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

Product Name: Smart Teddy
Trade Mark: N/A

Test Model: ST-01

FCC ID: 2AZPXST-01

Environmental Conditions

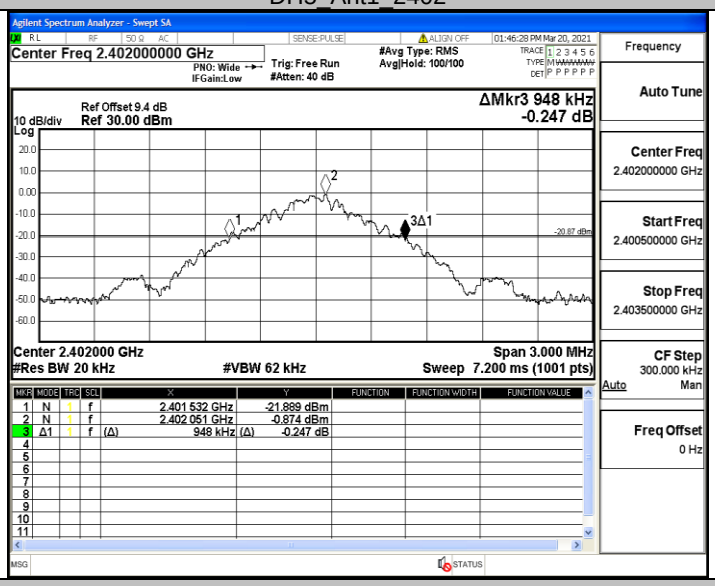
Temperature:	23.8℃
Relative Humidity:	51%
ATM Pressure:	100.0 kPa
Test Engineer:	Anna Hu
Supervised by:	Hugo Chen
NOTE	ESP8266

A.1 20 dB Bandwidth

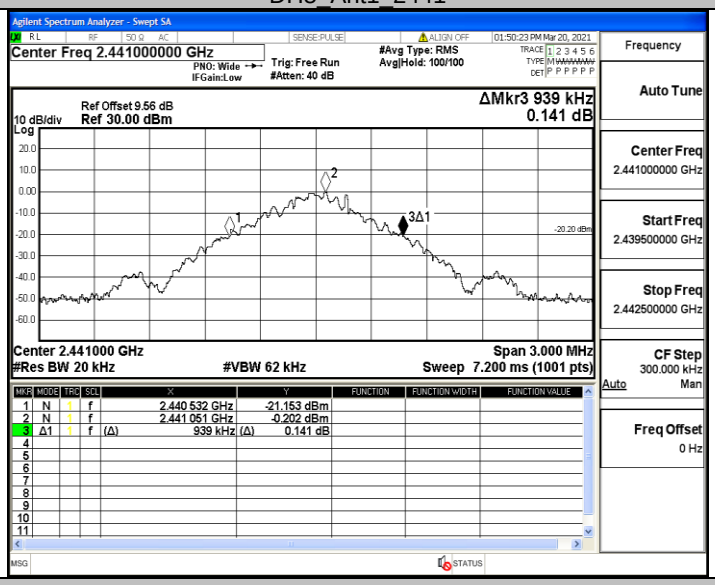
TestMode	Antenna	Channel	20db EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.948	2401.532	2402.480	---	PASS
		2441	0.939	2440.532	2441.471	---	PASS
		2480	0.945	2479.532	2480.477	---	PASS
2DH5	Ant1	2402	1.317	2401.337	2402.654	---	PASS
		2441	1.317	2440.334	2441.651	---	PASS
		2480	1.311	2479.334	2480.645	---	PASS
3DH5	Ant1	2402	1.302	2401.340	2402.642	---	PASS
		2441	1.278	2440.346	2441.624	---	PASS
		2480	1.254	2479.358	2480.612	---	PASS

Test Graph

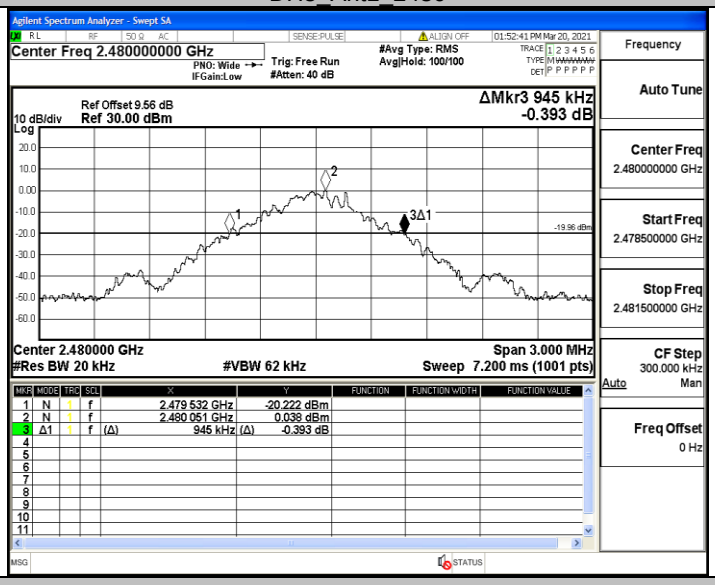
DH5_Ant1_2402



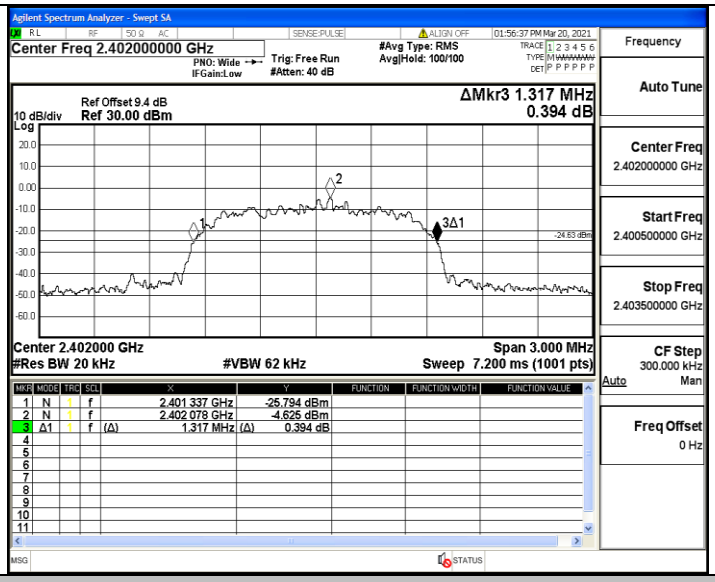
DH5_Ant1_2441



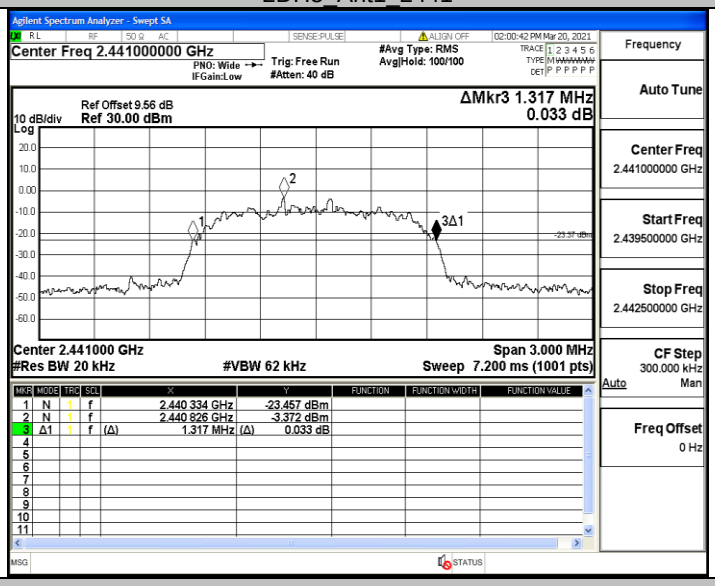
DH5_Ant1_2480



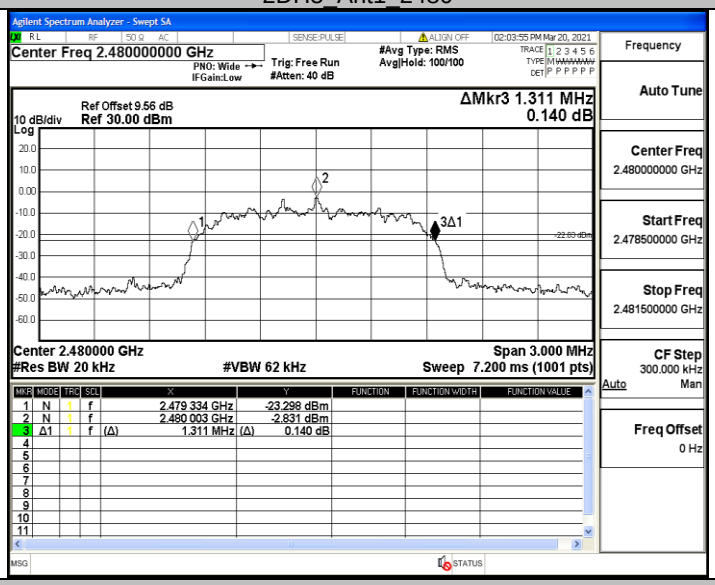
2DH5_Ant1_2402



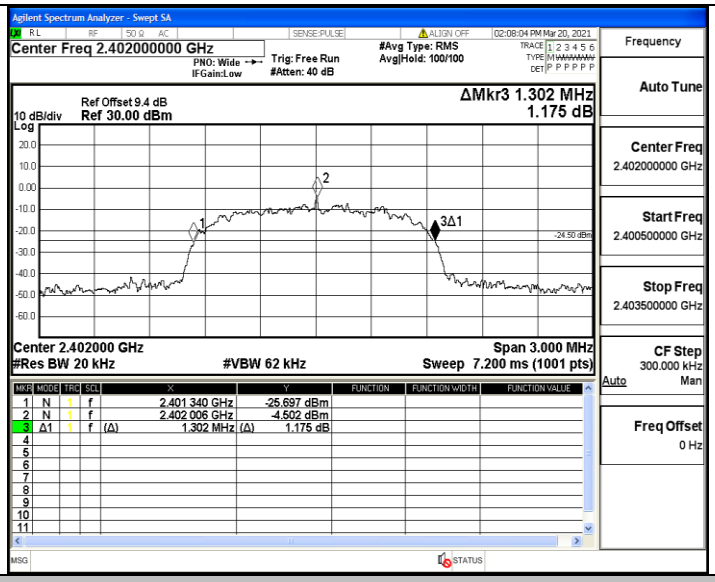
2DH5_Ant1_2441



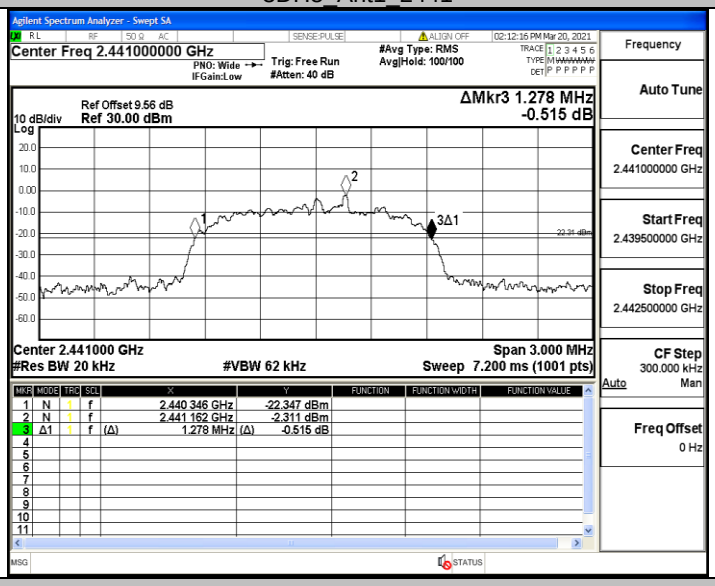
2DH5_Ant1_2480



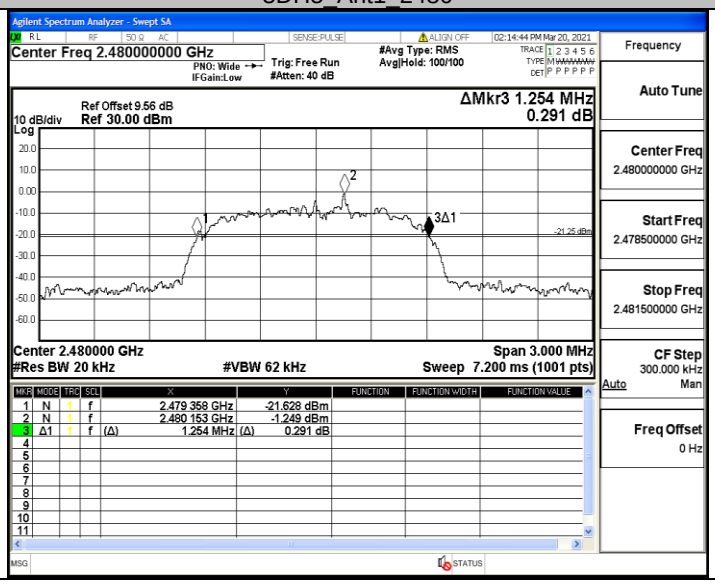
3DH5_Ant1_2402



3DH5_Ant1_2441



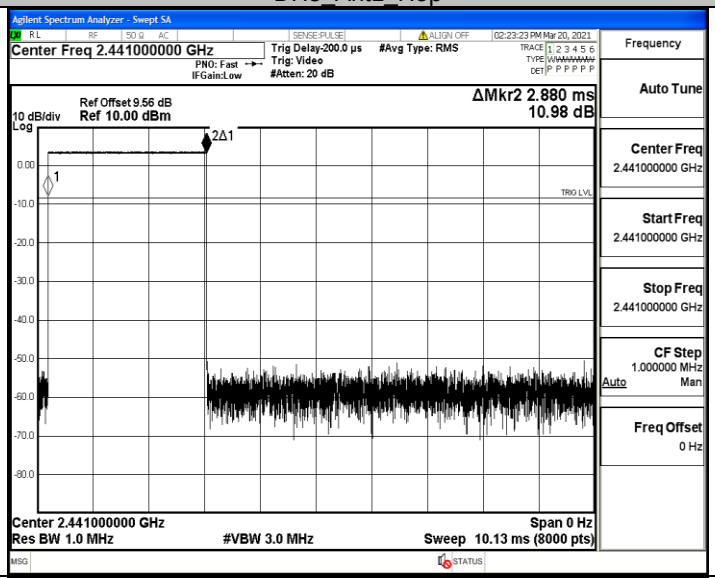
3DH5_Ant1_2480

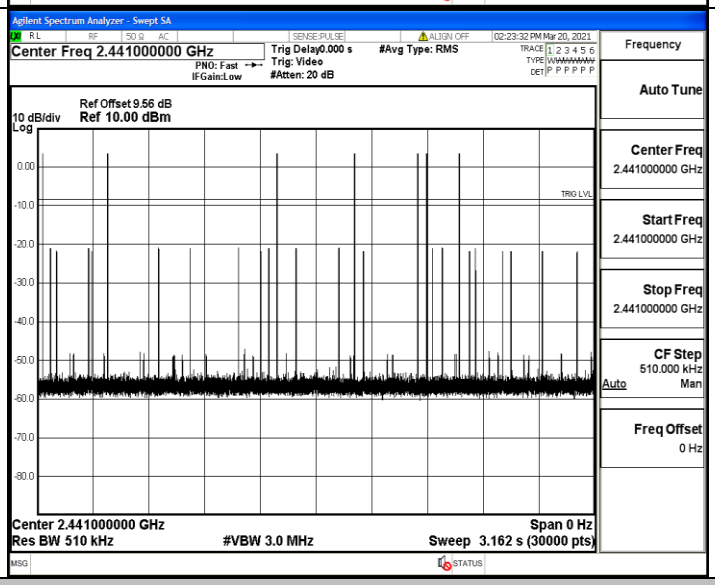


A.2 Dwell Time

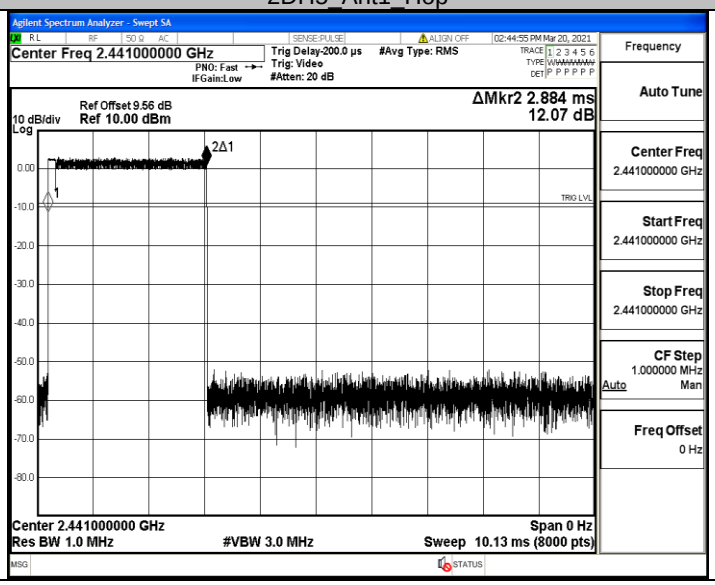
TestMode	Antenna	Channel	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH5	Ant1	Hop	2.88	80	0.23	<=0.4	PASS
2DH5	Ant1	Hop	2.88	110	0.317	<=0.4	PASS
3DH5	Ant1	Hop	2.89	80	0.231	<=0.4	PASS

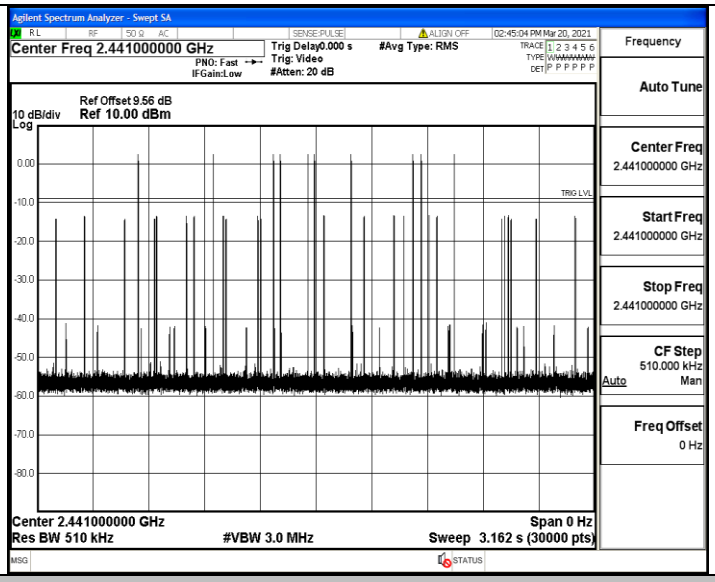
DH5_Ant1_Hop



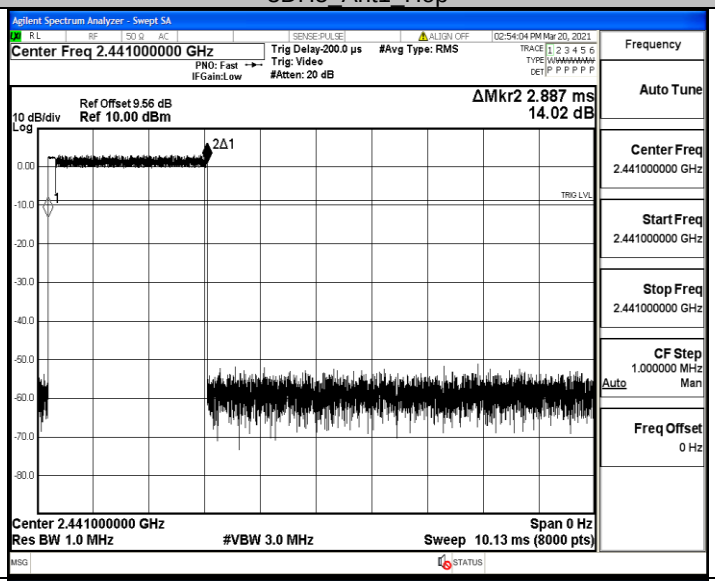


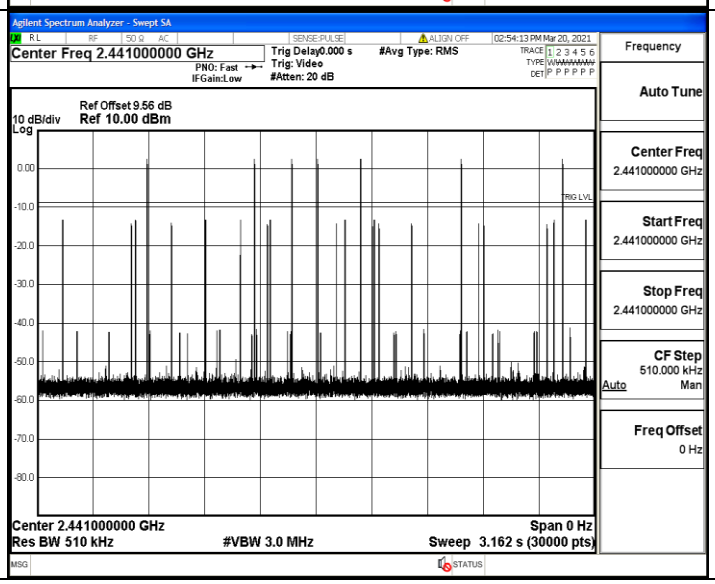
2DH5_Ant1_Hop





3DH5_Ant1_Hop

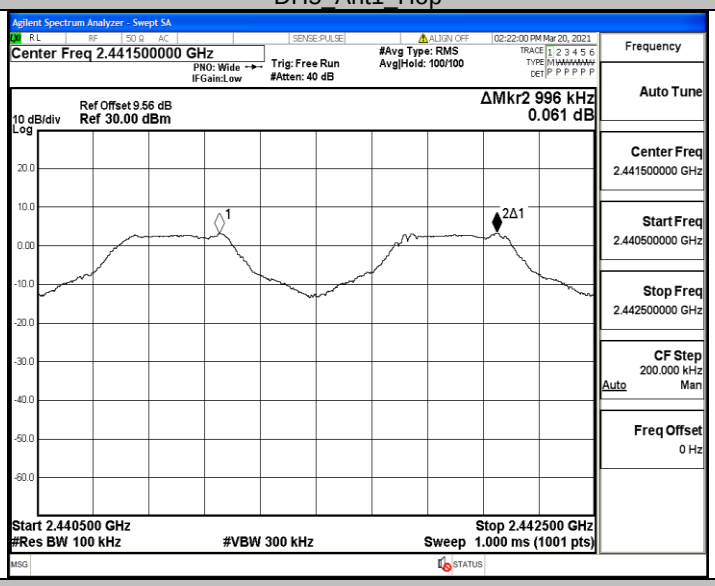




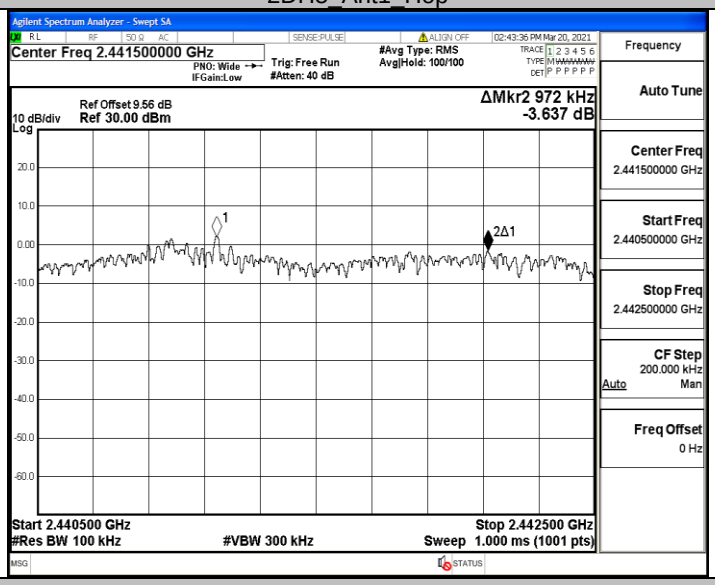
A.3 Carrier Frequency Separation

TestMode	Antenna	Channel	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	0.996	>=0.948	PASS
2DH5	Ant1	Hop	0.972	>=0.878	PASS
3DH5	Ant1	Hop	0.996	>=0.868	PASS

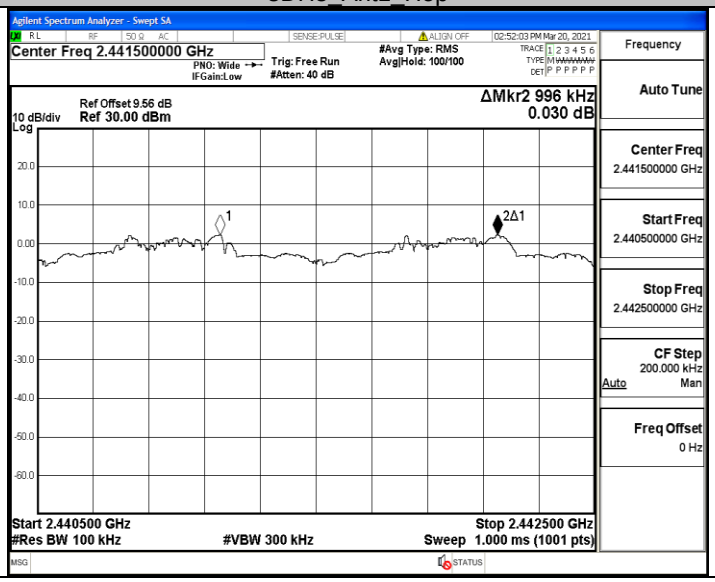
DH5_Ant1_Hop



2DH5_Ant1_Hop



3DH5_Ant1_Hop

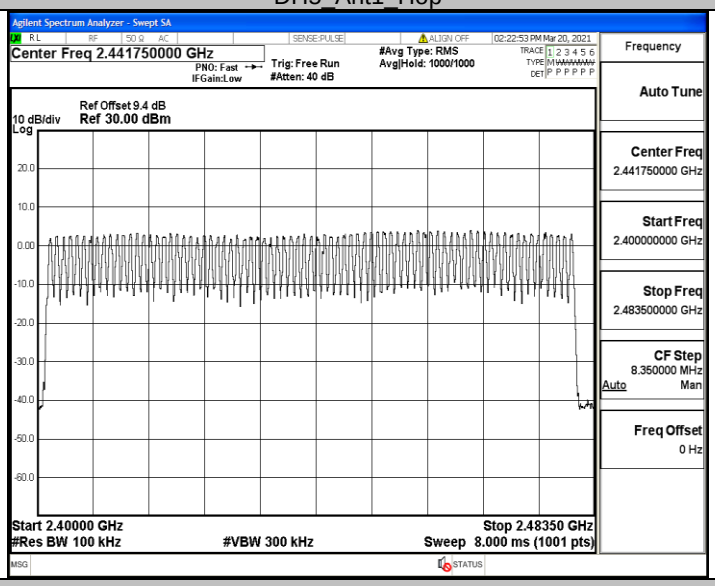


A.4 Hopping Channel Number

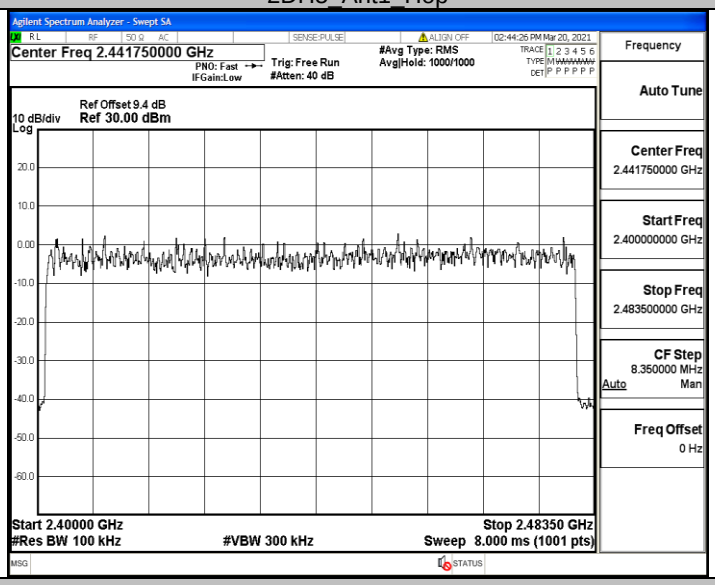
Mode	Channel.	Number of Hopping Channel[N]	Limit[N]	Verdict
GFSK	Hop	79	>=15	PASS
π/4DQPSK	Hop	79	>=15	PASS
8DPSK	Hop	79	>=15	PASS

Test Graph

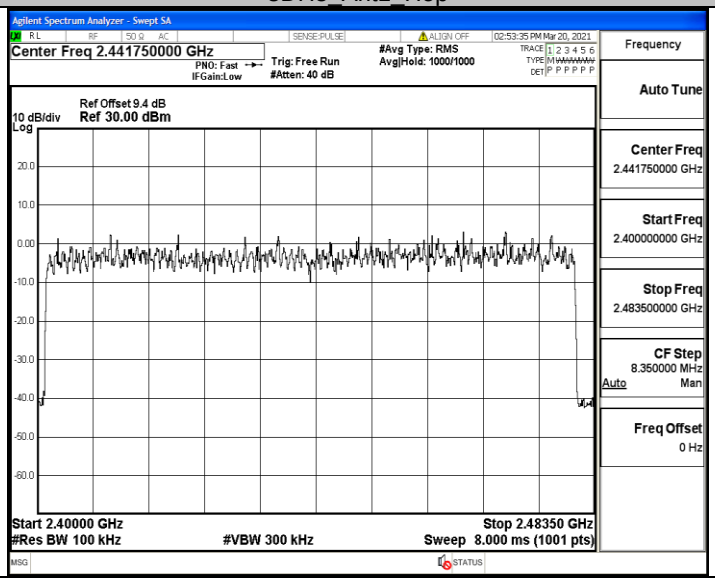
DH5_Ant1_Hop



2DH5_Ant1_Hop



3DH5_Ant1_Hop

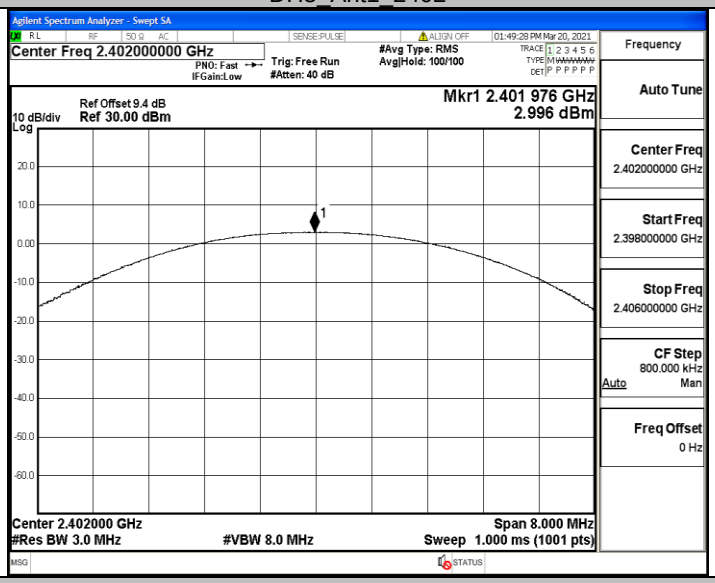


A.5 Conducted Peak Output Power

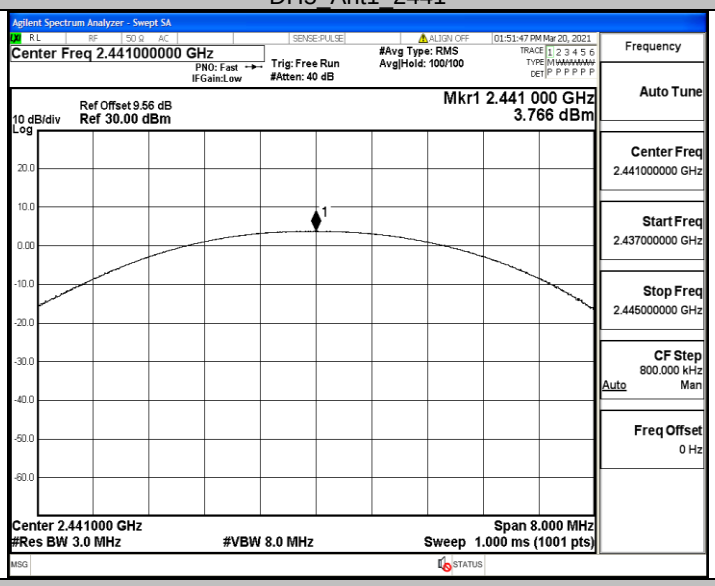
Mode	Channel.	Maximum Peak Output Power [dBm]	Limit [dBm]	Verdict
GFSK	LCH	3.00	21	PASS
GFSK	MCH	3.77	21	PASS
GFSK	HCH	3.91	21	PASS
π/4DQPSK	LCH	2.64	21	PASS
π/4DQPSK	MCH	3.47	21	PASS
π/4DQPSK	HCH	3.64	21	PASS
8DPSK	LCH	2.76	21	PASS
8DPSK	MCH	3.56	21	PASS
8DPSK	HCH	3.70	21	PASS

Test Graph

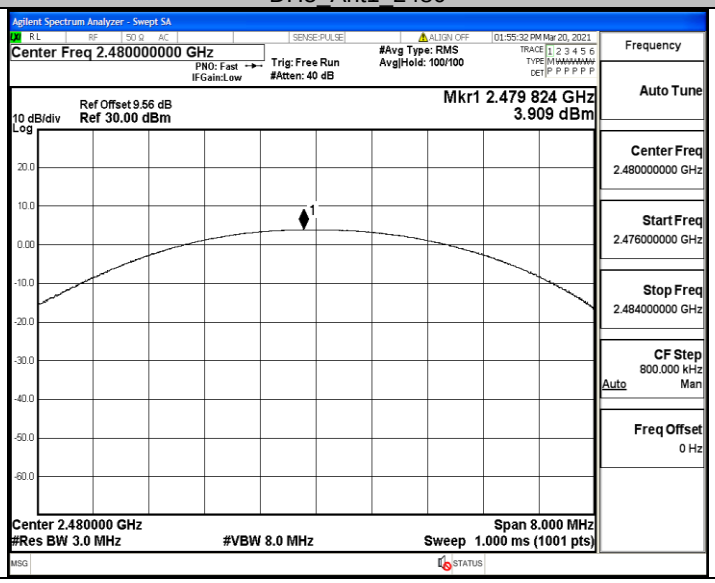
DH5_Ant1_2402



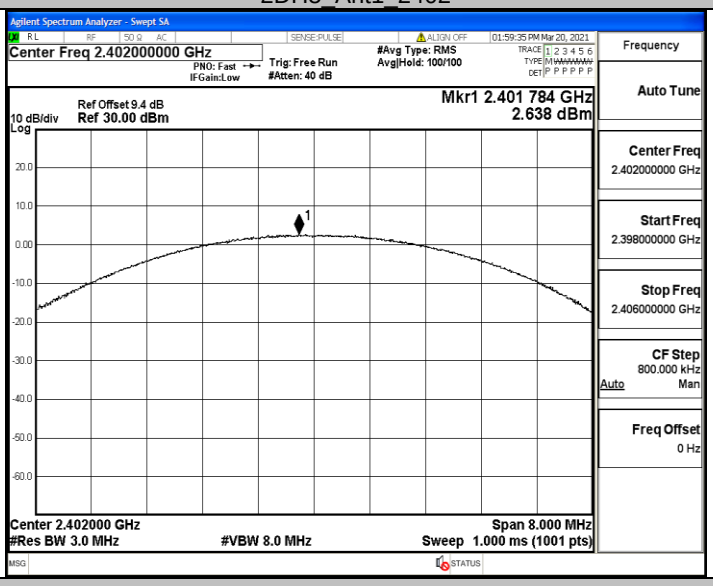
DH5_Ant1_2441



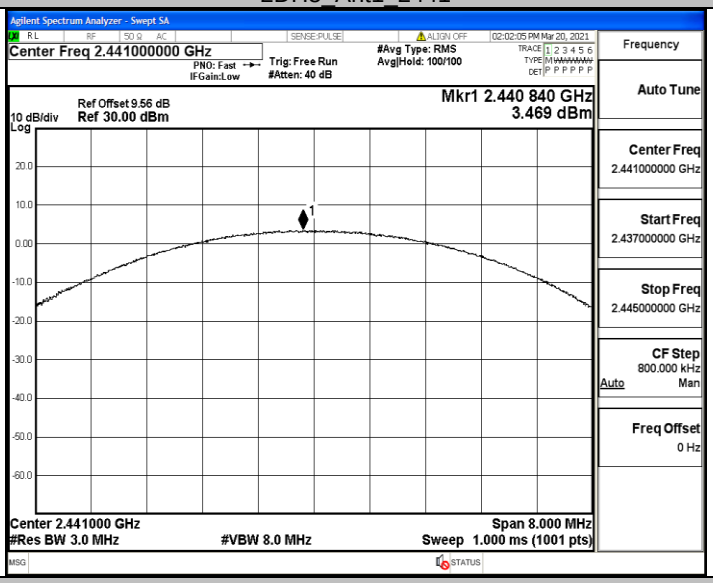
DH5_Ant1_2480



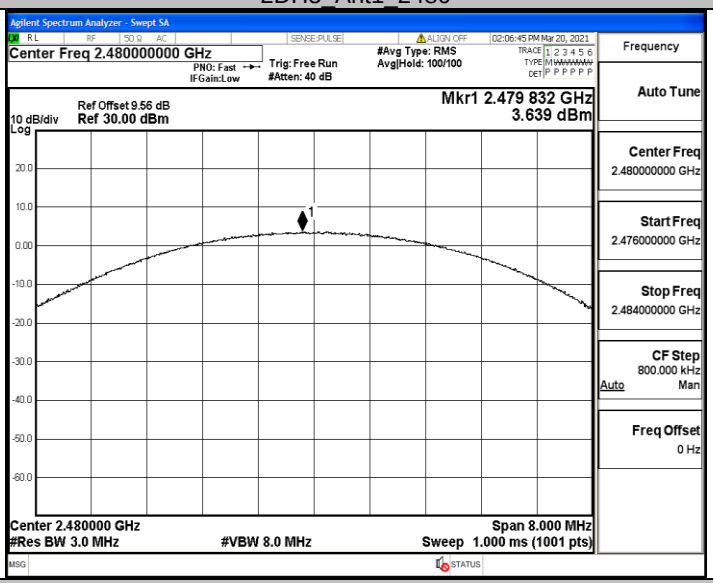
2DH5_Ant1_2402



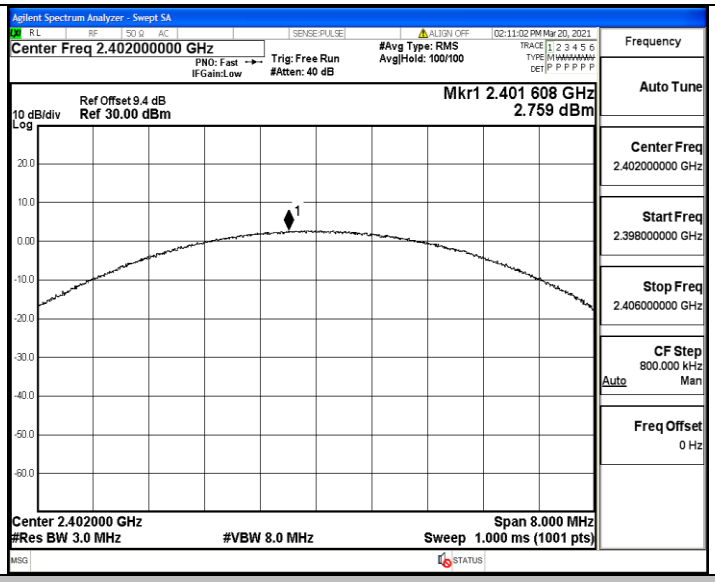
2DH5_Ant1_2441



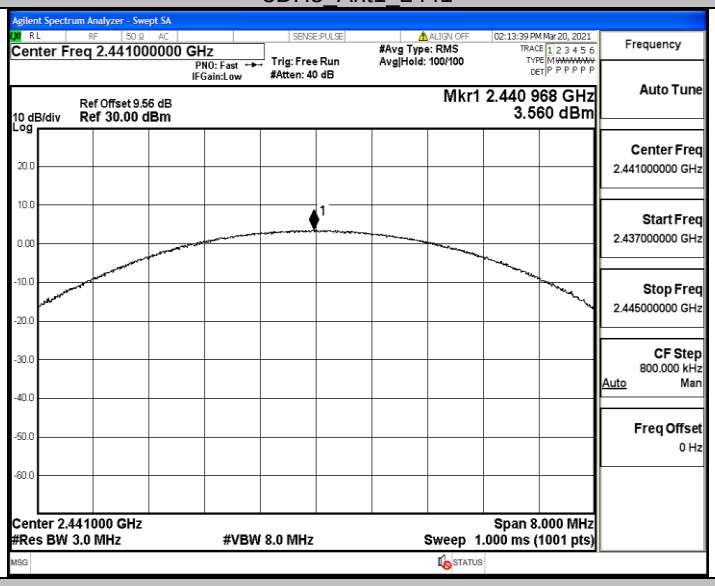
2DH5_Ant1_2480



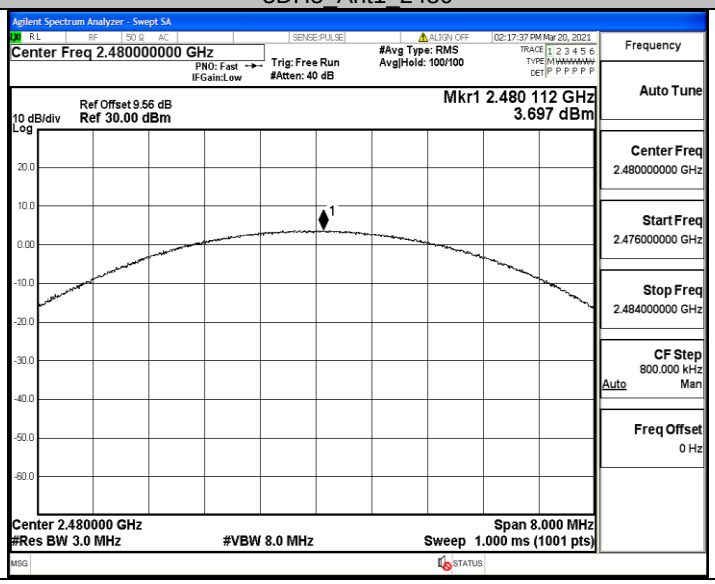
3DH5_Ant1_2402



3DH5_Ant1_2441



3DH5_Ant1_2480

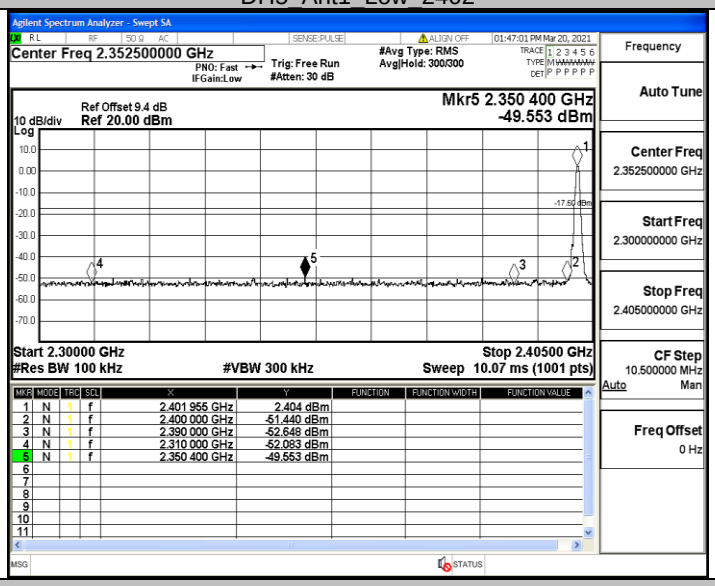


A.6 Band-edge for RF Conducted Emissions

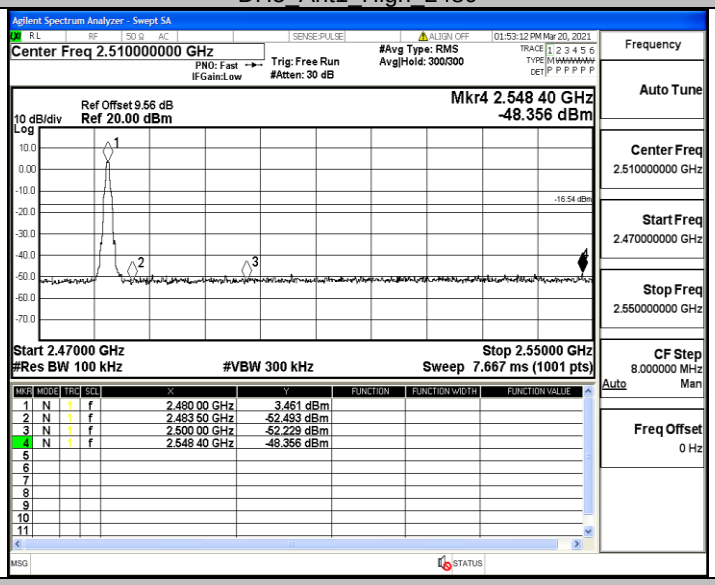
TestMode	Antenna	ChName	Channel	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	2.40	-49.55	<=-17.6	PASS
		High	2480	3.46	-48.36	<=-16.54	PASS
		Low	Hop_2402	1.41	-49.81	<=-18.59	PASS
		High	Hop_2480	3.90	-49.11	<=-16.11	PASS
2DH5	Ant1	Low	2402	0.48	-49.48	<=-19.52	PASS
		High	2480	2.56	-48.76	<=-17.44	PASS
		Low	Hop_2402	-2.49	-50.47	<=-22.49	PASS
		High	Hop_2480	-0.33	-48.85	<=-20.33	PASS
3DH5	Ant1	Low	2402	0.89	-49.55	<=-19.11	PASS
		High	2480	1.96	-48.83	<=-18.04	PASS
		Low	Hop_2402	-2.67	-49.74	<=-22.67	PASS
		High	Hop_2480	0.74	-48.79	<=-19.26	PASS

Test Graph

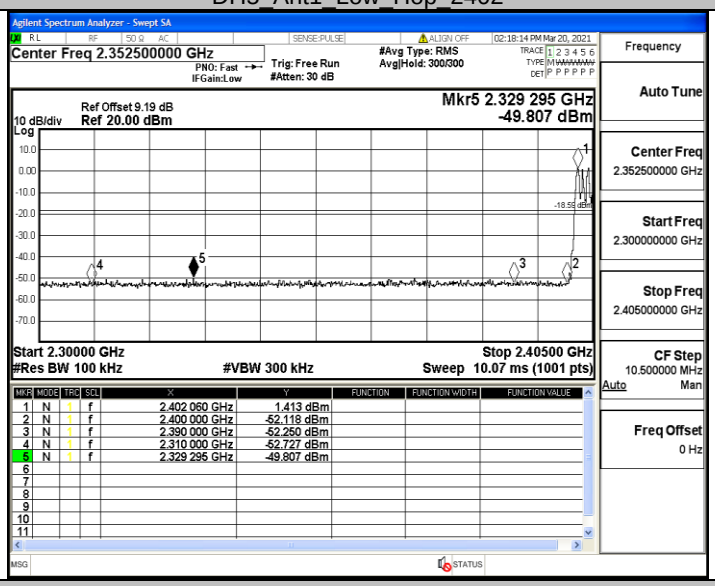
DH5_Ant1_Low_2402



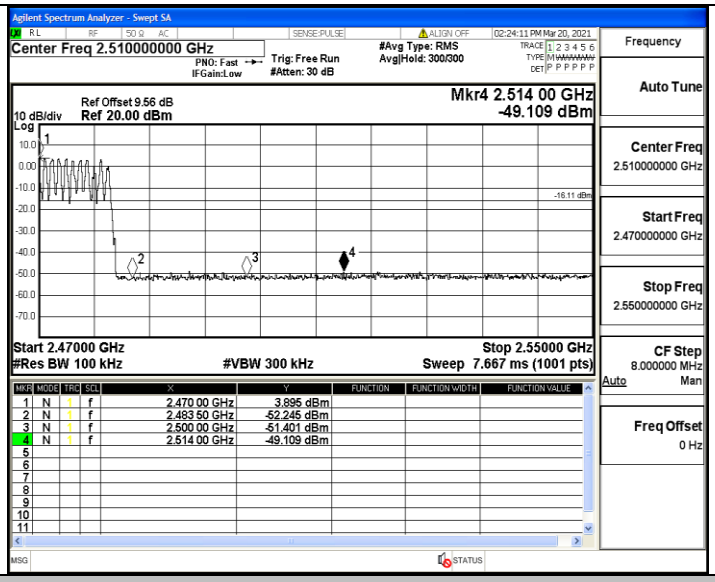
DH5_Ant1_High_2480



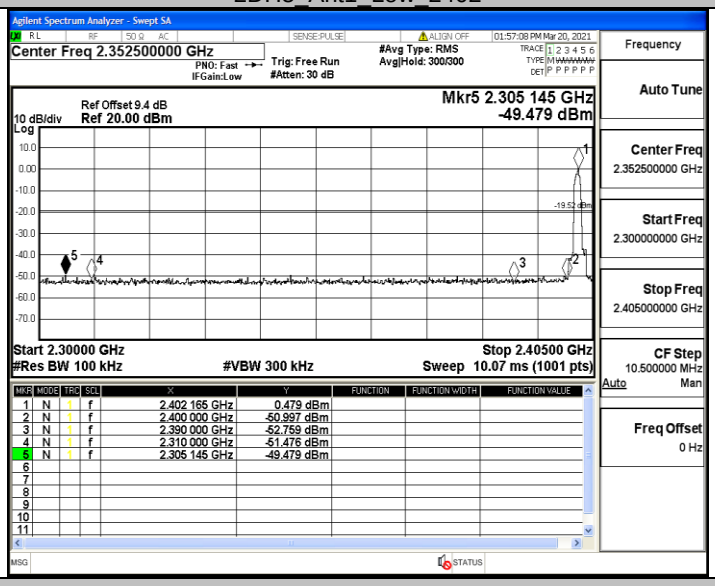
DH5_Ant1_Low_Hop_2402



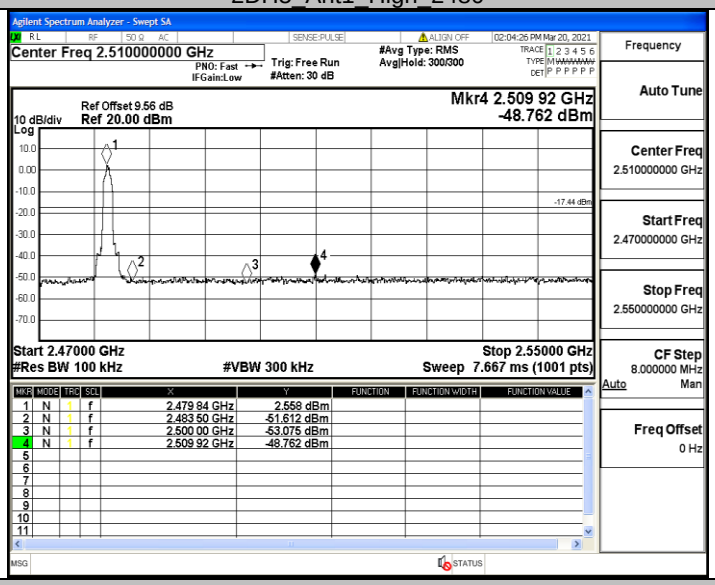
DH5_Ant1_High_Hop_2480



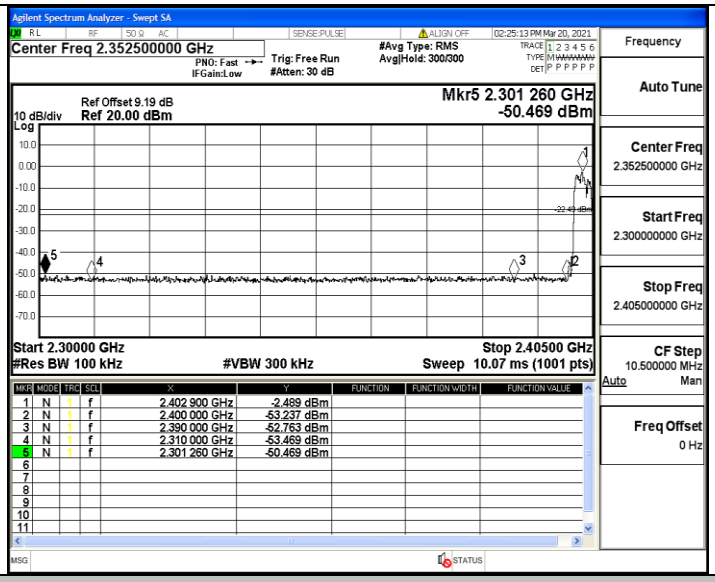
2DH5_Ant1_Low_2402



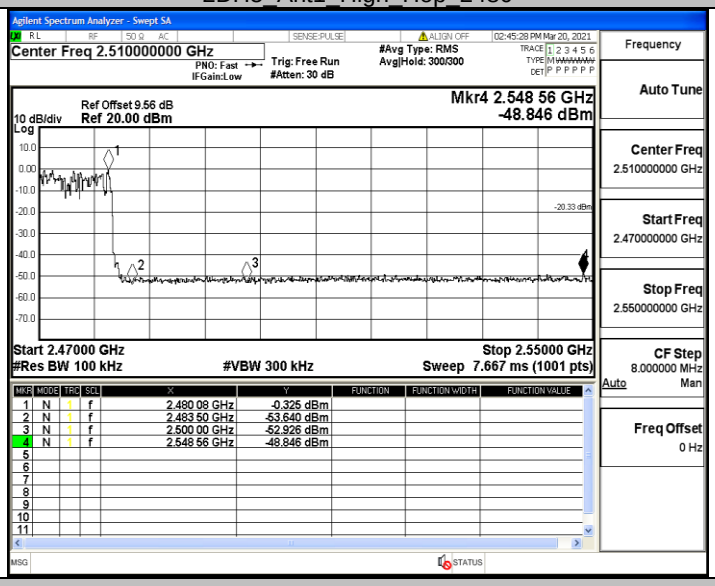
2DH5_Ant1_High_2480



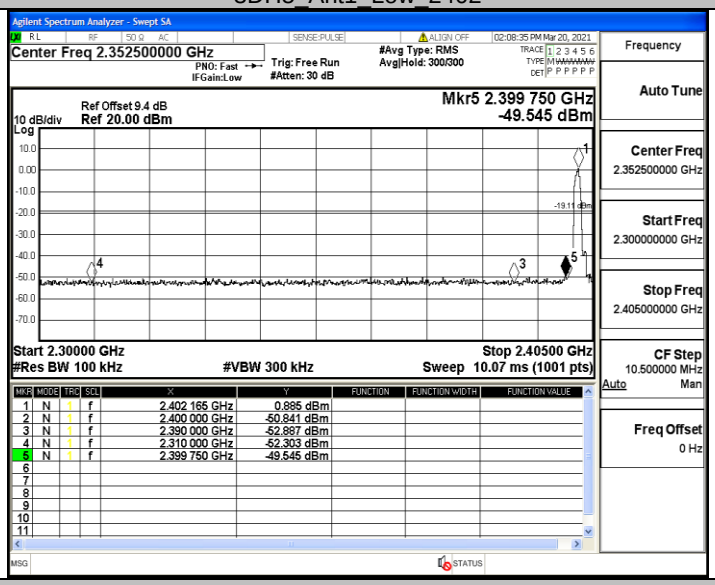
2DH5_Ant1_Low_Hop_2402



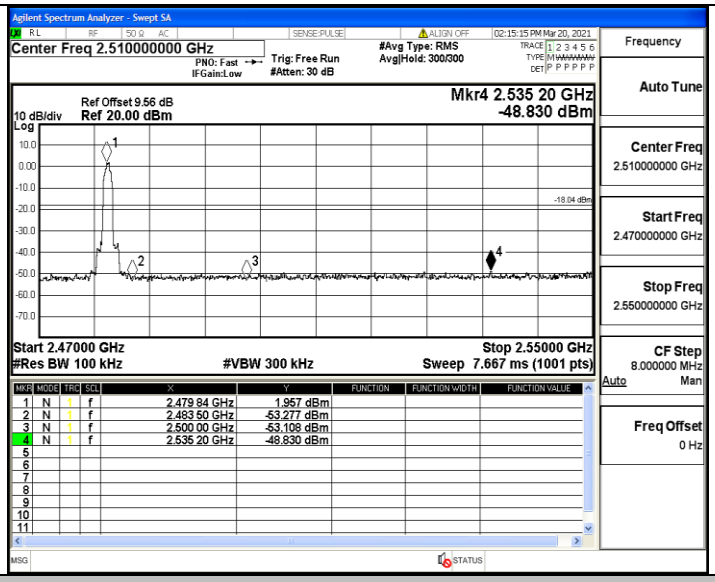
2DH5_Ant1_High_Hop_2480



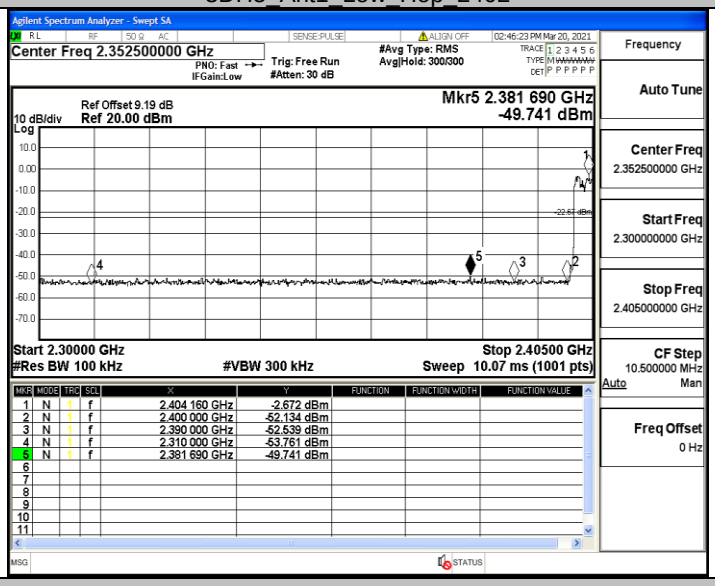
3DH5_Ant1_Low_2402



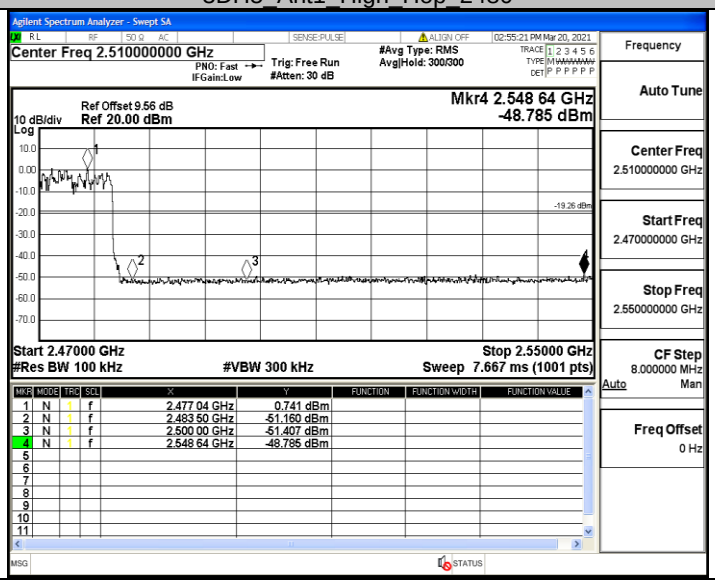
3DH5_Ant1_High_2480



3DH5_Ant1_Low_Hop_2402



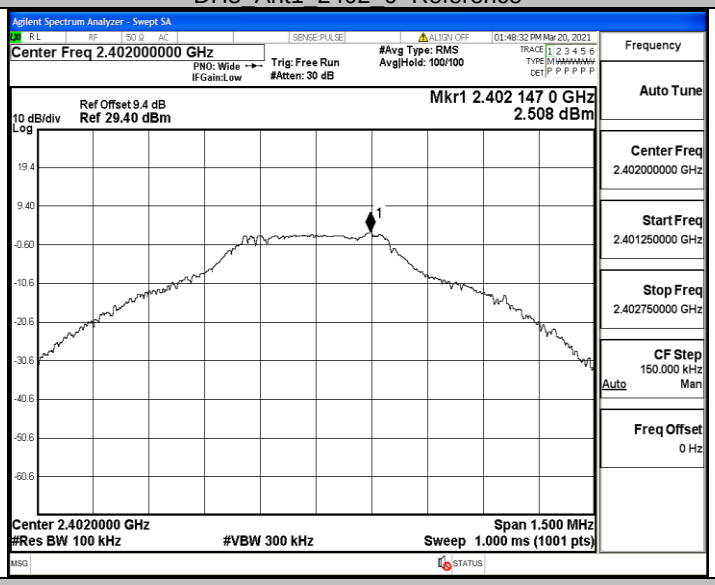
3DH5_Ant1_High_Hop_2480



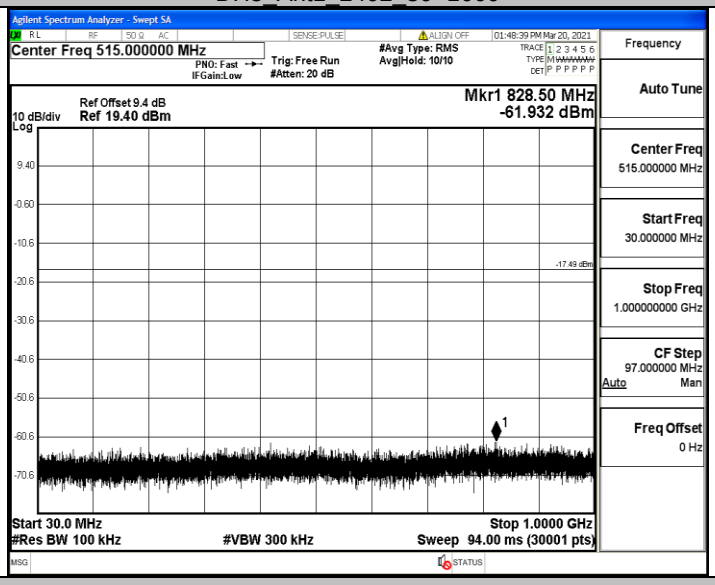
A.7 RF Conducted Spurious Emissions

Test Graph

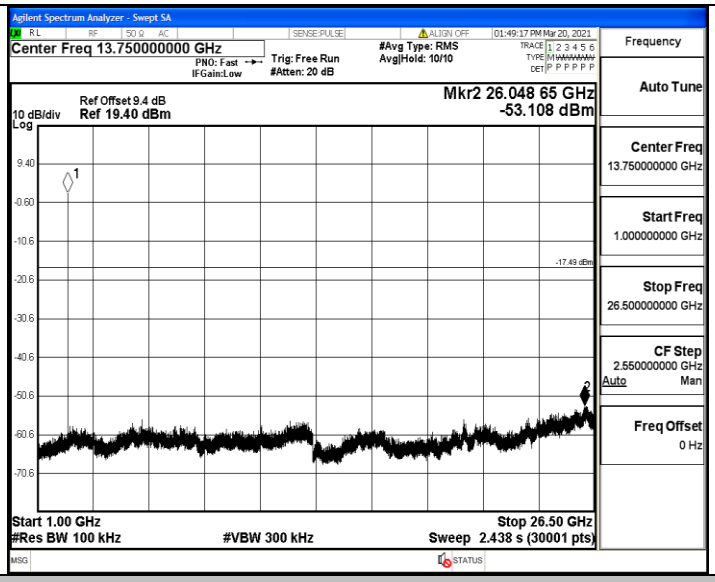
DH5_Ant1_2402_0~Reference



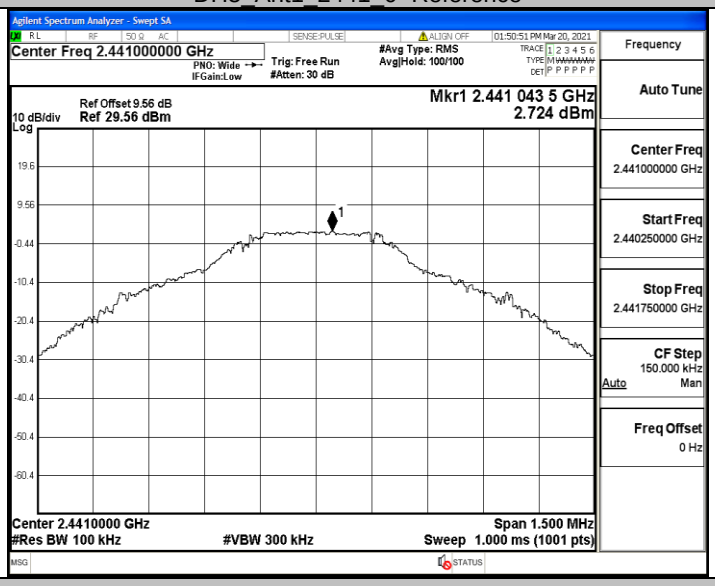
DH5_Ant1_2402_30~1000



DH5_Ant1_2402_1000~26500



DH5_Ant1_2441_0~Reference



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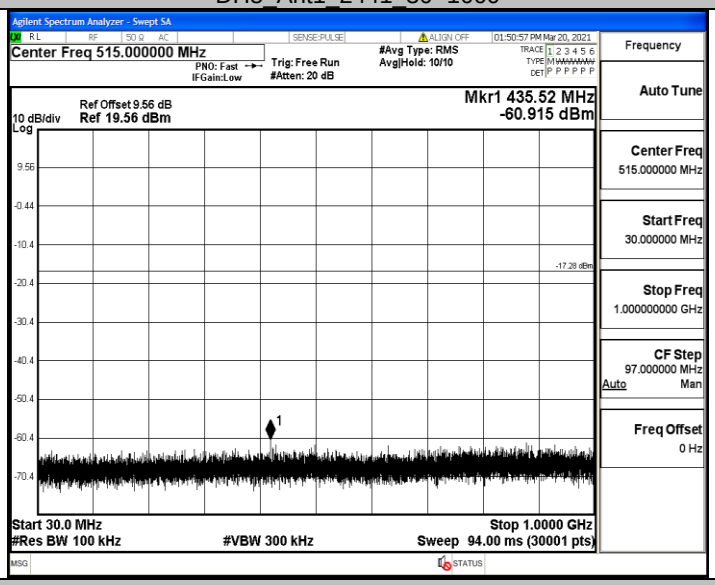

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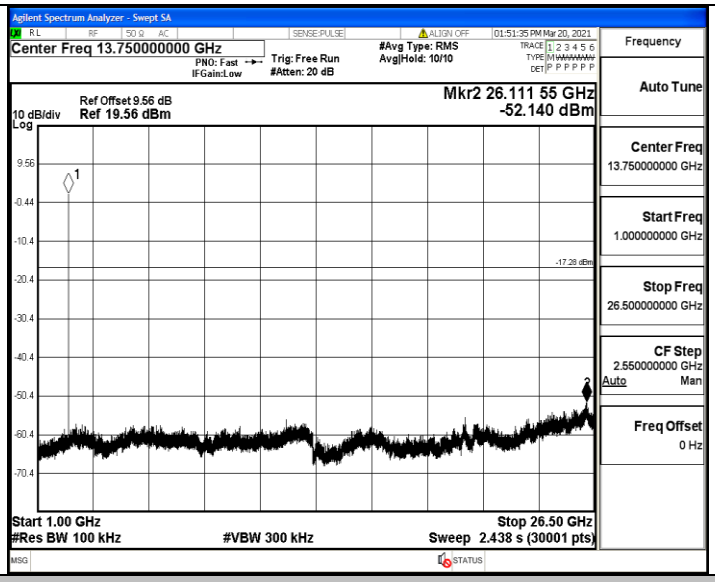

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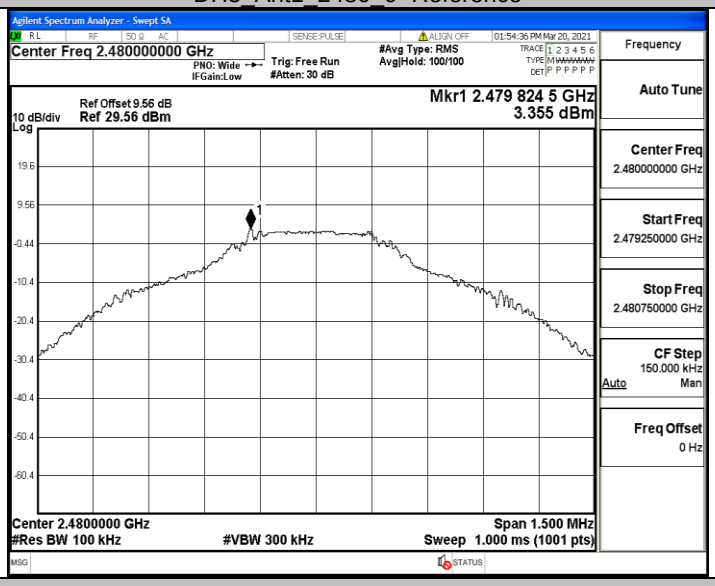

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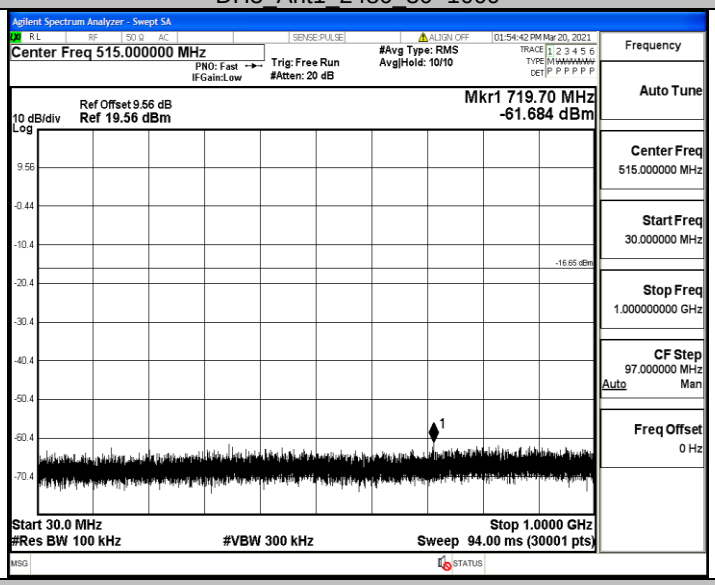

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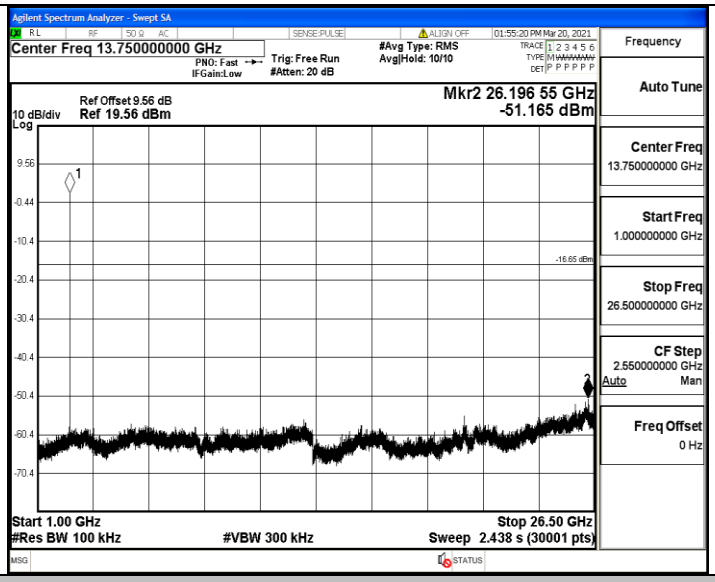

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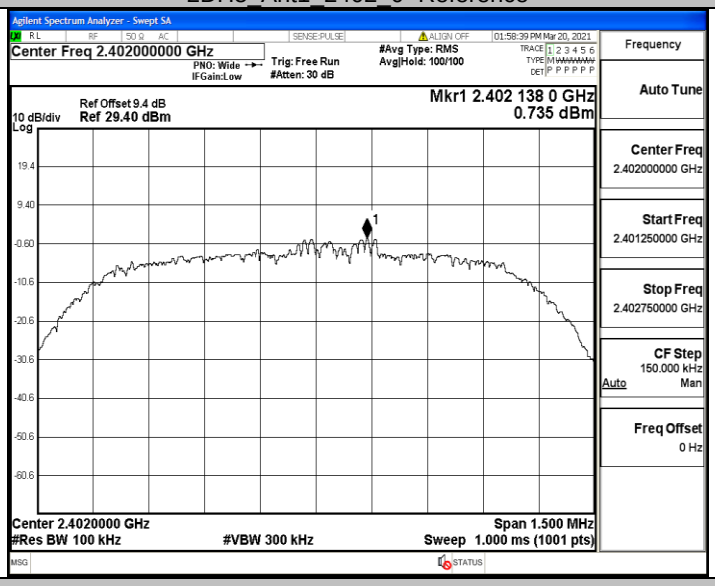

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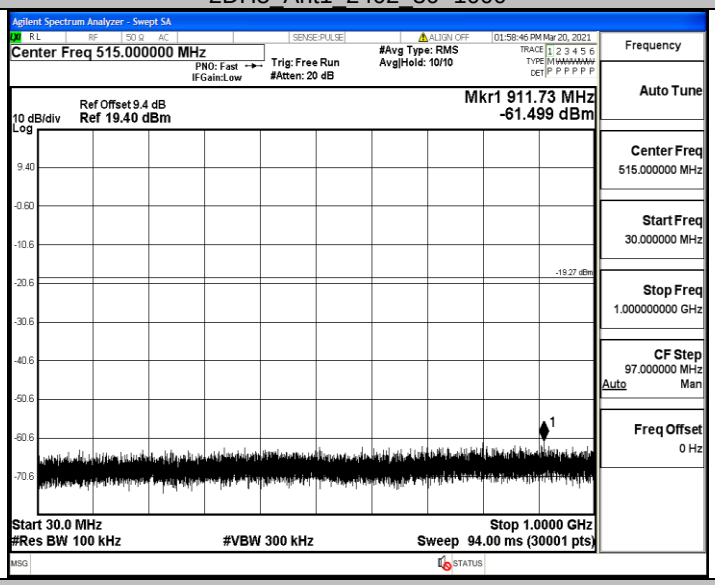

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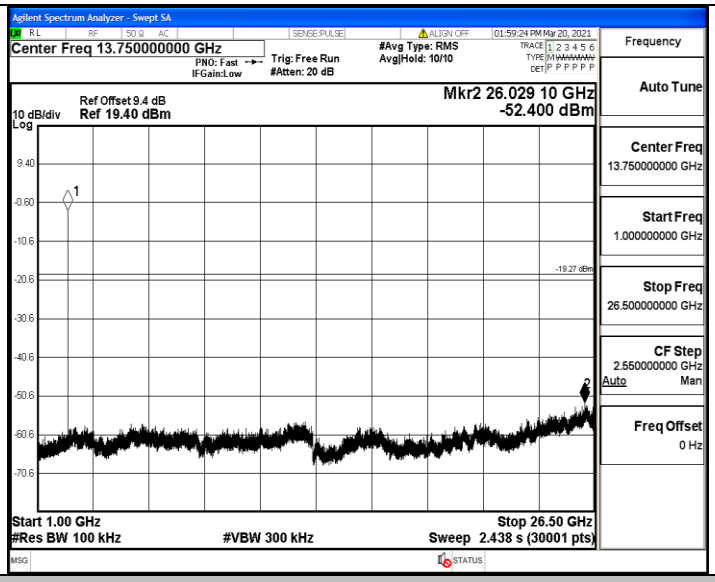

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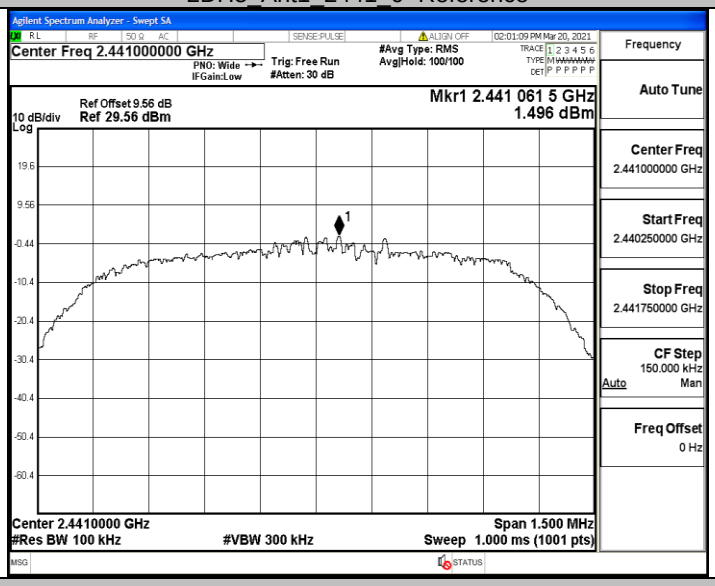

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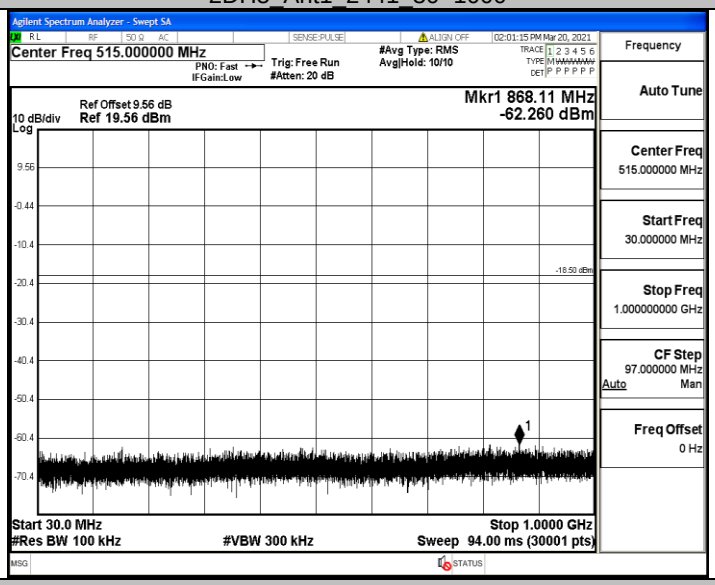

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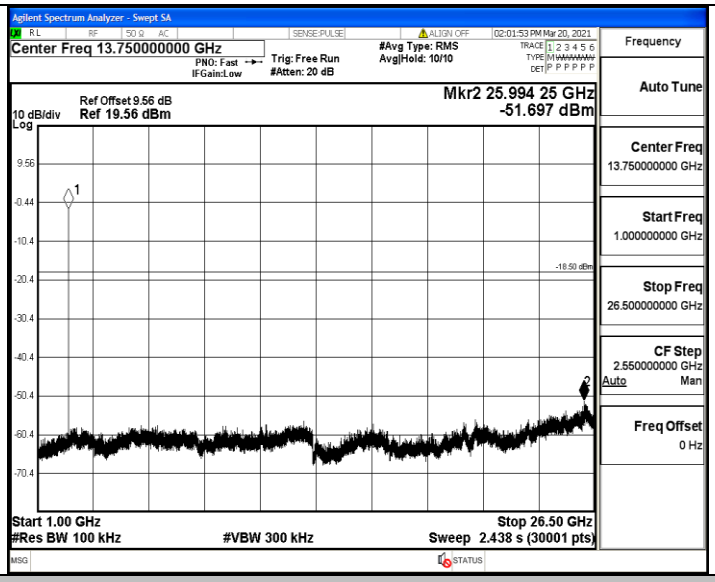

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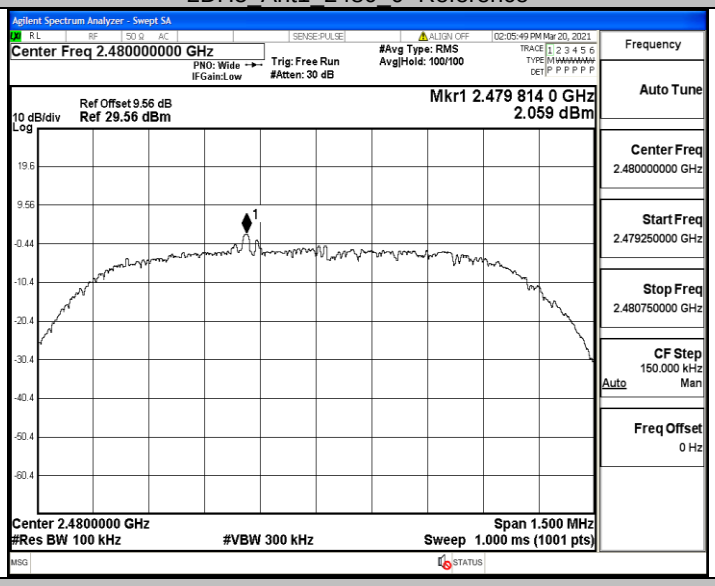

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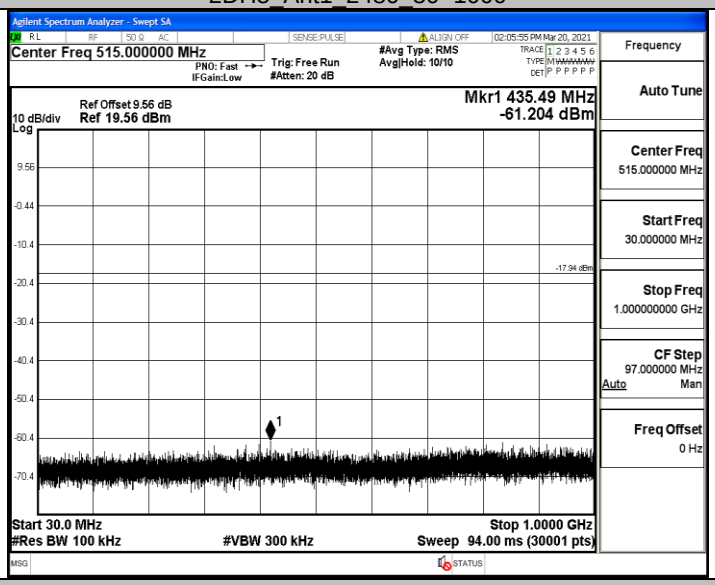

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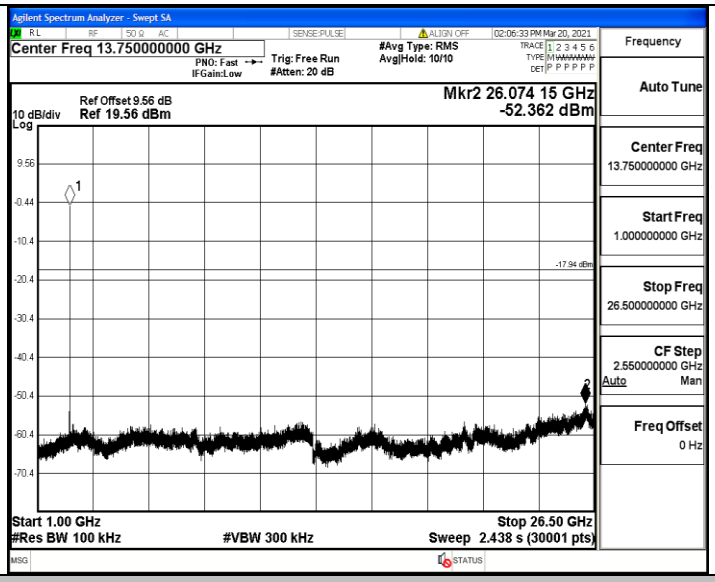

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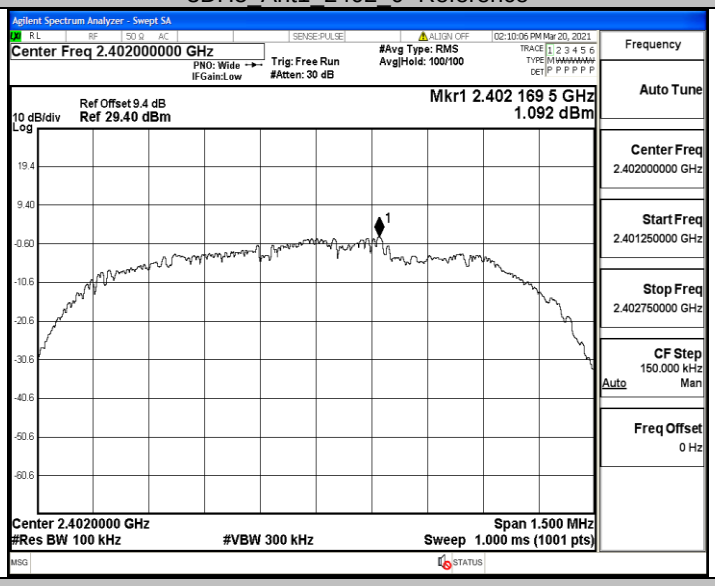

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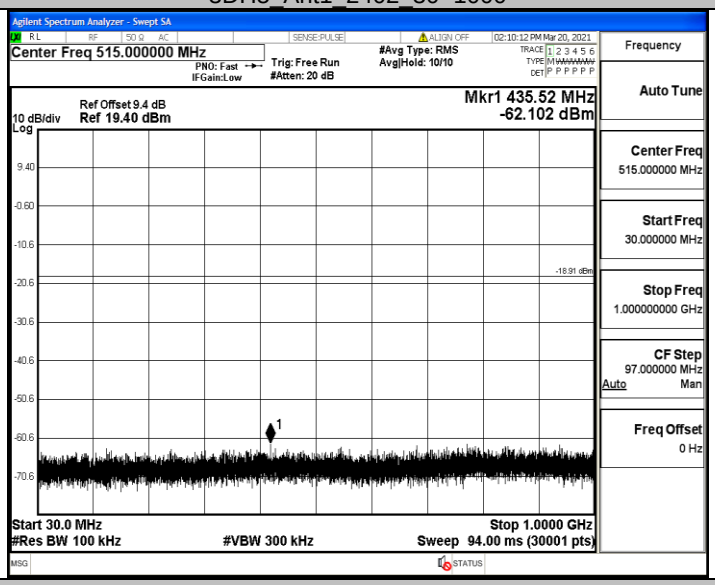

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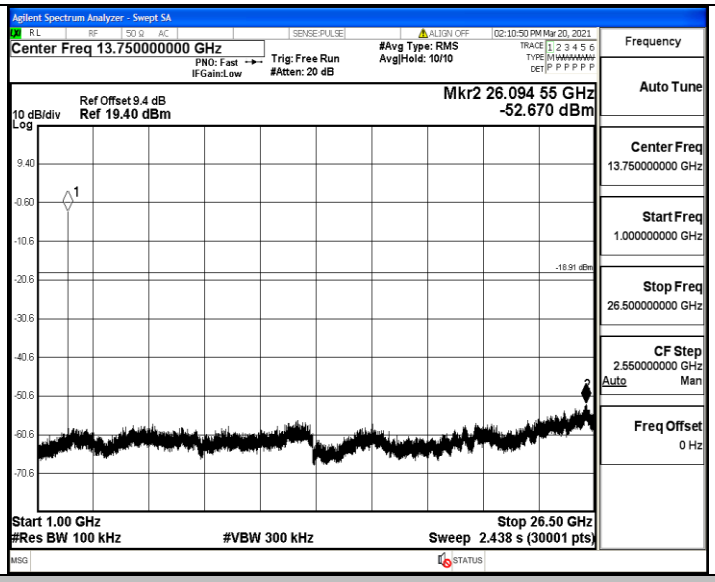

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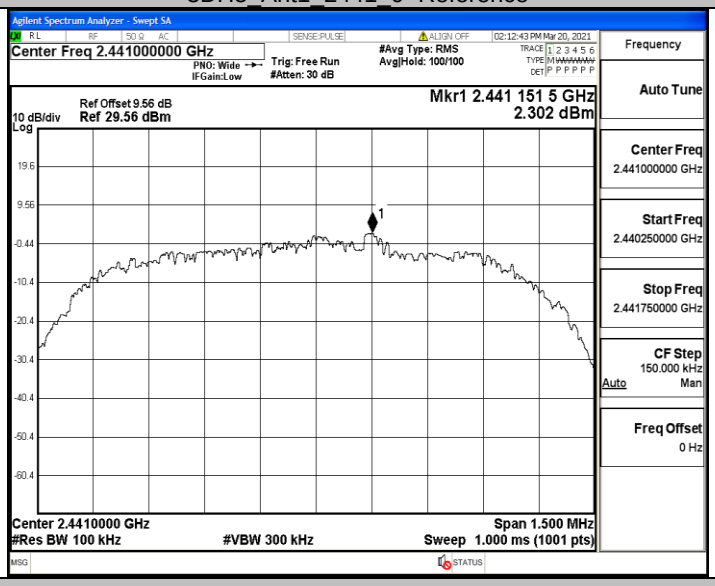

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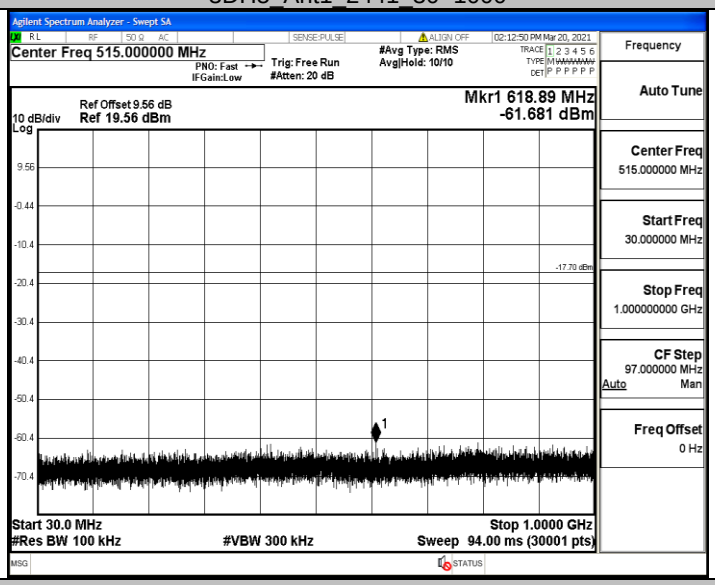

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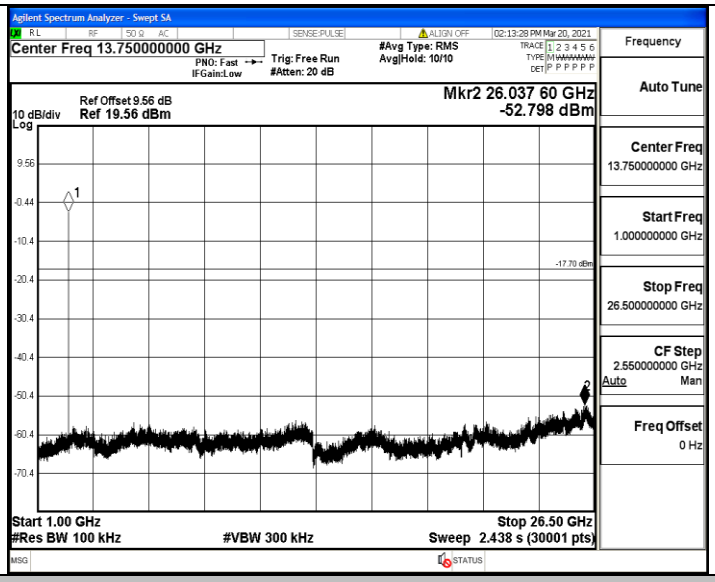

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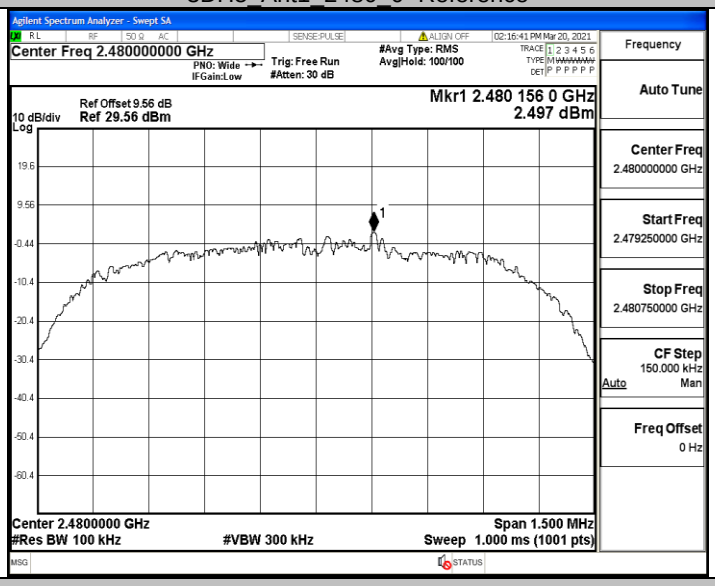

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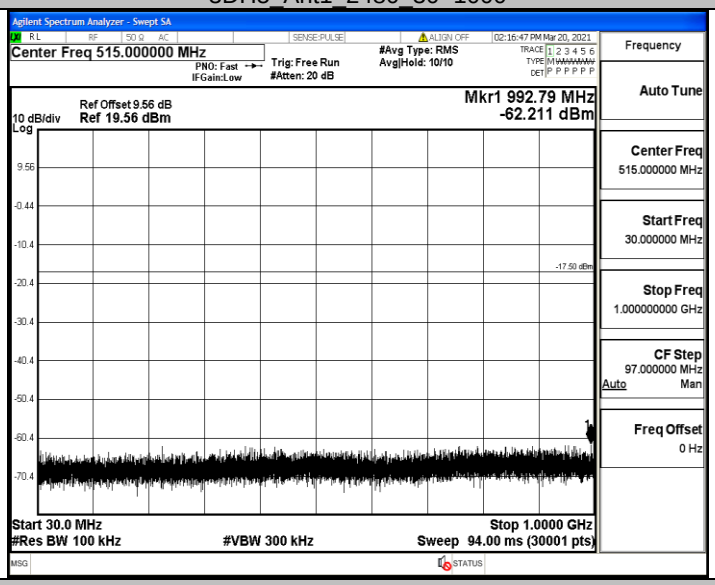

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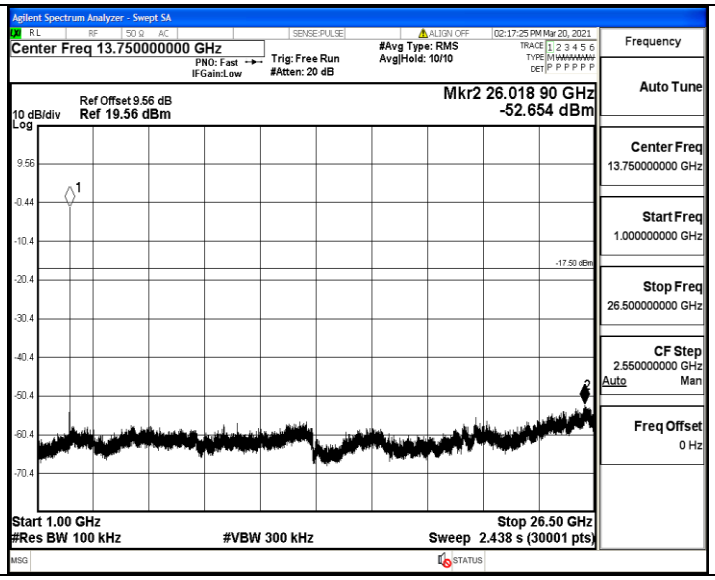

Agilent Spectrum Analyzer - Swept SA
Center Freq 13.750000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
#Avg Type: RMS
Avg|Hold: 10/10
02:17:25 PM Mar 20, 2021
Ref Offset 9.56 dB
10 dB/div
Ref 19.56 dBm
Log
Mkr2 26.018 90 GHz
-52.654 dBm
-17.50 dBm
Start 1.00 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 26.50 GHz
Sweep 2.438 s (30001 pts)
Frequency
Auto Tune
Center Freq
13.750000000 GHz
Start Freq
1.000000000 GHz
Stop Freq
26.500000000 GHz
CF Step
2.550000000 GHz
Auto
Man
Freq Offset
0 Hz

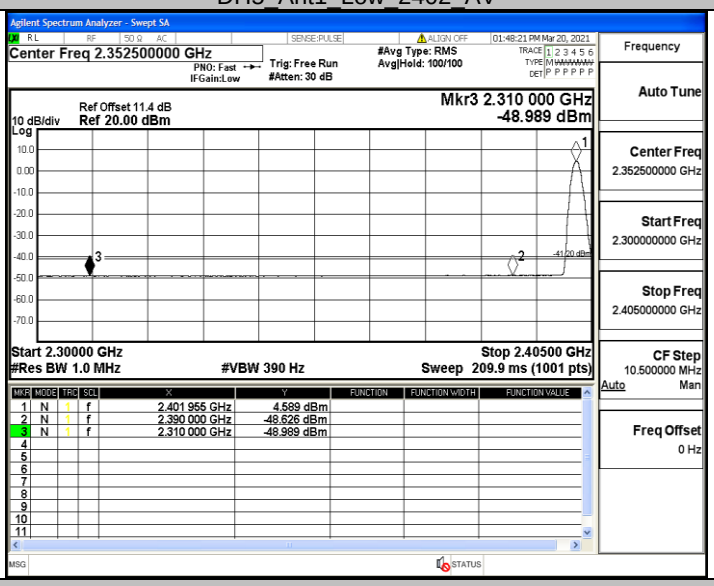
A.8 Restrict-band band-edge measurements

TestMode	Antenna	ChName	Channel	Detector	Freq	Result	Limit	Verdict
DH5	Ant1	Low	2402	AV	2310.000	-48.99	<=-41.20	PASS
				AV	2385.050	-48.52	<=-41.20	PASS
				AV	2390.000	-48.63	<=-41.20	PASS
				Peak	2310.000	-41.94	<=-21.20	PASS
				Peak	2367.935	-39.3	<=-21.20	PASS
				Peak	2390.000	-42.22	<=-21.20	PASS
		High	2480	AV	2483.500	-47.62	<=-41.20	PASS
				AV	2500.000	-47.97	<=-41.20	PASS
				Peak	2483.500	-39.85	<=-21.20	PASS
				Peak	2487.920	-38.46	<=-21.20	PASS
				Peak	2500.000	-41.2	<=-21.20	PASS
2DH5	Ant1	Low	2402	AV	2310.000	-48.99	<=-41.20	PASS
				AV	2387.675	-48.6	<=-41.20	PASS
				AV	2390.000	-48.77	<=-41.20	PASS
				Peak	2310.000	-42.15	<=-21.20	PASS
				Peak	2348.405	-38.9	<=-21.20	PASS
				Peak	2390.000	-40.77	<=-21.20	PASS
		High	2480	AV	2483.500	-47.54	<=-41.20	PASS
				AV	2500.000	-48.05	<=-41.20	PASS
				Peak	2483.500	-39.39	<=-21.20	PASS
				Peak	2499.360	-38.76	<=-21.20	PASS
				Peak	2500.000	-41.26	<=-21.20	PASS
3DH5	Ant1	Low	2402	AV	2310.000	-48.97	<=-41.20	PASS
				AV	2390.000	-48.53	<=-41.20	PASS
				Peak	2310.000	-42.69	<=-21.20	PASS
				Peak	2322.365	-38.79	<=-21.20	PASS
				Peak	2390.000	-41.05	<=-21.20	PASS
		High	2480	AV	2483.500	-47.53	<=-41.20	PASS
				AV	2500.000	-47.96	<=-41.20	PASS
				Peak	2483.500	-41.1	<=-21.20	PASS
				Peak	2499.520	-37.67	<=-21.20	PASS
				Peak	2500.000	-40.39	<=-21.20	PASS

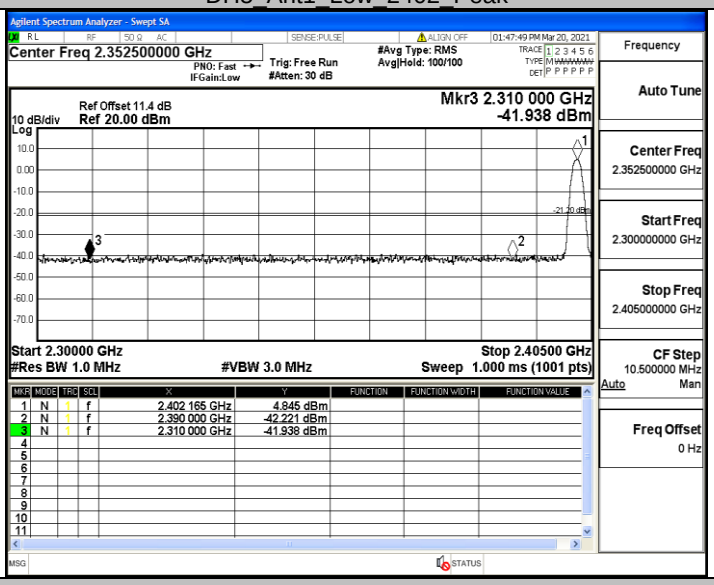
1. The Antenna Gain is compensated in the graph with 2dBi and Antenna Gain which is Higher.

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.

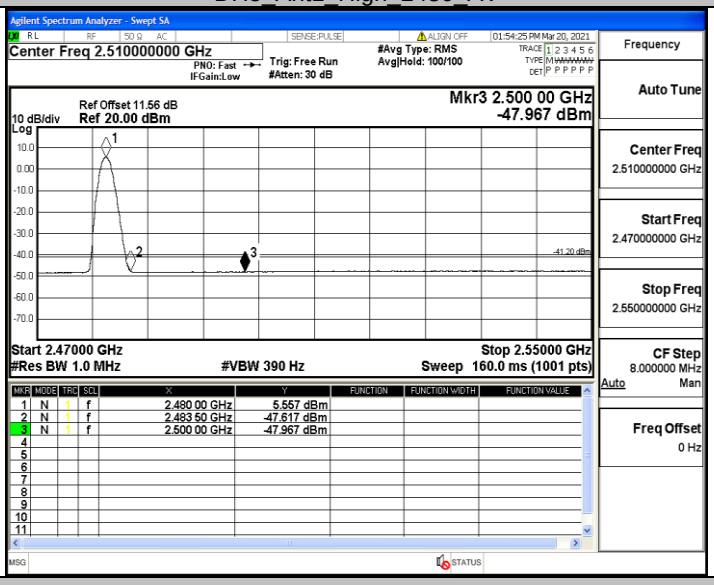
DH5_Ant1_Low_2402_AV



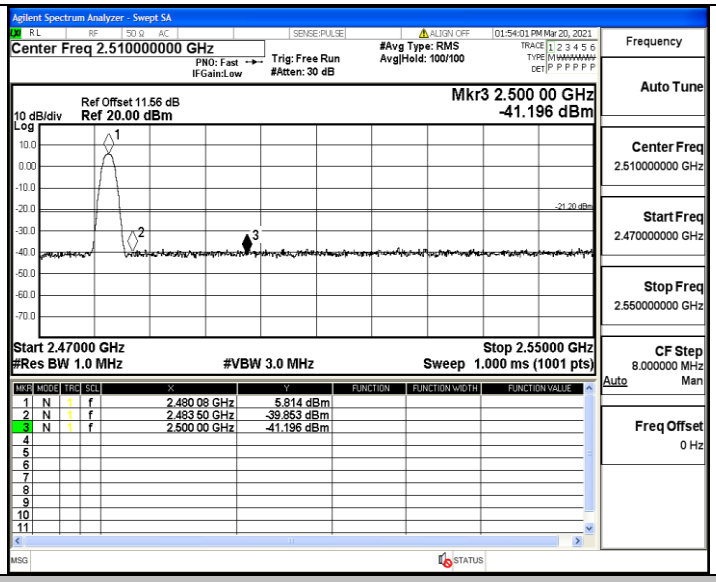
DH5_Ant1_Low_2402_Peak



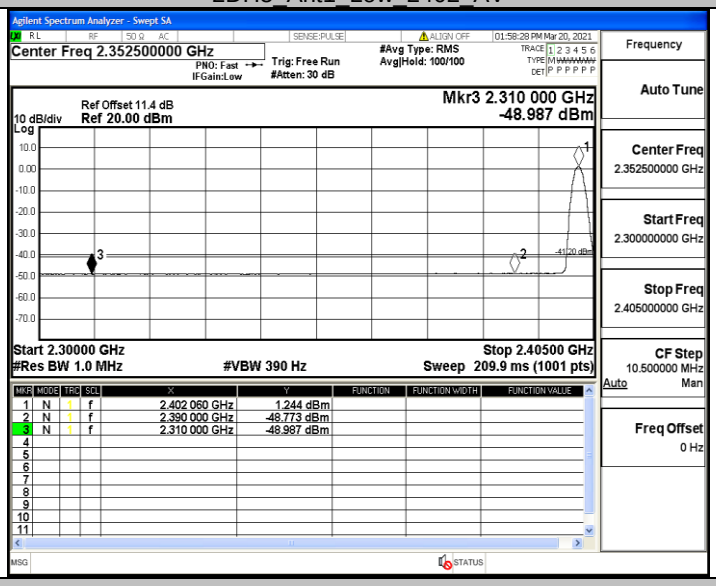
DH5_Ant1_High_2480_AV



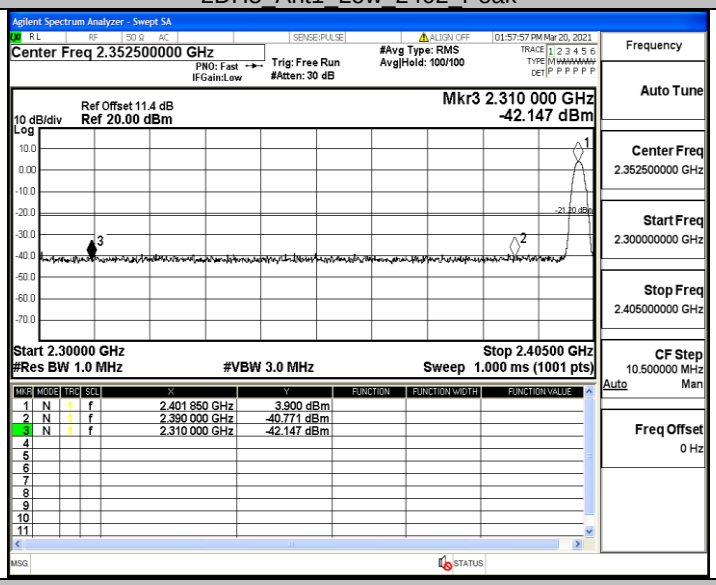
DH5_Ant1_High_2480_Peak



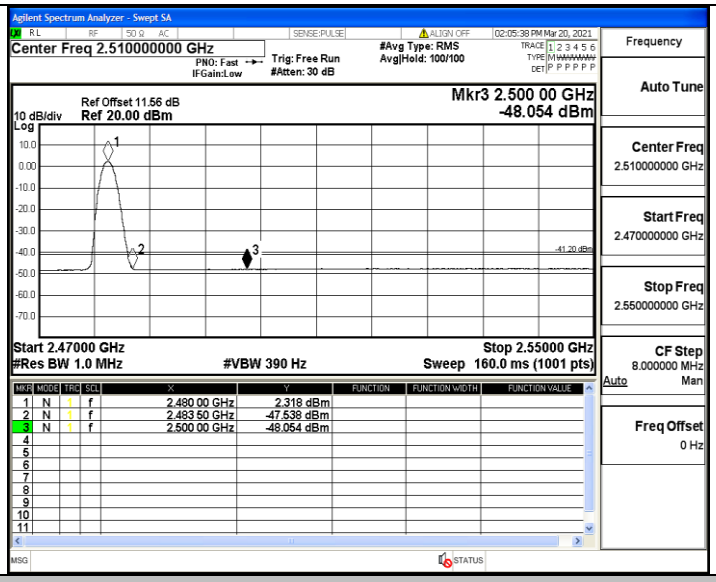
2DH5_Ant1_Low_2402_AV



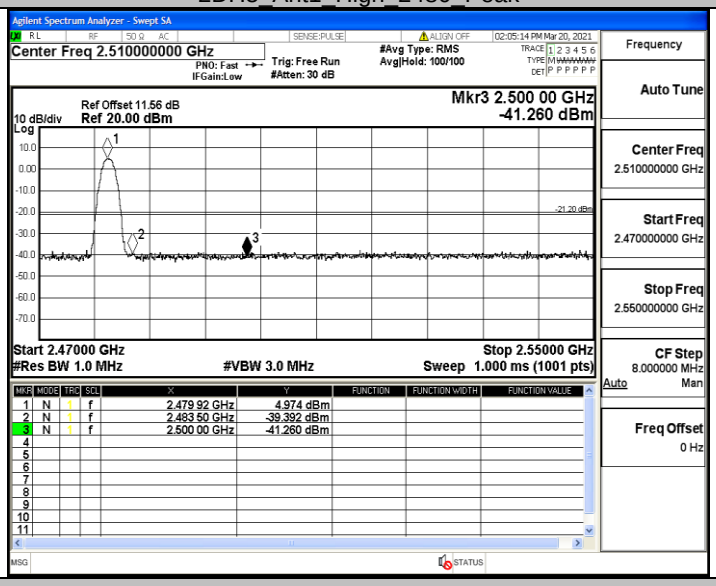
2DH5_Ant1_Low_2402_Peak



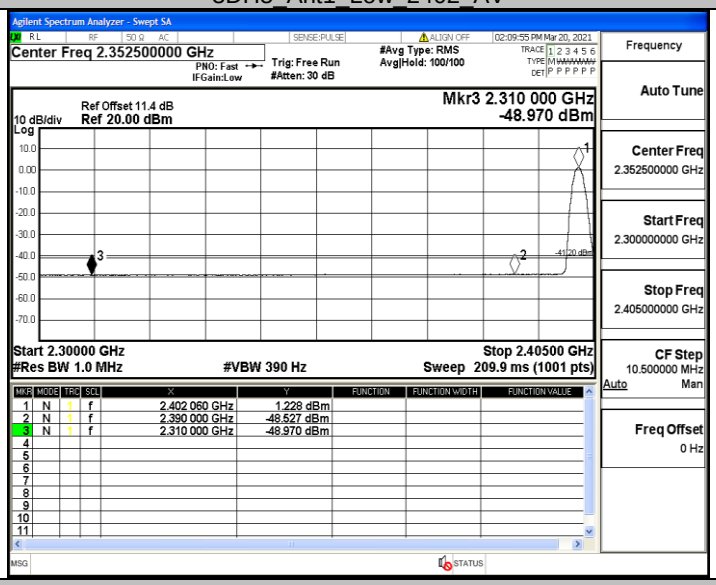
2DH5_Ant1_High_2480_AV



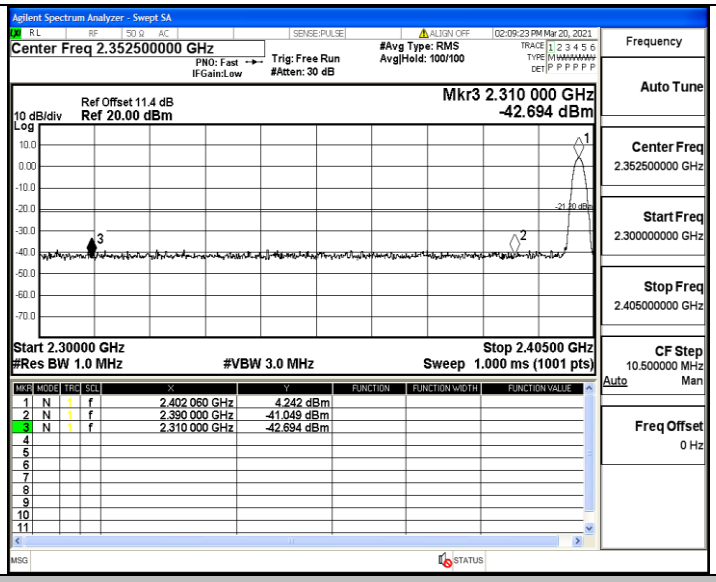
2DH5_Ant1_High_2480_Peak



3DH5_Ant1_Low_2402_AV



3DH5_Ant1_Low_2402_Peak



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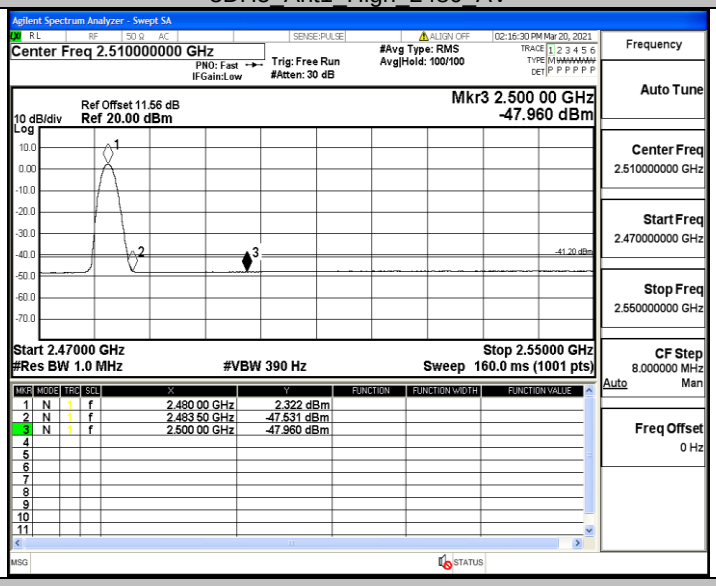
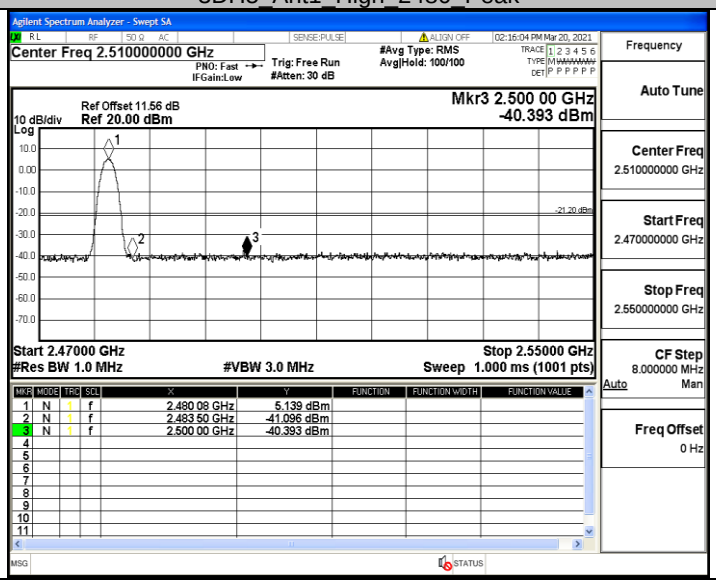
3DH5_Ant1_High_2480_Peak