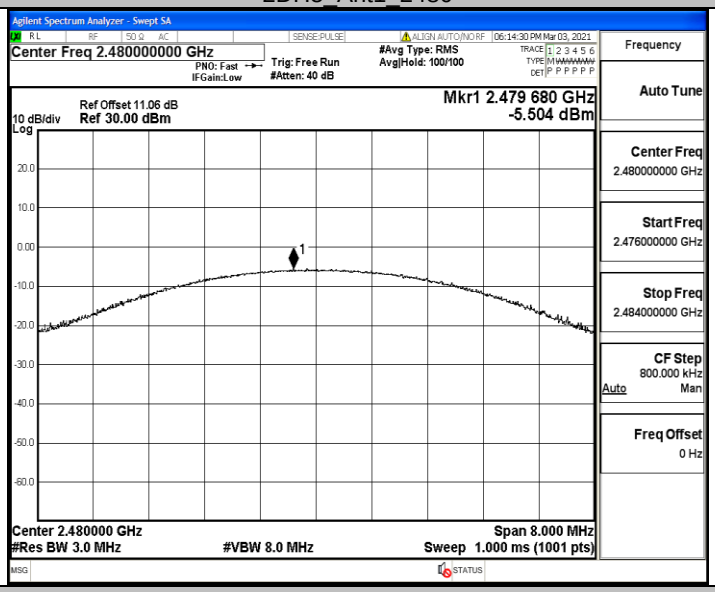
2DH5_Ant1_2402



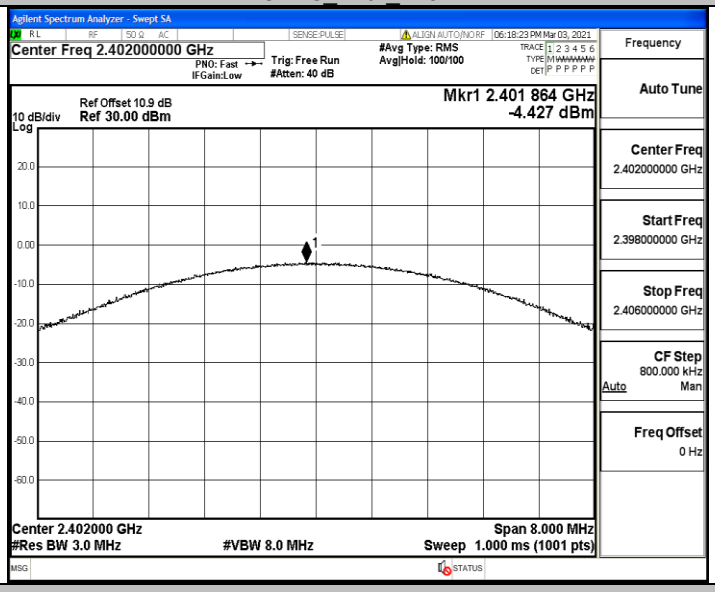
2DH5_Ant1_2441



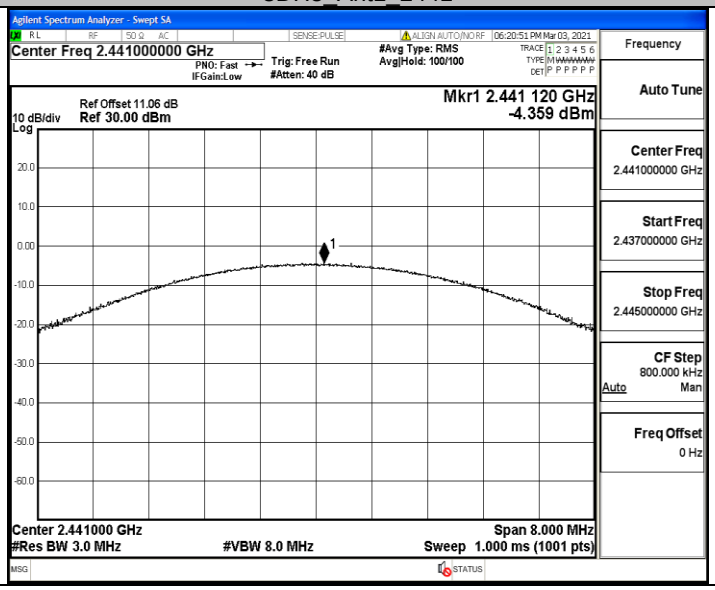
2DH5_Ant1_2480



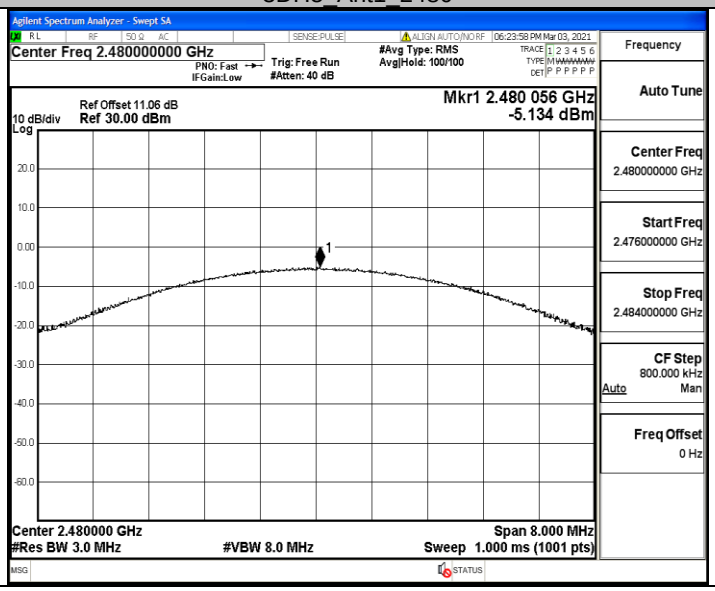
3DH5_Ant1_2402



3DH5_Ant1_2441



3DH5_Ant1_2480

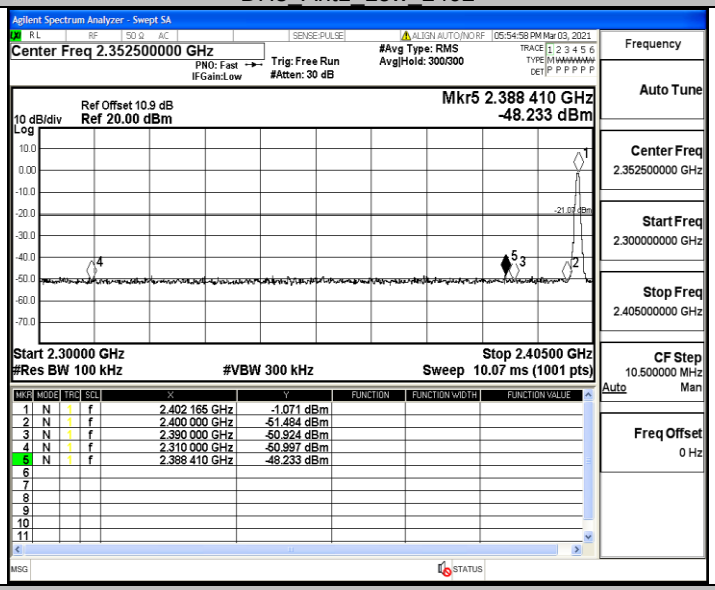


A.6 Band-edge for RF Conducted Emissions

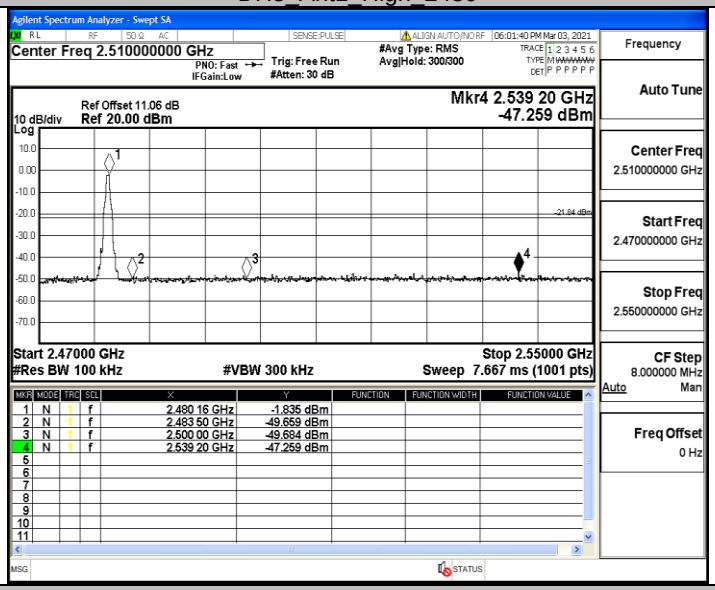
TestMode	Antenna	ChName	Channel	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	-1.07	-48.23	<=-21.07	PASS
		High	2480	-1.84	-47.26	<=-21.84	PASS
		Low	Hop_2402	-1.68	-48.54	<=-21.68	PASS
		High	Hop_2480	-2.45	-47.46	<=-22.45	PASS
2DH5	Ant1	Low	2402	-8.24	-47.94	<=-28.24	PASS
		High	2480	-9.84	-47.23	<=-29.84	PASS
		Low	Hop_2402	-10.86	-48.01	<=-30.86	PASS
		High	Hop_2480	-9.13	-46.71	<=-29.13	PASS
3DH5	Ant1	Low	2402	-7.68	-47.64	<=-27.68	PASS
		High	2480	-8.60	-47.59	<=-28.6	PASS
		Low	Hop_2402	-8.73	-48.44	<=-28.73	PASS
		High	Hop_2480	-9.52	-46.9	<=-29.52	PASS

Test Graph

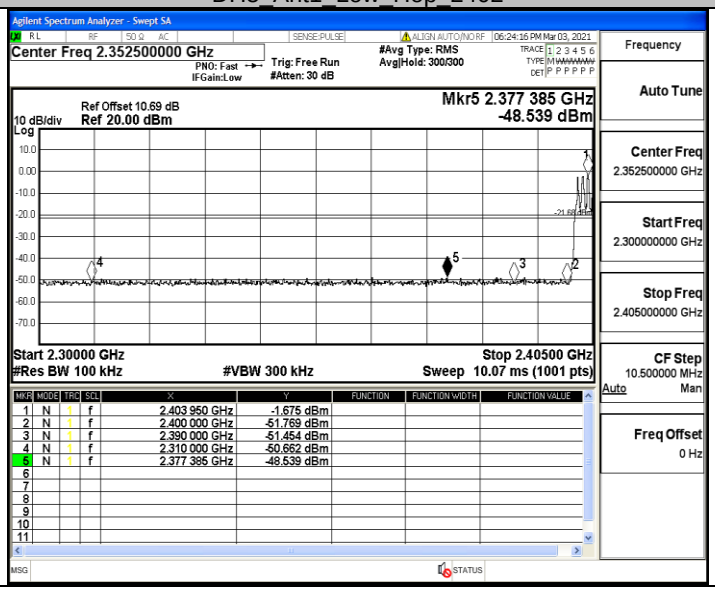
DH5_Ant1_Low_2402



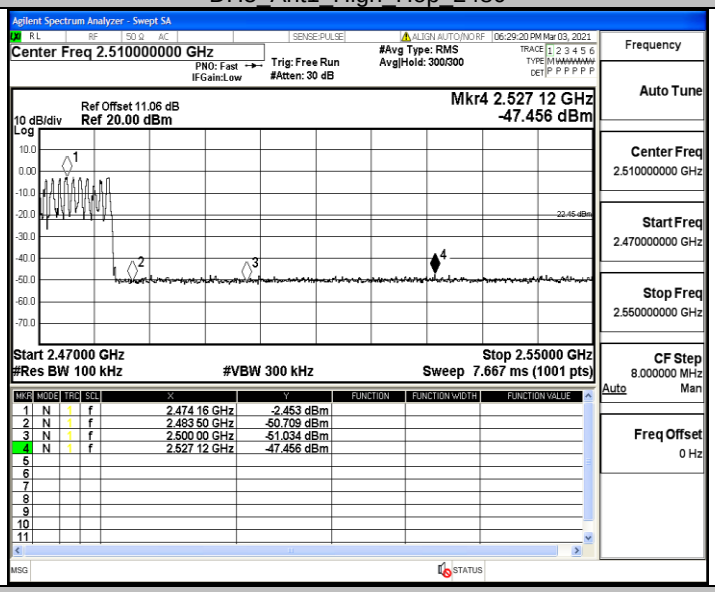
DH5_Ant1_High_2480



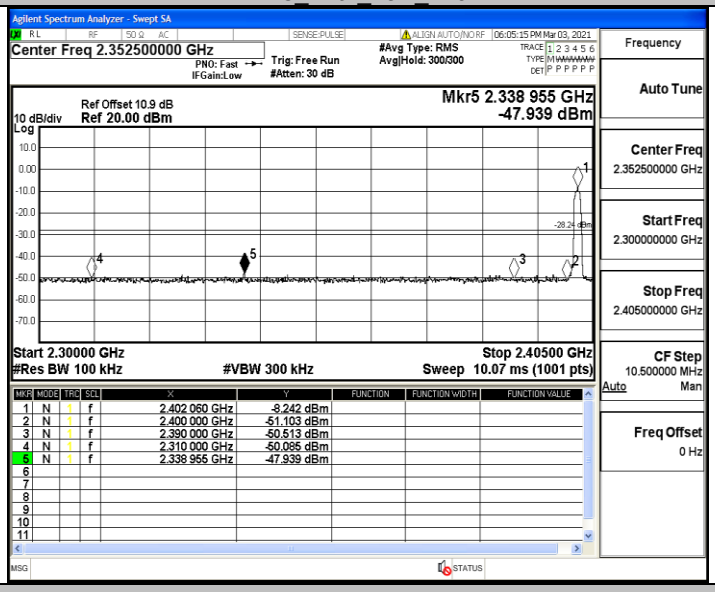
DH5_Ant1_Low_Hop_2402



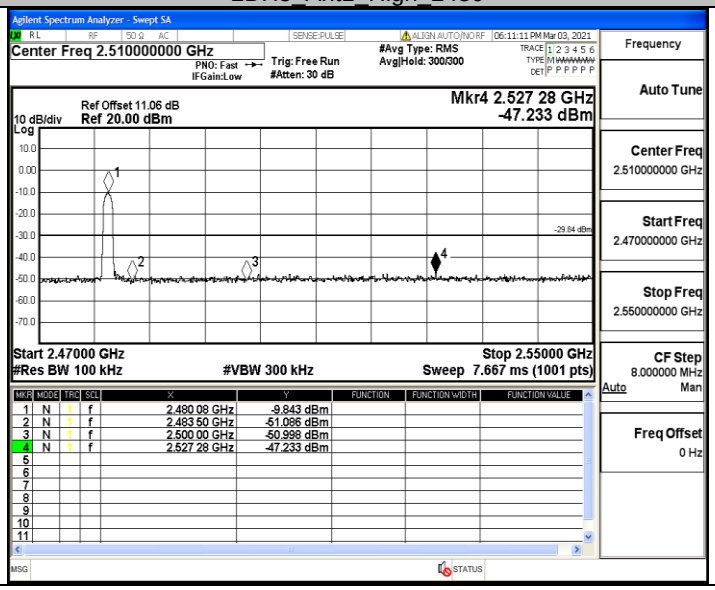
DH5_Ant1_High_Hop_2480



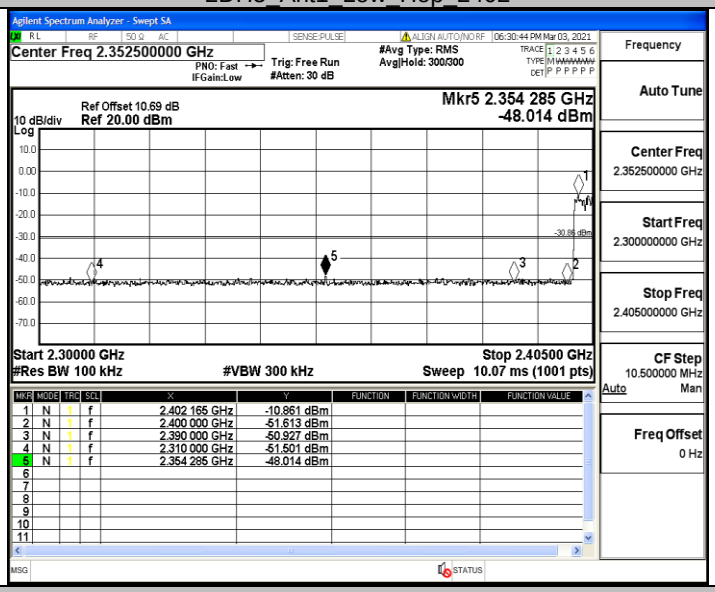
2DH5_Ant1_Low_2402



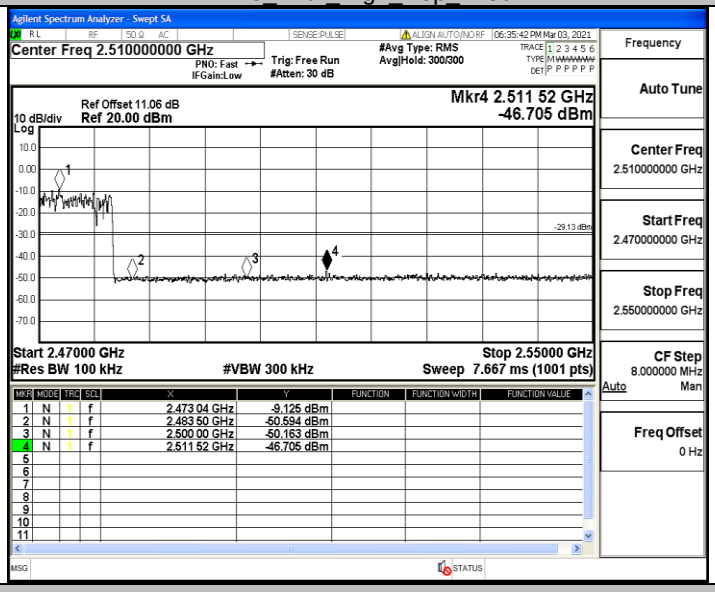
2DH5_Ant1_High_2480



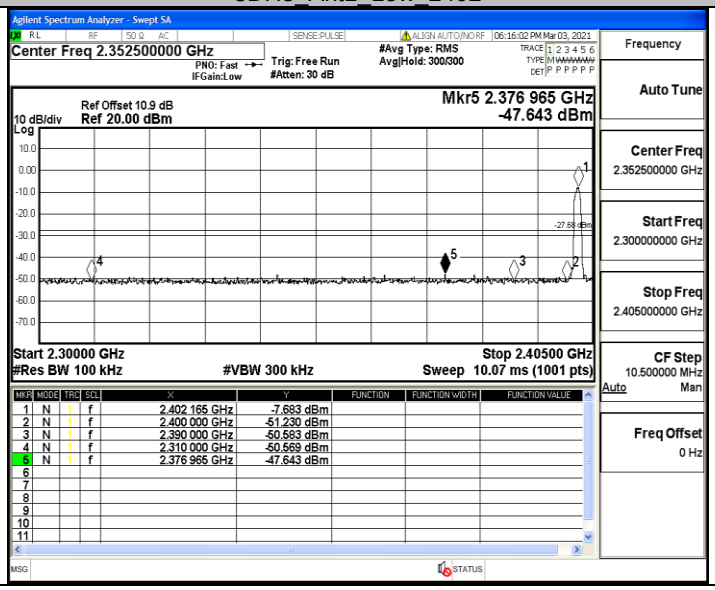
2DH5_Ant1_Low_Hop_2402



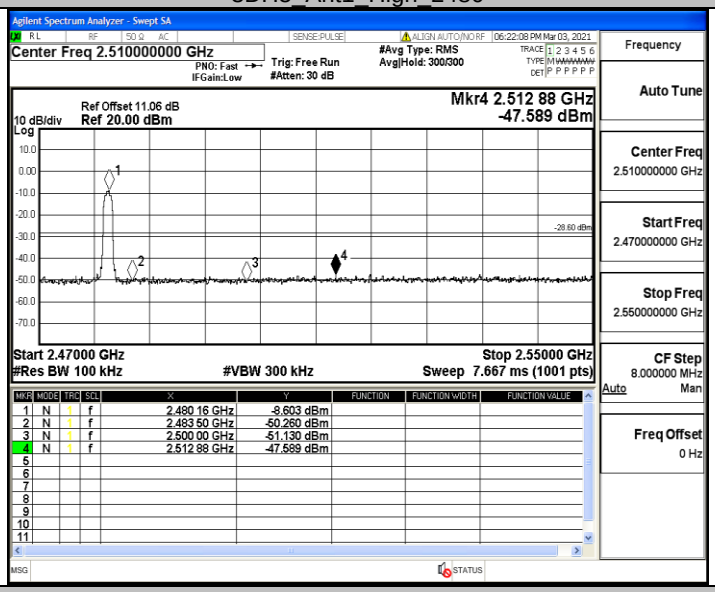
2DH5_Ant1_High_Hop_2480



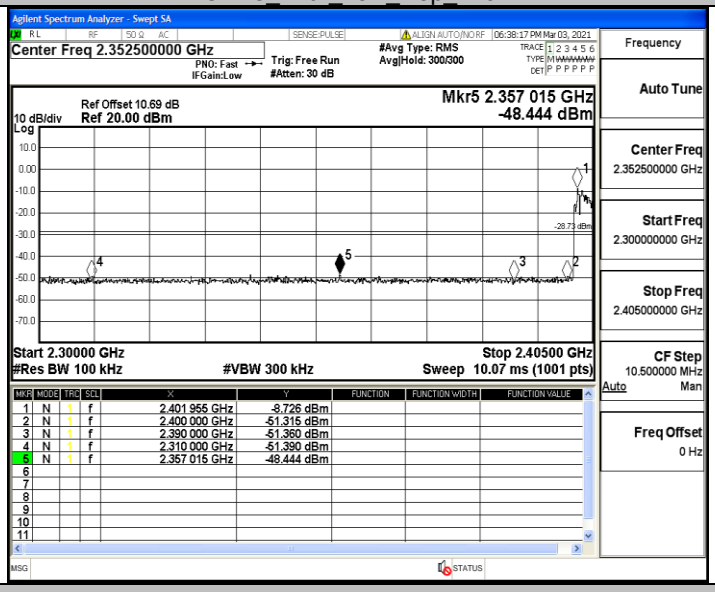
3DH5_Ant1_Low_2402



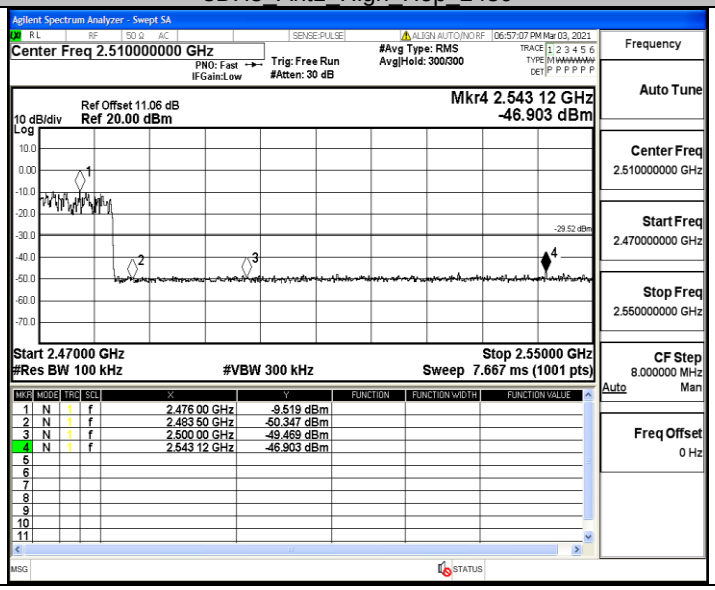
3DH5_Ant1_High_2480



3DH5_Ant1_Low_Hop_2402



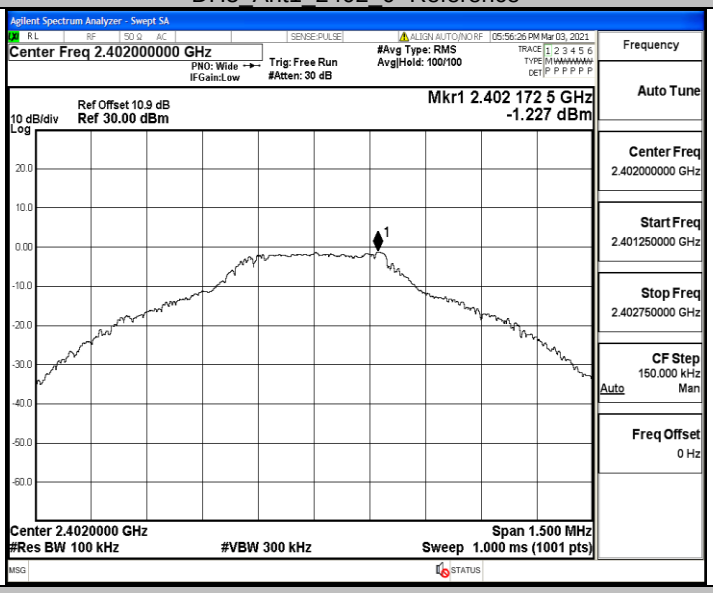
3DH5_Ant1_High_Hop_2480



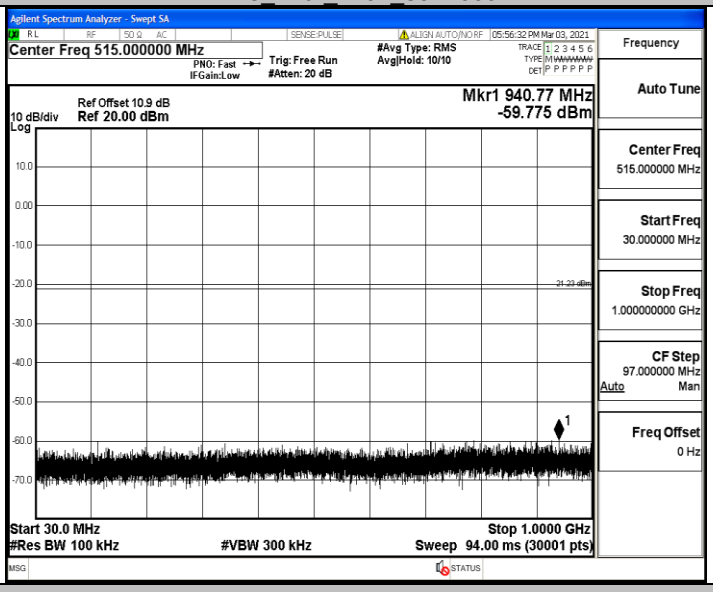
A.7 RF Conducted Spurious Emissions

Test Graph

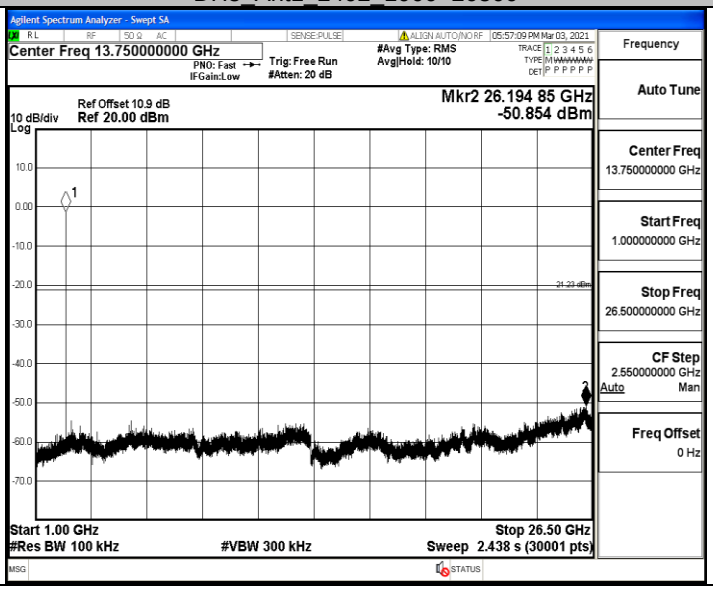
DH5_Ant1_2402_0~Reference



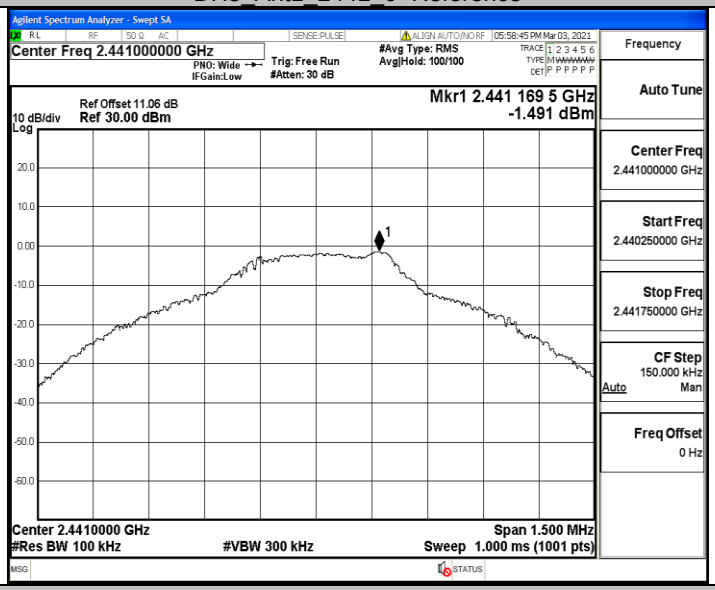
DH5_Ant1_2402_30~1000



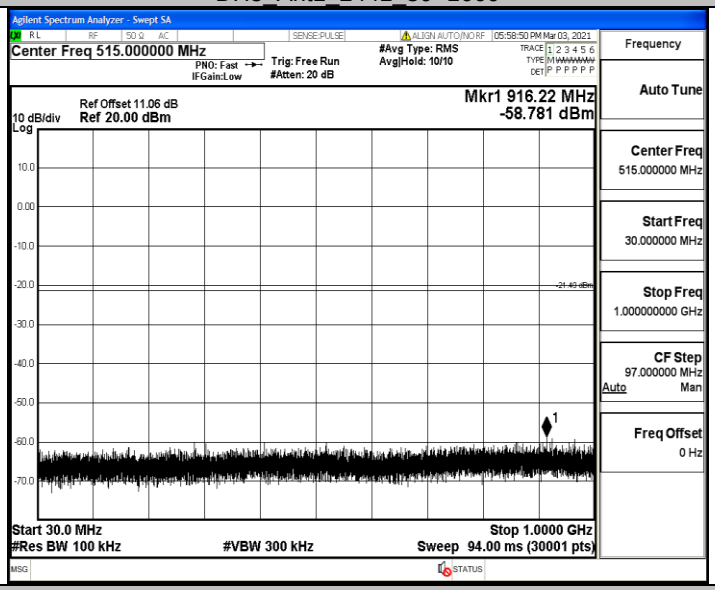
DH5_Ant1_2402_1000~26500



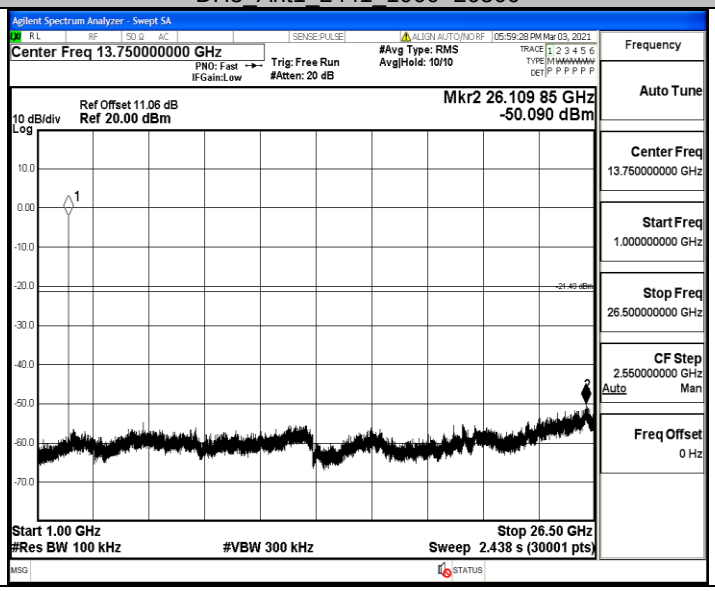
DH5_Ant1_2441_0~Reference



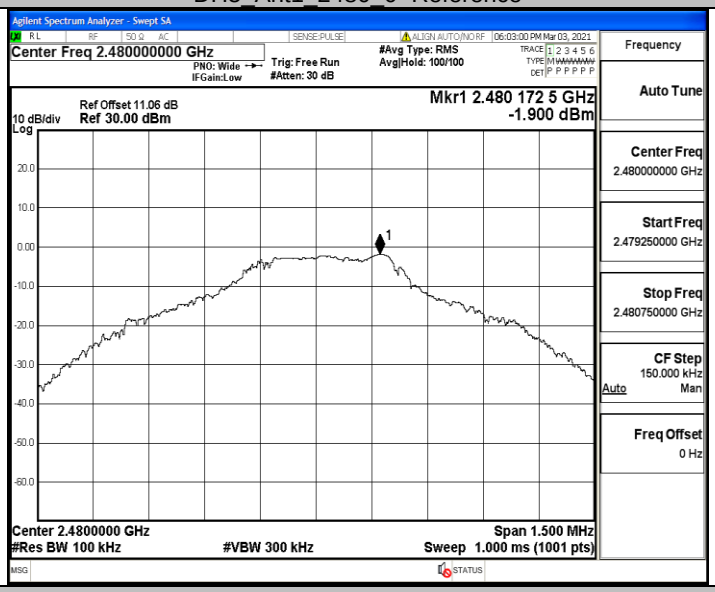
DH5_Ant1_2441_30~1000



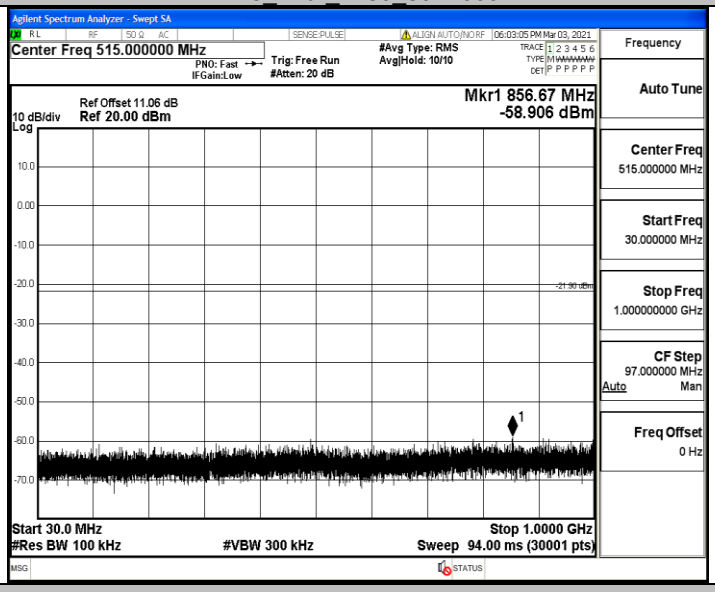
DH5_Ant1_2441_1000~26500



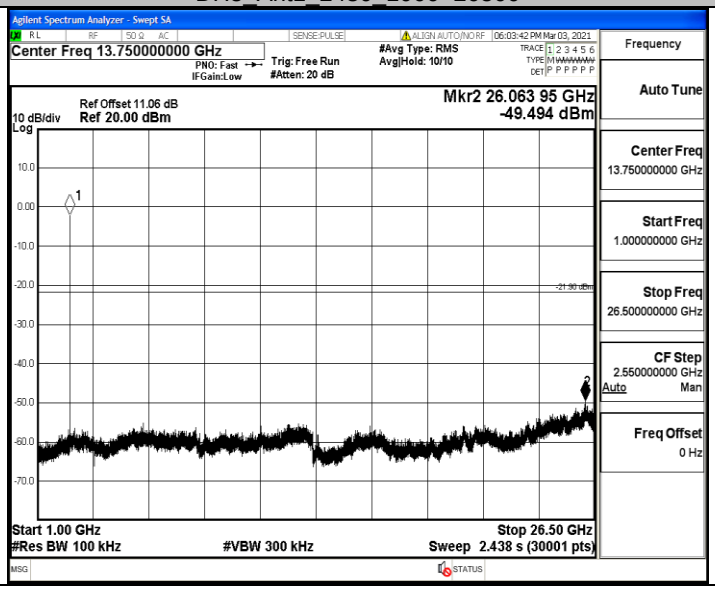
DH5_Ant1_2480_0~Reference



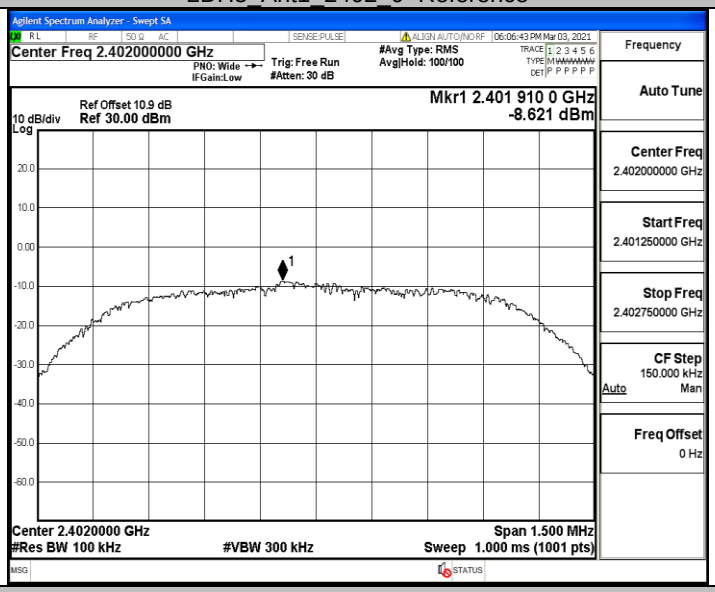
DH5_Ant1_2480_30~1000



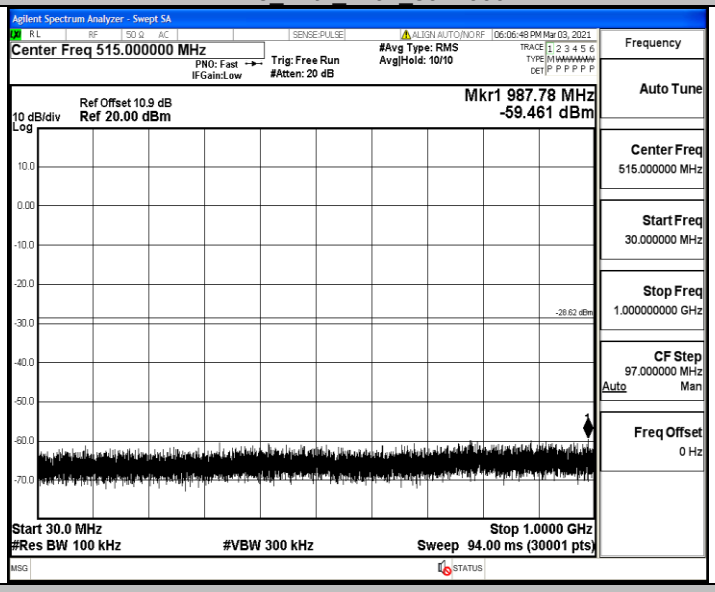
DH5_Ant1_2480_1000~26500



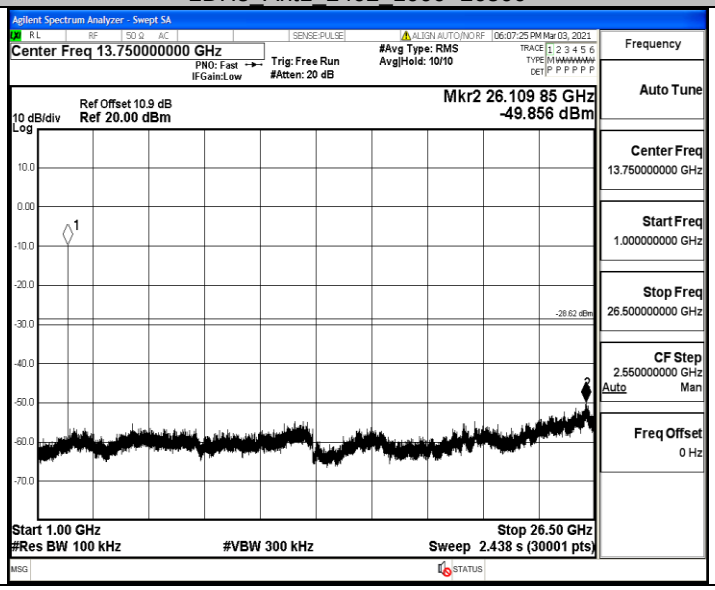
2DH5_Ant1_2402_0~Reference



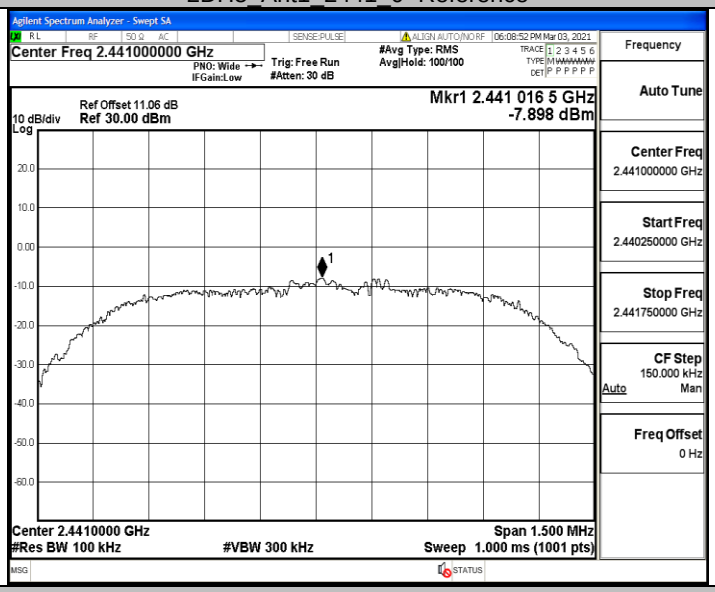
2DH5_Ant1_2402_30~1000



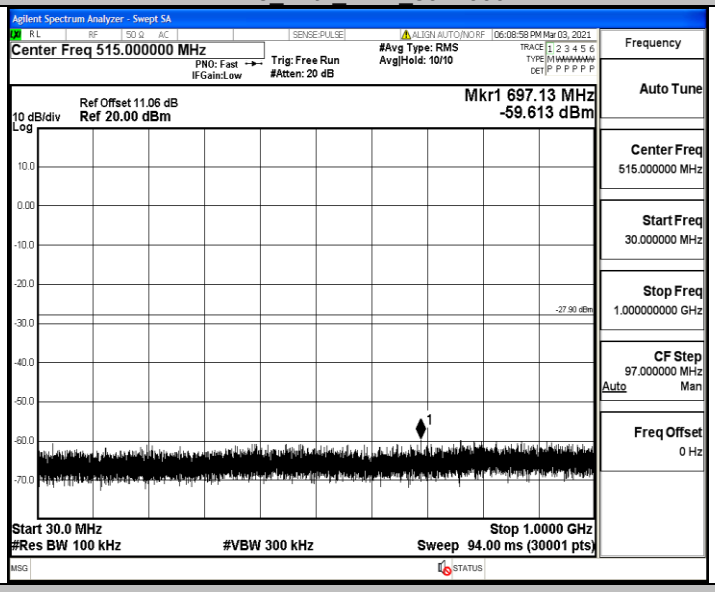
2DH5_Ant1_2402_1000~26500



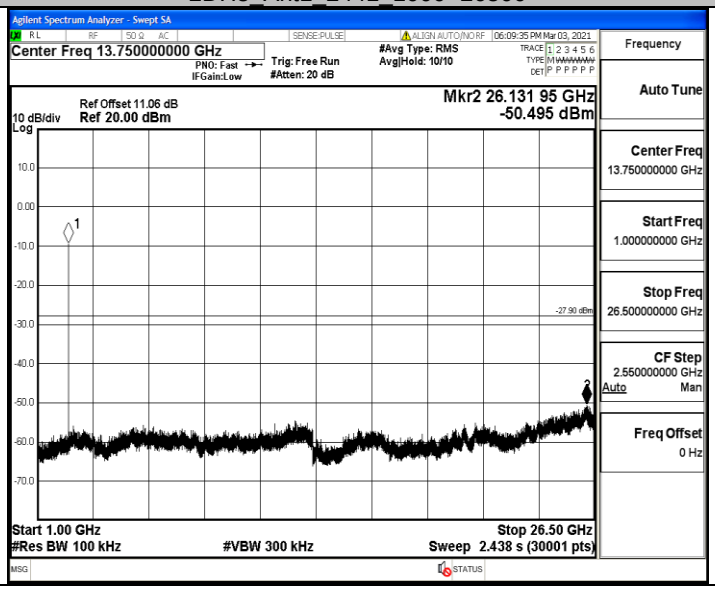
2DH5_Ant1_2441_0~Reference



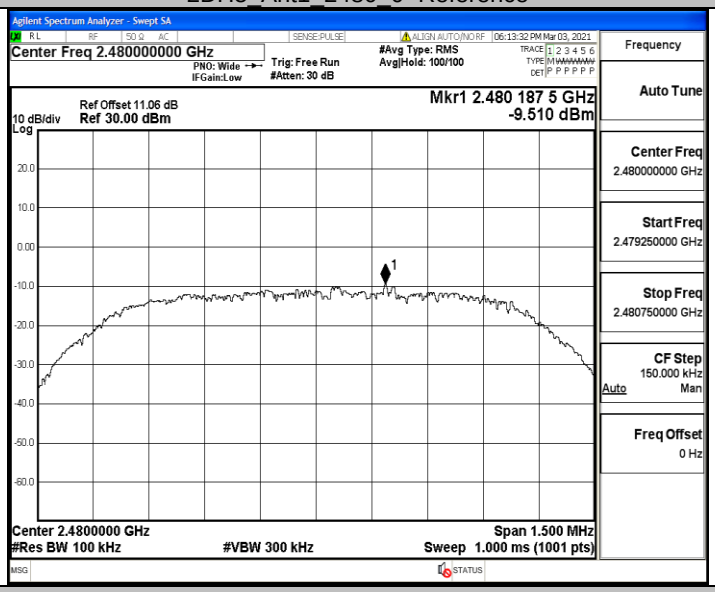
2DH5_Ant1_2441_30~1000



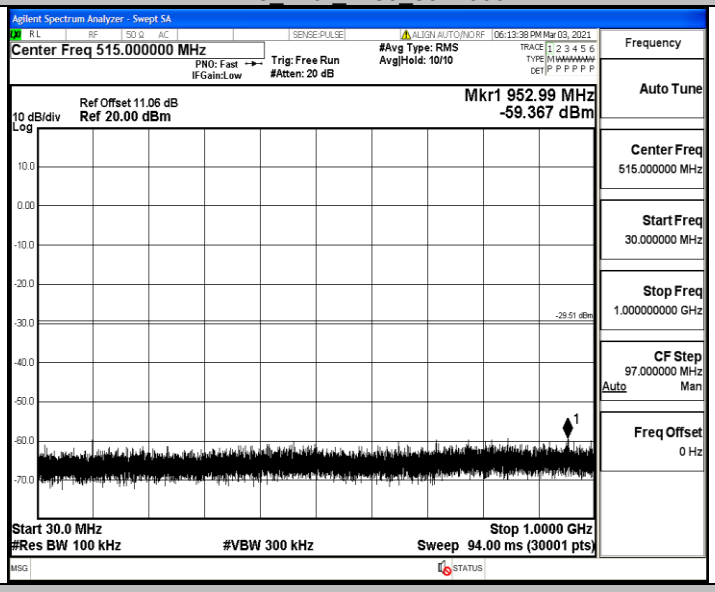
2DH5_Ant1_2441_1000~26500



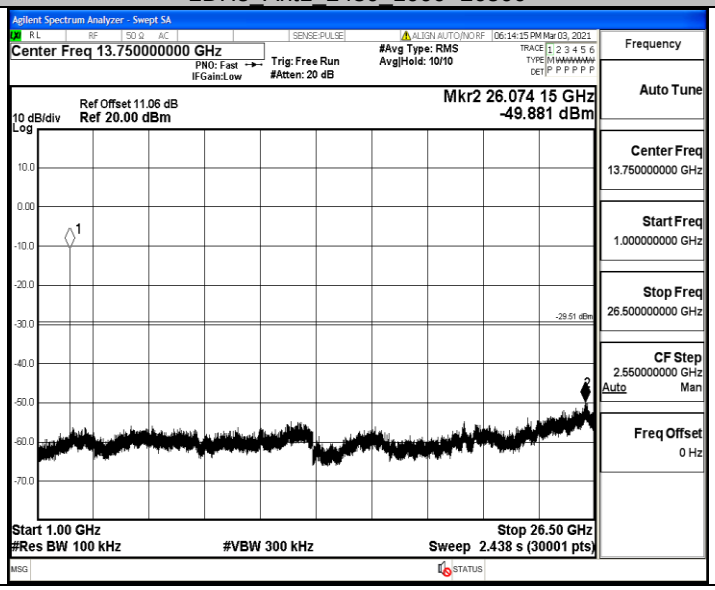
2DH5_Ant1_2480_0~Reference



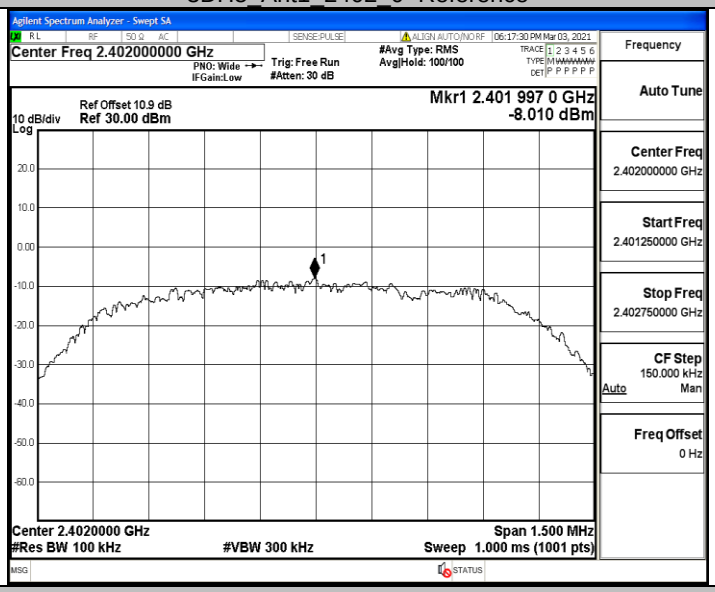
2DH5_Ant1_2480_30~1000



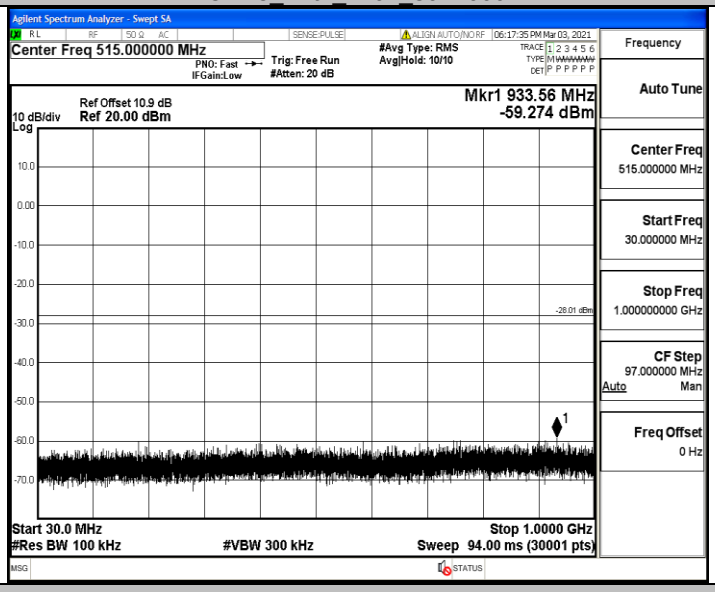
2DH5_Ant1_2480_1000~26500



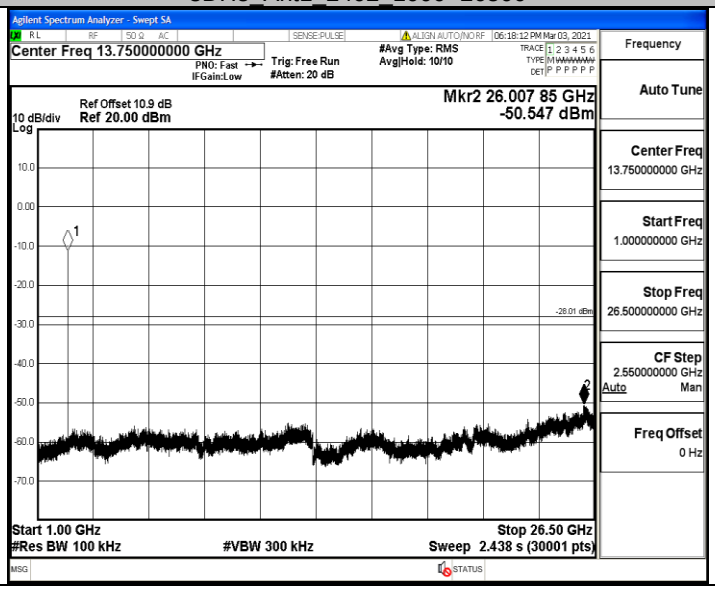
3DH5_Ant1_2402_0~Reference



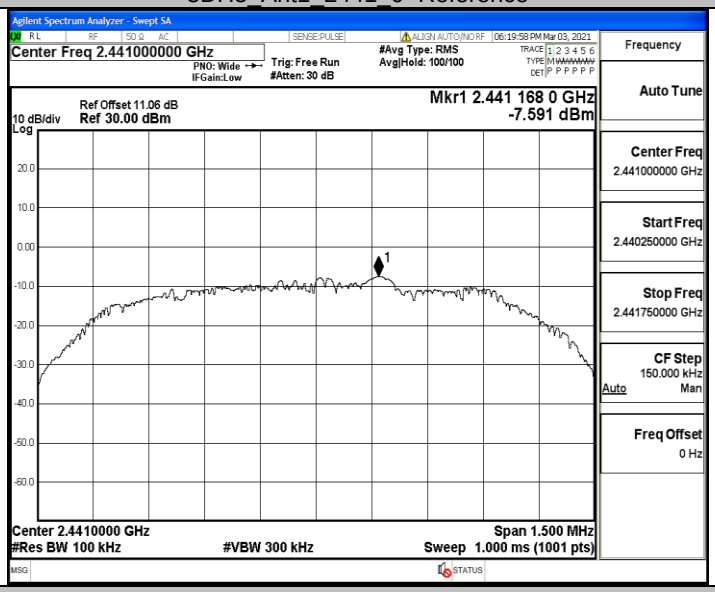
3DH5_Ant1_2402_30~1000



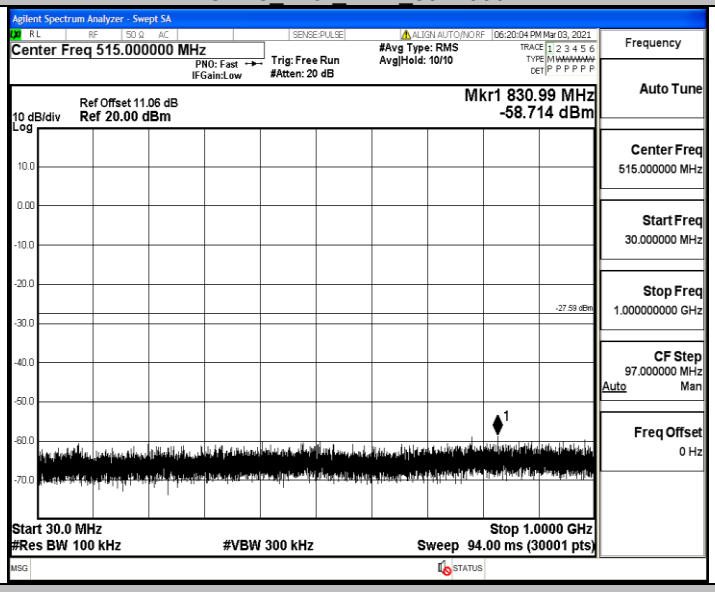
3DH5_Ant1_2402_1000~26500



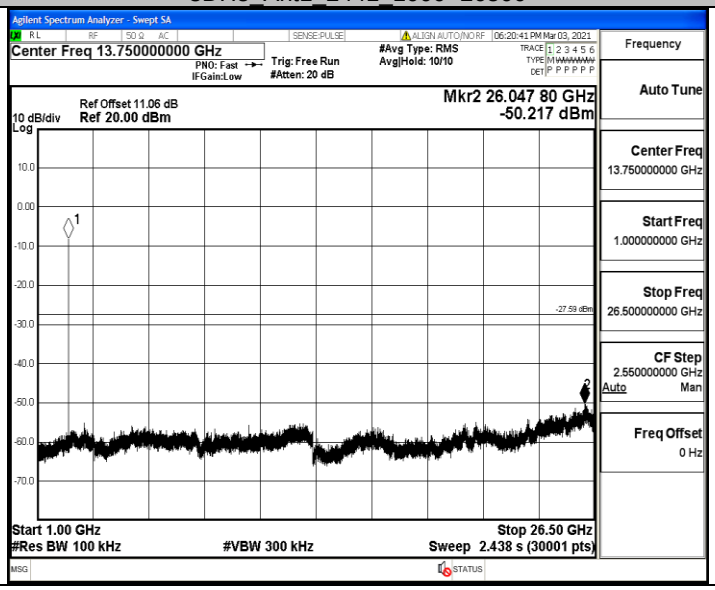
3DH5_Ant1_2441_0~Reference



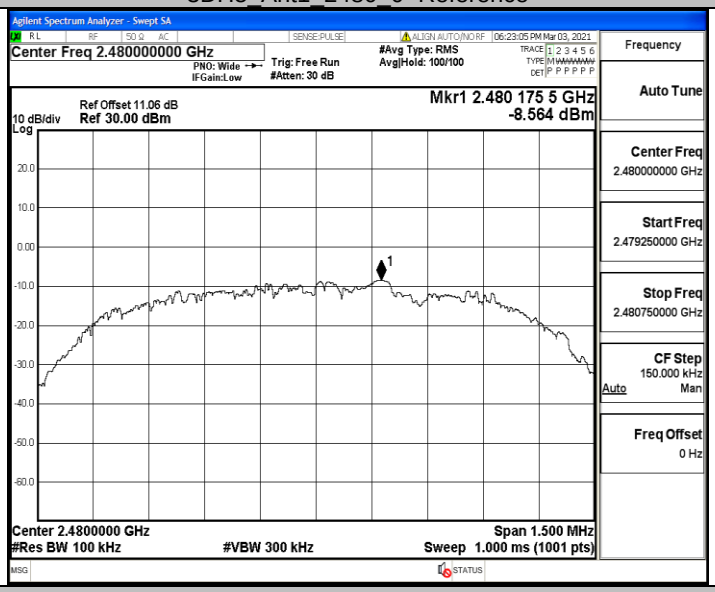
3DH5_Ant1_2441_30~1000



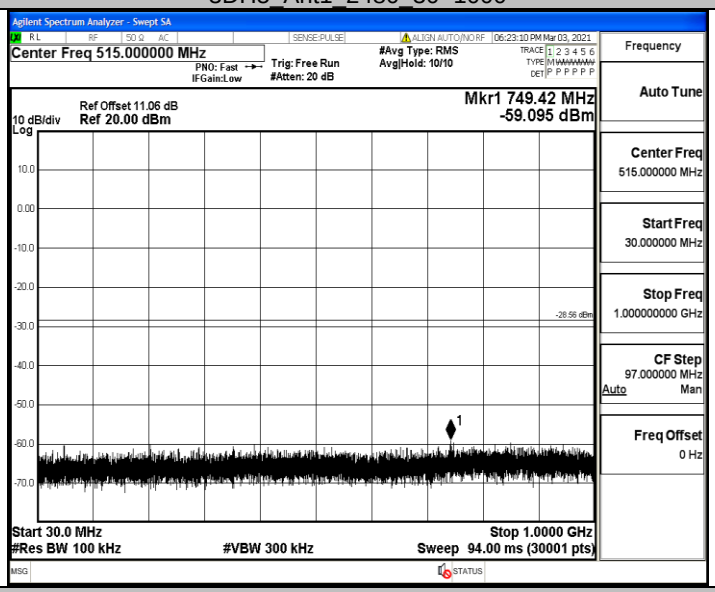
3DH5_Ant1_2441_1000~26500



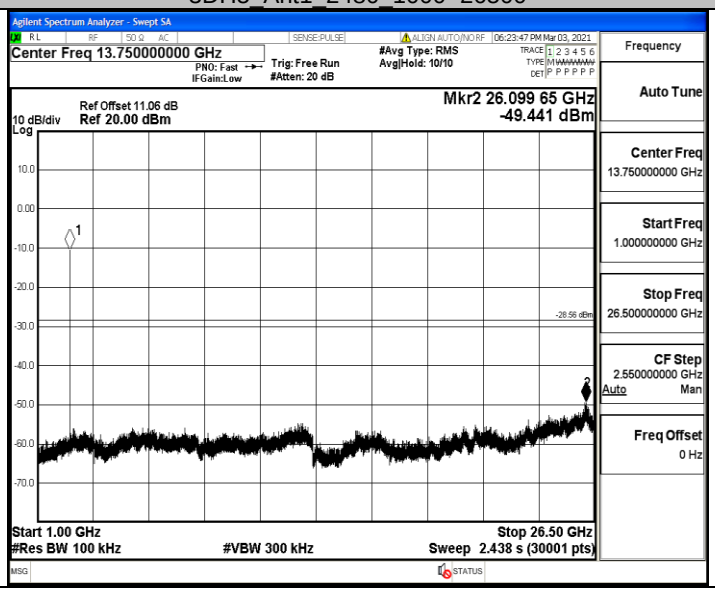
3DH5_Ant1_2480_0~Reference



3DH5_Ant1_2480_30~1000



3DH5_Ant1_2480_1000~26500



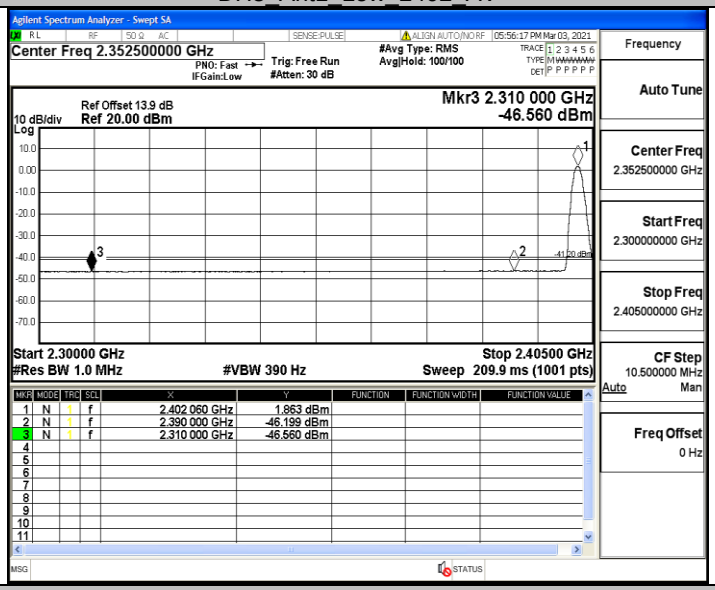
A.8 Restrict-band band-edge measurements

TestMode	Antenna	ChName	Channel(MHz)	Detector	Freq(MHz)	Result(dBm)	Limit(dBm)	Verdict
DH5	Ant1	Low	2402	AV	2310.000	-46.56	<=-41.20	PASS
				AV	2390.000	-46.2	<=-41.20	PASS
				Peak	2310.000	-39.78	<=-21.20	PASS
				Peak	2390.000	-38.7	<=-21.20	PASS
		High	2480	AV	2483.500	-45.59	<=-41.20	PASS
				AV	2500.000	-45.44	<=-41.20	PASS
				Peak	2483.500	-39.15	<=-21.20	PASS
				Peak	2500.000	-38.18	<=-21.20	PASS
2DH5	Ant1	Low	2402	AV	2310.000	-46.56	<=-41.20	PASS
				AV	2390.000	-46.2	<=-41.20	PASS
				Peak	2310.000	-39.93	<=-21.20	PASS
				Peak	2390.000	-39.65	<=-21.20	PASS
		High	2480	AV	2483.500	-46.03	<=-41.20	PASS
				AV	2500.000	-45.86	<=-41.20	PASS
				Peak	2483.500	-38.05	<=-21.20	PASS
				Peak	2500.000	-39.19	<=-21.20	PASS
3DH5	Ant1	Low	2402	AV	2310.000	-46.44	<=-41.20	PASS
				AV	2390.000	-46.28	<=-41.20	PASS
				Peak	2310.000	-39.83	<=-21.20	PASS
				Peak	2390.000	-38.9	<=-21.20	PASS
		High	2480	AV	2483.500	-45.69	<=-41.20	PASS
				AV	2500.000	-45.55	<=-41.20	PASS
				Peak	2483.500	-36.84	<=-21.20	PASS
				Peak	2500.000	-37.37	<=-21.20	PASS

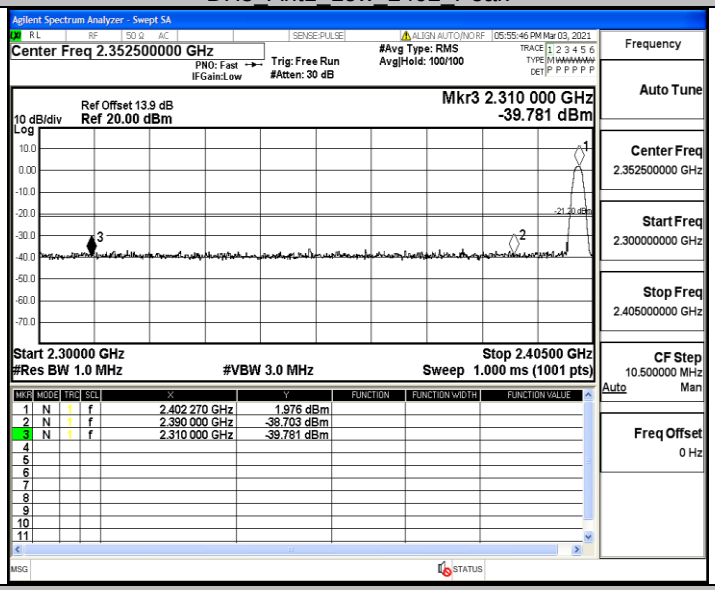
1. The Antenna Gain is compensated in the graph with 2dBi and Antenna Gain which is Higher.
2. The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.

Test Graphs

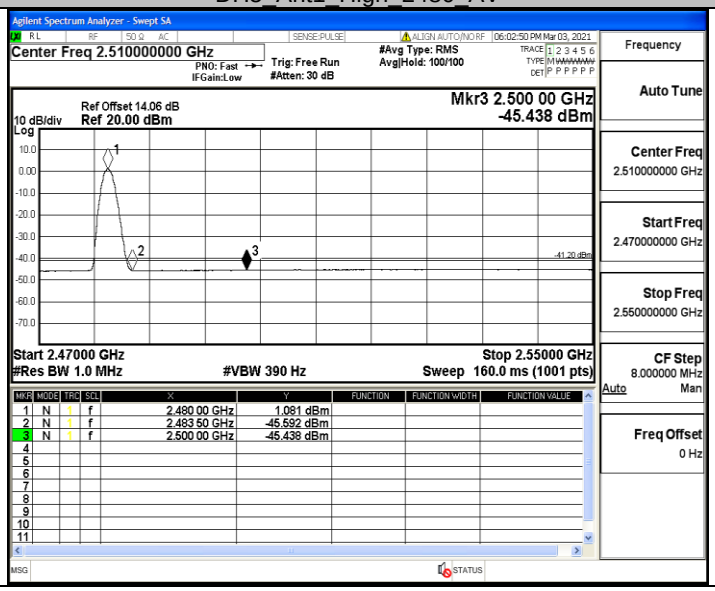
DH5_Ant1_Low_2402_AV



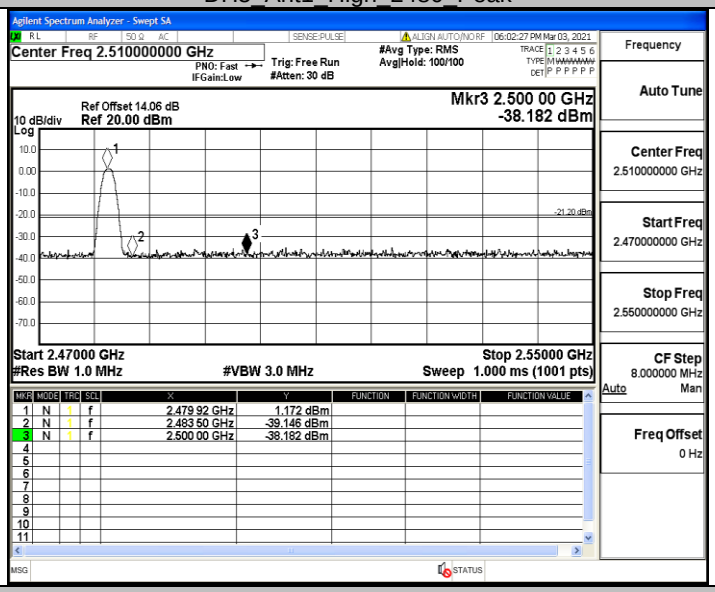
DH5_Ant1_Low_2402_Peak



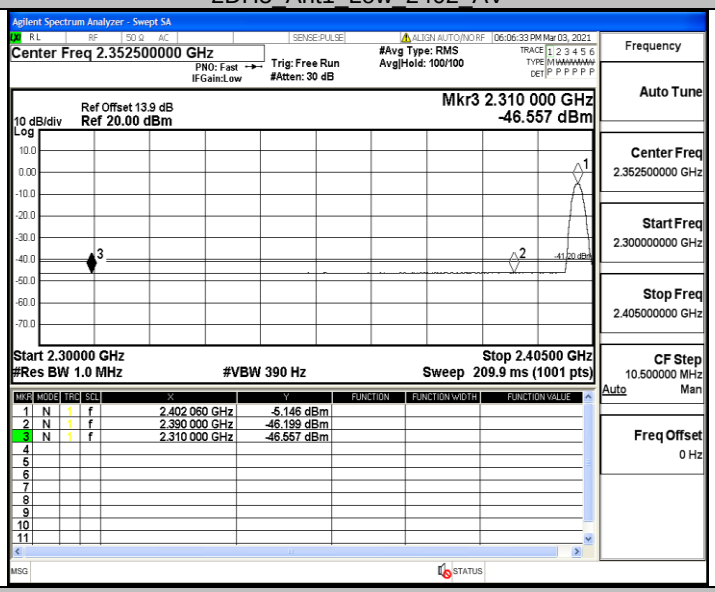
DH5_Ant1_High_2480_AV



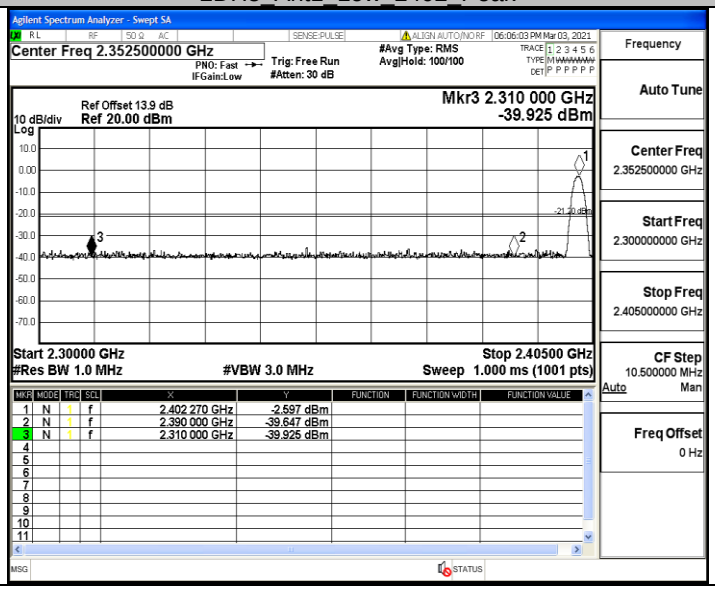
DH5_Ant1_High_2480_Peak



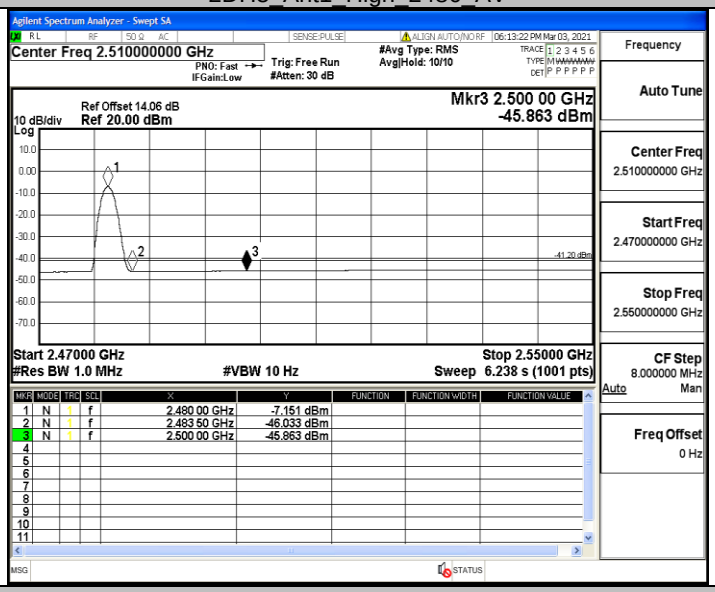
2DH5_Ant1_Low_2402_AV



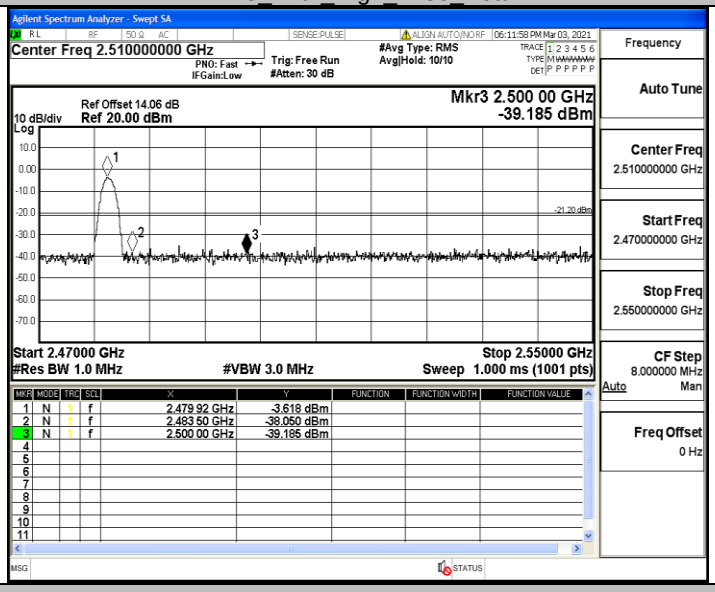
2DH5_Ant1_Low_2402_Peak



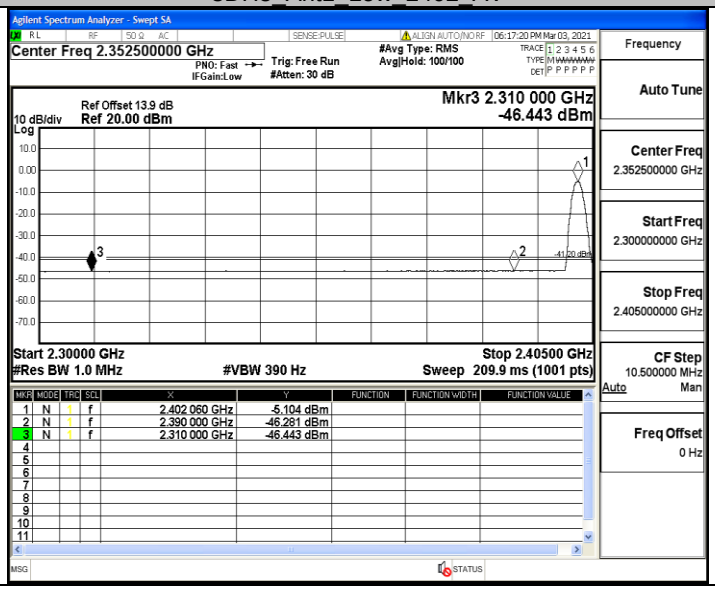
2DH5_Ant1_High_2480_AV



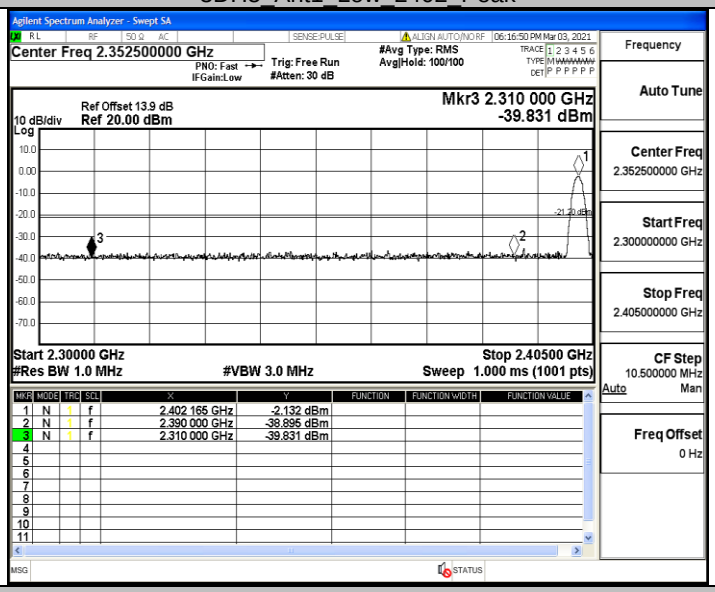
2DH5_Ant1_High_2480_Peak



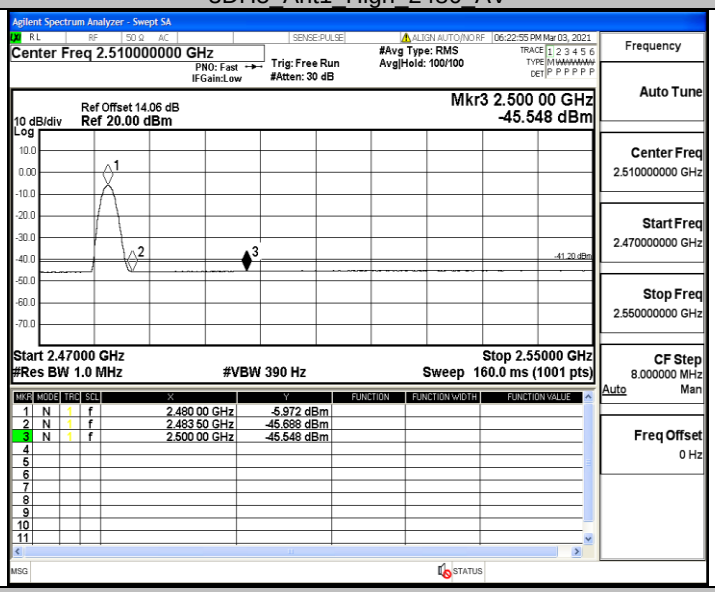
3DH5_Ant1_Low_2402_AV



3DH5_Ant1_Low_2402_Peak



3DH5_Ant1_High_2480_AV



3DH5_Ant1_High_2480_Peak